

Low Loss SMA Female Bulkhead to SSMC Plug Cable LMR-100 Coax with LF Solder



FMC00302/0001

Configuration

- Connector 1: SMA Female Bulkhead
- Connector 2: SSMC Plug
- Cable Type: LMR-100A
- Coax Flex Type: Flexible

Features

- Max Frequency 3 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket

Applications

- General Purpose
- Laboratory Use

Description

The SMA female bulkhead to SSMC plug cable using LMR-100 coax, part number FMC00302/0001, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SSMC cable assembly has a female to plug gender configuration with 50 ohm flexible LMR-100A coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC00302/0001 SMA female to SSMC plug cable assembly operates to 3 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. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 90 dB.

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		3	GHz
VSWR			1.4:1	
Velocity of Propagation		66		%
RF Shielding	90			dB
Group Delay		1.54 [5.05]		ns/ft [ns/m]
Capacitance		30.8 [101.05]		pF/ft [pF/m]
Inductance		0.077 [0.25]		uH/ft [uH/m]
DC Resistance Inner Conductor		81 [265.75]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ohms/1000ft [Ohms/Km]

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			2,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
FMC00302/0001	Custom Lengths Available	Insertion Loss (Typ.)	0.07	0.12	0.165	0.24	0.434	dB/ft	
			0.23	0.38	0.55	0.79	1.43	dB/m	
FMC00302/0001-24	24 inch	Insertion Loss (Typ.)	0.34	0.43	0.53	0.68	1.07	dB	0.035
FMC00302/0001-36	36 inch	Insertion Loss (Typ.)	0.41	0.55	0.7	0.92	1.51	dB	0.044
FMC00302/0001-48	48 inch	Insertion Loss (Typ.)	0.48	0.66	0.86	1.16	1.94	dB	0.053
FMC00302/0001-100CM	100 CM	Insertion Loss (Typ.)	0.43	0.58	0.75	0.99	1.63	dB	0.047
FMC00302/0001-200CM	200 CM	Insertion Loss (Typ.)	0.66	0.96	1.29	1.78	3.05	dB	0.077

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:	0.026 pounds
Additional Weight per Inch:	0.00075 pounds

Mechanical Specifications

Cable Assembly

Weight 0.026 lbs [11.79 g]

Cable

Cable Type	LMR-100A
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Steel
Dielectric Type	PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	PVC, Black
Jacket Diameter	0.11 in [2.79 mm]
One Time Minimum Bend Radius	0.25 in [6.35 mm]
Repeated Minimum Bend Radius	1 in [25.4 mm]
Bending Moment	0.1 lbs-ft [0.14 N-m]
Flat Plate Crush	10 lbs/in [0.18 Kg/mm]
Tensile Strength	15 lbs [6.8 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Female Bulkhead	SSMC Plug
Specification	MIL-STD-348A	
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles		500
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	50 µin minimum	
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Gold	
Outer Conductor Plating Specification	3 µin minimum	
Body Material and Plating		Beryllium Copper, Gold
Coupling Nut Material and Plating		Brass, Gold
Hex Size	5/16 inch	5/32 inch

Environmental Specifications

Operating Range Temperature -20 to +80 deg C

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

Plotted and Other Data

Notes:

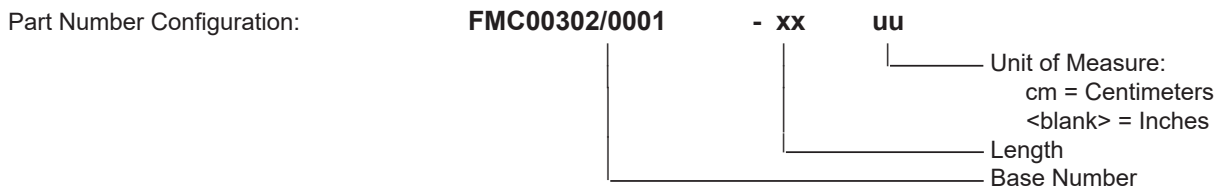
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Typical Performance Data

How to Order



Example: FMC00302/0001-12 = 12 inches long cable
FMC00302/0001-100cm = 100 cm long cable

Low Loss SMA Female Bulkhead to SSMC Plug Cable LMR-100 Coax with LF Solder 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.

