



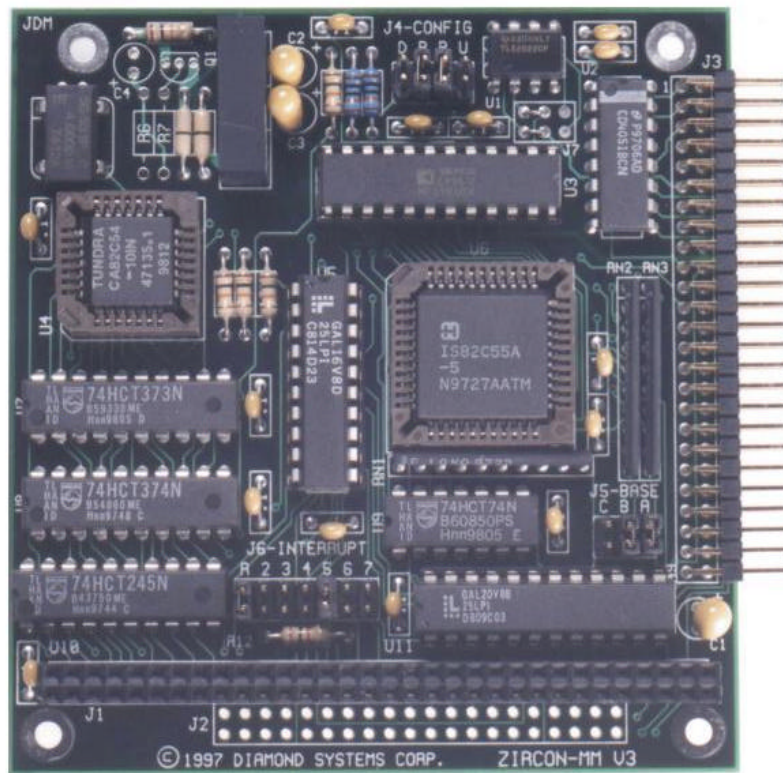
DIAMOND SYSTEMS CORPORATION

ZIRCON-MM

8-Bit Resolution Analog & Digital I/O

PC/104 Module

User Manual V2.11



© Copyright 2002
Diamond Systems Corporation
8430-D Central Ave.
Newark, CA 94560
Tel (510) 456-7800
Fax (510) 45-7878
techinfo@diamondsystems.com
www.diamondsystems.com

14. SPECIFICATIONS

All specifications at 25°C. A/D conversion rate on 386-25MHz CPU.

Analog Input

No. / type of channels	8 single-ended
Resolution	8 bits (1 part in 256)
A/D conversion time	2.6 μ s max
Maximum conversion rate	40 KHz typical (interrupt-based single conversions) 64 KHz typical (interrupt-based 8-channel scan)
Relative accuracy	+/-1 LSB max
Offset error	+/-3 LSB max
Full-scale error	-4, +0 LSB max
Input current	+/-300 μ A max (ZMM-LC) +/-60 nA max (ZMM-DX, D jumper not installed) +/-25 μ A max (ZMM-DX, D jumper installed)

Analog Output

No. / type of channels	1, voltage output
Resolution	8 bits (1 part in 256)
Settling time	4 μ s max to +/-1/2 LSB
Offset error	+/-2 LSB max
Full-scale error	+/-2 LSB max
Output current	+/-1.25mA max

Digital I/O

No. of lines	24 (using 82C55 chip)
Compatibility	TTL / CMOS
Pull-up resistors	10K Ω on each I/O line
Output voltage	Logic 1: 3.0V min, 4.6V max; Logic 0: 0.0V min, 0.4V max
Output current	Logic 1: -2.5mA max; Logic 0: +2.5mA max
Input voltage	Logic 1: 2.0V min, 5.0V max; Logic 0: 0.0V min, 0.8V max

Counter/Timers

No. of counter/timers	3
Width	16 bits
Compatibility	TTL / CMOS
Maximum clock frequency	10 MHz
On-board clock oscillator	4MHz
Configuration	Counters 1 and 2 cascaded for interrupts; Counter 0 free

General

Dimensions	3.55" x 3.775" (PC/104 standard)
Operating temperature	0 - 70°C
Power supply	+5VDC \pm 10%
Current consumption (typical, all outputs open)	ZMM-DX: 127mA ZMM-LC: 100mA
PC/104 bus	8-bit bus used; 16-bit header footprint on board for passthrough