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## Configuration

- Connector 1: N Male Right Angle
- Connector 2: TNC Male
- Cable Type: LMR-195


## Features

- Using Times Microwave Components
- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- $80 \%$ Phase Velocity


## Applications

## - General Purpose

- Laboratory Use
- Antenna Installations
- PE Jacket
- Low Insertion Loss
- Bend Radius of 2 Inches
$\qquad$
- Land Mobile Radio \& Other Communication Systems
- Cellular \& Wi-Fi Systems



## Description

L-com's LCCA30229-FT3 is a low loss N male right angle to TNC male cable assembly using LMR-195 coax, 3 FT with Times Microwave components and ships same-day. The LMR-195 coax of this N 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 N to TNC cable assembly has a male to male gender configuration with flexible LMR-195 series coax and operates to 5.8 GHz . The double shield of this N cable is layered by tinned copper braid over aluminum tape providing shielding effectiveness greater than 90 dB . This right angle N cable interface on the LMR-195 coax allows for easier connections in tight spaces. *LMR ${ }^{\text {TM }}$ is a trademark of Times Microwave Systems.
Custom versions of this N male to N 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 LCCA30229-FT3 L-com Low Loss N Male Right Angle to TNC Male Cable Assembly using LMR-195 Coax, 3 FT with Times Microwave Components data sheet PDF includes details of the RF product specifications, CAD drawing(s) and dimensions below.

Low Loss N Male Right Angle to TNC Male Cable Assembly using LMR-195 Coax, 3 FT with Times Microwave Components


## Electrical Specifications

| Description | Minimum | Typical | Maximum |  |
| :--- | :---: | :---: | :---: | :---: |
| Frequency Range | DC |  | 5.8 | Units |
| Velocity of Propagation |  | 80 | GHz |  |
| RF Shielding | 90 |  | $\%$ |  |
| Group Delay |  | $25.4[4.17]$ | dB |  |
| Capacitance | $0.064[0.21]$ | $\mathrm{ns} / \mathrm{ft}[\mathrm{ns} / \mathrm{m}]$ |  |  |
| Inductance | $7.6[24.93]$ | $\mathrm{pF} / \mathrm{ft}[\mathrm{pF} / \mathrm{m}]$ |  |  |
| DC Resistance Inner Conductor | $4.9[16.08]$ | $\mathrm{uH} / \mathrm{ft}[\mathrm{uH} / \mathrm{m}]$ |  |  |
| DC Resistance Outer Conductor |  | $\mathrm{Ohms} / 1000 \mathrm{ft}[\mathrm{Ohms} / \mathrm{Km}]$ |  |  |
| Jacket Spark |  | $\mathrm{Ohms} / 1000 \mathrm{ft}[\mathrm{Ohms} / \mathrm{Km}]$ |  |  |

## Specifications by Frequency

| Description | $F 1$ | $F 2$ | $F 3$ | $F 4$ | F5 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 0.25 | 0.5 | 1 | 2.5 | 5.8 | GHz |
| Insertion Loss (Typ.) | 0.47 | 0.54 | 0.65 | 0.87 | 1.19 | 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 for the straight connector and 0.2 dB for the right angle connector.

## Mechanical Specifications

## Cable Assembly

Length $\quad 36$ in [914.4 mm]
Diameter $\quad 0.8$ in [20.32 mm]
Weight
$0.16 \mathrm{lbs}[72.57 \mathrm{~g}]$

## Cable

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

Low Loss N Male Right Angle to TNC Male Cable Assembly using LMR-195 Coax, 3 FT with Times Microwave Components


Jacket Material<br>Jacket Diameter<br>One Time Minimum Bend Radius<br>Repeated Minimum Bend Radius<br>Bending Moment<br>Flat Plate Crush<br>Tensile Strength

> PE, Black 0.195 in $[4.95 \mathrm{~mm}]$  $0.5 \mathrm{in}[12.7 \mathrm{~mm}]$ 2 in $[50.8 \mathrm{~mm}]$ $0.2 \mathrm{lbs}-\mathrm{ft}[0.27 \mathrm{~N}-\mathrm{m}]$ $15 \mathrm{lbs} / \mathrm{in}[0.27 \mathrm{Kg} / \mathrm{mm}]$ $40 \mathrm{lbs}[18.14 \mathrm{Kg}]$

## Connectors

| Description | Connector 1 | Connector 2 |
| :--- | :---: | :---: |
| Type | N Male Right Angle | TNC Male |
| Impedance | 50 Ohms | 50 Ohms |
| Mating Cycles | 500 |  |
| Contact Material and Plating | Brass, Gold | Beryllium Copper, Gold |
| Contact Plating Specification | $50 \mu$ in. minimum |  |
| Dielectric Type | Teflon | Teflon |
| Body Material and Plating | Brass, Tri-Metal | Brass, Silver |
| Body Plating Specification | $80 \mu$ in. minimum |  |
| Coupling Nut Material and Plating | Brass, Tri-Metal | Brass, Silver |
| Coupling Nut Plating Specification | $80 \mu$ in. minimum |  |

## 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:
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## How to Order

Part Number Configuration: LCCA30229 - Xx

Example: $\quad$| LCCA30229-12 $=12$ inches long cable |
| :--- |
| LCCA30229-100 $\mathrm{cm}=100 \mathrm{~cm}$ long cable |

Low Loss N Male Right Angle to TNC Male Cable Assembly using LMR-195 Coax, 3 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.

[^0]L-com CAD Drawing



[^0]:    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.

