



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

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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](#)

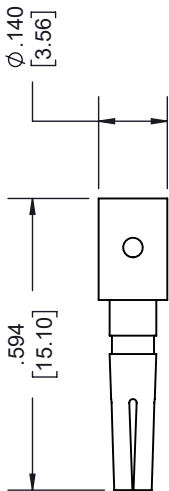
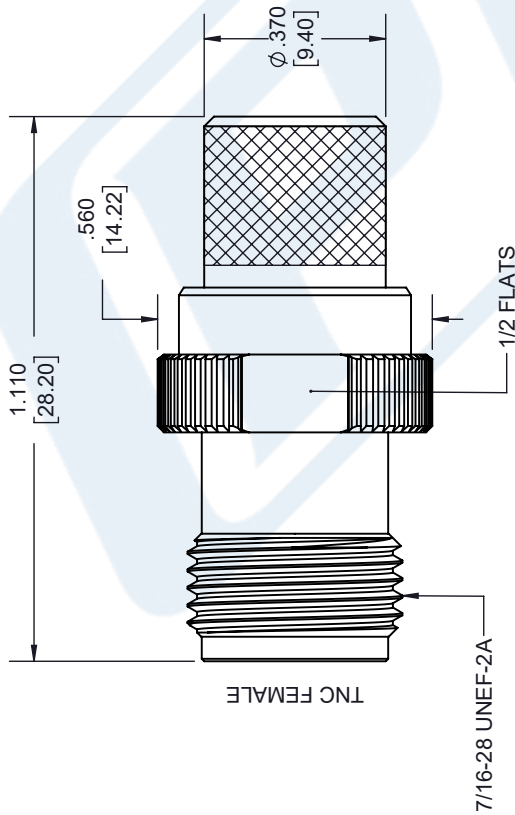
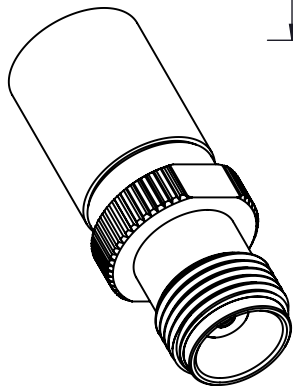
URL: <https://www.pasternack.com/tnc-female-lmr-400-lmr-400-db-connector-pe45639-p.aspx>

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.

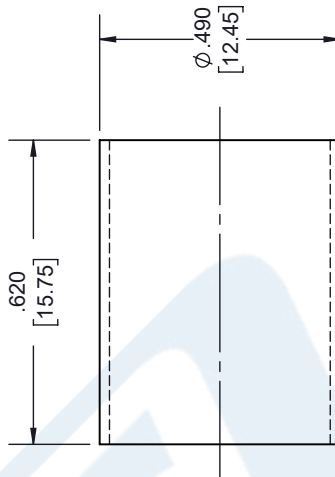
PE45639 CAD Drawing

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

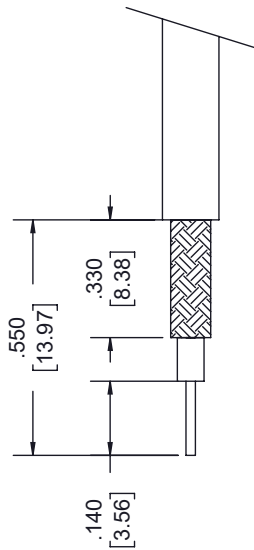
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	9/11/2020	S. ELLIS



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.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

