

Low Loss N Male to N Female Weatherproof Cable Assembly with Silicone using SPO-250 Coax with Times Microwave Components



LCCA9881/WP

Configuration

- Connector 1: N Male
- Connector 2: N Female
- Cable Type: SPO-250
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Low PIM: -160 dBc Max
- 83% Phase Velocity
- PE Jacket
- Silicone Connector Boot
- IP68 Rated

Description

The L-com LCCA9881/WP is a weatherproof low loss cable assembly that comes with type N male connection with weatherproof boot on one end and type N female 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 0.303 inches diameter. The type N male to type N female cable assembly LCCA9881/WP is built with SPO-250 coax, which has a flexible design. This RF cable assembly with 0.5 inches diameter has copper clad aluminum as cable's inner conducting material and foam PE 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 LCCA9881/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 type N male to type N female 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		83		%
Passive Intermodulation IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz			-160	dBc
Capacitance		24 [78.74]		pF/ft [pF/m]
Inductance		0.054 [0.18]		uH/ft [uH/m]

Specifications by Frequency

Low Loss N Male to N Female Weatherproof Cable Assembly with Silicone using SPO-250 Coax with Times Microwave Components



LCCA9881/WP

Part Number	Length	Description	F1	F2	F3	F4	Units	Weight (lbs)
			Frequency	500	1000	2500	6000	
LCCA9881/WP	Custom Lengths Available	Insertion Loss (Typ.)	0.028	0.041	0.068	0.108	dB/ft	
			0.1	0.14	0.23	0.36	dB/m	
LCCA9881/WP-FT1	12 In	Insertion Loss (Typ.)	0.17	0.25	0.39	0.6	dB	0.704
LCCA9881/WP-FT2	24 In	Insertion Loss (Typ.)	0.2	0.29	0.46	0.71	dB	0.751
LCCA9881/WP-FT3	36 In	Insertion Loss (Typ.)	0.23	0.33	0.53	0.82	dB	0.798
LCCA9881/WP-FT5	60 In	Insertion Loss (Typ.)	0.29	0.41	0.66	1.03	dB	0.892
LCCA9881/WP-M0.5	50 CM	Insertion Loss (Typ.)	0.19	0.27	0.43	0.67	dB	0.735

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*SQRT(FGHz) dB
 Loss due to Connector 2: 0.1*SQRT(FGHz) dB
 Base Weight: 0.704 pounds
 Additional Weight per Inch: 0.00391 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter 0.5 in [12.7 mm]
 Weight 0.704 lbs [319.33 g]

Cable

Cable Type SPO-250
 Impedance 50 Ohms
 Inner Conductor Type Stranded
 Inner Conductor Material and Plating Copper Clad Aluminum
 Dielectric Type Foam PE
 Outer Conductor 1 Material and Plating Copper, Corrugated
 Jacket Material PE
 Jacket Diameter 0.303 in [7.7 mm]
 One Time Minimum Bend Radius 1 in [25.4 mm]
 Bending Moment 0.5 lbs-ft [0.68 N-m]

Low Loss N Male to N Female Weatherproof Cable Assembly with Silicone using SPO-250 Coax with Times Microwave Components



LCCA9881/WP

Connectors

Description	Connector 1	Connector 2
Type	N Male	N Female
Option	Weatherproof Boot	Weatherproof Boot
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Phosphor Bronze, Silver	Brass, Silver
Contact Plating Specification	196 µin minimum	200 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Brass, Tri-Metal
Outer Conductor Plating Specification		100 µin minimum
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	118 µin minimum	100 µin minimum
Coupling Nut Material and Plating	Brass, Tri-Metal	
Coupling Nut Plating Specification	118 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.

Low Loss N Male to N Female Weatherproof Cable Assembly with Silicone using SPO-250 Coax with Times Microwave Components



LCCA9881/WP

Typical Performance Data

How to Order

Part Number Configuration:

LCCA9881/WP - xx uu



Example: LCCA9881/WP-12 = 12 inches long cable
LCCA9881/WP-100cm = 100 cm long cable

