

# GENERIC SPECIFICATION

## PLC SPLITTER (1×N & 2×N)

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## PLC Splitter(1×N & 2×N)

### General

This specification covers the minimum standards and requirements for the construction, properties, testing and packing of Fiber terminating box to be used as an interconnection between the central office equipment and the distribution access in the telecommunication network.

### Description

The specification covers the requirement of splitter module

### Operating Conditions

Parameter	Unit	Specification
Operating Temperature	°C	-40 ~ +85
Wavelength range	nm	1260 ~ 1610
Maximum Input Power	mW	500

### Inspection

Inspection sheet shall to be an appended to products when they are delivered.  
It shall contain the following items.

□ Table-1. PLC Splitter 1×N

Parameter	Condition	Unit	Specifications				
			1×4	1×8	1×16	1×32	1×64
Insertion Loss	All ports @1.31, 1.55um	dB	≤7.2	≤10.7	≤13.9	≤17.2	≤22.0
Uniformity of I.L	@1.31, 1.55um	dB	≤0.8	≤1.0	≤1.4	≤1.6	≤2.5
PDL	All ports @1.31, 1.55um	dB	≤0.3	≤0.3	≤0.3	≤0.3	≤0.3
Return Loss	All ports @1.31, 1.55um	dB	≥55				
Appearance			i.e. by indication of 'passed'				

□ Table-1. PLC Splitter 2×N

Parameter	Condition	Unit	Specifications				
			2×4	2×8	2×16	2×32	2×64
Insertion Loss	All ports @1.31, 1.55um	dB	≤7.6	≤10.8	≤14.0	≤17.5	≤22.5
Uniformity of I.L	@1.31, 1.55um	dB	≤1.0	≤1.0	≤1.5	≤1.8	≤3.0
PDL	All ports @1.31, 1.55um	dB	≤0.3	≤0.3	≤0.3	≤0.3	≤0.4
Return Loss	All ports @1.31, 1.55um	dB	≥55				
Appearance			i.e. by indication of 'passed'				

## Dimensional Parameter

□ Table-1 PLC Splitter 1×N

Parameter	Description	Tolerance	1×4_250	1×8_127	1×8_250	1×16_127	1×32_127	1×64_127
L1(mm)	Module length	±1.0	40	40	40	40 or 55	55	55
L2(mm)	Front label length	±0.5	35	35	35	35 or 44	44	44
L3(m)	Input fiber length	+1.0, -0	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2
L4(m)	Output fiber length	+1.0, -0	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2
W1(mm)	Module width(Top view)	±0.1	4	4	4	4 or 7	7	12
W2(mm)	Module width(Side view)	±0.1	4	4	4	4	4	4
W3(mm)	Front label width	±0.5	2	2	2	2 or 5	5	5

□ Table-2 PLC Splitter 2×N

Parameter	Description	Tolerance	2×4_250	2×8_127	2×16_127	2×32_127	2×64_127
L1(mm)	Module length	±1.0	40	40	55	55	65
L2(mm)	Front label length	±0.5	35	35	44	44	44
L3(m)	Input fiber length	+1.0, -0	1 or XX	1 or XX	1 or XX	1 or XX	1 or XX
L4(m)	Output fiber length	+1.0, -0	1 or XX	1 or XX	1 or XX	1 or XX	1 or XX
W1(mm)	Module width(Top view)	±0.1	4	4	7	7	12
W2(mm)	Module width(Side view)	±0.1	4	4	4	4	4
W3(mm)	Front label width	±0.5	2	2	5	5	5

**Input Fiber**

1) 1×N module

Input Fiber color : white

Input Fiber Φ250 +/-15um SMF

2) 2×N module

Input Fiber color : P1(Green), P2(Orange)

Input Fiber Φ250 +/-15um SMF-28e

**Output Fiber(1×N)**

Output Fiber Color : Refer to table 6.

Ribbon Coating Specification

□ Table-5. Geometrical Parameters of Ribbon Fiber

Item		Specification		
Secondary Ribbon Coating	Material		UV Curable Acrylate	
	Color		Natural	
	Dimension	4ch Ribbon	Thickness	0.29+/-0.02mm
			Width	1.04+/-0.02mm
		8ch Ribbon	Thickness	0.31+/-0.03mm
			Width	2.11+/-0.03mm
		12ch Ribbon	Thickness	0.31+/-0.03mm
Width			3.20+/-0.03mm	

Output Fiber :

1×4(250) : 4-ribbon

1×8(127) : 4-ribbon × 2ea

1×8(250) : 8-ribbon

1×16(127) : 8-ribbon × 2ea

1×24(127) : 12-ribbon × 2ea

1×32(127) : 8-ribbon × 4ea

1×64(127) : 8-ribbon × 8ea

□ Table-1 Output Fiber Color (1×N)

Ch No.	2ch_250	3ch_250	4ch_250	6ch_127	6ch_250	8ch_127	8ch_250
1	Blue	Blue	Blue	Blue	Blue	Blue	Blue
2	Orange	Orange	Orange	Blue	Orange	Blue	Orange
3	-	Green	Green	Orange	Green	Orange	Green
4	-	-	Brown	Orange	Brown	Orange	Brown
5	-	-	-	Green	Slate	Green	Slate
6	-	-	-	Green	White	Green	White
7	-	-	-	-	-	Brown	Red
8	-	-	-	-	-	Brown	Black

□ Table-2 Output Fiber Color(1×N)

