



10-32 Male Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch

RF Connectors Technical Data Sheet

PE44351

Configuration

- 10-32 Male Connector
- 50 Ohms
- Straight Body Geometry
- RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch Interface Type
- Crimp/Solder Attachment
- 1/4 inch Hex

Features

- Max. Operating Frequency 2 GHz
- Good VSWR of 1.3:1
- Gold Plated Brass Contact
- 30 µin minimum contact plating

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

Pasternack's PE44351 10-32 male 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 10-32 male connector operates up to a maximum frequency of 2 GHz and offers good VSWR of 1.3:1.

Our 10-32 male connector PE44351 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 | | 2 | GHz |
| VSWR | | | 1.3:1 | |
| Operating Voltage (AC) | | | 335 | Vrms |

Mechanical Specifications

| | |
|-------------|--------------------|
| Size | |
| Length | 1.16 in [29.46 mm] |
| Width/Dia. | 0.26 in [6.60 mm] |
| Weight | 0.014 lbs [6.35 g] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [10-32 Male Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch PE44351](#)



10-32 Male Connector Crimp/Solder Attachment for RG174,
RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch

RF Connectors
Technical Data Sheet

PE44351

Material Specifications

| Description | Material | Plating |
|--------------|----------|---------------------------|
| Contact | Brass | Gold 30 µin minimum |
| Insulation | PTFE | |
| Body | Brass | Nickel 100 µin minimum |
| Coupling Nut | Brass | Nickel 100 µin minimum |

Environmental Specifications

Temperature

Operating Range

-65 to +125 deg C

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

Plotted and Other Data

Notes:

10-32 Male Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .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: [10-32 Male Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch PE44351](#)

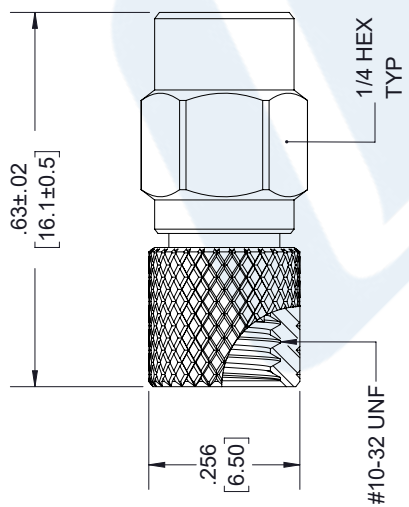
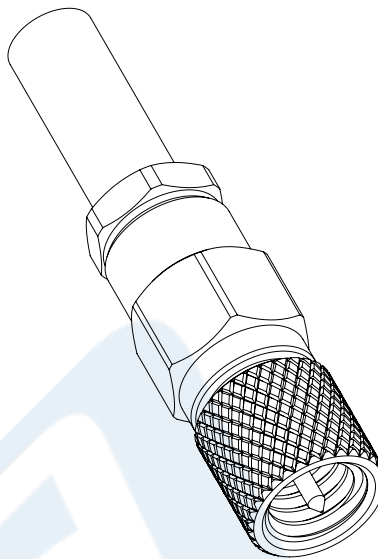
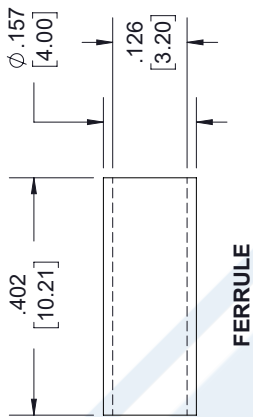
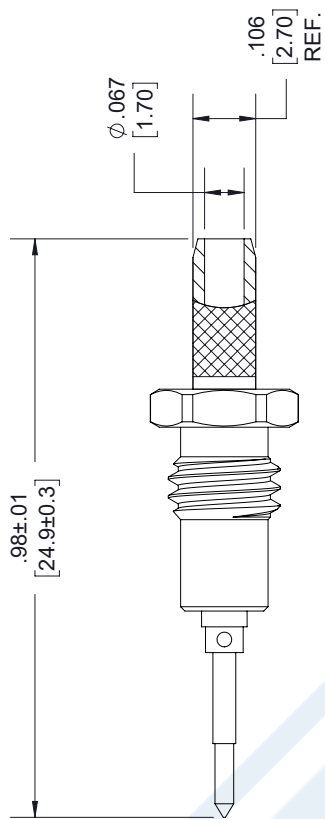
URL: <https://www.pasternack.com/10-32-male-standard-rg174-rg316-rg188-connector-pe44351-p.aspx>

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.

