EMC Test Report

Report No.: AGC10798220201EE01

PRODUCT DESIGNATION	:	True Wireless Bluetooth Earbuds
BRAND NAME	:	F&D
MODEL NAME	:	F&D E4, T606, F&D E1, F&D E2
APPLICANT	:	SHENZHEN FENDA TECHNOLOGY Co., LTD
DATE OF ISSUE	:	Mar. 11, 2022
STANDARD(S)	:	ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-17 V3.2.4 (2020-09)
REPORT VERSION	:	V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Mar. 11, 2022	Valid	Initial release

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1. TEST REPORT CERTIFICATION

Applicant	SHENZHEN FENDA TECHNOLOGY Co., LTD
Address	Fenda Hi-Tech Park, Zhoushi Road, Shiyan Street, Baoan District, ShenZhen, China
Manufacturer	SHENZHEN FENDA TECHNOLOGY Co., LTD
Address	Fenda Hi-Tech Park, Zhoushi Road, Shiyan Street, Baoan District, ShenZhen, China
Factory	SHENZHEN FENDA TECHNOLOGY Co., LTD
Address	Fenda Hi-Tech Park, Zhoushi Road, Shiyan Street, Baoan District, ShenZhen, China
Product Designation	True Wireless Bluetooth Earbuds
Brand Name	F&D
Test Model	F&D E4
Series Model	T606, F&D E1, F&D E2
Difference Description	All the same except for the model name
Date of test	Mar. 01, 2022 to Mar. 09, 2022
Deviation	None
Condition of Test Sample	Normal
Test Result	Pass
Report Template	AGCRT-EC-EMC

We, Attestation of Global Compliance (Shenzhen) Co., Ltd., hereby certify that the submitted samples of the above item, as detailed in chapter 2.1 of this report, has been tested in our facility. The test record, data evaluation and test configuration represented herein are true and accurate accounts of measurements of the sample's EMC characteristics under the conditions herein specified.

Prepared By	John Zeng (Project Engineer)	Mar. 11, 2022
Reviewed By	Calvin Liu (Reviewer)	Mar. 11, 2022
Approved By	Max Zhang (Authorized Officer)	Mar. 11, 2022

2. GENERAL INFORMATION

2.1. DESCRIPTION OF EUT

The EUT is a short range, lower power, Bluetooth device.
It is designed by way of FHSS modulation achieves the system operating.
Details of technical specification refer to the description in follows:
Transmitter/Receiver (TX/RX)

Operating Frequency	2.402GHz to 2.480GHz
Bluetooth Version	V5.3
Modulation type	BR☒GFSK 1Mbps; EDR☒π /4-DQPSK 2Mbps ☒8DPSK 3Mbps BLE☐GFSK 1Mbps ☐GFSK 2Mbps
Hardware Version	V03
Software Version	V1.2
Antenna Type	Ceramic Antenna
Antenna Gain	4.75dBi
Power Supply(Headset)	DC 3.7V by battery
Power Supply(Charging dock)	DC 3.7V by battery or DC 5V by adapter

2.2. OBJECTIVE

Perform Electro Magnetic Interference (EMI) and Electro Magnetic Susceptibility (EMS) tests for CE Marking.

2.3. TEST STANDARDS AND RESULTS

The EUT has been tested according to ETSI EN 301 489-1 V2.2.3 (2019-11) and ETSI EN 301 489-17 V3.2.4 (2020-09).

ETSI EN 301 489-1	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonised Standard for ElectroMagnetic Compatibility.
ETSI EN 301 489-17	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems; Harmonised Standard for ElectroMagnetic Compatibility

2.4. TEST ITEMS AND THE RESULTS

No.	Basic Standard	Test Type	Result
EMISSION (EN 301 489-1 §7.1)			
1	EN 55032	Radiated emission	PASS
2	EN 55032	Conducted emission, AC ports	N/A
3	EN 55032	Conducted emission, Telecom ports	N/A
4	EN 61000-3-2	Harmonic current emissions	N/A
5	EN 61000-3-3	Voltage fluctuations & flicker	N/A
IMMUNITY (EN 301 489-1 §7.2)			
6	EN 61000-4-2	Electrostatic discharge immunity	PASS
7	EN 61000-4-3	Radiated RF electromagnetic field immunity	PASS
8	EN 61000-4-4	Electrical fast transient/burst immunity	N/A
9	ISO 7637-1, -2	Transients and surges, DC ports	N/A
10	EN 61000-4-5	Surge immunity, AC ports, Telecom ports	N/A
11	EN 61000-4-6	Immunity to conducted disturbances induced by RF fields	N/A
12	EN 61000-4-11	Voltage dips and short interruptions immunity	N/A

Note: 1. N/A- Not Applicable.
2. The latest versions of basic standards are applied.

2.5. ENVIRONMENTAL CONDITIONS

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

- Temperature: 15-35ºC
- Relative humidity: 30-60%
- Atmospheric pressure: 86-106kPa

3. TEST MODE DESCRIPTION

TEST MODE DESCRIPTION		
NO.	**TEST MODE DESCRIPTION**	**WORST**
1	BT mode	V
Note: 1. V means EMI worst mode.		

I/O Port Information (☒Applicable ☐Not Applicable)

I/O Port of EUT			
I/O Port Type	**Number**	**Cable Description**	**Tested With**
Type-C Port(for charging dock)	1	--	--
Charging Port (for headset)	2	--	2

Note: All the above "--" means that EUT has no cable.

4. MEASUREMENT UNCERTAINTY

The uncertainty is calculated using the methods suggested in the “Guide to the Expression of Uncertainty in measurement” (GUM) published by CISPR and ANSI.

- Uncertainty of Conducted Emission, Uc = ±2.9 dB
- Uncertainty of Radiated Emission below 1GHz, Uc = ±3.8 dB
- Uncertainty of Radiated Emission above 1GHz, Uc = ±4.4 dB

5. SUPPORT EQUIPMENT

Device Type	Manufacturer	Model	Mains cable	Signal cable	specifications
Mobile phone	Xiaomi	Mi 10	--	--	--

Note: 1.“-- “means no any support device during testing.
2. All the cables were provided by AGC Lab.

