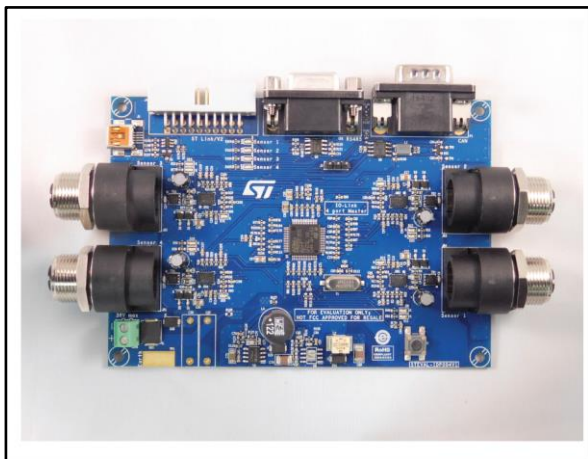


IO-Link master multi-port evaluation board based on L6360

Data brief



Features

- Main supply voltage 32 V maximum
- 4 L6360 IO-Link master device
- RS-485 serial interface
- CAN serial interface
- USB interface
- DC/DC converter
- On-board reverse polarity protection
- Designed to meet IEC requirement for industrial standards
- RoHS compliant

Description

The STEVAL-IDP004V1 evaluation board with STM32 microcontroller has four separate L6360 ICs.

Communication with the ICs is via I²C in master mode and is managed by the STM32F205RBT MCU; each L6360 has its own address and shares the bus with the other devices.

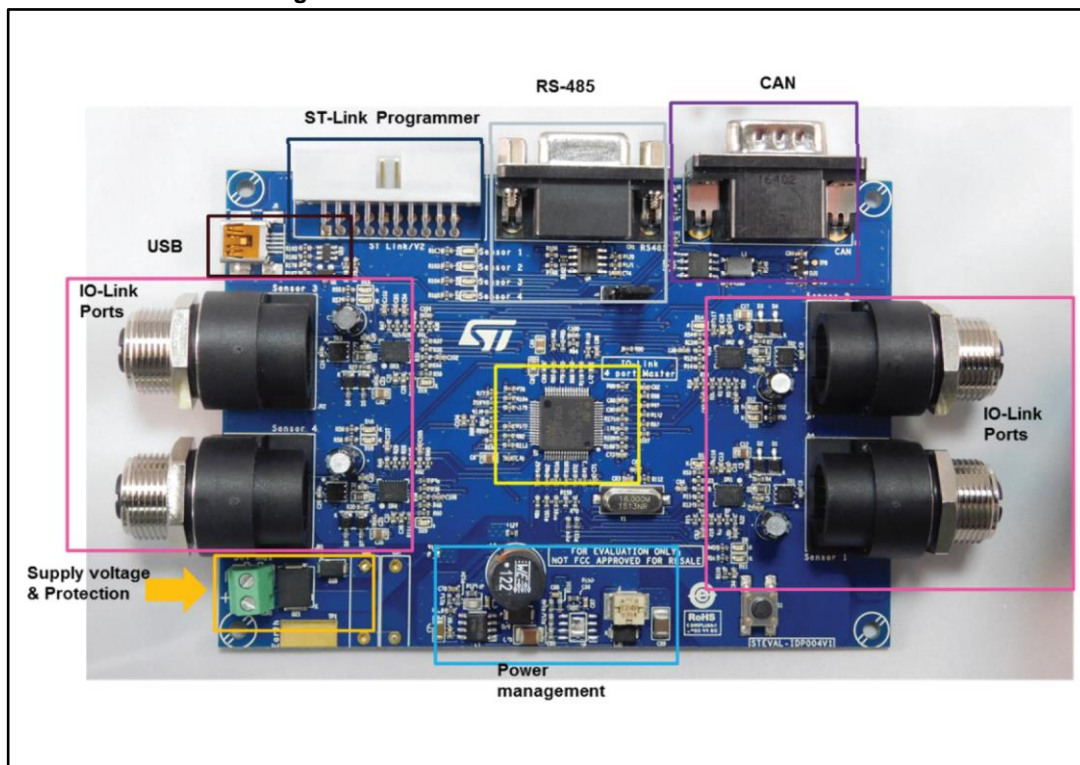
The STEVAL-IDP004V1 is developed to create a multi-port master d based on serial asynchronous communication to support the IO-Link protocol. Each node is equipped with an industrial M12 connector (as required by the standard) for connection with a single slave node using a cable 20 meter long; the wire is a normal three-pole: one for the IO-Link bus, one for the L+ line (positive supply voltage pole) and one for the L-line (negative supply voltage pole).

