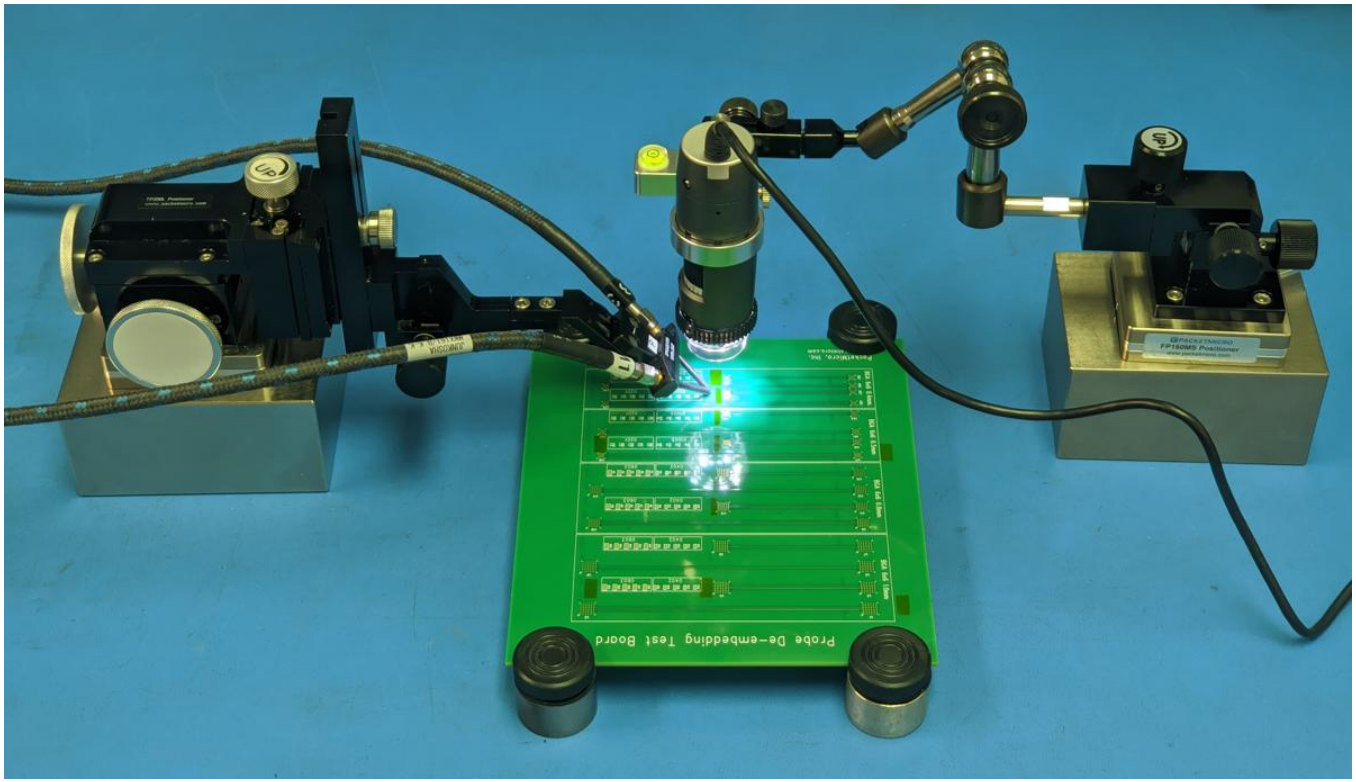
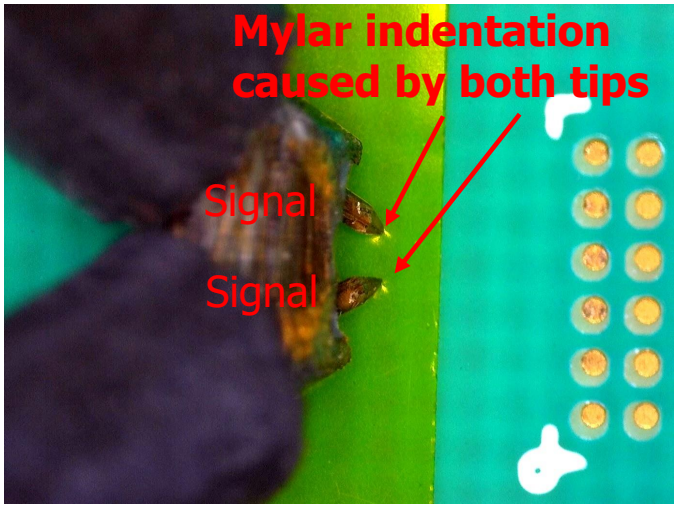
Probe Planarization

