BL2600 Wolf™

Models | BL2600 | BL2610 |

Ethernet-Enabled Single-Board Computer

Key Features

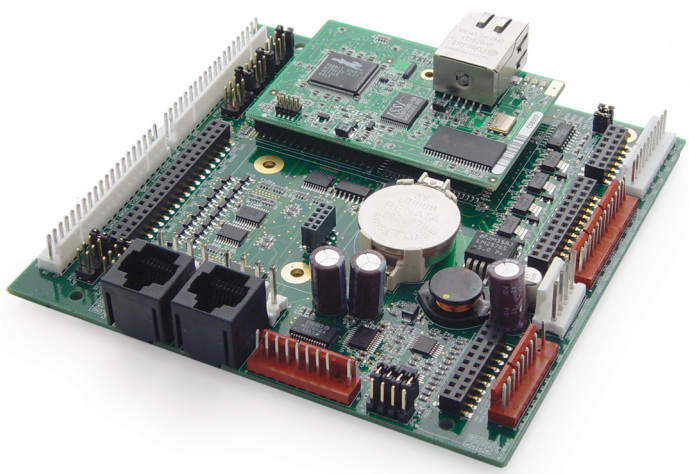
- Rabbit 3000® @ 44.2 MHz
- 10/100Base-T Ethernet Connectivity
- 512K Flash and 512K SRAM standard
- 36 digital I/O (configurations include protected digital inputs, sinking/sourcing outputs, high current outputs)
- 12 analog channels: eight 11-bit A/D, four 12-bit D/A buffered outputs
- 5 serial ports
- RabbitNet expansion capability
- Other available feature configurations: 10 Base-T, reduced memory, 16MB NAND, removable memory slot supporting up to 128MB

Design Advantages

- I/O can be connected via IDC headers or friction lock connectors
- Can be installed using mounting holes, or positioned on top of a mother board with IDC headers
- Easily expandable as your application needs grow
- Multiple "core module" options allow flexibility in functionality

Applications

- Equipment control and automation
- Machine control with Ethernet connectivity
- Industrial control and Utilities
- Test and measurement
- Applications with high I/O requirements



BL2600 Wolf - Embedded Industrial Control with Ethernet and RabbitNet Expansion Capabilities

The BL2600 Wolf single-board computer provides embedded system engineers a complete and expandable performance package. Two standard models—one with 10/100 Ethernet, one without—feature the Rabbit 3000® microprocessor at 44.2 and 29.4 MHz respectively, with at least 512K Flash and 512K SRAM (standard).

The BL2600 is an advanced single-board computer that incorporates the powerful Rabbit 3000 microprocessor, Flash memory, SRAM, digital I/O ports, A/D converter inputs, D/A converter outputs, RS-232/RS-485 serial ports, and a 10/100Base-T Ethernet port. Optional RabbitNet Expansion and serial Flash cards are available. The BL2600 Wolf 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 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.

Programming the BL2600

Programs are developed and debugged using industry-proven Dynamic C® software, which runs on a Windows PC. The programming device is connected via a serial cable, a USB cable, or Ethernet. Comprehensive debugging support includes break points, watch expressions and many other extensive features oriented toward real-time embedded systems programming. An extensive library of drivers and sample programs is provided, including a royalty-free TCP/IP stack for network and Internet communications. Full source code is provided for most library routines.

Tool Kit

The BL2600 Tool Kit contains software and hardware tools needed to begin design including a demo board, Dynamic C software and documentation on CD-ROM, User's Manual with schematics, serial cable for programming and debugging, AC adapter (US/Canada only), wiring assembly and friction-lock crimp pins and housings (standard crimping tool sold separately).

