

CC-NaviIP_1A - IP set for precise positioning

Market Overview

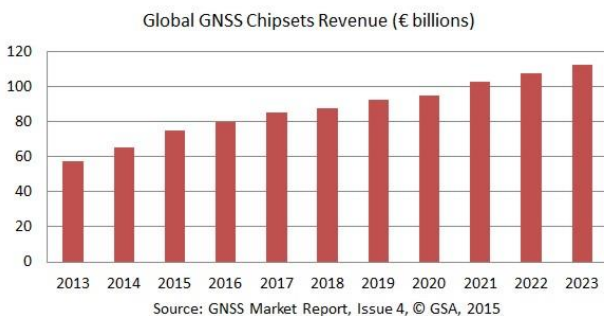
Over last years we can observe continuous growth of the global GNSS market. The total market size is around 250 billion € and the core (chipset) market is around 75 billion € (according to the GSA). This growth needs many technological innovations and the NaviIP™ can be one of them.

Needs

- Affordable high precision and reliable navigation:
 - autonomous drones (UAV)
 - smart agriculture
 - small disposable devices to monitor buildings, deliveries and investment
 - vehicle navigation - lane tracking
 - navigation in urban canyons

Problems

- Available solutions on mass market:
 - low positioning accuracy
 - poor reliability
- Available solutions on professional market:
 - high cost
 - large size
 - no integration
 - high power consumption
- No reliable and highly accurate single-chip solution



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Product Overview

NaviIP™ is targeting affordable high precision and reliable navigation. The IP set contain analog/RF Front-End's hard macro and synthesizable baseband HDL with optional multicore 32-bit RISC MPU. The analog/RF IP is silicon proven in CMOS 130 nm. Engineering samples available in QFN32 package with development board.

Key Features

- High precision and reliability – accuracy: < 1.5 m (pseudorange), < 20 cm (carrier phase)
- Multi constellations satellite reception: BeiDou (CN), Galileo (EU), GPS (US)
- Multi frequency simultaneous reception: E1/L1, E5/L5, B1/B2 and SBAS reception
- 32-bit RISC navigation MPU & baseband

Applications

- Autonomous drones (UAV) navigation
- Ultralight aircrafts and general aviation
- Smart agriculture
- Spacecraft positioning
- Road vehicles navigation (e.g. lane tracking)
- Tracking of railway rolling stock
- Water level and flood protection embankments monitoring
- Small disposable devices to monitor buildings, deliveries and during building investment

Deliverables

- Datasheet/Integration Guide
- GDSII database/LVS & SPICE netlist
- HDL Model/Footprint (.LEF)
- IP implementation support, 6 months maintenance (delivery of the IP and documentation up-dates)

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