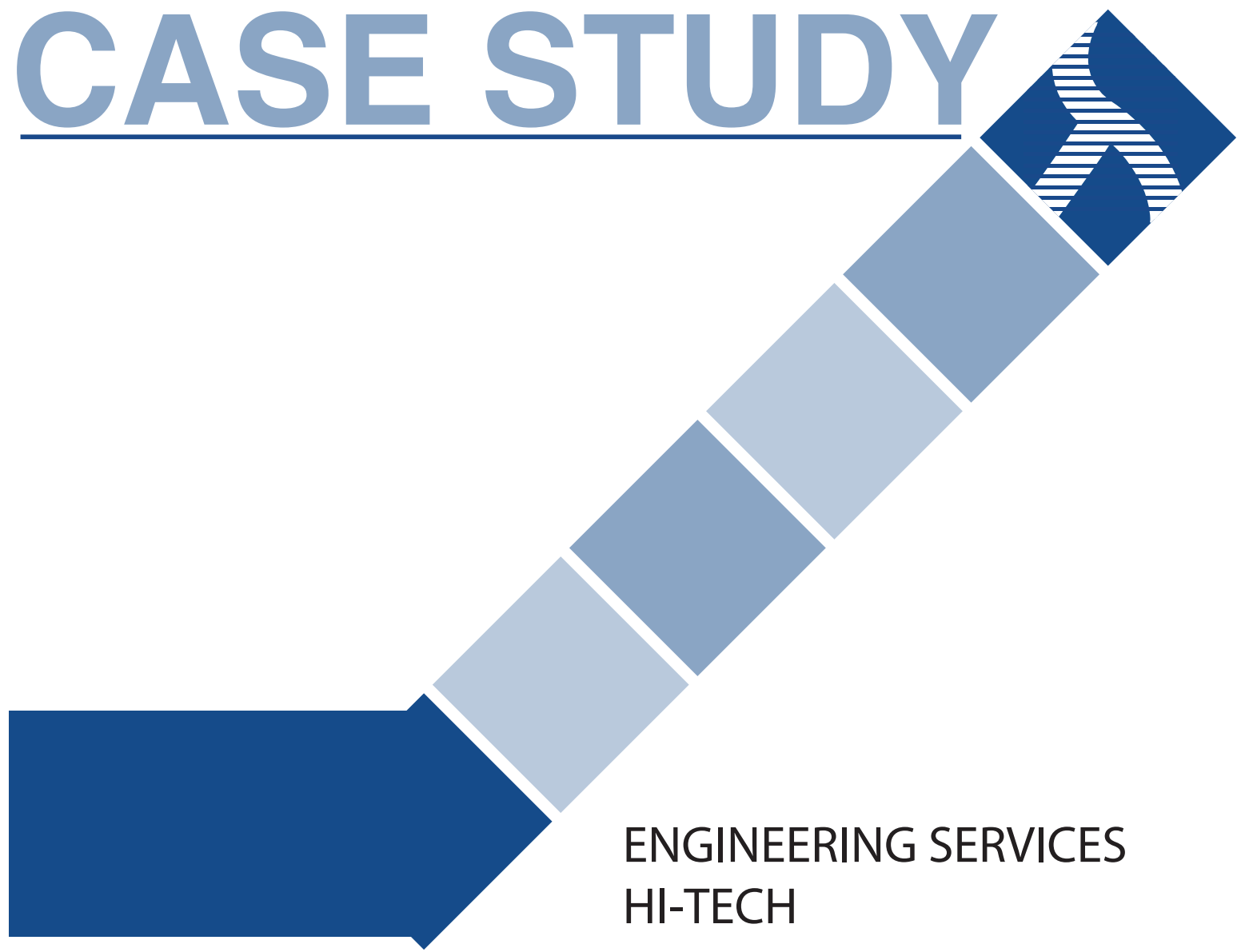


CASE STUDY



ENGINEERING SERVICES
HI-TECH

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ASM Technologies Limited

HIGH BANDWIDTH FPGA PLATFORM

- ◆ Challenge - High component density with restricted layer build.
- ◆ High speed – PCIe (8Gbps), FMC (12.5Gbps), SFP+ (10Gbps)
- ◆ Prequalified 1996 pin BGA device
- ◆ Shall address all DFX, issues to meet cost effective production
- ◆ Socket based design to integrate DDR3, RLDRAM3, and QDRII memory devices

ENTERPRISE STORAGE

- ◆ Redundant SAS 3 – 12G based 2U/3U base platform with capacities 100TB to 360TB
- ◆ Customized Board Management controller
- ◆ Redundant system power distribution of 1600W
- ◆ ~250 SAS 3 lanes with trace lengths more than 20 inches

ENTERPRISE HIGH CAPACITY/PERFORMANCE STORAGE

- ◆ High capacity 2TB to 8TB, Flash based pluggable memory modules, with small form factor.
- ◆ High density Component placement (10 mil spacing between components)
- ◆ Compliant to JEDEC PCB form factor and board thickness, limiting the no of layers used while ensuring signal integrity.
- ◆ Propriety interposer PCB technique to double memory capacity
- ◆ Design optimized to minimize components to meet PCB form factor

SATELLITE, TERRESTRIAL AND IP SET TOP BOXES

- ◆ Standard Definition Satellite STB
- ◆ Onboard Legacy TV interface output support
- ◆ Smart card Support, DC power input
- ◆ Low Cost solution and Mass manufactured

Technology

- ◆ HD, PVR Expertise; HDMI, SPDIF, RGB, SCART Expertise
- ◆ NAGRA, NDS support
- ◆ Mechanical Design (Metal and Plastic)
- ◆ Video Decoder across vendors like ST Micro, Broadcom, NXP
- ◆ Exposure to cable, satellite, IP and terrestrial STB's
- ◆ DVT and Characterization



MULTI BOARD SIGNAL INTEGRITY ANALYSIS

To analyze and recommend signal topologies and interconnect rules for high speed signals from a micro-processor controller board to redundant modules through a motherboard and board end connectors.

