NetBurner
Networking in 1 Day!

Key Points

- Instantly allows any RS-232 and/or RS-485 serial device to communicate over a network or the Internet (custom programming is required for products which use CAN)
- Simple web page configuration
- Fully featured web server uses standard Internet protocols like TCP/IP, Telnet, and HTTP
- Use as a high-performance single board computer or add Ethernet connectivity to a new or existing design
- Customize to suit any application with a low-cost development kit.

Features

- 32-bit ColdFire 5234 processor with eTPU Co-processor
- 8MB SDRAM and 2MB of Flash Memory
- 10/100 Ethernet
- RS-232/422/485 Serial Ports,with CAN peripheral interface
- Industrial Temperature Range (-40°C to 85° C)
- DHCP/Static IP Support

Optional

The following optional software modulees not included with the network development kits and are sold seprately

- SSL/SSH option
- SNMP option

CB34-EX
NetBurner's Easy-to-Use High-Performance CAN-to-Ethernet Device

Overview
The CB34-EX is a low cost, high-performance CAN-to-Ethernet device that network enables both existing and new product designs with 10/100Base-T Ethernet.

Network Enable Existing Applications
The CB34-EX network enables serial devices right out of the box. No programming or development is required; it is pre-programmed to convert RS-232 and RS-485 data to Ethernet, enabling a serial device to communicate over a network or the Internet. The on board web server provides easy device configuration via a standard web browser.
NOTE: Programming is required for products which use CAN.

Customize to Suit Any Application
The optional CB34-EX development kit enables you to create additional dynamic web page content, filter serial and network data, or write completely new custom applications. NetBurner has a solid reputation for developing platforms that facilitate rapid product development, and the CB34-EX is no exception. The 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. Please see the NNDK-CB34EX-KIT datasheet for more information.

Real 32-bit Performance
While other products in this price range are 8-bit processors with small amounts of paged memory and limited performance, the Freescale ColdFire 5234 is a full 32-bit high-performance processor. The CB34-EX has 8MB of SDRAM and 2MB of flash, providing plenty of space for applications and buffering.

Specifications

Processor and Memory
32-bit Freescale ColdFire 5234 running at 147MHz with 8MB SDRAM, and 2MB Flash

Network Interface
10/100 BaseT RJ-45 connector with integrated magnetics

Connectors
- RJ-45 Ethernet jack
- DB-9 Serial Port
- TSTRIP5 Terminal Strip
- Power Jack

Physical Characteristics
Dimensions: 4.2" x 3.25" x 1"

Power
DC Input Voltage: 7V-24V

Environmental Operating Temperature
-40° to 85° C

Serial Interfacees
RS-232, RS-485, and CAN

Serial Configurations
The 2 ports can be configured in the following ways:

- One RS-232 port, one RS-485 port
- One RS-232 port, one CAN port
- One RS-485 port, one CAN port

LEDs
One power, two general purpose

Software & Protocols (included with development kit)
TCP/IP stack, Web Server, real-time operating system (RTOS), ANSI C/C++ compiler and linker, assembler, graphical debugger, NetBurner Eclipse integrated development environment (IDE), code update, configuration, and deployment tools. Please reference NetBurner Software Datasheet for a complete list of the protocols included with this development kit (www.NetBurner.com).

Part Numbers

NetBurner CB34-EX Development Kit
P/N: NNDK-CB34EX-KIT

NetBurner CB34EX Device Only
P/N: CB34-EX-100IR

Connector Descriptions

The CB34EX has 3 serial interfaces: UART0 (RS-232), UART1 (RS-485/422) and CAN. Each serial interface can be configured via internal jumpers to appear on either the DB9 or Terminal Strip connector.

Table 1: **DB-9**

Pin	UART 0 RS-232	UART 1 RS-485	CAN
1	CD	-	-
2	RX	HD/FD TX-	CANL
3	TX	FD RX+	GND
4	DTR	-	-
5	GND	GND	GND
6	DSR	FD RX-	GND
7	RTS	HD/FD TX+	CANH
8	CTS	-	-
9	RI or PWRIN[1]	PWRIN[1]	PWRIN

Note:
1. Optional Input Power Connector

Table 2: **Terminal Strip (TSTRIP5)**

Pin	UART 0 RS-232	UART 1 RS-485	CAN
1	GND	GND	GND
2	RX	HD/FD TX-	CANL
3	TX	HD/FD TX+	GND
4	RTS	FD RX-	CANH
5	CTS or PWRIN	FD RX+ or PWRIN	PWRIN[1]

Note:
1. Optional Input Power Connector

LEDs

The CB34EX has a power LED and two programmable LEDs.