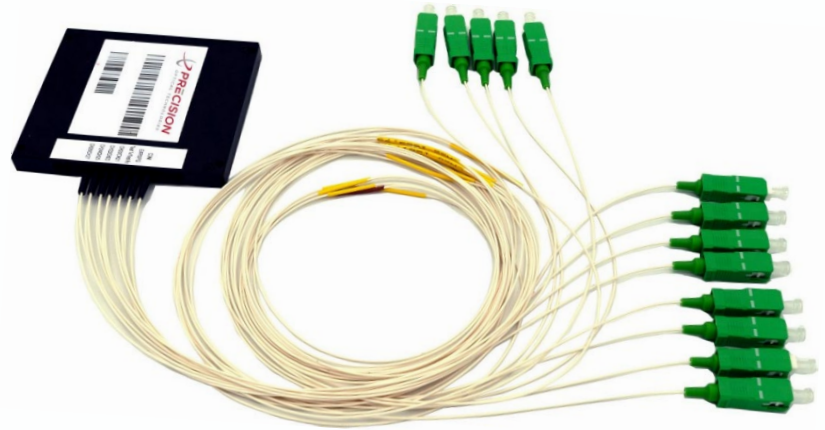


10 & 12-Channel DWDM Passive Filter OSP (Outdoor Use)

Product Description:

10 or 12-Channel DWDM Thin Film Filter with the following options:

- Upgrade/Express/Test Ports
- Multiple Cassette Sizes/Pigtail Lengths
- UPC/APC Connectors



Product Ordering Information

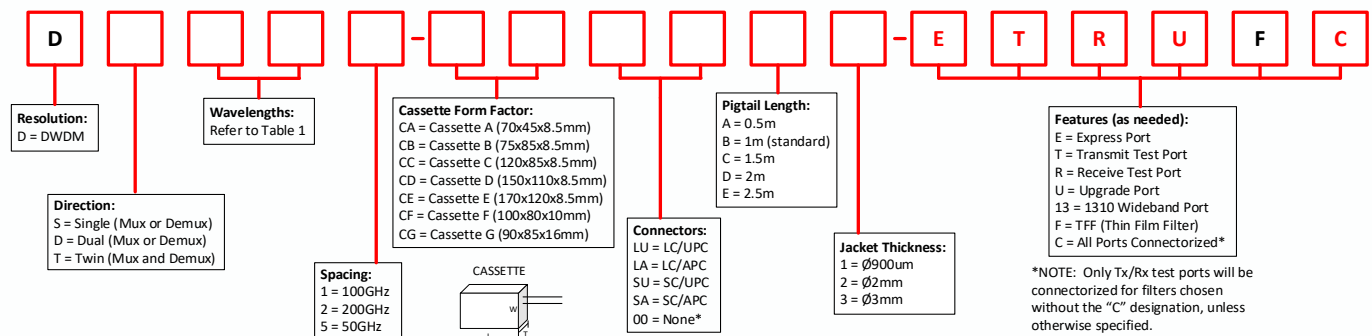


Table 1

CHANNEL DESIGNATION	
10A = ITU 20 - 29	12A = ITU 50 - 61
10B = ITU 30 - 39	12B = ITU 38 - 49
10C = ITU 40 - 49	12C = ITU 26 - 37
10D = ITU 50 - 59	12D = ITU 14 - 25

Part Number / Description Examples

Part Number	10-Ch Single Description
DS10x1-CBSAB1-ETRUF	DWDM, Single (Mux or Demux), ITU 10A/10B/10D/10D, 100GHz grid, Outdoor Cassette Type B (75x85x8.5mm), 900um 1m pigtail with label, with SC-APC on Express/Transmit/Receive Test ports, Unterminated DWDM + Upgrade ports, Thin Film Filter

