

## RP TNC Male Connector Crimp/Solder Attachment for .400 inch, LMR-400, LMR-400-DB, LMR-400-UF Cable

RP TNC male connector with crimp/solder attachment for .400 inch, LMR-400, LMR-400-DB and LMR-400-UF, part number FMCN1605, from Fairview Microwave is in-stock and ships same day. Our reverse polarity male configuration uses a male connector body with a female inner contact receptacle. This TNC male connector operates up to a maximum frequency of 11 GHz.

Fairview's RP TNC male connector FMCN1605 datasheet specifications and outline drawing are shown in this PDF below. Our extensive offering of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. From providing an I/O for a board design to creating a custom cable assembly configuration, Fairview Microwave has a connector solution to meet your needs. Fairview Microwave also has the expertise to build your custom cable assemblies for you and ship them same-day.

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		11	GHz

### Mechanical Specifications

Size	
Length	1.75 in [44.45 mm]
Width/Dia.	0.59 in [14.99 mm]
Weight	0.058 lbs [26.31 g]

### Material Specifications

Description	Material	Plating
Contact	Phosphor Bronze	Gold
Insulation	PTFE	
Body	Brass	Nickel
Coupling Nut	Brass	Nickel

### Environmental Specifications

Temperature	
Operating Range	-65 to +165 deg C

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

### Plotted and Other Data

Notes:



### Configuration:

- TNC Male Reverse Polarity Connector
- 50 Ohms
- Straight Body Geometry
- .400 inch, LMR-400, LMR-400-DB, LMR-400-UF Interface Type
- Crimp/Solder Attachment

### Features:

- Operating Frequency of 11 GHz Max.
- Reverse Polarity
- Gold Plated Phosphor Bronze Contact

### Applications:

- General Purpose Test
- Custom Cable Assemblies

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RP TNC Male Connector Crimp/Solder Attachment for .400 inch, LMR-400, LMR-400-DB, LMR-400-UF Cable from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

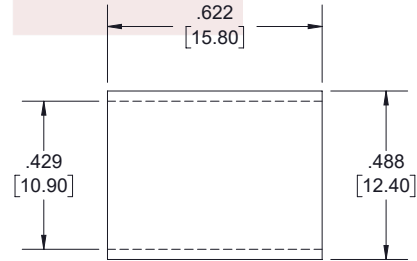
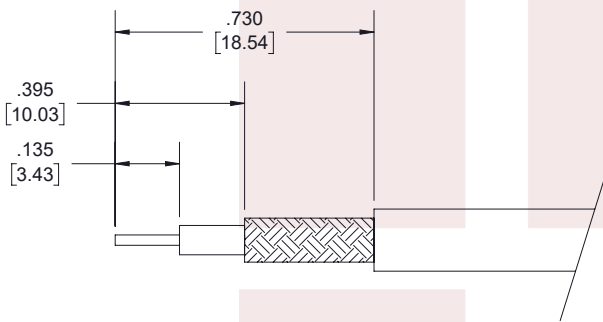
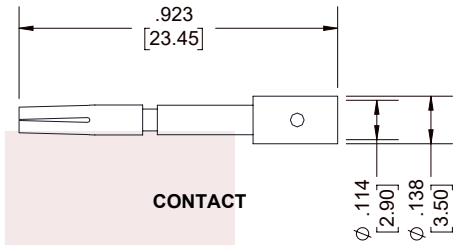
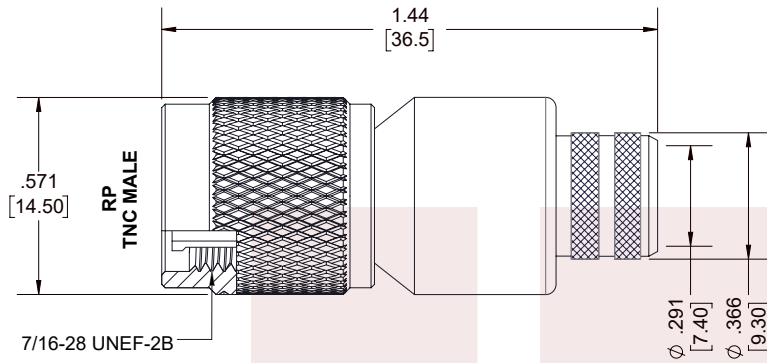
For additional information on this product, please click the following link: [RP TNC Male Connector Crimp/Solder Attachment for .400 inch, LMR-400, LMR-400-DB, LMR-400-UF Cable FMCN1605](#)

