

## MHF1 to SMA Male (Plug) Cable Assembly Using O.D 0.81mm Cable



### FMCA11042

#### Configuration

- Connector 1: MHF1
- Connector 2: SMA Male

#### Features

- Max Frequency 6 GHz
- 69% Phase Velocity
- FEP Jacket

#### Applications

- General Purpose
- Laboratory Use
- External antenna connection (Wi-Fi, Bluetooth, LTE/5G, and GPS receivers)
- Improving signal strength (Embedded systems inside metal enclosures)
- Prototyping and development
- IoT and embedded systems (Drones and robotics)

#### Description

The MHF1 to SMA male cable assembly using 0.81mm cable, part number FMCA11042, from Fairview Microwave is in-stock and ships same day. MHF1 (U.FL) is a very small RF connector found on compact electronics like Wi-Fi cards, LTE modules, and IoT boards.

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		6	GHz
VSWR			1.5:1	
Velocity of Propagation		69		%
Test Voltage (DC)			300	V

#### Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	Units	Weight (lbs)
			Frequency	1000	2500	5000	6000	
FMCA11042	Custom Lengths Available	Insertion Loss (Typ.)	0.945	1.601	2.378	2.591	dB/ft	
			3.11	5.26	7.81	8.51	dB/m	
FMCA11042-10CM	10 CM	Insertion Loss (Typ.)	0.52	0.73	0.99	1.06	dB	0.01
FMCA11042-20CM	20 CM	Insertion Loss (Typ.)	0.83	1.26	1.77	1.91	dB	0.02

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1: 0.1 dB  
 Loss due to Connector 2: 0.1 dB  
 Base Weight: 0.03 pounds

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

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter 0.032 in [0.81 mm]  
 Weight 0.03 lbs [13.61 g]

**Cable**

Impedance 50 Ohms  
 Inner Conductor Type Stranded  
 Inner Conductor Material and Plating Copper, Silver  
 Dielectric Type FEP  
 Number of Shields 1  
 Shield Layer 1 Tinned Copper  
 Outer Conductor 1 Material and Plating Tinned Copper  
 Jacket Material FEP  
 Jacket Diameter 0.032 in [0.81 mm]  
 One Time Minimum Bend Radius 0.196 in [4.98 mm]

**Connectors**

Description	Connector 1	Connector 2
Type	MHF1	SMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating		Brass, Gold
Body Material and Plating		Brass, Gold

**Environmental Specifications**

Operating Range Temperature -40 to +90 deg C

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**FMCA11042**

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

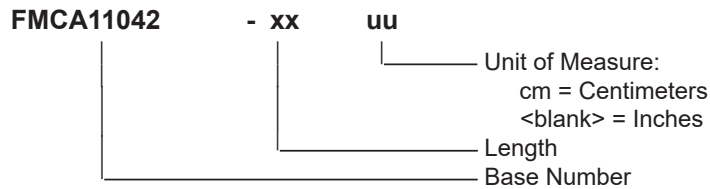
**Plotted and Other Data**

Notes:  
Values at 25°C, sea level.

**Typical Performance Data**

**How to Order**

Part Number Configuration:



Example: FMCA11042-12 = 12 inches long cable  
FMCA11042-100cm = 100 cm long cable

MHF1 to SMA Male (Plug) Cable Assembly Using O.D 0.81mm Cable 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.

