


FCC RF Exposure

Applicant : SOUNDLAB TECHNOLOGY CO.,LTD
Floor 6-7, 1-3, Building#2, No. 6-2, Shangxia Middle Road,
Address : Shangxia Area, Dongjiang Science Park, Zhongkai
High-tech Zone, Huizhou
Product Name : Soundbar
Brand Mark : 
Model : SL3301
Series model : SL3301(37)
FCC ID : 2ATKO-SL3301
Report Number : BLA-EMC-202502-A3402
Date of Receipt : Feb. 17, 2025
Date of Test : Feb. 17, 2025 to Feb. 20, 2025
47 CFR Part 15, Part1.1307
Test Standard : 47 CFR Part 15, Part2.1093
KDB447498D04 General RF Exposure Guidance v01
Test Result : Pass

Compiled by: Review by: Approved by: 

Issued Date: Feb. 21, 2025



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Revise Record

| Version No. | Date | Description |
|-------------|---------------|-------------|
| 01 | Feb. 21, 2025 | Original |
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1 General information

1.1 General information

| | |
|--------------|--|
| Applicant | SOUNDLAB TECHNOLOGY CO.,LTD |
| Address | Floor 6-7, 1-3, Building#2, No. 6-2, Shangxia Middle Road, Shangxia Area,Dongjiang Science Park,Zhongkai High-tech Zone, Huizhou |
| Manufacturer | SOUNDLAB TECHNOLOGY CO.,LTD |
| Address | Floor 6-7, 1-3, Building#2, No. 6-2, Shangxia Middle Road, Shangxia Area,Dongjiang Science Park,Zhongkai High-tech Zone, Huizhou |
| Factory | SOUNDLAB TECHNOLOGY CO.,LTD |
| Address | Floor 6-7, 1-3, Building#2, No. 6-2, Shangxia Middle Road, Shangxia Area,Dongjiang Science Park,Zhongkai High-tech Zone, Huizhou |

1.2 General description of EUT

| | | |
|-----------------------------|--|---|
| Product name | Soundbar | |
| Model no. | SL3301 | |
| Series model | SL3301(37) | |
| Differences of Series model | The above-mentioned prototype is exactly the same in terms of appearance, PCB layout, internal structure and components, except for the difference in the agent for sales. | |
| Operation Frequency | 2402MHz-2480MHz | |
| Modulation Type | GFSK, $\pi/4$ DQPSK, 8DPSK | |
| Number of Channels | 79 | |
| Antenna Type | PCB Antenna | |
| Antenna Gain | 1.51dBi (Provided by customer) | |
| Power supply | Adapter | MODEL NO.: CW72E2402500SC INPUT: 100-240V, 50/60Hz 1.8A MAX OUTPUT: 24.0V, 2500mA |
| Test Voltage | AC 120V | |
| Hardware Version | N/A | |
| Software Version | N/A | |

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 = 1.51dBi

For BT Classic(8DPSK):

Max Output power = 0.283dBm @ 2402MHz

$$\text{EIRP} = 0.283\text{dBm} + 1.51\text{dBi} = 1.793\text{dBm},$$

$$\text{So, ERP} = 1.793\text{dBm} - 2.15 = -0.357\text{dBm} = 0.921\text{mW} < 3060\text{ mW}$$

Comply with RF exposure exemption limit.

----END OF REPORT----

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