

Vector Network Analyzer (VNA) Ruggedized 40 GHz Test Cable 2.4mm Male to 2.4mm Female, RoHS

Fairview's high performance precision VNA test cables are designed to provide highly accurate repeatable test results. These rugged VNA test cables have excellent insertion loss, low VSWR and +/- 5° of phase stability with flexure. The precision stainless steel connectors and spiral stainless steel armoring are designed to limit torsional twist when the cables are flexed. These VNA test cables have a 5,000 mating cycle life when mated with proper care. The cable armoring prevents stress due to over bending and enhances amplitude and phase stability, while maintaining the flexibility required in a test environment. When properly calibrated, these test cables effectively extend the VNA test port to the terminating connector of the cable assembly allowing for accurate measurement of devices that cannot be directly connected to a network analyzer test port.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		40	GHz
VSWR			1.38:1	
Velocity of Propagation		70		%
RF Shielding	90			dB
Capacitance		26.8 [87.93]		pF/ft [pF/m]
Phase Stability with Flexure		±5		Degrees

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	18	26	40			GHz
Insertion Loss (Max.)	0.52 [1.71]	0.64 [2.1]	0.83 [2.72]			dB/ft [dB/m]
VSWR (Max.)	1.38:1	1.38:1	1.38:1			
Power Handling (Max.)			42			Watts

Mechanical Specifications

Cable Assembly

Cable

Cable Type	VNA-R
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Number of Shields	3
Shield Layer 1	Silver Plated Copper Braid
Shield Layer 2	Silver Plated Copper Tape
Shield Layer 3	Silver Plated Copper Braid
Jacket Material	PET
Jacket Diameter	0.43 in [10.92 mm]

One Time Minimum Bend Radius 3 in [76.2 mm]



Configuration:

- 2.4mm Male
- 2.4mm Female
- VNA-R

Features:

- VNA Test Cables Extend VNA Test Ports
- Low VSWR and Low Insertion Loss
- Crush resistant stainless steel cable armor
- Flexible PET protective sleeve
- Connector resist twisting during flexure
- Rugged connector attachment
- Highly stable +/- 5° of phase change under flexure
- Serialized test data provided
- Same day shipment standard length assemblies

Applications:

- VNA Test applications
- Production floor testing
- Precision lab testing

Fairview Microwave
1130 Junction Dr. #100
Allen, TX 75013
Tel: 1-800-715-4396 / (972) 649-6678
Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Connectors

Description	Connector 1	Connector 2
Type	2.4mm Male	2.4mm Female
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	Noryl	Noryl
Coupling Nut Material & Plating	Passivated Stainless Steel	
Body Material & Plating	Passivated Stainless Steel	Passivated Stainless Steel

Mechanical Specification Notes:
 Crush Resistance: 1,050 lbs.
 Jacket Material is a PET weave over a spiral stainless steel sheath

Environmental Specifications

Temperature

Operating Range +125 deg C

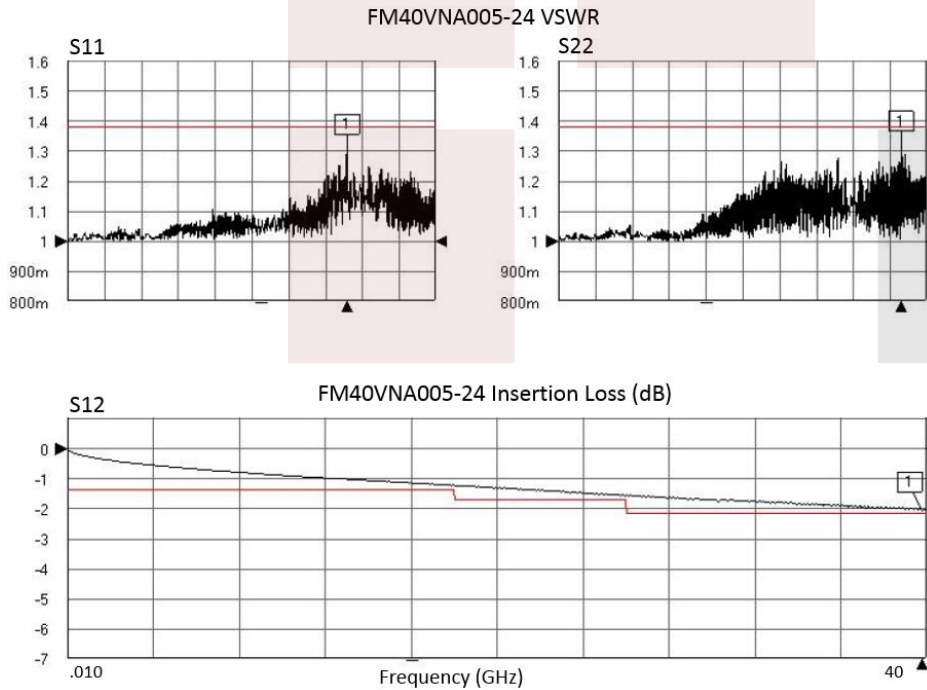
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

