

Low Loss N Female to N Female Cable Assembly using LMR-400-UF Coax With Times Microwave Components with HeatShrink



LCCA9951

Configuration

- Connector 1: N Female
- Connector 2: N Female
- Cable Type: LMR-400-UF
- Coax Flex Type: Flexible

Description

L-com's LCCA9951 is a low loss N female to N female cable assembly using LMR-400-UF coax with Times Microwave components with heatshrink and ships same-day. The LMR-400-UF coax of this N cable uses the PE (F) dielectric with a VoP of 85%, 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 female to female gender configuration with flexible LMR-400-UF series coax and operates to 5.8 GHz. The double shield of this N cable is layered by tinned copper braid over aluminum tape providing shielding effectiveness greater than 90dB.

Custom versions of this N female 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 LCCA9951 L-com Low Loss N Female to N Female Cable Assembly using LMR-400-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		85		%
RF Shielding	90			dB
Group Delay		1.2 [3.94]		ns/ft [ns/m]
Capacitance		23.9 [78.41]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		1.07 [3.51]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		1.65 [5.41]		Ohms/1000ft [Ohms/Km]
Dielectric Withstanding Voltage (DC)			2,500	Vdc
Jacket Spark			8,000	Vrms
Input Power (Peak)			16	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	
LCCA9951	Custom Lengths Available	Insertion Loss (Typ.)	0.023	0.034	0.049	0.081	0.13	dB/ft	
			0.08	0.12	0.17	0.27	0.43	dB/m	
LCCA9951-FT1	12 inch	Insertion Loss (Typ.)	0.23	0.24	0.25	0.29	0.33	dB	0.263
LCCA9951-FT2	24 inch	Insertion Loss (Typ.)	0.25	0.27	0.3	0.37	0.46	dB	0.35
LCCA9951-FT3	36 inch	Insertion Loss (Typ.)	0.27	0.31	0.35	0.45	0.59	dB	0.437
LCCA9951-FT5	60 inch	Insertion Loss (Typ.)	0.32	0.37	0.45	0.61	0.85	dB	0.611
LCCA9951-FT25	300 inch	Insertion Loss (Typ.)	0.78	1.05	1.43	2.23	3.45	dB	2.351

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:	0.263 pounds
Additional Weight per Inch:	0.00725 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.263 lbs [119.29 g]

Cable

Cable Type	LMR-400-UF
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	0.405 in [10.29 mm]
One Time Minimum Bend Radius	1 in [25.4 mm]
Repeated Minimum Bend Radius	4 in [101.6 mm]
Bending Moment	0.38 lbs-ft [0.52 N-m]
Flat Plate Crush	20 lbs/in [0.36 Kg/mm]
Tensile Strength	160 lbs [72.57 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	N Female	N Female
Specification	MIL-STD-348	MIL-STD-348
Configuration	Straight	Straight
Contact Material and Plating	Copper, Gold	Copper, Gold
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal

Environmental Specifications

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

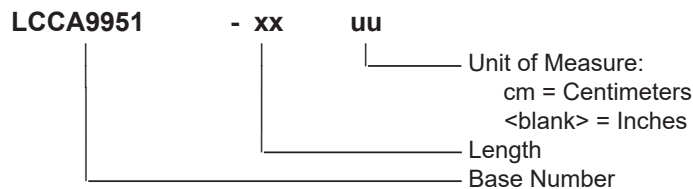
Plotted and Other Data

Notes:
Values at 25°C, sea level.

Typical Performance Data

How to Order

Part Number Configuration:



