

PRELIMINARY

iDigi™ BL4S100 Add-On Kit ZB

Application Development Kit for ZigBee Networks

Easy-to-use development system featuring a low-cost single-board computer provides wireless embedded control as part of a ZigBee network utilizing the iDigi™ platform.



Overview

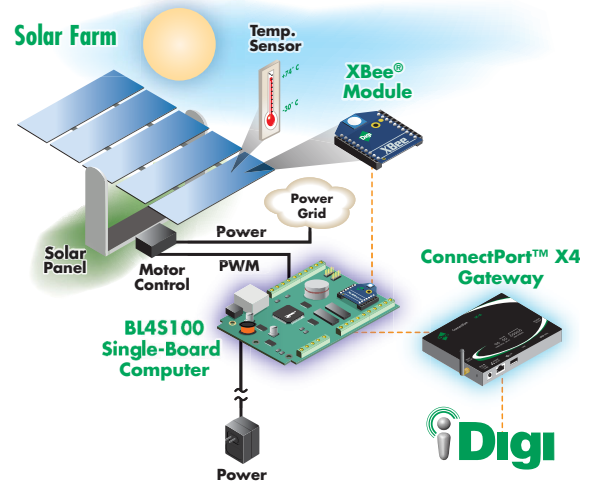
The iDigi BL4S100 Add-On Kit ZB includes all the hardware and software tools to add wireless embedded control to a ZigBee network through the iDigi platform. Using the iDigi platform, developers can rapidly deploy and manage their applications remotely across a ZigBee network through the iDigi platform when combined with the iDigi X4 Starter Kit ZB. The BL4S100 adds intelligent I/O to the iDigi platform that can be easily programmed to perform supervisory tasks as well as provide localized control of devices that are connected to a ZigBee network.

The BL4S100 Add-On Kit ZB includes:

- Rabbit® BL4S100 single-board computer with Digi® XBee® ZB module installed
- Dynamic C® CD-ROM, with complete product documentation on disk
- Demonstration board with pushbutton switches and LEDs
- USB programming cable, used to connect your PC USB port to the BL4S100
- Universal AC adapter, 12 V DC, 1 A
- CAT 5/6 Ethernet crossover cable

To see more of Digi's Drop-in networking solutions, including XBee modules, adapters and gateways, please visit www.digi.com/products/wirelessdropinnetworking. For more information on the iDigi platform, refer to www.idigi.com.

Application Highlight



Features and Benefits

- Connect Rabbit I/O to iDigi with ConnectPort gateway (sold separately)
- Easily configure a ZigBee sensor/device network
- View and modify I/O remotely from a web interface
- Seamlessly bridge your own applications to the ZigBee network using the iDigi Platform
- Take advantage of Dynamic C® libraries with ready support for AT and API commands
- Utilize ZigBee-to-Ethernet gateway functionality
- Optional Rabbit Embedded Security Module offers secure data transfer with AES encryption, and SSL/TLS for embedded web security



SBC BL4S100 Series Specifications

Feature	BL4S100	BL4S110	BL4S150	BL4S160
Microprocessor	Rabbit® 4000 @ 40.00 MHz			
Ethernet Interface	10Base-T			
ZigBee® Interface	ZigBee PRO Feature Set	—	ZigBee PRO Feature Set	—
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 3 V lithium coin type, 235 mA-h standard, socket-mounted			
Digital Inputs	12: protected to ±36 V DC, switching threshold 1.4 V/1.9 V typical			
Digital Outputs	8: sink up to 200 mA each, 36 V DC max.			
Analog Inputs	Eight 11-bit res. channels, software-selectable ranges unipolar: 1, 2, 2.5, 5, 10, 20 V DC 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	Screw-terminal connectors (accept up to 14 AWG/1.5 mm ² wire): four 1 × 9 (I/O), one 1 × 6 (serial); Micro-Fit [®] connector: one polarized 2 × 2 with 3 mm pitch (power); 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	9–36 V DC, 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 Set)
Security	AES Encryption
RF Data Rate	250 Kbps

Related Products



Gateways



SBCs



Modules



Adapters



Accessories



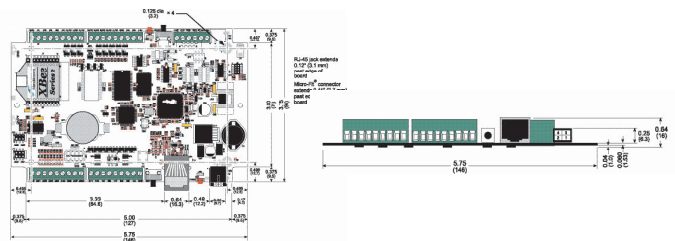
Network Extenders



iDigi Solutions



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.



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