

**SMA Male Connector Crimp/Solder Attachment for LMR-195 Cable**

**Times Microwave Systems Connector Specification**

SMA male connector with crimp/solder attachment for LMR-195, part number TC-195-SM-SS-X, from Fairview Microwave is in-stock and ships same day. This SMA male connector operates up to a maximum frequency of 8 GHz and offers good VSWR of 1.3:1.

Fairview's SMA male connector TC-195-SM-SS-X 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		8	GHz
VSWR			1.3:1	

**Mechanical Specifications**

Size	
Length	1.17 in [29.72 mm]
Width/Dia.	0.375 in [9.53 mm]
Weight	0.02 lbs [9.07 g]

**Material Specifications**

Description	Material	Plating
Contact	Brass	Gold ASTM B488
Insulation	PTFE	
Body	Passivated Stainless Steel	
Coupling Nut	Passivated Stainless Steel	

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

**Plotted and Other Data**

Notes:



**Configuration:**

- SMA Male Connector
- 50 Ohms
- Straight Body Geometry
- LMR-195 Interface Type
- Crimp/Solder Attachment
- 5/16 Inch Hex

**Features:**

- Operating Frequency of 8 GHz Max.
- Good VSWR of 1.3:1
- Gold Plated Brass Contact
- Contact plating according to ASTM B488

