

PK70 EX 485

4-Port Serial to Ethernet Server

RS-485/422 Version



DATASHEET

Key Points

- Serial to Ethernet server
- RS-422/485 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

- Custom serial packetization options
- Power via two position terminal block or barrel connector
- 10/100Mbps Ethernet
- TCP/UDP/Telnet modes
- DHCP/Static IP modes
- SSL/TLS 1.3
- Web based configuration
- 32-bit performance

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



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, RS-485, RS-422

Serial Configurations

The UARTs are configured in the following way:

- One RS-232 serial console port
- Four RS-485/422 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 Description¹

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 Description¹

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 ⁽¹⁾

DB37	DB9-1	DB9-2	DB9-3	DB9-4	Description	Max Voltage
1				1		RS-422/485
2				2	Raw Port 4 Tx- (FD/HD)	RS-422/485
3				3	Raw Port 4 Tx+ (FD/HD)	RS-422/485
4				4		RS-422/485
5				5	GND	-
6			9			RS-422/485
7			8			RS-422/485
8			7		Raw Port 3 Rx+ (FD)	RS-422/485
9			6		Raw Port 3 Rx- (FD)	RS-422/485
10		1				RS-422/485
11		2			Raw Port 2 Tx- (FD/HD)	RS-422/485
12		3			Raw Port 2 Tx+ (FD/HD)	RS-422/485
13		4				RS-422/485
14		5			GND	-
15	9					RS-422/485
16	8					RS-422/485
17	7				Raw Port 1 Rx+ (FD)	RS-422/485
18	6				Raw Port 1 Rx- (FD)	RS-422/485
19	NC	NC	NC	NC	No Connection	RS-422/485
20				6	Raw Port 4 Rx- (FD)	RS-422/485
21				7	Raw Port 4 Rx+ (FD)	RS-422/485
22				8		RS-422/485
23				9		RS-422/485
24			5		GND	-
25			4			RS-422/485
26			3		Raw Port 3 Tx+ (FD/HD)	RS-422/485
27			2		Raw Port 3 Tx- (FD/HD)	RS-422/485
28			1			RS-422/485
29		6			Raw Port 2 Rx- (FD)	RS-422/485
30		7			Raw Port 2 Rx+ (FD)	RS-422/485
31		8				RS-422/485
31		9				RS-422/485
33	5				GND	-
34	4					RS-422/485
35	3				Raw Port 1 Tx+ (FD/HD)	RS-422/485
36	2				Raw Port 1 Tx- (FD/HD)	RS-422/485
37	1					RS-422/485

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 485 4-Port Serial to Ethernet Server (RS-485/422 Version)

Part Number: PK70EX-485CR

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 485 Development Kit

Part Number: NNDK-PK70EX485-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