Fairview Microwave
an INFINITE brand

FMC1000
DATA SHEET

Precision 1.85mm Male to RA 1.85mm Male Cable VNA High Flex Coax

The 1.85mm male to RA 1.85mm male cable using VNA high flex coax, part number FMC1000, from Fairview Microwave is in-stock and ships same day. This Fairview 1.85mm to 1.85mm cable assembly has a male to male gender configuration with 50 ohm flexible FM-VNA-HF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC1000 1.85mm male to 1.85mm male cable assembly operates to 67 GHz. The right angle 1.85mm interface on the FM-VNA-HF cable allows for easier connections in tight spaces. The triple shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 100 dB. Fairview Microwave's precision VNA test cables with high-flex coax are designed to proivde 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.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other RF cable assembly value added services including connector orientation or clocking, heat shrink booting and labeling are also available. RF testing can also be performed to document the electrical performance of your cable assembly.

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	0.68	1	1.45	1.95	dB/ft
	1.57	2.23	3.28	4.76	6.4	dB/m
Power Handling (Max.)					18	W

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

Configuration:

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

Features:

- Max Frequency 67 GHz
- Shielding Effectivity > 100 dB
- 78% Phase Velocity
- Triple Shielded
- 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:

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

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Mechanical Specifications

Cable Assembly

Length*	0 in [0 mm]

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]

Connectors

Description	Connector 1	Connector 2
Type	1.85mm Male	1.85mm Male
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
Body Material & Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Material & Plating	Passivated Stainless Steel	
Torque	8 in-lbs 0.9 Nm	8 in-lbs 0.9 Nm

Environmental Specifications

Temperature

Operating Range	-55 to +125 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

How to Order

Part Number Configuration: **FMC1000 - xx uu**

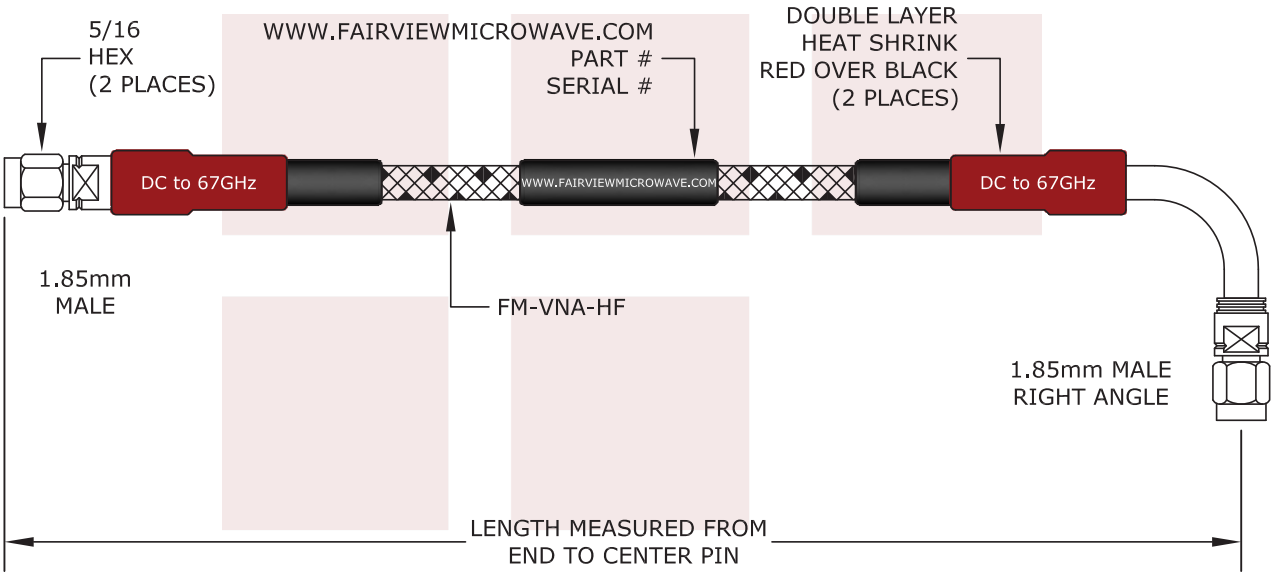
- uu: cm = Centimeters; <blank> = Inches
- xx: Length

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 from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave 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 FMC1000

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



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