

# FCC RF Exposure

**Applicant** : Guangzhou Panyu Juda Car Audio Equipment Co., Ltd.  
NO.5 Building, No.139, Zhouxing Street, Dongchong  
**Address** : Town, Nansha District, Guangzhou City, Guangdong  
Province, China  
**Product Name** : 2.1 Soundbar System  
**Brand Mark** : VIZIO  
**Model** : SV210X-0805  
**Series model** : N/A  
**FCC ID** : ESX-SV210XC  
**Report Number** : BLA-EMC-202501-A7003  
**Date of Receipt** : Jan. 15, 2025  
**Date of Test** : Jan. 15, 2025 to Apr. 24, 2025  
47 CFR Part 15, Part 1.1307  
**Test Standard** : 47 CFR Part 15, Part 2.1093  
KDB447498D04 General RF Exposure Guidance v01  
**Test Result** : Pass

Compiled by: Mark Chen

Review by: Xavier

Approved by:

Blue Zheng

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## BlueAsia of Technical Services(Shenzhen) Co.,Ltd.

Address: Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District,  
Shenzhen, Guangdong Province, China



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## Revise Record

Version No.	Date	Description
01	May 12, 2025	Original

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# 1 General information

## 1.1 General information

Applicant	Guangzhou Panyu Juda Car Audio Equipment Co., Ltd.
Address	NO.5 Building, No.139, Zhouxing Street,Dongchong Town, Nansha District, Guangzhou City, Guangdong Province, China
Manufacturer	Guangzhou Panyu Juda Car Audio Equipment Co., Ltd.
Address	NO.5 Building, No.139, Zhouxing Street,Dongchong Town, Nansha District, Guangzhou City, Guangdong Province, China
Factory 1	Guangzhou Panyu Juda Car Audio Equipment Co., Ltd.
Address	NO.5 Building, No.139, Zhouxing Street,Dongchong Town, Nansha District, Guangzhou City, Guangdong Province, China
Factory 2	Exzone Precision Engineering Sdn. Bhd.
Address	Lot 50, Jalan 7, Kawasan Perindustrian Bakar Arang, 08000 Sungai Petani, Kedah, Malaysia
Factory 3	VTREK VIETNAM COMPANY LIMITED
Address	Factory No. NX2 (B7), Nam Tai Thai Binh International Company Limited, Lot B2, Lien Ha Thai Industrial Park (Green iP-I),Diem Dien Town, Thai Thuy district, Thai Binh province, Vietnam

## 1.2 General description of EUT

Product name	2.1 Soundbar System
Model no.	SV210X-0805
Operation Frequency	BT/BLE:2402MHz-2480MHz
Modulation Type	BLE:GFSK BT:GFSK, $\pi/4$ DQPSK, 8DPSK
Number of Channels	BLE:40 BT:79
Rate data(BLE)	1Mbps
Rate data(BT)	1Mbps, 2Mbps, 3Mbps
Antenna Type:	PCB Antenna
Antenna Gain:	3.96dBi (Provided by customer)
Power supply:	AC 120V

Hardware Version	N/A
Software Version	N/A

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## 2 RF Exposure Compliance Requirement

### 2.1 Standard Requirement

According to 447498 D04 Interim General RF Exposure Guidance v01

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

### 2.2 Limits

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B. 2})$$

where

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

and  $f$  is in GHz,  $d$  is the separation distance (cm), and  $ERP_{20 \text{ cm}}$  is per Formula (B.1).

Example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)										
		5	10	15	20	25	30	35	40	45	50
	300	39	65	88	110	129	148	166	184	201	217
	450	22	44	67	89	112	135	158	180	203	226
	835	9	25	44	66	90	116	145	175	207	240
	1900	3	12	26	44	66	92	122	157	195	236
	2450	3	10	22	38	59	83	111	143	179	219
	3600	2	8	18	32	49	71	96	125	158	195
	5800	1	6	14	25	40	58	80	106	136	169

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B. 1})$$

## 2.3 Result

$$\text{EIRP} = \text{pt} \times \text{gt} = (\text{E} \times \text{d})^{2/30}$$

Where:

pt = transmitter output power in watts,

gt = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m,

d = measurement distance in meters (m)

$$\text{Spot} = (\text{E} \times \text{d})^{2/30} \times \text{gt}$$

Separation distance= 20cm

Ant gain = 3.96dBi

For BLE(Worst):

Max Output power = 2.776dBm @ 2480MHz

EIRP = 2.776dBm+3.96dBi=6.736dBm,

So, ERP = 6.736-2.15=4.586dBm=2.875mW< 3060 mW

For BT Classic(8DPSK):

Max Output power =2.936dBm @ 2480MHz

EIRP = 2.936dBm+3.96dBi=6.896dBm,

So, ERP = 6.896dBm-2.15=4.746dBm=2.983mW< 3060 mW

Comply with RF exposure exemption limit.

----END OF REPORT----

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