

7.2.1-A Simplex Patch Cord

7.2.1-B Duplex Patch Cord

7.2.1-C Hybrid Patch Cord

7.2.1-D Single-ended (pigtails)



AX200057 Patch Cord Multimode SC Duplex

DESCRIPTION

FiberExpress Simplex and Duplex Patch Cord assemblies are of the highest quality available. They are assembled and 100% optically tested in our factory prior to shipment. All patch cords are built with high-quality connectors and cables which guarantees superior performance and excellent reliability. FiberExpress Patch Cords are available in multimode 62.5/125 μm and 50/125 μm with PC polish as well as in singlemode with SPC and UPC polishes. Patch cord configurations such as ST-ST, SC-SC, FC-FC, LC-LC and MTRJ-MTRJ as well as hybrid configurations such as ST-SC, SC-LC, SC-MTRJ, single-ended (pigtails) can be configured using various interconnect cable constructions in any length in increments of 0.1 meter using the PEC Code Structure (see Ordering Tips). Standard and hybrid configurations are available from stock in 2,3 and 5 meters lengths. Contact your Customer Service Representative for more details on the custom configurations.

FEATURES & BENEFITS

- 100% optically tested against industry standards — ensures reliability
- High quality ceramic ferrule — provides low insertion loss and durability
- Wide range of connector choices — offers product flexibility
- Custom configurations using different types of connectors, cables and cable lengths — provide design flexibility.

APPLICATIONS

- Workstation connection
- Telecommunications room equipment
- Electronic equipment connection
- Cross-connection
- Indoor use only.

TECHNICAL SPECIFICATIONS

Our connector assemblies are tested against industry standards, such as:

- TIA/EIA-568-B.3
- Telcordia (formerly Bellcore) GR-326-CORE Generic requirements for Singlemode optical connectors and jumper assemblies
- IEC 874-1 Generic specification for fiber optic connectors and cables.

568SC duplex zip patch cords have A-B configuration as per TIA/EIA-568, reversed polarity: A-B to B-A, applicable also to MTRJ to MTRJ patch cords as well as to hybrid: 568SC to ST, 568SC to MTRJ and MTRJ to ST duplex zip patch cords. All other duplex zip patch cords have identifier on the printed fiber of the zip cord.

Connector Performance	Multimode	Singlemode	
	PC Polish	SPC Polish	UPC Polish
Insertion Loss (dB)			
Guaranteed	0.5	0.5	0.5
Reflectance (dB)	-20	-40	-55
*SPC (Super Physical Contact) Polish, application: ATM, Ethernet, FDDI			
*UPC (Ultra Physical Contact) Polish, application: SONET, Broadband Video.			

For more details, see connectors section 7.2.5

Cable Performance	@ 850 nm	@ 1300 nm	@ 1550 nm
Multimode FX300-type (62.5 μm)			
Max. Attenuation (dB/Km)	3.5	1.25	n/a
Min. Bandwidth (MHz/Km)*	200	500	n/a
Multimode FX600-type (50 μm)			
Max. Attenuation (dB/Km)	3.5	1.25	n/a
Min. Bandwidth (MHz/Km)*	500	500	n/a
Multimode FX2000-type (50 μm)			
Max. Attenuation (dB/Km)	3.5	1.25	n/a
Min. Bandwidth (MHz/Km)*	1500	500	n/a
Singlemode			
Max. Attenuation (dB/Km)	n/a	0.8	0.5

* OFL bandwidth measurement for multimode.

Environmental Characteristics

Performance & Other Measurements (as per TIA/EIA Qualification Approval)		
Test (method)	Condition	Max Loss (dB) after test
Low Temperature (FOTP-188)	-10°C, 4 days	0.75
Temperature Life (FOTP-4)	60°, 14 days	0.75
Humidity (FOTP-5)	90-95% at 40°C	0.75
Impact (FOTP-2)	8 drops from 1.5 m	0.75
Strength of Coupling Mechanism (FOTP-185)	33 N at 0° for 5 sec	0.75
Durability (FOTP-21)	500 cycles	0.75
Cable Retention (FOTP-6)	50 N at 0° for 5 sec.	0.75
Flex (FOTP-1)	0.5 Kg at 25 cm, +90° to -90°, 100 cycles	0.75
Twist (FOTP-36)	15 N at 0°, 5 turns, 10 cycles	0.75

Conditions are for SC connector with 3.0 mm jacket, they may vary for different connectors and cable types.

