STEVAL-IHM039V1

Dual motor drive control stage based on the STM32F415ZG microcontroller
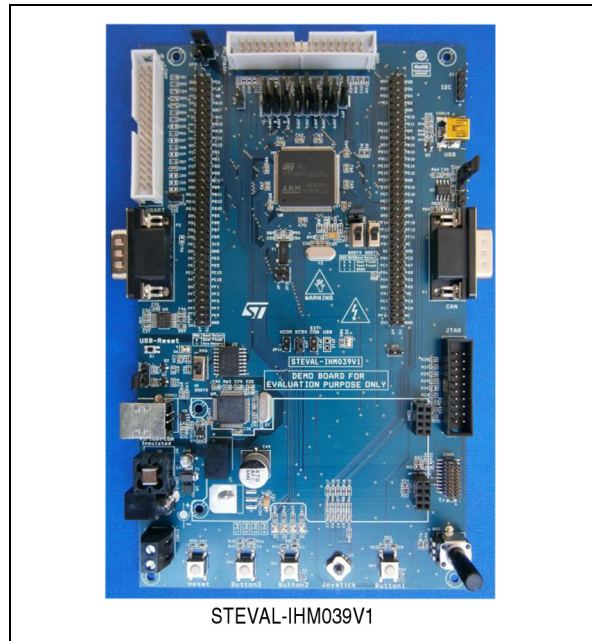
Data brief

Features

- Two fully featured MC connectors for interfacing with any of the possible STMicroelectronics's evaluation power boards
- JTAG, SWD and trace debug support
- Mini-USB connector for isolated virtual COM port
- USB 2.0 full speed connection
- 240 x 320 TFT color LCD
- Joystick with 4 LEDs and 4-direction control and selector
- Reset plus three user buttons
- Five 5 V power supply sources: 2-way screw connector, power jack,
- 2 USB connectors (one isolated)
- Boot from user Flash or system memory
- CAN 2.0 A/B compliant connection
- I^2C connection
- RS-232 channel with RTS/CTS handshake support
- Extension connectors for daughterboard or wrapping area board
- RoHS compliant

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motor control evaluation and development platform.

With dedicated hardware features, the STEVAL-IHM039V1 demonstration board is designed to help developers to evaluate ST devices and to develop their own applications.

Description

The STEVAL-IHM039V1 demonstration board is a control stage based on STMicroelectronics's ARM™ Cortex™-M4 core-based STM32F415ZGT6 microcontroller featuring single and dual motor control.

It can be used together with the STM32 PMSM single/dual FOC SDK v3.2 and two of the possible STMicroelectronics's evaluation power boards provided with MC connectors for a complete dual

