TNC Female Right Angle Bulkhead Mount Connector Crimp/ Solder Attachment for PE-C200, LMR-200, .480 inch D Hole

PE44847

Configuration

- TNC Female Connector
- 50 Ohms
- Right Angle Body Geometry
- Connector Interface Types: PE-C200, LMR-200
- Bulkhead

Features

- Max. Operating Frequency 11 GHz
- Good VSWR of 1.35:1
- Gold Plated Brass Contact
- 30 µin minimum contact plating

Applications

- General Purpose Test
- Rack and Panel Mount Applications
- Custom Cable Assemblies

Description

Pasternack's PE44847 Right Angle, TNC, Standard, Connector 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 11 GHz and offers good VSWR of 1.35:1. Its right angle body geometry allows for easier connections in tight spaces. This TNC bulkhead connector allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications.

Our TNC female right angle bulkhead connector PE44847 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
VSWR			1.35:1	
Operating Voltage (AC)			500	Vrms
Dielectric Withstanding Voltage (AC)			1,500	Vrms
Inner Conductor DC Resistance			1.5	mOhms
Outer Conductor DC Resistance			0.5	mOhms
Insulation Resistance	5,000			MOhms
Impedance		50		Ohms

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 3					GHz
Insertion Loss, Max	0.2					dB

Electrical Specification Notes:
RF leakage: 60 dB min at 3GHz.

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TNC Female Right Angle Bulkhead Mount Connector Crimp/ Solder Attachment for PE-C200, LMR-200, .480 inch D Hole

PE44847

Mechanical Specifications

Size	
Length	1.75 in [44.45 mm]
Width	0.7 in [17.78 mm]
Height	1.338 in [33.99 mm]
Weight	0.074 lbs [33.57 g]
Mating Cycles	500 Cycles

Material Specifications

Description	Material	Plating
Contact	Brass	Gold 30 µin minimum
Insulation	PTFE	
Outer Conductor	Brass	Nickel
Body	Brass	Nickel 100 µin minimum
O-Ring	Silicon	

Environmental Specifications

Temperature	
Operating Range	-65 to +165 deg C
Vibration	MIL-STD-202, Method 204, Condition B
Temperature Cycle	MIL-STD-202, Method 107, Condition B
Salt Spray	MIL-STD-202, Method 101, Condition B

