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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 81551MM Multimode Optical Head

HP Agilent 81551MM 850 nm Multimode Fabry Perot Laser Source Module The HP 81551MM is a plug-in source module for the HP 8153A Lightwave Multimeter (and later 816x mainframes). OEM HP 8153A Technical Specifications (5962-9321E) list 850 nm plus or minus 10 nm, multimode 50/125 μm , less than 1.5 nm rms, output greater than minus 2 dBm, short-term CW stability plus or minus 0.01 dB (15 min), and long-term plus or minus 0.06 dB (6 h). Fiber-optic IL and source stimulus at the stated wavelength on the 8153A/816x modular lightwave platform. The HP 81551MM is a plug-in source module for the HP 8153A Lightwave Multimeter (and later 816x mainframes). OEM HP 8153A Technical Specifications (5962-9321E) list 850 nm plus or minus 10 nm, multimode 50/125 μm , less than 1.5 nm rms, output greater than minus 2 dBm, short-term CW stability plus or minus 0.01 dB (15 min), and long-term plus or minus 0.06 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



MODEL

**Agilent / Keysight
81551MM**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

81551MM

LISTING

<https://aumictechlabs.com/products/81551mm-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 81551MM is a Fabry-Perot laser source module engineered for the Agilent 8153A Lightwave Multimeter. This multimode optical head delivers 850 nm $\pm$ 10 nm light into 50/125 μ m fiber with output power exceeding -2 dBm and spectral bandwidth below 1.5 nm RMS. It has exceptional CW stability: $\pm$ 0.01 dB short-term (15 minutes, constant temperature) and $\pm$ 0.06 dB long-term (6 hours, constant temperature). Technical Specifications Central Wavelength: 850 nm $\pm$ 10 nm Fiber Configuration: Multimode (MM) 50/125 μ m Spectral Bandwidth: -2 dBm (at 0 dB attenuation) Output Attenuation: 0 dB to 4 dB in 0.1 dB steps CW Stability (Short-term): $\pm$ 0.01 dB typical (15 minutes, constant temperature) CW Stability (Long-term): $\pm$ 0.06 dB typical (6 hours, constant temperature) Warm-up Time: Long-term stability achieved within one minute of laser enable Modulation Modes: Internal digital modulation at 270 Hz, 1 kHz, or 2 kHz (selectable) Output Signal Format: Pulse-shaped with 50% duty cycle Fiber Cable: 2 m with Diamond HMS-10 connectors Key Features Narrow spectral bandwidth enables precise multimode fiber characterization Selectable digital modulation for dynamic signal testing Fine-grained attenuation control in 0.1 dB increments Rapid warm-up to full CW stability specifications Pulse-shaped output suitable for timing and modulation analysis Compatibility & Integration Designed exclusively for integration with the Agilent 8153A Lightwave Multimeter as part of the Keysight Lightwave Solution Platform. Product status is obsolete; calibration and repair support may remain available through Keysight.

81551MM Characteristics / Specifications

PARAMETER	VALUE
Model	81551MM
Instrument Type	Fabry Perot Laser source module
Series Family	HP 8153A Lightwave Multimeter source modules
Source Type	Fabry Perot Laser
Central Wavelength	850 nm plus or minus 10 nm
Fiber Type	multimode 50/125 um
Spectral Bandwidth	less than 1.5 nm rms
Output Power	greater than minus 2 dBm
Cw Stability Short Term	plus or minus 0.01 dB, 15 minutes, T constant
Cw Stability Long Term	plus or minus 0.06 dB, 6 hours, T = 0 C to 55 C plus or minus 1 K
Output Attenuation Range	0 dB to 4 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 3A IEC 825-1 (1993); Class 1 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 1.5 nm rms

Attenuation

Range: 0 dB to 4 dB

81551MM 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 4 dB in 0.1 dB steps	Diamond HMS-10 specification path at 2 m
Technical Specifications	Model: 81551MM

General Specifications & Supplementary Characteristics

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, 81551MM column. Attenuation max is 4 dB for 81551MM versus 6 dB for the SM laser modules.
Internal digital modulation	270 Hz, 1 kHz, 2 kHz, 50 percent duty
Fiber type	multimode 50/125 um
Model	81551MM
Instrument Type	Fabry Perot Laser source module
Series Family	HP 8153A Lightwave Multimeter source modules
Source Type	Fabry Perot Laser
Central Wavelength	850 nm plus or minus 10 nm
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PARAMETER	VALUE
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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 850 nm plus or minus 10 nm, multimode 50/125 um, less than 1.5 nm rms, output greater than minus 2 dBm, short-term CW stability plus or minus 0.01 dB (15 min), and long-term plus or minus 0.06 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 4 dB in 0.1 dB steps

Diamond HMS-10 specification path at 2 m

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	81551MM
Instrument Type	Fabry Perot Laser source module
Series Family	HP 8153A Lightwave Multimeter source modules
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Notes
Numeric rows from HP 8153A Lightwave Multimeter Technical Specifications 5962-9321E source-module table, 81551MM column. Attenuation max is 4 dB for 81551MM versus 6 dB for the SM laser modules.

Laser Safety

Laser Safety Class: Class 3A IEC 825-1 (1993); Class 1 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 Aft

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 ·
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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.