



Halogen Free Bend Relief 3-Lug TRB Bulkhead Insulated  
Jack to Jack for 78 Ohm TWCH-78-2, 36" Cable

**RF Cable Assemblies Technical Data Sheet**

**PE3MSA00239-36**

**Configuration**

- Connector 1: TRB Jack Bulkhead
- Connector 2: TRB Jack Bulkhead
- Cable Type: TWCH-78-2
- Coax Flex Type: Flexible

**Features**

- Max Frequency 500 MHz
- HF POF Jacket
- MIL-STD-1553
- -30°C to +80°C
- 78 ohms
- Halogen Free
- Non-Toxic

**Applications**

- General Purpose
- Laboratory Use
- Military Contractors
- MIL-STD-1553
- Data
- Safer Environments
- Ventilation critical areas

**Description**

Pasternack's PE3MSA00239-36 78 ohm TRB jack bulkhead to 78 ohm TRB jack bulkhead 36 inch cable using 78 ohm TWCH-78-2 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 TWCH-78-2 twinax. The PE3MSA00239-36 TRB jack to TRB jack cable assembly operates to 500 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: [Halogen Free Bend Relief 3-Lug TRB Bulkhead Insulated Jack to Jack for 78 Ohm TWCH-78-2, 36" Cable PE3MSA00239-36](#)



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#### Electrical Specifications

| Description            | Minimum | Typical      | Maximum | Units        |
|------------------------|---------|--------------|---------|--------------|
| Frequency Range        | DC      |              | 500     | MHz          |
| Capacitance            |         | 21.2 [69.55] |         | 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.) | 0.266 | 0.353 | 0.425 | 0.515 | 0.68 | 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* | 36 in [914.4 mm]   |
| Weight  | 0.22 lbs [99.79 g] |

##### Cable

|                                      |                      |
|--------------------------------------|----------------------|
| Cable Type                           | TWCH-78-2            |
| Impedance                            | 78 Ohms              |
| Inner Conductor Type                 | Stranded             |
| Inner Conductor Material and Plating | Copper, Silver       |
| Dielectric Type                      | PE                   |
| Shield Layer 1                       | Silver Plated Copper |
| Jacket Material                      | HF POF, 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

-30 to +80 deg C

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

**Plotted and Other Data**

Notes:

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**PE3MSA00239-36**

#### How to Order

Part Number Configuration:

**PE3MSA00239**

- **xx**

**uu**

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

Example: PE3MSA00239-12 = 12 inches long cable  
PE3MSA00239-100cm = 100 cm long cable

Halogen Free Bend Relief 3-Lug TRB Bulkhead Insulated Jack to Jack for 78 Ohm TWCH-78-2, 36" 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: [Halogen Free Bend Relief 3-Lug TRB Bulkhead Insulated Jack to Jack for 78 Ohm TWCH-78-2, 36" Cable PE3MSA00239-36](https://www.pasternack.com/trb-jack-to-trb-jack-1553-cable-36-inch-length-using-twch-78-2-pe3msa00239-36-p.aspx)

URL: <https://www.pasternack.com/trb-jack-to-trb-jack-1553-cable-36-inch-length-using-twch-78-2-pe3msa00239-36-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.

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PE3MSA00239-36 REV 1.0

T-Rev.D2

| ZONE | REV | DESCRIPTION     | DATE       | CHANGED BY | APPROVED |
|------|-----|-----------------|------------|------------|----------|
|      | A   | INITIAL RELEASE | 05/02/2023 | DMAY       | EKIM     |

| ITEM NUMBER    | LENGTH |        |
|----------------|--------|--------|
|                | FEET   | METERS |
| PE3MSA00239-12 | 1.0    | .31    |
| PE3MSA00239-24 | 2.0    | .61    |
| PE3MSA00239-36 | 3.0    | .92    |
| PE3MSA00239-48 | 4.0    | 1.22   |
| PE3MSA00239-60 | 5.0    | .52    |

|                                                                                                                               |           |                                                                                                                                                                                                                                       |             |                                                                   |        |
|-------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------|--------|
| <p>UNLESS OTHERWISE SPECIFIED<br/>LEADING DIMENSIONS ARE INCHES<br/>DIMENSIONS IN [ ] ARE MILLIMETERS</p>                     |           |                                                                 |             | <p>INTERPRET ALL DIMENSIONS AND<br/>TOLERANCES PER ASME Y14.5</p> |        |
| <p><b>PE PASTERNAK</b><br/>an INFINITO brand</p>                                                                              |           | <p>Website: <a href="http://www.Pasternack.com">www.Pasternack.com</a><br/>Phone: 1.866.727.8376   1.949.261.1920</p>                                                                                                                 |             | SCALE                                                             | SHEET  |
| <p>TOLERANCES:</p> <p>.X = ±.2 [ 5 ]     FRACTIONS<br/>XX = ±.02 [ .5 ]     ± 1/32<br/>XXX = ±.005 [ .13 ]     ANGLES ± °</p> |           | <p>CABLE LENGTH TOLERANCES:</p> <p>≤12 [305] = ±1 [25] / -0<br/>&gt;12 [305] ≤60 [1524] = ±2 [51] / -0<br/>&gt;60 [1524] ≤120 [3048] = ±4 [102] / -0<br/>&gt;120 [3048] ≤300 [7620] = ±6 [152] / -0<br/>&gt;300 [7620] = ±8% / -0</p> |             | NONE                                                              | 1 OF 1 |
| <p>DESCRIPTION</p> <p>HALOGENFREE TWNX INS BULKHEAD BR JACK</p>                                                               |           |                                                                                                                                                                                                                                       |             |                                                                   |        |
| SIZE                                                                                                                          | CAGE CODE | DRAWN BY                                                                                                                                                                                                                              | ITEM NO.    | REV                                                               |        |
| A                                                                                                                             | 53919     | DMAY                                                                                                                                                                                                                                  | PE3MSA00239 | A                                                                 |        |
| <p>ALL DIMENSIONS ARE FOR REFERENCE ONLY<br/>AND SUBJECT TO CHANGE WITHOUT NOTICE.</p>                                        |           |                                                                                                                                                                                                                                       |             |                                                                   |        |

NOTES:

1. 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.
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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