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STEVAL-IME002V2

Single-lead electrocardiogram (ECG) and body impedance evaluation board

Data brief



Description

The STEVAL-IME002V2 is a product evaluation board designed around the new HM301D diagnostic-quality analog front end for bio-electric sensors and bio-impedance measurements.

The board is designed to demonstrate the performance of the HM301D in a single-lead ECG system, such as automated external defibrillator (AED), portable ECG, fitness and heart rate monitoring.

It hosts a 32-bit microcontroller from the STM32 family, which manages the SPI protocol of the HM301D and USB communication to/from a PC.

Any board can be used with dedicated PC software GUI to demonstrate all of the various configurations.

Features

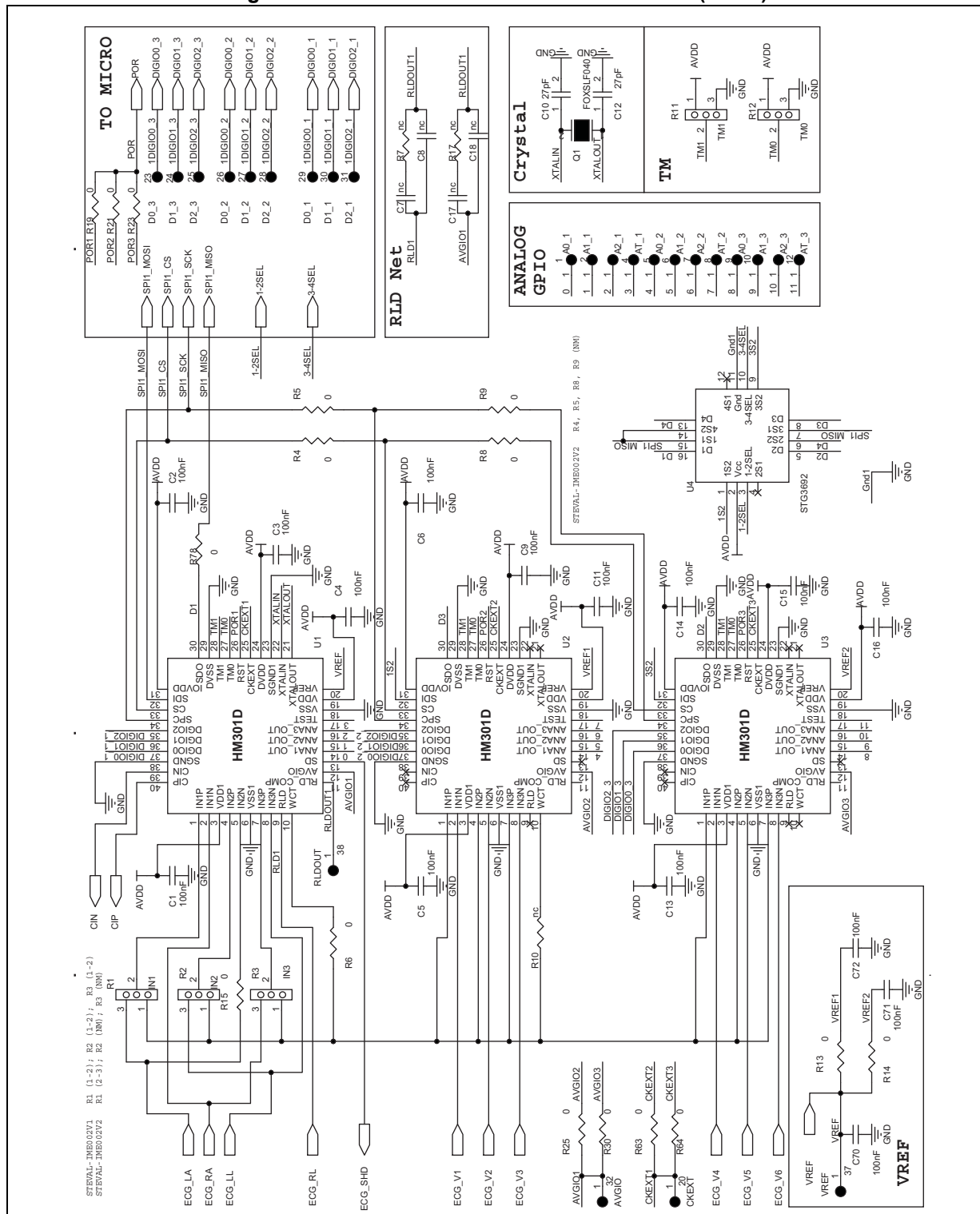
- Provides full access to all HM301D features through a graphical user interface (GUI)
- Utilizes the STM32F103CBT6 low power high performance 32-bit microcontroller powered by ARM® Cortex™-M3
- The ESDALCL6-2SC6 provides ESD protection with very low capacitance
- 19 debug test points to interact electrically with the ICs mounted on the board
- DB-15 patient simulator connector facilitate its use on the user's test bed
- Device firmware upgrade (DFU) procedure to easy upgrade the STM32 firmware
- RoHS compliant

