



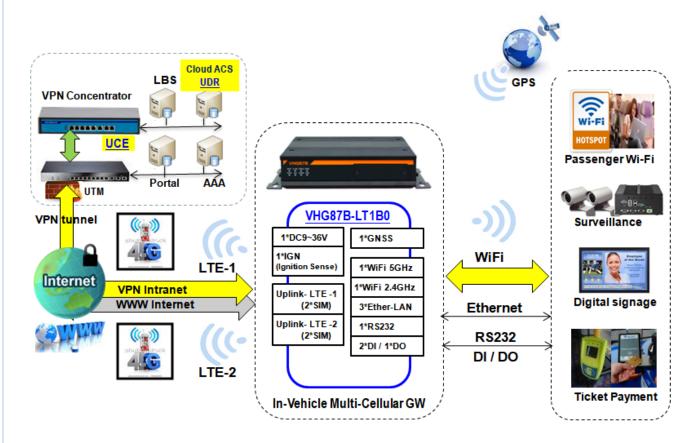
# VHG87B-LT1B0

# In-Vehicle Multi-Cellular Gateway

#### **Feature Sets:**

- *In-Vehicle Applications:* LTE connection, GNSS fleet tracking, remote management of electronic equipment on-board, and WiFi Internet access for passengers.
- Dual Cellular / Dual SIM: location free reliable connectivity with multi-ISP load balance and fail-over.
- Versatile Cellular: Uplink settings by service provider; data usage control.
- Complete Network: Built-in NAT/Port Forward/Routing/IPv6 are compatible with existing IP networks.
- WiFi Hotspot: IEEE 802.11 a/b/g/n/ac compliant; multiple SSIDs; captive portal.
- High Security: Various VPN protocols & scenario; built-in Firewall & IPS; ACL & Authentication by MAC/User to enhance access security.
- *Flexible Administration:* Web UI for basic settings; programmable CLI and Command Script for advanced configuration; NMS based on SNMP or TR-069; configurable SMS administration.
- **Smart Event Handling:** Mechanism to manage pre-defined events by administrator. Events triggered by System/Interface status change, and notification sent by SMS, SNMP trap, or e-mail.
- **Ruggedized Design:** Vibration and shock proof, extended operational temperature range, variable power input installation with ignition sense and cranking amps.

## **Connection Diagram:**



### Specifications<sup>1</sup>:

Device Interfaces

Uplink: 2\*LTE module (2+2 SIM)

LAN-RJ45: 3\*RJ45 GE

LAN-WiFi: Concurrent Dual Band with

802.11n 2T2R (2.4GHz), and

802.11ac 2T2R (5GHz)

Comm. Bus: 1\*RS232 (Tx / Rx)

I/O: 2\*DI,1\*DO, 1\*IGN (Ignition Sense)

GNSS: 1\*GPS Receiver

Log Storage: 1\*embedded 8GB Storage

Cellular Band<sup>2</sup>: LTE: 800/900/1800/2100/2300/2600 MHz,

UMTS: 850/900/1900/2100 MHz

GPRS/EDGE: 850/900/1800/1900 MHz Antenna: 4\*3dBi LTE ant., 2\*5dBi WiFi DB ant.

1\*SMA Jack(F) for GNSS ant.

Power Source: DC 9V~36V

**WAN Functions** 

WAN: Dual 3G/4G WAN, Failover / Load Balance

Cellular: 2G/3G/LTE, IP Passthrough IPv6: Dual Stack, 6-in-4, 6-to-4

**Basic Functions** 

Ethernet: LAN IP, Subnet Mask

WiFi Operation: AP Router, WDS, WDS Hybrid Modes WiFi Security: WEP, WPA, WPA2, WPA-PSK, WPA2-PSK, 802.1x

VLAN: Port-based, Tag-based

Port Forwarding: Virtual Server/ Computer, DMZ Host,

Special AP & APG, VPN Pass-through

Routing: Static, Dynamic: RIP1/RIP2, OSPF, BGP QoS: Policy-based Bandwidth Control and Packet

