

SMA Male to TNC Female Cable Assembly using LC141TBJ Coax, 1 FT



LCCA30490-FT1

Configuration

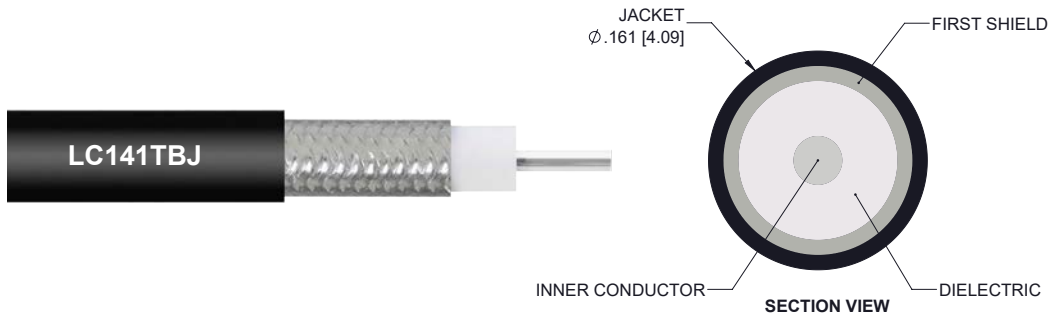
- Connector 1: SMA Male
- Connector 2: TNC Female
- Cable Type: LC141TBJ

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 100dB
- PTFE Dielectric with 69.9% VoP
- Hand Formable
- Tin Filled Copper Braid Outer Conductor

Applications

- General Purpose
- Laboratory Use
- System Interconnect



Description

L-com's LCCA30490-FT1 is a SMA male to TNC female cable assembly using LC141TBJ coax, 1 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 male 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.

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 LCCA30490-FT1 L-com SMA Male to TNC Female Cable Assembly using LC141TBJ Coax, 1 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 Conductor | | 8.23 [27] | | Ohms/1000ft [Ohms/Km] |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|------|------|------|------|----|-------|
| Frequency | 0.5 | 1 | 2.5 | 6 | | GHz |
| Insertion Loss (Max.) | 0.28 | 0.32 | 0.39 | 0.52 | | 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 | 12 in [304.8 mm] |
| Diameter | 0.472 in [11.99 mm] |

Cable

| | |
|--------------------------------------|---------------------|
| Cable Type | LC141TBJ |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper, Silver |
| Dielectric Type | PTFE |
| Outer Conductor Material and Plating | Tinned Copper Braid |
| Jacket Material | FEP, Black |
| Jacket Diameter | 0.161 in [4.09 mm] |
| One Time Minimum Bend Radius | 0.315 in [8 mm] |
| Repeated Minimum Bend Radius | 1.575 in [40.01 mm] |

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Connectors

| Description | Connector 1 | Connector 2 |
|-----------------------------------|----------------------------|------------------------------------|
| Type | SMA Male | TNC Female |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | | Beryllium Copper, Gold over Nickel |
| Dielectric Type | | PTFE |
| Body Material and Plating | Brass, Gold over Nickel | Brass, Nickel |
| Coupling Nut Material and Plating | Passivated Stainless Steel | |
| Hex Size | 5/16 inch | |
| Torque | 8 in-lbs 0.9 Nm | |

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:

- Values at 25°C, sea level.

SMA Male to TNC Female Cable Assembly using LC141TBJ Coax, 1 FT



LCCA30490-FT1

How to Order

Part Number Configuration:

LCCA30490 - xx uu



Example: LCCA30490-12 = 12 inches long cable
LCCA30490-100cm = 100 cm long cable

SMA Male to TNC Female Cable Assembly using LC141TBJ Coax, 1 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.

SMA Male to TNC Female Cable Assembly using LC141TBJ Coax, 1 FT

L-com CAD Drawing

| REVISIONS | | |
|-----------|-----------------|--------------------|
| REV. | DESCRIPTION | DATE |
| A | INITIAL RELEASE | 04/30/2020 |
| | | APPROVED SELLIS |

LENGTH MEASURED FROM CONTACT TO CONTACT

SMA MALE

TNC FEMALE

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

| | | | | | | | | | | | | | | | | | | | | |
|---|-----------------|---------------------|--------------------|-------------|-------|--------|---------------|-------|-------------|--------------|----------------|--------------------------|----------------|----------------------------|-----------------|-----------------------------|-----------------|----------------|--------------|---|
| <p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <table style="width: 100%; border: none;"> <tr> <td>X = ± .2</td> <td>[.06]</td> <td>FRACTIONS</td> </tr> <tr> <td>.XX = ± .02</td> <td>[.51]</td> <td>± 1/32</td> </tr> <tr> <td>.XXX = ± .005</td> <td>[.13]</td> <td>ANGLES ± 1°</td> </tr> </table> <p>CABLE LENGTH (L) TOLERANCES:</p> <table style="width: 100%; border: none;"> <tr> <td>L ≤ 12 [305]</td> <td>± .1 [25] / -0</td> </tr> <tr> <td>12 [305] < L ≤ 60 [1524]</td> <td>± .2 [51] / -0</td> </tr> <tr> <td>60 [1524] < L ≤ 120 [3048]</td> <td>± .4 [102] / -0</td> </tr> <tr> <td>120 [3048] < L ≤ 300 [7620]</td> <td>± .6 [152] / -0</td> </tr> <tr> <td>300 [7620] < L</td> <td>± .5% L / -0</td> </tr> </table> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p> | X = ± .2 | [.06] | FRACTIONS | .XX = ± .02 | [.51] | ± 1/32 | .XXX = ± .005 | [.13] | ANGLES ± 1° | L ≤ 12 [305] | ± .1 [25] / -0 | 12 [305] < L ≤ 60 [1524] | ± .2 [51] / -0 | 60 [1524] < L ≤ 120 [3048] | ± .4 [102] / -0 | 120 [3048] < L ≤ 300 [7620] | ± .6 [152] / -0 | 300 [7620] < L | ± .5% L / -0 | <p style="text-align: center;">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 SCALE N/A</p> |
| X = ± .2 | [.06] | FRACTIONS | | | | | | | | | | | | | | | | | | |
| .XX = ± .02 | [.51] | ± 1/32 | | | | | | | | | | | | | | | | | | |
| .XXX = ± .005 | [.13] | ANGLES ± 1° | | | | | | | | | | | | | | | | | | |
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| 300 [7620] < L | ± .5% L / -0 | | | | | | | | | | | | | | | | | | | |
| SIZE A | CAGE CODE 43321 | DRAWN BY DFRISIELLO | ITEM NO. LCCA30490 | | | | | | | | | | | | | | | | | |
| | | | 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 FRONT OF THE CONNECTOR.

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