Model Information

Main Features

- Ethernet to serial 8 port RS232/422/485
- Virtual Com Port driver for Windows
- Secure Server with latest SSL/AES-256 encryption
- Operation in Driver Mode, TCP/IP and many other
- Quick Configuration over Driver and Browser
- ESD protection on serial ports, Ethernet, DC power
- 19"Rack and Wall mount options
- Optional: Wireless network IEEE 802.11b/g/n
- Optional: 3G/4G Modem for mobile networks
- Optional: Power supply via Ethernet (model POE)
- Port expansion over USB

Contact Online...

NetCom Plus 813

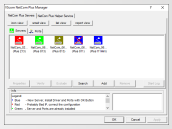
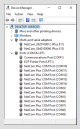
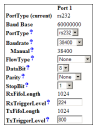
(NetCom 813, NetCom 813RM PRO)

Quick Link: | Main Features | More Pictures | Overview | Ethernet Interface | Serial Interface | Serial Port Expansion | Software | Installation & Configuration | Security | viaVPN Remote Access (option) | Wireless interface (option) | 3G/4G Modem Interface (option) | Power Requirements | Housing and Mounting | Environmental Data | Standards | MTBF (Mean Time Between Failures) | Warranty | Ordering Information | Options | Packaging |

More Pictures






Click on the thumbnails for the large picture ...

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Overview

The Ethernet to Serial Gateways NetCom Plus connect RS232 or RS485 devices to a network running TCP/IP. These Serial Device Servers are rugged industrial devices with metal case and wall or 19"-Rack mounting, further supported by ESD protection on serial ports, power input and USB.
The NetCom+ 813 provides eight RS232/422/485 ports.

Windows Driver installs Com Ports

The driver for Windows operating system installs Virtual Com Ports. These operate in the same way as built-in ports, but via Ethernet or optional WLAN 802.11b/g/n. Easy-to-use Installation and Management software guides users trough the configuration.

High Speed Serial Ports, Low Power

The serial ports allow 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 more (e.g. 5Mbps). See FAQ.
The USB 2.0 port supports USB-COM Plus modules, to add more standard or isolated serial ports. The USB port may also connect external WLAN.
The gateways demand 6W of power or less. The flexible input allows for various sources of customers choice. This includes Power-over-Ethernet in POE-models.

Easy Configuration, versatile Operation Modes

NetCom+ are configured over Driver Panels and WEB Browser. This is also possible via serial Port, Telnet or SNMP. NetCom+ provide Driver Mode, TCP/IP or UDP connection, and many operation modes beyond those.

Secure Remote Access for Monitoring

For NetCom Plus series there is a software option using the viaVPN Cloud system (www.viaVPN.com) to be remotely accessed and monitored over Internet. viaVPN provides secure and strongly encrypted access, without any reconfiguration of existing firewalls. The access to the firmware via Ethernet or WLAN is extended by viaVPN over Internet, protected by a VPN tunnel. If the Com ports are not occupied by local access, also remote operation over Internet is possible.

Ethernet Interface

Speed/Type	100Mbps/10Mbps Auto-detecting
Connector	RJ45 (8P8C) 8 pin
LEDs	Power, WLAN, Ready, Ethernet Link / Speed

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Serial Interface

No. of Ports/Type	8 × RS232/422/485 selected by DIP-switch or software
Connector	DB-9 male
Protection	16kV ESD surge protection
Operating Modes	• RS232 • RS422 full duplex (120Ω on/off) • RS485 4 wire, full duplex (120Ω on/off) • RS485 2 wire, half duplex (120Ω on/off)
Configuration	One DIP switch sets operating mode and RS422/485 termination Software can configure the ports individually No High/Low biasing resistors needed
Signals	• RS232: TxD,RxD, RTS,CTS, DTR,DSR, DCD, GND • RS422: Tx+/-, Rx+/-, GND • RS485 4 wire: Tx+/-, Rx+/-, GND • RS485 2 wire: Data+/-, GND
RS485 Data Direction Control	ARTc (Automatic Receive Transmit control)
Data bits	7, 8
Stop bits	1, 2
Parity	None, Even, Odd, Mark, Space
Flow Control	RTS/CTS, XON/XOFF
Baudrate	• RS232: 180bps - 921.6/1000kbps • RS422: up to 12Mbps • RS485: up to 12Mbps Supports non-standard baudrates
LEDs	TxD/RxD for each port

