

P-NUCLEO-6283A1 pack graphical user interface (GUI)



Features

- Live display of:
 - Illuminance in Lux
 - Light counts for each color channel
 - Correlated color temperature (CCT) in Kelvin
 - (x,y) coordinates represented in color gamut
 - Computed (fundamental) light flicker frequency based on FFT
 - Flicker frequency waveform representation
- Activation of individual channels, gain setting for each channel and flicker sample size are programmable
- Saturation flag available
- Data logging (up to two data logs can be loaded for comparison)

Description

The STSW-IMG301 is a graphical user interface (GUI) for Windows 7 and Windows 10. The GUI controls the P-NUCLEO-6283A1 pack which consists of the X-NUCLEO-6283A1 expansion board connected to the STM32F401RE Nucleo board.

The VD6283 (1.83 x 1.0 x 0.55 mm) is the smallest 6-channel, ambient light sensor (ALS) on the market. Light measurement is fast and accurate thanks to an individual ADC and readout circuitry for each color channel (Red, Green, Blue, IR, Clear and Visible). The VD6283 uses hybrid color filters with precise responses allowing accurate computation of the correlated color temperature (CCT) and Lux information. The VD6283 can be used for display brightness management or scene light correction. Additionally, the VD6283 can extract light flickering frequencies from 100 Hz to 2 kHz, including LED square signals.

To install the STSW-IMG301 GUI, refer to the X-NUCLEO-6283A1 quick-start guide.

Revision history

Table 1. Document revision history

Date	Version	Changes
20-May-2021	1	Initial release

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