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Data Sheet

August 1, 2026

HP

HP 83400A-012 300 kHz to 3 GHz, 1300 nm, Lightwave Source

The HP 83400A-012 is a lightwave source that operates from 300 kHz to 3 GHz at a wavelength of 1300 nm. This instrument provides a stable and calibrated optical signal for testing and characterizing optical components and systems. Ideal for telecommunications and research applications.



MODEL

HP 83400A-012

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

83400A-012

LISTING

<https://aumictechlabs.com/products/83400a-012-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP 83400A-012 is a lightwave source module that generates a stable, calibrated optical signal at 1300 nm for telecommunications and optical component testing. This Fabry-Perot laser source operates across an electrical bandwidth of 300 kHz to 3 GHz and connects via FC/PC connector to single-mode fiber (9/125 μm). The module supports external RF modulation up to +14 dBm and integrates directly into HP 8702 Series Lightwave Component Analyzers. Technical Specifications Frequency Range: 300 kHz to 3 GHz (electrical bandwidth) Wavelength: 1300 nm Laser Type: Fabry-Perot Output Power: 1.1 mW signal range Optical Connector: FC/PC Optical Fiber Compatibility: 9/125 μm Single Mode Fiber (SMF) RF Modulation Capability: External amplitude modulation, up to +14 dBm RF power input Power Supply: -12.6 V $\pm 5\%$ and +15 V $\pm 5\%$

Operating Temperature: 25°C ±5°C ambient Laser Classification: FDA Class IIIb (IEC Class 3B)
Physical Dimensions: 15 × 12 × 9 in Weight: 2 lbsKey Features Stable optical signal suitable for
lightwave component characterization External RF-driven amplitude modulation capability Single-
mode fiber output via FC/PC interface Remote shutdown control via BNC connector Operates
within strict thermal tolerance (25°C ±5°C)Typical Applications Optical component testing and
characterization Telecommunications research and system validation Lightwave component
analysisCompatibility & Integration Accessory module to HP 8702 Series Lightwave Component
Analyzers Compatible with Agilent 8702A/B/D lightwave component analyzers Interfaces with
Agilent 11899A probe power supply via DC cable Requires external RF source for modulation
functions

Features & description

From manufacturer datasheet

Features

- Fabry-Perot laser source near 1300 nm • RF amplitude modulation bandwidth 300 kHz to 3 GHz • Option 012 FC/PC optical connector • 9/125 μ m single-mode fiber interface • Accessory to HP/Agilent 8702 Lightwave Component Analyzers • External RF drive up to +14 dBm maximum

83400A012 Characteristics / Specifications

PARAMETER	VALUE
Model	83400A
Manufacturer	Hewlett-Packard / Agilent / Keysight
Instrument Type	Lightwave source module
Wavelength	1308 +/-10 nm (also listed as 1300 nm class)
Laser Type	Fabry-Perot
RMS Spectral Width	typically less than or equal to 3 nm
Optical Fiber	9/125 um single-mode
Optical Connector (Opt 012)	FC/PC
Modulation Frequency Range	300 kHz to 3 GHz
Modulation Frequency Response (uncorrected)	+/-3.0 dB
Average Optical Power (typical)	about 1.1 mW (also listed 1.25 +/-0.75 mW class; alternate listing 0.55 mW depending on condition)
Power Stability	about 0.6% per 1000 h typical
Center Wavelength Temperature Coefficient	about 0.4 nm/C typical
Maximum Laser Chip Temperature Change	about +/-0.1 C typical
Maximum External RF Drive	+14 dBm
DC Power Inputs (module rails)	approximately -12.6 V and +15 V class supplies (observe manual limits) Other Connector Options (family) 011 Diamond HMS-10; 013 DIN 47256; 014 ST Related Family Context 83402C / 83403C later sources extend to 6 GHz modulation; 83400A is the 3 GHz / 1300 nm module for 8702 systems.
Bandwidth	is 300 kHz to 3 GHz. Option 012 specifies an FC/PC optical connector interface. Compatible fiber is 9/125 um single-mode.

83400A012 Specifications

PARAMETER	VALUE
Key Features	- Fabry-Perot laser source near 1300 nm
Technical Specifications	Model: 83400A
Other Connector Options (family)	011 Diamond HMS-10; 013 DIN 47256; 014 ST
Related Family Context	83402C / 83403C later sources extend to 6 GHz modulation; 83400A is the 3 GHz / 1300 nm module for 8702 systems.

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

Model: 83400A

Option: 012 (FC/PC optical connector)

Specifications

PARAMETER	VALUE
Manufacturer	Hewlett-Packard / Agilent / Keysight
Instrument Type	Lightwave source module
Wavelength	1308 +/-10 nm (also listed as 1300 nm class)
Laser Type	Fabry-Perot
RMS Spectral Width	typically less than or equal to 3 nm
Optical Fiber	9/125 um single-mode
Optical Connector (Opt 012)	FC/PC
Modulation Frequency Range	300 kHz to 3 GHz
Modulation Frequency Response (uncorrected)	+/-3.0 dB
Average Optical Power (typical)	about 1.1 mW (also listed 1.25 +/-0.75 mW class; alternate listing 0.55 mW depending on condition)

Responsivity at 50 MHz (nominal, family tables): about 0.022 W/A / -33 dB class

Specifications

PARAMETER	VALUE
Power Stability	about 0.6% per 1000 h typical
Center Wavelength Temperature Coefficient	about 0.4 nm/C typical
Maximum Laser Chip Temperature Change	about +/-0.1 C typical
Maximum External RF Drive	+14 dBm
DC Power Inputs (module rails)	approximately -12.6 V and +15 V class supplies (observe manual limits)

Other Connector Options (family)
011 Diamond HMS-10; 013 DIN 47256; 014 ST

Related Family Context
83402C / 83403C later sources extend to 6 GHz modulation; 83400A is the 3 GHz / 1300 nm module for 8702 systems.

Standard Operating Conditions
Observe laser Class labeling and fiber eye safety. Do not exceed +14 dBm RF drive. Allow thermal

stabilization before quoting wavelength and power stability.

Operational Notes

Requires the 8702-series analyzer / control environment for full lightwave component measurements. Confirm Option 012 FC/PC bulkhead on the faceplate. Optical interface adapters in the 81000xI series may be required for alternate connector types.

Ordering Information

OPTION	DESCRIPTION
Option 012	specifies an FC/PC optical connector interface. Compatible fiber is 9/125 um single-mode.

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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NIST-traceable calibration · SAM registered ·
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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.