Amphenol

BEAD / BABAA COMPLIANT

Amphenol Fiber-to-the-Home (FTTH) Solution

In an era where seamless business operations and daily life depend on fast and reliable interconnected networks, Amphenol and its sister companies deliver the innovative solutions that fuel this fiber-to-the-home revolution.

We understand the ever-evolving needs of network architecture. That's why you can now leverage the combined expertise of Amphenol Charles Industries, Amphenol Network Solutions, and Amphenol Fiber Optic Products through the One Amphenol Solution.

From best-in-class fiber optic components and assemblies to high-density interconnect systems and robust enclosure solutions, the One Amphenol Solution provides unparalleled support across every facet of the FTTH sector.

Charles an Amphenol company

Amphenol FIBER OPTIC PRODUCTS

Amphenol NETWORK SOLUTIONS™

Amphenol

Rural

Central Office

Residential

MDU

MALL

FACTORY

HOSPITAL

LINE COLOR LEGEND:
Trunk | Feeder | Drop

Market Challenges

- Planning and deployment complexity in underserved areas
- Limited and costly skilled and efficient labor
- Supply chain disruption and financial sustainability
- Stringent grant requirements on services, pricing and deployment schedules

One Amphenol's Solution

Pluggable and modular connectivity solutions including feeder cables, multiport drop points and drop cables.

- ✓ $15.22B company | 90+ years of experience | 140,000 employees globally
- ✓ US Manufacturing facilities
- ✓ High-quality, customized, reliable products for critical application
- ✓ Comprehensive range of solutions
- ✓ Continuous R&D for cutting edge technology
- ✓ Global presence for efficient support

OUTSIDE PLANT (OSP)

Pedestals

Series 3 Fiber Pedestal

- Blow molded HDPE
- Square non-split base
- Available in 8' & 10' sizes
- Shorter lead times

Series 2 Fiber Pedestal

- Easy access to branch & drop splice
- Two-piece expanded capacity "split" base
- Lift-off dome provides 360° access
- Shorter lead times

Vault Mount

- Designed for mounting directly to below-grade enclosures (BGE)
- Improves deployment flexibility
- Vault mount base option, ships with all necessary hardware

Charles Multipurpose Housings (CMPH)

- Cost effective fiber splicing option vs. vaults
- Ease of use and servicing
- Copper options available

Broadband Pedestals (Z01, Z02, R02, B04, B05, B06)

- Cost effective environmental housing for fiber terminals
- Available in multiple dome and base sizes
- Multiple stake and bracket options

Vented Broadband Pedestals (Z05/Z06, Z08, Z14)

- Thermally optimized housings for DPUs, OLTs, & active RF devices
- Vertical & horizontal profiles
- Various equipment mounting options

Amphenol BEAD BABAA COMPLIANT

Build with Confidence: BEAD & BABAA Compliant Products

Our products are proudly manufactured in the USA to meet the strict requirements of the Build America, Buy America Act (BABAA) for BEAD-funded products.

Ready to learn more?

Contact our team today to discuss your needs and how our BEAD/BABAA-compliant product solutions can benefit your projects.

Fiber Distribution Hubs

Optical Hub Cabinet (OHC)

- Medium to large deployments
- Intuitive fiber routing in a compact and environmentally protected fiber cabinet
- Accommodates 96, 144, 288, 432, 576 and 864 subscribers
- Can be pad, pole or vault mounted
- Multiple cable entry locations are positioned at the bottom

Optical Broadband Cabinet (OBC)

- Integrated OLT with battery chamber
- Can deliver GPON, EPON, XGS-PON and NG-PON2
- Constructed from powder-coated aluminum
- Grounding bus bar with multiple grounding studs
- Charles Fiber Splitter Modules (CFSM) are available
- Centralized split in a Passive Optical Network (PON)

Fiber Hub Terminals (CFIT-H)

- Small to medium subscriber base
- Distribution up to 144 subscribers
- Slot for up to five splitters for incremental growth
- 1x4, 1x8, 1x16, 1x32 & 1x64 splitters

Fiber Flexibility Pedestals (CFFP)

