



Wiring Assembly Instructions

562378 COAX, P-Series (10GHz), RCVR (SKT), CONT ASSY

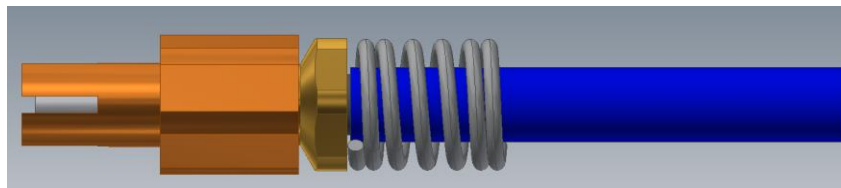
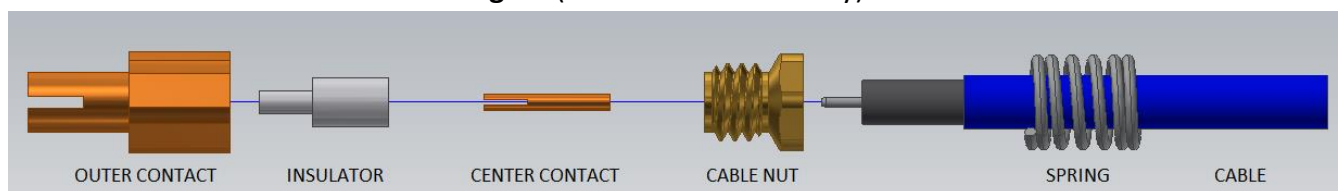


Fig. A. (Contact Sub-Assembly)



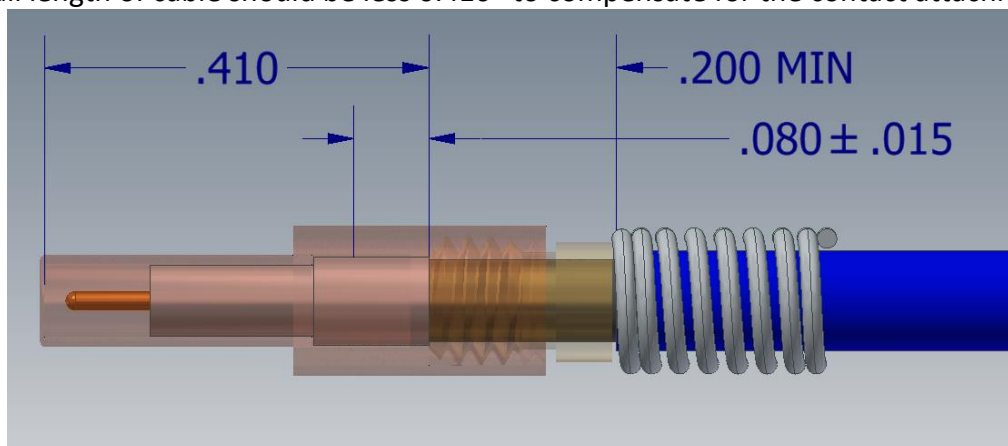
Contact Sub-Assembly Piece Parts.

Contact Crimp Information Table		
Wire Type	Wire Awg.	Strip Length (Inches)
RG316; 086SC-2401	26	A) .430 Jacket Trim Length B) .150 Solder Bulb Trim Length C) .080 Center Contact Trim Length

Test Requirements				
Test Type	Voltage (Hi-pot Only)	Pull Test	Depth Gauge	Marker Settings
Hi-pot	500V DC	3lbs	412820	.005"-.020"

NOTE 1: Refer to **IPC/WHMA-A-620A** standard (Ch. 11.1.2) for cable lengths, measurements and tolerance.

NOTE 2: Overall length of cable should be less 0.410" to compensate for the contact attachment.



STEP 1) Cut Cable to length based on total assembly length requirement. Refer to the appropriate instruction sheet for cut lengths for the connector on the end opposite this connector. The formula below considers only the contact described in this instruction sheet.

$$\text{Cut Cable Length} = (\text{Desired Overall Length}) - .410'' + .080'' + .150''$$

$$\text{Cut Cable Length} = (\text{Desired Overall Length}) - .180''$$

STEP 2) Trim jacket using Automatic Cable Trimming machine so that a minimum of .430" jacket material is removed. See **Fig A.** and **Fig B.**



Fig A. Cable Cut to Length.

