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F2H FIBER TO HOME

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Your Reliable Fiber Optic Partner in China!



Testers | Tools | Cabinets & Racks

About Grandway

Shanghai Grandway Telecom Tech. Co., Ltd., registered in 1994, is a shareholding company, who is professionally engaged in the integration and service of deployment and detection of optical communication network. Grandway owns two factories, who manufacture Fiber Optic Testing Instruments and FTTH ODN/Cabling Management. And Grandway is the exclusive distributor of Fujikura Ltd. in China.
Its address is: 6F, Xin'an Building, No.99, Tianzhou Road, Caohejing Hi-Tech Park, Shanghai, 200233, China.



Reception



Technical Service Center


Office

Shanghai Guangjia Instruments Co., Ltd., registered in 2007, a subsidiary of Shanghai Grandway Telecom Tech. Co., Ltd., is a factory, engaging in R&D and manufacturing fiber optic testing instruments, including OTDR, Optical Power Meter, Optical Laser Source, Optical Multimeter, PON Power Meter, MPO Power Meter & Laser Source, Visual Fault Locator, Optical Fiber Identifier, Optical Talk Set, Insertion/Return Loss Tester, Optical Variable Attenuator, Fiber Ranger, etc.
Its address is: No. 78, North Huting Road, Songjiang District, Shanghai City, China.


Reception


R&D


Power Meter Production


Power Meter Production


OTDR Production


OTDR Production

Shanghai Fujikura Grandway Co., Ltd., registered in 2008, a joint venture of Fujikura Ltd. and Shanghai Grandway Telecom Tech. Co., Ltd., is a factory, engaging in designing and manufacturing ODF, Optical Cross-connect Cabinet, Optical Distribution Box, Optical Splitter Box, PLC Splitter, Fiber Optic Patchcord and Pigtail, MPO/MTP Patchcord, etc.
Its address is: No. 13, Lane 80, Beiyang Road, Songjiang District, Shanghai City, China.


Reception


Cabinet and ODF Prodduction


PLC Splitter Production


PLC Splitter Production

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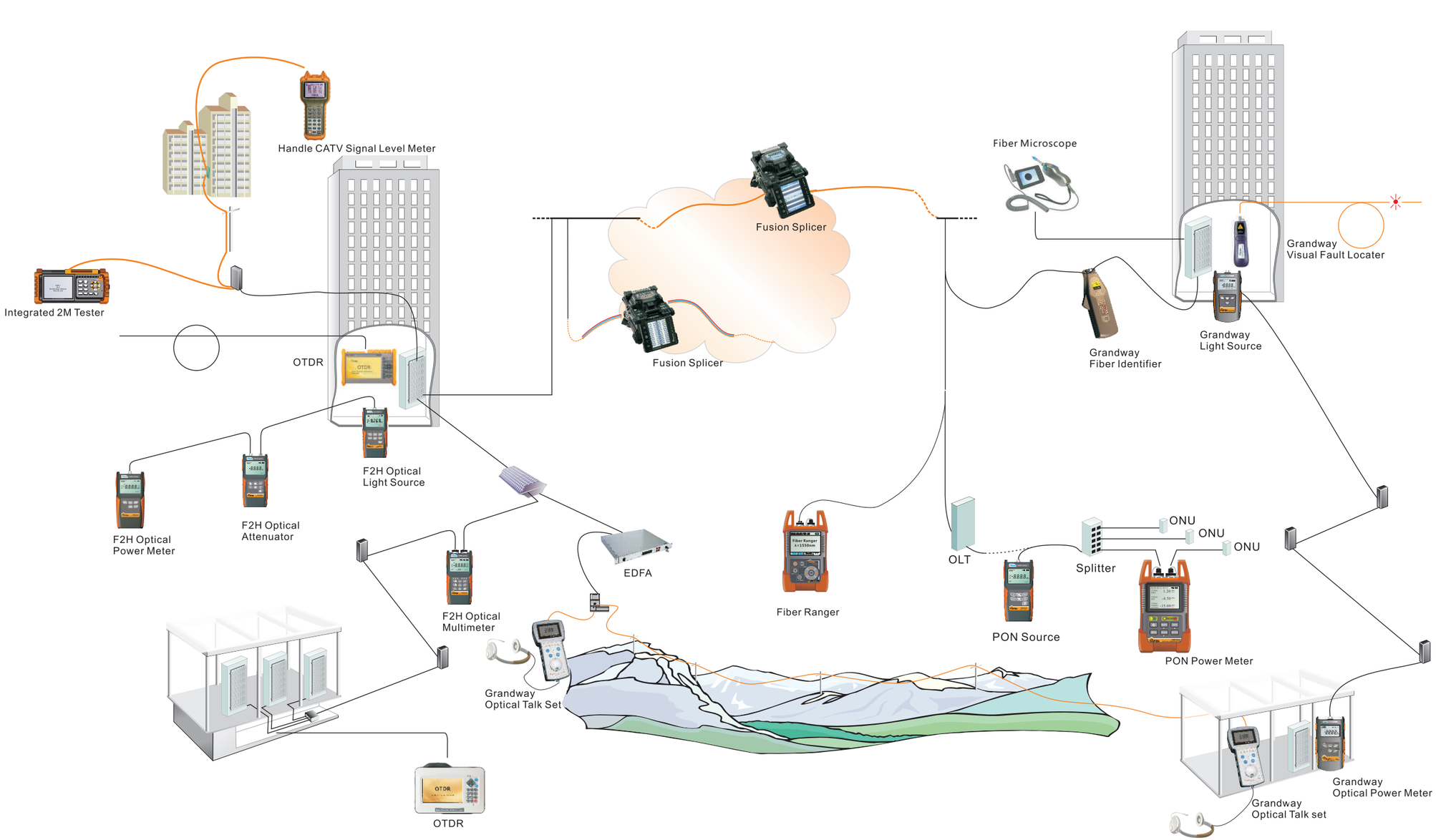
FTTx Optical Testing Solution





EDFA



Multichannel loss analysis meter



Bench-top laser source(DFB)



Bench-top power meter



Bench-top laser source (ASE)



Bench-top return/insertion loss tester

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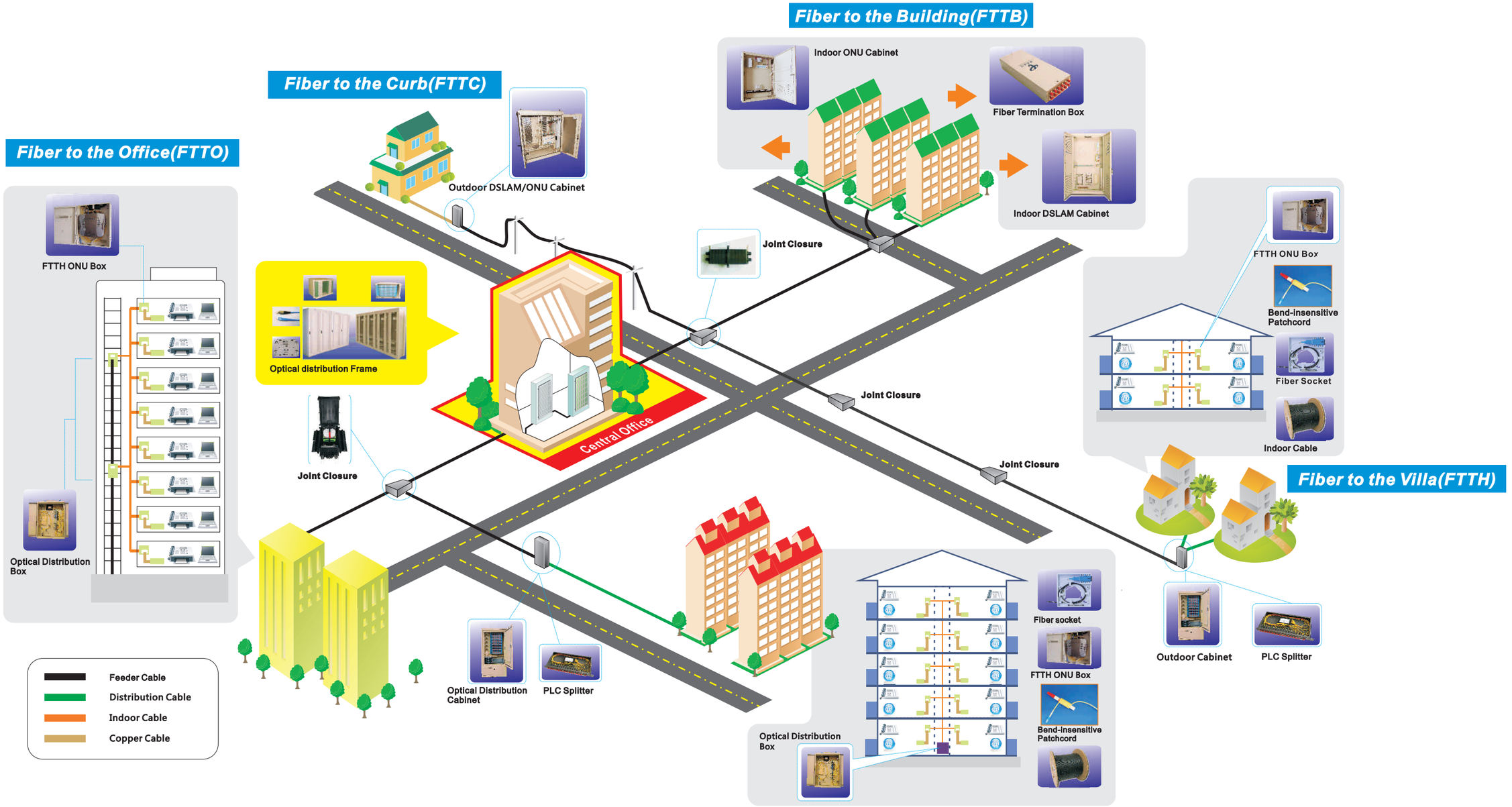
FTTx Cable Distribution Solution



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FHO5000 Series OTDR

Description

FHO5000 series OTDR is specially designed for tough outdoor jobs. IP65 protection level, lightweight, easy operation, low-reflection LCD and more than 12 hours working period make it perfect in field testing. Meanwhile, optional PCB board with water-proof coating helps FHO5000 series OTDR get better protection performance.



Part Number	Description
FHO5000-D32	OTDR, 32/30dB, 1310/1550nm

Features

- Integrated design, smart and rugged
- IP65 protection level, outdoor enhanced
- 7-inch anti-reflection LCD screen
- PON online test module (1625nm) is optional
- MMF test module (850/1300nm) is optional
- Support multi-language display and input

Applications

- FTTX PON network testing
- CATV network testing
- Access network testing
- LAN network testing
- Metro network testing
- Lab and Factory testing
- Live fiber troubleshooting

Main functions

Multi-mode OTDR

Besides standard single-mode (1310/1550nm), FHO5000 series OTDR supports multi-mode (850/1300m) test mode for option to analyze the multi-mode fiber network.

PM (power meter)

FHO5000 series OTDR comes with optional built-in power meters that let technicians easily verify the presence of a signal.

VFL (visual fault locator)

The VFL, available as an standard module in FHO5000 series OTDR, offers built-in 650nm visual fault location on a FC/UPC connector.

LS (laser source)

FHO5000 series OTDR comes with optional built-in laser source through OTDR1 Port that let technicians easily verify the total loss of the local network with a power meter.

PON ONLINE TEST

FHO5000 series OTDR uses 1625nm wavelength to scan and analyze the access point, and proceed online testing with optical filter and will not disturb the service.

FM (fiber microscope)

The optional fiber inspection probe facilitates the Inspect before the connection. FHO5000 series OTDR offers this capability through a USB port connection, which allows quick and easy inspection of connector end faces for contamination and also enables it capture and store the image.

Specification

General

Dimension	253×168×73.6mm 1.5kg(battery included)
Display	7-inch TFT-LCD with LED backlight (touch screen function is optional)
Interface	1×RJ45 port, 3×USB port(USB2.0,Type A USB×2, Type B USB×1)
Power Supply	10V(dc), 100V(ac) to 240V(ac), 50~60Hz
Battery	7.4V(dc)/4.4Ah lithium battery (with air traffic certification) Operating Time: 12 hours①, Telcordia GR-196-CORE Charging time: <4 hours (power off)
Power Saving	Backlight off: Disable/1 to 99minutes Auto shutdown: Disable/1 to 99minutes
DataStorage	Internal memory: 4GB (about 40,000 groups of curves)
Language	User selectable (English,Simplified Chinese, Traditional Chinese, French, Korean, Russian, Spanish and Portuguese -contact us for availability of others)
Environmental Conditions	Operating temperature and humidity: -10℃~+50℃, ≤95% (non-condensation) Storage temperature and humidity: -20℃~+75℃, ≤95% (non-condensation) Proof: IP65(IEC 60529)
Accessories	Standard: Main unit, power adapter, Lithium battery, FC adapter, USB cord, User guide, CD disk, carrying case Optional: SC/UPC adapter, ST/UPC adapter, LC/UPC adapter, Bare fiber adapter

Technical parameter

Type②	Testing wavelength (MM:±20nm, SM:±10nm)	Dynamic range(dB)③	Event/Attenuation dead-zone(m)④
FHO5000-M21	850/1300	19/21	1.5/8
FHO5000-MD21	850/1300 1310/1550	19/21 35/33	1.5/8 1.5/8
FHO5000-MD22	850/1300 1310/1550	19/21 40/38	1.5/8 1.75/11
FHO5000-D26	1310/1550	26/24	1.5/8
FHO5000-D32	1310/1550	32/30	1.5/8
FHO5000-D35	1310/1550	35/33	1.5/8
FHO5000-D40	1310/1550	40/38	1.75/11
FHO5000-D43	1310/1550	43/41	2/14
FHO5000-T40F	1310/1550/1625	40/38/38	1.75/11
FHO5000-T43F	1310/1550/1625	43/41/41	2/14
FHO5000-TC35F	1310/1550/1650	35/33/31	1.5/8
FHO5000-TP35	1310/1490/1550	35/33/33	1.5/8

Test parameter

Pulse Width	Single mode: 3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1μs, 2μs, 5μs, 10μs ,20us Multi mode: 3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1μs, 2μs
Distance Range	Single mode: 100m, 500m, 2km, 5km, 10km, 20km, 40km, 80km, 120km, 160km, 240km Multi mode: 500m, 2km, 5km, 10km, 20km, 40km
Sampling Resolution	Minimum 5cm
Sampling Point	Maximum 128,000 points
Linearity	≤0.05dB/dB
Scale Indication	X axis: 4m~70m/div, Y axis: Minimum 0.09dB/div
Distance Resolution	0.01m
Distance Accuracy	±(1m+measuring distance×3×10^{-5}+sampling resolution) (excluding IOR uncertainty)
Reflectance Accuracy	Single mode: ±2dB, multi mode: ±4dB
IOR Setting	1.4000~1.7000, 0.0001 step
Units	km, miles, feet
OTDR Trace Format	Telcordia universal, SOR, issue 2 (SR-4731) OTDR: User selectable automatic or manual set-up
Testing Modes	Visual fault locator: Visible red light for fiber identification and troubleshooting Light source: Stabilized Light Source (CW, 270Hz, 1kHz, 2kHz output) Field microscope probe
Fiber Event Analysis	Auto or manual operation, displayed in table format User defined PASS/FAIL thresholds: -Reflective and non-reflective events: 0.01 to 1.99dB (0.01dB steps) -Reflective: 0.01 to 32dB (0.01dB steps) -Fiber end/break: 3 to 20dB (1dB steps)
Other Functions	Real time sweep: 1Hz Averaging modes: Timed (1 to 3600 sec.) Live Fiber detection: Verifies presence communication light in optical fiber Trace overlay and comparison

VFL Module (Visual Fault Locator, as standard function)

Wavelength(±20nm)	650nm
Power	10mW,CLASSIII B
Range	12km
Connector	FC/UPC
Launching Mode	CW/2Hz

PM Module (Power Meter, as optional function)

Wavelength Range	800~1700nm
Calibrated Wavelength(±10nm)	850/1300/1310/1490/1550/1625/1650nm
Test Range	TypeA: -65~+5dBm (standard); TypeB: -40~+23dBm (optional)
Resolution	0.01dB
Accuracy	±0.35dB±1nW
Modulation identification	270/1k/2k Hz,P_{input}≥-40dBm
Connector	

LS Module (Laser Source, as optional function)	
Working wavelength(±10nm)	1310/1550/1625nm⑤
Output power	Adjustable -25 ~ 0dBm
Accuracy	±0.5dB
Connector	FC/UPC

FM Module (Fiber Microscope, as optional function)	
Magnification	400X
Resolution	1.0μm
View of Field	0.40×0.31mm
Storage/working Condition	-18℃~35℃
Dimension	235×95×30mm
Sensor	1/3 inch 2 million of pixel
Weight	150g
USB	1.1/2.0
Adapter⑥	Standard: SC-PC-F (For SC/PC adapter); FC-PC-F (For FC/PC adapter) LC-PC-F (For LC/PC adapter); 2.5PC-M (For 2.5mm connector, SC/PC, FC/PC, ST/PC)

Notes

1. Typical, backlight off, sweeping halted at 25℃, 12 hours typical continuous testing.
2. Model T40F/T43F are integrated with optical filter, which allow them to test PON network online (by using 1625nm wavelength) and will not interrupt the fiber signal.
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; attenuation dead zone is measured with pulse width of 5ns.
5. 1310/1550nm laser source uses OTDR1 port, and 1625nm or 850/1300nm uses OTDR2 port.
6. For more adapters, please contact us.

Ordering Information

FHO5000-XX-XX-XX-XX-XX-XX-XX-XX

Model
- M 850/1300nm
- MD 850/1300/1310/1550nm
- D 1310/1550nm
- T 1310/1550/1625nm
- TC 1310/1550/1650nm
- TP 1310/1490/1550

Dynamic Range
- 21 19/21dB for Model M or 19/21/35/33dB for Model MD
- 22 19/21/40/38dB for Model MD
- 26 26/24dB for Model D
- 32 32/30 dB for Model D
- 35 35/33dB for Model D or 35/33/33 for Model TP
- 40 40/38dB for Model D
- 43 43/41dB for Model D
- 35F 35/33/31dB for Model TC with filter
- 40F 40/38/38dB for Model T with filter
- 43F 43/41/41dB for Model T with filter

Laser Source
- / Without laser source
- LS With laser source

Power Meter
- / Without power meter
- PMA With power meter TYPE A
- PMB With power meter TYPE B

Touch Screen
- / Without touchscreen
- TS With touchscreen

Fiber Microscope
- / Without fiber microscope
- FM With fiber microscope

Water Proof
- / Without water proof
- WP With water proof

Connector
- / FC/UPC(default)
- SC SC/UPC
- ST ST/UPC

FHO3000 Series OTDR

Description

With its lightweight design and user friendly dimension, FHO3000 series OTDR is perfect for the outside plant environment and can be easily operated with one hand.
FHO3000 series OTDR ensures accurate and complete fiber evaluation while the testing requires only one key to start, allowing anyone to proceed error-free testing. Its ease of use, low price, high resolution and compact size make it be a qualified tester in installation, operation and maintenance of optical networks, and also save you a lot of money and time.



Part Number	Description
FHO3000-D26	OTDR, 26/24dB, 1310/1550nm
FHO3000-D35	OTDR, 35/33dB, 1310/1550nm

Features

- Hand-held and portable
- High cost performance
- 5-inch HD touch screen
- Simple interface and one-button testing
- Long working hours
- Support multi-languages

Applications

- CATV network testing
- Access network testing
- LAN/WAN network testing
- Metro network testing
- Lab and Factory testing
- Real-time troubleshooting

Specification

General	
Display	5 inch TFT-LCD (touch screen)
Battery	7.4V/3300mAh lithium battery (with air traffic certification) Continuously test: 6 hours (back light off)③ Charging time: 3.5 hours
Data Storage	40,000 groups of curves
Interface	3×USB port (USB A Type×2, Micro-USB×1)
Working Temp	-10℃~+50℃
Storage Temp	-20℃~+70℃
Humidity	≤95% (non-condensation)
Dimension	195×141×44mm / 0.9kg (battery included)
Accessories	Main unit, 12V power adapter, Lithium battery, FC adapter, USB cord, User guide, CD disk, carrying case, wrist belt

Technical parameter			
Type	**Testing wavelength**	**Dynamic range**	**Event/Attenuation dead-zone**
FHO3000-D26	1310/1550nm	26/24dB	1/6m
FHO3000-D35	1310/1550nm	35/33dB	1/6m

Technical parameter	
Pulse Width	3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1μs, 2μs, 5μs, 10μs, 20μs (20μs only for D35)
Testing Distance	100m, 500m, 2km, 5km, 10km, 20km, 40km, 80km, 120km, 160km, 240km
Sampling Resolution	Minimum 5cm
Sampling Point	Maximum 128,000 points
Linearity	≤0.05dB/dB
Scale Indication	X axis: 4~70m/div, Y axis: 0.09~5dB/div
Loss Threshold	0.01dB
Loss Resolution	0.001dB
Distance Resolution	0.01m
Distance Accuracy	±(1m+measuring distance×3×10^{-5}+sampling resolution) (excluding IOR uncertainty)
Refractivity Setting	1.2000~1.5999, 0.0001 step

VFL Module(Optional)	
Wavelength	650nm
Power	10mw, CLASSIII B
Range	12km
Connector	FC/UPC
Launching Mode	CW/2Hz

OPM Module(Optional)	
Wavelength Range	800~1700nm
Calibrated Wavelength	850/1300/1310/1490/1550/1625/1650nm
Test Range	-60~+5dBm
Resolution	0.01dB
Accuracy	±0.35dB±1nW
Modulation Identification	270/1k/2k Hz,Pi≥-40dBm
Connector	FC/UPC

Notes

1. 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.
2. Event dead zone is measured with pulse width of 3ns; attenuation dead zone is measured with pulse width of 5ns.
3. Typical, back light off, sweeping halted at 25℃, 6 hours typical continuous testing.

Ordering Information

FHO3000-XX-XX-XX-XX

Dynamic Range
- **D26** 26dB
- **D35** 35dB

Visual Fault Locator
- **/** Without Visual Fault Locator
- **VFL** With Visual Fault Locator

Connector
- **/** FC/UPC(default)
- **SC** SC/UPC
- **ST** ST/UPC

Power Meter
- **/** Without power meter
- **PM** With power meter

FHO-LCB Launch Cable Box

Description

Grandway provides high performance Launch Cable Box with interchangeable SC/FC/ST adapters in UPC or APC polishing end face. It is used to aid in the testing of fiber optic cable when using an OTDR. The OTDR Launch Cable Box is used with Optical Time Domain Reflectometers (OTDRs) to help minimize the effects of the OTDR's launch pulse on measurement uncertainty. Specially designed for Grandway' s FHO5000 Series OTDR, Launch Cable Box can be fixed on the rear of FHO5000 Series OTDR by screws as standard accessories in the package.



Part Number	Description
FHO-LCB	Launch Cable Box

Features

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

Applications

- Training and calibration
- Installation and testing by OTDR

Specification

Fiber Type	SM G.652D
Adapter Type	interchangeable FC/SC/ST adapters
Polishing Type	APC/UPC selectable
Color	black
Dimension	20.6(L) x 12.2(W) x 2.3(H)cm
Weight	1kg
Operating Temperture	-40~+55℃

Ordering Information

FHO-LCB-XX-XX-XX-XX

Cable Length
- **500** 500m
- **1000** 1000m

Adapter 1
- **SC** SC/UPC
- **AS** SC/APC
- **FC** FC/UPC
- **AF** FC/APC

Fiber Type
- **7A1** SM G.657A1
- **2D** SM G.652D
- **OM1** MM 62.5/125um
- **OM2** MM 50/125um

Adapter 2
- **SC** SC/UPC
- **AS** SC/APC
- **FC** FC/UPC
- **AF** FC/APC

F2H-LFC Launch Fiber Cable

Specification

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	SR Polypropylene
Color	yellow
Dimension	23.8(L) x 14.1(W) x 6.7(H)cm
Weight	0.75kg / 0.35kg (without fiber)
Operating Temperature	-40~+55℃



Part Number	Description
F2H-LFC	Launch Fiber Cable

FHR3A02 Fiber Ranger

Description

Grandway FHR3A02 Fiber Ranger is a high performance testing meter for the daily maintenance, fault location and detection of the optical network system. It is suitable for WAN, LAN, metro LAN, CATV and etc.

FHR3A02 Fiber Ranger is a high performance optical fiber troubleshooter for locating fiber break and imperfections. It detects the location of the break point and attenuation points in the optical fiber and displays the result on the LCD. This portable, easy to use fiber ranger is an ideal instrument for fiber cable construction and maintenance.



Part Number	Description
FHR3A02	Fiber ranger with visual fault internal ocater

Features

- Low dead zone of only 10 meters
- Back-light LCD display
- Rechargeable batteries support up to 5000 times measurement
- Data transmission and storage through mini USB
- Build-in visual fault location

Specification

FHR3A02 Fiber Ranger	
Fiber type	Single mode
Working wavelength	1550±20nm
Emitter type	LD
Connector type	FC/PC (optional SC, ST)
Pulse width	10ns/20ns/40ns/80ns/160ns/ 320ns/640ns/1280ns/2560ns/ 5120ns/10240ns/20480ns
Max. Output power	90mW
Max. measurement range	100km (reflection event >1dB)
Reflection event distance accuracy	±(2+0.1% x distance)
Non-reflection event distance accuracy	±(100 + 0.5% x distance)
Data storage	260 measurement
Dead zone	10m (reflection event)
Power supply	AC/DC adaptor and rechargeable batteries*4
Battery life	5000 times measurement
Operation temperature	-10to+50℃
Storage temperature	-20to+70℃
Humidity	0~85% (non-condensing)
Communication port	Mini USB
Weight	400g
Dimension	190*105*55mm
Max event counts	13 reflective events & 13 non-reflection events
Inner visual fault locater parameters	
Wavelength	650±10nm
Output power	5mW (± 1mW adjustable)
Modulated frequency	2Hz
Standard Accessories	
FC adapter, SC adapter, 4*rechargeable batteries, AC/DC adapter, 3*ceramic sleeves, USB cable, carrying bag, CD disk, user manual, test report	
Optional Accessories	
ST adapter	

FHP12 Series Mini Optical Power Meter

Description

FHP12 Series Mini Optical Power Meter has compact structure and stable performance and ensures high measuring precision of 850nm, 1300nnm, 1310nm, 1490nm, 1550nm and 1625nm wavelengths. Used together with Optical Laser Source, it could accurately measure the loss of fiber, cable and other passive optical devices.



Features

- Imported sensor
- 2.5mm universal interface(support FC/SC/ST connectors)
- Low power consumption, continuous work more than 80 hours
- Linear optical power and logarithmic power display
- Automatic measuring range adjust and power remains indication
- Relative value measurement function
- Compact and portable design

Part Number	Description
FHP12-A	Mini optical power meter, calibration wavelength: 850/1300/1310/1550/1490/1625nm, +10~-70dBm @1550nm
FHP12-B	Mini optical power meter, calibration wavelength: 850/1300/1310/1550/1490/1625nm, +26~-50dBm @1550nm

Specification

Type	FHP12-A	FHP12-B
Display Range	+10~-70dBm @1550nm	+26~ -50dBm @1550nm
Resolution	0.01	
Calibrated Wavelength	850/1300/1310/1550/1490/1625	
Sensor Type	InGaAs	
Accuracy	0.35dB ±1nW	0.35dB ±10nW
Working Wavelength	800~1700	
Continuous Working Hours	About 80 hours(stand-by time : About 1600hours)	
Power Source	2*AAA dry batteries	
Working Temp.	-10℃~+50℃ ; <90%RH	
Storage Temp.	-20℃~+70℃ ; <90%RH	
Dimension	L120mm×W33mm×H30mm / About70g	

Standard Accessories

2*AAA batteries, carrying bag, user manual

Optional Accessories

Male FC to female LC adapter for LC connector (model: HD078)

FHP1 Series Mini Optical Power Meter

Description

Grandway provides high precise mini power meter. FHP1 Series Mini Optical Power Meter are designed for use with an optical source for performing optical loss measurements on fiber optic cables. FHP1 series is designed for the low budget. It can meet the basic demand in real testing. With the smaller weight, it is easier to take in real testing.

Features

- Integrated with high performance optical detector
- Mini size, light weight, great portability
- Lower power consumption
- Easy to use
- Integrated with auto-power-off, low power indication and measurement interchanging functions
- Lower cost





Part Number	Description
FHP1A02	Optical power meter, 850/1300/1310/ 1490/1550 /1625nm, FC/PC and SC/PC (interchangeable) , -60 to +3dBm



Part Number	Description
FHP1B02	Optical power meter,850/1300/1310/ 1490/1550/ 1625nm, FC/PC and SC/PC (interchangeable), -40 to +23dBm

Specification

FHS1 series Mini Optical Power Meter

	FHP-1A02	FHP-1B02
Calibrated Wavelength (nm)	850/1300/1310/1490/1550/1625	
Emitter Type	InGaAs	
Connector	FC/PC and SC/PC(interchangeable)	
Accuracy	±0.35db±10nW	
Resolution	0.01db	
Linearity	±5%	
Auto Power-off	Yes	
Back-light	Yes	
Reference Value	Yes	
Meassuring Range(dbm)	-60 to +3	-40 to +23
USB Interface	N/A	
Data Storage	N/A	
Wavelength Recognition	N/A	
Tone Detection(Hz)	N/A	
Operating Temperature	-10to+50℃	
Storage Temperatue	-20to+70℃	
Power Supply	Dry Battery	
Dimension(mm)	115L*62W*30H	
Net Weight	140g	

Standard Accessories

FC/PC adapter, SC/PC adapter, dry battery, test report, carrying bag, user manual

Optional Accessories

interchangeable ST adapter (model: N000500);
male FC to female LC adapter for LC connector (model: HD078)

FHP2 Series Optical Power Meter

Description

FHP2 Series Optical Power Meter is the advanced version of OPM series. It is more functional and intelligent.
Under the situation of laboratory, LANs, WANs and CATV as well as long distance optical network, Optical Power Meters, together with Grandway's Stabilized Optical Laser Sources, can be used to identify optical fiber, measure optical attenuation, verify continuity, and evaluate fiber link transmission quality.

