

SB70

2-Port Serial to Ethernet Server

100 Version

DATASHEET

Key Points

- Serial to Ethernet server
- TTL serial device support
- Works out of the box - no programming is required
- Board level product
- Customize with development kit
- Used with Basic Stamp

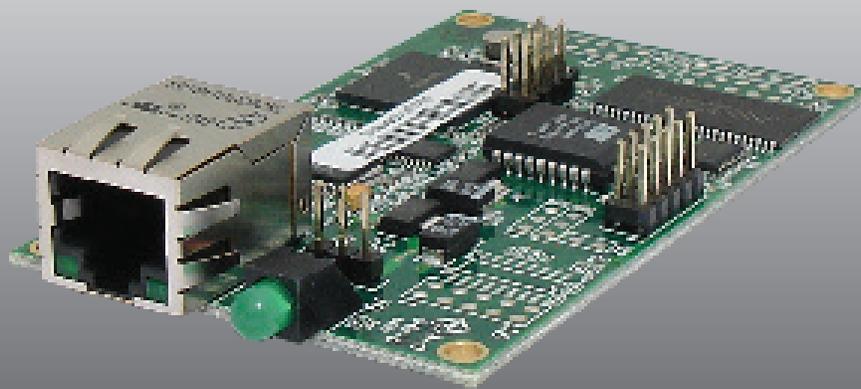
Features

- 10/100Mbps Ethernet
- TCP/UDP/Telnet modes
- DHCP/Static IP modes
- SSL/TLS 1.3
- Web based configuration
- 32-bit performance
- RS-232 and RS-422/485 ready (require external level shifter)

Optional

The following options are available with the optional development kit:

- Customize any aspect of operation including web pages, data filtering, or custom network applications
- Additional baud rates





Factory Application Specifications

Serial Port Baud Rate

Factory application supports up to 115,200 baud. Custom rates available with development kit.

Serial Interface

2 TTL

Serial Configurations

The UARTs can be configured in the following way:

- Two TTL ports
- Add external level shifter for RS-232
- Add external level shifter for RS-422/485 (up to two ports)

Note: UART 0/1 also provides RTS/CTS hardware handshaking signals.

Hardware Specifications

Processor and Memory

32-bit Freescale ColdFire 5270 running at 147.5MHz with 512K of flash and 8MB of SDRAM.

Network Interface

10/100 BaseT with RJ-45 connector

Data I/O Interface

- Up to two TTL ports
- Up to 8 digital I/O

LEDs

Link, speed/data, power

Physical Characteristics

Dimensions (inches): 3.25" x 2.00"

Weight: 1.1 oz.

Mounting Holes: 4

Power

DC Input Voltage: 5V @ 450mA max

Environmental Operating Temperature

Industrial temperature: 0° to 70° C

RoHS Compliance

The Restriction of Hazardous Substances guidelines ensure that electronics are manufactured with fewer environment-harming materials.



Connector Interface Description and Pinouts

Table 1: Connector Description

| Connector | Description |
|-----------|--|
| J5 | TTL Serial Port Connector; 10-pin dual row header |
| J7 | Ethernet RJ-45 connector |
| J8 | Power Connector; 5V Power, 3-pin single row header |

Table 2: Serial Port Connector (J5) Pinout and Signal Description

| Pin | CPU Pin | Function | General Purpose I/O | Description | Max Voltage |
|-----|---------|-----------|---------------------|---------------------------------|-------------|
| 1 | | GND | | Ground | - |
| 2 | B8 | UART1_CTS | PUARTL7 | UART 1 Clear to Send | 5 VDC |
| 3 | D9 | UART1_TX | PUARTL5 | UART 1 Transmit | 5 VDC |
| 4 | D8 | UART1_RX | PUARTL4 | UART 1 Receive | 5 VDC |
| 5 | C8 | UART1_RTS | PUARTL6 | UART 1 Request to Send | 5 VDC |
| 6 | G3 | UART0_RTS | PUARTL2 | UART 0 Request to Send | 5 VDC |
| 7 | F3 | UART0_CTS | PUARTL3 | UART 0 Clear to Send | 5 VDC |
| 8 | F1 | UART0_TX | PUARTL1 | UART 0 Transmit | 5 VDC |
| 9 | | VCC5V | | Input voltage 5VDC ¹ | 5 VDC |
| 10 | F2 | UART0_RX | PUARTL0 | UART 0 Receive | 5 VDC |

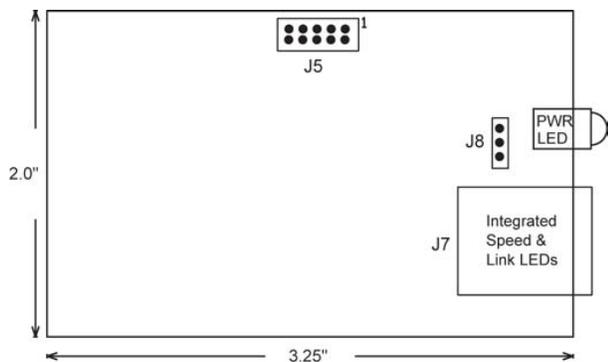
Note:

Pin 9 is a 5V DC input, which allows for a single connector interface with TTL serial and power to the board.

Table 3: Power Connector (J8) Pinout and Signal Description

| Pin | Function | Description |
|-----|----------|--------------------|
| 1 | VCC5V | Input voltage 5VDC |
| 2 | GND | Ground |
| 3 | VCC5V | Input voltage 5VDC |

SB70 Connector Diagram





Part Numbers

SB70 2-Port Serial to Ethernet Server

Part Number: SB70-100CR

SB70 Development Kit

Part Number: NNDK-SB70-KIT

Kit includes all the hardware and software you need to customize the included platform hardware. See NetBurner Store product page for package contents.

Ordering Information

E-mail: sales@netburner.com

Online Store: www.NetBurner.com

Telephone: 1-800-695-6828