

Low Loss SMA Male to N Male Right Angle Cable Assembly using LMR-195-FR Coax, 6 FT with Times Microwave Components

**LCCA30231-FT6**

**Configuration**

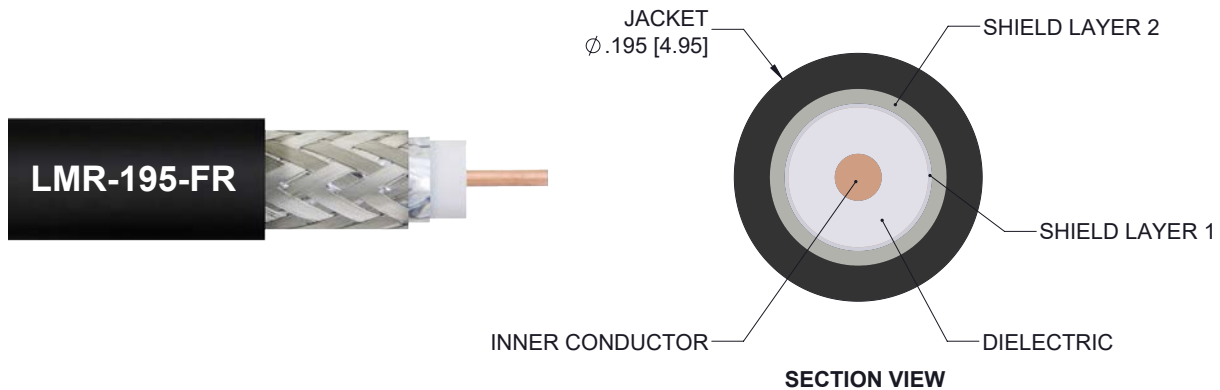
- Connector 1: SMA Male
- Connector 2: N Male Right Angle
- Cable Type: LMR-195-FR

**Features**

- Using Times Microwave Components
- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 76% Phase Velocity
- FRPE 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 LCCA30231-FT6 is a low loss SMA male to N male right angle cable assembly using LMR-195-FR coax, 6 FT with Times Microwave components and ships same-day. The LMR-195-FR coax of this SMA cable uses the PE dielectric with a VoP of 76%, 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 N cable assembly has a male to male gender configuration with flexible LMR-195-FR series coax and operates to 5.8 GHz. The double shield of this SMA 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-195-FR coax allows for easier connections in tight spaces. \*LMR<sup>TM</sup> 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 LCCA30231-FT6 L-com Low Loss SMA Male to N Male Right Angle Cable Assembly using LMR-195-FR Coax, 6 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		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%
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	5.8	GHz
Insertion Loss (Typ.)	0.64	0.79	1	1.43	2.09	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 72 in [182.88 cm]  
Diameter 0.8 in [20.32 mm]

**Cable**

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

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## LCCA30231-FT6

Jacket Material	FRPE, 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	N Male Right Angle
Impedance	50 Ohms	50 Ohms
Mating Cycles		500
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	ASTM B488	50µ in. minimum
Dielectric Type	Teflon	Teflon
Body Material and Plating	Passivated Stainless Steel	Brass, Tri-Metal
Body Plating Specification		80µ in. minimum
Coupling Nut Material and Plating	Passivated Stainless Steel	Brass, Tri-Metal
Coupling Nut Plating Specification		80µ in. minimum
Hex Size	5/16 Inch	30

### 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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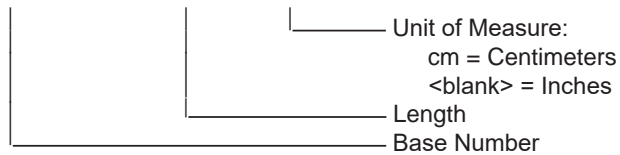
**How to Order**

Part Number Configuration:

**LCCA30231**

- **xx**

**uu**



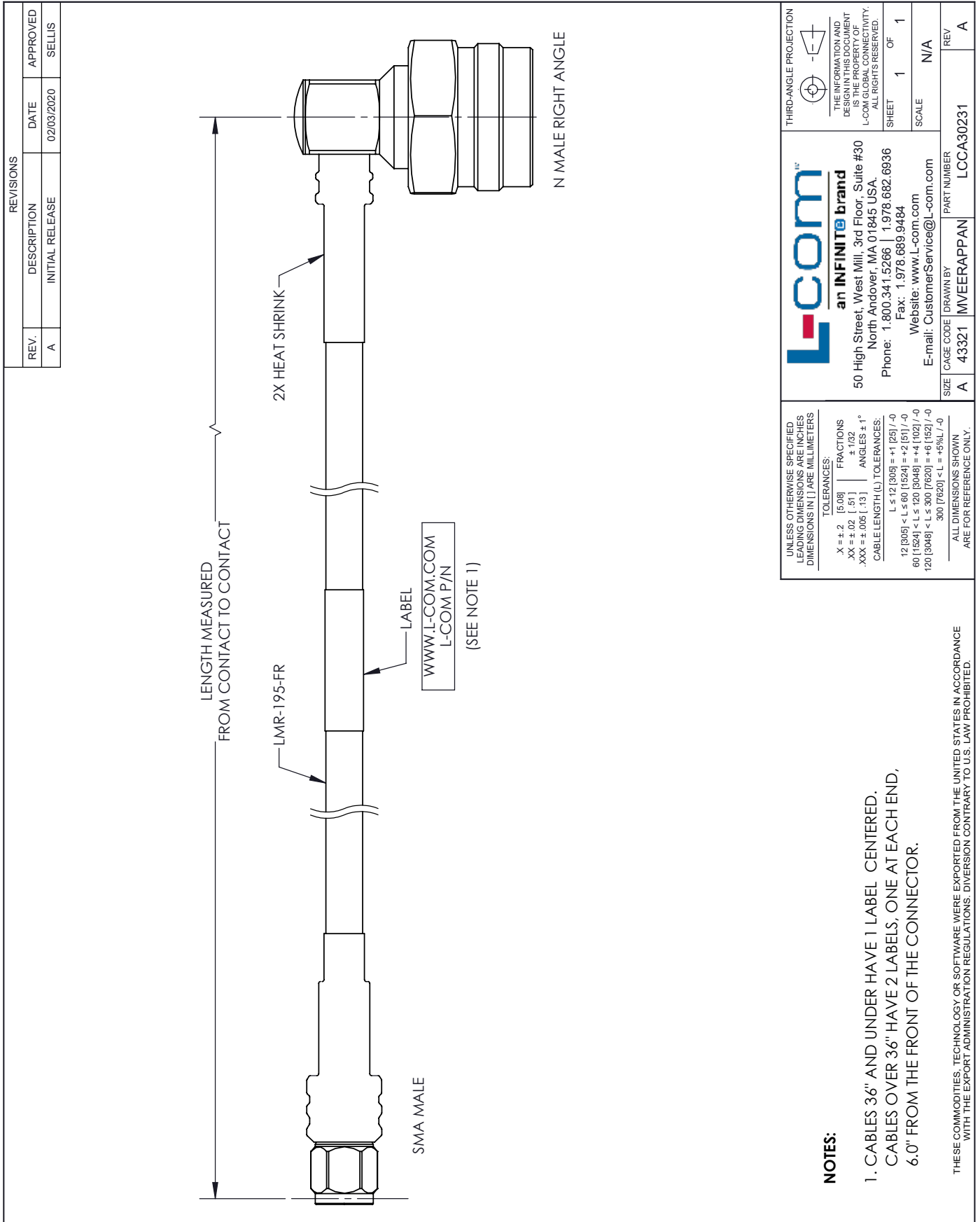
Example: LCCA30231-12 = 12 inches long cable  
LCCA30231-100cm = 100 cm long cable

Low Loss SMA Male to N Male Right Angle Cable Assembly using LMR-195-FR Coax, 6 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 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.

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L-com CAD Drawing



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

**L-com**  
an INFINITE brand

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Fax: 1.978.689.9484  
Website: www.l-com.com  
E-mail: CustomerService@l-com.com

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

TOLERANCES:  
 .X ± .2 [ .50]    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 [61] / -0  
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
 300 [7620] < L = +5%L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1  
SCALE N/A

SIZE	CAGE CODE	DRAWN BY	PART NUMBER
A	43321	MVEERAPPAN	LCCA30231

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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