# X-CUBE-PARAL-COM

## Parallel synchronous transmission using GPIO and DMA software expansion for STM32Cube

**Data brief**

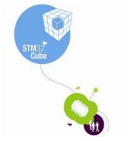
## Features

- Timeout detection of end of transmission
- CRC check of transmitted data
- STM32L476G discovery board implementation features
  - Storage of transmitted data in STM32L476 internal SRAM
  - Up to 10MHz transmission clock
  - Data frame length limited by internal SRAM size and DMA 16bit counter (65530 data transmitted)
- STM32F429I discovery board implementation features
  - Storage of transmitted data in external SDRAM
  - Up to 7.82MHz transmission clock
  - Data frame length limited by external SDRAM size

## Description

The STM32 microcontrollers are able to emulate parallel synchronous communication through GPIOs using the embedded DMA IP.

The X-CUBE-PARAL-COM software solution developed on STM32Cube offers an implementation of such parallel synchronous interface on STM32L476G and STM32F429I discovery boards. It can easily be ported on other platforms.



# 1 Ordering information

X-CUBE-PARAL-COM is available for free download from STMicroelectronics web site www.st.com.

# 2 Revision history

**Table 1. Document revision history**

| Date | Revision | Changes |
|---|---|---|
| 20-Jan-2016 | 1 | Initial release. |
| 02-Feb-2016 | 2 | Document classification changed to public . |