Model Information

Features

- Controls 4 RS232 or RS422/485 devices located virtually anywhere via Ethernet, WLAN or Internet
- Easy selection of RS232, RS422 or RS485 by single DIP switch or individually by software
- Port expansion over USB A connector
- **New:** Secure Access over Internet by **viaVPN**
- LAN 1000/100/10 Ethernet auto-detect
- Supply via Power over Ethernet 802.3af
- NetCom Manager automatically finds NetCom+ devices in the network
- Configuration over Driver Panels, serial Port, Telnet, WEB Browser, SNMP
- Automatic mode switching between Driver and Raw Mode
- Supports TCP/IP, UDP, Telnet, DHCP, ICMP, UPnP, HTTP, SNMP V1/2c/3, DNS, PPP, openVPN
- SSL/AES-256 encryption on Ethernet, WLAN and Internet
- Optional: Wireless network IEEE 802.11b/g/n
- Optional: 3G/4G Modem for mobile networks

Contact Online...

NetCom Plus 413 POE

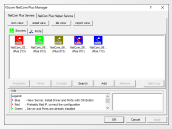
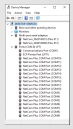
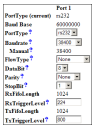
(NetCom 413, NetCom 413 PRO)

Quick Link: | Features | More Pictures | Overview | Application | Interface | Remote Access | Serial Performance | Operating Modes | Power and Environment | Standards | Special Features | Security | Ordering Information | Options | Packaging |

More Pictures






Click on the thumbnails for the large picture ...

>Back to top

Overview

The NetCom+ 413 is an industrial-strength network-based serial device server for connecting four RS232 devices (or RS485 communication lines) like CNC, PLC, weighting scale, scanner and others directly to a network running TCP/IP. The driver for Windows operating system installs Virtual Com Ports. The network is Gigabit Ethernet or optionally wireless by WLAN 802.11b/g/n, another option is Power over Ethernet.

Implemented in the NetCom+ Servers is an option to use **the viaVPN system** for Remote Access and Monitoring over Internet. **viaVPN** provides secure and strong encrypted access, without any re-configuration of firewalls. Once installed in the local network the NetCom+ are used exactly as without the option viaVPN. But at the same time the operation can be monitored from remote locations. If the serial port is not occupied by local access, also Virtual Com Port operation is possible from remote.

The NetCom+ Servers use a state-of-the art RISC processor for low power and cost effective design. The 4 and 8 port models are very similar, including the case size. Power supply is via DC adapter, or optionally via Ethernet cable with POE IEEE 802.3af.
The serial ports enable data rates of up to 12Mbps in RS422/485 or 1000kbps in RS232 modes. The ports also allow every non-standard bitrate up to 3.5Mbps, and many above that (e.g. 1Mbps). See the FAQ.
The USB 2.0 port supports USB-COM Plus modules, to add more non-isolated and also isolated serial ports. The USB port may also connect external WLAN.

NetCom+ can be configured over Driver Panels, WEB Browser, serial Port, Telnet, SNMP and serves as a transparent serial channel without platform and distance limitation.
As modern devices the NetCom+ provide encryption for all communication.

Application

- Secure Remote Monitoring
- SCADA system
- Building automation system
- Self-service banking system
- Industrial / Factory / Laboratory automation
- Automatic warehouse control system
- Wafer fabrication system
- Other remote and distributed serial devices control

