

TEST REPORT

Product Name : Enkl Sound ES2
Brand Mark : ENKL
Model No. : Enkl Sound ES2
FCC ID : 2A8MI-ENKLES2
Report Number : BLA-EMC-202311-A0604
Date of Sample Receipt : 2023/11/2
Date of Test : 2023/11/3 to 2023/11/6
Date of Issue : 2023/11/14
Test Standard : KDB447498D04 General RF Exposure
Guidance v01
Test Result : Pass

Prepared for:

Jiang Su Yisin Tech Co., Ltd
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Prepared by:

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Date:

2023/11/14



REPORT REVISE RECORD

Version No.	Date	Description
00	2023/11/14	Original

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1 TEST SUMMARY

Test item	Test Requirement	Test Method	Class/Severity	Result
RF Exposure	47 CFR Part 1.1307, Part 2.1093, KDB 447498	CFR 47 Part 2.1093	CFR 47 Part 2.1093	PASS

2 GENERAL INFORMATION

Applicant	Jiang Su Yisin Tech Co., Ltd
Address	Rm. 103, Bldg. 1, No. 10, Wenzhou Rd., ETDZ, Shuyang County, Suqian, Jiangsu, CN
Manufacturer	Enkl Sound Copenhagen ApS
Address	Fruebjergvej 3, 2100 Copenhagen, Denmark
Factory	Shenzhen Asia Universal Technology Co., Ltd.
Address	Room 05, 22nd Floor, Yishang Center, No. 22, Jiaan South Road, Baoan District, Shenzhen, China
Product Name	Enkl Sound ES2
Test Model No.	Enkl Sound ES2

3 GENERAL DESCRIPTION OF E.U.T.

Hardware Version	V1.1
Software Version	N/A
Operation Frequency:	2402MHz-2480MHz
Modulation Type:	BREDR:GFSK,pi/4DQPSK,8DPSK BLE:GFSK(Data Rate:1Mbps;2Mbps)
Channel Spacing:	BREDR:1MHz BLE:2MHz
Number of Channels:	BREDR:79 BLE:40
Antenna Type:	PCB Antenna
Antenna Gain:	3dBi(Provided by the customer)

4 LABORATORY LOCATION

All tests were performed at:

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

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

Telephone: TEL: +86-755-28682673 FAX: +86-755-28682673

No tests were sub-contracted.

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5 RF EXPOSURE COMPLIANCE REQUIREMENT

5.1 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.

5.2 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

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

Ant gain = 3dBi

BREDR:

Max Output power = 0.781dBm @EDR@ 2402MHz

ERP = 0.781dBm + 3dBi - 2.15 = 1.631dBm

So

worse case :

$10^{0.1631} = 1.456\text{mW} < 3060\text{ mW}$

Comply with RF exposure exemption limit.

BLE:

Max Output power = 0.534dBm @BLE 2M@ 2402MHz

ERP = 0.534dBm + 3dBi - 2.15 = 1.384dBm

So

worse case :

$10^{0.1384} = 1.375\text{mW} < 3060\text{ mW}$

Comply with RF exposure exemption limit.

----END OF REPORT----

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