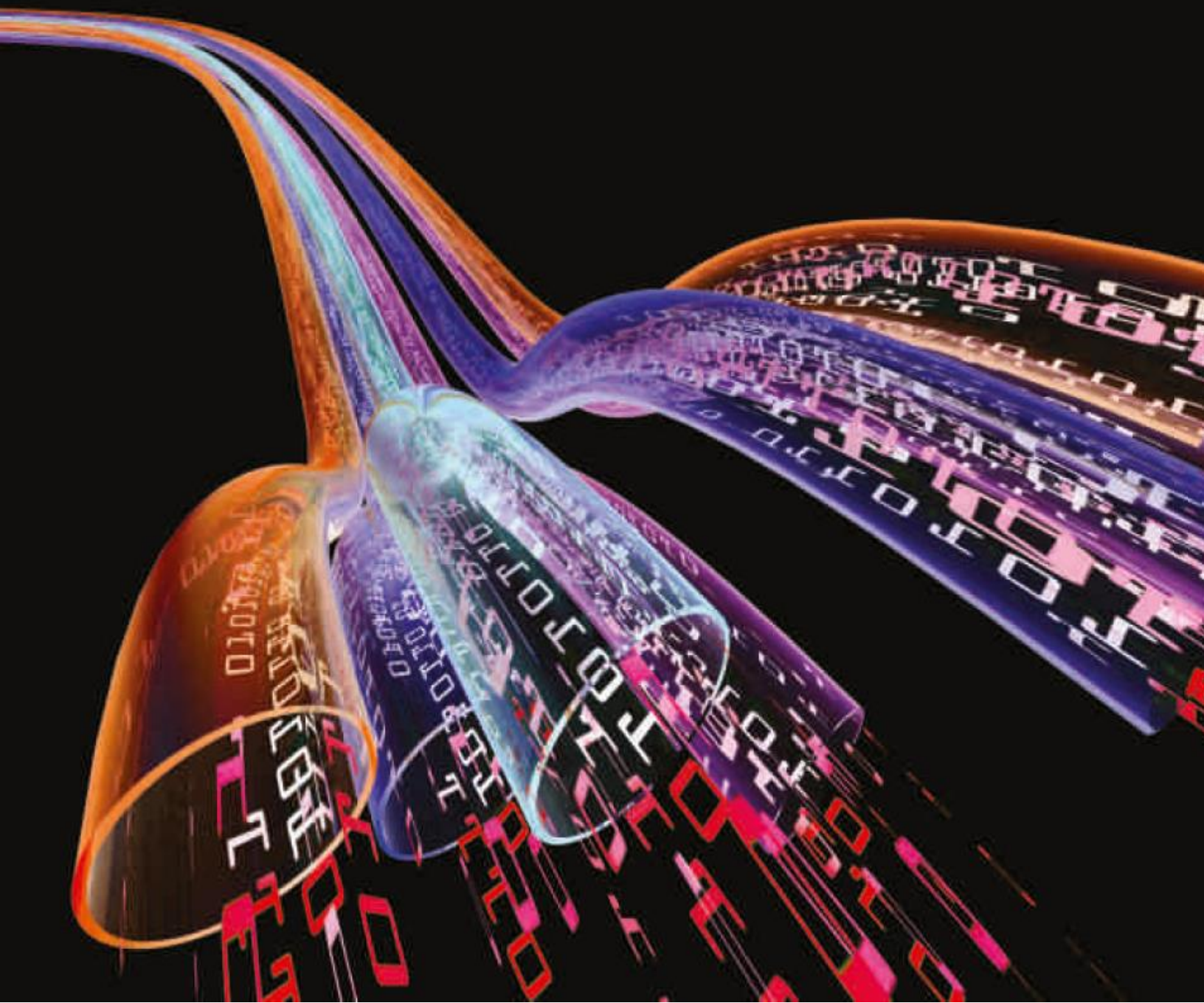


Ultra Fiber Optic Speed
WHEN YOU CONNECT USING THE BEST



Nefraa is India's one of the leading manufacturer and supplier of active and passive fiber optic components and test equipment to major telecom operators, equipment manufacturers, system integrators, and defense establishments since 2016. It invests in product design, development, and manufacturing, to remain a leading company in optical connections. Its end users and OEM customers are world leaders in the optical communications industry. Nefraa is constantly expanding product offerings so that the customers have an edge in today's competitive market.

Nefraa today serves over more than 2,000 customers in all segments of the fiber optic industry. These include telecommunications, contractors, resellers/distributors, ISP's, original equipment manufacturer's, researchers, government, education and more. Nefraa is international inscope, serving customers in more than 10 countries.

Nefraa has a large inventory of fiber optic products and we are especially proud of our commitment to customer service.

Here are the Benefits at a Quick Glance!!

Fiber Optic to Go

You can purchase Nefraa fiber optic products at a growing number of resellers/distributors located around the country

Technical Support team

Get free technical support from our skilled engineers and technicians

Custom Manufacturing

Nefraa welcomes all requests for custom work, whether the project is large or small. We can customise products from our inventory or we can design a product for you from scratch. Custom work includes custom terminations, coupler modules, preloaded racks, tool kits, cable assemblies, patch cords and much much more!

Rapid Prototyping

Nefraa can design and produce a prototype of just about any custom item you may require.

Same Day Shipping

Nefraa provides same day shipping globally for in-stock products.

Value Added Services

These include, free technical support, outstanding customer service, equipment retails, nation wide network, custom manufacturing

Few of our Esteemed Clients



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Fiber Optic Patch Cord



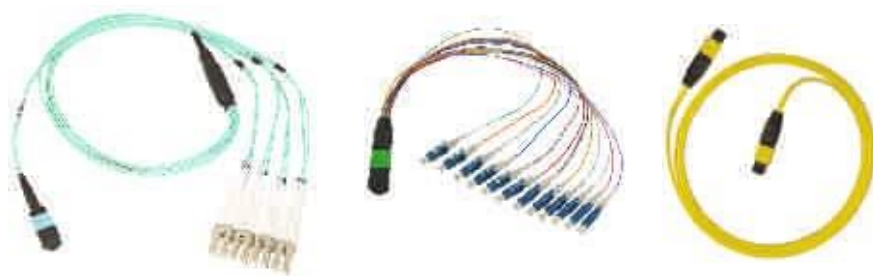
Nefraa provides the broadest choice of patchcords to the industry. All Nefraa patchcords are tested utilising the industry's latest equipment and offer superior quality at low prices on all styles of patchcords. 100% Guaranteed!

Built to your specifications Simplex/Duplex patchcords with FC, DIN, LC, MU, MTRJ, SC, ST, MPO, D4, Biconic, SMA, E-2000 Connectors are available for either Multimode or Single mode systems. Upon request, NEFRAA will colour code duplex patchcords for easier identification. Nefraa patchcord represents high quality, very low loss and maximum performance. A test data sheet can be included with every order upon customer request.

Note: Nefraa patchcords are supplied with orange jacketed multimode (50/125um or 62.5/125um) cable, aqua colour OM3 cable or yellow jacketed single mode cable.

Optical Performance	Single-Mode	Multi-Mode
Diameter (mm)	0.9, 2.0, 3.0	
Fiber Cable	Simplex or Duplex available	
Insertion Loss (dB)	≤0.3 (PC)	≤0.3 (PC)
Return Loss (dB)	≥50 (UPC), ≥60 (APC)	≥35 (PC)
Exchangeability	≤0.2 dB	
Repeatability	≤0.2 dB	
Operating Temp.	-20 °C to +75 °C	
Storage Temp.	-40 °C to +85 °C	

MTP/MPO Products



MTP/MPO products are designed for high-density data center application. Using branded MTP/MPO connector only. NEFRAA MTP/MPO products are factory pre-terminated, tested and packed with test report before shipping.

Type	Single-Mode (APC Polish)	Single-Mode (PC Polish)	Multi-Mode (PC Polish)
Fiber Count	4, 8, 12, 24		
Fiber Type	G652D, G57A1	G652D, G57A1	OM1, OM2, OM3
Maximum Insertion Loss	Elite Low Loss ≤0.35 dB, Standard ≤0.70 dB		
Return Loss	≥55 dB	≥45 dB	≥20 dB
Durability	≥200 times		
Operating Temp.	-20 °C to +75 °C		
Test Wavelength	1310 nm		

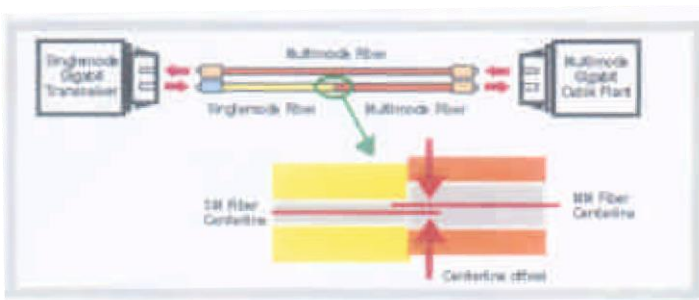
Loop Back Patch Cord



Optical Performance	Single-Mode	Multi-Mode
Connector	SC, LC, MPO	
Insertion Loss (dB)	≤ 0.3 (PC)	
Return Loss (dB)	≥ 50 (UPC), ≥ 60 (APC)	≥ 35 (PC)
Exchangeability	≤ 0.2 dB	
Repeatability	≤ 0.2 dB	
Operating Temp.	-20°C to $+75^{\circ}\text{C}$	
Storage Temp.	-40°C to $+85^{\circ}\text{C}$	

Mode Conditioning Patch Cord

Mode Conditioning Patchcord (MCP), also known as Gigabit Launch Patchcord, is used in longwave/long haul (LX/LH) Gigabit Interface Converter (GBICs) with multimode fiber. Without using MCP, multiple signals are generated when a singlemode laser is launched into the center of a multimode fiber. This would result in pulse broadening or Differential Mode Delay (DMD) effects which degrade the modal bandwidth of fiber cable and limit the link span (the distance between the transmitter and receiver) for operating Gigabit Applications. MCP provides an offset singlemode to multimode fiber connector point that eliminates the effect of DMD by launching the singlemode laser into multimode core at a specified offset.