6. IDENTIFICATION OF THE RESPONSIBLE TESTING LOCATION

Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

TEST EQUIPMENT OF RADIATED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Test Receiver	R&S	ESCI	100034	Sep. 06, 2021	Sep. 05, 2022
Wideband Antenna	SCHWARZBECK	VULB9168	VULB9168-494	Jan. 08, 2021	Jan. 07, 2023
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00154520	Sep. 06, 2021	Sep. 05, 2023
Preamplifier Assembly	ETS	3117PA	00225134	Sep. 03, 2020	Sep. 02, 2022
Spectrum Analyzer	Aglient	N9010A	MY53470504	Nov. 17, 2021	Nov. 16, 2022
Test Software	FARA	EZ-EMC(Ver.RA-03A)	N/A	N/A	N/A
Test Software	Tonscend	JS32-RE(Ver.2.5)	N/A	N/A	N/A

TEST EQUIPMENT OF ESD TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
ESD Simulator	Schaffner	NSG 438	782	Jan. 03, 2022	Jan. 02, 2023

TEST EQUIPMENT OF RS IMMUNITY TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Signal Generator	KEYSIGHT	N5182A	N5182A	Mar. 04, 2022	Mar.03, 2023
Power Probe	R&S	URV5-Z4	100124	Apr. 26, 2021	Apr. 25, 2023
Power Meter	R&S	NRVD	8323781027	Apr. 26, 2021	Apr. 25, 2023
Power Amplifier	L2	S2006-0001	BPA00T10W500-1	N/A	N/A
Power Amplifier	Milmega	AS0104-55_55	1004793	N/A	N/A
Power Amplifier	Rflight	NTWPA-2560100	17063183	N/A	N/A
Broadband High Gain Horn Antenna	SCHWARZBECK	BBHA 9120 J	00073	N/A	N/A
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	Apr. 23, 2021	Apr. 22, 2023
Wideband Antenna	SCHWARZBECK	VULB9168	VULB9168-494	Jan. 08, 2021	Jan. 07, 2023

7. RADIATED DISTURBANCE MEASUREMENT

7.1. LIMITS OF RADIATED DISTURBANCES

Limits for radiated disturbance 30M to1 GHz at a measurement distance of 3m

Frequency range (MHz)	Quasi peak limits(dBuV/m), for Class B ITE, at 3m measurement distance
30-230	40
230-1000	47

Limits for radiated disturbance above 1 GHz at a measurement distance of 3m

Frequency range (MHz)	Limits (dBuV/m), Class B ITE	
	Peak	Average
1000-3000	70	50
3000-6000	74	54

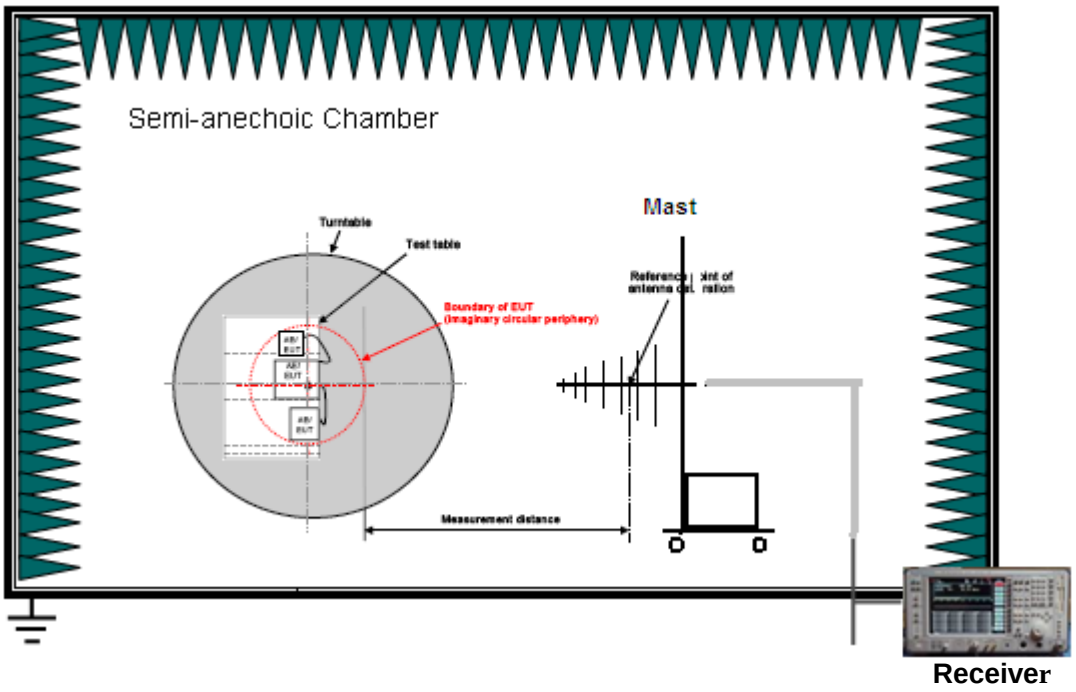
Note: 1. The lower limit shall apply at the transition frequency.
2. Additional provisions may be required for cases where interference occurs.

7.2. TEST PROCEDURE

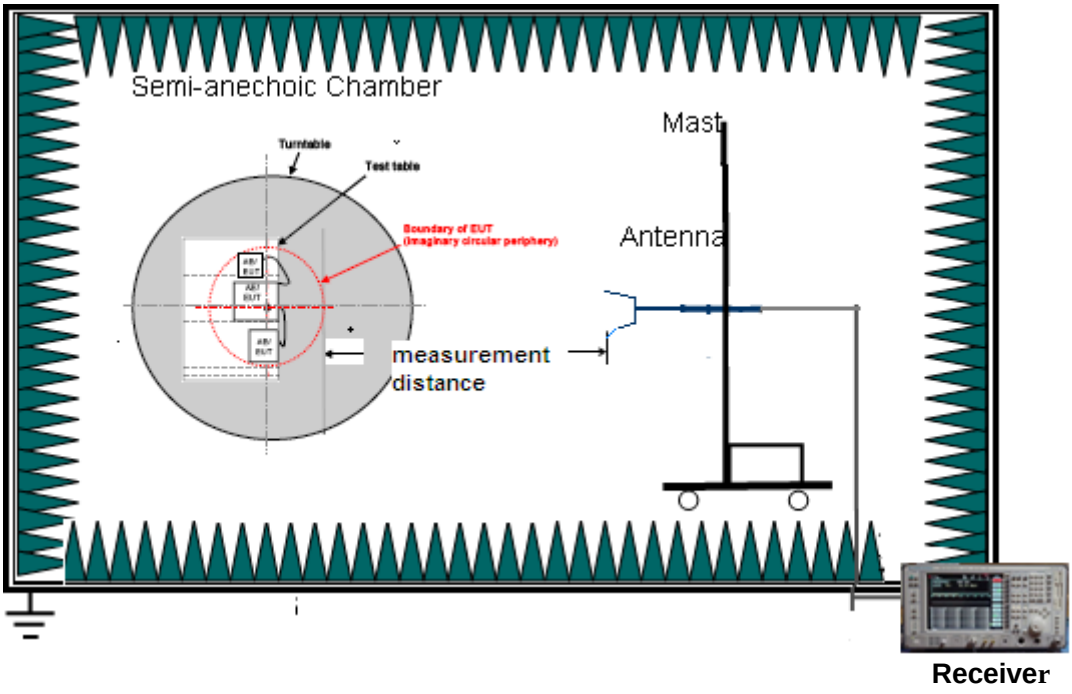
(1). The EUT was placed on the top of an insulating table 0.8 meters above the ground at a semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
(2). The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
(3).The antenna is a broadband antenna, and its height is varied from 1 to 4 meter above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
(4). For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to the heights from 1 to 4 meters and the ratable table was turned from 0 degrees to 360 degrees to find the maximum reading.

