



REPORT No.: SZ23060308E01

TEST REPORT

APPLICANT : Innovative Eyewear, Inc.

PRODUCT NAME : Active noise cancelling stereo Bluetooth headphone

MODEL NAME : LCD00X

BRAND NAME : Lucyd, Nautica, Eddie Bauer, Reebok

STANDARD(S) : ICES-003

RECEIPT DATE : 2023-06-29

TEST DATE : 2023-07-04 to 2023-07-15

ISSUE DATE : 2023-08-29



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Xiao Xiong(Supervisor)

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MORLAB

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Change History		
Version	Date	Reason for change
1.0	2023-08-29	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Innovative Eyewear, Inc.
Applicant Address:	11900 Biscayne Bl, Suite 630, North Miami, FL 33181, United States
Manufacturer:	Innovative Eyewear, Inc.
Manufacturer Address:	11900 Biscayne Bl, Suite 630, North Miami, FL 33181, United States

1.2. Equipment Under Test (EUT) Description

Product Name:	Active noise cancelling stereo Bluetooth headphone	
EUT No.:	1#	
Hardware Version:	HT-LCD006-V02	
Software Version:	Lucyd Lyte-1735-b4f52dd3	
Frequency Range:	Bluetooth: 2402 MHz ~ 2480 MHz	
Accessory:	AC Adapter Brand Name: Dongguan XieYang Electronics co., Ltd Model No.: XY-0033B Serial No.: (N/A, marked #1 by test site) Rated Input: 100-240V~ 50-60Hz, 0.15A Rated Output: 5V=1A Manufacturer: Dongguan XieYang Electronics co., Ltd	
	Battery Brand Name: N/A Model No.: PL450833 Serial No.: (N/A, marked #1 by test site) Capacity: 100mAh Rated Voltage: 3.7V Charge Limit: 4.2V Manufacturer: ShenZhen Yotoga Technology Co.,Ltd	



Note:

1. According to the certificate holder, they declared that the product name: Active noise cancelling stereo Bluetooth headphone, with model name: LCD00X has multiple brands, only different for brand name, the others are the same.
2. For a more detailed description, please refer to specification or user's manual supplied by the applicant and/or manufacturer.



2. Test Results

2.1. Applied Reference Documents

The objective of the report is to perform testing according to ICES-003:

No.	Identity	Document Title
1	ICES-003, Issue 7 October 2020	Information Technology Equipment (Including Digital Apparatus) – Limits and methods of measurement

Test detailed items/section required by IC rules and results are as below:

No.	Section	Description	Test Date	Test Engineer	Result	Method Determination Remark
1	ICES-003 3.2.1, Class B	Conducted Emission	2023.07.15	Fan Zehang	PASS	No deviation
2	ICES-003 3.2.2, Class B	Radiated Emission	2023.07.04	Lin Jiayong	PASS	No deviation

Note 1:The tests were performed according to the method of measurements prescribed in ANSI C63.4-2014.

Note 2:Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.

Note 3:When the test result is a critical value,we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.



2.2. EUT Setup and Operating Conditions

Test Item	
Radiated Emission	
Mode 1	: EUT + Bluetooth Idle + USB Cable + AC Adapter + Battery + Charging Mode
Mode 2	: EUT + Bluetooth Link + Battery + Mobile Phone + Play Music Mode
Conducted Emission	
Mode 1	: EUT + Bluetooth Idle + USB Cable + AC Adapter + Battery + Charging Mode
Remark: The above test mode in boldface (Mode 1) was the worst case of conducted emission test, only the test data of these modes were reported. The above test mode in boldface (Mode 1) was the worst case of radiated emission test, only the test data of these modes were reported.	

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

Temperature (°C):	15 - 35
Relative Humidity (%):	30 - 60
Atmospheric Pressure (kPa):	86 - 106

3. ICES-003 Requirements

3.1. Conducted Emission

3.1.1. Requirement

According to ICES-003 section 3.2.1, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

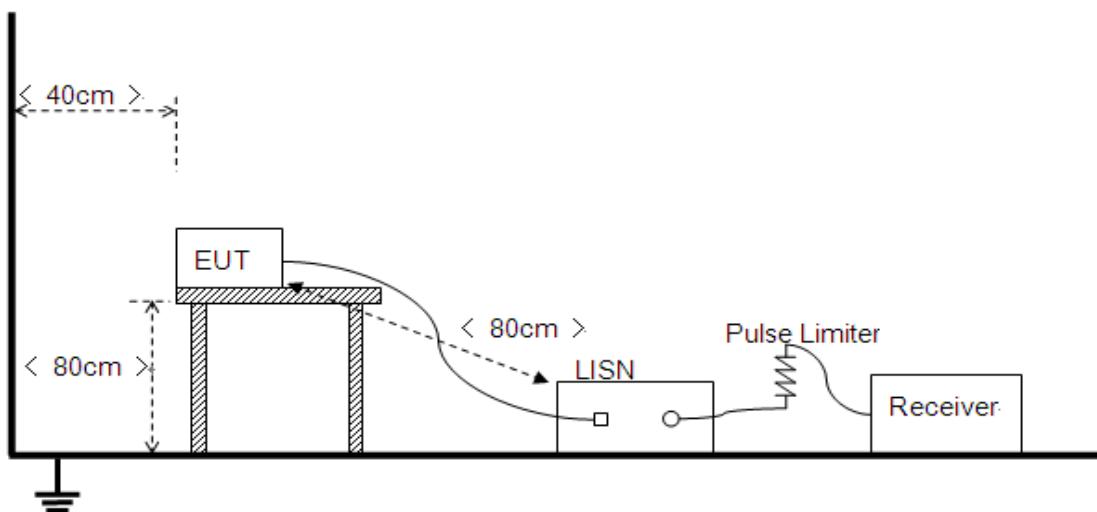
Frequency Range (MHz)	Conducted Limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

Note:

- a) The limit subjects to the Class B digital device.
- b) The lower limit shall apply at the band edges.
- c) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

3.1.2. Test Setup

Please refer to Annex A for the photographs of the Test Configuration.





