

Waveguide calibration kits for vector network analyzers

Description and purpose

Waveguide calibration kits are used for calibration of vector network analyzers in waveguide paths of 5.2×2.6 , 7.2×3.4 , 11×5.5 , 16×8 , 23×10 , 28.5×12.6 and 35×15 mm cross-section. Table 1 contains the list of waveguide kits with specified coaxial-to-waveguide adapter models included in kits. Table 2 contains a complete list of accessories contained in calibration kit, with NKMV-U- 23×10 -01R-01 as an example. The kits for full two-port calibration include coaxial-to-waveguide adapter sets providing connection of waveguide path devices with coaxial path devices, and quarter-wavelength flanges and short circuit plates. Calibration obtained with NKMV-U kits provides measurements of one-port and two-port devices in waveguide path with Micran VNA and third-party VNA.



CWA types included in NKMV-U

Kit	CWA No.1	CWA No.2	Waveguide cross-section, mm	Frequency range, GHz
NKMV-U- 35×15 -01-01R	PKV1-01R- 35×15	PKV1-01- 35×15	35 × 15	5.64 ... 8.15
NKMV-U- 35×15 -11-11R	PKV1-11R- 35×15	PKV1-11- 35×15		
NKMV-U- 28.5×12.6 -01-01R	PKV1-01- 28.5×12.6	PKV1-01R- 28.5×12.6	28.5 × 12.6	6.85 ... 9.93
NKMV-U- 28.5×12.6 -11-11R	PKV1-11- 28.5×12.6	PKV1-11R- 28.5×12.6		
NKMV-U- 28.5×12.6 -01R-01R	PKV1-01R- 28.5×12.6	PKV1-01R- 28.5×12.6		
NKMV-U- 28.5×12.6 -11R-11R	PKV1-11R- 28.5×12.6	PKV1-11R- 28.5×12.6		
NKMV-U- 23×10 -01-01R	PKV1-01- 23×10	PKV1-01R- 23×10	23 × 10	8.15 ... 12.05
NKMV-U- 23×10 -11-11R	PKV1-11- 23×10	PKV1-11R- 23×10		
NKMV-U- 23×10 -01R-01R	PKV1-01R- 23×10	PKV1-01R- 23×10		
NKMV-U- 23×10 -11R-11R	PKV1-11R- 23×10	PKV1-11R- 23×10		
NKMV-U- 23×10 -03-03R	PKV1-03- 23×10	PKV1-03R- 23×10		
NKMV-U- 23×10 -13-13R	PKV1-13- 23×10	PKV1-13R- 23×10		
NKMV-U- 23×10 -03R-03R	PKV1-03R- 23×10	PKV1-03R- 23×10		
NKMV-U- 23×10 -13R-13R	PKV1-13R- 23×10	PKV1-13R- 23×10		
NKMV-U- 16×8 -01-01R	PKV1-01- 16×8	PKV1-01R- 16×8	16 × 8	11.83 ... 17.99
NKMV-U- 16×8 -11-11R	PKV1-11- 16×8	PKV1-11R- 16×8		
NKMV-U- 16×8 -01R-01R	PKV1-01R- 16×8	PKV1-01R- 16×8		
NKMV-U- 16×8 -11R-11R	PKV1-11R- 16×8	PKV1-11R- 16×8		
NKMV-U- 16×8 -03-03R	PKV1-03- 16×8	PKV1-03R- 16×8		
NKMV-U- 16×8 -13-13R	PKV1-13- 16×8	PKV1-13R- 16×8		
NKMV-U- 16×8 -03R-03R	PKV1-03R- 16×8	PKV1-03R- 16×8		
NKMV-U- 16×8 -13R-13R	PKV1-13R- 16×8	PKV1-13R- 16×8		
NKMV-U- 11×5.5 -03-03R	PKV1-03- 11×5.5	PKV1-03R- 11×5.5	11 × 5.5	17.44 ... 25.95
NKMV-U- 11×5.5 -13-13R	PKV1-13- 11×5.5	PKV1-13R- 11×5.5		
NKMV-U- 11×5.5 -03R-03R	PKV1-03R- 11×5.5	PKV1-03R- 11×5.5		
NKMV-U- 11×5.5 -13R-13R	PKV1-13R- 11×5.5	PKV1-13R- 11×5.5		

NKMV-U kit composition (NKMV-U 23 × 10-01-01R as an example)

No.	Model	Description	Quantity, pcs.
1	PKV1-01R-23 × 10	Coaxial-to-waveguide adapter, type III (female) – 23 × 10 mm	1
2	PKV1-01-23 × 10	Coaxial-to-waveguide adapter, type III (male) – 23 × 10 mm	1
3	KZ 2310 plate	Short circuit plate 23 × 10 mm	1
4	CHV2310 flange	Quarter-wavelength piece 23 × 10 mm	1
Other accessories			
5	M4 × 22 bolt	M4 × 22 mm alignment bolt	4
6	M4 × 24 bolt	M4 × 24 mm alignment bolt	4
7	M4 nut	M4 nut	4
8	Washer 4	Washer 4, GOST 11371-78	8
9	4 × 20 pin	4 × 20 mm pin, GOST 3128-70	2
10	Manual		1
11	Wooden case		1

Ordering example

- NKMV-U-28.5 × 12.6-11-11R Waveguide calibration kit, waveguide cross-section 28.5 × 12.6 mm, type N (female) and type N (male) coaxial connectors of coaxial-to waveguide adapters.