

Low PIM SMA Male to SMA Female Bulkhead Cable 1/4 inch Superflexible Coax

The SMA male to SMA female bulkhead cable using 1/4 inch superflexible coax, part number FMCA2277, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a male to female gender configuration with 50 ohm corrugated 1/4" superflexible coax. Fairview Microwave's corrugated RF cable assemblies are ideal for applications where durability and high power are needed. Our low PIM design offers excellent passive intermodulation performance with PIM levels better than -150 dBc. The FMCA2277 SMA male to SMA female 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.

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	
Velocity of Propagation		82		%
RF Shielding	120			dB
Passive Intermodulation			-150	dBc
Capacitance		24.4 [80.05]		pF/ft [pF/m]
Inductance		0.059 [0.19]		uH/ft [uH/m]
DC Resistance Inner Conductor		3.2 [10.5]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		2.53 [8.3]		Ω/1000ft [Ω/Km]
Jacket Spark			2,000	Vrms

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	3	GHz
Insertion Loss (Typ.)	0.016	0.026	0.039	0.057	0.107	dB/ft
	0.05	0.09	0.13	0.19	0.35	dB/m

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.2dB connector loss.

Mechanical Specifications

Cable Assembly

Diameter 0.49 in [12.45 mm]



Configuration:

- SMA Male
- SMA Female Bulkhead
- 1/4" Superflexible

Features:

- Max Frequency 6 GHz
- Low PIM: -150 dBc Max
- Shielding Effectivity > 120 dB
- 82% Phase Velocity
- PE Jacket
- Low PIM and Low Loss
- 100% Tested with PIM Test Results Marked on Cable

Applications:

- General Purpose
- Laboratory Use
- Low PIM Applications
- Distributed Antenna Systems (DAS)
- Low PIM Applications and PIM Testing

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Cable

Cable Type 1/4" Superflexible
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper Clad Aluminum
 Dielectric Type PE (F)
 Number of Shields 1
 Shield Layer 1 Helicallly Corrugated Copper Tube
 Jacket Material PE, Black
 Jacket Diameter 0.303 in [7.7 mm]

One Time Minimum Bend Radius 0.5 in [12.7 mm]
 Repeated Minimum Bend Radius 1 in [25.4 mm]
 Typical Flex Cycles 20
 Tensile Strength 79 lbs [35.83 Kg]

Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Female
Mount Method		Bulkhead
Specification	SMA	SMA
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Brass, Silver	
Dielectric Type	PTFE	PTFE
Outer Cond Material & Plating		Beryllium Copper, Silver
Body Material & Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material & Plating	Brass, Tri-Metal	

Environmental Specifications
Temperature

Operating Range -40 to +85 deg C

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

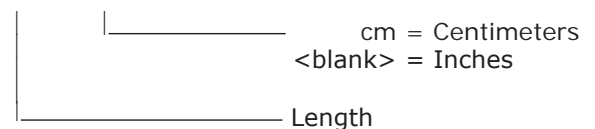
Plotted and Other Data

Notes:

How to Order

Part Number Configuration:

FMCA2277 - xx uu



Example: FMCA2277-12 = 12 inches long cable
 FMCA2277-100cm = 100 cm long cable

Low PIM SMA Male to SMA Female Bulkhead Cable 1/4 inch Superflexible 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.

