



TNC Female Connector Solder Attachment for LMR-400, LMR-400-DB, LMR-400-UF, PE-B400, PE-B405, PE-C400

## RF Connectors Technical Data Sheet

PE45639

### Configuration

- TNC Female Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: LMR-400, LMR-400-DB, LMR-400-UF, PE-B400, PE-B405, PE-C400

### Features

- Max. Operating Frequency 6 GHz
- Excellent VSWR of 1.2:1
- Gold Plated Brass Contact

### Applications

- General Purpose Test
- Custom Cable Assemblies

### Description

Pasternack's PE45639 TNC female connector with solder attachment for LMR-400, LMR-400-DB, LMR-400-UF, PE-B400, PE-B405 and PE-C400 is part of our full line of RF components available for same-day shipping. Our TNC female connector operates up to a maximum frequency of 6 GHz and offers excellent VSWR of 1.2:1.

Our TNC female connector PE45639 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                                 |         |         | 1.2:1   |       |
| Insertion Loss                       |         |         | 0.2     | dB    |
| Operating Voltage (DC)               |         |         | 500     | Vdc   |
| Dielectric Withstanding Voltage (AC) |         |         | 1,500   | Vrms  |
| Dielectric Withstanding Voltage (DC) |         |         | 1,500   | Vdc   |

### Mechanical Specifications

#### Size

|               |                    |
|---------------|--------------------|
| Length        | 1.11 in [28.19 mm] |
| Width/Dia.    | 0.56 in [14.22 mm] |
| Weight        | 0.5 lbs [226.8 g]  |
| Mating Cycles | 500 Cycles         |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [TNC Female Connector Solder Attachment for LMR-400, LMR-400-DB, LMR-400-UF, PE-B400, PE-B405, PE-C400 PE45639](#)



TNC Female Connector Solder Attachment for LMR-400, LMR-400-DB, LMR-400-UF, PE-B400, PE-B405, PE-C400

RF Connectors  
Technical Data Sheet

PE45639

**Material Specifications**

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

**Environmental Specifications**

**Temperature**

|                   |  |
|-------------------|--|
| Operating Range   | -55 to +85 deg C                           |
| Humidity          | MIL-Std. 202 Method 106                    |
| Vibration         | MIL-Std. 202 Method 204 (Test Condition D) |
| Altitude          | MIL-Std. 202 Method 105 (Test Condition C) |
| Temperature Cycle | MIL-Std. 202 Method 102 (Test Condition D) |
| Salt Spray        | MIL-Std. 202 Method 101 (Test Condition B) |

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

**Plotted and Other Data**

Notes:

TNC Female Connector Solder Attachment for LMR-400, LMR-400-DB, LMR-400-UF, PE-B400, PE-B405, PE-C400 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: [TNC Female Connector Solder Attachment for LMR-400, LMR-400-DB, LMR-400-UF, PE-B400, PE-B405, PE-C400 PE45639](#)

