THE WORLD'S MOST ADVANCED

RUGGED SERVER

"KING COBRA" S2U

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

GMS
COMPUTING ENGINES

GENERAL MICRO SYSTEMS, INC.
SINCE 1979

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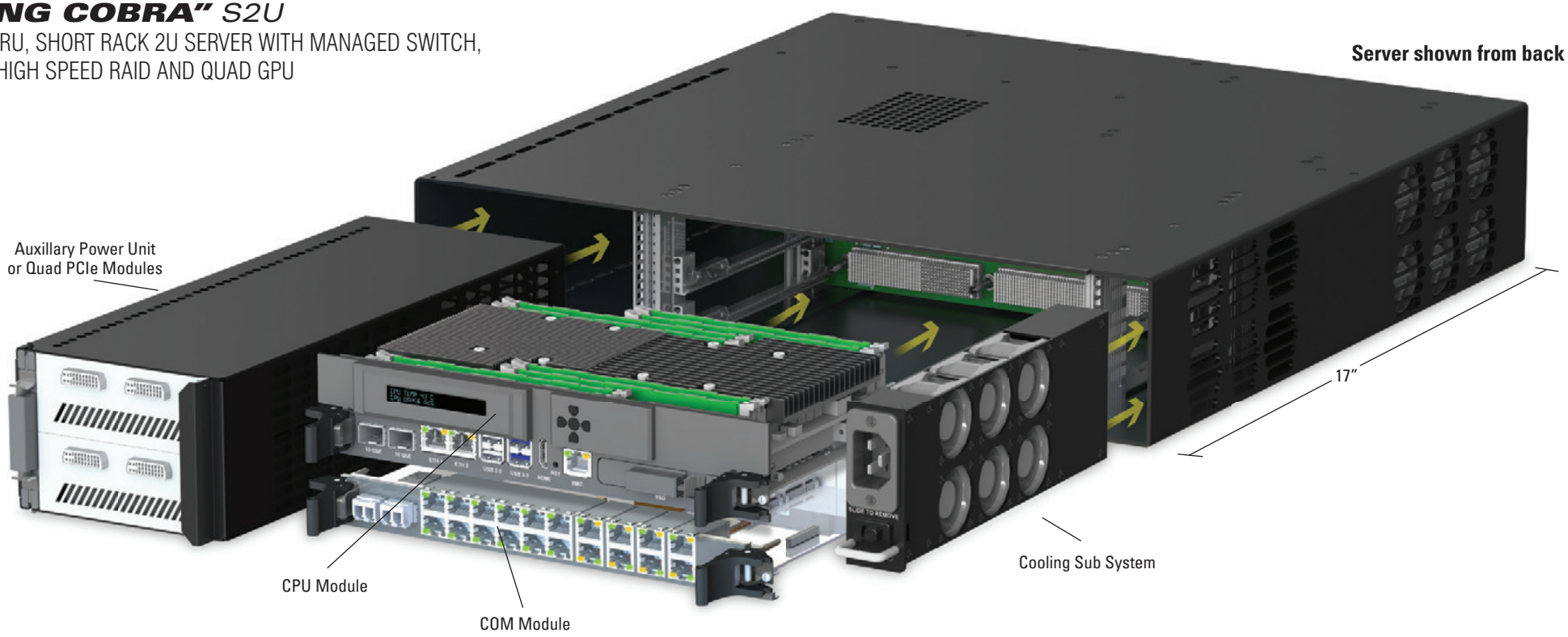
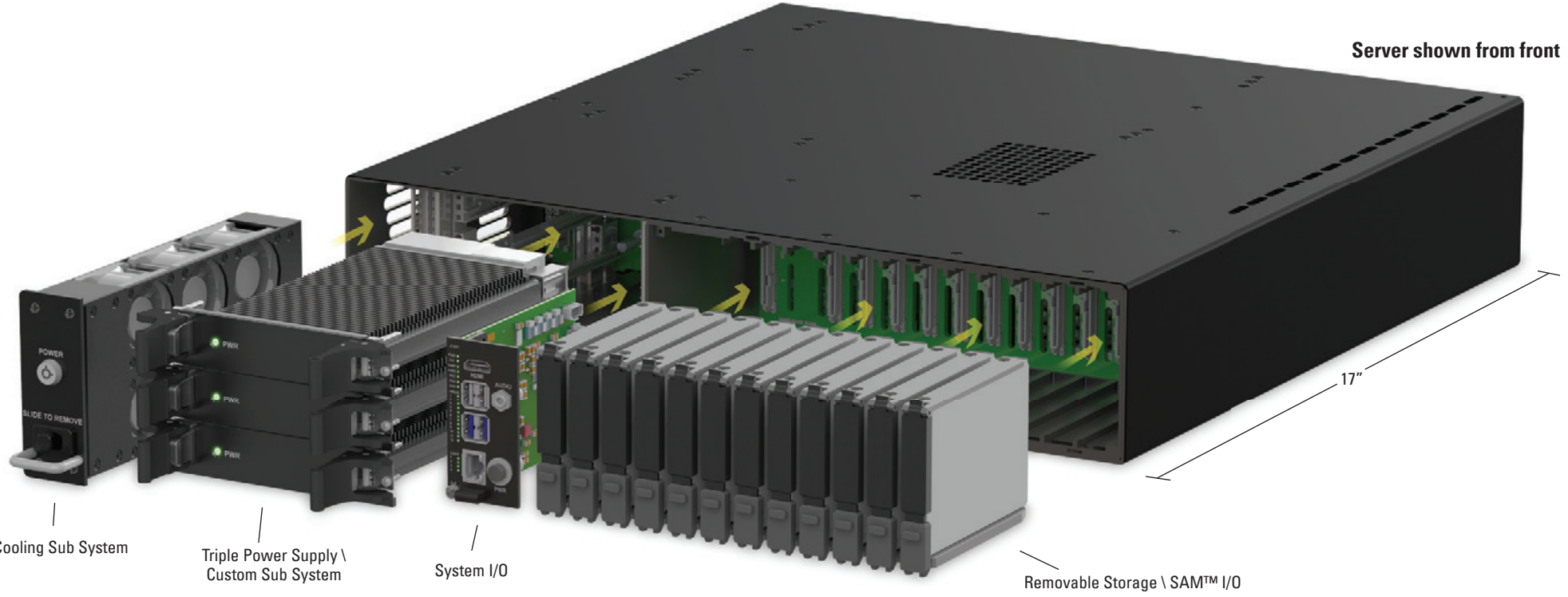
100% LRU, SHORT RACK 2U SERVER WITH MANAGED SWITCH,
ULTRA HIGH SPEED RAID AND QUAD GPU

