

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

ADVANTEST

Advantest Q82208 800nm-1700nm Optical Sensor Head

Dimensions: approx 60 W x 43 H x 135 D mm Display Resolution Via Mainframe: 0.001 dB
Measurement Modes: CW and 270 Hz chop via Q8221 From Advantest Q8221 optical sensor specification tables (Q82208 high-sensitivity long-wavelength column). Optional OPT82208+25 adds 1550 nm calibration. Display Resolution Via Mainframe: 0.001 dB
Measurement Modes: CW and 270 Hz chop via Q8221 From Advantest Q8221 optical sensor specification tables (Q82208 high-sensitivity long-wavelength column). Optional OPT82208+25 adds 1550 nm calibration.



MODEL

Advantest Q82208

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

Q82208

LISTING

<https://aumictechlabs.com/products/q82208-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Advantest Q82208 is an optical sensor head engineered for precision measurements across the 800 nm to 1700 nm wavelength band. Built around a cooled InGaAs photodiode, it delivers measurement sensitivity down to -94 dBm and supports linear operation to $+10$ dBm, making it suitable for both weak-signal and high-power optical characterization. The sensor head minimizes return loss through slant-polished fiber ends (≥ 50 dB) and optional high-return-loss adapters (≥ 45 dB with PC-polished connectors), enabling accurate measurements in dispersion-shifted

fiber systems. Technical Specifications Wavelength Range: 800 nm to 1700 nm Sensor Element: Cooled InGaAs photodiode Measurement Sensitivity: -94 dBm (minimum) Maximum Measurable Power: +10 dBm with high linearity Return Loss: 50 dB or greater (slant-polished fibers); 45 dB or greater (PC-polished connectors with high-return-loss adapter) Fiber Compatibility: Core diameter $\leq 10 \mu\text{m}$, numerical aperture ≤ 0.19 Sampling Rate: 100 times per second maximum Ranging Speed: 20 msec minimum to 500 msec maximum Measurement Modes: CW (continuous optical measurement), chopped light (270 Hz, 2 kHz, 4 kHz) Key Features Supports FC, SC, ST, MU, LC, and plug-in connector types Optional 1550 nm calibration (OPT. 25) Horizontal operation required; minimum 10 cm ventilation clearance around air vents Horizontal storage position; vertical storage requires securing to prevent drops Typical Applications Optical power measurement in fiber optic systems, dispersion-shifted fiber characterization, and wavelength-dependent power assessment in the near-infrared spectrum. Compatibility & Integration The Q82208 integrates with compatible Advantest optical power meter main units such as the Q8221. Host systems may support GPIB data transfer.

Q82208 Characteristics / Specifications

PARAMETER	VALUE
Wavelength Range	800 to 1700 nm
Power Range	minus 94 to plus 10 dBm
Sensor Element	InGaAs cooled
Calibration Wavelength	1300 nm 1 mW 0 to 40 C
Cw Accuracy At Cal	plus or minus 2.5 percent
Chop Accuracy At Cal	plus or minus 3.5 percent
Wideband Accuracy	plus or minus 4.5 percent CW 1000 to 1650 nm 1 mW 0 to 40 C
Linearity 1 s Avg	plus or minus 0.5 percent plus 0.4 pW 72 to 10 dBm 0 to 40 C
Noise Level Slow	minus 94 dBm
Noise Fs	minus 79 dBm class at 100/s without averaging
Return Loss Pc	43 dB or more typical 45 dB
Fiber Input	core 10 um NA 0.19 PC rubbed connector
Cw Max Min	20 mW / 200 pW
Chop Max Min	20 mW / 200 nW
Mainframe	Q8221 two channel optical power meter
Interface Unit	Q82203 required
Dimensions	approx 60 W x 43 H x 135 D mm
Mass	590 g or less
Operating Temperature	0 to 40 C
Display Resolution Via Mainframe	0.001 dB
Measurement Modes	CW and 270 Hz chop via Q8221
GPIO Resolution Via Mainframe	0.0001 dB
Adaptor Set	FC SC ST MU LC for Q82208
Return loss	Pc: 43 dB or more typical 45 dB

Q82208 Specifications

PARAMETER	VALUE
Advantest Q82208 Optical Sensor Head	Overview
Applications	Low-level 1310/1550 nm optical power with the Q8221 mainframe.
Cooled InGaAs high sensitivity	Minus 94 dBm noise floor
PC rubbed SM fiber input	Optional 1550 nm calibration
Technical Specifications	Wavelength Range: 800 to 1700 nm

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 40 C
Operating Temperature	0 to 40 C
Display Resolution Via Mainframe	0.001 dB
Measurement Modes	CW and 270 Hz chop via Q8221
GPIB Resolution Via Mainframe	0.0001 dB
Adaptor Set	FC SC ST MU LC for Q82208 Notes From Advantest Q8221 optical sensor specification tables (Q82208 high-sensitivity long-wavelength column). Optional OPT82208+25 adds 1550 nm calibration.

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	
Specifications	
PARAMETER	VALUE
Wavelength Range	800 to 1700 nm
Power Range	minus 94 to plus 10 dBm
Sensor Element	InGaAs cooled
Calibration Wavelength	1300 nm 1 mW 0 to 40 C
Cw Accuracy At Cal	plus or minus 2.5 percent
Chop Accuracy At Cal	plus or minus 3.5 percent
Wideband Accuracy	plus or minus 4.5 percent CW 1000 to 1650 nm 1 mW 0 to 40 C
Linearity 1 s Avg	plus or minus 0.5 percent plus 0.4 pW 72 to 10 dBm 0 to 40 C
Noise Level Slow	minus 94 dBm
Noise Fs3	minus 79 dBm class at 100/s without averaging
Return Loss Pc	43 dB or more typical 45 dB
Fiber Input	core 10 um NA 0.19 PC rubbed connector
Cw Max Min	20 mW / 200 pW
Chop Max Min	20 mW / 200 nW
Mainframe	Q8221 two channel optical power meter
Interface Unit	Q82203 required
Dimensions	approx 60 W x 43 H x 135 D mm
Mass	590 g or less
Operating Temperature	0 to 40 C
Display Resolution Via Mainframe	0.001 dB
Measurement Modes	CW and 270 Hz chop via Q8221
GPiB Resolution Via Mainframe	0.0001 dB
Adaptor Set	FC SC ST MU LC for Q82208
Notes	
From Advantest Q8221 optical sensor specification tables (Q82208 high-sensitivity long-wavelength column). Optional OPT82208+25 adds 1550 nm calibration.	

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

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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.