Example: LCCA9951-12 = 12 inches long cable
LCCA9951-100cm = 100 cm long cable

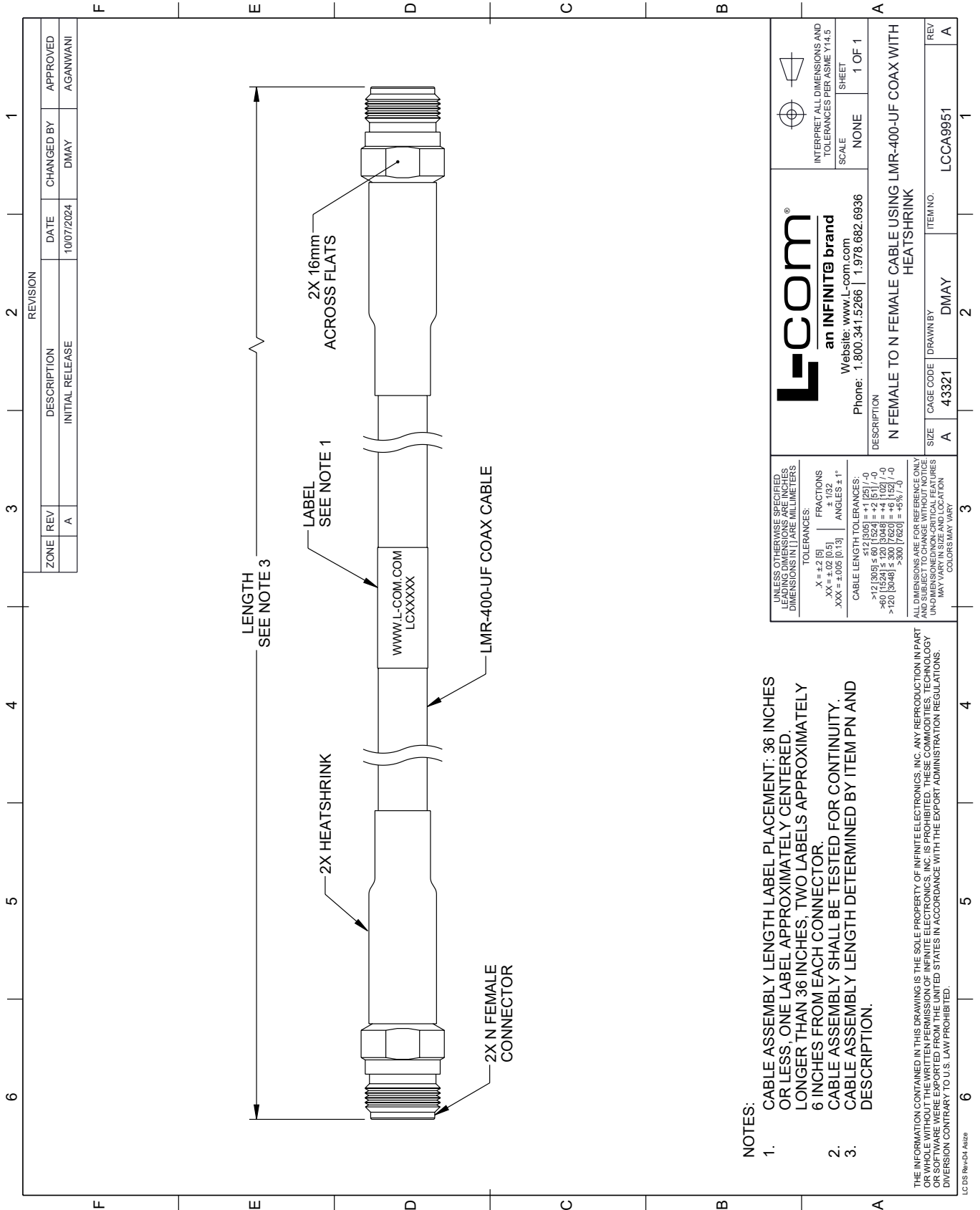
Low Loss N Female to N Female Cable Assembly using LMR-400-UF Coax With Times Microwave Components with HeatShrink from L-com has same day shipment for domestic and International orders. Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products as well as lightning and surge protectors, NEMA rated enclosures, and an RF product line which includes antennas, amplifiers, passive, and active components.

URL: <https://www.l-com.com/n-female-n-female-cable-assembly-invalid-lcca9951-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.

LCCA9951 CAD Drawing

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- NOTES:**
- 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.
 - CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
 - 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	
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] = ±5% / 0		SCALE: NONE SHEET: 1 OF 1	
Website: www.L-com.com Phone: 1.800.341.5266 1.978.682.6936			
DESCRIPTION: N FEMALE TO N FEMALE CABLE USING LMR-400-UF COAX WITH HEATSHRINK			
SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	43321	DMAY	LCCA9951