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Mitsubishi Electric to Release Compact “MMS-G” Mobile Mapping System

Compact, lightweight model for easy transportation and installation expected to expand global business

TOKYO, October 9, 2018 – [Mitsubishi Electric Corporation](http://www.mitsubishielectric.com) (TOKYO: 6503) announced today that it will release a compact version of its mobile mapping system (MMS) on December 25. MMS are highly precise measuring systems comprising car-mounted GPS antennas, laser scanners and cameras to gather 3D positioning data on road surfaces and roadside features, generally used as base data to create high-definition 3D maps for autonomous driving and infrastructure inspections. The compact, lightweight and transportable new MMS-G, which is especially suited to mounting on automobiles, railways, carts or ships, is expected to be used for diverse applications in markets including Europe, North America, Asia and Oceania, where high growth is forecast.

The new MMS-G will be showcased at the Mitsubishi Electric stand, No. 12.1E.080 in hall 12.1 during INTERGEO at Messe Frankfurt exhibition complex in Frankfurt, Germany from October 16 to 18, 2018.



MMS-G is designed for diverse installations



3D point-cloud created from data obtained by MMS

Product Features

1) Compact, lightweight model for easy transportation and diverse installations

- Compact design integrates three Global Navigation Satellite System (GNSS) antennas into one to reduce weight by about 50% compared to existing MMS-G220Z model.
- Roof-mount unit divides into two units for easier transportation/installation and reduced labor.
- Diverse mounting on not only automobiles but also railcars, carts, ships, etc.

- 2) ***Diverse, high-precision field surveys for 3D mapping and infrastructure inspections***
- Inertial measurement unit (IMU; for detecting position, velocity, attitude and heading) and speed sensor can be used where satellite signals cannot be received, such as tunnels.
 - High-sensitivity camera enables data acquisition at night.
- 3) ***Simple operation does not require specialized training***
- Unique, proprietary operating software and GUI enable field surveys to be performed without complicated settings.
 - Estimated measurement accuracy can be confirmed on operating screen in real time, enabling users to select operations efficiently for optimized data acquisition.
 - Obtained data can be used to construct 3D laser point clouds easily with post-processing software (provided).

Future Application

Mitsubishi Electric is developing markets in Europe, North America, Asia and Oceania, where the demand for highly accurate, precise and efficient field surveys and infrastructure inspections is expected to grow. Demand is especially promising in North America and Europe, where high-definition 3D maps are required as base data for autonomous-driving demonstrations currently under way and envisioned commercial systems in the future.

Mitsubishi Electric’s new MMS-G, in addition to field surveys and data acquisition for autonomous-driving maps, can be flexibly mounted to inspect railroads, coastal embankments, hard-to-access areas and more. It is expected to be used widely, and thereby expand Mitsubishi Electric’s global business in this field.

Background

The global demand for high-definition 3D maps developed with MMS is growing rapidly, especially for MMS that offer flexible and diverse operation, easy transportation and installation, and quick, compact storage for security. By meeting these demands, Mitsubishi Electric’s compact, lightweight MMS-G model will contribute to the development of high-definition 3D mapping platforms for autonomous driving and more efficient infrastructure inspections.

Main Specifications and Components

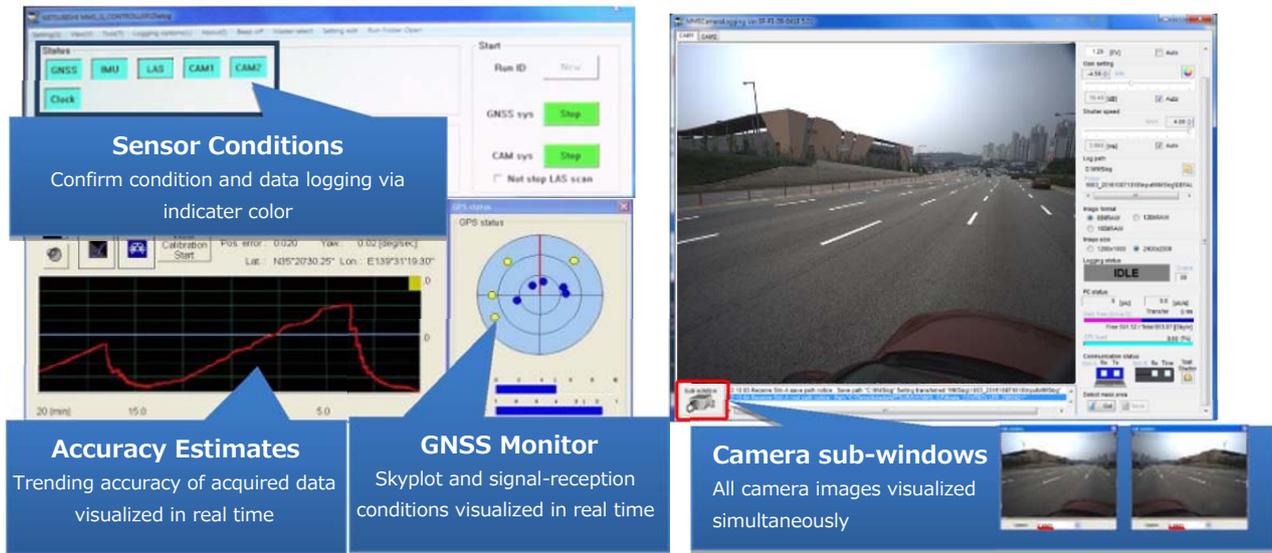


High-Sensitivity Camera	Units	3
	Resolution	5 megapixels (STD) 12 megapixels (optional)
Laser Scanner	Units	1
	Angle setting	45° or 90°
	Point Cloud Density	1,000,000 pts/sec
	Scanning Range	119m
Applicable GNSS		GPS, GLONASS, Galileo
Power Consumption		Under 550W
Weight		Under 55kg

- < Package Software >
- Operation control software
 - Post-processing software

Operating Software

Measurement and control software with easy-to-use interface



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About Mitsubishi Electric Corporation

With nearly 100 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 4,444.4 billion yen (in accordance with IFRS; US\$ 41.9 billion*) in the fiscal year ended March 31, 2018. For more information visit:

www.MitsubishiElectric.com

*At an exchange rate of 106 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2018