Fiber Management Systems

Amphenol
Fiber Optic Products

FIBER MANAGEMENT SYSTEMS

The Amphenol Fiber Management Systems product line is comprised of a complete series of wall and rack mounted enclosures that are designed to be used for the distribution and management of fiber optic cables. The product offering includes a variety of enclosures for patching, splicing, distribution, storing, splitting, and coupling of fiber optic signals for both single mode and multimode cables.

Patch Panels

Amphenol 948 Series Patch Panels provide a convenient point for patching and storing fiber optic cables. A full range of products are available for termination of backbone cables and horizontal cables at cross-connects and for inter-connection between fiber optic distribution cables and equipment jumper cables.

Coupler Panels

Amphenol 948 Series Rack Mount Coupler Panels incorporate fiber optic couplers (optical splitters and wavelength division multiplexers) at the fiber distribution frame. These panels are used in fiber optic networks to increase system capacity.

Storage Panels

Amphenol 948 Series Rack Mount Storage panels provide ample and organized slack storage of fiber optic cables. These panels reduce the concerns involved in maintaining and upgrading the network.

Splice Panels

Amphenol 948 Series Splice Panels are rack mounted panels which provide a convenient point for on-rack storing and protecting of fiber optic splices. These panels are typically used at building entrances for transition splicing between the outdoor cables and indoor pigtails. They are typically used in conjunction with the 948 Series Patch Panel enclosures.

Distribution Panels

Amphenol 948 Series Rack and Wall Mount Distribution Panels combine all the features of a patch panel and a splice panel into one enclosure. They provide a protective area for patching, splicing and storing fiber optic cables. Distribution panels are typically used at building entrances, telecom closets, customer premise applications, or in equipment rooms for termination of interbuilding backbone cables.
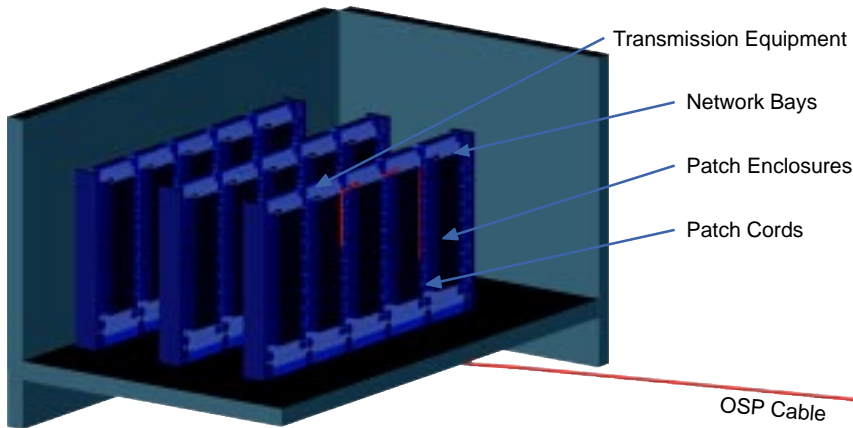
Features

- Panels requiring adapters are pre-loaded with Amphenol's SC, ST or FC adapters to reduce labor costs during installation.
- Panels can be pre-loaded with Amphenol pigtail cable assemblies to further reduce labor costs during field installation.
- A single part number is used to specify semi-loaded or fully loaded enclosures to simplify the ordering process.
- Rack mount panels have removable doors for increased access during installation and maintenance.
- Panels provide ample room for storage of fiber slack, while maintaining bend radius protection for the stored fibers.
- All enclosures include mounting hardware, installation instructions, laser warning labels, cable ties, and cable routing designation cards.
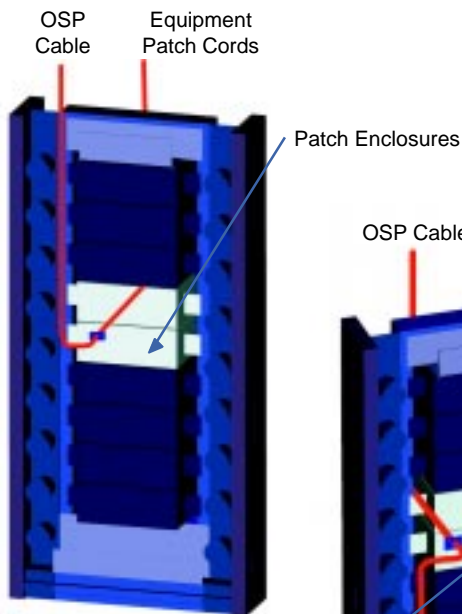
Index

The applications for Amphenol's Fiber Management System range from small fiber counts to very large fiber counts which include multiple rows of network bays. Our complete system can fulfill the many requirements found in headends, building entrances, equipment rooms, telecommunications closets and customer premise applications. All of our network bays can be fully equipped with panels and pre-terminated cables ready for installation. Full integration of our splitters and WDM technologies can further enhance your network.

Transmission Equipment

Network Bays

Patch Enclosures

Patch Cords

OSP Cable

Wall Mount Enclosure

Terminal

Patch Cords
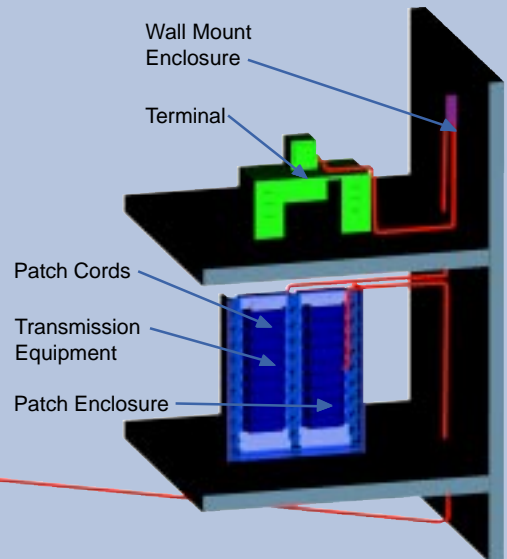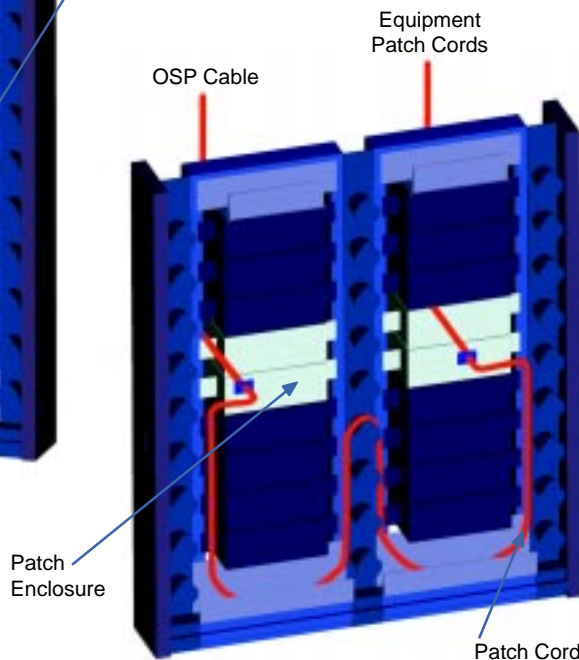
Transmission Equipment

Patch Enclosure

Amphenol's Fiber Management System can be utilized for both interconnect and cross-connect applications. Both configurations route the transmission from point A to point B, but they have some very distinct differences.

INTERCONNECT

OSP Cable

Equipment Patch Cords

Patch Enclosures

Patch Enclosure

CROSS-CONNECT

Equipment Patch Cords

OSP Cable

Patch Cord

INTERCONNECT configurations connect the OSP fibers directly to the equipment patch cords, via a patch enclosure. This configuration yields a lower installation cost, but does not provide maintenance and upgrade flexibility, especially in high fiber count applications.

CROSS-CONNECT configurations connect the OSP fibers and equipment patch cords to the rear of the patch enclosure. Additional patch cords are then used (on the front of the patch enclosure) to connect each OSP fiber port to the equipment patch cord port. Although this configuration requires additional installation costs, it is by far the more popular configuration. The cross-connect architecture provides greater flexibility for maintenance and upgrades.

948 SERIES
WALL MOUNT PATCH PANEL

Description

Amphenol's 948 Series Wall Mount Patch Panels provide an excellent enclosure for patching and storing fiber optic terminations. They are available in a variety of sizes to accommodate from 12 to 72 fibers.

The Wall Mount Patch Panel is designed to be compact as well as provide ample fiber optic cable routing, organization, and storage. The panels come equipped with a cam lock in the installer side (large door) of the panel, allowing unrestricted access to the patching side. A second factory-installed cam lock is available to lock both areas of the panel.

Wall Mount Patch Panels are used in backbone, intermediate and horizontal cross-connects, equipment rooms, building entrances, telecommunications closets, computer rooms and customer premise applications.

