

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



### LCCA9939

#### Configuration

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

#### Description

L-com's LCCA9939 is a low loss SMA male to TNC 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 TNC 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 LCCA9939 L-com Low Loss SMA Male to TNC 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

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**LCCA9939**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency	250	500	1000	2500	5800	
LCCA9939	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	
LCCA9939-FT1	12 inch	Insertion Loss (Typ.)	0.25	0.27	0.3	0.36	0.45	dB	0.104
LCCA9939-FT2	24 inch	Insertion Loss (Typ.)	0.3	0.34	0.39	0.51	0.69	dB	0.137
LCCA9939-FT3	36 inch	Insertion Loss (Typ.)	0.34	0.4	0.49	0.67	0.94	dB	0.169
LCCA9939-FT5	60 inch	Insertion Loss (Typ.)	0.43	0.53	0.68	0.98	1.42	dB	0.233
LCCA9939-FT25	300 inch	Insertion Loss (Typ.)	1.35	1.85	2.58	4.08	6.3	dB	0.873

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:	0.104 pounds
Additional Weight per Inch:	0.00267 pounds

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter	0.5 in [12.7 mm]
Weight	0.104 lbs [47.17 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	TNC Male
Specification	MIL-STD-348	
Configuration	Straight	Straight
Contact Material and Plating		Brass, Gold
Dielectric Type		Teflon
Body Material and Plating	Passivated Stainless Steel	Brass, Tri-Metal
Body Plating Specification	SAE-AMS-2700	
Coupling Nut Material and Plating	Passivated Stainless Steel	Brass, Tri-Metal
Coupling Nut Plating Specification	SAE-AMS-2700	

**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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**LCCA9939**

**Typical Performance Data**

**How to Order**

Part Number Configuration:

**LCCA9939**

**- xx**

**uu**

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

Example: LCCA9939-12 = 12 inches long cable  
LCCA9939-100cm = 100 cm long cable

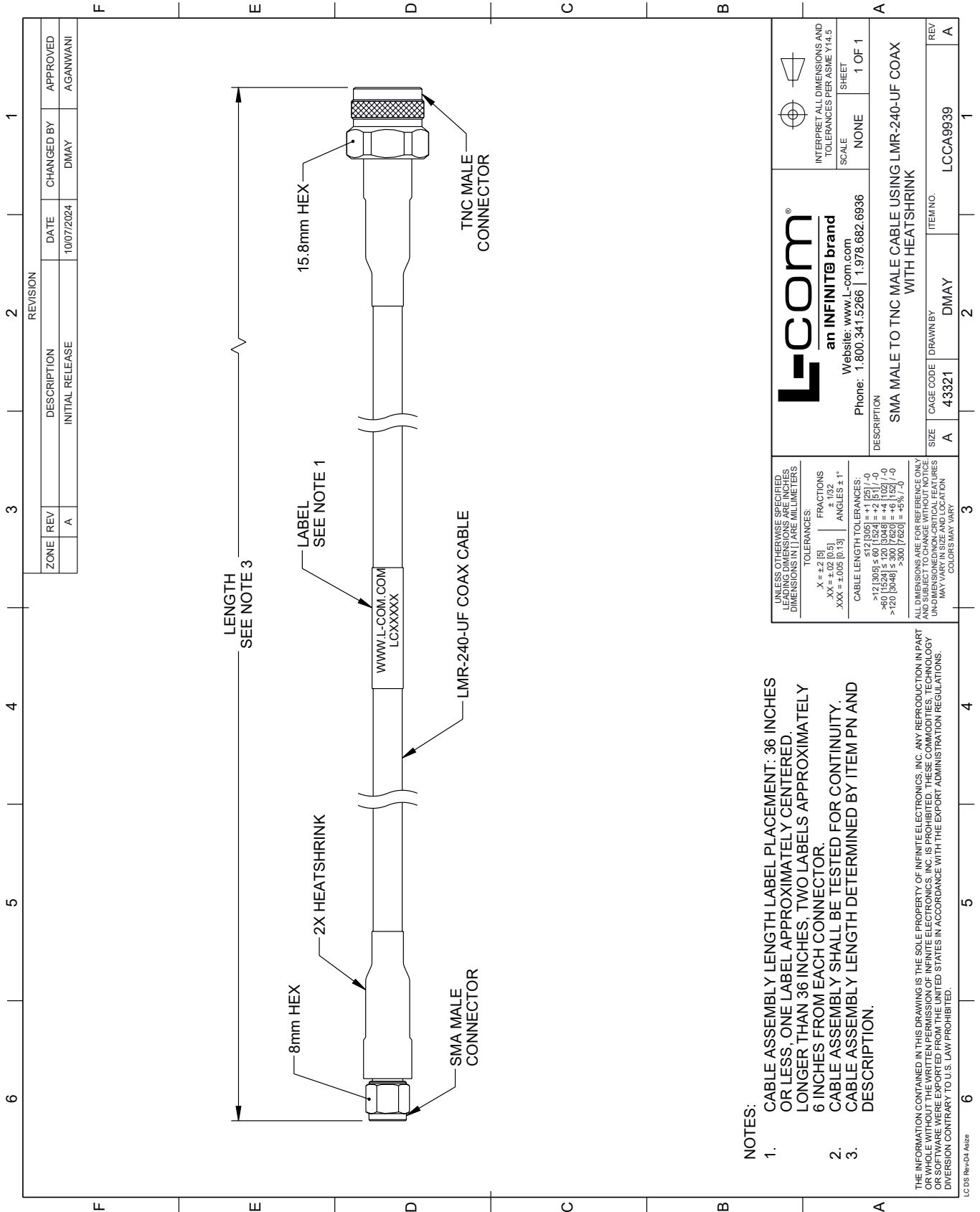
Low Loss SMA Male to TNC Male Cable Assembly using LMR-240-UF Coax With Times Microwave Components with HeatShrink from L-com has same day shipment for domestic and International orders. Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products as well as lightning and 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-tnc-male-cable-assembly-invalid-lcca9939-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.

# LCCA9939 CAD Drawing

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



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

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

DESCRIPTION: SMA MALE TO TNC MALE CABLE USING LMR-240-UF COAX WITH HEATSHRINK  
ITEM NO.: LCCA9939

SIZE	A	CAGE CODE	43321	DRAWN BY	DMAY
REV	A	ITEM NO.	LCCA9939		

**NOTES:**

- 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.
- CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
- CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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

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

CABLE LENGTH TOLERANCES:  
 <12 [305] ≤ 60 [1524] = ±.1 [25] / -0  
 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0  
 >120 [3048] ≤ 300 [7620] = ±.6 [15] / -0

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

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