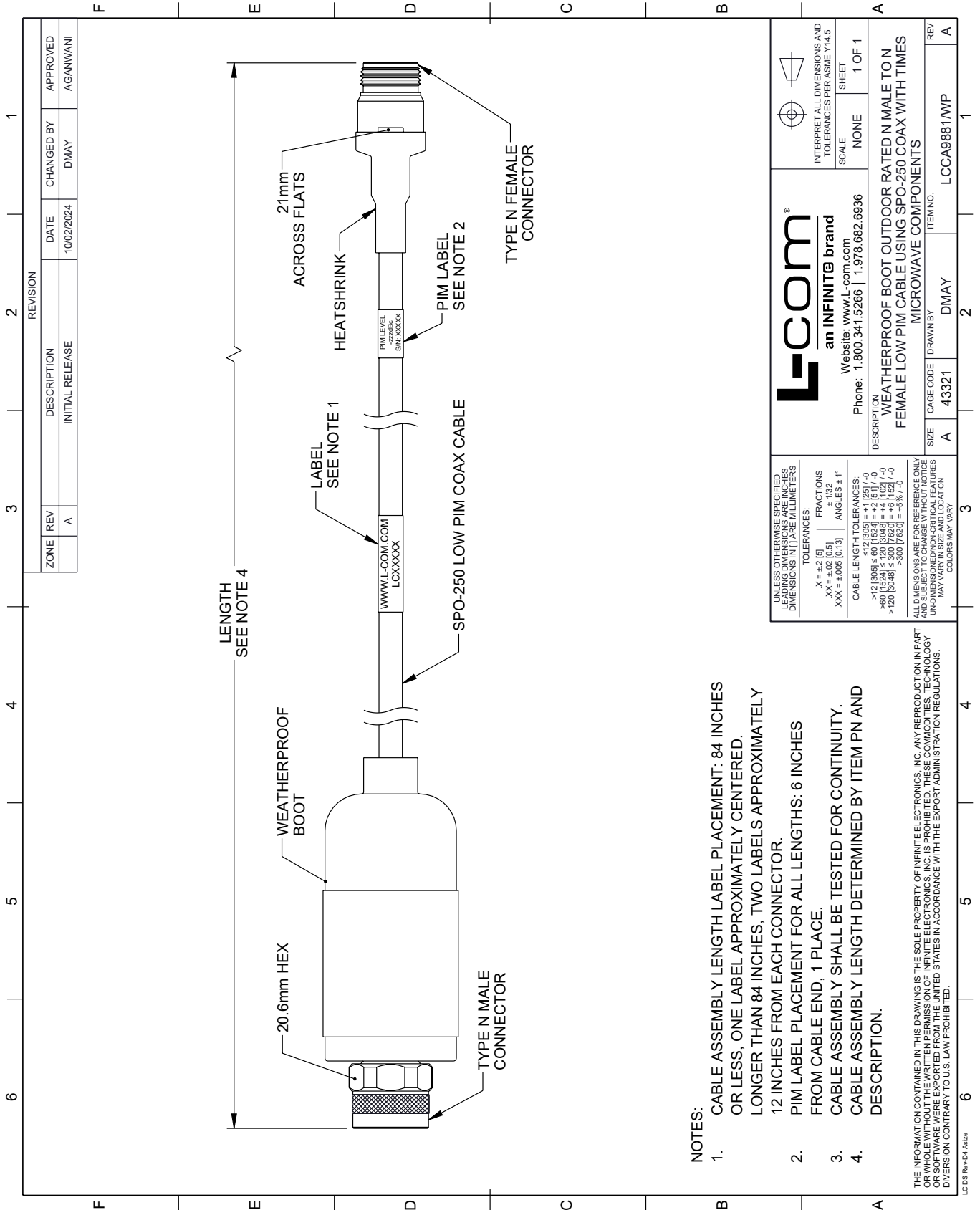
Low Loss N Male to N Female Weatherproof Cable Assembly with Silicone using SPO-250 Coax with Times Microwave Components from L-com has same day shipment for domestic and International orders. Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products as well as lightning 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/n-male-n-female-cable-assembly-lcca9881-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 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.

LCCA9881/WP CAD Drawing

Low Loss N Male to N Female Weatherproof Cable Assembly with Silicone using SPO-250 Coax with Times Microwave Components



NOTES:

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 84 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 84 INCHES, TWO LABELS APPROXIMATELY 12 INCHES FROM EACH CONNECTOR.
2. PIM LABEL PLACEMENT FOR ALL LENGTHS: 6 INCHES FROM CABLE END, 1 PLACE.
3. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
4. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE ARE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

LC 05 Rev-D4 Asize

ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	A	INITIAL RELEASE	10/02/2024	DMAY	AGANWANI

<p>L-com an INFINITE brand</p> <p>Website: www.L-com.com Phone: 1.800.341.5266 1.978.682.6936</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE</p> <p>SHEET: 1 OF 1</p>
<p>DESCRIPTION: WEATHERPROOF BOOT OUTDOOR RATED N MALE TO N FEMALE LOW PIM CABLE USING SPO-250 COAX WITH TIMES MICROWAVE COMPONENTS</p>		
SIZE: A	CAGE CODE: 43321	ITEM NO: LCCA9881/WP
DRAWN BY: DMAY	REV: A	

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] ± .005 [0.125] / -0
 > 12 [305] ≤ 60 [1524] = ± 2 [51] / -0
 > 60 [1524] ≤ 120 [3048] = ± 4 [102] / -0
 > 120 [3048] ≤ 300 [7620] = ± 8 [203] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE NON-CRITICAL FEATURES. MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.