Products

- 12, 24, 48, or 72 fiber capacity Wall Mount Patch Panels

Features

- Multiple cable entrance ports with rubber grommets
- Cam lock restricts access to main compartment (second lock optional)
- Ample storage slack, maintaining a 1.5" minimum bend radius
- Mounts on 16" centers (standard stud)
- Removable doors provide increased enclosure access
- Sturdy 16 gauge steel construction with a durable beige powder coat finish
- SC, FC, or ST adapters pre-installed
- Variety of pre-terminated cable assemblies available pre-installed (optional)
- Single part number specifies panel size, adapters, and pigtails
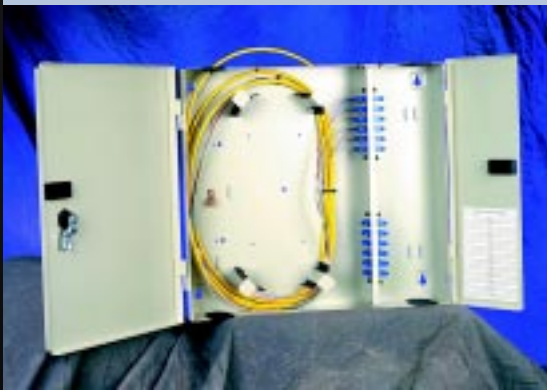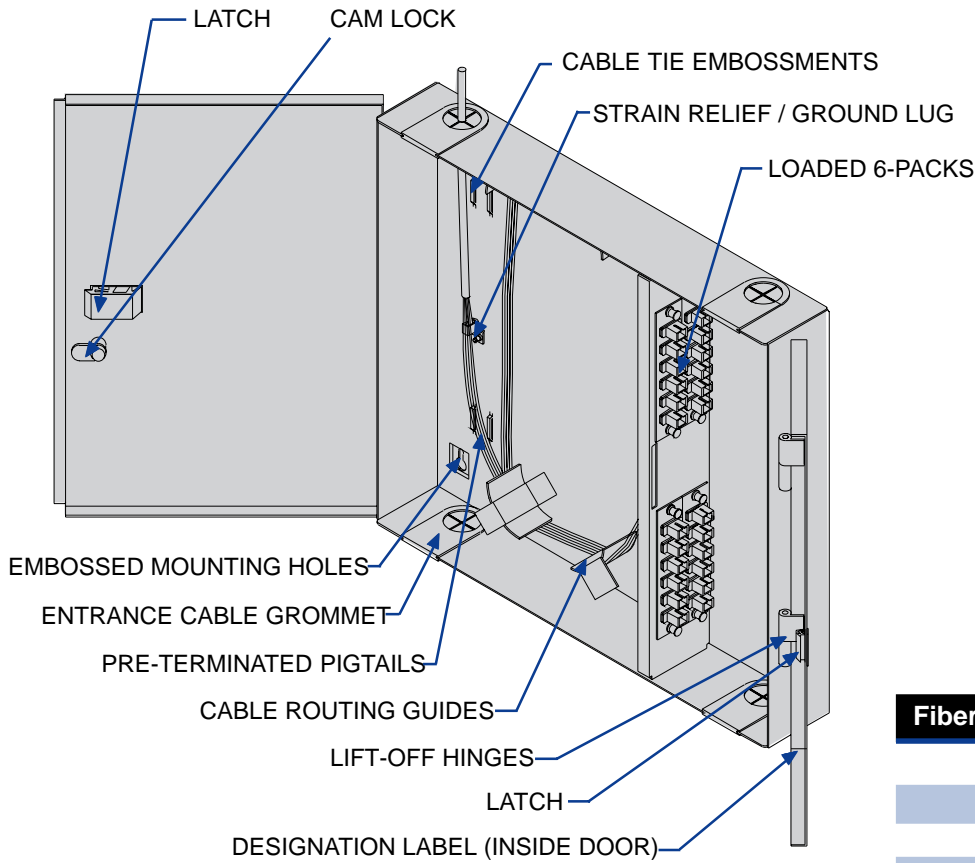
LATCH   CAM LOCK

CABLE TIE EMBOSSMENTS

STRAIN RELIEF / GROUND LUG

LOADED 6-PACKS

EMBOSSED MOUNTING HOLES

ENTRANCE CABLE GROMMET

PRE-TERMINATED PIGTAILS

CABLE ROUTING GUIDES

LIFT-OFF HINGES

LATCH

DESIGNATION LABEL (INSIDE DOOR)

Fiber Capacity	Dimensions
12	15.2"W x 11.3"H x 3.2"D
24	18.5"W x 17.2"H x 3.2"D
48	18.5"W x 17.2"H x 6.2"D
72	18.5"W x 17.2"H x 6.2"D

9 4 8 - ☐ 1 1 P ☐ - 0 ☐ ☐ ☐ ☐

Fiber Capacity

1 = 12
2 = 24
4 = 48
6 = 72

Pigtails

0 = No Pigtails
1 = S/M Super Polish
2 = S/M Ultra Polish
3 = S/M Angle Polish
4 = M/M 50/125 Fiber
5 = M/M 62.5/125 Fiber
6 = M/M 100/140 Fiber

Cable Length
Specify in meters
(e.g. 05 = 5 meters)

Connector/Adaptor Style

A = S/M SC (ceramic)
B = S/M SC Duplex (ceramic)
C = S/M FC Flange (ceramic)
D = S/M FC D-Hole (ceramic)
E = S/M FC D-Hole (angle ceramic)
F = S/M ST metal body (ceramic)
G = M/M SC (metal)
H = M/M SC Duplex (metal)
J = M/M FC Flange (metal)
K = M/M FC D-Hole (metal)
L = M/M ST metal body (metal)
Q = S/M SC (angle ceramic)
T = S/M ST polymer body (ceramic)

Cable Type

A = None
C = 3 mm Jacketed Pigtail
D = 12 Fiber (No Fiber Sub-Groups)
E = 24 Fiber (6 Fiber Sub-Groups)
F = 48 Fiber (12 Fiber Sub-Groups)
G = 72 Fiber (12 Fiber Sub-Groups)

948 SERIES

WALL MOUNT DISTRIBUTION PANEL

Description

Amphenol's 948 Series Wall Mount Distribution Panels provide an excellent enclosure for patching, splicing and storing fiber optic terminations. They are available in a variety of sizes to accommodate from 12 to 72 fibers.

The Wall Mount Distribution Panel is designed to be compact as well as provide ample fiber optic cable routing, organization, and storage. The panels come equipped with a cam lock in the installer side (large door) of the panel, allowing unrestricted access to the patching side. A second factory-installed cam lock is available to lock both areas of the panel. Splice trays are also included with each enclosure.

Wall Mount Distribution Panels are used in backbone intermediate and horizontal cross-connects, equipment rooms, building entrances, telecommunications closets, computer rooms and customer premise applications.

Products

- 12, 24, 48, or 72 fiber capacity Wall Mount Distribution Panels

Features

- Multiple cable entrance ports with rubber grommets
- Cam lock restricts access to main compartment (second lock optional)
- Ample storage slack, maintaining a 1.5" minimum bend radius
- Mounts on 16" centers (standard stud)
- Removable doors provide increased enclosure access
- Sturdy 16 gauge steel construction with a durable beige powder coat finish
- SC, FC, or ST adapters pre-installed
- Splice trays with optional fusion, fusion with heat shrink or mechanical splice pads
- Variety of pre-terminated cable assemblies available pre-installed (optional)
- Single part number specifies panel size, adapters, splice trays and pigtails

LATCH   CAM LOCK

CABLE TIE EMBOSSMENTS

STRAIN RELIEF / GROUND LUG

AMPHENOL SPLICE TRAY

AMPHENOL Fiber Optic Products

LOADED 6-PACKS

EMBOSSED MOUNTING HOLES

CABLE ENTRANCE GROMMET

PRE-TERMINATED PIGTAILS

CABLE ROUTING GUIDES

LIFT-OFF HINGES

LATCH

DESIGNATION LABEL (INSIDE DOOR)

Fiber Capacity	Dimensions
12	15.2"W x 11.3"H x 3.2"D
24	18.5"W x 17.2"H x 3.2"D
48	18.5"W x 17.2"H x 6.2"D
72	18.5"W x 17.2"H x 6.2"D

948 - ☐ **1 1 D** ☐ **-** ☐ ☐ ☐ ☐ ☐

Fiber Capacity

1 = 12
2 = 24
4 = 48
6 = 72

Splice Pad

1 = Fusion Splice
2 = Fusion Splice w/Heat Shrink
3 = Mechanical

Cable Length
Specify in meters
(eg. 05 = 5 meters)

Connector/Adapter Style

A = S/M SC (ceramic)
B = S/M SC Duplex (ceramic)
C = S/M FC Flange (ceramic)
D = S/M FC D-Hole(ceramic)
E = S/M FC D-Hole (angle ceramic)
F = S/M ST metal body (ceramic)
G = M/M SC (metal)
H = M/M SC Duplex (metal)
J = M/M FC Flange (metal)
K = M/M FC D-Hole (metal)
L = M/M ST metal body (metal)
Q = S/M SC (angle ceramic)
T = S/M ST polymer body (ceramic)

Pigtails

0 = No Pigtails
1 = S/M Super Polish
2 = S/M Ultra Polish
3 = S/M Angle Polish
4 = M/M 50/125 Fiber
5 = M/M 62.5/125 Fiber
6 = M/M 100/140 Fiber

Cable Type

A = None
B = 900µm Buffered Pigtail
C = 3 mm Jacketed Pigtail
D = 12 Fiber (No Fiber Sub-Group)
K = 900µm Jacketed Pigtail

RACK MOUNT PATCH PANEL

Description

Amphenol's 948 Series Rack Mount Patch Panels provide a convenient location for patching single mode or multimode fiber optic cables from the cable termination point to the lightwave equipment. They are available in a variety of sizes to accommodate from 24 to 96 fibers.

The Rack Mount Patch Panels can be used in both cross-connect and interconnect applications. Pre-terminated multi-channel fiber optic pigtails are excellent for reducing installation costs and installer handling. The patch panel pigtail can be quickly and easily routed to the splicing location, eliminating the need for performing field terminations.

