OEM-решения
Технические характеристики

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Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
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OEM Optical Communication Solutions

Let's innovate and collaborate to solve your toughest optical platform and network challenges

Corning Original Equipment Manufacturer (OEM) is a global leader in optical physics, precision manufacturing and material science to improve efficiencies, reduce cost, and develop high-tech customized optical, micro-optic, electro-optical, and opto-mechanical connectivity solutions for equipment manufacturers, aerospace and defense communities, and industrial networks.

As a global leader and trusted supplier our knowledge becomes part of your expertise. We actively engage your product teams to assist with product designs, feature selections, future-ready roadmaps, service, and delivery strategies, and we support all aspects of aftermarket sales and services to ensure your customer's total satisfaction.

Optical Products & Solutions

Active Optical Cables

Compared to copper cables, Thunderbolt™ and USB 3.Optical™ Cables by Corning are up to 20 times longer, 50% thinner and 80% lighter, allowing you to transform your cluttered working environment.

Optical Communication Components

Corning has you covered for with a quality line up of Optical Communication Components spanning Specialty Fiber, Wavelength Management, Variable Optical Attenuators, Fiber Arrays, plus Couplers and Splitters.

Optical Connectivity Products

Corning is a premier supplier of high-performance standards-based connectivit components and specialized solutions for area network (LAN) and Data Center (DC) applications.

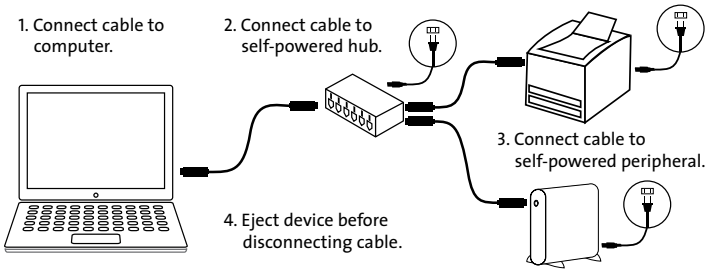
OPTICAL CABLES®

USB 3.Optical™ Cables

Optical Cables by Corning unleash The Brilliance of Light™ to connect computers and devices at incredible speed and over longer distances. They're thin, light and remarkably tough – Optical Cables by Corning can be bent, squeezed, and tangled.

- 5 Gb/s data rate
- Compatible with most USB 3.0 and 2.0 devices
- Ultra-slim, "zero-bend" radius cable
- Requires no external power supply to extend USB device reach
- Hot swappable
- Built-in overcurrent protection
  For use with self-powered peripherals only.

Connection Diagram



Part Numbers	Description
AOC-ACS2CVA010M20	USB 3.Optical Cable, A plug to A receptacle, 10 m
AOC-ACS2CVA015M20	USB 3.Optical Cable, A plug to A receptacle, 15 m
AOC-ACS2CVA030M20	USB 3.Optical Cable, A plug to A receptacle, 30 m
AOC-ACS2CVA050M20	USB 3.Optical Cable, A plug to A receptacle, 50 m

Longer.

Thinner.

Lighter.

Stronger.

than comparable copper cables.

Specifications

Distance
Computer/Host to Device: Up to 50 m/165 ft

Connector
Type A Plug to Type A Receptacle

Environmental
Operating Temperature: 0° to 45°C (32° to 113°F)

Compliance
Emissions: FCC Class (B), CE
Regulatory: RoHS, UL 758, AWM VW-1
Maximum Cable Tensile Strength: 33 lbs
Eye Safety: Class 1 Laser Product per IEC 60825-1
UL Listing Mark: Meets Safety Requirements – Category AOC

Available Cable Lengths
10 m/33 ft, 15 m/50 ft, 30 m/100 ft, 50 m/165 ft

For use with self-powered peripherals only.

CORNING

Thunderbolt™ 3 Optical Cable (40 Gb/s)

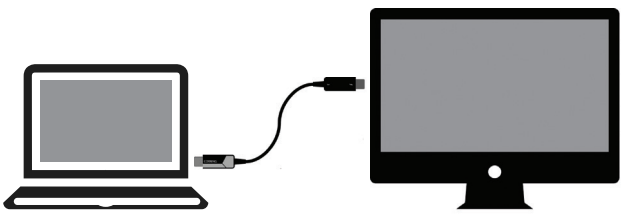
Corning's Thunderbolt™ 3 optical cables enable high-speed connectivity over longer distances. They are thin, light, and remarkably tough, while simultaneously supporting high-performance data devices and increased resolution displays.

- 40 Gbps Thunderbolt 3
- Flippable and reversible connectors
- Daisy chain multiple Thunderbolt devices
- All-dielectric cable provides enhanced galvanic isolation
- Robust cable design with improved abrasion resistance
- All new thermal shutdown – protects internal components from long-term exposure to elevated temperatures
- Supports one 5K display or two 4K displays
- No driver software required

Connection Diagram

1. Connect cable to computer

2. Connect cable to self-powered peripheral



3. Eject device before disconnecting cable

Part Numbers	Description
AOC-CCU6JPN005M20	Thunderbolt 3 USB-C Optical Cable, 5 m
AOC-CCU6JPN010M20	Thunderbolt 3 USB-C Optical Cable, 10 m
AOC-CCU6JPN015M20	Thunderbolt 3 USB-C Optical Cable, 15 m
AOC-CCU6JPN025M20	Thunderbolt 3 USB-C Optical Cable, 25 m
AOC-CCU6JPN050M20	Thunderbolt 3 USB-C Optical Cable, 50 m

Detailed Information

Distance
Computer/Host to Device: Up to 50 m

Connector
Type-C

Power
For use with self-powered peripherals and Thunderbolt 3 ports only

Environmental and Mechanical
Dimensions (W x D x H): (12.4 x 34.9 x 6.5 mm)
Max. cable tensile strength: 100N (22 lbs)
Operating temperature: 0°C to 50°C (32°F to 122°F)

Compliance
Eye safety: Class 1 laser product per IEC 60825-1:2014
Emissions: FCC Class (B), CE
Regulatory: RoHS 3

Compatibility
Corning recommends only using Thunderbolt 3 optical cables with macOS®
Does not support native USB or DisplayPort
Does not provide bus power

Available Cable Lengths
5 m (16 ft), 10 m (33 ft), 15 m (49 ft),
25 m (82ft), 50 m (165 ft)

OPTICAL CABLES®

Thunderbolt™ Optical Cables

Optical Cables by Corning unleash The Brilliance of Light™ to connect computers and devices at incredible speed and over longer distances. They're thin, light, and remarkably tough – Optical Cables by Corning can be bent, squeezed, and tangled.

- 10 Gb/s bi-directional, dual channel with Thunderbolt™
- 20 Gb/s bi-directional, when used with a Thunderbolt 2 host and Thunderbolt 2 devices
- Data and video on a single cable
- Daisy-chain up to six Thunderbolt devices
- Ultra-slim, zero-bend radius cable
- Hot swappable
- Electrically isolated, noise-reducing design

For use with self-powered peripherals only

Longer.

Thinner.

Lighter.

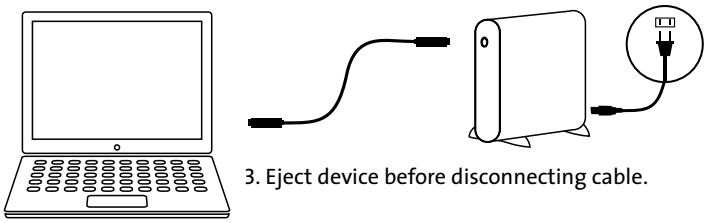
Stronger.

than comparable copper cables.

Connection Diagram

1. Connect cable to computer.

2. Connect cable to self-powered peripheral.



3. Eject device before disconnecting cable.

Part Numbers	Description
AOC-MMS4CVP5-5M20	Thunderbolt Optical Cable, 5.5 m
AOC-MMS4CVP010M20	Thunderbolt Optical Cable, 10 m
AOC-MMS4CTP030M20	Thunderbolt Optical Cable, 30 m
AOC-MMS4CTP060M20	Thunderbolt Optical Cable, 60 m

Specifications

Distance

Computer/Host to Device: Up to 60 m

Connector

Mini DisplayPort

Environmental

Operating Temperature: 0° to 45°C (32° to 113°F)

Compliance

Emissions: FCC Class (B), CE

Regulatory: RoHS, UL 758, AWM VW-1

Maximum Cable Tensile Strength: 33 lbs

Eye Safety: Class 1 Laser Product per IEC 60825-1

UL Listing Mark: Meets Safety Requirements – Category AOC

Available Cable Lengths

5.5m/18 ft., 10 m/33 ft., 30 m/100 ft., 60 m/200 ft.

For use with self-powered peripherals only

Thunderbolt Certified

SpectraMux® Compact CWDM

SpectraMux® Compact CWDM

Corning's compact coarse wavelength division multiplexers (CCWDMs) are integrated optical modules using Corning's free-space optical platform. In a package less than one-fourth the size of conventional CWDM modules, these CCWDMs significantly improve optical performance, while reducing manufacturing costs. The CCWDM mux/demux is available in 4- or 8-channels, and can include an expansion port for 16-channel applications. Custom configurations are available upon request.

Applications

- Broadband Networks
- Optical Add/Drop Multiplexing
- Telecommunications Networks
- Metro Networks

Features

- Low Insertion Loss
- Telcordia 1209/1221 Qualified
- Express Channel Available
- Ultra Stable and Highly Reliable
- Extended Operating Temperature Available

SpectraMux® – Compact Coarse WDM (Four Channel)

CORNING

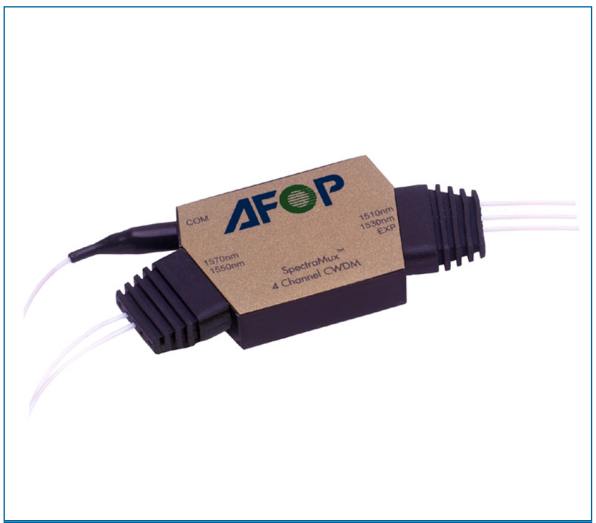
Features and Benefits

- <1.5 dB Insertion Loss
- Bi - Directional
- Express Channel Available
- Epoxy-Free Optical Path
- Ultra Stable & Highly Reliable
- Extended Operating Temperature Available

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the new SpectraMux® Compact Coarse WDM (CCWDM) family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. The CCWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmissions. Custom wavelengths and channel configurations are available.



SpectraMux® – Compact Coarse WDM (Four Channel)

CORNING

SpectraMux® – Compact Coarse WDM (Four Channel)

CORNING

Specifications

Parameters (Four-Channel)	Minimum	Typical	Maximum
Center Wavelength λc		1291, 1311, 1331, 1351 nm 1471, 1491, 1511, 1531 nm or 1511, 1531, 1551, 1571 nm or 1551, 1571, 1591, 1611 nm	
Pass Channel Insertion Loss		1.0 dB	1.5 dB
Express Channel Insertion Loss (Optional)			1.5 dB
Passband Width	13 nm	15 nm	
Passband Flatness		0.2 dB	0.3 dB
Adjacent Channel Isolation	30 dB	40 dB	
Non-Adjacent Channel Isolation	45 dB	50 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	55 dB		
PDL			0.2 db
PMD			0.2 ps
Maximum Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	
*Specifications do not include connector loss			

Packaging Dimensions	Fiber Type	Pigtail Length
41 mm x 28 mm x 6 mm	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1 m (Standard)

SpectraMux® – Compact Coarse WDM (Four Channel)

CORNING

Ordering Information

SpectraMux® – Compact Coarse WDM (Four Channel)

C W 4 - □ 1 8 □ - □ □ □ □
1 2 3 4 5

1 Select Mux or DeMux
1: Mux
2: DeMux

2 Select Connector
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

3 Select ITU Starting Wavelength
1: 1471 nm
3: 1511 nm
5: 1551 nm
9: Custom

4 Select Optional Channel
0: No Express
1: With Express

5 Select Customization
00: Standard

Running number used for special types or custom made

SpectraMux® – Compact Coarse WDM (Four Channel Low Loss)

CORNING

Features and Benefits

<1.0 dB Insertion Loss
Bi - Directional
Express Channel Available
Epoxy-Free Optical Path
Ultra Stable & Highly Reliable

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the new SpectraMux® Compact Coarse WDM (CCWDM) family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. The CCWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmissions. Custom wavelengths and channel configurations are available.

SpectraMux® – Compact Coarse WDM (Four Channel Low Loss)

SpectraMux® – Compact Coarse WDM (Four Channel Low Loss)

CORNING

Specifications

Parameters (Four-Channel Low Loss)	Minimum	Typical	Maximum
Center Wavelength λc		1471, 1491, 1511, 1531 nm or 1511, 1531, 1551, 1571 nm or 1551, 1571, 1591, 1611 nm	
Pass Channel Insertion Loss		0.6 dB	1.0 dB
Express Channel Insertion Loss (Optional)			1.0 dB
Passband Width	13 nm	15 nm	
Passband Flatness		0.2 dB	0.3 dB
Adjacent Channel Isolation	30 dB	40 dB	
Non-Adjacent Channel Isolation	45 dB	50 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	55 dB		
PDL			0.2 db
PMD			0.2 ps
Maximum Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	
*Specifications do not include connector loss			

Packaging Dimensions	Fiber Type	Pigtail Length
41 mm x 28 mm x 6 mm	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1 m (Standard)

SpectraMux® – Compact Coarse WDM (Four Channel Low Loss)

CORNING

Ordering Information

SpectraMux® – Compact Coarse WDM (Four Channel Low Loss)

C W 4 - □ 9 3 □ - □ □ □ □
1 2 3 4 5

1 Select Mux or DeMux
1: Mux
2: DeMux

2 Select Connector
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

3 Select ITU Starting Wavelength
1: 1471 nm
3: 1511 nm
5: 1551 nm
9: Custom

4 Select Optional Channel
0: No Express
1: With Express

5 Select Customization
00: Standard

Running number used for special types or custom made

SpectraMux® – Compact Coarse WDM (Eight Channel)

CORNING

Features and Benefits

- <2.0 dB Insertion Loss
- Bi - Directional
- Express Channel Available
- Epoxy-Free Optical Path
- Ultra Stable & Highly Reliable
- Extended Operating Temperature Available

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the new SpectraMux® Compact Coarse WDM (CCWDM) family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. The CCWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmissions. Custom wavelengths and channel configurations are available.

SpectraMux® – Compact Coarse WDM (Eight Channel)

SpectraMux® – Compact Coarse WDM (Eight Channel)

CORNING

Specifications

Parameters (Eight-Channel)	Minimum	Typical	Maximum
Center Wavelength λc		1471, 1491, 1511, 1531 nm 1551, 1571, 1591, 1611 nm	
Pass Channel Insertion Loss		1.5 dB	2.0 dB
Express Channel Insertion Loss (Optional)			1.5 dB
Passband Width	13 nm	15 nm	
Passband Flatness		0.2 dB	0.3 dB
Adjacent Channel Isolation	30 dB	40 dB	
Non-Adjacent Channel Isolation	45 dB	50 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	55 dB		
PDL			0.2 dB
PMD			0.2 ps
Maximum Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	
*Specifications do not include connector loss.			

Packaging Dimensions	Fiber Type	Pigtail Length
41 mm x 28 mm x 6 mm	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1 m (Standard)

SpectraMux® – Compact Coarse WDM (Eight Channel)

CORNING

Ordering Information

SpectraMux® – Compact Coarse WDM (Eight Channel)

C W 4 - □ 2 8 3 - □ 3 □ □ □

1 2 3 4

1 Select Mux or DeMux
1: Mux
2: DeMux

2 Select Connector
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

3 Select Optional Channel
0: No Express
1: With Express

4 Select Customization
00: Standard

Running number used for special types or custom made

SpectraMux® – Compact Coarse WDM (Eight Channel Low Loss)

CORNING

Features and Benefits

<1.5 dB Insertion Loss
Bi - Directional
Express Channel Available
Epoxy-Free Optical Path
Ultra Stable & Highly Reliable

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the new SpectraMux® Compact Coarse WDM (CCWDM) family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. The CCWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmissions. Custom wavelengths and channel configurations are available.

SpectraMux® – Compact Coarse WDM (Eight Channel Low Loss)

SpectraMux® – Compact Coarse WDM (Eight Channel Low Loss)

CORNING

Specifications

Parameters (Eight-Channel Low Loss)	Minimum	Typical	Maximum
Center Wavelength λc		1471, 1491, 1511, 1531 nm 1551, 1571, 1591, 1611 nm	
Pass Channel Insertion Loss		1.0 dB	1.5 dB
Express Channel Insertion Loss (Optional)		1.0 dB	
Passband Width	13 nm	15 nm	
Passband Flatness	0.3 dB		
Adjacent Channel Isolation	30 dB	40 dB	
Non-Adjacent Channel Isolation	45 dB	50 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	55 dB		
PDL			0.2 db
PMD			0.2 ps
Maximum Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	
*Specifications do not include connector loss			

Packaging Dimensions	Fiber Type	Pigtail Length
41 mm x 28 mm x 6 mm	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1 m (Standard)

SpectraMux® – Compact Coarse WDM (Eight Channel Low Loss)

CORNING

Ordering Information

SpectraMux® – Compact Coarse WDM (Eight Channel Low Loss)

C W 4 - □ 2 9 3 - □ 3 □ □ □

1 2 3 4

1 Select Mux or DeMux
1: Mux
2: DeMux

2 Select Connector
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

3 Select Optional Channel
0: No Express
1: With Express

4 Select Customization
00: Standard

Running number used for special types or custom made

SpectraMux® – Compact Coarse WDM (Eight Channel Ultra Thin Low Loss)

CORNING

Features and Benefits

- <1.5 dB Insertion Loss
- Bi - Directional
- Express Channel Available
- Epoxy-Free Optical Path
- Ultra Stable & Highly Reliable
- Extended Operating Temperature Available

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the new Ultra Thin Low Loss Compact CWDM. This version maintains the proven performance and advantages of the original, but is only 6 mm high. The Thin Pack design is ideal for closely spaced board mounting or for direct use in 0.25 inch high splice trays. These units are available in 4- or 8-channel versions. Custom wavelengths and packages also are available.

SpectraMux® – Compact Coarse WDM (Eight Channel Ultra Thin Low Loss)

SpectraMux® – Compact Coarse WDM (Eight Channel Ultra Thin Low Loss)

CORNING

Specifications

Parameters (Eight-Channel Ultra Thin Low Loss)	Minimum	Typical	Maximum
Center Wavelength λc		1471, 1491, 1511, 1531 nm or 1551, 1571, 1591, 1611 nm	
Pass Channel Insertion Loss		1.0 dB	1.5 dB
Express Channel Insertion Loss (Optional)			1.0 dB
Passband Width	13 nm	15 nm	
Passband Flatness		0.2 dB	0.3 dB
Adjacent Channel Isolation	30 dB	40 dB	
Non-Adjacent Channel Isolation	45 dB	50 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	50 dB		
PDL			0.2 db
PMD			0.2 ps
Maximum Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	
*Specifications do not include connector loss.			

Packaging Dimensions	Fiber Type	Pigtail Length
41 mm x 28 mm x 6 mm	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1 m (Standard)

SpectraMux® – Compact Coarse WDM (Eight Channel Ultra Thin Low Loss)

CORNING

Ordering Information

SpectraMux® – Compact Coarse WDM (Eight Channel Ultra Thin Low Loss)

C W 4 - □ 2 9 3 - □ 2 □ □ □ □

1 2 3 4 5

1 Select Mux or DeMux
1: Mux
2: DeMux

2 Select Connector
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

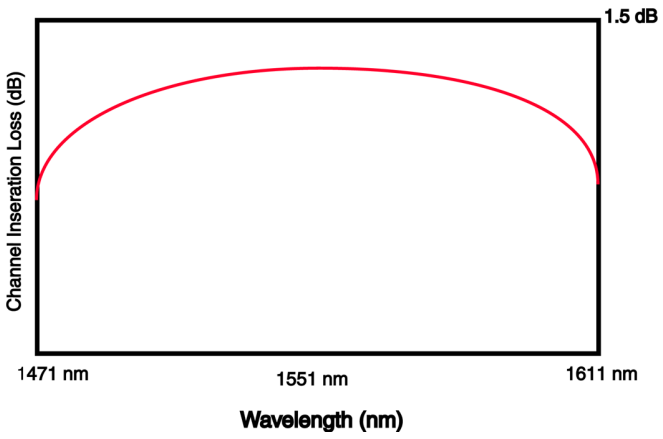
3 Select ITU Starting Wavelength
1: 1471 nm
3: 1511 nm
5: 1551 nm
9: Custom

4 Select Optional Channel
0: No Express
1: With Express

5 Select Customization
00: Standard

Running number used for special types or custom made

Channel Uniformity Profile



SpectraMux® – Compact Optical Add and Drop Module (COADM)

CORNING

Features and Benefits

<1.5 dB Insertion Loss
Bi - Directional
Express Channel Available
Epoxy-Free Optical Path
Ultra Stable and Highly Reliable
Extended Operating Temperature Available

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the new SpectraMux® Compact Optical Add and Drop Module (COADM) family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. Custom wavelengths and channel configurations are available.

SpectraMux® – Compact Optical Add and Drop Module (COADM)

SpectraMux® – Compact Optical Add and Drop Module (COADM)

CORNING

Specifications

Parameters (Eight-Channel)	Minimum	Typical	Maximum
Center Wavelength λc		1471, 1491,1511, 1531, 1551, 1571, 1591, 1611 nm	
Passband Width	13 nm	15 nm	
Channel Insertion Loss	**Two Channel** Add 1.5 dB, Drop 1.5 dB, Express 1.5 dB / **Four-Channel** Add 2.0 dB, Drop 2.0 dB, Express 2.0 dB		
Passband Flatness		0.2 dB	0.3 dB
Adjacent Channel Isolation	30 dB	40 dB	
Non-Adjacent Channel Isolation	45 dB	50 dB	
Add/Drop Channel Isolation	30 dB	40 dB	
Optical Return Loss	45 dB	50 dB	
PDL			0.2 dB
PMD			0.2 ps
Maximum Maximum Optical Power		300 mW	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	
*Specifications do not include connector loss ** 1271, 1291, ...band are available upon request.			

Packaging Dimensions	Fiber Type	Pigtail Length
40 mm x 28 mm x 8.7 mm	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1 m (Standard)

SpectraMux® – Compact Optical Add and Drop Module (COADM)

CORNING

Ordering Information

SpectraMux® – Compact Optical Add and Drop Module (COADM)

C A D 4 - 3 □ 8 3 - □ □ □ □ □
1 2 3 4

1 Select Channel Count
1: Two-channel
2: Four-channel

2 Select Connector Type*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

3 Select ITU Starting Wavelength**
1: 1471 nm
2: 1491 nm
3: 1511 nm
4: 1531 nm
5: 1551 nm
6: 1571 nm
7: 1591 nm
8: 1611 nm
9: Custom

4 Select Customization
000: Standard
Running number used for special types or custom made

SpectraMux® CWDM

SpectraMux® CWDM

Corning's coarse wavelength division multiplexers (CWDMs) are integrated optical modules that mux or demux multiple optical signals of different wavelengths in a single fiber. Our CWDM products separate wavelength into bands of 20 nanometers to cover the complete fiber optical communication spectrum from 1270 nm to 1610 nm. These CWDM products cover 4-channel, 8-channel, and 16-channel mux and demux applications, with upgradeability for both four and eight channel types. We also offer optical add-drop modules, or OADMs, with the capability of adding or dropping from one to fifteen channels. Our CWDM products directly address the competitive market needs for metropolitan and access wavelength management. Custom channel plans are available upon request.

Applications

- Broadband Networks
- Optical Add/Drop Multiplexing
- Metro Networks
- CATV Systems
- Data Center

Features

- Low Insertion Loss
- High Isolation
- Bidirectional
- Epoxy-Free Optical Path
- Express Channel Available
- Telcordia 1221 Qualified

1310/1550 CWDM Band Splitter/Combiner

Features and Benefits

- High Isolation
- Low Insertion Loss
- Bi-Directional
- Completely Passive

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers the 1310/1550 CWDM Band Splitter/Combiner which utilizes high performance thin film interference filters to provide exceptional bandpass performance. The filter WDM is a bi-directional component optimized to split or combine the traditional 1310 nm signal to the eight CWDM channels in the 1550 nm S-C-L bands. This product offers minimal insertion loss and high isolation. It also offers stable and reliable performance over a broad temperature range.

1310/1550 CWDM Band Splitter/Combiner

1310/1550 CWDM Band Splitter/Combiner

CORNING

Specifications

Parameters	Specifications
Wavelength Range	Pass Channel 1260-1360 nm Reflect Channel 1460-1620 nm
Insertion Loss	Pass Channel < 1.0 dB Reflect Channel < 0.6 dB
Isolation	Pass Channel > 40 dB Reflect Channel > 15 dB
Return Loss	> 45 dB
Directivity	> 50 dB
PDL	< 0.2 dB
PMD	< 0.2 ps
Maximum Optical Power	300 mW
Operating Temperature Range	-5°C to +65°C
Storage Temperature Range	-40°C to +85°C
Tensile Load (900 µm Buffered)	5N Maximum

Packaging Dimensions	Fiber Type	Pigtail Length
<52.5 mm x 46 Φmm (Including Boots)	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1 m (Standard)

Ordering Information

1310/1550 CWDM Band Splitter/Combiner

6 6 0 - E 2 1 □ - 3 □ 1 □ □

1 2 3

1 Select Pigtail Type
0: 250 µm Tube
1: 900 mm Tube
2: 250 mm Box
3: 900 mm Box

2 Select Connector
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

3 Select Customization
00: Standard
Running number used for special types or custom made

SpectraMux® – Coarse WDM (Four Channel)

Features and Benefits

20 nm Channel Separation

Bi - Directional

Low Insertion Loss

High Isolation

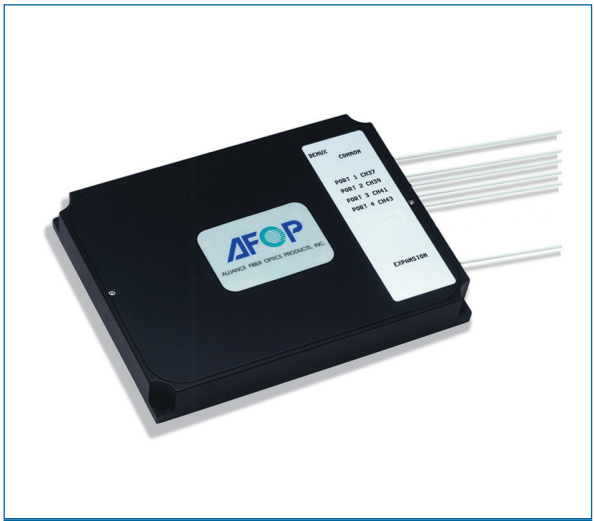
Epoxy-Free Optical Path

Express Channel Available

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the Spectramux® family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. Based on Corning's proven thin film technology, SpectraMux CWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmission. Like all Corning DWDM products, these devices are designed for long life service under the most demanding field conditions. Most connector types are available for terminated ends.



SpectraMux® – Coarse WDM (Four Channel)

SpectraMux® – Coarse WDM (Four Channel)

CORNING

Specifications

Parameters (Eight-Channel Low Loss)	Minimum	Typical	Maximum
Center Wavelength lc		1471, 1491, 1511, 1531 nm or 1511, 1531, 1551, 1571 nm or 1551, 1571, 1591, 1611 nm	
Pass Channel Insertion Loss		1.6 dB	2.0 dB
Express Channel Insertion Loss (Optional)			2.5 dB
Passband Width	13 nm	15 nm	
Passband Flatness		0.3 dB	0.5 dB
Adjacent Channel Isolation	30 dB	40 dB	
Non-Adjacent Channel Isolation	40 dB	50 dB	
Optical Return Loss	50 dB		
Directivity	50 dB		
PDL			0.2 dB
PMD			0.2 ps
Maximum Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	
*Specifications do not include connector loss			

Packaging Dimensions	Fiber Type	Pigtail Length
126 mm x 93 mm x 15 mm	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1 m (Standard)

SpectraMux® – Coarse WDM (Four Channel)

CORNING

Ordering Information

SpectraMux® – Coarse WDM (Four Channel)

CW4 - □ 12 □ - □ □ □ □□

1 2 3 4 5 6

1 Select Mux or DeMux
1: Mux
2: DeMux

2 Select Package Type
2: 250 mm Box
3: 900 mm Box
4: LGX Rack Mounted Module

3 Select Connector Type
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

4 Select UTI Starting Wavelength
1: 1471 nm
3: 1511 nm
5: 1551 nm

5 Select Optional Channel
0: No Express
1: With Express

6 Select Customization
00: Standard
Running number used for special types or custom made

SpectraMux® – Coarse WDM (Eight Channel)

CORNING

Features and Benefits

20 nm Channel Separation
Bi - Directional
High Isolation
Low Insertion Loss
Epoxy-Free Optical Path
Express Channel Available

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the Spectramux® family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. Based on Corning's proven thin film technology, SpectraMux CWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmission. Like all Corning DWDM products, these devices are designed for long life service under the most demanding field conditions. Most connector types are available for terminated ends.

SpectraMux® – Coarse WDM (Eight Channel)

SpectraMux® – Coarse WDM (Eight Channel)

CORNING

Specifications

Parameters (Eight-Channel)	Minimum	Typical	Maximum
Center Wavelength lc		1471, 1491, 1511, 1531 nm 1551, 1571, 1591, 1611 nm	
Pass Channel Insertion Loss		2.5 dB	3.0 dB
Express Channel Insertion Loss (Optional)			3.5 dB
Passband Width	13 nm	15 nm	
Passband Flatness		0.3 dB	
Adjacent Channel Isolation	30 dB	40 dB	
Non-Adjacent Channel Isolation	40 dB	50 dB	
Optical Return Loss	50 dB	50 dB	
Directivity	50 dB		
PDL			0.2 db
PMD			0.2 ps
Maximum Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	
*Specifications do not include connector loss			

Packaging Dimensions	Fiber Type	Pigtail Length
126 mm x 93 mm x 15 mm	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1 m (Standard)

SpectraMux® – Coarse WDM (Eight Channel)

CORNING

Ordering Information

SpectraMux® – Coarse WDM (Eight Channel)

C W 4 - □ 2 2 □ - □ 1 □ □□
1 2 3 4 5

1 Select Mux or DeMux
1: Mux
2: DeMux

2 Select Package Type
2: 250 mm Box
3: 900 mm Box
4: LGX Rack Mounted Module

3 Select Connector Type
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

4 Select Optional Channel
0: No Express
1: With Express

5 Select Customization
00: Standard
Running number used for special types or custom made

SpectraMux® – Coarse WDM (Single Channel)

Features and Benefits

- 20 nm Channel Separation
- Bi - Directional
- High Isolation
- Low Insertion Loss
- Epoxy-Free Optical Path

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the Spectramux® family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. Based on Corning's proven thin film technology, SpectraMux CWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmission. Like all Corning DWDM products, these devices are designed for long life service under the most demanding field conditions. Most connector types are available for terminated ends.

SpectraMux® – Coarse WDM (Single Channel)

SpectraMux® – Coarse WDM (Single Channel)

CORNING

Specifications

Parameters (Eight-Channel)	Minimum	Typical	Maximum
Passband Width	λc ± 6.5 nm		
Express Channel Insertion Loss		0.4 dB	0.5 dB
Reflection Channel Loss		0.3 dB	0.4 dB
Adjacent Channel Isolation	30 dB		
Non-Adjacent Channel Isolation	40 dB		
Isolation of Pass Channel at Reflection Port	15 dB		
Optical Return Loss	45 dB	50 dB	
Directivity	50 dB		
PDL			0.1 dB
PMD			0.1 ps
Maximum Maximum Optical Power		300 mW	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	
*Specifications do not include connector loss ** 1271, 1291, ...band are available upon request.			

Packaging Dimensions	Fiber Type	Pigtail Length
38 mm x 5.0 Φmm (Not Including Boots)	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1 m (Standard)

SpectraMux® – Coarse WDM (Single Channel)

CORNING

Ordering Information

SpectraMux® – Coarse WDM (SingleChannel)

C W 4 - □ 0 2 □ - □ □ □ □ □

1 2 3 4 5

1 Select Mux or DeMux
1: Mux
2: DeMux

2 Select Package Type
0: mm Tube
1: 900 mm Tube
2: 250 mm Case
3: 900 mm Case

3 Select Connector Type*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

4 Select ITU Starting Wavelength**
1: 1471 nm
2: 1491 nm
3: 1511 nm
4: 1531 nm
5: 1551 nm
6: 1571 nm
7: 1591 nm
8: 1611 nm

5 Select Customization
000: Standard
Running number used for special types or custom made

SpectraMux® – Coarse WDM (Single-Channel OADM)

CORNING

Features and Benefits

Low Insertion Loss
Bi-directional
High Isolation
20 nm Channel Separation
Epoxy Free in Optical Path

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the Spectramux® family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. Based on Corning's proven thin film technology, SpectraMux CWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmission. Like all Corning DWDM products, these devices are designed for long life service under the most demanding field conditions.

SpectraMux® – Coarse WDM (Single-Channel OADM)

SpectraMux® – Coarse WDM (Single-Channel OADM)

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Center Wavelength λc		1471-1611 nm	
Drop Channel Insertion Loss		0.6 dB	1.0 dB
Add Channel Insertion Loss		0.6 dB	1.0 dB
Passband Width	13 nm	15 nm	
Passband Flatness		0.3 dB	0.5 dB
Drop/Add Channel Isolation	30 dB	40 dB	
Express Channel Isolation	30 dB		
Optical Return Loss	50 dB		
Directivity	50 dB		
PDL			0.2 db
PMD			0.2 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
126 mm x 93 mm x 15 mm	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1 m

SpectraMux® – Coarse WDM (Single-Channel OADM)

CORNING

Ordering Information

SpectraMux® Coarse WDM (Single-Channel OADM)

C W 4 - 3 1 2 ☐ ☐ ☐ ☐ ☐ ☐

1 2 3 4

1 Select Package Type
2: 250 mm Box
3: 900 mm Box
4: LGX Rack Mounted Module

2 Select Connector
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

3 Select UTI Starting Wavelength
1: 1471 nm
2: 1491 nm
3: 1511 nm
4: 1531 nm
5: 1551 nm
6: 1571 nm
7: 1591 nm
8: 1611 nm

4 Select Customization
000: Standard
Running number used for special types or custom made

SpectraMux® – Modular CWDM (Single-Channel OADM – Low Loss)

Features and Benefits

- Low Insertion Loss
- High Isolation
- Tap Monitor Ports
- 20 nm Channel Separation
- Epoxy Free in Optical Path

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the Spectramux® family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. Based on Corning's proven thin film technology, SpectraMux CWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmission. Like all Corning DWDM products, these devices are designed for long life service under the most demanding field conditions.

SpectraMux® – Modular CWDM (Single-Channel OADM – Low Loss)

SpectraMux® – Modular CWDM (Single-Channel OADM – Low Loss)

Specifications

Parameters (Four-Channel)	Minimum	Typical	Maximum
Center Wavelength λc		"CH1"=1471, "CH2"=1491, "CH3"=1511, "CH4"=1531 nm± 20 nm "CH5"=1551, "CH6"=1571,"CH7"=1591, "CH8"=1611 nm± 20 nm	
Insertion Loss - Add or Drop Channel*			1.5 dB
Insertion Loss- Express Channel*			1.7 dB
Insertion Loss- Tap Ports*	17 nm		23 dB
Passband Width	12 nm		
Isolation- Add or Drop Channel	30 dB		
Isolation - Express Channel	30 dB		
Return Loss	45 dB		
Directivity	50 dB		
PDL			0.2 db
PMD			0.2 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	

*Specification includes coupler loss and connector loss

Shipping Package	
Packaging Dimensions	Fiber Type
Half Width Rack Mount (Standard 19-in Rack Mount accommodates two Half-Width Rack Mounts)	Fiber Type: Corning® SMF-28e® or compatible, 900 µm

Ordering Information

Spectramux® – Modular CWDM (Single-Channel OADM – Low Loss)

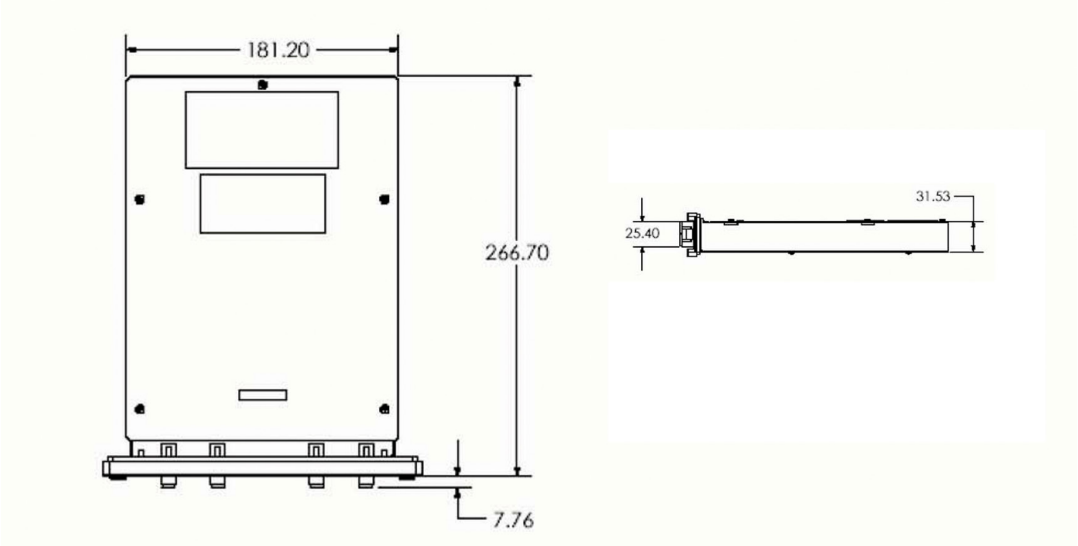
C W 4 - 0 0 8 4 - L □ 0 0 0
1

1 **Select Wavelength Options**
0, 1, 2, 3, 4, 5, 6, 7, or 8
(See specification for wavelength options)

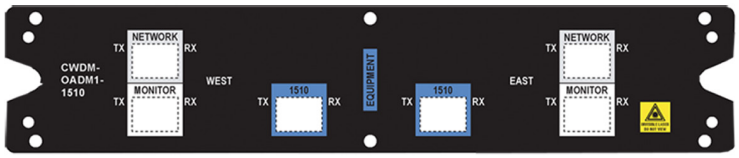
SpectraMux® – Modular CWDM (Single-Channel OADM – Low Loss)

CORNING

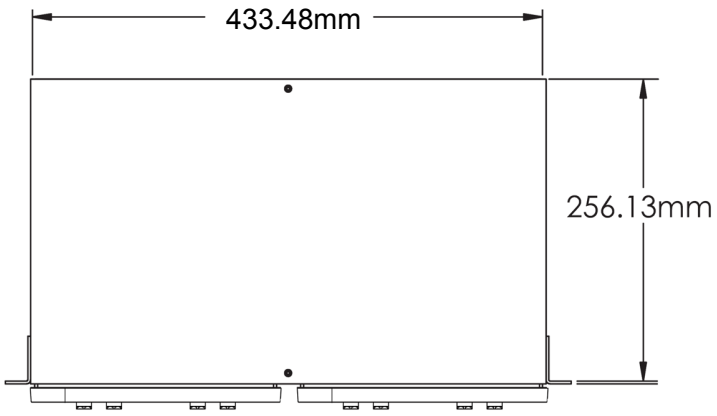
Mechanical Drawing of Half-Width Rack Mount



Front Panel Layout



Mechanical Drawing of 19-in Rack Mount



SpectraMux® – Modular CWDM (Four-Channel Mux and DeMux Pair – Low Loss)

CORNING

Features and Benefits

- Low Insertion Loss
- High Isolation
- Tap Monitor Ports
- 20 nm Channel Separation
- Epoxy Free in Optical Path

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the Spectramux® family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. Based on Corning's proven thin film technology, SpectraMux CWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmission. Like all Corning DWDM products, these devices are designed for long life service under the most demanding field conditions.

