

| CONNECTOR TYPE              |                      | CABLE TYPE | TOOLING                     |                      |                             |                      |
|-----------------------------|----------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------|
| TE CONNECTIVITY PART NUMBER | PREVIOUS PART NUMBER |            | CRIMP TOOL                  |                      | CONTACT HOLDER ASSEMBLY     |                      |
|                             |                      |            | TE CONNECTIVITY PART NUMBER | PREVIOUS PART NUMBER | TE CONNECTIVITY PART NUMBER | PREVIOUS PART NUMBER |
| 1051551-1                   | 2031-5011-50         | RB-55/U    | 1055236-1                   | 2098-0105-54         | 1055454-1                   | 2098-5221-10         |
| 1051660-1                   | 2031-5011-00         |            |                             |                      |                             |                      |

Figure 1

### 1. INTRODUCTION

These instructions cover the assembly of the SMA Straight Cable Plug Connectors listed in Figure 1. These connectors are crimp-attachment type connectors, that attach to the cable listed in Figure 1.

The crimp tooling used is also listed in Figure 1.

**NOTE** *Dimensions on this document are in millimeters [with inches in brackets] unless otherwise indicated. Illustrations are for reference only, and are not drawn to scale.*

Reasons for revision can be found in Section 4, REVISION SUMMARY.

### 2. DESCRIPTION

Each cable plug is a subassembly consisting of a housing subassembly, a center contact, a rear dielectric, a backup bushing, an inner sleeve, a retaining nut, an outer sleeve, and a sheath (shrink tubing). Refer to the illustration in Figure 1.

### 3. ASSEMBLY PROCEDURES

#### 3.1. Preparing the Coaxial Cable End

1. Place the sheath and the outer sleeve on the cable.
2. Remove the end portion of the cable jacket to expose the cable braid.

3. Trim the cable braid to the dimension specified in Figure 2.

4. Flare the cable braid.

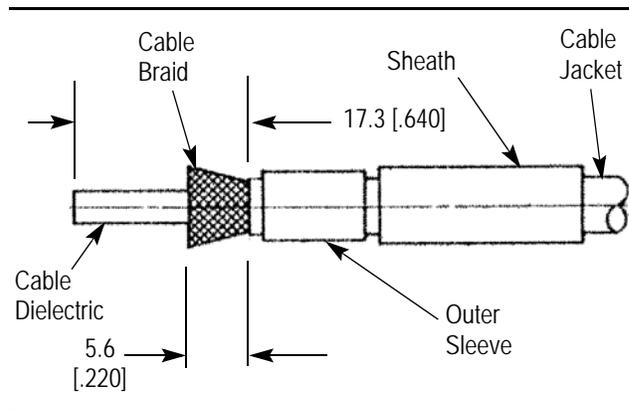


Figure 2

#### 3.2. Crimping the Cable to the Inner Sleeve

1. Insert the inner sleeve into the retaining nut.
2. Position the loose unit on the dielectric as shown in Figure 3.
3. Slide the outer sleeve over the flared portion of the cable braid.
4. Hold the retaining nut seated and crimp the outer sleeve in place, using the tool listed in Figure 1.
5. Trim and remove the excess cable braid.

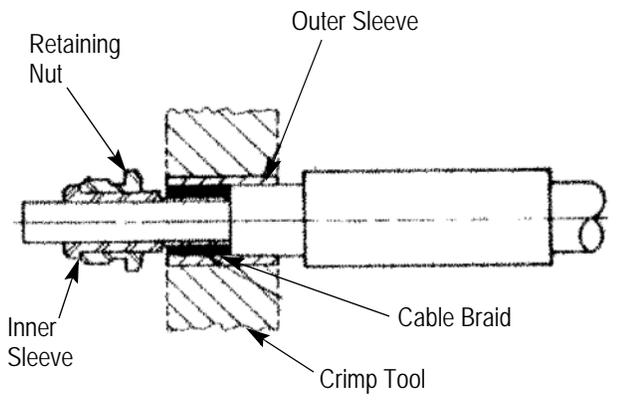


Figure 3

### 3.3. Soldering the Center Contact to the Cable Inner Conductor

1. Trim the cable dielectric flush with the end of the inner sleeve to expose the inner conductor.
2. Place the backup bushing over the inner conductor.
3. Trim and de-burr the inner conductor projection to length (as shown in Figure 4).