7.3. BLOCK DIAGRAM OF TEST SETUP

Radiated Disturbance below 1 GHz



Radiated Disturbance above 1 GHz



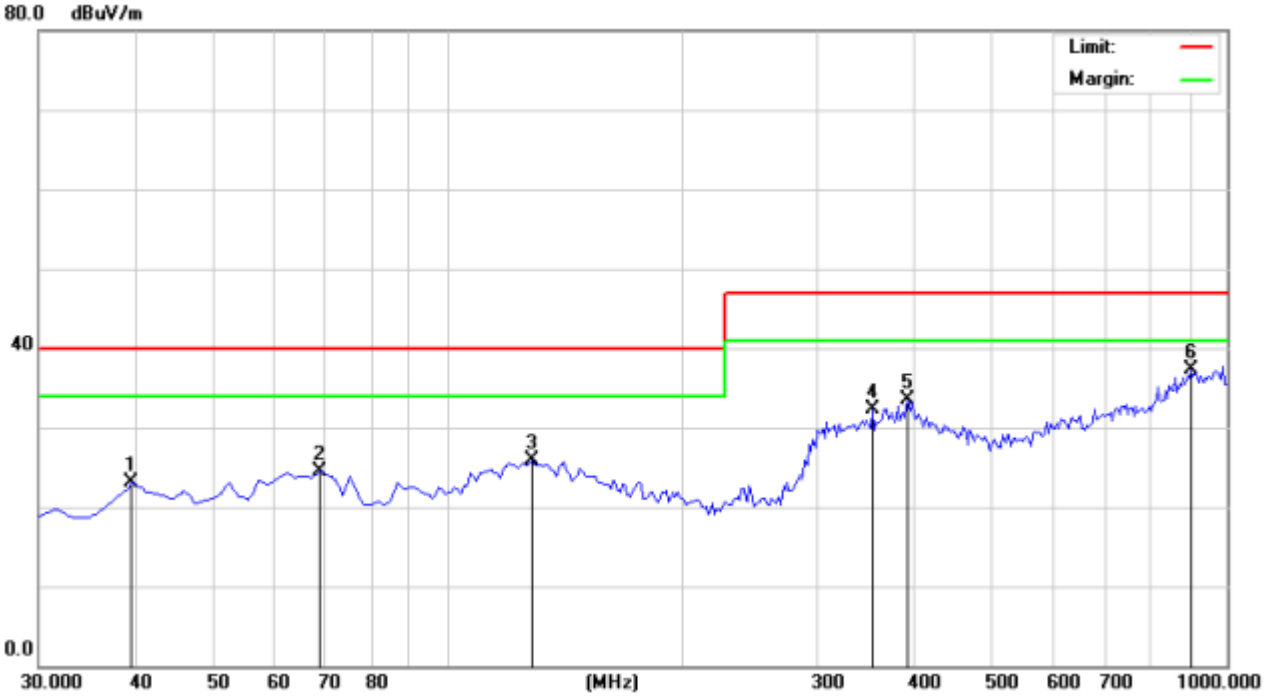
For the actual test configuration, please refer to the related item-Photographs of the Test Configuration.

7.4. TEST RESULT

The test modes were carried out for all modes.

The worst test mode of the EUT was Mode 1, and its test data was showed as the follow:

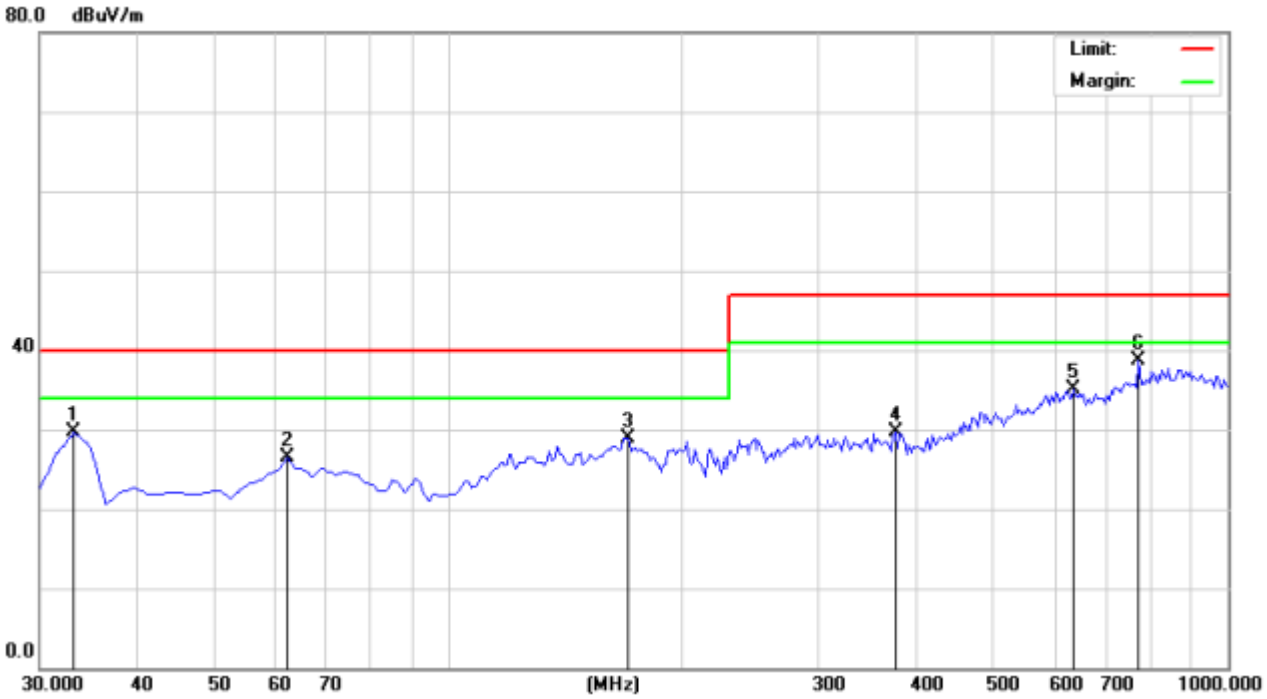
RADIATED EMISSION BELOW 1GHz– HORIZONTAL



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		39.7000	13.13	9.92	23.05	40.00	-16.95	peak
2		68.8000	12.53	12.03	24.56	40.00	-15.44	peak
3		128.6167	13.10	12.83	25.93	40.00	-14.07	peak
4		353.3333	14.75	17.63	32.38	47.00	-14.62	peak
5		390.5167	15.07	18.47	33.54	47.00	-13.46	peak
6	*	904.6167	14.38	22.87	37.25	47.00	-9.75	peak

