

## Low Loss SMA Male to N Male Weatherproof Cable Assembly with Silicone using LMR-240 Coax



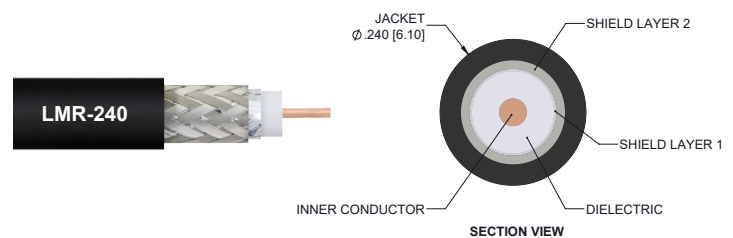
### LCCA9870/WP

#### Configuration

- Connector 1: SMA Male
- Connector 2: N Male
- Cable Type: LMR-240
- Coax Flex Type: Flexible

#### Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- PE Jacket
- Silicone Connector Boot
- IP68 Rated



#### Description

The L-com LCCA9870/WP is a weatherproof low loss cable assembly that comes with SMA male connection with weatherproof boot on one end and type N male with weatherproof boot on the other. L-com's RF coaxial cable assembly products are designed for typical use, production, laboratory test and measurement, defense/military, aerial antenna towers, etc. The low loss cable has a 50 Ohm impedance and is specifically ready for quicker shipment than most in the industry can provide.

This weatherproof low loss RF cable assembly operates at a maximum frequency of 6 GHz. Our RF cable assembly has a PE jacket with 0.240 inches diameter. The SMA male to type N male cable assembly LCCA9870/WP is built with LMR-240 coax, which has a flexible design. This RF cable assembly with 0.5 inches diameter has copper as cable's inner conducting material and PE (F) dielectric type. The weatherproof boot low loss cable can operate at a temperature range of -40 to 85 degrees C. Additional dimensions, specifications, and CAD drawings for this LCCA9870/WP low loss RF cable are available on our downloadable PDF datasheet.

L-com stocks a wide selection of weatherproof low loss cable assemblies that ship the same business day as ordered from our warehouse. Make your online purchase right now to take advantage of our same-day shipping. For further information on similar products, our expert technical support and knowledgeable sales team can help you get the ideal SMA male to type N male cable assembly as per your requirements.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.4:1	
Velocity of Propagation		84		%
RF Shielding	90			dB
Capacitance		24.2 [79.4]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		3.2 [10.5]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		3.89 [12.76]		Ohms/1000ft [Ohms/Km]
Dielectric Withstanding Voltage (DC)			1,500	Vdc

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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			5,000	Vrms

#### Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
LCCA9870/WP	Custom Lengths Available	Insertion Loss (Typ.)	0.039	0.055	0.079	0.129	0.204	dB/ft	
			0.13	0.19	0.26	0.43	0.67	dB/m	
LCCA9870/WP-FT1	12 In	Insertion Loss (Typ.)	0.24	0.26	0.28	0.33	0.41	dB	0.614
LCCA9870/WP-FT2	24 In	Insertion Loss (Typ.)	0.28	0.31	0.36	0.46	0.61	dB	0.647
LCCA9870/WP-FT3	36 In	Insertion Loss (Typ.)	0.32	0.37	0.44	0.59	0.82	dB	0.68
LCCA9870/WP-FT4	48 In	Insertion Loss (Typ.)	0.36	0.42	0.52	0.72	1.02	dB	0.713
LCCA9870/WP-FT5	60 In	Insertion Loss (Typ.)	0.4	0.48	0.6	0.85	1.22	dB	0.746

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:	0.1 dB
Base Weight:	0.614 pounds
Additional Weight per Inch:	0.00275 pounds

#### Mechanical Specifications

##### Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.614 lbs [278.51 g]

##### Cable

Cable Type	LMR-240
Impedance	50 Ohms
Inner Conductor Type	Solid
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	PE
Jacket Diameter	0.24 in [6.1 mm]
One Time Minimum Bend Radius	0.75 in [19.05 mm]
Repeated Minimum Bend Radius	2.5 in [63.5 mm]
Bending Moment	0.25 lbs-ft [0.34 N-m]
Flat Plate Crush	20 lbs/in [0.36 Kg/mm]
Tensile Strength	80 lbs [36.29 Kg]

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**LCCA9870/WP**

**Connectors**

Description	Connector 1	Connector 2
Type	SMA Male	N Male
Option	Weatherproof Boot	Weatherproof Boot
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification		30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Gold	Brass, Nickel
Body Plating Specification		100 µin minimum
Coupling Nut Material and Plating	Brass, Gold	Brass, Nickel
Coupling Nut Plating Specification		100 µin minimum
Boot Material	Silicone	Silicone

**Environmental Specifications**

Operating Range Temperature	-40 to +85 deg C
Ingress Protection (IP) Rating	IP68

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

**Plotted and Other Data**

Notes:  
Values at 25°C, sea level.

