

IQ-1200

4-Channel Power Meter



- Four optical channels and a flexible virtual channel
- Graphical display mode
- Timed and conditional multi-channel data acquisitions
- Wide variety of photodetectors

EXFO

4-Channel Optical Power Meter

The IQ-1200 4-Channel Power Meter module, a fundamental element of the IQ solution, delivers exceptional performance, flexibility, user-friendliness, and extensive integration capabilities. It offers all the traditional functions of a power meter—absolute and relative power

measurements, offset nulling, etc.—plus full acquisition capability, unique virtual channel features, and a powerful graphical display. The IQ-1200 incorporates four independent photodetectors for multi-channel monitoring or multi-component testing.

Excellent performance

• Uncertainty	±5%
• Linearity	±0.015 dB
• Resolution	0.001 dB
• Power range	+20 to -85 dBm
• Wavelength resolution	1 nm

Available detectors

- Silicon (Si)
- Germanium (Ge)
- 2 mm Germanium (GeX)
- Indium Gallium Arsenide (InGaAs)

The IQ-1200 is available with adapters for all standard fiber-optic connectors.

The IQ solution

The IQ-203 mainframe and IQ-206 expansion units house the IQ-1200 module. Together, the IQ-203 and the IQ-206 can support up to 27 modules. Using the GPIB interface, two or more systems can be linked together and provide a virtually unlimited number of channels. The IQ-1200 Windows-compatible software application offers unprecedented user-friendliness and guarantees improved productivity.

Since the IQ system is a modular design based on a familiar programming environment, high-level integrated applications offer an efficient solution to many common measurement problems. These high-level applications provide multi-module control and, therefore, greatly simplify complex or repetitive measurement procedures. EXFO's custom engineering team will be pleased to design any application to meet your specific requirements.

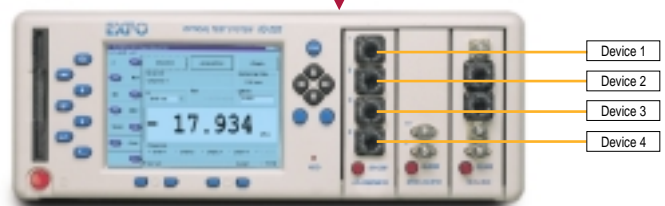
The following critical features are included:

- Timed and conditional trigger driving the four-channel data acquisition
- Virtual channel
- Absolute, relative, and offset display modes
- Power displayed in dBm, dB, or W
- Individual channel identification
- Dark current nulling

The IQ-1200 is ideally suited for the following measurement applications:

- System monitoring
- Component monitoring
- Multi-component testing
- Remote monitoring and alarm activation
- WDM component testing
- Multi-port coupler testing
- Insertion loss measurement
- Linearity verification
- Power meter verification
- Source stability measurements

Requires an IQ-1200 4-Channel Power Meter.



Testing tip

Use the IQ-1200 virtual channel to compare two optical channels that have the same power level. By defining the virtual channel as Channel 1 minus Channel 2, any deviation in either channel would be readily apparent by only monitoring the virtual channel.

Advanced Data Acquisition

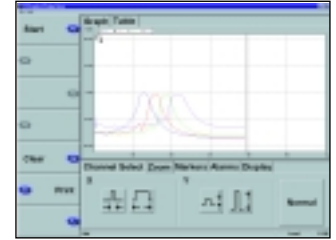
Reference button

Take a power reference measurement by simply selecting a button.

Channel identification

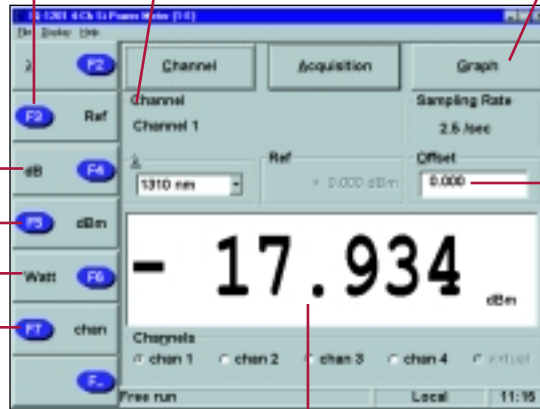
Enter any descriptive text that will help to identify the device or system under test.

Unique graphical display mode



Display units

Select dB, dBm, or W.



Convenient offset feature

Enter an offset value to compensate for a known power loss or gain.

Simple channel selection

Simply push this button to switch channels.

Variable resolution

Select either 0, 1, 2, or 3 significant digits. Automatic resolution can be alternatively selected.

