

## LED driver expansion board based on LED1202 device for STM32 Nucleo



### Features

- Four LED1202 devices driving up to 48 LEDs
- One double row pin array connector for external LED panel connection
- One jumper selector for internal/external LED power supply
- One panel with 48 white LEDs/16 RGB LEDs included
- Arduino UNO R3 connectors
- Free comprehensive development firmware library compatible with STM32Cube
- Scalable solution for multiple board stack
- RoHS and WEEE compliant

### Description

The X-NUCLEO-LED12A1 LED driver expansion board for STM32 Nucleo features four LED1202 devices that can drive up to 48 LEDs.

The LED1202 is a 12-channel low quiescent current LED driver, which guarantees 5 V output driving capability. Each channel is able to provide up to 20 mA with a headroom voltage of 350 mV (typ.) only.

The output current can be adjusted separately for each channel through an 8-bit analog and 12-bit digital dimming control.

The X-NUCLEO-LED12A1 expansion board comes with an additional LED panel board that houses two LEDs matrices: a 6x8 white LED matrix and a 4x4 RGB matrix.

LED matrices can be supplied via an external power supply connected to J13 connector and by selecting the right path through J15 jumper to reach the maximum luminosity available.

#### Product summary

LED driver expansion board based on LED1202 device for STM32 Nucleo	X-NUCLEO-LED12A1
LED driver software expansion for STM32Cube	X-CUBE-LED12A1
12-channel low quiescent current LED driver	LED1202
Applications	LED Lighting Smart Home