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**LCCA9870/WP**

**Typical Performance Data**

**How to Order**

Part Number Configuration:

**LCCA9870/WP - xx uu**



Example: LCCA9870/WP-12 = 12 inches long cable  
LCCA9870/WP-100cm = 100 cm long cable

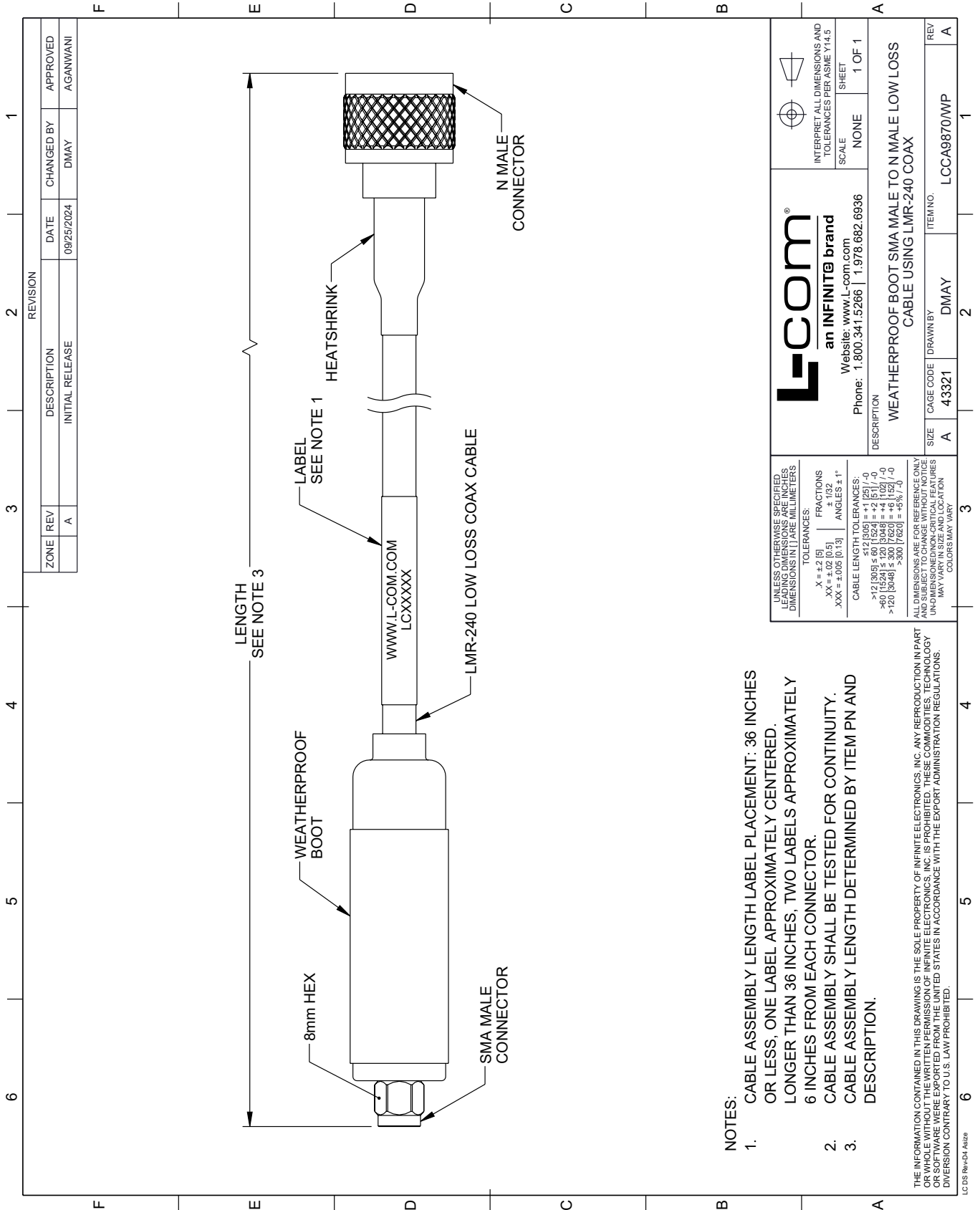
Low Loss SMA Male to N Male Weatherproof Cable Assembly with Silicone using LMR-240 Coax from L-com has same day shipment for domestic and International orders. Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products as well as lightning and surge protectors, NEMA rated 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-lcca9870-wp-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. 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.

# LCCA9870/WP CAD Drawing

Low Loss SMA Male to N Male Weatherproof Cable Assembly with Silicone using LMR-240 Coax



**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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UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.		 INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	
<b>TOLERANCES:</b> .X = ±.2 [5] .XX = ±.02 [0.5] .XXX = ±.005 [0.13]		<b>FRACTIONS:</b> ± 1/32 ANGLES ± 1°	
<b>CABLE LENGTH TOLERANCES:</b> >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.	
L-com an INFINITE brand Website: www.L-com.com Phone: 1.800.341.5266   1.978.682.6936		SCALE: NONE SHEET: 1 OF 1	
DESCRIPTION: WEATHERPROOF BOOT SMA MALE TO N MALE LOW LOSS CABLE USING LMR-240 COAX		ITEM NO.: LCCA9870/WP	
SIZE: A	CAGE CODE: 43321	DRAWN BY: DMAY	REV: A