

# TS-GPRS-TTX MODEM & V24-IP / GSM-GPRS SECURED CONVERTER

## Benefits

- Asynchronous GSM-GPRS modem
- 1 RS232 port : 300 to 115,200 bps
- 1 Ethernet port, 10/100 BaseTX : -TTX model
- RS232 to IP converter over Ethernet, or GPRS, or Ethernet with backup over GPRS
- Authentication and data encryption: SSL
- Dual band GSM : 900 & 1800 MHz
- Conforms to ETSI GSM standards
- External removable GSM antenna
- Indicator of GSM received signal quality
- TCP-IP connectivity through GPRS
- Internet / WAP access
- SMS services
- Email and Internet access
- GSM data mode up to 14,4 Kbps
- Automatic call from DTR signal
- Automatic control of the PIN code and the network attachment
- Powerful RS232/IP converter and modem
- Upgradeable firmware stored on Flash Eprom
- Secured data transfer through SSL (3DES/AES) encryption
- Easy operation from standard AT commands
- Easy and secure SIM card holder
- Easy-GO-TPE™ for easy connection of POS terminal
- Fast POS transactions
- Mode of operation : transparent, RFC1086, PAD, all with SSL encryption

## GPRS MODEM AND ASYNCHRONOUS PORT SERVER

The TS-GPRS-TTX is more than just a GSM-GPRS modem. It is also an RS232 to IP converter that transports asynchronous data over a GSM-GPRS or Ethernet -IP network, as it is available at an ADSL access point for example (-TTX model). Thanks to the TS-GPRS, asynchronous applications can access the GPRS network and get the benefits of a fast connection to the IP server, and of lower cost based on actual traffic unlike the classical telephone network.

The TS-GPRS-TTX has two network accesses : a 10/100 BaseTX Ethernet interface, and a GSM-GPRS interface. The GPRS access may be defined as the backup of the Ethernet link as to secure and reinforce the connection to the IP server from an ADSL access for example.

The TS-GPRS can secure critical data when they pass through the IP network, by the SSL protocols. The TS-GPRS ensures simple or dual authentication with the remote server, and the 3DES / AES encryption to guaranty data a total integrity and confidentiality from end to end.

The TS-GPRS-TTX acts as an SSL proxi server for other equipments of the local Ethernet network. These equipments can connect to a remote IP server with a full end to end security from the authentication and data encryption services of the TS-GPRS-TTX.

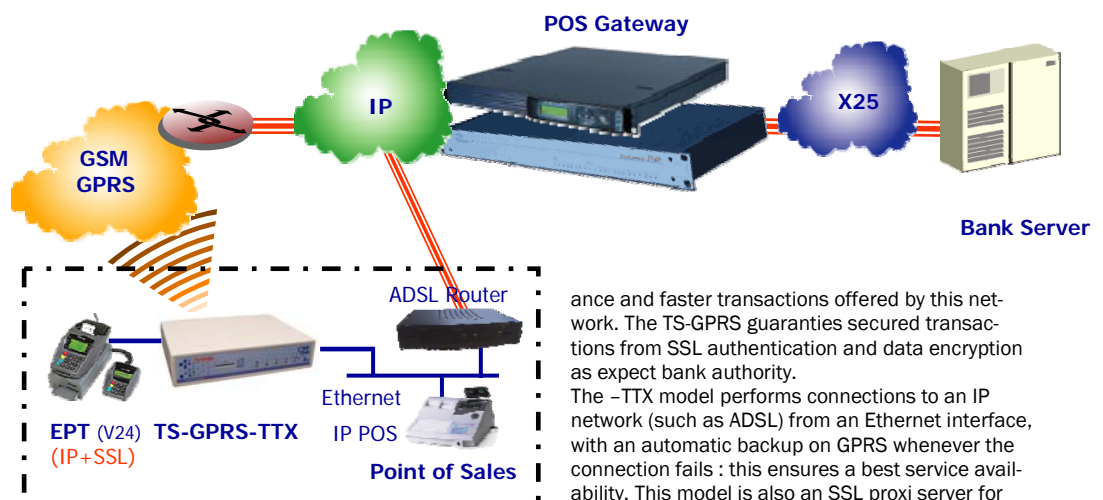
A complete range of TS-GPRS is offered. The -T model is a cost effective, transparent GSM-GPRS modem and converter. The -P model supports enhanced conversion modes and SSL encryption option. The -TTX model provides both GSM-GPRS and Ethernet interfaces and the SSL proxi server function.

The TS-GPRS is presented a compact ABS enclosure. The antenna may be removable and installed meters away from the modem (antenna option). The TS-GPRS is controlled via a set of standard AT commands from the RS232 port or via TCP-IP. A user-friendly Windows™ software is offered with the TS-GPRS for an easy operation. The TS-GPRS supports automated configuration management services.

