

L99PM62GXP & L99PM72GXP Evaluation Board

Data brief



- ST SPI interface for mode control and diagnosis
- 5 fully protected high-side drivers with internal 4-channel PWM generator
- 2 low-side drivers with active Zener clamping
- 4 internal PWM timers
- 2 operational amplifiers with rail-to-rail outputs (VS) and low voltage inputs
- Temperature warning and thermal shutdown
- Graphic User Interface (GUI)

Features

Type	Transceiver	Outputs
L99PM62GXP	LIN:20 Kbit/s	5V@250mA
L99PM72GXP	HS CAN: 1 Mbit/s	5V@100mA

- Two 5V voltage regulators for microcontroller and peripheral supply
- Ultra low quiescent current in standby modes
- Programmable reset generator for power-on and undervoltage
- Configurable window watchdog and fail safe output
- LIN 2.1 compliant (SAEJ2602 compatible) transceiver
- Advanced HS CAN transceiver (ISO 11898-2/-5 and SAE J2284 compliant) with local failure and bus failure diagnosis, L99PM72GXP supports selective wake-up functionality as for ISO 11898-6.
- 3-channel contact monitoring interface with programmable cyclic sense functionality
- Programmable periodic system wake-up feature

Description

EVAL-L99PM62-72 is designed to evaluate the performance of two Power Managements: the evaluation board comes pre-assembled with L99PM62GXP and L99PM72GXP ICs providing electronic control modules with enhanced power management functionality including various standby modes, as well as LIN and HS CAN physical communication layers. This Evaluation board consists of a motherboard (STM8 Universal Board) and two daughterboards. The motherboard, based on STM8 microcontroller, provides the logic section for monitoring and driving the devices assembled in two different daughterboards. With the aim to make the board usage and settings simpler, ST provides a dedicated user-friendly software with a Graphic User Interface (GUI). This enables the user to set L99PM62GXP and L99PM72GXP parameters and registers, simultaneously showing real time device diagnostic information like output current evolution, battery voltage monitoring, board temperature and much more.

Table 1. Device summary

Order code	Reference
EVAL-L99PM62-72	L99PM62GXP & L99PM72GXP Evaluation board

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1 Application schematics and layouts