**Applications:**

- General Purpose Test
- Custom Cable Assemblies

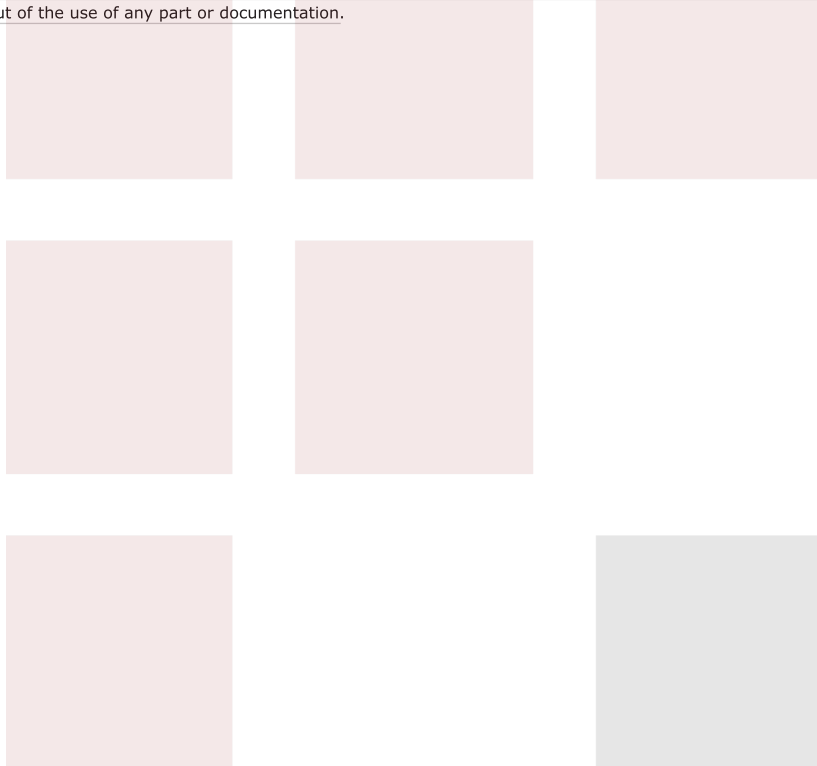
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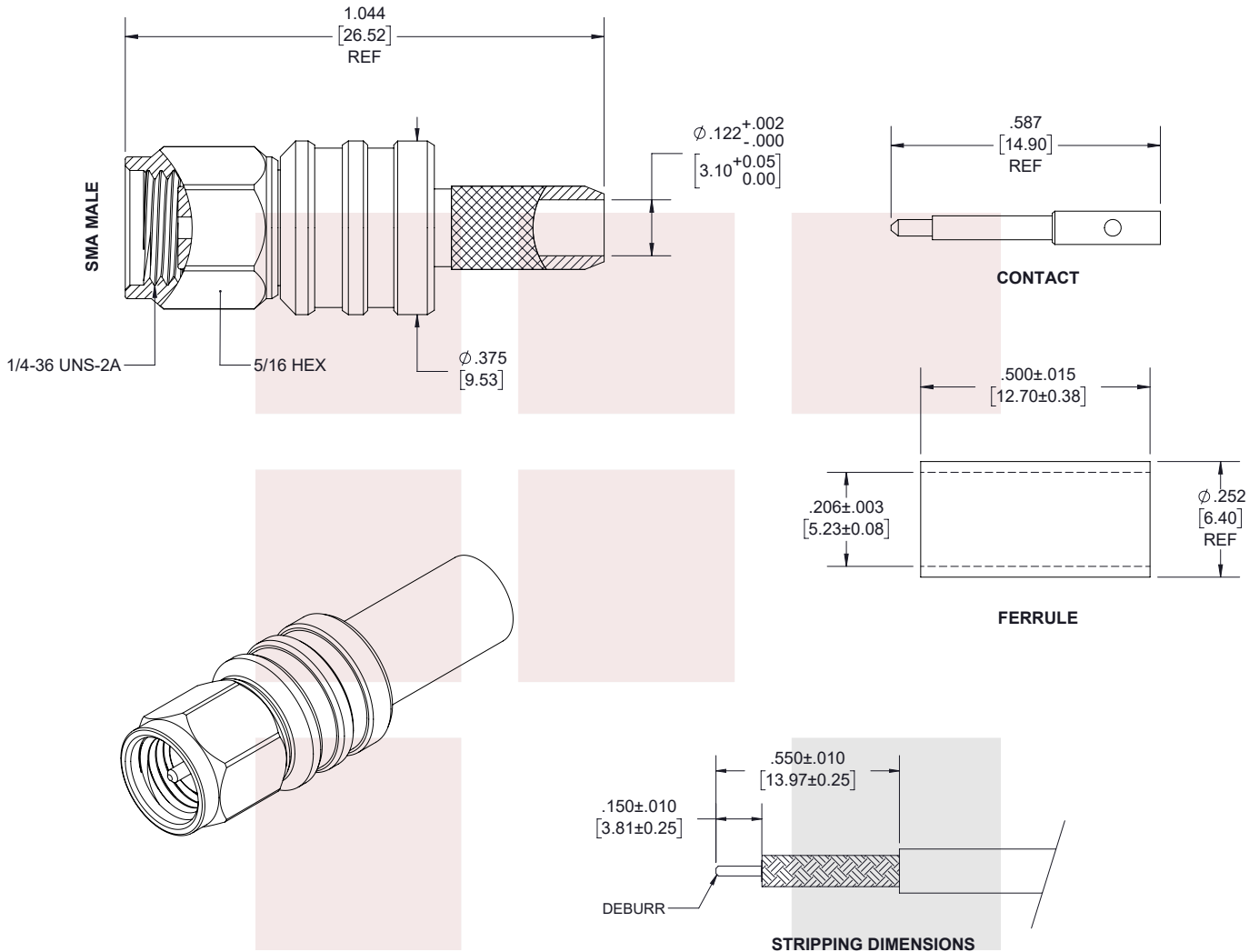
SMA Male Connector Crimp/Solder Attachment for LMR-195 Cable from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Male Connector Crimp/Solder Attachment for LMR-195 Cable TC-195-SM-SS-X](#)

URL: <https://www.fairviewmicrowave.com/sma-male-lmr-195-connector-tc-195-sm-ss-x-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. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.





STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

**NOTES:**

- CABLE ATTACHMENT:
  - OUTER: CRIMP.
  - INNER: SOLDER.
- CRIMP SIZE REQUIRED:
  - FERRULE: .213 [5.41] HEX. CRIMP TOOL.
  - CONTACT: SOLDER.

