

DATA SHEET

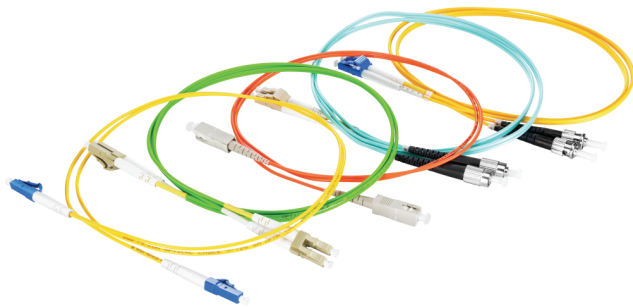
MODULETEK: Simplex/Duplex Patchcord

Introduction

As one of the most commonly used components in optical network, fiber jumper is used to connect the important equipment and components in optical network. Generally, there are two modes of optical fiber jumper: single-mode (9/125um) and multi-mode (50/125um or 62.5/125um). In terms of transmission mode, there are single-mode optical fiber jumper and duplex optical fiber jumper. The diameter of optical cable can be 0.9mm, 1.6mm, 2.0mm, 3.0mm. The connector type can be SC, FC, LC, St, etc. The outer sheath material of optical cable can be PVC, OFNR (riser), OFNP (plenum), LSZH. Moduletek can provide various fiber patch cords with different matching modes.

Product Features

- High reliability, high stability
- Low insertion loss, high return loss
- Three fiber ends: PC/UPC, APC
- Full range of fiber optics available:
SM (G652D, G657A1, G657A2, etc.);
MM (OM1, OM2, OM3, OM4, OM5)



Applications

- FTTX
- Optical fiber data transmission
- Local network, optical area network, cable TV
- Optical fiber data transmission test equipment and active device terminals

General Technical Specifications

Fiber Optic Performance

Item	Unit	Parameter		
Connector	–	FC, SC, ST, LC, MU		
Optical fiber mode	–	SM		MM
EndFace	–	PC/UPC	APC	PC/UPC
Insertion Loss	dB	≤0.3	≤0.3	≤0.3
Return Loss	dB	≥50	≥60	–
Cable Diameter	mm	Φ3, Φ2, Φ1.6, Φ0.9		
Vibration	dB	≤0.2 (5 ~ 50Hz, 1.5mm Amplitude)		
Temperature Cycle	dB	≤0.2 (-40 ~ 80°C, 21Cycle)		

Geometric Parameter of Endface

Item	Unit	Parameter	
EndFace	–	PC/UPC	APC
Radius Of Curvature	SC	mm	5 ~ 20
	LC	mm	5 ~ 20
Fixed Point Offset	um	≤70	
Fiber Height	nm	-125(Concave) ~ 100(Convex)	
Angle Deviation	°	–	8±0.5

Ordering Information

FC/APC – SC/PC – G652D – Φ 3 – PVC – LM – D

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Item	Unit	Parameter
① Connector Type	–	FC,SC,ST,MU,LC
② EndFace	–	PC/UPC,APC
③ Connector Type	–	FC,SC,ST,MU,LC
④ EndFace	–	PC/UPC,APC
⑤ Fiber Mode	–	G652D,G657A1,G657A2,OM1,OM2,OM3,OM4,OM5
⑥ Cable Diameter	mm	Φ 3, Φ 2, Φ 1.6, Φ 0.9
⑦ Cable Material	–	PVC,Riser(OFNR),Plenum(OFNP),LSZH
⑧ Cable Length	M	L=1,2,3,4...
⑨ Fiber Cable	–	S:Simplex(Omitted),D:Duplex
Example: LC/PC-LC/PC-OM3- Φ 2-LSZH-3M-D		
For More Information: ModuleTek Limited Web: www.moduletek.com Email: sales@moduletek.com		

Terminology analysis

① Relationship between fiber type and static bending radius

Fiber type	Static minimum bending radius (mm)
G652D	16
G657A1	10
G657A2	7.5
OM1	37.5
OM2	7.5
OM3	7.5
OM4	7.5
OM5	7.5

② Correspondence between fiber type and outer sheath color

Fiber type	Cable outer sheath color
G652D、G657A1、G657A2	Yellow
OM1、OM2	Orange
OM3	Water green
OM4	Red color
OM5	Grass green

③ Applicable scene of optical cable material

The outer sheath of the fiber optic cable is divided into different material types. The outer sheath of each material has its inherent characteristics (such as different fire performance), applicable environment. The common outer sheath material is divided into PVC, Riser (OFNR), Plenum (OFNP), LSZH, etc. The performance and applicable environment of the above materials are shown in the following tables.

Optical cable material	Applicable scenario
PVC	The application scenario has good mechanical properties, high power insulation, strong flexibility, strong flame retardancy and good stability but it is stable and qualitative for light and heat. It is suitable for outer sheath materials for indoor optical fiber cables.
OFNR	Riser is one of the main components for the formation of OFNR grade optical fiber cable. Its flame-retardant performance is weaker than plenum material, and there is no toxic gas and corrosive gas. Therefore, the OFNR grade optical fiber cable with riser material is usually used in the building trunk and horizontal cables.
OFNP	Plenum is one of the main components of OFNP grade optical fiber cable. It has high flame retardancy and no toxic gas or corrosive gas will be generated at extremely high temperature. Fiber optic cable with plenum material is the first choice for wiring in the air return pressurization system used for ventilation pipe or air treatment equipment.
LSZH	With low smoke, low toxicity, low corrosion and high flame resistance, LSZH is an ideal choice for indoor / outdoor installation as a safety and environmental protection material. But similarly, the price of fiber optic cable with LSZH material is also more expensive.

Note: if the customer does not specify the outer sheath material, LSZH material is selected by default.