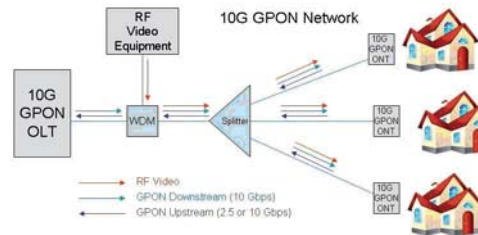


## Optical Splitters and Couplers

Today's leading FTTH technology is PON (Passive Optical Network) technology. This approach differs from most of the telecommunications networks in place today by featuring "passive" operation only. Optical splitters (PLC and FBT) are used in FTTH PON architectures to split the optical signal coming from fiber amplifiers. In this way, one fiber amplifier can feed several subscribers and the amount of fibers in the network can be reduced significantly. The splitters are located at several distribution points in the FTTH PON and optionally also in the Central office. Different split ratios are possible depending on the subscribers distance and their datarate requirements.



Active networks like DSL, VDSL and cable have active components in the network backbone equipment, in the central office, in the neighborhood network infrastructure, and in the customer premises equipment CPE. PONs only have passive light transmission components in the neighborhood infrastructure with active components only in the central office and the customer premises equipment.

The elimination of active components means that the access network consists of one bi-directional light source and a number of passive splitters that divide the data stream into the individual links to each customer. At the central office, the termination point is in PON optical line terminal (OLT) equipment. At the customer premises, the termination point is in optical network terminals or ONTs also called optical network units or ONU's. These are in the customer premises equipment or CPE. Between the OLT and the ONT/ONU's is the passive optical network comprising fiber links and passive splitters and couplers.

**Two primary technologies are commonly used to fabricate splitters and couplers:**

### Planar Lightwave Circuit (PLC)

A light circuit on an 'optical chip' is mounted on a carrier and fibers, usually in ribbon form, are bonded to the edges of the chip. The assembly is encapsulated in a protective enclosure. PLC devices support direct split counts up to 1:64. In planar fabrication technology, devices are made using ion-exchange or photolithography techniques that replicate solid-state circuit methods. Ultimately, the per-unit cost for the expected high volumes will become advantageous for planar technology, especially for higher port devices.

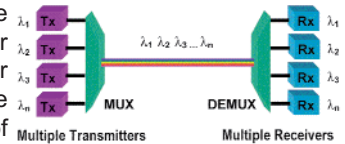
### Fused Bionic Technology (FBT)

Two or more fibers are twisted together, heated and drawn to bring the optical cores into near contact. The combined fibers are mounted on allow-expansion carrier and encapsulated in a low expansion tube. FBT devices allow direct splitting of 2 (up to 4 ways). Higher split counts are achieved by splicing multiple devices to form multi-stage, concatenated splitters/couplers. Concatenated splitters are also called tree splitters. The fused-biconic tapered technology directly bonds or melts the fibers together so that the final splitter/coupler can be mounted in small diameter (approximately 3-millimeter) stainless-steel tubes. This technology produces small, low-cost, high-performance devices.

## WDM – Wavelength division multiplexing

In fiber-optic communications, wavelength-division multiplexing (WDM) is a technology which multiplexes multiple optical carrier signals on a single optical fiber by using different wavelengths (colours) of laser light to carry different signals. This allows for a multiplication in capacity, in addition to enabling bidirectional communications over one strand of fiber. This is a form of frequency division multiplexing (FDM) but is commonly called wavelength division multiplexing.

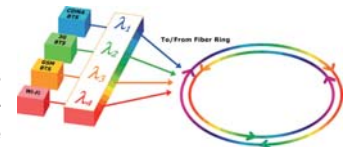
A WDM system uses a multiplexer at the transmitter side to combine the signals and a demultiplexer at the receiver to split them apart. Optical receivers, in contrast to laser sources, tend to be wideband devices. Therefore the demultiplexer must provide the wavelength selectivity of the receiver in the WDM system.



The term wavelength-division multiplexing is commonly applied to an optical carrier (which is typically described by its wavelength), whereas frequency-division multiplexing typically applies to a radio carrier (which is more often described by frequency). However, since wavelength and frequency are inversely proportional, and since radio and light are both forms of electromagnetic radiation, the two terms are equivalent in this context.

It is easy to understand WDM. Consider the fact that you can see many different colors of light - red, green, yellow, blue, all at once. The colors are transmitted through the air together and may mix, but they can be easily separated using a simple device like a prism, just like we separate the "white" light from the sun into a spectrum of colors with the prism.

This technique was first demonstrated with optical fiber in the early 80s when telecommunication fiberoptic links still used multimode fiber. Light at 850 nm and 1300 nm was injected into the fiber at one end using a simple fused coupler. At the far end of the fiber, another coupler split the light into two fibers, one sent to a silicon detector more sensitive to 850 nm and one to a germanium or InGaAs detector more sensitive to 1300 nm. Filters removed the unwanted wavelengths, so each detector then was able to receive only the signal intended for it. The input end of a WDM system is really simple. It is a simple coupler that combines all the inputs into one output fiber. These have been available for many years, offering 2, 4, 8, 16, 32 or even 64 inputs. The de-multiplexer is the more complex network component. A WDM system has some features that make them very useable. Each wavelength can be from a normal link, for example an OC-48 link, so you do not obsolete most of your current equipment. You merely need laser transmitters chosen for wavelengths that match the WDM demultiplexer to make sure each channel is properly decoded at the receiving end.



## General Information

### Applications:

- FTTX Deployments
- GPON Networks
- CATV Links
- Optical Signal Distribution

euroclust offers splitters based on planar lightwave circuit (PLC) technology. They divide optical input(s) into multiple optical outputs uniformly and offer superior optical performance and highest reliability.



### Features:

- Low Insertion Loss and Polarization Dependent Loss
- Compact Design
- Wide Operating Wavelength
- Wide Operating Temperature
- High Reliability and Stability
- Telecordia Compliance

### PLC Splitter package types:

- Splitter without connectors
- Splitter with connectors and Fan-out Kit
- Splitter with connectors with direct 900um output
- Splitter module with 2mm cable input and output
- Splitter mounted in ec1 splice cassette
- Splitter mounted in patchpanel
- Splitter mounted in Wall mount optical patchpanel (WMOPP)
- Splitter mounted in FTTH outdoor fiber distribution box

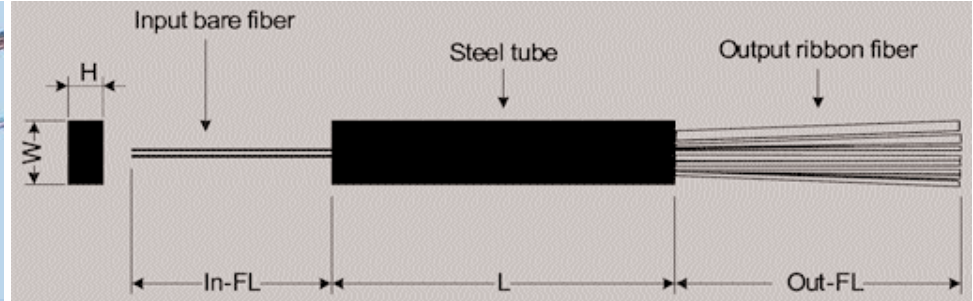
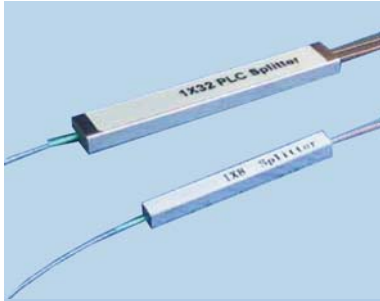
## Technical parameters PLC Splitter

All values are standard grade values, premium grade values can be offered on request

Parameter	Unit		1x2	1x4	1x8	1x16	1x32	1x64	2x2	2x4	2x8	2x16	2x32
	Max.	dB	4.0	7.6	10.3	13.7	16.9	21.0	4.1	7.8	11.4	14.8	18.0
Insertion Loss	Max.	dB	4.0	7.6	10.3	13.7	16.9	21.0	4.1	7.8	11.4	14.8	18.0
Channel Uniformity	Max.	dB	0.5	0.6	0.8	1.2	1.5	2.5	0.8	1.0	1.3	1.8	2.2
Polarization Dependent Loss	Max.	dB	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.2	0.3	0.4	0.4
Operating Wavelength	nm		1260 ~ 1650										
Return Loss	Min.	dB	50										
Directivity	Min.	dB	55										
Operating Temperature	°C		-40 ~ 85										
Storage Temperature	°C		-40 ~ 85										
Operating Humidity	%RH		Max 93										
Fiber Type	-		G.652 D										
Connector Type	NA		SC: UPC or APC; LC: UPC or APC, others on request										
			Telcordia GR-1221 and GR-1209										
			SC compliant to IEC60B74-14 LC compliant to LUCENT 640-252-056										
Note:	All measurement were done at room temperature without connectors.												
	<ul style="list-style-type: none"> <li>- Channel Uniformity is the difference of insertion loss between best an worst output port.</li> <li>- Polarization Dependent loss is a measure of the peak-to-peak difference in transmission of an optical component or system with respect to all possible states of polarization. It is the ratio of the maximum and the minimum transmission of an optical device with respect to all polarization states.</li> <li>- Directivity is the leakage of signal into undesirable optical path. Relation of inserted power to output power on undesirable port.</li> </ul>												

