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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 86120B Multi-Wavelength Meter Range: 700-1650 nm

Measurement Cycle Time Fast Characteristic: 0.33 s characteristic (3 measurements per second) Selectivity 100 GHz Characteristic: 25 dB characteristic, two lines ≥ 100 GHz Line Voltage: 100 / 115 / 230 / 240 V, 50 / 60 Hz Numeric rows from Keysight 86120B Multi-Wavelength Meter user specifications (Chapter 7) and Agilent 86120B/C/86122A Multi-Wavelength Meters data sheet. Specs apply in NORMAL update after 15 minutes, narrowband mode, 0 to 55 C unless noted. The Agilent 86120B isaMichelson-interferometer multi-wavelength meter covering 700 to 1650 nm. OEM 86120B user specifications and the Agilent 86120B/C/86122A family data sheet list ± 3 ppm absolute accuracy for lines separated by ≥ 30 GHz, up to 100 simultaneous laser lines, +10 dBm maximum displayed power, and +18 dBm maximum safe input. WDM channel wavelength and power; Fabry-Perot laser characterization; laser drift and signal-to-noise of DWDM transmitters. Simultaneous multi-line wavelength and power



MODEL

**Agilent / Keysight
86120B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

86120B

LISTING

<https://aumictechlabs.com/products/86120b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 86120B Multi-Wavelength Meter measures wavelength and optical power across the 700–1650 nm spectrum using a Michelson interferometer. It simultaneously

characterizes multiple laser lines with absolute accuracy to ± 3 ppm, making it ideal for DWDM signal analysis, Fabry-Perot laser evaluation, and optical component testing. The instrument delivers wavelength scan results in less than 1 second and includes a built-in HeNe laser for real-time calibration.

Technical Specifications

Wavelength Range: 700 nm to 1650 nm (182 to 428 THz)
Absolute Wavelength Accuracy: ± 3 ppm for lines separated by >30 GHz; ± 0.005 nm at 1550 nm; ± 0.004 nm at 1310 nm
Differential Accuracy: ± 2 ppm
Maximum Laser Lines: 100 simultaneous inputs
Wavelength Scan Speed: <1 second
Optical Input: 9/125 μm single-mode fiber via 81000 series connector (sold separately)
Input Power Range: +10 dBm typical; +18 dBm maximum (safe input level)
Power Measurement Resolution: 0.01 dB
Amplitude Accuracy & Linearity: ± 0.3 dB (1200–1600 nm)
Polarization Dependence: ± 1.0 dB (700–1650 nm)
Noise Bandwidth: 0.1 nm
Laser Line Width Tolerance: 10 GHz

Key Features

Dual-mode operation: Normal Update and Fast Update modes
Built-in HeNe laser standard for continuous recalibration
Broadband measurement capability (firmware v2.0+) for chirped lasers and broadband devices
Measures average wavelength, total optical power, laser line separation, wavelength and power drift, and signal-to-noise ratios
GPIB programming interface for automated test sequences
Parallel printer port for hardcopy documentation
Stabilization time: 15 minutes continuous operation

Electrical & Physical

Power Consumption: 70 W maximum
AC Input: 100–240 V, 50–60 Hz
Dimensions: 140 $\times$ 340 $\times$ 465 mm (H $\times$ W $\times$ D)
Weight: 8.5 kg
Form Factor: Plug-in/rackmount

Typical Applications

Laser characterization, DWDM system validation, optical amplifier testing, coherence length measurement, and laser drift monitoring in laboratory and manufacturing environments.

