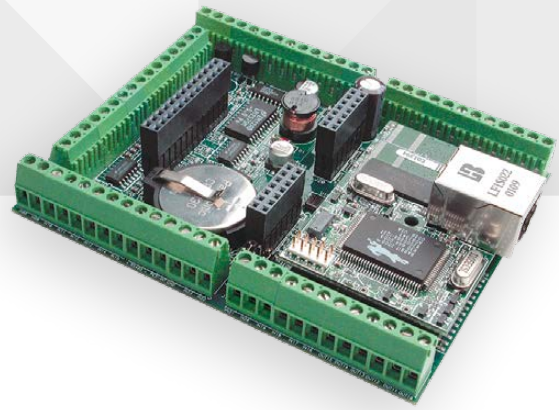




SINGLE-BOARD  
COMPUTER



# RABBIT® SBC BL2100 SERIES

A high-performance single-board computer designed for medium-scale industrial control and monitoring applications

The BL2100 series is available in four flexible configurations, which feature 40 digital I/O, 3 RS-232/485 serial ports, and a battery-backup for the real-time clock and SRAM for protected data. In addition, the BL2100 and BL2120 models include 11 channels of 12-bit resolution A/D input and 4 channels of 12-bit D/A output. The BL2100's 16 digital outputs can sink/source up to 200 mA and are configurable in Dynamic C, an easy-to-use C environment.

An optional 7-key 122 x 32 graphic display is available as a cost-effective user interface (a panel-mount, water-resistant NEMA 4 version is also available). The BL2100 boards come standard with screw terminals which, can support 14 AWG wiring or other options such as IDC or friction lock headers.

## BENEFITS

- 40 sinking/sourcing digital I/O
- Up to 512K Flash for program and up to 512K SRAM for data
- 16 digital outputs which can sink/source 200 mA
- 11 A/D and 4 D/A with 12-bit resolution
- Up to 4 serial ports: two 3-wire (or one 5-wire) RS-232 and 1 RS-485
- Royalty-free TCP/IP stack

