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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 81623C Optical Power Head

Keysight / Agilent 81623C Optical Power Head The Keysight/Agilent 81623C is an optical power head for the 816x lightwave mainframe family. OEM 8162x optical head tables specify detector type, wavelength coverage, power range, and connector adapters for calibrated fiber power measurements. Optical power monitoring, component insertion-loss setups, and calibrated lightwave power measurements with 816x mainframes. Host Family: 816x lightwave measurement system The Keysight/Agilent 81623C is an optical power head for the 816x lightwave mainframe family. OEM 8162x optical head tables specify detector type, wavelength coverage, power range, and connector adapters for calibrated fiber power measurements. Optical power monitoring, component insertion-loss setups, and calibrated lightwave power measurements with 816x mainframes. Host Family: 816x lightwave measurement system Compatible Mainframes Class: 8163/8164/8166 class



MODEL	CALIBRATION
Agilent / Keysight 81623C	Available on request
CONDITION	STATUS
Used	In stock
RFQ / SKU	LISTING
81623C	https://aumictechlabs.com/products/81623c-2/

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 81623C is a germanium-based optical power head engineered for precision measurements across the near-infrared spectrum. It connects to the Keysight N7749C optical head interface for remote positioning and delivers measurement uncertainty of $\pm 2.2\%$ at 1000 nm to 1650 nm under reference conditions. The 5 mm detector accommodates parallel beams up to 4 mm in diameter and supports standard single-mode fiber, multi-mode fiber with core diameters to

100 μm (NA = 0.3), bare fibers, and open beams. Technical Specifications Detector: Germanium, 5 mm diameter Wavelength Range: 750 nm to 1800 nm Power Range: +10 dBm to -80 dBm Beam Diameter Acceptance: Up to 4 mm Measurement Uncertainty: $\pm 2.2\%$ at 1000 nm to 1650 nm; $\pm 2.5\%$ at 800 nm to 1000 nm (optional calibration: $\pm 1.7\%$ at 1000 nm to 1650 nm) Linearity: 50 dB (typically > 55 dB) Polarization Dependence: < ± 0.01 dB relative uncertainty (typically < ± 0.005 dB) Spectral Ripple: < ± 0.006 dB relative uncertainty (typically < ± 0.003 dB) Key Features Analog output configured for linear or logarithmic response across multiple decades Magnetic D-shaped adapters enable rapid fiber or beam coupling without disturbing attached connections Optional adapters available for standard connector types, bare fibers, and open-beam geometries Typical Applications Optical communication system characterization Laser power and spectral performance validation Optical component testing and alignment Compatibility & Integration Integrates with the Keysight N7749C optical head interface, which provides LAN and USB readout, SCPI command control, dual 1 M sample buffers per head, and averaging times from 100 μs to 10 s. Supports internal and external triggering with simultaneous measurement and readout.

81623C Characteristics / Specifications

PARAMETER	VALUE
Model	81623C
Instrument Type	Optical power head
Host Family	816x lightwave measurement system
Compatible Mainframes Class	8163/8164/8166 class
Measurement Role	Optical average power
Detector Type Class	Per 81623C head table
Wavelength Range Class	Per 81623C published wavelength window
Power Range Class	Per 81623C head power table
Connector Interface	Fiber adapter interface on head
Brand Lineage	Keysight / Agilent
Related Heads	81624C and sibling 8162x heads
Remote Path	Through host mainframe GPIB/LAN class
Safety Class	Observe published maximum ratings
Chassis Form	Optical sensor head with cable
Calibration	Wavelength-dependent calibration data
Operating Temperature Spec Class	Follow 8162x head sheet
Documentation Scope	OEM 8162x optical head data tables
Linearity Class	Optical head linearity per sheet
Uncertainty Class	Follow calibration certificate and sheet
Max Safe Input Class	Per head damage-level table
Installed Options	Connector adapters determine ferrule type
Warmup Spec Class	Follow mainframe/head warm-up guidance
Manufacturer Documentation	OEM datasheet and user documentation
Wavelength range	Class: Per 81623C published wavelength window
Operating temperature	Spec Class: Follow 8162x head sheet

81623C Specifications

PARAMETER	VALUE
Keysight / Agilent 81623C Optical Power Head	Overview
Applications	Optical power monitoring, component insertion-loss setups, and calibrated lightwave power measurements with 816x mainframes.
Key Features	816x family optical power head
Technical Specifications	Model: 81623C

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Spec Class: Follow 8162x head sheet
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Operating Temperature Spec Class	Follow 8162x head sheet
Documentation Scope	OEM 8162x optical head data tables
Linearity Class	Optical head linearity per sheet
Uncertainty Class	Follow calibration certificate and sheet
Max Safe Input Class	Per head damage-level table
Installed Options	Connector adapters determine ferrule type
Warmup Spec Class	Follow mainframe/head warm-up guidance
Manufacturer Documentation	OEM datasheet and user documentation Notes From Keysight/Agilent 8162x optical power head documentation for 81623C. Exact detector material and ranges are on the 81623C column of the optical head table.

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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.