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SMA female Crimp On for LMR-195, LMR-200, RG-142, RG-142B/U, RG-141, RG-141A/U, RG-142A/U, RG-122/U, RG-400, RG-400/U, RG-58, RG-55, RG-55B/U, RG-55A/U, RG-58C/U, RG-223, RG-223/U, 0.195 Inch OD Coax



## Technical Data Sheet

This SMA Female Crimp Connector is one of several thousand RF products available from Max-Gain Systems, Inc. This connector has a crimp on interface with the coax selected.

This connector is made from a Solid Brass body that is precision machined and plated with Gold for superior performance and value. This SMA female Crimp Connector has a PTFE dielectric and a gold plated brass center pin. The SMA female interface's jack and exterior threads provide a sub-miniature and tight-locking connection for use at higher frequencies. This RF connector fits (but not limited to) LMR-195, LMR-200, RG-142, RG-142B/U, RG-141, RG-141A/U, RG-142A/U, RG-122/U, RG-400, RG-400/U, RG-58, RG-55, RG-55B/U, RG-55A/U, RG-58C/U, RG-223, RG-223/U, 0.195 Inch OD Coax.

## Material Specifications

### SMA female Crimp Connector for 0.195 Inch OD Coax

Part Number 7806-SMA-58

Description	Material	Plating
Ferrule	Brass	Gold
Pin	Phosphor Bronze	Gold
Insulator	PTFE	White
Body	Brass	Gold

## Electrical Specifications

Criteria	Dimension
Impedance (Nominal)	50 Ohms
Frequency Range	DC to 18 GHz
Working Voltage	335

## Mechanical Specifications

Size	Dimension
Length	0.77 in (19.5 mm)
Width	0.32 in (8 mm)
Height	0.32 in (8 mm)
Weight	0.3 oz (10 g)

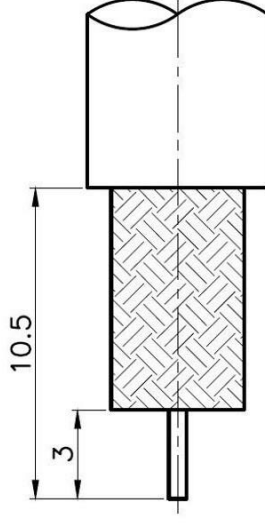
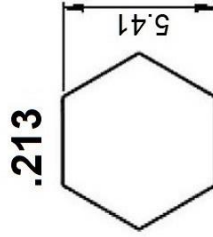
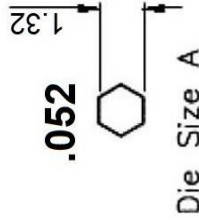
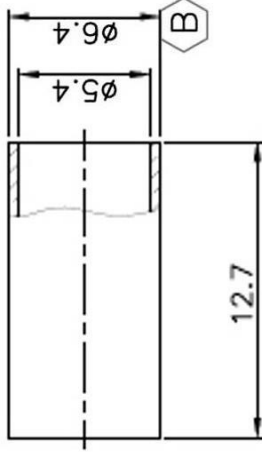
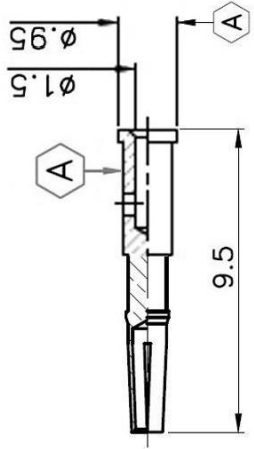
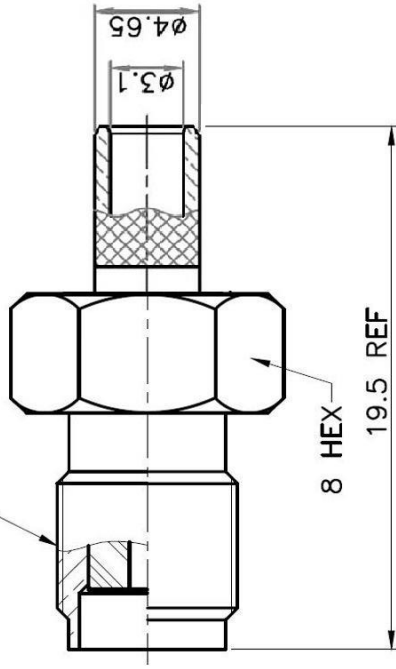
## Environmental Specifications

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-female-crimp-connector-for-0-195-inch-od-coax-7806-sma-58/>

1/4-36UNS-2A



RECOMMENDED  
CABLE STRIPPING DIM'S

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

Max-Gain Systems, Inc.  
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Phone: (770) 973-6251 | Fax: (678) 401-3854  
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TITLE: SMA female Crimp Connector for LMR-195,  
RG-58, and other 0.195 Inch OD Coax

DRAWING NO: 7806-SMA-58

CAGE CODE: 7JZZ8

NO.	DESCRIPTION	MATERIAL	FINISH	QTY	UNLESS OTHERWISE SPECIFIED TOLERANCES		PART NO	DATE
					0.5-5	±0.2		
					5-30	±0.4		
					30-120	±0.6		
	FERRULE	BRASS	GOLD	1	120-315	±1	APPROVED	DATE
	PIN	PHOSPHOR BRONZE	GOLD	1	315-1000	±1.6	CHECKED	DATE
	INSULATOR	TEFLON	WHITE	1	1000-2000	±2.4	DRAWN	DATE
	BODY	BRASS	GOLD	1	UNIT: mm			
	DESCRIPTION				SCALE: .			