- Medium to large subscriber base
- Floodproof and can be installed in almost any location
- Available in four sizes with up to 72, 96, 144 and 288 fiber counts
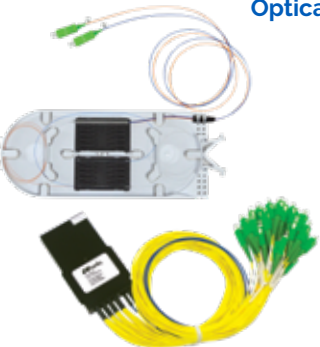- 1x4, 1x8, 1x16, 1x32 & 1x64 splitters

Optical Splitters and TAPs

- Robust lightweight polycarbonate construction
- Universal backplane provides ultimate flexibility
- 1x4, 1x8, 1x16, 1x32 & 1x64 splitters

Optical Splitters and TAPs

- Operating wavelength of 1260-1650 nm
- GR-1221-CORE and GR-1209-CORE compliant
- Splitter modules fits in CFFP, CFIT, CFBT, and OHC
- Splitter and Optical tap trays for BDO, CFDP, CFIT, & FSDC

Splice Trays

- Splice Trays available in 3 sizes

OSP DWDM Node Packs

- Integrated mounting features for versatility – all fiber exits one end
- 4CH and 8CH versions available
- Color coded fibers & wavelength labels
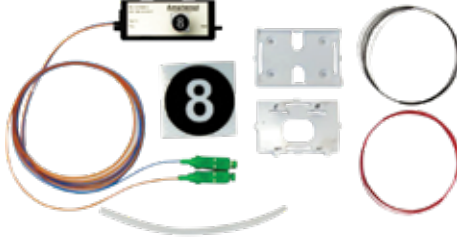- Text, Express, and Upgrade port options

OSP DWDM (HiDT, AOM)

- Flexible form factor supports up to 10 channels per module in HiDT, beyond 10 channels uses AOM
- Compatible with the industry leading enclosures, including the Amphenol Charles Industries FODC-B closure.
- CWDM and DWDM options available for both HiDT and AOM versions

Outdoor TAPs

- Modular Form factor compatible with many industry leading enclosures
- 2-port, 4-port, and 8-port versions available
- Light power levels labeled on each module for easy network planning and design

Discrete Splitters

- Compact form factor allows discrete splitter to fit into standard mass-fusion splice holder, compatible with industry leading enclosures, including the Amphenol Charles Industries FODC-B closure
- Variety of split rations available, from 1x2 up to 1x64
- PLC splitters utilized to provide wide wavelength operating range
- Packaging designed to provide stable optical performance across wide operating temperatures
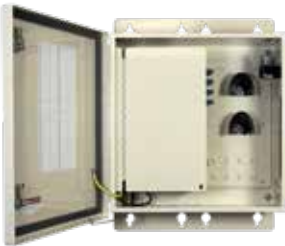
Cabinets & Enclosures

Charles Universal Broadband Enclosures (CUBE)

- Constructed of welded aluminum or steel with a powder coated finish to withstand elements and offer thermal protection
- Can be ordered with integrated equipment to meet your project requirements
- Incorporates design flexibility to customize dimensions and functionality easily

Outdoor & Indoor Network Terminal

Fiber Interconnect Terminals (CFIT)

- CFIT serves up to 192 subscribers
- Splice tray basket (standard or hinged) available on feed and/or drop side
- Constructed of powder-coated aluminum

Flexible Fiber Terminals (CFIT-Flex)

- Wall, pole or pedestal mounted
- Constructed of lightweight and rugged polycarbonate
- Serves up to 48 subscribers

Infinity Premises Enclosure (IPE) NID

- Convenient size in weather resistant high impact thermoplastic alloy
- Self-latching, hinged cover design snaps closed: with padlock
- Optimize space and cost

Fiber Transition Terminals (CFTT)

- Ideal for low-density fiber circuits
- Supports fiber demarcation and slack applications
- 4 and 8 Port models are available

Fiber Building Terminals (CFIT-FLEX STD)