Rack Mount Patch Panels are used in backbone intermediate and horizontal cross-connects, equipment rooms, building entrances, headends, central offices and computer rooms.

Products

- 24, 48, 72 or 96 fiber capacity Rack Mount Patch Panels

Features

- Smoked polycarbonate front door exposes designation card
- Cable management organizers located in rear of the enclosure
- Mounts on 19" or 23" racks (reversible brackets)
- Removable doors provide increased enclosure access
- Sturdy 16 gauge steel construction with a durable beige powder coat finish
- Enhanced cable routing brackets available (optional)
- SC, FC, or ST adapters pre-installed
- Variety of pre-terminated cable assemblies available pre-installed (optional)
- Single part number specifies panel size, adapters type, and pigtails

UNIVERSAL MOUNTING BRACKET

CABLE TIE EMBOSSMENTS
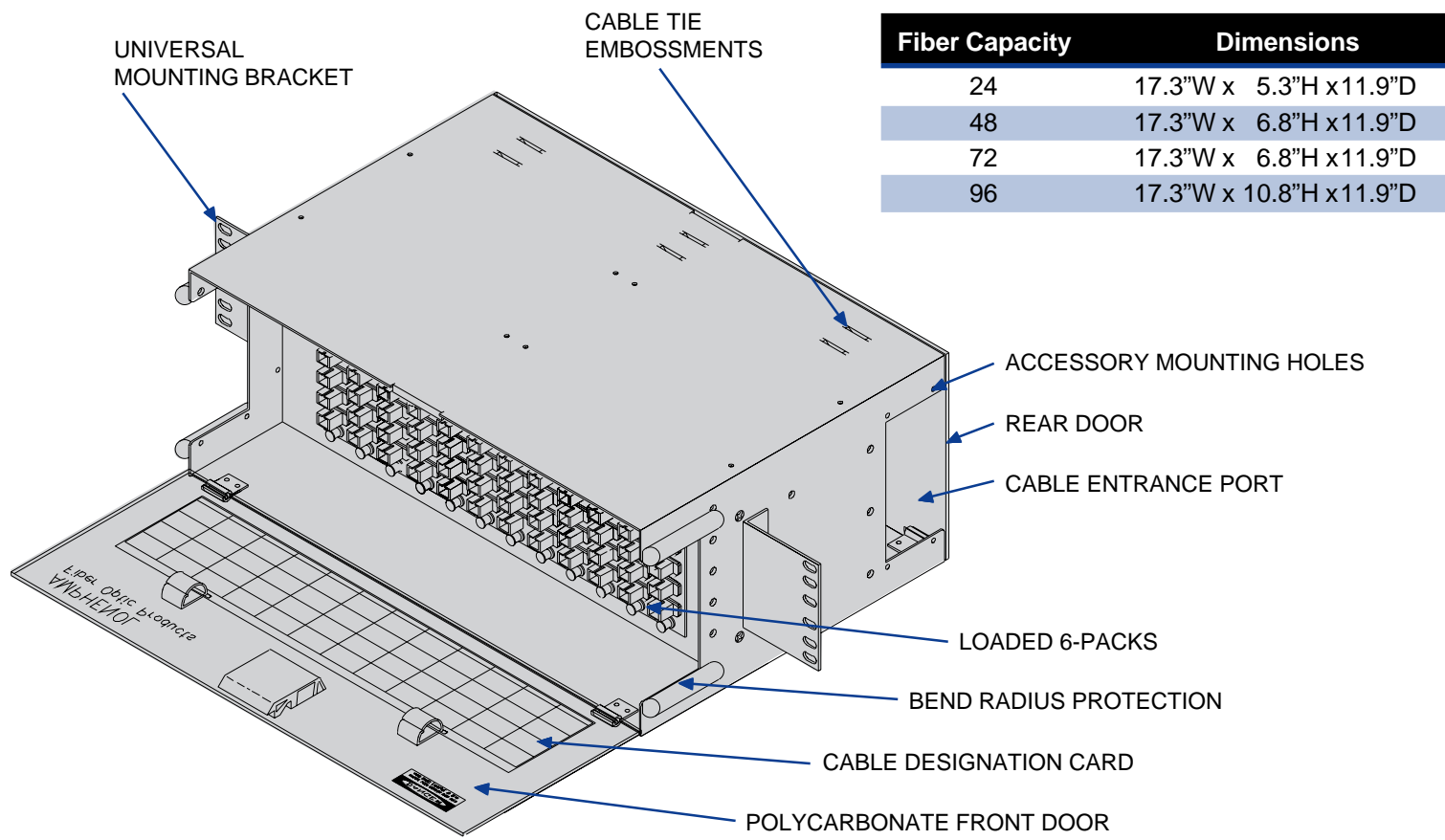
Fiber Capacity	Dimensions
24	17.3"W x 5.3"H x 11.9"D
48	17.3"W x 6.8"H x 11.9"D
72	17.3"W x 6.8"H x 11.9"D
96	17.3"W x 10.8"H x 11.9"D

ACCESSORY MOUNTING HOLES

REAR DOOR

CABLE ENTRANCE PORT

LOADED 6-PACKS

BEND RADIUS PROTECTION

CABLE DESIGNATION CARD

POLYCARBONATE FRONT DOOR

9 4 8 - ☐ **1** **2** **P** ☐ **-** **0** ☐ ☐ ☐ ☐
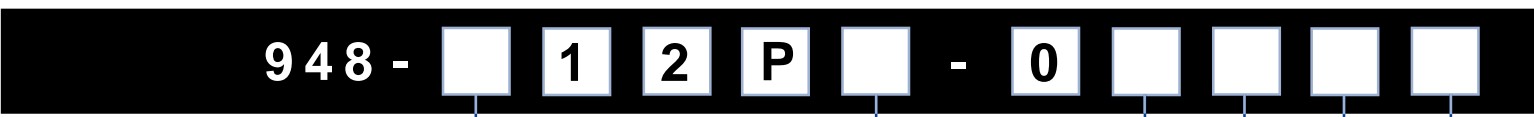
Fiber Capacity

2 = 24
4 = 48
6 = 72
7 = 96

Pigtails

0 = No Pigtails
1 = S/M Super Polish
2 = S/M Ultra Polish
3 = S/M Angle Polish
4 = M/M 50/125 Fiber
5 = M/M 62.5/125 Fiber
6 = M/M 100/140 Fiber

Cable Length
Specify in meters
(eg. 05 = 5 meters)

Cable Type

A = None
C = 3 mm Jacketed Pigtail
D = 12 Fiber (No Fiber Sub-Group)
E = 24 Fiber (6 Fiber Sub-Groups)
F = 48 Fiber (12 Fiber Sub-Groups)
G = 72 Fiber (12 Fiber Sub-Groups)
H = 96 Fiber (12 Fiber Sub-Groups)

Connector/Adapter Style

A = S/M SC (ceramic)
B = S/M SC Duplex (ceramic)
C = S/M FC Flange (ceramic)
D = S/M FC D-Hole(ceramic)
E = S/M FC D-Hole (angle ceramic)
F = S/M ST metal body (ceramic)
G = M/M SC (metal)
H = M/M SC Duplex (metal)
J = M/M FC Flange (metal)
K = M/M FC D-Hole (metal)
L = M/M ST metal body (metal)
Q = S/M SC (angle ceramic)
T = S/M ST polymer body (ceramic)

RACK MOUNT SPLICE PANEL

Description

Amphenol's 948 Series Rack Mount Splice Panels provide an on-rack splicing point for the OSP cable. They are available in two or three drawer designs to accommodate up to 144 fibers.

The Rack Mount Splice Panel incorporates splicing within the fiber optic network bays. These enclosures are ideal for splicing a pre-terminated patch panel pigtail to the OSP cable. The enclosures provide ample fiber storage within a removable drawer. Each drawer can accommodate up to two splice trays for a total of 48 fusion splices.

