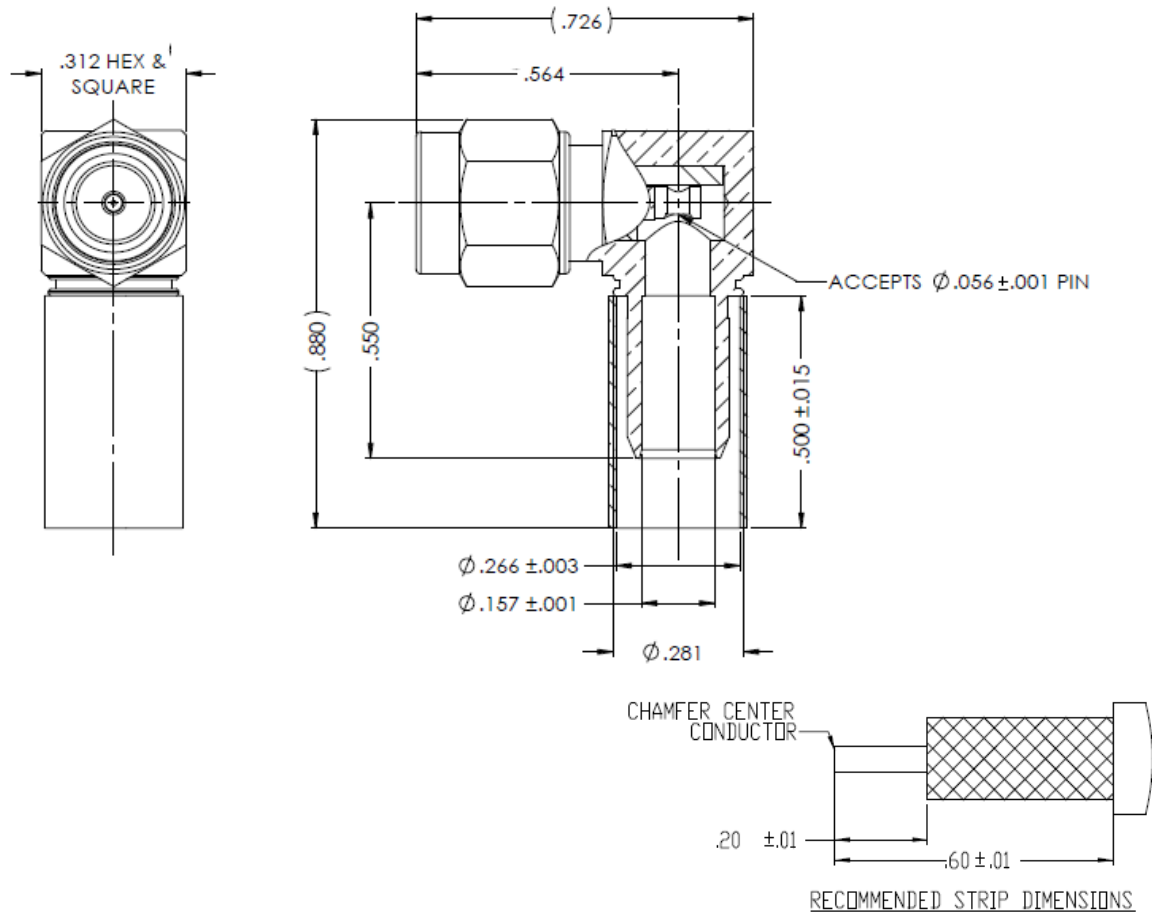


**NOTICE OF PROPRIETARY RIGHTS** THIS DOCUMENT CONTAINS CONFIDENTIAL TECHNICAL DATA, INCLUDING TRADE SECRETS, PROPRIETARY TO TIMES MICROWAVE SYSTEMS. DISCLOSURE OF THIS DATA IS EXPRESSLY CONDITIONED UPON YOUR ASSENT THAT ITS USE IS LIMITED TO USE WITHIN YOUR COMPANY ONLY. ANY OTHER USE IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF TIMES MICROWAVE SYSTEMS.

| SYM | REVISION DESCRIPTION    | DFTM  | DATE    | APPD   | DATE    |
|-----|-------------------------|-------|---------|--------|---------|
| A   | RELEASED FOR PRODUCTION | N.N.N | 9/5/13  | J.D.B. | 9/10/13 |
| B   | CHANGED PER CDC #48830  | N.N.N | 4/12/18 | D.A.R. | 4/13/18 |



