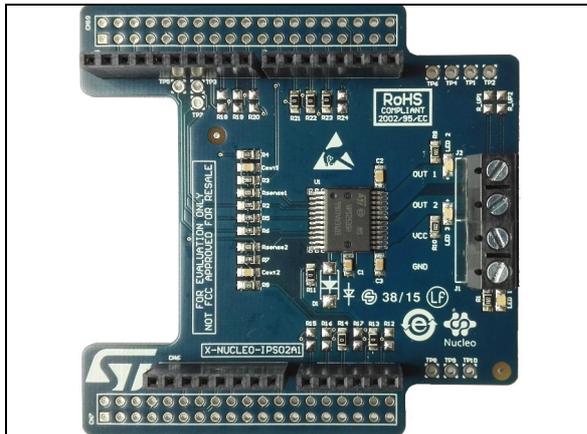## 24 V Intelligent power switch expansion board based on VPS2535H for STM32 Nucleo

Data brief - production data

Features

- Operating Voltage range from 8 V to 36 V

- Current limitation: 42 A

- RON (per Ch): 35 $m\Omega$ @ 25 C

- Stand-By Current: 2 µA

- Temperature range: -40°C ÷ 150°C

- Power ok and Output LEDs

- Multisense Analog feedback

- Fully protected device

- Compatible with Arduino™ UNO R3 connector

- Compatible with STM32 Nucleo boards

- RoHS compliant

Description

The X-NUCLEO-IPS02A1 provides an affordable and easy-to-use solution for driving grounded loads (i.e. heating elements, solenoid driver, LED driver, light bulb driver, pumps relay replacement, and fans) in STM32 Nucleo projects.

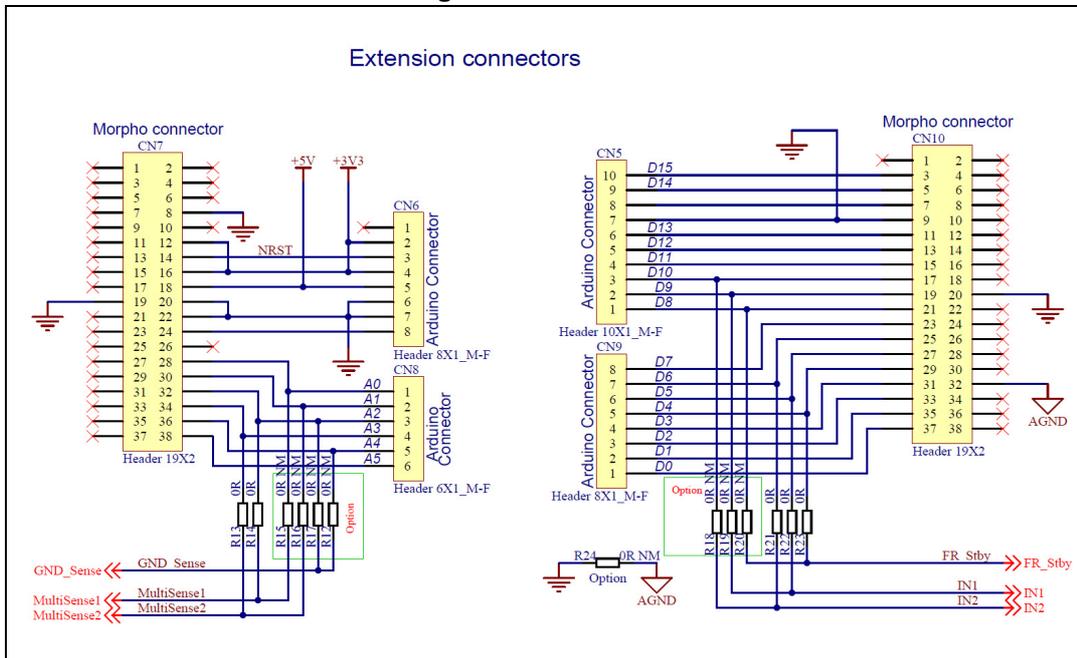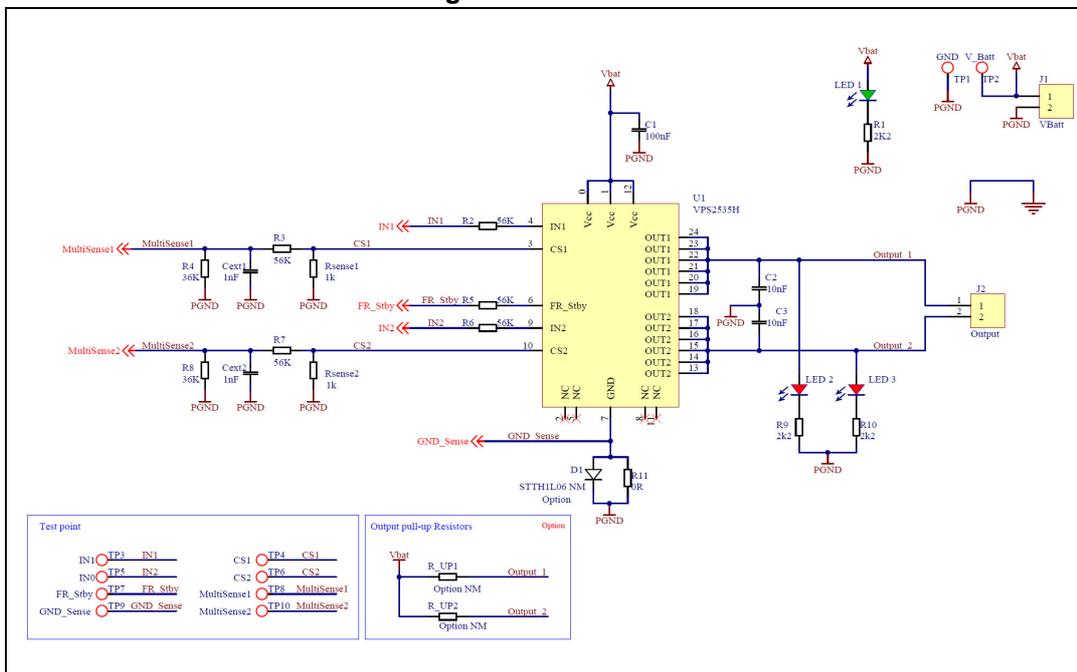This expansion board is compatible with the Arduino UNO R3 connector and supports the addition of other STM32 expansion boards with a single STM32 Nucleo board. The user can also mount the ST morpho connector.

The X-NUCLEO-IPS02A1 expansion board is based on the VPS2535H a double channel High Side Driver through a 3 V and 5 V CMOS-compatible interface and with multisense analog feedback and protections

The device VPS2535H integrates advanced protective functions such as the load current limitation protects the device in overload conditions. The device latches off in case of overload or thermal shutdown.

Table 1. Device summary

Order code	Reference
X-NUCLEO-IPS02A1	X-NUCLEO-IPS02A1 with VPS2535H

1 Schematic diagram

Figure 1. Connectors

Figure 2. VPS2535H

2 Revision history

Table 2. Document revision history

Date	Revision	Changes
18-May-2016	1	Initial release.