Rack Mount Splice Panels are used in backbone intermediate and horizontal cross-connects, equipment rooms, building entrances, headends, central offices and computer rooms.
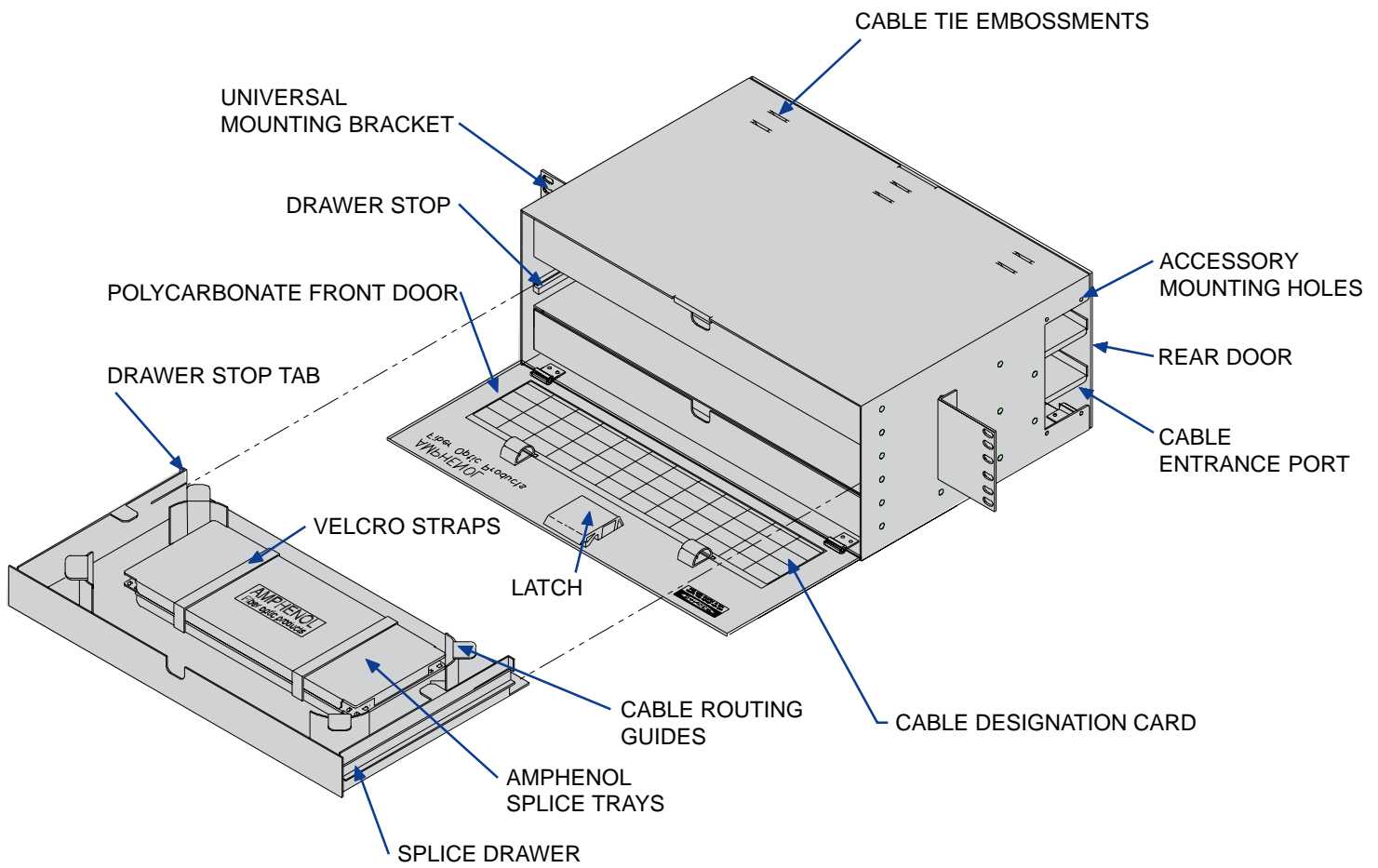
Products

- 48, 72, 96 or 144 fiber capacity Rack Mount Distribution Panels
- Two or three drawer designs

Features

- Removable splice drawers with positive stop
- Smoked polycarbonate front door exposes designation card
- Two or three drawer designs to accommodate up to 144 fibers
- Ample storage slack, maintaining a 1.5" minimum bend radius
- Splice trays may be located in a variety of positions within the splice drawer
- Mounts on 19" or 23" racks (reversible brackets)
- Removable doors provide increased enclosure access
- Sturdy 16 gauge steel construction with a durable beige powder coat finish
- Splice trays with optional fusion, fusion with heat shrink, or mechanical splice pads
- Single part number specifies panel size and splice trays

Diagram labels:
- CABLE TIE EMBOSSMENTS
- UNIVERSAL MOUNTING BRACKET
- DRAWER STOP
- POLYCARBONATE FRONT DOOR
- DRAWER STOP TAB
- VELCRO STRAPS
- LATCH
- CABLE ROUTING GUIDES
- AMPHENOL SPLICE TRAYS
- SPLICE DRAWER
- ACCESSORY MOUNTING HOLES
- REAR DOOR
- CABLE ENTRANCE PORT
- CABLE DESIGNATION CARD

PART NUMBER	SPLICE CAPACITY	SPLICE TYPE	DRAWERS	DIMENSIONS
948-402SY-10A00	48	Fusion	2	17.3"W x 5.3"H x 11.9"D
948-402SY-20A00	48	Fusion with Heat Shrink	2	17.3"W x 5.3"H x 11.9"D
948-402SY-30A00	48	Mechanical	2	17.3"W x 5.3"H x 11.9"D
948-602SY-10A00	72	Fusion	2	17.3"W x 5.3"H x 11.9"D
948-602SY-20A00	72	Fusion with heat Shrink	2	17.3"W x 5.3"H x 11.9"D
948-602SY-30A00	72	Mechanical	3	17.3"W x 6.8"H x 11.9"D
948-702SY-10A00	96	Fusion	2	17.3"W x 5.3"H x 11.9"D
948-702SY-20A00	96	Fusion with Heat Shrink	2	17.3"W x 5.3"H x 11.9"D
948-802SY-10A00	144	Fusion	3	17.3"W x 6.8"H x 11.9"D
948-802SY-20A00	144	Fusion with Heat Shrink	3	17.3"W x 6.8"H x 11.9"D

RACK MOUNT DISTRIBUTION PANEL

Description

Amphenol's 948 Series Rack Mount Distribution Panels are designed to incorporate both patching and splicing within the same enclosure. This eliminates unnecessarily exposing fiber optic cables which are vulnerable when utilizing separate enclosures for patching and splicing. They are available in a variety of sizes to accommodate from 24 to 96 fibers.

The Rack Mount Distribution Panel fully encloses the pigtails (usually routed between separate panels), providing greater protection and shorter cable lengths. The enclosures provide ample fiber optic cable storage within a removable drawer. Each drawer can accomodate up to two splice trays for a total of 48 fusion splices.

Rack Mount Distribution Panels are used in backbone intermediate and horizontal cross-connects, equipment rooms, building entrances, headends, central offices, computer rooms and customer premise applications.
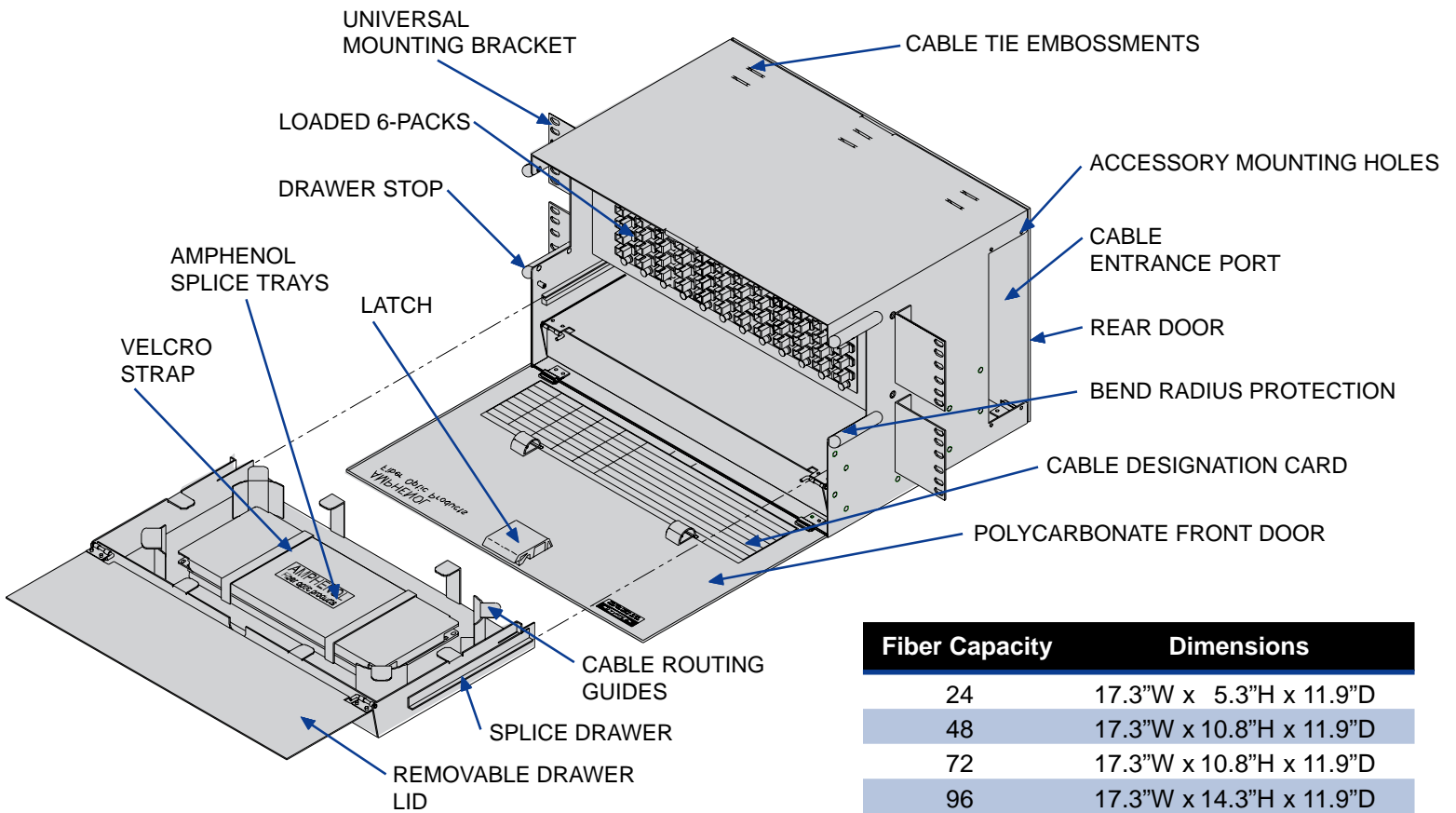
Products