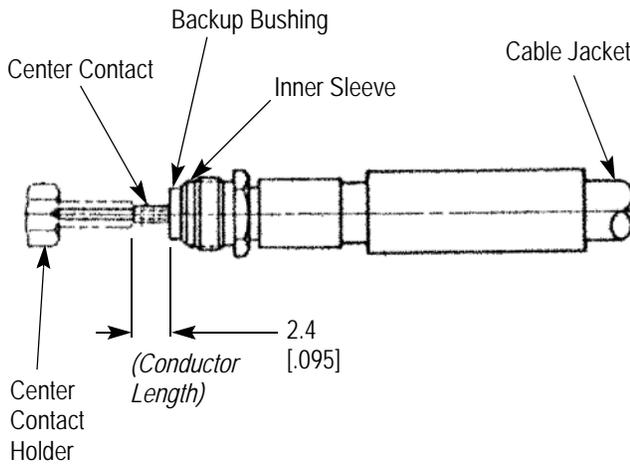
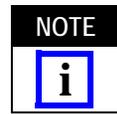


Figure 4

4. Tin the inner conductor.
5. Place the center contact in the holder. See Figure 4.
6. Heat the center contact with a soldering iron and carefully push it over the inner conductor to rest firmly against the bushing.
7. Remove excess solder or splatter.

### 3.4. Securing the Housing to the Retaining Nut and Shrinking the Sheath

1. Carefully insert the center contact into the dielectric I.D. of the housing subassembly. See Figure 5.



Dielectric not shown.

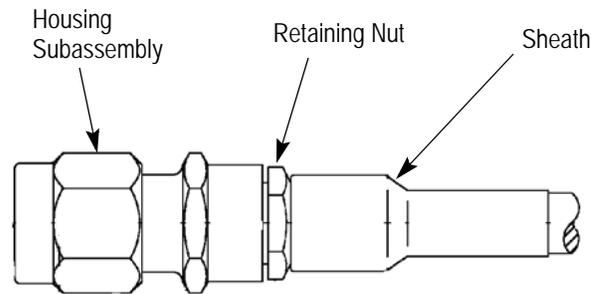


Figure 5

2. Engage the threads of the retaining nut to the housing and torque to 12 to 15 inch-pounds.
3. Slide the sheath over the outer sleeve as shown in Figure 5.
4. Apply indirect heat with a heat gun to shrink the sheath.

### 3.5. Inspecting the Completed Assembly

Adherence to the steps given should yield the dimensions shown in Figure 6.

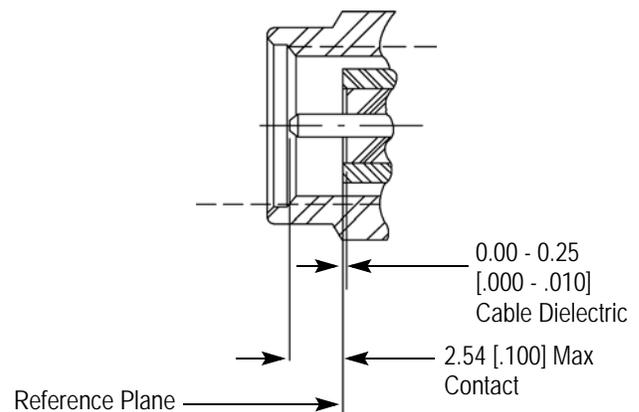


Figure 6

### 4. REVISION SUMMARY

Since the previous version of this document, the following changes were made:

- Corrected typographical errors.
- Modified callouts for improved clarity.
- Updated document to corporate requirements.