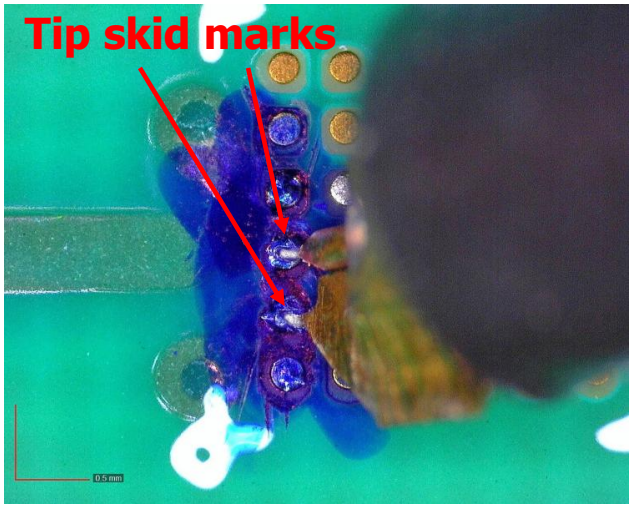
by using Mylar Tape and Marker



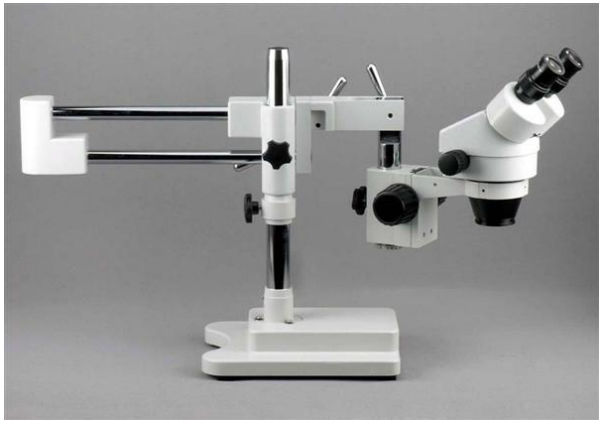
Probe Planarization Tips

- Good contact of both probe tips with the DUT is essential to accurate calibration and measurements.
- Mylar tape provides leveling guidance on flat, even surface (bare PCB).
- Color marker helps on uneven surface (solder bumps).
- A good microscope is important. You may damage the probe if you cannot see its tips well.

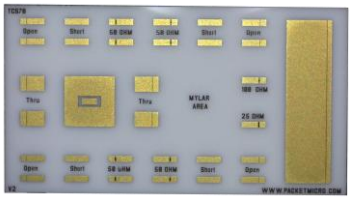




Tools - Accessories



Optical Microscope
(~ 90 x magnification)



TCS70
Calibration
Substrate

Mylar
Tape

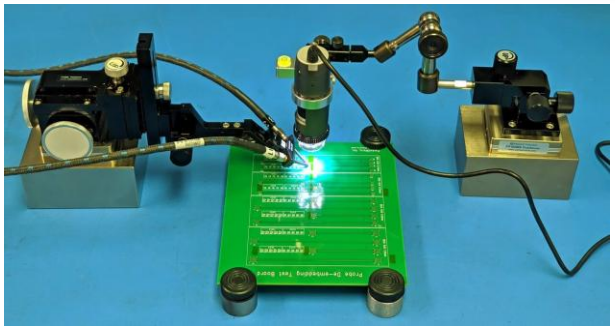
Fine-tip
Sharpie pen

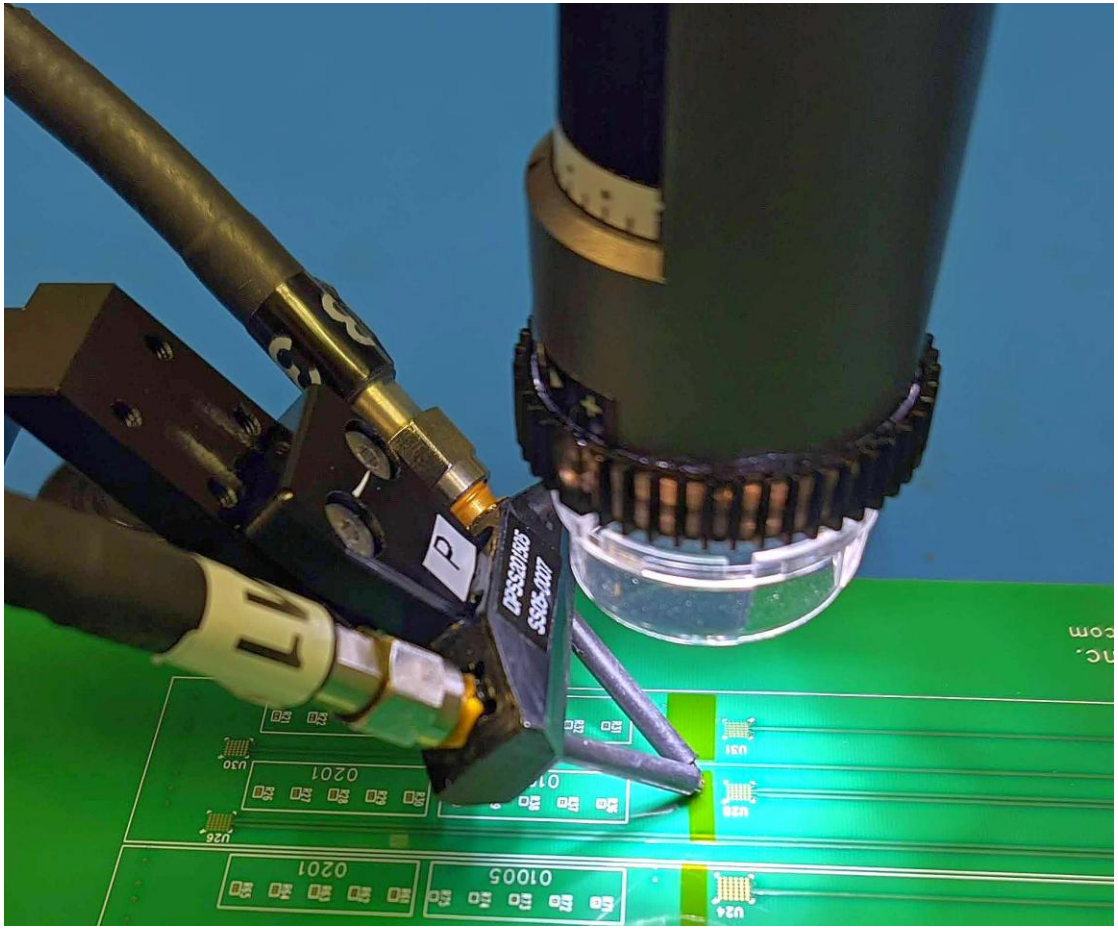
USB Digital Microscope
(~ 90 x magnification)

- Using a good microscope is essential.
- You might damage the probe if you cannot see its tips well.

