PK70 EX MMS

4-Port Serial to Ethernet Server
RS-232/422/485 Multi-Mode Serial Version

NetBurner

Key Points

- Serial to Ethernet server
- Provides 4 Serial-to-Ethernet channels individually configurable to RS-232 or RS-485/422
- 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

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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-485/422

Serial Configurations
The UARTs are configured in the following way:
- One RS-232 serial console port
- Four individually configurable RS-232/485/422 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 Interfece (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)	Seral 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[1]**

Pin	Signal	Description
Outer Shell	Negative	Ground
Cetner Pin	Positive	Raw DC Power Input

Note:

1. Optional power input

Table 3: **Power Connector (Power Input 2 Terminal Block Connector) Pinout and Signal Description[1]**

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

*N*ote:

1. 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 RS-232 Mode	Description RS-485 Mode	Max Voltage
1				1	Raw Port 4 Carrier Detect		RS-232 or RS-422/485
2				2	Raw Port 4 Receive	Raw Port 4 Rx+ (FD)	RS-232 or RS-422/485
3				3	Raw Port 4 Transmit	Raw Port 4 Tx- (FD/HD)	RS-232 or RS-422/485
4				4	Raw Port 4 Data Terminal Ready		RS-232 or RS-422/485
5				5	GND	GND	-
6			9		Raw Port 3 Ring Indicator		RS-232 or RS-422/485
7			8		Raw Port 3 Clear to Send	Raw Port 3 Rx- (FD)	RS-232 or RS-422/485
8			7		Raw Port 3 Ready to Send	Raw Port 3 Tx+ (FD/HD)	RS-232 or RS-422/485
9			6		Raw Port 3 Data Set Ready		RS-232 or RS-422/485
10		1			Raw Port 2 Carrier Detect		RS-232 or RS-422/485
11		2			Raw Port 2 Receive	Raw Port 2 Rx+(FD)	RS-232 or RS-422/485
12		3			Raw Port 2 Transmit	Raw Port 2 Tx- (FD/HD)	RS-232 or RS-422/485
13		4			Raw Port 2 Data Terminal Ready		RS-232 or RS-422/485
14		5			GND	GND	-
15	9				Raw Port 1 Ring Indicator		RS-232 or RS-422/485
16	8				Raw Port 1 Clear to Send	Raw Port 1 Rx- (FD)	RS-232 or RS-422/485
17	7				Raw Port 1 Ready to Send	Raw Port 1 Tx+ (FD/HD)	RS-232 or RS-422/485
18	6				Raw Port 1 Data Set Ready		RS-232 or RS-422/485
19	NC	NC	NC	NC	No Connection	No Connection	RS-232 or RS-422/485
20				6	Raw Port 4 Data Set Ready		RS-232 or RS-422/485
21				7	Raw Port 4 Ready to Send	Raw Port 4 Tx+ (FD/HD)	RS-232 or RS-422/485
22				8	Raw Port 4 Clear to Send	Raw Port 4 Rx- (FD)	RS-232 or RS-422/485
23				9	Raw Port 4 Ring Indicator		RS-232 or RS-422/485
24			5		GND	GND	-
25			4		Raw Port 3 Data Terminal Ready		RS-232 or RS-422/485
26			3		Raw Port 3 Transmit	Raw Port 3 Tx- (FD/HD)	RS-232 or RS-422/485
27			2		Raw Port 3 Receive	Raw Port 3 Rx+ (FD)	RS-232 or RS-422/485
28			1		Raw Port 3 Carrier Detect		RS-232 or RS-422/485
29		6			Raw Port 2 Data Set Ready		RS-232 or RS-422/485
30		7			Raw Port 2 Ready to Send	Raw Port 2 Tx+ (FD/HD)	RS-232 or RS-422/485
31		8			Raw Port 2 Clear to Send	Raw Port 2 Rx- (FD)	RS-232 or RS-422/485
31		9			Raw Port 2 Ring Indicator		RS-232 or RS-422/485
33	5				GND	GND	-
34	4				Raw Port 1 Data Terminal Ready		RS-232 or RS-422/485
35	3				Raw Port 1 Transmit	Raw Port 1 Tx- (FD/HD)	RS-232 or RS-422/485
36	2				Raw Port 1 Receive	Raw Port 1 Rx+ (FD)	RS-232 or RS-422/485
37	1				Raw Port 1 Carrier Detect		RS-232 or 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 MMS 4-Port Serial to Ethernet Server (RS-232/422/485 Multi-Mode Serial Version)
Part Number: PK70EX-MMSCR

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 MMS Development Kit
Part Number: NNDK-PK70EXMMS-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