

S2U "KING COBRA"

100% LRU, SHORT RACK 2U SERVER WITH ROUTER,
MANAGED SWITCH, ULTRA HIGH SPEED RAID
AND QUAD GPU



S2U SERVER SPECIFICATIONS

| | |
|---|---|
| Processors / Cache | Up to two 14 core Intel Xeon E5-2600 v4 (Dual Socket R3, LGA 2011), Up to 2.3 GHz, with up to 35 Mbyte cache per processor |
| Main Memory | Up to 256 GB – 2133 MHz ECC DDR4 using VLPRDIMM, 8 slots Optional configuration for up to 1 TB – 2133 MHz ECC DDR4 using LRDIMM |
| Chipset | Intel C612 PCH |
| Native Graphics | Silicon Motion SM750 GPU |
| Native Network Controllers | Intel i350 dual port Gigabit Ethernet Controller, RJ45 x2 Intel XL710 dual port 10 Gigabit Ethernet Controller, SFP+ x2 |
| Trusted Computing | Intel Trusted Execution Technology, TPM module, TGC V1.2 and V2.0 supported |
| Native Mass Storage | mSATA socket, chipset SATA Gen 3. Optional SAM™ I/O site |
| Front Drive Bays | Twelve 2.5" trays: Native chipset SATA, Hardware RAID SATA/SAS and NVMe supported at all sites. User defined configurations |
| Rear Drive Bay | Optional Removable 2.5" NVMe, PCIe Gen 3 x4 interface |
| RAID Support | PCIe slot for optional hardware RAID controller, Up to twelve 2.5" SATA / SAS devices at Front Drive Bay |
| PCIe Expansion – Add-in Cards | Removable PCIe Expansion Module, four full height/full length x16 slots, I/O at rear, Support for high power consumption GPUs |
| I/O Expansion – SAM™ sites | Up to seven Special Applications Modules (SAM™). Each SAM™ site includes PCIe Gen 3 x1 and USB 2.0 interfaces. mSATA form factor |
| XMC Site | Optional XMC site at rear, x16 PCIe, Access to XMC front panel I/O |
| Ethernet Switch with Optional Router Function | MicroSemi VSC743x Enterprise Ethernet Switch, with SMBStaX firmware, and optional Embedded Services Router function, Twenty Gigabit Ethernet Ports, RJ45, with option for four ports from router, PoE+ supported at all Gigabit Ports, Two 10 Gigabit Ports, SFP+ sockets |
| Front I/O | USB 3.0 x2, USB 2.0 x2, HDMI, Gigabit Ethernet RJ45, Audio In/Out jack, Power On/Off, System status and Drive Bay indicators |
| Rear I/O - System | USB 3.0 x2, USB 2.0 x2, HDMI, Gigabit Ethernet RJ45 x2, 10 Gigabit Ethernet SFP+ x2, BMC Ethernet RJ45 (IPMI port) |
| Rear I/O – Ethernet Switch | Gigabit Ethernet RJ45 x20 with PoE+ (150W max), 10 Gigabit Ethernet SFP+ sockets x2 |
| Backup Battery | Coin cell backup battery, accessible from rear |
| BMC and System Management | Aspeed AST2150 BMC, AMI MegaRAC SP-X Management System monitoring: Temperature and voltages from system sensors and fans IPMI over Ethernet, RJ45 at rear, LCD control panel at rear: Real-time system status display |
| Fans | Two redundant, removable fan trays, six high efficiency fans per tray, BMC based automatic fan speed control |
| Power Supply | Up to three hot-swap OpenVPX 3U power supplies 110/220 VAC, 50/60/400Hz or 28 VDC input power |
| Auxiliary Power Unit | Optional alternative to standard hot-swap OpenVPX 3U power supplies – Provides up to five minutes of hold-up on loss of power. Takes the place of the PCIe Expansion module. Allows for OpenVPX expansion at front panel: Up to three 3U OpenVPX sites, 110 VAC or 28 VDC input power |
| Form Factor | 2U rack mount: 3.25" height, 17" width, 17" depth, 30 lbs for typical configuration. Rack mount rails included |
| Power | 300 to 600 watts for typical configuration. System design supports configurations up to 1200 watts |
| LRU Components | All electronic Sub-assemblies are LRU: Processor/IO (6U OpenVPX 10HP), Ethernet Switch (6U OpenVPX 5HP), Power Supplies (3U OpenVPX 5HP), 2.5" Mass Storage, Fan trays, PCIe Expansion module, Front Panel I/O, Backup Battery |
| Operating Environment | Standard Operating Range: 0°C to 55°C. Available in Ruggedization levels R1 to R3 |
| System BIOS | AMI Aptio UEFI BIOS |

