



N Male Connector Crimp/Solder Attachment for PE-C600, LMR-600, LMR-600-DB, 0.600 inch

RF Connectors Technical Data Sheet

PE44454

Configuration

- N Male Connector
- 50 Ohms
- Straight Body Geometry
- PE-C600, LMR-600, LMR-600-DB, 0.600 inch Interface Type
- Crimp/Solder Attachment

Features

- Max. Operating Frequency 11 GHz
- Gold Plated Brass Contact

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

Pasternack's PE44454 type N male connector with crimp/solder attachment for PE-C600, LMR-600, LMR-600-DB and 0.600 inch is part of our full line of RF components available for same-day shipping. Our type N male connector operates up to a maximum frequency of 11 GHz.

Our type N male connector PE44454 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 | | 11 | GHz |

Mechanical Specifications

| Size | |
|------------|---------------------|
| Length | 2.04 in [51.82 mm] |
| Width/Dia. | 0.86 in [21.84 mm] |
| Weight | 0.165 lbs [74.84 g] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Connector Crimp/Solder Attachment for PE-C600, LMR-600, LMR-600-DB, 0.600 inch PE44454](#)



N Male Connector Crimp/Solder Attachment for PE-C600, LMR-600, LMR-600-DB, 0.600 inch

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Material Specifications

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

Environmental Specifications

Temperature

Operating Range -65 to +165 deg C

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

Plotted and Other Data

Notes:

N Male Connector Crimp/Solder Attachment for PE-C600, LMR-600, LMR-600-DB, 0.600 inch 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: [N Male Connector Crimp/Solder Attachment for PE-C600, LMR-600, LMR-600-DB, 0.600 inch PE44454](#)

URL: <https://www.pasternack.com/n-male-standard-pe-c600-connector-pe44454-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.

PE44454 CAD Drawing

N Male Connector Crimp/Solder Attachment for PE-C600, LMR-600, LMR-600-DB, 0.600 inch



STRIPPING DIMENSIONS

CRIMP SIZE REQUIRED

CONTACT: SOLDER
FERRULE: .610 HEX CRIMP TOOL



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

PE44454

FSCM NO. 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].
4. FITS MIL-C-17 AND EQUIVALENT CABLES.

