GMV GSharp

SAFE HIGH-ACCURACY RELIABLE POSITIONING FOR AUTOMOTIVE

GNSS SATELLITES

GMV Global GNSS Station Network

GNSS Precise Corrections

Processing Servers

Regional GNSS Station Networks

Europe · North America · Others in progress

BACKEND SYSTEM

GNSS Positioning Engine

Sensor fusion

Wheelticks · INS (IMU)

GNSS Correction Service

■ GMV Product
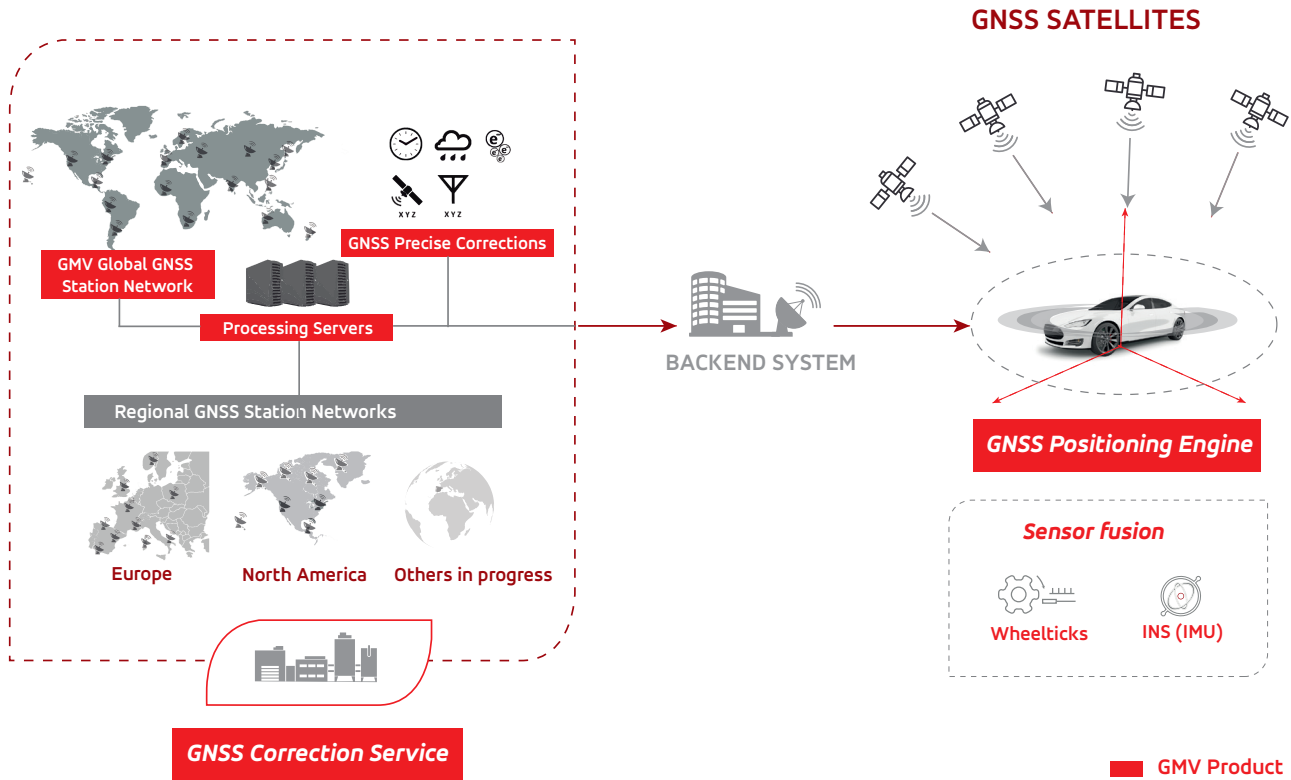
AUTOMOTIVE

GMV's safe precise positioning for autonomous driving

What is *GMV GSharp* for Automotive?

- **Complete GNSS Positioning Suite: Positioning Engine & Correction Service**
- **Precise and safe algorithmic** solution for highly demanding **Autonomous Driving (AD)**
- **Integrity layer** for Safety-Critical Applications (ASIL B) (ISO 26262 – ISO 21488)
- **Multi-constellation** and **multi-frequency**
- **Proprietary (Global) Station Network**
- **Standard PPP** messages (RTCM-SSR, IGS-SSR) & RTK SSR2OSR conversion
- **Highly configurable & Flexible** to **Automotive Grade components** and **customers**
- **Hybridisation with other sensors** (IMU, odometers...)
- **Cybersecurity (ISO 21434)** for a reliable position with the necessary level of protection
- **Compatible with V2X** applications

What is our performance?

- Integrity Risk < up to 10^{-7}/h
- Service Availability (SLA) > 99,9 %
- Horizontal Accuracy < 10 cm (95%)*
- Convergence Time < 30 s
- Almost Instantaneous Reconvergence Time
- Service 24/7

* Nominal accuracy achieved with a mass-market automotive GNSS receiver under open sky conditions

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Cutting-edge safety technology based on our experience in EGNOS & GALILEO as responsible for GNSS safety critical elements and high accuracy positioning systems

High accuracy & integrity
- SubLane-level accuracy
- TIR 10-7/hour

ASIL-B (ISO 26262 certified) plus additional standards fulfilled:
- ISO 21448 (SOTIF)
- ISO/SAE 21434
- A-SPICE CL3

Cutting-edge Safety validation
- RFSIM
- Edit & Replay
- Driving

Trusted by OEMs
Solution already installed in vehicles in production

INTELLECTUAL PROPERTY
PATENTED

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