1.1 L99PM62GXP/L99PM72GXP daughterboard

Figure 1. L99PM62GXP/L99PM72GXP daughterboard top layer

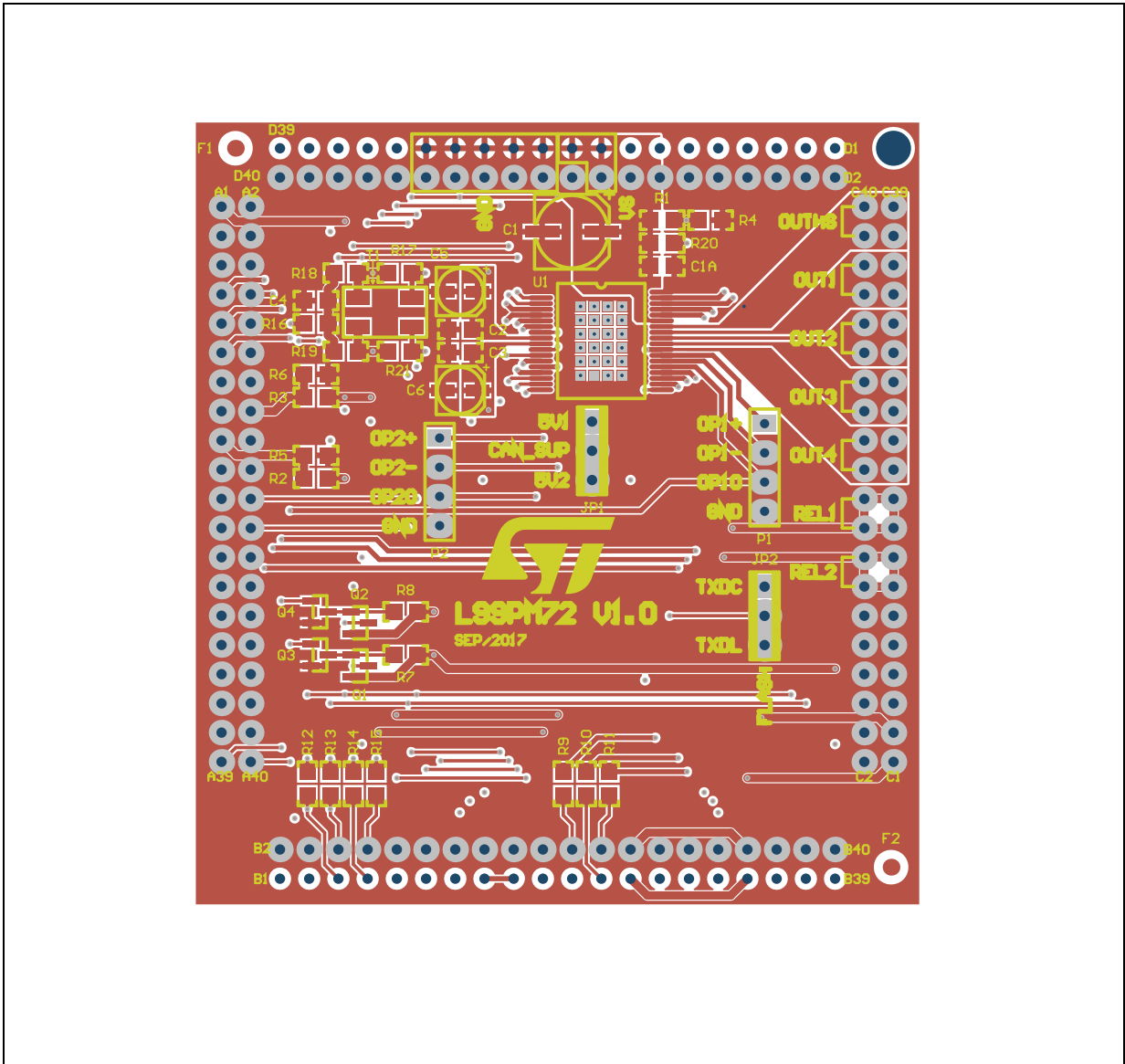


Figure 2. L99PM62GXP/L99PM72GXP daughterboard bottom layer