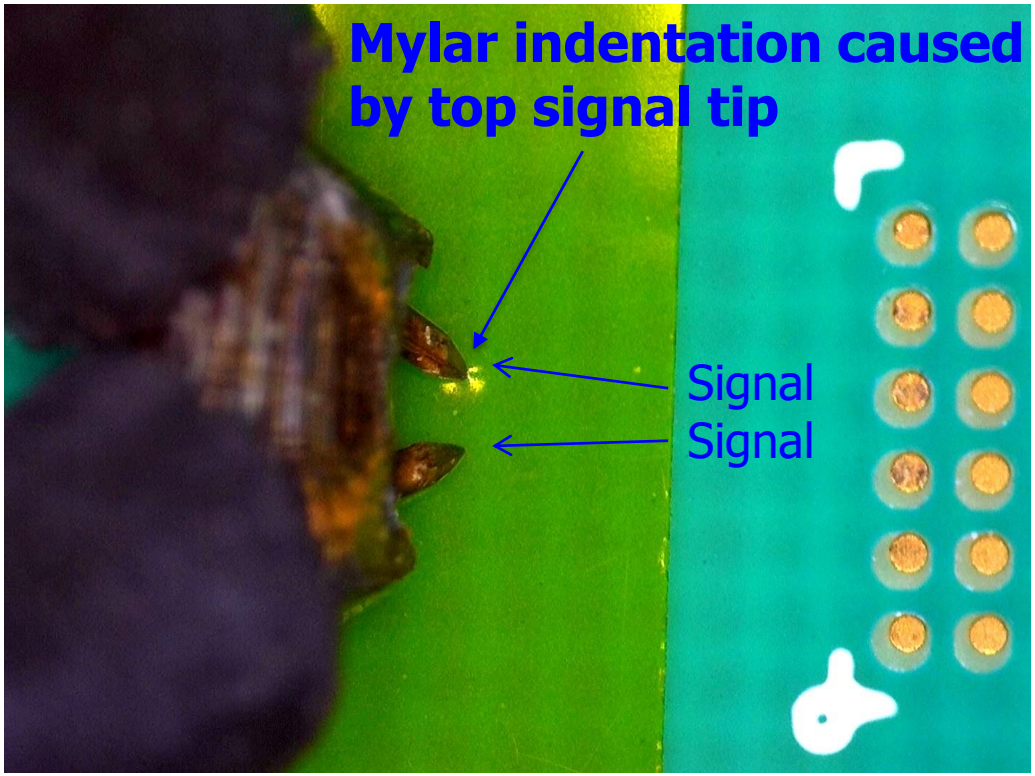
(Make sure to use a long working range (5 cm @ 90x) microscope!)

Probe Planarization on Flat Surface





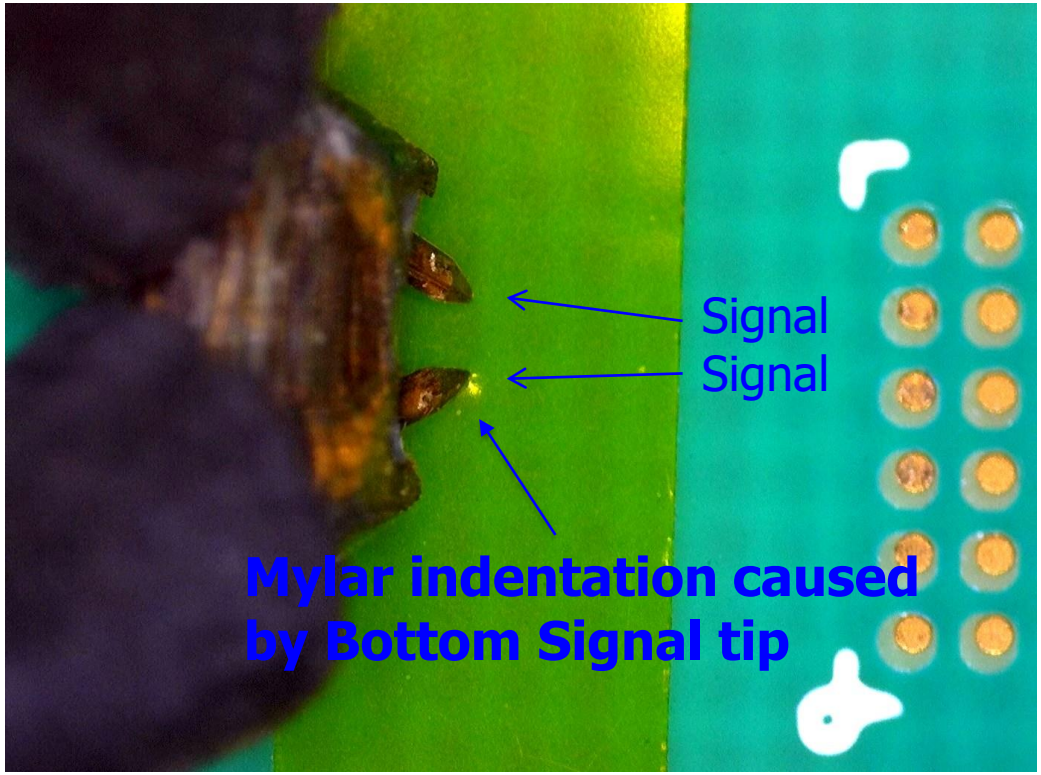
Top signal tip touches down first



Step 1:

Land the probe tips on the tape and observe the probe-tip footprint. Above image shows that top signal tip touches the surface first.

