

Low Loss SMA Male to TNC Male Right Angle Weatherproof Cable Assembly with Silicone using LMR-240 Coax, 3 FT with Times Microwave Components



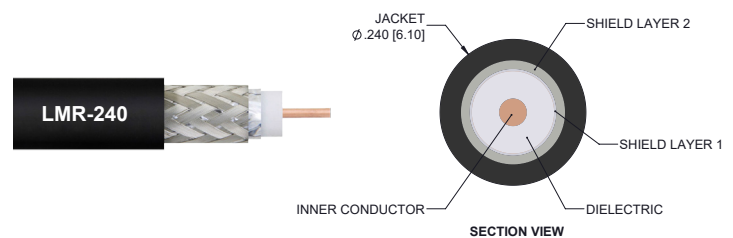
LCCA30176/WP-FT3

Configuration

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

Features

- Silicone Connector Boot
- IP68 Rated



Description

L-com's LCCA30176/WP-FT3 is a low loss SMA male to TNC male right angle weatherproof cable assembly with silicone using LMR-240 coax, 3 FT with Times Microwave components and ships same-day. The LMR-240 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 series coax and operates to 6 GHz. The double shield of this SMA cable is layered by tinned copper braid over aluminum tape providing shielding effectiveness greater than 90dB. This right angle TNC cable interface on the LMR-240 coax allows for easier connections in tight spaces.

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 LCCA30176/WP-FT3 L-com Low Loss SMA Male to TNC Male Right Angle Weatherproof Cable Assembly with Silicone using LMR-240 Coax, 3 FT with Times Microwave Components 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		6	GHz
VSWR			1.4:1	
Velocity of Propagation		84		%
RF Shielding	90			dB
Capacitance		24.2 [79.4]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		3.2 [10.5]		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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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency		250	500	1000	2500	
LCCA30176/WP	Custom Lengths Available	Insertion Loss (Typ.)	0.057	0.055	0.079	0.129	0.204	dB/ft	
			0.19	0.19	0.26	0.43	0.67	dB/m	
LCCA30176/WP-FT2	24 In	Insertion Loss (Typ.)	0.38	0.41	0.46	0.56	0.71	dB	0.605
LCCA30176/WP-FT3	36 In	Insertion Loss (Typ.)	0.42	0.47	0.54	0.69	0.92	dB	0.638
LCCA30176/WP-FT4	48 In	Insertion Loss (Typ.)	0.46	0.52	0.62	0.82	1.12	dB	0.671
LCCA30176/WP-FT5	60 In	Insertion Loss (Typ.)	0.5	0.58	0.7	0.95	1.32	dB	0.704

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:	0.2 dB
Base Weight:	0.572 pounds
Additional Weight per Inch:	0.00275 pounds

Mechanical Specifications

Cable Assembly

Length	36 in [914.4 mm]
Width/Diameter	0.5 in [12.7 mm]
Weight	0.638 lbs [289.39 g]

Cable

Cable Type	LMR-240
Impedance	50 Ohms
Inner Conductor Type	Solid
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	PE
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	0.25 lbs-ft [0.34 N-m]
Flat Plate Crush	20 lbs/in [0.36 Kg/mm]
Tensile Strength	80 lbs [36.29 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male	TNC Male Right Angle
Option	Weatherproof Boot	
Specification	MIL-STD-348	
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	ASTM B488	50 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Passivated Stainless Steel, Gold	
Body Material and Plating	Passivated Stainless Steel, Gold	Passivated Stainless Steel
Body Plating Specification	SAE-AMS-2700	
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Plating Specification	SAE-AMS-2700	
Boot Material	Silicone	Silicone

Environmental Specifications

Ingress Protection (IP) Rating IP68

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

Plotted and Other Data

Notes:
Values at 25°C, sea level.

