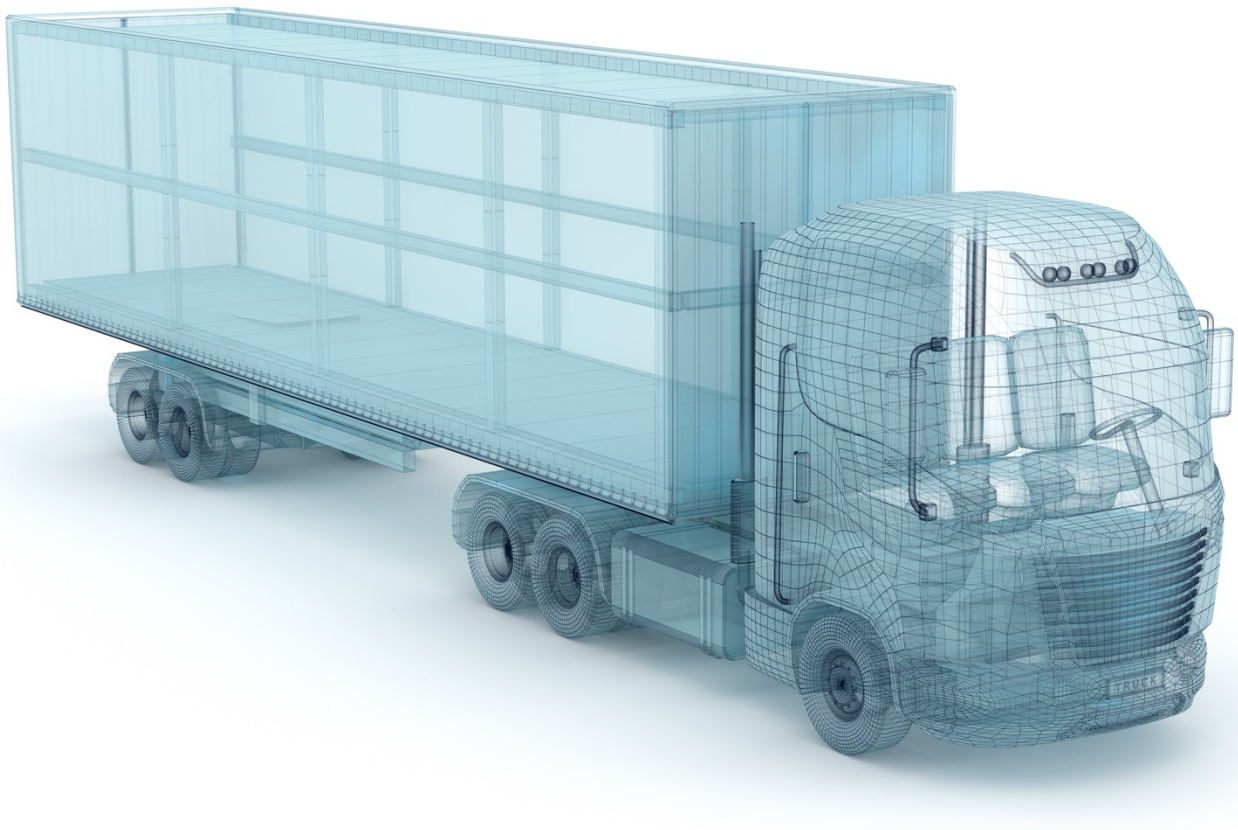
Technical Specification

FLEET MASTER GX

Intelligent Management System for
Commercial Vehicles, Logistics and Transport



1. Product Description

FleetMaster GX is a next-generation telematics platform designed for the advanced management of commercial fleets, industrial vehicles, and operational machinery.

Developed in Germany by a software house specialized in connected mobility systems, FleetMaster GX combines industrial automation, predictive analytics, and vehicle safety into a single, modular, and scalable solution.

With its intuitive interface and intelligent sensors, FleetMaster GX allows real-time monitoring of vehicle position, load, fuel consumption, mechanical condition, and driving behavior, giving companies powerful tools to reduce operating costs, prevent breakdowns, and optimize route efficiency.