- Robust lightweight polycarbonate construction
- Universal backplane provides ultimate flexibility
- Fiber optic, copper or coaxial distribution point of up to 72 subscribers

BURIED PLANT SOLUTIONS
Below Grade Enclosures & Vaults

Below Grade HDPE Enclosures (CBGE)

- Rated for light-duty placement, pedestrian traffic
- Lightweight, molded polyethylene hand-holes
- Available in four rectangular and two round sizes

Tier-Rated Underground Enclosures (TRUE)

- Rated for non-deliberate vehicular traffic
- Proprietary advanced composite material
- Tier 15 & 22. Lightweight and stackable

Composite Mounting Platform (CPAD)

- Made from durable composite materials
- Lightweight and multiple sizes available
- Same day installation

Combo CPAD

- 30"x48" TRUE split cover
- Seamless installation of Amphenol Charles Industries, CommScope or Corning Fiber Distribution Hubs
- Tier 15 & 22. Lightweight and multiple sizes available

Splice Closure Solutions

Fiber Aerial Solutions (CFAS)

- Sturdy lightweight construction
- Separated splice and drop compartments
- Robust hardware to accommodate cable mounting and routing
- Utilizes standard and/or small Charles Hinged Splice Trays

COMPANY COLOR LEGEND: ▮ Amphenol Charles Industries ▮ Amphenol Fiber Optic Products ▮ Amphenol Network Solutions

Indoor Network Terminal

Optical Distribution Frame

- Cutting-edge solution tailored for efficient and scalable fiber optic cable management
- Built on a 19-inch seismic zone 4 rack, fiber density of up to 3,456 LC terminations
- -Advanced cable management system, featuring 8-inch vertical cable managers and tie-off brackets

Fiber Distribution Chassis

- Full range of high-performance, high-density fiber panels, modules, and accessories
- Fiber portfolio supports pre-terminated panels, Patch and Splice, Patch only, and AOM configurations
- Network flexibility, faster deployment, and cost reduction

Advanced Optical Modules (AOMS)

- High-Density Rack Mount Fiber Supports patching, splicing, MPO Breakout, Splitters, xWDM, and TAPs
- Variety of AOM widths available for different Base-8/Base-12 architectures
- AOMS are available for all fiber panel options

Power Distribution Panels & Monitoring

- Designed to power, protect, and monitor modern network servers and equipment
- Supports up to 600A, catering to diverse power requirements
- In panel nrgSMART™ Technology delivers detailed essential voltage and current monitoring at the circuit level, providing critical information not available with traditional feed-level monitoring

Racks

- Top of the line Seismic Racks
- Custom-configured options that incorporate fiber connectivity and power distribution in one solution
- Two post or 4 post options, 19" and 23"

Cable Management Solutions

- Protect and route your fiber while maintaining proper fiber bend radius
- WaveTrax trough comes in standard six-foot lengths, available in 2", 4", 6", 12" and 24" width
- FlexTrax cable manager offers flexibility and greater ease of access than any other product in the market
- Other solutions are also available to meet any network need.

LGX DWDM Modules

- Industry-Standard LGX mounting width, standard (7") and mini (3") depth available
- Double and Triple housing widths also available for higher channel counts
- Custom port features also available

Indoor Fiber Enclosure

- Low profile design that provides an ideal environment for splicing and patching in MDU applications
- Access door on customer side allows easy cleaning tool access to optical ports
- Bulkhead accepts up to 24 SC or 48 LC adapters as well as passive cassettes

LGX Splitters for MDU Applications

- Thin-LGX and Standard LGX-Mount options available
- Works in a variety of industry-standard wall-mount enclosures
- Split Ratios up to 1x32, uneven split ratios also available

Distribution Boxes

- Ruggedized, compact design, built to accommodate both F/O and DC conductors
- Input and output glands for Hybrid, discrete, or both
- Hinged re-enterable IP67 Box.
- Multiple mounting options such as poles, wall, and ladders

eAMT

- Multi-port Service Terminal with Drop Receptacles
- Pluggable fiber distribution point to connect optical trunk and a subscriber
- Aerial, pedestal, or underground vault mounting options
- Supports universal home network access via P2P or PON architectures
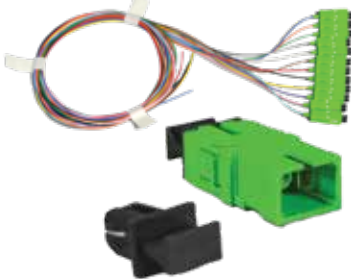- Pigtailed or Pluggable input, 2-12 drop ports, multi-fiber or splitters

