

Feb 20, 2017  
Magellan Systems Japan, Inc.

**Magellan Systems Japan, Inc. has raised the capital  
by 400 million Yen.  
Get More Acceleration of R&D work as for Global Satellite Positioning  
Technologies and Aiming for the Advanced GNSS receivers.**

Magellan Systems Japan, Inc. (Headquarter : Amagasaki, Hyogo, CEO: Nobuhiro Kishimoto) has raised the capital by 400 million Yen funded from “Mirai Creation Investment Limited Partnership” (Fund), which is operated by SPARX Group Co., Ltd. (major investors are Toyota Motor Corporation and Sumitomo Mitsui Banking Corporation) and “DBJ Capital Investment Business LLP” which is operated by DBJ Capital Co., Ltd..

■ Overview of investors

- “Mirai Creation Investment Limited Partnership”
  - \*Invested by Toyota Motor Corporation, Sumitomo Mitsui Banking Corporation, SPARX Group Co., Ltd. and 16 other companies. (As of Jan 31, 2017)
- DBJ Capital Investment Business LLP

■ Major Purpose of the financing

Magellan Systems Japan, Inc. (“MSJ”) has run some business as “R&D-oriented enterprises”, promoting the development and dissemination of more accurate and well advanced location information and time calculating technologies for years. MSJ has been developing some centimeter class receivers utilizing with the QZSS signals (Quasi-Zenith Satellite System, purposely forming full constellation round late 2017). At this moment, MSJ has also started to hold some developing work for small form factor in parallel with the development of the receiver aiming at dissemination in the future. Now, MSJ has raised the capital, so that getting more acceleration of R&D work as for global satellite positioning technologies and aiming for the advanced GNSS receivers. Because of such a small form factor, the cost, size, power consumption etc. will be drastically reduced. So far most of high precision satellite positioning technologies have been mainly used for industrial applications, however that will be highly expected to apply on to consumer applications and will be utilized as key technologies for ADAS (\*1) and V2X (\*2). In addition, MSJ will promote to detect and eliminate signal interference, spoofing (\*3), and meaconing (\*4) from the entire satellite positioning system, those are required for ensuring reliability of a position information.

- \* 1 . ADAS: Advanced Driver Assistance System
- \* 2 . V2X : Vehicle to X
- \* 3 . spoofing : Broadcast of fake navigation signals
- \* 4 . meaconing : Interception and rebroadcast of navigation signals



#### ■ Achievements so far

MSJ has developed the L1 Multi GNSS RTK receiver which enables low-cost, high precision satellite positioning by using our proprietary technology for carrier phase positioning technology (\*5) which has been used mostly surveying applications. In addition, MSJ has developed an advanced and sophisticated coupling system (high precision GNSS inertial navigation system) with the L1 Multi GNSS RTK receiver and proprietary IMU (\*6) for autonomous operation of tractors and other agricultural machinery, construction machinery, automobile, drone, etc. This high precision GNSS inertial navigation system has won the Grand Prix at the social innovation division of CEATEC AWARD 2015. (\*7)

\* 5. A method of positioning the distance from the receiver to the satellite by counting number cycles of the carrier and the phase difference

\* 6. Inertial Measurement Unit

\* 7. [http://www.ceatec.com/2015/ja/award/award01\\_02.html#awSocial](http://www.ceatec.com/2015/ja/award/award01_02.html#awSocial)

In the near future, since everything to be tightly connected, importance of accurate location information becomes more high, and at the same time, such information will be used to secure safety and security more frequently.

In order to satisfy these social requirements, MSJ will work hard to utilize unique satellite positioning technologies and products, in more countries, regions, and diversified business areas to spread as public infrastructures.

#### ■ Company Profile

Company name	Magellan Systems Japan, Inc.
CEO	Nobuhiro Kishimoto
Established	July 6, 1993 (Founded : February 3, 1987)
Stated Capital	526.90 million yen
Headquarters	Amagasaki Research Incubation Center, #210 7-1-3, Doicho, Amagasaki, Hyogo, 660-0083, JAPAN

#### ■ Overview of products

High Precision GNSS RTK Solution	<a href="http://www.magellan.jp/english/item/index1.html">http://www.magellan.jp/english/item/index1.html</a>
GNSS Inertial Measurement System	<a href="http://www.magellan.jp/english/item/index3.html">http://www.magellan.jp/english/item/index3.html</a>
Super High Sensitivity GPS Timing Solution	<a href="http://www.magellan.jp/english/item/index2.html">http://www.magellan.jp/english/item/index2.html</a>