

SmartMotion[®] Platform

by InvenSense[®]

Quick Start Guide

The TDK SmartMotion Platform is a comprehensive development kit for InvenSense Motion Sensor devices. The platform designed around a Microchip SAMG55 MCU can be used by customers for rapid evaluation and development of InvenSense sensor based solutions.

The platform integrates an on-board Embedded Debugger so external tools are not required to program or debug the SAMG55 MCU. The SmartMotion platform runs software including InvenSense MotionLink, a GUI based sensor evaluation tool, and the embedded Motion Drivers for motion sensor software development.

System Requirements

- Windows OS (7, 10)
- USB Type-A (PC) to Micro-USB cable (SmartMotion)

Default HW Configuration

- Connect micro-USB cable from PC to SmartMotion CN6 connector
- Jumper Settings:
 - PWR J1 - set to FTDI (pins 5, 6) to retrieve power from FTDI
 - I2C Select J2 - set SDA (pins 1, 2) and SCL (pins 3, 4)
 - UART0 Jumper J3 - set pins 1, 2 and EXT1 (pins 3, 4)
- Refer to User Guide for detailed configurations

Evaluation

- Evaluate sensor features and performance with MotionLink!
- Download MotionLink (registration required), available at
 - invensense.com/smartmotion-platform
- Download FTDI driver:
 - ftdichip.com/Drivers/VCP.htm
- Install and Launch MotionLink
- Connect, select sensor, and explore

For Advanced Sensor Fusion

- Develop your own applications with TDK's eMDs!
- Download and install the Atmel Studio 7 Toolchain
 - atmel.com/tools/atmelstudio.aspx
- Download FTDI driver:
 - ftdichip.com/Drivers/VCP.htm
- Download SmartMotion eMD (embedded Motion Driver):
 - invensense.com/smartmotion-platform
- Open Atmel Studio project in eMD to start development