Schematic diagrams

STEVAL-IME002V2

1 Schematic diagrams

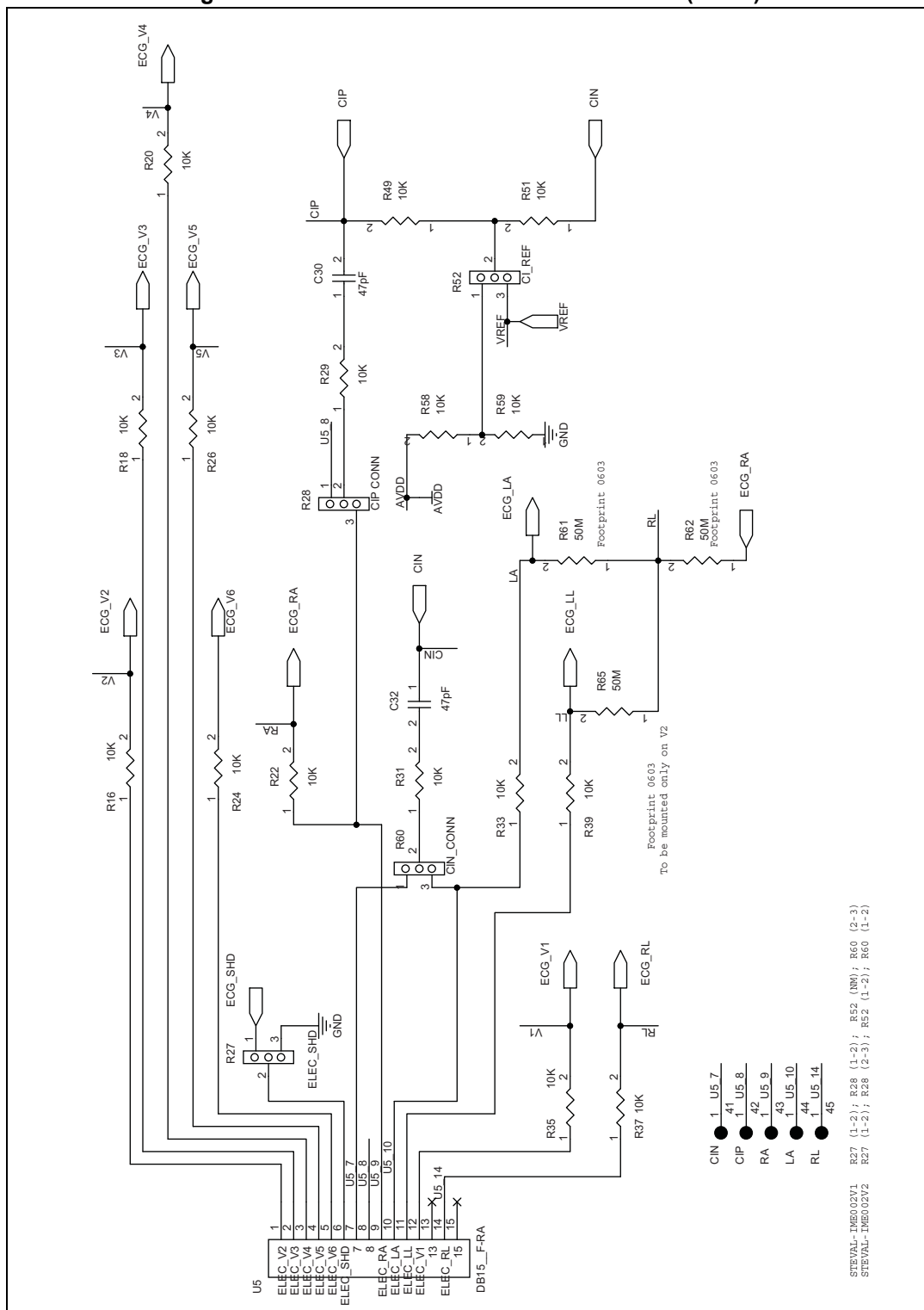
Figure 1. STEVAL-IME002V2 circuit schematic (1 of 6)



