

Low Loss SMA Male to MMCX Plug Cable
Assembly using 100 Series Coax, 1.5 FT



LCCA30381-FT1.5

Configuration

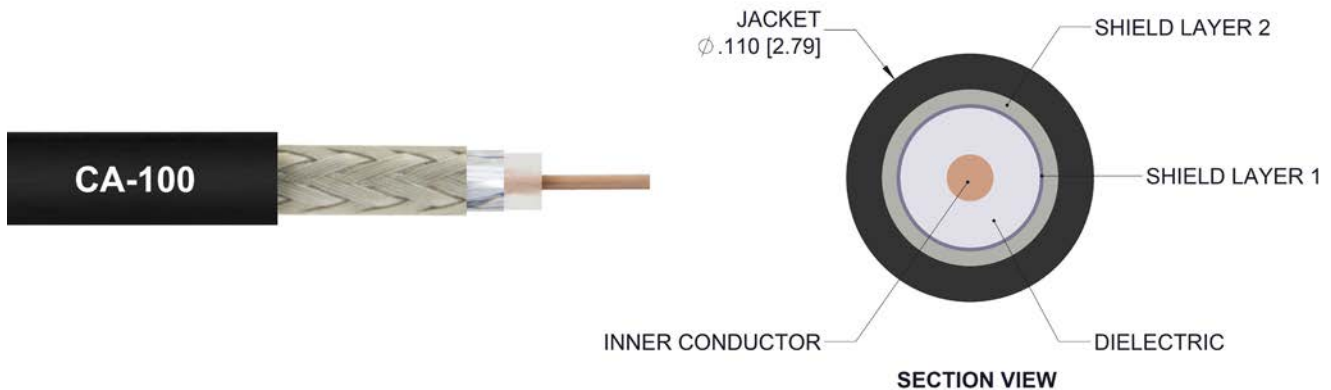
- Connector 1: SMA Male
- Connector 2: MMCX Plug
- Cable Type: CA-100

Features

- Max Frequency 6 GHz
- LMR-100 Equivalent
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Low Insertion Loss
- Double Shielded
- PVC Jacket

Applications

- General Purpose
- Laboratory Use
- Antenna Installations
- Land Mobile Radio & Other Communication Systems
- Cellular & Wi-Fi Systems



Description

L-com's LCCA30381-FT1.5 is a low loss SMA male to MMCX plug cable assembly using 100 series coax, 1.5 FT and ships same-day. The CA-100 coax of this SMA cable uses the PE dielectric with a VoP of 66%, 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 MMCX cable assembly has a male to plug gender configuration with flexible CA-100 series coax and operates to 6 GHz. The double shield of this SMA cable is layered by tinned copper braid over aluminum tape providing shielding effectiveness greater than 90dB.

Custom versions of this SMA male to SMA plug 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 LCCA30381-FT1.5 L-com Low Loss SMA Male to MMCX Plug Cable Assembly using 100 Series Coax, 1.5 FT data sheet PDF includes details of the RF product specifications, CAD drawing(s) and dimensions below.

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.5:1	
Velocity of Propagation		66		%
RF Shielding	90			dB
Capacitance		30.8 [101.05]		pF/ft [pF/m]
DC Resistance Inner Conductor		81.07 [265.98]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		9.51 [31.2]		Ohms/1000ft [Ohms/Km]

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	2.5	GHz
Insertion Loss (Typ.)	0.32	0.4	0.47	0.59	0.83	dB

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable and connectors used in the assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB per connector.

Mechanical Specifications

Cable Assembly

Length	18 in [457.2 mm]
Diameter	0.312 in [7.92 mm]
Weight	0.009 lbs [4.08 g]

Cable

Cable Type	CA-100
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Steel
Dielectric Type	PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	PVC, Black
Jacket Diameter	0.109 in [2.77 mm]
One Time Minimum Bend Radius	0.55 in [13.97 mm]

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Repeated Minimum Bend Radius	1 in [25.4 mm]
Bending Moment	0.1 lbs-ft [0.14 N-m]
Flat Plate Crush	10 lbs/in [0.18 Kg/mm]
Tensile Strength	15 lbs [6.8 Kg]

Connectors

Description	Connector 1	Connector 2
Type	SMA Male	MMCX Plug
Specification	MIL-STD-348A	BS EN 122340
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30µ in. Minimum	30µ in. minimum
Dielectric Type	PTFE	Teflon
Body Material and Plating	Brass, Nickel	Brass, Gold
Body Plating Specification	100µ in. Minimum	3µ in. minimum
Coupling Nut Material and Plating	Brass, Nickel	
Coupling Nut Plating Specification	100µ in. Minimum	
Hex Size	5/16 in	
Torque	5 in-lbs 0.57 Nm	

Environmental Specifications

Temperature

Operating Range -20 to +70 deg C

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

Plotted and Other Data

Notes:

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LCCA30381-FT1.5

How to Order

Part Number Configuration:

LCCA30381

- **xx**

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

Example: LCCA30381-12 = 12 inches long cable
LCCA30381-100cm = 100 cm long cable

Low Loss SMA Male to MMCX Plug Cable Assembly using 100 Series Coax, 1.5 FT from L-com has same day shipment for domestic and International orders. L-com is a leading manufacturer of wired and wireless connectivity products and committed to in-stock availability and same day shipping. 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.

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 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.

Low Loss SMA Male to MMCX Plug Cable Assembly using 100 Series Coax, 1.5 FT

L-com CAD Drawing

REVISIONS		DATE	APPROVED
REV. A	DESCRIPTION INITIAL RELEASE	06/12/2020	SELLIS

LENGTH MEASURED FROM CONTACT TO CONTACT

SMA MALE

MMCX PLUG

WWW.L-COM.COM
L-COM P/N
(SEE NOTE 1)

8mm HEX

2X HEAT SHRINK SLEEVE

CA-100

LABEL

<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <p>.X = ±.2 [.08] FRACTIONS ± 1/32</p> <p>.XX = ±.02 [.51] ANGLES ± 1°</p> <p>.XXX = ±.005 [.13]</p> <p>CABLE LENGTH (L) TOLERANCES:</p> <p>L ≤ 12 [305] = ±.1 [25] / -0</p> <p>12 [305] < L ≤ 60 [1524] = ±.2 [51] / -0</p> <p>60 [1524] < L ≤ 120 [3048] = ±.4 [102] / -0</p> <p>120 [3048] < L ≤ 300 [7620] = ±.6 [152] / -0</p> <p>300 [7620] < L = ±5% L / -0</p> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>	<p>L-com™ an INFINITE brand</p> <p>50 High Street, West Mill, 3rd Floor, Suite #30 North Andover, MA 01845 USA. Phone: 1.800.341.5266 1.978.682.6936 Fax: 1.978.689.9484 Website: www.L-com.com E-mail: CustomerService@L-com.com</p>	<p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF L-COM GLOBAL CONNECTIVITY. ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p>	
SIZE A	CAGE CODE 43321	DRAWN BY BPUCHASKI	ITEM NO. LCCA30381
			REV. A

NOTES:

- CABLES 36" AND UNDER HAVE 1 LABEL CENTERED.
CABLES OVER 36" HAVE 2 LABELS, ONE AT EACH END 6.0" FROM THE END OF THE CONNECTOR.

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