



4.3-10 Male Connector Crimp/Solder Attachment for LMR-400

RF Connectors Technical Data Sheet



TC-400-4310M-X

Times Microwave Systems Connector Specification

Configuration

- 4.3-10 Male Connector
- 50 Ohms
- Straight Body Geometry
- LMR-400 Interface Type
- Crimp/Solder Attachment

Features

- Max. Operating Frequency 6 GHz
- Excellent VSWR of 1.25:1
- Silver Plated Brass Contact

Applications

- General Purpose Test
- Custom Cable Assemblies
- Mobile Communications Systems
- Base Stations
- Distributed Antenna Systems (DAS)
- Small Cells
- Feeder Cables

Description

The Times Microwave TC-400-4310M-X 4.3-10 male connector with crimp/solder attachment for LMR-400 is part of our full line of RF components available for same-day shipping. This 4.3-10 male connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.25:1.

Our datasheet specifications and drawing with dimensions for Times Microwave's 4.3-10 male connector TC-400-4310M-X 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 | | | 1.25:1 | |
| Insulation Resistance | 10,000 | | | MOhms |

Electrical Specification Notes:
 Insertion Loss = 0.1 x SQRT(FGHz)

Mechanical Specifications

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: [4.3-10 Male Connector Crimp/Solder Attachment for LMR-400 TC-400-4310M-X](#)



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Material Specifications

| Description | Material | Plating |
|--------------|----------|-----------|
| Contact | Brass | Silver |
| Insulation | PTFE | |
| Body | Brass | Tri-Metal |
| Coupling Nut | Brass | Tri-Metal |
| Gasket | Silicone | |
| Crimp Sleeve | Brass | Tri-Metal |

Environmental Specifications

Temperature

Operating Range

-55 to +125 deg C

Shock

MIL-STD 202G, Meth. 204, Cond. B

Vibration

MIL-STD 202G, Meth. 213, Cond. I

Thermal Shock

MIL-STD 202G, Meth. 107, Cond. B

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

Plotted and Other Data

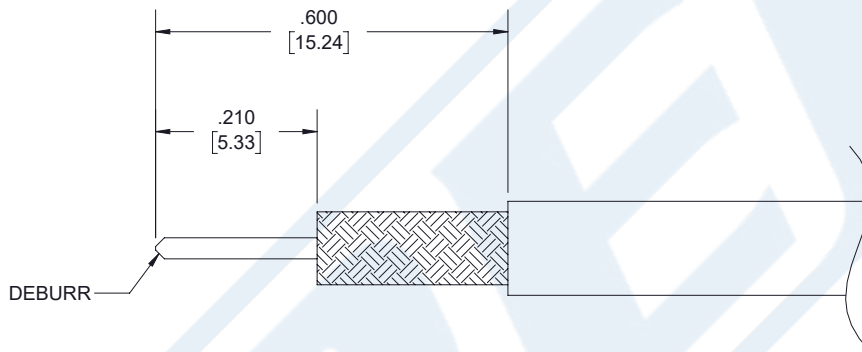
Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.3-10 Male Connector Crimp/Solder Attachment for LMR-400 TC-400-4310M-X](#)



4.3-10 Male Connector Crimp/Solder Attachment for LMR-400

Assembly Instruction



ASSEMBLY PROCEDURES

1. STRIP CABLE TO THE DIMENSIONS SHOWN, CHAMFER CENTER CONDUCTOR AND DEBURR CABLE.
2. SLIDE FERRULE OVER CABLE AND INSULATOR OVER CABLE CENTER CONDUCTOR. INSERT CENTER CONTACT AND SOLDER.
3. PUSH THE CONNECTOR BODY INTO THE CABLE UNTIL IT STOPS. SLIDE FERRULE FORWARD AND AGAINST SHOULDER OF CONNECTOR AND CRIMP.

CRIMP SIZE REQUIRED

- FERRULE: .429" [10.90] HEX CRIMP TOOL

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.3-10 Male Connector Crimp/Solder Attachment for LMR-400 TC-400-4310M-X](#)



