

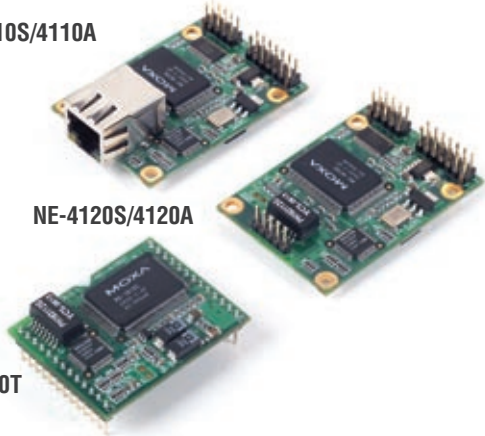
# NE-4100 Series

## 100 Mbps Embedded Serial Device Servers

NE-4110S/4110A

NE-4120S/4120A

NE-4100T



### Features

- > 10/100 Mbps Ethernet interface, 230.4 Kbps serial interface
- > TCP Server, TCP client, UDP, and Real COM operation modes
- > Support for DHCP, BootP, Static IP, and ARP
- > SNMP and e-mail alert for event trapping and notification
- > Only 57 × 40 mm, half the size of a credit card
- > Low power consumption at 1.5W, with single +5V input



### Overview

NE-4100 embedded device servers are designed for manufacturers who want to add sophisticated network connectivity to their products. Any device with a standard serial interface can connect to Ethernet with MOXA embedded devices servers in a snap. NE-4110 embedded

device servers provide a 10/100 Mbps Ethernet interface with ready-to-use operation modes such as TCP Server, TCP Client, and UDP. A Real COM driver is also included for backwards compatibility with legacy software.

### SNMP and E-mail Alert for Event Trap and Notification

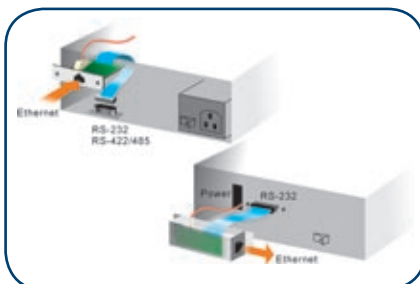
NE-4100 embedded device servers can be configured to send an SNMP trap or e-mail under the following conditions:

- Cold/warm start
- Failure in password authentication
- Change in DSR/DCD line signal
- Change in IP address
- Change in password

### On-site Configuration with Serial Command Mode

- Easy on-site configuration of network settings
- Simple command frame format
- Comprehensive command set for serial and network configuration
- Easily switch between software and hardware triggers
- Software reset

### Typical Installation Examples



**Stand-alone Type**  
(RJ45 Ethernet, NE-4110)



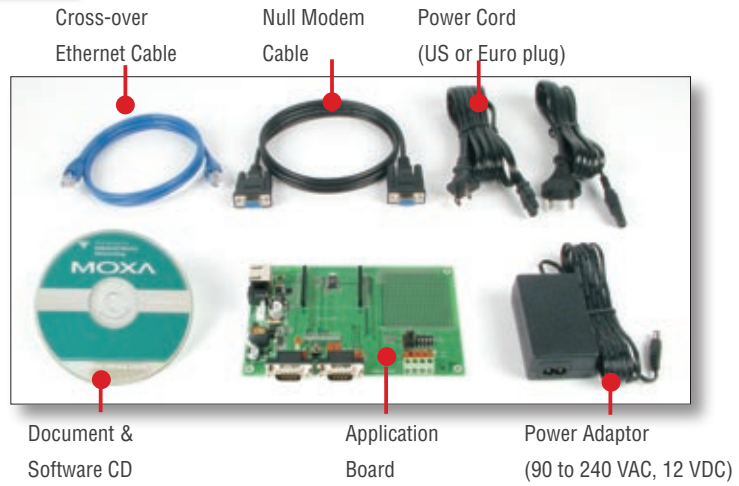
**Stand-alone Type**  
(Pin header Ethernet, NE-4120)



**Drop-in Type**  
(Dual-in-line pin header, NE-4100T)

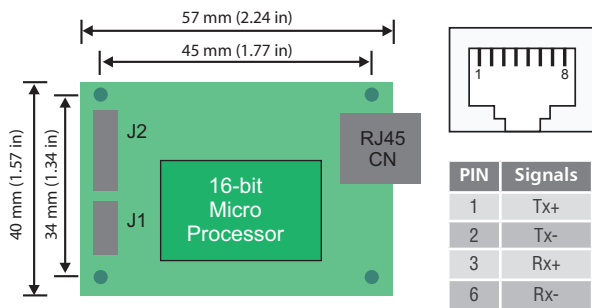
## NE-4100 Starter Kit

The Network Enabler Starter Kit includes an evaluation board, power adaptor, software, and serial and Ethernet cables to allow quick and easy evaluation of all embedded device server functions. The evaluation board is equipped with serial, Ethernet, digital I/O, and power circuits to help you test your modules and applications.

