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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 86122A Multi-Wavelength Meter Range: 1270-1650 nm

Agilent Keysight 86122A Multi Wavelength Meter The Agilent/Keysight 86122A multi-wavelength meter measures wavelength and optical power from 1270 to 1650 nm (182 to 236 THz). OEM 86120B/86120C/86122A family data sheets list absolute accuracy plus or minus 0.2 ppm (Opt.002) equal to plus or minus 0.3 pm at 1550 nm and 1310 nm for lines spaced 10 GHz or greater, with measurement cycle 0.5 s and up to 1000 lines. DWDM multi-line characterization, Fabry-Perot laser analysis, OSNR and channel-spacing measurements, and wavelength/power drift monitoring. The Agilent/Keysight 86122A multi-wavelength meter measures wavelength and optical power from 1270 to 1650 nm (182 to 236 THz). OEM 86120B/86120C/86122A family data sheets list absolute accuracy plus or minus 0.2 ppm (Opt.002) equal to plus or minus 0.3 pm at 1550 nm and 1310 nm for lines spaced 10 GHz or greater, with measurement cycle 0.5 s and up to 1000 lines. DWDM multi-line characterization, Fabry-Perot laser analysis, OSNR and channel-spacing measurements, and wavelength/power drift monitoring.



MODEL

**Agilent / Keysight
86122A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

86122A

LISTING

<https://aumictechlabs.com/products/86122a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 86122A is a precision multi-wavelength meter for absolute wavelength and optical power measurement across the 1270–1650 nm band. Engineered for optical component development, manufacturing verification, and dense WDM system characterization, the instrument delivers ± 0.3 pm accuracy at 1550 nm and 1310 nm (for laser lines separated by ≥ 10 GHz) with measurement cycle times under 0.5 seconds. The 86122A accommodates up to 1000 laser line inputs and accepts optical power levels to 18 dBm, making it suitable for tunable transmitter laser qualification and high-speed telecommunications applications.

Technical Specifications

- Wavelength Range: 1270 nm to 1650 nm (182 to 236 THz)
- Wavelength Accuracy: ± 0.3 pm at 1550 nm and 1310 nm for laser lines separated by ≥ 10 GHz; ± 0.2 ppm
- Wavelength Scan Speed: Less than 0.5 seconds
- Measurement Cycle Time: 0.5 seconds (standard update rate)
- Maximum Laser Line Capacity: 1000 inputs
- Safe Optical Input Power: 18 dBm (typical: 10 dBm)
- Wavelength Standard: Built-in HeNe laser reference for absolute measurement traceability

Key Features

- Channel spacing measurement down to 50 GHz (> 35 dB with 100 averages) through 200 GHz (> 27 dB with 100 averages)
- Built-in measurement applications: drift tracking, OSNR analysis, data logging, and Fabry-Perot laser characterization
- Optical power measurement integrated with wavelength analysis
- Graphical display with user-adjustable peak excursion, peak threshold, and wavelength limits
- Instrument state save/recall functionality
- Assumes laser linewidth (including modulation sidebands) < 2.5 GHz

Typical Applications

- Dense WDM system development and verification
- Wavelength shift identification and crosstalk analysis between adjacent channels
- Tunable laser transmitter characterization and qualification
- Manufacturing floor and engineering bench optical component testing

Compatibility & Integration

Operates on Windows 98 platform with autoranging AC line voltage input. Requires supplied three-prong power cord for adequate earth grounding. Cabinet installation requires unrestricted convection; forced convection required when total cabinet dissipation exceeds 800 watts.

Features & description

From manufacturer datasheet

Polarization Dependence 1270 to 1600 nm: plus or minus 0.5 dB

Sensitivity Single Line 1270 to 1600 nm: -37 dBm characteristic Opt class Sensitivity Single Line 1600 to 1650 nm: -27 dBm characteristic Opt class Maximum Displayed Level: +10 dBm sum of all lines Maximum Safe Input Level: +18 dBm Measurement Cycle Time: 0.5 s Maximum Number Of Lines: 1000 Return Loss PC Connectors: 35 dB Return Loss APC Option 022: 50 dB Power Requirements: 100 to 240 V 50 to 60 Hz Maximum Power Consumption: 150 W Instrument Weight: 14.5 kg Notes From Agilent 86120B/86120C/86122A Multi-Wavelength Meters family data sheet columns for 86122A and 86122A user documentation.