STEVAL-IME002V2

Schematic diagrams

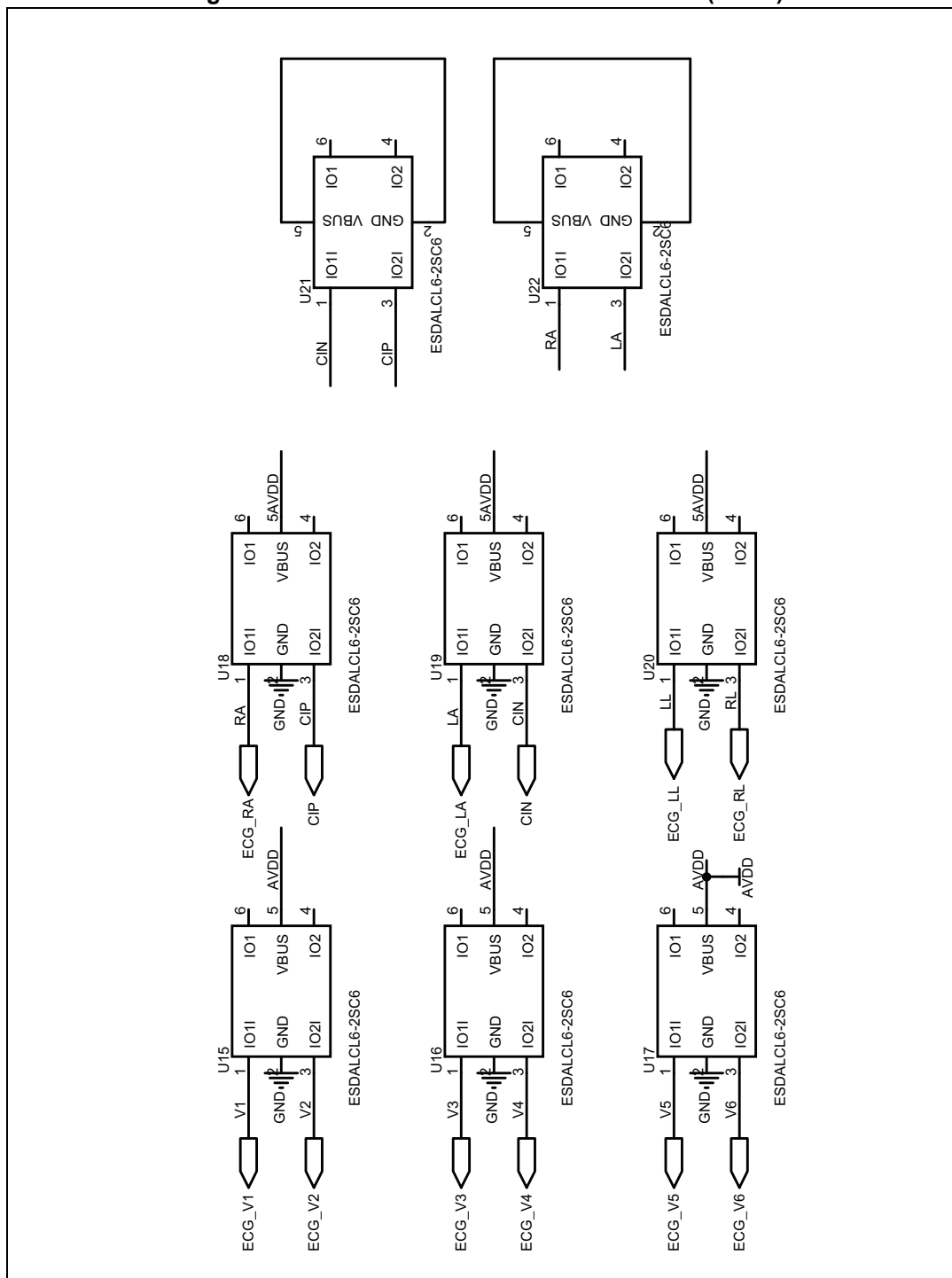
Figure 2. STEVAL-IME002V2 circuit schematic (2 of 6)



