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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 81651A Laser Source Module

CALIBRATED

HP Agilent Keysight 81651A 1550 nm Fabry Perot Laser Source Module The Agilent 81651A isaFabry-Perot laser source module for 8163/8164/8166 Lightwave mainframes. OEM 81663A DFB / 8165xA Fabry-Perot data sheet (5988-1570EN) lists 1550 nm plus or minus 15 nm, output greater than 0 dBm, short-term CW stability less than plus or minus 0.005 dB (15 minutes), and 0 to 6 dB attenuation in 0.1 dB steps. Stable CW stimulus for IL, return-loss, and component test at the stated FP wavelength; coherence-control mode for low back-reflection sensitivity. The Agilent 81651A isaFabry-Perot laser source module for 8163/8164/8166 Lightwave mainframes. OEM 81663A DFB / 8165xA Fabry-Perot data sheet (5988-1570EN) lists 1550 nm plus or minus 15 nm, output greater than 0 dBm, short-term CW stability less than plus or minus 0.005 dB (15 minutes), and 0 to 6 dB attenuation in 0.1 dB steps. Stable CW stimulus for IL, return-loss, and component test at the stated FP wavelength; coherence-control mode for low back-reflection sensitivity. Insensitivity to back reflections with coherence control



MODEL	CALIBRATION
Agilent / Keysight 81651A	Available on request
CONDITION	STATUS
Used	In stock
RFQ / SKU	LISTING
81651A	https://aumictechlabs.com/products/81651a-2/

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 81651A Laser Source Module is a single-wavelength Fabry-Perot laser module designed for use with optical power meter modules. This module is integral for performing

insertion loss, optical return loss, and PDL measurements on broadband components and fiber optic systems. Its design ensures insensitivity to back reflections and provides stabilized output for both short-term and long-term applications. This module is an obsolete product.

Technical Specifications

- * Laser Type: Fabry-Perot Laser Diode
- Center Wavelength: 1550 nm $\pm$ 15 nm
- Output Power: > 0 dBm (1 mW) CW
- Power Stability: * Short Term (15 min): < $\pm$ 0.005 dB (typical)
- * Long Term (24 h): $\pm$ 0.03 dB (typical)
- * To back reflection (RL $\geq$ 14 dB): $\pm$ 0.003 dB (typical)
- Spectral Bandwidth (rms): < 4.5 nm
- Fiber Type: Single-mode 9/125 μ m
- Internal Digital Modulation: *
- Modulation Frequencies: 270 Hz, 330 Hz, 1 kHz, 2 kHz, and free selection from 200 Hz to 10 kHz
- * Output Signal: Pulse shaped, 50% duty cycle
- Output Attenuation: 0 dB to 6 dB in 0.1 dB steps
- Coherence Control: Internal coherence control for linewidth broadening

Physical Characteristics

- * Dimensions (H x W x D): 75 mm x 32 mm x 335 mm (2.8" x 1.3" x 13.2")
- Weight: 0.5 kg

Environmental and Operational Specifications

- * Operating Temperature: 0°C to +45°C
- Humidity: Non-condensing
- Warm-up Time: 60 minutes
- Storage/Shipping Temperature: -40°C to +70°C

Safety Classifications

- * International: Class 1 according to IEC 60825-1 (2001)
- USA: Class I according to 21 CFR 1040.10 (1995)

Compatibility

This module can be used in conjunction with optical power meter modules within a compatible mainframe system. Specific mainframe compatibility details would typically be found in the user's guide for the specific mainframe being utilized. The 81651A is part of a series of laser source modules, including the 81650A, 81652A, 81654A, 81655A, 81656A, and 81657A.

Why Choose Aumictech for the Agilent/Keysight 81651A Laser Source Module?

At Aumictech, we specialize in sourcing and validating high-end optical test equipment. Whether you need a reliable 1550nm Fabry-Perot laser source, precise power stability for critical measurements, or solid modules insensitive to back reflections, our team ensures the Agilent/Keysight 81651A delivers maximum performance for your application.

81651A Characteristics / Specifications

PARAMETER	VALUE
Model	81651A
Instrument Type	Fabry Perot laser source module
Series Family	Agilent 8165xA Fabry Perot laser sources
Laser Type	Fabry Perot
Center Wavelength	1550 nm plus or minus 15 nm
Fiber Type	single-mode 9/125 um
Spectral Bandwidth Rms	less than 4.5 nm rms
Output Power	greater than 0 dBm (1 mW)
Cw Power Stability Short Term	less than plus or minus 0.005 dB, 15 minutes
Cw Power Stability Short Term Typical Coherence On	typical less than plus or minus 0.003 dB with coherence control active
Cw Power Stability Long Term Typical	typical plus or minus 0.03 dB, 24 hours
Cw Stability To Back Reflection Typical	typical plus or minus 0.003 dB, RL greater than or equal to 14 dB
Output Attenuation Range	0 dB to 6 dB
Output Attenuation Step	0.1 dB
Internal Modulation Fixed	270 Hz, 330 Hz, 1 kHz, 2 kHz
Internal Modulation Free Select	200 Hz to 10 kHz
Modulation Duty Cycle	50 percent pulse shaped
Coherence Control	internal linewidth broadening
Output Connector Class	straight output connectors required
Specification Path	end of a 2 m fiber cable with Diamond HMS-10/Agilent connectors, attenuation 0.0 dB
Laser Safety Class	Class 1 per IEC 60825-1 (2001)
Dimensions	75 mm x 32 mm x 335 mm
Weight	0.5 kg
Recalibration Period	2 years

