

## SMA Female Bulkhead to UMCX 2.5 Plug Cable RG178 Coax with LF Solder

The SMA female bulkhead to UMCX 2.5 plug cable using RG178 coax, part number FMCA1003, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to UMCX 2.5 cable assembly has a female to plug gender configuration with 50 ohm flexible RG-178 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA1003 SMA female to UMCX 2.5 plug cable assembly operates to 6 GHz. Our RF cable assembly with SMA 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. Fairview Microwave's UMCX 2.5 (also known as 2.5mm UMCX) ultra-miniature cable assemblies have a mated connection height of 2.5mm. They are constructed using a flexible micro-coax cable and are comparable in design to Hirose U.FL®, IPEX MHF® as well as other UMCX connector and cable manufactures. Fairview's other UMCX 2.1, WMCX 1.6 and HMCX32 1.2 connectors are also available for use on our 0.81mm in-series micro-coax jumpers. These UMCX 2.5 are available in the following coax types; 0.81mm, 1.13mm, RG178 and RG178-DS.

Fairview's UMCX 2.5 cables can be ordered in between-series configurations with Female Bulkhead versions of SMA, Reverse Polarity SMA and Type N connectors as well as an SMA Male option. With frequencies up to 6 GHz, these UMCX cables are perfectly suited for wireless communications such as Wi-Fi, Bluetooth, GPS, ZigBee and LTE. These cables offer a small form factor, flexible coax and provide a low profile RF connection perfect for board-to-board connectivity. Fairview's UMCX 2.5 cable assemblies are available from stock in standard lengths and will ship same-day they are ordered. Custom lengths are also available upon request with slightly longer lead times.

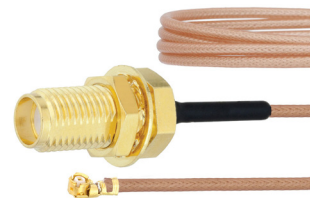
Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other RF cable assembly value added services including connector orientation 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		6	GHz
VSWR			1.5:1	
Operating Voltage (DC)			3,000	Vdc

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	6	GHz
Insertion Loss (Typ.)	0.44	0.54	0.74	0.95	1.86	dB/ft
	1.44	1.77	2.43	3.12	6.1	dB/m
VSWR (Max.)	1.35:1	1.35:1	1.35:1	1.35:1	1.5:1	
Return Loss (Max.)	16.54	16.54	16.54	16.54	13.98	dB



### Configuration:

- SMA Female Bulkhead
- UMCX 2.5 Plug
- RG-178

### Features:

- Max Frequency 6 GHz
- FEP Jacket
- 2.5mm mated assembly height
- operate from DC to 6 GHz
- 100% RF and Continuity tested
- Compatible with Hirose U.FL® and IPEX MHF® products
- Available in 0.81mm, 1.13mm, 1.37mm, RG178 and RG178-DS shielded coax
- Small foot print with easy snap on/off mating

### Applications:

- General Purpose
- Laboratory Use
- Wireless LAN, Mini PCI
- Mobile Antenna/GPS/Radio Systems
- PDA/PCS/Cellular Handset applications
- Wireless Communications systems (LAN,GSM,PCS,WCDMA, UMTS)

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](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

## Mechanical Specifications

### Cable Assembly

Length\* 0 in [0 mm]

### Cable

Cable Type RG-178  
 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 Material and Plating Tinned Copper  
 Jacket Material FEP  
 Jacket Diameter 0.07 in [1.78 mm]

### Connectors

Description	Connector 1	Connector 2
Type	SMA Female	UMCX 2.5 Plug
Mount Method	Bulkhead	
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Beryllium Copper, Gold	
Body Material & Plating	Brass, Gold	

## Environmental Specifications

### Temperature

Operating Range -55 to +125 deg C

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

## Plotted and Other Data

Notes:

## How to Order

Part Number Configuration:

**FMCA1003 - xx uu**

\_\_\_\_\_ cm = Centimeters  
 \_\_\_\_\_ <blank> = Inches  
 \_\_\_\_\_ Length

Example: FMCA1003-12 = 12 inches long cable  
 FMCA1003-100cm = 100 cm long cable

