DESCRIPTION

PT9258 is a single chip GPS receiver SoC that integrates RF and Baseband in an 8 x 8 x 0.9 mm QFN package. The SoC together with few external components builds stand-alone GPS receivers that track GPS satellite signals, and stream out NMEA 0183 message that contains current location and time information. PT9258 do not rely on host processor for positioning computation.

The receiver accepts L1-band C/A code GPS and A-GPS signals. Typical application consists of LNA and SAW filter behind GPS antenna before feeding to the on-chip LNA input of PT9258. 0.5ppm 16.369MHz TCXO as clock source is preferred for tracking of the GPS signal. System level functions such as Power-On-Reset, 3.3V to 1.2V switching regulator and low quiescent current RTC LDO are integrated in PT9258.

Offered in both ROM-based PT9258R and Flash-memory-based PT9258E options; the non-volatile ROM version provides standard function, while Flash version is available for firmware upgrade or add-on features. Flash version is delivered un-programmed, which is usually performed after PCB assembly and before test. ROM and Flash version has same package outline, a mode select pin differentiates the two options. For more flexibility to the fixed ROM firmware, PT9258R also provides a configuration mechanism that can store one set of firmware option settings permanently to a serial EEPROM on PT9258R's I^2C bus.

PT9258's easiness and flexibility of system design together with the top-notch navigation performance and low power consumption thus makes PT9258 the best candidate for location-based services.

FEATURES

- RF, Baseband and Memory Integrated single chip
- ROM and Flash options in same package
- Configuration-Backup Serial EEPROM (ROM version, optional)
- Integrated Switch Mode Regulator, Low Quiescent Current RTC LDO
- Serial port: UART, I^2C, and SPI
- Digital I/O: GPIO, 1PPS, Rx Status LED, and Interrupt
- NMEA-0183, Ver. 3.01
- Supports SBAS: WAAS, EGNOS, MSAS, and GAGAN
- QFN 64 pin 8 x 8 x 0.9 mm package
- Pb Free and RoHS compliant
- Temperature range -40℃ to +85℃

HIGHLITHTS

- Superior navigation performance
- Low power consumption during both satellite search and track
- Flexible ROM and Flash product options

APPLICATIONS

- Navigator
- Tracker
- Geo tagger
- Speed indicator
- Time base server
- Other location based services