Case Study

Display Port Based Multi Channel Video processing Unit

Project/Client Details

- A Video Processing Unit with two DP1.2 input interfaces supporting MST and four DP1.2 outputs
- Acceleration of custom algorithms using Custom Blocks used in conjunction with FPGA IPs for Stream routing.
- Enables operation on video stream like rotation, filtering etc., synchronizes and sends over DP Tx
- **Tier 1 Company** which designs and manufactures audio and imaging products for the cinema, television, broadcast and entertainment industries

Design Scope

- FPGA Selection and Pin Out Finalization
- FPGA Microarchitecture and implementation where a combination of custom blocks and FPGA IP was leveraged
- Coding custom algorithm using highly optimized HDL
- FPGA Synthesis and timing closure
- System Testing

Tools/Technologies

- Xilinx Kintex Ultrascale XCKU095, Vivado, NCSIM, Riviera

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THANK YOU

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