



# GWG

## 3G/4G GATEWAY

Geneko GWG Gateway is compact and cost effective communications solution that provides cellular capabilities for fixed and mobile applications such as data acquisition, smart metering, remote monitoring, traffic control and management. GWG allows users to create their own applications and add functionalities that they need. GWG supports a variety of radio bands options on 2G, 3G and 4G cellular technologies. It is reliable solution thanks to high performance hardware platform and VPN/Security powerful options. When coupled with the rich embedded intelligence, it is the perfect choice for a broad set of M2M solutions.

GWG comes with numerous connectivity options and multiple configuration methods. It allows you to connect your existing Ethernet and serial devices using basic configuration. Besides Ethernet, RS-232 and RS-422/RS-485 serial ports, the device is equipped with USB port as well as 1-Wire interface and 2/2 configurable digital input/outputs available on GPIO Connector, and digital input/output and analog input available on power connector. Its small size and easy installation makes it suitable for challenging and size-constrained applications. GWG Gateway can be used on either desktop or mounted on a DIN rail.

### Features

- Compact, cost effective communication solution
- Cellular capabilities for M2M applications
- Support for remote Management and Monitoring
- Reliable, high performance solution
- Small-sized, convenient for easy installation and rapid deployment
- Multiple configuration methods, including web/serial console and Telnet
- Numerous connectivity options: Ethernet, RS-232, RS-422/RS-485, USB, 2/2+1/1 Digital I/O, Analog input
- 1-wire interface on GPIO connector
- Chroot environment allows the user to write scripts and adapt and develop existing functionality

### Typical application

#### Data collection and system supervision

- Monitor and control environmental conditions
- Remote control of devices
- Extra-high voltage equipment monitoring
- Running water, gas pipe line supervision
- Centralized heating system supervision
- Environment protection data collection
- Flood control data collection
- Alert system supervision
- Weather station data collection
- Power Grid
- Oilfield
- Light Supervision
- Solar PV Power Solutions

#### Financial and department store

- Connection of ATM machines to central site
- Vehicle based bank service
- POS
- Vending machine
- Bank office supervision

#### Security

- Traffic control
- Video Surveillance Solutions

#### Other

- Remote Office Solution
- Remote Access Solution

# Technical specifications

## Interfaces and connectors

### RF Characteristics - 4G LTE model (Category 4)

#### LTE FDD/TDD

- 800/850/900/1800/2100/2300/2500/2600 MHz
- Transfer rate (max): 150 Mbps down, 50 Mbps up

#### WCDMA/DC-HSPA+

- 850/900/2100 MHz
- Transfer rate (max): 42 Mbps down, 5.76 Mbps up

#### GSM/GPRS

- 900/1800 MHz
- Transfer rate (max): 85.6 Kbps down, 85.6 Kbps up

### RF Characteristics - 3G HSPA+ model

#### UMTS/HSPA+

- 900/2100 MHz
- Transfer rate (max): 14.4 Mbps down, 5.76 Mbps up

#### GSM/GPRS/EDGE

- 850/900/1800/1900 MHz
- Transfer rate (max): 384 Kbps down, 384 Kbps up

Important note: All DL/UL speeds are given as speeds defined by standards. Actual speeds may vary and are not guaranteed.

### Host Interfaces

- 10/100 Base-T RJ45 Ethernet
- RS-232 serial port, DB9 connector
- RS-422/485, 4 wires, Full-Duplex/Half-Duplex, Phoenix 1844249 connector
- USB 2.0 Mini-AB connector
- 1 or 2 SMA antenna connectors (depending on the GWG model)
- Mini-SIM slot (2FF), Hinge

### Digital Input/Output (available on GPIO Connector)

- Digital Inputs/Outputs: 2 user selectable input or output
- Digital inputs: internal weak pull-up, active when pulled down to GND
- Digital outputs: open-drain, 4-28V, no over-current protection
- Pinout: 1: +9..36VDC with 500mA resettable PTC fuse, 2: IO1, 3: IO2, 4: 1-Wire, 5: GND

### Digital Input/Output (available on Power Connector)

- Digital Inputs/Outputs: 1 output, 1 ignition sense input
- Digital Output: open-drain, 4-28V, 350 mA resettable fuse
- Ignition Sense Input: active when pulled up to 9-36 VDC
- Pinout: 1: +9..36VDC (also Analog Input), 2: GND, 3: Ignition Sense Input, 4: Digital Output

### Analog Input (available on Power Connector)

- Analog Input Range: 9-36 VDC
- Pinout: 1: +9..36 VDC (also Analog Input), 2: GND, 3: Ignition Sense Input, 4: Digital Output

## Protocols and features

- Network: TCP/IP, UDP/IP, DNS, DHCP client, DHCP server, DynDNS
- Routing: NAT, Static routes, PAT, Port forwarding, RIP, VRRP, DMZ Support, Firewall (IP Filtering, MAC Filtering)
- Application: SMS remote control, SMS sending, Telnet/SSH, SNMP, NTP, CLI, Remote Management, Connection Manager
- Chroot: Support for shell scripts, LUA, Perl and compiled C/C++ executables - Python interpreter included with variety of modules (optional)
- Serial: Serial over Ethernet, Modbus (TCP/IP and serial RTU), Console on Serial port
- USB port as serial port
- VPN/Security: IPsec, SSL, and GRE VPN Client; Up to 3 VPN Tunnels; AES, Blowfish; IKE Encryption; OpenVPN, L2TP, PPTP; Tunnels using certificates (CA certificates, private certificate, key certificate, CRL certificates); Tunnels using pre-shared key files
- Other: Radius; Timed Actions; Advanced scripting functions; System control; LED management; GPIO; Ping utility; Settings backup (Export/Import configuration); Logs reading

## Power

- Input: 9-36 VDC
- Input protection: Reverse polarity, transients, overcurrent (internal 1 A time-lag fuse)

## Physical

- Dimensions (L x W x H): 101 x 88 x 30 mm
- Weight: 248 gr
- Status LEDs: Power, Signal, Network, LAN (on Ethernet connector: Link, Activity)
- Housing: Steel sheet 0.8 mm
- DIN rail mounting kit (optional)

## Environmental

- Operating Temperature: -20°C to +70°C
- Storage Temperature: -40°C to +85°C
- Relative Humidity: 5% to 95% (non-condensing)
- IP rating: IP40
- Ethernet Isolation: 1.5 kV RMS
- RS-485 Port Protection (ESD): 2 kV

## Certifications

**QMS** **ISMS** **CE** certified  
 ISO 9001:2015 ISO/IEC 27001:2014

**Important note:** Please refer to the latest version of Hardware Guide about the specifications. Geneko reserves the right to make changes or improvements to any of the products without prior notice.

## Ordering information

Model	GPRS/EDGE	HSPA+	LTE	RS-232	RS-422/RS-485	Eth Port	USB 2.0	Digital I/O on GPIO	Digital I/O on power c.	1-Wire interface	Analog input
GWG-30	●	●	—	●	●	●	●	2/2	1/1	●	1
GWG-40	●	●	●	●	●	●	●	2/2	1/1	●	1

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