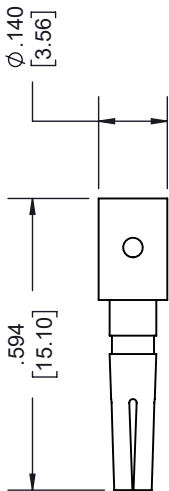
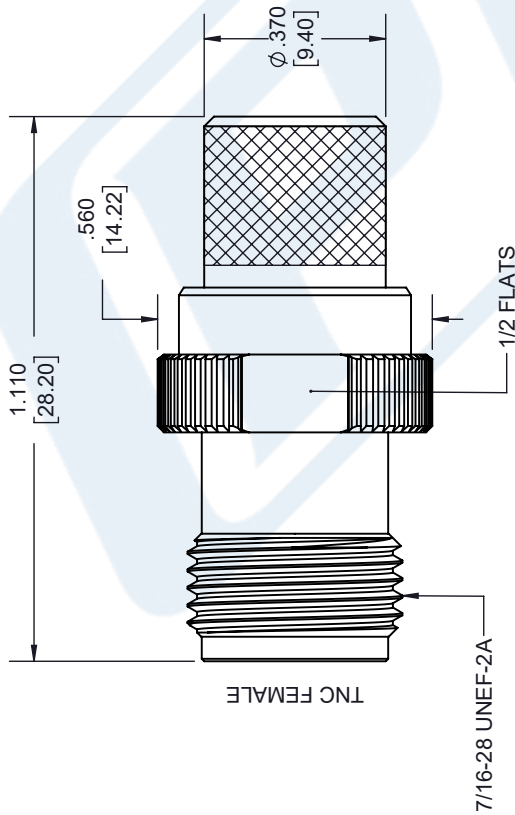
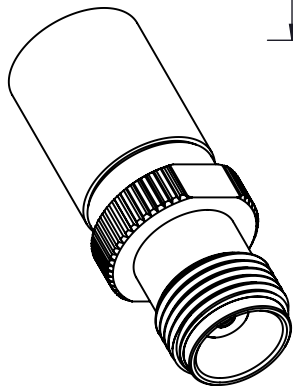
URL: <https://www.pasternack.com/tnc-female-lmr-400-lmr-400-db-connector-pe45639-p.aspx>

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.

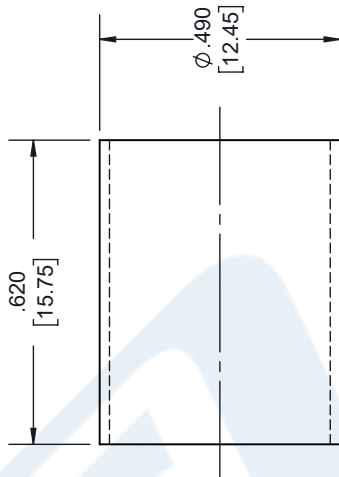
# PE45639 CAD Drawing

TNC Female Connector Solder Attachment for LMR-400, LMR-400-DB, LMR-400-UF, PE-B400, PE-B405, PE-C400

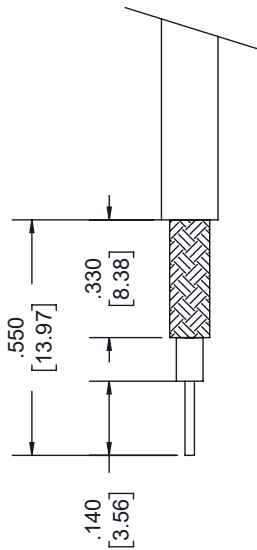
| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 9/11/2020 | S. ELLIS |



CONTACT



FERRULE



### STRIPPING DIMENSIONS

- NOTES:
- CABLE ATTACHMENT:
    - OUTER: CRIMP.
    - INNER: SOLDER.
  - CRIMP SIZE REQUIRED:
    - FERRULE: .429 [10.90] HEX. CRIMP TOOL.
    - CONTACT: SOLDER.

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

TOLERANCES:

.X = ±.2 [5.08] | FRACTIONS ± 1/32  
 .XX = ±.02 [ .51] | ANGLES ± 1°  
 .XXX = ±.005 [ .13]

CABLE LENGTH (L), TOLERANCES:  
 L ≤ 12 [305] = +1 [25] / -0  
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
 300 [7620] < L = +5% / -0

