

## Low Loss SMA Male to SMA Male Cable Assembly using LMR-240-UF Coax With Times Microwave Components with HeatShrink



### LCCA9937

#### Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: LMR-240-UF
- Coax Flex Type: Flexible

#### Description

L-com's LCCA9937 is a low loss SMA male to SMA male cable assembly using LMR-240-UF coax with Times Microwave components with heatshrink and ships same-day. The LMR-240-UF coax of this SMA 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 SMA to SMA cable assembly has a male to male gender configuration with flexible LMR-240-UF series coax and operates to 5.8 GHz. The double shield of this SMA cable is layered by tinned copper braid over aluminum tape providing shielding effectiveness greater than 90dB.

Custom versions of this SMA male to SMA 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 LCCA9937 L-com Low Loss SMA Male to SMA Male 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                  |

#### Specifications by Frequency

Low Loss SMA Male to SMA Male Cable  
Assembly using LMR-240-UF Coax With Times  
Microwave Components with HeatShrink



**LCCA9937**

| Part Number   | Length                   | Description           | F1        | F2    | F3    | F4    | F5    | Units | Weight (lbs) |
|---------------|--------------------------|-----------------------|-----------|-------|-------|-------|-------|-------|--------------|
|               |                          |                       | Frequency | 250   | 500   | 1000  | 2500  | 5800  |              |
| LCCA9937      | 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  |              |
| LCCA9937-FT1  | 12 inch                  | Insertion Loss (Typ.) | 0.25      | 0.27  | 0.3   | 0.36  | 0.45  | dB    | 0.074        |
| LCCA9937-FT2  | 24 inch                  | Insertion Loss (Typ.) | 0.3       | 0.34  | 0.39  | 0.51  | 0.69  | dB    | 0.107        |
| LCCA9937-FT3  | 36 inch                  | Insertion Loss (Typ.) | 0.34      | 0.4   | 0.49  | 0.67  | 0.94  | dB    | 0.139        |
| LCCA9937-FT5  | 60 inch                  | Insertion Loss (Typ.) | 0.43      | 0.53  | 0.68  | 0.98  | 1.42  | dB    | 0.203        |
| LCCA9937-FT25 | 300 inch                 | Insertion Loss (Typ.) | 1.35      | 1.85  | 2.58  | 4.08  | 6.3   | dB    | 0.843        |

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: 0.074 pounds  
 Additional Weight per Inch: 0.00267 pounds

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter 0.5 in [12.7 mm]  
 Weight 0.074 lbs [33.57 g]

**Cable**

Cable Type LMR-240-UF  
 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]  
 Flat Plate Crush 13 lbs/in [0.23 Kg/mm]  
 Tensile Strength 80 lbs [36.29 Kg]

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**Connectors**

| Description                        | Connector 1                | Connector 2                |
|------------------------------------|----------------------------|----------------------------|
| Type                               | SMA Male                   | SMA Male                   |
| Specification                      | MIL-STD-348                | MIL-STD-348                |
| Configuration                      | Straight                   | Straight                   |
| 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               |

**Environmental Specifications**

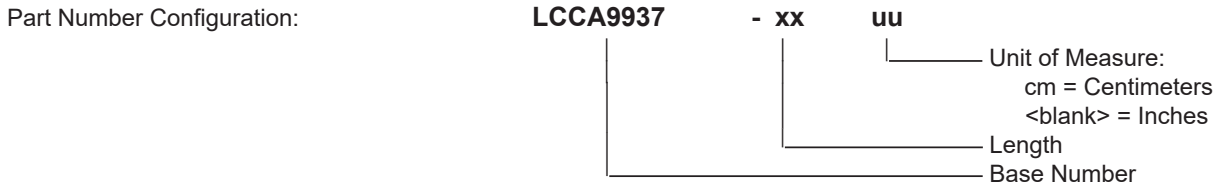
**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:  
Values at 25°C, sea level.

