

## Precision 1.85mm Male to RA 1.85mm Male Cable VNA High Flex Coax and RoHS Compliant

Fairview Microwave's precision VNA test cables with high-flex coax are designed to provide accurate performance up to 67 GHz. The stainless steel, braided armoring provides a rugged and flexible test cable solution that exceeds 100,000 flexure cycles with proper care. Very low insertion loss and VSWR as low as 1.4:1 with phase stability of +/- 8° with flexure give these test cables excellent electrical properties for even the most demanding applications. The rugged connectors also allow up to 5,000 mating cycles when attached with proper care.

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		67	GHz
VSWR			1.4:1	
Velocity of Propagation		78		%
RF Shielding	100			dB
Group Delay		1.34 [4.4]		ns/ft [ns/m]
Capacitance		26.5 [86.94]		pF/ft [pF/m]
Input Power (Average)			18	Watts
Phase Stability with Flexure		±8		Degrees

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	5	10	20	40	67	GHz
Insertion Loss (Max.)	0.48 [1.57]	0.68 [2.23]	1 [3.28]	1.45 [4.76]	1.95 [6.4]	dB/ft [dB/m]
Power Handling (Max.)					18	Watts

Electrical Specification Notes:  
Values at 25°C, sea level.

### Mechanical Specifications

#### Cable Assembly

##### Cable

Cable Type	FM-VNA-HF
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 Tape
Shield Layer 2	Silver Plated Copper Braid
Shield Layer 3	Silver Plated Copper Braid
Jacket Diameter	0.27 in [6.86 mm]

One Time Minimum Bend Radius	1 in [25.4 mm]
Flat Plate Crush	317 lbs/in [5.66 Kg/mm]



### Configuration:

- 1.85mm Male
- 1.85mm Male Right Angle
- FM-VNA-HF

### Features:

- Phase and Amplitude stable designed for VNA testing
- 1.4:1 VSWR to 67 GHz
- Excellent Amplitude and Phase stability with flexure
- Armored Cable construction is highly flexible
- Non Conductive Nomex outer sleeve
- Serialized test data for each cable assembly
- In stock and ready to ship

### Applications:

- VNA Test Cables
- Probe testing to 67 GHz
- Precision Development testing
- For use in Automated Test Systems

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## Connectors

Description	Connector 1	Connector 2
Type	1.85mm Male	1.85mm Male Right Angle
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	ULTEM	ULTEM
Outer Cond Material & Plating	Passivated Stainless Steel	
Coupling Nut Material & Plating	Passivated Stainless Steel	
Torque	8 in-lbs [0.9 Nm]	8 in-lbs [0.9 Nm]
Body Material & Plating	Passivated Stainless Steel	Passivated Stainless Steel

## Environmental Specifications

### Temperature

Operating Range -55 to +125 deg C

## Compliance Certifications (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

RoHS Compliant Yes  
REACH Compliant 06/15/2015

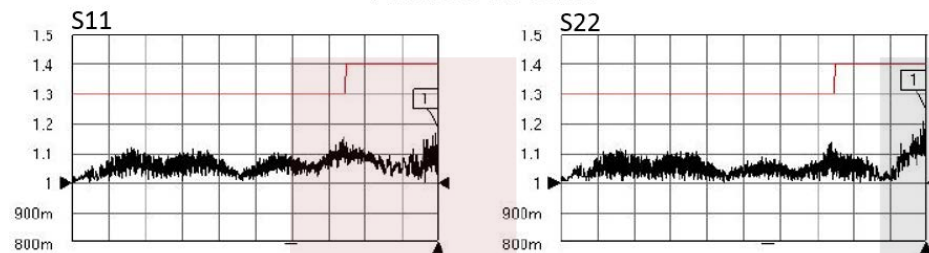
## Plotted and Other Data

Notes:

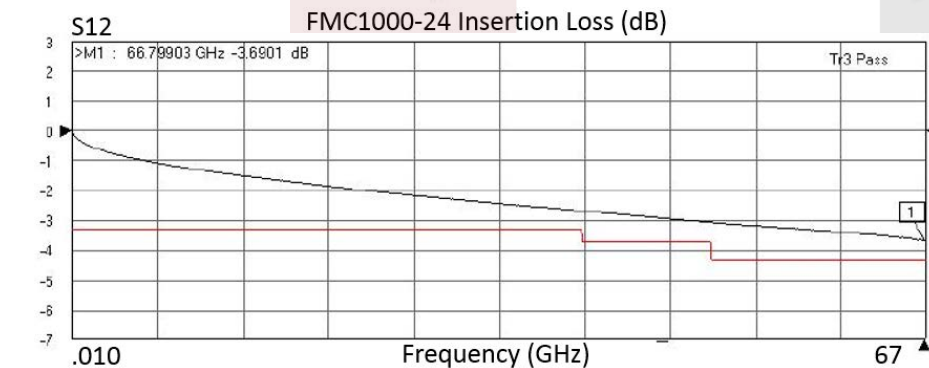
- Values at 25°C, sea level.

