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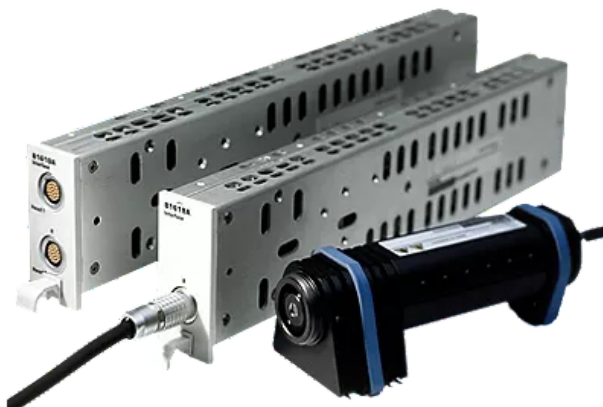
Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 81622B Ge Optical Head, 5mm Diameter

Agilent 81622B High Power Ge Optical Head The Agilent/HP 81622B is a high-power remote optical head with a 5 mm germanium sensor for 850 to 1650 nm measurements. Power range is +27 to -55 dBm (1250 to 1650 nm) and +23 to -55 dBm across 850 to 1650 nm. It requires an 81618A single or 81619A dual interface module in 8163/8164/8166 mainframes. High-power EDFA and transmitter output measurement; DWDM component test needing Ge response; open-beam and connectorized power metrology to +27 dBm class. The Agilent/HP 81622B is a high-power remote optical head with a 5 mm germanium sensor for 850 to 1650 nm measurements. Power range is +27 to -55 dBm (1250 to 1650 nm) and +23 to -55 dBm across 850 to 1650 nm. It requires an 81618A single or 81619A dual interface module in 8163/8164/8166 mainframes. High-power EDFA and transmitter output measurement; DWDM component test needing Ge response; open-beam and connectorized power metrology to +27 dBm class.



MODEL

**HP / Agilent
81622B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

81622B

LISTING

<https://aumictechlabs.com/products/81622b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 81622B is a Germanium optical sensor head designed for precision optical power measurement across the infrared spectrum. This 5 mm diameter detector integrates with Agilent

optical power meter systems via interface modules such as the 81618A or 81619A, delivering accurate readings from 850 nm to 1650 nm. The sensor achieves $\pm 3.0\%$ accuracy across 950 nm to 1630 nm and offers exceptional linearity of ± 0.05 dB ± 40 nW in the 950–1630 nm band. Built for demanding laboratory and industrial applications, the 81622B accepts standard single-mode and multi-mode fiber up to 100 μ m core diameter (NA = 0.3) and delivers 0.001 dB power resolution with ± 0.02 dB repeatability.

Technical Specifications

Sensor Element: Germanium (Ge)

Optical Diameter: 5 mm

Wavelength Range: 850 nm to 1650 nm

Power Measurement Range: +27 dBm to –55 dBm (1250–1650 nm); +23 dBm to –55 dBm (850–1650 nm)

Measurement Accuracy: $\pm 3.0\%$ (950–1630 nm)

Linearity (CW, 23°C $\pm 5^\circ$ C): ± 0.05 dB ± 40 nW (+27 dBm to –40 dBm, 950–1630 nm)

Power Resolution: 0.001 dB

Measurement Repeatability: ± 0.02 dB

Noise (peak-to-peak): < 40 nW

Polarization Dependence: 45 dB

Maximum Input Power: 300 mW

Optical Damage Threshold: 500 mW/cm²

Analog Output: 0–2 V via BNC connector

Key Features

- Germanium detector optimized for near-infrared and infrared wavelengths
- Supports standard single-mode and multi-mode fiber (core up to 100 μ m, NA = 0.3)
- Real-time analog output for instantaneous signal monitoring
- High return loss (> 45 dB) minimizes reflective artifacts
- Compact 80 × 42 × 190 mm form factor; 0.4 kg

Typical Applications

- Optical power measurement in fiber optic systems
- Infrared detector calibration and validation
- Laboratory characterization of broadband and narrowband sources
- Industrial optical power monitoring

Compatibility & Integration

The 81622B integrates with Agilent optical power meter platforms via the 81618A or 81619A interface modules. Optical input adapts to common fiber connectors (FC/PC, SC, ST) or bare fiber through available connector adapters. Threaded or D-type magnetic interface options are available depending on model variant.

Features & description

From manufacturer datasheet

Features

• 5 mm Ge high-power optical head • +27 dBm upper range in 1250 to 1650 nm window • Low polarization and spectral-ripple uncertainty • Requires 81618A or 81619A interface • Magnetic D-shape adapter safe stand

81622B Characteristics / Specifications

PARAMETER	VALUE
Model	81622B
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	High power optical power head
Alias	HP 81622B; Agilent 81622B; Keysight 81622B
Sensor Element	Ge 5 mm diameter
Wavelength Range	850 nm to 1650 nm
Power Range 1250 To 1650 nm	+27 dBm to -55 dBm
Power Range 850 To 1650 nm	+23 dBm to -55 dBm
Applicable Fiber	standard SM and MM to 100 um core NA 0.3; parallel beam max 4 mm
Uncertainty At Reference Conditions	plus/minus 3.0 percent (950 to 1630 nm)
Total Uncertainty	plus/minus 5 percent plus/minus 40 nW (950 to 1630 nm)
Relative Uncertainty Polarization	plus/minus 0.01 dB (typ plus/minus 0.005 dB)
Relative Uncertainty Spectral Ripple	plus/minus 0.006 dB (typ plus/minus 0.003 dB)
Linearity At 23 Plus Minus 5 C	less than plus/minus 0.05 dB plus/minus 40 nW (CW +27 to -40 dBm; 950 to 1630 nm)
Linearity Operating Temp Range	less than plus/minus 0.15 dB plus/minus 40 nW
Return Loss	greater than 45 dB
Noise Peak To Peak	less than 40 nW
Interface Modules	81618A single; 81619A dual
Mainframe Compatibility	8163A/B 8164A/B 8166A/B
Related High Power InGaAs	81626B (+27 to -70 dBm class)
Related Standard Ge Head	81623B (+10 to -80 dBm class)
Analog Output	included on high-power head family
Warmup Time Family	40 minutes class
Recommended Recalibration Period Family	2 years

PARAMETER	VALUE
Dimensions Class	57 mm x 66 mm x 156 mm family remote heads
Net Weight Class	0.5 kg family
Operating Temperature Family	0 C to +35 C class for high-power heads
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General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Family: 0 C to +35 C class for high-power heads
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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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Notes
Numeric table from Agilent 81618A/9A and 81622B optical-head specifications (81622B Ge high-power column).
Confirm Ge faceplate marking versus InGaAs 81626B before metrology use.

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 ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

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