

# S2U "KING COBRA" THE WORLD'S MOST ADVANCED RUGGED SERVER

ULTRA-MODULAR, 100% LRU, 2U (SHORT RACK) SERVER / WORKSTATION

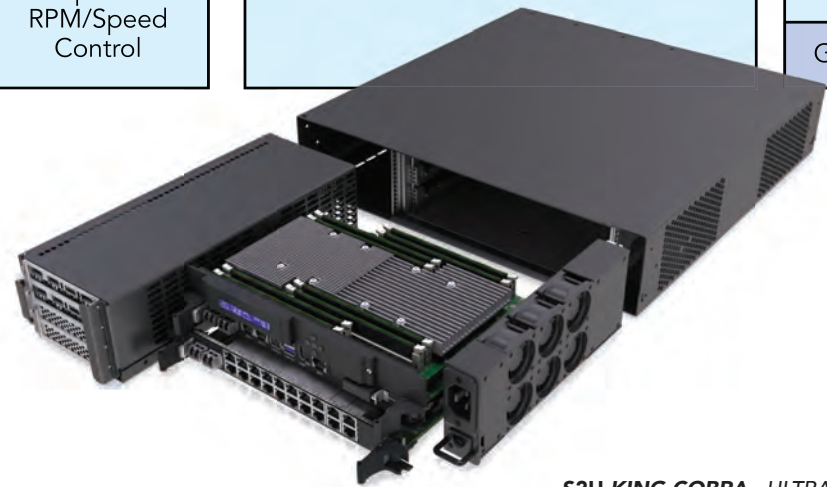
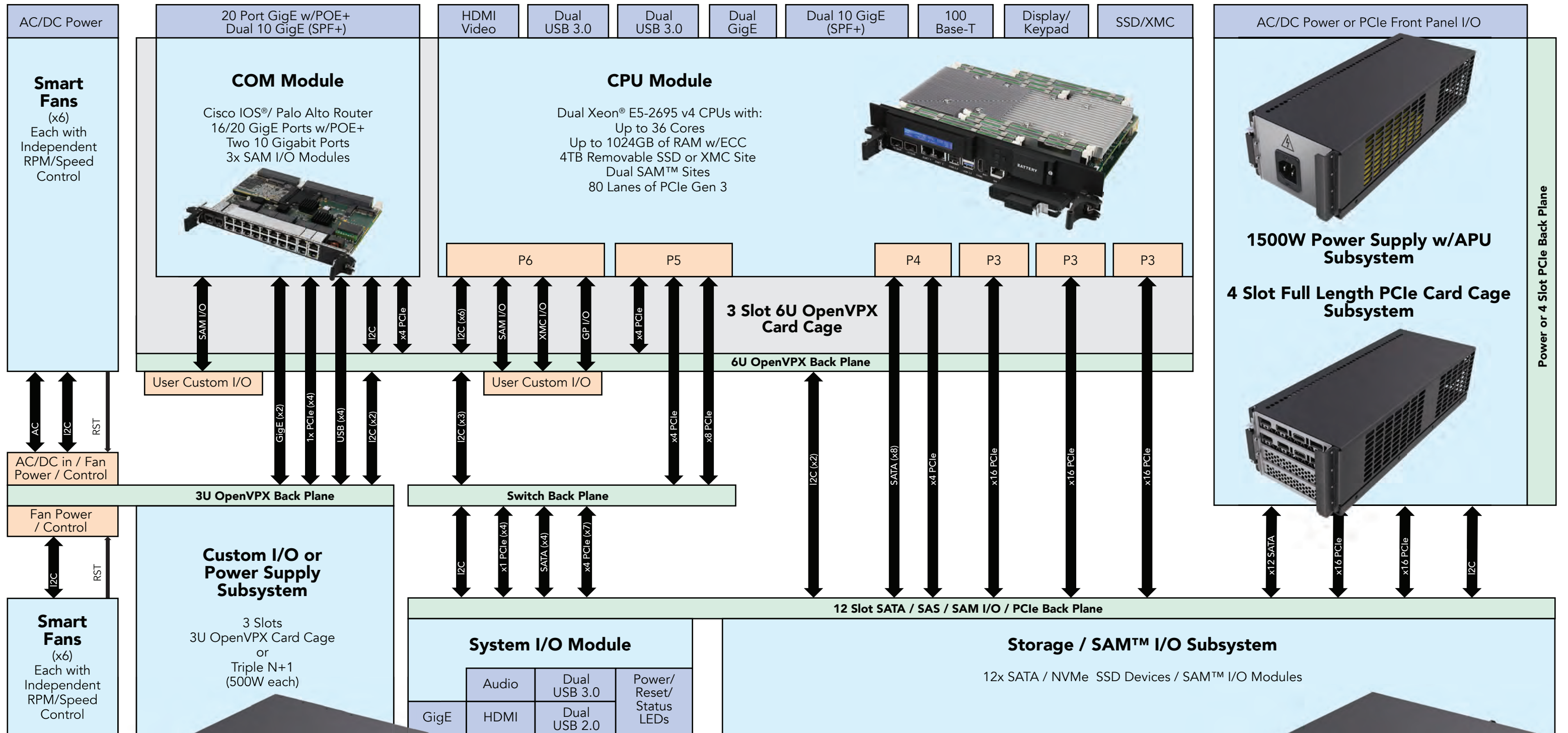


