

Low Loss SMA Female to RA SMA Male Cable LMR-195-UF Coax



FMCA100283

Configuration

- Connector 1: SMA Female
- 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 SMA female to RA SMA male cable using LMR-195-UF coax, part number FMCA100283, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a female 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 FMCA100283 SMA female to SMA male cable assembly operates to 8 MHz. The right angle SMA interface on the LMR-195-UF 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	Minimum	Typical	Maximum	Units
Frequency Range	DC		8	GHz
VSWR			1.28:1	
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	
FMCA100283	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	
FMCA100283-12	12 Inch	Insertion Loss (Typ.)	0.37	0.4	0.44	0.53	0.66	dB	0.046
FMCA100283-24	24 Inch	Insertion Loss (Typ.)	0.44	0.5	0.58	0.76	1.02	dB	0.067
FMCA100283-36	36 Inch	Insertion Loss (Typ.)	0.51	0.6	0.72	0.98	1.37	dB	0.088
FMCA100283-60	60 Inch	Insertion Loss (Typ.)	0.64	0.79	1	1.43	2.08	dB	0.13
FMCA100283-300	300 Inch	Insertion Loss (Typ.)	2	2.73	3.78	5.95	9.2	dB	0.55

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: 0.2 dB
- Base Weight: 0.046 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: 0.046 lbs [20.87 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 Female	SMA Male Right Angle
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	50µ in. minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100µ in. minimum	100 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:
Values at 25°C, sea level.

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Typical Performance Data

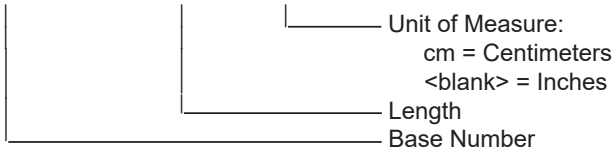
How to Order

Part Number Configuration:

FMCA100283

- **xx**

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Example: FMCA100283-12 = 12 inches long cable
FMCA100283-100cm = 100 cm long cable

Low Loss SMA Female to RA SMA Male Cable LMR-195-UF 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.

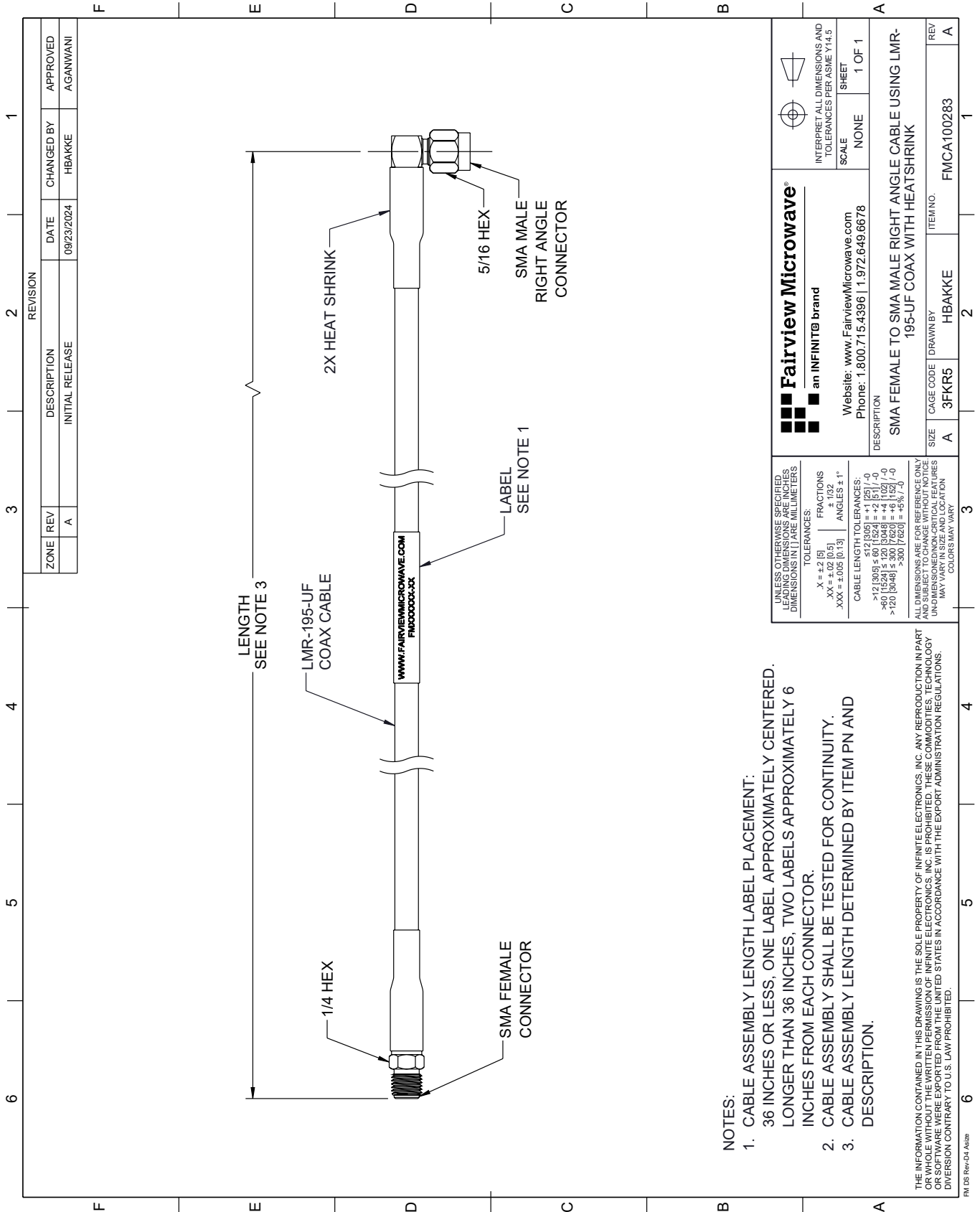
For additional information on this product, please click the following link: [Low Loss SMA Female to RA SMA Male Cable LMR-195-UF Coax FMCA100283](https://www.fairviewmicrowave.com/low-loss-sma-female-to-ra-sma-male-cable-lmr-195-uf-coax-fmca100283)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-female-to-ra-sma-male-cable-lmr-195-uf-coax-fmca100283-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.

FMCA100283 CAD Drawing

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ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	A	INITIAL RELEASE	09/23/2024	HBAKKE	AGANWANI

 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: SMA FEMALE TO SMA MALE RIGHT ANGLE CABLE USING LMR-195-UF COAX WITH HEATSHRINK			
SIZE: A	CAGE CODE: 3FKR5	DRAWN BY: HBAKKE	ITEM NO.: FMCA100283
REV: A			

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS ARE IN MILLIMETERS

TOLERANCES:
 .X = ±.2 [5]
 .XX = ±.02 [0.5]
 .XXX = ±.005 [0.13]

FRACTIONS: ± 1/32
 ANGLES: ± 1°

CABLE LENGTH TOLERANCES:
 <12 [305] ≤ 60 [1524] = ±1 [25] / -0
 >60 [1524] ≤ 120 [3048] = ±4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±5% / -0

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

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

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FM DS Rev-D4 Alt2b