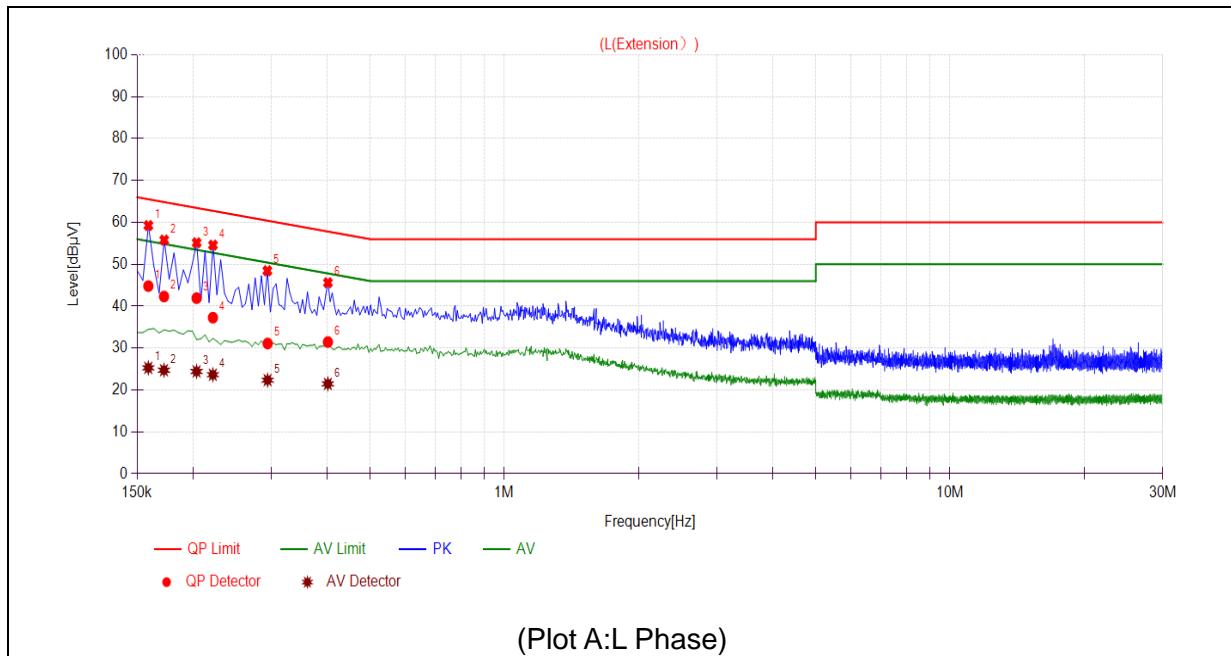
The EUT is placed on a 0.8m high insulating table, which stands on the grounded conducting floor, and keeps 0.4m away from the grounded conducting wall. The EUT is connected to the power mains through a LISN which provides $50\Omega/50\mu\text{H}$ of coupling impedance for the measuring instrument. A Pulse Limiter is used to protect the measuring instrument. The factors of the whole test system are calibrated to correct the reading.

The power strip or extension cord has been investigated to make sure that the LISN integrity is maintained with respect to the impedance characteristics as prescribed in ANSI C63.4-2014 at Clause 4.3.

