

Low Loss SMA Male to TNC Male Cable Assembly using LMR-195 Coax, 1.5 FT with Times Microwave Components



LCCA30227-FT1.5

Configuration

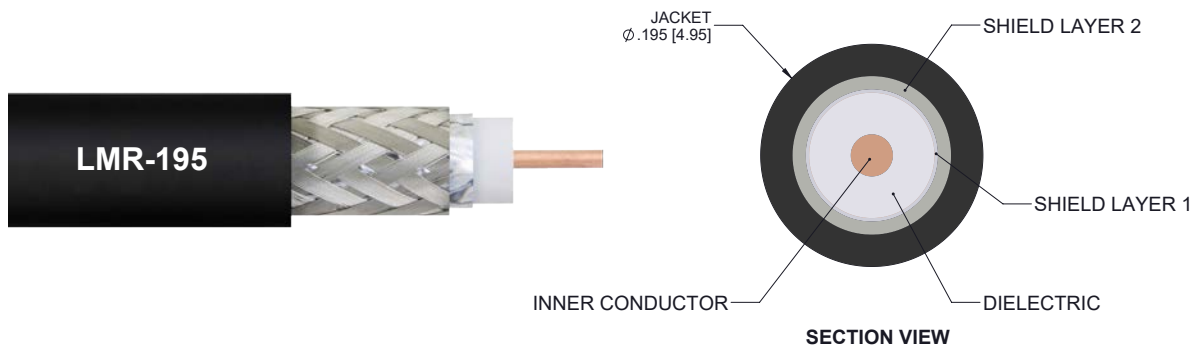
- Connector 1: SMA Male
- Connector 2: TNC Male
- Cable Type: LMR-195

Features

- Using Times Microwave Components
- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 80% Phase Velocity
- PE Jacket
- Low Insertion Loss
- Bend Radius of 2 Inches

Applications

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



Description

L-com's LCCA30227-FT1.5 is a low loss SMA male to TNC male cable assembly using LMR-195 coax, 1.5 FT with Times Microwave components and ships same-day. The LMR-195 coax of this SMA cable uses the PE (F) 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 SMA to TNC cable assembly has a male to male gender configuration with flexible LMR-195 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. *LMR™ is a trademark of Times Microwave Systems.

Custom versions of this SMA male to SMA male 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 LCCA30227-FT1.5 L-com Low Loss SMA Male to TNC Male Cable Assembly using LMR-195 Coax, 1.5 FT with Times Microwave Components 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 | | | 1.4:1 | |
| Velocity of Propagation | | 80 | | % |
| RF Shielding | 90 | | | dB |
| Group Delay | | 1.27 [4.17] | | ns/ft [ns/m] |
| Capacitance | | 25.4 [83.33] | | pF/ft [pF/m] |
| Inductance | | 0.064 [0.21] | | uH/ft [uH/m] |
| DC Resistance Inner Conductor | | 7.6 [24.93] | | Ohms/1000ft [Ohms/Km] |
| DC Resistance Outer Conductor | | 4.9 [16.08] | | Ohms/1000ft [Ohms/Km] |
| Jacket Spark | | | 3,000 | Vrms |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency | 0.25 | 0.5 | 1 | 2.5 | 6 | GHz |
| Insertion Loss (Typ.) | 0.28 | 0.32 | 0.37 | 0.48 | 0.65 | 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 includes an estimated insertion loss of 0.1 dB per connector.

Mechanical Specifications

Cable Assembly

| | |
|----------|---------------------|
| Length | 18 in [457.2 mm] |
| Diameter | 0.6 in [15.24 mm] |
| Weight | 0.083 lbs [37.65 g] |

Cable

| | |
|--------------------------------------|---------------------|
| Cable Type | LMR-195 |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper |
| Dielectric Type | PE (F) |
| Number of Shields | 2 |
| Shield Layer 1 | Aluminum Tape |
| Shield Layer 2 | Tinned Copper Braid |

