Telink Dongle TLSR9518ADG80D

User Manual

AN-20082700-E1

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Keyword

Feature;2.4GHz; User manual

Brief

This is a user manual for Telink TLSR9518A dongle

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Legal Disclaimer

Information

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Revision History

Version	Change Description
V0.1.0	Initial release.

Table of Contents

1. Product Introduction

This is a user manual for Telink Dongle TLSR9518ADG80D.

1.1 General description

The Telink dongle TLSR9518ADG80D, which is based on Telink TLSR9518A chip.

The TLSR9518A supports 2.4 GHz proprietary standard, 32-bit RISC-V micro-controller Key features, a rich set of digital and analog interfaces, hardware OTA upgrade and multiple boot switch, allowing convenient product feature roll outs and upgrades.

1.1.1 RF Features

1. 2.4 GHz RF transceiver in worldwide 2.4 GHz ISM band
2. Tx output power: up to +8.5dBm
3. Rx Sensitivity: up to -96dBm
4. 50 Ω matched single-pin antenna input
5. RSSI monitoring with +/-1 dB resolution
6. Auto acknowledgment, retransmission and flow control

1.1.2 Power Management Features

1. Low power controller by Near-Threshold level power consumption
2. Battery monitor for low battery voltage detection
3. Brownout detection/shutoff and Power-On-Reset
4. Multiple-power-state to optimize power consumption

2. User manual

2.1 Supply power

The TLSR9518ADG80D supports supply power via USB .

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

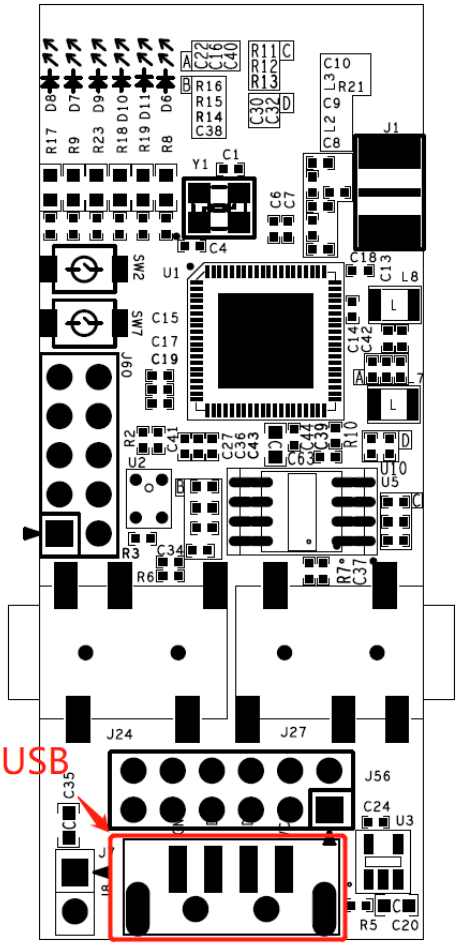

Figure 2-1 USB power supply

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.

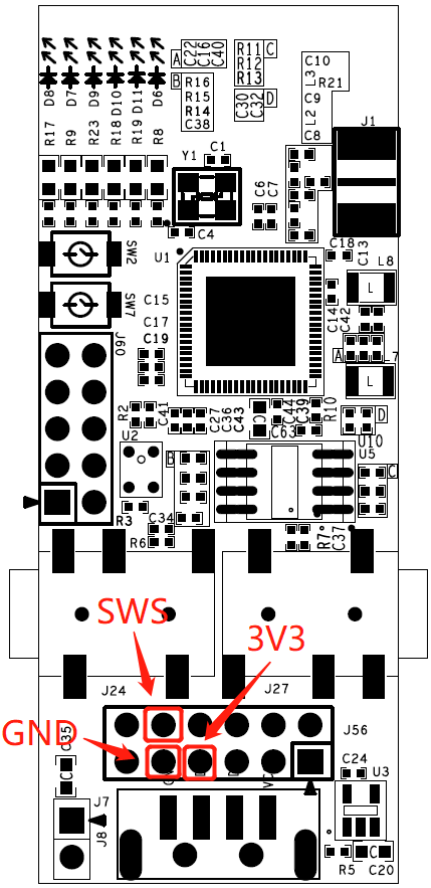

Figure 2-2 3.3V power supply

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 dongle USB in Burning EVK. When using SWS download firmware, connect 3.3V/SWS/GND of dongle to 3.3V/SWM/GND of Burning EVK.