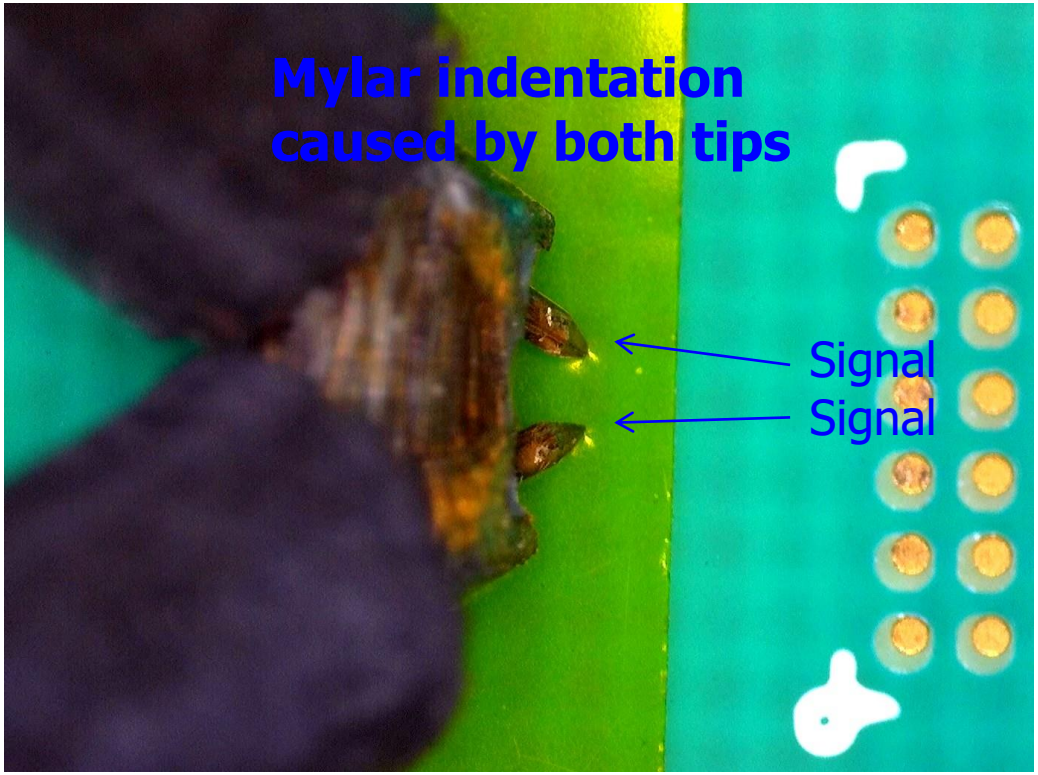
Bottom signal tip touches down first



Step 2:

Adjust the planarization knob on the TP250 positioner to level the bottom signal tip. Above image shows that bottom signal tip touches the surface first.

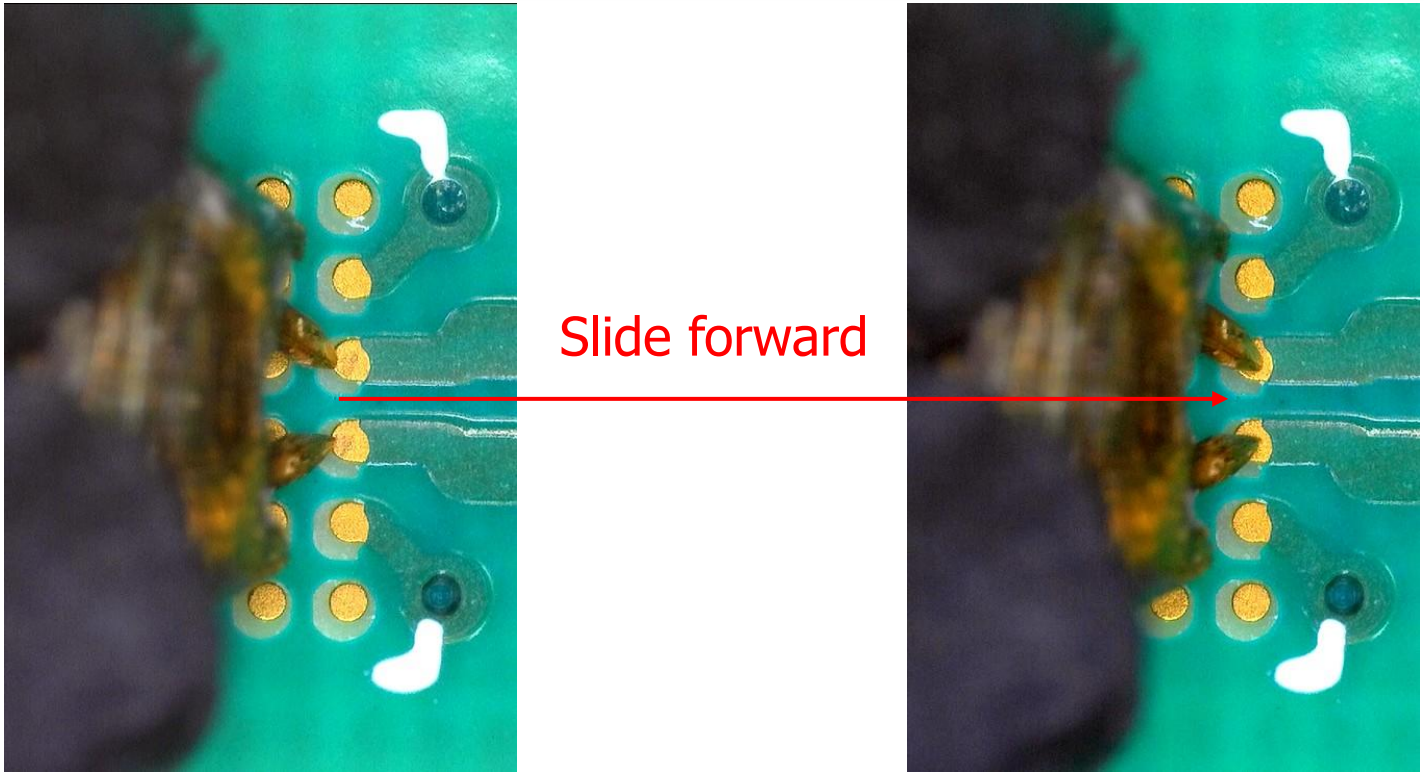
Both tips touch down simultaneously



Step 3:

Adjust the planarization knob on the positioner to land both probe tips. Above image shows the two probe tips touch the surface evenly.