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1   Schematic diagram

Figure 1.   Extension & I2C_IOS Connectors
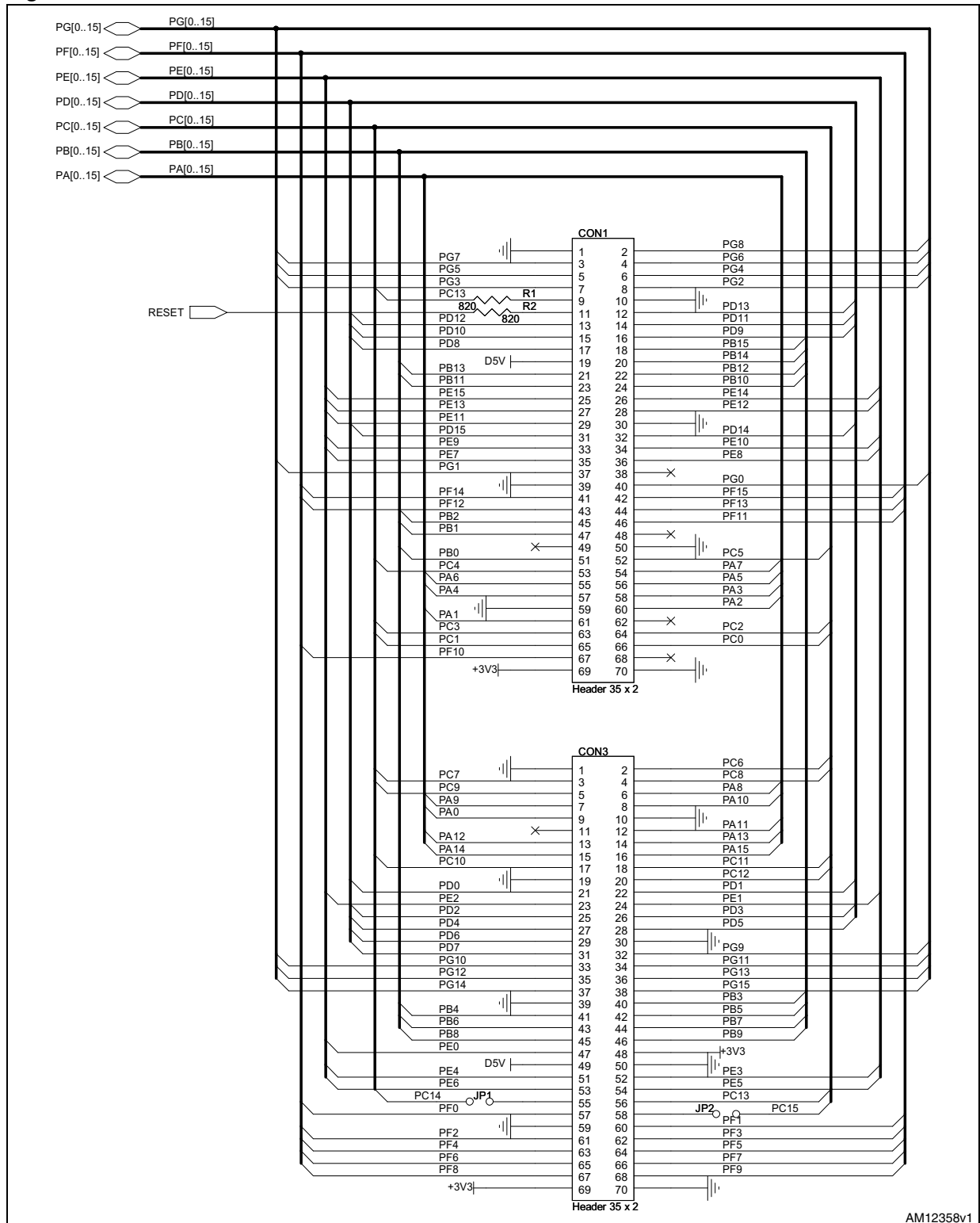
Figure 2.   Joystick button and LCD
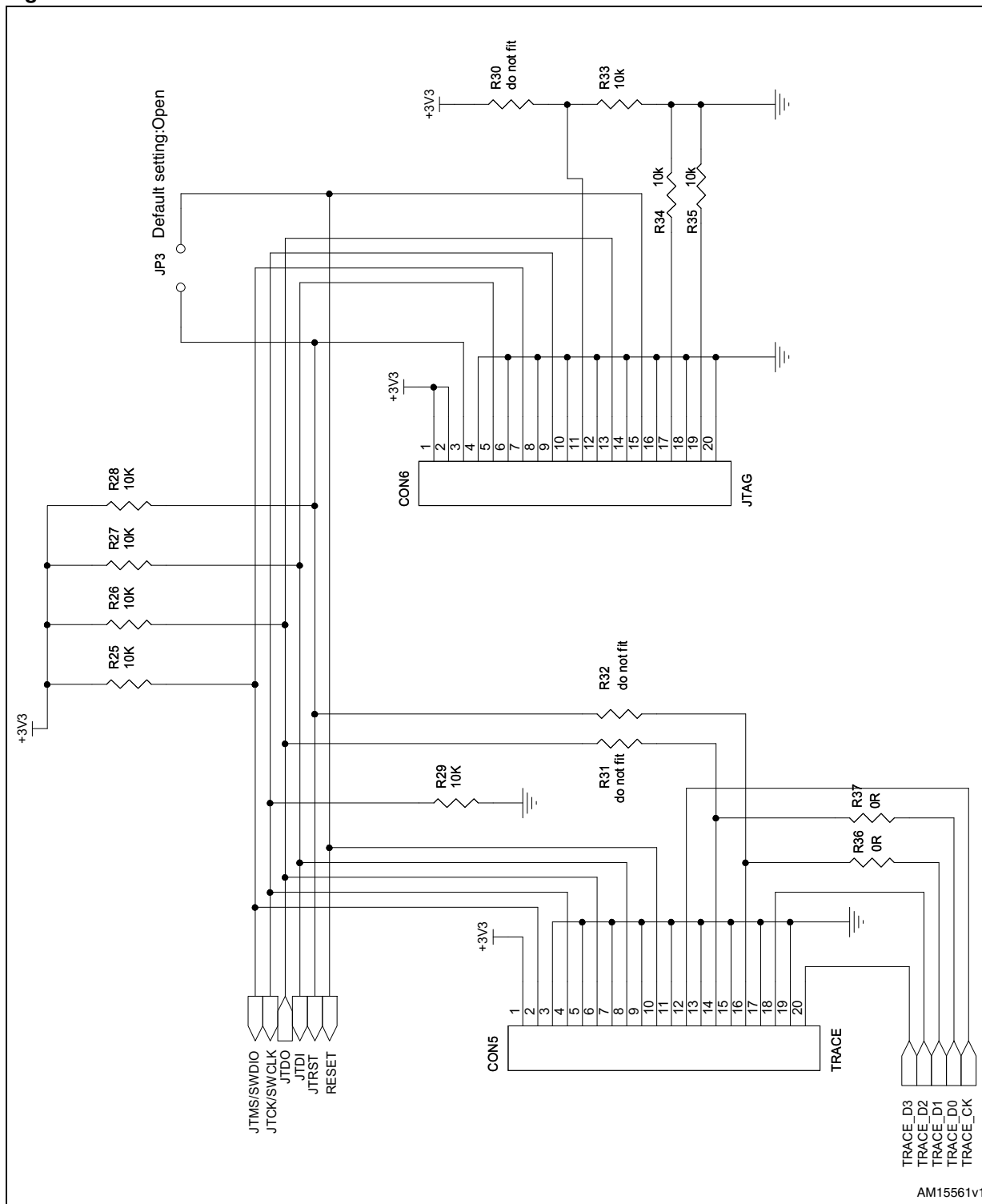

