



MG102i

ADVANTEC
PMR & WIBB Distribution

General

MG102i wireless router securely and wirelessly connects two private networks/sites (e.g. Remote LAN and company Intranet) via public mobile networks and the Internet. The benefits of such Virtual Private Networks (VPN) are flexibility, security, cost-effectiveness and convenience.

The MG102i is a GPRS/EDGE/UMTS/HSPA+/LTE router and enables fast and secure data transmission between two sites. For the establishment of Virtual Private Networks (VPN) two different technologies are supported: IPsec and OpenVPN. For simple applications the use of Dynamic DNS or fixed IP addressing can replace the need of a VPN.

Multiple devices can directly be attached to the MG102i thanks to the integrated 5 port Ethernet switch. The dual SIM/dual module feature guarantees best availability of network connections. MG102i Software is based on well proven components including an Embedded Linux operating system and standard communication protocols.

The MG102i is a new product that extends HW and SW functionality of previous MG102 and is fully SW compatible with MIDGE routers.

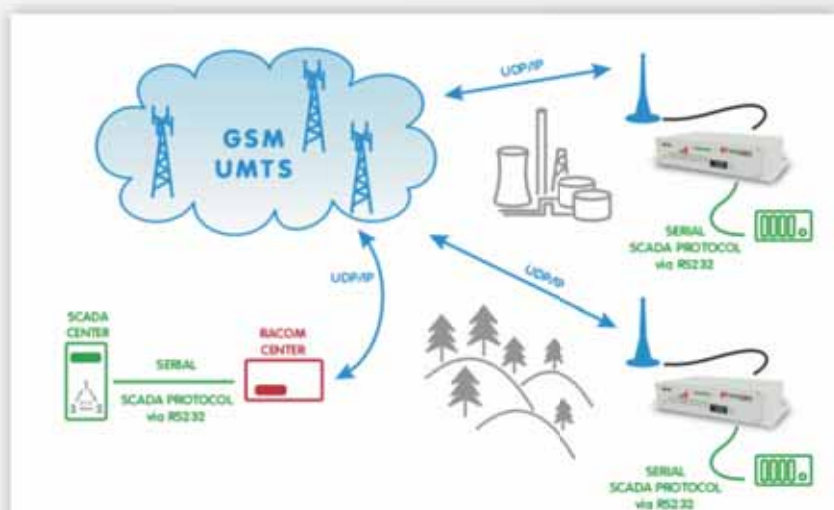
The addressed **SCADA and telemetry serial protocols** can be efficiently used over GSM networks. The MG102 Terminal server can communicate with a RACOM central device equipped with serial protocols, e.g. a RipEX. A hybrid network, where individual RTUs are connected either via MG102 (GSM) or via RipEX (UHF radio) to the same centre, is possible as well.

Wireless router

- LTE,HSPA+,UMTS,EDGE,GPRS
- 5 port Ethernet switch / router
- 2x SIM / twin module available
- Extended temperature range
- Vibration and shock hardened
- Extended input voltage range
- GPS receiver with NTP server
- SDK - software development kit

Applications

- SCADA & Telemetry
- Points of Sale, ATMs
- Security and Surveillance
- Land line backup
- Transportation



Technical parameters

Mobile Interface Parameters

UMTS	Multimode HSDPA, HSUPA, UMTS, EDGE, GPRS and GSM 3G-UMTS, HSDPA, HSUPA, UMTS: 850/900/1900/2100 MHz 2G-EDGE, GPRS, GSM: 850/900/1800/1900 MHz Data rates: max. 7.2 Mbps downlink / 5.76 Mbps uplink
LTE	Multimode LTE, HSPA+, UMTS, EDGE, GPRS, GSM 4G-LTE: 800/900/1800/2100/2600 MHz 3G-UMTS/HSPA+: 900/2100 MHz 2G-GSM/GPRS/EDGE: 900/1800/1900 MHz Data rates up to 100 Mbps downlink / 50 Mbps uplink

Services /Networking

DHCP server, DNS proxy server, DNS update agent
Telnet server, SSH server, Web server
NTP server with GPS time
COM server, Modbus gateway
Port Forwarding
Fallback Management
Connection supervision
Automatic connection recovery
OpenVPN, IPsec, PPTP
Firewall, Access Control Lists, NATP
SDK - programmable scripts
Redundancy
Voice gateway

Environmental

Temperature range:	UMTS: -25 to +70°C (-13 to +158°F) LTE: -25 to +60°C (-13 to +140°F)
Humidity:	0 to 95% non condensing
IP 40 with SIM and USB covers	
Vibration and shock hardening	

Power supply

Input voltage:	12 - 48 V DC (-15% / +20%)
Max. power consumption:	5 W / 10 W (2 module unit)

Interfaces

5 port Ethernet switch 10/100 Base-T, Auto MDX, 5xRJ45 connector
RS232 DCE interface, 3 pin
GSM Antenna 50 Ohm, SMA connector
GPS Passive / Active Antenna, SMA connector
USB Host
Digital I/O: 2xDI, 2xDO, 13 pin terminal block
WLAN / WiFi - IEEE 802.11 b,g,n
Access point or client, one or two antennas

Mechanical

Casing:	Metal
Dimensions:	195 W x 104 D x 40 H mm (7.68 x 4.09 x 1.57 in)
Weight :	560 g (1.23 lbs)

Diagnostics and Management

Web interface, CLI available
File configuration
OTA SW update
Advanced troubleshooting
SMS remote control, SMS and E-mail notification
SNMP v1, v2c, v3

Types and codes

MG102i	UMTS module	LTE module	WiFi	GPS key	Server Ext. key	Mobile IP key	Voice key
MG102i-U	✓	✗	✗	✓	✓	✓	✓
MG102i-L	✗	✓	✗	✓	✓	✓	✓
MG102i-UW	✗	✗	✓	✓	✓	✓	✓
MG102i-2UW-G	✗	✗	✓	✓	✓	✓	✓
MG102i-LW-G	✗	✗	✓	✓	✓	✓	✓

* option

Approvals

CE, FCC

The image displays two screenshots of the RACOM MG102 web management interface. The top screenshot shows the 'COM Server Administration' page, which includes a sidebar with navigation options like 'COM Server / Gateway', 'DHCP Server', 'DNS Proxy Server', 'Dynamic DNS Client', 'E-mail Client', 'Event Manager', 'SMS', 'SSH Server', 'SMTP Agent', 'Telnet Server', 'UDP Message Receiver', 'USSD', 'Web Server', and 'Captive Portal'. The main content area shows 'COM Server Administration' with fields for 'COM server status' (enabled) and 'COM Server Configuration' with 'Protocol on IP port' set to TCP and 'Protocol on COM port' set to Serial. A red error message at the bottom states: '01/01/07 00:00 Sim1: A permanent connection is disabled.' The bottom screenshot shows the 'Profile and Fallback Management' page, which has a table for configuring profiles. The table has columns for 'Parameter', 'Primary Profile', and 'Fallback Profile'. Parameters include 'SMB user', 'Phone number', 'User name', 'Password', 'Access point name', 'Authentication method', 'Call to ERM', 'IP header compression', 'Software compression', 'PPP LNS query', 'Enable specific client IP address', 'Specific client IP address', and 'Profile switch condition'. The 'Profile switch condition' is set to 'Never' for both profiles. A red error message at the bottom states: '01/01/07 00:00 Sim1: A permanent connection is established. SMB operations can be done only when the mobile connection is disabled.'