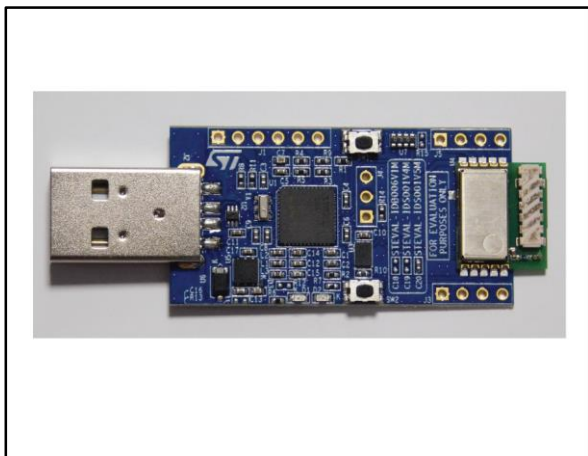


868 MHz RF USB dongle based on the SPIRIT1 SPSGRF-868 module

Data brief



Description

The STEVAL-IDS001V4M evaluation board is for the SPSGRF-868 ETSI certified module based on the low-power, low-rate, sub-1GHz SPIRIT1 transceiver. The SPSGRF-868 module integrates the Balun (BALF-SPI-01D3) and a chip antenna, and operates in the 868 MHz ISM band. The board is equipped with an STM32L low power microcontroller to control the SPIRIT1 and it also features a USB connector for PC GUI interaction and firmware updates, like the one available for SPIRIT1 evaluation kit. An SWD connector allows the development of specific firmware on the microcontroller.

Features

- RF SPIRIT1 USB dongle based on SPSGRF-868 for 868 MHz
- SPSGRF-868 module is based on:
 - 868 MHz ETSI certified module based on low-power, low-rate sub-1GHz SPIRIT1 transceiver.
 - Integrated Balun (BALF-SPI-01D3)
 - Chip antenna
- On board STM32L low power 32-bit ARM® Cortex-M3™ microcontroller
- Modulation schemes: 2-FSK, GFSK, MSK, GMSK, OOK and ASK
- Air data rate: from 1 to 500 kbps
- Full compliant in terms of firmware and GUI with the SPIRIT1 development kits
- Debug connector
- USB interface
- RoHS compliant

