PASTERNACK®
THE ENGINEER'S RF SOURCE



# N Female Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, 0.100 inch

## RF Connectors Technical Data Sheet PE4438

## Configuration

- N Female Connector
- 50 Ohms
- Straight Body Geometry
- RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, 0.100 inch Interface Type
- Crimp/Solder Attachment

## Features

- Gold Plated Contact

## Applications

- General Purpose Test
- Custom Cable Assemblies

### Description

Pasternack's PE4438 type N female connector with crimp/solder attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100 and 0.100 inch is part of our full line of RF components available for same-day shipping.

Our type N female connector PE4438 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.

### Mechanical Specifications

**Size**

| | |
|---|---|
| Length | 1.585 in [40.26 mm] |
| Width/Dia. | 0.625 in [15.88 mm] |
| Weight | 0.066 lbs [29.94 g] |

**Material Specifications**

| Description | Material | Plating |
|---|---|---|
| Contact | | Gold |
| Insulation | PTFE | |
| Body | Brass | Nickel |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: N Female Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, 0.100 inch PE4438

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

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# N Female Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, 0.100 inch



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

**Plotted and Other Data**

Notes:

N Female Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, 0.100 inch from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% 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: N Female Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, 0.100 inch PE4438

URL: https://www.pasternack.com/n-female-standard-rg174-rg316-rg188-connector-pe4438-p.aspx

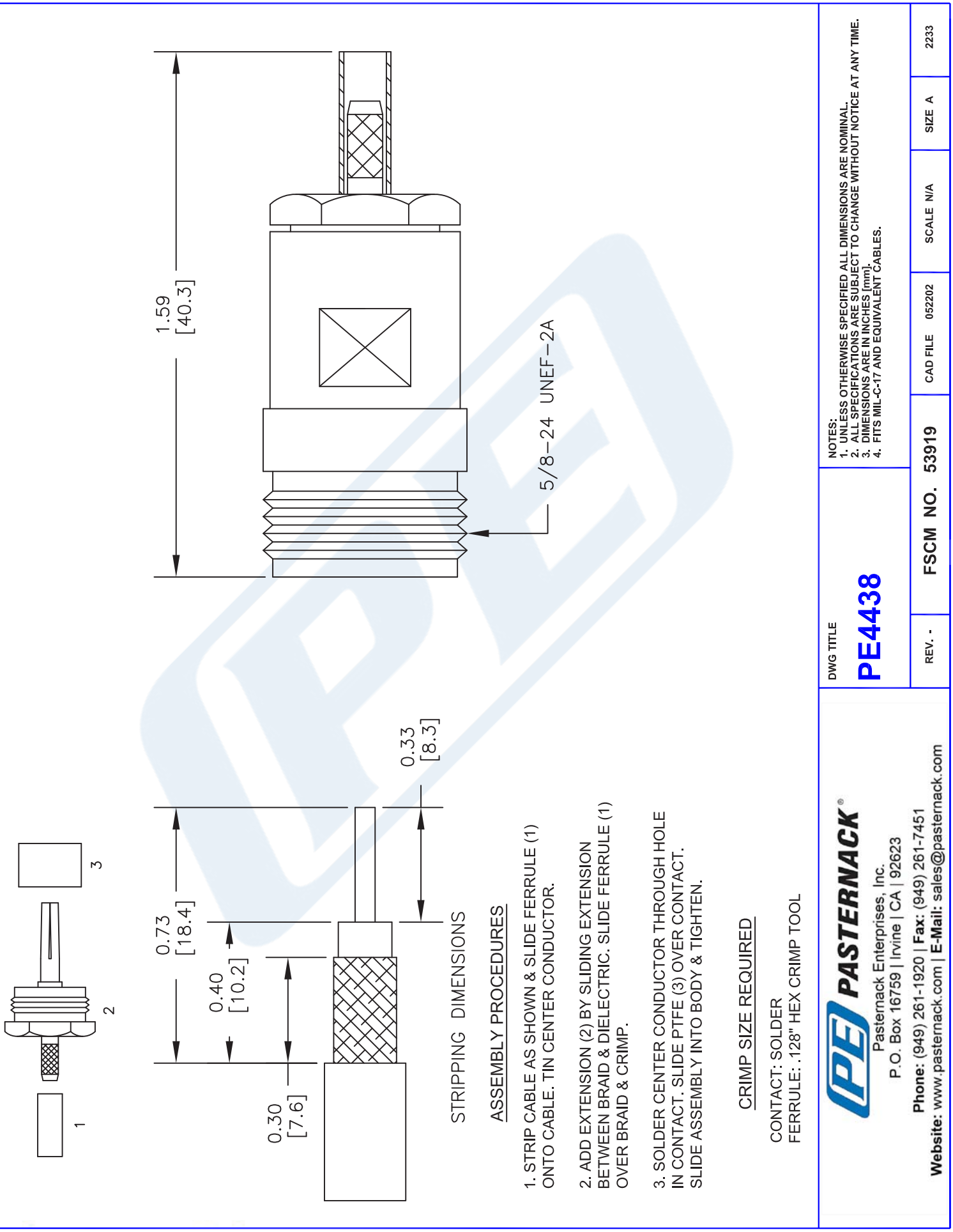
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# PE4438 CAD Drawing

