Amphenol Fiber Optic Products

Product Groups

- Connectors and Adapters
  - LC, SC, FC, MPO, ST, SMA
- Indoor Cable Assemblies
  - Datacom and Telecom applications
    - Jumpers, Pigtails
- Outdoor / Sealed Assemblies
  - Tower and Rooftop (WiFi, WiMAX, LTE, DAS)
    - PT/LC, PT/MPO, AARC, TxRx, R2CT, J-Connector, H-Connector, Hybrid
- Demarcation/Aggregation Enclosures
  - Tower, Rooftop, Closet, COW (WiFi, WiMAX, LTE, DAS)
    - Fiber, Copper, Hybrid
- Fiber Management Panels and Accessories
  - Wall mount, Rack Mount, Routing Guides
- Other Optical Products
  - Optical Splitters, Attenuators, Terminators, Medical Assemblies, RFID Connector solutions
Amphenol offers a wide variety of standard optical connectors and cable assemblies, including:

- LC
- SC
- MTP/MPO
- ST
- FC
- MU
- MT-RJ

Multitude of cable types available, including:

- OS1, OM1, OM2, OM3, OM4, and bend insensitive versions
- Simplex, zip cord, ribbon, distribution, breakout, outside plant, etc.

Meet applicable TIA/EIA, IEC, and Telcordia specifications

Customized to meet requirements, including lengths and labels

Variety of bend relief boots and adapters available to complete connection
Amphenol Micro LC Connector

- 6mm shorter than typical industry connector with short boot on jacketed cable
- Available in simplex or duplex
- For use with 1.6mm, 2mm, and 3mm cable
- Also available with angled boots
Boots Options
- Multiple colors available, including red, black, blue, and standard white

Angled Boots
- Flexible boot for bend radius protection at angles 0° to 90°
- 45 and 90 degree rotatable boots make installation changes easier to accommodate

LC Adapters
- Variety of adapters, including duplex, quad, multiple flange options, LC or SC cutout, multiple color options, shuttered
1.2mm Ø Jumpers

1.2MM Diameter Jumper

FEATURES:
• Easier cable routing on high density applications without sacrificing on strength of the cable assembly
• Equal performance to traditional 2.0mm and 3.0mm Ø cable
• 40% footprint of traditional 3.0mm jumpers
Traceable Cable Assemblies

• Trace patch cords, cable assemblies, IFC cables and trunk cables
  – Use standard light source to one end of the cable to identify the far end
  – Designed for
    • Inner bay management
    • Interconnect between bays
    • IFC cables between different rooms

• Benefits
  – Eliminates mistakes
  – Reduce Reliance on labeling and its accuracy
  – Simplifies deployment and maintenance of high density fiber area
  – Reduces installation and maintenance time = reduces cost
Adapter Solutions

SHUTTERED ADAPTERS

FEATURES:
• Provides eye protection from light source
• Internal shutter actuates when connector is inserted
• Matched keyway option available for MPO
• Available for LC, SC and MPO

MPO DIECAST ADAPTER

FEATURES:
• Elegant appearance
• Internal shuttered version available
• Available in standard and rotated mounting flange
• Matched keyway option available
MPO High Density Solutions

MPO BREAKOUT CABLE ASSEMBLIES

FEATURES:
• Easier upgrade when transitioning from LC to MPO
• Mitigates space constraints in highly dense areas
• Multiple wiring configurations available

MPO FLEX BOOT

FEATURES:
• Boot improves cable routing in high density applications
• Designed for 3.0mm round cable, ribbon and bare ribbon
• Boot can be adjusted desired direction for routing
• AVAILABLE FOR JUMPERS & TRUNK ASSEMBLIES
MPO High Density Solutions

MPO PULL TABS

FEATURES:
• Easily remove MPO connectors in congested applications
• Pull tab easily attaches to the slider
• May be retrofitted on legacy MPO connectors
• AVAILABLE FOR JUMPERS & TRUNK ASSEMBLIES

MPO and LC Loopbacks

FEATURES:
• Used for testing MPO transceivers and network links
• Available in 12F and 24F with male or female MT
• Available in LC duplex
• Different attenuations available
• Hole for lanyard
• Compact and robust housing protects fibers
MPO Adapter Solutions

MPO STANDARD ADAPTERS

FEATURES:
• Standard, reduce and rotated flanges available
• Matched keyway option available
• Compliant with IEC 61754-7 and TIA 604-5 FOCIS 5

MPO STACKABLE ADAPTERS

FEATURES:
• Aggregate higher fibers count into a compact footprint
• Available in straight and 45° angled configurations
• Modularity provides flexibility in configuration
Fiber Management Solutions
Trunk Assemblies

TRUNK ASSEMBLIES

FEATURES:

