



Lead Free 78 Ohm TRB Bend Relief 3-Slot Solder/  
Clamp Plug to Bend Relief 3-Lug Solder/Clamp Non-  
Insulated BLKHD Jack for PE-30-02003, 12" Cable

## RF Cable Assemblies Technical Data Sheet

**PE3MSA00478-12**

### Configuration

- Connector 1: TRB Plug
- Connector 2: TRB Jack Bulkhead
- Cable Type: 30-02003

### Features

- Max Frequency 500 MHz
- PVC Jacket
- MIL-STD-1553
- -20°C to +75°C
- 78 ohms
- Lab rated
- Lead Free

### Applications

- General Purpose
- Laboratory Use
- MIL-STD-1553
- Data
- Lab applications

### Description

Pasternack's PE3MSA00478-12 78 ohm TRB plug to 78 ohm TRB jack bulkhead 12 inch cable using 78 ohm PE-30-02003 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 30-02003 twinax. The PE3MSA00478-12 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 PE3MSA00478 it's a Lead Free assembly consisting of a Bend Relief 3-slot solder/clamp TRB plug to a Bend Relief 3-Lug TRB Solder/Clamp Non-Insulated Bulk Head Jack for PE-30-02003, that is a standard lab-rated PVC cable for MIL-STD-1553 applications. These cable assemblies come with a 1.700" steel spring-style bend relief that helps to minimize cable damage when exceeding the cables minimum bend radius. These assemblies are built to withstand severe shocks and vibrations.

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: [LF 78 Ohm TRB Bend Relief 3-Slot Solder/Clamp Plug to Bend Relief 3-Lug Solder/Clamp Non-Insulated BLKHD Jack for PE-30-02003 12" Cable PE3MSA00478-12](#)



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### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		500	MHz
Capacitance		20.3 [66.6]		pF/ft [pF/m]
Operating Voltage (AC)			300	Vrms

### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	10	50	100	200	500	MHz
Insertion Loss (Typ.)	0.253	0.319	0.368	0.437	0.575	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*	12 in [304.8 mm]
Weight	0.3 lbs [136.08 g]

#### Cable

Cable Type	30-02003
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	PVC, Blue

One Time Minimum Bend Radius	1.5 in [38.1 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

-20 to +75 deg C

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

### Plotted and Other Data

Notes:

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## RF Cable Assemblies Technical Data Sheet

**PE3MSA00478-12**

### How to Order

Part Number Configuration:

**PE3MSA00478**

- **xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3MSA00478-12 = 12 inches long cable  
PE3MSA00478-100cm = 100 cm long cable

Lead Free 78 Ohm TRB Bend Relief 3-Slot Solder/Clamp Plug to Bend Relief 3-Lug Solder/Clamp Non-Insulated BLKHD Jack for PE-30-02003, 12" 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: [LF 78 Ohm TRB Bend Relief 3-Slot Solder/Clamp Plug to Bend Relief 3-Lug Solder/Clamp Non-Insulated BLKHD Jack for PE-30-02003 12" Cable PE3MSA00478-12](https://www.pasternack.com/trb-plug-to-trb-jack-bulkhead-1553-cable-12-inch-length-using-pe-30-02003-lf-solder-pe3msa00478-12-p.aspx)

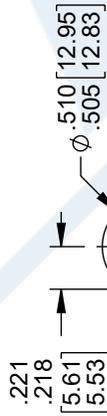
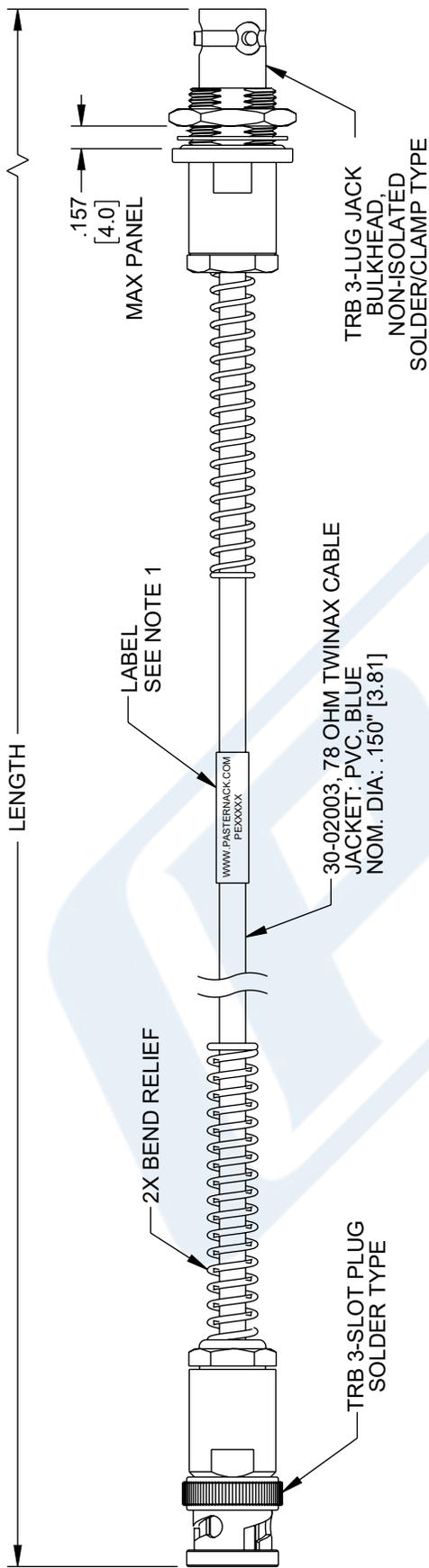
URL: <https://www.pasternack.com/trb-plug-to-trb-jack-bulkhead-1553-cable-12-inch-length-using-pe-30-02003-lf-solder-pe3msa00478-12-p.aspx>

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.

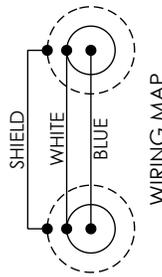
# PE3MSA00478-12 CAD Drawing

Lead Free 78 Ohm TRB Bend Relief 3-Slot Solder/Clamp Plug to Bend Relief 3-Lug Solder/Clamp Non-Insulated BLKHD Jack for PE-30-02003, 12" Cable

## LEAD FREE SOLDER



RECOMMENDED  
PANEL CUTOUT



ITEM NUMBER	LENGTH	
	FEET	METERS
PE3MSA00478-12	1.0	.31
PE3MSA00478-24	2.0	.61
PE3MSA00478-36	3.0	.92
PE3MSA00478-48	4.0	1.22
PE3MSA00478-60	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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Website: [www.Pasternack.com](http://www.Pasternack.com)  
Phone: 1.866.727.8376 | 1.949.261.1920

DESCRIPTION:  
LEAD FREE LAB 0.150" O.D. 1553 TWNX PBR-NI BHJBR

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE SHEET: 1 OF 1

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

TOLERANCES:  
 .X = ±.2 [5] FRACTIONS ±.102  
 .XX = ±.02 [.5] ±.102  
 .XXX = ±.005 [.13] ANGLES ± 1°  
 CABLE LENGTH TOLERANCES:  
 ≤12 [305] = +1 [25] / -0  
 >12 [305] ≤ 60 [1524] = +2 [5] / -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.

SIZE: A CAGE CODE: DMAY ITEM NO.: PE3MSA00478

REV: A

