8-Channel DWDM Passive Filter

ISP (Indoor Use)

Product Description:

8-Channel ISP DWDM Thin Film Filter with the following options:

- Upgrade/Express/Test Ports
- Single/Dual/Twin LGX Form Factor
- UPC/APC Connectors
- Industrial Temperature Hardened

Product Ordering Information

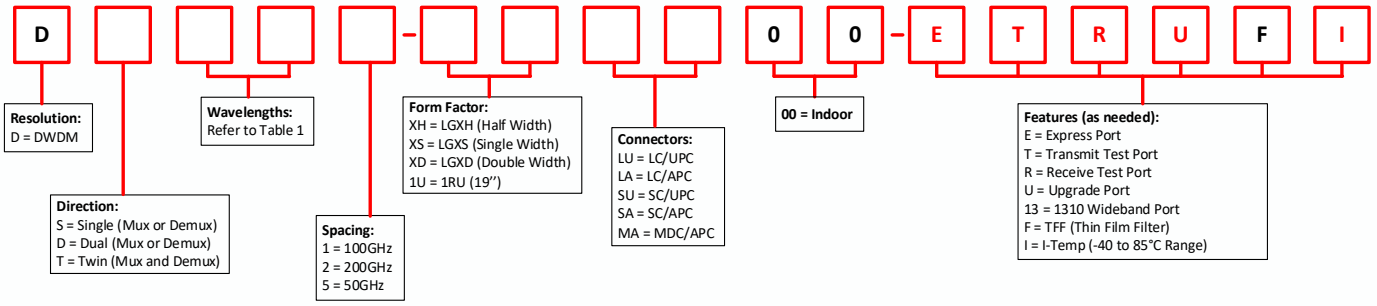


Table 1

Channel Designation		
8A = ITU 20 - 27	9A = 21 - 28	816 = ITU 16 - 23
8B = ITU 28-35	9B = 29 - 36	825 = ITU 25 - 32
8C = ITU 36-43	9C = 37 - 44	834 = ITU 34 - 41
8D = ITU 44-51	9D = 45 - 52	843 = ITU 43 - 50
8E = ITU 52-59	9E = 53 - 60	852 = ITU 52 - 59
8H = ITU 25-32		
8I = ITU 33-40		

Part Number / Description Examples

Part Number	Single LGX Description
DS8x1-XSLU00-ETRUF	DWDM, Single (Mux or Demux), ITU 8A/8B/8C/8D/8E/8H/8I, 100GHz grid, LGX single width, LC-UPC, with Express + Transmit Test + Receive Test + Upgrade ports, Thin Film Filter
DS8x1-XSLA00-ETRUF	DWDM, Single (Mux or Demux), ITU 8A/8B/8C/8D/8E/8H/8I, 100GHz grid, LGX single width, LC-APC, with Express + Transmit Test + Receive Test + Upgrade ports, Thin Film Filter

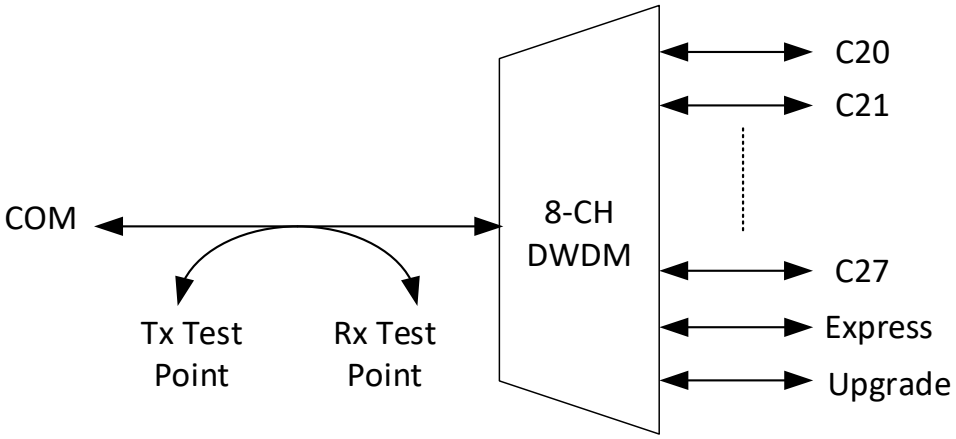
Part Number	Dual LGX Description
DD8x1-XSLU00-ETRUF	DWDM, Dual (Mux or Demux), ITU 8A/8B/8C/8D/8E/8H/8I, 100GHz grid, LGX single width, LC-UPC, with Express + Transmit Test + Receive Test + Upgrade ports, Thin Film Filter
DD9x1-XSLA00-ETRUF	DWDM, Dual (Mux or Demux), ITU 9A/9B/9C/9D/9E, 100GHz grid, LGX single width, LC-APC, with Express + Transmit Test + Receive Test + Upgrade ports, Thin Film Filter

Part Number	Twin LGX Description
DT8x1-XSLU00-ETRUF	DWDM, Twin (Mux + Demux), ITU 8A/8B/8C/8D/8E/8H/8I, 100GHz grid, LGX single width, LC-UPC, with Express + Transmit Test + Receive Test + Upgrade ports, Thin Film Filter
DT8xx-XSLU00-ETRUFI	DWDM, Twin (Mux + Demux), ITU 816/825/834/843/852, 100GHz grid, LGX single width, LC-UPC, with Express + Transmit Test + Receive Test + Upgrade ports, I-Temp, Thin Film Filter