- 24, 48, 72, or 96 fiber capacity Rack Mount Distribution Panels

Features

- Removable splice drawers with positive stop
- Smoked polycarbonate front door exposes designation card
- Ample storage slack, maintaining a 1.5" minimum bend radius
- Mounts on 19" or 23" racks (reversible brackets)
- Removable doors provide increased enclosure access
- Sturdy 16 gauge steel construction with a durable beige powder coat finish
- SC, FC, or ST adapters pre-installed
- Splice trays with optional fusion, fusion with heat shrink, or mechanical splice pads
- Variety of pre-terminated cable assemblies available pre-installed (optional)
- Single part number specifies panel size, adapters, splice trays, and pigtails

Fiber Capacity	Dimensions
24	17.3"W x 5.3"H x 11.9"D
48	17.3"W x 10.8"H x 11.9"D
72	17.3"W x 10.8"H x 11.9"D
96	17.3"W x 14.3"H x 11.9"D

948 - ☐ **1** **2** **D** ☐ **-** ☐ ☐ ☐ ☐ ☐

Fiber Capacity

2 = 24
4 = 48
6 = 72
7 = 96

Connector/Adapter Style

A = S/M SC (ceramic)
B = S/M SC Duplex (ceramic)
C = S/M FC Flange (ceramic)
D = S/M FC D-Hole (ceramic)
E = S/M FC D-Hole (angle ceramic)
F = S/M ST metal body (ceramic)
G = M/M SC (metal)
H = M/M SC Duplex (metal)
J = M/M FC Flange (metal)
K = M/M FC D-Hole (metal)
L = M/M ST metal body (metal)
Q = S/M SC (angle ceramic)
T = S/M ST polymer body (metal)

Splice Pad

1 = Fusion Splice
2 = Fusion Splice w/Heat Shrink
3 = Mechanical

Pigtails

0 = No Pigtails
1 = S/M Super Polish
2 = S/M Ultra Polish
3 = S/M Angle Polish
4 = M/M 50/125 Fiber
5 = M/M 62.5/125 Fiber
6 = M/M 100/140 Fiber

Cable Type

A = None
B = 900µm Buffered Pigtail
C = 3 mm Jacketed Pigtail
D = 12 Fiber (No Fiber Sub-Groups)
K = 900µm Jacketed Pigtail

Cable Length

Specify in meters
(eg. 05 = 5 meters)

RACK MOUNT COUPLER PANEL

Description

Amphenol's 948 Series Rack Mount Coupler Panels are designed to incorporate fiber optic coupler products within the same fiber management frame system. They are available with either 8 or 12 module positions.

The Rack Mount Coupler Panels are capable of housing a number of coupler modules with a variety of configurations. Coupler modules are available with power splitters, WDM's, DWDMs, and tap couplers. Each coupler module conveniently displays a diagramed configuration of the photonic product enclosed.
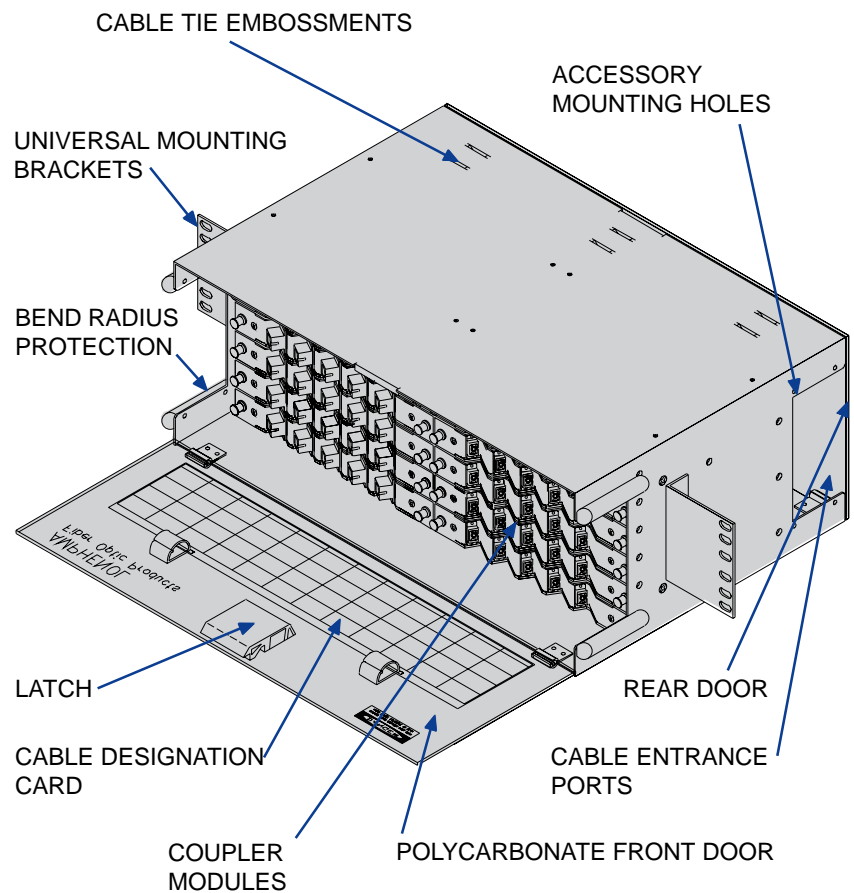
Rack Mount Coupler Panels are used in network distribution signal monitoring, backbone intermediate and horizontal cross-connects, unidirectional / bi-directional links, equipment rooms, building entrances, headends, trunking applications, central offices, and computer rooms.

Products

- 8 or 12 position Rack Mount Coupler Panels

CABLE TIE EMBOSSMENTS

ACCESSORY MOUNTING HOLES

UNIVERSAL MOUNTING BRACKETS

BEND RADIUS PROTECTION

LATCH

CABLE DESIGNATION CARD

COUPLER MODULES

REAR DOOR

CABLE ENTRANCE PORTS

POLYCARBONATE FRONT DOOR

Features

- Smoked polycarbonate front door exposes designation card
- Mounts on 19" or 23" racks (reversible brackets)
- Removable doors provide increased enclosure access
- Sturdy 16 gauge steel construction with a durable beige powder coat finish
- Removable coupler modules (ordered separately)
- Coupler module ports are placed on an angle for added bend relief protection
- Coupler configuration and part number label located on coupler module
- Variety of WDMs, power splitters, and tap couplers are available
- Specify panel size and coupler module/configuration utilizing only two part numbers

Coupler Panels

Part Number	Description	Dimensions
948-100-5105	8 position coupler panel	17.3"W x 5.3"H x 11.9"D
948-100-5106	12 position coupler panel	17.3"W x 6.8"H x 11.9"D

COUPLER DESIGNATION LABEL

INPUT/OUTPUT PORTS
(ADAPTERS OR PIGTAILS)

REAR PORTS AVAILABLE

POSITIONING RAIL

ANGLED PORTS

Amphenol's Coupler Modules provide an excellent package for protecting and managing any variety of splitters or WDM's. Each module is conveniently stored in Amphenol's coupler panel and integrated directly within the network bays for optimal flexibility and maintenance accessibility. All photonic products are made by using fused biconic taper manufacturing practices and Amphenol's high quality standards.

1.00

8.50

6.20

PUSH/PULL
FASTNERS
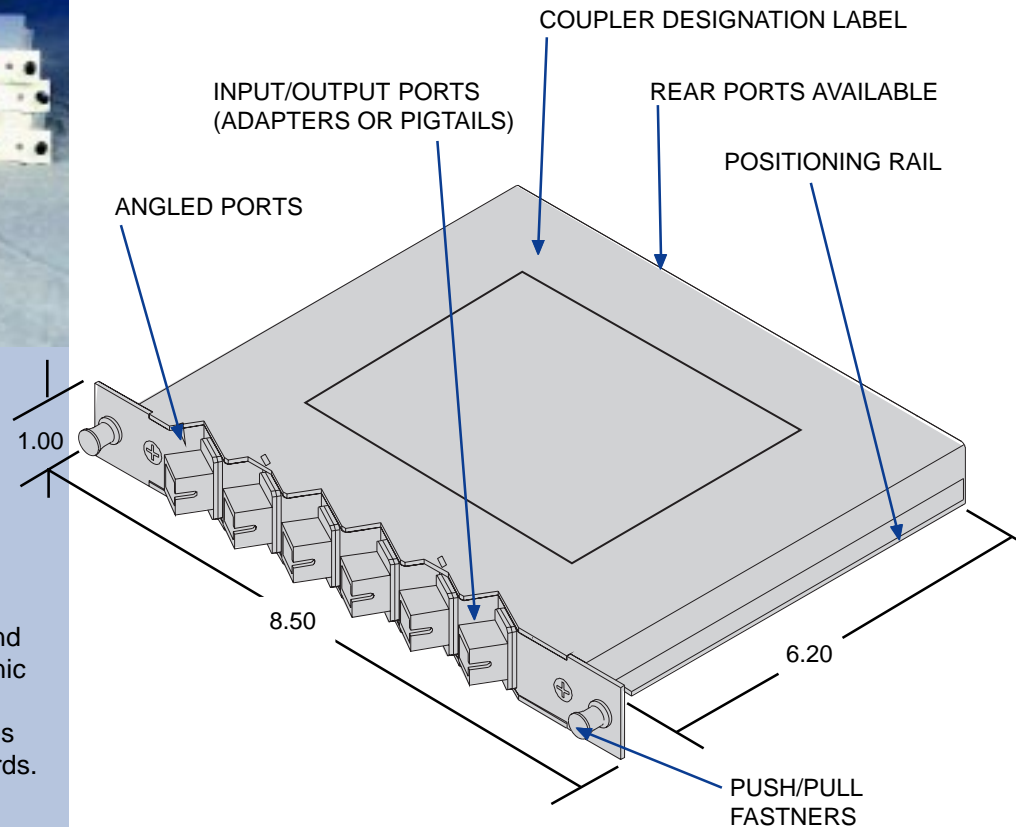
Splitters

Types: Single Window Broadband 1310nm

Single Window Broadband 1550nm

Wideband 1310/1550nm

Tap Coupler 1310nm or 1550nm

Optical Splitters

Configurations: 1x2, 2x2, 1x3, 1x4 and 1xN . . .

