

1 System Overview

1.1 General descriptions

MT3332 is a high-performance single-chip multi-GNSS solution which includes on-chip CMOS RF and digital baseband. It is able to achieve the industry's highest level of sensitivity, accuracy and Time-to-First-Fix (TTFF) with the lowest power consumption in a small-footprint lead-free package. Its small footprint and minimal BOM requirement provide significant reductions in the design, manufacturing and testing resource required for portable applications.

With built-in LNA to reach total receiver chain NF to 2.2 dB, you can eliminate antenna requirement and do not need external LNA. With its on-chip image-rejection mixer, the spec of external SAW filter is alleviated. With an on-chip automatic center frequency calibration band pass filter, an external filter is not required. The on-chip power management design allows MT3332 to be easily integrated into your system without extra voltage regulator. With both linear and a highly efficient switching type regulator embedded, MT3332 allows direct battery connection and does not need any external LDO, which gives customers plenty of choices for the application circuit.

Up to 12 multi-tone active interference cancellers (ISSCC2011 award) offer you more flexibility in system design. The integrated PLL with Voltage Controlled Oscillator (VCO) provides excellent phase noise performance and fast locking time. A real-time clock is also provided to accelerate acquisition at the system restart-up.

MT3332 acquires and tracks satellites in the shortest time even at indoor signal levels. MT3332 supports various location and navigation applications, including autonomous GPS, GLONASS, **GALILEO**, BEIDOU (after ICD released), SBAS ranging (WAAS, EGNOS, GAGAN, and MSAS), QZSS, DGPS (RTCM) and AGPS.

Through MT3332's excellent low-power consumption characteristic (acquisition 36 mW, track 26 mW), while using power sensitive devices, especially portable applications, you will not need to worry about the operating time anymore and can have more fun. Combined with many advanced features including AlwaysLocate™, HotStill™ and EPO™ function, MT3332 provides always-on position with minimal average power consumption. The great features provide you supreme experiences for portable applications such as DSC, cellular phone, PMP, and gaming devices.