Half-Width Rack Mount

SpectraMux® – Modular CWDM (Four-Channel Mux and DeMux Pair – Low Loss)

CORNING

Specifications

Parameters (Four-Channel)	Minimum	Typical	Maximum
Center Wavelength λc		1 for 1471, 1491, 1511, 1531 nm± 20 nm 5 for 1551, 1571, 1591, 1611 nm± 20 nm	
Pass Channel Insertion Loss*			1.8 dB
Insertion Loss Non-Uniformity*			1.0 dB
Insertion Loss-Express Channel*			2.1 dB
Insertion Loss-Tap Ports*	17 dB		23 dB
Passband Width	12 nm		
Adjacent Channel Isolation	30 dB		
Return Loss	45 dB		
Directivity	50 dB		
PDL			0.2 db
PMD			0.2 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	

*Specification includes coupler loss and connector loss

Shipping Package	
Packaging Dimensions	Fiber Type
Half Width Rack Mount (Standard 19 inch Rack Mount accommodates two Half-Width Rack Mounts)	Fiber Type: Corning® SMF-28e® or compatible, 900 µm

Ordering Information

Spectramux® – Modular CWDM (Four-Channel Mux and DeMux Pair – Low loss

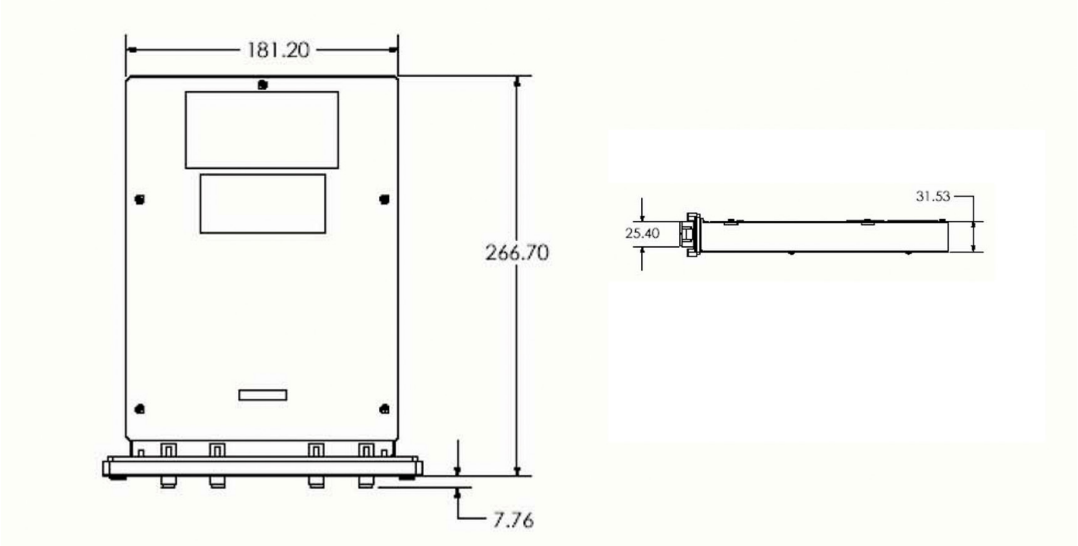
C W 4 - 0 1 8 4 - L □ 0 0 0
1

1 Select Wavelength Options
1 or 5
(See specification for wavelength options)

SpectraMux® – Modular CWDM (Four-Channel Mux and DeMux Pair – Low Loss)

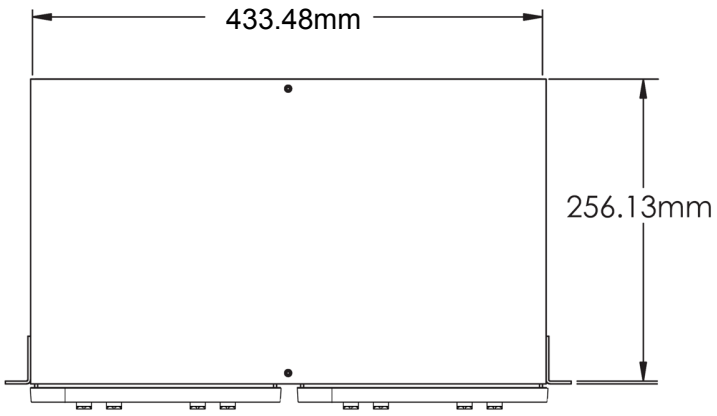
CORNING

Mechanical Drawing of Half-Width Rack Mount



Front Panel Layout

Mechanical Drawing of 19-in Rack Mount



SpectraMux® – Modular CWDM (Four-Channel Mux and DeMux Pair)

Features and Benefits

- Low Insertion Loss
- High Isolation
- 20 nm Channel Separation
- Epoxy Free in Optical Path

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the Spectramux® family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. Based on Corning's proven thin film technology, SpectraMux CWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmission. Like all Corning DWDM products, these devices are designed for long life service under the most demanding field conditions.

SpectraMux® – Modular CWDM (Four-Channel Mux and DeMux Pair)

SpectraMux® – Modular CWDM (Four-Channel Mux and DeMux Pair)

CORNING

Specifications

Parameters (Four-Channel)	Minimum	Typical	Maximum
Center Wavelength λc		0 for 1471, 1511, 1551, 1591 nm ±20 nm 1 for 1471, 1491, 1511, 1531 nm ±20 nm 2 for 1491, 1531, 1571, 1611 nm ±20 nm 3 for 1511, 1531, 1551, 1571 nm ±20 nm 5 for 1551, 1571, 1591, 1611 nm ±20 nm	
Insertion Loss			2.3 dB
Insertion Loss Non-Uniformity*			1.0 dB
Insertion Loss-Express Channel*			2.0 dB
Passband Width	12 nm		
Adjacent Channel Isolation	30 dB		
Return Loss	45 dB		
Directivity	50 dB		
PDL			0.2 db
PMD			0.2 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
*Specification includes connector loss			

Shipping Package	
Packaging Dimensions	Fiber Type
Half Width Rack Mount (Standard 19 inch Rack Mount accommodates two Half-Width Rack Mounts)	Fiber Type: Corning® SMF-28e® or compatible, 900 µm

Ordering Information

Spectramux® – Modular CWDM (Four-Channel Mux and DeMux Pair)

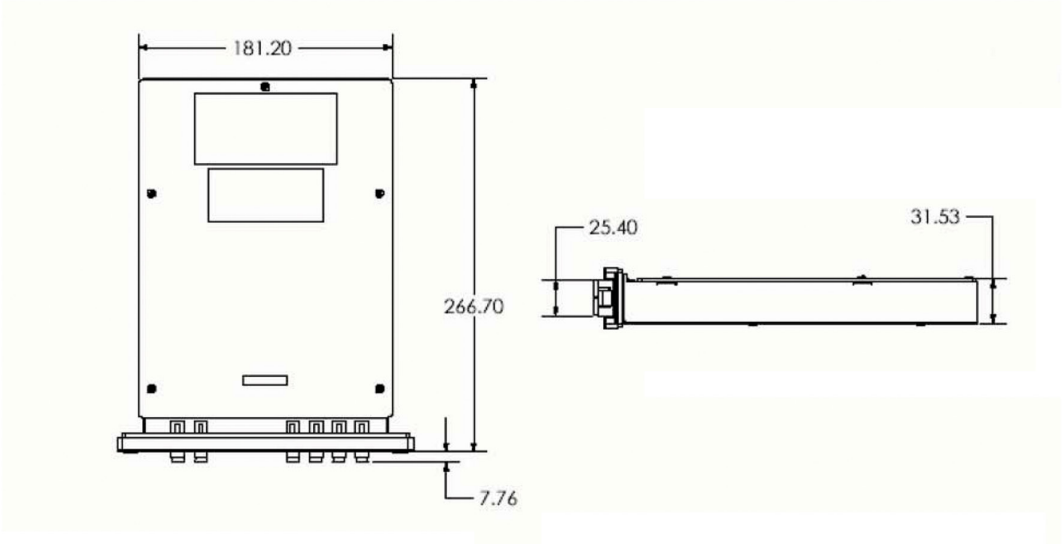
C W 4 - 0 1 2 2 - S □ 0 0 0
1

1 Select Wavelength Options
0, 1, 2, 3, or 5
(See specification for wavelength options)

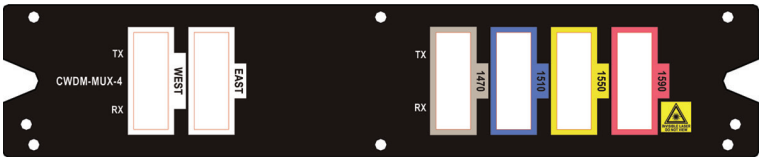
SpectraMux® – Modular CWDM (Four-Channel Mux and DeMux Pair)

CORNING

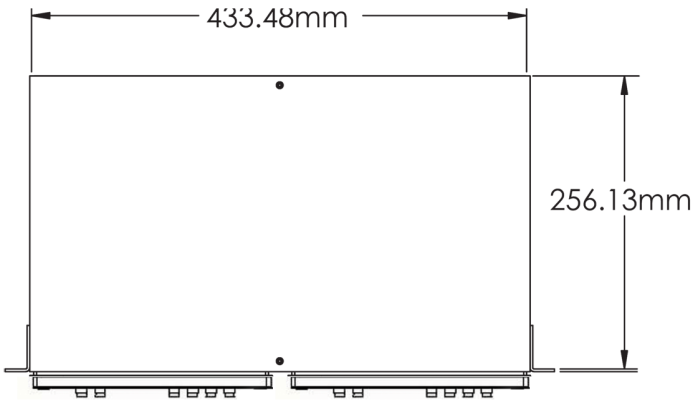
Mechanical Drawing of Half-Width Rack Mount



Front Panel Layout



Mechanical Drawing of 19-in Rack Mount



SpectraMux® – Modular CWDM (Eight-Channel Mux and DeMux Pair – Low Loss)

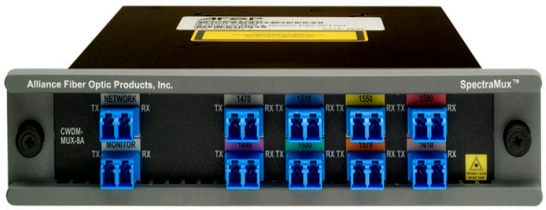
Features and Benefits

- Low Insertion Loss
- High Isolation
- Tap Monitor Ports
- 20 nm Channel Separation
- Epoxy Free in Optical Path

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the Spectramux® family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. Based on Corning's proven thin film technology, SpectraMux CWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmission. Like all Corning DWDM products, these devices are designed for long life service under the most demanding field conditions.



SpectraMux® – Modular CWDM (Eight-Channel Mux and DeMux Pair – Low Loss)

SpectraMux® – Modular CWDM (Eight-Channel Mux and DeMux Pair – Low Loss)

CORNING

Specifications

Parameters (Eight-Channel)	Minimum	Typical	Maximum
Center Wavelength λc		1471, 1491, 1511, 1531 nm± 20 nm 1551, 1571, 1591, 1611 nm± 20 nm	
Pass Channel Insertion Loss*			2.2 dB
Insertion Loss Non-Uniformity*			1.0 dB
Insertion Loss – Tap Ports*	17 dB		23 dB
Passband Width	12 nm		
Adjacent Channel Isolation	30 dB		
Return Loss	45 dB		
Directivity	50 dB		
PDL			0.3 db
PMD			0.3 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
*Specification includes coupler loss and connector loss			

Shipping Package	
Packaging Dimensions	Fiber Type
Half Width Rack Mount (Standard 19-in Rack Mount accommodates two Half-Width Rack Mounts)	Fiber Type: Corning® SMF-28e® or compatible, 900 µm

Ordering Information

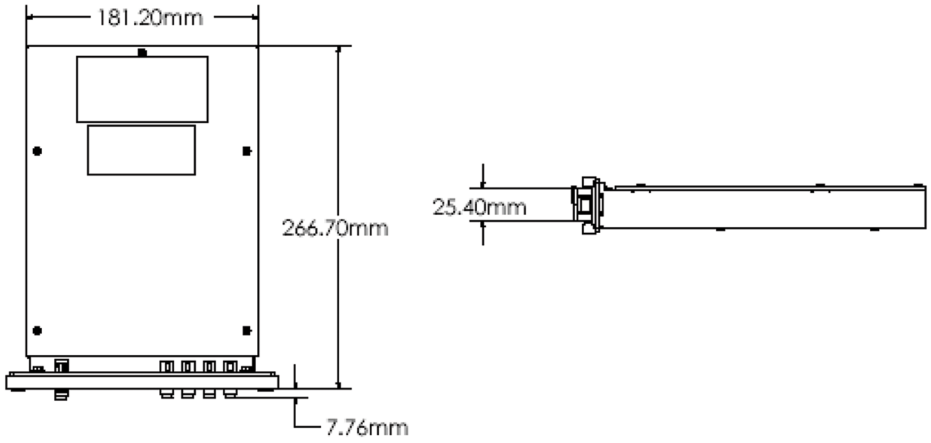
Spectramux® – Modular CWDM (Eight-Channel Mux and DeMux Pair – Low Loss)

C W 4 - 0 2 8 4 - L 0 0 0 0

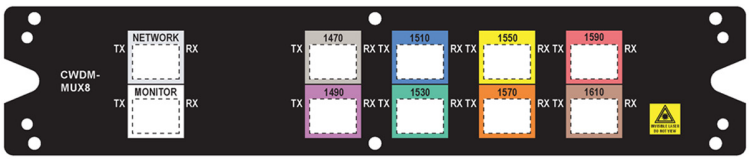
SpectraMux® – Modular CWDM (Eight-Channel Mux and DeMux Pair – Low Loss)

CORNING

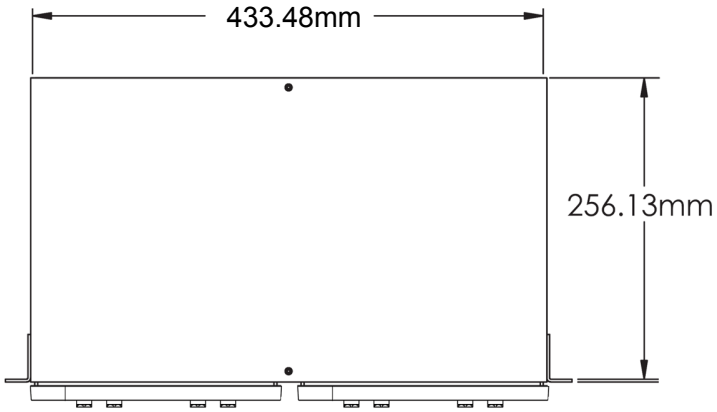
Mechanical Drawing of Half-Width Rack Mount



Front Panel Layout



Mechanical Drawing of 19-in Rack Mount



SpectraMux® – Modular CWDM (Eight-Channel Mux and DeMux Pair)

CORNING

Features and Benefits

Low Insertion Loss
High Isolation
20 nm Channel Separation
Epoxy Free in Optical Path

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the Spectramux® family of products, which are designed for cost effective multiwavelength network applications. Channel spacing of 20 nm with wide bandpass characteristics allow for non-temperature controlled lasers to be used in transmitters. Based on Corning's proven thin film technology, SpectraMux CWDMs allow for four and eight wavelengths to be used for uni- or bi-directional transmission. Like all Corning DWDM products, these devices are designed for long life service under the most demanding field conditions.

SpectraMux® – Modular CWDM (Eight-Channel Mux and DeMux Pair)

SpectraMux® – Modular CWDM (Eight-Channel Mux and DeMux Pair)

CORNING

Specifications

Parameters (Eight-Channel)	Minimum	Typical	Maximum
Center Wavelength λc		1471, 1491, 1511, 1531 nm ±20 nm 1551, 1571, 1591, 1611 nm ±20 nm	
Pass Channel Insertion Loss			3.0 dB
Insertion Loss Non-Uniformity*			1.0 dB
Passband Width	12 nm		
Adjacent Channel Isolation	30 dB		
Return Loss	45 dB		
Directivity	50 dB		
PDL			0.2 db
PMD			0.2 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	

*Specification includes connector loss

Shipping Package	
Packaging Dimensions	Fiber Type
Half Width Rack Mount (Standard 19-in Rack Mount accommodates two Half-Width Rack Mounts)	Fiber Type: Corning® SMF-28e® or compatible, 900 µm

Ordering Information

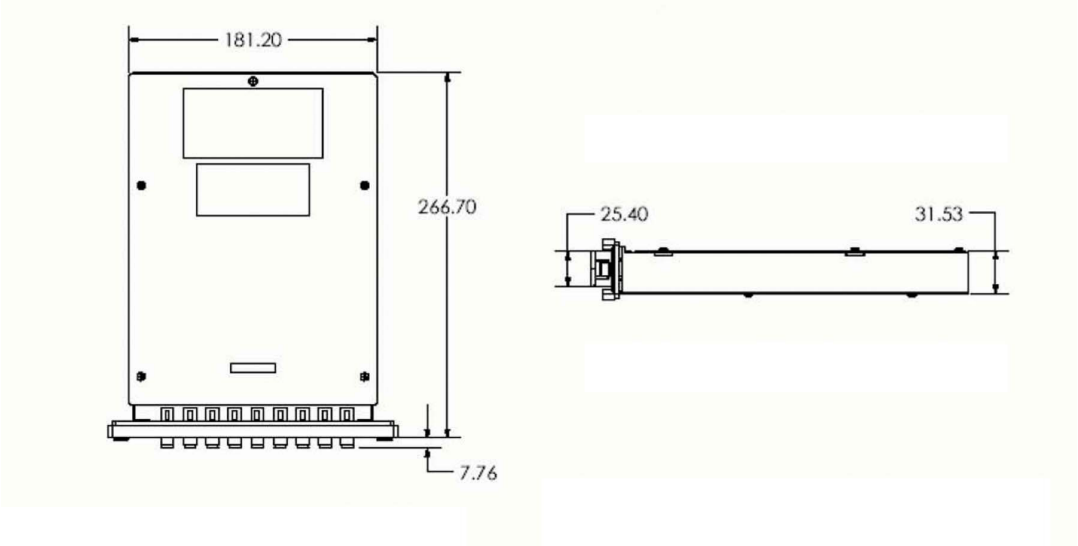
Spectramux® – Modular CWDM (Eight-Channel Mux and DeMux Pair)

C W 4 - 0 2 2 2 - S 0 0 0 0

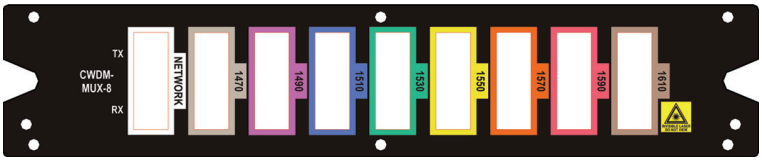
SpectraMux® – Modular CWDM (Eight-Channel Mux and DeMux Pair)

CORNING

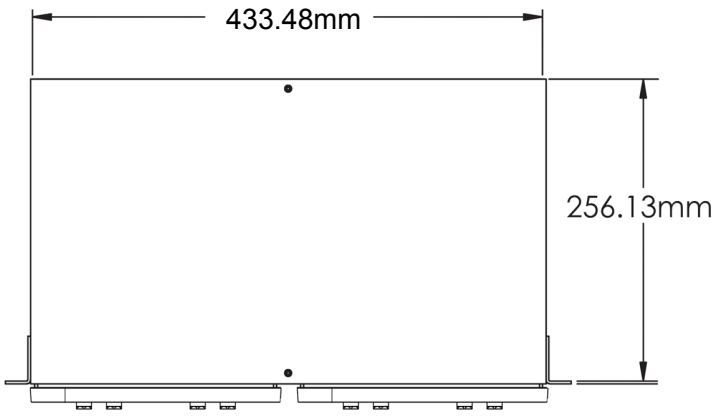
Mechanical Drawing of Half-Width Rack Mount



Front Panel Layout



Mechanical Drawing of 19-in Rack Mount



DWDM Modules

DWDM Modules

Corning’s dense wavelength division multiplexers (DWDMs) are integrated optical modules that combine, or multiplex, and separate, or demultiplex multiple optical signals of different wavelengths in a single fiber. By utilizing thin-film technology in the development and manufacturing of our DWDM products, we provide a wide range of solutions for 200 GHz, 100 GHz, and 50 GHz ITU wavelength-spacing applications. Custom configurations are available upon request.

Applications

- Broadband Systems
- Telecommunications Networks
- Metro Networks
- Optical Add/Drop Multiplexing
- Expanding Existing DWDM Systems

Features

- High Isolation and Low Insertion Loss
- Bidirectional
- Epoxy-Free Optical Path
- Wide- and Flat-Top Passband
- Completely Passive
- Highly Reliable and Stable
- Telcordia GR 1209/1221 Qualified

100 GHz Dense WDM Mux and DeMux (Four Channel)

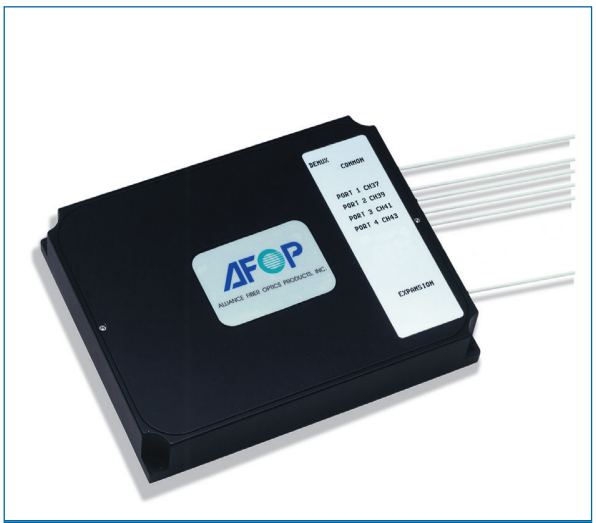
Features and Benefits

- High Isolation
- Low Insertion Loss
- Bi-directional
- Epoxy Free Optical Path
- Low Total Integrated Cross Talk

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers high performance 100 GHz Dense WDM Multiplexers and Demultiplexers for ITU channel spacing applications. The thin film filter DWDM Series of products utilize proprietary technologies to achieve outstanding field performance. Thin film filter DWDM four channel multiplexers and demultiplexers are available in standard ITU wavelengths from 1528 to 1565 nm. Custom wavelengths and channel configurations are available upon request.



100 GHz Dense WDM Mux and DeMux (Four Channel)

100 GHz Dense WDM Mux and DeMux (Four Channel)

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Center Wavelength λc		1528-1565 nm	
Passband Width	λc ± 0.12 nm		
Pass Channel Insertion Loss		1.6 dB	2.0 dB
Adjacent Channel Isolation	25 dB	30 dB	
Non-Adjacent Channel Isolation	40 dB	45 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	50 dB		
PDL			0.1 dB
PMD			0.1 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
126 mm x 93 mm x 15 mm	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

100 GHz Dense WDM Mux and DeMux (Four Channel)

CORNING

Ordering Information

100GHz Dense WDM Mux and DeMux (Four Channel)

D W 1 - □ 1 □ □ - □ □ □ □ □

1 2 3 4 5

1 Select Mux or DeMux
0: Mux/DeMux Pair
1: Mux
2: DeMux

2 Select Wavelength Channel
NN: According to ITU Channel with Starting Channel

3 Select Package Type
2: 250 µm Box
3: 900 µm Box
4: Rack Mounted Module

4 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

5 Select Customization
000: Standard
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

100 GHz Dense WDM Mux and DeMux (Eight Channel)

CORNING

Features and Benefits

- High Isolation
- Low Insertion Loss
- Bi-directional
- Epoxy Free Optical Path
- Low Total Integrated Cross Talk

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers high performance 100 GHz Dense WDM Multiplexers and Demultiplexers for ITU channel spacing applications. The thin film filter DWDM Series of products utilize proprietary technologies to achieve outstanding field performance. Thin film filter DWDM eight channel multiplexers and demultiplexers are available in standard ITU wavelengths from 1528 to 1565 nm. Custom wavelengths and channel configurations are available upon request.

100 GHz Dense WDM Mux and DeMux (Eight Channel)

100 GHz Dense WDM Mux and DeMux (Eight Channel)

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Center Wavelength λc		1528-1565 nm	
Passband Width	λc ± 0.12 nm		
Pass Channel Insertion Loss		2.8 dB	3.5 dB
Adjacent Channel Isolation	25 dB	30 dB	
Non-Adjacent Channel Isolation	40 dB	45 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	50 dB		
PDL			0.1 dB
PMD			0.1 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
126 mm x 93 mm x 15.5 mm	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

100 GHz Dense WDM Mux and DeMux (Eight Channel)

CORNING

Ordering Information

100 GHz Dense WDM Mux and DeMux (Eight Channel)

D W 1 - □ 2 □ □ - □ □ □ □ □

1 2 3 4 5

1 Select Mux or DeMux
0: Mux/DeMux Pair
1: Mux
2: DeMux

2 Select Wavelength Channel
NN: According to ITU Channel with Starting Channel

3 Select Package Type
2: 250 µm Box
3: 900 µm Box
4: Rack Mounted Module

4 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

5 Select Customization
000: Standard
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

O-Band 200 GHz Dense WDM Mux and DeMux (Four Channel)

CORNING

Features and Benefits

- High Isolation
- Low Insertion Loss
- Bi-directional
- Epoxy Free in Optical Path
- Low Total Integrated Cross Talk

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers high performance 200 GHz Dense WDM Multiplexers and Demultiplexers in O-Band for Hybrid Fiber-Coaxial (HFC) applications. The thin film filter DWDM products rely on a unique technology to achieve superior field performance. These are available in standard LGX® boxes or custom packaging.

O-Band 200 GHz Dense WDM Mux and DeMux (Four Channel)

O-Band 200 GHz Dense WDM Mux and DeMux (Four Channel)

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Wavelength Range		1260-1495 nm	
Passband Width	λc ± 0.25 nm		
Pass Channel Insertion Loss		1.6 dB	2.0 dB
Adjacent Channel Isolation	25 dB		
Non-Adjacent Channel Isolation	40 dB		
Optical Return Loss	45 dB		
Directivity	50 dB		
PDL			0.15 dB
PMD			0.1 5ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
158 mm x 100 mm x 29 mm (1ULGX)	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

O-Band 200 GHz Dense WDM Mux and DeMux (Four Channel)

CORNING

Ordering Information

O-Band 200 GHz Dense WDM Mux and DeMux (Four Channel)

D W 2 - □ 1 0 0 - □ □ 1 2 0

1 2 3 4

1 Select Mux or DeMux
0: Mux/DeMux Pair
1: Mux
2: DeMux

2 Select Package Type
2: 250 µm Box
3: 900 µm Box
4: Rack Mounted Module

3 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

4 Select Customization
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

200 GHz Dense WDM Mux and DeMux (Eight Channel)

CORNING

Features and Benefits

- High Isolation
- Low Insertion Loss
- Bi-directional
- Epoxy Free in Optical Path
- Low Total Integrated Cross Talk

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers high performance 200 GHz Dense WDM Multiplexers and Demultiplexers for ITU channel spacing applications. The thin film filter DWDM products rely on a unique technology to achieve superior field performance. Our DWDM eight channel multiplexer and demultiplexer products are available in standard ITU wavelengths from 1528 to 1565 nm. Custom wavelengths and channel configurations are available upon request.

200 GHz Dense WDM Mux and DeMux (Eight Channel)

200 GHz Dense WDM Mux and DeMux (Eight Channel)

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Center Wavelength λc		1528-1565 nm	
Passband Width	λc ± 0.25 nm		
Pass Channel Insertion Loss		2.5 dB	3.5 dB
Adjacent Channel Isolation	25 dB	30 dB	
Non-Adjacent Channel Isolation	40 dB	45 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	50 dB		
PDL			0.1 dB
PMD			0.1 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
126 mm x 93 mm x 15 mm	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

200 GHz Dense WDM Mux and DeMux (Eight Channel)

CORNING

Ordering Information

200 GHz Dense WDM Mux and DeMux (Eight Channel)

D W 2 - □ 2 □ □ - □ □ □ □ □

1 2 3 4 5

1 Select Mux or DeMux
0: Mux/DeMux Pair
1: Mux
2: DeMux

2 Select Wavelength Channel
NN: According to ITU Channel with Starting Channel

3 Select Package Type
2: 250 µm Box
3: 900 µm Box
4: Rack Mounted Module

4 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

5 Select Customization
000: Standard
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

200 GHz Dense WDM Mux and DeMux (16 Channel)

CORNING

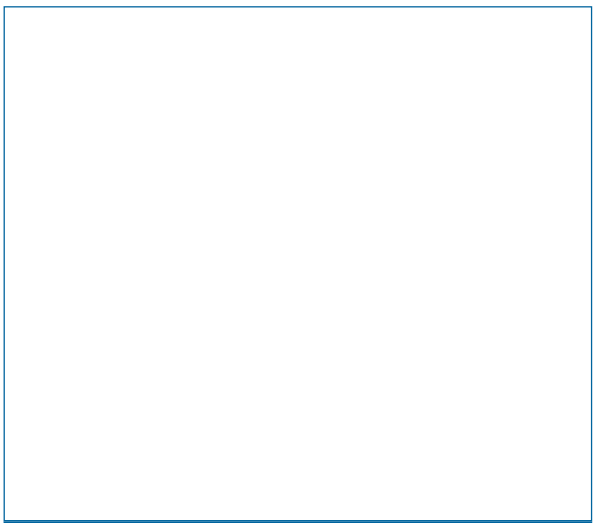
Features and Benefits

- High Isolation
- Low Insertion Loss
- Bi-directional
- Epoxy Free Optical Path
- Low Total Integrated Cross Talk

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers high performance 200 GHz Dense WDM Multiplexers and Demultiplexers for ITU channel spacing applications. The thin film filter DWDM products utilize proprietary technology to achieve outstanding field performance. The thin film filter DWDM 16 channel multiplexer and demultiplexer products are available in standard ITU wavelengths ranging from 1528 to 1565 nm. Custom wavelengths and channel configurations are available upon request.



200 GHz Dense WDM Mux and DeMux (16 Channel)

200 GHz Dense WDM Mux and DeMux (16 Channel)

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Center Wavelength λc		1528-1565 nm	
Passband Width	λc ± 0.25 nm		
Pass Channel Insertion Loss		3.5 dB	4.5 dB
Adjacent Channel Isolation	25 dB	30 dB	
Non-Adjacent Channel Isolation	40 dB	45 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	50 dB		
PDL			0.1 dB
PMD			0.1 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
126 mm x 93 mm x 15 mm	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

200 GHz Dense WDM Mux and DeMux (16 Channel)

CORNING

Ordering Information

200 GHz Dense WDM Mux and DeMux (16 Channel)

D W 2 - □ 3 □ □ - □ □ □ □ □

1 2 3 4 5

1 Select Mux or DeMux
1: Mux
2: DeMux

2 Select Wavelength Channel
NN: According to ITU Channel with Starting Channel

3 Select Package Type
2: 250 µm Box
3: 900 µm Box
4: Rack Mounted Module

4 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

5 Select Customization
000: Standard
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

200 GHz Dense WDM Mux and DeMux (20 Channel)

Features and Benefits

- High Isolation
- Low Insertion Loss
- Bi-directional
- Epoxy Free Optical Path
- Low Total Integrated Cross Talk

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers high performance 200 GHz Dense WDM Multiplexers and Demultiplexers for ITU channel spacing applications. The thin film filter DWDM products utilize proprietary technology to achieve outstanding field performance. The thin film filter DWDM 20 channel multiplexer and demultiplexer products are available in standard ITU wavelengths ranging from 1528 to 1565 nm. Custom wavelengths and channel configurations are available upon request.

200 GHz Dense WDM Mux and DeMux (20 Channel)

200 GHz Dense WDM Mux and DeMux (20 Channel)

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Center Wavelength λc		1528-1565 nm	
Passband Width	λc ± 0.25 nm		
Pass Channel Insertion Loss		3.8 dB	5.0 dB
Adjacent Channel Isolation	25 dB	30 dB	
Non-Adjacent Channel Isolation	40 dB	45 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	50 dB		
PDL			0.1 dB
PMD			0.1 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
126 mm x 93 mm x 15 mm	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

200 GHz Dense WDM Mux and DeMux (20 Channel)

CORNING

Ordering Information

200 GHz Dense WDM Mux and DeMux (16 Channel)

D W 2 - □ 3 □ □ - □ □ □ □ □

1 2 3 4 5

1 Select Mux or DeMux
1: Mux
2: DeMux

2 Select Wavelength Channel
NN: According to ITU Channel with Starting Channel

3 Select Package Type
2: 250 µm Box
3: 900 µm Box
4: Rack Mounted Module

4 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

5 Select Customization
000: Standard
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

DWDM Components

DWDM Components

Corning offers an extensive line of high-performance dense wavelength division multiplexer (DWDM) components that combine, or multiplex, and separate, or demultiplex multiple optical signals of different wavelengths in a single fiber. Our portfolio of DWDM components also includes high-channel isolation OADMs (Optical Add-Drop Multiplexers), O-band mux and demux components, and band filters. Corning DWDM components achieve outstanding field performance through the use of TFF and packaging technologies.

Applications

- Broadband Systems
- Telecommunications Networks
- Metro Networks
- Optical Add/Drop Multiplexing
- Test Instruments

Features

- High Isolation and Low Insertion Loss
- Bidirectional
- Epoxy-Free Optical Path
- Wide- and Flat-Top Passband
- Highly Reliable and Stable
- Telcordia GR 1209/1221 Qualified

Single Channel DWDM (100 GHz)

CORNING

Features and Benefits

High Isolation
Low Insertion Loss
Bi-directional
Epoxy Free in Optical Path
Completely Passive

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers high performance Single Channel Dense WDM for ITU channel spacing applications. The thin film filter DWDM Series of products utilize proprietary technology to deliver exceptional field performance. Single channel DWDM products are available in standard ITU wavelengths from 1528 to 1565 nm. Custom wavelengths and channel configurations are available upon request.

Single Channel DWDM (100 GHz)

Single Channel DWDM (100 GHz)

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Passband Width	λc ± 0.12 nm		
Pass Channel Insertion Loss		1.0 dB	1.4 dB
Reflection Channel Loss		0.4 dB	0.5 dB
Adjacent Channel Isolation	25 dB	30 dB	
Non-Adjacent Channel Isolation	40 dB	45 dB	
Isolation of Pass Channel @ Reflection Port	12 dB	15 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	50 dB		
PDL			0.1 dB
PMD			0.1 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
<52.5 mm x 4.6 Φmm (Including boots)	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

Single Channel DWDM (100 GHz)

CORNING

Ordering Information

Single Channel DWDM (100 GHz)

6 6 1 - □ □ □ □ - □ □ □ □ □

1 2 3 4 5 6

1 Select Channel Spacing
1: 100 GHz
Z: Others

2 Select ITU Grid
2: Standard
5: 50 GHz Shift (less in frequency) from ITU grid

3 Select Wavelength Channel
00: Non-ITU Specifications
NN: ITU Channel, for example, 193.0 THz, NN=30

4 Select Package Type
0:250 µm Tube
1: 900 µm Tube
2: 250 µm Case
3: 900 µm Case
4: LGX® orRack Mount
5: 3 mm Case
6: 2 mm Case
Z: Others

5 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC
Z: Others

6 Select Customization
000: Standard
Running number used for special types or custom made

Note:

** Specifications do not include connector loss.*

Single Channel DWDM (200 GHz)

CORNING

Features and Benefits

High Isolation
Low Insertion Loss
Bi-directional
Epoxy Free in Optical Path
Completely Passive

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers high performance Single Channel Dense WDM for ITU channel spacing applications. The thin film filter DWDM Series of products utilize proprietary technology to deliver exceptional field performance. Single channel DWDMs are available in standard ITU wavelengths from 1528 to 1565 nm. Custom wavelengths and channel configurations are available upon request.

Single Channel DWDM (200 GHz)

Single Channel DWDM (200 GHz)

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Passband Width	λc ± 0.25 nm		
Pass Channel Insertion Loss		0.8 dB	1.2 dB
Reflection Channel Loss		0.3 dB	0.5 dB
Adjacent Channel Isolation	25 dB	30 dB	
Non-Adjacent Channel Isolation	40 dB	45 dB	
Isolation of Pass Channel @ Reflection Port	12 dB	15 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	50 dB		
PDL			0.1 dB
PMD			0.1 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
<52.5 mm x 4.6 Φmm (Including boots)	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

Single Channel DWDM (200 GHz)

CORNING

Ordering Information

Single Channel DWDM (200 GHz)

6 6 1 - □ □ □ □ - □ □ □ □ □

1 2 3 4 5 6

1 Select Channel Spacing
1: 200 GHz
Z: Others

2 Select ITU Grid
2: Standard
5: 50 GHz Shift (less in frequency) from ITU grid

3 Select Wavelength Channel
00: Non-ITU Specifications
NN: ITU Channel, for example, 193.0 THz, NN=30

4 Select Package Type
0:250 µm Tube
1: 900 µm Tube
2: 250 µm Case
3: 900 µm Case
4: LGX® orRack Mount
5: 3 mm Case
6: 2 mm Case
Z: Others

5 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC
Z: Others

6 Select Customization
000: Standard
Running number used for special types or custom made

Note:

** Specifications do not include connector loss.*

O-Band 200 GHz Dense WDM Mux and DeMux (Four Channel)

CORNING

Features and Benefits

- High Isolation
- Low Insertion Loss
- Bi-directional
- Epoxy Free in Optical Path
- Low Total Integrated Cross Talk

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers high performance 200 GHz Dense WDM Multiplexers and Demultiplexers in O-Band for Hybrid Fiber-Coaxial (HFC) applications. The thin film filter DWDM products rely on a unique technology to achieve superior field performance. These are available in standard LGX® boxes or custom packaging.

O-Band 200 GHz Dense WDM Mux and DeMux (Four Channel)

O-Band 200 GHz Dense WDM Mux and DeMux (Four Channel)

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Wavelength Range		1260-1495 nm	
Passband Width	λc ± 0.25 nm		
Pass Channel Insertion Loss		1.6 dB	2.0 dB
Adjacent Channel Isolation	25 dB		
Non-Adjacent Channel Isolation	40 dB		
Optical Return Loss	45 dB		
Directivity	50 dB		
PDL			0.15 dB
PMD			0.1 5ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load (900 µm Buffered)		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
158 mm x 100 mm x 29 mm (1ULGX)	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

O-Band 200 GHz Dense WDM Mux and DeMux (Four Channel)

CORNING

Ordering Information

O-Band 200 GHz Dense WDM Mux and DeMux (Four Channel)

D W 2 - □ 1 0 0 - □ □ 1 2 0

1 2 3 4

1 Select Mux or DeMux
0: Mux/DeMux Pair
1: Mux
2: DeMux

2 Select Package Type
2: 250 µm Box
3: 900 µm Box
4: Rack Mounted Module

3 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

4 Select Customization
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

50 GHz Interleaver

Features and Benefits

- Low Insertion Loss
- Highly Reliable and Stable
- Epoxy Free in Optical Path
- Wide and Flat Top Pass Band
- Purely Passive, No Thermal or Electrical Inputs Needed

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning's Interleaver can greatly expand DWDM channel counts, increasing capacity in existing DWDM transport networks. Its stability and wide pass band make it suitable for 80 channel DWDM systems. The Corning Interleaver has high isolation, low insertion loss, and low ripple. It supports both mux and demux functions.

