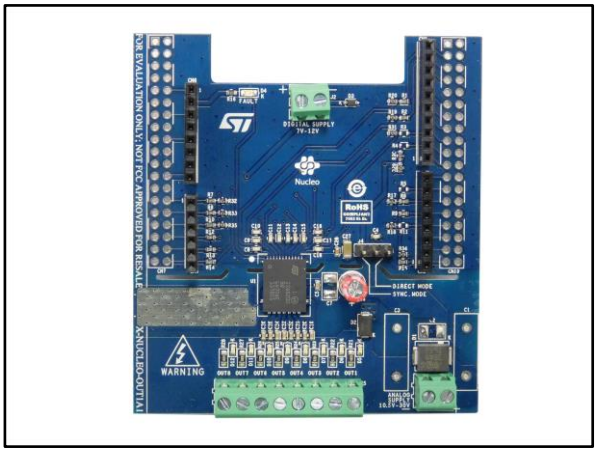
X-NUCLEO-OUT01A1

Industrial Digital output expansion board based on ISO8200BQ for STM32 Nucleo

Data brief



Features

- Enables industrial programmable logic controller (PLC) capabilities on STM32 Nucleo
- ISO8200BQ galvanic isolated octal high-side smart power solid state-relay
- Operating voltage from 10.5 V to 33 V
- Maximum operating output current per channel I_{OUT} = 700 mA
- Status LEDs: Fault, Thermal protection
- Compatible with Arduino® UNO R3 connector
- Compliance with EMC standards:
  - IEC61000-4-2: 8kV Contact Discharge and 15kV Air discharge
  - IEC61000-4-3: 4kV Discharge on output and supply line
  - IEC61000-4-5: 2kV Discharge on output and supply line
- Compatible with STM32 Nucleo boards
- RoHS compliant

Description

The X-NUCLEO-OUT01A1 is an Industrial Digital output expansion board based on ISO8200BQ for STM32 Nucleo boards.

It provides an affordable and easy-to-use solution involving galvanic insulation embedded in industrial power switch driver applications.

The Arduino™ UNO R3 connector compatibility allows to connect the following STM32 Nucleo development boards: NUCLEO-F103RB, NUCLEO-F302R8 and NUCLEO-F401RE.

The X-NUCLEO-OUT01A1 can be connected to the X-NUCLEO-PLC01A1 to form a powerful industrial PLC with 8 inputs and 16 outputs.

Wireless communication capabilities can be added with the X-NUCLEO-IDW01M1, which establishes communication on a smart device to manage the PLC remotely. A dedicated ST-PLC app is available for Android™ and iOS™ systems for this purpose.

This evaluation board is designed to meet industrial standard requirements.

Schematic diagrams

Figure 1: Schematic diagram (1 of 2)

