

CWDM Mux/ Demux Filter  
**Metro-X**

The CWDM Mux / Demux module is based on dielectric thin-film technology designed for integration in low cost Metro and Access networks. These include applications such as fiber to the home, business or curb. The module enables 4 or 8 channels to be either combined (added) or separated (dropped). The filters operate with a channel spacing of 20nm corresponding to standard CWDM wavelengths. Santec's CWDM module has low insertion loss, high channel isolation, flat passband. Additional filters, to enable cascading of devices, or addition of 1310nm or other wavelength, can also be included in the module.

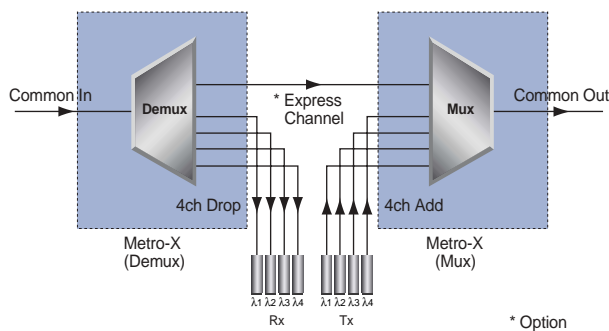
**Features**

- ▶ Wide Operation Range: 1290-1350nm, 1470- 1610nm
- ▶ Low Insertion Loss: (Mux and Demux)
- ▶ Wide Pass Band
- ▶ High Channel Isolation
- ▶ Operating Temperature: -10 to 70°C
- ▶ Long Term Reliability
- ▶ Telcordia-GR-1221 Qualified

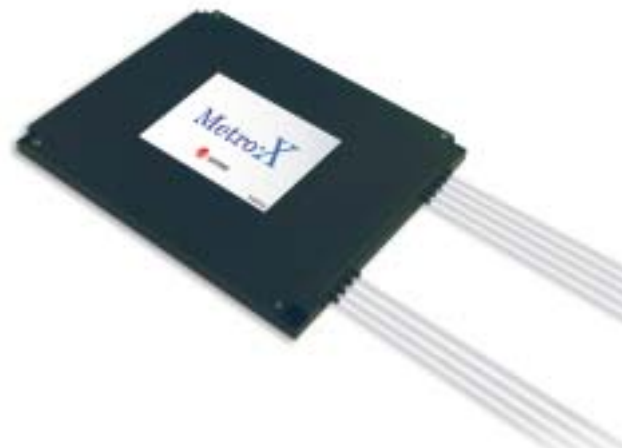
**Applications**

- ▶ Optical Add Drop Multiplexer
- ▶ Metro/Access Network system
- ▶ FTTH & FTTC
- ▶ CATV Applications

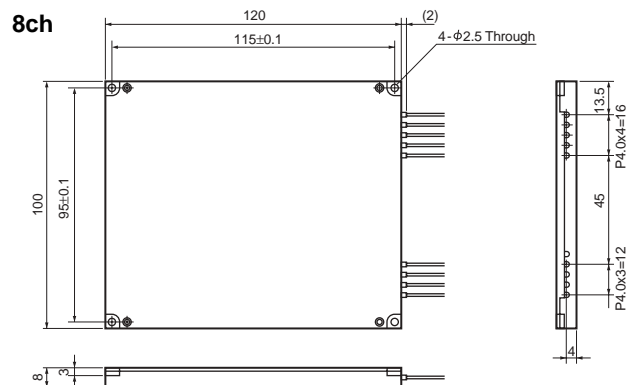
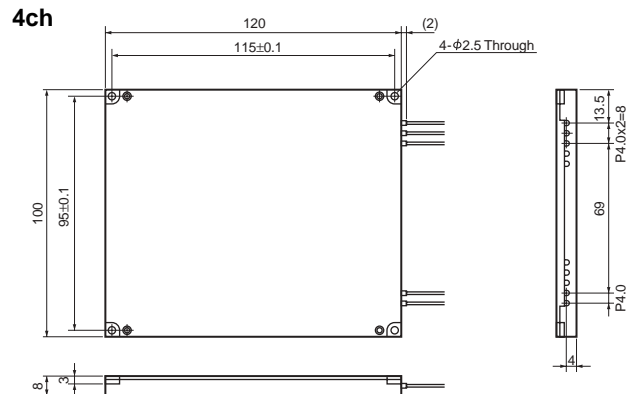
**Configuration**



Typical OADM Configuration



**Dimensions**



■ Typical Performance

Specification	Units	Condition	Min.	Max.
Wavelength range	nm	20nm channel spacing	-	-
Operating temperature	°C	-	-10	70
Insertion loss (Mux)	dB	@ $\lambda_c \pm 6.5\text{nm}$	-	1.4 (4ch)
			-	2.6 (8ch)
Link loss (Demux)	dB	@ $\lambda_c \pm 6.5\text{nm}$	-	1.7 (4ch)
			-	2.9 (8ch)
Insertion loss (Mux and Demux)	dB	@ $\lambda_c \pm 6.5\text{nm}$	-	2.5 (4ch)
			-	3.7 (8ch)
Flatness	dB	@ $\lambda_c \pm 6.5\text{nm}$	-	0.4
Adjacent channel isolation (Demux)	dB	@ $\lambda_c \pm 13.5\text{nm}$	30	-
Non-adjacent channel isolation (Demux)	dB	@ $\lambda_c \pm 33.5\text{nm}$	45	-
Directivity	dB	-	45 (Mux) / 55 (DeMux)	
PDL	dB	@center wavelength: $\lambda_c$	-	0.2
Return loss	dB	-	50	-

- \*1 All parameters are specified over operating temperature range.
- \*2 Insertion loss per filter includes Ripple and PDL, without connectors.
- \*3 Please contact Santec to discuss specific performance requirements.

■ Wavelength

1291nm	1311nm	1331nm	1351nm
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1471nm	1491nm	1511nm	1531nm	1551nm	1571nm	1591nm	1611nm
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■ Ordering Code

# Metro-X-15-A-B-C-D/E

**A=Channel**

3=3ch, 4=4ch, 7=7ch, 8=8ch

**B=Type**

M=Mux, D=DeMux

1=Standard, 2=Upgradable, 5=Low Loss

**C=Fiber Length**

10=1.0m, 20=2.0m

**D=Connector**

00=No Connector, FS=FC-SPC, FA=FC-APC, SS=SC-SPC, SA=SC-APC

MU=MU-SPC, MJ=MUJ-SPC, LC=LC-SPC

**E=Center Wavelength**

(ex) 1571nm --->1571

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