PE PASTERNAK
 an INFINITE® brand

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ITEM NO. PE45639

DRAWN BY K.DANG

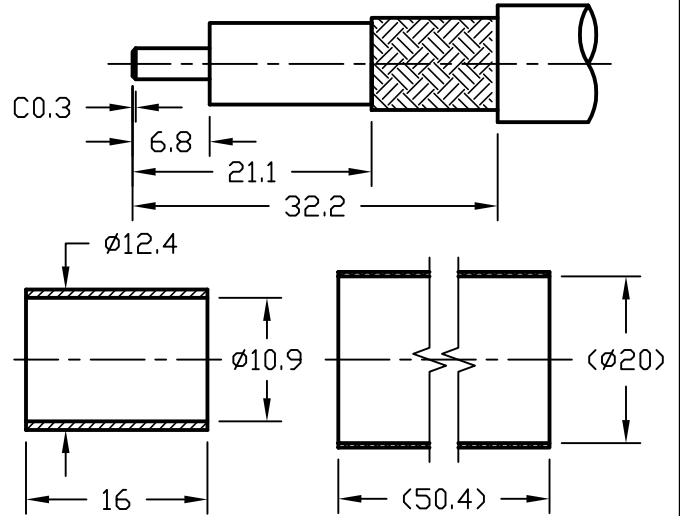
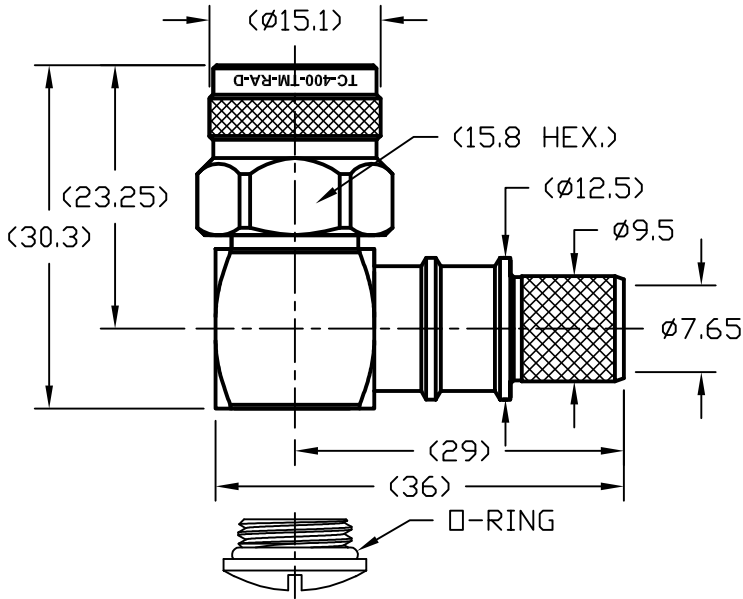
SIZE A

CAGE CODE 53919

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SYM	REVISION DESCRIPTION	DFTM	DATE	APPD	DATE
A	RELEASED FOR PRODUCTION	K.A.M.	6/3/11	J.D.B.	6/3/11
B	CHANGED PER CDC #34607/36250	D.J.H.	9/24/12	J.D.B.	9/25/12

RECOMMENDED CABLE STRIPPING DIM'S.



NOTES:

- CONTACT PIN IS SOLDERED.
- FERRULE IS CRIMPED TO .429" HEX.

ALL PARTS SATISFIED ROHS REQUIREMENTS

MATERIALS AND PLATING		UNIT: MICRO-INCHES
BODY/SHELL	BRASS C3604	ALBALOY 80 MIN/COPPER
CONTACT PIN	BRASS C3604	GOLD 50 MIN/NICKEL/COPPER
INSULATOR	TEFLON MIL-P-19468	N/A
GASKET	SILICONE	RED
FERRULE	BRASS	ALBALOY 80 MIN/COPPER
SHRINK TUBING	PO	BLACK

ELECTRICAL CHARACTERISTICS	
Impedance	50 Ω
Frequency range	0~11GHz
Voltage rating	500V(rms)
Dielectric withstanding voltage	1000V
Contact resistance	Center contact ≤ 3 m Ω
	Outer contact ≤ 2 m Ω
Insulation resistance	≥ 5000 M Ω
Insertion loss	According to the cable
RF-leakage	N/A
VSWR	≤ 1.35 MAX@0-6GHz

MECHANICAL CHARACTERISTICS	
Force to engage and disengage	N/A
Center contact retention force	6 lbs Min
Coupling torque	15 in-lbs Min
Coupling nut retention force	60 lbs Min
Durability	≥ 500 cycles