Features

- Integrated with high performance optical detector
- Auto-wavelength Recognition:
  The FHS2D02 and FHS2D03 units can transmit with a wavelength identification digital encrypted protocol,enabling the FHP2 Series Power Meter to automatically use the proper calibration parameters.This feature reduces the need for communication between the two technicians and decreases the potential error.
- LCD backlight for easy operation in dark environments
- Referencing function:
  Signal encrypting can also give the receiving end information on the power to be used as reference,helping ensure efficient referencing,even when the two units are far apart.
- Memory capacity of 1000 data items,enables data transfer to PC
- USB connection
- More connectors are optional and interchangeable to the user
- Two powering systems:Internal rechargeable batteries or USB cable
- Wide dynamic range and high power measurement capability
- High accuracy and stability
- Auto-off function

Specification

FHP2 series laser source

	FHP2A04	FHP2B04
Calibrated Wavelength(nm)	850/1300/1310/1490/1550/1625	
Working wavelength(nm)	800~1700nm	
Detection range	-70~+10dBm @1550	-50~+26dBm @1550
Detector Type	InGaAs	
Connector	FC/PC and SC/PC (interchangeable)	
Accuracy	±5%±1nW	±5%±10nW
Resolution	0.01dB@-60 to +10dBm	0.01dB@-40 to +26dBm;
	0.1dB@-70 to -60dBm	0.1dB@-50 to -40dBm
Linearity	±5%	
Auto Power-off	Yes	
Back-light	Yes	
Reference Value	Yes	
Measuring Range(dBm)	-70 to +10	-50 to +26
USB Interface	Yes	
Data Storage	Yes	
Wavelength Recognize	Yes	
Tone Detection(Hz)	270,1K,2K	
Operating Temperature	-10to+50℃	
Storage Temperature	-20to+70℃	
Power Supply	2pcs*Ni-MH AA(2500mAh);USB cable	
Dimension(mm)	160L*76W*45H	
Net Weight	270g	

Standard Accessories

FC/PC adapter, SC/PC adapter, 2*AA rechargeable batteries, USB cable, test report, carrying bag, CD software, user manual

Optional Accessories

interchangeable ST adapter (model: N000500);
male FC to female LC adapter for LC connector (model: HD078)



Part Number	Description
FHP2A04	Optical power meter, 850/1300/1310/1490/1550/1625nm, FC/PC connector, -70 to +10dBm, with USB, data storage and wavelength recognition functions



Part Number	Description
FHP2B04	Optical power meter, 850/1300/1310/1490/1550/1625nm, FC/PC connector, -50 to +26dBm, with USB, data storage and wavelength recognition functions

FHP2P01 PON Optical Power Meter

Description

FHP2P01 PON Optical Power Meter is a small size, low loss and good quality handheld meter. It is designed for the testing, installation and maintenance of FTTX PON network, which can be used for APON, BPON, EPON and GPON network. FHP2P01 PON Optical Power Meter has two output ports for ONU and OLT/Video, which supports CW/burst upstream detection at 1310nm and downstream signal at 1490/1550nm. It can directly show the status of pass, warning or failure by threshold testing. FHP2P01 is an ideal tool for PON installation and maintenance.



Features

- Handheld, easy-to-carry and use
- P/F testing and normal testing mode
- Two testing ports with "ONU" & "OLT/Video"
- Support 1310nm upstream CW/burst signal and 1490nm/1550nm downstream signal
- Design for networks of APON, BPON, EPON and GPON
- Threshold programmable
- Huge data storage capability
- 900 test results for storage
- Optional SC/APC adapters

Part Number	Description
FHP2P01	PON Optical Power Meter

Specification

Calibrated Wavelength	1310nm (Burst)	1310nm(CW)	1490 nm	1550 nm
Linearity(dB)	± 0.2@1550 ≥ -40dBm			
Isolation Rate(dB)	>40@1490nm		>40@1310nm	>40@1310nm
	>40@1550nm		>30@1550nm	>30@1490nm
Measuring Range (dBm)	-30~+16		-40~+16	-50~+16
Insertion Loss(dB)	1.5			
Broadband	1260~1360		1480~1500	1539~1565
Accuracy	0.5db±1nW @ 1550 nm			
Threshold	10 groups(configured via PC-software)			
Data Storage	900			
Accessories Adaptors	SC/PC(standard)			
Operating Temperature	-10+50°C			
Relatie Humidity	0%~95%,non-condensing			
Communication port	USB port			
Power supply	2pcs*Ni-MH AA; USB cable			
Dimension	160mm*76mm*45mm			
Weight	About 400g			
Standard Accessories				
2*SC/PC adapters, 2*FC/PC adapters, 3*ceramic sleeves, 2*AA rechargeable batteries, USB cable, test report, carrying bag, CD software, user manual				
Optional Accessories				
2*ST/PC adapters				

FHP3P01 PON Optical Power Meter

Description

As the industry's advanced PON-specific power meter, FHP3P01 PON Power Meter is the flagship of Grandway' s line of testing instruments specifically intended for FTTH and FTTP systems. It is the ideal tool for FTTH/FTTP service activation and troubleshooting.



Features

- Hand-held and battery operated
- TFT LCD Display with high resolution
- Filtered measurements with distinct power display
- Simultaneous measurement and display power level of 1310,1490,1550nm WL
- Pass/fail function available. Up to10 user defined threshold
- Ability to upgrade software through USB interface
- 1000 sets data storage
- Software to generate Test Report

Part Number	Description
FHP3P01	PON Optical Power Meter

Specification

Measurement Range (Continuous Datastream)	1310nm	1490nm	1550nm
	-40dBm~+10dBm	-40dBm~+10dBm	-40dBm~+20dBm
Burst Measurement Range (1310nm Bursted Signal)	-30dBm~+10dBm		
Spectral Passband	1310nm	1490nm	1550nm
	1260nm~1360nm	1480nm~1550nm	1539~1565nm
Insertion Loss	1.5dB		
Accuracy	±0.5dB		
Linearity	±0.2dB		
Data Storage	1,000 sets		
Display	2.8 inch TFT LCD		
Refresh Rate of Display	2.5Hz		
Threshold	10sets (configured via PC-based software)		
Auto Power-off	Yes		
Number of Ports	2 (1 for ONU, 1 for OLT & video)		
Operating Temperature	-10 to +50°C		
Relative Humidity	0%~95%, non-condensing		
Power Supply	1.2V*4pcs Ni-MH AA; 12V AC/DC Adapter		
Battery Life	>20 hours		
Dimension	190mm*105mm*55mm(L*W*H)		
Net Weight	700g		

Standard Accessories

2*FC/PC adapters, 2*SC/PC adapters, 3*ceramic sleeves, 4*AA rechargeable batteries, AC/DC adapter, USB cable, test report, carrying bag, CD software, user manual

Optional Accessories

interchangeable ST adapter (model: N000500);
male FC to female LC adapter for LC connector (model: HD078)

Customization

2*FC/APC adapters, 2*SC/APC adapters

FCA-10 CWDM Analyzer

Description

FCA-10 CWDM Analyzer is specially designed for CWDM installation, maintenance and troubleshooting, which is able to measure and monitor power values of 10 CWDM channels. FCA-10 CWDM Analyzer can replace high-cost Spectrometers and conduct quick and reliable measurements in all environments. Thanks for its light, compact and sturdy design, FCA-10 CWDM Analyzer is an ideal tool for CWDM installation and maintenance.



Part Number	Description
FCA-10	CWDM analyzer

Features

- Hand-held , more compact and easy to operate
- TFT LCD display
- 10 CH wavelength testing : 1431nm~1611nm
- Histogram or list data display modes
- Able to work as the normal power meter
- Inner timing system
- Threshold configuration : able to preset threshold value
- Data Transfer to PC via USB
- Back l ight function
- 10 hours continuous work
- Data storage & download

Specification

FCA-10 technical parameters	
Wavelength (nm)	1431 ~ 1611
Power Range (dBm)	-40 ~ +10
Channel Number	10
Channel Spacing	20nm
Central Wavelength	ITU
Channel Band-pass	ITU±6.5nm
Channel Power Resolution	±0.01 dB
Channel Power Accuracy	±0.5 dB
Maximum Input Power	13dBm
Return Loss	>45dB
Close Channels Insulation	≥25dB
Non-close Channels Insulation	≥30dB
Threshold Setting	10 Wavelengths
Reference Value(REF)	10 Wavelengths
Data Storage	1000 sets
Connectivity	USB
Detector Type	InGaAs
Appl ication Range	Single Mode Fiber
Connector	FC/PC (Interchangeable SC, ST)
Backlight	Yes
Power Saving	Auto-off after 5 minutes unused
Power meter module parameters	
Cal ibrated Wavelength (nm)	850 ,1300 , 1310 , 1490 , 1550 , 1625
Power Range (dBm)	-60 ~ +10
Unit	mW/uW/nW/dBm/dB(REF)
Resolution	±0.25 dB (5%) @25℃
Physical parameters	
Power Supply	NiMH Rechargeable Battery / AC Adaptor
Battery Life	Continuous Operation ≥10 Hours
Work Temperature	0℃~ 50℃
Relative Humidity	0 ~ 95%
Dimension (L×W×D)	L*W*H 190mm*105mm*55mm
Weight	700g
Standard Accessories	
2*FC adapters, 2*SC adapters, 4*AA rechargeable batteries, AC adapter, USB cable, CD disk, carrying bag, user manual, test report	

FHS1 Series Laser Source

Description

Grandway provides high precise mini type laser source. The FHS1 series laser source offers excellent stability and portability for accurate fiber optic testing.
Single output port provides stable laser power at dual wavelengths. The compact unit operates in either continuous wave (CW) mode or modulated mode. A low battery indicator reminds the user of replacing the battery

Features

- Both single mode and multti-mode laser are available
- Single output interface
- Durable and portable
- Auto power-off function
- Integrated with continuous wave output function, 270Hz, 1kHz and 2kHz are available





Part Number	Description
FHS1D02	Optical laser source, 1310/1550nm, FC/PC connector, -5dBm



Part Number	Description
FHS1D03	Optical laser source, 850/1300nm, FC/PC connector, -5dBm

Specification

FHS1D series laser source		
	FHS-1D02	FHS-1D03
Output Wavelength	1310nm&1550nm	850nm&1300nm
Emitter Type	LD	
Connector	FC/PC	
Output Stability	Short Term(15minutes):<0.1dB Long Term(5Hours or above):<0.2dB	
Central Wavelength	1310±20nm&1550±20nm	850±10nm&1300±20
Spectral Width	5nm	
Output Frequency(Hz)	270,1K,2K	
Output Power	-5dBm	
Accuracy	±1dB	
Auto Power-off	Yes	
Back-light	Yes	
Operating Temperature	-10to+50℃	
Storage Temperature	-20to+70℃	
Power Supply	Dry Battery;5v AC/DC Adaptor	
Dimension(mm)	115L*65W*30H	
Net Weight	140g	

Standard accessories

FC/PC adapter, dry battery, carrying bag, user manual, test report

Optional Accessories:

Male FC to female LC adapter for LC connector (model: HD078)

Customization

SC/ST adapter, APC laser launcher

FHS2 Series Laser Source

Description

Grandway provides high precision laser source. The FHS2 series laser source offers excellent stability and portability for accurate fiber optic testing.
Dual-wavelength, triple-wavelength and quad-wavelength laser sources are available. If user tests a fiber with both FHS2 series laser source and FHP2 series power meter, the TWIN function can be booted. With this function, the power meter can automatically detect the wavelength FHS2 series laser source launched.

Features

- Both single mode and multiple mode laser are available
- Single output interface
- Durable and portable
- Auto power-off function
- TWIN function is available
- Integrated with continuous wave output function, 270Hz, 1kHz and 2kHz are available



Part Number	Description
FHS2D02	optical laser source, 1310/1550nm,FC/PC connector, -8~-2dBm

Specification

FHS2D series laser source		
	FHS2D02	FHS2D02F
Output wavelength(nm)	1310&1550	
Emitter type	LD	
Output stability	Short term(15min):<±0.05dB@1310,1550nm;±0.1dB@850&1300 Long term(8hours):<±0.1dB@1310,1550nm±0.2dB@850&1300	
Central wavelength	1310±20nm&1550±20nm	
Spectral width	5nm	
Output frequency(Hz)	270.1k.2k	
Output power	-5dBm	
Adjustable range	±3dB,0.1dB/step	N/A
Auto power-off	Yes	
Back-light	Yes	
Operating temperature	-10to+50°C	
Storage temperature	-20to+70°C	
Power supply	2pcs*Ni-MHAA(2500mAh)	
Dimension(mm)	160L*76W*45H	
Net weight	270g	

Standard accessories

FC/PC adapter, SC/PC adapter, 3*ceramic sleeves, 2*AA rechargeable batteries, AC/DC charger, carrying bag, user manual, test report

Optional Accessories:

ST adapter (model: N000500);Male FC to female LC adapter for LC connector (model: HD078)

Customization:

APC laser launcher



Part Number	Description
FHS2D02F	optical laser source, 1310/1550nm, FC/PC connector, -5dBm, fixed output power



Part Number	Description
FHS2D03	optical laser source, 850/1300nm, FC/PC connector, -8~-2dBm



Part Number	Description
FHS2D03F	optical laser source,850/1300nm, FC/PC connector, -5dBm, fixed output power

Specification

FHS2Q series laser source

	FHS2Q01F	FHS2Q02F
Output Wavelength(nm)	850/1300/1310/1550	1310/1490/1550/1625
Emitter Type	LD	
Output Stability	Short Term(15min): <±0.05dB@1310,1550nm: ±0.1dB@850&1300 Long Term(8 Hours): <±0.1dB@1310,1550nm): ±0.2dB@850&1300	Short Term(15minutes): <±0.05dB@1310,1550nm: ±0.1dB@1490,1625nm Long Term(5 Hours or above): <±0.1dB@1310,1550nm): ±0.2dB@1490,1625nm
Central Wavelength	±20nm	
Spectral Width	5nm	
Output Frequency	270,1K,2K	
Output Power	-5dBm	
Auto Power-off	Yes	
Back-light	Yes	
Operating Temperature	-10 to +50℃	
Storage Temperature	-20 to +70℃	
Power Supply	2pcs*Ni-MH AA(2500mAh)	
Dimension(mm)	160L*76w*45h	
Net Weight	270g	

Standard accessories

2*FC/PC adapters, 2*SC/PC adapters, 3*ceramic sleeves, 2*AA rechargeable batteries, AC/DC charger, carrying bag, user manual, test report

Optional accessories

2*ST adapters (model: N000500);
Male FC to female LC adapter for LC connector (model: HD078)

Customization:

APC laser launcher

FHS2T series laser source

	FHS2T01	FHS2T01F
Output Wavelength(nm)	1310/1490/1550	
Emitter Type	LD	
Output Stability	1310nm&1550nm:	Short Term(15minutes):<0.05dB Long Term(5Hours or above):<0.1dB
	1490nm:	Short Term(15minutes):<0.1dB Long Term(5Hours or above):<0.2dB
Central Wavelength	1310±20nm/1490±20nm/1550±20nm	
Spectral Width	5nm	
Output Frequency(Hz)	270,1k,2k	
Output Power	-5dBm	
Adjustable Range	±3dB,0.1dB/step	N/A
Auto Power-Off	Yes	
Back-light	Yes	
Operating Temperature	-10to+50°C	
Storage Temperature	-20to+70°C	
Power supply	2pcs*Ni-MH AA;6V AC/DC Adaptor	
Dimension(mm)	160L*76W*45H	
Net Weight	260g	

Standard accessories

FC/PC adapter, SC/PC adapter, 3*ceramic sleeves, 2*AA rechargeable batteries, AC/DC charger, carrying bag, user manual, test report

Optional accessories

ST adapter (model: N000500);
Male FC to female LC adapter for LC connector (model: HD078)

Customization:

APC laser launcher



Part Number	Description
FHS2Q01F	Optical laser source, 850/ 1300/ 1310/1550, FC/PC connector, -5dBm



Part Number	Description
FHS2Q02F	Optical laser source, 1310 /1490 /1550 /1625nm, FC/PC connector, -5dBm



Part Number	Description
FHS2T01	Optical laser source, 1310/1490/1550nm, FC/PC connector, -8~-2dBm



Part Number	Description
FHS2T01F	Optical laser source, 1310/1490/1550nm, FC/PC connector, -8~-2dBm

VLS-8 Series Mini Visual Laser Source

Description

VLS-8 Series Mini Visual Laser Source totally complies with the human engineering. It's small in size, easy to operate, portable and integrated with a launching indicator. A Visual Laser Source is usually used to inspect the damaged or broken point of a optical fiber, cable, patchcord and etc. If the inspected fiber does have a defect, user could find the visual laser at the broken or damaged point. VLS-8 Series Mini Visual Laser Source is suitable for both single mode and multimode fibers. The performance of the visual laser source will act a little different on different fiber coat and color.



Features

- Totally comply with the human engineering design. Small, portable and durable
- Standard multi-adaptor can be applied to connect with almost any adaptor type. Also provides interchangeable fiber adaptors of serval common types
- Higher output laser power, Max 15km detecting range
- Integrated with continuous wave and 2Hz modulated wave outpur function

Part Number	Description
VLS-8-1	Visual laser source, output power 1mW, about 5km
VLS-8-10	Visual laser source, output power ≥10mW, about 12km
VLS-8-15	Visual laser source, output power ≥15mW, about 14km
VLS-8-30	V visual laser source, output power ≥30mW, about 15km

Specification

Technical parameter

Model	VLS-8-1	VLS-8-10	VLS-8-15	VLS-8-30
Laser launcher level①	CLASS IIIA	CLASS IIIB	CLASS IIIB	CLASS IIIB
Output power②	≥1mW	≥10mW	≥15mW	≥30mW
Detecting range③	about5km	about12km	about14km	about15km
Battery life④	about23hours	about12hours	about10hours	about6hours
Laser launcher type	LD			
Optical connector	universal 2.5mm adapter (FC/SC/ST)			
Output wavelength	650nm			
Modulation frequency	CW / 2Hz			
Power	2*AAA dry batteries			
Working temperature	0℃~+40℃ ; <90%RH			
Storage temperature	-20℃~+70℃ ; <90%RH			
Accessories	2*AAA battery, user manual, packing case			
Dimension & Size	L120mm×W33mm×H30mm / about 67.8g			

Standard Accessories

2*AAA batteries, carrying bag, user manual

Optional Accessories

Male FC to female LC adapter for LC connector (model: HD078)

Note: ① It is strictly prohibited to direct the human eye and please take precautions to avoid static electricity releasing
② The output power is figured out by testing multiple mode optical fiber in 23℃±3℃
③ The testing range will be different in different fibers
④ The battery life is figured out by testing two new AAA battery in 23℃±3℃.The battery life will be a little different by using different AAA battery.

FHM2 Series Optical Multimeter



Description

FHM2 series optical multimeter integrates a stable laser source and a precise optical power meter.
The laser source launches the laser whose wavelengths are 1310/1490/1550nm or 1310/1550nm (according to different models). The optical power meter can recognize the wavelength automatically. With the assorted software, user can generate a report or manage the test report easily.

Features

- Three output wavelength at one output interface
- Both continuous wave and modulated wave are available, the frequency of modulated signal is 270Hz, 1kHz, 2kHz
- Back light display
- Integrated with charging circuit
- Data storage up to 999 test results
- USB interface for connecting PC with assorted sofware
- Automatic shutdown in low power status



Part Number	Description
FHM2A01	Dual wavelength optical multimeter, calibration wavelength: 850/1300/1310/1490/1550/1625nm, launch wavelength: 1310/1550nm, measure range:-70 to +10dBm



Part Number	Description
FHM2B01	Dual wavelength optical multimeter, calibration wavelength: 850/1300/1310/1490/1550/1625nm, launch wavelength:1310/1550nm, measure range:-50 to +26dBm

Specification

FHM2x01 dual wavelength multimeter

	FHM2A01	FHM2B01
Power meter parameters		
Calibration wavelength(nm)	850/1300/1310/1490/1550/1625	
Connector	interchangeable FC/SC (ST optional)	
Data storage(items)	999	
Ref.Value	Yes	
Display Units	dB/dBm/mW/uW	
Display precision(dB)	0.01	
Accuracy	±5%±1nW	
Wavelength Recognition	1310/1550/(input power≥-40dBm)	
Tone Detection	270Hz/1KHz/2KHz(input power≥-40dBm)	
Measuring Range(dBm)	-70 to +10	-50 to +26
Laser source parameters		
Output Wavelength(nm)	1310/1550	
Connector	fixed FC/PC	
Modulation Frequency	270/1K/2K Hz	
Output Power	-5dBm±0.5dB	
Stability Long-term(8h)	±0.1dB@1310/1550nm	
Stability Short-term(15min)	±0.05dB@1310/1550nm	
Wavelength Recognizing Code	Yes	
Auto Power off	√	
General parameters		
Power Supply	2pcs *NiHM 1.2V,2000mAh;AC/DC Adaptor	
PC Interface	USB	
Battery Life	>100Hours(laser off)	
Storage Temperature	-20℃~+70℃	
Operating Temperature	-10℃~+50℃	
Relative Humidity	<90%(Non-condensing)	
Dimension(mm)	168L×76W×45H	
Weight(g)	260	

Standard Accessories

FC adapter, SC adapter, 2*rechargeable batteries, AC/DC adapter, USB cable, carrying bag, CD disk, user manual, test report

Optional Accessories

ST adapter (model: N000500)

Specification

FHM2x02 multimeter

	FHM2A02	FHM2B02
Power meter parameters		
Calibration Wavelength(nm)	850/1300/1310/1490/1550/1625	
Connector	interchangeable FC/SC (ST optional)	
Data Storage (items)	999	
Ref.Value	Yes	
Display Units	dB/dBm/mW/uW	
Display Precision(dB)	0.01	
Accuracy	±5%±1nW	
Wavelength Recognition	1310/1490/1550/(input power≥-40dBm)	
Tone Detection	270Hz/1KHz/2KHz(input power≥-40dBm)	
Measuring Range(dBm)	-70 to +10	-50 to +26
Laser source parameters		
Output Wavelength(nm)	1310/1490/1550	
Connector	fixed FC/PC (interchangeable FC/SC/ST customized)	
Modulation Frequency	270/1K/2K Hz	
Output Power	-5dBm±0.5dB	
Stability Long-term(8h)	±0.1dB@1310/1550nm;±0.2dB@1490nm	
Stability Short-term(15min)	±0.05dB@1310/1550nm;±0.1dB@1490nm	
Wavelength Recognizing Code	Yes	
Auto Power off	√	
General parameters		
Power Supply	2pcs *NiHM 1.2V,2000mAh;AC/DC Adaptor	
PC interface	USB	
Battery Life	>100Hours(laser off)	
Storage Temperature	-20℃~+70℃	
Operating Temperature	-10℃~+50℃	
Relative Humidity	<90%(Non-condensing)	
Dimension(mm)	168L×76W×45H	
Weight(Gram)	260	

Standard Accessories

FC adapter, SC adapter, 2*rechargeable batteries, AC/DC adapter, 3*ceramic sleeves, USB cable, carrying bag, CD disk, user manual, test report

Optional Accessories

ST adapter (model: N000500), 1.25mm PD adapter, 2.5mm PD adapter

Customization

APC



Part Number	Description
FHM2A02	Triple wavelength optical multimeter, detect wavelength: .850/1300/1310/1490/1550/ 1625nm, launch wavelength: 1310/1490/1550nm, measure range: -70 to +10dBm



Part Number	Description
FHM2B02	Triple wavelength optical multimeter, detect wavelength: .850/1300/1310/1490/1550/ 1625nm, launch wavelength: 1310/1490/1550nm, measure range: -50 to +26dBm

OFI-3 Optical Fiber Identifier

Description

OFI-3 Optical Fiber Identifier is a low cost, portable instrument designed to detect optical signals without disrupting traffic. Based on non-destructive macrobending technology, the OFI-3 doesn't disrupt traffic, damage or overstress the fiber, enabling efficient, accurate and reliable data acquisition. During maintenance, installations, rerouting or restorations, it's often necessary to isolate a specific fiber, By simply clamping the OFI-3 onto a fiber. the OFI-3 will indicate if there is a signal, a modulated signal, or traffic and show signal direction.



Part Number	Description
OFI-3	Optical Fiber Identifier

Features

- "One button meter", convenient and easy to use
- Detect a variety of optical tones,270Hz,1kHz and 2kHz
- Powered by 2 units of 1.5V AA alkaline batteries
- RB0.25mm,RB0.9mm,RB3.0mm plungers available
- Transmission direction indication
- Intensity display of optical signal
- Low battery indication
- Buzz indication function

Specification

Recognizable Wavelength Range	900 to 1650nm
Recognizable Signal Type	CW,2kHz,1kHz,270Hz±5%
Detector Type	InGaAs 2pcs
Clamp Type	H0.9/0.25 for bare fibers; H3.0 for jacketed fiber
Sensitivity @1310nm	+11dB to-20 dBm (Continuous Wave); +11dBto -10 dBm (Modulated Signal)
Sensitivity @1550nm	+11dB to-30 dBm (Continuous Wave); +11dBto -18dBm (Modulated Signal)
LED Indicaltor	Signal traffic;signal frequency (2kHz/1kHz/270Hz);signal intensity (5 grades);low battery
Operating Temperature	-10 to +50℃
Storage Temperature	-20 to +70℃
Power Supply	1.5V AA batteries*2pcs
Dimension(mm)	202L*62W*36H
Weight(g)	300
Standard accessories	
2*batteries, 3*adapter heads (RB0.25mm, RB0.9mm and RB3.0mm), carrying bag, user manual, test report	
Optional accessories	
sun shield, RB2.0mm adapter head	

OFS-1 & OFF-1 Optical Fiber Finder

Description

OFS-1 & OFF-1 Optical Fiber Finder consists of OFS-1 Tone Generator and OFF-1 Live Fiber Identifier. In the ODF and cabinet of the machine room, all the fibers are messy because of non-standard cabling or labeling. It is hard to find the right patchcord in such situation. OFS-1 & OFF-1 Optical Fiber Finder can help find the cable and patchcord without interrupting online service.



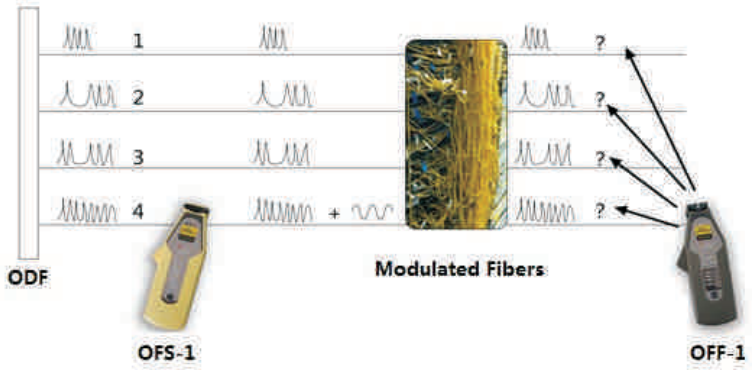
Part Number	Description
OFS-1 & OFF-1	Optical Fiber Finder

Features

- Find the optical fiber without service interruption
- <1dB insertion loss, no influence to optical signal transmission in the fiber
- Auto identify the testing signal and indicate the result by LED indication and the sound of beep
- Clear LED indication
- Bluetooth function for wireless remote control

Applications

- Central office
- ODF and cabinet



Specification

OFS-1 Tone Generator	
Frequency	1Hz low frequency
Insertion Loss	<1dB@1310nm
Applicable Fiber Type	G.652D, G.655, G.657A1, G.657A2
Applicable Fiber Diameter	0.25/0.9/1.6/2/3mm
OFF-1 Live Fiber Identifier	
Wavelength	900~1650nm
Recognizable Signal Type	CW, 270Hz±5%, 1kHz±5%, 2kHz±5%, 1Hz
Adapter Head	RB0.25, RB0.9, RB2.0, RB3.0
Sensitivity	minimum -50dBm
Sensitivity without Adapter Loss @1310nm	RB0.25: -20dBm, RB0.9: -20dBm, RB3.0: -20dBm
Sensitivity without Adapter Loss @1550nm	RB0.25: -30dBm, RB0.9: -30dBm, RB3.0: -30dBm
Measuring Range	1310nm: +10dBm~ -20dBm; 1550nm: +10dBm~-30dBm
Parameter	
Power Supply	2*AA dry batteries (continuous working time: 38 hours)
Operating Temperature	-10 to +50℃
Storage Temperature	-20 to +70℃
Dimension	202L*62W*38H mm
Net Weight	300g
Standard Accessories	
OFS-1 Tone Generator, OFF-1 Live Fiber Identifier, 4*batteries, adapter heads (RB0.25mm, RB0.9mm RB2.0mm and RB3.0mm), test report, carrying bag, user manual	

OTS-4 Optical Talk Set

Description

Two pairs of OTS-4 Optical Talk Sets support Tri-party communication via Clip-on coupler device. The high dynamic range ensures the quality of voice and long distance transmission. The dynamic range of OTS-4 is 50dB at1550nm for long distance communication. Hands-free (HF) speaker provides users with convenient operation.
Why should we use the optical talk set? In some remote areas, the mobile phone may be out of service and tow operators, who are laying down a optical cable for optical network, have to have a conversation, in these situations, the talk set is essential. With the talk set the two operators can have a conversation via a intact optical fiber. It is easy and reliable.



Part Number	Description
OTS-4	Optical talk set, A:1310nm,B:1550nm (unit A works at 1310nm, unit B works at 1550nm), FC/PC connector,50dB

Features

- Power-saving design, long-time operation
- Articulate voice, low background noise
- Judgmatical calling function
- 32 steps volume control
- Low-power alarm
- Maximum dynamic range 50dB@1550nm for long distance communication
- Able to be used as a steady laser source

Specification

Wavelength	A:1310nm,B:1550nm (unit A works at 1310nm, unit B works at 1550nm)
Telecommunication System	Full duplex communication
Fiber Type	SM & MM (the dynamic range will shrink 20dB for MM fiber)
Spectral Width	<15nm
Adaptor Type	FC/PC
Dynamic Range	50dB
Output Power	-3dBm
Power Supply	Replaceable build-in Ni-MH Battery & .AC/DC adaptor
Operating Hours	40 hours (standard)
Tri-party Communication	√
Hands-free Speaker	YES
Dimension	220L*110W*45H
Operating Temperature	-10~+50℃
Storage Temperature	-20~+70℃
Operating Humidity	<90%(Non-condensing)
Net Weight	550g (including battery)

Standard accessories

main units (unit A and unit B), 2*headphones, 12*AA rechargeable batteries, 2*carrying bags, 2*AC/DC charger, 2*user manuals, test report

Optional accessories

Clip-on coupler, tri-party communication line

Customization

SC/PC adaptor, ST/PC adaptor

FHA2 Series Optical Attenuator

Description

Grandway provides high precise digital optical attenuator. The FHA2 digital variable optical attenuator is a compact, portable instrument widely used in fiber link certification and routine maintenance as well as in lab environment.

Features

- Low insertion loss,wide attenuation range
- Two attenuation steps are available:1dB, 0.05dB
- Reference function
- Presetting values to save frequently used values
- Suitable for the testing project of optical transmisson system
- Able to be applied in test lab & other fiber optical works





Part Number	Description
FHA2S01	Digital variable optical attenuator, 0~80dB, 1310nm/1550nm



Part Number	Description
FHA2S02	Digital variable optical attenuator,0~60dB, 1310nm/1550nm

Specification

	FHA2S01	FHA2S02
Attenuation Range	3~80dB	3~60dB
Fiber Type	SMF 9/125μm	
Attenuation mode	Single-directional	
Calibrated Wavelengths	1310nm/1550nm	
Linearity	≤0.3dB	
Accuracy	0.2dB@0~30dB	0.2dB@0~20dB
	1.0dB@30~60dB	0.5dB@20~50dB
	2.0dB@60~80dB	1.0dB@50~60dB
Insertion Loss	<3dB	
Return Loss	>50dB(PC type connector)	
Max Input Power	+24dBm	
Power Supply	1.2V Ni-MH Battery *2pcs	
Connector	Interchangeable FC/PC,SC/PC connectors. (FC/APC,SC/APC are available at time of ordering)	
Operating Temperature	-10°C to +50°C	
Storage Temperature	-20°C to +60°C	
Relative Humidity	0%~95%(non-condensing)	
Dimension(mm)	160L*76W*45H(mm)	
Net Weight	360g(Battery included)	

Standard Accessories

2*FC/PC adapters, 2*SC/PC adapters, 2*rechargeable batteries, AC/DC adapter, 3*ceramic sleeves, carrying bag, user manual, test report

Optional Accessories

2*ST adapters (model: N000500);
male FC to female LC adapter for LC connector (model: HD078)

FMP-10 MPO Power Meter & FMS-10 MPO Laser Source

Description

FMP-10 MPO Power Meter & FMS-10 MPO Laser Source are high cost performance testers to test MPO connectors and patchcords and display all the test results Intuitively on the TFT LCD. They can perform polarity test and frequency identification.



