

RP SMA Female Bulkhead to UMCX 2.5 Plug Cable
RG178-DS Coax and RoHS Compliant

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.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		6	GHz
VSWR			1.5:1	
Operating Voltage (DC)			300	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 [1.44]	0.54 [1.77]	1.86 [6.1]	0.95 [3.12]	1.86 [6.1]	dB/ft [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

Mechanical Specifications

Cable Assembly

Cable

Cable Type	RG178-DS
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	FEP
Number of Shields	2
Shield Layer 1	Tinned Copper
Shield Layer 2	Tinned Copper
Jacket Material	FEP
Jacket Diameter	0.086 in [2.18 mm]



Configuration:

- SMA Female Reverse Polarity Bulkhead
- UMCX 2.5 Plug
- RG178-DS

Features:

- 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:

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

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Connectors

Description	Connector 1	Connector 2
Type	SMA Female	UMCX 2.5 Plug
Polarity	Reverse Polarity	Standard
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:

FMCA1020 - xx uu

cm = Centimeters

<blank> = Inches

Length

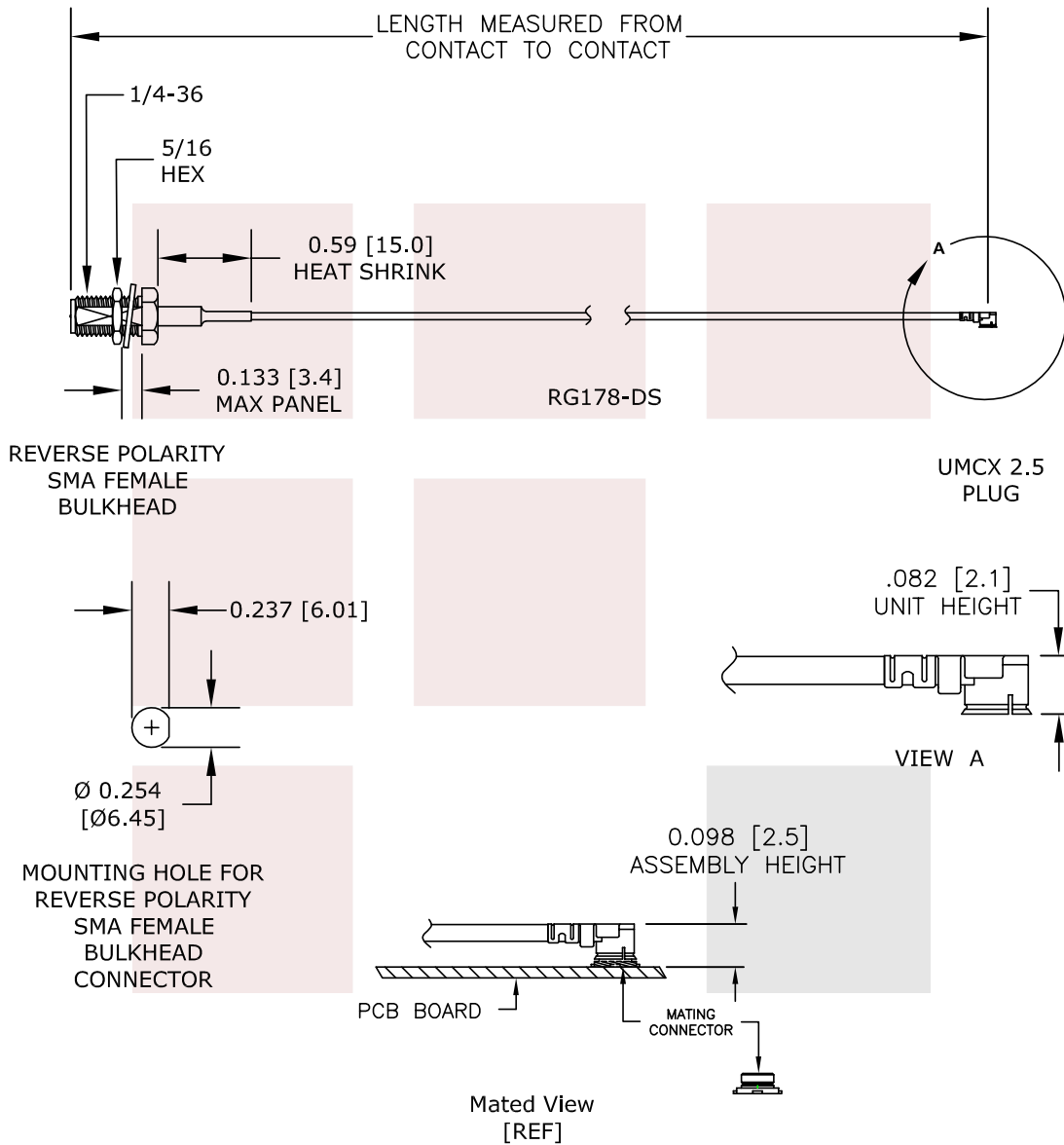
Example: FMCA1020-12 = 12 inches long cable
 FMCA1020-100cm = 100 cm long cable

RP SMA Female Bulkhead to UMCX 2.5 Plug Cable RG178-DS Coax and RoHS Compliant from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [RP SMA Female Bulkhead to UMCX 2.5 Plug Cable RG178-DS Coax and RoHS Compliant FMCA1020](#)

URL: <https://www.fairviewmicrowave.com/sma-female-umcx-2.5-plug-cable-rg178-ds-coax-fmca1020-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

FAIRVIEW MICROWAVE INC. 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 RP SMA Female Bulkhead to UMCX 2.5 Plug Cable RG178-DS Coax and RoHS Compliant		DWG NO FMCA1020		CAGE CODE 3FKR5	
CAD FILE	031215	SHEET	SCALE	N/A	SIZE A 150