MAX-GAIN SYSTEMS, INC.

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UHF female, Crimp-On, Cable End Connector for .590 Coax

Technical Data Sheet

This UHF 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 Silver for superior performance and value. This UHF Female Crimp Connector has a PTFE dielectric and a silver plated brass center pin. The UHF Female interface (also known as a SO-239 connection) is by far the most popular connection type used in Amateur Radio. This RF connector fits (but not limited to) RG-217/U, LMR-600, and other 0.590 Inch OD Coax.

Material Specifications

UHF female, Crimp-On, Cable End Connector for .590 Coax **Part Number 7506-UHF-600**

Description	Material	Plating
Ferrule	**Brass**	**Silver**
Pin	**Brass**	**Silver**
Insulator	**PTFE**	**White**
Body	**Brass**	**Silver**

Mechanical Specifications

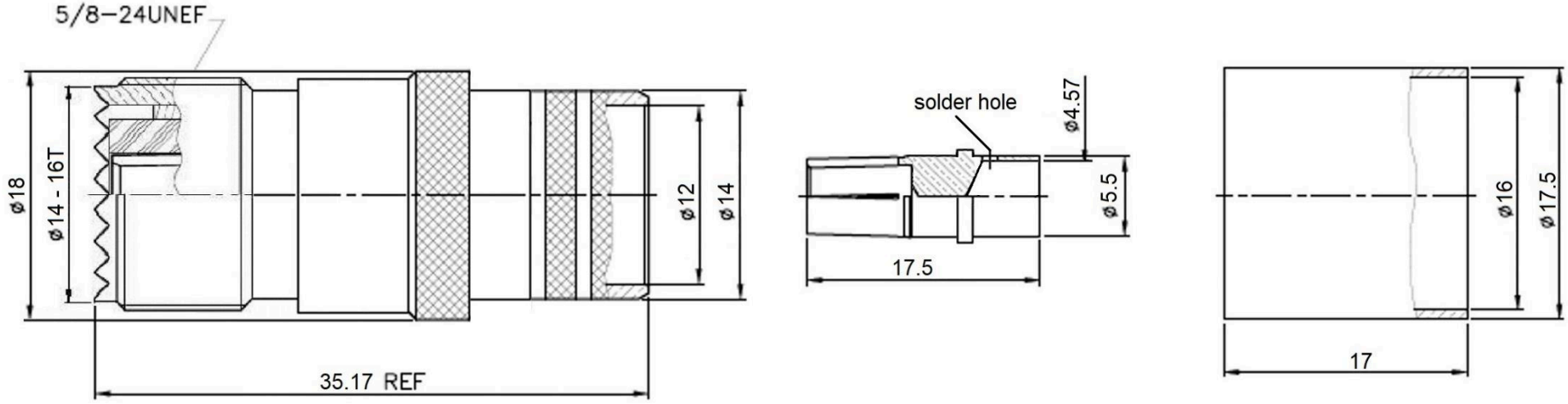
Size	Dimension
Length	**1.58 in (40 mm)**
Width	**0.71 in (18 mm)**
Height	**0.71 in (18 mm)**
Weight	**1.1 oz (32 g)**

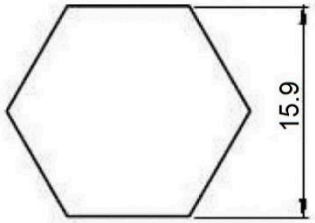
Environmental Specifications

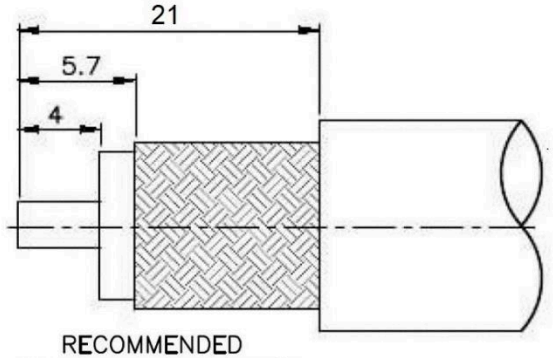
Temperature	Spec
Operating Range	**-65 to +165 deg C**

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/uhf-female-crimp-connector-for-0-590-inch-od-coax-7506-uhf-600/







RECOMMENDED
CABLE STRIPPING DIM'S

NO.	DESCRIPTION	MATERIAL	FINISH	QTY
	FERRULE	BRASS	SILVER	1
	PIN	BRASS	SILVER	1
	INSULATOR	TEFLON	WHITE	1
	BODY	BRASS	SILVER	1

UNLESS OTHERWISE SPECIFIED TOLERANCES
0.5–5 = ±0.2
5–30 = ±0.4
30–120 = ±0.6
120–315 = ±1
315–1000 = ±1.6
1000–2000 = ±2.4

UNIT: mm

SCALE: -

PART NO DATE

APPROVED DATE

CHECKED DATE

DRAWN DATE

MGS MAX-GAIN SYSTEMS, INC.

