Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

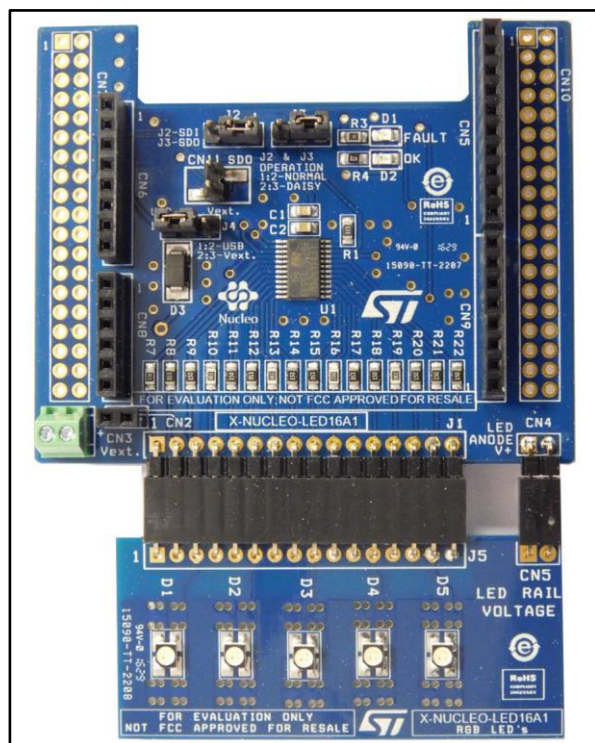## Contact us

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X-NUCLEO-LED16A1

16 channel LED driver expansion board based on LED1642GW for STM32 Nucleo

Data brief

- Error detection
  - Open LED
  - Shorted LED
- Thermal shutdown
- Compatible with STM32 Nucleo board
- Equipped with Arduino™ UNO R3 connector
- RoHS compliant

Description

The X-NUCLEO-LED16A1 is an STM32 Nucleo expansion board designed to provide an application for the 16 channel LED driver LED1642GW. Multiple drivers can also be cascaded by coupling X-NUCLEO-LED16A1 expansion boards.

Depending upon the end application, RGB or single color LEDs can be connected to the board. Separate brightness control is possible for each channel.

It is compatible with the STM32 Nucleo board family and equipped the Arduino™ UNO R3 connector layout.

