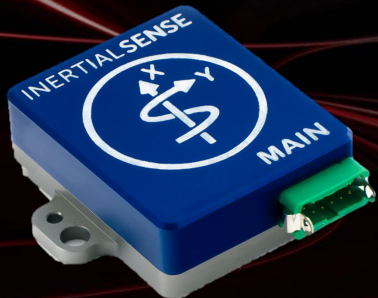


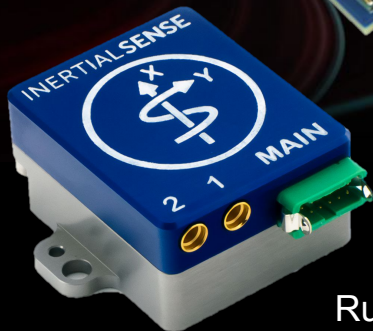
IMX-5



IG-1-RTK

Rugged 3  
IMU, AHRS, No GPS

IG-1-Dual



Rugged 3 RTK/Dual

## A full line of Tactical Grade IMU and INS Sensors

Inertial Sense is a manufacturer of High Precision, Tactical Grade Inertial Measurement Units (IMU), Attitude Heading Reference Systems (AHRS), Inertial Navigation Systems w/ RTK (INS), and Dual GNSS Inertial Navigation Systems (INS Dual).

Each solution combines a bundle of Inertial MEMS, magnetometers, barometers, and Multi-Frequency GNSS receivers which are fused together to provide robust motion measurement and navigation. Our solutions are disrupting the Inertial Navigation Industry by combining high precision in a low cost together into a single package.

# IMX-5

SKU: IS-IMX-0050-0-IND

Description: The IMX-5™ is a 10-DOF sensor module consisting of a tactical grade Inertial Measurement Unit (IMU), magnetometer, and barometer. Output includes angular rate, linear acceleration, magnetic vector, and barometric pressure and altitude. IMU calibration consists of bias, scale factor, cross-axis alignment, and temperature compensation.

The IMX-5 includes Attitude Heading Reference System (AHRS) sensor fusion to estimate roll, pitch, and heading. Adding GNSS input to the IMX-5 enables onboard Inertial Navigation System (INS) sensor fusion for roll, pitch, heading, velocity, and position.

## FEATURES AND SPECIFICATIONS

- Tactical Grade IMU
  - Gyro: 1.5 °/hr Bias Instability, 0.16 °/√hr ARW
  - Accel: 19 µg Bias Instability, 0.02 m/s/√hr VRW
- 0.03° Roll/Pitch, 0.1° Dynamic Heading
- Surface Mount Reflowable (PCB Module)
- Fast Integration with SDK and Example Software
- Data Logging (SDK and Application Software)



Size: 15.6 x 12.5 x 2.9 mm  
Weight: 0.8 g  
INS: External GNSS Input

# RUG-3-IMX-5

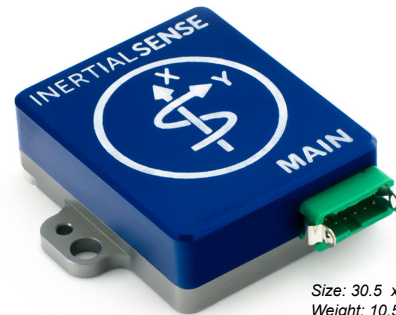
*SKU: IS-RUG-3050-0-IND*

Description: The RUG-3-IMX-5™ series adds a rugged aluminum enclosure and RS232, RS485, and CAN bus interface to the IMX-5.

The IMX-5™ is a 10-DOF sensor module consisting of a tactical grade Inertial Measurement Unit (IMU), magnetometer, and barometer. Output includes angular rate, linear acceleration, magnetic vector, and barometric pressure and altitude. IMU calibration consists of bias, scale factor, cross-axis alignment, and temperature compensation. The IMX-5 includes Attitude Heading Reference System (AHRS) sensor fusion to estimate roll, pitch, and heading. Adding GNSS input to the IMX-5 enables onboard Inertial Navigation System (INS) sensor fusion for roll, pitch, heading, velocity, and position.

