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Data Sheet

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KEYSIGHT / AGILENT

Keysight (Agilent) U11644A Mechanical Calibration Kit, 40 to 60 GHz

Keysight (Agilent) U11644A Mechanical Calibration Kit, 40 to 60 GHz The Keysight/Agilent U11644A isaWR-19 waveguide mechanical calibration kit covering 40–60 GHz (U-band) for network analyzer systematic-error calibration. It supports TRL (Thru-Reflect-Line) and SSOLT-style mechanical standards. Kit contents typically include a precision airline for TRL, flush short, precision shim (¼-wave), and fixed termination, plus a commercial calibration certificate. VNA calibration in WR-19 / U-band (40–60 GHz); metrology and production waveguide S-parameter setup. The Keysight/Agilent U11644A isaWR-19 waveguide mechanical calibration kit covering 40–60 GHz (U-band) for network analyzer systematic-error calibration. It supports TRL (Thru-Reflect-Line) and SSOLT-style mechanical standards. Kit contents typically include a precision airline for TRL, flush short, precision shim (¼-wave), and fixed termination, plus a commercial calibration certificate. VNA calibration in WR-19 / U-band (40–60 GHz); metrology and production waveguide S-parameter setup.



MODEL

**Keysight / Agilent
U11644A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

U11644A

LISTING

<https://aumictechlabs.com/products/u11644a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight (Agilent) U11644A is a mechanical calibration kit for waveguide-based network analyzer measurements in the 40 to 60 GHz band. This WR-19 interface kit delivers the calibration standards required for systematic error correction and accurate device characterization across mmWave frequencies. The U11644A supports Thru-Reflect-Line (TRL) calibration, providing exceptional accuracy for high-frequency measurements.

Technical Specifications

Frequency Range:	40 to 60 GHz
Waveguide Interface:	WR-19
Calibration Method:	Thru-Reflect-Line (TRL)
Fixed Termination Return Loss:	≥ 46 dB

Kit Contents

- Precision airline for TRL calibration
- Flush short circuit
- Precision shim
- Fixed termination(s)
- Commercial calibration certificate

Key Features

TRL calibration delivers high-accuracy error correction essential for precise coaxial and waveguide measurements. The precision airline standard enables accurate propagation constant determination. The flush short circuit has a well-defined reflect standard. Fixed terminations achieve ≥ 46 dB return loss, ensuring minimal reflections during calibration. Each kit includes a commercial calibration certificate documenting performance.

Typical Applications

The U11644A addresses measurement needs in mmWave component characterization, including amplifiers, filters, antennas, and integrated circuits. Applications span commercial wireless standards, satellite communications, and aerospace/defense testing where 40 to 60 GHz operation is required.

Compatibility & Integration

Designed for Keysight network analyzers including the 8510, 872x, PNA, and ENA series. The WR-19 waveguide interface ensures compatibility with standard mmWave test ports and waveguide components in this frequency band.

Features & description

From manufacturer datasheet

Features

- Frequency: 40 to 60 GHz
- Waveguide: WR-19 (U-band)
- Mechanical calibration kit (TRL / SSOLT capable)
- Precision airline for TRL
- Flush short, precision shim, fixed termination (typical kit contents)

U11644A Characteristics / Specifications

PARAMETER	VALUE
Model	U11644A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Waveguide Mechanical Calibration Kit
Family	11644A waveguide cal kits (R/Q/U/V/W)
Alias	U11644A; Agilent U11644A RF / Waveguide
Frequency Coverage	40 GHz to 60 GHz
Waveguide Size	WR-19
Calibration Methods	TRL; SSOLT (Short/Short/Open/Load/Thru) as supported by analyzer definitions Electrical Specifications (from 11644A Operating and Service Manual)
Terminations (U11644A)	Effective return loss ≥ 46 dB (accounts for line section, connector, and load stability for post-cal directivity)
Standard sections (U11644A)	Return loss ≥ 42 dB $\frac{1}{4}$ -wavelength shim: per kit electrical tables in 9018-01042 Operational Notes
Sibling kits	R11644A (WR-28, 26.5–40 GHz), Q11644A (WR-22, 33–50 GHz), V11644A (WR-15), W11644A (WR-10). Prefer Keysight 11644A Operating and Service Manual 9018-01042.
Frequency	40 to 60 GHz
Waveguide	WR-19 (U-band)
Return loss	≥ 46 dB (accounts for line section, connector, and load stability for post-cal directivity)

U11644A Specifications

PARAMETER	VALUE
Applications	VNA calibration in WR-19 / U-band (40–60 GHz); metrology and production waveguide S-parameter setup.
Key Features	- Frequency: 40 to 60 GHz
Technical Specifications	Model: U11644A
RF / Waveguide	Frequency Coverage: 40 GHz to 60 GHz

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	U11644A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Waveguide Mechanical Calibration Kit
Family	11644A waveguide cal kits (R/Q/U/V/W)
Alias	U11644A; Agilent U11644A

RF / Waveguide

Specifications

PARAMETER	VALUE
Frequency Coverage	40 GHz to 60 GHz
Waveguide Size	WR-19
Calibration Methods	TRL; SSOLT (Short/Short/Open/Load/Thru) as supported by analyzer definitions

Electrical Specifications (from 11644A Operating and Service Manual)

Terminations (U11644A): Effective return loss $\geq$ 46 dB (accounts for line section, connector, and load stability for post-cal directivity)

Standard sections (U11644A): Return loss $\geq$ 42 dB

¼-wavelength shim: per kit electrical tables in 9018-01042

Operational Notes

Sibling kits: R11644A (WR-28, 26.5–40 GHz), Q11644A (WR-22, 33–50 GHz), V11644A (WR-15), W11644A (WR-10). Prefer Keysight 11644A Operating and Service Manual 9018-01042.

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