

2.4 GHz RF4CE USB Module

Version B. 2011.2.1

Introduction

CM201-USB is an RF module which incorporates a low power 2.4GHz RF transceiver, an HCS08 MCU and an USB interface IC. With all necessary passive components and firmware packaged inside, this RF module forms a ready-for-use component which interfaces with the host system through the USB port.

Applications:

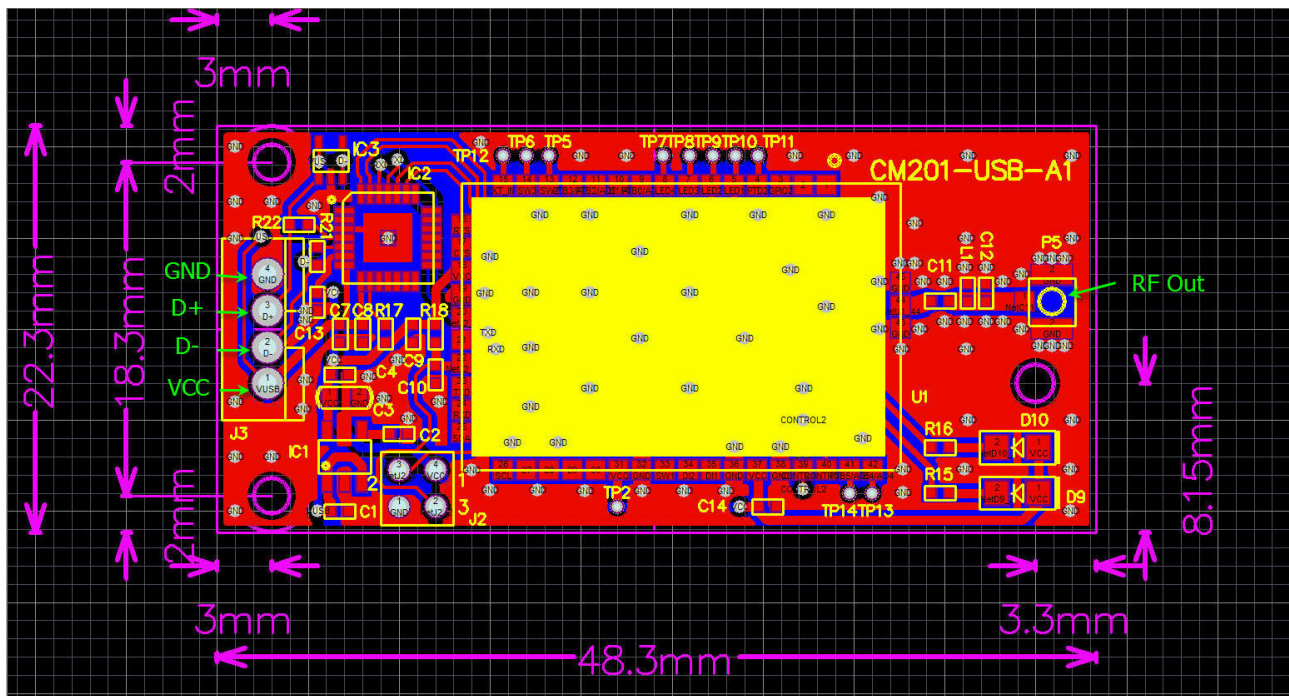
- RF4CE remote control
- Home Automation
- Wireless data communications
- PC side RF receiver
- Wireless Sensor Network

Specifications

- Integrates HCS08 MCU, 802.15.4 RF modem and USB-UART interface IC.
- Reliable RF modulation technology: Direct Sequence Spread Spectrum(DSSS)
2.4GHz RF Transceiver
- RF modem power consumption (at 25°C)
RX mode: 35mA
TX mode: 42mA
Hibernate mode: 6uA
Power down mode: 1uA
- MCU power consumption (at 25°C)
Run mode: 6.5mA
Stop mode: 675nA
- Size: width 22.3 mm x length 48.3 mm x Height: 3mm (7.2mm for 4 pins connector at left side)

- USB 2.0 interface with 4 pin male header as connector, pitch 2.0mm. USB port emulates virtual comport in host machine.
- With virtual comport drivers for Windows and Linux.
- RF receive sensitivity of <math><-90\text{ dBm}</math> (typical) at 1% PER, 20-byte packet
- RF output power: 0 dBm, (Typical)
- Matching circuitry with RF out soldering pad for external antenna connection
- Supports Zigbee RF4CE software solution with Freescale Blackbox firmware for target inside
- 60KB Flash memory, 4KB RAM
- Working temperature range: -40°C to $+85^{\circ}\text{C}$

Pin assignment



*screw hole diameter: 2mm