

**Aumictech**

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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 81632A, InGaAs Optical Head

Related Later Model: 81632B InGaAs sensor 800 to 1650 nm, +10 to minus 80 dBm in the B-series user's guide Full Specification Document: Agilent Technical Specifications p/n 5962-9321E for test conditions Mm Fiber Note FromBGuide Footnote: B-series footnote for 81632A/81635A: add plus or minus 2 percent for 62.5 um GI NA 0.24 Numeric rows from Agilent 8163A Lightwave Multimeter Selected Specifications, 81632A power-sensor column. Host interface rows are from the same selected-specifications sheet. Finer noise, return-loss, and analog-output limits belong in 5962-9321E and are not invented here. Full Specification Document: Agilent Technical Specifications p/n 5962-9321E for test conditions Mm Fiber Note FromBGuide Footnote: B-series footnote for 81632A/81635A: add plus or minus 2 percent for 62.5 um GI NA 0.24 Numeric rows from Agilent 8163A Lightwave Multimeter Selected Specifications, 81632A power-sensor column. Host interface rows are from the same selected-specifications sheet. Finer noise, return-loss, and analog-output limits belong in 5962-9321E and are not invented here.



MODEL

**Agilent / Keysight
81632A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

81632A

LISTING

<https://aumictechlabs.com/products/81632a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 81632A is an InGaAs optical head for precise optical power measurement across telecom and datacom wavelengths. It operates as a plug-in module within the 816x mainframe series, delivering high-accuracy power detection with fast signal processing and

onboard data storage. The sensor achieves $\pm 3\%$ accuracy across the 1200 nm to 1630 nm band and supports standard single-mode and multimode fiber up to 62.5 μm core diameter.

Technical Specifications

Sensor Type: InGaAs Wavelength Range: 800 nm to 1650 nm Power Range: +10 dBm to -80 dBm Accuracy (1200 nm to 1630 nm): $\pm 3\%$ Linearity (CW, +10 dBm to -60 dBm): ± 0.02 dB ± 20 pW Display Resolution: 0.0001 dB/dBm; 0.01 pW to 10 pW (range-dependent) Averaging Time (minimum): 100 μs Warm-up Time: 20 minutes Dimensions: 75 mm H $\times$ 32 mm W $\times$ 335 mm D Weight: 0.5 kg

Key Features

Onboard signal processing enables fast data acquisition for high-channel-count and multiplexer/demultiplexer testing Internal memory for automated data logging Analog output via BNC connector (0–2 V range), proportional to optical signal strength with autoranging disable option SCPI-compatible programming interface

Typical Applications

Optical component testing and characterization Research and development in lightwave systems Manufacturing process monitoring and quality assurance Telecom and datacom wavelength power verification

Compatibility & Integration

Mainframes: Agilent 8163A/B, 8164A/B, 8166A/B Lightwave Measurement Systems Interface Modules: 81618A (single), 81619A (dual) Supported Fiber: Standard SM and MM up to 62.5 μm core ($\text{NA} \leq 0.24$) Data Interfaces: GPIB, RS232C, Parallel Printer Interface (Centronics) Operating Temperature: +10°C to +40°C, non-condensing humidity

Features & description

From manufacturer datasheet

Polarization Dependent Uncertainty Typical: typical plus or minus 0.015 dB

Spectral Ripple Typical: typical plus or minus 0.015 dB Linearity At 23 C: less than plus or minus 0.02 dB plus or minus 20 pW, CW +10 dBm to minus 60 dBm, 23 C plus or minus 5 C Host Mainframes: 8163A/B, 8164A/B, 8166A/B Host Display: graphical display, monochrome, on 8163A Host Interface Gpib: GPIB on 8163A Host Interface Serial: RS232C on 8163A Host Printer Interface: parallel Centronics on 8163A Programming: SCPI, compatible with 8164A, 8166A, and 8153A syntax Module Form: slim front-load 816x sensor module Related Later Model: 81632B InGaAs sensor 800 to 1650 nm, +10 to minus 80 dBm in the B-series user's guide Full Specification Document: Agilent Technical Specifications p/n 5962-9321E for test conditions Mm Fiber Note FromBGuide Footnote: B-series footnote for 81632A/81635A: add plus or minus 2 percent for 62.5 um GI NA 0.24 Notes Numeric rows from Agilent 8163A Lightwave Multimeter Selected Specifications, 81632A power-sensor column. Host interface rows are from the same selected-specifications sheet. Finer noise, return-loss, and analog-output limits belong in 5962-9321E and are not invented here.

