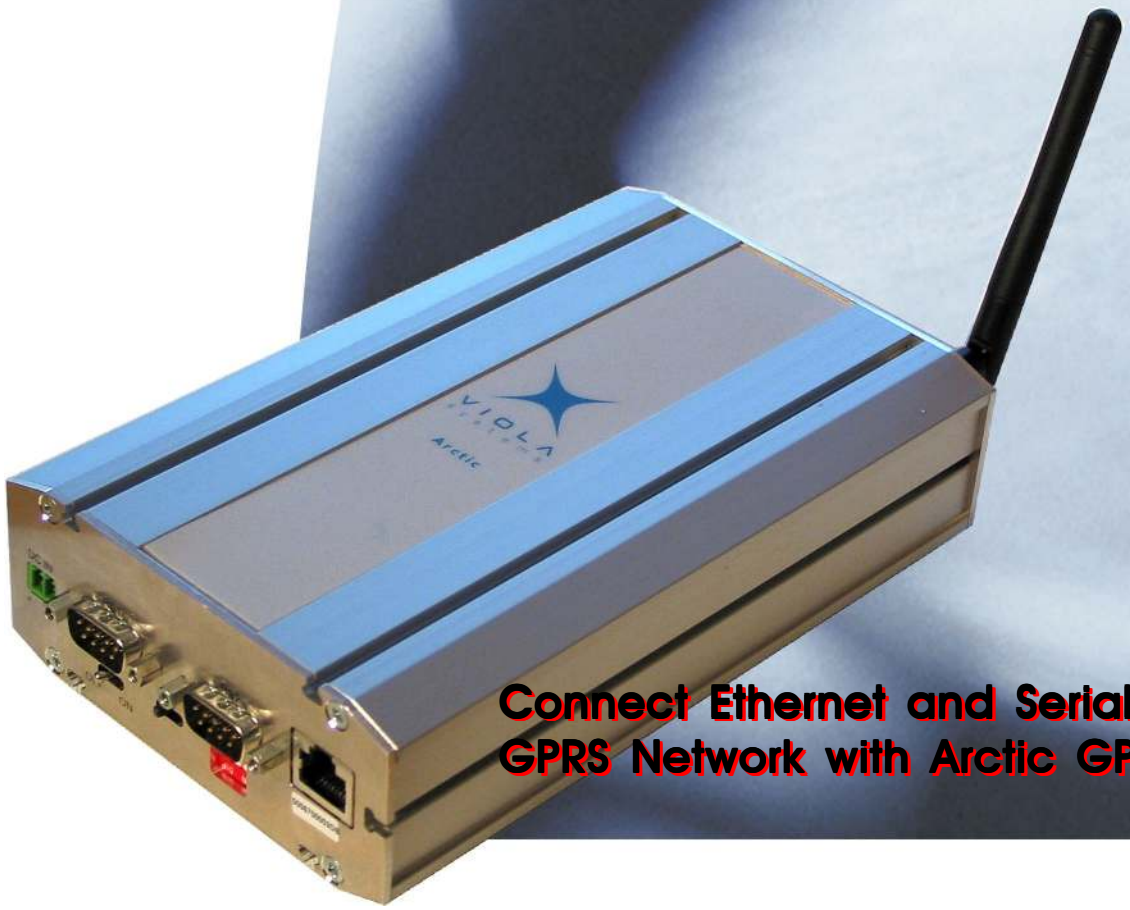
VIOLA systems

Arctic GPRS Gateway



# Connect Ethernet and Serial Devices to GPRS Network with Arctic GPRS Gateway

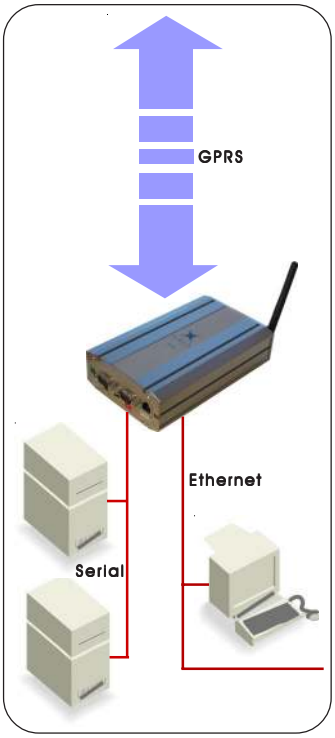
## Wireless Network Gateway

The Arctic GPRS Gateway effectively integrates Ethernet and serial devices to management systems via wireless GPRS network. The internal router, port forwarding and VPN tunneling provide secure integration to local area networks (LAN). Also mobile operator independent systems can be built with Viola M2M Gateway which provides virtual static IP addresses for Arctic devices.

Arctic GPRS Gateway is designed for industrial applications. Reliability of connection and the device itself is essential. Reliability is provided by internal and communication monitoring. In case of any malfunction communication is re-established automatically.