Beyond the IO-Link connection, the board includes RS485 bus, CAN bus and USB hardware interfaces.

The layout is designed to meet the requirements for IEC61000-4-2/4/5 for industrial segment.

1 Block identification

Figure 1: STEVAL-IDP004V1 block identification



2 Schematic diagrams

Figure 2: STEVAL-IDP004V1 circuit schematic (1 of 11)

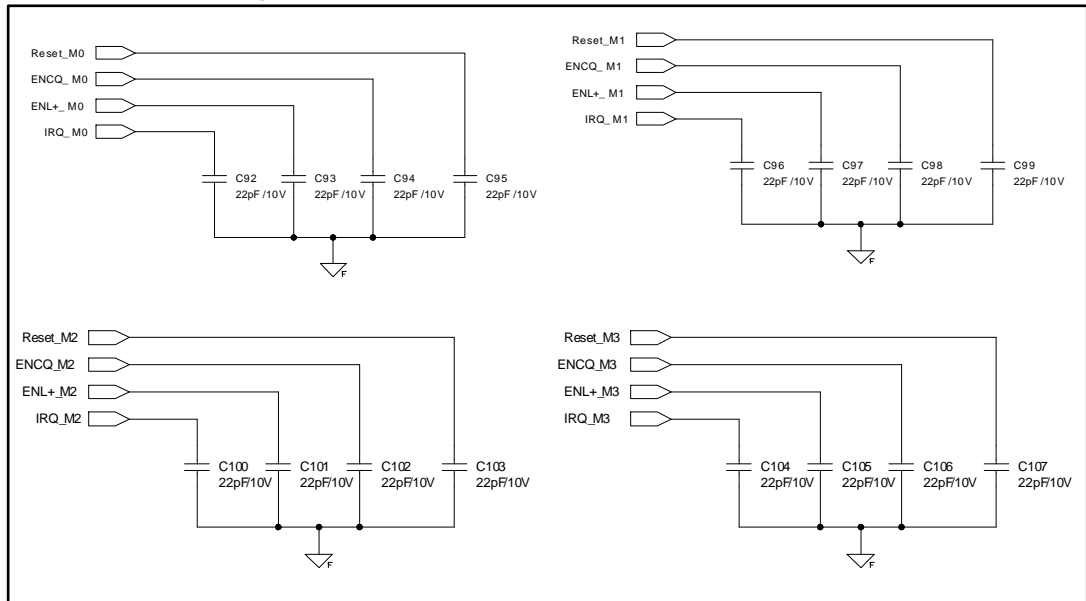


Figure 3: STEVAL-IDP004V1 circuit schematic (2 of 11)

