



Lead Free High Temp 1553 Twinax Cable Assembly
TRS Submini Plug to TRB 3 Slot Plug

RF Cable Assemblies Technical Data Sheet

PE3MSA00456

Configuration

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

Features

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

Applications

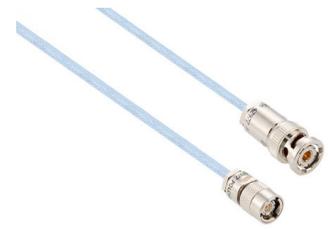
- General Purpose
- Laboratory Use
- Vehicle High Temperature
- Data
- MIL-STD-1553

Description

Pasternack's PE3MSA00456 78 ohm TRB plug to 78 ohm TRS Subminiature plug 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 TRS Subminiature cable assembly has a plug to plug gender configuration with 78 ohm flexible M17/176-00002 twinax. The PE3MSA00456 TRB plug to TRS Subminiature plug cable assembly operates to 10 MHz.

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 High Temp 1553 Twinax Cable Assembly TRS Submini Plug to TRB 3 Slot Plug PE3MSA00456](#)



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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.)	0.014	0.021	0.028	0.035	0.045	dB/ft
	0.05	0.07	0.09	0.11	0.15	

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 0.23 lbs [104.33 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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TRB 3 Slot Plug to TRS Submini Plug

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Connectors

Description	Connector 1	Connector 2
Type	TRB Plug	TRS Subminiature 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

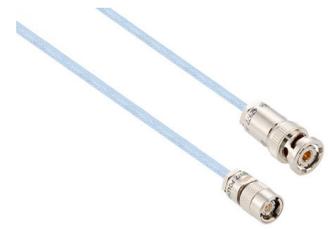
Operating Range -55 to +200 deg C

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

Plotted and Other Data

Notes:

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RF Cable Assemblies Technical Data Sheet

PE3MSA00456

How to Order

Part Number Configuration:

PE3MSA00456

- **xx**

uu

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

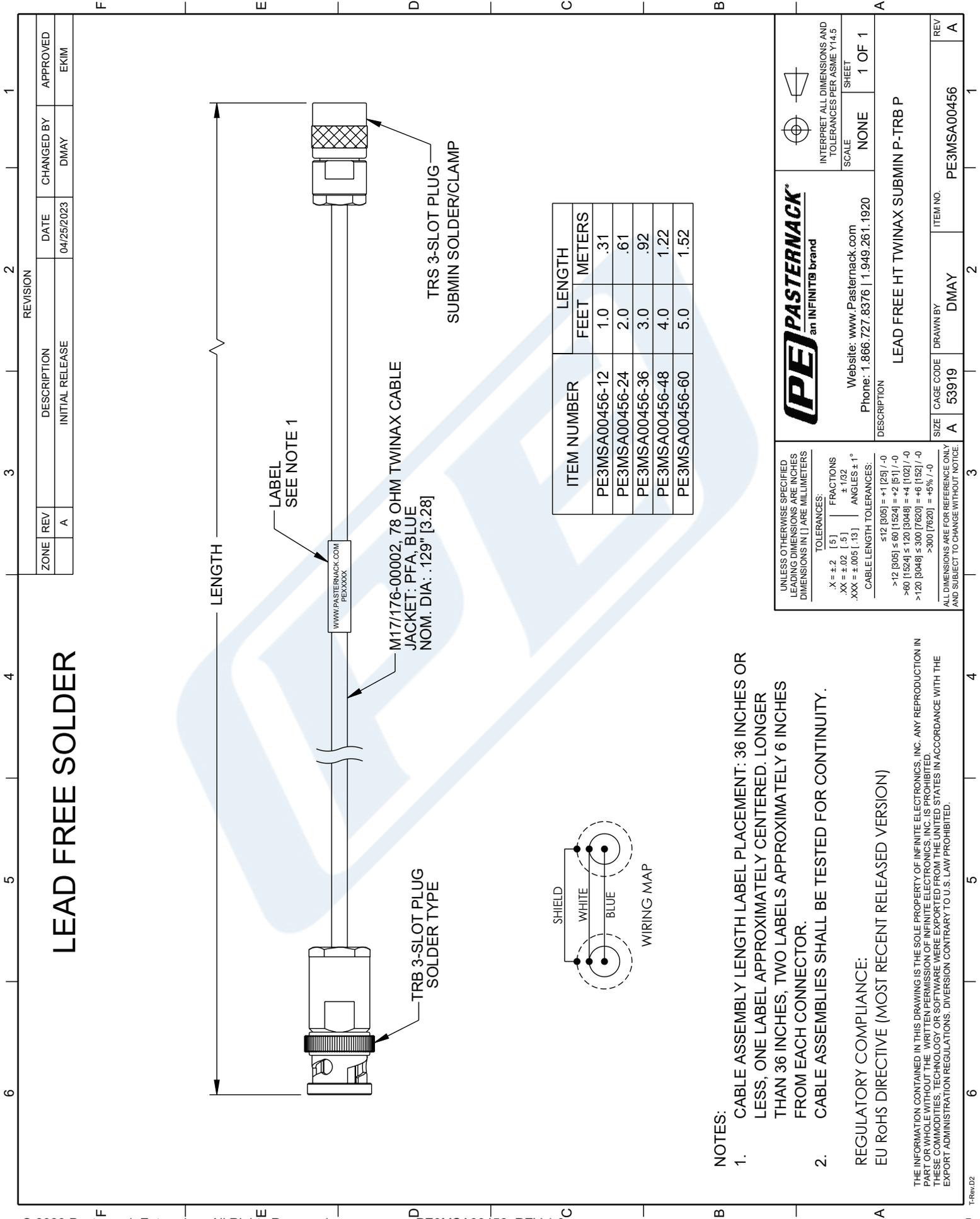
Example: PE3MSA00456-12 = 12 inches long cable
PE3MSA00456-100cm = 100 cm long cable

Lead Free High Temp 1553 Twinax Cable Assembly TRS Submini Plug to TRB 3 Slot Plug 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: [Lead Free High Temp 1553 Twinax Cable Assembly TRS Submini Plug to TRB 3 Slot Plug PE3MSA00456](https://www.pasternack.com/trb-plug-to-trs-subminiature-plug-1553-cable-using-m17-176-00002-pe3msa00456-p.aspx)

URL: <https://www.pasternack.com/trb-plug-to-trs-subminiature-plug-1553-cable-using-m17-176-00002-pe3msa00456-p.aspx>

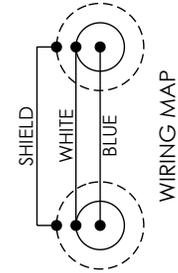
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such 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.



LEAD FREE SOLDER

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

ITEM NUMBER	LENGTH	
	FEET	METERS
PE3MSA00456-12	1.0	.31
PE3MSA00456-24	2.0	.61
PE3MSA00456-36	3.0	.92
PE3MSA00456-48	4.0	1.22
PE3MSA00456-60	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
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: LEAD FREE HT TWINAX SUBMIN P-TRB P

SIZE: A

CAGE CODE: 53919

DRAWN BY: DMAY

ITEM NO.: PE3MSA00456

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.