

RF EXPOSURE Test Report

Product: Streaming Music Receiver

Trade Mark: ARSY

Model Number: Ne-2

FCC ID: 2BLQH-MT0001

Prepared for

SHENZHEN JASYA ELECTRONIC TECH.CO.,LTD.

2nd floor, building 1, Wanfeng Huafeng Pioneer Park, Heyi community,
Shajing Town, Bao'an District, Shenzhen City, Guangdong Province

Prepared by

Shenzhen HongBiao Certification& Testing Co., Ltd

Room 102, 201, Building 2, Yuanwanggu RFID Industrial Park, Tongguan
Road, Tianliao Community, Yutang Street, Guangming District, Shenzhen,
China

Tel.: +86-755-2998 9321 Fax.: +86-755-2998 5110

Website: <http://www.sz-hongbiao.com>

Table of Contents

1 GENERAL DESCRIPTION 5

1.1 DESCRIPTION OF EUT 5

1.2 TEST MODE..... 6

1.3 TEST SETUP 6

1.4 ANCILLARY EQUIPMENT 6

2 TEST FACILITIES AND ACCREDITATIONS 7

2.1 TEST LABORATORY 7

2.2 ENVIRONMENTAL CONDITIONS 7

2.3 MEASUREMENT UNCERTAINTY 7

2.4 TEST SOFTWARE 7

3 RF EXPOSURE..... 8

3.1 STANDALONE SAR TEST EXCLUSION CONSIDERATIONS..... 8

3.1.1. *Limit* 8

3.1.2. *Test Result* 8

TEST RESULT CERTIFICATION

Applicant's Name : SHENZHEN JASYA ELECTRONIC TECH.CO.,LTD.
2nd floor, building 1, Wanfeng Huafeng Pioneer Park, Heyi
Address : community, Shajing Town, Bao'an District, Shenzhen City,
Guangdong Province

Manufacturer's Name : SHENZHEN JASYA ELECTRONIC TECH.CO.,LTD.
2nd floor, building 1, Wanfeng Huafeng Pioneer Park, Heyi
Address : community, Shajing Town, Bao'an District, Shenzhen City,
Guangdong Province

Product description

Product name : Streaming Music Receiver
Model Number : Ne-2

Standards : FCC CFR 47 PART 1 , 1.1310

Test procedure : KDB 447498 D01 General RF Exposure Guidance v06

This device described above has been tested by Shenzhen HongBiao Certification& Testing Co., Ltd and the test results show that the equipment under test (EUT) is in compliance with the EMC requirements. And it is applicable only to the tested sample identified in the report.

Date of Test :

Date (s) of performance of tests : Oct. 11, 2024~ Oct. 22, 2024

Test Result..... : **Pass**

Testing Engineer :



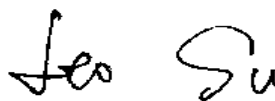
(Z o e S u)

Technical Manager :



(G a r y L u)

Authorized Signatory :



(L e o S u)

[illegible]

1 General Description

1.1 Description of EUT

Product name:	Streaming Music Receiver
Model name:	Ne-2
Series Model:	Ne-3, Ne-4, Ne-5, Ne-6
Different of series model:	All models are the same circuit and module, except for model color.
Operation frequency:	2.4G WiFi: IEEE 802.11b/g/n20: 2412~2462 MHz IEEE 802.11n40: 2422~2452 MHz 5G WiFi: U-NII-1: 5180 MHz to 5240 MHz
Modulation type:	2.4G WiFi: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK) 5G WiFi: IEEE 802.11a/n: OFDM(64QAM, 16QAM, QPSK, BPSK)
Bit Rate of transmitter:	2.4G WiFi: IEEE 802.11b: Up to 11 Mbps IEEE 802.11g: Up to 54 Mbps IEEE 802.11n-HT20/HT40: Up to MCS15 5G WiFi: IEEE 802.11a: Up to 54 Mbps IEEE 802.11n-HT20/40: Up to MCS7
Antenna type:	FPCB Antenna
Antenna gain:	2.4G WiFi: 5dBi 5G WiFi: 5dBi
Max. output power:	2.4G WiFi: 19.1dBm 5G WiFi U-NII-1: 12.22dBm
Hardware version:	V1.3
Software version:	V1.0
Battery:	N/A
Power supply:	Input: DC 5V/3A
Adapter information:	N/A

1.2 Test Mode

Pretest Test Mode	Description of Mode
1	TX
2	/
3	/

1.3 Test Setup

See photographs of the test setup in the report for the actual setup and connections between EUT and support equipment.

1.4 Ancillary Equipment

Equipment	Model	S/N	Manufacturer
/	/	/	/

2 Test Facilities and Accreditations

2.1 Test Laboratory

Test Site	Shenzhen HongBiao Certification& Testing Co., Ltd
Test Site Location	Room 102, 201, Building 2, Yuanwanggu RFID Industrial Park, Tongguan Road, Tianliao Community, Yutang Street, Guangming District, Shenzhen, China
Telephone:	(86-755) 2998 9321
Fax:	(86-755) 2998 5110
FCC Registration No.:	CN1341
A2LA Certificate No.:	6765.01

2.2 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15°C~35°C
Relative Humidity:	20%~75%
Air Pressure:	98kPa~101kPa

2.3 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

Measurement Frequency Range	U, (dB)	Note
RF frequency	2×10^{-5}	
RF power, conducted	± 0.57 dB	
Temperature	± 1 degree	
Humidity	± 5 %	

2.4 Test Software

Software name	Manufacturer	Model	Version
Conducted test system	MWRF-test	MTS 8310	2.0.0.0

3 RF Exposure

3.1 Standalone SAR test exclusion considerations

3.1.1. Limit

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) Radiation as specified in §1.1307(b).

Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

MPE Calculation Method

Friis transmission formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot R^2)$

Where

P_d = Power density in mW/cm²

P_{out} = output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

π = 3.1415926

R = distance between observation point and center of the radiator in cm(20cm)

P_d the limit of MPE, 1mW/cm².

If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

3.1.2. Test Result

2.4GWiFi:

Operation Frequency: IEEE 802.11b/g/n20: 2412~2462MHz,

IEEE 802.11n40: 2422~2452MHz,

Antenna Type: FPCB Antenna;

2.4G WiFi antenna gain: 5dBi

Power density limited: 1mW/ cm²

5GWiFi:

Operation Frequency: IEEE 802.11a/n: 20MHz

IEEE 802.11n-HT40: 40MHz

U-NII-1: 5150 MHz to 5250 MHz,

Antenna Type: FPCB Antenna;

5G WIFI antenna gain : 5 dBi

R=20cm

$mW=10^{(dBm/10)}$

2.4GWiFi: Antenna gain Numeric= $10^{(dBi/10)}=10^{(5/10)}=3.16$

5GWiFi:

U-NII-1: Antenna gain Numeric= $10^{(dBi/10)}=10^{(5/10)}=3.16$

2.4G WiFi: (Worst)

Channel Freq. (MHz)	modulation	conducted power	Tune-up power	Max		Antenna		Evaluation result at 20cm	Power density Limits
		(dBm)	(dBm)	tune-up power		Gain		Power density(mW/cm ²)	(mW/cm ²)
				(dBm)	(mW)	(dBi)	Numeric		
2462	11n (HT20)	19.10	19±1	20	100	5	3.16	0.0629	1

5G WiFi: (Worst)

Frequency (MHz)	Modulation	conducted power	Tune-up power	Max		Antenna		Evaluation result at 20cm	Power density Limits
		(dBm)	(dBm)	tune-up power		Gain		Power density(mW/cm ²)	(mW/cm ²)
				(dBm)	(mW)	(dBi)	Numeric		
5180	11a	12.22	12±1	13	20	5	3.16	0.0126	1

Conclusion:

NO	Maximum MPE Value		Limits (mW/cm ²)
	2.4GWiFi (mW/cm ²)	5GWiFi: (mW/cm ²)	
1	0.0629	0.0126	1

Simultaneous transmit:

NO	Configurations	Maximum MPE Value			Limits
		2.4GWiFi	5GWiFi	Transmit simultaneously	
1	2.4G+5G	0.0629	0.0126	0.0755	1

Note:

According to KDB 447498 D01 General RF Exposure Guidance v06, At the transmit simultaneously calculation method is as follows:

Transmit simultaneously MPE = $\sum$ of MPE ratios

MPE ratios = Field strengths or power density / MPE limit at the test frequency

For the max result: $0.0755 \leq 1.0$ SAR, No SAR is required.

******* END OF REPORT *******