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Serial Port Expansion

Connector	USB 2.0 High Speed type A, 500mA @5V at rear side
Expansion Options	Connect USB-4COM Plus (4 ports) or USB-8COM Plus (8 ports) devices to add more serial ports to NetCom Plus server, even electrically isolated versions

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Software

Network Protocols	TCP, UDP, Telnet, PPP, DHCP, ICMP, UPnP, HTTP, LPD, SNMP V1/2c/3, DNS, openVPN
Virtual-COM Mode	Driver creates virtual COM ports via NetCom protocol © for Windows XP/7/8/10, Win-Server 2003 to 2008 R2 (x86/x64)
Socket Modes	TCP RAW Server, TCP RAW Client, UDP Mode, Print Server Automatic switching between Virtual-COM and TCP-RAW Server modes.
Tunnel Modes	Null Modem Tunnel and IP Modem

Fixed TTY Drivers	socat Tool, Linux OS

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Installation & Configuration

Installation	NetCom Plus Manager automatically finds NetCom Plus devices in the local network.
UPnP	With Network discovery enabled NetCom Plus servers announce their presence via UPnP making their IP visible.
Configuration	via WEB-Browser, Driver Panels, NetCom Manager, serial console, Telnet console or SNMP
Firewall	Virtual-COM mode works through firewalls
Firmware Update	via WEB Browser

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Security

Password Protection	for all available configuration options e.g. via WEB-Browser
Secure Server	create openVPN™ tunnels, for encrypted transmission of all serial and configuration data using high security SSL/TLS standards.

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viaVPN Remote Access (option)

Connect via Internet	viaVPN technology provides easy and secure access to remotely installed NetCom Plus servers for their configuration or for connecting their virtual COM ports through Internet. With the viaVPN option the NetCom Plus servers are no more limited to only work inside of a local network.
Security	All communications use openVPN-tunnels encrypted by SSL/TLS and AES-256 standards.
Firewall friendly	No Reconfiguration of firewalls is required for viaVPN remote access.

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Wireless interface (option)

Standards	2.4GHz Radio, supports IEEE Std. 802.11b/g/n
WLAN Modes	Access Point (AP) or Client (Station)
TX Power	802.11b: Typ. 15.5dBm ±1.5 dBm @ 1Mbps (DSSS) Typ. 15.5dBm ±1.5 dBm @ 11Mbps (OFDM) 802.11g: Typ. 15.6dBm ±1.5 dBm @ 6Mbps (CCK) Typ. 13.5dBm ±1.5 dBm @ 54Mbps (OFDM) 802.11n: Typ. 13.4dBm ±1.5 dBm @ 6.5Mbps (OFDM) Typ. 13.3dBm ±1.5 dBm @ 150 Mbps(OFDM)
RX Sensitivity	802.11b: -95.6dBm @ 1Mbps, -88dBm @ 11Mbps 802.11g: -91.3dBm @ 6Mbps, -74.2dBm @ 54 Mbps 802.11n: -88.8dBm @ 6.5Mbps (20 MHz), -72dBm @ 72.2Mbps (20 MHz)
Transmission Rate	802.11b: 11Mbps 802.11g: 6 to 54Mbps 802.11n: 6.5 to 150Mbps
Transmission Distance	Up to 100m in open areas

Wireless security	• WEP • WPA • WPA2 • WPA2-Enterprise (IEEE 802.1X/RADIUS)
Antenna Connector	RP (Reverse-Polarity) SMA

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3G/4G Modem Interface (option)

mPCIe Slot	Built-in internal Mini PCI Express Slot connected to USB 2.0 HS 3.3V at mPCIe slot is switched ON/OFF via firmware to securely reset 3G/4G modems
SIM Slot	Built-in internal SIM Card slot
3G/4G Modems	Different 3G/4G Modem models are supported by NetCom Plus firmware

