Fiber drop cable solutions

Flexible solutions for the evolving networks of tomorrow

North America Region

COMMSCOPE®

Navigating the road to broadband for all

At CommScope, we know network solutions aren't one-size-fits-all. Each network has its own unique challenges. Today, most network providers are constantly seeking solutions that allow them to build out fiber networks quickly and easily in the race to bring high-speed broadband to everyone everywhere.

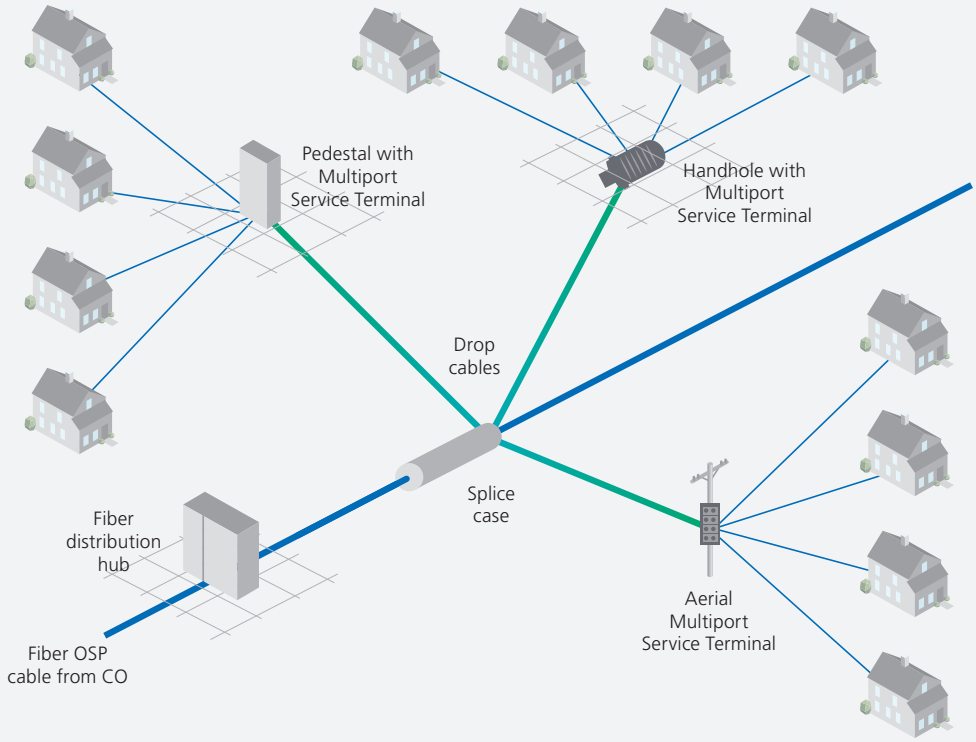
Many providers would agree that only a true fiber-to-the-home (FTTH) solution will meet their customers' demand for bandwidth and next-generation services. What isn't clear to most is how to get to that point. Some providers are extending fiber-optic cables all the way to customers' homes and businesses—replacing the old networks entirely. For other providers, the path isn't clear, and many must employ a number of intermediate steps to get to their final goal. Whatever their path to FTTH, to stay abreast of the demand for bandwidth, providers need speed and flexibility in their equipment solutions more than ever.

Providers need solutions that allow for flexibility and speed

The fiber drop cable connecting the network to the customer's home or business is a critical link. During a typical deployment, a provider might need solutions that work with a wide variety of connections and applications: aerial installations, underground conduit installations, or even in-ground burial. Fiber drop cables must be engineered to withstand the most demanding environmental conditions and mechanical stresses. And, since the drop cable may enter many building types—a single-family home, a multiple tenant unit (MTU) or multiple dwelling unit (MDU), or an office building—providers are well served by a wide range of flexible connections.

Another important consideration for providers: speed of deployment. Quickly connecting subscribers is critical. Many network providers are turning to flexible "plug-and-play" solutions that eliminate the need for fiber cable splicing in the field and accelerate deployments.

Proven solutions for faster connections with your customers



CommScope's fiber drop cable assembly solutions are designed to bring speed and flexibility to network deployments. Each factory-connectorized cable is designed to eliminate time-consuming field splices. Our plug-and-play architecture speeds connections and service turn-up throughout the network.

