



# **Fiber Coupled Power Monitor**

(350nm to 2300nm, all fiber types)

### **Product Description**

The Fiber Coupled Optical Power Monitor is a component that directly integrates a fiber with a high sensitivity photodiode for power measurement applications. Our Power Monitor design minimizes component assembly costs and module footprint while increasing stability over a wide temperature and wavelength ranges.

The Fiber Coupled Optical Power Monitor comes with all wavelength and fiber types. Associated sensor electronic amplifier is also available.



### **Performance Specifications**

| -  |                         |         |      |       |
|--|-------------------------|---------|------|-------|
| Fiber Coupled Power Monitor                | Min                     | Typical | Max  | Unit  |
| Wavelength                                 | 350                     |         | 2300 | nm    |
| Light Collection Efficiency                | 80                      | 95      | 100  | %     |
| Responsivity <sup>2</sup>                  | 8                       | 25      | 45   | mA/W  |
| Input Power                                | -45                     |         | 27   | dBm   |
| WDL  |                         | 0.02    |      | dB/nm |
| PDL <sup>3</sup>                           |                         | 0.03    | 0.05 | dB    |
| Polarization extinction ratio <sup>4</sup> | 18                      | 23      |      | dB    |
| Tensile load                               |                         | 5       |      | N     |
| Return Loss                                | 45                      |         |      | dB    |
| Dark Current at 23°C                       |                         | 0.4     | 1.0  | nA    |
| Directivity <sup>5</sup>                   | None or >25 dl          |         |      | dB    |
| Capacitance                                |                         | 0.7     | 0.9  | pF    |
| Reverse Voltage                            |                         | 5       | 20   | V     |
| Rise/Fall Time                             |                         | 0.3     |      | ns    |
| Cut-Off Frequency                          |                         | 2       |      | GHz   |
| Operating Temperature                      | -5                      |         | 75   | °C    |
| Storage Temperature                        | -40                     | •       | 85   | °C    |
| Reliability                                | Telcordia 1209 and 1221 |         |      |       |
| Package Dimension                          | Ø 6.0 x L 18 mm         |         |      |       |

#### Notes:

- . Insertion Loss excluding connectors.
- 2. The net responsivity is defined as the ratio of the PD current output and optical power measured at output fiber
- 3. Single Mode Fiber version only.
- 4. PM Fiber version only.
- 5. Directivity defines the responsivity contrast between the case that light power comes from input fiber port and the case that light power comes from output fiber port. From 1260 to 1620nm.

### **Features**

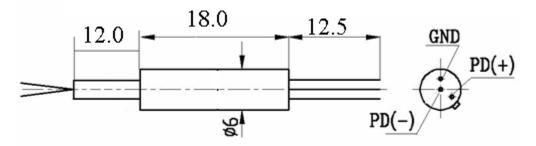
- · Low Cost
- · All Wavelength
- · All Fiber Type
- · Compact Design

### **Applications**

- · Channel Monitoring
- Power Monitoring in Optical Interface Modules
- · Gain Monitoring for Amplifier
- Instruments



## Mechanical Footprint Dimensions (Unit:mm)



Standard Package for Infrared Band. For other wavelength band, size may vary due to special detector configurations.

\*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

### **Ordering Information**

| FTPM- |   |                   |                   |                           |                                  |    |  |  |
|-------|---|-------------------|-------------------|---------------------------|----------------------------------|----|--|--|
|       | Wavelength  | AR Coating        | TEC Cooling       | Package                   | Fiber Ty                         | ре | Fiber Length   | Connector  |
|       | 1260—1620= 10<br>1780 -2000 =20<br>1850 - 2300 =21<br>850 -1620 = 11<br>850 -980 =89<br>650-780= 67<br>550 -650 =56<br>450 -750 = 50<br>350-450 = 34<br>Special = 0 | No = 1<br>Yes = 2 | No = 1<br>Yes = 2 | Standard=1<br>Special = 0 | Choose<br>from<br>table<br>below |    | 0.25m= 1<br>0.5m = 2<br>1.0 m= 3<br>1.5 m= 5<br>Special =0 | None = 1<br>FC/PC = 2<br>FC/APC = 3<br>SC/PC = 4<br>SC/APC = 5<br>ST/PC = 6<br>LC = 7<br>Special = 0 |

| 01 | SMF-28     | 34 | PM1550 | 67 | STEP 50/125μm)          |
|----|------------|----|--------|----|-------------------------|
|    |            |    |        |    |                         |
| 02 | SMF-28e    | 35 | PM1950 | 68 |                         |
| 03 | Corning XB | 36 | PM1310 | 69 |                         |
| 04 | SM450      | 37 | PM400  | 70 |                         |
| 05 | SM2000     | 38 | PM480  | 71 | GIF50 (GIF 50/125μm)    |
| 06 | SM600      | 39 | PM630  | 72 | GIF625 (GIF 62.5/125μm) |
| 07 | Hi780      | 40 | PM850  | 73 | 106/125μm               |
| 08 | SM800      | 41 | PM980  | 74 | FG105LCA                |
| 09 | Hi980      | 42 |        | 75 | FG50LGA                 |
| 10 | Hi1060     | 43 |        | 76 | 200 μm                  |
| 11 | Draka BBE  | 44 |        | 77 | 400 μm                  |
| 12 |            | 45 |        | 78 | 800 μm                  |