

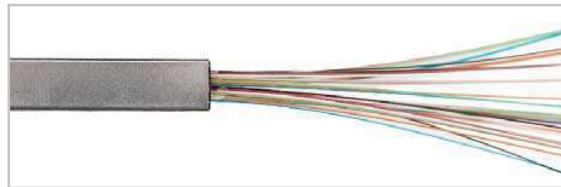


Optical splitters PLC

Optical splitters PLC are made in Planar Wave Circuit technology. Their features enable end-users to share a single interface. PLC splitters are available in a variety of split ratios, from 2x2 to 2x64, as well as from 1x2 to 1x128. Cellco manufactures also asymmetrical PLC splitters providing asymmetrical division of input optical signal energy into two output channels. This technology ensures very high working stability in full range of operating wavelength that is 1260-1650 nm.

Basic product - Dimensions

Steel-box: FIBER 250 μm						
Dimensions	40x4x4	50x7x4	60x7x4	80x20x6	60x12x4	100x40x6
Type of splitter	1x2, 1x3, 1x4, 1x6, 1x8	1x16, 1x32	2x2, 2x4, 2x8, 2x16	2x32	1x64	2x64

- Bare fiber: loose tubes coming out from box of splitter not connected to each other




- Ribbon: all tubes connected in line

2 possible ways of making outlets of splitters – bare fiber & ribbon (250um)

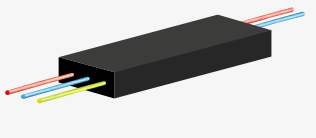
- Differences between the way of making splices divided into 2 different welding machines: capable of splicing single fiber -> bare fiber, capable of welding few fibers -> ribbon
- Customer decides which way of splicing would be more comfortable and which is he capable of
- Easy to fix Ribbon as splitter outlet and then separating each fiber into bare fibers

Steel-box: TUBE 900 μm							
Dimensions	40x4x4	55x7x4	60x7x4	60x12x4	80x12x4	80x20x6	100x40x6
Type of splitter	1x2	1x4*	1x3, 1x4, 1x6, 1x8, 2x2, 2x4, 2x8	1x16	2x16	1x32, 2x32	1x64, 2x64



*available on request

ABS			
Dimensions	90x20x10	80x100x10	80x120x18
Type of splitter	1x2, 1x3*, 1x4*	1x3, 1x4, 1x5, 1x6, 1x8, 1x9, 1x12, 1x16, 1x24, 1x32, 2x4, 2x8, 2x16, 2x32	1x64



*available on request

PARAMETERS - Splitters PLC

Types of casings

LGX	TRAY	MAGNUM	C-BOX
		<p>(A) 400 mm (B) 450 mm</p>	<p>(A) 400 mm (B) 450 mm</p>

PARAMETERS for Splitters 1xN without connectors



premium

Type	1x2		1x3		1x4		1x6*		1x8		1x12		1x16		1x24		1x32		1x64		1x128	
Version S-standard P-premium	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P
Operating wavelength (nm)	1250 nm – 1650 nm																					
Insertion loss (dB)	<4.2	<3.9	<6.5	≤6	<7.5	<7.0	<9.5	<9.0	<10.5	<10.0	<12.5	<12	<13.75	<13.25	<16.0	<15.5	<17	<16.5	<21.5	<20.5	<23.5	<23
Uniformity (dB)	<0.6	<0.5	<0.8	<0.6	<0.8	<0.6	<0.8	<0.6	<1.0	<0.8	<1.4	<1.0	<1.2	<1.4	<1.5	<1.4	<1.6	<1.4	<2.2	<2.0	<2.5	<2.5
PDL (dB)	<0.2	<0.2	<0.2	<0.2	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4	<0.4
Return Loss (dB)	>55																					
Directivity (dB)	>55																					
Operating temperature (°C)	-40 + 85																					
Storage temperature (°C)	-40 + 85																					
Fiber type	G652D, G657A1, G657A2																					
Fiber length (m)	2**																					
Other options	250µm fiber, 2mm, 3mm cable																					

*Cellco produces single splitter 1x6 in PLC technology, with a very good quality by high level of uniformity.

Note: Values with connectors +2 x 0,3 dB Standard and 0,15 dB Premium (for each connectors).

**Customized fiber lengths available.

PARAMETERS for Splitters 2xN without connectors

Type	2x2		2x4		2x8		2x16		2x32		2x64	
	S-standard	P-premium	S	P	S	P	S	P	S	P	S	P
Operating wavelength (nm)	1250 nm – 1650 nm											
Insertion loss (dB)	< 4,5 dB	< 4,3 dB	< 7,6 dB	< 7,2 dB	< 11,0 dB	< 10,5 dB	< 14,5 dB	< 14,0 dB	< 17,5 dB	< 17,0 dB	< 22,0 dB	< 21,5 dB
Uniformity (dB)	< 1,0 dB	< 1,0 dB	< 1,2 dB	< 1,2 dB	< 1,4 dB	< 1,4 dB	< 2,0 dB	< 2,0 dB	< 2,5 dB	< 2,5 dB	< 3,0 dB	< 3,0 dB
PDL (dB)	< 0,3 dB	< 0,3 dB	< 0,3 dB	< 0,3 dB	< 0,3 dB	< 0,3 dB	< 0,3 dB	< 0,3 dB	< 0,3 dB	< 0,3 dB	< 0,4 dB	< 0,4 dB
Return Loss (dB)	>55											
Directivity (dB)	>55											
Operating temperature (°C)	-40 - +85											
Storage temperature (°C)	-40 - +85											
Fiber type	G652D, G657A1, G657A2											
Fiber length (m)	2**											
Housing dimensions	60*7*4		60*7*4		60*7*4		80*12*4		80*20*6		100*40*6	

