Industrial GPRS Base – Plus – I/O Modems

PRESENTATION
Urmet has developed a family of wireless quad-band GSM-GPRS modems optimized for industrial applications. The Industrial modem can connect any system or equipment to the 2G mobile network (GSM and GPRS) in order to use the related services (data communication, SMS, TCP/IP etc.). Robust, reliable and easy to install, it's the ideal solution for every M2M (Machine to Machine) application.

MODELS
- Base with voice, data, fax, sms functions
- Plus with tele-management and tcp/ip stack functions
- I/O with an industrial interface including I/Os

FLEXIBILITY OF USE
Urmet modems can be used for industrial, extra-industrial and civil applications.

With a low power consumption and extended input voltage range, they can be employed in a wide range of business fields and installed worldwide (thanks to quad-band).

Some examples:
- Monitoring: Environmental control, water quality, traffic conditions, video surveillance, heating control. Ordinary and extraordinary maintenance are allowed in real time.
- Metering / Remote control: Remote data reading for public utilities (electric, water & gas), solar power plants. Industrial process control, home automation etc.
- Configuration / Programming: Remote upload of operational profiles and firmware updates.
- Data Logging: Data collection for post-processing operations (statistics, billing, vending machines etc.).

COST EFFECTIVENESS
The GPRS technology allows to be always on line with a remarkable cost reduction at the same time. In fact, transfer costs on GPRS only apply to the amount of transferred data – while transfer costs on GSM depend on connection time and number of calls.
Industrial GSM-GPRS

MODELS

INDUSTRIAL GPRS BASE
 Quad-band GSM/GPRS modem providing every basic function:
• GSM: data / fax / voice / SMS services
• GPRS: class 10 / mobile station class B

INDUSTRIAL GPRS PLUS
 In addition to the Base model features, provides:
• Integrated management of the TCP/IP stack, through specific AT command set
• Tele-management functions:
  - Self-diagnostics with automatic restore in case of faults
  - Remote control of radio parameters (RSSI etc.)
  - Remote configuration of the operating parameters
  - Remote upload of firmware updates
• Embedded microcontroller supporting custom applications (development on demand)

INDUSTRIAL GPRS I/O
 Provides the same functions as Plus model, along with an industrial interface
 (18 pole terminal board) wired as follows:
• power supply, RS-232 serial port, voice • 4 I/O lines (2 inputs + 2 outputs)

FUNCTIONAL FEATURES
• GSM/GPRS modem
  Quad Band 850/900/1800/1900 MHz
• Data, SMS, Voice and Fax services
• GPRS class 10
• Wireless engine: Cinterion BGS3
• AT command control
• Output power:
  - class 4 (2w) @ GSM850/900
  - class 1 (1w) @ GSM1800/1900
• Power supply: 8 – 32Vcc (15w)
• Power consumption: idle 20mA @ 12V, talk 150 mA GSM900 @ 2w, talk 150mA GSM1800 @ 1w

GPRS CONNECTIVITY
• GPRS multislot class 10
• GPRS mobilestation class B
• Downlink max 85.6 Kbps
• Uplink max 42.8 Kbps
• Coding schemes 1 to 4
• PPP-Stack

PHYSICAL / MECHANICAL FEATURES
• Dimensions: 69,5x80x24mm (BASE and PLUS)
• Dimensions: 79,5x80x24mm (I/O)
• Weight: about 120gr
• Wall, DIN and OMEGA rail fixing elements
• Temperature range: -20°C / +55°C (operational)

INTERFACES
- Base
  - Serial port connector •
  - 4 pins microfict connector 3
  - 6 pins microfict connector 3
  - 18 pole terminal board –
  - SMA-F ext. antenna conn. •
  - 3V SIM card reader plugin •
  - Modem status LED •
• Plus
  - External power supply
  - Voice, SYNC –
  - I2Cbus
• I/O
  - DIN and Omega rail fixing element
  - Wall fixing element
  - Power supply cable (except I/O mod.)
  - User guide (quick reference)

OPTIONAL ACCESSORIES
• External power supply 230/12V (EU plug)
• Serial cable RS-232
• Vertical stick antenna / Magnetic base ant.
• Vehicular antenna
• External omnidir. antenna, high gain
• External directive antenna, high gain
• Voice cable

CONFORMITY
• CE • R&TTE • RoHS

SPECIFIC FEATURES (PLUS and I/O models)
• Embedded microcontroller
  8-bits RISC µC @8 MIPS 2Mb data_flash and 64Kb SRAM
• TCP/IP stack: WebServer, HTTP, FTP, SMTP, DHCP, TCP, IP, ARP, UDP, ICMP, PPP
• API collection
• 18 pole terminal board (I/O model only):
  - Power supply
  - Voice 3
  - 4 I/O lines (expandable through I2Cbus)
• External power supply 230VAC 12V
• External omnidir. antenna, high gain
• External directive antenna, high gain
• Voice cable

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1 Base: power, IGN, PDN – Plus: power, I2Cbus
2 Base: voice, SYNC – Plus: voice