

# CB34 EX

## 2-Port CAN to Ethernet Server

100 Version



# DATASHEET

### Key Points

- Serial to Ethernet server
- CAN device support (programming required)
- DeviceNet compliant
- RS-232 and 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

**Note: Programming required for products which use CAN**

### Features

- Power via two position terminal block, TSTRIP5, serial port, or barrel connector
- 10/100Mbps Ethernet
- TCP/UDP/Telnet modes
- DHCP/Static IP modes
- Web Based Configuration
- 32-bit performance
- Industrial Temperature Range (-40°C to 85°C)

### 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
- CAN device support
- eTPU coprocessor
- Two bi-color programmable LEDs

*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 baud. Custom rates available with development kit.

### Serial Protocols Supported

RS-232, RS-422, RS-485, DeviceNet compliant and CAN (programming required)

### Serial Configurations

The two UARTs can be configured in the following ways:

- One RS-232 port, one RS-485 port
- One RS-485 port (full or half duplex on TSTRIP5), one RS-485 port (half-duplex on DB9)
- One RS-232 port, one CAN port (programming required)
- One RS-485 or RS-232 port, one CAN port (programming required)

## Hardware Specifications

### Processor & Memory

32-bit Freescale ColdFire 5234 running at 147.5MHz with 8MB SDRAM, and 2MB Flash.

### Network Interface

10/100 BaseT with RJ-45 connector

### Data I/O Interface

- Two UARTs
- CAN Interface

### Storage

MicroSD/MMC Flash Card Interface (with SDHC support)

### LEDs

Link, speed/data, power, and two bi-color general purpose programmable LEDs

### Physical Characteristics

Dimensions (inches): 4.20" x 3.25" x 1.00"

### Power

DC Input Voltage: 7V-24V

### Environmental Operating Temperature

-40° to 85° 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



## Front and Back Panel



## Connector Interface Description and Pinouts

The hardware has support for three 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 Terminal Strip 5 or DB9 connector.

Table 1: Connector Description

| Connector     | Description                | Default Setting           |
|---------------|----------------------------|---------------------------|
| Port 0        | Terminal Strip 5 (TSTRIP5) | UART 1 RS-485 Half Duplex |
| Port 1        | DB9 Connector              | UART 0 RS-232             |
| Power Input 1 | Barrel connector           | Default power source      |

Table 2: Serial Port Connector (Port 0 TSTRIP5) Pinout and Signal Description<sup>1</sup>

| Pin | UART 0 RS-232             | UART 1 RS-485                | CAN                | Description   |
|-----|---------------------------|------------------------------|--------------------|---|
| 1   | GND                       | GND                          | GND                | Ground  |
| 2   | RX                        | HD/FD TX-                    | CANL               | Receive or Half Duplex or Full Duplex Transmit Negative or CAN Low  |
| 3   | TX                        | HD/FD TX+                    | GND                | Transmit or Half Duplex or Full Duplex Transmit Positive or Ground  |
| 4   | RTS                       | FD RX-                       | CANH               | Request To Send or Full Duplex Receive Negative or CAN High         |
| 5   | CTS or PWRIN <sup>1</sup> | FD RX+ or PWRIN <sup>1</sup> | PWRIN <sup>1</sup> | Clear To Send or Full Duplex Receive Positive or Raw DC Power Input |

**Note:**

1. Optional power input

**Table 3: Serial Port Connector (Port 1 DB9 Connector) Pinout and Signal Description<sup>1</sup>**

| Pin | UART 0<br>RS-232         | UART 1<br>RS-485   | CAN                | Description   |
|-----|--------------------------|--------------------|--------------------|---|
| 1   | CD                       | -                  | -                  | Carrier Detect  |
| 2   | RX                       | HD/FD TX-          | CANL               | Receive or Half Duplex or Full Duplex Transmit Negative or CAN Low          |
| 3   | TX                       | FD RX+             | GND                | Transmit or Full Duplex Receive Positive or Ground                          |
| 4   | DTR                      | -                  | -                  | Data Terminal Ready   |
| 5   | GND                      | GND                | GND                | Ground  |
| 6   | DSR                      | FD RX-             | GND                | Data Set Ready or Full Duplex Receive Negative or Ground                    |
| 7   | RTS                      | HD/FD TX+          | CANH               | Request To Send or Half Duplex or Full Duplex Transmit Positive or CAN High |
| 8   | CTS                      | -                  | -                  | Clear To Send   |
| 9   | RI or PWRIN <sup>1</sup> | PWRIN <sup>1</sup> | PWRIN <sup>1</sup> | Ring Indicator or Raw DC Power Input  |

**Note:**

- Optional power input

**Table 4: Power Connector (Power Input 1 Barrel Connector) Pinout and Signal Description<sup>1</sup>**

| Pin         | Signal   | Description        |
|-------------|----------|--------------------|
| Outer Shell | Negative | Ground             |
| Center Pin  | Positive | Raw DC Power Input |

**Note:**

- Optional power input

## Part Numbers

### **CB34 EX 2-Port Serial to Ethernet Server**

Part Number: CB34-EX-100IR

### **DIN Rail Mounting Kit (100 Version, double sided)**

Part Number: DIN-100

### **DIN Rail Mounting Kit (200 Version, single sided)**

Part Number: DIN-200

### **CB34 EX Development Kit**

Part Number: NNDK-CB34EX-KIT

Kit includes all the hardware and software you need to customize the included platform hardware. See NetBurner Store product page for package contents.

### **Embedded SSL & SSH Security Suite (Module License Version)**

Part Number: NBLIC-SSL-MODULE

Available as an option if you are using a development kit.

### **SNMP V1 (Module License Version)**

Part Number: NBLIC-SNMP

Available as an option if you are using a development kit.

## Ordering Information

E-mail: [sales@netburner.com](mailto:sales@netburner.com)

Online Store: [www.NetBurner.com](http://www.NetBurner.com)

Telephone: 1-800-695-6828

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