

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
- 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

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, 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.