Server shown from back



Server shown from front



SYSTEM FEATURES:
- Supports Dual Xeon® E5 processors, 20-port managed switch, 48TB RAID storage and Quad NVIDIA® GPU
- 100% Line Replacement Unit (LRU) for ultra fast service, upgradability and sparing
- Fully scalable server utilizing standard Open-VPX and PCIe modules
- Supports two 6U VPX, modules, three 3U VPX modules and four full-length/high PCIe modules
- Supports twelve 2.5" removable storage devices such as 4x-PCIe Enterprise SSD and SAS/SATA drives
- Supports removable UPS for orderly shut down and power transits (Lose PCIe Card cage)
- Dual removable fan trays with twelve Smart fans for quiet efficient, redundant cooling
- Triple redundant, hot swappable 3U VPX AC/DC Power Supplies for N+1 Power
- Ultra-low SWaP, only 17" x17" x 3.25" @ 30 lb. and as low as 300W
- Operates at standard temperature 0°C to +50°C or extended temperature -20°C to +75°C
- Fully compliant to MIL-STD 810G, MIL-STD-1275D, MIL-S-901D, DO-160D, MIL-STD-461E and IP65
- Status LEDS for each Power Supply, Storage module, Fan-Tray, and User
- Available in ruggedization levels R1-R3

