MCU Concise ICM-4x6xx

3.0

Software Release Notes

December 04, 2019

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# Overview

This release note document explains all the relevant information regarding the MCU Concise Driver (MCD) ICM-4x6xx **3.0** software release.

# purpose

* Release a concise MCU reference driver with few files.
* Make it easy to integrate this reference driver to your project.
* Minimize required modifications to the source code (API calls in main project and function configurations in header file).
* Support basic functions of sensor (raw data polling and basic APEX pedometer function)
* Please use eMD driver if more functions needed, like calibration, authentication machine, sensor fusion etc.

# Scope

* This driver applies to following Yokohama chips now:
* ICM40607, ICM42602, ICM42605, ICM42688, ICM42686

Note: we will add more Yokohama chip support based on customer project.

# Software Modules included

* **Concise Driver for ICM-426xx**

*@ \ICM4X6XX\MCU-4X6XX\src\icm4x6xx\*

* **Sample code** for MCU platform to demonstrate usage of the driver in an embedded context

@ *\ICM4X6XX\MCU-4X6XX\src\main.c*

@ *\ICM4X6XX\MCU-4X6XX\src\main.h*

* **Smart Motion project** to build and debug each sample code
* **Documentation** covering Software guide as well as API definition

*@ \ICM4X6XX\MCU-4X6XX\doc\*

# Supported Features

* Hardware features:
  + Accel raw data
  + Gyro raw data
  + Wake-up On Motion
  + Self-Test
  + APEX Pedometer
* Software features:
  + DRDY data report mode of Accel and Gyro raw data
  + FIFO report mode of Accel and Gyro raw data
  + Interrupt Mode configuration in header file
  + Sensor Direction Configuration in header file
  + Bus Configuration in header file

# Features Unsupported

* Hardware features:
  + APEX LowG (Freefall) /HighG
  + APEX Tilt, Raise to Wake, Tap
  + External Clock In
  + Temperature raw data
  + EIS
  + OIS (on ICM-42622 and ICM-42688)
* Software features:
  + Calibrated Accelerometer
  + Calibrated Magnetometer
  + Calibrated Gyroscope
  + Game Rotation Vector: 6-axis AG fusion
  + Rotation Vector 9-axis AGM fusion
  + Gravity
  + Linear Acceleration

# Changelog

* None

# 

# Known Issues

This section describes the known issues for all versions, including but not limited to design limitations, postponed items etc.

* None

# Compliance Declaration Disclaimer

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