		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].	
TITLE SMA Male Connector Crimp/Solder Attachment for LMR-195 Cable		DWG NO TC-195-SM-SS-X	
		CAGE CODE 3FKR5	
CAD FILE	10/25/19	SHEET	1 OF 1
SCALE	N/A	SIZE	A
		7361	

## MCX Plug Right Angle Connector Crimp/Solder Attachment for RG58, RG303, RG141, LMR-195, .195 inch

RA MCX plug connector with crimp/solder attachment for RG58, RG303, RG141, LMR-195 and .195 inch, part number FMCN1847, from Fairview Microwave is in-stock and ships same day. This MCX plug connector operates up to a maximum frequency of 3 GHz and offers good VSWR of 1.63:1. Its right angle body geometry facilitates connections in tight spaces.

Fairview's RA MCX plug connector FMCN1847 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		3	GHz
VSWR			1.63:1	
Operating Voltage (AC)			335	Vrms

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Freq. Range	DC to 1	1 to 3				GHz
VSWR, Max	1.5:1	1.63:1				

### Mechanical Specifications

<b>Size</b>	
Length	0.65 in [16.51 mm]
Width/Dia.	0.25 in [6.35 mm]
Height	0.44 in [11.18 mm]
Weight	0.011 lbs [4.99 g]

### Material Specifications

Description	Material	Plating
Contact	Brass	Gold 30 µin minimum
Insulation	PTFE	
Body	Brass	Nickel 100 µin minimum
Crimp Sleeve	Brass	Nickel



### Configuration:

- MCX Plug Connector
- CECC 22220
- 50 Ohms
- Right Angle Body Geometry
- RG58, RG303, RG141, LMR-195, .195 inch Interface Type
- Crimp/Solder Attachment

### Features:

- Operating Frequency of 3 GHz Max.
- Good VSWR of 1.63:1
- Gold Plated Brass Contact
- 30 µin minimum contact plating

### Applications:

- General Purpose Test
- Custom Cable Assemblies

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## Environmental Specifications

### Temperature

Operating Range -55 to +155 deg C

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

## Plotted and Other Data

Notes:

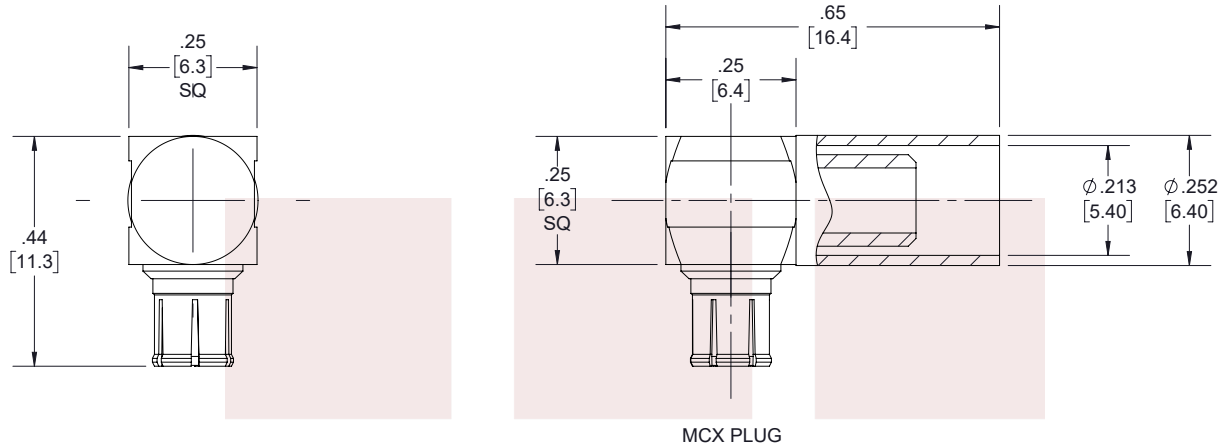
MCX Plug Right Angle Connector Crimp/Solder Attachment for RG58, RG303, RG141, LMR-195, .195 inch from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [MCX Plug Right Angle Connector Crimp/Solder Attachment for RG58, RG303, RG141, LMR-195, .195 inch FMCN1847](#)

