

### Introduction

CM301-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. CM301-USB-HID behaves as an ordinary USB keyboard/mouse/consumer device when plugged into the host. This module converts RF keycodes received from remote side into corresponding USB HID keycodes.

### Applications:

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

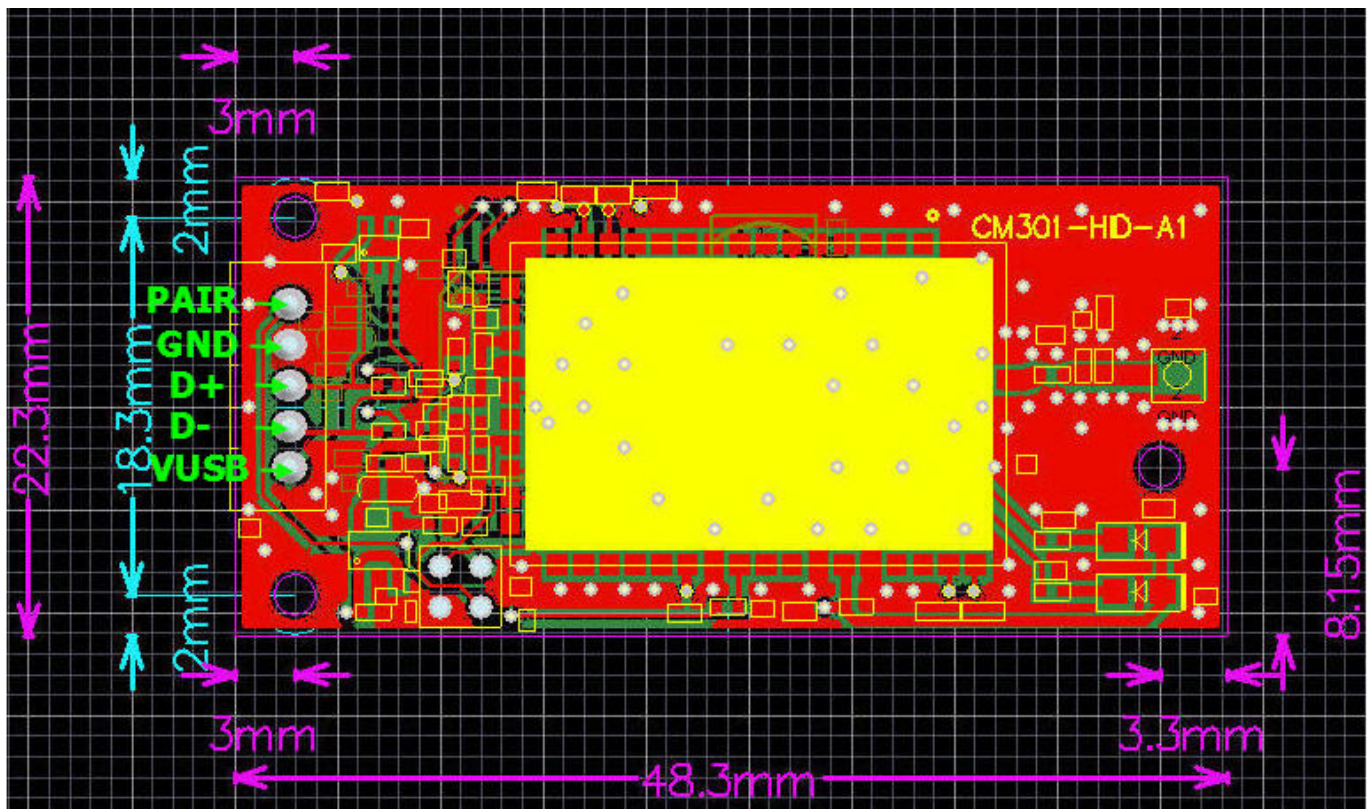
### Specifications

- Integrates HCS08 MCU, 802.15.4 RF modem and USB-HID interface IC.
- Reliable RF modulation technology: Direct Sequence Spread Spectrum(DSSS) 2.4GHz RF Transceiver
- RF modem power consumption (at 25°C)
  - RX mode: 30mA
  - TX mode: 37mA
  - 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 5 pin male header as connector, pitch 2.0mm. USB port emulates virtual comport in host machine. 5pins include 4 USB pins and one pairing pin. This pairing pin supports ZRC one button pairing function.
- With virtual comport drivers for Windows and Linux.
- RF receive sensitivity of <-90 dBm (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 protocol
- 60KB Flash memory, 4KB RAM
- Working temperature range: -40 °C to +85 °C

## Dimensions:



\*screw hole diameter: 2mm