

## Smallest 6-axis Temperature Stabilized MotionTracking™ Module

### GENERAL DESCRIPTION

The MOD-1600 is the industry smallest 6-axis temperature stabilized MotionTracking module that is ideally suited for Drones, Head Mount Displays, and IoT applications. The MOD-1600 eliminates the need for sensor data calibration due to temperature variation.

By maintaining the operating temperature constant within 0.2 degree C tolerance using patent pending algorithm and packaging process, the MOD-1600 module provides an extremely stable gyroscope and accelerometer output to enable superior OEM product performance.

- 3-axis gyroscope, 3-axis accelerometer temperature stabilized module in a 13 x 8 x 4 mm, 16-pin package
- Stable temperature with 0.2 degree C tolerance.
- Increases sensor data output accuracy and stability during platform operation
- Reduces 6-axis calibration needs during operation.
- Enhances drone flight stability and hovering capabilities
- Refines HMD user experience

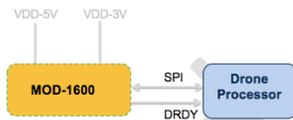
The device requires two operating voltages of one at 1.8V to 3.3V and the second at 5V.

### ORDERING INFORMATION

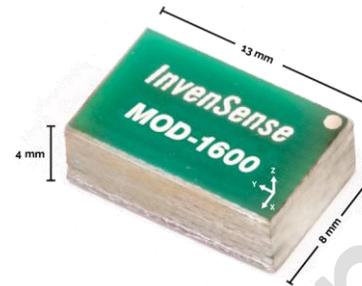
PART	TEMP RANGE	PACKAGE
MOD-1600†	-40°C to +85°C	16-Pin

†Denotes RoHS and Green-Compliant Package

### SYSTEM ARCHITECTURE



### MODULE PIN OUT



### APPLICATIONS

Drones

Head Mount Displays



### FEATURES

- 3-Axis Gyroscope with Programmable FSR of  $\pm 250$ dps,  $\pm 500$ dps,  $\pm 1000$ dps and  $\pm 2000$ dps
- 3-Axis Accelerometer with Programmable FSR of  $\pm 2$ g,  $\pm 4$ g,  $\pm 8$ g and  $\pm 16$ g
- Sensor sampling rate up to 1KHz
- Drone code ready
- 8MHz SPI Support
- MEMS structure hermetically sealed and bonded at wafer level
- Eliminates gyroscope bias and sensitivity drift over temperature
- Eliminates accelerometer bias and sensitivity drift over temperature
- Plug and play eval board for Pixhawk PX4 platform

### EVALUATION BOARD

