

Application Guidelines for Interconnecting Devices with Large Ground Pads such as QFNs

The guideline applies to pure PariPoser contactor and does not apply to contactors incorporating PariProbe or flex structure.

PariPoser material consists of ~90% of silicone, which behaves physically like a liquid (it cannot be compressed). When pressure is applied, it needs "to flow" into gaps between the actual contact pads.

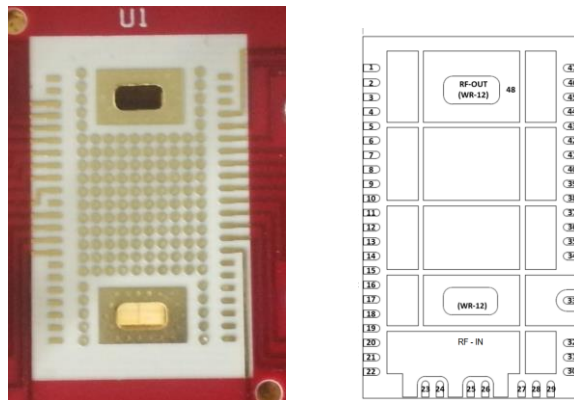
Optimum conductivity between a device with large ground pads and a PCB is achieved by segmentation of the matching ground pad on the PCB (or the DUT).

The general rules for designing the PCB are:

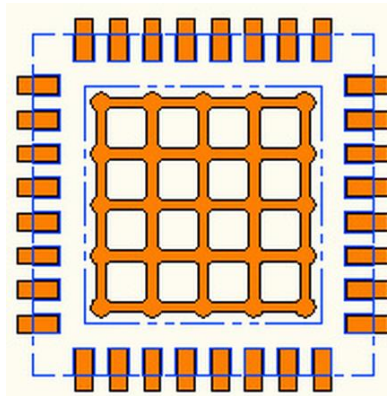
- Each ground pad should have same general area as surrounding contact pads.
- Maximize open area between pads with goal of ~2/3 of total area being open space. This provides adequate volume for incompressible silicone to flow into.
- Gap between ground pads and contact pads must meet PariPoser minimum design rule of 40% of pitch.
- Ground pad height should be same as contact pad height.

Shown below are a variety examples of how this can be done:

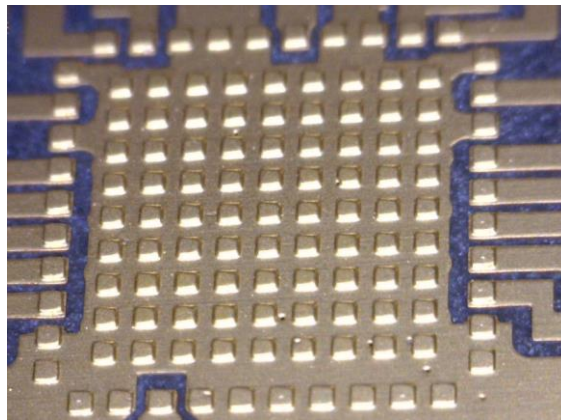
- Using an array of pads (vias) to contact DUT with large, even ground planes



- Introducing a lattice structure provides the same effect but perhaps assures better electrical uniformity.



- Button plating (elevated structures) over an even ground plane.



- The example below shows a further option, in case the PCB design is not accessible anymore: PariPoser material will feature punched holes under the ground plane. The material flows into the punched areas once pressure is applied. Best is to mount the material on a frame