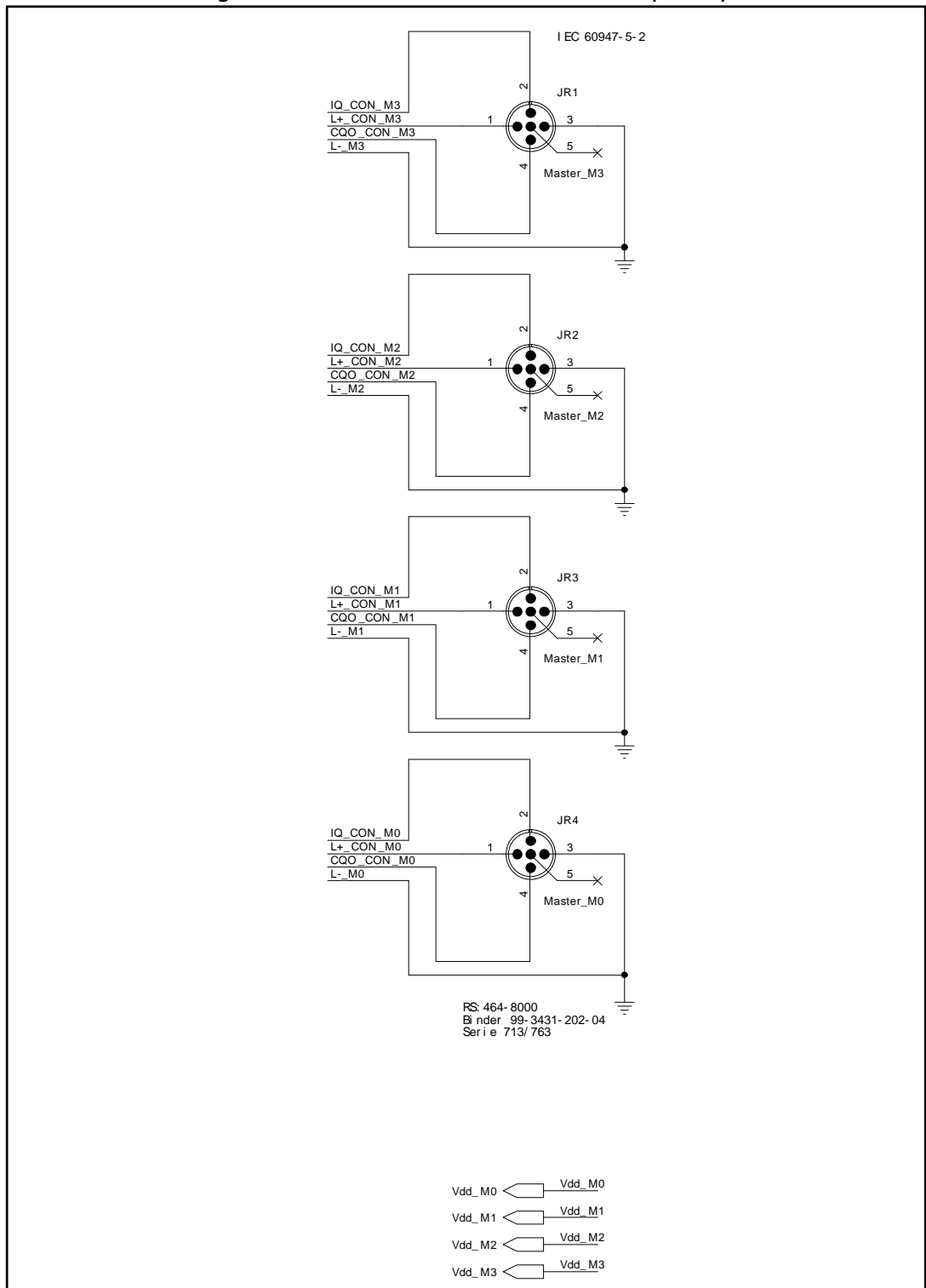


Figure 4: STEVAL-IDP004V1 circuit schematic (3 of 11)

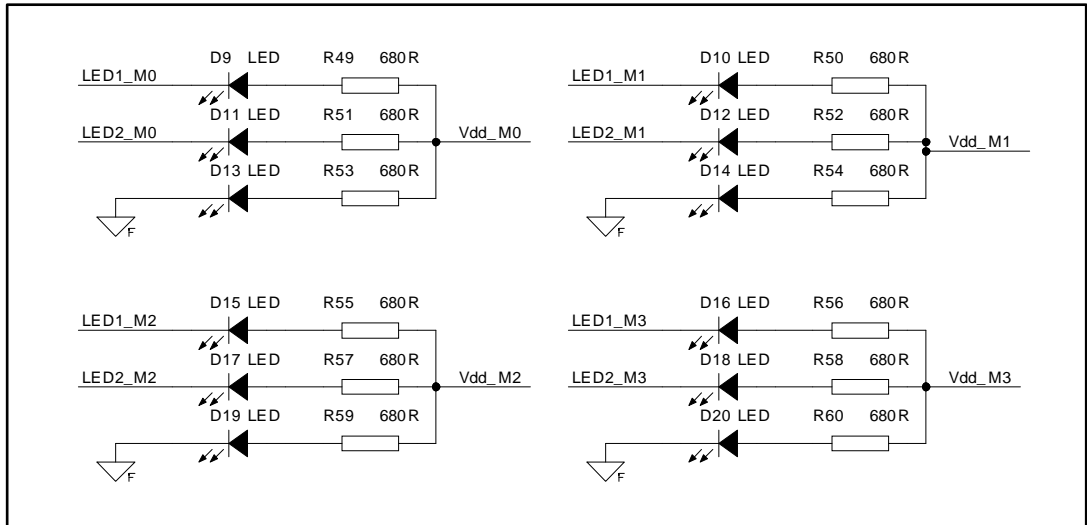


Figure 5: STEVAL-IDP004V1 circuit schematic (4 of 11)