Designed and tested to perform in rugged outside plant environments, our fiber drop cable assemblies perform under extreme conditions, including sun, heat, cold, moisture, and heavy RF interference. We also offer cables that resist corrosion and meet critical riser and plenum standards for indoor installations.

Since every network is different, our equipment solutions aren't one-size-fits-all. The fiber drop cable portfolio gives providers a wide array of connection possibilities, for nearly every type of installation.

Prodigy®, CommScope's breakthrough hardened connector system, is a universal solution that provides interoperability across different fiber terminals and cable assemblies. Prodigy fiber-optic connectors and adapters are easy and fast to deploy and eliminate the need for fiber splicing.

Along with hardened full-size connectors, CommScope uniquely offers the DLX® miniaturized hardened connector system. Only two-thirds as large as full-size, this patented connector saves space and is ideal on poles and handholes. It fits into tight locations and allows technicians to make smaller holes when passing drops and conduit through walls and other structures. In addition, the HMFOC is available for multifiber cables.

Connector	Minimum hole size for connector*	Physical contact	Maximum Insertion Loss**	Typical Insertion Loss	Reflection	Retention force
Prodigy Connector	0.6 (15.2mm)	Angled polished contact (APC), standard 8 deg. angle	≤ 0.4 dB	≤ 0.12 dB	≤ -65 dB	100 lbs (444.8 N)
Full Size Converter	13/16 in (20.6mm)	Angled polished contact (APC), standard 8 deg. angle	≤ 0.4 dB	≤ 0.12 dB	≤ -65 dB	100 lbs (444.8 N)
DLX Converter	2/3 in (16.9mm)	Angled polished contact (APC), standard 8 deg. angle	≤ 0.4 dB	≤ 0.12 dB	≤ -65 dB	100 lbs (444.8 N)
HMFOC	3/4 in (19.mm)	Angled polished contact (APC), standard 8 deg. angle	≤ 0.45 dB	≤ 0.12 dB	≤ -65 dB	100 lbs (444.8 N)
SC/APC	1/2 in (12.7 mm)	Angled polished contact (APC), standard 8 deg. angle	≤ 0.4 dB	≤ 0.12 dB	≤ -65 dB	15 lbs (66.7 N)
SC/APC Converter	1/2 in (12.7 mm)	Angled polished contact (APC), standard 8 deg. angle	≤ 0.4 dB	≤ 0.12 dB	≤ -65 dB	15 lbs (66.7 N)

* The minimum hole size for inserting a connector. This does not reference conduit size.
** Maximum in random mating at the end of life

Prodigy® small form hardened connector solution

Prodigy, CommScope's newest innovation in hardened connectivity, unlocks the potential of fiber-to-the-home (FTTH) networks with comprehensive solutions that install faster and simpler than ever. Prodigy is a small form hardened connector system for fiber terminals and cable assemblies and is the preferred choice for future-ready networks. Prodigy is universally compatible with multiple hardened fiber connectors—making it a game-changer in plug-and-play FTTH solutions.

With Prodigy, installers don't need a patchwork of cable assemblies and components. The Prodigy connector is compatible in applications that require different styles of hardened fiber connectors—simplifying ordering and improving compatibility between network elements. Customers need only one cable assembly that will include the required different lengths. An installer can simply run a drop cable assembly and convert the Prodigy connector to the required connector in the connection box.

Prodigy enables smaller terminal footprints, is easier to mate and delivers exceptional performance. Designed to withstand rugged outside plant environments, Prodigy meets the speed, density, reliability, flexibility, ease of installation and performance needs of today and tomorrow.