PLC Splitter without / with connectors

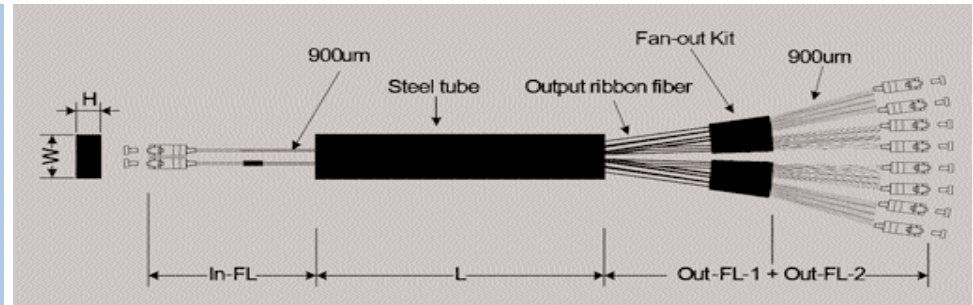
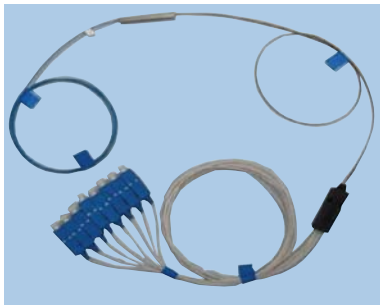
PLC Splitter without connectors



- In-FL: 1m, Out-FL: 1m

Type	H (mm)	W (mm)	L (mm)	Article Nr.:
PLC 1x2	4	4	40	EC06.000400.001
PLC 1x4	4	4	40	EC06.000400.002
PLC 1x8	4	4	40	EC06.000400.003
PLC 1x16	4	7	50	EC06.000400.004
PLC 1x32	4	7	50	EC06.000400.005
PLC 1x64	4	12	60	EC06.000400.006
PLC 2x2	4	4	40	EC06.000400.007
PLC 2x4	4	4	45	EC06.000400.008
PLC 2x8	4	4	45	EC06.000400.009
PLC 2x16	4	7	60	EC06.000400.010
PLC 2x32	4	7	65	EC06.000400.011

PLC Splitter with LC / SC connectors and Fan-out Kit



- In-FL=1m, Out-FL-1=0,5m, Out-FL-2=0,5m
- 1 Fan-out kit (=divider) is required for all splitter types up to 1x32,
- 2 Fan-out kits are required for splitter type 1x64

Dimensions of Fan-out kit (divider)

1x2 / 2x2	Fanout / Divider	45x4x4mm
1x4 / 2x4	Fanout / Divider	45x7x4mm
1x8 / 2x8	Fanout / Divider	45x7x4mm
1x16 / 2x16	Fanout / Divider	45x12x4mm
1x32 / 2x32	Fanout / Divider	45x20x6mm
1x64	2 Fanouts / divider	2x 45x20x6mm

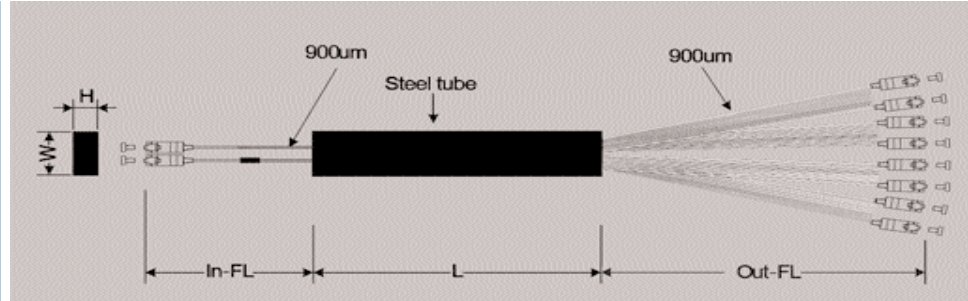
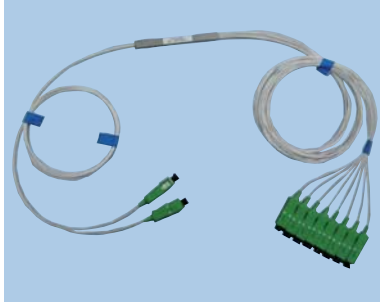
Note: For dimensions of steel tube please see previous chapter „PLC splitter without connectors“

## PLC Splitter with LC / SC connectors and Fan-out Kit

<i>Description</i>	<i>Article Nr.:</i>
PLC Splitter with LC APC connector 1x2	EC06.000401.001
PLC Splitter with LC APC connector 1x4	EC06.000401.002
PLC Splitter with LC APC connector 1x8	EC06.000401.003
PLC Splitter with LC APC connector 1x16	EC06.000401.004
PLC Splitter with LC APC connector 1x32	EC06.000401.005
PLC Splitter with LC APC connector 1x64	EC06.000401.006
PLC Splitter with LC APC connector 2x2	EC06.000401.007
PLC Splitter with LC APC connector 2x4	EC06.000401.008
PLC Splitter with LC APC connector 2x8	EC06.000401.009
PLC Splitter with LC APC connector 2x16	EC06.000401.010
PLC Splitter with LC APC connector 2x32	EC06.000401.011
PLC Splitter with LC UPC connector 1x2	EC06.000402.001
PLC Splitter with LC UPC connector 1x4	EC06.000402.002
PLC Splitter with LC UPC connector 1x8	EC06.000402.003
PLC Splitter with LC UPC connector 1x16	EC06.000402.004
PLC Splitter with LC UPC connector 1x32	EC06.000402.005
PLC Splitter with LC UPC connector 1x64	EC06.000402.006
PLC Splitter with LC UPC connector 2x2	EC06.000402.007
PLC Splitter with LC UPC connector 2x4	EC06.000402.008
PLC Splitter with LC UPC connector 2x8	EC06.000402.009
PLC Splitter with LC UPC connector 2x16	EC06.000402.010
PLC Splitter with LC UPC connector 2x32	EC06.000402.011
PLC Splitter with SC APC connector 1x2	EC06.000403.001
PLC Splitter with SC APC connector 1x4	EC06.000403.002
PLC Splitter with SC APC connector 1x8	EC06.000403.003
PLC Splitter with SC APC connector 1x16	EC06.000403.004
PLC Splitter with SC APC connector 1x32	EC06.000403.005
PLC Splitter with SC APC connector 1x64	EC06.000403.006
PLC Splitter with SC APC connector 2x2	EC06.000403.007
PLC Splitter with SC APC connector 2x4	EC06.000403.008
PLC Splitter with SC APC connector 2x8	EC06.000403.009
PLC Splitter with SC APC connector 2x16	EC06.000403.010
PLC Splitter with SC APC connector 2x32	EC06.000403.011
PLC Splitter with SC UPC connector 1x2	EC06.000404.001
PLC Splitter with SC UPC connector 1x4	EC06.000404.002
PLC Splitter with SC UPC connector 1x8	EC06.000404.003
PLC Splitter with SC UPC connector 1x16	EC06.000404.004
PLC Splitter with SC UPC connector 1x32	EC06.000404.005
PLC Splitter with SC UPC connector 1x64	EC06.000404.006
PLC Splitter with SC UPC connector 2x2	EC06.000404.007
PLC Splitter with SC UPC connector 2x4	EC06.000404.008
PLC Splitter with SC UPC connector 2x8	EC06.000404.009
PLC Splitter with SC UPC connector 2x16	EC06.000404.010
PLC Splitter with SC UPC connector 2x32	EC06.000404.011

PLC Splitter with LC / SC connectors - direct 900µm output

PLC Splitter with LC / SC connectors - direct 900µm output



- In-FL: 1m, Out-FL: 1m

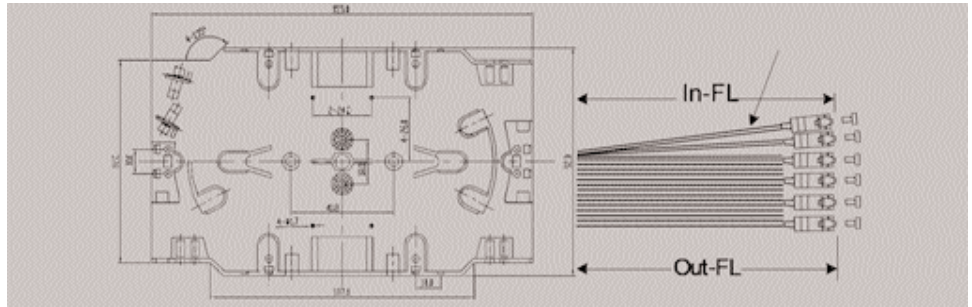
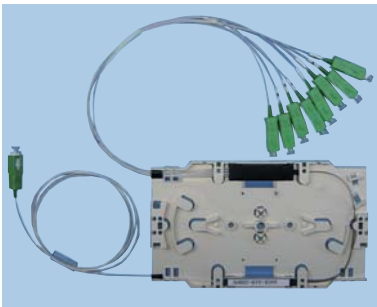
PLC splitters with direct 900µm output do not need Fan-out kits and are therefore the most space-efficient variant of PLC splitters with connectors. For dimensions of steel tube please see below.

