Website: www.cblueasia.com
Tel: +86-755-23059481
Email: marketing@cblueasia.com

FCC RF Exposure

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
Product Name	:	Soundbar
Brand Mark	:	miroir
Model	:	SL3100
Series model	:	SL3100(37)
FCC ID	:	2ATKO-SL3100
Report Number	:	BLA-EMC-202502-A3602
Date of Receipt	:	Feb. 17, 2025
Date of Test	:	Feb. 17, 2025 to Feb. 20, 2025
Test Standard	:	47 CFR Part 15, Part1.1307 47 CFR Part 15, Part2.1093 KDB447498D04 General RF Exposure Guidance v01
Test Result	:	Pass

Compiled by: Mark Chen **Review by:** Sweet **Approved by:** Blue Zheng

Issued Date: Feb. 20, 2025

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

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	Feb. 20, 2025	Original

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.	SL3100	
Series model	SL3100(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, π/4DQPSK, 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

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

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

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

2.3 Result

EIRP = pt x gt = (E X 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)
Spot = (EXd)2/30 x gt
Separation distance= 20cm
Ant gain = 1.51dBi
For BT Classic(8DPSK):
Max Output power =-3.779dBm @ 2402MHz
EIRP = -3.779dBm+1.51dBi=-2.269dBm,
So, ERP = -2.269dBm-2.15=-4.419dBm=0.361mW< 3060 mW
Comply with RF exposure exemption limit.

----END OF REPORT----