## Typical Performance Data

FMC1000-24 VSWR



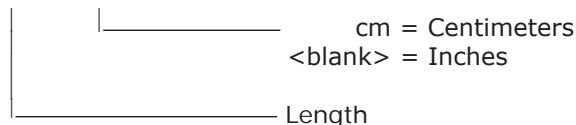
FMC1000-24 Insertion Loss (dB)



## How to Order

Part Number Configuration:

**FMC1000 - xx uu**



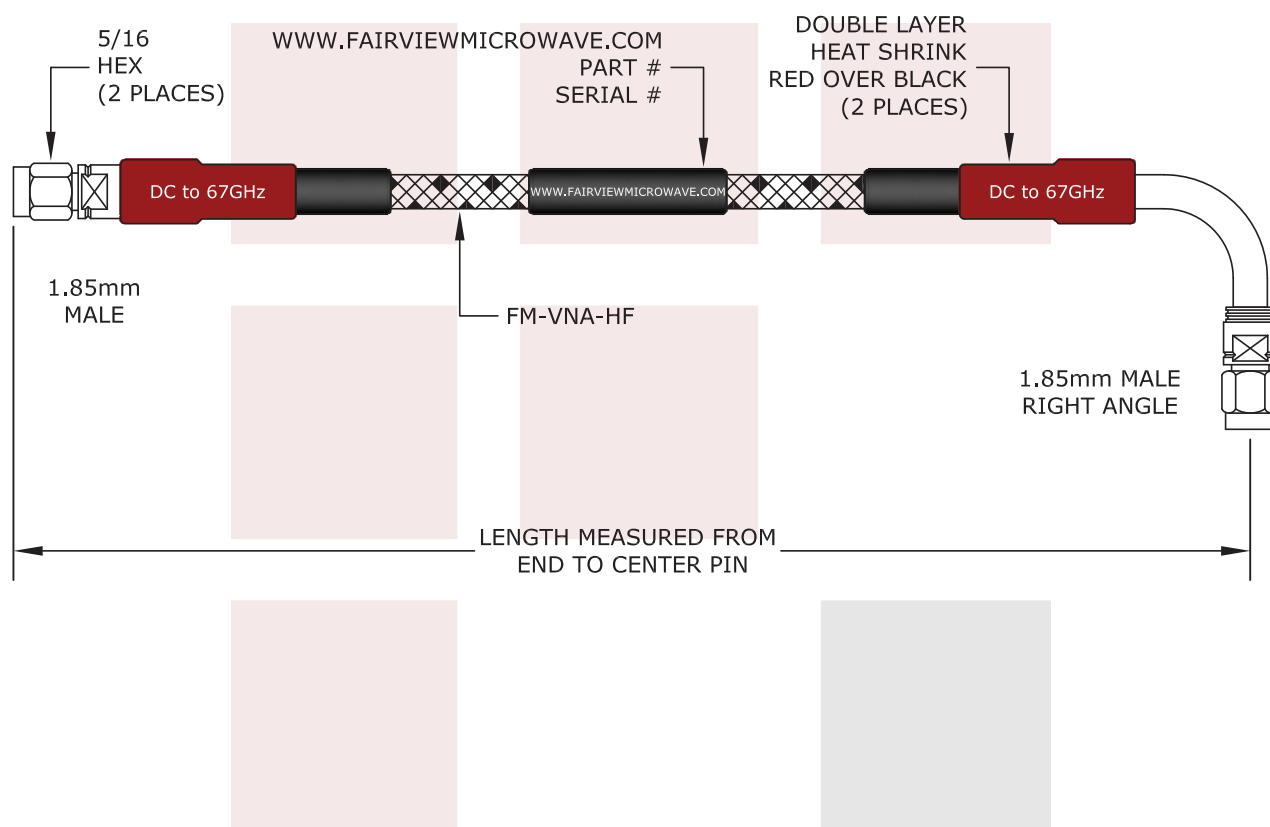
Example: FMC1000-12 = 12 inches long cable  
 FMC1000-100cm = 100 cm long cable

Precision 1.85mm Male to RA 1.85mm Male Cable VNA High Flex Coax and RoHS Compliant 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: [Precision 1.85mm Male to RA 1.85mm Male Cable VNA High Flex Coax and RoHS Compliant FMC1000](#)

URL: <http://www.fairviewmicrowave.com/precision-1.85mm-male-ra-1.85mm-male-cable-vna-cable-coax-fmc1000-p.aspx>

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TITLE Precision 1.85mm Male to RA 1.85mm Male Cable VNA High Flex Coax and RoHS Compliant	DWG NO FMC1000		CAGE CODE 3FKR5		
	CAD FILE 100815	SHEET	SCALE N/A	SIZE A	2233