



# Grandway

## Fiber Optic Testing Instrument





Established in 1996, Grandway Telecom Tech., has been focusing on telecom industry in the past 29 years.

Thanks to the efforts of each colleague, our instruments and FTTH ODN solutions are recognized by world's leading telecom operators, ISP, and telecom solution providers over 80 countries.

“Let's go in the Grandway!”

Located in Haining Science and Technology Oasis, Zhejiang Province, Grandway factory has a total area of 4559.05 square meters.

For the hardware, our production and testing lines are equipped with high accuracy process and test instruments, and our advanced warehouse management system also helps us to store and deliver the goods fast and well.

For the manufacture team, we have hundreds of experienced workers, whose average education level is above senior high school, and have worked in electronics areas for over 5 years.

All of these, guarantee our production capacity to 300000-400000 sets/year with high quality, and easy to operate.





Let's go in the grandway!





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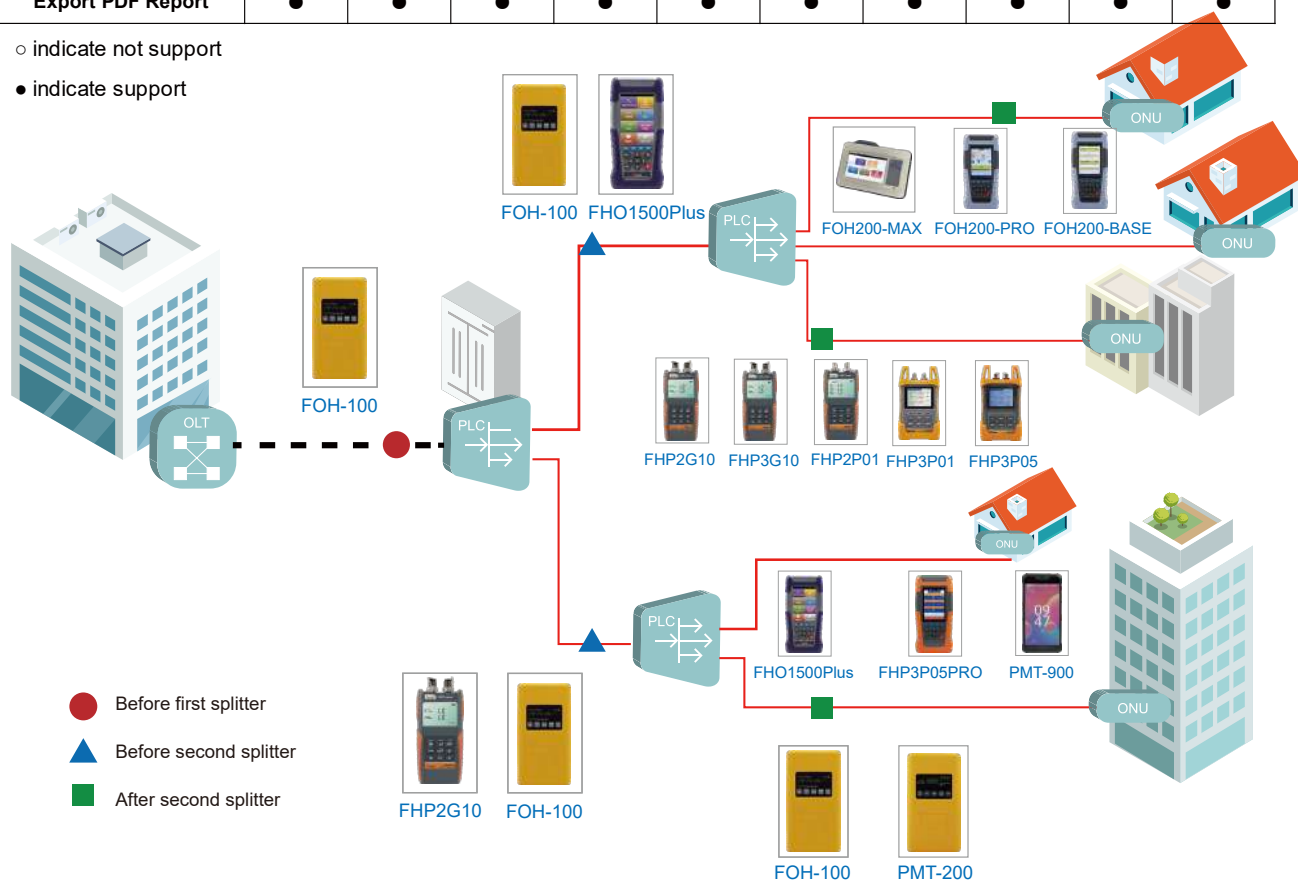


## PON Installation and Maintenance Solution

| Model                       | FHP2P01                                                                           | FHP2G10                                                                           | FHP3G10                                                                           | FHP3G25                                                                           | FHP3P05 PRO                                                                       | FOH-100                                                                           | PMT-200                                                                             | FOH-200XGS BASE                                                                     | FOH-200XGS PRO                                                                      | FOH-200XGS MAX                                                                      |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Picture                     |  |  |  |  |  |  |  |  |  |  |
| Applicable Network          | G/E-PON<br>RF CATV                                                                | G/E-PON<br>XG(S)-PON<br>10G-EPON                                                  | G/E-PON<br>XG(S)-PON<br>10G-EPON<br>RF CATV                                       | G/E-PON<br>XG(S)-PON<br>10G-EPON<br>25G PON                                       | G/E-PON<br>XG(S)-PON<br>10G-EPON<br>RF CATV                                       | G/E-PON                                                                           | GPON                                                                                | G-PON<br>XG(S)-PON                                                                  | G-PON<br>XG(S)-PON                                                                  | G/E-PON<br>XG(S)-PON<br>10GE-PON                                                    |
| Downlink Power Measure (nm) | 1490/1550                                                                         | 1490/1577                                                                         | 1490/1577/1550                                                                    | 1490/1577/1358                                                                    | 1490/1577/1550                                                                    | 1490                                                                              | 1490                                                                                | 1490/1577                                                                           | 1490/1577                                                                           | 1490/1577                                                                           |
| Uplink Power Measure (nm)   | 1310                                                                              | ○                                                                                 | ○                                                                                 | ○                                                                                 | 1270/1310                                                                         | 1310                                                                              | ○                                                                                   | ○                                                                                   | 1270/1310                                                                           | 1270/1310                                                                           |
| PON ID                      | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ●                                                                                 | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| ODN LOSS                    | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ●                                                                                 | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| ONU ID/SN                   | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ●                                                                                 | ○                                                                                   | ○                                                                                   | ●                                                                                   | ●                                                                                   |
| Pass/Fail                   | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| ONU Status detection        | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ●                                                                                 | ○                                                                                   | ○                                                                                   | ●                                                                                   | ●                                                                                   |
| Offline ONU detection       | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ●(PRO)                                                                            | ○                                                                                   | ○                                                                                   | ○                                                                                   | ●                                                                                   |
| PON Resource mapping        | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ●(PRO)                                                                            | ○                                                                                   | ○                                                                                   | ●                                                                                   | ●                                                                                   |
| OTDR function               | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ○                                                                                 | ●(PRO)                                                                            | ○                                                                                   | ○                                                                                   | ○                                                                                   | ●                                                                                   |
| Bluetooth                   | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ○                                                                                 | ●                                                                                 | WIFI                                                                                | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| Export PDF Report           | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   |

○ indicate not support

● indicate support





## PMT-900 Series PDA

- Android13 operating system and support 5G/4G network
- Dual 2.5G RJ45 Ethernet network ports, speedtest>2200Mbps
- Support 160MHz WiFi6 speed measurement (WiFi7 is optional)
- Support install Google play store and APK files
- Built-in VFL, 10G PON selective OPM, HDMI simulation, IPTV test, network test, etc
- OTDR function can be achieved by installing BJ100 back module
- PDF report generation is available on PMT-900 OTDR application
- Rechargeable 6000mAh polymer battery

| Items                         | Specifications                                                         |                                                |
|-------------------------------|------------------------------------------------------------------------|------------------------------------------------|
| Model                         | PMT-900S                                                               | PMT-900                                        |
| Device Performance            |                                                                        |                                                |
| Operating system(OS)          | Android 13                                                             |                                                |
| Communication mode            | 5G/4G/3G/2G                                                            | 5G/4G/3G/2G                                    |
| CPU                           | UNISOC UMS9620 8-Core<br>Main frequency@2.2GHz                         | UNISOC UMS9620 8-Core<br>Main frequency@2.7GHz |
| Memory                        | 4G+64G                                                                 | 6G+128G                                        |
| Screen                        | 5.5 inch IPS LCD<br>Resolution: 1920*1080                              | 6 inch IPS LCD<br>Resolution: 2160*1080        |
| Camera                        | Front camera: 8 million pixels<br>Rear camera: 16 million pixels       |                                                |
| Main Functions                |                                                                        |                                                |
| Wired Speedtest               | Dual 2.5G port, speedtest>2200Mbps                                     |                                                |
| WiFi Speedtest                | Support IEEE 802.11 a/b/g/n/ac/ax, WiFi supports 2.4G and 5G dual band |                                                |
|                               | Support 160MHz WIFI6 test, speedtest>1800Mbps                          |                                                |
| IP Address acquisition method | DHCP, Static IP, PPPoE dial-up                                         |                                                |
| VLAN                          | Support                                                                |                                                |
| HDMI TV simulation            | Connect TV signal through HDMI interface, simulate TV display output   |                                                |
| LAN Test                      | Ping, Ipconfig, Route, Tracert, etc                                    |                                                |
| OPM function                  |                                                                        |                                                |
| Wavelength ranage             | 800~1700nm                                                             |                                                |
| Calibrated wavelength         | 850/1270/1300/1310/1490/1550/1577/1625nm                               |                                                |
| 10G PON OPM                   | Support 1490nm/1577nm selective power test                             |                                                |
| Test range                    | -45~+20dBm                                                             |                                                |
| VFL                           |                                                                        |                                                |
| Working wavelength            | 650nm±20nm, 10mw, CW/2Hz mode                                          |                                                |



| OTDR(Optional)            |                                                                                 |
|---------------------------|---------------------------------------------------------------------------------|
| Model                     | BJ100 OTDR                                                                      |
| Test mode                 | 1: OTDR trace 2:FTTx Last mile fiber map 3:Offline ONU detection                |
| Wavelength                | Single 1550nm (1625nm or 1650nm is available)                                   |
| In service test           | Support                                                                         |
| Dynamic range             | 18dB                                                                            |
| Deadzone                  | 1m/4.5m                                                                         |
| Test range                | 500m~60km                                                                       |
| Pulse width               | 3ns~10us                                                                        |
| OTDR size                 | 130L×60W×30Hmm                                                                  |
| Installation method       | PDA Back installation                                                           |
| OTDR interface            | SC/APC or SC/UPC                                                                |
| Others                    |                                                                                 |
| Optical port              | OPM/VFL: 2.5mm universal port                                                   |
| Electric port             | Dual 2.5G port, Dual SIM card slot, HDMI interface, Type-C port, 3.5mm earhpone |
| Wireless                  | WiFi+Bluetooth                                                                  |
| WiFi                      | 2.4G+5G                                                                         |
| Power supply              | Input: 100-240 AC; Output: 5V/2A DC                                             |
| Battery                   | Rechargeable polymer battery 6000mAh                                            |
| Protection level          | IP65                                                                            |
| Working conditions        | -10℃~+60℃; 20%~95%(No condensation)                                             |
| Size/Weight(with battery) | 168*82*22.2/29.65mm; approx.410g                                                |

## BJ100 OTDR Installation rendering:







## FH01500PLUS Optical Explorer

- FTTX last mile fiber troubleshooting
- First connector loss and ONU/Splitter connectivity state is measurable
- ONU status identification
- Accurate optical fiber testing capability over 60km
- 1650nm OTDR with filter support live fiber test
- Built-in 20dB OTDR, 10mw VFL, stable laser source, 10G PON OPM and RJ45 cable test
- Bluetooth and mobile phone app function
- Standard dynamic range is 20dB, and 30dB can be customized

| Items                         | Specifications                                                                                                                                                                                                                                                      |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OptiTracking Function</b>  |                                                                                                                                                                                                                                                                     |
| Test Mode                     | Normal mode: fiber link map function<br>Last Mile Test Direction : 1) Splitter → ONU (Test from splitter towards ONU)<br>2) ONU → Splitter (Test from ONU towards splitter)<br>First connector insertion loss and the ONU/Splitter connectivity state can be tested |
| <b>ONU Detection Function</b> |                                                                                                                                                                                                                                                                     |
| ONU Status Type               | ONU Online, ONU Offline, No ONU, Rogue ONU                                                                                                                                                                                                                          |
| <b>OTDR Module</b>            |                                                                                                                                                                                                                                                                     |
| Wavelength                    | 1650nm                                                                                                                                                                                                                                                              |
| Dynamic Range                 | 20dB                                                                                                                                                                                                                                                                |
| Deadzone①                     | Event deadzone: 1m, Attenuation deadzone: 4m                                                                                                                                                                                                                        |
| Test Range                    | 500m~120km                                                                                                                                                                                                                                                          |
| Pulse Width                   | 3ns~20us                                                                                                                                                                                                                                                            |
| Distance Accuracy             | $\pm(1m + \text{Test distance} \times 3 \times 10^{-5} + \text{Sampling resolution})$ (excluding IOR uncertainty)                                                                                                                                                   |



| Optical Power Meter Module |                                                                                                                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10G PON OPM                | Support downlink 1490nm and 1577nm optical power testing separately<br>Support uplink 1270nm/1310nm optical power testing<br>Test range: -40~+10dBm<br>Test accuracy: $\pm 0.35\text{dB}$ |
| Stable Laser Source Module |                                                                                                                                                                                           |
| Wavelength                 | Consistent with OTDR                                                                                                                                                                      |
| Output Power               | $> -12\text{dBm}$                                                                                                                                                                         |
| Working Mode               | CW/270Hz/1kHz/2kHz                                                                                                                                                                        |
| VFL Module                 |                                                                                                                                                                                           |
| Wavelength                 | 650nm $\pm 10\text{nm}$                                                                                                                                                                   |
| Output Power               | 10mw                                                                                                                                                                                      |
| Working Mode               | CW/1Hz/2Hz                                                                                                                                                                                |
| RJ45 Cable Test            |                                                                                                                                                                                           |
| Line Sequence Standard     | TIA-568A or TIA-568B standard                                                                                                                                                             |
| Others                     |                                                                                                                                                                                           |
| Optical Interface          | 2*SC port, 1*2.5mm universal port                                                                                                                                                         |
| Electric Interface         | 2*RJ45 port, RJ45 remote module, Type-C charging/data port                                                                                                                                |
| Wireless                   | Bluetooth connection with Android phone app                                                                                                                                               |
| Display                    | 3.5inch color LCD                                                                                                                                                                         |
| Data Storage               | Pluggable 16GB micro SD card                                                                                                                                                              |
| Battery                    | 5000mAh lithium battery                                                                                                                                                                   |
| Working Temp               | $-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$                                                                                                                                            |
| Humidity                   | 0~85% (Non condensing)                                                                                                                                                                    |
| Dimension                  | 192.9L $\times$ 93.8W $\times$ 47Hmm                                                                                                                                                      |
| Weight                     | 0.58kg                                                                                                                                                                                    |

## Notes:

1: Deadzone test conditions: event deadzone return loss  $> -45\text{dB}$ , attenuation deadzone return loss  $> -55\text{dB}$ .



## M350 Mini Optical Explorer

- FTTX last mile fiber troubleshooting
- First connector loss and ONU/Splitter connectivity state is measurable
- Offline ONT identification (ONU connected or NO ONU)
- Support 1650nm or 1550nm live OTDR test with >60km high precision detection
- Downstream 1490nm/1577nm selective OPM for GPON&XGSPON combo network
- Multi-functional integration: VFL, OLS, selective&normal OPM, flashlight
- 4-inch capacitive touch screen, compact and portable
- Bluetooth and Android phone app is optional, PDF report generation is available on phone app

| Items                        | Specifications                                                                                                                                                                                       |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fiber Link Map</b>        |                                                                                                                                                                                                      |
| Normal Mode                  | Wavelength: 1650nm (1550nm optional), Support live test<br>Dynamic range: 20dB<br>Event deadzone: 1m, Attenuation deadzone: 4m                                                                       |
| Last Mile Troubleshooting    | Test Settings<br>1) ONU End (Test from splitter towards ONU)<br>2) Splitter (Test from ONU towards splitter)<br>First connector insertion loss and the ONU/Splitter connectivity state can be tested |
| Offline ONU Status Detection | Results<br>1: ONU<br>2: NO ONU                                                                                                                                                                       |
| <b>OTDR Module</b>           |                                                                                                                                                                                                      |
| Wavelength                   | 1650nm (1550nm optional), support live test                                                                                                                                                          |
| Dynamic Range                | 20dB                                                                                                                                                                                                 |
| Deadzone①                    | Event deadzone: 1m, Attenuation deadzone: 4m                                                                                                                                                         |
| Test Range                   | 500m~120km                                                                                                                                                                                           |
| Pulse Width                  | 3ns~10us                                                                                                                                                                                             |
| Test Mode                    | Auto, Manual, Realtime                                                                                                                                                                               |
| Distance Accuracy            | $\pm(1m+Test\ distance \times 3 \times 10^{-5} + Sampling\ resolution)$ (excluding IOR uncertainty)                                                                                                  |



| Optical Power Meter Module |                                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------------------------|
| 10G PON Selective OPM      | 1490nm/1577nm, display on one screen<br>Range: -40~+10dBm<br>Accuracy: $\pm 0.5$ dB                   |
| Normal Broadband OPM       | 850nm/1300nm/1310nm/1490nm/1577nm/1550nm/1625nm/1650nm<br>Range: -40~+10dBm<br>Accuracy: $\pm 0.2$ dB |
| Stable Laser Source Module |                                                                                                       |
| Wavelength                 | Consistent with OTDR                                                                                  |
| Output Power               | >-12dBm                                                                                               |
| Working Mode               | CW/270Hz/1kHz/2kHz                                                                                    |
| VFL Module                 |                                                                                                       |
| Wavelength                 | 650nm $\pm$ 10nm                                                                                      |
| Output Power               | 10mw                                                                                                  |
| Working Mode               | CW/1Hz/2Hz                                                                                            |
| Others                     |                                                                                                       |
| Optical Interface          | SC/UPC or SC/APC, 2.5mm universal $\times$ 2                                                          |
| Electric Interface         | USB Type-C for data transmission and charging                                                         |
| Display                    | 4-inch capacitive touch screen                                                                        |
| Data Storage               | 120MB                                                                                                 |
| Battery                    | 4000mAh lithium battery                                                                               |
| Working Temp               | -10 $^{\circ}$ C~+50 $^{\circ}$ C                                                                     |
| Humidity                   | 0~85% (Non condensing)                                                                                |
| Dimension                  | 148 $\times$ 85 $\times$ 37mm                                                                         |
| Weight                     | 275g                                                                                                  |

Note: Support color customization



## FOH-200XGS-BASE Tester

- Automatic PON-ID detection including OLT PON-ID, ODN class, Tx power, and ODN link pass/fail per ITU-T
- Downlink 1490nm/1577nm selective optical power measurement
- Bluetooth connection with phone app
- Low power consumption for extended continuous use, support 20W quick charger
- Support generating test reports on site

| Items              | Specifications                                             |
|--------------------|------------------------------------------------------------|
| Applicable Network | GPON+XG(S)PON                                              |
| PON Data Parsing   | OLT information: OLT PON-ID, ODN class, Tx power, ODN loss |
| Power Measurement  | Downlink: 1490nm and 1577nm selective power measurement    |
| Optical Interface  | Single SC/APC                                              |
| Charging Port      | USB Type-C charging port<br>20W quick charge               |
| Power Supply       | 5000mAh lithium battery; Input: 5V/2A                      |
| Display            | 3.5 inch touch color screen                                |
| Wireless           | Bluetooth connection with Android phone app                |
| Data Storage       | 16G TF Card                                                |
| Working Temp       | -10℃~50℃                                                   |
| Humidity           | 5%~95%(no condensation)                                    |
| Dimension          | 193×94×47mm                                                |
| Weight             | 570g                                                       |

### Notes:

The OLT information extraction needs to be activated in GPON OLT according to ITU-T G.984.3 Amd3





## FOH-200XGS-PRO Tester

- Automatic PON-ID detection including OLT PON-ID, ODN class, Tx power, power level and ODN link pass/fail per ITU-T
- ONU/ONT ID and serial number, ONU status identification
- Downlink 1490/1577nm and uplink 1270/1310nm optical power measurement and judgement
- Bluetooth connection with phone app
- Low power consumption for extended continuous use, support 20W quick charger
- Support generating test reports on site
- Optional printer, supports assisting in app development to print test labels

| Items              | Specifications                                                                      |
|--------------------|-------------------------------------------------------------------------------------|
| Applicable Network | GPON+XG(S)PON                                                                       |
| Test Mode          | Series connect: Two ports pass through mode                                         |
| Insertion loss     | <1.5dB insertion loss                                                               |
| PON Data Parsing   | OLT information: OLT PON ID, ODN class, Tx power<br>ONU information: ONU ID, ONU SN |
| Power Measurement  | Downlink: 1490nm and 1577nm<br>Uplink: 1270nm and 1310nm                            |
| OTDR function      | Optional                                                                            |
| Optical Interface  | SC/APC*2                                                                            |
| Charging Port      | USB Type-C charging port<br>20W quick charge                                        |
| Power Supply       | 5000mAh lithium battery; Input: 5V/2A                                               |
| Display            | 3.5 inch touch color screen                                                         |
| Wireless           | Bluetooth connection with Android phone app                                         |
| Data Storage       | 16G TF Card                                                                         |
| Working Temp       | -10℃~50℃                                                                            |
| Humidity           | 5%~95%(no condensation)                                                             |
| Dimension          | 193×94×47mm                                                                         |
| Weight             | 609g                                                                                |

### Notes:

The OLT information extraction needs to be activated in GPON OLT according to ITU-T G.984.3 Amd3