Coupling Ratios: 50/50, 10/90, 33/67, 33/33/33, 25/25/25/25 (additional coupling ratios available)

Available with adapter ports or pigtails in SC, FC & ST

Thermal stability $\leq$ 0.2dB variation in insertion loss

Storage temperature: -40° to +85°C

Directivity: < -55dB

Fiber: Corning SMF -28

WDMs

Types: Unidirectional Mux 1310Tx/1550Tx

Unidirectional Demux 1310Rx/1550Rx

Bi-directional 1310Rx/1550Tx

Bi-directional 1310Tx/1550Rx

Add/Drop 1310/1550nm

Narrowband 1533/1557nm

DWDM 4, 8, 12 & 16 channels

Available with adapter ports or pigtails in SC, FC & ST

Thermal stability <0.2dB variation in insertion loss (DWDM $\leq$ 0.5dB)

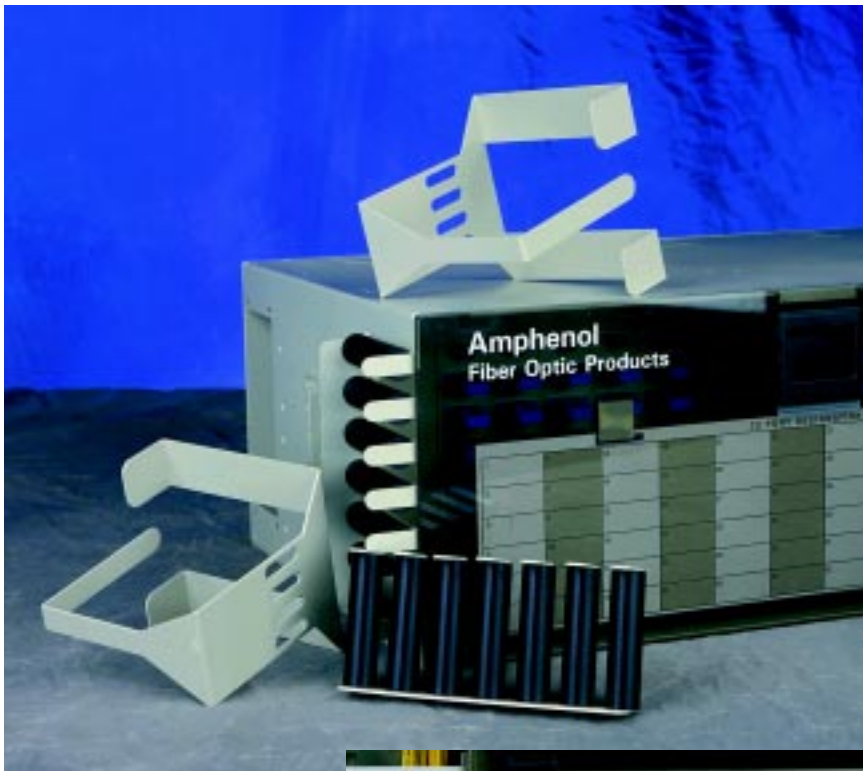Storage temperature: -40° to +85°C

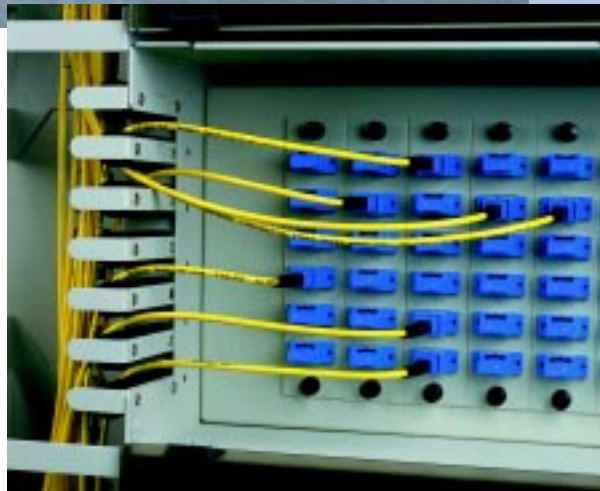Operating Temperature (DWDM) 0° to 70°C

Fiber: Corning SMF -28

Note: See coupler data sheets for further specifications and information.

CABLE ROUTING GUIDES

CABLE ROUTING KIT

ENHANCED CABLE BRACKETS

Description

Complete cable routing guide kits are composed of both Enhanced Cable Brackets and Vertical Cable Guides. The Enhanced Cable Brackets are designed to provide better cable management entering and exiting enclosures. They allow fiber distribution frames to increase in fiber capacity by providing the ability to add or remove patch cords without disturbing neighboring fibers. The Vertical Cable Guides manage cables routed vertically alongside the enclosures.

Vertical Cable Guides

- Provides an orderly channel for routing fiber optic cables vertically along the enclosures.
- Versions available for 19" or 23" frames.
- Unique design allows panels to be added or removed without removing guides.

Enhanced Cable Brackets

- Improved bend radius protection allows fiber optic cables to make a horizontal to vertical transition.
- Routing fingers provide excellent fiber organization by reducing the number of fibers being grouped.
- Mounts directly to enclosure allowing greater flexibility

Products

Part Number	Description	Where Used
948-100-5225	Vertical Cable Guides, 19"	On 19" frames for all rack mount panels
948-100-5220	Vertical Cable Guides, 23"	On 23" frames for all rack mount panels
948-100-5221	6" Enhanced Cable Guides	48 & 72 port rack mount panels
948-100-5222	9" Enhanced Cable Guides	96 port rack mount panels
948-100-5226*	6" Cable Routing Kit, 19"	19" frames and 48 & 72 port panels
948-100-5227*	9" Cable Routing Kit, 19"	19" frames and 96 port panels
948-100-5223*	6" Cable Routing Kit, 23"	23" frames and 48 & 72 port panels
948-100-5224*	9" Cable Routing Kit, 23"	23" frames and 96 port panels

* Cable Routing Kits include Verticle Cable Guides and Enhanced Cable Guides

CABLE CLAMP

Description

Amphenol's Cable Clamp provides a unique method for securing fiber optic cables. Each cable clamp includes a multi-diameter module that perfectly fits any size cable in its range.

The multi-diameter modules easily adapt to fit fiber optic cables simply by removing a few layers from its center core. This unique method of securing the cable provides excellent protection and axial clamping.
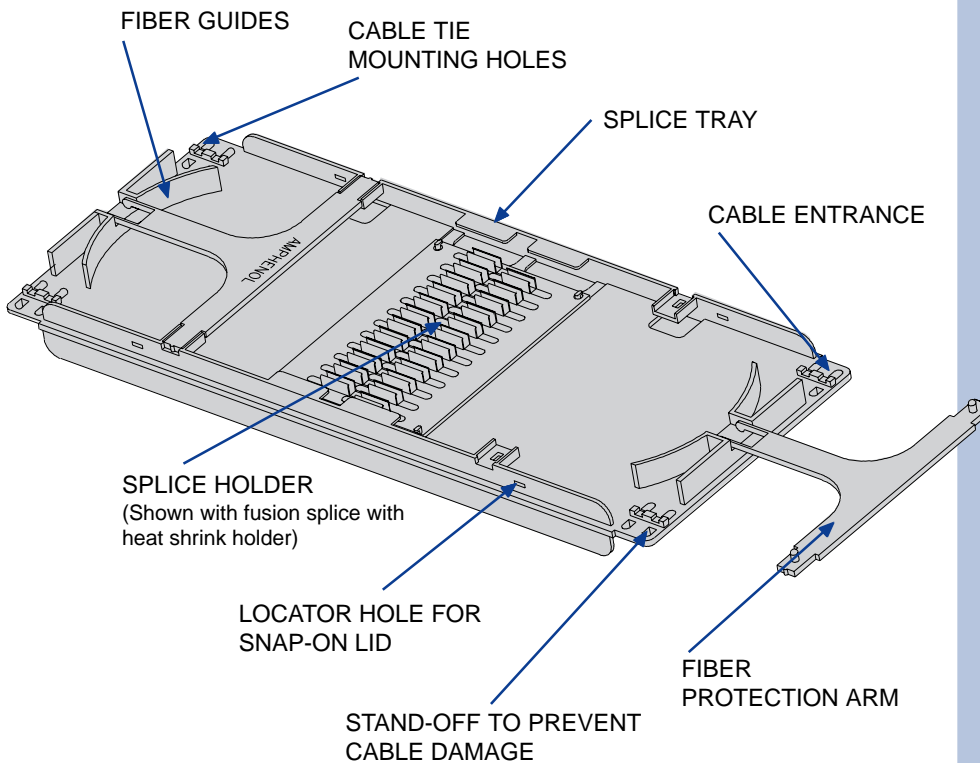
Features

- Unique multi-diameter module gently grips cable without potential for damage
- Accommodates a wide range of cable sizes
- Removable layers allows a perfect fit to be easily made with the cable
- Three different sizes available to fit cables from 4 to 32 mm
- Configurations available for clamping multiple cables within a single clamp
- Versions available for panel or frame mounting
- Reduces radii required for entering enclosures

Products

Part Number	Description	Where Used
948-100-5210	Cable Clamp 4-13.5mm	Panel Mount
948-100-5211	Cable Clamp 12-22mm	Panel Mount
948-100-5212	Cable Clamp 22-32mm	Panel Mount
948-100-5213	Cable Clamp 4-13.5mm	Frame Mount
948-100-5214	Cable Clamp 12-22mm	Frame Mount
948-100-5215	Cable Clamp 22-32mm	Frame Mount

FIBER GUIDES

CABLE TIE
MOUNTING HOLES

SPLICE TRAY

CABLE ENTRANCE

SPLICE HOLDER
(Shown with fusion splice with
heat shrink holder)

LOCATOR HOLE FOR
SNAP-ON LID

FIBER
PROTECTION ARM

STAND-OFF TO PREVENT
CABLE DAMAGE

Description

Amphenol's 948 Series Splice Trays provide an organized means of storing and protecting completed fiber optic splices. Bend radius protection and fold-over arms prevent fibers from being damaged during handling.

