

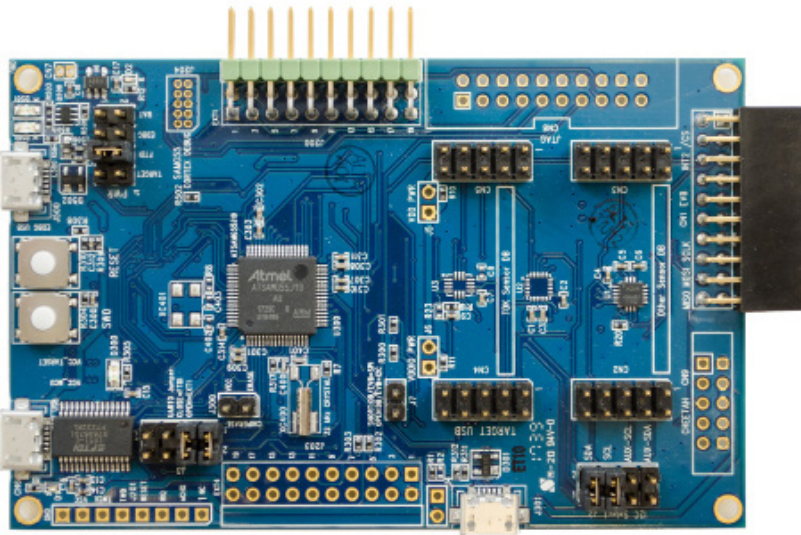
DK-20680A & DK-20680HP

*Development Kit for IAM-20680 and IAM-20680HP
Automotive Grade Motion Sensor*

Overview

The DK-20680A/DK-20680HP is a comprehensive development platform for IAM-20680 and IAM-20680HP, a MEMS 6-axis automotive grade inertial motion sensor qualified according to AEC-Q100 reliability matrix. The DK-20680A development kit is equipped with an on-board IAM-20680 sensor, while DK-20680HP hosts the IAM-20680HP sensor.

Part of the SmartMotion platform, the DK-20680A/DK-20680HP is designed around Atmel's SAMG55 Cortex-M4 MCU, and can be used by developers for rapid evaluation and development of TDK InvenSense non-safety Automotive MEMS based solutions. The DK SmartMotion kit includes an on-board Embedded Debugger, so external tools aren't required to program or debug the SAMG55 MCU.



The development kit comes with evaluation software including MotionLink, a GUI based development tool and embedded motion drivers for both IAM-20680 and IAM-20680HP.

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

Key Features

- Digital-output X-, Y-, and Z-axis angular rate sensors (gyroscopes) with a user-programmable full-scale range of ± 250 dps, ± 500 dps, ± 1000 dps, and ± 2000 dps and integrated 16-bit ADCs
- Digital-output X-, Y-, and Z-axis accelerometer with integrated 16-bit ADCs and a programmable full scale range of $\pm 2g$, $\pm 4g$, $\pm 8g$, and $\pm 16g$
- User-programmable digital filters for gyroscope, accelerometer, and temperature sensor
- Self-test
- Wake-on-motion interrupt for low power operation of applications processor
- Reliability testing performed according to AEC-Q100

