# CNOE-211

## TSX Compact Ethernet Option Module


The CNOE-211 is an Ethernet option module for Schneider Automation's TSX Compact™. It is the first module to take advantage of the new Compact communication channel. The module gives the Compact its long-awaited Ethernet port. It has many of the capabilities of the original Quantum™ NOE 211 but in the Compact form factor.

**…gives the Compact its long-awaited Ethernet port…**

Anyone familiar with Niobrara's products should note that the CNOE-211 uses Niobrara's Routing and Protocol Conversion (RPC) firmware. RPC is the engine in Niobrara's EPE5, MEB, and QUCM and has been used in thousands of applications. The CNOE is unique since it appears to the PLC as an option module instead of an intelligent I/O card.

### Capabilities

The single 10BaseT RJ45 Ethernet port is Modbus/TCP compatible.

The PLC can issue 0x, 1x, 3x and 4x MSTR reads over Ethernet.
The PLC can issue 0x and 4x MSTR writes over Ethernet.
A PC can program the Compact PLC via Ethernet.
Modbus/TCP compatible devices can read/write the Compact PLC via Ethernet.
PLC peer-to-peer communications over Modbus/TCP Ethernet
Including Quantum, Premium and Momentum® PLCs.
I/O scanning.

The Ethernet port of the CNOE-211 is also SY/MAX® 802.3 compatible, which enables:

**…PLC can issue 0x, 1x, 3x and 4x MSTR reads … 0x and 4x MSTR writes over Ethernet.**

The PLC to read or write SY/MAX registers over Ethernet
Including SY/MAX 450 and 650 PLCs.
Any SY/MAX 802.3 compatible device to read/write Compact PLC registers.
Modbus/TCP SY/MAX 802.3 bridging without PLC intervention.

### Requirements

TSX Compact PLC (with '386 processor).
Free slot in the main rack (slots 3, 4 or 5).
Compact PLC Executive version 2.07 or greater.


Printed in USA
*Effective 09 January 2003*
*Specifications subject to change without notice.*

## Miscellaneous

IP configuration of the CNOE can occur over Ethernet via BOOTP or DHCP or from the PLC via MSTR or config extensions*. Multiple CNOEs can work in a single rack. No web pages are served by the module. The CNOE-211 will not run CUCM code. Modules come with a user manual, configuration software, 1-year warranty**, tech support and 1-year free firmware upgrades.

## Compact Communication Module Part Numbers

Contact Factory for availability.

| Part Number | Function | Ethernet | Serial | Web pages | CUCM Program | CF slot |
|---|---|---|---|---|---|---|
| CNOE-211 | Ethernet Option | Yes | - | - | - | - |
| CNOE-700 | I/O scanner | Yes | - | Yes | - | - |
| CNOE-710 | FactoryCast | Yes | - | Yes | - | Yes |
| CNOS-001 | Serial expansion | - | Yes | - | - | - |
| CNOE-800 | Serial & Ethernet | Yes | Yes | - | - | - |
| CUCM-O | Protocol Converter | - | Yes | - | Yes | - |
| CUCM-OE | Bridge | Yes | Yes | *** | Yes | - |
| CUCM-OEC | Custom Program | Yes | Yes | *** | Yes | Yes |

* Contact Schneider Automation for programming software that supports Ethernet configuration extensions for the Compact PLC (not available at time of printing).
** See Niobrara's Standard Terms and Conditions of Sale for warranty information.
*** With optional license from Schneider Automation.

## SPECIFICATIONS:

| | |
|---|---|
| *Dimensions* | Single-width Compact module. 1.6" wide by 5.5" tall by 4.5" deep (40 x 140 x 114 mm). |
| *Power Requirements* | From Compact bus; 5 VDC, 350 mA. |
| *Operating Conditions* | 0 to 60 degrees C; humidity up to 90% noncondensing; pressure altitude -200 to +10,000 feet MSL. |
| *Ethernet Port* | Front-mounted 10BaseT, RJ45 connector. Read, write or program the PLC or configure the CNOE through this port. |
| *Ethernet Protocols* | Modbus/TCP and/or SY/MAX 802.3 protocols with bridging. TCP, IP, BOOTP, DHCP, PING and Telnet. |
| *Indicators* | LED indicators for Module Power, Busy, Run, Error; Ethernet Active, Error, Link, and Collision; PLC Run and Backplane Comms Active. 18 total indicators. |
| *Mailbox Registers* | 2,048 4x registers. Available at Modbus/TCP drop 255 (configurable). Non-volatile. |
| *Setup Registers* | 4x registers accessible by PLC across backplane or by external device via Ethernet port; Non-volatile. |
| *PLC Interface* | Compact bus connector on back uses the new option module interface. |