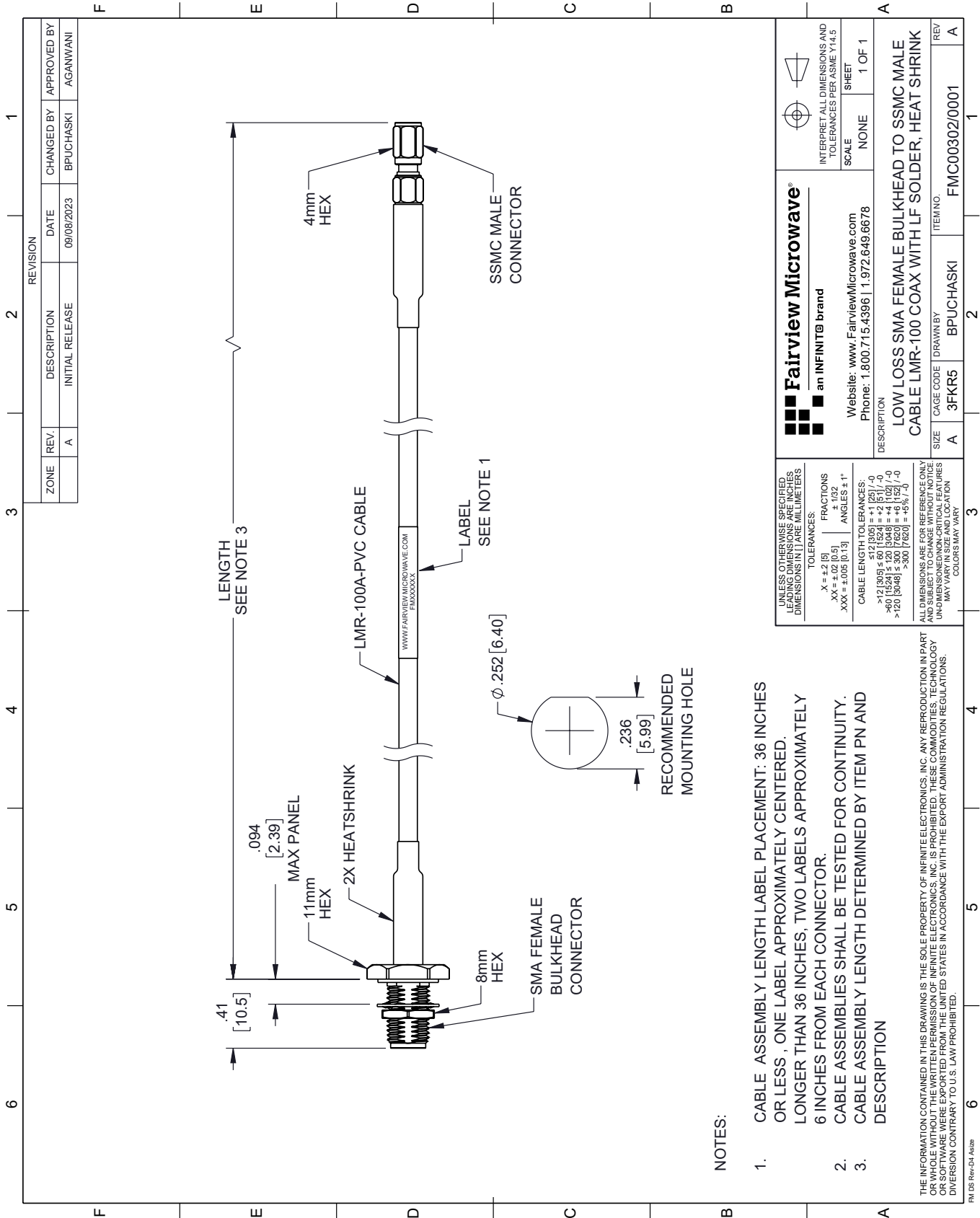
For additional information on this product, please click the following link: [Low Loss SMA Female Bulkhead to SSMC Plug Cable LMR-100 Coax with LF Solder FMC00302/0001](https://www.fairviewmicrowave.com/low-loss-sma-female-bulkhead-to-ssmc-plug-cable-lmr-100-coax-with-lf-solder-fmc00302-0001)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-female-bulkhead-to-ssmc-plug-cable-lmr-100-coax-with-lf-solder-fmc00302-0001-p.aspx>

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FMC00302/0001 CAD Drawing

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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

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FM DS Rev-D4 Alt2b

ZONE	REV.	DESCRIPTION	DATE	CHANGED BY	APPROVED BY
	A	INITIAL RELEASE	09/08/2023	BPUCHASKI	AGANWANI

		Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678	
UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	
TOLERANCES: .X = ±.2 [5] .XX = ±.02 [0.5] .XXX = ±.005 [0.13]		SCALE: NONE SHEET: 1 OF 1	
FRACTIONS: ± 1/32 ANGLES: ± 1°		DESCRIPTION: LOW LOSS SMA FEMALE BULKHEAD TO SSMC MALE CABLE LMR-100 COAX WITH LF SOLDER, HEAT SHRINK	
CABLE LENGTH TOLERANCES: <12 [305] ≤ 60 [1524] = ± 1 [25] / -0 >60 [1524] ≤ 120 [3048] = ± 4 [102] / -0 >120 [3048] ≤ 300 [7620] = ± 8 [203] / -0		SIZE: A CAGE CODE: 3FKR5 DRAWN BY: BPUCHASKI ITEM NO.: FMC00302/0001	
ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE IN MILLIMETERS. COLORS MAY VARY.		REV: A	