

Model Information



■ Features

- Controls 8 RS232/422/485 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
- LAN 1000/100/10 Ethernet auto-detect
- 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, 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

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NetCom Plus 813

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■ More Pictures



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■ Overview

The NetCom+ 813 is an industrial-strength network-based serial device servers for connecting eight 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.

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. 4Mbps). 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, HTTP, LPD, SNMP V1/2c/3, DNS, openVPN |
| No. of serial port | 8x 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 | <ul style="list-style-type: none">● 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 | <ul style="list-style-type: none">● 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 By adding 8 serial ports the NetCom Plus 813 becomes a replacement for the NetCom 1613RM PRO server. |
| Mini PCIe slot | Option: mPCIe over USB interface for 3G / 4G connections. Uses internal SIM slot. |

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■ 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 |

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■ 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. |
| | TCP Raw Server, TCP Raw Client, Null Modem Tunnel, UDP Mode, |

Other Modes

Print Server and IP Modem

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■ Power and Environment

| | |
|---------------------------|---|
| Connector | 3-pin Terminal Block with Protective Earth |
| Power requirements | 9 - 54V DC, 0.5A @ 12V, 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 | <ul style="list-style-type: none">• 19-inch Rack• Wall mount |

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■ Standards

| | |
|-------------------------|--|
| Declarations | CE |
| Safety | EN 60950-1 |
| ESD | EN 61000-4-2 8kV contact 16kV air for <ul style="list-style-type: none">• Serial Ports• USB• Ethernet• DC Power connector |
| EMI | <ul style="list-style-type: none">• EN 55022 Class A• EN 61000-3-2• EN 61000-3-3 |
| EMS (EN 55024) | EN 61000-4-3 |
| Power (EN 55024) | <ul style="list-style-type: none">• EN 61000-4-4• EN 61000-4-5• EN 61000-4-6 |

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■ Special Features

| | |
|-----------------------|---|
| Installation | For easy installation the configuration utility NetCom Manager automatically finds NetCom+ devices in the network |
| Operating mode | Automatic mode switching between Driver and TCP RAW Server mode. |
| PPP Access | Dial-In to a modem attached to a serial port using Point to Point Protocol. TCP/IP is transported over the serial line, allowing access to configuration and the serial ports, even without Ethernet. |
| 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 |

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■ 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.

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■ Ordering Information

6685 NetCom Plus 813 (8x RS232/422/485, expandable)

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■ Options

6689 WLAN Kit internal
internal module 802.11b/g/n, pigtail and antenna
Purchase time option, not for later retrofitting
This option allows for replacement of NetCom 823RM WLAN

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

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■ Packaging

Packing list

- NetCom Plus Serial Device Server
- Mounting brackets for 19-inch rack
- Wall mount plates
- Terminal block for Power Supply
- CD-ROM with Driver and configuration software

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NetCom Plus 813

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Model NetCom Plus 811 with WLAN