50 GHz Interleaver

50 GHz Interleaver

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Operating Wavelength Range		1525~1565 nm	
Channel Passband Width (Even/Odd)		ITU ± 12/5 GHz	
Channel Stop Band Width (Odd/Even)		ITU ± 12.5 GHz	
Insertion Loss from 50 GHz Port to 100 GHz Port		1.2 dB	1.7 dB
Insertion Loss Ripple			0.5 dB
Insertion Loss Uniformity			0.5 dB
Isolation between Odd and Even Port	19 dB		
Return Loss	42 dB		
Directivity	50 dB		
PDL			0.35 dB
PMD			0.2 ps
Maximum Optical Power		500 mW	
Chromatic Dispersion with IU ± 12.5 GHz	-120 ps/nm		+120 ps/nm

Shipping Package
Packaging Dimensions
Standard 1U LGX®

50 GHz Interleaver

CORNING

Ordering Information

50 GHz Interleaver

I N T - □ □ □ □ - □ □ □ □ □

1 2 3 4 5

1 **Select Type**
100: 100 GHz
050: 50 GHz

2 **Select Customization**
0: Standard or
Running number used for customized type

3 **Select Pigtail Type**
2: 250 µm Cassette
3: 900 µm Cassette
4: LGX® orRack Mount
5: 3 mm Cassette
6: 2 mm Cassette
Z: Others

4 **Select Connector***
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC
Z: Others

5 **Select Starting Channel**
For Example:
NNN = 200 for starting ITU channel 20.0
NNN = 205 for starting ITU channel 20.5

Note:
** Specifications do not include connector loss.*

High Isolation OADM (100 GHz)

Features and Benefits

High ADD/DROP Isolation
Excellent Residual Isolation at Dropped Channel
Bi-directional
High Directivity
Epoxy-Free Optical Path

Corning offers a high channel isolation OADM (100 GHz) for telecommunications and network applications. These thin film filters utilize proprietary technologies to achieve outstanding field performance. The thin film filter OADM is available in standard ITU wavelength ranges. Custom wavelengths and channel configurations are also available upon request.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

High Isolation OADM (100 GHz)

High Isolation OADM (100 GHz)

CORNING

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

High Isolation OADM (100 GHz)

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Passband Width	λc ± 0.12 nm	Iλc ± 0.15 nm	
Add Channel Insertion Loss		0.9 dB	1.2 dB
Drop Channel Insertion Loss		0.9 dB	1.2 dB
Through Channel Insertion Loss		0.7 dB	1.0 dB
Adjacent Channel Isolation	25 dB	30 dB	
Non-Adjacent Channel Isolation	40 dB	45 dB	
Express Channel	25 dB	30 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	50 dB		
PDL			0.1 dB
PMD			0.1 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
126 mm x 93 mm x 15 mm	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

High Isolation OADM (100 GHz)

CORNING

Ordering Information

High Isolation OADM (100 GHz)

A D 1 - 1 0 □ □ - □ □ □ □ □

1 2 3 4

1 **Select Wavelength Channel**
NN: According to ITU Channel with Starting Channel

2 **Select Package Type**
2: 250 µm Box
3: 900 µm Box
4: Rack Mount

3 **Select Connector***
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

4 **Select Customization**
000: Standard or
Running number used for special types or custom made

Note:

** Specifications do not include connector loss.*

High Isolation Optical Add-Drop Multiplexer (200 GHz)

CORNING

Features and Benefits

High ADD/DROP Isolation
Excellent Residual Isolation at Dropped Channel
Bi-directional
High Directivity
Opoxy-Free Optical Path

Corning offers a high channel isolation Optical Add-Drop Multiplexer (OADM) (200 GHz) for telecommunications and network applications. These thin film filters utilize proprietary technologies to achieve outstanding field performance. The thin film filter OADM is available in standard ITU wavelength ranges. Custom wavelengths and channel configurations are also available upon request.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

High Isolation Optical Add-Drop Multiplexer (200 GHz)

High Isolation Optical Add-Drop Multiplexer (200 GHz)

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Passband Width	λc ± 0.25 nm	Iλc ± 0.03 nm	
Add Channel Insertion Loss		0.8 dB	1.2 dB
Drop Channel Insertion Loss		0.8 dB	1.2 dB
Through Channel Insertion Loss		0.6 dB	1.0 dB
Adjacent Channel Isolation	25 dB	30 dB	
Non-Adjacent Channel Isolation	40 dB	45 dB	
Express Channel	25 dB	30 dB	
Optical Return Loss	45 dB	50 dB	
Directivity	50 dB		
PDL			0.1 dB
PMD			0.1 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
126 mm x 93 mm x 15 mm	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

High Isolation Optical Add-Drop Multiplexer (200 GHz)

CORNING

Ordering Information

High Isolation OADM (200 GHz)

A D 2 - 1 0 □ □ - □ □ □ □ □

1 2 3 4

1 Select Wavelength Channel
NN: According to ITU Channel with Starting Channel

2 Select Package Type
2: 250 µm Box
3: 900 µm Box
4: Rack Mount

3 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

4 Select Customization
000: Standard or
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

Band Filters (Four Channel/Skip 0)

CORNING

Features and Benefits

Low PDL
Low Insertion Loss
Low Polarization Sensitivity
High Optical Power Handling

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning's four-skip-0 Band Wavelength Multiplexing filter products are designed to improve insertion loss for express channels in a variety of applications. These Band WDM products utilize proprietary thin-film filter technology to achieve state-of-the-art wavelength stability and high channel isolation. These products offer exceptionally low insertion loss, thermal stability, low polarization sensitivity, and high directivity. Cornings's Band WDM is designed to meet the most demanding Telcordia requirements for performance and reliability. Custom wavelengths and channel configurations are available.

Band Filters (Four Channel/Skip 0)

Band Filters (Four Channel/Skip 0)

CORNING

Specifications – 100 and 200 GHz

Parameters	Minimum	Typical	Maximum
Pass Channel Bandwidth 100 GHz	2.7 nm		
Pass Channel Bandwidth 200 GHz	5.4 nm		
Express Channel Bandwidth 100 GHz			3.7 nm
Express Channel Bandwidth 200 GHz			7.4 nm
Pass Channel Insertion Loss		1.0 dB	1.2 dB
Express Channels Insertion Loss		0.4 dB	0.6 dB
Passband Flatness - Ripple		0.3 dB	0.5 dB
Pass Channel Isolation for Adjacent Express Channels	15 db	20 db	
Pass Channel Isolation for Non-Adjacent Express Channels	30 dB	40 dB	
Isolation of Drop Channels at Express Ports	12 dB	15 dB	
Optical Return Loss	40 dB	45 dB	
Directivity	45 dB		
PDL			0.2 dB
PMD			0.2 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
<52.5 mm x 4.6 Φmm (Including boots)	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

Band Filters (Four Channel/Skip 0)

CORNING

Ordering Information

Band Filters (4 Skip 0)

B W □ - □ 0 □ □ - □ □ □ □ □

1 2 3 4 5 6

1 Select Channel Spacing
4: 100 GHz Skip 0
5: 200 GHz Skip 0

2 Select Configuration
1: Mux
2: DeMux

3 Select Wavelength Channel
NN: According to ITU Channel with Starting Channel

4 Select Package Type
0: 250 µm Tube
1: 900 µm Tube
2: 250 µm Case
3: 900 µm Case

5 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

6 Select Customization
000: Standard or
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

Band Filters (Four Channel/Skip 1)

CORNING

Features and Benefits

Low PDL
Low Insertion Loss
Low Polarization Sensitivity
High Optical Power Handling

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning's four-skip-1 Band Wavelength Multiplexing filter products are designed to improve insertion loss for express channels in a variety of applications. These Band WDM products utilize proprietary thin-film filter technology to achieve state-of-the-art wavelength stability and high channel isolation. These products offer exceptionally low insertion loss, thermal stability, low polarization sensitivity, and high directivity. Cornings's Band WDM is designed to meet the most demanding Telcordia requirements for performance and reliability. Custom wavelengths and channel configurations are available.

Band Filters (Four Channel/Skip 1)

Band Filters (Four Channel/Skip 1)

CORNING

Specifications – 100 and 200 GHz

Parameters	Minimum	Typical	Maximum
Pass Channel Bandwidth 100 GHz	2.7 nm		
Pass Channel Bandwidth 200 GHz	5.4 nm		
Express Channel Bandwidth 100 GHz			5.3 nm
Express Channel Bandwidth 200 GHz			10.6 nm
Pass Channel Insertion Loss		1.0 dB	1.2 dB
Express Channels Insertion Loss		0.4 dB	0.6 dB
Passband Flatness - Ripple		0.3 dB	0.5 dB
Pass Channel Isolation for Adjacent Express Channels	15 db	20 db	
Pass Channel Isolation for Non-Adjacent Express Channels	30 dB	40 dB	
Isolation of Drop Channels at Express Ports	12 dB	15 dB	
Optical Return Loss	40 dB	45 dB	
Directivity	45 dB		
PDL			0.2 dB
PMD			0.2 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
<52.5 mm x 4.6 Φmm (Including boots)	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

Band Filters (Four Channel/Skip 1)

CORNING

Ordering Information

Band Filters (4 Skip 1)

B W □ - □ 0 □ □ - □ □ □ □ □

1 2 3 4 5 6

1 Select Channel Spacing
1: 100 GHz Skip 1
2: 200 GHz Skip 1

2 Select Configuration
1: Mux
2: DeMux

3 Select Wavelength Channel
NN: According to ITU Channel with Starting Channel

4 Select Package Type
0: 250 µm Tube
1: 900 µm Tube
2: 250 µm Case
3: 900 µm Case

5 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

6 Select Customization
000: Standard or
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

Passive Optical Subassemblies (POSAs)

Passive Optical Subassembly (POSA)

Our passive optical subassembly (POSA) uses Corning’s free-space-optics wavelength division multiplexing (WDM) platform to deliver optical mux/demux functionality directly inside standard or customized small-form-factor platform transceivers. Our unique substrate-based POSA and glass-block POSA are designed to seamlessly integrate with your specific input and output interface.

Applications

- Metro and access networks long-reach/extended-reach transceivers
- Data center transceivers

Features

- Supports major transceiver form factors CFP2/4/8, QSF28, QSFP-DD, and beyond
- Implemented as receiver optical subassembly (ROSA) or transmitter optical subassembly
- (TOSA) with highly customizable design
- Ultra-low insertion loss (<1.0 dB) with thin-film-filter technology
- Robust design for thermal perturbation and shock protection
- Flat-top broad passband spectrum with excellent isolation between channels

Transceiver Wavelength Division Multiplexer (WDM) Passive Optical Subassembly (POSA)

CORNING

Features and Benefits

Supports major transceiver form factors CFP2/4/8, QSF28, QSFP-DD, and beyond

Implemented as receiver optical subassembly (ROSA) or transmitter optical subassembly (TOSA) with highly customizable design

Ultra-low insertion loss (<1.0 dB) with thin-film-filter technology

Robust design protects against thermal perturbation and shock

Flat-top broad passband spectrum with excellent isolation between channels

Applications

Metro and access networks long reach/extended reach transceivers

Data center transceivers

Standards

RoHS2011/65/EU

GR-1221 and GR-1209 qualified

Corning's passive optical subassembly (POSA) uses our free-space-optics wavelength division multiplexing (WDM) platform to deliver optical mux/demux functionality directly inside standard or customized small-form-factor platform transceivers. Our unique substrate-based POSA and glass-block POSA are designed to seamlessly integrate with your specific input and output interface.

Figure 1 – Glass Block POSA

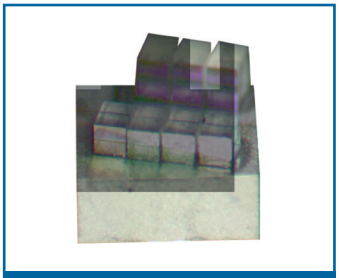


Figure 2 – Substrate POSA

Transceiver Wavelength Division Multiplexer (WDM) Passive Optical Subassembly (POSA)

CORNING

Substrate POSA Specifications (LAN WDM)

Optical Performance Characteristics				
Operating Wavelength Range		1260 ~ 1360 nm		
Passband Definition	CH1	1294.53 ~ 1296.59 nm		
	CH2	1299.02 ~ 1301.09 nm		
	CH3	1303.54 ~ 1305.63 nm		
	CH4	1308.09 ~ 1310.19 nm		
Parameter		**Minimum**	**Typical**	**Maximum**
Central Wavelength (nm)	CH1	1295.56-0.3	1295.56	1295.56+0.3
	CH2	1300.05-0.3	1300.05	1300.05+0.3
	CH3	1304.58-0.3	1304.58	1304.58+0.3
	CH4	1309.14-0.3	1309.14	1309.14+0.3
Output Beam Angle (deg)*		-0.1		0.1
Passband Insertion Loss (dB)			0.6	1
Adjacent Channel Isolation (dB)		25		
Passband PDL (dB)				0.15
Passband Ripple (dB)				0.3
Optical Power (mW)				300
Operating Temperature Range (°C)		-5		85

* With fixed COM port beam as input and reference. Minimum pitch of 500 µm.

Transceiver Wavelength Division Multiplexer (WDM) Passive Optical Subassembly (POSA)

CORNING

Substrate POSA Specifications (CWDM)

Optical Performance Characteristics				
Operating Wavelength Range		1260 ~ 1360 nm		
Passband Definition	CH1	1271 ± 6.5 nm		
	CH2	1291 ± 6.5 nm		
	CH3	1311 ± 6.5 nm		
	CH4	1331 ± 6.5 nm		
Parameter		**Minimum**	**Typical**	**Maximum**
Central Wavelength (nm)	CH1	1271-0.3	1271	1271+0.3
	CH2	1291-0.3	1291	1291+0.3
	CH3	1311-0.3	1311	1311+0.3
	CH4	1331-0.3	1331	1331+0.3
Output Beam Angle (deg)*		-0.1		0.1
Passband Insertion Loss (dB)			0.6	1
Adjacent Channel Isolation (dB)		30		
Passband PDL (dB)				0.15
Passband Ripple (dB)				0.3
Optical Power (mW)				300
Operating Temperature Range (°C)		-5		85

* With fixed COM port beam as input and reference. Minimum pitch of 500 µm.

Transceiver Wavelength Division Multiplexer (WDM) Passive Optical Subassembly (POSA)

CORNING

Glass Block POSA Specifications (LAN WDM)

Optical Performance Characteristics				
Operating Wavelength Range		1260 ~ 1360 nm		
Passband Definition	CH1	1294.53 ~ 1296.59 nm		
	CH2	1299.02 ~ 1301.09 nm		
	CH3	1303.54 ~ 1305.63 nm		
	CH4	1308.09 ~ 1310.19 nm		
Parameter		**Minimum**	**Typical**	**Maximum**
Central Wavelength (nm)	CH1	1295.56-0.3	1295.56	1295.56+0.3
	CH2	1300.05-0.3	1300.05	1300.05+0.3
	CH3	1304.58-0.3	1304.58	1304.58+0.3
	CH4	1309.14-0.3	1309.14	1309.14+0.3
Output Beam Angle (deg)*		-0.3		0.3
Passband Insertion Loss (dB)			0.6	1
Adjacent Channel Isolation (dB)		25		
Passband PDL (dB)				0.2
Passband Ripple (dB)				0.4
Optical Power (mW)				300
Operating Temperature Range (°C)		-5		85

* With fixed COM port beam as input and reference. Minimum pitch of 500 µm.

Transceiver Wavelength Division Multiplexer (WDM) Passive Optical Subassembly (POSA)

CORNING

Glass Block POSA Specifications (CWDM)

Optical Performance Characteristics				
Operating Wavelength Range		1260 ~ 1360 nm		
Passband Definition	CH1	1271 ± 6.5 nm		
	CH2	1291 ± 6.5 nm		
	CH3	1311 ± 6.5 nm		
	CH4	1331 ± 6.5 nm		
Parameter		**Minimum**	**Typical**	**Maximum**
Central Wavelength (nm)	CH1	1270	1271	1272
	CH2	1290	1291	1292
	CH3	1310	1311	1312
	CH4	1330	1331	1332
Output Beam Angle (°)*		-0.3		0.3
Passband Insertion Loss (dB)			0.6	1
Adjacent Channel Isolation (dB)		30		
Passband PDL (dB)				0.2
Passband Ripple (dB)				0.4
Optical Power (mW)				300
Operating Temperature Range (°C)		-5		85

* With fixed COM port beam as input and reference. Minimum pitch of 500 µm.

Other WDM Filters

Other WDM Filters

Corning's TriWave™ thin-film-filter-based FWDMs are used to combine and separate optical signals in a range of network applications. Our filter-based products allow for higher isolation and narrower wavelength separations than other technologies.

Our WDM1r series is designed for next generation passive optical networks (NGPON), a new optical access system that coexists with GPON on the same ODN. These WDM1r devices, including GPON, video, and OTDR combiners, are designed to accommodate NGPON1 and NGPON2 TWDM wavelengths to maximize the density and enhance the speed of optical distribution network.

Applications

- FTTx
- NGPON
- Broadband Networks
- Optical Add/Drop Multiplexing
- Telecommunications
- Metro Networks
- CATV Systems

Features

- High Isolation
- Low Insertion Loss
- Thin-Film-Filter Technology
- Ultra Stable and Highly Reliable
- Telcordia GR-1209/1221 Qualified
- Express Channel Available
- Ultra Stable and Highly Reliable

WDM1r Series

CORNING

Features and Benefits

- Bi-directional
- High Isolation
- Low Insertion Loss
- Epoxy-Free Optical Path
- Thin Film Filter Technology
- Ultra Stable and Highly Reliable

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning's WDM1r Series is designed for Next Generation Passive Optical Networks (NG-PON), a new optical access system that coexists with GPON on the same ODN. Our WDM1r devices, including GPON, Video, and OTDR, are designed to accommodate NGPON1 and NGPON2 TWDM wavelengths to maximize the density and enhance the speed of optical distribution network.

WDM1r Series

WDM1r Series

Specifications – GPON + OTDR Cassette

Parameter	Minimum	Maximum
Operating Wavelength Range (nm)	1260	1660
GPON/NGA Channel Wavelength Range (nm)	1260 1480	1360 1581
1650 Channel Wavelength Range (nm) [OTDR]	1610	1660
GPON/NGA Channel Insertion Loss (dB)*		0.8
1650 Channel Insertion Loss (dB)*		0.8
GPON/NGA Port Isolation @ 1610-1660nm (dB)	30	
1650 Port Isolation @1260-1360nm & 1480-1581nm (dB)	30	
Return Loss (dB)	50	
Directivity (dB)	50	
PDL (dB)		0.2
PMD (ps)		0.2
Optical Power (mW)		500
Operating Temperature Range (°C) **	- 5	+70
Storage Temperature (°C)	- 40	+85

*Specifications do not include connector loss
** If requested, this can be extended to industrial operating temperature range -40°C ~ 85°C, but insertion loss will be slightly higher.

Packaging Dimensions	Fiber Type	Pigtail Length
100mm x 80mm x 10mm Cassette	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1.5 m

Drawing - NG-PON/NGA-OTDR

WDM1r Series

CORNING

Ordering Information – GPON + OTDR Cassette

WDM1r Series – GPON+OTDR Cassette

6 6 0 - P 2 1 3 - 1 □ 0 0 0

1

1 Select Connector Type
A: NONE
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

WDM1r Series

Specifications – WDMr1 + OTDR Cassette

Parameter	Minimum	Maximum
Operating Wavelength Range (nm)	1260	1675
1270+1575 Channel Wavelength Range (nm) [NGA]	1260 1575	1280 1581
1310+1490 Channel Wavelength Range (nm) [GPON-OLT]	1290 1480	1330 1500
1650 Channel Wavelength Range (nm) [OTDR]	1625	1675
1270+1575 Channel Insertion Loss (dB) *		1.5
1310+1490 Channel Insertion Loss (dB) *		1.6
1650 Channel Insertion Loss (dB) *		1.0
1270+1575 Port Isolation @ 1290-1330 & 1480-1500 & 1625-1675nm (dB)	30	
1310+1490 Port Isolation @ 1260-1280nm & 1575-1581nm & 1625-1675nm (dB)	30	
1650 Port Isolation @ 1260-1330nm & 1480-1500 & 1575-1581nm (dB)	30	
Return Loss (dB)	50	
Directivity (dB)	50	
PDL (dB)		0.2
PMD (ps)		0.2
Optical Power (mW)		500
Operating Temperature Range (°C) **	- 5	+70
Storage Temperature (°C)	- 40	+85

*Specifications do not include connector loss
** If requested, this can be extended to industrial operating temperature range -40°C ~ 85°C, but insertion loss will be slightly higher.

Packaging Dimensions	Fiber Type	Pigtail Length
100mm x 80mm x 10mm Cassette	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1.5 m

WDM1r Series

Drawing – WDMr1 + OTDR Cassette

Ordering Information– WDMr1 + OTDR Cassette

WDM1r Series – WDM1r+OTDR Cassette

6 6 0 - P 2 1 3 - 1 □ 1 0 0
1

1 Select Connector Type
A: NONE
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

WDM1r Series

CORNING

Specifications – WDM1r+OTDR+Video Cassette

Parameter	Minimum	Maximum
Operating Wavelength Range (nm)	1260	1675
1270+1575 Channel Wavelength Range (nm) [NGA]	1260 1575	1280 1581
1310+1490 Channel Wavelength Range (nm) [GPON-OLT]	1290 1480	1330 1500
1550 Channel Wavelength Range (nm) [VIDEO]	1550	1560
1650 Channel Wavelength Range (nm) [OTDR]	1625	1675
1270+1575 Channel Insertion Loss (dB) *		1.3
1310+1490 Channel Insertion Loss (dB) *		1.0
1550 Channel Insertion Loss (dB) *		1.6
1650 Channel Insertion Loss (dB) *		1.9
1270+1575 Port Isolation @ 1290-1330 & 1480-1500 & 1550-1560nm & 1625-1675nm (dB)	30	
1310+1490 Port Isolation @ 1260-1280nm & 1550-1560nm &1575-1581nm & 1625-1675nm (dB)	30	
1550 Port Isolation @ 1260-1330nm & 1480-1500nm & 1575-1581nm & 1625-1675nm (dB)	30	
1650 Port Isolation @ 1260-1330nm & 1480-1500 & 1550-1560nm & 1575-1581nm (dB)	30	
Return Loss (dB)	50	
Directivity (dB)	50	
PDL (dB)		0.2
PMD (ps)		0.2
Optical Power (mW)		500
Operating Temperature Range (°C) **	- 5	+70
Storage Temperature (°C)	- 40	+85

*Specifications do not include connector loss
** If requested, this can be extended to industrial operating temperature range -40°C ~ 85°C, but insertion loss will be slightly higher.

Packaging Dimensions	Fiber Type	Pigtail Length
100mm x 80mm x 10mm Cassette	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1.5 m

WDM1r Series

Drawing – WDM1r+OTDR+Video Cassette

Ordering Information – WDM1r+OTDR+Video Cassette

WDM1r Series – WDM1r+OTDR+Video Cassette

6 6 0 - P 2 1 3 - 1 □ 2 0 0
1

1 Select Connector Type
A: NONE
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

WDM1r Series

CORNING

Specifications – WDM1r+Video Cassette

Parameter	Minimum	Maximum
Operating Wavelength Range (nm)	1260	1625
1310+1490 Channel Wavelength Range (nm) [GPON-OLT]	1290 1480	1330 1500
1550 Channel Wavelength Range (nm) [Video]	1550	1560
1270+1575 Channel Wavelength Range (nm) * [NGA]	1260 1575	1280 1625
1310+1490 Channel Insertion Loss (dB) *		1.0
1550 Channel Insertion Loss (dB) *		1.7
1270+1575 Channel Insertion Loss (dB) *		1.5
1310+1490 Port Isolation @ 1260-1280nm & 1550-1625nm (dB)	30	
1550 Port Isolation @ 1260-1330nm & 1480-1500nm & 1575-1625nm (dB)	30	
1270+1575 Port Isolation @ 1290-1330nm & 1480-1500nm & 1550-1560nm (dB)	30	
Return Loss (dB)	50	
Directivity (dB)	50	
PDL (dB)		0.2
PMD (ps)		0.2
Optical Power (mW)		300
Operating Temperature Range (°C) **	- 5	+70
Storage Temperature (°C)	- 40	+85

*Specifications do not include connector loss
** If requested, this can be extended to industrial operating temperature range -40°C ~ 85°C, but insertion loss will be slightly higher.

Packaging Dimensions	Fiber Type	Pigtail Length
100mm x 80mm x 10mm Cassette	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1.5 m

WDM1r Series

Drawing – WDM1r+Video Cassette

Ordering Information – WDM1r+Video Cassette

WDM1r Series – WDM1r + Video Cassette

6 6 0 - P 2 1 3 - 1 □ 3 0 0
(1)

1 Select Connector Type
- A: NONE
- K: LC/APC
- L: LC/PC
- P: FC/PC
- Q: FC/APC
- S: SC/PC
- T: SC/APC
- U: MU/PC

WDM1r Series

CORNING

Specifications – WDM1r Cassette

Parameter	Minimum	Maximum
Operating Wavelength Range (nm)	1260	1625
Reflect Channel Wavelength Range (nm)	1260 1524	1280 1625
Pass Channel Wavelength Range (nm)	1290 1480	1330 1500
Pass Channel Insertion Loss (dB) *		1.0
Reflect Channel Insertion Loss (dB) *		1.0
Pass Port Isolation @ 1260-1280nm & 1524-1625nm (dB)	30	
Reflect Port Isolation @ 1290-1330nm & 1480-1500nm (dB)	30	
Return Loss (dB)	50	
Directivity (dB)	50	
PDL (dB)		0.2
PMD (ps)		0.2
Optical Power (mW)		300
Operating Temperature Range (°C) **	- 5	+70
Storage Temperature (°C)	- 40	+85

*Specifications do not include connector loss
** If requested, this can be extended to industrial operating temperature range -40°C ~ 85°C, but insertion loss will be slightly higher.

Packaging Dimensions	Fiber Type	Pigtail Length
100mm x 80mm x 10mm Cassette	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1.5 m

WDM1r Series

Drawing - WDM1r Cassette

Ordering Information

WDM1r Series – WDM1r Cassette

6 6 0 - P 2 1 3 - 1 □ 4 0 0
1

1 Select Connector Type
A: NONE
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

WDM1r Series

CORNING

Specifications – WDM1r+TWDMPON+Video Cassette

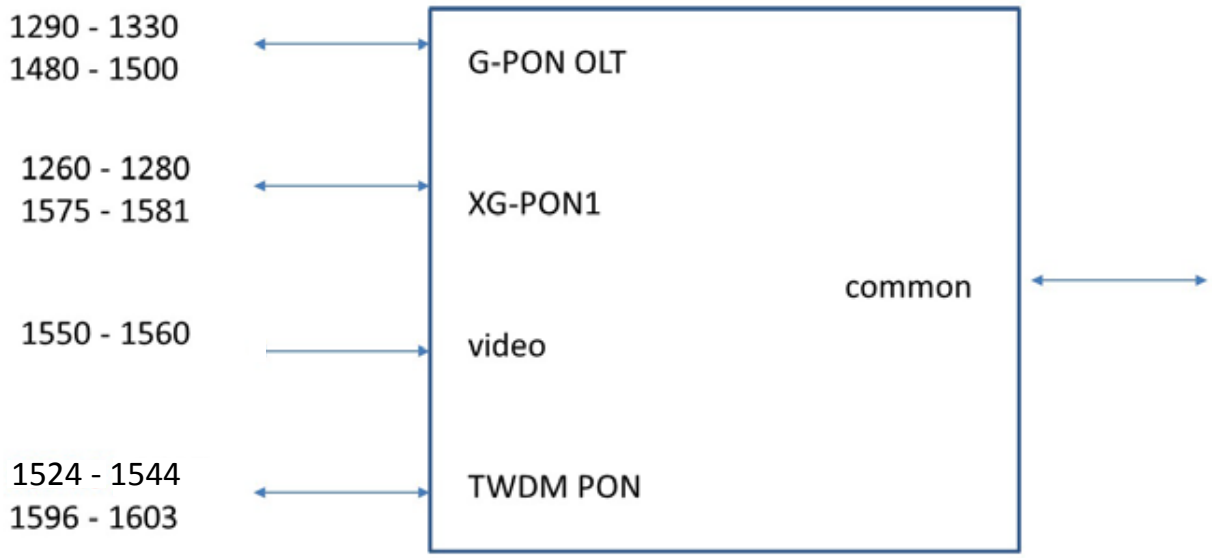
Parameter	Minimum	Maximum
Operating Wavelength Range (nm)	1260	1610
1270+1575 Channel Wavelength Range (nm) [XGPON]	1260 1575	1280 1581
1310+1490 Channel Wavelength Range (nm) [GPON]	1290 1480	1330 1500
1550 Channel Wavelength Range (nm) [VIDEO]	1550	1560
TWDMPON Channel Wavelength Range (nm)	1524 1596	1544 1603
1270+1575 Channel Insertion Loss (dB) *		1.3
1310+1490 Channel Insertion Loss (dB) *		1.0
1550 Channel Insertion Loss (dB) *		1.6
TWDM-PON Channel Insertion Loss (dB) *		1.4
1270+1575 Port Isolation (dB)	30	
1310+1490 Port Isolation (dB)	30	
1550 Port Isolation (dB)	30	
TWDM-PON Port Isolation (dB)	15	
Return Loss (dB)	50	
Directivity (dB)	50	
PDL (dB)		0.2
PMD (ps)		0.2
Optical Power (mW)		500
Operating Temperature Range (°C) **	- 5	+70
Storage Temperature (°C)	- 40	+85

*Specifications do not include connector loss
** If requested, this can be extended to industrial operating temperature range -40°C ~ 85°C, but insertion loss will be slightly higher.

Packaging Dimensions	Fiber Type	Pigtail Length
100mm x 80mm x 10mm Cassette	Fiber Type: Corning® SMF-28e® or compatible, 900 µm	1.5 m

WDM1r Series

Drawing – WDM1r+TWDMPON+Video Cassette



Ordering Information – WDM1r+TWDMPON+Video Cassette

WDM1r Series – WDM1r+TWDMPON+Video Cassette

6 6 0 - P 2 1 3 - 1 □ 5 0 0

1

1 Select Connector Type
A: NONE
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

Pluggable Blocking FWDM

Features and Benefits

- Bi-directional
- Low Insertion Loss
- Compact Dimension
- Thin Film Filter Technology
- Epoxy-Free Optical Path
- Ultra Stable and Highly Reliable

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning's Pluggable Blocking Filter WDM provides a solution for fiber to the home/premises (FTTx) and NG PON with low cost, high performance, and compact approach. The blocking filter can be easily installed on existing ONU equipment to block the nonsubscribed signals.

Pluggable Blocking FWDM

Pluggable Blocking FWDM

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
1310+1490+1550 Wavelength Range (PASS)		1290-1310, 1480-1550, and 1550-1560 nm	
1575 Wavelength Range (Blocked)		1574-1581 nm	
Pass Port Insertion Loss			0.8 dB
Pass Port Isolation over 1574-1581 nm	25 dB		
Return Loss for 1290-1330 and 1480-1500 nm	30 dB		
Return Loss for 1550-1560 nm	45 dB		
PDL			0.2 dB
PMD			0.2 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +70°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load		5N Maximum	

Shipping Package	
Packaging Dimensions	Fiber Type
36 mm x 12.8 mm x 9.4 mm	Fiber Type: Corning® SMF-28e® or compatible

Ordering Information

Pluggable Blocking FWDM

6 6 0 - K 2 1 Z - 2 T 0 0 0

Filter WDMs (660 - E Series)

CORNING

Features and Benefits

High Isolation
Low Insertion Loss
Bi-directional
Completely Passive

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers the 660 - E Series of filter WDM products which utilize high-performance thin film interference filters to provide exceptional bandpass performance. The filter WDM is a bi-directional component optimized for a variety of applications including erbium doped fiber amplifiers. Corning's products offer minimal insertion loss and high isolation on both 1310 and 1550 ports. They also offer stable and reliable performance over a broad temperature range.

Filter WDMs (660 - E Series)

Filter WDMs (660 - E Series)

CORNING

Specifications

Parameters	
Wavelength Range	1260-1360 nm or 1500-1600 nm
Pass Channel Insertion Loss	< 1.0 dB
Reflect Channel Insertion Loss	< 1.0 dB
Pass Channel Isolation	> 40 dB
Reflect Channel Isolation	> 40 dB
Return Loss	> 45 dB
Directivity	> 50 dB
PDL	< 0.1 dB
PMD	< 0.1 ps
Maximum Optical Power	300 mW
Operating Temperature Range	-5°C to +65°C
Storage Temperature Range	-40°C to +85°C
Tensile Load	5N Maximum

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
<52.5 mm x 4.6 Φmm (Including boots)	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

Filter WDMs (660 - E Series)

CORNING

Ordering Information

Filter WDMs (660 - E Series)

6 6 0 - □ 2 □ □ - 2 □ □ □ □
(1) (2) (3) (4) (5)

1 Select Wavelength Range
E: 1310/1550 nm

2 Select Mode
1: Short Pass/Long Reflect
2: Long Pass/Short Reflect

3 Select Pigtail Type
0: 250 µm Tube
1: 900 µm Tube
2: 250 µm Box
3: 900 µm Box

4 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

5 Select Customization
000: Standard or
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

Filter WDMs (660 - H Series)

CORNING

Features and Benefits

- High Isolation
- Low Insertion Loss
- Bi-directional
- Completely Passive
- Epoxy-Free Optical Path

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers the 660 - H Series of filter WDM products which utilize high-performance thin film interference filters to provide exceptional bandpass performance. The filter WDM is a bi-directional component optimized for a variety of applications including erbium doped fiber amplifiers. Corning's products offer minimal insertion loss and high isolation. They also offer stable and reliable performance over a broad temperature range.

Filter WDMs (660 - H Series)

Filter WDMs (660 - H Series)

CORNING

Specifications

Parameters	
Wavelength Range	1450-1490 nm or 1535-1580 nm
Pass Channel Insertion Loss	< 0.6 dB
Reflect Channel Insertion Loss	< 0.4 dB
Pass Channel Isolation	> 30 dB
Reflect Channel Isolation	> 12 dB
Return Loss	> 45 dB
Directivity	> 50 dB
PDL	< 0.1 dB
PMD	< 0.1 ps
Maximum Optical Power	300 mW
Operating Temperature Range	-5°C to +65°C
Storage Temperature Range	-40°C to +85°C
Tensile Load (900 µm Buffered)	5N Maximum

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
38 mm x 5.0 Φmm (Not including boots)	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

Filter WDMs (660 - H Series)

CORNING

Ordering Information

Filter WDMs (660 - H Series)

6 6 0 - □ 2 □ □ - 2 □ □ □ □
(1) (2) (3) (4) (5)

1 Select Wavelength Range
H: 1480/1550 nm

2 Select Mode
1: Short Pass/Long Reflect
2: Long Pass/Short Reflect

3 Select Pigtail Type
0: 250 µm Tube
1: 900 µm Tube
2: 250 µm Box
3: 900 µm Box

4 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

5 Select Customization
000: Standard or
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

Filter WDMs (660 - K Series)

CORNING

Features and Benefits

High Isolation
Low Insertion Loss
Bi-directional
Completely Passive
Epoxy-Free Optical Path

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers the 660 - K Series of filter WDM products which utilize high-performance thin film interference filters to provide exceptional bandpass performance. The filter WDM is a bi-directional component optimized for a variety of applications including erbium doped fiber amplifiers. Corning's products offer minimal insertion loss and high isolation. They also offer stable and reliable performance over a broad temperature range.

Filter WDMs (660 - K Series)

Filter WDMs (660 - K Series)

CORNING

Specifications

Parameters	
Wavelength Range	1270-1350 nm and 1530-1570 nm or 1610-1680 nm
Pass Channel Insertion Loss	< 0.6 dB
Reflect Channel Insertion Loss	< 0.4 dB
Pass Channel Isolation	> 30 dB
Reflect Channel Isolation	> 12 dB
Return Loss	> 45 dB
Directivity	> 50 dB
PDL	< 0.1 dB
PMD	< 0.1 ps
Maximum Optical Power	300 mW
Operating Temperature Range	-5°C to +65°C
Storage Temperature Range	-40°C to +85°C
Tensile Load (900 µm Buffered)	5N Maximum

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
38 mm x 5.0 Φmm (Not including boots)	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

Filter WDMs (660 - K Series)

CORNING

Ordering Information

Filter WDMs (660 - K Series)

6 6 0 - □ 2 □ □ - 2 □ □ □ □

1 2 3 4 5

1 Select Wavelength Range
K: 1310/1550/1625 nm

2 Select Mode
1: Short Pass/Long Reflect
2: Long Pass/Short Reflect

3 Select Pigtail Type
0: 250 µm Tube
1: 900 µm Tube

4 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

5 Select Customization
000: Standard or
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

TriWave-FTTP 1310/1490/1550 FWDMs High Isolation (Three-Port)

CORNING

Features and Benefits

Outdoor Environment
High Isolation
Low Insertion Loss
Bi-directional
Epoxy-Free Optical Path

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the Triwave FWDM family of products. Designed for the fiber-to-the-home market, the Triwave utilizes a video signal ready analog PD with an integrated bi-directional filter WDM for high performance applications. Corning's filter WDM components also offer stable and reliable performance over a broad temperature range.

TriWave-FTTP 1310/1490/1550 FWDMs High Isolation (Three-Port)

TriWave-FTTP 1310/1490/1550 FWDMs High Isolation (Three-Port)

CORNING

Specifications

Parameters	
1550 Pass Wavelength Range	1540-1560 nm
1310 and 1490 Wavelength Range	1260-1360 nm and 1480-1500 nm
Pass Channel Insertion Loss	< 0.8 dB
Reflect Channel Insertion Loss	< 0.8 dB
Pass Channel Isolation	> 40 dB
Reflect Channel Isolation	> 40 dB
Return Loss	> 45 dB
Directivity	> 50 dB
PDL	< 0.2 dB
PMD	< 0.2 ps
Maximum Optical Power	300 mW
Operating Temperature Range	-5°C to +65°C
Storage Temperature Range	-40°C to +85°C
Tensile Load (900 µm Buffered)	5N Maximum

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
< 52.5 mm x 4.6 Φmm (Including boots)	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

TriWave-FTTP 1310/1490/1550 FWDMs High Isolation (Three-Port)

CORNING

Ordering Information

TriWave-FTTP 1310/1490/1550 FWDMs High Isolation (Three-Port)

6 6 0 - □ 2 □ □ - 1 □ □ □ □
1 2 3 4 5 6

1 Select Wavelength Range
P: 1310/1550/1625 nm

2 Select Mode
2: Long Pass/Short Reflect

3 Select Pigtail Type
0: 250 µm Tube
2: 900 µm Tube

4 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

5 Select High Isolation
1: High Isolation

6 Select Customization
00: Standard or
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

C - Band OSC Wavelength Division Multiplexer

CORNING

Features and Benefits

- High Directivity
- Low Insertion Loss
- Bi-directional
- High Channel Isolation
- Epoxy-Free Optical Path
- Excellent Stability and Reliability

Corning offers a high isolation C-Band Supervisory Channel Wavelength Division Multiplexer for telecommunications and network applications. This thin film C-Band Supervisory Channel WDM utilizes proprietary technology to achieve superior field performance. Supervisory Channel WDMs are used to add or drop the sonet standard supervisory channel from the overall data stream. Corning's Supervisory Channel WDMs offer low insertion loss, high isolation, and ultra flat wide passband.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

C - Band OSC Wavelength Division Multiplexer

C - Band OSC Wavelength Division Multiplexer

CORNING

Specifications

Parameters	Minimum	Typical	Maximum
Pass Channel Wavelength Range λ1		1500-1520 nm	
Reflect Channel Wavelength Range λ2		1530-1610 nm	
Pass Channel Insertion Loss @λ1		0.8 dB	1.2 dB
Reflect Channel Insertion Loss @λ2		0.4 dB	0.6 dB
Passband Ripple		0.3 dB	0.5 dB
Reflect Channel Isolation @λ1	12 dB	15 dB	
Pass Channel Isolation @λ2	30 dB	40 dB	
Return Loss	45 dB	50 dB	
Directivity	50 dB		
PDL			0.1 dB
PMD			0.1 ps
Maximum Optical Power		300 mW	
Operating Temperature Range		-5°C to +65°C	
Storage Temperature Range		-40°C to +85°C	
Tensile Load		5N Maximum	

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
44 mm x 6.5 Φmm	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

C - Band OSC Wavelength Division Multiplexer

CORNING

Ordering Information

C - Band OSC Wavelength Division Multiplexer

6 6 0 - D 2 1 □ - 1 □ □ □ □

1 2 3

1 Select Pigtail Type
0: 250 µm Tube
1: 900 µm Tube
2: 250 µm Box
3: 900 µm Box

2 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

3 Select Customization
000: Standard or
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

TriWave-FTTP 1310/1490/1550 FWDMs (Three-Port)

CORNING

Features and Benefits

Outdoor Environment
High Isolation
Low Insertion Loss
Bi-directional
Epoxy-Free Optical Path

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces the Triwave FWDM family of products. Designed for the fiber-to-the-home market, the Triwave utilizes a video signal ready analog PD with an integrated bi-directional filter WDM for high performance applications. Corning's filter WDM components also offer stable and reliable performance over a broad temperature range.