Product	Mode Conditioning Patch Cord
Cable Plant	62.5/125 or 50/125 MMF
Insertion Loss	MMF-MMF ≤ 0.30 dB (850 nm, 1300 nm) 50/125 MMF-SMF ≤ 2.1 dB (1310, 1550) 62.5/125 MMF-SMF ≤ 2.6 dB (1310, 1550)
Return Loss	MMF ≥ 30.0 dB; SM UPC ≥ 50.0 dB; SM APC ≥ 65.0 dB
Durability	≤ 0.20 dB typical change, 500 matings
Operating Temp.	-20°C to $+75^{\circ}\text{C}$
Storage Temp.	-40°C to $+85^{\circ}\text{C}$





High Power Patch Cord

Nefraa high power patch cord adopts 200~1000 core customised ferrule and utilises air-gap-ferrule technology to eliminate energy-absorbing materials near the fiber end face. This patch cord is widely used in medical, laser and defense industry

FTTA Patch Cord

Outdoor waterproof patch cord is the leading solution for harsh environment and BTS applications. It can be used in most kinds of base-station, like TD-SCDMA, WCDMA, CDMA2000, Wi-Max, 3G, 4G and LTE. NEFRAA can produce various outdoor rodent protected patch cord, including ODVA, PDLC, NSN, ODC, FULLAXS, etc.



Connector Type	LC/SC	
SM/MM	SM	MM
Insertion Loss	≤0.3 dB	
Return Loss	PC ≥50 dB	PC ≥35 dB
	≥60 dB for APC connector	
Insert-Pull Test	1000 times < 0.3 dB	
Operating Temp.	-40 °C to +85 °C	



FTTH Patch Cord



Item	Optical Parameters
Cable Diameter	2.0 x 3.0 mm
Cable Jack Material	LSZH or PVC
Cable Type	SM: 9/125 G657A1, G657A2 or customised
Wavelength	SM 1310nm or 1550 nm
Insertion Loss (dB)	≤0.3 dB
Return Loss (dB)	≥50 dB
Operating Temp.	-20 °C to +70 °C
Storage Temp.	-20 °C to +80 °C

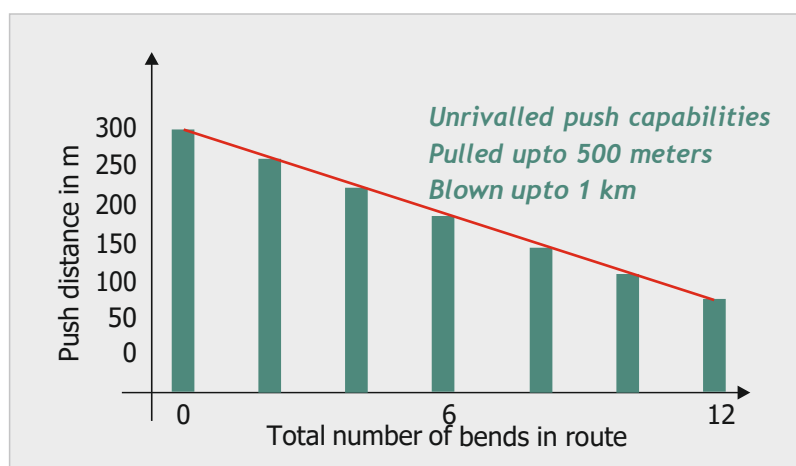
FTTXflex Fiber Cable – QuikPush

FTTXflex-QuikPush cable assembly is a flexible, pushable pre-terminated fiber optic drop solution for fast and reliable FTTX deployments. At just 3mm outer diameter [$<1/8$ inch] the FTTXflex drop cable is also one of the smallest cables in the industry.

Manufactured utilizing the Balistix Pushable connector technology, the FTTXflex-QuikPush cable has a number of advantages over alternative last drop solutions.

Features

- Pre-terminated so no field splicing / mechanical termination
- Guaranteed Insertion Loss / Return Loss with certification
- Installs inside microducts with $>\varnothing 5.5$ mm I.D
- Industry Standard SC Connector format
- Single-mode UPC, APC or Multimode options
- Fire Resistant and LSZH materials available
- Features FTTXflex bend limiting technology
- Ultra light-weight
- High crush resistance
- Low friction outer sheath
- Inherent kink resistance
- Small round concentric design



Reducing the industry standard SC connector diameter from more than $\varnothing 11$ mm to less than $\varnothing 5$ mm; means that the QuikPush cable is optimised for installing through the small spaces that are typical of most FTTx scenarios. QuikPush can be installed without using large conduits or drilling big holes through the customer's wall. At the other end of the drop cable the connector options are unlimited; including SC, LC, FC, and even no connector.

QuikPush can be successfully pushed through $\varnothing 5$ mm holes and Microduct bores as small as $\varnothing 5.5$ mm. Hand push distances vary according to bend frequency and duct quality; The rugged nature of the FTTXflex cable in tandem with the QuikPush pre-terminated connector reduces the cost of fiber deployments as well as the intrinsic skill and difficulty of handling and connecting customer drop cables.

OTDR Launch Box

OTDR Launch Box is designed to aid in the testing of fiber optic cable when using an OTDR. The OTDR Launch Box is used to help minimise the effect of the OTDR's launch pulse on measurement uncertainty. Available in many different configurations and fiber lengths.

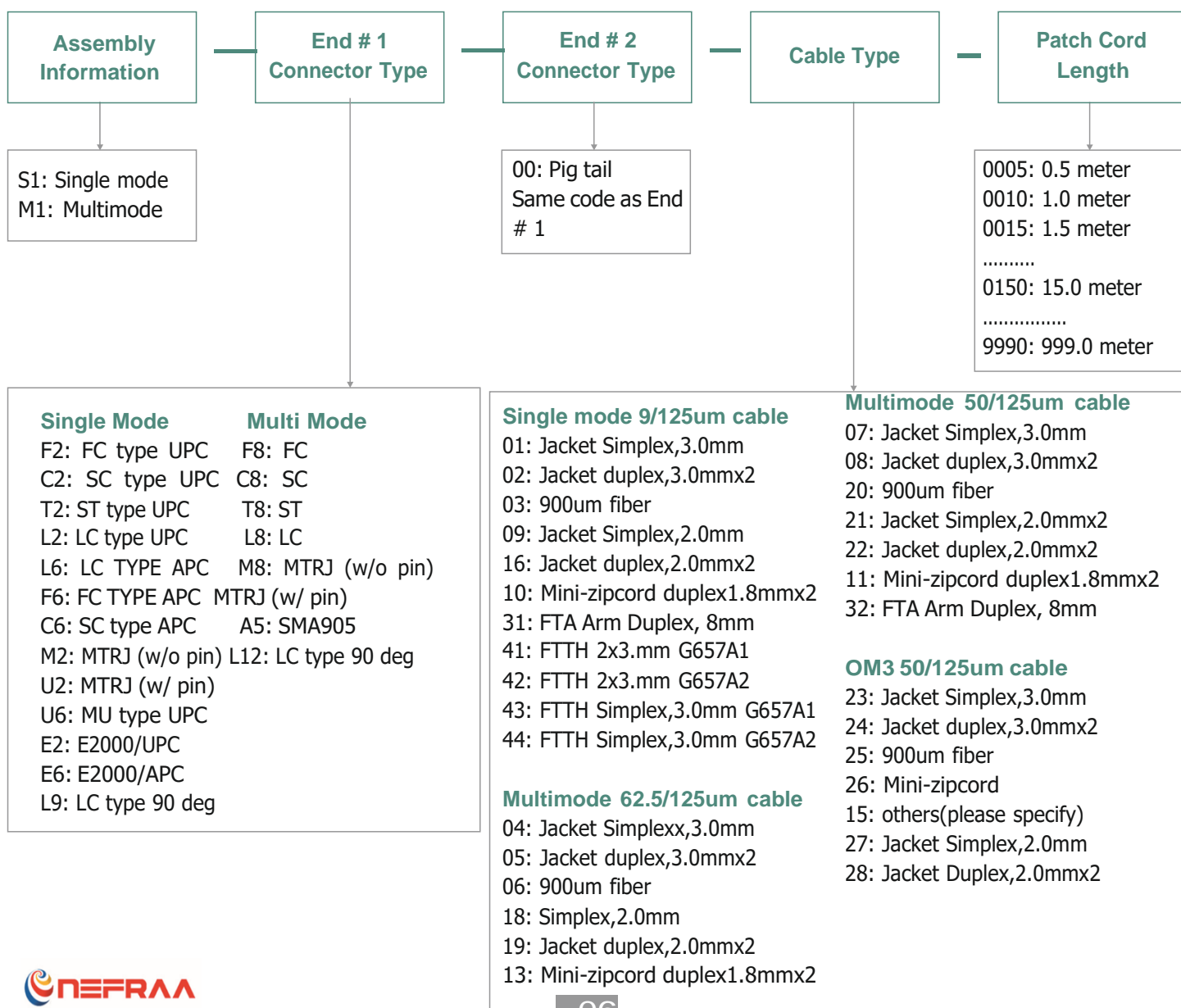


SMPTE Cable Assembly



NEFRAA offers the broadest range of cabling options for your HDTV infrastructure. It provides ruggedized and dirt protected fiber optic connection system. Cable connector features rugged all metal housing and heavy duty cable retention. Excellent dust and dirt protection with silicon gasket. Full support is provided for repairs, replacement, system configuration, or custom designs.

Patch Cord Ordering Information



Fiber Optic Adapter



FC



MU



LC



ST



SC

NEFRAA offers a broad range of Adapters like FC, SC, ST, LC, D4, DIN, MU, MTRJ, Biconic and Hybrid Adapters such as FC-LC, SC-LC, FC-SC, FC-ST & SC-ST. All come with a choice of Zirconia Split Sleeve or phosphor bronze sleeve and with a typical insertion loss of 0.1dB.

Bare Fiber Adapter



Bare fiber adapter manufactured by NEFRAA is used as a medium to link the bare optical fiber to fiber optic equipment. The bare optical fiber adapters have the bare optical fiber inside on one side; the other side of the adapter is a connector that can plug into the equipment. NEFRAA has SC, LC, FC, ST and SMA bare fiber adapters, that are used to quickly and easily terminate the fiber to the equipment.

Fixed Fiber Optic Attenuator

Plug type attenuator contains doped fiber suitable for dual wavelength operation. Available in FC, SC, ST, LC & MU for 5dB, 10dB, 15dB, 20dB values. Other values available on request.

