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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 85644A

Keysight 85644A Tracking Source 300 kHz to 6.5 GHz The Keysight 85644A is an AC-coupled tracking source covering 300 kHz to 6.5 GHz for high-dynamic-range scalar response measurements with compatible spectrum analyzers per the HP 85644A/85645A operating guide specifications. Amplifier and filter swept response, mixer conversion testing with offset tracking, and spectrum-analyzer-based scalar network analysis to 6.5 GHz. Maximum Leveled Power Band0 300 Khz To 1.8 Ghz: plus 10 dBm The Keysight 85644A is an AC-coupled tracking source covering 300 kHz to 6.5 GHz for high-dynamic-range scalar response measurements with compatible spectrum analyzers per the HP 85644A/85645A operating guide specifications. Amplifier and filter swept response, mixer conversion testing with offset tracking, and spectrum-analyzer-based scalar network analysis to 6.5 GHz. Maximum Leveled Power Band0 300 Khz To 1.8 Ghz: plus 10 dBm Maximum Leveled Power Band0 1.8 To 2.9 Ghz: plus 4 dBm



MODEL

**Agilent / Keysight
85644A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85644A

LISTING

<https://aumictechlabs.com/products/85644a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 85644A is a tracking generator that operates synchronously with compatible spectrum analyzers and sweep oscillators to enable scalar network analysis. It generates a swept signal locked to the host instrument's frequency, allowing direct measurement of amplitude

response in RF components and systems without need for separate source and receiver sweeps.

Technical Specifications

- Frequency Range: 300 kHz to 6.5 GHz
- Output Coupling: AC coupled
- Output Power: Selectable RF output levels
- Tracking Mode: Synchronizes with spectrum analyzer input frequency or sweep oscillator output frequency
- Offset Tracking: Supports frequency translation measurements for mixers and systems with propagation delay
- Control Interface: Front-panel configuration or HP-IB command access

Key Features

- Locked tracking eliminates the need for dual-channel swept measurements, reducing test time
- High dynamic range performance inherited from tuned receiver architecture of connected spectrum analyzers
- Reduced spurious signal sensitivity due to selective input filtering of the host analyzer
- AC coupling prevents DC components from affecting RF measurements
- Offset tracking accommodates devices and circuits with frequency translation or group delay

Typical Applications

- Filter and amplifier amplitude response characterization
- Frequency translation device analysis (mixers, converters)
- System gain and loss measurements
- Two-port scalar network analysis in production and field environments

Compatibility & Integration

The 85644A interfaces with Agilent/Keysight 8560 Series, 8566A/B, and 8590 Series spectrum analyzers, as well as 8340A/B and 8350 Series synthesized sweepers and sweep oscillators. Configuration and control occur through front-panel menu selection or remote HP-IB commands, enabling integration into automated test systems.

85644A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Tracking source
Frequency Range	300 kHz to 6.5 GHz
Coupling	AC coupled
Maximum Leveled Power Band0 300 Khz To 1.8 Ghz	plus 10 dBm
Maximum Leveled Power Band0 1.8 To 2.9 Ghz	plus 4 dBm
Maximum Leveled Power Band1 2.0 To 6.5 Ghz	plus 5 dBm
Minimum Leveled Power Characteristic	minus 80 dBm
Amplitude Resolution	0.01 dB
Attenuator Range	70 dB
Attenuator Accuracy Characteristic	1.2 dB maximum over 70 dB
Amplitude Accuracy Spec	1 dB relative to 2 dBm at 300 MHz and 3 GHz
Output Flatness Spec	2 dB relative to 2 dBm references
Vernier Range Bands 0 To 3 Characteristic	greater than 16 dB
Harmonics Band0 Above 5 Mhz Characteristic	greater than 25 dBc
Harmonics Band1 Characteristic	greater than 15 dBc
Maximum Sweep Speed	250 MHz per ms
Offset Tracking Maximum With Spectrum Analyzer Hosts	200 MHz
Offset Resolution	10 Hz timesNRf Output Connector: TypeNfemale
Rf Output Vswr 300 Khz To 2.9 Ghz	1.8 to 1 at 0 dB attenuation leveled
Rf Output Vswr 2.9 To 6.5 Ghz	1.6 to 1 at 0 dB attenuation leveled
Lo Input	SMA female greater than 10 dBm required for tracking
Lo Output	SMA female greater than plus 7 dBm

PARAMETER	VALUE
Warmup Time	30 minutes
Calibration Interval	2 years
Operating Temperature Spec	10 C to 55 C
Dynamic Range Example With 8566 Band0 Less Than 1.8 Ghz	141 dB characteristic
Attenuation	leveled
Operating temperature	Spec: 10 C to 55 C

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Spec: 10 C to 55 C
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Dynamic Range Example With 8566 Band0 Less Than 1.8 Ghz	141 dB characteristic Notes Numeric rows from HP 85644A and 85645A Tracking Source Specifications and Characteristics chapter. Specs apply after 30 minutes warmup on a 2-year calibration cycle unless noted characteristic.

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.

Applications

Amplifier and filter swept response, mixer conversion testing with offset tracking, and spectrum-analyzer-based scalar network analysis to 6.5 GHz.

Key Features

AC coupled tracking source

Offset frequency tracking

Power sweep capability

Compatible with 8560 8566 8590 hosts

HP IB remote control

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Instrument Type	Tracking source
Frequency Range	300 kHz to 6.5 GHz
Coupling	AC coupled

Maximum Levelled Power Band0 300 Khz To 1.8 Ghz: plus 10 dBm

Maximum Levelled Power Band0 1.8 To 2.9 Ghz: plus 4 dBm

Maximum Levelled Power Band1 2.0 To 6.5 Ghz: plus 5 dBm

Specifications

PARAMETER	VALUE
Minimum Levelled Power Characteristic	minus 80 dBm
Amplitude Resolution	0.01 dB
Attenuator Range	70 dB
Attenuator Accuracy Characteristic	1.2 dB maximum over 70 dB
Amplitude Accuracy Spec	1 dB relative to 2 dBm at 300 MHz and 3 GHz
Output Flatness Spec	2 dB relative to 2 dBm references
Vernier Range Bands 0 To 3 Characteristic	greater than 16 dB
Harmonics Band0 Above 5 Mhz Characteristic	greater than 25 dBc
Harmonics Band1 Characteristic	greater than 15 dBc
Maximum Sweep Speed	250 MHz per ms
Offset Tracking Maximum With Spectrum Analyzer Hosts	200 MHz

PARAMETER	VALUE
Offset Resolution	10 Hz timesNRf Output Connector: TypeNfemale

Rf Output Vswr 300 Khz To 2.9 Ghz: 1.8 to 1 at 0 dB attenuation leveled

Specifications

PARAMETER	VALUE
Rf Output Vswr 2.9 To 6.5 Ghz	1.6 to 1 at 0 dB attenuation leveled
Lo Input	SMA female greater than 10 dBm required for tracking
Lo Output	SMA female greater than plus 7 dBm
Warmup Time	30 minutes
Calibration Interval	2 years
Operating Temperature Spec	10 C to 55 C

Dynamic Range Example With 8566 Band0 Less Than 1.8 Ghz: 141 dB characteristic

Notes
Numeric rows from HP 85644A and 85645A Tracking Source Specifications and Characteristics chapter. Specs apply after 30 minutes warmup on a 2-year calibration cycle unless noted characteristic.

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.