

Rabbit SBC BL4S100 Series

Single-Board Computer

Integrated hardware and software platform to easily implement a ZigBee enabled Ethernet gateway ideal for monitoring and control.



Overview

Rabbit's new BL4S100 series single-board computers offer a cost-competitive solution for control and communication that dramatically reduces your time to market.

The series is designed to support the rapidly-increasing use of ZigBee connectivity for companies looking to deploy wireless networking. Digi International's ZigBee RF modules are compatible with ZigBee PRO compliant devices from other manufacturers, providing great flexibility in choices of nodes to include in the network. Build feature-rich web pages that allow control and monitoring of ZigBee enabled networks by using ZigBee AT and API command libraries. With two available RS-232 ports, eight analog inputs and 20 Digital I/O lines, the BL4S100 is well suited to handle a wide range of applications requiring ZigBee connectivity.

Rabbit also offers a plastic enclosure and mesh networking add-on kit to support further design requirements.

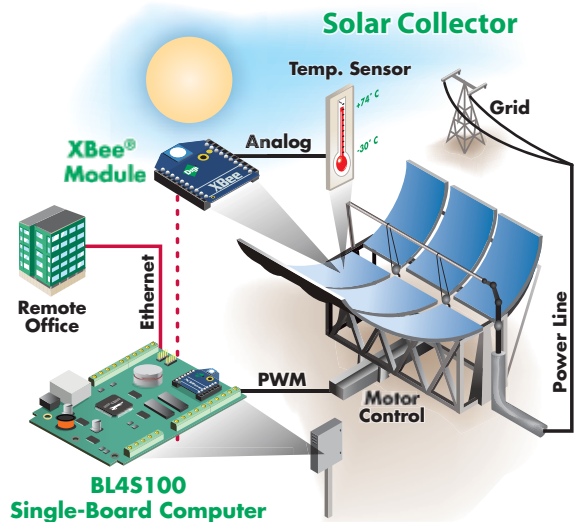
Starter Package

The affordable BL4S100 series starter package includes all the tools you need to develop and debug a design.

FROM
\$228



Application Highlight



Potential Applications: Building automation, asset tracking and management, air quality monitoring, energy metering and management

Features/Benefits

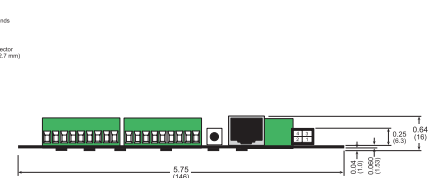
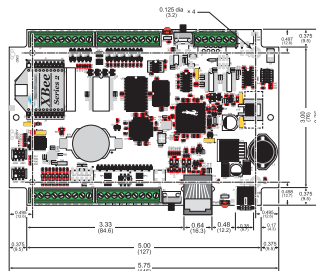
- Rabbit 4000 running at 40 MHz
- On-board Rabbit RIO® device for exceptional I/O functionality and flexibility
- Web server functionality
- Easy implementation of mesh networking with known good hardware
- Dynamic C® software environment to reduce development time



Specifications	BL4S100	BL4S110	BL4S150	BL4S160
Feature				
Microprocessor	Rabbit® 4000 at 40.00 MHz			
Ethernet Interface	10Base-T			
ZigBee® Interface	ZigBee PRO Feature Set	N/A	ZigBee PRO Feature Set	N/A
Serial Flash Memory (program)	1 MB		2 MB	
Program Execution SRAM	512 KB		1 MB	
Data SRAM	512 KB			
Backup Battery	Panasonic CR2032 or equivalent 3V lithium coin type, 235 mA·h standard, socket-mounted			
Digital Inputs	12: protected to ±36 VDC, switching threshold 1.4 V/1.9V typical			
Digital Outputs	8: sink up to 200 mA each, 36 VDC max.			
Analog Inputs	Eight 11-bit res. channels, software-selectable ranges unipolar: 1, 2, 2.5, 5, 10, 20VDC 4 channels can be hardware-configured for 4–20 mA; 1 MΩ input impedance, up to 4,100 samples/s			
Serial Ports	3 serial ports: • 2 RS-232 or 1 RS-232 (with CTS/RTS) • 1 serial port dedicated for programming/debug			
Serial Rate	Max. asynchronous rate = CLK/8, Max. synchronous rate = CLK/2			
Hardware Connectors	Micro-Fit® connector: 1 polarized 2 × 2 with 3 mm pitch (power); Screw-terminal connectors (accept up to 14 AWG/1.5 mm2 wire): four 1 × 9 (I/O), one 1 × 6 (serial); Programming port: 2 × 5 IDC, 1.27 mm pitch			
Ethernet Network Connector	1 RJ-45 Ethernet			
Real-Time Clock	Yes			
Timers	Ten 8-bit timers (6 cascadable, 3 reserved for internal peripherals), one 10-bit timer with 2 match registers			
Watchdog/Supervisor	Yes			
Power	9–36VDC, 2 W max.			
Operating Temperature	–40° C to +85° C			
Humidity	5–95%, non-condensing			
Board Size	3.75" × 5.75" × 0.64" (96 mm × 146 mm × 16 mm)			
ZigBee RF Module				
RF Module	Digi XBee® ZB (ZigBee Pro Feature Det)			
Security	AES Encryption			
RF Data Rate	250 Kbps			
Pricing				
Price (qty 1) and Part Number	\$149; 20-101-1255	\$129; 20-101-1256	\$159; 20-101-1257	\$139; 20-101-1258
BL4S100 Series Starter Package Part Number	\$248 20-101-1255 101-1268	\$228 20-101-1256 101-1268	\$258 20-101-1257 101-1268	\$238 20-101-1258 101-1268



**Plastic enclosure
Part number 101-1279**
The plastic enclosure, consisting of a base and a cover, provides a secure way to protect your BL4S100 single-board computer.



Visit www.digiembedded.com for part numbers.

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