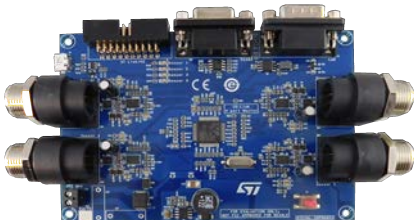


## IO-Link master multi-port evaluation board based on L6360



### Features

- Main supply voltage 32 V maximum
- 4 [L6360](#) IO-Link master devices
- 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 and WEEE compliant

### Description

The [STEVAL-IDP004V1](#) evaluation board with STM32 microcontroller has four separate [L6360](#) ICs.

Communication with the ICs is via I<sup>2</sup>C in master mode and is managed by the [STM32F205RB](#) 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).

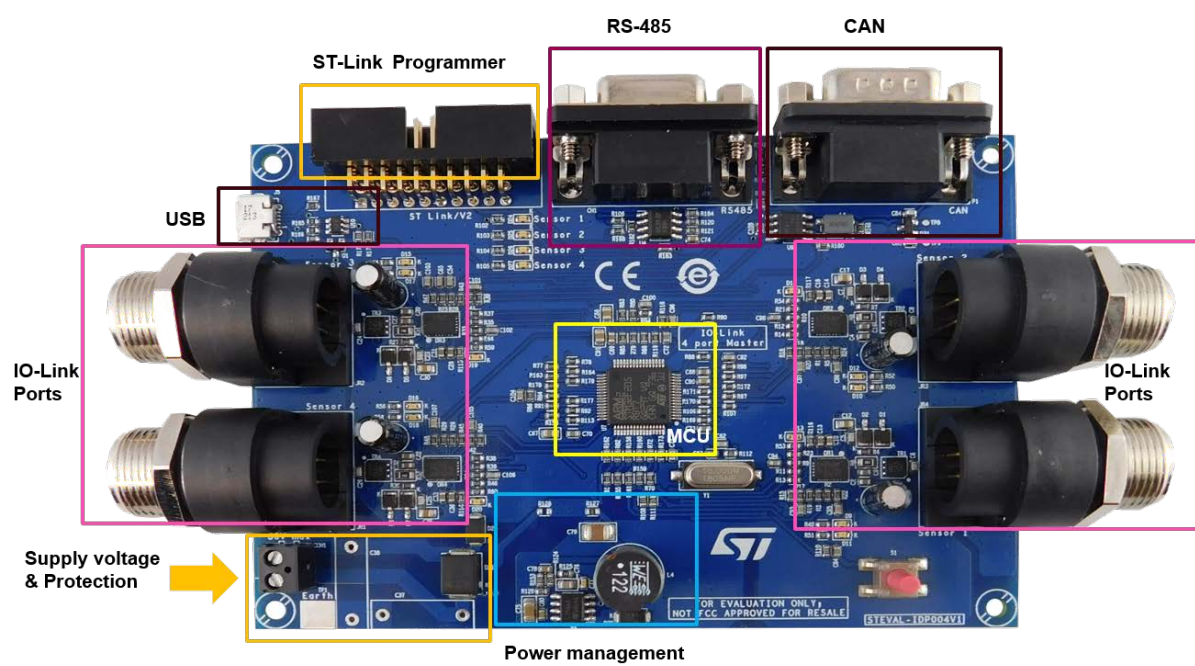
Beyond the IO-Link connection, the board includes RS-485 bus, CAN bus and USB hardware interfaces.

