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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 81655A Single Fabry-Perot Laser Source, 1310nm, >13dBm (20mW)

HP / Agilent 81655A Fabry Perot Laser Source Module 1310 nm High Power The Agilent/HP 81655A is a high-power Fabry-Perot laser source module for the 8163/8164/8166 Lightwave Solution Platform, providing a 1310 nm FP source at about +13 dBm (versus standard 81650A at 0 dBm class). SMF straight-contact interface with versatile connector adapters. 1310 nm optical stimulus for component and transceiver test; high-power loss budgets; paired with 816x power sensors and attenuators. The Agilent/HP 81655A is a high-power Fabry-Perot laser source module for the 8163/8164/8166 Lightwave Solution Platform, providing a 1310 nm FP source at about +13 dBm (versus standard 81650A at 0 dBm class). SMF straight-contact interface with versatile connector adapters. 1310 nm optical stimulus for component and transceiver test; high-power loss budgets; paired with 816x power sensors and attenuators.



MODEL

**HP / Agilent
81655A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

81655A

LISTING

<https://aumictechlabs.com/products/81655a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 81655A is a single Fabry-Perot laser source module delivering continuous-wave optical power at 1310 nm for precision optical testing and component characterization. Built on InGaAsP technology, this plug-in module outputs greater than 13 dBm (20 mW) with exceptional power stability of ± 0.03 dB over 24 hours, making it ideal for demanding measurement

applications requiring long-term consistency. Technical Specifications Laser Type: Fabry-Perot laser diode, InGaAsP Wavelength: 1310 nm (± 15 nm) Output Power: >13 dBm (20 mW) Maximum CW Output Power: 52 mW Power Stability: ± 0.03 dB over 24 hours Operation Mode: Continuous wave (CW) Beam Waist Diameter: 9 μ m Numerical Aperture: 0.1 Laser Class: Class 1M (IEC 60825-1:2001) Warm-up Time: 60 minutes Operating Temperature: 0–45 °C Weight: 0.5 kg Key Features Insensitive to back reflections - no external isolator required Internal digital modulation capability for automated test sequences SCPI command support for integration with automated measurement systems Compact plug-in module design Typical Applications Insertion loss measurements Optical return loss (ORL) measurements Polarization-dependent loss (PDL) characterization of broadband components and fiber Compatibility & Integration The 81655A integrates directly into Agilent 8163A, 8164A, and 8166A lightwave measurement mainframes, enabling rapid deployment in existing test laboratories without additional external optics or signal conditioning.

Features & description

From manufacturer datasheet

Features

- 1310 nm Fabry-Perot source
- High-power FP class about +13 dBm
- Single-mode fiber straight contact interface
- Module for 8163/8164/8166 mainframes
- Class 1M laser product family labeling

81655A Characteristics / Specifications

PARAMETER	VALUE
Model	81655A
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Fabry Perot laser source module
Wavelength	1310 nm
Output Power Class	+13 dBm (high power FP family)
Related Standard Power Sibling	81650A 1310 nm at 0 dBm class
Fiber Type	SMF
Connector Style	straight contact interface
Mainframe Compatibility	8163A/B 8164A/B 8166A/B
Related 1550 nm High Power	81656A
Related Dual Wavelength High Power	81657A 1310/1550 nm
Laser Safety Class	Class 1M IEC 60825-1 (2001) family list
CFR Compliance	21 CFR 1040.10 with Laser Notice 50 deviations
Connector Interfaces Supported	81000AI FI GI HI KI SI VI WI family
Platform Slots	compact lightwave multimeter module
Application Band	O-band 1310 nm stimulus
Alias	HP 81655A; Agilent 81655A; Keysight 81655A
Output Fiber	SMF straight
Spectral Class	Fabry Perot multimode source
Power Family Headline	FP High Power Modules 13 dBm
Standard Power Contrast	FP Standard Modules 0 dBm

81655A Specifications

PARAMETER	VALUE
Applications	1310 nm optical stimulus for component and transceiver test; high-power loss budgets; paired with 816x power sensors and attenuators.
Key Features	- 1310 nm Fabry-Perot source
Technical Specifications	Model: 81655A

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	81655A
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Fabry Perot laser source module
Wavelength	1310 nm
Output Power Class	+13 dBm (high power FP family)
Related Standard Power Sibling	81650A 1310 nm at 0 dBm class
Fiber Type	SMF
Connector Style	straight contact interface
Mainframe Compatibility	8163A/B 8164A/B 8166A/B
Related 1550 nm High Power	81656A
Related Dual Wavelength High Power	81657A 1310/1550 nm
Laser Safety Class	Class 1M IEC 60825-1 (2001) family list
CFR Compliance	21 CFR 1040.10 with Laser Notice 50 deviations
Connector Interfaces Supported	81000AI FI GI HI KI SI VI WI family
Platform Slots	compact lightwave multimeter module
Application Band	O-band 1310 nm stimulus
Alias	HP 81655A; Agilent 81655A; Keysight 81655A
Option E01 Class: 850 nm FP variant exists on some config guides	
Option E03 Class: 850 nm listings on later config guides	
Option E01 Class: 850 nm FP variant exists on some config guides	
Option E03 Class: 850 nm listings on later config guides	
Specifications	
PARAMETER	VALUE
Output Fiber	SMF straight
Spectral Class	Fabry Perot multimode source
Power Family Headline	FP High Power Modules 13 dBm
Standard Power Contrast	FP Standard Modules 0 dBm

Notes

Identity and +13 dBm high-power FP family assignment from Agilent 816x configuration guide 5988-1571EN. Detailed spectral width, SMSR, and stability tables belong in the Fabry-Perot laser technical specifications document for the installed revision.

Laser Safety

Laser Safety Class: Class 1M IEC 60825-1 (2001) family list CFR Compliance: 21 CFR 1040.10 with Laser Notice 50 deviations Connector Interfaces Supported: 81000AI FI GI HI KI SI VI WI family Platform Slots: compact lightwave multimeter module Application Band: O-band 1310 nm stimulus Alias: HP 81655A; Agilent 81655A; Keysight 81655A Option E01 Class: 850 nm FP variant exists on some config guides Option E03 C

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.