CAD FILE 061810

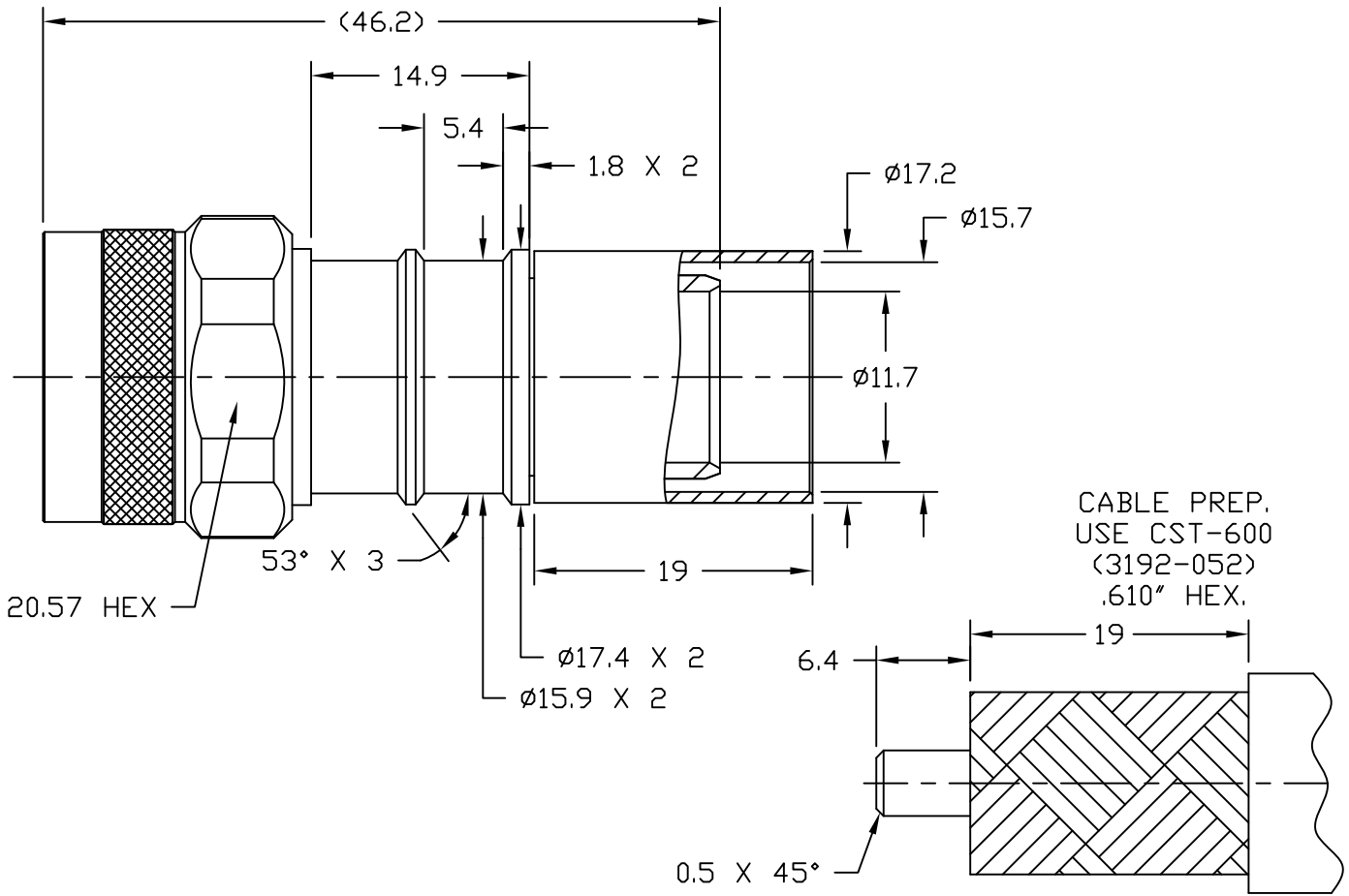
SCALE N/A

SIZE A

2233

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 | D. J. H. | 8/9/11 | J. D. B. | 8/16/11 |



Reference standard IEC60169-16

I. Electric Performance
 Impedance(Ω): 50
 Frequency Range: DC-6GHz
 VSWR: ≤ 1.25
 Insert Loss: (dB) ≤ 0.1 (DC-3GHz)
 Insulation resistance (M Ω) ≥ 5000
 Proof voltage (V) 2500
 Conductor resistance (m Ω)
 outer conductor <0.4
 inner conductor <0.8

II. Mechanical Performance
 Nut torque 5N.m
 (Nut) Whorl pull 500N
 Tensile force (cable-connect) 500N
 Torsion (cable-connect) 5N.m

III. Material and plating:

| Component | Material | Plating |
|-----------------|-----------------|---|
| inner conductor | Brass | Au50 micro inches over nickel 100 over copper |
| outer conductor | Brass | copper tin-zinc 100-150 micro inches |
| tube | Copper | copper tin-zinc 100-150 micro inches |
| nut | Brass | copper tin-zinc 100-150 micro inches |
| gasket | Silicone rubber | |
| insulator | PTFE | |

IV. Environment
 Temp. range -55°C~+155°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
 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 MACHINED SURFACES FINISH N/A RMS MAX. REMOVE ALL BURRS N/A MAX. BREAK MACHINE CORNERS N/A MAX. FILLET R. TOLERANCES ON DECIMALS . XX \pm N/A . XXX \pm N/A ANGLES \pm 1° FRACTIONS \pm N/A | DATE 8/9/11 | |
| USED ON: 0 | DO NOT SCALE DRAWING | CHKD. J. D. B. | TC-600-NMH-X "N" MALE FOR LMR-600 CABLE SOLDER/CRIMP/NO BRAID TRIM |
| | | DATE 8/16/11 | |
| SCALE: N/A | DWG. SIZE A | APPD. J. D. B. | SHEET 1 of 1 |
| | CODE IDENT 68999 | DATE 8/16/11 | SD3190-2628 |

LMR®-600 Flexible Low Loss Communications Coax

Ideal for...