Type	SM	MM
Operation Wavelength	1260 nm to 1650 nm	
Test Wavelength	1310 nm/1550 nm	850 nm/1300 nm
Fiber Type	Single-Mode 9/125	Multi-Mode 50/125 or 62.5/125 or OM3
Attenuation	1-5 dB, ± 0.5 dB	1-5 dB ± 0.5 dB
	6-10 dB, ± 0.7 dB	5 dB-20 dB $\pm 10\%$
	11-20 dB, ± 1 dB	
Return Loss	UPC ≥ 50 dB APC ≥ 65 dB	PC ≥ 35 dB
Optical Input Power	≤ 200 mw	
Operating Temp.	-40°C to $+85^{\circ}\text{C}$	



FC



LC



MU



ST



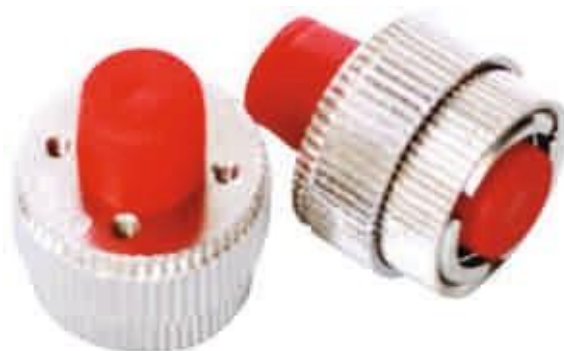
SC



LC

Variable Fiber Optic Attenuator

Variable Optic Attenuator (VOA), manufactured by NEFRAA is used to permit dynamic control of optical power levels in a fiber. They can be applied to adjust power level of signal in the optical communication at the output of light source, E/O converters and for the linear or dynamic range of power meter. Furthermore, VOA can be used in optical amplifier systems to balance the gain across the different operating wavelengths. By using simple adjustment controls, the attenuation can be modified to any level required by your specific product



PLC Splitter



Bare PLC splitter device



Fanout PLC splitter Device



Module PLC splitter



Cassette PLC splitter

NEFRAA PLC splitters are based on planar lightwave circuit technology with precise alignment process, which can divide a single optical input into multiple optical outputs uniformly. It offers superior optical performance, high stability, high reliability in compact package to meet various application requirements.

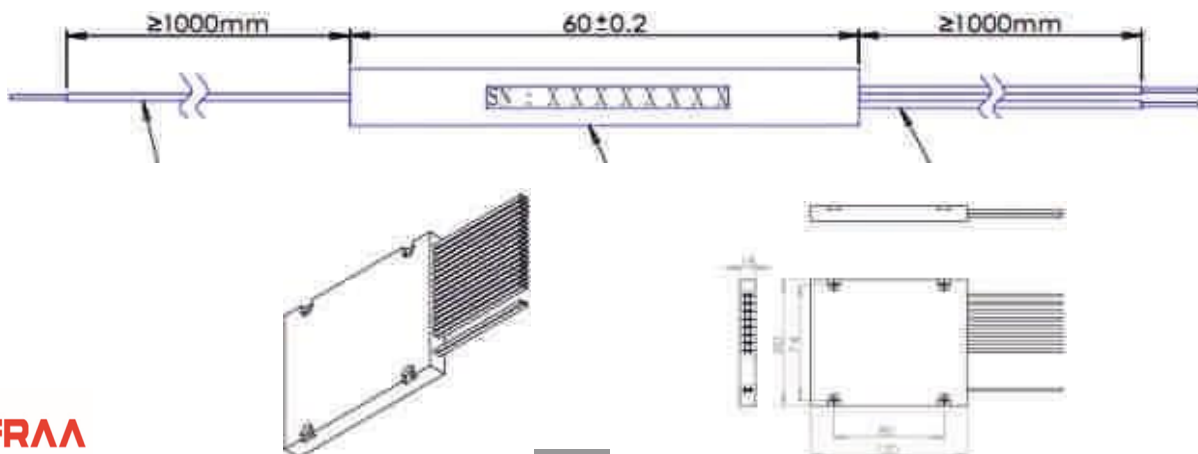
Features

- Low IL and PDL
- High reliability
- High channel counts
- Wide wavelength range
- Large operating temperature range
- Excellent Environmental & Mechanical Stability

Applications

- FTTX (FTTP, FTTH, FTTN, FTTC)
- Local Area Networks (LAN)
- Test Equipment
- CATV
- Analog/Digital Passive Optical Networks (PON)

Dimension Diagrams



PLC Splitter

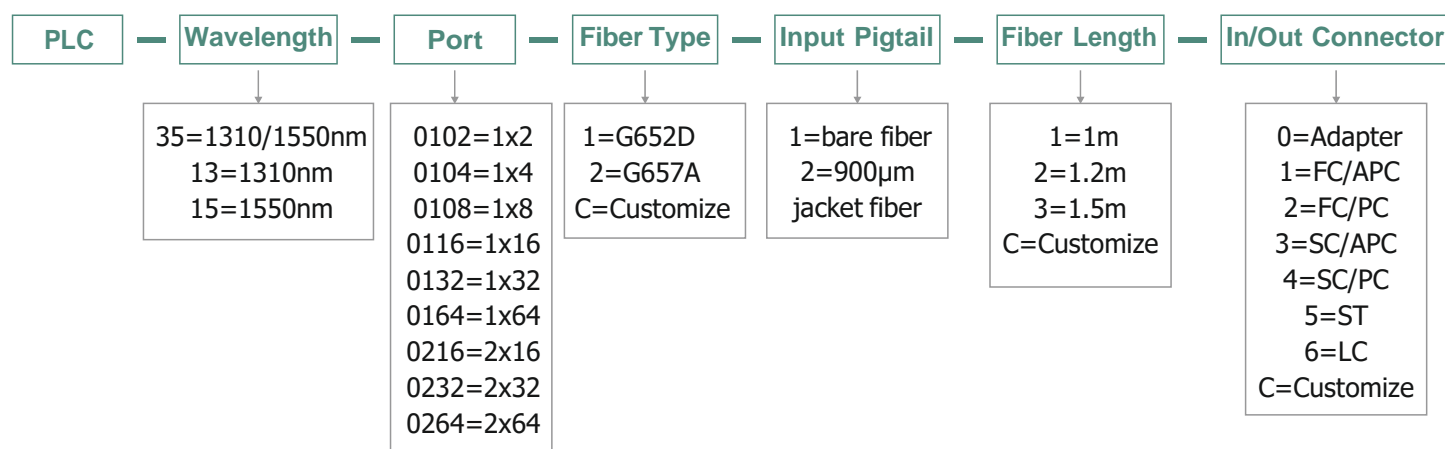
1xN PLC Splitter Specifications (Measured at room temperature and excludes connector loss)

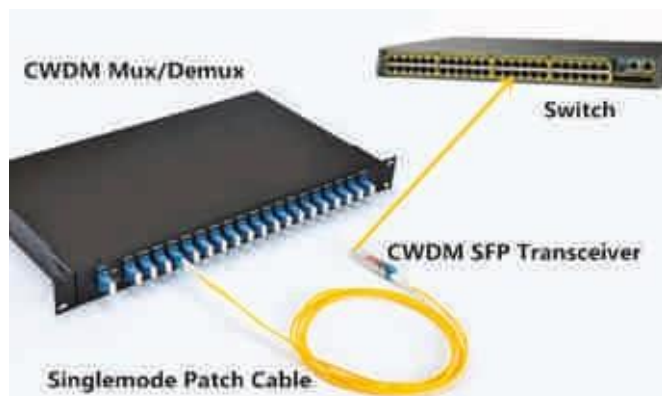
Port Configuration		1x2	1x4	1x8	1x16	1x32	1x64
Fiber Type		SMF-28e or customer specified					
Operating Wavelength (nm)		1260 to 1650					
Insertion Loss (dB)		4.0	7.4	10.5	13.6	16.9	21.0
Loss Uniformity (dB)	Max	0.5	0.7	1.0	1.4	1.8	2.0
Return Loss (dB)	Min	55					
Polarization Dependent Loss (dB)	Max	0.2	0.2	0.3	0.3	0.3	0.4
Directivity (dB)	Min	55					
Wavelength Dependent Loss (dB)	Max	0.3	0.3	0.3	0.8	0.5	0.8
Temperature Dependent Loss (dB)	Max	0.5	0.5	0.5	0.8	0.8	1.0
Operating Temp. (°C)		-40 to +85					
Packaging Size (mm)	Fan-Out	60x7x4	60x7x4	60x7x4	60x12x4	80x20x6	100x40x6
Packaging Size (mm)	Module	100x80x10	100x80x10	100x80x10	120x80x18	120x80x18	140x115x18
Packaging Size (mm)	Cassette	130x100x25	130x100x25	130x100x25	130x100x50	130x100x100	130x100x206

2xN PLC Splitter Specifications (Measured at room temperature and excludes connector loss)

Port Configuration		2x2	2x4	2x8	2x16	2x32	2x64
Fiber Type		SMF-28e or customer specified					
Operating Wavelength (nm)		1260 to 1650					
Insertion Loss (dB)		4.4	7.8	11.2	14.6	17.9	21.5
Loss Uniformity (dB)	Max	1.0	1.4	1.5	2.0	2.5	2.5
Return Loss (dB)	Min	50					
Polarization Dependent Loss (dB)	Max	0.2	0.2	0.4	0.4	0.4	0.5
Directivity (dB)	Min	55					
Wavelength Dependent Loss (dB)	Max	0.8	0.8	0.8	0.8	0.8	1.0
Temperature Dependent Loss (dB)	Max		0.5	0.5	0.8	0.8	1.0
Operating Temp. (°C)		-40 to +85					
Packaging Size (mm)	Fan-Out	60x7x4	60x7x4	80x12x4	80x12x4	80x20x6	100x40x6

PLC Splitter Ordering Information





Features

- Based on thin film filter technology and high wavelength stability
- Low polarization dependent loss and high channel isolation
- Flat and wide passband
- Epoxy free optical path and excellent reliability
- Telcordia GR-1221-CORE qualified and RoHS compliant

Applications

- CWDM system
- CATV system
- Telecommunication network system
- Metro/Access networks

