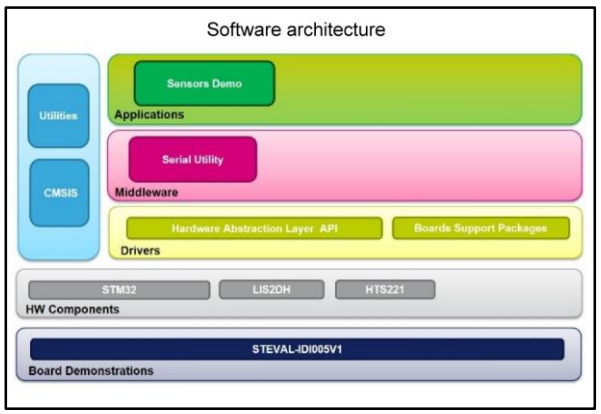
STSW-IDI005

STEVAL-IDI005V1 firmware

Data brief



Features

- Complete middleware to build applications using STEVAL-IDI005V1, based on SP1ML-868 RF sub GHz certified module
- Easy portability across different MCU families, thanks to STM32Cube libraries
- AT commands from master (STEVAL-SP1ML868) to slave (STEVAL-IDI005V1)
- Free, user-friendly license terms

Description

STEVAL-IDI005V1 firmware is a software package for the STEVAL-IDI005V1 board, used as wireless sensors.

The software runs on the SP1ML-868, sub GHz certified module, 868 MHz, based on the STM32L1 and SPIRIT1, and includes the drivers required for driving the on-board MEMS LIS2DH (motion) and HTS221 (humidity and temperature) sensors.

The software is built on STM32Cube software technology to ease portability across different STM32 microcontrollers. The software comes with sample driver implementations running on the STEVAL-IDI005V1 and communicating with a STEVAL-SP1ML868 USB sub GHz dongle.

The STEVAL-IDI005V1 is the slave and the STEVAL-SP1ML868 is the master. AT commands on a terminal like Hyperterminal can be used to acquire humidity, temperature, motion LED and button status information.

The STEVAL-SP1ML868 USB dongle can be connected to a smartphone with a mini/micro USB adapter and a dedicated Android APP (STSW-IDI005APK) to monitor and control the STEVAL-IDI005V1 sensors and LEDs.

1 Detailed description

What is STM32Cube?

STMCube™ represents an STMicroelectronics' initiative to make developers' lives easier by reducing development effort, time and cost. STM32Cube covers STM32 portfolio.

STM32Cube includes:

- The STM32CubeMX, a graphical software configuration tool that allows the generation of C initialization code using graphical wizards
- A comprehensive embedded software platform specific to each series (such as STM32CubeF4 for the STM32F4 series), which includes:
  - the STM32Cube HAL embedded abstraction-layer software, ensuring maximized portability across the STM32 portfolio
  - a consistent set of middleware components such as RTOS, USB, TCP/IP and graphics
  - all embedded software utilities with a full set of examples

How does this software complement STM32Cube?

This software is based on the STM32CubeHAL hardware abstraction layer for the STM32 microcontroller. The package extends STM32Cube by providing a board support package (BSP) for the STEVAL-IDI005V1 board and some middleware components for serial communication with a PC. The drivers abstract low-level details of the hardware and allow the middleware components

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2 Revision history

Table 1: Document revision history

Date	Version	Changes
26-Apr-2016	1	Initial release.
18-May-2016	2	Updated title and figure on the cover page.

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