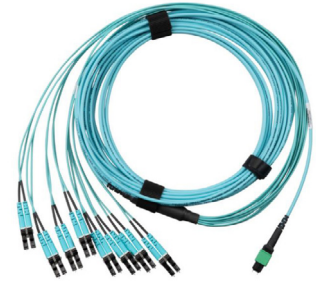


Base-16 MPO Breakout Harness Cable Assemblies

specifications

8-to-1 Breakout Cable Harness Assemblies are pre-terminated 16-fiber cable assemblies that breakout 8 lane parallel optic applications (i.e., 400G-SR8, 800GBASE-DR8, and 800G-SR8). For example, a single MPO connector running 800GBASE-DR8 is broken out into 8 lanes of 100GBASE-DR on duplex LCs. These ultra high bandwidth applications are used for high-speed switch to switch links, and to support artificial intelligence (AI) and machine learning (ML) applications. All cable assemblies are factory terminated and tested to deliver verified optical performance and reliability for improved network integrity.



applications

Allows system designers to tailor configuration and reach to application requirements; to minimize waste, optimize cable management, speed deployment, and improve flexibility and manageability for lower installation costs.

construction

Cable type:	Indoor
Cable jacket ratings:	Optical Fiber Nonconductive Plenum (OFNP) Low Smoke Zero Halogen (LSZH) Euroclass B2ca
Fiber types:	Singlemode: OS2 9/125µm Multimode: OM4 50/125µm OM5 50/125µm Signature Core™: OM4+ 50/125µm
Connector types; end 'A':	MPO-16 APC Female or Male
Connector types; end 'B':	LC Duplex, LC Uniboot Push Pull
Fiber count:	16
Jacket color:	OS2: Yellow OM4: Aqua OM4+: Aqua OM5: Lime

optical properties

Maximum connector insertion loss:	Multimode: 0.50dB (Standard MPO) 0.35dB (Optimized MPO) 0.25dB (Standard LC) 0.15dB (Optimized LC)	Singlemode: 0.75dB (Standard MPO) 0.35dB (Standard LC)
Minimum connector return loss:	Multimode: >30dB	Singlemode: >55dB

physical properties

Cable outside diameter (OD):	3.8mm
Minimum bend radius:	Under load: 20 x cable OD Static: 10 x cable OD
Cable tensile strength:	220N
Cable compressive load:	35N/cm
Cable flex:	25 cycles
Cable twist:	10 cycles
Connector durability:	500 mating cycles

environmental properties

Storage and shipping temperature:	-40°C to 70°C -40°F to 158°F
Installation temperature:	0°C to 40°C 32°F to 104°F
Operating temperature:	0°C to 70°C 32°F to 158°F

standards

Meets or exceeds:	ISO/IEC 11801, TIA/EIA-568-C.3, TIA-604-5 (FOCIS-5), TIA/EIA-568-C.1 RoHS Compliant
--------------------------	---

Base-16 MPO Breakout Harness Cable Assemblies

part number configurator

Example: FHZCPOL5026F015 = OM4 Harness, 16-Fiber, round, plenum, MPO-16 female APC to LC duplex with 24in (60cm) equal breakout, 8 to 1 Polarity (U2), Optimized IL - 15 Feet

Character	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Example	F	H	Z	C	P	O	L	5	0	2	6	F	0	1	5

1 – Fiber

F = Fiber

2 – Cable Type

H = Indoor, Round Harness

3 – Fiber Type

9 = OS2 Singlemode 9/125µm
 Z = OM4 50/125µm
 W = OM5 50/125µm
 S = OM4+ 50/125µm

4 – Fiber Count

C = 16 fibers

5 – Jacket Type

P = Plenum (OFNP)
 L = LSZH
 B = LSZH Euroclass B2ca

6 – Connector Type (End A)

O = MPO-16 APC Female (SM & MM)
 M = MPO-16 APC Male (SM & MM)

7 – Connector Type (End B)

L = LC Duplex
 P = LC Uniboot Push Pull
 B = LC/APC Duplex (SM)
 9 = LC/APC Uniboot Push Pull (SM)

8 – Construction/Performance

4 = 8 to 1 / U2 - Std. IL
 5 = 8 to 1 / U2 - Opt. IL (MM)
 7 = 8 to 1 / U - Std. IL
 8 = 8 to 1 / U - Opt. IL (MM)