Parameters	Value			
Channel No.	2	4	8	16
Op. Wavelength (nm)	1260-1460 or 1460-1620 or 1260-1620			
Ch. Cent. Wavelength (nm)	1270/1290/1310/1330/1350/1370/1390/1410/1430/1450/ 1470/1490/1510/1530/1550/1570/1590/1610			
Ch. Spacing (nm)	20			
Passband@0.5dB (nm)	≥14			
Pass band (nm)	$\lambda \text{ITU} \pm 7$			
Pass band Flatness (dB)	≤0.5			
Insertion Loss Typ. (dB)	0.8	1.3	2.4	4.6
Insertion Loss Max. (dB)	0.9	1.5	2.8	5.0
Adjacent Ch. Isolation (dB)	≥30			
Non Adjacent Ch. Isolation (dB)	≥40			
Return Loss (dB)	≥50			
Polarisation Dep. Loss (dB)	≤0.10	≤0.15	≤0.20	≤0.25
Polarisation Mode Disp. (ps)	≤0.10	≤0.10	≤0.15	≤0.15
Ins. Loss Temp. Sensitivity (dB/°C)	≤0.005	≤0.005	≤0.007	≤0.007
Wavelength Temp. Shifting nm/°C	≤0.002			
Directivity	≥50			
Operation Temp (°C)	-40 to +85			
Packing Dimension (mm)	ABS box M: 100X80X10, N: 120X80X18, Aluminum alloy box k: 80x60x8, S: customized			

Ordering Information

CWDM-									
CWDM	Application Type	Channel Number	Start Channel	Operation Wavelength	Fiber Type	Pigtail Type	Fiber Length	Package	Connector
	M=Mux D=Demux	02=2 CH 03=3 CH 16=16 CH	270=1270 290=1290 610=1610 SS=special (Refer to ITU channel table)	F=1260~1620 E=1260~1460 H=1460~1620	SM=SMF-28E G6=G657A1 M5=MM50/125 M6=MM62.5/125	0=None 1=Bare fiber 2=900um loose tube 3=2.0mm Cable 4=3.0mm Cable S= customized	0=None 1=0.5m 2=1.0m 3=1.5m 4=2.0m S= customized	F=4.2X28 I=5.5X34 J=80X60X12 K=80X60X8 L=90X20X10 M=100X80X10 N=120X80X18 O=141X115X18 P=Cassette BOX Q= Rack-mounted S= customized	NA=None FP=FC/PC FA=FC/APC SP=SC/PC SA=SC/APC LP=LC/UPC LA=LC/APC MU=MU/UPC S= customized

DWDM Module

Features

- 100 GHz ITU Channel Spacing
- Low insertion loss
- Broadband transmission
- High channel isolation
- High stability and reliability
- Epoxy-free optical path

Applications

- Channel Mux/Demux
- DWDM system DWDM
- Router
- Fiber optical amplifier
- CATV system



Parameters		Mux	Dmux
Channel Wavelength (nm)		1530.33~1560.61 (21~59 ITU grid)	
Central Wavelength Accuracy (nm)		± 0.5	
Min Channel Spacing (GHz)		100	
Passband@0.5dB (nm)		>0.22	
Insertion Loss (dB) Add/Drop Ch.		≤1.0	
Insertion Loss (dB) Reflective Ch.		≤0.4	
Passband Flatness (dB)		≤0.3	
Add/Drop Ch. Isolation(dB)	Adjacent Ch.	N/A	≥25
	Non Adjacent Ch.	N/A	≥35
Reflective Isolation (dB)		≥12	
Ins. Loss Temperature (dB/°C)		≤0.003	
Wavelength Temp. Shifting nm/ °C		≤0.002	
PDL (dB)		≤0.10	
PMD (ps)		≤0.10	
Directivity (dB)		≥50	
Return Loss (dB)		≥45	
Rated power (mW)		500	
Operation Temp (°C)		0 to +70	
Storage Temp. (°C)		-40 to +85	
Packing Dimension (mm)		L100×W80×H10	

Ordering Information

SDWDM	
Channel Spacing	1=100 GHz
Application Type	M=Mux D=Demux
ITU Channel ITU	C21=1560.61 nm C23=1558.98 nm
Fiber Diameter	1=Bare Fiber 2=900um Loose tube 3=3 mm Cable
Fiber Length	1=1 Meter 2=2 Meter
Connector	0=None 1=FC/APC 2=FC/PC 3=SC/APC 4=SC/PC 5=ST 6=LC

SFPs available from NEFRAA are high performance and cost effective modules for serial optical data communication applications, The interface converters meet the industry standard of SFP, This module is designed for single mode fiber operation at various wavelengths or multi-mode fiber operation at the wavelength of 850nm/1310nm. The transmitter section incorporates an advance FP/DFB laser for single-mode or VCSEL for multi-mode, with temperature compensation and automatic power control circuit (APC). The receiver section incorporates an efficient InGaAs/InP PIN photodiode, with AGC for wide dynamic range. The modules are hot-pluggable, All of them are housed in a stainless package and the combination produces a component of highreliability.



SFP DUPLEX LC



SFP BIDI LC



SFP CWDM



SFP DWDM



SFP+ DUPLEX LC



SFP+ BIDI LC



SFP+ CWDM LC



SFP+ DWDM LC



XFP DUPLEX LC



XFP BIDI LC



XFP CWDM LC



XFP DWDM LC



QSFP+ LC/MPO Connector



Optical Line Protection System (OLP) uses spare optical fiber from different route to build a backup path. By monitoring real-time power status of working fiber, it can automatically switch from working fiber to backup fiber when the power value of working fiber gets lower than a user defined threshold. OLP will provide you a more reliable, flexible and high secure optical transmission network. It is widely used for protecting backbone and important business link.

Features

- Reduce interrupt time of communication and improve maintenance efficiency while quickly recovering communication
- Remarkably reduce damage to network caused by fiber failure
- Increase network reliability and improve service quality
- Harmless switch between working path and secondary path and convenient for line overhaul and cut over
- Real-time monitoring power level of fiber
- Support remote control, easy management and maintenance
- Transparent transmission

Parameters	Specifications
Type Number	OLP-1+1 / OLP-1:1 / OLP1-1
Operating Wavelength	1310±50 nm and 1550±50 nm
Test Wavelength	1310/1550 nm
Monitoring Power Range	-50 to +23 dBm
Insertion Loss	OLP-1:1: TX<1.2 dB, RX<1.2 dB, OLP-1+1: TX<4.5 dB, RX<2.0 dB
Switching Time	<35 ms
Return Loss	≥45 dB
Crosstalk	≥55 dB
PDL	≤0.05 dB
Fiber Type	SM (9/125 μm)
Connector Form	SC / PC or SC/APC or LC/PC or LC/APC
Power-Down Condition	hold in working path or switch to backup path
Monitor Port	RJ45, RS-232, GSM
Working Power	DC: 36 to 72 V AC: 100 to 240 V (50/60 Hz)
Operating Temperature	-10 to +60 °C
Storage Temperature	-20 to +75 °C
Chassis Type	19-inch standard 1U rack (482.6 × 250 × 44.5 mm)

NEFRAA's NEFRAA8010SG SD/HD/3G-SDI Optical Transceivers broadcasting grade HD Transceiver which can interconvert SD/HD/3G-SDI electric signal and optical signal. The Optical transmission device support HD/HD/3G-SDI video to up to 40KM and Plus, embedded audio and RS485 data via fiber-optic. System support in accordance with SMPTE424M, SMPTE292M, SMPTE259M standard, as well as DVB-ASI(EN50083-9) digital TV signal format.



Features

- SD/HD/3G auto-detection, supported transmission rate from 270M bit/s to 2.97G bit/s
- Transmission distance is from 0km to 40KM via multimode fiber or single mode fiber.
- Support, SMPTE(2.97G) ,SMPTE 259M (1.485Gbps),SMPTE 259M (270Mbps) and DVB-ASI
- Carry 1 channel SDI signal loop out.
- With 2CH Bi-Di data
- Operation status indication by LED

Parameters	Specifications
Model	NEFRAA8010SG
Quantity/Type	Single Mode, Single Fiber
Video Port	1CH BNC SDI
SDI Loop Out Interface	1CHBNCSDI
Transmission Distance	0 m-20 Km/40 km optional
Fiber Connector	FC/APC
Wave Length	1310 nm/1550 nm
Transmitted Power	-10 dbm to -3 dbm
Maximum Receiving Sensitivity	<-34 dbm
Signal Type	SD-SDI(270 Mbps)/HD-SDI(1.485 Gbps)/3G-SDI(2.97 Gbps)
Support Input Format	SD: 525i @ 59.94 Hz, 625i @ 50 Hz
	SHD: 720p @ 25 Hz / 29.97 Hz / 30 Hz
	720p @ 50 Hz / 59.94 Hz / 60 Hz
	1080i @ 50 Hz / 59.94 Hz / 60 Hz
	1080p @23.98 Hz/24 Hz/25 Hz/29 Hz/30 Hz/50 Hz/59.94 Hz/60 Hz
Video Standard	SMPTE 292 M, SMPTE 259 M and SMPTE424 M
DATA Comm. Method	2CH RS-485/Half duplex/Industrial terminals
In-out Electrical Level	800 mVp-p±10%
In-Out Ohm	75 Ohm
Digital Audio	248 KHz
AES digital audio channel	8 CH
Power Supply	5 to 24 DC
Power Consumption	3 to 5 Watts
Operating Temperature	0 °C to 60 °C / 32 °F to 140 °F
Storage Temperature	-30 °C to 70 °C / -22 °F to 158 °F
Relative Humidity	20~90%RH(Non-Condensation)
Dimension	176×150×30 mm/6.97×5.90×1.18 in
Weight	900 g (Tx and Rx)

Mini Optical Power Meter



Power meters are part of most essential tools for all technicians installing or maintaining optical fiber networks. NEFRAA power meters are well designed for all kinds of demanding applications on fiber measurement and net measurement with different functions and parameters. With a palm design, NEFRAA SPM60 series power meters are built for total hand held uses and pocket carrying, perfect for the FTTH in-house narrow test conditions to verify the continuity and evaluate fiber link transmission quality.