TriWave-FTTP 1310/1490/1550 FWDMs (Three-Port)

TriWave-FTTP 1310/1490/1550 FWDMs (Three-Port)

CORNING

Specifications

Parameters	
1550 Pass Wavelength Range	1540-1560 nm
1310 and 1490 Wavelength Range	1260-1360 nm and 1480-1500 nm
Pass Channel Insertion Loss	< 0.5 dB
Reflect Channel Insertion Loss	< 0.4 dB
Pass Channel Isolation	> 25 dB
Reflect Channel Isolation	> 20 dB
Return Loss	> 45 dB
Directivity	> 50 dB
PDL	< 0.2 dB
PMD	< 0.2 ps
Maximum Optical Power	300 mW
Operating Temperature Range	-5°C to +65°C
Storage Temperature Range	-40°C to +85°C
Tensile Load (900 µm Buffered)	5N Maximum

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
38 mm x 5.0 Φmm (Not including boots)	Fiber Type: Corning® SMF-28e® or compatible	1 m (Standard)

TriWave-FTTP 1310/1490/1550 FWDMs (Three-Port)

CORNING

Ordering Information

TriWave-FTTP 1310/1490/1550 FWDMs (Three-Port)

6 6 0 - □ 2 □ □ - 1 □ 0 □ □

1 2 3 4 5

1 Select Wavelength Range
P: 1310/1550/1625 nm

2 Select Mode
2: Long Pass/Short Reflect

3 Select Pigtail Type
0: 250 µm Tube
2: 900 µm Tube

4 Select Connector*
A: None
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

5 Select Customization
00: Standard or
Running number used for special types or custom made

Note:
** Specifications do not include connector loss.*

Pluggable Filter WDM with Retro Reflect

CORNING

Features and Benefits

- Low Insertion Loss
- High Isolation
- Thin Film Coating with Versatile Wavelength Management
- Epoxy-Free Optical Path
- Ultra Stable and Highly Reliable

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning's pluggable filter WDM with retro reflect is designed as a miniature stand-alone device at ONU to block and reflect certain deployed wavelength for the service provider. This compact device features versatile functionality with great convenience to meet rapidly increasing NG-PON and access network applications.

Pluggable Filter WDM with Retro Reflect

Pluggable Filter WDM with Retro Reflect

CORNING

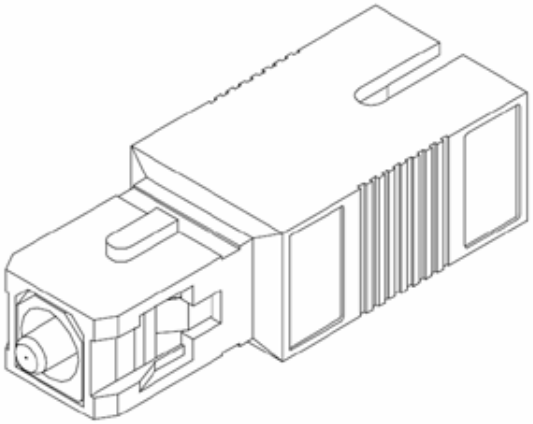
Specifications

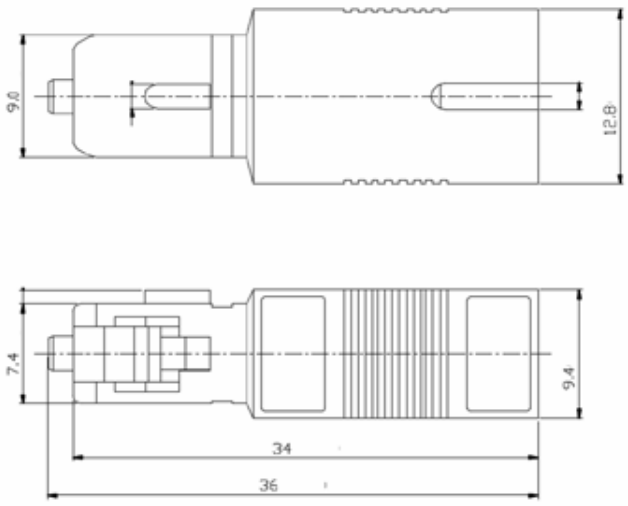
Parameters	Minimum	Maximum
1310 + 1550 Wavelength Range (PASS)	1260 nm	1360 nm
	1460 nm	1581 nm
1625 Wavelength Range (Retro-Reflect)	1610 nm	1660 nm
Pass Band Insertion Loss Tested in Pass Port*		1.2 dB
Pass Band 1260-1360 Return Loss Tested in Common Port	18 dB	
Pass Band 1460-1581 Return Loss Tested in Common Port	17 dB	
Reflect Band Signal Tested in Pass Port	17 dB	
Reflect Band Tested in Common Port		1.0 dB
PDL**		0.4 dB
Ripple**		0.6 dB
TDL**		0.5 dB
Durability (Plug Times)	500	
Optical Power		500 mW
Operating Temperature Range***	-5°C to +75°C	
Storage Temperature Range	-40°C to +85°C	

Notes:

** Insertion loss includes connector loss and covers the entire operating temperature.*
*** PDL, TDL, and ripple are for passband testing in pass port and reflect band tested in common port.*
**** If requested, this can be extended to industrial operating temperature range -40°C ~ 85°C, but insertion loss will be slightly higher.*

Drawing





Pluggable Filter WDM with Retro Reflect

CORNING

Ordering Information

Pluggable Filter WDM with Retro Reflect

6 6 0 - K 2 1 Z - 2 T 2 0 0

FWDM Reflector

Features and Benefits

Compact Size
Stability Over Temperature
Flexible Band Arrangement

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE

Corning's miniature FWDM retro-reflector is used to reflect the desired optical signal back into the COM port, while the rest of signals are guided into the output port. It is a low cost, two-port micro optical device with excellent performance including low insertion loss, high isolation, high return loss, and low PDL. In the typical application of network monitoring, the retro-reflected signal will have significantly lower insertion loss than the monitor compared to the configuration without the reflector unit.

FWDM Reflector

FWDM Reflector

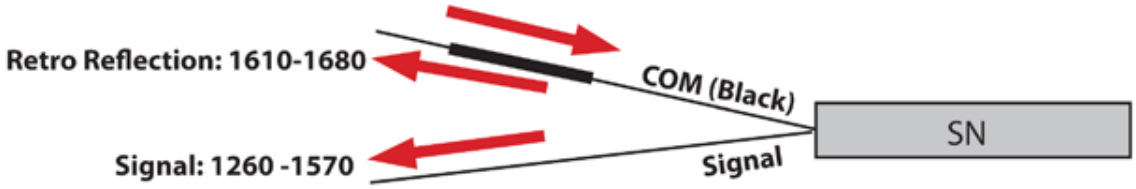
Specifications

Parameters	Maximum
Signal Channel Bandwidth*	1260-1570 nm
Retro Reflection Channel Bandwidth	1610-1680 nm
Maximum Signal Channel Insertion Loss	0.60 dB
Maximum Retro Reflection Channel Return Loss	1.00 dB
Minimum Signal Channel Isolation	15 dB
Minimum Retro Reflection Channel Isolation	40 dB
Minimum Return Loss for Reflect Band on COM and Signal Port	45 dB
Maximum PDL	0.20 dB
Operating Temperature Range**	-5°C to +65°C

Notes:

** Other wavelength arrangement available per customer request.*
*** All Performances met specifications over operation temperature range. Data shown are at room temperature without connectors.*

Drawing



Shipping Package
Packaging Dimensions
Compact Size: 3.5 x 15.0 mm

FWDM Reflector

Ordering Information

FWDM Reflector

6 6 0 - □ 2 2 □ - □ □ □ □ □
1 2 3 4 5

1 Select Wavelength Range
P: 1610-1680 nm Retro-Reflected
Other: Customer Specified

2 Select Pigtail Type
U: 250 µm Bare Fiber
1: 900 µm Tube

3 Select Grade
1: Standard
2: Premium
3: Ultra

4 Select Connector**
0: None
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

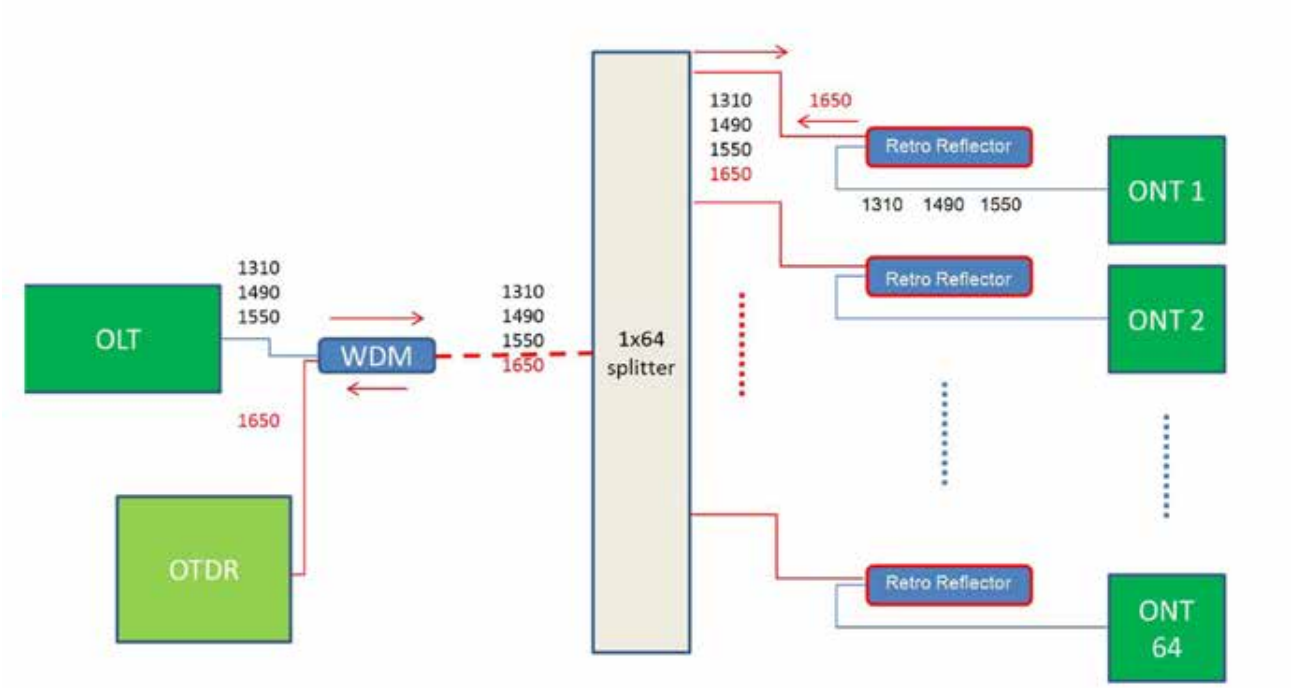
5 Select Customization
000: Standard or
Running number used for special types or custom made

Note:
*** All Performances met specifications over operation temperature range. Data shown are at room temperature without connectors.*

FWDM Reflector

Application Notes

Corning's FWDM retro-reflector can be used to enhance the Optical Network monitoring with great felxibiity and minimum cost. A typical application scheme to implement the reflector in next generation FTTx PON is illustrated in the schematic drawing below.



Using this product, the returned 1650 nm testing signal will have significantly lower insertion loss to the OTDR (Optical Time Domain Reflectometer), compared to the configuration without a reflector unit. It can be implemented in the FTTx network in front of each final user (ONTs), which requires minimum effort to update the network infrastructure for existing network and to construct new FTTx PON. With comparison to other reflector products in the market, Corning's retro-reflector uses same-side fiber arrangement, offers lower insertion loss for the 1310, 1490, and 1550 transmissions, and provides a more compact form factor.

CEx in LGX

660-P222-4y0x0

CORNING

Optical Specifications

Parameter	Minimum	Typical	Maximum
Quantity of CEx		x=1, 1 set x=2, 2 sets	
GPON Port Wavelength (nm)		1290-1330 & 1480-1500	
TWDM Port Wavelength (nm)		1532-1540 & 1595-1603	
PtP Port Wavelength (nm)		1610-1625	
RF Port Wavelength (nm)		1550-1560	
XGS-PON Port Wavelength (nm)		1260-1280 & 1575-1581	
GPON Port Insertion Loss (dB)			1.0
TWDM Port Insertion Loss (dB)			1.6
PtP Port Insertion Loss (dB)			1.6
RF Port Insertion Loss (dB)			1.2
XGS-PON Port Insertion Loss (dB)			1.6
Passband Ripple (dB)			0.5
GPON Port Isolation (dB)	45		
TWDM Port Isolation (dB)	30		
PtP Port Isolation (dB)	30		
Video Port Isolation (dB)	12		
XGS-PON Port Isolation(dB)	30		
Return Loss (dB)	50		
Directivity (dB)	50		
PDL (dB)			0.3
PMD (ps)			0.2
Optical Power (mW)			300

CEx in LGX

660-P222-4y0x0

CORNING

Environmental Specifications

Parameter	Minimum	Typical	Maximum
Operating Temperature Range (°C)		-5 to +40 (long term) -5 to +50 (short term)	
Storage Temperature (°C)	-40		+85

Mechanical Specifications

Parameter	Minimum	Typical	Maximum
Tensile Load (N)	5		
Package Dimensions (mm)	LGX		
Connector/Adapter	y = L, GPON/TWDM/PtP/XGS Ports: LC UPC, blue RF/Common Ports: LC APC, green y = S, GPON/TWDM/PtP/XGS Ports: SC UPC, blue RF/Common Ports: SC APC, green		
Fiber Type	Corning SMF28e+® or equivalent		
Labeling and packaging	AFOP standard		

NOTES

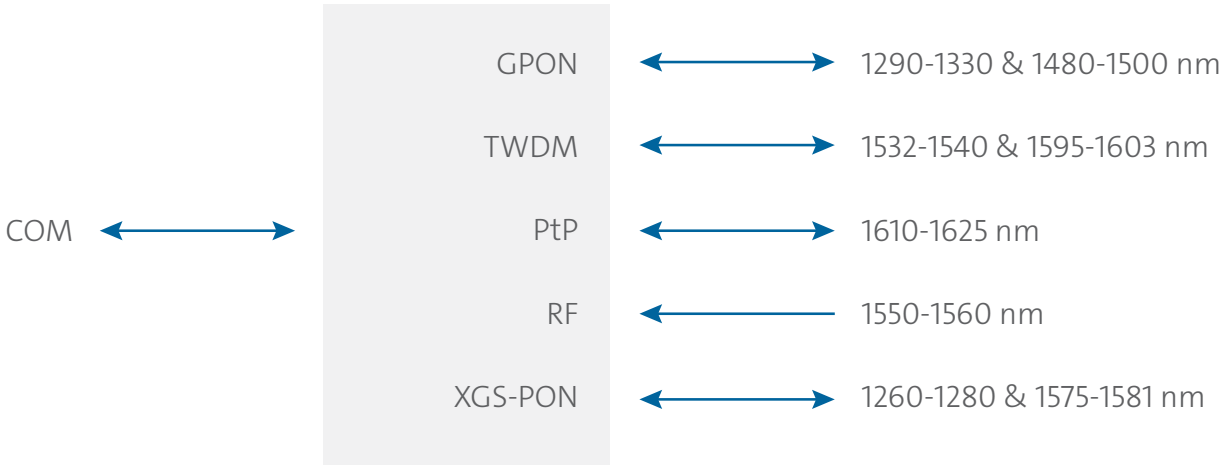
1) Maximum insertion includes connector loss.
2) Maximum insertion loss covers entire operating temperature range.
3) All components must be RoHS compliant.
4) All WDM and other fiber-based components must be compliant to their pertinent Telcordia requirements, including GR-1209, GR-1221, and others as appropriate to the specification.

CEx in LGX

660-P222-4y0x0

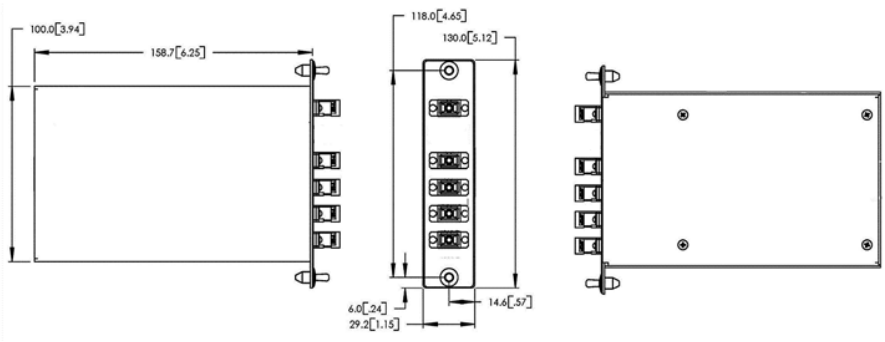
CORNING

Optical Layout



Mechanical Drawing

unit: mm[inch]
Note: for dimension reference only



Front Port labels

COM/GPON / TWDM / P2P / RF / XGS

Fiber Array Units (FAUs)

Fiber Array Units

Our broad range of fiber array units (FAUs) are designed for long-haul and metro networks as well as data center applications. With our specialty fiber capabilities and customizable V-groove chips and covers, Corning FAU products are tailorable to address your unique specifications including inter-fiber core pitch and precision, channel number, fiber type, and termination type. All of our FAUs feature ultra-accurate fiber core position with low insertion loss and high optical return loss, made possible by our advanced dicing machines and core pitch measurement machines. As one of the world's leading innovators in materials science, Corning can also develop FAU-integrated connectors and interposers for your evolving photonic integrated circuit (PIC) requirements.

Applications

- AWGs and OADMs
- Multichannel switches
- Multichannel V-muxes
- SiP assemblies

Features

- Highly customizable
- High reliability in harsh environments
- Ultra-accurate core pitch position
- High density
- Compact design
- Flexibility in fiber selection
- Various termination methods

Fiber Array Unit (FAU) Series

CORNING

Features and Benefits

Highly customizable

High reliability under harsh environment

Ultra-accurate core pitch position

High density

Compact design

Flexibility in fiber selection

Various termination methods
Also available with reduced-clad bend-insensitive (RCBI) fiber

Standards

RoHS2011/65/EU

GR-1221-Core

GR-1209

Corning OEM offers a broad range of Fiber Array Units (FAUs) for long-haul, metro networks and data center applications. With customizable V-groove chips and covers, and Corning's capability of developing and making specialty fibers, our FAU products can meet a wide variety of customer requirements on the inter-fiber core pitch and its precision, channel number, fiber type, and termination type. All of our FAUs feature ultra-accurate fiber core position with low insertion loss and high optical return loss, guaranteed by our advanced dicing machines and core pitch measurement machines. With the support of Corning's innovation in materials science, we can also develop FAU-integrated connectors and interposers to meet future photonic integrated circuit (PIC) industry needs.

Figure 1 – FAU with MTP® Connector

Figure 2 – 90-Degree FAU with MTP Connector

Fiber Array Unit (FAU) Series

CORNING

Specifications

Parameters	Standard Fiber	RCBI Fiber
Material choice (chip and cover)	Glass/fused silica/quartz	Glass/fused silica/quartz
Number of channels	1-96, typical and > 96 upon request	1-96, typical and > 96 upon request
Core pitch spacing for fiber to fiber	127 or 250 µm, typical, or any other	84 or 165 µm, typical, or any other
Core pitch tolerance	± 0.7 µm (dR) for channel # ≤ 16 ± 1.0 µm for channel # ≤ 48 ± 1.5 µm for channel # ≤ 72	± 0.6 µm (dR) for channel # ≤16 ± 0.8 µm (dR) for channel # ≤ 48 ± 1.2 µm (dR) for channel # ≤ 72
Fiber type	Single-mode, polarization-maintaining fiber (PM), multimode	Single-mode, multimode
Insertion loss	≤ 0.15 dB, typical	≤ 0.15 dB, typical
Return loss	≥ 14 dB, but ≤ 20 dB for 0-degree polished ≥ 50 dB for > 5-degree polish	≥ 14 dB, but ≤ 20 dB for 0-degree polished ≥ 50 dB for > 5-degree polish
Polish angle	0 or 8 ± 0.3 degree, typical	0 or 8 ± 0.3 degree, typical
Fiber protrusion	0 ± 200 nm	0 ± 200 nm
Polish flatness	≤ 1.6 µm, typical	≤ 1.6 µm, typical
Reflectance (R) for anti-reflection (AR) coating	≤ 0.25%	≤ 0.25%
Length	L ± 0.5 mm, typical	L ± 0.5 mm, typical
Width	W ± 0.1 mm, typical	W ± 0.1 mm, typical
Thickness	T (≥ 1 mm) ± 0.1 mm, typical	T (≥ 1 mm) ± 0.1 mm, typical
Connector	LC/FC ferrule, MPO, receptacle	MPO

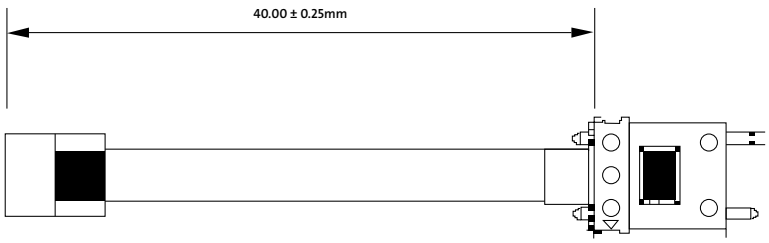


Figure 3 – Drawing of an FAU-MTP® Assembly

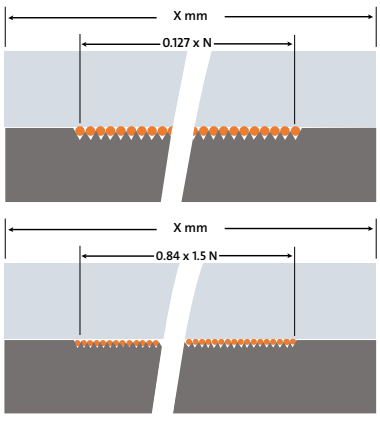


Figure 4 – Standard vs RCBI FAU end face

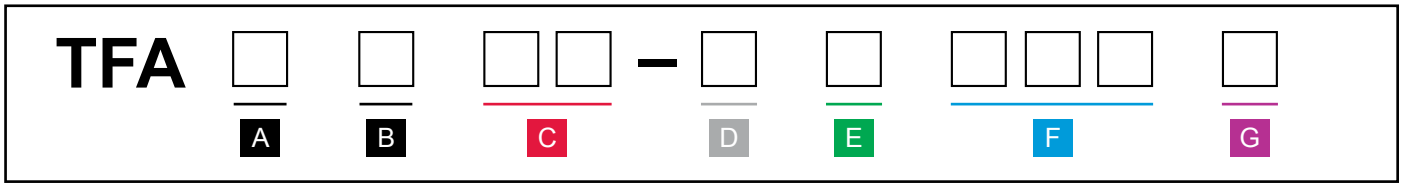
Fiber Array Unit (FAU) Series

CORNING

FAU for Data Center

Corning offers a wide variety of FAUs to put inside transceivers and connect to a PIC.

Ordering Information



A&B: Device End
0: none
2: two types of termination
A: PLC w/FAU
D: DLC UPC connection with fan-out
K: LC receptacle
L: LC PC connection with fan-out
M: LC ferrule
F: FAU
P: FC PC
Q: FC APC connection with fan-out
R: Prism
U: MPO, 80 µm hole
V: MPO, 125 µm hole

C: Fiber Count
01: 1 F
04: 4 F
06: 6 F
08: 8 F
12: 12 F
20: 20 F
24: 24 F

D: Cable Type
1: SM
2: MM
3: PM
4: others
X: more than one fiber
S: splice

E: Customer Code
A: A Company

F: Running Number

G: Optional Code
Reserve for special use

FAU for Long-Haul and Metro Networks

An FAU can be put inside a reconfigurable optical add-drop multiplexer (ROADM) and function as an optical transmission for the wavelength selective switch (WSS) to switch traffic remotely from a wavelength division multiplexing (WDM) system at the wavelength layer.

There are other functions within long-haul and metro networks that require FAUs, and they are amplifier/CP module, coherent mixer, multiport wavelength switch, multicast switch, and optical channel monitor.

Fiber Array Unit (FAU) Series

CORNING

Ordering Information

PFA □ □ □ □ – □ □ □ □ □

1 2 3 4 5 6 7 8 9

1 Material Type
A: Borosilicate
F: Fused silica
S: Silicon
P: PYREX® or BOROFLOAT®
Q: Quartz
B: BK7

2 Port Count
1: single port
2: 2 ports
3: 3 ports
4: 4 ports
6: 5~6 ports
7: 7 ports
A: two 4 ports
8: 8 ports
B: two 8 ports
9: 9 ports
E: 10 ports
G: 11~12 ports
5: 13~15 ports
H: 16 ports
J: 20 ports
X: 24 ports
K: 25-28 ports
C: four 8 ports
T: 32 ports
U: 33~39 ports
Y: 40 ports
S: 44 ports
D: six 8 ports
F: 48 ports
L: 49 ports
W: 64 ports
M: 65~128 ports
Z: customized

3 Fiber Type
S: single, 900 µm tight buffer, Corning® SMF-28®
B: single, 900 µm SBJ fiber
1: single, 250 µm, SMF-28
D: single, 250 µm, G657
I: single 165 µm, RCBI fiber
L: lensed fiber
2: 2-fiber ribbon, 250 µm, SMF-28
4: 4-fiber ribbon, 250 µm, SMF-28
5: 4-fiber ribbon, 250 µm, G657
6: 6-fiber ribbon, 250 µm, SMF-28
7: 6-fiber ribbon, 250 µm, G657
8: 8-fiber ribbon, 250 µm, SMF-28
9: 8-fiber ribbon, 250 µm, G657
A: 8-fiber ribbon, 250 µm + single 900 µm, SMF-28
C: 8-fiber ribbon, PVC jacket
T: 12-fiber ribbon, 250 µm, SMF-28
U: 12-fiber ribbon, PVC jacket
V: 12-fiber ribbon, PVC, G657
W: 12-fiber ribbon, G657
M: OM3 fiber
P: PM fiber
R: round cable
X: small core
Z: customized

4 Polished Angle
0: Flat (90.0 degrees)
C: 96 degrees
8: +8 degrees (98)
A: -8 degrees (82)
B: -12 degrees (78)
D: -6 degrees (84)
E: 45 degrees
F: Tilt -8 degrees (L to R down, rear view)
G: Tilt +8 degrees (R to L down, rear view)
P: protruded
T: +12 degrees (102)
Z: customized

5 Port Spacing
0: no spacing
S: 84 µm spacing
H: 127 µm spacing
9: 129 µm spacing
F: 250 µm spacing
C: 500 µm spacing
E: 750 µm spacing
A: 900 µm spacing
B: 1250 µm spacing
2: 2 mm
3: 3 mm
U: uneven
Z: customized
D: 2D FAU

6 FAU Thickness
4: 1.0-1.49 mm
1: 1.50-1.99 mm
A: 2.0-2.49 mm
2: 2.50-2.99 mm
3: 3.00-3.99 mm
4: 4.00-4.99 mm
Z: customized

7 Connector Code
0 = none
1 = none; bare ribbon fiber with fan-out
K = LC APC connectors with fan-out
L = LC PC connectors with fan-out
M = MT RJ connectors with fan-out
P = FC PC connectors with fan-out
Q = FC APC connectors with fan-out
R = LC receptacle
S = SC PC connectors with fan-out
T = SC APC connectors with fan-out
U = MU PC connectors with fan-out
V = MTP® connectors with fan-out
N = SnapMate connectors with fan-out

8 Hermetic/Running #
A: AR coating
H: HR coating
L: 90-degree light turn
C: cerrocast
F: glass feed-through
Running #: 0-9

9 Running #
0-9

Fiber Array Unit (FAU) Series

CORNING

Main Coupling Methods for FAU

1. Edge coupling with our conventional FAUs: These FAUs can easily be used to bond with a customer's PLC waveguide from the edge.

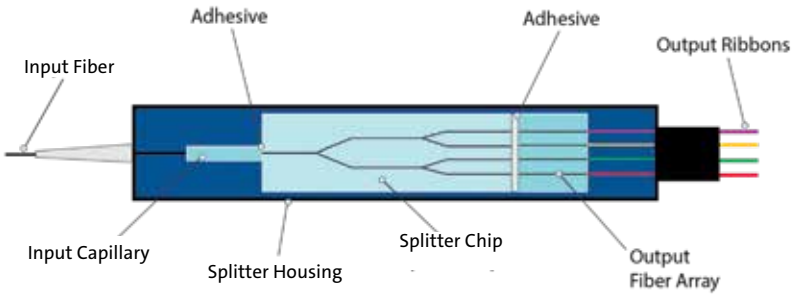


Figure 5 – Illustration of Edge Coupling between an FAU and a Planar Lightwave Circuit (PLC)

2. Grating coupling with Corning 90-degree light-turn FAUs: With low-loss, high-reliability 90-degree light-turn FAUs, the signal light can be conveniently coupled from and to the PIC via a diffractive grating.

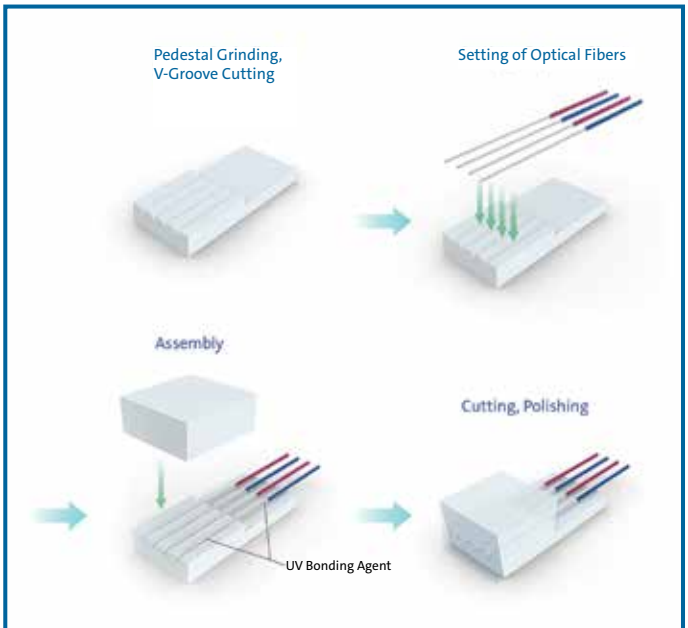


Figure 6 – FAU Assembly Steps

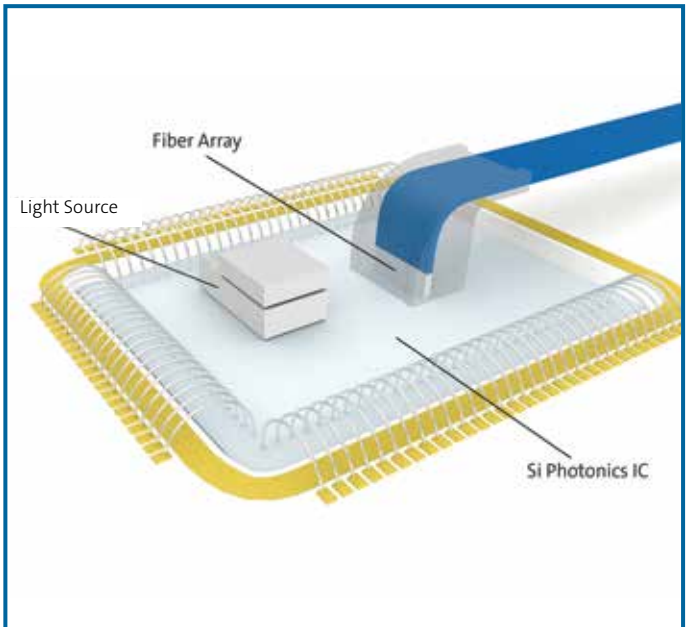


Figure 7 – FAU with Grating Coupling

Fiber Array Unit (FAU) Series

CORNING

Features and Benefits

Highly customizable

High reliability under harsh environment

Ultra-accurate core pitch position

High density

Compact design

Flexibility in fiber selection

Various termination methods
Also available with reduced-clad bend-insensitive (RCBI) fiber

Standards

RoHS2011/65/EU

GR-1221-Core

GR-1209

Corning OEM offers a broad range of Fiber Array Units (FAUs) for long-haul, metro networks and data center applications. With customizable V-groove chips and covers, and Corning's capability of developing and making specialty fibers, our FAU products can meet a wide variety of customer requirements on the inter-fiber core pitch and its precision, channel number, fiber type, and termination type. All of our FAUs feature ultra-accurate fiber core position with low insertion loss and high optical return loss, guaranteed by our advanced dicing machines and core pitch measurement machines. With the support of Corning's innovation in materials science, we can also develop FAU-integrated connectors and interposers to meet future photonic integrated circuit (PIC) industry needs.

Figure 1 – FAU with MTP® Connector

Figure 2 – 90-Degree FAU with MTP Connector

Fiber Array Unit (FAU) Series

CORNING

Specifications

Parameters	Standard Fiber	RCBI Fiber
Material choice (chip and cover)	Glass/fused silica/quartz	Glass/fused silica/quartz
Number of channels	1-96, typical and > 96 upon request	1-96, typical and > 96 upon request
Core pitch spacing for fiber to fiber	127 or 250 µm, typical, or any other	84 or 165 µm, typical, or any other
Core pitch tolerance	± 0.7 µm (dR) for channel # ≤ 16 ± 1.0 µm for channel # ≤ 48 ± 1.5 µm for channel # ≤ 72	± 0.6 µm (dR) for channel # ≤16 ± 0.8 µm (dR) for channel # ≤ 48 ± 1.2 µm (dR) for channel # ≤ 72
Fiber type	Single-mode, polarization-maintaining fiber (PM), multimode	Single-mode, multimode
Insertion loss	≤ 0.15 dB, typical	≤ 0.15 dB, typical
Return loss	≥ 14 dB, but ≤ 20 dB for 0-degree polished ≥ 50 dB for > 5-degree polish	≥ 14 dB, but ≤ 20 dB for 0-degree polished ≥ 50 dB for > 5-degree polish
Polish angle	0 or 8 ± 0.3 degree, typical	0 or 8 ± 0.3 degree, typical
Fiber protrusion	0 ± 200 nm	0 ± 200 nm
Polish flatness	≤ 1.6 µm, typical	≤ 1.6 µm, typical
Reflectance (R) for anti-reflection (AR) coating	≤ 0.25%	≤ 0.25%
Length	L ± 0.5 mm, typical	L ± 0.5 mm, typical
Width	W ± 0.1 mm, typical	W ± 0.1 mm, typical
Thickness	T (≥ 1 mm) ± 0.1 mm, typical	T (≥ 1 mm) ± 0.1 mm, typical
Connector	LC/FC ferrule, MPO, receptacle	MPO

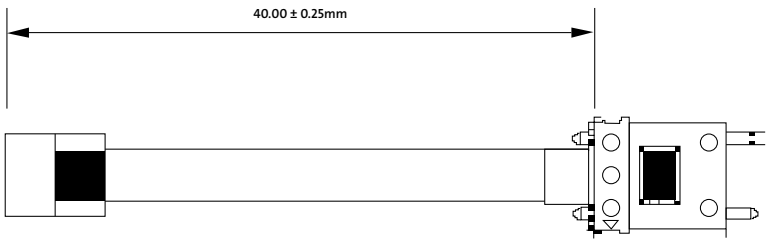


Figure 3 – Drawing of an FAU-MTP® Assembly

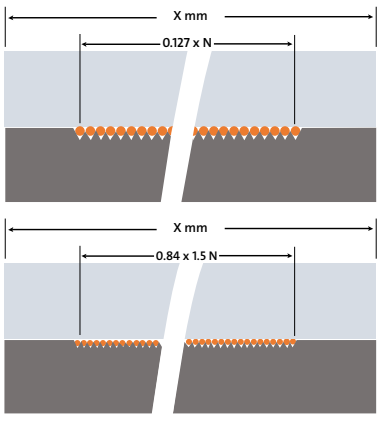


Figure 4 – Standard vs RCBI FAU end face

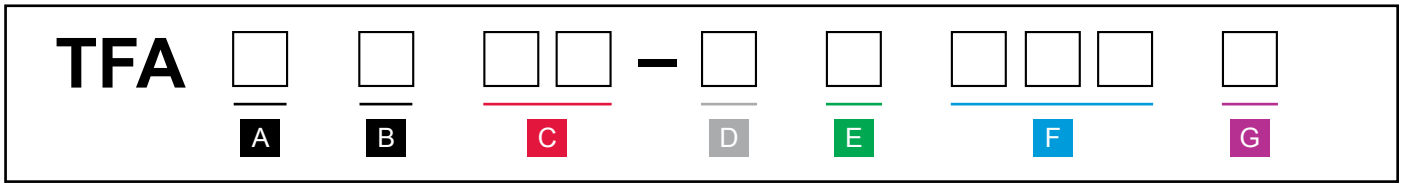
Fiber Array Unit (FAU) Series

CORNING

FAU for Data Center

Corning offers a wide variety of FAUs to put inside transceivers and connect to a PIC.

Ordering Information



A&B: Device End
0: none
2: two types of termination
A: PLC w/FAU
D: DLC UPC connection with fan-out
K: LC receptacle
L: LC PC connection with fan-out
M: LC ferrule
F: FAU
P: FC PC
Q: FC APC connection with fan-out
R: Prism
U: MPO, 80 µm hole
V: MPO, 125 µm hole

C: Fiber Count
01: 1 F
04: 4 F
06: 6 F
08: 8 F
12: 12 F
20: 20 F
24: 24 F

D: Cable Type
1: SM
2: MM
3: PM
4: others
X: more than one fiber
S: splice

E: Customer Code
A: A Company

F: Running Number

G: Optional Code
Reserve for special use

FAU for Long-Haul and Metro Networks

An FAU can be put inside a reconfigurable optical add-drop multiplexer (ROADM) and function as an optical transmission for the wavelength selective switch (WSS) to switch traffic remotely from a wavelength division multiplexing (WDM) system at the wavelength layer.

There are other functions within long-haul and metro networks that require FAUs, and they are amplifier/CP module, coherent mixer, multiport wavelength switch, multicast switch, and optical channel monitor.

