

## Low Loss N Female Bulkhead to N Female Bulkhead Cable Assembly using LMR-240-UF Coax With Times Microwave Components with HeatShrink



### LCCA9923

#### Configuration

- Connector 1: N Female Bulkhead
- Connector 2: N Female Bulkhead
- Cable Type: LMR-240-UF
- Coax Flex Type: Flexible

#### Description

L-com's LCCA9923 is a low loss N female bulkhead to N female bulkhead cable assembly using LMR-240-UF coax with Times Microwave components with heatshrink and ships same-day. The LMR-240-UF coax of this N cable uses the PE (F) dielectric with a VoP of 84%, 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 female to female gender configuration with flexible LMR-240-UF 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. 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.

Custom versions of this N female 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 LCCA9923 L-com Low Loss N Female Bulkhead to N Female Bulkhead Cable Assembly using LMR-240-UF Coax With Times Microwave Components with HeatShrink 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                   |
| VSWR                                 |         |              | 1.5:1   |                       |
| Velocity of Propagation              |         | 84           |         | %                     |
| RF Shielding                         | 90      |              |         | dB                    |
| Group Delay                          |         | 1.21 [3.97]  |         | ns/ft [ns/m]          |
| Capacitance                          |         | 24.2 [79.4]  |         | pF/ft [pF/m]          |
| Inductance                           |         | 0.06 [0.2]   |         | uH/ft [uH/m]          |
| DC Resistance Inner Conductor        |         | 4.28 [14.04] |         | Ohms/1000ft [Ohms/Km] |
| DC Resistance Outer Conductor        |         | 3.89 [12.76] |         | Ohms/1000ft [Ohms/Km] |
| Dielectric Withstanding Voltage (DC) |         |              | 1,500   | Vdc                   |
| Jacket Spark                         |         |              | 5,000   | Vrms                  |
| Input Power (Peak)                   |         |              | 5.6     | KWatts                |

#### Specifications by Frequency

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| Part Number  | Length                   | Description           | F1        | F2    | F3    | F4    | F5    | Units | Weight (lbs) |
|--------------|--------------------------|-----------------------|-----------|-------|-------|-------|-------|-------|--------------|
|              |                          |                       | Frequency | 250   | 500   | 1000  | 2500  |       |              |
| LCCA9923     | Custom Lengths Available | Insertion Loss (Typ.) | 0.046     | 0.066 | 0.095 | 0.155 | 0.244 | dB/ft |              |
|              |                          |                       | 0.16      | 0.22  | 0.32  | 0.51  | 0.81  | dB/m  |              |
| LCCA9923-12  | 12 inch                  | Insertion Loss (Typ.) | 0.25      | 0.27  | 0.3   | 0.36  | 0.45  | dB    | 0.216        |
| LCCA9923-24  | 24 inch                  | Insertion Loss (Typ.) | 0.3       | 0.34  | 0.39  | 0.51  | 0.69  | dB    | 0.249        |
| LCCA9923-36  | 36 inch                  | Insertion Loss (Typ.) | 0.34      | 0.4   | 0.49  | 0.67  | 0.94  | dB    | 0.281        |
| LCCA9923-60  | 60 inch                  | Insertion Loss (Typ.) | 0.43      | 0.53  | 0.68  | 0.98  | 1.42  | dB    | 0.345        |
| LCCA9923-300 | 300 inch                 | Insertion Loss (Typ.) | 1.35      | 1.85  | 2.58  | 4.08  | 6.3   | dB    | 0.985        |

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1: 0.1 dB  
 Loss due to Connector 2: 0.1 dB  
 Base Weight: 0.216 pounds  
 Additional Weight per Inch: 0.00267 pounds

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter 0.5 in [12.7 mm]  
 Weight 0.216 lbs [97.98 g]

**Cable**

Cable Type LMR-240-UF  
 Impedance 50 Ohms  
 Inner Conductor Type Stranded  
 Inner Conductor Material and Plating Copper  
 Dielectric Type PE (F)  
 Number of Shields 2  
 Shield Layer 1 Aluminum Tape  
 Shield Layer 2 Tinned Copper Braid  
 Jacket Material TPE  
 Jacket Diameter 0.24 in [6.1 mm]  
 One Time Minimum Bend Radius 0.75 in [19.05 mm]  
 Repeated Minimum Bend Radius 2.5 in [63.5 mm]  
 Bending Moment 0.13 lbs-ft [0.18 N-m]

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**Connectors**

| Description                          | Connector 1            | Connector 2            |
|--------------------------------------|------------------------|------------------------|
| Type                                 | N Female Bulkhead      | N Female Bulkhead      |
| Specification                        | MIL-STD-348            | MIL-STD-348            |
| Impedance                            | 50 Ohms                | 50 Ohms                |
| Configuration                        | Straight               | Straight               |
| Contact Material and Plating         | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Dielectric Type                      | PTFE                   | PTFE                   |
| Outer Conductor Material and Plating | Brass, Tri-Metal       | Brass, Tri-Metal       |
| Body Material and Plating            | Brass, Tri-Metal       | Brass, Tri-Metal       |

**Environmental Specifications**

Operating Range Temperature -40 to +85 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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**LCCA9923**

**Typical Performance Data**

**How to Order**

Part Number Configuration:

**LCCA9923**

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Unit of Measure:  
cm = Centimeters  
<blank> = Inches  
Length  
Base Number