#### NOTES:

- ASSEMBLED CONNECTOR INTERFACE IS DESIGNED IN ACCORDANCE WITH MIL-STD-348
- MATERIAL:  
 BODY, HEX NUT - BRASS PER ASTM B16, C36000 ALLOY, TEMPER H02  
 INSULATOR - TEFLON PER ASTM D1710, TYPE 1, GRADE 1, CLASS A  
 SHRINK SLEEVE - HEAT SHRINKABLE ATUM PER MIL-I-23053/4 (NOT SHOWN)  
 GASKET - SILICON RUBBER PER A-A-59588, 50-75 DUROMETER  
 CRIMP SLEEVE - D.H.P. COPPER CDA, ALLOY #122, TEMPER HARD  
 LOCKING RING - BERYLLIUM COPPER PER ASTM B196, C17300 ALLOY, CONDITION HT  
 CONTACT - PHOSPHOR BRONZE PER ASTM B139, C54400, TEMPER HD
- FINISH:  
 CONTACT - GOLD PLATE PER ASTM B488  
 CRIMP SLEEVE - SULFAMATE NICKEL PER MIL-P-27418  
 ALL OTHER METAL PARTS - ALBALOY PLATE PER DELTA SPEC. 111197

|             |                                                                                                                                                                                                                                                                  |                      |                         |                      |        |             |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------|----------------------|--------|-------------|
| MATL:       | UNLESS OTHERWISE SPECIFIED<br>ALL DIMENSIONS ARE IN INCHES<br>MACHINED SURFACES FINISH 63 RMS MAX.<br>REMOVE ALL BURRS .004 MAX. BREAK<br>MACHINE CORNERS .005 MAX. FILLET R.<br>TOLERANCES ON DECIMALS<br>.XX ± .01 .XXX ± .005<br>ANGLES ± 1° FRACTIONS ± 1/64 | DFTM. N. N. N        | TIMES MICROWAVE SYSTEMS |                      |        |             |
|             |                                                                                                                                                                                                                                                                  | DATE 9/5/13          | CHKD. J. D. B.          | EZ-240-SM-RA-X       |        |             |
| USED ON: C  |                                                                                                                                                                                                                                                                  | DATE 9/10/13         | DATE 9/10/13            | CONNECTOR ASSEMBLY   |        |             |
|             |                                                                                                                                                                                                                                                                  | APPD. J. D. B.       | APPD. J. D. B.          | 90° SMAM for LMR-240 |        |             |
| SCALE: NONE | DWG. SIZE A                                                                                                                                                                                                                                                      | DO NOT SCALE DRAWING | CODE IDENT 68999        | DATE 9/10/13         | 1 of 1 | SD3190-2899 |
|             |                                                                                                                                                                                                                                                                  |                      |                         |                      |        | B           |



SMA Male Connector Crimp/Solder Attachment for PE-C240,  
RG8X, 0.240 inch, LMR-240, LMR-240-DB, LMR-240-UF, B7808A

## RF Connectors Technical Data Sheet

PE44637

### Configuration

- SMA Male Connector
- 50 Ohms
- Straight Body Geometry
- PE-C240, RG8X, 0.240 inch, LMR-240, LMR-240-DB, LMR-240-UF, B7808A Interface Type
- Crimp/Solder Attachment
- 5/16 inch Hex

### Features

- Max. Operating Frequency 12.4 GHz
- Gold Plated Brass Contact

### Applications

- General Purpose Test
- Custom Cable Assemblies

### Description

Pasternack's PE44637 SMA male connector with crimp/solder attachment for PE-C240, RG8X, 0.240 inch, LMR-240, LMR-240-DB, LMR-240-UF and B7808A is part of our full line of RF components available for same-day shipping. Our SMA male connector operates up to a maximum frequency of 12.4 GHz.