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

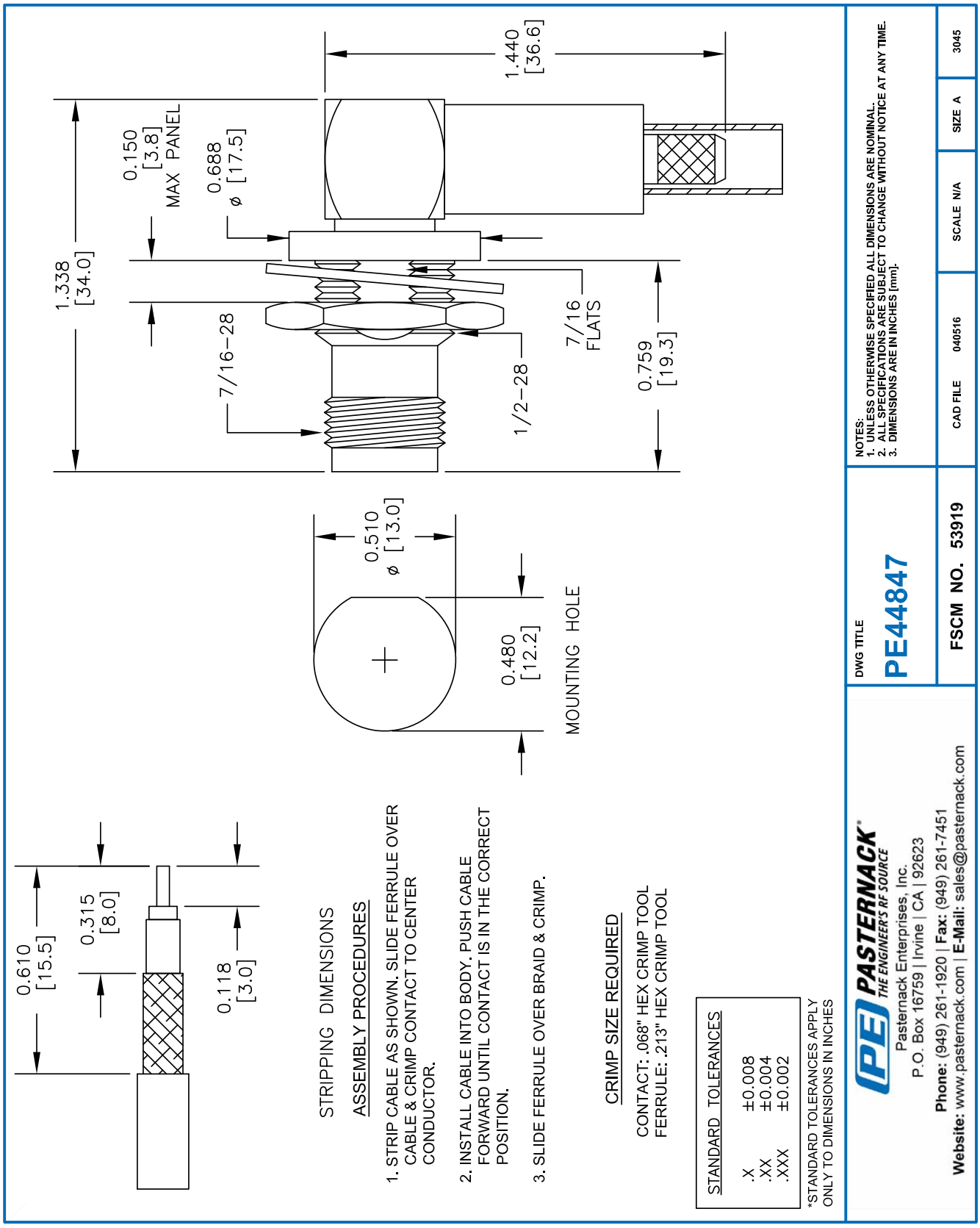
TNC Female Right Angle Bulkhead Mount Connector Crimp/Solder Attachment for PE-C200, LMR-200, .480 inch D Hole from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest 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 Right Angle Bulkhead Mount Connector Crimp/Solder Attachment for PE-C200, LMR-200, .480 inch D Hole PE44847

URL: https://www.pasternack.com/tnc-female-standard-pe-c200-lmr-200-connector-pe44847-p.aspx

PE44847 CAD Drawing

TNC Female Right Angle Bulkhead Mount Connector Crimp/Solder Attachment for PE-C200, LMR-200, .480 inch D Hole



TNC Female Right Angle Bulkhead Mount Connector Crimp/ Solder Attachment for PE-C200, LMR-200, .480 inch D Hole

PE44847

Configuration

- TNC Female Connector
- 50 Ohms
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- Connector Interface Types: PE-C200, LMR-200
- Bulkhead

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Outer Conductor DC Resistance			0.5	mOhms
Insulation Resistance	5,000			MOhms
Impedance		50		Ohms

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 3					GHz
Insertion Loss, Max	0.2					dB

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TNC Female Right Angle Bulkhead Mount Connector Crimp/ Solder Attachment for PE-C200, LMR-200, .480 inch D Hole

PE44847

Mechanical Specifications

Size	
Length	1.75 in [44.45 mm]
Width	0.7 in [17.78 mm]
Height	1.338 in [33.99 mm]
Weight	0.074 lbs [33.57 g]
Mating Cycles	500 Cycles

Material Specifications

Description	Material	Plating
Contact	Brass	Gold 30 µin minimum
Insulation	PTFE	
Outer Conductor	Brass	Nickel
Body	Brass	Nickel 100 µin minimum
O-Ring	Silicon	