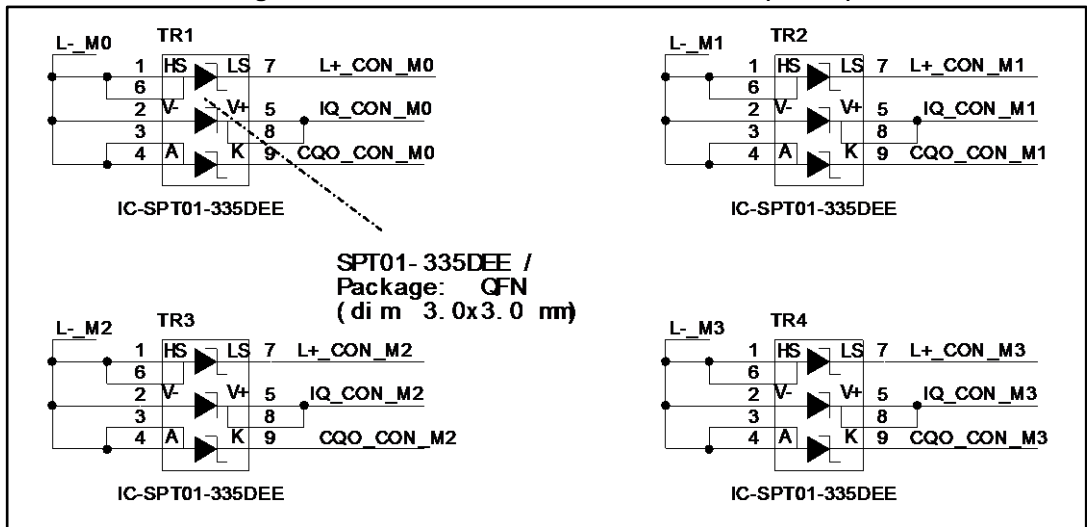


Figure 6: STEVAL-IDP004V1 circuit schematic (5 of 11)

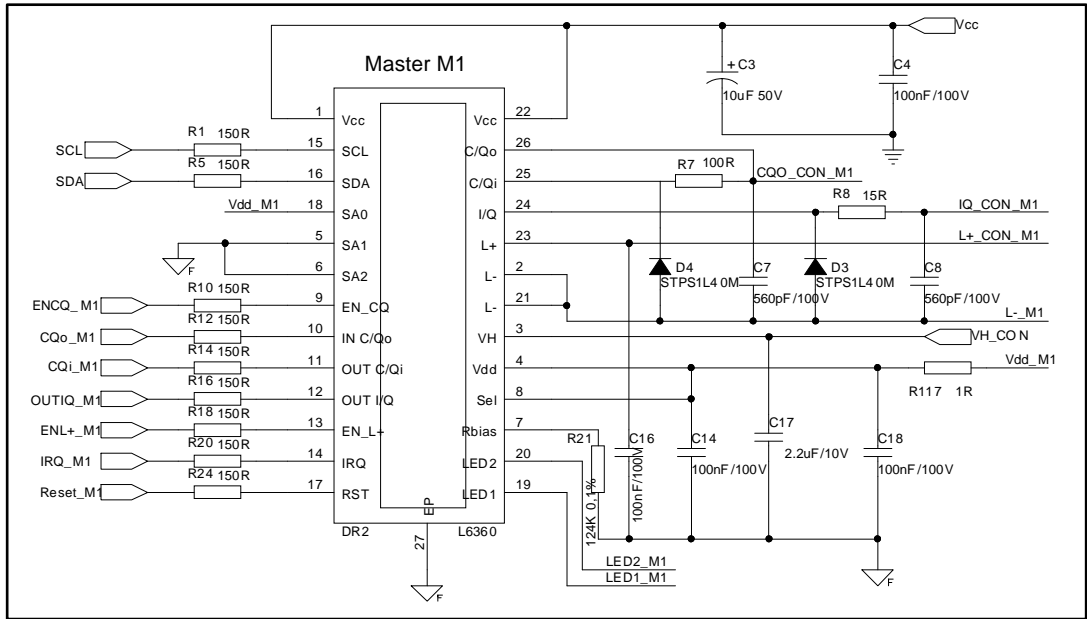


Figure 7: STEVAL-IDP004V1 circuit schematic (6 of 11)