Our SMA male connector PE44637 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    | GHz   |
| Operating Voltage (AC)               |         |         | 333     | Vrms  |
| Dielectric Withstanding Voltage (AC) |         |         | 1,000   | Vrms  |

### Mechanical Specifications

|               |                                 |
|---------------|---------------------------------|
| <b>Size</b>   |                                 |
| Length        | 0.969 in [24.61 mm]             |
| Width/Dia.    | 0.312 in [7.92 mm]              |
| Weight        | 0.014 lbs [6.35 g]              |
| Mating Cycles | 500 Cycles                      |
| 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: [SMA Male Connector Crimp/Solder Attachment for PE-C240, RG8X, 0.240 inch, LMR-240, LMR-240-DB, LMR-240-UF, B7808A PE44637](#)



SMA Male Connector Crimp/Solder Attachment for PE-C240,  
RG8X, 0.240 inch, LMR-240, LMR-240-DB, LMR-240-UF, B7808A

## RF Connectors Technical Data Sheet

PE44637

### Material Specifications

| Description  | Material | Plating |
|--------------|----------|---------|
| Contact      | Brass    | Gold    |
| Insulation   | PTFE     |         |
| Body         | Brass    | Gold    |
| Coupling Nut | Brass    | Gold    |

### Environmental Specifications

#### Temperature

Operating Range -65 to +165 deg C

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

### Plotted and Other Data

Notes:

SMA Male Connector Crimp/Solder Attachment for PE-C240, RG8X, 0.240 inch, LMR-240, LMR-240-DB, LMR-240-UF, B7808A 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.

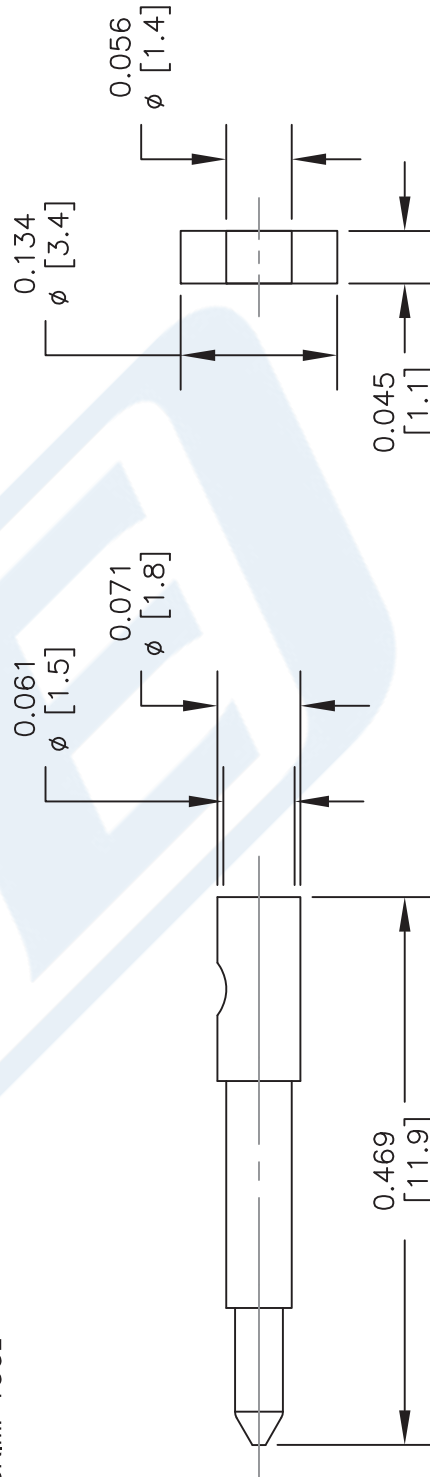
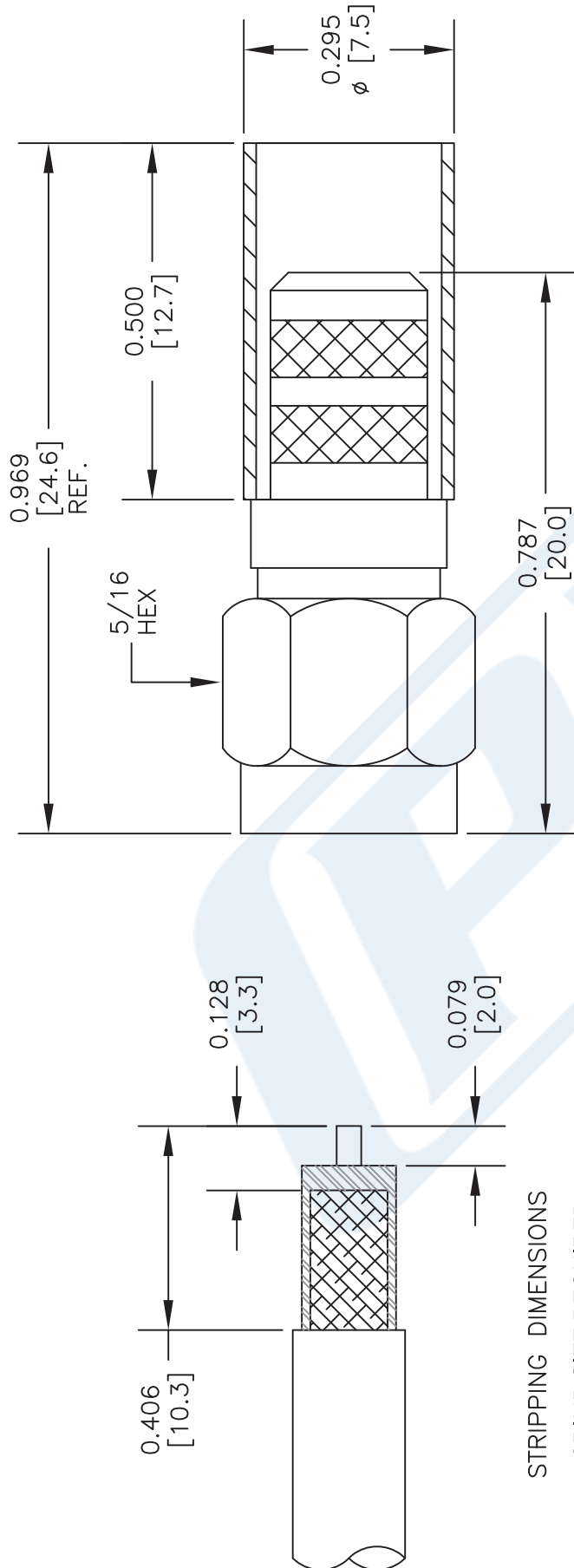
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male Connector Crimp/Solder Attachment for PE-C240, RG8X, 0.240 inch, LMR-240, LMR-240-DB, LMR-240-UF, B7808A PE44637](#)

