Amphenol FCI India

Amphenol FCI India, a part of Amphenol Corporation , specializes in the manufacture of technologically advanced connectors, innovative cable assemblies (Copper & Fiber Optics) and Network solution (AFNS) products

About Us

- 30+ successful years in India
- Largest fully integrated manufacturing facility in India
- Sales offices in major cities
- Distribution partners across India
- Highly skilled and experienced staff

- Global design support
- Innovative technology
- Lean manufacturing
- Quality ownership
- Timely delivery

Amphenol ConneXus AB

Amphenol Global Interconnect Systems

AFNS

Your trusted partner for end to end structured cabling and high speed fiber optic interconnect solutions

As a global leader in interconnect solutions and network connectivity systems, Amphenol FCI provides both standard and customized passive network solution products to the market. Our commitment to the stringent management of our supply chain and manufacturing focus enables us to consistently deliver the highest quality, high performance products and solutions to our customers.

Amphenol FCI offers an extensive range of ICT product and solutions, including end-to-end structured cabling solutions, High performance and high density Data center solutions, FTTH, Outside plant fiber campus connectivity solutions, PLC Splitters, and other customized products for ICT applications on demand

Amphenol FCI works closely with the industry experts to constantly develop new products and technology solutions and makes customer satisfaction their top priority.

Amphenol FCI's quality system is certified to ISO 9001:2015 and ISO 14001:2015 standards. All passive components are RoHS compliant

Amphenol Global Interconnect Systems

AFNS

Your trusted partner for end to end structured cabling and high speed fiber optic interconnect solutions

AFNS (Amphenol FCI Network Solutions) Product Portfolio:

- Structured Cabling Solutions
- Fiber Distribution Solutions for FTTX
- Fiber Rack Solutions
- Fiber Accessories
- Fiber PLC Splitters
- Data Center Fiber Solutions
- Industrial Passive Network Solutions
- Optical Transceiver Modules
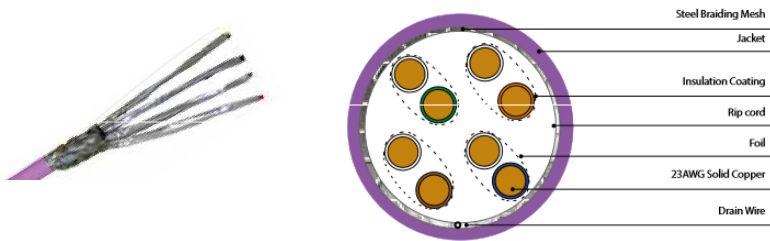- Network Racks & Enclosures

STRUCTURED CABLING SOLUTIONS

Products: End to End Cat6 UTP & STP solutions, Cat6A UTP & STP solutions and Cat7A STP solutions
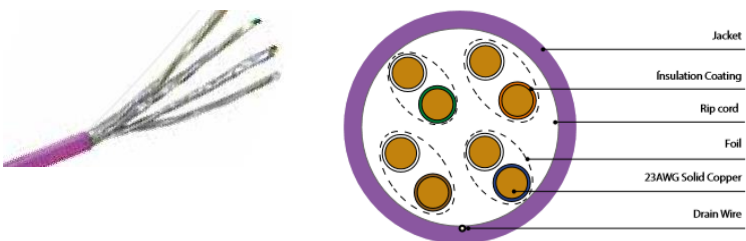Xgiga speed Single mode & Multimode (OM3, OM4 & OM5) cable & connectivity solutions

Markets: Enterprise Ethernet, Data Center & Industrial applications
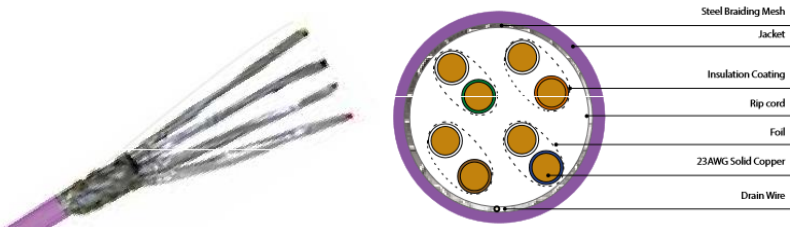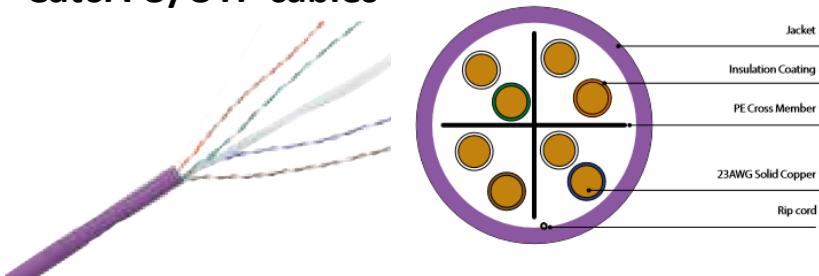
STRUCTURED CABLING SOLUTIONS