## FOH-200XGS-MAX Tester

- Automatic PON-ID detection including OLT PON-ID, ODN class, Tx power, power level and ODN link pass/fail per ITU-T
- ONU/ONT ID and serial number, ONU status identification(Including detection of Offline ONU and NO ONU)
- PON resource check and mapping function
- Support 20dB OTDR and FLM function(Optional)
- Downlink 1490/1577nm and uplink 1270/1310nm power measurement and judgement
- Compatible with GPON, EPON, XG(S)-PON, 10G EPON and automatic recognition of network types
- Bluetooth connection with phone app
- Low power consumption for extended continuous use, support 20W quick charger
- Support generating test reports on site
- Optional printer, supports assisting in app development to print test labels

| Items                    | Specifications                                                                      |
|--------------------------|-------------------------------------------------------------------------------------|
| Applicable Network       | XG(S)-PON, GPON, 10G-EPON, EPON<br>(Support automatic recognition of network types) |
| Test Mode                | Series connect: Two ports pass through mode                                         |
| Insertion loss           | <1.5dB insertion loss                                                               |
| PON Data Parsing         | OLT information: OLT PON ID, ODN class, Tx power<br>ONU information: ONU ID, ONU SN |
| Power Measurement        | Downlink: 1490nm and 1577nm<br>Uplink: 1270nm and 1310nm                            |
| OTDR function (Optional) | Dynamic range: 20dB; Wavelength:1650nm(1550nm is optional)<br>Deadzone:1m/4m        |
| Optical Interface        | SC/APC*2                                                                            |
| Charging Port            | USB Type-C charging port<br>20W quick charge                                        |
| Power Supply             | 5000mAh lithium battery; Input: 5V/2A                                               |
| Display                  | 5 inch touch screen                                                                 |
| Wireless                 | Bluetooth connection with Android phone app                                         |
| Data Storage             | 16G TF Card                                                                         |
| Working Temp             | -10℃~50℃                                                                            |
| Humidity                 | 5%~95%(no condensation)                                                             |
| Dimension                | 195×141×44mm                                                                        |
| Weight                   | 900g                                                                                |

### Notes:

The OLT information extraction needs to be activated in GPON OLT according to ITU-T G.984.3 Amd3





## FOH-100 Series G/EPON Tester

- OLT and ONU identification (PON ID, Class level and ONU SN/Password/PPPOE account/LOID/MAC)
- Automatic power level 1490nm/1310nm measurement and certification
- In-service fiber qualification according to ODN total loss
- ONU status identification
- Fast identification and location of rogue ONU in PON network
- High precision OTDR for the measurement of the last mile of optical fiber (FOH-100 PRO)
- Optional printer, supports assisting in app development to print test labels

| Items                     | Specifications                                                                                                                                     |                                                                                                                   |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Model                     | FOH-100                                                                                                                                            | FOH-100 PRO                                                                                                       |
| Applicable PON network    | GPON+EPON                                                                                                                                          |                                                                                                                   |
| Test Mode                 | Series connect: Two ports pass through mode                                                                                                        |                                                                                                                   |
| Insertion loss            | No insertion loss, the optical signal power will be enhanced 3~10dB when FOH-100 series connect to the PON network                                 |                                                                                                                   |
| Wireless                  | Bluetooth connection with Android phone app                                                                                                        |                                                                                                                   |
| PON Data Parsing          | OLT information: PON ID, OLT Tx power and class level * <sup>1</sup><br>ONU information: Online ONU SN, Password, PPPOE account, LOID, Mac address |                                                                                                                   |
| ONU Status Identification | Online, ONU unregistered, Rogue ONU, Offline                                                                                                       | Online, ONU unregistered, Rogue ONU (100% accuracy)<br>Offline, No ONU, Fiber break (90% accuracy) * <sup>2</sup> |
| High-precision OTDR       | -                                                                                                                                                  | Working wavelength: 1550nm<br>Deadzone: 2/6m, Dynamic range: >10dB<br>Max. test distance: >20km                   |
| Rogue ONU detection       | Support fast identification and location of rogue ONU                                                                                              |                                                                                                                   |
| PON Power Meter           | 1310nm: -30~+5dBm; 1490nm: -30~+5dBm                                                                                                               |                                                                                                                   |
| Optical Interface         | SC/UPC*2 or SC/APC*2                                                                                                                               |                                                                                                                   |
| Charging Port             | USB Type-C charging port                                                                                                                           |                                                                                                                   |
| Power Supply              | 7000mAh lithium battery; Input: 5V/2A                                                                                                              |                                                                                                                   |
| Working Temp              | -10℃~50℃                                                                                                                                           |                                                                                                                   |
| Humidity                  | 5%~95% (no condensation)                                                                                                                           |                                                                                                                   |
| Dimension                 | 175×94×46.5mm                                                                                                                                      |                                                                                                                   |
| Weight                    | 700g                                                                                                                                               |                                                                                                                   |

### Notes:

1: The OLT information extraction needs to be activated in GPON OLT according to ITU-T G.984.3 Amd3

2: The FOH-100 PRO can further analyze whether an offline ONU is power off, or no ONU connected, or the drop cable fiber is broken. The comprehensive accuracy is >90%.



## PMT-200 PON Installation Tester

- GPON ONU emulation to extract PON ID, OLT Tx power, ONU Rx power, ODN loss, ONU activation status
- Easy operation on mobile phone software via WiFi connection
- Support OPM and VFL function
- 7000mAh lithium battery support long working hours

| Items                     | Specifications                                                          |
|---------------------------|-------------------------------------------------------------------------|
| <b>GPON ONU Emulation</b> |                                                                         |
| GPON ONU Emulation        | GPON SFP                                                                |
| Optical Interface         | SC/APC or SC/UPC                                                        |
| Test Result               | OLT PON ID, OLT Tx power, ONU Rx power, ODN loss, ONU activation status |
| <b>Others</b>             |                                                                         |
| VFL                       | Output power: 10mw                                                      |
|                           | Working wavelength: 650±10nm                                            |
|                           | Working mode: CW/2Hz                                                    |
| OPM                       | Calibrated wavelength: 850/1300/1310/1490/1550/1577nm                   |
|                           | Testing range:-70~+10dBm                                                |
| Optical Interface         | 1*SC PON port                                                           |
|                           | 1*2.5mm universal VFL port                                              |
|                           | 1*2.5mm universal OPM port                                              |
| Wireless                  | WiFi connection with Android phone app                                  |
| Power Supply              | 7000mAh lithium battery                                                 |
| Working Temp              | 0~45℃                                                                   |
| Dimension                 | 175x94x46.5mm                                                           |
| Weight                    | 577g                                                                    |

### Notes:

The OLT information extraction needs to be activated in GPON OLT according to ITU-T G.984.3 Amd3





## FHP201 PON Power Meter

- Support measuring upstream 1310nm and downstream 1490/1550nm optical power level
- Applicable to GPON, EPON and RF CATV network
- 10 groups User defined Pass, Warning, Fail mode
- Support USB Type-C charging and test data upload
- Support Powerful PC software to generate the test report
- Bluetooth is optional

| Items                 | Specifications                                                                                                                      |            |             |             |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|-------------|
| Wavelength            | 1310nm(Burst)                                                                                                                       | 1310nm(CW) | 1490nm      | 1550nm      |
| Sensor Type           | InGaAs                                                                                                                              |            |             |             |
| Isolation Rate        | 1490nm>40dB                                                                                                                         |            | 1310nm>40dB | 1310nm>40dB |
|                       | 1550nm>40dB                                                                                                                         |            | 1550nm>30dB | 1490nm>30dB |
| Test Range            | -32~+10dBm                                                                                                                          | -40~+10dBm | -50~+13dBm  | -50~+26dBm  |
| Insertion Loss        | <1.5dB                                                                                                                              |            |             |             |
| Broadband             | 1260~1360nm                                                                                                                         |            | 1480~1500nm | 1539~1565nm |
| Accuracy              | 0.5dB±1nW@1550nm                                                                                                                    |            |             |             |
| Resolution            | 0.01dB                                                                                                                              |            |             |             |
| Threshold             | 10 groups (configured via PC software)                                                                                              |            |             |             |
| Data Storage          | 900                                                                                                                                 |            |             |             |
| Working Temp          | -10℃~+50℃                                                                                                                           |            |             |             |
| Communication Port    | Type-C USB port                                                                                                                     |            |             |             |
| Bluetooth             | Optional                                                                                                                            |            |             |             |
| Power Supply          | 2*Ni-MH AA battery                                                                                                                  |            |             |             |
| External Power Supply | 5V/1A AC/DC adapter                                                                                                                 |            |             |             |
| Dimension/Weight      | 160L×76W×45H(mm) / about 400g                                                                                                       |            |             |             |
| Accessories           | Power adapter, USB cable, 2*FC adapter, 2*SC adapter, 3*ceramic sleeves, 2*Ni-MH AA battery, Test report, Quick guide, Carrying bag |            |             |             |



## FHP3P01 PON Power Meter

- Support measuring upstream 1310nm and downstream 1490/1550nm optical power level
- Applicable to GPON, EPON and RF CATV network
- 2.8-inch TFT LCD Display with high resolution
- 10 groups User defined Pass, Warning, Fail mode
- Support USB Type-C charging and test data upload
- Support Powerful PC software to generate the test report
- Equipped with protective rubber

| Items                 | Specifications                                                                                                                      |            |             |             |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|-------------|
| Wavelength            | 1310nm(Burst)                                                                                                                       | 1310nm(CW) | 1490nm      | 1550nm      |
| Sensor Type           | InGaAs                                                                                                                              |            |             |             |
| Isolation Rate        | 1490nm>40dB                                                                                                                         |            | 1310nm>40dB | 1310nm>40dB |
|                       | 1550nm>40dB                                                                                                                         |            | 1550nm>30dB | 1490nm>30dB |
| Test Sange            | -30~+10dBm                                                                                                                          | -40~+10dBm | -50~+13dBm  | -50~+23dBm  |
| Insertion Loss        | <1.5dB                                                                                                                              |            |             |             |
| Broadband             | 1260~1360nm                                                                                                                         |            | 1480~1500nm | 1539~1565nm |
| Accuracy              | 0.5dB±1nW@1550nm                                                                                                                    |            |             |             |
| Resolution            | 0.01dB                                                                                                                              |            |             |             |
| Threshold             | 10 groups (configured via PC software)                                                                                              |            |             |             |
| Data Storage          | 1000                                                                                                                                |            |             |             |
| Working Temp          | -10℃~+50℃                                                                                                                           |            |             |             |
| Communication Port    | Type-C USB port                                                                                                                     |            |             |             |
| Power Supply          | 4*Ni-MH AA battery                                                                                                                  |            |             |             |
| External Power Supply | 5V/1A AC/DC adapter                                                                                                                 |            |             |             |
| Dimension/Weight      | 190L×105W×55H(mm) / about 700g                                                                                                      |            |             |             |
| Accessories           | Power adapter, USB cable, 2*FC adapter, 2*SC adapter, 3*ceramic sleeves, 4*Ni-MH AA battery, Test report, Quick guide, Carrying bag |            |             |             |





### FHP2G10 Selective Power Meter

- Support selective power level 1490nm/1577nm measurements separately at the same time
- Applicable to GPON&XG(S)-PON and EPON&10G-EPON co-existence PON network
- Normal broadband power meter support 1270nm/1310nm/1550nm/1625nm
- Built in 10mw VFL function
- 10 groups User defined Pass, Warning, Fail mode
- Support USB Type-C charging and test data upload
- Support Powerful PC software to generate the test report
- Bluetooth is optional

| Items                   | Specifications                            |
|-------------------------|-------------------------------------------|
| Optical Port            | OPM: SC/UPC or SC/APC                     |
|                         | VFL:SC/UPC                                |
| Selective Power Measure | 1490nm/1577nm                             |
| Calibrated Wavelength   | Broadband channel 1: 1270nm/1310nm/1490nm |
|                         | Broadband channel 2: 1550nm/1577nm/1625nm |
| Test Range              | -40~+10dBm                                |
| Test Accuracy           | ±0.5dB                                    |
| Resolution              | 0.01                                      |
| Display Unit            | dBm/dB/mw                                 |
| Isolation               | 1490nm>35dB; 1577nm>35dB                  |
| VFL                     | 10mW, CW / 2Hz                            |
| Memory Capacity         | 999                                       |
| Communication Port      | Type-C USB port                           |
| Bluetooth               | Optional                                  |
| Power Supply            | 2*Ni-MH AA battery                        |
| External Power Supply   | 5V/1A AC/DC adapter                       |
| Working Temp            | -10℃~+50℃                                 |
| Storage Temp            | -20℃~+70℃                                 |
| Dimension               | 160L×76W×45H(mm)                          |
| Weight                  | 300g                                      |



## FHP3G10 Selective Power Meter

- Support selective power level 1490/1577/1550nm measurements separately at the same time
- Applicable to GPON&XG(S)-PON, EPON&10G-EPON and RF CATV co-existence PON network
- Built in 10mw VFL function
- 10 groups User defined Pass, Warning, Fail mode
- Support USB Type-C charging and test data upload
- Support Powerful PC software to generate the test report
- Bluetooth is optional

| Items                 | Specifications                                  |
|-----------------------|-------------------------------------------------|
| Optical Port          | OPM: SC/UPC or SC/APC                           |
|                       | VFL:SC/UPC                                      |
| Calibrated Wavelength | 1490nm/1550nm/1577nm                            |
| Test Range            | 1490nm/1577nm: -40~+10dBm<br>1550nm: -40~+20dBm |
| Test Accuracy         | ±0.5dB                                          |
| Resolution            | 0.01dB                                          |
| Display Unit          | dBm/dB/mw                                       |
| Isolation             | 1490nm>35dB; 1550nm>35dB; 1577nm>35dB           |
| VFL                   | 10mW, CW / 2Hz                                  |
| Memory Capacity       | 999groups                                       |
| Threshold Setting     | 10groups(Pre-set by PC software)                |
| Communication Port    | Type-C USB port                                 |
| Bluetooth             | Optional                                        |
| Power Supply          | 2*2500mAh Ni-MH AA battery                      |
| External Power Supply | 5V/1A; AC/DC adapter                            |
| Working Temp          | -10℃~+50℃                                       |
| Storage Temp          | -20℃~+70℃                                       |
| Dimension             | 160L×76W×45H(mm)                                |
| Weight                | 249g                                            |



## FHP3G25 Power Meter

- Support selective power level 1490/1577/1358nm measurements separately at the same time
- Applicable to GPON&XG(S)-PON, EPON&10G-EPON and 25G PON co-existence PON network
- Built in 10mw VFL function
- 10 groups User defined Pass, Warning, Fail mode
- Support USB Type-C charging and test data upload
- Support Powerful PC software to generate the test report
- Bluetooth is optional

| Items                 | Specifications                   |
|-----------------------|----------------------------------|
| Optical Port          | OPM: SC/UPC or SC/APC            |
|                       | VFL:SC/UPC                       |
| Calibrated Wavelength | 1490nm/1577nm/1358nm             |
| Test Range            | -40~+10dBm                       |
| Test Accuracy         | ±0.5dB                           |
| Resolution            | 0.01dB                           |
| Display Unit          | dBm/dB/mw                        |
| Isolation             | >35dB                            |
| VFL                   | 10mW, CW / 2Hz                   |
| Memory Capacity       | 999groups                        |
| Threshold Setting     | 10groups(Pre-set by PC software) |
| Communication Port    | Type-C USB port                  |
| Bluetooth             | Optional                         |
| Power Supply          | 2*2500mAh Ni-MH AA battery       |
| External Power Supply | 5V/1A; AC/DC adapter             |
| Working Temp          | -10℃~+50℃                        |
| Storage Temp          | -20℃~+70℃                        |
| Dimension             | 160L×76W×45H(mm)                 |
| Weight                | 249g                             |



### FHP2P04 10GPON OPM

- Support measuring upstream 1310/1270nm and downstream 1490/1577nm optical power level
- Applicable to GPON&XG(S)-PON and EPON&10G-EPON co-existence PON network
- 10 groups User defined Pass, Warning, Fail mode
- Support USB Type-C charging and test data upload
- Support Powerful PC software to generate the test report
- Bluetooth is optional

| Items                  | Specifications             |         |         |         |
|------------------------|----------------------------|---------|---------|---------|
| 10G PON Power Meter    |                            |         |         |         |
| Wavelength             | 1270nm                     | 1310nm  | 1490nm  | 1577nm  |
| Measurement Range(dBm) | -10~+13                    | -30~+13 | -50~+13 | -50~+17 |
| Spectral Passband(nm)  | 1270±10                    | 1310±20 | 1490±10 | 1577±6  |
| Insertion Loss         | ≤1.5dB                     |         |         |         |
| Uncertainty            | ≤0.5dB                     |         |         |         |
| Display Resolution     | 0.01dB                     |         |         |         |
| Display Unit           | dBm/dB                     |         |         |         |
| Threshold Setting      | 10 groups                  |         |         |         |
| Data Storage           | 700 groups                 |         |         |         |
| Display                | 2.5inch LCD                |         |         |         |
| Optical Port           | 2*SC/APC or 2*SC/UPC       |         |         |         |
| Communication Port     | USB Type-C interface       |         |         |         |
| Bluetooth              | Optional                   |         |         |         |
| Power Supply           | 2*2500mAh Ni-MH AA battery |         |         |         |
| Extranal Power Supply  | 5V/1A; AC/DC adapter       |         |         |         |
| Working Temp           | -10℃~+50℃                  |         |         |         |
| Storage Temp           | -20℃~+70℃                  |         |         |         |
| Dimension              | 160L×76W×45H(mm)           |         |         |         |
| Weight                 | 300g                       |         |         |         |



## FHP3P05 10G PON Power Meter

- Support measuring upstream 1310/1270nm and downstream 1490/1577/1550nm optical power level
- Applicable to GPON&XG(S)-PON, EPON&10G-EPON and RF CATV co-existence PON network
- 10 groups User defined Pass, Warning, Fail mode
- Support USB Type-C charging and test data upload

| Items              | Specifications                                            |                           |                                |
|--------------------|-----------------------------------------------------------|---------------------------|--------------------------------|
| Wavelength         | 1270/1310nm                                               | 1490nm                    | 1550/1577nm                    |
| Measurement Range  | CW mode:<br>-40dBm~+10dBm<br>Burst mode:<br>-30dBm~+10dBm | -50dBm~+13dBm             | -50dBm~+23dBm                  |
| Spectral Passband  | 1270/1310nm<br>(1240nm~1360nm)                            | 1490nm<br>(1480nm~1500nm) | 1550/1577nm<br>(1539nm~1610nm) |
| Insertion Loss     | ≤1.5dB                                                    |                           |                                |
| Uncertainty        | ±0.5dB                                                    |                           |                                |
| Linearity          | ±0.2dB                                                    |                           |                                |
| Resolution         | 0.01dB                                                    |                           |                                |
| Data Storage       | 1000 groups                                               |                           |                                |
| Display            | 2.8 inch TFT LCD                                          |                           |                                |
| Threshold          | 10 sets(Configured via PC software)                       |                           |                                |
| Auto Power-off     | 10 minutes                                                |                           |                                |
| Number of Ports    | 2 (left ONU port, right OLT&Video port)                   |                           |                                |
| Optical Port       | FC/PC, SC/PC (APC optional)                               |                           |                                |
| Communication Port | USB Type-C interface                                      |                           |                                |
| Power Supply       | 1.2V*4 pcs Ni-MH AA battery; 5V/1A AC/DC adapter          |                           |                                |
| Working Temp       | -10℃~+50℃                                                 |                           |                                |
| Dimension          | 190L×105W×55Hmm                                           |                           |                                |
| Weight             | 700g                                                      |                           |                                |



## FHP3P05 PRO 10GPON OPM

- 3.5 inch color touch screen LCD
- Applicable to GPON&XG(S)-PON, EPON&10G-EPON and RF CATV co-existence PON network
- 5 wavelength power value simultaneous measurement and display(1490nm/1550nm/1577nm/1310nm/1270nm)
- Built in 10mw VFL function
- Long glowing rogue ONU alarm and detection
- User defined Pass/Fail threshold
- Support USB Type-C charging and test data upload
- Support Powerful PC software to generate the test report

| Items                  | Specifications           |         |         |         |         |
|------------------------|--------------------------|---------|---------|---------|---------|
| 10G PON Power Meter    |                          |         |         |         |         |
| Wavelength             | 1270nm                   | 1310nm  | 1490nm  | 1550nm  | 1577nm  |
| Measurement Range(dBm) | -10~+13                  | -30~+13 | -50~+13 | -40~+26 | -50~+17 |
| Spectral Passband(nm)  | 1270±10                  | 1310±20 | 1490±10 | 1550±10 | 1577±6  |
| Insertion Loss         | ≤1.5dB                   |         |         |         |         |
| Uncertainty            | ≤0.5dB                   |         |         |         |         |
| Display Resolution     | 0.01dB                   |         |         |         |         |
| Threshold Setting      | 10 groups                |         |         |         |         |
| Data Storage           | 1000 groups              |         |         |         |         |
| VFL                    |                          |         |         |         |         |
| Wavelength             | 650±10nm                 |         |         |         |         |
| Output Power           | 10mw                     |         |         |         |         |
| Working Mode           | CW, 1Hz/2Hz              |         |         |         |         |
| Others                 |                          |         |         |         |         |
| Display                | 3.5inch touch screen LCD |         |         |         |         |
| Optical Port           | SC/APC or SC/UPC         |         |         |         |         |
| Communication Port     | USB Type-C interface     |         |         |         |         |
| Power Supply           | 5000mAh lithium battery  |         |         |         |         |
| Working Temp           | -10℃~+50℃                |         |         |         |         |
| Dimension              | 192.9L×93.8W×47Hmm       |         |         |         |         |





### BJ200 Box-type OTDR

- Single wavelength box-type OTDR, support live fiber test
- Dynamic range up to 20dB
- Small deadzone 1.5m/4.5m
- Suitable for FTTx last mile testing (first connector loss and ONU/Splitter connectivity state is measurable)
- Offline ONU identification (ONU connected or NO ONU)
- USB Type-C interface, Compatible with mainstream Android devices, plug and play
- OTDR testing on the phone app, easy to operate, quick response
- Support test PDF report generation on phone App directly

| Items                        | Specifications                                                                                                                                                                                       |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AI Test Mode</b>          |                                                                                                                                                                                                      |
| Normal Mode                  | Wavelength: 1550nm (1625/1650nm is optional), Support live fiber test<br>Dynamic range: 20dB<br>Event deadzone: 1.5m, Attenuation deadzone: 4.5m                                                     |
| Last Mile Troubleshooting    | Test Settings<br>1) ONU End (Test from splitter towards ONU)<br>2) Splitter (Test from ONU towards splitter)<br>First connector insertion loss and the ONU/Splitter connectivity state can be tested |
| Offline ONU Status Detection | Results<br>1: ONU<br>2: NO ONU                                                                                                                                                                       |
| <b>OTDR Module</b>           |                                                                                                                                                                                                      |
| Wavelength                   | 1550nm (1625/1650nm is optional), support live fiber test                                                                                                                                            |
| Dynamic Range                | 20dB                                                                                                                                                                                                 |
| Deadzone                     | Event deadzone: 1.5m, Attenuation deadzone: 4.5m                                                                                                                                                     |
| Test Range                   | 500m, 1km, 2km, 5km, 10km, 20km, 40km, 60km                                                                                                                                                          |
| Pulse Width                  | 3ns~20us                                                                                                                                                                                             |
| Test Mode                    | Auto, Manual, Realtime                                                                                                                                                                               |
| Distance Accuracy            | $\pm(1m + \text{Test distance} \times 3 \times 10^{-5} + \text{Sampling resolution})$ (excluding IOR uncertainty)                                                                                    |
| <b>Others</b>                |                                                                                                                                                                                                      |
| Optical Interface            | SC/UPC (APC is optional)                                                                                                                                                                             |
| Electric Interface           | USB Type-C                                                                                                                                                                                           |
| Operation mode               | Android phone APP operation                                                                                                                                                                          |
| Working Temp                 | -10℃~+50℃                                                                                                                                                                                            |
| Dimension                    | 85.8Lx60.8Wx18H(mm)                                                                                                                                                                                  |
| Weight                       | 80g                                                                                                                                                                                                  |