RESULT: PASS

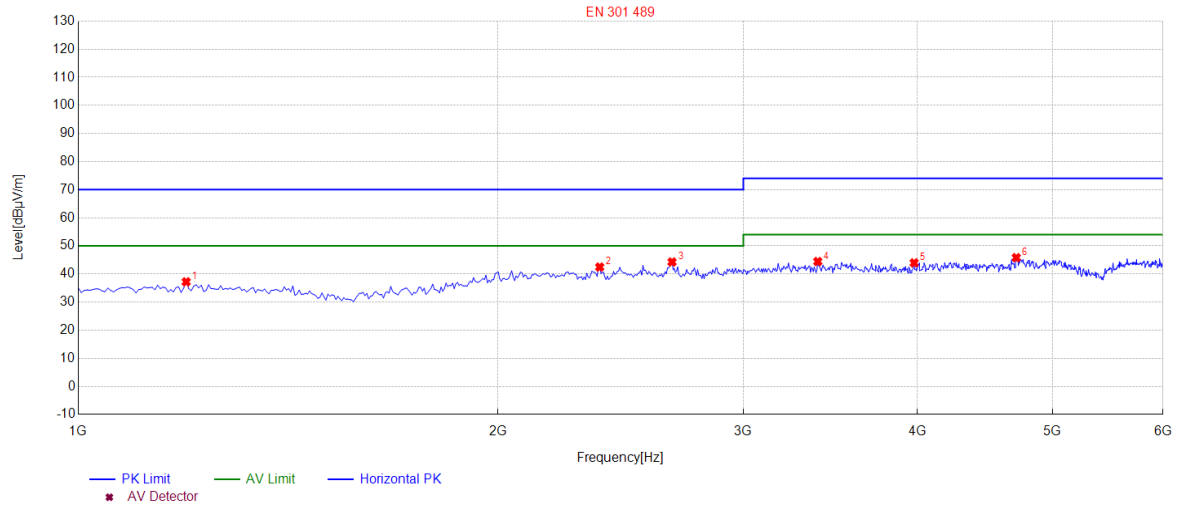
RADIATED EMISSION BELOW 1GHz– VERTICAL



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		33.2333	22.41	7.27	29.68	40.00	-10.32	peak
2		62.3333	14.66	11.93	26.59	40.00	-13.41	peak
3		170.6500	17.22	11.69	28.91	40.00	-11.09	peak
4		375.9667	15.62	14.10	29.72	47.00	-17.28	peak
5		636.2500	15.14	20.02	35.16	47.00	-11.84	peak
6	*	770.4333	16.91	21.74	38.65	47.00	-8.35	peak

RESULT: PASS

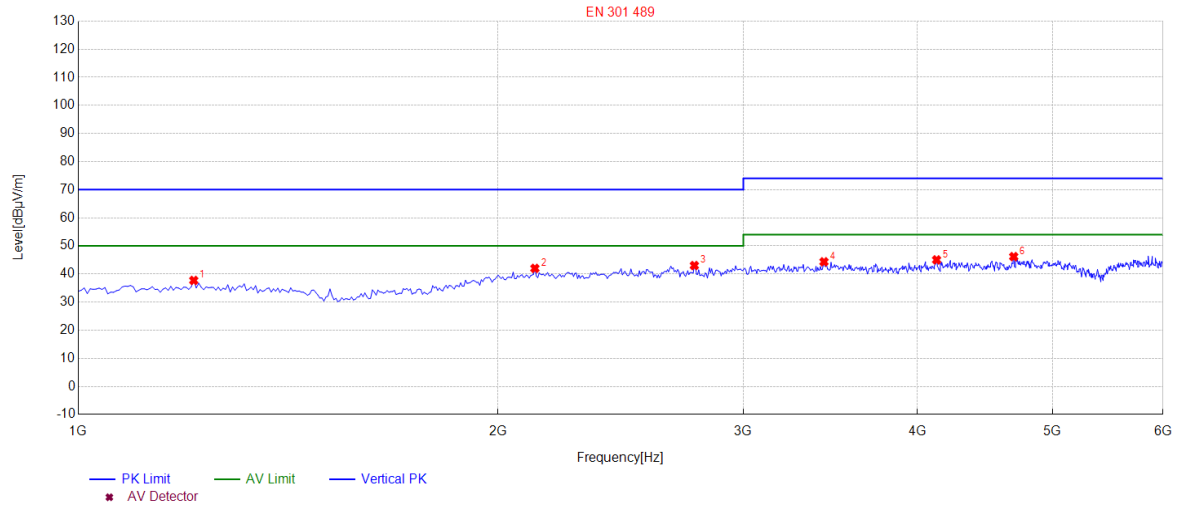
RADIATED EMISSION ABOVE 1GHz – HORIZONTAL



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1195.1952	37.20	-16.83	70.00	32.80	100	120	Horizontal
2	2366.3664	42.45	-10.28	70.00	27.55	100	110	Horizontal
3	2666.6667	44.26	-9.59	70.00	25.74	100	160	Horizontal
4	3392.3924	44.42	-7.97	74.00	29.58	100	80	Horizontal
5	3977.978	43.95	-6.55	74.00	30.05	100	130	Horizontal
6	4708.7087	45.80	-5.00	74.00	28.20	100	310	Horizontal

RESULT: PASS

RADIATED EMISSION ABOVE 1GHz - VERTICAL



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1210.2102	37.71	-16.85	70.00	32.29	100	20	Vertical
2	2126.1261	41.99	-11.29	70.00	28.01	100	140	Vertical
3	2766.7668	43.00	-9.51	70.00	27.00	100	180	Vertical
4	3427.4274	44.33	-7.85	74.00	29.67	100	310	Vertical
5	4128.1281	45.01	-6.17	74.00	28.99	100	100	Vertical
6	4688.6887	46.17	-5.02	74.00	27.83	100	190	Vertical

RESULT: PASS

8. IMMUNITY TEST

8.1. DESCRIPTION OF PERFORMANCE CRITERIA

The performance criteria are used to take a decision on whether a radio equipment passes or fails immunity tests.

For the purpose of the present document two categories of performance criteria apply:

- Performance criteria for continuous phenomena.
- Performance criteria for transient phenomena.

8.2. GENERAL PERFORMANCE CRITERIA

1. Performance criteria for continuous phenomena

During the test, the equipment shall:

- continue to operate as intended;
- not unintentionally transmit;
- not unintentionally change its operating state;
- not unintentionally change critical stored data.