Each 300mm tray can accommodate up to 24 fusion splices or 12 mechanical splices. Each 200mm tray can accommodate up to 12 fusion or mechanical splices. Splice trays are included with Amphenol Splice and Distribution Panels.

Features

- Unique fold-over arms provide added protection
- Bend radius protection for stored fibers
- Easily stackable
- Store up to 0.5 meters of each buffered fiber
- 300mm or 200mm designs available

Products

Part Number	Description	Where Used
948-2362	200mm Tray for 12 Fusion Splices	7.8"L x 4.8"W x 1.0"H
948-2363	200mm Tray for 12 Fusion w/Heat Shrink Splices	7.8"L x 4.8"W x 1.0"H
948-2364	200mm Tray for 12 Mechanical Splices	7.8"L x 4.8"W x 1.0"H
948-2366	300mm Tray for 24 Fusion Splices	11.8"L x 4.8"W x 1.0"H
948-2367	300mm Tray for 24 Fusion w/Heat Shrink Splices	11.8"L x 4.8"W x 1.0"H
948-2368	300mm Tray for 12 Mechanical Splices	11.8"L x 4.8"W x 1.0"H

PANEL ACCESSORIES

Six Pack Coupler Modules

Amphenol's Six Pack Coupler Modules are designed to incorporate splitters, WDMs, and tap couplers within a fiber optic patch panel. The modules are completely enclosed giving optimal protection to the fiber optic couplers. Six Pack Coupler Modules are available in a variety of configurations. Please contact the Inside Sales Department for more details.

Cable Assemblies

Amphenol provides a complete array of fiber optic patch cords and pigtails. Pigtails can be ordered pre-installed into the fiber management panels to reduce installation time and costs. All Amphenol patch cords and pigtails are manufactured of the highest quality materials and are 100% optically tested for insertion loss and back reflection.
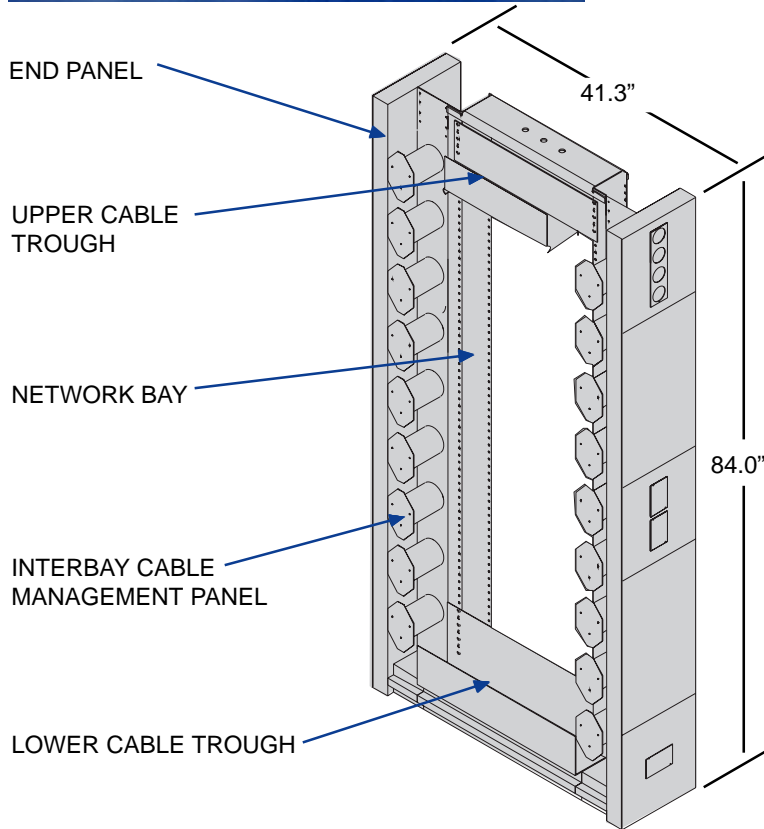
Six Packs

Amphenol's 948 Series Six Packs are included with Amphenol fiber management panels. Additional Six Packs are available as outlined below. They are available with all variations of SC, FC, and ST adapters. Each six pack comes loaded with the designated adapter and nylatches for installation in Amphenol fiber management panels.
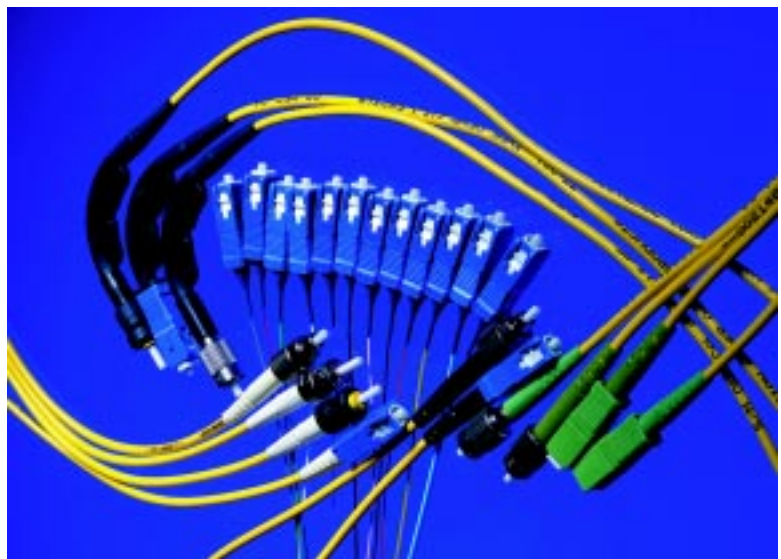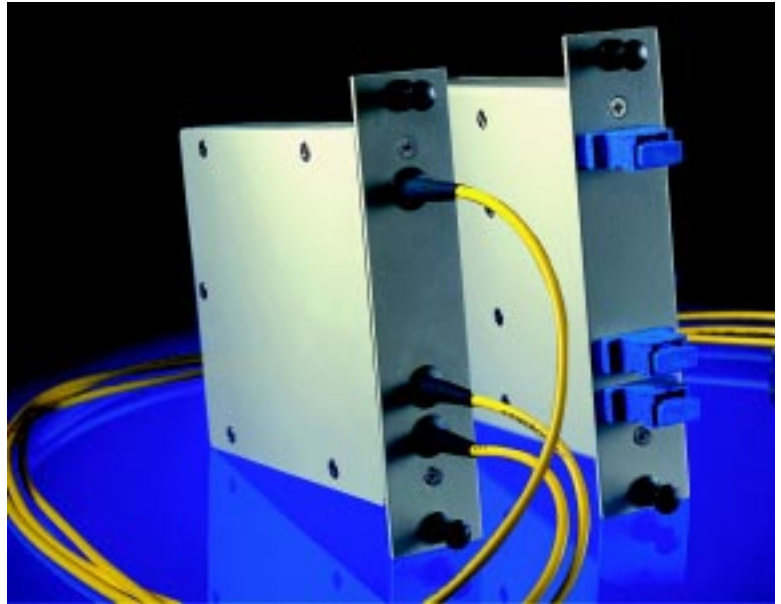
Six Packs (with Adapters)

Part Number	Description	Sleeve Type
948-100-2111	S/M SC	Ceramic
948-100-2112	S/M FC Flange	Ceramic
948-100-2113	S/M FC D-Hole	Ceramic
948-100-2114	S/M ST metal	Ceramic
948-100-2115	S/M SC Duplex	Ceramic
948-100-2116	S/M FC D-Hole, angle	Ceramic
948-100-2127	M/M SC	Metal
948-100-2122	M/M FC Flange	Metal
948-100-2123	M/M FC D-Hole	Metal
948-100-2124	M/M ST metal	Metal
948-100-2128	M/M SC Duplex	Metal
948-100-2110	Blank Cover	n/a

FRAMES AND ACCESSORIES

Description

Amphenol's 948 Series Frames and Accessories are designed to provide the necessary organization and protection required for fiber optic installations. Fiber protection and integrity has been considered throughout the Fiber Management System to insure that there is ample bend radii and cable routing.

Products

- Network Bays
- End Panels
- Cable Brackets
- Interbays
- Vertical Routing Guides
- Cable Troughs
- Rear Bay Doors
- Installation Kits
- Cable Clamps

Network Bays (Frames)

A full line of unequal flange network bays are available with either 19" or 23" mounting configurations. Bays can be pre-loaded with any variety of fiber management panels to suit a broad range of customer requirements and applications.

