DC-SCM 1.0
Reference Designs
AMD Hawaii-V, Hawaii-H Cards w/Lanai PRoT Module

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Outline

• Hawaii-V DC-SCM 1.0 Reference Design
• Hawaii-H DC-SCM 1.0 Reference Design
• Hawaii & Lanai Block Diagrams
• Hawaii-H & Hawaii-V Interface Details
• Hawaii & Lanai Reference Design Collateral
• Disclaimers
"Hawaii-V" DC-SCM 1.0 Reference Design

- Adheres to DC-SCM1.0 Vertical Form Factor (VFF1) Specification
- BMC subsystem based on ASPEED AST2600
- PRoT subsystem housed on a pluggable "Lanai" module
- Optional x4 PCIe M.2 Connector
"Hawaii-H" DC-SCM 1.0 Reference Design

- Adheres to DC-SCM1.0 Horizontal Form Factor Specification
- BMC subsystem based on ASPEED AST2600
- PRoT subsystem housed on a pluggable "Lanai" module
- Optional x4 PCIe on DC-SCI interface not supported
• Adheres to DC-SCM 1.0 spec
• ASpeed AST-2600 BMC Subsystem
• Lanai, Platform RoT Module
• Specs:
  ▪ 1Gb management port
    ▪ NCSI connection to motherboard LOM
  ▪ 12x I²C + 4x I³C Ports
  ▪ SGPIO via XILINX Spartan7 FPGA
  ▪ Remote FW update capability
  ▪ KVM support over PCIe x1
  ▪ Support for TPM
  ▪ HW capability for BMC and Host FW authentication via Lanai
"Lanai" Block Diagram

- Modular PRoT supports vendor independent implementation
- Contains BMC and Host BIOS flash ROMs
- Based on Microchip CEC1712 Secure Boot Controller

• Specs:
  • CEC1712
  • ARM Cortex-M4 CPU
  • Supports 2 code images in internal SPI flash
  • 1.8V or 3.3V operation, 84-pin WFBGA
"Hawaii-V" Interface Details

- D8-top: ROT boot error
- D8-bot: Chassis ID
- D7-bot: Hawaii PGD
- D7-top: MGMT Fault
- BMC Attention BTN
- BMC Serial console over USB
- J11: BMC-SRST
- J2: BMC-VR-I2C
- J14: 3V coin cell connector
- J13: External 12V DC power for stand-alone usage
- J4: BMC serial terminal (direct connection)
- D34: Amber LED, Dediprog active
- D26: Dediprog using BMC Flash
- D35: RoT present
- D31: PCIe loss of clock
- D2: FPGA CONFIG_DONE
- SW1: BMC reset button
- 7-Seg add-on connector
- SD-Card slot
- Lanai - RoT module
- TPM connector
- I3C[5:4] voltage selection (default=down)
"Hawaii-H" Interface Details
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