

Low Loss N Male Right Angle to SMA Male Cable Assembly using LMR-400-DB Coax, 2 FT with Times Microwave Components



LCCA30310-FT2

Configuration

- Connector 1: N Male Right Angle
- Connector 2: SMA Male
- Cable Type: LMR-400-DB

Features

- Using Times Microwave Components
- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 85% Phase Velocity
- PE Jacket
- Low Insertion Loss
- Bend Radius of 4 Inches

Applications

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



Description

L-com's LCCA30310-FT2 is a low loss N male right angle to SMA male cable assembly using LMR-400-DB coax, 2 FT with Times Microwave components and ships same-day. The LMR-400-DB coax of this N cable uses the PE (F) dielectric with a VoP of 85%, 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 SMA cable assembly has a male to male gender configuration with flexible LMR-400-DB series coax and operates to 6 GHz. The double shield of this N cable is layered by tinned copper braid over aluminum tape providing shielding effectiveness greater than 90dB. This right angle N cable interface on the LMR-400-DB coax allows for easier connections in tight spaces. *LMRTM 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 LCCA30310-FT2 L-com Low Loss N Male Right Angle to SMA Male Cable Assembly using LMR-400-DB Coax, 2 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 | | 85 | | % |
| RF Shielding | 90 | | | dB |
| Group Delay | | 1.2 [3.94] | | ns/ft [ns/m] |
| Capacitance | | 23.9 [78.41] | | pF/ft [pF/m] |
| Inductance | | 0.06 [0.2] | | uH/ft [uH/m] |
| DC Resistance Inner Conductor | | 1.39 [4.56] | | Ohms/1000ft [Ohms/Km] |
| DC Resistance Outer Conductor | | 1.65 [5.41] | | Ohms/1000ft [Ohms/Km] |
| Jacket Spark | | | 8,000 | Vrms |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency | 0.25 | 0.5 | 1 | 2.5 | 6 | GHz |
| Insertion Loss (Typ.) | 0.34 | 0.36 | 0.38 | 0.44 | 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 for the straight connector and 0.2 dB for the right angle connector.

Mechanical Specifications

Cable Assembly

| | |
|----------|-------------------|
| Length | 24 in [609.6 mm] |
| Diameter | 0.8 in [20.32 mm] |

Cable

| | |
|--------------------------------------|----------------------|
| Cable Type | LMR-400-DB |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper Clad Aluminum |
| 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 | 0.405 in [10.29 mm] |
| One Time Minimum Bend Radius | 1 in [25.4 mm] |
| Repeated Minimum Bend Radius | 4 in [101.6 mm] |
| Bending Moment | 0.5 lbs-ft [0.68 N-m] |
| Flat Plate Crush | 40 lbs/in [0.71 Kg/mm] |
| Tensile Strength | 160 lbs [72.57 Kg] |

Connectors

| Description | Connector 1 | Connector 2 |
|-----------------------------------|--------------------|------------------|
| Type | N Male Right Angle | SMA Male |
| Impedance | 50 Ohms | 50 Ohms |
| Mating Cycles | 500 | |
| Contact Material and Plating | Brass, Gold | Brass, Gold |
| Contact Plating Specification | | 50µ" Minimum |
| Dielectric Type | Teflon | Teflon |
| Body Material and Plating | Brass, Tri-Metal | Brass, Tri-Metal |
| Coupling Nut Material and Plating | Brass, Tri-Metal | Brass, Tri-Metal |
| Hex Size | 13/16 inch | |
| Torque | 30 in-lbs 3.39 Nm | |

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 N Male Right Angle to SMA Male Cable Assembly using LMR-400-DB Coax, 2 FT with Times Microwave Components



LCCA30310-FT2

How to Order

Part Number Configuration:

LCCA30310

- **xx**

uu

Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

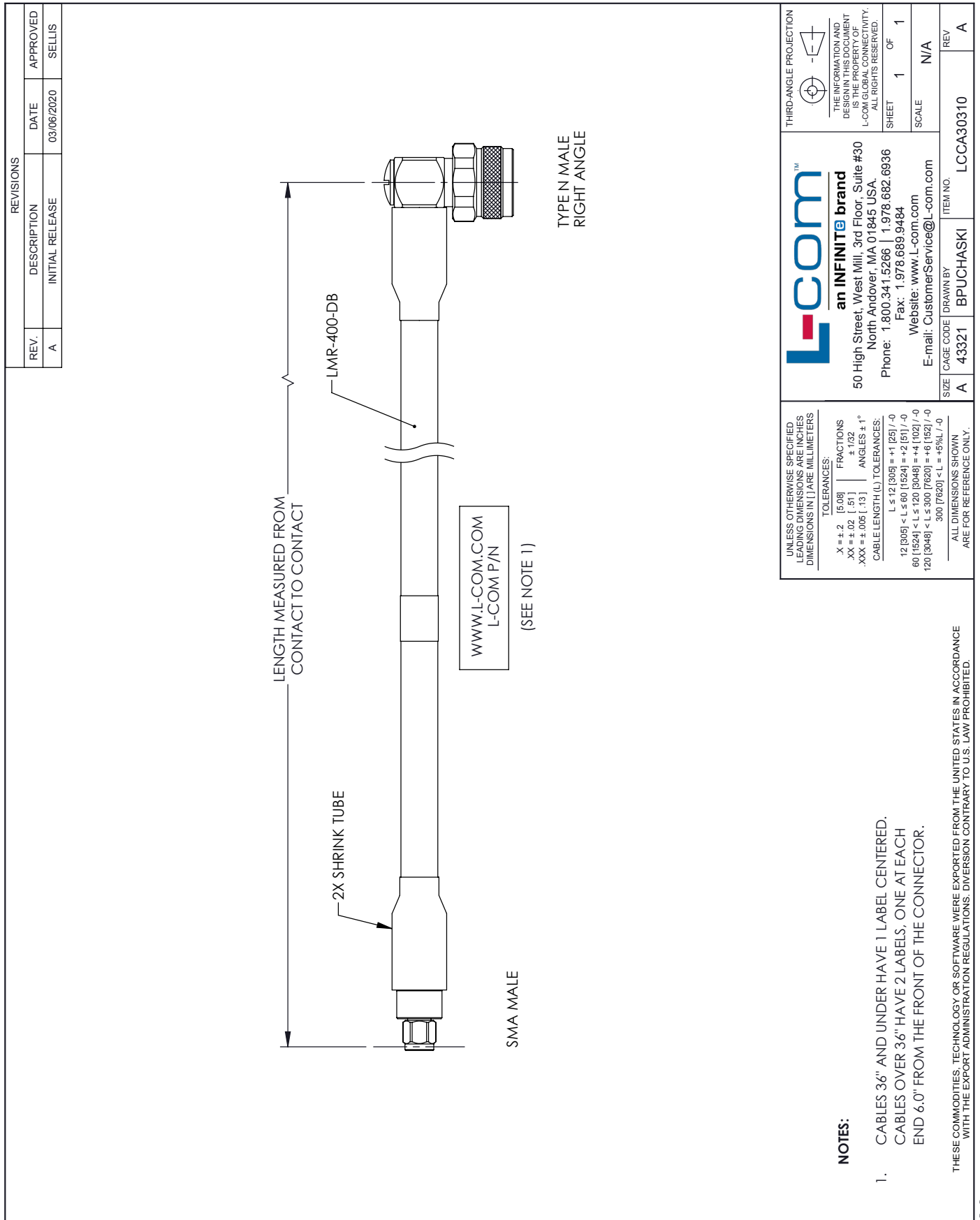
Example: LCCA30310-12 = 12 inches long cable
LCCA30310-100cm = 100 cm long cable

Low Loss N Male Right Angle to SMA Male Cable Assembly using LMR-400-DB Coax, 2 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.

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L-com CAD Drawing



| REVISIONS | | |
|-----------|-----------------|------------|
| REV. | DESCRIPTION | DATE |
| A | INITIAL RELEASE | 03/06/2020 |
| | | APPROVED |
| | | SELLIS |

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

| | | |
|--------------|--------|-------------|
| .X = ±.2 | [5.08] | FRACTIONS |
| .XX = ±.02 | [.51] | ±1/32 |
| .XXX = ±.005 | [.13] | ANGLES ± 1° |

CABLE LENGTH (L) TOLERANCES:

| | |
|-----------------------------|----------------|
| L ≤ 12 [305] | ± 1 [25] / -0 |
| 12 [305] < L ≤ 60 [1524] | ± 2 [61] / -0 |
| 60 [1524] < L ≤ 120 [3048] | ± 4 [102] / -0 |
| 120 [3048] < L ≤ 300 [7620] | ± 6 [152] / -0 |
| 300 [7620] < L | ± 6 [152] / -0 |

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

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ITEM NO. LCCA30310

SIZE A

CAGE CODE 43321

DRAWN BY BPUCHASKI

NOTES:

1. 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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