# 1 Schematic diagrams

Figure 1. X-NUCLEO-LED12A1 expansion board circuit schematic

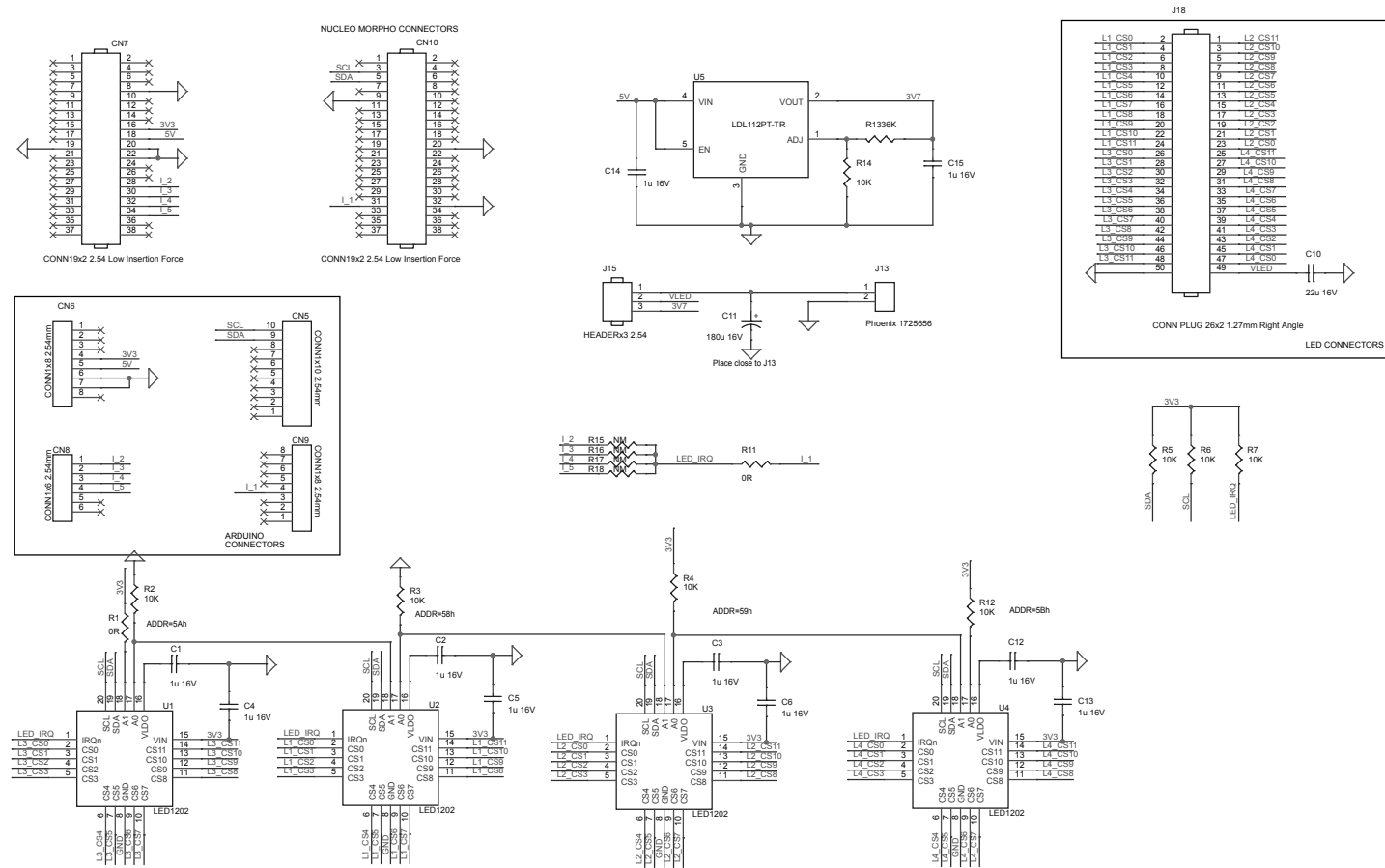
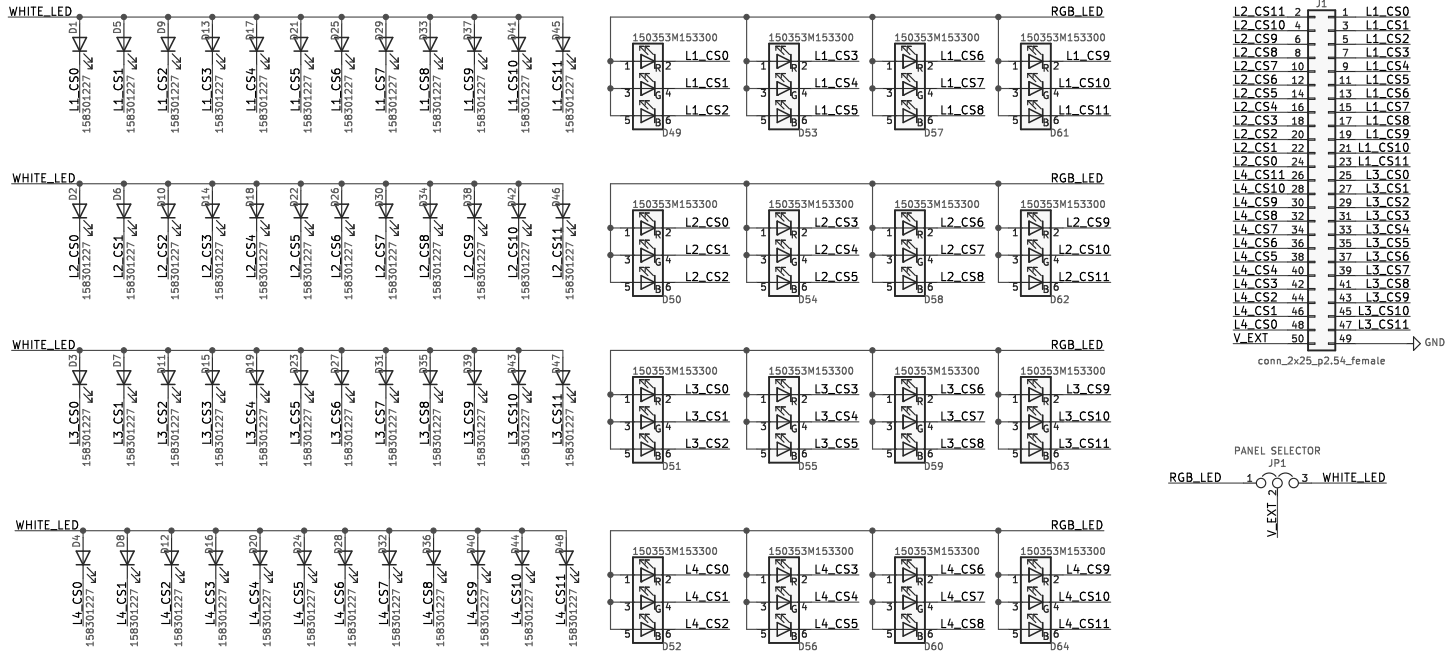


Figure 2. LED panel circuit schematic



## Revision history

**Table 1. Document revision history**

Date	Revision	Changes
27-Sep-2021	1	Initial release.

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