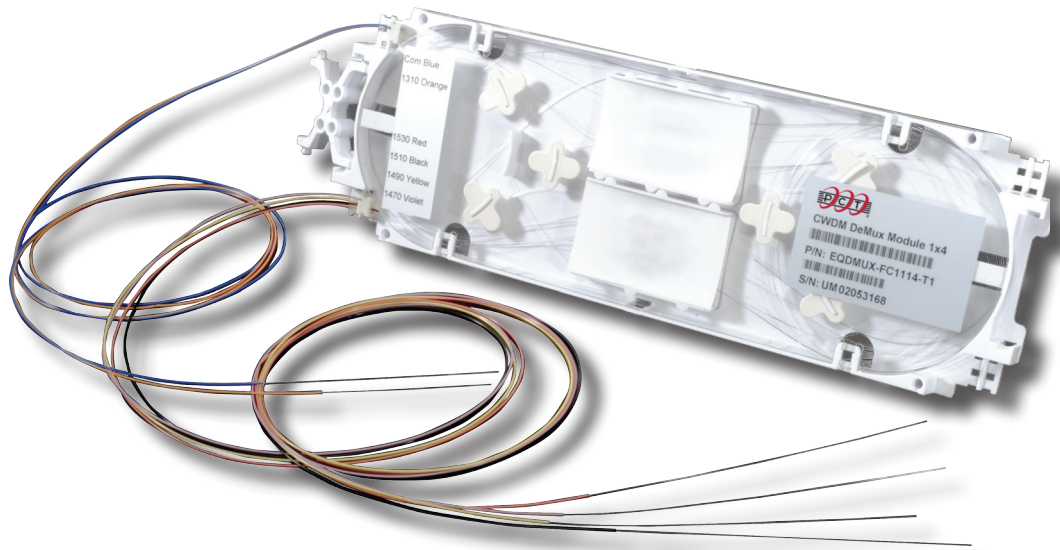


HARDWARE

Multiplexers and Demultiplexers



DESCRIPTION

PCT's EQMUXFC and EQDEMUXFC series multiplexers and demultiplexers provide high adjacent channel isolation to eliminate interference, wide passband performance to ensure stable operation for transmitters subject to wide temperature variations, and 1310 nm pass thru to accommodate existing standard 1310 nm networks. Up to 10 CWDM channels can be used above the fiber water peak, allowing for maximum leverage of legacy optical fibers.

Features and Benefits

- 10 channels available in flexible configurations (1 x 10, 1 x 8, 1 x 4)
- Scalable deployment with integrated expansion ports
- Low insertion loss
- High adjacent channel isolation
- Available in modular housings (LGX compatible) for ease of installation

Applications

- Metro CWDM networks
- FTTx
- Passive optical networks
- Addition of new services on legacy fiber

