

CORNING OPTICAL COMMUNICATIONS GENERIC SPECIFICATION FOR PASSIVE OPTICAL COMPONENTS

October 2017
PGS065
Revision 1

Corning Optical Communications reserves the right to update this specification without prior notification.

**Master Format 27 16 19 Communication Patch cords, Station cords, and Cross
Connect Wire**

Passive Optical Devices include couplers, planar splitters, and wavelength division multiplexers (WDMs)

1. Standards

- 1.1 All passive optical devices shall meet the requirements of Telcordia GR-1209, a standard designed to characterize components and their operation in order to facilitate efficient network design and construction. Testing shall be performed in a specific sequence on the same sample set of couplers. Testing shall include mechanical testing such as vibration, impact, side pull, and cable retention along with short-term damp heat and temperature cycling tests.
- 1.2 All passive optical devices shall meet the requirements of Telcordia GR-1221, a standard written to ensure long term performance and reliability of components. Testing shall include temperature cycling, damp heat, accelerated heat aging, low temperature storage, vibration, impact, and cable retention. Couplers shall perform at -40°C to +85°C temperature ranges.

2. Features

- 2.1 Couplers and Splitters shall be available with equal splits and unequal splits in two different wavelength range options as described below
 - 2.1.1 Couplers and Splitters shall be available in a dual window wideband offering that includes a wavelength range of 1260-1360 nm and 1480-1580 nm.
 - 2.1.2 Couplers and Splitters shall be available in a dual window narrowband offering that includes a wavelength range of 1300-1320 nm and 1540-1560 nm.
- 2.2 Couplers and Splitters shall be available with equal power outputs with 1 or 2 input ports and 2, 4, 8, 16, or 32 output ports.
- 2.3 Couplers and Splitters shall be available with unequal power outputs with 1 or 2 input ports and 2 to 18 output ports.

- 2.4 Couplers and Splitters shall be available with a variety of industry standard high performance connectors and adapters.
- 2.5 Couplers and Splitters shall be available with bare fiber inputs and/or outputs protected in transport tubing for splicing applications.
- 2.6 All Couplers and Splitters shall be supplied with measured Insertion Loss values at 1310nm and 1550 nm wavelengths for each port.

3. Coupler Shelves

- 3.1 Coupler Shelves shall be mountable in an EIA-310 compatible 465-mm (18.3") or 592 mm (23.3") rack. Housings shall be available in 1U and 2U sizes. One EIA rack unit (denoted as 1U) is defined as being 44.45 mm (1.75") in height.
- 3.2 Coupler Shelves shall provide shielded jumper protection via a jumper trough on the front of the housing and supplied with radiused down spouts on each side as an option to prevent attenuation to jumpers. The jumper shield shall include a fiber optic label card for customer use.

Coupler Shelves shall incorporate a slide-forward design to ease access to optical jumpers and pigtails. The shelf shall slide on low friction slides. The front of the coupler shelf shall be aligned with standard flush mount hardware when the shelf is slid back completely.

- 3.3 Coupler Shelves shall be available in Beige, Black, or Platinum colors depending on hardware product family.

3.4 Capacity

- 3.4.1 1U Coupler Shelves shall have a maximum capacity of 34 input/output ports using SC duplex adapters or all pigtail outputs.
- 3.4.2 2U Coupler Shelves shall have a maximum capacity of 68 input/output ports using SC duplex adapters or all pigtail outputs.

4. Coupler Modules

- 4.1 Coupler Modules shall be mountable into a housing that is EIA-310 compatible 465-mm (18.3") or 592 mm (23.3") rack.
- 4.2 Coupler Modules shall be available in a single-wide option, with double- and triple-wide options available for some product families.
- 4.3 Coupler Modules shall be available with adapter and/or pigtail inputs and outputs.
- 4.4 Coupler Modules shall be available with a variety of high-performance industry standard connectors and adapters.

5. Coupler Cassettes

5.1 A variety of Coupler Cassettes shall be available that are customized to fit various CCS product families.

5.2 Coupler Cassettes shall be available with connectorized or un-connectorized 3mm, 2mm or 900 um pigtails, or unconnectorized 250 um pigtails protected in transport tubing.

5.3 Coupler Cassettes shall be black or red in color.

5.4 Coupler Cassettes shall be available in various dimensions with no more than 2 inputs and 32 outputs.

6. Quality Assurance Provisions

6.1 The manufacturer shall be TL 9000 registered

7. Miscellaneous

7.1 At the request of the customer, the manufacturer shall provide installation procedures and technical support concerning the items contained in this specification.

Gen Spec PGS065 Revision History

Revision #	Date	Reason for Change
1	10-2017	Reformatted, added Master Format number, Quality Assurance Provisions and Miscellaneous sections.