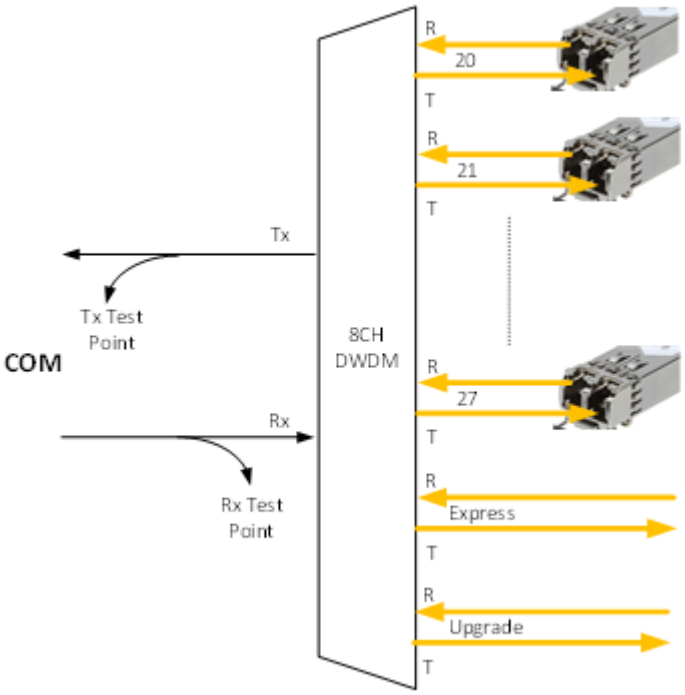
Optical Characteristics

Parameter	Value	Unit
DWDM Passband @ -0.5dB	$\lambda_c \pm 0.125$	nm
DWDM passband insertion loss @ -0.5dB	< 3.0	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	< 3.0	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: Commercial Temp (standard) Industrial Temp	 0 to 70 -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

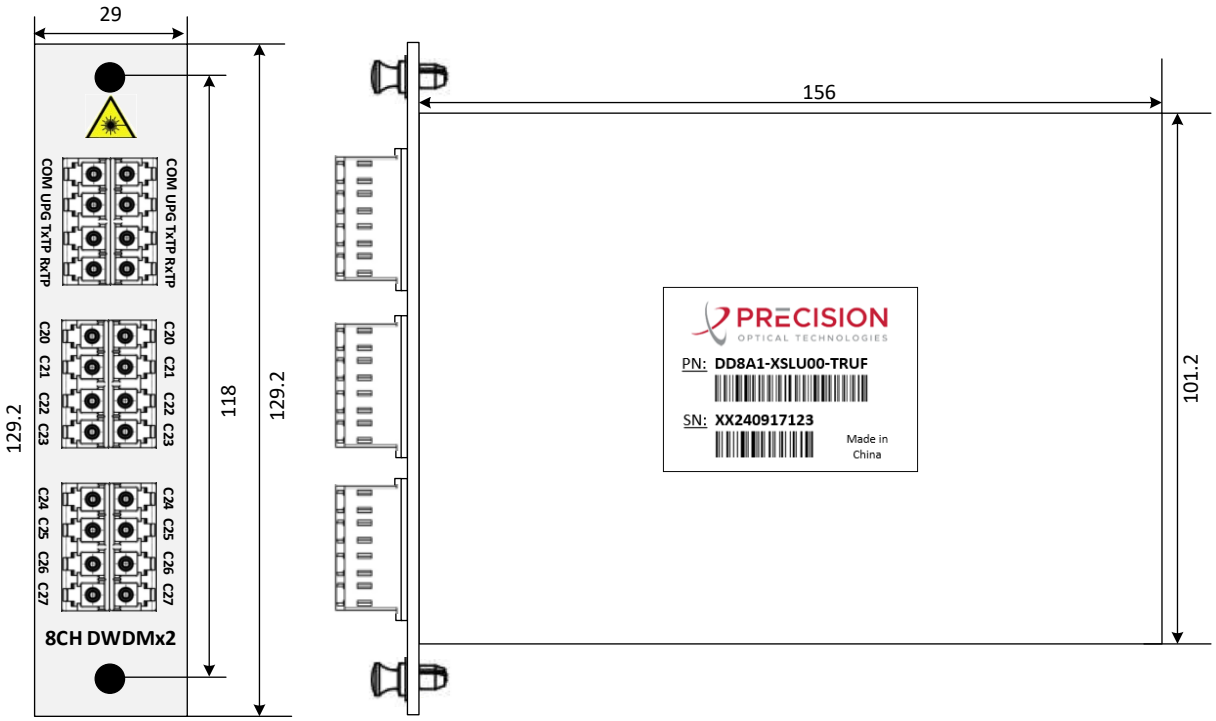


8-Channel DWDM Design Example



8-Channel DWDM Design (high level)

Filter Physical Design



8-Channel DWDM External Design (mm)
(DDS8A1-XSLU00-TRUF shown)