

Thursday 6th May, 2021

Stencil Thickness and Solder Paste Volume

Recommendations from Harwin Technical

Stencil Recommendations:

- Stencil thickness should be equal to the maximum coplanarity value of the connector tails.
- Stencil openings / apertures for solder application should be the same size as the recommended pad layout (see the applicable Technical Drawing/Datasheet).
- The solder paste used should be at least 80% solids by volume.
- The solder joints should be inspected in accordance to IPC-J-STD-001, and the process adjusted if necessary.
- Any parameters outside of this recommendation may require additional optimization of the soldering process, to achieve a satisfactory solder joint that meets the requirements of IPC-J-STD-001.

Solder Paste Volume:

- Calculation of solder volume for basic rectangular pads = Pad width x Pad length x Stencil thickness.
- Solder volume for more complex shapes of pad can be calculated by finding the pad area, and multiplying by the solder thickness.

If you have any questions relating to this document or any Harwin product, please contact a member of the Technical Team via our [Ask an Expert](#) on the website www.harwin.com.