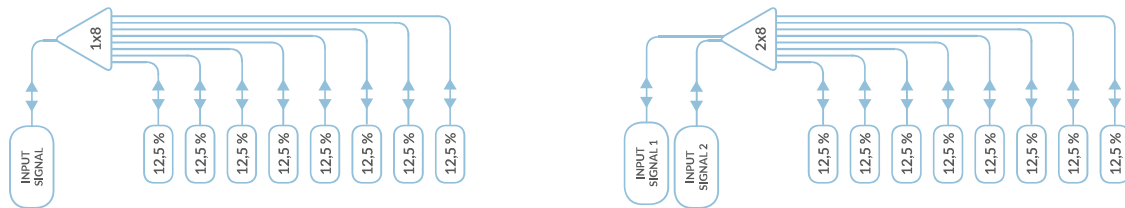


premium

Note: Values with connectors +2 x 0,3 dB Standard and 0,15 dB Premium (for each connectors).

**Customized fiber lengths available.

Examples of configuration 1xN and 2xN splitters



PARAMETERS for asymmetrical splitters

Ratio (%)	Wavelength Range (nm)	Main port IL max. (dB)	Tap port IL max. (dB)	IL Uni. (dB)	PDL (dB)
70:30:00	1260-1650	< 3.0	5-7	< 1.0	< 0.2
80:20:00	1260-1650	< 2.6	7-9	< 1.0	< 0.2
90:10:00	1260-1650	< 1.8	9-12	< 1.0	< 0.2
95:05:00	1260-1650	< 1.2	12-15	< 1.0	< 0.2
98:02:00	1260-1650	< 1.0	15-18	< 1.0	< 0.2

Note: Values without connectors.

Values with connectors, add 2 x 0,3 dB for both connectors.

PARAMETERS - Splitters PLC

I. Color codes of Fibers 250 μm

STANDARD												
No of the fiber	1	2	3	4	5	6	7	8	9	10	11	12
Color of the fiber												

STANDARD OFS *												
Color												

*Type of splitters PLC in Standard OFS color codes.

FIBER option						
Fiber-250 um		Standard OFS color codes				
Dimensions	Type of splitter	1x4	1x8(2*1x4)	1x16(2*1x8)	1x32(4*1x8)	1x64(8*1/8)
40x4x4	1x2, 1x3, 1x4, 1x6, 1x8	 	 	 	 	
50x7x4	1x16, 1x32					
60x7x4	2x2, 2x4, 2x8, 2x16					
80x20x6	2x32					
60x12x4	1x64					
100x40x6	2x64					

STANDARD DIN	DIN											
Color of the fiber												

NON-STANDARD - other individual combinations are available.

II. Color codes of Tubes 900 μm

STANDARD	
Color of the tube	

Examples	TUBE option	
Tube -900 um	Standard COLOR	
Dimensions	Color coding for tubes	
60x7x4	1x2, 1x3, 1x4, 1x6, 1x8, 2x2, 2x4, 2x8	STANDARD - white transparent NON-STANDARD - other individual combinations are available
80x12x4	2x16	
80x20x6	1x64, 2x32	
100x40x6	2x64	

ORDERING system

Selling-code	Technology PLC	Fiber type	Housing type	Type	Window	Cables size	Connectors	Fiberlength	Version
V	SPL Splitter PLC	SM	PLC, ABS, LGX, Magnum, Tray, C-BOX	1x2, 1x3, 1x4, 1x6, 1x8, 1x16, 1x32, 1x64, 1x128 2x2, 2x4, 2x8, 2x16, 2x32, 2x64 Other options possible e.g. 4x4, 8x8	Wide band	250-250 μm 900-900 μm 02-2 mm 03-3 mm	SCA, FCA, LCA, E2000A ST, SC, FC, LC, E2000 Others	From 0.1-2m* *longer on a client's request	P- Premium S- Standard

Ordering Code

V-SPL-SM-PLC-2X8-900-WB-02

Splitter PLC, single mode, steel-box housing, 2x8, 900 um cable, wide band 1260-1630, SC/APC connector, length of fiber 2m

V-SPL-SM-PLC-ABS-2X32-20-WB-SCA-02

Splitter PLC, single mode, ABS housing, 2x32, 2 mm cable, wide band 1260-1630, SC/APC connector, length of fiber 2m