

Vehicle IoT Gateway

VG34 DATASHEET



OVERVIEW

The VG34 Vehicle IoT 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 × 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 × 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 high-speed 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

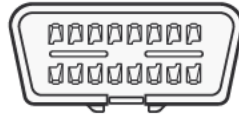
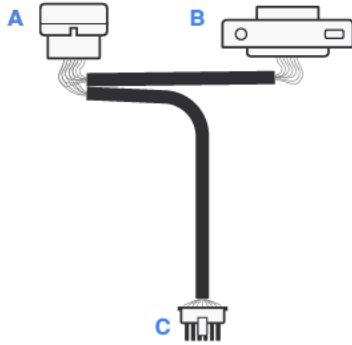
Dimensions	117 x 72 x 26 mm (4.6 x 2.7 x 1.0 inches)
Weight	118g
Operating temperature	-40° to 85°C

Software Features

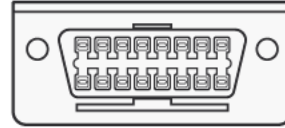
Samsara Cloud	Connects to Samsara Cloud to provide real-time location visibility, dispatch, reporting, and alerts
Samsara Driver App	ELD-ready Hours of Service logging when used with Samsara Driver App

Accessories

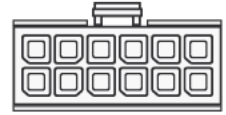
Light Duty Vehicle Cable (OBD-II)



A
J1962 (male)



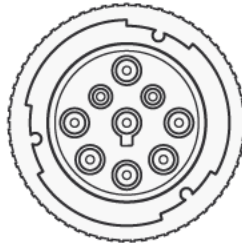
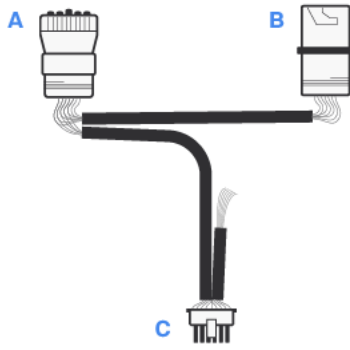
B
J1962 (female)



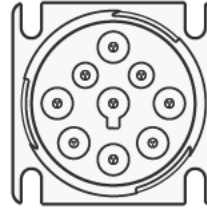
C
Samsara Gateway (male)

ACC-BOBDII-Y1	OBD-II (J1962) to Samsara Gateway cable with type 1 Y-splitting bypass harness
ACC-BOBDII-Y2	OBD-II (J1962) to Samsara Gateway cable with type 2 Y-splitting bypass harness
ACC-BJ1939-VM	OBD-II (J1939) heavy duty diagnostic harness for Volvo/Mack

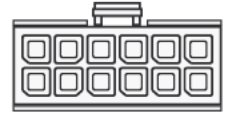
Heavy Duty Vehicle Cable (OBD-II)



A
J1939 (male)



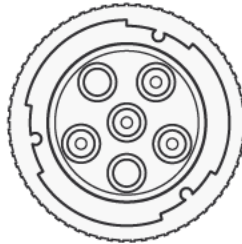
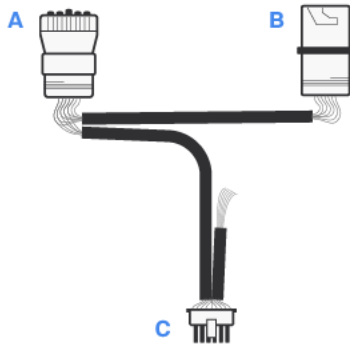
B
J1939 (female)



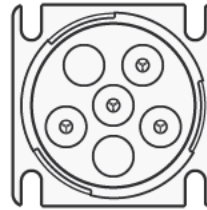
C
Samsara Gateway (male)

ACC-BJ1939-Y1

OBD-II (J1939) to Samsara Gateway cable with type 1 y-splitting bypass harness and auxiliary (discrete voltage) inputs



A
J1708 (male)



B
J1708 (female)

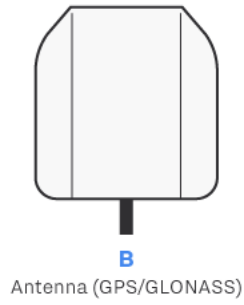
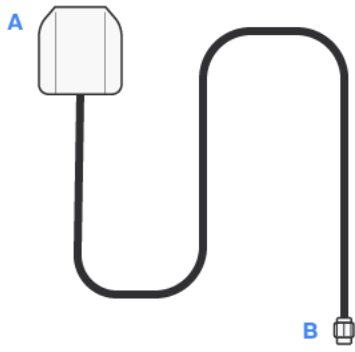


C
Samsara Gateway (male)

ACC-BJ1708-Y1

OBD-II (J1708) to Samsara Gateway cable with type 1 y-splitting bypass harness and auxiliary (discrete voltage) inputs

External GPS Antenna



ACC-AGPS	SMA cable to external GPS antenna
----------	-----------------------------------

FCC Regulations

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with radio frequency (RF) exposure limits adopted by the Federal Communications Commission for an uncontrolled environment. This equipment should operate with minimum distance 20 cm between the radiator & your body.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to" part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

IC Regulations

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."

This equipment complies with Innovation, Science and Economic Development Canada RF exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated to ensure a minimum of 20 cm spacing to any person at all times.

CAN ICES-3(B)/NMB-3(B)