

## Master FC 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:

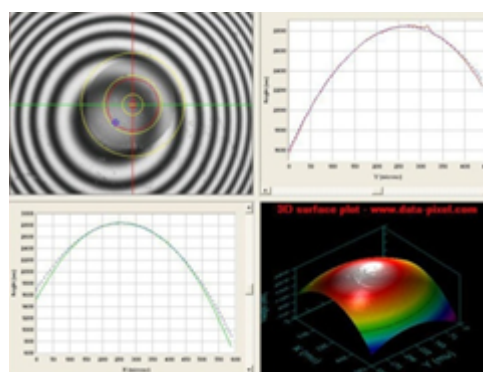
Insertion loss <sub>2</sub> (IL) (IEC 61300-3-4)	SM Ultra PC	SM Angle PC
	0.10 dB max	0.10 dB max
Return loss <sub>2</sub> (RL) (IEC 61300-3-6, method 1)	≥ 55 dB <sub>1</sub>	≥ 70 dB <sub>1</sub>
PDL <sub>2</sub>	max 0.1 dB	
Strain relief	max 100 N	
Allowable input power	max 1.0 W	
Strain relief	100 N	
Operating temperature	-30°C to +70°C	
Durability	min 1000 cycles	
Assembly procedure	glue and polish	
Connection	physical contact	
Lock mechanism	coupling nut	
Standards	JIS 5970, EIA/TIA FOCIS, IEC 61754-13, EN 50377-2, GR-326-CORE	
Ferrule material	full ceramic zirconia	
Connector material	zinc alloy, nickel plated	
Adapter material	zinc alloy, nickel plated, zirconia sleeve	
Connector lifetime	20 years in environment defined by EN 61753-1:2007, category C	

## Geometrical parameters:

Eccentricity of core for the center of ferrule	$\leq 0.5 \mu\text{m}$	
Outer diameter of ferrule	2.5 mm connectors:	2.499 $\mu\text{m}$
	SFF connectors:	1.249 $\mu\text{m}$
End curve offset	$\leq 25 \mu\text{m}$	
Fiber height	-30 to +50 nm	
End curve radius: 2.5 mm connectors:	PC polishing: 10 – 18 mm	APC polishing: 5 – 12 mm
SFF connectors:	PC/APC:	5 – 12 mm
APC angle	$8 \pm 0.1^\circ$	

## 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 traceability



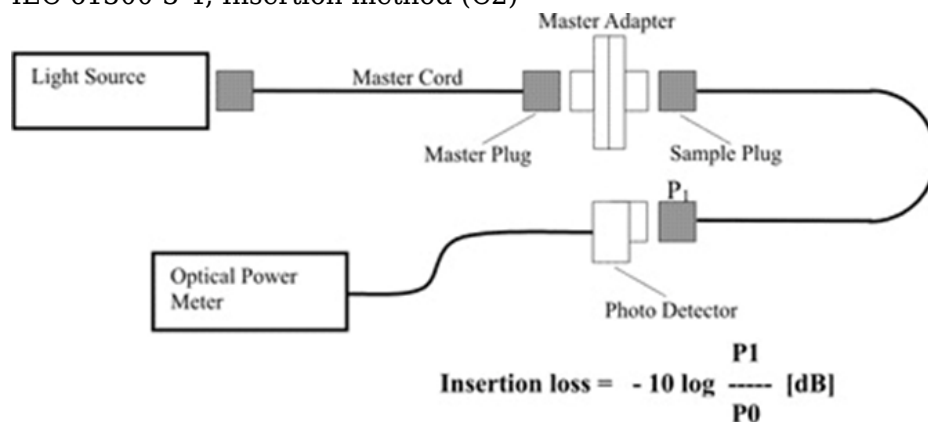
## Visual inspection:

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

## IEC Test Method::

Single mode:

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



## Ordering code:

**M - YYY / AAA - 20XXX - (LLL<sup>4</sup>) /02**

**YYY - Master Connector**

**AAA<sup>3</sup> - Second Connector**

**Type Description**

**UPC** FC/UPC

**NPC** FC/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)

Note: 1) RL ≥ 58 dB (UPC) and RL ≥ 78 dB (APC) measured with low coherence reflectometry (IEC 61300-3-6 method 3 OLCR)

2) Valid over 1260-1650 nm wavelength range and within operation temperature range -30 to +70°C, tested according to IEC 61300-3-12

3) AAA - second connector types according to relevant datasheets

4) Standard Master patchcord length - 2 m, other on demand