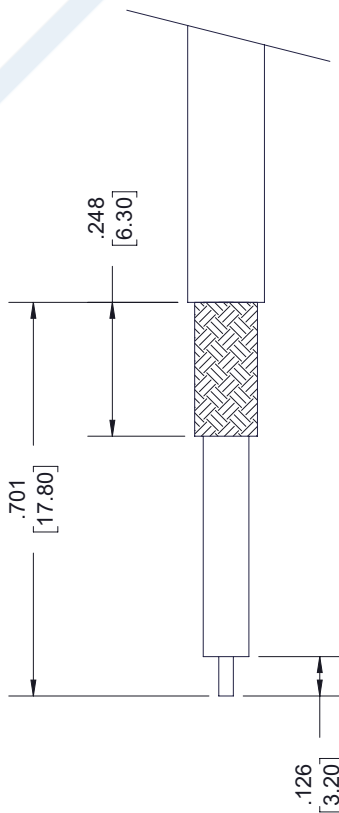
PE44351 CAD Drawing

10-32 Male Connector Crimp/Solder Attachment for RG174,
RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 02/28/19 | J.GARCIA |



10-32 MALE



STRIPPING DIMENSIONS

NOTES:

- CABLE ATTACHMENT:
 - OUTER: CRIMP.
 - INNER: SOLDER.
- CRIMP SIZE REQUIRED:
 - FERRULE: .128 [3.25] HEX. CRIMP TOOL
 - CONTACT: SOLDER.

UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:
X±.2 [5.08] FRACTIONS
XX±.01 [25] ±.132
XXX±.005 [13] ANGLES ± 1°

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

PE PASTERNAK
an INFINITO brand

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SHEET 1 OF 1

SCALE N/A

SIZE A CAGE DRAWN BY PART NUMBER REV
A 53919 K.DANG PE44351 A

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**BNC Female Connector Crimp/Solder Attachment
for RG174, RG316, RG188, LMR-100, PE-B100,
PE-C100, .100 inch, Extended Ferrule**

**RF Connectors
Technical Data Sheet**

PE45395

Configuration

- BNC Female Connector
- MIL-STD-348A
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch

Features

- Max. Operating Frequency 4 GHz
- Gold Plated Brass Contact

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

Pasternack's PE45395 BNC female 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 BNC female connector operates up to a maximum frequency of 4 GHz.

Our BNC female connector PE45395 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 | | 4 | GHz |
| Operating Voltage (AC) | | | 500 | Vrms |
| Inner Conductor DC Resistance | | | 1.5 | mOhms |
| Outer Conductor DC Resistance | | | 0.5 | mOhms |
| Insulation Resistance | 5,000 | | | MOhms |

Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------|---------|----|----|----|----|-------|
| Frequency Range | DC to 1 | | | | | GHz |
| VSWR, Max | 1.5:1 | | | | | |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [BNC Female Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch, Extended Ferrule PE45395](#)



BNC Female Connector Crimp/Solder Attachment
for RG174, RG316, RG188, LMR-100, PE-B100,
PE-C100, .100 inch, Extended Ferrule

RF Connectors
Technical Data Sheet

PE45395

Mechanical Specifications

Size

| | |
|------------|--------------------|
| Length | 1.28 in [32.51 mm] |
| Width/Dia. | 0.45 in [11.43 mm] |
| Weight | 0.021 lbs [9.53 g] |

Material Specifications

| Description | Material | Plating |
|-----------------|----------|---------|
| Contact | Brass | Gold |
| Insulation | PTFE | |
| Outer Conductor | Brass | Nickel |
| Body | Brass | Nickel |
| Crimp Sleeve | Brass | Nickel |

Environmental Specifications

Temperature

| | |
|-----------------|-------------------|
| Operating Range | -65 to +165 deg C |
|-----------------|-------------------|

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

Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [BNC Female Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch, Extended Ferrule PE45395](#)



BNC Female Connector Crimp/Solder Attachment
for RG174, RG316, RG188, LMR-100, PE-B100,
PE-C100, .100 inch, Extended Ferrule

RF Connectors
Technical Data Sheet

PE45395

BNC Female Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch, Extended Ferrule 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.

