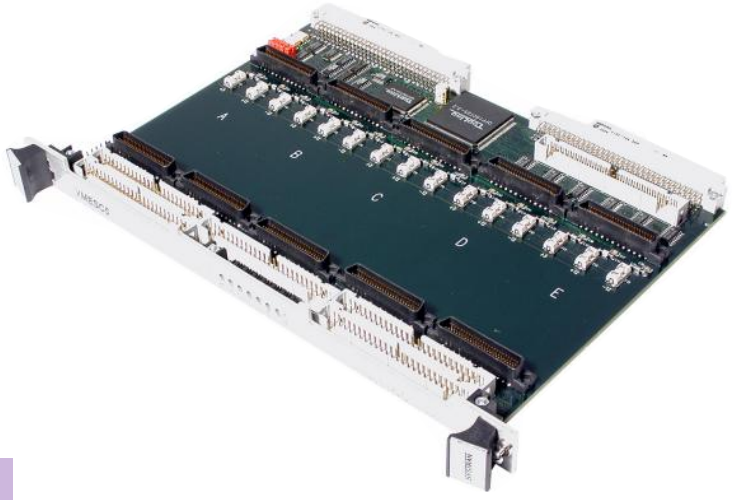
I/O Solutions™

IP Module Carriers

VMESC5 — VME6U 5-Slot IP Module Slave Carrier Board

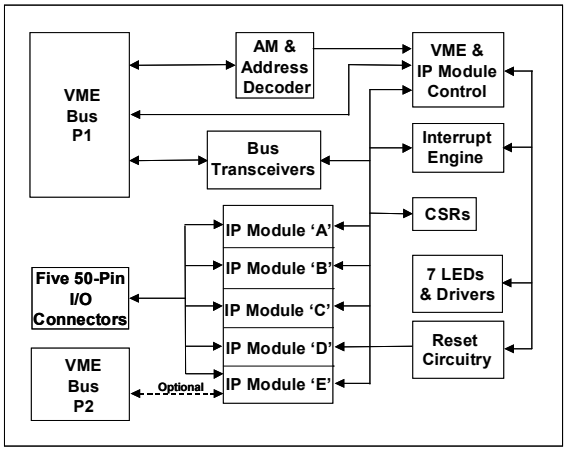


Superior performance plus modular I/O make Systran's VMESC5 IP Module slave carrier the ideal IP Module adapter. The VMESC5's five-slot design provides higher density and more I/O variations per slot than other VME I/O boards. The VMESC5 can be populated with the IP Modules you select for easy integration into even the most demanding I/O applications. You simply plug your IP Modules onto connectors on the board. This allows you to customize the I/O to your needs.

The VMESC5 carrier offers a full complement of I/O control features. This enables you to implement I/O systems much faster and more cost effectively than ever before. For truly flexible, high-performance, modular I/O, the solution is the VMESC5!

Application Features:

- Space for up to five IP Modules for flexible I/O system design.
- Supports up to 250 I/O points on a single VME6U slot—ideal for high-density I/O applications.
- 2.7 million transfers/sec on READS and WRITES (8- or 16-bit) for outstanding performance in high-speed I/O applications.
- All 10 IP Module interrupt requests (2 per IP Module) can assert any of the seven VME interrupt levels, providing total interrupt level assignment flexibility (equal levels slot prioritized).
- Large ground plane under IP Modules reduces interference with sensitive analog components for "quiet" operation.
- Includes five general-purpose registers for user-defined needs, like semaphores, scratchpads, etc.
- No hold states for IP transfers (I/O,ID, INT), providing maximum throughput (IP memory transfers not supported).
- All IP power sources are filtered and fused (with field replaceable fuses).
- Up to 50 I/O lines can optionally be routed through the VME P2 connector for simplified I/O cabling.
- Jumper selectable board base address.
- IP Module and carrier access status LEDs for diagnostics.
- Posts IP Module errors as status; permits resetting of IP Modules individually via software.
- A16/D16 VME transfers (2 KB block of space).
- Rarely used memory transfers not supported for significant cost reduction.
- Five "standard" I/O ribbon-cable connectors.
- Supports writes to full ID space.
- Supports 5 "strobe" connections (one per slot).



Specifications:

- Physical Dimensions: 9.187 " x 6.299 " (233.330 mm x 160.000 mm)
- Weight: 9.984 oz. (283 grams)
- Hardware Compatibility: VMEbus compliance with IEEE 1014-1987, VME Specification Revision C.1 (October, 1985); IP Module interface design compliance with American National Standard for IP Modules (ANSI/VITA 4-1995) (memory transfers not supported)
- Electrical Requirements (No IP Modules Installed):
  ±5 Vdc @ 0.53 A,
  +12 Vdc @ 0.0 A,
  -12 Vdc @ 0.0 A, ground
  (note that VMEbus ground and IP grounds are not isolated through VMESC5)
- Operating Temperature: 0° to +70° C (+32° to +158° F)
- Storage Temperature: -40° to +85° C (-40° to +185° F)
- Humidity (non-condensing): 5% to 95%
- Operating Vibration: 10 G's RMS, 10-55 Hz, random
- Operating Shock: 50 G's max.
- Operating Altitude: 10,000 ft.
- MTBF (Mean Time Between Failure): 667,245 hrs. per MIL-HDBK-217F
- IP Address MAP (from base): 128 Bytes Each for I/O and then ID for each IP slot, from A through E
- Carrier Register MAP (in order): IP Reset, Error Status, Interrupt Registers for IP Modules A through E, and General Purpose Registers A through E.
- Hardware self-timed resets for each individual IP; triggered via system reset and software control; 200 ms (minimum)
- I/O Read and Write, ID Read and Write, and Interrupt Vector Read Access Times: 375 ±62 ns
- Interrupt Request Delay from IP Module to VMEbus: 14 ns (typical)
- IACK daisy-chain pass-through time: 64 ns (typical)
- 10 KΩ Pull-up resistors on all unused and tri-stated IP Logic Bus Signals, per specification

Ordering Information:
BHAS-VMESC5: VME6U Slave (5-Slot) IP Module Carrier Board.

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