CPU MODULE:
- Rugged, 6U Open-VPX dual slot air cooled module
- Utilizes dual Intel® Xeon® E5-2600 Vx CPU with up to 14 Cores, each operating up to 2.5GHz
- Support for Hyper-Threading on each core for a total of up to 56 logical cores
- Supports up to 256GB of RAM with ECC up to 2133 MT/s
- 25MB unified instruction/data cache for each CPU
- Up to 80 lanes of Gen-3 PCIe and 8 lanes of Gen-2 PCIe for ultimate high-speed I/O expansion
- Two 10 Gigabit Ethernet ports with Fiber/Copper via SPF+ connectors
- Two Gigabit Ethernet port with TCP/IP offloading engine
-Support for one Enterprise Class 4xPCIe SSD with up to 2.4GB/s read and 1.2GB/s write speeds
- One 8x XMC site (Lose Removable SSD)
- Two USB 3.0 ports, two USB 2.0, eight GPIO lines and HDMI video
- Baseboard Management Controller (BMC) for full system diagnostics and health management
- Front panel 144x16 LCD display with Up/Down, Left/Right keypad for system status
- Two SAM™ I/O modules for additional storage or off–the-shelf I/O such as Wi-Fi, cellular etc…
- 16MB BIOS Flash and 2Kb EEPROM for FRU information
- Support for Trusted Platform Module (TPM) for secure operation (optional)
- Support for Intel® Virtualization Technology (VT-x/VT-d2) and Trusted Execution Technology (TXT)
- Support for Active Management Technology (AMT) for remote KVM functions
- Support for Converged Platform Power Management (CPPM) for power saving
- Voltage and temperature monitoring

COM MODULE:
- Rugged, 6U Open-VPX single slot air cooled module
- Fully managed Layer II switch with Layer III features enterprise level Ethernet switch
- 20 Gigabit Ethernet ports, with Power Over Ethernet (POE+) up to 150W
- Two 10Gigabit Ethernet ports with Fiber/Copper via SPF+ connectors
- Very low latency, VLAN support, QoS/differentiated services
- Multicast and spanning tree capabilities
- Security features for authentication and authorization
- DHCP client and server support with SNMP
- Support for IEEE-1588 for packet time stamping (optional)
- Internal shared memory with jumbo frame support
- Web GUI and SNMP management interfaces provided for ease of configuration
- Support for Multicast IPv4, IPv6 with IGMPv2/3 snooping and MLD
- Bluetooth 3.0 support for ultra fast wireless communication
- Three SAM™ sites for custom I/O for (Wi-Fi/BT, GPS, cellular radios, etc..)
- Voltage and temperature monitoring

SYSTEM I/O MODULE:
- Gigabit Ethernet port for remote Management and status reporting
- Two USB 3.0 and two USB 2.0 ports with power
- HDMI Video with Audio
- Line-In, Line-Out Audio
- 24 bicolor Status indicators with concealed Power/Reset switch
- Voltage and temperature monitoring

STORAGE /SAM I/O SUBSYSTEM:
- Up to 12 hot-pluggable 2.5" Drive Bays for storage and or I/O devices
- Each site supports 6 Gbit SAS/SATA drives or 4-lane Gen-3 PCIe Enterprise class SSD drives
- Each Enterprise class SSD supports up to 2.4GB/s read and 1.2GB/s write speeds
- Supports SAS/SATA devices from CPU module or from PCIe subsystem
- Supports hardware or software RAID 0,1,5,10, 50 and other custom configurations
- Supports 12/24 SAM™ modules for custom I/O such as video capture and video encoders
- Voltage and temperature monitoring

PCIE SUBSYSTEM:
- Supports up to four standard full-length 16-lane PCIe Gen-3 modules
- Supports two dual height PCIe video cards form NVidia® /AMD for ultimate GPU performance
- Supports standard hardware RAID controllers for ultimate performance and data reliability
- Up to 600W of power provided to support the most demanding Graphic/DSP applications
- All four PCIe modules are easily removable and replaceable
- Voltage and temperature monitoring

