

SMA Male to SMA Female Cable Assembly using LC141TBJ Coax, 6 FT



LCCA30094-FT6

Configuration

- Connector 1: SMA Male
- Connector 2: SMA Female
- Cable Type: LC141TBJ

Features

- Max Frequency 18 GHz
- Shielding Effectivity > 100dB
- PTFE Dielectric with 70% VoP
- Hand Formable
- Tin Filled Copper Braid Outer Conductor
- FEP Jacket

Applications

- General Purpose
- Laboratory Use
- System Interconnect



Description

L-com's LCCA30094-FT6 is a SMA male to SMA female cable assembly using LC141TBJ coax, 6 FT and ships same-day. The LC141TBJ coax of this SMA cable uses the PTFE dielectric with a VoP of 70%. These formable RF cable assemblies are a great alternative to expensive semi-rigid assemblies because they can be hand formed to fit specific designs. Our L-com SMA to SMA cable assembly has a male to female gender configuration with formable LC141TBJ series coax and operates to 18 GHz. The jacketed tinned copper braid outer conductor is easily formed by hand with an overall diameter of 0.161 inches and excellent shielding effectiveness greater than 100dB.

Custom versions of this SMA male to SMA 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 LCCA30094-FT6 L-com SMA Male to SMA Female Cable Assembly using LC141TBJ Coax, 6 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		18	GHz
Velocity of Propagation		70		%
RF Shielding	100			dB
Group Delay		1.43 [4.69]		ns/ft [ns/m]
Capacitance		29.4 [96.46]		pF/ft [pF/m]
DC Resistance Inner Conductor		8.23 [27]		Ohms/1000ft [Ohms/Km]
Operating Voltage (AC)			1,900	Vrms
Dielectric Withstanding Voltage (AC)			3,000	Vrms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	1	2	4.5	9	18	GHz
Insertion Loss (Max.)	0.95	1.25	1.98	2.9	4.65	dB

Electrical Specification Notes:

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

Mechanical Specifications

Cable Assembly

Length 72 in [182.88 cm]
Diameter 0.032 in [0.81 mm]

Cable

Cable Type LC141TBJ
Impedance 50 Ohms
Inner Conductor Type Solid
Inner Conductor Material and Plating Copper, Silver
Dielectric Type PTFE
Number of Shields 0
Outer Conductor Material and Plating Tinned Copper Braid
Outer Conductor Diameter 0.139 in [3.53 mm]
Jacket Material FEP
Jacket Diameter 0.161 in [4.09 mm]

One Time Minimum Bend Radius 0.315 in [8 mm]

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Repeated Minimum Bend Radius 1.575 in [40.01 mm]

Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Female
Impedance	50 Ohms	50 Ohms
Contact Material and Plating		Beryllium Copper, Gold over Nickel
Dielectric Type		PTFE
Outer Conductor Material and Plating		Brass, Gold over Nickel
Body Material and Plating	Brass, Gold over Nickel	Brass, Gold over Nickel
Coupling Nut Material and Plating	Passivated Stainless Steel	
Hex Size	5/16 inch	
Torque	10 in-lbs 1.13 Nm	

Environmental Specifications

Temperature

Operating Range -65 to +150 deg C

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

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

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LCCA30094-FT6

How to Order

Part Number Configuration:

LCCA30094 - xx uu



Example: LCCA30094-12 = 12 inches long cable
LCCA30094-100cm = 100 cm long cable

SMA Male to SMA Female Cable Assembly using LC141TBJ Coax, 6 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 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.ontained 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.

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L-com CAD Drawing

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	01/31/2020	SELLIS

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS
TOLERANCES:
 .X ± .2 [.008] FRACTIONS ± 1/32
 .XX ± .02 [.51] ANGLES ± 1°
 .XXX ± .005 [.13]
CABLE LENGTH (L) TOLERANCES:
 L ≤ 12 [305] = +1 [25] / -0
 12 [305] < L ≤ 60 [1524] = +2 [61] / -0
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
 300 [7620] < L = +5%L / -0
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

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

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SIZE A	CAGE CODE DRAWN BY 43321 MVEERAPPAN	LCCA30094	