

## Product description

The COUA module is a single embedded and cost-effective Sub-1-GHz radio module. With 5,5 mA, the module stands out due to a very low RX current consumption and an even lower sleep current.

The radio module is supported by the open source operating system Contiki, which allows for rapid product development on the basis of the wide range of protocols and applications that Contiki offers. All available IOs are routed to the outside, so that various sensor and actuator applications can easily be realized.

## Essential accessories

The 6LoWPAN Gateway SAKER, which also uses this free operating system, can perform as a receiver for transferring data to a server.

## Features:

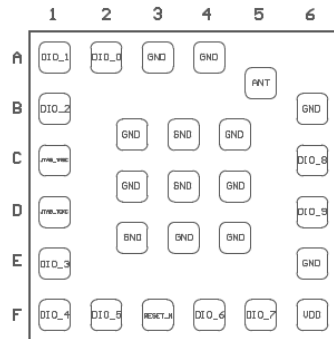
- Small size (15 mm x 15 mm) for SMD mounting
- 1.8 – 3.8 V supply voltage
- Ultra low power modes:
  - RX: 5.5mA
  - Sleep-Mode: 185nA
- Output power: +14dBm
- Powerful ARM Cortex-M3
- 128kB Flash/ 20KB SRAM
- All digital peripheral pins can be routed to any GPIO
- Supported by the open source platform Contiki/ 6LoWPAN

## Technical data

Hardware	SoC-Chip for 802.15.4g (Sub-GHz)
Processor	Powerful 48MHz Cortex-M3 microcontroller 128KB/ 20KB RAM
Frequency Range	868MHz
Voltage Range	1.8 – 3.8 Volt
Power Consumption	RX: 5.5mA; TX: at +10dBm: 12.9mA
Receiver Sensitivity	-124dBm -110dBm at 50kbps
Output power	Up to +14dBm
Conformity	ETSI EN 300 220

## Pinout & Dimensions

This Figure shows the package top view



- |               |               |
|---------------|---------------|
| A1- DIO_1     | D1- JTAG_TCKC |
| A2- DIO_0     | D6- DIO_9     |
| A3- GND       | DE23- GND     |
| A4- GND       | DE34- GND     |
| A5- ANT       | DE45- GND     |
| B1- DIO_2     | E1- DIO_3     |
| B6- GND       | E6- GND       |
| BC23- GND     | F1- DIO_4     |
| BC34- GND     | F2- DIO_5     |
| BC45- GND     | F3- RESET_N   |
| C1- JTAG_TMSC | F4- DIO_6     |
| C6- DIO_8     | F5- DIO_7     |
| CD23- GND     | F6- VDD       |
| CD34- GND     |               |
| CD45- GND     |               |

