

SOP CONNECTOR REWORK METHODS - for the following series:

QTE/QSE
QTH/QSH
QTS/QSS

QMS/QFS
QMSS/QFSS

BTE/BSE
BTH/BSH
BTS/BSS

Two methods can be used depending on your equipment set.

Method 1

Using a Mini Stencil to paste the circuit pads.

- Using a syringe or flux pen, add liquid flux to the connector solder joints allowing the flux to penetrate under the body to the ground plane.
- Lower a BGA-type hot air rework device, set to a maximum of 250° C, down over the connector and allow the hot air to circulate and liquefy the solder joints (See Figure 1 and 1A).

Note: It is important to use a bottom pre-heater to avoid open solder joints because of PCB bow and twist during the repair process. Before finalizing the rework process, a thermal profile should be performed with the thermocouples in direct contact with the insulator body and solder leads to verify the temperatures of the PCB and components.

- Raise the hot air nozzle and remove the connector.
- The board must then be cleaned and the pads leveled with a solder wick mesh to make sure the pads are an even height and no bumps or raised areas remain. (See Figure 2).

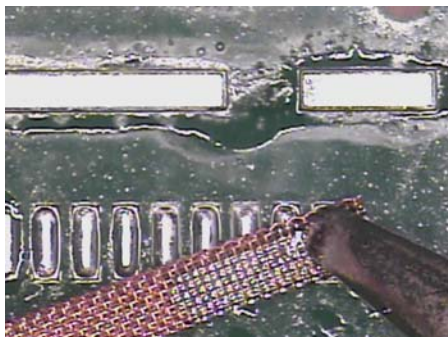


Figure 2

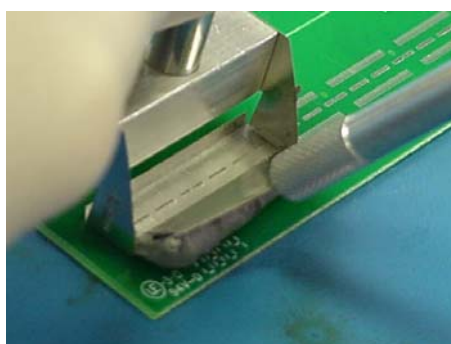


Figure 3



Figure 1

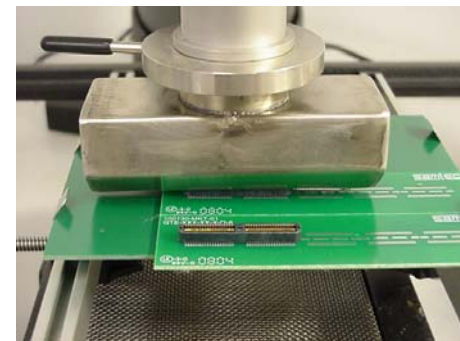


Figure 1A

- Using the mini stencil, print a new pattern of solder paste. (See Figure 3).
- Load the connector into position making sure that all the terminal pins and ground plane are sitting in the paste.
- Lower the hot air device over the connector, and allow the paste to liquefy for a period of 30-90 seconds. **Refer to the solder manufacturer's suggested reflow profile for temperature and time specifications.**
- Then follow your method of cleaning the flux residue unless "no clean" solder paste was used.

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Method 2

Using a manual solder paste dispenser to apply paste to the circuit pads.

- Using a syringe or flux pen, add liquid flux to the connector solder joints allowing the flux to penetrate under the body to the ground plane.
- Lower a BGA-type hot air rework device, set to a maximum of 250° C, down over the connector and allow the hot air to circulate and liquefy the solder joints (See Figure 1 and 1A).
- **Note:** It is important to use a bottom pre-heater to avoid open solder joints because of PCB bow and twist during the repair process. Before finalizing the rework process, a thermal profile should be performed with the thermocouples in direct contact with the insulator body and solder leads to verify the temperatures of the PCB and components.
- Raise the hot air nozzle and remove the connector.
- The board must then be cleaned and the pads leveled with a solder wick mesh to make sure the pads are an even height and no bumps or raised areas remain. (See Figure 2).
- Using a manual or pneumatic dispensing device, apply the solder paste to the ground plane circuit pad (if applicable) and terminal pads (See Figure 4). Hand soldering of the terminal pads is also a viable option.
- Load the connector into position making sure all leads are sitting in the paste.
- Lower the hot air device over the connector, and allow the paste to liquefy for a period of 30-90 seconds. **Refer to the solder manufacturer's suggested reflow profile for temperature and time specifications.**
- If paste was only printed for the ground plane (if applicable), hand solder the terminal pins.
- Then follow your method of cleaning the flux residue unless "no clean" solder paste was used.



Figure 4