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

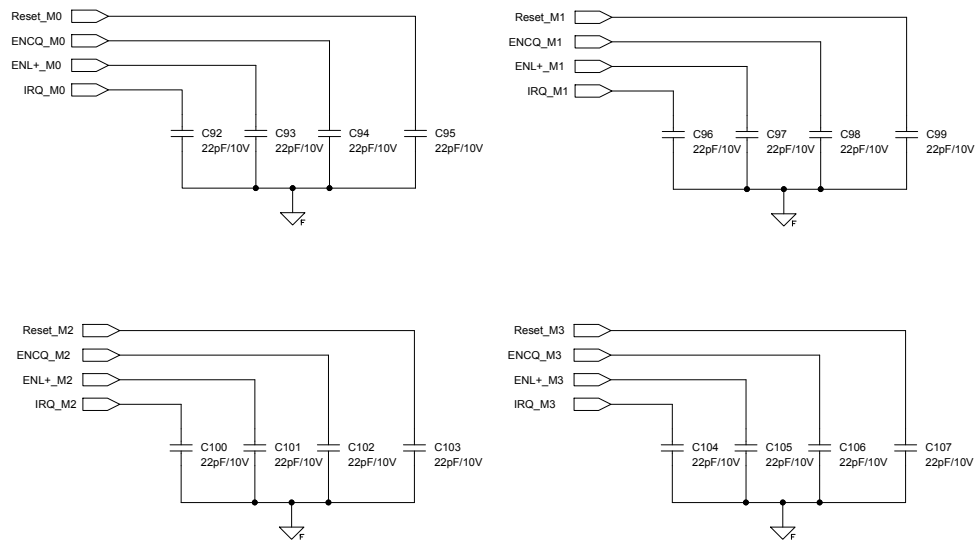
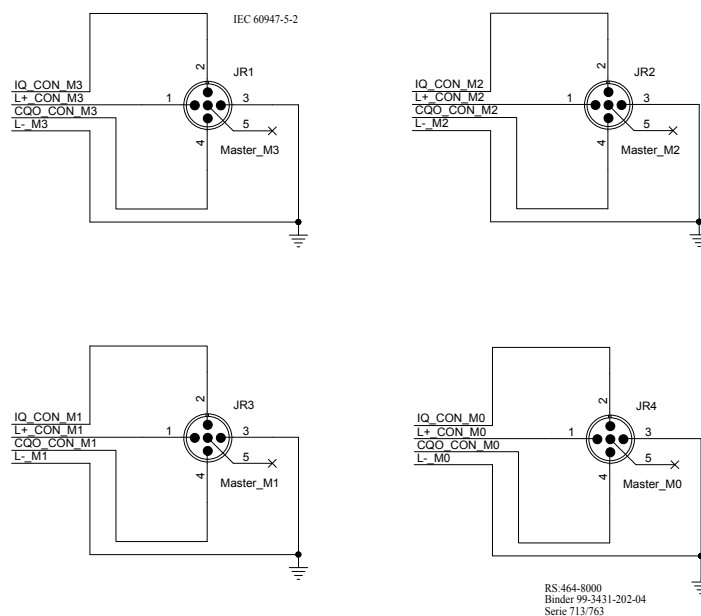
| Product summary                                                                        |                                 |
|----------------------------------------------------------------------------------------|---------------------------------|
| IO-Link master multi-port evaluation board based on L6360                              | <a href="#">STEVAL-IDP004V1</a> |
| High-performance ARM Cortex-M3 MCU with 128 Kbytes Flash, 120 MHz CPU, ART Accelerator | <a href="#">STM32F205RB</a>     |
| IO-Link communication master transceiver IC                                            | <a href="#">L6360</a>           |