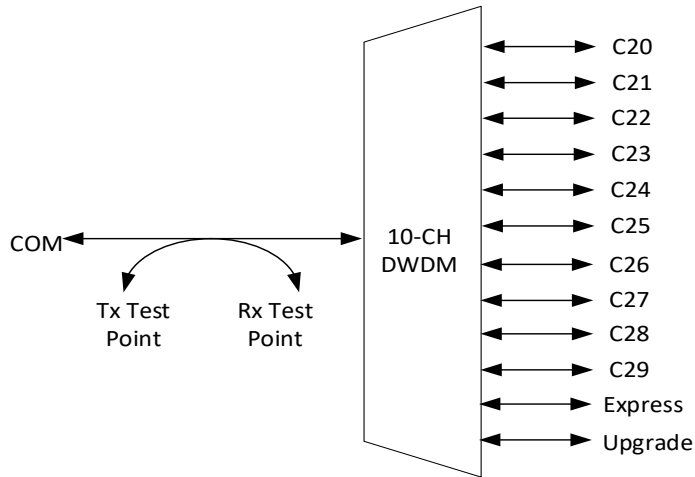
DS10x1-CBLAD1-ETRUF	DWDM, Single (Mux or Demux), ITU 10A/10B/10D/10D, 100GHz grid, Outdoor Cassette Type B (75x85x8.5mm), 900um 2m pigtail with label, with LC-APC on Express/Transmit/Receive Test ports, Unterminated DWDM + Upgrade ports, Thin Film Filter
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Part Number	12-Ch Single Description
DS12x1-CBSAB1-ETRUF	DWDM, Single (Mux or Demux), ITU 12A/12B/12C/12D, 100GHz grid, Outdoor cassette Type B (75x85x8.5mm), 900um 1m pigtail with label, with SC-APC on Transmit/Receive Test ports, Unterminated DWDM + Express + Upgrade ports, Thin Film Filter

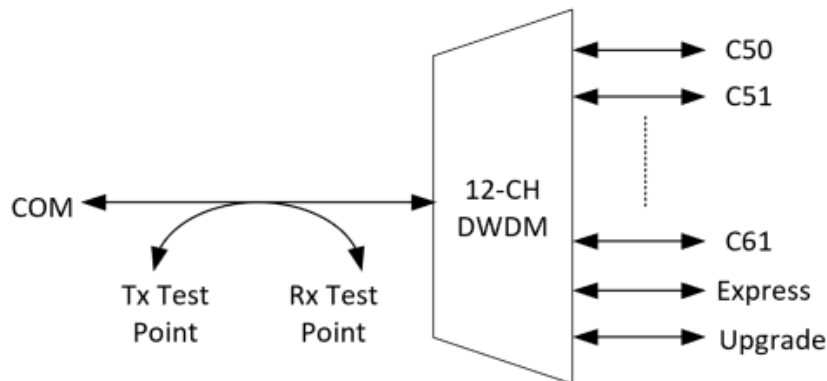
Optical Characteristics

Parameter	Value	Unit
DWDM Passband @ -0.5dB	$\lambda_c \pm 0.125$	nm
DWDM passband insertion loss @ -0.5dB	< 3.5	dB
DWDM passband ripple @ -0.5dB	< 0.5	dB
Test port insertion loss (dB)	20 ± 2	dB
Express insertion loss	< 1.5	dB
Express passband ripple	< 0.5	dB
Express passband	1260-1520 (1420-1520 w/ 1310 Port) 1570-1635	nm
Upgrade insertion loss	< 3.5	dB
Upgrade passband	Any ITU wavelengths within ITU 14 to 62 that is not being designated on the front plate	nm
1310 port insertion loss	< 1.5	dB
1310 port passband ripple	< 0.5	dB
1310 port passband	~1260-1360	dB
DWDM uniformity	< 1.5	dB
Isolation Adj (COM-DWDM)	> 30	dB
Isolation Non-Adj (COM-DWDM)	> 45	dB
Isolation Non-Adj (COM-EXP)	> 12	dB
DWDM directivity	> 50	dB
EXPRESS directivity	> 45	dB
Return loss	> 45	dB
Polarization dependent loss	< 0.2	dB
Polarization mode dispersion	< 0.15	ps
IL thermal stability	< 0.005	dB/°C
Wavelength thermal stability	< 0.001	nm/°C
Maximum input power	300 / 24.8	mW/dBm
Operating temperature	-40 to +85	°C
Operating humidity	5 to 95	%
Tensile strength pull strength (up to 10 seconds max)	> 20 ³	N
Fiber type (all ports)	SMF-28e (G.657.A1)	

