



TRB 3-Slot Plug to TRB 3-Lug Jack Insulated
Bulkhead 1553 Cable 48 Inch Length Using 124 Ohm
TWC-124-2 Coax Bend Relief Spring

RF Cable Assemblies Technical Data Sheet

PE3MSA00659-48

Configuration

- Connector 1: TRB 3-Slot Plug
- Connector 2: TRB 3-Lug Jack Insulated Bulkhead
- Cable Type: TWC-124-2
- Coax Flex Type: Flexible

Features

- Max Frequency 500 MHz
- PVC Jacket
- 124 ohms
- Twinaxial
- MIL-STD-1553B
- -40°C to +80°C
- Lead Free Solder
- Standard and Custom Lengths Available

Applications

- General Purpose
- Laboratory Use
- MIL-STD-1553B Applications
- Data Transmission

Description

Pasternack's PE3MSA00659-48 78 ohm TRB 3-Slot plug to 78 ohm TRB 3-Lug jack insulated bulkhead 48 inch cable using 124 ohm TWC-124-2 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 3-Slot to TRB 3-Lug cable assembly has a plug to jack gender configuration with 124 ohm flexible TWC-124-2 twinax. The PE3MSA00659-48 TRB 3-Slot plug to TRB 3-Lug jack cable assembly operates to 500 MHz. Our RF cable assembly with TRB 3-Lug insulated 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: [TRB 3-Slot Plug to TRB 3-Lug Jack Insulated Bulkhead 1553 Cable 48 Inch Length Using 124 Ohm TWC-124-2 Coax Bend Relief Spring PE3MSA00659-48](#)



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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|------------------------|---------|--------------|---------|--------------|
| Frequency Range | DC | | 500 | MHz |
| Capacitance | | 12.3 [40.35] | | 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.) | 0.27 | 0.35 | 0.41 | 0.49 | 0.66 | 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 | 0.25662 lbs [116.4 g] |

Cable

| | |
|--------------------------------------|----------------------|
| Cable Type | TWC-124-2 |
| Impedance | 124 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 | 1.25 in [31.75 mm] |
|------------------------------|--------------------|

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Connectors

| Description | Connector 1 | Connector 2 |
|---------------------------------------|------------------------------|---|
| Type | TRB 3-Slot Plug Bayonet | TRB 3-Lug Jack Insulated Bulkhead Bayonet |
| Option | Bend Relief Spring | Bend Relief Spring |
| Specification | MIL-STD-1553 | MIL-STD-1553 |
| 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 -40 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:

PE3MSA00659

- **xx**

uu

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3MSA00659-12 = 12 inches long cable
PE3MSA00659-100cm = 100 cm long cable

TRB 3-Slot Plug to TRB 3-Lug Jack Insulated Bulkhead 1553 Cable 48 Inch Length Using 124 Ohm TWC-124-2 Coax Bend Relief Spring 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.