N Female Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, 0.100 inch




STRIPPING DIMENSIONS

ASSEMBLY PROCEDURES

1. STRIP CABLE AS SHOWN & SLIDE FERRULE (1) ONTO CABLE. TIN CENTER CONDUCTOR.
2. ADD EXTENSION (2) BY SLIDING EXTENSION BETWEEN BRAID & DIELECTRIC. SLIDE FERRULE (1) OVER BRAID & CRIMP.
3. SOLDER CENTER CONDUCTOR THROUGH HOLE IN CONTACT. SLIDE PTFE (3) OVER CONTACT. SLIDE ASSEMBLY INTO BODY & TIGHTEN.

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 **PE4438**

| REV. - | FSCM NO. 53919 | CAD FILE 052202 | SCALE N/A | SIZE A | 2233 |
|---|---|---|---|---|---|

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Pasternack Enterprises, Inc.
P.O. Box 16759 | Irvine | CA | 92623
**Phone:** (949) 261-1920 | **Fax:** (949) 261-7451
**Website:** www.pasternack.com | **E-Mail:** sales@pasternack.com

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# MMCX Jack Connector Crimp/Solder Attachment for RG174, RG316, RG188, 0.100 inch, PE-B100, PE-C100, LMR-100



## Configuration

- MMCX Jack Connector
- 50 Ohms
- Straight Body Geometry
- RG174, RG316, RG188, 0.100 inch, PE-B100, PE-C100, LMR-100 Interface Type
- Crimp/Solder Attachment

## Features

- Gold Plated Beryllium Copper Contact

## Applications

- General Purpose Test
- Custom Cable Assemblies

### Description

Pasternack's PE4901 MMCX jack connector with crimp/solder attachment for RG174, RG316, RG188, 0.100 inch, PE-B100, PE-C100 and LMR-100 is part of our full line of RF components available for same-day shipping.

Our MMCX jack connector PE4901 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.

### Mechanical Specifications

**Size**

| | |
|---|---|
| Length | 0.71 in [18.03 mm] |
| Width/Dia. | 0.157 in [3.99 mm] |
| Weight | 0.003 lbs [1.36 g] |

**Material Specifications**

| Description | Material | Plating |
|---|---|---|
| Contact | Beryllium Copper | Gold |
| Insulation | PTFE | |
| Body | Brass | Gold |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: MMCX Jack Connector Crimp/Solder Attachment for RG174, RG316, RG188, 0.100 inch, PE-B100, PE-C100, LMR-100 PE4901

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# MMCX Jack Connector Crimp/Solder Attachment for RG174, RG316, RG188, 0.100 inch, PE-B100, PE-C100, LMR-100



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

**Plotted and Other Data**

Notes:

MMCX Jack Connector Crimp/Solder Attachment for RG174, RG316, RG188, 0.100 inch, PE-B100, PE-C100, LMR-100 from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% 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: MMCX Jack Connector Crimp/Solder Attachment for RG174, RG316, RG188, 0.100 inch, PE-B100, PE-C100, LMR-100 PE4901

URL: https://www.pasternack.com/mmcx-jack-standard-rg174-rg316-rg188-connector-pe4901-p.aspx

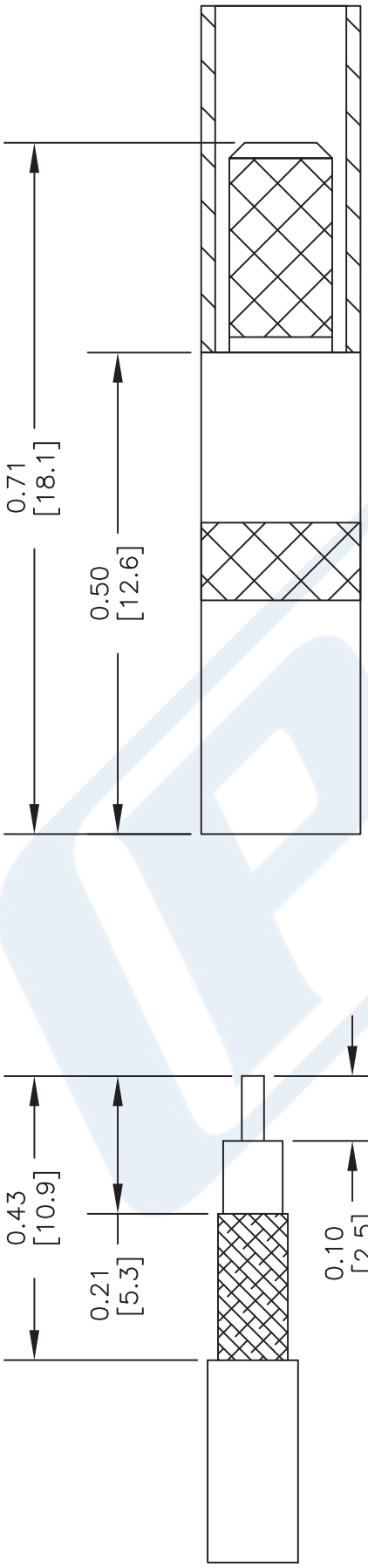
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# PE4901 CAD Drawing

