

Mini SMP (SMPM) Male Smooth Bore VITA

67.3 Connector Solder Attachment for FM-F086, FM-F086HF, FM-F086LL, FM-F086FLX

Fairview Microwave's FMCN49820 Mini SMP male smooth bore VITA 67.3 connector with solder attachment for FM-F086, FM-F086HF, FM-F086LL, and FM-F086FLX is part of our full line of RF components available for same-day shipping. Our Mini SMP male smooth bore VITA 67.3 connector operates up to a maximum frequency of 40 GHz and offers excellent VSWR of 1.4:1. The Fairview Microwave blind mate connector is ideal for applications where direct visual or tactile access to the connection point is not possible, for example, when two circuit boards need to be mated.

Our Mini SMP male smooth bore VITA 67.3 connector FMCN49820 datasheet specifications and drawing with dimensions are shown below in this PDF. Fairview Microwave's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Fairview Microwave has the right connector for the job. Fairview Microwave can also expertly build your custom cable assemblies for you and ship same-day.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		40	GHz
VSWR			1.4:1	

Mechanical Specifications

Size	
Length	0.45 in [11.43 mm]
Width/Dia.	0.17 in [4.32 mm]
Height	0.17 in [4.32 mm]
Weight	0.0019 lbs [0.86 g]

Material Specifications

Description	Material	Plating
Contact	Beryllium Copper	Gold
Insulation	PTFE	
Outer Conductor	Passivated Stainless Steel	
Body	Passivated Stainless Steel	

Mechanical Specification Notes:
 500 mating cycles when mated with a Smooth Bore connector.

Environmental Specifications

Temperature	
Operating Range	-65 to +165 deg C
Humidity	MIL-STD-202, Method 106, Less Step 7B
Shock	MIL-STD-202, Method 213, Condition I



Configuration:

- Smooth Bore Mini SMP Male Connector
- 50 Ohms
- Straight Body Geometry
- FM-F086, FM-F086HF, FM-F086LL, FM-F086FLX Interface Type
- Solder Attachment
- VITA 67.3 Design

Features:

- Operating Frequency of 40 GHz Max.
- Good VSWR of 1.4:1
- Blind Mate Connector
- Gold Plated Beryllium Copper Contact

Applications:

- General Purpose Test
- Custom Cable Assemblies
- VITA 67.3 Plug-In
- High Density Applications

Fairview Microwave
 301 Leora Ln., Suite 100
 Lewisville, TX 75056
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Vibration
Thermal Shock

MIL-STD-202, Method 204, Condition D
MIL-STD-202, Method 107, Condition B

Compliance Certifications (see [product page](#) for current document)

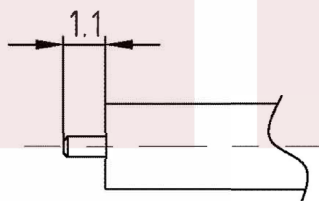
Plotted and Other Data

Notes:

- FMCN49819 works with FMCN49823 Mini SMP VITA 67.3 10 Port Plug-In Module C and FMCN49825 Mini SMP VITA 67.3 14 Port Plug-In Module C

Assembly Instruction

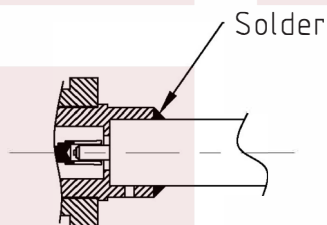
Cable Assembly Instructions



Trim insulator and outer conductor to dimensions shown.
Be careful not to nick the center conductor.

NOTE:

To minimize cable dielectric growth during soldering operation,
normalize cable thermal cycle per MIL-DTL-17 prior to final trim.



Insert cable into body, until outer conductor flush with body.
Solder outer conductor to body

NOTE:

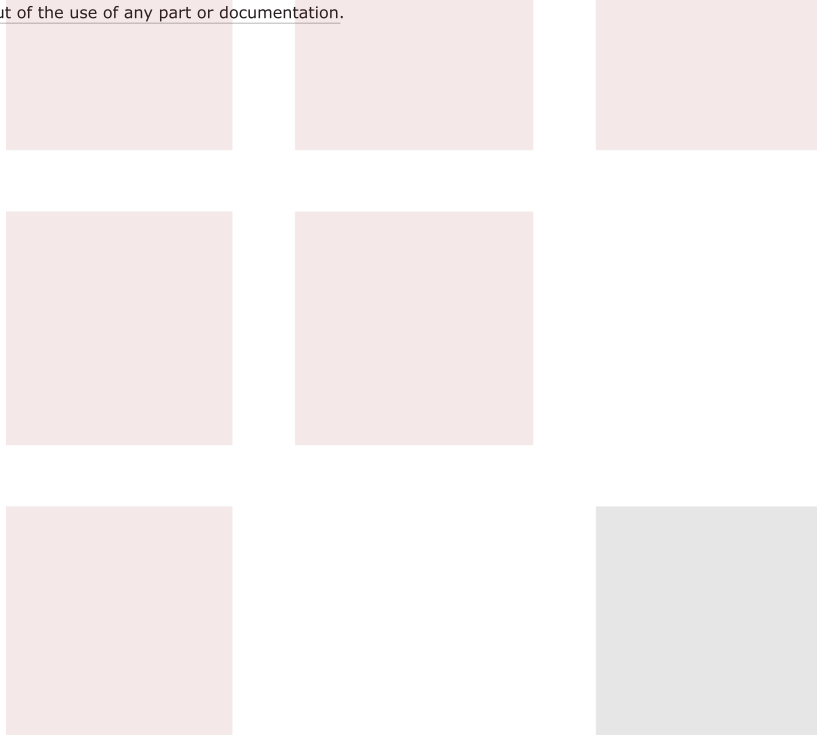
For FMCN49816 and FMCN49820

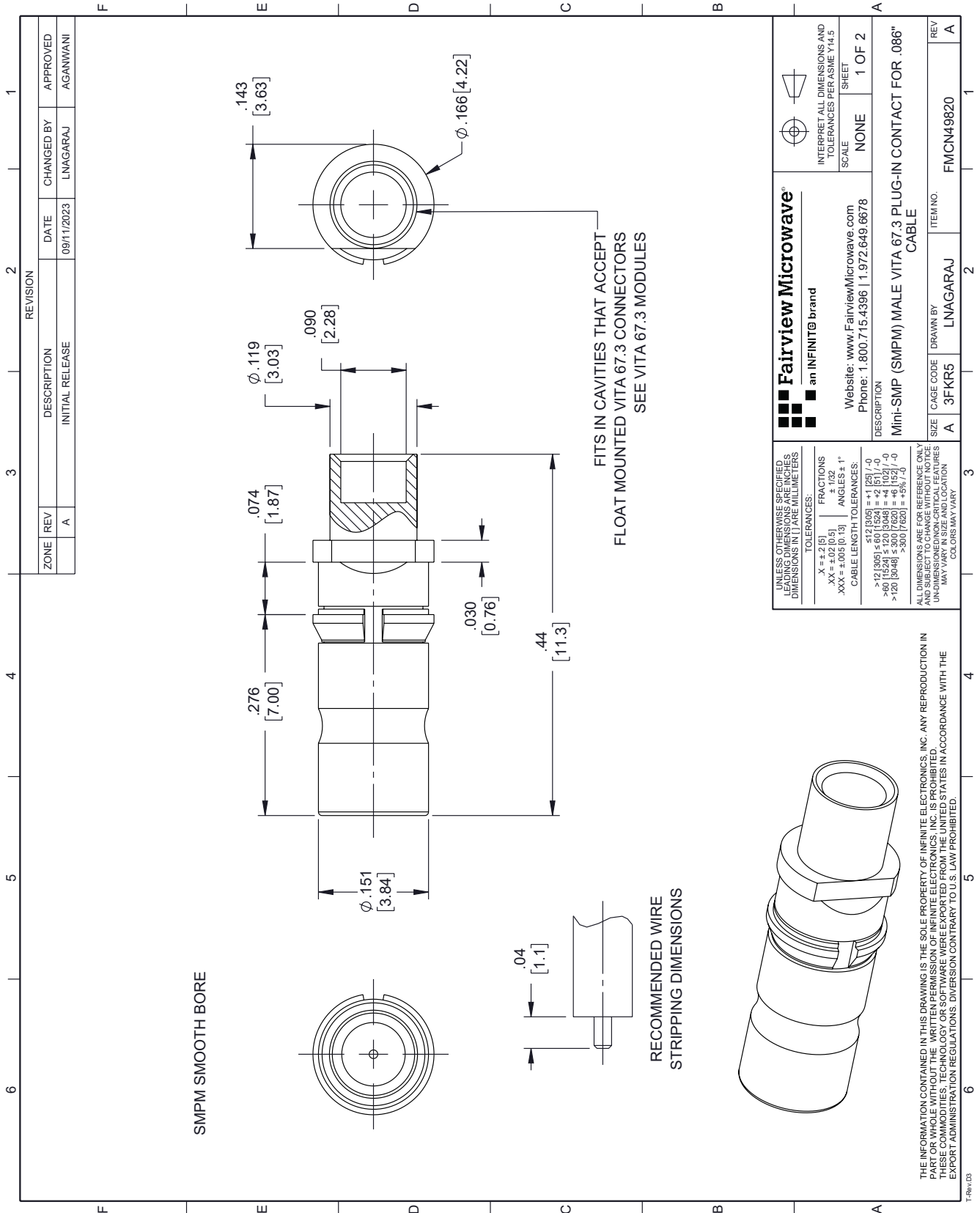
Mini SMP (SMPM) Male Smooth Bore VITA 67.3 Connector Solder Attachment for FM-F086, FM-F086HF, FM-F086LL, FM-F086FLX from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Mini SMP \(SMPM\) Male Smooth Bore VITA 67.3 Connector Solder Attachment for FM-F086, FM-F086HF, FM-F086LL, FM-F086FLX FMCN49820](#)