### MINI1000 Smart OTDR

- 4 inch color LCD, portable design and easy to carry
- Multi functions 10mw VFL, stable laser source, optical power meter, Fiber link map and electric torch
- Support Multi-point touch operation like Mobile phone
- 22dB dynamic support over 60km optical fiber measurement
- 1650nm live fiber testing module is available
- Fast real-time test response and trace refresh speed

| Items                            | Specifications                                                                                                                  |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Test Range                       | 500m~120km                                                                                                                      |
| Pulse Width                      | 3ns~10us                                                                                                                        |
| Test Time                        | 5s~180s                                                                                                                         |
| Test Mode                        | Auto, Manual, Real-time                                                                                                         |
| Sampling Point                   | 30000                                                                                                                           |
| Distance Accuracy                | $\pm(1m+Test\ distance \times 3 \times 10^{-5} + Sampling\ resolution)$ (excluding IOR uncertainty)                             |
| VFL                              | Working wavelength: 650 $\pm$ 10nm<br>Output power: 10mW, CW/1Hz/2Hz                                                            |
| Stable OLS                       | Working wavelength: Consistent with OTDR<br>Output power: >-12dBm, CW/270Hz/1kHz/2kHz                                           |
| Normal OPM (Standard)            | Calibrated wavelength: 850/1300/1310/1490/1550/1625/1650nm<br>Test range: -40~+10dBm                                            |
| 10G PON Selective OPM (Optional) | Support 1490nm and 1577nm selective power testing separately<br>Calibrated wavelength: 850/1300/1310/1490/1550/1577/1625/1650nm |
| Optical Interface                | OTDR/OLS: Fixed SC/UPC (APC is available)<br>VFL/OPM: 2.5mm universal port                                                      |
| Electrical Interface             | USB Type-C charging port and data port                                                                                          |
| Display                          | 4inch color touch screen                                                                                                        |
| Data Storage                     | 120M storage card                                                                                                               |
| Battery                          | 4000mAh lithium battery                                                                                                         |
| Working Environment              | -10 $^{\circ}$ C~+50 $^{\circ}$ C; 0~85%(non condensing)                                                                        |
| Dimension/Weight                 | 85x148x37mm/275g                                                                                                                |

| Model |            | Wavelength       | Dynamic Range | Dead-zone |
|-------|------------|------------------|---------------|-----------|
| Basic | M1000D     | 1310/1550nm      | 22/20dB       | 3m/10m    |
|       | M1000S     | 1650nm           | 20dB          |           |
| Pro   | M1000D PRO | 1310/1550nm      | 22/20dB       | 1/4m      |
|       | M1000S PRO | 1650nm           | 20dB          |           |
|       | M1000T PRO | 1310/1550/1650nm | 22/20/20dB    |           |

Note: Support color customization



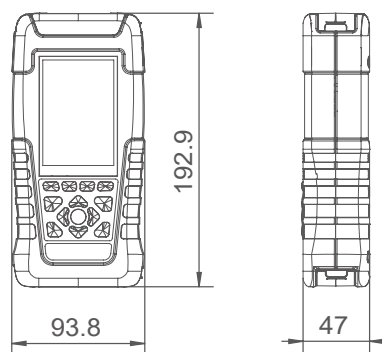
FHO1000-D28



FHO1000-D22

### FHO1000 Handheld OTDR

- 3.5 inch color LCD, portable design and easy to carry.
- Support 10mw VFL, stable laser source, optical power meter, RJ45 line sequence test, Fiber link map and other functions.
- Ultra short 1m/4m deadzone
- 28dB dynamic range support over 100km optical fiber measurement.
- OTDR testing and curve view analysis can be controlled through the mobile phone app.
- PDF report generation is available on phone app
- Fast real-time test response and trace refresh speed



| Items                  | Specifications                                                                                                    |
|------------------------|-------------------------------------------------------------------------------------------------------------------|
| Fiber Type             | SMF                                                                                                               |
| Distance Range         | 500m, 1km, 2km, 5km, 10km, 20km, 40km, 80km, 120km                                                                |
| Pulse Width            | 3ns/5ns/10ns/30ns/50ns/100ns/275ns/500ns/1us/2us/5us/10us/20us                                                    |
| Event Dead-zone①       | ≤1m                                                                                                               |
| Attenuation Dead-zone① | ≤4m                                                                                                               |
| IOR Setting            | 1.000~1.999                                                                                                       |
| Sampling Points        | 64000                                                                                                             |
| Sampling Resolution    | 0.05m (1km)                                                                                                       |
| Distance Accuracy      | $\pm(1m + \text{Test distance} \times 3 \times 10^{-5} + \text{Sampling resolution})$ (excluding IOR uncertainty) |
| Loss Accuracy          | 0.1dB                                                                                                             |
| Linearity              | ≤0.05dB/dB                                                                                                        |
| Reflectance Accuracy   | ±2dB                                                                                                              |
| VFL                    | Working wavelength: 650±10nm<br>Output power: 10mW, CW/1Hz/2Hz                                                    |
| Stable OLS             | Working wavelength: Consistent with OTDR<br>Output power: >-12dBm, CW/270Hz/1kHz/2kHz                             |
| Normal OPM             | Calibrated wavelength: 850/1300/1310/1490/1550/1625/1650nm<br>Test range: -60~+10dBm                              |



| Items                | Specifications                                                                                               |
|----------------------|--------------------------------------------------------------------------------------------------------------|
| RJ45 Test            | RJ45 line sequence test according to TIA568-A or TIA568-B standard                                           |
| Optical Interface    | OTDR: FC/UPC or SC/UPC<br>VFL: 2.5mm universal port<br>OLS: share the OTDR port<br>OPM: 2.5mm universal port |
| Electrical Interface | RJ45 port×2, RJ45 remote module<br>USB Type-C charging port and data port                                    |
| Wireless             | Bluetooth                                                                                                    |
| Mobilephone APP      | Android system                                                                                               |
| Data Storage         | Pluggable 16GB micro SD card                                                                                 |
| Available Lanaguage  | English, Spanish, Portuguese, Russian, Hungarian and German<br>(please contact sales for other languages)    |
| Battery              | 5000mAh lithium battery                                                                                      |
| Working Temp         | -10℃~+50℃                                                                                                    |
| Humidity             | 0~85%(non condensing)                                                                                        |
| Dimension            | 192.9L×93.8W×47Hmm                                                                                           |
| Weight               | 0.57kg                                                                                                       |

| Model         | Wavelength  | Dynamic Range | Dead-zone | Color (default) | Bluetooth | Live Fiber Test |
|---------------|-------------|---------------|-----------|-----------------|-----------|-----------------|
| FHO1000-D22   | 1310/1550nm | 22/20dB       | 1/4m      | Blue            | Support   | Not support     |
| FHO1000-D28   | 1310/1550nm | 28/26dB       | 1/4m      | Orange          | Support   | Not support     |
| FHO1000-SA20F | 1650nm      | 20dB          | 1/4m      | Blue            | Support   | Support         |
| FHO1000-SP20F | 1625nm      | 20dB          | 1/4m      | Blue            | Support   | Support         |

## Notes

- 1: Deadzone test conditions: event deadzone return loss>-45dB, attenuation deadzone return loss >-55dB.
- 2: FHO1000-SA20F/SP20F supports live fiber test, and the maximum light intensity in the link is 0dbm(1310nm/1490nm/1550nm).
- 3: FHO1000 series OTDR has the function of normal broadband power meter, and FHO1000-SA20F/SP20F also support 1490nm/1577nm selective optical power meter.



## FHO5000 Series OTDR

- Dynamic range from 26dB to 50dB, small deadzone 0.8m/3m
- Optimized PON test capability to pass through 1x128 splitter, the minimum distance between splitters is 30 meters
- Excellent FLM(Fiber Link Map) testing performance
- Built-in OTDR trace and FLM testing PDF report
- Remote control on PC software is available
- Multi function Integrated design, smart and rugged
- Bluetooth and mobile APP is available on PRO version

| Model         | Wavelength            | Dynamic Range | Dead-zone |
|---------------|-----------------------|---------------|-----------|
| FHO5000-D26   | 1310/1550nm±20nm      | 26/24dB       | 1/4m      |
| FHO5000-D35   |                       | 35/33dB       | 1/4m      |
| FHO5000-D40   |                       | 40/38dB       | 0.8/3m    |
| FHO5000-D43   |                       | 43/41dB       | 0.8/3m    |
| FHO5000-D45   |                       | 45/43dB       | 0.8/3m    |
| FHO5000-D50   |                       | 50/48dB       | 0.8/3m    |
| FHO5000-TP35  | 1310/1490/1550nm±20nm | 35/33/33dB    | 1/4m      |
| FHO5000-T26F  | 1310/1550/1625nm±20nm | 26/24/24dB    | 1/4m      |
| FHO5000-T35F  |                       | 35/33/33dB    | 1/4m      |
| FHO5000-T40F  |                       | 40/38/38dB    | 0.8/3m    |
| FHO5000-T43F  |                       | 43/41/41dB    | 0.8/3m    |
| FHO5000-T45F  |                       | 45/43/43dB    | 0.8/3m    |
| FHO5000-T50F  |                       | 50/48/48dB    | 0.8/3m    |
| FHO5000-TC35F | 1310/1550/1650nm±20nm | 35/33/33dB    | 1/4m      |
| FHO5000-TC40F |                       | 40/38/38dB    | 0.8/3m    |
| FHO5000-TC43F |                       | 43/41/41dB    | 0.8/3m    |
| FHO5000-TC45F |                       | 45/43/43dB    | 0.8/3m    |
| FHO5000-M21   | 850/1300nm±20nm       | 19/21dB       | 1/4m      |
| FHO5000-MD21  | 850/1300nm±20nm       | 19/21dB       | 1/4m      |
|               | 1310/1550nm±20nm      | 35/33dB       | 1/4m      |
| FHO5000-MD22  | 850/1300nm±20nm       | 19/21dB       | 1/4m      |
|               | 1310/1550nm±20nm      | 40/38dB       | 0.8/3m    |

### Other Functions

- ★ Built in multi-language OTDR/FLM PDF report generation
- ★ Live Fiber detect: Verifies presence communication light in optical fiber
- ★ Dual wavelength(1310nm/1550nm) analysis-Macro bending detection
- ★ Built-in Bidirectional test analysis function
- ★ Trace overlay and comparison (most 8 traces)
- ★ Define the Pass/Fail result of each event through threshold settings
- ★ Powerful PC analysis software "OTDRviewer"
- ★ Remote control on PC software "Server" via RJ45 cable
- ★ Bluetooth and Android mobile APP is available on PRO version
- ★ OTDR trace and Fiber link map conversion
- ★ Start launching cable and end receiving fiber function



| Items               | Specifications                                                                             |
|---------------------|--------------------------------------------------------------------------------------------|
| Pulse Width         | 3ns, 5ns, 10ns, 30ns, 50ns, 100ns, 275ns, 500ns, 1us, 2us, 5us, 10us, 20us                 |
| Distance Range      | 500m, 2km, 5km, 10km, 20km, 33km, 40km, 80km, 120km, 160km, 265km                          |
| Sampling Resolution | Minimum 5cm                                                                                |
| Sampling Points     | Maximum 256,000 points                                                                     |
| Linearity           | ≤0.05dB/dB                                                                                 |
| Loss Threshold      | 0.01dB                                                                                     |
| Loss Resolution     | 0.001dB                                                                                    |
| Distance Resolution | 0.01m                                                                                      |
| IOR Setting         | 1.2000~1.7000, 0.0001 step                                                                 |
| Distance Accuracy   | ±(0.75m+test distance×3×10 <sup>-5</sup> +sampling resolution) (excluding IOR uncertainty) |
| Memory Capacity     | 16G TF card                                                                                |

| Items                              | Specifications                                                                                                                                                                                 |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Visual Fault Locator Module</b> |                                                                                                                                                                                                |
| Working Wavelength                 | 650nm±20nm                                                                                                                                                                                     |
| Power                              | 10mw, CLASSIII B Laser                                                                                                                                                                         |
| Launching Mode                     | CW/2Hz                                                                                                                                                                                         |
| Connector                          | Universal 2.5mm                                                                                                                                                                                |
| <b>Optical Power Meter Module</b>  |                                                                                                                                                                                                |
| Wavelength Range                   | 800~1700nm                                                                                                                                                                                     |
| Calibrated Wavelength              | 850/1300/1310/1490/1550/1625/1650nm                                                                                                                                                            |
| Test Range                         | Type A: -60~+5dBm(standard); Type B: -40~+23dBm(optional)                                                                                                                                      |
| Accuracy                           | ±0.35dB                                                                                                                                                                                        |
| Resolution                         | 0.01dB                                                                                                                                                                                         |
| <b>Optical Laser Source Module</b> |                                                                                                                                                                                                |
| Working Wavelength                 | Consistent with OTDR                                                                                                                                                                           |
| Output Power                       | ≥-10dBm                                                                                                                                                                                        |
| Output Accuracy                    | ±0.5dB                                                                                                                                                                                         |
| Output Mode                        | CW/270Hz/1kHz/2kHz                                                                                                                                                                             |
| <b>Others</b>                      |                                                                                                                                                                                                |
| Interface                          | 1×RJ45 port, 3×USB port (USB 2.0, Type A USB×2, Type B USB×1)                                                                                                                                  |
| Display                            | 7-inch touch screen TFT-LCD                                                                                                                                                                    |
| Available Language                 | English, traditional Chinese, French, Korean, Russian, Spanish, Portuguese, Turkish, Italian, German, Thai, Hungarian, Czech, Vietnamese, Polish<br>(please contact sales for other languages) |
| Battery                            | 7.4V/5.2Ah lithium battery (with air traffic certification)                                                                                                                                    |
| Power Supply                       | 10V(dc)/4A, 100V(ac) to 240V(ac), 50~60Hz                                                                                                                                                      |
| Temperature                        | Working Temp: -10℃~+50℃; Storage Temp: -20℃~+70℃                                                                                                                                               |
| Humidity                           | ≤95% (No-condensation)                                                                                                                                                                         |
| Dimension                          | 253×168×73.5mm                                                                                                                                                                                 |
| Weight                             | 1.5kg (with battery)                                                                                                                                                                           |
| Accessories                        | Main unit, Power adapter, Charge cord, Lithium battery, FC adapter, USB cable, Quick guide, Test report, Carrying bag, Wrist strap                                                             |
| Optional                           | SC/LC adapter, Fiber microscope, Launch cable box                                                                                                                                              |

## Notes

- 1: Please consult us for more customized models
- 2: Model T26F/T35F/T40F/T43F/T45F/T50F/TC35F are integrated built-in filter, support live fiber testing
- 3: Dynamic range is measured with maximum pulse width, averaging time is 3 minutes, SNR=1;  
The level difference between the RMS noise level and the level where near end back-scattering occurs.
- 4: Event dead zone is measured with pulse width of 3ns and return loss ≥-45dB. Dynamic range>5dB  
Attenuation dead zone is measured with pulse width of 3ns and return loss ≥-55dB. Dynamic range>5dB

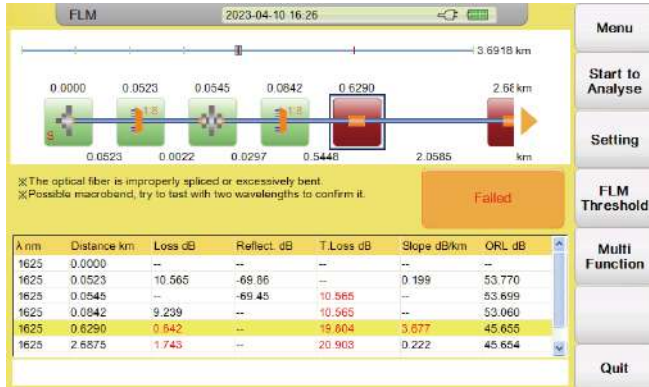




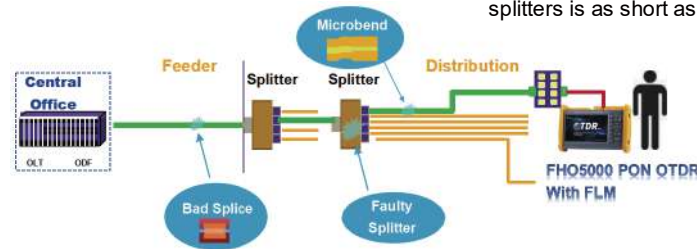


| FH05000-XX-XX-XX-XX-XX-XX-XX-XX |                                                      |                         |                          |
|---------------------------------|------------------------------------------------------|-------------------------|--------------------------|
| <b>Model</b>                    |                                                      | <b>Connector</b>        |                          |
| <b>M</b>                        | 850/1300nm                                           | <b>/</b>                | FC/UPC(default)          |
| <b>MD</b>                       | 850/1300/1310/1550nm                                 | <b>SC</b>               | SC/UPC                   |
| <b>D</b>                        | 1310/1550nm                                          | <b>ST</b>               | ST/UPC                   |
| <b>T</b>                        | 1310/1550/1625nm                                     | <b>Fiber Link Map</b>   |                          |
| <b>TC</b>                       | 1310/1550/1650nm                                     | <b>/</b>                | Without fiber link map   |
| <b>TP</b>                       | 1310/1490/1550nm                                     | <b>FLM</b>              | With fiber link map      |
| <b>P</b>                        | 1650nm                                               | <b>Fiber Microscope</b> |                          |
| <b>Dynamic Range</b>            |                                                      | <b>/</b>                | Without fiber microscope |
| <b>21</b>                       | 19/21dB for Model M or<br>19/21/35/33dB for Model MD | <b>FM</b>               | With fiber microscope    |
| <b>22</b>                       | 19/21/40/38dB for Model MD                           | <b>Touch Screen</b>     |                          |
| <b>26</b>                       | 26/24dB for Model D                                  | <b>/</b>                | Without touchscreen      |
| <b>35</b>                       | 35/33dB for Model D or<br>35/33/33 for Model TP      | <b>TS</b>               | With touchscreen         |
| <b>40</b>                       | 40/38dB for Model D                                  | <b>Power Meter</b>      |                          |
| <b>43</b>                       | 43/41dB for Model D                                  | <b>/</b>                | Without power meter      |
| <b>45</b>                       | 45/43dB for Model D                                  | <b>PMA</b>              | With power meter TYPE A  |
| <b>50</b>                       | 50/48dB for Model D                                  | <b>PMB</b>              | With power meter TYPE B  |
| <b>26F</b>                      | 26/24/24dB for Model T with filter                   |                         |                          |
| <b>35F</b>                      | 35/33/33dB for Model TC/T with filter                |                         |                          |
| <b>40F</b>                      | 40/38/38dB for Model T with filter                   |                         |                          |
| <b>43F</b>                      | 43/41/41dB for Model T with filter                   |                         |                          |
| <b>45F</b>                      | 45/43/43dB for Model T with filter                   |                         |                          |
| <b>50F</b>                      | 50/48/48dB for Model T with filter                   |                         |                          |
| <b>P26</b>                      | 26dB for Model P with filter                         |                         |                          |
| <b>P38</b>                      | 38dB for Model P with filter                         |                         |                          |
| <b>Laser Source</b>             |                                                      | <b>/</b>                | Without laser source     |
| <b>LS</b>                       | With laser source                                    |                         |                          |

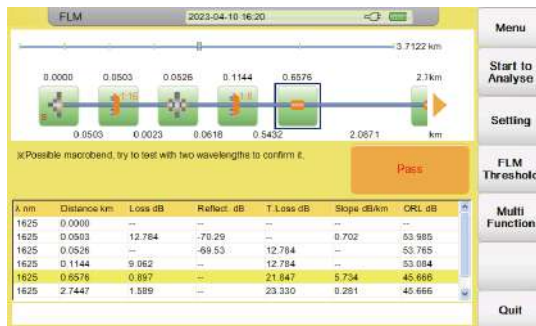
## Intelligent Fiber Link Map (FLM)



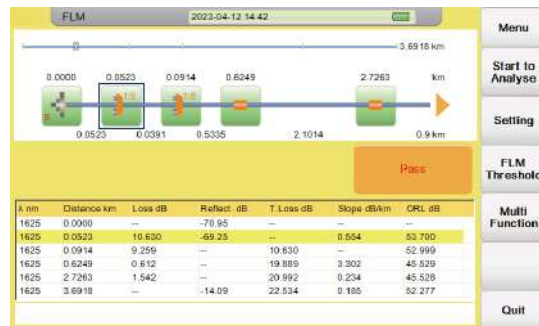
- Adaptively adjust multiple pulse width tests based on link, merge and analyze
- FLM can test any PON structure including balanced or unbalanced splitter
- No need to analyze curves, test results are displayed through icons, simple and clear
- Comprehensive fiber optic fault diagnosis and analysis
- User-defined Pass/Fail function and automatic FLM reports generation
- Suitable for PON network analysis, can pass through up to 1x128 splitters
- Splitter identification, shortest distance between splitters is as short as 30m



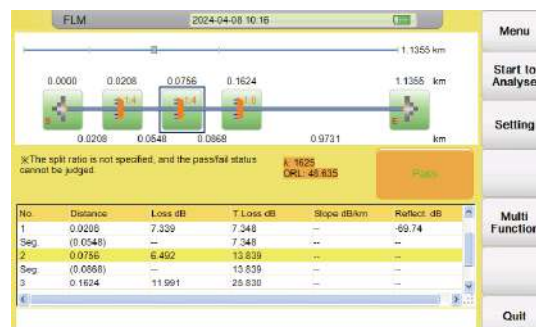
## Optimized PON test capability through FLM



