

Product Change Notification PCN17001

PicoZed SDR 2x2 SOM Rev E

Subject: PicoZed SDR 2x2 System-on-Module (SOM) Rev E changes

Products Affected: This PCN affects the part numbers listed below.

AES-Z7PZ-SDR2-G
AES-Z7PZ-SDR2-DEV-G

Change Description:

Ethernet PHY:

- a) Added optional connection to Ethernet PHY (U10) SERDES pins 1,2,4,5 to support backplane Ethernet applications (1000baseX).
- b) Added jumpers to select SERDES ports of the U10 PHY (JP1,2,3,4)
- c) Removed E13 to reduce noise observed at the DC output from the PHY (U10).

Zynq Multi-Gigabit Transceiver Bank:

- d) Changed the four Zynq multi-gigabit (MGT) ports from bank 111 to bank112. Done to be compliant with Xilinx recommendation for PCIe. The JX connections were unchanged, so Rev E is electrically compatible with all existing carrier cards. Anyone migrating a Xilinx Vivado project that utilizes the MGTs will need to update the user constraints to use bank 112.

Power Supplies:

- e) (U18) ADP2164 removed. Formerly provided VCCPCOM-1P8V
- f) (U4) now provides VCCPCOM-1P8V on SW3. Formerly SW3 provided VCC-BRAM and VCCINT-0P95V
- g) (U18) ADP2386 added to provide increased power for Zynq VCC-BRAM and VCCINT-0P95V (6.0A)
- h) Increased # of vias and trace thickness; added power pours instead of traces (reduces dV)
- i) Removed E5, E6 and L302 as they were not needed and were causing unnecessary voltage drop.
- j) Changed the PG_MODULE LED (D3) supply from 3V3 to 3V3_I2C to enable diagnostic feature in conjunction with ADM1166 sequencer. See update SOM User Guide for information.
- k) Added 0.1uF capacitors to Zynq bank 501 (U1) pins C20-K18.
- l) Added 0.1uF capacitors to Zynq bank 500 (U1) pins A26-E24.
- m) Replaced Q9,Q11,and Q13 with a lower Rdson MOSFET (FDMA430NZ)

AD9361 Clock

- n) (Y4) XTAL power supply now provided by a dedicated LDO with superior PSRR – improves EVM.
- o) Moved C216 and C165 after the analog mux (U5), and R5 is now DNI. This corrected non-optimal termination and AC coupling.

Reason for Change:

Added feature for Ethernet PHY SERDES connection, plus overall module performance improvements.

More Information

The latest documentation, including schematics, can be found on the product page.

<http://picozed.org/product/picozed-sdr-som-2x2>

For any questions regarding this PCN please use the [PicoZed SDR Forum](#).