81632A Characteristics / Specifications

PARAMETER	VALUE
Model	81632A
Instrument Type	Optical power sensor module
Series Family	Agilent 8163xA power sensors
Sensor Element	InGaAs
Wavelength Range	800 nm to 1650 nm
Minimum Wavelength	800 nm
Maximum Wavelength	1650 nm
Power Range	+10 dBm to minus 80 dBm
Maximum Power	+10 dBm
Minimum Power	minus 80 dBm
Uncertainty At Reference Conditions	less than plus or minus 3 percent, 1200 nm to 1630 nm
Polarization Dependent Uncertainty Typical	typical plus or minus 0.015 dB
Spectral Ripple Typical	typical plus or minus 0.015 dB
Linearity At 23 C	less than plus or minus 0.02 dB plus or minus 20 pW, CW +10 dBm to minus 60 dBm, 23 C plus or minus 5 C
Host Mainframes	8163A/B, 8164A/B, 8166A/B
Host Display	graphical display, monochrome, on 8163A
Host Interface Gpib	GPIB on 8163A
Host Interface Serial	RS232C on 8163A
Host Printer Interface	parallel Centronics on 8163A
Programming	SCPI, compatible with 8164A, 8166A, and 8153A syntax
Module Form	slim front-load 816x sensor module
Related Later Model	81632B InGaAs sensor 800 to 1650 nm, +10 to minus 80 dBm in the B-series user's guide
Full Specification Document	Agilent Technical Specifications p/n 5962-9321E for test conditions

PARAMETER	VALUE
Mm Fiber Note FromBGuide Footnote	B-series footnote for 81632A/81635A: add plus or minus 2 percent for 62.5 um GI NA 0.24

81632A Specifications

PARAMETER	VALUE
Applications	Calibrated optical power on the 816x platform from 800 to 1650 nm down to minus 80 dBm.
Key Features	InGaAs sensor, +10 to minus 80 dBm
Slim 816x power sensor module	SCPI programming via host mainframe
Technical Specifications	Model: 81632A

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 list 800 to 1650 nm, +10 to minus 80 dBm, uncertainty less than plus or minus 3 percent at reference conditions (1200 to 1630 nm), and linearity less than plus or minus 0.02 dB plus or minus 20 pW (CW +10 to minus 60 dBm at 23 C plus or minus 5 C).

Applications

Calibrated optical power on the 816x platform from 800 to 1650 nm down to minus 80 dBm.

Key Features

InGaAs sensor, +10 to minus 80 dBm

Slim 816x power sensor module

SCPI programming via host mainframe

Full conditions in Agilent literature 5962-9321E

Technical Specifications

Technical Specifications

PARAMETER	VALUE
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Instrument Type	Optical power sensor module
Series Family	Agilent 8163xA power sensors
Sensor Element	InGaAs
Wavelength Range	800 nm to 1650 nm
Minimum Wavelength	800 nm
Maximum Wavelength	1650 nm
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Maximum Power	+10 dBm
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Uncertainty At Reference Conditions	less than plus or minus 3 percent, 1200 nm to 1630 nm
Polarization Dependent Uncertainty Typical	typical plus or minus 0.015 dB
Spectral Ripple Typical	typical plus or minus 0.015 dB
Linearity At 23 C	less than plus or minus 0.02 dB plus or minus 20 pW, CW +10 dBm to minus 60 dBm, 23 C plus or minus 5 C
Host Mainframes	8163A/B, 8164A/B, 8166A/B
Host Display	graphical display, monochrome, on 8163A
Host Interface Gpib	GPIB on 8163A
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PARAMETER	VALUE
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Module Form	slim front-load 816x sensor module
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Notes

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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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30-day returns
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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.