



PE-TC195 Series Phase Stable Test Cable SMA Male to SMA Female to 18 GHz 48 Inch Length ,RoHS

RF Cable Assemblies Technical Data Sheet

PE3TC0102-48

Configuration

- Connector 1: SMA Male
- Connector 2: SMA Female
- Cable Type: PE-TC195

Features

- Max Frequency 18 GHz
- Shielding Effectivity > 100 dB
- 70% Phase Velocity
- Triple Shielded
- FEP Jacket
- Phase and Amplitude stability with flexure
- Small Diameter Lighter weight lower profile for high density test applications
- Phase change with flexure +/-2° to 18 GHz
- Excellent for multi-port test equipment
- Very flexible and durable cable with a min bend radius of 1 inch
- Excellent VSWR and Insertion Loss
- Extra strain relief for extended connector body with booting enhance stability and longevity
- Each Serialized assembly come with matching Test data
- 5,000 mating cycles when properly matted
- IN STOCK and ready to ship

Applications

- General Purpose
- Laboratory Use
- Automated RF Test Stations
- General Purpose Lab Testing
- High Connection Density Lab and Production testing

Description

Pasternack's PE3TC0102-48 SMA male to SMA female 48 inch cable using .80 coax is part of our full line of RF components available for same-day shipping. Pasternack's formable RF cable assemblies provide an alternative to costly pre-formed semi-rigid assemblies since they are hand formable. This Pasternack SMA to SMA cable assembly has a male to female gender configuration with 50 ohm formable PE-TC195 coax. The PE3TC0102-48 SMA male to SMA female cable assembly operates to 18 GHz. The triple shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 100 dB. Pasternack's high performance PE-TC195 series Test Cables are designed to allow customers to perform repeatable accurate measurements. Because these cables are phase stable under flexure, +/- 2° at 18 GHz, they are an excellent option for testing where movement will occur during testing. The PE-TC195 test cables have low Insertion Loss and low VSWR in addition to having excellent phase stability properties. The rugged design provides for up to 5,000 matting cycles with proper care. The smaller diameter coax allows for high flexibility, lower profile and a lighter weight test cable. The PE-TC195 series test cables are an excellent choice for use in precision high density test environments

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

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [PE-TC195 Series Phase Stable Test Cable SMA Male to SMA Female to 18 GHz 48 Inch Length ,RoHS PE3TC0102-48](#)



PE-TC195 Series Phase Stable Test Cable SMA Male to SMA Female to 18 GHz 48 Inch Length ,RoHS

RF Cable Assemblies Technical Data Sheet

PE3TC0102-48

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		18	GHz
VSWR			1.25:1	
Velocity of Propagation		70		%
RF Shielding	100			dB
Capacitance		29.4 [96.46]		pF/ft [pF/m]
Phase Stability with Flexure		2		Degrees

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	6	12	18			GHz
Insertion Loss (Max.)	1.7	2.6	3.3			dB
Power Handling (Max.)			70			W

Mechanical Specifications

Cable Assembly

Length*	48 in [121.92 cm]
Weight	0.253 lbs [114.76 g]

Cable

Cable Type	PE-TC195
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Number of Shields	3
Shield Layer 1	Silver Plated Copper Braid
Shield Layer 2	Silver Plated Copper Tape
Shield Layer 3	Silver Plated Copper Braid
Jacket Material	FEP
Jacket Diameter	0.195 in [4.95 mm]

One Time Minimum Bend Radius	1 in [25.4 mm]
------------------------------	----------------

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [PE-TC195 Series Phase Stable Test Cable SMA Male to SMA Female to 18 GHz 48 Inch Length ,RoHS PE3TC0102-48](#)



PE-TC195 Series Phase Stable Test Cable SMA Male to SMA Female to 18 GHz 48 Inch Length ,RoHS

RF Cable Assemblies Technical Data Sheet

PE3TC0102-48

Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Female
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	PTFE	PTFE
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Material and Plating	Passivated Stainless Steel	

Environmental Specifications

Temperature

Operating Range -65 to +125 deg C

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

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [PE-TC195 Series Phase Stable Test Cable SMA Male to SMA Female to 18 GHz 48 Inch Length ,RoHS PE3TC0102-48](#)



PE-TC195 Series Phase Stable Test Cable SMA Male to SMA Female to 18 GHz 48 Inch Length ,RoHS

RF Cable Assemblies Technical Data Sheet

PE3TC0102-48

How to Order

Part Number Configuration:

