

Sub-meter modules

Position accuracy $\leq 1m$

Sub-meter L1+L5 series product

LOCOSYS MC-1612-Vxx series are high-performance dual-band GNSS positioning modules that are capable of tracking all global civil navigation systems. They adopt 12 nm process and integrate efficient power management architecture to perform low power and high sensitivity. Besides, concurrent reception of L1 and L5 band signals mitigates the multipath delay and achieves sub-meter position accuracy.

The modules support hybrid ephemeris prediction to achieve faster cold start. One is self-generated ephemeris prediction (called EASY) that is no need of both network assistance and host CPU's intervention. This is valid for up to 3 days and updates automatically from time to time when GNSS module is powered on and satellites are available. The other is server-generated ephemeris prediction (called EPO) that gets from an internet server. This is valid for up to 14 days. Both ephemeris predictions are stored in the on-board flash memory and perform a cold start time less than 15 seconds.

The RF front end of MC-1612-V3b is specifically designed to comply with sensitivity specification contained in AIS 140 standard (please refer to note in the Fig 3-2). It is the best solution to those customers that design tracking applications in compliance with AIS 140.



Features

- ⊙ Support GPS, GLONASS, GALILEO, BEIDOU, QZSS and NAVIC
- ⊙ Capable of SBAS (WAAS, EGNOS, MSAS, GAGAN) and QZSS SLAS
- ⊙ Support 135-channel GNSS
- ⊙ Ultra low power consumption (option)
- ⊙ Fast TTFF at low signal level
- ⊙ Free hybrid ephemeris prediction to achieve faster cold start
- ⊙ Up to 10 Hz update rate
- ⊙ $\pm 10ns$ high accuracy time pulse (PPS)
- ⊙ Support Linux and Android OS driver
- ⊙ Protocol support binary output
- ⊙ IATF 16949 quality control
- ⊙ Small form factor 16 x 12.2 x 2.4 mm
- ⊙ SMD type with stamp holes; RoHS compliant

Application

- ⊙ Personal positioning and navigation
- ⊙ Automotive navigation
- ⊙ Marine navigation
- ⊙ Femtocell \ Small-cell timing device



Version: RV01

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