

TEST REPORT

Reference No...... : WTD25D07189956W007
FCC ID : 2AIDGTV-240SD
Applicant..... : General Sound Corporation
Address..... : 736 E 29th Street, Los Angeles, CA 90011, United States
Manufacturer : Huizhou Gold Alliance Electronics Co., LTD.
Address : 11 Changlong Road, Daling, Huidong, Huizhou, Guangdong
Province, China
Product..... : 23.8 inch LED TV
Model(s) : PDVA-PR8238602YBI, TV-240SD, ATSC-PR8238602YBI, TV-2450S
Standards..... : FCC 47CFR Part 2 Subpart J Section 2.1091
Date of Receipt Sample : 2025-07-18
Date of Test : 2025-07-22 to 2025-07-30
Date of Issue..... : 2025-08-20
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
WTD25D07189956W007	2025-07-18	2025-07-22 to 2025-07-30	2025-08-20	Original	-	Valid

4. General Information

4.1. General Description of E.U.T.

Product:	23.8 inch LED TV
Model(s):	PDVA-PR8238602YBI, TV-240SD, ATSC-PR8238602YBI, TV-2450S
Model Description:	Only the model names and brand names are different. With DVD: PDVA-PR8238602YBI, TV-240SD. Without DVD: ATSC-PR8238602YBI, TV-2450S Model TV-240SD was tested in the report.
Test Sample No.:	1-1/1
Wi-Fi Specification:	2.4G-802.11b/g/n 5G-802.11a/n(HT20/40)/ac(VHT20/40/80)
Bluetooth Version:	BT2.1+EDR/4.2/5.1
Hardware Version:	TPD.SK331.PB802 D24128
Software Version:	506301755

4.2. Details of E.U.T.

Operation Frequency:	BT/ BLE: 2402~2480MHz 2.4G Wi-Fi: 802.11b/g/n HT20: 2412~2462MHz 802.11n HT40: 2422~2452MHz 5G Wi-Fi: 802.11a/n(HT20)/ac(VHT20): U-NII-1: 5180-5240MHz, U-NII-2A: 5260-5320MHz(DFS), U-NII-2C: 5500-5700MHz(DFS), U-NII-3: 5745-5825MHz 802.11n(HT40)/ac(VHT40): U-NII-1: 5190-5230MHz, U-NII-2A: 5270-5310MHz(DFS), U-NII-2C: 5510-5670MHz(DFS), U-NII-3: 5755-5795MHz 802.11ac(VHT80): U-NII-1: 5210MHz, U-NII-2A: 5290MHz(DFS), U-NII-2C: 5530-5610MHz(DFS), U-NII-3: 5775MHz
Max. RF output power:	BT: 6.34dBm BLE 1M: 5.81dBm, BLE 2M: 5.69dBm 2.4G Wi-Fi: Ant 1: 17.46dBm, Ant 2: 17.22dBm, Total: 19.01dBm 5G Wi-Fi: U-NII-1: Ant.1: 17.11dBm, Ant.2: 17.76dBm, Total: 19.44dBm Max. U-NII-2A: Ant.1: 16.41dBm, Ant.2: 17.18dBm, Total: 18.72dBm Max. U-NII-2C: Ant.1: 16.93dBm, Ant.2: 17.90dBm, Total: 18.90dBm Max. U-NII-3: Ant.1: 16.76dBm, Ant.2: 16.71dBm, Total: 18.63dBm Max.
Modulation Technology:	BT: GFSK, $\pi/4$ DQPSK, 8DPSK BLE: GFSK 2.4G Wi-Fi: DSSS, OFDM 5G Wi-Fi: OFDM

DFS Function: Slave without radar detection
TPC Function: Not support
Antenna installation: internal permanent antenna
Quantity of Antenna: 3
Antenna Gain:

Operation Frequencies (MHz) /Antenna Gain (dBi)				
2400~2500	5150~5250	5250~5350	5470~5725	5725~5850
3.99	4.02	4.02	3.64	3.87

Note:

#: The antenna gain is provided by the applicant, and the applicant should be responsible for its authenticity, WALTERK lab has not verified the authenticity of its information.

Ratings: AC 100-240V~50/60Hz or DC 12V = 3.5A

4.3. Test Facility

The test facility has a test site registered with the following organizations:

ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.

Waltek Testing Group Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files.

Registration number 7760A, October 15, 2016.

FCC Designation No.: CN1201. Test Firm Registration No.: 523476.

Waltek Testing Group Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration number 523476, September 10, 2019.

4.4. Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

☐ Yes ☒ No

If Yes, list the related test items and lab information:

Test Lab: N/A

Lab address: N/A

Test items: N/A

4.5. Abnormalities from Standard Conditions

None.

5. Test Summary

Test Items	Test Requirement	Result
Radiofrequency radiation exposure evaluation	47CFR Part 2 §2. 1091	PASS

6. RF Exposure

Test Requirement: 47CFR Part 2 Subpart J Section 2.1091
 47CFR Part 1 §1.1307
 47CFR Part 1 §1.1310
 Evaluation Method: KDB 447498 D01 General RF Exposure Guidance v06

6.1. Definitions

According to § 2.1091(b), A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the RF source's radiating structure(s) and the body of the user or nearby persons.

