



N Female Bulkhead Connector Crimp/Solder Attachment For PE-C400, 0.400 inch, .640 inch DD Hole

TECHNICAL DATA SHEET

PE44530

N Female Bulkhead Connector Crimp/Solder Attachment For PE-C400, 0.400 inch, .640 inch DD Hole

Configuration

| | |
|--|--------------------|
| Connector | N Female |
| Connector Specification | MIL-STD-348A |
| Connector Interface Type | PE-C400,0.400 inch |
| Cable Attachment Method (Shield/Contact) | Crimp/Solder |
| Body Style | Straight |
| Mount Method | Bulkhead |

Electrical Specifications

| | |
|----------------------------------|----------|
| Frequency Range, GHz | DC to 11 |
| Impedance, Ohms | 50 |
| Maximum Operating Voltage, Volts | 1,500 |

Frequency 1

| | |
|----------------|---------|
| Frequency, GHz | DC to 6 |
| VSWR | 1.3:1 |

Mechanical Specifications

Temperature

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

Size

| | |
|---------------------|---------------|
| Length, in [mm] | 1.72 [43.69] |
| Width/Dia., in [mm] | 0.87 [22] |
| Weight, lbs [g] | 0.096 [43.54] |

Connector

| | |
|------------------------------|------------------|
| Type | N Female |
| Contact Material and Plating | Brass, Gold |
| Body Material and Plating | Brass, Tri-Metal |
| Dielectric Type | Teflon |

Compliance Certifications (visit www.Pasternack.com for current document)

| | |
|----------------|-----|
| RoHS Compliant | Yes |
|----------------|-----|

Plotted and Other Data

Notes: Values at 25 °C, sea level

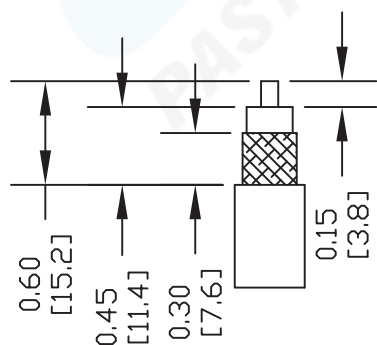
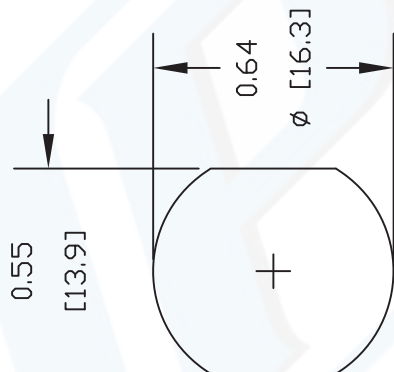
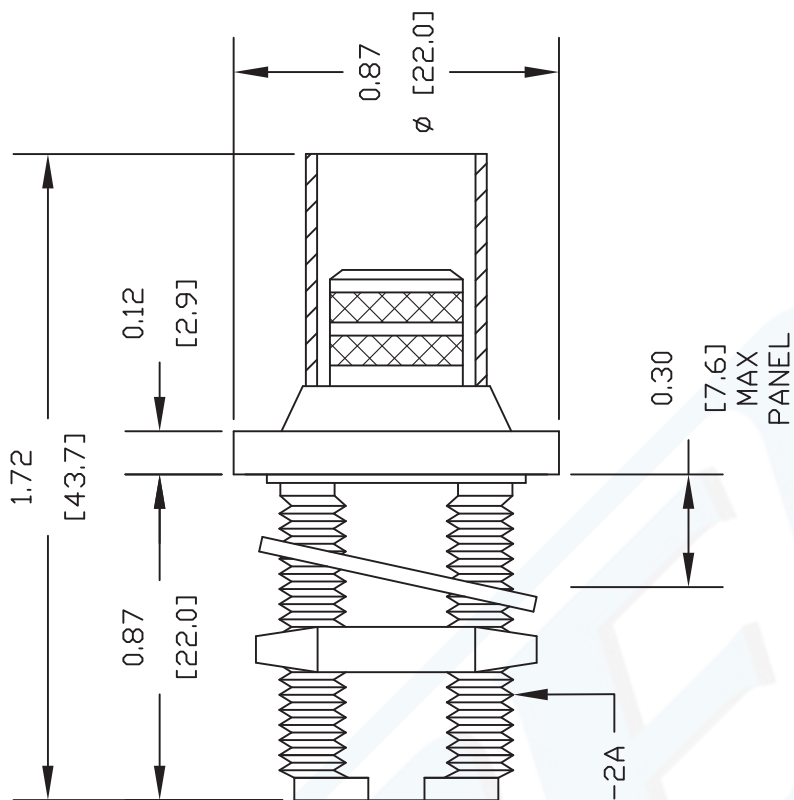
URL: <http://www.pasternack.com/n-female-standard-pe-c400-0.400-connector-pe44530-p.aspx>

