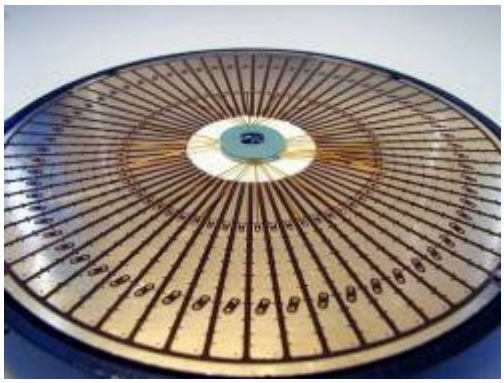
S400 LOW LEAKAGE PROBE CARDS DATA SHEET



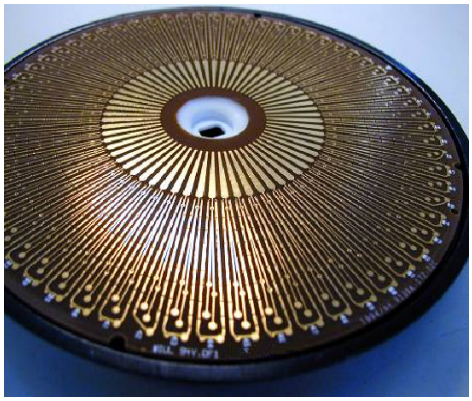
Synergie CAD develops and improves parametric probing since many years now. Improvement made to pass over new limits in term of Low Leakage on S600 products has benefit also on S400 probe card process.

Ultra Low Leakage probe card manufactured and maintained by Synergie CAD Group, is the best way to enable all the capabilities of the tester by assuming an ideal interface between the wafer and the tester.

Synergie Cad Group is proud to announce that as a result of it efforts to develop new technologies, KEITHLEY gives to the company the agreement to manufacture Ultra Low Leakage probe cards for S600 testers in all technologies available for the parametric tests : Ceramic Strip Line Blades (since 2000), Coaxial Epoxy (since 2002).

The S400 tester is now no more produced by Keithley, but there is still needs of probe cards on these testers. Moreover, new application appears in MEMS where this type of tester offers good test capapbility compare to the specific needs of these products. By its hudge experience in the parametric test, Synergie CAD is probably the best choice to have the best product which answers to these new needs.

By the way, S400 complete product is manufactured and provided by Synergie CAD PSC, as the PCB is provided and controlled by Synergie CAD, all needle assemblied are made in the parametric production line to guarantee very good specifications. These probe cards are available in Ceramic Blades, Epoxy Ring and Coax Epoxy Ring technologies. We offer also development in high temperature probing up to 200 °C continuous tests.



Synergie CAD also shares its experience and its know-how to manufacture parametric probe cards for other testers as Agilent, Suss Microtech, ReedHlom…

Web site: www.synergie-cad.fr www.synergie-cad-probe.fr

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SPECIFICATIONS	VALUES
Probe Card	
Typical Probe Card Depth (from Bottom)	120-160 mils +/- 5
Minimum Pitch	80 µm
Minimum Pad dimensions	50 µm
Tip position	in line
Number of probes	1-64
Probe position alignment accuracy	+/- 5 µm
Operating temperature	**-40 °C to 200 °C**
Rotational specification	+/- 1 °
Typical Overdrive	3 mils
Typical touchdown	250 000 to 1 000 000
Needles	
Type	Ceramic Blades, Coaxial Epoxy needles, standard needles
Material	Copper Beryllium or Tungsten Rhenium
Tip diameter	1 to 2 mils (25 to 50 µm)
Tip length	7 to 25 mils (175 to 625 µm)
Planarity	+/- 5 µm
Pad specification	
Material	Aluminum, Copper, Polysilicon, other…
Flatness between 2 pads	+/- 10 µm
Probe mark dimensions	30 to 60 µm
Electrical Specifications	
Leakage : Pin to Ground , Pin to Pin 9139	**0.1 pA/V**
Maximum current per pin (depending on material tested)	Depending on needle dimension and material from 300 mA to 1.5 A
Typical parasitic capacitance	NA
Typical DC contact resistance (Probe)	0.5 to 1 Ohm
Maximum DC contact resistance (Tip to Test equipment)	2 Ohms +/- 1
PCB specification	
Material	Polyimide, Pcb Kit provided and guaranteed by Keithley
Thickness	3.2 mm

Ask for our special Order form to give us all data necessary for manufacturing.

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