- 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-600 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-600.

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-600 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-600 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-600 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-600 | Outdoor | PE | Black | 54003 | |
| LMR-600-DB | Outdoor/Watertight | PE | Black | 54093 | |
| LMR-600-FR | Indoor/Outdoor Riser | CMR | FRPE | Black | 54032 |
| LMR-600-FR-PVC | Indoor/Outdoor Riser | CMR | FRPVC | Black | 54074 |
| LMR-600-PVC | General Purpose | PVC | Black | 54219 | |
| LMR-600-PVC-W | General Purpose | PVC | White | 54206 | |

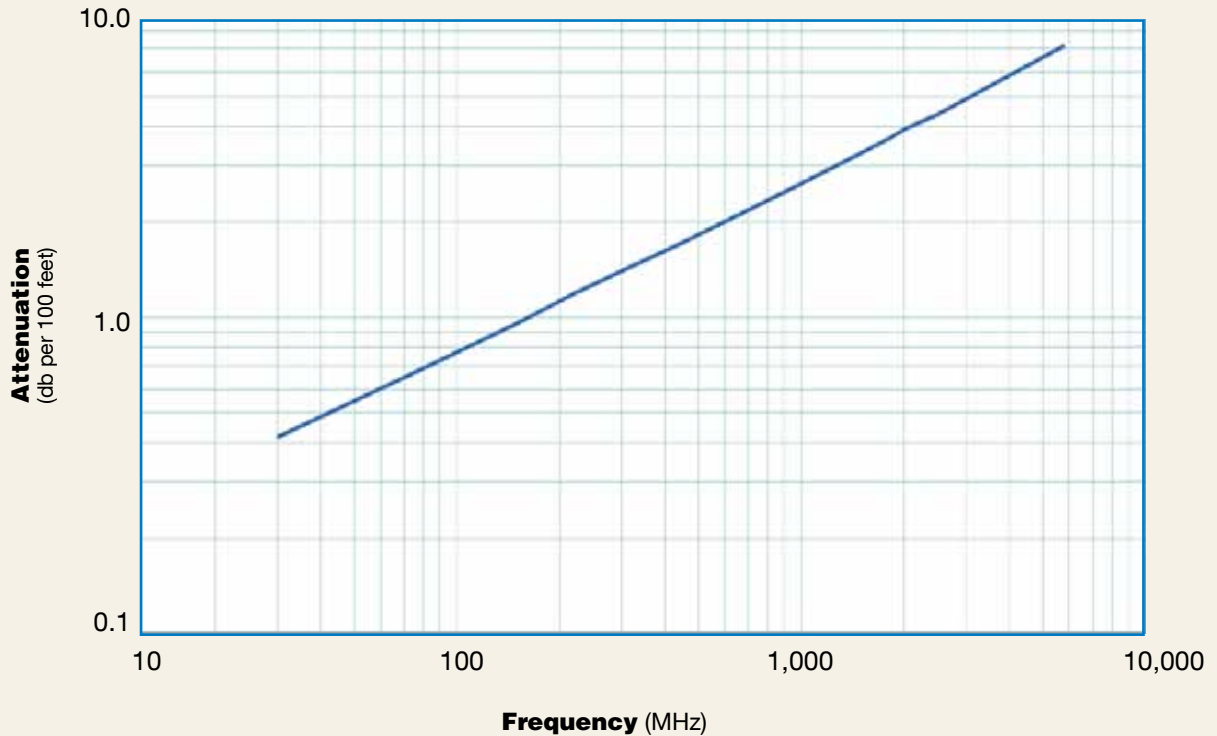
| Construction Specifications | | | |
|-----------------------------|-------------------|-------|---------|
| Description | Material | In. | (mm) |
| Inner Conductor | Solid BCCAI | 0.176 | (4.47) |
| Dielectric | Foam PE | 0.455 | (11.56) |
| Outer Conductor | Aluminum Tape | 0.461 | (11.71) |
| Overall Braid | Tinned Copper | 0.490 | (12.45) |
| Jacket | (see table above) | 0.590 | (14.99) |

