

Mounting instructions for SMA Plugs 242-CON-SMA-V2 / 242-CON-SMA-CER

This document describes the connection of the SMA plug 245-CON-SMA-V2 / 245-CON-SMA-CER to the 50 Ohm Kapton cable 311-KAP50.

As vacuum applications are often very specific, modifications of the procedure shown here might be required. Described here is the method with using UHV solder (315-LF-SOLDER)

The plug consists of 6 parts, two of them are made out of PTFE or ceramic (245-CON-SMA-CER) The upper picture shows the -V2 version.

1) Stripping the cable:

- Cut back outer insulation and shield for approx. 10mm
- Cut back outer insulation only for approx. 19mm
- Cut back insulation of conductor for approx. 4mm

Dip the inner conductor into the solder flux and coat it with a small amount of UHV solder.

2)

Put the crimp ferule over the cable

Open the shielding wires a little and push the inner crimp hull under the shielding wires.

3)

Put the thin PTFE disc over the conductor wires. Please note the direction (see photo); ceramic version uses a disc here.

Dip the inner conductor again into the flux

Put the pin over the inner conductor.

Heat up the pin with the solder iron until the solder melts.

Check for proper connection

Wash off carefully any remaining flux with alcohol (Ethanol or Isopropanol)

4)

Place the second PTFE / ceramic part and the main housing over the pin and screw the parts together with the outer housing.

Crimp the outer ferule to connect the shielding (diameter 3.25mm).

To give additional stability, the the end of the ferule can be crimped to the outer side of the cable.

Recommended tools:

- 1) Wire stripper 321-STRIP10
- 2) UHV Solder and flux 315-LF-SOLDER
- 3) Crimp tool 214-CTOOL-SMA
- 4) Solder iron