Description	H (mm)	W (mm)	L (mm)	Article Nr.:
PLC Splitter with LC APC connector 1x2	4	4	60	EC06.000406.001
PLC Splitter with LC APC connector 1x4	4	7	60	EC06.000406.002
PLC Splitter with LC APC connector 1x8	4	7	60	EC06.000406.003
PLC Splitter with LC APC connector 1x16	4	12	80	EC06.000406.004
PLC Splitter with LC APC connector 1x32	6	20	80	EC06.000406.005
PLC Splitter with LC APC connector 1x64	6	40	100	EC06.000406.006
PLC Splitter with LC APC connector 2x2	4	4	60	EC06.000406.007
PLC Splitter with LC APC connector 2x4	4	7	60	EC06.000406.008
PLC Splitter with LC APC connector 2x8	4	7	60	EC06.000406.009
PLC Splitter with LC APC connector 2x16	4	12	80	EC06.000406.010
PLC Splitter with LC APC connector 2x32	6	20	80	EC06.000406.011
PLC Splitter with LC UPC connector 1x2	4	4	60	EC06.000407.001
PLC Splitter with LC UPC connector 1x4	4	7	60	EC06.000407.002
PLC Splitter with LC UPC connector 1x8	4	7	60	EC06.000407.003
PLC Splitter with LC UPC connector 1x16	4	12	80	EC06.000407.004
PLC Splitter with LC UPC connector 1x32	6	20	80	EC06.000407.005
PLC Splitter with LC UPC connector 1x64	6	40	100	EC06.000407.006
PLC Splitter with LC UPC connector 2x2	4	4	60	EC06.000407.007
PLC Splitter with LC UPC connector 2x4	4	7	60	EC06.000407.008
PLC Splitter with LC UPC connector 2x8	4	7	60	EC06.000407.009
PLC Splitter with LC UPC connector 2x16	4	12	80	EC06.000407.010
PLC Splitter with LC UPC connector 2x32	6	20	80	EC06.000407.011
PLC Splitter with SC APC connector 1x2	4	4	60	EC06.000408.001
PLC Splitter with SC APC connector 1x4	4	7	60	EC06.000408.002
PLC Splitter with SC APC connector 1x8	4	7	60	EC06.000408.003
PLC Splitter with SC APC connector 1x16	4	12	80	EC06.000408.004
PLC Splitter with SC APC connector 1x32	6	20	80	EC06.000408.005
PLC Splitter with SC APC connector 1x64	6	40	100	EC06.000408.006
PLC Splitter with SC APC connector 2x2	4	4	60	EC06.000408.007
PLC Splitter with SC APC connector 2x4	4	7	60	EC06.000408.008
PLC Splitter with SC APC connector 2x8	4	7	60	EC06.000408.009
PLC Splitter with SC APC connector 2x16	4	12	80	EC06.000408.010
PLC Splitter with SC APC connector 2x32	6	20	80	EC06.000408.011

PLC Splitter with LC / SC connectors - direct 900µm output / mounted in splice cass.

Description	H (mm)	W (mm)	L (mm)	Article Nr.:
PLC Splitter with SC UPC connector 1x2	4	4	60	EC06.000409.001
PLC Splitter with SC UPC connector 1x4	4	7	60	EC06.000409.002
PLC Splitter with SC UPC connector 1x8	4	7	60	EC06.000409.003
PLC Splitter with SC UPC connector 1x16	4	12	80	EC06.000409.004
PLC Splitter with SC UPC connector 1x32	6	20	80	EC06.000409.005
PLC Splitter with SC UPC connector 1x64	6	40	100	EC06.000409.006
PLC Splitter with SC UPC connector 2x2	4	4	60	EC06.000409.007
PLC Splitter with SC UPC connector 2x4	4	7	60	EC06.000409.008
PLC Splitter with SC UPC connector 2x8	4	7	60	EC06.000409.009
PLC Splitter with SC UPC connector 2x16	4	12	80	EC06.000409.010
PLC Splitter with SC UPC connector 2x32	6	20	80	EC06.000409.011

PLC Splitter mounted in ec1 splice cassette, 900µm fiber



- In-FL: 1m, Out-FL: 1m

**Features**

- Dimensions:  
ec1 cassette: 155x92x8mm  
cassette cover: 155x92x2mm
- Cover fastened with hinges or central screw
- Cassette can be mounted to patchpanels with standard holders or with 2 mounting nuts
- The cover can be fastened with a central screw or hinges
- Several cassettes are stackable via hinges
- 1 ec1 cassette can accommodate up to 1x32 splitter with direct 900um output or with divider
- for 1x64 splitters: 2 ec1 cassettes will be stapled with hinges

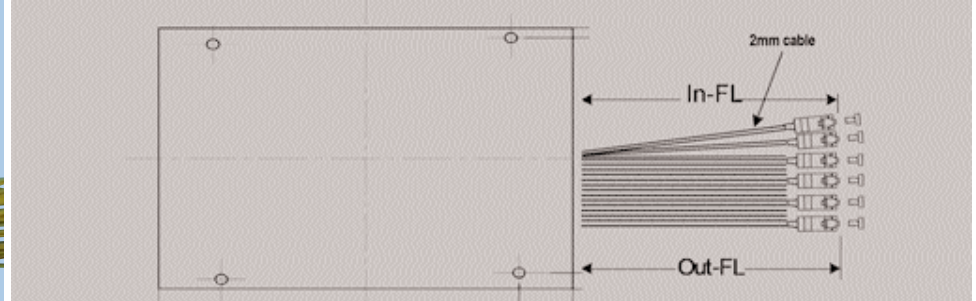
Description	Article Nr.:
PLC Splitter in ec1 with LC APC connector 1x2	EC06.000411.001
PLC Splitter in ec1 with LC APC connector 1x4	EC06.000411.002
PLC Splitter in ec1 with LC APC connector 1x8	EC06.000411.003
PLC Splitter in ec1 with LC APC connector 1x16	EC06.000411.004
PLC Splitter in ec1 with LC APC connector 1x32	EC06.000411.005
PLC Splitter in ec1 with LC APC connector 1x64	EC06.000411.006
PLC Splitter in ec1 with LC APC connector 2x2	EC06.000411.007
PLC Splitter in ec1 with LC APC connector 2x4	EC06.000411.008
PLC Splitter in ec1 with LC APC connector 2x8	EC06.000411.009
PLC Splitter in ec1 with LC APC connector 2x16	EC06.000411.010
PLC Splitter in ec1 with LC APC connector 2x32	EC06.000411.011

PLC Splitter mounted in ec1 splice cassette, 900 $\mu$ m fiber

<i>Description</i>	<i>Article Nr.:</i>
PLC Splitter in ec1 with LC UPC connector 1x2	EC06.000412.001
PLC Splitter in ec1 with LC UPC connector 1x4	EC06.000412.002
PLC Splitter in ec1 with LC UPC connector 1x8	EC06.000412.003
PLC Splitter in ec1 with LC UPC connector 1x16	EC06.000412.004
PLC Splitter in ec1 with LC UPC connector 1x32	EC06.000412.005
PLC Splitter in ec1 with LC UPC connector 1x64	EC06.000412.006
PLC Splitter in ec1 with LC UPC connector 2x2	EC06.000412.007
PLC Splitter in ec1 with LC UPC connector 2x4	EC06.000412.008
PLC Splitter in ec1 with LC UPC connector 2x8	EC06.000412.009
PLC Splitter in ec1 with LC UPC connector 2x16	EC06.000412.010
PLC Splitter in ec1 with LC UPC connector 2x32	EC06.000412.011
PLC Splitter in ec1 with SC APC connector 1x2	EC06.000413.001
PLC Splitter in ec1 with SC APC connector 1x4	EC06.000413.002
PLC Splitter in ec1 with SC APC connector 1x8	EC06.000413.003
PLC Splitter in ec1 with SC APC connector 1x16	EC06.000413.004
PLC Splitter in ec1 with SC APC connector 1x32	EC06.000413.005
PLC Splitter in ec1 with SC APC connector 1x64	EC06.000413.006
PLC Splitter in ec1 with SC APC connector 2x2	EC06.000413.007
PLC Splitter in ec1 with SC APC connector 2x4	EC06.000413.008
PLC Splitter in ec1 with SC APC connector 2x8	EC06.000413.009
PLC Splitter in ec1 with SC APC connector 2x16	EC06.000413.010
PLC Splitter in ec1 with SC APC connector 2x32	EC06.000413.011
PLC Splitter in ec1 with SC UPC connector 1x2	EC06.000414.001
PLC Splitter in ec1 with SC UPC connector 1x4	EC06.000414.002
PLC Splitter in ec1 with SC UPC connector 1x8	EC06.000414.003
PLC Splitter in ec1 with SC UPC connector 1x16	EC06.000414.004
PLC Splitter in ec1 with SC UPC connector 1x32	EC06.000414.005
PLC Splitter in ec1 with SC UPC connector 1x64	EC06.000414.006
PLC Splitter in ec1 with SC UPC connector 2x2	EC06.000414.007
PLC Splitter in ec1 with SC UPC connector 2x4	EC06.000414.008
PLC Splitter in ec1 with SC UPC connector 2x8	EC06.000414.009
PLC Splitter in ec1 with SC UPC connector 2x16	EC06.000414.010
PLC Splitter in ec1 with SC UPC connector 2x32	EC06.000414.011

PLC Splitter module with 2mm cable input and output

PLC Splitter module with 2mm cable input and output



**In-FL: 1m, Out-FL: 1m**

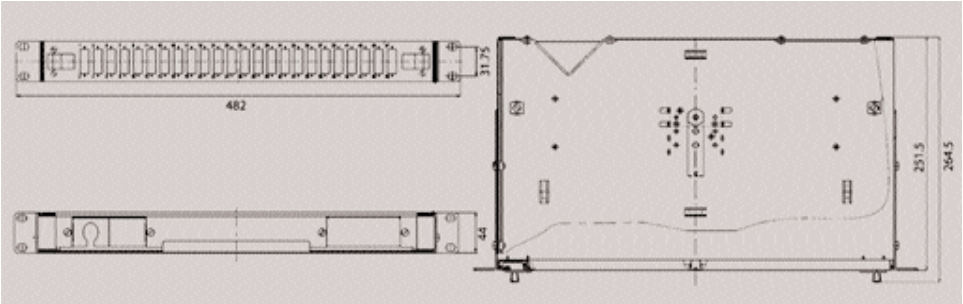
PLC splitter module is a robust ABS box with the dimensions as given below and 2mm cables as input and output.