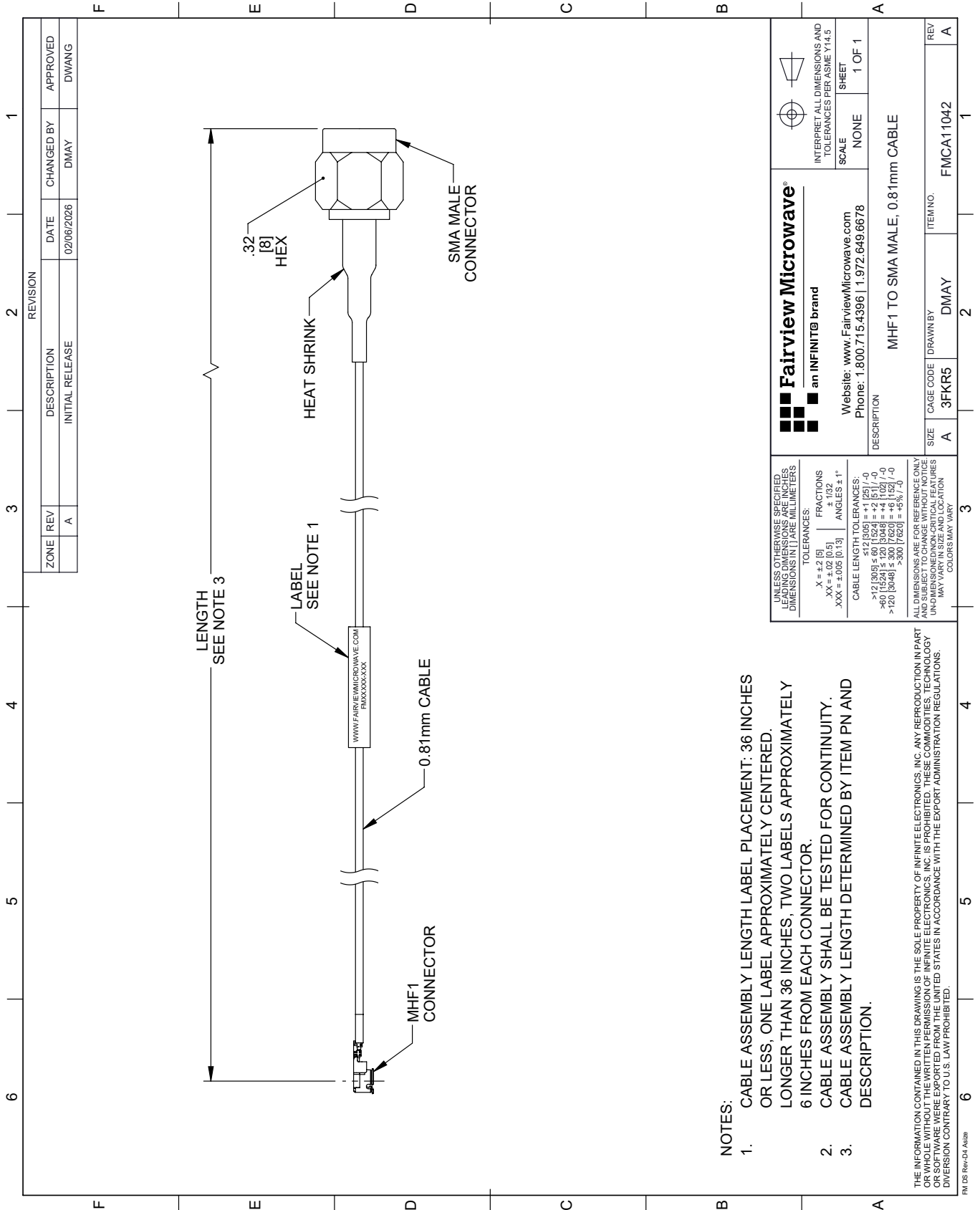
For additional information on this product, please click the following link: [MHF1 to SMA Male \(Plug\) Cable Assembly Using O.D 0.81mm Cable FMCA11042](#)

URL: <https://www.fairviewmicrowave.com/mhf1-to-sma-male-cable-0.81mm-coax-fmca11042>

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.

# FMCA11042 CAD Drawing

MHF1 to SMA Male (Plug) Cable Assembly Using O.D 0.81mm Cable



<b>Fairview Microwave®</b> an INFINIT® brand Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> 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: MHF1 TO SMA MALE; 0.81mm CABLE		
SIZE: A	CAGE CODE: 3FKR5	DRAWN BY: DMAY
ITEM NO.: FMCA11042		REV: A

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS ARE IN MILLIMETERS.

TOLERANCES:  
 .X = ±.2 (5)  
 .XX = ±.02 (0.5)  
 .XXX = ±.005 (0.13)

FRACTIONS:  
 ± 1/32

ANGLES: ± 1°

CABLE LENGTH TOLERANCES:  
 <math>12 [305] \leq 60 [1524] = +2 [51] / -0</math>  
 <math>60 [1524] \leq 120 [3048] = +4 [102] / -0</math>  
 <math>120 [3048] \leq 300 [7620] = +5 [127] / -0</math>

ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS OF CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

- 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 ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
  - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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