2. Performance criteria for transient phenomena

For all ports and transient phenomena with the exception described below, the following applies:

- The application of the transient phenomena shall not result in a change of the mode of operation (e.g. unintended transmission) or the loss of critical stored data.
- After application of the transient phenomena, the equipment shall operate as intended.

For surges applied to symmetrically operated wired network ports intended to be connected directly to outdoor lines the following criteria applies:

- For products with only one symmetrical port intended for connection to outdoor lines, loss of function is allowed, provided the function is self-recoverable, or can be otherwise restored. Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.
- For products with more than one symmetrical port intended for connection to outdoor lines, loss of function on the port under test is allowed, provided the function is self-recoverable. Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

For a 0 % residual voltage dip tests the following performance criteria apply:

- The performance criteria for transient phenomena shall apply.

For a 70 % residual voltage dip and voltage interruption tests, the following performance criteria apply:

- in the case where the equipment is fitted with or connected to a battery back-up, the performance criteria for transient phenomena shall apply;
- in the case where the equipment is powered solely from the AC mains supply (without the use of a parallel battery back-up) volatile user data may have been lost and if applicable the communication link need not to be maintained and lost functions should be recoverable by user or operator;
- no unintentional responses shall occur at the end of the test, when the voltage is restored to nominal;
- in the event of loss of function(s) or in the event of loss of user stored data, this fact shall be recorded.

3. Performance Table

EN 301 489-17 Performance criteria		
Criteria	**During Test**	**After Test (i.e. as a result of the application of the test)**
A	Shall operate as intended. (see note). Shall be no loss of function. Shall be no unintentional transmissions.	Shall operate as intended. Shall be no degradation of performance. Shall be no loss of function. Shall be no loss of critical stored data.
B	May be loss of function.	Functions shall be self-recoverable. Shall operate as intended after recovering. Shall be no loss of critical stored data.
C	May be loss of function.	Functions shall be recoverable by the operator. Shall operate as intended after recovering. Shall be no loss of critical stored data.
The performance criteria A shall apply for continuous phenomena. The performance criteria B shall apply for transient phenomena, except for voltage dips greater than or equal to 100 ms and voltage interruptions of 5 000 ms duration, for which performance criteria C shall apply. Where the EUT is a transmitter in standby mode or receive mode, unintentional transmission shall not occur during the test.		
Note: Operate as intended during the test allows a level of degradation in accordance with the Minimum performance level.		
Minimum performance level		
For equipment that supports a PER or FER, the minimum performance level shall be a PER or FER less than or equal to 10 %. For equipment that does not support a PER or a FER, the minimum performance level shall be no loss of the wireless transmission function needed for the intended use of the equipment.		

9. ELECTROSTATIC DISCHARGE IMMUNITY TEST

9.1 TEST SPECIFICATION

Basic Standard	EN 61000-4-2
Discharge Impedance	330Ω / 150 pF
Discharge Voltage	Air Discharge ±8kV, Contact Discharge ±4kV
Polarity	Positive / Negative
Number of Discharge	Minimum 25 times at each test point
Discharge Mode	Single discharge
Discharge Period	1-second minimum

9.2 TEST PROCEDURE

The test procedure was in accordance with EN 61000-4-2:

a. Electrostatic discharges were applied only to those points and surfaces of the EUT that are accessible to users during normal operation.

b. The test was performed with at least ten single discharges on the pre-selected points in the most sensitive polarity.

c. The time interval between two successive single discharges was at least 1 second.

d. The ESD generator was held perpendicularly to the surface to which the discharge was applied and the return cable was at least 0.2 meters from the EUT.

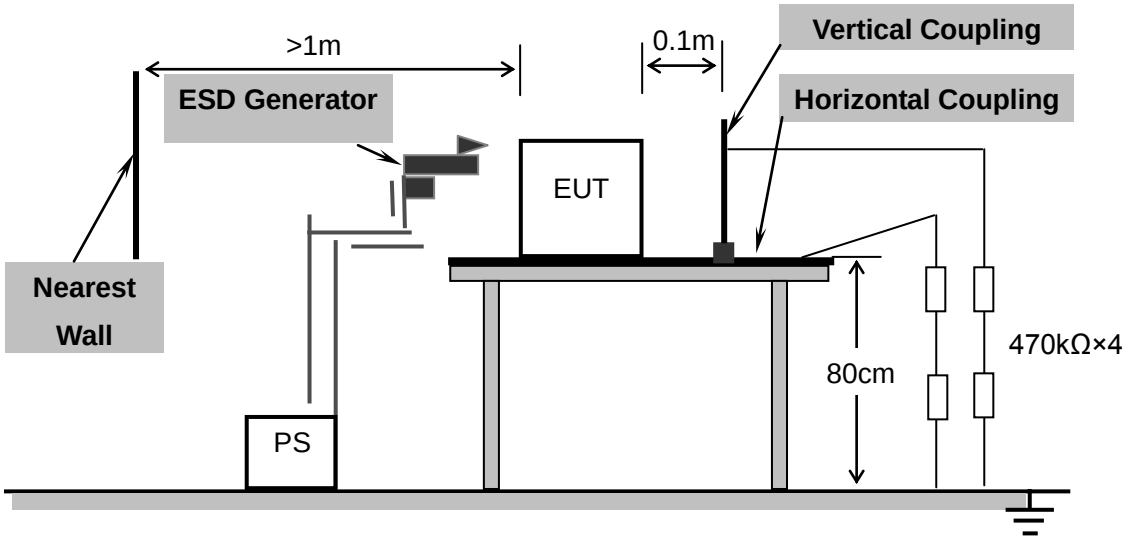
e. Contact discharges were applied to the non-insulating coating, with the pointed tip of the generator penetrating the coating and contacting the conducting substrate.

f. Air discharges were applied with the round discharge tip of the discharge electrode approaching the EUT as fast as possible (without causing mechanical damage) to touch the EUT. After each discharge, the ESD generator was removed from the EUT and re-triggered for a new single discharge. The test was repeated until all discharges were completed.

g. At least ten single discharges (in the most sensitive polarity) were applied to the Horizontal Coupling Plane at points on each side of the EUT. The ESD generator was positioned vertically at a distance of 0.1 meters from the EUT with the discharge electrode touching the HCP.

h. At least ten single discharges (in the most sensitive polarity) were applied to the center of one vertical edge of the Vertical Coupling Plane in sufficiently different positions that the four faces of the EUT were completely illuminated. The VCP (dimensions 0.5m×0.5m) was placed vertically to and 0.1 meters from the EUT.

9.3 TEST SETUP



For the actual test configuration, please refer to Appendix A：Photographs of the Test Configuration.

