

Power Meter

IQ-1100/PM-1100



Up to +20 dBm measurement

Graphical display mode

Excellent ± 0.015 dB linearity

Flexible data acquisition



Fiber-optic T&M,
monitoring, manufacturing
and assembly solutions

EXFO

Accurate, Automated Measurements

The PM-1100 and IQ-1100 Power Meters provide accurate power measurements over a high dynamic range along with high resolution and excellent linearity. Use the IQ-1100 and PM-1100 Power Meters for automatically measuring discrete values such as insertion loss or, alternately, for continuous monitoring and data acquisition. The IQ-1100 module series and the stand-alone PM-1100 provide exceptional performance, flexibility, user-friendliness and extensive integration capabilities.

The IQ-1100 single-channel power meter module series is part of the IQ solution. The IQ-203 mainframe and IQ-206 expansion units support up to 27 modules. For a virtually unlimited number of channels, link two or more systems together through the GPIB interface.



Key Features

Excellent Specifications

The IQ-1100 and PM-1100 Power Meters offer ± 0.015 dB linearity with a $\pm 5\%$ absolute uncertainty and a 0.001 dB power resolution. Whether you are measuring absolute or relative power levels, count on accurate and precise measurements.

Select the IQ-1100 or PM-1100 when measuring high power (up to 20 dBm) in the 750 to 1700 nm wavelength range. The sensitivity of this detector is -75 dBm.

Easy-to-Use Software

The IQ-1100 Windows-compatible software application provides unprecedented user-friendliness, improved productivity and instrument flexibility. Easily select all configuration parameters from a single setup window.

IQ-1100: Advanced Data Acquisition

Simple, Flexible and Familiar Graphical User Interface

- Windows interface
- Easy control with software buttons, front panel keys or keyboard
- Multiple-user configuration storage
- Simultaneous multiple applications for true multitasking
- Online help

Channel Setup

Select wavelength, resolution, offset, sampling rate and units from a single window.

Reference Button

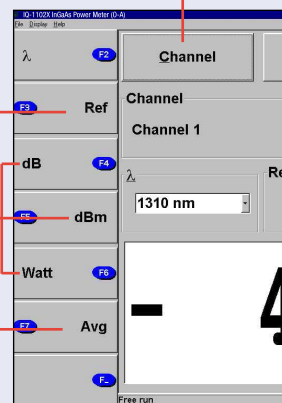
Take power reference measurements at the touch of a button.

Display Units

Select dB, dBm or W.

Averaging

Display measurements as unprocessed or averaged values.



PM-1100: Performance and Ease of Use



- 1 **Adjustable display intensity**
Turn off the display without turning off the unit
- 2 **Direct access to setup parameters**
Perform nulling or adjust setup using front panel keys
- 3 **Program mode**
Programmable acquisitions of up to 1024 samples
- 4 **Menu-driven interface**
Easy control of advanced functions menus
- 5 **Interchangeable fiber-optic adapters (FOA)**
Different types of connectors may be used

Applications

The IQ-1100 and PM-1100 are the ideal power meters for the following applications:

- Periodic multichannel monitoring
(requires an IQ-1100 or PM-1100 Power Meter and IQ-9100 Optical Switch)
- Absolute power measurement
- Insertion loss measurement
- System or component monitoring
- Linearity verification
- Component characterization
- Source stability measurement
- Attenuation measurement

Three convenient display modes:

- Absolute (in dBm or W)
- Relative (in dB)
- Offset (in dBm or dB)

Variable Sampling Rate
Select a high sampling rate to measure transient responses or a low sampling rate for very low power levels.

Variable Resolution
Use the automatic resolution or select from 0, 1, 2 or 3 decimals.

Convenient Offset Feature
Enter an offset value to compensate for known power loss or gain.

Unique Graphical Display Mode (IQ-1100)

Timed and/or Conditional Data Acquisition

Specifications¹

Model PM/IQ-1102X

Detector type GeX
Detector size (mm) 2
Wavelength range (nm) 750 to 1700
Power range² (dBm) 20 to -75
Uncertainty³ (dB) ± 5 %
 (1000 to 1650 nm)
 (+10 to -35 dBm)
Linearity⁴ (dB) ± 0.015
 (10 to -35 dBm)
Power resolution⁴ (dB) 0.001
 (20 to -35 dBm)
Wavelength resolution (nm) 1
Fiber type (µm) 5/125 to 62.5/125

Standard Accessories

User guide, fiber-optic connector adapter (FOA), Certificate of Calibration and Certificate of Compliance

Software Options

OCX controls and LabVIEW drivers (IQ-1100)

General Specifications

IQ-1100

Dimensions (H x W x D) 12.1 cm x 3.8 cm x 26.2 cm
 (4 3/4 in x 1 1/2 in x 10 5/16 in)
Weight 0.63 kg (1.4 lb)
Temperature (operating) 0 °C to 50 °C (32 °F to 122 °F)
 (storage) -40 °C to 70 °C (-40 °F to 158 °F)
Relative humidity⁵ 0 % to 80 % non-condensing

PM-1100

Dimensions (H x W x D) 11.7 cm x 22.2 cm x 33.3 cm
 (4 5/8 in x 8 3/4 in x 13 1/8 in)
Weight 2.0 kg (4.5 lb)
Temperature (operating) 0 °C to 40 °C (32 °F to 104 °F)
 (storage) -40 °C to 70 °C (-40 °F to 158 °F)
Relative humidity⁵ 0 % to 80 % non-condensing

Notes

- All power specifications are at 1310 nm unless otherwise specified, and after a warmup period of 20 minutes followed by an offset nulling.
- From 0 °C to 30 °C.
- At 23 °C ± 1 °C with FOA-222. Add 1 % to uncertainty below 1000 nm, and 3 % over 1650 nm.
- For a temperature that is stable within ± 1 °C in the 0 °C to 40 °C range.
- Measured in the 0 °C to 40 °C range.

Ordering Information

IQ-110X

PM-110X

Detector code

2X = GeX

Specify model number and the connector adapter you wish to obtain (one free connector adapter included)

FOA-216: SMA 906 low reflection
 FOA-222 : FC low reflection: FC (/PC/SPC/UPC/APC, NEC-D3)
 FOA-228 : DIN 47256 (LSA) low reflection: DIN 47256 (/PC/APC)
 FOA-232 : ST low reflection: ST (/PC/SPC/UPC)
 FOA-240 : Diamond HMS-0, HFS-3 (3.5 mm) low reflection
 FOA-254: SC low reflection: SC (/PC/SPC/UPC/APC)
 FOA-276: FSMA HMS-10/AG, HFS-10/AG low reflection

FOA-284: Diamond HMS-10, HFS-13 low reflection
 FOA-296: E-2000 low reflection: E-2000 (/PC/APC)
 FOA-298: LC low reflection
 FOA-299: MU low reflection
 FOA-8100: Utility adapter

Please select your fiber-optic connector adapter (FOA) from the preceding list.

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