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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 81552SM Singlemode Optical Head

HP Agilent 81552SM 1310 nm Single Mode Fabry Perot Laser Source Module The HP 81552SM is a plug-in source module for the HP 8153A Lightwave Multimeter (and later 816x mainframes). OEM HP 8153A Technical Specifications (5962-9321E) list 1310 nm plus or minus 20 nm, single-mode 9/125 μm , less than 2.5 nm rms, output greater than 0 dBm, short-term CW stability plus or minus 0.003 dB (15 min), and long-term plus or minus 0.03 dB (6 h). Fiber-optic IL and source stimulus at the stated wavelength on the 8153A/816x modular lightwave platform. The HP 81552SM is a plug-in source module for the HP 8153A Lightwave Multimeter (and later 816x mainframes). OEM HP 8153A Technical Specifications (5962-9321E) list 1310 nm plus or minus 20 nm, single-mode 9/125 μm , less than 2.5 nm rms, output greater than 0 dBm, short-term CW stability plus or minus 0.003 dB (15 min), and long-term plus or minus 0.03 dB (6 h). Fiber-optic IL and source stimulus at the stated wavelength on the 8153A/816x modular lightwave platform. Fabry Perot Laser source for 8153A/816x mainframes

HP 81552SM
LASER SOURCE
1310nm

ACTIVE

OUTPUT 9/125 μm

MODEL

**Agilent / Keysight
81552SM**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

81552SM

LISTING

<https://aumictechlabs.com/products/81552sm-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 81552SM is a single-mode optical laser source module centered at 1310 nm, engineered for precise characterization of optical components and systems. This Fabry-Perot laser source integrates with Agilent/Keysight 8153A, 8163A, and 8166 series mainframes to deliver stable, modulated output across research, development, and manufacturing environments.

Technical Specifications

- Source Type: Fabry-Perot Laser
- Central Wavelength: 1310 nm (± 20 nm tolerance)
- Spectral Bandwidth: 0 dBm
- Output Attenuation: 0 dB to 6 dB in 0.1 dB increments
- CW Stability (Short Term): ± 0.003 dB over 15 minutes at constant temperature
- CW Stability (Long Term): ± 0.03 dB over 6 hours at $0^{\circ}\text{C} \pm 1$ K
- Fiber Type: 9/125 μm single-mode fiber
- Warm-up Time: 20 minutes to optimal performance

Key Features

- Selectable internal digital modulation at 270 Hz and 1 kHz with 50% duty cycle pulse shaping
- Fine output power control via 0.1 dB attenuation steps
- Excellent short- and long-term output stability for demanding measurement applications
- Standard Agilent optical interface for seamless slot integration

Typical Applications

- Optical component characterization
- System-level optical testing
- Single-mode fiber performance validation
- Research and manufacturing test environments

Compatibility & Integration

The 81552SM module installs directly into compatible Agilent/Keysight mainframes (8153A, 8163A, 8166) via proprietary interface. Operating temperature range follows mainframe specifications of 0°C to $+40^{\circ}\text{C}$.

81552SM Characteristics / Specifications

PARAMETER	VALUE
Model	81552SM
Instrument Type	Fabry Perot Laser source module
Series Family	HP 8153A Lightwave Multimeter source modules
Source Type	Fabry Perot Laser
Central Wavelength	1310 nm plus or minus 20 nm
Fiber Type	single-mode 9/125 um
Spectral Bandwidth	less than 2.5 nm rms
Output Power	greater than 0 dBm
Cw Stability Short Term	plus or minus 0.003 dB, 15 minutes, T constant
Cw Stability Long Term	plus or minus 0.03 dB, 6 hours, T = 0 C to 55 C plus or minus 1 K
Output Attenuation Range	0 dB to 6 dB
Output Attenuation Step	0.1 dB
Internal Modulation	270 Hz, 1 kHz, 2 kHz selectable
Modulation Duty Cycle	50 percent pulse shaped
Specification Path	end of a 2 m fiber cable with Diamond HMS-10 connectors, attenuation 0.0 dB
Laser Safety Class	Class 1 IEC 825-1 (1993) and FDA CFR 21 (1986)
Operating Temperature	0 C to +55 C
Dimensions	75 mm x 32 mm x 335 mm
Weight Net	0.7 kg
Weight Shipping	1 kg
Recalibration Period	1 year
Warm Up Time	60 minutes with output enabled; 20 minutes if previously stored at the same temperature
Host Mainframe	HP 8153A Lightwave Multimeter; also 8163/8164/8166 class
Long Term Stability After 1 Minute Warmup	long-term CW stability doubles with one minute warm-up (laser enabled)