Features

- LED Light
- Wide measurement range, High resolution
- SM or MM applications
- 2.5mm universal connector
- 850/1300/1310/1490/1550/1625nm
- Auto power off (can be cancelled)
- Power autonomy of 100 hours (OPM)
- One-year warranty and Three-year recommended calibration interval

Parameters	SPM60T	SPM60C
Display Range	1310/1490/1550/1625: +6 to -70 dBm 850/1300: +6 to -60 dBm	1310/1490/1550/1625: +26 to -50 dBm 850/1300: +26 to -40 dBm
Accuracy*	±0.2 dB	
Calibrated Wavelengths	850 nm/1300 nm/1310 nm/1490 nm/1550 nm/1625 nm	
Display Resolving Power	0.01 dB	
Linearity	±0.2 dB	
OPM Connector	2.5 mm universal	
VFL Connector	2.5 mm universal (optional)	
VFL Output	1mW or 10 mW, CW and Glint (optional)	
LED Light	SOS code output (optional)	
Automatic Power Off	No operation in 10 minutes (can be cancelled), Low battery energy	
Battery Charge	Yes	
Battery Life	Above 100 hours (OPM)	
Power Supply	AA x 2 batteries or AC/DC power supply adapter	
Size	105 mm x 52 mm x 34 mm	
Net Weight	About 100 g	
Storage Temperature	-20 to +60 °C <90%RH	
Operating Temperature	-10 to +50 °C <90%RH	

Accessories

Standard	User's manual	1 No.
	Certificate of Calibration	1 No.
Optional	Carrying bag	1 No.
	AC/DC adaptor	1 No.



Optical Power Meter



Parameters	NEFRAA100	NEFRA A101
Measuring Range	+10 to 70 dBm	+26 to 50 dBm
Wavelength Range	750 nm ~ 1700 nm	
Accuracy	0.01 dB ± 2%	
Calibrated Wavelengths	850nm/1300nm/1310nm/1490nm/1550nm/1625nm	
Display Resolving Power	0.01 dB	
Connecting Adapter	FC/PC, universal	
Reference Value Set	Yes	
Auto Power Off	About 10 minutes (can be cancelled)	
Battery Charge	Yes	
Operate Time	Above 100 hours	
Storage Temperature	-20 to +70 °C	
Operating Temperature	-10 to +60 °C	
Relative Humidity	< 95%	
Power Supply	AA x 2	
Size	160 mm x 75 mm x 32 mm	
Net Weight	About 150 g	
Accessories		
Standard	Carrying bag	1 No.
	User's manual	1 No.

Laser Source



Parameters	NEFRAA221	NEFRA A223
Wavelength	1300 nm & 850 nm	1310 nm & 1550 nm
Stabilization	±0.05 dB / 5 minutes; ±0.1 dB / 8 hours	
Output Power	> -5 dBm	
Modulation	270 Hz, 1 KHz, 2 KHz	
Connecting Adapter	FC/PC	
Auto Power Off	About 10 minutes	
Battery Charge	Yes	
Operate Time	Above 16 hours	
Storage Temperature	-20 to +70 °C	
Operating Temperature	-10 to +60 °C	
Relative Humidity	< 95%	
Power Supply	AA x 2	
Size	160 mm x 75 mm x 32 mm	
Net Weight	About 150 g	
Accessories		
Standard	Carrying bag	1 No.
	User's manual	1 No.
Optional	AC/DC adapter	1 No.

PON Power Meter



Simultaneously measure and display of voice, data and video signals on different PON architectures

Parameters	Models				
	NEFRAA500	NEFRAA500 T	NEFRAA500 C	NEFRAA500- V01	NEFRAA500- V10
PON Power Meter	Yes	Yes	Yes	Yes	Yes
VFL (1mW)				Yes	
VFL (10mW)					Yes
OPM (+6 to -70)		Yes			
OPM (+26 to -50)			Yes		

Parameters	Specifications
Measurement Range	1310 nm: +10 to - 35 dBm, 1490 nm: +10 to - 50 dBm, 1550 nm: +25 to - 45 dBm
Pass Through Loss	< 1.5 dB
Accuracy*	± 0.2 dB (burst signal: ± 0.5 dB)
Threshold Sets	10
Data Storage	100
Connector	SC/PC (or customize)
Auto Power Off	No operation in 10 minutes (can be canceled), Low battery energy
Battery Charge	Yes

Visual Fault Locator



Parameters	NEFRAA- 207-1	NEFRAA- 207-10	NEFRAA- 207-15	NEFRAA- 207-20
Output Power	>1 mW	>10 mW	>15 mW	>20 mW
Dynamic Distance	>5 km	>10 km	>10 km	>10 km
Modulation	2 Hz			
Connecting Adapter	2.5 mm or 1.25 mm Universal adapter			
Operate Time	Above 6 hours			
Storage Temp.	-20 to +60 °C, < 90%RH			
Operating Temp.	-10 to +50 °C, < 90%RH			
Power Supply	AA x 2			
Size	175 mm x 26 mm x 26 mm			
Net Weight	About 80 g			

Accessories		
Standard	Carrying bag	1 No.
	User's manual	1 No.



Optical Fiber Identifier

Parameters	Specifications	
Model	NEFRAA400	
Wavelength Range	900 to 1650 nm	
Recognizable Signal Type	CW, 2 kHz, 1 kHz, 270 Hz ±5 %	
Detector Type	InGaAs 2pcs	
Clamp Type	0.25, 0.9, 2.5, 3.0mm fiber	
Sensitivity	1310 nm	+10 dB to -20 dBm (Continuous Wave)
		+10 dB to -15 dBm (Modulated Signal)
	1550 nm	+10 dB to -30 dBm (Continuous Wave)
		+10 dB to -25 dBm (Modulated Signal)
LED Indicator	Signal direction; signal frequency (2 kHz/1 kHz/270 Hz); low battery	
VFL	1 mW or 10mW VFL optional	
Signal Intensity	0 to 40	
Power Supply	AA x 2	
Size	230mm x 45mm x 45mm	
Net Weight	About 200g	
Accessories		
Standard	User's manual	1 No.
	Box	1 No.
Optional	1mW fault locator	1 No.
	10mW fault locator	1 No.

Fiber Endface Video Probe



Fiber endface VideoProbe is the best choice for fiber endface inspection. Using 220k pixel of TFT sharp and fine LCD, which magnifies about 200 times the object, it makes it easier to judge the status of fiber endface. And its compact size makes it ideal tool for connector endface inspection before fiber network installation, variety of adapters meet different requirements to inspect male fiber connectors & female fiber connectors, such as FC, SC, ST E2000, LC, MU and TOSA ROSA fiber endface. It keeps operating for about 6 hours with 12V re-chargable battery, which is installed in monitor, or can be operated by power supply, and another choice for display is CRT monitor.

Features

- Sharp picture
- Easy operability
- Compact size, light weight
- Low power consumption, works for over 6 hours continuously after full recharge

Applications

- Fiber network installation
- SFP, XFP, TOSA, ROSA inspection
- Fiber instrument output inspection
- Fiber connector endface inspection

Parameters	Specifications
Image Zoom	200 X
AV Output	PAL
Display Screen	3.5" TFT 220 K LCD
Power Consumption	3 W
Operating Temp.	-10 to +50 °C
Storage Temp.	-20 to +60 °C
Voltage	12 V recharge battery incl. or DC 12V, W/adaptor
Working hour	over 6 hours
Dimension	monitor: 205 mm(L)×94 mm(W)×25 mm(H); microscope: $\phi 23$ mm×160 mm

Optical Talk Set



Parameters	Specifications
Model	NEFRAA500
Wavelength	A: 1310 nm, B: 1550 nm
Operating Style	Full duplex communication
Dynamic Range	SM fiber: 45 dB; MM fiber: 25 dB
Dynamic Distance	SM fiber: >120 km; MM fiber: >60 km
Connecting Adaptor	FC / PC
Operate Time	Above 12 hours
Battery Charge	Yes
Storage Temperature	-20 to +70 °C
Operating Temperature	-10 to +60 °C
Relative Humidity	< 95%
Power Supply	AA x 2
Size	190 mm x 75 mm x 40 mm
Net Weight	About 250 g

Optical Loss Test Set



Parameters	NEFRAA300 (Telecom)	NEFRAA301 (CATV)
	Laser Source	
Wavelength	1310 nm & 1550 nm (850&1300nm)	
Stabilization	±0.05 dB / 5minutes; ±0.1 dB / 8hours	
Output Power	> -5 dBm	
Modulation	270 Hz, 1 KHz, 2 KHz	
	Power Meter	
Measuring Range	+8 ~ -70 dBm	+25 ~ -48 dBm
Accuracy	0.01dB ± 2%	
Calibrated Wavelengths	850nm / 1300nm / 1310nm / 1490nm / 1550nm / 1625nm	
Frequency Identification	Yes	
Reference Value Set	Yes	
Connecting Adaptor	FC/PC, universal	
Auto Power Off	About 10 minutes (can be cancelled)	
Battery Charge	Yes	
Power Supply	AA x 2	
Size	160 mm x 75 mm x 32 mm	
Net Weight	About 200 g	

Accessories		
Standard	Case	1 No.
	User's manual	1 No.
Optional	Earphone*	2 No.
	AC/DC adaptor	1 No.

* For Optical Talk Set



This advanced diagnostic tool for optical fibers allows the Fiber Engineer to take a snapshot of a fiber link. The OTDR sends short pulses of light down one end of a fiber at a specified repetition rate. Light reflected back from fiber discontinuities and light continuously back scattered from the fiber itself travels back to the OTDR, where the instrument records the optical power and arrival time. The arrival time of the pulse from a given point in the fiber is related to its distance from the OTDR. With this information, the OTDR graphically displays returned power versus distance. OTDRs are well-equipped for troubleshooting problems because they allow you to visually locate reflective events like connections and fiber breaks and non-reflective events like splices and tight bends by studying the graphical trace. The power difference between two points on the trace is an estimate of optical loss.