Fiber Array Unit (FAU) Series

CORNING

Ordering Information

PFA □ □ □ □ – □ □ □ □ □

1 2 3 4 5 6 7 8 9

1 Material Type
A: Borosilicate
F: Fused silica
S: Silicon
P: PYREX® or BOROFLOAT®
Q: Quartz
B: BK7

2 Port Count
1: single port
2: 2 ports
3: 3 ports
4: 4 ports
6: 5~6 ports
7: 7 ports
A: two 4 ports
8: 8 ports
B: two 8 ports
9: 9 ports
E: 10 ports
G: 11~12 ports
5: 13~15 ports
H: 16 ports
J: 20 ports
X: 24 ports
K: 25-28 ports
C: four 8 ports
T: 32 ports
U: 33~39 ports
Y: 40 ports
S: 44 ports
D: six 8 ports
F: 48 ports
L: 49 ports
W: 64 ports
M: 65~128 ports
Z: customized

3 Fiber Type
S: single, 900 µm tight buffer, Corning® SMF-28®
B: single, 900 µm SBJ fiber
1: single, 250 µm, SMF-28
D: single, 250 µm, G657
I: single 165 µm, RCBI fiber
L: lensed fiber
2: 2-fiber ribbon, 250 µm, SMF-28
4: 4-fiber ribbon, 250 µm, SMF-28
5: 4-fiber ribbon, 250 µm, G657
6: 6-fiber ribbon, 250 µm, SMF-28
7: 6-fiber ribbon, 250 µm, G657
8: 8-fiber ribbon, 250 µm, SMF-28
9: 8-fiber ribbon, 250 µm, G657
A: 8-fiber ribbon, 250 µm + single 900 µm, SMF-28
C: 8-fiber ribbon, PVC jacket
T: 12-fiber ribbon, 250 µm, SMF-28
U: 12-fiber ribbon, PVC jacket
V: 12-fiber ribbon, PVC, G657
W: 12-fiber ribbon, G657
M: OM3 fiber
P: PM fiber
R: round cable
X: small core
Z: customized

4 Polished Angle
0: Flat (90.0 degrees)
C: 96 degrees
8: +8 degrees (98)
A: -8 degrees (82)
B: -12 degrees (78)
D: -6 degrees (84)
E: 45 degrees
F: Tilt -8 degrees (L to R down, rear view)
G: Tilt +8 degrees (R to L down, rear view)
P: protruded
T: +12 degrees (102)
Z: customized

5 Port Spacing
0: no spacing
S: 84 µm spacing
H: 127 µm spacing
9: 129 µm spacing
F: 250 µm spacing
C: 500 µm spacing
E: 750 µm spacing
A: 900 µm spacing
B: 1250 µm spacing
2: 2 mm
3: 3 mm
U: uneven
Z: customized
D: 2D FAU

6 FAU Thickness
4: 1.0-1.49 mm
1: 1.50-1.99 mm
A: 2.0-2.49 mm
2: 2.50-2.99 mm
3: 3.00-3.99 mm
4: 4.00-4.99 mm
Z: customized

7 Connector Code
0 = none
1 = none; bare ribbon fiber with fan-out
K = LC APC connectors with fan-out
L = LC PC connectors with fan-out
M = MT RJ connectors with fan-out
P = FC PC connectors with fan-out
Q = FC APC connectors with fan-out
R = LC receptacle
S = SC PC connectors with fan-out
T = SC APC connectors with fan-out
U = MU PC connectors with fan-out
V = MTP® connectors with fan-out
N = SnapMate connectors with fan-out

8 Hermetic/Running #
A: AR coating
H: HR coating
L: 90-degree light turn
C: cerrocast
F: glass feed-through
Running #: 0-9

9 Running #
0-9

Fiber Array Unit (FAU) Series

CORNING

Main Coupling Methods for FAU

1. Edge coupling with our conventional FAUs: These FAUs can easily be used to bond with a customer's PLC waveguide from the edge.

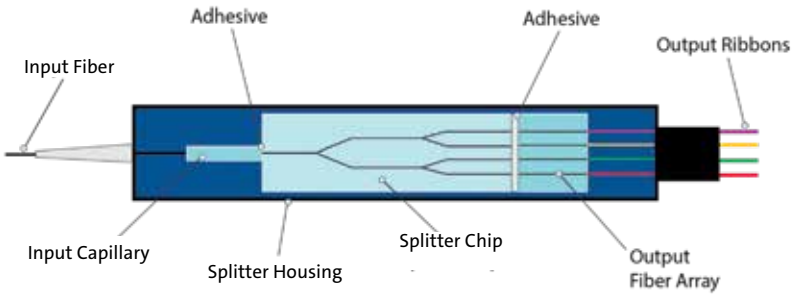


Figure 5 – Illustration of Edge Coupling between an FAU and a Planar Lightwave Circuit (PLC)

2. Grating coupling with Corning 90-degree light-turn FAUs: With low-loss, high-reliability 90-degree light-turn FAUs, the signal light can be conveniently coupled from and to the PIC via a diffractive grating.

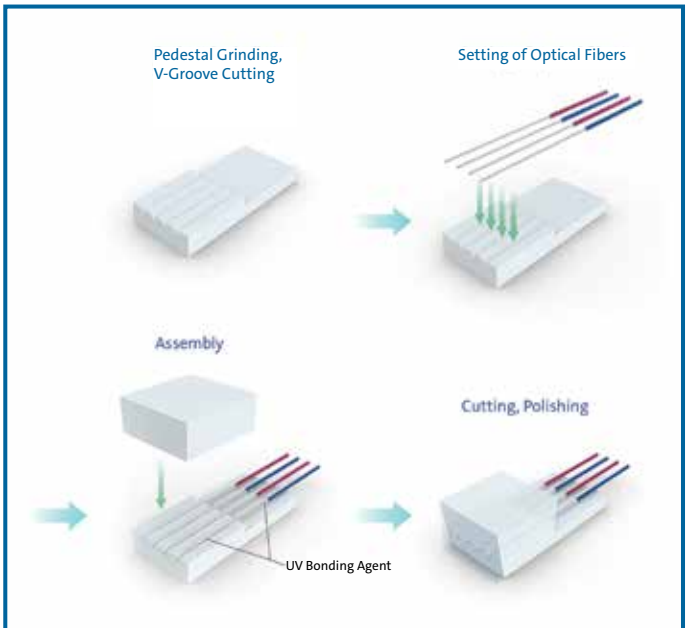


Figure 6 – FAU Assembly Steps

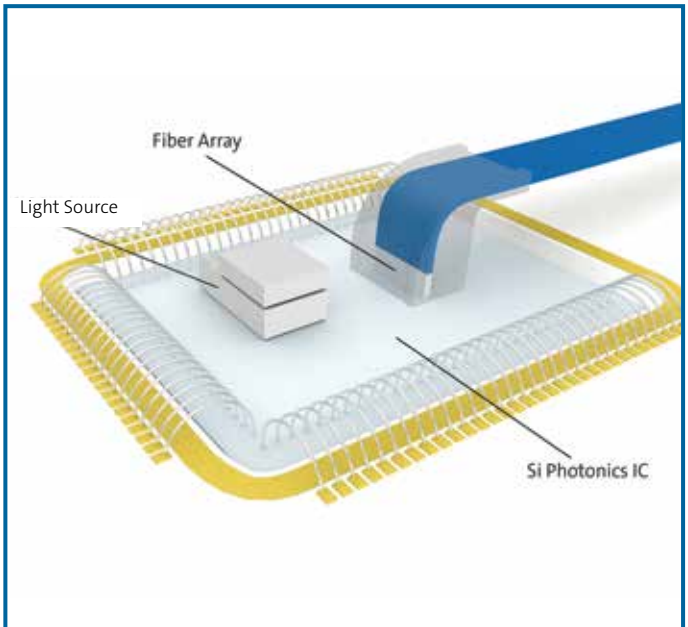


Figure 7 – FAU with Grating Coupling

Terminated Fiber Array Unit Fan-Outs

CORNING

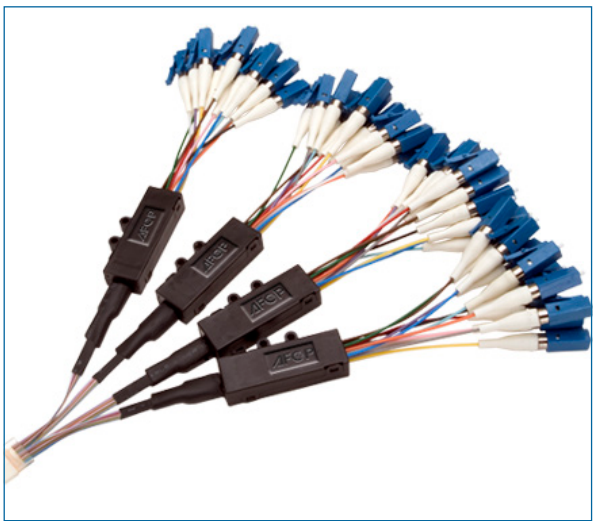
Features and Benefits

- Low Insertion Loss, Low PDL
- Polishing Angle 0, 8 Degree
- Environmentally Stable
- Accurate Fiber Pitch Positions
- Custom Designs Available

Corning offers single-mode, terminated Fiber Array Unit (FAU) Fan-Outs. All terminated FAU Fan-Outs feature excellent fiber core position accuracy, low insertion loss, and low optical return loss. Corning also provides customized design and fabrication for customer-specific applications.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE



Terminated Fiber Array Unit Fan-Outs

Terminated Fiber Array Unit Fan-Outs

CORNING

Specifications*

Parameters	Unit	Single-Mode			
Number of Channel		1~48			
Type of Ferrule Endface		PC		APC	
Type of Ferrule	mm	1.25	2.5	1.25	2.5
Insertion Loss (1310 nm/1550 nm)	dB	≤0.3			
Optical Return Loss (1310 nm/1550 nm)	dB	≤-50			
Type of Connector		FC/ST/SC/MU/LC			
Operating Temperature Range		-40°C ~ +85°C			

Note:

**See Fiber Array Unit specifications.*

Ordering Information

Terminated Fiber Array Unit Fan-Outs

P F A - □ □ □ □ - □ □ □ □ □

1 2 3 4 5 6 7 8

1 Select Material Type
D: Pyrex-Pyrex Double V
P: Pryex-Pyrex Single V
Q: Quartz-Quartz Single V

2 Select Port Count
1: Single Port
2: 2 Ports
4: 4 Ports
8: 8 Ports
H: 16 Ports
S: 44 Ports
X: 24 Ports
T: 32 Ports
Y: 40 Ports
F: 48 Ports
Z: Customized

3 Select Fiber Type
S: Single, 900mm Tight Buffer, SMF 28
1: Single, 250mm, SMF 28
2: 2 Fibers Ribbon, 250mm, SMF 28
4: 4 Fibers Ribbon, 250mm, SMF28
8: 8 Fibers Ribbon, 250mm, SMF 28
Z: Customized

4 Select Polishing Angle
0: Flat (90 Degree)
8: 98 Degree
A: 82 Degree
T: +12 Degree
B: -12 Degree
P: Protruded
Z: Customized

5 Select Port Spacing
F: 250mm Spacing
H: 127mm Spacing
Z: Customized

6 Select Thickness
1: 1.50 mm
2: 2.50 mm
3: 3.00 mm
Z: Customized

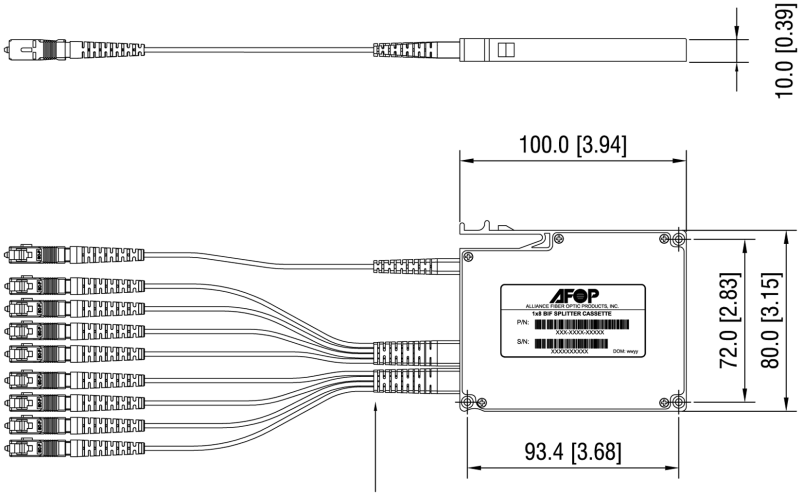
7 Select Connector Code
0: None
1: None; Bare Ribbon Fiber with Fan Out
K: LC/APC Connectors with Fan Out
L: LC/PC Connectors with Fan Out
P: FC/PC Connectors with Fan Out
Q: FC/APC Connectors with Fan Out
S: SC/PC Connectors with Fan Out
T: SC/APC Connectors with Fan Out

8 Select Customization
00: Standard
Running number for special specifications or customized

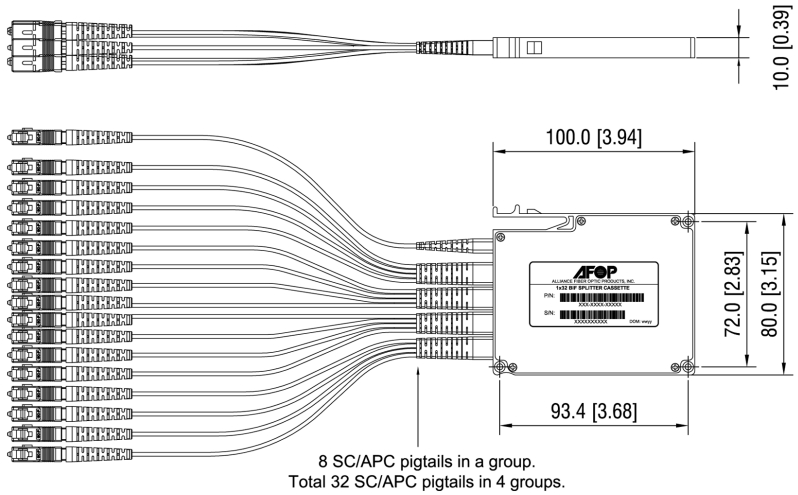
Terminated Fiber Array Unit Fan-Outs

CORNING

Mechanical Drawing 1x8 Splitter Module



Mechanical Drawing 1x32 Splitter Module



V-Groove Chips and Arrays

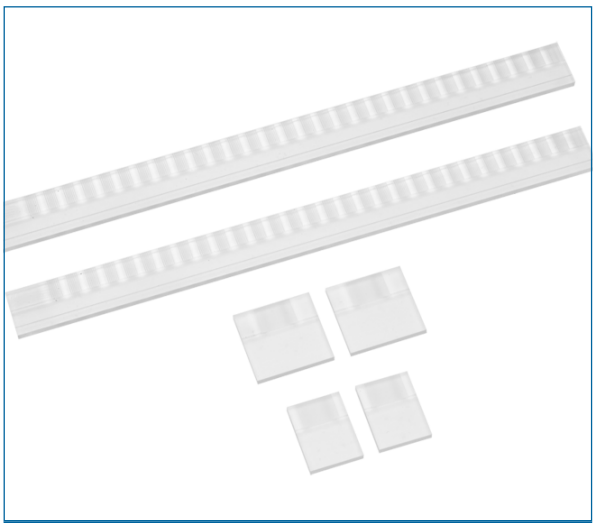
Features and Benefits

Excellent Fiber Core Position Accuracy
Environmentally Stable

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

Corning offers a suite of cost-effective V-Groove Chips and Arrays that are pitched at 127 and 250 microns. This product is available in configurations ranging from 1 to 48 channels. All V-Groove Chips feature excellent fiber core position accuracy. Customized designs and fabrication for customer-specific applications are available.



V-Groove Chips and Arrays

V-Groove Chips and Arrays

CORNING

Specifications

Parameters	Unit	Specification	
Number of Channel		1	4~48
Spacing for Fiber to Fiber	μm	NA	127±0.5, 250±0.5, Customized
Position Uniformity of Fiber Core	μm	N/A	dR<0.5
Operating Temperature Range	degree		40°C ~ +85°C
Angle of V-Groove	degree		60±2, 70.5±2, 90±2
Material			Pyrex®/Quartz

Ordering Information

V-Groove Chips and Arrays

P L V - □ □ □ □ - □ 0 □ □ □

1 2 3 4 5 6

1 Select Material Type
P: Diced Pryex
Q: Diced Quartz

2 Select Port Count
1: Single Port
2: 2 Ports
4: 4 Ports
A: Two 4 Ports
8: 8 Ports
B: Two 8 Ports
H: 16 Ports
X: 24 Ports
C: Four 8 Ports
T: 32 Ports
U: 36 Ports
Y: 40 Ports
D: Six 8 Ports
F: 48 Ports
Z: Customized

3 Select Thickness
A: 1.0 mm
B: 1.5 mm
C: 3.0 mm

4 Select V-Angle
6: 60.0 Degree
7: 70.5 Degree
9: 90.0 Degree

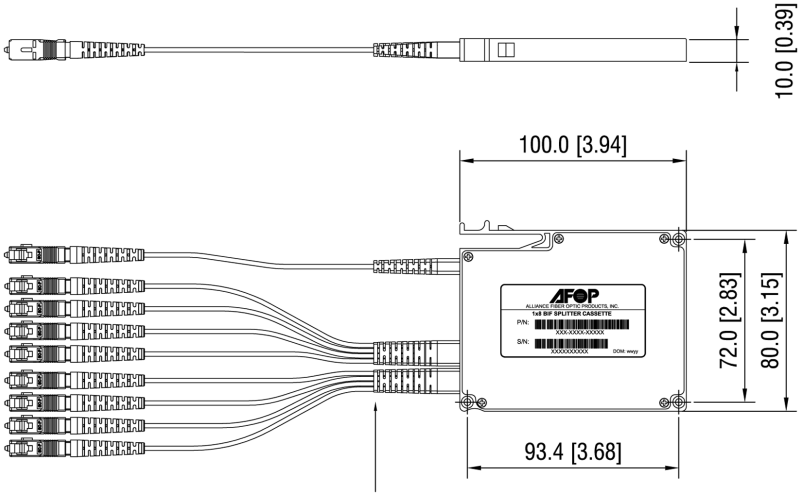
5 Select Port Spacing
0: No Spacing
S: 80 μm
H: 127 μm
9: 129 μm
F: 250 μm

6 Select Customization
000: Standard
Running number for special specifications or customized

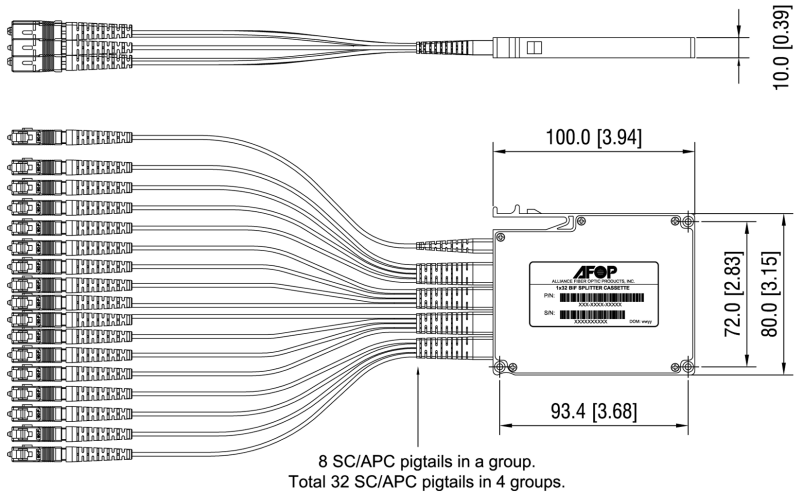
V-Groove Chips and Arrays

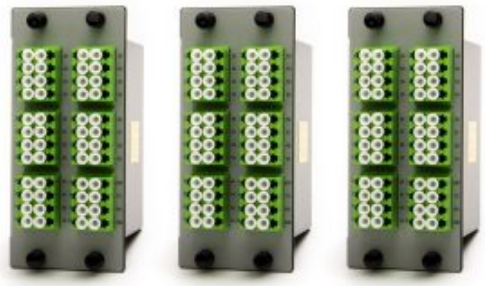
CORNING

Mechanical Drawing 1x8 Splitter Module



Mechanical Drawing 1x32 Splitter Module





Fused Couplers

Fused Couplers

Corning’s optical couplers are fused fiber branching devices that split off a portion of light to allow for optical monitoring and feedback. These devices are used extensively in fiber amplifier power control, and in transmission equipment for performance monitoring and feedback control. Our ultra-low polarization dependent loss couplers offer low levels of sensitivity to polarization, enable more effective monitoring and management of optical networks. These couplers are available in a wide range of split ratios, lengths, and packaging. Custom terminations are also available.

Corning’s fused WDM couplers are used to combine and separate optical signals transmitted on different wavelengths. This function provides the first level of bandwidth expansion for a network by increasing a fiber’s signal carrying capacity. Fused WDM couplers may also be used to add additional functionality to the network such as network status monitoring. Our fused fiber WDM couplers provide a cost-effective way to minimize loss and maximize wavelength isolation.

Applications

- CATV Systems
- Network Monitoring
- Test Equipment
- Telecommunications
- Point-to-Point Systems

Features

- All Split Ratios Available
- Rugged Packaging Available
- Telcordia GR-12091221 Qualified
- Excellent Uniformity
- Environmentally Stable
- Low Sensitivity to Input Polarization

Fused WDMs

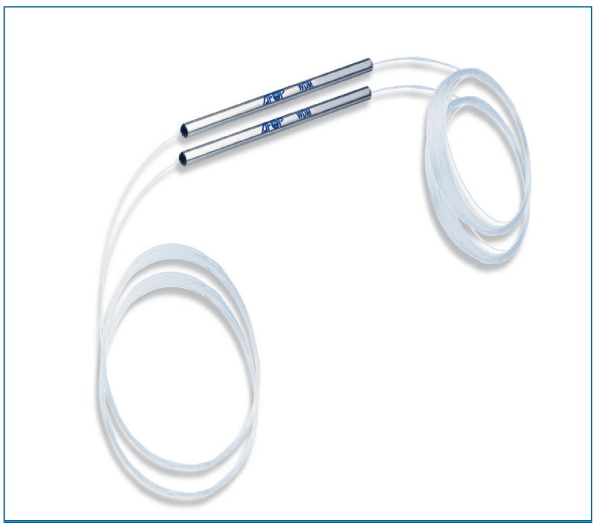
Features and Benefits

Stability Over Temperature
Compact Size and Low PDL
Wide Spectral Channel
Greater Bandpass

The 821 Series of fused WDMs offers superior performance and long-term reliability. These components are highly stable across the stated range, exhibiting low insertion loss and high isolation. The Corning ultra series provides the highest performance available in the industry for critical WDM applications. Our singlemode WDMs are available with bare fiber or high-quality buffered fiber pigtails for ease of use.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

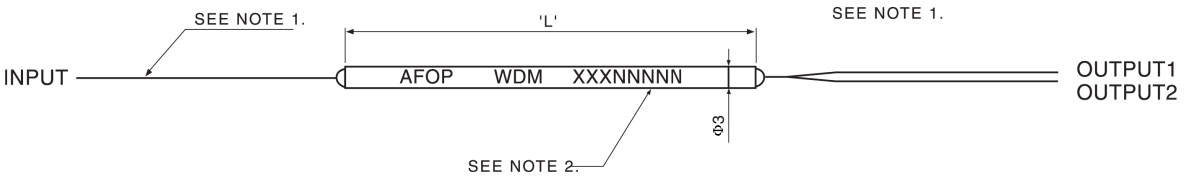


Fused WDMs

Fused WDMs

Specifications

Parameters	Specifications
Bandpass Width	See Table
Directivity	< -55 dB
Return Loss	< -55 dB
PMD	< 0.1 ps
Pigtail Tensile Strength	5N
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Storage Relative Humidity	20-90 (%RH)



Notes:

1. Fiber length is 1 meter ± 10 cm
2. "XXXNNNNN" is the production serial number

Packaging Dimensions	Standard Size	
Fiber Type	250 µm	900 µm
Tube Length (L)	60 mm	65 mm
Color Code		
Input	Clear	White
Output 1 (Short Wavelength)	Black	Black
Output 2 (Long Wavelength)	Clear	White

Fused WDMs

CORNING

Maximum Insertion Loss Conversion Loss Table (dB) (Excluding Connector Loss)

Operating Bandwidth		IL* (max) dB	Isolation (min) dB	PDL* (max) dB	WDL* (max) dB	TDL ** (max) dB	P/N Reference
980/1550nm[1] Premium	970-990 nm	0.10	20	0.02	0.07	0.02	821-NN00-2LX00
Ultra	1528-1563 nm	0.05	20	0.02	0.04	0.02	821-NN00-3LX00
980/1550nm[2] Premium	970-990 nm	0.30	20	0.10	0.15	0.05	821-NN00-2GX00
Ultra	1528-1563 nm	0.20	20	0.05	0.15	0.05	821-NN00-3GX00
1480/1550nm Premium	1475-1485 nm	0.40	15	0.08	0.30	0.05	821-NN00-2HX00
Ultra	1545-1555 nm	0.25	17	0.08	0.20	0.05	821-NN00-3HX00
1310-1550nm Premium	1290-1330 nm	0.35	16.5	0.08	0.30	0.05	821-NN00-2EX00
Ultra	1528-1563 nm	0.25	17.5	0.08	0.20	0.05	821-NN00-3EX00

Notes:

[1] Fiber type is Lucent® BFO5635-02 (HI 980)
[2] Fiber type is Corning® Flexcor (HI 1060)
** Insertion Loss (IL), Wavelength Dependent Loss (WDL), and Polarization Dependent Loss (PDL) measured at 23°C without connectors.*
*** Temperature Dependent Loss (TDL) measured as change in IL from -5°C to +75°C.*
Max IL measured over operating wavelength range (not including PDL and TDL)

Ordering Information

Fused WDMs

8 2 1 - □ □ 0 0 - □ □ □ 0 0
1 2 3 4 5

1 Select Packaging Type
1: 250 mm Tube
2: 900 mm Tube
3: 900 mm Ruggedized
4: 1.6 mm Ruggedized
5: 3 mm Ruggedized

2 Select Configuration
1: 1x2
2: 2x2

3 Select Grade
2: Premium
3: Ultra

4 Select WDM Type
E: 1310/1550
G: 980/15502
H: 1480/1550
L : 980/15501

5 Select Connector Type*
0: None
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

Notes:

** Specifications do not include connector loss.*

Multimode Wideband Fused Couplers

CORNING

Features and Benefits

- Tap Ratios Available
- Rugged Construction
- Excellent Uniformity
- Environmentally Stable
- Available in Both 1x2 and 2x2 Configurations

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

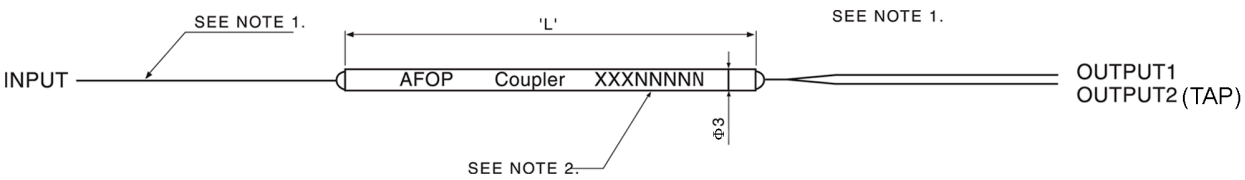
The 813 Series of Multimode Wideband Fused Coupler offer superior performance and long-term reliability. These components are highly stable across the stated range and exhibit low insertion loss over all split ratios. They are available in both 1x2 and 2x2 port configurations.

Multimode Wideband Fused Couplers

Multimode Wideband Fused Couplers

Specifications

Parameters	Specifications
Center Wavelength	850, 1310, 1550 nm
Bandpass Width	±40 nm
Directivity	>40 dB
Return Loss	>40 dB
Maximum Power Handling	500 mW
Operating Temperature	-40°C to +75°C
Storage Temperature	-40°C to +85°C
Fiber Type	62.5/125 µm, 50/125 µm



Notes:

1. Fiber length is 1 meter ± 10 cm
2. "XXXNNNNN" is the production serial number

Packaging Dimensions	Standard Size	
Fiber Type	250 µm	900 µm
Tube Length (L)	55 mm	60 mm
Color Code		
Input	Clear	White
Output 1 (Thru)	Black	Black
Output 2 (Tap)	Clear	White

Multimode Wideband Fused Couplers

CORNING

813 MM Wideband Single Window Couplers, Wavelength: 850, 1310, or 1550 (±40 nm)

Split Ratio		IL* (Max) dB		WDL* (Max dB)		P/N Reference
99/1	Premium	1.00	21.80	1.00	1.20	813-NN01-2NXN0
	Ultra	0.80	21.50	.040	0.80	813-NN01-3NXN0
98/2	Premium	1.10	18.80	1.00	1.20	813-NN02-2NXN0
	Ultra	0.80	18.50	0.40	0.80	813-NN02-3NXN0
95/5	Premium	1.30	14.50	1.00	1.20	813-NN05-2NXN0
	Ultra	1.00	14.30	0.40	0.80	813-NN05-3NXN0
90/10	Premium	1.40	11.30	0.80	1.00	813-NN10-2NXN0
	Ultra	1.20	11.00	0.50	0.70	813-NN10-3NXN0
80/20	Premium	2.00	8.20	0.80	1.00	813-NN20-2NXN0
	Ultra	1.70	7.90	0.50	0.70	813-NN20-3NXN0
70/30	Premium	2.60	6.40	0.80	0.80	813-NN30-2NXN0
	Ultra	2.30	6.10	0.60	0.60	813-NN30-3NXN0
60/40	Premium	3.20	5.20	0.80	0.80	813-NN40-2NXN0
	Ultra	3.00	4.90	0.60	0.60	813-NN40-3NXN0
50/50	Premium	4.20	4.20	0.80	0.80	813-NN50-2NXN0
	Ultra	3.90	3.90	0.60	0.60	813-NN50-3NXN0

Notes:

**Maximum insertion loss is measured at center wavelength 23°C without connectors.*

813 MM Wideband Dual Window Couplers, Wavelength: 850/1310, 850/1550, or 1310/1550 (±40 nm)

Split Ratio		IL* (Max) dB		WDL* (Max dB)		P/N Reference
99/1	Premium	1.30	21.90	1.00	1.20	813-NN01-2NXN0
	Ultra	1.10	21.60	.040	0.80	813-NN01-3NXN0
98/2	Premium	1.40	19.10	1.00	1.20	813-NN02-2NXN0
	Ultra	1.10	18.70	0.40	0.80	813-NN02-3NXN0
95/5	Premium	1.50	14.80	1.00	1.20	813-NN05-2NXN0
	Ultra	1.20	14.40	0.40	0.80	813-NN05-3NXN0
90/10	Premium	1.70	11.70	0.80	1.00	813-NN10-2NXN0
	Ultra	1.50	11.30	0.50	0.70	813-NN10-3NXN0
80/20	Premium	2.30	8.40	0.80	1.00	813-NN20-2NXN0
	Ultra	2.00	8.00	0.50	0.70	813-NN20-3NXN0
70/30	Premium	2.80	6.60	0.80	0.80	813-NN30-2NXN0
	Ultra	2.50	6.30	0.60	0.60	813-NN30-3NXN0
60/40	Premium	3.50	5.50	0.80	0.80	813-NN40-2NXN0
	Ultra	3.30	5.20	0.60	0.60	813-NN40-3NXN0
50/50	Premium	4.50	4.50	0.80	0.80	813-NN50-2NXN0
	Ultra	4.10	4.10	0.60	0.60	813-NN50-3NXN0

Notes:

**Maximum insertion loss is measured at center wavelength 23°C without connectors.*

Multimode Wideband Fused Couplers

CORNING

Ordering Information

Multimode Wideband Fused Couplers

8 1 3 - □ □ □ □ - □ □ □ □ 0

1 2 3 4 5 6 7

1 Select Packaging Type
1: 250 µm Tube
2: 900 µm Tube
3: 900 µm Ruggedized
4: 1.6 mm Ruggedized
5: 3 mm Ruggedized

2 Select Configuration
1: 1x2
2: 2x2

3 Select Ratio
01: 1%
05: 5%
⋮
50: 50%

4 Select Grade
2:Premium
3: Ultra

5 Select Wavelength
B: 310 nm
D: 1550 nm
E: 1310/1550 nm
M: 850 nm
K: 850/1310 nm
L: 850/1550 nm

6 SelectConnector*
0: None
B: ST
L: LC/PC
P: FC/PC
S: SC/PC
U: MU/PC

7 Select Fiber Type
0: 50/125 µm Glass Fiber
1: 62.5/125 µm Glass Fiber

Notes:

**Specifications do not include connector loss*

Singlemode Fused Coupler LGX® Module (832 Series)

CORNING

Features and Benefits

- Wideband and Dual Window Options
- Standard LGX Configurations
- High Stability & Reliability
- Rated for Outdoor Use

Corning offers a full line of high performance coupler LGX® modules. The 832 Series of products offers superior performance over repeated connections, with a full complement of industry standard features. These modules provide low insertion loss and high directivity. The 832 line fits standard LGX configurations and provides rugged construction for stable and reliable operation.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

Singlemode Fused Coupler LGX® Module (832 Series)

Singlemode Fused Coupler LGX® Module (832 Series)

Specifications

Parameters	Specifications
Operating Wavelength – Single Window	1310 ±40 nm, 1528-1563 nm, 1550 ±40 nm, or 1528-1605 nm
Operating Wavelength – Dual Window	1310/1550 ±40 nm
Directivity	>55 dB
Return Loss	>50 dB
Maximum Optical Power	300 mW
Operating Temperature	-40°C to +75°C
Storage Temperature	-40°C to +85°C

Packaging Dimensions
Standard Single Width, Double Width, and Triple Width LGX

Ordering Information

Singlemode Fused Coupler LGX Module (832 Series)

8 3 2 - 1 □ □ □ - □ □ □ 0 0

1 2 3 4 5

1 Select Configuration
1: 1x2
2: 2x2
3: 1x3
4: 1x4
5: 1x5
6: 1x6
8: 1x8
A: 1x10
B: 1x12
C: 1x16
D: 1x32

2 Select Ratio
00: Even Split
01: 1/99%
02: 2/98%
05: 5/95%
10: 10/90%
15: 15/85%
⋮
50: 50/50%

3 Select Grade
2: Premium
3: Ultra

4 Select Wavelength
B: 1310 nm
C: 1528-1563 nm
D: 1550 nm
E: 1310/1550 nm
J: 1528-1605 nm

5 Select Connector
K: LC/APC
L: LC/PC
S: SC/PC
T: SC/APC

Singlemode Fused Coupler LGX® Module (832 Series)

CORNING

Single Window Wavelength: 1528-1563 nm

Port Configuration		IL* (Max) dB	PDL* (Max) dB	TDL** (Max) dB	P/N Reference
1x2	Premium	3.40	0.15	0.15	832-11NN-2CX00
	Ultra	3.20	0.10		832-11NN-3CX00
1x3	Premium	5.50	0.20	0.25	832-13NN-2CX00
	Ultra	5.30	0.15		832-13NN-3CX00
1x4	Premium	7.00	0.20	0.25	832-14NN-2CX00
	Ultra	6.70	0.15		832-14NN-3CX00
1x5	Premium	8.10	0.25	0.30	832-15NN-2CX00
	Ultra	7.90	0.20		832-15NN-3CX00
1x6	Premium	8.80	0.30	0.30	832-16NN-2CX00
	Ultra	8.40	0.25		832-16NN-3CX00
1x8	Premium	10.80	0.30	0.30	832-18NN-2CX00
	Ultra	10.30	0.25		832-18NN-3CX00
1x10	Premium	11.80	0.40	0.40	832-1ANN-2CX00
	Ultra	11.50	0.30		832-1ANN-3CX00
1x12	Premium	12.80	0.40	0.40	832-1BNN-2CX00
	Ultra	12.50	0.30		832-1BNN-3CX00
1x16	Premium	13.80	0.40	0.40	832-1CNN-2CX00
	Ultra	13.30	0.30		832-1CNN-3CX00
1x32	Premium	17.80	0.50	0.50	832-1DNN-2CX00
	Ultra	17.40	0.40		832-1DNN-3CX00

Notes:

** IL and PDL are measured at 23°C without connectors.*
*** Temperature Dependent Loss (TDL) is measured at change in IL per degree C from -5°C to +75°C.*
Max IL is measured over operating wavelength range (not including PDL and TDL).

Singlemode Fused Coupler LGX® Module (832 Series)

CORNING

Single Window Wavelength:
1310 ±40 nm, 1550 ±40 nm, or 1528-1605 nm

Port Configuration		IL* (Max) dB	PDL* (Max) dB	TDL** (Max) dB	P/N Reference
1x2	Premium	3.50	0.15	0.15	832-11NN-2NX00
	Ultra	3.30	0.10		832-11NN-3NX00
1x3	Premium	5.70	0.25	0.25	832-13NN-2NX00
	Ultra	5.50	0.20		832-13NN-3NX00
1x4	Premium	7.20	0.20	0.25	832-14NN-2NX00
	Ultra	6.80	0.15		832-14NN-3NX00
1x5	Premium	8.30	0.25	0.30	832-15NN-2NX00
	Ultra	8.10	0.20		832-15NN-3NX00
1x6	Premium	9.30	0.30	0.30	832-16NN-2NX00
	Ultra	9.00	0.25		832-16NN-3NX00
1x8	Premium	11.00	0.30	0.30	832-18NN-2NX00
	Ultra	10.40	0.25		832-18NN-3NX00
1x10	Premium	12.00	0.40	0.40	832-1ANN-2NX00
	Ultra	11.50	0.30		832-1ANN-3NX00
1x12	Premium	13.00	0.40	0.40	832-1BNN-2NX00
	Ultra	12.40	0.30		832-1BNN-3NX00
1x16	Premium	14.00	0.40	0.40	832-1CNN-2NX00
	Ultra	13.50	0.30		832-1CNN-3NX00
1x32	Premium	18.00	0.50	0.50	832-1DNN-2NX00
	Ultra	17.50	0.40		832-1DNN-3NX00

Notes:

** IL and PDL are measured at 23°C without connectors.*
*** Temperature Dependent Loss (TDL) is measured at change in IL per degree C from -5°C to +75°C.*
Max IL is measured over operating wavelength range (not including PDL and TDL).

Singlemode Fused Coupler LGX® Module (832 Series)

CORNING

Single Window Wavelength: 1310/1550 ±40 nm

Port Configuration		IL* (Max) dB	PDL* (Max) dB	TDL** (Max) dB	P/N Reference
1x2	Premium	3.60	0.15	0.15	832-11NN-2EX00
	Ultra	3.40	0.10		832-11NN-3EX00
1x3	Premium	5.80	0.25	0.25	832-13NN-2EX00
	Ultra	5.60	0.20		832-13NN-3EX00
1x4	Premium	7.40	0.30	0.25	832-14NN-2EX00
	Ultra	7.20	0.20		832-14NN-3EX00
1x5	Premium	8.50	0.30	0.30	832-15NN-2EX00
	Ultra	8.30	0.25		832-15NN-3EX00
1x6	Premium	9.50	0.30	0.30	832-16NN-2EX00
	Ultra	9.30	0.25		832-16NN-3EX00
1x8	Premium	11.40	0.40	0.30	832-18NN-2EX00
	Ultra	10.80	0.30		832-18NN-3EX00
1x10	Premium	12.30	0.40	0.40	832-1ANN-2EX00
	Ultra	12.00	0.30		832-1ANN-3EX00
1x12	Premium	13.20	0.50	0.40	832-1BNN-2EX00
	Ultra	12.80	0.40		832-1BNN-3EX00
1x16	Premium	14.50	0.50	0.40	832-1CNN-2EX00
	Ultra	14.00	0.40		832-1CNN-3EX00
1x32	Premium	18.30	0.50	0.50	832-1DNN-2EX00
	Ultra	17.80	0.40		832-1DNN-3EX00

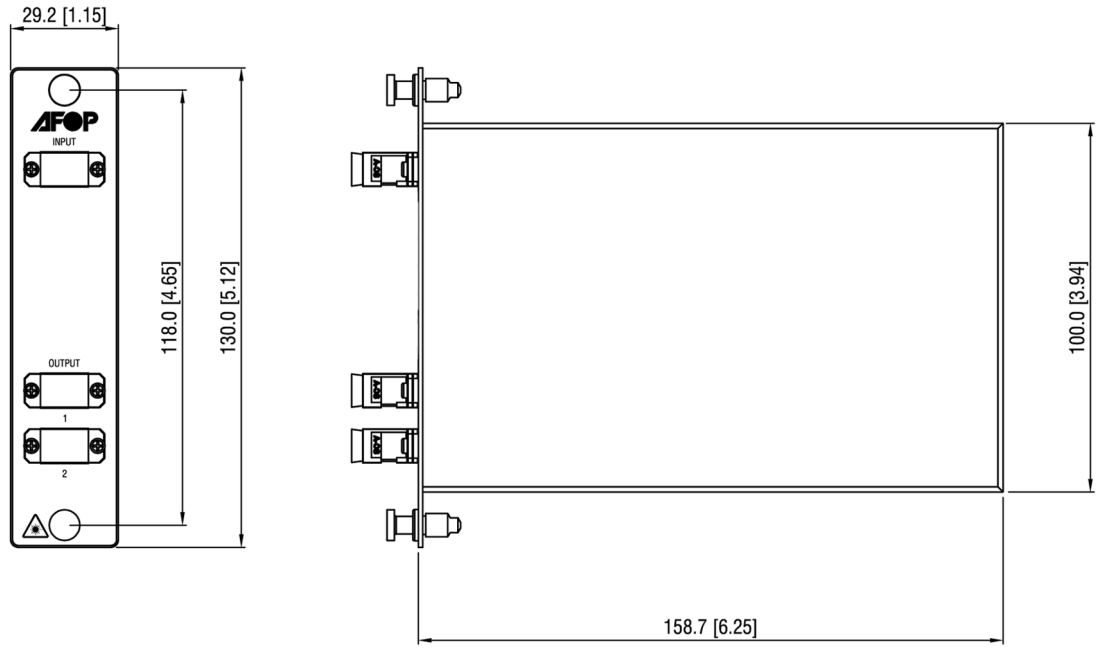
Notes:

** IL and PDL are measured at 23°C without connectors.*
*** Temperature Dependent Loss (TDL) is measured at change in IL per degree C from -5°C to +75°C.*
Max IL is measured over operating wavelength range (not including PDL and TDL).

