

- **CRU Description:**

Customer reported issue as below.

Failure SOC(TDA2EGBHQCBDQ1)the impedance is out of normal please refer the attachment .345 km fail. No video output and ignition did not restart the 360 controller. The main crystal of the SOC is not active using an oscilloscope and the SOC peripherals are functioning properly. The Y12 pin(vdda33v_usb2)of the SOC seems to show low impedance based on handheld multimeter measurement 17.3kohm vs 8.8Mohm. Also report that issue follows device with ABA swap.

Verification results:

The customer returned device (CRD) was reballed for electrical testing on the automated test equipment (ATE). The CRD passed all ATE testing using the production test program across temperature (hot, room, and cold).

- **Package Analysis:**

- **External Package Examination:**

External package inspection found no anomaly on return unit,

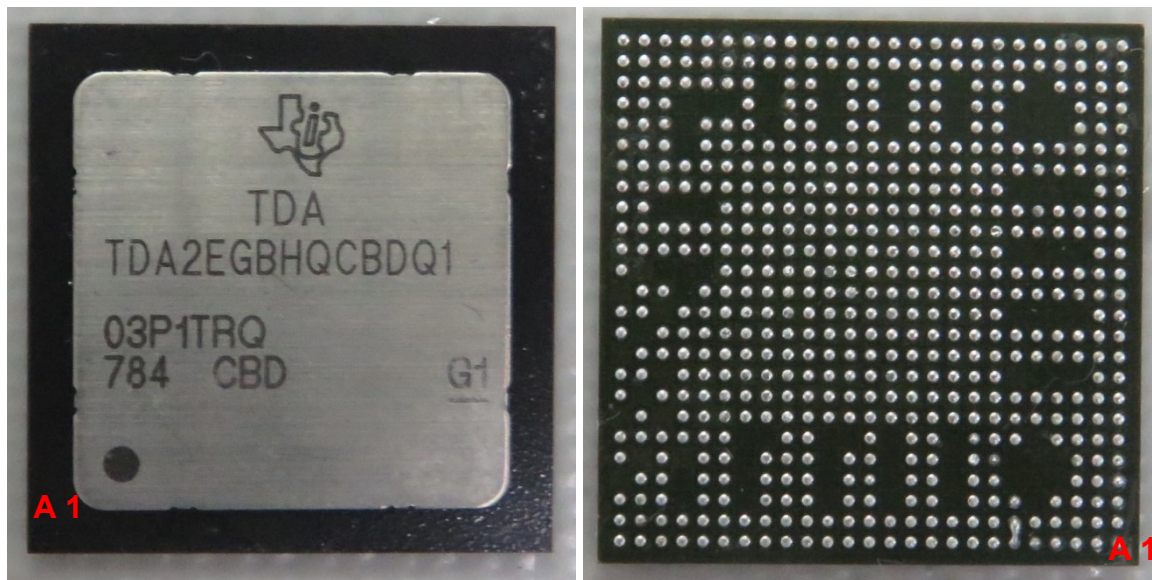


Fig. 1: Optical inspection result showed no anomaly on return unit.

