

Low Loss N Male to N Male Cable Assembly with Heavy Duty Heat Shrink Boot using LL335i Coax, 1.5 FT



LCCA30039-FT1.5

Configuration

- Connector 1: N Male
- Connector 2: N Male
- Cable Type: LL335i

Features

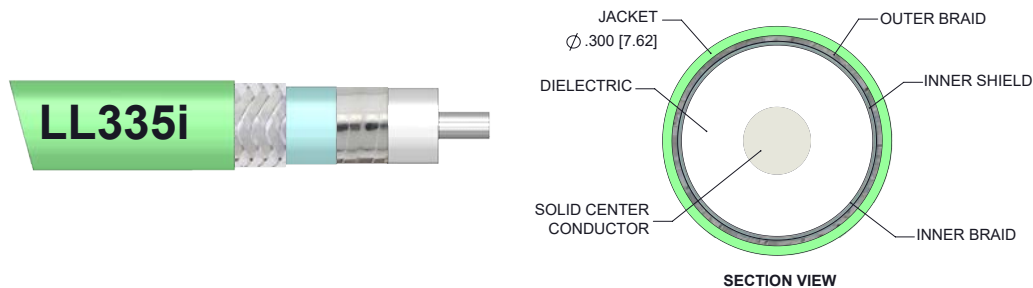
- Max Frequency 18 GHz
- Shielding Effectivity > 95dB
- Low Loss Expanded PTFE Dielectric with 83% VoP

- 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 LCCA30039-FT1.5 is a low loss N male to N male cable assembly with heavy duty heat shrink boot using LL335i coax, 1.5 FT and ships same-day. The LL335i coax of this N cable uses the tape wrapped PTFE 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 N cable assembly has a male to male gender configuration with flexible LL335i 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 N cables.

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 LCCA30039-FT1.5 L-com Low Loss N Male to N Male Cable Assembly with Heavy Duty Heat Shrink Boot using LL335i 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 | | 83 | | % |
| 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.) | 0.17 | 0.24 | 0.35 | 0.5 | 0.72 | 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 $0.04 \cdot \sqrt{\text{FGHz}}$ dB per N male connector.

Mechanical Specifications

Cable Assembly

| | |
|----------|---------------------|
| Length | 18 in [457.2 mm] |
| Diameter | 0.3 in [7.62 mm] |
| Weight | 0.109 lbs [49.44 g] |

Cable

| | |
|--------------------------------------|----------------------------|
| Cable Type | LL335i |
| 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 | 0.3 in [7.62 mm] |

| | |
|------------------------------|------------------|
| Repeated Minimum Bend Radius | 1.5 in [38.1 mm] |
|------------------------------|------------------|

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Connectors

| Description | Connector 1 | Connector 2 |
|------------------------------------|------------------------------------|------------------------------------|
| Type | N Male | N Male |
| 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 |
| 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 | Passivated Stainless Steel |
| Coupling Nut Plating Specification | SAE-AMS-2700 | SAE-AMS-2700 |
| Hex Size | 3/4 inch | 3/4 inch |
| Torque | 21 in-lbs 2.37 Nm | 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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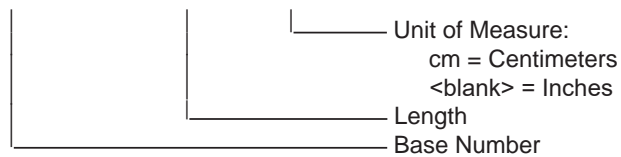


LCCA30039-FT1.5

How to Order

Part Number Configuration:

LCCA30039 - xx uu



Example: LCCA30039-12 = 12 inches long cable
LCCA30039-100cm = 100 cm long cable

Low Loss N Male to N Male Cable Assembly with Heavy Duty Heat Shrink Boot using LL335i 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.

Low Loss N Male to N Male Cable Assembly with Heavy Duty Heat Shrink Boot using LL335i Coax, 1.5 FT

L-com CAD Drawing

| REVISIONS | | |
|-----------|-----------------|--------------------|
| REV. | DESCRIPTION | DATE |
| A | INITIAL RELEASE | 12/23/19 |
| | | APPROVED SELLIS |

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SEE NOTE 1

| | | | | | | | | | | | |
|---|------------------|------------------|-------------------|-------------|---------------------|--|---|---|---|----------------------------|---|
| <p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <table style="width: 100%;"> <tr> <td>.X ± .2 [.508]</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>CABLE LENGTH (L) TOLERANCES:</p> <table style="width: 100%;"> <tr> <td>12 [305] < L ≤ 60 [1524] = +1 [25] / -0</td> </tr> <tr> <td>60 [1524] < L ≤ 120 [3048] = +2 [61] / -0</td> </tr> <tr> <td>120 [3048] < L ≤ 300 [7620] = +4 [102] / -0</td> </tr> <tr> <td>300 [7620] < L = +5%L / -0</td> </tr> </table> | .X ± .2 [.508] | FRACTIONS ± 1/32 | .XX ± .02 [.51] | ANGLES ± 1° | .XXX ± .005 [.13] | | 12 [305] < L ≤ 60 [1524] = +1 [25] / -0 | 60 [1524] < L ≤ 120 [3048] = +2 [61] / -0 | 120 [3048] < L ≤ 300 [7620] = +4 [102] / -0 | 300 [7620] < L = +5%L / -0 | <p style="text-align: center;">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> |
| .X ± .2 [.508] | FRACTIONS ± 1/32 | | | | | | | | | | |
| .XX ± .02 [.51] | ANGLES ± 1° | | | | | | | | | | |
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| 300 [7620] < L = +5%L / -0 | | | | | | | | | | | |

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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