Case Study

Prototyping of a new Audio Standard

Design Scope

- Definition for the audio digital standard for control information communication through audio jack
- I2S and I2C based communication to the FPGA modules
- System Design, IP design, FPGA implementation
- System Verilog / UVM based Verification from scratch
- Driver development, firmware development, GUI development
- Demonstration of the prototype

Client

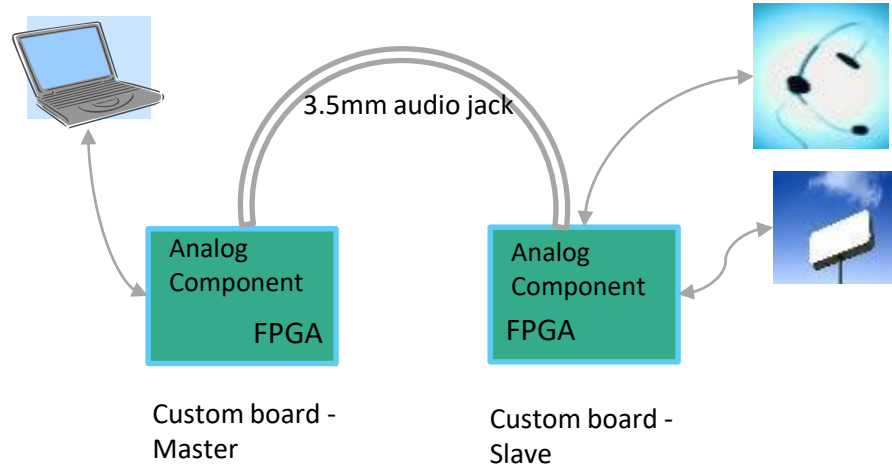This program was done for a *Tier 1 Semiconductor Company*

Tools

- SV-UVM, NCSIM, Xilinx

Highlights

Execution Highlights
- New audio standard definition
- RTL design and emulation
- Initial bring up with off-shelf boards
- Final bring up with custom board
- **Complete software development**
- Successful demonstration, on time delivery

3.5mm audio jack

Analog Component FPGA

Analog Component FPGA

Custom board - Master

Custom board - Slave

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THANK YOU

email: info@ignitarium.com

Ignitarium Technology Solutions Pvt. Ltd.

Ignitarium Inc.

Bangalore, India
#2615, 3rd Floor,
27th Main Road, Sector 1,
HSR Layout,
Bangalore – 560102
Phone: +91-80-30723694

Kochi, India
5th Floor, Crescens Tower,
NH-47, Changampuzha Nagar,
Kochi - 682033
Phone:+91 484 2933073

United States
2570 N. First Street,
Suite 200 San Jose, CA 95131
Phone: +1 512 640 3488

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