



High Temperature 3-Slot Full Crimp Plug to Plug,
48 inch M17/176-00002 Twinax Cable

RF Cable Assemblies Technical Data Sheet

PE3CA2001-48

Configuration

- Connector 1: TRB Plug
- Connector 2: TRB Plug
- Cable Type: M17/176-00002

Features

- Max Frequency 10 MHz
- PFA Jacket
- MIL-STD-1553
- -55°C to +200°C
- 78 ohms

Applications

- General Purpose
- Laboratory Use
- MIL-STD-1553
- Vehicle High Temperature
- Laboratory Implementations
- Data

Description

Pasternack's PE3CA2001-48 78 ohm TRB plug to 78 ohm TRB plug 48 inch cable using 78 ohm M17/176-00002 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 M17/176-00002 twinax. The PE3CA2001-48 TRB plug to TRB plug cable assembly operates to 10 MHz. The PE3CA2001 cable assembly consists of a 3-slot crimp TRB plug to a 3-slot crimp TRB plug on M17/176-00002 Twinax cable, that is in the high-temperature-rated bus cabling category for MIL-STD-1553 applications. This thicker cable (0.129" O.D.) provides a robust cabling solution with less attenuation per foot.

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: [High Temperature 3-Slot Full Crimp Plug to Plug, 48 inch M17/176-00002 Twinax Cable PE3CA2001-48](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		10	MHz
Capacitance		24 [78.74]		pF/ft [pF/m]
Operating Voltage (AC)			750,000	Vrms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	1	3	5	7	10	MHz
Insertion Loss (Typ.)	0.26	0.29	0.32	0.34	0.38	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	0.17 lbs [77.11 g]

Cable

Cable Type	M17/176-00002
Impedance	78 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Shield Layer 1	Silver Plated Copper
Jacket Material	PFA, 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 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 -55 to +200 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:

PE3CA2001

- **xx**

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

Example: PE3CA2001-12 = 12 inches long cable
PE3CA2001-100cm = 100 cm long cable

High Temperature 3-Slot Full Crimp Plug to Plug, 48 inch M17/176-00002 Twinax 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/3-slot-full-crimp-trb-plug-to-trb-plug-1553-cable-48-inch-length-using-m17-176-00002-PE3CA2001-48-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.

PE3CA2001-48 CAD Drawing

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