Report: AM03 electrical validation

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1 Electrical tests

1.1 Auxiliary board

Some parameters of the auxiliary board are measured (without any module connected).

- Consumption: 379 mA
- $V_{clp} = 2.10\ V$
- $V_{DD_D} = 3.33\ V$
- $V_{DD_A} = 3.24\ V$

1.2 AM03 smoke test

First smoke test done without changing the value of V_{clp}, V_{dd_D} of V_{dd_A}:

- POWER ON: 608 mA
- RESET: 36 mA
- ALL: 36 mA
- READ: 36mA mA with errors
- START: 36 mA

The RESET works on the module but then there is a problem of JTAG. Two voltage measurements were done on the capacitors closed to the connector. The first one, before reseting the module:

- $V_{clp} = 2.59\ V$
- $V_{dd_D} = 1.85\ V$
- $V_{dd_A} = 2.71\ V$

The V_{clp} is higher than it should be. The V_{clp} measured on the auxiliary board is still 2.1 V. Also the auxiliary board is providing 3.3 V for V_{DD_D} and V_{DD_A}, but the measurements on the capacitor close to the connector give different value.

After reseting the module, the voltage values measured on the flex are:

- $V_{clp} = 3.33\ V$
- $V_{dd_D} = 2.93\ V$
- $V_{dd_A} = 3.33\ V$

Due to the unexpected results, I've measured the voltages along the jumper cable and I've got lower values as the one measured on the auxiliary board as expected.

It is the second Aluminum Mirrored module that has a problem with V_{clp} and the JTAG.