URL: <https://www.fairviewmicrowave.com/mini-smp-male-smooth-bore-fm-f086-fm-f086hf-fm-f086ll-fm-f086flx-connector-fmcn49820-p.aspx>

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Vibration
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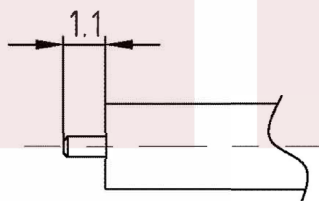
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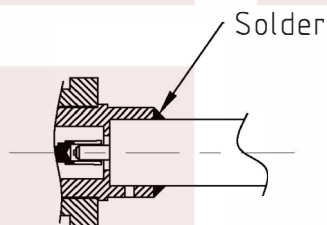
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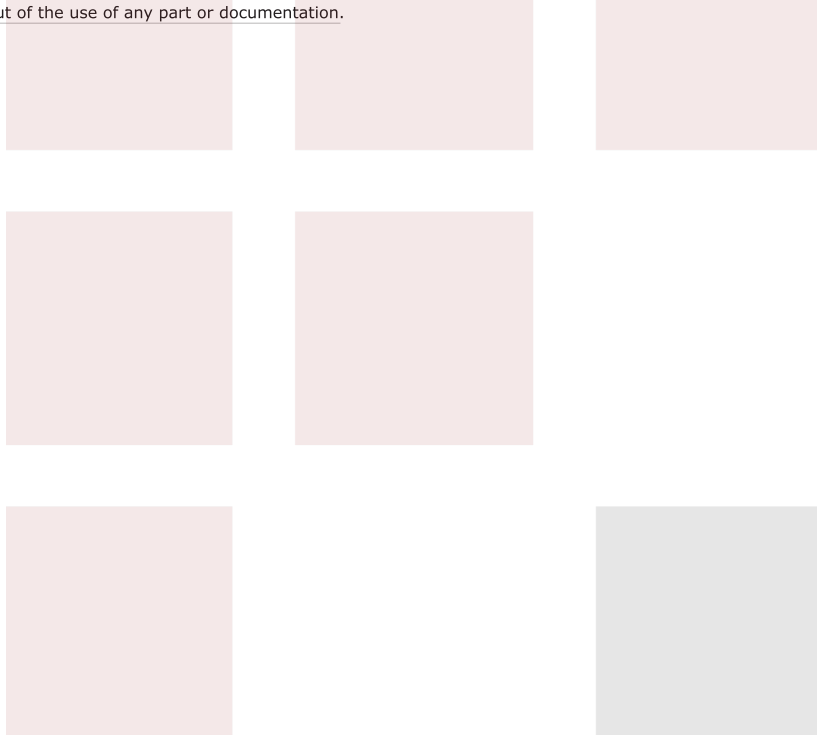
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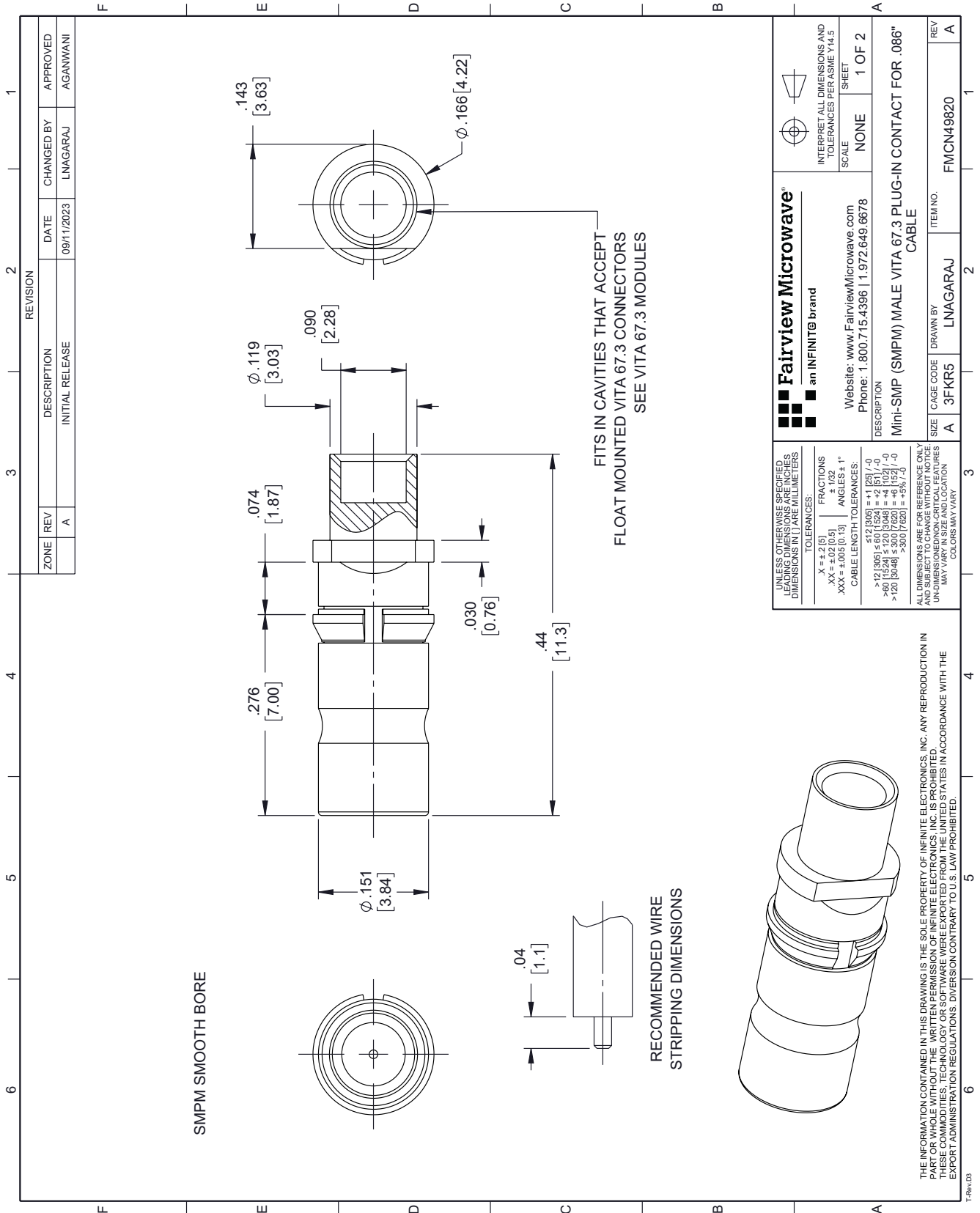
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FM-F086HF Flexible Coax Cable Blue FEP Jacket

FM-F086HF, by Fairview is a flexible, coaxial cable that provides similar loss characteristics to semi-rigid cable, low VSWR of 1.3:1 and a high frequency range up to 40 GHz. The low loss coax cable offers dual shields and silver-plated conductors to maintain a shielding effectiveness of 110 dB. Conductor sizing for this low VSWR coax was selected to allow attachment of standard connectors designed for M17/133-RG405 and other cables in the M17/133 family. The cable jacket provides a tough, chemical and heat resistant barrier. This FM-F086HF flexible low loss coaxial cable is a great option for short length, high frequency jumpers or system hook-up cable assemblies. In many instances, this Fairview coax cable can be used to replace bent semi-rigid cable assemblies and save the time and cost of bending.