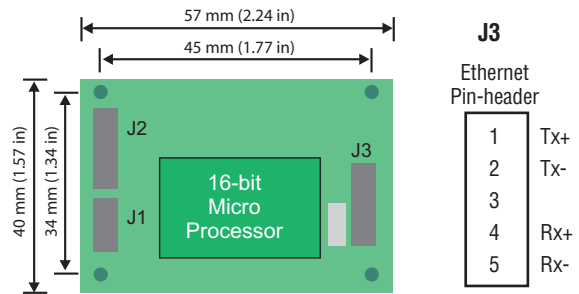


## Pin Assignment

### NE-4110S/4110A



### NE-4120S/4120A



### NE-4110/4120 Series

J2		
GND	14	13 VCC(+5V)
GND	12	11 VCC(+5V)
DI00	10	9 10M_LED
DI01	8	7 100M_LED
DI02	6	5 Ready_LED
DI03	4	3 Reset
TxD1	2	1 RxD1

### NE-4110S/4120S

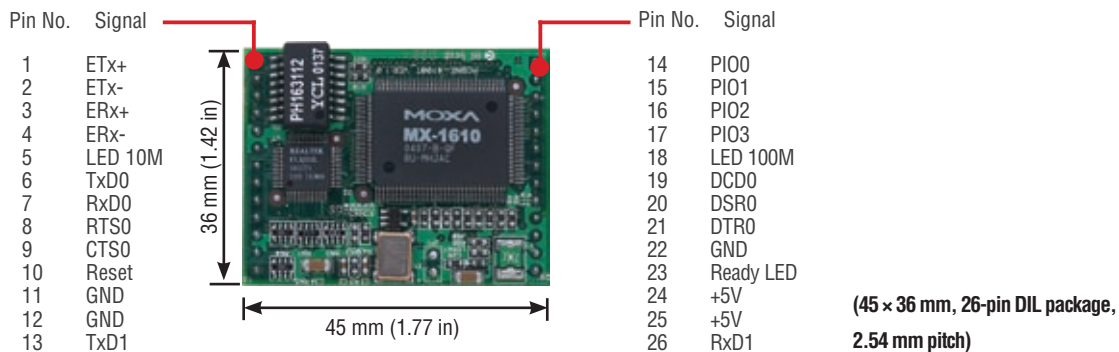
J1		
NC	10	9 NC
CTS0	8	7 RTS0
DSR0	6	5 GND
DTR0	4	3 TxDO
RxD0	2	1 DCDO

### NE-4110A/4120A

J1		
NC	10	9 NC
NC	8	7 NC
NC	6	5 GND
RxD- (Data-)	4	3 RxD+ (Data+)
TxD+	2	1 TxD-

For 2-wire RS-485 mode, Pin 3 is Data+, Pin 4 is Data-

### NE-4100T



## Ordering Information

**NE-4110S:** 100 Mbps network enabler for RS-232 devices, with RJ45 Ethernet connector

**NE-4110A:** 100 Mbps network enabler for RS-422/485 devices, with RJ45 Ethernet connector

**NE-4120S:** 100 Mbps network enabler for RS-232 devices, with 5-pin Ethernet pin header

**NE-4120A:** 100 Mbps network enabler for RS-422/485 devices, with 5-pin Ethernet pin header

**NE-4100T:** 100 Mbps network enabler for TTL devices, with DIL package

**NE-4110-ST:** Starter kit for NE-4110S/NE-4110A

**NE-4120-ST:** Starter kit for NE-4120S/NE-4120A

**NE-4100-ST:** Starter kit for NE-4100T

## Specifications

### Form Factor

#### Type:

NE-4110, NE-4120 Series: Stand-alone module, ready-to-go

NE-4100T: 26-pin dual-in-line package

#### Dimensions:

NE-4110, NE-4120 Series: 57 × 40 mm

NE-4100T: 45 × 36 mm

### LAN Interface

**Type:** 10/100 Mbps auto-sensing MDI/MDIX

**Protection:** 1.5 KV isolation

#### Connector:

NE-4110 Series: RJ45 connector

NE-4120 Series: 5-pin header

### Serial Interface

#### Port 1:

NE-4110S, 4120S: RS-232

NE-4110A, 4120A: RS-422, RS-485 (2-wire), RS-485 (4-wire)

NE-4100T: Serial (TTL)

**Port 2:** Serial (TTL) console port

### Serial Signals

**RS-232:** TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

**RS-422:** Tx+, Tx-, Rx+, Rx-, GND

**RS-485:** Data+, Data-, GND with ADDC™

(Automatic Data Direction Control)

**TTL (Port 1):** TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

**TTL (Port 2):** TxD, RxD, GND

### Serial Parameters

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

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

**Stop Bit(s):** 1, 1.5, 2

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

**Speed:** 110 bps to 230.4 Kbps

### Digital I/O Pins

Four programmable I/O pins (GPIO)

### Software Features

**Protocols:** ICMP, ARP, IP, TCP, UDP, DHCP, Telnet, HTTP, SNMP, SMTP  
**Utilities:** Network Enabler Administration Suite for Windows 95/98/ME/NT/2000/XP/2003/Vista

**OS Driver Support:** Windows 95/98/ME/NT/2000/XP/2003/XP x64/2003 x64 COM driver, Linux Real TTY, Unix

**Configuration:** Web console, serial console, Telnet console, or Windows utility

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

### Power Requirements

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

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

### Temperature/Humidity

**Operation:** 0 to 50°C (32 to 131°F), 5 to 95% RH for standard models  
 -40 to 75°C (-40 to 185°F), 5 to 95% RH for -T models

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

### Regulatory Approvals

#### EMC:

CE: Class A

FCC: Class A

**Warranty:** 5 years