Cat7A S/FTP cables

Steel Braiding Mesh
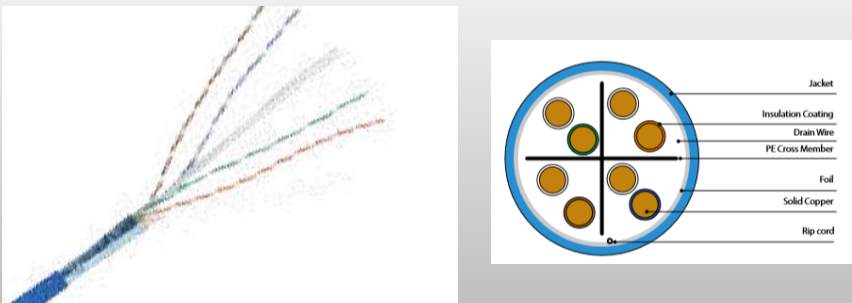Jacket
Insulation Coating
Rip cord
Foil
23AWG Solid Copper
Drain Wire

Cat6A U/FTP cables

Jacket
Insulation Coating
Rip cord
Foil
23AWG Solid Copper
Drain Wire

Cat7 S/FTP cables

Steel Braiding Mesh
Jacket
Insulation Coating
Rip cord
Foil
23AWG Solid Copper
Drain Wire

Cat6A U/UTP cables

Jacket
Insulation Coating
PE Cross Member
23AWG Solid Copper
Rip cord

Cat6 F/UTP cables

Jacket
Insulation Coating
Drain Wire
PE Cross Member
Foil
Solid Copper
Rip cord

Cat6 U/UTP cables

Jacket
Insulation Coating
PE Cross Member
Solid Copper
Rip cord
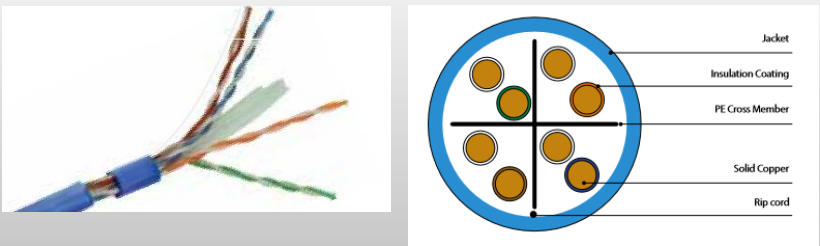
STRUCTURED CABLING SOLUTIONS

AFNS RJ-45 Patch cords

Features:
- High grade 50µ inch gold plated RJ45 connector pins
- Cat 6 & Cat6A
- UTP & STP
- Injection moulded boot for improved strain relief
- Soft latch-cover design for easy depression
- Transparent Boot
- Available in LSZH and PVC jackets
- Available in 5 colours

Commercial Standards:
ISO/IEC 11801 : 2002
ANSI/EIA/TIA 568C.2
IEC 60332-1

STRUCTURED CABLING SOLUTIONS

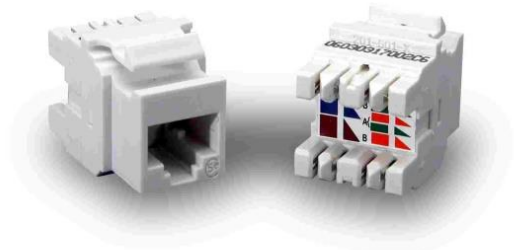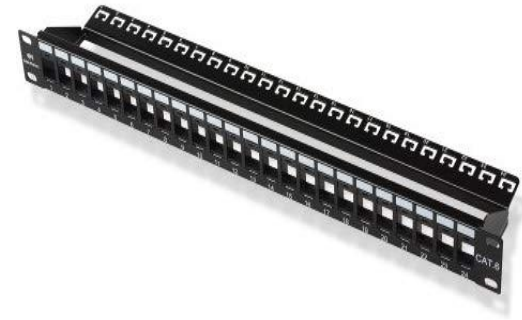**AFNS RJ-45 Patch Panels**

Features:
- 24P & 48P UTP
- 1U & 2U Panels
- With Integrated Rear Cable Manager
- Available in Unloaded and loaded options
- Straight and angular type
- CRS construction
- UTP & STP
- Compatible with Keystone IO Jacks
- Angular type panel minimizes patch cord bend radius

Commercial Standards:
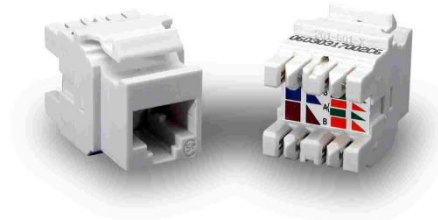ISO/IEC 11801 : 2002
ANSI/EIA/TIA 568C.2
RoHS Compliant

STRUCTURED CABLING SOLUTIONS

AFNS RJ-45 Keystone IO jacks & Faceplates

Features: IO's

- High grade 50µ inch gold plated RJ45 IDC
- Unshielded & shielded
- Punch down type and Tool less type
- Unshuttered and Shuttered
- Zinc Die-casting with high quality Nickel plating for the housing of shielded IO Jacks
- Plastic Parts : High impact flame retardant plastic, UL 94V-0