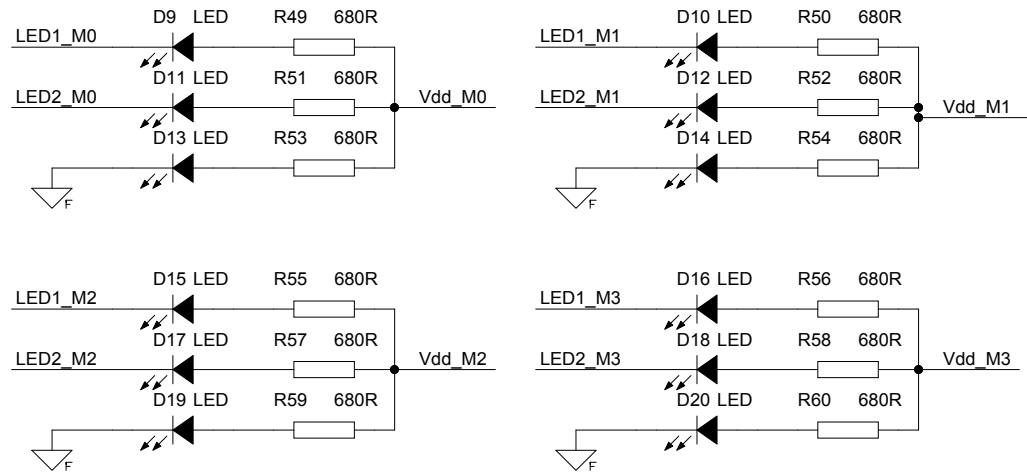
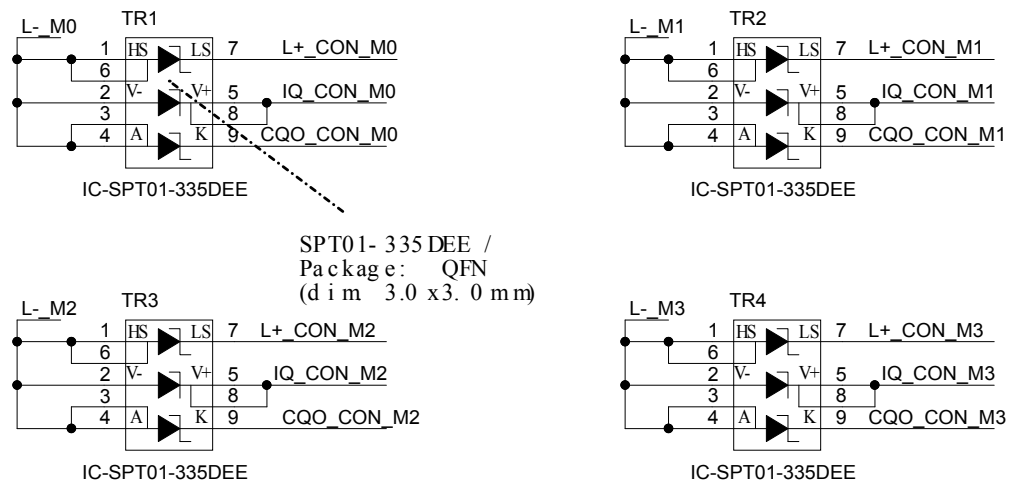
# 1 Block identification

