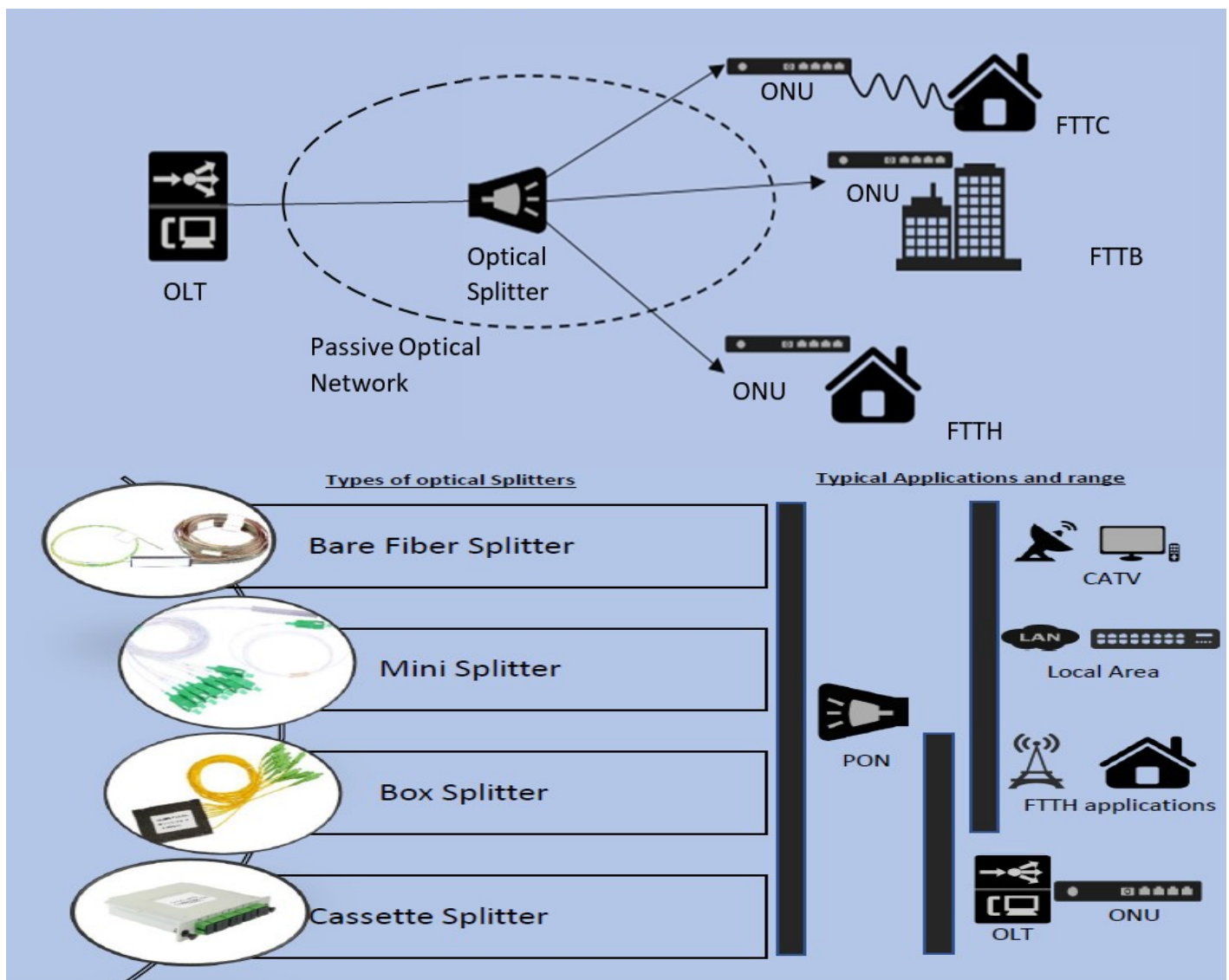


Optical Splitters for Telecommunication Network

Optical PLC splitter is a passive optical component which have a significant impact on the efficiency of communication network roll-outs especially in FTTx deployment. The incorporation of fiber-optic splitters reduces the amount of fibers in the fiber network, decreasing both the footprint and investment cost of network deployment. In existing networks, these components allow capacity upgrades at a relatively low cost without additional construction works.

Single-mode wideband splitters are branching devices used to split the light signal. CISFIBER Infra Solution's offers wideband splitters in a wide range of styles, sizes and split ratios. The splitters can be used with ODF, FDH, Fiber Closure and FAT.

APPLICATION OF OPTICAL SPLITTER IN FIBER OPTIC NETWORK



Performance Characteristics

Table 1: Grade P (Standard Planar Splitter)

Wavelength	1260-1650nm		1310nm / 1550nm
Split Ratio	Max. IL (dB)	Uniformity (dB)	PDL (dB)
1 x 2	4.1	0.7	0.2
1 x 4	7.3	0.7	0.2
1 x 8	10.4	1.0	0.2
1 x 16	13.7	1.3	0.3
1 x 32	17.0	1.6	0.3
1 x 64	20.5	2.0	0.4
2 x 2	4.4	0.7	0.2
2 x 4	7.5	1.4	0.3
2 x 8	10.9	1.6	0.3
2 x 16	14.3	2.0	0.4
2 x 32	17.7	2.4	0.4
2 x 64	21.3	2.9	0.4

Table 2: Grade O (Low Loss Planar Splitter)