Features: Faceplate
- Two Piece design
- Shutter on Face Plate
- Elegant hidden-screw design
- Robust and Installer Friendly Design
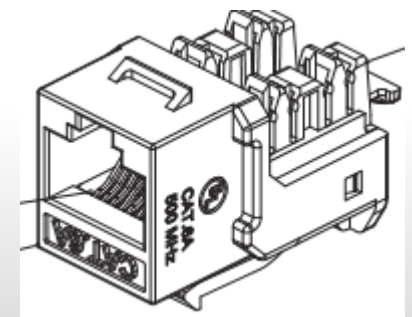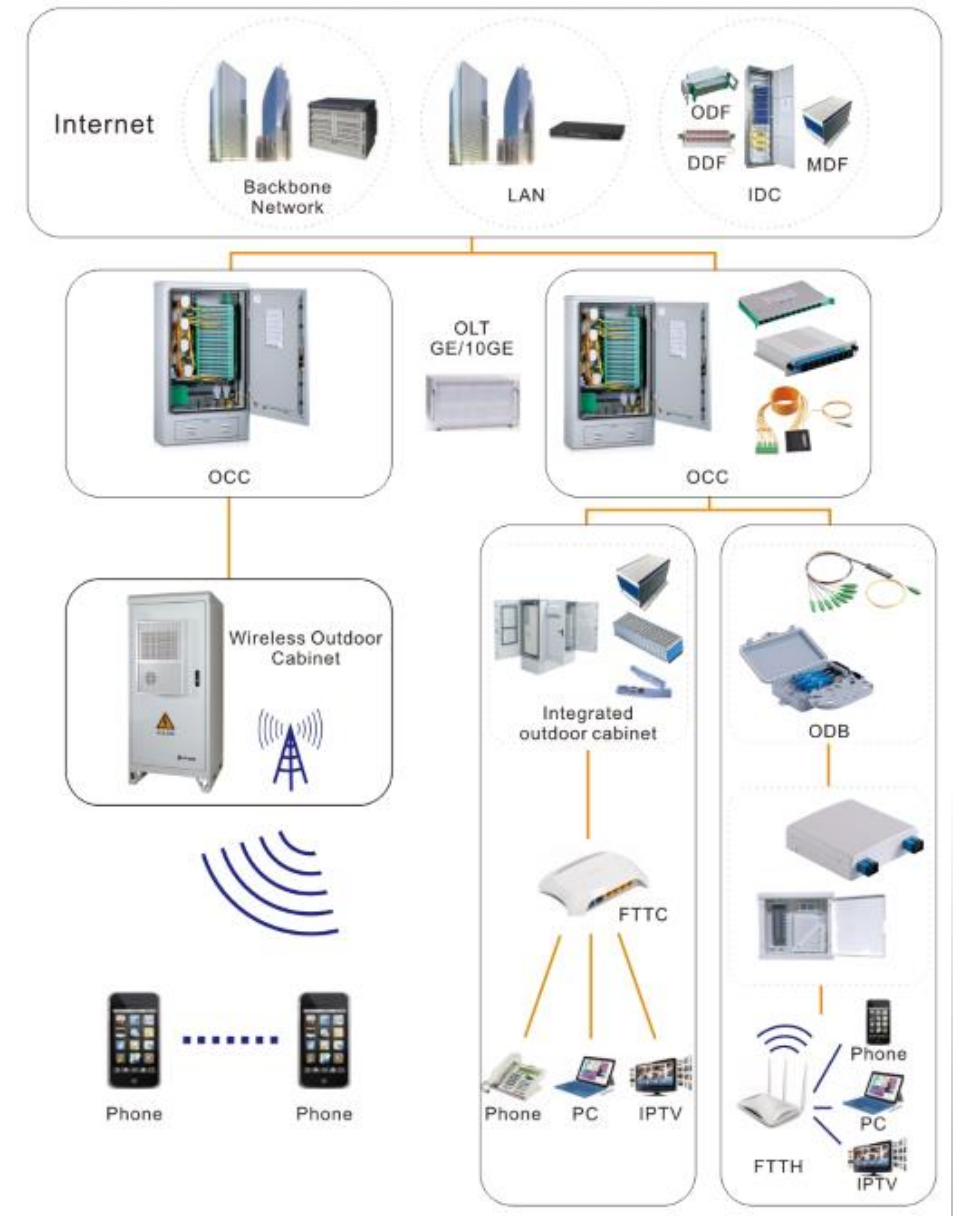
Commercial Standards:
ISO/IEC 11801 : 2002
ANSI/EIA/TIA 568C.2
RoHS Compliant

FIBER DISTRIBUTION SOLUTIONS

FIBER DISTRIBUTION SOLUTIONS

Fiber Hub Terminals

Fiber Interconnect Terminal Hubs – Outdoor applications

Up to 48F

Up to 96F

Fiber Building Terminal Hubs – Indoor applications

Up to 48F

Up to 96F

Up to 144F

Up to 384F

FIBER DISTRIBUTION SOLUTIONS

Fiber Distribution Hub (FDH)

FDH – Outdoor applications

FDH 288F

FDH 288F SPLICE SIDE

**FDH 288F
DISTRIBUTION SIDE**

FIBER DISTRIBUTION SOLUTIONS

Fiber Terminals Box (FTB)

FTB – Indoor/Outdoor applications

FTB – Compact

FTB COMPACT TYPE - EMPTY

FTB COMPACT with 24F fiber terminal and swing out

FTB – Standard

FTB STANDARD TYPE - EMPTY

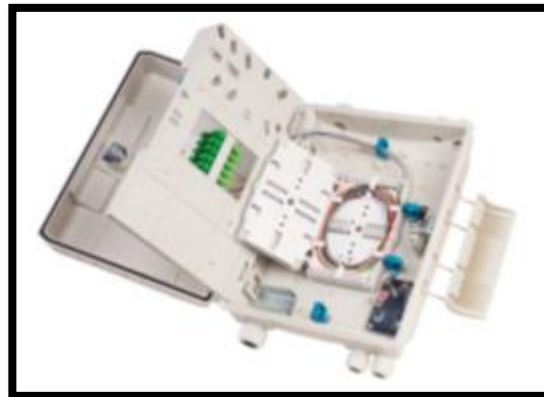**FTB STANDARD with 72F Fiber Terminal and Swing Out**

