

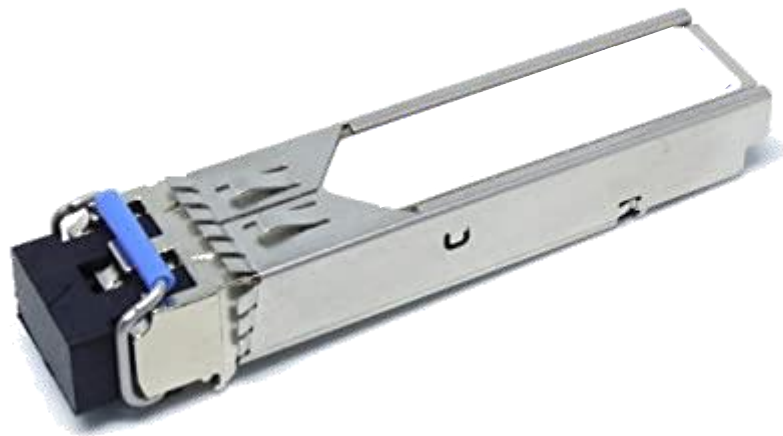


Power Meter Monitor

**Business and Mission-  
Critical Solutions Provider**

## FIBER OPTICS MODULE-SM80KM

# Data Sheet



**Model:** PMM1223

**Document:** Data Sheet

**Document version:** 1.0

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## DECLARATION OF CONFORMITY

This restriction is subject to protect the operational process of the system in the business environment, which will produce, use, and transmit radiofrequency energy. Harmful interference to radio communication could result if instructions to the correct installation and usage were not applied. The interference prevention cannot be guaranteed even with proper installation according to the manual. If the device causes a bad effect on the radio / TV signal. The user could preclude that by turning the device on/off.

When this device produces some harmful interference, the user can use the following measure to solve the interference problem:

1-Setting the receiving antenna's direction or location to increase the distance between this device and receiver.

2-Plug in the device's power connector into different circuits of the power outlet with the receiver.

3-If any technical support is needed, the dealer or experienced radio/TV technical personnel must be informed.

## TECHNICAL SUPPORT AND SERVICE

Visit [Pmm-usa.us](http://Pmm-usa.us) to browse FAQs and get further details.

User should collect the following information before submitting technical support and service requests:

- Product name, model and serial number.
- Installed software (operating system, OS version, installed applications and so on).
- Full description of the problem
- Detailed information about every error.

## SAFETY INSTRUCTIONS

- Only trained and qualified personnel can install, operate, or maintain the device.
- Before starting the installation, all safety precautions must be read, and warning labels affixed to the device must be observed. Doing so protects the device from damage and ensures your safety.
- Safety precautions provided in this document may not cover all safety aspects, note to always remain mindful of safety.
- PMM is not liable for any consequence that results from violation of regulations pertaining to safe operations or safety codes pertaining to design, production, and equipment usage.
- DO NOT use liquids or decontamination spray to clean the device surface and assure that it is totally disconnected while cleaning.
- Take all measures to prevent device drop before or during installation.
- Prior to connecting the device to power source, ensure the source and device voltage and power are 100% matched.
- Keep the cables in a suitable covered place.
- If the device is not used for a long time, shut off the power to avoid the damages by transient overvoltage.
- DO NOT allow any liquid flow into the device; to avoid fire or short circuit.
- The recommended storage temperature range should NOT be less than 30°C OR higher than 85°C.



### Warning:

- Read the power source and device inlet carefully.
- Handle device with both hands.
- Clean and maintain the device using recommended, safe and suitable methods.



### Caution:

If any unauthorized changes of settings or repairs are done without PMM approval; then user's rights of controlling this device will be canceled.

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## KEY FEATURES

- Up to 1.25Gb/s dual data links
- Hot-pluggable SFP footprint
- 1490nm DFB laser and 1550nm APD photo detector
- 1550nm DFB laser and 1490nm APD photo detector
- Duplex LC connector
- Up to 80km on 9/125µm SMF
- Single +3.3V power supply
- Compliant with SFF+MSA and SFF8472
- Metal enclosure for lower EMI
- Operating temperature range: 0°C to 70°C (32°F to 158°F)

## DESCRIPTION

PMM Small Form Factor Pluggable (SFP) transceivers are compatible with the Small Form Factor Pluggable Multi-Sourcing Agreement (MSA).

PMM1223 provides up to 1.25 Gbps bi-directional data transfer rate at distances up to 80km on a single fiber core. Moreover, it simultaneously complies with Gigabit Ethernet as specified in IEEE STD 802.3 and 1x Fiber Channel as defined in FC-PI-2 Rev. 10.0. PMM1223 is RoHS compliant and lead-free.

## APPLICATIONS

- 1.25Gb/s 1000Base-LX Ethernet
- 1.06 Gb/s Fiber Channel

## TECHNICAL SPECIFICATIONS

### Electrical Characteristics

Supply Voltage	3.13 to 4.5 V
Supply Current	220mA

### Optical Characteristics

#### 1. Transmitter

Output Opt. Power	-8 to -4 dBm
Optical Wavelength	1270, 1310, 1360 nm
Spectral Width	4 nm
Optical Rise/Fall Time	0.26 ps

#### 2. Receiver

Average Rx Sensitivity	-24 dBm
Optical Wavelength	1470, 1490, 1510 nm
LOS De-Assert	-23 dBm
LOS Assert	-35 dBm
LOS Hysteresis	0.5 dB

### General Characteristics

Data Rate	1250 Mb/sec
Wavelength	1490nm/1550nm
Transmission Distance	80 Km
Fiber Type	Sinplex. Single Mode
Certificates	CE, FCC and Rohs

### Environmental Characteristics

Case Operating Temperature	+70 °C
Storage Temperature	-40 to 100 °C
Relative Humidity	85%