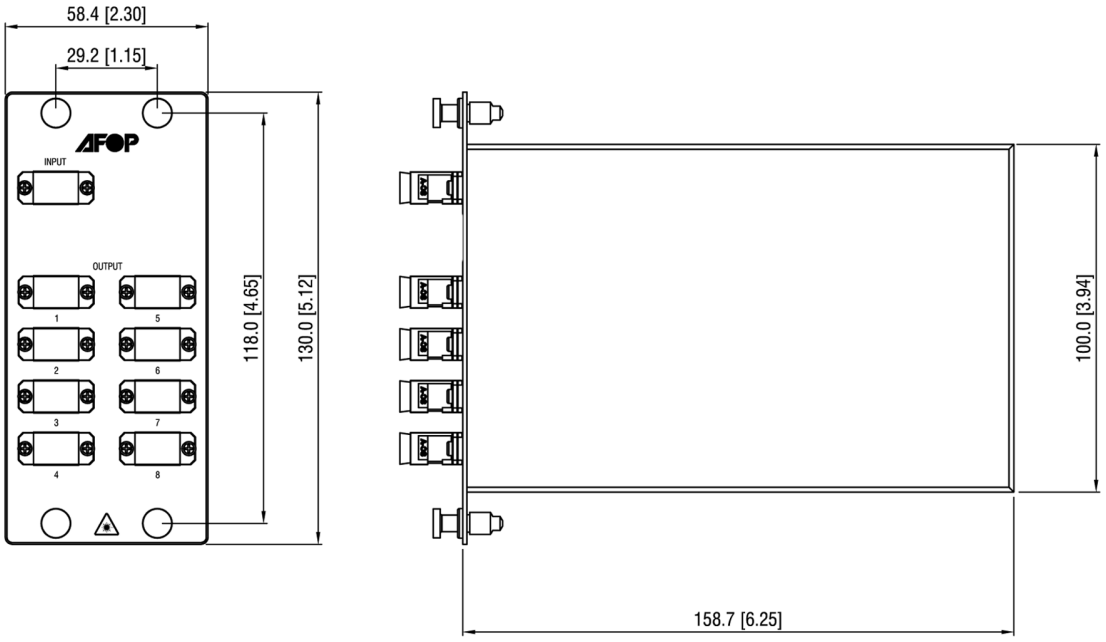
Singlemode Fused Coupler LGX® Module (832 Series)

CORNING

Mechanical Drawing of Single Width LGX: 1x2, 2x2, 1x3, 1x4, 1x5



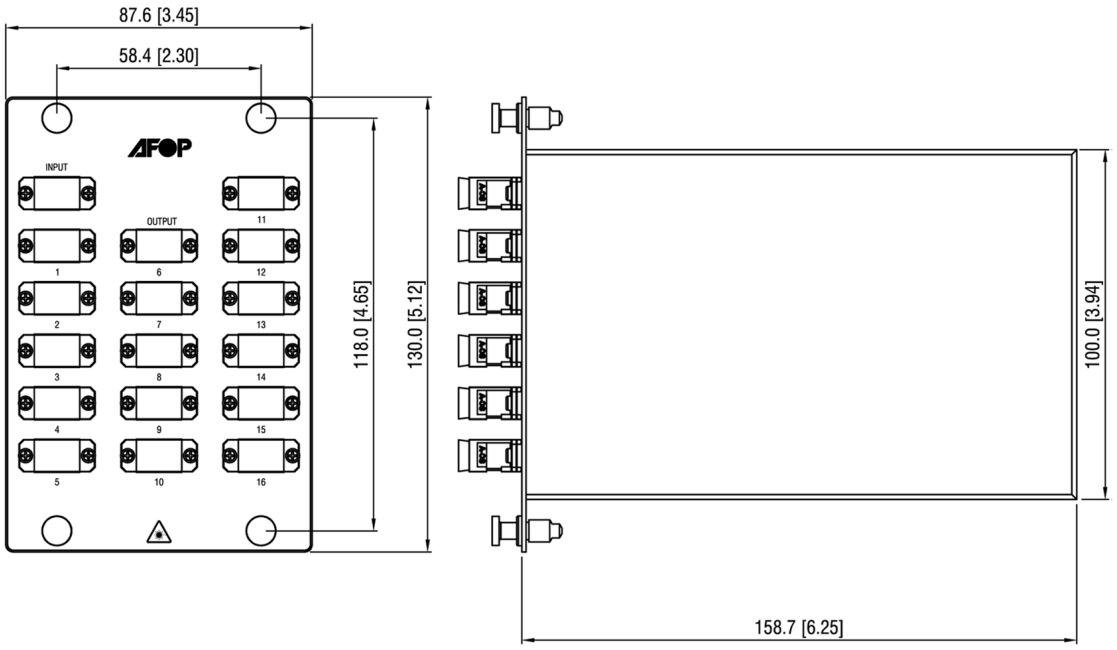
Mechanical Drawing of Double Width LGX: 1x6, 1x8, 1x10



Singlemode Fused Coupler LGX® Module (832 Series)

CORNING

Mechanical Drawing of Triple Width LGX: 1x12, 1x16, 1x32 (LC Only)



Singlemode Monolithic Fused Couplers (1x3 and 1x4)

CORNING

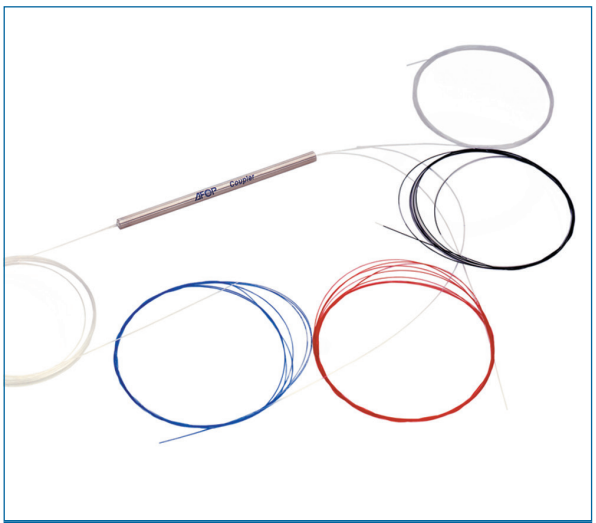
Features and Benefits

- Low Insertion Loss
- Low PDL
- High Stability and Reliability
- Available in Both 1x3 and 1x4 Configurations

The 815 Series of Single and Dual Window Singlemode Monolithic Fused Couplers are highly stable across the stated range, exhibiting low insertion loss and superior reliablity performance. They are available in both 1x3 and 1x4 port configurations.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE



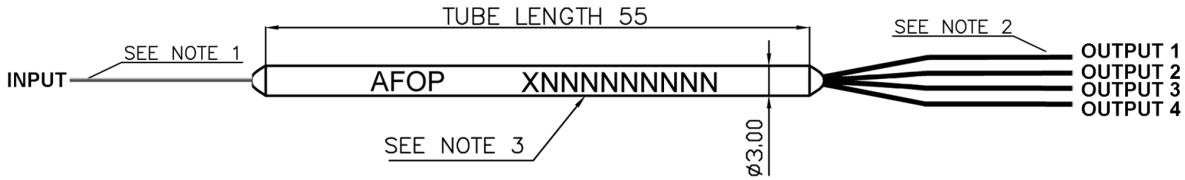
Singlemode Monolithic Fused Couplers (1x3 and 1x4)

Singlemode Monolithic Fused Couplers (1x3 and 1x4)

CORNING

Specifications

Parameters	Specifications	
Operating Wavelength – Single Window	1310 ±40 nm, 1528-1563 nm, or 1550 ±40 nm	
Operating Wavelength – Dual Window	1310/1550 ±40 nm	
Port Configuration	1x3	1x4
Coupling Ratio	33:33:33	25:25:25:25
Directivity	>55 dB	
Return Loss	>50 dB	
Maximum Optical Power	500 mW	
Operating Temperature	-40°C to +75°C	
Storage Temperature	-40°C to +85°C	



Notes:

1. Fiber length is 1 meter ± 10 cm
2. Fiber length is 1 meter ± 10 cm
3. "XXXNNNNN" is the production serial number

Packaging Dimensions	Standard Size
Fiber Type	250 µm
Tube Length (L)	55 mm

Color Code for 1x3	
Input	Clear
Output 1	Blue
Output 2	Red
Output 3	Clear
Color Code for 1x4	
Input	Clear
Output 1	Blue
Output 2	Red
Output 3	Black
Output 4	Clear

Singlemode Monolithic Fused Couplers (1x3 and 1x4)

CORNING

Maximum Insertion Loss Conversion Table (dB) (Excluding Connector Loss) – Single Window

Port Configuration		IL* (Max) dB	PDL* (Max) dB	Uniformity (Max) dB	P/N Reference
1x3	Premium	5.8	0.15	1.2	815-1100-2NX00
	Ultra	5.5	0.1	0.8	815-1100-3NX00
1x4	Premium	7.3	0.2	1.4	815-1200-2NX00
	Ultra	6.9	0.15	1.0	815-1200-3NX00

Maximum Insertion Loss Conversion Table (dB) (Excluding Connector Loss) – Dual Window

Port Configuration		IL* (Max) dB	PDL* (Max) dB	Uniformity (Max) dB	P/N Reference
1x3	Premium	6.1	0.2	1.5	815-1100-2EX00
	Ultra	5.7	0.15	1.1	815-1100-3EX00
1x4	Premium	7.7	0.3	1.8	815-1200-2EX00
	Ultra	7.3	0.2	1.4	815-1200-3EX00

Notes:

** IL (Insertion Loss) and PDL (Polarization Dependent Loss) are measured at 23°C without connectors. Max IL is measured over operating wavelength range (not including PDL)*

Ordering Information

Singlemode Monolithic Fused Couplers (1x3 and 1x4)

8 1 5 - □ □ 0 0 - □ □ □ 0 0

1 2 3 4 5

1 Select Packaging Type
1: 250 µm

2 Select Configuration
1: 1x3
2: 1x4

3 Select Grade
2: Premium
3: Ultra

4 Select Wavelength
B: 1310 nm
C: 1528-1563 nm
D: 1550 nm
E: 1310/1550 nm
J: 1528-1605 nm

5 Select Connector*
0: None
B: ST
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

Notes:

**Specifications do not include connector loss*

Standard and Mini C and L Band Singlemode Fused Coupler

CORNING

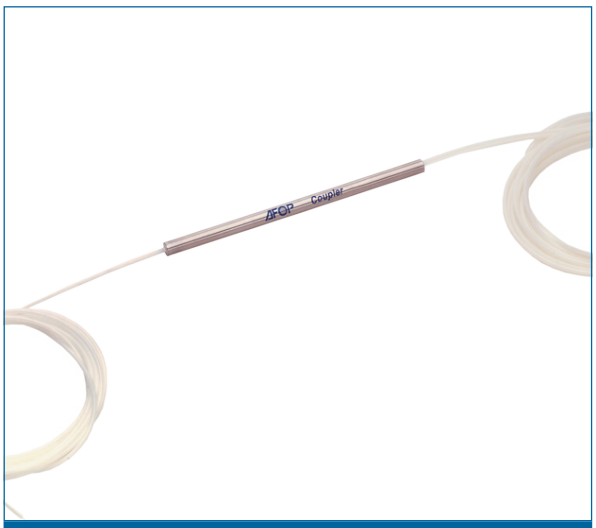
Features and Benefits

- Tap Ratios Available
- Rugged Construction
- Low Input Polarization Sensitivity
- Available in Both 1x2 and 2x2 Configurations

The 811 Series of Standard and Mini C and L Band Singlemode Fused Coupler offers superior performance and long term reliability. These components are highly stable across the stated range, exhibiting low insertion loss, and high directivity over all split ratios. They are available in both 1x2 and 2x2 port configurations.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

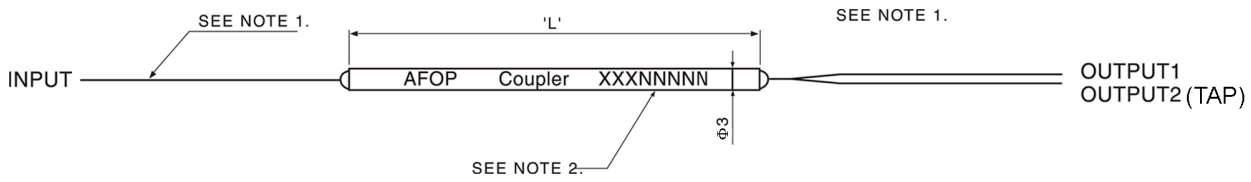


Standard and Mini C and L Band Singlemode Fused Coupler

Standard and Mini C and L Band Singlemode Fused Coupler

Specifications

Parameters	Specifications
Bandpass Width	1528-1605 nm
Directivity	< -55 dB
Return Loss	< -55 dB
PMD	< 0.1 ps
Pigtail Tensile Strength	5N
Operating Temperature	-40°C to +75°C
Storage Temperature	-40°C to +85°C
Storage Relative Humidity	20-90 (%RH)



Notes:

1. Fiber length is 1 meter ± 10 cm
2. "XXXNNNNN" is the production serial number

Packaging Dimensions	Standard Size	Mini Size	Submini Size
Fiber Type	250 µm, 900 µm	250 µm, 900 µm	250 µm, 900 µm
Tube Length (L)	55 mm, 60 mm	45 mm, 50 mm	35 mm, 40 mm

Color Code			
Input	Clear, White	Clear, White	Clear, White
Output 1 (Thru)	Black, Black	Black, Black	Black, Black
Output 2 (Tap)	Clear, White	Clear, White	Clear, White

Standard and Mini C and L Band Singlemode Fused Coupler

CORNING

Maximum Insertion Loss Conversion Table (dB) (Excluding Connector Loss)

Split Ratio		IL* (Max) dB		PDL* (Max) dB		WDL* (Max dB)		TDL** (Max) dB		P/N Reference
99/1	Premium	0.20	22.00	0.04	0.20	0.03	1.10	0.02	0.20	811-NN01-2JXN0
	Ultra	0.18	21.50	0.03	0.15	0.03	0.70			811-NN01-3JXN0
98/2	Premium	0.25	18.60	0.04	0.20	0.04	1.00	0.02	0.15	811-NN02-2JXN0
	Ultra	0.20	18.20	0.03	0.15	0.04	0.60			811-NN02-3JXN0
95/5	Premium	0.40	14.50	0.05	0.15	0.08	0.80	0.08	0.13	811-NN05-2JXN0
	Ultra	0.32	14.00	0.03	0.10	0.06	0.45			811-NN05-3JXN0
90/10	Premium	0.70	10.90	0.06	0.12	0.09	0.60	0.10	0.10	811-NN10-2JXN0
	Ultra	0.60	10.60	0.04	0.08	0.07	0.40			811-NN10-3JXN0
80/20	Premium	1.20	7.80	0.07	0.15	0.15	0.55	0.10	0.10	811-NN20-2JXN0
	Ultra	1.15	7.50	0.08	0.08	0.15	0.40			811-NN20-3JXN0
70/30	Premium	1.80	5.80	0.08	0.15	0.20	0.50	0.10	0.10	811-NN30-2JXN0
	Ultra	1.70	5.50	0.06	0.08	0.15	0.35			811-NN30-3JXN0
60/40	Premium	2.50	4.50	0.09	0.10	0.30	0.45	0.10	0.10	811-NN40-2JXN0
	Ultra	2.40	4.30	0.07	0.08	0.20	0.30			811-NN40-3JXN0
50/50	Premium	3.50	3.50	0.10	0.10	0.40	0.40	0.10	0.10	811-NN50-2JXN0
	Ultra	3.30	3.30	0.08	0.08	0.25	0.25			811-NN50-3JXN0

Notes:

** IL (Insertion Loss), PDL (Polarization Dependent Loss), and WDL (Wavelength Dependent Loss) all measured at 23°C without connectors*

*** TDL (Temperature Dependent Loss) is measured as change in IL from -5°C to +75°C.*

Maximum insertion loss is measured over operating wavelength range (not including PDL and TDL).

Standard and Mini C and L Band Singlemode Fused Coupler

CORNING

Ordering Information

Standard and Mini C and L Band Singlemode Fused Coupler

8 1 1 - □ □ □ □ - □ J □ □ 0
1 2 3 4 5 6

1 Select Packaging Type
1: 250 µm Tube
2: 900 µm Tube
3: 900 µm Ruggedized
4: 1.6 mm Ruggedized
5: 3 mm Ruggedized

2 Select Configuration
1: 1x2
2: 2x2

3 Select Ratio
01: 1%
05: 5%
⋮
50: 50%

4 Select Grade
2: Premium
3: Ultra

5 Select Connector*
0: None
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

6 Select Tube Size**
0: Standard
1: Mini
2: Submini

Notes:

** Specifications do not include connector loss*
*** Use 0 for Ruggedized Packaging*

Standard and Mini C-Band Singlemode Fused Coupler

CORNING

Features and Benefits

- Tap Ratios Available
- Rugged Construction
- Low Input Polarization Sensitivity
- Available in Both 1x2 and 2x2 Configurations

The 811 Series of Standard and Mini C-Band Singlemode Fused Coupler offers superior performance and long term reliability. These components are highly stable across the stated range, exhibiting low insertion loss, and high directivity over all split ratios. They are available in both 1x2 and 2x2 port configurations.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

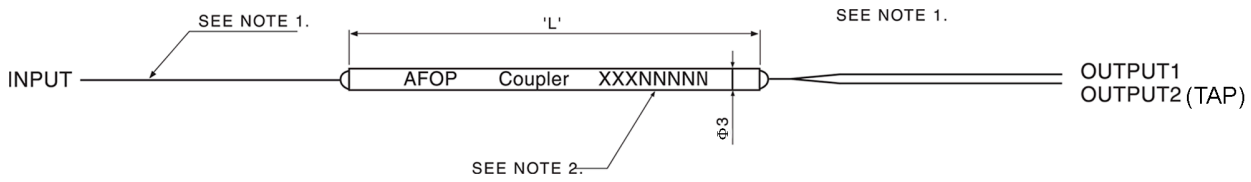
Standard and Mini C -Band Singlemode Fused Coupler

Standard and Mini C-Band Singlemode Fused Coupler

CORNING

Specifications

Parameters	Specifications
Bandpass Width	1528-1563 nm
Directivity	< -55 dB
Return Loss	< -55 dB
PMD	< 0.1 ps
Pigtail Tensile Strength	5N
Operating Temperature	-40°C to +75°C
Storage Temperature	-40°C to +85°C
Storage Relative Humidity	20-90 (%RH)



Notes:

1. Fiber length is 1 meter ± 10 cm
2. "XXXNNNNN" is the production serial number

Packaging Dimensions	Standard Size	Mini Size	Submini Size
Fiber Type	250 µm, 900 µm	250 µm, 900 µm	250 µm, 900 µm
Tube Length (L)	55 mm, 60 mm	45 mm, 50 mm	35 mm, 40 mm

Color Code			
Input	Clear, White	Clear, White	Clear, White
Output 1 (Thru)	Black, Black	Black, Black	Black, Black
Output 2 (Tap)	Clear, White	Clear, White	Clear, White

Standard and Mini C-Band Singlemode Fused Coupler

CORNING

Maximum Insertion Loss Conversion Table (dB) (Excluding Connector Loss)

Split Ratio		IL* (Max) dB		PDL* (Max) dB		WDL* (Max dB)		TDL** (Max) dB		P/N Reference
99/1	Premium	0.18	21.50	0.05	0.20	0.05	0.35	0.02	0.20	811-NN01-2CXN0
	Ultra	0.15	21.00	0.03	0.15	0.03	0.25			811-NN01-3CXN0
98/2	Premium	0.20	18.50	0.05	0.15	0.05	0.30	0.02	0.15	811-NN02-2CXN0
	Ultra	0.20	18.00	0.03	0.10	0.03	0.22			811-NN02-3CXN0
95/5	Premium	0.40	14.40	0.05	0.15	0.05	0.20	0.08	0.15	811-NN05-2CXN0
	Ultra	0.35	13.50	0.03	0.10	0.03	0.15			811-NN05-3CXN0
90/10	Premium	0.70	10.90	0.06	0.15	0.06	0.15	0.08	0.15	811-NN10-2CXN0
	Ultra	0.60	10.50	0.04	0.10	0.04	0.10			811-NN10-3CXN0
80/20	Premium	1.20	7.50	0.07	0.10	0.10	0.15	0.10	0.10	811-NN20-2CXN0
	Ultra	1.15	7.30	0.05	0.08	0.08	0.12			811-NN20-3CXN0
70/30	Premium	1.80	5.60	0.08	0.10	0.15	0.15	0.10	0.10	811-NN30-2CXN0
	Ultra	1.70	5.50	0.06	0.08	0.10	0.10			811-NN30-3CXN0
60/40	Premium	2.50	4.40	0.08	0.08	0.15	0.15	0.10	0.10	811-NN40-2CXN0
	Ultra	2.40	4.30	0.07	0.08	0.10	0.10			811-NN40-3CXN0
50/50	Premium	3.40	3.40	0.08	0.08	0.15	0.15	0.10	0.10	811-NN50-2CXN0
	Ultra	3.20	3.20	0.08	0.08	0.10	0.10			811-NN50-3CXN0

Notes:

** IL (Insertion Loss), PDL (Polarization Dependent Loss), and WDL (Wavelength Dependent Loss) all measured at 23°C without connectors*

*** TDL (Temperature Dependent Loss) is measured as change in IL from -5°C to +75°C.*

Maximum insertion loss is measured over operating wavelength range (not including PDL and TDL).

Standard and Mini C-Band Singlemode Fused Coupler

CORNING

Ordering Information

Standard and Mini C and L Band Singlemode Fused Coupler

8 1 1 - □ □ □ □ - □ C □ □ 0
1 2 3 4 5 6

1 Select Packaging Type
1: 250 µm Tube
2: 900 µm Tube
3: 900 µm Ruggedized
4: 1.6 mm Ruggedized
5: 3 mm Ruggedized

2 Select Configuration
1: 1x2
2: 2x2

3 Select Ratio
01: 1%
05: 5%
⋮
50: 50%

4 Select Grade
2: Premium
3: Ultra

5 Select Connector*
0: None
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

6 Select Tube Size**
0: Standard
1: Mini
2: Submini

Notes:

** Specifications do not include connector loss*
*** Use 0 for Ruggedized Packaging*

Standard and Mini Dual Window Singlemode Fused Coupler

CORNING

Features and Benefits

- Tap Ratios Available
- Rugged Construction
- Low Input Polarization Sensitivity
- Available in Both 1x2 and 2x2 Configurations

The 811 Series of Standard and Mini Dual Window Singlemode Fused Couplers offers superior performance and long term reliability. These components are highly stable across the stated range, exhibiting low insertion loss and high directivity over all split ratios. They are available in both 1x2 and 2x2 port configurations. Corning dual window fused couplers offer superior performance over an extended wavelength range of ±40 nm at both 1310 and 1550 nm.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

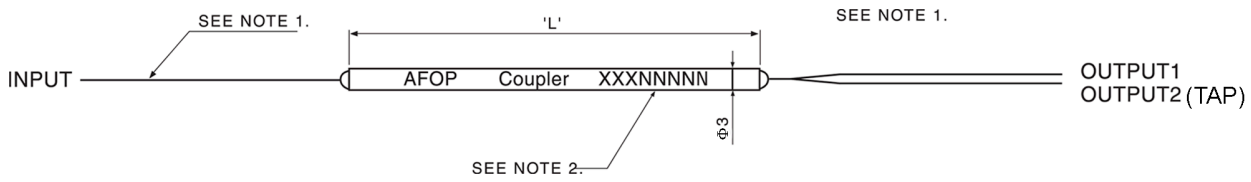
Standard and Mini Dual Window Singlemode Fused Coupler

Standard and Mini Dual Window Singlemode Fused Coupler

CORNING

Specifications

Parameters	Specifications
Bandpass Width	1310/1550 ±40 nm
Directivity	< -55 dB
Return Loss	< -55 dB
PMD	< 0.1 ps
Pigtail Tensile Strength	5N
Operating Temperature	-40°C to +75°C
Storage Temperature	-40°C to +85°C
Storage Relative Humidity	20-90 (%RH)



Notes:

1. Fiber length is 1 meter ± 10 cm
2. "XXXNNNNN" is the production serial number

Packaging Dimensions	Standard Size	Mini Size	Submini Size
Fiber Type	250 µm, 900 µm	250 µm, 900 µm	250 µm, 900 µm
Tube Length (L)	55 mm, 60 mm	45 mm, 50 mm	35 mm, 40 mm

Color Code			
Input	Clear, White	Clear, White	Clear, White
Output 1 (Thru)	Black, Black	Black, Black	Black, Black
Output 2 (Tap)	Clear, White	Clear, White	Clear, White

Standard and Mini Dual Window Singlemode Fused Coupler

CORNING

Maximum Insertion Loss Conversion Table (dB) (Excluding Connector Loss)

Split Ratio		IL* (Max) dB		PDL* (Max) dB		WDL* (Max dB)		TDL** (Max) dB		P/N Reference
99/1	Premium	0.30	22.00	0.04	0.25	0.15	1.50	0.02	0.20	811-NN01-2EXN0
	Ultra	0.25	21.50	0.04	0.18	0.12	1.20			811-NN01-3EXN0
98/2	Premium	0.35	19.00	0.04	0.25	0.20	1.40	0.02	0.20	811-NN02-2EXN0
	Ultra	0.30	18.50	0.04	0.18	0.15	1.10			811-NN02-3EXN0
95/5	Premium	0.45	15.00	0.06	0.20	0.30	1.25	0.08	0.20	811-NN05-2EXN0
	Ultra	0.40	14.50	0.06	0.10	0.25	0.95			811-NN05-3EXN0
90/10	Premium	0.70	12.00	0.12	0.12	0.35	1.20	0.08	0.20	811-NN10-2EXN0
	Ultra	0.60	11.20	0.08	0.08	0.30	0.90			811-NN10-3EXN0
80/20	Premium	1.30	7.80	0.12	0.12	0.45	1.00	0.10	0.10	811-NN20-2EXN0
	Ultra	1.20	7.50	0.08	0.08	0.40	0.80			811-NN20-3EXN0
70/30	Premium	1.95	6.00	0.12	0.12	0.50	0.95	0.10	0.10	811-NN30-2EXN0
	Ultra	1.85	5.90	0.08	0.08	0.45	0.75			811-NN30-3EXN0
60/40	Premium	2.70	4.80	0.12	0.12	0.70	0.85	0.10	0.10	811-NN40-2EXN0
	Ultra	2.65	4.60	0.08	0.08	0.55	0.65			811-NN40-3EXN0
50/50	Premium	3.60	3.60	0.12	0.12	1.00	1.00	0.10	0.10	811-NN50-2EXN0
	Ultra	3.40	3.40	0.08	0.08	0.60	0.60			811-NN50-3EXN0

Notes:

** IL (Insertion Loss), PDL (Polarization Dependent Loss), and WDL (Wavelength Dependent Loss) all measured at 23°C without connectors*

*** TDL (Temperature Dependent Loss) is measured as change in IL from -5°C to +75°C.*

Maximum insertion loss is measured over operating wavelength range (not including PDL and TDL).

Standard and Mini Dual Window Singlemode Fused Coupler

CORNING

Ordering Information

Standard and Mini Dual Band Singlemode Fused Coupler

8 1 1 - □ □ □ □ - □ E □ □ 0
1 2 3 4 5 6

1 Select Packaging Type
1: 250 µm Tube
2: 900 µm Tube
3: 900 µm Ruggedized
4: 1.6 mm Ruggedized
5: 3 mm Ruggedized

2 Select Configuration
1: 1x2
2: 2x2

3 Select Ratio
01: 1%
05: 5%
⋮
50: 50%

4 Select Grade
2: Premium
3: Ultra

5 Select Connector*
0: None
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

6 Select Tube Size**
0: Standard
1: Mini
2: Submini

Notes:

** Specifications do not include connector loss*
*** Use 0 for Ruggedized Packaging*

Standard and Mini Single Window Wideband Singlemode Fused Coupler

CORNING

Features and Benefits

- Tap Ratios Available
- Rugged Construction
- Low Input Polarization Sensitivity
- Available in Both 1x2 and 2x2 Configurations

The 811 Series of Standard and Single Window Wideband Singlemode Fused Couplers offers superior performance and long term reliability. These components are highly stable across the stated range, exhibiting low insertion loss and high directivity over all split ratios. They are available in both 1x2 and 2x2 port configurations. Corning single window wideband fused couplers offer superior performance over an extended wavelength range of ±40 nm at 1310 or 1550 nm.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

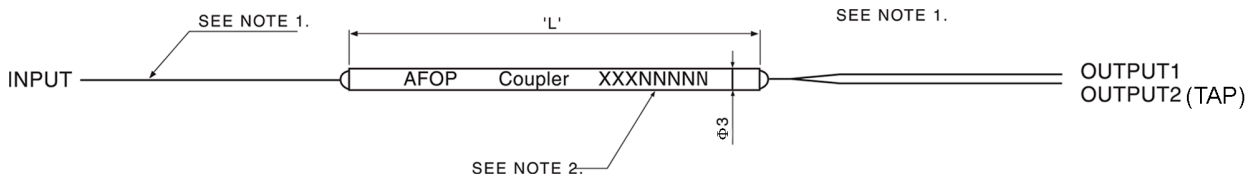
Standard and Mini Single Window Wideband Singlemode Fused Coupler

Standard and Mini Single Window Wideband Singlemode Fused Coupler

CORNING

Specifications

Parameters	Specifications
Bandpass Width	1310 ±40 nm or 1550 ±40 nm
Directivity	< -55 dB
Return Loss	< -55 dB
PMD	< 0.1 ps
Pigtail Tensile Strength	5N
Operating Temperature	-40°C to +75°C
Storage Temperature	-40°C to +85°C
Storage Relative Humidity	20-90 (%RH)



Notes:

1. Fiber length is 1 meter ± 10 cm
2. "XXXNNNNN" is the production serial number

Packaging Dimensions	Standard Size	Mini Size	Submini Size
Fiber Type	250 µm, 900 µm	250 µm, 900 µm	250 µm, 900 µm
Tube Length (L)	55 mm, 60 mm	45 mm, 50 mm	35 mm, 40 mm

Color Code			
Input	Clear, White	Clear, White	Clear, White
Output 1 (Thru)	Black, Black	Black, Black	Black, Black
Output 2 (Tap)	Clear, White	Clear, White	Clear, White

Standard and Mini Single Window Wideband Singlemode Fused Coupler

CORNING

Maximum Insertion Loss Conversion Table (dB) (Excluding Connector Loss)

Split Ratio		IL* (Max) dB		PDL* (Max) dB		WDL* (Max dB)		TDL** (Max) dB		P/N Reference
99/1	Premium	0.20	21.50	0.04	0.20	0.10	0.60	0.02	0.20	811-NN01-2XXN0
	Ultra	0.15	21.00	0.03	0.18	0.10	0.40			811-NN01-3XXN0
98/2	Premium	0.25	18.50	0.04	0.20	0.10	0.60	0.02	0.20	811-NN02-2XXN0
	Ultra	0.20	18.00	0.03	0.15	0.10	0.40			811-NN02-3XXN0
95/5	Premium	0.45	14.50	0.05	0.15	0.10	0.60	0.08	0.20	811-NN05-2XXN0
	Ultra	0.35	14.00	0.03	0.12	0.10	0.40			811-NN05-3XXN0
90/10	Premium	0.70	10.90	0.06	0.15	0.10	0.50	0.08	0.20	811-NN10-2XXN0
	Ultra	0.60	10.60	0.04	0.10	0.10	0.30			811-NN10-3XXN0
80/20	Premium	1.20	7.80	0.10	0.15	0.15	0.50	0.10	0.10	811-NN20-2XXN0
	Ultra	1.10	7.40	0.08	0.10	0.15	0.30			811-NN20-3XXN0
70/30	Premium	1.80	5.80	0.10	0.15	0.20	0.50	0.10	0.10	811-NN30-2XXN0
	Ultra	1.70	5.50	0.08	1.10	0.15	0.30			811-NN30-3XXN0
60/40	Premium	2.70	4.50	0.10	0.12	0.30	0.50	0.10	0.10	811-NN40-2XXN0
	Ultra	2.40	4.30	0.08	0.10	0.20	0.30			811-NN40-3XXN0
50/50	Premium	3.50	3.50	0.10	0.10	0.40	0.40	0.10	0.10	811-NN50-2XXN0
	Ultra	3.30	3.30	0.08	0.08	0.25	0.25			811-NN50-3XXN0

Notes:

** IL (Insertion Loss), PDL (Polarization Dependent Loss), and WDL (Wavelength Dependent Loss) all measured at 23°C without connectors*

*** TDL (Temperature Dependent Loss) is measured as change in IL from -5°C to +75°C.*

Maximum insertion loss is measured over operating wavelength range (not including PDL and TDL).

Standard and Mini Single Window Wideband Singlemode Fused Coupler

CORNING

Ordering Information

Standard and Mini Single Window Wideband Singlemode Fused Coupler

8 1 1 - □ □ □ □ - □ □ □ □ 0

1 2 3 4 5 6 7

1 Select Packaging Type
1: 250 µm Tube
2: 900 µm Tube
3: 900 µm Ruggedized
4: 1.6 mm Ruggedized
5: 3 mm Ruggedized

2 Select Configuration
1: 1x2
2: 2x2

3 Select Ratio
01: 1%
05: 5%
⋮
50: 50%

4 Select Grade
2:Premium
3: Ultra

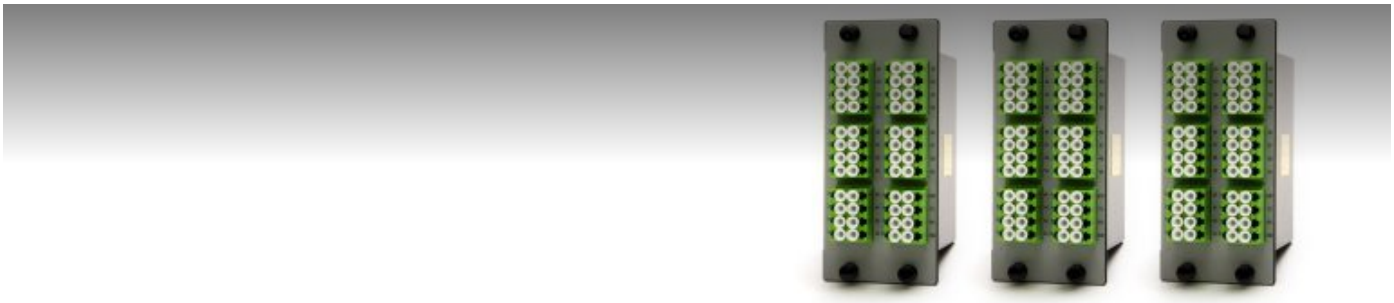
5 Select Wavelength
B: 310 nm
D: 1550 nm

6 SelectConnector*
0: None
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

7 Select Tube Size**
0: Standard
1: Mini
2: Submini

Notes:

** Specifications do not include connector loss*
*** Use 0 for Ruggedized Packaging*



PLC Splitters

PLC Splitters

Corning's QuickPath™ PLC optical splitters reduce insertion loss and deliver high performance. These devices enable more effective monitoring and management of optical networks. They are available as components, in our quick connect cassettes, or in custom modules and rack-mount designs.

Applications

- FTTx
- CATV Systems
- PON Networks
- Telecommunications

Features

- Custom and Rugged Packaging Available
- Telcordia GR-1209/1221 Qualified
- Low-Input Polarization Sensitivity
- High-Quality Connector Fan-outs

PLC Splitter LGX® Module

Features and Benefits

- Rugged Construction
- Low Input Polarization Sensitivity
- Customized Packaging Available
- High-Quality Connector Fanouts Available

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces a new family of PLC Splitter LGX® Modules for today's high-port count applications that demand the best performance and the highest reliability under the most adverse of environments. Corning's PLC Splitter LGX Modules deliver on all these requirements. The PLC Module features low insertion loss, low polarization dependent loss, and high port-to-port uniformity. The PLC Splitter LGX Modules are available in 4-, 8-, 16-, and 32-channel configurations with SC or LC pigtails. Our OEM-friendly packaging provides the flexibility to meet the broadest design requirements.

