

ACM5004-G

Industrial grade mobile 3G cellular router with enterprise-class security



Overview

Opengear's ACM5004-G cellular routers provide secure high-speed wireless connectivity, with enterprise class security, to remote sites and devices.

These multifunction industrial cellular routers are designed using an extensible platform built on open source Linux. They provide a synergistic approach to remote site routing, monitoring and management that delivers solutions for primary access or backup to existing landlines. The seamless cellular routing has firewall and security features to meet the most exacting compliance requirements.

Opengear's ACM5004-G cellular routers models have an embedded 4 port console server and extensive power management and monitoring. The optional digital I/O ports deliver environmental monitoring with external environmental sensors. The external USB supports flash memory to help tame the complexities of remote administration.

A complete end-end solution is available using Opengear's CMS/VCMS centralized management system appliance that provides detailed monitoring and advanced management of all the downstream cellular routers.

Features

- **Advanced M2M and remote site connectivity**
High speed CDMA EV-DO and GSM HSUPA/UMTS cellular interfaces.
Built-In Firewall, NAT, VPN Masquerading, Port Forwarding.
- **Enterprise class security**
VPN networking with OpenVPN and IPSec. Supports RSA SecurID.
Embedded FIPS140-2 OpenSSL cryptographic module. Securely control devices hidden behind firewalls.
- **4 RS-232 serial console ports**
Cisco compatible pinout, manage routers, switches, firewalls
- **External USB for flash memory**
TFTP server, store local running config files and IOS
- **Optional digital I/O's for external sensor support**
Door contacts, Water leak detection, Smoke & Fire alarms,
Industrial models available with 30v I/O, Relays, Sensors
- **Internal temperature monitor**
Monitor ambient temperature in wiring closets, enclosures
- **UPS and PDU Management**
Script automatic ping detect reboots, monitor remote UPS systems, initiate graceful shutdowns and power shed devices
- **Extensive Monitoring and Alerts**
Monitor attached devices and sensors using Solarwinds, Zenoss, Nagios, CMS6000 and trigger proactive alerts
- **Centralized Monitoring and Management**
Total end to end solution using the Opengear CMS/VCMS to monitor devices, global updates, single pane of glass for management of ACM5004-G's and attached devices

Secure Financial Transactions

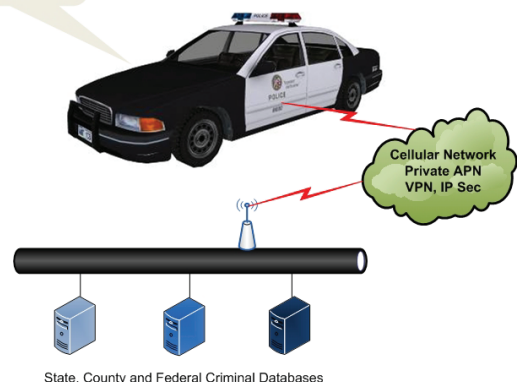
Secure wireless connectivity to ATM's, kiosks, smart card, credit card readers. The ACM5004-G includes built-in temperature monitoring and serial ports for receipt printers, scales, coin counting and more. Highly flexible and programmable solution with always on connectivity using the most secure protocols available.



Secure Mobile Routing



Connect police car laptop secure to VPN
Monitor Environmental Temperature
Connect to relays, sensors, 5v & 30v Digital I/O
Serial console ports to radio equipment
Connect to GPS, camera, vehicle computer



Applications

Remote Infrastructure Monitoring & Management

On site product service
Intelligent traffic systems
Messaging displays
Remote video monitoring
Weather and seismic sensor monitoring
Telemetry and SCADA to remote equipments

Industrial Connectivity & Automation

Primary and backup network connectivity to SCADA systems
Billboard management
Street light management
Building control and monitoring
Security

Business Continuity

Managed Service Providers
Remote branch offices
Wiring Closets
Mobile Field Services and Logistics

Utilities

Smart Grid Infrastructure & Smart Meters
Electric Power Transmission and Distribution
Renewable Energy/Grid Integration
Pipeline Monitoring and Control
Water and sewage control systems