FIBER DISTRIBUTION SOLUTIONS

Fiber Terminal Box – For Low/Medium Density Fiber Circuit

4/6/12 Port FTB

12/24 Port FTB

24/32/48 port FTB

- Ideal for Fiber to the Home (FTTH) and low density fiber circuits
- Serves as a demarcation point for fiber entry (customer premises)
- Provides organized fiber slack storage
- Choice of SC or LC Adapters available
- PVC or ABS Material construction and hex bolt or key lock for security

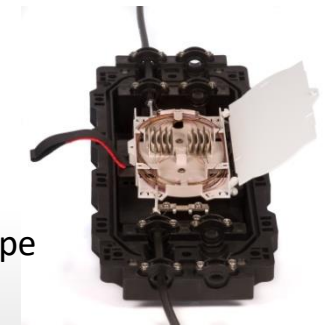# FIBER DISTRIBUTION SOLUTIONS

Fiber Terminals – Splice Closure

Dome Enclosure – IP 68

Splice Enclosure Hinge type IP-68

AFNS Outdoor splice closures are designed to protect fiber cable splices for various outside plant applications.

- These closures can protect fiber splices and ensures high reliability with application in ambient temperature range from -40 Deg C to +65 Deg C

- Can be installed in aerial, bracket, underground or duct.

- Suitable with most cable constructions – loose tube, skeleton and ribbon type cables

- No special tools required for installation

- IP-68 protection – integrated seal, air tight and water tight

- UV and chemical resistant

Splice Enclosure – Inline type

Splice Enclosure – Wall mount/Pole mount

FIBER DISTRIBUTION SOLUTIONS

Optical Distribution Frame (ODF)

- Optical Distribution Frames are designed to handle termination and cross connection of cables .We offer optical distribution frames of up to 720 Ports (46U) .

- These are mainly used as the interface between optical transmission network, optical transmission equipment and between optical cables in access network of optical fiber

- Optic Distribution Frame is suitable for large capacity wiring requirement, such as FTTX local or branch point, can be configured with optic splitter modules, easy to achieve optic splitting.

- Can be customized according to the number of customer core.

- Double sided front door for ease of management .
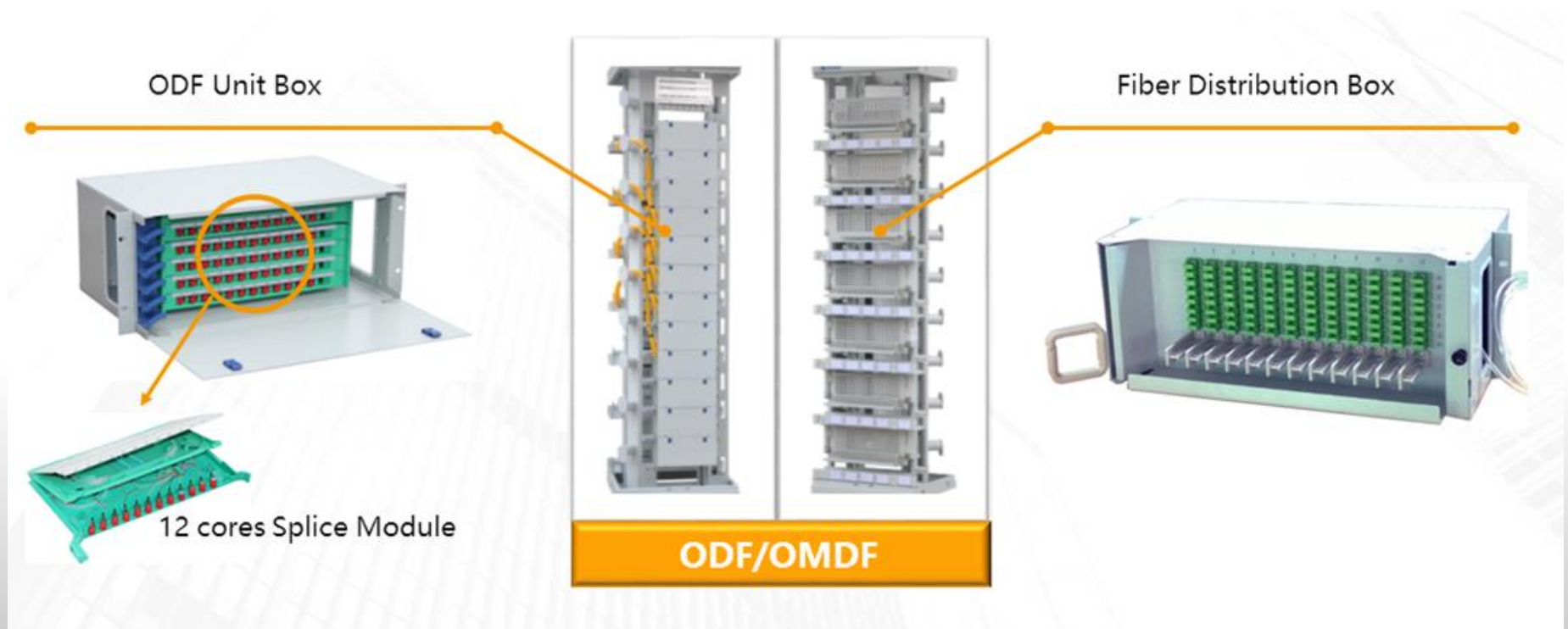
- Made of high quality steel .

