

# NE-4110S

## 10/100M Ethernet Network Enabler for RS-232 Devices

- RS-232 to 10/100M auto-sensing Ethernet mini card for embedded device networking
- Compact size (57 x 40 mm)
- Ready-to-use TCP/IP firmware for fast integration
- TCP Server, TCP Client, UDP, Real COM driver operation modes
- Easy configuration with Web browser, serial console, Telnet console or Windows utility
- Low power consumption (1.5W)
- Dedicated 4 GPIO for user's applications
- C-Programmable version available



### Overview

NE-4110S offers a complete Ethernet connection solution (TCP Server, TCP Client, UDP) to network-enable your serial devices. With its compact size---only 57 x 40 mm, or less than half the size of your credit card---you can easily integrate NE-4110S into your serial device to make the device 10/100M Ethernet-ready.

#### Industrial-proven, built-in TCP/IP stack

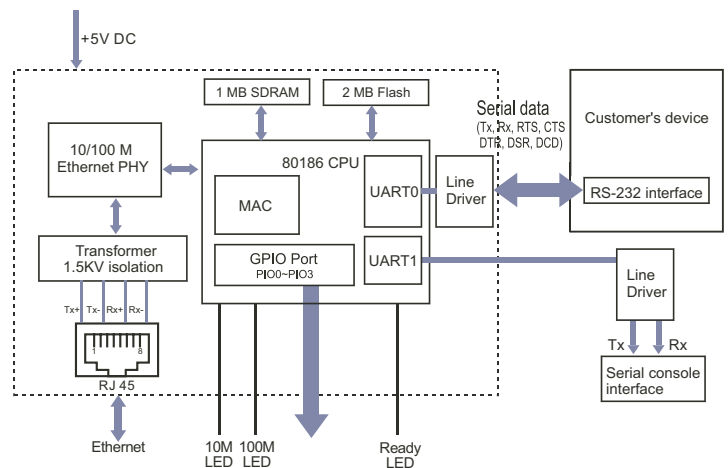
NE-4110S's industrial-proven, built-in TCP/IP stack makes it easy for your R&D engineers to network-enable your serial device since they won't need to put a lot of effort into TCP/IP programming. The 10/100M Ethernet auto-sensing interface lets you enjoy the higher 100M speed when available. In addition, NE-4110S's 4 GPIO pins provide ample design flexibility, giving you the freedom to develop the features your customers need. The NE-4110S 5V design is better suited for today's equipment, and R&D engineers can spend less effort implementing the power circuit.

#### User-friendly configuration options

Configuration is done with a user-friendly Windows utility, Web browser, telnet console, or serial console. In addition, a Windows-based NECI (Network Enabler Configuration Interface) Library is available to help you develop your own Windows utilities.

#### Shorter time to market

The standalone design of NE-4110S allows you to get your legacy serial device Ethernet-ready easily



without modifying the circuit, and get your product to market in no time.

#### Programmable version meets your customization needs

A C-Programmable version is also available for customization applications such as protocol conversion, front end data processing, etc. The NE-4110 series Software Development Kit (SDK) includes a Turbo C compiler and more than 100 application program interfaces (API) for socket command and serial port control. Explanatory example programs are also available to reduce your software developing time. The NE-4110-ST starter kit includes everything you need to develop your application. It includes an evaluation board, SDK, documentation, cables, and accessories.

## Specifications

### LAN

**Ethernet:** 10/100 Mbps auto-sensing

**Protection:** Built-in transformer with 1.5 KV magnetic isolation

**Pins:** ETx+, ETx-, ERx+, ERx-

### Serial

**Interface:** RS-232 x 1, TTL x 1

**Signals:**

RS-232: TxD, RxD, RTS, CTS

DTR, DSR, DCD, GND

TTL: TxD, RxD, GND

### Serial Parameters

**Parity:** None, Even, Odd, Space, Mark

**Data Bits:** 5, 6, 7, 8

**Stop Bits:** 1, 1.5, 2

**Flow Control:** RTS/CTS, XON/XOFF

**Speed:** 50 bps to 115.2 Kbps

### GPIO

**GPIO:** 4 Programmable DI or DO

### Software Features

**Protocols:** ICMP, ARP, IP, TCP, UDP, DHCP, Telnet, HTTP, SNMP, SMTP

**Operation Modes:** TCP Server, TCP Client, UDP, Real COM

**Utilities:** Administration utility for Windows 95/98/ME/NT/2000/XP

**Management:** Web browser, serial console, telnet console or Windows utility library for developing your own utility

**Configuration Interface:** NECI library(.DLL) for developing your own utility

### Power Requirements

**Power input:** 5 VDC, +/- 5%

**Power consumption:** 290 mA @ 5 VDC (Max.)

### Environmental

**Operating temperature:**

0 to 70°C (32 to 158°F), 5 to 95% RH

**Storage temperature:**

-20 to 85°C (-4 to 185°F), 5 to 95% RH

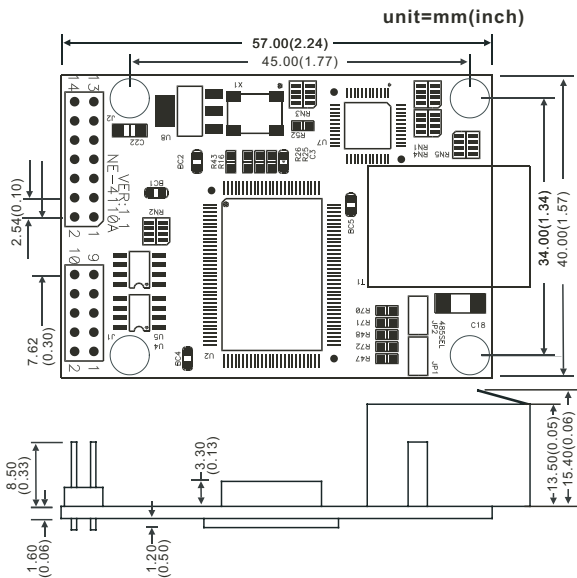
### Regulatory Approvals

**EMC:** FCC Class A, CE Class A

### Warranty

5-Year Manufacturer's Warranty

## Dimensions and Pin Assignment



J1		J2		Ethernet RJ45	
NC	10 9	GND	14 13	VCC(+5V)	
CTS0	8 7	GND	12 11	VCC(+5V)	
DSR0	6 5	DIO0	10 9	10M_LED	
DTR0	4 3	DIO1	8 7	100M_LED	
RxD0	2 1	DIO2	6 5	Ready_LED	
		DIO3	4 3	Reset	
		TxD1	2 1	RxD1	
					Pin Signal
					1 ETx+
					2 ETx-
					3 ERx+
					6 ERx-

## Applications

- Security/Surveillance (Card Readers, Biometric identification devices)
- Building Automation (HVAC, Fire alarm)
- Medical/Healthcare (ECG, Ultrasonic monitoring, Blood testing devices)
- Information Appliances (UPS monitor module)
- Industrial Automation (PLC, Metering devices)

### NE-4110S 10/100M Network Enabler for RS-232 Devices NE-4110S-ST NE-4110S Starter Kit



NE-4110S-ST



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