2.3 Functions of each module

As shown in figure2-3, The functions of each module on the board have been marked. There is a PCB antenna to transmit data packets. There are LED, button and debug port on board. The LED lights can indicate what status the TLSR9518ADG80D is in. The button allows us to control TLSR9518ADG80D. We can use debug port to debug dongle.

The TLSR9518ADG80D also support headphone and mic functions. Realize this function according to different software configurations

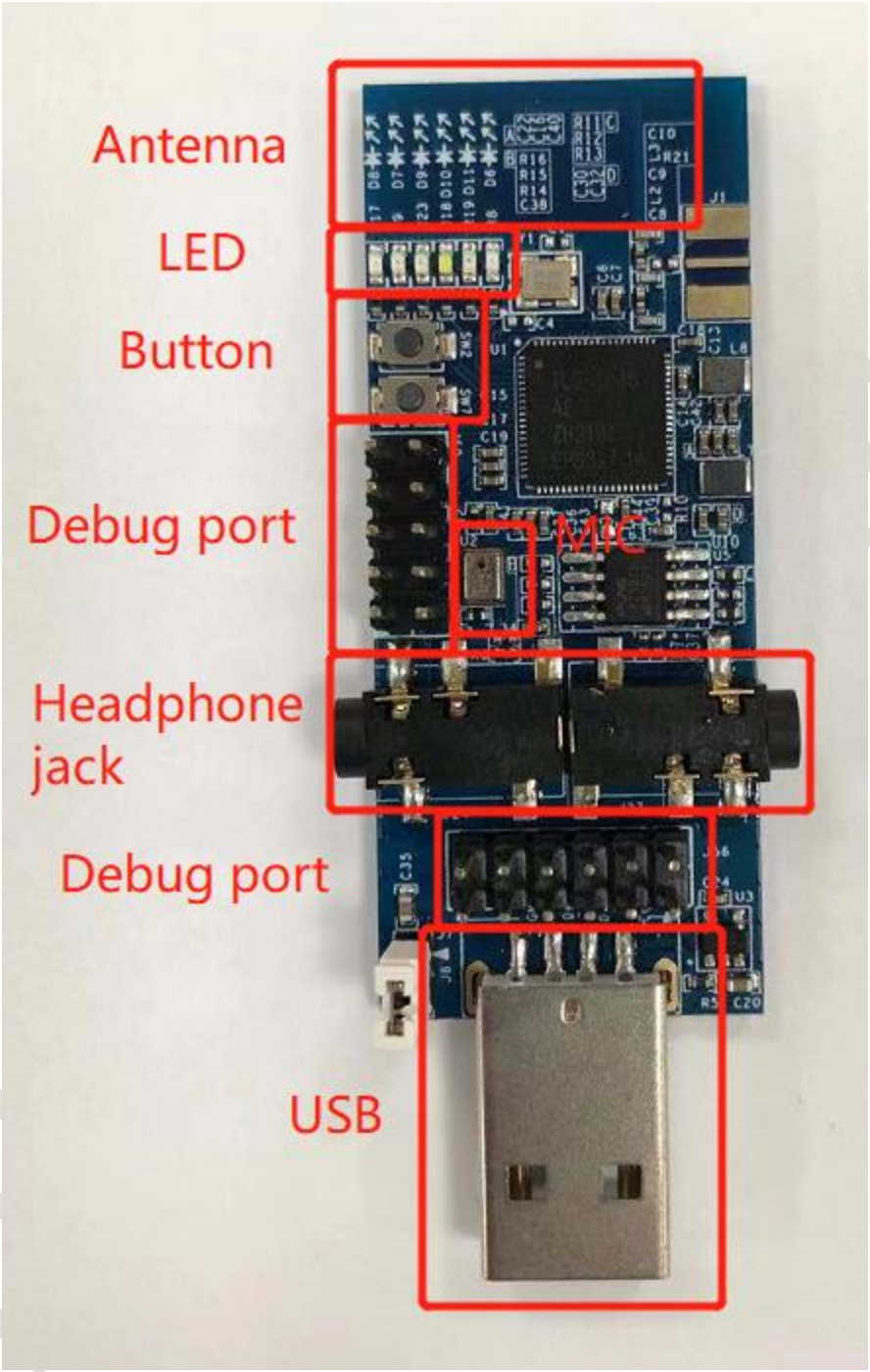

Figure 2-3 Function modules on the board

FCC Statement:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

RF exposure statement：

The device has been evaluated to meet general RF exposure requirment. The device can be used in portable exposure condition without restriction.

Note: 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 to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

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

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