The TS-GPRS is part of a wide range of modems (PSTN, ISDN) and of RS232 to IP converters for many industrial and point of sales applications.



## POINT OF SALES APPLICATIONS



The TS-GPRS connects payment and cash terminals to bank server through the GPRS and IP networks. The Points Of Sales benefit from the attractive costs of GPRS carriers as well as from the higher perform-

ance and faster transactions offered by this network. The TS-GPRS guaranties secured transactions from SSL authentication and data encryption as expect bank authority.

The -TTX model performs connections to an IP network (such as ADSL) from an Ethernet interface, with an automatic backup on GPRS whenever the connection fails : this ensures a best service availability. This model is also an SSL proxi server for any IP terminal that would not provide any SSL security.

The TS-GPRS inherits the long term experience from CXR in the POS network access. It has been qualified with many payment systems and carriers

### Modem and V24-IP over Ethernet and GSM/GPRS Converter

- ◇ **RS232 to IP / GPRS converter**
- ◇ **RS232 to IP/Ethernet converter with backup over GPRS**
- ◇ **SSL authentication and encryption**



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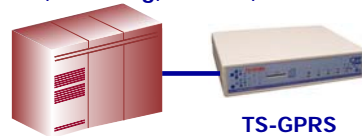
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## REMOTE METERING & REMOTE ACCESS APPLICATIONS

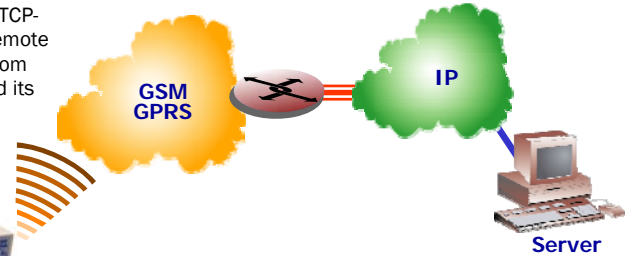
The TS-GPRS is a powerful and cost effective alternative to PSTN access for industrial equipment in metering, counting, remote control, RTU, applications.

Such applications can evolve to standard TCP-IP protocols at the server end, while the remote terminals keep connecting to the server from their RS232 port through the TS-GPRS and its transport and adapting protocols.

**Industrial equipment RTU, SCADA, metering, counter, ..**



The TS-GPRS manages automatically the PIN code and the network attachment even after a power loss.



## SPECIFICATIONS

### GSM - GPRS

- Dual band : GSM 900 and 1800 MHz
- GPRS Class B : 85.6 Kbps max
- Transmit power : 2 W (Class 4, 900 MHz) and 1 W (Class1, 1800 MHz)
- GSM data : 14.4 Kbps
- GPRS : CS1-4, 85.6 Kbps down stream
- SMS
- Push-pull SIM card holder

### RS232 Interface

- Socket : DB9 Female, DCE
- RS232, V24/V28
- Data rate : 1.2 to 115.2 kbps
- Data : 7 or 8 bits
- Parity : odd, even, none

### Ethernet Interface -TTX

- RJ45 socket, 10/100 BaseTX
- Auto MDI/MDIX
- Protocols : IP, UDP, TCP, ICMP, ARP, DHCP, Telnet, FTP, SNMP, NTP, SSL-TLS

### Front panel

- SM card holder
- \* led : power indicator
- TD led : flashes as data are transmitted by the terminal
- RD led : flashes as data are sent to the terminal
- GPRS led : network connection status
- SQ led : good GSM receive signal

### Rear panel

- DB9F socket : connects to the RS232 terminal
- RJ45 socket : connects to the Ethernet network (LAN)
- 5 Vdc power supply input

### Management

- Standard AT commands
- FTP for firmware download
- EASY-GO : Windows™ software for easy operation
- Remote control and configuration management functions

### Environmental

- Compact ABS enclosure
- Dimensions : 138 x 98 x 30 mm
- Weight : 0.25 kg
- Operating temperature : -5 to +45°C
- Hygrometry : 10 to 90%, non condensing
- Power supply : 5 Vdc / 1 A, external mains adapter
- CE compliant
- MTBF : 150,000 hours

### Standards

- Data transport : transparent, PAD/block, RFC-1086
- SSL authentication and data encryption (3DES, AES)

## ORDERING INFORMATION

### TS-GPRS [-T / -P / -TTX] [-SSL]

- T : asynchronous modem over GSM - GPRS
- P : modem and RS232 to IP converter (PAD, RFC1086, ..)
- TTX : converter with dual Ethernet and GSM-GPRS interfaces with backup, and SSL proxy server
- SSL : SSL authentication and data encryption
- TSGPRS-ANT : remote antenna, cable length = 1,2 m

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