This device belongs to mobile device and with multiple RF sources.

6.2. Method of Evaluation

Determination of Exemption:
For single RF sources

Option A

Option A 1-mW Test Exemption

Applies to all frequencies and all distances

- Could be considered SAR-based and MPE-based exclusions
- $P < 1\text{mW}$
- Limitation—when there are simultaneously operating transmitters this exclusion only applies when all simultaneously operating transmitters meet this exemption
- Refer 1.1307(b)(3)(i)(A) and 1.1307(b)(3)(ii)(A)

Option B SAR-Based Exemption

Frequency range 300 MHz -6 GHz, $5\text{mm} \leq \text{distance} \leq 40\text{cm}$

- The maximum time-averaged power or effective radiated power (ERP), whichever is greater, $\leq P_{th}$.
- P_{th} is calculated based on separation distance d cm from transmitter to person for the device operating at f GHz.

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20\text{ cm}} (d/20\text{ cm})^x & d \leq 20\text{ cm} \\ ERP_{20\text{ cm}} & 20\text{ cm} < d \leq 40\text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20\text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20\text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3\text{ GHz} \leq f < 1.5\text{ GHz} \\ 3060 & 1.5\text{ GHz} \leq f \leq 6\text{ GHz} \end{cases}$$

d = the separation distance (cm);

Option C MPE-Based Exemption

1.1307(b)(3)(i)(C): ERP is below a threshold calculated based on the distance R between the person and the antenna / radiating structure, where $R > \lambda / 2\pi$.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	$1,920 R^2$.
1.34-30	$3,450 R^2/f^2$.
30-300	$3.83 R^2$.
300-1,500	$0.0128 R^2f$.
1,500-100,000	$19.2R^2$.
Note: R in meters, f in MHz	

For multiple RF sources

According to 47CFR 1.1307(b)(3)(ii), the calculation formula is as follow:

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

6.3. Evaluation Results

This device belongs to mobile device (separation distance of at least 20 centimeters is normally maintained between the RF source's radiating structure(s) and the body of the user or nearby persons) and with multiple RF sources.

Option B is applicable.

Single Source Transmissions

Description	Frequency	Conducted Power	Gain	Tune-up	ERP	ERP _{th}	Ratio
	GHz	dBm	dB		mW	mW	
BT	2.441	6.34	3.99	±1.0	8.28	3060	0.00271
BLE	2.402	5.81	3.99	±1.0	7.33	3060	0.00240
2.4G Wi-Fi (Ant.1)	2.462	17.46	3.99	±1.0	107.19	3060	0.03503
2.4G Wi-Fi (Ant.2)	2.437	17.22	3.99	±1.0	101.43	3060	0.03315
2.4G Wi-Fi (Ant.1 + Ant.2)	2.462	19.01	3.99	±1.0	153.16	3060	0.05005
U-NII-1 (Ant.1)	5.240	17.11	4.02	±1.0	99.58	3060	0.03254
U-NII-1 (Ant.2)	5.240	17.76	4.02	±1.0	115.65	3060	0.03780
U-NII-1 (Ant.1 + Ant.2)	5.210	19.44	4.02	±1.0	170.28	3060	0.05565
U-NII-2A (Ant.1)	5.280	16.41	4.02	±1.0	84.75	3060	0.02770
U-NII-2A (Ant.2)	5.280	17.18	4.02	±1.0	101.19	3060	0.03307
U-NII-2A (Ant.1 + Ant.2)	5.290	18.72	4.02	±1.0	144.26	3060	0.04714
U-NII-2C (Ant.1)	5.580	16.93	3.64	±1.0	87.53	3060	0.02860
U-NII-2C (Ant.2)	5.700	17.90	3.64	±1.0	109.43	3060	0.03576
U-NII-2C (Ant.1 + Ant.2)	5.610	18.90	3.64	±1.0	137.77	3060	0.04502
U-NII-3 (Ant.1)	5.745	16.76	3.87	±1.0	88.75	3060	0.02900
U-NII-3 (Ant.2)	5.745	16.71	3.87	±1.0	87.73	3060	0.02867
U-NII-3 (Ant.1 + Ant.2)	5.775	18.63	3.87	±1.0	136.51	3060	0.04461

Note:

EIRP= Conducted Power +Gain, ERP=EIRP-2.15

Simultaneous Transmissions

Description	Calculation	Limit
BT+2.4G Wi-Fi (Ant.1 + Ant.2) + 5G Wi-Fi (Ant.1 + Ant.2)	0.10841	≤1.0
BLE+2.4G Wi-Fi (Ant.1 + Ant.2) + 5G Wi-Fi (Ant.1 + Ant.2)	0.10810	≤1.0

Note:

1. Chose the maximum power to do analysis.
2. BT and BLE can't transmit simultaneously.
3. 2.4G Wi-Fi and 5G Wi-Fi can transmit simultaneously.

Conclusion:

RF Exposure is FCC compliant.

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