MMCX Jack Connector Crimp/Solder Attachment for RG174, RG316, RG188, 0.100 inch, PE-B100, PE-C100, 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 **PE4901**

CAD FILE 012413-A | SCALE N/A | SIZE A | 2233

FSCM NO. 53919

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Pasternack Enterprises, Inc.
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**Phone:** (949) 261-1920 | **Fax:** (949) 261-7451
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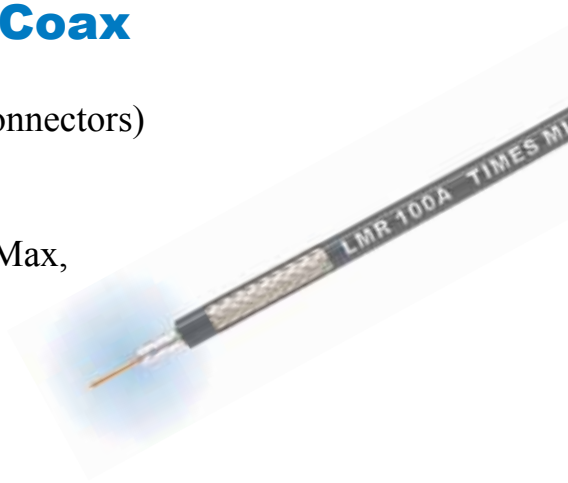
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TIMES MICROWAVE SYSTEMS

# 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**

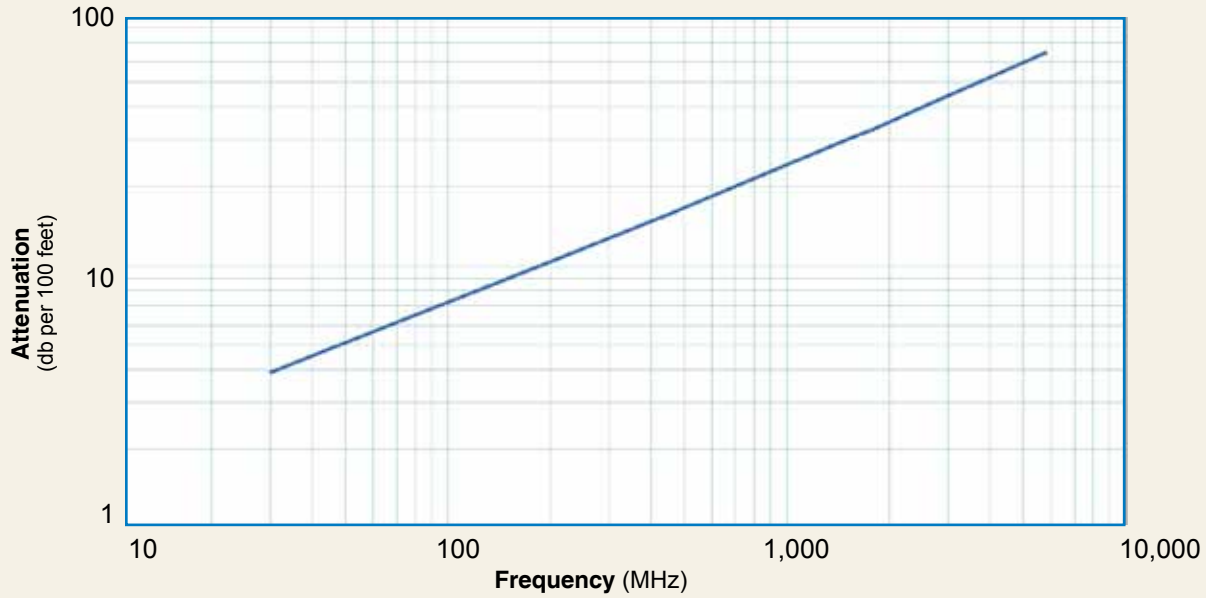
| Performance Property | Units | US | (metric) |
|---|---|---|---|
| Velocity of Propagation | % | 66 | |
| Dielectric Constant | NA | 2.30 | |
| Time Delay | nS/ft (nS/m) | 1.54 | (5.05) |
| Impedance | ohms | 50 | |
| Capacitance | pF/ft (pF/m) | 30.8 | (101.1) |
| Inductance | uH/ft (uH/m) | 0.077 | (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 |

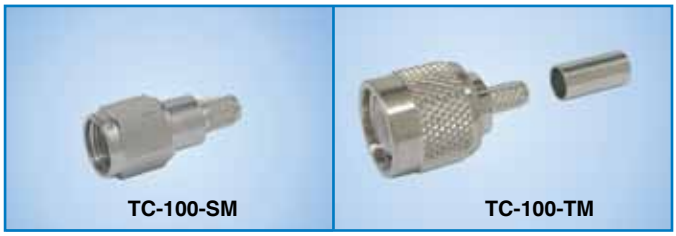
PVC = Poly Vinyl Chloride; MTO = Made to Order

## 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