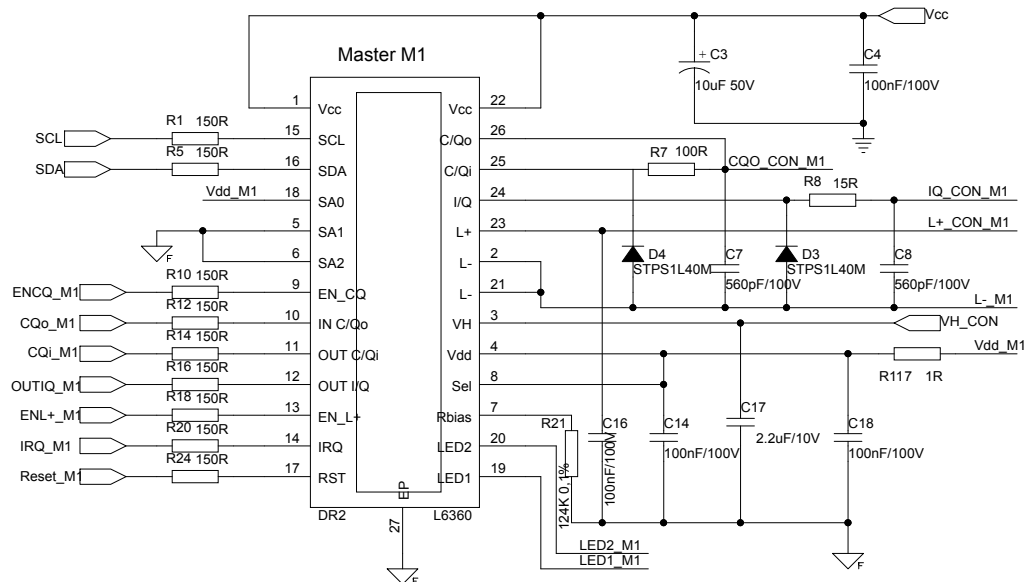
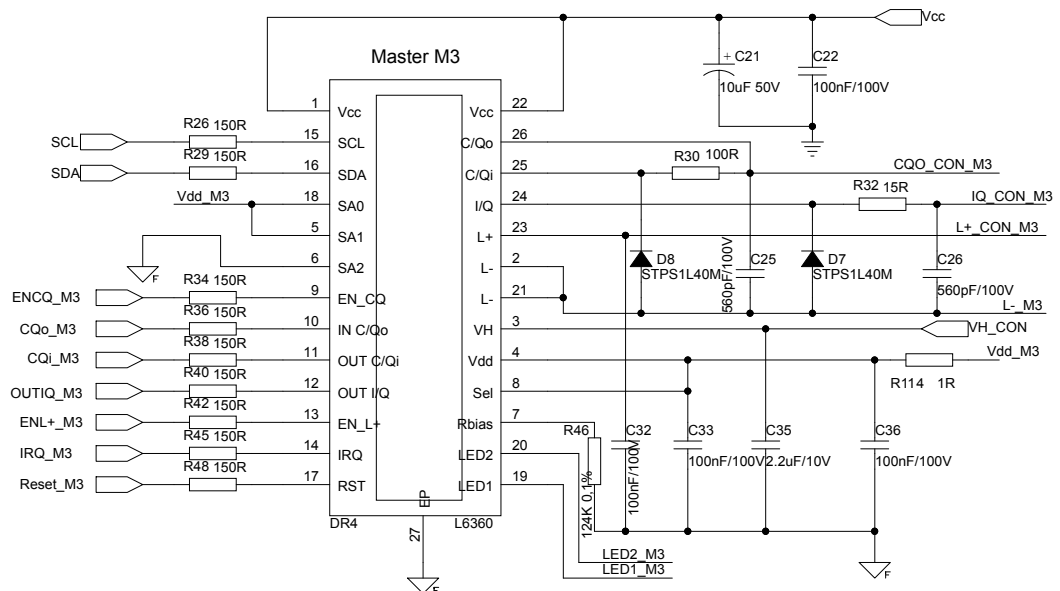
**Figure 1. STEVAL-IDP004V1 block identification**

