



Lead Free 78 Ohm 3-Slot TRB Solder/Clamp Plug to 3-Lug  
TRB Solder/Clamp Jack for PE-30-02001, 48" Cable

## RF Cable Assemblies Technical Data Sheet

**PE3MSA00542-48**

### Configuration

- Connector 1: TRB Plug
- Connector 2: TRB Jack
- Cable Type: 30-02001

### Features

- Max Frequency 400 MHz
- PVC Jacket
- MIL-STD-1553
- -20°C to +75°C
- 78 ohms
- Lab rated

### Applications

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

### Description

Pasternack's PE3MSA00542-48 78 ohm TRB plug to 78 ohm TRB jack 48 inch cable using 78 ohm PE-30-02001 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 30-02001 twinax. The PE3MSA00542-48 TRB plug to TRB jack cable assembly operates to 400 MHz. The PE3MSA00542 it's a Lead Free cable assembly consisting of a 3-slot solder/clamp TRB plug to a 3-Lug TRB Solder/Clamp Jack for PE-30-02001; that offer a lower-cost, lab-rated PVC cabling solution for laboratory implementations for MIL-STD-1553 applications. It features a larger diameter cable (0.242" O.D.)

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 78 Ohm 3-Slot TRB Solder/Clamp Plug to 3-Lug TRB Solder/Clamp Jack for PE-30-02001 Twinax \(.242 O.D.\) 48" Cable PE3MSA00542-48](#)



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### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		400	MHz
Capacitance		19.7 [64.63]		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	400	MHz
Insertion Loss (Typ.)	0.29	0.4	0.5	0.64	0.84	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	0.359 lbs [162.84 g]

#### Cable

Cable Type	30-02001
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	2.42 in [61.47 mm]
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### Connectors

Description	Connector 1	Connector 2
Type	TRB Plug	TRB Jack
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

**PE3MSA00542-48**

### How to Order

Part Number Configuration:

**PE3MSA00542**

- **xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3MSA00542-12 = 12 inches long cable  
PE3MSA00542-100cm = 100 cm long cable

Lead Free 78 Ohm 3-Slot TRB Solder/Clamp Plug to 3-Lug TRB Solder/Clamp Jack for PE-30-02001, 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.

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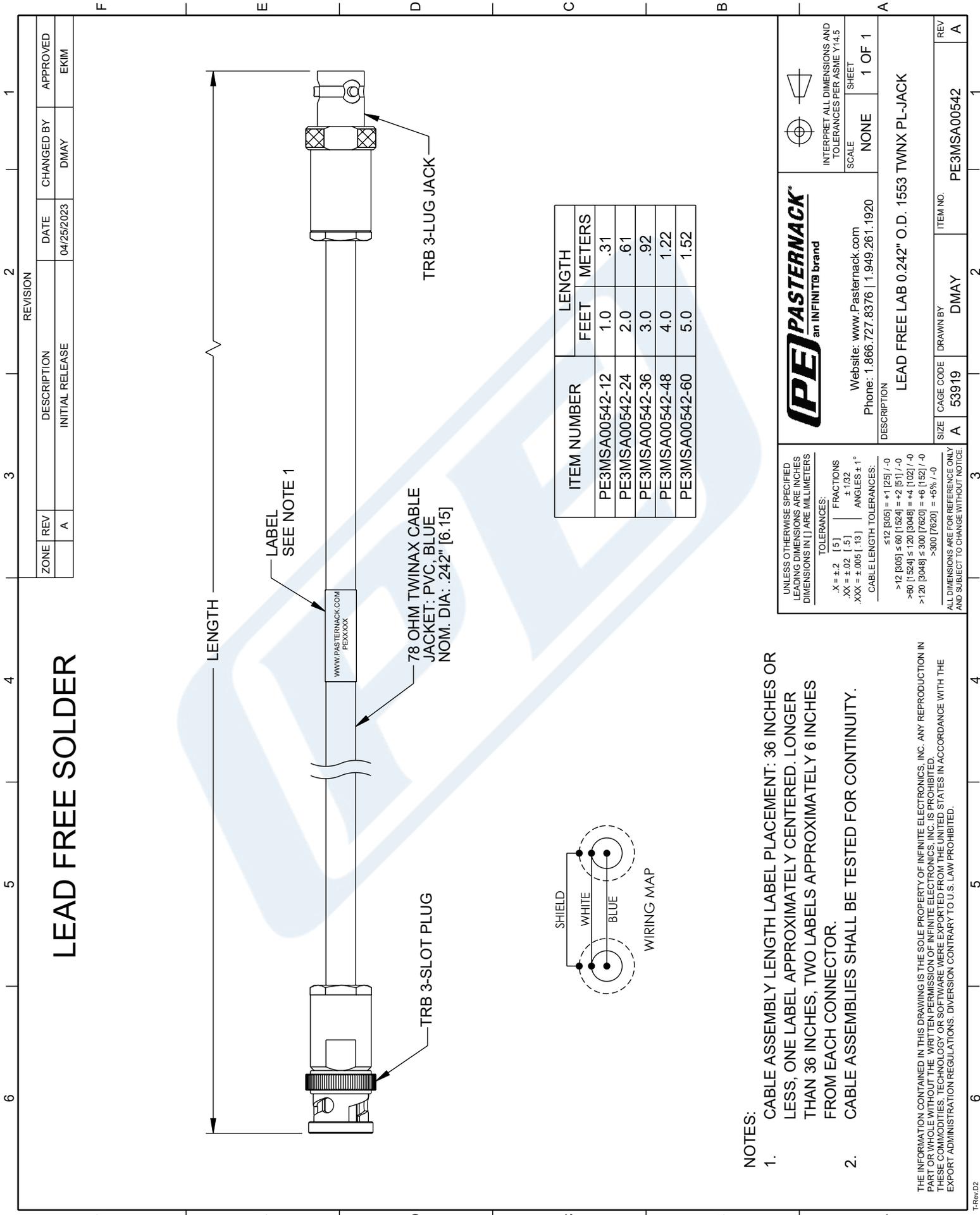
URL: <https://www.pasternack.com/trb-plug-to-trb-jack-1553-cable-48-inch-length-using-pe-30-02001-lf-solder-pe3msa00542-48-p.aspx>

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.

# PE3MSA00542-48 CAD Drawing

Lead Free 78 Ohm 3-Slot TRB Solder/Clamp Plug to 3-Lug

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## LEAD FREE SOLDER

TRB 3-SLOT PLUG

WWW.PASTERNAK.COM  
PEXXXX

78 OHM TWINAX CABLE  
JACKET: PVC, BLUE  
NOM. DIA: .242" [6.15]

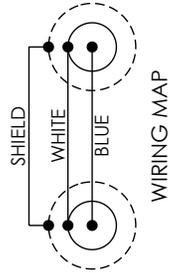
TRB 3-LUG JACK

LENGTH

CABLE ASSEMBLY LENGTH

TRB 3-LUG JACK

LABEL  
SEE NOTE 1



ITEM NUMBER	LENGTH	
	FEET	METERS
PE3MSA00542-12	1.0	.31
PE3MSA00542-24	2.0	.61
PE3MSA00542-36	3.0	.92
PE3MSA00542-48	4.0	1.22
PE3MSA00542-60	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.

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

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

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.

**PE PASTERNAK**  
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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 0.242" O.D. 1553 TWNX PL-JACK**

SCALE: NONE     SHEET: 1 OF 1

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	A	INITIAL RELEASE	04/25/2023	DMAY	EKIM

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	DMAY	PE3MSA00542