

Low Loss N Male to SMA Male Cable Assembly using LMR-200-FR Coax, 1 FT with Times Microwave Components



LCCA30248-FT1

Configuration

- Connector 1: N Male
- Connector 2: SMA Male
- Cable Type: LMR-200-FR
- Coax Flex Type: Flexible

Features

- Using Times Microwave Components
- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 83% 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

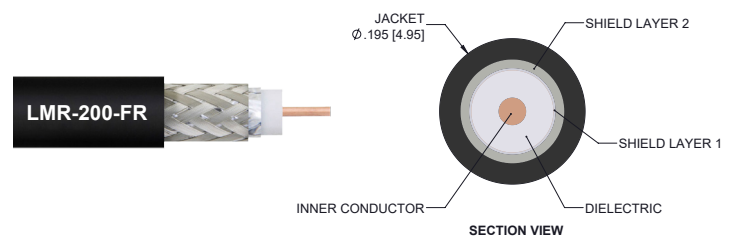
Description

L-com's LCCA30248-FT1 is a low loss N male to SMA male cable assembly using LMR-200-FR coax, 1 FT with Times Microwave components and ships same-day. The LMR-200-FR coax of this N cable uses the PE dielectric with a VoP of 83%, 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-200-FR 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 90dB. *LMR™ 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 LCCA30248-FT1 L-com Low Loss N Male to SMA Male Cable Assembly using LMR-200-FR Coax, 1 FT with Times Microwave Components data sheet PDF includes details of the RF product specifications, CAD drawing(s) and dimensions below.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
Velocity of Propagation		83		%
RF Shielding	90			dB
Group Delay		1.22 [4]		ns/ft [ns/m]
Capacitance		24.5 [80.38]		pF/ft [pF/m]
Inductance		0.061 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		5.36 [17.59]		Ohms/1000ft [Ohms/Km]



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
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.)	0.25	0.27	0.3	0.36	0.46	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

Width/Diameter 0.89 in [22.61 mm]

Cable

Cable Type LMR-200-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
 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 2 lbs-ft [2.71 N-m]
 Flat Plate Crush 15 lbs/in [0.27 Kg/mm]
 Tensile Strength 40 lbs [18.14 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	N Male	SMA Male
Specification	MIL-STD-348	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Beryllium Copper, Gold
Contact Plating Specification		ASTM B488
Dielectric Type	PTFE	Teflon
Body Material and Plating	Brass, Tri-Metal	Passivated Stainless Steel
Body Plating Specification		SAE-AMS-2700
Coupling Nut Material and Plating	Phosphor Bronze	Passivated Stainless Steel
Coupling Nut Plating Specification		SAE-AMS-2700
Hex Size	13/16 Inch	5/16 Inch

Environmental Specifications

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

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

Plotted and Other Data

Notes:

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LCCA30248-FT1

Typical Performance Data

How to Order

Part Number Configuration:

LCCA30248

- **xx**

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Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: LCCA30248-12 = 12 inches long cable
LCCA30248-100cm = 100 cm long cable

