

- 16 optically coupled outputs
- High isolation potential
  - 1.5 kV sustained (channel-to-PCI bus)
- Galvanic (channel-to-channel) isolation to 500 V sustained in current sinking mode
- 8-, 16-, and 32-bit data transfers
- I/O addressing or memory addressing
- 300 mA current sinking outputs (open collector)
- 50 V maximum output voltage
- Supports Built-in-Test
- Complies with CompactPCI® specification R2.1
- Single CompactPCI slot
- 3U board size with optional 3U or 6U front panel

### FUNCTIONAL CHARACTERISTICS

**Board Function:** This board has 16 optically coupled outputs. The outputs provide a sustained 1.5 kV of system isolation to the CompactPCI bus backplane.

**Compliance:** This board complies with the CompactPCI Specification Revision 2.1

**Built-in-Test:** The VMICPCI-2335 supports both on-line and off-line Built-in-Test (BIT).

The contents of the Output Data Registers may be read at any time, thereby supporting on-line testing. The outputs may be put into off-line test mode by setting bits in the CSR. In the off-line test mode, the open-collector outputs are all disabled. Data patterns may then be written to and read from the Output Registers for test purposes without affecting the outputs.

**Addressing Scheme:** The VMICPCI-2335 board address is assigned by the system BIOS per the CompactPCI specification.

### OUTPUT CHARACTERISTICS

See Table 1

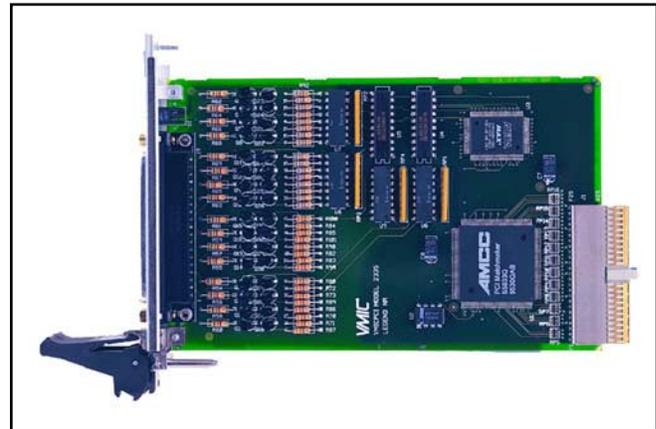
**Output Configuration:** Optically isolated, open collector. The user may use the external voltage pins on byte boundaries. External voltage may be injected on byte boundaries to supply power for pull-up resistors.

**Output Leakage Current:** 500  $\mu$ A maximum at  $V_{CE} = 50$  V and  $T_A = 60$  °C

**Output Voltage:** 50 V maximum

**Switching Time:** See Table 1

**Output Isolation:** 10 M $\Omega$ , minimum



**Isolation Voltage<sup>1</sup>:** 1,500 V sustained field to CompactPCI bus; 500 V sustained channel-to-channel maximum.\*

### PHYSICAL/ENVIRONMENTAL

**Physical Dimensions:** 3U CompactPCI board

**User Connectors:** One 37-pin D-shell connector (female)

**Ambient Temperature:** 0 to 65 °C, operating  
-40 to +85 °C, storage

**Humidity:** 20 to 80 percent, noncondensing

**Altitude:** 0 to 10,000 ft (3,048 m)

**Cooling:** 50 LFM minimum air flow

1. Voltage sourcing option will limit isolation.

Ordering Options							
Dec. 22, 1998 800-652335-000 A	A	B	C	-	D	E	F
VMICPCI-2335	-		0	-			
<b>A = Output Configuration</b> 0 = Current Sinking (Open Collector) 1 = Voltage Sourcing 15 k $\Omega$ Pull Ups* <b>B = Front Panel</b> 0 = 3U 1 = 6U <b>C = 0 (Option reserved for future use)</b>							
Note							
*Voltage Sourcing maintains byte-to-byte isolation only.							
Compatible Cable Connector							
Standard Subminiature D 37-pin male connector.							
<b>For Ordering Information, Call:</b> 1-800-322-3616 or 1-256-880-0444 • FAX (256) 882-0859 E-mail: info@vmic.com Web Address: www.vmic.com Copyright © April 1997 by VMIC Specifications subject to change without notice.							