Color Coding

Cable Types	Color of jacket
Multimode 0.9 mm FX300 and FX600	gray
Multimode 0.9 mm FX2000	aqua
Multimode all FX300 and FX600	orange
Multimode all FX2000	aqua
Multimode duplex breakout	orange (with blue and orange sub-units)
Singlemode 0.9 mm	white
Singlemode, all jacketed	yellow

Connector Types	Color of connector	Color of boot
SC Multimode & 568SC duplex Multimode	beige	black
SC Singlemode (SPC)	blue	white
SC Singlemode (UPC)	blue	dark blue
ST Compatible & FC, Multimode	metal	gray
ST Compatible & FC, Singlemode (SPC)	metal	white
ST Compatible & FC, Singlemode (UPC)	metal	dark blue
MT-RJ, Multimode	black	black
MT-RJ, Singlemode	black	black
LC, Multimode	beige	white
LC, Singlemode	blue	white
MU, Multimode	brown	blue
MU, Singlemode	brown	lavender



ORDERING TIPS

Use the following options to determine the Product Code Number and order custom combination of cable type, connectors and length required.

Generic Code structure

1

2

3

4

5

NXF

CRTN

XXP

YYP

XXXX

Cable Type

inside end
outside end
(Connectors)

Length

I and 2 - Cable Type

- 1. NXF identifies the product family: Simplex/Duplex Patch Cords
- 2. CRTN identifies the cable construction C, fire rating R, fiber type T and fiber count N

C	Select Cable Construction
A	Simplex 900 µm Tight Buffer
C	Simplex 2.0 mm
D	Simplex 2.5 mm
E	Simplex 3.0 mm
F	Duplex Zip 2.0 mm
H	Duplex Zip 3.0 mm
J	2 Fibers Ribbon 3.0 mm (For MT-RJ only)
N	Breakout (2.5 mm units)

T	Select Fiber Type
S	Singlemode
M	62.5 µm Multimode (FX300)
N	50 µm Multimode (FX600)
F	50 µm Multimode (FX2000)

N	Select Fiber Count
1	1 fiber
2	2 fibers

R	Select Fire Rating
R	OFNR - Riser
P	OFNP - Plenum
L	LSZH - Low Smoke Zero Halogen
N	OFN (always used for 900 µm)

Pre-configured cables codes				
Cables	Multimode			Singlemode
	FX300 (62.5 µm)	FX600 (50 µm)	FX2000 (50 µm)	
Simplex 2.0 mm jacket	CRM1	CRN1	CRF1	CRS1
Simplex 3.0 mm jacket	ERM1	ERN1	ERF1	ERS1
Duplex Zip 2.0 mm	FRM2	FRN2	FRF2	FRS2
Duplex Zip 3.0 mm	HRM2	HRN2	HRF2	HRS2
Duplex Breakout 2.5 mm sub-units	NRM2	NRN2	NRF2	NRS2
2 fibers Ribbon 3.0 mm (MTRJ)	JRM2	JRN2	JRF2	JRS2

3 and 4 - Inside End 1 / Outside End 2 (Connectors)

3. XXP is connector 1 (inside end) with its performance level code
4. YYP is connector 2 (outside end) with its performance level code

XX / YY	Select Connectors
Simplex (1 fiber)	
ST	ST-type
SC	SC
FC	FC
LC	LC
MU	MU
SA	SMA
Duplex (2 fibers)	
SD	568SC (Duplex, with clip)
JA	MT-RJ (f) Default for patch cords
JB	MT-RJ (m) Default for pigtailed
LD	LC Duplex
MD	MU Duplex

Note: Single-ended patch cords will be identified with ZZZ as the YYP position

P	Select Polish/Performance Level
P	PC - Physical Contact (multimode)
S	SPC - Super Physical Contact (singlemode)
U	UPC - Ultra Physical Contact (singlemode)
L	Low Insertion Loss (SM connectors only)

5 - Length

XXXX is the length from tip to tip in meters

XXXX	Select Cable Lengths	
From	Length increments (m)	Tolerance (+/- m)
0000 to 01.9	0.1	0.2/0
0002 to 04.9	0.1	0.3/0
0005 to 0040	0.5	0.4/0
40.5 to 0100	1	1%/0
0101 to 0200	2	1%/0
0201 to 0500	5	1%/0
over 0500	10	1%/0

ORDERING EXAMPLE

Example 1:

NXF-ANS1-LCU-open-0002

Description: FOPC, SX0.9, LC/UPC-open, 1-f, SM, 2m, OFN



Example 2:

