

# ccRF click<sup>™</sup>

#### 1. Introduction

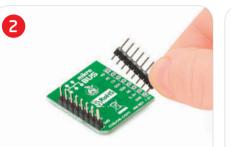
| ∮ ∮ mikro<br>↓ ↓ BUS  |
|---|
| BO2 HC<br>HC COO<br>HC COO<br>HC STAHLS CS<br>HC SCH<br>HC SCO<br>HC SCO<br>HC SCO<br>HC SCO<br>HC SCO<br>HC SCO<br>HC SCO<br>HC COO<br>HC HC HC<br>HC COO<br>HC COO<br>H |

ccRF click<sup>™</sup> is an accessory board in **mikroBUS<sup>™</sup>** form factor. It's a compact and easy solution for adding RF transceiver to your design. It features **CC2500** Low-Power 2.4 GHz RF transceiver as well as PCB trace antenna. ccRF click<sup>™</sup> communicates with the target board microcontroller via **mikroBUS<sup>™</sup>** SPI (MOSI, MISO, SCK, CS), RST and PWM lines. The board is designed to use 3.3V power supply only. LED diode (GREEN) indicates the presence of power supply.

#### 2. Soldering the headers

Before using your click<sup>™</sup> board, make sure to solder 1x8 male headers to both left and right side of the board. Two 1x8 male headers are included with the board in the package.

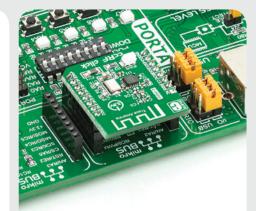




Turn the board upside down so that bottom side is facing you upwards. Place shorter pins of the header into the appropriate soldering pads.



Turn the board upward again. Make sure to align the headers so that they are perpendicular to the board, then solder the pins carefully.



#### 4. Essential features

ccRF click<sup>™</sup> with it's **CC2500** IC is a low-power 2.4 GHz transceiver designed for the 2400-2483.5 MHz ISM and SRD frequency band. The **CC2500** is integrated with a highly configurable baseband modem that supports various modulation formats and has data rate up to 500 kBaud. All these features make this board ideal for consumer electronics, wireless audio, wireless keyboard and mouse RF remote controls and many more.

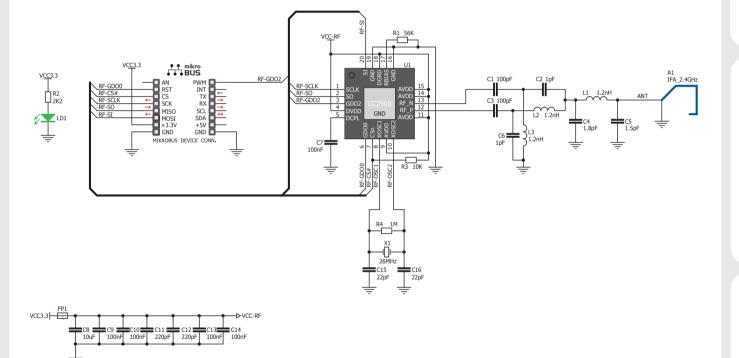


### 3. Plugging the board in

Once you have soldered the headers your board is ready to be placed into desired mikroBUS<sup>III</sup> socket. Make sure to align the cut in the lower-right part of the board with the markings on the silkscreen at the mikroBUS<sup>III</sup> socket. If all of the pins are aligned correctly, push the board all the way into the socket.



#### 5. ccRF click<sup>TM</sup> Board Schematic



#### Board features PCB trace antenna, designed

for the 2400-2483.5 MHz frequency band. Maximum device range is up to 20 meters in open space.

Trace Antenna

6. PCB Trace Antenna

#### 7. Code Examples

Once you have done all the necessary preparations, it's time to get your click<sup>m</sup> board up and running. We have provided the examples for mikroC<sup>m</sup>, mikroBasic<sup>m</sup> and mikroPascal<sup>m</sup> compilers on our **Libstock** website. Just download them and you are ready to start.



#### 8. Support

MikroElektronika offers **Free Tech Support** (www.mikroe.com/esupport) until the end of product lifetime, so if something goes wrong, we are ready and willing to help!



MikroElektronika assumes no responsibility or liability for any errors or inaccuracies that may appear in the present document. Specification and information contained in the present schematic are subject to change at any time without notice. Copyright © 2013 MikroElektronika. All rights reserved.

## **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for RF Development Tools category:

Click to view products by MikroElektronika manufacturer:

Other Similar products are found below :

MAAM-011117 MAAP-015036-DIEEV2 EV1HMC1113LP5 EV1HMC6146BLC5A EV1HMC637ALP5 122410-HMC686LP4E ADL5363-EVALZ 130437-HMC1010LP4E EKIT01-HMC1197LP7F SKYA21001-EVB SMP1331-085-EVB EVAL01-HMC1041LC4 MAAL-011111-000SMB MAAM-009633-001SMB 107712-HMC369LP3 107780-HMC322ALP4 SP000416870 EV1HMC520ALC4 EV1HMC244AG16 EV1HMC539ALP3 124694-HMC742ALP5 SC20ASATEA-8GB-STD MAX2692EVKIT# SKY12343-364LF-EVB 108703-HMC452QS16G 119197-HMC658LP2 EV1HMC647ALP6 ADL5725-EVALZ 106815-HMC441LM1 UXN14M9PE SIMSA868-DKL SIMSA868C-DKL SKY65806-636EK1 SKY68020-11EK1 SKY67159-396EK1 SKY66181-11-EK1 SKY65804-696EK1 SKY13396-397LF-EVB SKY13380-350LF-EVB SKY13322-375LF-EVB SKY12207-478LF-EVB SE5023L-EK1 SE5004L-EK1 SE2436L-EK1 Se2435L-EK1 SIMSA915C-DKL SIMSA915-DKL SIMSA433C-DKL SKY12211-478LF-EVB EVK-R202-00B