

STM32H7x3 smart power management software expansion for STM32Cube

Data brief

Features

- Low-power application case
- STM32H7x3 three power domains
- Low-power modes
- D3 Autonomous mode
- Power consumption

Description

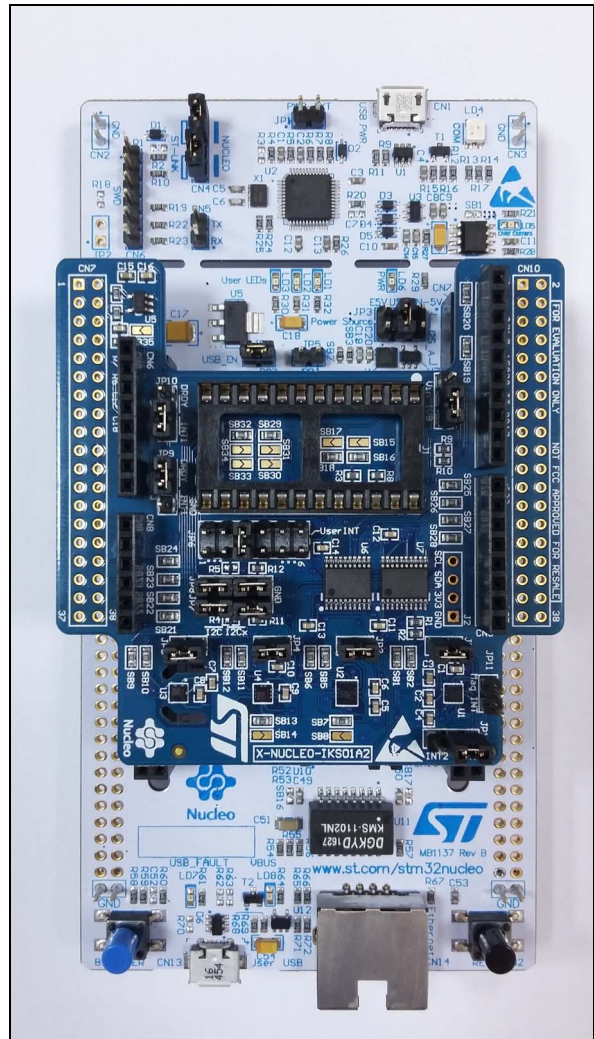
The X-CUBE-PWRMGT-H7 embedded software is a low-power application based on I²C transmission, for instance between the STM32H7x3xx device on the NUCLEO-H743ZI development board, and the HTS221 humidity and temperature sensor, embedded in the X-NUCLEO-IKS01A2 expansion board.

This embedded software package highlights the smart power management of the STM32H7 Series using three power domains, and minimizes the power consumption while keeping some activities running when needed (D3 Autonomous mode).

The application contains four modes in which the STM32H7x3 exchanges data with the HTS221 temperature sensor. For each mode, the microcontroller power consumption is reduced, thanks to the flexible architecture of the STM32H7, which manages power supply per domain.

This application is monitored by a terminal display, through USB virtual COM port communication between the microcontroller and the PC.

The embedded software example is developed with the STM32Cube embedded software. It uses EWARM, MDK-ARM™ and SW4STM32 toolchains and can be easily tailored for any other toolchain.



1. Picture is not contractual.

Ordering information

X-CUBE-PWRMGT-H7 is available for free download from www.st.com website.

Revision history

Table 1. Document revision history

Date	Revision	Changes
9-Jun-2017	1	Initial version

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