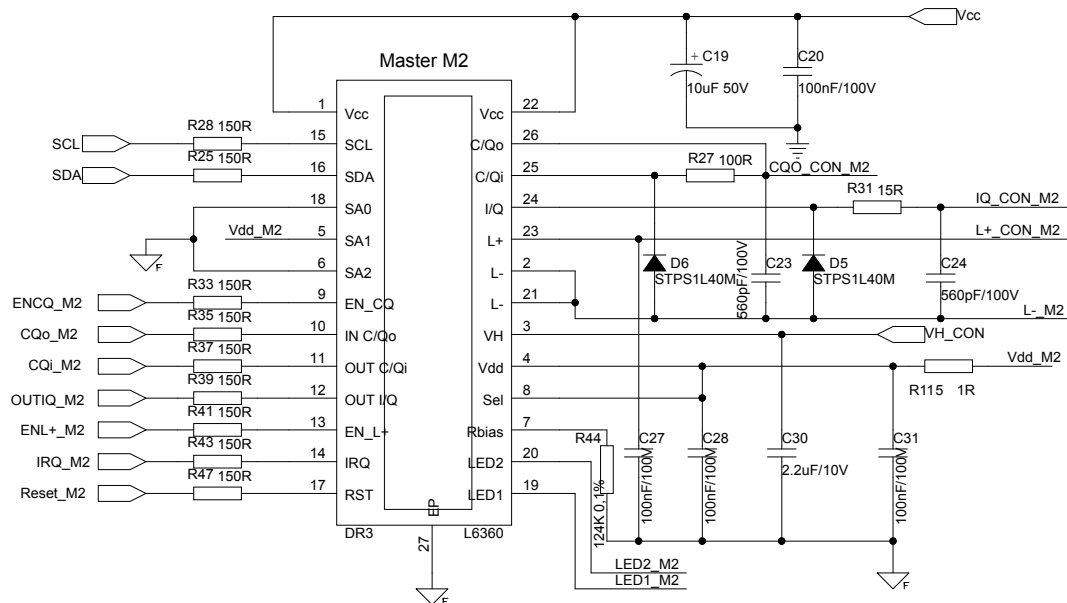
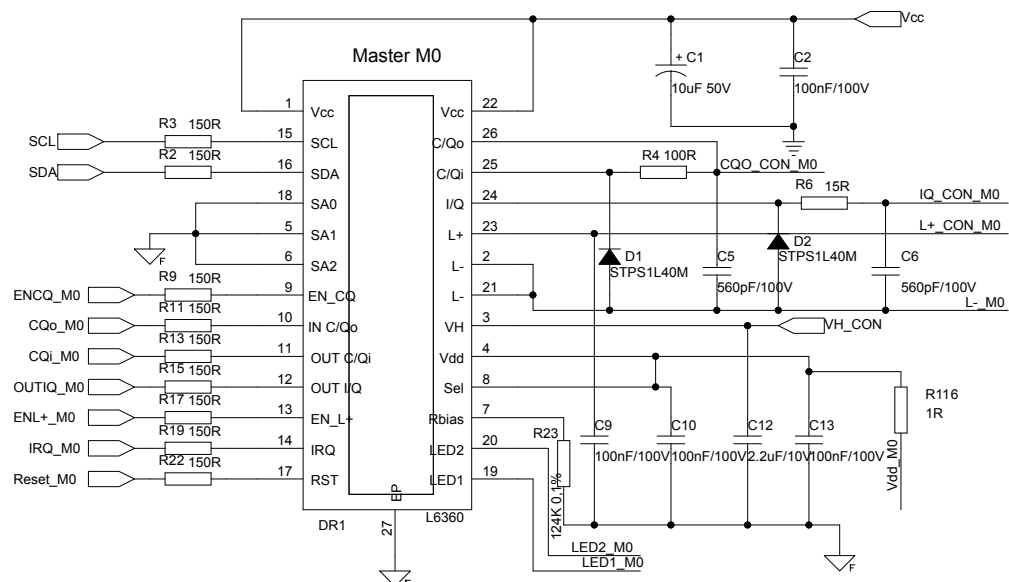