Description	H (mm)	W (mm)	L (mm)	Article Nr.:
Splitter module w. LC APC connector 1x2	9.5	20	90	EC06.000416.001
Splitter module w. LC APC connector 1x4	10	80	100	EC06.000416.002
Splitter module w. LC APC connector 1x8	10	80	100	EC06.000416.003
Splitter module w. LC APC connector 1x16	18	80	120	EC06.000416.004
Splitter module w. LC APC connector 1x32	18	80	120	EC06.000416.005
Splitter module w. LC APC connector 1x64	18	80	120	EC06.000416.006
Splitter module w. LC APC connector 2x2	9.5	20	90	EC06.000416.007
Splitter module w. LC APC connector 2x4	10	80	100	EC06.000416.008
Splitter module w. LC APC connector 2x8	10	80	100	EC06.000416.009
Splitter module w. LC APC connector 2x16	18	80	120	EC06.000416.010
Splitter module w. LC APC connector 2x32	18	80	120	EC06.000416.011
Splitter module w. LC UPC connector 1x2	9.5	20	90	EC06.000417.001
Splitter module w. LC UPC connector 1x4	10	80	100	EC06.000417.002
Splitter module w. LC UPC connector 1x8	10	80	100	EC06.000417.003
Splitter module w. LC UPC connector 1x16	18	80	120	EC06.000417.004
Splitter module w. LC UPC connector 1x32	18	80	120	EC06.000417.005
Splitter module w. LC UPC connector 1x64	18	80	120	EC06.000417.006
Splitter module w. LC UPC connector 2x2	9.5	20	90	EC06.000417.007
Splitter module w. LC UPC connector 2x4	10	80	100	EC06.000417.008
Splitter module w. LC UPC connector 2x8	10	80	100	EC06.000417.009
Splitter module w. LC UPC connector 2x16	18	80	120	EC06.000417.010
Splitter module w. LC UPC connector 2x32	18	80	120	EC06.000417.011
Splitter module w. SC APC connector 1x2	9.5	20	90	EC06.000418.001
Splitter module w. SC APC connector 1x4	10	80	100	EC06.000418.002
Splitter module w. SC APC connector 1x8	10	80	100	EC06.000418.003
Splitter module w. SC APC connector 1x16	18	80	120	EC06.000418.004
Splitter module w. SC APC connector 1x32	18	80	120	EC06.000418.005
Splitter module w. SC APC connector 1x64	18	80	120	EC06.000418.006
Splitter module w. SC APC connector 2x2	9.5	20	90	EC06.000418.007
Splitter module w. SC APC connector 2x4	10	80	100	EC06.000418.008
Splitter module w. SC APC connector 2x8	10	80	100	EC06.000418.009
Splitter module w. SC APC connector 2x16	18	80	120	EC06.000418.010
Splitter module w. SC APC connector 2x32	18	80	120	EC06.000418.011

PLC Splitter module with 2mm cable input and output / mounted in patchpanel

Description	H (mm)	W (mm)	L (mm)	Article Nr.:
Splitter module w. SC UPC connector 1x2	9.5	20	90	EC06.000419.001
Splitter module w. SC UPC connector 1x4	10	80	100	EC06.000419.002
Splitter module w. SC UPC connector 1x8	10	80	100	EC06.000419.003
Splitter module w. SC UPC connector 1x16	18	80	120	EC06.000419.004
Splitter module w. SC UPC connector 1x32	18	80	120	EC06.000419.005
Splitter module w. SC UPC connector 1x64	18	80	120	EC06.000419.006
Splitter module w. SC UPC connector 2x2	9.5	20	90	EC06.000419.007
Splitter module w. SC UPC connector 2x4	10	80	100	EC06.000419.008
Splitter module w. SC UPC connector 2x8	10	80	100	EC06.000419.009
Splitter module w. SC UPC connector 2x16	18	80	120	EC06.000419.010
Splitter module w. SC UPC connector 2x32	18	80	120	EC06.000419.011

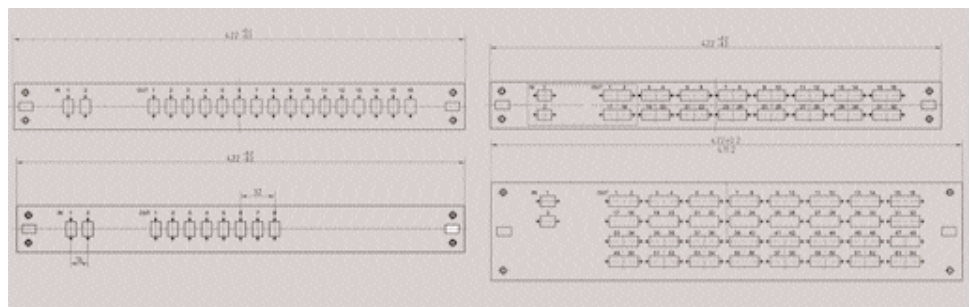
PLC Splitter mounted in patchpanel



Features

- 1 HU patchpanel for up to 1x32 splitter with SC or 1x64 splitter with LC
- 2 HU patchpanel for 1x64 SC
- Adjustable mounting depth through adjustable angles
- If the drawer is pulled out, it stays hanging at 40° angle
- Drawer can be easily removed without tools

Frontplates for 2x8 up to 2x64 splitters



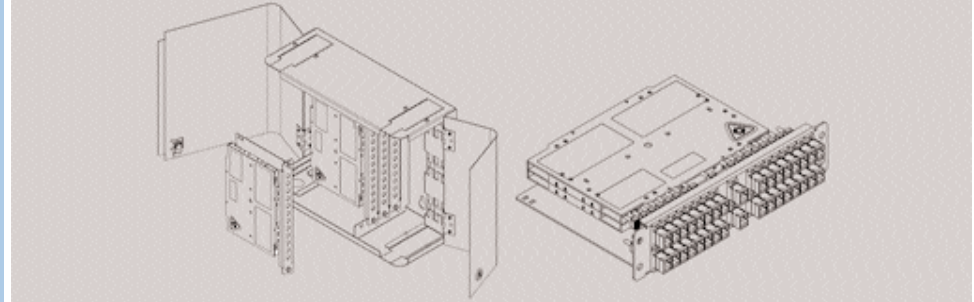
Description	Article Nr.:
PLC Splitter patchpanel with LC APC adapter 1x8	EC06.000421.003
PLC Splitter patchpanel with LC APC adapter 1x16	EC06.000421.004
PLC Splitter patchpanel with LC APC adapter 1x32	EC06.000421.005
PLC Splitter patchpanel with LC APC adapter 1x64	EC06.000421.006
PLC Splitter patchpanel with LC APC adapter 2x8	EC06.000421.009
PLC Splitter patchpanel with LC APC adapter 2x16	EC06.000421.010
PLC Splitter patchpanel with LC APC adapter 2x32	EC06.000421.011

## PLC Splitter mounted in patchpanel

<i>Description</i>	<i>Article Nr.:</i>
PLC Splitter patchpanel with LC UPC adapter 1x8	EC06.000422.003
PLC Splitter patchpanel with LC UPC adapter 1x16	EC06.000422.004
PLC Splitter patchpanel with LC UPC adapter 1x32	EC06.000422.005
PLC Splitter patchpanel with LC UPC adapter 1x64	EC06.000422.006
PLC Splitter patchpanel with LC UPC adapter 2x8	EC06.000422.009
PLC Splitter patchpanel with LC UPC adapter 2x16	EC06.000422.010
PLC Splitter patchpanel with LC UPC adapter 2x32	EC06.000422.011
PLC Splitter patchpanel with SC APC adapter 1x8	EC06.000423.003
PLC Splitter patchpanel with SC APC adapter 1x16	EC06.000423.004
PLC Splitter patchpanel with SC APC adapter 1x32	EC06.000423.005
PLC Splitter patchpanel with SC APC adapter 1x64	EC06.000423.006
PLC Splitter patchpanel with SC APC adapter 2x8	EC06.000423.009
PLC Splitter patchpanel with SC APC adapter 2x16	EC06.000423.010
PLC Splitter patchpanel with SC APC adapter 2x32	EC06.000423.011
PLC Splitter patchpanel with SC UPC adapter 1x8	EC06.000424.003
PLC Splitter patchpanel with SC UPC adapter 1x16	EC06.000424.004
PLC Splitter patchpanel with SC UPC adapter 1x32	EC06.000424.005
PLC Splitter patchpanel with SC UPC adapter 1x64	EC06.000424.006
PLC Splitter patchpanel with SC UPC adapter 2x8	EC06.000424.009
PLC Splitter patchpanel with SC UPC adapter 2x16	EC06.000424.010
PLC Splitter patchpanel with SC UPC adapter 2x32	EC06.000424.011

## PLC Splitter mounted in wall mount optical patchpanel (WMOPP)

### PLC Splitter mounted in wall mount optical patchpanel (WMOPP)



WMOPP 12-24: dimensions: 330 x 260 x 80 mm, Weight: 8 kg

WMOPP 36-48: dimensions: 330 x 260 x 135 mm, Weight: 10 kg

for up to 1x32 SC or 1x64 LC, WMOPP 12-24 is used  
for 1x64 SC, WMOPP 36-48 is used

#### Features

The WMOPP consists of a chassis with two doors and several types of coupling plates. The entrance of the optical cable to the WMOPP panel is through an opening on the left side (top or bottom) with or without duct. Exit of cables is through an opening on the right side (top or bottom). The WMOPP is made of steel sheets and coloured with powder Light Grey RAL 7035. The doors are locked with two cylindric locks.