## FEATURES AND SPECIFICATIONS

- Tactical Grade IMU
  - Gyro: 1.5 °/hr Bias Instability, 0.16 °/√hr ARW
  - Accel: 19 µg Bias Instability, 0.02 m/s/√hr VRW
- 0.03° Roll/Pitch, 0.1° Dynamic Heading
- Surface Mount Reflowable (PCB Module)
- Fast Integration with SDK and Example Software
- Data Logging (SDK and Application Software)



Size: 30.5 x 25.4 x 9.9 mm  
Weight: 10.5 g  
INS: External GNSS Input

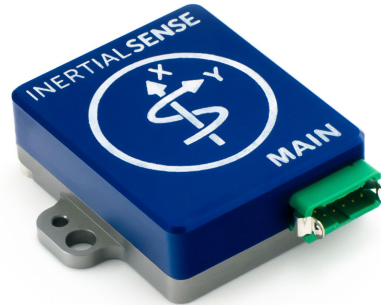
# RUG-3-IMX-5-DK

SKU: IS-RUG-3050-0-DVK

Description: The RUG-3-IMX-5-DK™ series adds a rugged aluminum enclosure and RS232, RS485, and CAN bus interface to the IMX-5. This development kit is designed for testing and evaluation and contains our RUG-3-IMX-5, interface cables, software, and engineering support hours. The IMX-5™ is a 10-DOF sensor module consisting of a tactical grade Inertial Measurement Unit (IMU), magnetometer, and barometer. Output includes angular rate, linear acceleration, magnetic vector, and barometric pressure and altitude. IMU calibration consists of bias, scale factor, cross-axis alignment, and temperature compensation. The IMX-5 includes Attitude Heading Reference System (AHRS) sensor fusion to estimate roll, pitch, and heading. Adding GNSS input to the IMX-5 enables onboard Inertial Navigation System (INS) sensor fusion for roll, pitch, heading, velocity, and position.

## FEATURES AND SPECIFICATIONS

- Tactical Grade IMU
  - Gyro: 1.5 °/hr Bias Instability, 0.16 °/√hr ARW
  - Accel: 19 µg Bias Instability, 0.02 m/s/√hr VRW
- Rugged Aluminum Enclosure
- 0.03° Roll/Pitch, 0.1° Dynamic Heading
- Fast Integration with SDK and Example Software
- Data Logging (SDK and Application Software)



# IG-1-IMX-5-RTK

SKU: IS-IG-1050-MF9-IND

Description: The IG-IMX-5™-RTK leverages the IMX-5 unit with onboard Multi-Frequency GNSS. The Tactical Grade IG-IMX-5-RTK™ is our highest precision Inertial Navigation Solution. The addition of Real Time Kinematics (RTK) delivers centimeter level precision.

Built for board level integration, this sensor is ready to be integrated into high volume deployments. The Inertial Sense IMX-5™ provides Tactical Grade Inertial performance integrated with one of the most powerful GNSS receivers on the market. This sensor will provide sensor fusion for roll, pitch, magnetic heading, velocity, and RTK precision position.

## FEATURES AND SPECIFICATIONS

- Tactical Grade IMU with rugged aluminum enclosure
- Onboard Multi-Frequency GNSS Receiver
- Centimeter level precision using RTK
- Gyro: 2.0 °/hr Bias Instability, 0.2 °/√hr ARW
- Accel: 20 µg Bias Instability, 0.04 m/s/√hr VRW
- 0.03° Roll/Pitch, 0.1° Dynamic Heading
- Fast Integration with SDK and Example Software
- Data Logging (SDK and Application Software)



Size: 48 x 24.5 x 5.9 mm  
Weight: 13g

# RUG-3-IMX-5-RTK

*SKU: IS-RUG-2150-MF9-IND*

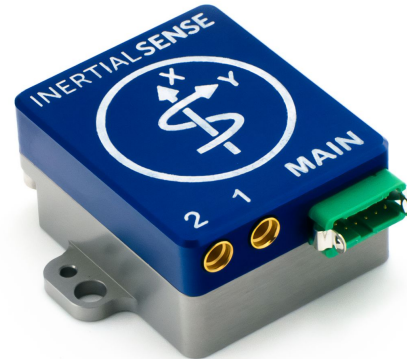
Description: The RUG-IMX-5-RTK™ leverages the IMX-5 unit with onboard Multi-Frequency GNSS which is contained inside of an aluminum enclosure. The Tactical Grade RUG-IMX-5-RTK™ is our highest precision Inertial Navigation Solution.

