

Rabbit SBC BL2600 Series

Ethernet-Enabled Single-Board Computer

Best suited for industrial control applications and is a low-cost PLC alternative.

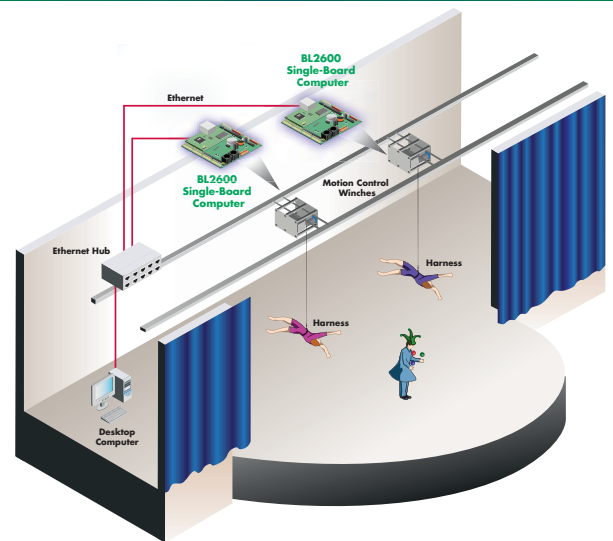


Overview

The BL2600 series represents a class of advanced single-board computers that incorporates the powerful Rabbit 3000 microprocessor, Flash memory and RS-232/RS-485 serial ports. Additional module variants enable data logging of up to 1 GB in data storage. Functionality of the BL2600 series can be expanded using optional RabbitNet™ expansion cards.

The BL2600 series can be connected via two mechanisms: Dual-entry IDC through-hole sockets, which allow header mounting on either side of the board, and polarized locking industry-standard friction-lock connectors that enable rapid assembly with a wire harnesses. These connectors provide dependable cable harness connectivity to I/O. RabbitNet expansion boards are available (including A/D, D/A, digital I/O and keypad/display interface cards) to interface via the two multiplexed SPI RS-422 ports.

Application Highlight



Potential Applications: Industrial control and automation, remote machine control, utilities, test and measurement, applications with high I/O requirement

Features/Benefits

- Rabbit® 3000 microprocessor at 44 MHz
- 10/100Base-T Ethernet, RJ-45
- 512K Flash/512K SRAM
- 36 digital I/O (configurations include protected digital inputs, sinking/sourcing outputs, high current outputs)
- 12 analog channels: eight 11-bit A/D, four 12-bit D/A buffered outputs
- RabbitNet expansion ready
- Multiple "core module" options allow flexibility in functionality



Specifications	BL2600	BL2610
Feature		
Microprocessor	Rabbit® 3000 at 44 MHz	Rabbit® 3000 at 29 MHz
Ethernet Port	10/100Base-T, 3 LEDs	None
Flash Memory	512K (standard)	
Program Execution SRAM	512K	None
Data SRAM	256K	512K
Backup Battery	Panasonic CR2477 or equivalent 3V lithium coin type, 950 mA·h standard, socket-mounted	
Configurable I/O	16 individually software-configurable I/O channels may be configured as digital inputs $\pm 36\text{VDC}$, switching threshold 1.5V typical, or as sinking digital outputs up to 40V, 200 mA each	
Digital Inputs	8 inputs hardware-configurable pull-up or pull-down, $\pm 36\text{VDC}$, switching threshold 1.4V typical	
High-Current Digital Outputs	4 outputs individually software-configurable as sinking or sourcing, +40VDC, 2A max. per channel	
Analog Inputs	Eight 11-bit res. channels, software-selectable ranges unipolar: 1, 2, 2.5, 5, 10, 20VDC; bipolar $\pm 1, \pm 2, \pm 5, \pm 10\text{VDC}$; 4 channels can be hardware-configured for 4–20 mA; 1 M Ω input impedance, up to 4,100 samples/s	
Analog Outputs	Four 12-bit res. channels, buffered, 0–10VDC, $\pm 10\text{VDC}$, and 4–20 mA, update rate 12 kHz	
Serial Ports	5 serial ports: <ul style="list-style-type: none"> • 1 RS-485 or 1 RS-232 • 2 RS-232 or 1 RS-232 (with CTS/RTS) • 1 clocked serial port multiplexed to 2 RS-422 SPI master ports • 1 serial port dedicated for programming/debug 	
Serial Rate	Max. asynchronous rate = CLK/8, Max. synchronous rate = CLK/2	
Connectors	<ul style="list-style-type: none"> • RJ-45 connectors: 1 Ethernet and 2 RabbitNet™ • Friction-lock connectors: 2 polarized 9-position terminals with 0.1" pitch; three 4-position power terminals with 0.156" pitch; two 20-position terminals with 0.1" pitch (2 x 20 IDC option); one 13-position terminal with 0.1" pitch (2 x 13 IDC option); one 10-position terminal with 0.1" pitch (2 x 7 IDC option) • Programming port: 2 x 5 IDC, 1.27 mm pitch (BL2600), 2 x 5 IDC, 2 mm pitch (BL2610) 	
Real-Time Clock	Yes	
Timers	One 10-bit timer with 2 match registers	
Power	Yes	
Watchdog/Supervisor	9–36V DC, 12W max.	
Operating Temperature	–40° C to +70° C (–40° C to +85° C without battery)	
Humidity	5 to 95%, non-condensing	
Board Size	4.85" x 4.96" x 1.00" (123 mm x 126 mm x 25 mm)	
Pricing		
Price (qty. 1) Part Number	\$289 20-101-0889	\$269 20-101-0891
Starter Package Part Number	\$488 20-101-0889, 101-0626	\$468 20-101-0891, 101-0626

Visit www.digiembedded.com for part numbers.

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