# Master LSH 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:**

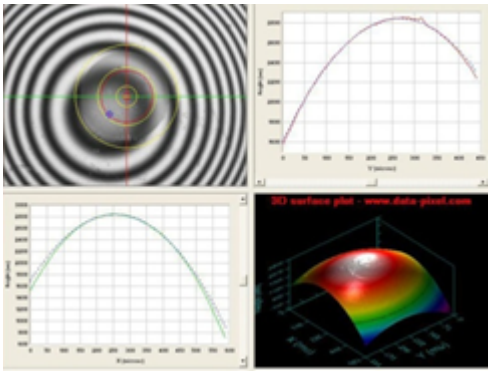
| | | |
|---|---|---|
| Insertion loss2 (IL)<br>(IEC 61300-3-4) | SM Ultra PC | SM Angle PC |
| | 0.10 dB max | 0.10 dB max |
| Return loss2 (RL)<br>(IEC 61300-3-6, method 1) | ≥ 55 dB1 | ≥ 70 dB1 |
| PDL2 | max 0.1 dB | |
| Strain relief | max 100 N | |
| Allowable input power | max 1.0 W | |
| Strain 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 61753, IEC 61754-15, EN 50377-8, GR-326-CORE | |
| Ferrule material | full ceramic zirconia | |
| Connector material | UL 94-V0 | |
| Adapter material | UL 94-V0, slotted ceramic 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 | ≤ 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: | PC polishing: 10 – 18 mm APC polishing: 5 – 12 mm |
| SFF connectors: | 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:**

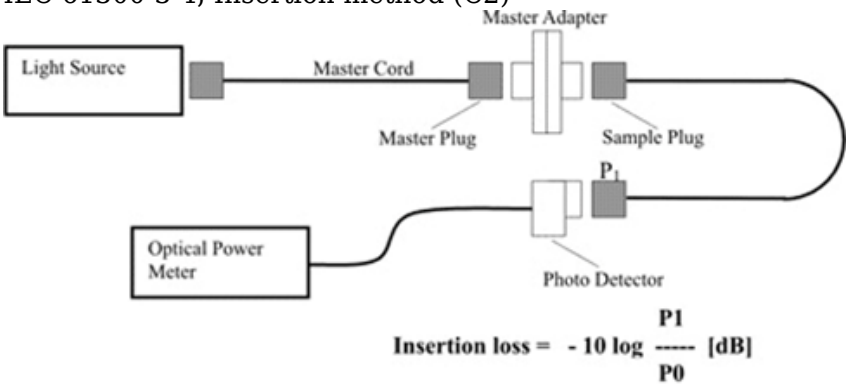
| Single mode | | | | |
|---|---|---|---|---|
| Allowable Defects and Scratches | | | | |
| Zone | Description | Diameter | Defects (diameter) | Scratches (width) |
| 1a | Core Zone | 0 to 25 µm | none | none |
| 1b | Cladding Zone | 25 to 120 µm | any < 2 µm<br>5 from 2 - 5 µm<br>none > 5 µm | none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

## IEC Test Method::

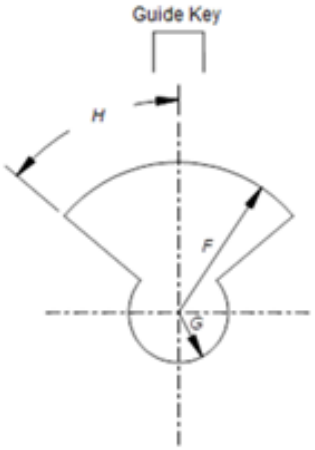
## Single mode:

Note 5) Eccentricity of core

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




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




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** |
| **UE2** | LSH (E2000)/UPC |
| **NE2** | LSH (E2000)/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) |