ZDGFMT7638GU User Manual

Product Name : IEEE 802.11 b/g/n 2.4GHz 2T2R, Bluetooth 5.0 USB Module

Model : ZDGFMT7638GU

1. Introduction

Thank you for using the Wi-Fimodule 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.

FCC & IC application:

This device complies with Part 15 of the FCC Rules / Industry Canada licence-exempt RSS standard(s). 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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

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.

MPE Requirements

To satisfy FCC / IC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.

To ensure compliance, operations at closer than this distance is not recommended.

Les antennes installées doivent être situées de facon à ce que la population ne puisse y être exposée à une distance de moin de 20 cm. Installer les antennes de facon à ce que le personnel ne puisse approcher à 20 cm ou moins de la position centrale de l' antenne.

La FCC des éltats-unis stipule que cet appareil doit être en tout temps éloigné d'au moins 20 cm des personnes pendant son functionnement.

Region Selection

Limited by local law regulations, version for North America does not have region selection option.

Label

Host labeling requirement: Contains transmitter module FCC ID： 2AJVQ-ZD7638GU".

Host labeling requirement: Contains transmitter module IC： 22470- ZD7638GU".

2. Product Information

2.1 Product Information

ZDGFMT7638GU Wi-Fi USB module is a wireless signal module device work at 2.4GHz(2.400 ~ 2.4835GHz) .ZDGFMT7638GU comply with IEEE 802.11b、802.11 g、802.11 n standard. ZDGFMT7638GU support USB 2.0, which has up to 480Mbps data rate. ZDGFMT7638GU also support Bluetooth specification 2.1+EDR、Bluetooth 4.2 Low Energy and Bluetooth 5.0.

ZDGFMT7638GU Wi-Fi has 2T2R structure，has two onboard PIFA Antenna. It could provide stable wireless link with high throughput.

ZDGFMT7638GU is a wireless signal module. It is widely used to multi-media device, such as smart TV. Equipped with ZDGFMT7638GU, a smart TV could access to Wireless Local Network, which is also called WLAN or WI-FInetwork. ZDGFMT7638GU 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 device
- ●Bluetooth 5.0
- ●operating Frequency 2.4GHz
- ● 2T2R mode
- ●Support 20MHz, 40MHz band width in 2.4GHz band.
- ●support USB 2.0 high data rate mode,10-pin interface
- ●support WFA/ WPA/WPA2 /WPS2.0/WAPI security
- ●RoH
- ●MAC /baseband/RF： MT7638GU

3. Product Specification

3.1 Parameter

WLAN Standard	IEEE802.11b/g/n

Data Interface	USB2.0
Modulation Mode	WI-FI: 802.11b:CCK, DQPSK, DBPSK 802.11g:64QAM, 16QAM, QPSK, BPSK 802.11n:64QAM, 16QAM, QPSK, BPSK
Working Frequency	2.4G: 2400-2483.5MHz;
Receiver Sensitivity	802.11b CCK 11Mbps@2.4GHz：-85dBm 802.11g OFDM@2.4GHz：-75dBm 802.11n HT40 (MCS7) @2.4GHz：-68dBm
EVM	±15ppm
Working Voltage	5V±10%　I/O supply voltage
Wi-Fi Antenna Gain	Ant0:2.3dBi (MAX) , Ant1:2.3dBi (MAX)
Antenna type	Two onboard PIFA antennas
Working Temperature	-10~+70℃
Storage Temperature	-40~+125℃
BT Standard	BT 2.1+EDR，BT 3.0+HS，BT 4.2 BLE，　BT5.0
BT Modulation Mode	Bluetooth: GFSK, π/4-DQPSK and 8-DPSK
BT Antenna Gain	2.3 dBi (MAX)

4. Hardware information

4.1 structure dimension：(Unit:mm)

PCB Material：FR-4，Surface treatment：OSP.
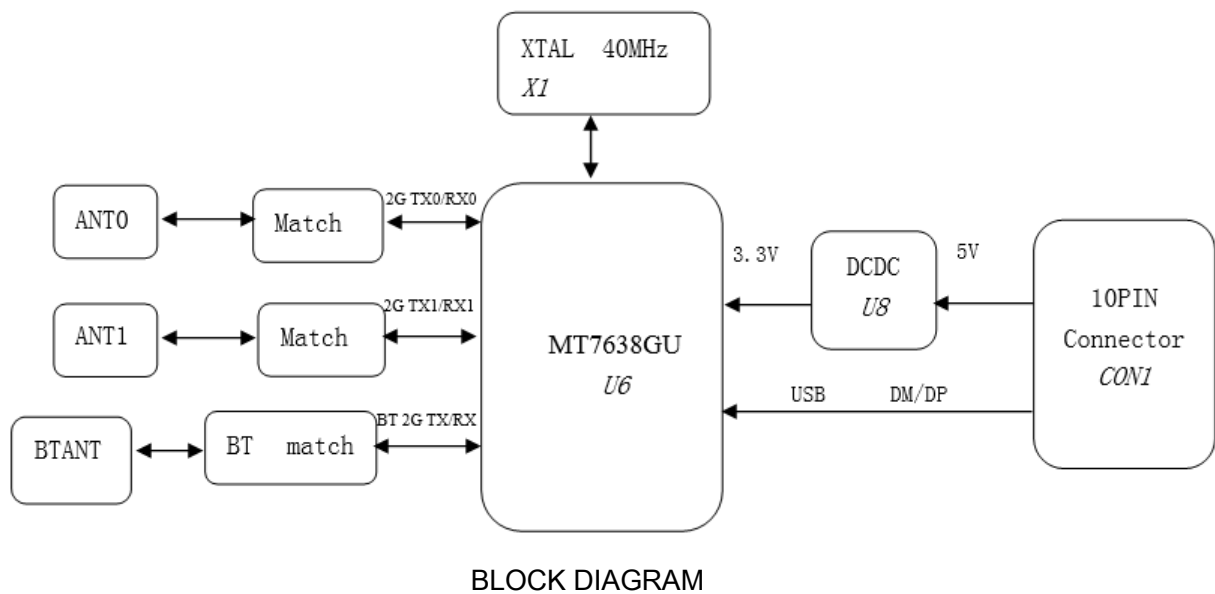
Appearance Dimension（mm）：70（+/- 0.3）×33（+/- 0.3）

PCB thickness：1.0mm（+/-0.15mm）.

Via：Φ4mm（+/-0.15mm）.

4.2 PIN definition

NO	Description
1	WI-FI_REG_ON
2	NC
3	VCC
4	BTDN
5	BTDP
6、7	GND
8	3D_SYNC
9	BT_REG_ON
10	WLAN_DEV_WAKE

4.3 Block Diagram

BLOCK DIAGRAM

5 EU single contact point

Hisense Czech (Manufacture) s.r.o.

U Nové Hospody 1164/4, 301 00 Plzeň ,Czech Republic.

6 Manufacture's postal address

No.218, Qianwangang Road, Qingdao Economic & Technological Development Zone, Shandong, China

7 Importer's name & address

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