

## Low Loss SMA Male to N Male Right Angle Cable Assembly using LMR-195-UF Coax With Times Microwave Components with HeatShrink



### LCCA9905

#### Configuration

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

#### Description

L-com's LCCA9905 is a low loss SMA male to N male right angle cable assembly using LMR-195-UF coax with Times Microwave components with heatshrink and ships same-day. The LMR-195-UF coax of this SMA cable uses the foam PE dielectric with a VoP of 74%, 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 N cable assembly has a male to male gender configuration with flexible LMR-195-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. This right angle N cable interface on the LMR-195-UF coax allows for easier connections in tight spaces.

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 LCCA9905 L-com Low Loss SMA Male to N Male Right Angle Cable Assembly using LMR-195-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			1.4:1	
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]
Dielectric Withstanding Voltage (DC)			1,000	Vdc
Jacket Spark			3,000	Vrms
Input Power (Peak)			2.5	KWatts

#### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	5.8	GHz

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**Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Insertion Loss (Typ.)	0.067	0.097	0.138	0.226	0.356	dB/ft
	0.22	0.32	0.45	0.74	1.17	dB/m

**Specifications by Frequency**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	100	250	500	1000	2500	MHz	
LCCA9905	Custom Lengths Available	Insertion Loss (Typ.)	0.041	0.067	0.097	0.138	0.226	dB/ft	
			0.14	0.22	0.32	0.46	0.75	dB/m	
LCCA9905-12	12 inch	Insertion Loss (Typ.)	0.35	0.37	0.4	0.44	0.53	dB	0.133
LCCA9905-24	24 inch	Insertion Loss (Typ.)	0.39	0.44	0.5	0.58	0.76	dB	0.154
LCCA9905-36	36 inch	Insertion Loss (Typ.)	0.43	0.51	0.6	0.72	0.98	dB	0.175
LCCA9905-60	60 inch	Insertion Loss (Typ.)	0.51	0.64	0.79	0.99	1.43	dB	0.217
LCCA9905-300	300 inch	Insertion Loss (Typ.)	1.33	1.98	2.73	3.75	5.95	dB	0.637

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:	0.133 pounds
Additional Weight per Inch:	0.00175 pounds

**Electrical Specification Notes:**

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

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter	0.5 in [12.7 mm]
Weight	0.133 lbs [60.33 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 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	N Male Right Angle
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	ASTM B488	50 μin. minimum
Dielectric Type	Teflon	Teflon
Body Material and Plating	Passivated Stainless Steel	Brass, Tri-Metal
Body Plating Specification		80 μin. minimum
Coupling Nut Material and Plating	Passivated Stainless Steel	Brass, Tri-Metal
Coupling Nut Plating Specification		80 μin. minimum
Hex Size	5/16 Inch	

**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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**LCCA9905**

**Typical Performance Data**

**How to Order**

Part Number Configuration:

**LCCA9905**

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

Example: LCCA9905-12 = 12 inches long cable  
LCCA9905-100cm = 100 cm long cable

Low Loss SMA Male to N Male Right Angle Cable Assembly using LMR-195-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-n-male-cable-assembly-lmr-lcca9905-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.

# LCCA9905 CAD Drawing

Low Loss SMA Male to N Male Right Angle Cable Assembly using LMR-195-UF Coax With Times Microwave Components with HeatShrink

