deRFusb

compact USB radio stick

IEEE 802.15.4 | sub GHz | 2.4 GHz

Applications

- as coordinator | end device
- as sniffer | analyzer
- in 6LoWPAN | ZigBee | RF4CE
  wireless sensor networks

- smart metering
- building automation
- industrial automation
- personal sensors | health care
- logistics | transportation

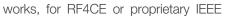**ZigBee®**
Control your world

Compact USB radio sticks deRFusb

With the new USB radio sticks from dresden elektronik the existing deRFusb line evolves to the powerful Cortex-M3 architecture. Equipped with 256 kByte Flash and 64 kByte RAM, a 2.4 GHz or 868/915 MHz band transceiver the USB sticks impress with increased performance and developper-friendly handling.

The sticks can be used in ZigBee and 6LoWPAN networks, for RF4CE or proprietary IEEE 802.15.4 applications. The transceiver integrates a 128-Bit AES hardware engine. An extra feature of this new generation is the integrated memory stick. All drivers, documentation, application data or even the complete development environment can be delivered all on the same stick - providing real plug-and-play or plug-and-develop to customers.

With the employed chip antennas a line of sight distance of more than 200 m (650 feet) can be reached. A LED status display with three LEDs is provided.

The development version comes with a preinstalled wireless UART application while the sniffer version comes with a firmware matching Perytons multi channel sniffer.

Dresden elektronik offers for both frequency ranges a compatible deRFdevelopment kit. The kit contains USB radio sticks, programming adapters and an extensive software package. This package provides a complete implementation of the IEEE 802.15.4 MAC in source code, giving the developer a sophisticated and powerful framework to create own network applications. With this package, the customer gets a lot of sample applications covering typical 802.15.4 features from simple point-to-point-connections up to sensor network examples with tree routing and even beacon-enabled networks.

Analyzer tool for multi-channel monitoring of wireless networks (in cooperation with Perytons)

From one to seventeen sticks of the sniffer version can be connected to a PC resulting in a one-to-16 channel sniffer using the professional analyzer software from Perytons. This analyzer is specifically made for protocol analysis in IEEE 802.15.4 networks and has plug ins for Zigbee, 6LoWPAN and RF4CE desection. You can get a 30-day test license for the Perytons software. During this time the software can be used without limitations.

Key Features

- 23 x 71 x 8.7 mm
- powerful 32-Bit ARM CortexM3 MCU
- USB radio and memory stick
- IEEE 802.15.4 transceiver with up to 2 MBit/s data rate @ 2.4 GHz and up to 1 Mbit/s data rate @ sub GHz
- with chip antenna
- FCC, IC, ETSI compliant

Benefits

- compact USB radio stick for 802.15.4 applications at sub GHz and 2.4 GHz
- with the onboard mass storage for manuals, drivers, documentation and applications
- small and slim case
- perfect as gateway between wireless and wired data transmission
- development kit for custom applications

Contact

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