

Wireless Modem Transceiver

GPort™ is a wireless modem based on Ultra Low Power technology. It belongs to the GTelemetry RF Sensor product family. When connected to a PC, GPort™ allows the machine to control and manage a wireless network of GTelemetry embedded modules (sensors, meters, alarms...) with bi-directional communication capabilities.



GPort™ includes the radio front-end, the antenna and the enhanced wireless GT&T ULP protocol stack to drive a wireless network featuring peer-to-peer, broadcast, polling and repeater modes.

GT&T ULP is the optimum wireless technology combining ultra low power, long radio range, high-reliability transmissions and cost effective solutions.

BENEFITS

GPort's small form factor and simple one-piece construction allows it to be used either as a fixed-end (permanent) or ad-hoc (mobile) base station. It can be used for both permanent and ad-hoc deployment. Pilot trials can be quickly conducted to provide facility analysis by simply plugging GPort to a mobile notebook computer.



TECHNICAL CHARACTERISTICS

- Operating frequency bands: 868/915MHz
- Integrated antenna
- Frequency hopping spread spectrum (FHSS)
- Modulation: Gaussian Frequency Shift Keying (GFSK)
- Receiver sensitivity -110dBm at 9.6kbps with 0.1% BER
- Data rate up to 150kbps
- Radiated output power: up to 25mW with integrated antenna
- Long Radio range:
 - Line Of Sight: up to 1km
 - Indoor: 200m typical
- Driver interface: USB or RS232
- OCX drivers for PC Windows 2000, Windows CE: compatible with Visual C++, Visual Basic
- Compliance: EN300-220-1

FUNCTIONAL FEATURES

- License free ISM bands
- High reliability and secure communications using GT&T ULP wireless protocol
- Plug and Play installation in a GT&T ULP wireless network
- Selectable operating modes: peer-to-peer, broadcast, polling, repeater



Typical ULP network controlled by a GPort connected to a notebook PC

ENVIRONMENTAL AND MECHANICAL CHARACTERISTICS

- Operating temperature range [-20°C; +70°C]
- Size (Length/Width/Height): 96 x 47 x 24 mm
- Weight < 50g

OPTIONS

- Wall support
- USB version: USB connector (1m cable length)
- RS232 version: RS232 connector (1m cable length) and power supply (DC output voltage 4.5V-6V)
- OCX drives and GT&T-RF tool set user manual

Bandwidth	25 kHz	50kHz	300kHz
Data rate	4,8kbps	4,8 to 19,2kbps	38,4 to 153kbps
FHSS or Dedicated channel	Dedicated channel (1 channel)	FHSS (16 channels)	Dedicated channel (4 channels)
Line of sight			
25mW	1 km	1 km	300 m
500mW	5 km	5 km	2 km