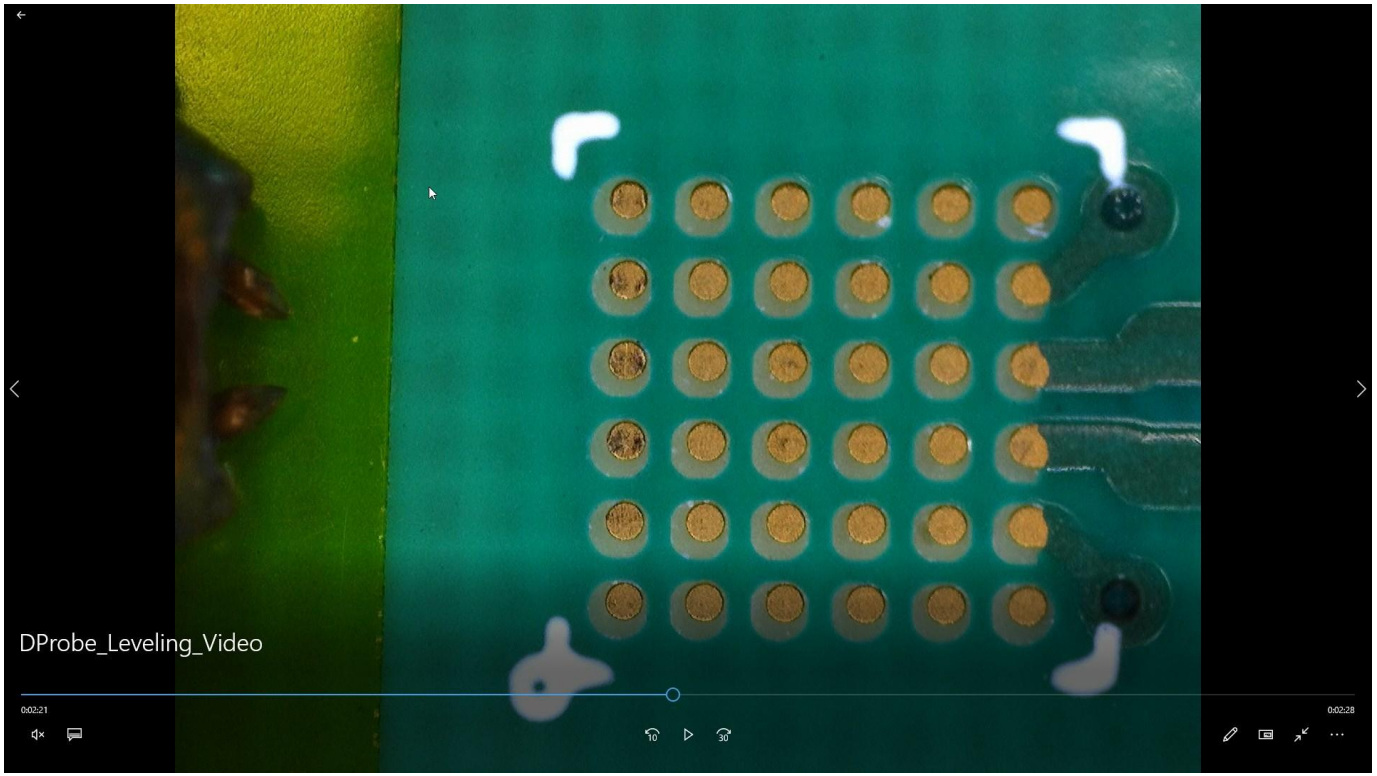
Make good probe contact on DUT



Step 4:

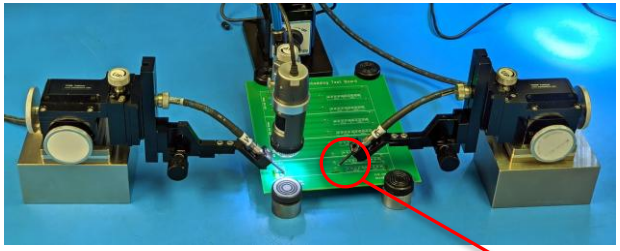
Lower the probe tips further and observe the tips to slide forward for 5 ~ 10 mils (125 ~ 250 um) for good probe contact

