BL1800 JackRabbit™
Single Board Computers
Models BL1800, BL1810, BL1820

The Jackrabbit is Z·World's most compact and lowest cost C-programmable single-board computer. The Jackrabbit is the perfect solution for applications that have significant cost and size constraints but need a dependable SBC. Fast number crunching is provided by a Rabbit 2000 microprocessor operating at up to 29.5 MHz.

Features

- Our lowest cost SBC
- Compact 3.5" x 2.5" size
- 4 serial ports
- Fast clock up to 29.5 MHz
- Multifunctional I/O

Measuring just 3.5" x 2.5" (89 x 64 mm), the Jackrabbit provides 24 CMOS-compatible I/O, 3 analog channels, and 4 high-power outputs. Three of the high-power outputs can sink up to 1 amp each and are protected for direct driving of inductive loads.
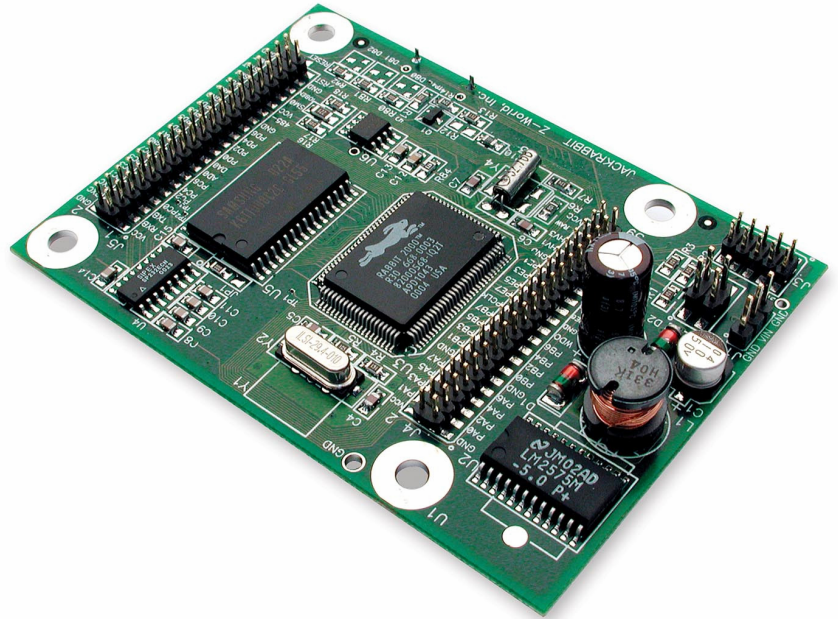
Two RS-232 ports and 1 RS-485 port support serial communication and are rated at 15 kV for ESD protection. The fourth serial port is a 5 V CMOS-compatible programming port that can also be used in the user's application after programming is completed.

Five 8-bit timers and one 10-bit timer with 2 match registers are onboard. Four of the 8-bit timers can be cascaded from the first timer. A real-time clock (RTC) provides time/date data, and a watchdog supervisor is standard.

The BL1800 features a switching regulator that provides a wide range of input voltages (8–40 V DC), reducing power consumption while minimizing heat. (A linear regulator is featured on the BL1810 and BL1820 versions.)

Programming the Jackrabbit

Programs are developed using Z·World's industry-proven Dynamic C® software development system. An extensive library of drivers and sample programs is provided.

BL1800 JackRabbit Specifications

Feature	BL1800	BL1810	BL1820
Microprocessor	Rabbit 2000 @ 29.5 MHz	Rabbit 2000 @ 14.7 MHz	
Flash	256K	128K	
SRAM	128K (standard)		
Backup Battery	3 V lithium coin-type, 950 mA·h, supports RTC and SRAM		None
Keypad/Display	See our "OP" products for serial display options		
Digital Inputs	6 CMOS-compatible		7 CMOS-compatible
Digital Outputs	8 total: 4 CMOS-compatible, 3 sink up to 1 amp each, 1 sources up to 0.5 amps, 30 V DC max.	8 total: 4 CMOS-compatible, 3 sink up to 200 mA each, 1 sources up to 100 mA, 30 V DC max.	9 total: 5 CMOS-compatible, 3 sink up to 200 mA each, 1 sources up to 100 mA, 30 V DC max
Configurable I/O	14 total CMOS-compatible: 8 bytewide and 6 by bit		15 total CMOS-compatible: 8 bytewide and 7 by bit.
Analog Inputs	One 9-bit resolution, 8-bit accuracy, 0.1-2.8 V input range, 10 samples/sec.		
Analog Outputs	Two 9-bit PWM, one 0.1-2.8 V DC, one 0.7-3.5 V DC, update rate 50 Hz		
Serial Ports	4 total: two 3-wire (or one 5-wire) RS-232, one RS-485, and one 5 V CMOS compatible (programming). 2 configurable as sync.		4 total: two 3-wire (or one 5-wire) RS-232 and teo 5 V CMOS-compatible (1 programming). 2 configurable as sync.
Serial Rate	Max. burst rate = CLK/32 (async) Max. sustained rate = burst/2		
Connectors	Two 2 x 20, 2 mm IDC headers		
Real-Time Clock	Yes		
Timers	Five 8-bit timers (four cascadable from the first) and one 10-bit timer with 2 match registers		
Watchdog/Supervisor	Yes		
Power	8-40 V DC, 1.2 W max.	7.5-5.25 V DC, 100 mA	
Operating Temp.	-40°C to +70°C		
Humidity	5-95%, non-condensing		
Board Size	3.50" x 2.50" x 0.94" (89 x 64 x 24 mm)		
Pricing (qty. 1/100) Part Number	$99 / 81 101-0356	$69 / 57 101-00357	$49 / 41 101-0358
Development Kit Part Number	$139 U.S. 101-0363 Int'l 101-0364		

2/15/2005