## RELATED PRODUCTS



Dynamic C®



Keypad



Serial Flash

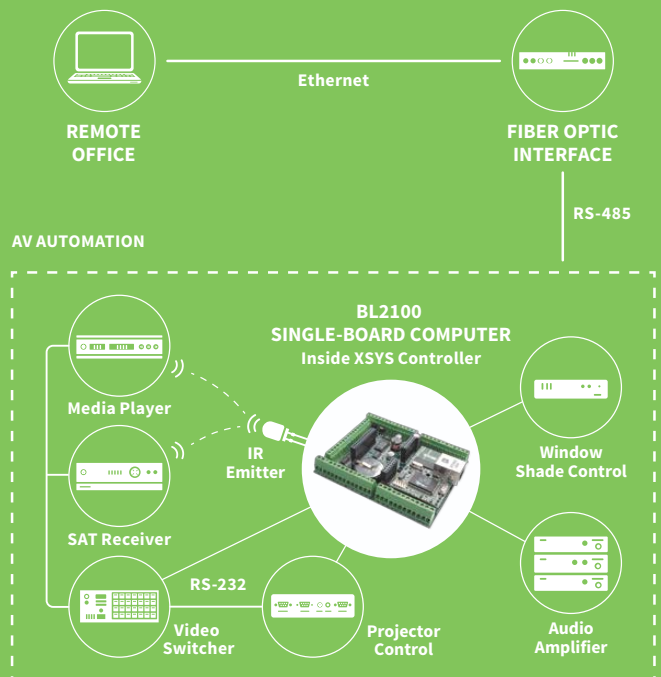


Digi Connect®  
WAN



Programming  
Cable

## APPLICATION EXAMPLE



| SPECIFICATIONS                   | BL2100   | BL2110 | BL2120   | BL2130 |
|----------------------------------|--|--------|--|--------|
| <b>FEATURES</b>                  |  |        |  |        |
| <b>MICROPROCESSOR</b>            | Rabbit 2000 at 22.1 MHz  |        |  |        |
| <b>ETHERNET PORT</b>             | 10Base-T, RJ-45, link and activity LEDs  |        | None   |        |
| <b>FLASH</b>                     | 256K (standard)  |        | 256K   |        |
| <b>SRAM</b>                      | 128K (standard)  |        | 128K   |        |
| <b>BACKUP BATTERY</b>            | Socketed 3V lithium coin-type, 265 mA.h, supports RTC and SRAM                                 |        |  |        |
| <b>KEYPAD/DISPLAY</b>            | See keypad/display option (below) and our "OP" products (for serial display options)           |        |  |        |
| <b>DIGITAL INPUTS</b>            | 24: protected to $\pm 36$ VDC  |        |  |        |
| <b>DIGITAL OUTPUTS</b>           | 16: source/sink 200 mA each, 36VDC max.  |        |  |        |
| <b>ANALOG INPUTS</b>             | 11 at 1 M $\Omega$ , 12-bit resolution, $\pm 10$ VDC, up to 4,100 samples/sec.                 | None   | 11 at 1 M $\Omega$ , 12-bit resolution, $\pm 10$ VDC, up to 4,100 samples/sec. | None   |
| <b>ANALOG OUTPUTS</b>            | Four 12-bit resolution, 0-10 VDC*, update rate 12 kHz  | None   | Four 12-bit resolution, 0-10 VDC*, update rate 12 kHz                          | None   |
| <b>SERIAL PORTS</b>              | 4 total: two 3-wire (or one 5-wire) RS-232, 1 RS-485, and one 5V CMOS-compatible (programming) |        |  |        |
| <b>SERIAL RATE</b>               | Max. burst rate = CLK/32; Max. sustained rate = burst/2  |        |  |        |
| <b>CONNECTORS</b>                | Screw terminals support max. 14 AWG/1.5 mm2 (standard)   |        |  |        |
| <b>REAL-TIME CLOCK</b>           | Yes  |        |  |        |
| <b>TIMERS</b>                    | Five 8-bit timers (four cascadable from the first) and one 10-bit timer with 2 match registers |        |  |        |
| <b>WATCHDOG TIMER/SUPERVISOR</b> | Yes  |        |  |        |
| <b>POWER</b>                     | 9-36 VDC, 1.5W max. (without display), 3W max. (with display)                                  |        |  |        |
| <b>OPERATING TEMPERATURE</b>     | -40° C to +70° C   |        |  |        |
| <b>HUMIDITY</b>                  | 5-95%, non-condensing  |        |  |        |
| <b>BOARD SIZE</b>                | 4.14" x 3.41" x 0.93"; (105 mm x 87 mm x 24 mm)  |        |  |        |

| SPECIFICATIONS               | Keypad/Display Option  |
|------------------------------|--|
| <b>FEATURES</b>              |  |
| <b>LCD PANEL</b>             | 122 x 32 graphic LCD in two stacked sections (with programmable backlight); Relegendable keypad with 7-key/7-LED interface |
| <b>LEDS</b>                  | 7 user-programmable: 1 red, 4 green, 2 yellow  |
| <b>OPERATING TEMPERATURE</b> | 0° C to 50° C  |
| <b>BOARD SIZE</b>            | 3.00" x 2.6" x 0.75"; (76 mm x 66 mm x 19 mm)  |
| <b>ENCLOSURE SIZE</b>        | 5.60" x 4.875" x 1.5"; (142 mm x 124 mm x 38 mm)   |

| PART NUMBERS | DESCRIPTION                    |
|--------------|--------------------------------|
| 20-101-0461  | BL2100 Ethernet, Analog        |
| 20-101-0462  | BL2110. Ethernet, no Analog    |
| 20-101-0463  | BL2120. Analog, no Ethernet    |
| 20-101-0464  | BL2130. No Analog, no Ethernet |
| 20-101-0502  | Keypad/Display Option          |

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