



ETHERNET-ENABLED  
SINGLE-BOARD  
COMPUTER



# 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 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.

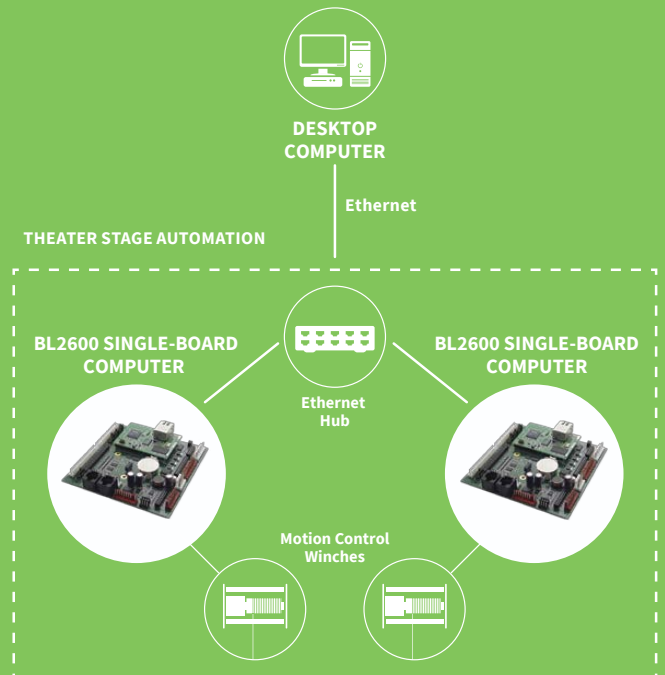
The BL2600 series can be connected via two mechanisms: Dual-entry IDC through-hole sockets, which allow header mounting on either side of the board, and polarized locking industry-standard friction-lock connectors that enable rapid assembly with a wire harnesses. These connectors provide

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.

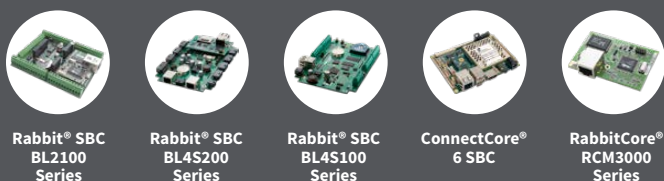
## BENEFITS

- 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



## RELATED PRODUCTS



SPECIFICATIONS	BL2600	BL2610
<b>FEATURE</b>		
<b>MICROPROCESSOR</b>	Rabbit® 3000 at 44 MHz	Rabbit® 3000 at 29 MHz
<b>ETHERNET PORT</b>	10/100Base-T, 3 LEDs	None
<b>FLASH MEMORY</b>	512K (standard)	512K (standard)
<b>PROGRAM EXECUTION SRAM</b>	512K	None
<b>DATA SRAM</b>	256K	512K
<b>BACKUP BATTERY</b>	Panasonic CR2477 or equivalent 3V lithium coin type, 950 mA-h standard, socket-mounted	
<b>CONFIGURABLE I/O</b>	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	
<b>DIGITAL INPUTS</b>	8 inputs hardware-configurable pull-up or pull-down, $\pm 36\text{VDC}$ , switching threshold 1.4V typical	
<b>HIGH-CURRENT DIGITAL OUTPUTS</b>	4 outputs individually software-configurable as sinking or sourcing, +40VDC, 2A max. per channel	
<b>ANALOG INPUTS</b>	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 $\Omega$ input impedance, up to 4,100 samples/s	
<b>ANALOG OUTPUTS</b>	Four 12-bit res. channels, buffered, 0–10VDC, $\pm 10\text{VDC}$ , and 4–20 mA, update rate 12 kHz	
<b>SERIAL PORTS</b>	5 serial ports: <ul style="list-style-type: none"> <li>• 1 RS-485 or 1 RS-232</li> <li>• 2 RS-232 or 1 RS-232 (with CTS/RTS)</li> <li>• 1 clocked serial port multiplexed to 2 RS-422 SPI master ports</li> <li>• 1 serial port dedicated for programming/debug</li> </ul>	
<b>SERIAL RATE</b>	Max. asynchronous rate = CLK/8, Max. synchronous rate = CLK/2	
<b>CONNECTORS</b>	<ul style="list-style-type: none"> <li>• RJ-45 connectors: 1 Ethernet and 2 RabbitNet™</li> <li>• 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 <math>\times</math> 20 IDC option); one 13-position terminal with 0.1" pitch (2 <math>\times</math> 13 IDC option); one 10-position terminal with 0.1" pitch (2 <math>\times</math> 7 IDC option)</li> <li>• Programming port: 2 <math>\times</math> 5 IDC, 1.27 mm pitch (BL2600), 2 <math>\times</math> 5 IDC, 2 mm pitch (BL2610)</li> </ul>	
<b>REAL-TIME CLOCK</b>	Yes	
<b>TIMERS</b>	One 10-bit timer with 2 match registers	
<b>POWER</b>	Yes	
<b>WATCHDOG/SUPERVISOR</b>	9–36 VDC, 12W max.	
<b>OPERATING TEMPERATURE</b>	–40° C to +70° C (–40° C to +85° C without battery)	
<b>HUMIDITY</b>	5 to 95%, non-condensing	
<b>BOARD SIZE</b>	4.85" $\times$ 4.96" $\times$ 1.00" (123 mm $\times$ 126 mm $\times$ 25 mm)	
<b>PRODUCT WARRANTY</b>	1 year	

PART NUMBERS	DESCRIPTION
20-101-0889	BL2600. 10/100Base-T Ethernet
20-101-0891	BL2610. No Ethernet
20-101-1095	BL2600 w/ 10/100Base-T, 512k Flash, 512k SRAM, 16MB NAND Flash, xD removable memory slot

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