### Test 1x16+1x8 splitters



### Test 1x8+1x8 splitters



### Test three levels splitters

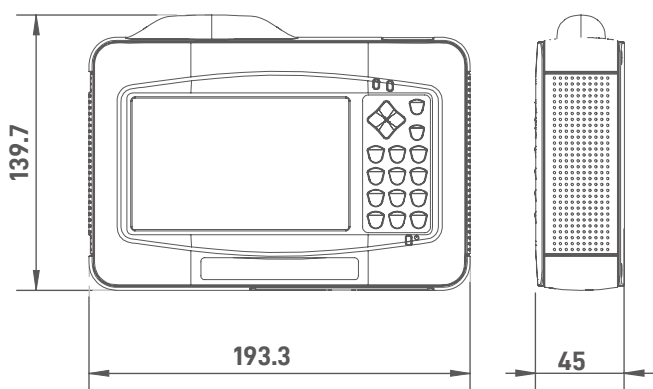


### Test unbalanced splitters



### FHO3000 Mini Series OTDR

- 5-inch capacitive touch screen, portable design and easy to carry
- Support 10mw VFL, stable laser source, optical power meter, optical loss test, fiber link map test and fiber microscope
- Ultra short 1m/4m deadzone
- 1625nm live fiber testing module is available
- Support sor and PDF export
- Support pass through 1x32 splitter PON network



| Items                 | Specifications                                                                                                       |
|-----------------------|----------------------------------------------------------------------------------------------------------------------|
| Pulse Width           | 3ns~20us                                                                                                             |
| Distance Range        | 0.1km~120km                                                                                                          |
| Event Dead-zone       | ≤1m                                                                                                                  |
| Attenuation Dead-zone | ≤4m                                                                                                                  |
| IOR Setting           | 1.30000~1.70000                                                                                                      |
| Sampling Points       | 128,000                                                                                                              |
| Distance Accuracy     | $\pm(0.75m + \text{test distance} \times 3 \times 10^{-5} + \text{sampling resolution})$ (excluding IOR uncertainty) |
| Loss Resolution       | 0.001dB                                                                                                              |
| Linearity             | ≤0.03dB/dB                                                                                                           |
| VFL                   | Working wavelength: 650±10nm                                                                                         |
|                       | Output power: 10mW, CW/1Hz/2Hz                                                                                       |
| Stable OLS            | Working wavelength: Consistent with OTDR                                                                             |
|                       | Output power: >-10dBm                                                                                                |
| Normal OPM            | Calibrated wavelength: 850/1300/1310/1490/1550/1625/1650nm                                                           |
|                       | Test range: -60~+5dBm                                                                                                |

| Items                | Specifications                                        |
|----------------------|-------------------------------------------------------|
| Optical Interface    | OTDR: FC/UPC or SC/UPC (APC is available)             |
| Display Screen       | 5inch capacitive touch screen                         |
| Electrical Interface | USB2.0 Port<br>USB Type-C charging port and data port |
| Data Storage         | 16GB card                                             |
| Battery              | 3.7V/7000mAh lithium battery, support fast charge     |
| Working Temp         | -10℃~+50℃                                             |
| Humidity             | 0~85%(non condensing)                                 |
| Dimension            | 195×141×44mm                                          |
| Weight               | 0.9kg(with battery)                                   |

| Model        | Wavelength       | Dynamic Range | Dead-zone |
|--------------|------------------|---------------|-----------|
| FHO3000-D28  | 1310/1550nm      | 28/26dB       | 1/4m      |
| FHO3000-D32  |                  | 32/30dB       | 1/4m      |
| FHO3000-D35  |                  | 35/33dB       | 1/4m      |
| FHO3000-T28F | 1310/1550/1625nm | 28/26/26dB    | 1/4m      |
| FHO3000-T32F |                  | 32/30/30dB    | 1/4m      |
| FHO3000-T35F |                  | 35/33/33dB    | 1/4m      |

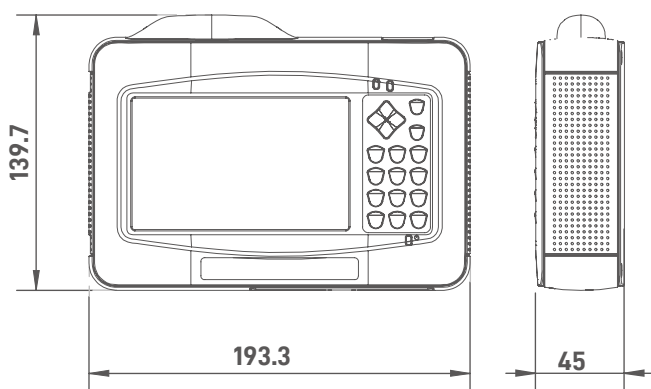
## Notes

- 1: Please consult us for more customized models.
- 2: Dynamic range is measured with 20us pulse width, averaging time is 180s, SNR=1.
- 3: Event dead-zone is measured with 3ns pulse width.
- 4: Attenuation dead-zone is measured with 3ns pulse width.



### FHO3000L Mini Series OTDR

- 5-inch color LCD capacitive touch screen
- 26/24dB dynamic range and 2.5m/8m deadzone
- 11 functions in 1, support auto OTDR, expert OTDR, Event Map, Optical power meter, VFL, Stable laser source, optical loss test, RJ45 cable seq test, RJ45 length test, RJ45 cable tracking(optional), electric torch
- Support one button screenshot function
- Multi-language display and input



| Items                 | Specifications                                                                          |
|-----------------------|-----------------------------------------------------------------------------------------|
| Dynamic Range         | 26/24dB                                                                                 |
| Fiber Type            | SMF                                                                                     |
| Wavelength            | 1310nm±20nm/1550nm±20nm                                                                 |
| Event Dead-zone       | 2.5m                                                                                    |
| Attenuation Dead-zone | 8m                                                                                      |
| Distance Range        | 500m/1km/2km/4km/8km/16km/32km/64km/100km                                               |
| Pulse Width           | 3ns~20us                                                                                |
| Distance Accuracy     | ±(1m+Test distance×5×10 <sup>-5</sup> +Sampling resolution) (excluding IOR uncertainty) |
| Linearity             | ±0.5dB/dB                                                                               |
| Sampling Points       | 16k~128k                                                                                |
| Sampling Resolution   | 0.05m~8m                                                                                |
| Loss Resolution       | 0.001dB                                                                                 |
| Distance Resolution   | 0.001m                                                                                  |
| Loss Threshold        | 0.20dB                                                                                  |
| IOR Setting           | 1.00000~2.00000                                                                         |

| Items                               | Specifications                                        |
|-------------------------------------|-------------------------------------------------------|
| Reflectance Accuracy                | ±3dB                                                  |
| File Format                         | SOR standard file format                              |
| Loss Test Mode                      | 4-point/5-point method                                |
| Laser Safety Level                  | Class II                                              |
| Optical Port                        | FC/UPC (SC, ST, APC polishing is optional)            |
| Refresh Rate                        | 3Hz(Typ.)                                             |
| <b>OPM</b>                          |                                                       |
| Working Wavelength                  | 800nm~1700nm                                          |
| Calibrated Wavelength               | 850nm/980nm/1300nm/1310nm/1490nm/1550nm/1625nm/1650nm |
| Test Range                          | -70~-+10dBm/-50~-+26dBm                               |
| Resolution                          | 0.01dB                                                |
| Accuracy                            | ±5%                                                   |
| Frequency Identification            | CW/270/330/1k/2kHz (Use inner LS)                     |
| Optical Port                        | Universal FC/SC/ST                                    |
| Wavelength Recognition              | Support                                               |
| <b>VFL</b>                          |                                                       |
| Working Wavelength                  | 650nm±20nm                                            |
| Output Power                        | ≥10mw                                                 |
| Working Mode                        | CW/1Hz/2Hz                                            |
| Optical Port                        | FC/UPC (Interchangeable SC/ST)                        |
| Laser Safety Level                  | Class III                                             |
| <b>OLS</b>                          |                                                       |
| Working Wavelength                  | 1310nm/1550nm                                         |
| Laser Type                          | FP-LD                                                 |
| Output Power                        | ≥ -5dBm                                               |
| Working Mode                        | CW/270Hz/330Hz/1kHz/2kHz                              |
| Stability                           | CW, ±0.5dB/15 min(after 15min of preheating)          |
| Optical Port                        | FC/UPC (Interchangeable SC/ST)                        |
| <b>Optical Loss Test</b>            |                                                       |
| Working Wavelength                  | Consistent with LS                                    |
| IL Test                             | Support                                               |
| <b>RJ45 Cable Finder (Optional)</b> |                                                       |
| Working Mode                        | Digital tracking                                      |
| Distance                            | ≤300m                                                 |
| Online/Line Pair Tracking           | Support                                               |





| Items                      | Specifications                                        |
|----------------------------|-------------------------------------------------------|
| <b>RJ45 Cable Length</b>   |                                                       |
| Test Distance              | ≤300m                                                 |
| <b>RJ45 Cable sequence</b> |                                                       |
| Test Standard              | T568A/T568B                                           |
| <b>Others</b>              |                                                       |
| Display                    | 5 inches color touch screen                           |
| Available Lanaguage        | English, Spanish, Russian, French, Portuguese, Arabic |
| Data Storage               | 8GB TF card                                           |
| Data Interface             | USB type C                                            |
| Working Temp               | -10℃~+55℃                                             |
| Storage Temp               | -40℃~+70℃                                             |
| Humidity                   | 0~95% (No condensation)                               |
| Dimension                  | 195L×141W×44Hmm                                       |
| Weight                     | 0.9kg                                                 |

#### Notes

- 1: Dynamic range is measured with 20us pulse width, averaging time is 180s, SNR=1.
- 2: Event dead-zone is measured with 3ns pulse width, return loss>-45dB
- 3: Attenuation dead-zone is measured with 3ns pulse width, return loss>-55dB



### F2H-LFC Launch Fiber Cable

- Compact and ruggedized, easy to carry
- Excellent waterproof and dustproof performance
- Non-metal construction will not corrode or conduct electricity

| Items                 | Specifications                                                        |
|-----------------------|-----------------------------------------------------------------------|
| Dimension             | 238(L) x 141(W) x 67(H)mm                                             |
| Fiber Type            | G.657A/G.652D (MM can be customized)                                  |
| Typical Loss          | <0.5dB @ 1310nm for 1,000 meters                                      |
| Connector Type        | FC/SC/LC selectable                                                   |
| Polishing Type        | APC/UPC selectable                                                    |
| Box Material          | Polypropylene                                                         |
| Color                 | yellow                                                                |
| Weight                | 0.75kg / 0.35kg (without fiber)                                       |
| Operating Temperature | -40~+55°C                                                             |
| Ordering Information  |                                                                       |
| Name                  | LFC=Launch Fiber Cable                                                |
| Connector 1           | SC=SC/UPC; AS=SC/APC; FC=FC/UPC;<br>AF=FC/APC; LC=LC/UPC; AL=LC/APC   |
| Connector 2           | SC=SC/UPC; AS=SC/APC; FC=FC/UPC;<br>AF=FC/APC; LC=LC/UPC; AL=LC/APC   |
| Fiber Type            | 7A1=SM G.657.A1; 2D=SM G.652.D;<br>OM1=MM 62.5/125um; OM2=MM 50/125um |
| Cable Length          | 0.5=0.5km; 1=1km; 2=2km                                               |



### FHO-LCB Launch Cable Box

- Compact, easy to carry
- Case can house up to 1,000 meters of fiber
- Attachable with FHO5000 Series OTDR

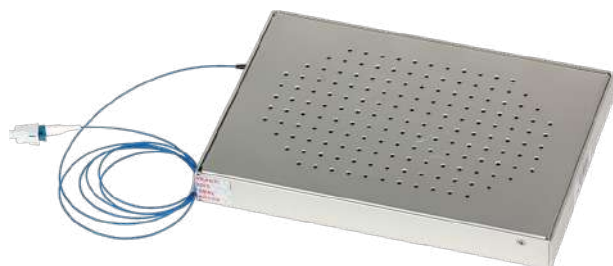
| Items                 | Specifications                                                        |
|-----------------------|-----------------------------------------------------------------------|
| Dimension             | 206(L) x 122(W) x 23(H)mm                                             |
| Fiber Type            | SM G.652D                                                             |
| Adapter Type          | Replaceable FC/SC/ST adapters                                         |
| Polishing Type        | APC or UPC                                                            |
| Color                 | black                                                                 |
| Weight                | 1kg                                                                   |
| Operating Temperature | -40~+55°C                                                             |
| Ordering Information  |                                                                       |
| Name                  | LCB=Launch Cable Box                                                  |
| Adapter 1             | SC=SC/UPC;AS=SC/APC;FC=FC/UPC;<br>AF=FC/APC;ST=ST/UPC;AT=ST/APC;      |
| Adapter 2             | SC=SC/UPC; AS=SC/APC;FC=FC/UPC;<br>AF=FC/APC;ST=ST/UPC; AT=ST/APC;    |
| Fiber Type            | 7A1=SM G.657.A1; 2D=SM G.652.D;<br>OM1=MM 62.5/125um; OM2=MM 50/125um |
| Cable Length          | 500=500m; 1000=1000m                                                  |



### OLC-200 Launch Cable Ring

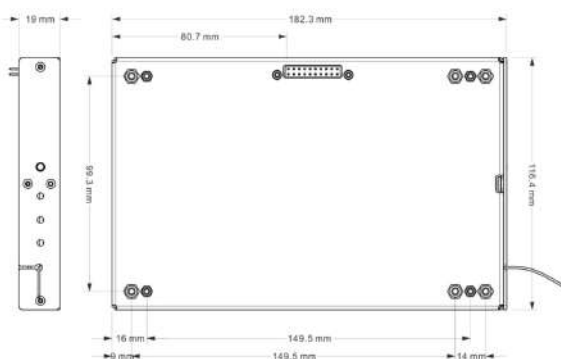
- Customized length of 100m-2000m
- Case can house up to 1,000 meters of fiber
- Customized fiber optic types  
OS2/OM1/OM2/OM3/G.652x~G.657x
- Used to eliminate testing deadzone of OTDR
- Design of a dedicated storage compartment for couplers

| Items                | Specifications                |        |                     |
|----------------------|-------------------------------|--------|---------------------|
| Dimension            | 121x115x20mm                  |        |                     |
| Fiber Type           | OS2/OM1/OM2/OM3/G.652x~G.657x |        |                     |
| Fiber Length         | 100m~2000m                    |        |                     |
| Connector Type       | FC/SC/ST/LC/E2000, etc        |        |                     |
| Polishing Type       | APC or UPC                    |        |                     |
| Ordering Information |                               |        |                     |
| Configuration        | Fiber type                    | Length | Model               |
| Lanuch cable+coupler | Single mode                   | 150M   | OS2-150M,9/125um    |
| Lanuch cable+coupler | Single mode                   | 300M   | OS2-300M,9/125um    |
| Lanuch cable+coupler | Single mode                   | 500M   | OS2-500M,9/125um    |
| Lanuch cable+coupler | Single mode                   | 1KM    | OS2-1KM,9/125um     |
| Lanuch cable+coupler | Multi mode                    | 500M   | OM1-500M,62.5/125um |
| Lanuch cable+coupler | Multi mode                    | 1KM    | OM1-1KM,62.5/125um  |
| Lanuch cable+coupler | Multi mode                    | 500M   | OM2-500M,50/125um   |
| Lanuch cable+coupler | Multi mode                    | 1KM    | OM2-1KM,50/125um    |
| Lanuch cable+coupler | Multi mode                    | 100M   | OM3-100M,50/125um   |
| Lanuch cable+coupler | Multi mode                    | 300M   | OM3-300M,50/125um   |



## GW-4000 OTDR Module

- Specially designed for fiber optic monitoring systems
- 0.8m/3.5m ultra small deadzone performance, 32dB~45dB dynamic range is available
- Miniaturization, high performance, and easy installation
- 256,000 sampling points and 5cm resolution ensure more accurate fiber testing
- Wide working temperature range
- High speed Ethernet data transmission interface



| Items                | Specifications                                                                                                       |
|----------------------|----------------------------------------------------------------------------------------------------------------------|
| Wavelength           | 1310nm/1550nm/1625nm/1650nm(customizable)<br>Configure up to two wavelengths                                         |
| Fiber Type           | 0.9mm, SM                                                                                                            |
| Dynamic Range        | 32~45dB(customizable)                                                                                                |
| Pulse Width          | 3ns~20us                                                                                                             |
| Event Deadzone       | 0.8m                                                                                                                 |
| Attenuation Deadzone | 3.5m                                                                                                                 |
| Sampling Resolution  | 0.05m~4m                                                                                                             |
| Distance Resolution  | 0.01m                                                                                                                |
| Sampling Point       | 256,000                                                                                                              |
| Distance Accuracy    | $\pm(0.75m + \text{test distance} \times 3 \times 10^{-5} + \text{sampling resolution})$ (excluding IOR uncertainty) |
| Test Range           | Maximum range 400km                                                                                                  |
| Linearity            | $\pm 0.03\text{dB/dB}$                                                                                               |
| Laser Safety         | IEC 60825-1:2007:CLASS 1                                                                                             |
| Power Supply         | DC 9~12V/1.5A                                                                                                        |
| Connector            | FC, SC, ST, LC (UPC or APC)                                                                                          |
| Working Temp         | -20℃ ~ +55℃                                                                                                          |
| Storage Temp         | -40℃ ~ +85℃                                                                                                          |
| Humidity             | 0~95%                                                                                                                |
| Dimension/Weight     | 183mm x 116mm x 19mm / 400g                                                                                          |

## RTU-4000 Integrated monitoring equipment



- Integrating OTDR, optical switch, WDM and PCB
- Support customized multi-channel (1~16 channels) monitoring optical ports
- The dynamic range of OTDR module can reach up to 45dB; Deadzone performance 1m/4m
- Support dark fiber and live fiber monitoring
- Support automatic setting of IP address
- The communication interface supports RJ45 network port and RS232 serial interface
- Suitable for integrated deployment of fiber optic monitoring network

| Items                            | Specifications                                                                          |
|----------------------------------|-----------------------------------------------------------------------------------------|
| <b>Base Unit</b>                 |                                                                                         |
| Optical port number              | 8(Customizable number of other channels)                                                |
| Network Interfaces               | RJ45                                                                                    |
| Optical port                     | LC/APC                                                                                  |
| Height                           | 1U                                                                                      |
| Width                            | Standard 19 inch rack                                                                   |
| Dimension                        | 438mm×300mm×45mm(L×W×H)                                                                 |
| Working temperature              | -20~+60℃                                                                                |
| Storage temperature              | -40~+70℃                                                                                |
| Relative humidity                | 0% to 95% (non-condensing)                                                              |
| <b>OTDR Module</b>               |                                                                                         |
| Monitoring wavelength            | 1625nm (1550nm or 1650nm is optional)                                                   |
| Dynamic range                    | 35dB~45dB                                                                               |
| Live fiber monitoring            | Support                                                                                 |
| Pulse width                      | 3ns,5ns,10ns,30ns,50ns,100ns,275ns,500ns,1us,2us,5us,10us,20us                          |
| Event deadzone                   | 1m                                                                                      |
| Attenuation deadzone             | 4m                                                                                      |
| Sampling resolution              | 0.05~4m                                                                                 |
| Distance resolution              | 0.01m                                                                                   |
| Test range                       | 500m~265km                                                                              |
| Sampling points                  | Max 256,000                                                                             |
| Distance accuracy                | $\pm(0.75+3\times10^{-5}\times\text{Test distance}+\text{Sampling resolution})\text{m}$ |
| Linearity                        | $\pm0.03\text{dB/dB}$                                                                   |
| <b>Optical Switch Unit+FWDM</b>  |                                                                                         |
| Output port number               | 8(Customizable number of other channels)                                                |
| Fiber type                       | SM; LC/APC                                                                              |
| Pass Band Wavelength             | 1610~1680nm                                                                             |
| Reflection Band Wavelength Range | 1260~1590nm                                                                             |
| Insertion loss                   | MON-COM: $\leq 2.0\text{dB}$ ; LINE-COM: $\leq 0.8\text{dB}$                            |
| Isolation                        | MON-COM: $\geq 15\text{dB}$ ; LINE-COM: $\geq 30\text{dB}$                              |
| Return loss                      | $\geq 50\text{dB}$                                                                      |
| Repeatability                    | $\leq \pm 0.05\text{dB}$                                                                |
| Switch time                      | $\leq 15\text{ms}$                                                                      |
| OSW working life                 | $\geq 10^9$                                                                             |



## GS-402F Fusion Splicer

- 4.3 inch high-definition capacitive touch screen
- 7s fast splicing, 18s fast heating
- Newly designed interface menu for a better user experience
- With VFL and power meter function
- Industrial grade processor with high reliability and faster speed
- Heating progress bar display function
- Lightweight, only less than 1500g
- Support high brightness LED ambient lighting

| Items                | Specifications                                                              |
|----------------------|-----------------------------------------------------------------------------|
| Alignment method     | 4 motors alignment                                                          |
| Applicable fiber     | SM(G.652), MM(G.651), DS(G.653), NZDS(G.655), BIF(G.657)                    |
| Cladding diameter    | 80-150μm                                                                    |
| Coating diameter     | 160-3000μm                                                                  |
| Cleaved length       | 8~16mm (coating diameter:250-1000um)                                        |
| Typical splice loss  | SM: 0.02dB; MM: 0.01dB; DS/NZDS/BIF: 0.04dB                                 |
| Return loss          | >60dB                                                                       |
| Splicing program     | Preset 9 splicing modes                                                     |
| Operation mode       | Manual/ Automatic                                                           |
| Auto-heating         | Available                                                                   |
| Typical splice time  | 7 seconds                                                                   |
| Typical heating time | 18 seconds                                                                  |
| Fiber magnification  | 320X                                                                        |
| Viewing display      | 4.3inch high resolution display with touch screen                           |
| Data storage         | 8000 latest records & 1000 images                                           |
| Loss evaluation      | Available                                                                   |
| Tension test         | 1.8~2.25N                                                                   |
| Battery capacity     | 5200mAh Li-battery, 250 cycles splicing and heating                         |
| Power supply         | Adaptor, input: AC100-240V(50/60HZ),output: DC15-19V                        |
| Electrode life       | More than 5000 ARC discharges                                               |
| Terminals            | Type-C, USB 2.0                                                             |
| VFL                  | Visual Fault Locator: Output power 10mw, CW mode and 1Hz/2Hz Flashing mode  |
| Power Meter          | Calibrated Wavelength: 850nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm,1650nm |
| Operating            | Altitude:0-5000m, Humidity:0-95%,Temperature:-20~+50℃; Wind:max 15m/s       |
| Dimension/Weight     | 208x141x104mm / 1486g(with battery)                                         |



## Standard Package

| Name                    | Picture                                                                             | Name               | Picture                                                                               |
|-------------------------|-------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------|
| Fusion Splicer          |    | Power Adapter      |    |
| Fiber Cleaver           |    | Power Plug         |    |
| Fiber Stripper          |    | User Manual        | /                                                                                     |
| Spare Electrodes        |   | Strap              |   |
| Cooling tray            |  | Cleaning Brush     |  |
| Drop Cable Stripper     |  | Working Tray Table |  |
| Certificate/Test Report | /                                                                                   | Alcohol bottle     |  |
| Air blower              |  | Carrying Box       |  |



