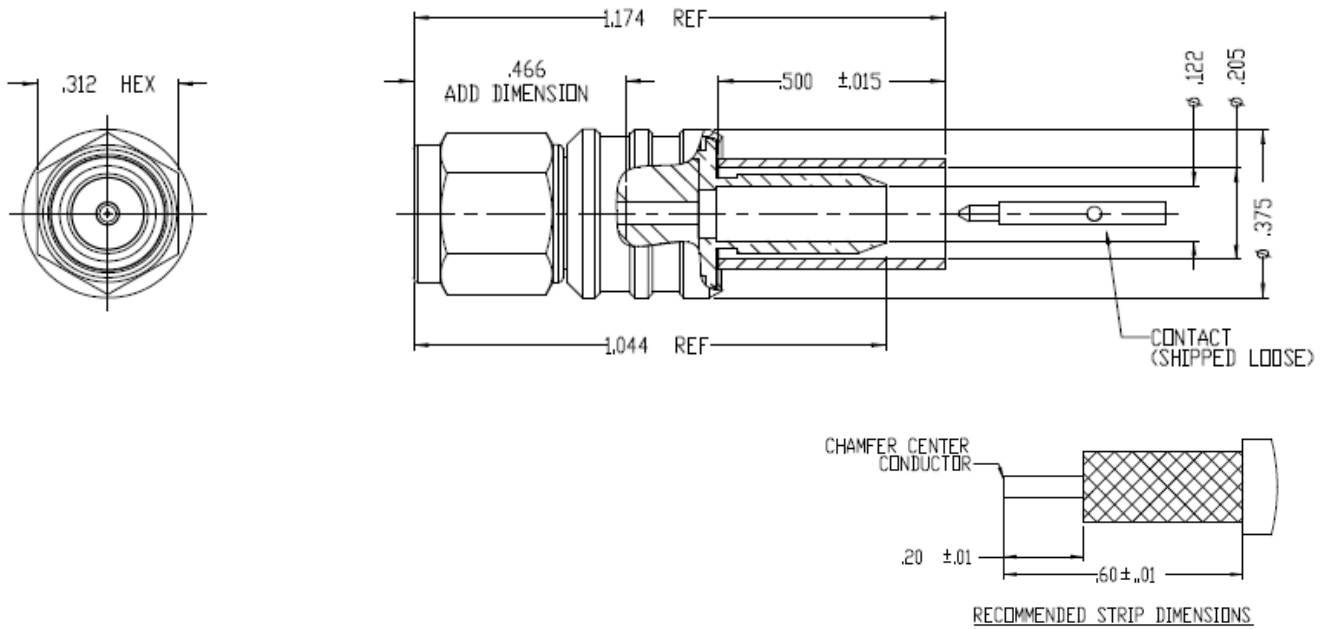


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SYM	REVISION DESCRIPTION	DFTM	DATE	APPD	DATE
A	RELEASED FOR PRODUCTION	N. N. N	9/5/13	J. D. B.	9/10/13



NOTES:

- ASSEMBLED CONNECTOR INTERFACE IS DESIGNED IN ACCORDANCE WITH MIL-STD-348.
- MATERIAL:**
 BODY, NUT, TAIL - STAINLESS STEEL PER ASTM 582, S30300 ALLOY, COND. A
 INSULATOR - TEFLON PER ASTM D1710, TYPE 1, GRADE 1, CLASS A
 CONTACT - BRASS PER ASTM B16, C36000 ALLOY, TEMPER H02
 GASKET - SILICONE RUBBER PER A-A-59588, 50-75 DUREMETER
 SHRINK SLEEVE - HEAT SHRINKABLE ATUM PER MIL-I-23053/4 (NOT SHOWN)
 CRIMP SLEEVE - D.H.P. COPPER CDA, ALLOY #122, TEMPER HARD
 LOCKING RING - BERYLLIUM COPPER PER ASTM B196, C17300 ALLOY, CONDITION HT
- FINISH:**
 CONTACT - GOLD PLATE PER ASTM B488
 CRIMP SLEEVE - SULFAMATE NICKEL PER MIL-P-27418
 ALL OTHER METAL PARTS - PASSIVATE PER SAE-AMS-2700