1 Schematic diagrams

Figure 1: STEVAL-IDS001V4M part 1

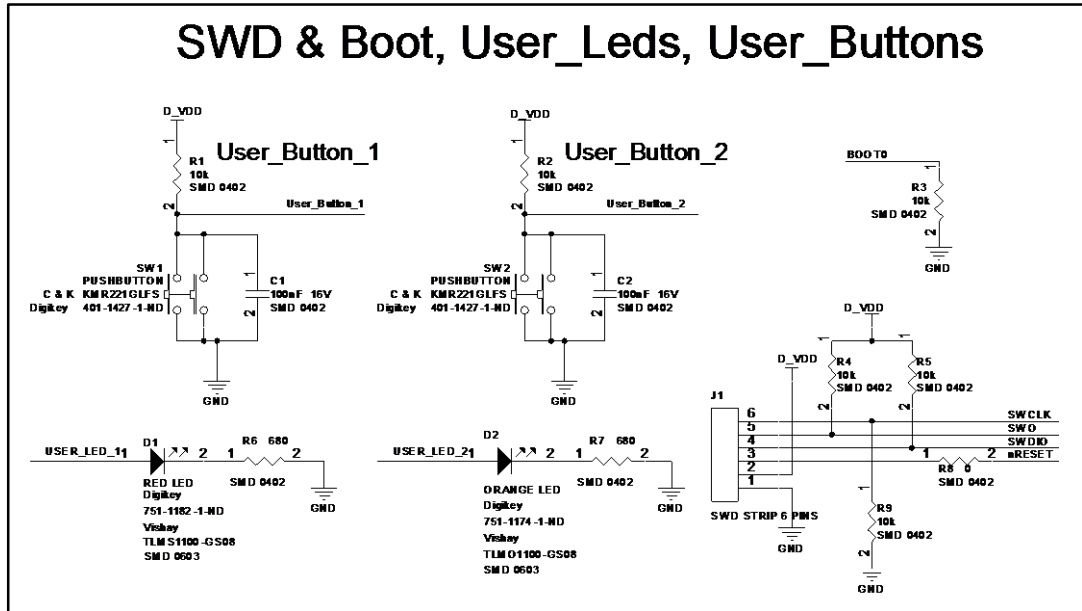


Figure 2: STEVAL-IDS001V4M part 2

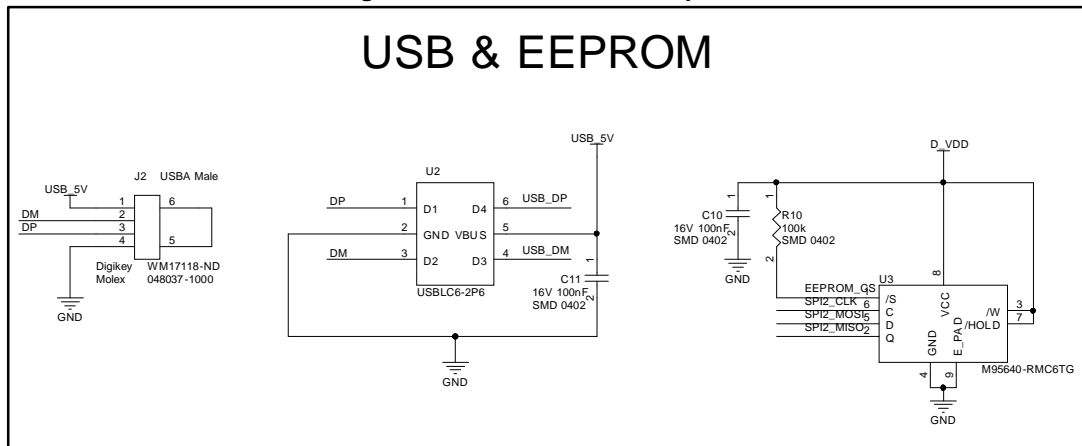


Figure 3: STEVAL-IDS001V4M part 3

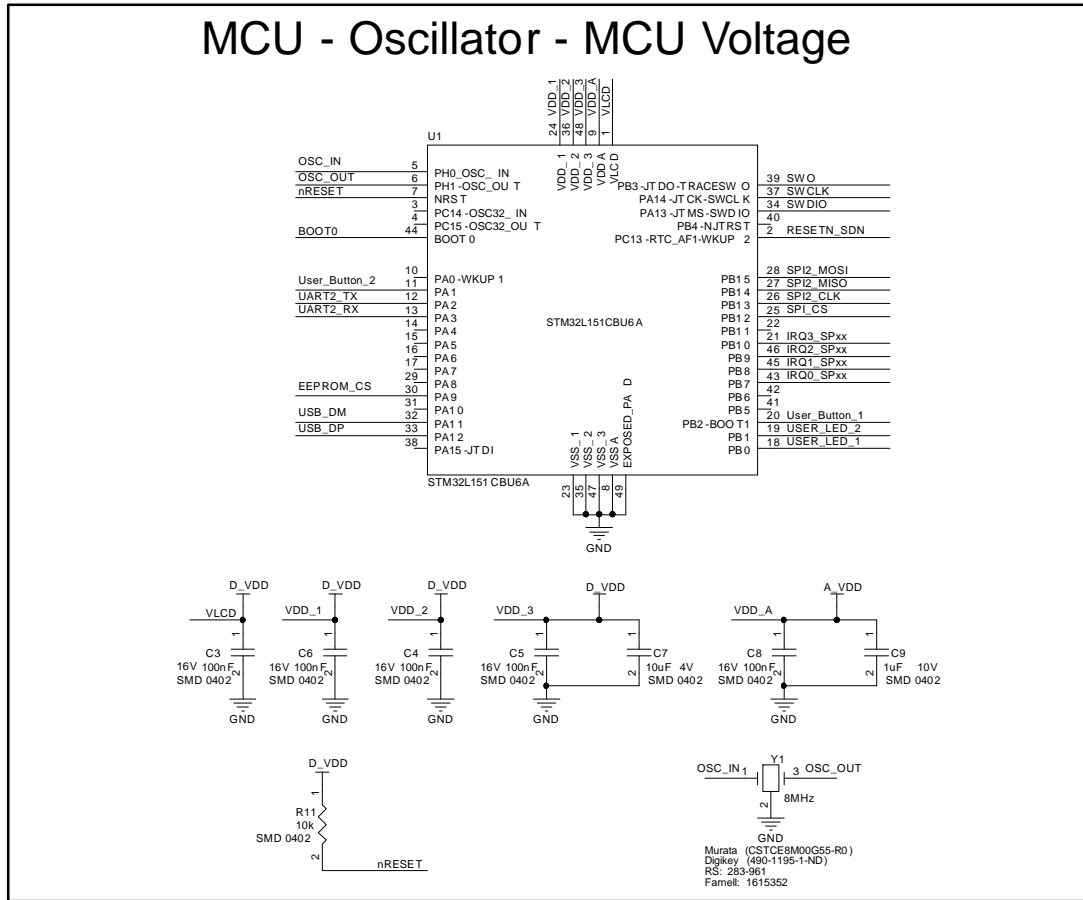


Figure 4: STEVAL-IDS001V4M part 4