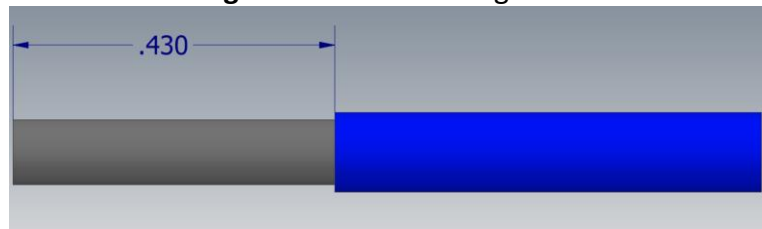


Fig B. Cable Cut to Length and Jacket Trimmed.

STEP 3) Dip the exposed cable shield in a solder pot and quickly remove. When removing the cable, remove any excess solder so that a thin uniform coating is left covering the cable shield. A small bulb will develop on the end of the cable. Remove the bulb by trimming back .150". See **Fig C.** and **Fig D.**

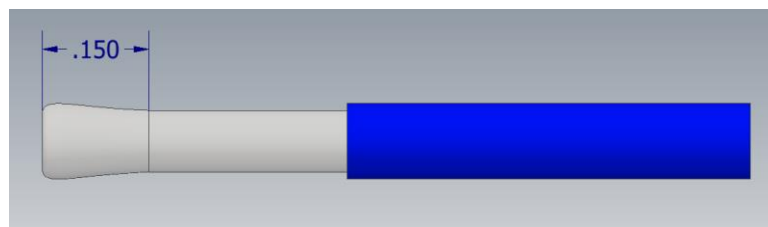


Fig C. Cable Dipped in solder.

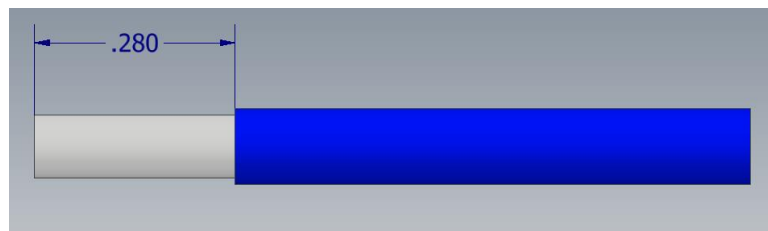


Fig D. Solder Bulb trimmed.

STEP 4) Trim Cable shield and Dielectric using Automatic Cable Trimming machine so that the center contact protrudes (0.080) from the end of the cable shield. The cable dielectric should be flush to the cable shield. See **Fig E.**

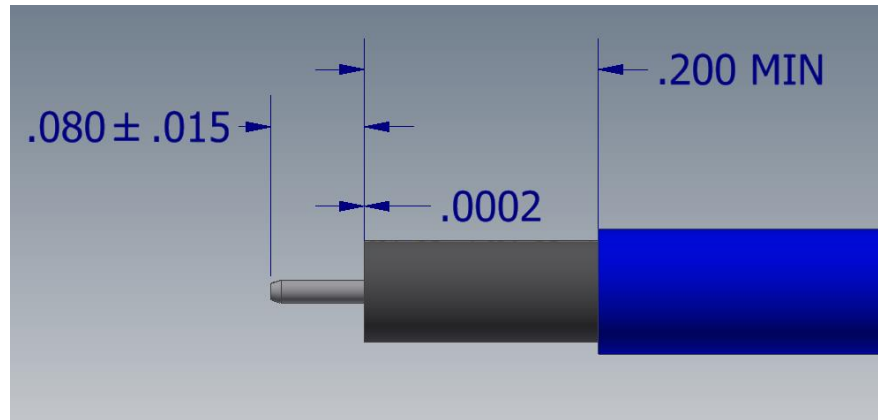


Fig E. Cable Trim Dimensions

STEP 5) Tin the center pin of the cable. Insert cable center pin into center contact and solder in place. Care should be taken to prevent solder buildup on the outer diameter of the center contact. A small meniscus in the inspection hole is the target. See **Fig F.** and **Fig G.**

