

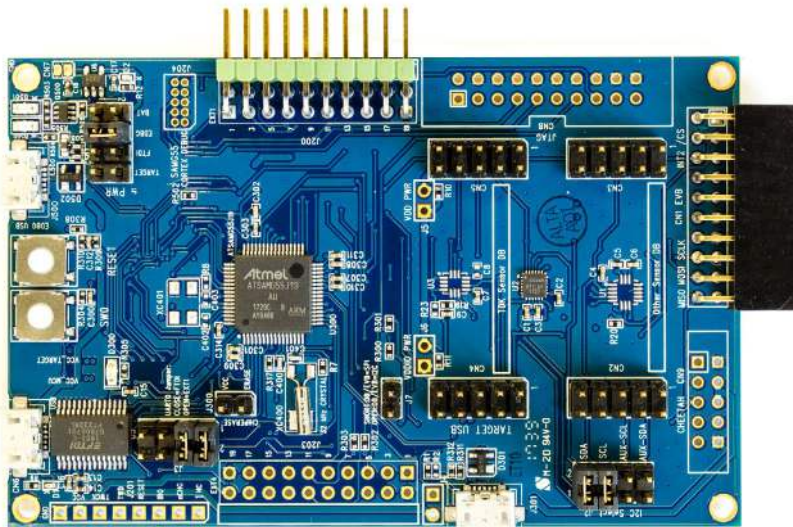
DK-20648

Development Kit for ICM-20648 6-Axis Motion Sensor

Overview

The DK-20648 is a comprehensive development platform for ICM-20648, a high performance 6-axis motion sensor that combines a 3-axis gyroscope, a 3-axis accelerometer, and a DMP™ (Digital Motion Processor™).

The platform designed around Microchip G55 MCU can be used by developers for rapid evaluation and development of ICM-20648 based solutions. The DK-20648 includes an on-board Embedded Debugger so external tools are not required to program or debug the G55 MCU.



The development kit comes with necessary software including InvenSense Motion Link, a GUI based development tool and embedded Motion Drivers for ICM-20648.

Embedded Motion Drivers (eMD) consists of a set of APIs to configure various aspects of the platform including ICM-20648 sensor parameters such as full-scale range (FSR), output data rate (ODR), low-power or low-noise mode, and sensor interface to host (I²C, SPI).

MotionLink is a GUI based development tool included with the platform. It can be used to capture and visualize the sensor data from the motion sensor.

Key Features

- ICM-20648 6-axis motion sensor
- Microchip G55 MCU with 512KB Flash
- On-board embedded debugger for programming and debugging
- USB connectors for host interface to support software debug and sensor data logging
- Board power supply through USB
- Sensor Fusion
- Accelerometer & Gyroscope calibration
- Android Functions: Game Rotation Vector, Gravity, Linear Acceleration
- Pedometer Functions: Step Detection and Step Count
- Gestures: Pickup, Tilt, Bring to See