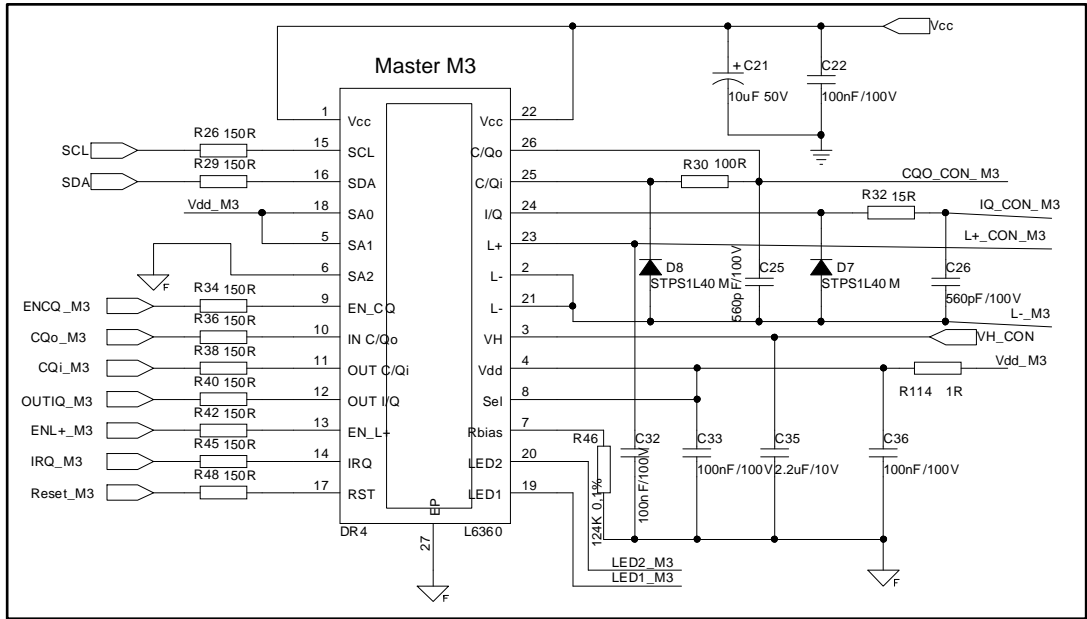


Figure 8: STEVAL-IDP004V1 circuit schematic (7 of 11)

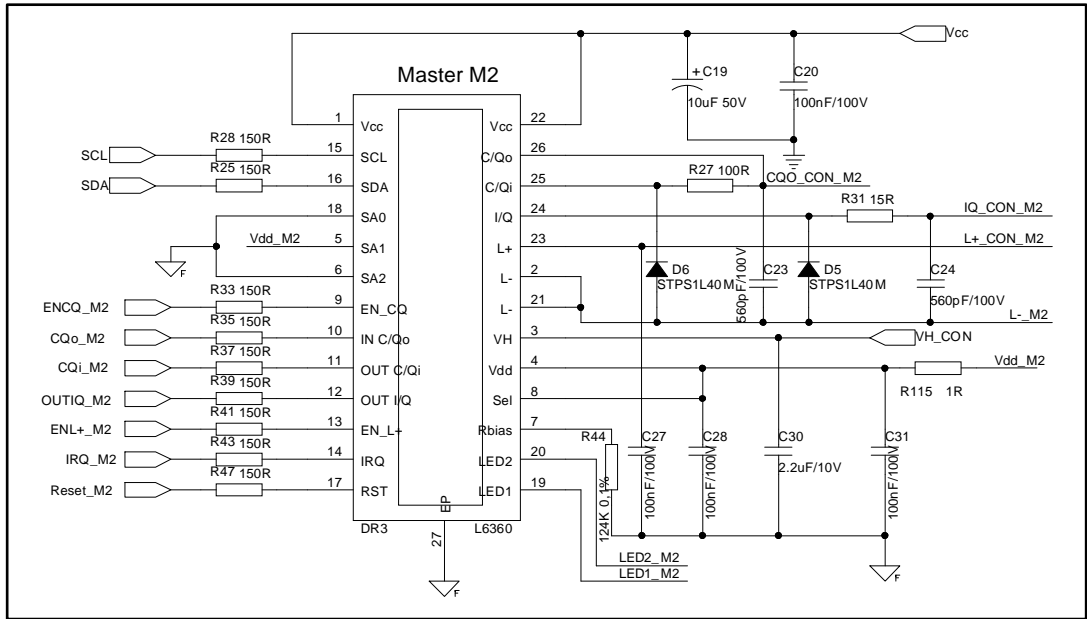


Figure 9: STEVAL-IDP004V1 circuit schematic (8 of 11)