## GS-401 Fusion Splicer

- 4 motors accurate alignment, Small and light
- 4.3 inch touch screen LCD Monitor
- 7 seconds fast and stable splicing
- Automatic & real-time ARC calibration
- Automatic splicing and heating
- 5200mAh Li-battery, 250 cycles splicing and heating
- Apply to 250μm/0.9mm/2.0mm/3.0mm fibers and SOC

| Items                | Specifications                                                         |
|----------------------|------------------------------------------------------------------------|
| Alignment method     | 4 motors alignment                                                     |
| Applicable fiber     | SM(G.652), MM(G.651), DS(G.653), NZDS(G.655), BIF(G.657)               |
| Cladding diameter    | 80-150μm                                                               |
| Coating diameter     | 160-3000μm                                                             |
| Cleaved length       | 5-16mm ( coating diameter<250μm)<br>16mm (coating diameter:250-3000μm) |
| Typical splice loss  | SM: 0.02dB; MM: 0.01dB; DS/NZDS/BIF: 0.04dB                            |
| Return loss          | >60dB                                                                  |
| Splicing program     | 40 groups                                                              |
| Operation mode       | Manual/ Automatic                                                      |
| Auto-heating         | Available                                                              |
| Typical splice time  | 7 seconds                                                              |
| Typical heating time | 26 seconds for 60mm and 40mm shrinkable sleeves                        |
| Fiber magnification  | 250X(X or Y view), 125X(X and Y view)                                  |
| Viewing display      | Dual high sensitivity camera, 4.3 inch LCD Touch Screen Monitor        |
| Data storage         | 4000 groups data records                                               |
| Loss evaluation      | Available                                                              |
| Tension test         | 1.8~2.25N                                                              |
| Interface            | GUI menu interface, easy for operation                                 |
| Battery capacity     | 5200mAh Li-battery, 250 cycles splicing and heating                    |
| Power supply         | Adaptor, input: AC100-240V(50/60HZ),output: DC11-13.5V                 |
| Electrode life       | More than 4000 ARC discharges, easy to replace                         |
| Terminals            | USB 2.0 port, for software upgrading, records exporting                |
| Operating            | Altitude:0-5000m, Humidity:0-95%,Temperature:-10~+50℃; Wind:max 15m/s  |
| Dimension/Weight     | 149mm(L)×120mm(W)×127mm(H) / 1.90kg (including battery)                |

## Standard Package

| Name                | Picture | Name           | Picture |
|---------------------|---------|----------------|---------|
| Fusion Splicer      |         | Power Adapter  |         |
| Fiber Cleaver       |         | Power Plug     |         |
| Fiber Stripper      |         | User Manual    |         |
| Spare Electrodes    |         | Strap          |         |
| Cooling tray        |         | Cleaning Brush |         |
| Drop Cable Stripper |         | Carrying Box   |         |

## GS-401 Toolkit Customization



### Optional toolkit

|                     |                              |                      |
|---------------------|------------------------------|----------------------|
| 1: GS-401 Splicer   | 3: FHO1000-D28 OTDR          | 5: FHP12 power meter |
| 2: FHO1000-D22 OTDR | 4: MT500 optical power meter | 6: VLS-8 VFL         |
|                     |                              | 7: Alcohol pot       |



## GS-602F Fusion Splicer

- 6 motors core alignment automatic fusion splicer
- 5s fast splicing, 11s overspeed heating
- With VFL and power meter
- 4.3" high resolution lcd touch screen with 380x magnification
- Independently developed new structure heater, compatible with multi-type connectors
- Multi-gear adjustable handle, convenient for multi-scene operation
- Independent R&D of integrated mechanical core module

| Items                | Specifications                                                                                                                          |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Alignment method     | 6 motors core alignment                                                                                                                 |
| Applicable fiber     | SM(G.652), MM(G.651), DS(G.653), NZDS(G.655), BIF(G.657)                                                                                |
| Cladding diameter    | 80-150μm                                                                                                                                |
| Coating diameter     | 160-3000μm                                                                                                                              |
| Cleaved length       | 8~16mm (coating diameter:250-1000um)                                                                                                    |
| Typical splice loss  | SM: 0.02dB; MM: 0.01dB; DS/NZDS/BIF: 0.04dB                                                                                             |
| Return loss          | >60dB                                                                                                                                   |
| Splicing program     | Preset 41 splicing modes                                                                                                                |
| Operation mode       | Manual/ Automatic                                                                                                                       |
| Auto-heating         | Available                                                                                                                               |
| Typical splice time  | 5 seconds                                                                                                                               |
| Typical heating time | 11 seconds                                                                                                                              |
| Fiber magnification  | 380X                                                                                                                                    |
| Viewing display      | 4.3inch high resolution display with touch screen                                                                                       |
| Data storage         | 20000 latest records & 200 images                                                                                                       |
| Loss evaluation      | Available                                                                                                                               |
| Tension test         | 1.8~2.25N                                                                                                                               |
| Battery capacity     | 7200mAh Li-battery, 320 cycles splicing and heating                                                                                     |
| Power supply         | AC input 100-240V, DC input12-15V                                                                                                       |
| Electrode life       | More than 5000 ARC discharges                                                                                                           |
| Terminals            | USB 2.0, Mini USB                                                                                                                       |
| VFL                  | Visual Fault Locator: Output power 15mw, CW mode and 2Hz Flashing mode                                                                  |
| Power Meter          | Calibrated Wavelength: 850nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm<br>Measuring Range:-50~+26dBm; Absolute error:<0.3dB(-50dBm~+3dBm) |
| Operating            | Altitude:0-5000m, Humidity:0-95%,Temperature:-20~+50℃; Wind:max 15m/s                                                                   |
| Dimension/Weight     | 135.1Wx205.9Lx130.4mm / 2.0kg (including battery)                                                                                       |



## Standard Package

| Name                | Picture                                                                             | Name                    | Picture                                                                               |
|---------------------|-------------------------------------------------------------------------------------|-------------------------|---------------------------------------------------------------------------------------|
| Fusion Splicer      |    | Power Adapter           |    |
| Fiber Cleaver       |    | Power Plug              |    |
| Fiber Stripper      |    | Certificate/Test Report | /                                                                                     |
| Spare Electrodes    |   | Strap                   |   |
| Cooling tray        |  | Cleaning Brush          |  |
| Drop Cable Stripper |  | Carrying Box            |  |

## Multi functional carrying case





## GS-601 Fusion Splicer

- 6 motors accurate real core to core alignment
- 5 inch high resolution color touch screen
- 6 seconds splicing & 18 seconds heating
- Automatic & real-time ARC calibration
- Industrial quad-core CPU with 30% power saving
- Anti-shock, anti-vibration, dustproof & waterproof
- Apply to 250μm/0.9mm/2.0mm/3.0mm fibers and SOC

| Items                | Specifications                                                        |
|----------------------|-----------------------------------------------------------------------|
| Alignment method     | 6 motors core to core alignment                                       |
| Applicable fiber     | SM(G.652), MM(G.651), DS(G.653), NZDS(G.655), BIF(G.657)              |
| Cladding diameter    | 80-150μm                                                              |
| Coating diameter     | 160-3000μm                                                            |
| Cleaved length       | 5-16mm (coating diameter<250μm)<br>16mm (coating diameter:250-3000μm) |
| Typical splice loss  | SM: 0.02dB; MM: 0.01dB; DS/NZDS/BIF: 0.04dB                           |
| Return loss          | >60dB                                                                 |
| Splicing program     | 40 groups                                                             |
| Operation mode       | Manual/ Automatic                                                     |
| Auto-heating         | Available                                                             |
| Typical splice time  | 6 seconds                                                             |
| Typical heating time | 18 seconds for 60mm and 40mm shrinkable sleeves                       |
| Fiber magnification  | 250X(X or Y view), 125X(X and Y view)                                 |
| Viewing display      | Dual high sensitivity camera, 5 inch 800*480 LCD Touch Screen Monitor |
| Data storage         | 4000 groups data records                                              |
| Loss evaluation      | Available                                                             |
| Tension test         | 1.8~2.25N                                                             |
| Interface            | GUI menu interface, easy for operation                                |
| Battery capacity     | 5200mAh Li-battery, 250 cycles splicing and heating                   |
| Power supply         | Adaptor, input: AC100-240V(50/60HZ),output: DC11-13.5V                |
| Electrode life       | More than 4000 ARC discharges, easy to replace                        |
| Terminals            | USB 2.0 port, for software upgrading, records exporting               |
| Operating            | Altitude:0-5000m, Humidity:0-95%,Temperature:-10~+50℃; Wind:max 15m/s |
| Dimension/Weight     | 156mm(L)×141mm(W)×156mm(H) / 2.45kg (including battery)               |





## Standard Package

| Name                | Picture | Name           | Picture |
|---------------------|---------|----------------|---------|
| Fusion Splicer      |         | Power Adapter  |         |
| Fiber Cleaver       |         | Power Plug     |         |
| Fiber Stripper      |         | User Manual    |         |
| Spare Electrodes    |         | Strap          |         |
| Cooling tray        |         | Cleaning Brush |         |
| Drop Cable Stripper |         | Carrying Box   |         |

## GS-601 Toolkit Customization



### Optional toolkit

|                     |                              |                      |
|---------------------|------------------------------|----------------------|
| 1: GS-601 Splicer   | 3: FHO1000-D28 OTDR          | 5: FHP12 power meter |
| 2: FHO1000-D22 OTDR | 4: MT500 optical power meter | 6: VLS-8 VFL         |
|                     |                              | 7: Alcohol pot       |





## GS-901 Ribbon Fiber Splicer

- Applicable to 2~12 ribbon fiber splicing
- 5 inch high resolution color touch screen
- 20s splicing time, heating 1~2 fiber is 26s and 4~12 ribbon fiber is 40s
- Support 10000 groups fusion records and 200 fusion images
- Ruggedized body, waterproof, anti-dust, anti-shock
- Pluggable 5200mAh Li-battery, support separate charging

| Items                | Specifications                                                        |
|----------------------|-----------------------------------------------------------------------|
| Alignment method     | Clad to clad                                                          |
| Applicable fiber     | SM(G.652), MM(G.651), DS(G.653), NZDS(G.655)                          |
| Fiber cores quantity | Single core, 2-12 cores                                               |
| Coating diameter     | 250~400μm                                                             |
| Typical splice loss  | SM: 0.05dB; MM: 0.02dB; DS: 0.08dB; NZDS: 0.08dB                      |
| Return loss          | >60dB                                                                 |
| Splicing program     | 40 groups                                                             |
| Operation mode       | Manual/ Automatic                                                     |
| Auto-heating         | Available                                                             |
| Typical splice time  | 20 seconds                                                            |
| Typical heating time | 1~2 cores 26 seconds, 4~12 cores 40 seconds                           |
| Fiber magnification  | 25X                                                                   |
| Viewing display      | Dual high sensitivity camera, 5 inch 800*480 LCD Touch Screen Monitor |
| Data storage         | 10000 groups data records and 200 groups images                       |
| Loss evaluation      | Available                                                             |
| Tension test         | 1.8~2.2N                                                              |
| Interface            | GUI menu interface, easy for operation                                |
| Battery capacity     | 5200mAh Li-battery, 150 cycles splicing and heating                   |
| Power supply         | Adaptor, input: AC100-240V(50/60HZ),output: DC11-13.5V                |
| Electrode life       | More than 3000 ARC discharges, easy to replace                        |
| Terminals            | USB 2.0 port, for software upgrading, records exporting               |
| Operating            | Altitude:0-5000m, Humidity:0-95%,Temperature:-10~+50℃; Wind:max 15m/s |
| Dimension/Weight     | 155mm(L)×144mm(W)×155mm(H) / 2.3kg (including battery)                |



## Standard Package

| Name                 | Picture                                                                             | Name           | Picture                                                                               |
|----------------------|-------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------|
| Ribbon Fiber Splicer |    | Power Adapter  |    |
| Fiber Cleaver        |    | Power Plug     |    |
| Heating Stripper     |   | User Manual    |   |
| Spare Electrodes     |  | Strap          |  |
| Cooling tray         |  | Cleaning Brush |  |
| R-12 Fiber holder    |  | Carrying Box   |  |



### GW-550 Fiber Cleaver

- True one action cutting optical fiber cleaver with just one push
- Tungsten steel blade, high hardness, good wear resistance
- 24 cutting blade surface, supporting 48,000 times fiber cutting
- Multi function fiber holder, suitable for 250μm bare fiber, 900μm, 2~3mm patchcord and drop cable
- 0.5° precision cutting angle, precision CNC machining technology

| Items                     | Specifications                                       |                                     |
|---------------------------|------------------------------------------------------|-------------------------------------|
| Model                     | GW-550                                               | GW-550A                             |
| Blade Auto Rotate         | Not support                                          | Support<br>Cut once and rotate once |
| Fiber Type                | Silicon fiber                                        |                                     |
| Fiber Count               | Single                                               |                                     |
| Bare Fiber Diameter       | 125μm                                                |                                     |
| Coating Diameter          | 160~900μm, 2mm/3mm and drop cable                    |                                     |
| Cleaving Angle            | ≤0.5°                                                |                                     |
| Cleaving Length           | 10~20mm                                              |                                     |
| Adjustable Blade Position | 3 heights and 24 surfaces                            |                                     |
| Blade Life                | 48000 times                                          |                                     |
| Dimension                 | 76mm×87mm×46mm(including waste fiber collection box) |                                     |
| Weight                    | 208g                                                 |                                     |



## GW-650 Fiber Cleaver

- Metal material, support blade automatic rebound function
- Tungsten steel blade, high hardness, good wear resistance
- 24 cutting blade surface, supporting 48,000 times fiber cutting
- Multi function fiber holder, suitable for 250μm bare fiber, 900μm, 2~3mm patchcord and drop cable
- 0.5 ° precision cutting angle, precision CNC machining technology

| Items                     | Specifications                    |
|---------------------------|-----------------------------------|
| Fiber Type                | Silicon fiber                     |
| Fiber Count               | Single                            |
| Bare Fiber Diameter       | 125μm                             |
| Coating Diameter          | 160~900μm, 2mm/3mm and drop cable |
| Cleaving Angle            | ≤0.5°                             |
| Cleaving Length           | 5~20mm                            |
| Adjustable Blade Position | 3 heights and 24 surfaces         |
| Blade Life                | 48000 times                       |
| Dimension                 | 65(W)×78(D)×62(H)mm               |
| Weight                    | 335g                              |



## GW-750 Fiber Cleaver

- One action to complete fiber cutting
- High cutting accuracy
- Equipped with multi-function fiber holder, suitable for various types of optical fiber
- Support blade automatic rebound function
- Equipped with residual fiber collection box

| Items                     | Specifications                                         |
|---------------------------|--------------------------------------------------------|
| Fiber Type                | Silicon fiber                                          |
| Fiber Count               | Single                                                 |
| Bare Fiber Diameter       | 125μm                                                  |
| Coating Diameter          | 160~900μm, 2mm/3mm and drop cable                      |
| Cleaving Angle            | ≤0.5°                                                  |
| Cleaving Length           | 5~20mm                                                 |
| Adjustable Blade Position | 3 heights and 16 surfaces                              |
| Blade Life                | 48000 times (1000 fibers×16 surfaces×3 heights)        |
| Dimension                 | 63W×69D×58H mm (without residual fiber collection box) |
| Weight                    | 360g                                                   |



## GW-850 Fiber Cleaver

- High cutting accuracy
- Equipped with multi-function fiber holder, suitable for various types of optical fiber
- Mini shape and durable
- Surface oxidation process

| Items                     | Specifications                                  |
|---------------------------|-------------------------------------------------|
| Fiber Type                | Silicon fiber                                   |
| Fiber Count               | Single                                          |
| Bare Fiber Diameter       | 125μm                                           |
| Coating Diameter          | 160~900μm, 2mm/3mm and drop cable               |
| Cleaving Angle            | ≤0.8°                                           |
| Cleaving Length           | 5~20mm                                          |
| Adjustable Blade Position | 3 heights and 16 surfaces                       |
| Blade Life                | 48000 times (1000 fibers×16 surfaces×3 heights) |
| Dimension                 | 58W×55D×55H mm                                  |
| Weight                    | 280g                                            |



## FCA-18 CWDM Optical Power Meter

- Applicable to the opening and maintenance test of 5G front-haul/CWDM transmission system
- Supporting 1271~1611nm 18 channel optical power test
- Simple operation and visual display
- 10 groups of threshold values can be set to judge pass/fail
- View the results in the form of histogram or table

| Items                 | Specifications                          |
|-----------------------|-----------------------------------------|
| Detector Type         | InGaAs                                  |
| Fiber Type            | SM fiber                                |
| Calibrated Wavelength | 1271~1611nm                             |
| Test Range            | -40~+10dBm                              |
| Number Of Channels    | 18                                      |
| Channel Spacing       | 20nm                                    |
| Accuracy              | ±1dB                                    |
| Display Resolution    | 0.01dB                                  |
| Isolation             | >25dB                                   |
| Threshold Setting     | 10 groups                               |
| Insertion Loss        | <1.5dB                                  |
| Data Storage          | 500 groups                              |
| Interface             | Optical port: FC/UPC                    |
|                       | Charging port: USB Type-C               |
|                       | Wireless interface: Bluetooth           |
| Battery working time  | Battery life in standby mode > 48 hours |
| Working Temp          | -10℃~+60℃                               |
| Humidity              | 0~90% (Non condensing)                  |
| Dimension             | 195L×141W×44H(mm)                       |
| Weight                | 0.8kg                                   |

| Model   | Number Of Testing Port | Support Online Testing |
|---------|------------------------|------------------------|
| FCA-18A | Dual Optical Port      | Yes                    |
| FCA-18B | Single Optical Port    | No                     |





## FCA-20 5G Fronthaul Analyzer

- Applicable to the opening and maintenance test of 5G front-haul/CWDM transmission system
- Supporting 1271~1611nm 18 channel optical power test
- Ultra short deadzone to accurately locate the optical fiber link faults from DU to WDM, WDM to WDM, and WDM to AAU
- Serial connection test by dual optical port, which does not affect the online service
- Bluetooth function, supporting on-site test cloud docking

| Items                           | Specifications                                                                         |
|---------------------------------|----------------------------------------------------------------------------------------|
| <b>CWDM Optical Power Meter</b> |                                                                                        |
| Detector Type                   | InGaAs                                                                                 |
| Fiber Type                      | SM fiber                                                                               |
| Calibrated Wavelength           | 1271~1611nm                                                                            |
| Test Range                      | -40~+10dBm                                                                             |
| Number Of Channels              | 18                                                                                     |
| Channel Spacing                 | 20nm                                                                                   |
| Accuracy                        | ±1dB                                                                                   |
| Display Resolution              | 0.01dB                                                                                 |
| Isolation                       | >25dB                                                                                  |
| Threshold Setting               | 10 groups                                                                              |
| Insertion Loss                  | <1.5dB                                                                                 |
| Data Storage                    | 500 groups                                                                             |
| <b>OTDR</b>                     |                                                                                        |
| Fiber Type                      | SMF (ITU-T G.652)                                                                      |
| Wavelength                      | 1650nm±5nm                                                                             |
| Dynamic Range                   | 24dB                                                                                   |
| Distance Range                  | 1km, 2km, 5km, 10km, 20km, 40km, 80km                                                  |
| Pulse Width                     | 3ns/5ns/10ns/30ns/50ns/100ns/275ns/500ns/1us/10us/20us                                 |
| Dead-zone                       | Event dead-zone≤1m; Attenuation dead-zone≤4m                                           |
| IOR Setting                     | 1.30000~1.70000                                                                        |
| Sampling Points                 | 64000                                                                                  |
| Sampling Resolution             | 0.05m (1km)                                                                            |
| Distance Accuracy               | ±(1m+Test distance×3×10 <sup>-5</sup> +Sampling resolution)(excluding IOR uncertainty) |
| Loss Accuracy                   | 0.1dB                                                                                  |
| Linearity                       | 0.1dB                                                                                  |
| Reflectance Accuracy            | ±2dB                                                                                   |



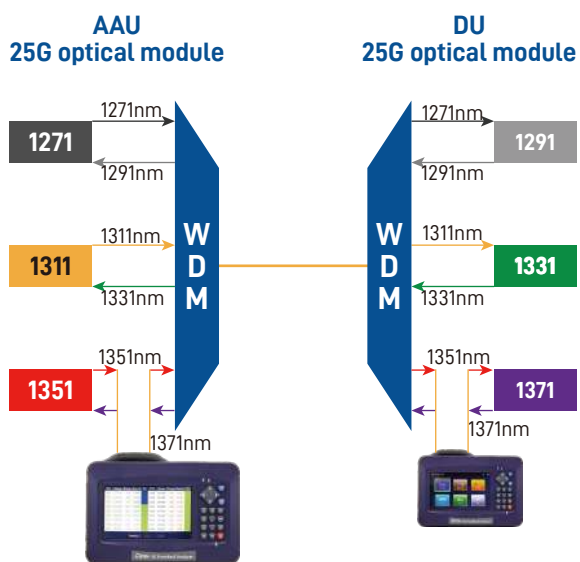
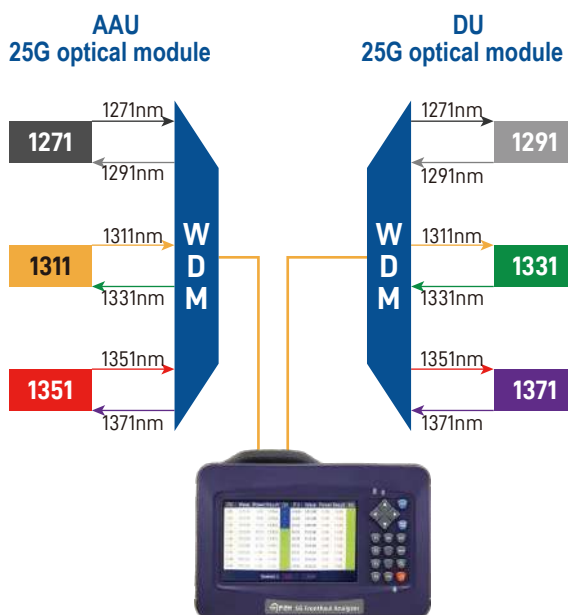
| Stable Laser Source |                                                   |
|---------------------|---------------------------------------------------|
| Wavelength          | 1650nm±5nm                                        |
| Output Power        | >-12dBm                                           |
| Working Mode        | CW/270Hz/1kHz/2kHz                                |
| VFL                 |                                                   |
| Wavelength          | 650±10nm                                          |
| Output Power        | 10mW                                              |
| Working Mode        | CW/1Hz/2Hz                                        |
| Others              |                                                   |
| Interface           | Optical port: FC/UPC×2                            |
|                     | Charging port: USB Type-C                         |
|                     | Wireless interface: Bluetooth                     |
| Data Storage        | Pluggable micro SD card                           |
| Battery             | ≥6700mAh, Battery life in standby mode > 48 hours |
| Working Temp        | -10℃~+60℃                                         |
| Humidity            | 0~90% (Non condensing)                            |
| Dimension           | 195L×141W×44H (mm)                                |
| Weight              | 0.8kg                                             |