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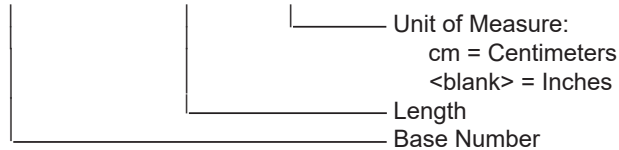
LCCA30176/WP-FT3

Typical Performance Data

How to Order

Part Number Configuration:

LCCA30176/WP - xx uu



Example: LCCA30176/WP-12 = 12 inches long cable
LCCA30176/WP-100cm = 100 cm long cable

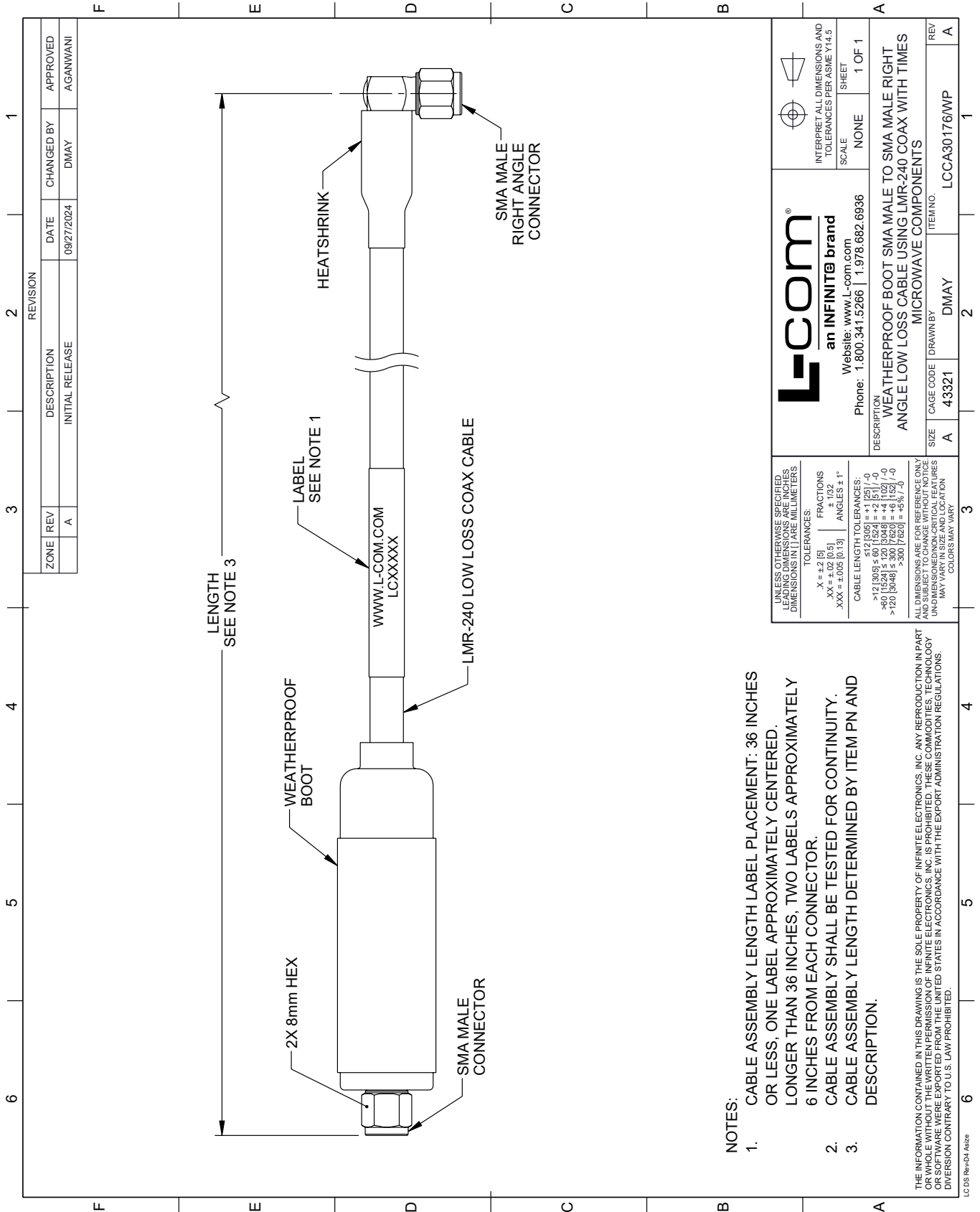
Low Loss SMA Male to TNC Male Right Angle Weatherproof Cable Assembly with Silicone using LMR-240 Coax, 3 FT with Times Microwave Components from L-com has same day shipment for domestic and International orders. Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products 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-lcca30176-wp-ft3-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 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.

LCCA30176/WP-FT3 CAD Drawing

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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.