

Low Loss SMA Male to SMA Male Cable Assembly using LMR-200-UF Coax With Times Microwave Components with HeatShrink



LCCA9883

Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: LMR-200-UF
- Coax Flex Type: Flexible

Description

L-com's LCCA9883 is a low loss SMA male to SMA male cable assembly using LMR-200-UF coax with Times Microwave components with heatshrink and ships same-day. The LMR-200-UF coax of this SMA cable uses the PE (F) dielectric with a VoP of 83%, resulting in very low insertion loss compared to solid dielectrics. These flexible RF cable assemblies are ideal for applications where flexure is required. Our L-com SMA to SMA cable assembly has a male to male gender configuration with flexible LMR-200-UF series coax and operates to 5.8 GHz. The double shield of this SMA cable is layered by tinned copper braid over aluminum tape providing shielding effectiveness greater than 90dB.

Custom versions of this SMA male to SMA male cable, along with the rest of L-com's other RF assemblies, can also be built and shipped same day. Other available RF cable assembly value added services from L-com include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly. Contact a sales representative for testing or custom RF cable quotes. Part number LCCA9883 L-com Low Loss SMA Male to SMA Male Cable Assembly using LMR-200-UF Coax With Times Microwave Components with HeatShrink data sheet PDF includes details of the RF product specifications, CAD drawing(s) and dimensions below.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.5:1	
Velocity of Propagation		83		%
RF Shielding	90			dB
Group Delay		1.22 [4]		ns/ft [ns/m]
Capacitance		24.5 [80.38]		pF/ft [pF/m]
Inductance		0.061 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		7.5 [24.61]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		4.9 [16.08]		Ohms/1000ft [Ohms/Km]
Dielectric Withstanding Voltage (DC)			1,000	Vdc
Jacket Spark			3,000	Vrms
Input Power (Peak)			2.5	KWatts

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency	250	500	1000	2500	5800	
LCCA9883	Custom Lengths Available	Insertion Loss (Typ.)	0.061	0.087	0.125	0.202	0.316	dB/ft	
			0.21	0.29	0.42	0.67	1.04	dB/m	
LCCA9883-12	12 inch	Insertion Loss (Typ.)	0.17	0.23	0.33	0.52	0.8	dB	0.096
LCCA9883-24	24 inch	Insertion Loss (Typ.)	0.23	0.32	0.45	0.73	1.12	dB	0.119
LCCA9883-36	36 inch	Insertion Loss (Typ.)	0.29	0.41	0.58	0.93	1.43	dB	0.141
LCCA9883-60	60 inch	Insertion Loss (Typ.)	0.41	0.58	0.83	1.33	2.07	dB	0.185
LCCA9883-300	300 inch	Insertion Loss (Typ.)	1.63	2.32	3.33	5.37	8.39	dB	0.626

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: $0.1 \cdot \sqrt{f(\text{GHz})}$ dB
 Loss due to Connector 2: $0.1 \cdot \sqrt{f(\text{GHz})}$ dB
 Base Weight: 0.096 pounds
 Additional Weight per Inch: 0.00184 pounds

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

Mechanical Specifications

Cable Assembly

Width/Diameter: 0.5 in [12.7 mm]
 Weight: 0.096 lbs [43.54 g]

Cable

Cable Type: LMR-200-UF
 Impedance: 50 Ohms
 Inner Conductor Type: Stranded
 Inner Conductor Material and Plating: Copper
 Dielectric Type: PE (F)
 Number of Shields: 2
 Shield Layer 1: Aluminum Tape
 Shield Layer 2: Tinned Copper Braid
 Jacket Material: TPE
 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]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male
Specification	MIL-STD-348	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	ASTM B488	ASTM B488
Dielectric Type	Teflon	Teflon
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Body Plating Specification	SAE-AMS-2700	SAE-AMS-2700
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Plating Specification	SAE-AMS-2700	SAE-AMS-2700
Hex Size	5/16 Inch	5/16 Inch

Environmental Specifications

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

Plotted and Other Data

Notes:
Values at 25°C, sea level.

