

TEST REPORT

Reference No...... : WTD21D03021969W005 V1
FCC ID : 2AZDF-R4060
Applicant..... : Shenzhen Venz Technology Co., Ltd
Address..... : 1008, 10/F, Jinqizhigu building, 1 road Tangling, NanShan District, Shenzhen, China
Manufacturer : Shenzhen Venz Technology Co., Ltd
Address..... : 1008, 10/F, Jinqizhigu building, 1 road Tangling, NanShan District, Shenzhen, China
Product..... : Multi Functional Gateway
Model(s) : R4060
Standards..... : FCC Part 1.1307
Date of Receipt sample : 2021-03-22
Date of Test : 2021-03-22 to 2021-04-08
Date of Issue..... : 2021-04-20
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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3. Revision History

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTD21D03021969 W005	2021-03-22	2021-03-22 to 2021-04-08	2021-04-09	Original	-	replaced
WTD21D03021969 W005 V1	2021-03-22	2021-03-22 to 2021-04-08	2021-04-20	Version 1	Update	Valid

4. General Information

4.1. General Description of E.U.T.

Product:	Multi Functional Gateway
Model(s):	R4060
Wi-Fi Specification:	2.4G-802.11b/g/n HT20/n HT40
Bluetooth Version:	Bluetooth v4.2 with BLE
Zigbee :	Support
SRD(433.92Mhz)	Support
Antenna Gain:	Zigbee:2.2dbi WIFI/BT/BLE: 1.2dBi SRD 433.92Mhz:-0.2dbi
Hardware Version:	VENZ_C03 JIEMABAN_V1.2
Software Version:	1.3.1

4.2. Details of E.U.T.

Ratings:	DC 5V/2A(Micro USB) Manufacturer: andsmps Model:AS013Z-0502000UU Input:100-240VAC, 50/60Hz 0.45A
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5. Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	1.1307	PASS

6. RF Exposure

Test Requirement: FCC Part 1.1307

Evaluation Method: FCC Part 2.1091 & KDB 447498 D01 General RF Exposure Guidance v06

6.1. Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

6.2. The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz; *Plane-wave equivalent power density

6.3. MPE Calculation Method

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

S = power density (in appropriate units, e.g. mW/cm²)

P = output power to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

From the peak EUT RF output power, the minimum mobile separation distance, R=20cm, as well as the gain of the used antenna, the RF power density can be obtained

Mode 1: alone transmission

Mode	Antenna Gain (dBi)	Antenna Gain (numeric)	Max.Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)
BT	1.20	1.318	3.77	2.38	0.000625	1
BLE	1.20	1.318	8.75	7.50	0.001967	1
2.4G WIFI	1.20	1.318	17.20	52.48	0.013763	1
Zigbee	2.20	1.660	5.84	3.84	0.001267	1

Mode 2: Simultaneous transmission

Mode	Antenna Gain (dBi)	Antenna Gain (numeric)	Max.Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)
BT	1.20	1.318	3.77	2.38	0.003859	1
BLE	1.20	1.318	8.75	7.50		
Zigbee	2.20	1.660	5.84	3.84		

Mode 3: Simultaneous transmission

Mode	Antenna Gain (dBi)	Antenna Gain (numeric)	Max.Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)
Zigbee	2.20	1.660	5.84	3.84	0.015030	1
2.4G WIFI	1.20	1.318	17.20	52.48		

6.4. Result: Compliance

No SAR measurement is required.

=====End of Report=====