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an INFINITE brand

# RP SMA Male Connector Crimp/Solder Attachment for RG174, RG316, RG188, PE-B100, PE-C100, 0.100 inch, LMR-100

RF Connectors
Technical Data Sheet

PE4771

## Configuration

- SMA Male Reverse Polarity Connector
- MIL-STD-348
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: RG174, RG316, RG188, PE-B100, PE-C100, .100 inch, LMR-100
- 5/16 inch Hex

## Features

- Max. Operating Frequency 12.4 MHz
- Gold Plated Contact
- Contact plating according to MIL-G-45204
- Reverse Polarity

## Applications

- General Purpose Test
- Custom Cable Assemblies

### Description

Pasternack's PE4771 RP SMA male connector with crimp/solder attachment for RG174, RG316, RG188, PE-B100, PE-C100, .100 inch and LMR-100 is part of our full line of RF components available for same-day shipping. The male reverse polarity configuration uses a male connector body with a female inner contact receptacle. Our SMA male connector operates up to a maximum frequency of 12.4 MHz.

Our reverse polarity SMA male connector PE4771 datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

### Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|---|---|---|---|---|
| Frequency Range | DC | | 12.4 | MHz |
| Dielectric Withstanding Voltage (AC) | | | 750 | Vrms |
| Insulation Resistance | 5,000 | | | MOhms |

### Mechanical Specifications

**Size**

| | |
|---|---|
| Length | 0.845 in [21.46 mm] |
| Width/Dia. | 0.312 in [7.92 mm] |
| Weight | 0.008 lbs [3.63 g] |
| Mating Torque | 3 to 5 in-lbs [0.34 to 0.57 Nm] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: RP SMA Male Connector Crimp/Solder Attachment for RG174, RG316, RG188, PE-B100, PE-C100, 0.100 inch, LMR-100 PE4771

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
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# RP SMA Male Connector Crimp/Solder Attachment for RG174, RG316, RG188, PE-B100, PE-C100, 0.100 inch, LMR-100



**Material Specifications**

| Description | Material | Plating |
|---|---|---|
| Contact | | Gold<br>MIL-G-45204 |
| Insulation | PTFE | |
| Body | Brass | Nickel<br>QQ-N-290 |
| Coupling Nut | Brass | Nickel<br>QQ-N-290 |

## Environmental Specifications

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

## Plotted and Other Data

Notes:

RP SMA Male Connector Crimp/Solder Attachment for RG174, RG316, RG188, PE-B100, PE-C100, 0.100 inch, LMR-100 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: RP SMA Male Connector Crimp/Solder Attachment for RG174, RG316, RG188, PE-B100, PE-C100, 0.100 inch, LMR-100 PE4771

URL: https://www.pasternack.com/sma-male-reverse-polarity-rg174-rg316-rg188-connector-pe4771-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.

