# Sensor Array Tester

Gigalog Project Example

This document contains one of Gigalog projects that was supplied to the final customer. All information in this document provided with customer approval.

For any inquiries, please contact info@gigalogchip.com

Customer Requirements

- Tester for pixilated Si photo detectors.
- Testing each pixel for leakage current and capacitance.
- Leakage/Dark current measurements – accuracy 1% (Range: 1-500pA)
- Capacitance measurement – accuracy up to 5% (Range: 5-200pF)
- Rshunt measurement - accuracy 1% (Range: 100M-100Gohm)
- Testing of 640 pixels
- Custom socket for detector outline

Block Diagram of Proposed System
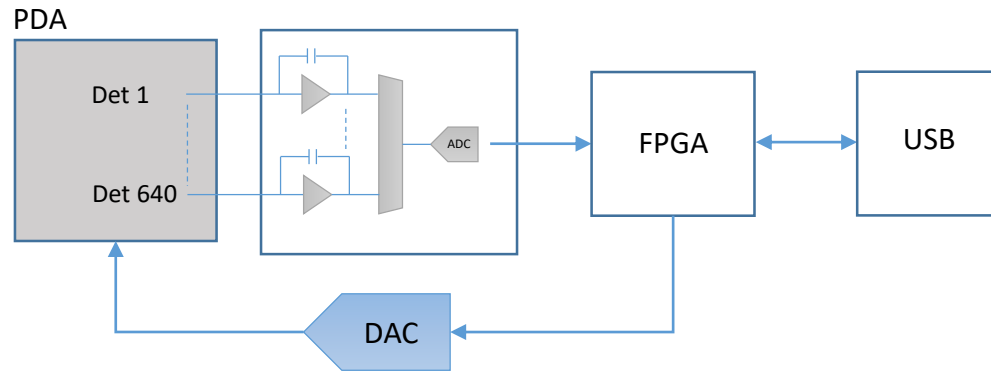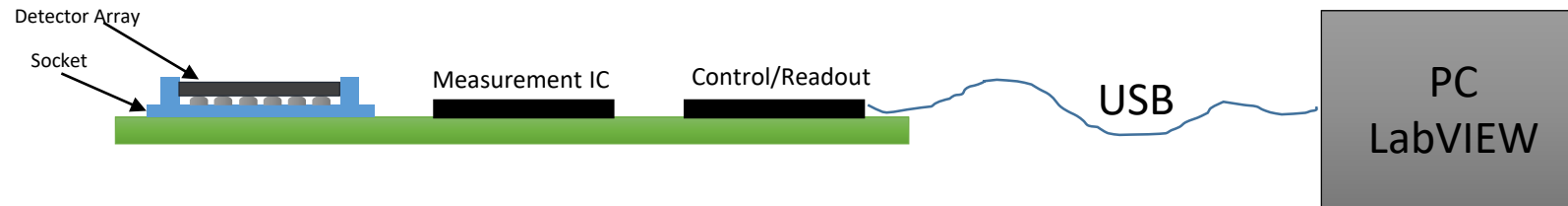
Measurement Algorithm Allows to:

1. Extract Cdet from current measurements.
2. Measure Idark
3. Measure Rshunt

Solution

- Customer received 100% working system.

- 5 systems for production line was delivered.

- Software for analysis was written and optimized per customer needs. SW allows to log operators, log all measurement, provide statistics, alarm for threshold passing.

- After several month of operation, per customer request, linearity measurements module was added.

Summary

- Gigalog has proven experience of providing detector array testers.

- Up-To September 2016, 7 testers has been delivered for company, based, in Central Europe.

- 2 similar systems are under manufacturing for Asian detector company.