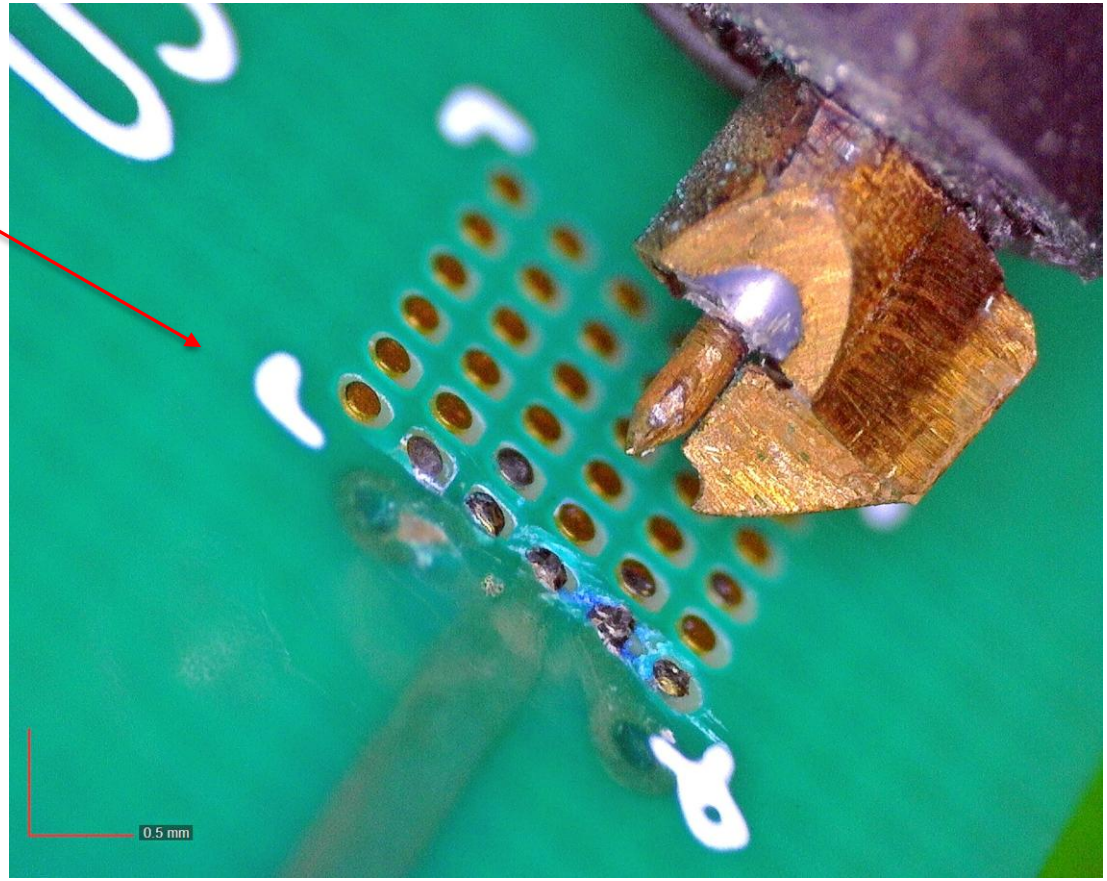
D-Probe Landing on BGA Pads



Video showing how to level the probe tips on a flat surface

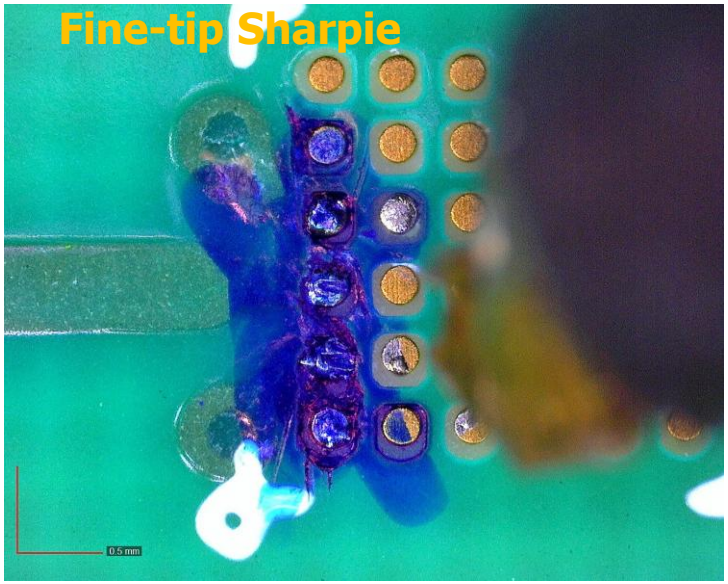
Probe Planarization on Uneven Surface

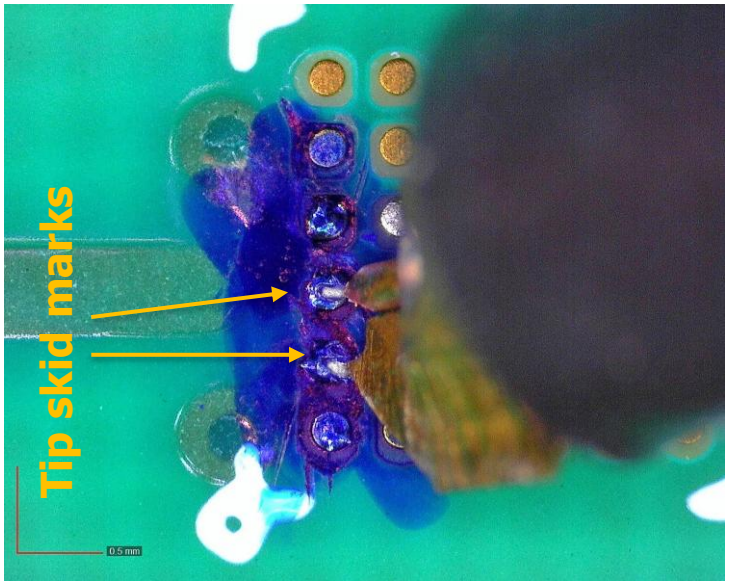




Land Probe Tips on Solder Bumps

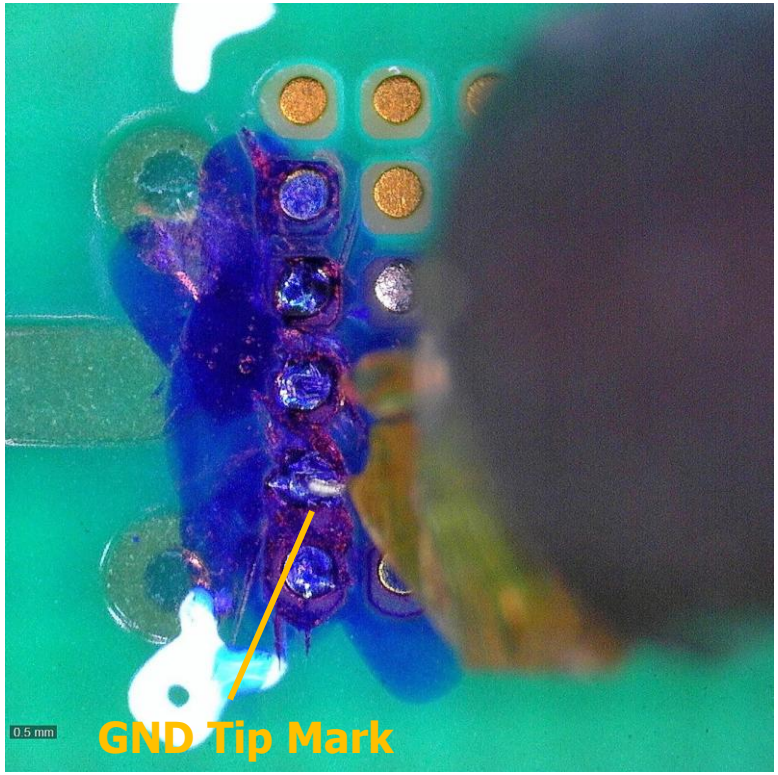
- Color solder bumps with a Sharpie
- Use the probe skid marks to confirm good tip contact
- Clean up the solder bumps with industrial alcohol after probing





