

Soldering Procedures for Filter Connectors

RECOMMENDED GUIDELINES FOR CUSTOMER SOLDERING AND CLEANING OF SMITHS INTERCONNECT EMI/EMP FILTERED CONNECTORS HAVING PC-TAIL OR SOLDER CUP TERMINATIONS.

Smiths Interconnect filter connectors have been built to be rugged and able to withstand the environments they will be exposed to during their service life. However, since there are filter components inside the connectors, care should be taken during the processing of these types of products. The following is a brief overview of some general guidelines on how to handle the connectors during the soldering process.

Soldering Precautions

Preheating: It is always a good idea to preheat the connector prior to soldering to minimize subjecting the filter components to any thermal shock related to the soldering operation. We recommend preheating to 120°C-132°C (250°F-270°F) for five (5) minutes prior to soldering. This preheat is recommended for all soldering methods.

Heat Sinks: Where permissible/applicable, the use of a suitable heat sink attached directly to the contact being soldered is recommended in order to reduce the amount of heat being applied to the filter assembly. In some cases there will be certain configurations and/or high-density arrays may preclude the use of such a device.

Hand Soldering: For solder cup arrays it is strongly recommended that the contacts be soldered in a “criss-cross” pattern, alternating between central and peripheral locations as much as possible. The goal is to avoid a sustained buildup of heat in any one area of the filter assembly.

Cleaning/Handling

Cleaning: Smiths Interconnect recommends that cleaning after soldering not be done by immersion in a cleaning solution. After soldering, solder joints may be brush cleaned with Isopropyl Alcohol, preferably while holding the connector with its soldered contact array facing downward at approximately a 45° angle. Allow the Isopropyl Alcohol to air dry at room temperature, followed by a 70°C (158°F) oven cure for approximately two (2) hours.

Exceptions: If immersion or “auto-wash” cleaning using an aqueous pressure jet system is



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required, please contact Smiths Interconnect for further information on what precautions need to be taken.

Handling: Avoid severe bending or flexing of the contact terminals at the point of exit from the connector backshell or epoxy/RTV seal.

If you have any further questions regarding how to handle or process Smiths Interconnect EMI/EMP filter connectors please contact us.



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