Features

- Automatic one-button testing
- Easy to operate for beginners and experts
- Integrated PALM design, small, light, easy to carry
- Short dead zone(8m)
- High speed signal processing, short test time and fast analysis
- Internal memory can store up to 10000 waveforms
- USB port connect to PC
- Input laser signal auto detection and self-protection function
- Built-in VFL
- User-friendly OTDR simulation software shows details of events
- High contrast colour TFT LCD
- Improved waveform quality

Parameters	NEFRAA-100-S	NEFRAA-100-A	NEFRAA-100-B	NEFRAA-100-C
Dynamic Range*	24 dB / 22 dB	28 dB / 26 dB	32 dB / 30 dB	36 dB / 34 dB
Max. Distance**	80 km	100 km	120 km	140 km
Wavelength	1550/1310 nm			
Event Dead Zone ***	1.5 m			
Attenuation Dead Zone	8.0 m			
Pulse Width	10 ns, 25 ns, 50 ns, 100 ns, 250 ns, 500 ns, 1 μ s, 2.5 μ s, 5 μ s, 10 μ s			
Distance Uncertainty	$\pm(0.8 \text{ m} \pm 0.001\% \times \text{testing distance} \pm \text{resolution})$			
Loss Resolution	0.001 dB			
Min. Distance Resolution	1 m			
Connector	FC interchangeable adapter (optional: SC,ST,LC interchangeable adapters)			
VFL	1 mW			
Data Storage	>10000 traces (standard 1 GB SD card)			
Display	3.5 inch TFT color LCD			
Interface	USB			
Battery	Built-in rechargeable battery			
Working Time	>10 hrs (Bellcore TR-NWT-001138)			
Size	197 mm x 107 mm 67 mm			
Storage Temperature	-20 to +60°C, <90%RH			

Operating Temperature	-10 to +50°C, <90%RH
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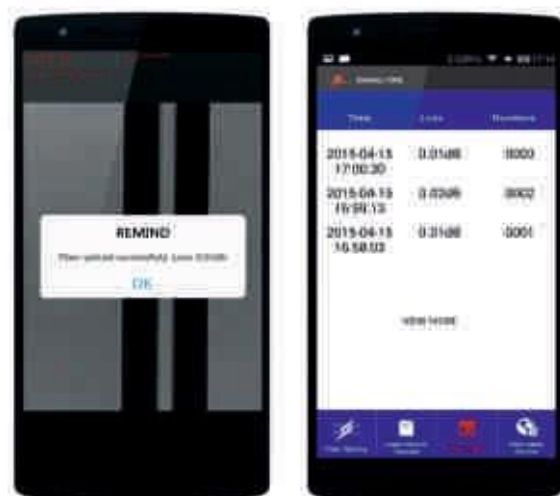
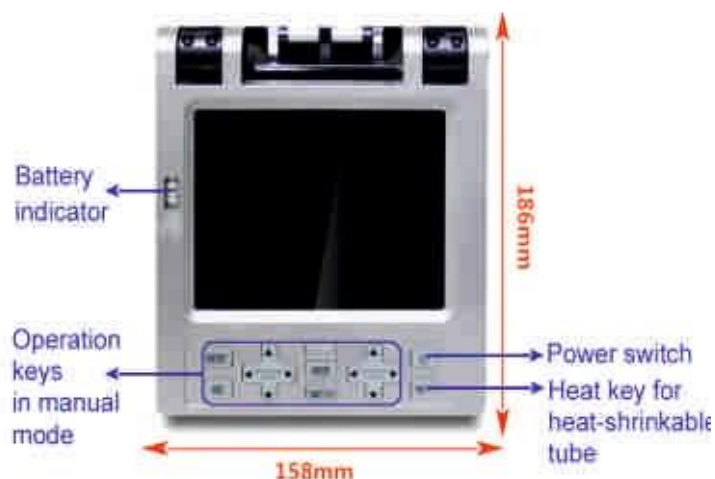


Accessories		
Standard	AC/DC adapter with power cord	1 No.
	Operation guide	1 No.
	Carrying bag	1 No.
	Certificate of Calibration	1 No.
	USB cable	1 No.
	SD card	1 No.
Optional	SC interchangeable connector	1 No.
	ST interchangeable connector	1 No.
	LC interchangeable connector	1 No.

Digital Variable Attenuator



Parameters	NEFRAA-OVA-40	NEFRAA-OVA-60
Attenuating Range	40 dB (SM)	60 dB (SM)
Calibrated Wavelengths	1310 nm / 1490 nm / 1550 nm	
Fiber Mode	9/125 μm	
Attenuating Mode	Digital	
Display Resolving Power	0.1 dB	
Display	LCD, 128 x 64	
Max Input Power	+28 dBm	
Insertion Loss	< 2.5 dB	
Uncertainty	±0.5 dB	
Optical Connector	FC/PC (or customise other connectors)	
Operate Time	Above 20 hours	
Storage Temperature	-20 to +60 °C, 90%RH	
Operating Temperature	-10 to +50 °C, 90%RH	
Power Supply	3 x AA batteries or AC/DC adapter	
Size	190mm x 90mm x 40mm	
Net Weight	About 450 g	
Accessories		
Standard	Carrying bag	1 No.
	User's manual	1 No.
	Calibration certification	1 No.
	AC/DC adapter	Optional



Parameters	Specifications
Model	NEFRAA-FL-100
Typical Splice Time	8 - 15 seconds (Mode selectable)
Heating Time	30 seconds (adjustable)
Actual Average Loss	0.02 dB(SM), 0.01 dB(MM), 0.04 dB(DS), 0.04 dB(NZDS)
Applicable Fiber	SM, MM, DS, and NZDS (Non-Zero Dispersion Shifted Fiber), Rubber Fiber Cable, Tail Fiber, Bare Fiber, Fiber Cable
Control Method	Remote automatic control by mobile
Display Magnification	258 times (single fiber display)
Large Capacity Lithium Battery	Can continuously splice and heat shrink up to 200 times
Battery Life	Charging times up to 300-500 cycles
Recessed Wind Cover	Can splice at 15 M/S strong winds
Splicing Altitude	Guarantee quality of splicing at 5000m altitude
V-Groove	High-accuracy V-groove, high precision, good abrasion resistance
Return Loss	≥60 dB
Wind Speed	15 m/s
Operating Environment	-10 to +50°C (temperature), 0 to 95% (humidity), 0 to 5000 m (altitude)
Measurement / Weight	158 mm x 173 mm x 186 mm / 2.35 kg
Applicable Fiber Diameter	250 μm, 900 μm
Applicable Cable Diameter	2 to 3mm
Applicable Heat-Shrinkable Tube Length	60 mm, 45 mm, 40 mm (FP-03)

E1 BER Tester



This E1 BER (Bit Error Rate) tester is a compact, multi-functional, handheld E1 line test instrument, specially designed for installation and maintenance. It features self-check and keyboard testing, extensive error and alarm generation, detection and indication. This tester provides smart menu navigation and has a large LCD screen allowing test results to be displayed clearly. Test results can be downloaded or printed.

Features

- Error bit insertion and check
- Large space for data storage
- One time slot monitored
- Real-time clock
- Result analysis conforms to the ITU-T
- G.821, G.826 and M.2100
- For E1 line maintenance and test
- Out of service / in-service test
- Framed and unframed test

Parameters	Specifications
Bit Rate	2084 Kb/s \pm 50 ppm
Connector	Standard: 75 ohm unbalanced, high resistance input impedance, Optional: 120 ohm balanced
Input Sensitivity	0 to - 43 dB
Circuitry Code	HDB3
Frame Type	Framed Nx64 Kbps / unframed
Frame Pattern	PCM30, PCM30CRC, PCM31, PCM31CRC
Test Pattern	Random pseudo code: $2^{15}-1$, $2^{11}-1$, Fixed code: 1111, 0000, 1010
Alarm Insertion & Check	LOS, LOF, AIS, RA
Error Code Insertion	Single, $10E-3$, $10E-5$, $10E-7$
Result Analysis	G.821, G.826 and M.2100
Storage	>100000 results
Data Transfer	USB
Power Supply	Built-in rechargeable battery
Size(HxWxD)	195 mm(L) x 110 mm(W) x 60 mm(H)
Weight	About 500 g
Storage Temperature	-20 to +60°C, 90%RH
Operating Temperature	-10 to +50°C, 90%RH

Accessories		
Standard	75 ohm cable BNC-BNC	2 No.
	USB cable	1 No.
	AC/DC adapter	1 No.
	User's manual	1 No.
	Carrying Bag	1 No.
	SD card	1 No.

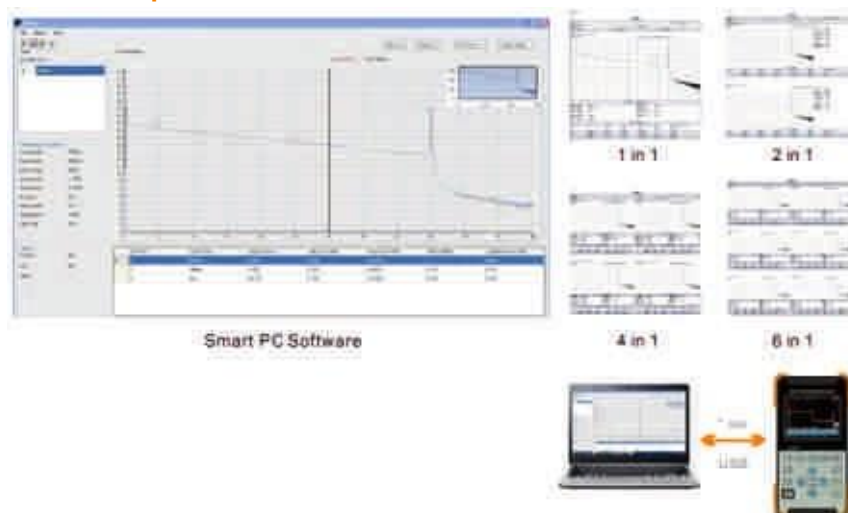


This advanced diagnostic tool for optical fibres allows the Fibre Engineer to take a snapshot of a fibre link. The OTDR sends short pulses of light down one end of a fibre at a specified repetition rate. Light reflected back from fibre discontinuities and light continuously back scattered from the fibre itself travels back to the OTDR, where the instrument records the optical power and arrival time. The arrival time of the pulse from a given point in the fibre is related to its distance from the OTDR. With this information, the OTDR graphically displays returned power versus distance. OTDRs are well-equipped for troubleshooting problems because they allow you to visually locate reflective events like connections and fibre breaks and non-reflective events like splices and tight bends by studying the graphical trace. The power difference between two points on the trace is an estimate of optical loss.

