

TEST REPORT

Reference No...... : WTD21D06063727W002
FCC ID : 2AXCJ-VAN-LED-BT-S
Applicant..... : VANTAGE CITY GROUP LIMITED
Address..... : RM701, 7/F, World-Wide House, 19 Des Voeux Road, Central HongKong China
Manufacturer : VANTAGE CITY GROUP LIMITED
Address..... : RM701, 7/F, World-Wide House, 19 Des Voeux Road, Central HongKong China
Product..... : Refer to section 4.3.
Model(s) : Refer to section 4.3.
Standards..... : FCC Part 2.1091
Date of Receipt sample : 2021-06-30
Date of Test : 2021-06-30 to 2021-08-23
Date of Issue..... : 2021-08-23
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
WTD21D06063727 W002	2021-06-30	2021-06-30 to 2021-08-23	2021-08-23	Original	-	Valid

4. General Information

4.1. General Description of E.U.T.

Product:	Refer to section 4.3.
Model(s):	Refer to section 4.3.
Additional model(s):	Different strip specifications, with different power supply.
Operation Frequency:	2402-2480MHz
Max. RF output power:	-1.25dBm
Antenna installation:	internal permanent antenna
Antenna Gain:	-3dBi
Type of Modulation:	GFSK
Hardware Version:	DGYH-1086K0R23-RGB-V10
Software Version:	DGYH-1096K1R44R24-V1.0.5

4.2. Details of E.U.T.

Ratings:	Input Voltage: DC 4.5~26V,
	Max Power: 144W
	Adapter 1
	Model: VAN-USAD-1812-F-DC
	Input: 100-240V~ 50/60Hz 0.5A MAX
	Output: 12V=== 1.5A
	Adapter 2
	Model: VAN-USAD-2412-F-DC
	Input: 100-240V~ 50/60Hz 0.5A MAX
	Output: 12V=== 2A
	Adapter 3
	Model: VAN-USAD-1512-F-DC
	Input: 100-240V~ 50/60Hz 0.5A MAX
	Output: 12V=== 1.25A

4.3. Model list

Product:	Model(s):
LED strip light with Bluetooth for furniture	A. VAN-3528WRB60D-8MM-12V-60S + VAN-USAD-1812-F-DC/ VAN-LED-BT-S
	B. VAN-3528WRB60D-8MM-12V-52S + VAN-USAD-1512-F-DC/ VAN-LED-BT-S
	C. VAN-3528WRB60D-8MM-12V-47S + VAN-USAD-1512-F-DC/ VAN-LED-BT-S
	D. VAN-5050RGB30D-10MM-12V -30S + VAN-USAD-1812-F-DC/ VAN-LED-BT-S
	E. VAN-5050RGB30D-10MM-12V -26S + VAN-USAD-1512-F-DC/ VAN-LED-BT-S
	F. VAN-5050RGB30D-10MM-12V -24S + VAN-USAD-1512-F-DC/ VAN-LED-BT-S
	G. VAN-5050RGB30D-10MM-12V -22S (2PCS) + VAN-USAD-2412-F-DC/ VAN-LED-BT-D

	H. VAN-3528WRB60D-8MM-12V-xxS (xx: segment from 0~100) VAN-5050RGB30D-10MM-12V-xxS (xx: segment from 0~100) I. Remote control as optional
Note: VAN-5050RGB30D-10MM-12V-xxS was tested in this report.	

5. Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	FCC Part 2.1091	PASS

6. RF Exposure

Test Requirement: FCC Part 2.1091

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

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. conducted Output Power (dBm)	Max. conducted Output Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Result
-3.00	0.501	-1.25	0.75	0.000075	1	Compliance

6.4. Result: Compliance

No SAR measurement is required.

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