

We build, connect, power and protect the world.

# Optical Fiber

CORNING

The Utility Grade Infrastructure (UTG) program has been developed alongside our world-class global supplier partners. These UTG-rated components from Corning enable you to support the continual evolution and convergence of technology in today's state-of-the-art building environments.

## Product Overview

Corning's UTG solutions provide a common infrastructure platform optimized for operational technology and high-performance applications. The fiber recommendations in this document complement a full UTG solution.

## Construction and Performance

### Inter-Building Convergence Zone (Building-to-Building)

Utilized to connect two or more buildings together, it is a recommended UTG best practice to install single-mode optical fiber for inter-building environments.

### UTG Optical Fiber Tier I

#### Duct installation

MiniXtend® cable with Binderless FastAccess® technology (all dielectric outdoor-rated loose tube microcable) with microduct system (4-position microduct minimum); best used in conjunction with pigtailed splice cassette termination methods.

#### Specifications and Value

- SMF-28® Ultra Optical Fiber (exceeds standards of ITU-T G.657.A1/G.652.D)
- Simplifies scalability with minimal interruption
- Unique to Corning is a peelable jacket that improves installation time and safety since no blade is required (unique to Corning)

# Utility Grade Infrastructure

Corning Part #	Anixter Part #	Product Details
012ZM4-T4F22A20	372-COROS2-LTDMX-12	MiniXtend® cable with Binderless* FastAccess® technology, 12F (all dielectric outdoor-rated loose tube microcable)
024ZM4-T4F22A20	372-COROS2-LTDMX-24	MiniXtend® cable with Binderless* FastAccess® technology, 24F (all dielectric outdoor-rated loose tube microcable)
048ZM4-T4F22A20	372-COROS2-LTDMX-48	MiniXtend® cable with Binderless* FastAccess® technology, 48F (all dielectric outdoor-rated loose tube microcable)
072ZM4-T4F22A20	372-COROS2-LTDMX-72	MiniXtend® cable with Binderless* FastAccess® technology, 72F (all dielectric outdoor-rated loose tube microcable)
144ZM4-T4F22A20	372-COROS2-LTDMX-144	MiniXtend® cable with Binderless* FastAccess® technology, 144F (all dielectric outdoor-rated loose tube microcable)
CCH-CS12-A9-P00RE	474222	Pigtailed splice cassettes, 12F, SFM-28 fiber, LC connector



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# Utility Grade Infrastructure

## Optical Fiber

### UTG Optical Fiber Tier II

FREEDM® loose tube, gel-free cable, riser (dielectric indoor/outdoor; 250um coated fibers); best used in conjunction with pigtailed splice cassette termination methods.

FREEDM® One tight-buffered cable, riser (dielectric indoor/outdoor; 900um coated fibers); best used in conjunction with direct termination methods (UniCam® or FuseLite® connector).

Corning Part #	Anixter Part #	Product Details
024E8F-31131-29	373-COR8.3-TBRD-24	FREEDM® unitized one cable, 24F, riser rated, dielectric indoor/outdoor tight-buffered cable - 900um coated fibers, single-mode (OS2)
048E8F-61131-29	373-COROS2-TBRD-48	FREEDM® unitized one cable, 48F, riser rated, dielectric indoor/outdoor tight-buffered cable - 900um coated fibers, single-mode (OS2)
072E8F-T3131-29	373-COROS2-TBRD-72	FREEDM® unitized one cable, 72F, riser rated, dielectric indoor/outdoor tight-buffered cable - 900um coated fibers, single-mode (OS2)
096E8F-Y3131-29	373-COROS2-TBRD-96	FREEDM® unitized one cable, 96F, riser rated, dielectric indoor/outdoor tight-buffered cable - 900um coated fibers, single-mode (OS2)
144E8F-Y3131-29	373-COROS2-TBRD-144	FREEDM® unitized one cable, 144F, riser rated, dielectric indoor/outdoor tight-buffered cable - 900um coated fibers, single-mode (OS2)
95-200-99	338908	UniCam® high-performance connector, LC, single-mode (OS2)
SOC-LCU-900-SM	603662	FuseLite® connector, LC, 900µm tight-buffered, single-mode (OS2) UPC
024EUF-T4101D20	371-COR8.3-LTD-24	FREEDM® loose tube, 24F, riser rated, dielectric indoor/outdoor gel-free loose tube cable - 250um coated fibers, single-mode (OS2)
048EUF-T4101D20	373-COR8.3LTD-48	FREEDM® loose tube, 48F, riser rated, dielectric indoor/outdoor gel-free loose tube cable - 250um coated fibers, single-mode (OS2)
072EUF-T4101D20	373-COR8.3LTD-72	FREEDM® loose tube, 72F, riser rated, dielectric indoor/outdoor gel-free loose tube cable - 250um coated fibers, single-mode (OS2)
CCH-CS12-A9-P00RE	474222	Pigtailed splice cassettes, 12F, single-mode (OS-2) fiber, LC connector



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## Intra-Building Convergence Zone (Floor-to-Floor)

Utilized to connect two or more areas or floors within a building. UTG best practice recommends singlemode for a Tier I solution and multimode for a Tier II solution.

### UTG Optical Fiber Tier I Solution:

MIC® 250 2.0 distribution cable, plenum or MIC® 250 2.0 interlocking armored cable, plenum (interlocking armor/dielectric loose tube indoor distribution cable - plenum 250um coated fibers); best used in conjunction with pigtailed splice cassette termination methods.