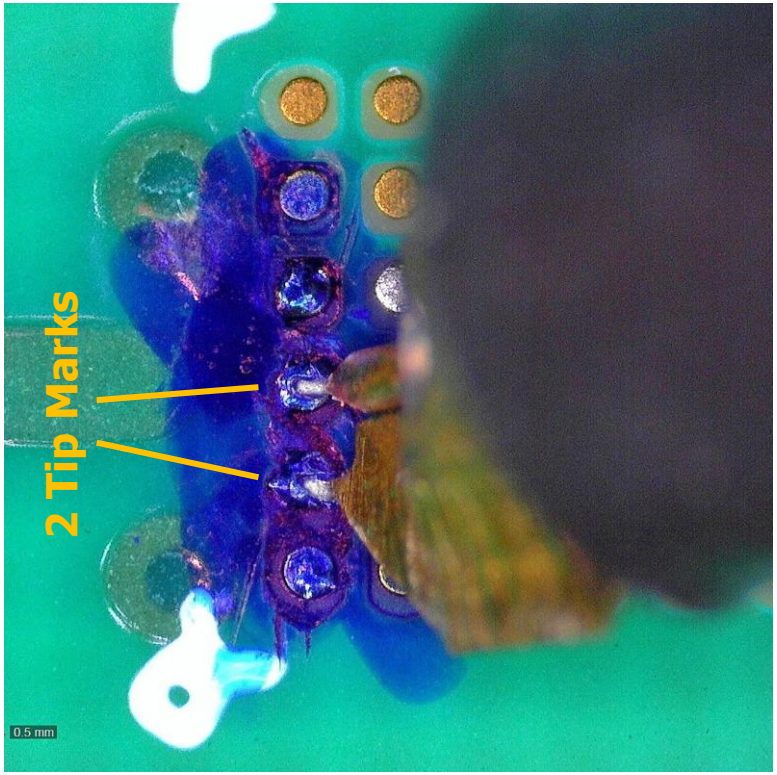
Use Probe Skid Marks as Guidance

Top signal tip touches down first

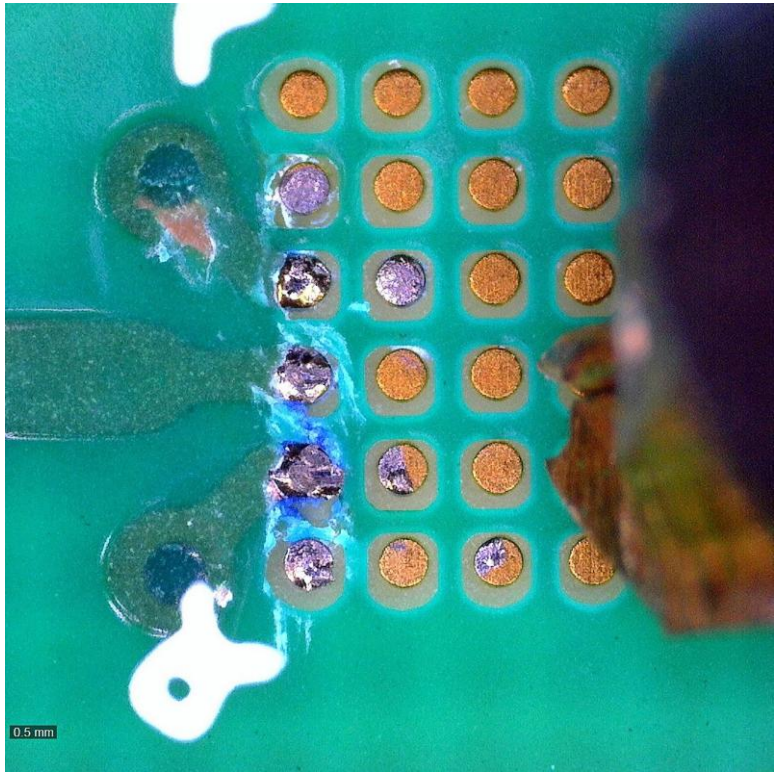


Bottom GND tip touches down first

Both Tips Touch Down Simultaneously

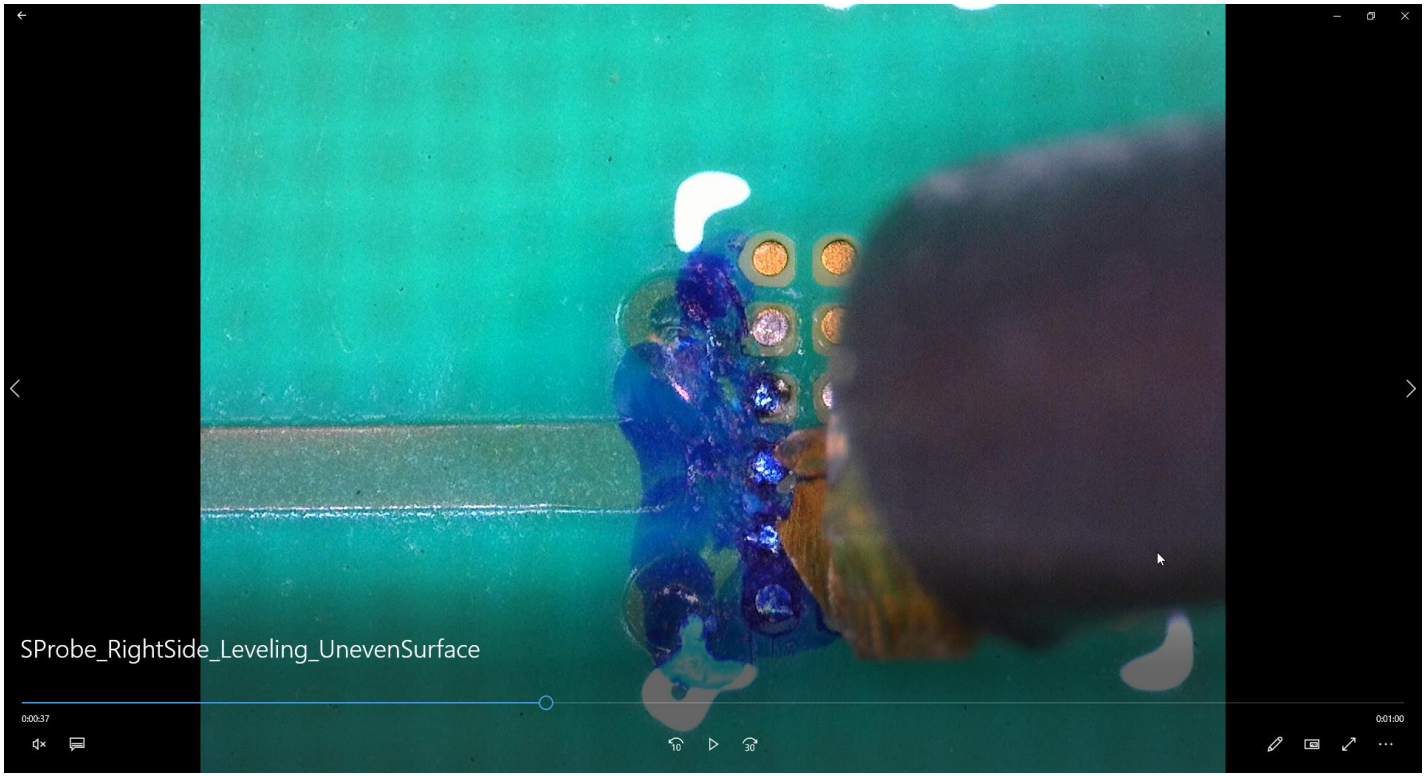


Both tips touch down simultaneously



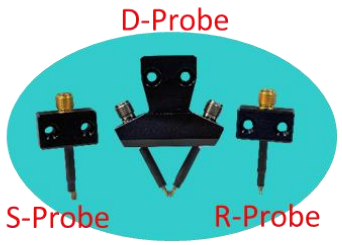
Clean up solder bumps with industrial alcohol after probing

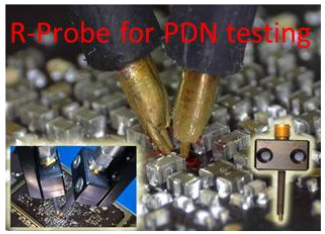
S-Probe Landing on Solder Bumps

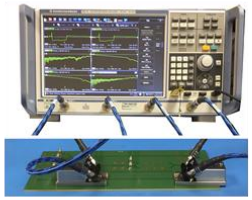


