# ADD5043-433-2-GEVK: Add-on kit for DVK-2 Evaluation Kit

Evaluation/Development Tool Description

Narrow-band transceiver for multiple standards

The AX5043 is a true single chip, narrow-band, ultra-low-power ASK and FSK RF transceiver for the 27 MHz to 1050 MHz frequency bands. It offers the unique combination of ultra-low power consumption for transmit and receive operation combined with highest sensitivity and high selectivity. A link budget of 143 dB at 1 kbps is achieved, if the built-in forward error correction (FEC) is used this can be extended to 146 dB without extra external components. The AX5043 works perfectly down to 1 kbps in a 6.25 kHz channel. Though a TCXO is recommended for such operation, the AX5043 can also be operated with a normal XTAL if the necessary precautions are taken into account.
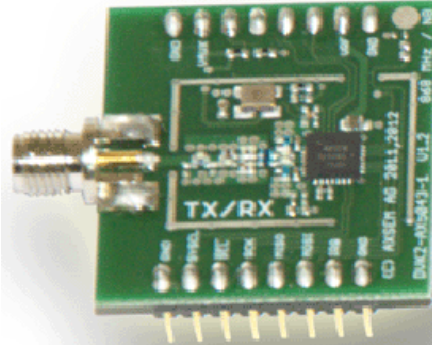
Designed for low power and direct battery operation

An integrated voltage regulation system allows the direct use of batteries and short start-up times enable time- and energy-efficient protocols. Transmit power and receive characteristics do not change over the supply voltage range of 1.8 - 3.6 V. This makes the AX5043 ideal for battery powered portable applications. AX5043 features a lowest power wake-up clock and timer, which typically cousme 500 nA, allowing it to autonomously handle wake-on-radio cycling.

Advanced receiver, transmitter and radio controller

The AX5043 supports FSK, MSK, 4-FSK, GFSK, GMSK, AFSK and ASK modulations. In transmit mode all modulations are shaped. For FSK gaussian filters with BT=0.3 or BT=0.5 are available to meet the most stringent regulatory requirements. Power ramping can be configured without restrictions. Maximum output power level is 16 dBm. The configurable packet engine supports a wide range of packet formats that are handled without microcontroller intervention.

Development kit comes with productivity enhancing complete development tool suite

AX5043 is supported by the development kit DVK-2. This is a complete and flexible ready-to-go solution for easy testing, evaluation and development of ON Semiconductors RF ICs. It is suited for real performance tests using professional lab equipment, as well as for application code development. The DVK-2 is based on the AX8052F100 MCU and offers both the AX-RadioLab GUI as well as the advanced graphic integrated development environment AX8052-IDE together with the freely usable SDCC C-compiler to go with it.

Evaluation/Development Tool Information

Product	Status	Compliance	Short Description	Parts Used	Action
ADD5043-433-2-GEVK	Active	Pb-free	Add-on kit for DVK-2 Evaluation Kit	AX5043-1-TA05 , AX5043-1-TW30	