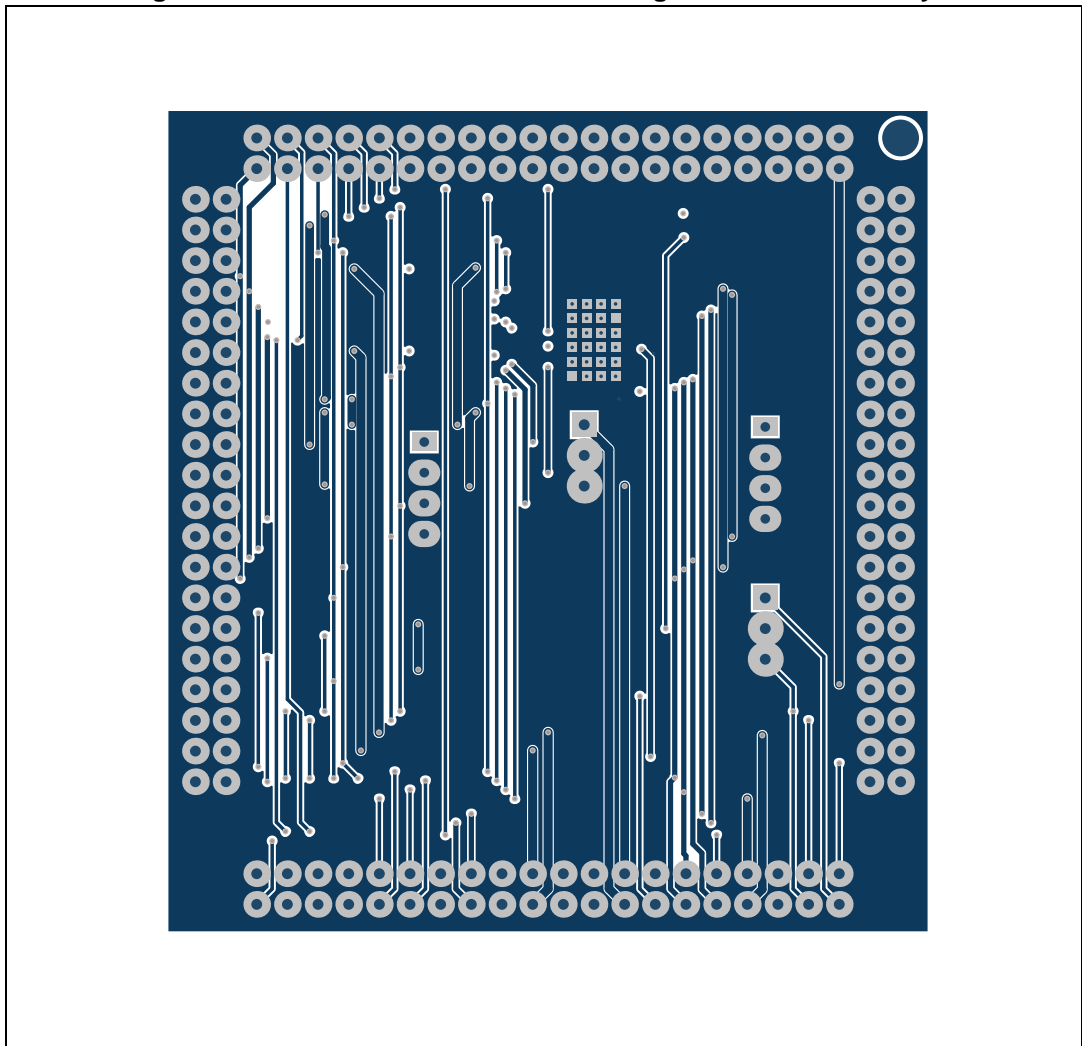
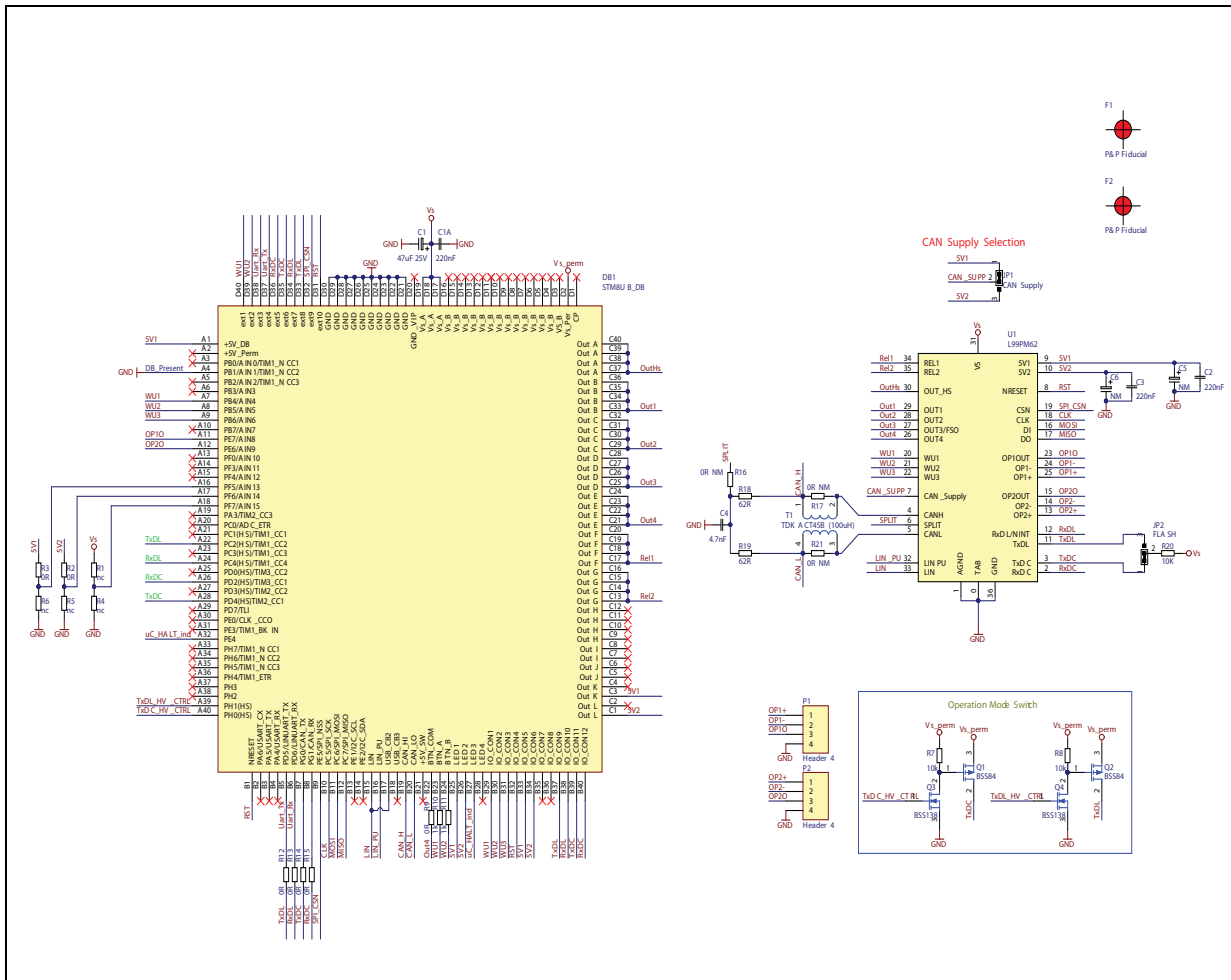


