

# Power Meter

IQS-1100



110 dB dynamic range

Graphical display mode

Excellent  $\pm 0.015$  dB linearity

Flexible data acquisition



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

**EXFO**

# Accurate, Automated Measurements

EXFO's IQS-1100 Power Meter provides accurate power measurements over a high dynamic range along with high resolution and excellent linearity. Use it for measuring insertion loss or for continuous monitoring and data acquisition. The IQS-1100 module series delivers exceptional performance, flexibility, user-friendliness and extensive integration capabilities.



## The IQS Solution

For integrated test solutions, you can combine the IQS-1100 Power Meter with other IQS instruments that cover testing requirements for DWDM components, whether passive or active, as well as cable and fiber subassemblies. All IQS instruments are built for fast data transfer, comprehensive test-result analysis and true multitasking.

## Key Features

**Excellent Specifications.** The IQS-1100 Power Meter offers  $\pm 0.015$  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.

**Multiple Detector Types.** Both high-power Ge and InGaAs photodetectors are available. For general power measurements, an InGaAs detector provides 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 Interface

The flexible graphical user interface (GUI) developed by EXFO allows easy control of the power meter settings. Get instant access to software buttons, such as those used to launch an acquisition, perform min/max signal tracking or activate the Graph mode.

## The IQS-500 Intelligent Test System

The new IQS-500 Intelligent Test System provides a flexible approach to optical test and measurement for manufacturing, automation, optical qualification and R&D. It combines powerful features and control capabilities for up to 100 modules.

Based on standard industrial PC architecture, the IQS-500 Intelligent Test System is a scalable modular platform that includes controllers, expansion units and a comprehensive range of plug-in test modules. The IQS-500 is also backward-compatible with most of EXFO's IQ-generation modules, allowing you to maximize the return on previous investments. The IQS-500 Intelligent Test System offers a powerful, easy-to-use environment to match your most demanding needs.

## Applications

The IQS-1100 Power Meter is ideal for the following applications:

- Periodical multichannel monitoring (requires an IQS-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)

# Specifications<sup>1</sup>

Model	IQS-1102X	IQS-1103
Detector type	GeX	InGaAs
Detector size (mm)	2	1
Wavelength range (nm)	750 to 1700	800 to 1700
Power range <sup>2</sup> (dBm)	20 to -75	9 to -100
Uncertainty <sup>3</sup> (dB)	± 5 % (1000 to 1650 nm) (+10 to -35 dBm)	± 5 % (1000 to 1640 nm) (0 to -60 dBm)
Linearity <sup>4</sup> (dB)	± 0.015 (10 to -35 dBm)	± 0.015 (0 to -60 dBm)
Power resolution <sup>4</sup> (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

## Instrument Drivers

LabVIEW™ drivers, SCPI commands and COM/DCOM libraries

## Remote Control

With IQS-500: GPIB (IEEE-488.1, IEEE-488.2) Ethernet and RS-232.

## Standard Accessories

User Guide; one fiber-optic adapter per channel; Certificate of Compliance; Certificate of Calibration.

## Ordering Information

### IQS-110X

#### Detector code

- 02X = GeX
- 03 = InGaAs

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

FOA-316: SMA 906 ultra-low reflection  
 FOA-322 : FC ultra-low reflection: FC (/PC/SPC/UPC/APC, NEC-D3)  
 FOA-328 : DIN 47256 (LSA) ultra-low reflection: DIN 47256 (/PC/APC)  
 FOA-332 : ST ultra-low reflection: ST (/PC/SPC/UPC)  
 FOA-340 : Diamond HMS-0, HFS-3 (3.5 mm) ultra-low reflection  
 FOA-354: SC ultra-low reflection: SC (/PC/SPC/UPC/APC)  
 FOA-376: FSMA HMS-10/AG, HFS-10/AG ultra-low reflection

## General Specifications

### IQS-1100

Dimensions (H x W x D)	12.5 cm x 3.6 cm x 28.2 cm (4 15/16 in x 1 7/16 in x 11 1/8 in)
Weight	0.63 kg (1.4 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 <sup>5</sup>	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-322. 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.
- 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.

FOA-384: Diamond HMS-10, HFS-13 ultra-low reflection  
 FOA-396: E-2000 ultra-low reflection: E-2000 (/PC/APC)  
 FOA-398: LC ultra-low reflection  
 FOA-399: MU ultra-low reflection  
 FOA-3000: Adapter for BFA-3000 (GeX only)  
 FOA-8100: Utility adapter  
 Please select your free fiber-optic connector adapter (FOA) from the preceding list.

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