#### *Description*

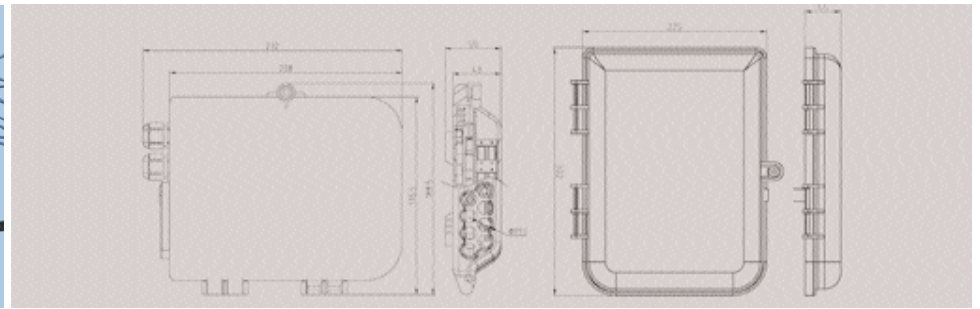
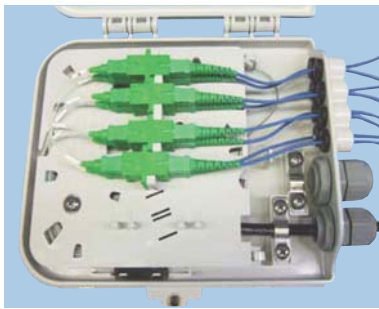
#### *Article Nr.:*

PLC Splitter WMOPP with LC APC adapter 1x8	EC06.000450.003
PLC Splitter WMOPP with LC APC adapter 1x16	EC06.000450.004
PLC Splitter WMOPP with LC APC adapter 1x32	EC06.000450.005
PLC Splitter WMOPP with LC APC adapter 1x64	EC06.000450.006
PLC Splitter WMOPP with LC APC adapter 2x8	EC06.000450.009
PLC Splitter WMOPP with LC APC adapter 2x16	EC06.000450.010
PLC Splitter WMOPP with LC APC adapter 2x32	EC06.000450.011
PLC Splitter WMOPP with LC UPC adapter 1x8	EC06.000451.003
PLC Splitter WMOPP with LC UPC adapter 1x16	EC06.000451.004
PLC Splitter WMOPP with LC UPC adapter 1x32	EC06.000451.005
PLC Splitter WMOPP with LC UPC adapter 1x64	EC06.000451.006
PLC Splitter WMOPP with LC UPC adapter 2x8	EC06.000451.009
PLC Splitter WMOPP with LC UPC adapter 2x16	EC06.000451.010
PLC Splitter WMOPP with LC UPC adapter 2x32	EC06.000451.011
PLC Splitter WMOPP with SC APC adapter 1x8	EC06.000452.003
PLC Splitter WMOPP with SC APC adapter 1x16	EC06.000452.004
PLC Splitter WMOPP with SC APC adapter 1x32	EC06.000452.005
PLC Splitter WMOPP with SC APC adapter 1x64	EC06.000452.006
PLC Splitter WMOPP with SC APC adapter 2x8	EC06.000452.009
PLC Splitter WMOPP with SC APC adapter 2x16	EC06.000452.010
PLC Splitter WMOPP with SC APC adapter 2x32	EC06.000452.011

PLC Splitter mounted in wall mount optical patchpanel (WMOPP) / in outdoor distribution box

PLC Splitter WMOPP with SC UPC adapter 1x8	EC06.000453.003
PLC Splitter WMOPP with SC UPC adapter 1x16	EC06.000453.004
PLC Splitter WMOPP with SC UPC adapter 1x32	EC06.000453.005
PLC Splitter WMOPP with SC UPC adapter 1x64	EC06.000453.006
PLC Splitter WMOPP with SC UPC adapter 2x8	EC06.000453.009
PLC Splitter WMOPP with SC UPC adapter 2x16	EC06.000453.010
PLC Splitter WMOPP with SC UPC adapter 2x32	EC06.000453.011

PLC Splitter mounted in outdoor fiber distribution box FTTH-8, FTTH-16



**Features**

The outdoor fiber distribution box is available in 2 variants, FTTH-8 for 8 SCsx-adapters and FTTH-16 for 16 SCsx-adapters. The protection class is IP 54. Each version contains 2 PG 13,5 threads and 8 cable feedthroughs for 2-3mm fibers. The middle plate contains 8/16 holders for SCsx-adapters on one side, 2 fan-out holders and a ribbon fiber management tray on the backside. The bottom plate offers 2 PLC splitter holders, 8/16 splice holders as well as a cable management tray. The outdoor fiber distribution box is prepared for wall or mast mounting.

<i>Description</i>	<i>Article Nr.:</i>
PLC splitter outdoor distribution box with LC APC adapter 1x4	EC06.000440.003
PLC splitter outdoor distribution box with LC APC adapter 1x8	EC06.000440.004
PLC splitter outdoor distribution box with LC APC adapter 1x16	EC06.000440.005
PLC splitter outdoor distribution box with LC UPC adapter 1x4	EC06.000441.002
PLC splitter outdoor distribution box with LC UPC adapter 1x8	EC06.000441.003
PLC splitter outdoor distribution box with LC UPC adapter 1x16	EC06.000441.004
PLC splitter outdoor distribution box with SC APC adapter 1x4	EC06.000442.002
PLC splitter outdoor distribution box with SC APC adapter 1x8	EC06.000442.003
PLC splitter outdoor distribution box with SC APC adapter 1x16	EC06.000442.004
PLC splitter outdoor distribution box with SC UPC adapter 1x4	EC06.000443.002
PLC splitter outdoor distribution box with SC UPC adapter 1x8	EC06.000443.003
PLC splitter outdoor distribution box with SC UPC adapter 1x16	EC06.000443.004

## FBT Coupler

### Applications:

- FTTX Deployments
- Testing Equipment
- CATV Links
- LAN

FBT couplers split and combine light simultaneously in various wavelength regions and offer excellent performance over a defined bandwidth. FBT couplers are available for different coupling ratios from 50/50 to 1/99.

### Features

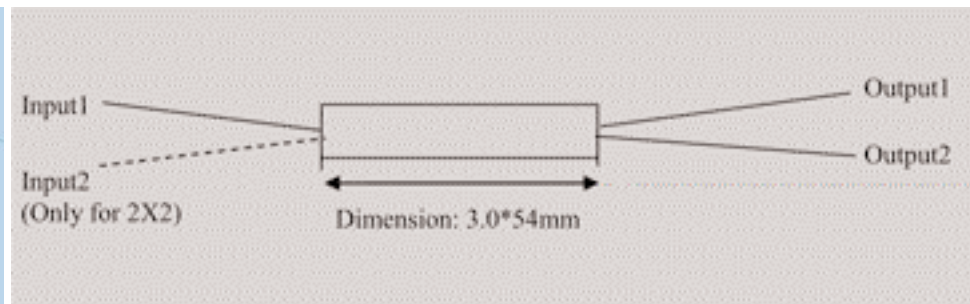
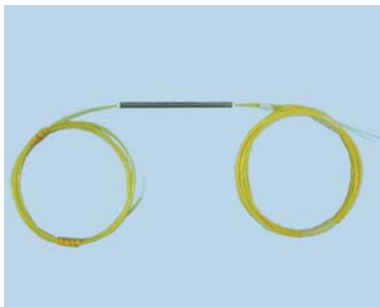
- Low Excess Loss
- Compact Design
- Wide Operating Temperature

Fiber type: Corning SMF 28e

Available Connectors: SC/UPC, SC/APC; LC/UPC, LC/APC. FC and ST on request

Parameter	Specification
Coupling Ratio(%)	50/50 to 1/99
Directivity (dB)	>55
Operating Temperature (°C)	-20 ~ +70
Storage Temperature (°C)	-40 ~ +85
Port Configuration	1X2 or 2X2
Package Size	3x54mm, 900um fiber, 1m fiber length

### FBT coupler - Single Mode, Single Window Wideband



Singlemode Wideband Coupler	
Coupling Ratio (%)	50/50 to 01/99
Excess Loss at 50/50 (dB)	0.10
Max. Insertion Loss (dB) at 50/50	3.40
PDL (dB) at 50/50	0.10
Operating Wavelength (nm)	1310nm, 1550nm, 1480nm

FBT Coupler - Single Mode, Single Window Wideband

Coupling Ratio/Insertion Loss Conversion Chart

Coupling Ratio	Insertion Loss (dB)
40/60	4.4/2.5
30/70	5.7/1.8
20/80	7.6/1.15
10/90	11/0.63
05/95	14/0.36
02/98	17.6/0.25
01/99	21/0.20

