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Find the *Exfo PM-1102X* at our website: ***Click HERE***

Power Meter

IQ-1100/PM-1100







- 110 dB dynamic range
- Graphical display mode
- Excellent ± 0.015 dB linearity
- Flexible data acquisition







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

EXFO

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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 ± 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.

Multiple Detector types. Both high-power Ge and InGaAs photodetectors are available. For general power measurements, an InGaAs detector offers a 110 dB (+9 dBm to -100 dBm) power range in the 800 to 1700 nm wavelength range. InGaAs is also the detector of choice when temperature stability is an important consideration. Select a high-power Ge detector when measuring relatively 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.



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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. **Detector options**
   Choose between InGaAs or high-power Ge detectors

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)

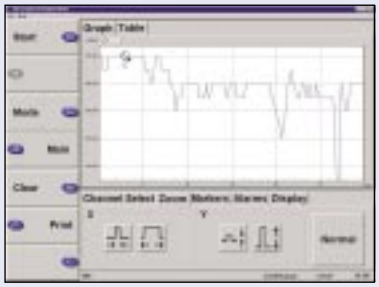


Variable Sampling Rate
Select a high sampling rate to measure transient responses or a low sampling rate for very low power levels.

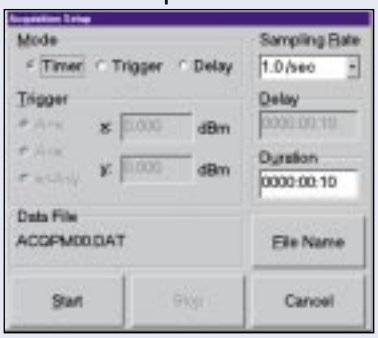
Variable Resolution
Use the automatic resolution or select from 0, 1, 2 or 3 decimals.

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



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Specifications[1]

Model	PM/IQ-1102X	PM/IQ-1103
Detector type	GeX	InGaAs
Detector size (mm)	2	1
Wavelength range (nm)	750 to 1700	800 to 1700
Power range[2] (dBm)	20 to -75	9 to -100
Uncertainty[3] (dB)	± 5 % (1000 to 1650 nm) (+10 to -35 dBm)	± 5 % (1000 to 1640 nm) (0 to -60 dBm)
Linearity[4] (dB)	± 0.015 (10 to -35 dBm)	± 0.015 (0 to -60 dBm)
Power resolution[4] (dB)	0.001 (20 to -35 dBm)	0.001 (9 to -60 dBm)
Wavelength resolution (nm)	1	1
Fiber type (µm)	5/125 to 62.5/125	5/125 to 62.5/125

Standard Accessories

Instruction manual, 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 humidity[5]		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 humidity[5]		0 % to 80 % non-condensing	

Notes

1. All power specifications are at 1310 nm unless otherwise specified, and after a warmup period of 20 minutes followed by an offset nulling.
2. From 0 °C to 30 °C.
3. At 23 °C ± 1 °C with FOA-222. For GeX detectors, add 1 % to uncertainty below 1000 nm, and 3 % over 1650 nm. For InGaAs detectors, add 1 % to uncertainty below 1000 nm and 6 % over 1640 nm. All uncertainties were valid on the day of calibration.
4. For a temperature that is stable within ± 1 °C in the 0 °C to 40 °C range.
5. Measured in the 0 °C to 40 °C range.

Ordering Information

IQ-110X PM-110X

Detector code
02X = GeX
03 = InGaAs

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 free fiber-optic connector adapter (FOA) from the preceding list.

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EXFO is certified ISO 9001 and attests to the quality of these products. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices.
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