Interface

Ethernet interface	Auto-detecting 1000BaseT/100BaseTx/10BaseT (GigaLAN) Connector 8P8C (RJ45)
Wireless interface	Optional via internal module or external USB stick IEEE 802.11b/g/n operation in Access Point or Client Mode
Protocols	TCP/IP, UDP, Telnet, PPP, DHCP, ICMP, UPnP, HTTP, LPD, SNMP V1/2c/3, DNS, openVPN
No. of serial ports	4x DSUB 9 male connector (as PC) Expandable by USB-COM Plus modules
Serial interface	RS232/422/485 individually selected by software or common by DIP-switch
Available Modes	• RS232 full duplex • RS422 full duplex (120Ω on/off) • RS485 4 wire, full duplex (120Ω on/off) • RS485 2 wire, half duplex (120Ω on/off) Internal Termination, controlled by operation mode BIAS resistors not required
Signals	• RS232: TxD,RxD, RTS,CTS, DTR,DSR, DCD, GND • RS422: Tx+/-, Rx+/-, GND • RS485 2 wire: Data+/-, GND • RS485 4 wire: Tx+/-, Rx+/-, GND
RS485 Data control	Controlled by ART (Automatic Receive Transmit control)
USB port	USB 2.0 High Speed, for WLAN and serial port expansion
Mini PCIe slot	Option: mPCIe over USB interface for 3G / 4G connections. Uses internal SIM slot.

>Back to top

Remote Access

Connect via Internet	The **system viaVPN** provides secure and easy access to remotely installed devices. The installation is quickly done and provides convenient tools to get access from all locations
Security	All connections use VPN-tunnels encrypted by SSL and AES-256. And even when remote access to a NetCom Plus Server is possible, this does not provide access to the network the Server is installed in.
Firewall friendly	Access to the viaVPN Cloud Servers is done like https protocol in a browser. If web pages can be viewed from a location, access to the Cloud is also possible. No re-configuration of firewalls required.

>Back to top

Serial Performance

Speed	RS232: 200 bps to 921.6/1000 kbps RS422/485: 200 bps to 12 Mbps Supports non-standard baudrates
Parity	None, even, odd, mark, space
Data bits	7, 8
Stop bits	1, 2

>Back to top

Operating Modes

Driver Mode	VScom Driver for Windows up to 10, Server up to 2008 R2, both x86 and x64 Editions. The Driver creates a virtual Com port, using VScom NetCom protocol.
Other Modes	TCP Raw Server, TCP Raw Client, Null Modem Tunnel, UDP Mode, Print Server and IP Modem

>Back to top

Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	9 - 54V DC, 0.5A @ 12V, 6W
Power over Ethernet	Class 0 Device (802.3af). Typical consumption is 6W.
Dimension	196×147×44 mm^3 (W×L×H)
Operating Temp	−20°C - 65°C
Storage Temp	−20°C – 85°C
Case	SECC sheet metal (1mm)
Weight	0.9kg
Mounting	• 19-inch Rack • Wall mount

>Back to top

Standards

Declarations	CE, FCC
EMI	• EN 55022 Class B • EN 61000-3-2: Limits of harmonic current emissions • EN 61000-3-3: Limitation of voltage changes • 47 CFR FCC Part 15 Subpart B
EMS (EN 55024)	• EN 61000-4-3: Radiated RFI • EN 61000-4-4: Electrical Fast Transient • EN 61000-4-5: Surge • EN 61000-4-6: Induced RFI • EN 61000-4-8: Power Frequency Magnetic Field • EN 61000-4-11: Power supply dips
ESD	EN 61000-4-2 4kV contact 8kV air for • Serial Ports • USB • Ethernet • DC Power connector

>Back to top

Special Features

Installation	For easy installation the configuration utility NetCom Plus Manager automatically finds NetCom+ devices in the network
Operating mode	Automatic mode switching between Driver and TCP RAW Server mode.
Configuration	Configuration over Driver Panels, NetCom Manager, WEB Browser, serial console, Telnet, SNMP
Firewall	Special precautions for Firewall environments
Firmware	Firmware update over WEB Browser

LEDs	LEDs for Power, Ready, WLAN, serial Tx, Rx, Ethernet Link, Speed
UPnP	The NetCom Plus Serial Device Servers announce their presence in the network using the protocol UPnP. This way it is most easy to know the IP Address and to open the web interface for configuration.