Environmental Specifications

Temperature	
Operating Range	-65 to +165 deg C
Vibration	MIL-STD-202, Method 204, Condition B
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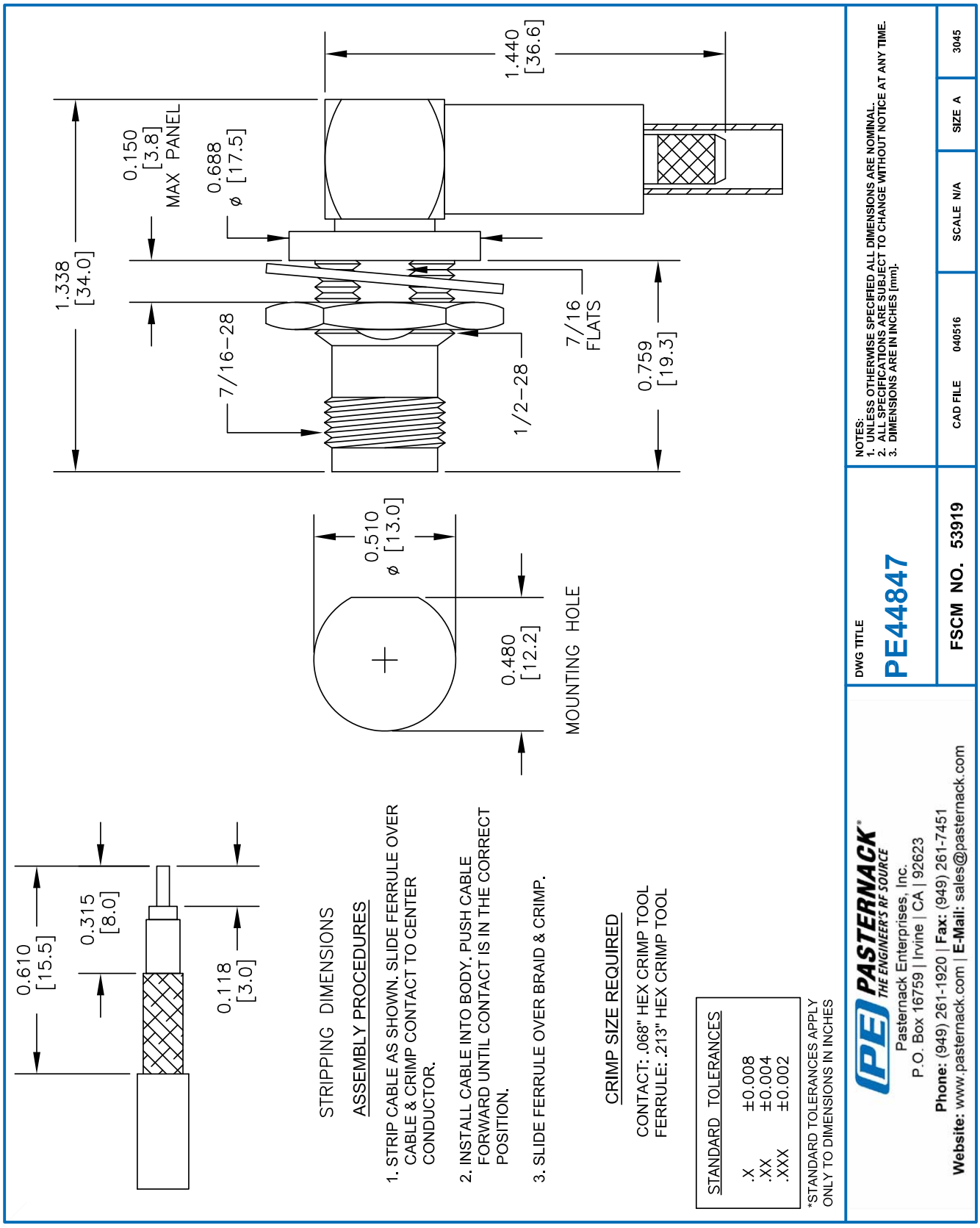
URL: https://www.pasternack.com/tnc-female-standard-pe-c200-lmr-200-connector-pe44847-p.aspx

PE44847 CAD Drawing

TNC Female Right Angle Bulkhead Mount Connector Crimp/Solder Attachment for PE-C200, LMR-200, .480 inch D Hole



TIMES MICROWAVE SYSTEMS

LMR®-200
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.

• **LMR®- MA** is a flexible cable designed specifically for mobile antenna applications. It has a PVC jacket and un-bonded aluminum tape to facilitate end stripping with automated equipment.

• **Flexibility** and bendability are hallmarks of the LMR-200 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-200. 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-200 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-200 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-200 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-200	Outdoor	PE	Black	54022
LMR-200-DB	Outdoor/Watertight	PE	Black	54089
LMR-200-FR	Indoor/Outdoor Riser CMR	FRPE	Black	54028
LMR-200-FR-PVC	Indoor/OutdoorRiser CMR	FRPVC	Black	54125
LMR-200-PVC	General Purpose	PVC	Black	54216
LMR-200-PVC-W	General Purpose	PVC	White	54201
LMR-200-MA	Mobile Antennas	PVC	Black	54045

