

Low Loss N Male to SMA Female Cable Assembly with Heavy Duty Heat Shrink Boot using LL142 Coax, 1.5 FT



## LCCA30028-FT1.5

### Configuration

- Connector 1: N Male
- Connector 2: SMA Female
- Cable Type: LL142

### Features

- Max Frequency 18 GHz
- Shielding Effectivity > 95dB
- Low Loss Expanded PTFE Dielectric with 80% VoP

- FEP Jacket
- Triple Shielded
- Heavy Duty Heat Shrink Strain Relief Boot

### Applications

- General Purpose
- Laboratory Use
- Flexible RF Interconnect

- Automated (ATE) Test Systems
- Antenna Range Applications and Long Cable Runs



### Description

L-com's LCCA30028-FT1.5 is a low loss N male to SMA female cable assembly with heavy duty heat shrink boot using LL142 coax, 1.5 FT and ships same-day. The LL142 coax of this N cable uses the tape wrapped PTFE dielectric with a VoP of 80%, 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 female gender configuration with flexible LL142 series coax and operates to 18 GHz. The triple shield of this N cable is layered by silver plated copper braid over silver plated copper tape providing excellent shielding effectiveness greater than 95dB. Highly durable stainless-steel connectors and heavy-duty booting extend the life of these versatile, flexible N to SMA cables.

Custom versions of this N male to N 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 LCCA30028-FT1.5 L-com Low Loss N Male to SMA Female Cable Assembly with Heavy Duty Heat Shrink Boot using LL142 Coax, 1.5 FT 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		18	GHz
VSWR			1.35:1	
Velocity of Propagation		80		%
RF Shielding	95			dB
Capacitance		25 [82.02]		pF/ft [pF/m]

### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	1	2	4.5	9	18	GHz
Insertion Loss (Max.)	0.24	0.33	0.49	0.69	1	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 is estimated as  $0.05 \cdot \sqrt{\text{FGHz}}$  dB per N male connector and as  $0.05 \cdot \sqrt{\text{FGHz}}$  dB per SMA female connector.

### Mechanical Specifications

#### Cable Assembly

Length	18 in [457.2 mm]
Diameter	0.195 in [4.95 mm]
Weight	0.067 lbs [30.39 g]

#### Cable

Cable Type	LL142
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	Tape wrapped PTFE
Number of Shields	3
Shield Layer 1	Silver Plated Copper Tape
Shield Layer 2	Aluminum Polyester
Shield Layer 3	Silver Plated Copper Braid
Jacket Material	FEP, Green
Jacket Diameter	0.195 in [4.95 mm]
Repeated Minimum Bend Radius	0.975 in [24.77 mm]

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## LCCA30028-FT1.5

### Connectors

Description	Connector 1	Connector 2
Type	N Male	SMA Female
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold over Nickel	Beryllium Copper, Gold over Nickel
Contact Plating Specification	50 µin minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Passivated Stainless Steel
Outer Conductor Plating Specification		SAE-AMS-2700
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Body Plating Specification	SAE-AMS-2700	SAE-AMS-2700
Coupling Nut Material and Plating	Passivated Stainless Steel	
Coupling Nut Plating Specification	SAE-AMS-2700	
Hex Size	3/4 inch	
Torque	21 in-lbs 2.37 Nm	
Boot Material	Heavy Duty Heat Shrink Boot	Heavy Duty Heat Shrink Boot

### Environmental Specifications

#### Temperature

Operating Range -55 to +200 deg C

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

### Plotted and Other Data

Notes:

- Values at 25°C, sea level.

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## LCCA30028-FT1.5

### How to Order

Part Number Configuration:

**LCCA30028 - xx uu**



Example: LCCA30028-12 = 12 inches long cable  
LCCA30028-100cm = 100 cm long cable

Low Loss N Male to SMA Female Cable Assembly with Heavy Duty Heat Shrink Boot using LL142 Coax, 1.5 FT 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.

L-com CAD Drawing

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	12/20/19	SELLIS

  

LENGTH MEASURED  
FROM CONTACT TO CONTACT

TYPE N MALE

SMA FEMALE

WWW.L-COM.COM  
L-COM P/N

SEE NOTE 1

**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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<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p><b>TOLERANCES:</b></p> <table style="font-size: x-small;"> <tr> <td>.X ± .2 [5.08]</td> <td>FRACTIONS ± 1/32</td> </tr> <tr> <td>.XX ± .02 [.51]</td> <td>ANGLES ± 1°</td> </tr> <tr> <td>.XXX ± .005 [.13]</td> <td></td> </tr> </table> <p><b>CABLE LENGTH (L) TOLERANCES:</b></p> <table style="font-size: x-small;"> <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 ≤ ∞ [∞]</td> <td>± 9% L / -0</td> </tr> </table> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>	.X ± .2 [5.08]	FRACTIONS ± 1/32	.XX ± .02 [.51]	ANGLES ± 1°	.XXX ± .005 [.13]		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 ≤ ∞ [∞]	± 9% L / -0	<p><b>L-com™</b> 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</p> <p>SCALE N/A</p>
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