

TNC Male Right Angle to SMB Plug Right Angle Low Loss Cable Using LMR-195-UF Coax



PE3W16974

Configuration

- Connector 1: TNC Male Right Angle
- Connector 2: SMB Plug Right Angle
- Cable Type: LMR-195-UF
- Coax Flex Type: Flexible

Features

- Max Frequency 4 GHz
- Shielding Effectivity > 90 dB
- 74% Phase Velocity
- Double Shielded
- TPE Jacket

Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W16974 TNC male right angle to SMB plug right angle cable using LMR-195-UF coax 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 TNC to SMB cable assembly has a male to plug gender configuration with 50 ohm flexible LMR-195-UF coax. The PE3W16974 TNC male to SMB plug cable assembly operates to 4 GHz. The right angle TNC and right angle SMB interfaces on the LMR-195-UF cable allow for easier connections in tight spaces. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 90 dB.

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 | | 4 | GHz |
| VSWR | | | 1.4:1 | |
| Velocity of Propagation | | 74 | | % |
| RF Shielding | 90 | | | dB |
| Group Delay | | 1.27 [4.17] | | ns/ft [ns/m] |
| Capacitance | | 25.4 [83.33] | | pF/ft [pF/m] |
| Inductance | | 0.064 [0.21] | | uH/ft [uH/m] |
| DC Resistance Inner Conductor | | 9.5 [31.17] | | Ohms/1000ft [Ohms/Km] |
| DC Resistance Outer Conductor | | 4.9 [16.08] | | Ohms/1000ft [Ohms/Km] |
| Operating Voltage (AC) | | | 335 | Vrms |

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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|--------------|---------|---------|---------|-------|
| Jacket Spark | | | 3,000 | Vrms |

Specifications by Frequency

| Part Number | Length | Description | F1 | F2 | F3 | F4 | F5 | Units | Weight (lbs) |
|---------------|--------------------------|-----------------------|-----------|-------|-------|-------|-------|-------|--------------|
| | | | Frequency | | | | | | |
| PE3W16974 | Custom Lengths Available | Insertion Loss (Typ.) | 0.042 | 0.068 | 0.097 | 0.132 | 0.285 | dB/ft | |
| | | | 0.14 | 0.23 | 0.32 | 0.44 | 0.94 | dB/m | |
| PE3W16974-12 | 12 Inch | Insertion Loss (Typ.) | 0.45 | 0.47 | 0.5 | 0.54 | 0.69 | dB | 0.125 |
| PE3W16974-24 | 24 Inch | Insertion Loss (Typ.) | 0.49 | 0.54 | 0.6 | 0.67 | 0.97 | dB | 0.146 |
| PE3W16974-36 | 36 Inch | Insertion Loss (Typ.) | 0.53 | 0.61 | 0.7 | 0.8 | 1.26 | dB | 0.167 |
| PE3W16974-60 | 60 Inch | Insertion Loss (Typ.) | 0.61 | 0.74 | 0.89 | 1.06 | 1.83 | dB | 0.209 |
| PE3W16974-300 | 300 Inch | Insertion Loss (Typ.) | 1.45 | 2.1 | 2.83 | 3.7 | 7.53 | dB | 0.629 |

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

| | |
|-----------------------------|----------------|
| Loss due to Connector 1: | 0.2 dB |
| Loss due to Connector 2: | 0.2 dB |
| Base Weight: | 0.125 pounds |
| Additional Weight per Inch: | 0.00175 pounds |

Electrical Specification Notes:
Values at 25°C, sea level.

Mechanical Specifications

Cable Assembly

| | |
|----------------|---------------------|
| Width/Diameter | 0.5 in [12.7 mm] |
| Weight | 0.104 lbs [47.17 g] |

Cable

| | |
|--------------------------------------|------------------------|
| Cable Type | LMR-195-UF |
| Impedance | 50 Ohms |
| Inner Conductor Type | Stranded |
| Inner Conductor Material and Plating | Copper |
| Dielectric Type | Foam PE |
| Number of Shields | 2 |
| Shield Layer 1 | Aluminum Tape |
| Shield Layer 2 | Tinned Copper |
| Jacket Material | TPE, Black |
| Jacket Diameter | 0.195 in [4.95 mm] |
| One Time Minimum Bend Radius | 0.5 in [12.7 mm] |
| Repeated Minimum Bend Radius | 2 in [50.8 mm] |
| Bending Moment | 0.1 lbs-ft [0.14 N-m] |
| Flat Plate Crush | 10 lbs/in [0.18 Kg/mm] |
| Tensile Strength | 40 lbs [18.14 Kg] |

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Connectors

| Description | Connector 1 | Connector 2 |
|------------------------------------|----------------------|------------------------|
| Type | TNC Male Right Angle | SMB Plug Right Angle |
| Specification | MIL-STD-348A | MIL-STD-348A |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Right Angle | Right Angle |
| Contact Material and Plating | Brass, Gold | Beryllium Copper, Gold |
| Contact Plating Specification | 30 µin minimum | 30 µin minimum |
| Dielectric Type | PTFE | PTFE |
| Body Material and Plating | Brass, Nickel | Brass, Nickel |
| Body Plating Specification | 100 µin minimum | 100 µin minimum |
| Coupling Nut Material and Plating | Brass, Nickel | |
| Coupling Nut Plating Specification | 100 µin minimum | |

Environmental Specifications

Operating Range Temperature -40 to +85 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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Typical Performance Data

How to Order

Part Number Configuration:

PE3W16974

- **xx**

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

Example: PE3W16974-12 = 12 inches long cable
PE3W16974-100cm = 100 cm long cable

TNC Male Right Angle to SMB Plug Right Angle Low Loss Cable Using LMR-195-UF 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: [TNC Male Right Angle to SMB Plug Right Angle Low Loss Cable Using LMR-195-UF Coax PE3W16974](#)

URL: <https://www.pasternack.com/tnc-male-right-angle-to-smb-plug-low-loss-cable-using-lmr-195-uf-pe3w16974-p.aspx>

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PE3W16974 CAD Drawing

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