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**Data Sheet**

August 5, 2026

KEYSIGHT / AGILENT

# Keysight (Agilent) Q11644A Mechanical Calibration Kit, 33 to 50 GHz

Keysight (Agilent) Q11644A Mechanical Calibration Kit, 33 to 50 GHz The Keysight/Agilent Q11644A isaWR-22 waveguide mechanical calibration kit covering 33–50 GHz (Q-band) for network analyzer systematic-error calibration. Supports TRL and SSOLT-style mechanical standards. Typical kit contents include precision airline for TRL, flush short, precision shim, and fixed termination. VNA calibration in WR-22 / Q-band (33–50 GHz); metrology and production waveguide S-parameter setup. The Keysight/Agilent Q11644A isaWR-22 waveguide mechanical calibration kit covering 33–50 GHz (Q-band) for network analyzer systematic-error calibration. Supports TRL and SSOLT-style mechanical standards. Typical kit contents include precision airline for TRL, flush short, precision shim, and fixed termination. VNA calibration in WR-22 / Q-band (33–50 GHz); metrology and production waveguide S-parameter setup.



MODEL

**Keysight / Agilent  
Q11644A**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**Q11644A**

LISTING

<https://aumictechlabs.com/products/q11644a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

## This unit

The Keysight (Agilent) Q11644A Mechanical Calibration Kit is a precision calibration standard designed to correct systematic errors in network analyzer measurements across the 33 to 50 GHz frequency band. Built for WR-22 waveguide applications, this kit delivers the mechanical accuracy

required in microwave and millimeter-wave metrology. It supports Thru-Reflect-Line (TRL) calibration methodology for coaxial measurements, enabling traceable error correction in RF and microwave test systems.

**Technical Specifications**  
Frequency Range: 33 GHz to 50 GHz  
Waveguide Size: WR-22  
Termination Return Loss:  $\geq 42$  dB effective return loss  
Short Circuit Flatness: Within 0.008 mm

**Key Features**  
Precision airline standard for transmission line definition  
Flush short circuit with controlled flatness for reflect calibration  
Precision shim for mechanical alignment  
Fixed termination (Q910A reference element)  
Commercial calibration certificate included  
Calibration kit definitions supplied (.xkt file format)

The kit's short circuit flatness specification of 0.008 mm ensures minimal phase distortion during TRL calibration routines. High return loss terminations ( $\geq 42$  dB) provide stable reference impedance across the full 33–50 GHz band, critical for accurate S-parameter measurements in aerospace, defense, and telecommunications applications.

**Compatibility & Integration**  
The Q11644A integrates with Keysight and Agilent network analyzer platforms including the 8510, 872x, and PNA series instruments. Calibration kit definitions are provided in standard .xkt format for direct software integration, eliminating manual coefficient entry and reducing setup time in production test environments.

## Features & description

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From manufacturer datasheet

### Features

- Frequency: 33 to 50 GHz
- Waveguide: WR-22 (Q-band)
- Mechanical calibration kit (TRL / SSOLT capable)
- Precision airline for TRL
- Flush short, precision shim, fixed termination (typical)

## Q11644A Characteristics / Specifications

| PARAMETER                   | VALUE                                                                                         |
|-----------------------------|-----------------------------------------------------------------------------------------------|
| Model                       | Q11644A                                                                                       |
| Manufacturer                | Keysight Technologies (Agilent)                                                               |
| Instrument Type             | Waveguide Mechanical Calibration Kit                                                          |
| Family                      | 11644A waveguide cal kits (R/Q/U/V/W)                                                         |
| Alias                       | Q11644A; Agilent Q11644A RF / Waveguide                                                       |
| Frequency Coverage          | 33 GHz to 50 GHz                                                                              |
| Waveguide Size              | WR-22 Electrical Specifications (from 11644A Operating and Service Manual)                    |
| Terminations (Q11644A)      | Effective return loss $\geq$ 46 dB                                                            |
| Standard sections (Q11644A) | Return loss $\geq$ 42 dB Operational Notes                                                    |
| Sibling kits                | R11644A (WR-28), U11644A (WR-19), V11644A, W11644A. Prefer Keysight 11644A manual 9018-01042. |
| Frequency                   | 33 to 50 GHz                                                                                  |
| Waveguide                   | WR-22 (Q-band)                                                                                |
| Return loss                 | $\geq$ 46 dB                                                                                  |

# Q11644A Specifications

| PARAMETER                | VALUE                                                                                                       |
|--------------------------|-------------------------------------------------------------------------------------------------------------|
| Applications             | VNA calibration in WR-22 / Q-band (33–50 GHz); metrology and production waveguide S-parameter setup.        |
| Key Features             | - Frequency: 33 to 50 GHz                                                                                   |
| Technical Specifications | Model: Q11644A                                                                                              |
| RF / Waveguide           | Frequency Coverage: 33 GHz to 50 GHz                                                                        |
| Operational Notes        | Sibling kits: R11644A (WR-28), U11644A (WR-19), V11644A, W11644A. Prefer Keysight 11644A manual 9018-01042. |

# 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           | Q11644A                               |
| Manufacturer    | Keysight Technologies (Agilent)       |
| Instrument Type | Waveguide Mechanical Calibration Kit  |
| Family          | 11644A waveguide cal kits (R/Q/U/V/W) |
| Alias           | Q11644A; Agilent Q11644A              |

RF / Waveguide

Frequency Coverage: 33 GHz to 50 GHz

Waveguide Size: WR-22

Electrical Specifications (from 11644A Operating and Service Manual)

Terminations (Q11644A): Effective return loss  $\geq$  46 dB

Standard sections (Q11644A): Return loss  $\geq$  42 dB

Operational Notes

Sibling kits: R11644A (WR-28), U11644A (WR-19), V11644A, W11644A. Prefer Keysight 11644A 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](mailto: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.