Video showing how to land the probe tips on an uneven surface

PacketMicro Product Offering






Delta-L 4.0 Solution

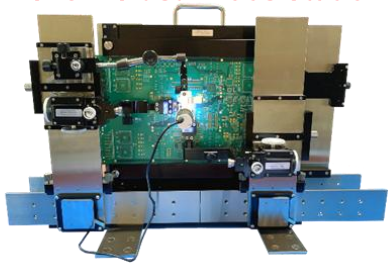

TCS70
Cal Substrate

Precision Positioners


TP250


TP150

VPS10 2-Sided Probe Station



Flex Positioners

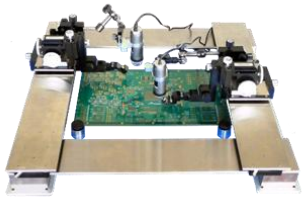

F80
FP40

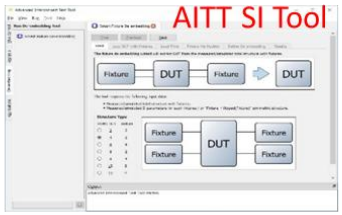

FP160

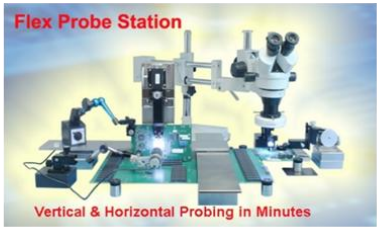

FP160MS

USB Type-C Fixtures

HPS24 Probe Station







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