



150 Dodd Street SE  
Marietta, GA. 30060

**Phone:** 770-973-6251  
**Fax:** 678-401-3854

**Email:** [info@mgs4u.com](mailto:info@mgs4u.com)  
**Website:** [www.mgs4u.com](http://www.mgs4u.com)

SMA male, Crimp On, for LMR-195, RG-58, and other 0.195" OD Coax



### Technical Data Sheet

This SMA Male Crimp Connector is one of several thousand RF products available from Max-Gain Systems, Inc.

This connector is made from a Solid Brass body that is precision machined and plated with Gold for superior performance and value. This SMA Male Crimp Connector has a PTFE dielectric and a gold plated brass center pin. The SMA Male interface's plug and interior threads provide a sub-miniature and tight-locking connection for use at higher frequencies.

### Material Specifications

SMA male, Crimp-On, Cable End Connector for .195 Coax		Part Number 7805-SMA-58
Description	Material	Plating
Ferrule	Brass	Gold
Pin	Brass	Gold
Body	Brass	Gold
Insulator	PTFE	White
Inner Retaining Ring	Stainless	
Gasket	Silicone	Red
Shell	Brass	Gold

## Mechanical Specifications

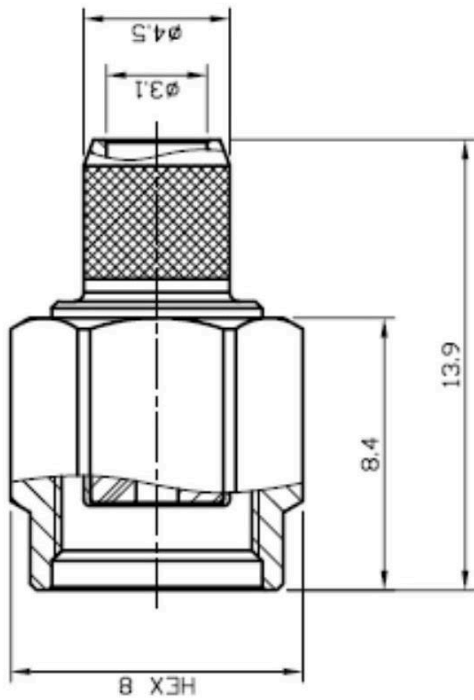
Size	Dimension
Length	0.55 in (13.9 mm)
Width	0.32 in (8 mm)
Height	0.32 in (8 mm)
Weight	0.02 oz (0.5 g)

## Environmental Specifications

Temperature	Spec
Operating Range	-65 to +165 deg C

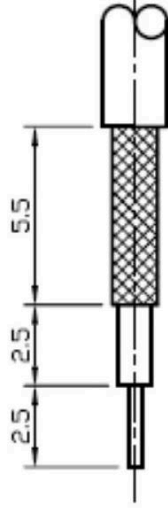
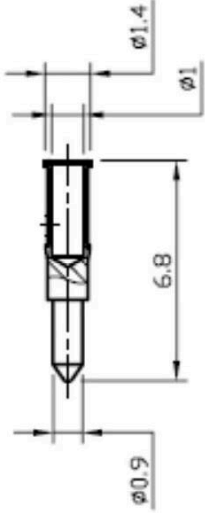
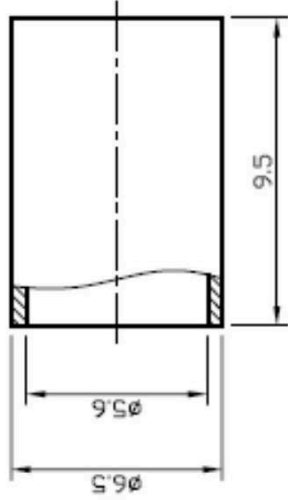
## Compliance Certifications (see product page for current documentation)

**Availability** Click the following link (or enter part number in the “SEARCH” bar at the top of any page of the website) to obtain additional part information including price, inventory and certifications: <https://mgs4u.com/product/sma-male-crimp-connector-for-0-195-inch-od-coax-7805-sma-58/>