FIBER DISTRIBUTION SOLUTIONS

Optical Distribution Frame (ODF)

The ODF adopts splice module which is often used in central office, access office to realize the connection and scheduling function between the external fiber optic cable and communication equipment

ODF Unit Box

12 cores Splice Module

ODF/OMDF

Fiber Distribution Box

FIBER RACK SOLUTIONS

1RU 24 Ports

Front Access Panel (3 LGX Module Slots)

2RU 48 Ports

4RU 144 Ports

- AFNS Fiber Rack solutions provide flexible, multi functional panels for patch, splice and splitter requirements
- Available in 1RU, 2RU, 4RU and 6RU of valuable rack space.
- Feature Cold rolled steel construction with powder coated finish
- Compatible with 19" and 23" AFNS equipment racks

FIBER ACCESSORIES

SC/APC Bulkhead Adapters

SC/UPC Bulkhead Adapters

SC/APC Attenuators
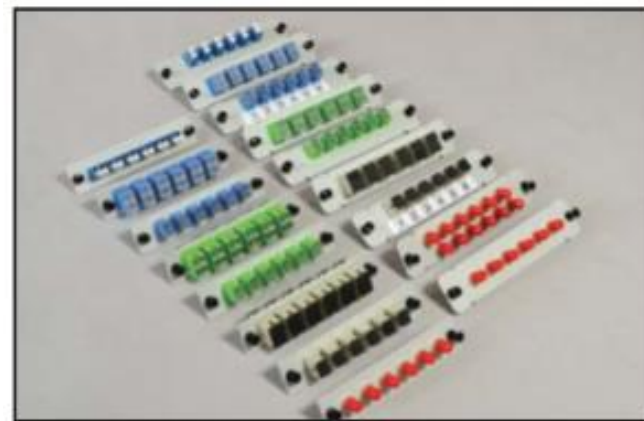

SC/UPC Attenuators

LC/UPC Attenuators

LC/UPC Duplexed Adapters

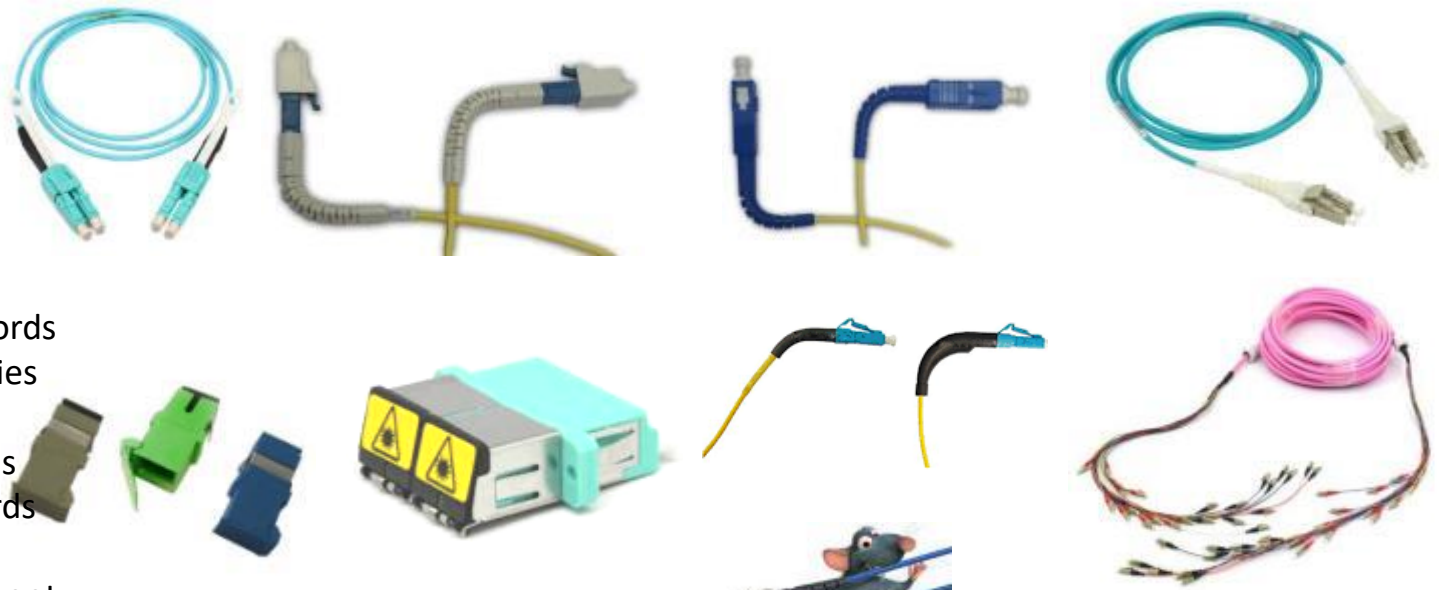Patch Plates

- AFNS offers a wide assortment of high quality fiber optic accessory products for integrations with fiber enclosures, terminals, FDH and rack solutions.
- All products are built to stringent industry standards for low optical signal loss and reliable performance

