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
gh) (U18) ADP2386 added to provide increased power for Zynq VCC-BRAM and VCCINT-0P95V (6.0A)
i) Increased # of vias and trace thickness; added power pours instead of traces (reduces dV)
j) Removed E5, E6 and L302 as they were not needed and were causing unnecessary voltage drop.
k) 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.
l) Added 0.1uF capacitors to Zynq bank 501 (U1) pins C20-K18.
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.