

# Technical Specification of VG300

Description: Integrated GPS/CDPD Wireless modem with self-contained GPS receiver and mounted Antenna in a vehicle, gathering status information updates e.g. GPS position, Driver ID, Speed, Time, Direction etc..

## Antenna: 1. CDPD Modem

Antenna type : 50 Ohm vertical monopole

Antenna connector : Reverse SMA type

## 2. GPS

Antenna type : Active Antenna with 5M cable

Antenna connector : TNC Connector

**Operation Frequency : TX Band** 824.01MHz~848.97MHz

**RX Band** 869.01MHz~893.97MHz

**Data Rate:** 19.2 Kbps

**Channel Spacing : 30K Hz**

**DC Power Requirement: 12 V DC Car Battery**

**Mode of Operation : AVL & Standalone CDPD Modem**

<b>CDPD Power Consumption:</b>	Transmit	5-5.5V 800 mA
	Receive	5-5.5V 250 mA
	Sleep Mode	5-5.5V 30 mA

**CDPD Compliance:** Meets CDPD Wireless Standards Ver 1.0, 1.1

**Supported Protocol : UDP/TCP**

**CDPD Sensitivity:** -90 dBm (at 10E-5 BER)

**LED Indicators:**

- Power
- Remote Control
- Link Status
- DATA Transmit

DATA Receive

**Output Power:** 0.6 W

**Functional Button :**

Emergency Button & One additional I/O port

**I/O Port: 4 independent I/O switch (the function of each I/O can be configured by AT Command)**

**Environmental Info:**

**Operation Temperature :** -30 °C ~75 °C

**Humidity:** 5% ~95%

**Vibration Test :** Meet JIS D-1601 standard

**Vibration Frequency:** 33.3Hz

**Acceleration:** 4.4 g

**Direction of Vibration:** Z:4 hours, X,Y: 2 hours per each

**Shock Test :** Meet IEC 60086 Part 2-27 standard

**Shock acceleration:**100g

**Half-sine wave**

**Pulses duration:** 6ms

**# of shock:** 3 shocks per each faces (6 faces)

**GPS module:**

**Message Format:** NMEA 0183

**Accuracy :** Position: 25m , 1-5 m with DGPS

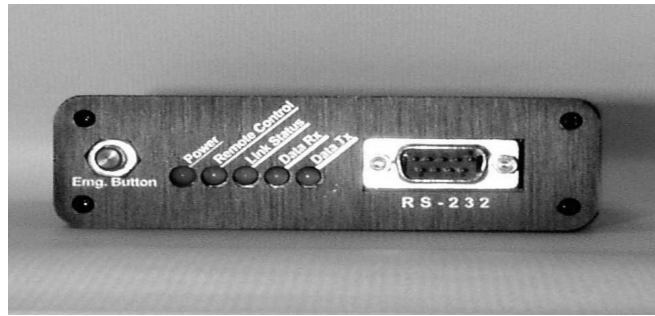
**Velocity :** 0.1 m/sec 0.05m/sec

**Sensitivity :** -110 dbm

**Acquisition:** Cold start < 50 seconds

**Warm Start < 40 second**

**Product Dimension:** Compact Size, 13cm x10.5cm x3.45cm



Emg. Button: Emergency Button  
Power: Power ON/OFF Indication  
Remote Control: Remote Control Status Indication  
Link Status: Link Status for CDPD Modem Registration  
Data Rx : Receiving DATA Indication  
Data Tx : Transmitting DATA Indication



CDPD Ant. : CDPD Modem Antenna Connector  
Mode Switch : To switch the operation mode (Left side is **Stand-alone CDPD Modem**, Right side is AVL mode)  
Emg. I/O : Two pins I/O connector for emergency control  
GPS Ant. : GPS Antenna Connector  
DC-12V In : DC 12V Power Connector

