

# 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 radio: 2 mobile networks in parallel
- Dual band WiFi
- 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 offers single or dual embedded radio modules with any combination of 3G, LTE or LTE450. Integrated 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.

### SMS Management

The GW3300 Series router supports SMS, so if the packet switched side of the network is down you can still send commands to the router to perform diagnostics, reboot the router and so on.

### 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 (2.4GHz & 5GHz) 802.11 a/b/g/n WiFi support. It is capable of supporting both Access Point mode and Station mode concurrently if required. Additional WiFi modules can be included to replace embedded radio modules allowing the router to support both 2.4 and 5 GHz frequencies simultaneously.

### 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

- Operating temperatures vary, see RF band table below

### Physical and Environment

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

## GW3300 Series Models and RF Band Options

### GW3300 Series Router Models

	Ethernet	Main Module	Secondary Module	WiFi	Dual SIM	Serial
GW3300	4	3G or LTE	3G or LTE	✓	✓	●

Append S to model number for serial option

● = optional

### RF Band Options

RF Band	Region	2G Bands	3G Bands	LTE Bands	LTE Category	GPS	Operating Temp	Order Code
A	Europe China	850/900/1800 1900	900/2100	-	-	-	-40°C to 70°C	-RFA
B	Europe Asia	850/900/1800 1900	850/900/1900/2100	-	-	✓	-40°C to 70°C	-RFB
C	Europe Asia	850/900/1800 1900	850/900/1900/2100	B1/B2/B3/B5/B7/B8/B20	-	✓	-30°C to 70°C	-RFC
D	Worldwide	-	-	B3/B7/B20/B31	-	✓	-20°C to 60°C	-RFD
E	Europe	900/1800	900/2100	B1/B3/B7/B8/B20/B38/B40	3	✓	-30°C to 70°C	-RFE
F	Worldwide	-	CDMA TX 452.500 ~ 457.475 RX 462.000 ~ 467.475	-	-	-	-20°C to 60°C	-RFF
G	Worldwide	850/900/1800 1900	850/900/2100	B1/B3/B5/B7/B20	-	✓	-40°C to 70°C	-RFG
J	Worldwide	450	-	-	-	-	-40°C to 70°C	-RFJ
L	Europe APAC	900/1800	900/2100	-	-	-	-40°C to 70°C	-RFL
M	North America	-	850/1900	B2/B4/B5/B17	-	✓	-30°C to 70°C	-RFM
N	Worldwide	-	850/900/1700/1800 1900/2100	B1/B2/B3/B4/B5/B7/B12/B13 B20/B25/B26/B29/B30/B41	-	✓	-40°C to 70°C	-RFN
P	Australia New Zealand Latin America Taiwan	850/900/1800 1900	850/900/1900/2100	B1/B2/B3/B4/B5/B7/B8 B28/B40	4	-	-40°C to 70°C	-RFP
Q	Mexico/USA Canada	-	850/1900	B1/B2/B4/B5/B12/B13	4	✓	-40°C to 70°C	-RFQ
Q1	Mexico/USA Canada	-	850/1900	B1/B2/B4/B5/B12/B13	1	✓	-40°C to 70°C	-RFQ1
R	EMEA/Korea Thailand Indonesia	900/1800	850/900/2100	B1/B3/B5/B7/B8/B20/B38 B40/B41	4	✓	-40°C to 70°C	-RFR
R1	EMEA/Korea Thailand	900/1800	850/900/2100	B1/B3/B5/B7/B8/B20	1	-	-40°C to 70°C	-RFR1
S	Europe	900/1800	850/900/2100	B1/B3/B5/B7/B8/B20/B38 B40/B41	4	✓	-40°C to 70°C	-RFS
T	Asia/Pacific	900/1800	800/850/900/1700/2100	B1/B3/B5/B7/B8/B18/B19/ B21/B28/B38/B39/B40/	6	✓	-40°C to 70°C	-RFT
U	EMEA/North America/Latin America/APAC/ Japan/Australia	-	800/850/900/ 2100/1900/1800/1700	B1/B2/B3/B5/B7/B8/B18/ B19/B21/B25/B26/B38/B39/ B40/B41/B66	6	-	-40°C to 70°C	-RFU
X	Australia	-	850/2100	B1/B3/B5/B7/B28	4	✓	-40°C to 70°C	-RFX
X1	Australia	-	850/2100	B1/B3/B5/B7/B28	1	-	-40°C to 70°C	-RFX1

### Additional WiFi Radio Module Option

RF Band	WiFi	Order Code
W	Selectable 2.4GHz or 5GHz 802.11 abgn	-RFW