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| | |
|------------------------------|------------------------|
| Jacket Material | PE, Black |
| Jacket Diameter | 0.195 in [4.95 mm] |
| One Time Minimum Bend Radius | 0.5 in [12.7 mm] |
| Repeated Minimum Bend Radius | 2 in [50.8 mm] |
| Bending Moment | 0.2 lbs-ft [0.27 N-m] |
| Flat Plate Crush | 15 lbs/in [0.27 Kg/mm] |
| Tensile Strength | 40 lbs [18.14 Kg] |

Connectors

| Description | Connector 1 | Connector 2 |
|-----------------------------------|----------------------------|------------------------|
| Type | SMA Male | TNC Male |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | Brass, Gold | Beryllium Copper, Gold |
| Contact Plating Specification | ASTM B488 | |
| Dielectric Type | Teflon | Teflon |
| Body Material and Plating | Passivated Stainless Steel | Brass, Silver |
| Coupling Nut Material and Plating | Passivated Stainless Steel | Brass, Silver |
| Hex Size | 5/16 Inch | |

Environmental Specifications

Temperature

| | |
|-----------------|------------------|
| Operating Range | -40 to +85 deg C |
| Storage Range | -70 to +85 deg C |

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

Plotted and Other Data

Notes:

Low Loss SMA Male to TNC Male Cable Assembly using LMR-195 Coax, 1.5 FT with Times Microwave Components



LCCA30227-FT1.5

How to Order

Part Number Configuration:

LCCA30227 - xx uu



Example: LCCA30227-12 = 12 inches long cable
LCCA30227-100cm = 100 cm long cable

Low Loss SMA Male to TNC Male Cable Assembly using LMR-195 Coax, 1.5 FT with Times Microwave Components 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 TNC Male Cable Assembly using LMR-195 Coax,
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L-com CAD Drawing

| REVISIONS | | | |
|-----------|-----------------|------------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 02/03/2020 | SELLIS |

LENGTH MEASURED FROM CONTACT TO CONTACT

SMA MALE

LMR-195

2X HEAT SHRINK

TNC MALE

LABEL

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 style="border: none;">.X ± .2 [.008]</td> <td style="border: none;">FRACTIONS ± 1/32</td> </tr> <tr> <td style="border: none;">.XX ± .02 [.51]</td> <td style="border: none;">ANGLES ± 1°</td> </tr> <tr> <td style="border: none;">.XXX ± .005 [.13]</td> <td style="border: none;">CABLE LENGTH (L) TOLERANCES:</td> </tr> <tr> <td style="border: none;">L ≤ 12 [305] = +1 [25] / -0</td> <td style="border: none;">12 [305] < L ≤ 60 [1524] = +2 [51] / -0</td> </tr> <tr> <td style="border: none;">60 [1524] < L ≤ 120 [3048] = +4 [102] / -0</td> <td style="border: none;">120 [3048] < L ≤ 300 [7620] = +6 [152] / -0</td> </tr> <tr> <td style="border: none;">300 [7620] < L = +5%L / -0</td> <td style="border: none;"></td> </tr> </table> | .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 [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;">THIRD-ANGLE PROJECTION</p> <p style="text-align: center;">- [Symbol]</p> <p style="font-size: small;">THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF L-COM GLOBAL CONNECTIVITY. ALL RIGHTS RESERVED.</p> <p style="text-align: right;">SHEET 1 OF 1</p> <p style="text-align: right;">SCALE N/A</p> |
| .X ± .2 [.008] | FRACTIONS ± 1/32 | | | | | | | | | | | | |
| .XX ± .02 [.51] | ANGLES ± 1° | | | | | | | | | | | | |
| .XXX ± .005 [.13] | CABLE LENGTH (L) TOLERANCES: | | | | | | | | | | | | |
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| 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 | 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 | | | | | | | | | | | | |
| 300 [7620] < L = +5%L / -0 | | | | | | | | | | | | | |

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|-----------------------------------|---|---------------------------------|-----------------|
| L-com an INFINITE brand | 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 | PART NUMBER LCCA30227 | REV A |
| SIZE A | CAGE CODE 43321 | DRAWN BY MVEERAPPAN | 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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