



RF Exposure Report

FCC ID: XN6-V514XK6

Applicant: Zylux Acoustic Corporation

Address: 7F, 70, Rui Guang Road, Neihu District, Taipei 114, Taiwan

Manufacturer: Vizio Inc

Address: 39 Tesla, Irvine, CA 92618, USA

Product: 30-Inch Sound Bar 5.1 System

Brand(s): **VIZIO**

Test Model(s): V514x-K6

Series Model(s): N/A

Test Date: Jun. 21, 2022~ Jul. 05, 2022

Issued Date: Jul. 18, 2022

Issued By: Hwa-Hsing (Dongguan) Testing Co., Ltd.

Address: No.101, Bld N1, Yuyuan 2Rd, Yuyuan Industrial Park, HuangJiang Town, Dongguan, China

Test Firm Registration No.: 915896

Designation No.: CN1255

Standards: FCC Part 2 (Section 2.1091)
KDB 447498 D01 v06
IEEE C95.1

The above equipment has been tested by **Hwa-Hsing (Dongguan) Testing Co., Ltd.**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

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Release control record

Issue No.	Reason for change	Date issued
220426KH01-SE-US-01	Original Release	Jul. 18, 2022



1 General Information

1.1 General Description of EUT

Product(s)	30-Inch Sound Bar 5.1 System
Test Model(s)	V514x-K6
Serial No.	SZZOQ5AY0030053 / SZZOQ5AY0030059
Series Model(s)	N/A
Status of EUT	Engineering Prototype
Power Supply Rating	100-240V~, 50/60Hz, 34W
Modulation Type	GFSK, $\pi/4$ DQPSK, 8DPSK
Transfer Rate	1/2/3Mbps
Operating Frequency	2402 ~ 2480MHz
Output Power (AVG)	0.861dBm
Antenna Type	PCB Antenna
Antenna Gain	4.1dBi
Antenna Connector	N/A
Accessory Device	Infrared remote control
Cable Supplied	AC cable: Unshielded, Detachable, 160cm

Note:

1. Please refer to the EUT photo document (Reference No.: 220426KH01-01&02) for detailed product photo.
2. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.



2 RF exposure limit

Limits for maximum permissible exposure (MPE)

Limits for general population / uncontrolled exposure				
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Average time (minutes)
300-1500	F/1500	30
1500-100,000	1.0	30
Note: F = Frequency in MHz				

2.1 MPE calculation formula

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

Where:

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

Classification:

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.



3 Calculation result of maximum conducted power

The antennas provided to the EUT, please refer to the following table:

Function	Frequency Band	Antenna Gain (dBi)	Antenna Type	Transmit and Receive Chain	Maximum AVG Power(dBm)
Bluetooth	2400~2483.5MHz	4.1	PCB	1TX,1RX	1.155

Function	Max power (mW)	Antenna gain (dBi)	Distance (cm)	Power density (mW/cm ²)	Limit (mW/cm ²)
Bluetooth	1.3047	4.1	20	0.000667	1.0

2.3 Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)
5.2G,2M;G7D	4.10	7.43	11.53	0.50	12.03	0.01596	20	0.00318	1.00000
5.8G,2M;G7D	3.50	7.74	11.24	0.50	11.74	0.01493	20	0.00297	1.00000
5.81G,2M;G7D	3.38	7.38	10.76	0.50	11.26	0.01337	20	0.00266	1.00000

Note: We can know the Wireless Audio Module (NKR-SWA51) maximum situation was 0.00318 mW/cm² from the RADIO EXPOSURE TEST REPORT:FR882140-01.

Conclusion:

Therefore, the worst-case situation is $0.000667+0.00318=0.003847$ mW/cm², which is less than "1".

This confirmed that the device compliance with FCC 1.1310 MPE limit.



Appendix – Information on the Testing Laboratories

We, [Hwa-Hsing \(Dongguan\) Co., Ltd.](#), A global provider of TESTING and CERTIFICATION services for consumer products, electronic products and wireless information technology products. Adhering to the core values “HONEST and TRUSTWORTHY, OBJECTIVE and IMPARTIALITY, RIGOROUS and AFFICIENT”, commitment to provide professional, perfect and efficient comprehensive ONE-STOP solution of TESTING and CERTIFICATION services for Manufacturers, Buyers, Traders, Brands, Retailers. Assist client to better manage risk, protect their brands, reduce costs and cut time to over 150 markets in global. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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