PLC Splitter LGX® Module

PLC Splitter LGX® Module

CORNING

Specifications

Parameters	1x4 Port	1x8 Port	1x16 Port	1x32 Port
	Maximum	Maximum	Maximum	Maximum
Operating Wavelength λc	1260-1650 nm			
Insertion Loss	8.0 dB	11.5 dB	14.7 dB	18.3 dB
Insertion Loss Uniformity	1.0 dB	1.2 dB	1.7 dB	2.2 dB
Polarization Dependent Loss	0.3 dB	0.3 dB	0.4 dB	0.45 dB
Directivity	> 55 dB			
Return Loss	> 50 dB			
Maximum Optical Power	300 MW			
Operating Temperature	- 5°C to +65°C			
Storage Temperature	- 40°C to +85°C			

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
Standard Single Width LGX	Fiber Type: Corning® SMF-28e®, 1.6 mm	1 m

Ordering Information

PLC Splitter LGX® Module

P L S - 3 □ □ □ - 1 □ L □ □

1 2 3 4

1 Select InPort Count
A: 1xN
(N = OutPort Count)

2 Select OutPort Count
04: Ports 4
08: Ports 8
16: Ports 16
32: Ports 32

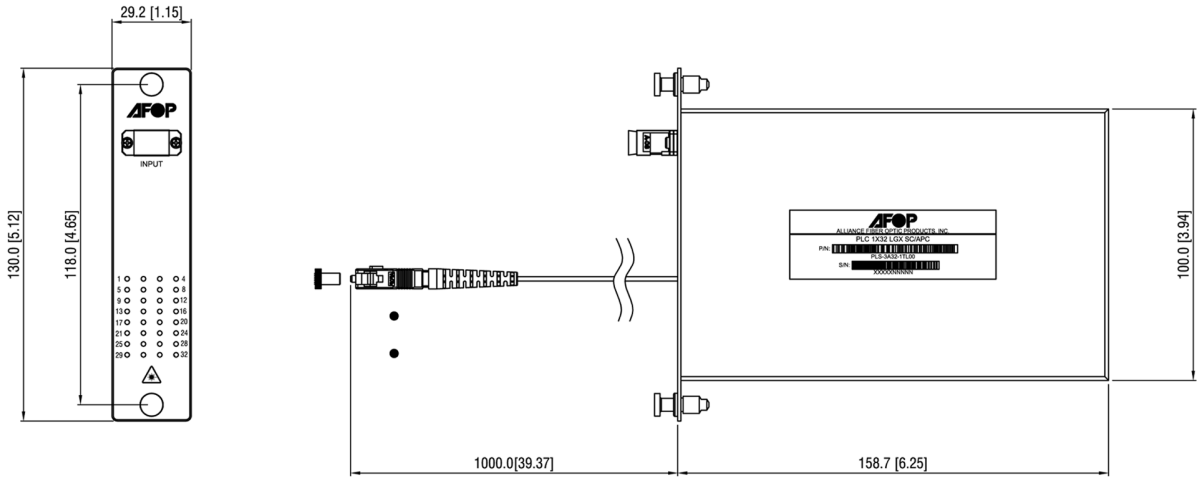
3 Select Connector
K: LC/APC
L: LC/PC
S: SC/PC
T: SC/APC

4 Select Customization
00: Standard
Running number used for
special types or custom made

PLC Splitter LGX® Module

CORNING

MECHANICAL DRAWING OF 1x32 SC PLC SPLITTER LGX MODULE



PLC Splitter (19-in Rack Mount) Module

Features and Benefits

- 1 x 8/16/32 or two (1x32) Configurations
- Low Insertion Loss
- Low Input Polarization Sensitivity
- High Uniformity
- Customized Packaging Available

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

Corning introduces a new family of high performance PLC Splitter (19-in Rack Mount) Modules for today's high-port count applications that demand the best performance and the highest reliability under the most adverse of environments. Corning's PLC Splitter Modules deliver on all these requirements. The PLC Modules feature low insertion loss, low polarization dependent loss, and high port uniformity. The Splitter Modules are available in 8-, 16-, and 32-channel or two (1x32) channel configurations with SC or LC connector. Our OEM-friendly packaging provides the flexibility to meet the broadest design requirements.

PLC Splitter (19-in Rack Mount) Module

PLC Splitter (19-in Rack Mount) Module

CORNING

Specifications

Parameters	1x8 Port	1x16 Port	1x132Port
	Maximum	Maximum	Maximum
Operating Wavelength λc		1260-1650 nm	
Insertion Loss	11.5 dB	14.7 dB	18.3 dB
Insertion Loss Uniformity	1.2 dB	1.7 dB	2.2 dB
Polarization Dependent Loss	0.3 dB	0.4 dB	0.45 dB
Directivity		> 55 dB	
Return Loss		> 50 dB	
Maximum Optical Power		300 MW	
Operating Temperature		- 5°C to +65°C	
Storage Temperature		- 40°C to +85°C	

Shipping Package	
Packaging Dimensions	Fiber Type
Standard 1U 19-in Rack Mount	Fiber Type: Corning® SMF-28e®, 900 µm

Ordering Information

PLC Splitter (19-in Rack Mount) Module

P L S - 2 □ □ □ - 1 □ R □ □

1 2 3 4

1 Select InPort Count
A: 1xN
B: Two (1xN)
C: Three (1xN)
(N = OutPort Count)

2 Select OutPort Count
08: Ports 8
16: Ports 16
32: Ports 32

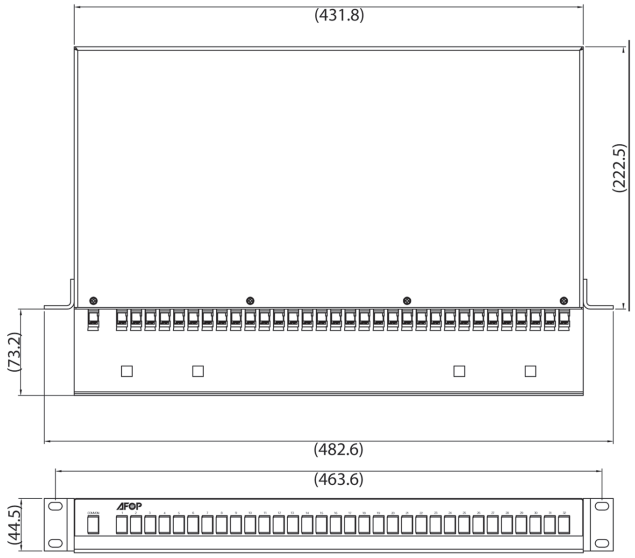
3 Select Connector
K: LC/APC
L: LC/PC
S: SC/PC
T: SC/APC

4 Select Customization
00: Standard
Running number used for
special types or custom made

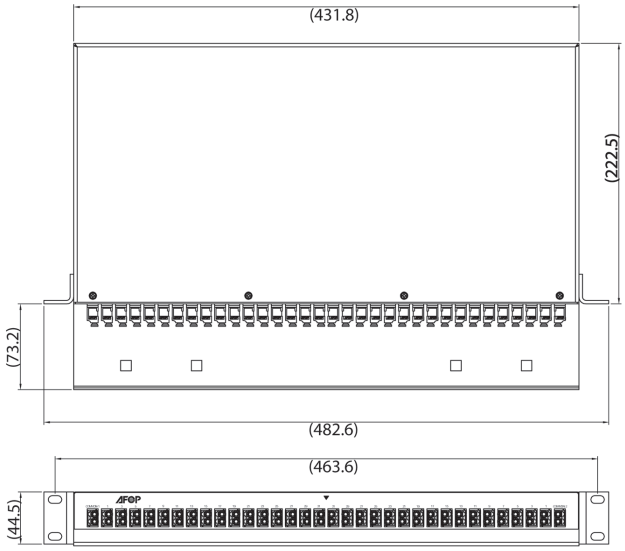
PLC Splitter (19-in Rack Mount) Module

CORNING

MECHANICAL DRAWING OF 1x32 SC PLC SPLITTER (19-IN RACK MOUNT) MODULE



MECHANICAL DRAWING OF 1x32 LC PLC SPLITTER (19-IN RACK MOUNT) MODULE



PLC Splitter (Premium Grade)

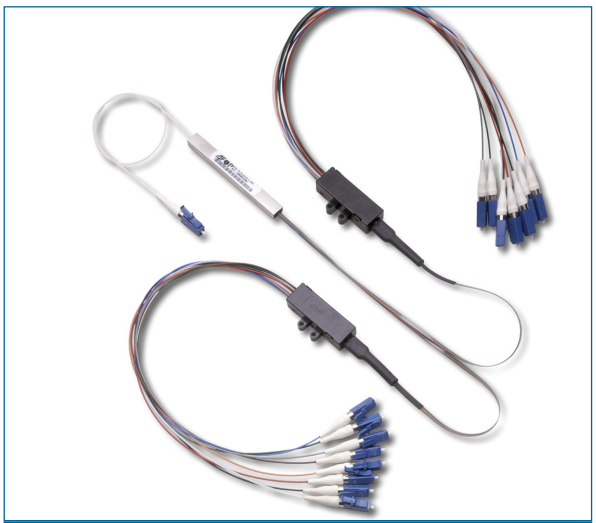
Features and Benefits

- Rugged Construction
- Low Input Polarization Sensitivity
- Customized Packaging Available
- High Quality Connector Fanouts Available

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

Today's high-port count applications for broadband system applications demand the best performance and the highest reliability under the most adverse of conditions. Corning's Planar Lightwave Circuit Splitters deliver on all these requirements. These highly stable components perform superbly across temperature and wavelength providing low insertion loss, low input polarization sensitivity, excellent uniformity, and low return loss in 4-, 8-, 16-, and 32-port configurations. Our OEM-friendly packaging provides the flexibility to meet the broadest design requirements.



PLC Splitter (Premium Grade)

PLC Splitter (Premium Grade)

CORNING

Specifications

Parameters	1x4 Port	1x8 Port	1x16 Port	1x32 Port
	Maximum	Maximum	Maximum	Maximum
Operating Wavelength λc	1260-1650 nm			
Insertion Loss	7.5 dB	10.7 dB	14.2 dB	17.0 dB
Insertion Loss Uniformity	1.0 dB	1.0 dB	1.5 dB	2.0 dB
Polarization Dependent Loss	0.1 dB	0.15 dB	0.25 dB	0.4 dB
Directivity	> 55 dB			
Return Loss	> 55 dB			
Maximum Optical Power	300 MW			
Operating Temperature	- 40°C to +85°C			
Storage Temperature	- 40°C to +85°C			
Storage Relative Humidity	20-90 (%RH)			

Shipping Package	
Packaging Dimensions	
1x4, 1x8, 1x16	4 mm (H) x 4 mm (W) x 40 mm (L)
1x32	4 mm (H) x 7 mm (W) x 50 mm (L)

Ordering Information

PLC Splitter (Premium Grade)

P L S - □ □ □ □ - 2 □ □ □ □

1 2 3 4 5

1 Select Fiber Type
1: 250 µm
2: 900 µm

2 Select InPort Count
A: 1xN
(N = OutPort Count)

3 Select OutPort Count
04: Ports 4
08: Ports 8
16: Ports 16
32: Ports 32

4 SelectConnector*
0: None
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC
V: MPO

5 Select Customization
000: Standard
Running number used for special types or custom made

Notes:

** Specifications do not include connector loss*

PLC Splitter (Standard Grade)

Features and Benefits

- Rugged Construction
- Low Input Polarization Sensitivity
- Customized Packaging Available
- High Quality Connector Fanouts Available

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

Today's high-port count applications for broadband system applications demand the best performance and the highest reliability under the most adverse of conditions. Corning's Planar Lightwave Circuit Splitters deliver on all these requirements. These highly stable components perform superbly across temperature and wavelength providing low insertion loss, low input polarization sensitivity, excellent uniformity, and low return loss in 4-, 8-, 16-, and 32-port configurations. Our OEM-friendly packaging provides the flexibility to meet the broadest design requirements.

PLC Splitter (Standard Grade)

PLC Splitter (Standard Grade)

CORNING

Specifications

Parameters	1x4 Port	1x8 Port	1x16 Port	1x32 Port
	Maximum	Maximum	Maximum	Maximum
Operating Wavelength λc	1260-1650 nm			
Insertion Loss	7.5 dB	11.0 dB	14.2 dB	17.8 dB
Insertion Loss Uniformity	1.0 dB	1.0 dB	1.5 dB	2.0 dB
Polarization Dependent Loss	0.3 dB	0.3 dB	0.4 dB	0.45 dB
Directivity	> 55 dB			
Return Loss	> 55 dB			
Maximum Optical Power	300 MW			
Operating Temperature	- 40°C to +85°C			
Storage Temperature	- 40°C to +85°C			
Storage Relative Humidity	20-90 (%RH)			

Shipping Package	
Packaging Dimensions	
1x4, 1x8, 1x16	4 mm (H) x 4 mm (W) x 40 mm (L)
1x32	4 mm (H) x 7 mm (W) x 50 mm (L)

Ordering Information

PLC Splitter (Standard Grade)

P L S - □ □ □ □ - 1 □ □ □ □

1 2 3 4 5

1 Select Fiber Type
1: 250 µm
2: 900 µm

2 Select InPort Count
A: 1xN
(N = OutPort Count)

3 Select OutPort Count
04: Ports 4
08: Ports 8
16: Ports 16
32: Ports 32

4 SelectConnector*
0: None
K: LC/APC
L: LC/PC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC
V: MPO

5 Select Customization
000: Standard
Running number used for special types or custom made

Notes:

** Specifications do not include connector loss*

QuickPath™ Splitter Module

Features and Benefits

Compact and Lightweight Cassette Design
15 mm Bend Radius Bend-Insensitive Fiber SC/APC Pigtails
Rugged Construction
High Stability and Reliability

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

Corning's QuickPath Splitter Module is a new family of products designed to expand FTTH network functionality as well as cut installation time and costs in the field. This product line was designed to meet the needs of implementing PON networks in residential and MDU applications. QuickPath allows the provider to pick wall or rack mount boxes, or use the individual compact splitter modules in various existing FDH cabinets.

The Corning QuickPath splitter modules all use bend insensitive fiber (BIF) with a 15 mm bend radius to minimize loss. The QuickPath compact splitter modules come connectorized with FOC ITL approved SC/APC connectors and terminations on 2 mm BIF cables.

QuickPath™ Splitter Module

QuickPath™ Splitter Module

CORNING

Specifications

Parameters	1x4 Port	1x8 Port	1x16 Port	1x32 Port
	Maximum	Maximum	Maximum	Maximum
Operating Wavelength λc	1260-1650 nm			
Insertion Loss*	7.5 dB	10.7 dB	14.2 dB	17.0 dB
Insertion Loss Uniformity	1.0 dB	1.0 dB	1.5 dB	2.0 dB
Polarization Dependent Loss	0.1 dB	0.15 dB	0.25 dB	0.4 dB
Directivity	> 55 dB			
Return Loss	> 55 dB			
Maximum Optical Power	300 MW			
Operating Temperature	- 40°C to +85°C			
Storage Temperature	- 40°C to +85°C			
Storage Relative Humidity	20-90 (%RH)			

Note:

** Does not include connectors*

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
100 mm (L) x 80 mm (W) x 10 mm (H)	Fiber Type: BIF, 2 mm	1 m

Ordering Information

QuickPath™ Splitter Module

P L S - 4 □ □□ - B □ C □□

1 2 3 4

1 **Select InPort Count**
A: 1xN
(N = OutPort Count)

2 **Select OutPort Count**
04: Ports 4
08: Ports 8
16: Ports 16
32: Ports 32

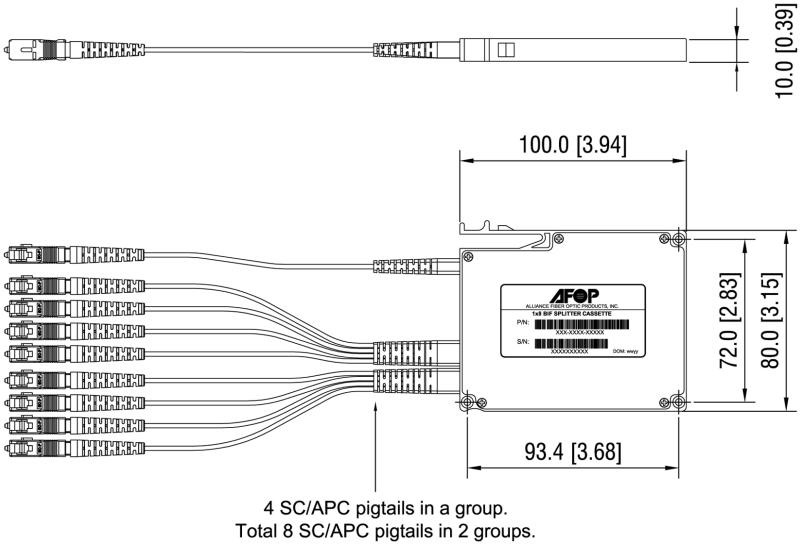
3 **SelectConnector**
T: SC/APC

4 **Select Customization**
000: Standard
Running number used for
special types or custom made

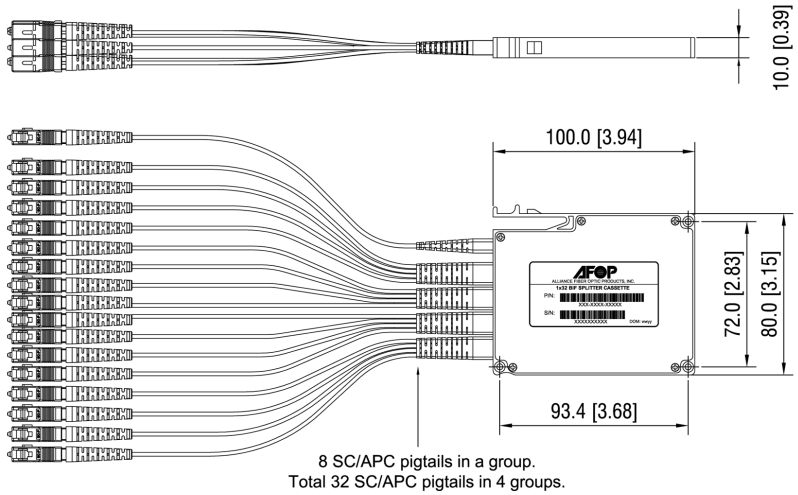
QuickPath™ Splitter Module

CORNING

Mechanical Drawing 1x8 Splitter Module



Mechanical Drawing 1x32 Splitter Module



LC Slimpac Uniboot Connectors

Features and Benefits

- Uniboot with a Single Housing
- Unique Push-Pull Design and Function
- Easy to Assemble and Use
- Low Insertion Loss and Back Reflection
- A Variety of LC Slimpac Uniboot Connectors
- High Repeatability and Reliability

The Slimpac Uniboot Series of LC connectors offers great performance with high repeatability and low insertion loss: Slimpac2 with standard duplex function, Slimpac3 with reconfigurable capability to switch polarity, and Slimpac3 Push-Pull with both reconfigurable capability and push-pull function especially designed for high-density applications. With tightly toleranced ceramic ferrules to ensure consistent low loss and ease of termination, these uniboot connectors are fully intermateable with standard LC-licensed products. By using cable assemblies with LC Slimpac Uniboot connectors, half of the space can be saved over traditional duplex cable.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Critera	Complies with TIA-604-10 and IEC 61754-20 Product is qualified to Telcorcia GR-326-CORE

Slimpac3 Push-Pull, Slimpac2, and Slimpac3 (left to right)

LC Slimpac Uniboot Connectors

CORNING

Specifications

Parameter	Multimode	Singlemode
Insertion Loss	0.2 dB Typical	0.15 dB Typical
Back Reflection	-25 dB Typical	-55 dB Ultra PC
Connection Durability	500 Matings	500 Matings
Connector Repeatability	ΔIL < 0.2 dB	ΔIL < 0.1 dB
Operating Environment	-40°C to +85°C	-40°C to +85°C
Temperature Cycling	ΔIL < 0.2 dB	ΔIL < 0.2 dB
Vibration	ΔIL < 0.2 dB	ΔIL < 0.2 dB
Cable Retention	> 15 Lbs.	> 15 Lbs.

Ordering Information

LC Slimpac Uniboot Connectors

7 2 1 - □ □ □ 0 - □ □ 8 0 B
1 2 3 4 5

1 Select Ferrule Type
1: SM 125 µm
2: SM 126 µm
3: MM 127 µm
4: APC 125 µm (PreAngled)
5: APC 126 µm (PreAngled)
6: SM 125.5 µm

2 Select Body Type
7: Slimpac2
J: Slimpac3
P: Slimpac3 Push-Pull

3 Select Boot Type
9: 2.0 mm
7: 2.4 mm
3: 3.0 mm

4 Select Housing Color
3: APC: Green
5: SM: Blue
7: MM: Beige
A: MM: Aqua

5 Select Boot Color
3: APC: Green
8: SM/MM: White

Color Chart
0: Translucent (Cap Only)
1: Black 2: Yellow
3: Green 4: Red
5: Blue 6: Orange
7: Beige 8: White
A: Aqua

Notes:
**All Parts are sold in units of 100*
***Refer to color chart for additional non-standard boot and housing colors*
****Non-standard color requires special order*

LC Duplex EMI Adapters

Features and Benefits

One-Piece Design
Die-Cast Metal Housing
Straight 45-degree Angled Mount
Safety Shutter Option
EMI Gasket Included

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Critera	Complies with TIA-604-10 and IEC 61754-20 Product is qualified to Telcorcia GR-326-CORE

Corning offers a new series of fiber optic LC duplex EMI shielding adapters designed to minimize Electro Magnetic Interference (EMI) emissions from equipment front panels or enclosures. These adapters are available in straight or 45-degree angled mount with or without shutters. An EMI gasket is included to improve the EMI seal between the adapter and mounting surface. They are fully intermateable with standard LC-licensed products with high stability and reliability under a broad range of applications and environmental conditions.

LC Duplex EMI Adapters

LC Duplex EMI Adapters

CORNING

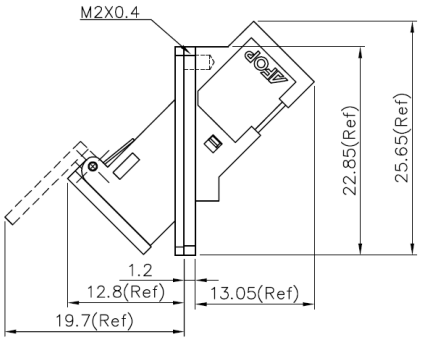
Ordering Information

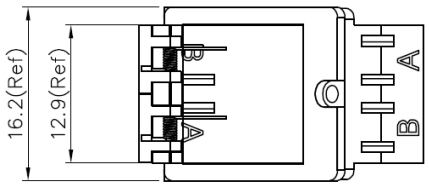
Part Number	Sleeve Type	Flange	Shutter	Mount
740-0411-006	Metal	Flange	No Shutter	Straight Mount
740-0412-006	Ceremic	Flange	No Shutter	Straight Mount
740-0421-006	Metal	Flangeless	No Shutter	Straight Mount
740-0422-006	Ceramic	Flangeless	No Shutter	Straight Mount
740-0431-006	Metal	Flange	Shutter	Straight Mount
740-0432-006	Ceramic	Flange	Shutter	Straight Mount
740-0441-006	Metal	Flangeless	Shutter	Straight Mount
740-0442-006	Ceramic	Flangeless	Shutter	Straight Mount
740-0451-006	Metal	Flangeless	No Shutter	45-degree Angled Mount
740-0452-006	Ceramic	Flangeless	No Shutter	45-degree Angled Mount
740-0461-006	Metal	Flangeless	Shutter	45-degree Angled Mount
740-0462-006	Ceramic	Flangeless	Shutter	45-degree Angled Mount

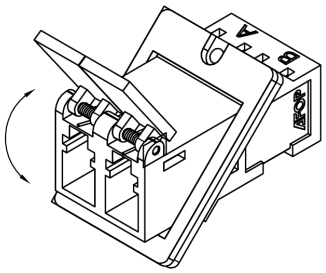
LC Duplex EMI Adapters

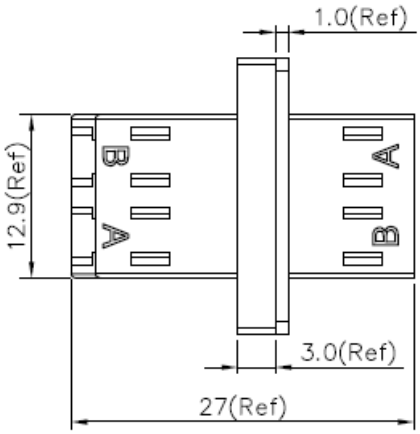
CORNING

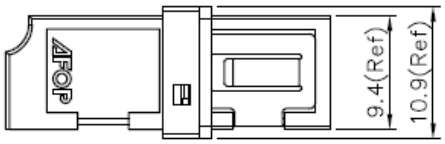
Mechanical Drawings (unit: mm)

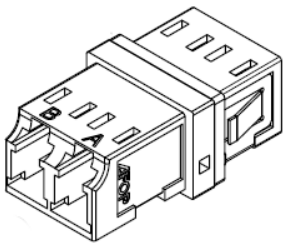












LC Connectors and Adapters

CORNING

Features and Benefits

Various options: Boot color, boot type, housing color, EMI shielding, and retractable door for adapters

Unique LC adapters in SC footprint

Single-mode and multimode versions

Proprietary metal rear body for connectors

Compact LC duplex connector for high-density interconnect applications

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Critera	Complies with TIA-604-10 and IEC 61754-20 Product is qualified to Telcordia GR-326-CORE

The 721 Series of LC connectors offers great performance with very high repeatability and low insertion loss. These products are fully intermateable with standard LC-licensed products and deliver long-term stability under a broad range of applications and conditions. These connectors utilize tightly toleranced ceramic ferrules to ensure consistent low loss and ease of assembly. Corning also manufactures an LC adapter family to support LC interconnection.

LC Connectors and Adapters

LC Connectors and Adapters

Specifications

LC Connector/721 Series*	Multimode	Single-Mode
Insertion Loss	0.2 dB Typical 0.3 dB Maximum	0.15 dB Typical 0.25 dB Maximum
Back Reflection	-25 dB Typical	-55 dB Ultra PC
Connection Durability	500 Matings	500 Matings
Connection Repeatability	ΔIL < 0.2 dB	ΔIL < 0.1 dB
Operating Environment	-40°C to +85°C	-40°C to +85°C
Temperature Cycling	ΔIL < 0.2 dB	ΔIL < 0.2 dB
Vibration Loss Change	ΔIL < 0.2 dB	ΔIL < 0.2 dB
Cable Retention Loss Change	> 15 lb	> 15 lb

LC Adapter/740 Series*	Multimode	Single-Mode
Operating Temperature	-40°C to +85°C	-40°C to +85°C
Connection Durability	500 Matings	500 Matings
Connection Repeatability	ΔIL < 0.2 dB	ΔIL < 0.1 dB
Insertion Loss	< 0.3 dB	< 0.3 dB

Ordering Information

LC Connectors and Adapters

7 2 1 - □ □ □ 0 - □ □ 8 0 B
1 2 3 4 5

1 Select ferrule type.
1: SM 125 µm
2: SM 126 µm
3: MM 127 µm
4: APC 125 µm (preangled)
5: APC 126 µm (preangled)
6: SM 125.5 µm

2 Select body type.
1: Simplex
3: Simplex with clip
5: Duplex with one-piece clip
8: Slimplex with one-piece clip
K: Simplex with flexible short boot
R: Duplex with flexible short boot
S: 1.2 mm Simplex
T: 1.2 mm Simplex with clip

3 Select boot type.
1: 900 µm boot
2: 2.0 mm ribbed boot
3: 3.0 mm ribbed boot
4: 900 µm short boot
7: 2.4 mm ribbed root
9: 2.0 mm flexible short boot
Other: Custom

4 Select housing color.
3: APC: Green
5: SM: Blue
7: MM: Beige
A: MM: Aqua

5 Select boot color.
3: APC: Green
8: SM/MM: White

Color Chart
0: Translucent (Cap Only)
1: Black 2: Yellow

APC Connectors and Adapters

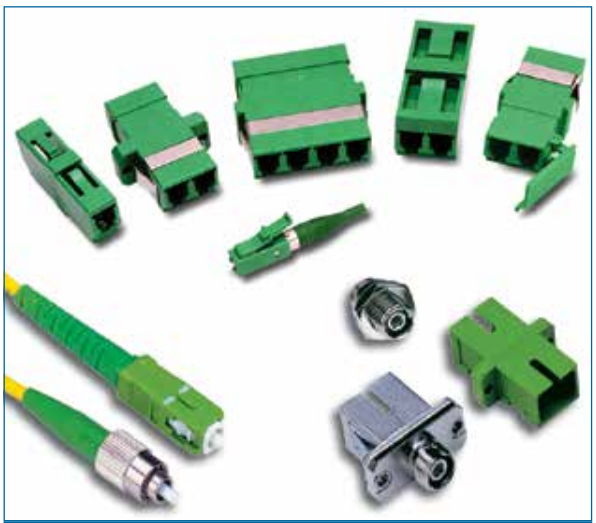
Features and Benefits

Precision preangled zirconia ferrules
Low back reflection
Various adapter cutouts
Connectors available with either 2 mm, 3 mm, or 900 µm cable boot

Standards

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-326-CORE
	TAA compliant

Corning manufactures an extensive line of high-performance APC fiber connectors and adapters. The APC line of products offer top performance and high repeatability. Corning's 8-degree APC connectors are fully intermateable with standard NTT APC products and deliver long-term stability under a range of applications and conditions. These connectors utilize tightly toleranced, preangled zirconia ferrules to ensure consistently low loss. Our APC connectors feature a proprietary, NOD spacer element for greater reliability and superior ease of assembly. We also provide an APC adapter family to support APC termination.



APC Connectors and Adapters

APC Connectors and Adapters

CORNING

Specifications – APC Adapter/740 Series

Parameters	FC APS	LC APC	SC APC
Insertion Loss	0.1 dB typical	0.1 dB typical	0.1 dB typical
	0.3 dB maximum	0.3 dB maximum	0.3 dB maximum
Back Reflection	-65 dB typical	-70 dB typical	-65 dB typical
	-60 dB maximum	-65 dB maximum	-60 dB maximum
Connector Durability	500 matings		
Connector Repeatability	ΔIL< 0.1 dB		
Temperature Cycling	ΔIL< 0.1 dB		
Vibration	ΔIL< 0.1 dB		
Cable Retention	> 15 lb		
Ferrule Face Angle	8° ± 0.3°e		
Key Orientation	Angle point 90° locating key		
Operating Environment	-40°C to +85°C		

Parameters	Zirconia
Connector Durability	500 matings
Connector Repeatability	ΔIL< 0.1 dB
Insertion Loss	0.1 dB
Operating Temperature	-40°C to +85°C

Ordering Information

LC APC Connector/721 Series

7 2 1 - □ □ □ 0 - 3 3 8 0 B
1 2 3

1 Select ferrule type.
4: APC 125 µm preangled
5: APC 126 µm preangled

2 Select body type.
1: Simplex
2: Duplex
3: Simplex w/clip
4: Duplex Slimpac™[1]

3 Select boot type.
1: 900 µm boot
2: 2 mm ribbed boot
3: 3 mm ribbed boot
6: 2.4 mm ribbed boot[2]
Other: Custom

Color Chart
0: Translucent (Cap Only)
1: Black
2: Yellow
3: Green
4: Red
5: Blue
6: Orange
7: Beige
8: White

[1] Only available for 3 mm and 2.4 mm boot
[2] Only available for duplex Slimpac

Notes:

All parts are sold in units of 100
Refer to color chart for additional nonstandard boot and housing colors
Nonstandard color lead time may be longer

APC Connectors and Adapters

CORNING

FC APC Connector/722 Series

7 2 2 - □ 1 □ 0 - 0 3 3 0 B

1 2

1 Select ferrule type.
7: APC 125 µm
8: APC 126 µm

2 Select boot type.
1: 900 µm boot
2: 2 mm ribbed boot
3: 2 mm rubber boot
4: 3 mm ribbed boot
5: 3 mm rubber boot
Other: Custom

Color Chart
0: Translucent (Cap Only)
1: Black
2: Yellow
3: Green
4: Red
5: Blue
6: Orange
7: Beige
8: White

SC APC Connector/728 Series

7 2 8 - □ □ □ 0 - 0 3 3 0 B

1 2 3

1 Select ferrule type.
7: APC 125 µm
8: APC 126 µm

2 Select body type.
1: Simplex one-piece
2: Duplex one housing
4: Duplex with clip

3 Select boot type.
1: 900 µm boot
2: 2 mm ribbed boot
3: 2 mm rubber boot
4: 3 mm ribbed boot
5: 3 mm rubber boot
Other: Custom

Color Chart
0: Translucent (Cap Only)
1: Black
2: Yellow
3: Green
4: Red
5: Blue
6: Orange
7: Beige
8: White

SC – PC Connectors and Adapters

CORNING

Features and Benefits

Patented NOD Connector Spacer Element Design
Patented Universal SC Duplex Clip Option

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-326-CORE
	Is TIA/EIA-604-3 compliant with intermateability standards

Corning's 728 series of SC connectors and 740 series of SC adapters offer superior performance with high repeatability. Fully intermateable with standard NTT SC, these products deliver long-term stability for a range of applications and conditions. They utilize tightly toleranced preradiused Zirconia ferrules for consistent and low-loss performance. The 728 connector series features a patented NOD spacer element for greater reliability and improved ease of assembly. These products are available in either a premium metal body or in a polymer body construction.

SC – PC Connectors and Adapters

SC – PC Connectors and Adapters

CORNING

Specifications – SC – PC Connector / 728 Series

Parameters	Multimode	Single-mode
Insertion Loss	0.2 dB Typical 0.3 dB Maximum	0.15 dB Typical 0.25 dB Maximum
Back Reflection	-25 dB Typical	-55 dB Ultra PC
Connector Durability	500 Matings	
Connector Repeatability	ΔIL < 0.2 dB	ΔIL < 0.1 dB
Temperature Cycling	ΔIL < 0.1 dB	
Vibration	ΔIL < 0.1 dB	
Cable Retention	> 15 lb	
Operating Environment	-40°C to +85°C	

Specifications – SC Adapter / 740 Series

Parameters	Multimode	Single-mode
Insertion Loss	< 0.3 dB	< 0.2 dB
Connector Durability	500 Matings	500 Matings
Connector Repeatability	ΔIL < 0.2 dB	ΔIL< 0.2 dB
Operating Temperature	-40°C to +85°C	-40°C to +85°C

Ordering Information – SC Connector / 728 Series

SC Connector / 728 Series

7 2 8 - □ □ □ 0 - □ □ □ 0 B

1 2 3 4 5 6

1 Select Ferrule Type
1: SM 125 µm
2: SM 126 µm
3: MM 127 µm
7: APC 125 µm (Step)
8: APC 126 µm (Step)
9: APC 126 µm (Conical)

2 Select Body Type
1: Simplex One Piece
2: Duplex One Housing
4: Duplex w/ Clip (w/o A/B)
5: Duplex w/Clip (w/ A/B)
6: Duplex w/ One Piece Clip

3 Select Boot Type
1: 900 mm Boot
2: 2 mm Ribbed Boot
3: 2 mm Rubber Boot
4: 3 mm Ribbed Boot
5: 3 mm Rubber Boot
8: 2mm Short Ribbed
Other: Custom

4 Select Housing Color
3: APC: Green
5: SM: Blue
7: MM: Beige

5 Select Boot Color
3: APC: Green
5: SM: Blue
7: MM: Beige

6 Select Dust Cap Color
0: SM: Translucent
1: MM: Black
3: APC: Green

Color Chart
0: Translucent (Cap Only)
1: Black
2: Yellow
3: Green
4: Red
5: Blue
6: Orange
7: Beige
8: White

Notes:

All parts are sold in units of 100
Refer to color chart for additional non-standard boot and housing colors
Non-standard color lead time may be longer.

SC – PC Connectors and Adapters

CORNING

Ordering Information – SC Adapter / 740 Series

Parts Number**	Description
740-011X-004	SC, Metal Sleeve, Plastic Body with Flange
740-012X-004	SC, Ceramic Sleeve, Plastic Body with Flange
740-031X-004	SC, Metal Sleeve, Plastic Body w/t Flange
740-032X-004	SC, Ceramic Sleeve, Plastic Body w/t Flange
740-013X-004	SC, Duplex, Metal Sleeve, Plastic Housing with Flange
740-014X-004	SC, Duplex, Ceramic Sleeve, Plastic Housing with Flange
740-033X-004	SC, Duplex, Metal Sleeve, Plastic Housing w/o Flange
740-034X-004	SC, Duplex, Ceramic Sleeve, Plastic Housing w/o Flange
740-0011-004	SC, Metal Sleeve, Metal Body
740-0041-004	SC, Ceramic Sleeve, Metal Body
740-002N-004	SC, Duplex, Metal or Ceramic Sleeve, Metal Body with Threaded Mounting Hole
740-005N-004	SC, Duplex, Metal or Ceramic Sleeve, Metal Body with Flange
740-017X-004	SC-ST, Duplex, Plastic Housing, Metal Sleeve
740-023N-004	SC-FC, Simplex, Flange Type, Metal or Ceramic Sleeve
740-912X-004	Premium, SC, Ceramic Sleeve, Plastic Body with Flange
740-932X-004	Premium, SC, Ceramic Sleeve, Plastic Body w/o Flange

Notes:

All parts are sold in units of 100
Refer to color chart for additional non-standard boot and housing colors
Non-standard color lead time may be longer.

MU Connectors and Adapters

Features and Benefits

- High Density Package
- High Optical Performance
- Push-pull Type Operation
- Small Size and Light Weight
- Tunable Zirconia Connector Ferrule
- NTT-Compatible

Corning's 727 series MU connectors deliver superior performance and high repeatability in a small form factor. Our MU connectors feature impact resistant, nonflammable polymer, push-pull type operation, scalable high-density package, small size, and light weight. Connectors are available in either 2 mm or 900 µm boot types. MU adapters feature the same quality and reliability found in the SC adapter, plus all the benefits of a small form factor interface. MU adapters are available with either zirconia or metal sleeves in simplex or vertical duplex configurations.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-326-CORE

MU Connectors and Adapters

MU Connectors and Adapters

CORNING

Specifications – MU Connector / 727 Series

Parameters	Multimode	Single-mode
Insertion Loss	0.2 dB Typical 0.3 dB Maximum	0.15 dB Typical 0.25 dB Maximum
Back Reflection	-25 dB Typical	-35 dB PC Polish -45 dB Super PC -55 dB Ultra PC
Connector Durability	500 Matings	
Connector Repeatability	ΔIL < 0.2 dB	ΔIL < 0.1 dB
Temperature Cycling	ΔIL < 0.2 dB	
Vibration	ΔIL < 0.2 dB	
Cable Retention	> 15 lb	
Operating Environment	-40°C to +85°C	

Specifications – MU Adapter / 740 Series

Parameters	Phosphor/Bronze	Zirconia
Connector Durability	500 Matings	500 Matings
Connector Repeatability	ΔIL < 0.2 dB	ΔIL< 0.1 dB
Insertion Loss	< 0.3 dB	< 0.2 dB
Operating Temperature	-40°C to +85°C	-40°C to +85°C

Ordering Information – MU Connector / 727 Series

MU Connector / 727 Series

7 2 7 - □ □ □ 0 - □ 5 8 0 B
1 2 3 4

1 Select Ferrule Type
1: SM 125 µm
2: SM 126 µm
3: MM 127 µm

2 Select Body Type
1: Simplex NTT-Type

3 Select Boot Type
1: 900 µm Boot
2: 2 mm Ribbed Boot
Other: Custom

4 Select Housing Color
7: MM: Beige
9: SM: Brown

Color Chart
0: Translucent (Cap Only)
1: Black
2: Yellow
3: Green
4: Red
5: Blue
6: Orange
7: Beige
8: White

Notes:
All parts are sold in units of 100
Refer to color chart for additional non-standard boot and housing colors
Non-standard color lead time may be longer.

MU Connectors and Adapters

CORNING

Ordering Information – MU Adapter / 740 Series

740-0019-007-B	MU-A Simplex, Metal Sleeve Adapter
740-0029-007-B	MU-A Simplex, Zirconia Sleeve Adapter
740-0039-007-B	MU-2A Vertical Duplex, Metal Sleeve Adapter
740-0049-007-B	MU-2A Vertical Duplex, Zirconia Sleeve Adapter

Notes:

All parts are sold in units of 100
Refer to color chart for additional non-standard boot and housing colors
Non-standard color lead time may be longer.

FC – PC Connectors and Adapters

CORNING

Features and Benefits

Fixed and Removable Key Type Connector Available
Various Options: Boot Color and Boot Type
Patended NOD Spacer Element Connector Design
Precision Pre-radiused Zirconia Connector Ferrules

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-326-CORE

Corning's FC-PC connectors (722 series) offer superior performance with very high repeatability. These products are fully intermatable with standard NTT FC-PC products and deliver long-term stability under a wide range of applications and conditions. The 722 series utilizes pre-radiused Zirconia ferrules to ensure low loss. Our FC-PC connector features a patented NOD spacer element for greater reliability and ease of assembly. We also provide an FC fiber coupling adapter family to support FC-PC interconnection. Corning's FC adapters are available in a wide range of hybrid adapter styles to fit almost any application or panel requirements.