Features

- Test all the fibers in MPO connector
- Polarity test
- Display all the optical power on the screen
- Recognize 270Hz, 1000Hz and 2000Hz frequencies

Application

- Data center
- MPO patchcord manufacturing
- Research organization and laboratory

Part Number	Description
FMP-10	MPO Power Meter
FMS-10	MPO Laser Source

Specification

FMS-10 MPO Laser Source	
Optical Interface	12 fibers female MPO adaptor
Working Wavelength	850nm±30nm
Emitter Type	VCSEL
Channel	12
Power	≥-2dBm
Stability	≥-0.1dB@1h
USB Interface	yes
Wavelength Identification	reserved
Frequency	CW, 270Hz, 1kHz, 2kHz
FMP-10 MPO Power Meter	
Optical Interface	12 fibers female MPO adaptor
Detector Type	InGaAs
Calibrated Wavelength	850nm, 1300nm, 1310nm, 1550nm
Channel	12
Measuring Range	-60~+3dBm
Resolution	±0.01dB
Stability	±0.5dB
Max. Input Power	+13dBm
Unit	dBm/dB (REF)
Threshold Setting	4 wavelengths
REF Setting	4 wavelengths
USB Interface	yes
Data Storage	300 groups of 12 fibers test results
Auto Wavelength Identification	yes
Polarity Test	yes, according to TIA-568-C.0
Frequency Identification	270Hz, 1kHz, 2kHz
Parameters	
Display	TFT LCD
Auto Power-off	10 minutes interval
Power Supply	rechargeable NiMH batteries, AC/DC adaptor
Battery Working Time	continuous testing ≥10 hours
Operating Temperature	0 to +50℃
Relative Humidity	0~95% (non-condensing)
Dimension	190L*105W*55H mm
Net Weight	700g
Standard Accessories	
MPO master cord, battery, AC/DC adapter, test report, carrying bag, user manual	

GW6700 Optical Cable Identifier

Description

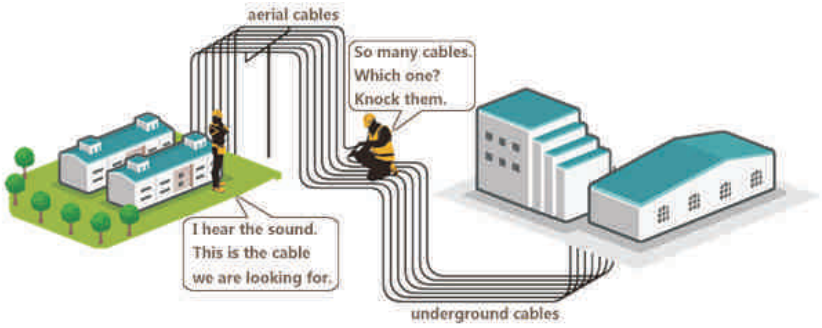
GW6700 Optical Cable Identifier can accurately identify the specific cable from a bunch of aerial, duct, or direct buried cables by connecting it to one fiber with FC/APC connector in the cable and knocking the cables.
When knocking the specific cable, GW6700 Optical Cable Identifier will transform mechanical vibration to video and sound signal, which will help find the target cable. It could display the distance from the knocking point to the testing point. .



Features

- No need to cut the cable, easy and quick
- High SNR
- Low power consumption
- High dynamic range, up to 80km
- Various communication and storage interfaces, sable system

Part Number	Description
GW6700	Optical Cable Identifier



Specification

FMS-10 MPO Laser Source			
Model	**GW6700A**	**GW6700B**	**GW6700C**
Fiber Number	single fiber		
Wavelength	1310 or 1550nm		
Min. Output Power	-15dBm	-3dBm	+9dBm
Max. Distance	20km	50km	80km
SNR	>40dB		
VFL Distance	10km		
Fiber Type	SM		
Optical Connector	FC/APC		
Display	5.6 inch touch screen		
Input Mode	TIF touch screen + button		
Output Mode	video: active display of real-time waveform		
	audio: dual channel audio output		
Power Supply	DC12V/5A		
Lithium Battery	7.4V, 7.5Ah, continuous working time ≥30h		
Power	≤4.5w		
Dimension	255H*155W*72L mm		
Net Weight	1.5kg (including battery)		
Operating Temperature	0 to +50℃		
Storage Temperature	-20 to +70℃		

Standard Accessories

AC/DC adapter, headphone, adapter, patchcord, coupler, test report, carrying bag, user manual

FIM-1 Fiber Microscope

Description

FIM-1 Fiber Microscope is used to inspect end-face of fiber optic connectors. It magnifies 125um fibers 200 times, enlarging picture through a video signal to the display where the status of fiber end-face is showed clearly.

Not only portable and easily in-hand, FIM-1 Fiber Microscope is also multi-functional. It can detect simplex and duplex fiber ends located in both male and female connectors. Also, working stably is it' s another feature. It eliminates the need to find solutions for hard-to-reach areas inspection, which can detect connectors even installed on the backside of patch panels or inside hardware devices, providing you a completely convenience for checking .



Part Number	Description
FIM-1	Fiber microscope

Features

- 960x240 definition, 3.5 inch LCD monitor
- Power run-out alarm
- Magnetic attachment to equipment
- Battery safe and high volume, ≥5 hours continuous working time
- 0.3mm*0.3mm observable areas, 2mm*2mm adjustable areas

Specification

Model	FIM-1
Image Zoom	200X
Display Screen AV Output	3.5'' TFT PAL/NTSC
Resolution	0.75um
Video	N/A
Audio	N/A
Multiple in Display	N/A
Power Supply	Li-ion battery 2200mAh & AC/DC adaptor
Data Storage	N/A
Connect to TV	N/A
Connect to PC	optional
USB Interface	optional
Number of Channels	1CH
Back Light	yes
Battery Life	>5 hours
Storage Temperature	-10°C-40°C
Working Temperature	-20°C-60°C
Dimension	240mm*100*35mm
Net Weight	580g

Standard Accessories

Name	Quantity
FIM-1 probe	1pc
3.5 inch display	1pc
SC-PC-F (For SC/PC adaptor)	1pc
FC-PC-F (For FC/PC adaptor)	1pc
LC-PC-F (For LC/PC adaptor)	1pc
2.5PC-M (For 2.5mm connectors, SC/PC, FC/PC, ST/PC)	1pc
Lithium battery	1pc
DC 12V 2A adaptor	1pc
User manual	1pc
Soft case	1pc

FIM-4 Fiber Microscope Probe

Description

FIM-4 Fiber Microscope Probe features with USB function to connect the laptop or PC directly, which includes image sensor inside the probe to have real-time inspection, no need for any additional power cord and driver. It can also be equipped with EFD3.3.0 Data Software to have end face verified based on different IEC/IPC internal criteria or customize. All spots, scratches, defects, etc. around end face can be easily figured out, measured and counted with pdf or excel report file generated. It' s most applied in fiber operator and research institution.



Part Number	Description
FIM-4	Fiber microscope probe

Features

- Zoomable lens
- High alignment accuracy
- 400X magnification
- Print report
- Adapters for different kinds of terminal

Specification

Items	Value
Magnification	400X
Resolution Field of View	1.0μm 0.40*0.31mm
Working/Storage Temperature	-18℃-35℃
Dimension	235*95*30mm
Sensor	1/3 decimetre, 2 million pixels
Weight	0.15kg
USB Interface	1.1/2.0
Standard Accessories	
Name	Quantity
FIM-4 Fiber Microscope Probe	1pc
Adapter SC-PC-F (for SC/PC adaptor)	1pc
Adapter FC-PC-F (for FC/PC adaptor)	1pc
Adapter LC-PC-F (for LC/PC adaptor)	1pc
Adapter 2.5mm-Male (for 2.5mm connector, SC/PC, FC/PC, ST/PC)	1pc

FIM-5 Fiber Microscope

Description

FIM-5 Fiber Microscope is used to inspect end-face of fiber optic connectors. It magnifies 125um fibers 400 times, enlarging picture through a video signal to the display where the status of fiber end-face is showed clearly.

Not only portable and easily in-hand, FIM-5 Fiber Microscope is also multi-functional. It can detect simplex and duplex fiber ends located in both male and female connectors. Also, working stably is it' s another feature. It eliminates the need to find solutions for hard-to-reach areas inspection, which can detect connectors even installed on the backside of patch panels or inside hardware devices, providing you a completely convenience for checking .

Features

Fiber Microscope Probe:

- Consistent alignment, simple to operate
- Unidirectional focusing, quick and accurate imaging.
- 400X magnification, clear image

Display:

- Small, light, and portable
- Changeable high capacity batteries
- Photo, video and record tested fiber
- Brightness and Contrast adjustable

Specification

Fiber Microscope Probe	
Magnification	400X
Resolution	<1μm
View of Field	X: 0.3165 Y: 0.285
Focus Direction	unidirectional
Focus Speed	2~6S
Alignment	>98%
Output Port	Dual pins AV port
Weight	110g
Dimension	180L*22W*56H (mm)
Display	
Screen Dimension	2.7 inch / 960*240
Enlarged Size	22mm
Picture	Single-framed 640x480JPG
Timer	5/15/30mins selections
Batteries	Li-ion1800mAh
Languages	English/Chinese/Russian
TF Storage	Support 32G
Input/Output Port	AV /USB2.0
Weight	85g
Dimension	78L*22W*56H (mm)
Standard Accessories	
Name	Quantity
Fiber microscope probe	1pc
2.7 inch display	1pc
SC-PC-F (For SC/PC adaptor)	1pc
FC-PC-F (For FC/PC adaptor)	1pc
LC-PC-F (For LC/PC adaptor)	1pc
2.5PC-M (For 2.5mm connectors, SC/PC, FC/PC, ST/PC)	1pc
Li-ion batteries	2pcs
Charger	1pc
USB cable	1pc
Earphone cable	1pc
8G TF Reader	1pc
Soft case	1pc



Part Number	Description
FIM-5	Fiber microscope

Optional Accessories for FIM-1, FIM-4 and FIM-5

Name	Quantity
USB function related	1pc
ST-PC-F (For ST/PC adaptor)	1pc
MU-PC-F (For MU/PC adaptor)	1pc
E2000-PC-F (For E2000/PC adaptor)	1pc
MT-PC-F (For MTRJ/PC adaptor)	1pc
1.25PC-M (For 1.25mm connectors, LC/PC, MU/PC)	1pc
SMA-M (For SMA/PC connector)	1pc
FC-APC-F (For FC/APC adaptor)	1pc
SC-APC-F (For SC/APC adaptor)	1pc
LC-APC-F ((For LC/APC adaptor)	1pc
E2000-APC-F ((For E2000/APC adaptor)	1pc
2.5APC-M (For 2.5mm connectors, SC/APC, FC/APC, ST/APC)	1pc
MPO-PC-F (For MPO/PC adaptor); MPO-APC-F (For MPO/APC adaptor)	1set
Tip60 (60 degree base for special tips)	1pc
FC-PC-60F (For FC/PC adaptor at 60 degree testing)	1pc
SC-PC-60F (For SC/PC adaptor at 60 degree testing)	1pc
LC-PC-60F (For LC/PC adaptor at 60 degree testing)	1pc
LC-APC-60F (For LC/APC adaptor at 60 degree testing)	1pc
SC-APC-60F (For SC/APC adaptor at 60 degree testing)	1pc
1.25APC-M ((For 1.25mm connectors, LC/APC, MU/APC at 60 degree testing)	1pc



Part Number	Description
SC-PC-F	For SC/PC adapter



Part Number	Description
FC-PC-F	For FC/PC adapter



Part Number	Description
LC-PC-F	For LC/PC adapter



Part Number	Description
2.5PC-M	For 2.5mm connectors, SC/PC, FC/PC, ST/PC



Part Number	Description
ST-PC-F	For ST/PC adapter



Part Number	Description
MU-PC-F	For MU/PC adapter



Part Number	Description
E2000-PC-F	For E2000/PC adapter



Part Number	Description
MPO-PC-F	For MPO/PC adapter



Part Number	Description
1.25PC-M	For 1.25mm connectors, LC/PC, MU/PC



Part Number	Description
E2000-APC-F	For E2000/APC adapter



Part Number	Description
SC-APC-F	For SC/APC adapter



Part Number	Description
LC-APC-F	For LC/APC adapter

FIM-8 Fiber Optic Inspection Microscope Kit

Description

FIM-8 Fiber Optic Inspection Microscope Kit is a precision illuminated zoom microscope with 160-200x magnification power. Focus can be adjusted by turning the wheel and the rotatable bulb which can pinpoint the light on the object.



Features

- ON/OFF switch, bulb rotation knob
- 3 built-in magnification 160X, 180X and 200X
- Focus wheel, designed with film control dial to hold focus
- Universal 2.5mm adaptor is suitable for SC, FC and ST connector ferrules,
- universal 1.25mm adaptor for LC and MU connector ferrules, and 3.17mm adaptor for SMA905 connector ferrule

Part Number	Description
FIM-8	Fiber Optic Inspection Microscope Kit

Specification

Parameters	Specifications
Optical Magnification	200X
Power Source	2 "AA" alkaline batteries
Light Source	2w bubble/100 hours
Weight	0.35kg
Dimensions	150(L)×45(W)×20(H)mm

Ordering Information

Part Number	Description
FIM-8 (N000527)	Fiber Optic Inspection Microscope Kit, with 2.5mm adapter for 2.5mm ferrule (ST/SC/FC)
FIM-8-AD-1	adapter for 1.25mm ferrule (LC/MU)
FIM-8-AD-2	adapter for 2.5mm ferrule (ST/SC/FC)
FIM-8-AD-3	adapter for 3.17mm ferrule (SMA905)

FIM-9 Series Handheld Fiber Optic Microscope

Description

FIM-9 Series Handheld Fiber Optic Microscopes utilize a white light LED for coaxial illumination. Light is introduced into the optical path (axis) so that it comes out the tip of the objective lens and strikes the ferrule perpendicular to the end face. This method of illumination produces a high level of resolution, providing excellent detail of scratches and contamination.



Features

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

Part Number	Description
FIM-9	Handheld Fiber Optic Microscope

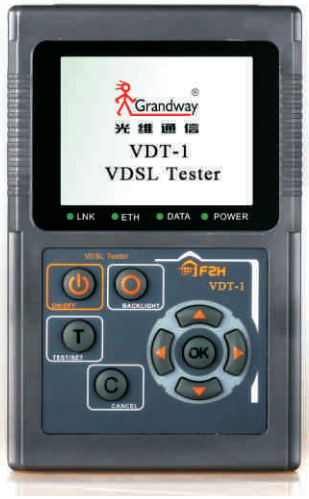
Specification

Parameters	Specifications	
Model	FIM-9-200	FIM-9-400
Optical Magnification	200X	400X
Power Requirements	3 "AAA" alkaline batteries	
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	Built-in IR filter	
Adapter Interface	Interchangeable for 2.5mm and 1.25mm ferrule connectors	
Weight	0.6kg	
Dimensions	225mm/8.76" (L)×32mm/1.25" (diameter)	

VDT-1 VDSL Tester

Description

VDT-1 VDSL Tester is a handheld VDSL2/ADSL2+/ADSL2/ADSL line test and analysis instrument, which is a necessary tester for VDSL line deployment and maintenance. It can test physical layer, network layer and Ethernet accurately.



Part Number	Description
VDT-1	VDSL Tester

Features

- xDSL physical layer testing-VDSL2/ADSL2+/ADSL2/ADSL
- xDSL network layer testing
- Ethernet testing
- Cable testing
- AC/DC voltage and line length estimation

Specification

Size	146x87x50mm
Weight	600g
Display	2.8" 320x240 TFT true color, touch screen
Operation Mode	Touch and keyboard
Interfaces	RJ11, RJ45, USB, DC power
Battery	Rechargeable Li-ion battery
Charging Time	4 hours
Operating Time	4 hours
Operating Temperature	0~+45°C
Storage Temperature	-20~+70°C
Operating Humidity	10%~90%
Storage Humidity	5%~95%
Data Storage	2M

FHE-1 E1/2M Bit Error Tester

Description

FHE-1 is a hand-held equipment designed for 2M bit error rate test, applicable to telecommunication access networks, transmission networks and the start-up, check and maintenance of optical communication systems.



Part Number	Description
FHE-1	E1 tester

Features

- Hand-held structure, solid design, especially suitable for the fieldwork
- LCD display with backlight, menu operation
- Data storage capacity up to 90 sets
- Test results and real-time clock could be saved safely with a standby Ni-MH rechargeable battery
- LED alarm and status indicator
- Clock Source: internal, received
- 75 ohm and 120 ohm interfaces available
- Out of service test/in-service test
- Framed/unframed test
- 2Mb/s,N*64Kb/s BER TEST
- Timeslot voice monitoring
- Error insertion: Single&.Fixed rate
- Error bit test, time-slot test ,signal analysis, protocol test
- Measurement results can be printed via external serial port printer

Specification

Technical parameters	
Bit rate	2084Kb/s±50ppm
Interface	75ohm unbalanced, input impedance>2000ohm
Input sensitivity	0~-43dB
Circuitry code	HDB3
Frame type	Framed/umframed
Frame pattern	PCM30,PCM30CRC,PCM31,PCM31CRC
Test pattren	Random pseudocode:2^15-1,2^11-1, Fixed code:1111,0000,1010
Alarm indicator	Signal loss, AIS, Frame Loss, MF Remote Alarm, CRC Error, Patten LOSS, Pemote Alarm
Error insertion	Single error insertion Fixed rate error insertion:10E-3,10E-6
Serial interface	RS-232&.USB
Rechargeable	6*1.2v AA Ni-MH rechargeable batteries, for 8-hour
batteries	contineous test ,Built-in smart fast charger,4.5 charging hours
Power supply	AC/DC adapter,6*1.2v Ni-MH rechargeable batteries
Dimensions	215mm*100mm*50mm(L*W*H)
weight	700g

Standard accessories

75π unbalance test cable*2, Ni-MH rechargeable battery*6, user manual, serial cable, AC/DC adaptor, 120 πbalance test cable*2, carrying case, CD disk

Optional accessories

Cigarette lighter cable, serial printer

TLP-3C 2M Transmission Analyzer

Description

TLP-3C 2M Transmission Analyzer is a multi-functional and full-featured digital transmission system test device, designed for the installation test, engineering check and acceptance, daily maintenance of digital networks, mainly performing channel test, alarm analysis, fault finding and signaling analysis. In addition, this instrument further provides various protocol converters with one-way and bi-directional bit error test function. These capabilities make it ideal for field use.



Part Number	Description
TLP-3C	2M Transmission Analyzer

Basic Functions

1) 2M testing
75Ω and 120Ω line interfaces
HDB3 and AMI line codes
Out-of-service 2Mb/s, N×64kb/s BER testing
"PCM simulator" mode testing
Frame data control and monitoring
Timelot activity monitoring, FAS, N-FAS, TS16MFO analysis
Built-in 64kb/s tone channel listen capability
CAS and CCS signaling generation and monitoring
Round trip delay measurement
APS delay measurement
Extensive error and alarm generation
VF tone generation and measurement
Level measurement
Pulse mask measurement
Jitter measurements to ITU-T standard O.172
Frequency and offset measurement
Clock slip measurement
Up to ±999ppm transmit clock deviation
Clock source: Internal, Interface or External 2M clock/signal
Real-time transmit circuit open/short indication

2) Datacom testing
Datacom (V.24, V.35, V.36, X.21, RS-449, RS-485, EIA-530 and EIA-530A) interfaces BER Testing
ASYNC BER testing with baud rate 300b/s~38.4Kb/s
SYNC BER testing with data rate 300b/s~8Mb/s
DTE or DCE emulation
SYNC clock source and sense selection
Frequency measurement

3) G.703 CO testing
G.703 CO 64kb/s BER testing
Octet timing control and monitoring
Frequency and offset measurement
Clock source: Internal, Interface selectable

4) Protocol converter testing
2M-Datacom SYNC 64k or N×64kb/s BER testing
2M-G.703 CO SYNC 64kb/s BER testing
Frequency and offset measurement
Handshaking signals monitoring
2M frame data and alarm monitoring

5) Other functions
Real-time clock
Test pattern: PRBS, Fixed Code and 16-BIT User Word
Error injection: Single and Fixed Rate
Manual and auto-timer measurement
ITU-T G.821, G.826, and M.2100 performance analysis

Features

- Handheld design and easy-to-use
- Full-featured measurements to 2M, Datacom
- High resolution backlight large LCD screen, with adjustable contrast
- Smart navigation mode and multi-language displays
- Extensive error and alarm generation, detection and indication
- Histograms analysis of alarm and error events
- Up to 99 days continuance test performance
- Save/Recall of up to 7 user-defined setups and 70 sets of results
- Up to 6 hours operation from a single battery charge
- Built-in Li rechargeable battery and smart charger circuit
- Can be charged with automobile cigarette lighter battery adapter
- Ungradable software via an integrated RS232C interface
- Test results uploaded, conserved and printed by PC Manager software

Specification

Item	Description		
2M	Internal Clock	2048kb/s ±10ppm	
	Frequency Deviation	±999ppm	
	Line Interface	75Ω (Unbalanced), 120Ω (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: ±1Hz	
	Offset Measurement	Accuracy: ±1ppm	
		Range: -999ppm~+999ppm	
	VF Injection	Frequency: 200MHz~3400MHz, Step: 10Hz	
		Level: -60dBm~+3dBm	
	VF Measurement	Frequency: 200MHz~3400MHz	
		Accuracy: ±1Hz	
		Level range: -60dBm~+3.14dBm	
		-60dBm~-21dBm, accuracy: ±2.87dBm	
		-20dBm~+3.14dBm, accuracy: ±0.21dBm	
	Delay Measurement	Accuracy: ±1us	
G.703 CO	Line Rate	64kb/s ±1000ppm	
	Line Interface	120Ω, Balanced	
	Line Code	AMI	
Datacom	Line Interfaces	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		
TestManager Pro	WIN98/ME/NT/2000/XP		
Dimensions	L×W×H 200mm×160mm×45mm		
Operating Temperature	0℃~50℃		
Storage Temperature	-20℃~+70℃		
Humidity	5%~95% non-condensing		

Standard Accessories

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 Accessories

Optional Items	Quantity	Optional Items	Quantity
120 testing line	2pcs	64K testing lines	1pc

GD300DQ TV Signal Level Meter

Description

GD300DQ TV Signal Level Meter is designed to provide features which are most widely used and favored by professionals in CATV industry at the least cost.It can be used to measure accurately the analogue channels, digital channels efficiently and effectively with high accuracy rate.Mainly it supports C/N,level,channel power measurement,voltmeter function,spectrum analysis and so on . Overall, its functions are easy to use and can be used in a wide range of applications.



Part Number	Description
GD300DQ	TV Signal Level Meter

Features

- Compact design
- 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.
- C/N testing. Slope testing.
- QAM View includes BER,MER,and constellation

Applications

- Cable modem analysis using zero span mode provides accurate, in-service power and C/N measurements.
- QAM view option provides complete analysis of digital TV and forward cable modem signals.
- Find ingress fast with field view option. Cable technicians working in the field can see the reverse path at the headend.
- Full, in-service, proof-of-performance analyzer.
- Fast, sensitive spectrum analyzer.
- Digital QAM carrier demodulation includes 16,32,64,128and256 QAM constellation display with zoom, average digital power level, bit error rate(BER),and 22 to 39dB modulation error rate(MER).

Specification

Technical parameters

Channel/Frequency index		**Digital channel**	
Frequency range	5MHz-862MHz	Modulation mode	Comply with DVB-C/ITU J83-A
Precision	50ppm	QAM mode	16/32/64/128/256 QAM
Resolution	10KHz	Symbol rate	1MS/S-7MS/S
Measurement band width	280KHz	Band width	Set by user
Frequency step	50KHz,100KHz,500KHz	MER	22-39dB
Channel type		Precision	±2dB
Analog TV	TV	BER	1E-4-1E-9
Digital TV	16/32/64/128/256 QAM	**Carrier-noise ratio(C/N)**	
Frequency/channel	SIGL	Signal input range	>70dBuV
Analog power level testing		Measuring range	20dB-50dB
Measuring range	25dBuV-120dBuV	Precision	±2dBuV
Precision	±1.5dB	Resolution	0.5dB
Resolution	0.1dB	**Spectrum analysis**	
Detection method	Peak value detection	Frequency Range	5MHz-862MHz
Input impedance	75Ω	Resolution	100KHz
Digital power level testing		Precision	50ppm
Measuring range	25dBuV-110dBuV	Power levels range	20dBV-120dBV
Precision	±1.5dB	Power levels resolution	0.1dB
Resolution	0.1dB	Power level precision	±1.5dB
Detection method	Average value detection	Dynamic range	60dB
Input impedance	75Ω	Input impedance	75Ω
Voltage testing		RBW	300KHz
Input range	0-80V(AC/DC)	Testing band width	6,12,62MHz,All range scan
Precision	±2V	**Slope testing**	
Resolution	0.1V	Number of channels	5
		Resolution	±0.1dB

General parameters

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
Stand accessories	Carrying Bag,AC/DC Adaptor,Battery,Software,USB cable.

Standard accessories

Carrying Bag,AC/DC Adaptor,Battery,Software,USB cable

CL1400 Pipeline and Cable Locator

Description

CL1400 Pipeline and Cable Locator consists of a Transmitter, a Receiver and Accessories, used in the underground pipeline & cable route accurate locating, the burial depth measuring, long distance tracing, and insulation fault point detecting. We adopted multicoil electromagnetism technology in CL1400 Pipeline and Cable Locator, enhanced the precision of the pipeline and cable location and the burial depth, and the goal pipeline identification capability. It could accurately carry on tracing and location to the goal pipeline and cable in the crowded pipelines and cables.
CL1400 Pipeline and Cable Locator is widely used in the telecommunication, mobile, electric power, water supply, natural gas, physical prospecting, petrochemical and city construction, etc.



Part Number	Description
CL1400	Pipeline and Cable Locator

Functions

- 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

Features

1. Adopt the advanced signal processing technology and the latest integrated circuit to achieve outstanding test performance.
2. The detecting signal transmission method includes:
(1) Injection method: with injected the spot on the pipeline to detect the route and the burial depth, this method measuring accuracy is high, and good anti-jamming ability.
(2) Clamping method: used in a pipeline with the exposed section and easy to clamp.
(3) Induction method: used in a pipeline without injection point or without exposed section.
3. Many kinds of detecting frequency: 480Hz, 7.7KHz , 31KHz and 61KHz, which are four kinds of active frequency and 50Hz of passive frequency using in electric cable; The user may carry on the choice according to the different environment (need special detecting frequency please indicate specially in order contract).
4. Enhancement test efficiency by different localization pattern and function:
(1) peak value pattern: Determines the position through the maximum route signal.
(2) valley value pattern: Determines the position through the minimum route signal
(3) route direction detection: Direct-viewing, instructs the route rapidly the direction.
(4) insulation fault finding (FF): Detect and locate the insulate fault point of pipeline and cable .
(5) Stethoscope: find loading signal on the pipeline through stethoscope from the multitudinous pipelines.
5. Auxiliary functions:
(1) Automatic control receive gain: The automatic control receiver gain can keep the receiver to be at the optimized status and avoid manual operation.
(2) Sound function: The receiver reflects the detecting signal intuitively through the tonality changing.
(3) Check the detecting condition: When the transmitter in injection mode, first test the insulation resistance and the residual voltage of pipeline, then load the signal to a pipeline. When the value of the insulation resistance too small (almost in short-circuits) the transmitter will withdraw automatic from this mode, when the residual voltage is so large the transmitter will warn, the operator must stop to load signal and shut off the transmitter.
(4) Battery value testing: Real-time detection of battery, when the voltage lower than the protect value, the transmitter will warn and automatic shut-down.
(5) Power save: The machine will be off to save the power if the transmitter is not be operated after booting in 30 second, and if the receiver is not be operated after booting and no other keystrokes about 10 minutes.

Specification

Transmitter	
Signal Frequency for Injection Method	480Hz, 7.7KHz, 31KHz, 61KHz
Signal Frequency for Induction Method	31KHz, 61KHz
Signal Frequency for Clamping Method	31KHz
Signal Frequency for Fault Finding	480Hz
Output Voltage	0-400Vp-p adjust according to the insulation condition
Output Wave Shape	sine wave
Power Supply	11.1VDC 4.4AH Li-battery
Maximum Output Power	10W
Receiver	
Power Loss	<1W
Power Supply	11.1VDC 1.8AH Li-battery
Max. Burial Depth for Detecting	4.5 meters (normal condition)
Tolerance of burial Depth for Detecting	±0.05H ±5cm ("H" is pipeline burial depth)
Tolerance of Route for Detecting	≤5cm
The Effective Length under Detecting Pipeline Route and Depth with Injection Method	≥10Km (normal condition)
The Effective Length under Detecting Pipeline Route and Depth with Induction method	≥3Km (normal condition)
The Effective Length under Detecting Pipeline Route and Depth with Clamping method	≥6Km (normal condition)
Insulated Fault Detecting	≥2 MΩ

Environmental	
Operating Temperature	-20℃~+50℃
Storage Temperature	-40℃~+70℃
Relative Humidity	10%~90%
Atmospheric Pressure	86~106KPa
Environmental Noise	≤60dB

Weight and Dimension		
Name	Weight (Kg)	External Dimensions (mm)
Transmitter	3.4	348×239×175
Receiver	2.6	648×260×130
Entire Machine (Gross Weight)	14	790×250×420

Optional Accessories		
Name	Weight (Kg)	External Dimensions (mm)
Fault Finding Holder	1.5	525×672×25

Remark: Normal condition means that without insulation fault and other interference in the measuring range as detecting the pipeline.

Accessories

Item	Name	Quantity
1	Transmitter	1pc
2	Receiver	1pc
3	Carrying case	1pc
4	User manual	1pc
5	Charger	2pcs
6	Earthing stick	1pc
7	Signal output line	1pc
8	Inductive clamp	1pc
9	Stethoscope	1pc
10	Certificate	1pc

Ordering Information

Model	Name	Description
CL1400	Pipeline and Cable Locator	With inductive clamp and stethoscope
CL1400A	Pipeline and Cable Locator	With inductive clamp, stethoscope and Fault Finding Holder
CL1400B	Pipeline and Cable Locator	With inductive clamp, stethoscope and GPS

Testing equipments

6500 Series DFB Highly Stable Laser Source





6560 ASE Broadband Laser Source

GJ6600 Series Bench-top Optical Attenuator





6200 Bench-top Optical Power Meter

6900 Series Bench-top Insertion/Return Loss Testing Meter





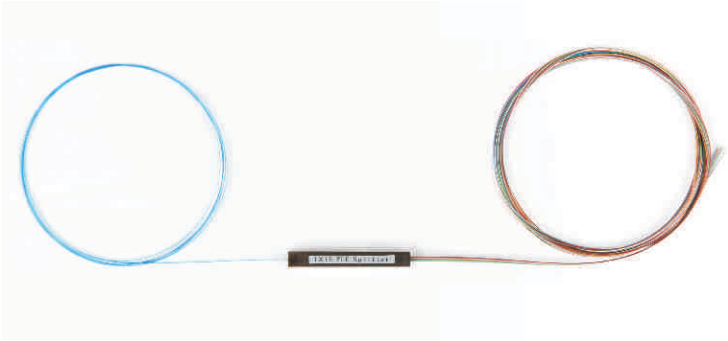
6300 Series Bench-top Optical Switcher

Note: Please contact us for more information.

