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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 81608A Tunable Laser Module (1370–1510 nm)

Agilent Keysight 81608A Tunable Laser Source Module The Keysight 81608A isavalue-line high-power 8160xA tunable laser module for the 8164B mainframe. OEM 8160xA Family data sheet 5992-3735 lists peak output greater than +12 dBm, at least 75 dB/nm above SSE, ±20 pm absolute wavelength accuracy in stepped mode, and typical ±1.5 pm wavelength repeatability at 200 nm/s two-way sweeps. Coherent transmission experiments needing high power; cost-effective manufacturing test of CWDM and wider-band devices; LO source for modulators including N437x LCAs. The Keysight 81608A isavalue-line high-power 8160xA tunable laser module for the 8164B mainframe. OEM 8160xA Family data sheet 5992-3735 lists peak output greater than +12 dBm, at least 75 dB/nm above SSE, ±20 pm absolute wavelength accuracy in stepped mode, and typical ±1.5 pm wavelength repeatability at 200 nm/s two-way sweeps. Coherent transmission experiments needing high power; cost-effective manufacturing test of CWDM and wider-band devices; LO source for modulators including N437x LCAs. Value-line high-power output greater than +12 dBm

MODEL **Agilent / Keysight 81608A**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **81608A**	LISTING **https://aumictechlabs.com/products/81608a-2/**

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NAICS 423690 · 811210 · 541380

This unit

The Keysight 81608A Tunable Laser Module delivers precise wavelength control and stable optical output across the 1370–1510 nm band. This source combines narrow linewidth, low spontaneous emission, and excellent wavelength repeatability, making it ideal for coherent transmission experiments and manufacturing-floor component testing. The module integrates into the 8164B Lightwave Measurement System mainframe and operates with user-adjustable output power down to 0 dBm, supported by the N7700A photonic application suite.Technical Specifications Wavelength Performance Tuning range: 1370–1510 nm (Option 114) Absolute accuracy (static): ±5 pm typical Absolute accuracy (sweeping): ±10 pm typical Wavelength repeatability: ±1.5 pm typical (two-way sweeps to 200 nm/s) Sweep speed: up to 200 nm/s bidirectional Optical Output Peak output power: >+12 dBm typical Output level range: >±12 dBm User-adjustable power down to 0 dBm Signal-to-spontaneous emission ratio: ≥75 dB/nm typical Power stability: ±0.03 dB over 24 hours Physical & Environmental Dimensions: 16 × 14 × 10 in Weight: 25 lbs Storage/shipping temperature: -40 °C to +70 °C Output connector: PMF with angled contact Front panel: two BNC connectors (input/output); maximum ±6 V external voltage ratedKey Features Narrow linewidth with low spontaneous emission for accurate, reliable measurements Long-term stability enhanced by built-in gas cell and self-adjustment Bidirectional sweep capability maintains ±1.5 pm repeatability at 200 nm/s Dry air or nitrogen operation recommended in high water-absorption regions (1350–1420 nm); optional dry air connector available Back-loadable design fits 8164B mainframe bottom slotTypical Applications Coherent transmission system characterization Component testing on manufacturing floors Spectral measurements via N7700A software integrationCompatibility & Integration Module integrates into Keysight 8164B Lightwave Measurement System mainframe; supported by N7700A photonic application suite. Laser classified per IEC 60825-1; compliant with 21 CFR 1040.10 per Laser Notice No. 50 (June 24, 2007).

81608A Characteristics / Specifications

PARAMETER	VALUE
Model	81608A
Instrument Type	Tunable laser source module
Series Family	Keysight 8160xA
Wavelength Range Option 1	1240 nm to 1380 nm
Wavelength Range Option 2	1450 nm to 1650 nm
Maximum Output Power Option 216 Peak	greater than +12 dBm peak
Host Mainframe	8164B Lightwave Measurement System, bottom back-loadable slot
Wavelength Resolution	0.1 pm (17.5 MHz at 1310 nm, 14.3 MHz at 1450 nm, 12.5 MHz at 1550 nm)
Minimum Output Power Setting	0 dBm
Output Fiber	Panda PMF, TE in slow axis aligned to connector key
Operating Temperature	+10 C to +35 C
Storage Temperature	minus 40 C to +70 C
Humidity	less than 80% RH at +10 C to +35 C, non-condensing
Warm Up Time	60 minutes; 30 minutes if previously stored at the same temperature
Built In Wavelength Meter	real-time wavelength meter for set, stabilize, and sweep logging
Built In Gas Cell	acetylene class gas cell for long-term absolute referencing
Absolute Wavelength Accuracy Stepped	±20 pm (typical ±5 pm)
Relative Wavelength Accuracy Stepped	±10 pm (typical ±3 pm)
Wavelength Repeatability Stepped	±2.5 pm (typical ±1 pm)
Wavelength Stability Typical	≤ ±2.5 pm, 24 hours typical
Power Repeatability Typical	±0.01 dB typical
Power Stability One Hour	±0.01 dB, 1 hour; typical ±0.03 dB, 24 hours
Power Linearity	±0.1 dB
Power Flatness Versus Wavelength	±0.25 dB (typical ±0.1 dB Options 116/216)
Max Sweep Speed	200 nm/s bidirectional

