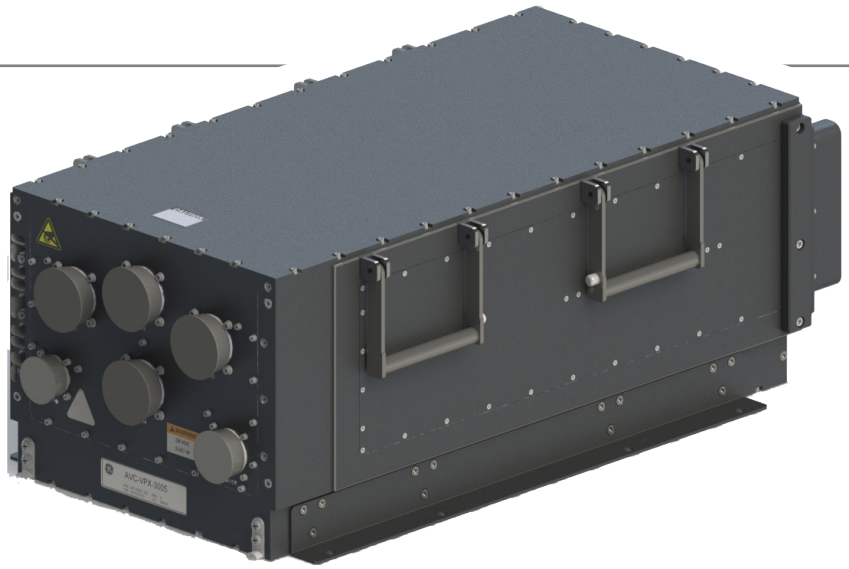

CRS 48.5

High Performance Embedded Computing VITA 48.5 Rugged Subsystem

The CRS 48.5 ATR subsystem features the Abaco DSP280 multiprocessor with two quad core Intel Core i7 processors. The DSP280 is capable of more than 260 gigaflops peak performance and delivers main memory bandwidth of up to 21GBytes/second per CPU node. An upgrade path means that the CRS 48.5 can take advantage of the even more powerful DSP281 multiprocessor which is based on 4th generation Intel Core i7 ('Haswell') technology. A maximum of four DSP281s can be configured, for a total peak performance in excess of 2.4 teraflops. In addition, the CRS 48.5 includes the Abaco GBX460 fully managed 10 Gigabit Ethernet switch as the data plane. This enables up to four 10 Gigabit BASE-SR fiber channels to be brought out of the subsystem. For storage intensive applications, up to 8TBytes of solid state drive memory is available.

High Performance Computing has now come to the world of embedded systems – and, especially, to the systems being developed and deployed by the world's armed forces. To address the most demanding and sophisticated applications, such as ISR and electronic warfare, high performance embedded computing uses the power, not just of multiple single board computers working together, but also of multi-core and many-core processors.

Abaco brings the performance of supercomputers to the harsh environments of the military and aerospace domains.

By using designs based on standard architectures and interconnects, and applying Abaco's unrivaled expertise in packaging, compute power that was previously restricted to air-conditioned machine rooms can now be brought to bear on the toughest problems in the toughest environments.

The arduous task of integrating off the shelf boards has already been done– shortening time to project completion. And a single point of contact for all issues means more timely support, and a single part number means more efficient administration.

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Accelerated SW development

The AXIS application development framework shortens time-to-solution and reduces risk and cost by providing a user-friendly interface to the scalable multi-processor platform. Application developers can get off to a quick start by using performance libraries to harness the full potential of the underlying hardware. Further application tuning turns concepts into flyable customer demonstrations within a matter of days rather than months.

FEATURES:

- Ruggedized VITA 48.5 ATR subsystem
- Designed for data-intensive applications
- Up to 4 multiprocessor boards (32 cores):
  - Two quad core i7-2715QE BGA @ 2.1GHz
  - 6MBytes shared L3 Cache
  - 8 or 16GBytes DDR3 SDRAM per CPU
  - 8 or 16GBytes NAND Flash Disk per CPU
- Communication via 10GigE switch
- Up to four Fiber 10Gigabit Base-SR ports
- Up to 8 TB solid state drive memory
- Performance of up to 2.46 TFLOPS

Product Lifecycle Management

Abaco offers a Product Lifecycle Management (PLM) program of innovative Long-Term Support services to reduce overall cost of ownership and provide industry-leading safeguards against component obsolescence. Abaco Systems is committed to supporting customer programs throughout their lifecycle.