Schematic diagrams

STEVAL-IME002V2

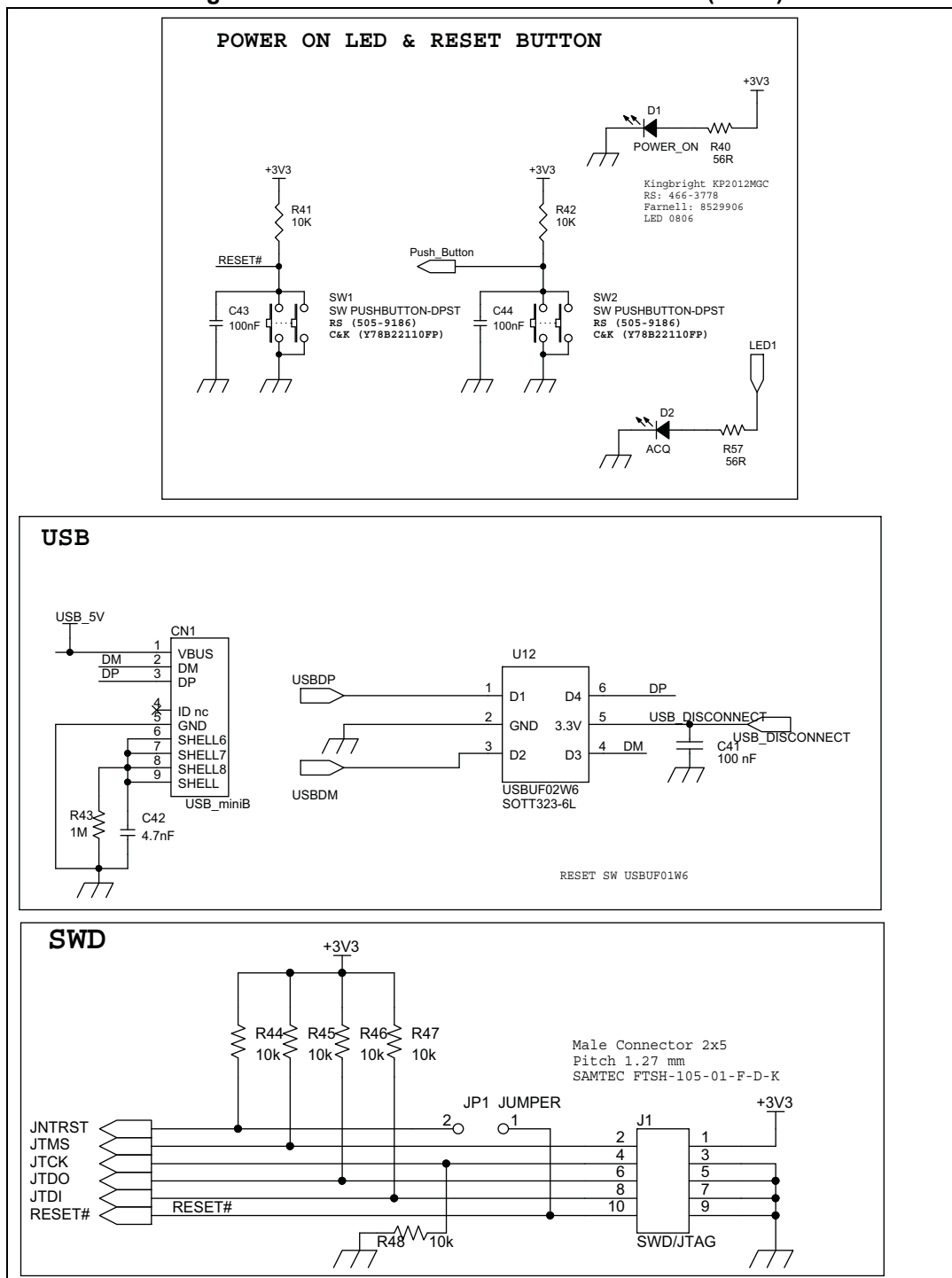
Figure 3. STEVAL-IME002V2 circuit schematic (3 of 6)



