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Data Sheet

August 15, 2026

CURTISS-WRIGHT

Curtiss-Wright CHAMP-AV IV / SVME-416 Quad PowerPC Altivec DSP Board

The Curtiss-Wright CHAMP-AV IV / SVME-416 is a quad-processor DSP board built around the QuadFlow architecture for signal processing in radar, sonar, and image processing systems. Four PowerPC MPC7447A/7448 processors operating up to 1.25 GHz deliver 40 GFLOPS peak computational power, each with dedicated DDR-250 SDRAM and Altivec parallel processing capability. The non-blocking architecture achieves 3.2 GB/s on-board throughput and 2.0 GB/s instantaneous peak data transfer to memory, supporting simultaneous processor-to-memory, processor-to-processor, and I/O transfers with low latency. Processors: Four PowerPC MPC7447A/7448 CPUs at up to 1.25 GHz with 64 KB L1 and 1 MB L2 caches operating at core speed (MPC7448) Memory: Up to 2 Gbytes total DDR-250 SDRAM with ECC; 512 Mbytes per processor node; 2.0 GB/s peak transfer rate to DDR SDRAM; 256 Mbytes FLASH with write protection; 128 Kbyt



MODEL

**Curtiss-Wright
CHAMP-AV IV /
SVME-416**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

**CHAMP-AV IV /
SVME-416**

LISTING

<https://aumictechlabs.com/products/champ-av-iv-svme-416-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

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Technical Specifications

Processors: Four PowerPC MPC7447A/7448 CPUs at up to 1.25 GHz with 64 KB L1 and 1 MB L2 caches operating at core speed (MPC7448)

Memory: Up to 2 Gbytes total DDR-250 SDRAM with ECC; 512 Mbytes per processor node; 2.0 GB/s peak transfer rate to DDR SDRAM; 256 Mbytes FLASH with write protection; 128 Kbytes NVRAM

Computational Performance: 40 GFLOPS peak; AltiVec technology for vector operations

On-Board Throughput: 3.2 GB/s peak; non-blocking architecture with parallel data paths

Key Features

- Marvell GT64460 Discovery III bridge on each processor node
- Two PMC-X mezzanine sites supporting 64-bit, 100 MHz PCI-X at 800 MB/s; backward compatible with 32-bit/64-bit PMC at 33 or 66 MHz
- On-board Broadcom 5388 8-port Gigabit Ethernet switch with two ports routed to P2 connector; daisy-chain capable
- Four EIA-232 serial ports, one per processor node
- VME interface with 2eSST support
- High-bandwidth, low-latency PCI-X interconnects between adjacent processor nodes
- Software-routable PMC interrupt signals to any processor
- StarFabric PMC support with differential routing

Typical Applications

Radar signal processing, sonar systems, real-time image processing, and demanding DSP workloads requiring multi-processor coordination and high memory bandwidth.

Compatibility & Integration

VME-based systems with PMC or PMC-X expansion modules. Supports networked configurations through integrated GbE switching. Compatible with CHAMP-AV IV daisy-chain architectures.

CHAMPAVIVSVME416 Characteristics / Specifications

PARAMETER	VALUE
Model	SVME-416
Alternate Model	CHAMP-AV IV
Instrument Type	quad PowerPC VME DSP board
Form Factor	6U VME64x
Cpu Count	4
Cpu Family	MPC7447A or MPC7448
Cpu Speed Maximum	1.25 GHz
Peak Compute	40 GFLOPs
L2 Cache 74	1 MByte
Memory Per Cpu	256 or 512 Mbytes DDR-250 SDRAM with ECC
Total Memory Maximum	2 Gbytes
Flash	256 MB with write protection
Nvram	128 Kbytes
QuadFlow Peak Throughput	3.2 GB/s
Node To Node Peak Class	1.6 GB/s
Pmc Sites	2
Pmc Bus	64 bit 100 MHz PCI-X
Vme Interface	VME64x with 2eSST
Serial Ports	4 EIA-232 one per node
Ethernet	Gigabit with on-board switch
External Gbe Ports From Switch	2
Os Support Class	VxWorks BSP
AltiVec Support	yes
Processor Nodes Peak Class	10 GFLOPs per node class
StarFabric Pmc Support	yes with differential backplane routing

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Notes

Numeric rows from Curtiss-Wright CHAMP-AV IV fact sheet and product announcements for SVME-416. Queue model CHAMP-AV IV / SVME-416 maps to this slug.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.