abaco SYSTEMS

CRS 48.5 *High Performance Embedded Computing VITA 48.5 Rugged Subsystem*

Specifications

Chassis
- VITA 48.5 Air-Flow-Through Cooled

Processor
- 2 x Quad Core i7-2715QE BGA @ 2.1GHz base frequency with 3D Graphics & dynamic Turbo Boost Technology
- Up to 4 multiprocessor SBCs per subsystem

Memory
- Up to 128 GB DDR3 SDRAM with ECC (32 GB per board)
- Up to 128 GB NAND FLASH (32 GB per board)
- Up to 8 TB Solid State Drive Memory (1 TB per SSD)

Ethernet
- Up to 8x 1000BaseT (2 per processor board)
- 1x 10/100 Management Port
- 10GigE / InfiniBand Data Plane
- Up to 4x 10Gigabit BASE-SR (Fiber)

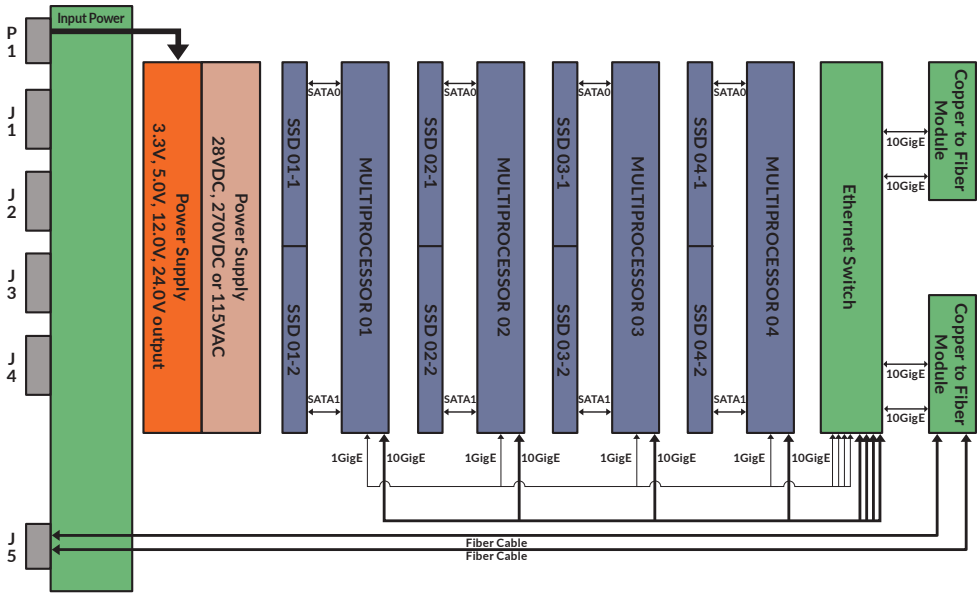
Serial I/O
- Up to 16x RS-232/422 ports (4 per processor board)
- 1x RS-232 (from Ethernet switch)

USB
- Up to 32x USB 2.0 (8 per processor board)
- On-board Ethernet Switch network

Video
- Up to 8x DVI (2 per processor board)

Audio
- Up to 8x In (2 per processor board)
- Up to 8x Out (2 per processor board)

Block diagram



General Purpose I/O
- Up to 64x GPIO (16 per processor board)

Input Power
- High voltage DC (MIL-STD-704F)
- 115 VAC (MIL-STD-704F)
- 28 VDC

Power Dissipation
- Up to 1200W

Software
- Linux

Dimensions (H x W x D, excluding connectors)
- 8.8 x 12.6 x 22.9 (inches)
- 224 x 320 x 582 (mm)

Weight
- 61 lbs (28 kg) - fully populated

Designed to:

Operating Temperature
- -40°C to +55°C (at 190CFM air-flow)*

Shock (operational)
- +40G SRS (MIL-STD-810G Method 516.6, Procedure 1)

Random Vibration
- 0.1g22/Hz, 15-1000Hz; 6dB/octave decrease, 1000-2000Hz (MIL-STD-810F, Method 514.6, Procedure 1)

Humidity
- 95% non-condensing (DO-160 Procedure 6, Category B)

*5,000 feet elevation

WE INNOVATE. WE DELIVER. YOU SUCCEED.

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