**DEFENSE / DATA CENTERS / AVIONICS / MOBILE**



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**S2U "KING COBRA" (BACK)**

- 6U OpenVPX CPU Module
- 6U OpenVPX COM Module
- PCIe or 1500W Power Supply w/APU Subsystem
- Cooling Subsystem (1 of 2)



**S2U "KING COBRA" (FRONT)**

- Storage / SAM™ I/O Subsystem
- 3U OpenVPX Power Supplies / Custom I/O Subsystem
- System I/O Module
- Cooling Subsystem (2 of 2)

## SYSTEM FEATURES:

- Supports Dual Xeon® E5 processors, Router, 20-port managed switch, 48TB RAID storage and Quad NVIDIA® GPU
- 100% modular: each subsystem is a Line Replacement Unit (LRU) for ultra-fast servicing, upgradability and sparing
- Fully scalable server utilizing standard OpenVPX and PCIe modules
- Supports two 6U OpenVPX modules, three 3U OpenVPX modules and four full-length/height PCIe modules
- Supports twelve 2.5" removable storage devices such as x4 PCIe ("NVMe") Enterprise SSD and SAS/SATA drives
- Supports removable APU for orderly shutdown and power transients (omit PCIe Card cage)
- Dual removable Fan Trays with twelve Smart Fans for quiet, efficient, redundant cooling
- Triple redundant, hot-swappable 3U OpenVPX AC/DC Power Supplies for N+1 Power or User I/O
- Ultra-low SWaP, only 17" x 17" 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 IP64
- Status LEDs for each Power Supply, Storage module, Fan Tray, and User
- Available in ruggedization levels R1-R3

## GENERAL DESCRIPTION

The S2U "King Cobra" is a major breakthrough in server technology. It is the smallest, fastest rack-mount server on the market, with more I/O performance and storage functionality than any other server. **It replaces several 1U/2U servers, switches/routers, RAID controllers, and Auxiliary Power Units (APU) with a single 2U, 17-inch deep (short) rack-mountable (or freestanding) enclosure.** Furthermore, 100% of the "King Cobra" electronics modules are Line Replaceable Units (LRU) specifically designed for field replacement and upgrading. This at-the-module 100% LRU functionality allows the user to replace any function of the system in the field within seconds, thus providing ultimate flexibility and minimizing down time.

The S2U features state-of-the-art CPU, packaging, and cooling design, utilizing the rugged and proven OpenVPX (VITA 65) architecture. Unlike PC motherboards, which virtually all servers use, the "King Cobra" OpenVPX design can withstand much higher shock, vibration, and temperatures than standard servers. The "King Cobra" utilizes a modular subsystem design allowing the OEM user to upgrade or change the server's configuration in the field quickly and economically. This reliable, field-proven OpenVPX architecture also takes full advantage of commercial-off-the shelf (COTS) PCI Express (PCIe) boards such as ultra-high-performance video boards, RAID controllers, and DSP modules, which may be quickly and easily plugged/unplugged into the system within seconds. OpenVPX is also used for the redundant, N+1 swappable power supply modules.

**ENGINEERED TO SERVE.™**



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