URL: <https://www.pasternack.com/sma-male-standard-rg8x-pe-c240-0.240-connector-pe44637-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.

# PE44637 CAD Drawing

SMA Male Connector Crimp/Solder Attachment for PE-C240, RG8X,  
0.240 inch, LMR-240, LMR-240-DB, LMR-240-UF, B7808A



SPACER

CONTACT

- 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  
**PE44637**

**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

FSCM NO. 53919

CAD FILE 050216

SCALE N/A

SIZE A

2233

## LMR®-240-UF UltraFlex Communications Coax

### Ideal for...

- Jumper Assemblies in Wireless Communications Systems
- Short Antenna Feeder runs (e.g. WLL, GPS, LMR, Mobile Antennas)
- Any application that requires periodic/repeated flexing



• **LMR® - UltraFlex** has a stranded center conductor and rubber outer jacket designed for multiple bending/flexing cycles. It is used for both indoor and outdoor applications.

• **Flexibility** and bendability are hallmarks of the LMR-240-UF 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-240-UF. 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-240-UF cables are designed for outdoor exposure and have a life expectancy in excess of 10 years.

• **Connectors:** A wide variety of connectors are available for LMR-240-UF cable, including all common interface types, reverse polarity, and solder-on center pins. Most LMR connectors employ crimp outer attachment using standard hex crimp sizes.