- Sturdy 11 gauge steel construction with a beige powder coat finish
- 12-24 tapped holes with 1" vertical spacing
- Designed to meet telephone industry standards for Network Bay Frames and for Zone 4 Earthquake Braced Bays
- Ground wire kit included with each frame

END PANEL

UPPER CABLE TROUGH

NETWORK BAY

INTERBAY CABLE MANAGEMENT PANEL

LOWER CABLE TROUGH

41.3"

84.0"

NOTE: 7'x23" network Bay shown with accessories

Ordering Information

Part No.	Description	Dimensions
948-2380	7' x 23" Network Bay, seismic zone 4	84.0"H x 26.0"W x 12"D
948-2381	7' x 19" Network Bay, seismic zone 4	84.0"H x 21.9"W x 12"D
948-2404	Rear Bay Doors	83.9"H x 26.0"W x 4.5"D
948-2447	Anchor Kit, Non-Isolated, seismic zone 4	n/a
948-2448	Anchor Kit, Isolated, seismic zone 4	n/a

Cable Troughs

Upper and Lower Cable Troughs are available for optimal cable routing flexibility. These troughs allow fiber optic cables to be safely routed between frames.

- Mount on 19" or 23" frames
- Transitions between vertical routing and horizontal routing
- Upper trough provides bend radius protection

Interbay Cable Management Panels

The Interbay Cable Management Panels provide an efficient and organized means of managing patchcords between fiber distribution frames. Patchcord slack can also be stored easily within the interbay spools.

- Provides added bend radius protection entering/exiting panels
- Versions available for vertical and horizontal management
- Improves cable routing and organization
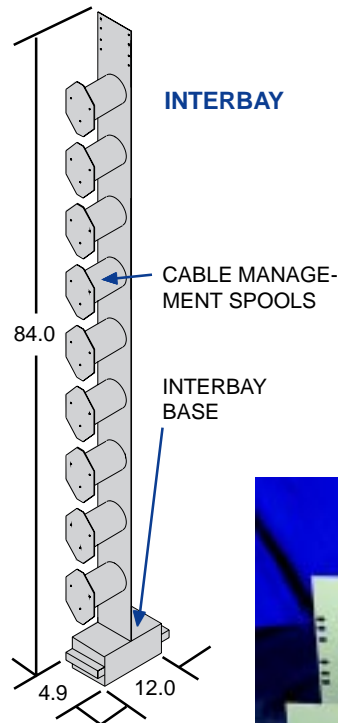- Stores excess patchcord slack

End Panels

End Panels are used to provide protection at the end of a network bay line-up. They provide added protection and strength to the fiber distribution frames. The End Panels can be used in either right or left hand applications.
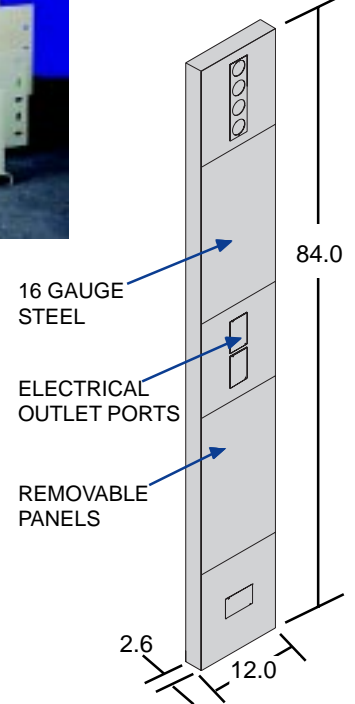
- May be mounted directly to the rack or used with Interbay Cable Management Organizers
- Includes covers and cutouts for AC receptacles, switches, and alarm lights
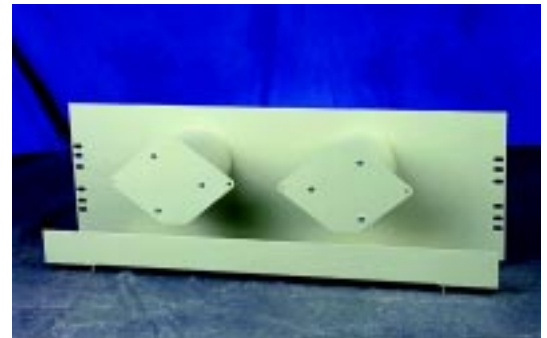- Provides protection in a frame line-up

UPPER and LOWER TROUGHS

END PANEL

84.0

16 GAUGE STEEL

ELECTRICAL OUTLET PORTS

REMOVABLE PANELS

2.6

12.0

INTERBAY

CABLE MANAGE- MENT SPOOLS

84.0

INTERBAY BASE

4.9   12.0

HORIZONTAL INTERBAY

Products

Part Number	Description	Dimensions
948-2384	Interbay Cable Management Panel	84.0"H x 4.9"W x 12.0"D
948-2453	Horizontal Interbay (23" frames)	8.0"H x 23.0"W x 4.3"D
948-2392	7' x 12" End Panels	84.0"H x 2.6"W x 12.0"D
948-2394	Upper Cable Trough (23" frames)	6.4"H x 23.4"W x 5.2"D
948-2395	Lower Cable Trough (23" frames)	9.3"H x 25.9"W x 5.2"D
948-2399	Upper Cable Trough (19" frames)	6.4"H x 19.4"W x 5.2"D
948-2400	Lower Cable Trough (19" frames)	9.3"H x 21.8"W x 5.2"D

Amphenol Corporation Website
www.amphenol.com

Worldwide Service & Support

AMERICAS

Amphenol Corporation
Wallingford, CT, U.S.A.
Phone: +1-203-265-8900
E-mail: aphinfo@amphenol.com

Amphenol Canada Corp.
Scarborough, Ontario, Canada
Phone: +1-416-291-4401
E-mail: mattL@amphenolcanada.com

Amphenol Interconnect Products
Corporation
Endicott, NY, U.S.A.
Phone: +1-607-754-4444
E-mail: sales@aipc.fabrik.com

Amphenol Spectra-Strip Operations
Hamden, CT, U.S.A.
Phone: +1-203-281-3200
Email: sales@spectra-strip.com

Amphenol RF Division
Danbury, CT., U.S.A.
Phone: 1-203-796-2000
E-mail: 104704.2600@compuserve.com

Amphenol do Brasil LTDA (AIPC)
Cacapava, SP, Brazil
Phone: +55-12-253-2502
E-mail: sales@aipc.fabrik.com

Amphenol Corp. Argentina
Buenos Aires, Argentina
Phone: +54-11-4341-4565
E-mail: amphenol_argentina@com-puserve.com

Amphenol do Brasil LTDA.
Sao Paulo - SP, Brazil
Phone: +55-11-5185-2881
E-mail: amphenol@amphenol.com.br

Amphenol Corp. Mexico
CP 11560 Mexico D.F. Mexico
Phone:+52-5-254-7283
E-mail: amphenol_mex@compuserve.com

Times Fiber Communications, Inc.
Wallingford, CT, U.S.A.
Phone: 1-203-265-8500
E-mail: aphinfo@amphenol.com

EUROPE

Amphenol European Sales Operations
Houten, The Netherlands
Phone: +31-30-6358-000
E-mail: info@amphenol-nl.com

Amphenol Gessellscaft GmbH
Wien, Austria
Phone: +43-1-895-1511
E-mail: info@amphenol-at.com

Amphenol Iberica
Madrid, Spain
Phone: +34-91-673-2235
E-mail: info@amphenol-it.com

Amphenol Italia S.p.A.
Lainate (Milano), Italy
Phone: +39-2-939-04192
Email: info@amphenol-it.com

Amphenol Scandinavia
Upplands Vasby, Sweden
Phone: +46-8-594-10040
E-mail: info@amphenol-se.com

Amphenol Limited
Whitstable, Kent, Great Britain
Phone: +44-227-773-200
E-mail: info@amphenol.co.uk

Amphenol Socapex
948, Promenade de l'Arve
B.P. 29
74311 Thyez, Cedex, France
Phone: +33-4-50-89-28-00
E-mail: fo-specials@amphenol-socapex.fr

Amphenol Air LB GmbH
AM Kleinbahnhof 4
D-66740 Saarlouis
Germany
Phone: +49-6831-981-00
E-mail: info@amphenol-airlb.de

ASIA & R.O.W.

Amphenol Japan. K.K.
Chiyoda-ku, Tokyo, Japan
Phone: +81-3-3263-5611
E-mail: info@amphenol.co.jp

Amphenol Daeshin Electronics
Precision Co., Ltd.
Kyungki-Do, Korea
Phone: +82-32-680-3800
E-mail: info@amphenol.co.kr

Amphenol East Asia Ltd.
Kowloon, Hong Kong
Phone: +852-2699-2663
E-mail: info@amphenol.com.hk

Amphenol Taiwan Corp.
Taoyuan, Taiwan
Phone: +886-3-379-5677
E-mail: info@amphenol.com.tw

Amphenol South China
Bao An, Shenzhen, China
Phone: +86-755-719-9622
E-mail: +info@amphenol.com.cn

Shenzhen (China) Office
Shenzhen, China
Phone: +86-755-368-3575
E-mail: info@amphenol.com.cn

Guangzhou Amphenol
Electronics Communications
Guangzhou, China
Phone: +86-20-3869-8808
E-mail: Thomang@gecamphenol.com

Singapore Office
Phone: +65-294-2128
E-mail: info@amphenol.com.sg

Amphetronix Limited
Bhosari Industrial Area
Pune, India
Phone: +91-20-7120363
E-mail: sales@amphenol-in.com

Amphenol Australia Ltd.
Keysborough Vic, Australia
Phone: +61-3-8796-8888
E-mail: info@amphenol.com.au