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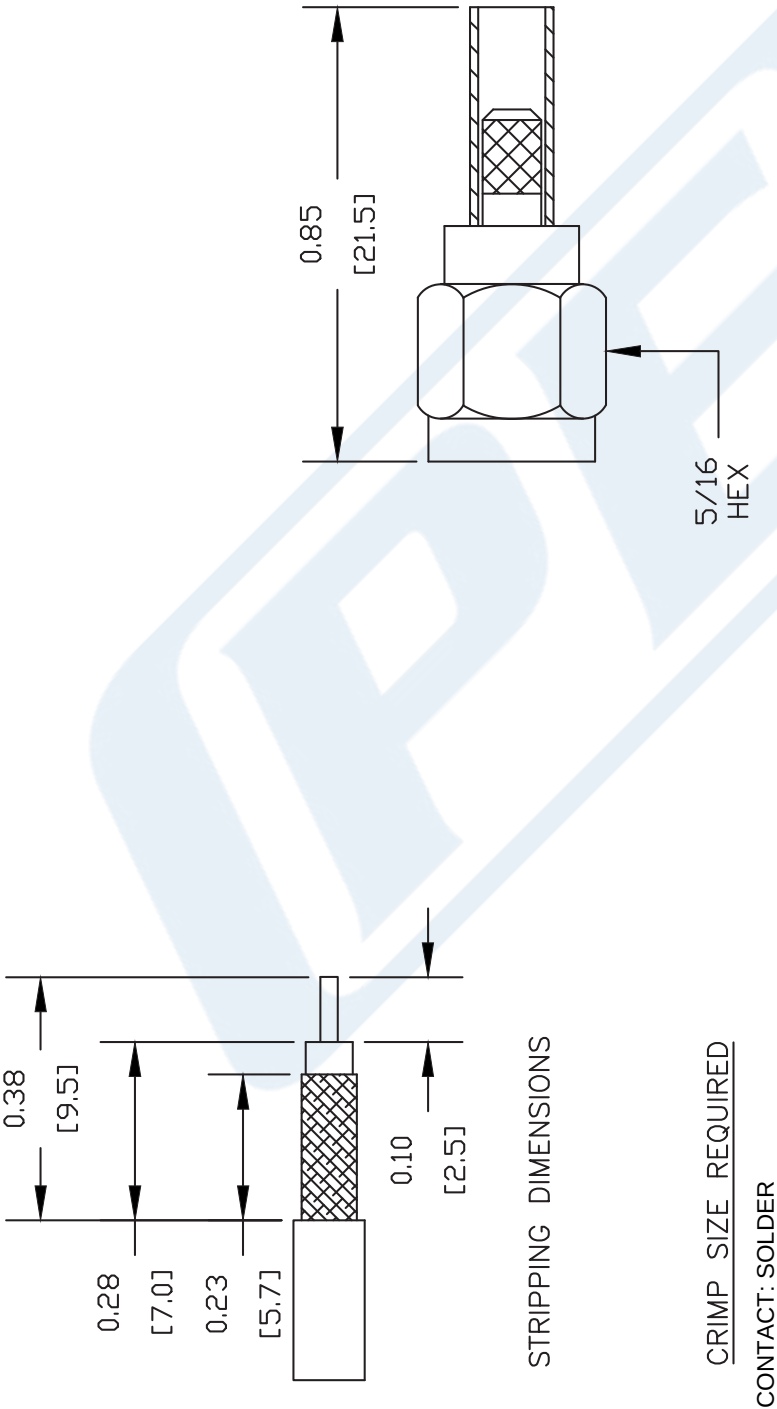
# PE4771 CAD Drawing

RP SMA Male Connector Crimp/Solder Attachment for RG174, RG316, RG188, PE-B100, PE-C100, 0.100 inch, LMR-100




STRIPPING DIMENSIONS

CRIMP SIZE REQUIRED

CONTACT: SOLDER
FERRULE: .128" HEX CRIMP TOOL

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. FITS MIL-C-17 AND EQUIVALENT CABLES.

| DWG TITLE | REV. - | FSCM NO. 53919 | CAD FILE 032906 | SCALE N/A | SIZE A | 127 |
|---|---|---|---|---|---|---|
| PE4771 | | | | | | |

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# BNC Female Bulkhead Mount Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch, .480 inch D Hole

RF Connectors
Technical Data Sheet

PE4106

## Configuration

- BNC Female Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch
- Bulkhead

## Features

- Max. Operating Frequency 1 GHz
- Good VSWR of 1.6:1
- Gold Plated Brass Contact
- 30 µin minimum contact plating

## Applications

- General Purpose Test
- Rack and Panel Mount Applications
- Custom Cable Assemblies

### Description

Pasternack's PE4106 BNC female bulkhead connector with crimp/solder attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100 and .100 inch (.480 inch D hole) is part of our full line of RF components available for same-day shipping. Our BNC female connector operates up to a maximum frequency of 1 GHz and offers good VSWR of 1.6:1. This BNC bulkhead connector allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications.

