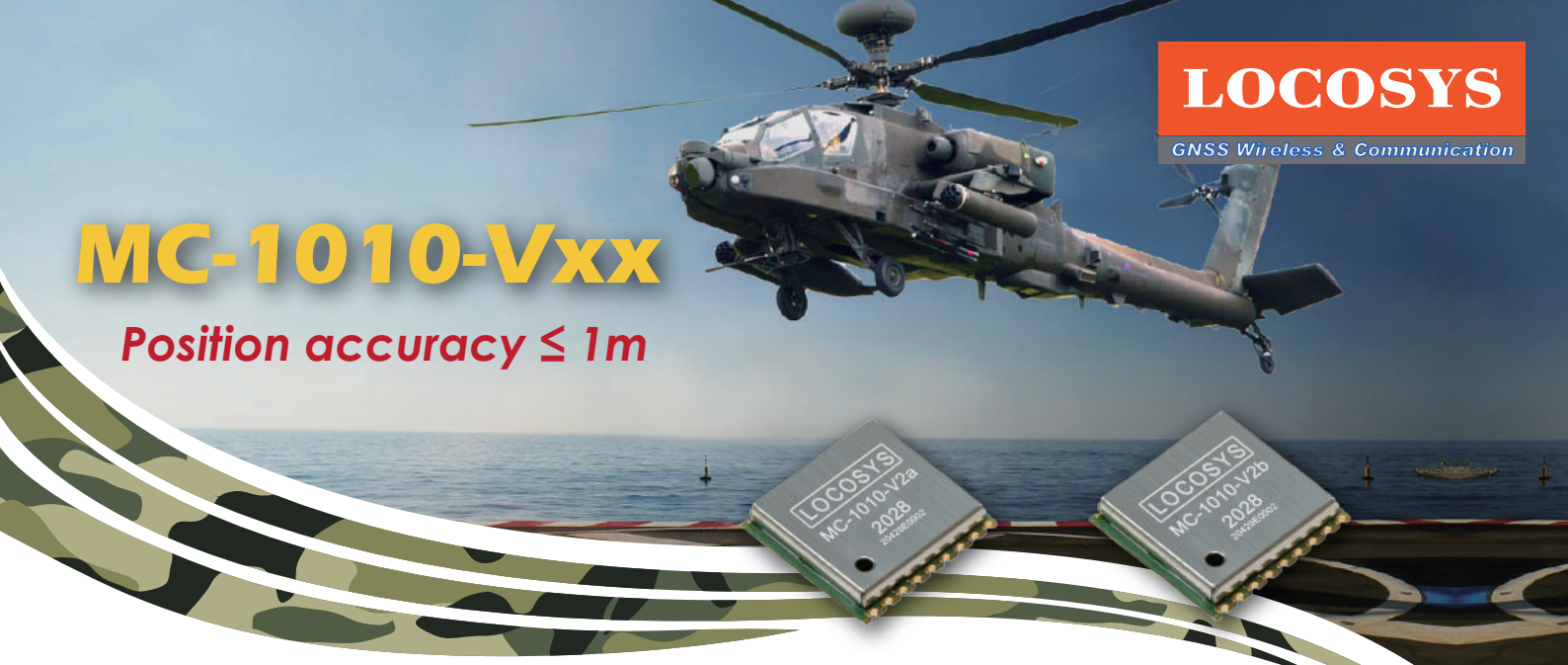
LOCOSYS

GNSS Wireless & Communication

MC-1010-Vxx

Position accuracy ≤ 1m



VCC input : 1.8V **VCC input : 3.3V**

MC-1010-Vxx

LOCOSYS MC-1010-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 aninternet 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.

MC-1010-V3x with the active antenna can comply with the sensitivity specification contained in AIS 140 standard. 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
- Fast TTFF at low signal level
- Free hybrid ephemeris prediction to achieve faster cold start
- Up to 10 Hz update rate
- ±10ns high accuracy time pulse (PPS)
- Support Linux and Android OS driver
- Protocol support binary output
- IATF 16949 quality control
- Small form factor 10.1 x 9.7 x 2.2 mm
- SMD type with stamp holes; RoHS compliant
- Ultra low power consumption (option) 4.3 mW
- IN Unlock sleep, there are four mode:
  - Normal mode: For general purpose.
  - Fitness mode: For running and walking activities so that the low-speed (< 5 m/s) movement will have more of an effect on the position calculation.
  - ULP: Ultra Low Power. The current navigation mode must be fitness.
  - GLP: GPS Low Power. The current navigation mode must be fitness and GPS L1 only.

Application

- ◎Personal positioning and navigation
- ◎Automotive navigation
- ◎Autonomous Vehicle (ex: AVN/T-BOX/HUD)
- ◎Marine navigation
- ◎Fleet management
- ◎Unmanned Aerial Vehicles
- ◎Hand-Held Device
- ◎Tracker

ISO/TS 16949:2009 REGISTERED FIRM 47344

RoHS

Version: RV01

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