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TITLE: UHF Female Crimp Connector 0.590 Inch OD Coax

DRAWING NO: 7506-UHF-600

FILE NO : .

Installation Guide

We will begin by installing the UHF female connector on a piece of LMR-600. This process is the same for all the other types of cable with an outer jacket OD of 0.590. These connectors fit on a wide range of coax types including, but not limited to: RG-217/U, LMR-600, and other 0.59 inch OD coax.

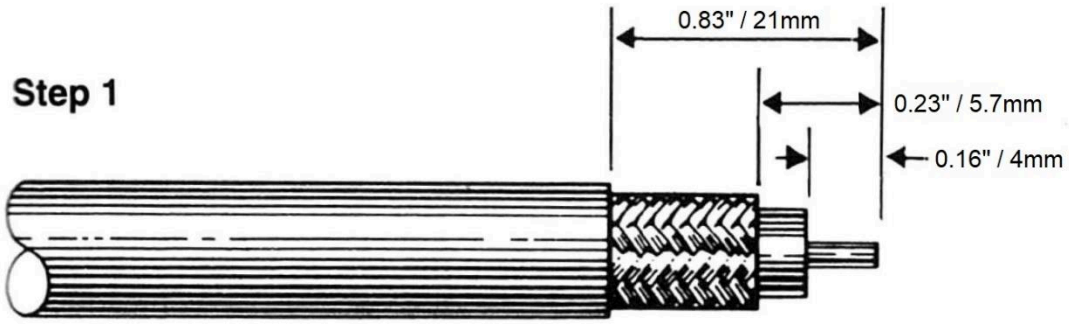
Identify all connector parts (3 Parts):

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

Coax Stripping:

First cut your cable to the desired length and then strip the black jacket back approximately 0.83 inches. When the jacket is stripped cut the braid/foil back 0.23 inches from the fresh cut end. Finally, cut back the dielectric 0.16 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.

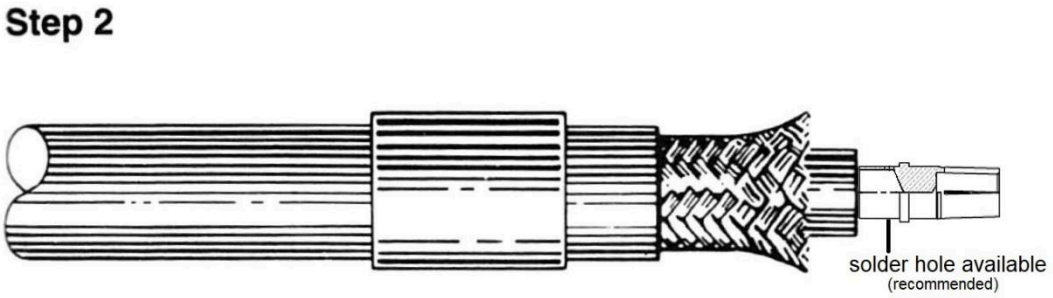
Place the center contact on the center conductor of the coax so that it butts against the cable dielectric. The center conductor should be visible through the solder / inspection hole of the contact. Crimp or solder contact in place as follows:

Crimp-on Method

Use the 7505-HANDLE-600 crimp handle for the ferrule. (DO NOT CRIMP / CRUSH THE CENTER PIN)

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.

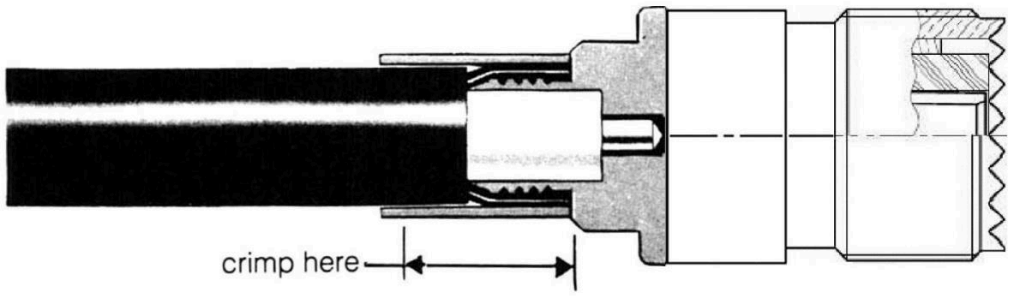


Main Body Install:

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 0.590 hex of the 7505-HANDLE-600 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).

Step 3



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).