Features

- 16 constant current output channels
- Output current: from 3 mA to 40 mA
- 20 V current generator rated voltage
- Provision for cascading multiple expansion boards
- Current adjustment:
  - 7-bit global current gain adjustment in two ranges
  - Current programmable through external resistor
  - 12/16-bit PWM grayscale brightness control
- Selectable LED Bus voltage supply
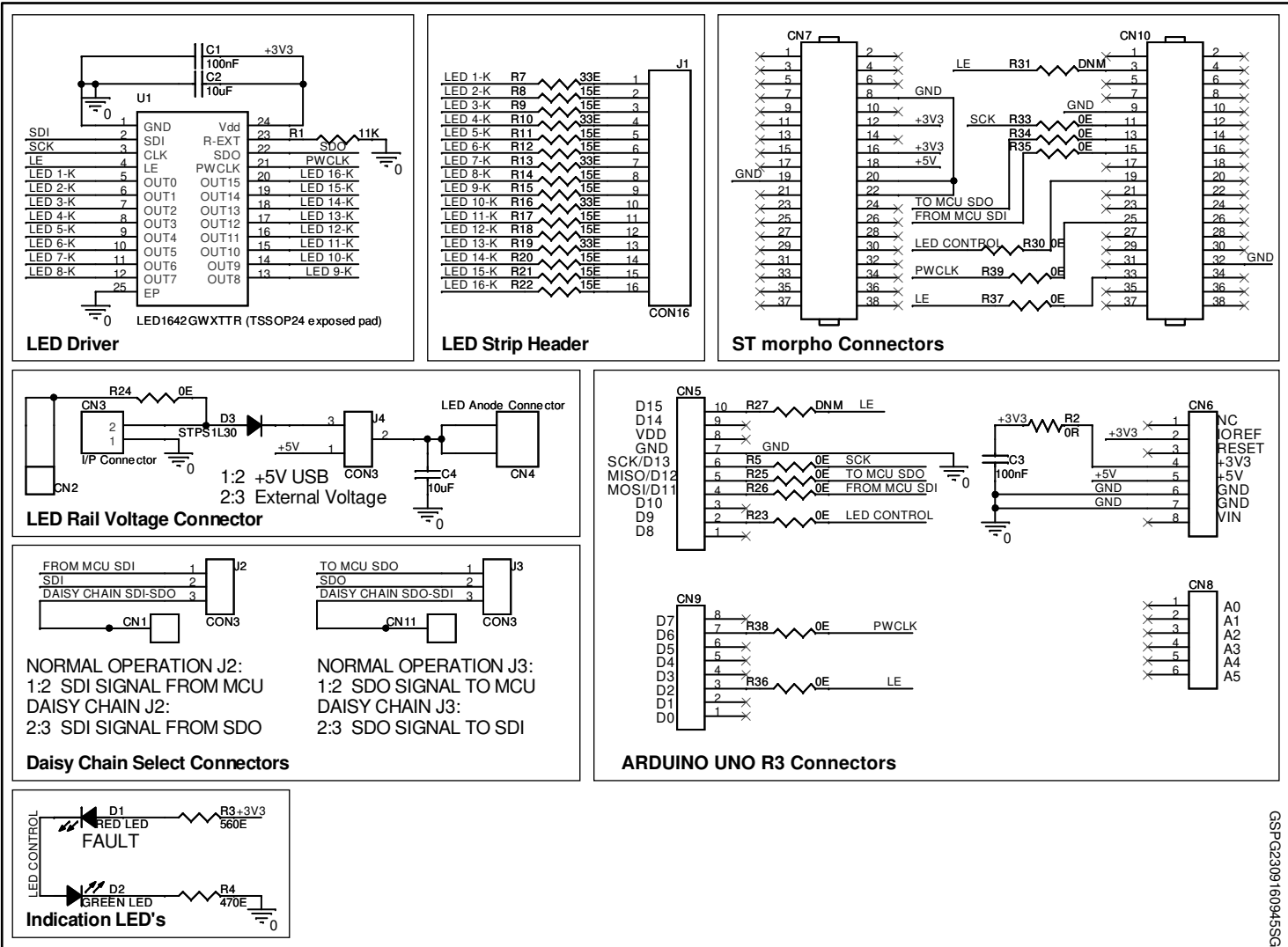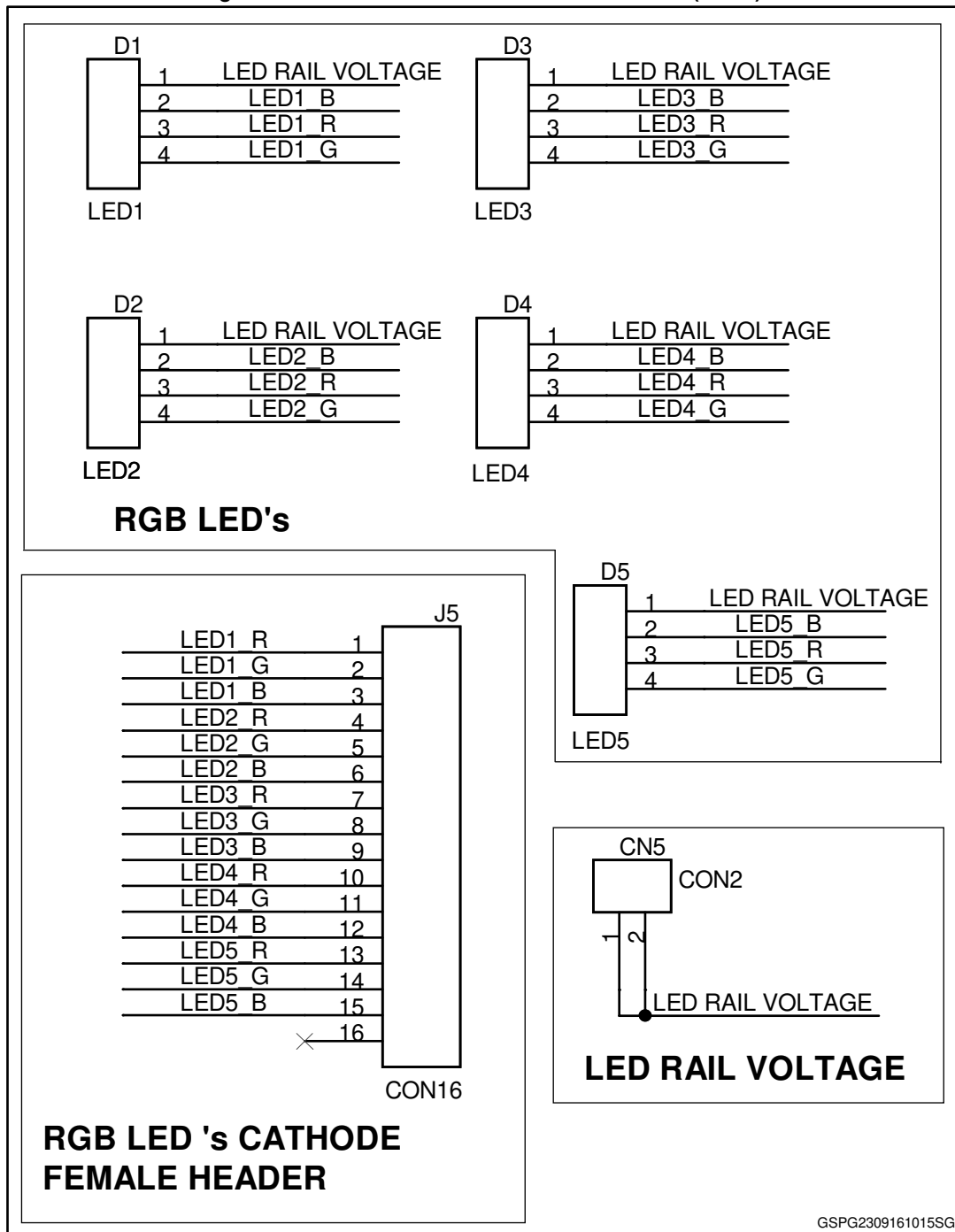 - USB
  - $V_{external}$

1 Schematic diagrams

Figure 1: X-NUCLEO-LED16A1 circuit schematic (1 of 2)

GSPG23091609445SG

Figure 2: X-NUCLEO-LED16A1 circuit schematic (2 of 2)

2 Revision history

Table 1: Document revision history

Date	Version	Changes
02-Dec-2016	1	Initial release.

IMPORTANT NOTICE – PLEASE READ CAREFULLY