



MMCX Plug Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, 0.100 inch

RF Connectors Technical Data Sheet

PE4898

Configuration

- MMCX Plug Connector
- BS EN 122340
- 50 Ohms
- Right Angle Body Geometry
- Connector Interface Types: RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch

Features

- Max. Operating Frequency 6 GHz
- Good VSWR of 1.35:1
- Gold Plated Brass Contact
- 30 μ m minimum contact plating

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

Pasternack's PE4898 MMCX plug right angle connector with crimp/solder attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100 and .100 inch is part of our full line of RF components available for same-day shipping. Our MMCX plug connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.35:1. Its right angle body geometry allows for easier connections in tight spaces.

Our MMCX plug right angle connector PE4898 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 | | 6 | GHz |
| VSWR | | | 1.35:1 | |
| Operating Voltage (AC) | | | 250 | Vrms |

Mechanical Specifications

| | |
|-------------|--------------------|
| Size | |
| Length | 0.41 in [10.41 mm] |
| Width/Dia. | 0.276 in [7.01 mm] |
| Height | 0.137 in [3.48 mm] |
| Weight | 0.007 lbs [3.18 g] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [MMCX Plug Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, 0.100 inch PE4898](#)



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Material Specifications

| Description | Material | Plating |
|--------------|----------|------------------------|
| Contact | Brass | Gold 30 µin minimum |
| Insulation | PTFE | |
| Body | Brass | Gold 3 µin minimum |
| Crimp Sleeve | Brass | Gold |

Environmental Specifications

Temperature

Operating Range

-55 to +155 deg C

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

Plotted and Other Data

Notes:

MMCX Plug Right Angle 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 99.4% 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: [MMCX Plug Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, 0.100 inch PE4898](#)

URL: <https://www.pasternack.com/mmcx-plug-standard-rg174-rg316-rg188-connector-pe4898-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.



SMA Female Bulkhead Mount Connector Crimp/Solder Attachment for RG316, RG174, RG188, PE-B100, PE-C100, .100 inch, LMR-100, .235 inch D Hole

RF Connectors Technical Data Sheet

PE4427

Configuration

- SMA Female Connector
- MIL-STD-348
- 50 Ohms
- Straight Body Geometry
- RG316, RG174, RG188, PE-B100, PE-C100, .100 inch, LMR-100 Interface Type
- Crimp/Solder Attachment
- Bulkhead

Features

- Gold Plated Beryllium Copper Contact
- Contact plating according to MIL-G-45204

Applications

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

Description

Pasternack's PE4427 SMA female bulkhead connector with crimp/solder attachment for RG316, RG174, RG188, PE-B100, PE-C100, .100 inch and LMR-100 (.235 inch D hole) is part of our full line of RF components available for same-day shipping. This SMA 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 SMA female bulkhead connector PE4427 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 | 0.9 in [22.86 mm] |
| Width/Dia. | 0.312 in [7.92 mm] |
| Weight | 0.008 lbs [3.63 g] |

Material Specifications

| Description | Material | Plating |
|-----------------|------------------|------------------|
| Contact | Beryllium Copper | Gold MIL-G-45204 |
| Outer Conductor | Brass | Nickel |
| 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: [SMA Female Bulkhead Mount Connector Crimp/Solder Attachment for RG316, RG174, RG188, PE-B100, PE-C100, .100 inch, LMR-100, .235 inch D Hole PE4427](#)



SMA Female Bulkhead Mount Connector Crimp/Solder Attachment for RG316, RG174, RG188, PE-B100, PE-C100, .100 inch, LMR-100, .235 inch D Hole

Environmental Specifications

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

Plotted and Other Data

Notes:

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SMA Female Bulkhead Mount Connector Crimp/Solder Attachment for RG316, RG174, RG188, PE-B100, PE-C100, .100 inch, LMR-100, .235 inch D Hole

Assembly Instruction



ASSEMBLY PROCEDURES

1. STRIP CABLE TO THE DIMENSIONS SHOWN, DO NOT NICK CENTER CONDUCTOR OR BRAID.
2. SLIDE FERRULE OVER CABLE.
3. PUSH CENTER CONDUCTOR FULLY INTO CONTACT AND SOLDER, REMOVE ANY EXCESS SOLDER.
4. FLAIR BRAID AND INSERT CONTACT INTO THE BODY UNTIL IT SEATS.
5. SLIDE FERRULE OVER BRAID AND CRIMP.

CRIMP SIZE REQUIRED

- FERRULE: A.128" HEX CRIMP TOOL.
- CONTACT: SOLDER.

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PE4427 CAD Drawing

SMA Female Bulkhead Mount Connector Crimp/Solder Attachment for RG316, RG174, RG188, PE-B100, PE-C100, .100 inch, LMR-100, .235 inch D Hole



| STANDARD TOLERANCES |
|---------------------|
| .X ± 0.2 |
| .XX ± 0.01 |
| .XXX ± 0.005 |

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

PE PASTERNAK®
 THE ENGINEER'S RF SOURCE
 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

| | |
|-----------|--------|
| DWG TITLE | PE4427 |
| CAGE CODE | 53919 |

| | | | |
|----------|--|-------|-----|
| 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]. | | |
| CAD FILE | 092917 | SCALE | N/A |
| SIZE | A | 7361 | |

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.

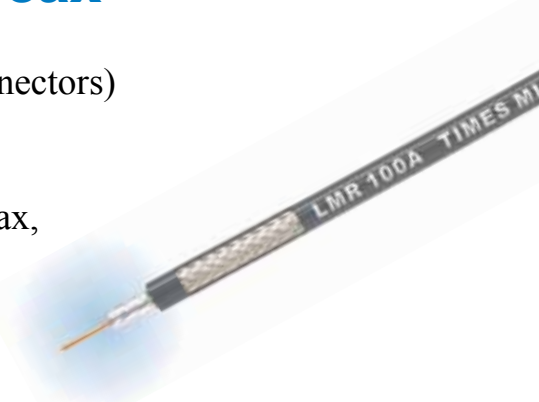
• **Low Loss** is another hallmark feature of LMR-100A. Size for size LMR has the lowest loss of any flexible cable and comparable loss to semirigid hard-line cables.

• **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 = $(0.709140) \cdot \sqrt{\text{FMHz}} + (0.001740) \cdot \text{FMHz}$ (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



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



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 |

