



Key Points

- Simple Ethernet connectivity for serial devices
- Works out of the box - no programming is required
- Provides 4 Serial-to-Ethernet channels individually configurable to RS-232 or RS-485/422
- Customize to suit any application with optional low-cost development kit

Features

- RS-232 or RS-485/422
- Half and full duplex support
- 10/100 Ethernet
- TCP / UDP / HTTP Mode
- DHCP/Static IP Support
- Baud rates up to 115,200 bps
- Custom serial packetization options
- Hardware and software flow control
- Web Based Configuration

PK70EX-MMS 4-Port Serial to Ethernet Device with RS-232 & RS-485 support

Overview

The PK70EX-MMS is a high performance Serial-to-Ethernet device that network-enables both existing and new product designs with 10/100BaseT Ethernet. The PK70EX-MMS is also a fully customizable platform. With the PK70EX-MMS development kit you can create additional dynamic web page content, filter serial and network data, or write completely new custom applications.

Standard Applications

The PK70EX-MMS network-enables serial devices right out of the box. No programming or development is required; the PK70EX-MMS is pre-programmed to convert RS-232 or RS485/422 serial 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 server.

Custom Applications With The PK70EX-MMS Development Kit

The PK70EX-MMS Serial to Ethernet Development Kit enables you to quickly and easily create custom applications. NetBurner has a solid reputation for development platforms to facilitate rapid product development, and the PK70EX-MMS is no exception. The PK70EX-MMS 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 and flash update utilities, and much more.



Specifications

Processor

32-bit Freescale ColdFire 5270 running at 147 MHz

Memory & Storage

4MB Flash and 8MB SDRAM

SD/MMC Flash Card Interface (with SDHC support)

Serial Interfaces

One RS-232 serial console port

Four individually configurable RS-232/485/422 ports

Network Interface

10/100 Ethernet with RJ-45 connector

LEDs

2 Link/Status Ethernet LEDs

2 User programmable bi-color LEDs

Maximum Serial Baud Rates

Factory application supports up to 115,200 bps. Additional baud rates and higher serial speeds possible with development kit.

Network Protocols Supported

TCP, UDP, Telnet, HTTP, DHCP

Physical Characteristics

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

Power

12V @ 300mA

DC Input Voltage: 7-24 VDC

Environmental Operating Temperature

0° to 70° C

Part Numbers

NetBurner PK70EX-MMS Development Kit

P/N: NNDK-PK70EXMMS-KIT

Includes a PK70EX-MMSCR and all the hardware and software you need to customize the PK70EX-MMSCR.

NetBurner PK70EX-MMSCR Quad Serial to Ethernet Device

P/N: PK70EX-MMSCR

The PK70EX Board is a industrial temperature, RoHS compliant part.

DIN-200 NetBurner Rail Mounting Kit

P/N: DIN-200

The optional NetBurner DIN-200 rail mounting kit provides DIN Rail capabilities for the PK70EX-MMSCR.

Contact Information

E-mail: sales@netburner.com

Online Store: www.NetBurner.com

Telephone: 1-800-695-6828

PK70EX-MMS Device and Cable Pinout

The PK70EX-MMS device has a DB-37 connector which can be connected to the included NetBurner 1-to-4 UART Cable Adapter (DB37 to 4 x DB9). Table 1 provides descriptions of pin function of PK70EX-MMS DB-37 connector and the NetBurner UART Cable Adapter. Refer to Figure 4 for the appropriate connector pin assignments.

Table 1: PK70EX-MMS Device Connector (DB-37) and NetBurner 1-to-4 UART (DB9) Cable Adapter Signal Descriptions ⁽¹⁾

DB37	DB9-1	DB9-2	DB9-3	DB9-4	Description RS-232 Mode	Description RS-485 Mode
1				1	Port 4 Carrier Detect	
2				2	Port 4 Receive	Port 4 FD Rx+
3				3	Port 4 Transmit	Port 4 HD- / FD Tx-
4				4	Port 4 Data Terminal Ready	
5				5	GND	GND
6			9		Port 3 Ring Indicator	
7			8		Port 3 Clear to Send	Port 3 FD Rx-
8			7		Port 3 Ready to Send	Port 3 HD+ / FD Tx+
9			6		Port 3 Data Set Ready	
10		1			Port 2 Carrier Detect	
11		2			Port 2 Receive	Port 2 FD Rx+
12		3			Port 2 Transmit	Port 2 HD- / FD Tx-
13		4			Port 2 Data Terminal Ready	
14		5			GND	GND
15	9				Port 1 Ring Indicator	
16	8				Port 1 Clear to Send	Port 1 FD Rx-
17	7				Port 1 Ready to Send	Port 1 HD+ / FD Tx+
18	6				Port 1 Data Set Ready	
19	NC	NC	NC	NC	No Connection	No Connection
20				6	Port 4 Data Set Ready	
21				7	Port 4 Ready to Send	Port 4 HD+ / FD Tx+
22				8	Port 4 Clear to Send	Port 4 FD Rx-
23				9	Port 4 Ring Indicator	
24			5		GND	GND
25			4		Port 3 Data Terminal Ready	
26			3		Port 3 Transmit	Port 3 HD- / FD Tx-
27			2		Port 3 Receive	Port 3 FD Rx+
28			1		Port 3 Carrier Detect	
29		6			Port 2 Data Set Ready	
30		7			Port 2 Ready to Send	Port 2 HD+ / FD Tx+
31		8			Port 2 Clear to Send	Port 2 FD Rx-
32		9			Port 2 Ring Indicator	
33	5				GND	GND
34	4				Port 1 Data Terminal Ready	
35	3				Port 1 Transmit	Port 1 HD- / FD Tx-
36	2				Port 1 Receive	Port 1 FD Rx+
37	1				Port 1 Carrier Detect	

Note:

1. Port numbers 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.