DIGI

RABBIT SBC BL2600 SERIES

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

The BL2600 series represents a class of advanced single-board comptuers 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.
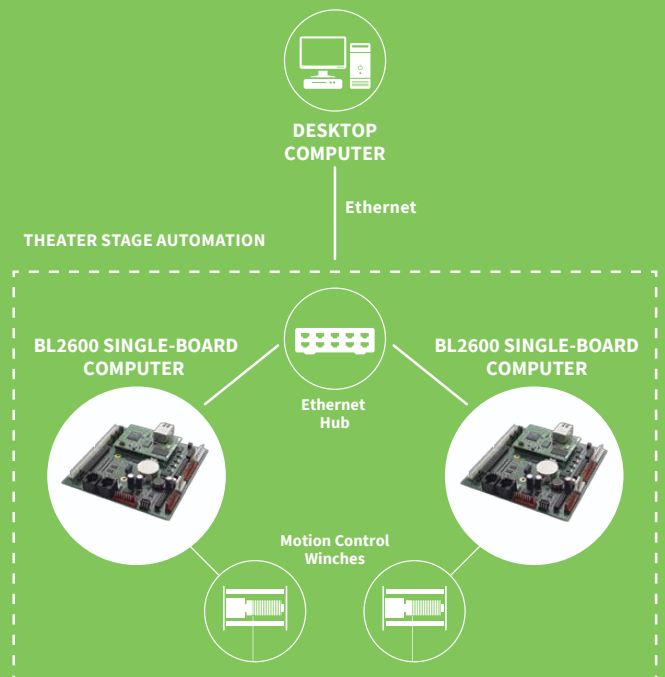
The BL2600 series can be connected via two mechanisms: Dual-entry IDC through-hole sockets, which allow header mounting on either side of the board, and polarized locking industry-standard friction-lock connectors that enable rapid assembly with a wire harnesses. These connectors provide

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.

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

APPLICATION EXAMPLE

DESKTOP COMPUTER

Ethernet

THEATER STAGE AUTOMATION

BL2600 SINGLE-BOARD COMPUTER

Ethernet Hub

BL2600 SINGLE-BOARD COMPUTER

Motion Control Winches

RELATED PRODUCTS

Rabbit® SBC BL2100 Series

Rabbit® SBC BL4S200 Series

Rabbit® SBC BL4S100 Series

ConnectCore® 6 SBC

RabbitCore® RCM3000 Series

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)	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 ±36VDC, 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, ±36VDC, 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 ±1, ±2, ±5, ±10VDC: 4 channels can be hardware-configured for 4–20 mA; 1 MΩ input impedance, up to 4,100 samples/s	
ANALOG OUTPUTS	Four 12-bit res. channels, buffered, 0–10VDC, ±10VDC, and 4–20 mA, update rate 12 kHz	
SERIAL PORTS	5 serial ports: • 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	• 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 × 20 IDC option); one 13-position terminal with 0.1" pitch (2 × 13 IDC option); one 10-position terminal with 0.1" pitch (2 × 7 IDC option) • Programming port: 2 × 5 IDC, 1.27 mm pitch (BL2600), 2 × 5 IDC, 2 mm pitch (BL2610)	
REAL-TIME CLOCK	Yes	
TIMERS	One 10-bit timer with 2 match registers	
POWER	Yes	
WATCHDOG/SUPERVISOR	9–36 VDC, 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" × 4.96" × 1.00" (123 mm × 126 mm × 25 mm)	

PART NUMBERS	DESCRIPTION
20-101-0889	BL2600. 10/100Base-T Ethernet
20-101-0891	BL2610. No Ethernet

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