

**Aumictech**

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Data Sheet

August 14, 2026

EXFO

Exfo IQ-1643 4-Channel High-Speed Power Meter

Exfo Optical Power Meters. Accuracy: ** ± 0.25 dB, Resolution: ** 0.01 dB, Dynamic Range: ** Up to 95 dB (automatic gain).



MODEL

Exfo IQ-1643

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

IQ-1643

LISTING

<https://aumictechlabs.com/products/iq-1643-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Exfo IQ-1643 is a 4-channel high-speed optical power meter engineered for simultaneous measurement across multiple fiber-optic signals. Built around InGaAs photodetectors, it delivers measurement ranges from 9 dBm to -85 dBm with ± 0.25 dB accuracy and ± 0.02 dB uncertainty. The instrument achieves stabilization times as fast as 1 ms in manual gain mode and up to 4096 samples per second in triggered high-speed acquisitions, supporting dynamic range up to 95 dB. Its low polarization-dependent response ensures reliable measurements across varying polarization states. Technical Specifications Wavelength Range: 800 nm to 1700 nm Measurement Range: 9 dBm to -85 dBm or 6 dBm to -85 dBm Accuracy: ± 0.25 dB Measurement Uncertainty: ± 0.02 dB Resolution: 0.01 dB Linearity: ± 0.02 dB Dynamic Range: Up to 95 dB (automatic gain) Sampling Rates: 256 samples/second (continuous); 4096 samples/second (triggered high-speed) Stabilization Time: 1 ms (manual gain); 15 ms (automatic gain, up to 95 dB fluctuation) Operating Temperature: 0°C to 50°C Detector Type: InGaAs photodetectors Dimensions: 12 cm (H) $\times$ 3.8 cm (W) $\times$ 26.2 cm (D) Key Features Four simultaneous measurement channels with independent

detector inputs Graphical display mode with real-time curve visualization (up to eight curves) Synchronized measurements via power level trigger and TTL voltage trigger (0–5 V input) Multiple connector support: FC, SC, ST, LC (FOA adapters available separately) USB data interface for automated test integration Low polarization-dependent response for consistent results across signal states Typical Applications WDM component characterization and validation Fiber-optic system monitoring and diagnostics Assembly line power verification and quality control Multi-channel optical signal assessment Compatibility & Integration The IQ-1643 accepts standard single-mode and multimode fiber connectors with FOA adapter support. TTL trigger input (0–5 V) enables synchronization with external test equipment. USB connectivity facilitates integration into automated test environments and data logging systems.

IQ1643 Characteristics / Specifications

PARAMETER	VALUE
Model Class	IQ-1643 / IQS-1643
Number Of Detectors	4
Detector Type	InGaAs
Detector Size Standard	1 mm
Wavelength Range	800 to 1700 nm
Power Range Standard	9 to minus 80 dBm
Linearity	plus or minus 0.015 dB class from 0 to minus 55 dBm
Power Resolution	0.001 dB class
Wavelength Resolution	0.01 nm
Sampling Rate Fast Acquisition	up to 4096 sample/s/channel
Sampling Rate Continuous	up to 256 sample/s/channel
Stabilization Time Fixed Range	1 ms class
External Trigger Input	0 to 5 V TTL
Module Size HxWxD Class	125 mm x 36 mm x 282 mm IQS single-slot
Related Dual Channel	IQ-1623 / IQS-1623
Related Single Channel	IQ-1613 / IQS-1613
Related Wide Area	IQS-1643W 3 mm detectors 8 to minus 70 dBm
Related Low PDL	IQS-1643-PL
Related System Variant	IQS-1643T-PL-SN for IQS-12004B
Operating Temperature Class	0 C to 40 C
Platform	IQ-200 / IQS-500 / IQS-600
Remote Control	via host GPIB Ethernet RS-232 SCPI
Fiber Type	5/125 to 62.5/125 μ m
Operating temperature	Class: 0 C to 40 C

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: 0 C to 40 C
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Platform	IQ-200 / IQS-500 / IQS-600
Remote Control	via host GPIB Ethernet RS-232 SCPI
Fiber Type	5/125 to 62.5/125 um Notes From EXFO PM-1600 / IQS-1600 High-Speed Power Meter family specifications for four-channel InGaAs models. Confirm PL versusWversusTfaceplate codes.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.