

The GW3300 Series Router

Dual Radio In-vehicle Wireless Router with WiFi



Applications:

- Emergency services
- Transportation
- Harsh environments
- Military
- Mobile CCTV
- Public safety

Features:

- Dual cellular radio: 2 mobile networks in parallel
- Dual WiFi radio supporting 2.4 & 5GHz
- Rugged design
- Vehicle power conditioning

Overview

The Virtual Access GW3300 Series dual radio router is a versatile wireless router suitable for a variety of transport or industrial deployments. The GW3300 Series router with a quad core CPU offers single or dual embedded radio modules with any combination of 3G, LTE or LTE450. Integrated dual WiFi and ignition power management, plus the ability to manage large spikes in voltage makes the GW3300 Series the ideal router for vehicle deployments.

This ruggedised router is designed for use in any vehicle where additional requirements for secure communication and accessibility are one of the highest demands. It can be installed in harsh environments for industrial, transport, emergency and law enforcement markets.

Dual Radio

The GW3300 Series router is a mobile dual radio router offering resilient connectivity using multiple operators and/or mobile technologies. The GW3300 Series router creates extremely reliable, robust and secure broadband data connectivity for all critical applications.

Vehicle Ignition Sense

The router's ignition sense input can detect when the vehicle's ignition has been enabled. This means the GW3300 Series router can remain powered on after the vehicle has stopped and the ignition has been turned off. The time delay between ignition off and router power down is configurable.

Active Power Conditioning

Vehicle power systems often experience transients and there can be substantial voltage dip during engine start up. The GW3300 Series router incorporates active power conditioning, which is designed to accommodate the voltage dips, surges and transients commonly found in vehicles. This built-in power conditioning removes the need for use of external power conditioners.

Dual SIM

Dual SIM architecture ensures that a backup 3G or LTE network can take over should the primary network fail. The router detects a network problem and fails over to a standby SIM/APN. As well as standard SIM sockets, E-SIM functionality is also available.

OBD and Digital I/O

The GW3300 Series router provides OBD support through its serial ports and up to 3 Digital Inputs.

GPS Receiver

The GW3300 Series router includes a GPS receiver that can be used for vehicle tracking. The vehicle's coordinates, direction and speed can be reported to a tracking server periodically. The GPS antenna socket includes a 3.3V power source for powering an active GPS antenna.

WiFi

The GW3300 Series router has integrated dual band 802.11 a c WiFi support. It supports frequency bands 2.4 and 5GHz and is capable of supporting both Access Point mode and Station mode concurrently if required.

Ethernet

- 4 Ethernet ports
- GigE capability

Centralised Management & Service Monitoring

The GW3300 Series router benefits from Activator, the Virtual Access centralised configuration management and monitoring system. Activator simplifies router deployment and ongoing management with its advanced automated services.

Software Features

Management

- Automatic configuration using Activator server
- HTTP/HTTPS
- Command Line Interface via Telnet or SSH
- TFTP client download/upload
- SNMP agent
- SMS management support

Fault Investigation and Reporting

- Event logging
- Syslog support
- Packet tracing

Routing Features

- IPv4 and IPv6
- DHCP server/client
- DynDNS
- NAT
- NAT Traversal
- NTP Client
- VLAN support
- Packet filtering
- Firewall
- Port forwarding
- BGPv4, OSPF
- RIP (v1 and v2)
- IPSec
- L2TP
- GRE
- SNMP v1/v2/v3
- TLS 1.2
- L2TPv3
- Mobile IP
- Load balancing
- QoS
- VRRP

Security

- IPSec
- DMVPN
- IKE version 2
- X.509 certificates
- Elliptic Curve Cryptography (ECC)
- SHA2_512 support
- AES_CBC (256), 3DES and DES

- PFS
- SCEP
- DH_8192
- 802.1x authentication
- RADIUS and TACAS

SCADA Protocol Conversion

- Protocol conversion including the following:
 - IEC 60870-5-104
 - IEC 60870-5-101
 - IEC 61850
 - Modbus RTU
 - Modbus TCP
 - Modbus RTU to TCP automatic conversion
 - DNP3
 - Serial to Ethernet

RTU Functionality

- Control of I/O from SCADA master
- Protocol conversion
- Monitoring of comms. interface status from SCADA master
- Basic PLC functions

Terminal Server

- Serial RS232, RS485 to TCP/IP or UDP/IP conversion
- Connects serial ports to TCP or UDP streams

Hardware Features

LAN Interfaces

- 4 Ethernet ports
- GigE capability
- Auto detects full- or half-duplex operation

WAN Interfaces

- Wireless WAN with 3G/LTE options
- Ethernet ports can optionally be configured for WAN use

Serial Interface

- RS232 and RS485

WiFi

- Dual band (2.4GHz & 5GHz) 802.11 a/b/g/n
- Concurrent Access Point and Station mode
- 2x2 MIMO

SIM

- E-SIM
- Standard SIM slots

Antenna

- Up to 7 SMA female connectors:
 - 2 WiFi
 - 2 LTE
 - 2 LTE450
 - 1 GPS

USB

- USB 2.0 host interface

System

- Processor: Qualcomm (800Mhz)
- Flash: 256 MB
- RAM: 250Mbytes
- Can run own applications

IP Rating

- IP31
- IP54 using optional cover (subject to MOQ)

Approvals and CE Certificates

- E-Mark
- CE approved
- EN 55032:2012+AC:2013
- EN 55024:2010
- EN 50385:2002
- EN 60950 safety approval
- EN 300328 WiFi
- EN 301489-1 Radio
- EN 301489-17 Radio

Power

- DC input 9-36V
- Power consumption: 10W
- Active power conditioning accommodating voltage dips
- Ignition sense

Operating temperature

- -40°C to +70°C

Physical and Environment

- Unit size: H42 x W175 x D153 (mm)
- Unit weight: 920g
- Vehicle mount kit

Vehicle Telemetry

- OBD interface using serial RJ45

Inputs

- Digital input on power connector
- 2 x digital inputs over serial RJ45 connector

GW3300 Series Summary

Model Code	Ethernet	Main Module	Secondary Module	WiFi	Dual SIM	RS232	RS232/RS485	CAN/K&L	Digital Input	Mounting Bracket	Input Voltage	RF Bands
GW3300D-XXX	4	3G or LTE	3G or LTE	✓	✓	●	●	-	1	✓	9-36V	Refer to Radio Module datasheet
GW3300D-XXX	4	3G or LTE	3G or LTE	✓	✓	-	●	●	3	✓	9-36V	

● = optional

Order codes:

Append the relevant suffix to the base model number.

RF band: select from the list on the Radio Module datasheet.