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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 81607A Tunable Laser Module (1260â€“1360 nm)

Agilent Keysight 81607A Tunable Laser Source Module The Keysight 81607A is the value-line 8160xA tunable laser module for the 8164B mainframe. OEM 8160xA Family data sheet 5992-3735 lists Option 116 coverage 1490 nm to 1640 nm, greater than +8 dBm peak output, ±5 pm absolute wavelength accuracy in stepped mode, and typical ±1 pm wavelength repeatability during 200 nm/s two-way sweeps. Economical DWDM device test and adjustment when top-line power is not required; swept IL of wavelength-selective components; manufacturing-floor filter alignment. The Keysight 81607A is the value-line 8160xA tunable laser module for the 8164B mainframe. OEM 8160xA Family data sheet 5992-3735 lists Option 116 coverage 1490 nm to 1640 nm, greater than +8 dBm peak output, ±5 pm absolute wavelength accuracy in stepped mode, and typical ±1 pm wavelength repeatability during 200 nm/s two-way sweeps. Economical DWDM device test and adjustment when top-line power is not required; swept IL of wavelength-selective components; manufacturing-floor filter alignment. Value-line continuous-sweep TLS sharing 81606A cavity design

MODEL **Agilent / Keysight 81607A**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **81607A**	LISTING **https://aumictechlabs.com/products/81607a-2/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 81607A is a plug-in tunable laser source module for the 8164A and 8164B Lightwave Measurement System mainframes. Operating across 1260–1360 nm, this Value Line module delivers narrow linewidth performance and low spontaneous emission (SSE) for high dynamic range optical component characterization. It supports bidirectional wavelength sweeps to 200 nm/s with mode-hop-free tuning across the full range.Absolute wavelength accuracy of ±3 pm typical and repeatability of ±1 pm typical enable precise spectral measurements of insertion loss, polarization-dependent loss, and dispersion. The module integrates with the Keysight N7700A photonic application suite for automated testing workflows.Technical Specifications Wavelength Range: 1260 nm to 1360 nm Sweep Speed: Up to 200 nm/s bidirectional Maximum Output Power: >+8 dBm peak typical (user-adjustable to 0 dBm minimum) Signal-to-SSE Ratio: ≥75 dB/nm typical Absolute Wavelength Accuracy: ±3 pm typical Wavelength Repeatability: ±1 pm typical at full sweep speeds Wavelength Resolution: 0.1 pm (12.5 MHz at 1550 nm reference) Spectral Linewidth: >50 MHz typical Power Stability: ±0.01 dB (1 hour), ±0.025 dB (24 hours) Power Flatness vs. Wavelength: ±0.1 dB typical Mode-Hop-Free Tuning: Full wavelength range Warm-up Time: 60 minutes initial; 30 minutes after prior temperature storageKey Features Continuous sweep across full wavelength range at speeds ≤50 nm/s Built-in gas cell with self-adjustment for long-term wavelength stability PMF output connector (straight contact options available) Operating temperature: +10 °C to +35 °C Storage temperature: -40 °C to +70 °CTypical Applications Automated characterization of passive optical components Spectral measurement of broadband sources High-throughput wavelength-dependent loss testing Polarization-dependent loss and dispersion analysisCompatibility & Integration Designed for 8164A/B Lightwave Measurement System mainframes with 81600B series compatibility using appropriate connector options. Operates with N7700A photonic application suite software for integrated optical measurements.

Features & description

From manufacturer datasheet

Low SSE with ≥75 dB/nm signal-to-SSE class family value line

Standard PMF output Gas-cell long-term stability shared with the 8160xA family Technical Specifications Model: 81607A Instrument Type: Tunable laser source module Series Family: Keysight 8160xA Wavelength Range Option 116: 1490 nm to 1640 nm Maximum Output Power Option 116 Peak: greater than +8 dBm peak Maximum Output Power Option 116 C Band: greater than +7 dBm, 1515 nm to 1620 nm Maximum Output Power Option 116 Full: greater than +4 dBm, 1490 nm to 1640 nm 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: ±5 pm (typical ±3 pm) Relative Wavelength Accuracy Stepped: ±3 pm (typical ±2 pm)