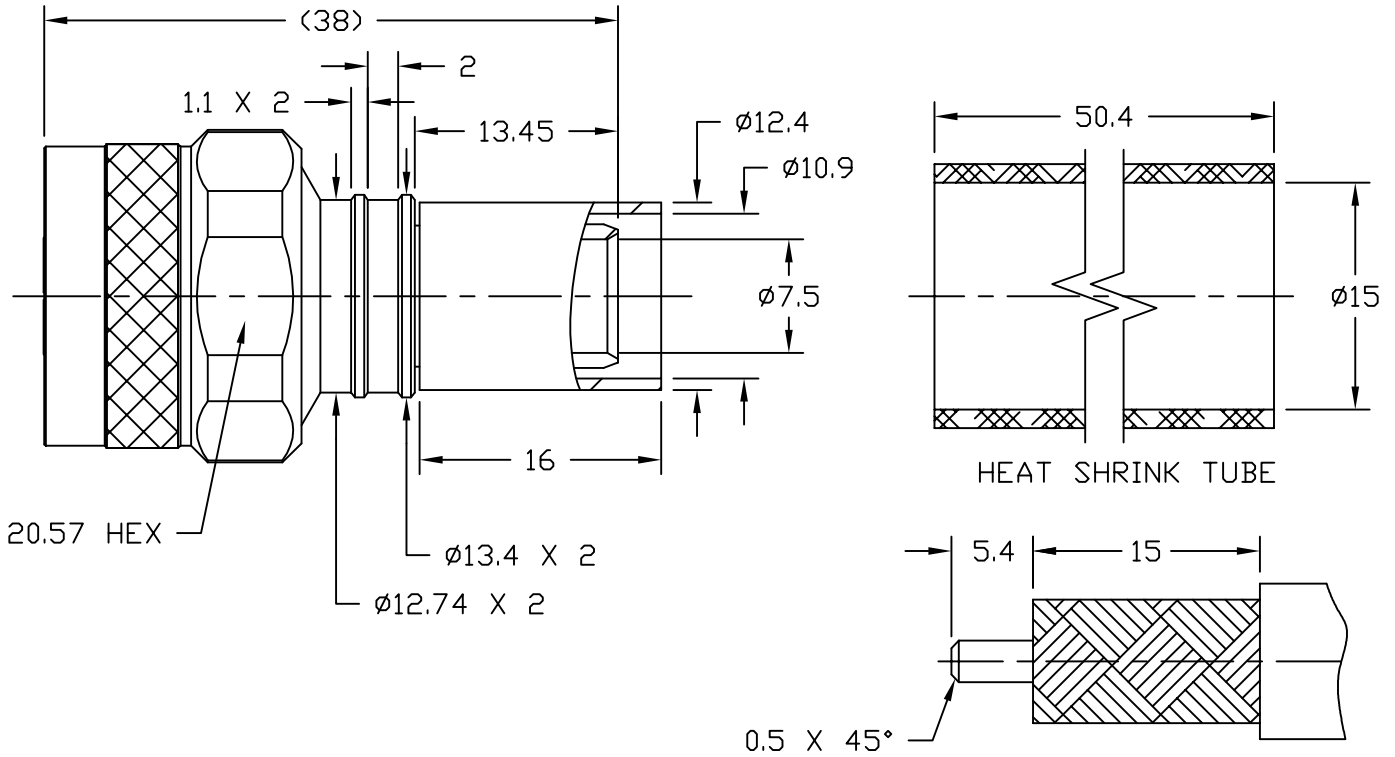
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

|   |                  |   |
|---|------------------|---|
| <p>Pasternack Enterprises, Inc.<br/>                 P. O. Box 16759, Irvine, CA 92623.<br/>                 Phone: 1.949.261.1920   1.866.727.8376<br/>                 Fax: 1.949.261.7451<br/>                 Website: www.pasternack.com<br/>                 E-mail: sales@pasternack.com</p> |                  | THIRD-ANGLE PROJECTION<br><br>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNACK CORPORATION ALL RIGHTS RESERVED.<br>SHEET 1 OF 1<br>SCALE N/A |
| SIZE A<br>CAGE CODE 53919<br>DRAWN BY K.DANG  | ITEM NO. PE45639 | REV A   |

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| SYM | REVISION DESCRIPTION    | DFTM     | DATE    | APPD     | DATE    |
|-----|-------------------------|----------|---------|----------|---------|
| A   | RELEASED FOR PRODUCTION | D. J. H. | 3/15/11 | J. D. B. | 8/16/11 |



