

# Radio Modules | USB Radio Sticks

## OEM Radio Modules

AVR Modules	MCU + Transceiver	Power Consumption	Transmit Power	Receiver Sensitivity
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- ATmega128RFA1 / ATmega256RFR2
- 2.4 GHz
- SMT
- MCU Frequency ≤ 16 MHz

Chip Ceramic Antenna  
23.7 x 13.2 x 3 mm

deRFmega256-23M00	ATmega256RFR2	19 mA	+ 3.5 dBm	-98 dBm
deRFmega128-22M00	ATmega128RFA1	18 mA	+ 3 dBm	-100 dBm



Adapter board

RF Pads  
19 x 13.2 x 3 mm

deRFmega256-23M10	ATmega256RFR2	19 mA	+ 3.5 dBm	-98 dBm
deRFmega128-22M10	ATmega128RFA1	18 mA	+ 3 dBm	-100 dBm



Adapter board

PA/LNA, Diversity, RF Pads  
21.5 x 13.2 x 3 mm

deRFmega256-23M12	ATmega256RFR2	233 mA	+ 23 dBm	-104 dBm
deRFmega128-22M12	ATmega128RFA1	198 mA	+ 22 dBm	-105 dBm



Adapter board

Cortex-M3 Modules	MCU + Transceiver	Power Consumption	Transmit Power	Receiver Sensitivity
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- ATSAM3S4
- 2.4 GHz / sub GHz
- SMT
- MCU Frequency ≤ 64 MHz

RF Pads  
21.5 x 13.2 x 3 mm

deRFsam3-23M10-2	ATSAM3S4 + AT86RF232	42 mA	+ 3.5 dBm	-100 dBm
deRFsam3-23M10-3R	ATSAM3S4 + AT86RF233	42 mA	+ 3 dBm	-101 dBm
deRFsam3-13M10	ATSAM3S4 + AT86RF212	47 mA	+ 4 dBm	-110 dBm



Adapter board

## USB Radio Sticks

- ATSAM3S4
- 2.4 GHz / sub GHz
- MCU Frequency ≤ 64 MHz
- JTAG / Flash optionally



Chip Ceramic Antenna  
23 x 71 x 8.7 mm (case)

deRFusb-23E00	ATSAM3S4 + AT86RF231	65 mA	+ 3 dBm	-101 dBm
deRFusb-13E00	ATSAM3S4 + AT86RF212	65 mA	+ 9 dBm	-106 dBm