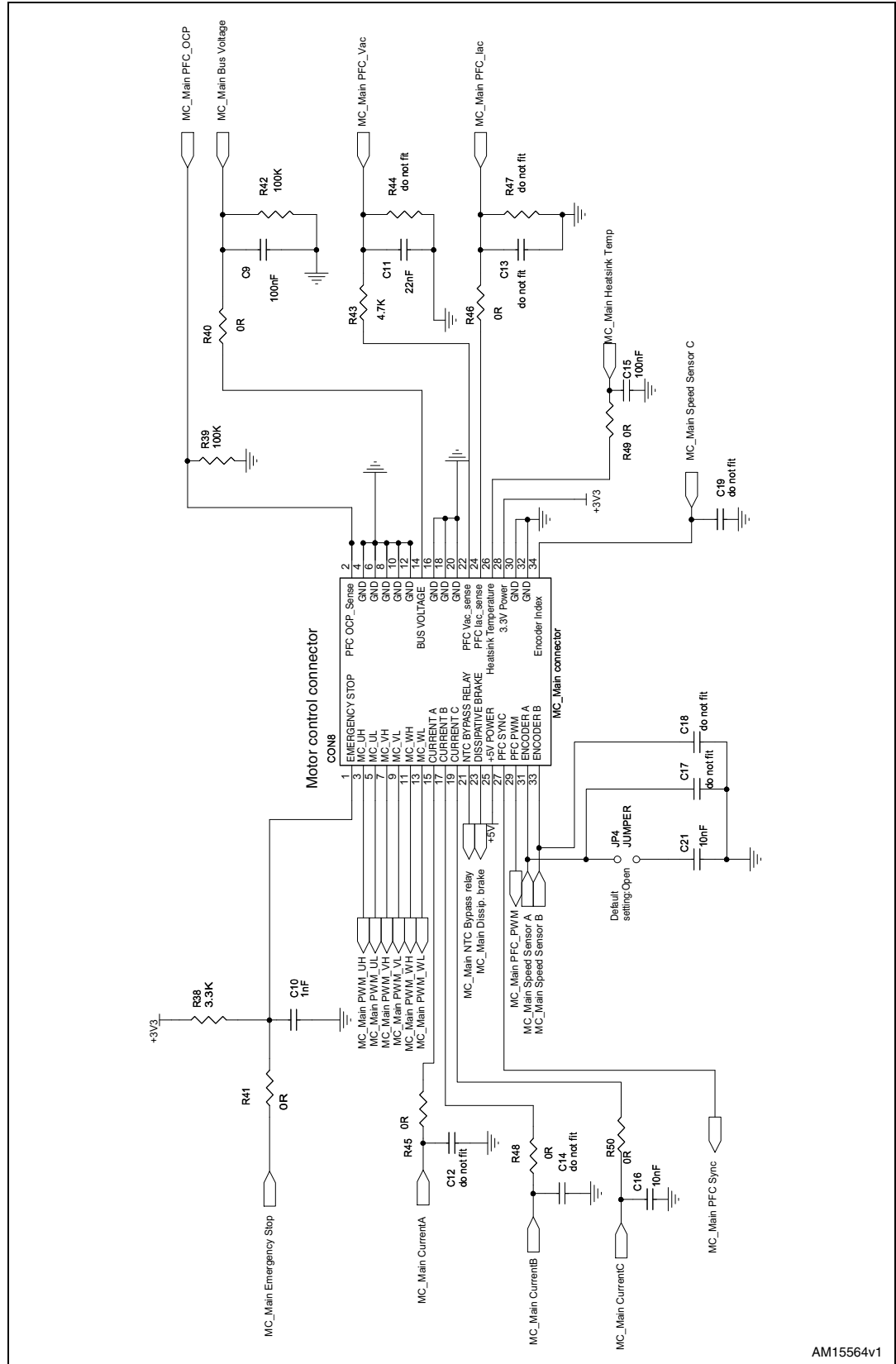AM15558v1
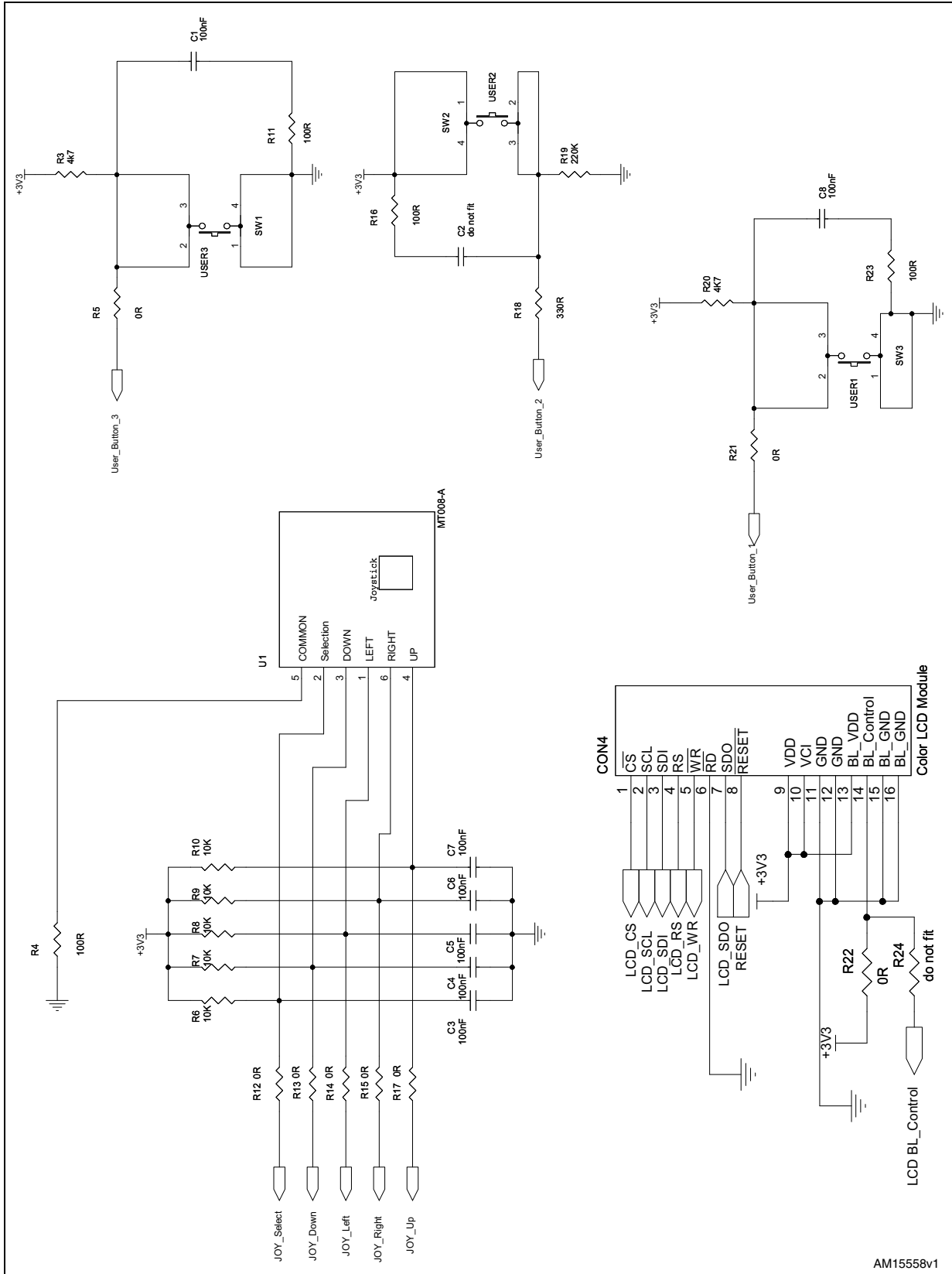
