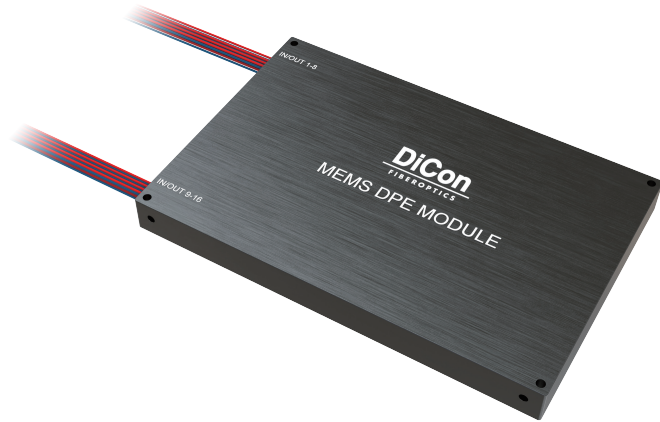


MULTI-CHANNEL MEMS DPE MODULE

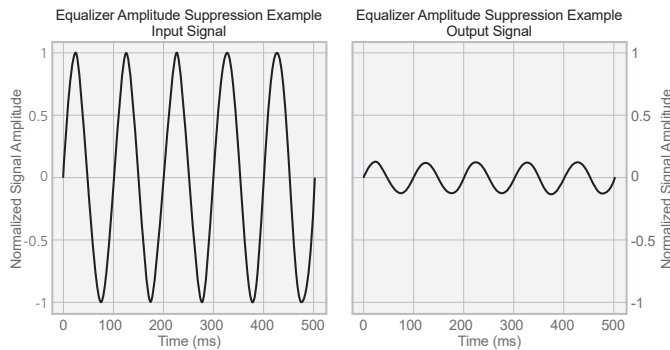
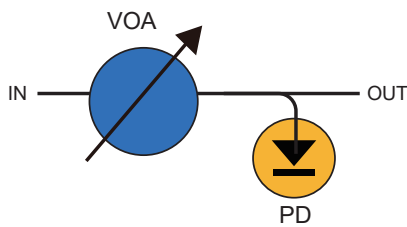
Singlemode Fiber



DiCon's **MEMS Dynamic Power Equalizer (DPE)** compensates for deviations in input optical power and maintains output optical power at a preset level for up to sixteen fiber channels. The DPE continuously adjusts the attenuation through closed loop feedback from output taps to DiCon's MEMS based attenuators.

- Constant Power Mode
- Constant Attenuation Mode
- Proven MEMS Durability and Reliability
- Compact Form Factor
- Excellent Output Accuracy
- Wide Attenuation Range
- Low Insertion Loss

Operating Principle



ORDERING INFORMATION

ATE1-E-1-□-□-9-□-□-9L-S-□-□-□

Device Type	
E	MEMS DPE
Number of Device	
1	1 Device
Configuration	
X/Y	# of Channels / Tap Ratio %
Alignment Type	
T	Transparent
P	Opaque
Fiber Type	
9	9/125 μm SMF <i>*Other fiber options are available upon request</i>
Test Wavelength	
O	1310 nm
C	1550 nm
L	1590 nm
<i>*Use "/" to add multiple wavelengths (E.g., O/C or O/C/L)</i>	
Attenuation Range	
30	30 dB Attenuation
X	Specify X dB min.
<i>*Other attenuation levels are available upon request</i>	
Control Interface	
U	USB, RS232, I ² C
Fiber Jacket Type	
9L	900 μm Loose Tube
WDL Type	
S	Superior Broad Band Flatness
Connector Type	
N	None
FC	FC/UPC
FC/APC	FC/APC
LC	LC/UPC
LC/APC	LC/APC
SC	SC/UPC
SC/APC	SC/APC
<i>*Other connector types are available upon request</i>	
Connector Key Orientation	
N	None
Pigtail Length	
1	1 Meter
X	Specify X Meter

MULTI-CHANNEL MEMS DPE MODULE

Singlemode Fiber

OPTICAL SPECIFICATIONS^{1,2}

Operating Wavelength		1260 to 1680 nm	
Insertion Loss ³	1% Tap Ratio	0.8 dB max.	
	2%	0.9 dB max.	
	5%	1.1 dB max.	
	10%	1.3 dB max.	
Dynamic Power Range	1% Tap Ratio	-47 to 25 dBm	
	2%	-50 to 22 dBm	
	5%	-54 to 18 dBm	
	10%	-57 to 15 dBm	
Relative Power Accuracy ⁴		±0.2 dB max.	
Response Time ⁵		2 to 500 ms	
Closed Loop Bandwidth ⁶		45 Hz ⁷	
PDL ⁸	0 dB Att.	0.14 dB max.	
	< 10 dB Att.	0.2 dB max.	
	< 20 dB Att.	0.3 dB max.	
WDL	Superior Broad Band ¹⁰	< 10 dB Att. ⁸	0.5 dB max.
		< 20 dB Att. ⁹	0.7 dB max.
Back Reflection		-50 dB max.	
Tuning Resolution		0.01 dB	
Durability ¹¹		1 Billion Cycles min.	
Optical Power ¹¹		500 mW max.	
Fiber Type		Singlemode	

- All specifications are measured separately at room temperature for each Test Wavelength
- DiCon recommends the use of external detectors or a dynamic power equalizer module for applications requiring absolute attenuation accuracy
- Measured with 3-jumper method or equivalent (See TIA/EIA 526-7)
- For closed-loop operation when
 - output power > -27 dBm for 1% tap ratio
 - output power > -30 dBm for 2% tap ratio
 - output power > -34 dBm for 5% tap ratio
 - output power > -37 dBm for 10% tap ratio
- The averaging time for power measurements and the control loop interval for the built-in Variable Optical Attenuator (VOA)
- The frequency range where the system can suppress input power fluctuations by over 50%
- When input power > -30 dBm
- Adds 0.1 dB for dual-band operation
- Adds 0.3 dB for dual-band operation
- Maximum variation within the wavelength range of Test Wavelength ±20 nm
- Met by design, not measured

ELECTRICAL SPECIFICATIONS

Latching Type	Non-latching
Control Type	RS232, I ² C, or USB
Supply Voltage	12 VDC
Power Consumption	9.5 W Max. Start Up 4.5 W Max. Operating
Connector Type	Samtec P/N: STMM-018-02-G-D
Mating Connector	Samtec P/N: TCSD-08-01-F-N

MECHANICAL DRAWING

Dimensions in mm