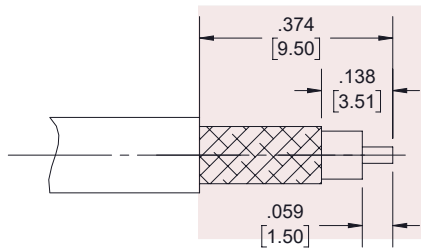
URL: <https://www.fairviewmicrowave.com/mcx-plug-rg58-rg303-rg141-lmr-195-.195-connector-fmcn1847-p.aspx>

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	02/11/2022	A.GANWANI



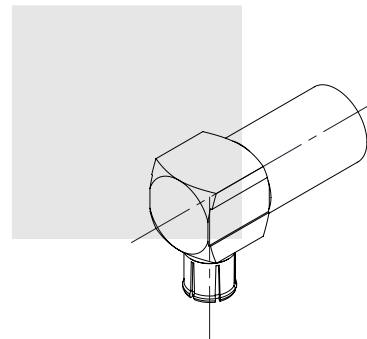
MCX PLUG



STRIPPING DIMENSIONS

NOTES:

- CABLE ATTACHMENT:
  - OUTER: CRIMP.
  - INNER: SOLDER.
- CRIMP SIZE REQUIRED:
  - CONTACT: SOLDER.
  - FERRULE: .216" [5.5] HEX. CRIMP TOOL.



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TITLE

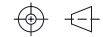
MCX Plug Right Angle Connector Crimp/Solder Attachment for RG58, RG303, RG141, LMR-195, .195 inch

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

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

.X = ±.2 [5.08]	FRACTIONS ± 1/32	L ≤ 12 [305] = +1 [25] / -0
.XX = ±.02 [51]	ANGLES ± 1°	12 [305] < L ≤ 60 [1524] = +2 [51] / -0
.XXX = ±.005 [13]		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.GLEBOVA	ITEM NO. FMCN1847	REV A
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T-Rev.D

# LMR<sup>®</sup>-195

## 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
  - Drop-in replacement for RG-58 and RG-142
- **LMR<sup>®</sup>** 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<sup>®</sup>-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<sup>®</sup>-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<sup>®</sup>-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<sup>®</sup>-PVC** is designed for low loss general-purpose applications and is somewhat more flexible than the standard polyethylene jacketed LMR.
  - **LMR<sup>®</sup>-PVC-W** is a white-jacketed version of LMR-PVC for marine and other applications where color compatibility is desired.
  - **LMR<sup>®</sup>-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-195 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-195. 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-195 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-195 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-195 cable types are available as pre-terminated cable assemblies. Refer to the section on FlexTech for further details.