Figure 3. L99PM62GXP/L99PM72GXP daughterboard application schematic



1.2 STM8 motherboard

Figure 4. STM8 motherboard top layer

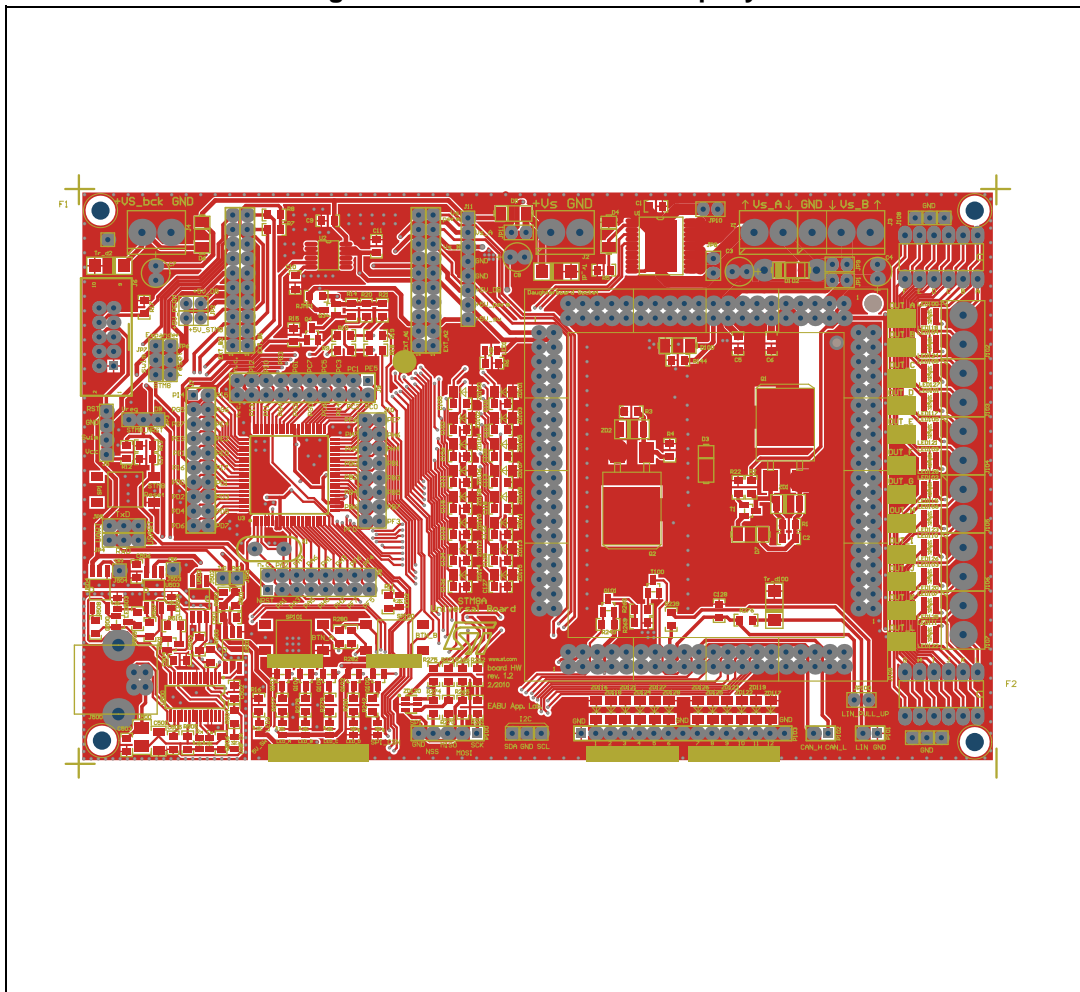