URL: <https://www.fairviewmicrowave.com/tnc-male-reverse-polarity-.400-lmr-400-lmr-400-db-lmr-400-uf-connector-fmcn1605-p.aspx>

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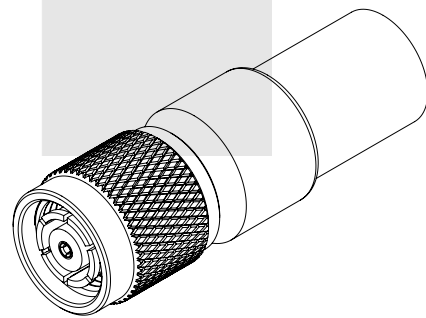
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	3/10/2021	S.ELLIS



**STRIPPING DIMENSIONS**

**NOTES:**

- CABLE ATTACHMENT:
  - OUTER: CRIMP.
  - INNER: SOLDER/CRIMP.
- CRIMP SIZE REQUIRED:
  - FERRULE: .429 [10.90] HEX. CRIMP TOOL.
  - CONTACT: .118 [3.00] HEX. CRIMP TOOL.



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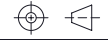
TITLE  
RP TNC Male Connector Crimp/Solder Attachment for .400 inch, LMR-400, LMR-400-DB, LMR-400-UF Cable

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

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

.X = ±.2 [5.08]	FRACTIONS	L ≤ 12 [305] = +1 [25] / -0
.XX = ±.02 [.51]	± 1/32	12 [305] < L ≤ 60 [1524] = +2 [51] / -0
.XXX = ±.005 [.13]	ANGLES ± 1°	60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
		120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
		300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY K.DANG	ITEM NO. FMCN1605	REV A
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T-Rev.D

N Male Low PIM Connector Clamp/Solder Attachment for TCOM-400, TCOM-400-FR, LMR-400, LMR-400-DB, LMR-400-FR, LMR-400-UF



**TCP-400-NMC-LP**

**Configuration**

- N Male Connector
- IEC-61169-16
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: TCOM-400, TCOM-400-FR, LMR-400, LMR-400-DB, LMR-400-FR, LMR-400-UF, LMR-LW400
- Low PIM Design

**Features**

- Operating Frequency of 6 GHz Max.
- Good VSWR of 1.3:1
- PIM levels better than -160 dBc
- Silver Plated Brass Contact
- 200 µin minimum contact plating

**Applications**

- General Purpose Test
- Wireless Communications
- Custom Cable Assemblies
- Low PIM Applications

**Description**

Type N Male Low PIM Connector Clamp/Solder Attachment for TCOM-400, TCOM-400-FR, LMR-400, LMR-400-DB, LMR-400-FR, LMR-400-UF and LMR-LW400 Cable, part number TCP-400-NMC-LP, from Fairview Microwave is in-stock and ships same day. This type N male connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.3:1. The type N male connector also has low passive intermodulation (PIM) of -160 dBc.

Fairview's type N male connector TCP-400-NMC-LP datasheet specifications and outline drawing are shown in this PDF below. Our extensive offering of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. From providing an I/O for a board design to creating a custom cable assembly configuration, Fairview Microwave has a connector solution to meet your needs. Fairview Microwave also has the expertise to build your custom cable assemblies for you and ship them same-day.

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.3:1	
Insertion Loss			0.245	dB
Passive Intermodulation			-160	dBc
Impedance		50		Ohms

**Mechanical Specifications**

**Size**

- Length 1.703 in [43.26 mm]
- Width 0.748 in [19 mm]
- Height 0.748 in [19 mm]
- Weight 0.1 lbs [45.36 g]
- Mating Cycles 500 Cycles
- Mating Torque 44.25 in-lbs [[5.00 Nm]]

N Male Low PIM Connector Clamp/Solder Attachment for TCOM-400, TCOM-400-FR, LMR-400, LMR-400-DB, LMR-400-FR, LMR-400-UF



## TCP-400-NMC-LP

### Material Specifications

Description	Material	Plating
Contact	Brass	Silver 200 µin minimum
Insulation	PTFE	
Body	Brass	Tri-Metal 80 µin minimum
Retaining Ring	Brass	Silver 200 µin minimum
Gasket	Silicone	
Crimp Sleeve	Brass	Tri-Metal