• **Cable Assemblies:** All LMR-240-UF 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 | Stranded BC                   | 0.056 | (1.42) |
| Dielectric      | Foam Polyethylene             | 0.150 | (3.81) |
| Outer Conductor | Aluminum Tape                 | 0.155 | (3.94) |
| Overall Braid   | Tinned Copper                 | 0.178 | (4.52) |
| Jacket          | Black Thermoplastic Elastomer | 0.240 | (6.10) |

### Mechanical Specifications

| Performance Property      | Units          | US    | (metric) |
|---------------------------|----------------|-------|----------|
| Bend Radius: installation | in. (mm)       | 0.75  | (19.1)   |
| Bend Radius: repeated     | in. (mm)       | 2.5   | (63.5)   |
| Bending Moment            | ft-lb (N-m)    | 0.125 | (0.17)   |
| Weight                    | lb/ft (kg/m)   | 0.034 | (0.05)   |
| Tensile Strength          | lb (kg)        | 80    | (36.3)   |
| Flat Plate Crush          | lb/in. (kg/mm) | 13    | (0.23)   |

### 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 |

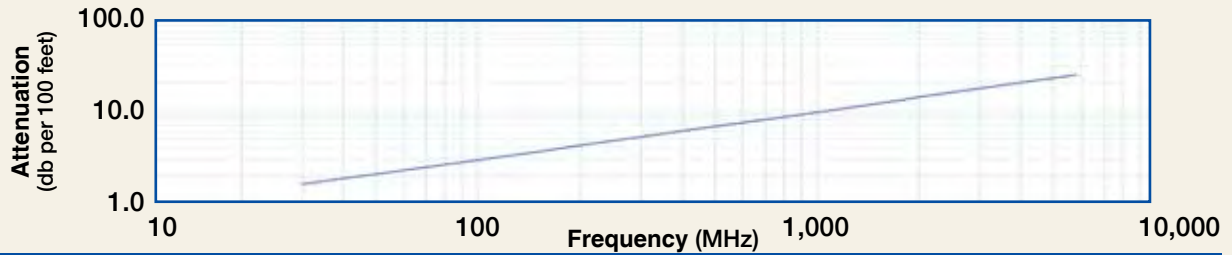
### Electrical Specifications

| Performance Property    | Units             | US    | (metric) |
|-------------------------|-------------------|-------|----------|
| Velocity of Propagation | %                 | 84    |          |
| Dielectric Constant     | NA                | 1.42  |          |
| Time Delay              | nS/ft (nS/m)      | 1.21  | (3.97)   |
| Impedance               | ohms              | 50    |          |
| Capacitance             | pF/ft (pF/m)      | 24.2  | (79.4)   |
| Inductance              | uH/ft (uH/m)      | 0.060 | (0.20)   |
| Shielding Effectiveness | dB                | >90   |          |
| DC Resistance           |                   |       |          |
| Inner Conductor         | ohms/1000ft (/km) | 4.28  | (14.1)   |
| Outer Conductor         | ohms/1000ft (/km) | 3.89  | (12.8)   |
| Voltage Withstand       | Volts DC          | 1500  |          |
| Jacket Spark            | Volts RMS         | 5000  |          |
| Peak Power              | kW                | 5.6   |          |

| Part Description |                |        |       |            |
|------------------|----------------|--------|-------|------------|
| Part Number      | Application    | Jacket | Color | Stock Code |
| LMR-240-UF       | Indoor/Outdoor | TPE    | Black | 54041      |