**Typical Performance Data**

**How to Order**



Example: LCCA9937-12 = 12 inches long cable  
LCCA9937-100cm = 100 cm long cable

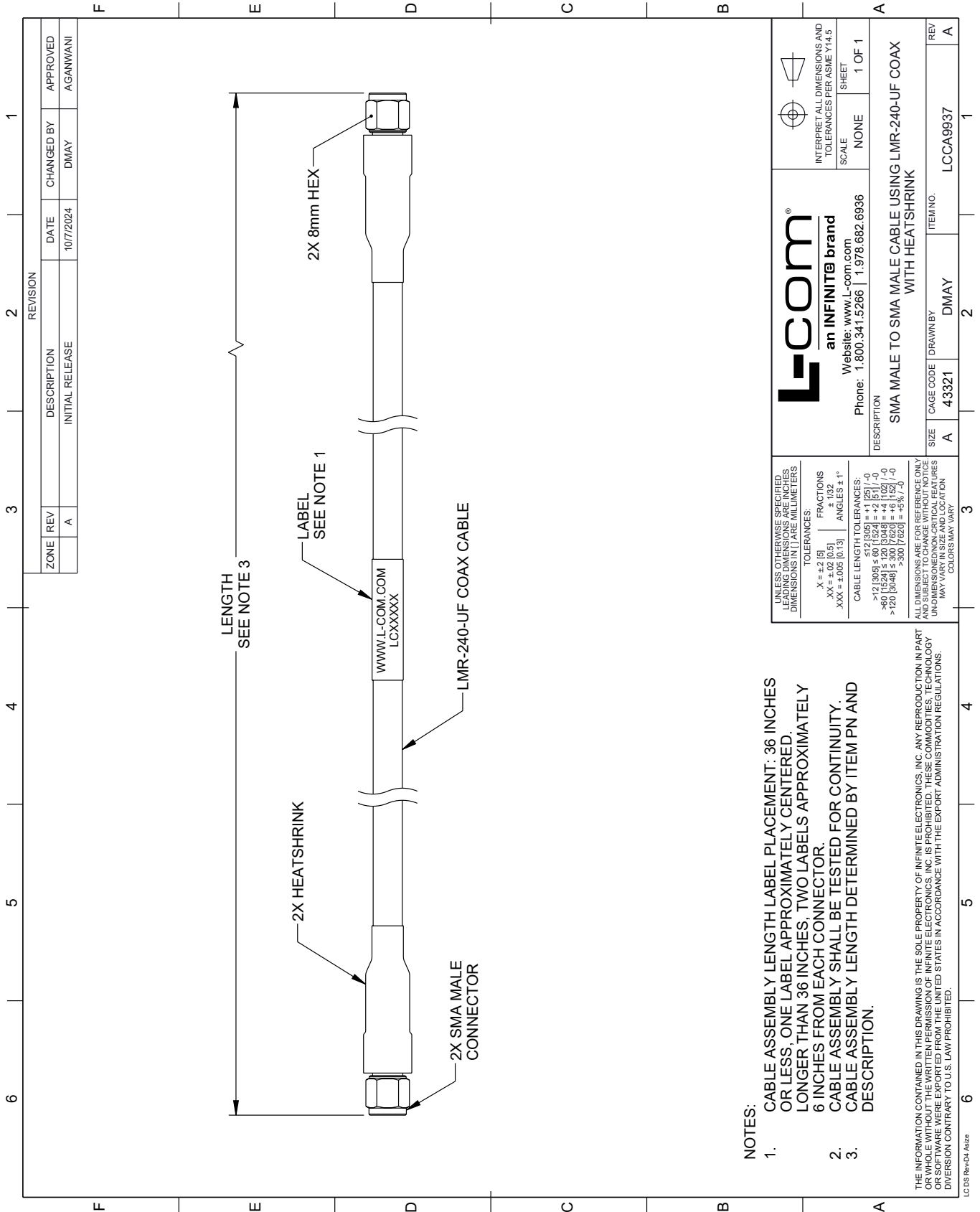
Low Loss SMA Male to SMA Male Cable Assembly using LMR-240-UF Coax With Times Microwave Components with HeatShrink from L-com has same day shipment for domestic and International orders. Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products as well as lightning and surge protectors, NEMA rated enclosures, and an RF product line which includes antennas, amplifiers, passive, and active components.

URL: <https://www.l-com.com/sma-male-sma-male-cable-assembly-invalid-lcca9937-p.aspx>

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# LCCA9937 CAD Drawing

Low Loss SMA Male to SMA Male Cable Assembly using LMR-240-UF Coax With Times Microwave Components with HeatShrink



**NOTES:**

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 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 PN AND DESCRIPTION.

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UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.

TOLERANCES:  
 .X = ±.2 [5]      FRACTIONS ± 1/32  
 .XX = ±.02 [0.5]      ANGLES ± 1°  
 .XXX = ±.005 [0.13]

CABLE LENGTH TOLERANCES:  
 >12 [305] ≤ 60 [1524] = ±.1 [2.5] / -0  
 >60 [1524] ≤ 120 [3048] = ±.4 [10.2] / -0  
 >120 [3048] ≤ 300 [7620] = ±.6 [15.2] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5  
 SCALE NONE  
 SHEET 1 OF 1

DESCRIPTION: SMA MALE TO SMA MALE CABLE USING LMR-240-UF COAX WITH HEATSHRINK

|      |           |          |          |
|------|-----------|----------|----------|
| SIZE | CAGE CODE | DRAWN BY | ITEM NO. |
| A    | 43321     | DMAY     | LCCA9937 |

REV A