Specifications

Soldering temperature: 250°C max.
Soldering time: 5 minutes, maximum, cumulative

Figure 1. *V115FMS10 Connector Assembly*

Anritsu

Integrated V Connector®
Microstrip to V Female
Part Number V115FMS10

1. *Tools And Materials*

The following tools and materials are needed to install the V115FMS10 connector. Equivalent tools may be used if the recommended tools are not available.

Name	Vendor and Model/Part Number
Solder, 62% Sn, 36% Pb, 2% Ag, or 60% Pb, 40% In, 24 gauge, 0.75 mm (0.030 inch) diameter rosin core	SN62 Kester Co. or Indalloy #206, Indium Corp.
Cleaning Fluid	Isopropyl Alcohol
Stereo Microscope .07-30X	Bausch & Lomb, Model Stereo Zoom 4
Rosin Flux 1544	135 Kester Co.
Indium solder wire, 80 In/15 Pb/5 Ag (.5 mm dia.)	Indium Corp. of America

2. *Machining Dimensions*

Machining dimensions for the required mounting hole are provided in Figure 2.

Caution:

These connectors are not suitable for use with high-temperature solder such as gold-tin.

3. *Installation of the Connector Into the Housing*

a. Flux the connector and the inner walls of the mounting hole.

b. Make the solder rings by wrapping the Sn62 solder wire around the connector, making one turn to form a solder ring around the connector. Cut the solder wire.

c. Place and push the connector into the housing; ensure that the ground lip is positioned as shown in Figure 3.

d. Place the housing on a hot plate to flow the solder. For Sn62, set the hot plate to 200°C. For Indalloy #206, set the hot plate to 250°C.

e. When the solder starts to melt, push the connector into the housing so that the connector flats are aligned with the housing slot.

f. Remove the housing from the hot plate, keeping the connector firmly pressed to the housing. Allow the assembly to cool at room temperature.

g. Clean with alcohol or equivalent solvent for removing flux.

NOTE

Visually verify that there is a good solder flow (without any pin-holes) between the outer conductor and the wall of the housing. This will ensure that a hermetic seal is created for the connector assembly.

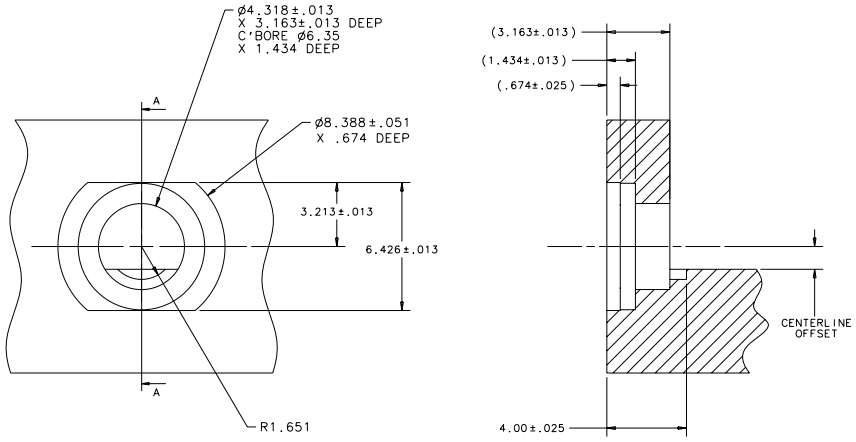

Figure 2. *Machining Dimensions for V115FMS10 Mounting Hole*

4. ***Connecting to the Substrate***

a. Cut the 0.5 mm indium solder wire into 1 mm (0.040-inch) long pieces.

b. Place 1544 flux and the pre-cut indium solder wire pieces into the connector step holes.

NOTE

Solder preforms or pastes can be used between the ground lip and the bottom of the substrate if preferred.

c. Place the substrate (0.25 mm -- 10 mil thick) on top of the ground lip and make sure the center pin is properly aligned with the circuit trace.
The recommended gap between the substrate and the connector is 0.05 mm.

d. Place the housing on a 165°C hot plate to flow the solder.

e. Remove the housing from the hot plate and allow the assembly to cool slowly.

f. Clean with alcohol or an equivalent solvent for removing flux, and visually inspect all solder joints.

g. Following the instructions in the V110-1 Installation Sheet (Anritsu part number 10300-00023) slide a sliding contact onto the connector pin and either gap weld, solder or epoxy the sliding contact to the substrate trace.

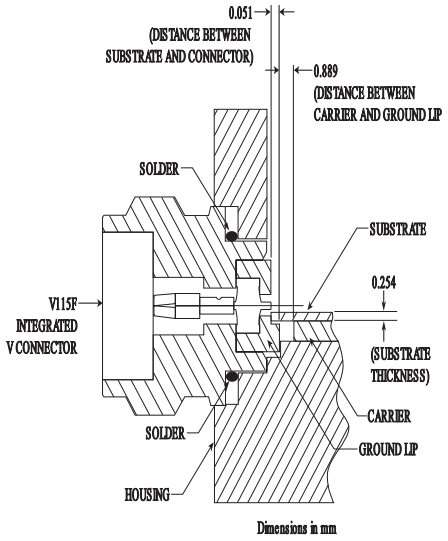

Figure 3. *V115FMS10 Assembly*

P/N: 10300-00024
REV: D
Printed: July 2005

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