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Power Requirements

Input Voltage	9 - 54V DC
Power Consumption	0.4A @ 12V, 5W max
Connector	3-pin Terminal Block
Power over Ethernet	PoE Class 0 Device, IEEE 802.3.af, 8W max. Automatic switch between PoE and local power for POE Version only

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Housing and Mounting

Case	0.8mm sheet metal
Weight	w/o box 0.9kg; w/h box 1.5kg
Dimensions	196×147×44 mm³ (W×L×H)
Packaged	310×192×60 mm³
Mounting	• 19-inch Rack • Wall mount

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Environmental Data

Operating Temp	−20°C - 65°C
Storage Temp	−20°C – 85°C
Ambient Humidity	5-95% non condensing

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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

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MTBF (Mean Time Between Failures)

MTBF	21.4 Years @ 25°C 8.9 Years @ 45°C
Standard	Telcordia (Bellcore) Standard; RelCalc. 5.0 BELL-7

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Warranty

Warranty Period	2 years

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Ordering Information

6685	NetCom Plus 813 (8x RS232/422/485, expandable)
6686	NetCom Plus 813 POE (8x RS232/422/485, supply via Ethernet, expandable)

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Options

6031	Power adapter 110-230V AC to 12V @1A, DC, EU plug
6034	Power adapter 110-230V AC to 12V @1A, DC, US plug
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
3304	3G-Modem GSM/UMTS/HSDPA for mPCIe incl. IPEX cable & SMA Antenna
663	DB9F-to-TB/5Pins for free wiring option
6061	DB9F-to-RJ45 for changing from DB9 to CAT5 wiring (Optimised for RS422/485 operating modes)
6062	RJ45-to-DB9M for changing back from CAT5 to DB9 wiring (Required to match the DB9 pinout at NetCom Plus)
661	Serial Null-Modem adapter 9PF-9PF, change male to female

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Packaging

Packing list	• NetCom Plus Serial Device Server • Terminal block for Power Supply • 19-inch Rack Mounting brackets • Wall mounting kit

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* Specifications are subject to change without notice.

NetCom Plus 813

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Model NetCom Plus 813 with WLAN

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NetCom Plus back side

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External WLAN (demonstrated on Baltos iR 2110)

