

RA Ecosystem Partner Solution Fleet Tracker Solution



Solution Summary

The Renesas Fleet Tracker (FT) is a small and reliable GPS and Cat-M1/NB1OT fleet tracking unit, based on a proven design and years of field experience. Development and enhancement is made easy and straight-forward through Renesas' hardware offerings and e2studio development software, coupled with GT&T Engineering's architecture and domain experience.

Features/Benefits

Market Advantage

- Ready-To-Manufacture solution
- Based on a reliable proven design
- Ready-To-Go when coupled with GT&T Engineering's software offering and can be tailored to customer's needs
- Access to GT&T's engineering and market know-how
- Great ROI, as it generally outlives the assets it tracks
- Minimizes R&D investment

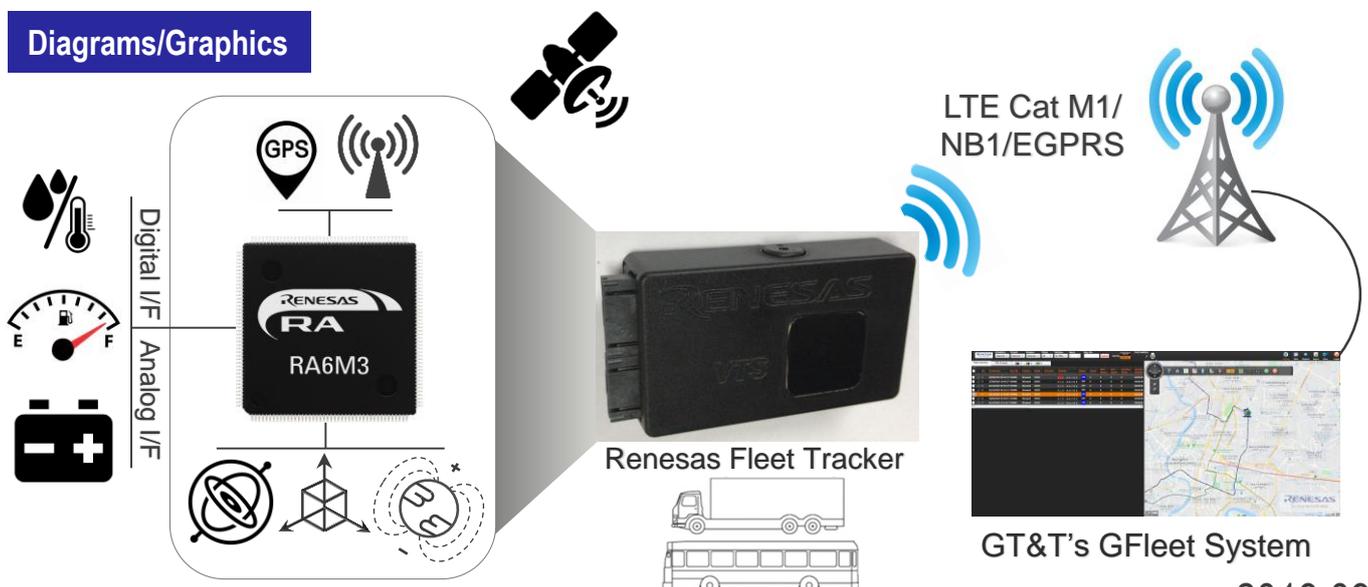
Technical Features

- Based on Renesas' RA6M3 microcontroller family with Renesas analog and power management products
- Firmware development supported by Renesas' e2studio, Flexible Software Package and FreeRTOS
- Supports direct interfacing to analog fuel level senders in trucks' tank
- Possesses 9 Degrees-Of-Freedom, 9DOF, sensor for driver behaviour analysis and monitoring
- Designed to resist power fluctuations – over-voltage, over-current, reverse polarity protection
- Under-voltage cut-off to avoid draining vehicle's battery
- Logs locations while out of communications coverage
- Avoids "hung system" phenomena, which plagues other products
- Firmware Over-The-Air (FOTA) upgrade
- Can be used for non-fleet IoT applications, as a communications adaptor board

Target Markets and Applications

- Fleet & Asset Tracking applications in Telematics, Transportation and Logistics markets
- Internet-of-Things applications such as monitoring generators and pumps, and as WAN communications device

Diagrams/Graphics



GT&T Profile

GT&T Engineering is a *turnkey solutions provider* in the domain of transportation, telematics and telemetry.

Established in 2003, GT&T has acquired the necessary engineering skills, field experience and domain expertise in solving industrial and software problems for its customers.

GT&T develops its own Intellectual Property and engines in delivering effective solutions.

On the front or device end, these are:

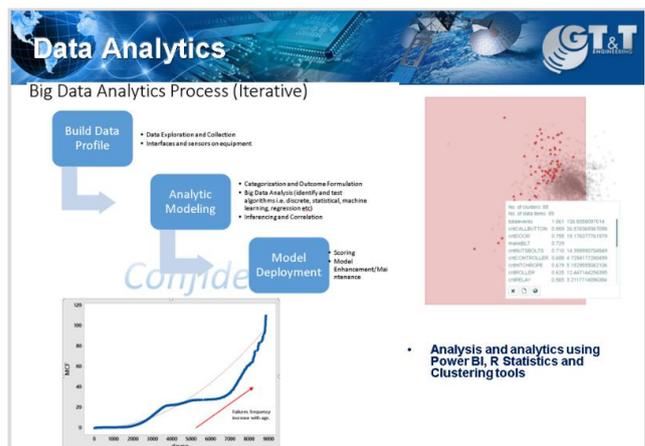
1. Hardware design and production of its own fleet tracking telematics unit, known as the GBox series, and other telemetry devices. This runs the whole process of development from schematics, gerber layout, component selection and sourcing, prototyping, production, field trials and integration to the backend software.
2. Firmware development for small devices in C and embedded Java, targeting Renesas' processors.
3. Highly compressed and efficient Over-The-Air (OTA) communications protocols.
4. Experience in sourcing, qualifying and integration of sensors.
5. Expertise in integrating with industrial machinery such as generators and vehicles.



On the software platform side, we are a Microsoft technology-based team. Our developers specialize in:

1. Microsoft Azure-based applications
2. MS Powerapps on mobiles
3. Business Intelligence using MS PowerBI
4. MS Dynamics 365, Sharepoint and SQL Server
5. Reporting using SQL Server Reporting Service (SSRS)
6. C# and Javascript

We use Power BI, R Statistics and clustering tools as part of our analysis and analytics efforts for our customers. We are also experienced in algorithm and scheduling adaptations.



Our key management personnel have previous experience in ports, logistic and public and school bus transit systems.

We are also retained by large enterprises from the Waste Collection, Transportation, Event Management industries, and Industrial Engineering sectors as their internal engineering departments, and consult on their businesses to give them the necessary competitive edge.

We are an alliance partner with Renesas Electronics. For more info:

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