CABLE PREP.  
USE CST-400  
(3192-004)  
.429" HEX.

|                                     |  |                            |   |
|-------------------------------------|--|----------------------------|---|
| Reference standard                  | IEC60169-16                                  | III. Material and plating: |   |
| I. Electric Performance             |  | <u>Component</u>           | <u>Material</u>                                       |
| Impedance( $\Omega$ ):              | 50   | inner conductor            | Brass   |
| Frequency Range:                    | DC-6GHz                                      | outer conductor            | Brass   |
| VSWR:                               | $\leq 1.25$                                  | tube                       | Copper  |
| Insert Loss: (dB)                   | $\leq 0.1$                                   | nut                        | Brass   |
| Insulation resistance (M $\Omega$ ) | >5000  | gasket                     | Silicone rubber                                       |
| Work voltage (V)                    | 1500   | insulator                  | PTFE  |
| Conductor resistance (m $\Omega$ )  | outer conductor <0.2<br>inner conductor <0.8 | IV. Environment            |   |
| II. Mechanical Performance          |  | Temp. range                | -55°C~+155°C  |
| Nut torque                          | 25N.m  | Weather standard           | IEC 60068 55 / 155/ 56                                |
| (Nut) Whorl pull                    | 1000N  | Thermal shock              | US MIL-STD 202, Meth.107, Cond.B                      |
| Tensile force (cable-connect)       | 400N   | Vibration                  | US MIL-STD 202, Meth.204, Cond.B                      |
| Torsion (cable-connect)             | 2N.m   | Shock                      | US MIL-STD 202, Meth.213, Cond.I                      |
|                                     |  | Waterproofing standard     | IP67  |
|                                     |  | V. Assembly:               | inner conductor soldered and outer conductor crimped. |

|             |  |                  |   |             |
|-------------|--|------------------|---|-------------|
| MATL:       | UNLESS OTHERWISE SPECIFIED               | DFTM. D. J. H.   | TIMES MICROWAVE SYSTEMS   |             |
|             | ALL DIMENSIONS ARE IN mm                 | DATE 3/15/11     | <b>TC-400-NMH-X</b><br>"N" MALE FOR LMR-400 CABLE<br>SOLDER/CRIMP/NO BRAID TRIM |             |
|             | MACHINED SURFACES FINISH N/A RMS MAX.    | CHKD. J. D. B.   |   |             |
|             | REMOVE ALL BURRS N/A MAX. BREAK          | DATE 8/16/11     |   |             |
|             | MACHINE CORNERS N/A MAX. FILLET R.       | APPD. J. D. B.   |   |             |
| USED ON: 0  | TOLERANCES ON DECIMALS                   | DATE 8/16/11     | S   | 1 of 1      |
|             | . XX $\pm$ N/A . XXX $\pm$ N/A           |                  | H   | SD3190-2626 |
| SCALE: N/A  | ANGLES $\pm 1^\circ$ FRACTIONS $\pm$ N/A | DATE 8/16/11     | R   | A           |
| DWG. SIZE A | DO NOT SCALE DRAWING                     | CODE IDENT 68999 | E   |             |

