



Telink

Telink EVK TL7218X-EVK88D

User Manual

**AN-20082700-E1**

---

**Ver.0.  
1.0**

Keyword

**Feature;2.4GHz; User  
manual;Bluetooth LE;**

Brief

**This is a user manual for Telink  
TL7218X EVB**

**Published by**  
**Telink Semiconductor**

11/F, Building 1, 61 Shengxia Road, PuDong District, Shanghai

**© Telink Semiconductor**  
**All Right Reserved**

### Legal Disclaimer

The information contained in this document is confidential, privileged, and proprietary to Telink Semiconductor (Shanghai) Co, Ltd. and its related entities (“Telink”). The use and dissemination of this document is governed by the confidentiality/non-disclosure/disclaimer statement herein. Information in this document is intended for use by the intended recipient. This document may not be used, disclosed, published, disseminated, copied or distributed to any third party other than the intended recipient without the prior written consent of Telink which may be withheld in Telink’s sole discretion. Under no circumstances may this document be disclosed to a competitor of Telink. Any unauthorized use or disclosure is strictly prohibited.

Copyright © 2020 Telink Semiconductor (Shanghai) Ltd, Co.

### Information

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

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

[telinknsales@telink-semi.com](mailto:telinknsales@telink-semi.com)

[nk-semi.com](http://www.telink-semi.com)

[telinknsupport@telink-semi.com](mailto:telinknsupport@telink-semi.com)

[elink-semi.com](http://www.telink-semi.com)



## Revision History

<b>Version</b>	<b>Change Description</b>
<b>VO.1.0</b>	<b>Initial release.</b>

## Table of Contents

<b>Revision History</b> .....	<b>2</b>
<b>Table of Contents</b> .....	<b>3</b>
<b>1. Product Introduction</b> .....	<b>4</b>
1.1 GENERAL DESCRIPTION .....	4
1.2 RF FEATURES.....	4
<b>2. User manual</b> .....	<b>5</b>
2.1 SUPPLY POWER.....	5
2.2 DOWNLOAD FIRMWARE .....	6
2.3 FUNCTIONS OF EACH MODULE.....	6

# 1. Product Introduction

**This is a user manual for Telink Audio EVB TL7218X-EVK8SD.**

## 1.1 General description

**The Telink EVK TL7218X-EVK8SD, which is based on Telink TL7218X chip.**

**TL7218X supports standards and industry alliance specifications, including Bluetooth 6.0, BLE mesh, etc., combining the functions and features required for high-quality wireless audio devices into one SoC.**

## 1.2 RF features

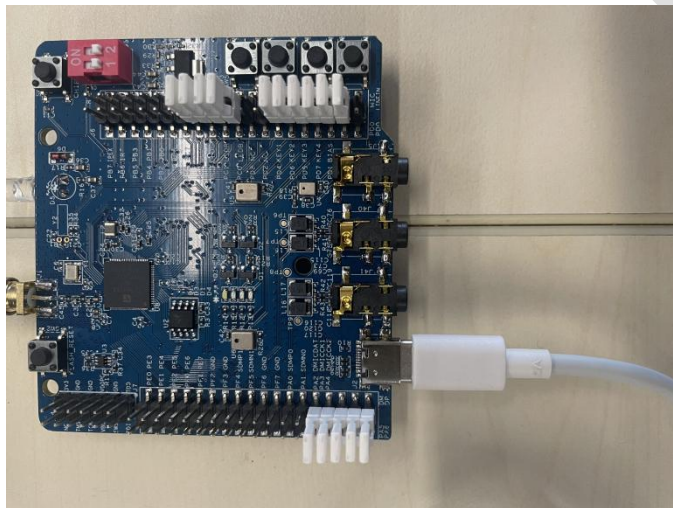
- 1. Bluetooth**
- 2. Bluetooth LE 1 Mbps and 2 Mbps,**
- 3. Rx Sensitivity: -96 dBm @ Bluetooth LE 1 Mbps (-95.5 dBm @ Low power mode), -93 dBm @ Bluetooth LE 2 Mbps mode, -104.5 dBm**
- 4. TX output power: up to +10dBm @ GFSK modulation**
- 5. 50  $\Omega$  matched single-pin antenna input**
- 6. RSSI monitoring with +/-1 dB resolution**
- 7. High accuracy distance measurement options with I/Q data samples available for customized extensions (Channel Sounding)**
- 8. Auto acknowledgment, retransmission and flow control**
- 9. Supports full-function Bluetooth LE location features**

