

Low Loss SMA Male to SMB Plug Cable LMR-100 Coax



FMC00177

Configuration

- Connector 1: SMA Male
- Connector 2: SMB 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 male to SMB plug cable using LMR-100 coax, part number FMC00177, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMB cable assembly has a male 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 FMC00177 SMA male to SMB plug cable assembly operates to 3 GHz. 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]
Jacket Spark			2,000	Vrms

Specifications by Frequency

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FMC00177

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency	100	250	500	1000	3000	
FMC00177	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	
FMC00177-24	24 inch	Insertion Loss (Typ.)	0.34	0.43	0.53	0.68	1.07	dB	0.04
FMC00177-36	36 inch	Insertion Loss (Typ.)	0.41	0.55	0.7	0.92	1.51	dB	0.049
FMC00177-48	48 inch	Insertion Loss (Typ.)	0.48	0.66	0.86	1.16	1.94	dB	0.058
FMC00177-100CM	100 CM	Insertion Loss (Typ.)	0.43	0.58	0.75	0.99	1.63	dB	0.052
FMC00177-200CM	200 CM	Insertion Loss (Typ.)	0.66	0.96	1.29	1.78	3.05	dB	0.082

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:	0.031 pounds
Additional Weight per Inch:	0.00075 pounds

Mechanical Specifications

Cable Assembly

Weight 0.031 lbs [14.06 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 Male	SMB Plug
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Beryllium Copper, Gold
Contact Plating Specification	50 µin minimum	30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Gold
Body Plating Specification	100 µin minimum	3 µin minimum
Coupling Nut Material and Plating	Brass, Nickel	
Coupling Nut Plating Specification	100 µin minimum	
Hex Size	5/16 inch	
Torque	3 in-lbs 0.34 Nm	

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

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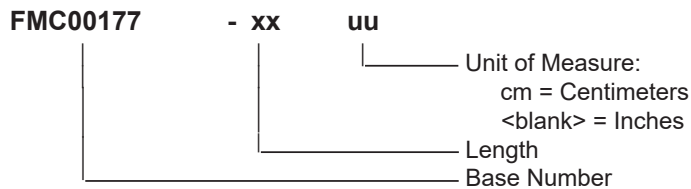


FMC00177

Typical Performance Data

How to Order

Part Number Configuration:



Example: FMC00177-12 = 12 inches long cable
 FMC00177-100cm = 100 cm long cable

Low Loss SMA Male to SMB Plug Cable LMR-100 Coax 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.

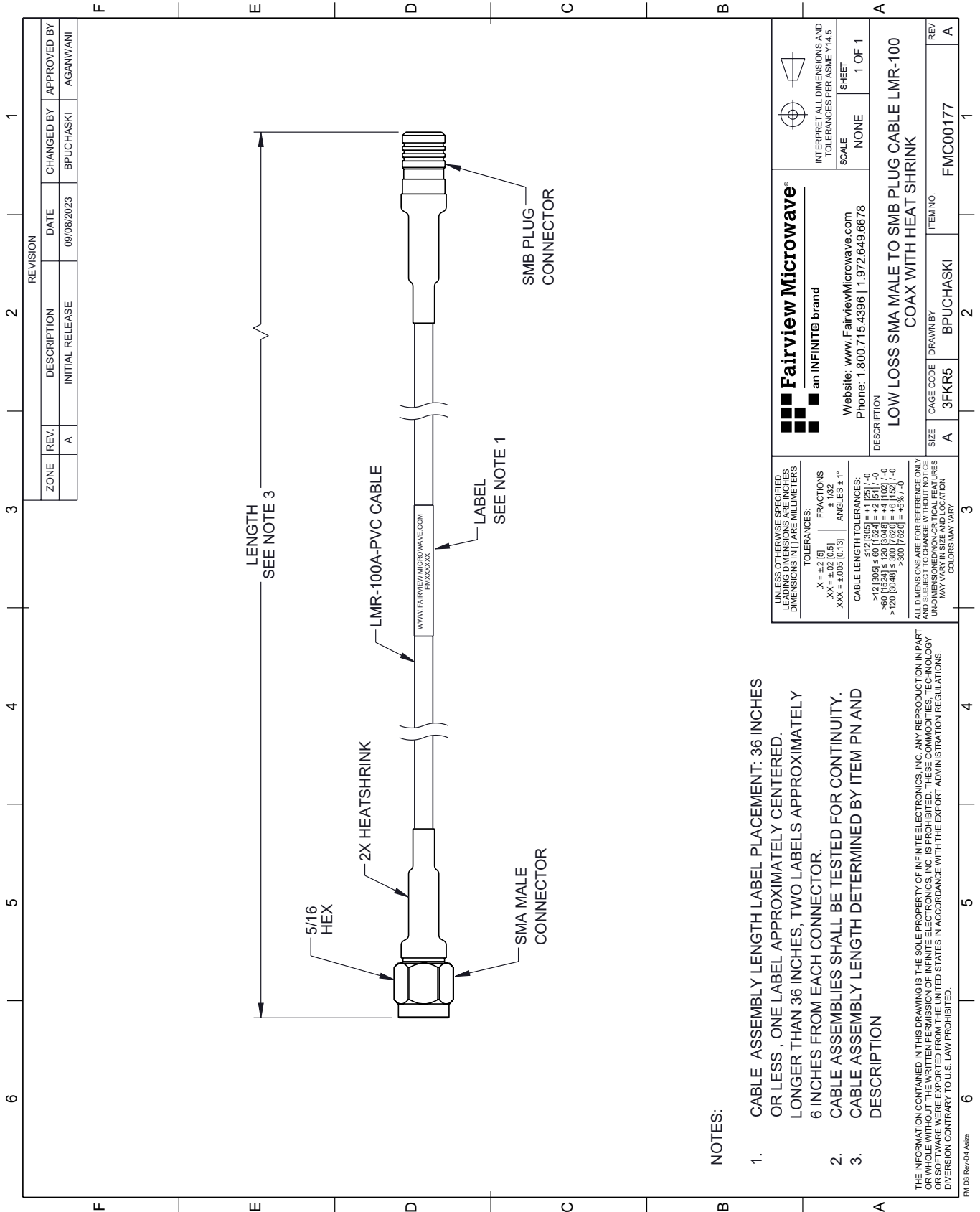
For additional information on this product, please click the following link: [Low Loss SMA Male to SMB Plug Cable LMR-100 Coax FMC00177](https://www.fairviewmicrowave.com/low-loss-sma-male-to-smb-plug-cable-lmr-100-coax-fmc00177-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-smb-plug-cable-lmr-100-coax-fmc00177-p.aspx>

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FMC00177 CAD Drawing


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NOTES:

1. 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.
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION

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 Fairview Microwave® an INFINIT® brand		Website: www.FairviewMicrowave.com 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: LOW LOSS SMA MALE TO SMB PLUG CABLE LMR-100 COAX WITH HEAT SHRINK			
SIZE: A	CAGE CODE: 3FKR5	DRAWN BY: BPUCHASKI	ITEM NO.: FMC00177

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:

X = ±.2 [5]	FRACTIONS ± 1/32
.XX = ±.02 [0.5]	ANGLES ± 1°
.XXX = ±.005 [0.13]	

CABLE LENGTH TOLERANCES:

>12 [305] ≤ 60 [1524] = ±.1 [2.5] / -0
>60 [1524] ≤ 120 [3048] = ±.4 [102] / -0
>120 [3048] ≤ 300 [7620] = ±.6 [15.2] / -0
>300 [7620] = ±.8 [20.3] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.