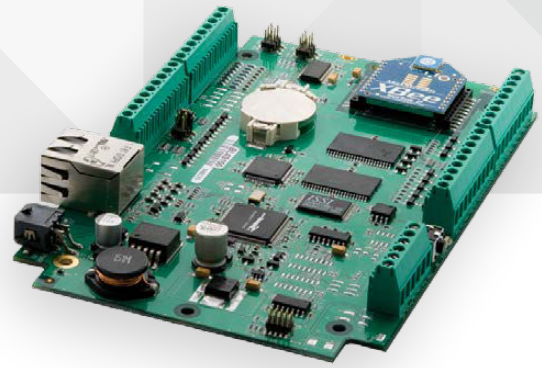




SINGLE-BOARD  
COMPUTER



# RABBIT SBC BL4S100 SERIES

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

Digi's 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.

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

## 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

## RELATED PRODUCTS



Rabbit® SBC BL2100 Series



Rabbit® SBC BL2600 Series



Rabbit® SBC BL4S200 Series

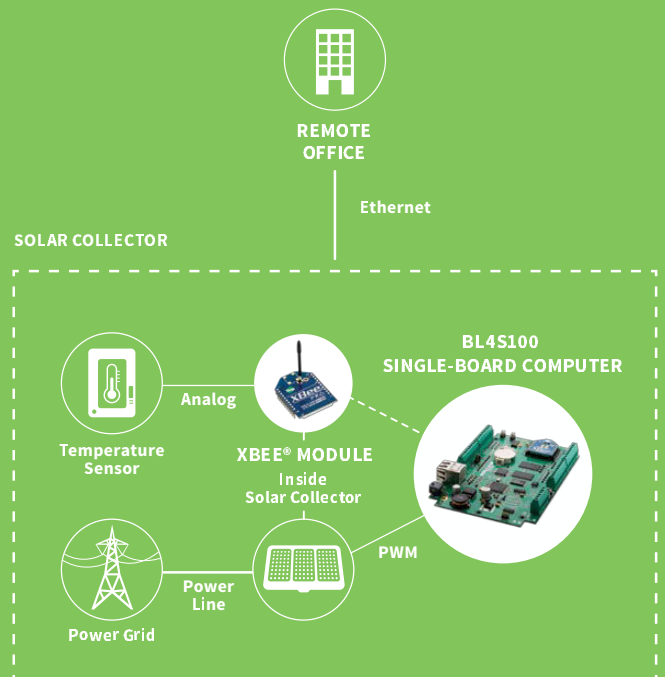


Rabbit RIO Programmable I/O Application Kit



Dynamic C®

## APPLICATION EXAMPLE

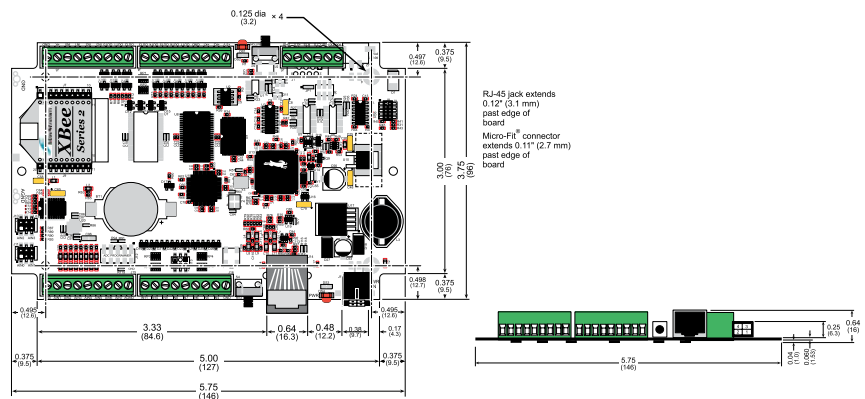


SPECIFICATIONS	BL4S110	BL4S150	BL4S160
<b>FEATURE</b>			
<b>MICROPROCESSOR</b>	Rabbit® 4000 at 40 MHz		
<b>ETHERNET INTERFACE</b>	10Base-T		
<b>ZIGBEE® INTERFACE</b>	N/A	ZigBee PRO Feature Set	N/A
<b>SERIAL FLASH MEMORY (PROGRAM)</b>	1 MB	2 MB	
<b>PROGRAM EXECUTION SRAM</b>	512 KB	1 MB	
<b>DATA SRAM</b>	512 KB		
<b>BACKUP BATTERY</b>	Panasonic CR2032 or equivalent 3V lithium coin type, 235 mA·h standard, socket-mounted		
<b>DIGITAL INPUTS</b>	12: protected to ±36 VDC, switching threshold 1.4 V/1.9V typical		
<b>DIGITAL OUTPUTS</b>	8: sink up to 200 mA each, 36 VDC max		
<b>ANALOG INPUTS</b>	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		
<b>SERIAL PORTS</b>	3 serial ports: • 2 RS-232 or 1 RS-232 (with CTS/RTS) • 1 serial port dedicated for programming/debug		
<b>SERIAL RATE</b>	Max. asynchronous rate = CLK/8, Max. synchronous rate = CLK/2		
<b>HARDWARE CONNECTORS</b>	Micro-Fit® connector: 1 polarized 2 × 2 with 3 mm pitch (power); Screw-terminal connectors (accept up to 14 AWG/1.5 mm <sup>2</sup> wire): four 1 × 9 (I/O), one 1 × 6 (serial); Programming port: 2 × 5 IDC, 1.27 mm pitch		
<b>ETHERNET NETWORK CONNECTOR</b>	1 RJ-45 Ethernet		
<b>REAL-TIME CLOCK</b>	Yes		
<b>TIMERS</b>	Ten 8-bit timers (6 cascable, 3 reserved for internal peripherals), one 10-bit timer with 2 match registers		
<b>WATCHDOG/SUPERVISOR</b>	Yes		
<b>POWER</b>	9–36 VDC, 2 W max.		
<b>OPERATING TEMPERATURE</b>	-40° C to +85° C		
<b>HUMIDITY</b>	5–95%, non-condensing		
<b>BOARD SIZE</b>	3.75" × 5.75" × 0.64" (96 mm × 146 mm × 16 mm)		
<b>ZIGBEE RF MODULE</b>			
<b>RF MODULE</b>	Digi XBee® ZB (ZigBee Pro Feature Det)		
<b>SECURITY</b>	AES Encryption		
<b>RF DATA RATE</b>	250 Kbps		



**Plastic enclosure: Part number 101-1279**

The plastic enclosure, consisting of a base and a cover, provides a secure way to protect your BL4S100 series single-board computer.



PART NUMBERS	DESCRIPTION
101-1268	BL4S100 Series Tool Kit
20-101-1256	BL4S110 512K
20-101-1258	BL4S160 1M

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