

VITA 67 Mini SMP Male to 1.85mm Female Bulkhead Cable FM-F086HF Coax in 12 Inch

FMCA9747-12



Configuration

- Connector 1: Mini SMP Male
- Connector 2: 1.85mm Female Bulkhead
- Cable Type: FM-F086HF
- Coax Cable Group: 2
- Coax Flex Type: Flexible

Features

- Max Frequency 40 GHz
- Shielding Effectivity > 110 dB
- 70% Phase Velocity
- Standard MIL-STD-348 SMPM interface
- Push-on/snap-on mating style for quick installation
- Mini SMP (SMPM) Female compatible with VITA 67 (4-port) and (8-port) blocks
- Mini SMP (SMPM) Male Compatible with VITA 67 (4-port) and (8-port) blocks

Applications

- General Purpose
- Laboratory Use
- Scientific research
- High-reliability, high-density for aerospace & defense application
- Ground base station & communication systems, avionics, radar systems

Description

The Mini SMP male to 1.85mm female bulkhead 12 inch cable using FM-F086HF coax, part number FMCA9747-12, from Fairview Microwave is in-stock and ships same day. This Fairview Mini SMP to 1.85mm cable assembly has a male to female gender configuration with 50 ohm flexible coax. Fairview Microwave's VITA 67 assemblies are high-density, high-performance, fixed-length RF cable assemblies that fit into VITA 67 blocks and attach to the PCB board which makes it ideal for applications where tight bends and flexure is required. The FMCA9747-12 Mini SMP male to 1.85mm female cable assembly operates to 40 GHz. Our RF cable assembly with 1.85mm bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications.

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	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
VSWR			1.35:1	
Velocity of Propagation		70		%
RF Shielding	110			dB

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Bulkhead Cable FM-F086HF Coax in 12 Inch

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Capacitance		29.4 [96.46]		pF/ft [pF/m]

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	2.5	5	10	20	40	GHz
Insertion Loss (Typ.)	0.55	0.71	0.95	1.25	1.91	dB

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

Mechanical Specifications

Cable Assembly

Length 12 in [304.8 mm]
Weight 0.075 lbs [34.02 g]

Cable

Cable Type FM-F086HF
Impedance 50 Ohms
Inner Conductor Type Solid
Inner Conductor Material and Plating Copper Clad Steel, Silver
Dielectric Type PTFE
Shield Layer 1 Silver Plated Copper Tape

Connectors

Description	Connector 1	Connector 2
Type	Mini SMP Male	1.85mm Female Bulkhead
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold over Nickel
Contact Plating Specification	ASTM B488	50 µin minimum
Body Material and Plating	Beryllium Copper, Gold	Passivated Stainless Steel
Body Plating Specification	ASTM B488	SAE-AMS-2700

Environmental Specifications

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

Plotted and Other Data

Notes:

VITA 67 Mini SMP Male to 1.85mm Female Bulkhead Cable FM-F086HF Coax in 12 Inch

FMCA9747-12



Values at 25°C, sea level.

Typical Performance Data

How to Order

Part Number Configuration:

FMCA9747

- xx

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Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: FMCA9747-12 = 12 inches long cable
FMCA9747-100cm = 100 cm long cable

VITA 67 Mini SMP Male to 1.85mm Female Bulkhead Cable FM-F086HF Coax in 12 Inch 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.