Configuration:

- Flexible Cable
- 2 Shield(s)

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		40	GHz
Impedance		50 ±2		Ohms
Velocity of Propagation		70		%
Nominal Capacitance		29.4		pF/ft
		[96.46]		[pF/m]

Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	0.4	1	2	2.4	3	GHz
Attenuation, Max	13.1 42.98	21.1 69.23	30.5 100.07	33.7 110.56	38 124.67	dB/100ft dB/100m
Attenuation, Typ	11.9 39.04	19.2 62.99	27.7 90.88	30.6 100.39	34.5 113.19	dB/100ft dB/100m

Description	F6	F7	F8	F9	F10	Units
Frequency	5	10	18	40		GHz
Attenuation, Max	50.3 165.03	74.3 243.77	104.6 343.18	170.3 558.73		dB/100ft
dB/100m						
Attenuation, Typ	45.7 149.93	67.5 221.46	95.1 312.01	154.8 507.87		dB/100ft
dB/100m						

Mechanical Specifications

Diameter	0.104 in [2.64 mm]
Weight	0.0135 lbs/ft [0.02 Kg/m]
Min. Bend Radius (Installation)	0.52 in [13.21 mm]

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

Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper Clad Steel, Silver, 1 Strands	0.02 in [0.51 mm]
Conductor Type	Solid	
Dielectric	PTFE	0.064 in [1.63 mm]
First Shield	Silver Plated Copper Tape	
Second Shield	Silver Plated Copper Braid	
Jacket	FEP, Blue	0.104 in [2.64 mm]

Environmental Specifications

Temperature

Operating Range -55 to +200 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

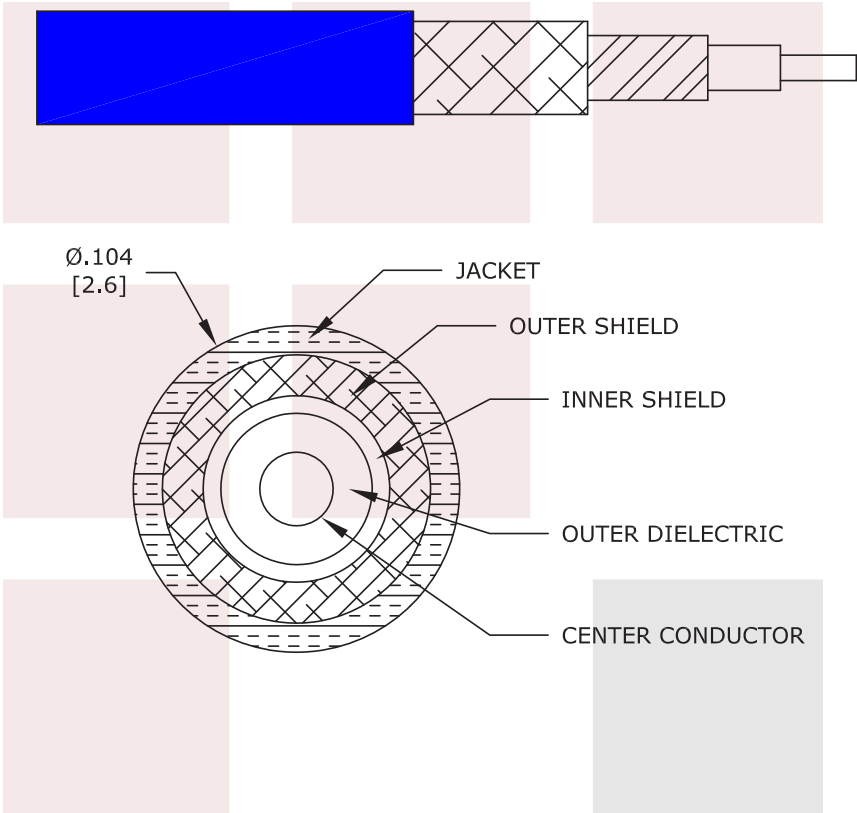
Notes:

FM-F086HF Flexible Coax Cable Blue FEP Jacket 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: [FM-F086HF Flexible Coax Cable Blue FEP Jacket FM-F086HF](#)

URL: <https://www.fairviewmicrowave.com/fm-f086hf-flexible-coax-cable-fep-jacket-fm-f086hf-p.aspx>

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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 FM-F086HF Flexible Coax Cable Blue FEP Jacket		DWG NO FM-F086HF		CAGE CODE 3FKR5		
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