STEVAL-IKR002V4

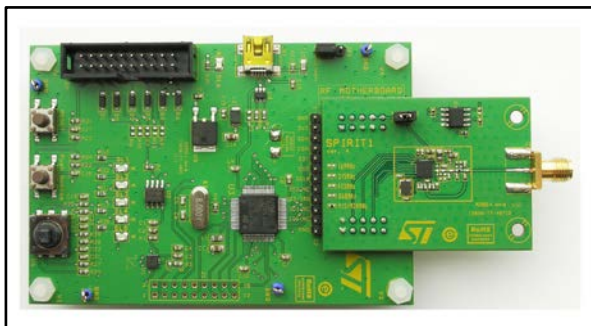## SPIRIT1 - low data rate transceiver - 868 MHz - full kit

Description

The STEVAL-IKR002V4 development kit includes 2 RF daughterboards based on the SPIRIT1 low power, sub-GHz low data rate transceiver suitable for ISM bands and wireless M-BUS, and 2 motherboards based on the STM32L low power microcontroller to control the daughterboards.

Each motherboard features a USB connector for PC GUI interaction and firmware updates. A JTAG connector allows the development of specific firmware on the microcontroller.

Features

- 2 SPIRIT1 low power, sub-GHz RF transceiver daughterboards tuned for the 868 MHz band
- 2 STM32L microcontroller-based motherboards
- Suitable for wireless M-BUS systems
- Associated SPIRIT1 software development kit with documentation, STM32L firmware and GUI
- Debug connector
- USB interface
- Modulation schemes: 2-FSK, GFSK, MSK, GMSK, OOK, and ASK
- Air data rate from 1 to 500 kbps
- Very low power consumption (9 mA RX and 21 mA TX at +11 dBm)
- Excellent performance of receiver sensitivity (up to -120 dBm)
- Low duty cycle RX/TX operation mode
- Automatic acknowledgment, retransmission, and timeout protocol engine
- AES 128-bit encryption co-processor
- SPI interface for microcontroller
- RoHS compliant

1 Revision history

Table 1: Document revision history

Date	Revision	Changes
20-Aug-2013	1	Initial release.
02-Apr-2014	2	Title has been modified.