4.3-10 Male Connector Crimp/Solder Attachment for LMR-400

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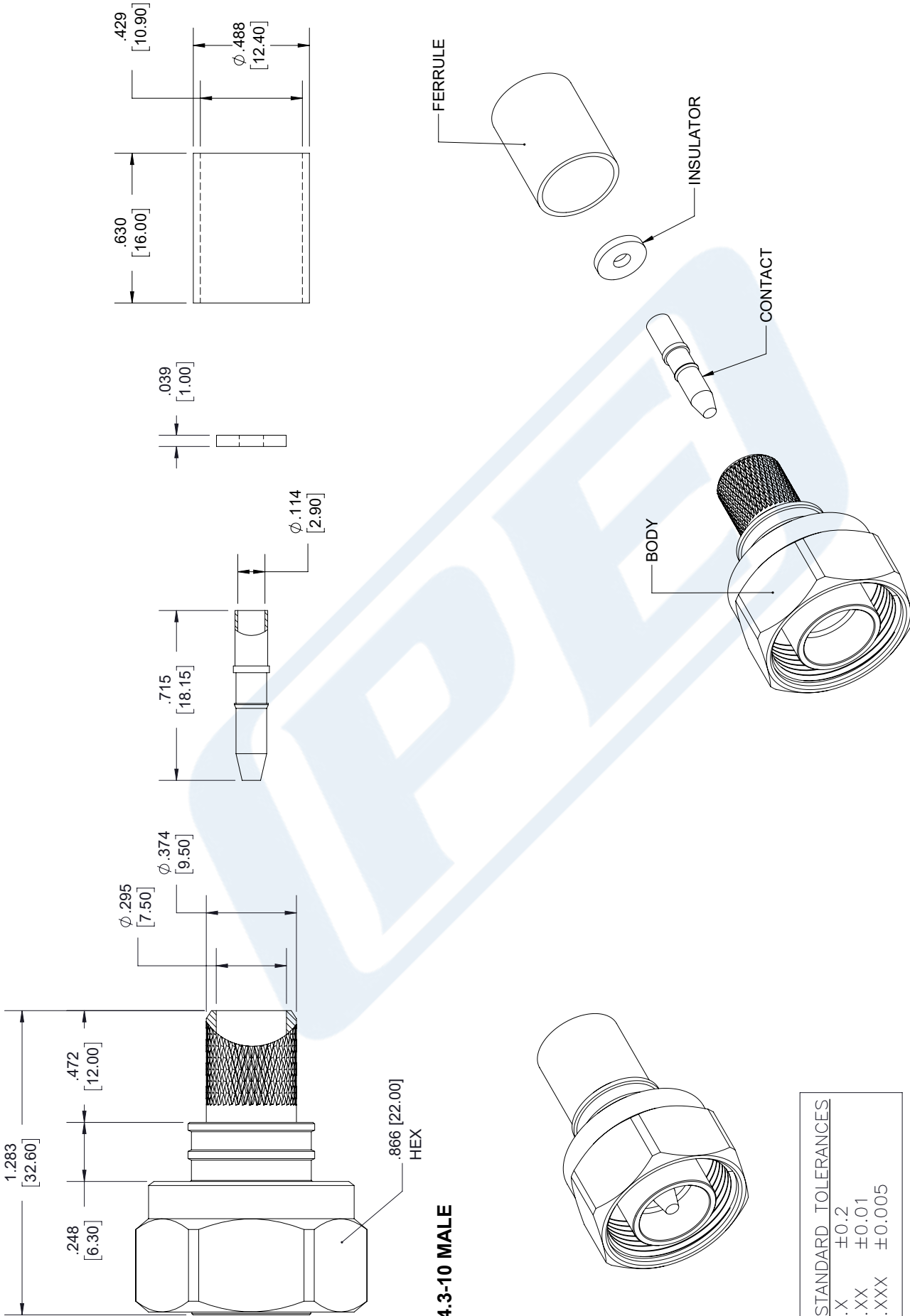
TC-400-4310M-X

4.3-10 Male Connector Crimp/Solder Attachment for LMR-400 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: [4.3-10 Male Connector Crimp/Solder Attachment for LMR-400 TC-400-4310M-X](https://www.pasternack.com/4.3-10-male-lmr-400-connector-tc-400-4310m-x-p.aspx)

URL: <https://www.pasternack.com/4.3-10-male-lmr-400-connector-tc-400-4310m-x-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.