### Specifications and Value

- Better fiber protection
- Individual jackets per fiber grouping are easy to dress
- No disruption with MAC

Corning Part #	Anixter Part #	Product Details
012ZD9-T1301-M2	370-COROM4-LT250-12	MIC® 250 2.0 cable, 12F, Single-mode OS2
024ZD9-T1301-M2	370-COROM4-LT250-24	MIC® 250 2.0 cable, 24F, Single-mode OS2
048ZD9-T1301-M2	370-COROM4-LT250-48	MIC® 250 2.0 cable, 48F, Single-mode OS2
048ZD9-T1301-M2	370-COROM4-LT250-72	MIC® 250 2.0 cable, 72F, Single-mode OS2
144ZD9-T1301-M2	370-COROM4-LT250-144	MIC® 250 2.0 cable, 144F, Single-mode OS2
012ZD9-T1301-MA	370-COROM4-LTA250-12	MIC® 250 2.0 interlocking armored cable, 12F, Single-mode OS2
024ZD9-T1301-MA	370-COROM4-LTA250-24	MIC® 250 2.0 interlocking armored cable, 24F, Single-mode OS2
048ZD9-T1301-MA	370-COROM4-LTA250-48	MIC® 250 2.0 interlocking armored cable, 48F, Single-mode OS2
072ZD9-T1301-MA	370-COROM4-LTA250-72	MIC® 250 2.0 interlocking armored cable, 72F, Single-mode OS2
144ZD9-T1301-MA	370-COROM4-LTA250144	MIC® 250 2.0 interlocking armored cable, 144F, Single-mode OS2
CCH-CS12-A9-P00RE	669212	CCH Pigtailed splice cassettes, 12F, LC UPC, Single-mode OS2

### UTG Optical Fiber Tier II Solution:

MIC® tight-buffered cable, plenum or MIC® tight-buffered interlocking armored cable, plenum (interlocking armored/dielectric, tight-buffered indoor cable - plenum - 900um coated fibers); best used in conjunction with direct termination methods (UniCam® or FuseLite® connector).

Corning Part #	Anixter Part #	Product Details
006T88-31190-29	370-COROM4-TBD-06	MIC® tight-buffered cable, 6F, 50µm multimode (OM4), plenum
012T88-33190-29	370-COROM4-TBD-12	MIC® tight-buffered cable, 12F, 50µm multimode (OM4), plenum
024T88-33190-29	370-COROM4-TBD-24	MIC® tight-buffered cable, 24F, 50µm multimode (OM4), plenum
006T88-31190-A3	370-COROM4-TBA-06	MIC® tight-buffered cable interlocking armored cable, 6F, 50µm multimode (OM4), plenum
012T88-33190-A3	370-COROM4-TBA-12	MIC® tight-buffered cable interlocking armored cable, 12F, 50µm multimode (OM4), plenum
024T88-33190-A3	370-COROM4-TBA-24	MIC® tight-buffered cable interlocking armored cable, 24F, 50µm multimode (OM4), plenum
95-050-99-X	338911	UniCam® high-performance connector, LC, 50µm multimode (OM3/OM4 compatible)
SOC-LC-900-OM4	603682	FuseLite® connector, LC, 900µm tight-buffered, 50µm multimode (OM2/3/4)



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**Extended-Edge Convergence Zone (Hybrid)**

Utilized to extend the distances of devices on the network beyond the standard distances of traditional cabling solutions. It is a recommended UTG best practice to install combined optical fibers for connectivity and copper conductors for power as a common cable.

**UTG Optical Fiber Tier I Solution:**

2F/2Cu conductor for feeding multiple devices off one cable or high-power devices 4-6F/4Cu conductor – available up to 24F/6Cu conductors minimum copper gauge.

- Indoor applications – 20 AWG (always verify power load and distance requirements before selecting product)
- Indoor/outdoor applications – 16 AWG (always verify power load and distance requirements before selecting product); power rating: minimum 300 VAC

**Specifications and Value**

- Provides data and power connectivity to distances greater than 2,000 ft.
- Allows centralized power distribution, which enables centralized power backup
- Supports PoE, PoE+ and PoE++ (rated up to 300 VAC)

**Cable Types**

- ActiFi® composite cable, tight-buffered, indoor, plenum; best used in conjunction with direct termination methods (UniCam® or FuseLite® connector)
- ActiFi composite cable, loose tube, indoor/outdoor FREEDM® riser; best used in conjunction with pigtailed splice cassette termination methods

(Reel in a box options available for easier installations)

Corning Part #	Anixter Part #	Product Details
002Z48-21Z31M29	371-COROS2-TB20AWG-2	SM OS2 ActiFi™ composite cable, tight-buffered, indoor, plenum, 2F/2Cu conductor, 20 AWG
006ZT8-41Y01M20	10056072	SM OS2 , ActiFi™ composite cable, loose tube, indoor, plenum, 6F/4Cu conductor, 16 AWG
012ZT8-M1Y01M20	370-COROS2LT16AWG-12	SM OS2 ActiFi™ composite cable, loose tube, indoor, plenum, 12F/12Cu conductor, 16 AWG
002ZDF-41W01M20	373-COROS2-LT12AWG-2	SM OS2 ActiFi™ composite cable, loose tube, indoor/outdoor, FREEDM® riser, 2F/4Cu conductor, 12 AWG
006ZTF-61Y01M20	373-COROS2-R16AWG-6	SM OS2 ActiFi™ composite cable, loose tube, indoor/outdoor, FREEDM® riser, 6F/6Cu conductor, 16 AWG
006ZTF-41Y01M20	373-COROS2-R16AWG-06	SM OS2 ActiFi™ composite cable, loose tube, indoor/outdoor, FREEDM® riser, 6F/4Cu conductor, 16 AWG
002Z48-21Z31MB2	370-COROS2-TB20AWG-2	SM OS2 Reel in a Box, AWG ActiFi™ composite cable, tight-buffered, indoor, plenum, 2F/2Cu conductor, 20AWG, 1,000 ft.

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