Bare Fiber PLC Splitter

Description

Grandway provides a high precise PLC splitter for the construction of optical network. Low requirements of placing position and environment, compact micro type design. It is especially suitable for tiny room installation and can be easily placed into different types of terminal boxes and distribution boxes, in favor of splicing and staying in tray without additional space reservation.



Product Name	Customization event
Bare Fiber PLC Splitter	Channel count Fiber core type Input fiber length Output fiber length

Features

- Compact design
- Low insertion loss and low PDL
- High reliability
- High channel counts
- Wide wavelength range
- Large operating and temperature range
- Customized packaging and configuration
- Full Telcordia GR1209/1221 qualifications

Specification

1×N(N>2)PLCS(Without connector) Optical parameters						
Parameters	1×2	1×4	1×8	1×16	1×32	1×64
Operation wavelength(nm)	1260~1650					
Insertion loss(dB) Max	4.0	7.4	10.7	13.9	17.2	21.5
Return loss(dB) Max	0.4	0.6	0.8	1.2	1.7	2.5
Return loss(dB) Min	55	55	55	55	55	55
PDL(dB) Max	0.2	0.2	0.3	0.3	0.3	0.3
Directivity(dB) Min	55	55	55	55	55	55
WDL (dB)	0.4	0.4	0.4	0.5	0.5	0.5
Pigtail length(m)	1.2(±0.1) or customer specified					
Fiber type	250μm bare fiber					
Operation temperature(℃)	-40~85					
Storage temperature(℃)	-40~85					
Dimension(L×W×H) (mm)	40×4×4	40×4×4	40×4×4	40×4×4	50×7×4	60×12×4

2×N(N>2)PLCS(Without connector) Optical parameters					
Parameters	2×4	2×8	2×16	2×32	2×64
Operation wavelength(nm)	1260~1650				
Insertion loss(dB) Max	7.6	11.0	14.8	17.9	21.5
Loss uniformity(dB) Max	1.2	1.5	1.8	2.0	2.0
Return loss(dB) Min	55	55	55	55	55
PDL(dB) Max	0.2	0.3	0.4	0.4	0.4
Directivity(dB) Min	55	55	55	55	55
WDL (dB)	0.4	0.4	0.5	0.5	0.5
Pigtail length(m)	1.2(±0.1) or customer specified				
Fiber type	250μm bare fiber				
Operation temperature(℃)	-40~85				
Storage temperature(℃)	-40~85				
Dimension(L×W×H) (mm)	50×4×4	50×4×4	60×7×4	60×7×4	60×7×4

Micro Type PLC Splitter

Description

Grandway provides a high precise Micro type PLC splitter for the construction of optical network. Low requirements of placing position and environment, compact micro type design. It is especially suitable for tiny room installation and can be easily placed into different types of terminal boxes and distribution boxes, in favor of splicing and stay in tray without additional space reservation.

It can be easily applied in FTTx construction, optical network construction, CATV networks and etc.



Product Name	Customization event
Micro Type PLC Splitter	Channel count Fiber core type Input fiber length Input connector type Output fiber length Output connector type

Features

- Compact design
- Low insertion loss and low PDL
- High reliability
- High channel counts
- Wide wavelength range
- Large operating and temperature range
- Customized packaging and configuration
- Full Telcordia GR1209/1221 qualifications

Specification

1×N(N>2)PLCS(With connector) Optical parameters

Parameters							
Operation wavelength(nm)		1260~1650					
Insertion loss(dB)	Max	4.1	7.4	10.5	13.8	17.1	20.4
Return loss(dB)	Max	0.4	0.6	0.8	1.2	1.5	2.0
Return loss(dB)	APC Min	55	55	55	55	55	55
	UPC Min	50	50	50	50	50	50
PDL(dB)	Max	0.2	0.2	0.3	0.3	0.3	0.3
Directivity(dB)	Min	55	55	55	55	55	55
Wavelength dependent loss(dB)		0.4	0.4	0.4	0.5	0.5	0.5
Pigtail length(m)		1.2(±0.1) or customer specified					
Fiber type		SMF-28e with 0.9mm tight buffered fiber					
Operation temperature(℃)		-40~85					
Storage temperature(℃)		-40~85					
Dimension(L×W×H) (mm)		40×4×4	40×4×4	40×4×4	40×4×4	50×7×4	60×12×4

2×N(N>2)PLCS(With connector) Optical parameters

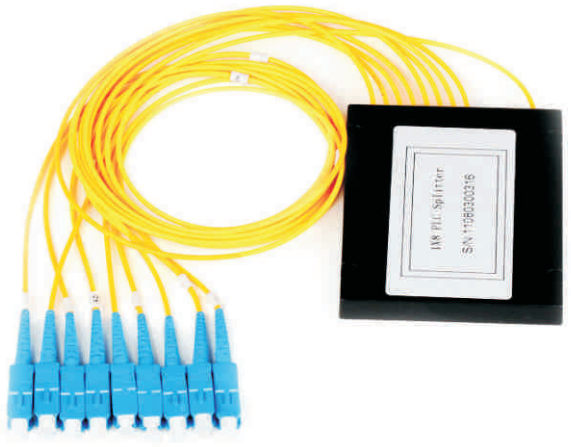
Parameters						
Operation wavelength(nm)		1260~1650				
Insertion loss(dB)	Max	7.7	10.8	14.1	17.4	20.7
Return loss(dB)	Max	0.6	0.8	1.0	1.5	2.0
Return loss(dB)	APC Min	55	55	55	55	55
	UPC Min	50	50	50	50	50
PDL(dB)	Max	0.2	0.3	0.4	0.4	0.4
Directivity(dB)	Min	55	55	55	55	55
Wavelength dependent loss(dB)		0.4	0.4	0.5	0.5	0.5
Pigtail length(m)		1.2(±0.1) or customer specified				
Fiber type		SMF-28e with 0.9mm tight buffered fiber				
Operation temperature(℃)		-20~65				
Storage temperature(℃)		-40~85				
Dimension(L×W×H) (mm)		50×4×4	50×4×4	60×7×4	60×7×4	60×12×6

Cassette Type PLC Splitter

Description

Grandway provides a high precise cassette type PLC splitter for the construction of optical network. Low requirements of placing position and environment, compact cassette type design, can easily be placed into optical fiber distribution box, optical fiber junction box or any kind of box, which can reserve some space.

It can be easily applied in FTTx construction, optical network construction, CATV networks and etc.



Product Name	Customization event
Cassette Type PLC Splitter	Channel count Fiber core type Input fiber length Input connector type Input cable type Output fiber length Output connector type Output cable type

Features

- Compact design
- Low insertion loss and low PDL
- High reliability
- High channel counts
- Wide wavelength range
- Large operating and temperature range
- Customized packaging and configuration
- Full Telcordia GR1209/1221 qualifications

Specification

1×N(N>2)PLCS(With connector) Optical parameters

Parameters		1×2	1×4	1×8	1×16	1×32	1×64
Operation wavelength(nm)		1260~1650					
Insertion loss(dB)	Max	4.1	7.4	10.5	13.8	17.1	20.4
Return loss(dB)	Max	0.4	0.5	0.6	1.0	1.3	1.9
Return loss(dB)	APC Min	55	55	55	55	55	55
	UPC Min	50	50	50	50	50	50
PDL(dB)	Max	0.2	0.2	0.3	0.3	0.3	0.3
Directivity(dB)	Min	55	55	55	55	55	55
Pigtail length(m)		1.2(±0.1) or customer specified					
Fiber type		SMF-28e with 2.0/3.0mm loose tube fiber					
Operation temperature(℃)		-20~65					
Storage temperature(℃)		-40~85					
Dimension(L×W×H) (mm)		100×80×10	100×80×10	100×80×10	120×80×18	140×114×18	140×114×18

2×N(N>2)PLCS(With connector) Optical parameters

Parameters		2×2	2×4	2×8	2×16	2×32	2×64
Operation wavelength(nm)		1260~1650					
Insertion loss(dB)	Max	4.4	7.7	10.8	14.1	17.4	20.7
Return loss(dB)	Max	0.6	1.2	1.5	1.8	2.0	2.0
Return loss(dB)	APC Min	55	55	55	55	55	55
	UPC Min	50	50	50	50	50	50
PDL(dB)	Max	0.2	0.2	0.3	0.4	0.4	0.4
Directivity(dB)	Min	55	55	55	55	55	55
Pigtail length(m)		1.2(±0.1) or customer specified					
Fiber type		SMF-28e with 2.0/3.0mm loose tube fiber					
Operation temperature(℃)		-20~65					
Storage temperature(℃)		-40~85					
Dimension(L×W×H) (mm)		100×70×9	100×70×9	100×70×9	120×80×18	140×114×18	140×114×18

Insertion Module & LGX Box Type PLC Splitter

Description

Grandway provides a high precise insertion module & LGX Box PLC splitter for the construction of optical network. Low requirements of placing position and environment, compact insertion module & LGX box type design. It is small enough to place in indoor terminal box and ODF frame or optical fiber distribution box directly.

PLC optical splitter offers uniform power splitting with low insertion loss, low PDL and high return loss. User can customize the optical splitting ratio for every output channel. The range of the working wavelength is from 1260nm to 1650nm.

It can be easily applied in FTTx construction, optical network construction, CATV networks and etc.





Product Name	Customization event
Insertion Module Type PLC Splitter	Channel count Fiber core type Input fiber length Input connector type Input cable type Output fiber length Output connector type Output cable type

Product Name	Customization event
LGX Box Type PLC Splitter	Channel count Fiber core type Input fiber length Input connector type Input cable type Output fiber length Output connector type Output cable type

Feature

- Compact design
- Customizable channel counts
- Customizable optical splitting ratio
- Low insertion loss and low PDL
- High reliability
- High channel counts
- Wide wavelength range
- Large operating temperature range
- Customized packaging and configuration

Specification

1×N(N>2)PLCS(With connector) Optical parameters

Parameters		1×2	1×4	1×8	1×16	1×32	1×64
Operation wavelength(nm)		1260~1650					
Insertion loss(dB)	Max	4.1	7.7	11.0	14.0	17.2	21.3
Return loss(dB)	Max	0.4	0.5	0.6	1.0	1.3	1.9
Return loss(dB)	APC Min	55	55	55	55	55	55
	UPC Min	50	50	50	50	50	50
PDL(dB)	Max	0.2	0.2	0.3	0.3	0.3	0.3
Directivity(dB)	Min	55	55	55	55	55	55
Pigtail length(m)		1.2(±0.1) or customer specified					
Fiber type		SMF-28e with 2.0/3.0mm loose tube fiber					
Operation temperature(℃)		-20~65					
Storage temperature(℃)		-40~85					
Size(L×W×H) (mm)	Module	128×101×25			128×101×51	130×101×102	130×101×206
	LGX Box	158×130×29			158×130×58	158×130×87	158×130×174

2×N(N>2)PLCS(With connector) Optical parameters

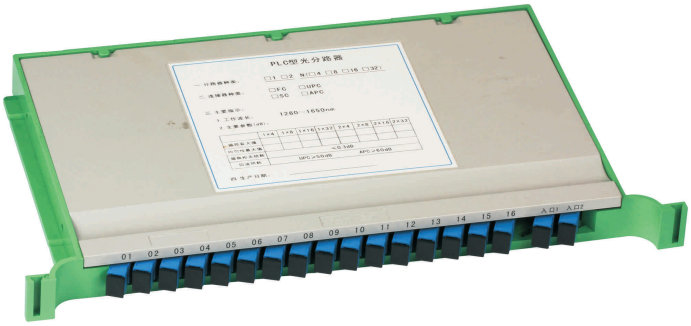
Parameters		2×2	2×4	2×8	2×16	2×32	2×64
Operation wavelength(nm)		1260~1650					
Insertion loss(dB)	Max	4.4	8.1	11.5	14.5	17.8	21.8
Return loss(dB)	Max	0.6	1.2	1.5	1.8	2.0	2.0
Return loss(dB)	APC Min	55	55	55	55	55	55
	UPC Min	50	50	50	50	50	50
PDL(dB)	Max	0.2	0.2	0.3	0.4	0.4	0.4
Directivity(dB)	Min	55	55	55	55	55	55
Pigtail length(m)		1.2(±0.1) or customer specified					
Fiber type		SMF-28e with 2.0/3.0mm loose tube fiber					
Operation temperature(℃)		-20~65					
Storage temperature(℃)		-40~85					
Size(L×W×H) (mm)	Module	128×101×25			128×101×51	130×101×102	130×101×206
	LGX Box	158×130×29			158×130×58	158×130×87	158×130×174

Tray Type PLC Splitter

Description

Grandway provides a high precise tray type PLC splitter for the construction of optical network. Low requirements of placing position and environment, compact tray type design. It is similar with the tray encapsulation in optical fiber distribution disc and can be placed in ODF frame or optical fiber distribution box directly.

It can be easily applied in FTTx construction, optical network construction, CATV networks and etc.



Product Name	Customization event
Tray Type PLC Splitter	Channel count Fiber core type Input fiber length Input connector type Input cable type Output fiber length Output connector type Output fiber type

Features

- Compact design
- Low insertion loss and low PDL
- High reliability
- High channel counts
- Wide wavelength range
- Large operating temperature range
- Customized packaging and configuration
- Full Telcordia GR1209/1221 qualifications

Specification

1×N(N>2)PLCS(With connector) Optical parameters						
Parameters		1×4	1×8	1×16	1×32	1×64
Operation wavelength(nm)		1260~1650				
Insertion loss(dB)	Max	7.7	11.0	14.0	17.2	21.3
Return loss(dB)	Max	0.6	0.8	1.2	1.5	2.0
Return loss(dB)	APC Min	55	55	55	55	55
	UPC Min	50	50	50	50	50
PDL(dB)	Max	0.2	0.3	0.3	0.3	0.3
Directivity(dB)	Min	55	55	55	55	55
Pigtail length(m)		1.0(±0.1) or customer specified				
Fiber type		SMF-28e with 0.9mm tight buffered fiber				
Operation temperature(℃)		-20~65				
Storage temperature(℃)		-40~85				
Dimension(L×W×H) (mm)		308×200×25/customization				

2×N(N>2)PLCS(With connector) Optical parameters						
Parameters		2×4	2×8	2×16	2×32	2×64
Operation wavelength(nm)		1260~1650				
Insertion loss(dB)	Max	8.1	11.5	14.5	17.8	21.8
Return loss(dB)	Max	1.2	1.5	1.8	2.0	2.0
Return loss(dB)	APC Min	55	55	55	55	55
	UPC Min	50	50	50	50	50
PDL(dB)	Max	0.2	0.3	0.4	0.4	0.4
Directivity(dB)	Min	55	55	55	55	55
Pigtail length(m)		1.0(±0.1) or customer specified				
Fiber type		SMF-28e with 0.9mm tight buffered fiber				
Operation temperature(℃)		-20~65				
Storage temperature(℃)		-40~85				
Dimension(L×W×H) (mm)		308×200×25/customization				

Rack Mounted Type PLC Splitter

Description

Grandway provides a high precise rack mounted type PLC splitter for the construction of optical network. Low requirements of placing position and environment, compact rack mount design. The dimension of 1U or 2U rack mount splitter can be customized based on the requirements of our client. It can be placed into ODF to process the standard operation.

It can be easily applied in FTTx construction, optical network construction, CATV networks and etc.



Product Name	Customization event
Rack Mounted Type PLC Splitter	Channel count Fiber core type Input fiber length Input connector type Input cable type Output fiber length Output connector type Output fiber type

Features

- Compact design
- Low insertion loss and low PDL
- High reliability
- High channel counts
- Wide wavelength range
- Large operating temperature range
- Customized packaging and configuration
- Full Telcordia GR1209/1221 qualifications

Specification

1×N(N>2)PLCS(With connector) Optical parameters						
Parameters		1×4	1×8	1×16	1×32	1×64
Operation wavelength(nm)		1260~1650				
Insertion loss(dB)	Max	7.7	11.0	14.0	17.2	31.3
Return loss(dB)	Max	0.6	0.8	1.2	1.5	2.0
Return loss(dB)	APC Min	55	55	55	55	55
	UPC Min	50	50	50	50	50
PDL(dB)	Max	0.2	0.3	0.3	0.3	0.3
Directivity(dB)	Min	55	55	55	55	55
Pigtail length(m)		1.0(±0.1) or customer specified				
Fiber type		SMF-28e with 2mm cable or customization				
Operation temperature(℃)		-20~65				
Storage temperature(℃)		-40~85				
Dimension(L×W×H) (mm)		483×200×1U/483×200×2U/customization				

2×N(N>2)PLCS(With connector) Optical parameters						
Parameters		2×4	2×8	2×16	2×32	2×64
Operation wavelength(nm)		1260~1650				
Insertion loss(dB)	Max	8.1	11.5	14.5	17.8	21.8
Return loss(dB)	Max	1.2	1.5	1.8	2.0	2.0
Return loss(dB)	APC Min	55	55	55	55	55
	UPC Min	50	50	50	50	50
PDL(dB)	Max	0.2	0.3	0.4	0.4	0.4
Directivity(dB)	Min	55	55	55	55	55
Pigtail length(m)		1.0(±0.1) or customer specified				
Fiber type		SMF-28e with 2mm cable or customization				
Operation temperature(℃)		-20~65				
Storage temperature(℃)		-40~85				
Dimension(L×W×H) (mm)		483×200×1U/483×200×2U/customization				

2mm3mm loose tube patchcord

Description

Grandway provides a high precise optical patchcord for the construction of optical network. We give user a wide choice of patchcord's connectors, including ST, FC, SC, LC and etc. with PC, UPC or APC polishing. Grandway patchcord is composed of high-grade connectors and the ferrule is made of zirconia. Customer can order the common type patchcord we offered as well as the special type customized by customer for special application.

Loose tube cables are designed for harsh environment conditions in the outdoors. They protect the fiber core, cladded and coated by enclosing everything within fairly rigid protective sleeves or tubes. It can be used in FTTx construction, optical network constuction, LAN, WAN and metro networks, CATV configuration.

Features

- Compact design
- Low insertion loss and high return loss
- Conform to ITU-T G.652D or others
- High reliablity suitable for both single mode and multiple mode
- Wide wavelength range
- Large operation temperature range
- Customized configuration



Part Number	Description
P-M-1-6-EN-FN-1-2-0010-Z	SC-SC,multiple mode ,2mm loose tube patchcord



Part Number	Description
P-M-1-6-LN-LN-1-2-0010-Z	LC-LC, multiple mode ,2mm loose tube patchcord



Part Number	Description
P-M-1-6-MoN-MoN-2-2-0010-Z	MTRJ(w/o)-MTRJ(w/o) multiple mode 2mm loose tube duplex patchcord



Part Number	Description
P-M-1-6-MoN-MoN-2-2-0010-Z	MTRJ(w/o)-MTRJ(w/o) multiple mode 2mm loose tube duplex patchcord

Specification

FTTx cable(with common strengthen member)	
Connector Type	CSC/FC/ST/LC/MU/Nil(non-connector) /E2000/MTRJ(W/O)/MTRJ(W)/DIN
Polishing Type	MM: None
Fiber Type	Single mode/Multiple mode(50/125 or 62.5/125)
Working Wavelength(nm)	850/1300/1310/1490/1550
Single Fiber Protection	Nylon 0.9mm on diameter
Strength Member of Cord	Kevlar
Fiber Insertion Loss(dB)	＜0.2
Connector Insertion Loss(dB)	＜0.3
Connector Return Loss(dB)	UPC , APC
	≥55 , ≥60
Repeatability(500times)(dB)	0.2
Bending Radius (mm)	≥30
Tensile Strength (kg/100mm)	≤12
Working Temperature (℃)	-20 ~ +80℃
Storage Temperature (℃)	-20 ~ +80℃
Working Humidity (℃)	＜90%RH
Sheath Diameter(mm)	Φ2/Φ3
Sheath Colour	Yellow for SM fiber, orange for MM type
Connector Length(mm)	about 50
Fiber Length(m)	Customization



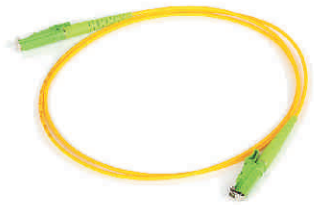
Part Number	Description
P-M-1-6-TN-TN-1-2-0010-Z	ST-ST multiple mode 2mm loose tube patchcord



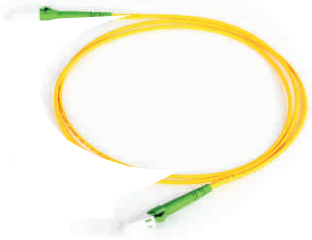
Part Number	Description
P-S-A-9-FU-FU-1-2-0010-Z	FC/UPC-FC/UPC single mode 2mm loose tube patchcord



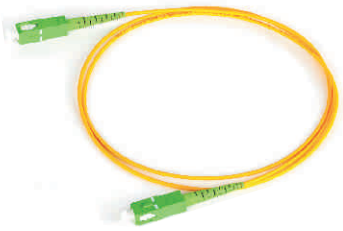
Part Number	Description
P-S-A-9-MU-MU-1-2-0010-Z	MU/UPC-MU/UPC single mode 2mm loose tube patchcord



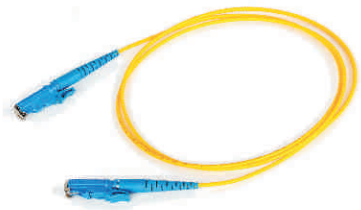
Part Number	Description
P-S-A-9-EA-EA-1-2-0010-Z	E2000/APC-E2000/APC single mode 2mm loose tube patchcord



Part Number	Description
P-S-A-9-LA-LA-1-2-0010-Z	LC/APC-LC/APC single mode 2mm loose tube patchcord



Part Number	Description
P-S-A-9-SA-SA-1-2-0010-Z	SC/APC-SC/APC single mode 2mm loose tube patchcord



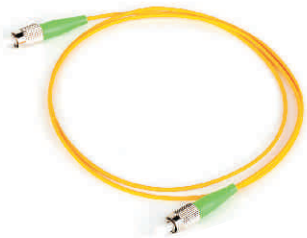
Part Number	Description
P-S-A-9-EU-EU-1-2-0010-Z	E2000/UPC-E2000/UPC single mode 2mm loose tube patchcord



Part Number	Description
P-S-A-9-LU-LU-1-2-0010-Z	LC/UPC-LC/UPC single mode 2mm loose tube patchcord



Part Number	Description
P-S-A-9-SU-SU-1-2-0010-Z	SC/UPC-SC/UPC single mode 2mm loose tube patchcord



Part Number	Description
P-S-A-9-FA-FA-1-2-0010-Z	FC/APC-FC/APC single mode 2mm loose tube patchcord



Part Number	Description
P-S-A-9-MoU-MoU-2-2-0010-Z	MTRJ(w/o)/UPC-MTRJ(w/o)/UPC multiple mode 2mm loose tube duplex patchcord



Part Number	Description
P-S-A-9-TU-TU-1-2-0010-Z	ST/UPC-ST/UPC single mode 2mm loose tube patchcord

Bunch Type Fanout Patchcord

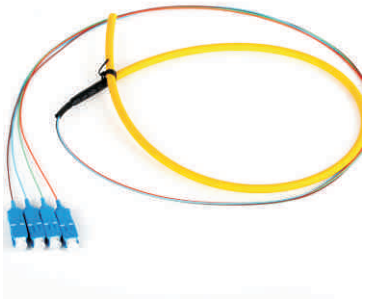
Description

Grandway provides a high precise optical patchcord for the construction of optical network. We give user a wide choice of patchcord's connectors, including ST, FC, SC, LC and etc. with PC, UPC or APC polishing. Grandway patchcord is composed of high-grade connectors and the ferrule is made of zirconia. Customer can order the common type patchcord we offer as well the special type customized by customer for special application.

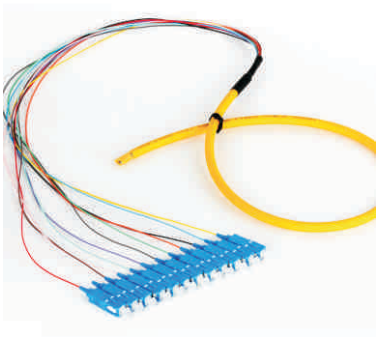
Bunch type patchcord is for the brief look of many patchords, it's often used in big project. It can be used in FTTx construction, optical network constuction, LAN, WAN and metro networks, CATV configuration.

Features

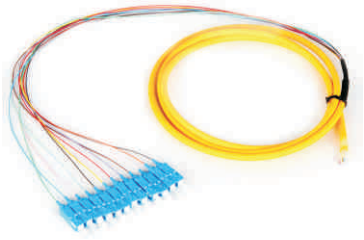
- Compact design
- Low insertion loss and high return loss
- Conform to ITU-T G.657A or G.652D, etc.
- High reliablity wide wavelength range
- Large operation temperature range
- Customized configuration



Part Number	Description
P-S-A-9-SU-NN-4-B2-0010-Z	SC/UPC-Nil single mode 4 cores bunch type patchcord



Part Number	Description
P-S-A-9-SU-NN-12-B2-0010-Z	SC/UPC-Nil single mode 12 cores bunch type patchcord



Part Number	Description
P-S-A-9-SU-NN-12-B2-0020-Z	SC/UPC-Nil single mode 12 cores bunch type patchcord

Specification

FTTx cable(with common strengthen member)	
Connector Type	SC/FC/ST/LC/MU/Nil(non-connector) /E2000/MTRJ(W/O)/MTRJ(W)/DIN
Polishing Type	UPC/APC
Fiber Type	Single mode/Multiple mode(50/125 or 62.5/125)
Fiber Count available	4 , 6 , 8 , 12 , 24
Sheath Material	LSZH
Fiber Insertion Loss(dB)	<0.2
Connector Insertion Loss(dB)	<0.4
Connector Return Loss(dB)	UPC, APC
	≥55 , ≥60
Repeatability(500times)(dB)	≤0.2
Bending Radius(mm)	≥30
Tensile Strength (kg/100mm)	≤15
Working Temperature (℃)	-20 ~ +80℃
Storage Temperature (℃)	-20 ~ +80℃
Working Humidity (℃)	<90%RH
Sheath Diameter(mm)	0.9 /2/3
Sheath Colour	Yellow
Connector Length(mm)	50
Fiber Length(m)	customization

FTTH Drop Cable Patchcord/Pigtail - 2×3mm

Description

Grandway provides a high precise optical patchcord for the construction of optical network. We give user a wide choice of patchcord's connectors, including ST, FC, SC, LC, and etc. with PC, UPC or APC polishing. Grandway patchcord is composed of high-grade connectors and the ferrule is made of zirconia. Customer can order the common type patchcord we offer as well the special type customized by customer for special application.

Features

- Compact design
- Low insertion loss and low PDL
- Conform to ITU-T G.657A
- High reliablity Wide wavelength range
- Large operation temperature range
- Customized configuration



Part Number	Description
P-S-A-9-SA-SA-1-B1-0010-Z	SC/APC-SC/APC single mode FTTx butterfly lead-in type patchcord

Specification

FTTx patchcord	
Connector Type	SC/FC/ST/LC/MU/SMA905/Nil(non-connector)/ E2000/MTRJ(W/O)/MTRJ(W)/DIN/FDDI/ESON
Polishing Type	SM: UPC/APC
Working Wavelength(nm)	1310 ~ 1650
Strength Member of Cord	S-Steel/F-FRP(Fiberglass-Reinforced Plastics)
Sheath material	LSZH
Fiber Insertion Loss(dB)	＜0.2
Connector Insertion Loss(dB)	<0.4
Connector Return Loss(dB)	UPC, APC ≥55 , ≥60
Repeatability(500times)(dB)	≤0.2
Bending Radius(mm)	≥15
Tensile Strength (kg/100mm)	≤8
Working Temperature (℃)	-20 ~ +80℃
Storage Temperature (℃)	-20 ~ +80℃
Working Humidity (℃)	<90%RH
Sheath Diameter(mm)	2×3.1
Sheath Colour	White/black/customization
Connector Length(mm)	50
Fiber Length(m)	Customization



Part Number	Description
P-S-A-9-SU-SU-1-B1-0010-Z	SC/UPC-SC/UPC single mode FTTx butterfly lead-in type patchcord

MPO Patchcord

Manufacturer: Shanghai Fujikura Grandway Co., Ltd.
a joint venture of Fujikura Ltd. and Grandway.

Description

Grandway provides a high precise optical patchcord for the construction of optical network. We give user a wide choice of patchcord's connectors, including ST, FC, SC, LC and etc. with PC, UPC or APC polishing. Grandway patchcord is composed of high-grade connectors and the ferrule is made of zirconia. Customer can order the common type patchcord we offer as well the special type customized by customer for special application.
FTTx cable patchcord is often used in indoor wiring,with different strength members. It can be flexible or bendable. It can be used in FTTx construction, optical network constuction, LAN, WAN and metro networks, CATV configuration.

Features

- Compact design
- Low insertion loss and low PDL
- Conform to ITU-T G.657A
- High reliablity wide wavelength range
- Large operation temperature range
- Customized configuration



Part Number	Description
P-S-A-9-PmU-PmU-12-R-0010-Z	MPO(male)/UPC-MPO(male)/UPC 12 cores patchcord

Specification

MPO patchcord

Connector Type	MPO(female)-MPO(female)
Fiber Type	9/125SM
Fiber Count Available:	8, 12, 24, etc.
Fiber Insertion Loss(dB)	＜0.2
Connector Insertion Loss(dB)	<0.75
Connector Return Loss(dB)	UPC≥55
Repeatability(1000times)(dB)	△0.2
Bending Radius(mm)	≥15
Tensile Strength (kg/100mm)	≤10
Working Temperature (℃)	-40°C to +85°C
Storage Temperature (℃)	-40°C to +85°C
Working Humidity (℃)	<90%RH
Sheath Colour	Yellow
Fiber Length(m)	Customization



Part Number	Description
P-S-A-9-PfU-PfU-8-R-0010-Z	MPO(female)/UPC-MPO(female)/UPC 8 cores patchcord

Bare Fiber Reel

Description

Grandway provides bare fiber reel for testing project. Both G.652 and G.657A type bare fiber are available. Grandway bare fiber reel delivers a good macrobending performance in the industry while maintaining compatibility with current optical fibers, equipment, practices and procedures. This full-spectrum single-mode optical fiber reel experiences virtually no signal loss when subjected to smaller radii bends. It is your best assistant in testing project.

Features

- Full-spectrum single mode fiber
- Small macrobending radius, comply with G.657A or G.652D standard
- Small attenuation value
- Suitable for any optical testing environment

Specification

Physical parameters	
Fiber type	Single mode
Total length	2km/25km
Diameter of coated fiber	250um
Diameter of bare fiber	125um
Min macrobending radius	30mm(G.652D) / 15mm(G.657A)
Typical attenuation value	
1310nm working wavelength	0.33~0.35dB/km
1490nm working wavelength	0.21~0.24dB/km
1550nm working wavelength	0.19~0.20dB/km
1625nm working wavelength	0.21~0.23dB/km



Part Number	Description
FC-S-A-9-1-B1-X-7-02000	2km bare fiber reel is composed of 250um tight buffered bare fiber. Using G.657A fiber ensure the performance. Usually applied in optical testing project, labs and etc.



