Produkt-Datenblatt

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**MEILHAUS
ELECTRONIC**

Features

- Controls 1 RS232 device located virtually anywhere via Ethernet, WLAN or Internet
- 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

NetCom Plus 111

Overview

The NetCom+ 111 is an industrial-strength network-based serial device servers for connecting one RS232 device 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.

The NetCom+ Servers use a state-of-the art RISC processor for low power and cost effective design. The 1 and 2 port models are very similar, including the case size. Power supply is via DC adapter. The USB 2.0 port supports WLAN, and additional serial ports by expansion modules.

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	1x DSUB 9 male connector (as PC)
Serial interface	RS232
Signals	TxD,RxD, RTS,CTS, DTR,DSR, DCD, RI, GND
USB port	USB 2.0 High Speed, for WLAN and serial port expansion

■ Serial Performance

Speed	200 bps to 921.6/1000 kbps Supports non-standard baudrates
Parity	None, even, odd, mark, space
Data bits	5, 6, 7, 8
Stop bits	1, 2

■ 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

■ Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	9 - 54V DC, 0.3A @ 12V, 4W
Dimension	115×73×25 mm³ (W×L×H)
Operating Temp	−20°C - 65°C
Storage Temp	−20°C − 85°C
Case	SECC sheet metal (1mm)
Weight	0.4kg
Mounting	• DIN-Rail (optional) • Wall mount (optional)

■ 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

■ 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.

■ Ordering Information

6640	NetCom Plus 111 (1x RS232, expandable)

■ Options

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; with Terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female
6692	DK-NCP DIN-Rail mounting kit
6693	WK-NCP Wallmount kit

■ Packaging

Packing list	• NetCom Plus Serial Device Server • CD-ROM with Driver and configuration software

■ Features

- Controls 1 RS232/422/485 device 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

NetCom Plus 113

■ Overview

The NetCom+ 113 is an industrial-strength network-based serial device servers for connecting one RS232 device (or RS485 communication line) 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.

The NetCom+ Servers use a state-of-the art RISC processor for low power and cost effective design. The 1 and 2 port models are very similar, including the case size. Power supply is via DC adapter. The USB 2.0 port supports WLAN, and additional serial ports by expansion modules.

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

■ Interface

Auto-detecting 1000BaseT/100BaseTx/10BaseT (GigaLAN)

Ethernet interface	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	1x DSUB 9 male connector (as PC)
Serial interface	RS232/422/485 selected by software or 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, RI, 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

■ Serial Performance

Speed	RS232: 200 bps to 921.6/1000 kbps RS422/485: 200 bps to 3.7Mbps Supports non-standard baudrates
Parity	None, even, odd, mark, space
Data bits	5, 6, 7, 8
Stop bits	1, 2

■ 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

■ Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	9 - 54V DC, 0.3A @ 12V, 4W
Dimension	115×73×25 mm³ (W×L×H)
Operating Temp	−20°C - 65°C
Storage Temp	−20°C − 85°C
Case	SECC sheet metal (1mm)
Weight	0.4kg
Mounting	• DIN-Rail (optional) • Wall mount (optional)

■ 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

■ 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.

■ Ordering Information

6645	NetCom Plus 113 (1x RS232/422/485, expandable)

■ Options

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; with Terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female
6692	DK-NCP DIN-Rail mounting kit
6693	WK-NCP Wallmount kit

■ Packaging

Packing list	• NetCom Plus Serial Device Server • CD-ROM with Driver and configuration software

■ Features

● Controls 2 RS232 devices located virtually anywhere via Ethernet, WLAN or Internet
● 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

NetCom Plus 211

■ Overview

The NetCom+ 211 is an industrial-strength network-based serial device servers for connecting two RS232 devices 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.

The NetCom+ Servers use a state-of-the art RISC processor for low power and cost effective design. The 1 and 2 port models are very similar, including the case size. Power supply is via DC adapter. The USB 2.0 port supports WLAN, and additional serial ports by expansion modules.

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	▪Industrial / Factory / Laboratory automation
▪SCADA system	▪Automatic warehouse control system
▪Building automation system	▪Wafer fabrication system
▪Self-service banking 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	2x DSUB 9 male connector (as PC)
Serial interface	RS232
Signals	TxD,RxD, RTS,CTS, DTR,DSR, DCD, RI, GND
USB port	USB 2.0 High Speed, for WLAN and serial port expansion

■ Serial Performance

Speed	200 bps to 921.6/1000 kbps Supports non-standard baudrates
Parity	None, even, odd, mark, space
Data bits	5, 6, 7, 8
Stop bits	1, 2

■ 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

■ Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	9 - 54V DC, 0.3A @ 12V, 4W
Dimension	115×73×25 mm³ (W×L×H)
Operating Temp	−20°C - 65°C
Storage Temp	−20°C − 85°C
Case	SECC sheet metal (1mm)
Weight	0.4kg
Mounting	● DIN-Rail (optional) ● Wall mount (optional)

■ 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

■ 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.

