

Planar light circuit (PLC) splitters are fully passive optical branching devices that exhibit uniform signal splitting for the most advanced optical networks. These planar silica waveguide devices are packaged in small-form-factor housings to offer compact management into Corning modules and splice trays.

Bend-insensitive, reduced-water-peak, single-mode fiber is used to assure low bending loss in applications that require tight radius or significant handling by the technician. These splitters are manufactured and tested to GR-1209/1221 to provide the high performance and reliability needed in the outside plant environment. Applications for the PLC splitters include all fiber-to-the-home (FTTH) network architectures (Gigabit passive optical networks, broadband passive optical networks, and Ethernet passive optical networks), CATV, and data communications.



PLC Splitter Family



Available with factory terminated pigtailed



Available in various splice trays to accommodate enclosures

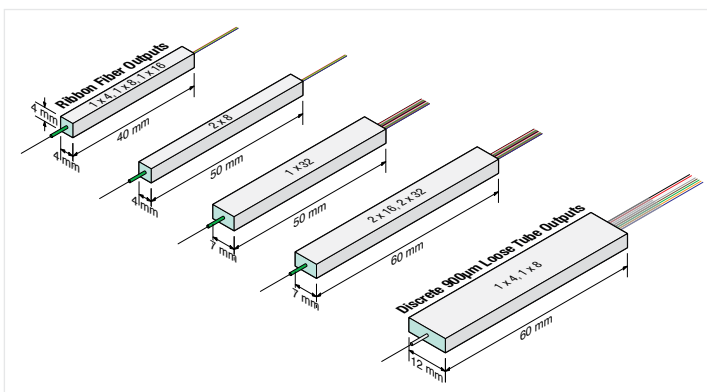
Operating Conditions

Wavelength	1260 ~ 1360 nm & 1450 ~ 1650 nm
Temperature Range	-40 °C to 85 °C
Humidity Range	5% to 85% RH
Telecordia GR-1209 and GR-1221 Compliant	

Features

Low insertion loss	
High uniformity	
Standard input	250 µm bend-insensitive single-mode fiber (ITU G.652D and G.657A)
Standard output	250 µm bend-insensitive single-mode ribbon fiber
Optional Input and Output for 1x4, 1x8	900 µm loose tube single-mode fiber
Outputs color coded per TIA/EIA 598-B	Blue, orange, green, brown, gray, white, red, black

Dimensions



PLC Optical Splitters

PLC Specifications							
Parameters	1x4	1x8	1x16	1x32	2x8	2x16	2x32
Insertion Loss (dB)	7.2	10.5	13.8	17.1	10.8	14.1	17.4
Uniformity (dB)	≤0.8	≤1.0	≤1.5	≤2.0	≤1.5	≤2.0	≤2.5
PDL (dB)	≤0.3	≤0.3	≤0.3	≤0.3	≤0.4	≤0.4	≤0.4
Return Loss (dB)	≥55	≥55	≥55	≥55	≥55	≥55	≥55
Directivity (dB)	≥55	≥55	≥55	≥55	≥55	≥55	≥55

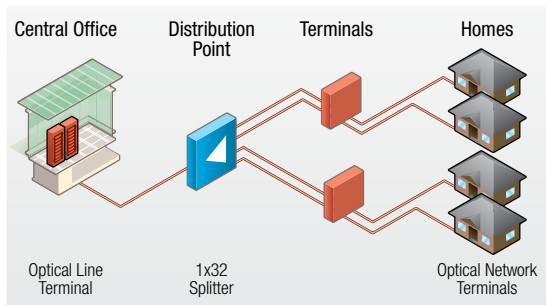
Configuration Guide													Add for fan-out	
PLC	-	XXX	-	XX	-	XX	-	XX	-	X	-	X	-	XXXX
Splitter Type		Ports		Fiber Type (Input/ Output)		Connectors (Input/ Output)		Pigtail Length** (Input & Output)		Grade		Tray or Cassette		Length Ribbon (L1)/ Breakout (L2)
PLC = Planar Light Circuit		104 = 1x4		2 = 250 μm		0 = none		15 = 1.5 meter		S = standard		0 = none		0312 = 0.03 m/1.2 m
		108 = 1x8		R = 250 μm ribbon		1 = SC UPC								
		116 = 1x16		9 = 900 μm loose tube		2 = SC APC								
		132 = 1x32												
		208 = 2x8												
		216 = 2x16												
		232 = 2x32												

Example: PLC-104-29-22-15-S-0-0312
(1x4, 250 μm input, 900 μm loose tube output,
SC APC to SC APC, 1.5 m legs, standard grade,
no tray, with fan-out of 0.3 m ribbon and 1.2 m
of 900 μm loose tube)

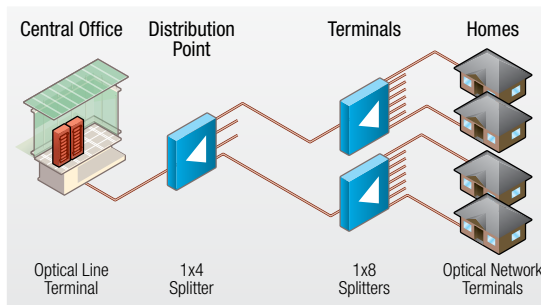
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** Inputs & outputs equal length

PON Architectures Utilizing PLC Splitters



Centralized Splitting with 1x32 PLC



Distributed Splitting with combination of 1x4 and 1x8 PLC

"RoHS Compliant 2005/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. This information represents Corning's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to Corning.

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