

# TS 224 - PORT SERVER SSL ENCRYPTION

## SECURED ASYNC PORT SERVER TS 224

### Characteristics & Benefits

- Dual async port server, RS232/RS485 to 10 / 100 Base TX Ethernet
- Ethernet: copper pair or fiber optic with a choice of multi or single mode up to 20 km
- Protocols: IP, ICMP, ARP, UDP, TCP, BOOTP, TELNET, Reverse Telnet, RLogin, SNMP, HTTP, ftp.
- SSL Encryption (option): RC4, DES, 3DES, AES 128 et 256 - for raw-ip, RFC2217, Telex, POS PAD
- Special modes: MODBUS (rtu/ascii), HNZ, Telex, message, half-duplex
- Point Of Sale PAD mode with SSL encryption
- Authentication and accounting: Radius
- Embedded Firewall
- Dual V24/RS485 interfaces: 300 to 230,400 BPS, with full V24 signals DTR, CD, RTS, CTS, DSR.
- TELNET RFC2217: virtual COM port with full speed and signal controls.
- Supports Serial IP (TM) software for MS WINDOWS.
- Migration of asynchronous links over an ip network
- 2 digital inputs and 2 dry relay contacts: remote control and relay transport over IP (option)
- Industrial compact and metallic enclosure
- Mains or DC/DC power converter
- 19" chassis and DIN rail mounting kits available

**TS-224 carries asynchronous data over the Ethernet / tcp-ip network, in fulfilling most industrial requirements especially thanks to its Fiber Optic interface and its RS232 / RS485 user defined terminal interface.**

**TS-224 guaranties the confidentiality of your critical data that flow over the Ethernet / IP network, with an SSL encryption option.**

The **TS-224** offers a choice of mains or DC (9-36 or 36-72 Vdc) power supplies to suit most industrial requirements. This compact enclosure may also fit in a 19" bay or on a DIN rail.

The asynchronous ports of the **TS-224** allows to connect any kind of asynchronous equipments such as : modem, fax, industrial unit (RTU), counters, console ports, payment systems, legacy terminals, etc ...

The **TS-224** is a key equipment in industrial applications thanks to its rich features and its point to point or multipoint RS-485 data interface.

For example, **TS-224** acts as a MODBUS to IP converter for industrial bus enhancement : the **TS-224** handles the MODBUS to ip address translation. Modbus can also be transported over IP with **TS-224**'s.

**TS-224** is equipped with either a copper or a fiber optic interface for the LAN connection. The fiber optic interface can be multi mode or single mode with a reach of up to 20 km, to keep data immune to electromagnetic disturbances.

The **TS-224** offers extra virtual serial COM ports to PC's (e.g. COM3:). Through the **Serial-IP** software and the RFC-2217 protocol, the PC and its communication software have a full control of the **TS-224**'s ports just as its own local COM ports.



The **TS-224** supports also special modes of operation aimed at providing an easy migration of existing application to IP network. These applications may be MODBUS, half-duplex modem simulation, HNZ, message packet protocols, ...

**TS-224** offers as an option, 2 inputs and 2 dry relay contacts that can be used in remote control by any IP application (AT commands, SNMP TRAP), or as a deport of relay contacts over an IP network.

Managing a **TS-224** is very easy through an async port or a telnet session with intuitive menus. The secured option can serve an https session to a standard web browser. **TS-224** may also be managed through the SNMP protocol, and issue TRAP's to an SNMP server. TS-224 is provided with a graphical mib for snmp-c software. **TS-224** configuration is protected by a password.

**TS-224** has a built-in firewall to check for valid IP addresses.

The full range of async port servers is equipped with Flash memories for further firmware upgrade when the customer requirements change.

The **SSL** option provides a secured path between a client and a server on an ip based network. The **TS-224** supports all features of authentication and data encryption with the up-to-date and strong algorithms such as AES with a key of 128 or 256 bits. TS-224 can operate with the Serial-IP software that allows such SSL secured communication from a PC / Windows server.