Filter Optical Design

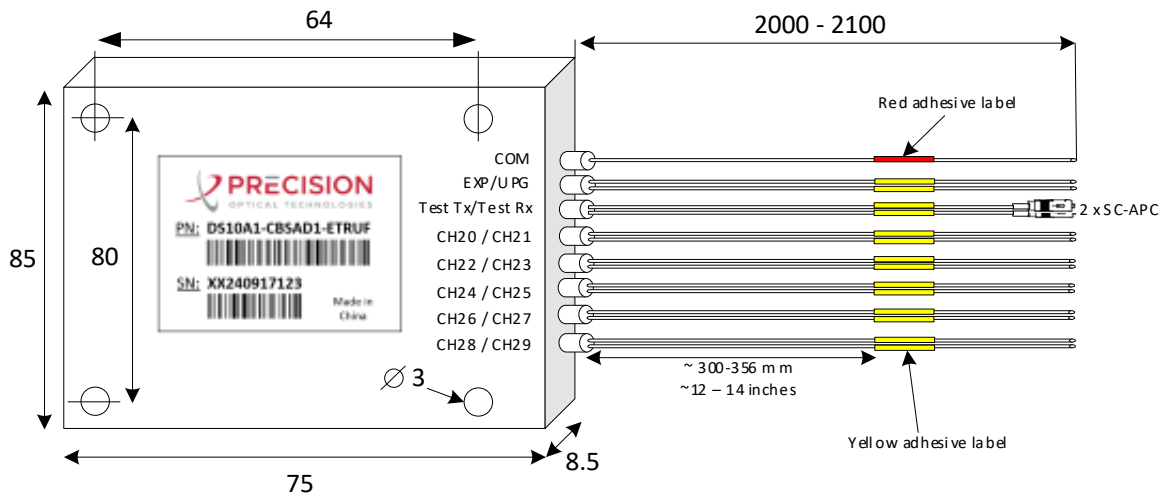


10-Channel DWDM Design Example

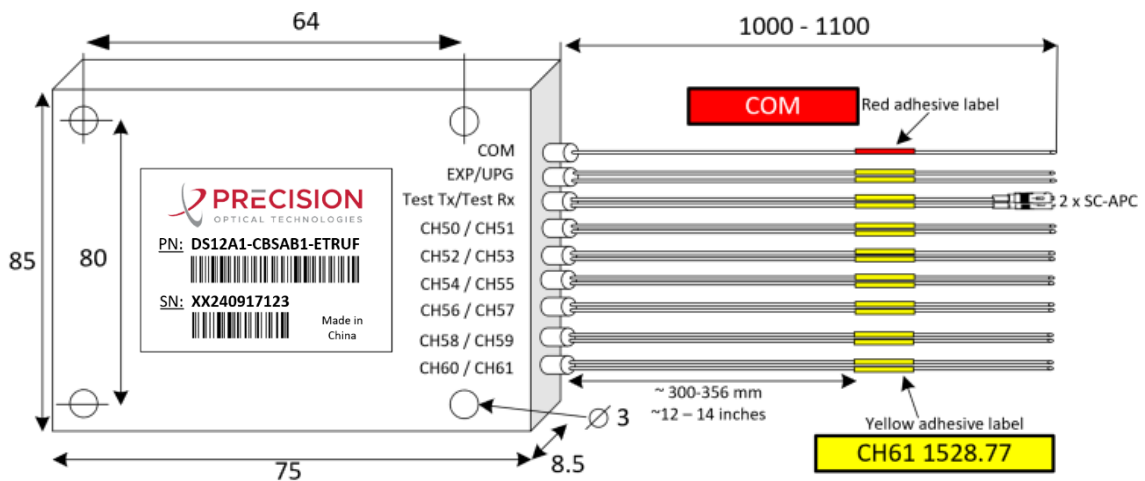


12-Channel DWDM Design (high level)

Filter Physical Design



10-Channel DWDM External Design (mm)
(DS10A1-CBSAD1-ETRUF shown)



12-Channel DWDM External Design (mm)
(DS12A1-CBSAB1-ETRUF shown)