

## I2C driver for the TSC1641, 16-bit, high precision current and power monitor

Hardware Abstraction	STSW-DIGAFEV1DRV	
Hardware	TSC1641	STEVAL-DIGAFEV1
	NUCLEO-H503RB	

### Features

- Library of useful functions to control the TSC1641
- Example to configure the device and read the data from it
- Simple digital connection with I2C
- CubeMX project easily configurable
- Alert programming and interrupts implemented

Product summary	
I2C driver for the TSC1641, 16-bit, high precision current and power monitor	STSW-DIGAFEV1DRV
Evaluation board for the TSC1641, 16-bit, high precision current and power monitor with MIPI I3C/I2C interface	STEVAL-DIGAFEV1
STM32 Nucleo-64 development board with STM32L476RG MCU, supports Arduino and ST morpho connectivity	NUCLEO-L476RG
Applications	Battery power measurement Power supply power measurement

### Description

The [STSW-DIGAFEV1DRV](#) drivers help the users to handle the TSC1641 and its evaluation board ([STEVAL-DIGAFEV1](#)).

It comes with a set of functions to configure the TSC1641 and read data acquire by the device.

An example is also given allowing to understand how to use these functions. The example includes a preprogrammed interrupt that toggles an LED on the Nucleo board.

The example is given for the [NUCLEO-L476RG](#) but it esaly adaptable to the STM32 product via the CubeMX software.

## Revision history

**Table 1. Document revision history**

Date	Revision	Changes
20-Feb-2024	1	Initial release.

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