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LCCA9883

Typical Performance Data

How to Order

Part Number Configuration:

LCCA9883

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Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: LCCA9883-12 = 12 inches long cable
LCCA9883-100cm = 100 cm long cable

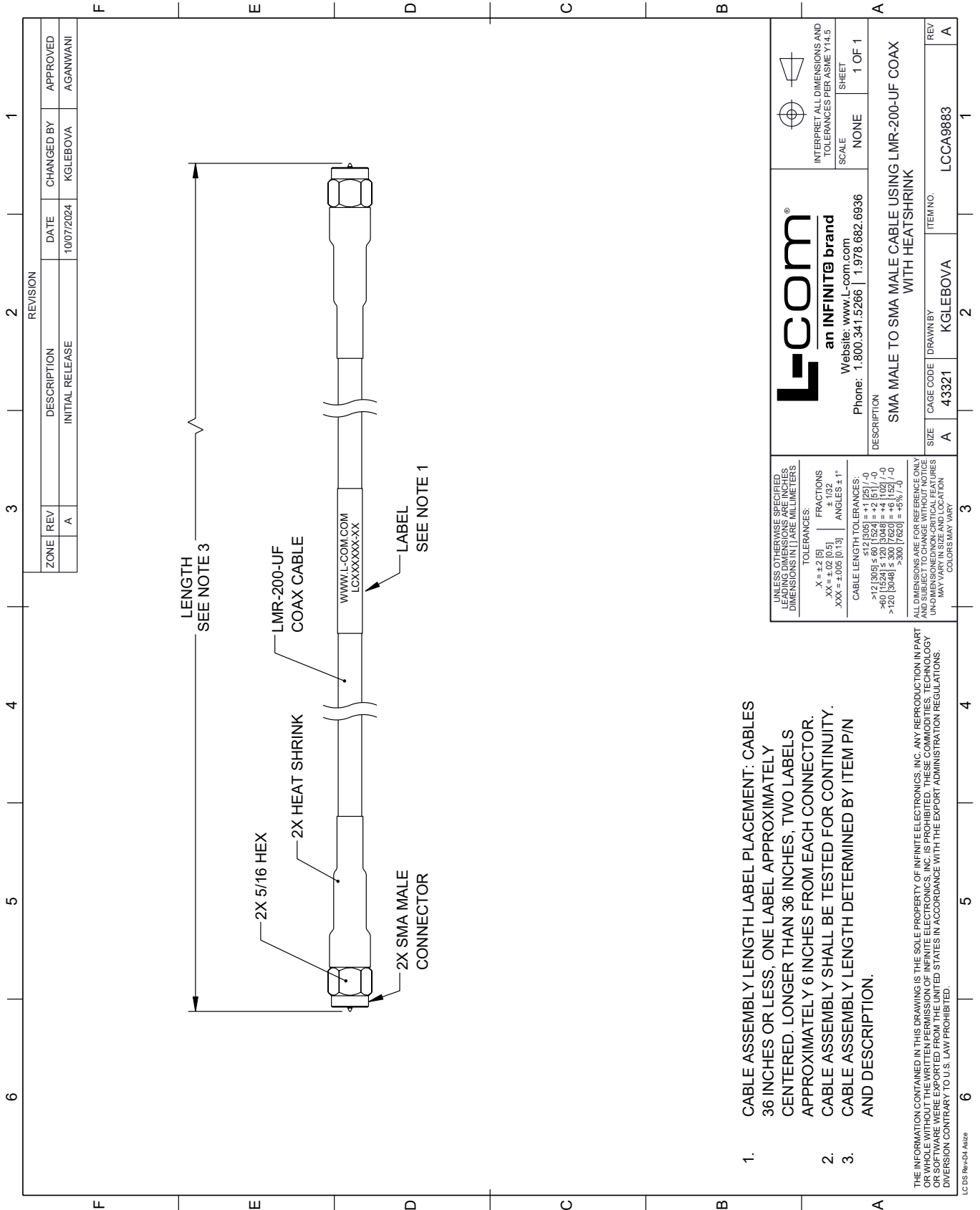
Low Loss SMA Male to SMA Male Cable Assembly using LMR-200-UF Coax With Times Microwave Components with HeatShrink from L-com has same day shipment for domestic and International orders. Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products as well as lightning and surge protectors, NEMA rated enclosures, and an RF product line which includes antennas, amplifiers, passive, and active components.

URL: <https://www.l-com.com/sma-male-sma-male-cable-assembly-invalid-lcca9883-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 impliment improvements. L-com reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. L-com does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and L-com does not assume liability arising out of the use of any part or document.

LCCA9883 CAD Drawing

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1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: CABLES 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.
2. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM P/N AND DESCRIPTION.

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LC 05 Rev-D4 Altize

REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV			
	A	10/07/2024	KGLEBOVA	AGANWANI
DESCRIPTION				
INITIAL RELEASE				

 an INFINITE brand Website: www.L-com.com Phone: 1.800.341.5266 1.978.682.6936		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1
SMA MALE TO SMA MALE CABLE USING LMR-200-UF COAX WITH HEATSHRINK		
DESCRIPTION	SIZE	REV
A	43321	A
DRAWN BY	ITEM NO.	
KGLEBOVA	LCCA9883	

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [] ARE 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] = ±.6 [152] / -0
 >300 [7620] = ±.8 [203] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE IN MILLIMETERS. COLORS MAY VARY.