

Case Study

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FPGA Emulation of a Quad Core A9 based Multimedia SoC

Design Scope

- FPGA Emulation of a multi-million gate SoC with a Quad Core Cortex A9 processor, GPU, VPU, DPU and peripherals like CSI, DSI, GigEthernet, CAN etc
- Emulation on a ProFPGA board

Solution/Highlights

- Partitioning the design across to Xilinx Virtex Ultrascale XCVU440 FPGAs
- Use of Soft PHY for some peripherals like DDR3 and external PHY for other peripherals like CSI, DSI, USB, Ethernet etc
- Porting of all technology specific components from ASIC to FPGA
- Time closure at 50+MHz for ARM and scaled frequencies for other peripherals
- Emulation debug support and software development support







THANK YOU



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