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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 83540A RF plug-in for 8350A/B, 2.0-8.4 GHz

The HP 83540A is a coaxial RF plug-in for the 8350A/B sweep oscillator covering 2.0 to 8.4 GHz with approximately 20 mW (+13 dBm) leveled output and about plus/minus 12 MHz frequency accuracy. It provides internally leveled swept and CW stimulus for scalar and general microwave measurements in the S/C bands. 2 to 8.4 GHz swept scalar measurements; CW LO and stimulus; production ATE with 8350B HP-IB control of plug-in power and frequency. Power Sweep Family: calibrated power sweep available on 8350 plug-ins Slope Compensation Family: available on 8350 RF plug-ins Alias Note: 83540B is related later revision; confirm A faceplate Frequency, accuracy, and 20 mW power from HP 8350 A/B RF plug-in catalog listings for 83540A. Prefer full 83522/83540/83545 family datasheet band tables for flatness and harmonics before warranty metrology quotes. Confirm A versus B marking.



MODEL

**HP / Agilent
83540A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

83540A

LISTING

<https://aumictechlabs.com/products/83540a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 83540A is an RF plug-in module for the 8350A/B sweep oscillator mainframe, delivering signal generation across the 2.0 to 8.4 GHz band. This unit expands mainframe

capability for RF and microwave component characterization, network analyzer integration, and broadband system testing. The 83540A outputs leveled power exceeding 16 dBm and provides wide dynamic range control from +20 dBm to -69 dBm with 0.1 dB displayed resolution when equipped with the optional 70 dB step attenuator (Option 002). Technical Specifications

Frequency range: 2.0 GHz to 8.4 GHz Maximum leveled power: >16 dBm Output power control: +20 dBm to -69 dBm (with step attenuator) Output power resolution (displayed): 0.1 dB Power consumption: Approximately 270 VA (8350B mainframe with RF unit) Mainframe power requirement: 100, 120, 220, or 240 VAC $\pm 10\%$, 50 to 60 Hz (Option 400: 60 to 400 Hz) Key Features Step attenuator option (Option 002) extends dynamic range by 70 dB Rear panel RF output connector available (Option 004) Compact integration with 8350A/B mainframe: 425 mm $\times$ 133.3 mm $\times$ 422 mm 0.1 dB power level granularity supports precision characterization Typical Applications Component and subsystem characterization in the S, C, and X bands Network analyzer source for scalar and vector measurements RF subsystem testing requiring stable, leveled signal sources Frequency-selective gain and phase measurement Compatibility & Integration The 83540A integrates directly into HP/Agilent 8350A and 8350B mainframes. System configurations support HP 8756 and 8757 series network analyzers, the HP 8510 vector network analyzer, and the HP 8757A scalar network analyzer when used with the 8350B mainframe.

Features & description

From manufacturer datasheet

Features

- 2.0 to 8.4 GHz coaxial coverage for 8350 mainframe
- About 20 mW (+13 dBm) maximum leveled power class
- Frequency accuracy about plus/minus 12 MHz
- Internally leveled; HP-IB programmable with mainframe
- Companion to 83545A and 83550A higher-band plug-ins

83540A Characteristics / Specifications

PARAMETER	VALUE
Model	83540A
Manufacturer	Hewlett Packard / Agilent
Instrument Type	Sweep oscillator RF plug-in (requires 8350-series mainframe)
Alias	HP 83540A; Agilent 83540A
Frequency Range	2.0 to 8.4 GHz
Frequency Accuracy	plus/minus 12 MHz
Maximum Leveled Power Class	20 mW (+13 dBm)
Power Display Resolution Family	0.1 dB
Power Programmable Resolution Family	0.01 dB
Internal Leveling	yes
Mainframe Compatibility	8350A/8350B
Related Higher Band Sibling	83545A 5.9 to 12.4 GHz
Related High Power Driver	83550A 8 to 20 GHz
Related Broadband Coax	83590/83592/83594 family
RF Output Connector Family	TypeNfemale class for this band plugin
Minimum Sweep Time Family	10 ms single band class
External Leveling Modes Family	crystal or power meter
HP IB Programmability	power and plug-in functions via 8350
Operating Temperature With Mainframe	0 to 55 C class
Harmonic Architecture Class	YIG-tuned oscillator family
Power Sweep Family	calibrated power sweep available on 8350 plug-ins
Slope Compensation Family	available on 8350 RF plug-ins
Alias Note	83540B is related later revision; confirmAfaceplate
Operating temperature	With Mainframe: 0 to 55 C class

83540A Specifications

PARAMETER	VALUE
Applications	2 to 8.4 GHz swept scalar measurements; CW LO and stimulus; production ATE with 8350B HP-IB control of plug-in power and frequency.
Key Features	- 2.0 to 8.4 GHz coaxial coverage for 8350 mainframe
Technical Specifications	Model: 83540A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	With Mainframe: 0 to 55 C class
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Operating Temperature With Mainframe	0 to 55 C class
Harmonic Architecture Class	YIG-tuned oscillator family
Power Sweep Family	calibrated power sweep available on 8350 plug-ins
Slope Compensation Family	available on 8350 RF plug-ins
Alias Note	83540B is related later revision; confirmAfaceplate Notes Frequency, accuracy, and 20 mW power from HP 8350 A/B RF plug-in catalog listings for 83540A. Prefer full 83522/83540/83545 family datasheet band tables for flatness and harmonics before warranty metrology quotes. ConfirmAversusBmarking.

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	
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PARAMETER	VALUE
Model	83540A
Manufacturer	Hewlett Packard / Agilent
Instrument Type	Sweep oscillator RF plug-in (requires 8350-series mainframe)
Alias	HP 83540A; Agilent 83540A
Frequency Range	2.0 to 8.4 GHz
Frequency Accuracy	plus/minus 12 MHz
Maximum Leveled Power Class	20 mW (+13 dBm)
Power Display Resolution Family	0.1 dB
Power Programmable Resolution Family	0.01 dB
Internal Leveling	yes
Mainframe Compatibility	8350A/8350B
Related Higher Band Sibling	83545A 5.9 to 12.4 GHz
Related High Power Driver	83550A 8 to 20 GHz
Related Broadband Coax	83590/83592/83594 family
RF Output Connector Family	TypeNfemale class for this band plugin
Minimum Sweep Time Family	10 ms single band class
External Leveling Modes Family	crystal or power meter
HP IB Programmability	power and plug-in functions via 8350
Operating Temperature With Mainframe	0 to 55 C class
Harmonic Architecture Class	YIG-tuned oscillator family
Power Sweep Family	calibrated power sweep available on 8350 plug-ins
Slope Compensation Family	available on 8350 RF plug-ins
Alias Note	83540B is related later revision; confirmAfaceplate
Notes	
Frequency, accuracy, and 20 mW power from HP 8350 A/B RF plug-in catalog listings for 83540A. Prefer full	

83522/83540/83545 family datasheet band tables for flatness and harmonics before warranty metrology quotes.
ConfirmAversusBmarking.

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
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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.