RabbitNet Compatible

RabbitNet expansion ports enable a modular and expandable embedded control system whose configuration of expansion cards can be tailored to a large variety of demanding real-time control, display, and data-acquisition applications. A typical RabbitNet system consists of a master single-board computer and one or more peripheral cards. Available RabbitNet expansion cards are:

- Digital I/O expansion
- A/D expansion
- D/A expansion
- Relay expansion
- Keypad/display interface

BL2600 Specifications & Features

FEATURE	BL2600	BL2610
Microprocessor	Rabbit 3000 at 44.2 MHz	Rabbit 3000 at 29.4 MHz
Ethernet Port	10/100Base-T, 3 LEDs	None
Flash Memory	512K (standard)	
SRAM	512K Program Execution, 256K Data	512K (standard)
Backup Battery	Panasonic CR2477 or equivalent 3 V lithium coin type, 950 mAh, socket mounted	
Configurable I/O	16: Individually software configurable digital inputs @ ±36 V DC, 1.5 V switching threshold, or sinking digital outputs up to 40 V, 200 mA each	
Digital Inputs	16: Hardware-configurable pull-up or pull-down, ±36 V DC, switching threshold 1.4 V typ.	
High-Current Digital Outputs	4: Individually software configurable, +40 V DC, 2 A max. per channel, sinking or sourcing	
Analog Inputs	8 channels with 11-bit resolution, software selectable ranges Unipolar: 1, 2, 2.5, 5, 10, 20 V DC; Bipolar: ± 1, ± 2, ± 5, ± 10 V DC; Four of the eight channels maybe hardware-configured for 4 – 20 mA, 12 kHz update rate	
Analog Outputs	4 channels, 12-bit resolution, buffered (0 – 10 V DC, ± 10 V DC), 4 – 20 mA, 12 kHz update rate	
RabbitNet Expansion	2 ports: serial expansion RS-422 clocked SPI ports	
Serial Ports	Up to 5 serial ports: • 1 RS-485 or 1 RS-232 • 2 RS-232 or one RS-232 (with CTS/RTS) • 1 clocked serial port multiplexed to 2 RS-422 SPI master ports • 1 CMOS compatible serial port for programming/debug	
Serial Rate	Max. async = CLK/8, Max. sync = CLK/2	
Real-Time Clock	Yes	
Timers	Ten 8-bit timers (6 cascadable from the first) and one 10-bit timer with 2 match registers	
Watchdog/Supervisor	Yes	
Power	9 – 36 V DC, 25 W max. (includes power to RabbitNet expansion boards)	
Operating Temperature	–40° to +70°C (–40° to +85°C without battery)	
Humidity	5 – 95%, noncondensing	
Connectors	One Ethernet and two Rabbitnet™ RJ-45 connectors Two polarized, 9-position with 0.1" pitch friction-lock connectors Three 4-position power terminals with 0.156" pitch friction-lock connectors Two 20-position terminals with 0.1" pitch (and 2 x 20 IDC headers) friction-lock connectors One 13-position terminal with 0.1" pitch (and 2 x 13 IDC header) friction-lock connector One 10-position terminal with 0.1" pitch (and 2 x 7 IDC header) friction-lock connector One 2 x 5 IDC, 1.27 mm pitch (BL2600) programming port One 2 x 5 IDC, 2 mm pitch (BL2610) programming port	
Board Size	4.85" × 4.96" × 1.00" (123 × 126 × 25 mm)	
Pricing (qty. 1/100) Part Number	$289 / 237 101-0889	$269 / 221 101-0891
Tool Kit Part Number	$199 U.S. 101-0626	Int'l 101-0627

Available Configurations

BL2600 with 10Base-T Rabbit 3000™ @ 29.4 MHz (qty. 1/100) Part Number	$279 / 229 101-0906
BL2600 with 10Base-T 256K Flash, 128K SRAM Rabbit 3000™ @ 29.4 MHz (qty. 1/100) Part Number	$269 / 221 101-0907
BL2610 with 256K Flash / 128K SRAM (qty 1/100) Part Number	$249 / 204 101-0908
BL2600 at 44MHz, 10/100 BaseT, 512K Flash/512K SRAM, 16 MB NAND Flash, xD removable memory slot. (qty1/25) Part Number	$309 / $271 101-1095
BL2600 at 44MHz, 10/100 BaseT, 512K flash/512K SRAM, xD removable memory slot (qty1/25) Part Number	$299 / $263 101-1096

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