



# Broadband Fiber Optic Splitters

## 2 to 64 Ports Single/Dual Input PLC Splitters

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### Features

- 1x2, to 1x64 standard configurations
- 2x2 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 and 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

## Application

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

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.

## Design

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

The splitters are available in configurations with single fiber input from 1x2 to 1x64 as well as with dual fiber inputs 2x2 to 2x32. Input ports are of 250µm primary coated fiber. Output ports are of fiber ribbon design with 2, 4 or 8 fibers and in multiples 1-8 depending on the split ratio of the device.

## Product Information

The Splitter housing is made of metal.

## Technical Information

<b>Temperature, Operation [°C]</b>	-40 to +85
<b>Temperature, Storage [°C]</b>	-40 to +85
<b>Fiber Type</b>	G657A1
<b>Return Loss, min [dB]</b>	55
<b>Conformance</b>	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

**Technical Notes**

**Operating Wavelength:** 1260 ~ 1360, 1450 ~ 1650 nm

**Maximum input power:** 500mW

**Max PDL:** 0.3dB (1xn), 0.4dB (2xn)

**Insertion Loss:** 1x2 ≤4.0dB, 2x2 ≤4.3dB, 1x4 ≤7.6dB, 2x4 ≤7.8dB, 1x8 ≤11.0dB, 2x8 ≤11.0dB, 1x16 ≤14.0dB, 2x16 ≤14.2dB, 1x32 ≤17.4dB, 2x32 ≤17.7dB, 1x64 ≤21.0dB

**Uniformity:** 1x2 ≤0.6dB, 2x2 ≤0.9dB, 1x4 ≤0.8dB, 2x4 ≤1.0dB, 1x8 ≤1.0dB, 2x8 ≤1.0dB, 1x16 ≤1.5dB, 2x16 ≤1.5dB, 1x32 ≤1.7dB, 2x32 ≤1.8dB, 1x64 ≤2.5dB

**Technical Details**

PRODUCT NUMBER	SPLIT RATIO	INSERTION LOSS* (MAX) DB	UNIFORMITY* (MAX) DB	PDL (MAX) DB	DIMENSIONS MM (L X W X H)	INPUT/OUTPUT FIBERS
RDB 10416 02/1100	1x2	4.0	0.6	0.3	60x4x4	1f / 2-f ribbon
RDB 10416 04/1100	1x4	7.6	0.8	0.3	40x4x4	1f / 4-f ribbon
RDB 10416 08/1100	1x8	11.0	1.0	0.3	40x4x4	1f / 2x4-f ribbon
RDB 10416 32/1100	1x32	17.4	1.7	0.3	50x7x4	1f / 4x8-f ribbon
RDB 10416 64/1100	1x64	21.0	2.5	0.3	55x12x4	1f / 8x8-f ribbon
RDB 10416 02/1200	2x2	4.3	0.9	0.4	60x4x4	2f / 2-f ribbon
RDB 10416 04/1200	2x4	7.8	1.0	0.4	40x4x4	2f / 4-f ribbon
RDB 10416 08/1200	2x8	11.0	1.0	0.4	40x4x4	2f / 2x4-f ribbon
RDB 10416 16/1200	2x16	14.2	1.5	0.4	55x7x4	2f / 2x8-f ribbon
RDB 10416 32/1200	2x32	17.7	1.8	0.4	60x7x4	2f / 4x8-f ribbon

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

**Articles 13**

Article name	Layout	Dimensions [mm]	Weight [kg]	Form of Delivery
<b>Fiber Optic Splitter 1x2, Standard</b> RDB1041602/1100	1x2	60x4x4	0.1	1f : 2f Ribbon
<b>Fiber optic splitter 1X4, Standard</b> RDB1041604/1100	1x4	40x4x4	0.1	1f : 4f ribbon
<b>Fiber optic splitter 1X4, Loose fibers</b> RDB1041604/1104	1x4	40x4x4	0.1	1f : 4f loose
<b>Fiber optic splitter 2X4, Standard</b> RDB1041604/1200	2x4	40x4x4	0.1	2f : 4f ribbon
<b>Fiber optic splitter 1X8, Standard</b> RDB1041608/1100	1x8	40x4x4	0.1	1f : 2x4f ribbon
<b>Fiber optic splitter 2X8, Standard</b> RDB1041608/1200	2x8	40x4x4	0.1	2f : 2x4f ribbon
<b>Fiber Optic Splitter 1x16, Standard</b> RDB1041616/1100	1x16	55x7x4	0.1	1f : 2x8f ribbon
<b>Fiber Optic Splitter 2x16, Standard</b> RDB1041616/1200	2x16	55x7x4	0.1	2f : 2x8f ribbon
<b>Fiber Optic Splitter 1x24, Standard</b> RDB1041624/1100	1x24	—	0.1	—
<b>Fiber Optic Splitter 2x24, Standard</b> RDB1041624/1200	2x24	—	0.1	—

Article name	Layout	Dimensions [mm]	Weight [kg]	Form of Delivery
<b>Fiber Optic Splitter 1x32, Standard</b> RDB1041632/1100	1x32	50x7x4	0.1	1f : 4x8f ribbon
<b>Fiber Optic Splitter 2x32, Standard</b> RDB1041632/1200	2x32	60x7x4	0.1	2f : 4x8f ribbon
<b>Fiber Optic Splitter 1x64, Standard</b> RDB1041664/1100	1x64	55x12x4	0.1	1f : 8x8f ribbon