S2U "KING COBRA" SYSTEM PART NUMBERS

| PART NUMBER | RUGGED LEVEL | DESCRIPTION |
|---------------|--------------|---|
| GMS-S2U-01-00 | 1 | S2U Basic Configuration: Dual Xeon E5-2658-v4 (14 cores, 2.3GHz, 105W) processors 128GB DDR4 RAM Dual Fan-Tray with AC power in rear 500W Single height 110VAC 3U OpenVPX power supply Not Included: COM Module, APU/PCIe, SAM™ I/O, System I/O, Operating System, SPF+ inserts and Drives |
| GMS-S2U-01-01 | 1 | Same as above with 256GB RAM |
| GMS-S2U-01-02 | 1 | Same as above with 512GB RAM |
| GMS-S2U-01-03 | 1 | Same as above with 1024GB RAM |

S2U "KING COBRA" INDIVIDUAL PART NUMBERS

| PART NUMBER | RUGGED LEVEL | DESCRIPTION |
|-------------------|--------------|--|
| GMS-S2U-COM-01-00 | 1 | COM module with 20 GigE ports Managed switch with PoE+ (up to 150W) |
| GMS-S2U-COM-01 | 1 | COM Module with 20 GigE ports and hardware Router (No Cisco® IOS installed). See IOS options |
| GMS-S2U-PCIe | 1 | PCIe card cage with four full length PCIe sites (no modules installed). See PCIe Card Options. |
| GMS-S2U-SYSIO | 1 | System I/O module full up |
| GMS-S2U-APU-00 | 1 | APU with 1500W 110V 60Hz Power Supply, and 100KVA APU. (Omit 3U OpenVPX Power Supply/Supplies.), No AC power on rear Fan Tray |
| GMS-S2U-APU-01 | 1 | APU with 1500W 110V 400Hz Power Supply, and 100KVA APU. (Omit 3U OpenVPX Power Supply/Supplies.) No AC power on rear Fan Tray. |
| GMS-S2U-APU-02 | 1 | APU with 1500W 28VDC Power Supply, and 100KVA APU. (Omit 3U OpenVPX Power Supply/Supplies.) No AC power input on rear Fan Tray |
| GMS-S2U-CPU-DB | 1-3 | Removable drive Bay for CPU module. No Drives included |
| GMS-S2U-SS-DB | 1-3 | Removable Drive Bay for Storage Subsystem (Up to 12). No Drives included |
| GMS-S2U-3UPS-01 | 1-3 | 500W Single high 110VAC 60Hz 3U OpenVPX power supply (Up to 3 units) |
| GMS-S2U-3UPS-02 | 1-3 | 500W Single high 110VAC 400Hz 3U OpenVPX power supply (Up to 3 units) |
| GMS-S2U-3UPS-03 | 1-3 | 500W Single high 28VDC 3U OpenVPX power supply (Up to 3 units) |

S2U "KING COBRA" RUGGEDIZATION LEVELS

| RUGGED LEVELS | R1 | R2 | R3 | R4 | R5 |
|---------------|--------------------------|--------------------------|------------------------|------------------------|--------------------------|
| Shock | 20g | 20g | 52g | 100g | 100g |
| * Vibrations | 0.0001g ² /Hz | 0.0008g ² /Hz | 0.03g ² /Hz | 0.03g ² /Hz | 0.1125g ² /Hz |
| Temperature | 0°C to + 55°C | -20°C to + 55°C | -20°C to + 75°C | -40°C to + 85°C | -40°C to + 85°C |
| IP Levels | 54 | 64 | 64 | 66 | 67 |



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