9.4 TEST RESULT

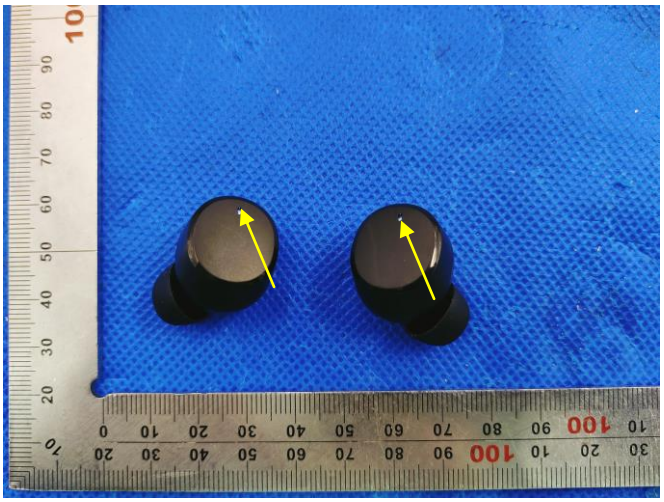
Times of Discharge	Voltage	Coupling	Test Mode	Performance criteria
Mini 25 / Point	±2kV; ±4kV	Contact discharge	Mode 1	A
Mini 25 / Point	±2kV; ±4kV; ±8kV	Air Discharge	Mode 1	A
Mini 25 / Point	±4kV	Indirect Discharge HCP	Mode 1	A
Mini 25 / Point	±4kV	Indirect Discharge VCP	Mode 1	A
A: No degradation in the performance of the EUT was observed.				

Note: operating mode include all modes of EMS in page 8.

ESD LOCATION:

Yellow line: Air discharge

Red line: Contact discharge



9.5 PERFORMANCE

☒**Criteria A:**	The apparatus continues to operate as intended. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance.
☐**Criteria B:**	The apparatus continues to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
☐**Criteria C:**	Temporary loss of function is allowed, provided the functions self recoverable or can be restored by the operation of controls.

☒ ***Compliance*** ☐ ***Not Compliance***

10. RADIATED, RADIO FREQUENCY ELECTROMAGNETIC FIELD IMMUNITY TEST

10.1. TEST SPECIFICATION

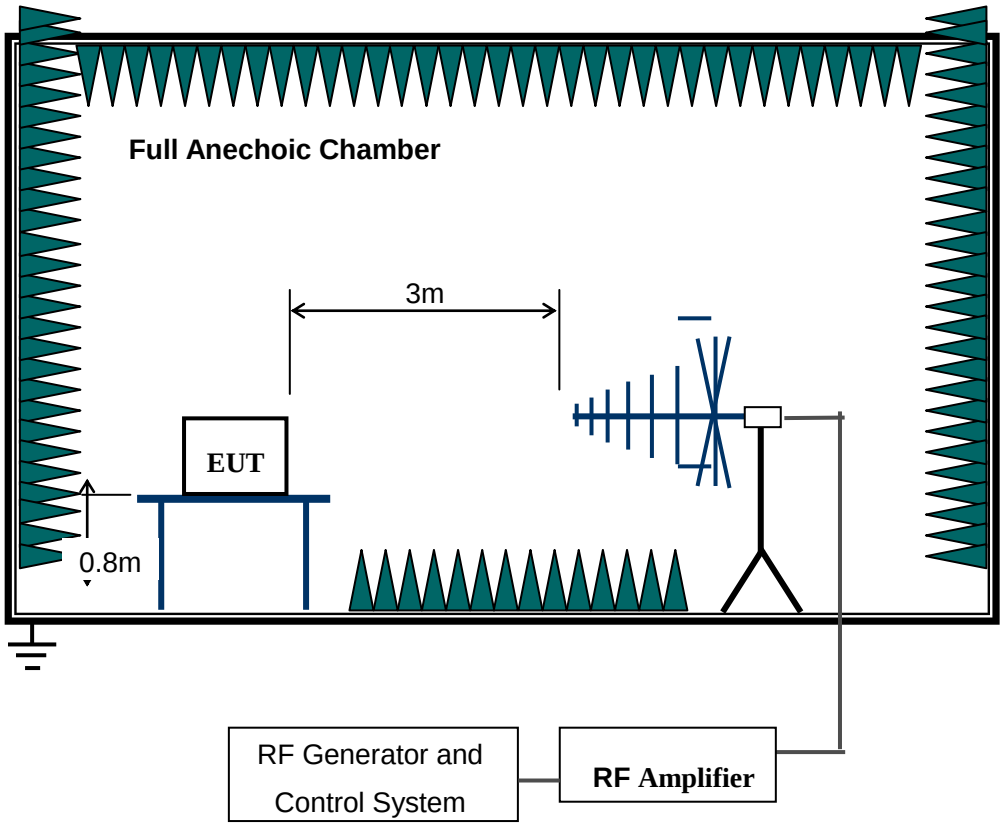
Basic Standard	EN 61000-4-3
Frequency Range	80 MHz – 6000MHzMHz
Field Strength	3V/m
Modulation	1 kHz sine wave, 80%, AM modulation
Frequency Step	1% of fundamental
Polarity of Antenna	Horizontal and Vertical
Test Distance	3m
Antenna Height	1.55m
Dwell Time	3 seconds

10.2. TEST PROCEDURE

The test procedure was in accordance with EN 61000-4-3.

a. The testing was performed in a fully anechoic chamber. The transmit antenna was located at a distance of 3 meters from the EUT.
b. The test signal was 80% amplitude modulated with a 1 kHz sine wave.
c. The frequency range was swept from 80 MHz to 6000MHz with the exception of the exclusion band for transmitters, receivers and duplex transceivers. The rate of sweep did not exceed 1.5×10^{-3} decade/s. Where the frequency range is swept incrementally, the step size was 1% of fundamental.
d. The dwell time at each frequency shall be not less than the time necessary for the EUT to be able to respond.
e. The field strength level was 3V/m.
f. The test was performed with the EUT exposed to both vertically and horizontally polarized fields on each of the four sides.

10.3. TEST SETUP



For the actual test configuration, please refer to Appendix A：Photographs of the Test Configuration.

10.4. TEST RESULT

Freq. Range (MHz)	Field	Modulation	Polarity	Position	Test Mode	Performance criteria
80-6000	3V/m	Yes	H	Front	Mode 1	A
80-6000	3V/m	Yes	H	Back	Mode 1	A
80-6000	3V/m	Yes	H	Left	Mode 1	A
80-6000	3V/m	Yes	H	Right	Mode 1	A
80-6000	3V/m	Yes	V	Front	Mode 1	A
80-6000	3V/m	Yes	V	Back	Mode 1	A
80-6000	3V/m	Yes	V	Left	Mode 1	A
80-6000	3V/m	Yes	V	Right	Mode 1	A
A: No degradation or PER < 10% in the performance of the EUT was observed.						

Note: operating mode include all modes of EMS in page 8.