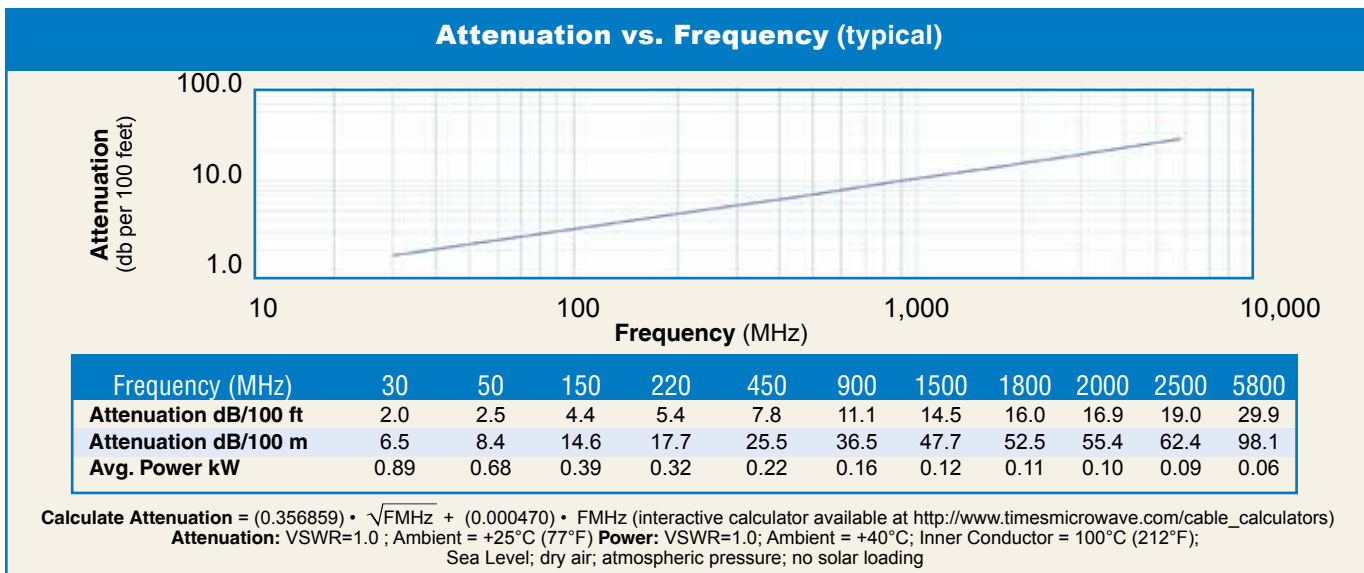
Part Description				Stock
Part Number	Application	Jacket	Color	Code
LMR-195	Outdoor	PE	Black	54110
LMR-195-DB	Outdoor/Watertight	PE	Black	54113
LMR-195-FR	Indoor/Outdoor Riser CMR	FRPE	Black	54111
LMR-195-FR-W	Indoor/Outdoor Riser CMR	FRPE	White	54158
LMR-195-FR-PVC	Indoor/Outdoor Riser CMR	FRPVC	Black	54105
LMR-195-MA	Mobile Antennas	PVC	Black	54210
LMR-195-PVC	General Purpose	PVC	Black	54215
LMR-195-PVC-W	General Purpose	PVC	White	54199

Construction Specifications			
Description	Material	In.	(mm)
Inner Conductor	Solid BC	0.037	(0.94)
Dielectric	Foam PE	0.110	(2.79)
Outer Conductor	Aluminum Tape	0.116	(2.95)
Overall Braid	Tinned Copper	0.139	(3.53)
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)	2.0	(50.8)
Bending Moment	ft-lb (N-m)	0.2	(0.27)
Weight	lb/ft (kg/m)	0.021	(0.03)
Tensile Strength	lb (kg)	40	(18.2)
Flat Plate Crush	lb/in. (kg/mm)	15	(0.27)

Electrical Specifications			
Performance Property	Units	US	(metric)
Velocity of Propagation	%	76	
Dielectric Constant	NA	1.56	
Time Delay	nS/ft (nS/m)	1.27	(4.17)
Impedance	ohms	50	
Capacitance	pF/ft (pF/m)	25.4	(83.3)
Inductance	uH/ft (uH/m)	0.064	(0.21)
Shielding Effectiveness	dB	>90	
DC Resistance			
Inner Conductor	ohms/1000ft (/km)	7.6	(24.9)
Outer Conductor	ohms/1000ft (/km)	4.9	(16.1)
Voltage Withstand	Volts DC	1000	
Jacket Spark	Volts RMS	3000	
Peak Power	kW	2.5	

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



## 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)
N male	Straight Plug	TC-195-NM	3190-1555	<1.25:1 (2.5)	Knurl	Solder	Crimp	S/G	1.5 (38.1)	0.75 (19.1)	0.073 (33.1)
N male	Right Angle	TC-195-NMH-RA-D	3190-2425	<1.35:1 (6)	Hex/Knurl	Solder	Crimp	A/G	1.3 (32.1)	1.19 (30.1)	0.083 (37.5)
SMA male	Straight Plug	TC-195-SM	3190-1553	<1.25:1 (2.5)	Hex	Solder	Crimp	SS/G	1.0 (25.4)	0.32 (8.1)	0.015 (6.8)
TNC male	Straight Plug	TC-195-TM	3190-1554	<1.25:1 (2.5)	Knurl	Solder	Crimp	S/G	1.4 (35.6)	0.59 (15.0)	0.045 (20.4)

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

## 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

