

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

The RA SMA male to SMA male cable using LMR-100-FR coax, part number FMCA3215, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a male 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 FMCA3215 SMA male to SMA male cable assembly operates to 5.8 GHz. The right angle SMA interface on the LMR-100A-FR cable allows for easier connections in tight spaces. 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		5.8	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	0.25	0.5	1	2.5	5.8	GHz
Insertion Loss (Typ.)	0.115	0.165	0.24	0.398	0.641	dB/ft
	0.38	0.54	0.79	1.31	2.1	dB/m

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB for the straight connector and 0.2 dB for the right angle connector.

Mechanical Specifications

Cable Assembly

Weight 0.04 lbs [18.14 g]

Cable

Cable Type LMR-100A-FR
 Impedance 50 Ohms



Configuration:

- SMA Male Right Angle
- SMA Male
- LMR-100A-FR

Features:

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- FRPE Jacket

Applications:

- General Purpose
- Laboratory Use

Fairview Microwave
 301 Leora Ln., Suite 100
 Lewisville, TX 75056
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
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	SMA Male	SMA Male
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Brass, Gold	Brass, Gold
Contact Plating Spec.	50 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	Brass, Gold
Coupling Nut Plating Spec.	3 µin minimum	3 µin minimum
Hex Size	5/16 in	5/16 in

Environmental Specifications
Temperature

Operating Range -40 to +85 deg C

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

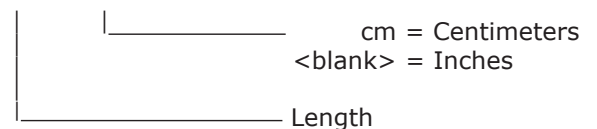
Plotted and Other Data

Notes:

How to Order

Part Number Configuration:

FMCA3215 - xx uu



Example: FMCA3215-12 = 12 inches long cable
 FMCA3215-100cm = 100 cm long cable

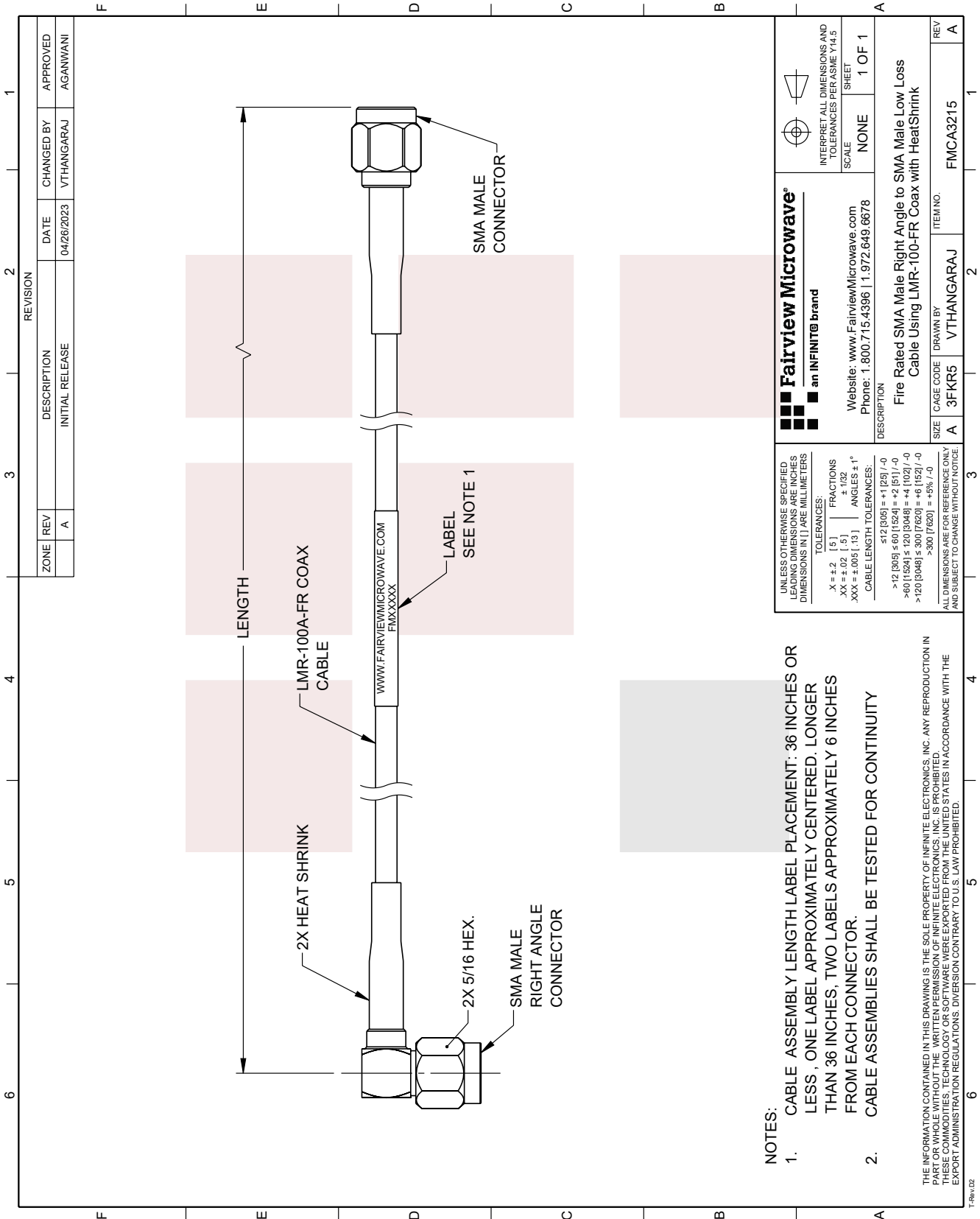
Fire Rated Low Loss RA SMA Male to SMA Male Cable LMR-100-FR Coax from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [Fire Rated Low Loss RA SMA Male to SMA Male Cable LMR-100-FR Coax FMCA3215](#)

URL: <https://www.fairviewmicrowave.com/fire-rated-low-loss-ra-sma-male-to-sma-male-cable-lmr-100-fr-coax-fm-ca3215-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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 Fairview Microwave[®] an INFINIT [®] brand		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1
Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678		DESCRIPTION: Fire Rated SMA Male Right Angle to SMA Male Low Loss Cable Using LMR-100-FR Coax with HeatShrink
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS IN [] ARE IN MILLIMETERS.	TOLERANCES: .X = ±.2 [.5] FRACTIONS .XX = ±.02 [.5] ANGLES ± 1° .XXX = ±.005 [.13]	CABLE LENGTH TOLERANCES: ≤12 [305] = +1 [25] / -0 >12 [305] ≤ 60 [1524] = +2 [51] / -0 >60 [1524] ≤ 120 [3048] = +4 [102] / -0 >120 [3048] ≤ 300 [7620] = +6 [152] / -0 >300 [7620] = +5% / -0
ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE.		SIZE: A CAGE CODE: 3FKR5 DRAWN BY: VTHANGARAJ ITEM NO.: FMCA3215 REV: A