Financial Transactions

Vending Machines
Point of Sale
ATM
Kiosk
Gaming

Transport & Fleet Management

Field Service
Mobile Resource Management
Mobile Hot Spot
Rail and Roadways
Intelligent Transportation

Technical Specifications

ACM5004-G:

4 RS232 serial ports (Cisco compatible RJ-45 pinout)
1 RJ-45 10/100Base-T primary Ethernet port
1 External USB-2 expansion connectors

ACM5004-G-E:

4 TTL level digital I/O ports. 5V max @ 20mA.

ACM5004-G-I:

4 RS232/422/485 selectable serial ports
2 TTL level digital I/O ports. 5V max @ 20mA.
2 High-Voltage digital output ports (>5V to <= 30V@ 100 mA)
2 SMA antenna connectors (for either receive diversity [AUX] or [GPS])

Power

12V DC operation (+9V to +30V) Consumption less than 6W
110-240V AC to 12V DC external power adapter
ACM5004-G-SDC: 36-72V DC to 12V DC external power converter
Also supplied with 110-240V AC external power adapter

Environmental

Humidity: 5% to 90%, Internal temperature sensor
Ambient operating temperature: 5°C to 50°C (41°F to 122°F)
Non operating storage temp: -30°C to +60°C (-20°F to +140°F)
ACM5004-G-I Operating Temp: -35°C to +74°C (-31°F to +165°F)

Dimensions

Weight: 12 oz (0.75 lbs.) 4" x 3.5" x 1 1/8" (10.2 x 8.8 x 2.8 cm)
Wall and rack mount bracket included
ACM5004-G-I Includes DIN rail mount

Emissions, Immunity and Safety

UL/cUL/TUV/CB 60950, EMC (Emissions & Immunity)
CE, FCC Part 15 Class B, AS/NZS CISPR 22, EN55024, EN55022 Class A

Accessories

Magnetic base antenna stand
10 foot (3 Meter) RG174 ULL co-axial antenna extension cable
Additional antenna for receive diversity (-G-I only)

Other Agency Approvals

FIPS 140, PTCRB, TUV, C-Tick, RoHS compliant
GSM/UMTS: PTCRB, NAPRD.03, R&TTE, EN 301 511
CDMA/EV-DO: CDG TIA/EIA-690, CDG TIA/EIA-98-E (pending)

CPU & Memory

250Mhz Micrel KSZ8692 ARM9 System on Chip
32MB DDR RAM, 16MB Embedded Flash, Optional xGB USB Flash

Operating System

Linux with source code access, includes custom development kit (CDK)

Part Number	Description
ACM5004-G	3G-GSM HSUPA/ UMTS, 1 Ethernet /USB, 4 RS232 Cisco pinout, AC external power supply
ACM5004-G-SDC	-48v DC power supply, 3G-GSM HSUPA/ UMTS, 1 Ethernet /USB, 4 RS232 Cisco pinout
ACM5004-G-E	Environmental sensor support , 3G-GSM HSUPA/ UMTS, 1 Ethernet /USB, 4 RS232 Cisco pinout, AC external
ACM5004-G-E-SDC	-48v DC power supply, Environmental sensor support , 3G-GSM HSUPA/ UMTS, 1 Ethernet /USB, 4 RS232 Cisco pinout
ACM5004-G-I	Industrial, 4 RS232/422/485, digital I/O, elevated temp, 3G-GSM HSUPA/ UMTS , 1 Ethernet/ USB
ACM5004-G-I-SDC	Industrial, 4 RS232/422/485, Extended temp, digital I/O, elevated temp, 3G-GSM , HSUPA/ UMTS, 1 Ethernet/ USB
ACM5004-GV	CDMA EV-DO (Verizon) 1 Ethernet /USB, 4 RS232 Cisco pinout, AC external power supply
ACM5004-GS	CDMA EV-DO (Sprint) 1 Ethernet /USB, 4 RS232 Cisco pinout, AC external power supply

* Note All models except ACM5004-GV and ACM5004-GS require a SIM card

