



## Features

- Instantly allows any serial device to communicate over a network or the Internet
- Two serial ports
- Development kit available. The SB72 can be used as a single board computer for custom applications
- Includes TCP/IP, Telnet, SNMP<sup>1</sup>, and Web Server (HTTP)
- Supports RS-232 and RS-422/485 serial devices, TTL, and QSPI<sup>2</sup> serial devices
- Web page configuration
- Powerful 32-bit Freescale ColdFire processor with integrated 10/100 Ethernet MAC
- 512K Flash, 8MBytes SDRAM

<sup>1</sup> SNMP support through factory application

<sup>2</sup> Development kit required

## SB72

# NetBurner's Low Cost High Performance Serial to Ethernet Board

### Introduction

The SB72 is a low cost, high performance single board computer that network enables both existing and new product designs with 10/100BaseT Ethernet. Based on the Freescale ColdFire 5272 32-bit processor with an integrated 10/100 Ethernet MAC, the SB72 has plenty of horsepower for the most demanding applications (rated at 62MIPS with 66MHz clock).

### Network Enable Existing Applications

The SB72 network enables serial devices right out of the box. No programming or development is required. The SB72 is pre-programmed to convert RS-232, RS-422, RS-485, and TTL data to Ethernet, enabling communication with the serial device over a network or the Internet. The onboard web server provides easy device configuration using a standard web browser.

### Network Enable New Applications

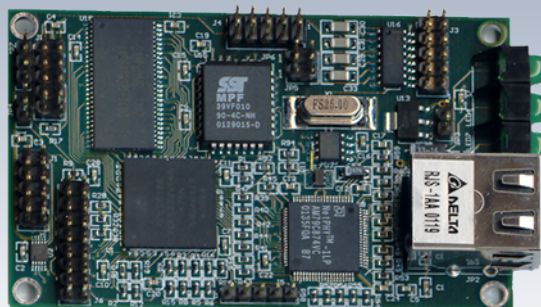
Mount the SB72 on an application-specific motherboard, and you have a powerful processing platform that can function as the control processor for the product, or as a serial to Ethernet converter.

### Customize to Suit Any Application

The SB72 development kit enables you to quickly and easily create custom applications. NetBurner has a solid reputation for developing platforms facilitating rapid product development; the SB72 is no exception. The SB72 development kit includes the hardware platform, TCP/IP Stack, uC/OS Real-time operating system, Web Server, GNU C/C++ compiler and linker, GDB graphical debugger, end-user device configuration, flash update utilities, and much more. See the NetBurner Serial to Ethernet Datasheet for more information or visit [www.NetBurner.com](http://www.NetBurner.com).

### Real 32-bit Performance

The SB72 is the leader for low cost, high performance embedded networking. While other products in this price range are 8-bit processors with small amounts of paged memory and limited performance, the Freescale ColdFire 5272 is a full 32-bit high performance processor. The SB72 has 8MBytes of SDRAM providing plenty of space for applications and buffering.



## Specifications

### Processor

32-bit Freescale ColdFire 5272 running at 62MHz

### Software Development

#### NetBurner Serial to Ethernet Development Kit includes:

SB72, Adapter Board, TCP/IP stack, Web Server, real-time operating system (RTOS), ANSI C/C++ compiler and linker, assembler, graphical debugger, integrated development environment (IDE), code update, configuration, and deployment tools.

### Network Interface

10/100 BaseT with RJ-45 connector

### Max Baud Rate

Factory application supports up to 115,200 baud. Higher baud rates are available with development kit, but require custom programming.

### Network Protocols Supported

Complete protocol support included. Please reference NetBurner Software Datasheet ([www.NetBurner.com](http://www.NetBurner.com))

### Serial Protocols Supported

RS-232, RS-422, and RS-485, TTL

Note: QSPI requires development kit.

### Serial Configurations

The 2 UARTS can be configured in the following ways:

- Two RS-232 ports, without hardware handshaking
- One RS-232 port with hardware handshaking and one RS-485/422 port
- Two TTL ports
- One TTL port and one RS-232 port
- One TTL port and one RS-485/422 port

### SNMP

Supports MIB-II

Note: SNMP support through factory application

### LEDs

Link, Speed/Data, Power

### Physical Characteristics

Dimensions: 3.25" x 2"

Weight: 1.1 oz

Mounting Holes: 4

### Power Requirements

DC Input Voltage: 5V @500mA

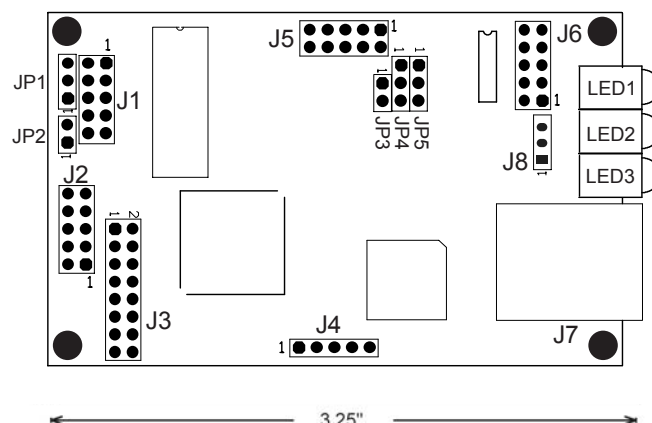
### Environmental

Operating Temperature: 0°C to 70°C

## SB72 Connector Descriptions

Connector	Description
J1	Factory test connector
J2	RS-485, 10-pin dual row header
J3	Factory test connector
J4	QSPI Interface, single row 5 pin header (QSPI required dev. kit)
J5	TTL, 10-pin dual row header
J6	RS-232, 10-pin dual row header
J7	Ethernet, RJ-45 connector
J8	5V Power, 3-pin single row header
JP1-JP5	Configuration jumpers

## SB72 Connector Diagram



## Ordering Information

### Part Number and Description

SB72-300CR	Board Assembly RoHS
NNDK-SB72-KIT	Development Kit

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