

Low Loss N Male to N Female Bulkhead Weatherproof Cable Assembly with Silicone using SPO-250 Coax, 0.5M with Times Microwave Components



LCCA9882/WP-M0.5

Configuration

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

Features

- Silicone Connector Boot
- IP68 Rated

Description

L-com's LCCA9882/WP-M0.5 is a low loss N male to N female bulkhead weatherproof cable assembly with silicone using SPO-250 coax, 0.5M with Times Microwave components and ships same-day. The SPO-250 coax of this N cable uses the foam PE 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 N to N cable assembly has a male to female gender configuration with flexible SPO-250 series coax and operates to 6 GHz. L-com's RF cable assembly with N bulkhead interface enables system designers to have external connections on their product enclosures or to be used for other rack mount and panel mount applications.

Custom versions of this N male to N female 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 LCCA9882/WP-M0.5 L-com Low Loss N Male to N Female Bulkhead Weatherproof Cable Assembly with Silicone using SPO-250 Coax, 0.5M with Times Microwave Components 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		6	GHz
VSWR			1.4:1	
Velocity of Propagation		83		%
Passive Intermodulation			-160	dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				
Capacitance		24 [78.74]		pF/ft [pF/m]
Inductance		0.054 [0.18]		uH/ft [uH/m]

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.5	1	2.5	6		GHz
Insertion Loss (Typ.)	0.22	0.27	0.37	0.53		dB

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	Units	Weight (lbs)
		Frequency	500	1000	2500	6000	MHz	
LCCA9882/WP	Custom Lengths Available	Insertion Loss (Typ.)	0.042	0.06	0.103	0.166	dB/ft	
			0.14	0.2	0.34	0.55	dB/m	
LCCA9882/WP-FT1	12 In	Insertion Loss (Typ.)	0.22	0.26	0.37	0.52	dB	0.849
LCCA9882/WP-FT2	24 In	Insertion Loss (Typ.)	0.26	0.32	0.47	0.68	dB	0.896
LCCA9882/WP-FT3	36 In	Insertion Loss (Typ.)	0.3	0.38	0.57	0.85	dB	0.943
LCCA9882/WP-FT5	60 In	Insertion Loss (Typ.)	0.39	0.5	0.78	1.18	dB	1.037
LCCA9882/WP-M0.5	50 CM	Insertion Loss (Typ.)	0.24	0.3	0.43	0.62	dB	0.88

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 dB

Base Weight: 0.849 pounds

Additional Weight per Inch: 0.00391 pounds

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB for the male connector and 0.1*SQRT(FGHz) dB for the female connector.

Mechanical Specifications

Cable Assembly

Length	19.685 in [500 mm]
Width/Diameter	.5 in [12.7 mm]
Weight	0.88 lbs [399.16 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]

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Connectors

Description	Connector 1	Connector 2
Type	N Male	N Female Bulkhead
Option	Weatherproof Boot	
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Phosphor Bronze, Silver	Phosphor Bronze, 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.

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Typical Performance Data

How to Order

Part Number Configuration:

LCCA9882/WP

- xx

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

Example: LCCA9882/WP-12 = 12 inches long cable
LCCA9882/WP-100cm = 100 cm long cable

Low Loss N Male to N Female Bulkhead Weatherproof Cable Assembly with Silicone using SPO-250 Coax, 0.5M 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-lcca9882-wp-m0.5-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.

LCCA9882/WP-M0.5 CAD Drawing

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