86122A Characteristics / Specifications

PARAMETER	VALUE
Model	86122A
Wavelength Range	1270 to 1650 nm
Frequency Range	182 to 236 THz
Absolute Wavelength Accuracy Opt 0	plus or minus 0.2 ppm
Absolute Accuracy At 1550 nm Opt 0	plus or minus 0.3 pm
Absolute Accuracy At 1310 nm Opt 0	plus or minus 0.3 pm
Line Spacing Assumption Opt 0	greater than or equal to 10 GHz
Differential Accuracy Opt 0	plus or minus 0.15 ppm
Display Resolution Wavelength	0.0001 nm
Power Calibration Accuracy	plus or minus 0.5 dB at plus or minus 30 nm from 1310 nm and 1550 nm
Power Flatness 1270 to 1600 nm	plus or minus 0.2 dB characteristic
Power Linearity 1270 to 1600 nm	plus or minus 0.3 dB
Polarization Dependence 1270 to 1600 nm	plus or minus 0.5 dB
Sensitivity Single Line 1270 to 1600 nm	-37 dBm characteristic Opt class
Sensitivity Single Line 1600 to 1650 nm	-27 dBm characteristic Opt class
Maximum Displayed Level	+10 dBm sum of all lines
Maximum Safe Input Level	+18 dBm
Measurement Cycle Time	0.5 s
Maximum Number Of Lines	1000
Return Loss PC Connectors	35 dB
Return Loss APC Option 0	50 dB
Power Requirements	100 to 240 V 50 to 60 Hz
Maximum Power Consumption	150 W
Instrument Weight	14.5 kg
Absolute wavelength accuracy	Opt 002: plus or minus 0.2 ppm

PARAMETER	VALUE
Power linearity	1270 to 1600 nm: plus or minus 0.3 dB
Return loss	PC Connectors: 35 dB

86122A Specifications

PARAMETER	VALUE
Agilent Keysight 86122A Multi Wavelength Meter	Overview
Key Features	Plus or minus 0.2 ppm absolute accuracy Opt.002
Technical Specifications	Model: 86122A
Notes	From Agilent 86120B/86120C/86122A Multi-Wavelength Meters family data sheet columns for 86122A and 86122A user documentation.

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
Model	86122A
Wavelength Range	1270 to 1650 nm
Frequency Range	182 to 236 THz
Absolute Wavelength Accuracy Opt 002	plus or minus 0.2 ppm
Absolute Accuracy At 1550 nm Opt 002	plus or minus 0.3 pm
Absolute Accuracy At 1310 nm Opt 002	plus or minus 0.3 pm
Absolute Wavelength Accuracy Opt 001	plus or minus 0.5 ppm
Line Spacing Assumption Opt 002	greater than or equal to 10 GHz
Differential Accuracy Opt 002	plus or minus 0.15 ppm
Display Resolution Wavelength	0.0001 nm
Power Calibration Accuracy	plus or minus 0.5 dB at plus or minus 30 nm from 1310 nm and 1550 nm
Power Flatness 1270 to 1600 nm	plus or minus 0.2 dB characteristic
Power Linearity 1270 to 1600 nm	plus or minus 0.3 dB
Polarization Dependence 1270 to 1600 nm	plus or minus 0.5 dB
Sensitivity Single Line 1270 to 1600 nm	-37 dBm characteristic Opt class
Sensitivity Single Line 1600 to 1650 nm	-27 dBm characteristic Opt class
Maximum Displayed Level	+10 dBm sum of all lines
Maximum Safe Input Level	+18 dBm
Measurement Cycle Time	0.5 s
Maximum Number Of Lines	1000
Return Loss PC Connectors	35 dB
Return Loss APC Option 022	50 dB
Power Requirements	100 to 240 V 50 to 60 Hz
Maximum Power Consumption	150 W
Instrument Weight	14.5 kg

Notes

From Agilent 86120B/86120C/86122A Multi-Wavelength Meters family data sheet columns for 86122A and 86122A user documentation.

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
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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.