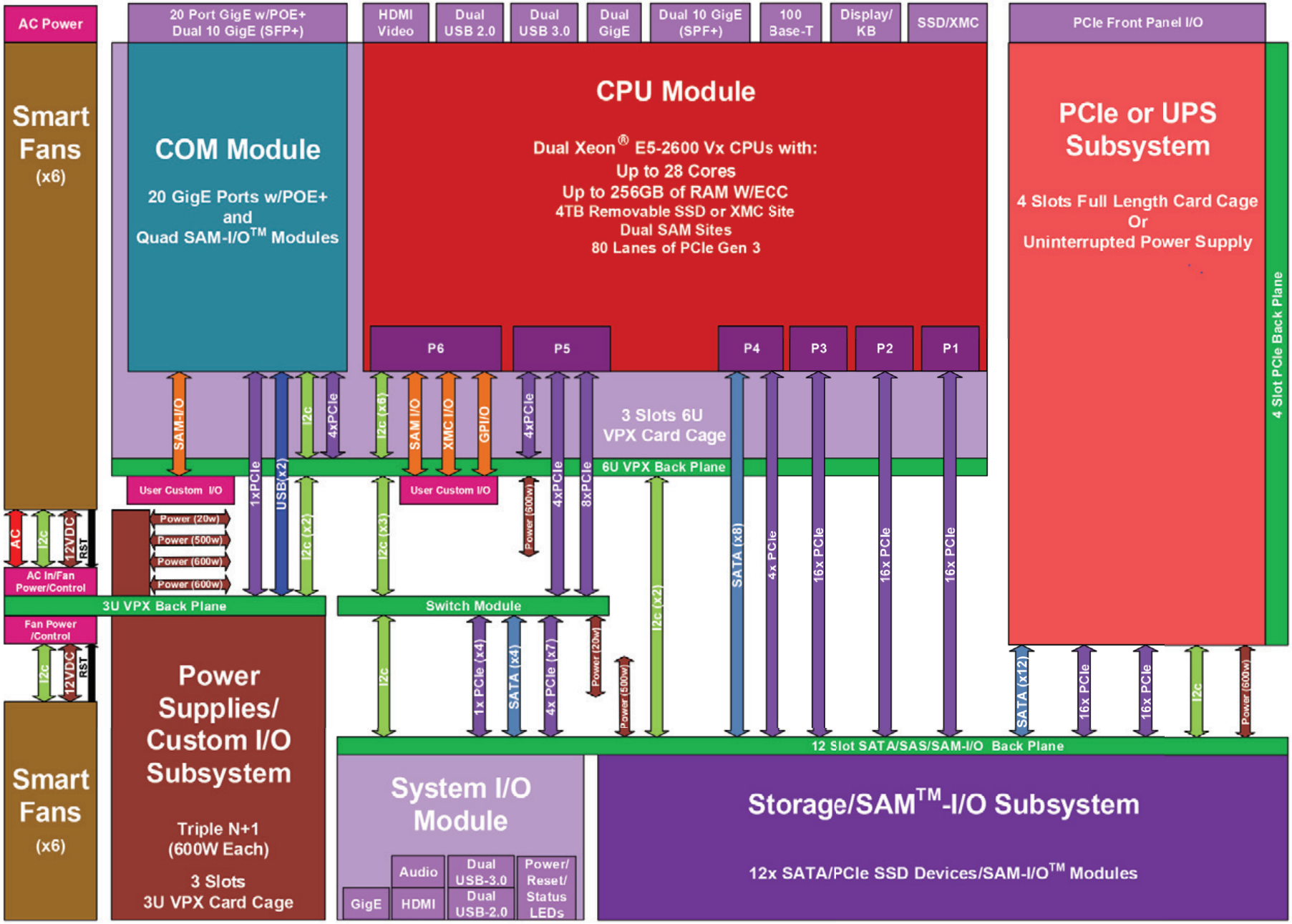
POWER SUPPLIES/CUSTOM I/O SUBSYSTEM:
- Supports up to three 3U Open-VPX sites
- Supports triple redundant, hot swappable 3U VPX Power Supplies for N+1 Power up to 1800W
- Supports one high-speed PCIe lane and dual USB interface with 6U CPU subsystem
- Voltage and temperature monitoring

COOLING SUBSYSTEM:
- Supports two Fan-Trays for redundant cooling
- Each tray supports six Smart Fans, with RPM/speed control
- Precision cooling ducts for uniform airflow
- Intelligent fan controller for optimum control over each fan
- Voltage and temperature monitoring

AUXILIARY POWER UNIT (APU) (LOSE PCIE CARD CAGE)
- APU to allow for orderly shutdown upon power interruption (optional)
- High power density batteries for maximum hold-time
- Optional Super Caps power storage technology for airborne applications
- Power monitor directly sends CPU to suspend to disk (S4) or shutdown
- Fully meets MIL-STD-1275, 50ms holdup time
- Fully enclosed canister for easy removal/replacement
- Voltage and temperature monitoring

For additional information and full product specifications, please visit www.gms4sbc.com
All GMS products are proudly designed and manufactured in The U.S.A.

S2U System Block Diagram



GENERAL MICRO SYSTEMS, INC.
POWERING THE EMBEDDED MARKET SINCE 1979

(800) 307-4863 | WWW.GMS4SBC.COM

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