Being able to work with either private or public operator APNs makes the Arctic GPRS Gateway especially suitable for connecting remote devices and equipment to the Internet and corporate networks. End-to-end data security is achieved either by utilizing private APN services provided by a mobile operator or by using Viola M2M Gateway which provides VPN connection between the Gateway and Arctic devices. Arctic GPRS Gateway has also has a firewall for network interfaces.

In addition to an Ethernet interface there are RS232 and RS-232/422/485 (with switch selectable biasing and termination) serial ports available for connecting single or multiple serial devices over Ethernet and GPRS.



## Key Features

- Industrial GPRS router
- Firewall and VPN for secure communication
- Mobile operator independent static IP addresses with Viola M2M Gateway
- 10/100 Base-T Ethernet
- 1 RS-232/422/485 serial port
- 1 RS-232 device or console serial port
- Supports 11 bit serial device data
- Optional: Internal heater, battery back-up and I/O extension

## Application Examples

- Connect Ethernet devices to GPRS network
- Connect serial devices to GPRS network
- Provide Internet access to locations without fixed connections and mobile vehicles
- Static IP addresses with Viola M2M Gateway or operator private APN
- Network cameras
- Trucks, transportation, vehicles
- Security systems
- Data loggers, PLCs, RTUs, HMIs
- Road signs and weather stations
- Credit card verifications, POS, ATM

## Ordering Information

**Arctic GPRS Gateway** - 2260
(Basic configuration)

### Options

Internal battery back up
Internal Heater
Power supply 100/240VAC-12VDC
DIN rail mounting kit
I/O extension board (8xDI, 2xDO)
Magnetic antenna with 2,5 m cable
External antenna for "roof assembly"
Accessory kit

## Ordering Address

Viola Systems Ltd.
Lemminkäisenkatu 14 - 18 B
FIN-20520 Turku, Finland
Phone + 358 (0)20 1226 226
Fax + 358 (0)20 1226 220

sales@violasystems.com
**www.violasystems.com**

## Hardware (Basic configuration)

### Processor Environment

32 bit RISC processor
8 MB FLASH memory
32 MB SDRAM memory

### Power

6 – 26 VDC nominal input voltage
1 – 5 W power consumption
Resettable fuse and ESD protection

### Other

Temperature sensor, real time clock

### Environment

Temperature ranges:
–20 to +55 °C (w/o heater)
–40 to +55 °C (w heater, optinal)
–30 to +85 °C (storage)
Humidity 5 to 85 % RH

### Approvals

CE

## Network Interfaces

### Ethernet

10/100 Base-T. Shielded RJ-45
1,5 kV isolation transformer
Ethernet IEEE 802-3, 802-2

### GPRS

Internal module and SIM card socket
Compliant to GSM phase 2/2+
FME external antenna connector (50 Ω)
Dual-band EGSM 900(2W) and GSM 1800
GPRS
- GPRS multi-slot class 10
- GPRS mobile station class B
- Max. 85.6 kbps GPRS downlink speed
- Max. 21.4 kbps GPRS uplink speed
- Coding schemes CS1, CS2, CS3, CS4
- USSD Support

## Serial Ports

### Serial 1 / Console

RS-232 DTE, Male DB-9 connector
Full serial and modem signals
Speed 300 – 460 800 bps
Data bits – 7 or 8, stop bits - 1 or 2
Parity - None, Even, Odd
Flow control – None, RTS/CTS
Protection – 15 kV ESD and short circuit

Console – RS-232, 19200 bps, 8 data bits, 1 stop bit, no parity (8N1)

### Serial 2

RS-232 DTE, RS-422, RS-485 (selectable)
Male DB-9 connector
Full serial and modem signals
Biasing and termination selectable
Speed 300 – 460 800 bps
Data bits - 7 or 8
Stop bits - 1 or 2
Parity - None, Even, Odd
Flow control – None, RTS/CTS
Protection – 15 kV ESD and short circuit

## Software

### Network Protocols

PPP, IP, ICMP, UDP, TCP, ARP,
DNS, DHCP, FTP, TFTP,
HTTP, POP3, SMTP

### Tunneling (VPN)

SSHv2 server and client
SSHv1 server and client

### Management

WWW, SSH, Telnet and console
FTP, TFTP and HTTP software update

### Routing Related

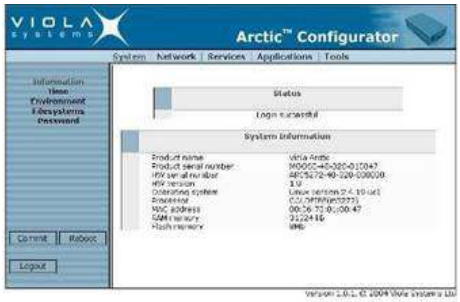
Static routing, proxy ARP, port forwarding, IP masquerading/NAT, firewall

### Serial Device Connectivity

Device server application
AT modem emulation

## Configuration and Management

The Arctic GPRS Gateway is configured using a www-browser. A conventional console interface is also provided. The software of Arctic GPRS Gateway can be updated over the network.




## Dimensions