MATERIAL:	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES MACHINED SURFACES FINISH 63 RMS MAX. REMOVE ALL BURRS .004 MAX. BREAK MACHINE CORNERS .005 MAX. FILLET R. TOLERANCES ON DECIMALS .XX ± .01 .XXX ± .005 ANGLES ± 1° FRACTIONS ± 1/64	DFTM. N. N. N	TIMES MICROWAVE SYSTEMS
		DATE 9/5/13	
USED ON: -		CHKD. J. D. B.	TC-195-SM-SS-X CONNECTOR ASSEMBLY SMAM for LMR-195
		DATE 9/10/13	
SCALE: NONE	DWG. SIZE A	APPD. J. D. B.	1 of 1 SD3190-2878 REV A
		DO NOT SCALE DRAWING	
	CODE IDENT 68999	DATE 9/10/13	



SMA Female Bulkhead Mount Connector Crimp/ Solder Attachment for RG58, RG303, LMR-195

RF Connectors Technical Data Sheet

PE45138

Configuration

- SMA Female Connector
- MIL-STD-348A
- 50 Ohms
- Straight Body Geometry
- RG58, RG303, LMR-195 Interface Type
- Crimp/Solder Attachment
- Bulkhead

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		12.4	GHz
VSWR			1.3:1	
Operating Voltage (AC)			500	Vrms

Mechanical Specifications

Size	
Length	0.882 in [22.4 mm]
Width/Dia.	0.315 in [8.00 mm]
Weight	0.041 lbs [18.6 g]

Material Specifications

Description	Material	Plating
Contact	Beryllium Copper	Gold 50µ in. minimum
Insulation	Teflon	
Outer Conductor	Brass	Gold 3µ in. minimum
Body	Brass	Gold 3µ in. minimum

Environmental Specifications

Temperature	
Operating Range	-65 to 165 deg C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female Bulkhead Mount Connector Crimp/Solder Attachment for RG58, RG303, LMR-195 PE45138](#)



SMA Female Bulkhead Mount Connector Crimp/ Solder Attachment for RG58, RG303, LMR-195

RF Connectors Technical Data Sheet

PE45138

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

RoHS Compliant

REACH Compliant

12/17/2014

Plotted and Other Data

Notes:

SMA Female Bulkhead Mount Connector Crimp/Solder Attachment for RG58, RG303, LMR-195 from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

