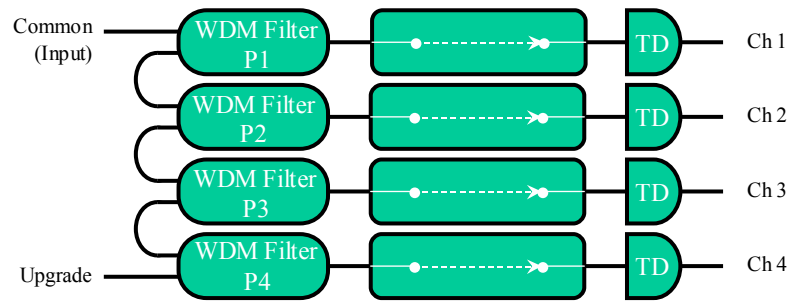


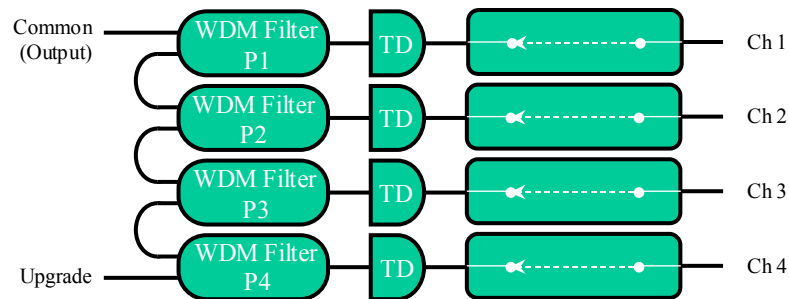
MEMS VOA MUX/DEMUX MODULE

DiCon's MEMS VOA MUX/DeMux Module allows for multiplexing or demultiplexing of up to four 100 GHz channels with integrated power equalization. Each channel has its own WDM filter, variable optical attenuator and tap detector.

Example of 4 channel DeMux Module



Example of 4 channel Mux Module



FEATURES

- Proven MEMS Durability and Reliability
- Multi-Channel Mux/DeMux with power monitoring and level control
- Flexible channel configurations

APPLICATIONS

- Test & Measurement
- Gain Equalizer
- Channel Power Equalization



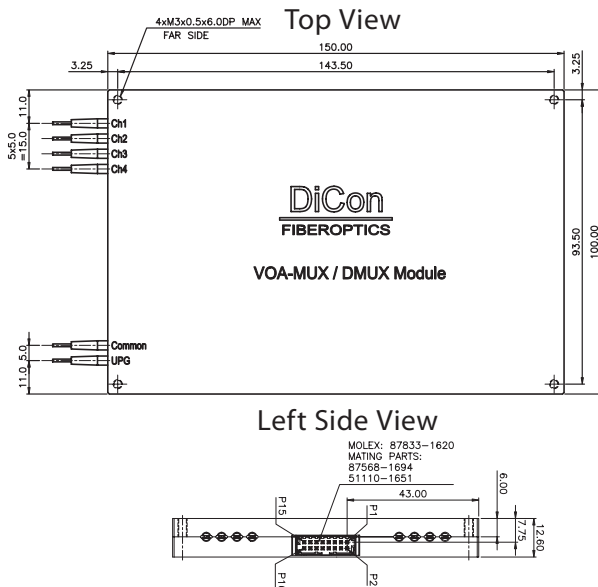
MEMS VOA MUX/DEMUX MODULE

OPTICAL SPECIFICATIONS¹

PARAMETER		RATING	
Excess Loss ^{2,3,4}	C-P1	2.4 dB max	
	C-P4	4.2 dB max	
Dynamic Power Range	1% Taps	-27 to 17 dBm	
	2% Taps	-27 to 17 dBm	
	5% Taps	-32 to 13 dBm	
	10% Taps	-35 to 10 dBm	
Attenuation Range ⁵		30 dB min.	
Adjacent Channel Isolation ⁶		25 dB min	
Output Accuracy ⁷		± 0.3 dB max.	
PDL ⁸	0 - 15 dB	0.15 dB max.	
	15 - 20 dB	0.2 dB max.	
WDL	Narrow Band Application ¹⁰	0 - 30 dB ^{8,9}	0.2 dB max.
Back Reflection		-50 dB max.	
Tuning Resolution		0.01 dB	
Optical Power		300 mW max.	
Durability		10 ⁹ cycles min	
Fiber Type		9/125 µm single mode	

- All Specifications at room temperature, without connectors.
- Excess Loss is measured at CWL, 23°C.
- Add 0.2 dB for 5% taps.
- Add 0.4 dB for 10% taps.
- Available up to 40 dB. Contact DiCon for details.
- 40 dB high isolation by request.
- For closed-loop operation.
- Operating from 1290 - 1330 nm adds 0.1 dB.
- Operating from 1290 - 1330 nm adds 0.3 dB.
- Maximum change of each 2 nm segment within the operating range.

MECHANICAL DIMENSIONS (Units: mm)



ORDERING INFORMATION

MD - □-□-□-□-□-□-□-□-□-□-□

Product Code

MD Mux/DeMux VOA Module

MUX Type

D DeMux
M Mux

Components

X/Y X-Ch, Y% Tap

Choose X≤4, Y=1,2,5, or 10

N = No Taps

(Other channel counts available)

Control Type

I2C I²C
RS2 RS-232

P1 ITU Channel #^{1,2}

N Specify ITU Channel #

NA None

P2 ITU Channel #^{1,2}

N Specify ITU Channel #

NA None

P3 ITU Channel #^{1,2}

N Specify ITU Channel #

NA None

P4 ITU Channel #^{1,2}

N Specify ITU Channel #

NA None

Fiber and Jacket Type

9/BF Corning SMF-28 9µm bare fiber

9/LT Corning SMF-28 9µm fiber with loose tube

Or other equivalent 9µm Singlemode fiber

Connector Type

FC/SPC FC/SPC

FC/APC FC/APC

N NONE

Also Available: SC, SC/UPC, SC/APC, ST, ST/UPC, LC

Pigtail Length

1 1 meter

X Specify X meters

- Based on ITU grid
- Refer to the 4 channel Mux or DeMux configuration diagram for filter location

ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	Non-latching
Control Type	I ² C, RS232
Vcc Voltage	5 VDC
Power Consumption	1 W max.
Connector Type	Molex 87833-1620