- **X-Ray Analysis:**

Radiographic inspection found no anomaly on return unit,

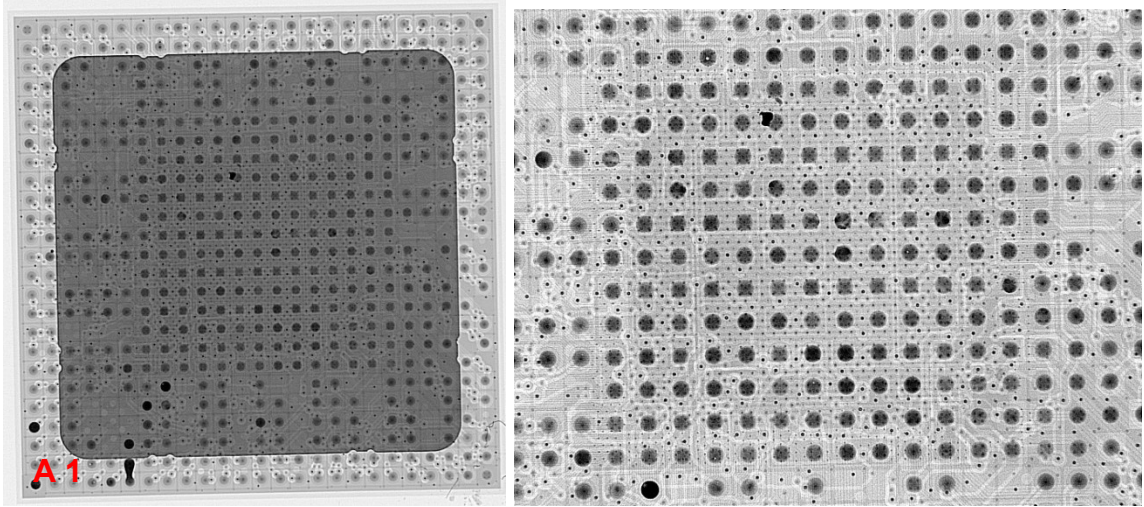
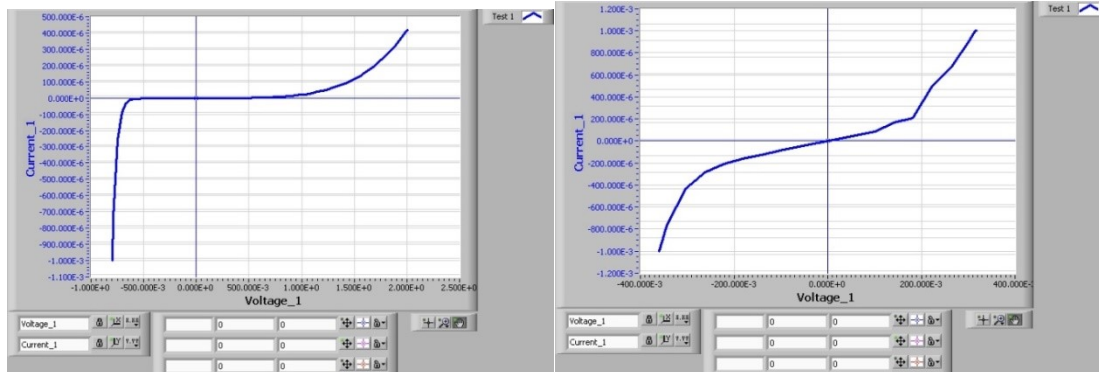


Fig. 2: X-Ray inspection image showing no anomaly on return unit.

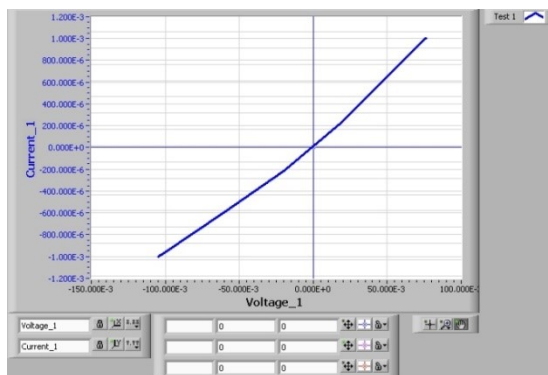
- **Electrical Characterization:**

Return unit was performed electrical verification by using curve tracer. No open or short was observed on return unit (blue lines).



a. Y12 (xi_osc0) to GND I/V of return unit,

b. J9 (vdd_dsp) to GND I/V of return unit,



c. J15 (vdd) to GND I/V of return unit.

Fig. 3: No open/short was observed on return unit.

- **ATE (automated test equipment) test results using production test program suite**

The device passed automated testing using the current production test program

- **Bench Test Results:**

The customer returned device (CRD) was evaluated on the Bench EVM setup. We conducted an automated/low level (bare metal) test suite that provides broad coverage of device and peripheral functionality. Additionally, we performed Android and high level operating system testing (HLOS) running more complex operations to simulate actual use in a system application. This provides broad coverage of device functionality and stresses the compute/core components and interconnect paths. The returned unit passed all testing with no issue found.

- **Conclusion:**

In conclusion, we could not verify the customer reported issue and the customer return has been deemed Trouble Not Identified (TNI).