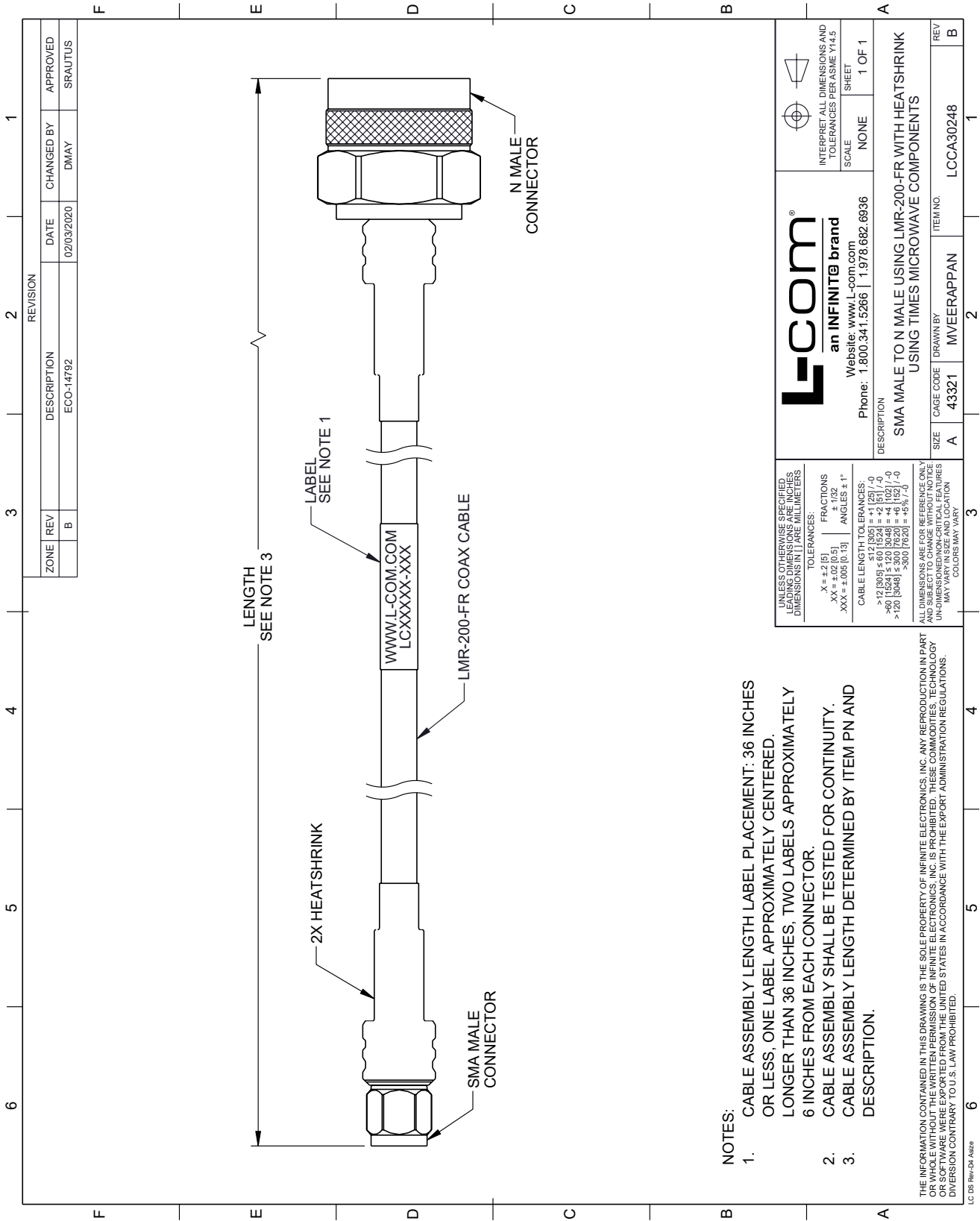
Low Loss N Male to SMA Male Cable Assembly using LMR-200-FR Coax, 1 FT with Times Microwave Components from L-com has same day shipment for domestic and International orders. Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products as well as lightning and surge protectors, NEMA rated enclosures, and an RF product line which includes antennas, amplifiers, passive, and active components.

URL: <https://www.l-com.com/low-loss-n-male-sma-male-cable-assembly-using-lmr-200-fr-coax-1-ft-times-microwave-components-lcca30248-ft1-p.aspx>

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.

LCCA30248-FT1 CAD Drawing

Low Loss N Male to SMA Male Cable Assembly using LMR-200-FR Coax, 1 FT with Times Microwave Components



ZONE		REVISION		APPROVED	
REV	DESCRIPTION	DATE	CHANGED BY	SRAUTUS	
B	ECO-14792	02/03/2020	DMAY		

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5
SCALE NONE SHEET 1 OF 1

DESCRIPTION
SMA MALE TO N MALE USING LMR-200-FR WITH HEATSHRINK USING TIMES MICROWAVE COMPONENTS

REV	DESCRIPTION	DATE	BY	APP
B	LCCA30248			

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN PARENTHESES ARE IN MILLIMETERS.	DESCRIPTION	SIZE	CAGE CODE	DRAWN BY	ITEM NO.
TOLERANCES: X = ±.2 [5] FRACTIONS ± 1/32 .XX = ±.02 [0.5] ANGLES ± 1° .XXX = ±.005 [0.13]	SMA MALE TO N MALE USING LMR-200-FR WITH HEATSHRINK USING TIMES MICROWAVE COMPONENTS	A	43321	MVEERAPPAN	LCCA30248
CABLE LENGTH TOLERANCES: ≤ 12 [305] ±.01 [524] = ±.2 [5] / 0 > 12 [305] ≤ 60 [1524] = ±.05 [1.27] / 0 > 60 [1524] ≤ 300 [7620] = ±.1 [2.54] / 0 > 300 [7620] = ±.5% / 0					
ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE UNLESS INDICATED OTHERWISE. CRITICAL FEATURES MAY VARY. DIMENSIONS IN PARENTHESES MAY VARY.					

- NOTES:
- CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
 - CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
 - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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