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TECHNOLOGY GROUP

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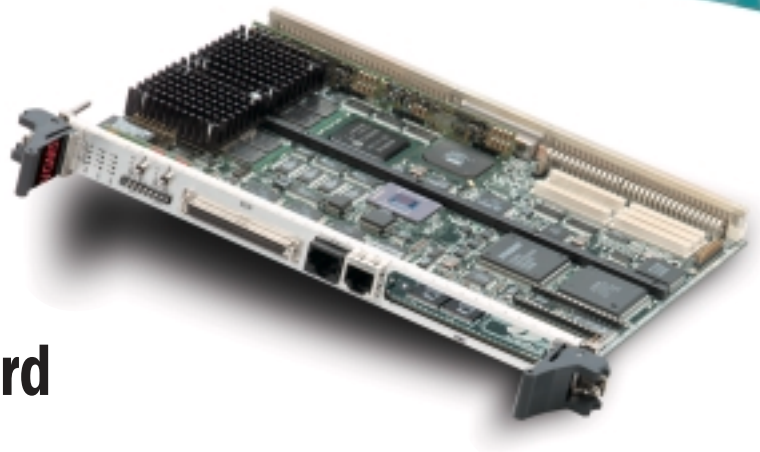
Expert team | Trust guarantee | 100% satisfaction

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Find the *Curtiss-Wright / Synergy Microsystems VGM5* at our website: ***Click HERE***

VME
SINGLE BOARD COMPUTER

VGM5



Dual Processor General Purpose Board

AT A GLANCE

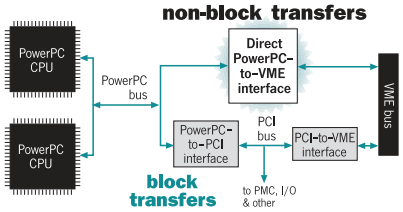
- PowerPC 7400 AltiVec™ or PowerPC 750
- Up to 466 MHz
- Dual or single CPU
- Up to 2 MB L2 cache per CPU
- Up to 512 MB SDRAM
- Up to 64 MB Flash
- VME Speedway™ PowerPC-to-VME direct data path
- On-board serial, Ethernet and Wide Ultra SCSI
- Optional PØ•PCI™ secondary data bus
- DSP ready with Synergy's Math Library
- VxWorks® , Linux™ SMP or Integrity®

Dual PowerPC® G4 CPUs

The VGM5 gives you the muscle of dual PowerPC G4 (7400) or 750 CPUs combined with a long-proven board architecture and a full range of I/O options. The VGM5 offers processing speeds up to 466 MHz, and up to 2 MB L2 backside cache per processor. The VGM5 is also available in a single processor version.

Direct PowerPC-to-VME Data Path

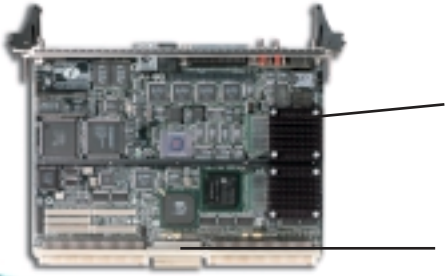
Synergy's exclusive VME Speedway™ direct data path bypasses an inefficient PCI-to-VME bridge translation when performing non-block transfers, the most common VME bus activity. Result: Non-block transfers are executed in half the normal time.



Software Support

Synergy offers comprehensive board support packages for VxWorks and Linux, including Linux with symmetric multiprocessing (SMP). The VGM5 also runs SMon, Synergy's all-inclusive system monitor, configuration and diagnostic firmware, with power-on and initiated BIT.

For DSP applications, Synergy offers its own comprehensive math library containing several hundred of the most common DSP functions. This hand-coded library is optimized for the PowerPC and AltiVec and supports both VxWorks and Linux.





PowerPC® 7400 Processor

The 7400 is a high-performance, low-power, 32-bit implementation of the PowerPC Reduced Instruction Set Computer (RISC) architecture combined with a full 128-bit implementation of Motorola's AltiVec™ technology. This high performance CPU is well suited for all types of general purpose and digital signal processing applications.