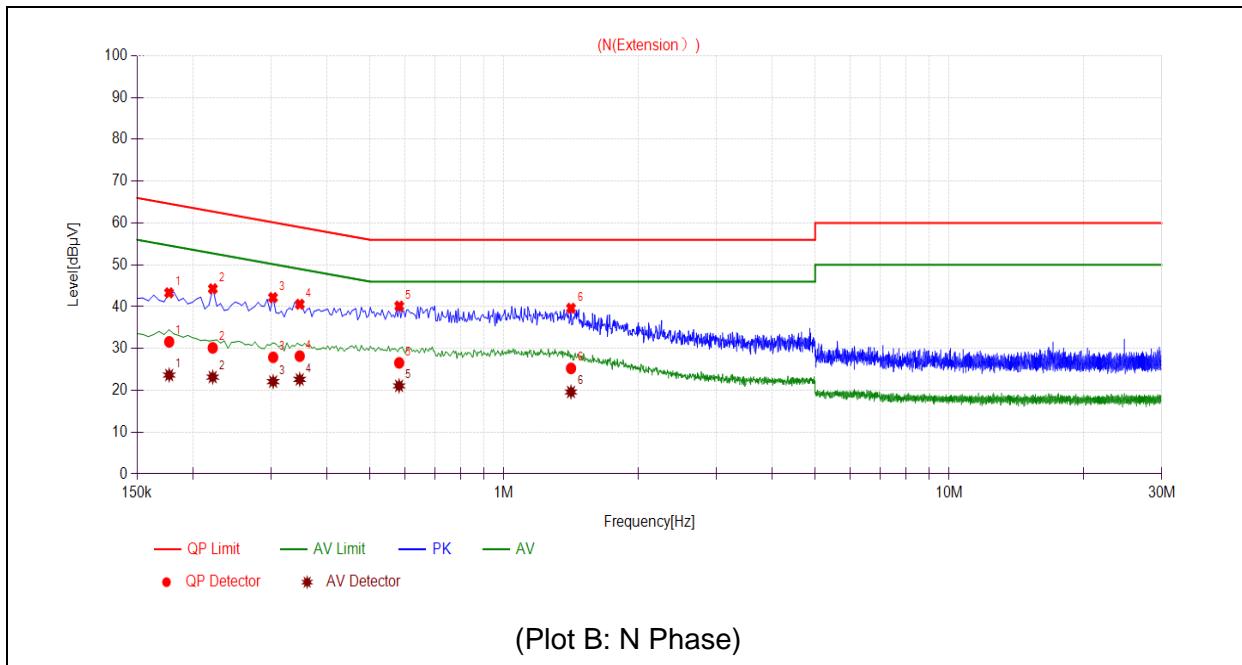
3.1.3. Test Result

Set RBW=9 kHz, VBW=30 kHz. The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. All test modes are considered, refer to recorded points and plots below.

A. Test Plot and Suspicious Points:



No.	Fre. (MHz)	Emission Level (dB μ V)		Limit (dB μ V)		Power-line	Verdict
		Quasi-peak	Average	Quasi-peak	Average		
1	0.1589	44.79	25.28	65.52	55.52	Line	PASS
2	0.1723	42.31	24.72	64.85	54.85		PASS
3	0.2039	41.93	24.42	63.45	53.45		PASS
4	0.2218	37.26	23.64	62.75	52.75		PASS
5	0.2943	31.10	22.35	60.40	50.40		PASS
6	0.4018	31.45	21.46	57.82	47.82		PASS



No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quasi-peak	Average	Quasi-peak	Average		
1	0.1771	31.60	23.65	64.62	54.62	Neutral	PASS
2	0.2218	30.15	23.17	62.75	52.75		PASS
3	0.3032	27.90	22.09	60.15	50.15		PASS
4	0.3478	28.18	22.61	59.02	49.02		PASS
5	0.5816	26.56	21.07	56.00	46.00		PASS
6	1.4144	25.25	19.61	56.00	46.00		PASS



3.2. Radiated Emission

3.2.1. Requirement

According to ICES-003 3.2.2, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency range (MHz)	Class B Radiated Limit (dB μ V/m)
	Quasi-Peak
30 – 88	40.0
88 – 216	43.5
216-230	46.0
230– 960	47.0
960 – 1000	54.0

3.2.2. Frequency range of measurement

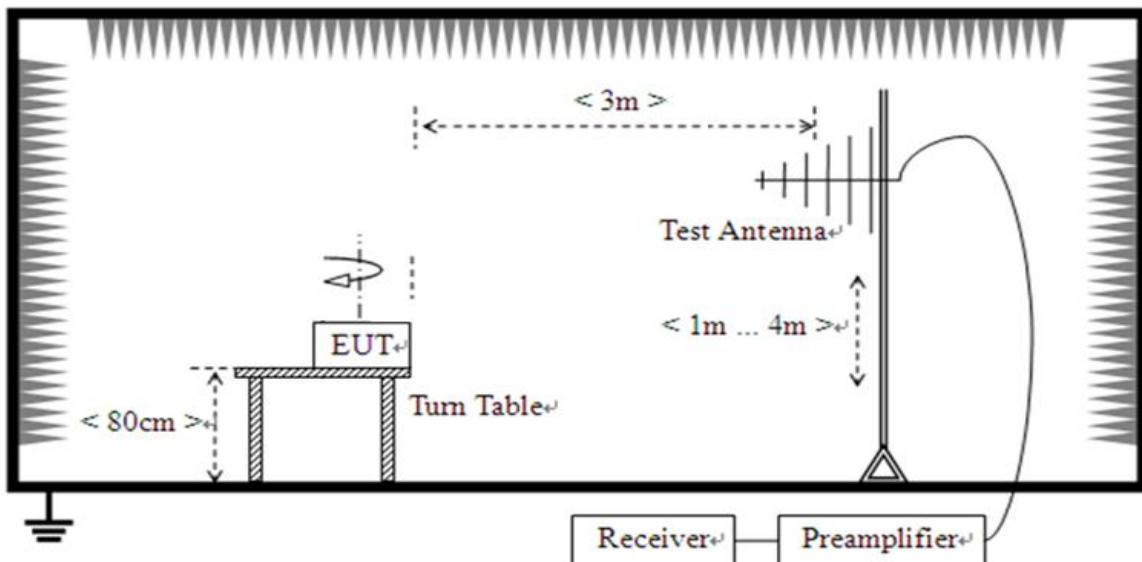
According to ICES-003 3.2.2, Radiated emissions from an ITE shall be measured from the lowest frequency generated, or used, in the device or 30 MHz, whichever is higher, up to the frequency determined in accordance with Table 3:

Table 3 — Frequency Range of Measurement

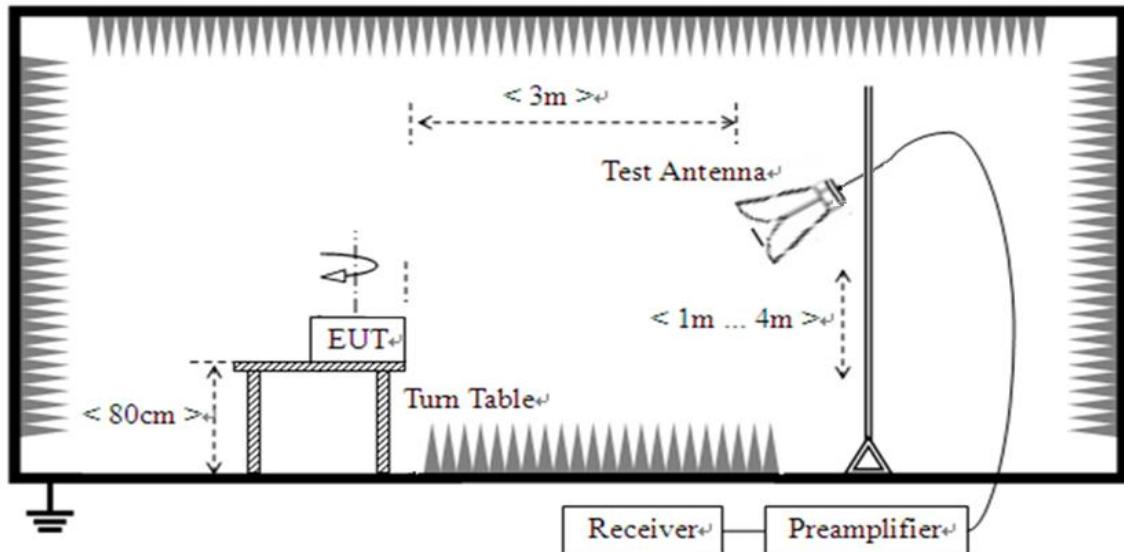
Highest Frequency Generated or Used in Device	Upper Frequency of Radiated Measurement
Below 1.705 MHz	No radiated testing required
1.705 MHz – 108 MHz	1 GHz
108 MHz – 500 MHz	2 GHz
500 MHz – 1 GHz	5 GHz
Above 1 GHz	5th harmonic of the highest frequency or 40 GHz, whichever is lower.

3.2.3. Test Setup

- 1) For radiated emissions from 30MHz to1GHz



- 2) For radiated emissions above 1GHz



The test is performed in a 3m Semi-Anechoic Chamber; the antenna factor, cable loss and so on of



the site (factors) is calculated to correct the reading. The EUT is placed on a 0.8m high insulating Turn Table, and keeps 3m away from the Test Antenna, which is mounted on a variable-height antenna master tower.

For the test Antenna:

In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz)are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. The emission levels at both horizontal and vertical polarizations should be tested. For measurements above 1 GHz, keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.

For measurements below 1GHz the resolution bandwidth is set to 120 kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

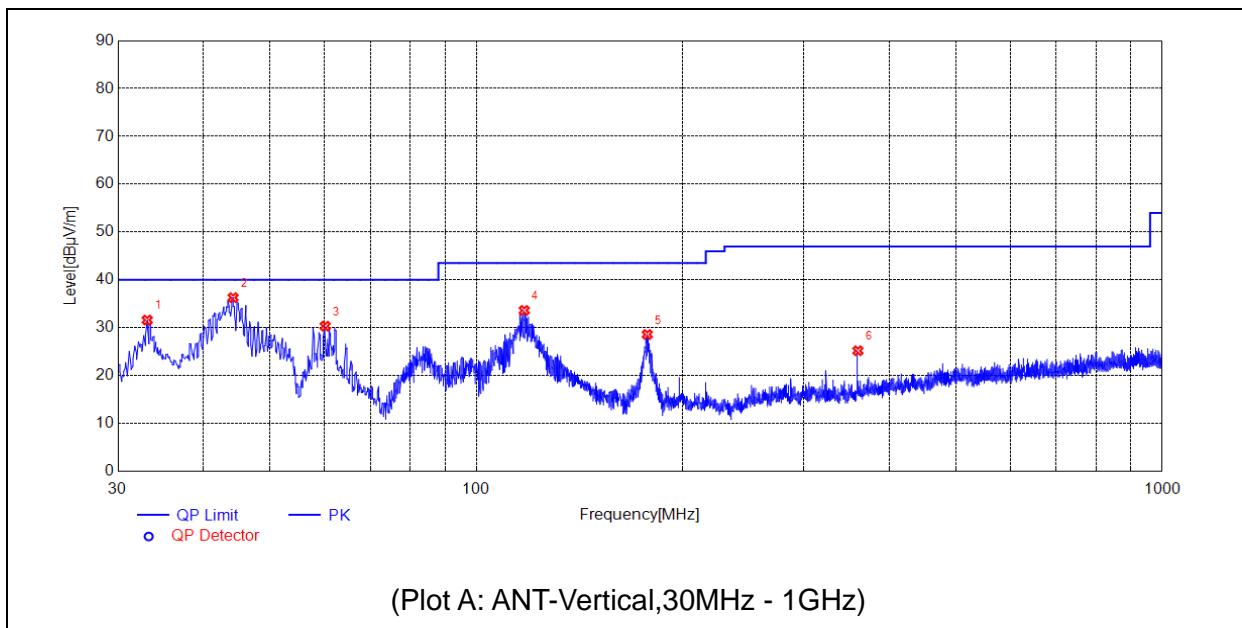
For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video bandwidth is set to 3MHz for peak measurements and as applicable for average measurements.

3.2.4. Test Result

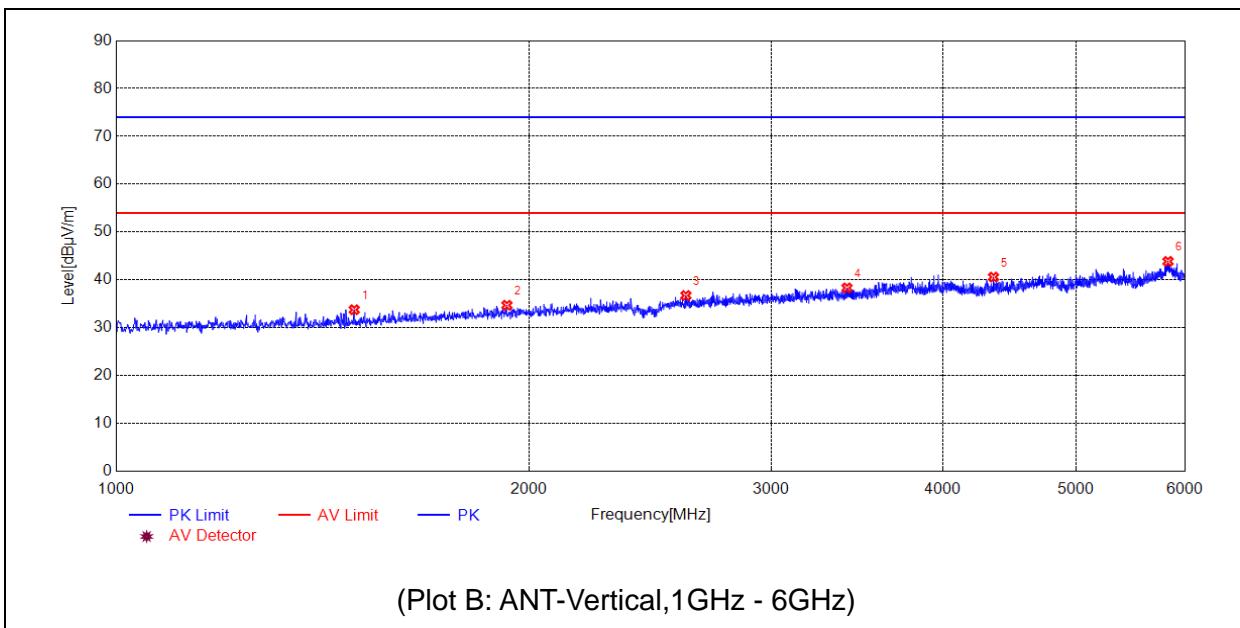
The maximum radiated emission is searched using PK, QP and AV detectors; the emission levels more than the limits, and that have narrow margins from the limits will be re-measured with AV and QP detectors. Both the vertical and the horizontal polarizations of the Test Antenna are considered to perform the tests. All test modes are considered, refer to recorded points and plots below.

The amplitude of emissions (6GHz-12.5GHz) which are attenuated more than 20 dB below the permissible value need not be reported.

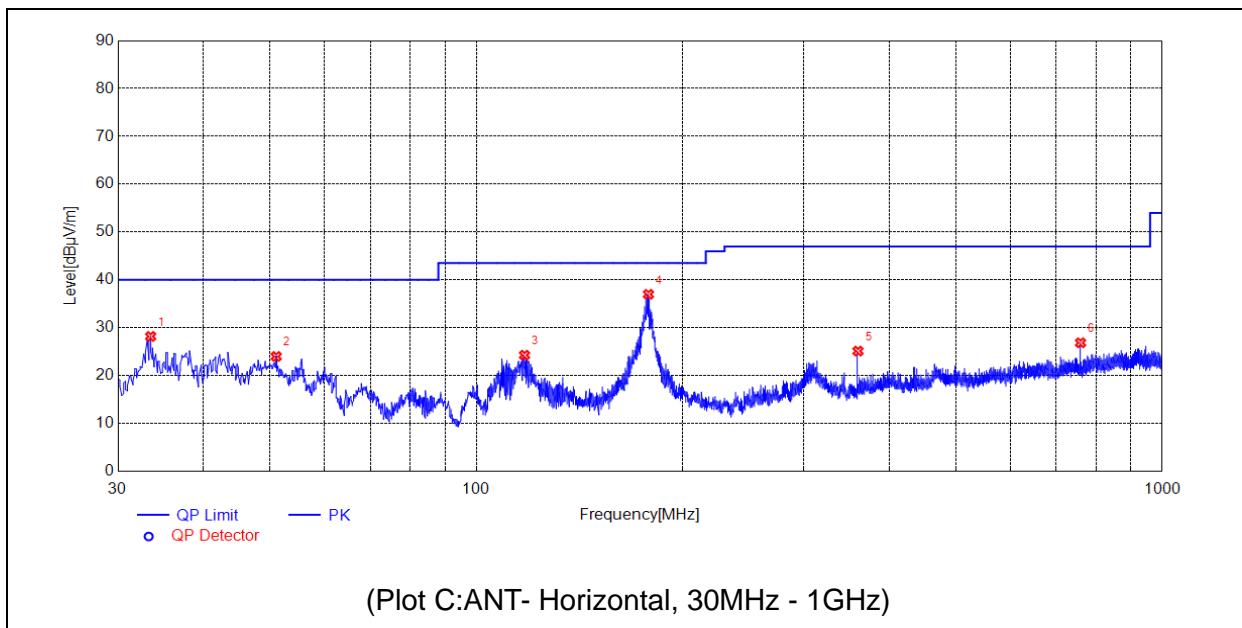
Note: All radiated emission tests were performed in X, Y, Z axis direction, and only the worst axis test condition was recorded in this test report.



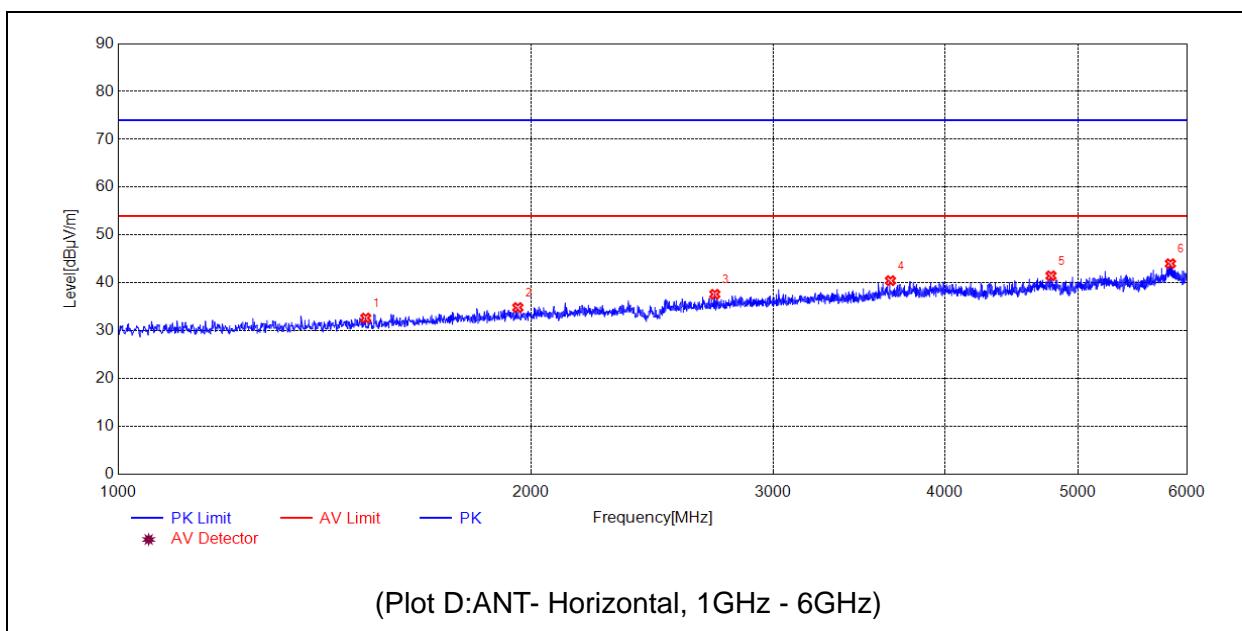
No.	Fre. MHz	Pk dB μ V/m	QP dB μ V/m	AV dB μ V/m	Limit-PK dB μ V/m	Limit-QP dB μ V/m	Limit-AV dB μ V/m	ANT	Verdict
1	33.1043	31.61	N.A	N.A	N.A	40.00	N.A	V	PASS
2	44.1634	36.30	N.A	N.A	N.A	40.00	N.A	V	PASS
3	60.1700	30.33	N.A	N.A	N.A	40.00	N.A	V	PASS
4	117.4057	33.63	N.A	N.A	N.A	43.50	N.A	V	PASS
5	177.4547	28.59	N.A	N.A	N.A	43.50	N.A	V	PASS
6	359.9300	25.20	N.A	N.A	N.A	47.00	N.A	V	PASS



No.	Fre. MHz	Pk dB μ V/m	QP dB μ V/m	AV dB μ V/m	Limit-PK dB μ V/m	Limit-QP dB μ V/m	Limit-AV dB μ V/m	ANT	Verdict
1	1491.0982	33.77	N.A	N.A	74.00	N.A	54.00	V	PASS
2	1926.1852	34.71	N.A	N.A	74.00	N.A	54.00	V	PASS
3	2600.3201	36.74	N.A	N.A	74.00	N.A	54.00	V	PASS
4	3406.4813	38.33	N.A	N.A	74.00	N.A	54.00	V	PASS
5	4354.6709	40.59	N.A	N.A	74.00	N.A	54.00	V	PASS
6	5834.9670	43.87	N.A	N.A	74.00	N.A	54.00	V	PASS



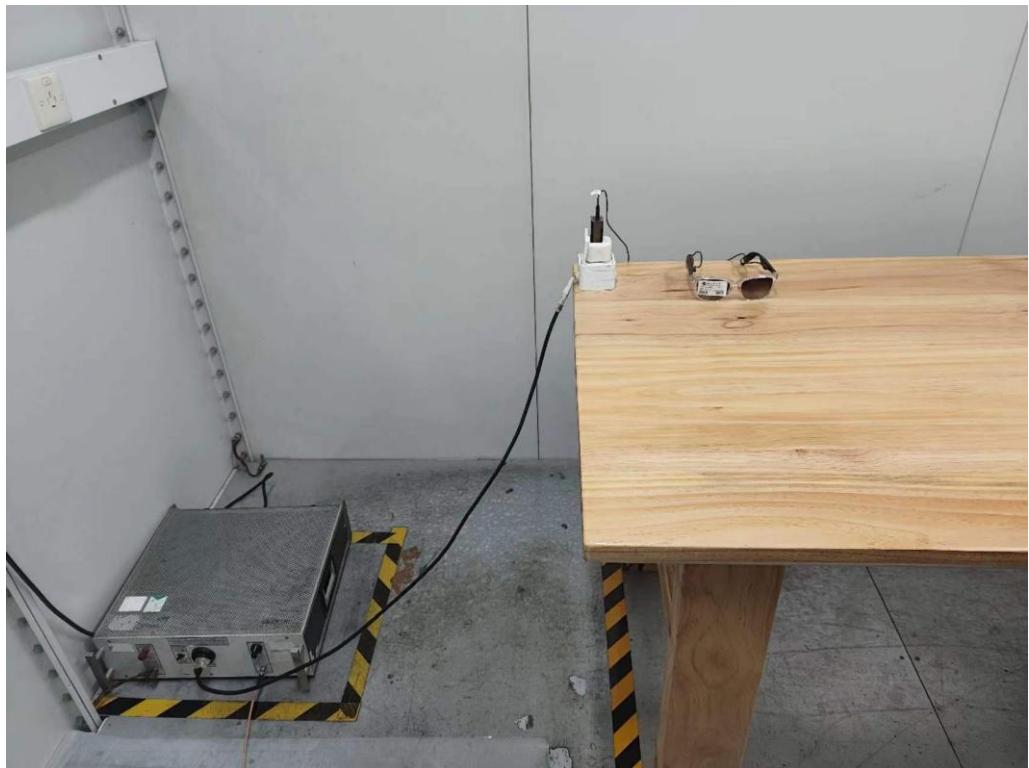
No.	Fre. MHz	Pk dB μ V/m	QP dB μ V/m	AV dB μ V/m	Limit-PK dB μ V/m	Limit-QP dB μ V/m	Limit-AV dB μ V/m	ANT	Verdict
1	33.4923	28.19	N.A	N.A	N.A	40.00	N.A	H	PASS
2	51.0511	24.00	N.A	N.A	N.A	40.00	N.A	H	PASS
3	117.5028	24.27	N.A	N.A	N.A	43.50	N.A	H	PASS
4	178.1338	36.99	N.A	N.A	N.A	43.50	N.A	H	PASS
5	360.0270	25.13	N.A	N.A	N.A	47.00	N.A	H	PASS
6	759.9980	26.86	N.A	N.A	N.A	47.00	N.A	H	PASS



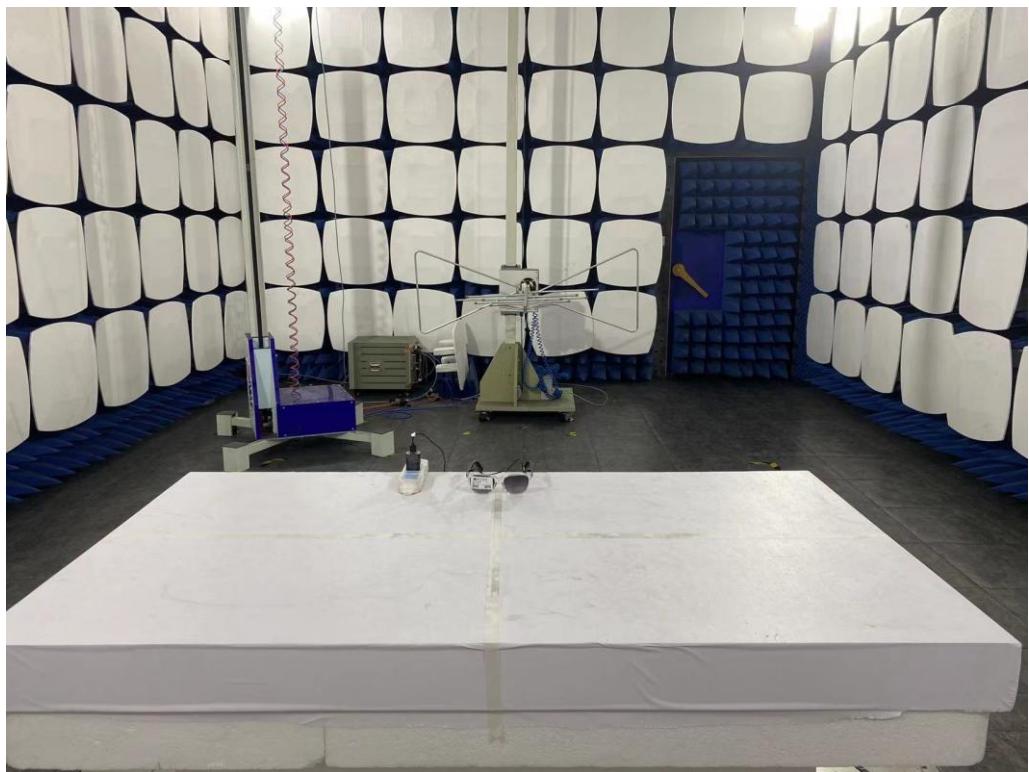
No.	Fre. MHz	Pk dB μ V/m	QP dB μ V/m	AV dB μ V/m	Limit-PK dB μ V/m	Limit-QP dB μ V/m	Limit-AV dB μ V/m	ANT	Verdict
1	1515.1030	32.66	N.A	N.A	74.00	N.A	54.00	H	PASS
2	1955.1910	34.85	N.A	N.A	74.00	N.A	54.00	H	PASS
3	2720.3441	37.63	N.A	N.A	74.00	N.A	54.00	H	PASS
4	3651.5303	40.47	N.A	N.A	74.00	N.A	54.00	H	PASS
5	4779.7560	41.49	N.A	N.A	74.00	N.A	54.00	H	PASS
6	5838.9678	44.03	N.A	N.A	74.00	N.A	54.00	H	PASS