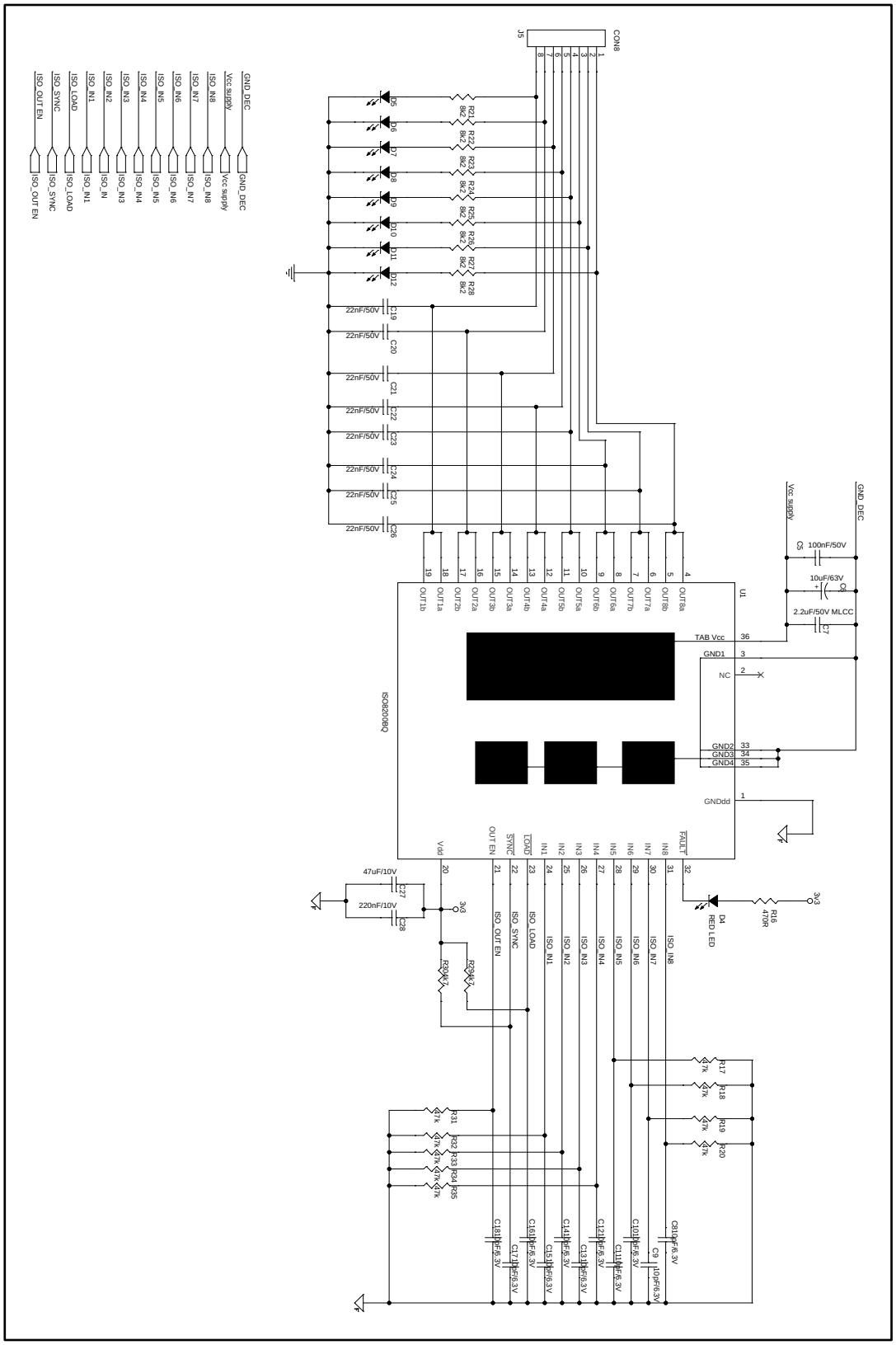
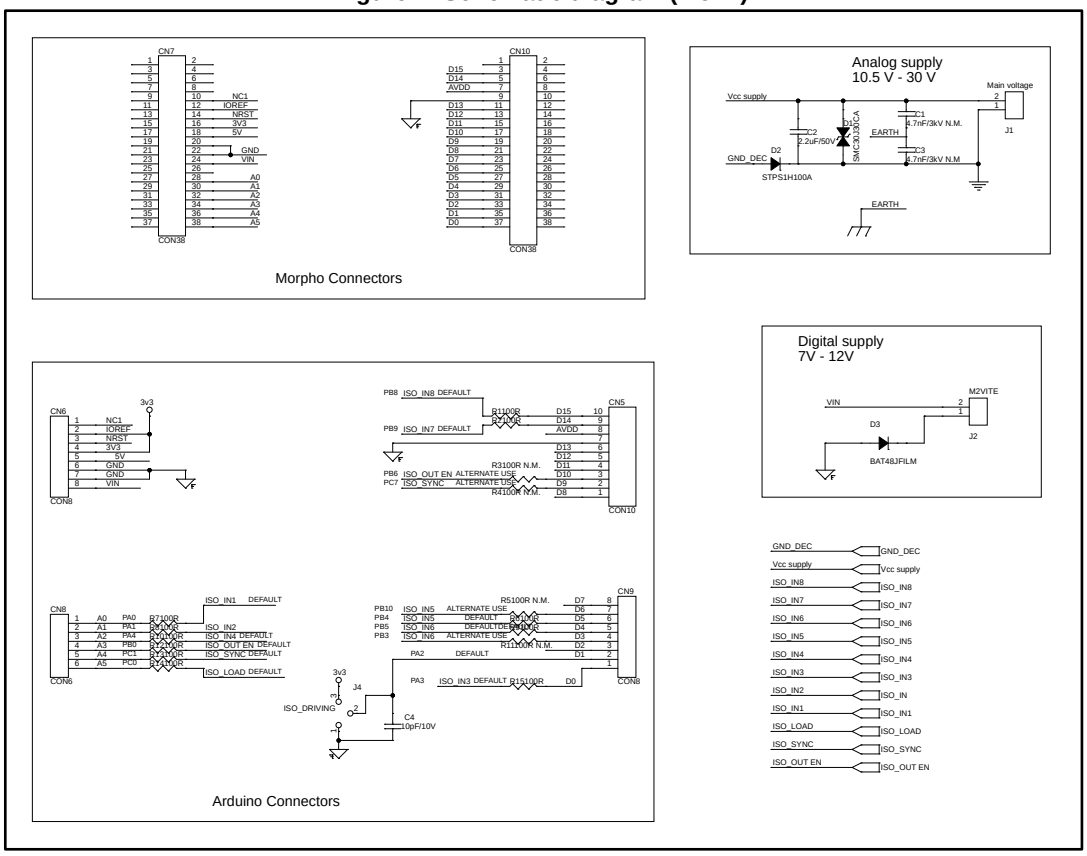


Figure 2: Schematic diagram (2 of 2)



Revision history

Table 1: Document revision history

Date	Version	Changes
24-May-2017	1	Initial release.