



Halogen Free 78 Ohm TRB 3-Slot Solder/
Clamp Plug to Plug for TWCH-78-2 Cable

RF Cable Assemblies Technical Data Sheet

PE3MSA00224

Configuration

- Connector 1: TRB Plug
- Connector 2: TRB Plug
- 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

Applications

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

Description

Pasternack's PE3MSA00224 78 ohm TRB plug to 78 ohm TRB plug 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 plug gender configuration with 78 ohm flexible TWCH-78-2 twinax. The PE3MSA00224 TRB plug to TRB plug cable assembly operates to 500 MHz. The PE3MSA00224 cable assembly consists of a 78 Ohm Halogen Free 3-Slot TRB Solder/Clamp Plug to 3-Slot TRB Solder/Clamp Plug 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: [Halogen Free 78 Ohm TRB 3-Slot Solder/Clamp Plug to Plug for TWCH-78-2 Twinaxial MIL-STD-1553 Cable \(.242" O.D.\) -30C +80C PE3MSA00224](#)



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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 Plug
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:

PE3MSA00224

- **xx**

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

Example: PE3MSA00224-12 = 12 inches long cable
PE3MSA00224-100cm = 100 cm long cable

Halogen Free 78 Ohm TRB 3-Slot Solder/Clamp Plug to Plug 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.

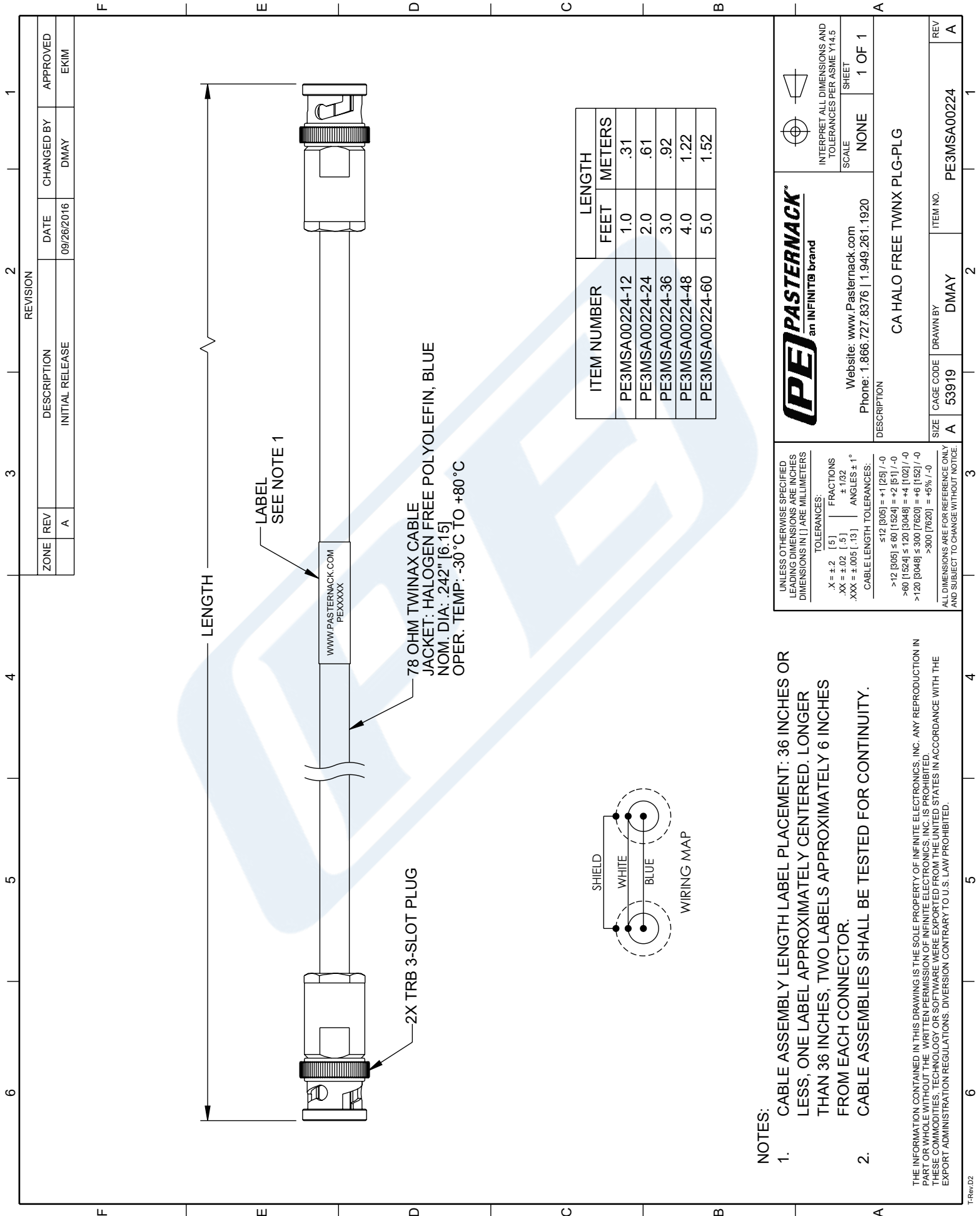
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Halogen Free 78 Ohm TRB 3-Slot Solder/Clamp Plug to Plug for TWCH-78-2 Twinaxial MIL-STD-1553 Cable \(.242" O.D.\) -30C +80C PE3MSA00224](#)

URL: <https://www.pasternack.com/trb-plug-to-trb-plug-1553-cable-using-twch-78-2-pe3msa00224-p.aspx>

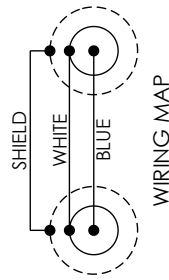
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PE3MSA00224 CAD Drawing

Halogen Free 78 Ohm TRB 3-Slot Solder/Clamp Plug to Plug for TWCH-78-2 Cable



ITEM NUMBER	LENGTH	
	FEET	METERS
PE3MSA00224-12	1.0	.31
PE3MSA00224-24	2.0	.61
PE3MSA00224-36	3.0	.92
PE3MSA00224-48	4.0	1.22
PE3MSA00224-60	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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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE

SHEET: 1 OF 1

DESCRIPTION: CA HALO FREE TWNX PLG-PLG

SIZE: A	CAGE CODE: 53919	DRAWN BY: DMAY	ITEM NO.: PE3MSA00224	REV: A
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UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

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

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.