N Female Bulkhead Connector Crimp/Solder Attachment For PE-C400, 0.400 inch, .640 inch DD Hole from Pasternack Enterprises has same day shipment for domestic and International orders. We maintain 99% availability of the industry's broadest selection of RF, microwave and fiber optic products.

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.

PE44530 CAD Drawing

N Female Bulkhead Connector Crimp/Solder Attachment
For PE-C400, 0.400 inch, .640 inch DD Hole



CRIMP SIZES REQUIRED

CONTACT: .118" HEX CRIMP TOOL
FERRULE: .429" HEX CRIMP TOOL

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.

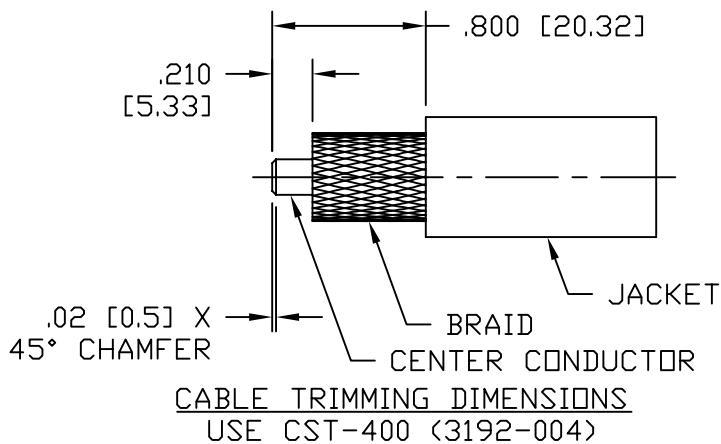
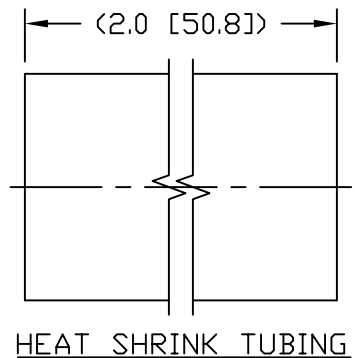
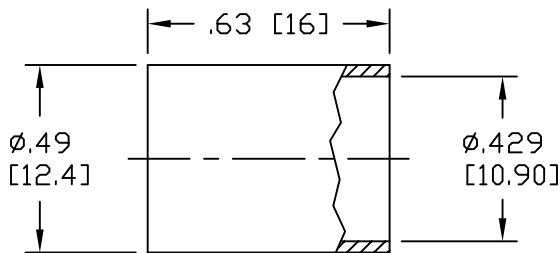
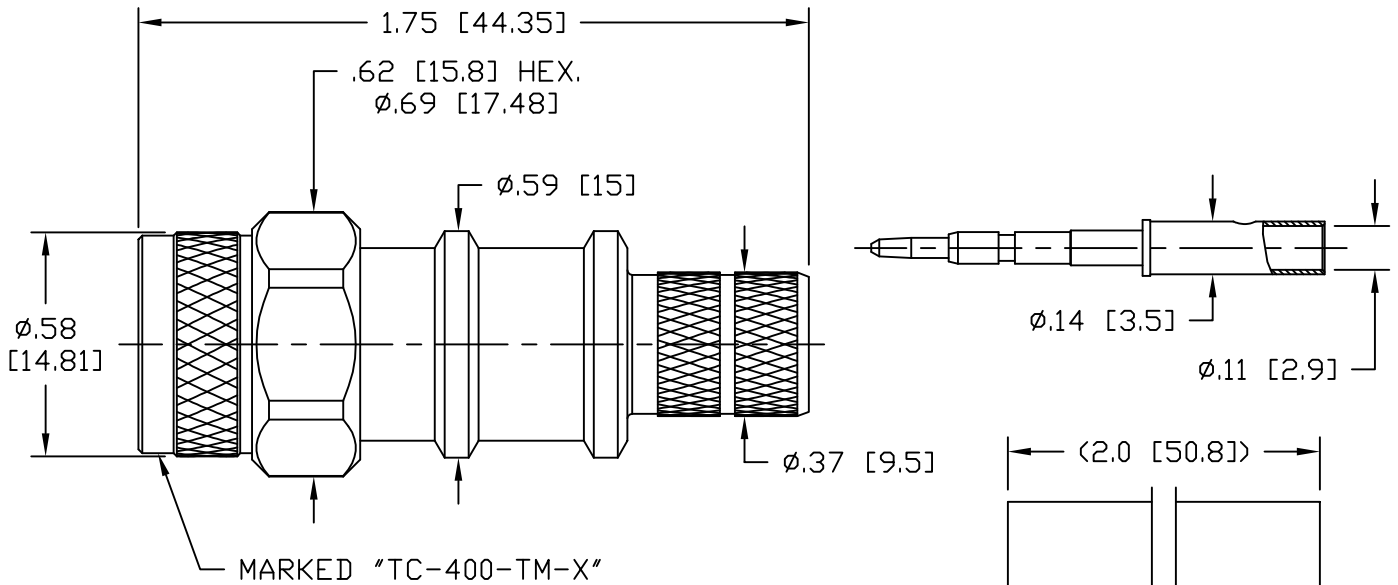
DWG TITLE
PE44530