Construction Specifications			
Description	Material	In.	(mm)
Inner Conductor	Solid BC	0.044	(1.12)
Dielectric	Foam PE	0.116	(2.95)
Outer Conductor	Aluminum Tape	0.121	(3.07)
Overall Braid	Tinned Copper	0.144	(3.66)
Jacket	(see table above)	0.195	(4.95)

Mechanical Specifications

Performance Property	Units	US	(metric)
Bend Radius: installation	in. (mm)	0.5	(12.7)
Bend Radius: repeated	in. (mm)	2	(50.8)
Bending Moment	ft-lb (N-m)	0.2	(0.27)
Weight	lb/ft (kg/m)	0.022	(0.03)
Tensile Strength	lb (kg)	40	(48)
Flat Plate Crush	lb/in. (kg/mm)	15	(0.27)

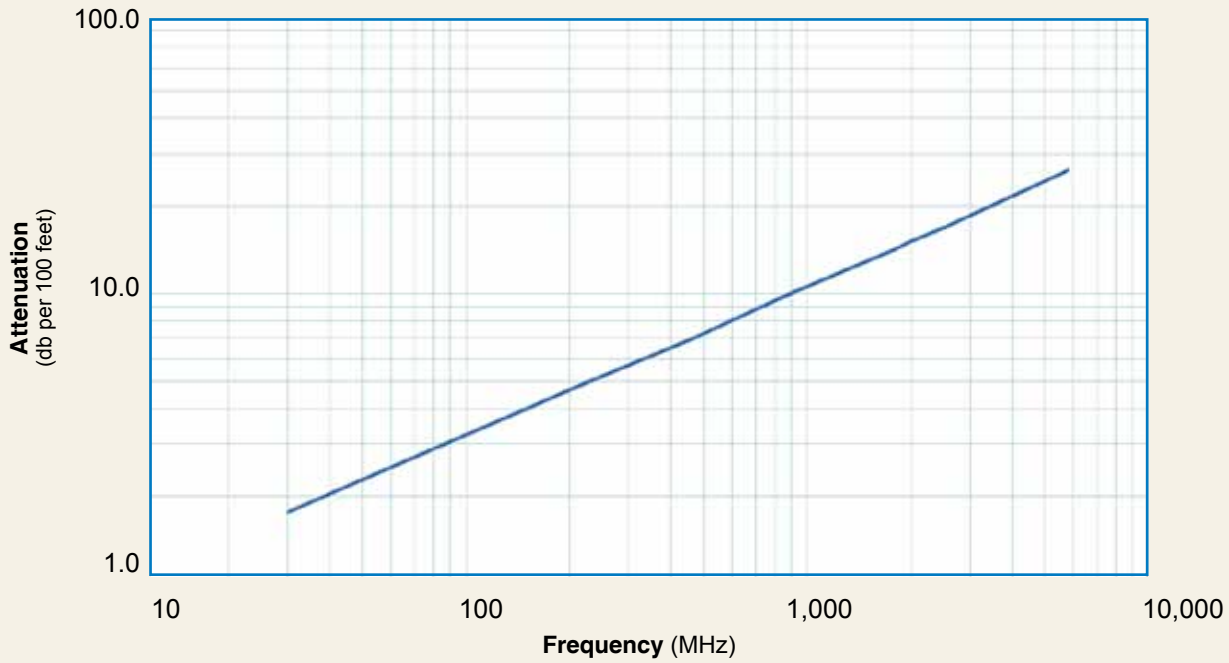
Environmental Specifications

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	%	83	
Dielectric Constant	NA	1.45	
Time Delay	nS/ft (nS/m)	1.22	(4.02)
Impedance	ohms	50	
Capacitance	pF/ft (pF/m)	24.5	(80.3)
Inductance	uH/ft (uH/m)	0.061	(0.20)
Shielding Effectiveness	dB	>90	
DC Resistance			
Inner Conductor	ohms/1000ft (/km)	5.36	(17.6)
Outer Conductor	ohms/1000ft (/km)	4.9	(16.1)
Voltage Withstand	Volts DC	1000	
Jacket Spark	Volts RMS	3000	
Peak Power	kW	2.5	

Attenuation vs. Frequency (typical)