PØ•PCI™

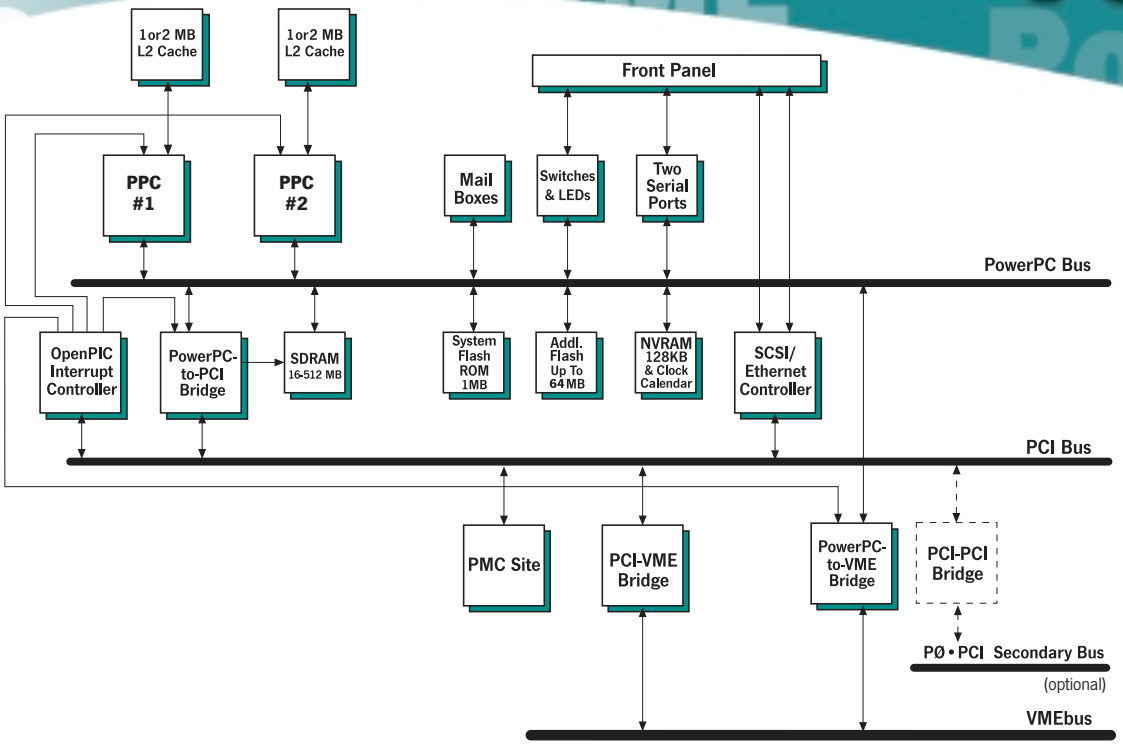
PØ•PCI™ improves overall system bandwidth

PØ•PCI gives you a secondary backplane bus to complement the VME bus. Data traffic can be routed over the shared PCI bus via PØ connectors on system boards, increasing overall system bandwidth.

SYNERGY MICROSYSTEMS

VME
SINGLE BOARD COMPUTER

VGM5



Processor:

- Dual or single PowerPC G4 or G3
  G3 (750): 300—466 MHz
  G4 (7400): 366, 400 MHz

Memory:

- Main memory: 32, 64, 128, 256 or 512 MB SDRAM supporting parity
  (ask about ECC availability)
- L2 cache: 1 or 2 MB per CPU
- Boot Flash: 1 MB, loadable via 32-pin JEDEC socket
- Optional user Flash: 4, 8, 16, 32, or 64 MB
- NVRAM (clock/calendar): 128 KB

VME Interface:

- Interface: VME64, opt. VME64x, A32, D64
- VME Speedway™: single translation direct data path from PowerPC to VME for non-BLT
- Tundra Universe II: PCI-to-VME interface for all other data transfers

PCI Interface:

- Local PCI bus: 64-bit/33 MHz
- PMC Interface: 64-bit/33 MHz
- Optional PØ•PCI™: 64-bit/33 MHz secondary PCI bus via PØ connector (requires VME64x backplane supporting PØ and Synergy PØ•PCI overlay)

On-board I/O:

- Ethernet: auto-sensing 10/100 Base-T
- Serial: Two RS-232 ports, up to 115.2 KB/s
- SCSI: Wide Ultra, 8/16 bit, up to 40 MB/s

Physical Dimensions:

- 6U form factor minus front panel: 9.19" (233mm) x 6.4" (160mm) x 0.80" (20mm)

Weight:

- 15.1 oz (428 g)

Power Requirement: (approx.)

- PPC G3: Up to +5V at 5.8 A*
- PPC G4: Up to +5V at 7.8 A*
  (*depends on configuration)

Environmental & Reliability:

- Operating temperature: 0° to 50° C ambient with forced air cooling, 200 LFM minimum air flow
- Extended temperature: -20° to 71° C
- Storage temperature: -40° to 85° C
- Humidity: 0–95% RH non-condensing
- Altitude: 10,000 ft. with battery backup 50,000 ft. max. w/capacitor backup option
- MTBF: 136,243 hours (15.55 years)

Other Features:

- Ten status LEDs, eight user-programmable LEDs, one 8-bit readable switch, and two CPU reset/interrupt switches
- Programmable interrupts - priority of any interrupt source can be set in software
- Two board stiffeners
- Four 32-bit counters can be read at any time as well as generate interrupts
- Two 8-bit CPU mailboxes
- Real time clock/calendar, four-digit year
- JTAG support

Options:

- VxWorks, Linux or Linux SMP* or Integrity (single processor only)
- Single or dual CPUs
- PMC carrier board for additional PMC sites (two slot solution)
- VME64x support
- PØ•PCI™ secondary PCI bus via PØ
- Conformal coating
- Extended ruggedization level
- Extended temperature range
- Other options include CPU speed, main memory size, Flash size, and L2 cache speed ratio

*Linux SMP not available for PPC 750 CPUs

For more information, visit our web site: www.synergymicro.com

SYNERGY MICROSYSTEMS
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