4.3-10 MALE

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

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

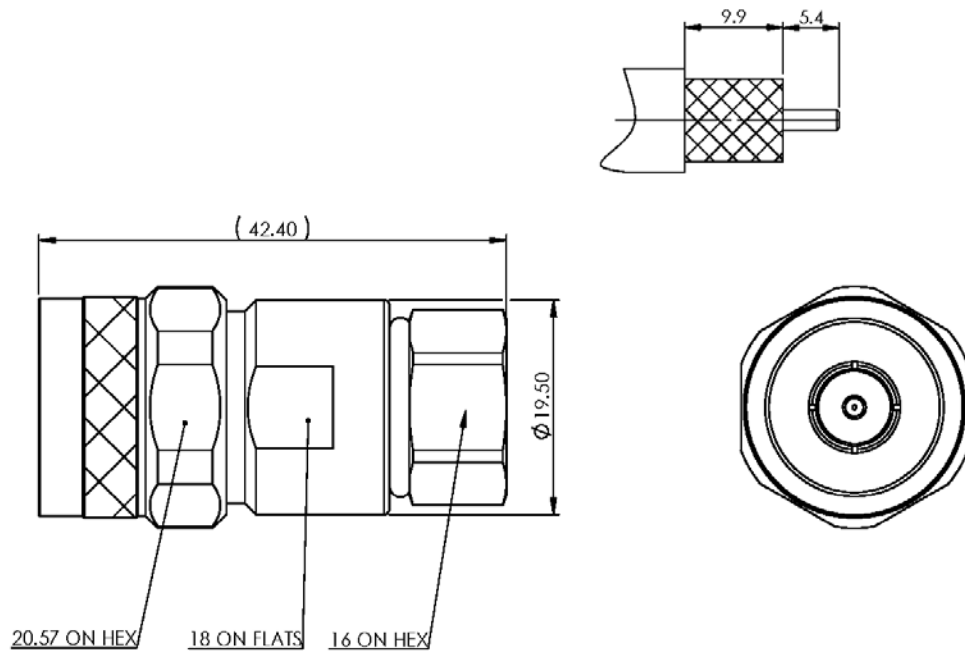
PASTERNACK®
 THE ENGINEER'S RF SOURCE
 Pasternack Enterprises, Inc.
 P.O. Box 16759 | Irvine | CA | 92623
Phone: (949) 261-1920 | **Fax:** (949) 261-7451
Website: www.pasternack.com | **E-Mail:** sales@pasternack.com

| | | | |
|-----------|----------------|----------|----------|
| DWG TITLE | TC-400-4310M-X | | |
| CAGE CODE | 53919 | CAD FILE | 04/18/18 |
| SCALE | N/A | SIZE | A |
| | | | 7361 |

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].

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| SYM | REVISION DESCRIPTION | DFTM | DATE | APPD | DATE |
|-----|-------------------------|--------|---------|--------|--------|
| A | RELEASED FOR PRODUCTION | K.A.M. | 5/20/11 | J.D.B. | 6/9/11 |



Reference standard IEC60169-16

I. Electric Performance

| | |
|-------------------------------------|----------------------------------------------------|
| Nominal Impedance(Ω): | 50 |
| Frequency Range: | DC-6GHz |
| VSWR: | ≤ 1.35 |
| Insert Loss: | ≤ 0.10 (0-3G) |
| Insulation resistance ($M\Omega$) | > 5000 |
| Proof voltage (V) | 2500 |
| Conductor resistance ($m\Omega$) | outer conductor < 0.4 inner conductor < 0.8 |

II. Mechanical Performance

| | |
|------------------------------|------|
| Whorl pull | 500N |
| Nut torque | 5N.m |
| Tensile force(cable-connect) | 400N |
| Torsion(cable-connect) | 2N.m |

III. Material and plating :

| Component | Material | Plating |
|-----------------|------------------|----------------------------|
| inner conductor | Beryllium copper | Au $> 1.27\mu m$ |
| outer conductor | Brass | Copper-tin-zinc $> 2\mu m$ |
| insulator | PTFE | |
| nut | Brass | Copper-tin-zinc $> 2\mu m$ |

IV. Environment

| | |
|---------------------|-----------------------------------|
| Temp.range | -55 $^{\circ}C$ ~+155 $^{\circ}C$ |
| Weather standard | IEC 60068 55 / 155/ 56 |
| Thermal shock | US MIL-STD 202,Meth.107,Cond.B |
| Vibration | US MIL-STD 202,Meth.204,Cond.B |
| Shock | US MIL-STD 202,Meth.213,Cond.I |
| Waterproof standard | IP67 |
| ROHS compliant | |

| | | | | | | | |
|-----------|----------------------------|----------------------|-------------------|-----------------------------------------------|---------------|-------------|--------|
| MATERIAL: | UNLESS OTHERWISE SPECIFIED | | DFTM: K. A. M. | TIMES MICROWAVE SYSTEMS | | | |
| | ALL DIMENSIONS ARE IN mm | | DATE: 5/20/11 | | | | |
| USED ON: | | | CHKD: J. D. B. | CONNECTOR, NM FOR LMR-400 (EZ-400-NMC-2-D) | | | |
| | | | DATE: 6/9/11 | | | | |
| | | | APPD: J. D. B. | | | | |
| SCALE: ~ | DWG. SIZE: A | DO NOT SCALE DRAWING | CODE IDENT: 68999 | DATE: 6/9/11 | SHEET: 1 of 1 | SD3190-2640 | REV: A |

LMR[®]-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[®]** 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[®]-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[®]-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[®]-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[®]-PVC** is designed for low loss general-purpose 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 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 | 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[®]-400 Flexible Low Loss Communications Coax



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) |
|-----------------|------------------|-------------------|------------|-----------------------|-----------------|----------------------------|----------------------------|-------------------------|----------------------|---------------------|-----------------|
| 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) |