NXF-FRN2-SDP-SDP-02.5

Description: FOPC, DZ2.0, SCD/PC-SCD-PC, 2-f, 50µm, 2.5m, OFNR





ORDERING INFORMATION

7.2.1-A Simplex Patch Cord

DETAIL	LENGTH	PRODUCT CODE	ORDERING NUMBER	PRODUCT CODE	ORDERING NUMBER
MULTIMODE FX300, 62.5 μm			MULTIMODE FX600, 50 μm		
ST-ST	2 m (6 ft.)	NXF-ERM1-STP-STP-0002	A0346940	NXF-ERN1-STP-STP-0002	AX200703
ST-ST	3 m (10 ft.)	NXF-ERM1-STP-STP-0003	70100229	NXF-ERN1-STP-STP-0003	AX200003
ST-ST	5 m (16 ft.)	NXF-ERM1-STP-STP-0005	A0332221	NXF-ERN1-STP-STP-0005	AX200701
SC-SC	2 m (6 ft.)	NXF-ERM1-SCP-SCP-0002	70102731	NXF-ERN1-SCP-SCP-0002	AX200374
SC-SC	3 m (10 ft.)	NXF-ERM1-SCP-SCP-0003	70101275	NXF-ERN1-SCP-SCP-0003	AX200376
SC-SC	5 m (16 ft.)	NXF-ERM1-SCP-SCP-0005	70101376	NXF-ERN1-SCP-SCP-0005	AX200704
LC-LC	2 m (6 ft.)	NXF-CRM1-LCP-LCP-0002	AX200512	NXF-CRN1-LCP-LCP-0002	AX200522
LC-LC	3 m (10 ft.)	NXF-CRM1-LCP-LCP-0003	AX200513	NXF-CRN1-LCP-LCP-0003	AX200523
LC-LC	5 m (16 ft.)	NXF-CRM1-LCP-LCP-0005	AX200514	NXF-CRN1-LCP-LCP-0005	AX200524
FC-FC	2 m (6 ft.)	NXF-ERM1-FCP-FCP-0002	70102874	NXF-ERN1-FCP-FCP-0002	AX200474
FC-FC	3 m (10 ft.)	NXF-ERM1-FCP-FCP-0003	70101721	NXF-ERN1-FCP-FCP-0003	AX200709
FC-FC	5 m (16 ft.)	NXF-ERM1-FCP-FCP-0005	70101161	NXF-ERN1-FCP-FCP-0005	AX200705
DETAIL	LENGTH	PRODUCT CODE	ORDERING NUMBER	PRODUCT CODE	ORDERING NUMBER
MULTIMODE FX2000, 50 μm			SINGLEMODE		
ST-ST	2 m (6 ft.)	NXF-ERF1-STP-STP-0002	TBD	NXF-ERS1-STP-STP-0002	AX200085
ST-ST	3 m (10 ft.)	NXF-ERF1-STP-STP-0003	TBD	NXF-ERS1-STP-STP-0003	AX200086
ST-ST	5 m (16 ft.)	NXF-ERF1-STP-STP-0005	TBD	NXF-ERS1-STP-STP-0005	AX200087
SC-SC	2 m (6 ft.)	NXF-ERF1-SCP-SCP-0002	AX200654	NXF-ERS1-SCP-SCP-0002	AX200088
SC-SC	3 m (10 ft.)	NXF-ERF1-SCP-SCP-0003	AX200655	NXF-ERS1-SCP-SCP-0003	AX200093
SC-SC	5 m (16 ft.)	NXF-ERF1-SCP-SCP-0005	AX200656	NXF-ERS1-SCP-SCP-0005	AX200089
LC-LC	2 m (6 ft.)	NXF-CRF1-LCP-LCP-0002	AX200661	NXF-CRS1-LCU-LCU-0002	AX200502
LC-LC	3 m (10 ft.)	NXF-CRF1-LCP-LCP-0003	AX200662	NXF-CRS1-LCU-LCU-0003	AX200503
LC-LC	5 m (16 ft.)	NXF-CRF1-LCP-LCP-0005	AX200663	NXF-CRS1-LCU-LCU-0005	AX200504
FC-FC	2 m (6 ft.)	NXF-ERF1-FCP-FCP-0002	TBD	NXF-ERS1-FCS-FCS-0002	AX200248
FC-FC	3 m (10 ft.)	NXF-ERF1-FCP-FCP-0003	TBD	NXF-ERS1-FCS-FCS-0003	AX200702
FC-FC	5 m (16 ft.)	NXF-ERF1-FCP-FCP-0005	TBD	NXF-ERS1-FCS-FCS-0005	AX200700