Example: LCCA9923-12 = 12 inches long cable  
LCCA9923-100cm = 100 cm long cable

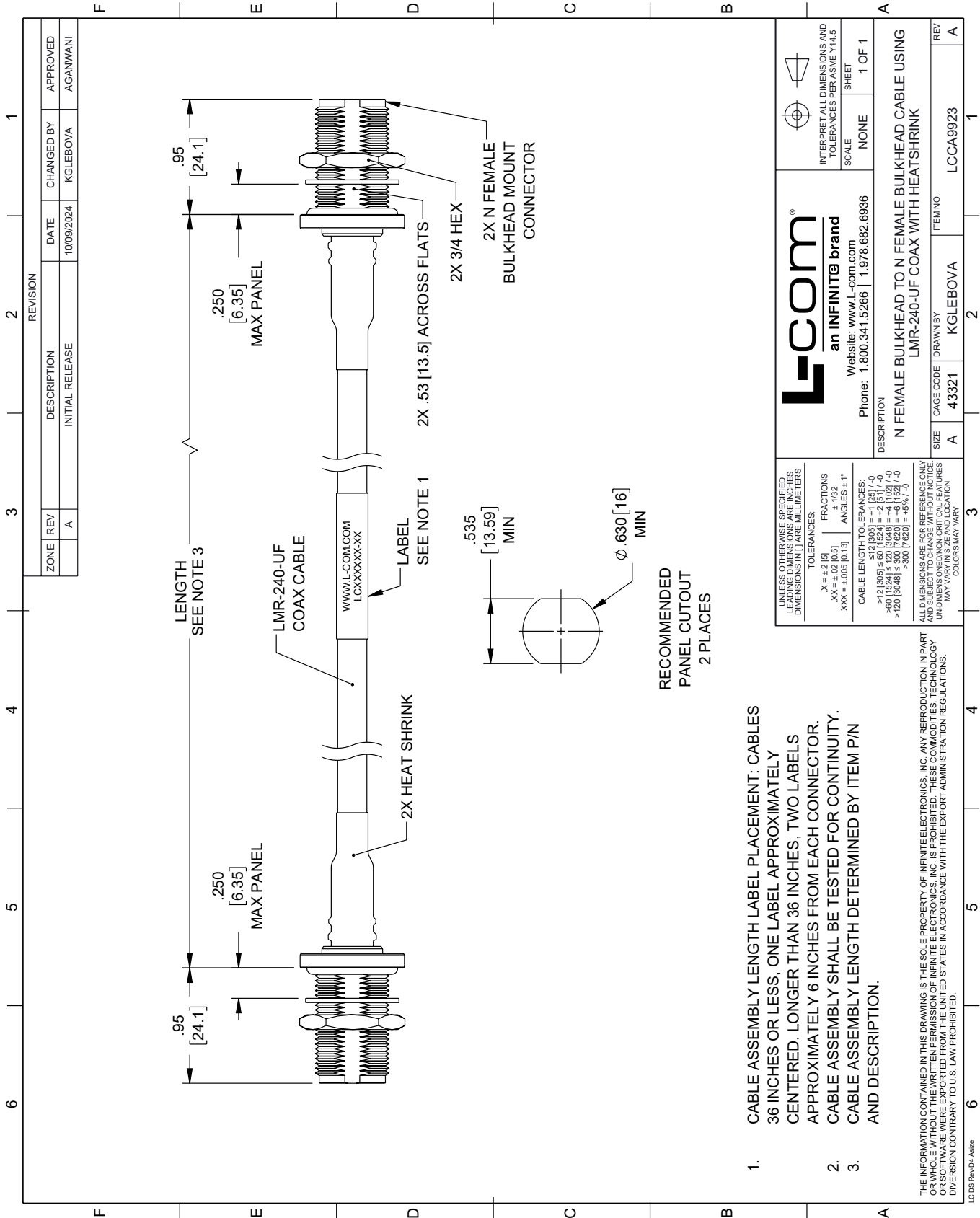
Low Loss N Female Bulkhead to N Female Bulkhead Cable Assembly using LMR-240-UF Coax With Times Microwave Components with HeatShrink from L-com has same day shipment for domestic and International orders. Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products as well 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/n-female-n-female-cable-assembly-invalid-lcca9923-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 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.

# LCCA9923 CAD Drawing

Low Loss N Female Bulkhead to N Female Bulkhead Cable Assembly using LMR-240-UF Coax With Times Microwave Components with HeatShrink



1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: CABLES 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM P/N AND DESCRIPTION.

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| REVISION |     | DATE        | CHANGED BY      | APPROVED |
|----------|-----|-------------|-----------------|----------|
| ZONE     | REV | DESCRIPTION | INITIAL RELEASE |          |
|          | A   |             |                 | AGANWANI |

|   |           |  |
|---|-----------|--|
| <br><b>an INFINITE brand</b><br>Website: www.L-com.com  |           | INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5<br>SCALE NONE<br>SHEET 1 OF 1 |
| DESCRIPTION<br>N FEMALE BULKHEAD TO N FEMALE BULKHEAD CABLE USING LMR-240-UF COAX WITH HEATSHRINK |           |  |
| SIZE  | CAGE CODE | ITEM NO.   |
| A   | 43321     | LCCA9923   |
| REV   | DRAWN BY  | REV  |
| A   | KGLEBOVA  | A  |