## 2. User manual

### 2.1 Supply power

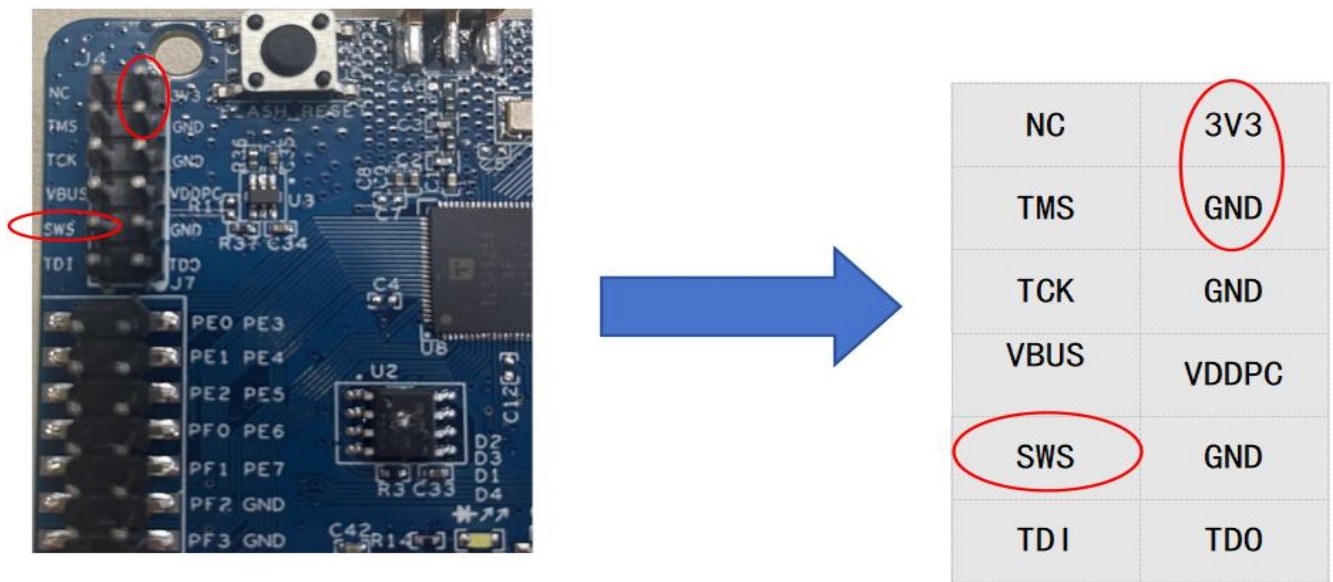
**The TL7218X-EVK8SD supports supply power via USB or other 3.3V power.**