| Mechanical Specifications | | | |
|---------------------------|----------------|-------|----------|
| Performance Property | Units | US | (metric) |
| Bend Radius: installation | in. (mm) | 1.50 | (38.1) |
| Bend Radius: repeated | in. (mm) | 6.0 | (152.4) |
| Bending Moment | ft-lb (N-m) | 2.75 | (3.73) |
| Weight | lb/ft (kg/m) | 0.131 | (0.20) |
| Tensile Strength | lb (kg) | 350 | (158.9) |
| Flat Plate Crush | lb/in. (kg/mm) | 60 | (1.07) |

| 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 | % | 87 | |
| Dielectric Constant | NA | 1.32 | |
| Time Delay | nS/ft (nS/m) | 1.17 | (3.83) |
| Impedance | ohms | 50 | |
| Capacitance | pF/ft (pF/m) | 23.4 | (76.6) |
| Inductance | uH/ft (uH/m) | 0.058 | (0.19) |
| Shielding Effectiveness | dB | >90 | |
| DC Resistance | | | |
| Inner Conductor | ohms/1000ft (/km) | 0.53 | (1.7) |
| Outer Conductor | ohms/1000ft (/km) | 1.2 | (3.9) |
| Voltage Withstand | Volts DC | 4000 | |
| Jacket Spark | Volts RMS | 8000 | |
| Peak Power | kW | 40 | |

Attenuation vs. Frequency (typical)



| Frequency (MHz) | 30 | 50 | 150 | 220 | 450 | 900 | 1500 | 1800 | 2000 | 2500 | 5800 |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Attenuation dB/100 ft | 0.4 | 0.5 | 1.0 | 1.2 | 1.7 | 2.5 | 3.3 | 3.7 | 3.9 | 4.4 | 7.3 |
| Attenuation dB/100 m | 1.4 | 1.8 | 3.2 | 3.9 | 5.6 | 8.2 | 10.9 | 12.1 | 12.8 | 14.5 | 23.8 |
| Avg. Power kW | 5.51 | 4.24 | 2.41 | 1.97 | 1.35 | 0.93 | 0.70 | 0.63 | 0.59 | 0.52 | 0.32 |

Calculate Attenuation =
 $(0.075550) \cdot \sqrt{\text{FMHz}} + (0.000260) \cdot \text{FMHz}$ (interactive calculator available at 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

