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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 81480A Tunable Laser Source Range: 1370nm to 1480nm Power: + 5.5dBm

HP / Agilent 81480A Tunable Laser Module 1370 to 1480 nm The Agilent/HP 81480A is a back-loadable tunable laser source module for the 8164A Lightwave Measurement System covering 1370 to 1480 nm (E-band class). Dual optical outputs provide a low-SSE port for steep DWDM filter crosstalk work and a high-power port for amplifier and passive-component stimulus. Mode-hop-free tuning, built-in wavelength control, coherence control, and Panda PMF outputs are standard. E-band / 1400 nm region DWDM component test; Fiber Bragg Grating notch characterization on the low-SSE port; optical amplifier stimulus on the high-power port in an 8164A mainframe. The Agilent/HP 81480A is a back-loadable tunable laser source module for the 8164A Lightwave Measurement System covering 1370 to 1480 nm (E-band class). Dual optical outputs provide a low-SSE port for steep DWDM filter crosstalk work and a high-power port for amplifier and passive-component stimulus. Mode-hop-free tuning, built-in wavelength control, coherence control, and Panda PMF outputs are standard. E-band / 1400 nm region DWDM component test; Fiber Bragg Grating notch characterization on the low-SSE port; optical amplifier stimulus on the high-power port in an 8164A mainframe.



MODEL

**HP / Agilent
81480A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

81480A

LISTING

<https://aumictechlabs.com/products/81480a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 81480A is a tunable laser source for precision optical testing across the S-band (1370 nm to 1480 nm). It delivers +5.5 dBm maximum output power with mode-hop-free tuning, dual optical outputs, and integrated wavelength control and metering. The instrument excels at DWDM component characterization, optical amplifier testing, and crosstalk measurement applications requiring high wavelength accuracy and low source spontaneous emission. Technical Specifications Wavelength Range: 1370 nm to 1480 nm Maximum Output Power: +5.5 dBm Wavelength Accuracy (Absolute): ± 0.01 nm Wavelength Repeatability: ± 0.5 pm typical Spectral Linewidth: 100 kHz (coherent control off); > 50 MHz at 1420–1470 nm with coherent control on Output 1 (Low SSE): -13 dBm with ≥ 63 dB/nm signal-to-SSE ratio (1520–1570 nm) Output 2 (High Power): -3 dBm Optical Power Stability: ± 0.01 dB (1420–1480 nm) Tuning Velocity: 40 nm/sec, 5 nm/sec, or 0.5 nm/sec selectable Built-in Wavelength Meter: Real-time measurement with control loop Operating Temperature: 10 °C to 35 °C Storage Temperature: -40 °C to $+70$ °C Humidity: 45% duty cycle, 15% modulation depth) Polarization-maintaining fiber option available with 16 dB extinction ratio (typical) External wavelength locking: > 70 pm at 10 Hz; > 7 pm at 100 Hz Typical Applications Dense Wavelength Division Multiplexing (DWDM) component testing Optical amplifier characterization Passive optical component evaluation Fiber Bragg Grating analysis Compatibility & Integration The 81480A integrates into the Agilent 8164A mainframe for versatile optical test platform configurations.

Features & description

From manufacturer datasheet

Features

- Dual outputs: Low SSE and High Power
- Mode-hop-free continuous sweep over full range
- Built-in wavelength control loop
- Coherence control for linewidth broadening
- Panda PMF output; 8164A high-performance TLS slot

High Power Minimum Power: -3 dBm (-60 dBm in attenuation mode)

Power Stability 1 h 1420 To 1480 nm: plus/minus 0.01 dB Power Stability Typical 24 h: plus/minus 0.03 dB Power Linearity Low SSE 1420 To 1480 nm: plus/minus 0.1 dB Power Linearity High Power 1420 To 1480 nm: plus/minus 0.3 dB SMSR Typical: greater than 40 dBc (1380 to 1480 nm) SSE Ratio Low SSE 1420 To 1470 nm: greater than 61 dB/nm SSE Ratio High Power 1420 To 1470 nm: greater than 40 dB/nm Total SSE Low SSE 1420 To 1470 nm: greater than 58 dB Fiber Output: Panda PMF (TE in slow axis, connector key aligned) Laser Safety Class Family: Class 3A IEC / IIIb FDA labeling class in module safety table Alias: HP 81480A; Agilent 81480A; Keysight 81480A Notes Rows from Agilent 81480A tunable laser module specifications (user guide / TLS technical table). Avoid water-absorption wavelengths per datasheet note [9]. Confirm installed connector options and which optical output is selected.

