

USB radio stick deRFusb 23E00 | 23E06 JTAG

Datasheet

- The compact designed USB radio sticks deRFusb-23E00 | 23E06 JTAG contain a powerful Cortex-M3 microcontroller with 256 Kb High-Speed Flash and a 2.4 GHz ISM band transceiver.
- The transceiver AT86RF231 is intended for ZigBee, IEEE 802.15.4, 6LoWPAN, RF4CE and proprietary ISM applications. It uses a 128-Bit AES encryption.
- With the integrated chip antenna distances of more than 200 m can be reached for line of sight conditions.
- The radio stick is equipped with 3 LEDs for status indication and a 10 pin connector for development purposes (JTAG and Debug).
- The stick comes optionally with a 2 Gb NAND on board that can be used as mass storage for user defined data.

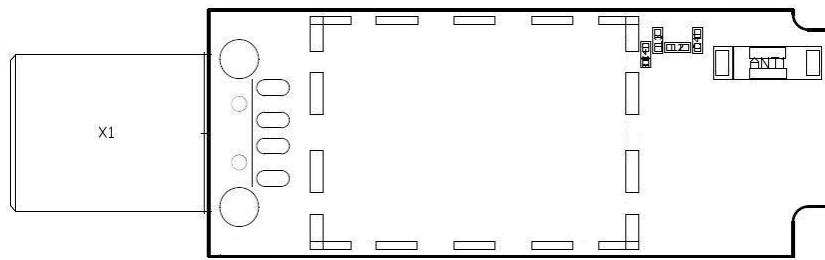


Technical Data

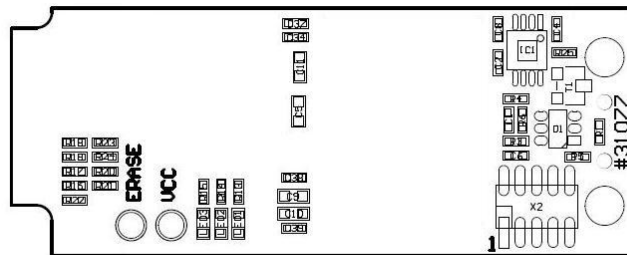
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|---------------------------------------|---|
| Dimensions | 63.5 x 19.0 x 9.5 mm |
| Operating temperature | -20°C to 70°C |
| Control and display elements | 3x LED (red, yellow, green) |
| Power supply | USB powered |
| Power consumption | TX: 65 mA RX: 65 mA Idle: 45 mA |
| Connections | USB connector type A 10 pin connector |
| Antenna | Chip ceramic antenna |
| Antenna gain | +1.3 dBi (peak) -0.5 dBi (average) |
| Antenna diversity | No |
| Range | > 200 m (line of sight) |
| Frequency range | 2.4 GHz |
| Transmitting power | +3 dBm |
| Receiver sensitivity | -101 dBm |
| Communication standard | IEEE 802.15.4 |
| Data rate | 250 kBit/s, 500 kBit/s, 1 MBit/s, 2 MBit/s |
| Microcontroller | ATSAM3S4B |
| Transceiver | AT86RF231 |
| Additional non-volatile memory | None (deRFusb-23E00 JTAG) 2 Gb NAND flash (deRFusb-23E06 JTAG) |
| Interfaces | USB, JTAG and Debug |
| Certification | CE, ETSI, FCC, IC pending |

Technical Data

Board Overlay



(Top view)



(Bottom view – with 10pin connector)

Overlay

Scope of delivery

USB stick deRFusb-23E00 JTAG (with 10pin connector)
 USB stick deRFusb-23E06 JTAG (with 10pin and NAND)

Order No.

BN-033202
 BN-033203

Accessories (optional)

SAM-ICE adapter

BN-028337

Development kits

An analyzer version of deRFusb-23E00 JTAG is included in the following kits:

deRFdevelopmentKit ZigBee 2.4 GHz
 deRFdevelopmentKit 6LoWPAN 2.4 GHz

BN-032515
 BN-032518

Board versions

USB stick deRFusb-13E00 JTAG (with 10pin connector)
 USB stick deRFusb-13E06 JTAG (with 10pin and NAND)
 USB stick deRFusb-13E00 (with case)
 USB stick deRFusb-13E06 (with case and NAND)
 USB stick deRFusb-23E00 (with case)
 USB stick deRFusb-23E06 (with case and NAND)
 Analyzer stick BitCatcher sub-GHz
 Analyzer stick BitCatcher 2.4 GHz
 Analyzer stick Perytons 2.4 GHz

BN-033206
 BN-033207
 BN-031807
 BN-031539
 BN-031805
 BN-031075
 BN-600035
 BN-600034
 BN-028636

Order Information

Variants

More information about the variants is described in detail in the user manual.

Order online: <https://shop.dresden-elektronik.de>