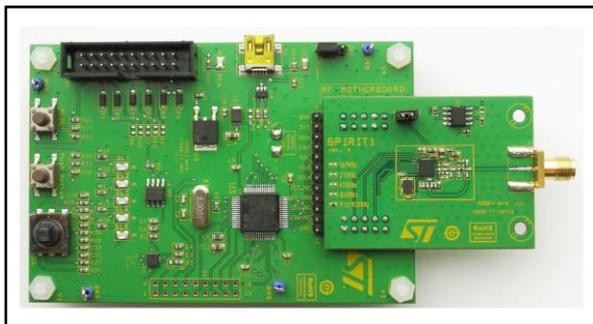# STEVAL-IKR002V1

Sub-GHz transceiver development kit based on the SPIRIT1 (169 MHz band)

Data brief

Description

The STEVAL-IKR002V1 development kit includes 2 RF daughterboards based on the SPIRIT1 low power, sub-GHz low data rate transceiver suitable for ISM bands 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 169 MHz band
- 2 STM32L microcontroller-based motherboards
- 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	Version	Changes
23-Aug-2013	1	Initial release.
14-Oct-2016	2	Updated: Features and Description on the cover page.

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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Sub-GHz Development Tools *category:*

Click to view products by STMicroelectronics *manufacturer:*

Other Similar products are found below :

EVAL-ADF7021DBJZ EVAL-ADF7021-NDBZ2 EVAL-ADF7021-VDB3Z EVAL-ADF7023DB3Z MICRF219A-433 EV MICRF220-433 EV AD6679-500EBZ EVAL-ADF7901EBZ EVAL-ADF790XEBZ 110976-HMC453QS16G STEVAL-IKR002V7D MAX2602EVKIT+ MAX1472EVKIT-315 MAX1479EVKIT-315 STEVAL-IKR002V3D MAX7042EVKIT-315+ MAX2902EVKIT# MAX9947EVKIT+ MAX1470EVKIT-315 SKY66188-11-EK1 SKY66013-11-EVB EVAL-ADF7023DB5Z DRF1200/CLASS-E 1096 1097 1098 MDEV-900-PRO DVK-SFUS-1-GEVK DVK-SFUS-API-1-GEVK US-SIGFOX-GEVB STEVAL-IKR002V2D 107755-HMC454ST89 DM182017-2 110961-HMC453ST89 DM182017-1 SX1272MB2DAS 3179 DC689A DC1513B-AB 3229 3230 3231 3232 DC1250A-AA DC1513B-AC DC1513B-AD DC1513B-AA TEL0075 131903-HMC921LP4E EU-SIGFOX-GEVB