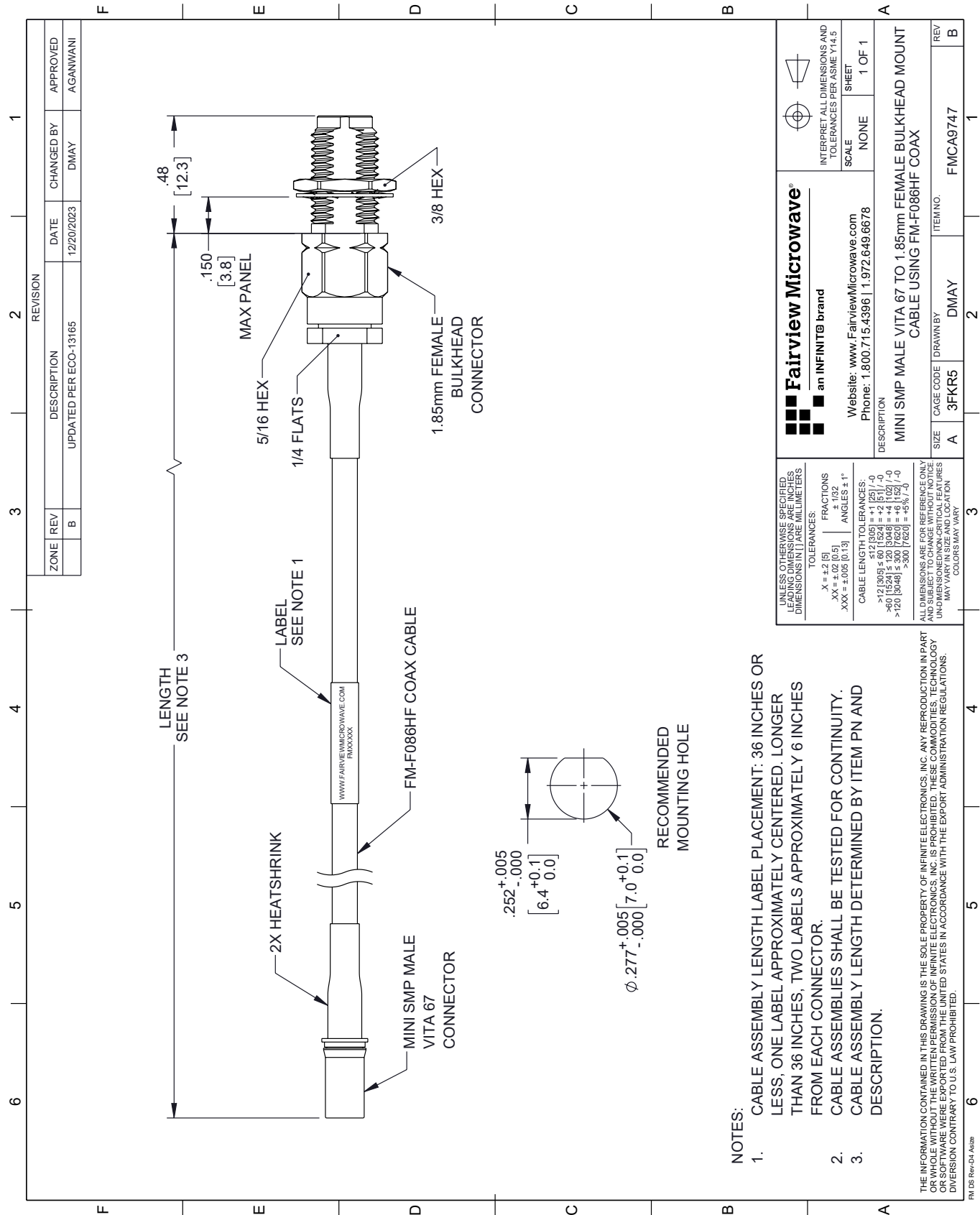
For additional information on this product, please click the following link: [VITA 67 Mini SMP Male to 1.85mm Female Bulkhead Cable FM-F086HF Coax in 12 Inch FMCA9747-12](#)

URL: <https://www.fairviewmicrowave.com/vita-67-mini-smp-male-to-1.85mm-female-bulkhead-cable-fm-f086hf-coax-in-12-inch-fmca9747-12-p.aspx>

The information contained within 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 liability arising out of the use of any part or document.

FMCA9747-12 CAD Drawing

VITA 67 Mini SMP Male to 1.85mm Female Bulkhead Cable FM-F086HF Coax in 12 Inch



REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV			
	B	12/20/2023	DMAY	AGANWANI
DESCRIPTION		UPDATED PER ECO-13165		

Fairview Microwave® an INFINITE® brand		Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.		TOLERANCES:		SCALE: NONE
X = ±.005		FRACTIONS		SHEET: 1 OF 1
.XX = ±.02 [0.5]		± 1/32		
.XXX = ±.005 [0.13]		ANGLES ± 1°		
CABLE LENGTH TOLERANCES:		CABLE LENGTH TOLERANCES:		
>12 [305] ≤ 60 [1524] = ±.125 [-.0]		>12 [305] ≤ 60 [1524] = ±.125 [-.0]		
>60 [1524] ≤ 120 [3048] = ±.125 [-.0]		>60 [1524] ≤ 120 [3048] = ±.125 [-.0]		
>120 [3048] ≤ 300 [7620] = ±.125 [-.0]		>120 [3048] ≤ 300 [7620] = ±.125 [-.0]		
ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS SHALL BE DETERMINED BY THE DIMENSIONS OF THE PARTS. UNLESS OTHERWISE SPECIFIED, DIMENSIONS SHALL BE DETERMINED BY THE DIMENSIONS OF THE PARTS. UNLESS OTHERWISE SPECIFIED, DIMENSIONS SHALL BE DETERMINED BY THE DIMENSIONS OF THE PARTS.		DESCRIPTION		
MINI SMP MALE VITA 67 TO 1.85mm FEMALE BULKHEAD MOUNT CABLE USING FM-F086HF COAX		ITEM NO.		
SIZE		CAGE CODE		
A		3FKR5		
DRAWN BY		DMAY		
ITEM NO.		FMCA9747		
REV		B		