

VITA 67 Mini SMP Female Bulkhead to 1.85mm Female Bulkhead Cable FM-F086HF Coax

The Mini SMP female bulkhead to 1.85mm female bulkhead cable using FM-F086HF coax, part number FMCA9739, from Fairview Microwave is in-stock and ships same day. This Fairview Mini SMP to 1.85mm cable assembly has a female to female gender configuration with 50 ohm flexible coax. Fairview Microwave's VITA 67 assemblies are high-density, high-performance 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 FMCA9739 Mini SMP female 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 | Min | Typ | Max | Units |
|-------------------------|-----|--------------|--------|--------------|
| Frequency Range | DC | | 40 | GHz |
| VSWR | | | 1.35:1 | |
| Velocity of Propagation | | 70 | | % |
| RF Shielding | 110 | | | dB |
| Capacitance | | 29.4 [96.46] | | pF/ft [pF/m] |

Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|-------|-------|-------|-------|-------|-------|
| Frequency | 2.5 | 5 | 10 | 20 | 40 | GHz |
| Insertion Loss (Typ.) | 0.344 | 0.503 | 0.743 | 1.048 | 1.703 | dB/ft |
| | 1.13 | 1.65 | 2.44 | 3.44 | 5.59 | dB/m |

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

Mechanical Specifications
Cable Assembly

Weight 0.29 lbs [131.54 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


Configuration:

- Mini SMP Female Bulkhead
- 1.85mm Female Bulkhead
- FM-F086HF

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

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Connectors

| Description | Connector 1 | Connector 2 |
|----------------------------|------------------------|------------------------------------|
| Type | Mini SMP Female | 1.85mm Female |
| Mount Method | Bulkhead | Bulkhead |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material & Plating | Beryllium Copper, Gold | Beryllium Copper, Gold over Nickel |
| Contact Plating Spec. | ASTM B488 | 50 µin minimum |
| Body Material & Plating | Beryllium Copper, Gold | Passivated Stainless Steel |
| Body Plating Spec. | ASTM B488 | SAE-AMS-2700 |

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:

FMCA9739 - **xx** **uu**

cm = Centimeters
 <blank> = Inches

Length

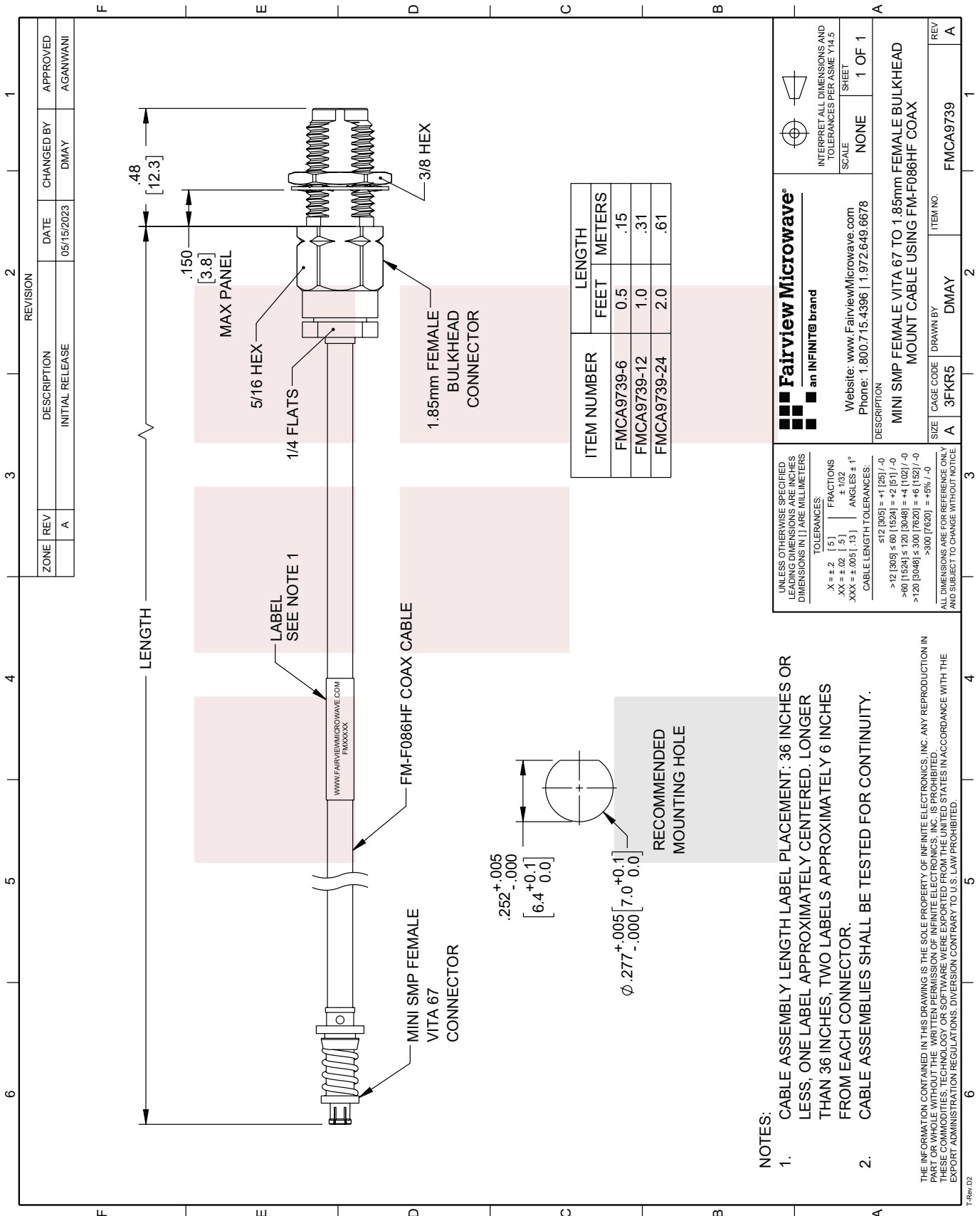
Example: FMCA9739-12 = 12 inches long cable
 FMCA9739-100cm = 100 cm long cable

VITA 67 Mini SMP Female Bulkhead to 1.85mm Female Bulkhead Cable FM-F086HF 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: [VITA 67 Mini SMP Female Bulkhead to 1.85mm Female Bulkhead Cable FM-F086HF Coax FMCA9739](#)

URL: <https://www.fairviewmicrowave.com/vita-67-mini-smp-female-bulkhead-to-1.85mm-female-bulkhead-cable-fm-f086hf-coax-fmca9739-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.



NOTES:

- CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
- CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:
 .X = ±.2 [5] FRACTIONS ±.132
 .XX = ±.02 [.5] ANGLES ± 1°
 .XXX = ±.005 [.13]

CABLE LENGTH TOLERANCES:
 ≤12 [305] = ±1 [25] / -0
 >12 [305] ≤ 60 [1524] = +2 [51] / -0
 >60 [1524] ≤ 120 [3048] = +4 [102] / -0
 >120 [3048] ≤ 300 [7620] = +6 [152] / -0
 >300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE

Fairview Microwave
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Website: www.FairviewMicrowave.com
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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5
 SCALE NONE
 SHEET 1 OF 1

DESCRIPTION
 MINI SMP FEMALE VITA 67 TO 1.85mm FEMALE BULKHEAD MOUNT CABLE USING FM-F086HF COAX

| SIZE | CAGE CODE | DRAWN BY | ITEM NO. | REV |
|------|-----------|----------|----------|-----|
| A | 3FKR5 | DMAY | FMCA9739 | A |

T-Rev D2