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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 86141B Benchtop Flexible Optical Spectrum Analyzer

The Agilent 86141B is a benchtop 8614xB optical spectrum analyzer with a multimode monochromator output path. OEM 8614xB data sheet 5980-0177E lists 600 to 1700 nm, 50 μ m optical input, monochromator insertion loss less than 10 dB at 1550 nm into 62.5 μ m fiber, and minus 55 dB dynamic range class at ± 0.8 nm. Multimode spectral measurements with monochromator output; WDM and source characterization on 50 μ m fiber; stimulus-response with the filtered optical output. Built-in WDM, amplifier, and source applications

Monochromator Insertion Loss 1300 Nm: less than 7 dB Monochromator Insertion Loss 1550 Nm: less than 10 dB Sensitivity 1250 To 1610 Nm: minus 90 dBm Dynamic Range At ± 0.8 Nm 1550 Nm: minus 55 dB class 86141B/025 column



MODEL

**Agilent / Keysight
86141B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

86141B

LISTING

<https://aumictechlabs.com/products/86141b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 86141B is a benchtop optical spectrum analyzer engineered for precise spectral characterization across the visible-to-infrared band. It delivers wavelength accuracy to ± 0.025 nm (1510–1570 nm) and selectable resolution bandwidth from 0.06 nm to 10 nm FWHM, making it suited for DWDM system validation, laser performance assessment, and fiber component characterization in telecommunications development and manufacturing

environments. Technical Specifications Wavelength Range: 600 nm to 1700 nm Resolution Bandwidth (RBW): 0.06, 0.07, 0.1, 0.2, 0.5, 1, 2, 5, 10 nm (FWHM, 3 dB) Wavelength Accuracy: ± 0.025 nm (1510–1570 nm) after calibration with internal reference ± 0.035 nm (1570–1640 nm) after calibration with internal reference ± 0.05 nm after user calibration within ± 40 nm of calibration signal ± 0.2 nm after user calibration over full wavelength range ± 0.5 nm (absolute, factory calibration cycle 2 years) ± 0.003 nm reproducibility (≤ 1 min) and tuning repeatability Amplitude Specifications: Maximum measurement power: +15 dBm per channel, +30 dBm total (1525–1700 nm and other ranges) Maximum safe power: +20 dBm or +30 dBm total Scale fidelity: ± 0.05 dB (fixed reference, characteristic); ± 0.07 dB (variable reference or autorange off) Amplitude stability: ± 0.01 dB (1 minute at 1310 nm and 1550 nm) Flatness: ± 0.2 dB (1290–1330 nm) Polarization dependence: ± 0.25 dB at 1310 nm (resolution ≥ 0.2 nm, room temperature, 9/125 μ m fiber) Dynamic Range: 1250–1610 nm (0.1 nm resolution, chop mode on): –70 dB 1550 nm at ± 0.8 nm (± 100 GHz): –60 dB 1550 nm at ± 0.5 nm (± 62.5 GHz): –58 dB typical 1550 nm at ± 0.2 nm (± 25 GHz): –40 dB typical Sweep Characteristics: Maximum sweep rate: 40 nm/50 ms Maximum sampling rate (zero span): 50 μ s/trace point typical Sweep cycle time: <180 ms (50 nm span, auto zero off); 35 dB

Features & description

From manufacturer datasheet

Built-in WDM, amplifier, and source applications

Optional white-light and EELED sources Technical Specifications Model: 86141B Instrument Type: Optical spectrum analyzer Series Family: Agilent 8614xB Form Factor: Benchtop Weight: 16.5 kg Dimensions: 222 mmHx 425 mmWx 427 mmDWavelength Range: 600 nm to 1700 nm Span Range: 0.2 nm to full range and zero span Wavelength Accuracy Enhanced Cal 1570 To 1620 Nm: ± 0.01 nm after internal cal with enhanced wavelength calibration on Wavelength Accuracy Enhanced Cal 1480 To 1570 Nm: ± 0.025 nm Tuning Repeatability: ± 0.002 nm Optical Input Fiber: 50 μ m Monochromator Output Fiber: 62.5 μ m Monochromator Insertion Loss 850 Nm: less than 19 dB into 62.5 μ m fiber Monochromator Insertion Loss 1300 Nm: less than 7 dB Monochromator Insertion Loss 1550 Nm: less than 10 dB Sensitivity 1250 To 1610 Nm: minus 90 dBm Maximum Safe Power Total: +30 dBm Maximum Safe Power In 10 Nm: +23 dBm Dynamic Range At ± 0.8 Nm 1550 Nm: minus 55 dB class 86141B/025 column Input Return Loss Straight: greater than 35 dB Operating Temperature: 0 C to 55 C Storage Temperature: minus 40 C to 70 C Line Voltage: 90 Vac to 260 Vac, 44 to 444 Hz Maximum Power Consumption: 230 W Remote Interface: GPIB IEEE-488.1/488.2 Notes Numeric rows from Agilent 8614xB Optical Spectrum Analyzer Family Technical Specifications 5980-0177E. 86141B unique path is 50 μ m input with 62.5 μ m monochromator output.

