

## NEW AGILENT TESTER FOR PARAMETRIC PRODUCTS

### Synergie CAD PSC invest to cover new parametric probe card products



B1500 Tester

After acquiring the Voiron plant, Synergie CAD PSC continues the development of the site by investing several K€ in a new probe card test equipment based around the B1500 Agilent platform.

“The expertise in Parametric test at the Voiron plant will be developed and will become the standard for the whole of Synergie Cad ” said Alain Librati, President of Synergie CAD Group.

As is standard in Voiron, the tester and also the custom made interconnection box have been installed in the clean room to guarantee quality and repeatability of

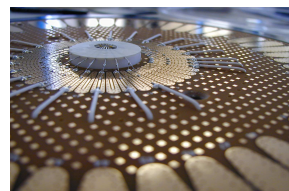
measurements.



### 407x/4080x product line

The Voiron plant has huge experience in parametric test and more especially on Keithley products. Now with support of Agilent, Synergie CAD PSC is able to manufacture and test probe card for Agilent femto Ampere range testers 4073-408X.

To control the line Synergie CAD PSC has also developed a program



### Characterizations

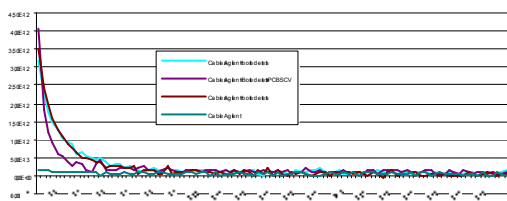


Fig. 1

In order to guarantee the production repeatability, a full qualification of the process chain were done. First, the tester itself was checked after unpacking and calibrated for repeatable performance. Then the cables were also checked to ensure they were compatible for the measurements they would take.

Then after assembling the test box, a full system

qualify each part (cables, mechanical parts, pogo pins, ect...) Then the board qualification was performed to check that the design was really compatible with fast femto ampere

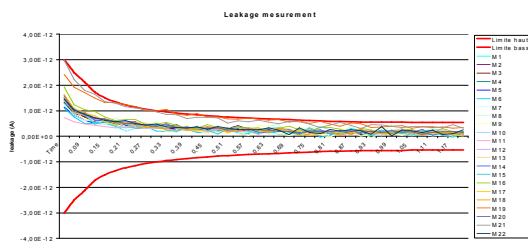


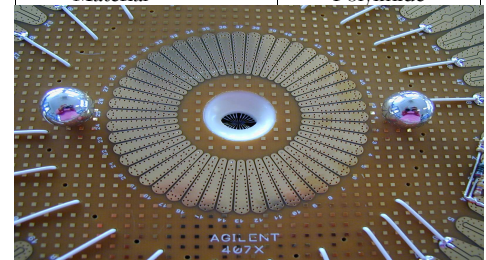
Fig. 2

### and

The Fig. 1 shows the different results of each steps and it is notable that the PCB designed is very good, as results are improved compare to a test with the test box alone.

Then a full probe card assembly were done and tested and Fig. 2 shows the results of this probe card tested on the tester.

SPECIFICATIONS	VALUES
<b>Probe Card</b>	
Minimum Pitch	80 µm
Minimum Pad dimensions	50 µm
Number of probes	1-48
Probe position alignment accuracy	+/- 5 µm
<b>Operating temperature</b>	<b>-40 °C to 200 °C</b>
Typical Overdrive	3 mils
Type	Coaxial Epoxy 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
Material	Aluminum, Copper, Polysilicon, other...
Probe mark dimensions	30 to 60 µm
<b>Leakage : Pin to Ground , Pin to Pin</b>	<b>1 fA/V @ 10s 10 fA/V @ 1s</b>
4073 / 4082	
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
Material	Polyimide



Contact List

### Sales:

[jl.bosser@synergie-cad.fr](mailto:jl.bosser@synergie-cad.fr)

### Electronic Cards:

[t.vandernoot@synergie-cad.fr](mailto:t.vandernoot@synergie-cad.fr)

### Probe cards:

[l.algamin@synergie-cad.fr](mailto:l.algamin@synergie-cad.fr)