With the addition of Real Time Kinematics (RTK) we are able to provide you with centimeter level precision.

Built inside of an aluminum enclosure, this sensor is prepared for harsh environments and difficult terrain. Inside the aluminum enclosure you will find the Inertial Sense IMX-5™ which gives Tactical Grade Inertial performance while fusing to one of the most powerful GNSS receivers on the market. This sensor will provide sensor fusion for roll, pitch, magnetic heading, velocity, and RTK precision position.

## FEATURES AND SPECIFICATIONS

- Tactical Grade IMU with rugged aluminum enclosure
- Rugged Aluminum Enclosure
- Onboard Multi-Frequency GNSS Receiver
- Centimeter level precision using RTK
- Gyro: 2.0 °/hr Bias Instability, 0.2 °/√hr ARW
- Accel: 20 µg Bias Instability, 0.04 m/s/√hr VRW
- 0.03° Roll/Pitch, 0.1° Dynamic Heading
- Fast Integration with SDK and Example Software
- Data Logging (SDK and Application Software)



*Size: 25.4 x 25.4 x 20.0 mm Weight: 14 g  
GNSS: Multi-Band L1/L2/E5*

# RUG-3-IMX-5-RTK-DK

SKU: IS-RUG-2150-MF9-DVK

Description: The RUG-IMX-5-RTK-DK™ is the complete kit provided for testing and evaluation of our RUG-IMX-5-RTK. It contains our RUG-IMX-5-RTK module, cables for interface, software, and engineering support hours.

The RUG-IMX-5-RTK™ leverages the IMX-5 unit with onboard Multi-Frequency GNSS which is contained inside of an aluminum enclosure. Real Time Kinematics (RTK) delivers centimeter level precision.

Built inside of an aluminum enclosure, this sensor is prepared for harsh environments and difficult terrain. The Inertial Sense IMX-5™ delivers Tactical Grade Inertial performance integrated with one of the most powerful GNSS receivers on the market. This sensor will provide sensor fusion for roll, pitch, magnetic heading, velocity, and RTK precision position.

## FEATURES AND SPECIFICATIONS

- Tactical Grade IMU with rugged aluminum enclosure
- Onboard Multi-Frequency GNSS Receiver
- Centimeter level precision using RTK
- Rugged Aluminum Enclosure
- Gyro: 2.0 °/hr Bias Instability, 0.2 °/√hr ARW
- Accel: 20 µg Bias Instability, 0.04 m/s/√hr VRW
- 0.03° Roll/Pitch, 0.1° Dynamic Heading
- Fast Integration with SDK and Example Software
- Data Logging (SDK and Application Software)





# IG-1-IMX-5-DUAL

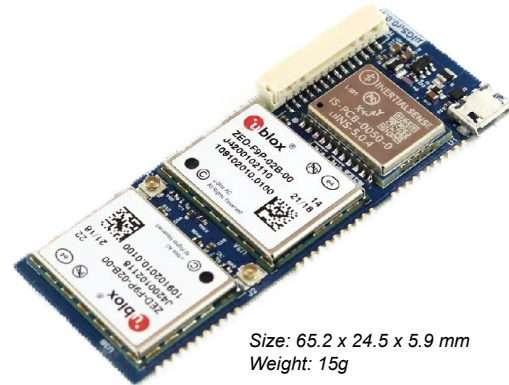
SKU: IS-IG-1050-DMF9-IND

Description: The IG-IMX-5-DUAL™ leverages the IMX-5 unit with onboard Multi-Frequency GNSS. The Tactical Grade IG-IMX-5-Dual™ is our most powerful Inertial Navigation Solution yet.

The IMX-5 delivers Tactical Grade Inertial performance powered by TWO of the most powerful GNSS receivers on the market. Built for board level integration, this sensor is ready to be integrated into volume deployments. This sensor will provide sensor fusion for roll, pitch, magnetic heading, velocity, RTK precision position and Dual GNSS Compass Heading.