PARAMETER	VALUE
Signal To Sse Ratio	≥75 dB/nm; ≥85 dB/0.1 nm
Linewidth Typical Coherence Off	less than 10 kHz typical
Effective Linewidth Coherence On Typical	greater than 50 MHz typical
Rin Typical	less than minus 150 dB/Hz typical, 0.1 to 6 GHz
Wavelength range	Option 113: 1240 nm to 1380 nm
Absolute wavelength accuracy	Stepped: ±20 pm (typical ±5 pm)
Relative wavelength accuracy	Stepped: ±10 pm (typical ±3 pm)
Wavelength repeatability	Stepped: ±2.5 pm (typical ±1 pm)
Wavelength stability	Typical: ≤ ±2.5 pm, 24 hours typical
Linewidth	Typical Coherence Off: less than 10 kHz typical
Effective linewidth	Coherence On Typical: greater than 50 MHz typical
Maximum output power	Option 216 Peak: greater than +12 dBm peak
Power repeatability	Typical: ±0.01 dB typical
Power stability	One Hour: ±0.01 dB, 1 hour; typical ±0.03 dB, 24 hours

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 C to +70 C
Operating temperature	+10 C to +35 C
Operating Temperature	+10 C to +35 C
Humidity	less than 80% RH at +10 C to +35 C, non-condensing
Warm Up Time	60 minutes; 30 minutes if previously stored at the same temperature
Built In Wavelength Meter	real-time wavelength meter for set, stabilize, and sweep logging
Built In Gas Cell	acetylene class gas cell for long-term absolute referencing
Absolute Wavelength Accuracy Stepped	±20 pm (typical ±5 pm)
Relative Wavelength Accuracy Stepped	±10 pm (typical ±3 pm)
Wavelength Repeatability Stepped	±2.5 pm (typical ±1 pm)
Wavelength Stability Typical	≤ ±2.5 pm, 24 hours typical
Power Repeatability Typical	±0.01 dB typical
Power Stability One Hour	±0.01 dB, 1 hour; typical ±0.03 dB, 24 hours
Power Linearity	±0.1 dB
Power Flatness Versus Wavelength	±0.25 dB (typical ±0.1 dB Options 116/216)
Max Sweep Speed	200 nm/s bidirectional
Signal To Sse Ratio	≥75 dB/nm; ≥85 dB/0.1 nm
Linewidth Typical Coherence Off	less than 10 kHz typical
Effective Linewidth Coherence On Typical	greater than 50 MHz typical
Rin Typical	less than minus 150 dB/Hz typical, 0.1 to 6 GHz Notes Numeric rows from Keysight 8160xA Family of Tunable Laser Sources data sheet 5992-3735.

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

Specifications

PARAMETER	VALUE
Model	81608A
Instrument Type	Tunable laser source module
Series Family	Keysight 8160xA
Wavelength Range Option 113	1240 nm to 1380 nm
Wavelength Range Option 114	1340 nm to 1495 nm
Wavelength Range Option 116	1490 nm to 1640 nm
Wavelength Range Option 216	1450 nm to 1650 nm
Maximum Output Power Option 216 Peak	greater than +12 dBm peak
Host Mainframe	8164B Lightwave Measurement System, bottom back-loadable slot
Wavelength Resolution	0.1 pm (17.5 MHz at 1310 nm, 14.3 MHz at 1450 nm, 12.5 MHz at 1550 nm)
Minimum Output Power Setting	0 dBm
Output Fiber	Panda PMF, TE in slow axis aligned to connector key
Operating Temperature	+10 C to +35 C
Storage Temperature	minus 40 C to +70 C
Humidity	less than 80% RH at +10 C to +35 C, non-condensing
Warm Up Time	60 minutes; 30 minutes if previously stored at the same temperature
Built In Wavelength Meter	real-time wavelength meter for set, stabilize, and sweep logging
Built In Gas Cell	acetylene class gas cell for long-term absolute referencing
Absolute Wavelength Accuracy Stepped	±20 pm (typical ±5 pm)
Relative Wavelength Accuracy Stepped	±10 pm (typical ±3 pm)
Wavelength Repeatability Stepped	±2.5 pm (typical ±1 pm)
Wavelength Stability Typical	≤ ±2.5 pm, 24 hours typical
Power Repeatability Typical	±0.01 dB typical
Power Stability One Hour	±0.01 dB, 1 hour; typical ±0.03 dB, 24 hours
Power Linearity	±0.1 dB

PARAMETER	VALUE
Power Flatness Versus Wavelength	±0.25 dB (typical ±0.1 dB Options 116/216)
Max Sweep Speed	200 nm/s bidirectional
Signal To Sse Ratio	≥75 dB/nm; ≥85 dB/0.1 nm
Linewidth Typical Coherence Off	less than 10 kHz typical
Effective Linewidth Coherence On Typical	greater than 50 MHz typical
Rin Typical	less than minus 150 dB/Hz typical, 0.1 to 6 GHz

Notes
Numeric rows from Keysight 8160xA Family of Tunable Laser Sources data sheet 5992-3735.

Ordering Information

OPTION	DESCRIPTION
Option 216	Peak: greater than +12 dBm peak

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

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