RoHS Compliant Yes

Plotted and Other Data

Notes:

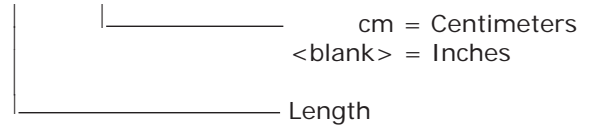
Typical Performance Data



How to Order

Part Number Configuration:

FM40VNA005 - xx uu



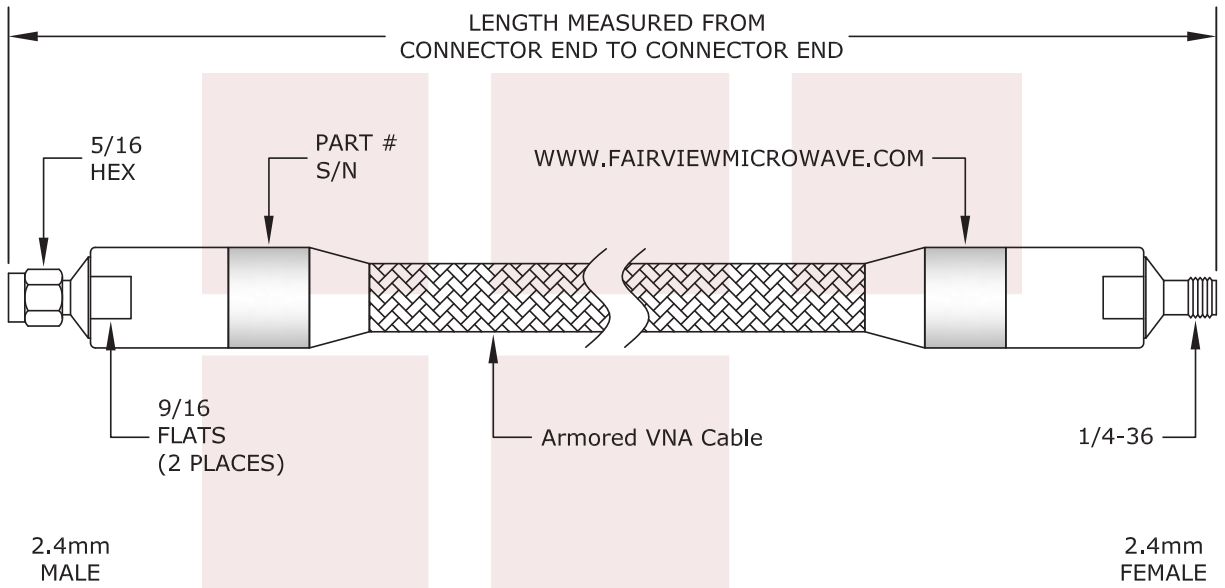
Example: FM40VNA005-12 = 12 inches long cable
FM40VNA005-100cm = 100 cm long cable

Vector Network Analyzer (VNA) Ruggedized 40 GHz Test Cable 2.4mm Male to 2.4mm Female, RoHS from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [Vector Network Analyzer \(VNA\) Ruggedized 40 GHz Test Cable 2.4mm Male to 2.4mm Female, RoHS FM40VNA005](#)

URL: <http://www.fairviewmicrowave.com/2.4mm-male-2.4mm-female-cable-vna-cable-coax-fm40vna005-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].			
TITLE Vector Network Analyzer (VNA) Ruggedized 40 GHz Test Cable 2.4mm Male to 2.4mm Female, RoHS		DWG NO FM40VNA005		CAGE CODE 3FKR5	
CAD FILE	072215	SHEET	SCALE	N/A	SIZE A 2233