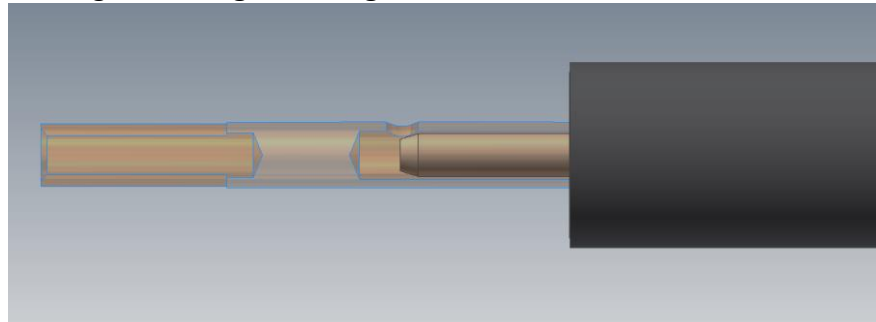


Fig F. Cable Center Pin inserted into connector Center contact.

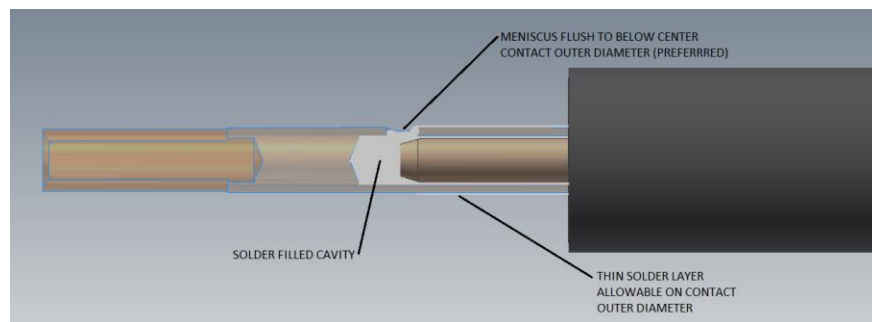


Fig G. Solder Detail

STEP 6) Slide Spring over Cable. See **Fig H.**

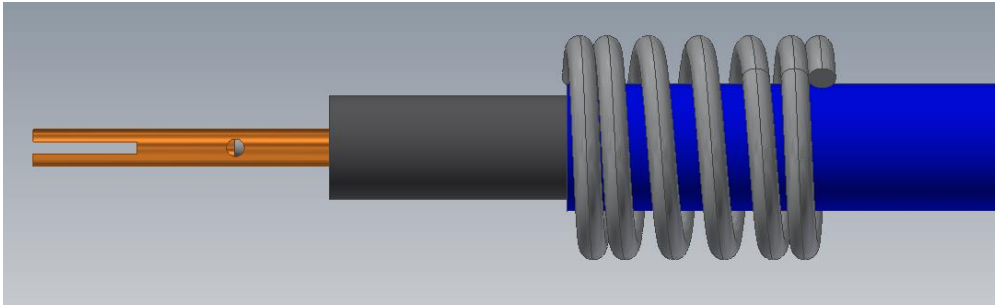


Fig H. Spring Detail

STEP 7) Slide Cable Nut over Cable Shield. The Nut should be flush to the end of the Cable shield. See **Fig J.**

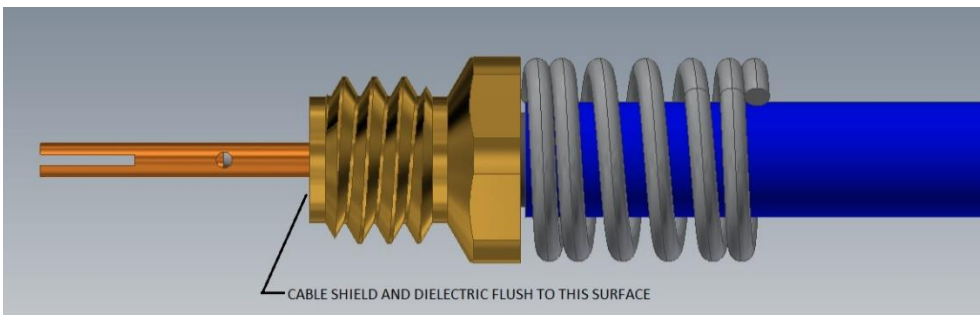


Fig J. Cable Nut Detail.