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NetCom Plus back side

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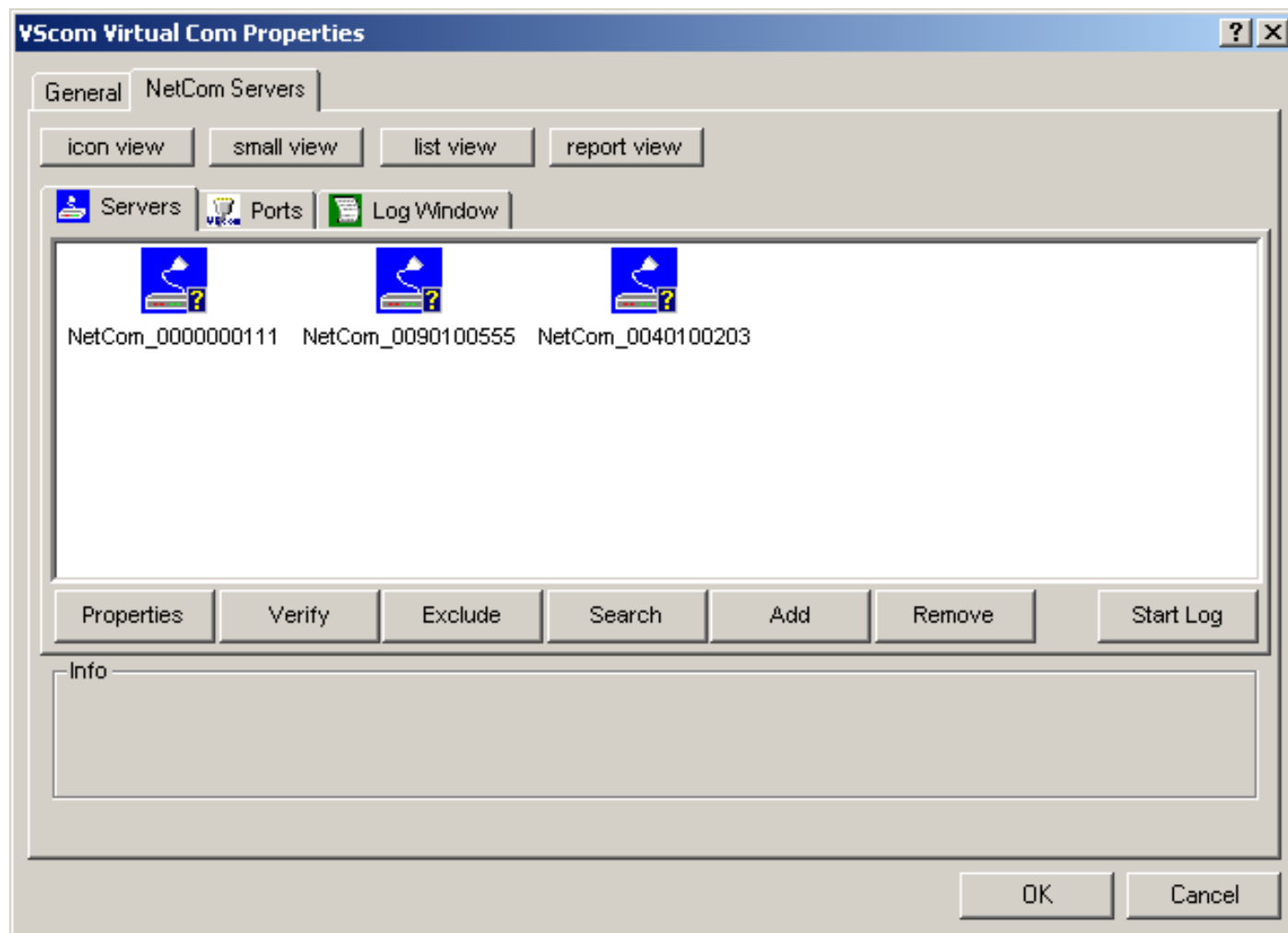
Rackmount Kit

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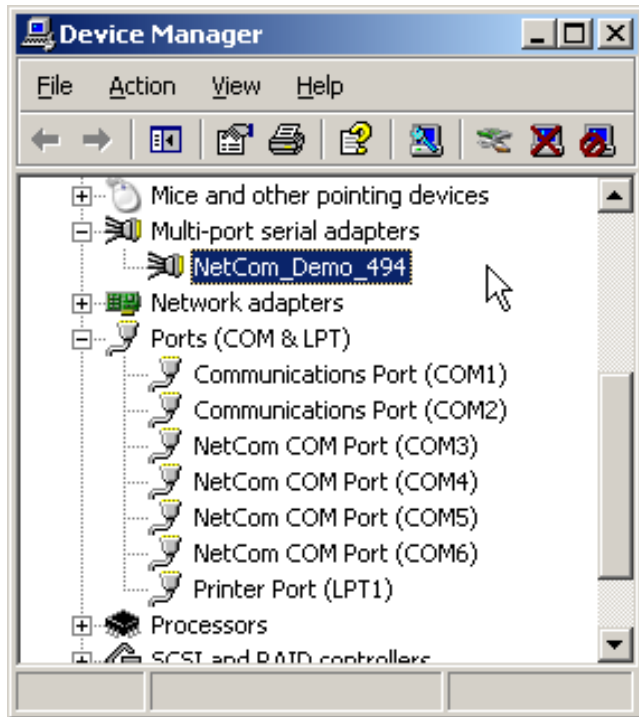
NetCom Manager

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NetCom Plus in Device Manager

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Serial Port in Web Interface

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| Port 1 | |
|--------------------|------------------------------------|
| PortType (current) | rs232 |
| Baud Base | 60000000 |
| PortType ? | <input type="text" value="rs232"/> |
| Baudrate ? | <input type="text" value="38400"/> |
| Manual ? | 38400 |
| FlowType ? | <input type="text" value="None"/> |
| DataBit ? | <input type="text" value="8"/> |
| Parity ? | <input type="text" value="None"/> |
| StopBit ? | <input type="text" value="1"/> |
| RxFifoLength | 1024 |
| RxTriggerLevel ? | <input type="text" value="224"/> |
| TxFifoLength | 1024 |
| TxTriggerLevel ? | <input type="text" value="800"/> |