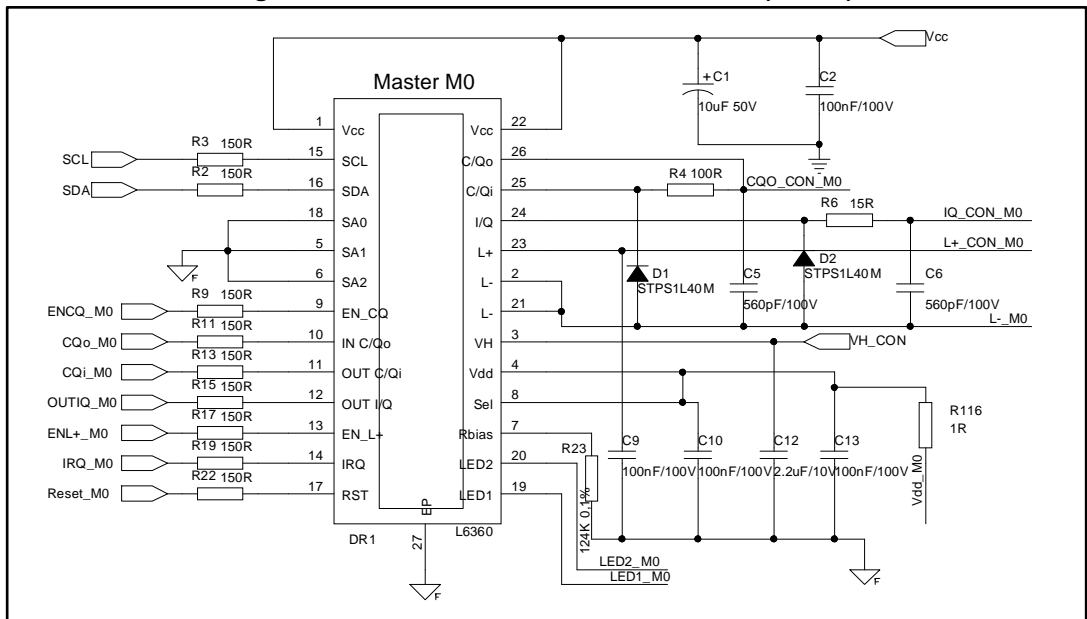


Figure 10: STEVAL-IDP004V1 circuit schematic (9 of 11)