81480A Characteristics / Specifications

PARAMETER	VALUE
Model	81480A
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Tunable laser source module dual output
Mainframe Compatibility	8164A Lightwave Measurement System
Wavelength Range	1370 nm to 1480 nm
Wavelength Resolution	0.1 pm (15 MHz at 1450 nm)
Mode Hop Free Tuning	full wavelength range
Absolute Wavelength Accuracy	plus/minus 0.01 nm
Relative Wavelength Accuracy	plus/minus 5 pm; typ plus/minus 2 pm
Wavelength Repeatability	plus/minus 1 pm; typ plus/minus 0.5 pm
Wavelength Stability Typical 24 h	less than plus/minus 1 pm (constant temperature)
Tuning Speed Typical 1/10/100 nm	400 ms / 600 ms / 2.8 s
Linewidth Typical Coherence Off	100 kHz
Effective Linewidth Coherence On	greater than 50 MHz (1420 to 1470 nm at max flat power)
Low SSE Peak Power Typical	greater than -4.5 dBm
Low SSE Power 1420 To 1470 nm	greater than -7 dBm
Low SSE Power 1370 To 1480 nm	greater than -13 dBm
High Power Peak Typical	greater than +5.5 dBm
High Power 1420 To 1470 nm	greater than +3 dBm
High Power 1370 To 1480 nm	greater than -3 dBm
Low SSE Minimum Power	-13 dBm
High Power Minimum Power	-3 dBm (-60 dBm in attenuation mode)
Power Stability 1 h 1420 To 1480 nm	plus/minus 0.01 dB
Power Stability Typical 24 h	plus/minus 0.03 dB
Power Linearity Low SSE 1420 To 1480 nm	plus/minus 0.1 dB

PARAMETER	VALUE
Power Linearity High Power 1420 To 1480 nm	plus/minus 0.3 dB
SMSR Typical	greater than 40 dBc (1380 to 1480 nm)
SSE Ratio Low SSE 1420 To 1470 nm	greater than 61 dB/nm
SSE Ratio High Power 1420 To 1470 nm	greater than 40 dB/nm
Total SSE Low SSE 1420 To 1470 nm	greater than 58 dB
Fiber Output	Panda PMF (TE in slow axis, connector key aligned)
Laser Safety Class Family	Class 3A IEC / IIIB FDA labeling class in module safety table
Alias	HP 81480A; Agilent 81480A; Keysight 81480A
Wavelength stability	Typical 24 h: less than plus/minus 1 pm (constant temperature)
Linewidth	Typical Coherence Off: 100 kHz
Effective linewidth	Coherence On: greater than 50 MHz (1420 to 1470 nm at max flat power)
Attenuation	mode)
Power stability	1 h 1420 To 1480 nm: plus/minus 0.01 dB
Power linearity	Low SSE 1420 To 1480 nm: plus/minus 0.1 dB

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.

performance TLS slot	
Technical Specifications	
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Instrument Type	Tunable laser source module dual output
Mainframe Compatibility	8164A Lightwave Measurement System
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Effective Linewidth Coherence On	greater than 50 MHz (1420 to 1470 nm at max flat power)
Low SSE Peak Power Typical	greater than -4.5 dBm
Low SSE Power 1420 To 1470 nm	greater than -7 dBm
Low SSE Power 1370 To 1480 nm	greater than -13 dBm
High Power Peak Typical	greater than +5.5 dBm
High Power 1420 To 1470 nm	greater than +3 dBm
High Power 1370 To 1480 nm	greater than -3 dBm
Low SSE Minimum Power	-13 dBm
High Power Minimum Power	-3 dBm (-60 dBm in attenuation mode)
Power Stability 1 h 1420 To 1480 nm: plus/minus 0.01 dB	
Power Stability Typical 24 h: plus/minus 0.03 dB	
Power Linearity Low SSE 1420 To 1480 nm: plus/minus 0.1 dB	
Power Linearity High Power 1420 To 1480 nm: plus/minus 0.3 dB	
SMSR Typical: greater than 40 dBc (1380 to 1480 nm)	

SSE Ratio Low SSE 1420 To 1470 nm: greater than 61 dB/nm
SSE Ratio High Power 1420 To 1470 nm: greater than 40 dB/nm
Total SSE Low SSE 1420 To 1470 nm: greater than 58 dB

Specifications

PARAMETER	VALUE
Fiber Output	Panda PMF (TE in slow axis, connector key aligned)
Laser Safety Class Family	Class 3A IEC / IIIB FDA labeling class in module safety table
Alias	HP 81480A; Agilent 81480A; Keysight 81480A

Notes
Rows from Agilent 81480A tunable laser module specifications (user guide / TLS technical table). Avoid water-absorption wavelengths per datasheet note [9]. Confirm installed connector options and which optical output is selected.

Laser Safety

Laser Safety Class Family: Class 3A IEC / IIIb FDA labeling class in module safety table Alias: HP 81480A; Agilent 81480A; Keysight 81480A Notes Rows from Agilent 81480A tunable laser module specifications (user guide / TLS technical table). Avoid water-absorption wavelengths per datasheet note [9]. Confirm installed connector options and which optical output is selected.

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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30-day returns
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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.