

Firmware example for STDES-AKI003V1 sigma-delta current sensing solution

Applications & demonstrations	STSW-AKI003	
Middleware	Motor Control Library	
Hardware Abstraction	Hardware Abstraction Layer (API)	Board Support Package
	STEVAL-CTM009V1	STM32H7B3I-EVAL
Hardware	STDES-AKI003V1	



Features

- Firmware example for [STM32H7B3LI](#) microcontroller
- Based on [X-CUBE-MCSDK](#) STM32 motor control software development kit
- Field oriented control (FOC) for three-phase PMSM and ACIM for fast dynamic and response to load variations
- Based on [STM32Cube HAL_Library](#)
- Fully compatible with the [STM32H7B3LI](#) microcontroller DFSDM peripheral
- Accurate current sensing for high-end industrial motor control applications based on [ISOSD61](#)
- Tailored for high-end servo drives
- Supports the [STEVAL-CTM009V1](#) evaluation kit

Description

[STSW-AKI003](#) is a customized version of [X-CUBE-MCSDK](#) that exploits the sigma-delta hardware filtering capabilities of the [STM32H7B3LI](#) microcontroller to perform three-phase motor current measurements.

Product summary	
Firmware example for STDES-AKI003V1 sigma-delta current sensing solution	STSW-AKI003
Sigma-delta current sensing solution for industrial drive applications	STDES-AKI003V1
16-bit isolated sigma-delta modulator, single-ended and LVDS interfaces	ISOSD61
Complete demonstration and development platform for the Arm® Cortex®-M7-based STM32H7B3LIH6Q U microcontroller	STM32H7B3I-EVAL
Applications	Motor control

Revision history

Table 1. Document revision history

Date	Revision	Changes
14-Sep-2021	1	Initial release.

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