

VITA 67 Mini SMP Female to 1.85mm Female
Cable FM-P047HF Coax in 24 Inch



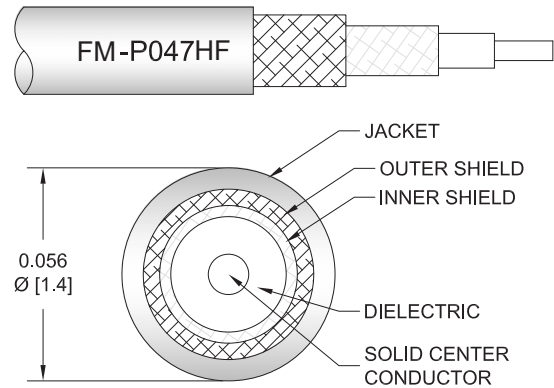
FMCA9733-24

Configuration

- Connector 1: Mini SMP Female
- Connector 2: 1.85mm Female
- Cable Type: FM-P047HF
- Coax Cable Group: 2
- Coax Flex Type: Flexible

Features

- Max Frequency 40 GHz
- Shielding Effectivity > 90 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 female to 1.85mm female 24 inch cable using FM-P047HF coax, part number FMCA9733-24, 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, 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 FMCA9733-24 Mini SMP female to 1.85mm female cable assembly operates to 40 GHz.

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 | 90 | | | dB |

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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------|---------|------------|---------|--------------|
| Capacitance | | 29 [95.14] | | 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.) | 1.28 | 1.78 | 2.54 | 3.71 | 5.57 | dB |

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

Mechanical Specifications

Cable Assembly

Length 24 in [609.6 mm]
Weight 0.075 lbs [34.02 g]

Cable

Cable Type FM-P047HF
Impedance 50 Ohms
Inner Conductor Type Solid
Inner Conductor Material and Plating Copper, Silver
Dielectric Type FEP
Shield Layer 1 Silver Plated Copper Tape

Connectors

| Description | Connector 1 | Connector 2 |
|-------------------------------|------------------------|----------------------------|
| Type | Mini SMP Female | 1.85mm Female |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Straight | Straight |
| Contact Material and Plating | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Contact Plating Specification | ASTM B488 | 50μ Inches. |
| Body Material and Plating | Brass, 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:

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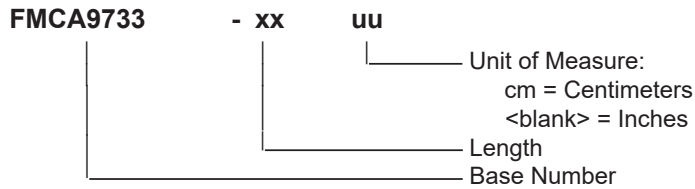
FMCA9733-24

Values at 25°C, sea level.

Typical Performance Data

How to Order

Part Number Configuration:



Example: FMCA9733-12 = 12 inches long cable
FMCA9733-100cm = 100 cm long cable

VITA 67 Mini SMP Female to 1.85mm Female Cable FM-P047HF Coax in 24 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.

