

# PK70 EX 232

## 4-Port Serial to Ethernet Server

RS-232 Version



## DATASHEET

### Key Points

- Serial to Ethernet server
- RS-232 serial device support
- Works out of the box - no programming is required
- Metal enclosure
- Rebrand with your custom product label
- Customize with development kit

### Features

- 10/100Mbps Ethernet
- TCP/UDP/Telnet modes
- DHCP/Static IP modes
- Web based configuration
- 32-bit performance
- Four serial ports
- Custom serial packetization options
- Power via two position terminal block or barrel connector

### 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
- Micro SD/MMC Card interface with included flash file system

*The following optional software modules are not included with kit and are sold separately:*

- Embedded SSL & SSH Security Suite (Module License Version)
- SNMP



## Factory Application Specifications

### Serial Port Baud Rate

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

### Serial Protocols Supported

RS-232

### Serial Configurations

The UARTs are configured in the following way:

- One RS-232 serial console port
- Four RS-232 serial data ports

## Hardware Specifications

### Processor & Memory

32-bit Freescale ColdFire 5270 running at 147MHz with 4Mbytes of on-chip flash, 8Mbytes SDRAM.

### Storage

SD/MMC Flash Card Interface (with SDHC support)

### Network Interface

10/100 BaseT with RJ-45 connector

### Data I/O Interface

- Up to 5 UARTs

### LEDs

Two Link/Status Ethernet LEDs

Two user programmable bi-color LEDs

### Physical Characteristics

Dimensions (inches): 4.4" x 3.9" x 1.2"

### Power

DC Input Voltage: 7V-24V

### Environmental Operating Temperature

0° to 70° C

### RoHS Compliance

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

### Agency Approvals

UL, C/UL, CE, FCC



## Connector Interface Description and Pinouts

The back panel has a Serial I/O Connector (DB37) which can be connected to the 1-to-4 Serial Cable Adapter (DB37 to 4 x DB9). The adapter enables you to connect to four serial devices with DB9 connectors. Table 4 provides descriptions of the function of each pin on the Serial I/O Connector and the 1-to-4 Serial Cable Adapter DB9 serial ports 1-4.

Table 1: Connector Description

| Connector                                     | Description                     | Default Setting             |
|---|---------------------------------|-----------------------------|
| Serial I/O Connector (DB37)                   | Back panel DB37 port            | Serial ports 1-4            |
| 1-to-4 Serial Cable Adapter (DB37 to 4 x DB9) | Serial port Connector (4 x DB9) | Serial ports 1, 2, 3, and 4 |
| RS-232 / UART 0                               | DB9 connector                   | Console port                |
| Power Input 1                                 | Barrel connector                | Default power source        |
| Power Input 2                                 | Two position terminal block     |                             |

Table 2: Power Connector (Power Input 1 Barrel Connector) Pinout and Signal Description<sup>1</sup>

| Pin         | Signal   | Description        |
|-------------|----------|--------------------|
| Outer Shell | Negative | Ground             |
| Center Pin  | Positive | Raw DC Power Input |

**Note:**

- Optional power input

Table 3: Power Connector (Power Input 2 Terminal Block Connector) Pinout and Signal Description<sup>1</sup>

| Pin | Signal   | Description        |
|-----|----------|--------------------|
| 1   | Negative | Ground             |
| 2   | Positive | Raw DC Power Input |

**Note:**

- Optional power input

**Table 4: Serial I/O Connector (DB37) and the 1-to-4 Serial Cable Adapter (DB37 to 4 x DB9) Pinout and Signal Descriptions <sup>(1)</sup>-**