>Back to top

Security

Password access	Every capabilities of configuration use the same password including SNMP V3
Secure communication	OpenVPN™ SSL tunnel provides security on Ethernet and Internet. The tunnel protects configuration and serial data, especially convenient to use across the Internet. OpenVPN software is available for many systems, including Windows, Linux and Mac OS. Strong encryption by AES up to 256 bit keys.

>Back to top

Ordering Information

6676	NetCom Plus 413 POE (4x RS232/422/485, supply via Ethernet, expandable)

>Back to top

Options

6679	Activate option **viaVPN** for secure remote access over Internet
6689	WLAN Kit internal internal module 802.11b/g/n, pigtail and antenna Purchase time option, not for later retrofitting
6690	WLAN Kit external USB stick 802.11b/g/n, antenna
6031	Power supply adapter 12V DC, 1A
661	Serial Null-Modem adapter 9PF-9PF, change male to female
663	5-pin Terminal block adapter to DB9 female
6061	RJ45 adapter to DB9 female

>Back to top

Packaging

Packing list	• NetCom Plus Serial Device Server • Mounting brackets for 19-inch rack • Wall mount plates • Terminal block for Power Supply

>Back to top

NetCom Plus 413 POE

>Back

Model NetCom Plus 411 with WLAN

>Back

NetCom Plus back side

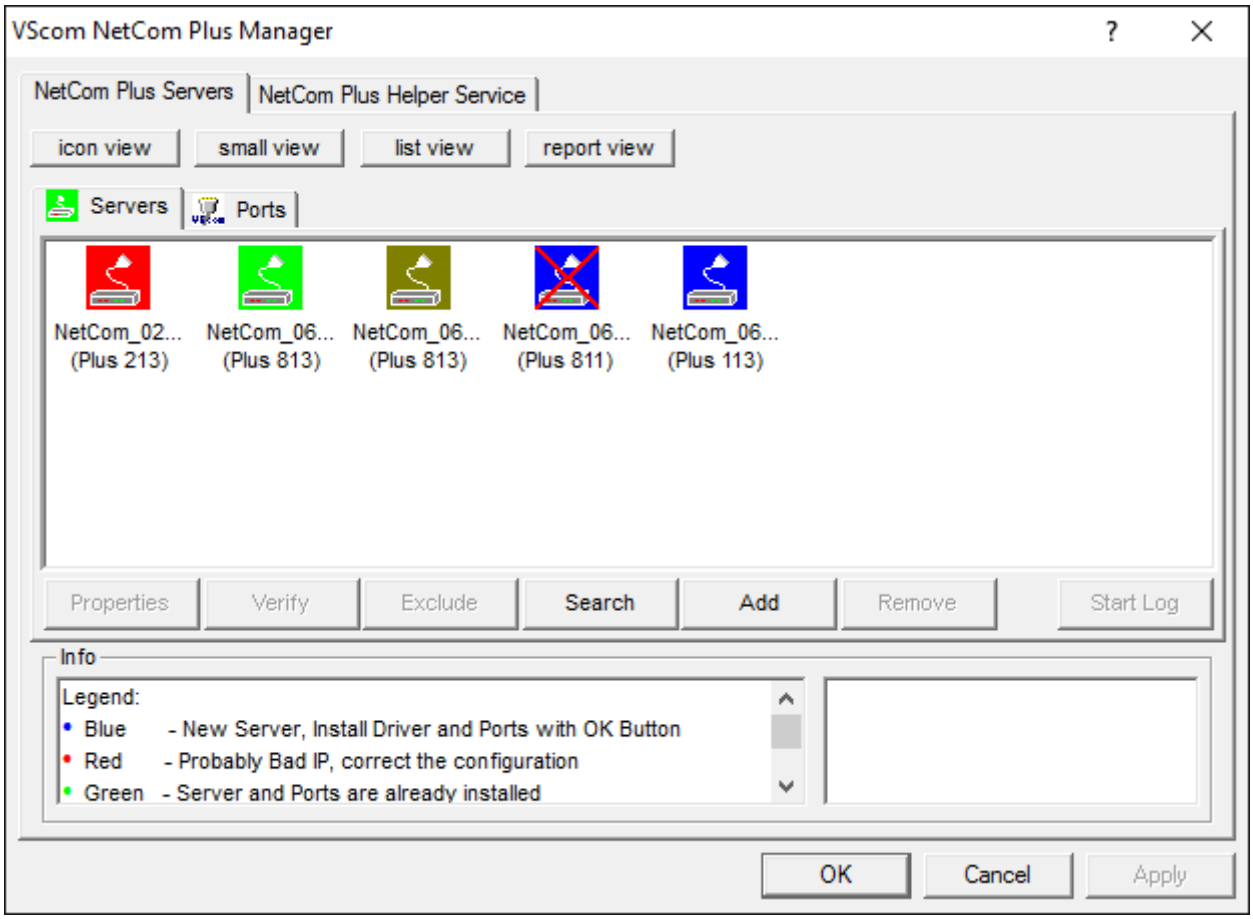
>Back

Rackmount Kit

>Back

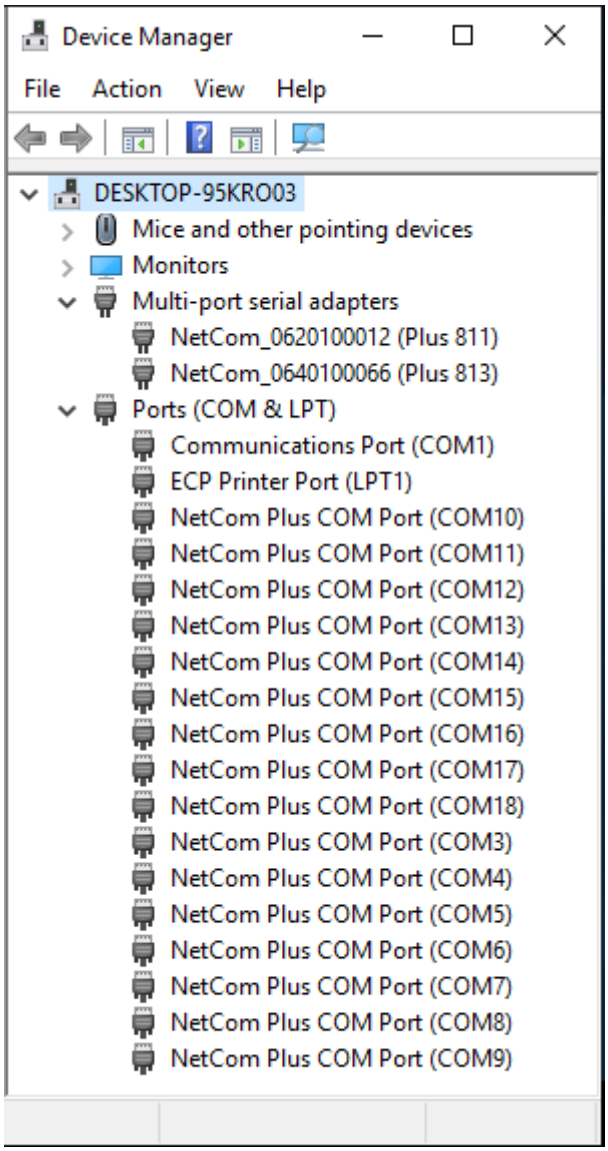
NetCom Plus Manager

>Back



NetCom Plus in Device Manager

>Back



Serial Port in Web Interface

>Back

	Port 1
PortType (current)	rs232
Baud Base	60000000
PortType ?	rs232
Baudrate ?	38400
Manual ?	38400
FlowType ?	None
DataBit ?	8
Parity ?	None
StopBit ?	1
RxFifoLength	1024
RxTriggerLevel ?	224
TxFifoLength	1024
TxTriggerLevel ?	800

Remote Access option

>Back

(2017 Mar 17)