Telink Indoor Position TLSR8278IP48D

User Manual

AN-21031026-E1

Ver.0.1.0

2021/03/02

Keyword

Features, Pin connection, RF test

Brief

This is a user manual for Telink Indoor Position TLSR8278IP48D.

Published by

Telink Semiconductor

Bldg 3, 1500 Zuchongzhi Rd,

Zhangjiang Hi-Tech Park, Shanghai, China

Legal Disclaimer

This document is provided as-is. Telink Semiconductor reserves the right to make improvements without further notice to this document or any products herein. This document may contain technical inaccuracies or typographical errors. Telink Semiconductor disclaims any and all liability for any errors, inaccuracies or incompleteness contained herein.

Information

For further information on the technology, product and business term, please contact Telink Semiconductor Company (www.telink-semi.com).

For sales or technical support, please send email to the address of:

telinkcnsales@telink-semi.com

telinkcnsupport@telink-semi.com

Revision History

Version 0.2 (2020-05-12)

Section	Change Description

Version 0.1.0 (2020-01-06)

This is the Initial release.

Contents

List of Figures

1. Product Introduction

This is a user manual for Telink Indoor Position TLSR8278IP48D.

1.1 General description

The TLSR8278IP48D, which is based on Telink TLSR8278F1KET48 chip, provides a Bluetooth LE wireless system.

TheTLSR8278IP48D integrates a power-balanced 32-bit MCU, BLE , 1MBinternal 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

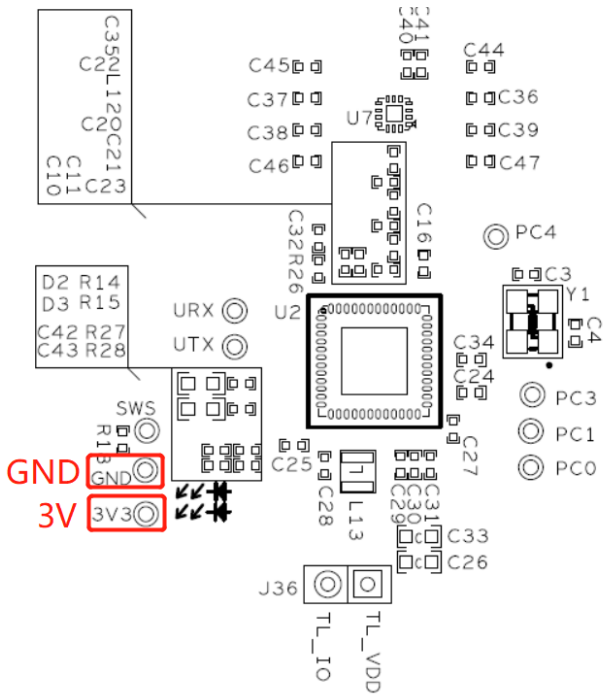
- Bluetooth 5 Compliant, 1Mbps, 2Mbps, Long Range 125kbps and 500kbps
- 64kB on-chip SRAM with up to up to 32kB retention
- A rich set of I/Os: SPI, I2C, Single wire, up to 32 GPIOs, UART with hardware flow
- control and 7816 protocol support, DMIC (Digital Mic), AMIC (Analog Mic), I2S
- Stereo Audio 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 TLSR8278IP48D is powered by a 3V power supply. The power connection is shown below.

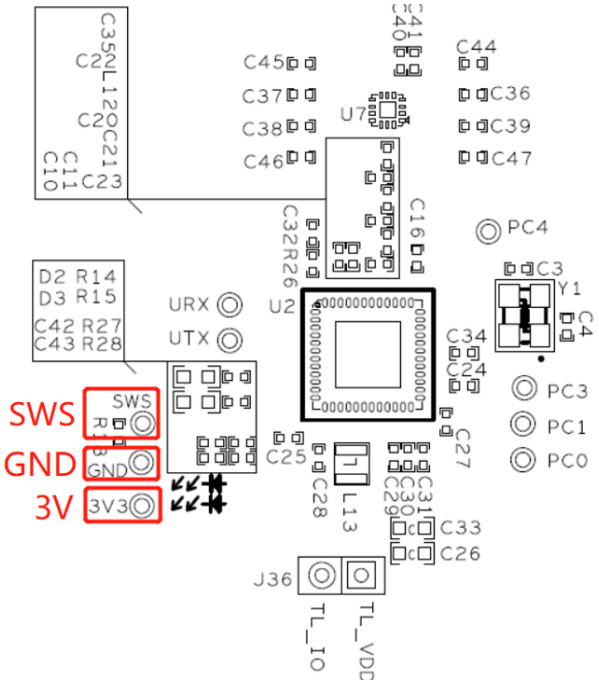
Figure 2-1 Connection chart to power supply



2.2 Download firmware

To download firmware into TLSR8278IP48D, first make sure the TLSR8278IP48D is supplied with power normally. Then connect SWS of the TLSR8278IP48D with SWM of a burning EVK. Meanwhile, connect the mini-USB interface of burning EVK with PC USB.

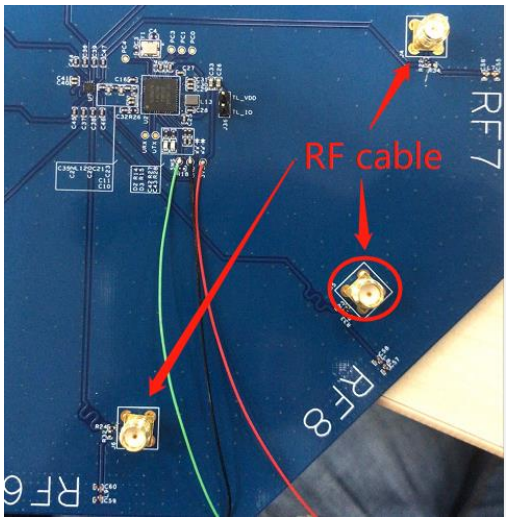
Figure 2-2 Connection chart to download firmware



2.3 Test RF signal

To test RF signal of TLSR8278IP48D, first make sure the TLSR8278IP48D is supplied with power normally. Then connect the RF cable to the SMA on board (shows as below).

Figure 2-3 RF connection



FCC Statement

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.