## Installation Guide

We will begin by installing the SMA crimp-on connector on a piece of coax. This process is the same for all the types of coaxial cable that fit this BNC crimp-on connector. These connectors fit on a wide range of coax types, including: LMR-195, LMR-200, RG-142, RG-142B/U, RG-141, RG-141A/U, RG-142A/U, RG-122/U, RG-400, RG-400/U, RG-58, RG-55, RG-55B/U, RG-55A/U, RG-58C/U, RG-223, RG-223/U, 0.195 Inch OD Coax.

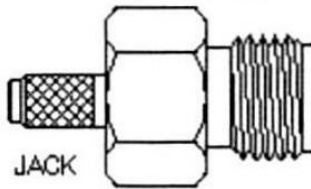
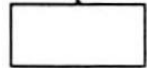
### Identify all connector parts (3 Parts):

Each connector consists of one body assembly (jack), one rear ferrule (crimp sleeve), and one center pin (jack contact).

#### STEP 1

CRIMP SLEEVE

JACK CONTACT



### Coax Stripping:

First cut your coaxial cable to the desired length and then strip the black jacket back approximately 10.5mm (0.41"). When the jacket is stripped back the dielectric 3mm (0.118") from the fresh end down to the center conductor. The braid needs to be looked at to ensure it is 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.

Once the cable is prepped, make sure to put the ferrule (crimp sleeve) of the connector on the coaxial cable before you proceed.

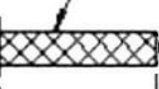
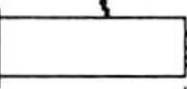
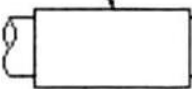
#### STEP 2

CRIMP SLEEVE

JACKET

BRAID

CENTER CONDUCTOR



.41 (10.5)

.118 (3)

## Crimping and Soldering Install:

Place the center pin onto the conductor of the coaxial cable.

### Soldering Guide (preferred):

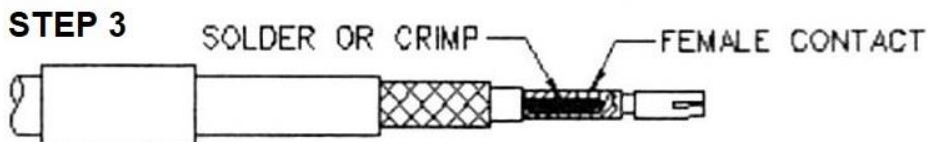
*This soldering guide is for soldering Max-Gain Systems, Inc. SMA crimp-on connectors. These are approximate measurements for our SMA crimp-on connectors, which adhere to industry standards for this type connector. If you choose to use this guide for connectors sold by others who do NOT adhere to these standards, the measurements could be off and result in a poor installation.*

#### Now we begin soldering the center pin onto the center conductor of the coax.

Begin by applying heat to the center pin of the SMA connector with your soldering iron. Before proceeding, allow sufficient time for the soldering iron tip to reach full operating temperature and clean the tip of the iron by wiping it with a damp sponge. Place the soldering iron UNDER the center pin and, with the solder hole of the center pin facing up, apply the solder into the hole. The heat rises and heats up the pin faster. When the pin is heated the solder will start to flow into the pin. Allow sufficient solder to flow into the center pin to make a good connection, but not too much that it begins to leak out and potential start to melt the dielectric of the coax.

### Crimping Guide:

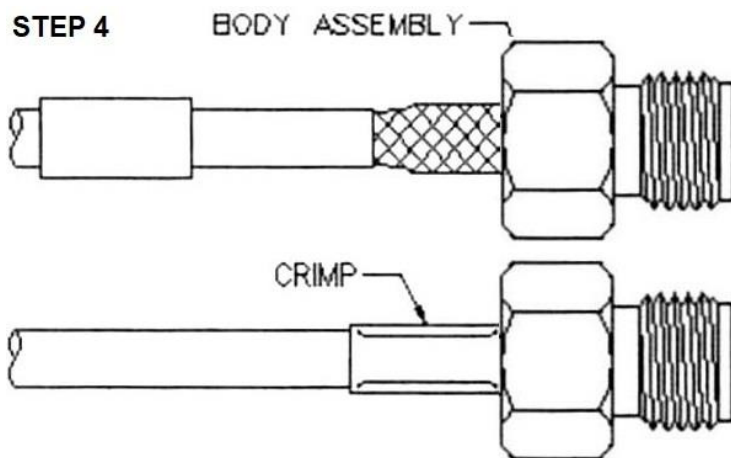
Use the 0.052" hex die from your 7505-DIE-8X ratcheting crimper die to crimp the center pin above the small lip of the center pin right on top of the "solder hole". This crimp die is available by itself or as a kit with a ratcheting crimp handle.



DIE Only	Die and Tool Kit
P/N: 7505-DIE-8X	P/N: 7505-HANDLE-8X
	

### Crimping The Ferrule:

Flare out the braid of the coax and slide the body assembly over the center pin and under the braid. Then seat the body assembly firmly onto the center contact. Arrange braid uniformly around the knurled portion of the body assembly. Slide the ferrule (crimp sleeve) forward and make sure it is in contact with the body assembly. Using the 0.213" hex die from the 7505-DIE-8X ratcheting crimper die to crimp the ferrule (crimp sleeve) right up next to the main body assembly. This crushes the metal sleeve around the braid and knurling to make it difficult for the connector to be removed. Trim any braid that extends out from crimp sleeve, against the body assembly, so not have any strays sticking out.



### 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). This completes your SMA female crimp-on connector installation, and the connector is ready for use!