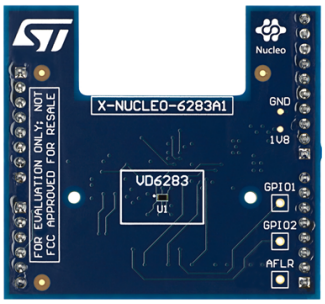
# X-NUCLEO-6283A1

Data brief

## 6-channel ambient light sensor, with flicker extraction expansion board based on VD6283 for STM32 Nucleo




## Features

- VD6283 6-channel ambient light sensor (ALS) with advanced light flicker extraction
- Compatible with STM32 Nucleo board family
- Equipped with Arduino® UNO R3 connector
- RoHS compliant
- Full system software (SW) supplied, including code examples and graphical user interface. All this can be downloaded from the VD6283 product page on www.st.com

## Description

The X-NUCLEO-6283A1 is an expansion board for the STM32 Nucleo development boards. It provides a complete evaluation kit allowing anyone to learn, evaluate and develop their applications using the VD6283, a color sensor with advanced light flicker frequency extraction.

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.

The X-NUCLEO-6283A1 expansion board is compatible with the STM32 Nucleo-64 board family, and with the Arduino UNO R3 connector layout.

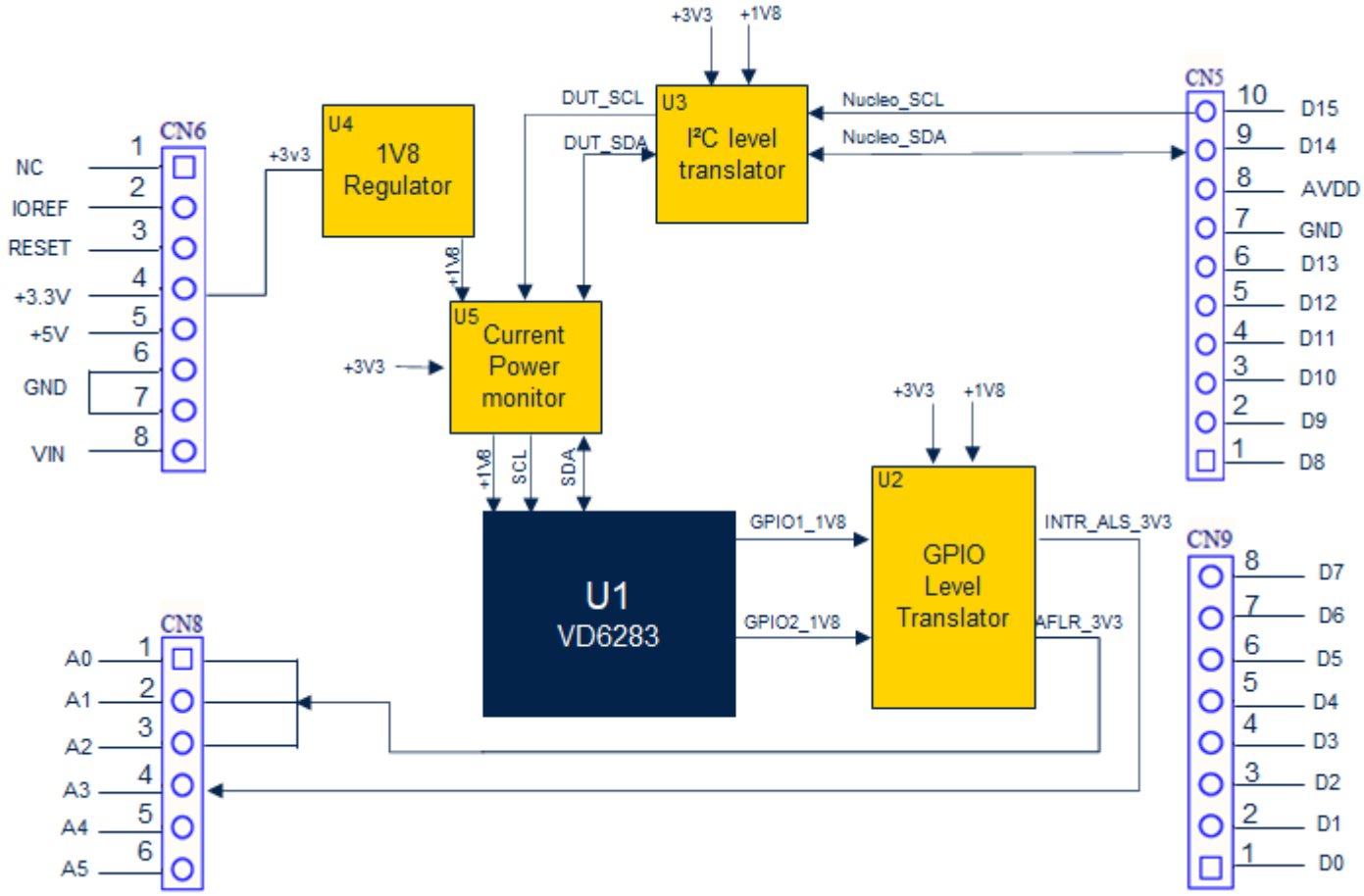
Several ST expansion boards can be superposed through the Arduino connectors, which allows, for example, the development of VD6283 applications with Bluetooth or Wi-Fi interfaces.

| Order code | Description |
|---|---|
| X-NUCLEO-6283A1/ | Expansion board for STM32 Nucleo board family |

# 1 Block diagram

The figure below illustrates the X-NUCLEO-6283A1 expansion board features.

**Figure 1. X-NUCLEO-6283A1 circuit diagram**



# 2 Package information

In order to meet environmental requirements, ST offers these devices in different grades of ECOPACK packages, depending on their level of environmental compliance. ECOPACK specifications, grade definitions and product status are available at: www.st.com. ECOPACK is an ST trademark.

## Revision history

Table 1. **Document revision history**

| Date | Version | Changes |
|---|---|---|
| 11-May-2021 | 1 | Initial release |