## WDM to WDM:

trunk line series connection test 18 channels optical power and OTDR fiber link analysis

## AAU-WDM,DU-WDM:

branch line series connection test single channel optical power and OTDR fiber link





## FCA-30 5G Fronthaul Analyzer

- Applicable to the opening and maintenance test of 5G front-haul/CWDM transmission system
- Supporting 1271~1611nm 18 channel optical power level testing
- Supporting 1271~1611nm 18 channel OTDR test to pass through WDM
- Ultra short deadzone to accurately measure total optical fiber link from DU to AAU
- Serial connection test by dual optical port, which does not affect the online service
- Bluetooth function, supporting on-site test data cloud docking

| Items                           | Specifications |
|---------------------------------|----------------|
| <b>CWDM Optical Power Meter</b> |                |
| Detector Type                   | InGaAs         |
| Fiber Type                      | SM fiber       |
| Calibrated Wavelength           | 1271~1611nm    |
| Test Range                      | -40~+10dBm     |
| Number Of Channels              | 18             |
| Channel Spacing                 | 20nm           |
| Accuracy                        | ±1dB           |
| Display Resolution              | 0.01dB         |
| Isolation                       | >25dB          |
| Threshold Setting               | 10 groups      |
| Insertion Loss                  | <1.5dB         |
| Data Storage                    | 500 groups     |



| CWDM OTDR             |                                                                                                                                                |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Fiber Type            | SMF (ITU-T G.652)                                                                                                                              |
| Wavelength            | 1271nm, 1291nm, 1311nm, 1331nm, 1351nm, 1371nm, 1391nm, 1411nm, 1431nm, 1451nm, 1471nm, 1491nm, 1511nm, 1531nm, 1551nm, 1571nm, 1591nm, 1611nm |
| Wavelength Channel    | 18 channels                                                                                                                                    |
| Dynamic Range         | 38dB                                                                                                                                           |
| Distance Range        | 1km, 2km, 5km, 10km, 20km, 40km, 80km                                                                                                          |
| Pulse Width           | 3ns/5ns/10ns/30ns/50ns/100ns/275ns/500ns/1us/10us/20us                                                                                         |
| Event dead-zone       | ≤1m                                                                                                                                            |
| Attenuation dead-zone | ≤4m                                                                                                                                            |
| IOR Setting           | 1.30000~1.70000                                                                                                                                |
| Sampling Points       | 64000                                                                                                                                          |
| Sampling Resolution   | 0.05m (1km)                                                                                                                                    |
| Distance Accuracy     | $\pm(1m + \text{Test distance} \times 3 \times 10^{-5} + \text{Sampling resolution})$ (excluding IOR uncertainty)                              |
| Loss Accuracy         | 0.1dB                                                                                                                                          |
| Linearity             | 0.1dB                                                                                                                                          |
| Reflectance Accuracy  | ±2dB                                                                                                                                           |
| Others                |                                                                                                                                                |
| Interface             | Optical port: FC/UPC×2                                                                                                                         |
|                       | Charging port: USB Type-C                                                                                                                      |
|                       | Wireless interface: Bluetooth                                                                                                                  |
| Data Storage          | 16GB micro SD card                                                                                                                             |
| Battery               | Two 5000mAh lithium batteries                                                                                                                  |
| Working Temp          | -10℃~+60℃                                                                                                                                      |
| Humidity              | 0~90% (Non condensing)                                                                                                                         |
| Dimension             | 286×190×80mm                                                                                                                                   |
| Weight                | 2.5kg                                                                                                                                          |



## MT500 Series Power Meter

- High performance imported optical detector
- Multifunctional integration (optical power meter, VFL, RJ45 cable test, flashlight)
- Low power consumption, continuous working for more than 80 hours
- Multi unit display dBm/dB/Mw
- Power saving function
- USB interface charging
- Ergonomic design, mini and small, easy to carry
- Support self calibration function

| Items                            | Specifications                                                                                    |
|----------------------------------|---------------------------------------------------------------------------------------------------|
| <b>OPM</b>                       |                                                                                                   |
| Detector Type                    | InGaAs                                                                                            |
| Working Wavelength               | 800nm~1700nm                                                                                      |
| Display Resolution               | 0.01dBm                                                                                           |
| Frequency Identification         | 270Hz/330Hz/1kHz/2kHz                                                                             |
| Optical Port                     | 2.5mm universal FC/SC/ST                                                                          |
| Self Calibration                 | Support                                                                                           |
| <b>VFL</b>                       |                                                                                                   |
| Working Wavelength               | 650nm±30nm                                                                                        |
| Output Power                     | MT500-A2、MT500-B2、MT500-A2-C、MT500-B2-C: 2mW<br>MT500-A10、MT500-B10、MT500-A10-C、MT500-B10-C: 10mW |
| Output Mode                      | CW/1Hz/2Hz                                                                                        |
| Optical Port                     | 2.5mm universal FC/SC/ST                                                                          |
| <b>Others</b>                    |                                                                                                   |
| Battery<br>(3 versions optional) | 1) 3pcs AAA dry battery                                                                           |
|                                  | 2) 3pcs AAA Ni-MH rechargeable battery                                                            |
|                                  | 3) Lithium battery                                                                                |
| Data Storage                     | 50 groups test data                                                                               |
| TWIN Function                    | Auto wavelength recognition when working with FHS2 series laser source                            |
| Auto Power-off                   | 10 minutes                                                                                        |
| Working Temp                     | -10℃~+50℃                                                                                         |
| Storage Temp                     | -25℃~+70℃                                                                                         |
| Humidity                         | 0~95% (No condensation)                                                                           |
| Dimension                        | 104L×67W×28Hmm                                                                                    |
| Weight                           | 140g                                                                                              |

| Model                   | USB Charge  | Test Range    | Calibrated Wavelength                   | Accuracy |
|-------------------------|-------------|---------------|-----------------------------------------|----------|
| MT500-A2, MT500-A10     | Not support | -70dBm~+6dBm  | 850/1300/1310/1490/1550/1625<br>/1650nm | ±0.35dB  |
| MT500-A2-C, MT500-A10-C | support     |               |                                         |          |
| MT500-B2, MT500-B10     | Not support | -50dBm~+26dBm |                                         |          |
| MT500-B2-C, MT500-B10-C | support     |               |                                         |          |



## FHP12 Series Mini Power Meter

- 2.5mm universal optical port
- Low power consumption, continuous use for 100 hours
- With backlight function
- Battery power display
- Compact and portable design

| Items                   | Specifications                               |                                           |
|-------------------------|----------------------------------------------|-------------------------------------------|
|                         | FHP12-A                                      | FHP12-B                                   |
| Sensor Type             | InGaAs                                       |                                           |
| Working Wavelength      | 800~1700nm                                   |                                           |
| Calibrated Wavelength   | 850/1300/1310/1550/1490/1625nm               |                                           |
| Test Range              | +10~-60dBm@850nm                             | +26~-40dBm@850nm                          |
|                         | +10~-65dBm<br>@1300/1310/1550/1490/1625nm    | +26~-45dBm<br>@1300/1310/1550/1490/1625nm |
| Resolution              | 0.01dB                                       |                                           |
| Accuracy                | ±0.35dB                                      |                                           |
| Continuous Working Time | About 100 hours                              |                                           |
| Power Supply            | 2*AAA dry battery                            |                                           |
| Working Temp            | -10℃~+50℃                                    |                                           |
| Storage Temp            | -20℃~+70℃                                    |                                           |
| Dimension/Weight        | 120L×33W×30H mm / about 70g                  |                                           |
| Accessories             | 2*AAA dry battery, Quick guide, Carrying bag |                                           |



## FHP1 Series Power Meter

- Integrated with high performance optical detector
- Support auto power off
- With backlight function
- Compact and portable design
- Support reference value setting

| Items                 | Specifications                                                           |            |
|-----------------------|--------------------------------------------------------------------------|------------|
|                       | FHP-1A02                                                                 | FHP-1B02   |
| Sensor Type           | InGaAs                                                                   |            |
| Connector             | FC/PC                                                                    |            |
| Working Wavelength    | 800~1700nm                                                               |            |
| Calibrated Wavelength | 850/1300/1310/1550/1490/1625/1650nm                                      |            |
| Test Range            | -60~+3dBm                                                                | -40~+23dBm |
| Resolution            | 0.01dB                                                                   |            |
| Accuracy              | ±0.35dB                                                                  |            |
| Power Supply          | 4*AAA dry battery                                                        |            |
| Working Temp          | -10℃~+50℃                                                                |            |
| Storage Temp          | -20℃~+70℃                                                                |            |
| Dimension/Weight      | 115L×62W×30H mm / about 140g                                             |            |
| Accessories           | FC/PC adapter, 4*AAA dry battery, Quick guide, Test report, Carrying bag |            |





## FHP2 Series Power Meter

- Integrated with high performance optical sensor
- Auto wavelength recognition with FHS2 series laser source
- High accuracy and stability
- 999 group data storage function
- USB Type-C charging/data port, 2pcs 2500mAh AA rechargeable batteries
- With computer software to export data and make reports
- VFL and bluetooth is optional

| Items                           | Specifications                                                                                                                                  |                       |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|                                 | FHP2A04                                                                                                                                         | FHP2B04               |
| Sensor Type                     | InGaAs                                                                                                                                          |                       |
| Working Wavelength              | 800~1700nm                                                                                                                                      |                       |
| Calibrated Wavelength           | Standard: 850/1300/1310/1490/1550/1625nm<br>Optional: 980nm/1270nm/1577nm/1650nm,etc<br>(Please contact sales for other customized wavelengths) |                       |
| Test Range                      | -70~+10dBm                                                                                                                                      | -50~+26dBm            |
| Accuracy                        | ±0.2dB                                                                                                                                          |                       |
| Resolution                      | 0.01                                                                                                                                            |                       |
| Frequency Detection             | 270Hz/330Hz/1kHz/2kHz                                                                                                                           |                       |
| Recognizable Wavelength         | 850/1300/1310/1490/1550/1625nm *(with FHS2 series laser source)                                                                                 |                       |
| Frequency Identification Range  | -40dbm~-+10dBm@1550nm                                                                                                                           | -20dBm~-+26dBm@1550nm |
| Wavelength Identification Range | -40dbm~-+10dBm@1550nm                                                                                                                           | -20dBm~-+26dBm@1550nm |
| Unit display                    | dBm/dB/mw                                                                                                                                       |                       |
| VFL(Optional)                   | Working wavelength: 650±10nm<br>Output power: 10mw; Working mode: CW/2Hz                                                                        |                       |
| Bluetooth(Optional)             | Can be connected with Android mobile phone software through Bluetooth                                                                           |                       |
| Memory Capacity                 | 999 groups (can be transferred to PC software and generate report)                                                                              |                       |
| USB Port                        | TYPE-C charging/data port                                                                                                                       |                       |
| Power Supply                    | 2* Ni-MH AA battery<br>Input: AC100~240V, 50/60Hz Output: DC5V/1A                                                                               |                       |
| Working Temp                    | -10℃~-+50℃                                                                                                                                      |                       |
| Storage Temp                    | -20℃~-+70℃                                                                                                                                      |                       |
| Dimension/Weight                | 160L×76W×45H(mm) / 265g                                                                                                                         |                       |
| Accessories                     | 2*Ni-MH AA battery, FC adapter, SC adapter, Power adapter, USB cable, Test report, Quick guide, Carrying bag                                    |                       |



## VLS-6 Series Pen Type VFL

- Stable luminescence and strong red laser source
- 2.5mm universal optical port (FC/SC/ST)
- Max 30km test range
- CW/2Hz output mode
- Suitable for SM/MM fiber
- Small, portable and long working hours

| Items              | Specifications                                                    |            |            |            |            |
|--------------------|-------------------------------------------------------------------|------------|------------|------------|------------|
| Model              | VLS-6-1                                                           | VLS-6-10   | VLS-6-15   | VLS-6-20   | VLS-6-30   |
| Laser Safety Level | Class IIIA                                                        | Class IIIB | Class IIIB | Class IIIB | Class IIIB |
| Laser Type         | LD                                                                |            |            |            |            |
| Output Power       | >1mw                                                              | >10mw      | >15mw      | >20mw      | >30mw      |
| Test Range         | 3~5km                                                             | 8~10km     | 10~15km    | 15~20km    | 20~30km    |
| Optical port       | 2.5mm universal optical port (FC/SC/ST)                           |            |            |            |            |
| Working Wavelength | 650±10nm                                                          |            |            |            |            |
| Output Mode        | CW/2Hz                                                            |            |            |            |            |
| Power Supply       | 2*AA alkaline battery                                             |            |            |            |            |
| Working Temp       | -10℃~+50℃                                                         |            |            |            |            |
| Storage Temp       | -20℃~+70℃                                                         |            |            |            |            |
| Dimension          | 175L×26W×26Hmm                                                    |            |            |            |            |
| Weight             | 173g                                                              |            |            |            |            |
| Accessories        | Pen type VFL*1, AA alkaline battery*2, Black bag*1, Manual card*1 |            |            |            |            |



## VLS-8 Series Mini VFL

- 2.5mm universal adapter (FC/SC/ST)
- Max 15km test range
- CW/2Hz output
- Suitable for SM/MM fiber
- Small and portable

| Items               | Specifications                               |            |            |            |
|---------------------|----------------------------------------------|------------|------------|------------|
|                     | VLS-8-1                                      | VLS-8-10   | VLS-8-15   | VLS-8-30   |
| Laser Type          | LD                                           |            |            |            |
| Laser Safety Level  | CLASS IIIA                                   | CLASS IIIB | CLASS IIIB | CLASS IIIB |
| Output Power        | ≥1mW                                         | ≥10mW      | ≥15mW      | ≥30mW      |
| Test Range          | About 5km                                    | About 12km | About 14km | About 15km |
| Connector           | Universal 2.5mm                              |            |            |            |
| Wavelength          | 650nm ± 10nm                                 |            |            |            |
| Modulated Frequency | CW / 2Hz                                     |            |            |            |
| Power Supply        | 2*AAA dry battery                            |            |            |            |
| Working Temp        | -10℃~+50℃                                    |            |            |            |
| Storage Temp        | -20℃~+70℃                                    |            |            |            |
| Dimension/Weight    | 120L×33W×30H mm / about 67.8g                |            |            |            |
| Accessories         | 2*AAA dry battery, Quick guide, Carrying bag |            |            |            |



## FHS1 Series Laser Source

- Both single mode and multiple mode laser are available
- Single output interface
- Rugged and portable
- Auto power-off function
- Support CW, 270Hz, 1kHz and 2kHz mode output

| Items              | Specifications                                                           |                      |
|--------------------|--------------------------------------------------------------------------|----------------------|
|                    | FHS1D02                                                                  | FHS1D03              |
| Output Wavelength  | 1310nm & 1550nm                                                          | 850nm & 1300nm       |
| Emitter Type       | LD                                                                       |                      |
| Connector          | FC/PC                                                                    |                      |
| Output Stability   | Short Term (15minutes): <0.1dB                                           |                      |
|                    | Long Term (5 Hours or above): <0.2dB                                     |                      |
| Central Wavelength | 1310±20nm & 1550±20nm                                                    | 850±10nm & 1300±20nm |
| Spectral Width     | 5nm                                                                      |                      |
| Output Frequency   | 270Hz, 1KHz, 2KHz                                                        |                      |
| Output Power       | -5dBm(Typical)                                                           |                      |
| Accuracy           | ±1dB                                                                     |                      |
| Auto Power-off     | Yes                                                                      |                      |
| Back-Light         | Yes                                                                      |                      |
| Working Temp       | -10 to +50℃                                                              |                      |
| Storage Temp       | -20 to +70℃                                                              |                      |
| Power Supply       | 4*AAA dry battery                                                        |                      |
| Dimension/Weight   | 115L×65W×30H(mm)/140g                                                    |                      |
| Accessories        | FC/PC adapter, 4*AAA dry battery, Carrying bag, Test report, Quick guide |                      |



## FHS2 Series Laser Source

- Both single mode and multiple mode laser are available
- With FHP2 series power meter, automatic wavelength identification can be realized
- Stable output laser, rugged and portable
- Auto power-off function
- Support CW, 270Hz, 1kHz and 2kHz mode output

| Items      |                              | Specifications |          |          |          |          |
|------------|------------------------------|----------------|----------|----------|----------|----------|
|            |                              | FHS2D02        | FHS2D02F | FHS2T01F | FHS2Q01F | FHS2Q02F |
| Wavelength | 1310/1550nm                  | √              | √        |          |          |          |
|            | 1310/1490/1550nm             |                |          | √        |          |          |
|            | 850/1300/1310/1550nm         |                |          |          | √        |          |
|            | 1310/1550/1490/1625nm        |                |          |          |          | √        |
| Others     | Spectral Width               | 5nm            |          |          |          |          |
|            | Output Power                 | -5dBm(Typical) |          |          |          |          |
|            | Output Adjustable Range      | ±3dB           | -        | -        | -        | -        |
|            | 270/1k/2kHz output frequency | √              | √        | √        | √        | √        |
|            | Auto wavelength recognition  | √              | √        | √        | √        | √        |

|                  |                                                                                                                                |
|------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Laser type       | FP-LD                                                                                                                          |
| Output Stability | Short Term (15minutes): <0.05dB                                                                                                |
|                  | Long Term (8 hours or above): <0.1dB                                                                                           |
| Power Supply     | 2*Ni-MH AA battery                                                                                                             |
| Working Temp     | -10℃~+50℃                                                                                                                      |
| Storage Temp     | -20℃~+70℃                                                                                                                      |
| Dimension/Weight | 160L×76W×45H(mm) / 260g                                                                                                        |
| Accessories      | 2*Ni-MH AA battery, FC adapter, SC adapter, 3*ceramic sleeves,Power adapter, USB cable, Test report, Quick guide, Carrying bag |
| Customization    | FC/APC, SC/APC, ST/APC                                                                                                         |



## FHM2 Series Optical Multimeter

- Integrated laser source and optical power meter
- Dual or triple wavelength output
- Suitable for fiber or device insertion loss test
- Up to 999 test results storage
- With LCD backlight function and auto power off

| Model                  | Specifications                                                                                                                                |                  |                |                  |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|------------------|
|                        | FHM2A01                                                                                                                                       | FHM2A02          | FHM2B01        | FHM2B02          |
| Laser Source Part (LD) |                                                                                                                                               |                  |                |                  |
| Output Wavelength      | 1310/1550nm                                                                                                                                   | 1310/1490/1550nm | 1310/1550nm    | 1310/1490/1550nm |
| Output Power           | -5dBm(Typical)                                                                                                                                | 0dBm(Typical)    | -5dBm(Typical) | 0dBm(Typical)    |
| Frequency Output       | 270Hz/1kHz/2kHz                                                                                                                               |                  |                |                  |
| Wavelength Recognition | 1310/1550nm                                                                                                                                   | 1310/1490/1550nm | 1310/1550nm    | 1310/1490/1550nm |
| Power Meter Part (PD)  |                                                                                                                                               |                  |                |                  |
| Test Range             | -70~+10dBm                                                                                                                                    |                  | -50~+26dBm     |                  |
| Resolution             | 0.01dB                                                                                                                                        |                  |                |                  |
| Calibrated Wavelength  | 850/1300/1310/1490/1550/1625nm                                                                                                                |                  |                |                  |
| Accuracy               | ±0.2dB                                                                                                                                        |                  |                |                  |
| Frequency Detection    | 270Hz/1kHz/2kHz                                                                                                                               |                  |                |                  |
| Wavelength Detection   | Support                                                                                                                                       |                  |                |                  |
| Memory Capacity        | 999 groups                                                                                                                                    |                  |                |                  |
| Others                 |                                                                                                                                               |                  |                |                  |
| Communication Port     | USB                                                                                                                                           |                  |                |                  |
| Power Supply           | 2* Ni-MH AA battery                                                                                                                           |                  |                |                  |
| Working Temp           | -10℃~-+50℃                                                                                                                                    |                  |                |                  |
| Storage Temp           | -20℃~-+70℃                                                                                                                                    |                  |                |                  |
| Dimension/Weight       | 160L×76W×45H(mm) / 260g                                                                                                                       |                  |                |                  |
| Accessories            | (LD)FC&SC adapter, (PD)FC&SC adapter, 2*Ni-MH AA battery, 3*ceramic sleeves, Power adapter, USB cable, Test report, Quick guide, Carrying bag |                  |                |                  |
| Optional               | (PD) 1.25mm adapter/2.5mm adapter                                                                                                             |                  |                |                  |



## FHA2S02 Optical Attenuator

- Low insertion loss, wide attenuation range
- 0.05dB/1.0dB step attenuation adjust
- 8 sets of common attenuation value setting
- With LCD backlight function and auto power off

| Items                 | Specifications                                                                                                 |
|-----------------------|----------------------------------------------------------------------------------------------------------------|
| Applicable Wavelength | 1310/1550nm                                                                                                    |
| Fiber Type            | SMF 9/125um                                                                                                    |
| Signal Mode           | CW/Modulated                                                                                                   |
| Max Input Power       | +25dBm                                                                                                         |
| Attenuation Range     | 3~60dB                                                                                                         |
| Resolution            | 0.05dB                                                                                                         |
| Return Loss           | >60dB(APC), >50dB(PC)                                                                                          |
| Insertion Loss        | <3dB                                                                                                           |
| Power Supply          | 2* Ni-MH AA battery                                                                                            |
| Working Temp          | -10℃~+50℃                                                                                                      |
| Storage Temp          | -20℃~+70℃                                                                                                      |
| Dimension/Weight      | 160L×76W×45H(mm) / 260g                                                                                        |
| Accessories           | 2*FC/PC adapters, 2*SC/PC adapters, 2* Ni-MH AA battery, Power adapter, Test report, Quick guide, Carrying bag |





## FBS8001 Desktop Laser source



- High stability of output power: 0.005db
- The output power can be adjusted independently
- Good wavelength stability
- High precision APC and ATC circuits
- LCD status display full parameters
- CWDM or DWDM or any other wavelength is optional
- Support 1~4 channel laser source

| Items              | Specifications                               |
|--------------------|----------------------------------------------|
| Output Channel     | 1~4 channels                                 |
| Max Output Power   | 2mw/5mw/10mw/customized                      |
| Wavelength         | 1310nm/1550nm/customized                     |
| Laser Type         | DFB/customized                               |
| Stability          | ±0.005dB(15 mins/10mw, 25°C)                 |
|                    | ±0.025dB(8 hrs/10mw, 25°C )                  |
| Return Loss        | >45dB                                        |
| TEC Stability      | ±0.1°C                                       |
| TEC Working Range  | 20~30°C                                      |
| Optical Interface  | FC/APC (or customized )                      |
| Output Adjustment  | 0.2mw(Coarse), 0.1mw(Fine)                   |
| Communication Port | RS232                                        |
| Display            | 3.5-inch TFT color LCD                       |
| Power Supply       | AC 90~260                                    |
| Temperature        | Working temp: 0~50°C, Storage temp: -40~80°C |
| Dimension/Weight   | 235×380×145mm/about 4kg                      |