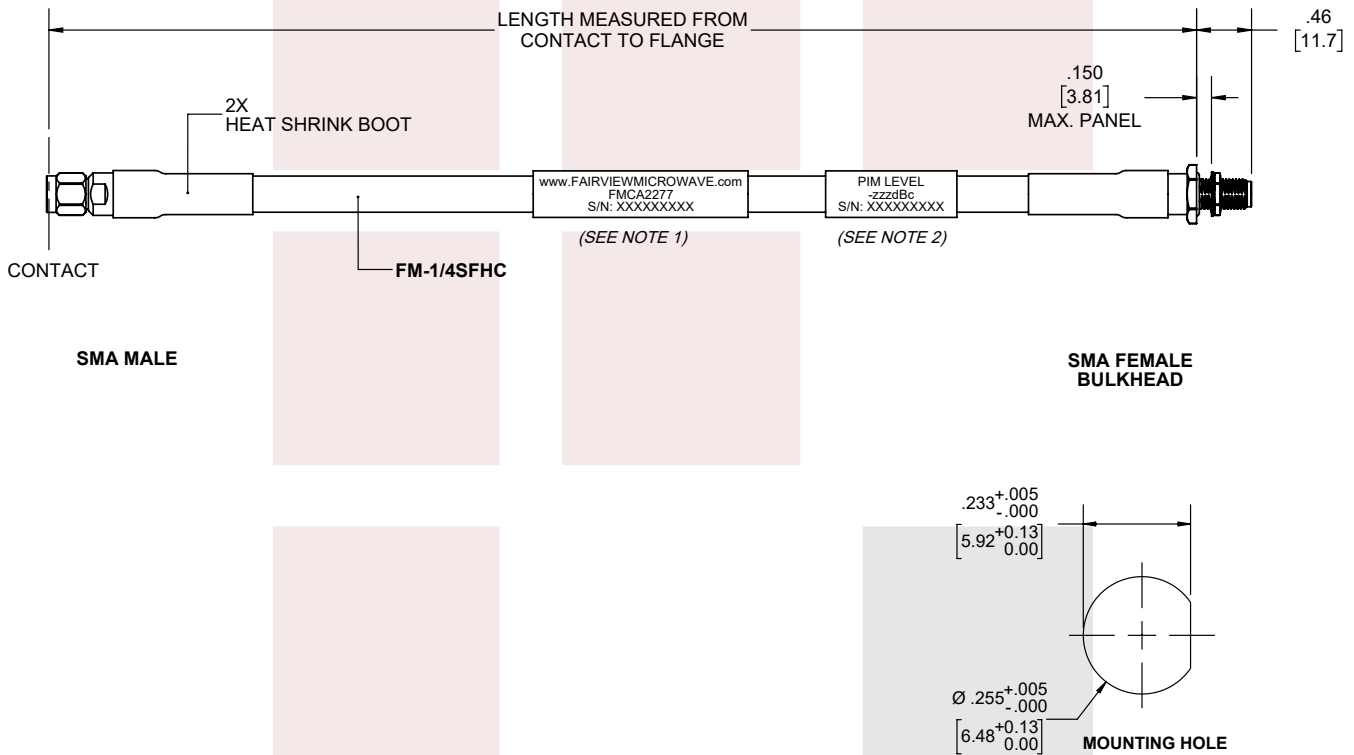
Click the following link to obtain additional part information: [Low PIM SMA Male to SMA Female Bulkhead Cable 1/4 inch Superflexible Coax FMCA2277](#)

URL: <https://www.fairviewmicrowave.com/low-pim-sma-male-sma-female-cable-fm-1-4-sfhc-coax-fmca2277-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.



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	1/22/2021	S.ELLIS



NOTES:

1. CABLES 84" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 84" HAVE 2 LABELS, ONE AT EACH END 12.0" FROM THE END OF THE CONNECTOR.
2. 6" FROM CABLE END 1 PLACE FOR ALL LENGTHS OF CABLE.

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

TOLERANCES:		CABLE LENGTH (L) TOLERANCES:	
.X = ± 2 [5.08]	FRACTIONS ± 1/32	L ≤ 12 [305] = +1 [25] / -0	
.XX = ± 0.02 [5.1]		12 [305] < L ≤ 60 [1524] = +2 [51] / -0	
.XXX = ± 0.005 [1.13]	ANGLES ± 1°	60 [1524] < L ≤ 120 [3048] = +4 [102] / -0	
		120 [3048] < L ≤ 300 [7620] = +6 [152] / -0	
		300 [7620] < L = +5%L / -0	

THIRD-ANGLE PROJECTION
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SHEET	1	OF	1
SCALE	N/A		

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.			
SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	3FKR5	K.DANG	FMCA2277
			REV
			A

T-Rev.D