Figure 5. STM8 motherboard bottom layer

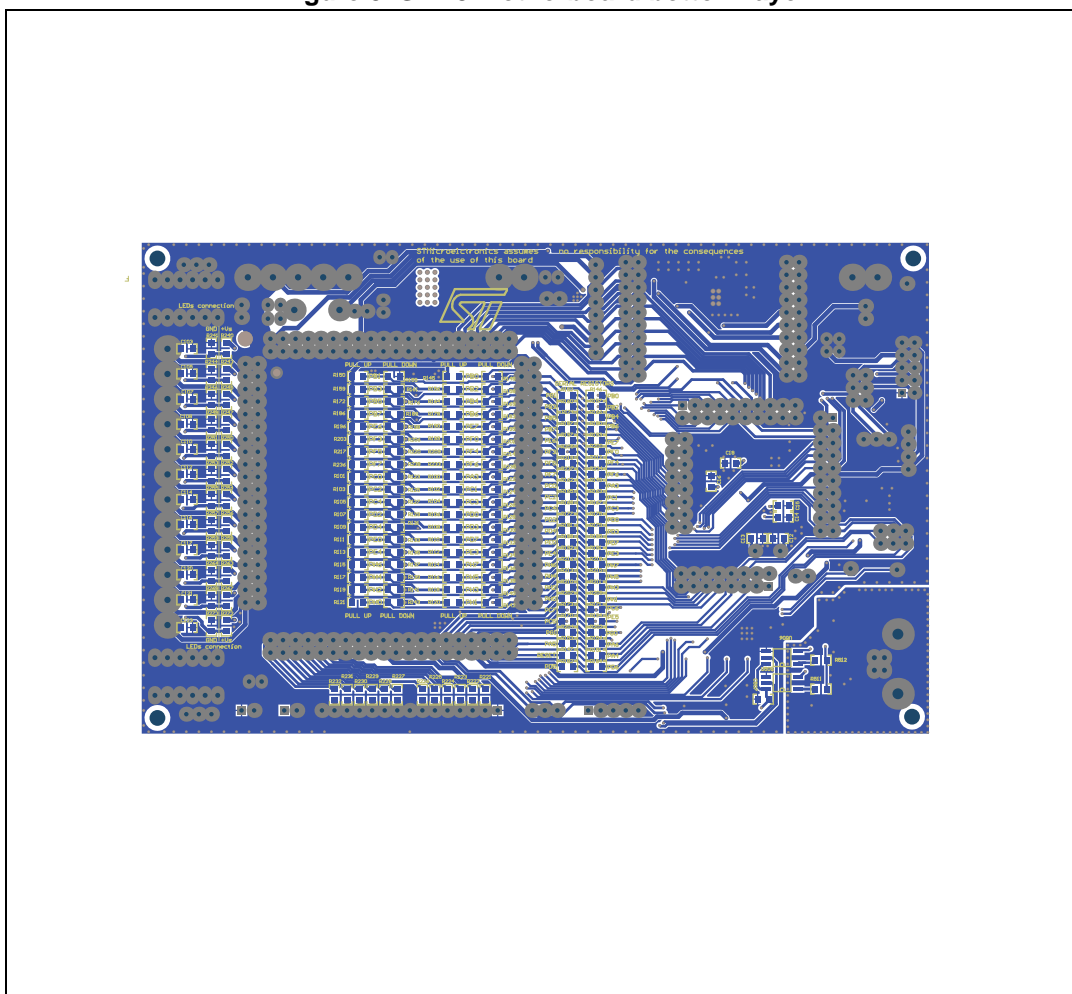


Figure 6. STM8 motherboard – I/O & Body application schematic

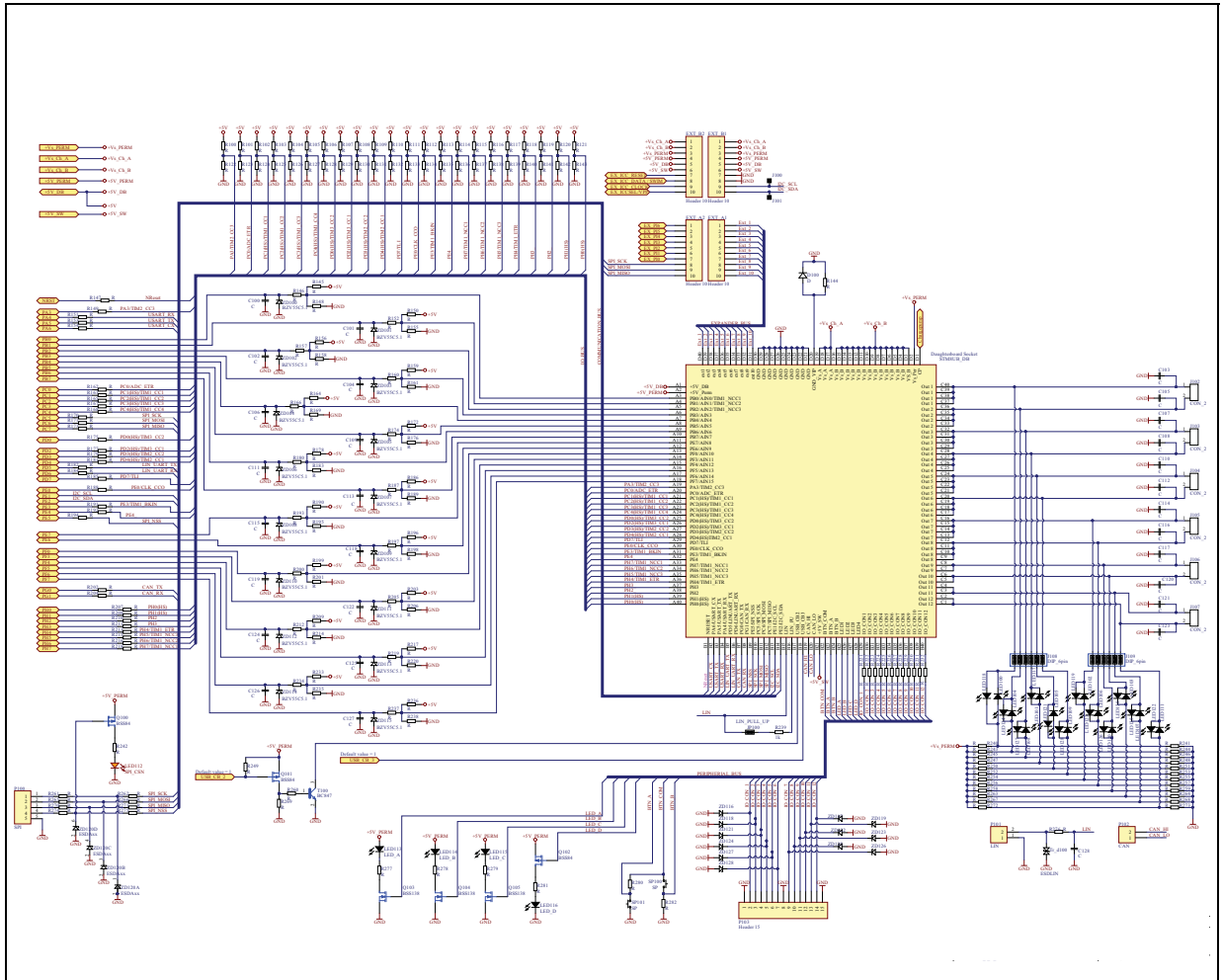