2. Main Features

- Multi-vehicle monitoring in real time (data updates every 5 seconds).
- Automatic predictive diagnostics based on CAN-BUS and OBD-II data analysis.
- Centralized fleet management dashboard for simultaneous monitoring of vehicles, routes, and performance indicators.
- Detection of operational anomalies such as overloads, abnormal vibrations, engine overheating, or irregular fuel consumption.
- Dynamic route optimization via the AI Routing Engine, which analyzes traffic, time windows, and load distribution to reduce average delivery times by up to 15%.
- Driver Care module for monitoring driving behavior, rest periods, and compliance with European transport regulations.
- Environmental and mechanical sensors for cargo temperature, body tilt, and actual load weight.
- Full integration with enterprise ERP systems (SAP, Oracle, Microsoft Dynamics, and others).
- Instant alerts and notifications for critical events or irregular operations.
- Secure remote access via web or mobile devices with multi-level authentication and data encryption.

3. Technical Specifications

Parameter	Descriprion
Software version	FleetMaster GX (release 2025)
Vehicle compatibility	Trucks, vans, buses, agricultural vehicles, construction machinery, utility and service vehicles
Vehicle connections	CAN-BUS, OBD-II, LIN, J1939
Data communication	4G/5G LTE, dual-band Wi-Fi, Bluetooth 5.2, Ethernet
Geolocation system	GPS / GLONASS / Galileo – precision < 1.5 m
Data update frequency	Configurable: every 1–5 seconds
AI Routing Engine	Dynamic route optimization reducing delivery times by 10–15%
Predictive diagnostics	Automatic analysis of over 50 engine and transmission parameters
Integrated/optional sensors	Temperature, vibration, tilt, load weight, tri-axial accelerometer
Control interface	Web dashboard + Mobile app (Android / iOS)
Reporting formats	PDF / Excel / JSON API via cloud
Internal memory	256 GB industrial SSD (expandable)
Operating system	Modular Embedded Linux
Software updates	OTA (Over-The-Air), automatic or manual
ERP compatibility	SAP, Oracle, Microsoft Dynamics, Infor, Odoo
Power supply	12–24 V DC (automotive standard)
Power consumption	< 4.5 W operational / < 1 W standby
Protection rating	IP66 (dust, water, and vibration resistant)
Operating temperature	-25°C to +75°C
Main unit dimensions	175 x 120 x 45 mm
Net weight	620 g
Enclosure material	Aluminum alloy with passive heat dissipation
Software compatibility	API REST, MQTT, OPC-UA, Modbus TCP

4. Data Security and Protection

- End-to-end AES-256 encryption for all cloud communications.
- Multi-level authentication system (Admin, Fleet Manager, Driver, Technician).
- Secure HTTPS remote access with TLS 1.3 certification.
- Automatic cloud backup and synchronization on EU-certified servers.
- Full compliance with GDPR and EU Data Protection Regulation 3.2.
- Certified under EU Cyber Security 2025.

5. Applications

Sector	Use Case
Transport & logistics	Fleet management, route optimization, cost control, predictive maintenance.
Construction & maintenance	Monitoring of construction vehicles, load weight, working hours, and preventive maintenance.
Public services & utilities	Management of municipal fleets (waste collection, road maintenance, urban transport).
Rental & industrial leasing	Remote monitoring, incident alerts, and digital access control.
E-mobility & smart cities	Management of Integration with charging networks and smart infrastructure.

6. Certifications and Compliance

- EU Transport Compliance Directive (2024) – European standard for transport management systems.
- TÜV Rheinland – Automotive Integration Systems – certified quality and safety for integrated automotive systems.
- IEC 62999:2023 – industrial automation and smart infrastructure compatibility.
- CE / RoHS Compliant – compliant with European safety and environmental standards.

7. Management Interface

- Unified dashboard for fleets of any size.
- Dynamic maps with live tracking and route history.
- Graphical analytics of fuel consumption, vehicle usage, stops, and driving behavior.
- Customizable reports by vehicle, region, or operational group.
- Scheduled maintenance management with automatic reminders.

8. Accessories and Optional Modules

- AI Routing Pro module for predictive optimization of multi-load routes.
- NFC and RFID sensors for driver or cargo identification.
- HD cameras (interior/exterior) for continuous recording and event verification.
- LTE/5G Multi-SIM module for extended network coverage.
- Additional satellite unit for remote area tracking.

9. Maintenance and Support

- Automatic software updates via OTA.
- Remote diagnostics and 24/7 technical assistance.
- Customer portal with manuals, reports, and firmware downloads.
- Multilingual technical support (English, Italian, German).

10. Warranty

- Standard warranty: 3 years (extendable to 5 years).
- Premium service option: priority technical support and immediate replacement of defective components.