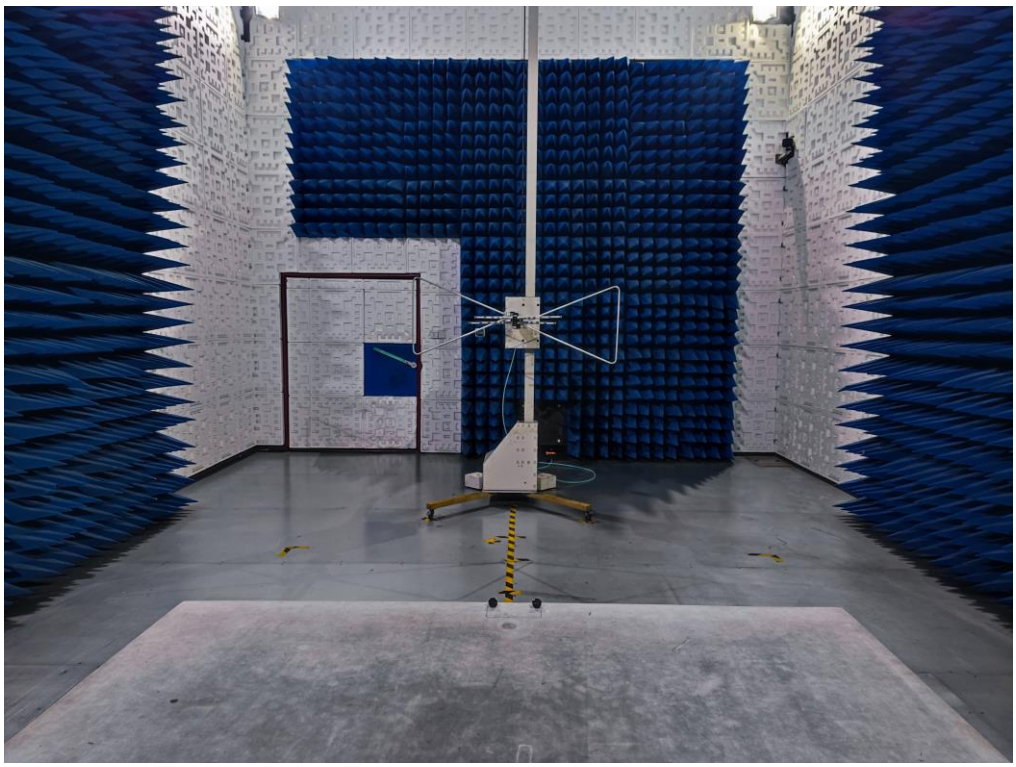
10.5. PERFORMANCE

☒**Criteria A:**	The apparatus continues to operate as intended. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance.
☐**Criteria B:**	The apparatus continues to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
☐**Criteria C:**	Temporary loss of function is allowed, provided the functions self recoverable or can be restored by the operation of controls.

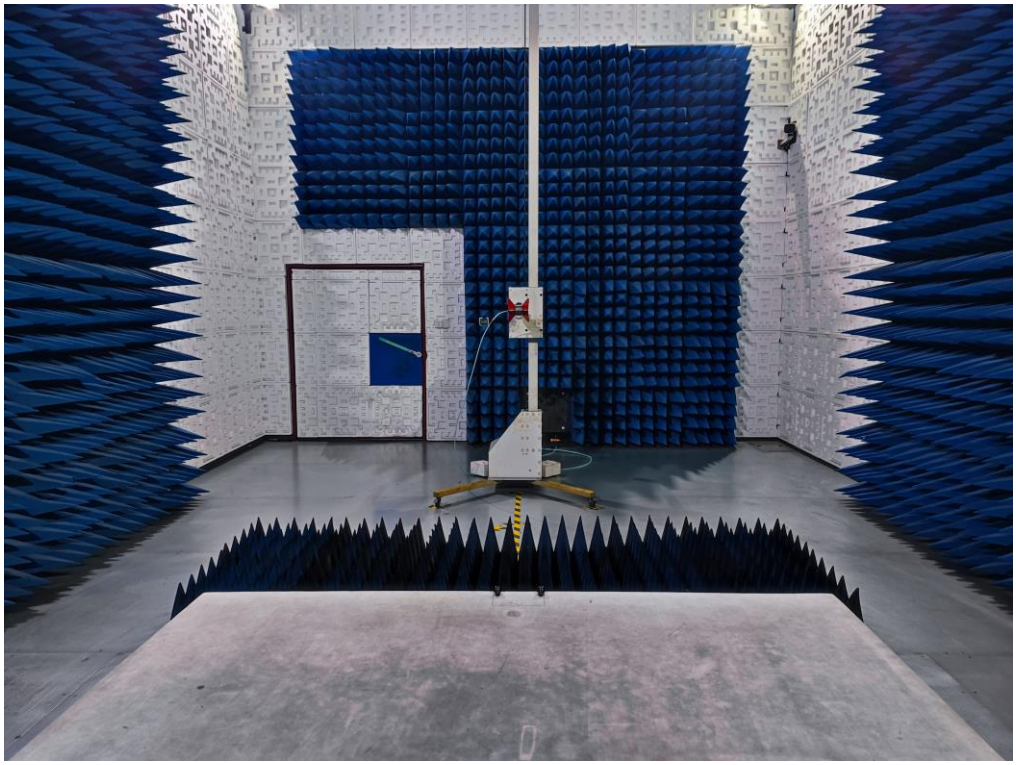
☒ ***Compliance*** ☐ ***Not Compliance***

