

Low Loss RA SMA Male to RA SMA Male Cable LMR-195-UF Coax, 180 Degree Clocking



FMCA100263

Configuration

- Connector 1: SMA Male Right Angle
- Connector 2: SMA Male Right Angle
- Cable Type: LMR-195-UF
- Coax Flex Type: Flexible

Features

- Max Frequency 8 MHz
- Shielding Effectivity > 90 dB
- 74% Phase Velocity
- Double Shielded
- TPE Jacket

Applications

- General Purpose
- Laboratory Use

Description

The RA SMA male to RA SMA male cable using LMR-195-UF coax, part number FMCA100263, 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-195-UF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA100263 SMA male to SMA male cable assembly operates to 8 MHz. The right angle SMA interfaces on the LMR-195-UF cable allow 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	Minimum	Typical	Maximum	Units
Frequency Range	DC		8	GHz
VSWR			1.4:1	
Velocity of Propagation		74		%
RF Shielding	90			dB
Group Delay		1.27 [4.17]		ns/ft [ns/m]
Capacitance		25.4 [83.33]		pF/ft [pF/m]
Inductance		0.064 [0.21]		uH/ft [uH/m]
DC Resistance Inner Conductor		9.5 [31.17]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		4.9 [16.08]		Ohms/1000ft [Ohms/Km]
Operating Voltage (AC)			500	Vrms

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			3,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
FMCA100263	Custom Lengths Available	Insertion Loss (Typ.)	0.068	0.097	0.139	0.226	0.356	dB/ft	
			0.23	0.32	0.46	0.75	1.17	dB/m	
FMCA100263-12	12 Inch	Insertion Loss (Typ.)	0.47	0.5	0.54	0.63	0.76	dB	0.055
FMCA100263-24	24 Inch	Insertion Loss (Typ.)	0.54	0.6	0.68	0.86	1.12	dB	0.076
FMCA100263-36	36 Inch	Insertion Loss (Typ.)	0.61	0.7	0.82	1.08	1.47	dB	0.097
FMCA100263-60	60 Inch	Insertion Loss (Typ.)	0.81	0.99	1.24	1.76	2.54	dB	0.139
FMCA100263-300	300 Inch	Insertion Loss (Typ.)	2.1	2.83	3.88	6.05	9.3	dB	0.559

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: 0.2 dB
- Loss due to Connector 2: 0.2 dB
- Base Weight: 0.055 pounds
- Additional Weight per Inch: 0.00175 pounds

Electrical Specification Notes:
Values at 25°C, sea level.

Mechanical Specifications

Cable Assembly

- Width/Diameter 0.5 in [12.7 mm]
- Weight 0.055 lbs [24.95 g]

Cable

- Cable Type LMR-195-UF
- Impedance 50 Ohms
- Inner Conductor Type Stranded
- Inner Conductor Material and Plating Copper
- Dielectric Type Foam PE
- Number of Shields 2
- Shield Layer 1 Aluminum Tape
- Shield Layer 2 Tinned Copper
- Jacket Material TPE, Black
- Jacket Diameter 0.195 in [4.95 mm]
- One Time Minimum Bend Radius 0.5 in [12.7 mm]
- Repeated Minimum Bend Radius 2 in [50.8 mm]
- Bending Moment 0.1 lbs-ft [0.14 N-m]
- Flat Plate Crush 10 lbs/in [0.18 Kg/mm]
- Tensile Strength 40 lbs [18.14 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male Right Angle	SMA Male Right Angle
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Right Angle	Right Angle
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	50 µin minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	100 µin minimum
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Plating Specification	100 µin minimum	100 µin minimum
Hex Size	5/16 inch	5/16 inch
Torque	3 in-lbs 0.34 Nm	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:
Values at 25°C, sea level.

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Typical Performance Data

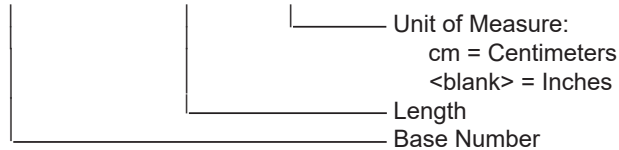
How to Order

Part Number Configuration:

FMCA100263

- xx

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Example: FMCA100263-12 = 12 inches long cable
FMCA100263-100cm = 100 cm long cable

Low Loss RA SMA Male to RA SMA Male Cable LMR-195-UF Coax, 180 Degree Clocking 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.