# LMR<sup>®</sup>-400 Flexible Low Loss Communications Coax

## Ideal for...

- Drop-in replacement for RG-8/9913 Air-Dielectric type Cable
- 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<sup>®</sup>** standard is a UV Resistant Polyethylene jacketed cable designed for 20-year service outdoor use. The bending and handling characteristics are significantly better than air-dielectric and corrugated hard-line cables.
- **LMR<sup>®</sup>-DB** is identical to standard LMR plus has the advantage of being watertight. The addition of waterproofing compound in and around the foil/braid insures continuous reliable service should the jacket be inadvertently damaged during installation or in the future.
- **LMR<sup>®</sup>-FR** is a non-halogen (non-toxic), low smoke, fire retardant cable designed for in-building runs that can be routed anywhere except air handling plenums. LMR-FR is UL/NEC & CSA rated 'CMR' and 'FT4' respectively, meets FAA FAR25 requirements and is MSHA-P for mining applications.
- **LMR<sup>®</sup>-FR-PVC** is a general-purpose indoor cable and has a UL/NEC & CSA rating of 'CMR' and 'FT4' respectively. It is less expensive than LMR-FR, however it emits toxic fumes (HCL) and greater smoke density when burned.
- **LMR<sup>®</sup>-PVC** is designed for low loss general-purpose applications and is somewhat more flexible than the standard polyethylene jacketed LMR.
- **LMR<sup>®</sup>-PVC-W** is a white-jacketed version of LMR-PVC for marine and other applications where color compatibility is desired.

- **Flexibility** and bendability are hallmarks of the LMR-400 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-400.

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-400 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-400 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-400 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-400          | Outdoor              | PE        | Black | 54001 |       |
| LMR-400-DB       | Outdoor/Watertight   | PE        | Black | 54091 |       |
| LMR-400-FR       | Indoor/Outdoor Riser | CMR FRPE  | Black | 54030 |       |
| LMR-400-FR-PVC   | Indoor/Outdoor Riser | CMR FRPVC | Black | 54073 |       |
| LMR-400-PVC      | General Purpose      | PVC       | Black | 54218 |       |
| LMR-400-PVC-W    | General Purpose      | PVC       | White | 54204 |       |

| Construction Specifications |                   |       |         |
|-----------------------------|-------------------|-------|---------|
| Description                 | Material          | In.   | (mm)    |
| Inner Conductor             | Solid BCCAI       | 0.108 | (2.74)  |
| Dielectric                  | Foam PE           | 0.285 | (7.24)  |
| Outer Conductor             | Aluminum Tape     | 0.291 | (7.39)  |
| Overall Braid               | Tinned Copper     | 0.320 | (8.13)  |
| Jacket                      | (see table above) | 0.405 | (10.29) |