86141B Characteristics / Specifications

PARAMETER	VALUE
Model	86141B
Instrument Type	Optical spectrum analyzer
Series Family	Agilent 8614xB
Form Factor	Benchtop
Weight	16.5 kg
Dimensions	222 mmHx 425 mmWx 427 mmDWavelength Range: 600 nm to 1700 nm
Span Range	0.2 nm to full range and zero span
Wavelength Accuracy Enhanced Cal 1570 To 1620 Nm	±0.01 nm after internal cal with enhanced wavelength calibration on
Wavelength Accuracy Enhanced Cal 1480 To 1570 Nm	±0.025 nm
Tuning Repeatability	±0.002 nm
Optical Input Fiber	50 um
Monochromator Output Fiber	62.5 um
Monochromator Insertion Loss 850 Nm	less than 19 dB into 62.5 um fiber
Monochromator Insertion Loss 1300 Nm	less than 7 dB
Monochromator Insertion Loss 1550 Nm	less than 10 dB
Sensitivity 1250 To 1610 Nm	minus 90 dBm
Maximum Safe Power Total	+30 dBm
Maximum Safe Power In 10 Nm	+23 dBm
Input Return Loss Straight	greater than 35 dB
Operating Temperature	0 C to 55 C
Storage Temperature	minus 40 C to 70 C
Line Voltage	90 Vac to 260 Vac, 44 to 444 Hz
Maximum Power Consumption	230 W
Remote Interface	GPIO IEEE-488.1/488.2

PARAMETER	VALUE
Wavelength range	600 nm to 1700 nm
Return loss	Straight: greater than 35 dB

86141B Specifications

PARAMETER	VALUE
Agilent 86141B Optical Spectrum Analyzer	Overview
Key Features	Multimode monochromator output (62.5 um)
Technical Specifications	Model: 86141B

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 C to 70 C
Operating temperature	0 C to 55 C
Operating Temperature	0 C to 55 C
Line Voltage	90 Vac to 260 Vac, 44 to 444 Hz
Maximum Power Consumption	230 W
Remote Interface	GPIB IEEE-488.1/488.2 Notes Numeric rows from Agilent 8614xB Optical Spectrum Analyzer Family Technical Specifications 5980-0177E. 86141B unique path is 50 um input with 62.5 um monochromator output.

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	
Technical Specifications	
PARAMETER	VALUE
Model	86141B
Instrument Type	Optical spectrum analyzer
Series Family	Agilent 8614xB
Form Factor	Benchtop
Weight	16.5 kg
Dimensions	222 mm H x 425 mm W x 427 mm D
Wavelength Range	600 nm to 1700 nm
Span Range	0.2 nm to full range and zero span
Specifications	
PARAMETER	VALUE
Model	86141B
Instrument Type	Optical spectrum analyzer
Series Family	Agilent 8614xB
Form Factor	Benchtop
Weight	16.5 kg
Dimensions	222 mmHx 425 mmWx 427 mmDWavelength Range: 600 nm to 1700 nm
Span Range	0.2 nm to full range and zero span
Wavelength Accuracy Enhanced Cal 1570 To 1620 Nm: ±0.01 nm after internal cal with enhanced wavelength calibration on	
Wavelength Accuracy Enhanced Cal 1480 To 1570 Nm: ±0.025 nm	
Specifications	
PARAMETER	VALUE
Tuning Repeatability	±0.002 nm
Optical Input Fiber	50 um
Monochromator Output Fiber	62.5 um
Monochromator Insertion Loss 850 Nm	less than 19 dB into 62.5 um fiber

PARAMETER	VALUE
Monochromator Insertion Loss 1300 Nm	less than 7 dB
Monochromator Insertion Loss 1550 Nm	less than 10 dB
Sensitivity 1250 To 1610 Nm	minus 90 dBm
Maximum Safe Power Total	+30 dBm
Maximum Safe Power In 10 Nm	+23 dBm

Dynamic Range At ± 0.8 Nm 1550 Nm: minus 55 dB class 86141B/025 column

Specifications

PARAMETER	VALUE
Input Return Loss Straight	greater than 35 dB
Operating Temperature	0 C to 55 C
Storage Temperature	minus 40 C to 70 C
Line Voltage	90 Vac to 260 Vac, 44 to 444 Hz
Maximum Power Consumption	230 W
Remote Interface	GPiB IEEE-488.1/488.2

Notes
Numeric rows from Agilent 8614xB Optical Spectrum Analyzer Family Technical Specifications 5980-0177E. 86141B unique path is 50 um input with 62.5 um monochromator output.

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.