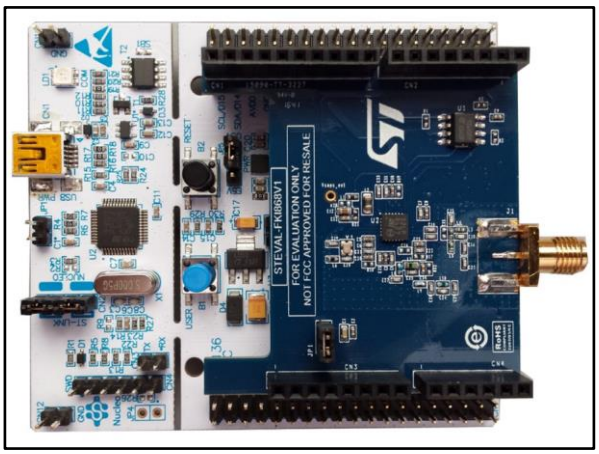
STEVAL-FKI868V1

Sub-1 GHz transceiver development kit based on S2-LP

Data brief



Features

- S2-LP narrow band ultra-low power sub-1 GHz transceiver in a standalone RF Module tuned for 860 - 940 MHz frequency bands
- STM32 Nucleo development board with STM32L152RE MCU
- Suitable for Wireless M-Bus systems
- Associated S2-LP development kit including, documentation, firmware for STM32L and GUI
- Programmable RF output power up to +16 dBm
- Modulation schemes: 2-FSK, 2-GFSK, 4-FSK, 4-GFSK, OOK, and ASK
- Air data rate from 0.3 to 500 kbps
- Ultra-low power consumption:
  - 6.7 mA RX
  - 10 mA TX at +10 dBm
- Excellent performance of receiver sensitivity (up to -130 dBm)
- Low duty cycle RX / TX operation mode
- Automatic acknowledgement, retransmission, and timeout protocol engine
- SPI interface for microcontroller
- USB interface
- RoHS compliant

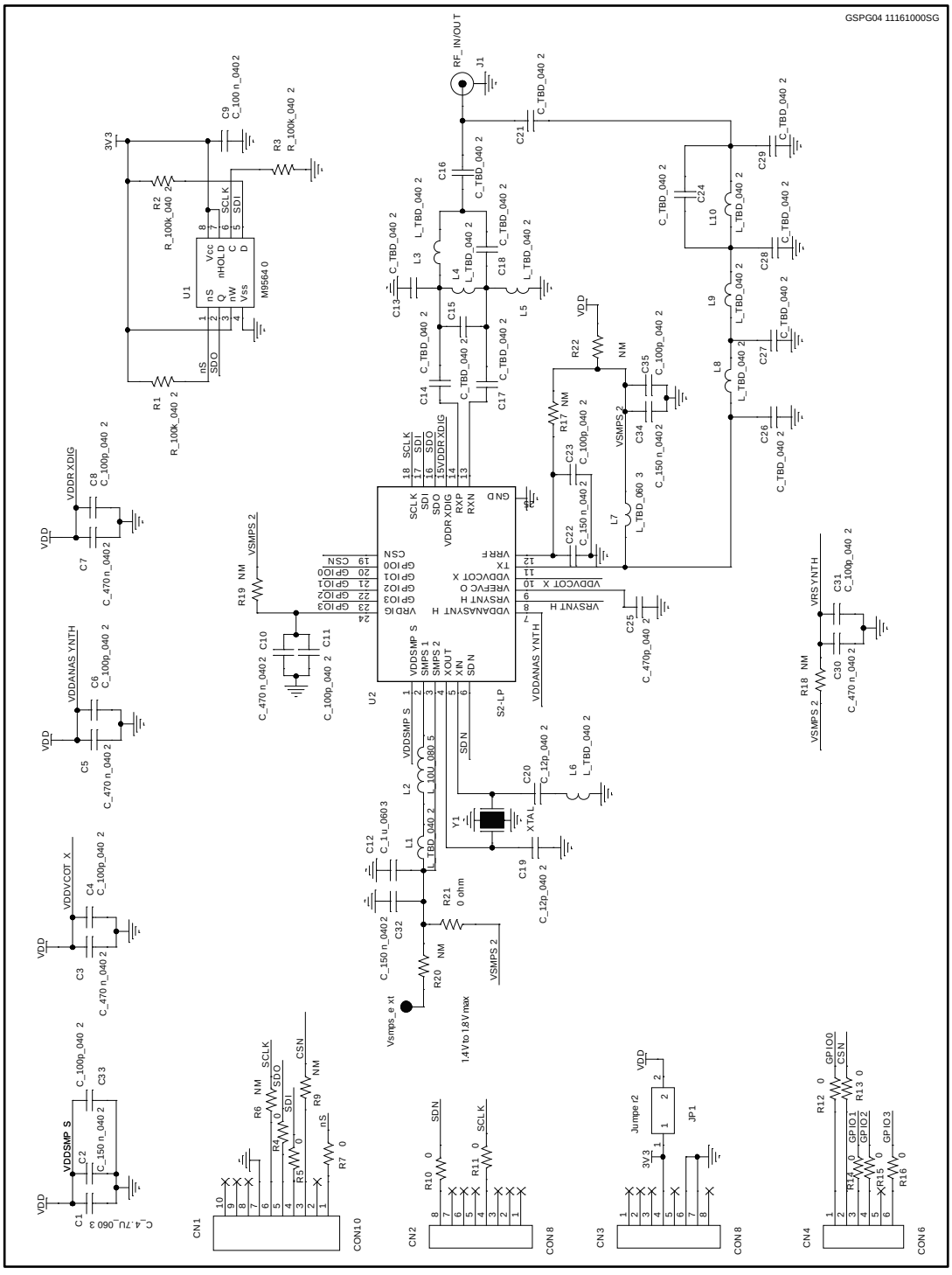
Description

The STEVAL-FKI868V1 evaluation board is based on the S2-LP sub-1 GHz ultra-low power low data-rate transceiver, suitable for ISM bands and Wireless M-Bus.

The main board is the NUCLEO-L152RE development board, equipped with a low power microcontroller STM32L to control the S2-LP and the ST-LINK/V2-1 debugger and programmer for firmware updating.

1 Schematic diagram

Figure 1: STEVAL-FKI868V1 circuit schematic



2 Revision history

Table 1: Document revision history

Date	Version	Changes
10-Nov-2016	1	Initial release.

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