■ Ordering Information

6650	NetCom Plus 211 (2x RS232, expandable)

■ Options

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; with Terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female
6692	DK-NCP DIN-Rail mounting kit
6693	WK-NCP Wallmount kit

■ Packaging

Packing list	● NetCom Plus Serial Device Server ● CD-ROM with Driver and configuration software

Features

- Controls 2 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

NetCom Plus 213

Overview

The NetCom+ 213 is an industrial-strength network-based serial device servers for connecting two 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.

The NetCom+ Servers use a state-of-the art RISC processor for low power and cost effective design. The 1 and 2 port models are very similar, including the case size. Power supply is via DC adapter. The USB 2.0 port supports WLAN, and additional serial ports by expansion modules.

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

Auto-detecting 1000BaseT/100BaseTx/10BaseT (GigaLAN)

Ethernet interface	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	2x DSUB 9 male connector (as PC)
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, RI, 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

■ Serial Performance

Speed	RS232: 200 bps to 921.6/1000 kbps RS422/485: 200 bps to 3.7Mbps Supports non-standard baudrates
Parity	None, even, odd, mark, space
Data bits	5, 6, 7, 8
Stop bits	1, 2

■ 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

■ Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	9 - 54V DC, 0.3A @ 12V, 4W
Dimension	115×73×25 mm³ (W×L×H)
Operating Temp	–20°C - 65°C
Storage Temp	–20°C – 85°C
Case	SECC sheet metal (1mm)
Weight	0.4kg
Mounting	• DIN-Rail (optional) • Wall mount (optional)

■ 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

■ 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.

■ Ordering Information

6655	NetCom Plus 213 (2x RS232/422/485, expandable)

■ Options

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; with Terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female
6692	DK-NCP DIN-Rail mounting kit
6693	WK-NCP Wallmount kit

■ Packaging

Packing list	● NetCom Plus Serial Device Server ● CD-ROM with Driver and configuration software

Features

- Controls 4 RS232 devices located virtually anywhere via Ethernet, WLAN or Internet
- 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

NetCom Plus 411

Overview

The NetCom+ 411 is an industrial-strength network-based serial device servers for connecting four RS232 devices 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 USB 2.0 port supports WLAN, and additional serial ports by expansion modules.

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
- Industrial / Factory / Laboratory automation
- Automatic warehouse control system

- Building automation system
- Self-service banking 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	4x DSUB 9 male connector (as PC)
Serial interface	RS232
Signals	TxD,RxD, RTS,CTS, DTR,DSR, DCD, GND
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.

◼ Serial Performance

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

◼ 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

◼ Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	9 - 54V DC, 0.5A @ 12V, 6W
Dimension	196×147×44 mm³ (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

◼ 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.

LEDs	LEDs for Power, Ready, serial Tx, Rx, Ethernet Link, Speed

■ 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.

■ Ordering Information

6671	NetCom Plus 411 POE (4x RS232, supply via Ethernet)

■ Options

6689	WLAN Kit internal internal module 802.11b/g/n, pigtail and antenna Purchase time option, not for later retrofitting
6030	Power supply adapter 15V DC, 1A; with terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female

■ Packaging

Packing list	• NetCom Plus Serial Device Server • Mounting brackets for 19-inch rack • Wall mount plates • CD-ROM with Driver and configuration software

■ Features

- Controls 4 RS232 devices located virtually anywhere via Ethernet, WLAN or Internet
- 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, 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

NetCom Plus 411 POE

■ Overview

The NetCom+ 411 is an industrial-strength network-based serial device servers for connecting four RS232 devices 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 via Ethernet cable with POE IEEE 802.3af.

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	▪Industrial / Factory / Laboratory automation
▪SCADA system	▪Automatic warehouse control system
▪Building automation system	▪Wafer fabrication system
▪Self-service banking 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 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	4x DSUB 9 male connector (as PC)
Serial interface	RS232
Signals	TxD,RxD, RTS,CTS, DTR,DSR, DCD, GND

■ Serial Performance

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

■ 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

■ Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	15 - 54V DC, 0.4A @ 19V, 8W
Power over Ethernet	Class 0 Device (802.3af). Typical consumption is 6W.
Dimension	196×147×44 mm³ (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

■ 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, serial Tx, Rx, Ethernet Link, Speed

■ 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.