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Rackmount Kit

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NetCom Plus Manager

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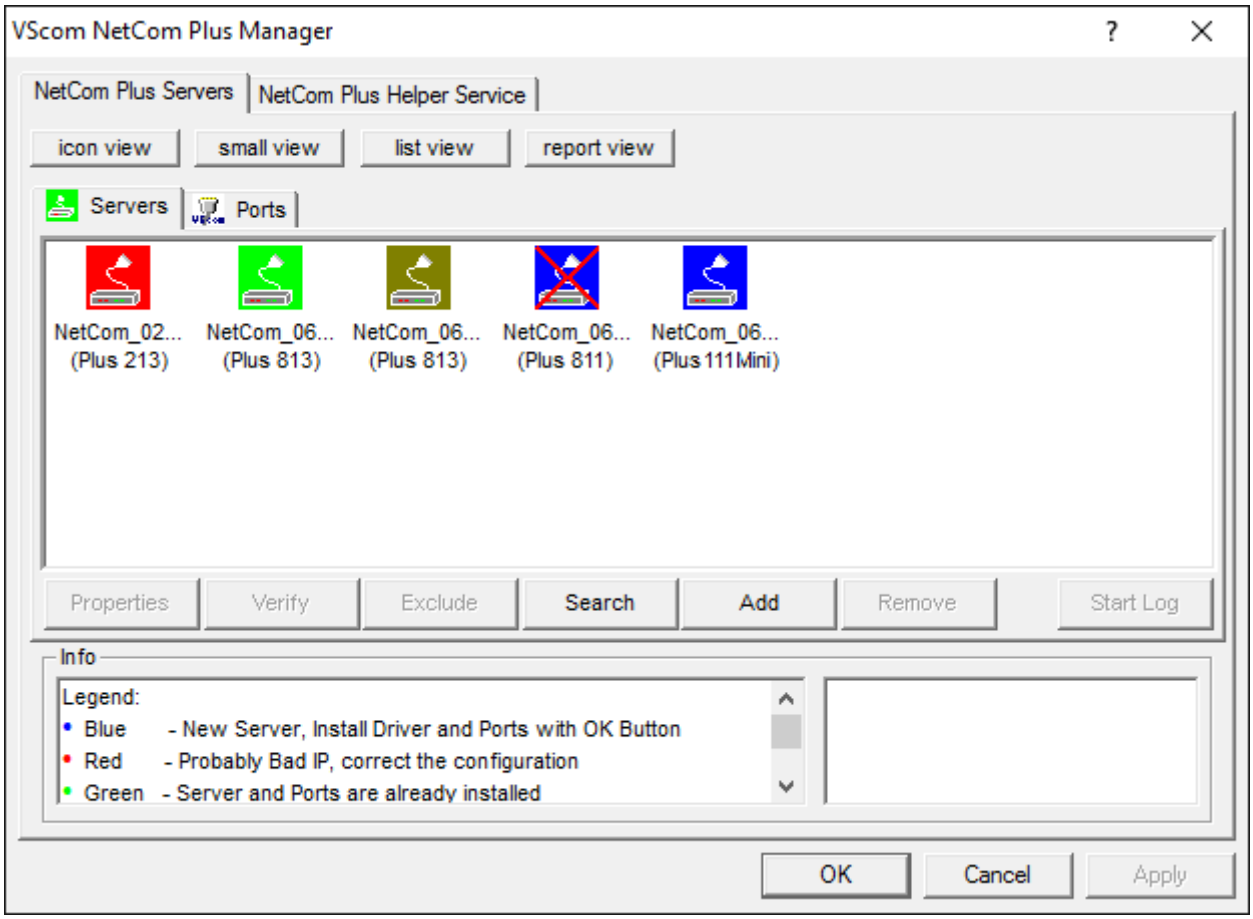

NetCom Plus in Device Manager

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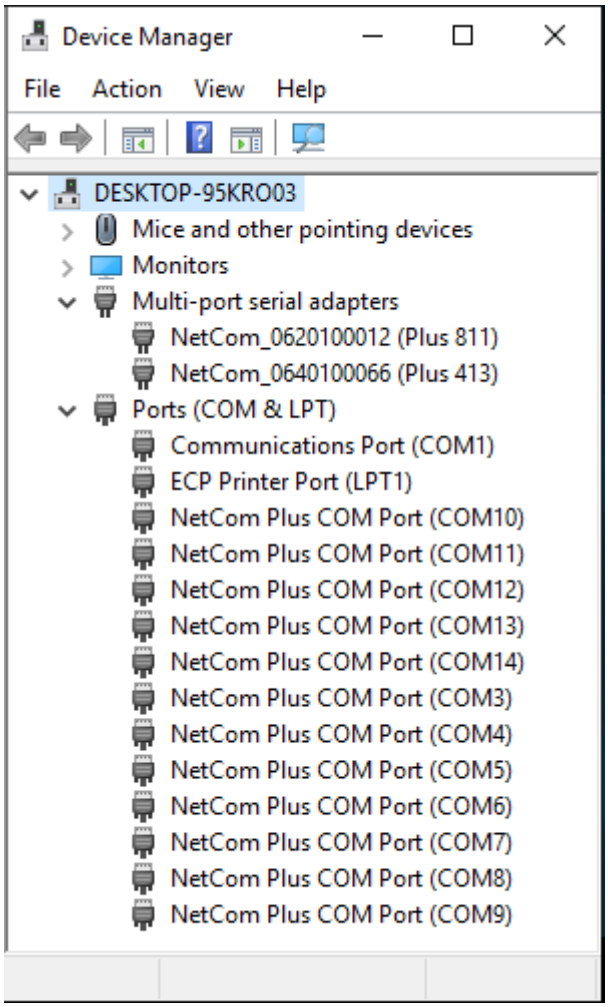

Serial Port in Web Interface

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

Remote Access option

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(2018 Jan 17)