

Low Loss TNC Male to SMA Female Cable Assembly with Heavy Duty Heat Shrink Boot using LL142 Coax, 10 FT



LCCA30026-FT10

Configuration

- Connector 1: TNC Male
- Connector 2: SMA Female
- Cable Type: LL142

Features

- Max Frequency 18 GHz
- Shielding Effectivity > 95dB
- Low Loss Expanded PTFE Dielectric with 80% VoP

- FEP Jacket
- Triple Shielded
- Heavy Duty Heat Shrink Strain Relief Boot

Applications

- General Purpose
- Laboratory Use
- Flexible RF Interconnect

- Automated (ATE) Test Systems
- Antenna Range Applications and Long Cable Runs



Description

L-com's LCCA30026-FT10 is a low loss TNC male to SMA female cable assembly with heavy duty heat shrink boot using LL142 coax, 10 FT and ships same-day. The LL142 coax of this TNC cable uses the tape wrapped PTFE dielectric with a VoP of 80%, 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 TNC to SMA cable assembly has a male to female gender configuration with flexible LL142 series coax and operates to 18 GHz. The triple shield of this TNC cable is layered by silver plated copper braid over silver plated copper tape providing excellent shielding effectiveness greater than 95dB. Highly durable stainless-steel connectors and heavy-duty booting extend the life of these versatile, flexible TNC to SMA cables.

Custom versions of this TNC male to TNC 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 LCCA30026-FT10 L-com Low Loss TNC Male to SMA Female Cable Assembly with Heavy Duty Heat Shrink Boot using LL142 Coax, 10 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 |
| VSWR | | | 1.35:1 | |
| Velocity of Propagation | | 80 | | % |
| RF Shielding | 95 | | | dB |
| Capacitance | | 25 [82.02] | | pF/ft [pF/m] |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency | 1 | 2 | 4.5 | 9 | 18 | GHz |
| Insertion Loss (Max.) | 0.92 | 1.28 | 1.88 | 2.67 | 3.86 | 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 0.05*SQRT(FGHz) dB per TNC male connector and as 0.05*SQRT(FGHz) dB per SMA female connector.

Mechanical Specifications

Cable Assembly

| | |
|----------|----------------------|
| Length | 120 in [304.8 cm] |
| Diameter | 0.195 in [4.95 mm] |
| Weight | 0.247 lbs [112.04 g] |

Cable

| | |
|--------------------------------------|----------------------------|
| Cable Type | LL142 |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper, Silver |
| Dielectric Type | Tape wrapped PTFE |
| Number of Shields | 3 |
| Shield Layer 1 | Silver Plated Copper Tape |
| Shield Layer 2 | Aluminum Polyester |
| Shield Layer 3 | Silver Plated Copper Braid |
| Jacket Material | FEP, Green |
| Jacket Diameter | 0.195 in [4.95 mm] |
| Repeated Minimum Bend Radius | 0.975 in [24.77 mm] |

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Connectors

| Description | Connector 1 | Connector 2 |
|---------------------------------------|------------------------------------|------------------------------------|
| Type | TNC Male | SMA Female |
| Specification | MIL-STD-348 | |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | Beryllium Copper, Gold over Nickel | Beryllium Copper, Gold over Nickel |
| Contact Plating Specification | 50 µin minimum | 50 µin minimum |
| Dielectric Type | PEI | PTFE |
| Outer Conductor Material and Plating | | Passivated Stainless Steel |
| Outer Conductor Plating Specification | | SAE-AMS-2700 |
| Body Material and Plating | Passivated Stainless Steel | Passivated Stainless Steel |
| Body Plating Specification | SAE-AMS-2700 | SAE-AMS-2700 |
| Coupling Nut Material and Plating | Passivated Stainless Steel | |
| Coupling Nut Plating Specification | SAE-AMS-2700 | |
| Hex Size | 9/16 inch | |
| Torque | 15 in-lbs 1.7 Nm | |
| Boot Material | Heavy Duty Heat Shrink Boot | Heavy Duty Heat Shrink Boot |

Environmental Specifications

Temperature

Operating Range -55 to +200 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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LCCA30026-FT10

How to Order

Part Number Configuration:

LCCA30026 - xx uu



Example: LCCA30026-12 = 12 inches long cable
LCCA30026-100cm = 100 cm long cable

Low Loss TNC Male to SMA Female Cable Assembly with Heavy Duty Heat Shrink Boot using LL142 Coax, 10 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.

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L-com CAD Drawing

| REVISIONS | | |
|-----------|-----------------|----------|
| REV. | DESCRIPTION | DATE |
| A | INITIAL RELEASE | 12/20/19 |
| | APPROVED | SELLIS |

TNC MALE

SMA FEMALE

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SEE NOTE 1

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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|---|---|---|
| UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS TOLERANCES: .X ± .2 [.08] 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 [51] / -0 60 [1524] < L ≤ 120 [3048] = ± 4 [102] / -0 120 [3048] < L ≤ 300 [7620] = ± 6 [152] / -0 300 [7620] < L = ± 9% L / -0 ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. | | THIRD-ANGLE PROJECTION THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF L-COM GLOBAL CONNECTIVITY. ALL RIGHTS RESERVED. SHEET 1 OF 1 SCALE N/A |
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