Telink RCU TLSR8278ARC48D User Manual

Keyword:

Features; Pin connection; User manual

Brief：

This is a user manual for Telink 8278 RCU.

TELINK SEMICONDUCTOR

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1 Product Introduction

This is a user manual for Telink RCU TLSR8278ARC48D.

1.1 General description

The TLSR8278ARC48D, which is based on Telink TLSR8278F1KET48 chip, provides a Bluetooth LE .

The TLSR8278ARC48D integrates a power-balanced 32-bit MCU, BLE , 64kB SRAM, 1MB internal Flash, 14bit ADC , 6-channel PWM, flexible GPIO interfaces, and nearly all the peripherals needed for IoT (Internet of Things) and HID (Human Interface Devices) application development (e.g. Bluetooth Low Energy).

1.2 Key features

- ✧ Bluetooth 5 Compliant, 1Mbps, 2Mbps, Long Range 125kbps and 500kbps
- ✧ 64kB on-chip SRAM with up to up to 32kB retention
- ✧ A rich set of I/Os: SPI, I2C, Single wire, up to 32 GPIOs, UART with hardware flow control and 7816 protocol support, DMIC (Digital Mic), AMIC (Analog Mic), I2S, Stereo Audio output
- ✧ 6-channel PWM (Pulse Width Modulation) output
- ✧ RSSI monitoring with +/-1dB resolution
- ✧ Power supply: DC3.0V

2 Pin Connection Guide

2.1 Supply power

The TLSR8278ARC48D supports supply power via battery or other 3.0V power.

The power connection is shown below, connect the power to the 3V of TP3, and

connect the GND of TP4.

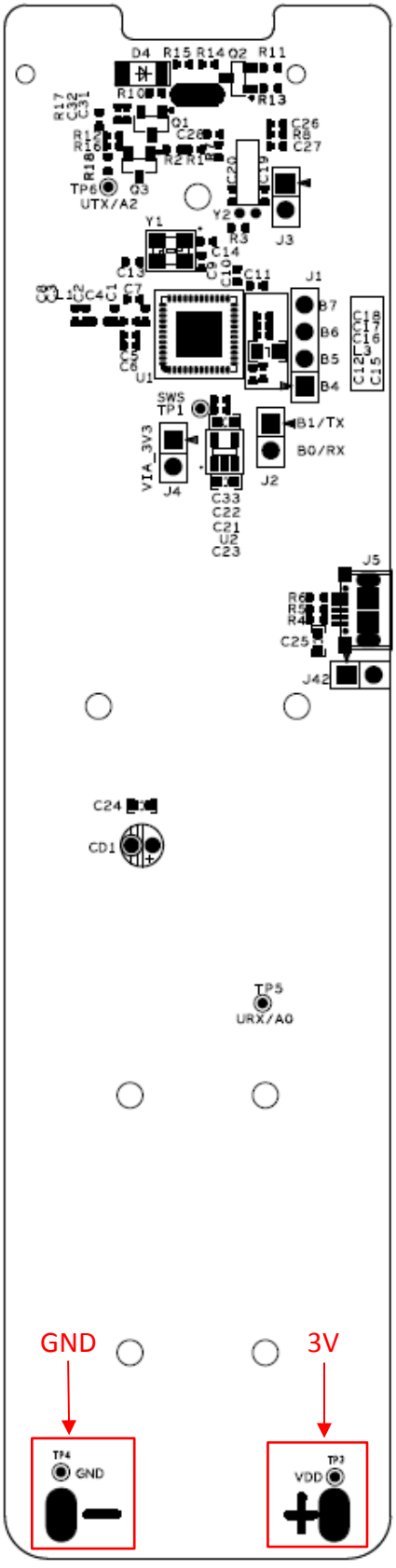

Figure 1 Connection chart to supply power

When the remote control is used with a shell, it is directly powered by two dry batteries. As shown below.

2.2 Download firmware

To download firmware into TLSR8278ARC48D, first make sure the TLSR8278ARC48D is supplied with power normally. That is, connect the power to the VDD of TP3, and connect the GND to TP4. See the next page picture shows.

Then connect TP1 (SWS) of the TLSR8278ARC48D with SWM of a burning EVK. Meanwhile, connect the miniUSB interface of the burning EVK with PC USB.

