# X-CUBE-MDMA

## Data transfer efficiency
## using MDMA software expansion for STM32Cube

**Data brief**

## Features

- STM32H7x3 MDMA demonstrator
- ARM® Cortex®-M7-based software
- Use of AXI and AHB bus matrices
- Use of MDMA, DMA2D, JPEG, and USART1 peripherals
- Access to AXI SRAM, SRAM1, and external SRAM

## Description

The X-CUBE-MDMA firmware demonstrates the capabilities of the STM32H7x3 MDMA. The MDMA is used in conjunction with other masters such as DMAs and JPEG so as to illustrate its efficiency in freeing up CPU resources.

In addition, this demonstration software proposes examples of accesses to all kind of memories such as AXI SRAM, SRAM1, and external SRAM, through the STM32H7 bus matrices.

The firmware is provided with a project set up for the STM32H743I-EVAL evaluation board. In this configuration, the firmware shows MDMA interactions with various IPs and memories without CPU control.

The use case is proposed as an example with several toolchains: Keil® (MDK-ARM), IAR™ (EWARM), and System Workbench (SW4STM32). It can easily be ported to any other toolchain.

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# Ordering Information

X-CUBE-MDMA is available for free download from the *www.st.com* website.

# Revision history

**Table 1. Document revision history**

| Date | Revision | Changes |
|---|---|---|
| 20-Jun-2017 | 1 | Initial release. |
| 29-Jun-2017 | 2 | Updated title. |

**IMPORTANT NOTICE – PLEASE READ CAREFULLY**