

Low Loss BNC Male to N Female Cable Assembly using LMR-400-DB Coax, 6 FT with Times Microwave Components



**LCCA30321-FT6**

**Configuration**

- Connector 1: BNC Male
- Connector 2: N Female
- 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 LCCA30321-FT6 is a low loss BNC male to N female cable assembly using LMR-400-DB coax, 6 FT with Times Microwave components and ships same-day. The LMR-400-DB coax of this BNC 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 BNC to N cable assembly has a male to female gender configuration with flexible LMR-400-DB series coax and operates to 6 GHz. The double shield of this BNC 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 BNC male to BNC female 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 LCCA30321-FT6 L-com Low Loss BNC Male to N Female Cable Assembly using LMR-400-DB 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		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.)	0.32	0.36	0.44	0.6	0.86	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	72 in [182.88 cm]
Diameter	0.63 in [16 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	BNC Male	N Female
Specification		MIL-STD-348
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	
Contact Material and Plating	Brass, Gold	Copper, Gold
Contact Plating Specification	50 microns	
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	80 microns	
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Specification	80 microns	

### 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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**LCCA30321-FT6**

**How to Order**

Part Number Configuration:

**LCCA30321 - xx uu**



Example: LCCA30321-12 = 12 inches long cable  
LCCA30321-100cm = 100 cm long cable

Low Loss BNC Male to N Female Cable Assembly using LMR-400-DB 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.

Low Loss BNC Male to N Female Cable Assembly using LMR-400-DB Coax, 6 FT with Times Microwave Components

L-com CAD Drawing

REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	03/05/2020
		APPROVED SELLIS

  

LENGTH MEASURED FROM CONTACT TO CONTACT

WWW.L-COM.COM  
L-COM P/N  
(SEE NOTE 1)

  

<p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <table style="width: 100%; border: none;"> <tr> <td>X = ± .2</td> <td>[ .06]</td> <td>FRACTIONS</td> </tr> <tr> <td>.XX = ± .02</td> <td>[ .51]</td> <td>± 1/32</td> </tr> <tr> <td>.XXX = ± .005</td> <td>[ .13]</td> <td>ANGLES ± 1°</td> </tr> </table> <p>CABLE LENGTH (L) TOLERANCES:</p> <table style="width: 100%; border: none;"> <tr> <td>L ≤ 12 [305]</td> <td>= +1 [25] / -0</td> </tr> <tr> <td>12 [305] &lt; L ≤ 60 [1524]</td> <td>= +2 [51] / -0</td> </tr> <tr> <td>60 [1524] &lt; L ≤ 120 [3048]</td> <td>= +4 [102] / -0</td> </tr> <tr> <td>120 [3048] &lt; L ≤ 300 [7620]</td> <td>= +6 [152] / -0</td> </tr> <tr> <td>300 [7620] &lt; L = +5% L / -0</td> <td></td> </tr> </table> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>	X = ± .2	[ .06]	FRACTIONS	.XX = ± .02	[ .51]	± 1/32	.XXX = ± .005	[ .13]	ANGLES ± 1°	L ≤ 12 [305]	= +1 [25] / -0	12 [305] < L ≤ 60 [1524]	= +2 [51] / -0	60 [1524] < L ≤ 120 [3048]	= +4 [102] / -0	120 [3048] < L ≤ 300 [7620]	= +6 [152] / -0	300 [7620] < L = +5% L / -0		<p style="text-align: center;"><b>L-com</b><sup>TM</sup> an INFINITE brand</p> <p>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</p> <p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF L-COM GLOBAL CONNECTIVITY. ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1 SCALE N/A</p>
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<p>NOTES:</p> <ol style="list-style-type: none"> <li>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.</li> </ol>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>SIZE</td> <td>CAGE CODE</td> <td>DRAWN BY</td> <td>ITEM NO.</td> </tr> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">43321</td> <td style="text-align: center;">DFRISIELLO</td> <td style="text-align: center;">LCCA30321</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: right;">REV A</td> </tr> </table>	SIZE	CAGE CODE	DRAWN BY	ITEM NO.	A	43321	DFRISIELLO	LCCA30321				REV A							
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