STEVAL-IME002V2

Schematic diagrams

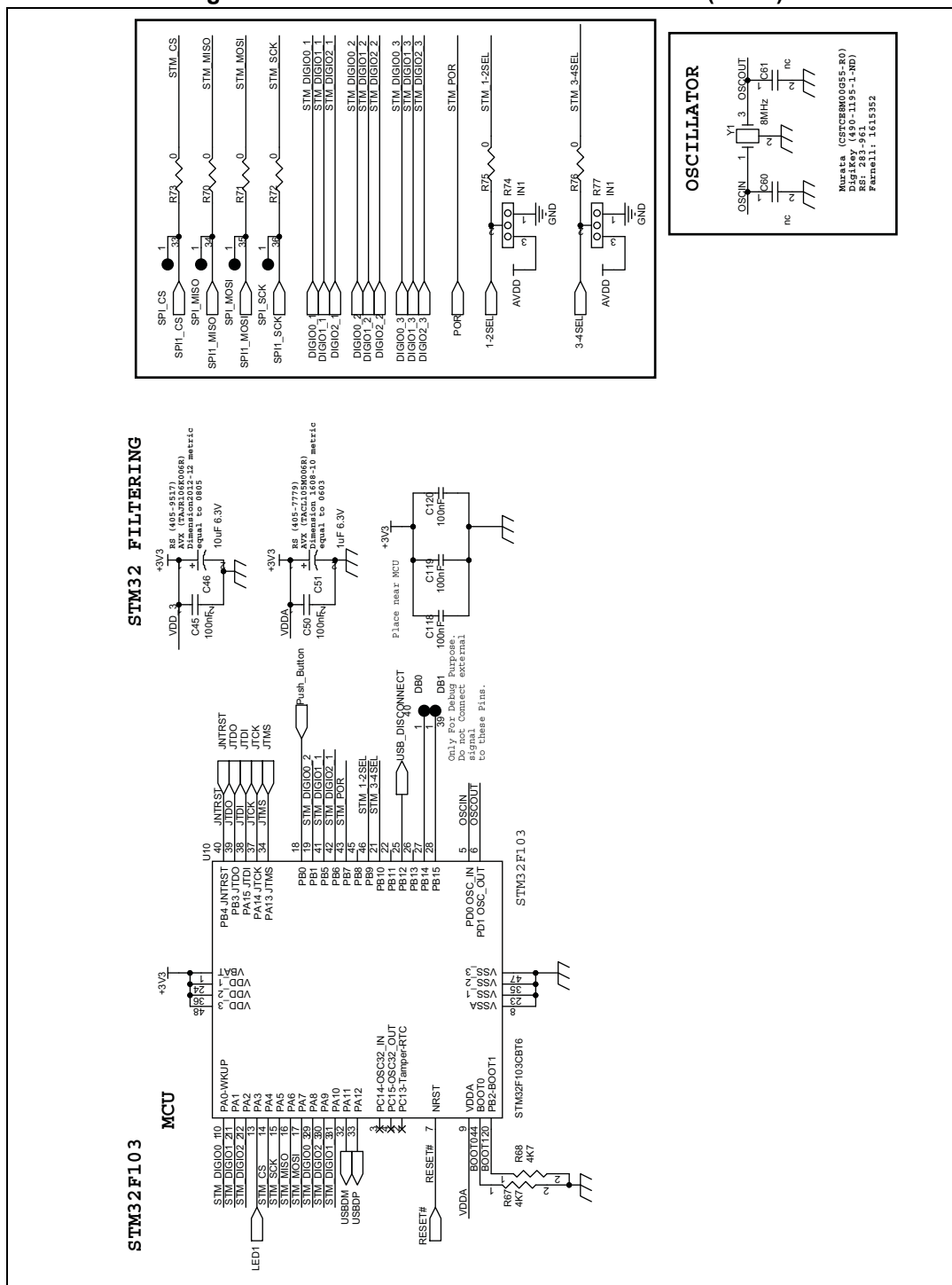
Figure 4. STEVAL-IME002V2 circuit schematic (4 of 6)