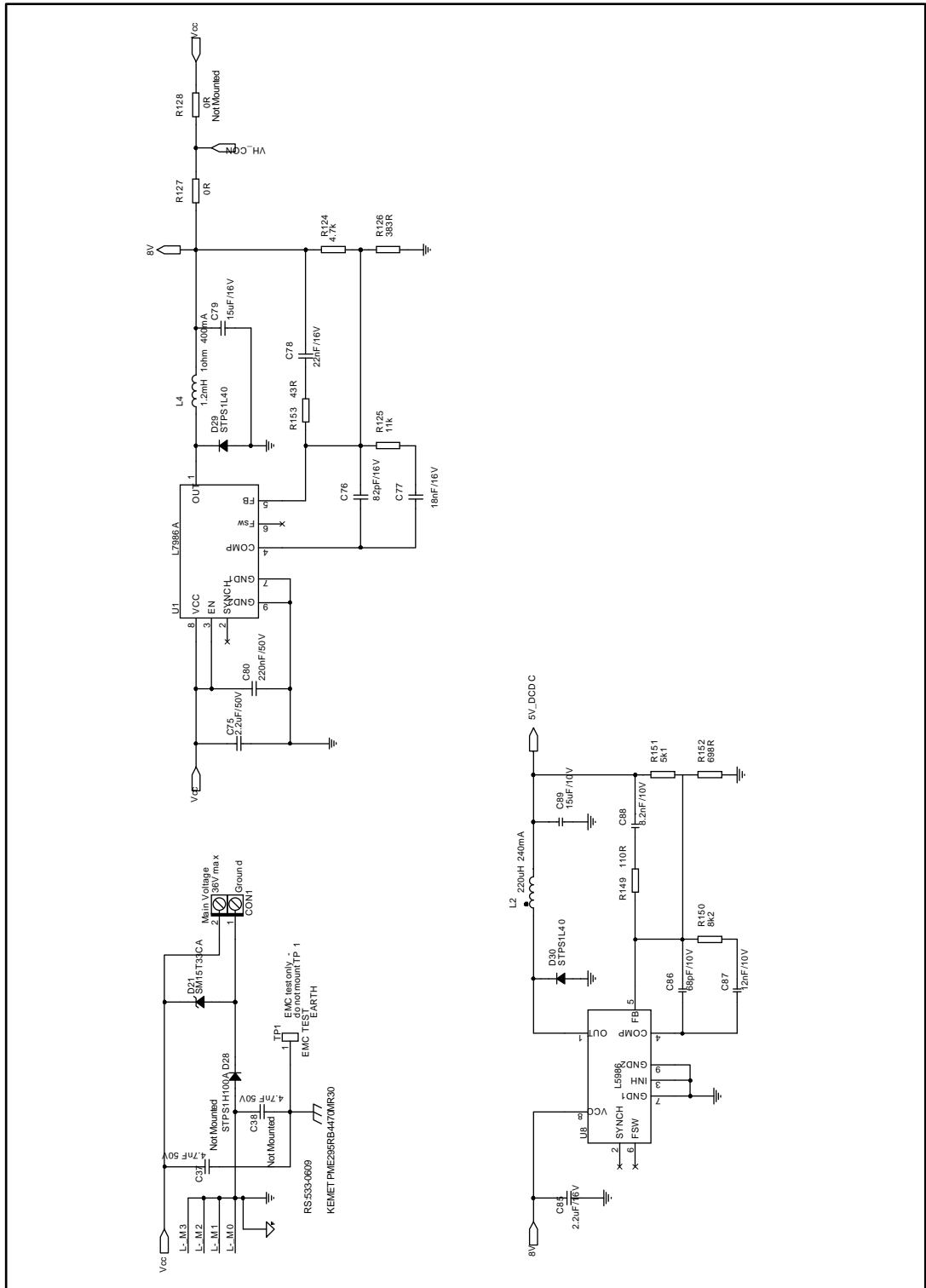


Figure 11: STEVAL-IDP004V1 circuit schematic (10 of 11)

