GoRugged M1000

Industrial Smart Cellular Modem

for GSM/GPRS/EDGE Networks

Robustel GoRugged M1000 is a rugged smart cellular modem offering state-of-the-art GSM/GPRS/EDGE connectivity for machine to machine (M2M) applications.

Key Features

- Control via AT commands (Hayes 3GPP TS 27.007 and 27.005).
- GPRS, TCP/IP, SMS, CSD access via AT commands.
- Featured SMS Direct mode which can transparently convert serial data to SMS or vice versa without using AT Commands. Verification of incoming Caller ID is implemented to block un-authorized users.
- Supports Modbus RTU slave protocol, converts alarm to SMS without using AT commands.
- Auto reboot via SMS/Caller ID/Timing.
- Remote configuration via SMS.
- RS232/RS485 selectable by software, 1DI/1DO.
- Six LED indicators provide signal strength (RSSI) and status.
- Wide range input voltages from 9 to 36 VDC and extreme operating temperature.
- The metal enclosure can be mounted on a DIN-rail or on the wall, also with extra ground screw.
- Firmware upgrade via serial interface.

Applications

- Automatic Meter Reading
- PLC Remote Management
- Vending Machine Remote Management
- LED Signage Publication
- POS Connectivity Backup
- Bulk SMS

Regulatory and Type Approvals

- Approval and Detective: CE, R&TTE, RoHS, WEEE
- EMC: EN 61000-4-2 (ESD) Level 4, EN 61000-4-3 (RS) Level 4
  EN 61000-4-4 (EFT) Level 4, EN 61000-4-5 (Surge) Level 3
  EN 61000-4-6 (CS) Level 3, EN 61000-4-8, EN 61000-4-12

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Specifications

Cellular Interface
- Standards: GSM/GPRS/EDGE
- GPRS: max. 86 kbps (DL & UL), class 10
- EDGE: max. 236.8 kbps (DL & UL), class 12
- Frequency: 850/900/1800/1900 MHz for GPRS/EDGE
- CSD: Up to 14.4 kbps
- SIM: 1 x (3V & 1.8V)
- Antenna Interface: SMA Female

Serial Interface
- Number of Ports: 1 x DB9 Female
- Serial Standards: RS232 and RS485
- ESD Protection: ±15KV
- Baudrate: 8N1, 1200bps to 115200bps
- RS-232: TxD, RxD, RTS, CTS, GND
- RS-485: Data+ (A), Data- (B), GND

Digital Input
- Type: Dry Contact, DI or event counter
- Dry Contact: On: open, Off: short to GND
- Isolation: 3K VDC or 2K Vrms
- Counter Frequency: 900 Hz
- Digital Filtering Time Interval: Software selectable

Digital Output
- Type: Sink, DO or pulse output
- Pulse Output Frequency: 1 kHz
- Isolation: 3K VDC or 2K Vrms

System
- LED Indicators: PWR, RUN, NET and 3 level RSSI
- Real Time Clock: Built-in RTC with button battery
- Watchdog and Timer: Built-in watchdog and timer

Power Supply and Consumption
- Power Supply Interface: 2-pin 5mm pluggable terminal block
- Input Voltage: 9 to 36 VDC
- Power Consumption: Idle: 50-60 mA @ 12 V
  Data Link: 100 to 200 mA (peak) @ 12 V

Physical Characteristics
- Housing & Weight: Metal, 300g
- Dimension(L x W x H): 102 x 71 x 29 mm
- Installation: 35mm Din-Rail or wall mounting or desktop

Selection and Ordering Data

Model No.	Description	Operating Environment
M1000-SCS2WA	1-port RS232, GPRS Class 10	-40 to 85°C/5 to 95% RH
M1000-SCS2WB	1-port RS232/RS485, GPRS Class 10	-40 to 85°C/5 to 95% RH
M1000-SC75IA	1-port RS232, GPRS/EDGE Class 12	-40 to 85°C/5 to 95% RH
M1000-SC75IB	1-port RS232/RS485, GPRS/EDGE Class 12	-40 to 85°C/5 to 95% RH

Packing List
- Robustel M1000 Modem
- Terminal Block for Power Connector
- Document and Software CD

Optional Accessories (can be purchased separately)
- AC/DC Power Supply Adapter
- Rubber SMA Antenna
- 35mm Din-Rail mounting kit or Wall mounting kit
- Serial cable (DB9 Female to DB9 Male)
- DB9 Male to terminal block for serial port and DI/DO

Contact:
www.robustel.com

info@robustel.com

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