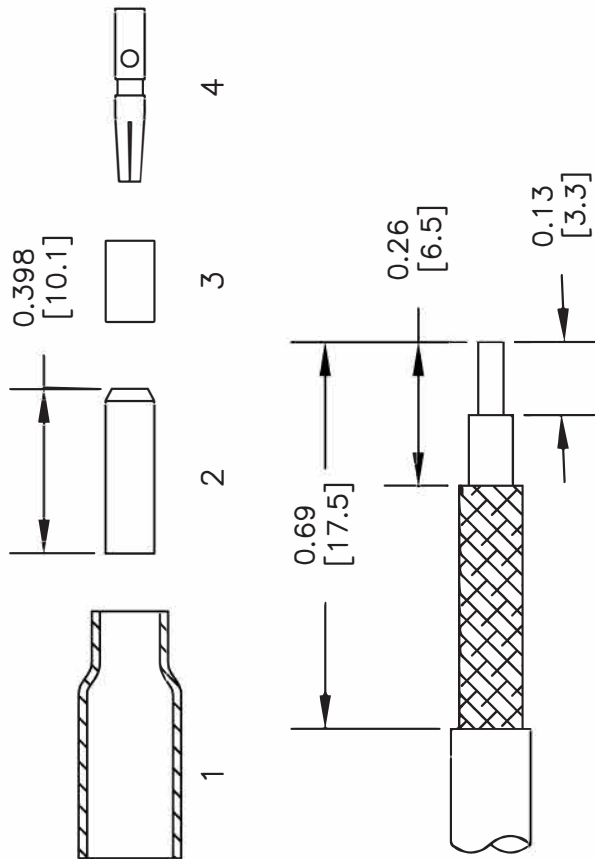
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PE45395 CAD Drawing

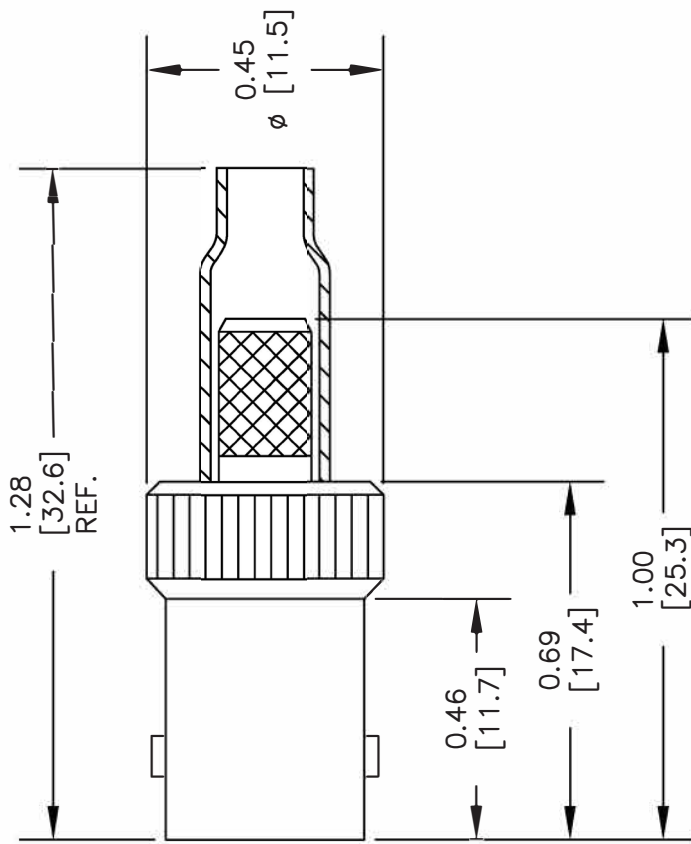
BNC Female Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch, Extended Ferrule



STRIPPING DIMENSIONS 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.
3. THE CONTACT (4) SHOULD BUTT AGAINST THE DIELECTRIC & PTFE SPACER. CRIMP CONTACT TO CABLE CENTER CONDUCTOR. ALTERNATIVELY, CONTACT CAN BE SOLDERED ONTO CENTER CONDUCTOR OF CABLE.
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. CRIMP SIZE REQUIRED

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



| STANDARD TOLERANCES | |
|---------------------|-------|
| .X | ±0.2 |
| .XX | ±0.1 |
| .XXX | ±0.05 |

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

DWG TITLE

PE45395

- 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].

Website: www.pasternack.com | E-Mail: sales@pasternack.com

PEI PASTERNAK
THE ENGINEER'S RF SOURCE

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CAGE CODE 53919

CAD FILE 041717

SCALE N/A

SIZE A

2233

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.

| Part Description | | | | | Stock |
|------------------|--------------------------|--------|-------|-------|-------|
| Part Number | Application | Jacket | Color | 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



| 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 | |

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 | 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 |