Figure 7. STM8 motherboard – STM8 & Supply application schematic

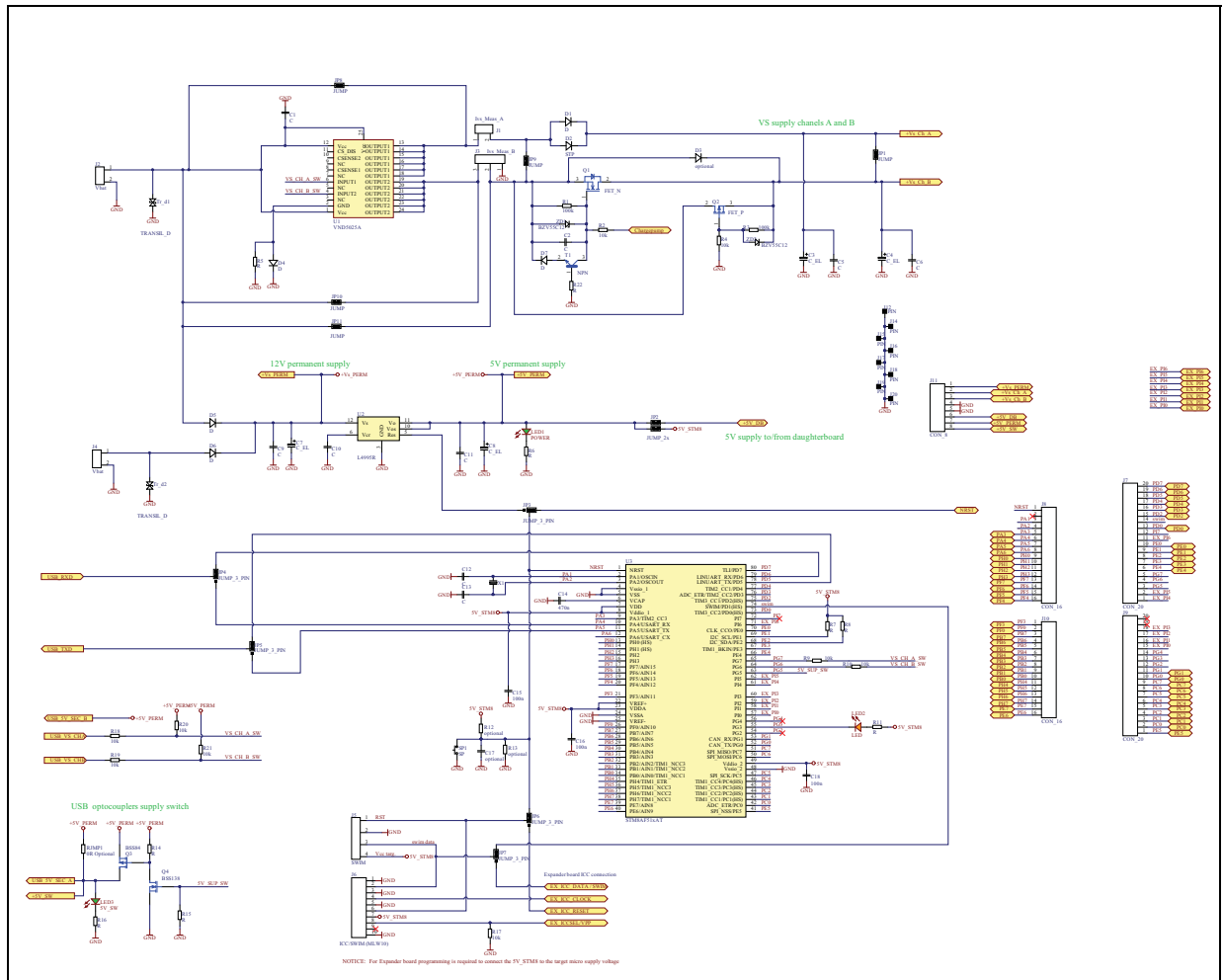
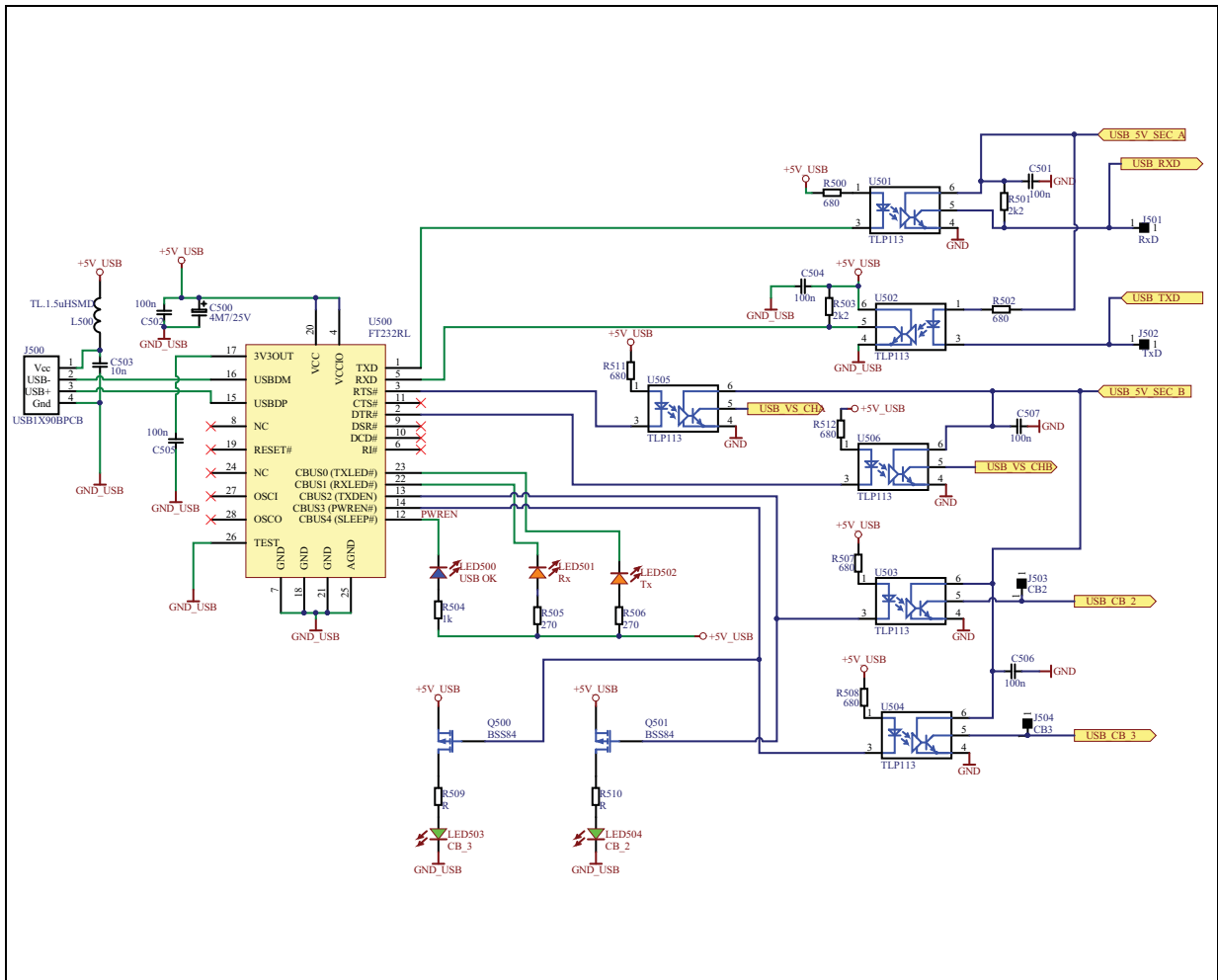


Figure 8. STM8 motherboard USB interface application schematic



2 Revision history

Table 2. Document revision history

Date	Revision	Changes
14-Mar-2018	1	Initial release.

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