Features

- Automatic one-button testing
- 1310/1550/1625 nm wavelength
- 1625 nm with filter for PON online testing
- PON online test module (1625nm)
- Test through 1*64 PLC splitter in PON test
- Internal memory can store up to 10000 waveforms
- High contrast color TFT LCD
- USB port connect to PC
- Input laser signal auto detection and self-protection function
- Built-in VFL
- User-friendly OTDR simulation software shows details of events

Delicate Report



PON Online Testing



Parameters	NEFRAA500-PB	NEFRAA500-PC
Dynamic Range*	35 dB / 34 dB / 34 dB	38 dB / 37 dB / 37 dB
Max. Distance**	120 km	140 km
Wavelength	1550/1310/1625 nm, 1625 nm with filter	
Event Dead Zone ***	1.5 m	
Attenuation Dead Zone	8.0 m	
Pulse Width	10 ns, 25 ns, 50 ns, 100 ns, 250 ns, 500 ns, 1 μs, 2.5 μs, 5 μs, 10 μs	
Distance Uncertainty	(0.8 m 0.001% x testing distance resolution)	
Loss Resolution	0.001 dB	
Connector	FC/PC (1310/1550), FC/APC (1625) interchangeable adapter (optional: SC, ST, LC interchangeable adapters)	
Min. Distance Resolution	1 m	
VFL	1 mW	
Data Storage	>10000 traces (standard 1 GB SD card)	
Display	3.5 inch TFT color LCD	
Interface	USB	
Battery	Built-in rechargeable battery	
Working Time	>10 hrs (Bellcore TR-NWT-001138)	
Size	197 mm x 107 mm x 67 mm	
Net Weight	About 75 g	
Storage Temperature	-20 °C to +60 °C <90%RH	
Operating Temperature	-10 °C to +50 °C <90%RH	
Accessories		
Standard	AC/DC adapter with power cord	1 No.
	Operation guide	1 No.
	Carrying bag	1 No.
	Certificate of Calibration	1 No.
	USB cable	1 No.
	SD card	1 No.
Optional	SC interchangeable connector	1 No.
	ST interchangeable connector	1 No.
	LC interchangeable connector	1 No.

* pulse width 10 μ s, average time >5 minutes, SNR=1, 23 °C \pm 2 °C

** at 1550 nm, one fiber without adapter and splicing connection inside

*** pulse width 10 ns, terminal reflection loss >40 dB

Connector Cleaner



CLE-BOX is essential accessory to maintain and guarantee good quality of fiber optic connection. It is the best non-alcohol cleaning method for various fiber optic terminations which is simply and swiftly used. Box tape replacement is offered to make sure low cleaning cost. Suitable for connector such as SC, FC, MU, LC, ST, D4, DIN, E2000 etc.

Features

- Special non-alcohol superfine fiber
- Well handled and antistatic
- User friendly, efficient cleaning
- Easy to replace the tape
- Cleaning 500+ times
- Level of cleaning is 100%

Specifications

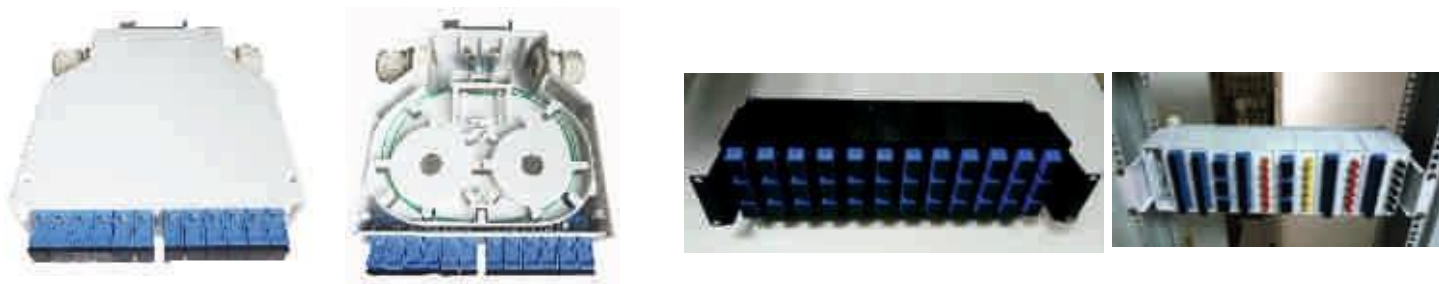
- Applications: SC, FC, ST, MU, LC, MPO, MTRJ (w/o pins)
- Dimensions: 115mm × 79mm × 32mm
- Cleaning times: 500+ per box

Cleaner Pen



Fiber Optic Cleaner Pen is designed to specially work well with the female connectors, this instrument cleans the ferrule end faces removing dust, oil, and other debris without nicking or scratching the end face.

Fiber Optic Termination Box - Model DIN-FB



Fiber optic Din terminal box is available for the distribution and terminal connection for various kinds of optical fiber system, especially suitable for mini-network terminal distribution, in which the optical cables, patch cords or pigtails are connected.

Features

- Standard size, light weight and reasonable structure
- Material: PC+ABS, adapter plate: cold rolled steel
- Flame Rating: UL94-V0
- Cable tray can be overturned, easy to manage
- Optional adapter and adapter plate
- Din guide rail, easy to install on rack panel in cabinet

Applications

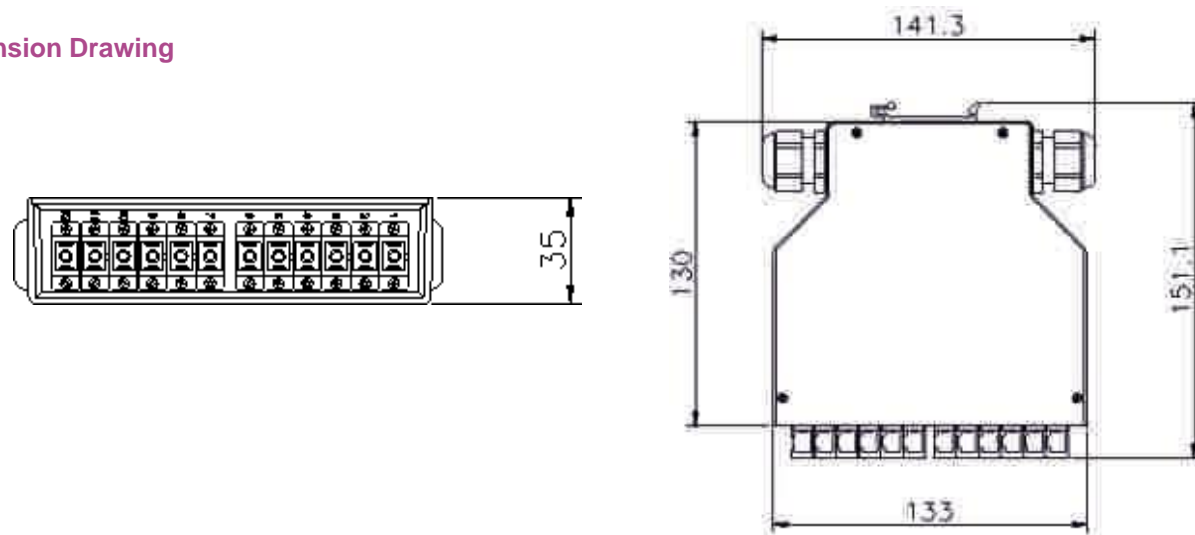
- Telecommunications subscriber loop
- Fiber to the home (FTTH)
- LAN/WAN
- CATV

Model	Adapter	Adapter Quantity	Core
DIN-FB-12-SCS	SC simplex	12	12
DIN-FB-6-SCS	SC simplex/LC duplex	<6/12	6
DIN-FB-6-SCD	SC duplex	6	12
DIN-FB-6-STS	ST simplex	6	6

Packing Info	Carton Size	G.W	Remark
Inner Box	16.5x15.5x4.5 cm	0.4 KG(around)	With bubble pack
External Box	48.5x47x35 cm	24 KG(around)	60 sets/carton

Rack Frame Spec	Model	Size	Capacity
Rack Frame	DRB-002	482.6x88x180 mm	12 set

Dimension Drawing



Fiber Optic Termination Box - Model TB-C08



FTB-C08 is Snap-in type, compact, easy to open and Close - fiber optic termination Box used in data communication networks, CATV networks or FTTH access network. Built of high-quality ABS Plastic material, the enclosures are designed to protect fiber-optic cabling.

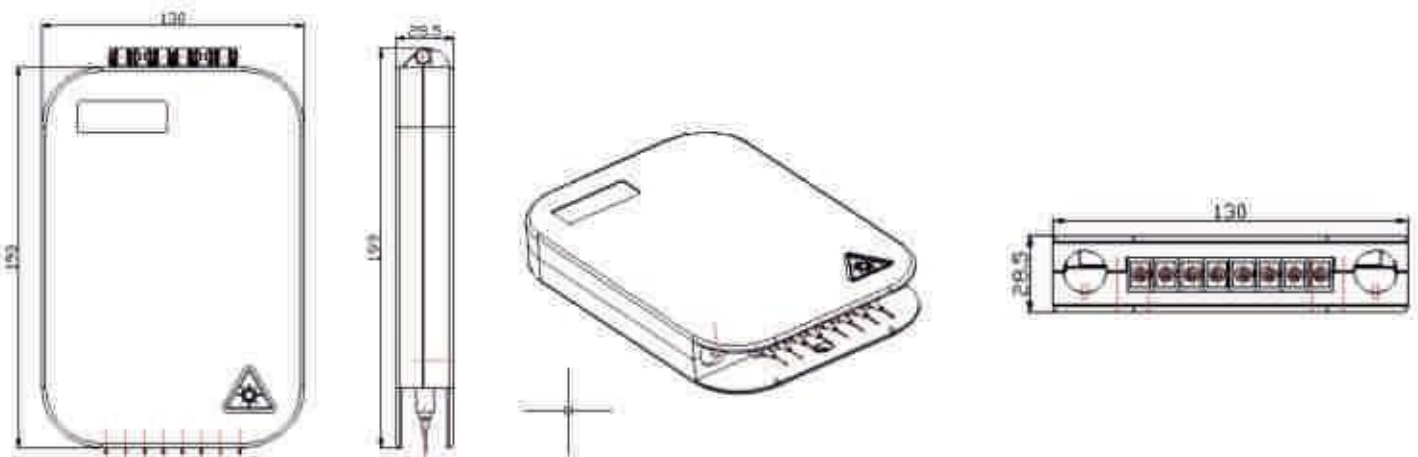
Features

- Two cable inlet ports for cables with max diameter 15 mm cable
- Protection Class:IP22
- Splice Capacity : Max 12 Core and can accommodate 8 pcs SC Simplex adapters



Accessories	Specification	Quantity
Heat Shrinkable Tube	Ø3.0x45 mm	8 PCS
Nylon Cable Ties	3x120 mm	6 PCS
Plastic Expansion Tubes	φ6	3 PCS
Cross Countersunk Head Tapping Screws	M3.5x25	3 PCS
Adapter	SC/SX	8 PCS

Dimension Drawing



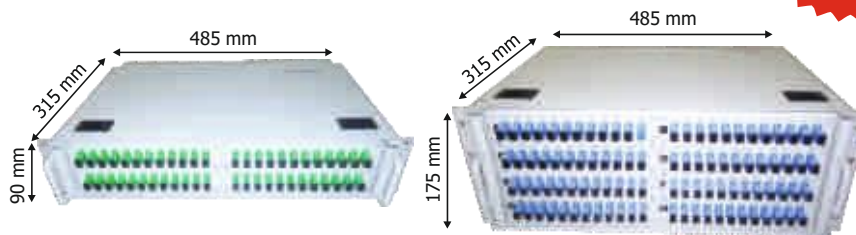
Splice Closure

NEFRAA splice closure is affordable, reliable and durable. Our closure ensure long-term reliability and quality of voice, video and data signals. Designed for manhole, buried and aerial use. The closure hold cables of varying sizes and a variety of cable construction. Each Splice tray has a capacity to hold upto 12 splices and upto 4 splices trays can be easily mounted. Hanging trays provide flexibility and easy access to allsplices. This closure can be re-entered without special tools.