.052

.213



RECOMMENDED  
 STRIP LENGTHS

07	FERRULE	BRASS	1	GOLD
06	CENTER PIN	BRASS	1	GOLD
05	BODY	BRASS	1	GOLD
04	INSULATOR	TEFLON	1	
03	INNER RETAINING RING	STAINLESS	1	
02	GASKET	SILICONE	1	RED
01	SHELL	BRASS	1	GOLD
NO	DESCRIPTION	MATERIAL	Q'TY	FINISH

**MGS** MAX-GAIN SYSTEMS, INC.

Max-Gain Systems, Inc.  
 150 Dodd Street SE, Marietta, GA. 30060  
 Phone: (770) 973-6251 | Fax: (678) 401-3854  
 Website: www.mgs4u.com | E-Mail: sales@mgs4u.com

TITLE: SMA male Crimp On for RG-58, LMR-195  
 and other 0.195 inch OD Coax

DRAWING NO: 7805-SMA-58

FILE NO :

UNLESS OTHERWISE SPECIFIED TOLERANCES	PART NO	DATE
0.5-5 = ±0.2	APPROVED	DATE
5-30 = ±0.4	CHECKED	DATE
30-120 = ±0.6	DRAWN	DATE
120-315 = ±1	UNIT: mm	
315-1000 = ±1.6	SCALE: -	
1000-2000 = ±2.4		

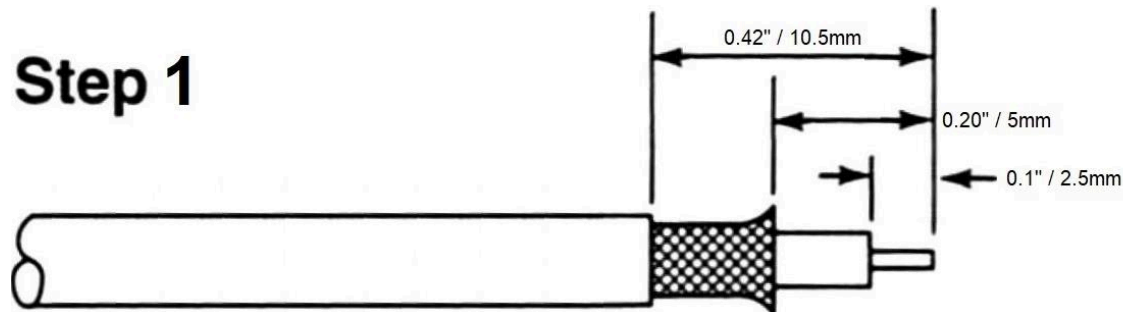
## Installation Guide

We will begin by installing the SMA male connector on a piece of RG-58. This process is the same for all the other types of cable with an outer jacket OD of 0.195. These connectors fit on a wide range of coax types including, but not limited to: RG-58, RG-58A/U, Belden 7807A, Belden 8219, Belden 8259, and Belden 9201 coaxial cable.

### Coax Stripping:

First cut your cable to the desired length and then strip the black jacket back approximately 0.42 inches. When the jacket is stripped cut the braid/foil back 0.20 inches from the fresh cut end. Finally, cut back the dielectric 0.1 inches from the fresh end down to the center conductor. The braid needs to be cut back further than the dielectric to insure that none of the braid or foil is touching the center conductor which could cause a short.

**Note:** Do not nick the braid, dielectric, and center conductor if at all possible. Tinning of the center conductor is not necessary if contact is to be crimped. For solder method, tin the center conductor if the center is stranded. twist the center conductor very tightly prior to tinning.



### Install Method Selection:

Slide the outer ferrule onto the coax as shown below. Flare the braid slightly to allow insertion of the connector main body. Important: Do not comb out braid.