PE PASTERNAK®
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| | | | | | |
|--------|----------------|-----------------|-----------|--------|------|
| REV. B | FSCM NO. 53919 | CAD FILE 081711 | SCALE N/A | SIZE A | 2231 |
|--------|----------------|-----------------|-----------|--------|------|

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 | K.A.M. | 2/24/10 | J.D.B. | 3/2/10 |
| B | CHANGED PER CDC #34322 | D.J.H. | 10/12/11 | J.D.B. | 10/27/11 |
| C | CHANGED PER CDC #36607 | D.J.H. | 11/16/12 | J.D.B. | 11/19/12 |



- NOTES:
- MATERIALS AND FINISHES:
 BODY: BRASS, ALBALDY PLATING
 COUPLING NUT: BRASS, ALBALDY PLATING
 CENTER CONTACT: BRASS, GOLD PLATING
 FERRULE: COPPER, ALBALDY PLATING
 - ELECTRICAL:
 IMPEDANCE: 50 OHMS NOMINAL
 FREQUENCY: DC-6 GHz
 VSWR: 1.2 DC-6 GHz
 DIELECTRIC WITHSTANDING VOLTAGE: 1,000 VOLTS RMS
 - MECHANICAL:
 DURABILITY: 500 CYCLES MIN.
 TEMPERATURE RANGE: -65°C TO +165°C
 - CABLING INSTRUCTIONS:
 A. SLIDE FERRULE OVER CABLE JACKET
 B. TRIM CABLE TO DIMENSIONS SHOWN. MAKE SURE CUTS ARE SHARP AND SQUARE. DO NOT NICK BRAID OR CENTER CONDUCTOR.
 C. TIN CENTER CONDUCTOR AND PLACE CONTACT ON CENTER CONDUCTOR UNTIL BOTTOMED AGAINST DIELECTRIC. SOLDER CONTACT TO CENTER CONDUCTOR.
 D. FLAIR BRAID SLIGHTLY AND INSERT CABLE INTO UNTIL BOTTOMED. SLIDE THE FERRULE UP THE CABLE AND OVER THE BRAID UNTIL BOTTOMED ON BODY. CRIMP FERRULE USING A .429 HEX.

| | | | |
|------------|--|----------------|---|
| MATERIAL: | UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES MACHINED SURFACES FINISH 32 RMS MAX. REMOVE ALL BURRS .005 MAX. BREAK MACHINE CORNERS .005 MAX. FILLET R. TOLERANCES ON DECIMALS .XX ± .01 .XXX ± .005 ANGLES ± 1° FRACTIONS ± 1/64 | DFTM: K. A. M. | TIMES MICROWAVE SYSTEMS |
| | | DATE: 2/24/10 | |
| USED ON: D | DO NOT SCALE DRAWING | CHKD: J. D. B. | TC-400-TM-X PLUG, TNC FOR LMR-400 |
| | | DATE: 3/2/10 | |
| SCALE: ~ | DWG. SIZE: A | APPD: J. D. B. | SHEET 1 of 1 SD3190-2532 REV C |
| | CODE IDENT: 68999 | DATE: 3/2/10 | |