Features & description

From manufacturer datasheet

Built-in HeNe wavelength reference

GPIB and parallel printer rear-panel I/O Technical Specifications Model: 86120B Instrument Type: Multi-wavelength meter Series Family: Agilent 86120 Wavelength Range: 700 nm to 1650 nm (182 to 428 THz) Absolute Wavelength Accuracy: ± 3 ppm (± 0.005 nm at 1550 nm, ± 0.004 nm at 1310 nm) for lines separated by ≥ 30 GHz Differential Accuracy Characteristic: ± 2 ppm characteristic Minimum Resolvable Separation Characteristic: 20 GHz (0.16 nm at 1550 nm, 0.11 nm at 1300 nm) characteristic, equal-amplitude lines Display Resolution Normal: 0.001 nm Display Resolution Fast: 0.01 nm Assumed Linewidth: less than 10 GHz including modulation sidebands Power Calibration Accuracy: ± 0.5 dB at 1310 nm and 1550 nm, ± 30 nm Flatness 1200 To 1600 Nm: ± 0.2 dB Linearity 1200 To 1600 Nm: ± 0.3 dB, lines above minus 30 dBm

Polarization Dependence 1200 To 1600 Nm: ± 0.5 dB

Sensitivity 700 To 900 Nm: minus 20 dBm, single line Sensitivity 900 To 1200 Nm: minus 25 dBm, single line Sensitivity 1200 To 1600 Nm: minus 40 dBm, single line Sensitivity 1600 To 1650 Nm: minus 30 dBm, single line Maximum Displayed Level: +10 dBm, sum of all lines Maximum Safe Input Level: +18 dBm, sum of all lines Maximum Number Of Laser Lines: 100 Input Return Loss Flat Connectors: 35 dB Input Return Loss Angled Option 022: 50 dB Measurement Cycle Time Normal Characteristic: 1.0 s characteristic Measurement Cycle Time Fast Characteristic: 0.33 s characteristic (3 measurements per second) Selectivity 100 Ghz Characteristic: 25 dB characteristic, two lines ≥ 100 GHz Operating Temperature: 0 C to +55 C Maximum Power Consumption: 70 W Line Voltage: 100 / 115 / 230 / 240 V, 50 / 60 Hz Weight: 8.5 kg Dimensions: 140 mm x 340 mm x 465 mm Notes Numeric rows from Keysight 86120B Multi-Wavelength Meter user specifications (Chapter 7) and Agilent 86120B/C/86122A Multi-Wavelength Meters data sheet. Specs apply in NORMAL update after 15 minutes, narrowband mode, 0 to 55 C unless noted.

86120B Characteristics / Specifications

PARAMETER	VALUE
Model	86120B
Instrument Type	Multi-wavelength meter
Series Family	Agilent 86120
Wavelength Range	700 nm to 1650 nm (182 to 428 THz)
Absolute Wavelength Accuracy	± 3 ppm (± 0.005 nm at 1550 nm, ± 0.004 nm at 1310 nm) for lines separated by ≥ 30 GHz
Differential Accuracy Characteristic	± 2 ppm characteristic
Minimum Resolvable Separation Characteristic	20 GHz (0.16 nm at 1550 nm, 0.11 nm at 1300 nm) characteristic, equal-amplitude lines
Display Resolution Normal	0.001 nm
Display Resolution Fast	0.01 nm
Assumed Linewidth	less than 10 GHz including modulation sidebands
Power Calibration Accuracy	± 0.5 dB at 1310 nm and 1550 nm, ± 30 nm
Flatness 1200 To 1600 Nm	± 0.2 dB
Linearity 1200 To 1600 Nm	± 0.3 dB, lines above minus 30 dBm
Polarization Dependence 1200 To 1600 Nm	± 0.5 dB
Sensitivity 700 To 900 Nm	minus 20 dBm, single line
Sensitivity 900 To 1200 Nm	minus 25 dBm, single line
Sensitivity 1200 To 1600 Nm	minus 40 dBm, single line
Sensitivity 1600 To 1650 Nm	minus 30 dBm, single line
Maximum Displayed Level	+10 dBm, sum of all lines
Maximum Safe Input Level	+18 dBm, sum of all lines
Maximum Number Of Laser Lines	100
Input Return Loss Flat Connectors	35 dB
Input Return Loss Angled Option 0	50 dB

PARAMETER	VALUE
Measurement Cycle Time Normal Characteristic	1.0 s characteristic
Measurement Cycle Time Fast Characteristic	0.33 s characteristic (3 measurements per second)
Selectivity 100 Ghz Characteristic	25 dB characteristic, two lines ≥ 100 GHz
Operating Temperature	0 C to +55 C
Maximum Power Consumption	70 W
Line Voltage	100 / 115 / 230 / 240 V, 50 / 60 Hz
Weight	8.5 kg
Dimensions	140 mm x 340 mm x 465 mm
Linewidth	less than 10 GHz including modulation sidebands
Return loss	Flat Connectors: 35 dB