Our BNC female bulkhead connector PE4106 datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

### Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|---|---|---|---|---|
| Frequency Range | DC | | 1,000 | MHz |
| VSWR | | | 1.6:1 | |
| Operating Voltage (AC) | | | 500 | Vrms |
| Dielectric Withstanding Voltage (AC) | | | 1,500 | Vrms |

### Mechanical Specifications

**Size**

| | |
|---|---|
| Length | 1.42 in [36.07 mm] |
| Width/Dia. | 0.689 in [17.50 mm] |
| Weight | 0.045 lbs [20.41 g] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: BNC Female Bulkhead Mount Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch, .480 inch D Hole PE4106

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# BNC Female Bulkhead Mount Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch, .480 inch D Hole



## Material Specifications

| Description | Material | Plating |
|---|---|---|
| Contact | Brass | Gold<br>30 µin minimum |
| Insulation | PTFE | |
| Body | Brass | Nickel<br>100 µin minimum |
| Crimp Sleeve | Brass | Nickel |
| Washer | Steel | Nickel |

## Environmental Specifications

**Temperature**

Operating Range -65 to +165 deg C

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

## Plotted and Other Data

Notes:

BNC Female Bulkhead Mount Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch, .480 inch D Hole 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: BNC Female Bulkhead Mount Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch, .480 inch D Hole PE4106

URL: https://www.pasternack.com/bnc-female-standard-rg174-rg316-rg188-connector-pe4106-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.

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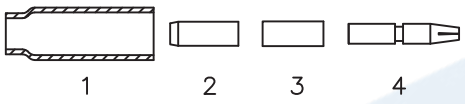
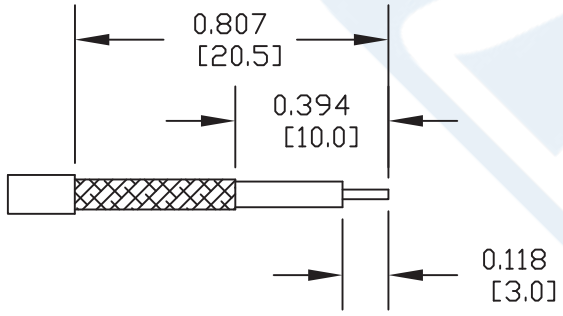
## ASSEMBLY PROCEDURES