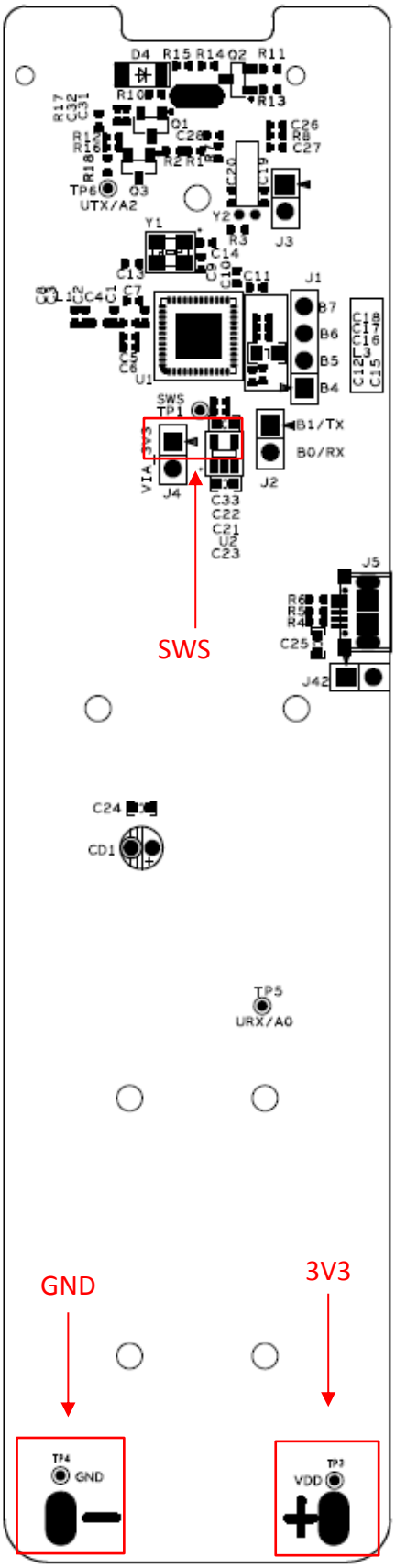

Figure 2 Connection chart to download firmware

2.3 Test RF signal

To test RF signal of TLSR8278ARC48D, first make sure the TLSR8278ARC48D is supplied with power normally. That is, connect the power to the VDD of TP3, and connect the GND to TP4.

Attach the semi-rigid cable welding steel to the PCBA GND. Then solder wire core to feed point. See the next page picture shows.

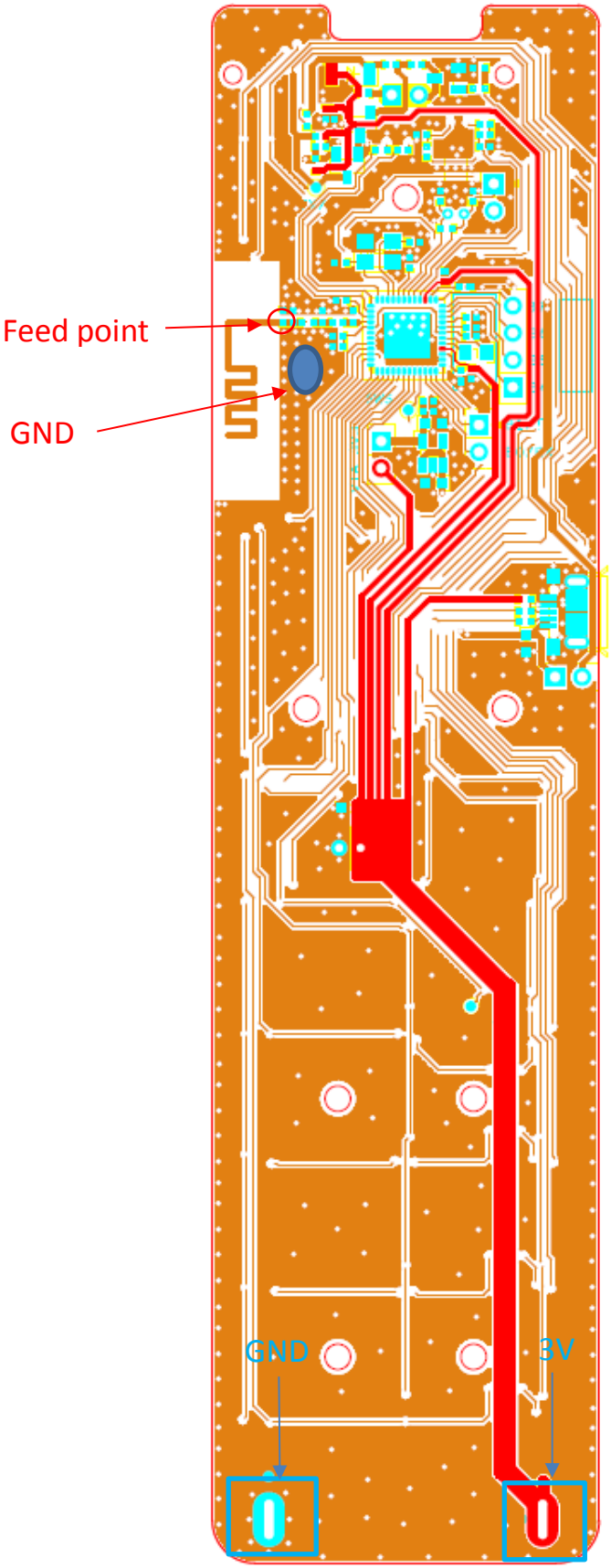

Figure 3 Connection chart to test RF signal

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try correct the interference by one or more of the following measures:

- Reorient the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into and outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.