LaneTo™

RTK GNSS/MEMS Navigation Module

LaneTo™ is a multi-mode, dual-frequency GNSS RTK/MEMS DR (Dead Reckoning) navigation module. It's designed to be a low-power, compact, high-precision product that efficiently runs RTK and combined navigation algorithms on an on-chip processor. A key feature is that it doesn't require an odometer to be connected and still maintains 100% navigation availability in challenging environments like urban canyons and long tunnels. The module uses a package size of 16mm x 12mm.

System Features

- **Uninterrupted Navigation**

  continuous navigation in scenarios such as urban canyons, underground parking garages, tunnels.

- **RTK Positioning**
- **Flexible Installation**
- **Sensor Fusion**

  Outputs 3D attitude information.

  Optionally accept wheel speed information.

- **Calibration**

  Does not require factory calibration and correction; it has an online calibration algorithm

- **Data**

  configurable at 1, 5, or 10 Hz

Performance Specifications

Note: The following specifications are for the **LaneTo-EC** model, which is designed for use in automobiles.

Position（1σ）	Open Sky*	Standalone	1.5m
		RTK	0.1m
	Urban Canyon	5.0m	
	GPS Outages	60s	10m
		120s	25m
		>120s	5.0% of distance（no Odometer）
			3.0% of distance（with Odometer）
Attitude（1σ）	Roll	1.0⁰	
	Pitch	1.0⁰	
	Heading	2.0⁰	
Velocity（1σ）	0.15m/s		
Output Rate	1Hz （configurable to 5Hz/10Hz）		
Gyroscope	Stability 5°/hr		
Accelerometer	Stability 3mg		

*: specifications for satellite signal input strength greater than 43 dB-Hz.

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LaneTo™ modules are available in different models to suit various platforms.

LaneTo-EC: Automotive

LaneTo-EB: Two-wheeled vehicles

LaneTo-EM: Low-speed vehicles