## FBP7001 Desktop Power Meter

- Optical power meter can be configured for external probe or panel mounting
- Intelligent alarm and threshold allocation
- Buzzer alarm and font color alarm setting
- PDL function Test
- Spectroscopic ratio, additional loss, uniformity testing function
- English and Chinese configuration function
- Provide RS232 communication function, realize the power monitoring under no one guard, automatically store the data

| Items              | Specifications                              |
|--------------------|---------------------------------------------|
| Wavelength Range   | 850~1700nm                                  |
| Probe Type         | InGaAs                                      |
| Detector Size      | Φ2.0mm                                      |
| Test Range         | +5~-75dBm                                   |
| Linearity          | ±0.04dB(+5~-50dBm)                          |
|                    | ±0.08dB(-50~-60dBm)                         |
| Uncertainty        | ±3%                                         |
| Display Resolution | 0.1/0.01/0.001dB                            |
| Power Supply       | AC 220 (50Hz)                               |
| Temperature        | Working temp: -5~40℃, Storage temp: -25~70℃ |
| Dimension/Weight   | 235×300×96mm/about 5kg                      |



## OFI-3 Fiber Identifier

- Convenient and easy to use
- LED indicator is simple and clear
- Identification of 270/1k/2k Hz modulation frequency
- Direction and intensity indication of optical signal
- Natural light intensity calibration function

| Items            | Specifications                                                                            |
|------------------|-------------------------------------------------------------------------------------------|
| Fiber Adapter    | RB0.25mm, RB0.9mm, RB3.0mm                                                                |
| Wavelength Range | 900~1650nm                                                                                |
| Frequency        | CW/270Hz/1kHz/2kHz                                                                        |
| Sensitivity      | Min -50dBm                                                                                |
| Sensitivity      | 1310nm @ 0.25mm: -20dBm, 0.9mm: -20dBm, 3.0mm: -20dBm                                     |
|                  | 1550nm @ 0.25mm: -30dBm, 0.9mm: -20dBm, 3.0mm: -30dBm                                     |
| Display (LED)    | Signal, Direction, Frequency, Intensity(5 grades), Low battery                            |
| Power Supply     | 2*AA battery                                                                              |
| Working Temp     | -10℃~+50℃                                                                                 |
| Storage Temp     | -20℃~+70℃                                                                                 |
| Dimension/Weight | 202L×62W×38H(mm) / 300g                                                                   |
| Accessories      | 2*AA battery, Adapter(RB0.25mm, RB0.9mm, RB3.0mm), Carrying bag, Quick guide, Test report |



## OFI-5 Optical Fiber Identifier

- Built-in 10 mW VFL function
- Built-in OPM
- Metal gripper, no need to change the adapter
- Low battery monitoring function
- Tone identification, Optical Fiber Identifier can detect optical signals in the tone signal fixed load, 270Hz, 1KHz and 2KHz, to identify a specific optical fiber, can quickly find the necessary fiber

| Items                                                                       | Specifications                    |
|-----------------------------------------------------------------------------|-----------------------------------|
| <b>Identifier</b>                                                           |                                   |
| Detector Type                                                               | 1mm InGaAs                        |
| Working Wavelength                                                          | 800nm~1700nm                      |
| Insertion Loss:<br>1:250um/900um optical fiber<br>2:2.0/3.0mm optical fiber | 1: 1.0dB<br>2: 1.5dB              |
| Application Of Optical Fiber                                                | 250um/900um/2mm/3mm optical fiber |
| Identified Signal Type                                                      | CW/270Hz/1kHz/2kHz                |
| Identification Of Modulated Signals                                         | Yes                               |
| Power Measurement                                                           | Yes                               |
| Display                                                                     | LED color screen                  |
| Tone                                                                        | Yes                               |
| Low Power Monitoring                                                        | Yes                               |
| <b>OPM</b>                                                                  |                                   |
| Working Wavelength                                                          | 800~1700nm                        |
| Calibrated Wavelength                                                       | 850/1300/1310/1490/1550/1625nm    |
| Measurement Range                                                           | -50~+26dBm                        |
| Optical Port                                                                | 2.5mm universal connector         |
| <b>VFL</b>                                                                  |                                   |
| Working Wavelength                                                          | 650nm±10nm                        |
| Output Power                                                                | 10mw                              |
| Optical Port                                                                | 2.5mm universal connector         |
| <b>Others</b>                                                               |                                   |
| Power Supply                                                                | 2*AA 1.5V alkaline battery        |
| Working Temp                                                                | -10℃~+50℃                         |
| Storage Temp                                                                | -20℃~+70℃                         |
| Dimension                                                                   | 230L×43W×36Hmm                    |
| Weight                                                                      | 200g                              |



## OFI-8 Optical Fiber Identifier

- There is no need to interrupt service during online test, no damage to the fiber
- Identify 270Hz, 1kHz, 2kHz modulation signals with beep sounds
- Four in one universal adapter, no need to replace during on-line test (0.25/0.9/2/3mm fiber)
- Can detect the direction and power of online optical signals
- Built-in 650mAh rechargeable battery
- Support VFL and flashlight function

| Items                        | Specifications                                        |
|------------------------------|-------------------------------------------------------|
| <b>Identifier</b>            |                                                       |
| Detector Type                | 1mm InGaAs                                            |
| Working Wavelength           | 800nm~1700nm                                          |
| Application Of Optical Fiber | 250um/900um/2mm/3mm optical fiber                     |
| Identified Signal Type       | CW/270Hz/1kHz/2kHz                                    |
| Signal direction             | left and right LED indicator light                    |
| Optical power reading range  | -40~+10dBm                                            |
| Display                      | LED color screen                                      |
| Buzzer sound                 | Support, when detect signals of different frequencies |
| <b>VFL</b>                   |                                                       |
| Working Wavelength           | 650nm±10nm                                            |
| Output Power                 | 10mw                                                  |
| Optical Port                 | 2.5mm universal connector                             |
| <b>Others</b>                |                                                       |
| Power Supply                 | 3.7V, 650mAh rechargeable battery                     |
| Working Temp                 | -10℃~+50℃                                             |
| Storage Temp                 | -20℃~+70℃                                             |
| Dimension                    | 240x47x29mm                                           |
| Weight                       | 180g                                                  |



## GW3306C/CT Fiber Finder

- Find the optical fiber without online service interruption
- The direction and frequency of signal can be identified safely and effectively
- Provide corresponding adapter for 250um bare fiber, 0.9mm/2mm/3mm patchcord
- The measured fiber power value can be displayed
- Low power consumption, portable and easy operation

| Items                                                    | Specifications                                                                                     |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>GW3306C</b>                                           | <b>Optical Fiber Identifier</b>                                                                    |
| Working Wavelength                                       | 800nm~1700nm                                                                                       |
| Sensor Type                                              | Φ1mm InGaAs 2pcs                                                                                   |
| Adapter Type                                             | H0.25: 250um bare fiber<br>H0.9: 0.9mm patchcord<br>H2.0: 2.0mm patchcord<br>H3.0: 3.0mm patchcord |
| Identified Signal Direction                              | LED indicates Left or Right                                                                        |
| Identified Signal Frequency                              | LED indicates 270Hz, 1kHz, 2kHz                                                                    |
| Frequency Detection Range<br>H0.9/H2.0/H3.0              | 270Hz, 1kHz: -30~0dBm<br>2kHz: -25~0dBm                                                            |
| Signal Direction Detection Range<br>(CW, Φ3mm patchcord) | -20~10dBm(1310nm)<br>-30~10dBm(1550nm)                                                             |
| Signal Power Detection Range<br>(CW, Φ3mm patchcord)     | -30~10dBm                                                                                          |
| Insertion Loss<br>(Typical value)                        | 0.8dB(1310nm)<br>2.5dB(1550nm)                                                                     |
| Battery                                                  | 9V dry battery                                                                                     |
| Battery Power Display                                    | Two color LED indicator                                                                            |
| Weight                                                   | <210g(without battery)                                                                             |
| <b>GW3306CT</b>                                          | <b>Optical Signal Generator</b>                                                                    |
| Generated Signal Type                                    | 1Hz low frequency signal                                                                           |
| Signal Generation Mode                                   | mechanical vibration                                                                               |
| Insertion Loss (Typical value)                           | <1dB(1310nm)                                                                                       |
| Applicable Optical Fiber Type                            | G.652, G.655                                                                                       |
| Applicable Optical Fiber Diameter                        | 0.9mm/2mm/3mm                                                                                      |
| Battery                                                  | 9V dry battery                                                                                     |
| Working Life                                             | >8hours (Depending on the working environment)                                                     |
| Working Temp                                             | 0℃~+50℃                                                                                            |
| Storage Temp                                             | -10℃~+70℃                                                                                          |
| Dimension                                                | 209×33×31mm                                                                                        |
| Weight                                                   | <230g(without battery)                                                                             |



## OTS-5 Optical Talk Set

- Full duplex numeral pronunciation correspondence function
- High quality conversation and low background noise
- Online display and online call
- Large LCD screen
- Stabilized laser source function

| Items                     | Specifications                                                                                          |
|---------------------------|---------------------------------------------------------------------------------------------------------|
| Wavelength(nm)            | 1310/1550                                                                                               |
| Emitter Type              | FP-LD                                                                                                   |
| Transmission Distance(km) | 80                                                                                                      |
| Dynamic Range(dB)         | 40                                                                                                      |
| Output Power(dBm)         | -5~-7                                                                                                   |
| Modulation(Hz)            | CW, 270Hz, 1KHz, 2KHz                                                                                   |
| Output Stability(dB)      | $\leq \pm 0.05$                                                                                         |
| Items                     | Specifications                                                                                          |
| Operating Time(hrs)       | 10 (continuously)                                                                                       |
| Power Supply              | Alkaline battery                                                                                        |
| Power Adapter(V)          | 8.4                                                                                                     |
| Fiber Connector           | FC/PC                                                                                                   |
| Dimensions(mm)            | 192x102x50                                                                                              |
| Weight(g)                 | 338                                                                                                     |
| Accessories               | OTS-5 Talk Set, 2pcs*earphones, 6pcs*AA battery, Power adapter, Manual, Certificate, 2pcs*carrying bags |





## FIM-3 Fiber Microscope

- Convenient using both for male and female adapters
- Widely used in PON, CWDM, DWDM, SDH, SONET etc.
- Magnification: 250\* via 3.5" TFT LCD; 400\* via 8" TFT LCD
- Through the USB 2.0 interface, the PC software can be connected to analyse and record the test results(Optional function)

| Items                 | Specifications                          |            |
|-----------------------|-----------------------------------------|------------|
| Magnification         | 400x (8" Monitor), 250x (3.5" Monitor)  |            |
| Resolution            | 0.5μm                                   |            |
| Display Screen        | 3.5" TFT-LCD, 320x240 pixels            |            |
|                       | 8" TFT-LCD, 1024x768 pixels             |            |
| Video Output          | NTSC/PAL                                |            |
| Power Supply          | 3.7V 4500mA / 5V 1A Li-Battery          |            |
| Working Temp          | -20℃~+50℃                               |            |
| Storage Temp          | -30℃~+60℃                               |            |
| Weight                | 1.5kg                                   |            |
| Standard Accessories: |                                         |            |
| Inspection Probe x1   | 3.5" monitor x1                         | 25-U-M x1  |
| 125-U-M x1            | FC-PC-F x1                              | SC-PC-F x1 |
| LC-U-F x1             | Recharger                               | Manual     |
| Carrying bag          | Li Battery                              |            |
| Optional Accessories: |                                         |            |
| 25-A-M                | 125-A-M                                 | SC-A-F     |
| FC-A-F                | AV-USB 2.0 Converter                    |            |
| Applications          |                                         |            |
| Tips Type             | Function Description                    |            |
| 25-U-M                | FC/SC/ST/E2000 patch cord UPC connector |            |
| 125-U-M               | LC/MU patch cord UPC connector          |            |
| 25-A-M                | FC/SC/ST/E2000 patch cord APC connector |            |
| 125-A-M               | LC/MU patch cord APC connector          |            |
| FC-PC-F               | FC UPC bulkhead                         |            |
| SC-PC-F               | SC UPC bulkhead                         |            |
| LC-U-F                | LC UPC bulkhead                         |            |
| SC-A-F                | SC APC bulkhead                         |            |
| FC-A-F                | FC APC bulkhead                         |            |



## FIM-4 Fiber Microscope

- 400X magnification, <1  $\mu$ m resolution for clear image
- Universal USB port to connect Windows, Linux OTDR, Laptop
- 50+ tips for UPC, APC, MPO, 60 angled connector inspection
- Applicable to FHO5000 series OTDR
- Support connect with Android phone and display(need additional OTG to Type-C cable)

| Items                                  | Specifications |
|----------------------------------------|----------------|
| Magnification                          | 400X           |
| Resolution                             | <1 $\mu$ m     |
| View of Field                          | X: 680 $\mu$ m |
|                                        | Y: 510 $\mu$ m |
| Focus Way                              | Manual         |
| Focus Speed                            | 2~5s           |
| Alignment                              | >98%           |
| Laser Source                           | Blue LED       |
| Output Port                            | Type-C USB     |
| Size                                   | 180x22x56mm    |
| Weight                                 | 110g           |
| <b>Standard Accessories</b>            |                |
| FIM-4 Probe                            | 1pc            |
| 2.5 PC-M (For 2.5mm PC male connector) | 1pc            |
| SC-PC-F(For SC-PC female bulkhead)     | 1pc            |
| FC-PC-F(For FC-PC female bulkhead)     | 1pc            |
| LC-PC-F (For LC-PC female bulkhead)    | 1pc            |



## FIM-5 Fiber Microscope

- 400X magnification, <1  $\mu$ m resolution for clear image
- 4.3 inch display to capture and video data, SD card to save data
- Universal USB port to connect Windows, Linux OTDR, Laptop
- 50+ tips for UPC, APC, MPO, 60 angled connector inspection

| Items                                  | Specifications  |
|----------------------------------------|-----------------|
| <b>FIM-5 Probe</b>                     |                 |
| Magnification                          | 400X            |
| Resolution                             | <1 $\mu$ m      |
| View of Field                          | X: 680 $\mu$ m  |
|                                        | Y: 510 $\mu$ m  |
| Focus Way                              | Manual          |
| Focus Speed                            | 2~5s            |
| Alignment                              | >98%            |
| Laser Source                           | Blue LED        |
| Output Port                            | Type-C USB      |
| Size                                   | 180x22x56mm     |
| Weight                                 | 110g            |
| <b>FIM-5 Display</b>                   |                 |
| Screen                                 | 4.3 inch screen |
| Resolution                             | 1920*1080       |
| Capacity/RAM                           | 8G              |
| Input                                  | Type-C USB      |
| Battery                                | 3500mAh Li-ion  |
| <b>Standard Accessories</b>            |                 |
| FIM-5 Probe                            | 1pc             |
| 4.3 inch display                       | 1pc             |
| 2.5 PC-M (For 2.5mm PC male connector) | 1pc             |
| SC-PC-F(For SC-PC female bulkhead)     | 1pc             |
| FC-PC-F(For FC-PC female bulkhead)     | 1pc             |
| LC-PC-F (For LC-PC female bulkhead)    | 1pc             |
| Soft case                              | 1pc             |



## FIM-6 Fiber Microscope



- Include Pass/Fail software according to IEC 61300-3-35
- Several tips available (Both female and male tips)
- Save tested analysis report on PC by USB device
- Anti-slip Grip design and Easy Focus
- Complied with RoHS
- CE/FCC approved

| Items                                   | Specifications                 |
|-----------------------------------------|--------------------------------|
| Magnification                           | 260~400X (digital)             |
| Filed of Vision                         | 400um x 300um                  |
| Focus                                   | manual, maximum 2mm in and out |
| Focus Direction                         | unidirectional                 |
| CCD                                     | 1/4" CMOS                      |
| Power Supply                            | computer USB electric power    |
| Software                                | for Windows 8, 7 and XP        |
| USB                                     | 2.0                            |
| Weight                                  | 150g                           |
| Dimension (without tip)                 | 185mm (L) x 24mm (T)           |
| <b>Standard Accessories:</b>            |                                |
| FIM-6, including USB                    | 1pc                            |
| Tip for female SC/PC and FC/PC adapters | 1pc                            |
| Tip for female LC/PC adapter            | 1pc                            |
| Software (Pass/Fail Analysis)           | 1pc                            |
| Manual                                  | 1pc                            |



## FIM-7 Fiber Microscope

- WiFi and USB connection to smartphone and PC
- Pass/Fail analysis to IEC 61300-3-35 (only for PC software)
- Several tips available (Both female and male tips)
- Support saving inspected images and reports
- Complied with RoHS
- CE/FCC approved

| Items                                                 |                | Specifications                                   |
|-------------------------------------------------------|----------------|--------------------------------------------------|
| Magnification                                         |                | 260~400X                                         |
| Field of Vision                                       |                | 400um x 300um                                    |
| Focus                                                 |                | manual, maximum 2mm in and out                   |
| WiFi                                                  |                | 2.4GHz WiFi (IEEE 802.11b/g/n)                   |
| Power of Charger                                      |                | 110/220V@50/60Hz Charger or USB Cable with PC    |
| Battery                                               |                | 3.7V 1300mA Rechargeable Lithium Polymer Battery |
| Battery Running Time                                  |                | about 4 hours (continuous usage)                 |
| USB Cable                                             |                | mini 5-pin to USB 2.0 for Windows XP, WIN7/8     |
| Software                                              | For PC         | Pass/Fail Analysis to IEC 61300-3-35             |
|                                                       | For Smartphone | Android App and iOS (Apple) App                  |
| Weight                                                |                | 170g                                             |
| Dimension (without tip)                               |                | 185mm (L) x 24mm (T)                             |
| <b>Standard Accessories:</b>                          |                |                                                  |
| FIM-7, including WiFi                                 |                | 1pc                                              |
| AC battery charger, including USB to mini 5-pin cable |                | 1pc                                              |
| Tip for female SC/PC and FC/PC adapters               |                | 1pc                                              |
| Tip for female LC/PC adapter                          |                | 1pc                                              |
| Software (Pass/Fail Analysis)                         |                | 1pc                                              |
| Manual                                                |                | 1pc                                              |



## FIM-9 Fiber Microscope

- Safety filter for eye protection
- Anti-slip design, rugged body with rubber grips
- Coaxial illumination of connector end face illumination

| Items               | Specifications                                                        |           |
|---------------------|-----------------------------------------------------------------------|-----------|
| Model               | FIM-9-200                                                             | FIM-9-400 |
| Magnification       | 200X                                                                  | 400X      |
| Power Supply        | 3*AAA alkaline battery                                                |           |
| Light Source        | White LED, rated for 10,000 hours                                     |           |
| Controls            | Momentary on/off switch for light source and fine-focus control wheel |           |
| Laser Safety Filter | Bulit-in IR filter                                                    |           |
| Adapter Interface   | Interchangeable for 2.5mm and 1.25mm ferrule connectors               |           |
| Weight              | 0.6kg                                                                 |           |
| Dimension           | 225mm(L)×32mm(diameter)                                               |           |



## FIM-17 Fiber Microscope

- Auto pass/fail whole process in 1-3s to save time
- RealTime display image without any delay on the smartphone/tablet under WiFi Mode.
- >8hrs battery support for long time
- Multiple terminals support with PC/Laptop/tablet/smartphone/OTDR with USB or WIFI channel
- Support Android/iOS/Windows System
- All test results, fiber images can be saved and shared on PC/ mobile devices in pdf format for file records

| Items                                                     | Specifications                           |
|-----------------------------------------------------------|------------------------------------------|
| Magnification                                             | 400X                                     |
| Resolution                                                | <1.0μm                                   |
| Field of View                                             | X: 0.383mm Y: 0.287mm                    |
| Laser Source                                              | Blue LED                                 |
| Focus Wheel                                               | Unidirectional single-way                |
| Focus Speed                                               | 1~3 seconds                              |
| Alignment                                                 | >98%                                     |
| Snapshot Button                                           | Available                                |
| Quick switch                                              | WiFi / USB                               |
| USB Port                                                  | Micro USB for charging and data transfer |
| Connection Standard                                       | Wi-Fi 802.11, USB 1.0/2.0                |
| Wireless Frequency                                        | 2.4GHz                                   |
| Wireless Transmission Distance                            | 20m                                      |
| Smartphone Compatibility                                  | Android 4.4 and above; IOS 8.0 and above |
| Voltage                                                   | 5V                                       |
| Battery                                                   | 3400mAh Lithium battery                  |
| Working time                                              | ≥8h                                      |
| Charging Time                                             | ≤4h                                      |
| Items                                                     | Specifications                           |
| Dimension                                                 | 19*5*3cm                                 |
| Weight                                                    | 0.55kg                                   |
| Working Temperature                                       | -10℃~50℃                                 |
| Storage Temperature                                       | -20℃~60℃                                 |
| Humidity                                                  | <90% (non-condensing)                    |
| <b>Standard Accessories:</b>                              |                                          |
| FIM-17 Fiber Microscope                                   | 1pc                                      |
| 2.5 PC-M (For 2.5mm PC male connector)                    | 1pc                                      |
| SC-PC-F(For SC-PC female bulkhead)                        | 1pc                                      |
| FC-PC-F(For FC-PC female bulkhead)                        | 1pc                                      |
| LC-PC-F (For LC-PC female bulkhead)                       | 1pc                                      |
| USB cable                                                 | 1pc                                      |
| Soft case                                                 | 1pc                                      |
| Application(Software on Android & iOS for end face check) | 1pc                                      |





## FIM-18 Fiber Microscope

- USB1.0/1.1/2.0 output
- Portable video microscope
- High resolution inspection
- Analysis Software
- Applicable to FHO5000 series OTDR

| Items                | Specifications                |
|----------------------|-------------------------------|
| Magnification        | 200x or 400x                  |
| Resolution Ratio     | 0.75um                        |
| Weight               | Probe(0.14kg)                 |
| Dimension            | Probe(22*3*3cm)               |
| Working Temp         | -20℃~+50℃                     |
| Storage Temp         | -30℃~+60℃                     |
| <b>Standard Tips</b> |                               |
| 25-U-M               | for 2.5mm/PC male connector   |
| 125-U-M              | for 1.25mm/PC male connector  |
| FC-U-F               | for FC/PC female bulkhead     |
| SC-U-F               | for SC/PC female bulkhead     |
| LC-U-F               | for LC/PC female bulkhead     |
| <b>Optional Tips</b> |                               |
| 25-A-M               | for 2.5mm/APC male connector  |
| 125-A-M              | for 1.25mm/APC male connector |
| FC-A-F               | for FC APC female bulkhead    |
| SC-A-F               | for SC APC female bulkhead    |
| LC-A-F               | for LC APC female bulkhead    |