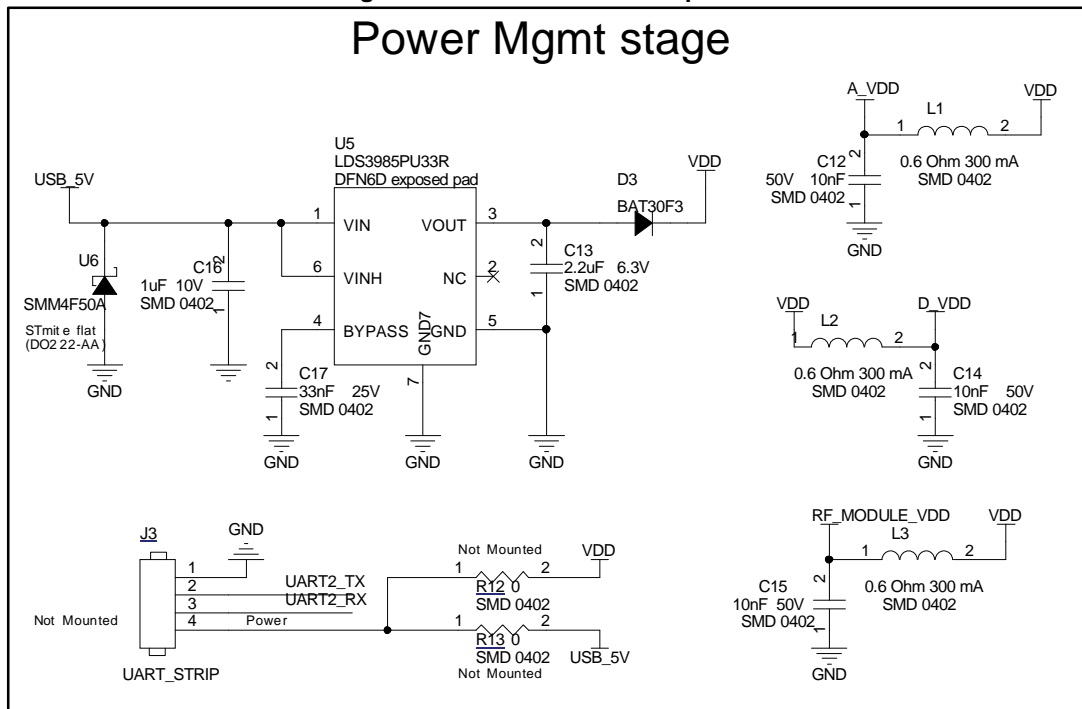
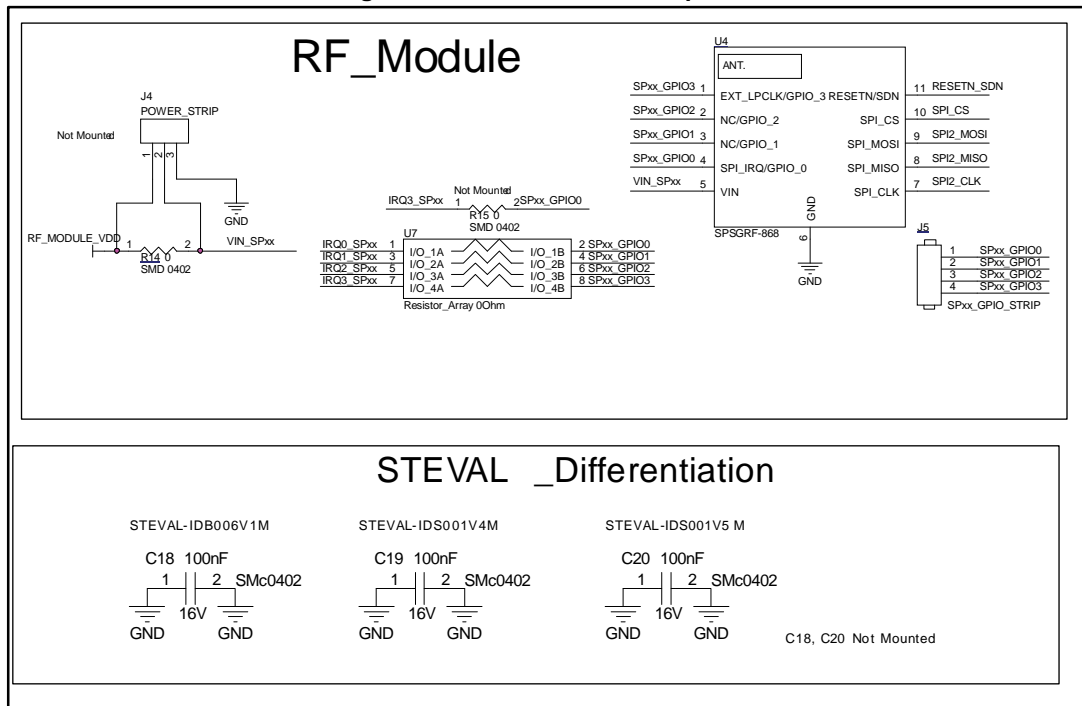


Figure 5: STEVAL-IDS001V4M part 5



2 Revision history

Table 1: Document revision history

Date	Version	Changes
02-Jul-2015	1	Initial release.

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2015 STMicroelectronics – All rights reserved