KEYSIGHT TECHNOLOGIES (AGILENT HP)

86122A

The Keysight (Agilent) 86122A Multi-Wavelength Meter is a high-performance optical wavelength meter optimized for developing, manufacturing, and verifying optical components and networks. It provides accurate measurement of wavelength and power across a broad range of laser sources, featuring a built-in HeNe laser wavelength standard for exceptional absolute wavelength accuracy.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488), LAN, USB, VGA, Parallel
Display	6.4-inch color TFT LCD touchscreen

Physical

Power Supply	100 to 240 V AC, 50/60 Hz
Operating Temperature	+15 °C to +35 °C °C
Dimensions (W×H×D)	325 mm × 140 mm × 430 mm mm
Weight	9 kg kg

Optical Performance & Measurement Specifications

Wavelength Range	1270 to 1650 nm
Wavelength Accuracy	±0.3 pm
Power Measurement Range	-40 to +10 dBm
Maximum Safe Input Power	+18 dBm
Wavelength Resolution	0.1 pm (0.01 GHz)
Absolute Power Accuracy	±0.5 dB
Relative Power Accuracy (Linearity)	±0.03 dB
Polarization Dependence (PDL)	±0.15 dB
Tuning / Sweep Speed (Scan Time)	< 0.5 s
Optical Return Loss	> 35 dB
Reference Source	Built-in HeNe laser wavelength standard

Multi-Wavelength & Analysis Functions

Advanced Measurement Applications	Drift, OSNR, Data Logging, FP Laser Characterization
Minimum Channel Spacing	15 GHz (approx. 120 pm at 1550 nm)

Optical Port & Fiber Compatibility

Fiber Type Compatibility	9/125 µm single-mode
Optical Connector Interface Options	Exchangeable connector adapters (FC/APC, FC/PC, SC, ST, HMS-10)

Power Specifications

Power Supply Type	AC
Maximum Power Consumption	150 VA
Input Line Frequency	50 / 60 Hz
Input AC Voltage Range	100 V to 240 V AC

Environmental & Warm-up

Storage Temperature Range	-40 °C to +70 °C
Operating Temperature for Specified Accuracy	+15 °C to +35 °C

Physical Characteristics & Compliance

Form Factor	Benchtop

Wavelength Accuracy

Relative Wavelength Accuracy	±0.15 pm

Power Measurement

Power Display Resolution	0.01 dB

Measurement Capacity

Maximum Number of Laser Lines	100

Performance

Warm-up Time	15 min

Optical Performance

Maximum Laser Linewidth	200 GHz (at 1550 nm)
Close-in Dynamic Range (at ±30 GHz / ±0.24 nm)	30 dB
Close-in Dynamic Range (at ±60 GHz / ±0.48 nm)	35 dB

Environmental

Maximum Operating Altitude	2000 m

System & Software

Command Compatibility	SCPI

TECHNOLOGY

Michelson Interferometer

APPLICATIONS

Optical Wavelength and Power Measurement