

Lead Free 1553 TRS Subminiature Plug to TRS Subminiature Plug Cable Assembly using M17/176-00002 Coax, 1 FT



**LC3MSA00457-12**

**Configuration**

- Connector 1: TRS Subminiature Plug
- Connector 2: TRS Subminiature Plug
- Cable Type: M17/176-00002

**Features**

- MIL-STD-1553
- -55°C to +200°C
- 78 ohms

**Applications**

- Vehicle High Temperature
- Data
- MIL-STD-1553

**Description**

L-com's LC3MSA00457-12 is a lead free 1553 TRS subminiature plug to TRS subminiature plug cable assembly using M17/176-00002 coax, 1 FT and ships same-day. These flexible RF cable assemblies are ideal for applications where flexure is required. Our L-com TRS Subminiature to TRS Subminiature cable assembly has a plug to plug gender configuration with 78 Ohm flexible M17/176-00002 series coax and operates to 10 MHz.

Custom versions of this TRS Subminiature plug to TRS Subminiature plug 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 LC3MSA00457-12 L-com Lead Free 1553 TRS Subminiature Plug to TRS Subminiature Plug Cable Assembly using M17/176-00002 Coax, 1 FT 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		10	MHz
Capacitance		24 [78.74]		pF/ft [pF/m]
Operating Voltage (AC)			750,000	Vrms

**Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	1	3	5	7	10	MHz
Insertion Loss (Typ.)	0.214	0.221	0.228	0.235	0.245	dB

**Electrical Specification Notes:**

The Insertion Loss data above is based on the performance specifications of the coax and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB per connector.

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**Mechanical Specifications**

**Cable Assembly**

Length\* 12 in [304.8 mm]  
Weight 0.068 lbs [30.84 g]

**Cable**

Cable Type M17/176-00002  
Impedance 78 Ohms  
Inner Conductor Type Stranded  
Inner Conductor Material and Plating Copper, Silver  
Dielectric Type PTFE  
Shield Layer 1 Silver Plated Copper  
Jacket Material PFA, Blue

One Time Minimum Bend Radius 1.5 in [38.1 mm]

**Connectors**

Description	Connector 1	Connector 2
Type	TRS Subminiature Plug	TRS Subminiature Plug
Impedance	78 Ohms	78 Ohms
Contact Material and Plating	Bronze, Gold 30 micro inches	Bronze, Gold 30 micro inches
Contact Plating Specification	ASTM-B-488	ASTM-B-488
Dielectric Type	Teflon	Teflon
Outer Conductor Material and Plating	Phosphor Bronze, Gold	Phosphor Bronze, Gold
Outer Conductor Plating Specification	30 micro inches	30 micro inches
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	ASTM-B-733	ASTM-B-733

**Environmental Specifications**

**Temperature**

Operating Range -55 to +200 deg C

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

**Plotted and Other Data**

Notes:

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**LC3MSA00457-12**

**How to Order**

Part Number Configuration:

**LC3MSA00457 - xx uu**

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

Example: LC3MSA00457-12 = 12 inches long cable  
LC3MSA00457-100cm = 100 cm long cable

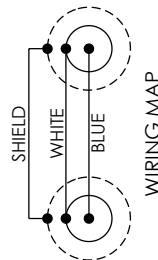
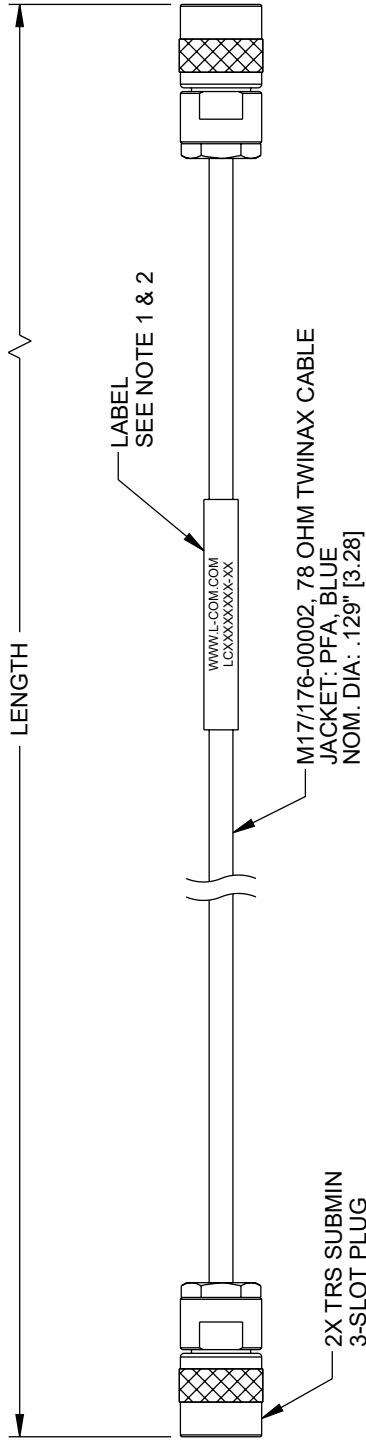
Lead Free 1553 TRS Subminiature Plug to TRS Subminiature Plug Cable Assembly using M17/176-00002 Coax, 1 FT from L-com has same day shipment for domestic and International orders. L-com is a leading manufacturer of wired and wireless connectivity products and committed to in-stock availability and same 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 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.ontained 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.

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Cable Assembly using M17/176-00002 Coax, 1 FT

L-com CAD Drawing

ZONE		REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
A		A	INITIAL RELEASE	8/25/2023	KDANG	EKIM



NOTES:

- CABLE ASSY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROX CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROX 6 INCHES FROM EACH CONNECTOR.
- CABLE ASSEMBLY LENGTH DETERMINED BY ILLUSTRATED: LC3MSA00457-XX (-XX = OAL IN INCHES)
- CABLES ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.	
TOLERANCES:	FRACTIONS
.X = ±.2 [5]	± 1/32
.XX = ±.02 [0.5]	± 1/64
.XXX = ±.005 [0.13]	ANGLES ± 1°
CABLE LENGTH TOLERANCES:	
<12 [305]	±.125 [-0]
>12 [305] < 60 [1524]	±.25 [-0]
>60 [1524] < 120 [3048]	±.5 [-0]
>120 [3048] < 300 [7620]	±1.0 [-0]
>300 [7620]	±2.0 [-0]
ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE UNLESS OTHERWISE SPECIFIED. DIMENSIONAL VARIATION MAY VARY. COLORS MAY VARY.	

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

DESCRIPTION		ITEM NO.
Lead Free TRS Subminiature Plug to TRS Subminiature Plug 1553 Cable Using 78 Ohm M17/176-00002 Coax		LC3MSA00457
SIZE	CAGE CODE	DRAWN BY
A	43321	KDANG
REV	REV	
A	A	