Async Port and Terminal Server RS232/RS485 230Kbps

Ethernet interface :  
Twisted pair 100BaseTX  
or fiber optic 100BaseFX,  
multi mode or single mode

Data encryption  
SSL - TLS protocol  
Mode: raw-ip, COM-port, Telex  
Point Of Sales PAD

Secured Client / Server  
Embedded Firewall feature

Operating Modes :  
Raw ip  
RFC.2217 : COM port  
Message bloc  
Half-duplex modem  
ModBus  
HNZ  
Telnet  
Reverse Telnet  
RLogin  
Telex

Deport of Dry Relay contact

Able to adapt no standard speed  
on RS232 between 2 ports



Smart Solutions for  
Smart Networks

www.cxr.com



CXR Anderson Jacobson  
Rue de l'Ormette  
28410 Abondant - France

T +33 (0) 237 62 87 90  
F +33 (0) 237 62 88 01  
email: [contact@cxr.com](mailto:contact@cxr.com)

**TS-224** has two RS232/RS485 ports and helps connecting various applications to the LAN: modem sharing, VT.100 terminals, Payment terminal, RTU, etc

The SSL option guaranties a secured and confidential data transmission over the Ethernet / TCP-IP network thanks to the strong encryption protocols with 128 or 256 bit ciphers.



TS-224 is a perfect unit to securely connect RS232/RS485 devices through the LAN or a WAN with IP protocols. The MODBUS mode of operation provides a migration path for such industrial bus to Ethernet. The TS-224 connects to MODBUS terminal or network, and performs the MODBUS (RTU or ASCII) to IP address translation.

## TECHNICAL SPECIFICATIONS

- Ethernet: 802.3, 10/100BaseTX with RJ45 socket, or 100BaseFX with SC socket.
- Protocols: IP, ICMP, ARP, TCP, BOOTP, TELNET, RLogin, FTP, HTTP, SNMP, MODBUS, HNZ, Telex, rfc.2217, SSL + https (option): RC4, DES, 3DES, AES, RSA, SHA
- Radius : authentication
- Administration: RS232 port, Telnet, HTTP, HTTPS, SNMP
  - ◊ Configuration protected by a password
  - ◊ Firmware upgrade (Flash Eprom): from the RS232 port, of FTP transfer.
- Async ports:
  - ◊ DB9F DCE socket
  - ◊ RS232: TD, RD, RTS, CTS, DTR, DSR, CD, GND
  - ◊ RS485, 2 or 4 wire mode: TD, RD, RTS, CTS
  - ◊ Data: 7 or 8 bits with or without parity, 1 or 2 stop bits,
- ◊ Rates: 300 à 230,400 BPS
- ◊ Flow control: RTS-CTS, XON-XOFF.
- Digital Inputs / Dry relay contacts: DB9F socket, 2 inputs and 2 outputs.
- Power supply:
  - ◊ 230Vac/5Vdc through external adaptor
  - ◊ Internal DC converter
    - 18-72Vdc , Model -MC
    - 9-36 Vdc , Model -MC2
  - ◊ 5W max.
- Rear panel: 2 async ports (DB9F), RS485 impedance switch for RXD signal, Ethernet port, power supply input
- Front panel: 9 LED's (power, admin, link, TX, RX, TX1, RX1, TX2, RX2).
- Size: 144(L) x 114(P) x 31(H) mm.
- Operating temperature: -25 to +60C
- Hygrometry: 10 to 90%, non condensing
- Weight: 400g
- MTBF: 150,000h

## ORDERING INFORMATION

**TS 224 [-DI202] - M[V/C/C2] [-FX-[MM/SM20]] : 2 ports server, Ethernet 100 MBPS**

- **DI202** : version with 2 digital inputs and 2 dry relay contacts
- **MV** : 110 / 230 Vac external power supply
- **MC** : internal 24-48 Vdc converter (18-72VDC range power input)
- **MC2** : internal 12-24 Vdc converter (9-36 VDC range power input)
- **FX-MM** : version with Ethernet 100BaseFX multi mode fiber
- **FX-SM20** : version with Ethernet 100BaseFX single mode (20 km)

**OP-TS224-SSL**: SSL encryption option

**RACK-DUAL-CPE**: kit to install one or two TS-224 in a 19" bay

The information contained in this document are provided without warranty and are not contractual. In order to improve his products, CXR reserves his rights to modify his products without notice.