



# SmartIndustrial™

## PRIMARY APPLICATIONS



### Agriculture

Bridge GNSS outage, provide terrain compensation inputs in various agricultural environments for equipment navigation, guidance, and positioning.



### Mapping, Surveying, & Georeferencing

Maintain blade and bucket position on bulldozers, excavators, motor-graders, etc. IMU data is coupled with GNSS to constrain position and bridge GNSS outage.



### Construction Equipment

Precision data enables the creation of HD surveys and maps, but also provides exact position for stabilization and location.



### Manufacturing & Robotics

Industrial robots use motion data to enable automation, improve efficiency, monitor conditions via the precise motion and vibration measurements produced.

## FEATURED PRODUCTS

### IIM-42652



Compact 6-axis configurable IMU that can withstand an extended operating temperature range while requiring very low power

### IIM-42351/2



High-performance, Low-power Accelerometer with multiple capabilities to enable easy, robust and accurate inertial and vibration measurements

### IIM-46230/4



High-performance fault tolerant 6-Axis IMU that combines multiple 3-axis gyroscopes and 3-axis accelerometers packaged in a single module

## PRODUCT CATEGORIES

### IIM-42352

#### Vibration Sensing and Synchronization

- Operating Temperature Range of -40°C to 105°C
- Ability to provide external clock to synchronize with the system
- Bandwidth measurement up to 4 kHz

### IIM-42351

#### Construction Tools and Machinery

- Operating Temperature Range of -40°C to 105°C
- 10,000g shock withstand powered
- Good stability over temp

### IIM-42652

#### Autonomous Mobile Robots & Equipment

- Operating Temperature Range of -40°C to 105°C
- 10,000g shock withstand powered
- Good bias instability 6.9 deg/hr
- Low noise density 70ug

### IIM-46230 & IIM-46234

#### High End Industrial, GNSS Module, Delivery Systems

- Best in class bias instability 1.9°/hr
- Ultra low ARW = 0.09°/√(hr)
- Processing power to incorporate complex algorithms
- Fault tolerance

## PRODUCT DETAILS

Product Number	Package (mm)	Gyro Sensing Range (°/sec)	Accel Sensing Range (g)	Interface	Notes
IIM-42351	2.5 × 3 × 0.91 14-pin LGA	2000	16	I <sup>3</sup> C <sup>SM</sup> , I <sup>2</sup> C, or SPI	Compact, lower power, extended temperature range
IIM-42352	2.5 × 3 × 0.91 14-pin LGA	n/a	16	I <sup>3</sup> C <sup>SM</sup> , I <sup>2</sup> C, or SPI	Low-noise accelerometer for vibration sensing
IIM-42652	2.5 × 3 × 0.91 14-pin LGA	n/a	16	I <sup>3</sup> C <sup>SM</sup> , I <sup>2</sup> C, or SPI	Low-noise accelerometer for tilt sensing
IIM-46230	Module	2000	16	UART, SPI	High-performance, fault tolerant, low bias instability
IIM-46234	Module	480	8	UART, SPI	High-performance, fault tolerant, low bias instability



Scan Here for additional materials and information.