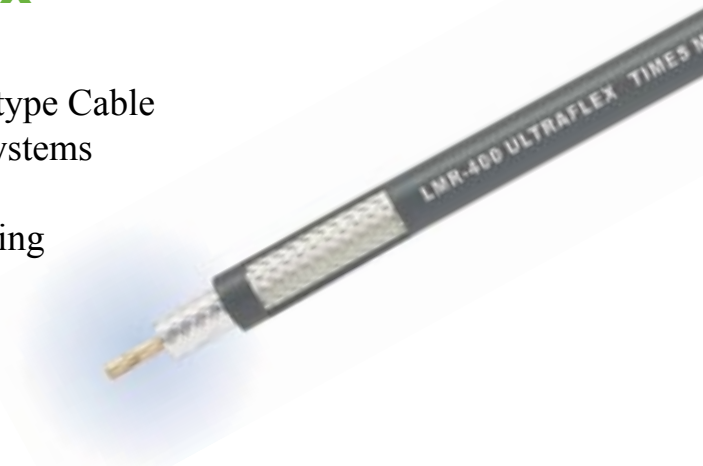
ENVIRONMENTAL CHARACTERISTICS	
Temperature range	-55°C- +125°C
Thermal Shock	MIL-STD-202, Method 107, Cond B
Vibration	MIL-STD-202, Method 204, Cond B
Shock	MIL-STD-202, Method 213, Cond I
Climatic Class	IEC 60068 55/155/56

MATERIAL: UNLESS OTHERWISE SPECIFIED	DFTM: K. A. M.	TIMES MICROWAVE SYSTEMS
	DATE: 6/3/11	
USED ON: 0-4	ALL DIMENSIONS ARE IN mm MACHINED SURFACES FINISH 1.6 RMS MAX. REMOVE ALL BURRS 0.15X45° MAX. BREAK MACHINE CORNERS 0.15X45°D MAX. FILLET R. TOLERANCES ON DECIMALS .X ± 0.3 .XX ± 0.2 ANGLES $\pm 1^\circ$ FRACTIONS \pm N/A	CHKD: J. D. B.
	DATE: 6/3/11	
SCALE: N/A	DWG. SIZE: A	APPD: J. D. B.
DO NOT SCALE DRAWING	CODE IDENT: 68999	DATE: 6/3/11
		SHEET: 1 of 1
		SD3190-2671
		REV: B

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

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)

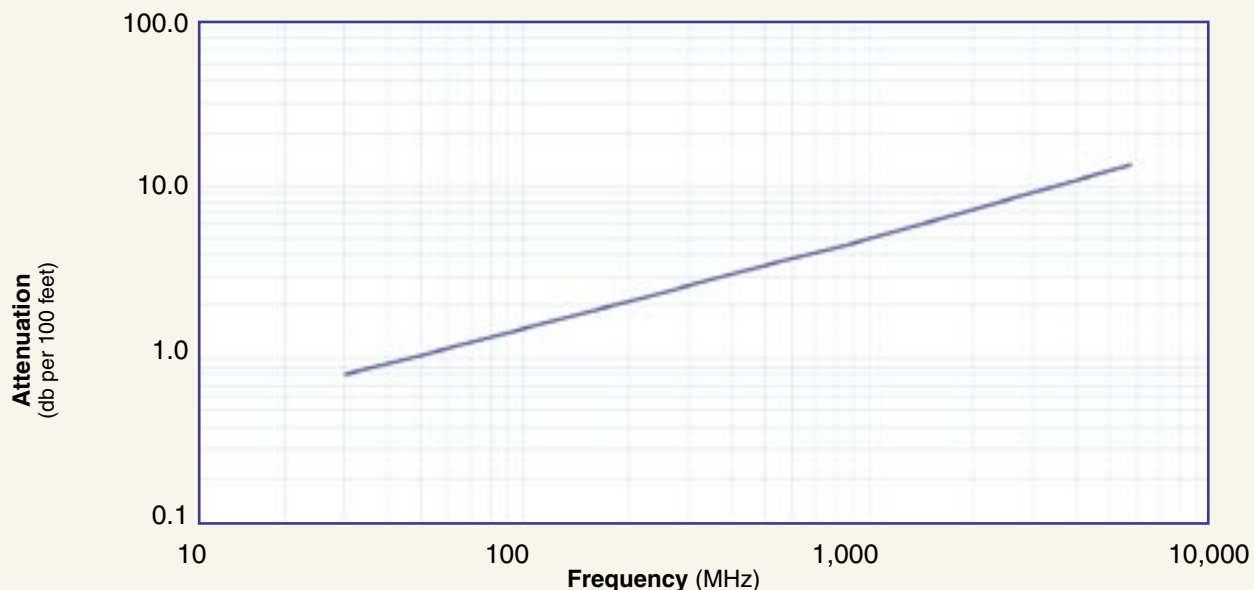
Environmental Specifications

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