FC – PC Connectors and Adapters

FC – PC Connectors and Adapters

CORNING

Specifications – FC-PC Connector / 722 Series

Parameters	Multimode	Single-mode
Insertion Loss	0.2 dB Typical	0.15 dB Typical
	0.3 dB Maximum	0.25 dB Maximum
Back Reflection	-25 dB Typical	-35 dB PC Polish
		-45 dB Super PC
		-55 dB Ultra PC
Connector Durability	500 Matings	
Connector Repeatability	ΔIL< 0.2 dB	ΔIL< 0.1 dB
Temperature Cycling	ΔIL< 0.2 dB/ ΔRL< 5 dB	
Vibration	ΔIL< 0.2 dB/ ΔRL< 5 dB	
Cable Retention	> 15 lb	
Operating Environment	-40°C to +85°C	

Specifications – FC-PC Connector / 740 Series

Parameters	Phosphor/Bronze	Zirconia
Insertion Loss	< 0.3 dB	< 0.2 dB
Connector Durability	500 Matings	
Connector Repeatability	ΔIL< 0.1 dB	
Operating Environment	-40°C to +85°C	

Ordering Information

FC-PC Connector / 722 Series

7 2 2 - □ □ □ 0 - 0 □ □ 0 B

1 2 3 4 5

1 Select Ferrule Type
1: SM 125 mm
2: SM 126 mm
3: MM 128 mm
4: SM 125 mm (Short)
5: SM 126 mm (Short)
6: MM 128 mm (Short)
7: APC 125 mm Preangled (Step)
8: APC 126 mm Preangled (Step)
9: APC 126 mm Preangled (Conical)
A: APC 125 mm Preangled (Conical)

2 Select Body Type
1: Fixed Key One Piece
2: Removable Key One Piece

3 Select Boot Type
1: 900 mm Boot
2: 2 mm Ribbed Boot
3: 2 mm Rubber Boot
4: 3 mm Ribbed Boot
5: 3 mm Rubber Boot
6: 900 mm Long Boot
7: 3 mm Angled Boot
Other: Custom

4 Select Boot Color
1: MM: Black
2: SM: Yellow
3: APC: Green

5 Select Dust Cap Color
0: SM: Translucent
1: MM: Black
3: APC: Green

Color Chart
0: Translucent (Cap Only)
1: Black
2: Yellow
3: Green
4: Red
5: Blue
6: Orange
7: Beige
8: White

Notes:
All parts are sold in units of 100
Refer to color chart for additional non-standard boot and housing colors
Non-standard color lead time may be longer

FC – PC Connectors and Adapters

CORNING

Ordering Information – FC-PC Adapter / 740 Series

740-0011-003 FC	Metal Sleeve, Square Flange
740-002N-003 FC-ST	Metal or Ceramic Sleeve, Square Flange
740-003N-003 FC	Threaded, Metal or Ceramic Sleeve
740-0041-003 FC	Ceramic Sleeve, Square Flange
740-008N-003 FC-ST	Threaded, Metal or Ceramic Sleeve
740-015N-003 FC-SC	Metal or Ceramic Sleeve, with shutter door
740-010N-003 FC-ST	Threaded, Metal or Ceramic Sleeve, Double D
740-016N-003 FC	Threaded, Metal or Ceramic Sleeve, Single D
740-018N-003 FC-ST	Duplex, Metal Body, Metal or Ceramic Sleeve
740-019N-003 FC	Duplex, Metal Body, Metal or Ceramic Sleeve

N: 1 – Metal Sleeve, 2 – Ceramic Sleeve

ST Connectors and Adapters

Features and Benefits

Metal Body Constructions
Single-mode and Multimode Versions
2 mm, 3 mm, and 900 µm Boot Options in Various Colors
Precision Preradiused Zirconia Ferrules

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-326-CORE
	TAA-Compliant

Corning's 720 series ST fiber connectors and adapters offer superior performance and high repeatability. These products are fully intermateable with all standard ST products and deliver very high stability under a wide range of applications and conditions. The 720 series utilizes tightly toleranced preradiused Zirconia ferrules to ensure consistent low loss and easy assembly. Corning also provides a family of ST fiber coupling adapters to support the ST connectors. These adapters utilize high-tolerance sleeves to ensure consistent low loss and exceptional stability.

ST Connectors and Adapters

ST Connectors and Adapters

CORNING

Specifications – ST Connector / 720 Series

Parameters	Multimode	Single-mode
Insertion Loss	0.2 dB Typical 0.3 dB Maximum	0.2 dB Typical 0.3 dB Maximum
Back Reflection	-25 dB Typical	-35 dB PC Polish -45 dB Super PC -55 dB Ultra PC
Connector Durability	500 Matings	
Connector Repeatability	ΔIL < 0.2 dB	ΔIL < 0.1 dB
Temperature Cycling	ΔIL < 0.2 dB / ΔRL < 5 db	
Vibration	ΔIL < 0.2 dB / ΔRL < 5 db	
Cable Retention	> 15 lb	
Operating Environment	-40°C to +85°C	

Specifications – ST Adapter / 740 Series

Parameters	Phosphor/Bronze	Zirconia
Insertion Loss	< 0.3 dB	< 0.2 dB
Connector Durability	500 Matings	500 Matings
Connector Repeatability	ΔIL < 0.2 dB	ΔIL< 0.2 dB
Operating Temperature	-40°C to +85°C	-40°C to +85°C

Ordering Information – ST Connector / 720 Series

ST Connector / 720 Series

7 2 0 - □ 0 □ 0 - 0 □ □ 0 B

(1) (2) (3) (4)

1 Select Ferrule Type
1: SM 125 µm
2: SM 126 µm
3: MM 128 µm

2 Select Boot Type
1: 900 mm Boot
2: 2 mm Ribbed Boot
3: 2 mm Rubber Boot
4: 3 mm Ribbed Boot
5: 3 mm Rubber Boot
Other: Custom

3 Select Boot Color
1: MM: Black
2: SM: Yellow

4 Select Dust Cap Color
0: SM: Translucent
1: MM: Black

Color Chart
0: Translucent (Cap Only)
1: Black
2: Yellow
3: Green
4: Red
5: Blue
6: Orange
7: Beige
8: White

Notes:

All parts are sold in units of 100
Refer to color chart for additional non-standard boot and housing colors
Non-standard color lead time may be longer.

ST Connectors and Adapters

CORNING

Ordering Information – SC Adapter / 740 Series

Parts Number**	Description
740-0011-001-ST	Threaded, Metal Sleeve
740-0011-N01-ST	Threaded, Metal Sleeve, Generic
740-0041-001-ST	Threaded, Ceramic Sleeve
740-0085-001-ST	Duplex, Plastic Housing, Ceramic Sleeve, Blue Body
740-0097-001-ST	SDuplex, Plastic Housing, Metal Sleeve, Beige Body

Notes:

All parts are sold in units of 100
Refer to color chart for additional non-standard boot and housing colors
Non-standard color lead time may be longer.

Subassemblies

Our subassemblies provide you with the flexibility your business needs. We recognize that your customers' requirements are continually changing and to respond quickly we offer the ability to order just what you need, when you need it.

LC Subassemblies

	Body Type	Description	Ferrule Size	Boot Type	Housing Color	Boot Color	Dust Cap Color	Part Number
 Single-Mode	Simplex	LC Connector Subassembly, APC	126 µm	None	Green	None	White	731-1181-011
 Single-Mode	Simplex	LC Connector Subassembly	126 µm	None	Blue	None	White	731-1141-003-B
 Multimode	Simplex	LC Connector Subassembly	127 µm	None	Beige	None	White	731-1137-003-B

SC Subassemblies

	Body Type	Description	Ferrule Size	Boot Type	Housing Color	Boot Color	Dust Cap Color	Part Number
 Single-Mode	N/A	SC Connector Subassembly	126 µm	None	Blue	None	Yellow	738-1021-005-B
 Multimode	N/A	SC Connector Subassembly	127 µm	None	Beige	None	Blue	738-1011-009-B

ST Subassemblies

	Body Type	Description	Ferrule Size	Boot Type	Housing Color	Boot Color	Dust Cap Color	Part Number

 Single-Mode	N/A	St Connector Subassembly	126 µm	None	Metal	None	Yellow	730-1021-006-B
 Multimode	N/A	LC Connector Subassembly, APC	127 µm	None	Metal	None	Black	730-1021-006-B

FC Subassemblies

	Body Type	Description	Ferrule Size	Boot Type	Housing Color	Boot Color	Dust Cap Color	Part Number
 Single-Mode	N/A	FC Connector Subassembly, fixed key	126 µm	None	Metal	None	Yellow	732-1021-005-B
 Multimode	N/A	FC Connector Subassembly, fixed key	127 µm	None	Metal	None	Black	732-1011-005-B

Fiber Optic Cable Assemblies

CORNING

Features and Benefits

Precision Preradiused Zirconia Ferrules

Standard or Custom Configurations

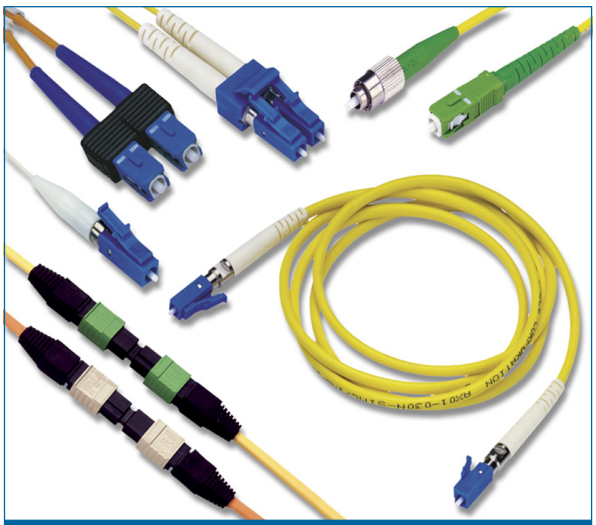
Multimode and Singlemode Options

Low Back Reflection

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Comply with EIA/TIA-455 and -604. Qualified to Telcordia GR-326-CORE

Corning provides an extensive line of high-performance fiber cable assemblies. The 750 series of assembly products offer state of the art performance with superior repeatability. All Corning assemblies are fully intermateable with any standard coupling adapter products, and deliver high stability under a range of application conditions. The 750 series utilize only tightly toleranced preradiused Zirconia ferrule connectors to ensure consistent low loss and increased ease of use. Corning cable assemblies are available in a wide variety of configurations with all our premium connector choices. Corning offers both multimode and singlemode grade products.



Fiber Optic Cable Assemblies

Fiber Optic Cable Assemblies

CORNING

Specifications

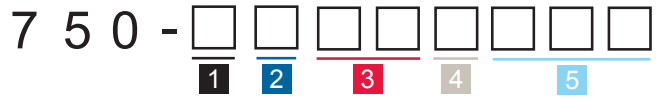
	Multimode	Singlemode
Insertion Loss	< 0.3 dB Typical 0.5 dB Maximum < 0.6 dB (MT-RJ)	< 0.2 dB Typical (PC Type) < 0.25 dB Typical (APC Type) 0.5 dB Maximum
Back Reflection	- 25 dB Typical	- 35 dB PC Polish - 45 dB Super PC - 55 dB Ultra PC - 65 dB APC
Connector Repeatability	- 65 dB APC	DIL < 0.1 dB
Operating Environment	- 40°C to +75°C	-40°C to +75°C
Temperature Cycling	DIL < 0.1 dB DRL < 5 dB	DIL < 0.1 dB DRL < 5 dB
Vibration Loss Change	DIL < 0.1 dB DRL < 5 dB	DIL < 0.1 dB DRL < 5 dB
Cable Retention Loss Change	DIL < 0.1 dB DRL < 5 dB	DIL < 0.1 dB DRL < 5 dB

Fiber Optic Cable Assemblies

CORNING

Ordering Information

Fiber Optic Cable Assemblies



1 Select Connector End #1
D: FC Fixed Key
G: LC Duplex Slimpack
J: LC/PC Duplex Connector
K: LC/APC Connector
L: LC/PC Connector
M: MT-RJ Connector (w/o Pin)[1]
N: MT-RJ Connector (w/ Pin)[1]
P: FC/PC Connector
Q: FC/APC Connector
R: SC/PC Duplex Connector
S: SC/PC Connector
T: SC/APC Connector
U: MU/PC Connector

2 Select Connector End #2
Same codes as End #1

3 Select Cable Code
01 = SM 3.0mm Jacketed
02 = SM 900mm Buffer
03 = 50/125 Simplex 3.0mm
04 = 50/125 Duplex 3.0mm Zip
05 = 100/140 Simplex 3.0mm
06 = 100/140 Duplex 3.0mm Zip
07 = 62.5/125 Simplex 3.0mm
08 = 62.5/125 Duplex 3.0mm Zip
09= 50/125 3.0 Round Cable (MTRJ Only)
10 = 62.5/125 3.0mm Round Cable (MTRJ Only)
11 = SM Duplex 3.0mm Zip
12 = SM Duplex 1.6mm Zip
13 = 50/125 Duplex 1.6mm Zip
14 = 62.5 Duplex 1.6mm Zip
15 = SM 1.6mm Jacketed
16 = SM 2.0mm Jacketed
17 = 50/125 Simplex, 1.6 mm
18 = 62.5/125 Simplex, 1.6mm
19 = 50/125 Simplex, 2mm
20 = 62.5/125 Simplex, 2mm
23 = 50/125 Simplex 900mm Buffer
25 = 100/140 Simplex 900mm Buffer
27 = 62.5/125 Simplex 900mm Buffer
28 = SM 2.4mm Round Cable (LC Slimpack Only)
29 = 62.5/125 2.4mm Round Cable (LC Slimpack Only)
30 = 50/125 2.4mm RoundCable (LC Slimplack Only)

4 Select Polishing Type Code
0 = MM or SM PC
S = Super PC
U = Ultra PC
V = GR326U: MU/PC

5 Select Cable Length in Meter
All length in inch or foot must be converted into meters.

[1]Available for MM only.

Multifiber Cable Assemblies

CORNING

Features and Benefits

High Quality MT Ferrule

8, 12, or 24 Fibers

Plenum, Riser, and LSZH Cables

SM, 62.5mm, and 50mm 10G

100% Factory Terminated and Tested

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Qualified to Telcordia GR-326-CORE

Corning provides an extensive line of high-performance fiber cable assemblies. The 752 Series of Multifiber Cable Assembly products offer state of the art performance with superior repeatability and low loss. All Corning assemblies are fully intermateable with any standard coupling adapter products and are highly stable under a wide range of application conditions. The 752 Series utilize high quality MT ferrule connectors to ensure consistent low loss and reliability. We offer both multimode and single-mode grade products.

Multifiber Cable Assemblies

Multifiber Cable Assemblies

CORNING

Specifications

	Multimode	Singlemode
Insertion Loss	< 0.5 dB (Maximum) < 0.2 dB Average	< 0.2 dB Average < 0.25 dB Average
Back Reflection	< -20 dB	< -55 dB Average
Operating Environment	- 40°C to +75°C	-40°C to +75°C

Ordering Information – MTP/MPO Cable Assemblies / 752 Series

Fiber Optic Mode Conditioning Patchcord (MCP)

7 5 2 - □ □ □ □ - 0 □ □ □ □

1 2 3 4 5 6

1 Select Connector #1
1: MPO Male Std.
2: MPO Female Std.
B: ST
D: FC
L: LC
S: SC
U: MU

2 Select Connector #2
Same as Connector #1 Code

3 Select Fiber Type
1: SM Bare Ribbon
2: SM Jacketed, Riser
3: MM/62.5mm Bare Ribbon
4: MM/62.5mm Jacketed, Riser
5: MM/50mm Bare Ribbon
6: MM/50mm Jacketed, Riser
7: MM/50mm 10G Bare Ribbon
8: MM/50mm 10G Jacketed, Riser
A: SM Jacketed, Plenum
B: MM/62.5mm Jacketed, Plenum
C: MM/50mm Jacketed, Plenum
D: MM/50mm 10G Jacketed, Plenum
E: SM Jacketed, LSZH
F: MM/62.5mm Jacketed, LSZH
G: MM/50mm Jacketed, LSZH
H: MM/50mm 10G Jacketed, LSZH

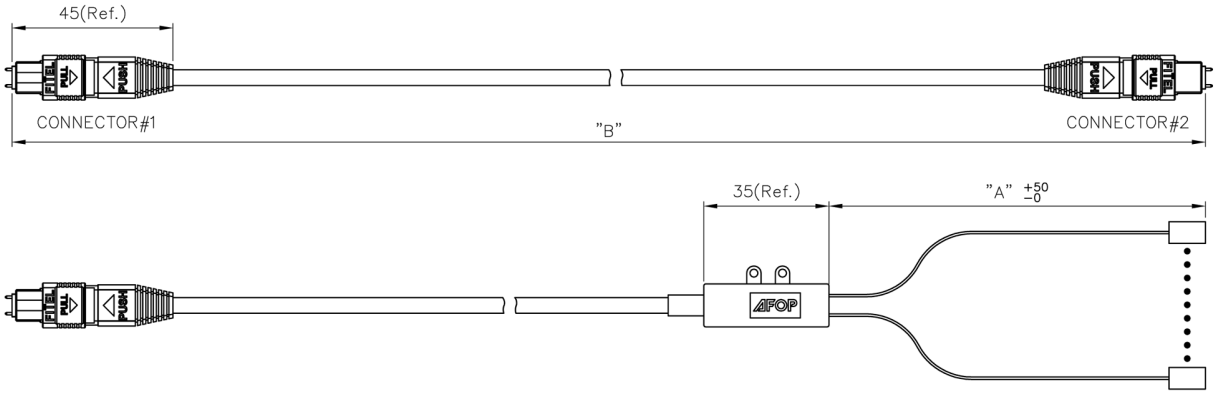
4 Select Ribbon Fiber
2: 8 Fibers
4: 12 Fibers
5: 24 Fibers

5 Select Length A
0: Non Fan-out
A: 0.5m Std.
B: 1m Std.
C: 1.5m Std.

6 Select Length B
Length in meters:
010 = 1m
100 = 10m

Multifiber Cable Assemblies

MPO Drawings



Fiber Optic Mode Conditioning Patchcord (MCP)

Features and Benefits

Low Loss

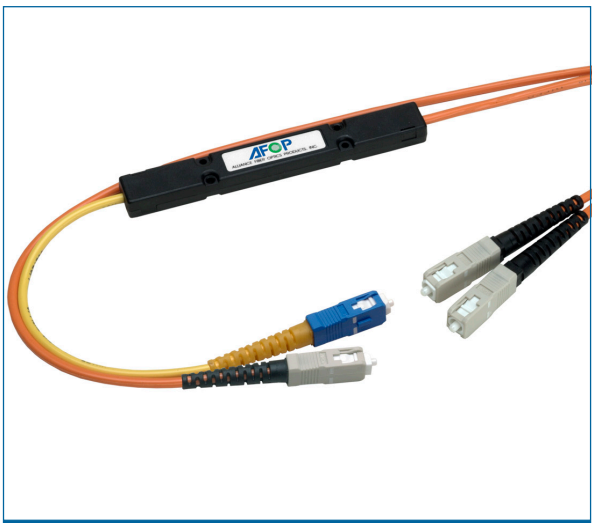
Ruggedized Offset Packaging

Eliminate Differential Mode Delay (DMD) Effects

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Comply with IEEE Standard 802.3z (Gigabit Ethernet) Product is qualigied to Telcordia GR-326-CORE

Corning manufactures high quality mode conditioning patchcord for Gigabit Ethernet (1000Base-LX) applications. The assembly is connectorized with Corning's tightly toleranced preradiused zirconia ferrule connectors to ensure consistent performance and reliability. The fiber offset is packaged and protected by a ruggedized enclosure to guarantee permanent offset.



Fiber Optic Mode Conditioning Patchcord (MCP)

Fiber Optic Mode Conditioning Patchcord (MCP)

CORNING

Specifications

Parameters	
Insertion Loss	< 0.5 dB @ 1310 nm (SM to MM Plus Connector loss
Return Loss	> 55 cB (SM connector)
Connector Tyle	SC and LC
Cable	1.6 mm or mmm Zipcord Duplex
Fiber	62.5/125 µm or 50/125 µm

Ordering Information

Fiber Optic Mode Conditioning Patchcord (MCP)

7 5 7 - ☐ ☐ ☐ ☐ U ☐ ☐ ☐ ☐

1 2 3 4

1 Select Connector End #1 Code (For SM Side)
B: ST Metal
J: LC/PC Duplex*
L: LC/PC**
R: SC/PC Duplex*
S: SC/PC**

2 Select Connector End #2
Same codes as End #1
(For MM Side)

*Clip assembled
** Clip separated

3 Select Cable Code
08: 62.5/125 Duplex 3.0 mm Zipcord
13: 50/125 Duplex 1.6 mm Zipcord
14: 62.5 Duplex 1.6 mm Zipcord

4 Select Cable Length in Meter
The last digit is decimal.
9999: Special Length
All length in inch or foot must be converted into meters.

CWDM Duplex Patch Cords

Features and Benefits

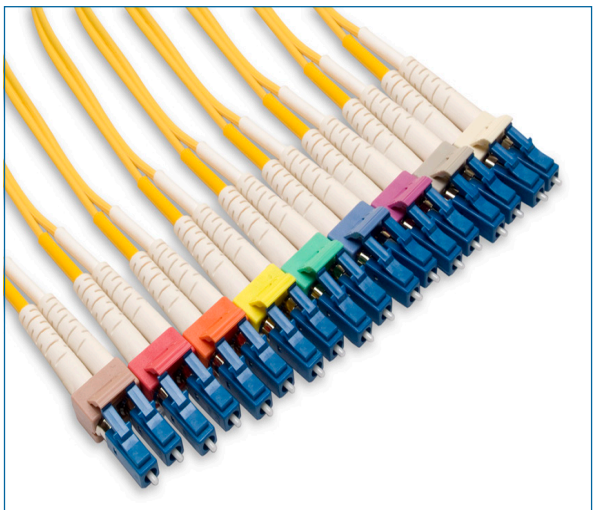
Precision Preradiused Zirconia Ferrules

Low Insertion Loss and Return Loss

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Comply with EIA/TIA-455 and -604. Qualified to Telcordia GR-326-CORE

The new Corning CWDM Patch Cords and patch cord sets are now available, and come in a variety of custom wavelength colors. Our patch cords are fully intermateable with any standard coupling adapter product, and deliver high stability under a range of application conditions. Corning utilizes only tightly toleranced preradiused Zirconia ferrule connectors to ensure low loss and ease of use. Our CWDM Patch Cords are available in both LC and SC versions.



CWDM Duplex Patch Cords

CWDM Duplex Patch Cords

Specifications

CWDM Duplex Patch Cords	Singlemode
Insertion Loss	<0.2dB Typical (PC Type)
Back Reflection	- 55 dB Ultra PC
Connector Repeatability	DIL < 0.1 dB
Operating Environment	-40°C to +75°C
Temperature Cycling	DIL < 0.1 dB DRL < 5 dB
Vibration Loss Change	DIL < 0.1 dB DRL < 5 dB
Cable Retention Loss Change	DIL < 0.1 dB DRL < 5 dB

Ordering Information

CWDM SC Duplex Patch Cords	
Individual Part Numbers	**Description**
751-SS11-V6101	SC/UPC Duplex, SM, 3 mm Jacket, 1M Long, Brown (for 1610nm) Duplex Clip
751-SS11-V5901	SC/UPC Duplex, SM, 3 mm Jacket, 1M Long, Red (for 1590nm) Duplex Clip
751-SS11-V5701	SC/UPC Duplex, SM, 3 mm Jacket, 1M Long, Orange (for 1570nm) Duplex Clip
751-SS11-V5501	SC/UPC Duplex, SM, 3 mm Jacket, 1M Long, Yellow (for 1550nm) Duplex Clip
751-SS11-V5301	SC/UPC Duplex, SM, 3 mm Jacket, 1M Long, Green (for 1530nm) Duplex Clip
751-SS11-V5101	SC/UPC Duplex, SM, 3 mm Jacket, 1M Long, Blue (for 1510nm) Duplex Clip
751-SS11-V4901	SC/UPC Duplex, SM, 3 mm Jacket, 1M Long, Purple (for 1490nm) Duplex Clip
751-SS11-V4701	SC/UPC Duplex, SM, 3 mm Jacket, 1M Long, Grey (for 1470nm) Duplex Clip
751-SS11-VNW01	SC/UPC Duplex, SM, 3 mm Jacket, 1M Long, Light Grey (for network) Duplex Clip
CWDM Jumper Kit Part Number	**Description**
758-750S-008	SC/UPC Duplex, SM, 3 mm Jacket, 1M Long, Jumper Kit Duplex Clip (All 9 colors)

CWDM Duplex Patch Cords

CORNING

Ordering Information (continued)

CWDM LC Duplex Patch Cords	
Individual Part Numbers	**Description**
751-JJ12-V6101	LC/UPC Duplex, SM, 1.6 mm Jacket, 1M Long, Brown (for 1610nm) Duplex Clip
751-JJ12-V5901	LC/UPC Duplex, SM, 1.6 mm Jacket, 1M Long, Red (for 1590nm) Duplex Clip
751-JJ12-V5701	LC/UPC Duplex, SM, 1.6 mm Jacket, 1M Long, Orange (for 1570nm) Duplex Clip
751-JJ12-V5501	LC/UPC Duplex, SM, 1.6 mm Jacket, 1M Long, Yellow (for 1550nm) Duplex Clip
751-JJ12-V5301	LC/UPC Duplex, SM, 1.6 mm Jacket, 1M Long, Green (for 1530nm) Duplex Clip
751-JJ12-V5101	LC/UPC Duplex, SM, 1.6 mm Jacket, 1M Long, Blue (for 1510nm) Duplex Clip
751-JJ12-V4901	LC/UPC Duplex, SM, 1.6 mm Jacket, 1M Long, Purple (for 1490nm) Duplex Clip
751-JJ12-V4701	LC/UPC Duplex, SM, 1.6 mm Jacket, 1M Long, Grey (for 1470nm) Duplex Clip
751-JJ12-VNW01	LC/UPC Duplex, SM, 1.6 mm Jacket, 1M Long, Light Grey (for network) Duplex Clip
CWDM Jumper Kit Part Number	**Description**
758-750L-008	LC/UPC Duplex, SM, 1.6 mm Jacket, 1M Lo ng, Jumper Kit Duplex Clip (All 9 colors)

Polarization Maintaining (PM) Cable Assemblies

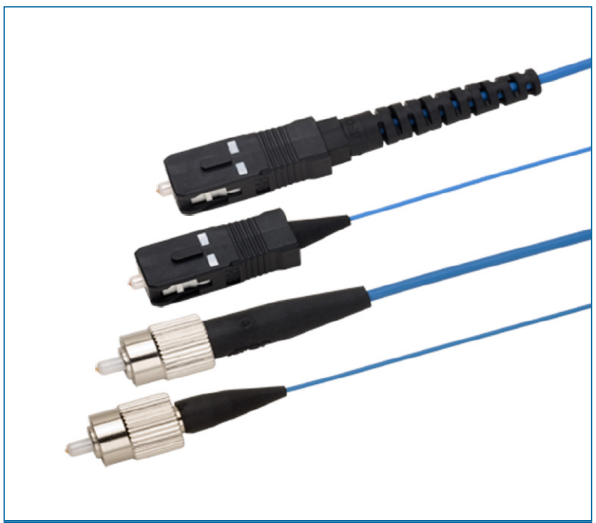
Features and Benefits

- Low Insertion Loss
- High Extinction Ratio
- High Stability and Reliability

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Qualified to Telcordia GR-326-CORE

Corning's 762 Series of Polarization Maintaining (PM) cable assemblies offer superior performance and long term reliability. They are fully intermateable with any standard coupling adapter products while delivering high stability over a range of application conditions. State-of-the-art processes allow us to achieve low Insertion Loss (IL) and high Extinction Ratio (ER). These cable assemblies incoporate the widely used PANDA-style fiber in 900µm, 2 mm, or 3 mm jackets. They are available in both FC and SC terminations with either UPC or APC polish. Our OEM-friendly packaging provides the flexibility to meet the broadest design requirements.



Polarization Maintaining (PM) Cable Assemblies

Polarization Maintaining (PM) Cable Assemblies

CORNING

Specifications

Parameters	Specifications	
Connector Type	FC/UPC, SC/UPC	FC/APC, SC/APC
Typical Insertion Loss	0.3dB	0.4dB
Minimum Return Loss	50dB	60dB
Key Orientation	Slow Axis	
Axis Alighment	±3 degrees	
Wavelength	1550nm	
Maximum Insertion Loss	0.5dB	
Minimum Extinction Ratio	23dB (25dB Typical)	
Optical Power Handling	300mW	
Fiber Type	PM PANDA Fiber	
Fiber Length Tolerance	±5cm	
Operating Temperature	-5 to +70°C	
Storage Temperature	-40 to +85°C	

Ordering Information

Polarization Maintaining Cable Assemblies / 762 Sseries

1 Select Connector End #1
P: FC/UPC
Q: FC/APC
S: SC/UPC
T: SC/APC

2 Select Connector End #2
Same codes as End #1
0: None

3 Select Cable Code
1 = SM 3.0 mm Jacketed
02 = SM 900 mm Buffer
16 = SM 2.0 mm Jacketed

4 Select Wavelength
1 = 1550 nm

5 Select Cable Length in Meter
The last digit is decimal.
All length in inch or foot must be converted into meters.
Example:
0010 = 1.0 m
0015 = 1.5 m

MPO Loopback Assemblies

Features and Benefits

Compact and Rugged Design

MPO 12-Fiber or 24-Fiber Ferrule

High Stability and Reliability

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Critera	Complies with TIA-604-5 and IEC 61754-7 Product is qualified to Telcorcia GR-910-CORE

Corning offers a line of MPO fiber optic loopback assemblies for burn-in and testing of MPO network components and systems. These MPO Loopback Assemblies are used to effectively test transmitter capability and receiver sensitivity of network equipment, particularly for telecom and datacom requirements. They are packaged in a compact housing for the highest density available for these applications.

MPO loopback assemblies' standard products include a female MPO 12-fiber interface with 8-fiber Quad Small-Form-actor Pluggable (QSFP) option or 24-fiber, single-mode or multimode ferrules. Our compact and rugged housing design provides high stability and reliability.

MPO Loopback Assemblies

MPO Loopback Assemblies

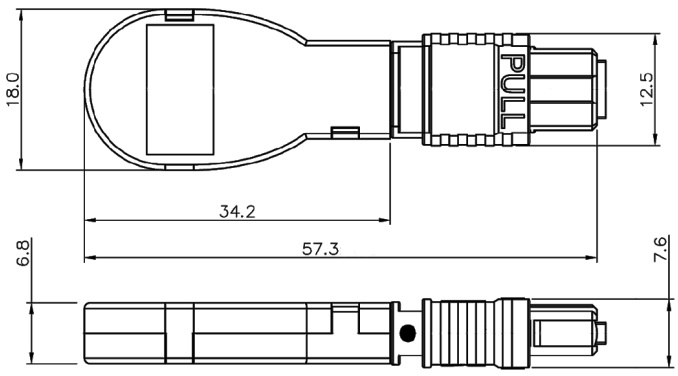
CORNING

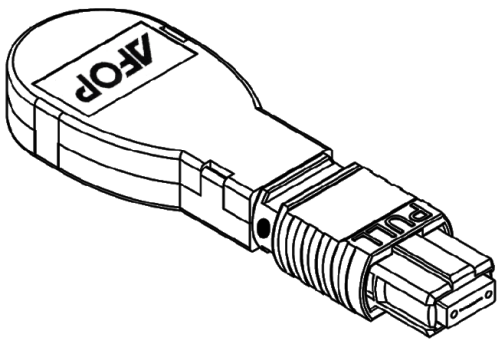
Specifications

Parameters	Specifications
Connector	Female MPO 12-Fiber and 24-Fiber Ferrule
Operational Wavelengths	SM: 1310 nm +/- 40 nm; MM: 850 nm +/- 20 nm
Operating Temperature	-5°C to +75°C
Loopback Housing Color	Black
Loopback Housing Dimensions	34.2 (L) x 18.0 (W) x 6.8 (H)

Ordering Information

Part Number	Ferrule Channel #	Fiber Count	Type	Attenuation (2 Mated Pairs)
754-5100-65100	12	12	SM	1.5 dB
754-5200-05100	12	12	MM 62.5 µm	1.0 dB
754-5500-05100	12	12	MM 50 µm OM3	1.0 dB
754-5500-05101	12	8	MM 50 µm OM3 - QSFP	1.0 dB
754-5502-0510A	12	8	MM 50 µm OM3 - QSFP	2.0 +/- 1.0 dB
754-5505-0510A	12	8	MM 50 µm OM3 - QSFP	5.0 +/- 1.0 dB
754-5100-67100	24	24	SM	1.5 dB
754-5200-07100	24	24	MM 62.5 µm	1.0 dB
754-5500-07100	24	24	MM 50 µm OM3	1.0 dB





Fixed Attenuators

Features and Benefits

Standard Fixed Attenuation Values of 1 dB up to 30 dB
Precision Polishing for Reduced Back Reflection
Available in a Variety of Connector Types
Polarization Insensitive

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-910-CORE

Corning offers a complete line of high-performance fiber fixed in-line attenuators, patch coupling attenuators, tube-type attenuators, and loopback attenuators for a wide variety of applications. The 754 Series features extremely low return loss and durable polymer body design. Our attenuators use all fiber attenuation mechanism ensuring the devices are wavelength and polarization insensitive. Corning attenuators feature ruggedized packaging, compact housings, and a completely enclosed fiber system to ensure repeatable performance without concern for damage.

Fixed Attenuators

Fixed Attenuators

CORNING

Specifications

SINGLEMODE FIXED IN-LINE ATTENUATORS & PATCH COUPLING ATTENUATORS / 754 SERIES	
Parameters	**Specifications**
Attenuation Tolerance	0-5 dB: ± 0.5 dB; > 5 dB: ± 10% of dB Value
Operational Wavelengths	1310 nm; 1550 nm; 1310 nm and 1550 nm (± 10 nm)
Operating Temperature	-40°C to +75°C

Ordering Information

Singlemode Fixed In-Line Attenuators / 754 Series

754-11 □□ - □□ E □□

1 2 3 4

1 Select Attenuation Value
01: 1 dB
02: 2 dB
03: 3 dB
05: 5 dB
10: 10 dB
15: 15 dB
20: 20 dB

2 Select Return Loss (Per Connector)
3: - 45 dB Min.
4: - 50 dB Min.
5: - 55 dB Min.
6: APC

3 Select Connector
B: ST Metal Body
L: LC/PC
K: LC/APC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC
W: Slim MU/PC

E = Wavelength 1310 nm & 1550 nm

4 Select Customization
00. Standard
01: Short Type (LC Only)

Singlemode Fixed Patch Coupling Attenuators / 754 Series

754-61 □□ - □□ 000

1 2 3

1 Select Attenuation Value
00: 0 dB
01: 1 dB
02: 2 dB
03: 3 dB
05: 5 dB
10: 10 dB
15: 15 dB
20: 20 dB

2 Select Return Loss (Per Connector)
3: - 45 dB Min.
4: - 50 dB Min.
5: - 55 dB Min.
6: APC

3 Select Connector* (Male-Female)
1: FC-SC Flange
2: FC-SC Square
3: ST-SC Flange
4: SC-ST
5: SC-FC
6: SC-LC
8: SC-MU
9: LC-MU

Fixed Attenuators

CORNING

Specifications

SINGLEMODE FIXED TUBE TYPE ATTENUATORS / 754 SERIES	
Parameters	**Specifications**
Attenuation Tolerance	0-5 dB: ± 0.5 dB; > 5 dB: ± 10% of dB Value
Operational Wavelengths	Standard: 1310 nm; 1550 (± 10 nm)
	Wideband: 1310 nm; 1550 nm (± 40 nm)
	Dual Window: 1310 and 1550 nm (± 40 nm)
Operating Temperature	-40°C to +75°C

Ordering Information

Singlemode Fixed Tube Attenuators / 754 Series

7 5 4 - 4 □ □□ - □ □ □ □□

1 2 3 4 5 6

1 Select Package Types
1: 250 mm, Tube
2: 900 mm, Tube
3: 900 mm, Ruggedized
4: 1.6 mm, Ruggedized
5: 3 mm, Ruggedized

2 Select Attenuation Value
01: 1 dB
05: 5 dB
10: 10 dB
15: 15 dB
20: 20 dB

3 Select Return Loss
3:- 45 dB Min.
4: - 50 dB Min.
5: - 55 dB Min.
6: APC

4 Select Connector
0: None
B: ST Metal
L:LC/PC
K: LC/APC
P: FC/PC
Q: FC/APC
S: SC/PC
T: SC/APC
U: MU/PC

5 Select Wavelength
A: 1310 nm ± 10 nm
B: 1310 nm ± 40 nm
C: 1550 nm ± 10 nm
D: 1550 nm ± 40 nm
E: 1310 nm & 1550 nm ± 40 nm

6 Select Total Length (Use Decimeter)
05: 0.5 Meter
10: 1 Meter
99: 9.9 Meter

Fixed Attenuators

Specifications

FIXED LOOPBACK ATTENUATORS / 754 SERIES	
Parameters	**Specifications**
Attenuation Tolerance	2 - 9 dB: ± 1 dB; 10 -15 dB ± 1.5 dB; > 15 dB ± 2 dB
Operational Wavelengths	850 nm ± 10 nm; 1310 nm ± 10 nm
Operating Temperature	-40°C to +75°C

Ordering Information

Fixed Loopback Attenuators / 754 Series

754-5 □ □□ - □ □ □□□

1 2 3 4 5

1 Select Fiber Type
1: SM[2]
2: MM, 62.5 mm[1]
3: MM, 50 mm[1]

2 Select Attenuation Value
02: 2 dB
05: 5 dB
10: 10 dB
15: 15 dB
20: 20 dB
25: 25 dB
30: 30 dB

3 Select Return Loss
3:- 45 dB Min.
4: - 50 dB Min.
5: - 55 dB Min.
6: APC

4 Select Connector
5: 12F MPO Female (MM)
6: 12F MPO Maile (MM)
K: LC/APC
M: MT-RJ (w/o Pin)
S: SC/PC
L: LC/PC
N: MT-RJ (w/Pin)
T: SC/APC

5 Select LC Loopback
000: Cable Type
101: Black Shell Cover (50 mm)
301: Green Back Shell Cover (APC)
501: Blue Back Shell Cover (SM)
701: Beige Back Shell Cover (62.5 mm)

Select MT-RJ Loopback
100: Vertical Version
200: Horizontal Version

Select SC Loopback
100: Black Back Shell Cover -Std.
200: Yellow Back Shell Cover
600: Orange Back Shell Cover
N00: Other Color

SC Low Loss Loopback Attenuator
1. 754-5100-5S100, SM, IL ≤ 1.2 dB
2. 754-5200-0S100, 62.5 mm, IL ≤ 0.6 dB
3. 754-5300-0S100, 50 mm, IL ≤ 0.8 dB

Notes:
[1] MM loopback attenuators are only available for 2 dB only, 850/1310 nm
[2] SM Wavelength is 1310 nm only

Fixed Attenuators

CORNING

Specifications

FIXED LOOPBACK ATTENUATORS / 754 SERIES - BIF (SM Only)	
Parameters	**Specifications**
Attenuation Tolerance	2 - 9 dB: ± 1 dB; 10 -15 dB ± 1.5 dB; > 15 dB ± 2 dB
Operational Wavelengths	850 nm ± 10 nm; 1310 nm ± 10 nm
Operating Temperature	-40°C to +75°C

Ordering Information

Fixed Loopback Attenuators / 754 Series - BIF (SM Only)

7 5 4 - 7 □ □□ - □ □ □□□

1 2 3 4 5

1 Select Fiber Type
1: SM

2 Select Attenuation Value
02: 2 dB
05: 5 dB
10: 10 dB
15: 15 dB
20: 20 dB
25: 25 dB
30: 30 dB

3 Select Return Loss
3:- 45 dB Min.
4: - 50 dB Min.
5: - 55 dB Min.
6: APC

4 Select Connector
K: LC/APC
M: MT-RJ (w/o Pin)
S: SC/PC
L: LC/PC
N: MT-RJ (w/Pin)
T: SC/APC

5 Select LC Loopback
000: Cable Type
301: Green Back Shell Cover (APC)
501: Blue Back Shell Cover (SM)
MT-RJ Loopback

Select MT-RJ Loopback
100: Vertical Version
200: Horizontal Version

Select SC Loopback
100: Black Back Shell Cover -Std.
200: Yellow Back Shell Cover
600: Orange Back Shell Cover
N00: Other Color

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