FIBER ACCESSORIES

- Standard patch cords
- Uni-boot patch cords
- Flex Boot Patch cords
- Armored Patch cords
- Mode conditioning patch cords
- Multi fiber fan out assemblies
- Pigtails
- Bend insensitive patch cords
- Premium low loss patch cords
- Telecom pigtails
- Short boot, angled 90 deg boot and standard boot design
- Available in standard and customized lengths

Rodent Protected Armored Cable Assembly

SC/PC	SC/APC	ST/PC
FC/APC	FC/PC	MT-RJ
LC/PC	LC/APC	E-2000™
MU	MU/APC	FSMA

FIBER PLC SPLITTERS

Bare Fiber	Mini/Block less	ABS Casing	Cassette	Rack Mount

• PLC incorporated in Cassette

• PLC incorporated in 19inch Rack

• Has Bare Fiber on all ends

• Has 900 micron Fiber on all ends

• Has Jacketed fiber cable on all ends

Compact Design ; Low insertion loss and PDL ; High Reliability; Wide Operating Wavelength Range

Qualification Standards:

Telcordia GR1209 & GR-1221 standards outline the generic criteria for passive optical components to ensure continuous operation of the components over its lifetime.

The environmental and mechanical tests outlined in the **GR-1209** standard is designed to demonstrate the short term operational performance of a passive optical component. The normal lifespan of an FTTH network is at least 25 years, thus it is recommended for the environmental and mechanical test criteria to be based on the **GR-1221** standard.

• PLC incorporated in wall /pole outdoor/indoor box

FIBER PLC SPLITTERS

Parameters	1X2	1x4	1x8	1x16	1x32	1x64	2X2	2x4	2x8	2x16	2x32	2x64	Unit
Wavelength					1260 ~ 1650								nm
Insertion Loss Max.	4.1	7.4	10.5	13.8	17.1	20.4	4.4	7.7	10.8	14.1	17.4	20.6	dB
Uniformity Max.	0.6	0.7	0.8	1.0	1.5	2.0	0.6	0.7	0.8	1.0	1.5	2.0	dB
Return Loss Min.						50							dB
PDL Max.	0.15	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	dB
Directivity Min.						55							dB
Fiber Type					G657A or Customized								
Operating Temperature					-40~85								°C

DATA CENTER FIBER SOLUTIONS

MPO/MTP Trunk Cable

| MPO/MTP-LC Fanout Cable | MPO/MTP Cassette | MPO/MTP-LC Cassette Patch Panel | MPO/MTP Trunk Cable | MPO/MTP-LC Fanout Cable |

DATA CENTER FIBER SOLUTIONS

MPO –LC High Density Solution

- We do support High density MPO/MTP- LC panels 96 F(1U) , 144 F(1U) , 288 F(3U)

- 19" standard structure

- 24 Fibers standard LC- LC-MPO/MTP® cassettes

- Compatible LC/MPO/MTP® adapters

- Perfect optical fiber modular management

- Easy to install
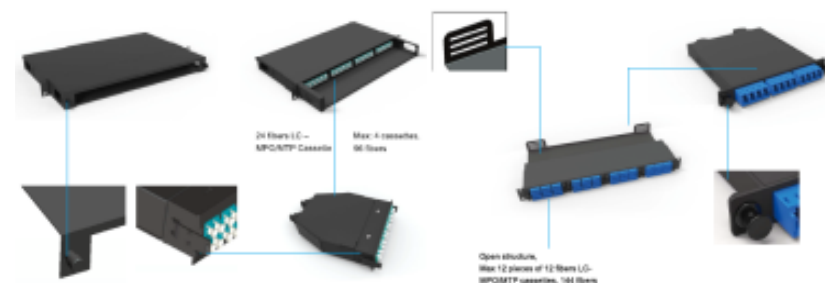
Copper & Fiber Hybrid Patch Panel

- Fiber and copper integrated patch panel is a 19 19" standard structure with 1U to realize the integrated cabling management of various modules such as RJ-45/MPO/MTP®/LC/SC cassettes to realize 144F cabling

- 19" standard structure

- Integrated cabling management for fiber and copper modules

- Excellent fiber and copper management

- Revolving front panel structure for convenient maintenance and marking

- RJ-45/MPO/MTP®/LC/SC modules available
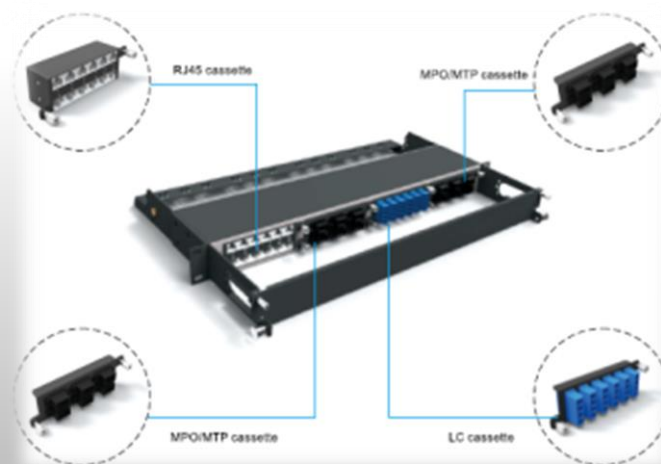
DATA CENTER FIBER SOLUTIONS

MPO/MTP Assemblies

AFNS MTP/MPO Cable assembly Solution is a highly reliable and cost effective structured cabling system from migrating from legacy 10G to higher speed 40G/100G Ethernet with OM3 , OM4 & OM5 fiber Cables .