## FEATURES AND SPECIFICATIONS

- Tactical Grade IMU with rugged aluminum enclosure
- Onboard Multi-Frequency GNSS Receiver
- Centimeter precision using RTK
- 0.4° Heading using Dual GNSS Compassing
- Gyro: 2.0 °/hr Bias Instability, 0.2 °/√hr ARW
- Accel: 20 µg Bias Instability, 0.04 m/s/√hr VRW
- 0.03° Roll/Pitch, 0.1° Dynamic Heading
- Fast Integration with SDK and Example Software
- Data Logging (SDK and Application Software)



Size: 65.2 x 24.5 x 5.9 mm  
Weight: 15g

# RUG-3-IMX-5-DUAL

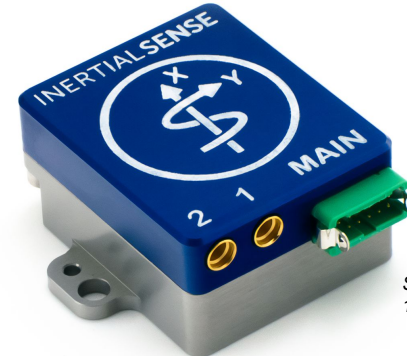
SKU: IS-RUG-2150-DMF9-IND

Description: The RUG-IMX-5-DUAL™ leverages the IMX-5 unit with onboard Multi-Frequency GNSS which is contained inside of an aluminum enclosure. The Tactical Grade RUG-IMX-5-DUAL™ is our most powerful Inertial Navigation Solution yet.

The IMX-5 delivers Tactical Grade Inertial performance powered by TWO of the most powerful GNSS receivers on the market. Inside the aluminum enclosure, this sensor is prepared to take you through difficult terrain. This sensor will provide sensor fusion for roll, pitch, magnetic heading, velocity, RTK precision position and Dual GNSS Compass Heading.

## FEATURES AND SPECIFICATIONS

- Tactical Grade IMU with rugged aluminum enclosure
- Rugged Aluminum Enclosure
- Onboard Multi-Frequency GNSS Receiver
- Centimeter precision using RTK
- 0.4° Heading using Dual GNSS Compassing
- Gyro: 2.0 °/hr Bias Instability, 0.2 °/√hr ARW
- Accel: 20 µg Bias Instability, 0.04 m/s/√hr VRW
- 0.03° Roll/Pitch, 0.1° Dynamic Heading
- Fast Integration with SDK and Example Software
- Data Logging (SDK and Application Software)



Size: 25.4 x 25.4 x 20.0 mm Weight:  
14 g GNSS: Multi-Band L1/L2/E5

# RUG-3-IMX-5-DUAL-DK

SKU: IS-RUG-2150-DMF9-DVK

Description: The RUG-IMX-5-DUAL-DK™ is the complete kit provided for testing and evaluation of our RUG-IMX-5-DUAL. It contains our RUG-IMX-5-DUAL module, cables for interface, software, and engineering support hours.

The RUG-IMX-5-DUAL™ leverages the IMX-5 unit with onboard Multi-Frequency GNSS which is contained inside of an aluminum enclosure. The Tactical Grade RUG-IMX-5-DUAL™ is our most powerful Inertial Navigation Solution yet.

The IMX-5™ leverages Tactical Grade Inertial performance powered by TWO of the most powerful GNSS receivers on the market. Inside the aluminum enclosure, this sensor is prepared to take you through difficult terrain. This solution will provide sensor fusion for roll, pitch, magnetic heading, velocity, RTK precision position and Dual GNSS Compass Heading.

## FEATURES AND SPECIFICATIONS

- Tactical Grade IMU with rugged aluminum enclosure
- Rugged Aluminum Enclosure
- Onboard Multi-Frequency GNSS Receiver
- Centimeter precision using RTK
- 0.4° Heading using Dual GNSS Compassing
- Gyro: 2.0 °/hr Bias Instability, 0.2 °/√hr ARW
- Accel: 20 µg Bias Instability, 0.04 m/s/√hr VRW
- 0.03° Roll/Pitch, 0.1° Dynamic Heading
- Fast Integration with SDK and Example Software
- Data Logging (SDK and Application Software)





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