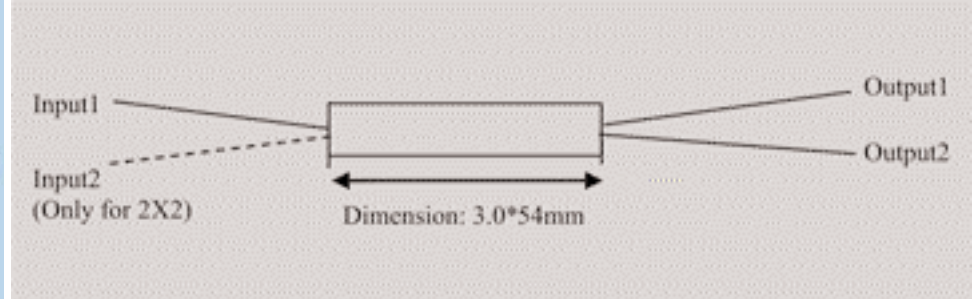
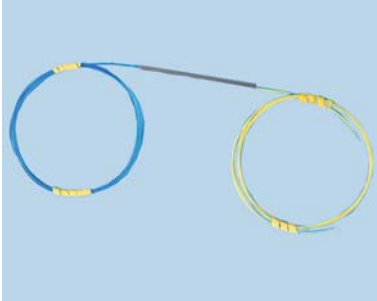
<i>Coupling ratio / connector</i>		<i>1310nm</i>	<i>1480nm</i>	<i>1550nm</i>
50/50 FBT coupler without connector	1x2	EC06.000500.101	EC06.000500.115	EC06.000500.129
40/60 FBT coupler without connector	1x2	EC06.000500.102	EC06.000500.116	EC06.000500.130
30/70 FBT coupler without connector	1x2	EC06.000500.103	EC06.000500.117	EC06.000500.131
20/80 FBT coupler without connector	1x2	EC06.000500.104	EC06.000500.118	EC06.000500.132
10/90 FBT coupler without connector	1x2	EC06.000500.105	EC06.000500.119	EC06.000500.133
5/95 FBT coupler without connector	1x2	EC06.000500.106	EC06.000500.120	EC06.000500.134
1/99 FBT coupler without connector	1x2	EC06.000500.107	EC06.000500.121	EC06.000500.135
50/50 FBT coupler without connector	2x2	EC06.000500.108	EC06.000500.122	EC06.000500.136
40/60 FBT coupler without connector	2x2	EC06.000500.109	EC06.000500.123	EC06.000500.137
30/70 FBT coupler without connector	2x2	EC06.000500.110	EC06.000500.124	EC06.000500.138
20/80 FBT coupler without connector	2x2	EC06.000500.111	EC06.000500.125	EC06.000500.139
10/90 FBT coupler without connector	2x2	EC06.000500.112	EC06.000500.126	EC06.000500.140
5/95 FBT coupler without connector	2x2	EC06.000500.113	EC06.000500.127	EC06.000500.141
1/99 FBT coupler without connector	2x2	EC06.000500.114	EC06.000500.128	EC06.000500.142
50/50 FBT coupler with LC/APC	1x2	EC06.000500.201	EC06.000500.215	EC06.000500.229
40/60 FBT coupler with LC/APC	1x2	EC06.000500.202	EC06.000500.216	EC06.000500.230
30/70 FBT coupler with LC/APC	1x2	EC06.000500.203	EC06.000500.217	EC06.000500.231
20/80 FBT coupler with LC/APC	1x2	EC06.000500.204	EC06.000500.218	EC06.000500.232
10/90 FBT coupler with LC/APC	1x2	EC06.000500.205	EC06.000500.219	EC06.000500.233
5/95 FBT coupler with LC/APC	1x2	EC06.000500.206	EC06.000500.220	EC06.000500.234
1/99 FBT coupler with LC/APC	1x2	EC06.000500.207	EC06.000500.221	EC06.000500.235
50/50 FBT coupler with LC/APC	2x2	EC06.000500.208	EC06.000500.222	EC06.000500.236
40/60 FBT coupler with LC/APC	2x2	EC06.000500.209	EC06.000500.223	EC06.000500.237
30/70 FBT coupler with LC/APC	2x2	EC06.000500.210	EC06.000500.224	EC06.000500.238
20/80 FBT coupler with LC/APC	2x2	EC06.000500.211	EC06.000500.225	EC06.000500.239
10/90 FBT coupler with LC/APC	2x2	EC06.000500.212	EC06.000500.226	EC06.000500.240
5/95 FBT coupler with LC/APC	2x2	EC06.000500.213	EC06.000500.227	EC06.000500.241
1/99 FBT coupler with LC/APC	2x2	EC06.000500.214	EC06.000500.228	EC06.000500.242
50/50 FBT coupler with LC/UPC	1x2	EC06.000500.301	EC06.000500.315	EC06.000500.329
40/60 FBT coupler with LC/UPC	1x2	EC06.000500.302	EC06.000500.316	EC06.000500.330
30/70 FBT coupler with LC/UPC	1x2	EC06.000500.303	EC06.000500.317	EC06.000500.331
20/80 FBT coupler with LC/UPC	1x2	EC06.000500.304	EC06.000500.318	EC06.000500.332
10/90 FBT coupler with LC/UPC	1x2	EC06.000500.305	EC06.000500.319	EC06.000500.333
5/95 FBT coupler with LC/UPC	1x2	EC06.000500.306	EC06.000500.320	EC06.000500.334
1/99 FBT coupler with LC/UPC	1x2	EC06.000500.307	EC06.000500.321	EC06.000500.335
50/50 FBT coupler with LC/UPC	2x2	EC06.000500.308	EC06.000500.322	EC06.000500.336
40/60 FBT coupler with LC/UPC	2x2	EC06.000500.309	EC06.000500.323	EC06.000500.337
30/70 FBT coupler with LC/UPC	2x2	EC06.000500.310	EC06.000500.324	EC06.000500.338
20/80 FBT coupler with LC/UPC	2x2	EC06.000500.311	EC06.000500.325	EC06.000500.339
10/90 FBT coupler with LC/UPC	2x2	EC06.000500.312	EC06.000500.326	EC06.000500.340
5/95 FBT coupler with LC/UPC	2x2	EC06.000500.313	EC06.000500.327	EC06.000500.341
1/99 FBT coupler with LC/UPC	2x2	EC06.000500.314	EC06.000500.328	EC06.000500.342

## FBT coupler - Single Mode

50/50 FBT coupler with SC/APC	1x2	EC06.000500.401	EC06.000500.415	EC06.000500.429
40/60 FBT coupler with SC/APC	1x2	EC06.000500.402	EC06.000500.416	EC06.000500.430
30/70 FBT coupler with SC/APC	1x2	EC06.000500.403	EC06.000500.417	EC06.000500.431
20/80 FBT coupler with SC/APC	1x2	EC06.000500.404	EC06.000500.418	EC06.000500.432
10/90 FBT coupler with SC/APC	1x2	EC06.000500.405	EC06.000500.419	EC06.000500.433
5/95 FBT coupler with SC/APC	1x2	EC06.000500.406	EC06.000500.420	EC06.000500.434
1/99 FBT coupler with SC/APC	1x2	EC06.000500.407	EC06.000500.421	EC06.000500.435
50/50 FBT coupler with SC/APC	2x2	EC06.000500.408	EC06.000500.422	EC06.000500.436
40/60 FBT coupler with SC/APC	2x2	EC06.000500.409	EC06.000500.423	EC06.000500.437
30/70 FBT coupler with SC/APC	2x2	EC06.000500.410	EC06.000500.424	EC06.000500.438
20/80 FBT coupler with SC/APC	2x2	EC06.000500.411	EC06.000500.425	EC06.000500.439
10/90 FBT coupler with SC/APC	2x2	EC06.000500.412	EC06.000500.426	EC06.000500.440
5/95 FBT coupler with SC/APC	2x2	EC06.000500.413	EC06.000500.427	EC06.000500.441
1/99 FBT coupler with SC/APC	2x2	EC06.000500.414	EC06.000500.428	EC06.000500.442
50/50 FBT coupler with SC/UPC	1x2	EC06.000500.501	EC06.000500.515	EC06.000500.529
40/60 FBT coupler with SC/UPC	1x2	EC06.000500.502	EC06.000500.516	EC06.000500.530
30/70 FBT coupler with SC/UPC	1x2	EC06.000500.503	EC06.000500.517	EC06.000500.531
20/80 FBT coupler with SC/UPC	1x2	EC06.000500.504	EC06.000500.518	EC06.000500.532
10/90 FBT coupler with SC/UPC	1x2	EC06.000500.505	EC06.000500.519	EC06.000500.533
5/95 FBT coupler with SC/UPC	1x2	EC06.000500.506	EC06.000500.520	EC06.000500.534
1/99 FBT coupler with SC/UPC	1x2	EC06.000500.507	EC06.000500.521	EC06.000500.535
50/50 FBT coupler with SC/UPC	2x2	EC06.000500.508	EC06.000500.522	EC06.000500.536
40/60 FBT coupler with SC/UPC	2x2	EC06.000500.509	EC06.000500.523	EC06.000500.537
30/70 FBT coupler with SC/UPC	2x2	EC06.000500.510	EC06.000500.524	EC06.000500.538
20/80 FBT coupler with SC/UPC	2x2	EC06.000500.511	EC06.000500.525	EC06.000500.539
10/90 FBT coupler with SC/UPC	2x2	EC06.000500.512	EC06.000500.526	EC06.000500.540
5/95 FBT coupler with SC/UPC	2x2	EC06.000500.513	EC06.000500.527	EC06.000500.541
1/99 FBT coupler with SC/UPC	2x2	EC06.000500.514	EC06.000500.528	EC06.000500.542

## FBT coupler - Single Mode, Dual/Three Window Wideband

### FBT coupler - Single Mode, Dual/Three Window Wideband



Dual/Three Window Coupler employ bandwidth-extending techniques to change the wavelength and to make the coupler meet the requirement of light wave accurate distribution in 2 / 3 windows. This type of coupler is used to “combine 2 / 3 networks together”, they can realize 2-way transmission of 2 / 3 waves by 1 single optical fiber.

#### Performance Specifications

Singlemode Dual/Three Window Wideband Couplers	
Excess Loss(Typ.)(dB)	0.10
Max. Insertion Loss(dB)	3.6
Uniformity(dB)	0.7
Polarization Sensitivity(dB)	0.10
Operating Wavelength(nm)	1310/1550nm, 1310/1585 nm, 1310/1490/1550nm or custom wavelength
Coupling Ratio(%)	50/50 to 01/99
Directivity(dB)	Min. 55
Operating Temperature(°C)	-20 ~ +70
Storage Temperature(°C)	-40 ~ +85
Port Configuration	1X2 or 2X2
Dimension	3x54mm, 900um fiber, 1m length

Coupling Ratio	Insertion Loss (dB)
40/60	4.7/2.7
30/70	6.0/1.9
20/80	7.9/1.2
10/90	11.3/0.6
05/95	14.0/0.45
01/99	19~21/0.1~0.2

Coupling ratio / connector		1310/1550nm	1310/1585nm	1310/1490/1550nm
50/50 FBT coupler without connector	1x2	EC06.000500.143	EC06.000500.157	EC06.000500.171
40/60 FBT coupler without connector	1x2	EC06.000500.144	EC06.000500.158	EC06.000500.172
30/70 FBT coupler without connector	1x2	EC06.000500.145	EC06.000500.159	EC06.000500.173
20/80 FBT coupler without connector	1x2	EC06.000500.146	EC06.000500.160	EC06.000500.174
10/90 FBT coupler without connector	1x2	EC06.000500.147	EC06.000500.161	EC06.000500.175
5/95 FBT coupler without connector	1x2	EC06.000500.148	EC06.000500.162	EC06.000500.176
1/99 FBT coupler without connector	1x2	EC06.000500.149	EC06.000500.163	EC06.000500.177

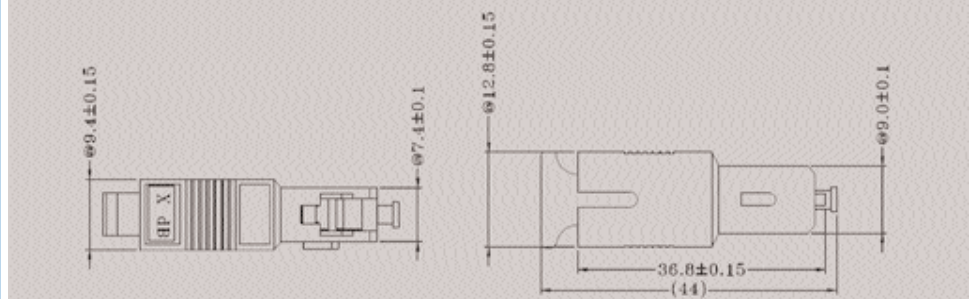
## FBT coupler - Single Mode, Dual/Three Window Wideband