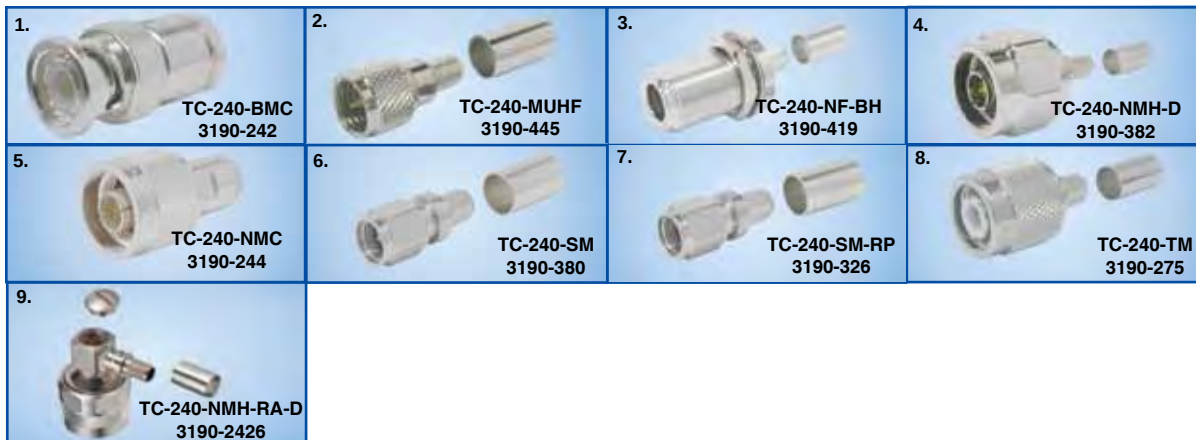


### Attenuation vs. Frequency (typical)



| Frequency (MHz)       | 30   | 50   | 150  | 220  | 450  | 900  | 1500 | 1800 | 2000 | 2500 | 5800 |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|
| Attenuation dB/100 ft | 1.6  | 2.1  | 3.6  | 4.4  | 6.3  | 9.1  | 11.8 | 13.0 | 13.8 | 15.5 | 24.4 |
| Attenuation dB/100 m  | 5.3  | 6.8  | 11.9 | 14.4 | 20.8 | 29.8 | 38.9 | 42.8 | 45.2 | 50.9 | 80.1 |
| Avg. Power kW         | 1.24 | 0.96 | 0.55 | 0.45 | 0.31 | 0.22 | 0.17 | 0.15 | 0.14 | 0.13 | 0.08 |

Calculate Attenuation =  $(0.290501) \cdot \sqrt{\text{FMHz}} + (0.000396) \cdot \text{FMHz}$  (interactive calculator available at [http://www.timesmicrowave.com/cable\\_calculators](http://www.timesmicrowave.com/cable_calculators))  
 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) |
|-------------|------------------|-----------------|------------|--------------------|--------------|----------------------|----------------------|-------------------|----------------|---------------|---------------|
| 1. BNC Male | Straight Plug    | TC-240-BMC      | 3190-242   | <1.25:1 (2.5)      | Knurl        | Solder               | Clamp                | S/G               | 1.7 (43)       | 0.56(14.2)    | 0.040 (18.1)  |
| 2. Mini-UHF | Straight Plug    | TC-240-MUHF     | 3190-445   | <1.25:1 (2.5)      | Knurl        | Solder               | Crimp                | N/G               | 1.1 (28)       | 0.45(11.4)    | 0.014 (6.4)   |
| 3. N Female | Bulkhead Jack    | TC-240-NF-BH    | 3190-419   | <1.25:1 (2.5)      | NA           | Solder               | Crimp                | A/G               | 1.7 (44)       | 0.88(22.2)    | 0.115 (52.2)  |
| 4. N Male   | Straight Plug    | TC-240-NMH-D    | 3190-382   | <1.25:1 (2.5)      | Hex          | Solder               | Crimp                | N/S               | 1.5 (38)       | 0.75(19.1)    | 0.086 (39.0)  |
| 5. N Male   | Straight Plug    | TC-240-NMC      | 3190-244   | <1.25:1 (2.5)      | Knurl        | Solder               | Clamp                | S/G               | 1.5 (38)       | 0.75(19.1)    | 0.082 (37.2)  |
| 6. SMA Male | Straight Plug    | TC-240-SM       | 3190-380   | <1.25:1 (10)       | Hex          | Solder               | Crimp                | SS/G              | 1.0 (25)       | 0.32(8.1)     | 0.016 (7.3)   |
| 7. SMA Male | Reverse Polarity | TC-240-SM-RP    | 3190-326   | <1.25:1 (2.5)      | Hex          | Solder               | Crimp                | SS/G              | 1.0 (25)       | 0.32(8.1)     | 0.016 (7.3)   |
| 8. TNC Male | Straight Plug    | TC-240-TM       | 3190-275   | <1.25:1 (2.5)      | Knurl        | Solder               | Crimp                | N/S               | 1.7 (43)       | 0.59(15.0)    | 0.043 (19.5)  |
| 9. N Male   | Right Angle      | TC-240-NMH-RA-D | 3190-2426  | <1.35:1 (6)        | Hex/Knurl    | Solder               | Crimp                | A/G               | 1.2 (32.4)     | 1.22 (31.0)   | 0.091 (41.7)  |

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

## Hardware Accessories

| Type       | Part Number | Stock Code | Description                |
|------------|-------------|------------|----------------------------|
| Ground Kit | GK-S240TT   | GK-S240TT  | Standard Ground Kit (each) |

## 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                  |