1. STRIP CABLE AS SHOWN & SLIDE FERRULE (1) ONTO CABLE.

2. FLARE END OF CABLE BRAID & SLIDE METAL SPACER (2) & PTFE (3) SPACER OVER CABLE DIELECTRIC.

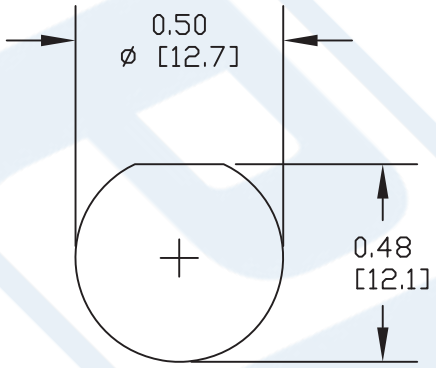


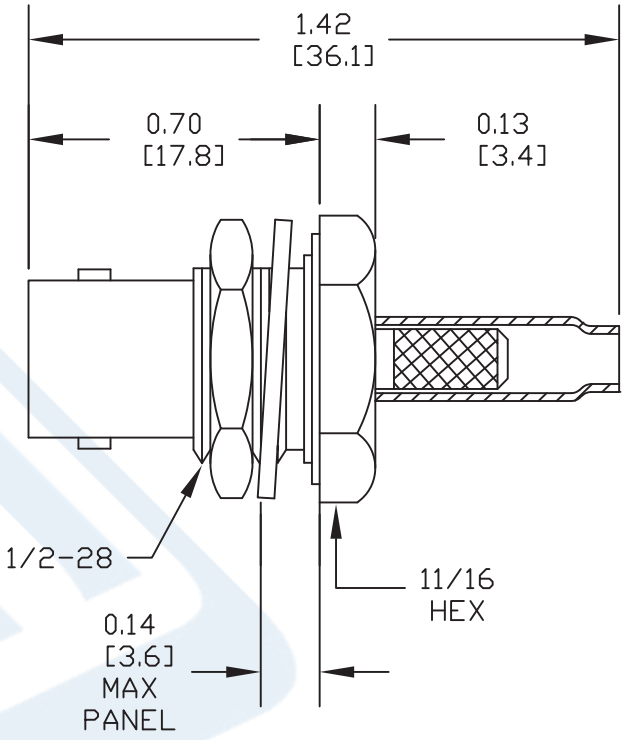

STRIPPING DIMENSIONS

3. THE CONTACT (4) SHOULD BUTT AGAINST THE DIELECTRIC & PTFE SPACER. CRIMP CONTACT TO CABLE CENTER CONDUCTOR.

4. INSTALL CABLE ASSEMBLY INTO BODY SO THAT THE INNER FERRULE PORTION OF BODY SLIDES UNDER BRAID. PUSH CABLE ASSEMBLY FORWARD UNTIL CONTACT SNAPS INTO PLACE. SLIDE FERRULE OVER BRAID AND UP AGAINST CONNECTOR BODY & CRIMP.




MOUNTING HOLE




## CRIMP SIZES REQUIRED

CONTACT: .068" HEX CRIMP TOOL
FERRULE: .178" HEX CRIMP TOOL

**PE4106 CAD Drawing**

BNC Female Bulkhead Mount Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch, .480 inch D Hole

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DWG TITLE
**PE4106**

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. FITS MIL-C-17 AND EQUIVALENT CABLES.

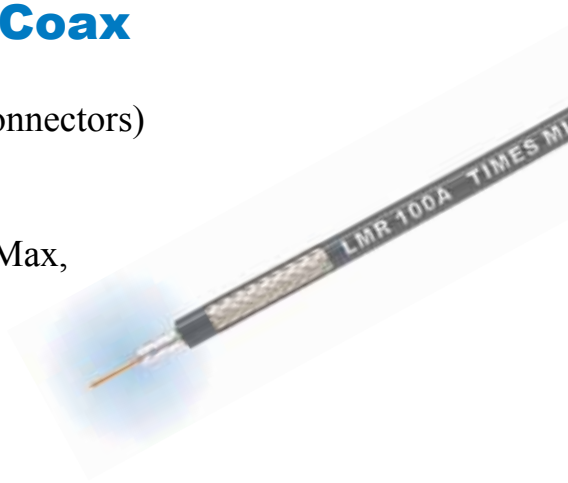
| REV. B | FSCM NO. 53919 | CAD FILE 072712 | SCALE N/A | SIZE A | 2231 |
|---|---|---|---|---|---|

TIMES MICROWAVE SYSTEMS

# LMR®-100A
# Flexible Low Loss Communications Coax

## Ideal for...

- Drop-in Replacement for RG-316/RG-174 (uses standard connectors)
- Jumper Assemblies in Wireless Communications Systems
- Short Antenna Feeder runs
- Any application (e.g. WLL, GPS, LMR, WLAN, WISP, WiMax, SCADA, Mobile Antennas) requiring an easily routed, low loss RF cable




• **LMR®- PVC** is designed for low loss general-purpose indoor/outdoor applications and is somewhat more flexible than the standard polyethylene jacketed LMR.

• **LMR®- PVC-W** is a white-jacketed version of LMR-PVC for marine and other indoor/outdoor applications where color compatibility is desired.

• **Flexibility** and bendability are hallmarks of the LMR-100A cable design. The flexible outer conductor enables the tightest bend radius available for any cable of similar size and performance.

• **Low Loss** is another hallmark feature of LMR-100A. Size for size LMR has the lowest loss of any flexible cable and comparable loss to semirigid hard-line cables.

• **RF Shielding** is 50 dB greater than typical single shielded coax (40 dB). The multi-ply bonded foil outer conductor is rated conservatively at > 90 dB (i.e. >180 dB between two adjacent cables).

• **Weatherability**: LMR-100A cables designed for outdoor exposure incorporate the best materials for UV resistance and have life expectancy in excess of 20 years.

• **Connectors**: A wide variety of connectors are available for LMR-100A cable, including all common interface types, reverse polarity, and a choice of solder or non-solder center pins. Most LMR connectors employ crimp outer attachment using standard hex crimp sizes.

• **Cable Assemblies**: All LMR-100A cable types are available as pre-terminated cable assemblies. Refer to the section on FlexTech for further details.