LMR®-600 Flexible Low Loss Communications Coax



Connectors

| Interface | Description | Part Number | Stock Code | VSWR** | Coupling Freq. (GHz) | Nut | Inner Contact Attach | Outer Contact Attach | Finish* Body /Pin | Length in (mm) | Width in (mm) | Weight lb (g) |
|-----------------|------------------|------------------|------------|---------|----------------------|-----------|----------------------|----------------------|-------------------|----------------|---------------|---------------|
| 7/8 EIA | Flange | EZ-600-78EIA | 3190-1373 | <1.25:1 | (2.5) | NA | Spring Finger | Clamp | S/S | 2.3 (58) | 2.60 (66.0) | 0.873 (396.0) |
| 7-16 DIN Female | Straight Jack | TC-600-716FC | 3190-375 | <1.25:1 | (2.5) | NA | Solder | Clamp | S/S | 1.1 (28) | 1.00 (25.4) | 0.249 (112.9) |
| 7-16 DIN Male | Straight Plug | EZ-600-716MH | 3190-503 | <1.25:1 | (2.5) | Hex | Spring Finger | Crimp | S/S | 2.0 (51) | 1.30 (33.0) | 0.254 (115.2) |
| | Straight Plug | TC-600-716MC | 3190-502 | <1.25:1 | (2.5) | Hex | Solder | Clamp | S/S | 2.0 (51) | 1.30 (33.0) | 0.347 (157.4) |
| | Right Angle | TC-600-716M-RA | 3190-395 | <1.35:1 | (2.5) | Hex | Solder | Crimp | S/S | 1.4 (36) | 1.40 (35.6) | 0.354 (160.8) |
| 7/16 Male | Right Angle | EZ-600-716M-RA-X | 3190-2546 | <1.35:1 | (6) | Hex | Spring Finger | Crimp | A/G | 1.6 (40) | 1.38 (35.0) | 0.462 (210.0) |
| | Straight Jack | EZ-600-716F | 3190-2447 | <1.25:1 | (6) | Hex | Spring Finger | Crimp | A/G | 1.8 (45) | 1.32 (33.6) | 0.158 (71.7) |
| HN Male | Straight Plug | TC-600-HNM | 3190-1429 | <1.25:1 | (<1) | Knurl | Solder | Clamp | S/g | 2.3 (59.2) | 0.88 (22.4) | 0.25 (113) |
| LC Male | Straight Plug | TC-600-LCM | 3190-1406 | <1.25:1 | (<1) | Hex | Solder | Clamp | N/S | 3.1 (78.0) | 1.62 (41.1) | 1.20 (544) |
| N Female | Straight Jack | EZ-600-NF | 3190-955 | <1.25:1 | (2.5) | NA | Spring Finger | Crimp | S/G | 2.3 (59) | 0.87 (22.1) | 0.150 (68.0) |
| | Bulkhead Jack | EZ-600-NF-BH | 3190-616 | <1.25:1 | (2.5) | NA | Spring Finger | Crimp | S/G | 2.4 (61) | 0.88 (22.4) | 0.195 (88.5) |
| | Bulkhead Jack | TC-600-NF-BH | 3190-589* | <1.25:1 | (2.5) | NA | Solder | Crimp | S/G | 2.4 (61) | 0.88 (22.4) | 0.195 (88.5) |
| | Bulkhead Jack | TC-600-NFC-BH | 3190-466 | <1.25:1 | (2.5) | NA | Solder | Clamp | S/G | 2.2 (56) | 0.94 (23.9) | 0.214 (97.1) |
| N Male | Straight Plug | EZ-600-NMK | 3190-669 | <1.25:1 | (2.5) | Knurl | Spring Finger | Crimp | S/G | 2.1 (53) | 0.92 (23.4) | 0.164 (74.4) |
| | Straight Plug | EZ-600-NMC-2 | 3190-2641 | <1.25:1 | (6) | Hex/Knurl | Spring Finger | Clamp | A/G | 2.1 (53) | 0.92 (23.4) | 0.202 (91.6) |
| | Straight Plug | TC-600-NMC | 3190-357* | <1.25:1 | (2.5) | Hex | Solder | Clamp | S/G | 2.1 (53) | 0.92 (23.4) | 0.208 (93.4) |
| | Straight Plug | EZ-600-NMH-X | 3190-2627 | <1.25:1 | (8) | Hex/Knurl | Spring Finger | Crimp | A/G | 2.1 (53) | 0.92 (23.4) | 0.164 (74.4) |
| | Straight Plug | TC-600-NMH-X | 3190-2628 | <1.25:1 | (8) | Hex/Knurl | Spring Finger | Crimp | A/G | 2.1 (53) | 0.92 (23.4) | 0.166 (75.3) |
| | Right Angle | EZ-600-NMH-RA-X | 3190-2639 | <1.35:1 | (6) | Hex | Spring Finger | Crimp | A/G | 2.0 (50) | 1.42 (36.0) | 0.224 (101.7) |
| | Right Angle | TC-600-NMH-RA-D | 3190-2427 | <1.35:1 | (6) | Hex | Solder | Crimp | A/G | 1.8 (46.5) | 1.62 (41.2) | 0.185 (84.3) |
| QDS Male | Straight Plug | TC-600-QDSM | 3190-846 | <1.25:1 | (<1) | Knurl | Solder | Clamp | A/G | 2.2 (55.6) | 1.00 (25.4) | 0.25 (113) |
| | Right Angle | TC-600-QDSM-RA | 3190-847 | <1.25:1 | (<1) | Knurl | Solder | Clamp | A/G | 2.4 (61.5) | 1.88 (47.8) | 0.35 (159) |
| TNC Male | Straight Plug | TC-600-TM-X | 3190-2530 | <1.25:1 | (6) | Hex/Knurl | Solder | Crimp | A/G | 2.3 (57.6) | 0.75 (19.0) | 0.100 (45.6) |
| | Straight Plug | EZ-600-TM-X | 3190-2531 | <1.25:1 | (6) | Hex/Knurl | Spring Finger | Crimp | A/G | 2.3 (57.6) | 0.75 (19.0) | 0.100 (45.6) |
| | Reverse Polarity | EZ-600-TM-RP | 3190-796 | <1.25:1 | (2.5) | Knurl | Spring Finger | Crimp | A/G | 2.2 (56) | 0.87 (22.0) | 0.112 (50.8) |
| TNC Female | Reverse Polarity | EZ-600-TF-RP | 3190-797 | <1.25:1 | (2.5) | NA | Spring Finger | Crimp | A/G | 2.3 (58) | 0.87 (22.0) | 0.100 (45.4) |
| UHF Male | Straight Plug | EZ-600-UM | 3190-615 | <1.25:1 | (2.5) | Knurl | Spring Finger | Crimp | S/G | 1.7 (43) | 0.88 (22.4) | 0.164 (74.4) |
| | STRAIGHT PLUG | TC-600-UMC | 3190-213 | <1.25:1 | (2.5) | KNURL | SOLDER | CLAMP | S/G | 1.7 (43) | 0.88 (22.4) | 0.198 (89.8) |