50/50 FBT coupler without connector	2x2	EC06.000500.150	EC06.000500.164	EC06.000500.178
40/60 FBT coupler without connector	2x2	EC06.000500.151	EC06.000500.165	EC06.000500.179
30/70 FBT coupler without connector	2x2	EC06.000500.152	EC06.000500.166	EC06.000500.180
20/80 FBT coupler without connector	2x2	EC06.000500.153	EC06.000500.167	EC06.000500.181
10/90 FBT coupler without connector	2x2	EC06.000500.154	EC06.000500.168	EC06.000500.182
5/95 FBT coupler without connector	2x2	EC06.000500.155	EC06.000500.169	EC06.000500.183
1/99 FBT coupler without connector	2x2	EC06.000500.156	EC06.000500.170	EC06.000500.184
50/50 FBT coupler with LC/APC	1x2	EC06.000500.243	EC06.000500.257	EC06.000500.271
40/60 FBT coupler with LC/APC	1x2	EC06.000500.244	EC06.000500.258	EC06.000500.272
30/70 FBT coupler with LC/APC	1x2	EC06.000500.245	EC06.000500.259	EC06.000500.273
20/80 FBT coupler with LC/APC	1x2	EC06.000500.246	EC06.000500.260	EC06.000500.274
10/90 FBT coupler with LC/APC	1x2	EC06.000500.247	EC06.000500.261	EC06.000500.275
5/95 FBT coupler with LC/APC	1x2	EC06.000500.248	EC06.000500.262	EC06.000500.276
1/99 FBT coupler with LC/APC	1x2	EC06.000500.249	EC06.000500.263	EC06.000500.277
50/50 FBT coupler with LC/APC	2x2	EC06.000500.250	EC06.000500.264	EC06.000500.278
40/60 FBT coupler with LC/APC	2x2	EC06.000500.251	EC06.000500.265	EC06.000500.279
30/70 FBT coupler with LC/APC	2x2	EC06.000500.252	EC06.000500.266	EC06.000500.280
20/80 FBT coupler with LC/APC	2x2	EC06.000500.253	EC06.000500.267	EC06.000500.281
10/90 FBT coupler with LC/APC	2x2	EC06.000500.254	EC06.000500.268	EC06.000500.282
5/95 FBT coupler with LC/APC	2x2	EC06.000500.255	EC06.000500.269	EC06.000500.283
1/99 FBT coupler with LC/APC	2x2	EC06.000500.256	EC06.000500.270	EC06.000500.284
50/50 FBT coupler with LC/UPC	1x2	EC06.000500.343	EC06.000500.357	EC06.000500.371
40/60 FBT coupler with LC/UPC	1x2	EC06.000500.344	EC06.000500.358	EC06.000500.372
30/70 FBT coupler with LC/UPC	1x2	EC06.000500.345	EC06.000500.359	EC06.000500.373
20/80 FBT coupler with LC/UPC	1x2	EC06.000500.346	EC06.000500.360	EC06.000500.374
10/90 FBT coupler with LC/UPC	1x2	EC06.000500.347	EC06.000500.361	EC06.000500.375
5/95 FBT coupler with LC/UPC	1x2	EC06.000500.348	EC06.000500.362	EC06.000500.376
1/99 FBT coupler with LC/UPC	1x2	EC06.000500.349	EC06.000500.363	EC06.000500.377
50/50 FBT coupler with LC/UPC	2x2	EC06.000500.350	EC06.000500.364	EC06.000500.378
40/60 FBT coupler with LC/UPC	2x2	EC06.000500.351	EC06.000500.365	EC06.000500.379
30/70 FBT coupler with LC/UPC	2x2	EC06.000500.352	EC06.000500.366	EC06.000500.380
20/80 FBT coupler with LC/UPC	2x2	EC06.000500.353	EC06.000500.367	EC06.000500.381
10/90 FBT coupler with LC/UPC	2x2	EC06.000500.354	EC06.000500.368	EC06.000500.382
5/95 FBT coupler with LC/UPC	2x2	EC06.000500.355	EC06.000500.369	EC06.000500.383
1/99 FBT coupler with LC/UPC	2x2	EC06.000500.356	EC06.000500.370	EC06.000500.384
50/50 FBT coupler with SC/APC	1x2	EC06.000500.443	EC06.000500.457	EC06.000500.471
40/60 FBT coupler with SC/APC	1x2	EC06.000500.444	EC06.000500.458	EC06.000500.472
30/70 FBT coupler with SC/APC	1x2	EC06.000500.445	EC06.000500.459	EC06.000500.473
20/80 FBT coupler with SC/APC	1x2	EC06.000500.446	EC06.000500.460	EC06.000500.474
10/90 FBT coupler with SC/APC	1x2	EC06.000500.447	EC06.000500.461	EC06.000500.475
5/95 FBT coupler with SC/APC	1x2	EC06.000500.448	EC06.000500.462	EC06.000500.476
1/99 FBT coupler with SC/APC	1x2	EC06.000500.449	EC06.000500.463	EC06.000500.477
50/50 FBT coupler with SC/APC	2x2	EC06.000500.450	EC06.000500.464	EC06.000500.478
40/60 FBT coupler with SC/APC	2x2	EC06.000500.451	EC06.000500.465	EC06.000500.479
30/70 FBT coupler with SC/APC	2x2	EC06.000500.452	EC06.000500.466	EC06.000500.480
20/80 FBT coupler with SC/APC	2x2	EC06.000500.453	EC06.000500.467	EC06.000500.481
10/90 FBT coupler with SC/APC	2x2	EC06.000500.454	EC06.000500.468	EC06.000500.482
5/95 FBT coupler with SC/APC	2x2	EC06.000500.455	EC06.000500.469	EC06.000500.483
1/99 FBT coupler with SC/APC	2x2	EC06.000500.456	EC06.000500.470	EC06.000500.484
50/50 FBT coupler with SC/UPC	1x2	EC06.000500.543	EC06.000500.557	EC06.000500.571
40/60 FBT coupler with SC/UPC	1x2	EC06.000500.544	EC06.000500.558	EC06.000500.572
30/70 FBT coupler with SC/UPC	1x2	EC06.000500.545	EC06.000500.559	EC06.000500.573
20/80 FBT coupler with SC/UPC	1x2	EC06.000500.546	EC06.000500.560	EC06.000500.574
10/90 FBT coupler with SC/UPC	1x2	EC06.000500.547	EC06.000500.561	EC06.000500.575
5/95 FBT coupler with SC/UPC	1x2	EC06.000500.548	EC06.000500.562	EC06.000500.576
1/99 FBT coupler with SC/UPC	1x2	EC06.000500.549	EC06.000500.563	EC06.000500.577
50/50 FBT coupler with SC/UPC	2x2	EC06.000500.550	EC06.000500.564	EC06.000500.578
40/60 FBT coupler with SC/UPC	2x2	EC06.000500.551	EC06.000500.565	EC06.000500.579
30/70 FBT coupler with SC/UPC	2x2	EC06.000500.552	EC06.000500.566	EC06.000500.580
20/80 FBT coupler with SC/UPC	2x2	EC06.000500.553	EC06.000500.567	EC06.000500.581
10/90 FBT coupler with SC/UPC	2x2	EC06.000500.554	EC06.000500.568	EC06.000500.582
5/95 FBT coupler with SC/UPC	2x2	EC06.000500.555	EC06.000500.569	EC06.000500.583
1/99 FBT coupler with SC/UPC	2x2	EC06.000500.556	EC06.000500.570	EC06.000500.584



Plug type attenuators

SC fixed type attenuator



Performance Specifications:

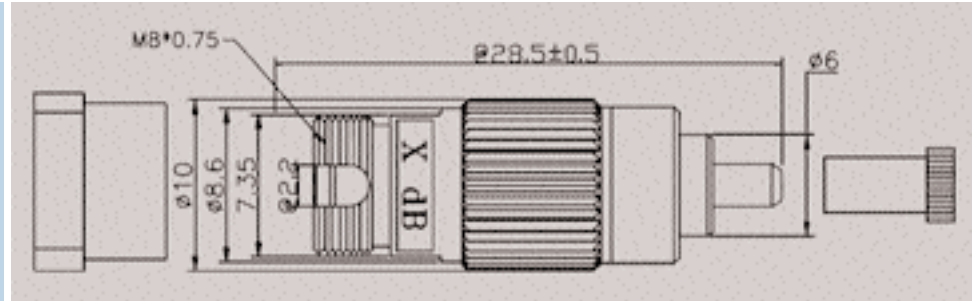
Characteristics	Single mode (9/125um)
Attenuator Range	1 ~20 dB
Operating Wavelength	850, 1310nm, 1550nm
Return Loss (PC / UPC / APC)	≥45 / 55 / 65dB
Attenuation Accuracy	±0,5dB (for 1 – 9 dB) ±1.0dB (for 10 - 14dB) ±1.5dB (for 15 - 20dB)
Operating Temperature	-20 ~ +75 °C
Storage Temperature	-40 ~ +75 °C

Description	Wavelength	Article Nr.
SC/PC fixed type attenuator	1310/1550nm	EC06.000530.0xx
SC/PC fixed type attenuator	1310nm	EC06.000531.0xx
SC/PC fixed type attenuator	1550nm	EC06.000532.0xx
SC/PC fixed type attenuator	850/1310nm	EC06.000533.0xx
SC/UPC fixed type attenuator	1310/1550nm	EC06.000534.0xx
SC/UPC fixed type attenuator	1310nm	EC06.000535.0xx
SC/UPC fixed type attenuator	1550nm	EC06.000536.0xx
SC/UPC fixed type attenuator	850/1310nm	EC06.000537.0xx
SC/APC fixed type attenuator	1310/1550nm	EC06.000538.0xx
SC/APC fixed type attenuator	1310nm	EC06.000539.0xx
SC/APC fixed type attenuator	1550nm	EC06.000540.0xx
SC/APC fixed type attenuator	850/1310nm	EC06.000541.0xx

xx specifies the attenuation e.g. EC06.000530.015 for 15dB

Plug type attenuators

FC fixed type attenuator



Performance Specifications:

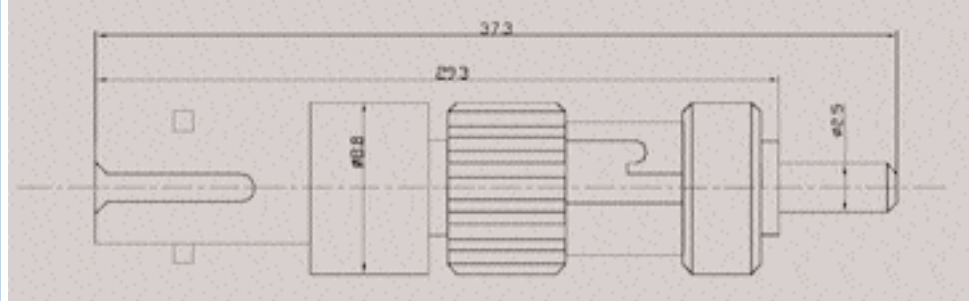
Characteristics	Single mode (9/125um)
Attenuator Range	1 ~ 20 dB
Operating Wavelength	850, 1310nm, 1550nm
Return Loss (PC / UPC / APC)	$\geq 45 / 55 / 65$ dB
Attenuation Accuracy	$\pm 0.5$ dB (for 1 – 9 dB) $\pm 1.0$ dB (for 10 - 14dB) $\pm 1.5$ dB (for 15 - 20dB)
Operating Temperature	-20 ~ +75 °C
Storage Temperature	-40 ~ +75 °C

Description	Wavelength	Article Nr.
FC/PC fixed type attenuator	1310/1550nm	EC06.000550.0xx
FC/PC fixed type attenuator	1310nm	EC06.000551.0xx
FC/PC fixed type attenuator	1550nm	EC06.000552.0xx
FC/PC fixed type attenuator	850/1310nm	EC06.000553.0xx
FC/UPC fixed type attenuator	1310/1550nm	EC06.000554.0xx
FC/UPC fixed type attenuator	1310nm	EC06.000555.0xx
FC/UPC fixed type attenuator	1550nm	EC06.000556.0xx
FC/UPC fixed type attenuator	850/1310nm	EC06.000557.0xx
FC/APC fixed type attenuator	1310/1550nm	EC06.000558.0xx
FC/APC fixed type attenuator	1310nm	EC06.000559.0xx
FC/APC fixed type attenuator	1550nm	EC06.000560.0xx
FC/APC fixed type attenuator	850/1310nm	EC06.000561.0xx

xx specifies the attenuation e.g. EC06.000550.015 for 15dB

Plug type attenuators

ST fixed type attenuator



Performance Specifications:

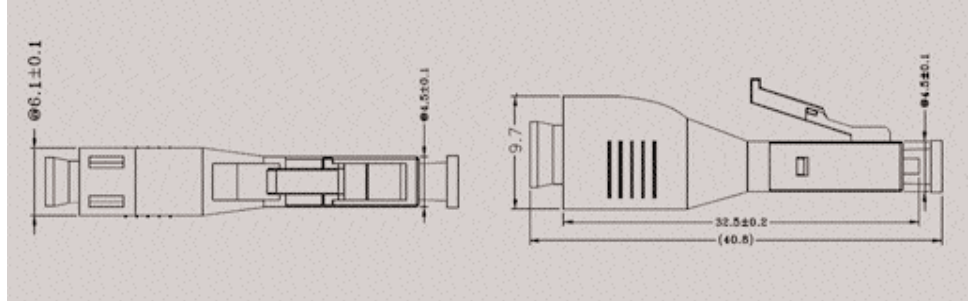
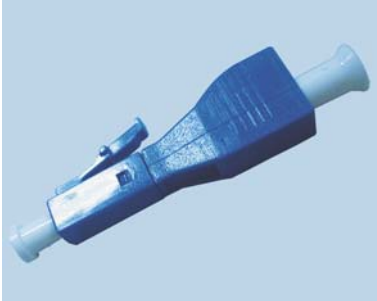
Characteristics	Single mode (9/125um)
Attenuator Range	1 ~ 20 dB
Operating Wavelength	850, 1310nm, 1550nm
Return Loss (PC / UPC / APC)	≥45 / 55 / 65dB
Attenuation Accuracy	±0,5dB (for 1 – 9dB) ±1.0dB (for 10 - 14dB) ±1.5dB (for 15 - 20dB)
Operating Temperature	-20 ~ +75 °C
Storage Temperature	-40 ~ +75 °C

Description	Wavelength	Article Nr.
ST/PC fixed type attenuator	1310/1550nm	EC06.000570.0xx
ST/PC fixed type attenuator	1310nm	EC06.000571.0xx
ST/PC fixed type attenuator	1550nm	EC06.000572.0xx
ST/PC fixed type attenuator	850/1310nm	EC06.000573.0xx
ST/UPC fixed type attenuator	1310/1550nm	EC06.000574.0xx
ST/UPC fixed type attenuator	1310nm	EC06.000575.0xx
ST/UPC fixed type attenuator	1550nm	EC06.000576.0xx
ST/UPC fixed type attenuator	850/1310nm	EC06.000577.0xx
ST/APC fixed type attenuator	1310/1550nm	EC06.000578.0xx
ST/APC fixed type attenuator	1310nm	EC06.000579.0xx
ST/APC fixed type attenuator	1550nm	EC06.000580.0xx
ST/APC fixed type attenuator	850/1310nm	EC06.000581.0xx

xx specifies the attenuation e.g. EC06.000570.015 for 15dB

Plug type attenuators

LC fixed type attenuator



Performance Specifications:

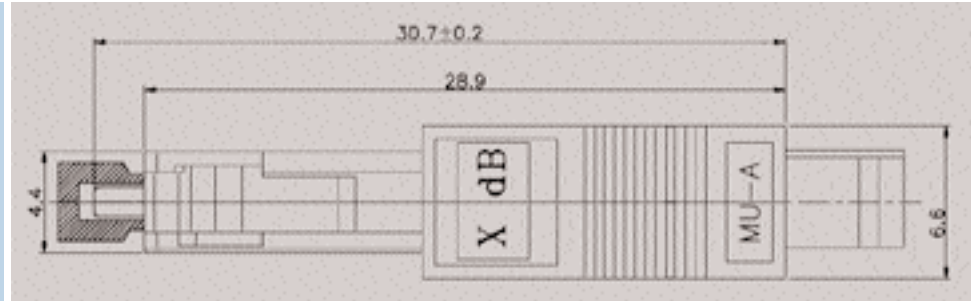
Characteristics	Single mode (9/125um)
Attenuator Range	1 ~ 20 dB
Operating Wavelength	850, 1310nm, 1550nm
Return Loss (PC / UPC / APC)	≥45 / 55 / 65 dB
Attenuation Accuracy	±0,5dB (for 1 – 9dB) ±1.0dB (for 10 - 14dB) ±1.5dB (for 15 - 20dB)
Operating Temperature	-20 ~ +75 °C
Storage Temperature	-40 ~ +75 °C

Description	Wavelength	Article Nr.
LC/PC fixed type attenuator	1310/1550nm	EC06.000590.0xx
LC/PC fixed type attenuator	1310nm	EC06.000591.0xx
LC/PC fixed type attenuator	1550nm	EC06.000592.0xx
LC/PC fixed type attenuator	850/1310nm	EC06.000593.0xx
LC/UPC fixed type attenuator	1310/1550nm	EC06.000594.0xx
LC/UPC fixed type attenuator	1310nm	EC06.000595.0xx
LC/UPC fixed type attenuator	1550nm	EC06.000596.0xx
LC/UPC fixed type attenuator	850/1310nm	EC06.000597.0xx
LC/APC fixed type attenuator	1310/1550nm	EC06.000598.0xx
LC/APC fixed type attenuator	1310nm	EC06.000599.0xx
LC/APC fixed type attenuator	1550nm	EC06.000600.0xx
LC/APC fixed type attenuator	850/1310nm	EC06.000601.0xx

xx specifies the attenuation e.g. EC06.000590.015 for 15dB

Plug type attenuators

MU fixed type attenuator



Performance Specifications:

Characteristics	Single mode (9/125um)
Attenuator Range	1 ~ 20 dB
Operating Wavelength	850, 1310nm, 1550nm
Return Loss (PC / UPC / APC)	≥45 / 55 / 65dB
Attenuation Accuracy	±0,75dB (for 1 – 5dB) ±0,9dB (for 6dB) ±1,05dB (for 7dB) ±1.5dB (for 10dB) ±1.8dB (for 12dB) ±2.25dB (for 15dB) ±2.7dB (for 18dB) ±3.0dB (for 20dB)
Operating Temperature	-20 ~ +75 °C
Storage Temperature	-40 ~ +75 °C

Description	Wavelength	Article Nr.
MU/PC fixed type attenuator	1310/1550nm	EC06.000610.0xx
MU/PC fixed type attenuator	1310nm	EC06.000611.0xx
MU/PC fixed type attenuator	1550nm	EC06.000612.0xx
MU/PC fixed type attenuator	850/1310nm	EC06.000613.0xx
MU/UPC fixed type attenuator	1310/1550nm	EC06.000614.0xx
MU/UPC fixed type attenuator	1310nm	EC06.000615.0xx
MU/UPC fixed type attenuator	1550nm	EC06.000616.0xx
MU/UPC fixed type attenuator	850/1310nm	EC06.000617.0xx
MU/APC fixed type attenuator	1310/1550nm	EC06.000618.0xx
MU/APC fixed type attenuator	1310nm	EC06.000619.0xx
MU/APC fixed type attenuator	1550nm	EC06.000620.0xx
MU/APC fixed type attenuator	850/1310nm	EC06.000621.0xx

xx specifies the attenuation e.g. EC06.000610.015 for 15dB