PARAMETER	VALUE
Bandwidth	less than 2.5 nm rms
Attenuation	Range: 0 dB to 6 dB

81552SM Specifications

PARAMETER	VALUE
Applications	Fiber-optic IL and source stimulus at the stated wavelength on the 8153A/816x modular lightwave platform.
Key Features	Fabry Perot Laser source for 8153A/816x mainframes
Output attenuation 0 dB to 6 dB in 0.1 dB steps	Diamond HMS-10 specification path at 2 m
Technical Specifications	Model: 81552SM
Notes	Numeric rows from HP 8153A Lightwave Multimeter Technical Specifications 5962-9321E source-module table, 81552SM column.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to +55 C
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Dimensions	75 mm x 32 mm x 335 mm
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Weight Shipping	1 kg
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Host Mainframe	HP 8153A Lightwave Multimeter; also 8163/8164/8166 class
Long Term Stability After 1 Minute Warmup	long-term CW stability doubles with one minute warm-up (laser enabled) Notes Numeric rows from HP 8153A Lightwave Multimeter Technical Specifications 5962-9321E source-module table, 81552SM column.
Internal digital modulation	270 Hz, 1 kHz, 2 kHz, 50 percent duty
Fiber type	single-mode 9/125 um
Model	81552SM
Instrument Type	Fabry Perot Laser source module
Series Family	HP 8153A Lightwave Multimeter source modules
Source Type	Fabry Perot Laser
Central Wavelength	1310 nm plus or minus 20 nm
Spectral Bandwidth	less than 2.5 nm rms
Output Power	greater than 0 dBm
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PARAMETER	VALUE
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Long Term Stability After 1 Minute Warmup	long-term CW stability doubles with one minute warm-up (laser enabled) Notes Numeric rows from HP 8153A Lightwave Multimeter Technical Specifications 5962-9321E source-module table, 81552SM column.

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 (5962-9321E) list 1310 nm plus or minus 20 nm, single-mode 9/125 um, less than 2.5 nm rms, output greater than 0 dBm, short-term CW stability plus or minus 0.003 dB (15 min), and long-term plus or minus 0.03 dB (6 h).

Applications
Fiber-optic IL and source stimulus at the stated wavelength on the 8153A/816x modular lightwave platform.

Key Features
Fabry Perot Laser source for 8153A/816x mainframes
Internal digital modulation 270 Hz, 1 kHz, 2 kHz, 50 percent duty
Output attenuation 0 dB to 6 dB in 0.1 dB steps
Diamond HMS-10 specification path at 2 m

Technical Specifications

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PARAMETER	VALUE
Model	81552SM
Instrument Type	Fabry Perot Laser source module
Series Family	HP 8153A Lightwave Multimeter source modules
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Weight Net	0.7 kg
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PARAMETER	VALUE
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Host Mainframe	HP 8153A Lightwave Multimeter; also 8163/8164/8166 class
Long Term Stability After 1 Minute Warmup	long-term CW stability doubles with one minute warm-up (laser enabled)

Notes
Numeric rows from HP 8153A Lightwave Multimeter Technical Specifications 5962-9321E source-module table, 81552SM column.

Laser Safety

Laser Safety Class: Class 1 IEC 825-1 (1993) and FDA CFR 21 (1986) Operating Temperature: 0 C to +55 C
Dimensions: 75 mm x 32 mm x 335 mm Weight Net: 0.7 kg Weight Shipping: 1 kg Recalibration Period: 1
year Warm Up Time: 60 minutes with output enabled; 20 minutes if previously stored at the same
temperature Host Mainframe: HP 8153A Lightwave Multimeter; also 8163/8164/8166 class Long Term
Stability After 1 M

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In
stock.

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Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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documentation and unit condition.