81607A Characteristics / Specifications

PARAMETER	VALUE
Model	81607A
Instrument Type	Tunable laser source module
Series Family	Keysight 8160xA
Wavelength Range Option 1	1490 nm to 1640 nm
Maximum Output Power Option 116 Peak	greater than +8 dBm peak
Maximum Output Power Option 116 C Band	greater than +7 dBm, 1515 nm to 1620 nm
Maximum Output Power Option 116 Full	greater than +4 dBm, 1490 nm to 1640 nm
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	±5 pm (typical ±3 pm)
Relative Wavelength Accuracy Stepped	±3 pm (typical ±2 pm)
Wavelength Repeatability Stepped	±1.5 pm (typical ±1 pm)
Wavelength Stability Typical	≤ ±1 pm, 24 hours typical
Power Repeatability Typical	±0.005 dB typical
Power Stability One Hour	±0.01 dB, 1 hour; typical ±0.025 dB, 24 hours
Power Linearity	±0.05 dB

PARAMETER	VALUE
Power Flatness Versus Wavelength	±0.25 dB (typical ±0.1 dB)
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
Rin Typical	less than minus 135 dB/Hz typical, 0.1 to 6 GHz
Wavelength range	Option 116: 1490 nm to 1640 nm
Absolute wavelength accuracy	Stepped: ±5 pm (typical ±3 pm)
Relative wavelength accuracy	Stepped: ±3 pm (typical ±2 pm)
Wavelength repeatability	Stepped: ±1.5 pm (typical ±1 pm)
Wavelength stability	Typical: ≤ ±1 pm, 24 hours typical
Linewidth	Typical Coherence Off: less than 10 kHz typical
Maximum output power	Option 116 Peak: greater than +8 dBm peak
Power repeatability	Typical: ±0.005 dB typical
Power stability	One Hour: ±0.01 dB, 1 hour; typical ±0.025 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	±5 pm (typical ±3 pm)
Relative Wavelength Accuracy Stepped	±3 pm (typical ±2 pm)
Wavelength Repeatability Stepped	±1.5 pm (typical ±1 pm)
Wavelength Stability Typical	≤ ±1 pm, 24 hours typical
Power Repeatability Typical	±0.005 dB typical
Power Stability One Hour	±0.01 dB, 1 hour; typical ±0.025 dB, 24 hours
Power Linearity	±0.05 dB
Power Flatness Versus Wavelength	±0.25 dB (typical ±0.1 dB)
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
Rin Typical	less than minus 135 dB/Hz typical, 0.1 to 6 GHz Notes Numeric rows from Keysight 8160xA Family of Tunable Laser Sources data sheet 5992-3735. 81607A is Option 116 only in that family table.

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	81607A
Instrument Type	Tunable laser source module
Series Family	Keysight 8160xA
Wavelength Range Option 116	1490 nm to 1640 nm
Maximum Output Power Option 116 Peak	greater than +8 dBm peak
Maximum Output Power Option 116 C Band	greater than +7 dBm, 1515 nm to 1620 nm
Maximum Output Power Option 116 Full	greater than +4 dBm, 1490 nm to 1640 nm
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	±5 pm (typical ±3 pm)
Relative Wavelength Accuracy Stepped	±3 pm (typical ±2 pm)
Wavelength Repeatability Stepped	±1.5 pm (typical ±1 pm)
Wavelength Stability Typical	≤ ±1 pm, 24 hours typical
Power Repeatability Typical	±0.005 dB typical
Power Stability One Hour	±0.01 dB, 1 hour; typical ±0.025 dB, 24 hours
Power Linearity	±0.05 dB
Power Flatness Versus Wavelength	±0.25 dB (typical ±0.1 dB)

PARAMETER	VALUE
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
Rin Typical	less than minus 135 dB/Hz typical, 0.1 to 6 GHz

Notes
Numeric rows from Keysight 8160xA Family of Tunable Laser Sources data sheet 5992-3735. 81607A is Option 116 only in that family table.

Ordering Information

OPTION	DESCRIPTION
Option 116	coverage 1490 nm to 1640 nm, greater than +8 dBm peak output, ±5 pm absolute wavelength accuracy in stepped mode, and typical ±1 pm wavelength repeatability dur

Available from Aumictech

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

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