**As shown in figure 2-1, the marker is the USB port. Power can be supplied when USB is plugged in.**



**Figure 2-1 USB power supply**

**As shown in figure 2-2, the marker is the 3.3V and GND port. 3.3V power can be supplied through the two ports.**



**figure 2-2 3.3V power supply**



## 2.2 Download firmware

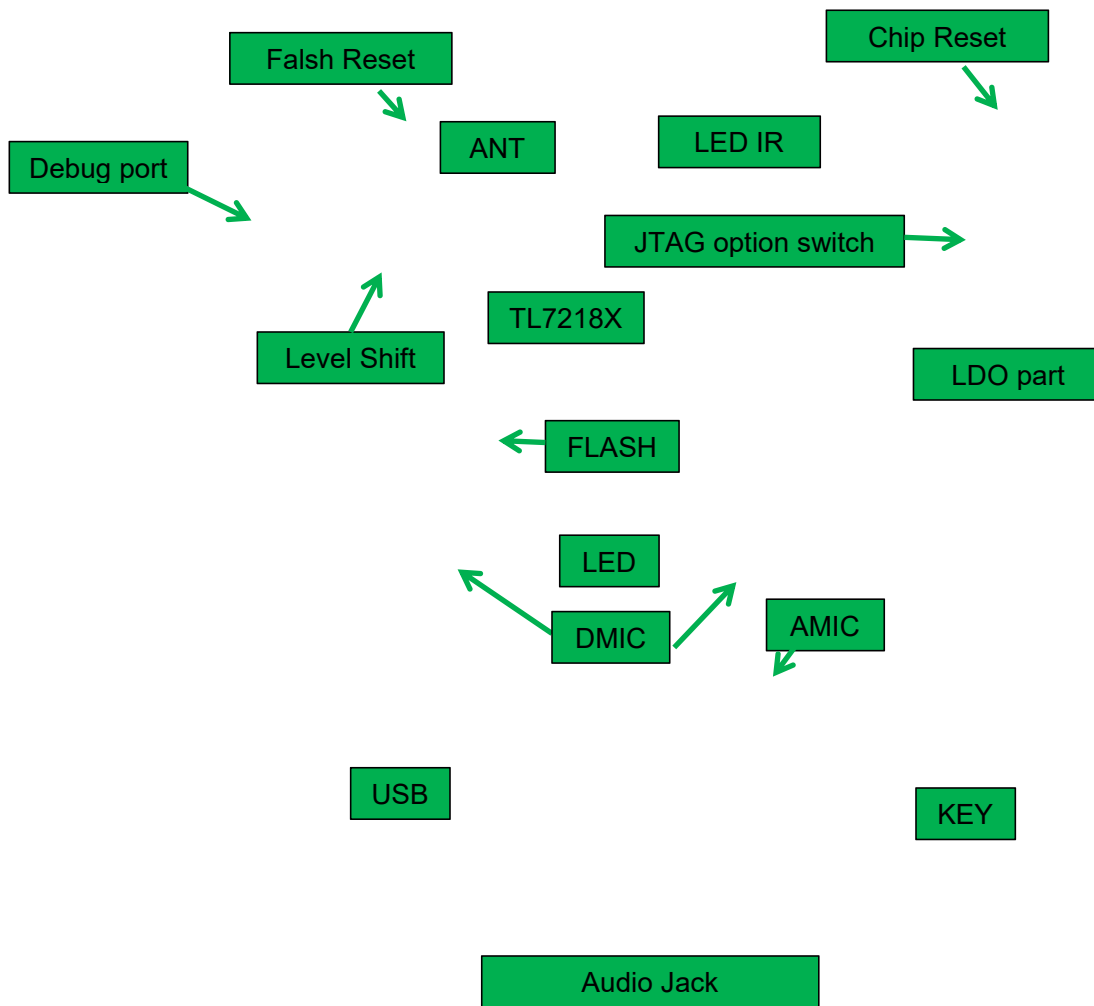
There are also two ways to download firmware, **USB burning** or **SWS burning**. But need another burning tool **Telink Burning EVK**. **Telink Burning EVK** have **USB port** and **3.3V/SWS/GND** port. When using **USB** download firmware, just plug **EVK USB** in **Burning EVK**. When using **SWS** download firmware, connect **3.3V/SWS/GND** of **EVK** to **3.3V/SWM/GND** of **Burning EVK**.

## 2.3 Functions of each module

As shown in figure 2-3, The functions of each module on the board have been marked.

There are **LED**, **key**, **ANT** and **debug port** on board. The **LED** lights can indicate what status the **TL7218X-EVK88D** is in. The **key** allow us to control **TL7218XDK88D**. We can use **debug port** to debug **TL7218XDK88D**.

The **TL7218X-EVK88D** support **audio line-in/out** and **mic-in** functions. Realize this functions according to different software configurations.



**Figure 2-4 Function modules on the board**



**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.

The distance between user and products should be no less than 20cm

The EUT is In door use only