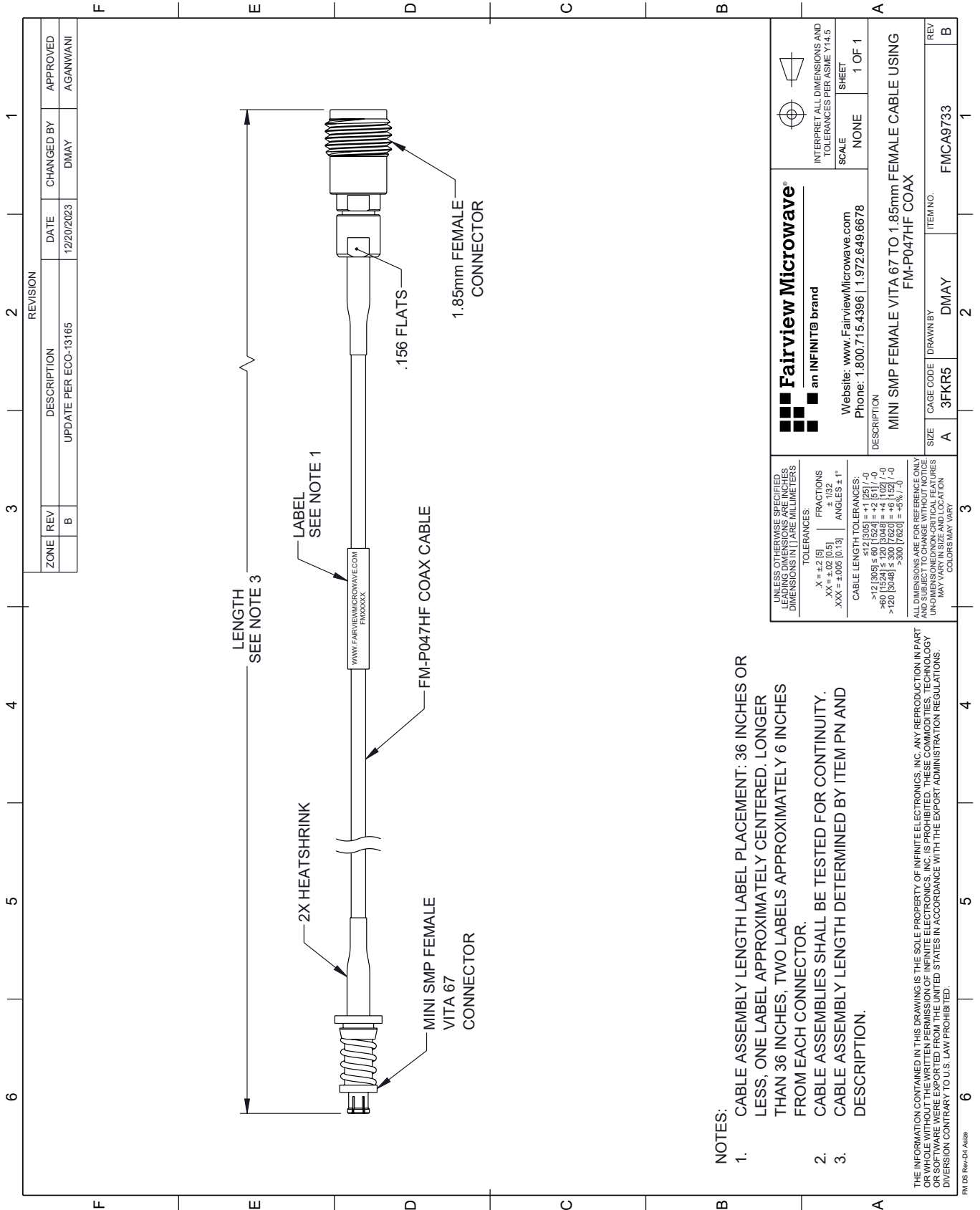
For additional information on this product, please click the following link: [VITA 67 Mini SMP Female to 1.85mm Female Cable FM-P047HF Coax in 24 Inch FMCA9733-24](#)

URL: <https://www.fairviewmicrowave.com/vita-67-mini-smp-female-to-1.85mm-female-cable-fm-p047hf-coax-in-24-inch-fmca9733-24-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.

FMCA9733-24 CAD Drawing

VITA 67 Mini SMP Female to 1.85mm Female Cable FM-P047HF Coax in 24 Inch



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

| | | |
|--|-----------|--|
| Fairview Microwave® an INFINIT® brand Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678 | | 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 CABLE USING FM-P047HF COAX | | |
| SIZE | CAGE CODE | ITEM NO. |
| A | 3FKR5 | DMAY |
| | | REV B |

- 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.
 - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:
 .X = ±.2 [5]
 .XX = ±.02 [0.5]
 .XXX = ±.005 [0.13]

FRACTIONS: ± 1/32
 ANGLES ± 1°

CABLE LENGTH TOLERANCES:
 <12 [305] ≤ 60 [1524] = ±.1 [25] / -0
 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±.6 [152] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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FM_DS Rev-D4 Alt2