



Lead Free TRS Subminiature Plug to TRS Subminiature Plug
1553 Cable 24 Inch Length Using 78 Ohm M17/176-00002 Coax

RF Cable Assemblies Technical Data Sheet

PE3MSA00457-24

Configuration

- Connector 1: TRS SUBMINIATURE PLUG
- Connector 2: TRS SUBMINIATURE PLUG
- Cable Type: M17/176-00002
- Coax Flex Type: Flexible

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 PE3MSA00457-24 78 ohm TRS Subminiature plug to 78 ohm TRS Subminiature plug 24 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 TRS Subminiature to TRS Subminiature cable assembly has a plug to plug gender configuration with 78 ohm flexible M17/176-00002 twinax. The PE3MSA00457-24 TRS Subminiature 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.

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.)	0.228	0.242	0.256	0.27	0.29	dB

Electrical Specification Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Lead Free TRS Subminiature Plug to TRS Subminiature Plug 1553 Cable 24 Inch Length Using 78 Ohm M17/176-00002 Coax PE3MSA00457-24](#)



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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*	24 in [609.6 mm]
Weight	0.086 lbs [39.01 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	TRS SUBMINIATURE 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
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Lead Free TRS Subminiature Plug to TRS Subminiature Plug 1553 Cable 24 Inch Length Using 78 Ohm M17/176-00002 Coax PE3MSA00457-24](#)



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PE3MSA00457-24

How to Order

Part Number Configuration:

PE3MSA00457

- **xx**

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Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3MSA00457-12 = 12 inches long cable
PE3MSA00457-100cm = 100 cm long cable

Lead Free TRS Subminiature Plug to TRS Subminiature Plug 1553 Cable 24 Inch Length Using 78 Ohm M17/176-00002 Coax 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 TRS Subminiature Plug to TRS Subminiature Plug 1553 Cable 24 Inch Length Using 78 Ohm M17/176-00002 Coax PE3MSA00457-24](https://www.pasternack.com/lead-free-trs-subminiature-plug-to-trs-subminiature-plug-1553-cable-24-inch-length-using-78-ohm-m17-176-00002-coax-pe3msa00457-24)

URL: <https://www.pasternack.com/lead-free-trs-subminiature-plug-to-trs-subminiature-plug-1553-cable-24-inch-length-using-m17-176-00002-pe3msa00457-24-p.aspx>

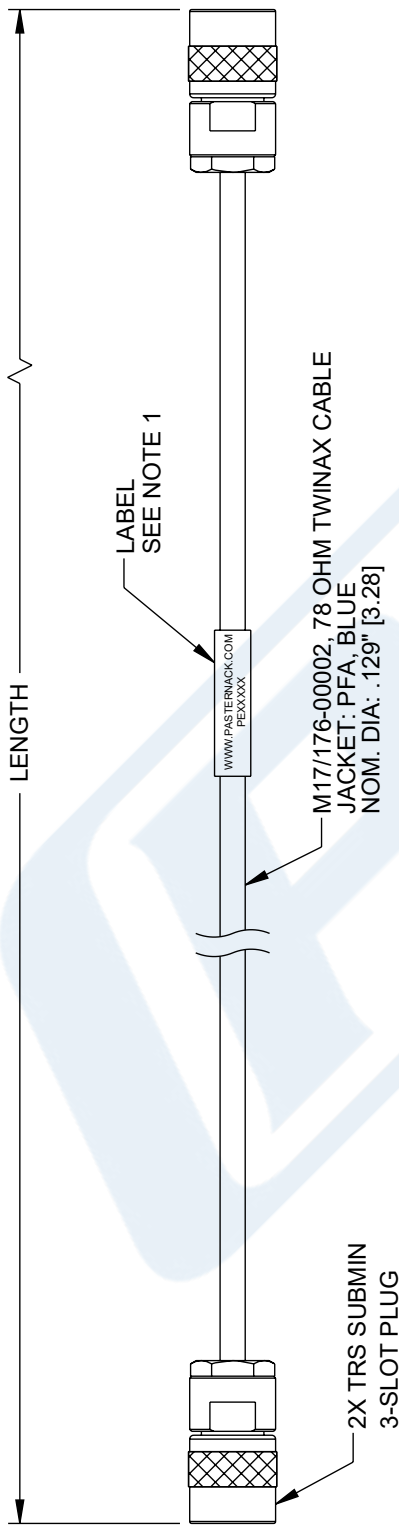
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such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

PE3MSA00457-24 CAD Drawing

Lead Free TRS Subminiature Plug to TRS Subminiature Plug 1553 Cable

24 Inch Length Using 78 Ohm M17/176-00002 Coax

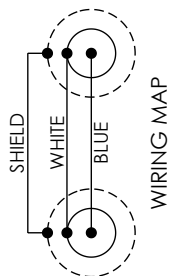
LEAD FREE SOLDER



M17/176-00002, 78 OHM TWINAX CABLE
 JACKET: PFA, BLUE
 NOM. DIA: .129" [3.28]

LABEL
 SEE NOTE 1

2X TRS SUBMIN
 3-SLOT PLUG



ITEM NUMBER	LENGTH	
	FEET	METERS
PE3MSA00457-12	1.0	.31
PE3MSA00457-24	2.0	.61
PE3MSA00457-36	3.0	.92
PE3MSA00457-48	4.0	1.22
PE3MSA00457-60	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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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] ≤ 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 INFINIT® brand

Website: www.Pasternack.com
 Phone: 1.866.727.8376 | 1.949.261.1920

DESCRIPTION
LEAD FREE HIGH TEMP TRS SUBMIN PLUG - TRS SUBMIN PLUG

SCALE: NONE SHEET: 1 OF 1

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

ZONE REV A

DESCRIPTION INITIAL RELEASE

DATE 05/10/2023

CHANGED BY DMAY

APPROVED EKIM

REVISION

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4

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6

REV A

ITEM NO. PE3MSA00457

DRAWN BY DMAY

CAGE CODE 53919