

Bend Relief TRB 3-Slot Plug to Bend Relief TRB 3-Lug Jack Non-Insulated Bulkhead 1553 Cable 48" Using 124 Ohm TWC-124-2 Twinax



## LC3MSA00658-48

### Configuration

- Connector 1: TRB 3-Slot Plug
- Connector 2: TRB 3-Lug Jack Bulkhead
- Cable Type: TWC-124-2

### Features

- 124 ohms
- Twinaxial
- MIL-STD-1553B
- -40°C to +80°C
- Lead Free Solder
- Standard and Custom Lengths Available

### Applications

- MIL-STD-1553B Applications
- Data Transmission

### Description

L-com's LC3MSA00658-48 is a bend relief TRB 3-Slot plug to bend relief TRB 3-Lug jack non-insulated bulkhead 1553 cable 48" using 124 Ohm TWC-124-2 twinax and ships same-day. These flexible RF cable assemblies are ideal for applications where flexure is required. Our L-com TRB 3-Slot to TRB 3-Lug cable assembly has a plug to jack gender configuration with 78 Ohm flexible TWC-124-2 series coax and operates to 500 MHz. L-com's RF cable assembly with TRB 3-Lug 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 TRB 3-Slot plug to TRB 3-Slot jack 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 LC3MSA00658-48 L-com Bend Relief TRB 3-Slot Plug to Bend Relief TRB 3-Lug Jack Non-Insulated Bulkhead 1553 Cable 48" Using 124 Ohm TWC-124-2 Twinax 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      |              | 500     | MHz          |
| Capacitance            |         | 12.3 [40.35] |         | pF/ft [pF/m] |
| Operating Voltage (AC) |         |              | 1,000   | Vrms         |

### Specifications by Frequency

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 10   | 50   | 100  | 200  | 500  | MHz   |
| Insertion Loss (Typ.) | 0.27 | 0.35 | 0.41 | 0.49 | 0.66 | 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* | 48 in [121.92 cm]      |
| Weight  | 0.33275 lbs [150.93 g] |

#### Cable

|                                      |                      |
|--------------------------------------|----------------------|
| Cable Type                           | TWC-124-2            |
| Impedance                            | 124 Ohms             |
| Inner Conductor Type                 | Stranded             |
| Inner Conductor Material and Plating | Copper, Silver       |
| Dielectric Type                      | PE                   |
| Shield Layer 1                       | Silver Plated Copper |
| Jacket Material                      | PVC, Blue            |

|                              |                    |
|------------------------------|--------------------|
| One Time Minimum Bend Radius | 1.25 in [31.75 mm] |
|------------------------------|--------------------|

### Connectors

| Description                           | Connector 1                  | Connector 2                  |
|---------------------------------------|------------------------------|------------------------------|
| Type                                  | TRB 3-Slot Plug              | TRB 3-Lug Jack Bulkhead      |
| Specification                         | MIL-STD-1553                 | MIL-STD-1553                 |
| 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 | -40 to +80 deg C |
|-----------------|------------------|

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

### Plotted and Other Data

Notes:

Bend Relief TRB 3-Slot Plug to Bend Relief TRB 3-Lug Jack Non-Insulated Bulkhead 1553 Cable 48” Using 124 Ohm TWC-124-2 Twinax

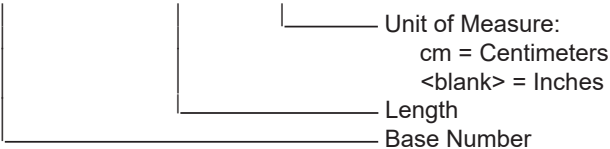


**LC3MSA00658-48**

**How to Order**

Part Number Configuration:

**LC3MSA00658 - xx uu**



Example: LC3MSA00658-12 = 12 inches long cable  
LC3MSA00658-100cm = 100 cm long cable