## TLP-3C 2M Transmission Analyzer

- Full-featured measurements to 2M, Datacom
- Smart navigation mode and multi-language displays
- Extensive error and alarm generation, detection and indication
- Histograms analysis of alarm and error events
- Save/Recall of up to 7 user-defined setups and 70 sets of results
- Built-in Li rechargeable battery and smart charger circuit
- Ungradable software via an integrated RS232C interface
- Test results uploaded, conserved and printed by PC Manager software

| Items    | Specifications         |                                                                              |
|----------|------------------------|------------------------------------------------------------------------------|
| 2M       | Internal Clock         | 2048kb/s $\pm 10$ ppm                                                        |
|          | Frequency Deviation    | $\pm 999$ ppm                                                                |
|          | Line Interface         | 75 $\Omega$ (Unbalanced), 120 $\Omega$ (Balanced); High Input Impedance >2KW |
|          | Line Code              | HDB3, AMI                                                                    |
|          | Framing                | Unframed, PCM30, PCM30CRC, PCM31, PCM31CRC                                   |
|          | Receive Sensitivity    | >-43dB                                                                       |
|          | Tx Clock Source        | Internal, Interface and External 2MHz clock or signal                        |
|          | Pulse Mask Measurement | Comply with G.703                                                            |
|          | Jitter Measurement     | Comply with O.172                                                            |
|          | Frequency Measurement  | Accuracy: $\pm 1$ Hz                                                         |
|          | Offset Measurement     | Accuracy: $\pm 1$ ppm                                                        |
|          |                        | Range: -999ppm~+999ppm                                                       |
| 2M       | VF Injection           | Frequency: 200MHz~3400MHz, Step: 10Hz                                        |
|          |                        | Level: -60dBm~+3dBm                                                          |
|          |                        | Frequency: 200MHz~3400MHz                                                    |
|          |                        | Accuracy: $\pm 1$ Hz                                                         |
|          |                        | Level range: -60dBm~+3.14dBm                                                 |
| 2M       | VF Measurement         | -60dBm~-21dBm, accuracy: $\pm 2.87$ dBm                                      |
|          |                        | -20dBm~+3.14dBm, accuracy: $\pm 0.21$ dBm                                    |
|          | Delay Measurement      | Accuracy: $\pm 1$ us                                                         |
| G.703 CO | Line Rate              | 64kb/s $\pm 1000$ ppm                                                        |
|          | Line Interface         | 120 $\Omega$ , Balanced                                                      |
|          | Line Code              | AMI                                                                          |

| Items                  | Specifications                                                                            |                                                                       |
|------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Datacom                | Line Interface                                                                            | V.24, V.35, V.36, X.21, RS-449, RS-485, EIA-530, EIA-530A             |
|                        | Data Rate                                                                                 | ASYN: C300, 600bit/s, 1.2, 2.4, 4.8, 7.2, 9.6, 19.2, 38.4kb/s         |
|                        |                                                                                           | SYNC: C300, 600bit/s, 1.2, 2.4, 4.8, 7.2, 9.6, 19.2, 38.4kb/s         |
|                        |                                                                                           | N×64kb/s (N=1~32), 4M, 8Mkb/s                                         |
| Test Patterns          | PRBS                                                                                      | $2^{23}-1$ , $2^{20}-1$ , $2^{15}-1$ , $2^{11}-1$ , $2^9-1$ , $2^6-1$ |
|                        | Fixed Code                                                                                | 1111, 0000, 1010                                                      |
|                        | 16-BIT                                                                                    | User Programmable Word                                                |
| LED Alarm Indicators   | Signal Loss, AIS, Frame Loss, MFrame Loss, Pattern Loss, Remote Alarm, Error, Clock Slip. |                                                                       |
| Error Injection        | Type: BIT, FAS, CRC4, CODE, E-BIT                                                         |                                                                       |
|                        | Single, Fixed Rate: $10^{-2}$ , $10^{-3}$ , $10^{-4}$ , $10^{-5}$ , $10^{-6}$ , $10^{-7}$ |                                                                       |
| Performance Analysis   | ITU-T G.821, G.826 and M.2100                                                             |                                                                       |
| Display                | 320×240 pixel backlit monochromatic LCD                                                   |                                                                       |
| Serial Port            | RS-232C                                                                                   |                                                                       |
| Rechargeable Batteries | 5×1.2V AA NiMH batteries, continuous working for 6 hours                                  |                                                                       |
| Recharge Time          | Approx. 2 hours                                                                           |                                                                       |
| AC Power Adapter       | Input: 100V~240VAC, 50/60Hz Output: 12VDC/1.5A                                            |                                                                       |
| Test Manager Pro       | WIN98/ME/NT/2000/XP                                                                       |                                                                       |
| Dimensions             | L×W×H (200mm×160mm×45mm)                                                                  |                                                                       |
| Operating Temperature  | 0°C~50°C                                                                                  |                                                                       |
| Storage Temperature    | -20°C~+70°C                                                                               |                                                                       |
| Humidity               | 5%~95% non-condensing                                                                     |                                                                       |

| Standard Items                        | Quantity | Standard Items            | Quantity |
|---------------------------------------|----------|---------------------------|----------|
| TLP-3C 2M Transmission Analyzer       | 1pc      | Simulation software       | 1pc      |
| 75Ω BNC/L9 E1 test cable              | 2pcs     | Carrying case             | 1pc      |
| BNC/BNC cable                         | 1pc      | User's manual             | 1pc      |
| RS232 serial upgrading cable          | 1pc      | Warranty card             | 1pc      |
| DATA converting line (36PIN to 44PIN) | 1pc      | Certificate of conformity | 1pc      |
| X.21 testing line                     | 1pc      | V.35 testing line         | 1pc      |
| V2.4 testing line                     | 1pc      | V.11 testing line         | 1pc      |
| AC adapter                            | 1pc      |                           |          |
| Optional Items                        | Quantity | Optional Items            | Quantity |
| 120 testing line                      | 2pcs     | 64K testing lines         | 1pc      |



### GD300DQ TV Signal Level Meter

- Accurate QAM testing: digital average power, MER, BER
- Support multiple DVB mode: 16QAM, 32AM, 64QAM, 128QAM, 256QAM
- Single channel/Frequency simulated power levels testing
- Video and audio signal power levels testing
- V/A testing. Show the frequency of video and audio. Field intensity and power level difference simultaneously.
- QAM View includes BER, MER, and constellation

| Items                              | Specifications          |
|------------------------------------|-------------------------|
| <b>Channel/Frequency index</b>     |                         |
| Frequency range                    | 5MHz-862MHz             |
| Precision                          | 50ppm                   |
| Resolution                         | 10KHz                   |
| Measurement band width             | 280KHz                  |
| Frequency step                     | 50KHz, 100KHz, 500KHz   |
| <b>Channel type</b>                |                         |
| Analog TV                          | TV                      |
| Digital TV                         | 16/32/64/128/256 QAM    |
| Frequency/channel                  | SIGL                    |
| <b>Analog power level testing</b>  |                         |
| Measuring range                    | 25dBuV-120dBuV          |
| Precision                          | ±1.5dB                  |
| Resolution                         | 0.1dB                   |
| Detection method                   | Peak value detection    |
| Input impedance                    | 75Ω                     |
| <b>Digital power level testing</b> |                         |
| Measuring range                    | 25dBuV-110dBuV          |
| Precision                          | ±1.5dB                  |
| Resolution                         | 0.1dB                   |
| Detection method                   | Average value detection |
| Input impedance                    | 75Ω                     |

| Items                                                      | Specifications                                        |
|------------------------------------------------------------|-------------------------------------------------------|
| <b>Voltage testing</b>                                     |                                                       |
| Input range                                                | 0-80V(AC/DC)                                          |
| Precision                                                  | ±2V                                                   |
| Resolution                                                 | 0.1V                                                  |
| <b>Digital channel</b>                                     |                                                       |
| Modulation mode                                            | Comply with DVB-C/ITU J83-A                           |
| QAM mode                                                   | 16/32/64/128/256 QAM                                  |
| Symbol rate                                                | 1MS/S-7MS/S                                           |
| Band width                                                 | Set by user                                           |
| MER                                                        | 22-39dB                                               |
| Precision                                                  | ±2dB                                                  |
| BER                                                        | 1E-4-1E-9                                             |
| <b>Carrier-noise ratio(C/N)</b>                            |                                                       |
| Signal input range                                         | >70dBuV                                               |
| Measuring range                                            | 20dB-50dB                                             |
| Precision                                                  | ±2dBuV                                                |
| Resolution                                                 | 0.5dB                                                 |
| <b>Spectrum analysis</b>                                   |                                                       |
| Frequency Range                                            | 5MHz-862MHz                                           |
| Resolution                                                 | 100KHz                                                |
| Precision                                                  | 50ppm                                                 |
| Power levels range                                         | 20dBV-120dBV                                          |
| Power levels resolution                                    | 0.1dB                                                 |
| Power level precision                                      | ±1.5dB                                                |
| Dynamic range                                              | 60dB                                                  |
| Input impedance                                            | 75Ω                                                   |
| RBW                                                        | 300KHz                                                |
| Testing band width                                         | 6,12,62MHz,All range scan                             |
| <b>Slope testing</b>                                       |                                                       |
| Number of channels                                         | 5                                                     |
| Resolution                                                 | ±0.1dB                                                |
| Items                                                      | Specifications                                        |
| <b>General specifictions</b>                               |                                                       |
| Audio output                                               | Built-in speaker                                      |
| Power supply                                               | Li-ion battery(3.7V,2000mAh),5V AC/DC Adaptor/Charger |
| Charging time                                              | Less than 5 hours ( can work about 8 hours)           |
| Dimension                                                  | 223*110*47(mm)                                        |
| Net weight                                                 | 0.43kg                                                |
| Working temperature                                        | -10°C-50°C                                            |
| <b>Standard accessories</b>                                |                                                       |
| Carrying Bag, AC/DC Adaptor, Battery, Software, USB cable. |                                                       |



### GWDTY-3000 Pipeline and Cable Locator

- Detect the route of underground pipeline and cable
- Measure the burial depth of underground pipeline and cable
- Detect and locate the insulation fault point of the underground pipeline and cable
- Identify the goal pipeline and cable under multiple underground pipelines and cables situation

| Items                   | Specifications                                                                                                                                       |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Transmitter</b>      |                                                                                                                                                      |
| Output Mode             | induction mode, direct connection mode, clamp mode                                                                                                   |
| Working Frequency       | 577Hz, 815Hz, 8kHz, 33kHz, 65.5kHz, 82kHz, 133kHz, three kinds of composite frequency output at the same time, the selected frequency is customized; |
| Output Power            | 10W                                                                                                                                                  |
| Output Voltage          | 60V                                                                                                                                                  |
| Maximum Output Current  | 1A                                                                                                                                                   |
| Power Supply            | Dual power supply, lithium battery pack (energy saving and environmental protection)                                                                 |
| Continuous Working Time | 1W ≥12 hours; 5W ≥8 hours; 10W ≥5 hours                                                                                                              |
| Display                 | Large, high contrast color LCD                                                                                                                       |
| Ambient Temperature     | -20℃-50℃                                                                                                                                             |
| <b>Receiver</b>         |                                                                                                                                                      |
| Positioning Mode        | peak value mode                                                                                                                                      |
|                         | Valley value mode                                                                                                                                    |
|                         | External equipment mode                                                                                                                              |
| Receiving Frequency     | 50Hz、577Hz、815Hz、8KHz、33KHz、65.5KHz、82KHz、133KHz                                                                                                     |
| Gain Control            | Automatic gain, gain range 0~100db                                                                                                                   |
| Measuring Depth         | 0~6m                                                                                                                                                 |
| Positioning Accuracy    | 5% of depth (0~3m)                                                                                                                                   |
|                         | 10% of depth (>3m)                                                                                                                                   |
| Power Supply            | lithium battery pack (energy saving and environmental protection)                                                                                    |
| Working Time            | typical working time ≥ 8 hours;                                                                                                                      |
| Display                 | Large, high contrast LCD                                                                                                                             |
| Ambient Temperature     | -20℃-50℃                                                                                                                                             |



## GWRK200 Series Optical Cable Identifier

- OCID and OTDR function combination
- Working mode, automatic and manual optional
- Rugged housing design, dustproof and
- Touch screen + key operation, easy to use
- Large capacity lithium battery, supporting low power consumption mode and ultra long working
- It is applicable to optical cable identification in the case of PC termination, APC termination cable breakage at the end of optical fiber

| Items                                                                                                                                            | Specifications                                    |                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------|
| OCID Specification                                                                                                                               |                                                   |                                |
| Model                                                                                                                                            | GWRK200-40A                                       | GWRK200-100C                   |
| Wavelength                                                                                                                                       | 1550nm                                            |                                |
| Cable loss <sup>1</sup>                                                                                                                          | 10dB                                              | 20dB                           |
| Test range <sup>2</sup>                                                                                                                          | 40km                                              | 100km                          |
| Optical Interface                                                                                                                                | FC/APC                                            |                                |
| Average output power                                                                                                                             | >-10dBm                                           |                                |
| Requirements for return loss at the end of optical cable                                                                                         | ≤40dB                                             | ≤20dB                          |
|                                                                                                                                                  | (Cable loss is less than 10dB)                    | (Cable loss is less than 20dB) |
| Operation mode                                                                                                                                   | Touch screen+key                                  |                                |
| Output mode                                                                                                                                      | Visual: Real time waveform display(LCD screen)    |                                |
|                                                                                                                                                  | Audio: Sound (according to disturbance intensity) |                                |
| Note: 1: Add a reflector at the end (reflection value >-3dB), can add 5dB<br>2:Add a reflector at the end (reflection value >-3dB), can add 20km |                                                   |                                |
| OTDR Specification                                                                                                                               |                                                   |                                |
| Model                                                                                                                                            | GWRK200-40A                                       | GWRK200-100C                   |
| Wavelength                                                                                                                                       | 1310nm/1550nm                                     |                                |
| Dynamic range                                                                                                                                    | 32/30dB                                           | 38/36dB                        |
| Event deadzone                                                                                                                                   | 2.5m                                              | 2m                             |
| Attenuation deadzone                                                                                                                             | 15m                                               | 13m                            |
| Pulse width                                                                                                                                      | 5~20480ns                                         |                                |
| Test range                                                                                                                                       | 0.3~180km                                         |                                |
| Sampling resolution                                                                                                                              | 0.125~8m                                          |                                |
| Sampling point                                                                                                                                   | 32K                                               |                                |
| Loss threshold                                                                                                                                   | 0.05dB                                            |                                |
| Loss resolution                                                                                                                                  | 0.001dB                                           |                                |
| Typical refresh time                                                                                                                             | 0.2s                                              |                                |
| Optical Interface                                                                                                                                | FC/UPC                                            |                                |
| Storage                                                                                                                                          | 16G SD card, >10000 traces                        |                                |
| Others                                                                                                                                           |                                                   |                                |
| Display                                                                                                                                          | 5.6' touch screen                                 |                                |
| Power supply                                                                                                                                     | DC 12V/3A                                         |                                |
| Battery                                                                                                                                          | lithium battery(7.4V 8Ah), working time≥8hrs      |                                |
| Data interface                                                                                                                                   | USB port and SD card                              |                                |
| Working Temp                                                                                                                                     | 0℃~~+45℃                                          |                                |
| Storage Temp                                                                                                                                     | -20℃~~+55℃                                        |                                |
| Humidity                                                                                                                                         | 0~95% (Non condensing)                            |                                |
| Dimension                                                                                                                                        | 65H×150W×235Lmm                                   |                                |
| Weight                                                                                                                                           | 1.5kg (including battery)                         |                                |





## GW-1015E Integrated Ethernet Data Tester

- This integrated Ethernet data tester that integrates various physical interfaces such as E1/V.35, 10M/100M/1000M/10G Ethernet, optical power meter test, and OTDR test. It is easy to operate, easy to carry. The display interface directly displays the success and failure of test statistics, saving on-site installation, commissioning and maintenance for engineers and maintenance personnel, saving a lot of time.

| Specifications                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>10M/100M/1000M/10G Ethernet Test</b>                                                                                                                                                                                                                                                                                                                                                                                   | <b>E1/V.35 Test</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>High line rate IP Ping test</li> <li>Provide RFC2544 (throughput, delay, packet loss, back-to-back) functional test</li> <li>Y.1564 (service configuration test, service performance test)</li> <li>Provide IP address checking</li> <li>DFTP server tests the upstream and downstream channel bandwidth</li> <li>Optical interface supports 850nm/1300nm/1310nm/1550nm</li> </ul> | <ul style="list-style-type: none"> <li>Provide 75 <math>\Omega</math> unbalanced and 120 <math>\Omega</math> balanced interfaces of E1</li> <li>Support Bert bit error characteristic test (G.821, G.826, M.2100/550)</li> <li>Support frame relay, HDLC and PPP protocol testing</li> <li>Support Ping and loopback Ping tests on E1 and V.35 links</li> <li>Automatic detection of destination IP address (HDLC/PPP/FR) function</li> <li>Support 30B+D voice call function</li> </ul> |
| <b>Optical Power Meter Test</b>                                                                                                                                                                                                                                                                                                                                                                                           | <b>OTDR Test</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <ul style="list-style-type: none"> <li>Test wavelength: 850nm/1300nm/1310nm/1550nm/1625nm</li> <li>Test range: +26~ -50dBm or +10~ -70dBm</li> </ul>                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>Wavelength: 1550nm<math>\pm</math>20nm</li> <li>Maximum measuring distance: 0~80km</li> <li>Dynamic range: 20dB</li> <li>Event deadzone: &lt;3m</li> <li>Distance accuracy: <math>\pm</math> (1m+0.1% * distance)</li> <li>Graphical interface: support</li> <li>Support detection of overall loss, event point loss and fiber attenuation</li> </ul>                                                                                             |
| <b>VFL Test</b>                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>Working wavelength: 650nm LD</li> <li>Output power: 6mw</li> <li>Max test range: 8~10km</li> <li>Optical connector: 2.5mm universal (FC/SC/ST)</li> </ul>                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Others                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Storage                                                                                                                                                                                                                                                                                                                                                                                                                   | Can store 1000 test results, can be displayed or printed on the screen                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Monitor                                                                                                                                                                                                                                                                                                                                                                                                                   | High resolution 7 inch color LCD display, touch screen with LED backlight                                                                                                                                                                                                                                                                                                                                                                                                                |
| Battery                                                                                                                                                                                                                                                                                                                                                                                                                   | Intelligent lithium battery 8000 mAh, 12.6V operation time: 4 hours; charging time: 5 hours                                                                                                                                                                                                                                                                                                                                                                                              |
| Charger                                                                                                                                                                                                                                                                                                                                                                                                                   | 12.6V@3A, 90 to 265VAC, 50-60Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Working Temp                                                                                                                                                                                                                                                                                                                                                                                                              | 0 $^{\circ}$ C~+50 $^{\circ}$ C                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Storage Temp                                                                                                                                                                                                                                                                                                                                                                                                              | -20 $^{\circ}$ C~+70 $^{\circ}$ C                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Humidity                                                                                                                                                                                                                                                                                                                                                                                                                  | 0~90% (Non condensing)                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Dimension                                                                                                                                                                                                                                                                                                                                                                                                                 | 230mm x130mm x 60mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Weight                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.5 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |



### MPO Integrated Tester

- Support single instrument polarity and loss testing
- Support 24-core or 12-core testing
- 5.6 -inch LCD touch screen
- Support customizable pass or not in threshold
- Support USB end detector function (optional)

| Items                             | Specifications                         |
|-----------------------------------|----------------------------------------|
| <b>MPO OLS</b>                    |                                        |
| Wavelength                        | 1550nm or (optional)                   |
| Output Power                      | $\geq -5\text{dBm}$                    |
| Spectral Width (FWHM)             | $\leq 5\text{nm}$                      |
| Frequency                         | CW, 270, 1K, 2kHz                      |
| Power Stability                   | $\leq \pm 0.1$                         |
| <b>MPO OPM</b>                    |                                        |
| Detector Type                     | InGaAs                                 |
| Wavelength                        | 850nm, 1300nm, 1310nm, 1550nm          |
| Measuring Range                   | +3~-50 dBm                             |
| Linearity                         | $\pm 0.1\text{ dB}$                    |
| Uncertainty                       | $\pm 0.25\text{ dB}$                   |
| Port                              | MPO Male connector                     |
| Power Unit                        | dBm, dB, xW                            |
| Resolution                        | 0.01dB                                 |
| Polarity Detection                | A, B, C & user-defined                 |
| Record Storage                    | Support                                |
| <b>Normal Optical Power Meter</b> |                                        |
| Wavelength Range                  | 800~1700nm                             |
| Calibrated Wavelength             | 850/1300/1310/1490/1550/1625nm         |
| Measuring Range                   | +26~-50 dBm                            |
| Uncertainty                       | $\leq 0.25\text{ dB}$                  |
| <b>VFL</b>                        |                                        |
| Wavelength                        | 650nm                                  |
| Output Power                      | 10mW                                   |
| <b>Other</b>                      |                                        |
| Display Size                      | 5.6-inch TFT color touch screen        |
| Power Supply                      | 7.4V/4000mAh lithium battery/Micro USB |
| Automatic Shutdown Time           | user-defined optional                  |
| Low Battery Warning               | Icon flashing                          |
| Communication Interface           | Micro USB                              |
| Operating Temperature             | -10~+60℃                               |
| Storage Temperature               | -25~+70℃                               |
| Dimension                         | 260×155×73mm                           |
| Weight                            | 1250g                                  |

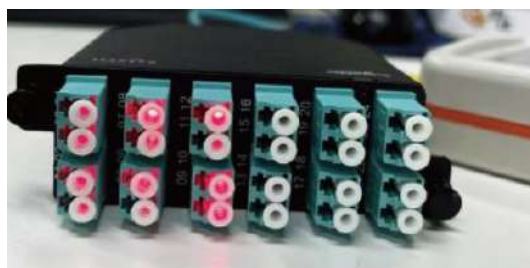


## MPO VFL Tester

- 3.5 inch screen display
- Supports multiple working modes, including full red light on, individual red light on, flashing mode,
- Supports 12 cores MPO fiber or 24 cores MPO fiber
- Can detect the MPO fiber sequence and continuity
- Foot pedal control is optional

| Items                  | Specifications                  |
|------------------------|---------------------------------|
| Working wavelength     | 650nm±10nm                      |
| Optical port           | MPO APC male (Customizable UPC) |
| Optical channel        | 12 or 24                        |
| Applicable fiber types | SM/MM                           |
| Battery                | Rechargeable lithium battery    |
| Working hours          | 6 hours                         |
| Charging interface     | USB Type-C                      |
| Operating temperature  | -10℃~+60℃                       |
| Size                   | 44mm*165mm*44mm                 |
| Weight                 | 0.5kg                           |

Test Effect:





## ★★★★ NOTES ★★★★★

Let's go in the grandway!





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Note: Specifications Subject to change without notice