Place the center contact on the center conductor of the coax so that it butts against the cable dielectric. The center conductor should be visible through the solder / inspection hole of the contact. Crimp or solder contact in place as follows:

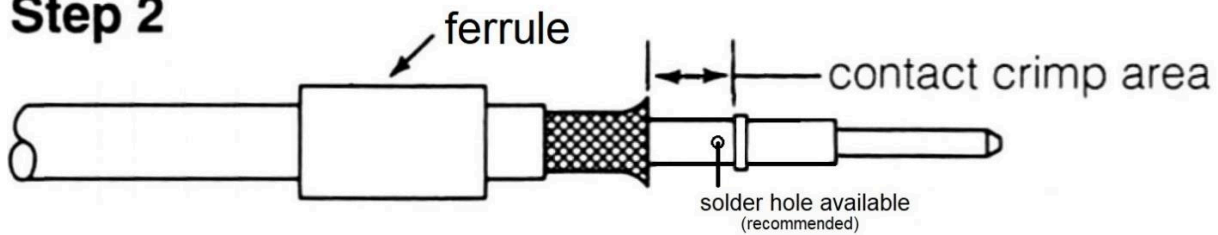
### Crimp-on Method

Use the 7505-DIE-8X with a hex of 0.10 installed into a 7505-HANDLE Ratcheting crimp handle for the center pin. (DO NOT OVER CRIMP / CRUSH THE CENTER CONDUCTOR)

## Solder-On Method

Make sure the solder hole is facing up. Touch the soldering iron to the underside of the center pin directly under the solder hole. Touch the solder to the center conductor through the solder hole on the center pin. Allow the heat from the metal to melt the solder so that it wicks into the center pin. Once the solder melts it only takes a tiny amount of solder to make the connection. Do not allow the solder to pool over the solder hole. The outside of the center pin should be free of obstructions for insertion. Do not over heat the center pin which could cause swelling of the dielectric of the coax.

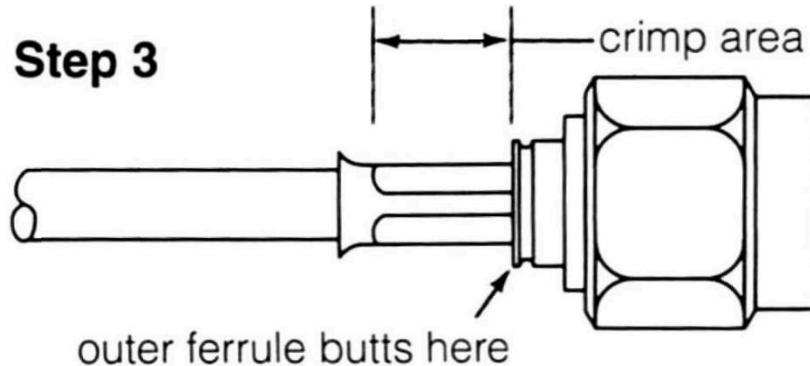
### Step 2



### Main Body Install:

Install the cable assembly with the center pin already affixed, into the main body of the connector. The knurled portion of the main body slides under the braid of the coax. Push the cable assembly into the main body until the center pin snaps into place in the dielectric of the connector.

Slide the ferrule (placed on the coax at the beginning of Step 2) over the braid and completely up against the connector body. Using the 0.213 hex of the 7505-DIE-8X installed into the 7505-HANDLE ratcheting crimp handle, crimp the ferrule at the location shown in the picture below (on the ferrule, but right up against the main body of the connector).



### Final Testing:

When this is completed, as a final test, you should always check resistance from the center pin to the body with an ohmmeter in a low resistance scale. After verifying that

there are no braid – to – center pin shorts on the other end of the coaxial cable, you should see infinite resistance (open).

As a final check, inspect the tip of the center pin to be certain that there is no excess solder present. This could interfere with easy insertion of the tip of the PL-259 into the female (SO-239) connector. If there is a tiny bit of excess solder present, it can usually be easily removed. Lightly scrape the soft solder with the edge of a knife blade until smooth. This completes your PL-259 installation, and the connector is ready for use!