■ Ordering Information

6671	NetCom Plus 411 POE (4x RS232, supply via Ethernet)

■ Options

6689	WLAN Kit internal internal module 802.11b/g/n, pigtail and antenna Purchase time option, not for later retrofitting
6030	Power supply adapter 15V DC, 1A; with terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female

■ Packaging

Packing list	● NetCom Plus Serial Device Server ● Mounting brackets for 19-inch rack ● Wall mount plates ● CD-ROM with Driver and configuration software

■ 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
- 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

NetCom Plus 413

■ Overview

The NetCom+ 413 is an industrial-strength network-based serial device servers 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.

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 USB 2.0 port supports WLAN, and additional serial ports by expansion modules.

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	▪Industrial / Factory / Laboratory automation
▪SCADA system	▪Automatic warehouse control system
▪Building automation system	▪Wafer fabrication system
▪Self-service banking 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	4x DSUB 9 male connector (as PC)
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.

■ Serial Performance

Speed	RS232: 200 bps to 921.6/1000 kbps RS422/485: 200 bps to 3.0Mbps Supports non-standard baudrates
Parity	None, even, odd, mark, space
Data bits	7, 8
Stop bits	1, 2

■ 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

■ Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	9 - 54V DC, 0.5A @ 12V, 6W

Dimension	196×147×44 mm³ (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

■ 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

■ 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.

■ Ordering Information

6675	NetCom Plus 413 (4x RS232/422/485, expandable)

■ Options

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; with Terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female

■ Packaging

Packing list	• NetCom Plus Serial Device Server • Mounting brackets for 19-inch rack

- Wall mount plates
- CD-ROM with Driver and configuration software

■ 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
- ● 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, 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

NetCom Plus 413 POE

■ Overview

The NetCom+ 413 is an industrial-strength network-based serial device servers 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.

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 USB 2.0 port supports WLAN, and additional serial ports by expansion modules.

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	▪Industrial / Factory / Laboratory automation
▪SCADA system	▪Automatic warehouse control system
▪Building automation system	▪Wafer fabrication system
▪Self-service banking 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	4x DSUB 9 male connector (as PC)
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.

■ Serial Performance

Speed	RS232: 200 bps to 921.6/1000 kbps RS422/485: 200 bps to 3.0Mbps Supports non-standard baudrates
Parity	None, even, odd, mark, space
Data bits	7, 8
Stop bits	1, 2

■ 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

■ 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 mm³ (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

■ 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

■ 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.

■ Ordering Information

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

■ Options

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
6030	Power supply adapter 15V DC, 1A; with terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female

■ Packaging

Packing list

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

■ Features

- Controls 8 RS232 devices located virtually anywhere via Ethernet, WLAN or Internet
- 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

NetCom Plus 811

■ Overview

The NetCom+ 811 is an industrial-strength network-based serial device servers for connecting eight RS232 devices 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 USB 2.0 port supports WLAN, and additional serial ports by expansion modules.

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
- Industrial / Factory / Laboratory automation
- Automatic warehouse control system

- Building automation system
- Self-service banking 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)
Serial interface	RS232
Signals	TxD,RxD, RTS,CTS, DTR,DSR, DCD, GND
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.

▪ Serial Performance

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

▪ 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

▪ Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	9 - 54V DC, 0.5A @ 12V, 6W
Dimension	196×147×44 mm³ (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

▪ 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

■ 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.

■ Ordering Information

6680	NetCom Plus 811 (8x RS232, expandable)

■ Options

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; with Terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female

■ Packaging

Packing list	• NetCom Plus Serial Device Server • Mounting brackets for 19-inch rack • Wall mount plates • CD-ROM with Driver and configuration software

■ Features

- Controls 8 RS232 devices located virtually anywhere via Ethernet, WLAN or Internet
- Supply via Power over Ethernet 802.3af
- 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

NetCom Plus 811 POE

■ Overview

The NetCom+ 811 is an industrial-strength network-based serial device servers for connecting eight RS232 devices 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.

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 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)
Serial interface	RS232
Signals	TxD,RxD, RTS,CTS, DTR,DSR, DCD, GND

■ Serial Performance

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

■ 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

■ Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	15 - 54V DC, 0.4A @ 19V, 8W
Power over Ethernet	Class 0 Device (802.3af). Typical consumption is 6W.
Dimension	196×147×44 mm³ (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

■ 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, serial Tx, Rx, Ethernet Link, Speed

■ 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.

