Public Transport Tracking

Tracking for Public Transport in Dense City Environments

Innodisk and subsidiary Antzer Tech worked together to solve positional tracking pain points for bus networks in New York City.

Introduction

At some point or another, everyone has used their phones to check when the next bus is coming. Thanks to modern technology, we can now see exactly where the next bus is, and plan ahead, to avoid waiting at the bus stop. However, in New York City, which is full of high-rise buildings, tracking bus locations has long been a pain-point for system integrators. This is because large amounts of metal interferes dramatically with GPS signal, and buildings can reflect the GPS signal, fooling the GPS chip, which can result in an incorrect position.

www.innodisk.com
T +886-7703-3000 / E sales@innodisk.com

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Our Roadmap to Success

Antzer Tech CAN Bus and GNSS Combo card [GADN series]

· Built-in u-blox M8 GNSS modules
· Optionally supports dead reckoning (UDR/ADR/Can-to-ADR)
· Compact single Mini PCI Express with GNSS & CAN features

Innodisk M.2 (S80) 3ME4 MLC SSD

· Wide temperature industrial-grade design
· Extensive power stability technology
· 256GB capacity and 6Gb/s SATA III interface

Challenges

· High-rise buildings affect the reception of GPS positioning signals
· In environments without positioning functionality, it is necessary to be able to calculate the driving route and draw it in the backend system, and then present it to the customer
· Highly accurate positioning is required due to many alleys and small lanes in New York
· Solution must be able to withstand high temperatures due to being in-vehicle 24/7

Solution

· With dead reckoning functionality, Antzer Tech's CAN Bus and GNSS Combo card enables accurate tracking, even when the GNSS signals are poor or obstructed
· Antzer Tech's centimeter-level precision technology enables pin-point accurate tracking
· Innodisk's M.2 (S80) 3ME4 MLC SSD offers a wide operating temperature, and is built with an industrial-grade design, allowing integrators to forget about overheating issues

Conclusion

Innodisk and subsidiary Antzer Tech were able to supply a public transport tracking solution for New York City buses. With Dead Reckoning functionality, Antzer Tech's CAN Bus and GNSS Combo card enabled accurate positioning information for tracking systems, even when the GNSS signals were poor or obstructed. Paired with Innodisk's M.2 (S80) 3ME4 MLC SSD drive, which has an industrial grade operational temperature of -40°C to +85°C, the two companies were able to solve all the overheating and tracking pain points of the customer.

Our Promise

At Innodisk, we believe that any challenge can be overcome through cooperation. By maintaining a strong line of communication all the way from inquiry to implementation, we ensure a tailor-made solution that fits your application. We remain committed to innovation with our continual focus on total hardware, firmware, and software integration.

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