

Master 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 specified with its Serial Number on connector body, 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.



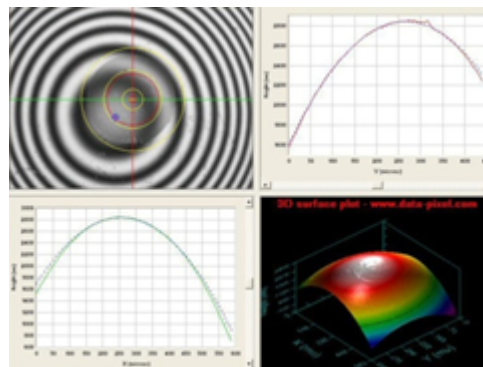
Specifications:

| Specifications: | Single mode | Multimode |
|--|---|--|
| Insertion loss (IL) | ≤ 0.1 dB ($\lambda = 1310, 1550, 1650$ nm) | ≤ 0.1 dB ($\lambda = 850, 1300$ nm) |
| Return loss (RL) | UPC ≥ 55 dB, APC ≥ 65 dB | PC ≥ 30 dB |
| Geometrical parameters: | | |
| Eccentricity of core for the center of ferrule | $\leq 0.3 / 0.55$ μ m | N/A |
| Outer diameter of ferrule | Standard connectors: 2.499 μ m | |
| | SFF connectors: 1.249 μ m | |
| End curve offset | ≤ 25 μ m | |
| Fiber height | -30 to +50 nm | |
| End curve radius | Standard connectors: PC polishing | 10 - 18 mm |
| | APC polishing 5 - 12 mm | |
| | SFF connectors: PC/APC | 5 - 12 mm |
| APC angle | $8 \pm 0.1^\circ$ | N/A |
| | | |
| Temperature stability (-40°C to +80°C) | < 0.2 dB | < 0.2 dB |
| Mating durability (500 cycles) | < 0.2 dB | < 0.2 dB |
| Cable retention (\varnothing 2.8 mm) | 100 N | 100 N |
| | | |
| Material: | | |
| Connector body | metal, plastic | metal, plastic |
| Ferrule material | full ceramic zirconia | full ceramic zirconia |

| | | |
|--------------|--------|------------------|
| Fiber | 9/125 | 50/125; 62.5/125 |
| Crimp sleeve | metal | metal |
| Boot | rubber | rubber |

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

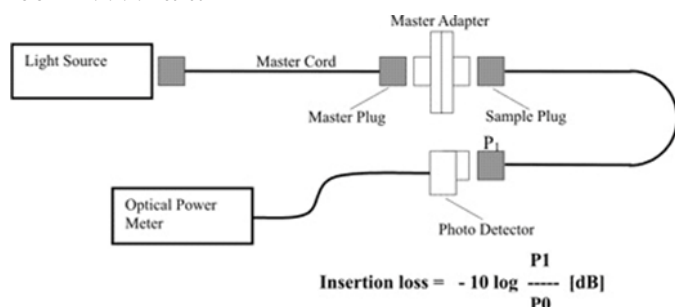
Allowable Defects and Scratches

| Zone | Description | Diameter | Defects (diameter) | Scratches (width) |
|------|---------------|---------------|--|-------------------|
| 1a | Core Zone | 0 to 25 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 Methods::

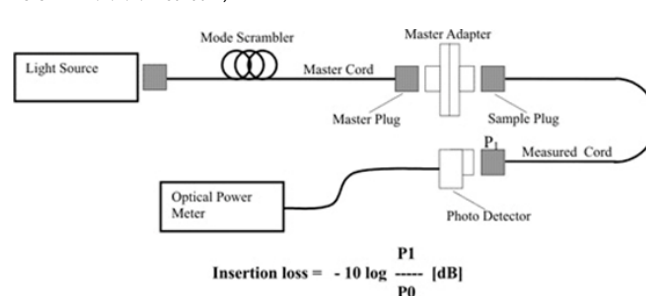
Single mode:

IEC 874-1 4.4.7.4. Method 7



Multimode:

IEC 874-1 4.4.7.4. Method 7;



Ordering code:

M - **YYY** / **AAA** - **XX XX(S²) - (LL³)**

| connectors | | |
|---------------------------------------|------------|----------------|
| YYY - Master connector | | |
| AAA ¹ - standard connector | | |
| | code | type |
| LC | LC | LC/PC |
| | ULC | LC/UPC |
| | NLC | LC/APC |
| MU | MU | MU/PC |
| | UMU | MU/UPC |
| | NMU | MU/APC |
| FC | PC | FC/PC |
| | UPC | FC/UPC |
| | NPC | FC/APC |
| SC | SC | SC/PC |
| | USC | SC/UPC |
| | NSC | SC/APC |
| ST | SL | ST/PC |
| | USL | ST/UPC |
| LSH | PE2 | LSH (E2000)/PC |
| | UE2 | LSH(E2000)/UPC |
| | NE2 | LSH(E2000)/APC |

| XX - Ø of cable | | XX - type of fiber ² | |
|-----------------|----------------|---------------------------------|----------------------|
| 20 | cable Ø 2.0 mm | OM1 | MM 62.5/125 µm |
| | | OM2-5 | MM 50/125 µm |
| | | S2D | SM 9/125 µm (G.652D) |
| | | S5X⁴ | SM 9/125 µm (G.655X) |
| | | S7X⁴ | SM 9/125 µm (G.657X) |

Note:

- 1) AAA - additional connector types according to CON_13-01_EN - ORD_CODE datasheet
- 2) Mode scrambler shall be used for MM measurement
- 3) Standard master patchcord length - 2 m or 3 m
- 4) X - according fiber subtype (e.g. G.657A1)

- NPC - 2.02 standard, 2.15 on demand
- Other connector types on request
- Polishing types:

PC - multimode connectors
UPC - ultra PC, singlemode connectors
APC - angled PC, 8° singlemode connectors

MASTER ADAPTOR:

Attenuation between two master plugs: <0.15 dB