Part Number	Description
FC-S-A-9-1-B1-X-7-25000	25km bare fiber reel is composed of 250um tight buffered bare fiber. Using G.657A fiber ensure the performance. Usually applied in optical testing project, labs and etc.

Mating Sleeve Adaptor

Description

Fiber adaptor is one kind of fiber flange. It is mainly used for interconnecting two fiber connectors. Both UPC and APC polishing mode are available. For interconnecting various connectors, fiber adaptor can be divided into 2 kinds , mating sleeve and hybrid adaptor.

Mating sleeve adaptor provides two same input interfaces for interconnecting a pair of FC/APC connectors. A mating sleeve adaptor is used in interconnecting of two same connectors so that it is widely applied in optical fiber management system, optical testing project and etc.

Features

- Easy to use
- Can be embedded in any termination box, splicing tray and etc.
- Both simplex and duplex type is available
- Suitable for interconnecting two adaptors of same type
- Suitable for all polishing type
- Zirconia internal tube ensures a low insertion loss

Specification

Connector Type	FC, SC, LC, ST, DIN, E2000, MU, MTRJ
Polishing Mode	UPC/APC
Insertion Loss	≤0.2dB
Interchangeability	≤0.2dB
Durability	≥1000 times
Repeatability	≤0.1dB
Working Temp	-40~+75℃, humidity≤95%



Part Number	Description
A-F-F-U-S-XF-Z-M-M-5	Mating sleeve adaptor, FC & FC connecting port, simplex, rectangle shape, zirconia internal tube, metal material



Part Number	Description
A-F-F-U-S-XD-Z-M-M-5	Mating sleeve adaptor, FC & FC connecting port, simplex, little D shape, zirconia internal tube, metal material



Part Number	Description
A-F-F-U-S-FX-Z-M-M-5	Mating sleeve adaptor, FC & FC connecting port, simplex, square shape, zirconia internal tube, metal material



Part Number	Description
A-F-F-U-S-CF-Z-M-M-5	Mating sleeve adaptor, FC & FC connecting port, simplex, rectangle shape, zirconia internal tube, metal material



Part Number	Description
A-F-F-U-S-CF-Z-H-5-5	Mating sleeve adaptor, FC & FC connecting port, simplex, square shape, zirconia internal tube



Part Number	Description
A-F-F-U-S-FX-Z-H-5-5	Mating sleeve adaptor, FC & FC connecting port, simplex, rectangle shape, zirconia internal tube



Part Number	Description
A-F-F-U-D-CF-Z-M-M-5	Mating sleeve adaptor, FC & FC connecting port, duplex, rectangle shape, zirconia internal tube, metal material



Part Number	Description
A-F-F-N-S-DD-Z-M-M-5	Mating sleeve adaptor, FC & FC connecting port, simplex, big D shape, zirconia internal tube, metal material



Part Number	Description
A-F-F-A-S-FX-Z-M-M-2	Mating sleeve adaptor, FC/APC & FC/APC connecting port, simplex, circle shape, zirconia internal tube, metal material



Part Number	Description
A-S-S-U-S-FF-Z-P-1-3	Mating sleeve adaptor, SC/UPC & SC/UPC connecting port, simplex, rectangle shape, zirconia internal tube



Part Number	Description
A-S-S-U-S-FF-Z-M-M-3	Mating sleeve adaptor, SC & SC connecting port, simplex, rectangle shape, zirconia internal tube, metal material



Part Number	Description
A-S-S-A-S-FF-Z-P-3-3	Mating sleeve adaptor, SC/APC & SC/APC connecting port, simplex, rectangle shape, zirconia internal tube



Part Number	Description
A-S-S-U-D-FF-Z-P-1-3	Mating sleeve adaptor, SC/UPC & SC/UPC connecting port, duplex, rectangle shape, zirconia internal tube



Part Number	Description
A-L-L-U-S-FF-Z-P-1-4	Mating sleeve adaptor, LC/UPC & LC/UPC connecting port, simplex, rectangle shape, zirconia internal tube, metal material



Part Number	Description
A-L-L-U-D-FF-Z-P-1-4	Mating sleeve adaptor, LC/UPC & LC/UPC connecting port, duplex, rectangle shape, zirconia internal tube



Part Number	Description
A-L-L-A-D-FF-Z-P-3-4	Mating sleeve adaptor, LC/APC & LC/APC connecting port, duplex, rectangle shape, zirconia internal tube



Part Number	Description
A-E-E-U-S-YF-Z-P-1-1	Mating sleeve adaptor, E2000/UPC & E2000/UPC connecting port, simplex, circle shape, zirconia internal tube, metal material



Part Number	Description
A-E-E-A-S-YF-Z-P-3-2	Mating sleeve adaptor, E2000/APC & E2000/APC connecting port, simplex, circle shape, zirconia internal tube, metal material



Part Number	Description
A-M-M-N-S-YF-Z-M-M-4	Mating sleeve adaptor, MU & MU connecting port, simplex, rectangle shape, zirconia internal tube, metal material



Part Number	Description
A-M-M-N-D-YF-Z-M-M-4	Mating sleeve adaptor, MU & MU connecting port, duplex, rectangle shape, zirconia internal tube, metal material



Part Number	Description
A-D-D-N-S-YX-Z-M-M-5	Mating sleeve adaptor, Din & Din connecting port, simplex, rectangle shape, zirconia internal tube, metal material



Part Number	Description
A-Mo-Mw-N-S-YF-N-P-4-8	Mating sleeve adaptor, MTRJ(male) & MTRJ(female) connecting port, simplex, rectangle shape

Hybrid Adaptor & Bare Fiber Adaptor

Description

Fiber adaptor is one kind of fiber flange. It is mainly used for interconnecting two fiber connectors. Both UPC and APC polishing mode are available.For interconnecting various connectors, fiber connector can be divided into 2 kinds , mating sleeve and hybrid adaptor.

A hybrid adaptor provides two interfaces of different type for interconnecting both connectors. A hybrid adaptor is used in switching different connector so that it is widely applied in optical fiber management system, optical testing project and etc.

Bare fiber adaptor is a special hybrid adaptor. Unlike a common adaptor, this adaptor is only for a 0.25mm bare fiber(with tight buffered coating). Design for bare fibers make it widely used in optical communication and testing equipment, optical distribution frame and etc. Special metal material also makes it durable and precision.

Features

- Easy to use
- Can be embedded in any termination box, splicing tray and etc.
- Both simplex and duplex type are available
- Both UPC and APC polishing mode is available
- Suitable for interconnecting of two different type connectors
- Using metal material makes it firm and durable
- Zirconia internal tube ensures a low insertion loss

Specification

Connector type	FC, SC, LC, ST, DIN, E2000, MU, MTRJ, bare fiber
Polishing mode	UPC/APC
Insertion loss	≤0.2dB
Interchangeability	≤0.2dB
Durability	≥1000 times
Repeatability	≤0.1dB
Working temp	-40~+75℃, humidity≤95%



Part Number	Description
A-B-A2-N-S-3 XX-N-M-M-4	Bare fiber adaptor, single mode, assembled with SC/UPC connector



Part Number	Description
A-B-A2-N-S-3 XX-N-M-M-4	Bare fiber adaptor, single mode, assembled with ST/UPC connector



Part Number	Description
A-B-A3-N-S-XX-N-M-M-4	Bare fiber adaptor, single mode, assembled with FC/UPC connector, metal material



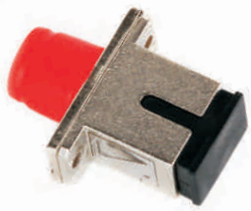
Part Number	Description
A-B-A4-N-S-XX-N-M-M-4	Bare fiber adaptor, single mode, assembled with LC/UPC connector



Part Number	Description
A-F-T-N-S-CF-Z-M-M-5	Hybrid adaptor, FC & ST connecting port, simplex, rectangle shape, zirconia internal tube, metal material



Part Number	Description
A-L-F-N-S-FF-Z-M-M-X	Hybrid adaptor, LC & FC connecting port, simplex, rectangle shape, zirconia internal tube, metal material



Part Number	Description
A-S-F-N-S-FF-Z-M-M-X	Hybrid adaptor, FC & SC connecting port, simplex, rectangle shape, zirconia internal tube, metal material



Part Number	Description
A-S-L-N-S-FF-Z-M-M-X	Hybrid adaptor, LC & SC connecting port, simplex, rectangle shape, zirconia internal tube, metal material



Part Number	Description
A-S-T-U-S-FF-Z-M-M-X	Hybrid adaptor, SC & ST connecting port, simplex, rectangle shape, zirconia internal tube, metal material

Bulkhead Type Mechanical Attenuator

Description

Grandway provides various mechanical attenuator both female to male and bulkhead types are available.

Mechanical optical attenuator is a passive optical attenuator. The shape of the mechanical attenuator is just like the fiber adaptor. It can be applied in traditional optical network, optical testing project, FTTx construction and etc which the optical power may be over the limit of the equipment.

The bulkhead mechanical attenuator allows the interconnection of two patchcords. Both fixed value and variable value type attenuator are available. User can select the right one according to the construction environment. It can be used in CATV, LAN, WAN and telecommunication applications.

Features

- Easy to use
- Bulkhead design
- Can be embedded in any termination box, splicing tray and etc.
- Compact design , plug and play
- Suitable for passive situation
- Stable attenuation value
- Guaranteed return loss of -55 dB.
- Protect equipment from being overpowered.

Specification

Connector type	FC, SC, LC, ST, DIN, E2000, MU, MTRJ
Polishing mode	UPC/APC
Attenuation tolerance	± 0.5 dB
Fiber type	Single mode
Return loss	-55dB typical
Wavelength	1310/1490/1550nm
Working temp	-40~+75℃, humidity≤95%



Part Number	Description
MA-B-S-FF-F-0030-M-M5	3dB, FC to FC, fixed value bulkhead single mode mechanical attenuator,



Part Number	Description
MA-B-S-FF-F-0050-M-M5	5dB, FC to FC, fixed value bulkhead single mode mechanical attenuator,



Part Number	Description
MA-B-S-FF-F-0060-M-M5	6dB, FC to FC, fixed value bulkhead single mode mechanical attenuator,



Part Number	Description
MA-B-S-FF-F-0070-M-M5	7dB, FC to FC, fixed value bulkhead single mode mechanical attenuator,



Part Number	Description
MA-B-S-FF-F-0100-M-M5	10dB, FC to FC, fixed value bulkhead single mode mechanical attenuator,



Part Number	Description
MA-B-S-FF-F-0150-M-M5	15dB, FC to FC, fixed value bulkhead single mode mechanical attenuator,



Part Number	Description
MA-B-S-LL-F-0050-P-14	5dB, LC to LC, fixed value bulkhead single mode mechanical attenuator,



Part Number	Description
MA-B-S-SS-F-0030-P-14	3dB, SC to SC, fixed value bulkhead single mode mechanical attenuator,



Part Number	Description
MA-B-S-SS-F-0050-P-14	5dB, SC to SC, fixed value bulkhead single mode mechanical attenuator,



Part Number	Description
MA-B-S-SS-F-0100-M-M3	10dB, SC to SC, fixed value bulkhead single mode mechanical attenuator,



Part Number	Description
MA-B-S-FF-V-0300-M-M5	Max 30dB, FC to FC, variable value bulkhead single mode mechanical attenuator,



Part Number	Description
MA-B-S-TT-V-0300-M-M5	Max 30dB, ST to ST, variable value bulkhead single mode mechanical attenuator,

Female to Male Hybrid Attenuator

Description

Grandway provides various mechanical attenuator both female to male and bulkhead types are available.

Mechanical optical attenuator is a passive optical attenuator. The shape of the mechanical attenuator is just like the fiber adaptor. It can be applied in traditional optical network, optical testing project, FTTx construction and etc which the optical power may be over the limit of the equipment.

Female to male mechanical attenuator is assembled with a fixed type connector,so it can only be connected with one patchcord. It can be used in CATV, LAN, WAN, and telecommunications applications.

Features

- Easy to use
- Can be embedded in any termination box, splicing tray and etc.
- Compact design , plug and play
- Suitable for passive situation
- Stable attenuation value
- Guaranteed return loss of -55 dB.
- Protect equipment from being overpowered.

Specification

Connector type	FC, SC, LC, ST, DIN, E2000, MU, MTRJ
Polishing mode	UPC/APC
Attenuation Tolerances	± 0.5 dB
Fiber type	Single-mode
Return loss	-55dB typical
Wavelength	1310/1490/1550nm
Working temp	-40~+75℃, humidity≤95%



Part Number	Description
MA-F-S-FF-F-0070-M-M4	7dB, FC/UPC, fixed value female to male single mode mechanical attenuator



Part Number	Description
MA-F-S-SS-F-0100-M-M3	10dB, SC/UPC, fixed value female to male single mode mechanical attenuator,



Part Number	Description
MA-F-S-TT-F-0020-M-M5	2dB, ST/UPC, fixed value female to male single mode mechanical attenuator



Part Number	Description
MA-F-S-LL-F-0100-P-14	10dB, LC/UPC, fixed value female to male single mode . mechanical attenuator



Part Number	Description
MA-F-S-SL-F-0010-M-M3	1dB, SC/UPC to LC/UPC, fixed value female to male fixed value single mode mechanical

Field Installable Fast Connector (Fujikura Simplified Version)

Manufacturer: Shanghai Fujikura Grandway Co., Ltd.
a joint venture of Fujikura Ltd. and Grandway.

Description

Grandway provides high precision installable fast connector (simplified version). It is designed to be easy in installation. Operators can install the fast connector just with the universal tools and the accessories of the product. Also, the installable fast connector can be disassembled and reused, with this feature, user can save a lot cost of maintenance.

The installable fast connector can be used in FTTx construction, CATV, and optical communication system.



Part Number	Description
FC-GF-PP-A-P	SC/UPC, installable fast connector

Features

- Suitable for FTTx butterfly type cable(both square and round shape are available)
- Composed with high quality adaption fluid
- Assembly tools of this fast connector are not necessary as connector comes with wedge unit (however tools such as stripper and cleaver are still needed),you could reuse it by attached "U-clamp".
- "push-pull" design, push rubber-covered fiber buckle to the end then it will automatic stuck.
- Great cost-performance ratio
- Easy to assemble

Specification

Field Installable fast connector	
Connector type	SC
Polishing mode	UPC
Fiber diameter (um)	125
Coating diameter (um)	250
Insertion loss(dB)	Average≤ 0.25 , Maximum ≤ 0.5
Return loss(dB)	≥40
Tensile strength	≥30N
Tensile force(N)	≥10N
Re-assembling repeatability	≤0.3dB (re-assemble 5 times)
Vibration stability	≤0.3dB (Frequence : 10-50Hz, Sweep Frequence : 45 times/min, Amplitude : 0.75mm single amplitude, Time : 3 direction , 2 hours separately)
Drop stability	≤0.3dB (Height : 1.5m(calculate from the top of sample), 8 times)
Repeatability	≤0.3dB (10 times mating)
Mechanical durability	≤0.3dB (500 times mating)
Tensile property	≤0.3dB (Cable type 20N, online monitor, Cable type 30N, no online monitor Time: 2min)
Twist	≤0.3dB (Load : 15N, Speed : 10 times/min,200 times)
High temperature	≤0.3dB (+85℃ , 96h, online monitor)
Low temperature	≤0.3dB (-40℃ , 96h, online monitor)
Temperature cycling	≤0.3dB (-40℃ to +85℃ , 21 cycles Totally 168 hours , online monitor)
Humidity and heat stability	≤0.3dB (+75℃, 95% , 96 hours, online monitor)

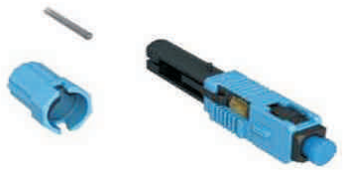
SC Field Assembly Connector

Description

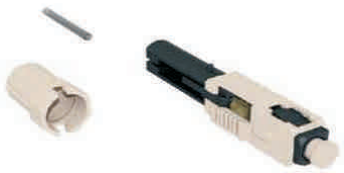
This SC Field Assembly Connector (FAC) is simple access, which means that it does not require polishing assembled in the field. Unlike conventional FAC, this FAC is dramatically improved technology without using any assembly tool as well as a specific jig. It features with high stability, short length, simple assembly, various kinds of cable application, etc.



Part Number	Description
FAC-AS	SC/APC



Part Number	Description
FAC-SC	SC/UPC SM



Part Number	Description
FAC-SC-MM	SC/UPC MM

Features

- No need special tools for assembly
- Can be re-usable for 10 times
- Various types of fiber optic cables can be acceptable with one FAC (250~900um, 1.6*2.0mm, 2.0*3.0mm and 3.0mm

Specification

Field Installable connector

Applicable Cable	250~900um, 1.6*2.0mm, 2.0*3.0mm and 3.0mm
Fiber Diameter	125um
Coating Diameter	250um
Fiber Mode	single mode or multi-mode
Insertion Loss	PC: ≤0.3dB (max. 0.5dB); APC: ≤0.3dB (max. 0.7dB)
Return Loss	PC: ≥40dB (typical ≥45dB); APC: ≥45dB (typical ≥50dB)
Pull Test	<0.2dB, 4N load (0.125 fiber); <0.2dB, 40N load (2.0*3.0mm, 3.0mm)
Impact Test	<0.2dB, 1.5m, 10 repetitions
Durability Test	<0.2dB, 200 repetition of connecting/disconnecting
Vibrate Test	<0.2dB, 3 axes 2hr/axis, 1.5mm (peak-peak), 10 to 55Hz (45Hz/min)
Thermal Cycle Test	<0.2dB, -40℃~+75℃, 21 cycles for 168 hours (3.0mm cable)
Humidity Test	<0.2dB, 90 to 95%, Temp75℃ for 168hrs
Operating Temperature	-40℃~+85℃

Field Assembly Fast Connector

Description

Field assembly connector is a most used passive opponent in optical construction field which is used to terminate a optical fiber(generally,FTTx butterfly cable). It has already been applied in Optical Distribution Cabinet, Optical testing instrument and Optical transmission network. With the rising of FTTh construction around the world, the demand of the field assembly connector will be enhanced year by year.The field assembly connector can be separated into two types—— Fiber direct-in type and Preset fiber with matching fluid type.

Fiber direct-in field assembly connector.

Preset fiber field assembly connector with matching fluid.

Features

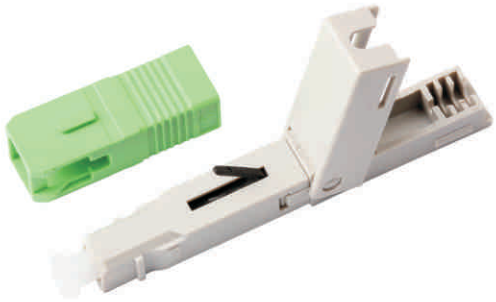
- Suitable for FTTx butterfly type cable(both square and circle shape are available) Special Crimp Tool free design
- Low insertion loss(including optical adapter)
- Buckle design, easy to open and close
- Integrated with SC/APC ferrule
- Preset fiber and matching-fluid design ensure the performance
- Composed with high quality adaption fluid
- Easy in use

Specification

Field assembly fast connector		
Connection type	Fiber direct-in	Preset fiber with matching fluid
Connector type	SC	
Polishing mode	UPC/APC	
Cable fixing type	Cable fixing buckle/ screwing-up knob	
Fiber diameter (um)	125	
Tight buffered coating diameter(um)	9.0±0.3μm	
Coating diameter (um)	250	
Insertion loss(dB)	≤0.4(including adaptor)	
Return loss(dB)	-40℃ to 85℃ : >45	
Succession reliability	Max loss increases 0.2dB after 500times using(insertion and drawing)	
Tensile force(N)	≥10N	
Working temperature(℃)	-40℃~85℃	
Humidity	≤95%(+40℃)	



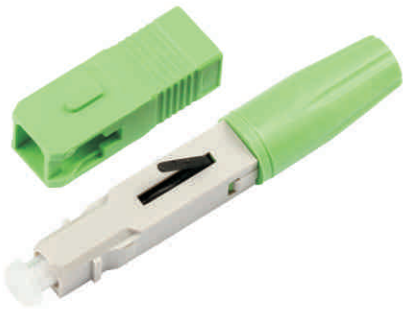
Part Number	Description
F2H-FAOC-SC-E001	Field Assembly Connector,SC/UPC, Preset Fiber with Matching Fluid, Buckle Type



Part Number	Description
F2H-FAOC-SC-A001	Field Assembly Connector,SC/APC, Preset Fiber with Matching Fluid, Buckle Type



Part Number	Description
F2H-FAOC-SC-E002	Field Assembly Connector,SC/UPC, Preset Fiber with Matching Fluid, Screwing Type



Part Number	Description
F2H-FAOC-SC-A002	Field Assembly Connector,SC/APC, Preset Fiber with Matching Fluid, Screwing Type

GW-700 High Precision Fiber Cleaver

Description

Grandway provides high precision optical fiber cleaver. It is used to cleave fiber for mechanical or fusing splicing operation. Both full size and mini fiber cleavers are available.

The full size fiber cleaver contains a great stability. It is a very reliable cleaver for the construction of optical network and FTTx applications. The mini fiber cleaver is much smaller than full size cleaver. It provides a great portability and precision of cleaving angle.

Both types of fiber cleavers contain 12-position blade. This could proceed with 36,000 times single-fiber cleaves, or 3,000 times 12-fiber ribbon cleaves .



Features

- Compact design
- High reliability
- Good cleaving performance
- Special hexagonal wrench placement design
- 36,000 times cleave per blade
- High stability and precision

Part Number	Description
GW-700	High precision single core full-size fiber cleaver



Part Number	Description
N001068	Replacement blade

Specification

GW-700 full size fiber cleaver	
Fiber type	Single fiber
Coating diameter	250um, 900um
Bare fiber diameter	125um
Cleave angle capability	Typically <0.5˚(single core)
Cleave length	Coating diameter250um/900um：9~16mm/10~16mm
Blade lifetime	36,000times fiber cleaves (3,000 times12-fiber cleaves)
Dimension	60W*76D*57H
Weight	420g

GW-800A High Precision Fiber Cleaver

Description

GW-800A High Precision Fiber Cleaver is a new generation product, it's extremely light and reliable cleaver for the construction of optical network. Designed for excellent portability, GW-800A is ideal for FTTx applications. Unlike the traditional fiber cleaver, GW800A integrates several applied accessories on it which make it more humanistic.

The attached hexagonal wrench on the bottom allow you adjust cleaver anytime and everywhere, enhance the working efficience greatly. Besides the internal hexagonal wrench, the special hand wrist strap for also features it. With this strap, users should worry about a accidental dropping no more.





Features

- Special hand wrist strap design, dropping proof
- Internal hexagonal wrench placement design
- One step operation, no special skill is required
- Compact design
- High reliability
- Good cleaving performance
- 36,000 times cleave per blade
- High stability and precision

Part Number	Description
GW-800A	High precision single core mini fiber cleaver

Specification

GW-800A high precision fiber cleaver		
Coating diameter	250um/900um	
Bare fiber diameter	125um	
Cleave angle capability	Typically <1˚(single core)	
Cleave length	Coating diameter250um/900um9~16mm/10~16mm	
Blade lifetime	36,000times fiber cleaves (3,000 times 12-fiber cleaves)	
Dimension	No blade cover board 52W*52D*32H	Blade cover board included 52W*52D*51H
Weight	260g	



Part Number	Description
N001068	Replacement blade

Ordering Information

Model	Name	Description
GW-800A	High Precision Fiber cleaver	without fiber collector
GW-800A-C	High Precision Fiber cleaver	with fiber collector
N001068	Replacement Blade	12 positions

8PK-326 Fiber Optical Stripper

Features

- The biggest hole for stripping 1.6~3mm jacket to expose 600~900um buffer
- The second hole for stripping 600~900um buffer to expose 250um coating
- The smallest hole for stripping 250um coating to expose 125um cladding
- Pre-set at the factory - no adjustments needed
- Will not scratch or nick glass fiber
- Comfort-grip, ergonomic handles
- Lock to hold tool closed when it is not in use



Part Number	Description
8PK-326	Fiber Optical Stripper

HT-5021 Wire Stripper, Cutter

Specification

Model	HT-5021
Origin	Taiwan, ROC
Material	Metal / PET
Application	Wire - Ø 0.6 / 0.8 / 1.0 / 1.3 / 1.6 / 2.0 / 2.6 mm
Weight	0.14kg
Dimension	166*55*15 mm
Ordering Number	N000884



Part Number	Description
HT-5021	Wire Stripper, Cutter

Dual-hole Fiber Optic Stripper

Features

- For stripping 250um buffer coating to expose 125um cladded fiber
- Second hole for stripping 2-3mm fiber jackets
- 140um diameter hole and V-opening in blade allows removal of 250um buffer coating from 125um fiber
- Pre-set at the factory - no adjustments needed
- Will not scratch or nick glass fiber
- Length: 165mm; weight: 113g



Part Number	Description
Clouser	Fiber Optic Stripper

GW-09 Kevlar Scissors

Features

- To cut Kevlar strength member in fiber optic cable
- Ergonomic design, comfortable for handling
- One micro-serrated blade reduces slippage for more positive cutting action
- Dimension: 142*75*18mm
- Weight: 80g



Part Number	Description
GW-09	Kevlar Scissors

Fiber Scriber

Description

Grandway provides high precision fiber scriber. It is used to cut the fiber at the tip of the connector ferrule. Both ruby blade and tungsten steel blade are available. Both blades make the fiber scribers durable and ensures the cleaving angle.

Features

- Suitable for any types of optical cable
- Composed with tungsten steel blade or ruby blade
- Easy in use
- Satisfied sense of holding
- Designed to be portable

Specification

Ruby blade fiber scriber	
Body material	Stainless steel
Blade material	Ruby
Tungsten steel blade fiber scriber	
Body material	Stainless steel
Blade material	Tungsten steel



Part Number	Description
SC-XX-P-R-5	Tungsten steel blade, scribe type cleaver, white



Part Number	Description
SC-XX-M-T- 4	Ruby blade, scribe type cleaver, black

Piano Wire

Description

Piano Wire provides you with an easy way to save a fiber optic connector when an optical fiber breaks inside the ferrule during connectorization. Fiber optic Piano Wire also enables you to remove the broken optical fiber from bare fiber adaptors.

Features

- Suitable for any types of optical cable
- Easy in use
- Satisfied sense of holding
- Designed to be portable

Specification

Diameter	125um
Packing	2pcs/pack



Part Number	Description
F2H-PW	Piano Wire

GW-119n/119 FTTH Drop cable Stripper

Description

FTTH Drop Cable Stripper is used for stripping the outer jacket of FTTH Drop Cable in FTTH (fiber to the home) before FTTH Fast Field Assembly Fiber Optic Connectors are assembled.

Features

- Super tiny design, much more portable
- Designed with multiple licensed technologies, more professional
- Suitable for both steel and Kevlar strength member
- Composed with high quality metal blade, more durable
- High precision cable guide hole, special for FTTh indoor cable

Specification

Dimension (mm)	12*45*25	
Weight (kg)	0.15	
Handle Material	GW-119n	GW-119
	Stainless steel	Stainless steel with rubber handle cover
Cable Type	FTTh indoor cable(FTTx butterfly-shape lead-in cable)	
Strengthen Member	Steel & kevlar	
Cable guide hole(mm)	2.5*3.5	



Part Number	Description
GW-119n	FTTH Drop Cable Stripper



Part Number	Description
GW-119n	FTTH Drop Cable Stripper

GW-129 Self-supporting FTTx Cable Slitter

Description

GW-129 Self-supporting FTTx Cable Slitter is especially designed for stripping off the steel strength member of the self-supporting FTTx cable.
With the development of the FTTH (Fiber To the Home) construction, more FTTx cables are used in the last mile of FTTH construction. And how to strip off the steel strength member of a self-supporting cable has become a big problem. Using a traditional method to strip the strength member off, the fiber can be easily damaged or the strength member can hardly be removed. To solve the problem described above, GW-129 Self-supporting FTTx Cable Slitter comes to us. With the special tool, operator can easily remove the strength member without damaging any fibers.

Features

- Super tiny design, much more portable
- Designed with Multiple licensed technologies, more professional
- Double cable guide rail design, can operate 2 cable at once
- Composed with high quality metal blade, more durable
- High precision cable guide rail

Specification

Dimension (mm)	52*38*27
Weight (kg)	0.14
Body Material	Stainless steel
Stripping cycles	2*1000 cycles
Cable guide rail dimension(mm)	5*3
Dimension (mm)	52*38*27



Part Number	Description
GW-129	Self-supporting FTTx Cable Slitter

GW008 Online Optical Cable Sheath Stripper

Description

GW008 Online Optical Cable Sheath Stripper is a patent hand tool, used for stripping the sheath of optical cable. It uses unilateralism ratchet wheel to operate, so that the first-time stripped cable has the symmetry hatches on both sides. As we know, the Side Fiber Cable Ripper must strip twice in the Optical Cable Cut-over with Service process, Online Online optical cable sheath stripper overcomes this shortage. It is portable, compact, easy to operate, and time-saving; the cut-in depth can be accommodated and can strip at any part of the fiber cable. It can do one-off strip for the fiber cable Ø10~Ø30mm.
It is an absolutely necessary tool for the quality guaranteeing and the safety in the fiber cable construction, especially in optical cable stripping for the Optical Cable Cut-over with Service.





Features

- Both across and lengthwise stripping are available
- Designed with multiple licensed technologies, more professional
- Using unilateralism ratchet wheel
- Do one-off strip for the fiber cable Ø10~Ø30mm
- Compact design, durable and time saving

Specification

Dimension (mm)	290*200*90
Weight (kg)	0.56
Handle Material	High quality rubber
Application	Strip optical cable sheath

Part Number	Description
GW008	Online Optical Cable Sheath Stripper

KMS-K Longitudinal Cable Sheath Cutter

Description

KMS-K Longitudinal Cable Sheath Cutter is stored in handy plastic case with wrench for 3mm cap screw removal. It is an ideal tool in cable sheath slitting for both divided and un-divided cables. Simply turn the center axis with thumb and forefinger. 4 positions are available for different cable sheath thickness.

Features

- Impact resistant plastic material
- Safe and simple handling
- No risk of injuries
- Adjustable slitting depth
- Compact design, durable and time saving
- Double bladed knife made from hardened special steel



Tooling components

- Cable sheath cutter
- Grey (KMS=black) adapter for cable diameter up to 25mm
- Yellow adapter for optical waveguide cables (KMS-K)
- Allen-type wrench
- Operating instruction
- Plastic case

Part Number	Description
KMS-K	Longitudinal Cable Sheath Cutter

GT160 Round Cable Slitter

Description

Grandway provides special tool for stripping optical cable sheath. GT160 Round Cable Slitter is a broadwise cable sheath stripper. Generally, the sheath of an optical cable is hard and thick. Using a common plier can hardly strip the sheath off or the bare fiber can be easily damaged. So, a special tool for stripping the cable sheath is absolutely necessary. With this special tool, operator can easily strip the sheath off without damaging any bare fibers inside. It is definitely your good partner in optical construction.



Part Number	Description
GT160	Round Cable Slitter

Features

- Compact design, light weight, very portable
- Screw nob design, laborsaving
- Composed with high quality metal blade, more durable
- Comply with ergonomic, more comfortable to use.

