

3M™ Expanded Beam Optical Connector Kit, Latch, 12F

Product Description

The 3M™ Expanded Beam Optical (EBO) Connector Kit, Latch, 12F is a multi-fiber connector system based on expanded beam ferrule technology. Conventional multi-fiber connectors make use of physical contact between fibers. The 3M™ Expanded Beam Optical Ferrule expands the beam between connectors, reducing the connector's sensitivity to dust and the need for frequent cleaning. The system supports low insertion loss and high return loss connectivity with a common technology for single mode or multimode fibers. Critical mating alignment is controlled by the expanded beam ferrule without the use of metal guide pins protruding from the end of the connector. The system utilizes a hermaphroditic connector geometry with an LC-connector style latch to engage bulkhead adapters. The 3M EBO connector kit, 12F offers two options for loose tube or ribbon termination.

Parts included in the 3M EBO connector kit, 12F:

- 3M Expanded Beam Optical Connector, Dust Cap, Latch
- 3M Expanded Beam Optical Connector, Cassette, 12F
- 3M Expanded Beam Optical Ferrule, 12F, SM MM
- 3M Expanded Beam Optical Connector, Collet, 12F
- 3M Expanded Beam Optical Connector, Housing, Latch
- Compression spring
- Crimp band, round 3mm
- Boot, round 3mm, black

Key Features

- Hermaphroditic connector geometry eliminates the need for separate male and female connectors
- Ferrule design supports 12 single mode or multimode fibers
- Simple connector latch for quick, effortless disconnect
- Low ferrule mating force

3M™ Expanded Beam Optical Connector System

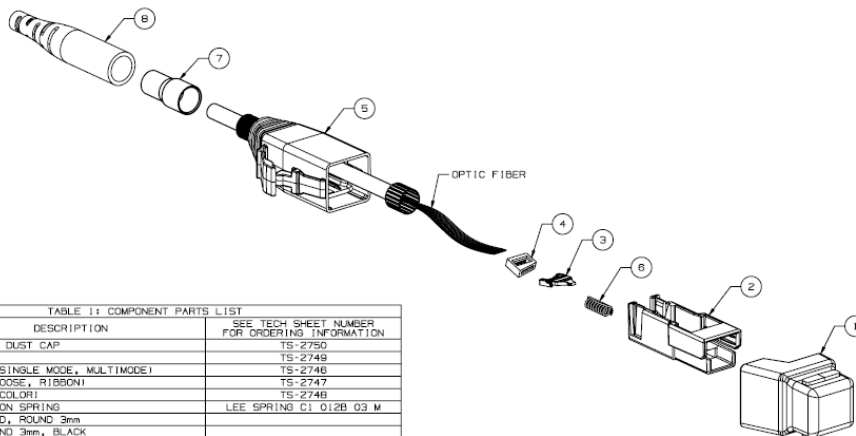


TABLE 1: COMPONENT PARTS LIST		
ITEM NUMBER	DESCRIPTION	SEE TECH SHEET NUMBER FOR ORDERING INFORMATION
1	CONNECTOR DUST CAP	TS-2750
2	CASSETTE	TS-2749
3	FERRULE (SINGLE MODE, MULTIMODE)	TS-2748
4	COLLET (LOOSE, RIBBON)	TS-2747
5	HOUSING (COLOR)	TS-2746
6	COMPRESSION SPRING	LEE SPRING C1 012B 03 M
7	CRIMP BAND, ROUND 3mm	
8	BOOT, ROUND 3mm, BLACK	

3M™ Expanded Beam Optical Connector System

Product Construction

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Expanded Beam Optical Connector System	
Property	Value
Number of optical fibers	12
Type of optical fiber	Single mode or multimode, 125 μm diameter cladding
Connector colors	Green – single mode; Aqua – multimode, Violet – multimode
Connector strain relief boot color	Black

Applications

- Data center multi-fiber optical interconnect
- Multi-fiber trunks, patch cord and fanout assemblies
- Multi-fiber interconnect for test and measurement

Typical Physical Properties and Performance Characteristics

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes. Final product specifications and testing methods will be outlined in the products Certificate of Analysis (COA) that is shipped with the commercialized product once it is approved by 3M for general commercialization and development work is completed.

3M™ Expanded Beam Optical Connector System		
Property	Single mode	Multimode
Property	Single Mode	Multimode
Operating wavelength	1310 nm	850 nm
Insertion loss maximum	0.7 dB	0.3 dB
Return loss minimum	55 dB	35 dB
Operating temperature range	-10°C to + 60°C	-10°C to + 60°C

Certificate of Analysis (COA)

The 3M Certificate of Analysis (COA) for this product is established when the product is manufactured and deemed commercially available from 3M. The COA contains the 3M test methods, specifications limits and test results for the product's performance attributes that the product will be supplied against. Contact your local 3M representative for this product's COA.

3M™ Expanded Beam Optical Connector System

Safety Data Sheet: Consult Safety Data Sheet before use.

Regulatory: For regulatory information about this product, contact your 3M representative.

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