### Environmental Specifications

**Temperature**

Operating Range

-40 to +125 deg C

Shock

MIL-STD-202G, Meth.213, Con.G

Vibration

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

Thermal Shock

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

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

### Plotted and Other Data

Notes:

N Male Low PIM Connector Clamp/Solder Attachment for TCOM-400, TCOM-400-FR, LMR-400, LMR-400-DB, LMR-400-FR, LMR-400-UF



**TCP-400-NMC-LP**

**Assembly Instruction**

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SYM/REVISION DESCRIPTION	DFM	DATE	APPO	APPO
A RELEASED FOR PRODUCTION	Josken	2018/08/04	TZ	2018/08/04
A1 Change the cable wire diameter from 8.5mm to 10mm	Patck	2018/12/13	Josken	2018/12/13
B Add thread on contact pin	Monica	2018/11/13	Tomz	2018/11/13
C ECN:201804201	Monica	2020/03/24	Tomz	2020/03/24

**Notes:**  
1. Centre pin crimp size Hex. 3.3x2.70mm(0.13"x0.11"). Contact pin retention force ≥10 lbs

**I. MATERIALS & FINISHES**

Components	Materials	Finishes	Thk. (μ")
Body	Brass	Albaloy	80
Center Cont.	Brass	Silver	200
Insulator	PTFE	-	-
Gasket	Silicone	Red	-
Clamp 1	Brass	Silver	200
Clamp 2	Phosphor Bronze	Albaloy	80
Ring	Brass	Silver	200
Barrel/Ferrule	Brass	Albaloy	80

**II. ELECTRICAL PROPERTIES**

Impedance (Ω):	50
Frequency Range (GHz):	DC to 6 GHz
Working Voltage (V):	1000
Insulation Resistance (MΩ):	≥5000
VSWR:	≤1.3
Insertion Loss(dB, f/GHz):	-0.1x √f
Im3 (2x43 dBm)	≤160dBc(2x43dB)

**III. ENVIRONMENT PROPERTIES**

Temperature Range:	-40°C→+125°C
Thermal Shock:	MIL-STD 202G, Meth.107, Cond.B
Vibration:	MIL-STD 202G, Meth.204, Cond.B
Shock:	MIL-STD 202G, Meth.213, Cond.G
Climatic Class:	IEC 60068 55/155/21
RoHS:	Compliant

**IV. MECHANICAL PROPERTIES**

Center Cont.:	Cramp/Solder
Outer Cont.:	Clamp
Coupling Nut Torque (N.m):	3
Clamp-Connector Retention Force (N):	400
Durability (cycles):	500

**Assembly instruction**

Recommended cable stripping dimensions connector adds; 17.2mm

Compatible with Standard: IEC 61169-16

MATL:	UNLESS OTHERWISE SPECIFIED	DFM:	Josken
DATE	2018/12/13	DATE	2018/12/13
CHKD	KG	DATE	2018/12/13
USED ORC ID	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 ±0.15 ANGLES 12° FRACTIONS ±N/A	APPO	TZ
DATE	2018/12/13	DATE	2018/12/13
TIME	1:04	TIME	3:19
CODE	68999	CODE	68999
DATE	2018/12/13	DATE	2018/12/13
TIME	1:04	TIME	3:19
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DATE	2018/12/13	DATE	2018/12/13
TIME	1:04	TIME	3:19
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N Male Low PIM Connector Clamp/Solder Attachment for TCOM-400, TCOM-400-FR, LMR-400, LMR-400-DB, LMR-400-FR, LMR-400-UF from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [N Male Low PIM Connector Clamp/Solder Attachment for TCOM-400, TCOM-400-FR, LMR-400, LMR-400-DB, LMR-400-FR, LMR-400-UF TCP-400-NMC-LP](https://www.fairviewmicrowave.com/n-male-tcom-400-tcom-400-fr-lmr-400-lmr-400-db-lmr-400-fr-lmr-400-uf-lmr-400-uf-lmr-400-uf-tcp-400-nmc-lp-p.aspx)

URL: <https://www.fairviewmicrowave.com/n-male-tcom-400-tcom-400-fr-lmr-400-lmr-400-db-lmr-400-fr-lmr-400-uf-lmr-400-uf-lmr-400-uf-tcp-400-nmc-lp-p.aspx>

