

Low Loss N Female Bulkhead to SMA Male Cable Assembly using LMR-400-DB Coax, 5 FT with Times Microwave Components with HeatShrink



## LCCA30312-FT5

### Configuration

- Connector 1: N Female Bulkhead
- 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 LCCA30312-FT5 is a low loss N female bulkhead to SMA male cable assembly using LMR-400-DB coax, 5 FT with Times Microwave components with heatshrink 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 female 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. L-com's RF cable assembly with N bulkhead interface enables system designers to have external connections on their product enclosures or to be used for other rack mount and panel mount applications. \*LMR<sup>TM</sup> is a trademark of Times Microwave Systems.

Custom versions of this N female 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 LCCA30312-FT5 L-com Low Loss N Female Bulkhead to SMA Male Cable Assembly using LMR-400-DB Coax, 5 FT with Times Microwave Components with HeatShrink data sheet PDF includes details of the RF product specifications, CAD drawing(s) and dimensions below.

Low Loss N Female Bulkhead to SMA Male Cable Assembly using LMR-400-DB Coax, 5 FT with Times Microwave Components with HeatShrink



## LCCA30312-FT5

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
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.)	0.3	0.34	0.4	0.54	0.75	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 60 in [152.4 cm]  
Diameter 0.875 in [22.23 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

Low Loss N Female Bulkhead to SMA Male Cable Assembly using LMR-400-DB Coax, 5 FT with Times Microwave Components with HeatShrink



## LCCA30312-FT5

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 Female Bulkhead	SMA Male
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification		50µ" Minimum
Dielectric Type	Teflon	Teflon
Body Material and Plating	Brass, Nickel	Brass, Tri-Metal
Coupling Nut Material and Plating		Brass, Tri-Metal

### 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 Female Bulkhead to SMA Male Cable Assembly using LMR-400-DB Coax, 5 FT with Times Microwave Components with HeatShrink



## LCCA30312-FT5

### How to Order

Part Number Configuration:

**LCCA30312 - xx uu**



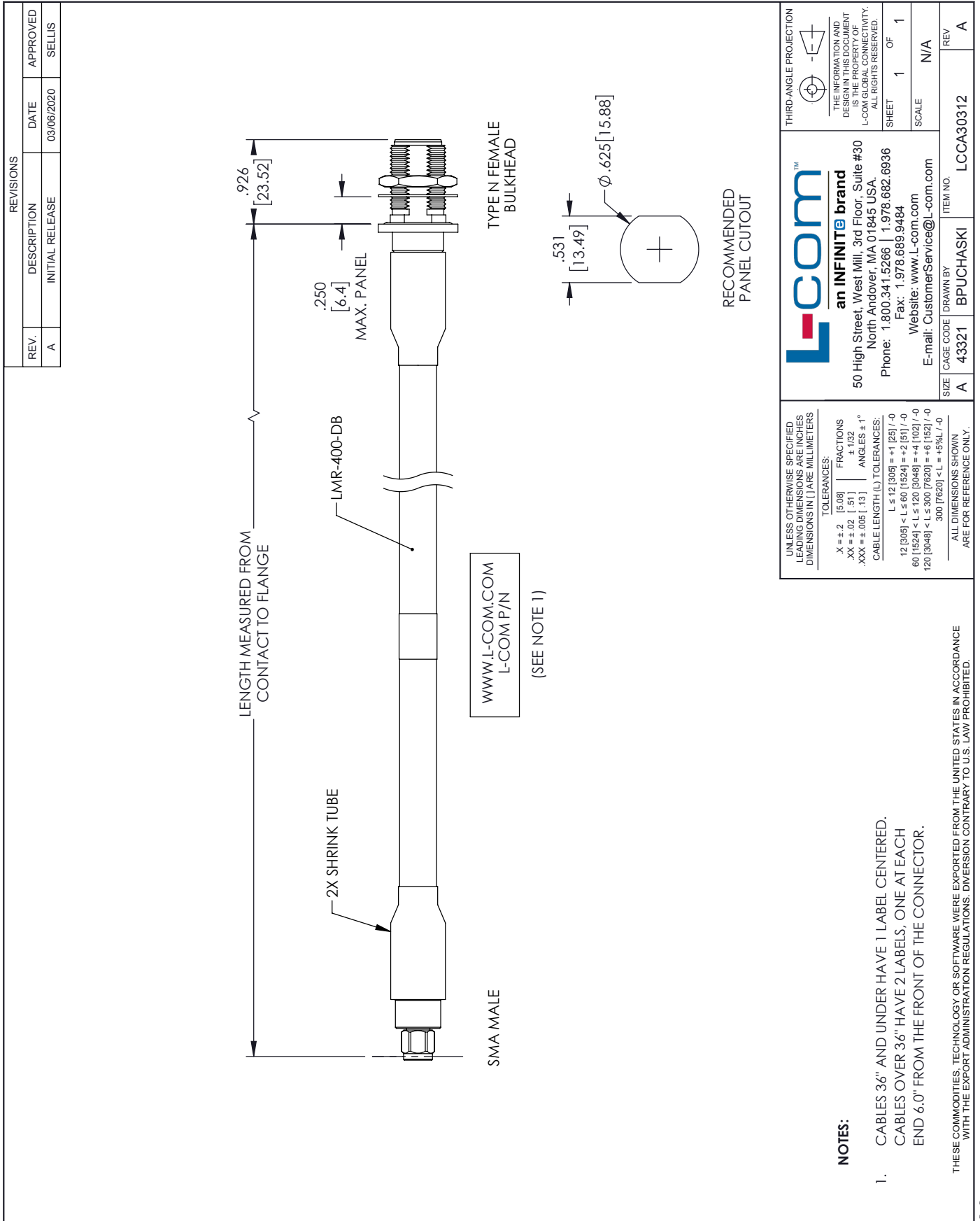
Example: LCCA30312-12 = 12 inches long cable  
LCCA30312-100cm = 100 cm long cable

Low Loss N Female Bulkhead to SMA Male Cable Assembly using LMR-400-DB Coax, 5 FT with Times Microwave Components with HeatShrink 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.

Low Loss N Female Bulkhead to SMA Male Cable Assembly using LMR-400-DB Coax, 5 FT with Times Microwave Components with HeatShrink

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	± 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	± 9% [L] / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

**THIRD-ANGLE PROJECTION**

THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF L-COM GLOBAL CONNECTIVITY. ALL RIGHTS RESERVED.

SHEET 1 OF 1

SCALE N/A

**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

SIZE A CAGE CODE 43321 DRAWN BY BPUCHASKI ITEM NO. LCCA30312 REV A

**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.

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

T-Rev D