Schematic diagrams

STEVAL-IME002V2

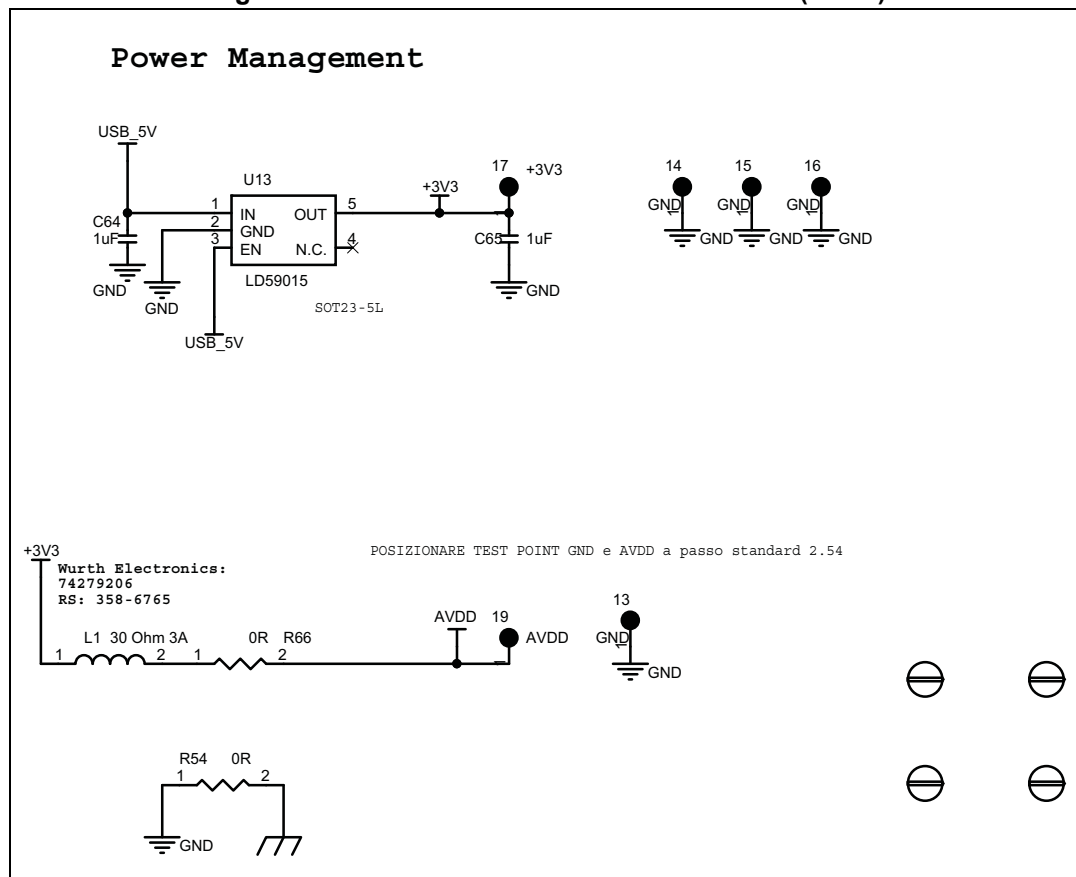
Figure 5. STEVAL-IME002V2 circuit schematic (5 of 6)



STEVAL-IME002V2

Schematic diagrams

Figure 6. STEVAL-IME002V2 circuit schematic (6 of 6)



Revision history

STEVAL-IME002V2

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
06-May-2014	1	Initial release.

STEVAL-IME002V2

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