

Fire Rated Low Loss MCX Plug to SMA Male Cable LMR-100-FR Coax

The MCX plug to SMA male cable using LMR-100-FR coax, part number FMCA3217, from Fairview Microwave is in-stock and ships same day. This Fairview MCX to SMA cable assembly has a plug to male gender configuration with 50 ohm flexible LMR-100A-FR coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA3217 MCX plug to SMA male 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	Min	Typ	Max	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]		Ω /1000ft [Ω /Km]
DC Resistance Outer Conductor		9.5 [31.17]		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.)	0.07	0.115	0.165	0.24	0.434	dB/ft
	0.23	0.38	0.54	0.79	1.42	dB/m

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB per connector.

Mechanical Specifications

Cable Assembly

Weight 0.04 lbs [18.14 g]

Cable

Cable Type LMR-100A-FR
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper



Configuration:

- MCX Plug
- SMA Male
- LMR-100A-FR

Features:

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

Applications:

- General Purpose
- Laboratory Use

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Dielectric Type	PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper
Jacket Material	FRPE, 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]

Connectors

Description	Connector 1	Connector 2
Type	MCX Plug	SMA Male
Specification	CECC 22220	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Brass, Gold	Brass, Gold
Contact Plating Spec.	30 µin minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Body Material & Plating	Brass, Gold	Brass, Gold
Body Plating Spec.	3 µin minimum	3 µin minimum
Coupling Nut Material & Plating		Brass, Gold
Coupling Nut Plating Spec.		3 µin minimum
Hex Size		5/16 in

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

Plotted and Other Data

Notes:

How to Order

Part Number Configuration:

FMCA3217 - xx uu

cm = Centimeters
 <blank> = Inches

Length

Example: FMCA3217-12 = 12 inches long cable
 FMCA3217-100cm = 100 cm long cable

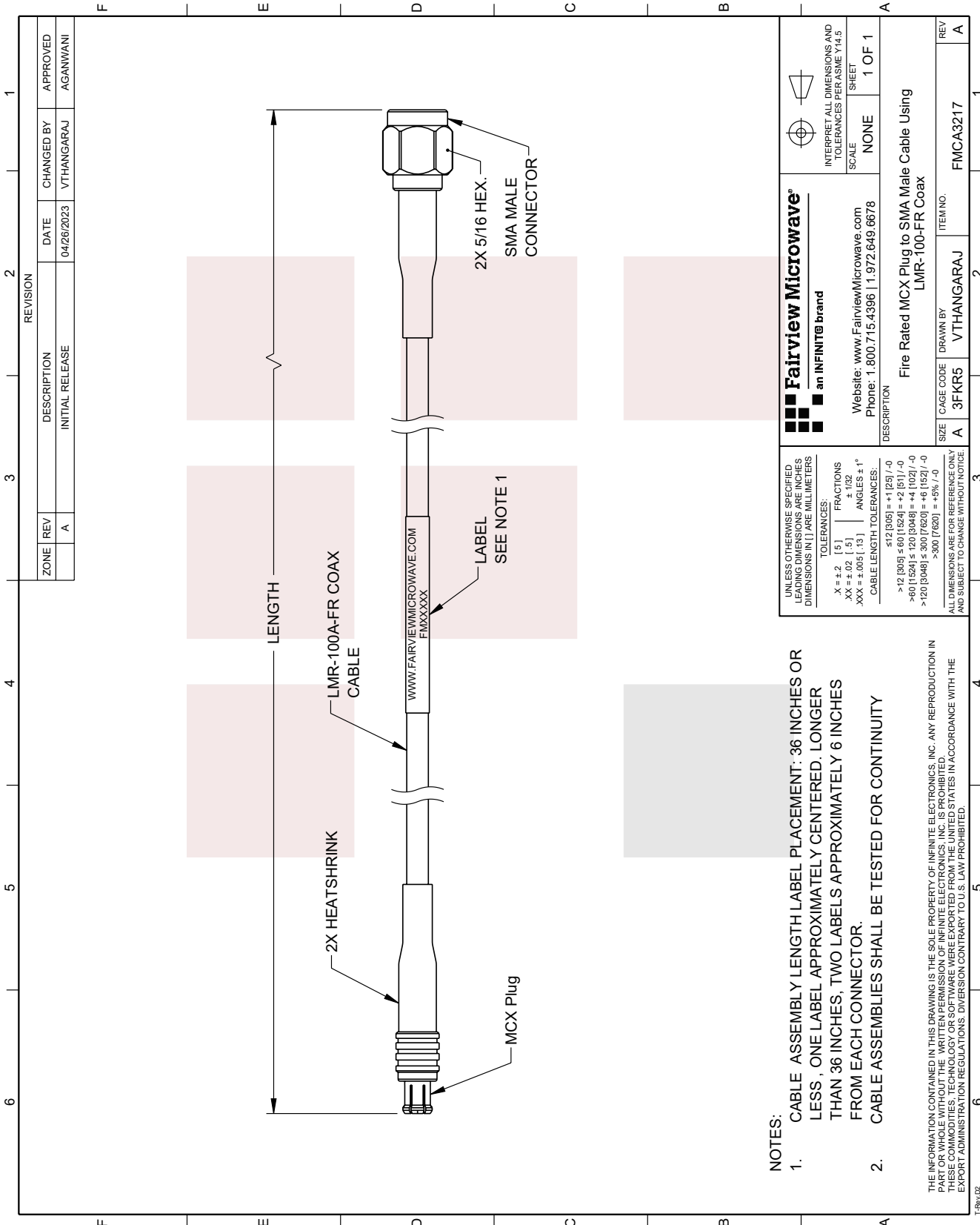
Fire Rated Low Loss MCX Plug to SMA Male Cable LMR-100-FR Coax from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [Fire Rated Low Loss MCX Plug to SMA Male Cable LMR-100-FR Coax FMCA3217](#)

URL: <https://www.fairviewmicrowave.com/fire-rated-low-loss-mcx-plug-to-sma-male-cable-lmr-100-fr-coax-fmca3217-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.





- 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

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REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV			
	A	04/26/2023	VTHANGARAJ	AGANWANI
DESCRIPTION				
INITIAL RELEASE				

<p>Fairview Microwave an INFINIT[®] brand</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p>
Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678		SCALE: NONE SHEET: 1 OF 1
DESCRIPTION: Fire Rated MCX Plug to SMA Male Cable Using LMR-100-FR Coax		
SIZE	CAGE CODE	ITEM NO.
A	3FKR5	FMCA3217

UNLESS OTHERWISE SPECIFIED, LENGTH DIMENSIONS IN INCHES AND MILLIMETERS DIMENSIONS IN LARGE MILLIMETERS

TOLERANCES:

.X = ±.2	[.5]	FRACTIONS
.XX = ±.02	[.5]	± 1/32
.XXX = ±.005	[.13]	ANGLES ± 1°

CABLE LENGTH TOLERANCES:

<12 [305]	±.125 / -0
>12 [305] ≤ 60 [1524]	±.25 / -0
>60 [1524] ≤ 120 [3048]	±.5 / -0
>120 [3048] ≤ 300 [7620]	±1.0 / -0
>300 [7620]	±2.0 / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE.