

Test Report

Applicant : ALPS ALPINE (China) Co., Ltd.
Address : 28A1,28th Floor,No.7 Guanghai Road,Chaoyang District,Beijing
Product Name : Wireless Display Audio
Brand Mark : 
Model : iLX-T810
Series model : iLX-T809,iLX-W807
Report Number : BLA-EMC-202503-A7707
FCC ID : 2BFB2-ILXT810
Date of Receipt : Mar.20,2025
Date of Test : Mar.21,2025 to Apr.15,2025
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:

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Review by:

Xavier

Approved by:

J. Zheng

Issued Date:

Apr.15, 2025



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

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Revise Record

Version No.	Date	Description
01	Apr.15,2025	Original

1 General information

1.1 General information

Applicant	ALPS ALPINE (China) Co., Ltd.
Address	28A1,28th Floor,No.7 Guanghua Road,Chaoyang District,Beijing
Manufacturer	ALPS ALPINE (China) Co., Ltd.
Address	28A1,28th Floor,No.7 Guanghua Road,Chaoyang District,Beijing
Factory	Huizhou Zhiyue Technology Co., Ltd.
Address	No. 1 and 2, Block 2, Luotang, Shuikou Street Office, Huicheng District, Huizhou City, Guangdong Province (Factory building)

1.2 General description of EUT

Product Name	Wireless Display Audio
Model No.	iLX-T810
Series model	iLX-T809,iLX-W807
Differences of Series model	declaration ,iLX-T810 and iLX-W807,iLX-T809 .Their electricalcircuit design layout, components used and internal wiring are identical,Only the model and size are different.
Power supply or adapter information	DC12V
Hardware Version	0201-CP601M01V02-001
Software Version	V1.09.09-20250305
Engineer sample no	BLA-EMC-202503-A77

Note: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

For BT

Operation Frequency	2402MHz-2480MHz
Modulation Type	GFSK, π /4DQPSK, 8DPSK
Channel Spacing	1MHz
Number of Channels	79
Antenna Type	External antenna
Antenna Gain	2.87dBi(Provided by customer)

For BLE

Operation Frequency	2402MHz-2480MHz
Modulation Type	GFSK
Rate data	1Mbps; 2Mbps
Channel Spacing	2MHz
Number of Channels	40
Antenna Type	External antenna
Antenna Gain	2.87dBi(Provided by customer)

For 2.4GWIFI

Operation Frequency	802.11b/g/n(HT20): 2412MHz to 2462MHz 802.11n(HT40): 2422MHz to 2452MHz
Modulation Type	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Nominal Bandwidth	20MHz&40MHz
Channel Spacing	5MHz
Number of Channels	802.11b/g/n(HT20): 11 802.11n(HT40):7
Antenna Type	External antenna
Antenna Gain	2.87dBi(Provided by customer)
Function	☒ SISO ☐ 2x2 MIMO ☐ TPC

For 5GWIFI

Operating Frequency	Band1: 5180MHz~5240MHz;Band2:5260MHz~5320MHz Band3: 5500MHz~5700MHz;Band4:5745MHz~5825MHz
Channel numbers	Band 1: 802.11a/802.11n(HT20)/802.11ac(HT20): 4, 802.11n(HT40)/802.11ac(HT40):2, 802.11ac(HT80): 1
	Band 2: 802.11a/802.11n(HT20)/802.11ac(HT20): 4, 802.11n(HT40)/802.11ac(HT40):2, 802.11ac(HT80): 1
	Band 3: 802.11a/802.11n(HT20)/802.11ac(HT20): 11, 802.11n(HT40)/802.11ac(HT40):5, 802.11ac(HT80): 3
	Band 4: 802.11a/802.11(HT20)/802.11ac(HT20): 5, 802.11n(HT40)/802.11ac(HT40): 2, 802.11ac(HT80): 1
Modulation Type	OFDM
Nominal Bandwidth	20MHz&40MHz&80MHz
Channel Spacing	10MHz
Antenna Type	External antenna
Antenna Gain	2.87dBi(Provided by customer)
Function	☒ SISO ☐ 2x2 MIMO ☐ TPC

2 Laboratory and accreditations

The test facility is recognized, certified, or accredited by the following organizations:

Company name:	BlueAsia of Technical Services(Shenzhen) Co., Ltd.
Address:	Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China
CNAS accredited No.:	L9788
A2LA Cert. No.:	5071.01
FCC Designation No.:	CN1252
ISED CAB identifier No.:	CN0028
Telephone:	+86-755-28682673
FAX:	+86-755-28682673

3 RF Exposure Compliance Requirement

3.1 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.

3.2 Limits

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

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

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

3.3 Result

Calculated Result and Limit (WORSE CASE IS AS BELOW)

Mode	Frequency (MHz)	Max Output power(dBm)	Max Output power(mW)	Ant gain (dBi)	Evaluation ERP(dBm)	Evaluation ERP(mW)	Limit of Pth(mW)	Result
BT:3-DH1	2480	5.443	3.50	2.87	6.163	4.13	3060.00	Pass
BLE 1M	2480	6.265	4.23	2.87	6.985	4.99	3060.00	Pass
2.4G WIFI:B	2437	15.924	39.12	2.87	16.644	46.17	3060.00	Pass
5G WIFI:a	5500	17.45	55.59	2.87	18.17	65.61	3060.00	Pass

ERP=Max Output power+Ant gain-2.15

Comply with RF exposure exemption limit.

----END OF REPORT----

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