9 – 11 – Serial

See Table Below

12 – Unit of Measure

F = Feet
 M = Meters

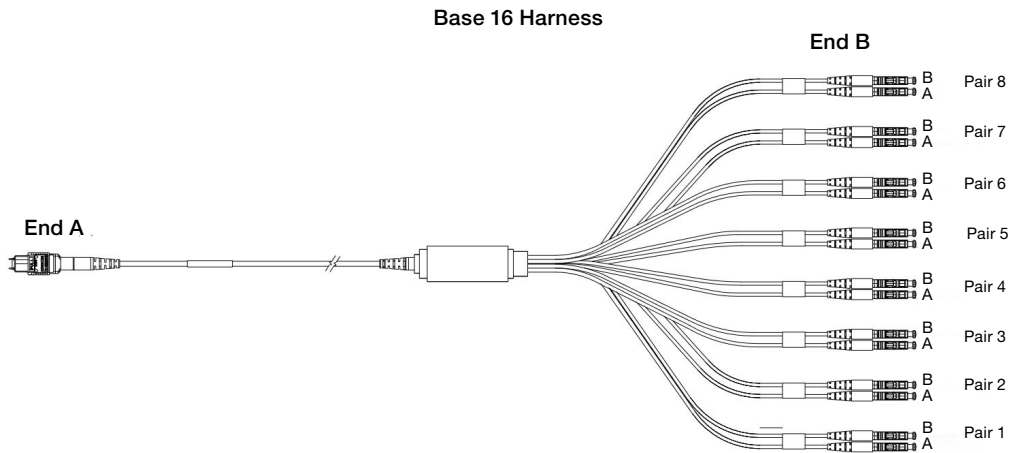
13, 14, 15 – Cable Assembly Length

1 – 300 Feet
 0.5 – 100 Meters

Serial	Breakout Length	Stagger	Serial	Breakout Length	Stagger
021	18" (45cm)	Equal Breakout	02B	30" (76cm)	Equal Breakout
022	18" (45cm)	LC Pair 1 Longest	02C	30" (76cm)	LC Pair 1 Longest
023	18" (45cm)	LC Pair 1 Shortest	02D	30" (76cm)	LC Pair 1 Shortest
024	18" (45cm)	LC Pair 1 and 2 Longest	02E	30" (76cm)	LC Pair 1 and 2 Longest
025	18" (45cm)	Pair 1 and 2 Shortest	02F	30" (76cm)	Pair 1 and 2 Shortest
026	24" (60cm)	Equal Breakout	02M	39" (1m)	Equal Breakout
027	24" (60cm)	LC Pair 1 Longest	02N	39" (1m)	LC Pair 1 Longest
028	24" (60cm)	LC Pair 1 Shortest	02P	39" (1m)	LC Pair 1 Shortest
029	24" (60cm)	LC Pair 1 and 2 Longest	02Q	39" (1m)	LC Pair 1 and 2 Longest
02A	24" (60cm)	Pair 1 and 2 Shortest	02R	39" (1m)	Pair 1 and 2 Shortest

Base-16 MPO Breakout Harness Cable Assemblies

engineering drawing



8 to 1 Breakout Fiber Harness																
Method U (Pair Flipped)																
MPO* Fiber Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
LC Pair/Position	1-A	2-A	3-A	4-A	5-A	6-A	7-A	8-A	8-B	7-B	6-B	5-B	4-B	3-B	2-B	1-B
Method U2																
MPO* Fiber Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
LC Pair/Position	1-B	2-B	3-B	4-B	5-B	6-B	7-B	8-B	8-A	7-A	6-A	5-A	4-A	3-A	2-A	1-A

WORLDWIDE SUBSIDIARIES AND SALES OFFICES

PANDUIT US/CANADA
Phone: 800.777.3300

PANDUIT EUROPE LTD.
London, UK
Phone: 44.20.8601.7200

PANDUIT SINGAPORE PTE. LTD.
Republic of Singapore
Phone: 65.6305.7575

PANDUIT JAPAN
Tokyo, Japan
Phone: 81.3.6863.6000

PANDUIT LATIN AMERICA
Guadalajara, Mexico
Phone: 52.33.3777.6000

PANDUIT AUSTRALIA PTY. LTD.
Victoria, Australia
Phone: 61.3.9794.9020

For a copy of Panduit product warranties, log on to www.panduit.com/warranty

For more information

Visit us at www.panduit.com
Contact Customer Service by email: cs@panduit.com
or by phone: 800.777.3300

PANDUIT[®]

© 2024 Panduit Corp.
ALL RIGHTS RESERVED.
FBSP248-WW-ENG
2/2024