



PE-TC195 Series Phase Stable Test Cable
SMA Male to N Male to 18 GHz ,RoHS

RF Cable Assemblies Technical Data Sheet

PE3TC0105

Configuration

- Connector 1: SMA Male
- Connector 2: N Male
- 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 PE3TC0105 SMA male to type N male 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 type N cable assembly has a male to male gender configuration with 50 ohm formable PE-TC195 coax. The PE3TC0105 SMA male to type N male 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 N Male to 18 GHz ,RoHS PE3TC0105](#)



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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 | 3 | 12 | 18 | | | GHz |
| Insertion Loss (Max.) | 0.22 | 0.52 | 0.68 | | | dB/ft |
| | 0.72 | 1.71 | 2.23 | | | dB/m |
| Power Handling (Max.) | | | 70 | | | W |

Mechanical Specifications

Cable Assembly

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] |

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Connectors

| Description | Connector 1 | Connector 2 |
|-----------------------------------|----------------------------|----------------------------|
| Type | SMA Male | N Male |
| 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 | Passivated Stainless Steel |

Mechanical Specification Notes:

*All cable assemblies have a length tolerance of 1.5% or $\pm 3/8$ ", whichever is greater.

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.

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How to Order

Part Number Configuration:

PE3TC0105

- **xx**

uu

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

Example: PE3TC0105-12 = 12 inches long cable
PE3TC0105-100cm = 100 cm long cable

PE-TC195 Series Phase Stable Test Cable SMA Male to N Male to 18 GHz ,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.

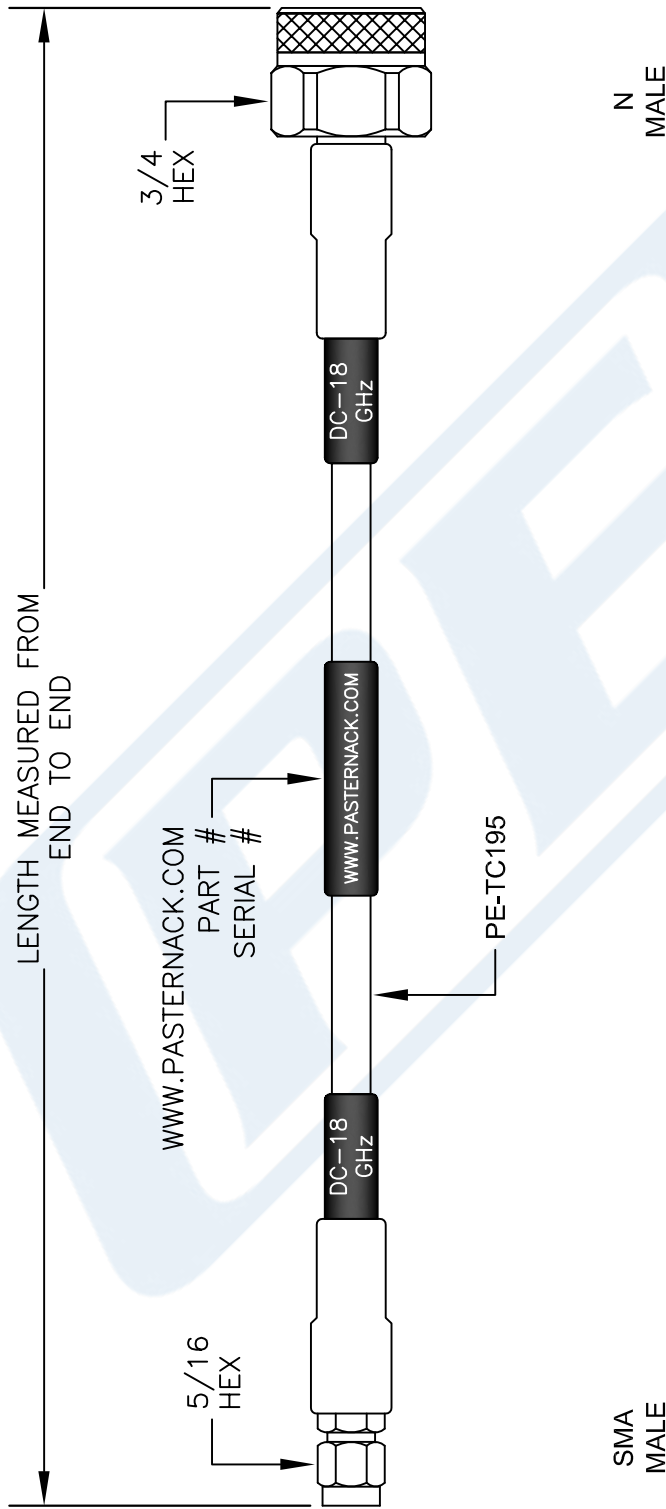
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [PE-TC195 Series Phase Stable Test Cable SMA Male to N Male to 18 GHz ,RoHS PE3TC0105](https://www.pasternack.com/sma-male-n-male-.80-cable-assembly-pe3tc0105-p.aspx)

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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.

PE3TC0105 CAD Drawing

PE-TC195 Series Phase Stable Test Cable SMA Male to N Male to 18 GHz ,RoHS



NOTES:
 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
 3. DIMENSIONS ARE IN INCHES [mm].
 4. LENGTH TOLERANCE IS ± 2%

DWG TITLE
PE3TC0105

FSCM NO. 53919

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|----------|--------|-------|-----|------|------|
| CAD FILE | 072215 | SCALE | N/A | SIZE | A |
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