

PRECISION CALIBRATION KITS

WR34 WAVEGUIDE, 22.0 — 33.0 GHz

For Calibrating

- HP8510A/B/C
- HP8722
- Anritsu/Wiltron 360/37000

Description

The Q7006A calibration kits are economical, cost effective, kits designed to provide accurate calibration of the most common Hewlett-Packard and Anritsu/Wiltron vector network analyzers (VNAs). These kits are designed for a short-short-load-thru (SSLT) type of calibration. The short circuit calibration uses a precision 1/4 wavelength waveguide section (shim), and a flat short in place of the second short i.e., short-(short+shim)-load-thru. A precision sliding load provides an impedance standard with a typical return loss greater than 50 dB. These kits are available for use with VNA test sets and test cables utilizing 2.4mm connectors. Coaxial adapters are available for adapting to 2.92mm and 3.5mm.

Kit Components

Quantity	Description
2	Adapters (WR34 waveguide to 2.4mm right angle)
1	Sliding termination, high precision, model Q314
1	1/4λ waveguide section (shim)
1	Fixed (reference plane) short
1	Flange hardware including indexing pins (set) 1
1	Data medium containing the calibration constants 2
1	Instrument case
1	Operating instructions

VNA Options

Insert option numbers following a model number to designate VNA as follows:

13 — HP8510A/B 14 — HP8510C 15 — HP8722
18 — Anritsu/Wiltron 360 19 — Anritsu/Wiltron 37000



Model Q7006A

Specifications

General:

Frequency Range 22.0 to 33.0 GHz
Waveguide Size WR34 (0.340 x 0.170 I.D.)
Cutoff Frequency 17.328 GHz
Flange MPF34 (with precision indexing holes) mates with UG595/U 3

Fixed Short: Model K344A

Reflection Coefficient >0.999

Sliding Termination: Model Q314

Housing VSWR 1.006 maximum
Element VSWR 1.015 maximum
Element Travel Greater than 1/2 waveguide wavelength at lowest frequency

Adapters:

Model Q236A1 — 2 each, W/G to 2.4mm (F), VSWR: 1.10 maximum

1/4λ Waveguide Section:

Model Q322A1.00 — 1 each, 1/4 wavelength section (shim), VSWR: 1.010 maximum

- 1 Consists of four (4) each long and short indexing pins and twelve (12) each 4-40 screws and nuts.
- 2 Configuration media software is included with each kit. See VNA options on page 2 to select the software corresponding to your network analyzer (VNA code).
- 3 This flange is described in detail on Maury data sheet 5E-019.