Master SC Patchcord

Description:

We offer an extensive range of pre-terminated cable assemblies that are 100% tested to ensure conformance with your specifications. These assemblies are used for measuring and manufacturing of fiber optic components and optical network testing.

The Master patchcord is equipped with a Master connector according to the specifications below. The master connector is marked and specified with its Serial Number, which ensures traceability of transmission and geometrical parameters. The second connector is a standard type. For the hybrid patchcord version different types of master and standard connector types are also available.

Specifications:

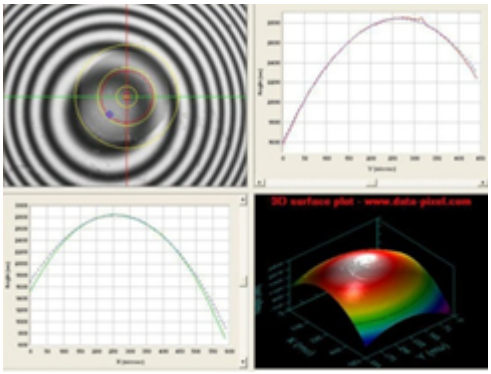
Insertion loss2 (IL) (IEC 61300-3-4)	SM Ultra PC	SM Angle PC
	0.10 dB max	0.10 dB max
Return loss2 (RL) (IEC 61300-3-6, method 1)	≥ 55 dB1	≥ 70 dB1
PDL2	max 0.1 dB	
Strain relief	max 100 N	
Allowable input power	max 1.0 W	
Strain relief	100 N	
Operating temperature	-30°C to +70°C	
Durability	min 1000 cycles	
Assembly procedure	glue and polish	
Connection	physical contact	
Lock mechanism	snap-on	
Standards	IEC 61755-4, EN-50377-4, GR-326-CORE	
Ferrule material	full ceramic zirconia	
Connector material	thermoplastic, zinc alloy nickel plated	
Adapter material	polymer composite, zinc alloy	
Connector lifetime	20 years in environment defined by EN 61753-1:2007, category C	

Geometrical parameters:

Eccentricity of core for the center of ferrule	≤ 0.3 / 0.55 µm
Outer diameter of ferrule	2.5 mm connectors: 2.499 µm
	SFF connectors: 1.249 µm
End curve offset	≤25 µm
Fiber height	-30 to +50 nm
End curve radius: 2.5 mm connectors: SFF connectors:	PC polishing: 10 – 18 mm APC polishing: 5 – 12 mm PC/APC: 5 – 12 mm
APC angle	8 ± 0.1°

Features:

- ISO 9100 approved
- 100% Return loss test
- 100% Visual Inspection
- 100% Insertion loss test
- 100% Interferometric test
- Manufactured to meet IEC/EN Standards
- Batch tracebility



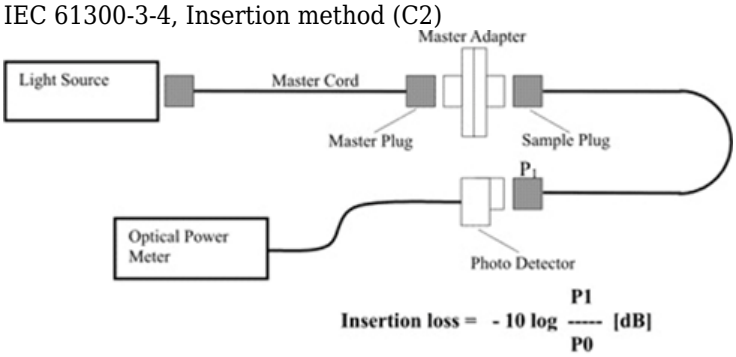
Visual inspection:

Single mode				
Allowable Defects and Scratches				
Zone	Description	Diameter	Defects (diameter)	Scratches (width)
1a	Core Zone	0 to 25 µm	none	none
1b	Cladding Zone	25 to 120 µm	any < 2 µm 5 from 2 - 5 µm none > 5 µm	none > 3 µm
-	Adhesive Zone	120 to 130 µm	any	any
2	Contact Zone	130 to 250 µm	none > 10 µm	any

IEC Test Method::

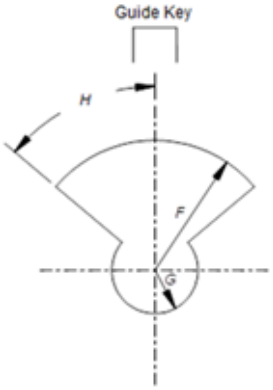
Single mode:

IEC 61300-3-4, Insertion method (C2)



$$\text{Insertion loss} = -10 \log \frac{P1}{P0} \text{ [dB]}$$

Note 5) Eccentricity of core



G = 0.3 µm
F = 0.5 µm
H = 30°

Ordering code:

M - YYY / AAA - 20XXX - (LLL[4]) /02

YYY – Master Connector	
AAA[3] – Second Connector	
Type	**Description**
USC	SC/UPC
NSC	SC/APC

20 - cable Ø 2.0 mm	
XXX - type of fiber	
S2D	SM 9/125 µm (G.652D)
S7A1	SM 9/125 µm (G.657A1)