



Halogen Free 78 Ohm TRB 3-Slot Solder/  
Clamp Plug to 3-Lug Solder/Clamp Non-Insulated  
Bulk Head Jack for TWCH-78-2 Cable

## RF Cable Assemblies Technical Data Sheet

**PE3MSA00227**

### Configuration

- Connector 1: TRB Plug
- Connector 2: TRB Jack Bulkhead
- Cable Type: TWCH-78-2

### Features

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

### Applications

- General Purpose
- Laboratory Use
- Military Contractors
- MIL-STD-1553
- Data

### Description

Pasternack's PE3MSA00227 78 ohm TRB plug to 78 ohm TRB jack bulkhead 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 plug to jack gender configuration with 78 ohm flexible TWCH-78-2 twinax. The PE3MSA00227 TRB plug 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. The PE3MSA00227 cable assembly consists of a 78 Ohm Halogen Free 3-Slot TRB Solder/Clamp Plug to 3-Lug TRB Solder/Clamp Non-Insulated Bulk Head Jack for TWCH-78-2 cable (.242 O.D.) suitable for MIL-STD-1553 Applications. The zero halogen jacket cable reduces the amount of toxic and corrosive gases emitted during combustion. Typically used in poorly ventilated areas, zero halogen is very popular with military contractors and anywhere the protection of people and equipment from toxic and corrosive gases is critical.

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: [TRB Plug to TRB Jack Bulkhead 1553 Cable Using 78 Ohm TWCH-78-2 Coax PE3MSA00227](#)



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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.) | 0.022 | 0.051 | 0.075 | 0.105 | 0.16 | dB/ft |
|                       | 0.07  | 0.17  | 0.25  | 0.34  | 0.52 | dB/m  |

#### 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

Weight 0.3 lbs [136.08 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 1.25 in [31.75 mm]

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### Connectors

| Description                           | Connector 1                  | Connector 2                  |
|---------------------------------------|------------------------------|------------------------------|
| Type                                  | TRB Plug                     | 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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### How to Order

Part Number Configuration:

**PE3MSA00227**

- **xx**

**uu**

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

Example: PE3MSA00227-12 = 12 inches long cable  
PE3MSA00227-100cm = 100 cm long cable

Halogen Free 78 Ohm TRB 3-Slot Solder/Clamp Plug to 3-Lug Solder/Clamp Non-Insulated Bulk Head Jack for TWCH-78-2 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: [TRB Plug to TRB Jack Bulkhead 1553 Cable Using 78 Ohm TWCH-78-2 Coax PE3MSA00227](#)

URL: <https://www.pasternack.com/trb-plug-to-trb-jack-bulkhead-1553-cable-using-twch-78-2-pe3msa00227-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.

# PE3MSA00227 CAD Drawing

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