

# Singlemode Monolithic Fused Couplers (1x3 and 1x4)

CORNING

## Features and Benefits

Low Insertion Loss

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Low PDL

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High Stability and Reliability

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Available in Both 1x3 and 1x4 Configurations

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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 reliability performance. They are available in both 1x3 and 1x4 port configurations.

## Standards

RoHS

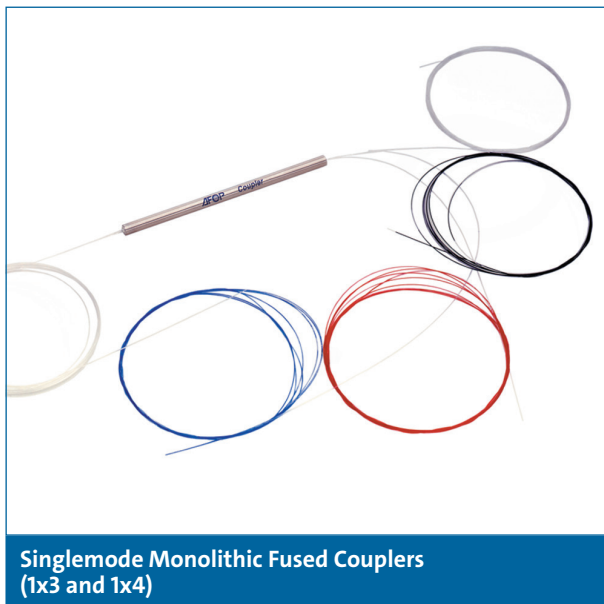
Free of hazardous substances according to RoHS2011/65/EU

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Design and Test Criteria

Product is compliant with Telcordia GR-1209-CORE and GR-1221-CORE

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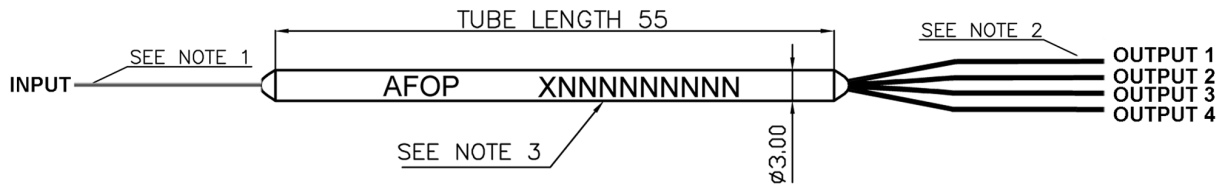
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## Specifications

| 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 |

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## 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\*

O: 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



**These part numbers are specific to Corning Optical Communications OEM Solutions Business Unit. Contact OEM sales at +1-408-736-6900 or [oesales@corning.com](mailto:oesales@corning.com) and visit [www.corning.com/opcomm/oem](http://www.corning.com/opcomm/oem) for sales support.**

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Spec Sheet CAH-100\_AEN

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