



OPTICAL PATCH CORD SIMPLEX OR DUPLEX

Product Type Optical Patch Cord

Product Family TeraLan

Standard RoHS Compliant

Description Optical Patch Cord is a simplex or duplex fiber cord and optical connectors on both sides.

Installation Environment Indoor

Operation Environment Non Aggressive

Compatibility All FCS product line.

Warranty 12 months

Extended Warranty 15 or 25 years - in accordance to the FCS Extended Warranty Program

Advantage

- Recommended for indoor use only, interconnecting optical distributors frames with networking equipments, in optical systems with low loss and high bandwidth, as: high distance systems, backbone networks, video and data transmission and distribution;
- Exceeds performance requirements of ANSI/TIA-568-C.3 standard;
- Support for background requirements of IEEE 802.3 (Gigabit and 10 Gigabit Ethernet)⁽¹⁾, ANSI T11.2 (Fibre Channel)⁽¹⁾ standard and ITU-T-G-984⁽³⁾;
- 100% assembled and tested on factory;
- High performance in insertion loss and return loss;
- Assembled in both ends with optical connectors LC, SC, ST, FC, MT-RJ and E2000;
- Available for single-mode and multimode optical fiber;
- UPC or APC polishing type;

Marking

Simplex Cord:
"FURUKAWA COA - V- MF - Y - Z W OPTICAL CORD month/year LOTE nL YAAMMDHm"

Duplex Cord:
"FURUKAWA COA - V - DP - Y - Z W DUPLEX OPTICAL CORD month/year LOTE nL YAAMMDHm"

where:

V = type of optical fiber

- SM (single-mode fiber)
- BLI-A/B (fiber "bending loss insensitive")
- NZD (Non-Zero Dispersion)
- MM (multimode fiber)

Y = Cord diameter

- 18 Cord with 1.8mm diameter
- 20 Cord with 2.0mm diameter
- 29 Cord with 2.9mm diameter

Z = flame retardance rate

W = detail of the optical fiber type

- MM50 multimode fiber 50µm standard
- MM62.5 multimode fiber 62.5µm standard
- (50) OM3 multimode fiber 50µm OM3
- (50) OM4 multimode fiber 50µm OM4
- G-652D fiber "low water peak" ITU-T G-652D
- G-657 fiber "bending loss insensitive"

month / Year = date of manufacture

nL = batch number of manufacture

YAAMMDHm = Traceability

(Y - Extruder case; AA - Year; MM - Month; DD - Day; HH - hour; mm - Minute)

Length

1.5 m; 2.5 m; 3.0 m; 4.0 m; 5.0 m; 7.0 m; 10.0 m; 15.0 m and 20.0 m*.

* Additional lengths available upon request.

Nominal Diameter

OPTICAL CORD	
SIMPLEX	DUPLEX
2.0 mm	2.0 x 4.5 mm
3.0 mm	3.0 x 5.9 mm

Color

	TIA 598 - C	
Fiber	D 2.0	D 3.0
Single-mode Standard (G.652B)	Yellow	Yellow
Single-mode LWP (G.652D)	Yellow	Yellow
Single-mode NZD (G.655/G.656)	Yellow	Yellow
Single-mode (G657)	White	White
Multimode OM1 (62.5µm)	Orange	Orange
Multimode OM2 (50µm)	Orange	Orange
Multimode OM3 (50µm)	Aqua	Aqua
Multimode OM4 (50µm)	Aqua	Aqua

Connector Type

LC

- SFF "Push-pull" Connector Type
- Plastic Body
- Ceramic Ferrule (zirconia)
- SM and MM Fiber
- PC Polishing (SPC/UPC) and APC Polishing
- Color of connectors: SM-PC is Blue, SM-APC is Green and MM is Beige
- Option with removable clip to LC duplex
- Duplex cord assembled as paralel TX-RX

SC

- "Push-pull" Connector Type
- Plastic Body
- Ceramic Ferrule (zirconia)
- SM and MM Fiber
- PC Polishing (SPC/UPC) and APC Polishing
- Color of connectors: SM-PC is Blue, SM-APC is Green and MM is Beige

MT-RJ

- "Push-pull" Connector Type
- Male connector (with guide pin) or female connector (without guide pin)
- Duplex
- Plastic body and ferrule
- SM or MM Fiber
- PC Polishing (SPC/UPC)
- Color of connector is Black
- Available assembled Parallel or Cross

ST

- Guide pin connector type (BNC)
- Metallic Body
- Ceramic Ferrule (zirconia)
- SM and MM Fiber
- PC Polishing (SPC/UPC)

FC

- Round connector type
- Metallic Body
- Ceramic Ferrule (zirconia)
- SM and MM Fiber
- PC Polishing (SPC/UPC)
- APC Polishing

E-2000

- "Push-pull" connector type
- Plastic body
- Ceramic Ferrule (zirconia)
- SM Fiber
- APC Polishing
- Color of connector is Green

Polishing Type

- PC (SPC/UPC) - Single-mode and multimode fibers
- APC - Single-mode fibers

Fiber Type

- Single-mode Standard G.652B (9.0 μm)
- Single-mode LWP G.652D (9.0 μm)
- Single-mode G.657-A (9.0 μm)
- Single-mode G.657-B (9.0 μm)
- Single-mode NZD G.655 (9.0 μm)
- Multimode OM1 (62.5 μm)
- Multimode OM2 (50.0 μm)
- Multimode OM3 (50.0 μm)
- Multimode OM4 (50.0 μm)

Cable type

Simplex Tight Patch Cord: totally dielectric, consists of one multimode or single-mode optical fiber coated with acrylate resin and a secondary coating of thermoplastic material (tight buffer). Dielectric strength members and a thermoplastic flame-retardant outer jacket surround the tight buffered fiber.