Mini AMT

- Multi-port Service Terminal with Pigtailed Drop Ports
- Compact version of the AMT ideal for at-grade or below-grade deployments
- Pigtailed drop fiber connections offer easy access and flexible routing in tight locations
- Supports universal home network access via P2P or PON architectures
- Pigtailed or Pluggable input, 2-12 drop ports, multi-fiber or splitters

CABLES & ACCESSORIES

Optical Components and Accessories

- Pigtails
- Jumpers
- Fanouts
- WDM Modules

Riser Pipes and Wire Guard

- Lightweight, UV stabilized PVC
- Smooth inside surface finish prevents cable snags
- Prevents service calls

Discrete FTTA / PTTA

- Separate trunks for fiber and power
- F/O trunks from BBU to RRU
- DC trunks from BBU to RRU
- Ruggedized, outdoor rated solution, built to endure decades under extreme environmental conditions

Fiber Adapters

- Standard and Shuttered options- SC, LC, MPO, ST, FC
- EMI adapters in straight and angled configurations
- Stackable LC and MPO adapters aggregate a high number of connections in a small footprint

Feeder and Drop Cables

- HFOC & HMFOC Outdoor Plant Jumper Assemblies
- Used for drop and feeder cables
- Fully sealed connection with AMT or Mini AMT
- Compatible with OptiTap®
- Plug or in-line receptacle, breakouts to SC, LC or MPO
- Direct buried, conduit and aerial self-supporting

Node Service Cables

- 5/8-24 Node Service Cables, Straight & 90 degrees
- Extend copper drops life by using HFC Nodes with Node Service cables
- Connects distribution splice point with fiber to CATV Service Node
- 2-24 fibers and Straight/90 degree mounting options support all installation locations
- Unique body and nut design require no secondary sealing or assembly

Pigtail Stub Assemblies

- 12-432 Fiber OSP Pigtail with Breakout to SC, LC or MPO
- Multifiber feeder cable connects main trunk splice point to street cabinet or patch bay
- Commonly installed prior to cabinet mounting for quick placement
- Pre-terminated breakouts eliminate fusion splicing at the cabinet side
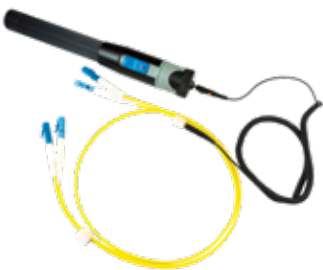- Potted breakouts and ruggedized furcations ensure reliability in extreme conditions

Accessories

- Grounding kits
- Pulling Grips
- Hangers and grommets
- Others

Traceable Fiber Jumpers

- Reduces connection errors in dense environments, enhancing reliability
- Visual indicator at each end for quick identification and alignment
- Minimizes installation and maintenance time, reducing OPEX
- Designed for high-density areas, ensuring performance in intra and inter-bay connections

Federal Funded Broadband Programs - BEAD BABAA Compliance

Amphenol provides high-quality, cost-effective broadband solutions backed by more than 50 years of reliable deployment worldwide. We're well-positioned and ready to help your customers roll out infrastructure projects to improve broadband access in rural and underserved areas across the country.

The One Amphenol Solution combines our expertise and a wide range of FTTH solutions compliant with the Build America, Buy America Act (BABAA). With several manufacturing facilities in the US, working with Amphenol ensures hassle-free sourcing of FTTH solutions that meet BABAA requirements.

If you are working with or seeking BEAD, RDOF, or other government subsidized programs, contact us today to learn how we can help your customers complete their projects on time and under budget.

