

ZDWM2401 User Manual

Product Name : IEEE 802.11 b/g/n 2.4GHz 1T1R USB Module

Model : ZDWM2401

1. Introduction

Thank you for using the Wi-Fi module product provided by Qingdao Intelligent&Precise Electronics Co.,Ltd. Before use, please read this user manual carefully. Please follow the technical specifications when using the module in your design and develop activities. Qingdao Intelligent&Precise Electronics Co.,Ltd has the right to change the contents of this manual in accordance with the needs of the technical development.

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.

FCC RF Radiation Exposure Statement Caution: To maintain compliance with the FCC' s RF exposure guidelines, place the product at least 20cm from nearby persons.

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

Host labeling requirement:” Contains transmitter module FCC ID: 2AJVQ-ZDWM2401”

2. Product Information

2.1 Product Information

ZDWM2401 wifi USB module is a wireless signal module device work at 2.4Ghz .ZDWM2401 comply with IEEE 802.11b、 802.11 g and 802.11 n standard。 It support up to 150Mbps physical layer transmitting rate. ZDWM2401 support USB 2.0, which has up to 480Mbps data rate.

ZDWM2401 has 1T1R structure, has an onboard Antenna. It could provide stable wireless link with high throughput。

ZDWM2401 is a wireless WiFi signal module. It could transmit and receive WiFi wireless signal.

It is widely used to multi-media device, such as smart TV. Equiped with ZDWM2401, a smart TV could access to Wireless Local Network, which is also called WLAN or WIFI network. ZDWM2401 helps multi-media device achieve to send&receive data package in a wireless way.

2.2 Feature

- IEEE standard: IEEE 802.11b/g/n client
- operating Frequency 2.4Ghz
- support up to 150Mbps
- 1T1R mode
- support 20MHz/40MHz different bandwidth
- support USB 2.0 high data rate mode, 5-pin USB signal and power connector
- low power consumption
- support Wi-Fi direct link
- support WFA/ WPA/WPA2 /WPS2.0/WAPI security
- RoHs

2.3 MCU

MAC /baseband/RF: MT7601U

3. Product Specification

3.1 Parameter

WLAN Standard	IEEE802.11b;IEEE802.11g;IEEE802.11n
Data Interface	universal Serial Bus(USB2.0)

Data rate	802.11b:11,5.5,2,1Mbps; 802.11g:54,48,36,24,18,12,9,6,Mbps; 802.11n:MCS 0 to 7 for HT20MHZ; MCS 0 to 7 for HT40MHZ。		
Modulation Mode	802.11g/n---OFDM(BPSK,QPSK,16QAM,64QAM); 802.11b---CCK 11Mbps,5.5Mbp, QPSK 2Mbps , BPSK 1Mbps。		
Channel	2.4GHz 11:(Ch.1-11)-United States(FCC) 13:(Ch.1-13)-Europe 14: (Ch.1-14)-Japan		
Working Frequency	802.11b&g 2.412~2.462 GHz-N. America(FCC) 2.412~2.484 GHz-Japan 2.412~2.472 GHz-Europe ETSI		
Typical Tx Power (±1dBm)	802.11b(802.11 CCK,11Mbps) 18dBm	802.11g(802.11 OFDM,54Mbps) 18dBm@54Mbps	802.11n 17dBm@HT20 MCS0 17dBm@HT20 MCS7 16dBm@HT40 MCS0 16dBm@HT40 MCS7
Receiver Sensitivity	-85dBm @ 11M(802.11b CCK,8% PER) -65dBm @ 11M(802.11g OFDM,10% PER) -64dBm @ MCS7(802.11n OFDM with 20MHz ,10% PER) -61dBm @ MCS7(802.11n OFDM with 40MHz ,10% PER)		
Working Voltage	5V±10% I/O supply voltage		
Support OS	Linux		
Antenna Gain	2dBi		
Antenna type	An onboard Omni-directional antenna;		

3.2

	min	max	
Working Temperature	-10	70	°C
Storage Temperature	-40	125	°C

4. Hardware information

4.1 structure dimension: (mm)

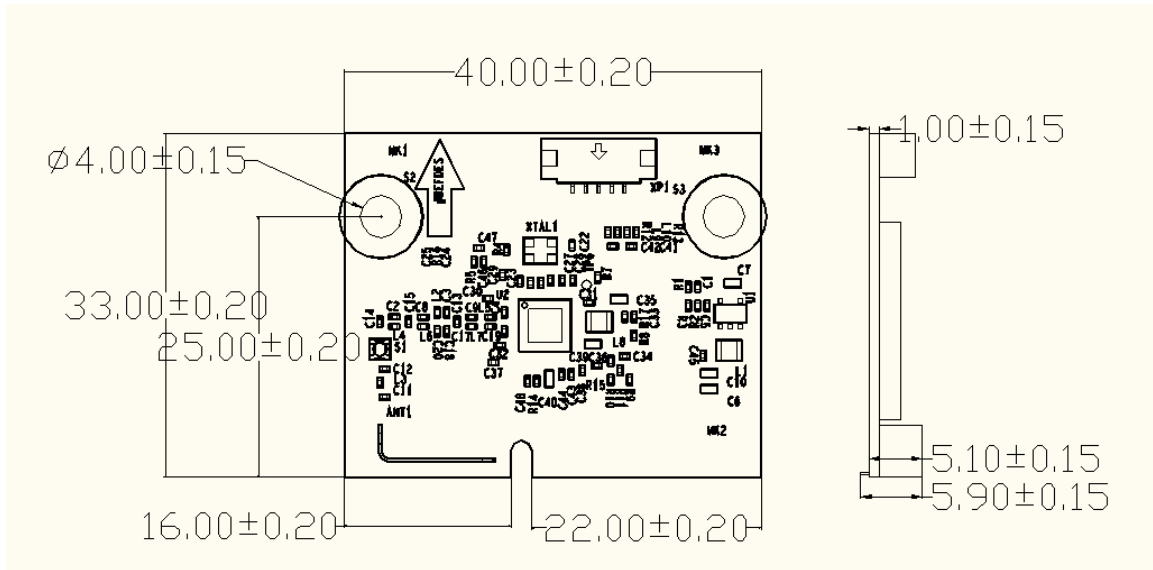
PCB Material: FR-4, Surface treatment: OSP。

Appearance Dimension (mm): 40 (+/- 0.2) ×33 (+/- 0.2)。

PCB thickness: 1.0mm (+/-0.15mm)。

Via: $\Phi 4\text{mm}$ ($\pm 0.15\text{mm}$).

Antenna Height: 5.9mm ($\pm 0.15\text{mm}$).



4.2 PIN definition

NO	NAME	Description
1	VCC	5V DC Power supply
2	DM	USB data-, D-
3	DP	USB data+, D+
4	GND	Ground
5	Reset	