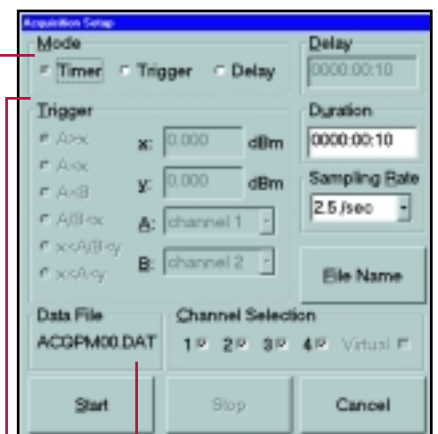
Simple, flexible, and familiar graphical user interface

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

Powerful four-channel data acquisition

Multiple modes

Select between timed, conditional, or delayed data acquisitions.



Multiple trigger conditions

Data acquisition will start as soon as the specified condition is met. Choose between the six available trigger conditions.

User-defined files

Acquisition data is saved to a user-defined file on the IQ-203 hard disk or floppy disk.

SPECIFICATIONS

Model	IQ-1201	IQ-1202	IQ-1202X	IQ-1203
Detector type	Si	Ge	Ge	InGaAs
Detector size (mm)	1	1	2	1
Wavelength range (nm)	450 to 1100	750 to 1800	750 to 1700	800 to 1700
Power range ² (nm)	+9 to -85	+10 to -77	+20 to -65	+9 to -85
Uncertainty ³ (dB)	±5 % (600 to 1020 nm) (0 to -55 dBm)	±5 % (1000 to 1650 nm) (0 to -47 dBm)	±5 % (1000 to 1650 nm) (+10 to -35 dBm)	±5 % (1000 to 1650 nm) (0 to -55 dBm)
Linearity ⁴ (dB)	± 0.015 (0 to -55 dBm)	± 0.015 (0 to -47 dBm)	± 0.015 (+10 to -35 dBm)	± 0.015 (0 to -55 dBm)
Power resolution ⁴ (dB)	0.001 (+9 to -55 dBm)	0.001 (+10 to -47 dBm)	0.001 (+20 to -35 dBm)	0.001 (+9 to -55 dBm)
Wavelength resolution (nm)	1	1	1	1
Fiber type ⁵ (µm)	5/125 to 62.5/125	5/125 to 62.5/125	5/125 to 62.5/125	5/125 to 62.5/125

GENERAL SPECIFICATIONS

Temperature	operating	0° to 50°C	32° to 122°F
	storage	-40° to 70°C	-40° to 158°F
Relative humidity ⁶	0 to 80 % non-condensing		
Dimensions (H x W x D)	12 x 3.8 x 26.2 cm	4 ³ / ₄ x 1 ¹ / ₂ x 10 ⁵ / ₁₆ in.	
Weight	0.70 kg	1.55 lb	

NOTES

- All power specifications are at 850 nm for the IQ-1201 and at 1310 nm for the IQ-1202, IQ-1202X and IQ-1203 unless otherwise specified, and after a warm-up period of 20 minutes followed by an offset nulling.
- From 0° to 30°C/32° to 86°F.
- At 23°C ±1/73.4°F with the FOA-222. The uncertainty on absolute measurements may reach 0.22 dB. Add 1% to uncertainty outside these wavelength ranges.
- Measured at a constant temperature in the 0° to 40°C/32° to 104°F range.
- 100/140 µm fiber with a special fiber-optic adapter (FOA).
- Measured in the 0° to 40°C/32° to 104°F range.

ORDERING INFORMATION

IQ-120X-FOA-2XX	
Detector code	
1 = Si	
2 = Ge	
2X = Ge (2 mm)	
3 = InGaAs	
Connector adapter code	
FOA-216 = SMA 906 low reflection	
FOA-222 = FC low reflection: FC, FC (PC/SPC/UPC/APC, NEC-D3)	
FOA-228 = DIN 47256 (LSA) low reflection: DIN 47256(PC/APC)	
FOA-232 = ST low reflection: ST, ST(PC/SPC/UPC)	
FOA-240 = Diamond HMS-0, HFS-3 (3.5 mm) low reflection	
FOA-254 = SC low reflection: SC, 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)	

SOFTWARE OPTIONS

OCX controls and LabVIEW drivers

STANDARD ACCESSORIES

Instruction manual, four fiber-optic connector adapters, Certificate of Compliance, and Certificate of Calibration

EXFO is ISO 9001 certified and attests to the quality of its products. These products are accompanied by a 24-month warranty and an excellent after-sales support service to fulfill all our customers' needs.

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 functions.

EXFO has made every effort to ensure that the information contained in this brochure 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.

Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.



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