Features and benefits

- Small footprint for high-density environments
- Compatible with multiple hardened connectors
- Converter kit preassembled with the option of preinstallation
- Self-guided automatic alignment minimizes the chance of connection errors
- Cable assemblies are available with flat and universal flat for both dielectric and toneable options
- Built-in sustainability:
  - Reusable core connectors
  - Improved density
  - Fully recyclable
  - Electronic documentation with unique QR code

Cable Type	A-Flat Dielectric	B-Flat Locatable/ Toneable	C-Universal Flat Dielectric	D-Universal Flat Locatable/Toneable	M-Mini Flat Dielectric	N-Mini Flat Locatable/Toneable
Construction type	Non-armored, gel-filled	Non-armored, gel-filled	Non-armored, gel-free	Non-armored, gel-free	Non-armored, gel-free	Non-armored, gel-free
Dimensions	4.5mm x 7.9mm	4.5mm x 9.91mm	4.6mm x 8.00mm	4.6mm x 9.91mm	2.8mm x 5.6mm	2.8mm x 7.6mm
Jacket Material	PE	PE	PE (PVC inner subunit)	PE (PVC inner subunit)	PE	PE
Jacket Color	Black	Black	Black	Black	Black	Black
UV Resistant	Yes	Yes	Yes	Yes	Yes	Yes
Minimum Bend Radius	8.6 cm	8.6 cm	9.2 cm	9.2cm	6.0cm	6.0cm
Operating Temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40 °C to +70 °C	-40 °C to +70 °C

*Single Fiber Only
**Mini Flat available Q4 2025

MHD drop cable series

Another innovation in drop cable technology that's changing the outside plant landscape is our MHD multifiber hardened drop cable. This multifiber cable incorporates 12 optical fibers in a single hardened design, and is terminated with a factory-sealed hardened multifiber fiber-optic connector (HMFOC). This assembly has a 12-fiber MT (mobile terminated) ferrule enclosed in a water-sealed connector housing for outside plant applications.

As with standard MT connectors, the alignment of the two MT ferrules is governed by two high-precision pins. Unlike the standard MPO (multifiber push-on) connector, the style of the connector is not dictated by the pins but determined by the assembly. One connector body, which has the MT ferrule offset deep inside, is referred to as the "jack." The other connector body, which has the MT ferrule positioned on the surface, is referred to as the "plug." Unlike a standard MT connector, jack and plug can be mated directly without an adapter by aligning the two connectors and screwing the coupling nut on the plug to the jack body.

Features and benefits

- Factory terminated and environmentally sealed for optical drop cable deployments
- Hardened connector technology designed to withstand rugged outside plant environments
- Simplifies installation and maintenance by reducing splicing requirements in the distribution network
- Available in breakout assemblies

Figure 1: HMFOC plug/non-pinned/female

Figure 2: HMFOC jack/pinned/male

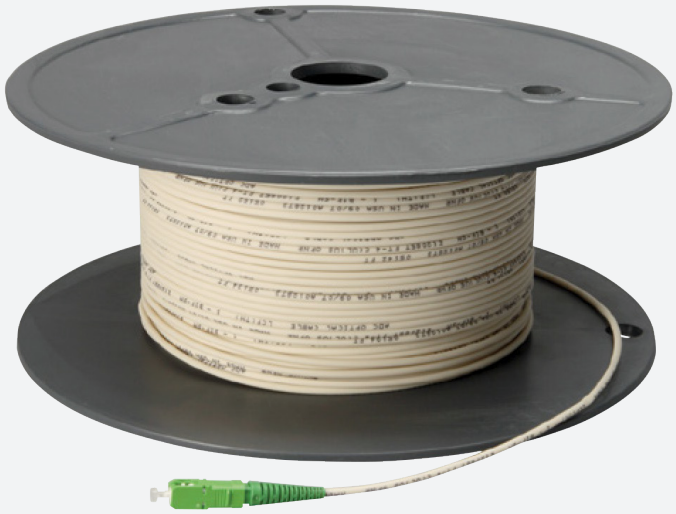
RealFlex 3 Drop Cables

CommScope's RealFlex 3 drop cables are ruggedly designed for maximum flexibility, handling and performance to meet the rigors of inside or outside plant FTTX deployments. RealFlex 3 drop cables are available in Indoor/ Outdoor, Riser and Plenum cable types for use in residential, business or multiple dwelling unit (MDU) structures.