Specification

Dimension (mm)	133*60*37
Weight (kg)	0.05
Body Material	Stainless steel
Application	Strip optical cable sheath

LY-25-9 Cable Slitter

Features

- Strips and slits 0.18 IN to 1.0 IN (4.5-25mm) diameter round cables
- Adjustable cutting depth
- Swivel blade for circular, longitudinal and spiral cuts
- Cable holding clip with integrated edge for removing slit insulation
- Laser-trimmed, stainless-steel blade for long use
- Slits PVC, Teflon and THHN
- Application : Perfect For Armored Cable
- Material: Stainless Steel Blade
- Weight : 4.700 OZ (133.000 GM)
- Product Dimension: Product Dimension: 135x24x24mm
- Ordering Number: N101124

Note: not for polyethylene, polypropylene or XLP insulations

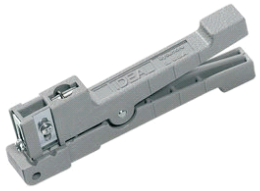


Part Number	Description
LY-25-9	Cable Slitter

45-162 Buffer Tube Stripper

Description

Grandway provides special tool for stripping the outer jacket of loose tube patchcord/pigtail.



Features

- Adjustable blades can be set for any depth to help ensure nick-free strips
- Use with twisted-pair wire, tightly wrapped stranded cables, CATV cable, CB antenna cable, SO, SJ, SJT, and other types of flexible power cords
- Includes three straight and one round blade

Part Number	Description
45-162	Buffer Tube Stripper

Specification

Model	45-162
Dimension (mm)	90*38*11
Weight (kg)	0.02
Applicable Cable	up to 1/8 inch (3.2mm)

45-163 Buffer Tube Stripper

Description

Grandway provides special tool for stripping the outer jacket of loose tube patchcord/pigtail



Features

- Adjustable blades can be set for any depth to help ensure nick-free strips
- Use with twisted-pair wire, tightly wrapped stranded cables, CATV cable, CB antenna cable, SO, SJ, SJT, and other types of flexible power cords
- Includes three straight and one round blade

Part Number	Description
45-163	Buffer Tube Stripper

Specification

Model	45-163
Dimension (mm)	90*38*11
Weight (kg)	0.02
Applicable Cable	up to 1/8 inch to 7/32 inch (3.2mm~5.6mm)

FTS- Fiber Tube Scorer

Features

- Precise one-step buffer tube scorer
- Unique design easily scores buffer tube sizes from 1.6mm to 6.0mm, eliminating multiple tools
- Factory fixed hardened carbon steel blade requires no blade adjustment
- Body made of strong resilient acetal polymer
- Made in the U.S.A.
- Dimensions: 3.75 x .625 in. (95.53 mm x 15.92 mm)
- Weight: 1oz (28g)
- Part No.: 80980



Part Number	Description
80980	FTS- Fiber Tube Scorer

Mid Span Tool - Longitudinal Buffer Tube Slitter

Description

Buffer Tube Slitter is especially designed for stripping the outer jacket of a patchcord or a pigtail. It can slit loose tubes of ¢ 1.5mm~3.3mm longitudinally. It has 4 rails on the body. Each rail is for the tube of specified diameter so that the stripping precision can be improved.



Features

- Compact design, light weight, very portable
- 4 guide rails for tubes with different diameter
- Composed with high quality metal blade, more durable
- High precision rail design, ensure the integrity of the fiber.

Part Number	Description
SLT-OCT-XX-B1-P-08	Mid Span Tool - Longitudinal Buffer Tube Slitter

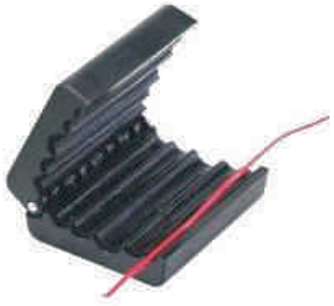
Specification

Dimension (mm)	52*38*22
Weight (kg)	0.03
Body Material	Stainless steel
Stripping cycles	2*1000 cycles
Guide rail diameter(mm)	For φ1.5~1.9 For φ2.0~2.4 For φ2.5~2.9 For φ3.0~3.3

Mid Span Tool - Longitudinal Buffer Tube Slitter

Description

TTG03 Buffer Tube Slitter applies open structure and five different sizes of guide slots and ten sharp blades. It can slit loose tubes of φ4.5mm ~ φ11mm longitudinally.



Features

- Compact design, light weight, portable
- 5 guide rails for tubes with different diameter
- Composed with high quality metal blade, more durable
- High precision rail design, ensure the integrity of the fiber.

Part Number	Description
TTG03	Mid Span Tool - Longitudinal Buffer Tube Slitter

Specification

Guide rail diameter(mm)	φ4.5	φ6.0	φ7.0	φ8.0	φ11.0

2.5mm & 1.25mm One-click Ferrule Mate Cleaner

Description

Grandway provides high quality One-click Ferrule Mate Cleaner for φ2.5mm & φ1.25mm optical ferruleσ. As a high precision copponents, even a little contaminants on the optical ferrule can affect the performance of the whole optical transmission system. If an optical ferrule is polluted, it is hard to make it clean again in ordinary ways for the high requirements of the cleaning equipment and the little space the ferrule left for cleaning. With the One-click Ferrule Mate Cleaner, all the problems can be solved easily. The cleaner is composed with special cleaning reel, extendable nuzzle and guide cap of specified size . These make the cleaner meet rigorous requirements of the cleaning solution.The One-click Ferrule Mate Cleaner is absolutely your good partner in optical cleaning solution.



Part Number	Description
FOC-2.5	φ2.5mm One-click Ferrule Mate Cleaner



Part Number	Description
FOC-1.25	φ1.25mm One-click Ferrule Mate Cleaner

Features

- Suitable for optical connector or port with φ2.5mm/φ1.25mm ferrule, such SC, FC, ST and etc.
- One click cleaning system, easy, fast and high efficiency
- More than 800 cleaning cycles
- Effective with variety of contaminants Composed with dust cap and guide cap for unmated ferrules
- Complied with EU/95/2002/EC Directive(RoHS)

Specification

φ2.5mm one-click ferrule mate cleaner	
Dimension (mm)	80*13*13(standard)/115*13*13(nozzle extended)
Weight (kg)	0.1
Connector type	All φ2.5mm connectors , such as SC, FC, ST
Cleaning cycles	800 cycles
φ1.25mm one-click ferrule mate cleaner	
Dimension (mm)	80*13*13(standard)/115*13*13(nozzle extended)
Weight (kg)	0.1
Connector type	All φ1.25mm connectors , such as LC, MU, E2000
Cleaning cycles	500 cycles

2.0mm One-click Ferrule Mate Cleaner

Specification

φ2.0mm one-click ferrule mate cleaner	
Dimension (mm)	80*13*13(standard)/115*13*13(nozzle extended)
Weight (kg)	0.1
Connector type	MIL PRF 2.0mm Terminus & SMPTE 304M/358M
Cleaning cycles	800 cycles



Part Number	Description
FOC-2.0	φ2.0mm One-click Ferrule Mate Cleaner

Cleaning Tools

Description

Grandway provides various cleaning tools. Including cleaning cassettes, cleaning sticks and cleaning IPA wipes.

Optical fiber and equipment are high precise, in most situation the performance of a optical fiber a equipment is depend on the cleaning level of the connection port or end-face, even a little dirt can affect the performance. So the cleaning tools are very essential. With these cleaning tools, user can clean a fiber termination, a insertion port of a important optical instrument, ensure the performance of a testing equipment and etc.

Features

- Easy to use
- Depth cleaning
- Better cost-performance ratio

Specification

Cleaning cassettes	
Connector type	SC, FC, ST, DIN, D4, MU, LC, MT
Working life	>400 times/ cartridge
Working temperature	10℃ ~ 60℃
Storage temperature	4℃ ~ 60℃
Humidity	20%~80% R.H.
Size (mm)	125*70*29
Cleaning stick	
Diameter	2.5mm/1.25mm
Connector type	SC, SC2, FC, ST, DIN, D4, MU, LC, MT
Working temperature	10℃ ~ 60℃
Storage temperature	4℃ ~ 60℃
Humidity	20%~80% R.H.
Dimension	2.5mm*145mm / 1.25mm*100mm
Cleaning IPA wipes	
Connector type	SC, SC2, FC, ST, DIN, D4, MU, LC, MTSC, SC2, FC, ST, DIN, D4, MU, LC, MT
Working temperature	10℃ ~ 60℃
Storage temperature	4℃ ~ 60℃
Humidity	20%~80% R.H.
Dimension (mm)	15.24*15.24
Kimwipes	
Layer Number	single layer
Color	white
Package	280 pieces/box
Fiber Mode	single mode & multi-mode
Fiber Type	G.652, G.657, OM1, OM2, etc
Connector Type	SC, FC, ST, LC, etc
Alcohol Dispenser Bottle	
Volume	100ml 200ml 250ml
Dimension (mm)	80×52×52 105×52×52 128×52×52
Fiber Mode	single mode & multi-mode
Fiber Type	G.652, G.657, OM1, OM2, etc



Part Number	Description
CLN2-001	Optical fiber cleaning cassette



Part Number	Description
CLN2-002-01	Φ2.5mm cleaning stick



Part Number	Description
CLN2-002-02	Φ1.25mm cleaning stick



Part Number	Description
CLN2-003	Cleaning IPA wipes



Part Number	Description
Kimwipes	Cleaning tissue



Part Number	Description
F2H-ADB-100-A	Alcohol Dispenser Bottle

F2H-PS Series Fiber Splice Protective Sleeves

Description

F2H-PS Series Fiber Splice Protective Sleeves are designed to restore mechanical strength, environmental integrity and fiber optic transmission properties after fiber splicing. There are single fiber protective sleeves, ribbon fiber protective sleeves for 4 cores, 6 cores, 8 cores, 12 cores, etc. and drop cable protective sleeves. The reinforcements for the three types are different. The single fiber protective sleeves realize the reinforcement by single stainless steel rod and drop cable protectives sleeves by single or dual stainless steel rod, while ribbon fiber protective sleeves use single or dual ceramic to realize the reinforcement function.

Features

- Customized length available
- Color-coded outer tubes available
- Splice point protection and intensity improvement
- External tube clearly shows the status of fiber joint
- Airproof performance keeps the splice point’ s good resistance of humidity and temperature

Single Fiber Protective Sleeves

Stainless Steel Rod Diameter*Length	Internal Tube Inner Diameter*Length	External Tube Length	Protective Sleeve Outer Diameter*Length
1.2*35mm	1.4*40mm	40mm	3.5*40mm
1.2*55mm	1.4*60mme	60mm	3.5*60mm

Ribbon Fiber Protective Sleeves

Applied Ribbon Fiber	Ceramic W*H	Internal Tube W*H*L	External Tube L	Protective Sleeve Outer D *L
8~12 fibers	3.9*1.9mm	5.0*3.0*40mm	40mm	7.6*40mm
≤6 fibers	3.0*1.3mm	3.3*2.0*40mm	40mm	5.5*40mm
8~12 fibers	3.9*1.9mm	5.0*3.0*40mm	40mm	5.5*40mm
≤6 fibers	3.0*1.3mm	3.3*2.0*40mm	40mm	4.0*40mm

Drop Cable Protective Sleeves

Stainless Steel Rod D*L	Internal Tube D*L	External Tube L	Protective Sleeve Outer D*L
1.0*55mm (single rod)	3.8*60mm	60mm	5.0*60mm
1.0*40mm (single rod)	3.8*45mm	45mm	5.0*45mm
1.0*55mm (dual rod)	3.8*60mm	60mm	6.0*60mm
1.0*40mm (dual rod)	3.8*45mm	45mm	6.0*45mm



Part Number	Description
CLN2-001	Optical fiber cleaning cassette



Part Number	Description
CLN2-002-01	Φ2.5mm cleaning stick

FTTH Drop Cable Splicing Protective Box

Description

F2H-PS Series Fiber Splice Protective Sleeves are designed to restore mechanical strength, environmental integrity and fiber optic transmission properties after fiber splicing. There are single fiber protective sleeves, ribbon fiber protective sleeves for are different. The single fiber protective sleeves realize the reinforcement by single stainless steel rod and drop cable protectives sleeves by single or dual stainless steel rod, while ribbon fiber protective sleeves use single or dual ceramic to realize

Specification

Model	SPB-RO	SPB-RE
Shape	round	rectangular
Size	12(D)*102(L)mm	85(L)*18(W)*11(H)mm
Color	White	
Working Temperature	-25~65℃	
Atmospheric Pressure	70Kpa-106Kpa	



Part Number	Description
SPB-RO	FTTH Drop Cable Splicing Protective Box, round



Part Number	Description
SPB-RE	FTTH Drop Cable Splicing Protective Box, rectangular

GW538 Cleaning Tool Kit

Description

GW538 Cleaning Tool Kit is widely used in telecommunication and CATV installation and maintenance.



Specification

GW-538 tool kit accessories list

Model	Product Name	Quantity
CLN2-001	Fiber Optic Connector Cleaner	1pc
CLN2-001-RT	Replacement Reel	2pcs
CLN2-003	IPA Cleaning Wipes	10pcs
CLN2-002-01	Cleaning Swabs (2.5mm)	10pcs
CLN2-002-02	Cleaning Swabs (1.25mm)	10pcs
HW-200M	Fiber Microscope with 2.5mm Adapter	1pc
CRC	14085 - Duster Aerosol Dust Removal System	1pc
GW538	Carrying Case	1pc

Note: IPA Cleaning Wipes and 14085 - Duster Aerosol Dust Removal System can be delivered by sea only.

Part Number	Description
GW-538	cleaning tool kit

GW750 Fiber Optic Inspection & Cleaning Tool Kit

Description

GW750 Fiber Optic Inspection & Cleaning Tool Kit includes all necessary tools for fiber optic connector inspection and cleaning. This tool Kit is used for visual fault locating, and connector inspection and cleaning.



Specification

GW-750 tool kit accessories list

No.	Name
1	Carrying Bag
2	VLS-8-1 Visual Laser Source, with 2.5mm adapter, 1mW
3	400X Fiber Optic Inspection Microscope with 1.25mm and 2.5mm adapters
4	Alcohol Dispenser Bottle
5	Fiber Cleaning Wipes, 100×100mm, 50pcs/pack
6	1.25mm One-click Fiber Optic Connector Cleaner
7	2.5mm One-click Fiber Optic Connector Cleaner
8	Optical Fiber Cassette Cleaner
9	Emergency Flashlight

Part Number	Description
GW-750	Fiber Optic Inspection & Cleaning Tool Kit

Fiber Optic Fusion Splicing Tool Kit

Description

Grandway provides various kinds of tool kits. This professional tool kit is ideal for communication system construction. It includes all the most frequently need tools and supplies required for cable sheath removal and fusion splicing.
With these tool kit user can be competent for almost all the projects of FTTx construction, CATV construction, the construction and maintenance of optical communication system.

Specification

GW-568 tool kit accessories list

No.	Name
1	Carrying Case
2	Straight Screwdriver, 6*100mm
3	Straight Screwdriver, 5*100mm
4	Cross Screwdriver, 6*100mm
5	Cross Screwdriver, 5*100mm
6	Utility Knife
7	Scissors
8	Hacksaw
9	Tweezers
10	Black Marker
11	3m Measuring Tape
12	Alcohol Dispenser Bottle
13	Round Cable Slitter, 3mm to 35mm
14	Fiber Optic Stripper, 2-3mm jacket and 250um coating
15	Wire Stripper, Ø0.6/0.8/1.0/1.3/1.6/2.0/2.6mm
16	Hex Key Wrench, 1.5/2.0/2.5/3/4/5/6/8/10mm, 9pcs
17	Steel Cutting Pliers
18	Steel Wire Pliers



Part Number	Description
GW-568	basic tool kit

GW-578 tool kit accessories list

No.	Name
1	Carrying Case
2	Alcohol Dispenser Bottle
3	Cleaning Swabs
4	Precision Screwdrivers, 6pcs
5	Straight Screwdriver, 6*100mm
6	Straight Screwdriver, 5*100mm
7	Cross Screwdriver, 6*100mm
8	Cross Screwdriver, 5*100mm
9	Longitudinal Buffer Tube Slitter, 1.5~3.3mm
10	Fiber Optic Stripper, 2-3mm jacket and 250um coating
11	Wire Stripper, Ø0.6/0.8/1.0/1.3/1.6/2.0/2.6mm
12	Round Cable Slitter, 3mm to 35mm
13	Hex Key Wrench, 1.5/2.0/2.5/3/4/5/6/8/10mm, 9pcs
14	Long Nose Pliers, 6”
15	Diagonal Cutting Pliers, 7”
16	Steel Cutting Pliers, 7”
17	Hacksaw
18	Black Marker
19	Utility Knife
20	Fiber Scriber
21	Blow Brush
22	Measuring Tape
23	Steel Wire Pliers
24	Adjustable Wrench
25	Tweezers
26	Kevlar Scissors



Part Number	Description
GW-578	Fiber Optic Fusion Splicing Tool Kit

GW651 Fiber Optic Testing & Cleaning Tool Kit

Description

GW651 Fiber Optic Testing & Cleaning Tool Kit includes all necessary simple tools for fiber optic testing and cleaning. This tool Kit is used for fiber loss testing, visual fault locating, connector inspection and cleaning, etc.

GW-651 tool kit accessories list

No.	Name
1	Carrying Case 370×265×138mm
2	1.25mm One-click Fiber Optic Connector Cleaner
3	2.5mm One-click Fiber Optic Connector Cleaner
4	Tri-hole Fiber Optic Stripper, 1.6~3mm, 600~900um and 250um
5	Black Marker
6	45-162 Buffer Tube Stripper
7	Kevlar Scissors
8	VLS-8-10 Visual Laser Source, with 2.5mm adapter, 10mW
9	400X Fiber Optic Inspection Microscope with 1.25mm and 2.5mm adapters
10	Optical Fiber Cassette Cleaner
11	FHS2D02 Laser Source, 1310/1550nm, -5dBm±3dB, with SC and FC adapters
12	FHP2A04 Power Meter, -70~+10dBm, with SC and FC adapters



Part Number	Description
GW-651	Fiber Optic Testing & Cleaning Tool Kit

GW600 Fiber Connector Termination Tool Kit

Description

GW600 Fiber Connector Termination Tool Kit has all the popular fiber optic stripping, polishing, curing and inspecting tools and consumables, which are necessary for connector termination, including SC, ST, FC and LC connectors.

GW-600 tool kit accessories list

No.	Name	Quantity
1	CFS-2 Fiber Optic Stripper	1pc
2	Kevlar Scissors	1pc
3	Fiber Scriber	1pc
4	Fiber Jacket Stripper	1pc
5	Universal Connector Crimper	1pc
6	45-162 Buffer Tube Stripper	1pc
7	Round Cable Jacket Stripper	1pc
8	400x Deluxe Fiber Optic Microscope with 2.5mm adapter	1pc
9	1.25mm adapter (LC/MU) for the above Microscope	1pc
10	Piano Wire	1pc
11	4-in-1 Pen-size Magnetic Screwdriver	1 set
12	Tweezers	1pc
13	24 Port Connector Heat Oven (AC110V or AC220V)	1pc
14	EPO-TEK 353ND Epoxy	5 packs
15	Epoxy Injection Syringe (3ml)	10pcs
16	5um polish Film - 10 sheets	1 pack
17	1um polish Film - 10 sheets	1 pack
18	0.5um polish Film - 10 sheets	1 pack
19	2.5mm Universal Polish Puck (SC/ST/FC)	1pc
20	1.25mm Polish Puck (LC/MU)	1pc
21	5.9" Rubber Polish Pad	1pc
22	5.9" Glass Polish Plate	1pc
23	Black Work Mat	1pc
24	IPA Fiber Cleaning Wipes	10 packs
25	Kimwipes (280 pieces/box)	1 box
26	Cleaning Swab	50pcs
27	250ml Alcohol Dispenser Bottle	1pc
28	3M Insulation Tape	1pc
29	Utility Knife	1pc
30	Utility Component Box	1pc
31	Marker Pen	1pc
32	Suitcase (430×330×135mm)	1pc



Part Number	Description
GW-600	Fiber Connector Termination Tool Kit

F2H-FPX-P1 Series ODF

Description

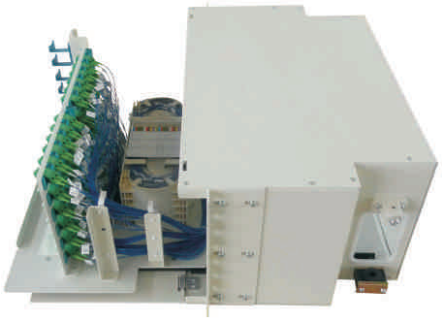
F2H-FPX-P1 Series ODF is used as terminal equipment of fiber optic cable for optical fiber wiring, fixation, fusion and patching.



Features

- Cable clamping and strength member fixation system
- Universal adapter panel, suitable for SC, FC and LC adapters
- Clear fiber number marking on adapter panel and for pigtails







General Specifications

Applicable Adapter	SC, FC, duplex LC	
Capacity	12 fibers, 24 fibers, 36 fibers, 48 fibers, 72 fibers, 96 fibers, 144 fibers, etc.	
Material	cold rolled steel or aluminum	
Color	Black or grey	
Fiber Capacity	482(W)*276(D)*44(H)mm	SC/FC: 12 fibers; LC: 24 fibers
	482(W)*276(D)*87(H)mm	SC/FC: 24 fibers; LC: 48 fibers
	482(W)*276(D)*131.5(H)mm	SC/FC: 36 fibers; LC: 72 fibers
	482(W)*276(D)*150(H)mm	SC/FC: 48 fibers; LC: 96 fibers
	482(W)*276(D)*200(H)mm	SC/FC: 72 fibers; LC: 144 fibers
Installation Method	19" rack mount (21" rack mount is available)	
Splice Tray Capacity	24 fibers/tray	

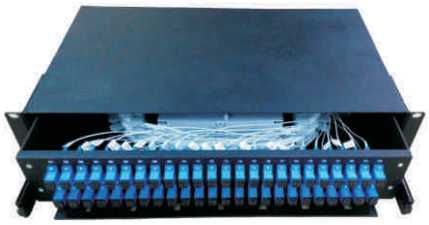
How to order a Grandway ODF

Model Rules: F2H-FPX-P1-XX-XX-XX

Model	Type	XX: Adapter	Fiber Capacity	XX: Pigtail
FPX	P1	SC: SC/UPC AS: SC/APC LC: LC/UPC AL: LC/APC	12=12 fibers 24=24 fibers 48=48 fibers 72=72 fibers 144=144 fibers	SC: SC/UPC AS: SC/APC LC: LC/UPC AL: LC/APC

F2H-FPX-P2 Series ODF





General Specifications

Applicable Adapter	SC, FC, ST, duplex SC, duplex LC, quadplex LC, etc.
Capacity	12 fibers, 24 fibers, 36 fibers, 48 fibers, 72 fibers, 96 fibers, etc.
Material	cold rolled steel or aluminum
Color	black, white or grey
Dimension	482(W)*250(D)*44(H)mm (1U) 482(W)*250(D)*88(H)mm (2U)
Installation Method	19" rack mount
Splice Tray Capacity	24 fibers/tray

F2H-FPX-P3 Series ODF

Features

- The fiber optic panel consists of three main parts: cover, bottom and tray. Both the bottom and the tray can be pulled out by two guide rails.
- Separate spaces for fiber optic cable storage and fiber fusion: fiber optic cable comes in from the rear of the fiber optic panel, and then stores at the reverse side of the tray. The fiber optic cable goes up into the splice tray for splicing with pigtails at the front side of the tray.
- Special cable fixation device for easy cable storage at the reverse side of the tray.
- Patchcord could be led out from the left side or the right side of the fiber optic panel. The curved piece can protect the patchcord fiber from bending sharply



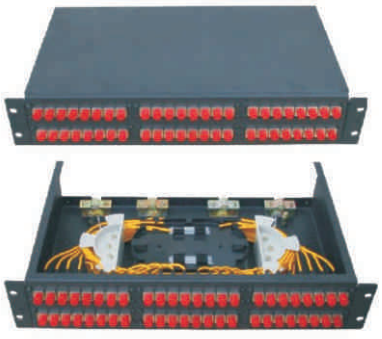
General Specifications

Applicable Adapter	SC, FC, ST, duplex SC, duplex LC, quadplex LC, etc
Capacity	12 fibers, 24 fibers, 48 fibers, 96 fibers, etc
Material	cold rolled steel or aluminum
Color	Black or grey
Size	482.6(W)*273.8(D)*43.25(H)mm (19" 1U); 482.6(W)*273.8(D)*88(H)mm (19" 2U)
Fiber Capacity	1U SC/FC/ST: 24 fibers; LC: 48 fibers 2U SC/FC/ST: 48 fibers; LC: 96 fibers 3U SC/FC/ST: 72 fibers; LC: 144 fibers
Installation Method	19" rack mount
Net Weight	3.7kgs (1U)
Splice Tray Capacity	12 fibers/tray; 24 fibers/tray
Cable Port Quantity	4 ports

F2H-FPX-P5 Series ODF

General Specifications

Applicable Adapter	SC, FC, ST, duplex SC, duplex LC, quadplex LC, etc.
Capacity	12 fibers, 24 fibers, 36 fibers, 48 fibers, 72 fibers, 96 fibers, etc.
Material	cold rolled steel or aluminum
Color	black, white or grey
Dimension	482(W)*250(D)*44(H)mm (1U) 482(W)*250(D)*88(H)mm (2U)
Installation Method	19" rack mount
Splice Tray Capacity	24 fibers/tray

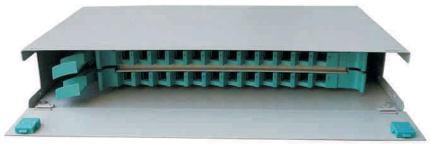


F2H-FPX-P4 Series ODF

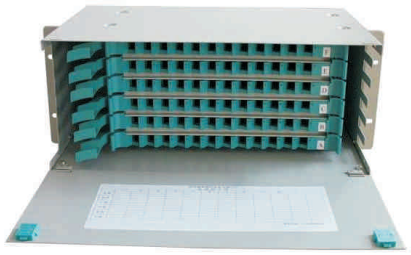
Description

F2H-FPX-P4 Series ODF is used as terminal equipment of fiber optic cable for optical fiber wiring, fixation, fusion and patching.









Features

- Humanization: Products are of humanized management and operation, and detail-orientation.
- Specialization: Technical professionals and production/testing equipment ensure excellent product performance.
- Standardization: We strictly follow industry standard and actively participate in the modification of industry specifications.
- Innovation: For 12 fibers Splice and Distribution Integrated Trays and outdoor cross-connect cabinet, we improve our products according to customers needs.
- Modular design: 12/24 fibers Splice and Distribution Integrated Trays are adopted for easy installation and maintenance. All components are in the form of modules to achieve flexible configuration. Components of different models are interchangeable, which shortens delivery time, reduces costs, and simplifies installation and maintenance.

General Specifications

Part No.	Dimension (mm)	Capacity (C)
F2H-FPX-P4-12	486(W)*275(D)*44(H)	12
F2H-FPX-P4-24	486(W)*275(D)*74(H)	24
F2H-FPX-P4-48	486(W)*275(D)*128(H)	48
F2H-FPX-P4-72	486(W)*275(D)*182(H)	72
F2H-FPX-P4-96	486(W)*275(D)*238(H)	96
F2H-FPX-P4-648	860(W)*365(D)*2000(H)	648
F2H-FPX-P4-720	860(W)*365(D)*2,200(H)	720



How to order a Grandway ODF

Model Rules: F2H-FPX-P4-XX-XX-XX

Model	Type	XX: Adapter	Fiber Capacity	XX: Pigtail
FPX	P4	SC: SC/UPC AS: SC/APC LC: LC/UPC AL: LC/APC FC: FC/UPC AF: FC/APC	12=12 fibers 24=24 fibers 48=48 fibers 72=72 fibers 96=96 fibers 648=468 fibers 720=720 fibers	SC: SC/UPC AS: SC/APC LC: LC/UPC AL: LC/APC FC: FC/UPC AF: FC/APC

F2H-ODB-B Series Indoor Optical Distribution Box

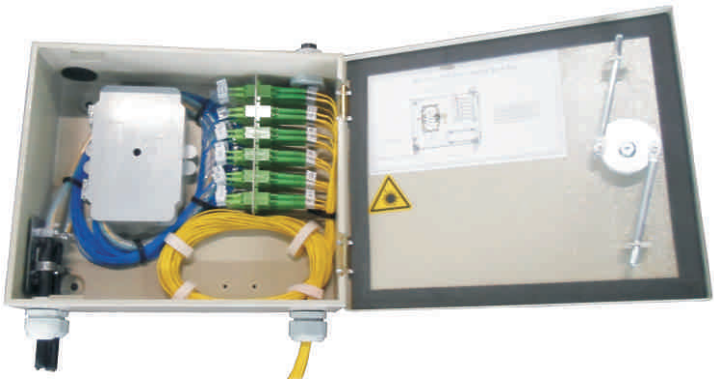
Description

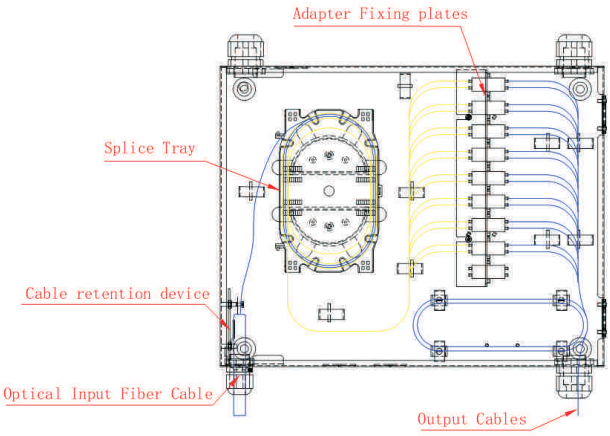
F2H-ODB-B Series Optical Distribution Box provides a high density wall mounted solution for fiber optic networks, which aims to provide and manage fiber distribution in a limited space. It is designed for FTTB (Fiber to the Building) with protective housing for all the passive fiber equipment installed



Features

- Easy to maintain
- Suitable for the fusion splice
- Capacity of fiber up to 12, 24, 36, 48, 96 fibers, etc.





General Specifications

Housing Material	cold rolled steel
Applicable Adaptor	simplex SC/FC/ST adapters or duplex LC adapters
Capacity	96 fibers for SC/FC/ST adapters or 192 fibers for LC adapters
Installation Method	wall mount
Splice Tray	12 fibers/tray or 24 fibers/tray
Applicable Environment	Indoor

How to order a Grandway Optical Distribution Box?

Model Rules: F2H-ODB-B-XX-XX-XX

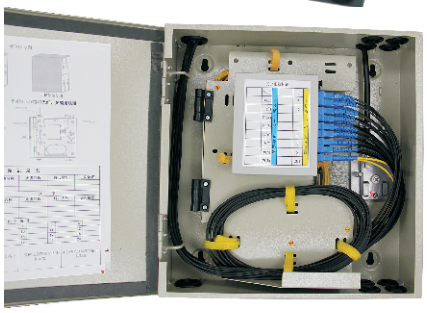
Model	Type	XX: Adapter	Fiber Capacity	XX: Pigtail
ODB	B	SC: SC/UPC AS: SC/APC LC: LC/UPC AL: LC/APC FC: FC/UPC AF: FC/APC	12=12 fibers 16=16 fibers 24=24 fibers 32=32 fibers 36=36 fibers 48=48 fibers 72=72 fibers	SC: SC/UPC AS: SC/APC LC: LC/UPC AL: LC/APC FC: FC/UPC AF: FC/APC

F2H-OSB-A Series Indoor Optical Splitter Box

Description

F2H-OSB-A Series Indoor Optical Splitter Box is specially designed for FTTH (Fiber to The Home) or FTTB (Fiber to The Building) for indoor application (outdoor is optional) . It offers multi-functions of distribution management, splitting, etc.inside.