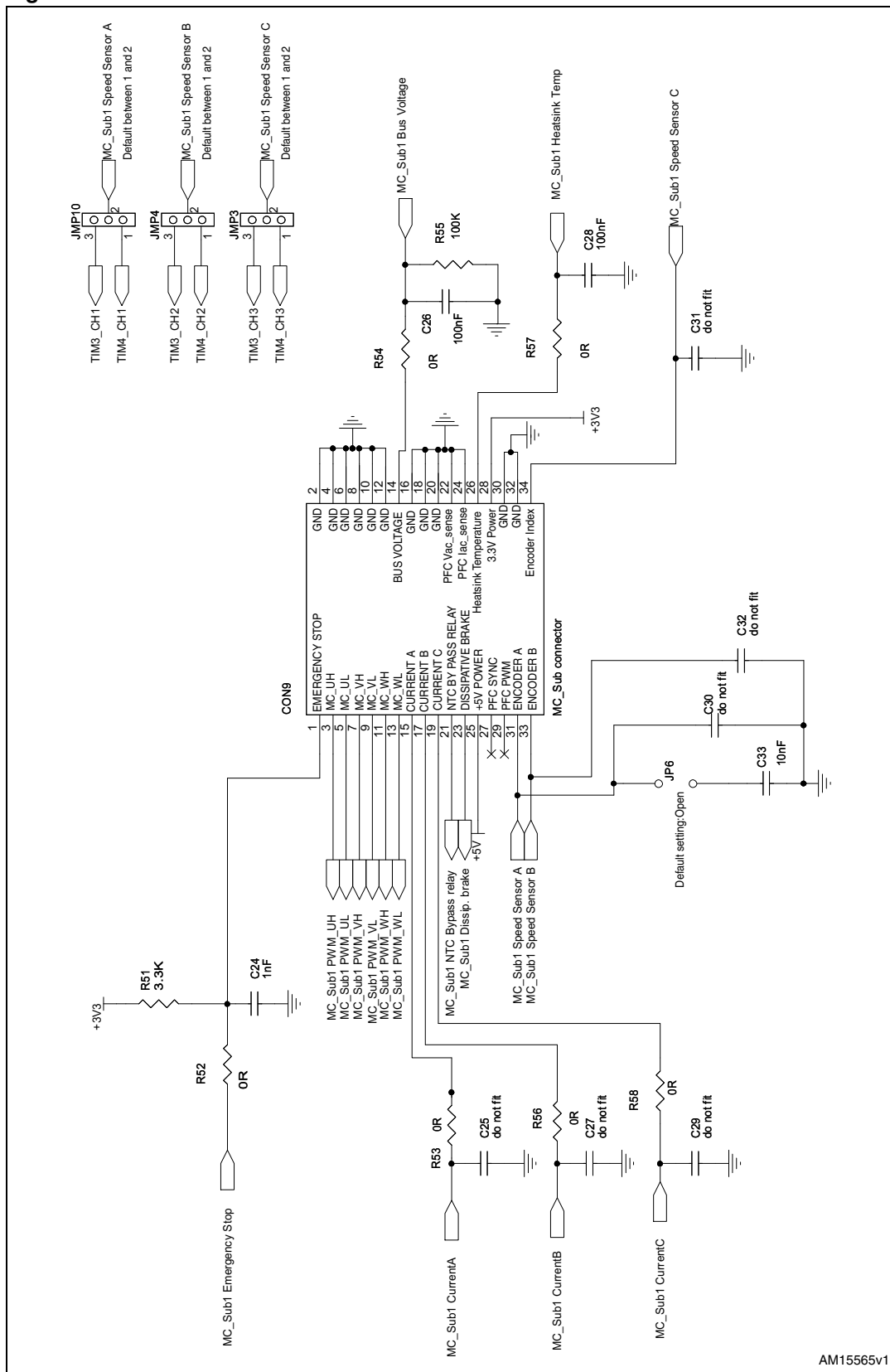**Figure 3.   JTAG SWD and trace**