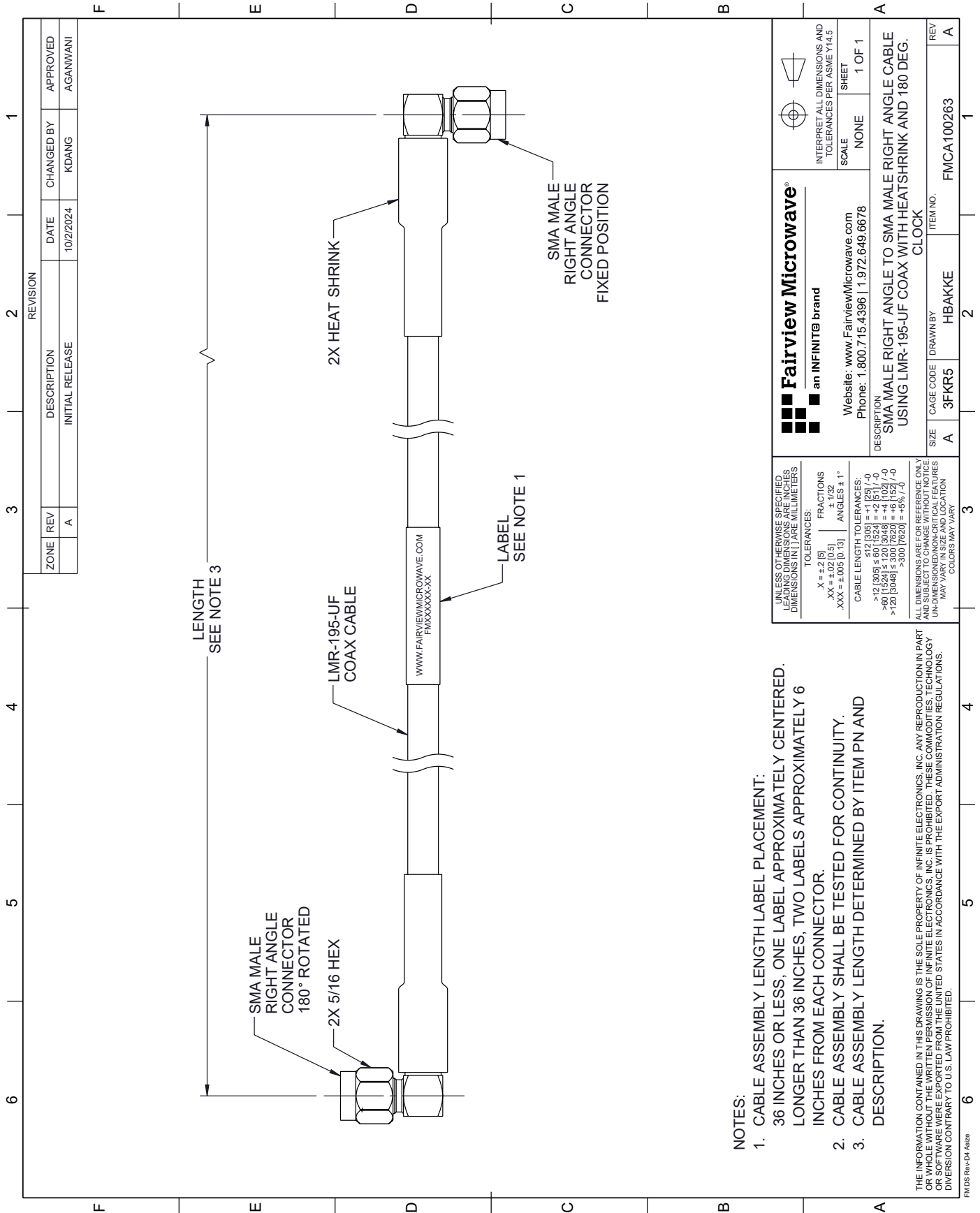
For additional information on this product, please click the following link: [Low Loss RA SMA Male to RA SMA Male Cable LMR-195-UF Coax, 180 Degree Clocking FMCA100263](#)

URL: <https://www.fairviewmicrowave.com/low-loss-ra-sma-male-to-ra-sma-male-cable-lmr-195-uf-coax-180-degree-clocking-fmca100263-p.aspx>

The information contained within 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 liability arising out of the use of any part or document.

FMCA100263 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 ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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FM DS Rev-D4 A82P

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<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN PAREMILLIMETERS</p> <p>TOLERANCES: .X = ±.2 [5] FRACTIONS ± 1/32 .XX = ±.02 [0.5] ANGLES ± 1° .XXX = ±.005 [0.13]</p> <p>CABLE LENGTH TOLERANCES: >12 [305] ≤ 60 [1524] = +.1 [25] / -0 >60 [1524] ≤ 120 [3048] = +.4 [102] / -0 >120 [3048] ≤ 300 [7620] = +.5 [12.7] / -0</p> <p>ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY</p>		<p>DESCRIPTION: SMA MALE RIGHT ANGLE TO SMA MALE RIGHT ANGLE CABLE USING LMR-195-UF COAX WITH HEATSHRINK AND 180 DEG. CLOCK</p> <p>SIZE: A CAGE CODE: 3FKR5 DRAWN BY: HBAKKE</p> <p>ITEM NO.: FMCA100263</p>	