



Vehicle Gateways

VG34 & VG54 DATASHEET



Vehicle Gateway

VG34 DATASHEET



Overview

The VG34 Vehicle Gateway is an advanced sensor platform for fleets, providing operators with real-time location and analytics, sensor data, WiFi hotspot connectivity, and ELD-ready hours of service logging. Designed for plug-and-play installation in a wide variety of vehicles, the VG34 offers a broad array of business-relevant fleet management features in an integrated, easy-to-use solution.

Highlights

- High-precision GPS with real-time visibility
- Extensible platform works with Samsara wireless sensors, camera modules, Driver ID, and WiFi devices
- Includes high-speed 4G LTE WiFi hotspot
- Compatible with light, medium, and heavy duty vehicles
- Part of a complete hardware + software solution to enhance efficiency, safety, customer service, and compliance

Data Sources

CAN bus / diagnostics interface	Light/Medium Vehicles J1962 / OBD-II Heavy Vehicles J1939 (type 1 and 2) J1708 (non-diagnostic, power only)
Location	Advanced positioning system reads from multiple independent satellite systems including GPS and GLONASS global navigation satellite systems. Internal antenna for discreet installation. Optional external antenna available for non-standard mounting configurations. Industry leading -162 dBm sensitivity with 1 second time-to-fix (hot start).
Wireless Sensors	Compatible with EM-series wireless temperature monitors, Driver ID tokens, CM-series cameras, and IM-series industrial input modules. Automatic discovery (plug and play).
Auxiliary Inputs	2 x digital inputs monitor specialized equipment (e.g. snow plow up/down, power takeoff on/off, etc.). Maximum voltage 30V, Vil 1.2V, Vih 2V. 1 x digital output, reserved for future use via software update

Wireless Connectivity

Cellular Data	4G LTE cellular connectivity, with 3G fallback where LTE coverage is unavailable. Operating area: United States, Canada, Mexico LTE: quad band 2/4/5/12. 3G: dual band 2/5. Operating area: European Union LTE: hexa band 1/3/7/8/20/28. 3G: dual band 1/8
WiFi Hotspot	Integrated WiFi hotspot (802.11g/n, 2.4Ghz) provides highspeed WiFi data to in-cab tablets, smartphones, laptops, and other WiFi-compatible devices.
Data Security	All Internet connectivity secured via SSL with 256-bit AES encryption (military-grade).
Offline Storage	Built-in flash memory logs data when Internet connectivity is unavailable.

Power

Power Consumption	Vehicle on: 1.8W typical power draw. Vehicle off: 396mW sleep mode.
Input Power	12V and 24V vehicles via diagnostic port connection or direct wiring harness.
Backup Battery	Battery-powered tamper detection sends alert (via Samsara Cloud) if gateway is unplugged or power is interrupted.

Enclosure

Dimensions	117 x 72 x 26 mm (4.6 x 2.7 x 1.0 inches)
Weight	118g
Operating temperature	-40° to 85°C

Software Features

Samsara Cloud	Connects to Samsara Cloud to provide real-time location visibility, dispatch, reporting, and alerts
Samsara Driver App	ELD-ready Hours of Service logging when used with Samsara Driver App

Vehicle Gateway

HW-VG54 DATASHEET



Overview

The VG54 Vehicle vGateway is an advanced sensor platform for fleets, providing operators with real-time location and analytics, sensor data, accessory compatibility, WiFi hotspot connectivity, and ELD-ready hours of service logging.

Designed for plug-and-play installation in a wide variety of vehicles, the VG54 offers a broad array of business-relevant fleet management features in an integrated, easy-to-use solution.

Highlights

- **Location Tracking:** High-precision, improved GPS with real-time visibility
- **Integrated Platform:** Full Extensible platform works with Samsara wireless sensors, camera modules, Samsara USB accessories, and WiFi devices. These are all part of a complete hardware + software solution to enhance efficiency, safety, customer service, and compliance
- **High-speed Wi-Fi Hotspot:** Includes high-speed 4G LTE WiFi hotspot
- **Full Vehicle Compatibility:** Compatible with light, medium, and heavy-duty vehicles

Diagnostic Protocols Supported

Protocols	Supported w/ VG54	Supported w/ VG34
High Speed CAN	Yes	Yes
J-1939	Yes	Yes
J-1708	Yes	Yes
RP-1226	Yes	Yes
Single Wire CAN	Yes	No
J-1850 (VPW, PWM)	Yes	No
Secondary High Speed CAN	Yes	No
ISO-9141 (K-Line, KWP2000, 14230)	Yes	No

Hardware Specs

Material	Polycarbonate
Encasing Size	71mm x 118mm x 23mm
Weight	173 g
USB Port	4 USB 2.0 Ports
AUX Line Port	8 Pin Molex Connector
Diagnostic Port	16 Pin Molex Connector
Supported AUX Lines	5 Digital Inputs, 1 Digital Output
Input Voltage Range (Power)	0-24V
Input Voltage Range (AUX)	0-30V
Temperature Range	-40°C - 85°C

Wireless Connectivity Specs

Cellular

Accessible Cellular Networks - North America*	AT&T
Accessible Cellular Networks - Europe*	Vodafone
Cellular Generation Support	NA - 3G, 4G LTE EU - 2G, 3G, 4G LTE
North America (NA) Cell. Band Coverage	LTE: 2,4,5,12,13 3G: 5,2 2G: None
European Cell. Band Coverage	LTE: 1,3,7,8,20 3G: 1,8 2G: GSM 900/1800

* All major network coverage includes most supporting roaming networks for each respective network and geography

Location Tracking

GNSS (Global Navigation Satellite System) Supported	GPS L1, Glonass L1, & Galileo
Supports External GNSS Antenna	Yes (only HW-VG54-NAE)
Supports GNSS Jamming Detection	Yes

Wi-Fi

Wi-Fi Protocols	802.11 a/b/g/n 2.4GHz and 5GHz
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Bluetooth

Bluetooth Protocol	Bluetooth 5.0 (BLE)
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Certifications

FCC
IC
PTCRB
UL62368-1
NOM-221
NOM-208
NOM-019
IFETEL
Various Wireless Carrier Certs.