ORDERING INFORMATION

7.2.1-B Duplex patch cord

DETAIL	LENGTH	PRODUCT CODE	ORDERING NUMBER	PRODUCT CODE	ORDERING NUMBER
MULTIMODE FX300, 62.5 µm			MULTIMODE FX600, 50 µm		
ST-ST	2 m (6 ft.)	NXF-HRM2-STP-STP-0002	70102419	NXF-HRN2-STP-STP-0002	AX200341
ST-ST	3 m (10 ft.)	NXF-HRM2-STP-STP-0003	70102420	NXF-HRN2-STP-STP-0003	AX200459
ST-ST	5 m (16 ft.)	NXF-HRM2-STP-STP-0005	70102447	NXF-HRN2-STP-STP-0005	AX200413
568SC-568SC	2 m (6 ft.)	NXF-HRM2-SDP-SDP-0002	AX200056	NXF-HRN2-SDP-SDP-0002	AX200084
568SC-568SC	3 m (10 ft.)	NXF-HRM2-SDP-SDP-0003	AX200057	NXF-HRN2-SDP-SDP-0003	AX200082
568SC-568SC	5 m (16 ft.)	NXF-HRM2-SDP-SDP-0005	AX200058	NXF-HRN2-SDP-SDP-0005	AX200280
LC-LC	2 m (6 ft.)	NXF-FRM2-LDP-LDP-0002	AX200517	NXF-FRN2-LDP-LDP-0002	AX200527
LC-LC	3 m (10 ft.)	NXF-FRM2-LDP-LDP-0003	AX200518	NXF-FRN2-LDP-LDP-0003	AX200528
LC-LC	5 m (16 ft.)	NXF-FRM2-LDP-LDP-0005	AX200519	NXF-FRN2-LDP-LDP-0005	AX200529
MTRJ-MTRJ	2 m (6 ft.)	NXF-JRM2-JAP-JAP-0002	AX101122	NXF-JRN2-JAP-JAP-0002	AX101139
MTRJ-MTRJ	3 m (10 ft.)	NXF-JRM2-JAP-JAP-0003	AX101123	NXF-JRN2-JAP-JAP-0003	AX101138
MTRJ-MTRJ	5 m (16 ft.)	NXF-JRM2-JAP-JAP-0005	AX101125	NXF-JRN2-JAP-JAP-0005	AX101137

DETAIL	LENGTH	PRODUCT CODE	ORDERING NUMBER	PRODUCT CODE	ORDERING NUMBER
MULTIMODE FX2000, 50 µm			SINGLEMODE		
ST-ST	2 m (6 ft.)	NXF-HRF2-STP-STP-0002	TBD	NXF-HRS2-STP-STP-0002	AX200090
ST-ST	3 m (10 ft.)	NXF-HRF2-STP-STP-0003	TBD	NXF-HRS2-STP-STP-0003	AX200091
ST-ST	5 m (16 ft.)	NXF-HRF2-STP-STP-0005	TBD	NXF-HRS2-STP-STP-0005	AX200092
568SC-568SC	2 m (6 ft.)	NXF-HRF2-SDP-SDP-0002	AX200603	NXF-HRS2-SDS-SDS-0002	AX200094
568SC-568SC	3 m (10 ft.)	NXF-HRF2-SDP-SDP-0003	AX200589	NXF-HRS2-SDS-SDS-0003	AX200095
568SC-568SC	5 m (16 ft.)	NXF-HRF2-SDP-SDP-0005	AX200624	NXF-HRS2-SDS-SDS-0005	AX200096
LC-LC	2 m (6 ft.)	NXF-FRF2-LDP-LDP-0002	AX200664	NXF-FRS2-LDU-LDU-0002	AX200507
LC-LC	3 m (10 ft.)	NXF-FRF2-LDP-LDP-0003	AX200665	NXF-FRS2-LDU-LDU-0003	AX200508
LC-LC	5 m (16 ft.)	NXF-FRF2-LDP-LDP-0005	AX200666	NXF-FRS2-LDU-LDU-0005	AX200509
MTRJ-MTRJ	2 m (6 ft.)	NXF-JRF2-JAP-JAP-0002	TBD	NXF-JRS2-JAS-JAS-0002	AX101157
MTRJ-MTRJ	3 m (10 ft.)	NXF-JRF2-JAP-JAP-0003	TBD	NXF-JRS2-JAS-JAS-0003	AX101156
MTRJ-MTRJ	5 m (16 ft.)	NXF-JRF2-JAP-JAP-0005	TBD	NXF-JRS2-JAS-JAS-0005	AX101155