Features

- Excellent mechanical performance
- Modular design for PLC splitter, flexible configuration, easy for installation.
- Multi-choice for the distribution cable, outdoor cable and drop cable for example
- Additional parking area for spare adapters, convenient for adapter management, construction and maintenance.

General Specifications

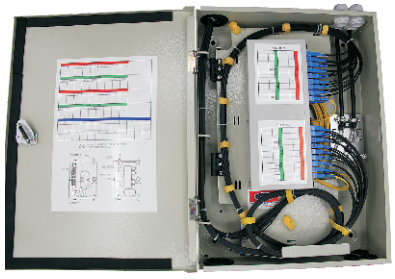
Material	cold rolled steel
Color	gray
Installation Method	wall mounting (pole mounting is optional)
Protection Grade	IP53
Grounding Diameter	6mm^2
Insulation Resistance	>2x10^{4}MΩ/500v (DC)
Connecting Resistance	<0.1Ω
Operating Temperature	-10°C~+40°C(indoor); -40°C~+60°C (outdoor)
Relative Humidity	≤85% (+30°C) (indoor); ≤95% (+40°C) (outdoor))
Air Pressure	70kPa~106kPa

Part Number	Description
F2H-OSB-A-XX-16-XX-XX	16 fibers

Dimension and Capacity

Part No.	Capacity	Dimension (H*W*D)	Slot Number	Splitter Capacity (piece) 1*4	1*8	1*16	1*32
F2H-OSB-A-XX-16	16 fibers	350*340*90mm	2	2	2	1	0
F2H-OSB-A-XX-32	32 fibers	460*340*90mm	4	4	4	2	1





How to order a Grandway Optical Splitter Box?

Model Rules: F2H-OSB-A-XX-XX-XX-XX

Model	Type	XX: Adapter	Fiber Capacity	XX: Pigtail	XX: Splitter
OSB	A	SC: SC/UPC AS: SC/APC LC: LC/UPC AL: LC/APC	16=16 fibers 32=32 fibers	SC: SC/UPC AS: SC/APC LC: LC/UPC AL: LC/APC	P1: 1×2 P2: 1×4 P3: 1×8 P4: 1×16 P5: 1×32

Part Number	Description
F2H-OSB-A-XX-32-XX-XX	32 fibers

F2H-OSB-B Series Indoor Optical Splitter Box

Description

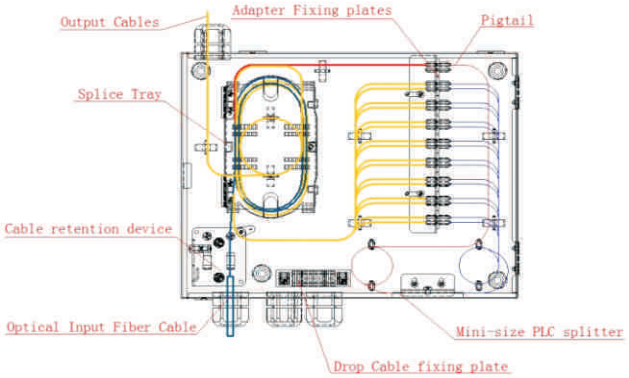
F2H-OSB-B Series Indoor Optical Splitter Box is specially designed for FTTH (Fiber to The Home) or FTTB (Fiber to The Building) for indoor application (outdoor is optional) . It offers multi-functions of distribution management, splitting, etc.



Features

- Micro type PLC Splitter, compact, easy for installation
- Multi-choice for the distribution cable, outdoor cable and drop cable for example
- Special designed lock
- Composed with robber seal, making it water-proof and dust-proof
- Fiber bend radius more than 40mm
- 1.5 meter fiber length storage design
- Guide rings or routing clips for proper management of pigtails and loose tubes
- PG13.5, PG19, and PG21 Cable Glands to meet more demand





General Specifications

Material	cold rolled steel
Color	gray
Splitter Type	micro type 1×8, 1×16 or 1×32
Fiber Capacity	8, 16 or 32 fibers
Installation Method	wall mounting (pole mounting is optional)
Operating Temperature	-20°C~+70°C
Storage Temperature	-25°C~+60°C
Relative Humidity	≤93% (+40°C)
Air Pressure	76kpa~106kpa (0~5000m)
Net Weight	3.8kg
Dimension (L×W×D)	300mm×380mm×100mm

How to order a Grandway Optical Splitter Box?

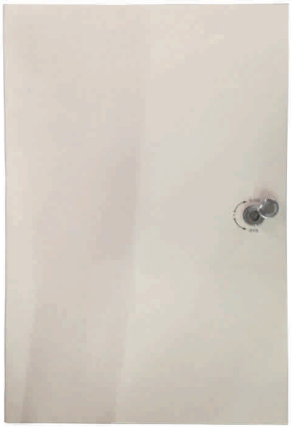
Model Rules: F2H-OSB-B-XX-XX-XX-XX

Model	Type	XX: Adapter	Fiber Capacity	XX: Pigtail	XX: Splitter
OSB	B	SC: SC/UPC AS: SC/APC LC: LC/UPC AL: LC/APC	8=8 fibers 16=16 fibers 32=32 fibers	SC: SC/UPC AS: SC/APC LC: LC/UPC AL: LC/APC	P1: 1×2 P2: 1×4 P3: 1×8 P4: 1×16 P5: 1×32

F2H-FDH2-32-SCA-E2 Fiber Distribution Hub

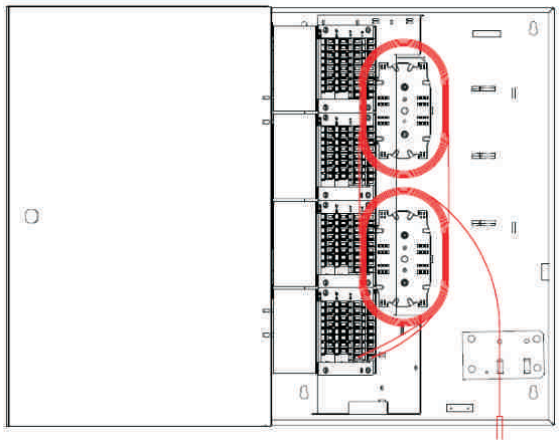
Description

F2H-FDH2-32-SCA-E2 Fiber Distribution Hub is used as terminal equipment of fiber optic cable for optical fiber wiring, fixation, fusion and splitting.

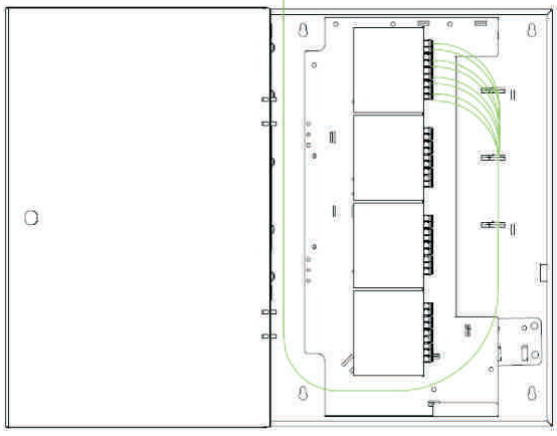


Features

- Suitable for 4pcs of 1*32 or 2*32 Insertion Module Type PLC Splitter
- Cable clamping and strength member fixation system



Part Number	Description
F2H-FDH2-32-SCA-E2	Feeder Cable



Part Number	Description
F2H-FDH2-32-SCA-E2	Distribution cable

Part Number	Description
F2H-FDH2-32-SCA-E2	FDH

General Specifications

Applicable Adapter	SC, LC
Capacity	4pcs of 1*32 or 2*32 Insertion Module Type PLC Splitter
Fiber Capacity	128 fibers
Material	cold rolled steel
Color	grey or black
Installation Method	wall mount
Dimension	620*420*200mm



Part Number	Description
P5	1*32 Insertion Module PLC Splitter

T Series Optical Distribution Cabinet/Frame

Description

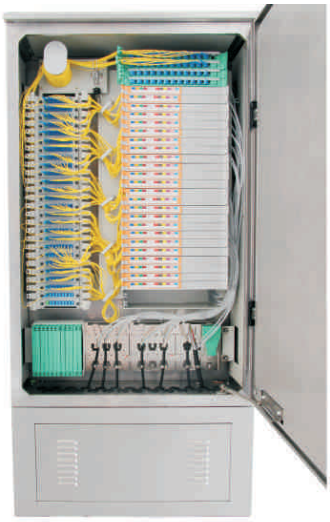
The T series optical distribution cabinet(ODC) is a traditional type ODC. It combines the functions of splicing, distribution, storage, environment-proof and management of optical cables. Both high quality Stainless Steel and stainless steel are available. The protection level reaches IP65 which means the material can provide a great performance of both water-proof and dust-proof.With the rising of PON(Passive Optical Network), optical fiber has become the main transmission medium. To manage the huge amount of optical fibers, the ODC is designed. Generally, an ODC is a node in a PON. The optical cable from center office is led into ODC, after a series processing of fixing, splicing, distribution and etc. the accessed optical fibers would finally be distributed to connect the other fibers and reach the destination. The 144 & 288 cores T Series ODC uses front-openning design, and the 576 cores ODC is designed to be double side that means the 144 & 288 cores ODC requires completely front mounting and 576 cores' requires front-and-back mounting, each side access 288 cores at most.

Splicing Tray & Tray Type PLC Splitter:The T Series ODC is designed to be assembled with Splicing Tray, but if user wants to assemble splitters in it, we also provides Tray Type Splitter. This type of splitters is same as the splicing tray in shape. The splicing tray we offered comes with Bunch Type Pigtail for each tray.

Note: Assembling Tray Type Splitter will decrease the counts of accessing cores.







Features

- Modular design, easy installation and removal
- Suitable for SC/APC type
- Using high quality Stainless Steel material
- Door are protected from external access through hidden hinges
- High resistivity against corrosion 19 inch mounting rails
- Electrostatic epoxy powder painted surface treatment
- Front lockable single door design to keep the cabinet safe, reliable and water-proof
- Rust-proof material to ensure cabinets endure climate changes and adverse environment
- Protection level reaches to IP65
- Full front operation, easy access to cables, pigtails, patchcords, adapters and splices
- Complete cable routing design with fiber bend radius over 40mm
- Suitable for ribbon and non-ribbon optical fibers
- Adopt new type splicing-storage tray, easier to fiber management and operation
- Suitable for the assembling of insertion modular PLC splitter
- All the attributes can be customized

Specification

Series	T Series(A type)		
Main unit material	304# stainless steel/SMC		
Reference dimension (mm)	H	W	D
288 Cores	1500	750	380
144 /Cores	940	550	310
Opening type	Front opening for cabinet less than 576 cores		
Mounting type	Ground mounting		
Splitter type	None(Tray type splitters are offered as option)		
Connector/Adapter type	SC/UPC;SC/APC (other types can be customized)		
Protection level	IP65		
Main accessories for full accessories type cabinet	12* 12 cores direct-splicing tray, 12* 12cores splicing tray with bunch-type patchcord, all connector and adapter is SC type		

Order Information

T Series Optical Distribution Cabinet/Frame	
Part Number	Description
ODC-T-SMC-288A-SU-N-S1	T Series 288 Cores SMC ODC, full accessories with SC/UPC type
ODC-T-SMC-288A-SA-N-S1	T Series 288 Cores SMC ODC, full accessories with SC/APC type
ODC-T-SMC-144-SU-N-S1	T Series 144 Cores SMC ODC, full accessories with SC/UPC type
ODC-T-SMC-144-SA-N-S1	T Series 144 Cores SMC ODC, full accessories with SC/APC type
ODC-T-SS-288A-SU-N-S1	T Series 288 Cores Stainless Steel ODC, full accessories with SC/UPC type
ODC-T-SS-288A-SA-N-S1	T Series 288 Cores Stainless Steel ODC, full accessories with SC/APC type
ODC-T-SS-144-SU-N-S1	T Series 144 Cores Stainless Steel ODC, full accessories with SC/UPC type
ODC-T-SS-144-SA-N-S1	T Series 144 Cores Stainless Steel ODC, full accessories with SC/APC type
ODC-T-SMC-288A-NA-N-N	T Series 288 Cores SMC ODC, empty cabinet
ODC-T-SS-288A-NA-N-N	T Series 288 Cores Stainless Steel ODC, empty cabinet

Fiber Distribution Terminal, Outdoor Cabinet, 288 & 384 Fibers

Description

Fiber Distribution Terminal, Outdoor Cabinet is made of SMC plastic sheet material. It is one of the fiber distribution equipment in telecom system, which is used for the main cable distribution outdoor. It can perform fiber splicing and distribution function.
The FDT consists of cabinet, OSF (optical splitter Fame) distribution area, Bypass area, fiber fusion area, fiber storage area and input & output fiber fixing area. There are 4 optical splitter trays in each OSF, and totally 8 splitter trays for 1*32 PLC splitter (or 2*32 splitter) .

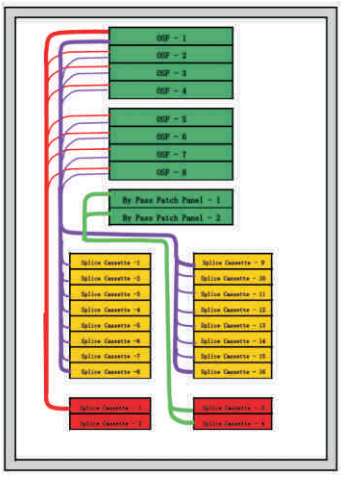


Features

- The splitter tray can be pull out for easier operation.
- High density of splitter tray to save space
- Easier for patchcord jumping between different trays and for massive jumping
- The splitter section and the pigtail section are separated clearly in two sections
- Clear marking for each splice tray and pigtails



Splitter Panel (OSF):	
Dimension (W×D×H)	288×180×25mm
Material	plastic
Capacity	2*32 splitter
Bypass patch panel (Main cable direct splicing unit):	
Function	Used for the splicing of the main cables
Capacity	2*24=48 fibers
Dimension (W×D×H)	288×180×25mm
Distribution & feeder splice shelf:	
Dimension (W×D×H)	245×190×21mm
Material	plastic
Capacity	24 fibers



ES-FDH-1 480 Fibers Fiber Distribution Hub (FDH)

Description

ES-FDH-1 Fiber Distribution Hub (FDH) is made of outer cabinet wall with stainless steel and inner cabinet wall with aluminium alloy. Between the outer and inner cabinet, there' s a heat insulation (thickness of 18mm), which is made of high temperature resistant, low heat transmit foam material to prevent heat, burn and shake.
In the places where top/bottom/door board and cabinet meet, the high temperature resistant foam sealing putty is used to prevent dust water and moist .



Cabinet Structure

- The interior of ES-FDH-1 Fiber Distribution Hub (FDH) consists of the following primary components:
- Swing Frames : Provide a position for splicing trays. Each frame can provides mounting spaces for 19 splicing trays. Each splicing tray can provides 24 positions for connectors .The cabinet may be equipped with up to 38 splicing trays. SC/UPC or SC/APC style connectors are available.
- Grounding System – Provides a point for grounding the cabinet . The exterior of the cabinet is constructed of heavy stainless steel
- and is coated with an grey-colored finish. Each cabinet is equipped with two front doors that provide full front access to the optical components.
  Pedestal: The pedestal-mount cabinet may be mounted on a
- concrete pad Mounting kits (accessories) are available for each mounting option.



FDH:	
Dimension (H×W×D)	1310×1190×414mm
Material	Aluminum alloy and SUS
Capacity	480 cores
Installation Space	38U
Protection Level	IP56
Splitter panel:	
Dimension (W×D×H)	482×200×1Umm
Material	aluminum and power coated
Installation Method	19" rack
Capacity	1pc of 2*32 splitter
24F Fiber Uni-rack:	
Dimension (W×D×H)	482×200×1Umm
Material	aluminum and power coated
Installation Method	19" rack
Capacity	24 fibers

F2H Horizontal Type Fiber Optic Splice Closure(FOSC)

Description

Fiber optic closure is a passive component which can provide a great protection for fiber splicing point. Aerially assembling, pipeline assembling and buried underground are all available. Generally, closures have two types to face different situation: Cap(Vertical) Type and Half(Horizontal) type. The Cap type closure is also called Vertical closure. The input and output ports are at the bottom of the closure.

This closure type is more suitable for the application on accessing layer. The Half type closure is also called Horizontal closure. The input and output are on the both sides. This closure is more suitable for backbone application.

Grandway provides various shapes closure of both type. All the closures we offered are fully mechanical sealing structure which ensure a great sealing performance. High quality ABS material also ensures the durability whether the closure is in air, in pipeline or buried underground.

Fiber Optic Splice Closure:

A fiber optic splice closure is only for protecting interconnection of fibers. It does not combine the ability of optical splitting. Generally, The splicing tray offered as accessories has two types: single side 12 cores type and double sides 24 cores.

Features

- Horizontal/Half design
- Easy to assemble
- Both single side & double sides splicing tray are allowed
- High Quality ABS body material ensure the durability
- Suitable for Φ5mm~φ16mm cables
- Aerial, underground, pipeline, hand-holes assembling are available
- Adapt to the ambient temperature from -40℃ to +65℃

Specification

Model	F2H-FOSC-BIM-A6S24-4VG	F2H-FOSC-BIM-B6S24-4VG	F2H-FOSC-BIM-C8S24-4VG
Type	Half type(Horizontaltype)	Half type(Horizontal type)	Half type(Horizontal type)
Outside dimension	390mm×210mm×120mm	320mm×210mm×85mm	450mm×220mm×110mm
Weight (excluding outside box)	1900g~2200g	2000g~2500g	2800-3300g
Number of inlet/outlet ports	6 pieces	6 pieces	8 pieces
Diameter of fiber cable	Φ5mm~Φ16mm	Φ5mm~Φ20mm	Φ5mm~Φ20mm
Capacity of FOSC	Bunchy: 12-96 (cores)	Bunchy: 12-96 (cores)	Bunchy: 12-96 (cores)
Body material	ABS	ABS	ABS
Assembling method	Aerial, Pipeline, Underground, hand-holes	Aerial, Pipeline, Underground, hand-holes	Aerial, Pipeline, Underground, hand-holes
Temperature	-40℃ to +65℃	-40℃ to +65℃	-40℃ to +65℃
Standard accessories	1*FOSC cover, 1*Fiber optic splice tray (FOST), n*Fiber holding tray, 1*Base, 1*Plastic hoop, 1*Seal fitting, 6*port plug	1*FOSC cover, 1*Fiber optic splice tray (FOST), n*Fiber holding tray, 1*Base, 1*Plastic hoop, 1*Seal fitting, 6*port plug	1*FOSC cover, 1*Fiber optic splice tray (FOST), n*Fiber holding tray, 1*Base, 1*Plastic hoop, 1*Seal fitting, 8*port plug
Option	Pressure testing valve and Earthing deriving device(kit)		

Model	F2H-FOSC-BIM-D6S24-4VG	F2H-FOSC-BIM-E6S24-4VG	F2H-FOSC-BIM-F4S24-2VG
Type	Half type(Horizontal type)	Half type(Horizontal type)	Half type(Horizontal type)
Outside dimension	395mm×195mm×130mm	430mm×180mm×125mm	340mm×150mm×70mm
Weight (excluding outside box)	2100-2600g	1900-2300g	1500-1700g
Number of inlet/outlet ports	6 pieces	6 pieces	4 pieces
Diameter of fiber cable	Φ5mm~Φ20mm	Φ5mm~Φ20mm	Φ5mm~Φ16mm
Capacity of FOSC	Bunchy: 12-96 (cores)	Bunchy: 12-96 (cores)	Bunchy: 12-48 (cores)
Body material	ABS	ABS	ABS
Assembling method	Aerial, Pipeline, Underground, hand-holes	Aerial, Pipeline, Underground, hand-holes	Aerial, Pipeline, Underground, hand-holes
Temperature	-40℃ to +65℃	-40℃ to +65℃	-40℃ to +65℃
Standard accessories	1*FOSC cover, 1*Fiber optic splice tray (FOST), n*Fiber holding tray, 1*Base, 1*Plastic hoop, 1*Seal fitting, 6*port plug	1*FOSC cover, 1*Fiber optic splice tray (FOST), n*Fiber holding tray, 1*Base, 1*Plastic hoop, 1*Seal fitting, 6*port plug	1*FOSC cover, 1*Fiber optic splice tray (FOST), n*Fiber holding tray, 1*Base, 1*Plastic hoop, 1*Seal fitting, 4*port plug
Option	Pressure testing valve and Earthing deriving device(kit)		

Order Information



Part Number	Description
F2H-FOSC-BIM-A6S24-1VG	24-core, 6-port
F2H-FOSC-BIM-A6S24-2VG	48-core, 6-port
F2H-FOSC-BIM-A6S24-3VG	72-core, 6-port
F2H-FOSC-BIM-A6S24-4VG	96-core , 6-port



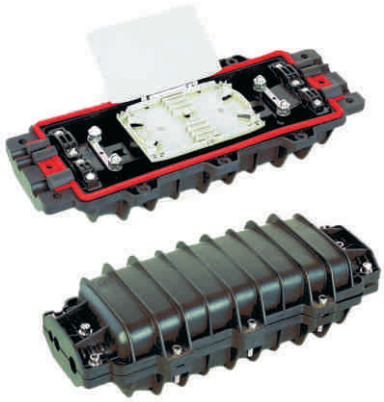
Part Number	Description
F2H-FOSC-BIM-B6S24-1VG	24-core, 6-port
F2H-FOSC-BIM-B6S24-2VG	48-core, 6-port
F2H-FOSC-BIM-B6S24-3VG	72-core, 6-port
F2H-FOSC-BIM-B6S24-4VG	96-core, 6-port



Part Number	Description
F2H-FOSC-BIM-C8S24-1VG	24-core, 8-port
F2H-FOSC-BIM-C8S24-2VG	48-core, 8-port
F2H-FOSC-BIM-C8S24-3VG	72-core, 8-port
F2H-FOSC-BIM-C8S24-4VG	96-core, 8-port



Part Number	Description
F2H-FOSC-BIM-D6S24-1VG	24-core, 6-port
F2H-FOSC-BIM-D6S24-2VG	48-core, 6-port
F2H-FOSC-BIM-D6S24-3VG	72-core, 6-port
F2H-FOSC-BIM-D6S24-4VG	96-core, 6-port



Part Number	Description
F2H-FOSC-BIM-E6S24-1VG	24-core, 6-port
F2H-FOSC-BIM-E6S24-2VG	48-core, 6-port
F2H-FOSC-BIM-E6S24-3VG	72-core, 6-port
F2H-FOSC-BIM-E6S24-4VG	96-core, 6-port



Part Number	Description
F2H-FOSC-BIM-F4S24-1VG	24-core, 4-port
F2H-FOSC-BIM-F4S24-2VG	48-core, 4-port

F2H Cap Type Fiber Optic Splice Closure(FOSC)

Description

Fiber optic closure is a passive component which can provide a great protection for fiber splicing point. Aerially assembling, pipeline assembling or buried underground are all available. Generally, closures have two types to face different situation: Cap(Vertical) Type and Half(Horizontal) type.

The Cap type closure is also called Vertical closure. The input and output ports are at the bottom of the closure. This closure type is more suitable for the application on accessing layer.The Half type closure is also called Horizontal closure. The input and output are on the both sides. This closure is more suitable for backbone application.

Grandway provides various shapes closure of both type. All the closures we offered are fully mechanical sealing structure which ensure a great sealing performance. High quality ABS material also ensure the durability no matter the closure is in air, in pipeline or buried under ground.

Fiber Optic Splice Closure:

A fiber optic splice closure is only for protecting interconnection of fibers. It does not combine the ability of optical splitting. Generally, The splicing tray offered as accessories has two types: single side 12 cores type and double sides 24 cores.

Features

- Vertical cap design
- Easy to assemble
- Only double sides splicing tray are allowed
- High Quality ABS body material ensure the durability Max 96 cores accessing for bunch-shape cable
- Total 5 holes for cable entrance and exits
- Suitable for Φ5mm~φ18mm cables
- Aerial, underground, pipeline, hand-holes assembling are available
- Adapt to the ambient temperature from -40℃ to +65℃
- All accessories can be customized

Specification

Model	F2H-FOSC-BDH-A4S24-4VG	F2H-FOSC-BDH-B5S24-4VG	F2H-FOSC-BDH-C5S48-6VG
Type	Cap type(Vertical type)	Cap type(Vertical type)	Cap type(Vertical type)
Outside dimension	440mm×φ190mm	420mm×φ190mm	490mm×φ220mm
Weight (excluding outside box)	2570g~2820g	2370g~2620g	3070g~3820g
Number of inlet/outlet ports	4 pieces	5 pieces	5 pieces
Diameter of fiber cable	Φ5mm~Φ25mm	Φ5mm~Φ25 mm	Φ5mm~Φ35mm
Capacity of FOSC	Bunchy: 24-96 (cores)	Bunchy: 12-96 (cores)	Bunchy: 12-288 (cores)
Body material	ABS	ABS	ABS
Assembling method	Aerial, Pipeline, Underground, hand-holes	Aerial, Pipeline, Underground, hand-holes	Aerial, Pipeline, Underground, hand-holes
Temperature	-40℃ to +65℃	-40℃ to +65℃	-40℃ to +65℃
Standard accessories	1*FOSC cover, 1*Fiber optic splice tray (FOST), n*Fiber holding tray, 1*Base, 1*Plastic hoop, 1*Seal fitting	1*FOSC cover, 1*Fiber optic splice tray (FOST), n*Fiber holding tray, 1*Base, 1*Plastic hoop, 1*Seal fitting	1*FOSC cover, 1*Fiber optic splice tray (FOST), n*Fiber holding tray, 1*Base, 1*Plastic hoop, 1*Seal fitting
Option	Pressure testing valve and Earthing deriving device(kit)		

Model	F2H-FOSC-BDH-D7S24-10VG	F2H-FOSC-BDM-A4S24-4VG	F2H-FOSC-BDM-B4S24-4VG
Type	Cap type(Vertical type)	Cap type(Vertical type)	Cap type(Vertical type)
Outside dimension	450mm×φ220mm	430mm×φ190mm	310mm×φ190mm
Weight (excluding outside box)	2870g~3620g	2670g~2900g	2100g~2380g
Number of inlet/outlet ports	7 pieces	4 pieces	4 pieces
Diameter of fiber cable	Φ5mm~Φ35mm	Φ5mm~Φ18 mm	Φ5mm~Φ17 mm
Capacity of FOSC	Bunchy: 12-240 (cores)	Bunchy: 12-96 (cores)	Bunchy: 12-48 (cores)
Body material	ABS	ABS	ABS
Assembling method	Aerial, Pipeline, Underground, hand-holes	Aerial, Pipeline, Underground, hand-holes	Aerial, Pipeline, Underground, hand-holes
Temperature	-40℃ to +65℃	-40℃ to +65℃	-40℃ to +65℃
Standard accessories	1*FOSC cover, 1*Fiber optic splice tray (FOST), n*Fiber holding tray, 1*Base, 1*Plastic hoop, 1*Seal fitting	1*FOSC cover, 1*Fiber optic splice tray (FOST), n*Fiber holding tray, 1*Base, 1*Plastic hoop, 1*Seal fitting,	1*FOSC cover, 1*Fiber optic splice tray (FOST), n*Fiber holding tray, 1*Base, 1*Plastic hoop, 1*Seal fitting,
Option	7*Seal rings for inlet/outlet ports	4*Seal rings for inlet/outlet ports	4*Seal rings for inlet/outlet ports
	Pressure testing valve and Earthing deriving device(kit)		

Order Information



Part Number	Description
F2H-FOSC-BDH-A4S24-1VG	24-core, 4-port
F2H-FOSC-BDH-A4S24-2VG	48-core, 4-port
F2H-FOSC-BDH-A4S24-3VG	72-core, 4-port
F2H-FOSC-BDH-A4S24-4VG	96-core, 4-port



Part Number	Description
F2H-FOSC-BDH-B5S24-1VG	24-core, 5-port
F2H-FOSC-BDH-B5S24-2VG	48-core, 5-port
F2H-FOSC-BDH-B5S24-3VG	72-core, 5-port
F2H-FOSC-BDH-B5S24-4VG	96-core, 5-port



Part Number	Description
F2H-FOSC-BDH-C5S48-1VG	48-core, 5-port
F2H-FOSC-BDH-C5S48-2VG	96-core, 5-port
F2H-FOSC-BDH-C5S48-3VG	144-core, 5-port
F2H-FOSC-BDH-C5S48-4VG	192-core, 5-port
F2H-FOSC-BDH-C5S48-5VG	240-core, 5-port
F2H-FOSC-BDH-C5S48-6VG	288-core, 5-port



Part Number	Description
F2H-FOSC-BDH-D7S24-1VG	24-core, 7-port
F2H-FOSC-BDH-D7S24-2VG	48-core, 7-port
F2H-FOSC-BDH-D7S24-3VG	72-core, 7-port
F2H-FOSC-BDH-DTS24-4VG	96-core, 7-port
F2H-FOSC-BDH-D7S24-5VG	120-core, 7-port
F2H-FOSC-BDH-D7S24-6VG	144-core, 7-port
F2H-FOSC-BDH-D7S24-7VG	168-core, 7-port
F2H-FOSC-BDH-DTS24-8VG	192-core, 7-port
F2H-FOSC-BDH-D7S24-9VG	216-core, 7-port
F2H-FOSC-BDH-D7S24-10VG	240-core, 7-port



Part Number	Description
F2H-FOSC-BDM-A4S24-1VG	24-core, 4-port
F2H-FOSC-BDM-A4S24-2VG	48-core, 4-port
F2H-FOSC-BDM-A4S24-3VG	72-core, 4-port
F2H-FOSC-BDM-A4S24-4VG	96-core, 4-port



Part Number	Description
F2H-FOSC-BDM-B4S24-1VG	12-core, 4 ports
F2H-FOSC-BDM-B4S24-2VG	24-core, 4 ports
F2H-FOSC-BDM-B4S24-3VG	36-core, 4 ports
F2H-FOSC-BDM-B4S24-4VG	48-core, 4 ports

Ordering Information

Inline type Fiber Optic Splice Closure

F2H-FOSC- BIM - XXX-XXX

Type:
A: A type, 390*210*120mm
B: B type, 320*210*85mm
C: C type, 450*220*110mm
D: D type, 395*195*130mm
E: E type, 430*180*125mm
F: F type, 340*150*70mm

Cable Port:
6: 6 cable port, 3-in, 3-out
8: 8 cable port, 4-in, 4-out
for C only

Fiber Optic Splice Tray:
S12: 12-core
S24: 24-core

Grounding Device
G: Grounding device included

Valve for Pressure testing
V: Valve included

Number of Splice Trays
0: none,
1: 1 tray
2: 2 trays
3: 3 trays
4: 4 trays
.
.
.
8: 8 trays

Dome type Mechanical Fiber Optic Splice Closure

F2H-FOSC- BDM -XXX- XXX

Type:
A: A type, φ190*430
B: B type, φ190*295

Cable Port:
4: 4 cable ports

Fiber Optic Splice Tray:
S12: 12-core
S24: 24-core

Grounding Device
G: Grounding device included

Valve for Pressure testing
V: Valve included

Number of Splice Trays
0: none,
1: 1 tray
2: 2 trays
3: 3 trays
4: 4 trays

Dome type Heat Shrinkable Fiber Optic Splice Closure

F2H-FOSC- BDH -XXX-XXX

Type:
A: A type, φ190*440
B: B type, φ190*420
C: C type, φ220*490
D: D type, φ220*450

Cable Port:
5: 4 round ports, 1 oval port
7: 6 round ports, 1 oval port

Fiber Optic Splice Tray:
S12: 12-core
S24: 24-core
S48: 48-core

Grounding Device
G: Grounding device included

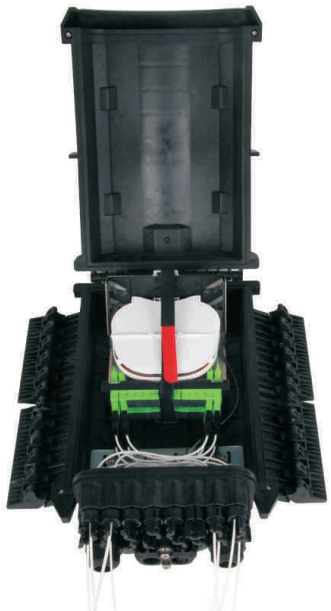
Valve for Pressure testing
V: Valve included

Number of Splice Trays
0: none,
1: 1 tray
2: 2 trays
3: 3 trays
4: 4 trays
.
.
.
10: 10 trays

FTTH Drop Cable Type Fiber Optic Splice & Splitter Closure

Description

FTTH Drop Cable Type Fiber Optic Splice & Splitter Closure features with ruggedness, which is tested under harsh conditions and stand up to even the most severe conditions of moisture, vibration and extreme temperatures. Humanized design helps user get better experience.