LMR-[®]400-UF UltraFlex 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 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-400-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-400-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-400-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-400-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-400-UF cable types are available as pre-terminated cable assemblies. Refer to the section on FlexTech for further details.

| Part Description | | | | |
|------------------|----------------|--------|-------|------------|
| Part Number | Application | Jacket | Color | Stock Code |
| LMR-400-UF | Indoor/Outdoor | TPE | Black | 54040 |

| Construction Specifications | | | | |
|-----------------------------|-------------------------------|-------|---------|--|
| Description | Material | In. | (mm) | |
| Inner Conductor | Stranded BC | 0.108 | (2.74) | |
| Dielectric | Foam Polyethylene | 0.285 | (7.24) | |
| Outer Conductor | Aluminum Tape | 0.291 | (7.39) | |
| Overall Braid | Tinned Copper | 0.320 | (8.13) | |
| Jacket | Black Thermoplastic Elastomer | 0.405 | (10.29) | |

LMR®-400-UF UltraFlex 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 | 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) |
| 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) |
| 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) |
| 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-NM | 3190-188 | <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) | 0.75 (19.1) | 0.121 (54.9) |
| | Straight Plug | TC-400-NMH-D | 3190-552 | <1.25:1 (10) | Hex/Knurl | Solder | Crimp | A/G | 1.5 (38) | 0.89 (22.6) | 0.113 (51.3) |
| | Right Angle | TC-400-NMH-RA | 3190-422* | <1.35:1 (6) | Hex | Solder | Crimp | S/G | 1.8 (46) | 1.25 (31.8) | 0.130 (59.0) |
| | 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) |
| 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 Male | Straight Plug | TC-400-TM | 3190-260 | <1.25:1 (2.5) | Knurl | Solder | Crimp | N/S | 1.7 (43) | 0.59 (15.0) | 0.074 (33.6) |
| | 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) |

* 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

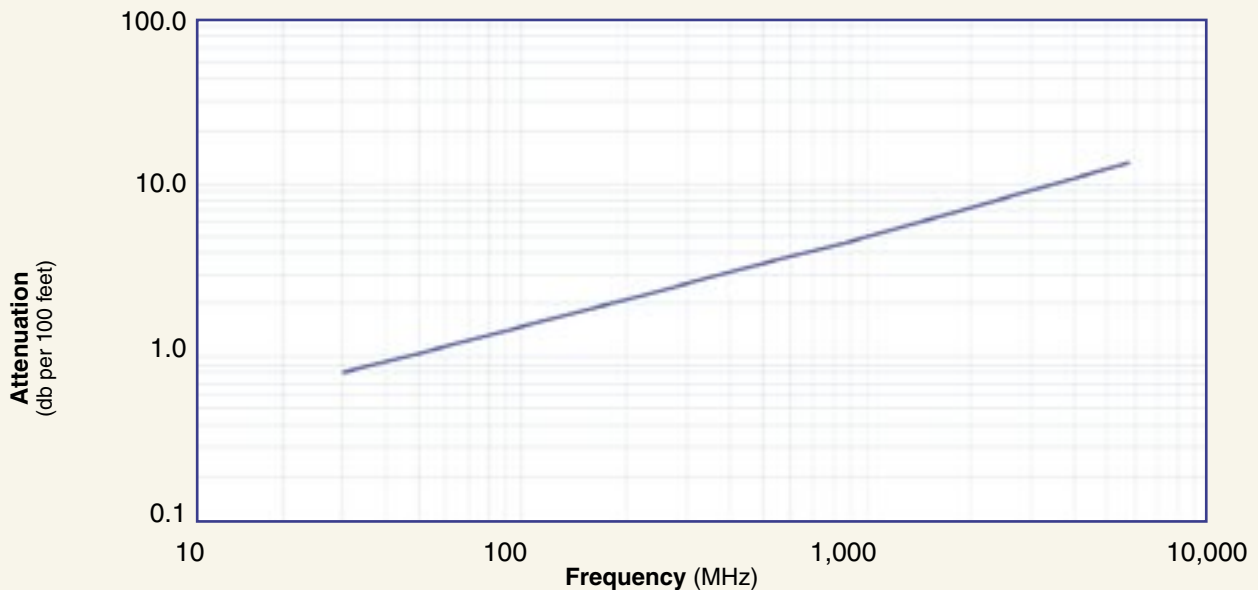
MICROWAVE

| Mechanical Specifications | | | |
|----------------------------------|----------------|-------|----------|
| Performance Property | Units | US | (metric) |
| Bend Radius: installation | in. (mm) | 1.0 | (25.4) |
| Bend Radius: repeated | in. (mm) | 4.0 | (101.6) |
| Bending Moment | ft-lb (N-m) | 0.375 | (0.51) |
| Weight | lb/ft (kg/m) | .088 | (0.131) |
| Tensile Strength | lb (kg) | 160 | (72.6) |
| Flat Plate Crush | lb/in. (kg/mm) | 20 | (0.36) |