**Construction Specifications**

| Description | Material | In. | (mm) |
|---|---|---|---|
| Inner Conductor | Solid BCCS | 0.018 | (0.46) |
| Dielectric | Solid PE | 0.060 | (1.52) |
| Outer Conductor | Aluminum Tape | 0.065 | (1.65) |
| Overall Braid | Tinned Copper | 0.083 | (2.11) |
| Jacket | (see table above) | 0.110 | (2.79) |

**Mechanical Specifications**

| Performance Property | Units | US | (metric) |
|---|---|---|---|
| Bend Radius: installation | in. (mm) | 0.25 | (6.4) |
| Bend Radius: repeated | in. (mm) | 1 | (25.4) |
| Bending Moment | ft-lb (N-m) | 0.1 | (0.014) |
| Weight | lb/ft (kg/m) | 0.0092 | (.014) |
| Tensile Strength | lb (kg) | 15 | (6.8) |
| Flat Plate Crush | lb/in. (kg/mm) | 10 | (0.18) |

**Environmental Specifications**

| Performance Property | °F | °C |
|---|---|---|
| Installation Temperature Range | -40/+185 | -40/+85 |
| Storage Temperature Range | -94/+185 | -70/+85 |
| Operating Temperature Range | -40/+185 | -40/+85 |

**Electrical Specifications**

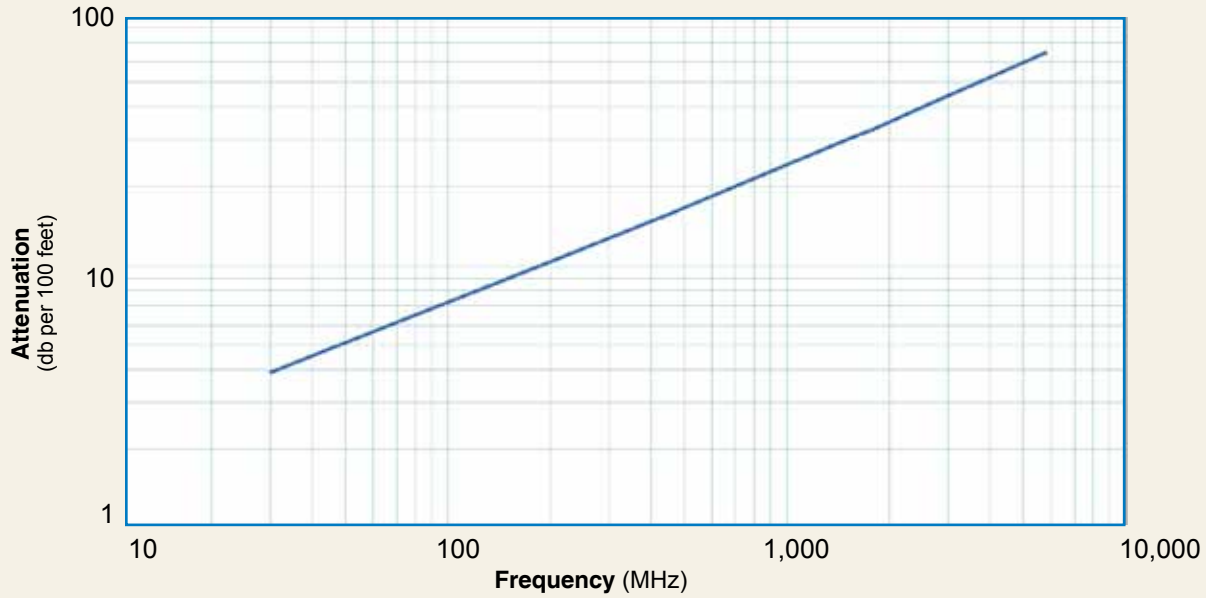
| Performance Property | Units | US | (metric) |
|---|---|---|---|
| Velocity of Propagation | % | 66 | |
| Dielectric Constant | NA | 2.30 | |
| Time Delay | nS/ft (nS/m) | 1.54 | (5.05) |
| Impedance | ohms | 50 | |
| Capacitance | pF/ft (pF/m) | 30.8 | (101.1) |
| Inductance | uH/ft (uH/m) | 0.077 | (0.25) |
| Shielding Effectiveness | dB | >90 | |
| DC Resistance | | | |
| Inner Conductor | ohms/1000ft (/km) | 81.0 | (266) |
| Outer Conductor | ohms/1000ft (/km) | 9.5 | (31.2) |
| Voltage Withstand | Volts DC | 500 | |
| Jacket Spark | Volts RMS | 2000 | |
| Peak Power | kW | 0.6 | |