Part Number	Description
F2H-JCD-16-I4	16-port

Features

- Dis-mountable adaptor panel
- Support midspan termination
- Easy operation and installation
- Rotatable and dis-mountable splice tray for easy splicing

Applications

- Wall mounting & pole mounting installation
- 2*3mm Indoor FTTH Drop Cable and Outdoor Figure 8 FTTH Drop Cable



Part Number	Description
F2H-JCD-24-I4	24-port

Specification

Model	F2H-JCD-24-I2	F2H-JCD-16-I4		F2H-JCD-24-I4	
Adapter	24pcs of SC	16pcs of SC		24pcs of SC	
Cable Ports	1 uncut port	1 uncut port	2 round ports	1 uncut port	2 round ports
Applicable Cable Diameter	10~17.5mm	10~17.5mm	8~17.5mm	10~17.5mm	8~17.5mm
Drop Cable Ports	24 ports	16 ports		24 ports	
Applicable Cable Diameter	2*3mm FTTH Drop Cable, 2*5mm Figure 8 FTTH Drop Cable				
Dimension	385*245*130mm	385*245*130mm		385*245*155mm	
Material	modified polymer plastic				
Sealing Structure	mechanical sealing				
Color	black				
Maximum Splicing Capacity	48 fibers (4 trays, 12 fibers/tray)				
Applicable Splitter	1pc of 1*16 PLC Splitter or 2pcs of 1*8 PLC Splitters				
Sealing	IP67				
Impact Test	Ik10				
Pull Force	100N				
Midspan Entry	yes				
Storage (Tube/Micro Cable)	yes				
Net Weight	4kg				
Gross Weight	5kg				
Packing	540*410*375mm (4pcs per carton)				

Fiber Optic Splice Clousre, Splitter Type



Specification

Part Number	F2H-FOSC-SBM-L5S24-2VG	F2H-FOSC-SDM-M5S24-5VG
Type	dome	dome
Sealing Structure	mechanical sealing	mechanical sealing
Dimension	230(D)*435(H)mm	260(D)*478(H)mm
Net Weight	4.8kg	6.2kg
Splice Capacity per Tray	24 fibers (Single Fiber) (Tray No.: 035)	12/24 fibers (Single Fiber) (Tray No.: 075)
Max. No. of Trays	2 pieces	5 pieces
Max. Capacity	Single Fiber: 48 fibers	Single Fiber: 120 fibers
No. of Cable Ports	5 ports	5 ports
Max. Cable Diameter	10~17.5mm	10~22mm
Max. Adapter Quantity	18pcs	34pcs
Applicable Splitter	1pc of 1*16 or 2*16 Splitter	1pc of 1*32 or 2*32 Splitter
Working Temperature	-40℃~65℃	-40℃~65℃

Ordering Information

Part No.	Name	Description
F2H-FOSC-SBM-L5S24-1VG	Fiber Optic Splice Closure	24 fibers, 1 tray, 24 fibers/tray
F2H-FOSC-SBM-L5S24-2VG	Fiber Optic Splice Closure	48 fibers, 2 trays, 24 fibers/tray

Part No.	Name	Description
F2H-FOSC-SDM-M5S24-1VG	Fiber Optic Splice Closure	24 fibers, 1 tray, 24 fibers/tray
F2H-FOSC-SDM-M5S24-2VG	Fiber Optic Splice Closure	48 fibers, 2 trays, 24 fibers/tray
F2H-FOSC-SDM-M5S24-3VG	Fiber Optic Splice Closure	72 fibers, 3 trays, 24 fibers/tray
F2H-FOSC-SDM-M5S24-4VG	Fiber Optic Splice Closure	96 fibers, 4 trays, 24 fibers/tray
F2H-FOSC-SDM-M5S24-5VG	Fiber Optic Splice Closure	120 fibers, 5 trays, 24 fibers/tray

F2H-FOSC-ODP Fiber Optic Splice & Splitter Closure

Description

F2H-FOSC-ODP Fiber Optic Splice & Splitter Closure applies vented structure and mechanical locking without using screws. It can install 1pc of 1*16 splitter or 2pcs of 1*8 splitters. All the metal parts inside are made of SUS304.



Features

- Vented structure
- Compact and easy operation



Specification

Size (L×W×H)	670×160×70mm
Applicable Adaptor	SC/LC
Trunk Cable Diameter	10~16mm
FTTH Cable Diameter	2*3mm
Max. Splitting Ratio	1pc of 1*16 splitter or 2pcs of 1*8 splitters
Protection Level	IP55
Installation Method	aerial
Operation Temperature	-40℃～+65℃

F2H-FOSC-BDM-Z5S12-48VG 576 Fibers Fiber Optic Splice Closure

Description

F2H-FOSC-BDM-Z5S12-48VG 576 Fibers Fiber Optic Splice Closure provides protection for direct connection, branch and continual connection for various kinds of cables. The mechanical sealing performance is reliable, the protection grade of the closure is IP68. It is widely used in many applications: aerial, pole-mounting, wall-mounting, pipeline and direct burial.



Features

- High capacity for trunk cable for telecom application
- This design keeps the box under sustainable

Specification

Max. Capacity	576 fibers
Capacity per Tray	12 fibers/tray
Max. Trays	48pcs
Cable Ports	1 uncut port and 4 round ports
Cable Diameter	Φ10-Φ22mm
Sealing Structure	mechanical
Dimension	585×φ260mm
Working Temperature	-40℃~65℃

Fiber Splitter Box/Fiber Termination Box

Description

The equipment is widely used as a termination point for the feeder cable to connect with drop cable.The fiber splicing, splitting, distribution can be done in this box, and meanwhile it provides solid protection and management for the FTTX network building. Can be used indoor or outdoor.





Features

- Total enclosed structure
- Material: PC+ABS, wet-proof, water-proof, dust-proof, anti-aging, protection level up tp IP65
- Clamping for feeder cable and drop cable, fiber splicing, fixation, storage, distribution, etc. all in one.
- Cable, pigtail, patch cords are running through own path without disturbing each other, PLC Splitter installation, easy maintenance.
- Distribution panel can be flipped up, feeder cable can be placed in a cup-joint way, easy for maintenance and installation.
- The Box can be installed by the way of wall-mounted, suitable for both indoor and outdoor uses.

Specification

Environmental Requirement	
Working temperature	-40℃ ~ +85℃
Relative humidity	≦85%(+30℃)
Atomspheric pressure	70KPa ~ 106KPa
Main technical datasheet	
Insertion loss	≦0.2dB
UPC return loss	≧50dB
APC return loss	≧60dB
Life of insertion and extraction	> 1000 times

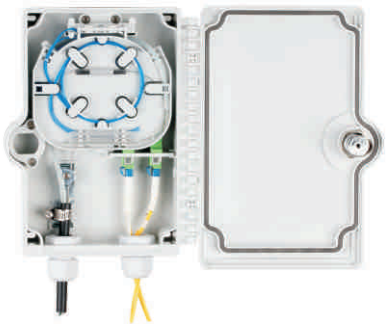
Thunder-proof technical datasheet

The grounding device is isolated with the box, isolation resistance is less than 2x104MΩ/500V(DC); IR≧2x104MΩ/500V.
The withstand voltage between grounding device and box is no less that 3000V(DC)/min, no puncture, no flashover; U≧3000V.

Fiber Splitter Box

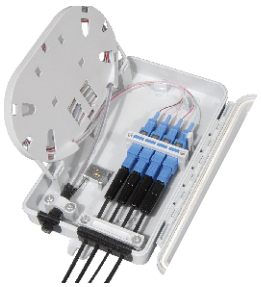
Model	F2H-FSB-2-A
Material	PC
Size	208*153*52mm
Capacity	2 ports (SC) 4 ports (LC)
PLC Splitter	1×2, 1×4
Empty Weight	0.45kg
Loaded Weight	0.7kg
Color	white





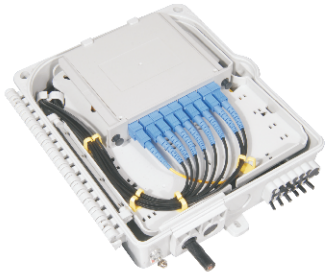
Model	F2H-FSB-4-A
Material	ABS
Size	186*116*40mm
Capacity	4 ports (SC) 8 ports (LC)
PLC Splitter	1×2, 1×4
Empty Weight	0.8kg
Loaded Weight	1kg
Color	white





Model	F2H-FSB-8-A
Material	PC + ABS
Size	225*200*65mm
PLC Splitter	1×2, 1×4, 1×8
Empty Weight	1.2kg
Loaded Weight	2kg
Color	white





Model	F2H-FSB-16-A
Material	PC + ABS
Size	320*240*100mm
PLC Splitter	1×8, 1×16
Empty Weight	1.5kg
Loaded Weight	2.3kg
Color	white





Model	F2H-FSB-16-B
Material	PC + ABS
Size	330*260*130mm
PLC Splitter	1×8, 1×16
Empty Weight	1.5kg
Loaded Weight	2.3kg
Color	white





Fiber Splitter Box

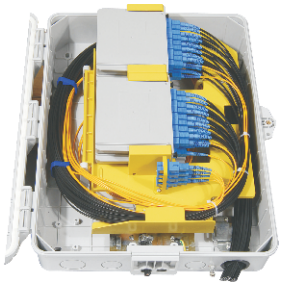
Model	F2H-FSB-16-C
Material	SMC
Size	360*300*100mm
PLC Splitter	1×8, 1×16
Empty Weight	2.5kg
Loaded Weight	3.7kg
Color	white





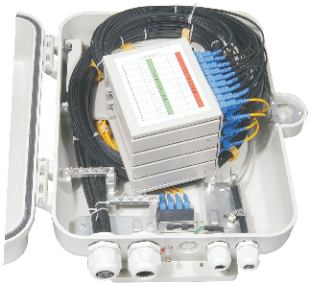
Model	F2H-FSB-32-A
Material	PC + ABS
Size	420*320*130mm
PLC Splitter	1×16, 1×32
Empty Weight	3.2kg
Loaded Weight	4.1kg
Color	white





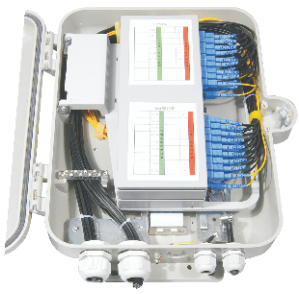
Model	F2H-FSB-32-B
Material	SMC
Size	360*300*160mm
PLC Splitter	1×16, 1×32
Empty Weight	3.5kg
Loaded Weight	4.5kg
Color	white





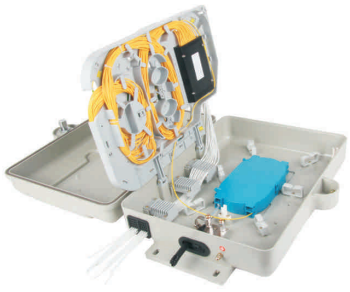
Model	F2H-FSB-32-C
Material	SMC
Size	360*300*100mm
PLC Splitter	1×16, 1×32
Empty Weight	3.5kg
Loaded Weight	4.5kg
Color	white





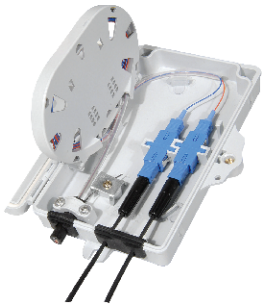
Model	F2H-FSB-32-D
Material	SMC
Size	448*353*128mm
PLC Splitter	1×16, 1×32
Empty Weight	3.5kg
Loaded Weight	4.5kg
Color	grey



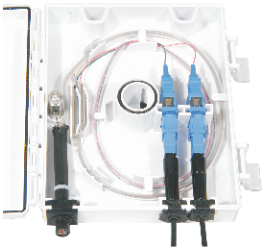


Fiber Termination Box

Model	F2H-FTB-2-A
Material	PC + ABS
Size	102*167*31mm
Capacity	2 ports (SC) 4 ports (LC)
Empty Weight	0.6kg
Loaded Weight	0.9kg
Color	white

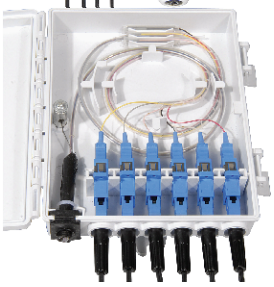
Model	F2H-FTB-2-B
Material	PC + ABS
Size	150*120*37mm
Capacity	2 ports (SC) 4 ports (LC)
Empty Weight	0.6kg
Loaded Weight	0.9kg
Color	white

Model	F2H-FTB-4-A
Material	PC + ABS
Size	191*120*44mm
Capacity	4 ports (SC) 8 ports (LC)
Empty Weight	0.8kg
Loaded Weight	1.1kg
Color	white




Model	F2H-FTB-6-A
Material	PC + ABS
Size	150*120*37mm
Capacity	6 ports (SC) 12 ports (LC)
Empty Weight	0.8kg
Loaded Weight	1.3kg
Color	white

Model	F2H-FTB-8-A
Material	PC + ABS
Size	240*195*66mm
Capacity	8 ports (SC) 16 ports (LC)
Empty Weight	1.2kg
Loaded Weight	1.7kg
Color	white



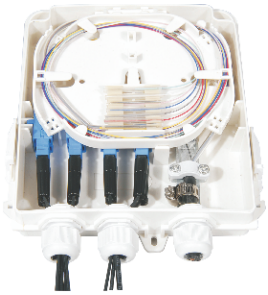

Model	F2H-FTB-8-B
Material	PC + ABS
Size	213*163*47mm
Capacity	8 ports (SC) 16 ports (LC)
Empty Weight	1.2kg
Loaded Weight	1.7kg
Color	white




Fiber Termination Box

Model	F2H-FTB-8-C
Material	PC + ABS
Size	199*160*46mm
Capacity	8 ports (SC) 16 ports (LC)
Empty Weight	1.2kg
Loaded Weight	1.7kg
Color	white



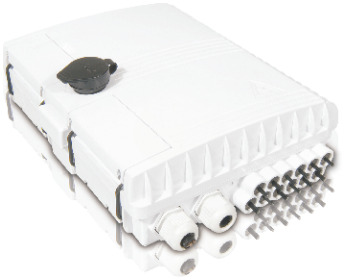


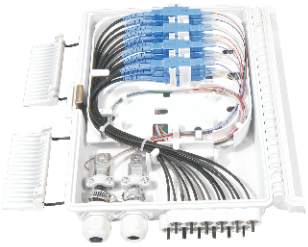
Model	F2H-FTB-8-D
Material	PC + ABS
Size	230*180*55mm
Capacity	8 ports (SC) 16 ports (LC)
Empty Weight	1.2kg
Loaded Weight	1.7kg
Color	white





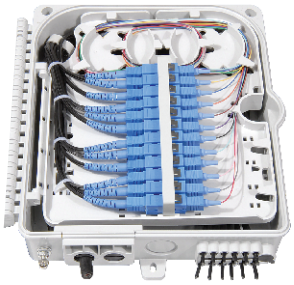
Model	F2H-FTB-12-A
Material	PC + ABS
Size	250*190*39mm
Capacity	12 ports (SC) 24 ports (LC)
Empty Weight	1.2kg
Loaded Weight	1.6kg
Color	white





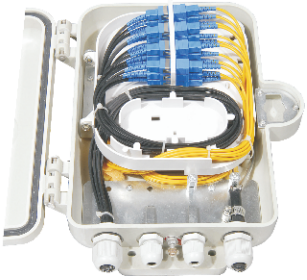
Model	F2H-FTB-12-B
Material	PC + ABS
Size	225*200*65mm
Capacity	12 ports (SC) 24 ports (LC)
Empty Weight	1.2kg
Loaded Weight	2kg
Color	white





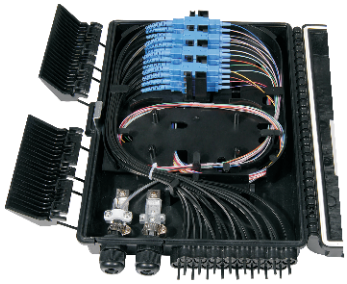
Model	F2H-FTB-12-C
Material	SMC
Size	314*242*82.5mm
Capacity	12 ports (SC) 24 ports (LC)
Empty Weight	2.5kg
Loaded Weight	3.7kg
Color	white





Model	F2H-FTB-16-A
Material	PC + ABS
Size	293*219*84mm
Capacity	16 ports (SC) 32 ports (LC)
Empty Weight	1.4kg
Loaded Weight	1.8kg
Color	white/black





Fiber Termination Box

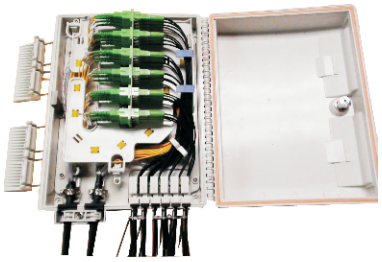
Model	F2H-FTB-16-B
Material	PC + ABS
Size	295*240*85mm
Capacity	16 ports (SC) 32 ports (LC)
Empty Weight	1.4kg
Loaded Weight	1.8kg
Color	white




Model	F2H-FTB-16-C
Material	PC + ABS
Size	330*210*87mm
Capacity	16 ports (SC) 32 ports (LC)
Empty Weight	1.4kg
Loaded Weight	1.8kg
Color	white/black




Model	F2H-FTB-24-A
Material	PC + ABS
Size	305*225*100mm
Capacity	24 ports (SC) 48 ports (LC)
Empty Weight	2.9kg
Loaded Weight	3.9kg
Color	white

Model	F2H-FTB-24-B
Material	PC + ABS
Size	320*240*100mm
Capacity	24 ports (SC) 48 ports (LC)
Empty Weight	1.5kg
Loaded Weight	2.3kg
Color	white




Model	F2H-FTB-24-C
Material	PC + ABS
Size	330*260*130mm
Capacity	24 ports (SC) 48 ports (LC)
Empty Weight	1.5kg
Loaded Weight	2.3kg
Color	white



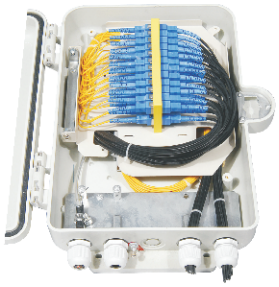

Model	F2H-FTB-24-D
Material	PC + ABS
Size	415*300*120mm
Capacity	24 ports (SC) 48 ports (LC)
Empty Weight	1.5kg
Loaded Weight	2.3kg
Color	white




Fiber Termination Box

Model	F2H-FTB-24-E
Material	SMC
Size	390*288*105mm
Capacity	24 ports (SC) 48 ports (LC)
Empty Weight	2.7kg
Loaded Weight	3.9kg
Color	white





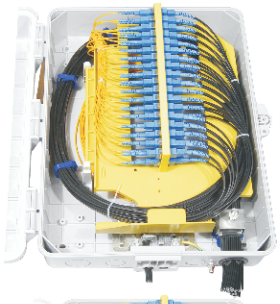
Model	F2H-FTB-24-F
Material	PC + ABS
Size	340*250*110mm
Capacity	24 ports (SC) 48 ports (LC)
Empty Weight	1.5kg
Loaded Weight	2.3kg
Color	black





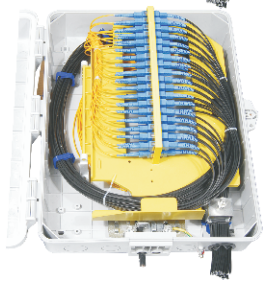
Model	F2H-FTB-36-A
Material	PC + ABS
Size	420*320*130mm
Capacity	36 ports (SC) 72 ports (LC)
Empty Weight	3.2kg
Loaded Weight	4.1kg
Color	white





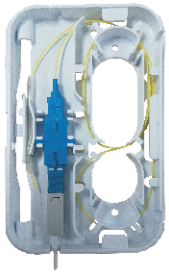
Model	F2H-FTB-48-A
Material	PC + ABS
Size	420*320*130mm
Capacity	48 ports (SC) 96 ports (LC)
Empty Weight	3.2kg
Loaded Weight	4.1kg
Color	white



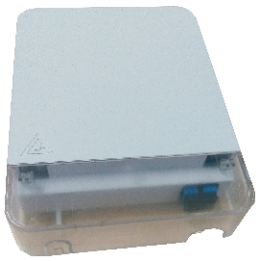
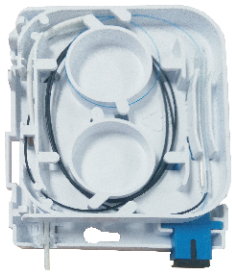


FTTH Fiber Socket

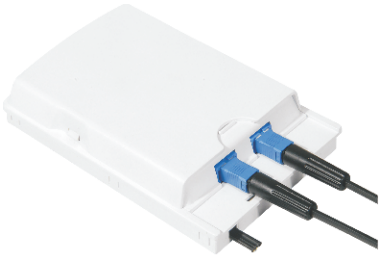
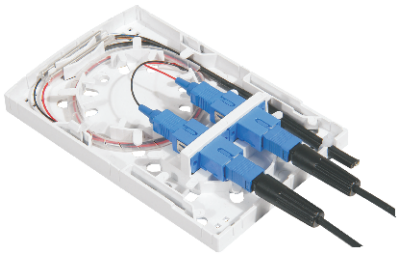
Model	F2H-FFS-1-A
Material	PC + ABS
Size	146*88*90mm
Capacity	1 port (SC) 2 ports (LC)
Empty Weight	0.3kg
Loaded Weight	0.6kg
Color	white

Model	F2H-FFS-1-B
Material	PC + ABS
Size	116*85*22mm
Capacity	1 port (SC) 2 ports (LC)
Empty Weight	0.4kg
Loaded Weight	0.7kg
Color	white

Model	F2H-FFS-2-A
Material	PC + ABS
Size	130*83.4*24.1mm
Capacity	2 ports (SC) 4 ports (LC)
Empty Weight	0.3kg
Loaded Weight	0.6kg
Color	white

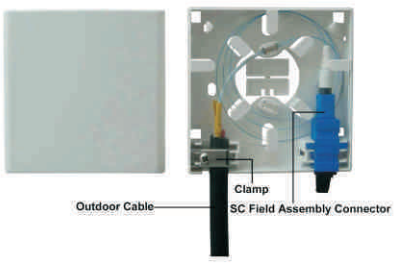
Model	F2H-FFS-2-B
Material	PC + ABS
Size	86*86*27mm
Capacity	2 ports (SC) 4 ports (LC)
Empty Weight	0.2kg
Loaded Weight	0.3kg
Color	white




Model	F2H-FFS-2-C
Material	PC + ABS
Size	86*86*27mm
Capacity	2 ports (SC) 4 ports (LC)
Empty Weight	0.2kg
Loaded Weight	0.3kg
Color	white

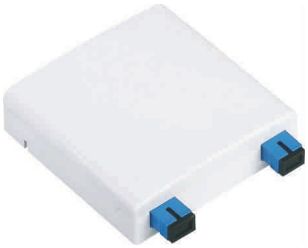


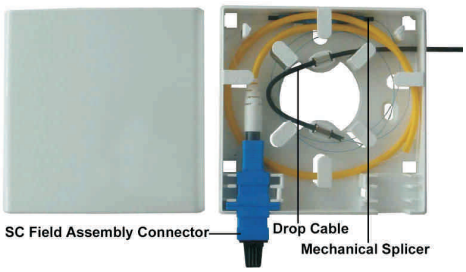

Model	F2H-FFS-1-D
Material	PC + ABS
Size	86*86*25mm
Capacity	1 port (SC) 2 ports (LC)
Empty Weight	0.2kg
Loaded Weight	0.3kg
Color	white

FTTH Fiber Socket

Model	F2H-FFS-2-D
Material	PC + ABS
Size	86*86*25mm
Capacity	2 ports (SC) 4 ports (LC)
Empty Weight	0.3kg
Loaded Weight	0.6kg
Color	white





Model	F2H-FFS-X-E
Material	PC + ABS
Size	86*86*19mm
Capacity	1/2/3/4 ports (SC/FC/ST) 2/4/6 ports (LC)
Empty Weight	0.3kg
Loaded Weight	0.6kg
Color	white





Model	F2H-FFS-2-F
Material	PC + ABS
Size	105*82*21mm
Capacity	2 ports (SC) 4 ports (LC)
Empty Weight	0.3kg
Loaded Weight	0.6kg
Color	white





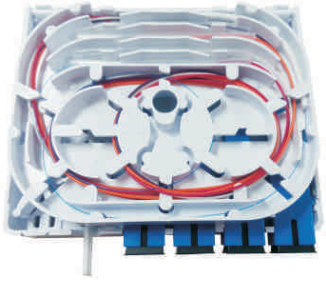
Model	F2H-FFS-4-A
Material	PC + ABS
Size	150*110*30mm
Capacity	4 ports (SC/FC/E2000/ST) 8 ports (LC)
Empty Weight	0.3kg
Loaded Weight	0.6kg
Color	white





Model	F2H-FFS-4-B
Material	PC + ABS
Size	100*80*29mm
Capacity	4 ports (SC) 8 ports (LC)
Empty Weight	0.3kg
Loaded Weight	0.6kg
Color	white





Grandway's Certificates



CE-EMC



CE-LVD



FCC



RoHS



ISO 9001



ISO 14001



OHSAS 18001



TLC

Grandway's Exhibitions

Shanghai Grandway Telecom Tech. Co., Ltd. attends various communication exhibitions both at home and abroad. Exhibitions include CCBN in Beijing, China, CIOE in Shenzhen, China, OFC in USA, ECOC in Europe, Expo Comm in Argentina, GITEX in UAE, Convergence in India, Netcom in Brazil, SVIAZ/EXPO COMM in Russia, CeBIT in Australia, CommunicAsia in Singapore, ICT in Indonesia, etc.



CIOE in China



CommunicAsia in Singapore



OFC in USA



GITEX in UAE



ECOC in Europe



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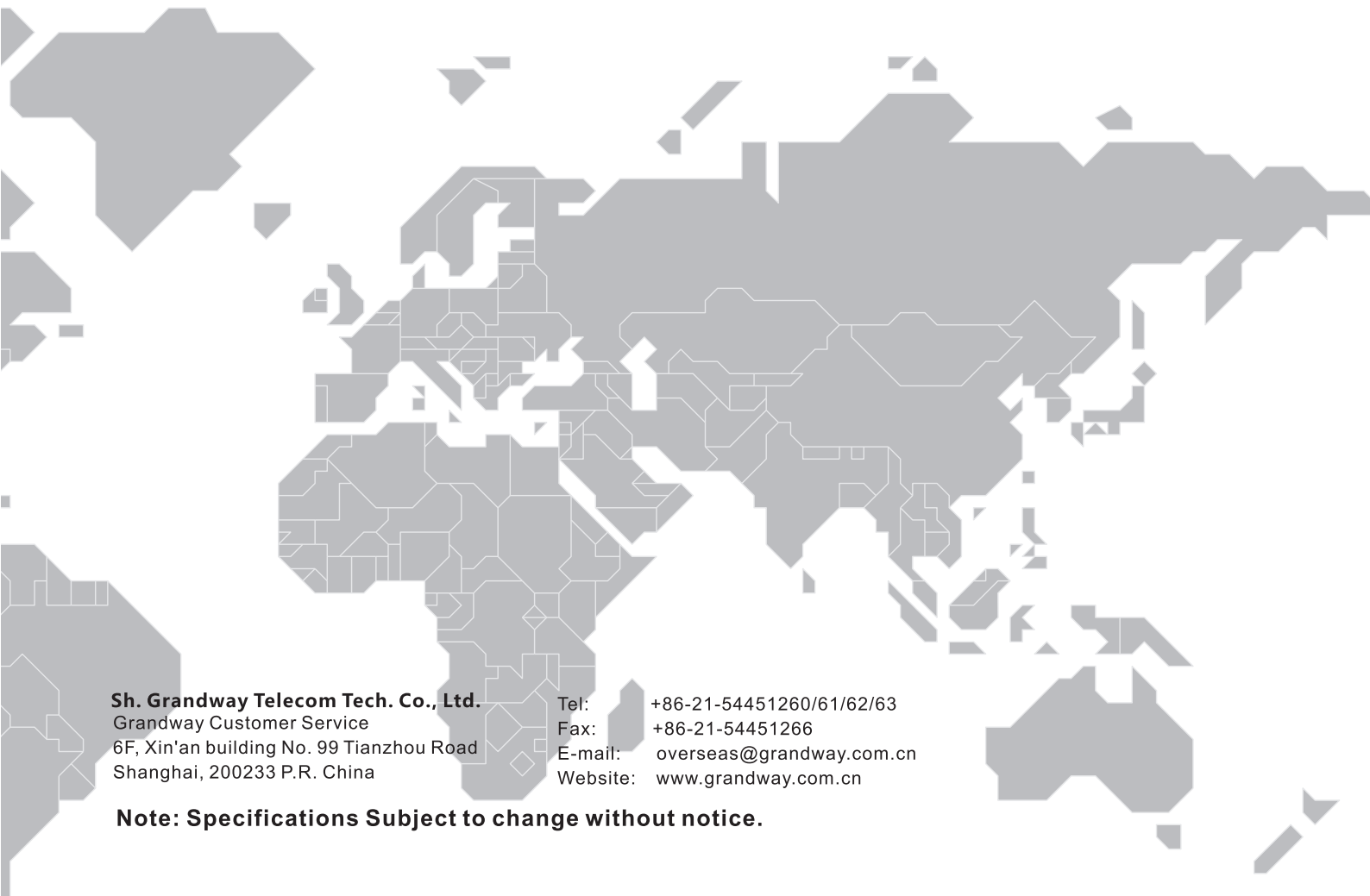

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Note: Specifications Subject to change without notice.