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## LMR-<sup>®</sup>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<sup>®</sup> - 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**	Coupling Freq. (GHz)	Nut	Inner Contact Attach	Outer Contact Attach	Finish* /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

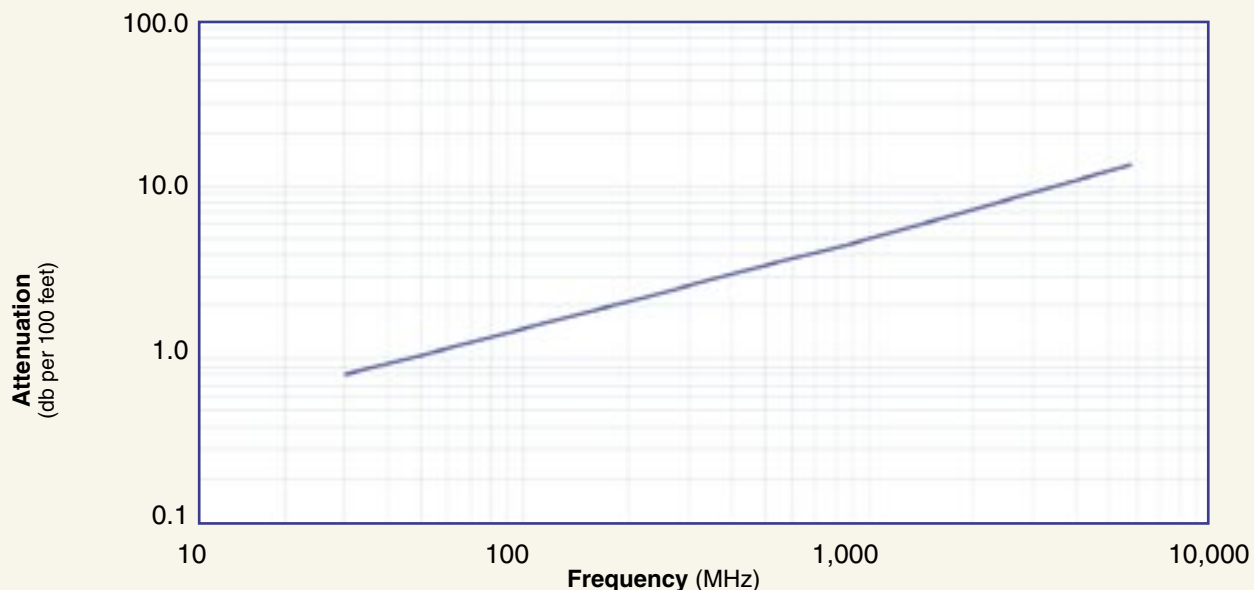
MICROWAVE

<b>Mechanical Specifications</b>			
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)

<b>Environmental Specifications</b>		
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

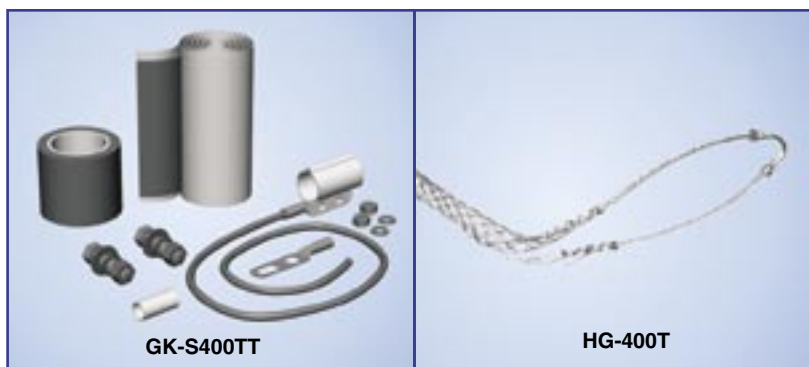
<b>Electrical Specifications</b>			
Performance Property	Units	US	(metric)
Cutoff Frequency	GHz		16.2
Velocity of Propagation	%		85
Dielectric Constant	NA		1.38
Time Delay	nS/ft (nS/m)	1.20	(3.92)
Impedance	ohms		50
Capacitance	pF/ft (pF/m)	23.9	(78.40)
Inductance	uH/ft (uH/m)	0.060	(0.21)
Shielding 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](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