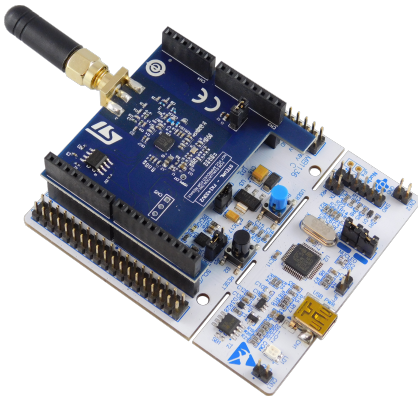


## Sub-1GHz (430-470 MHz) transceiver development kit based on S2-LP



### Features

- **S2-LP** narrow band ultra-low power sub-1GHz transceiver in a standalone RF module tuned for 430-470 MHz frequency bands
- STM32 Nucleo-64 development board with **STM32L0** 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

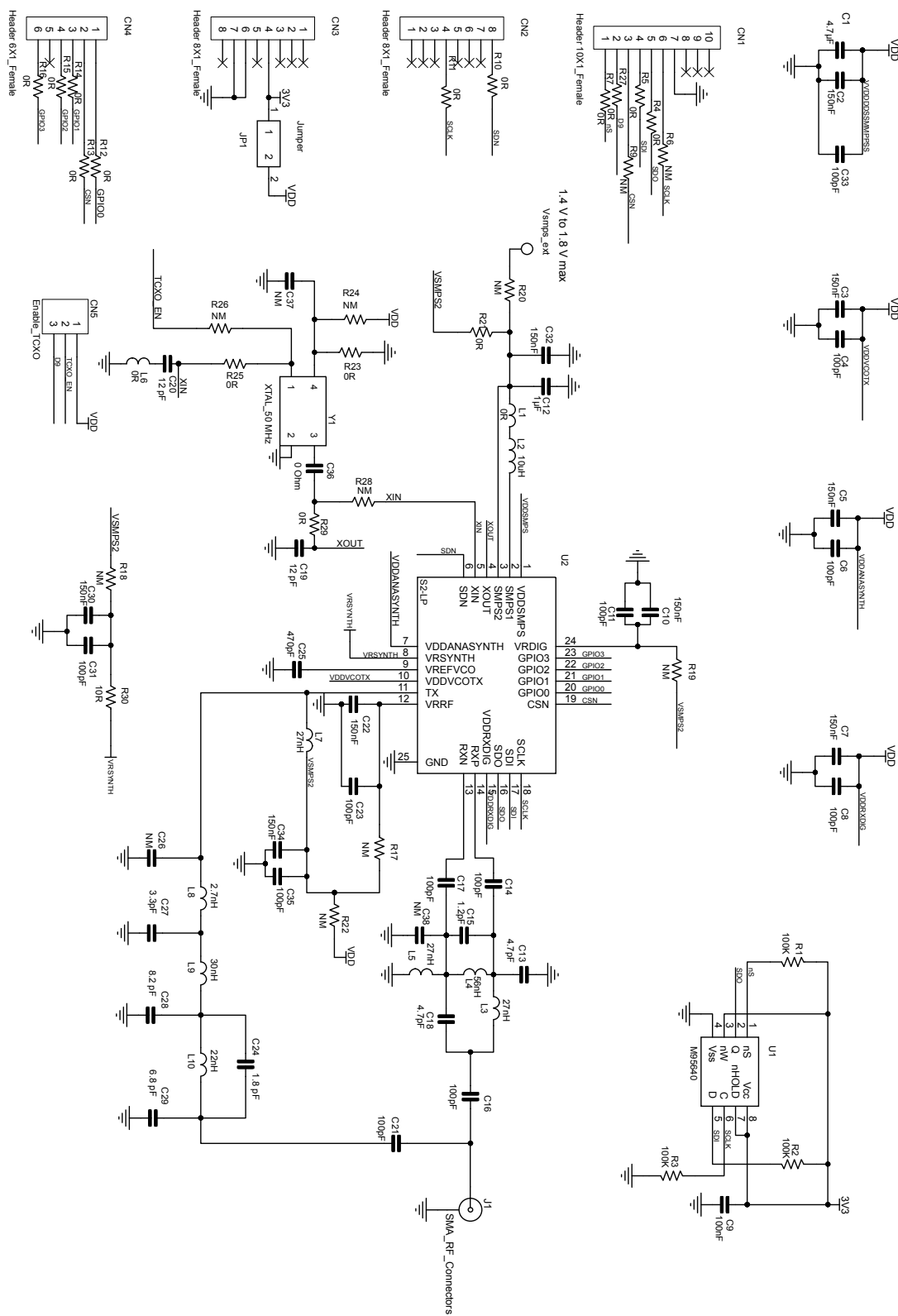
The **STEVAL-FKI433V2** evaluation board is based on the **S2-LP** sub-1GHz ultra-low power low data-rate transceiver suitable for ISM bands and wireless M-Bus.

The **NUCLEO-L053R8** motherboard is equipped with an **STM32L0** low power microcontroller to control the S2-LP.

The board integrates a ST-LINK/V2-1 debugger/programmer for firmware updating.

| Product summary                                                   |                                 |
|-------------------------------------------------------------------|---------------------------------|
| Sub-1GHz (430-470 MHz) transceiver development kit based on S2-LP | <a href="#">STEVAL-FKI433V2</a> |
| STM32 Nucleo-64 development board with STM32L053R8 MCU            | <a href="#">NUCLEO-L053R8</a>   |
| Ultra-low power, high performance, sub-1GHz transceiver           | <a href="#">S2-LP</a>           |
| STM32L0 series of ultra-low-power MCUs                            | <a href="#">STM32L0</a>         |
| ST-LINK/V2 in-circuit debugger/programmer for STM8 and STM32      | <a href="#">ST-LINK/V2</a>      |

# 1 Schematic diagram

**Figure 1. STEVAL-FKI433V2 circuit schematic**


## Revision history

**Table 1. Document revision history**

| Date        | Version | Changes                                               |
|-------------|---------|-------------------------------------------------------|
| 02-Mar-2018 | 1       | Initial release.                                      |
| 23-Mar-2018 | 2       | Updated Section 1 Schematic diagram and title.        |
| 10-Apr-2018 | 3       | Updated <a href="#">Section 1 Schematic diagram</a> . |

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