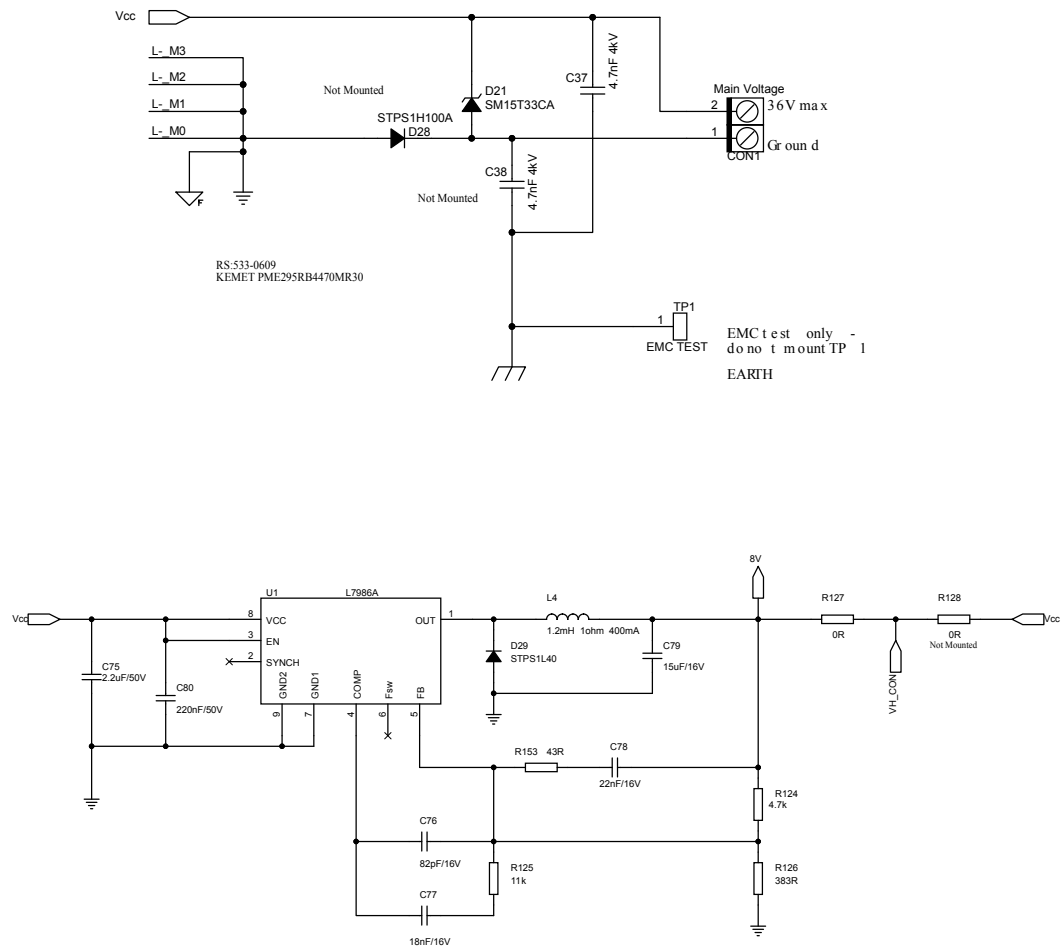
## 2 Schematic diagrams

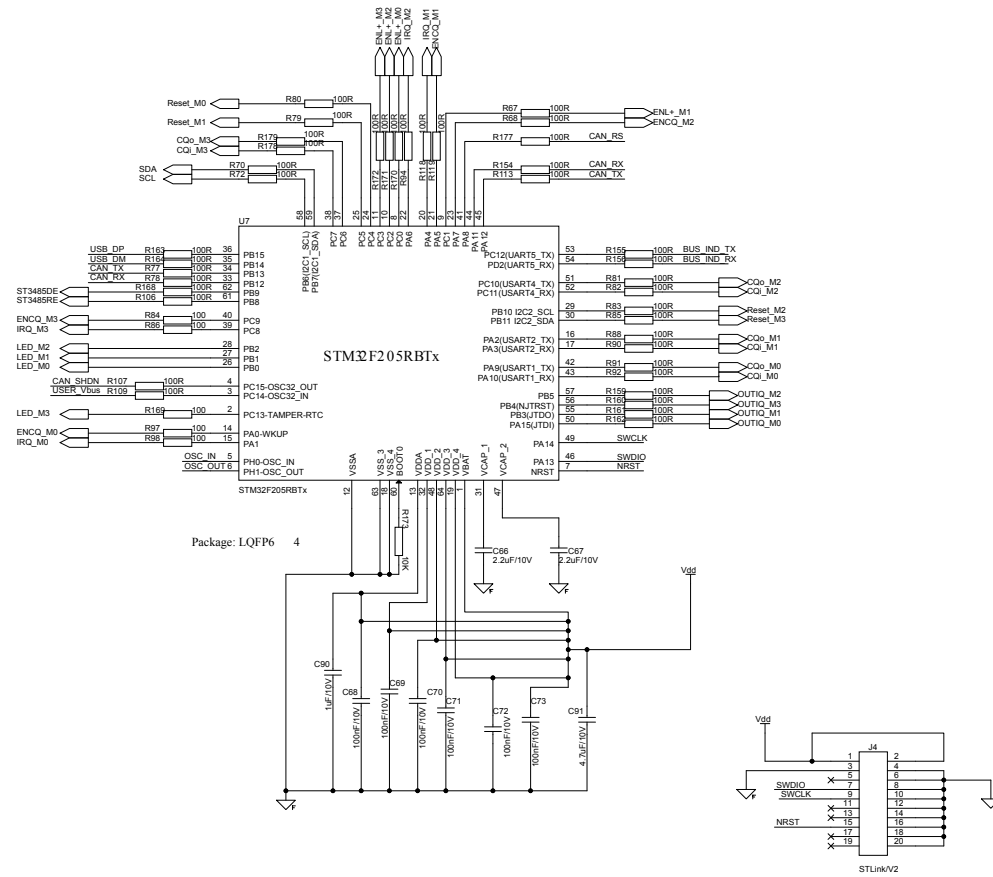
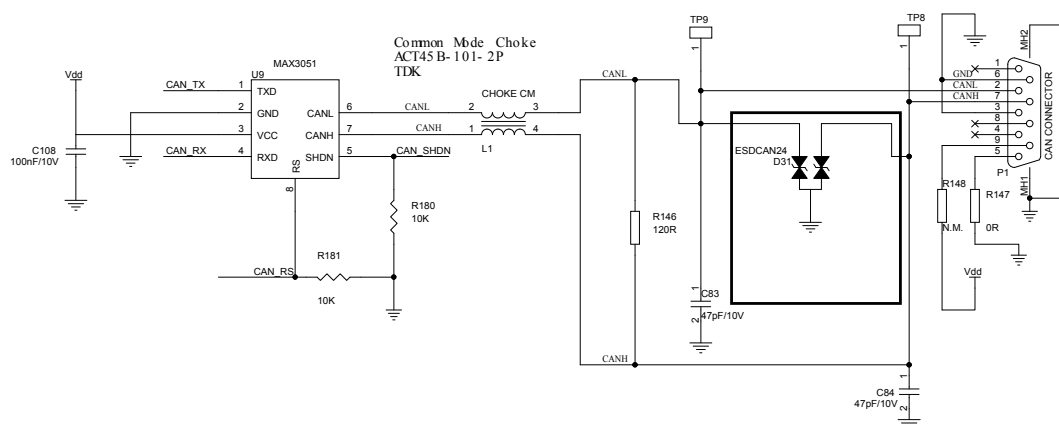
**Figure 2. STEVAL-IDP004V1 circuit schematic (1 of 13)**

**Figure 3. STEVAL-IDP004V1 circuit schematic (2 of 13)**

 RS 464-8000  
 Binder 99-3431-202-04  
 Serie 713/763

**Figure 4. STEVAL-IDP004V1 circuit schematic (3 of 13)**

**Figure 5. STEVAL-IDP004V1 circuit schematic (4 of 13)**


**Figure 6. STEVAL-IDP004V1 circuit schematic (5 of 13)**

**Figure 7. STEVAL-IDP004V1 circuit schematic (6 of 13)**


**Figure 8. STEVAL-IDP004V1 circuit schematic (7 of 13)**

**Figure 9. STEVAL-IDP004V1 circuit schematic (8 of 13)**


**Figure 10. STEVAL-IDP004V1 circuit schematic (9 of 13)**


**Figure 11. STEVAL-IDP004V1 circuit schematic (10 of 13)**

**Figure 12. STEVAL-IDP004V1 circuit schematic (11 of 13)**


[illegible]

## Revision history

**Table 1. Document revision history**

| Date        | Version | Changes                                                                                 |
|-------------|---------|-----------------------------------------------------------------------------------------|
| 17-May-2017 | 1       | Initial release.                                                                        |
| 05-Jul-2017 | 2       | Minor text changes.                                                                     |
| 27-Jun-2018 | 3       | Updated cover image and <a href="#">Figure 1. STEVAL-IDP004V1 block identification.</a> |

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