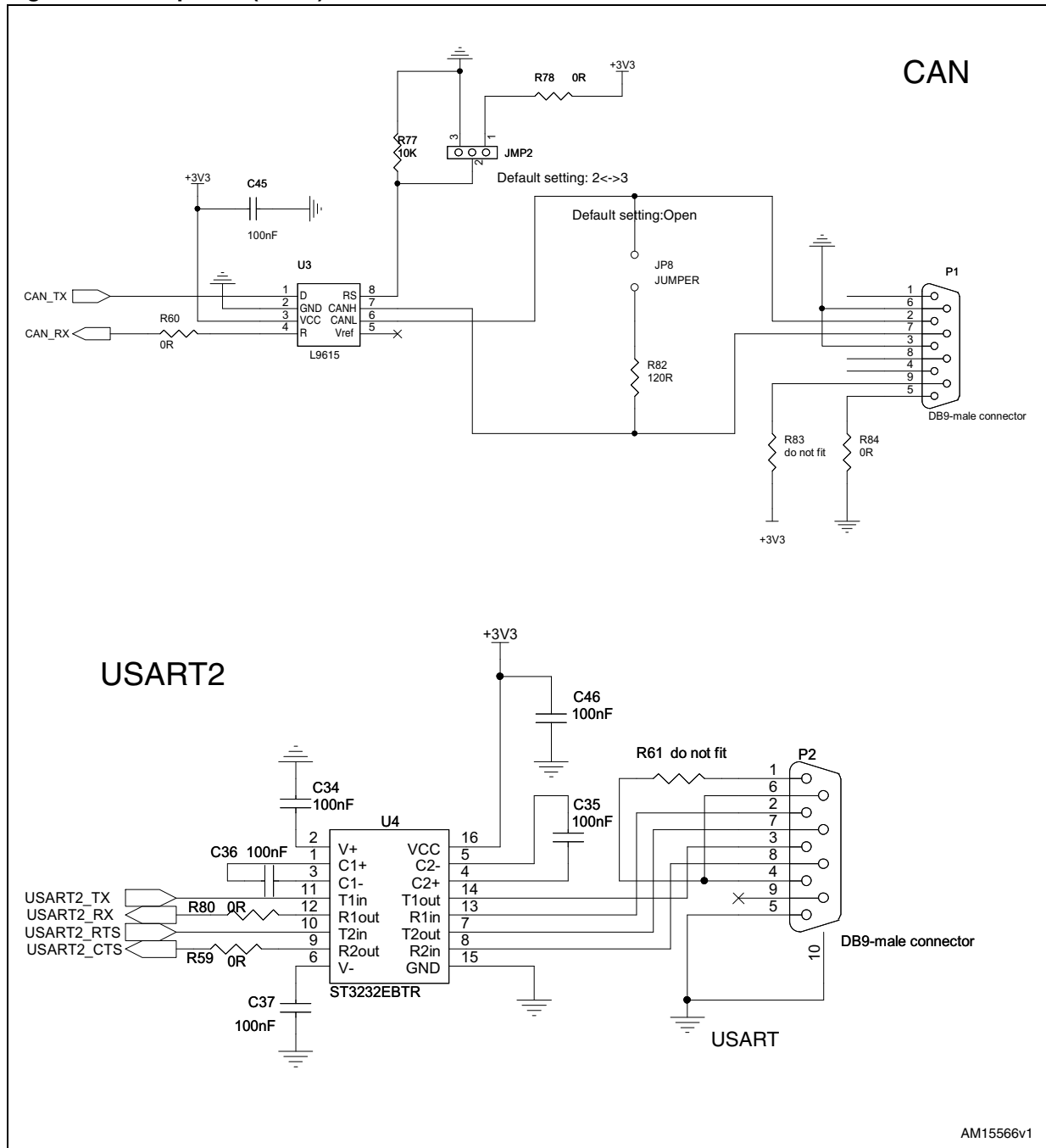
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Figure 4.   MC connector MAI