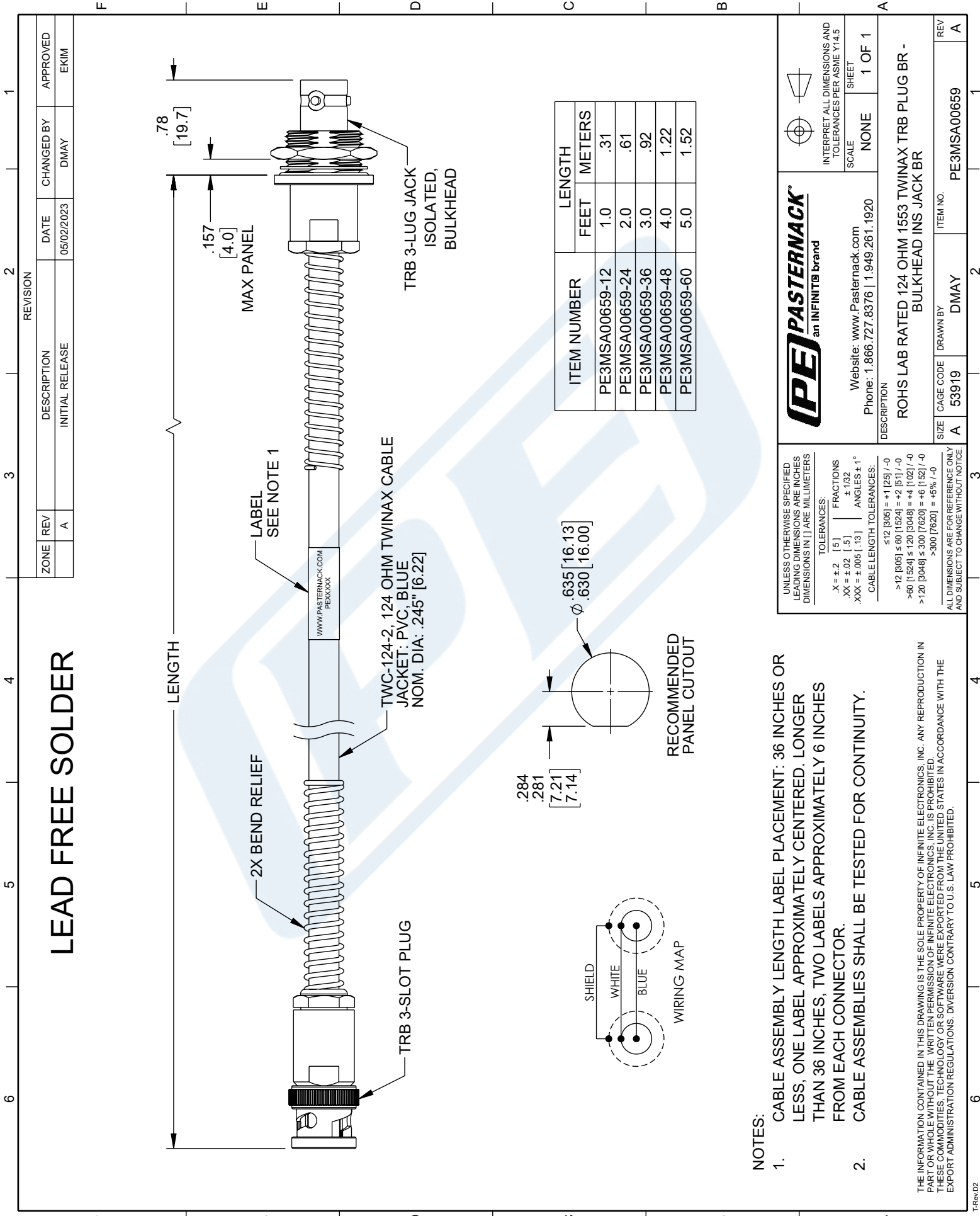
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [TRB 3-Slot Plug to TRB 3-Lug Jack Insulated Bulkhead 1553 Cable 48 Inch Length Using 124 Ohm TWC-124-2 Coax Bend Relief Spring PE3MSA00659-48](https://www.pasternack.com/trb-3-slot-plug-to-trb-3-lug-jack-insulated-bulkhead-1553-cable-48-inch-length-using-twc-124-2-pe3msa00659-48-p.aspx)

URL: <https://www.pasternack.com/trb-3-slot-plug-to-trb-3-lug-jack-insulated-bulkhead-1553-cable-48-inch-length-using-twc-124-2-pe3msa00659-48-p.aspx>

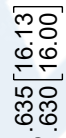
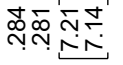
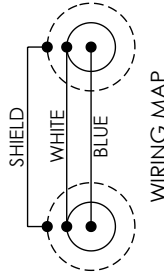
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PE3MSA00659-48 CAD Drawing

TRB 3-Slot Plug to TRB 3-Lug Jack Insulated Bulkhead 1553 Cable 48 Inch Length Using 124 Ohm TWC-124-2 Coax Bend Relief Spring



| ITEM NUMBER | LENGTH | |
|----------------|--------|--------|
| | FEET | METERS |
| PE3MSA00659-12 | 1.0 | .31 |
| PE3MSA00659-24 | 2.0 | .61 |
| PE3MSA00659-36 | 3.0 | .92 |
| PE3MSA00659-48 | 4.0 | 1.22 |
| PE3MSA00659-60 | 5.0 | 1.52 |



RECOMMENDED PANEL CUTOUT

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

TOLERANCES:

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
an INFINITO brand

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Phone: 1.866.727.8376 | 1.949.261.1920

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE SHEET: 1 OF 1

DESCRIPTION: ROHS LAB RATED 124 OHM 1553 TWINAX TRB PLUG BR - BULKHEAD INS JACK BR

| | | | |
|------|-----------|----------|-------------|
| SIZE | CAGE CODE | DRAWN BY | ITEM NO. |
| A | 53919 | DMAY | PE3MSA00659 |

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