Duplex Tight Patch Cord: totally dielectric, consists of two multimode or single-mode optical fibers coated with acrylate resin and a secondary coating of thermoplastic material (tight buffer). Dielectric strength members and a thermoplastic flame-retardant outer jacket surround both tight buffered fibers.

Cable Flammability Rating

- OFN - General Optical Cable
- LSZH - Low Smoke and Zero Halogen

*The LSZH cover complies with the specified on recommendations of standards IEC 60332-3 (Test on Electric Cables Under Fire Conditions), IEC 60754-2 (Acidity of Smoke), and IEC 61034-2 (Measurement of smoke density of cables burning under defined conditions).

Insertion loss

CONNECTOR TYPE	POLISHING	FIBER	TYPICAL - MAXIMUM INSERTION LOSS	CLASS (NBR 14433)
LC	SPC	MM	0.30 - 0.50	II
LC	UPC	MM	0.15 - 0.30	III
LC	SPC	SM	0.30 - 0.50	II
LC	UPC	SM	0.15 - 0.30	III
LC	APC	SM	0.15 - 0.30	III
SC	SPC	MM	0.30 - 0.50	II
SC	UPC	MM	0.15 - 0.30	III
SC	SPC	SM	0.30 - 0.50	II
SC	UPC	SM	0.15 - 0.30	III
SC	APC	SM	0.15 - 0.30	III
MT-RJ	-	MM	0.30 - 0.50	II
MT-RJ	-	SM	0.50 - 0.80	I
ST	SPC	MM	0.30 - 0.50	II
ST	UPC	MM	0.15 - 0.30	III
ST	SPC	SM	0.30 - 0.50	II
ST	UPC	SM	0.15 - 0.30	III
FC	SPC	MM	0.30 - 0.50	II
FC	UPC	MM	0.15 - 0.30	III
FC	SPC	SM	0.30 - 0.50	II
FC	UPC	SM	0.15 - 0.30	III
FC	APC	SM	0.15 - 0.30	III
E2000	APC	SM	0.15 - 0.30	III

Return loss

CONNECTOR TYPE	POLISHING	FIBER	RETURN LOSS
LC	SPC	MM	>30
LC	UPC	MM	>30
LC	SPC	SM	>40
LC	UPC	SM	>50
LC	APC	SM	>60
SC	SPC	MM	>30
SC	UPC	MM	>30
SC	SPC	SM	>40
SC	UPC	SM	>50
SC	APC	SM	>60
MT-RJ	-	MM	>30
MT-RJ	-	SM	>40
ST	SPC	MM	>30
ST	UPC	MM	>30
ST	SPC	SM	>40
ST	UPC	SM	>50
FC	SPC	MM	>30
FC	UPC	MM	>30
FC	SPC	SM	>40
FC	UPC	SM	>50
FC	APC	SM	>60
E2000	APC	SM	>60

Bend radius Bending Radius: 50 mm

Cycles quantity > 500 cycles

Maximum weight Simplex or Duplex cord 100 N

Ultimate Tensile Strength

- 200 N - Simplex optical patch cord
- 400 N - Duplex optical patch cord

Tensile Strength > 100 N

Operation Temperature From -25°C to 75°C

Amount per box gift

- Up to 5.0 m: 10 pieces/box
- From 6.0 to 15.0 m: 5 pieces/box
- From 16.0 to 24.0 m: 3 pieces/box
- From 25.0 to 35.0 m: 2 pieces/box
- From 36.0 to 60.0 m: 1 piece/box
- More than 60.0 m: 5 pieces/box

Note: standard supply for 2.0 mm diameter cords

Minimum order quantity 1 box

Associated Solutions

Data Center, Commercial Building, Government, Health, Education, FTTx.

Standard

ISO 8877 - Information Technology - Telecommunications and information exchange between systems - Interface connector and contact assignments for ISDN basic access interface located at reference points S and T

ANSI/TIA-568-C.1 - Comercial Building Telecommunications Cabling Standard - General Requirements

ANSI/TIA-568-C.3 - Optical Fiber Cabling Components Standard

ANSI/ICEA S-83-596 Standard for Indoor Optical Fiber Cable

ABNT NBR 14106 - Optical Cord

ISO/IEC 11.801 Ed.02 - Generic Cabling for Customer Premises

ABNT 14565

Certification
