

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 83410B Lightwave Receiver

The Keysight 83410B is a lightwave receiver for 1300 nm and 1550 nm optical signals with electrical bandwidth to 3 GHz. It converts optical inputs to 50 ohm electrical outputs for high-speed communications measurements. Long-wavelength optical waveform monitoring, receiver testing at 1300/1550 nm, and lightwave-to-RF conversion for spectrum or DCA analysis. Dual wavelength 1300 nm and 1550 nm operation Three gigahertz electrical bandwidth class Electrical Output Connector Class: Type N female Noise Equivalent Power: 0.2 pW per sqrt Hz Application Domain: high speed optical communication systems Numeric rows from published Agilent/HP 83410B lightwave receiver calibration and product specification summaries for 1300/1550 nm 3 GHz receivers.



MODEL

**Agilent / Keysight
83410B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

83410B

LISTING

<https://aumictechlabs.com/products/83410b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 83410B is a lightwave receiver designed for precise optical signal detection across broad wavelength ranges. It delivers accurate power measurements and supports multiple modulation formats, making it essential for optical component characterization and system validation in development, research, and manufacturing environments. Technical Specifications Optical Performance Wavelength Range: Operates across specified optical wavelengths for compatibility with standard fiber optic systems and laser sources Input Power Range: Defined minimum and maximum optical power levels for accurate measurement without overdrive or signal

loss Sensitivity: Minimum detectable optical power at specified signal-to-noise ratio or bit error rate Dynamic Range: Ratio between maximum and minimum measurable optical power levels Bandwidth: Optical bandwidth supporting specified data transmission rates and frequency response Reflectance/Return Loss: Optical power reflected at the input port; minimized to reduce measurement errors Electrical Characteristics Output Voltage Levels: Electrical output signal range corresponding to detected optical power Output Impedance: Electrical impedance of the output for proper integration with test equipment Noise Floor: Inherent electrical noise setting the minimum detectable signal threshold Electrical Bandwidth: Output signal bandwidth for accurate representation of high-speed optical signals Measurement Performance Accuracy: Maximum permissible error in optical power measurements Repeatability/Stability: Measurement consistency over time and across operating conditions Response Time: Stabilization time following changes in input optical power

Key Features Excellent sensitivity for weak-signal detection Wide dynamic range for variable signal strength applications Multi-format modulation support Minimal input reflectance for measurement integrity

Typical Applications Optical component testing and characterization Fiber optic system validation Laser source power measurement Research and development of optical communications systems

Compatibility & Integration The 83410B integrates with standard test equipment via matched output impedance and defined electrical output levels. Optical compatibility spans industry-standard wavelength bands for seamless system integration.

83410B Characteristics / Specifications

PARAMETER	VALUE
Model	83410B
Instrument Type	lightwave receiver
Wavelengths	1300 nm and 1550 nm
Bandwidth	300 kHz to 3 GHz class
Frequency Range Electrical	DC to 3 GHz class
Optical Input Power Range	-60 dBm to +10 dBm
Maximum Input Power	+10 dBm
Sensitivity At 1300 nm	-38 dBm
Sensitivity At 1550 nm	-40 dBm
Optical Return Loss	greater than 40 dB
Optical Input Connector	FC/APC
Electrical Output Connector Class	TypeNfemale
Rise Time	less than 116 ps
Noise Equivalent Power	0.2 pW per sqrt Hz
Input Impedance	50 ohm
Output Impedance	50 ohm
Power Supply	100 to 240 V AC 50/60 Hz
Dimensions	426 mm by 89 mm by 483 mm
Mass	8.6 kg
Bandwidth Headline	3 GHz
Wavelength Pair	1300 and 1550 nm
Application Domain	high speed optical communication systems
Return loss	greater than 40 dB

83410B Specifications

PARAMETER	VALUE
Keysight 83410B Lightwave Receiver	Overview
Applications	Long-wavelength optical waveform monitoring, receiver testing at 1300/1550 nm, and lightwave-to-RF conversion for spectrum or DCA analysis.
Key Features	Dual wavelength 1300 nm and 1550 nm operation
Technical Specifications	Model: 83410B

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	83410B
Instrument Type	lightwave receiver
Wavelengths	1300 nm and 1550 nm
Bandwidth	300 kHz to 3 GHz class
Frequency Range Electrical	DC to 3 GHz class
Optical Input Power Range	-60 dBm to +10 dBm
Maximum Input Power	+10 dBm
Sensitivity At 1300 nm	-38 dBm
Sensitivity At 1550 nm	-40 dBm
Optical Return Loss	greater than 40 dB
Optical Input Connector	FC/APC
Electrical Output Connector Class	TypeNfemale
Rise Time	less than 116 ps
Noise Equivalent Power	0.2 pW per sqrt Hz
Input Impedance	50 ohm
Output Impedance	50 ohm
Power Supply	100 to 240 V AC 50/60 Hz
Dimensions	426 mm by 89 mm by 483 mm
Mass	8.6 kg
Bandwidth Headline	3 GHz
Wavelength Pair	1300 and 1550 nm
Application Domain	high speed optical communication systems
Notes	
Numeric rows from published Agilent/HP 83410B lightwave receiver calibration and product specification summaries for 1300/1550 nm 3 GHz receivers.	

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 15, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.