| 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 |

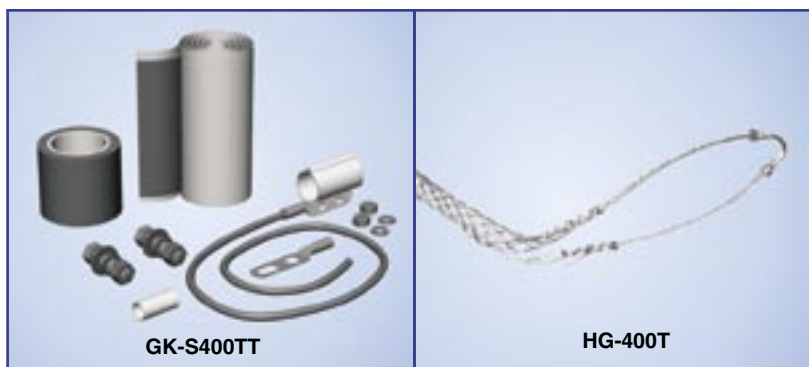
| Electrical Specifications | | | |
|----------------------------------|-------------------|-------|----------|
| Performance Property | Units | US | (metric) |
| Cutoff Frequency | GHz | | 16.2 |
| Velocity of Propagation | % | | 85 |
| Dielectric Constant | NA | | 1.38 |
| Time Delay | nS/ft (nS/m) | 1.20 | (3.92) |
| Impedance | ohms | | 50 |
| Capacitance | pF/ft (pF/m) | 23.9 | (78.40) |
| Inductance | uH/ft (uH/m) | 0.060 | (0.21) |
| Shielding Effectiveness | dB | | >90 |
| DC Resistance | | | |
| Inner Conductor | ohms/1000ft (/km) | 1.07 | (3.51) |
| Outer Conductor | ohms/1000ft (/km) | 1.65 | (5.4) |
| Voltage Withstand | Volts DC | | 2500 |
| Jacket Spark | Volts RMS | | 8000 |
| Peak Power | kW | | 16 |

Attenuation vs. Frequency (typical)



| Frequency (MHz) | 30 | 50 | 150 | 220 | 450 | 900 | 1500 | 1800 | 2000 | 2500 | 5800 |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|
| Attenuation dB/100 ft | 0.8 | 1.1 | 1.8 | 2.2 | 3.3 | 4.7 | 6.2 | 6.8 | 7.2 | 8.1 | 13.0 |
| Attenuation dB/100 m | 2.7 | 3.5 | 6.1 | 7.4 | 10.7 | 15.4 | 20.2 | 22.3 | 23.6 | 26.6 | 42.6 |
| Avg. Power kW | 2.77 | 2.14 | 1.22 | 1.00 | 0.69 | 0.48 | 0.36 | 0.33 | 0.31 | 0.28 | 0.17 |

Calculate Attenuation = $(0.146748) \cdot \sqrt{\text{FMHz}} + (0.000312) \cdot \text{FMHz}$ (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



Hardware Accessories

| Type | Part Number | Stock Code | Description |
|---------------|-------------|------------|-------------------------------|
| Ground Kit | GK-S400TT | GK-S400TT | Standard Grounding Kit (each) |
| Hoisting Grip | HG-400T | HG-400T | Laced Type (each) |



Install Tools

| Type | Part Number | Stock Code | Description |
|-------------------|-------------|------------|--|
| Crimp Tool | HX-4 | 3190-200 | Crimp Handle |
| Crimp Dies | Y1719 | 3190-202 | .429" Hex Dies |
| Crimp Tool | CT-400/300 | 3190-666 | Crimp tool for LMR 400 connectors |
| Crimp Rings | CR-400 | 3190-830 | Crimp rings for TC/EZ-400 connectors (package of 10) |
| Cutting Tool | CCT-01 | 3190-1544 | Cable end flush cut tool |
| Replacement Blade | RB-01 | 3190-1609 | Replacement blade for cutting tool |