



Lead Free Bend Relief 3-Lug TRB Non-Insulated Bulkhead  
Jack to Jack for 78 Ohm M17/176-00002, 48" Cable

## RF Cable Assemblies Technical Data Sheet

**PE3MSA00454-48**

### Configuration

- Connector 1: TRB Jack Bulkhead
- Connector 2: TRB JACK Bulkhead
- Cable Type: M17/176-00002
- Coax Flex Type: Flexible

### Features

- Max Frequency 10 MHz
- PFA Jacket
- MIL-STD-1553
- -55°C to +200°C
- 78 ohms

### Applications

- General Purpose
- Laboratory Use
- Vehicle High Temperature
- Data
- MIL-STD-1553

### Description

Pasternack's PE3MSA00454-48 78 ohm TRB jack bulkhead to 78 ohm TRB jack bulkhead 48 inch cable using 78 ohm M17/176-00002 twinax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack TRB to TRB cable assembly has a jack to jack gender configuration with 78 ohm flexible M17/176-00002 twinax. The PE3MSA00454-48 TRB jack to TRB jack cable assembly operates to 10 MHz. Our RF cable assembly with TRB bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Lead Free Bend Relief 3-Lug TRB Non-Insulated Bulkhead Jack to Jack for 78 Ohm M17/176-00002, 48" Cable PE3MSA00454-48](#)



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#### 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.) | 0.256 | 0.284 | 0.312 | 0.34 | 0.38 | 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.

#### Mechanical Specifications

##### Cable Assembly

|         |                    |
|---------|--------------------|
| Length* | 48 in [121.92 cm]  |
| Weight  | 0.19 lbs [86.18 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] |
|------------------------------|------------------|

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**Connectors**

| Description                           | Connector 1                  | Connector 2                  |
|---------------------------------------|------------------------------|------------------------------|
| Type                                  | TRB Jack Bulkhead            | TRB JACK Bulkhead            |
| 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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**PE3MSA00454-48**

**How to Order**

Part Number Configuration:

**PE3MSA00454**

- **xx**

**uu**

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

Example: PE3MSA00454-12 = 12 inches long cable  
PE3MSA00454-100cm = 100 cm long cable

Lead Free Bend Relief 3-Lug TRB Non-Insulated Bulkhead Jack to Jack for 78 Ohm M17/176-00002, 48" Cable from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Lead Free Bend Relief 3-Lug TRB Non-Insulated Bulkhead Jack to Jack for 78 Ohm M17/176-00002, 48" Cable PE3MSA00454-48](#)

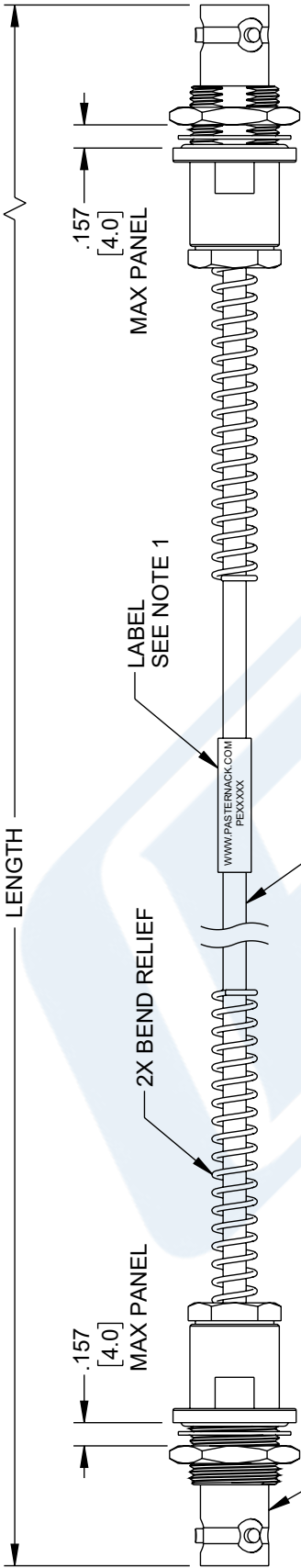
URL: <https://www.pasternack.com/lead-free-trb-jack-bulkhead-to-trb-jack-bulkhead-1553-cable-48-inch-length-using-m17-176-00002-pe3msa00454-48-p.aspx>

The information contained in 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. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

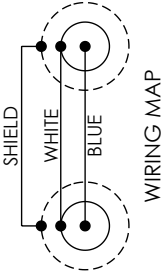
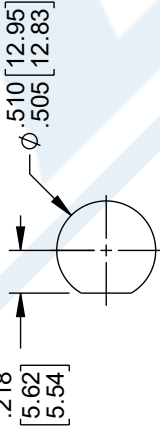
PE3MSA00454-48 CAD Drawing

Lead Free Bend Relief 3-Lug TRB Non-Insulated Bulkhead  
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LEAD FREE SOLDER



| ITEM NUMBER    | LENGTH |        |
|----------------|--------|--------|
|                | FEET   | METERS |
| PE3MSA00454-12 | 1.0    | .31    |
| PE3MSA00454-24 | 2.0    | .61    |
| PE3MSA00454-36 | 3.0    | .92    |
| PE3MSA00454-48 | 4.0    | 1.22   |
| PE3MSA00454-60 | 5.0    | 1.52   |



- 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 ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

REGULATORY COMPLIANCE:  
EU RoHS DIRECTIVE (MOST RECENT RELEASED VERSION)

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Phone: 1.866.727.8376 | 1.949.261.1920

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

TOLERANCES:  
X = ±.2 [5] FRACTIONS  
.XX = ±.02 [.5] ±.1/32  
.XXX = ±.005 [.13] ANGLES ± 1°

CABLE LENGTH TOLERANCES:  
≤12 [305] = +1 [25] / -0  
>12 [305] ≤ 60 [1524] = +2 [51] / -0  
>60 [1524] ≤ 120 [3048] = +4 [102] / -0  
>120 [3048] ≤ 300 [7620] = +6 [152] / -0  
>300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY  
AND SUBJECT TO CHANGE WITHOUT NOTICE.

INTERPRET ALL DIMENSIONS AND  
TOLERANCES PER ASME Y14.5

SCALE NONE SHEET 1 OF 1

DESCRIPTION  
LEAD FREE HIGH TEMP BULKHEAD JACK BR - BULKHEAD JACK  
BR

SIZE A CAGE CODE 53919 DRAWN BY DMAY ITEM NO. PE3MSA00454

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