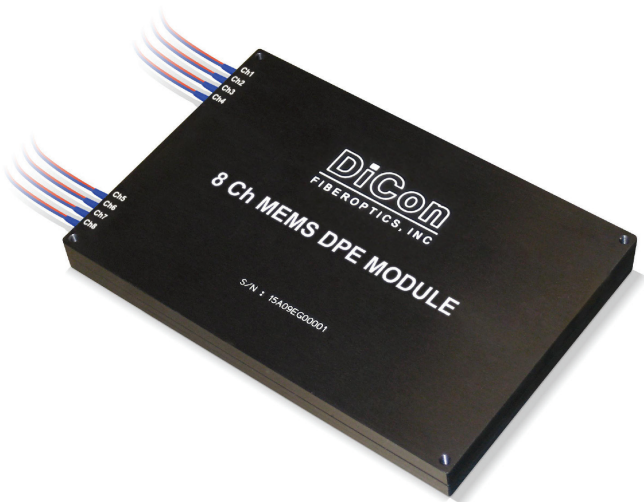


MULTI-CHANNEL MEMS DPE MODULE

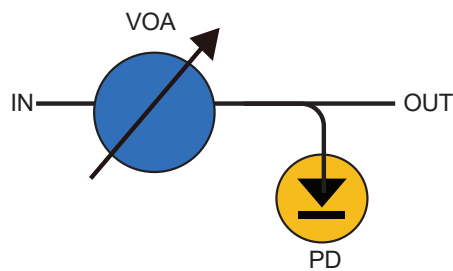
Singlemode Fiber



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 eight fiber channels. The DPE continuously adjusts the attenuation through closed loop feedback from output taps to DiCon’s MEMS based attenuators.

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

Operating Principle



ORDERING INFORMATION

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|                                                                 |                               |
|-----------------------------------------------------------------|-------------------------------|
| Configuration                                                   |                               |
| X/Y                                                             | # of Channels/<br>Tap Ratio % |
| Control Type                                                    |                               |
| I2C                                                             | I <sup>2</sup> C              |
| RS2                                                             | RS-232                        |
| 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> |                               |
| Ripple Type                                                     |                               |
| S                                                               | Slow Ripple (Broad Band)      |
| F                                                               | Fast Ripple (Narrow Band)     |
| Fiber / Jacket Type                                             |                               |
| 9/TB                                                            | Corning SMF-28, Tight Buffer  |
| 9/LT                                                            | Corning SMF-28, Loose-tube    |
| Connector Type                                                  |                               |
| N                                                               | None                          |
| FC/SPC                                                          | FC/SPC                        |
| FC/APC                                                          | FC/APC                        |
| <i>*Other connector types are available upon request</i>        |                               |
| Pigtail Length                                                  |                               |
| 1                                                               | 1 Meter                       |
| X                                                               | Specify X Meters              |
| <i>*Tolerance is ±0.1 m</i>                                     |                               |

# MULTI-CHANNEL MEMS DPE MODULE

## Singlemode Fiber

### OPTICAL SPECIFICATIONS<sup>1,8</sup>

|                                |                                      |                          |              |
|--------------------------------|--------------------------------------|--------------------------|--------------|
| Operating Wavelength           |                                      | 1260 to 1675 nm          |              |
| Insertion Loss <sup>2</sup>    | 1%                                   | 1.1 dB max.              |              |
|                                | 2%                                   | 1.2 dB max.              |              |
|                                | 5%                                   | 1.6 dB max.              |              |
|                                | 10%                                  | 1.8 dB max.              |              |
| Dynamic Power Range            | 1%                                   | -25 to 20 dBm            |              |
|                                | 2%                                   | -28 to 17 dBm            |              |
|                                | 5%                                   | -32 to 13 dBm            |              |
|                                | 10%                                  | -35 to 10 dBm            |              |
| Attenuation Range <sup>3</sup> |                                      | 30 dB min.               |              |
| Output Accuracy <sup>4</sup>   |                                      | ±0.03 dB max.            |              |
| PDL <sup>5</sup>               |                                      | 0 to 10 dB               | 0.15 dB max. |
|                                |                                      | 10 to 20 dB              | 0.2 dB max.  |
| WDL                            | Broad Band Application               | 0 to 10 dB <sup>5</sup>  | 0.5 dB max.  |
|                                |                                      | 10 to 20 dB <sup>6</sup> | 0.7 dB max.  |
|                                | Narrow Band Application <sup>7</sup> | 10 to 20 dB <sup>5</sup> | 0.2 dB max.  |
| Back Reflection                |                                      | -50 dB max.              |              |
| Tuning Resolution              |                                      | 0.01 dB                  |              |
| Optical Power                  |                                      | 500 mW max.              |              |
| Fiber Type                     |                                      | Singlemode               |              |

1. All specifications are without connectors.
2. IL is measured at Test Wavelength, 23°C.
3. Available up to 40 dB. Contact DiCon for details.
4. For closed-loop operation.
5. Operating from 1290 - 1330nm adds 0.1 dB.
6. Operating from 1290 - 1330nm adds 0.3 dB.
7. Maximum change every 2nm.
8. DiCon recommends use of external detectors or a dynamic power equalizer module for applications requiring absolute attenuation accuracy.

### ELECTRICAL SPECIFICATIONS

|                   |                         |
|-------------------|-------------------------|
| Latching Type     | Non-latching            |
| Control Type      | I <sup>2</sup> C, RS232 |
| Vcc Voltage       | 5 VDC                   |
| Power Consumption | 1 W max.                |
| Connector Type    | Molex 87833-1620        |

### MECHANICAL SPECIFICATIONS

Dimensions in mm