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to +55 C
Operating Temperature	0 C to +55 C
Maximum Power Consumption	70 W
Line Voltage	100 / 115 / 230 / 240 V, 50 / 60 Hz
Weight	8.5 kg
Dimensions	140 mm x 340 mm x 465 mm Notes Numeric rows from Keysight 86120B Multi-Wavelength Meter user specifications (Chapter 7) and Agilent 86120B/C/86122A Multi-Wavelength Meters data sheet. Specs apply in NORMAL update after 15 minutes, narrowband mode, 0 to 55 C unless noted.

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 and the Agilent 86120B/C/86122A family data sheet list ± 3 ppm absolute accuracy for lines separated by ≥ 30 GHz, up to 100 simultaneous laser lines, +10 dBm maximum displayed power, and +18 dBm maximum safe input.

Applications

WDM channel wavelength and power; Fabry-Perot laser characterization; laser drift and signal-to-noise of DWDM transmitters.

Key Features

Simultaneous multi-line wavelength and power

Vacuum or standard-air wavelength display with elevation entry

NORMAL (~ 1 s) and FAST (~ 3 measurements/s) update

Built-in HeNe wavelength reference

GPIB and parallel printer rear-panel I/O

Technical Specifications

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PARAMETER	VALUE
Model	86120B
Instrument Type	Multi-wavelength meter
Series Family	Agilent 86120
Wavelength Range	700 nm to 1650 nm (182 to 428 THz)
Absolute Wavelength Accuracy	± 3 ppm (± 0.005 nm at 1550 nm, ± 0.004 nm at 1310 nm) for lines separated by ≥ 30 GHz
Differential Accuracy Characteristic	± 2 ppm characteristic
Minimum Resolvable Separation Characteristic	20 GHz (0.16 nm at 1550 nm, 0.11 nm at 1300 nm) characteristic, equal-amplitude lines
Display Resolution Normal	0.001 nm
Display Resolution Fast	0.01 nm
Assumed Linewidth	less than 10 GHz including modulation sidebands
Power Calibration Accuracy	± 0.5 dB at 1310 nm and 1550 nm, ± 30 nm
Flatness 1200 To 1600 Nm	± 0.2 dB
Linearity 1200 To 1600 Nm	± 0.3 dB, lines above minus 30 dBm
Polarization Dependence 1200 To 1600 Nm	± 0.5 dB
Sensitivity 700 To 900 Nm	minus 20 dBm, single line
Sensitivity 900 To 1200 Nm	minus 25 dBm, single line
Sensitivity 1200 To 1600 Nm	minus 40 dBm, single line
Sensitivity 1600 To 1650 Nm	minus 30 dBm, single line

PARAMETER	VALUE
Maximum Displayed Level	+10 dBm, sum of all lines
Maximum Safe Input Level	+18 dBm, sum of all lines
Maximum Number Of Laser Lines	100
Input Return Loss Flat Connectors	35 dB
Input Return Loss Angled Option 022	50 dB
Measurement Cycle Time Normal Characteristic	1.0 s characteristic
Measurement Cycle Time Fast Characteristic	0.33 s characteristic (3 measurements per second)
Selectivity 100 Ghz Characteristic	25 dB characteristic, two lines ≥ 100 GHz
Operating Temperature	0 C to +55 C
Maximum Power Consumption	70 W
Line Voltage	100 / 115 / 230 / 240 V, 50 / 60 Hz
Weight	8.5 kg
Dimensions	140 mm x 340 mm x 465 mm

Notes

Numeric rows from Keysight 86120B Multi-Wavelength Meter user specifications (Chapter 7) and Agilent 86120B/C/86122A Multi-Wavelength Meters data sheet. Specs apply in NORMAL update after 15 minutes, narrowband mode, 0 to 55 C unless noted.

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.