

VEHICLE TELEMATICS

Asset Gateway Enterprise

Construction Equipment Monitoring with CAN Interface

Description

The **Asset Gateway** is a device specifically designed for the construction industry, utilizing an intelligent algorithm to combine data from different asset environment interfaces. Based on the LTE CAT M1 network, it supports multiple standard protocols and interfaces, using a CAN channel for serial communication with third party devices, a wide range of measurement ports, and more.

All these interfaces are designed and configured for maximum flexibility with CAN data aggregation, filtering, processing, and event triggering.

Our Asset Gateway provides advanced multi-source data, which is ingested into Unity, Powerfleet's intelligence platform. Unity's Cognitive Data Engine cleanses, harmonizes, and enriches this data to provide you with real-world, actionable insights to lower fuel consumption, reduce warranty expenses, and optimize maintenance processes.



Key Features

- LTE CAT M1 WW with 2G fallback
- Plug and play connectivity
- Comprehensive and evolving vehicle library support
- Fuel consumption calculation
- AEMP 2.0 compatible
- CANBUS interface
- Customizable CAN data rules engine to configure collection of vehicle diagnostics
- AutoCAN for automatic vehicle model configuration
- Identify aging and low performing vehicles suitable for conversion
- Prepare ESG reports with carbon emissions reporting



Analyze fuel and energy usage for budget planning



IP65 enclosure



J1939 plug-and-play harness



Designed to Revolutionize Your Heavy Equipment Operations

The **Asset Gateway** offers a broad array of business-relevant asset management features designed to revolutionize your heavy equipment operations:

- Shrink operating costs
- Utilization monitoring to facilitate preventive maintenance and billing
- Monitor fuel consumption and strategize for future fuel budgeting
- Increase longevity of assets
- Achieve sustainability goals
- Adhere to compliance standards

Technical Specifications

Communications

Cellular Technology	LTE Dual mode CAT M1/NB1 WW with 2G Fallback CAT M1/NB1: B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B26, B28 2G: GSM850, GSM900, DCS1800, PCS1900
Cellular Data Rates	CAT M1: uplink up to 375kbps, downlink up to 300kbps NB1: uplink up to 62.5kbps, downlink up to 21kbps 2G (EGPRS): uplink up to 236kbps, downlink up to 296kbps
SIM	Nano SIM, Internal, replaceable
Packet Data	TCP/IP or UDP/IP for commands and events
SMS	PDU, text SMS for data forwarding

Global Positioning

Type	GNSS
Sensitivity	High sensitivity: -162dBm
TTFF @ -130dB	Cold <35Sec, Warm<35Sec, Hot<1Sec
Internal Antenna	On board
External Antenna	Optional

Inputs & Outputs

Inputs	4
Outputs	4
Configurable I/Os	2

Technical Specifications (cont'd)

Interfaces

COM port	1 x RS232
CAN	CAN-H, CAN-L signals Bus-Pin Fault Protection up to ± 36 V Bus-Pin ESD Protection exceeds 16-kV HBM ISO 11898; Signaling rate up to 1 Mbps Extended -7V to 12V Common-Mode range SAE J1939 Standard Data Bus Interface ISO 15765 for OBDII connectivity ISO 11783 Standard Data Bus Interface
Single Wire CAN	1
K-Line interface	A bi-directional one-wire-bus interface compliant with ISO 9141-2 and ISO 14230 1&2

Power

Input Voltage	9-32VDC
Internal Battery	Li-Ion Polymer, 3.7V, 1Ah, rechargeable
Consumption	Normal: 40mA Economic: 23mA Hibernation: <2mA Shipment (Off): <20uA (Internal Battery)

Environmental

Temp, operation	-30°C to 70°C (-22°F to 158°F) full performance
Temp, storage	-40°C to 85°C (-40°F to 185°F)
Humidity	95% non-condensing
Ingress Protection	IP65
Vibration, Impact	ISO 16750
Power transients	ISO 7637 Test level 4 (e-mark directives compliant)

Certifications

Communication	FCC Part 15 Subpart B, part 22/24 compliant
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Technical Specifications (cont'd)

Size

Dimensions	91 x 73 x 23mm
Weight	626g (1.38 lbs) including cradle, sleeve and cable

Installation

Mounting	Magnets and/or tie-wraps
Connections	20pin Molex, OBD-II, or J1939

Features

Movement	3D Accelerometer
Use Cases	Eco Scoring, Theft recovery, Proactive Maintenance and Remote Diagnostics
Capabilities	Trip Detection, Ignition Status (motion or ignition wire), Speeding, Idling, Odometer, Fuel, DTC, Extensive CAN Bus Data, AutoCAN Configuration, GPIO Integration, FOTA
Geofences	Up to 100 Geofences

Accessories

- Contactless Adapter
- 1-Wire Proximity Reader

Powerfleet (NASDAQ: PWFL; TASE: PWFL) is a global leader of internet of things (IoT) software-as-a-service (SaaS) solutions that optimize the performance of mobile assets and resources to unify business operations. Our data science insights and advanced modular software solutions help drive digital transformation through our customers' and partners' ecosystems to help save lives, time, and money. We help connect companies, enabling customers and their customers to realize more effective strategies and results. Powerfleet's tenured and talented team is at the heart of our approach to partnership and tangible success. The company is headquartered in Woodcliff Lake, New Jersey, with our Pointer Innovation Center (PIC) in Israel and field offices around the globe. For more information, please visit www.powerfleet.com.