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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 83555A Millimeter-Wave Source Module, 33 GHz to 50 GHz

HP 83555A Millimeter Wave Source Module 33.0 to 50.0 GHz The HP 83555A millimeter-wave source module covers 33.0 to 50.0 GHz as an internally leveled frequency multiplier driven by an 11 to 20 GHz class microwave source at high power (same +17 dBm minimum / +27 dBm maximum input family as sibling modules). Maximum leveled output is +3 dBm across the band. Frequency accuracy and resolution scale with the driving source multiplication factor. Q-band swept/CW stimulus; scalar network analysis 33 to 50 GHz; component characterization; paired two-tone sweeps for mixer IF testing. The HP 83555A millimeter-wave source module covers 33.0 to 50.0 GHz as an internally leveled frequency multiplier driven by an 11 to 20 GHz class microwave source at high power (same +17 dBm minimum / +27 dBm maximum input family as sibling modules). Maximum leveled output is +3 dBm across the band. Frequency accuracy and resolution scale with the driving source multiplication factor. Q-band swept/CW stimulus; scalar network analysis 33 to 50 GHz; component characterization; paired two-tone sweeps for mixer IF testing.



MODEL

**HP / Agilent
83555A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

83555A

LISTING

<https://aumictechlabs.com/products/83555a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 83555A is a millimeter-wave source module that generates RF signals across the 33 GHz to 50 GHz band. Driven by compatible Keysight microwave sources, it extends baseband synthesizers into the millimeter-wave spectrum for waveguide-based testing. The module delivers leveled output power with tight accuracy and low spurious content, supporting external pulse, AM, and FM modulation for dynamic signal characterization.

Technical Specifications

Frequency Range: 33 GHz to 50 GHz
Output Leveled Power: +3 dBm
Output Level Accuracy: ± 2.00 dB
Harmonic Spurious Signals: -20 dBc at maximum specified power
Non-Harmonic Spurious Signals: -50 dBc at maximum specified power
FM Deviation: Up to 24 MHz (when applied to HP 8360 B-series synthesizer input)
Output Connector: UG-383 flange, WR-28
Dimensions: 80 mm (W) $\times$ 80 mm (H) $\times$ 210 mm (D)
Weight: 4 lb (1.81 kg)

Key Features

- Modulation support for external pulse, AM, and FM modes
- Leveled output power for stable signal generation
- Low harmonic and non-harmonic spurious content
- Compact waveguide-flange output (WR-28)

Frequency multiplication architecture - extends driving source capabilities into Ka-band

Typical Applications

- Wireless communication system testing
- Radar system characterization
- Millimeter-wave component evaluation
- Waveguide-based signal generation

Compatibility & Integration

The 83555A integrates with HP 8350B series sweep oscillators and the HP 8350A RF plug-in for swept-frequency measurements. System frequency coverage scales directly with the driving microwave source; sources operating 11 GHz to 20 GHz with output power exceeding +17 dBm enable coverage to 110 GHz across waveguide bands when paired with modules like the HP 83623B, 83624B, or HP 8349B amplifier. Compatible with HP 8510 vector network analyzers, HP 8757A scalar network analyzers, HP 5343A frequency counters, and HP 8970 noise figure meters.

Features & description

From manufacturer datasheet

Features

- Full 33.0 to 50.0 GHz waveguide band coverage
- Internally leveled +3 dBm maximum output
- Minimum settable -5 dBm
- Translates driver markers, sweeps, and GPIB control to mm-wave
- Works with 8350B/83550A or 8349B-amplified synthesizer drivers

83555A Characteristics / Specifications

PARAMETER	VALUE
Model	83555A
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Millimeter wave source module (frequency multiplier)
Frequency Range	33.0 to 50.0 GHz
Maximum Leveled Power	+3 dBm
Minimum Settable Power	-5 dBm
Power Level Accuracy Internally Leveled	plus/minus 2.00 dB
Power Flatness Internally Leveled	plus/minus 1.50 dB
Source Output SWR Internally Leveled	less than 2.0
Spurious 33.0 to 37.5 GHz	greater than 20 dBc
Spurious 37.5 to 49.5 GHz	greater than 20 dBc (greater than 45 dBc with 83592C driver class)
Spurious 49.5 to 50.0 GHz	greater than 20 dBc
CW Accuracy With 8350B 83550A Driver	plus/minus 30 MHz class at 25 plus/minus 5 C
CW Accuracy With 83590 Series Plus 8349B	plus/minus 60 MHz class
CW Resolution With 8350B Drivers	78 kHz class
CW Resolution With 8340 83	6 Hz (33.0 to 40.5 GHz); 9 Hz (40.5 to 50.0 GHz)
Minimum Input Power Class	+17 dBm into RF input cable
Maximum Input Power Class	+27 dBm into RF input cable
Residual FM Peak 8350B 83550A	less than 27 kHz (20 Hz to 15 kHz BW)
Stability With Temperature 8350B 83550A Typical	plus/minus 1.8 MHz/C
Operating Temperature	0 to 55 C
Related Lower Band Module	83554A 26.5 to 40 GHz
Related Higher Band Module	83556A 40 to 60 GHz
Alias	HP 83555A; Agilent 83555A; Keysight 83555A

83555A Specifications

PARAMETER	VALUE
HP 83555A Millimeter Wave Source Module 33.0 to 50.0 GHz	Overview
Applications	Q-band swept/CW stimulus; scalar network analysis 33 to 50 GHz; component characterization; paired two-tone sweeps for mixer IF testing.
Key Features	- Full 33.0 to 50.0 GHz waveguide band coverage
Technical Specifications	Model: 83555A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 55 C
Operating Temperature	0 to 55 C
Related Lower Band Module	83554A 26.5 to 40 GHz
Related Higher Band Module	83556A 40 to 60 GHz
Alias	HP 83555A; Agilent 83555A; Keysight 83555A Notes Warranted and typical rows from Agilent 83554A/83555A/83556A data sheet Table 2. Confirm waveguide flange size/condition and driver configuration for system accuracy.

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	83555A
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Millimeter wave source module (frequency multiplier)
Frequency Range	33.0 to 50.0 GHz
Maximum Leveled Power	+3 dBm
Minimum Settable Power	-5 dBm
Power Level Accuracy Internally Leveled	plus/minus 2.00 dB
Power Flatness Internally Leveled	plus/minus 1.50 dB
Source Output SWR Internally Leveled	less than 2.0
Spurious 33.0 to 37.5 GHz	greater than 20 dBc
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Spurious 49.5 to 50.0 GHz	greater than 20 dBc
CW Accuracy With 8350B 83550A Driver	plus/minus 30 MHz class at 25 plus/minus 5 C
CW Accuracy With 83590 Series Plus 8349B	plus/minus 60 MHz class
CW Resolution With 8350B Drivers	78 kHz class
CW Resolution With 8340 8341	6 Hz (33.0 to 40.5 GHz); 9 Hz (40.5 to 50.0 GHz)
Minimum Input Power Class	+17 dBm into RF input cable
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Stability With Temperature 8350B 83550A Typical	plus/minus 1.8 MHz/C
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Notes	
Warranted and typical rows from Agilent 83554A/83555A/83556A data sheet Table 2. Confirm waveguide flange	

size/condition and driver configuration for system accuracy.

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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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.