■ Ordering Information

6681	NetCom Plus 811 POE (8x RS232, supply via Ethernet)

■ Options

6689	WLAN Kit internal internal module 802.11b/g/n, pigtail and antenna Purchase time option, not for later retrofitting
6030	Power supply adapter 15V DC, 1A; with terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female

■ Packaging

Packing list	• NetCom Plus Serial Device Server • Mounting brackets for 19-inch rack • Wall mount plates • CD-ROM with Driver and configuration software

Features

- Controls 8 RS232 devices located virtually anywhere via Ethernet, WLAN or Internet
- Controls 8 Digital-Input and 8 Digital-Output signals
- 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, HTTP, SNMP V1/2c/3, DNS, PPP, openVPN, Modbus/TCP
- SSL/AES-256 encryption on Ethernet, WLAN and Internet
- Optional: Wireless network IEEE 802.11b/g/n

NetCom Plus 811 DIO

Overview

The NetCom+ 811 DIO is an industrial-strength network-based serial device servers for connecting eight RS232 devices 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.
The 8 Digital-Input and 8 Digital-Output signals operate via known the protocol Modbus/TCP.

The NetCom+ 811 DIO Server uses a state-of-the art RISC processor for low power and cost effective design. Power supply is via DC adapter, or via Ethernet cable with POE IEEE 802.3af.

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. Modbus/TCP standard controls Digital-I/O function.
As modern devices the NetCom+ provide encryption for all communication.

Application

- Secure Remote Monitoring
- SCADA system
- Industrial / Factory / Laboratory automation
- Automatic warehouse control system

- Building automation system
- Self-service banking 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 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, Modbus/TCP
No. of serial port	8x DSUB 9 male connector (as PC) 16 sets of clamps for Digital-I/O
Serial interface	RS232
Signals	TxD,RxD, RTS,CTS, DTR,DSR, DCD, RI, GND

■ Serial Performance

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

■ Digital Input / Output

Input	8x isolated input signals
Contact	Wet contacts on clamp pairs provide 5V. To activate close the contact by button / switch / relay / …
Output	8x relay signals on three clamps (normal open/closed)
Switching	• 1A 30V DC • 0.25A 250V AC

■ Operating Modes

Driver Mode serial	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
Digital-I/O	Modbus/TCP to get values and control output signals

■ Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	15 - 54V DC, 0.4A @ 19V, 8W
Power over Ethernet	Class 0 Device (802.3af). Typical consumption is 6W.
Dimension	196×147×44 mm³ (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

■ 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, serial Tx, Rx, Ethernet Link, Speed

■ 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.

■ Ordering Information

6683	NetCom Plus 811 DIO (8x RS232, 8+8x Digital-I/O, supply via Ethernet)

■ Options

6689	WLAN Kit internal internal module 802.11b/g/n, pigtail and antenna Purchase time option, not for later retrofitting
6030	Power supply adapter 15V DC, 1A; with terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female

■ Packaging

Packing list	• NetCom Plus Serial Device Server • Mounting brackets for 19-inch rack • Wall mount plates • Terminal blocks for Digital-I/O • CD-ROM with Driver and configuration software

■ 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

NetCom Plus 813

■ 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 USB 2.0 port supports WLAN, and additional serial ports by expansion modules.

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	▪Industrial / Factory / Laboratory automation
▪SCADA system	▪Automatic warehouse control system
▪Building automation system	▪Wafer fabrication system
▪Self-service banking 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)
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.

■ Serial Performance

Speed	RS232: 200 bps to 921.6/1000 kbps RS422/485: 200 bps to 3.0Mbps Supports non-standard baudrates
Parity	None, even, odd, mark, space
Data bits	7, 8
Stop bits	1, 2

■ 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

■ Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	9 - 54V DC, 0.5A @ 12V, 6W

Dimension	196×147×44 mm³ (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

■ 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

■ 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.

■ Ordering Information

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

■ Options

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; with Terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female

■ Packaging

Packing list	• NetCom Plus Serial Device Server • Mounting brackets for 19-inch rack

- Wall mount plates
- CD-ROM with Driver and configuration software

■ 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
- 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, 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

NetCom Plus 813 POE

■ 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 USB 2.0 port supports WLAN, and additional serial ports by expansion modules.

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	▪Industrial / Factory / Laboratory automation
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■ Interface

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■ 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 mm³ (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

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■ Ordering Information

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

■ Options

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
6030	Power supply adapter 15V DC, 1A; with terminal block
661	Serial Null-Modem adapter 9PF-9PF, change male to female

■ Packaging

Packing list

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