| DB37 | DB9-1 | DB9-2 | DB9-3 | DB9-4 | Description                    | Max Voltage |
|------|-------|-------|-------|-------|--------------------------------|-------------|
| 1    |       |       |       | 1     | Raw Port 4 Carrier Detect      | RS-232      |
| 2    |       |       |       | 2     | Raw Port 4 Receive             | RS-232      |
| 3    |       |       |       | 3     | Raw Port 4 Transmit            | RS-232      |
| 4    |       |       |       | 4     | Raw Port 4 Data Terminal Ready | RS-232      |
| 5    |       |       |       | 5     | GND                            | -           |
| 6    |       |       | 9     |       | Raw Port 3 Ring Indicator      | RS-232      |
| 7    |       |       | 8     |       | Raw Port 3 Clear to Send       | RS-232      |
| 8    |       |       | 7     |       | Raw Port 3 Ready to Send       | RS-232      |
| 9    |       |       | 6     |       | Raw Port 3 Data Set Ready      | RS-232      |
| 10   |       | 1     |       |       | Raw Port 2 Carrier Detect      | RS-232      |
| 11   |       | 2     |       |       | Raw Port 2 Receive             | RS-232      |
| 12   |       | 3     |       |       | Raw Port 2 Transmit            | RS-232      |
| 13   |       | 4     |       |       | Raw Port 2 Data Terminal Ready | RS-232      |
| 14   |       | 5     |       |       | GND                            | -           |
| 15   | 9     |       |       |       | Raw Port 1 Ring Indicator      | RS-232      |
| 16   | 8     |       |       |       | Raw Port 1 Clear to Send       | RS-232      |
| 17   | 7     |       |       |       | Raw Port 1 Ready to Send       | RS-232      |
| 18   | 6     |       |       |       | Raw Port 1 Data Set Ready      | RS-232      |
| 19   | NC    | NC    | NC    | NC    | No Connection                  | RS-232      |
| 20   |       |       |       | 6     | Raw Port 4 Data Set Ready      | RS-232      |
| 21   |       |       |       | 7     | Raw Port 4 Ready to Send       | RS-232      |
| 22   |       |       |       | 8     | Raw Port 4 Clear to Send       | RS-232      |
| 23   |       |       |       | 9     | Raw Port 4 Ring Indicator      | RS-232      |
| 24   |       |       | 5     |       | GND                            | -           |
| 25   |       |       | 4     |       | Raw Port 3 Data Terminal Ready | RS-232      |
| 26   |       |       | 3     |       | Raw Port 3 Transmit            | RS-232      |
| 27   |       |       | 2     |       | Raw Port 3 Receive             | RS-232      |
| 28   |       |       | 1     |       | Raw Port 3 Carrier Detect      | RS-232      |
| 29   |       | 6     |       |       | Raw Port 2 Data Set Ready      | RS-232      |
| 30   |       | 7     |       |       | Raw Port 2 Ready to Send       | RS-232      |
| 31   |       | 8     |       |       | Raw Port 2 Clear to Send       | RS-232      |
| 31   |       | 9     |       |       | Raw Port 2 Ring Indicator      | RS-232      |
| 33   | 5     |       |       |       | GND                            | -           |
| 34   | 4     |       |       |       | Raw Port 1 Data Terminal Ready | RS-232      |
| 35   | 3     |       |       |       | Raw Port 1 Transmit            | RS-232      |
| 36   | 2     |       |       |       | Raw Port 1 Receive             | RS-232      |
| 37   | 1     |       |       |       | Raw Port 1 Carrier Detect      | RS-232      |

Note:

1. Note: Raw ports are named so because they do not correspond to the UART numbers of the MCF5270; a separate UART component on the UART blade boards are used for additional UART ports.

## Part Numbers

### **PK70 EX 232 4-Port Serial to Ethernet Server (RS-232 Version)**

Part Number: PK70EX-232CR

### **DIN Rail Mounting Kit (100 Version, double sided)**

Part Number: DIN-100

### **DIN Rail Mounting Kit (200 Version, single sided)**

Part Number: DIN-200

### **PK70 EX 232 Development Kit**

Part Number: NNDK-PK70EX232-KIT

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

### **Embedded SSL & SSH Security Suite (Module License Version)**

Part Number: NBLIC-SSL-MODULE

Only required if you are using a development kit.

### **SNMP V1 (Module License Version)**

Part Number: NBLIC-SNMP

Only required if you are using a development kit.

## Ordering Information

E-mail: [sales@netburner.com](mailto:sales@netburner.com)

Online Store: [www.NetBurner.com](http://www.NetBurner.com)

Telephone: 1-800-695-6828