- Polarity management options in accordance to TIA methods A,B or C.

- Choices of laser optimized multimode OM3 and OM4 fibers

- Easy installation and slack management

- MTP/MPO in Interface for 40G QSFP and 100G CXP transceivers

MPO/MTP Loop Back

AFNS Loop back helps to check the fiber optic connectivity links before the full operation. This could determine the incorrect interconnection and reduce the significant OPEX budget.
Device burn-in and testing of QSFP modules prevents the mall-function of the whole optical link.

DATA CENTER FIBER SOLUTIONS

MPO/MTP LC Fan out Assemblies

- Factory terminated and Tested

- High density , Installer friendly designs

- Choices of MTP/MPO Cable in 12F or 24F connector interface

- Optional Pulling Eye Design

- Available in Single mode (OS1/OS2) and Multimode

- (OM1, OM2, OM3, OM4 & OM5)

- Available in standard and custom lengths.
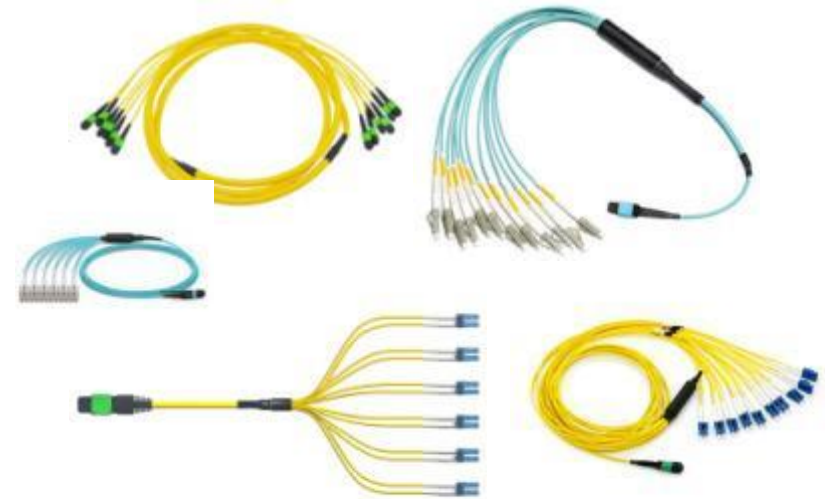
Breakout Assemblies

AFNS provides   SM and MM LC and SC Break out solutions which helps the interconnection between the racks .
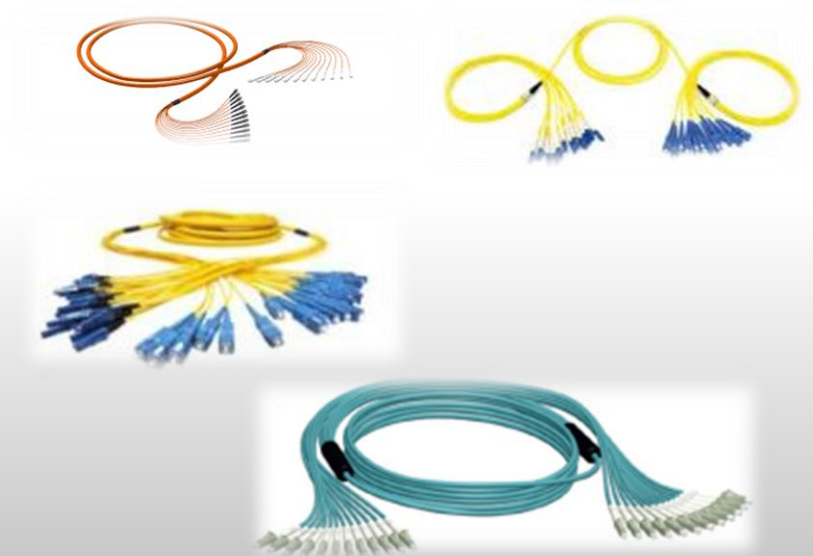
INDUSTRIAL SOLUTIONS

DIN Rail Solution

Amphenol FCI's Mini DIN rail type fiber optic wall enclosures are designed to support and secure fiber terminations in industrial environments. This enclosure includes a splice tray for fusion splicing. Available in both single mode and multimode fiber connector types. Fully Customized against Customer Application

POF Assemblies

We offer highly reliable, cost-competitive Plastic Optical Fiber (POF) cable-assembly and harnesses solutions to catering to segments like   industrial, medical, renewable-energy, power transmission and distribution, transportation and consumer applications including controls, drives, factory automation, high-speed trains, sensors and imaging. Customers are provided a choice to specify assemblies and harnesses in terms of connector types, jacket material and color, temperature range, cable lengths and tolerances

- Fully Customized against Customer Application

- Industrial and Elevated Temperature ranges

INDUSTRIAL SOLUTIONS

RJ-45 Field Attachable Connector

Specifications

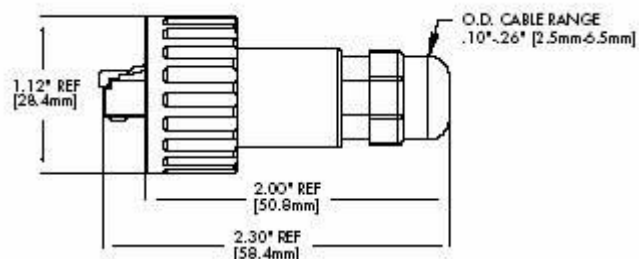Cat6 Compliant
IP67
UV Stabilised
Op Tem -40/+85 Degree C
Plastic Moulded - Black