PE3TC0102

- xx

uu

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

Example: PE3TC0102-12 = 12 inches long cable
PE3TC0102-100cm = 100 cm long cable

PE-TC195 Series Phase Stable Test Cable SMA Male to SMA Female to 18 GHz 48 Inch Length ,RoHS 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: [PE-TC195 Series Phase Stable Test Cable SMA Male to SMA Female to 18 GHz 48 Inch Length ,RoHS PE3TC0102-48](#)

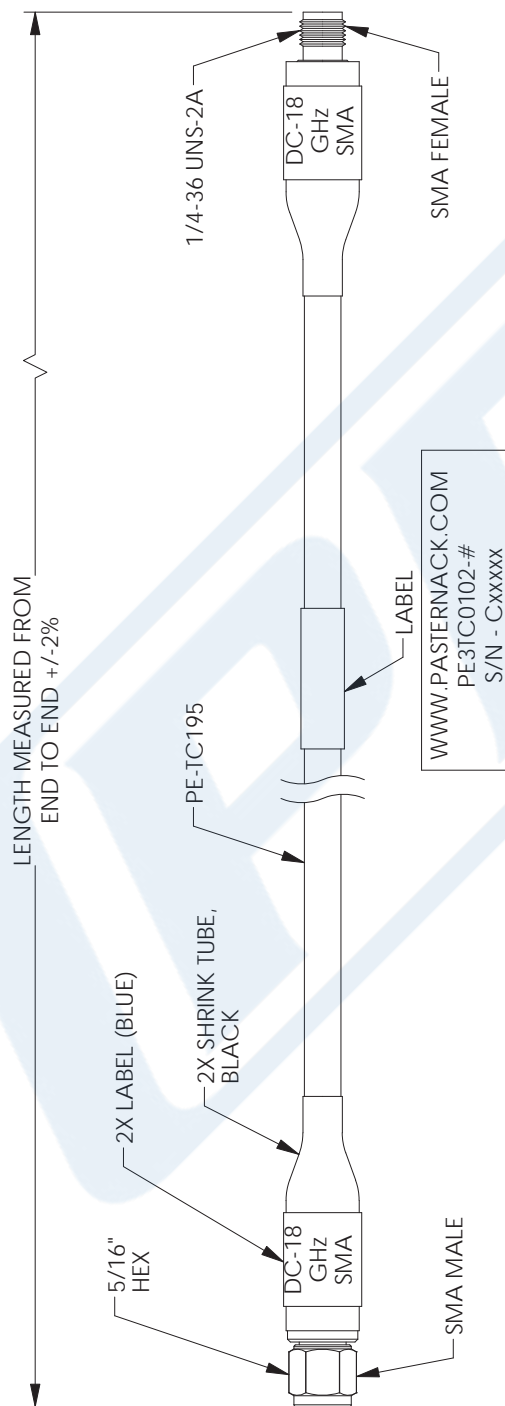
URL: <https://www.pasternack.com/sma-male-sma-female-.80-cable-assembly-pe3tc0102-48-p.aspx>

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.

PE3TC0102-48 CAD Drawing

PE-TC195 Series Phase Stable Test Cable SMA Male to
SMA Female to 18 GHz 48 Inch Length ,RoHS

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
B	INITIAL RELEASE	07/07/2021	SELLIS



UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

X = +2	[5.08]	FRACTIONS
XX = +.02	[.51]	+132
XXX = ±.005	[.13]	ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305]	±1 [25] / -0
12 [305] < L ≤ 60 [1524]	±2 [51] / -0
60 [1524] < L ≤ 120 [3048]	±4 [102] / -0
120 [3048] < L ≤ 300 [7620]	±6 [152] / -0
300 [7620] < L = +5% / -0	

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

PE PASTERNAK
an INFINITI® brand

Pasternack Enterprises, Inc.
P.O. Box 16759, Irvine, CA 92623.
Phone: 1.949.261.1920 | 1.866.727.8376
Fax: 1.949.261.7451
Website: www.pasternack.com
E-mail: sales@pasternack.com

THIRD-ANGLE PROJECTION

THE INFORMATION AND
DESIGN IN THIS DOCUMENT
IS THE PROPERTY OF
PASTERNAK CORPORATION
ALL RIGHTS RESERVED.

SHEET 1 OF 1

SCALE N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	DFRISIELLO	PE3TC0102

REV B

NOTE:
1. DUST CAPS ARE INSTALLED PRIOR TO SHIPPING. (NOT SHOWN)

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.