# LMR<sup>®</sup>-400 Flexible Low Loss Communications Coax



## Connectors

| Interface       | Description      | Part Number       | Stock Code | VSWR**<br>Freq. (GHz) | Coupling<br>Nut | Inner<br>Contact<br>Attach | Outer<br>Contact<br>Attach | Finish*<br>Body<br>/Pin | Length<br>in<br>(mm) | Width<br>in<br>(mm) | Weight<br>lb(g) |
|-----------------|------------------|-------------------|------------|-----------------------|-----------------|----------------------------|----------------------------|-------------------------|----------------------|---------------------|-----------------|
| 7-16 DIN Female | Straight Jack    | TC-400-716-FC     | 3190-376   | <1.25:1 (2.5)         | NA              | Solder                     | Clamp                      | S/S                     | 1.6 (41)             | 1.13 (28.7)         | 0.281 (127.5)   |
| 7-16 DIN Male   | Straight Plug    | EZ-400-716M-X     | 3190-2524  | <1.25:1 (6)           | Hex             | Spring Finger Crimp        |                            | A/G                     | 1.6 (39.5)           | 1.38 (35)           | 0.277 (126.0)   |
| 7-16 DIN Male   | Straight Plug    | TC-400-716-MC     | 3190-279   | <1.25:1 (2.5)         | Hex             | Solder                     | Clamp                      | S/S                     | 1.4 (36)             | 1.40 (35.6)         | 0.268 (121.6)   |
| 7-16 DIN Male   | Right Angle      | TC-400-716MC-RA   | 3190-1671  | <1.25:1 (<3)          | Hex             | Solder                     | Clamp                      | A/S                     | 2.4 (61.5)           | 1.88 (47.8)         | 0.35 (159)      |
| 7-16DIN Male    | Right Angle      | EZ-400-716M-RA-X  | 3190-2545  | <1.35:1 (6)           | Hex             | Spring Finger Crimp        |                            | A/G                     | 1.6 (41.7)           | 1.75 (44.3)         | 0.374 (0.17)    |
| BNC Male        | Straight Plug    | TC-400-BM         | 3190-318   | <1.25:1 (2.5)         | Knurl           | Solder                     | Crimp                      | N/S                     | 1.7 (43)             | 0.56 (14.2)         | 0.063 (28.6)    |
| HN Male         | Straight Plug    | TC-400-HNM        | 3190-923   | <1.25:1 (<1)          | Knurl           | Solder                     | Clamp                      | S/G                     | 2.3 (59.2)           | 0.88 (22.4)         | 0.25 (113.4)    |
| HN Male         | Right Angle      | TC-400-HNM-RA     | 3190-2541  | <1.25:1 (2.5)         | Hex             | Solder                     | Crimp                      | A/G                     | 1.6 (41.4)           | 1.56 (39.6)         | 0.198 (90.0)    |
| QDS Male        | Straight Plug    | TC-400-QDSM       | 3190-620   | <1.25:1 (<3)          | Knurl           | Solder                     | Clamp                      | A/G                     | 1.8 (46.6)           | 1.00 (25.4)         | 0.25 (113.4)    |
| Mini-UHF        | Straight Plug    | TC-400-MUHF       | 3190-520   | <1.25:1 (2.5)         | Knurl           | Solder                     | Crimp                      | N/G                     | 1.1 (28)             | 0.50 (12.7)         | 0.020 (9.1)     |
| N Female        | Straight Jack    | TC-400-NFC        | 3190-299   | <1.25:1 (2.5)         | NA              | Solder                     | Clamp                      | N/S                     | 1.6 (41)             | 0.75 (19.1)         | 0.119 (54.0)    |
|                 | Straight Jack    | EZ-400-NF         | 3190-956   | <1.25:1 (2.5)         | NA              | Spring Finger Crimp        |                            | N/G                     | 1.8 (45)             | 0.66 (16.8)         | 0.105 (47.6)    |
|                 | Straight Jack    | TC-400-NF         | 3190-2255  | <1.25:1 (2.5)         | NA              | Solder                     | Crimp                      | N/G                     | 1.8 (45)             | 0.66 (16.8)         | 0.105 (47.6)    |
|                 | Bulkhead Jack    | EZ-400-NF-BH      | 3190-518*  | <1.25:1 (2.5)         | NA              | Spring Finger Crimp        |                            | N/G                     | 1.8 (46)             | 0.88 (22.4)         | 0.102 (46.3)    |
|                 | Bulkhead Jack    | TC-400-NFC-BH (A) | 3190-872   | <1.25:1 (2.5)         | NA              | Solder                     | Clamp                      | A/G                     | 1.8 (46)             | 0.88 (22.4)         | 0.145 (65.8)    |