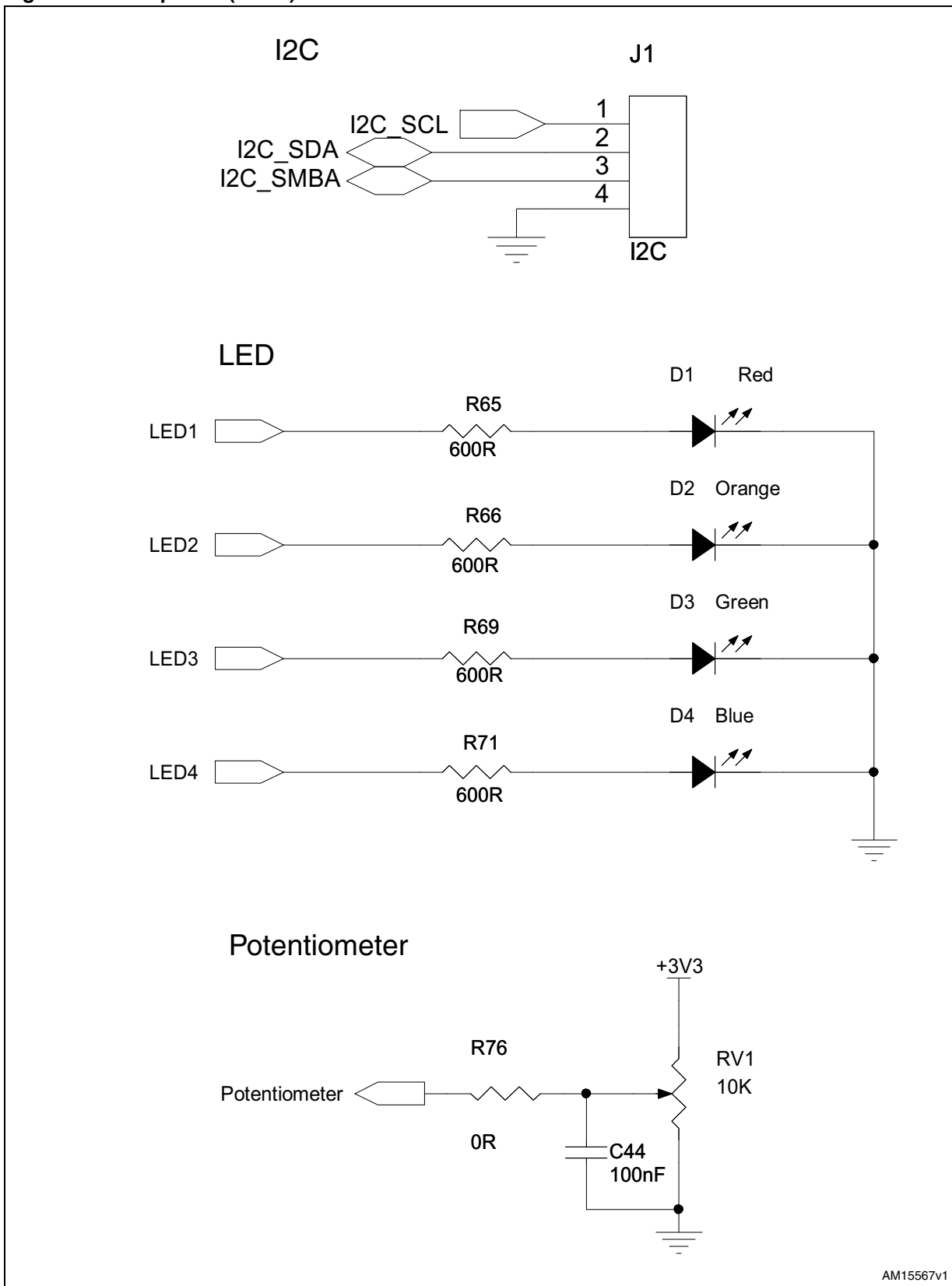**Figure 5. MC connector SUB1**

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Figure 6. Peripheral (1 of 2)

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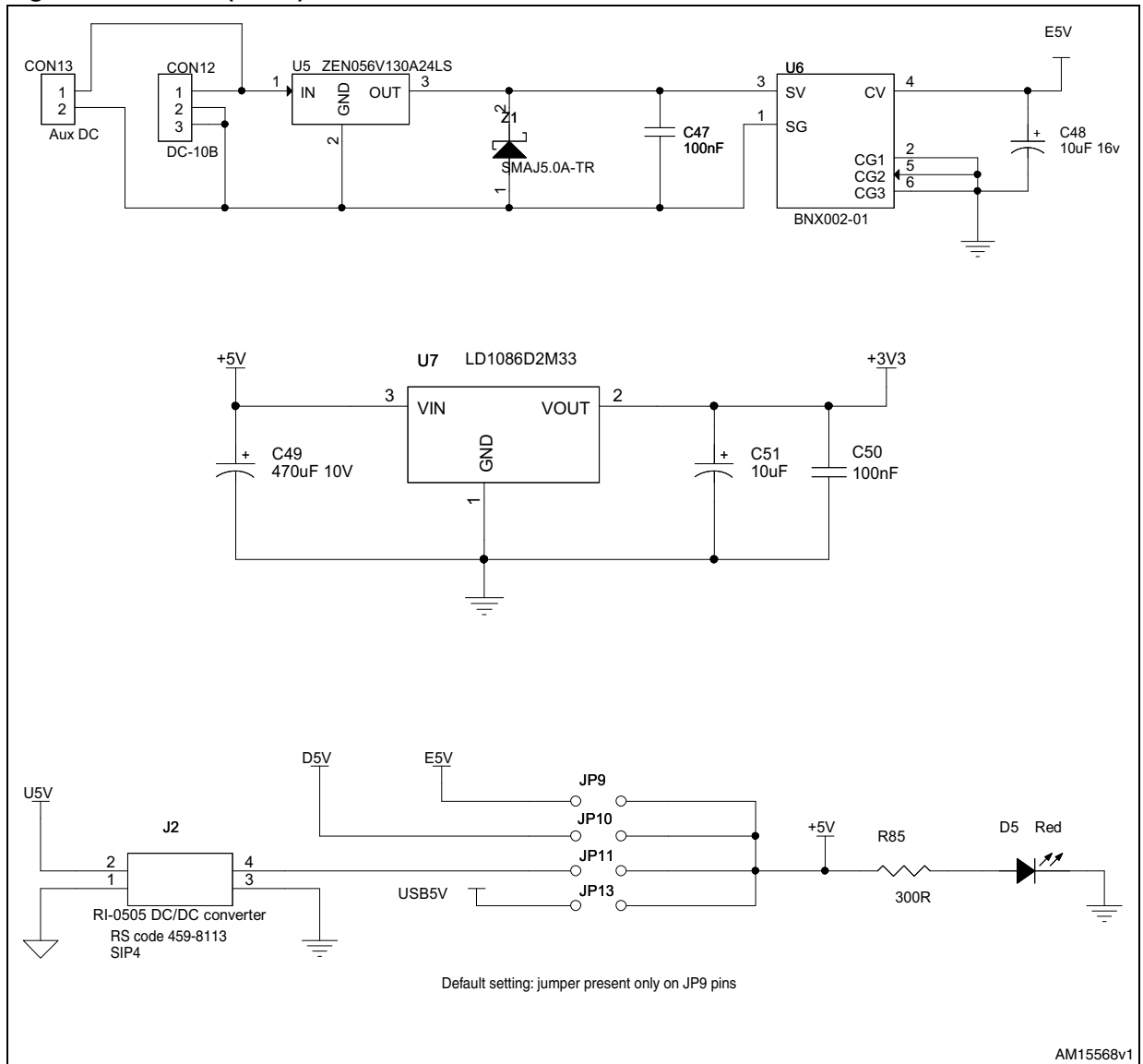**Figure 7.   Peripheral (2 of 2)**

