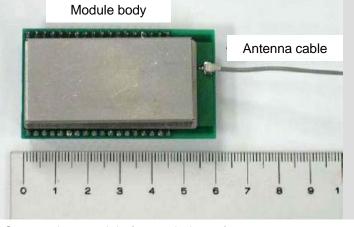
## News Release Digest

Systems Development Laboratory

[R&D] NRD 09-0218

2009/2/18 Release

Embedded GPS transmitter module enables positioning indoors



GPS transmitter module for use indoors (60 × 30-mm prototype)

Hitachi, Ltd. has developed an embedded GPS transmitter module for use indoors to enable positioning even where it is hard for a GPS signal to penetrate, such as in large commercial facilities and underground malls. The module is compliant with the indoor messaging system (IMES) suggested by the Japan Aerospace Exploration Agency (JAXA). A reduction in the number of parts used in the system and a decrease in the memory capacity due to using an original signal modulation system resulted in drastic downsizing (outer size  $6 \times 3$  cm). It can be incorporated into wireless base stations for use indoors as well as in emergency lights and luminaries.

\*IMES (indoor messaging system): JAXA-specified GPS-compatible signal service system for use indoors. Using "weak radio waves" stipulated by Japanese Radio Law, it can be installed and operated without a radio station license.

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