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

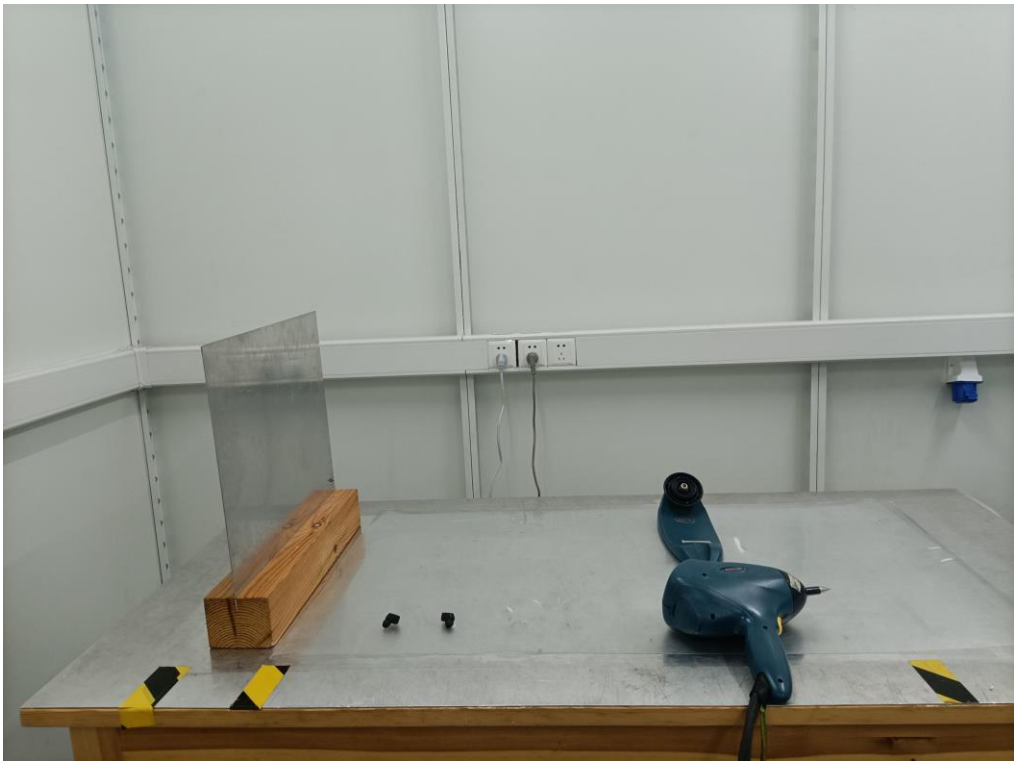
RADIATED EMISSION TEST SETUP BELOW 1GHZ



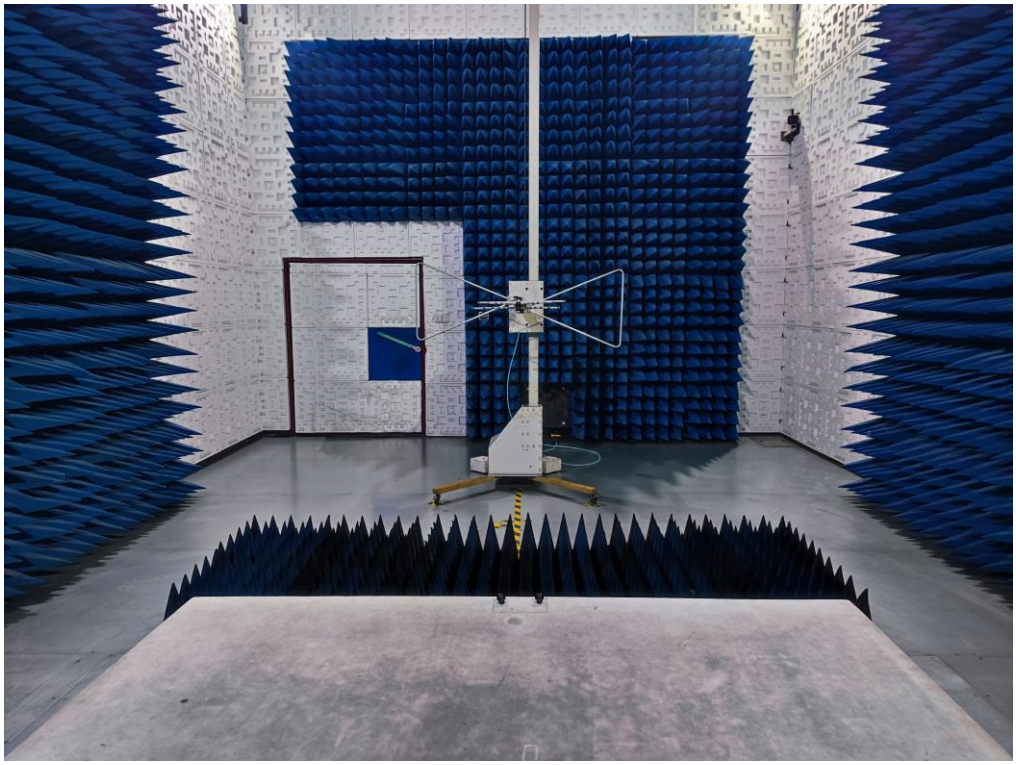
RADIATED EMISSION TEST SETUP ABOVE 1GHZ



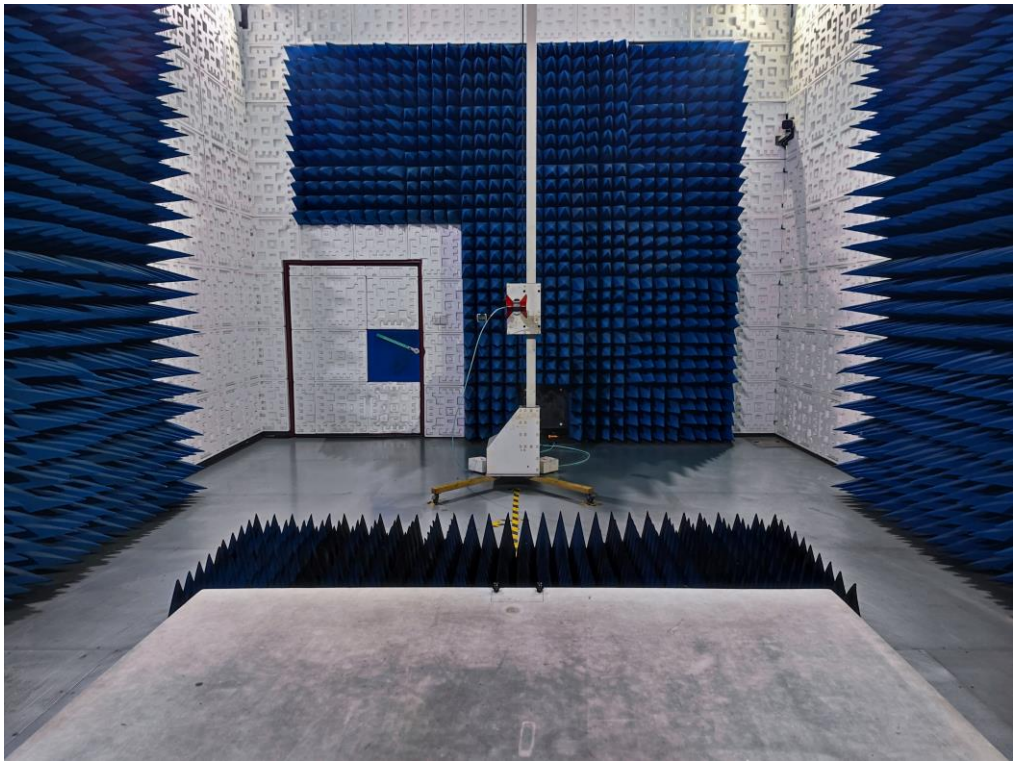
EN 61000-4-2 ESD TEST SETUP



EN 61000-4-3 RS TEST SETUP BELOW 1GHZ



EN 61000-4-3 RS TEST SETUP ABOVE 1GHZ



APPENDIX B: PHOTOGRAPHS OF EUT

Refer to the Report No.: AGC10798220201AP01

----END OF REPORT----

Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.

3.The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.

7.Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.