IP 68 Water Proof Cable

- IP 68 dustproof and water proof in harsh environment

- Simple to assemble and easy to connect

- Chemical resistance

- Operation temperature: -40 Deg C to +80 Deg C
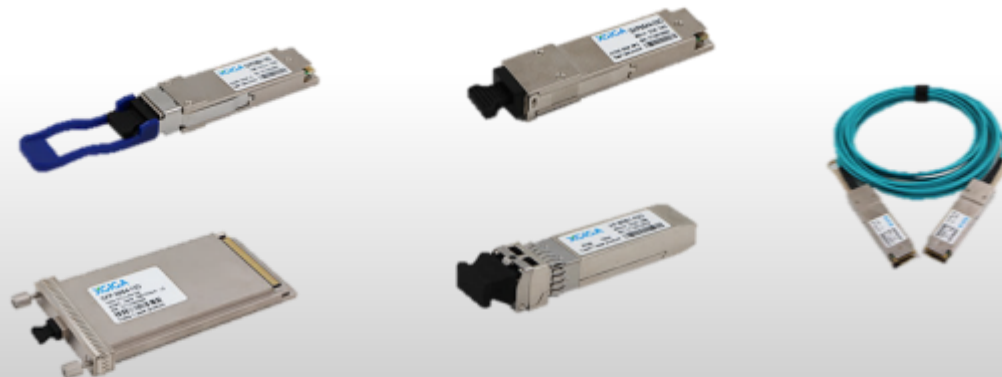
- IP-68 Rated

OPTICAL TRANSCEIVER MODULES

We (Amphenol XGIGA) offer comprehensive optical communication module product combination, data rate from 155M to 100G,form factor .
Our Products:-
SFP,SFP+,
XFP,SFP28,
QSFP+,CFP,
CFP2,CFP4
QSFP28
AOC

OPTICAL TRANSCEIVER MODULES

10G Transceivers

OPTICAL TRANSCEIVER MODULES

25G/50G Transceivers

QSFP28 ER QSFP28 LR SFP56 SR 50G

SFP28 ER(40km) SFP28 ER LWDM (40km) SFP28 LR/ /LR lite SFP28 300M 25G

SFP28 ER(40km) SFP28 CWDM/DWDM 25G

OPTICAL TRANSCEIVER MODULES

40G/100G Transceivers

CFP LR4/ER4   CFP2 LR4/ER4   CFP4 LR4   CFP2-QSFP28 Adaptor

QSFP28 ER4 Lite   QSFP28 LR4   QSFP28 CWDM4   QSFP28 SR4

QSFP+ ER Lite   QSFP+ LR4   QSFP+ SR4   QSFP+ AOC   QSFP28 AOC

NETWORK RACKS & ENCLOSURES

Floor Mount Network Rack

AFNS floor mount racks are specially designed for Networking, and Data center applications.

AFNS floor mount intelligent racks are made of heavy-duty aluminium vertical profiles and with cold rolled steel sheet and proceeded with CNC. punching, forming, welding and powder coated to meet Industrial, ISO 9001-2015 and 140012015 standards. All product manufactured by Amphenol FCI conforms to or exceeds UL standards and relevant international requirements and tests.

Wall Mount Network Rack

Amphenol FCI offers a range of single section wall mount racks to suit small secured network requirements. Wall mount racks are the ideal solution where the floor space is a limitation, Typical networking equipment like routers, switches, and patch panels can easily accommodate in the rack.

Single section wall mount racks are fabricated out of CRCA steel sheet CNC programmed, punched, bent, welded and powder coated with highest quality under confirming Industrial, ISO 9001-2015 and 14001-2015 standards. Manufacturing and qualify management systems to ensure highest quality product.
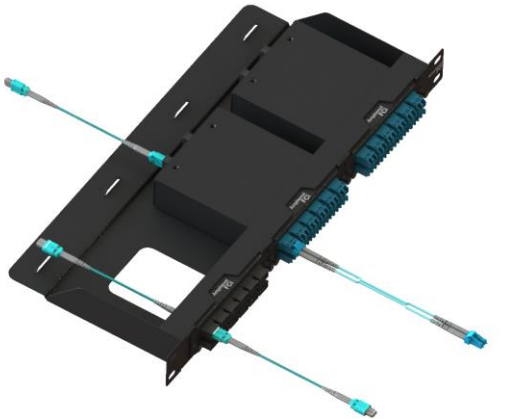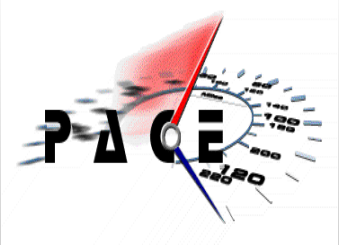
ENGINEERING SUPPORT

Your Proposal   **Engineering Team**   **Analyze & Design**   **Sample Approval**   **Production**   **Final products**

Design & Development Tools

- PACE ® Methodology for Product Development
- Use Pro Engineer Creo for Design 3D modeling
- Autocad , Cocreate 2D
- Mould flow Analysis for Plastic parts
- Pro Windchill PDM Link for Product Data   Management
- QAD for BOM Maintenance and Product Costing
- Simulation & Prototype Capability

THANK YOU!