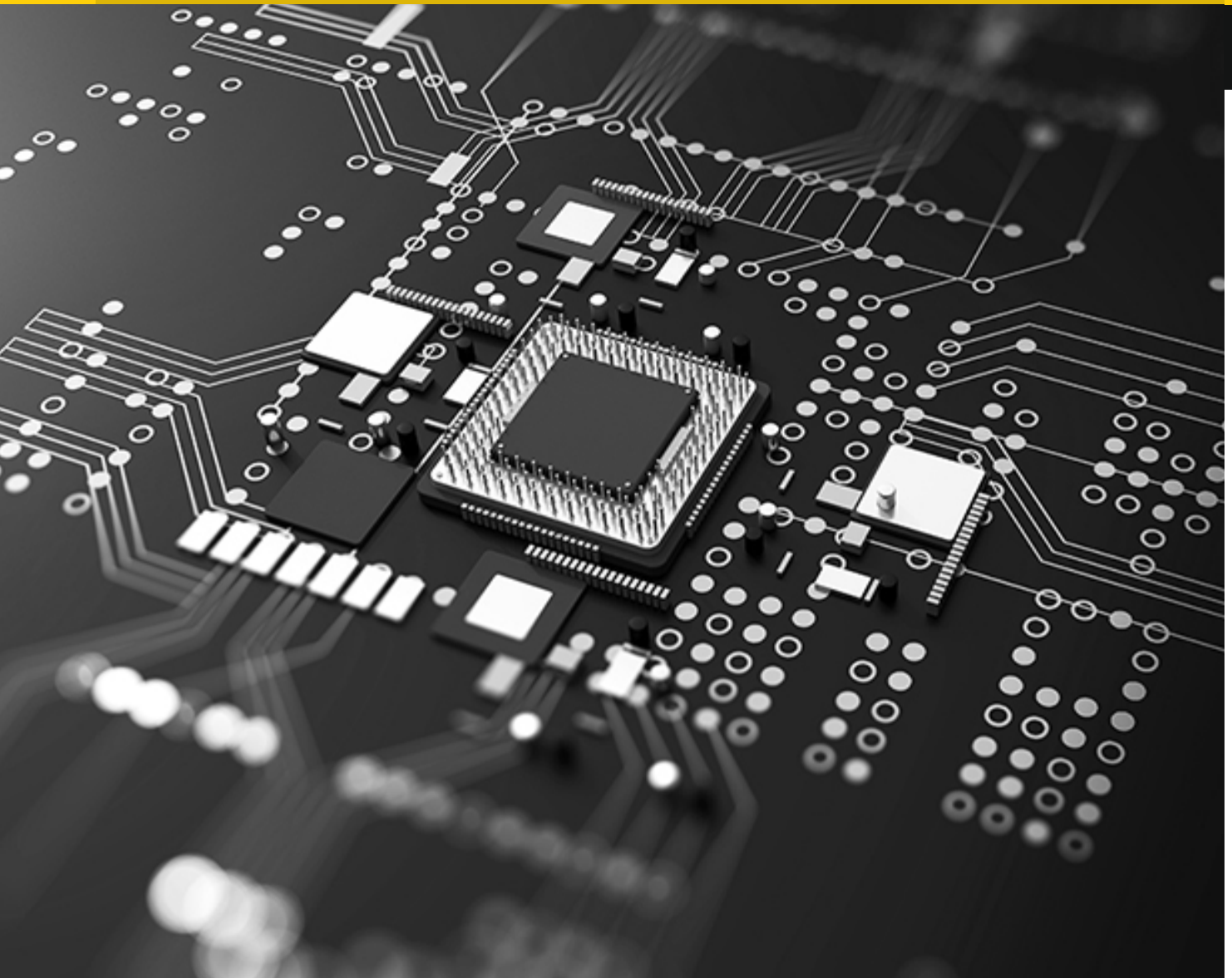


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# SERDES CHIPS

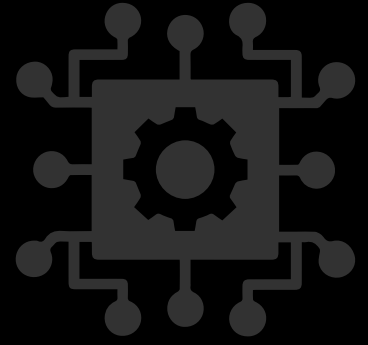


## OVERVIEW

The customer required Design, IP Verification, Fullchip verification, Synthesis & DFT on several high speed SERDES chips in turnkey mode.

## CHALLENGES

- 1 Agile project management with very short cycle time (spec to TO in ~6 months), milestone based project assessment
- 2 Using 65nm technology process
- 3 Project Execution and Management from Test Planning through Closure
- 4 SOC Bring Up



## SOLUTION

### IPDV

- › IP level verification for DisplayPort Rx & DisplayPort Tx
- › Bridging gaps between 3rd party IP, another 3rd party VIP, client's RTL, our testbench and maintaining versions of the same
- › Bringing up complex modes in a very short time

### Synthesis, DFT

- › Fullchip synthesis ownership on 2 chips
- › Constraints dev, synthesis scripts, synthesis & ECOs
- › LEC: RTL to NL, NL to NL
- › Fullchip DFT architecture on 3 chips, including scan & Mbist arch

### ChipDV

- › Chip level verification for 3 SERDES chips with different chip options
- › Involved DP1.4, FPD3, FPD4, SPI, I2C, I2S interfaces
- › Bringing up of complex applications, including daisy chaining different chips in various stages of development
- › Gate level simulations

### Design, RTL

- › Microarchitecture & RTL for pattern generator, checker, timing control, eFuse, Link BIST, Analog test modes, pin straps, etc
- › Clock & reset control
- › Lint, CDC, LEC across multiple versions

## OUTCOME

- › Timely delivery of the project
- › Working with remote client design team



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