Ch No.	12ch_127	16ch_127	32ch_127	64ch_127	Ch No.	24ch_127
1, 17, 33, 49	Blue	Blue	Blue	Blue	1, 2	Blue
2, 18, 34, 50	Blue	Blue	Blue	Blue	3, 4	Orange
3, 19, 35, 51	Orange	Orange	Orange	Orange	5, 6	Green
4, 20, 36, 52	Orange	Orange	Orange	Orange	7, 8	Brown
5, 21, 37, 53	Green	Green	Green	Green	9, 10	Slate
6, 22, 38, 54	Green	Green	Green	Green	11, 12	White
7, 23, 39, 55	Brown	Brown	Brown	Brown	13, 14	Red
8, 24, 40, 56	Brown	Brown	Brown	Brown	15, 16	Black
9, 25, 41, 57	Slate	Slate	Slate	Slate	17, 18	Yellow
10, 26, 42, 58	Slate	Slate	Slate	Slate	19, 20	Violet
11, 27, 43, 59	White	White	White	White	21, 22	Rose
12, 28, 44, 60	White	White	White	White	23, 24	Aqua
13, 29, 45, 61	-	Red	Red	Red	-	-
14, 30, 46, 62	-	Red	Red	Red	-	-
15, 31, 47, 63	-	Black	Black	Black	-	-
16, 32, 48, 64	-	Black	Black	Black	-	-

**Output Fiber(2×N)**

Output Fiber : Φ250+/-15um SMF-28e(P1 : Orange, P2 : Green)

2×4(250) : 4-ribbon

2×8(127) : 4-ribbon × 2ea

2×16(127) : 8-ribbon × 2ea

2×32(127) : 8-ribbon × 4ea

2×64(127) : 8-ribbon × 8ea

□ Table-1 Output Fiber Color(2×N)

Ch No.	2ch_250	4ch_250	8ch_250	16ch_127	32ch_127	64ch_127
1, 17, 33, 49	Orange	Blue	Blue	Blue	Blue	Blue
2, 18, 34, 50	Green	Orange	Blue	Blue	Blue	Blue
3, 19, 35, 51	-	Green	Orange	Orange	Orange	Orange
4, 20, 36, 52	-	Brown	Orange	Orange	Orange	Orange
5, 21, 37, 53	-	-	Green	Green	Green	Green
6, 22, 38, 54	-	-	Green	Green	Green	Green
7, 23, 39, 55	-	-	Brown	Brown	Brown	Brown
8, 24, 40, 56	-	-	Brown	Brown	Brown	Brown
9, 25, 41, 57	-	-	-	Slate	Slate	Slate
10, 26, 42, 58	-	-	-	Slate	Slate	Slate
11, 27, 43, 59	-	-	-	White	White	White
12, 28, 44, 60	-	-	-	White	White	White
13, 29, 45, 61	-	-	-	Red	Red	Red

14, 30, 46, 62	-	-	-	Red	Red	Red
15, 31, 47, 63	-	-	-	Black	Black	Black
16, 32, 48, 64	-	-	-	Black	Black	Black

## Packing and Marking

### Packing

The PLC Splitter shall be packed as a complete kit containing all components necessary for installation.

Each item is to be covered with a protective material to prevent scratching or damage during shipping or storage.

The final shipping cartons shall be of sufficient strength and durability to protect the contents from handling during storage and shipping by land, sea, or air.

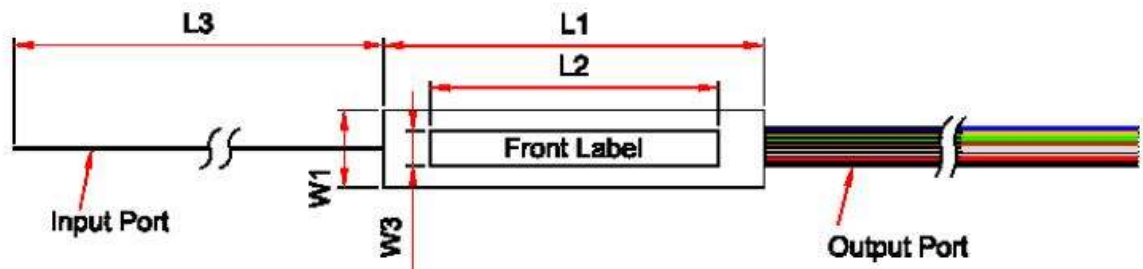
### Marking

The details given below shall be distinctively marked in English with a water proof material, on at least two sides of the shipping carton.

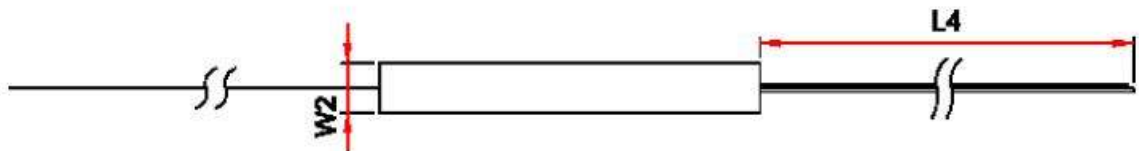
- ❖ The company to be delivered
- ❖ The product item
- ❖ Country of origin
- ❖ Manufacturer's name and/or trademark
- ❖ Date of manufacture
- ❖ Caution mark

Spec No.	PLS Splitter	<b>PLC Splitter 1×N &amp; 2×N</b>
Code No.	Fig - 1	
Initial	2008. 12. 21	
Revised		

Unit : mm  
Tolerance : 1/100



<Top View>



<Side View>

No.	Item	Material	Qty	Remark
1	PLC Splitter		1	