Frequency (MHz)	30	50	150	220	450	900	1500	1800	2000	2500	5800
Attenuation dB/100 ft	1.8	2.3	4.0	4.8	7.0	9.9	12.9	14.2	15.0	16.9	26.4
Attenuation dB/100 m	5.8	7.5	13.1	15.9	22.8	32.6	42.4	46.6	49.3	55.4	86.5
Avg. Power kW	1.02	0.79	0.45	0.37	0.26	0.18	0.14	0.13	0.12	0.11	0.07

Calculate Attenuation =

$(0.320900) \cdot \sqrt{FMHz} + (0.000330) \cdot FMHz$ (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

TIMES MICROWAVE SYSTEMS

LMR®-200
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	Length (mm)	Width in	Width (mm)	Weight lb	Weight (g)
1. BNC male	Straight Plug	TC-200-BM-X	3190-2883	<1.25:1 (2.5)	Knurl	Solder	Crimp	S/G	1.7	(43.2)	0.56	(14.2)	0.045	(20.4)
2. Mini-UHF	Straight Plug	TC-200-MUHF	3190-444	<1.25:1 (2.5)	Knurl	Solder	Crimp	NG	1.1	(27.9)	0.45	(11.4)	0.015	(6.8)
3. N male	Straight Plug	EZ-200-NMH-X	3190-2886	<1.25:1 (8)	Hex/Knurl	Spring Fit	Crimp	A/G	1.5	(38.1)	0.75	(19.1)	0.073	(33.1)
4. N male	Straight Plug	TC-200-NMH-X	3190-2882	<1.25:1 (6)	Hex	Solder	Crimp	A/G	1.5	(38.1)	0.89	(22.6)	0.086	(39.0)
5. N male	Reverse Polarity	TC-200-NM-RP	3190-959	<1.25:1 (2.5)	Knurl	Solder	Crimp	N/G	1.5	(38.1)	0.75	(19.1)	0.073	(33.1)
6. SMA male	Straight Plug	TC-200-SM-SS-X	3190-2881	<1.25:1 (2.5)	Hex	Solder	Crimp	SS/G	1.0	(38.1)	0.75	(19.1)	0.073	(33.1)
7. SMA male	Reverse Polarity	TC-200-SM-RP	3190-327	<1.25:1 (2.5)	Hex	Solder	Crimp	SS/G	1.0	(25.4)	0.32	(8.1)	0.015	(6.8)
8. TNC male	Straight Plug	EZ-200-TM-X	3190-2885	<1.25:1 (2.5)	Knurl	Spring Fit	Crimp	S/G	1.4	(35.6)	0.59	(15.0)	0.045	(20.4)
9. TNC male	Straight Plug	TC-200-TMC	3190-240	<1.25:1 (2.5)	Knurl	Solder	Clamp	S/G	1.7	(43.2)	0.59	(15.0)	0.045	(20.4)
10. TNC male	Reverse Polarity	EZ-200-TM-RP	3190-792	<1.25:1 (2.5)	Knurl	Spring Fit	Crimp	A/G	1.4	(35.6)	0.32	(8.1)	0.045	(20.4)
11. TNC female	Straight Jack	TC-200-TF-X	3190-2884	<1.25:1 (2.5)	NA	Solder	Crimp	N/G	1.3	(33.0)	0.57	(14.5)	0.033	(15.0)
12. TNC female	Reverse Polarity	EZ-200-TF-RP	3190-793	<1.25:1 (2.5)	NA	Spring Fit	Crimp	A/G	1.3	(33.0)	0.57	(14.5)	0.033	(15.0)

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

GK-S200TT

Hardware Accessories

Type	Part Number	Stock Code	Description
Ground Kit	GK-S200TT	GK-S200TT	Standard Ground Kit (each)

CT-240/200/195/100
3190-667

RB-CST
3192-086

CST-195/200
3192-102

DBT-U
3192-001

CCT-01
3190-1544

Install Tools

Type	Part Number	Stock Code	Description
Crimp Tool	CT-240/200/195/100	3190-667	Crimp tool for LMR-100, 195, 200 and 240 connectors
Cutting Tool	CCT-01	3190-1544	Cable end flush cut tool
Deburr Tool	DBT-U	3192-001	Removes center conductor rough edges
Replacement Blade	RB-01	3190-1609	Replacement blade for cutting tool
Strip Tool	CST-195/200	3192-102	Combination prep tool for LMR-195 and LMR-200
Replacement Blade Kit	RB-CST	3192-086	Replacement blade kit for all strip tools
Replacement Blade	RB-CST	3192-086	Replacement blade kit for all CST strip tools