Figure 8.   Power (1 of 2)
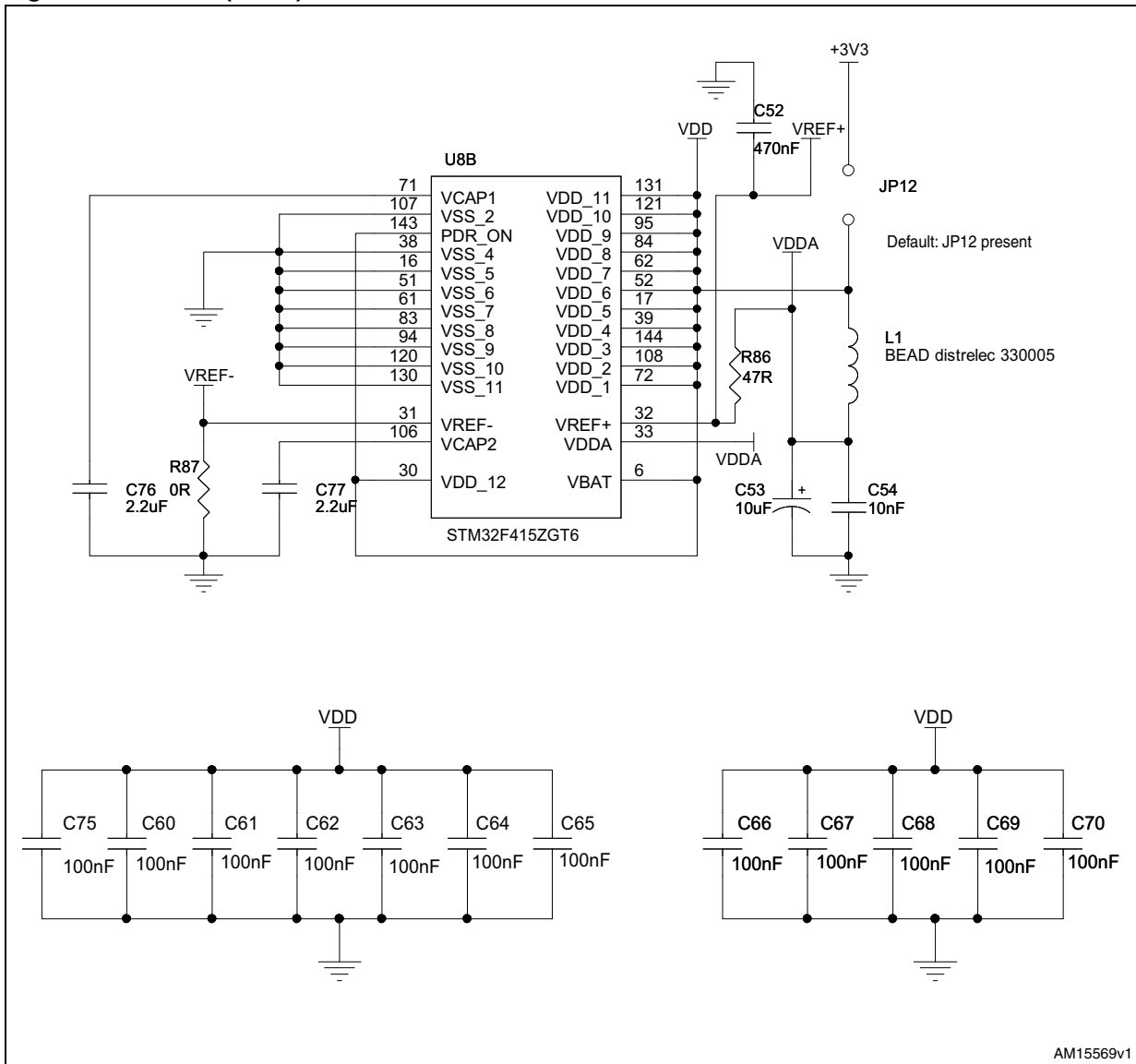
Figure 9.   Power (2 of 2)
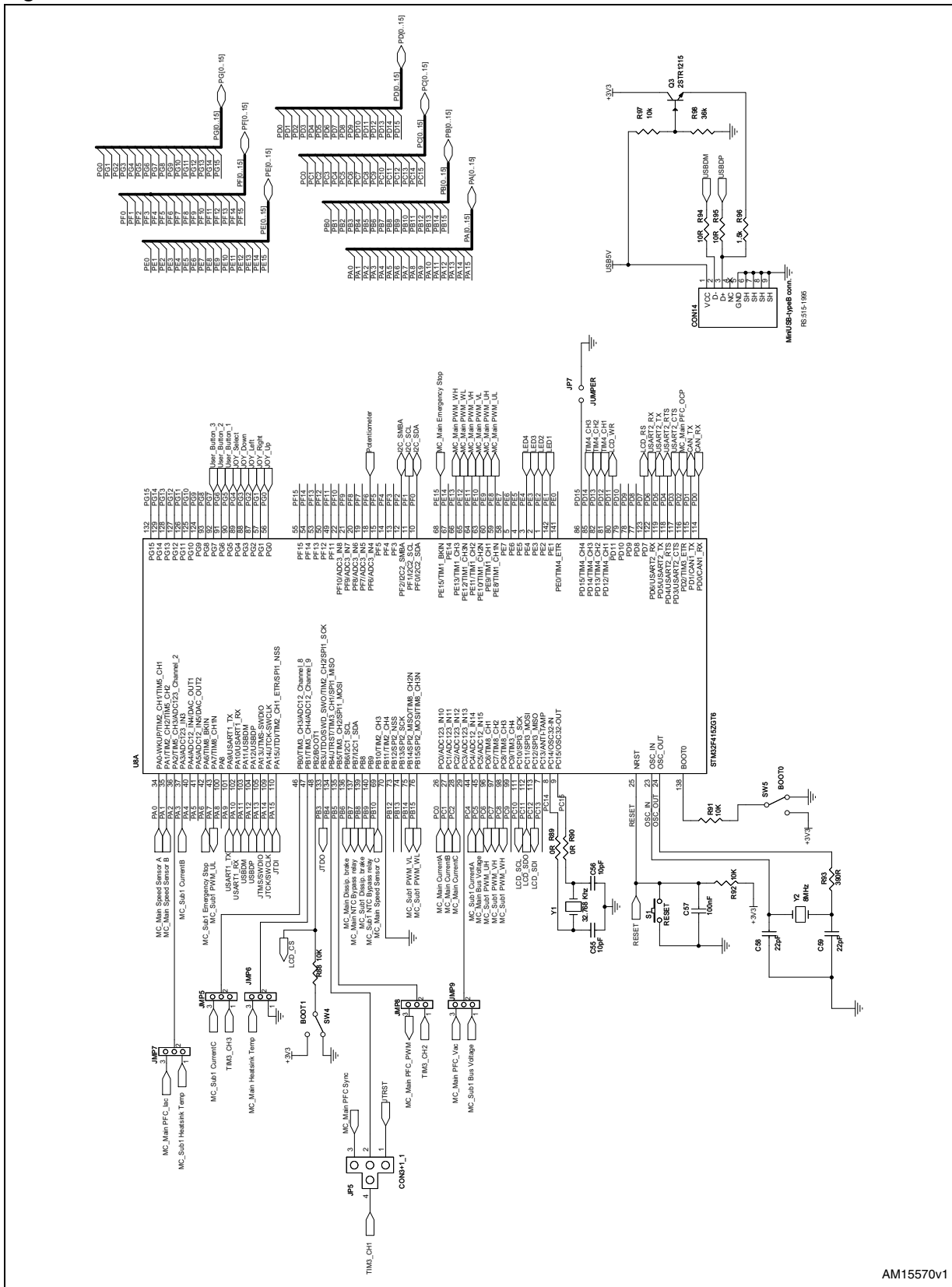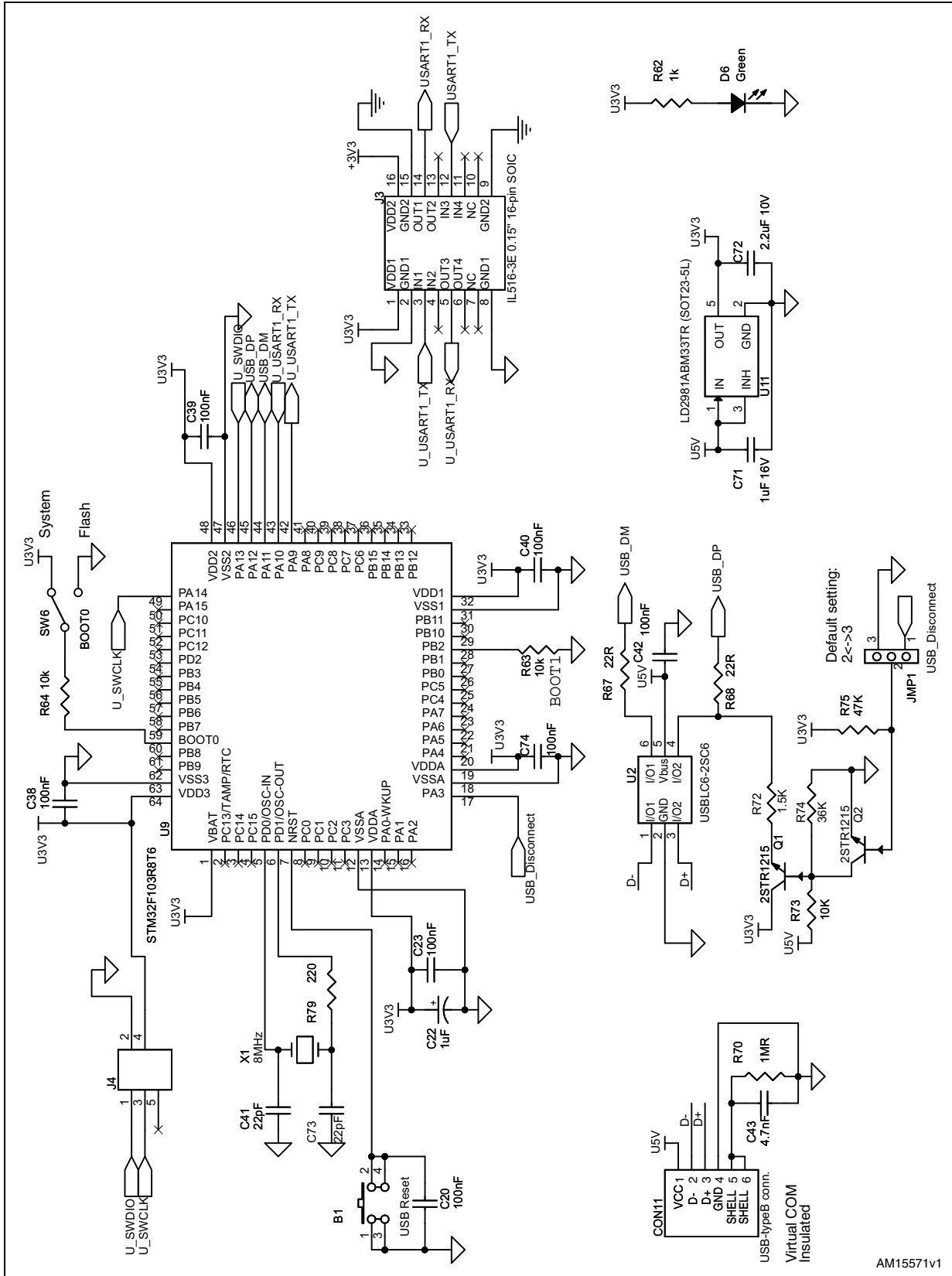
Figure 10.   STM32 MC

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Figure 11.   Virtual COM

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2 Revision history

Table 1. Document revision history

Date	Revision	Changes
16-Jan-2013	1	Initial release.