RealFlex 3 drop cables allow for a fiber bend radius as small as 7.5 mm without changing attenuation characteristics of the cable and improve insertion loss (IL) performance for 90 degree bend locations. With the average MDU installation including as many as seven 90 degree turns, this new fiber greatly reduces the risk to bend induced IL during installation. In addition to the improved bend radius performance, the rugged 3mm cable construction provides the flexibility and durability to withstand the most demanding applications.

The rugged 3 mm indoor/outdoor cable can be stapled*, allowing for fast and easy securing of cables to most surfaces. The reduced bend radius glass allows the technician to staple around tight corners without compromising insertion loss performance.

CommScope's RealFlex 3 drop cables provide for quick and easy deployments with increased reliability which allow for fast service turn-up, improved network reach and lower overall network operating and maintenance costs.



Features and benefits

- Cable integrates seamlessly into ONT, wall splice cabinet, fiber splitter box or termination splice box
- Garden or horizontal dwelling units: indoor/outdoor cable used to transition from an outdoor fiber distribution terminal to each indoor living unit
- Mid or high-rise buildings: all three cable types can be used to transfer from an indoor fiber distribution terminal to each individual
- Indoor/outdoor and riser cables are suitable for all OFNR applications; OFNP applications will require plenum cable living unit within a building

Ordering information

Prodigy® Hardened Cable Assembly

HCA– □ □ □ □ – □ □ □ □ □ □

Connector A *

A	Prodigy connector only
B	Bayonet converter factory installed
H	Full-size converter factory installed
X	DLX converter factory installed

Connector B *

0	Stub
A	Prodigy connector only
B	Bayonet converter factory installed
H	Full-size converter factory installed
L	SC/APC
M	SC/APC w/8in Transition (Only USD Cable)
N	SC/UPC
R	LC/APC
S	LC/UPC
X	DLX converter factory installed

Number of fibers

1	One

Special request**

L	Spooled: Connector A deploys first from Spool
R	Spooled: Connector B deploys first from Spool

Unit of measure

F	Foot
M	Meter

Cable lengths***

0050	50 feet
0100	100 feet
1000	1,000 feet
2000	2,000 feet

Cable type****

A	SST dielectric
B	SST toneable
C	USD dielectric
D	USD toneable
M	Mini Flat dielectric
N	Mini Flat toneable

*Additional connector options available upon request. Pulling sock included with non-hardened connectors-25lbs of pulling force.

**Drops are automatically coiled 0 to 1000 ft unless "L" or "R" is specified for the range of length. Drops are automatically spooled at 1,001ft with connector B deploying first from spool. Add "L" to lengths over 1,001ft if Connector A needs to deploy first.

***Cable length shown as an example; additional cable lengths available upon request up to 2,500

****Q4 2025 availability for Mini Flat Cable

Ordering information

FHBD Fiber Hardened Breakout Drop

FHBD – □ □□ □ □□ □ □ – □□□□ F

Connector A

H	Hardened Full Size
J	SC/APC

Connector A Breakout Length*

04	4 feet
08	8 feet

Connector B

0	Stub
J	SC/APC

Connector B Breakout Length*

00	Stub
08	8 feet

Cable lengths**

0050	50 feet
0100	100 feet
0150	150 feet
0200	200 feet
0250	250 feet
0300	300 feet
0400	400 feet
0500	500 feet
0600	600 feet
0800	800 feet
1000	1000 feet

Cable type

A	Flat dielectric
B	Flat toneable

Number of fibers

4	Four fibers

*8ft breakout for SC/APC only

**Standard cable lengths shown. All cable assemblies are coiled.

Ordering information

MHD Drop Cable Series

MHD – □□ D □ – □□□□ □ □

Connector A

F	HMFOC Plug/non-pinned/female
M	HMFOC Jack/pinned/male

Connector B

0	Stub
F	HMFOC Plug/non-pinned/female
M	HMFOC Jack/pinned/male

*Cable length shown as an example; additional cable lengths available in increments of 25 feet up to 3,000 feet. Drops are automatically coiled 0 to 300. Drops are automatically spooled at 301ft with connector A deploying first from the spool.