Annex A Photographs of Test Setup

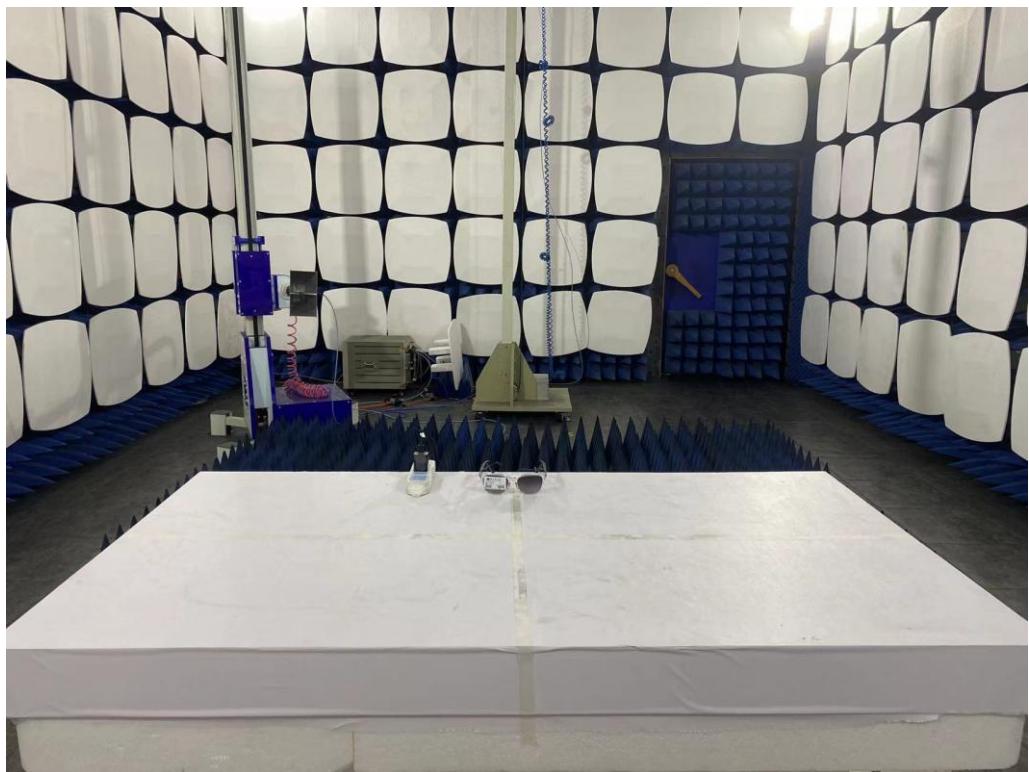
1. Conducted Emission



2. Radiated Emission(30MHz-1GHz)



3. Radiated Emission(above 1GHz)





Annex B Test Uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

Uncertainty of Conducted Emission Measurement

Measuring Uncertainty for a Level of Confidence of 95%(U=2Uc(y))	9kHz-150kHz	±3.3dB
	150kHz-30MHz	±2.8dB

Uncertainty of Radiated Emission Measurement

Measuring Uncertainty for a Level of Confidence of 95%(U=2Uc(y))	30MHz-200MHz	±5.06dB
	200MHz-1000MHz	±5.04dB
	1GHz-6GHz	±5.18dB
	6GHz-18GHz	±5.48dB



Annex C Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Accreditation Certificate

Accredited Testing Laboratory:	The IC registration number is 7183A. (Shenzhen Morlab Communications Technology Co., Ltd.)
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4. Test Software Utilized

Model	Version Number	Producer
TS+ -[JS32-RE]	Version 2.5.0.6	Tonscend
TS+ -[JS32-CE]	Version 2.5.0.0	Tonscend



5. Test Equipments Utilized

Description	Model	Serial No.	Manufacturer	Cal. Date	Due. Date
Bi-Log Antenna	VULB 9163	9163-274	SCHWARZBECK	2022/11/7	2025/11/6
Bi-Log Antenna	VULB 9163	9163-519	SCHWARZBECK	2022/5/25	2025/5/24
Horn Antenna	BBHA 9120D	9120D-963	SCHWARZBECK	2022/5/25	2025/5/24
Horn Antenna	BBHA 9120D	01774	SCHWARZBECK	2022/7/13	2025/7/12
Receiver	N9038A	MY541300 16	Agilent	2023/6/21	2024/6/20
Receiver	N9038A	MY564000 93	KEYSIGHT	2023/2/9	2024/2/8
6db Attenuator	BW-N6W5+	E191001	Mini-circuits	2022/10/11	2023/10/10
Preamplifier	S020180L3203	61171/611 72	LUCIX CORP.	2023/6/27	2024/6/26
Preamplifier	S10M100L3802	46732	LUCIX CORP.	2023/6/27	2024/6/26
RF Coaxial Cable	PE330	MRE001	Pasternack	N/A	N/A
RF Coaxial Cable	CLU18	MRE002	Pasternack	N/A	N/A
RF Coaxial Cable	CLU18	MRE003	Pasternack	N/A	N/A
RF Coaxial Cable	QA360-40-KK- 0.5	22290045	Qualwave	N/A	N/A
RF Coaxial Cable	QA360-40-KKF -2	22290046	Qualwave	N/A	N/A
RF Coaxial Cable	QA500-18-NN- 5	22120181	Qualwave	N/A	N/A
RF Coaxial Cable	BNC	MRE04	Qualwave	N/A	N/A
Receiver	ESPI	101052	R&S	2023/6/21	2024/6/20
LISN	NSLK 8127	8127449	Schwarzbeck	2023/2/21	2024/2/20
10dB Pulse Limiter	VTSD 9561-F	VTSD 9561 F-B #206	SCHWARZBECK	2023/6/27	2024/6/26

6. Ancillary Equipment Utilized

Description	Manufacturer	Model	Serial No.
mobile phone	HONOR	PLK-AL10	N/A

— END OF REPORT —