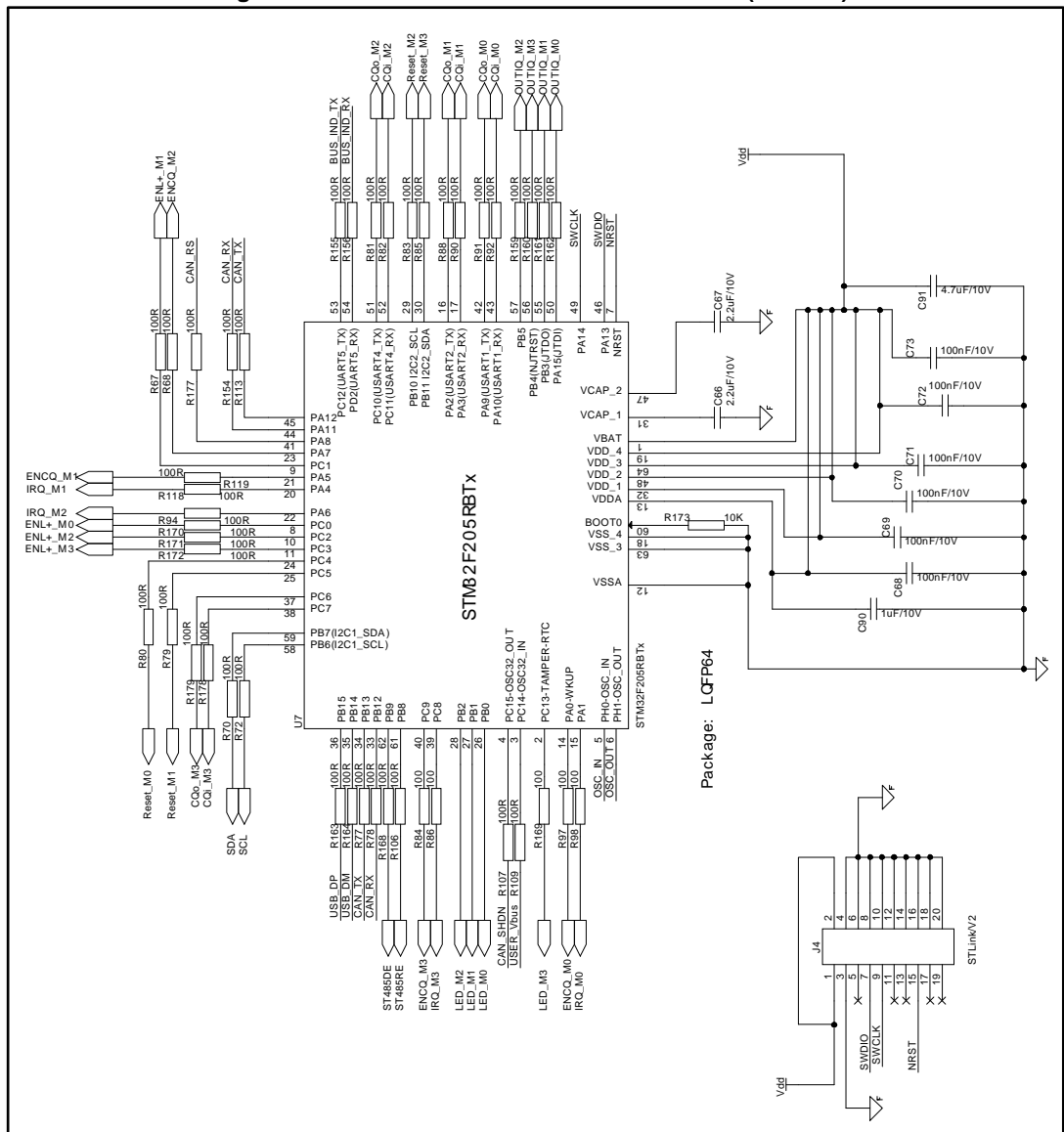
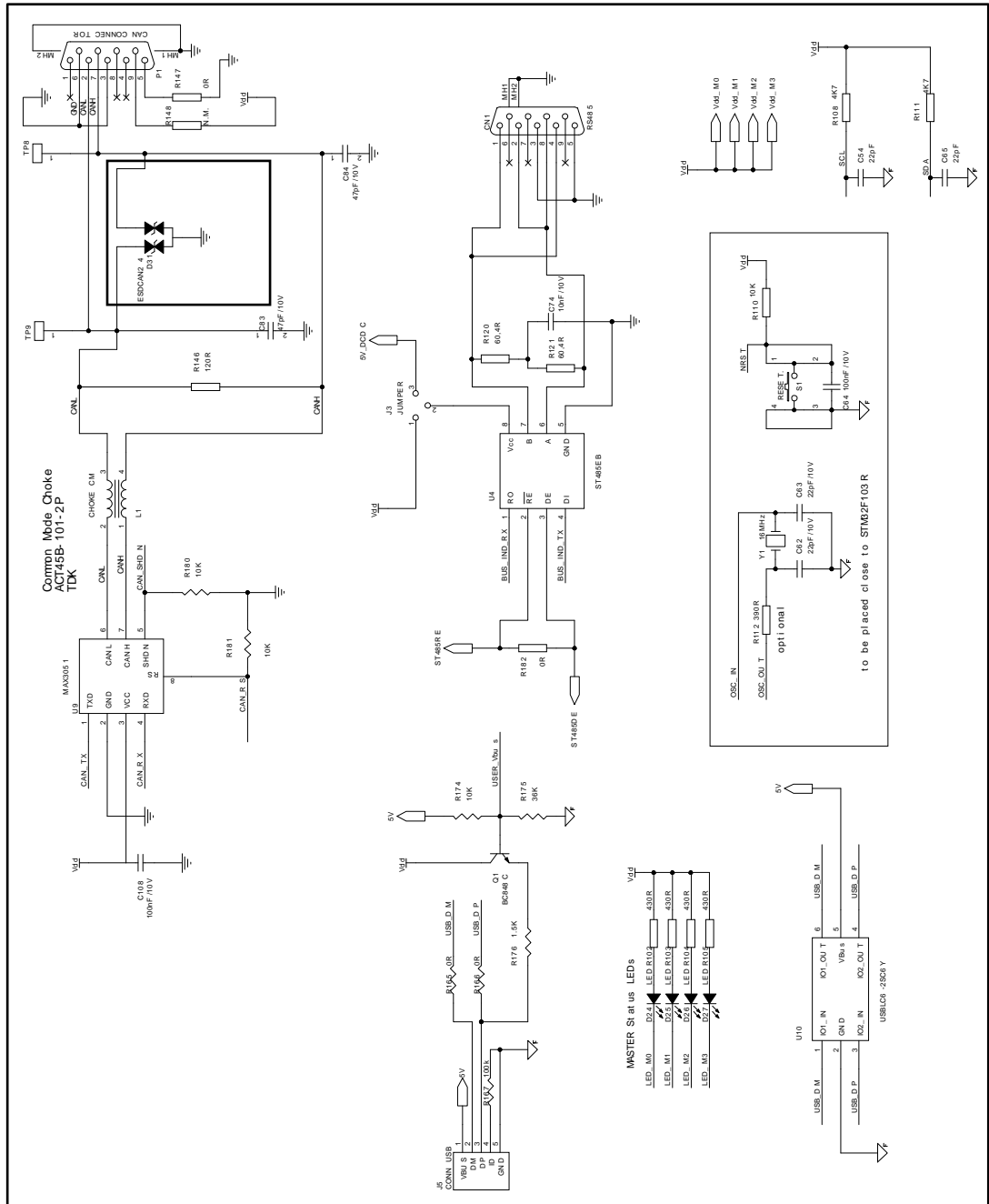


Figure 12: STEVAL-IDP004V1 circuit schematic (11 of 11)



3 Revision history

Table 1: Document revision history

Date	Version	Changes
17-May-2017	1	Initial release.
05-Jul-2017	2	Minor text changes.

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