ORDERING INFORMATION

7.2.1-C Hybrid patch cord

DETAIL	LENGTH	PRODUCT CODE	ORDERING NUMBER	PRODUCT CODE	ORDERING NUMBER
MULTIMODE FX300, 62.5 μ m			MULTIMODE FX600, 50 μ m		
ST-SC	3 m (10 ft.)	NXF-HRM2-STP-SCP-0003	70102672	NXF-HRN2-STP-SCP-0003	AX200205
568SC-ST	3 m (10 ft.)	NXF-HRM2-SDP-STP-0003	AX200060	NXF-HRN2-STP-SDP-0003	AX200196
LC duplex-ST	3 m (10 ft.)	NXF-FRM2-LDP-STP-0003	AX200699	NXF-FRN2-LDP-STP-0003	AX200695
LC duplex-568SC	3 m (10 ft.)	NXF-FRM2-LDP-SDP-0003	AX200580	NXF-FRN2-LDP-SDP-0003	AX200581
MTRJ-ST	3 m (10 ft.)	NXF-JRM2-JAP-STP-0003	AX101133	NXF-JRN2-JAP-STP-0003	AX101151
MTRJ-568SC	3 m (10 ft.)	NXF-JRM2-JAP-SDP-0003	AX101128	NXF-JRN2-JAP-SDP-0003	AX101143

DETAIL	LENGTH	PRODUCT CODE	ORDERING NUMBER	PRODUCT CODE	ORDERING NUMBER
MULTIMODE FX2000, 50 μ m			SINGLEMODE		
ST-SC	3 m (10 ft.)	NXF-HRF2-SCP-STP-0003	TBD	NXF-HRS2-SCS-STS-0003	AX200099
568SC-ST	3 m (10 ft.)	NXF-HRF2-SDP-STP-0003	TBD	NXF-HRS2-STS-SDS-0003	AX200421
LC duplex-ST	3 m (10 ft.)	NXF-FRF2-LDP-STP-0003	TBD	NXF-FRS2-LDU-STU-0003	AX200698
LC duplex-568SC	3 m (10 ft.)	NXF-FRF2-LDP-STP-0003	AX200668	NXF-FRS2-LDU-SDU-0003	AX200667
MTRJ-ST	3 m (10 ft.)	NXF-JRF2-JAP-STP-0003	TBD	NXF-JRS2-JAS-STS-0003	AX101166
MTRJ-568SC	3 m (10 ft.)	NXF-JRF2-JAP-SDP-0003	TBD	NXF-JRS2-JAS-SDS-0003	AX101161

7.2.1-D Single-ended (pigtails)

DETAIL	LENGTH	PRODUCT CODE	ORDERING NUMBER	PRODUCT CODE	ORDERING NUMBER
MULTIMODE FX300, 62.5 μ m			MULTIMODE FX600, 50 μ m		
ST-open	2 m (6 ft.)	NXF-ANM1-STP-ZZZ-0002	70100390	NXF-ANN1-STP-ZZZ-0002	AX200458
SC-open	2 m (6 ft.)	NXF-ANM1-SCP-ZZZ-0002	70101714	NXF-ANN1-SCP-ZZZ-0002	AX200192
LC-open	2 m (10 ft.)	NXF-ANM1-LCP-ZZZ-0002	AX200657	NXF-ANN1-LCP-ZZZ-0002	AX200658
MTRJ(m)-open	3 m (10 ft.)	NXF-JRM2-JBP-ZZZ-0003	AX101366	NXF-JRN2-JBP-ZZZ-0003	AX101367

DETAIL	LENGTH	PRODUCT CODE	ORDERING NUMBER	PRODUCT CODE	ORDERING NUMBER
MULTIMODE FX2000, 50 μ m			SINGLEMODE		
ST-open	2 m (6 ft.)	NXF-ANF1-STP-ZZZ-0002	TBD	NXF-ANS1-STS-ZZZ-0002	AX200097
SC-open	2 m (6 ft.)	NXF-ANF1-SCP-ZZZ-0002	AX200653	NXF-ANS1-SCS-ZZZ-0002	AX200098
LC-open	2 m (6 ft.)	NXF-ANF1-LCP-ZZZ-0002	AX200660	NXF-ANS1-LCU-ZZZ-0002	AX200659
MTRJ(m)-open	3 m (10 ft.)	NXF-JRF2-JBP-ZZZ-0003	TBD	NXF-JRS2-JBS-ZZZ-0003	AX101368