PARAMETER	VALUE
Operating Temperature	0 C to 45 C
Humidity	non-condensing
Warm Up Time	60 minutes; 20 minutes if previously stored at the same temperature
Stability Temperature Window	controlled environment, deltaTplus or minus 1 C
Host Mainframes	8163A/B, 8164A/B, 8166A/B
Center Wavelength Display	center wavelength is shown on the display
Bandwidth	Rms: less than 4.5 nm rms
Linewidth	broadening
Attenuation	Range: 0 dB to 6 dB
Power stability	Short Term: less than plus or minus 0.005 dB, 15 minutes

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to 45 C
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Humidity	non-condensing
Warm Up Time	60 minutes; 20 minutes if previously stored at the same temperature
Stability Temperature Window	controlled environment, deltaTplus or minus 1 C
Host Mainframes	8163A/B, 8164A/B, 8166A/B
Center Wavelength Display	center wavelength is shown on the display Notes Numeric rows from Agilent 81663A DFB Laser, 8165xA Fabry-Perot Laser data sheet 5988-1570EN standard-module (0 dBm) table and supplementary performance, plus Agilent 8163A Selected Specifications for the 81652A wavelength pair. 81651A column of Table 1.
Internal digital modulation	200 Hz to 10 kHz
Fiber type	single-mode 9/125 um
Model	81651A
Instrument Type	Fabry Perot laser source module
Series Family	Agilent 8165xA Fabry Perot laser sources
Laser Type	Fabry Perot
Center Wavelength	1550 nm plus or minus 15 nm
Spectral Bandwidth Rms	less than 4.5 nm rms
Output Power	greater than 0 dBm (1 mW)
Cw Power Stability Short Term	less than plus or minus 0.005 dB, 15 minutes
Cw Power Stability Short Term Typical Coherence On	typical less than plus or minus 0.003 dB with coherence control active
Cw Power Stability Long Term Typical	typical plus or minus 0.03 dB, 24 hours
Cw Stability To Back Reflection Typical	typical plus or minus 0.003 dB, RL greater than or equal to 14 dB
Output Attenuation Range	0 dB to 6 dB
Output Attenuation Step	0.1 dB

PARAMETER	VALUE
Internal Modulation Fixed	270 Hz, 330 Hz, 1 kHz, 2 kHz
Internal Modulation Free Select	200 Hz to 10 kHz
Modulation Duty Cycle	50 percent pulse shaped
Coherence Control	internal linewidth broadening
Output Connector Class	straight output connectors required
Specification Path	end of a 2 m fiber cable with Diamond HMS-10/Agilent connectors, attenuation 0.0 dB
Laser Safety Class	Class 1 per IEC 60825-1 (2001)
Dimensions	75 mm x 32 mm x 335 mm
Weight	0.5 kg
Recalibration Period	2 years
Operating Temperature	0 C to 45 C
Humidity	non-condensing
Warm Up Time	60 minutes; 20 minutes if previously stored at the same temperature
Stability Temperature Window	controlled environment, deltaTplus or minus 1 C
Host Mainframes	8163A/B, 8164A/B, 8166A/B
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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	
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PARAMETER	VALUE
Model	81651A
Instrument Type	Fabry Perot laser source module
Series Family	Agilent 8165xA Fabry Perot laser sources
Laser Type	Fabry Perot
Center Wavelength	1550 nm plus or minus 15 nm
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Specifications	
PARAMETER	VALUE
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PARAMETER	VALUE
Weight	0.5 kg
Recalibration Period	2 years
Operating Temperature	0 C to 45 C
Humidity	non-condensing
Warm Up Time	60 minutes; 20 minutes if previously stored at the same temperature
Stability Temperature Window	controlled environment, deltaTplus or minus 1 C
Host Mainframes	8163A/B, 8164A/B, 8166A/B
Center Wavelength Display	center wavelength is shown on the display

Notes

Numeric rows from Agilent 81663A DFB Laser, 8165xA Fabry-Perot Laser data sheet 5988-1570EN standard-module (0 dBm) table and supplementary performance, plus Agilent 8163A Selected Specifications for the 81652A wavelength pair. 81651A column of Table 1.

Laser Safety

Laser Safety Class: Class 1 per IEC 60825-1 (2001) Dimensions: 75 mm x 32 mm x 335 mm Weight: 0.5 kg
Recalibration Period: 2 years Operating Temperature: 0 C to 45 C Humidity: non-condensing Warm Up
Time: 60 minutes; 20 minutes if previously stored at the same temperature Stability Temperature Window:
controlled environment, deltaTplus or minus 1 C Host Mainframes: 8163A/B, 8164A/B, 8166A/B Center
Wavelength

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.