

## Specifications

Operating Temperature: 0°C to +85°C  
Storage Temperature: -40°C to +125°C

## Material:

Center and Outer Conductors: Beryllium-copper, gold plated over nickel per Mil-G-45204C  
Coupling Nut: Passivated stainless steel  
Concentricity Bead: Teflon  
Plastic Support Bead Dielectric: Proprietary Material



# Anritsu

## W1-105M Connector

## Microstrip to W1 Male Sparkplug Connector Launcher

Figure 1. W1-105M Connector

### 1. Materials

These materials may be needed to install the W1-105M Connector.

Name	Vendor and Model/Part No.
Solder, 80In/15Pb/5Ag	Indium Co., Indalloy#2
Electrically Conductive Epoxy	Bondline #2120
Thread Retaining Compound	Loctite RC609
Cleaning Fluid	Isopropyl Alcohol

### 2. Tools

These tools may be needed to install the W1-105M Connector. Equivalent tools may be used.

Name	Vendor and Part No.
W1-6 mm Torque Wrench	Anritsu 01-504
W1-6X7 mm Open End Wrench	Anritsu 01-505
W1-7 mm Torque Wrench	Anritsu 01-506

### 3. Machining Dimensions

Machining details for creating the housing wall are shown in Figure 2.

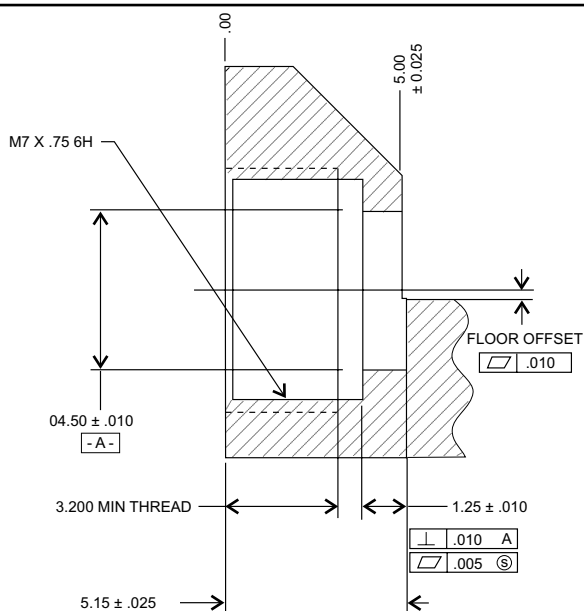
The floor offset is calculated as follows:  
Offset = substrate thickness + 0.0635 (radius of pin) + 0.075 (clearance for solder flow).

### 4. Connecting the Housing to the Substrate

- Clean the housing with alcohol and blow it dry.
- Place the edge of the substrate 0.025 mm from the end of the floor of the housing (see Figure 3).
- Place the substrate so that it is centered with respect to the housing hole.

### 5. Installing the Connector into the Housing

- Thread the connector into the housing wall by hand until lightly seated, then back the connector out approximately 1/8 turn, or 45 degrees. This will allow for final tightening with the torque wrench.
- Use the 7 mm torque wrench on the hex portion of the connector body to secure it to the housing wall. The proper amount of torque assures a good ground connection.



MOUNTING HOLE - CONNECTOR NOT SHOWN - ALL DIMENSIONS IN MM

Figure 2. Machining Details

## NOTE

To permanently install the launch assembly in the package or fixture, thread retaining compound may be applied to the connector threads prior to installation.

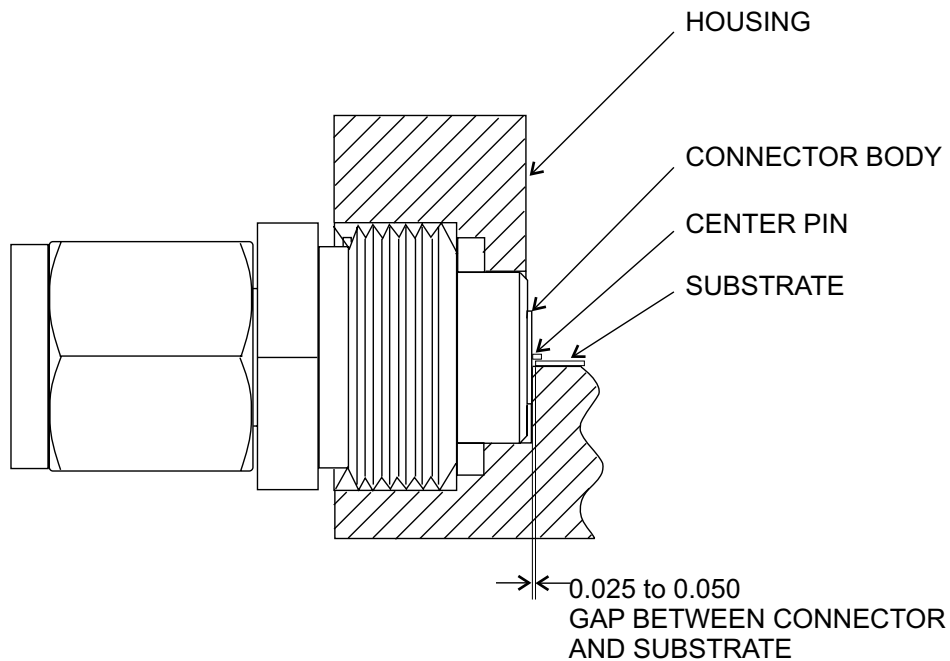
- c. Attach the center pin of the connector to the trace with electrically conductive epoxy, or by using a low temperature indium solder.

## 6. One Millimeter Connection Procedure

- a. Hold the hex portion of the connector with 7 mm side of the 01-505, open-end wrench.
- b. Use 01-504, 6 mm torque wrench to apply the recommended torque to the 1 mm male coupling nut.

## 7. One Millimeter Disconnection Procedure

- a. Hold the hex portion of the connector with 7 mm side of the 01-505, open end wrench.
- b. Use 01-504, 6 mm torque wrench to disconnect the 1 mm male coupling nut.



**Figure 3.** Connection to Substrate