Broadband Fiber Optic Splitters, RDB 10416

4 to 64 Ports Single/Dual Input PLC Splitters

Data Sheet

The Planar Lightwave Circuit (PLC) splitters provide uniform division of an optical signal from one or two input fiber ports to multiple output ports.

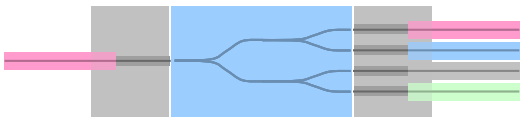
Features

- 1x4, to 1x64 standard configurations
- 2x4 to 2x32 for test access and redundancy
- Wideband performance
- Low insertion loss
- Low back reflection
- Low PDL (Polarization Dependent Loss)
- Low WDL (Wavelength Dependent Loss)
- Low TDL (Temperature Dependent Loss)
- High output uniformity
- Stable optical performance
- According to Telcordia GR-1209 and GR-1221
- Bend insensitive fiber G.657 A compliant
- Compact package for mounting into splice cassettes

The splitters are design to meet the requirements for a wide range of fiber optic communications systems. The wideband performance makes them especially suitable for PON FTTx networks. Low loss under extreme environmental conditions ensures stable operation. Very compact packages with bend resistant fiber allow these modules to be installed into small compartments such as joint closures, Fiber Distribution Hubs (FDH) or fiber termination panels.

Description

1xN and 2xN PLC splitters utilize silica on silica optical waveguide technology. PLC splitters enable thermally stable, compact packages with wideband performance.



1x4 PLC Device

The splitters are available in configurations with single fiber input from 1x4 to 1x64 as well as with dual fiber inputs 2x4 to 2x32. Input ports are of 250µm primary coated fiber. Output ports are of fiber ribbon design with 4 or 8 fibers and in multiples 1-8 depending on the split ratio of the device.

The modules are designed for stable performance according to Telcordia GR-1209, GR-1221 as well as IEC 67153-031-3/-6.

Specifications

Optical Properties

Operating Wavelength....
1260 ~ 1360, 1450 ~ 1625 nm
Directivity ..... >55dB
Return Loss ..... >55dB
Maximum input power 500mW
Max attenuation ..... see table below
Max uniformity.....see table below
PDL ..... see table below

The optical properties refer to *maximum* values, valid for the entire operating wavelength band and temperature range. At specific wavelengths and temperatures, better performance may be obtained. Detailed information is available upon request.

Fiber Type

Bend resistant singlemode fiber according to ITU-T G.657 A (G.652 D compliant)
Input: 250 µm primary coated
Output: 4 or 8 fiber ribbon

Temperature and Humidity

Operation..... –40 to +85ºC
Transport and storage .... –40 to +85ºC
Storage rel. humidity..... 20-95 (%RH)

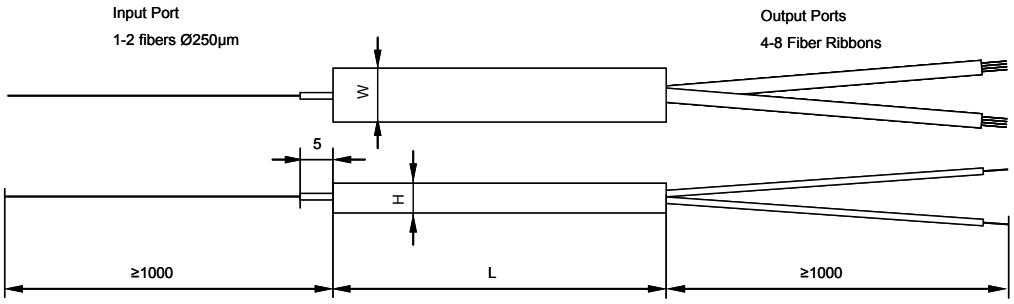
Conformance

ITU-T G.657 A
Telcordia GR-1209
Telcordia GR-1221
IEC 67153-031-3/-6
IEC 61754-4
IEC 61754-6
IEC 61754-20
RoHS Directive

Ordering information

Product numbers are shown in the table below.

Note that the splitters are available in two main configurations with single fiber input or dual fiber input. Splitters with other configurations, packaging options and performance grades are available upon request.



Ordering Number Table						
Product no.	**Split ratio**	**Insertion Loss* (max) dB**	**Uniformity* (max) dB**	**PDL (max) dB**	**Dimensions mm (L x W x H)**	**Input/Output fibers**
RDB 10416 04/1100	1x4	7.6	0.8	0.3	40x4x4	1-f / 4-f ribbon
RDB 10416 08/1100	1x8	11.0	1.0	0.3	40x4x4	1-f / 2x4-f ribbon
RDB 10416 16/1100	1x16	14.2	1.5	0.3	50x4x4	1-f / 2x8-f ribbon
RDB 10416 24/1100	1x24	16.5	1.5	0.3	50x7x4	1-f / 3x8-f ribbon
RDB 10416 32/1100	1x32	17.4	1.7	0.3	50x7x4	1-f / 4x8-f ribbon
RDB 10416 64/1100	1x64	21.0	2.5	0.3	55x12x4	1-f / 8x8-f ribbon
RDB 10416 04/1200	2x4	7.8	1.0	0.4	40x4x4	2-f / 4-f ribbon
RDB 10416 08/1200	2x8	11.0	1.0	0.4	40x4x4	2-f / 2x4-f ribbon
RDB 10416 16/1200	2x16	14.2	1.5	0.4	55x7x4	2-f / 2x8-f ribbon
RDB 10416 32/1200	2x32	17.7	1.8	0.4	60x7x4	2-f / 4x8-f ribbon

* Including wavelength dependent loss, polarization dependent loss and temperature dependent loss defined by the operation wavelength band

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