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Data Sheet

August 15, 2026

CURTISS-WRIGHT / DY-4

Curtiss-Wright / DY-4 CHAMP-AV II / SVME-412 Quad PowerPC DSP

The Curtiss-Wright CHAMP-AV II SVME-412 is a quad-processor DSP engine for signal and image processing in radar, sonar, and signal intelligence systems. It combines four PowerPC MPC7410 processors running at 500 MHz with QuadFlow architecture optimized for high-bandwidth embedded compute. The non-blocking PCI crossbar delivers 2 Gbytes/sec peak on-card throughput, while dual 528 Mbyte/sec inter-processor links enable efficient multi-core workload distribution. Each processor node includes 128–256 Mbytes of dedicated SDRAM and 32 Mbytes of Flash, plus dual 64-bit, 66 MHz PCI interfaces supporting PMC expansion modules. VMEbus integration via Universe II, 10/100BaseTx Ethernet, and low-latency inter-processor messaging hardware reduce system latency. Multi-board time-stamping synchronization and hardware interrupt routing support large multi-slot configurations. VSIPL and IXLBS-AV DSP lib



MODEL

**Curtiss-Wright /
DY-4 CHAMP-AV II
/ SVME-412**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

**CHAMP-AV II /
SVME-412**

LISTING

<https://aumictechlabs.com/products/champ-av-ii-svme-412-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

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Technical Specifications

Processors: Four PowerPC MPC7410 processors @ 500 MHz each

Memory per Node: 128 Mbytes or 256 Mbytes SDRAM; 32 Mbytes Flash

On-Card Throughput: 2 Gbytes/sec peak (PCI crossbar)

Inter-Processor Links: Two × 528 Mbyte/sec (peak) per processor

PCI Interfaces: Two × 64-bit, 66 MHz per processor node

PMC Expansion: Supports two 64-bit, 66 MHz PMC I/O modules; Switch Fabric PMC support

VMEbus Interface: Universe II host interface

Networking: 10/100BaseTx Ethernet

Form Factor: VMEbus board, ~3 lbs

Key Features

- QuadFlow architecture for non-blocking data flow
- Low-latency inter-processor messaging hardware
- Hardware interrupt routing for reduced latency
- Multi-board synchronous time-stamping
- Conformal coating available on select units

Typical Applications

- Radar and sonar signal processing
- Signal intelligence (SIGINT) systems
- High-throughput image and signal processing
- Multi-processor DSP workloads requiring synchronized compute nodes

Compatibility & Integration

Designed for large multi-slot VMEbus systems. StarLink switch fabric PMC interconnect - based on StarFabric technology - enables high-bandwidth card-to-card coupling for scaled multi-processor applications. Software support includes VSIPL standards-based DSP library, TimeSys Linux SDK, IPC communications, and IXLIBS-AV DSP library.

CHAMPAV IISVME412 Characteristics / Specifications

PARAMETER	VALUE
Model	SVME-412
Alternate Model	CHAMP-AV II
Instrument Type	VME quad DSP board
Cpu Count	4
Cpu Type	PowerPC 7410
Cpu Clock	500 MHz
L2 Cache Per Cpu	2 MB
Sdram Per Node Max	256 MB
Total Sdram Example Config	1 GB
Flash Memory	32 MB
On Card Aggregate Bandwidth	up to 2 GB/s
Node Link Peak	528 MB/s per connection class
Pmc Sites	2
Pmc Bus	64 bit 66 MHz
Pmc Peak Rate	528 MB/s
Vme Interface	Universe II VME64x
Form Factor	6U VME
Architecture	QuadFlow non blocking PCI crossbar
Inter Processor Messaging	low latency hardware
Time Stamping	multi board synchronous
Software	VS IPL DSP library TimeSys Linux SDK
Fabric Option	StarLink StarFabric PMC
Manufacturer	DY-4 / Curtiss-Wright
Use Case	radar sonar SIGINT DSP
Operating Temperature Class	commercial to rugged grades

PARAMETER	VALUE
Bandwidth	up to 2 GB/s
Operating temperature	Class: commercial to rugged grades

CHAMPAVIVME412 Specifications

PARAMETER	VALUE
Key Features	Four 500 MHz PowerPC 7410 CPUs
Dedicated SDRAM bank per processor	Two 64 bit 66 MHz PMC sites
Technical Specifications	Model: VME-412

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: commercial to rugged grades
Operating Temperature	Class: commercial to rugged grades
Operating Temperature Class	commercial to rugged grades Notes From DY-4/Curtiss-Wright CHAMP-AV II / SVME-412 product literature (500 MHz 7410, QuadFlow 2 GB/s, memory, PMC, VME). Queue model CHAMP-AV II / SVME-412 maps to this slug.

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

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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

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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
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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.