**Part Description**

| Part Number | Application | Jacket | Color | Stock Code |
|---|---|---|---|---|
| LMR-100A-FR | Indoor/Outdoor Riser CMR | FRPE | Black | 54037 |
| LMR-100A-PVC | Indoor/Outdoor | PVC | Black | 54119 |
| LMR-100A-PVC-W | Indoor/Outdoor | PVC | White | 54200 |

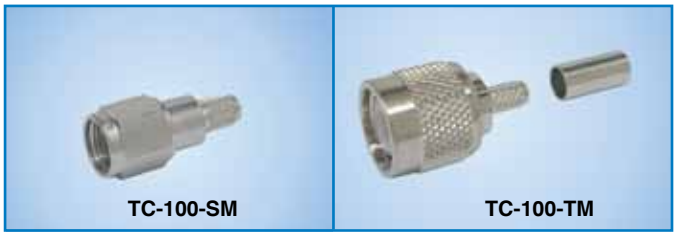
PVC = Poly Vinyl Chloride; MTO = Made to Order

## Attenuation vs. Frequency (typical)




| Frequency (MHz) | 30 | 50 | 150 | 220 | 450 | 900 | 1500 | 1800 | 2000 | 2500 | 5800 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Attenuation dB/100 ft** | 3.9 | 5.1 | 8.9 | 10.9 | 15.8 | 22.8 | 30.1 | 33.2 | 35.2 | 39.8 | 64.1 |
| **Attenuation dB/100 m** | 12.9 | 16.7 | 29.4 | 35.8 | 51.9 | 74.9 | 98.7 | 109.0 | 115.5 | 130.6 | 210.3 |
| **Avg. Power kW** | 0.230 | 0.180 | 0.100 | 0.083 | 0.057 | 0.039 | 0.029 | 0.027 | 0.025 | 0.022 | 0.013 |

**Calculate Attenuation** = (0.709140) • $\sqrt{\text{FMHz}}$ + (0.001740) • FMHz (interactive calculator available at http://www.timesmicrowave/telecom)
**Attenuation:** VSWR=1.0 ; Ambient = +25°C (77°F) **Power:** VSWR=1.0; Ambient = +40°C; Inner Conductor = 100°C (212°F);
Sea Level; dry air; atmospheric pressure; no solar loading



TC-100-SM

TC-100-TM

## Connectors

| Interface | Description | Part Number | Stock Code | VSWR ** Freq. | (GHz) | Coupling Nut | Inner Contact Attach | Outer Contact Attach | Finish* Body /Pin | Length in | (mm) | Width in | (mm) | Weight lb | (g) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMA male | Straight Plug | TC-100-SM | 3190-1551 | <1.25:1 | (<3 ) | Hex | Solder | Crimp | SS/G | 1.0 | (25.4) | 0.32 | (8.1) | 0.015 | (6.8) |
| TNC male | Straight Plug | TC-100-TM | 3190-1552 | <1.25:1 | (<3 ) | Knurl | Solder | Crimp | S/G | 1.4 | (35.6) | 0.59 | (15.0) | 0.045 | (20.4) |

* Finish metals: N=Nickel, S=Silver, G=Gold, SS=Stainless Steel, A=Alballoy **VSWR spec based on 3 foot cable with a connector pair

CT-240/200/195/100

## Install Tools

| Type | Part Number | Stock Code | Description |
|---|---|---|---|
| Crimp Tool | CT-240/200/195/100 | 3190-667 | Crimp tool for LMR-100, 195, 200 and 240 connectors |
| Cutting Tool | CCT-01 | 3190-1544 | Cable end flush cut tool |
| Replacement Blade | RB-01 | 3190-1609 | Replacement blade for cutting tool |

CCT-01