STEP 8) * CRITICAL STEP***** Using Solder Tweezers, Solder the Cable nut in place. Care should be taken to minimize dielectric growth from the cable. Excess protruding dielectric material should be trimmed (using razor) to improve high frequency performance. See **Fig K.**

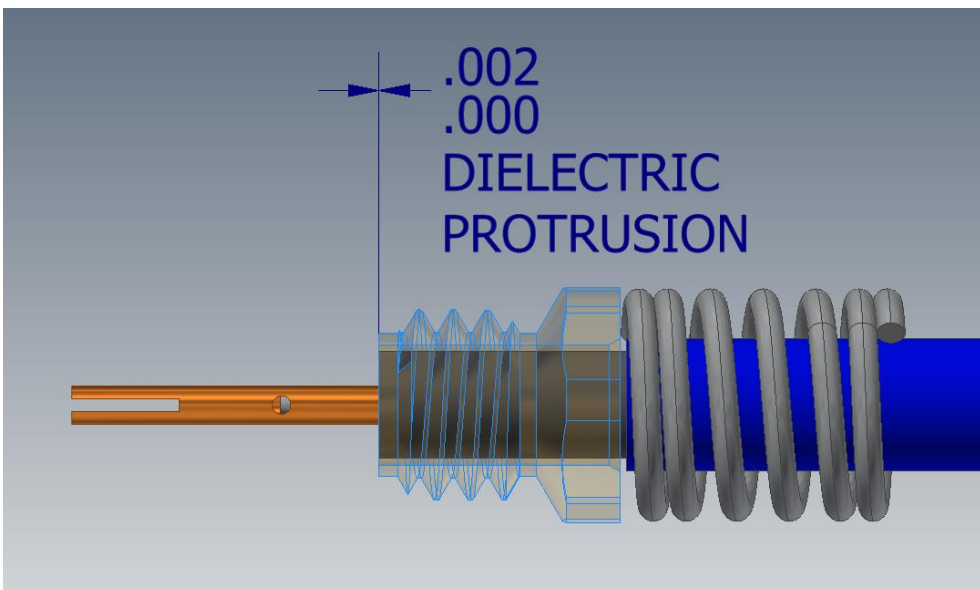


Fig K. Dielectric Trim

STEP 9) Slide the Insert over the Center Contact . See **Fig. L**.

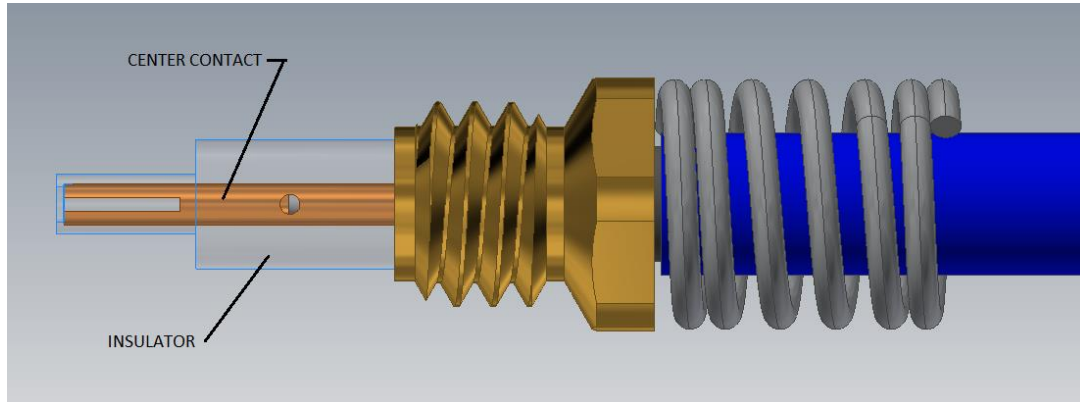


Fig L. Install Insulator.

STEP 10) Slide the Outer Contact over the Insulator until the threads meet. Fasten together using two 1/8" wrenches. Torque to 4 in.lbf. MAX. See **Fig M** and **Note 3**.