About the Companies

Amphenol Charles Industries

Charles Industries, LLC is a diversified manufacturer and marketer of high-technology systems for telecommunications, wireless, broadband cable, utility, EV and edge compute markets. Charles supplies a comprehensive line of environmental enclosure solutions for fiber, copper, coax, and wireless backhaul applications. Founded in 1968, Charles has built a solid reputation of product innovation, outstanding customer service, and field-proven performance. Today, Charles' products service the networks of all major North American telecommunications carriers, both wireline and wireless.
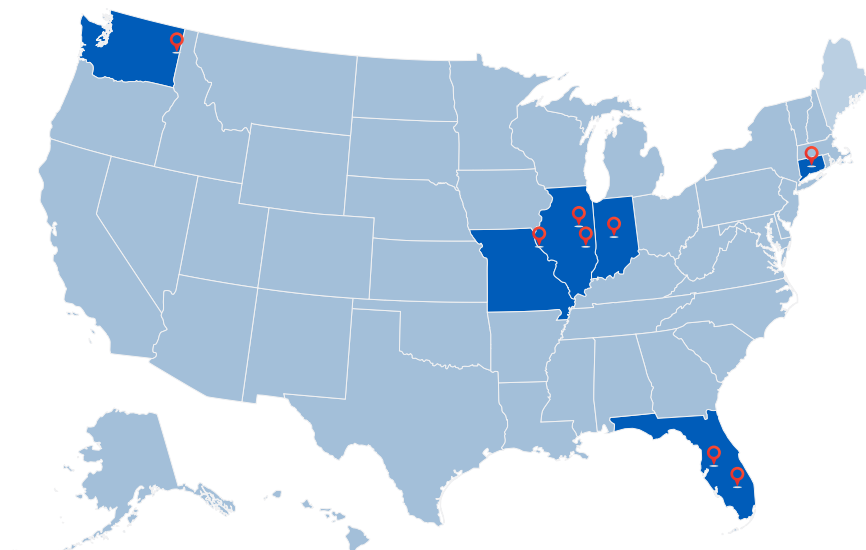
Amphenol Fiber Optic Products

Amphenol Fiber Optic Products provides expertise and solutions in fiber optic interconnect applications, with more than 40 years of experience. Servicing the wireless, IT/datacom, data center and medical markets, Amphenol Fiber Optic Products leads the industry in quality, service, innovation, and customer satisfaction through an unyielding desire to Connect People with Technology.

Amphenol Network Solutions

Amphenol Network Solutions is a global leader in optical management with a 40-year history of creating solutions tailored to the specific needs of customers. Our product lines include optical passives, fiber connectivity, and power distribution, along with network monitoring, wall-mount enclosures, racks, and cable management solutions.

US Manufacturing Plants

Meriden, CT
Okeechobee, FL
Tampa, FL
Whitestown, IN
Casey, IL
Rantoul, IL
Canton, MO
Liberty Lake, WA

About Amphenol

Pioneering Connectivity and Technology Solutions Worldwide

Pioneering Connectivity and Technology Solutions Worldwide, Amphenol stands at the forefront as one of the world's largest providers of high-technology interconnect, sensor, and antenna solutions. With a rich heritage of innovation and excellence, our products are at the heart of the electronics revolution, seamlessly integrating and empowering industries across the globe with capabilities encompassing broadband, enclosures, optics, cables, and antenna solutions.

Our Legacy and Global Reach

Founded in 1932, Amphenol has grown into a global leader, with 140,000 employees worldwide and a presence in over 40 countries across 6 continents. Our journey is marked by our commitment to excellence, pushing the boundaries of technology to connect and protect the world.

Diverse Market Expertise

We cater to a wide range of end markets:

| AUTOMOTIVE | BROADBAND COMMUNICATIONS | COMMERCIAL AEROSPACE | IT AND DATA COMMUNICATIONS | MILITARY | MOBILE DEVICES AND NETWORKS |

Innovation at the Core

At Amphenol, innovation is our ethos

Sustainability & Responsibility

Committed to sustainable, responsible operations

Partnering for a Connected Future

Belief in collaborative, inspiring solutions

Join Us in the Electronics Revolution

Explore Amphenol's Technology Shaping Future

Contact Us Today!

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