• 100% factory tested for insertion loss
• Complies to applicable industry standards and customer specific requirements for insertion loss and return loss
• LC & SC (duplex & simplex), ST, FC and MPO available
• 50/125µm (OM3 & OM4), 62.5/125µm and singlemode fiber
• Distribution, breakout, loose tube and ribbon cable options
• OFNR, OFNP & LSZH cabling options available
• 900µm, 2.0mm and 3.0mm Ø fan outs options
• Custom breakout lengths up to 1 meter
• Custom lengths, labeling and packaging options available
• Other cabling and connector options available upon request
Outdoor Connector Solutions
Pluggable

- **PT/LC**
  - Duplex LC based outdoor connectors and receptacles

- **PT/MPO**
  - MT/MPO based outdoor connectors and receptacles

- **AARC (Optical N-Style)**
  - 2 or 4 fiber sealed connectors and receptacles

- **NODE Cables (Service Cables)**
  - 2 to 24 fiber optical transport and CATV node assemblies

- **Custom Outdoor Cable Assemblies**
  - Discrete fiber, Sealed breakout, Hybrid
  - In-line connectivity options

- **H-Connector**
  - Single fiber outdoor FTTx assembly
Outdoor Connector Solutions
Direct Connect

- R2CT
  - Field installable sealed feed-thru assembly
    - SC
    - LC
    - RJ
    - Other
- TxRx Outdoor Direct Pluggable
  - LC/SFP
  - RJ/SFP
- J-Connector Direct Pluggable
  - LC
  - RJ
  - Signal
  - Power
957 Series  RJ/SFP and LC/SFP

Direct Pluggable Outdoor Connector System

- Common housing and receptacle for Optical LC based and Copper RJ-45 based interconnect
- Allows direct connection to commercially available LC and RJ-45 transceivers, with no internal jumper
- Provides ample float for proper alignment and mating to the active device
- Factory Terminated Optical Cable Assemblies
- Factory or field terminated RJ-45 connectors
- IP67 Dust and water protection capable of withstanding water depths of over 15 feet
- Available for Single mode or Multimode optical fiber and Cat 5, Cat 5E, or Cat 6 copper cabling
J-Connector

Optical J-Connector (SFP or SFP+)

Power J-Connector

Signal J-Connector

RJ-45 J-Connector
H-Connector
Home Optic Assemblies

Home Optic Connector Assemblies

- Single fiber
- IP-68 sealed for dust and water protection
- Push/Pull connector with threaded sealing housing
- Flat Drop or Round cable construction
- SC, SC/UPC or SC/APC interface
- Accommodates Single Mode or Multimode fiber
- Plug mates with industry common FTTH receptacles

Applications:

- FTTH
- Wireless
- Industrial
Customized Cable Assemblies

- Factory Terminated Cable Assemblies
- Specific cable size and constructions
  - Indoor/outdoor, Armored, OFNR, LSZH, CLT, Distribution, Breakout
- Custom furcation and breakout lengths
- Custom marking or labeling
- Specific lengths and tolerances can be defined
- Most industry standard connectors are available
- Optional hardware can be installed
- Pulling Eyes, Cable Clamps, Sealing Glands

Applications:
- Datacomm
- Telecomm
- Industrial
- Campus
Aggregation and Demarcation Solutions

- **Aggregation**
  - Combine fibers and/or copper conductors into groups or trunks for the purpose of easy installation, reconfiguration, or to improve the aesthetics of an installation

- **Demarcation**
  - Separate fibers and/or copper conductors from groups or trunks to allow connection to individual devices

- **Hybrid / Composite Cable**
  - Cable consisting of both optical fibers and copper conductors used for trunking of both power and optical data signal

- **Accessories**
  - Mounting brackets
  - Cable Clamps
  - Pulling grips
### Breakout Types

<table>
<thead>
<tr>
<th>Box – Plug’n’Play</th>
<th>Box – Grommet</th>
<th>Canister Breakout</th>
<th>Potted Breakout</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Connectorized fiber and power with IP 67 OSP connectors</td>
<td>✓ Compression grommet entry and exit</td>
<td>✓ Rugged breakout point</td>
<td>✓ Cost effective</td>
</tr>
<tr>
<td>✓ External connectors for quick Plug and Play</td>
<td>✓ Allows easy expansion and reconfiguration</td>
<td>✓ Direct mate or in-line extension to RRH</td>
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<tr>
<td>✓ Simplifies installation and maintenance</td>
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<td>✓ Low profile</td>
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<tr>
<td>✓ Easy to deploy and expand</td>
<td></td>
<td>✓ Easy attachment to tower</td>
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FTTA Deployment Methods

- Hybrid Aggregation Box
- Coax Cable
- Fiber & Power Jumpers

Hybrid Aggregation Box

Hybrid Cable

Hybrid Aggregation Box

Power Box Fiber Box

Fiber & Power Jumpers

Weather Proof Breakout

Power Cable Fiber Cable