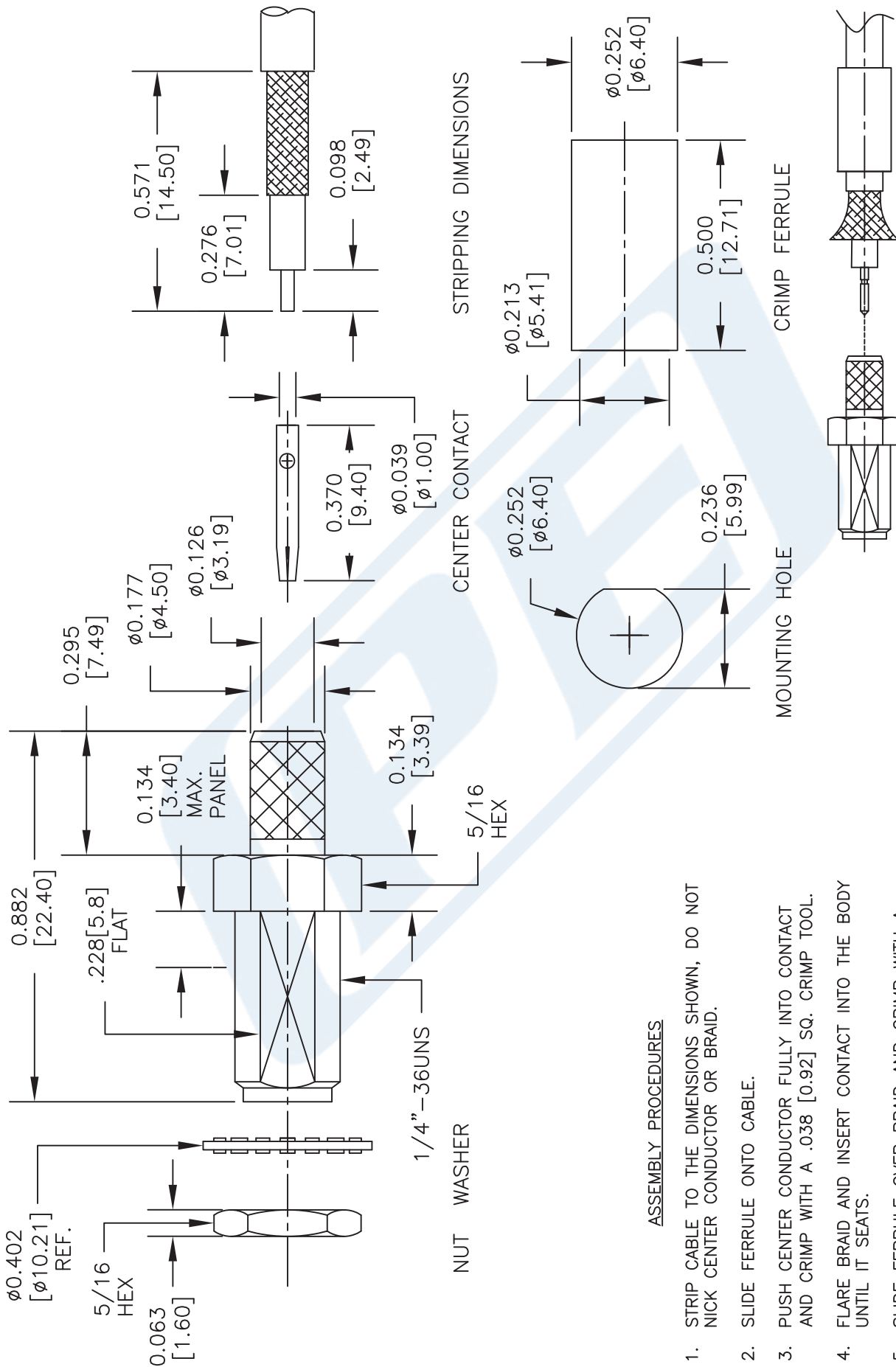
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URL: <http://www.pasternack.com/sma-female-rg58-rg303-lmr-195-connector-pe45138-p.aspx>

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.

PE45138 CAD Drawing

SMA Female Bulkhead Mount Connector Crimp/Solder
Attachment for RG58, RG303, LMR-195



ASSEMBLY PROCEDURES

1. STRIP CABLE TO THE DIMENSIONS SHOWN, DO NOT NICK CENTER CONDUCTOR OR BRAID.
2. SLIDE FERRULE ONTO CABLE.
3. PUSH CENTER CONDUCTOR FULLY INTO CONTACT AND CRIMP WITH A .038 [0.92] SQ. CRIMP TOOL.
4. FLARE BRAID AND INSERT CONTACT INTO THE BODY UNTIL IT SEATS.
5. SLIDE FERRULE OVER BRAID AND CRIMP WITH A .216" [5.5] HEX. CRIMP TOOL.

DWG TITLE

PE45138

- 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).

PE PASTERNAK
THE ENGINEER'S RF SOURCE
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FSCM NO. 53919

CAD FILE 111015

SCALE N/A

SIZE A

150

LMR®-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®** 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-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