Flow Prioritization

**Object Definition** 

Scheduling: Time Schedule List

User: User List, User Profile, User Group

Grouping: Host Grouping List

Ext. Server: Email, Syslog, RADIUS, LDAP, FTP Certificate: My Certificate, Trusted Certificate,

**Issued Certificate** 

Field Communication

Virtual COM: RFC2217, TCP Client, TCP Server, UDP

Security

VPN Tunneling: IPSec, OpenVPN, PPTP, L2TP, GRE;

Tunneling with Full Tunnel, Tunnel Failover

VPN Scenario: Site to Site, Site to Host, Host to Site, Host

to Host, Hub and Spoke, Dynamic  $\ensuremath{\mathsf{VPN}}$ 

Firewall: SPI Firewall with Stealth Mode, IPS

Access Control: Packet Filter, URL Blocking, MAC Filter

Content Filter, Application Filter

Authentication: Captive Portal, MAC Authentication

Service

Cellular Toolkit: SMS, Data Usage, SIM PIN, USSD,

Network Scan

Event Handling: Managing / Notifying Events; DI, DO, SMS,

Syslog, SNMP Trap, Email Alert, Reboot

Location Tracking: GNSS, Track Viewer

Power Control: Ignition Sense for delay OFF

Administration

Config. & Mgmt.: Web, Telnet CLI, Command Script, TR-069,

SNMPv3 standard & AMIT MIB

System Op.: MMI, System Info., System Time / Log,

Backup & Restore, Reboot & Reset

Diagnostic: Packet Analyzer, Diagnostic Tools

Dimension

Device (LxWxH): 160x125x47mm (w/o mounting kit)

200x125x50mm (with mounting kit)

**Environment** 

Operation Temp.<sup>3</sup>:  $-30 \,^{\circ}\text{C} \sim 70 \,^{\circ}\text{C}$ Storage Temp.:  $-40 \,^{\circ}\text{C} \sim 85 \,^{\circ}\text{C}$ 

Humidity: 10% ~ 95% (non-condensing)

Accessory

Package Content

1\*Device,

4\*Cellular Antenna (3dBi), 2\*WiFi Antenna (5dBi),

1\*Terminal Block (8-pin for DC Power, IGN, DI/DO, RS232),

2\*Mounting Brackets, 1\*Screw Bag,

1\*CD (User Manual);

Certification

Approval / Certificate

CE, E-Mark

Standards & Regulation

EMI: EN 55032: 2015 +AC: 2016 Class B EN 61000-3-2:2014, 61000-3-3:2013 CISPR 25 Radiated Emission (ECE R10)

EMS: EN 55024:2010+A1:2015 EN 61000-6-2:2005+AC:2005 IEC 61000-4-2(ESD) Level 4

IEC 61000-4-3(RS) Level 3 IEC 61000-4-4(EFT) Level 4 IEC 61000-4-5 (Surge) Level 3 IEC 61000-4-6 (CS) Level 3

IEC 61000-4-8 (PFMF) Level 4 ISO 7637-2(2004) (ECE R10)

Radio: EN 301 489-1/-17/-24/52, EN 300 328 V2.1.1

EN 301893 V1.8.1, EN 50385

Safety: EN 60950-1

Vibration & Shock: MIL-STD-810G

1. Specifications are subject to change without prior notice.

2. Supported cellular frequency depends on regional hardware version.

3. 3G/4G and WiFi performance will be degraded if device's ambient temperature is above 60°C.

AMIT Wireless Inc.

TEL: +886 (0)6 505 8026 FAX: +886 (0)6 505 8068 Web: http://www.amit.com.tw Email: sales@amit.com.tw

No. 28, Lane 31, Huandong Rd., Sec. 1, Xinshi Dist., Tainan City 74146, Taiwan (R.O.C.)

VHG87B-LT1B0 Datasheet V1.7d