Wavelength	1260-1650nm		1310nm / 1550nm
Split Ratio	Max. IL (dB)	Uniformity (dB)	PDL (dB)
1 x 4	7.0	0.6	0.15
1 x 8	10.2	0.9	0.15
1 x 16	13.5	1.1	0.20
1 x 32	16.8	1.4	0.20
1 x 64	20.2	1.8	0.30
2 x 4	7.4	1.2	0.25
2 x 8	10.8	1.4	0.25
2 x 16	14.1	1.6	0.35
2 x 32	17.3	2.2	0.35
2 x 64	20.9	2.6	0.35

NOTE: Return Loss>55dB for both grade P and grade O splitter

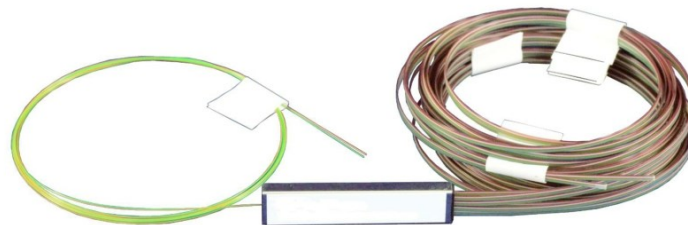
All the parameters above means splitter itself, exclude the connectors if have.

Temperature Specification:

Parameter	Specification
Operating Temperature	-20°C to +60°C
Storage temperature	-20°C to +60°C

Technical Classification

1. Bare Splitter

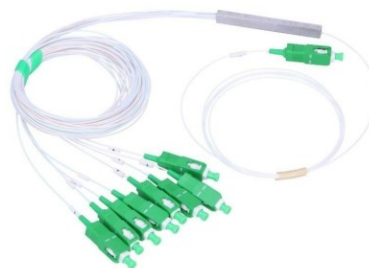


These are available with no connector or may have option of FC, SC, LC connectors to pick from.

Fiber type: 900um fiber on input and 250um ribbon fiber on output

Available ratio:	1:2/1:4/1:8/2:4/2:8	1:16/2:16	1:32/2:32	1x64/2:64
Size (L x D x H) mm	40x4x4	50x4x4	50x7x4	60x12x4

2. Mini Splitter



These are available with no connector or may have option of FC, SC, LC connectors to pick from.

Steel tube encapsulation provides compact design and is useful for areas which are less exposed to adverse conditions.

Fiber type: 900um fiber on both input and output

Available ratio:	1:2/1:4/1:8/2:2/2:4/2:8	1:16/2:16	1:32/2:32	1x64/2:64
Size (L x D x H) mm	60x7x4	60x12x4 / 80x12x6	80x20x6 / 100x20x6	100x40x6

3. Box Splitter



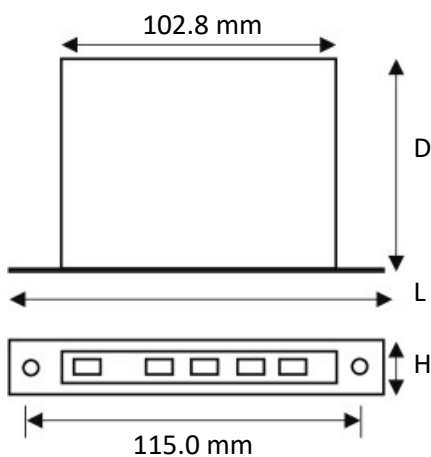
Apart from providing reliable protection, this splitter can fit a variety of boxes and other enclosures. 19-inch rack unit of standard size is the common site for using this splitter type.

Fiber type: 2mm fiber cable on both input and output

Available ratio:	1:2/1:4/1:8/2:4/2:8	1:16/2:16	1:32/2:32	1x64/2:64
Size (L x D x H) mm	100x80x10	120x80x18	120x80x18	141x115x18

4. Cassette Splitter (LGX Type)

Cassettes splitter feature small size, high reliability which can be mounted FDH & FDP. SC adapter in both input and output.



Available ratio:	1:2/1:4/1:8/2:4/2:8	1:16/2:16	1:32/2:32	1x64/2:64	1/2:32 H Layout	1/2:64 H Layout
Size (L x D x H) mm	130x100x25	130x100x50	130x100x102	130x100x200	266x100x50	266x100x102

Ordering Guide

Cable Type		Splitter Type		Product Family		Input Connector		Output Connector		Split Ratio		Output Tail Length								
Cable Construction	Catalog Code	Type	Catalog Code	Type	Catalog Code	Type	Catalog Code	Type	Catalog Code	Ratio	Catalog Code	Length	UoM							
900μ Buffer	9B	**Bare	S	Optical Splitter Grade O	OSO	LC/UPC	LCU	LC/UPC	LCU	1:2	12	XXXM	M							
2.0 mm Simplex	2S	Mini	M	Optical Splitter Grade P	OSP	LC/APC	LCA	LC/APC	LCA	1:4	14	DXXM	M							
										***Box	B	SC/UPC	SCU	SC/UPC	SCU	1:8	18	*Use DXX for Decimal Lengths		
												***Cassette	C	SC/APC	SCP	SC/APC	SCP		1:16	1A
														FC/UPC	FCU	FC/UPC	FCU		1:32	1B
														FC/APC	FCP	FC/APC	FCP		1:64	1C
										2:2	22									
										2:4	24									
										2:8	28									
2:16	2A																			
2:32	2B																			
2:64	2C																			

Note:

*1) Default pigtailed length of input and output is 1.0m for 0.9mm cable and 1.5m for 2.0mm cable.

**2) Normal fiber length of input and output of bare splitter is 1.5m, and 250um fiber.

***3) No cable type and pigtail length definition on Box/ Cassette splitter.