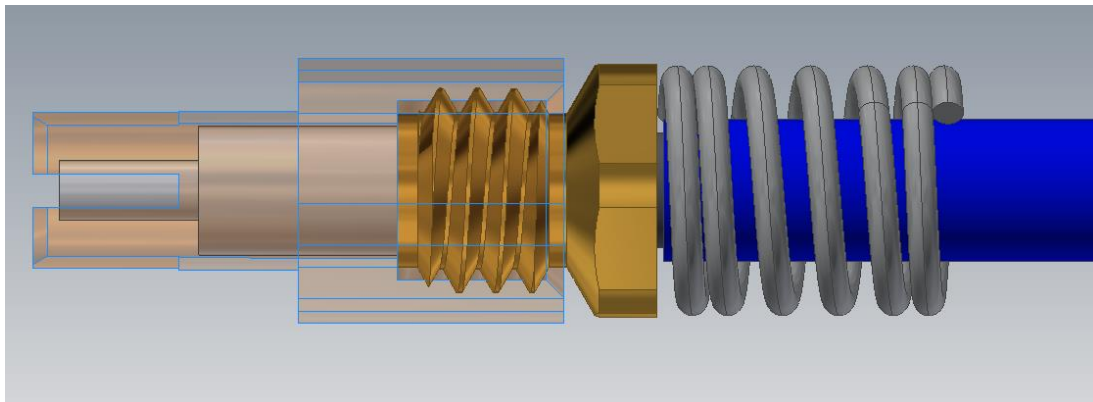


Fig M. Completed Assy

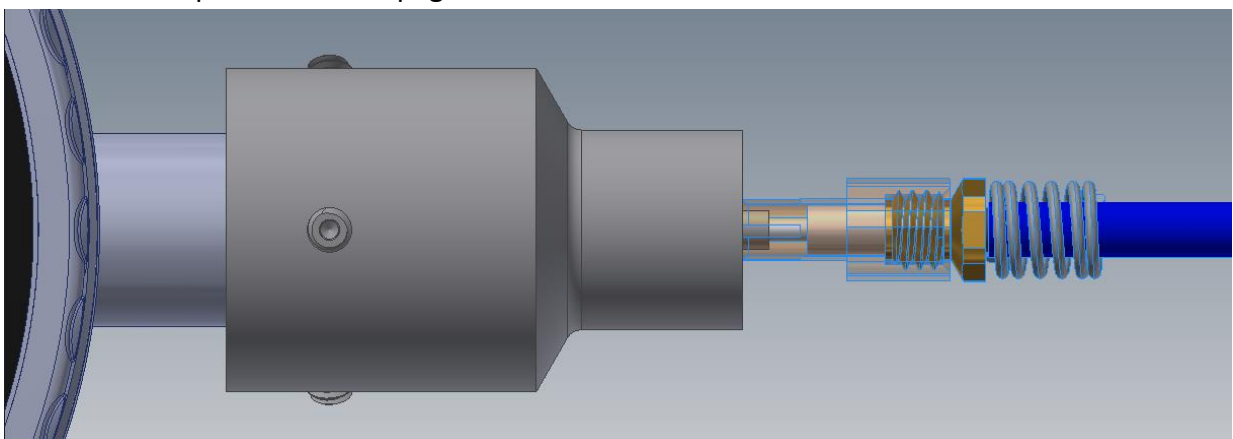
Note 3) Loctite MAY be applied to 1-2 threads of the cable nut (located centrally).

Recommendation: Perform S-Parameter Electrical validation testing prior to application of Loctite.

Electrical performance can be affected by excess solder buildup around the center pin (Step 5), poor solder contact between cable shield and cable nut and excessive cable dielectric growth (Step 8).

STEP 11) Inspect Contact Recess using Interface Gage (shown Fig N.)**Fig N. Contact Recess Gage**

- A. Zero the gage prior to use. Confirm the Probe tip moves freely and does not bind. Place on flat surface and press the zero button. After the indicator has been set to zero, allow the probe to move back to the default location as shown in **Fig N.** A non-zero value should be showing. Press the “+/-” button as needed to set the measurement to record a positive value.
- B. Inspect Contact Recess by aligning contact to probe tip and pressing contact to be flush to the bottom surface of the mounting sleeve. See **Fig P.** Contact Recess shall meet those defined in the table “Test Requirements” on page 1 of this document.

**Fig P. Center contact Recess Inspection.**