Geneko

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 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-485/RS-422 serial ports, the device is equipped with USB port as well as 3 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-485/RS-422, USB port, 3/3+1/1 Digital I/O, Analog input
- Automatic data transmission using Cumulocity cloud
- Chroot environment allows the user to write scripts and adapt and develop existing functionality

Typical application

Data collection and system supervision
- 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

GWG GATEWAY

Technical specifications

Interfaces and connectors

RF Characteristics - 4G LTE model
LTE
  • 800/900/1800/2100/2600 MHz
  • Transfer rate (max): 100 Mbps down, 50 Mbps up
UMTS/HSPA+/DC-HSPA+
  • 900/1800/2100 MHz
  • Transfer rate (max): 42 Mbps down, 5.76 Mbps up
GSM/GPRS/EDGE
  • 900/1800 MHz
  • Transfer rate (max): 384 Kbps down, 384 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
  • 900/1800 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
• RS-485/RS-422, 4 wires, Full-Duplex
• USB 2.0 Mini-AB connector
• 1 or 2 SMA antenna connectors (depending on the GWG model)

Digital Input/Output (available on GPIO Connector)
• Configurable I/O pins on dedicated connector
• Digital inputs: internal weak pull-up, active when pulled down to GND
• Digital outputs: open-drain, 4-28V, no over-current protection
• Pinout: 1: +5VDC with 500mA resettable PTC fuse, 2: IO1, 3: IO2, 4: IO3, 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 ressetable 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

Status LED
• Power
• Signal
• Network
• LAN (on Ethernet connector: Link, Activity)

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
• Serial: Serial over Ethernet, Modbus (ASCII, RTU, Variable), Console on Serial port
• USB port as serial port
• VPN/Security
  - IPsec, SSL, and GRE VPN Client
  - Up to 3 VPN Tunnels
  - AES, 3DES, 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
  - Trusted IP (Local Gateway Function)
  - Advanced scripting functions
  - System control, LED management, GPIO, Ping utility,
  - Settings backup (Export/Import configuration), Logs reading

Power
• Input: 9-36 VDC

Dimensions and weight
• Dimensions (L x W x H): 101 x 88 x 30 mm
• Weight: 250 gr

Environmental
• Operating Temperature: -20°C to +70°C
• Storage Temperature: -40°C to +85°C
• Relative Humidity: 5% to 95% (non-condensing)

Housing
• Robust metal housing
• DIN rail mounting kit (optional)

Certifications

QMS ISO 9001:2008   CE certified

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-485/RS-422	Eth Port	USB 2.0	Digital I/O on GPIO	Digital I/O on power c.	Analog input
GWG-30	●	●	—	●	●	●	●	3/3	1/1	1
GWG-40	●	●	●	●	●	●	●	3/3	1/1	1

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