**Power Requirements:** +5 VDC at 1.5 A, maximum

**Drivers:** VxWorks and Windows NT® drivers are available (see VMISFT-9450)

**TRADEMARKS**

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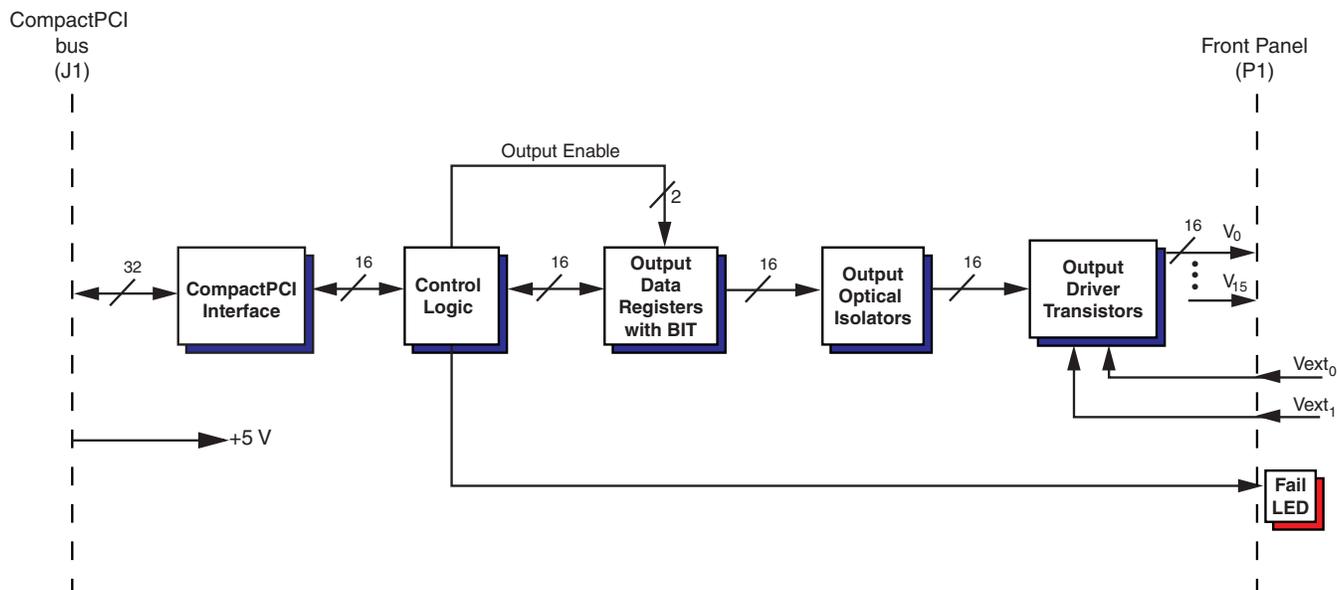
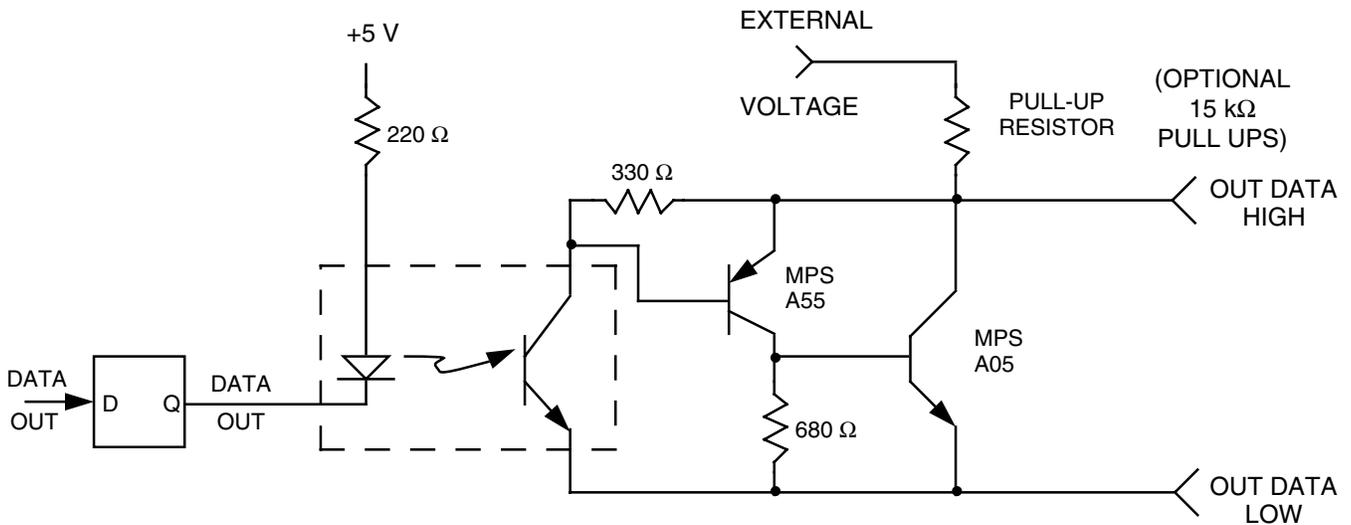


Figure 1. VMICPCI-2335 Functional Block Diagram

**Table 1. Output Characteristics**

Mode	Parameter	Condition	Min.	Typ.	Max.	Units
Voltage Sourcing and Sinking	Voltage External ( $V_{CE}$ )				50	V
Voltage Sourcing	$I_{CE}$ (Sinking) $I_{CE} = 0$	Output Off with 50 V External and 15 K Pull-Up Resistor			3.3	mA
Voltage Sourcing	$V_{CE}$ (SAT)	Output On			0.2	V
Current Sinking	$V_{CE}$ (SAT)	$I_{CE} = 300$ mA			1.2	V
Current Sinking	$I_{CE}$ (Sinking)	Output On			300	mA
Current Sinking	$I_{CE}$ (Sinking)	Output Off			500	$\mu$ A
Voltage Sourcing or Current Sinking	$T_D$ On			7.0		$\mu$ s
Voltage Sourcing or Current Sinking	$T_D$ Off				56	$\mu$ s



**Figure 2. Typical Output Configuration**