PASTERNACK
an INFINITE brand

Lead Free TRS Subminiature Plug to TRS Subminiature Plug 1553 Cable 48 Inch Length Using 78 Ohm M17/176-00002 Coax

RF Cable Assemblies Technical Data Sheet PE3MSA00457-48

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 PE3MSA00457-48 78 ohm TRS Subminiature plug to 78 ohm TRS Subminiature 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 TRS Subminiature to TRS Subminiature cable assembly has a plug to plug gender configuration with 78 ohm flexible M17/176-00002 twinax. The PE3MSA00457-48 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.)	0.256	0.284	0.312	0.34	0.38	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 48 Inch Length Using 78 Ohm M17/176-00002 Coax PE3MSA00457-48

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

© 2020 Pasternack Enterprises All Rights Reserved

Lead Free TRS Subminiature Plug to TRS Subminiature Plug 1553 Cable 48 Inch Length Using 78 Ohm M17/176-00002 Coax

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	0.122 lbs [55.34 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]

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

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 48 Inch Length Using 78 Ohm M17/176-00002 Coax PE3MSA00457-48

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

© 2020 Pasternack Enterprises All Rights Reserved

Lead Free TRS Subminiature Plug to TRS Subminiature Plug 1553 Cable 48 Inch Length Using 78 Ohm M17/176-00002 Coax

RF Cable Assemblies Technical Data Sheet — PE3MSA00457-48

How to Order

Part Number Configuration: **PE3MSA00457 - xx uu**

- **uu** — Unit of Measure:
  - cm = Centimeters
  - <blank> = Inches
- **xx** — Length
- **PE3MSA00457** — 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 48 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 48 Inch Length Using 78 Ohm M17/176-00002 Coax PE3MSA00457-48

URL: https://www.pasternack.com/lead-free-trs-subminiature-plug-to-trs-subminiature-plug-1553-cable-48-inch-length-using-m17-176-00002-pe3msa00457-48-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.

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

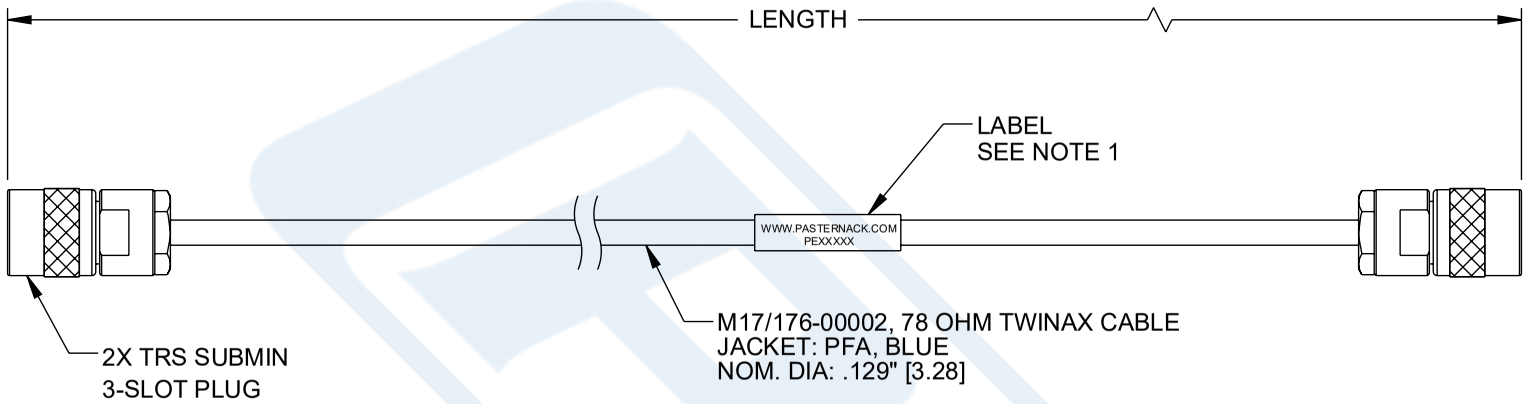
© 2020 Pasternack Enterprises All Rights Reserved

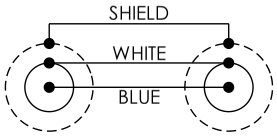
PE3MSA00457-48 CAD Drawing

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

REVISION					
ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	A	INITIAL RELEASE	05/10/2023	DMAY	EKIM

LEAD FREE SOLDER





WIRING MAP

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:

1. 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.
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

REGULATORY COMPLIANCE:
EU RoHS DIRECTIVE (MOST RECENT RELEASED VERSION)

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED.
THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

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.

PASTERNACK® an INFINITE brand
Website: www.Pasternack.com
Phone: 1.866.727.8376 | 1.949.261.1920

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE	SHEET
NONE	1 OF 1

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

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	DMAY	PE3MSA00457	A

© 2020 Pasternack Enterprises All Rights Reserved