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



Install Tools

| Type | Part Number | Stock Code | Description |
|--------------------|-------------|------------|---|
| Crimp Tool | HX-4 | 3190-200 | Crimp Handle |
| Crimp Dies | Y1720 | 3190-203 | .610" Hex Dies |
| Crimp Rings | CR-600 | 3190-831 | Crimp Rings for TC/EZ-600 connectors (pkg of 10) |
| Strip Tool | CST-600 | 3192-052 | Combination prep tool for LMR-600 crimp and clamp style connectors |
| Replacement Blades | RB-456 | 3190-421 | Replacement Blades for Strip Tools |
| Deburr Tool | DBT-U | 3192-001 | Removes center conductor rough edges |
| Midspan Strip Tool | GST-600A | 3190-1051 | For ground strap attachment |
| Wrench | WR600 | 3190-1435 | 15/16" Box Wrench (2 required for EZ-600-NMC-2) |
| Cutting Tool | CCT-01 | 3190-1544 | Cable end flush cut tool |
| Replacement Blade | RB-01 | 3190-1609 | Replacement blade for cutting tool |
| Replacement Blade | RB-CST | 3192-086 | Replacement blade kit for all CST strip tools |
| Tool Kit | TK-600EZ | 3190-1602 | Tool kit for LMR crimp/clamp connectors (includes CCT-01, CST-600, HX-4, Y1720, Tool Pouch) |



Hardware Accessories

| Type | Part Number | Stock Code | Description |
|----------------------------------|-------------|------------|--|
| Ground Kit | GK-S600TT | GK-S600TT | Standard Grounding Kit (each) |
| Hoisting Grip | HG-600T | HG-600T | Split/Laced Type (each) |
| Cold Shrink | CS-A600T | CS-A600T | Cable to Antenna Junction (each) |
| Cold Shrink | CS-60120T | CS-60120T | LMR-600 to -1200 Junction (each) |
| Cold Shrink | CS-60170T | CS-60170T | LMR-600 to -1700 Junction (each) |
| Hanger Blocks | CB-600T | CB-600T | Dual Cable Support Block (kit of 10) |
| Standard Entry | | | |
| Port Cushion | SC-600T-3 | SC-600T-3 | Three cables (each) |
| Snap-In Hangers | SH-U600T | SH-U600T | Snap-In Hangers (Kit of 10) |
| Hanger Block Supporting Hardware | | | Complete Range of Supporting Hardware & Adapters Available |