Rack Mount Fiber Management System

Adapter
IL ≤0.1 dB



19" Rack Mount fiber-optic enclosures help deliver modularity, flexibility and customization in design, density and scalability. Each enclosure fits the maximum number of industry-standard adapter panels possible in a small footprint. The design is compact and the construction is robust for easy adjustment, storage and transport.

Features

19" Rack Mount fiber-optic enclosures have a removable top cover, along with a sliding tray for quick access to service connections. All models allow multiple openings for cable entry and exit. Slide-out mechanism is designed in manner to provide excellent cable management and organizing cable slack. The model allows easy access to cables, pigtails, and patch-cords during installation, maintenance, and up gradation. Also the design helps maintain a minimum bend radius of pigtails and patch-cords.

Specifications

- Material: CRCA – 1.0 mm thick
- Finish: Structure finish and powder coated to 80µm – 100µm
- Colour: RAL 7032
- Cable Entry: Rear
- Cable Mounting: Horizontal
- Splice Tray: Hinged type ABS
- Available with Rodent Cover (optional)

Model No.	Series	Rack Unit	No. of fibers	No. of Adapter plate	No. of Blank Plate	No. of Trays	Dimension mm	Weight Kg
19-RM-1U-6F-XX	FC/SC/ST	1 U	6F	1	1	1	485X315X45	3.550
19-RM-1U-12F-XX	FC/SC/ST	1 U	12F	1	1	1	485X315X45	3.670
19-RM-1U-24F-XX	FC/SC/ST	1 U	24F	2	-	1	485X315X45	3.790
19-RM-1U-48F-XX	FC/SC/ST	1 U	48F	2	-	2	485X315X45	4.120
19-RM-1U-12F-LC	LC/PC	1 U	12F	1	1	1	485X315X45	3.590
19-RM-1U-24F-LC	LC/PC	1 U	24F	1	1	1	485X315X45	3.740
19-RM-1U-48F-LC	LC/PC	1 U	48F	2	-	2	485X315X45	3.790
19-RM-2U-48F-XX	FC/SC/ST	2 U	48F	4	-	2	485X315X90	5.060
19-RM-2U-96F-XX	FC/SC/ST	2 U	96F	4	-	4	485X315X90	5.530
19-RM-2U-96F-LC	LC/PC	2 U	96F	2	2	4	485X315X90	5.600
19-RM-4U-96F-XX	FC/SC/ST	4 U	96F	8	0	4	485X315X175	6.980
19-RM-4U-192F-XX	FC/SC/ST	4 U	192	8	0	8	485X315X175	8.740
19-RM-4U-192F-LC	LC/PC	4 U	192	4	4	8	485X315X175	8.560

Wall mount Enclosure

NEFRAA's two door Fibre Optic Wall Mounted Enclosures provide a cost effective, secure method of terminating fiber where standard 19" cabinets and patch panels are not suitable. Each unit is supplied loaded or unloaded, just add to your chosen enclosure the required plate and Adaptors. The twin door unit comes complete with a lock fitted for security. The range of adaptor plates accept Singlemode and Multimode ST, FC, SC & LC fibre optic adaptors. Four points of Cable Entry option provided. Two from top and two from the bottom.



NEFRAA introduces multi-purpose wall mount fiber- optic enclosures. Built of high-quality ABS Plastic material, the enclosures are designed to protect fiber-optic cabling patched in data communication networks, telecommunication networks, CATV networks or FTTH access network. For added safety it comes with a key and lock arrangement. Design is compact and construction is robust for easy adjustment, storage and transport.



Features

- Equipped with two kinds of interchangeable fiber modules, one module for 24 cores splice, another module can accommodate 1x16 PLC splitter or 2 pcs 1x8 PLC splitter
- Two cable inlet ports for cables with max diameter 15 mm cable
- Protection Class: IP22
- Standard adapter panel is plastic type with 24 SC simplex Ports; 12 SC simplex ports or 12 FC simplex port metal adapter panels are optional
- Box Size: W 193mmxH 246.5mmxL 53.2mm
- Splice Capacity: Max 24 Fibers



24 Cores splice module

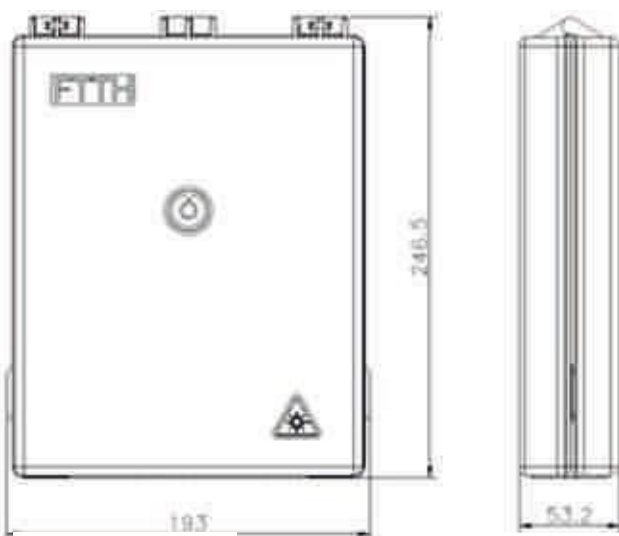


PLC Splitter module



Accessories bag

Dimension Drawing



Wall Mount Enclosure - Model FTB-S48

NEFRAA introduces multi-purpose robust wall mount fiber-optic enclosures for easy fiber routing, splicing, splitting, storage and signal distribution. Built of high-quality PC+ ABS Plastic material, the enclosures are designed to protect fiber-optic cabling patched in data communication networks, telecommunication networks, CATV networks or FTTH access network. For added safety it comes with a key and lock arrangement.



OTB-S48 (no cut cable port)



OTB-S48-A



OTB-S48-B (6 cable port)



OTB-S48-C (Mini PLC splitter box)

Features

- Protection Class: IP65
- Cable, pigtails, patch cords are running through individual path without disturbing each other
- Easy mounting Cassette type SC/LC/PLC adaptor installation ,easy maintenance
- Distribution panel can be flipped upwards, feeder cable can be placed in a cup-joint manner making it easy for maintenance and installation
- Can be wall-mounted or pole-mounted
- Suitable for both indoor and outdoor use

Applications

- Telecommunications subscriber loop
- Fiber to the home (FTTH)
- LAN/WAN
- CATV

Parameters	FTB-S48	FTB-S48-A	FTB-S48-B	FTB-S48-C
Fiber Quantity	24C, 36C, 48C			
Dimension(cm)	42x31x13.8			
Splice Tray	2~4			
Splitter	Cassette PLC Splitter 1x8~32C			Mini PLC Splitter 1x8~32C
Pole size(cm)	22x30			

Fiber Optic FTTX Box - Model FTB-0216 Series



Features

- Industry Standard ABS plastic Box
- Can accommodate 1x4, 1x8, 1x16, 2x4, 2x8 & 2x16 PLC splitter
- Protection Class: IP66
- Supports Up to 16 FTTH drop cables
- Can be wall mounted or pole mounted
- Available with 2 round or 1 oval entry cable ports and 16 exit ports

Applications

- FTTH access network
- Telecommunication Network
- CATV Network
- Data communications Network
- Local Area Network

Model	Capacity	Size	N.W(kg/pc)
FTB-0216 Series	16 port	220x80x300mm	1.85

Fiber Optic Cassette Box - Model FTB-0216-E



FTB-0216-E Cassette FTTX box is suitable for optical fiber splitting/splicing. It is designed to accommodate Cassette Splitter Box and PLC Splitters with connectors. Bend radius is more than 30mm.

Features

- Industry Standard ABS plastic Box
- Can accommodate 1x4,1x8,1X16, 2x4, 2x8 & 2x16 PLC steel tube splitter
- Protection Class: IP66
- Accommodates 24pcs LC, FC, ST, SC adapters
- Can be wall mounted or pole mounted
- Supports Up to 24 FTTH drop cables

Applications

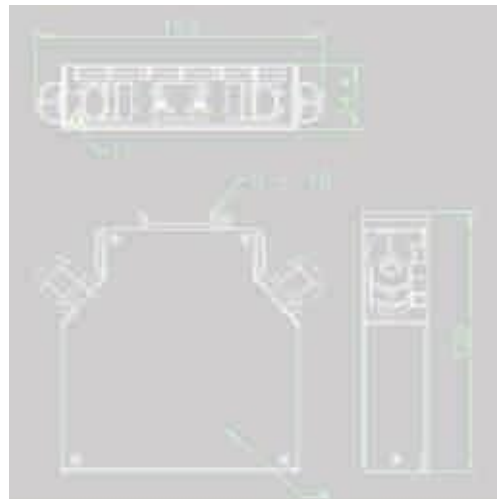
- FTTH access network
- Telecommunication Networks
- CATV Networks
- Data communications Networks

Model	Capacity	Dimension	Remark
FTB-0216-E	Max. 24 fibers	274.3x313.4x114.1mm	Can accommodate max.2pcs splitter box and max.24pcs SC simplex, FC simplex, LC duplex ... adapters

Fiber Optic Termination Box - Model DIN-02-6SCD



Dimension Drawing



Features

- Light weight, small size, easy installation
- Suitable for DIN rail application
- Provide splice protection of fiber cable and pigtails
- Made of cold-rolled steel and electrostatic powder coated
- Adapter port is optional for SC, FC, ST or LC duplex adapters

Note: Due to continuous product improvements, technical specifications are subject to change





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