

# **GLOBAL CONNECTIVITY SOLUTIONS**

SMA Female Bulkhead to TNC Female Cable Assembly using LC141TBJ Coax, 1.5 FT

# LCCA30502-FT1.5

### Configuration

- Connector 1: SMA Female Bulkhead
- Connector 2: TNC Female
- Cable Type: LC141TBJ

#### **Features**

- Max Frequency 6 GHz
- Shielding Effectivity > 100dB
- PTFE Dielectric with 70.0% VoP

#### **Applications**

- General Purpose
- Laboratory Use

- Hand Formable
- Tin Filled Copper Braid Outer Conductor
- FEP Jacket
- System Interconnect



#### Description

L-com's LCCA30502-FT1.5 is a SMA female bulkhead to TNC female cable assembly using LC141TBJ coax, 1.5 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 TNC cable assembly has a female to female gender configuration with formable LC141TBJ series coax and operates to 6 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. L-com's RF cable assembly with SMA 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 SMA female 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 LCCA30502-FT1.5 L-com SMA Female Bulkhead to TNC Female Cable Assembly using LC141TBJ 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			1.45:1	
Velocity of Propagation		70		%
RF Shielding	100			dB
Group Delay		1.43 [4.69]		ns/ft [ns/m]
Capacitance		29 [95.14]		pF/ft [pF/m]
DC Resistance Inner Con	ductor	7.28 [23.88]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Cor	nductor	5.5 [18.04]		Ohms/1000ft [Ohms/Km]

# **Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	0.5	1	2.5	6		GHz
Insertion Loss (Typ.)	0.33	0.39	0.49	0.73		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 includes an estimated insertion loss of 0.1 dB per connector

### **Mechanical Specifications**

Cable Assembly Length Diameter

### Cable

Cable Type Impedance Inner Conductor Type Inner Conductor Material and Plating Dielectric Type Outer Conductor Material and Plating Jacket Material Jacket Diameter

One Time Minimum Bend Radius Repeated Minimum Bend Radius

18 in [457.2 mm] 0.472 in [11.99 mm]

LC141TBJ 50 Ohms Solid Copper, Silver PTFE Tinned Copper Braid FEP, Black 0.161 in [4.09 mm]

0.315 in [8 mm] 1.575 in [40.01 mm]



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# LCCA30502-FT1.5

# Connectors

Description	Connector 1	Connector 2
Туре	SMA Female Bulkhead	TNC Female
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold over Nickel	Beryllium Copper, Gold over Nickel
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Gold over Nickel	Brass, Nickel

### **Environmental Specifications**

Temperature	
Operating Range	-65 to +150 deg C
Storage Range	+10 to +35 deg C

Compliance Certifications (see product page for current document)

#### **Plotted and Other Data** Notes:



SMA Female Bulkhead to TNC Female Cable Assembly using LC141TBJ Coax, 1.5 FT

# LCCA30502-FT1.5

### How to Order

Part Number Configuration: LCCA30502 - xx uu Unit of Measure: cm = Centimeters oblank> = Inches Length Base Number

Example: LCCA30502-12 = 12 inches long cable LCCA30502-100cm = 100 cm long cable

SMA Female Bulkhead to TNC Female Cable Assembly using LC141TBJ 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 instock 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 reserves the right to make such changes as required. Unless otherwise stated, all specifications 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 marke 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.



APPROVED THIRD-ANGLE PROJECTION THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF L-COM GLOBAL CONNECTIVI ALL RIGHTS RESERVED. ∢ SELLIS REV Ь A/A ()05/04/2020 DATE SCALE LCCA30502 SHEET 50 High Street, West Mill, 3rd Floor, Suite #30 North Andover, MA 01845 USA, Phone: 1.800.341.5266 | 1.978.682.6936 Fax: 1.078.689.9464 TNC FEMALE REVISIONS E-mail: CustomerService@L-com.com an INFINIT® brand ITEM NO. Website: www.L-com.com INITIAL RELEASE DESCRIPTION 43321 DFRISIELLO CAGE CODE DRAWN BY REV. ∢ SIZE ∢ 12 [305] <1 \$ 601 [524] = 2 [517] ·0 601 [524] = 2 [517] ·0 601 [524] = 2 120 [306] = 44 [152] /0 120 [3048] <1 \$ 300 [7820] = 46 [152] /0 300 [7820] <1 = 45%L /0 ALL DRENSIONS SHOWN ARE FOR REFERANCE ONLY. ± 1/32 ANGLES ± 1° UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS L ≤ 12 [305] = +1 [25] / -0 FRACTIONS CABLE LENGTH (L) TOLERANCES FRANCES .X = ±.2 [5.08] .XX = ±.02 [.51] .XXX = ±.005 [.13] WWW.L-COM.COM L-COM P/N (SEE NOTE 1) LENGTH MEASURED FROM LABEL FLANGE TO CONTACT THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED. Ø.254±.002 6.45±0.05 **2X HEAT SHRINK SLEEVE** RECOMMENDED MOUNTING HOLE 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. +6.02±0.08 237±.003 7/16" HEX .06 [1.5] MAX. SMA FEMALE BULKHEAD [10.7] .42 4 T 5/16" HEX NOTES: \_

# L-com CAD Drawing