Special request

R	Spooled: Connector B deploys first from Spool

Unit of measure

F	Feet
M	Meter

Cable lengths*

0025	25 feet
0100	100 feet
1000	1000 feet
3000	3000 feet

Cable type

A	12F flat dielectric
H	12F flat toneable

Ordering information

MHBD Hardened Breakout Drop

MHBD – □ □ □ □ □ – □ □ □ □ □

Connector A

F	HMFOC Plug/non-pinned/female
M	HMFOC Jack/pinned/male

Connector A Breakout

0	N/A
1	36 inches

Connector B

0	Stub
A	6 LC/UPC duplex
B	12 SC/APC
C	12 SC/UPC
K	12 LC/UPC
N	Female MPO (no pin)
P	Male MPO (pinned)

Connector B Breakout

0	No breakout
1	28 inches
2	17 inches

Unit of measure

F	Feet
M	Meter

Cable lengths*

0050	50 feet
0100	100 feet
1000	1000 feet
2000	2000 feet

Cable type

A	12F flat dielectric
C	24F flat dielectric

*Cable length shown as an example; Cable type A available up to 3000 ft. Cable type H available up to 2000 ft. Drops are automatically coiled 0 to 300. Drops are automatically spooled at 301ft with connector B deploying first from the spool.

Ordering information

RealFlex 3 Series

MDC – □□□□ – □□□□□□

Connector A

J	SC/APC
N	SC/UPC
K	LC/APC
M	LC/UPC

Connector B

0	Stub
J	SC/APC
N	SC/UPC
K	LC/APC
M	LC/UPC

Number of fibers

1	One

Cable type (RBR)

Reduced Bend Radium

G	RBR Plenum Ivory
H	RBR Riser Ivory

Spool option*

J	Standard spool

Unit of measure

F	Feet
M	Meter

Cable lengths**

004	4 feet
0010	10 feet
0050	50 feet
0100	100 feet
0150	150 feet
0200	200 feet
0250	250 feet
1500	1500 feet (max)

*Drops are automatically coiled 0-350 ft. Lengths 351+ are automatically spooled. Connector A deploys first.

**Cable length shown as an example; additional cable lengths available upon request up to 1500 ft

Accessories

Fiber drop cable assembly accessories and test cables	
MID	**Description**
760252078	HCA-ACC-BAYONET-CVTR (converter for Prodigy connector to bayonet connector)
760255490	HCA-ACC-FEMALE-BAYONET-CVTR (converter for Prodigy connector to female bayonet connector)
760252079	HCA-ACC-FULLSIZE-CVTR (converter for Prodigy connector to full-size connector)
760255254	HCA-ACC-FEMALE-FULLSIZE-CVTR (converter for Prodigy connector to female full-size connector)
760252080	HCA-ACC-DLX-CVTR (converter for Prodigy connector to DLX connector)
760252081	HCA-ACC-SCAPC-CVTR (converter for Prodigy connector to SC/APC connector)
460201619	Prodigy Fiber Optic Cleaner
760255889	HCA-ACC-3mm Test Lead 10 ft, Prodigy to SC/APC (includes full size and DLX converters)
760255888	HCA-ACC-3mm Test Lead 20 ft, Prodigy to SC/APC (includes full size and DLX converters)
760258038	HCA-ACC-3mm Test Lead 40FT, Prodigy to SC/APC (includes full size and DLX converters)
760258039	HCA-ACC-3mm Test Lead 50FT, Prodigy to SC/APC (includes full size and DLX converters)
MHD-ACC-F12J	HMFOC plug/non-pinned/female to 12 SC/APCs, 3 feet
MHD-ACC-M12J	HMFOC jack/pinned/male to 12 SC/APCs, 3 feet

760252078

760255490

760252079

760255254

760252080

760252081

460201619

Engineering the future of broadband

Service providers across North America trust CommScope for complete, end-to-end Fiber-to-the-Home (FTTH) solutions that optimize broadband deployments with reliable quality. Our proven, innovative technologies help deploy faster, simplify management and scale to meet the demands of modern connectivity, advancing Broadband For Everyone™ solutions. Backed by 50 years of U.S.-based expertise and offering Build America, Buy America (BABA)–compliant products tailored to today's standards, CommScope empowers providers to deliver future-ready networks while maximizing cost efficiency and supporting long-term value.

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