| N Male          | Straight Plug    | SC-400-NM         | 3190-1454  | <1.25:1 (2.5)         | Knurl           | Solder                     | Crimp                      | N/G                     | 1.5 (38)             | 0.75 (19.1)         | 0.090 (40.8)    |
|                 | Straight Plug    | TC-400-NMC        | 3190-277   | <1.25:1 (2.5)         | Knurl           | Solder                     | Clamp                      | N/G                     | 1.5 (38)             | 0.70 (17.8)         | 0.121 (54.9)    |
|                 | Straight Plug    | EZ-400-NMC-2      | 3190-2640  | <1.25:1 (2.5)         | Hex/Knurl       | Spring Finger Crimp        |                            | N/G                     | 1.5 (38)             | 0.75 (19.1)         | 0.121 (54.9)    |
|                 | Straight Plug    | EZ-400-NMH-X      | 3190-2590  | <1.25:1 (10)          | Hex/Knurl       | Spring Finger Crimp        |                            | A/G                     | 1.5 (38)             | 0.89 (22.6)         | 0.103 (46.8)    |
|                 | Straight Plug    | TC-400-NMH-X      | 3190-2626  | <1.25:1 (10)          | Hex/Knurl       | Solder                     | Crimp                      | A/G                     | 1.5 (38)             | 0.89 (22.6)         | 0.113 (51.3)    |
|                 | Straight Plug    | EZ-400-NMK        | 3190-661   | <1.25:1 (10)          | Knurl           | Spring Finger Crimp        |                            | S/G                     | 1.5 (38)             | 0.75 (22.6)         | 0.113 (51.3)    |
|                 | Right Angle      | EZ-400-NMH-RA-X   | 3190-2638  | <1.35:1 (6)           | Hex/Knurl       | Spring Finger Crimp        |                            | A/G                     | 1.87 (47)            | 1.42 (36.0)         | 0.177 (80.2)    |
|                 | Right Angle      | TC-400-NMH-RA-D   | 3190-2293* | <1.35:1 (6)           | Hex/Knurl       | Solder                     | Crimp                      | A/G                     | 1.8 (46)             | 1.25 (31.8)         | 0.130 (59.0)    |
|                 | Right Angle      | TC-400-NMC-RA (A) | 3190-870   | <1.35:1 (2.5)         | Hex             | Solder                     | Clamp                      | A/G                     | 1.8 (46)             | 1.25 (31.8)         | 0.150 (68.0)    |
|                 | Reverse Polarity | TC-400-NM-RP      | 3190-960   | <1.25:1 (2.5)         | Knurl           | Solder                     | Crimp                      | N/G                     | 1.5 (38)             | 0.75 (19.1)         | 0.090 (40.8)    |
| SMA Male        | Straight Plug    | TC-400-SM         | 3190-439   | <1.25:1 (8)           | Hex             | Solder                     | Crimp                      | N/G                     | 1.2 (29)             | 0.50 (12.7)         | 0.032 (14.5)    |
| TNC Female      | Reverse Polarity | TC-400-TF-RP      | 3190-1063  | <1.25:1 (2.5)         | NA              | Solder                     | Crimp                      | N/G                     | 1.8 (46)             | 0.55 (14.0)         | 0.074 (33.6)    |
|                 | Reverse Polarity | EZ-400-TF-RP      | 3190-795   | <1.25:1 (2.5)         | NA              | Spring Finger Crimp        |                            | A/G                     | 1.8 (46)             | 0.55 (14.0)         | 0.074 (33.6)    |
| TNC Male        | Straight Plug    | TC-400-TM-X       | 3190-2532  | <1.25:1 (6)           | Hex/Knurl       | Solder                     | Crimp                      | A/G                     | 1.9 (48)             | 0.67 (17.5)         | 0.075 (34.3)    |
|                 | Straight Plug    | EZ-400-TM-X       | 3190-2533  | <1.25:1 (6)           | Hex/Knurl       | Spring Finger Crimp        |                            | A/G                     | 1.9 (48)             | 0.67 (17.5)         | 0.075 (34.3)    |
|                 | Right Angle      | TC-400-TM-RA      | 3190-442*  | <1.35:1 (2.5)         | Knurl           | Solder                     | Crimp                      | N/G                     | 1.7 (43)             | 0.59 (15.0)         | 0.085 (38.6)    |
|                 | Reverse Polarity | TC-400-TM-RP      | 3190-1062  | <1.25:1 (2.5)         | Knurl           | Solder                     | Crimp                      | N/G                     | 1.7 (43)             | 0.59 (15.0)         | 0.074 (33.6)    |
|                 | Reverse Polarity | EZ-400-TM-RP      | 3190-794   | <1.25:1 (2.5)         | Knurl           | Spring Finger Crimp        |                            | A/G                     | 1.7 (43)             | 0.59 (15.0)         | 0.074 (33.6)    |