



# XVME-9670

## Nonintelligent, IP Carrier Card (Rear Access I/O)

The XVME-9670 is a nonintelligent slave boards that interfaces four IP modules to the VMEbus. This full-height (6U) board uses VME64-compliant connectors to increase the quantity of rear I/O connections beyond stan-

### FEATURES

- Four ANSI/VITA 4-IP module slots
- 200 I/O points with rear access
- VME64x high-density rear connectors
- Compatibility with most CPUs (VME A24/A16)
- Two interrupts per IP module
- Individually filtered and fused power to each IP
- Front panel LEDs

### BENEFITS

- Clean system cabling
- Easy board replacement
- Simplified debugging with status LEDs

front of the cage. IN addition to a cleaner cage design, it is also much easier to insert and replace boards into the system.

The only requirement is substitution of a VME64 backplane for the standard VME backplane in your system. With Xvcom Automation's 80mm transition module (XIP-90200-000), all 200 I/O points are easily ported out the back of the cage.

standard VME. Although the rear connectors are VME64, the electrical interface is standard VME A24/A16, which means that nearly all CPU products (VME64 or not) can still enjoy full access to the IP modules.

When used with a VME64 backplane, the XVME-9670 brings all 200 I/O points out the rear P0 and P2 connectors. This convenience eliminates messy cables from hanging out the

### Operation

Xycom Automation's carrier boards provide full data access to the IP module's I/O, ID, and memory spaces. With full access to the programmable registers, you can easily configure and control the operation of the IP modules from the VMEbus.

Up to two interrupt requests are supported for each IP module. The VMEbus interrupt level is software programmable.

Individual passive filters on each IP module power supply line provide optimum filtering and isolation between the IP modules and the carrier board.

# PRODUCT SPECIFICATIONS AND RATINGS

## Environmental

	Operating	Nonoperating
Thermal	0 to 70°C	-40 to 85°C
Humidity	5% to 95% RH, noncondensing	5% to 95% RH, noncondensing
Isolation	Nonisolated	Nonisolated

## Physical

### Power Supply

- +5V (±5%): 350 mA, typical 525 mA, maximum
- ±12V (±5%): 0mA (not used)
- Plus IP module load

### Physical dimensions

6.299 inches (160.0 mm) x 9.187 inches (233.3 mm)

### Connectors

- P1 & P2 (VME64x bus): DIN 41612 160-pin Type C, Level II
- P0 (VME64x bus): 3 Type B, Right-Angle Female 95-contacts, with upper ground shield
- P3,5,7,9 (IP Field I/O): 50-pin male plug header (AMP 173280-3 or equivalent)
- P4,6,8,10 (IP Logic Interface): 50-pin male plug header (AMP 173280-3 or equivalent)

## IP Compliance (ANSI/VITA 4)

- Meets IP specifications per ANSI/VITA 4-1995 and ANSI/VITA 4-1996 for I/O mapping
- I/O space and ID space supported.
- Memory space: supports 1 MB to 8 MB per IP module
- Interrupts: supports two interrupt requests per IP module and interrupt acknowledge cycles, D16/D08(O)
- Supports single or double size IP modules
- 32-bit IP modules not supported

## VME Compliance

- Meets VME64 specifications per ANSI/VITA 1-1994 and VME64x specifications per ANSI/VITA 1.1-1997.
- Data transfer bus: A24/A16:D16/D08(EO) DTB slave; supports Read-Modify-Write cycles.
- VMEbus access time: 500nS typical (all carrier board registers); measured from

the falling edge of DSx\* to the falling edge of DTACK\*. 500nS typical (IP registers with no wait states). IP register access time will increase by the number of wait states multiplied by 125nS (the period of the 8MHz clock).

### VMEbus Address Modifier Codes:

- Short I/O space: Base address is hardware jumper selectable. Occupies 1K byte. Responds to both address modifiers 29H & 2DH in the VME64x bus short I/O space for carrier board registers and IP I/O and ID spaces.
- Standard address space: Responds to both address modifiers 39H & 3DH in the VME64x bus standard address space when such accesses to IP memory are enabled via programmable registers on the carrier board. Base addresses and sizes of IP memory are programmable from 1 MB to 8 MB.
- Interrupts: Creates I(1-7) programmable request levels (up to two requests sourced from each IP module). Supports D16/D08(O) interrupter (interrupt vectors come from IP modules). Carrier registers are for control and status monitoring. Interrupt release mechanism is Release on Register Access (RORA) type.

## ORDERING INFORMATION

Order Number	Description
XVME-9670	VME64x 6U carrier. Holds four IP modules.
XIP-90200-000	Transition module.

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