HARDWARE

Multiplexers and Demultiplexers

Specifications

Parameters	Unit	Value
Channel Spacing	nm	20
Number of Channels	--	5, 9 or 11
Central Wavelength	nm	Ch. 9 = 1430, Ch. 10 = 1450, Ch. 11 = 1470, Ch. 12 = 1490, Ch. 13 = 1510, Ch. 14 = 1530, Ch. 15 = 1550, Ch. 16 = 1570, Ch. 17 = 1590, Ch. 18 = 1610
Channel Passband @ -0.5dB	nm	ITU ± 7.0
1310 Port Wavelength Range	nm	1260 to 1360
1310 Port Isolation Band Wavelength Range	nm	1460 to 1620
Expansion Port Wavelength	nm	1423 to 1457 and 1543 to 1617
Insertion Loss	--	Mux(5) Demux(5) Mux(5) Demux(5) Mux(9) Demux(9)
Maximum	dB	≤ 3.0 ≤ 3.0 ≤ 3.0 ≤ 3.0 ≤ 4.2 ≤ 4.2
Typical	dB	
1310 nm Port @ 1310 nm	dB	≤ 1.6 ≤ 1.6 ≤ 1.6 ≤ 1.6 ≤ 1.6 ≤ 1.6
1610 nm Port @ 1610 nm	dB	-- -- ≤ 2.7 ≤ 1.8 ≤ 3.9 ≤ 1.8
1590 nm Port @ 1590 nm	dB	-- -- ≤ 2.4 ≤ 2.1 ≤ 3.6 ≤ 2.1
1570 nm Port @ 1570 nm	dB	-- -- ≤ 2.1 ≤ 2.4 ≤ 3.3 ≤ 2.4
1550 nm Port @ 1550 nm	dB	-- -- ≤ 1.8 ≤ 2.7 ≤ 3.0 ≤ 2.7
1530 nm Port @ 1530 nm	dB	≤ 2.7 ≤ 1.8 -- -- ≤ 2.7 ≤ 3.0
1510 nm Port @ 1510 nm	dB	≤ 2.4 ≤ 2.1 -- -- ≤ 2.4 ≤ 3.3
1490 nm Port @ 1490 nm	dB	≤ 2.1 ≤ 2.4 -- -- ≤ 2.1 ≤ 3.6
1470 nm Port @ 1470 nm	dB	≤ 1.8 ≤ 2.7 -- -- ≤ 1.8 ≤ 3.9
Expansion Port	dB	≤ 2.4 ≤ 2.4 ≤ 2.4 ≤ 2.4 ≤ 3.6 ≤ 3.6
Passband Ripple	dB	≤ 0.5
Adjacent Channel Isolation	dB	≥ 28
Non Adjacent Channel Isolation	dB	≥ 40
1310 Port Isolation @ CWDM Channel	dB	≥ 40
PDL	dB	≤ 0.15
PMD	ps	≤ 0.1
Directivity	dB	≥ 50
Return Loss	dB	≥ 45
Wavelength Temperature Sensitivity	mm / °C	≤ 0.005
Temperature Dependent Loss	dB	≤ 0.5
Maximum Power	mW	300
Fiber Type	--	Corning SMF-28 Loose Tube
Loose Tube Length	m (ft)	1.6 (5.2)
Temperature - Operating	°C (°F)	-40 to 65 (-40 to 149)
Temperature - Storage	°C (°F)	-40 to 85 (-40 to 185)
Package Dimensions	mm (in)	LGX 150 x 129 x 28.5 (5.9 x 5.1 x 1.1)

Ordering Information

CWDM Multiplexers with 1310 Insertion Port

Example: EQ2MUX14-FC1114-LAS
CWDM Multiplexer, Dual Set, 1 x 4, Ch 11 to 14, LGX Compatible, SC / APC Connectors

EQ					-	FC					Description
	t										Dual Set: (2) Yes, (blank) No
		u									Mux / Demux: (MUX) Mux, (DMUX) Demux, (BMUX) Mux / Demux
			v								Input x Outputs: (14) 1 x 4, (18) 1 x 8, (110) 1 x 10
											Wavelength: (FC) 1310 + CWDM
						w					Channels: (910) Ch 9 to 10, (918) Ch 9 to 18, (1114) Ch 11 to 14, (1118) Ch 11 to 18, (1518) Ch 15 to 18
								x			LGX Compatible: (L) Yes
									y		Connectors / Contacts: (LCAS) LC / APC, (LC) LC / UPC, (AS) SC / APC, (US) SC / UPC, (blank) no connectors

CWDM Field Multiplexers with 1310 Insertion Port

Example: EQDMUX18-FC1118-LCAST2
CWDM Demultiplexer, 1 x 8, Ch 11 to 18, LC / APC Connectors, 450D Tyco Tray

EQ					-	FC					Description
	t										Dual Set: (2) Yes, (blank) No
		u									Mux / Demux: (MUX) Mux, (DMUX) Demux, (BMUX) Mux / Demux
			v								Input x Outputs: (14) 1 x 4, (18) 1 x 8, (110) 1 x 10
											Wavelength: (FC) 1310 + CWDM
						w					Channels: (918) Ch 9 to 18, (1114) Ch 11 to 14, (1118) Ch 11 to 18, (1518) Ch 15 to 18
								y			Connectors / Contacts: (LCAS) LC / APC, (LC) LC / UPC, (AS) SC / APC, (US) SC / UPC, (blank) No connectors
									z		Form Factor: (B) C1 Coyote Cassette, (BA) C2 Coyote Cassette, (BB) Mini Coyote Cassette, (T1) 400B Tyco Tray, (T2) 450D Tyco Tray

CWDM Channels 9 thru 18: 9 = 1430 nm, 10 = 1450 nm, 11 = 1470 nm, 12 = 1490 nm, 13 = 1510 nm, 14 = 1530 nm, 15 = 1550 nm, 16 = 1570 nm, 17 = 1590 nm, 18 = 1610 nm



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Specifications subject to change.
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