



## 4-Channel DWDM Mux/DMux Modules:

### Applications:

The ATX 4-channel DWDM Mux/DMux has been used in many applications, including:

- ▶ Node segmentation utilizing multiwave transport
- ▶ HFC distribution networks
- ▶ Broadband systems
- ▶ Optical add/drop multiplexing
- ▶ RFoG applications
- ▶ FTTx networks
- ▶ Long haul super-trunking

### Features:

- ▶ 4-channel Mux/DMux
- ▶ Housed in ATX's Compass chassis
- ▶ Eight modules can be housed in the CPS-CH-8 Compass chassis
- ▶ Express port for wavelength expansion
- ▶ Low insertion loss
- ▶ High isolation
- ▶ Bi-directional
- ▶ Low crosstalk

ATX's high performance 200 GHz dense WDM multiplexers & demultiplexers are available in standard ITU channel spacings ranging from 1528-1565nm. Custom wavelengths are available on request. They are designed to be housed in ATX's passive Compass chassis. Up to eight modules can be housed in the CPS-CH-8 & four in the CPS-4R chassis.

The CPS-4E-2923-C, CPS-4E-3731-C & CPS-4E-4943-C are 4-channel DWDM Mux/DMux with an upgrade port & are OSP specified. They are available with SC/APC connectors & an express port for seamless integration of additional wavelengths.



4-channel DWDM Mux/DMux Module  
(front view)



4-channel DWDM Mux/DMux Module  
(rear view)

## 4-Channel DWDM Mux/DMux Modules:

### 4-Channel DWDM Mux/DMux Module Specifications

SPECIFICATIONS		
PARAMETERS		
WAVELENGTH SPACING		200 GHz
WAVELENGTHS $\lambda_c$	CPS-4E-2923-C	C23 (1558.98nm), C25 (1557.36nm) C27 (1555.75nm), C29 (1554.14nm)
	CPS-4E-3731-C	C31 (1552.52nm), C33 (1550.92nm) C35 (1549.32nm), C37 (1547.72nm)
	CPS-4E-4943-C	C43 (1542.92nm), C45 (1541.32nm) C47 (1539.72nm), C49 (1538.12nm)
	CPS-4-5347-C	C47 (1539.72nm), C49 (1538.12nm) C51 (1536.52nm), C53 (1535.05nm)
PASSBAND		$\lambda_c \pm 0.25\text{nm}$
INSERTION LOSS <sup>(1)</sup>		< 1.5 dB
INBAND RIPPLE		< 0.5 dB
POLARIZATION DEPENDENT LOSS		< 0.2 dB
EXPRESS PORT		
OPERATING WAVELENGTH	CPS-4E-2923-C	1430-1553nm, 1559.5-1610nm
	CPS-4E-3731-C	1430-1547nm, 1553-1610nm
	CPS-4E-4943-C	TBD
INSERTION LOSS		< 1.0 dB
ISOLATION		> 12 (@ $\lambda_c \pm 0.25$ ) dB
ADJACENT CHANNEL ISOLATION		> 25 dB
NON-ADJACENT CHANNEL ISOLATION		> 45 dB
PMD <sup>(2)</sup>		< 0.2 ps
RETURN LOSS <sup>(3)</sup>		> 45 dB
DIRECTIVITY		> 50 dB
FIBER TYPE		SMF, Tight Buffered 900 Micron
FIBER LENGTH		100 $\pm$ 10 cm
CONNECTOR TYPE		SC/APC
ENVIRONMENTAL		
OPTICAL POWER HANDLING		500mW
OPERATING TEMPERATURE	STANDARD	0°C to +50°C (+32°F to +122°F)
	HARDENED	-40°C to +85°C (-40°F to +185°F)
STORAGE TEMPERATURE		-40°C to +85°C (-40°F to +185°F)
HUMIDITY	OPERATING	5-85% Non-condensing
	STORAGE	5-95% Non-condensing
PHYSICAL		
DIMENSIONS		1.5"H x 3.5"W x 7.25"D (3.8H x 8.89W x 18.42D cm)
WEIGHT		0.5 lbs (0.2 kg)
NOTES:		
(1) Insertion loss includes WDL, TDL & PDL.		
(2) Guaranteed by design.		
(3) Return loss is specified without connectors.		

### Ordering Information

Part Number	Description
CPS-4E-2923-C	COMPASS Mux/DMux Module, 4 WL, ITU Channels 29 to 23, 200 GHz Spaced, with 1430-1610nm Express Port, SC/APC Input & Output Connectors.
CPS-4E-3731-C	COMPASS Mux/DMux Module, 4 WL, ITU Channels 37 to 31, 200 GHz Spaced, with 1430nm-1610nm Express Port, SC/APC Input & Output Connectors.
CPS-4E-4943-C	COMPASS Mux/DMux Module, 4 WL, ITU Channels 49 to 43, 200 GHz Spaced, with 1430nm-1610nm Express Port, SC/APC Input & Output Connectors.
CPS-4-4539-C	COMPASS High Density Module, 4WL DMux, ITU Channels 45 to 39, 200 GHz Spaced, SC/APC Input & Output Connectors.
CPS-4-5347-C	COMPASS High Density Module, 4WL DMux, ITU Channels 53 to 47, 200 GHz Spaced, SC/APC Input & Output Connectors.



Specifications subject to change without notice.