

VNA50 Series (SMD2.4 Male-ST to NMD2.4 Female-ST)

Test Cable for Vector Network Analyzer, 50ohms, DC-50GHz



VNA50-39-76-"L" (L: Length)

Maximum Ratings

Operating Temperature 23°C± 5°C

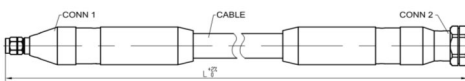
Storage Temperature -55°C to +105°C

Permanent damage may occur if any of these limits are exceeded

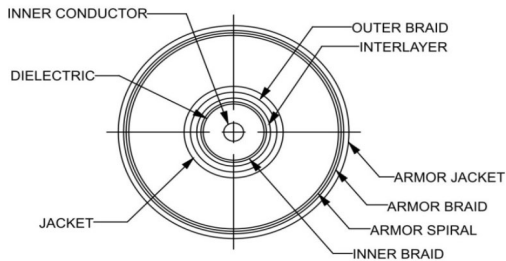
Cable Diameter	15.3mm
Velocity of Propagation	74%
Shielding Effectiveness	>90dB
Power Handling at 40°C	1 GHz 409W
	2 GHz 288W
	6GHz 165W
	18 GHz 93W
	26.5 GHz 76W
	40 GHz 61W
	50 GHz 50W
Min. Bending Radius	1.97" (50mm)

Outline Drawing

Unit [mm]



Cable Cross Section



Cable Construction

Inner Conductor	-
Dielectric	-
Inner Braid	-
Interlayer	-
Outer Braid	-
Jacket	-

Connectors

- Nut, Stainless steel, Passivated
- Body, Stainless steel, Passivated
- Center contacts, Berillium Copper, Gold plated
- Dielectric, PEI, Natural

Product Guarantee*

Micable will repair or replace your cable assembly if it fails within six months after shipment. This guarantee excludes product damage from misuse or abuse

Features

- Ultra-wideband operation, DC to 50 GHz
- 2.4mm Rugged Female connector for direct interface with 50 GHz VNA ports
- Low insertion loss and excellent return loss
- Extra rugged construction includes protective shield and strain relief for longer life
- Stainless steel connector for long mating-cycle life
- Excellent amplitude and phase stability vs flexure and shaking

Applications

- Vector network analyzer (VNA) test cables

Electrical Specifications at 25°C

Freq. (GHz)	Length	Insertion Loss (dB@GHz)								VSWR (@GHz)							
		DC - 18		18-26.5		26.5-40		40-50		DC - 18		18-26.5		26.5-40		40-50	
		Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
DC-50	2FT	1.4	1.7	1.7	2.0	2.0	2.4	2.6	3.0	1.17	1.25	1.20	1.30	1.26	1.35	1.31	1.40
	3FT	2.0	2.3	2.5	2.8	3.0	3.4	3.4	3.9								
	1M	2.1	2.4	2.7	3.0	3.2	3.6	3.6	4.2								

Typical Performance Data (VNA50-39-76-2FT)

Frequency(MHz)	VSWR	Insertion Loss (dB)
50	1.02	0.10
1000	1.04	0.38
2000	1.05	0.49
4000	1.06	0.63
5000	1.07	0.75
6000	1.08	0.81
7000	1.09	0.86
8000	1.10	0.91
9000	1.11	0.95
10000	1.11	1.02
12000	1.12	1.09
15000	1.15	1.22
16000	1.16	1.31
18000	1.17	1.42
20000	1.19	1.57
26500	1.20	1.83
31000	1.21	1.94
34000	1.22	2.01
40000	1.26	2.23
50000	1.31	3.07