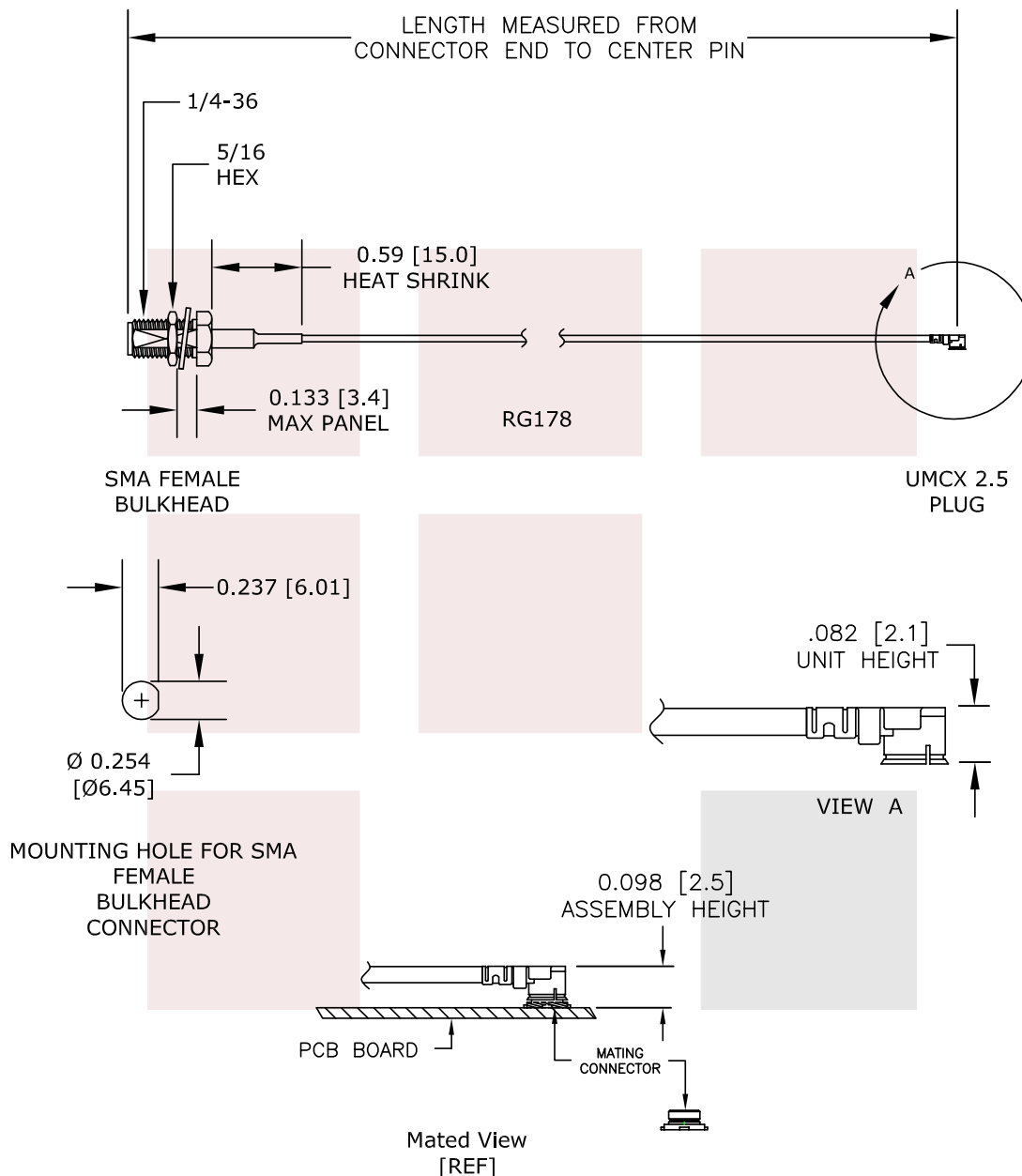
SMA Female Bulkhead to UMCX 2.5 Plug Cable RG178 Coax with LF Solder from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [SMA Female Bulkhead to UMCX 2.5 Plug Cable RG178 Coax with LF Solder FMCA1003](#)

URL: <https://www.fairviewmicrowave.com/sma-female-umcx-2.5-plug-cable-rg178-coax-fmca1003-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.





UMCX connectors are similar to U.FL\*  
\*U.FL is a Registered Trademark of  
Hirose Electronic Group

<b>FAIRVIEW MICROWAVE INC.</b> 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 SMA Female Bulkhead to UMCX 2.5 Plug Cable RG178 Coax with LF Solder		DWG NO <b>FMCA1003</b>		CAGE CODE <b>3FKR5</b>	
CAD FILE	031215	SHEET	SCALE	N/A	SIZE A 150