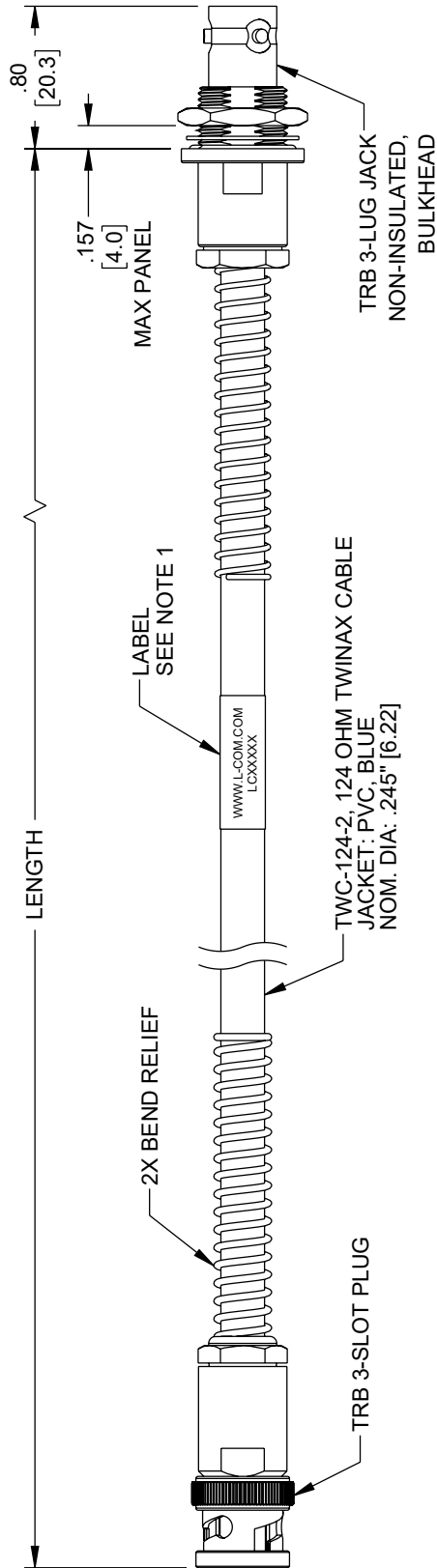
Bend Relief TRB 3-Slot Plug to Bend Relief TRB 3-Lug Jack Non-Insulated Bulkhead 1553 Cable 48” Using 124 Ohm TWC-124-2 Twinax from L-com has same day shipment for domestic and International orders. L-com is a leading manufacturer of wired and wireless connectivity products and committed to in-stock 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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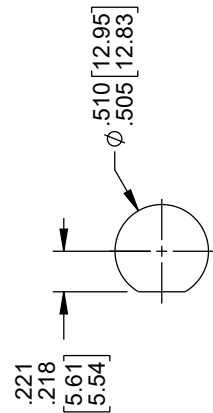
L-com CAD Drawing

| ZONE | REV | DESCRIPTION     | DATE       | CHANGED BY | APPROVED |
|------|-----|-----------------|------------|------------|----------|
|      | A   | INITIAL RELEASE | 08/24/2023 | HBAKKE     | EKIM     |

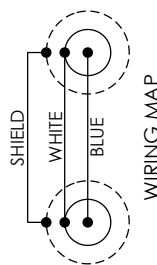


LABEL SEE NOTE 1

TWC-124-2, 124 OHM TWINAX CABLE  
JACKET: PVC, BLUE  
NOM. DIA: .245" [6.22]



RECOMMENDED PANEL CUTOUT



WIRING MAP

NOTES:

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCH OR LESS, ONE LABEL APPROXIMATELY CENTERED, LONGER THAN 36 INCH, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM NUMBER AS SHOWN: LC3MSA00658-XX (-XX = OAL IN INCHES).

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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]  | ± 1.25 [31.75] |
| > 12 [305] < 60 [1524]  | ± 2.5 [63.5]   |
| > 60 [1524] < 120 [3048]  | ± 4 [101.6]    |
| > 120 [3048] < 300 [7620]   | ± 6 [152.4]    |
| > 300 [7620]  | ± 8 [203.2]    |
| ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE UNLESS DIMENSIONS ARE CRITICAL FEATURES 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  
BEND RELIEF TRB 3-SLOT PLUG TO BEND RELIEF TRB 3-LUG JACK NON-INSULATED BULKHEAD 1553 CABLE USING 124 OHM TWC-124-2 TWINAX

|      |           |          |             |
|------|-----------|----------|-------------|
| SIZE | CAGE CODE | DRAWN BY | ITEM NO.    |
| A    | 43321     | HBAKKE   | LC3MSA00658 |