



EMC TEST REPORT

Applicant	:	Mid Ocean Brands B.V.
Address of Applicant	:	7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Manufacturer	:	Mid Ocean Brands B.V.
Address of Manufacturer	:	7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Equipment under Test	:	Silicone covered earphones
Model No.	:	MO7267
Test Standard(s)	:	EN 55032:2015+A11:2020+A1:2020 EN 55035:2017+A11:2020
Report No.	:	A2503274-C01-R01
Issue Date	:	2025/04/01
Issued By	:	Shenzhen Alpha Product Testing Co., Ltd. Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen City, Guangdong Province, P.R. China.

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Test Report Declare

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Equipment under Test	:	Silicone covered earphones
Model No.	:	MO7267
Trade Mark	:	/

Test Standard Used:

EN 55032:2015+A11:2020+A1:2020

EN 55035:2017+A11:2020

We Declare:

The equipment described above is tested by Shenzhen Alpha Product Testing Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

Report No.:	A2503274-C01-R01		
Date of Receipt:	2025/03/27	Date of Test:	2025/03/27-2025/03/31

Prepared By:

Lily Wang/Engineer

Approved By:

Jack Xu/EMC Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Revision History

Rev.	Revisions	Issue Date	Revised By
V0	Initial issue	2025/04/01	Lily Wang

1. Summary of Test Results

EMISSION (EMI)			
Description of Test Item	Standard	Result	Memo
Radiated Emissions	EN 55032:2015+A11:2020+A1 :2020	PASS	/
IMMUNITY (EMS)			
Description of Test Item	Standard	Result	Memo
Electrostatic Discharge Test	EN 55035:2017+A11:2020, IEC 61000-4-2:2008	PASS	/
Continuous Radio Frequency Disturbances Test	EN 55035:2017+A11:2020, IEC 61000-4-3:2020	PASS	/

Note 1: N/A or / is an abbreviation for Not Applicable, and means this item is not applicable for this device or no need to test according to standard.

Note 2: For the EMI measurements have made the EUT operated in a mode producing the highest emission level, and attempted to vary the configuration of the EUT radiated the highest emission. For the EMS measurements have made the EUT operated in the most sensitive mode.

2. General Test Information

2.1. Description of EUT

EUT* Name	:	Silicone covered earphones
Model Number	:	MO7267
Difference of model number	:	/
EUT Function Description	:	Please reference user manual of this device
Power Supply	:	DC Power From PC
EUT Class (Only For EMI)	:	Class B
Maximum Work Frequency	:	Less than 108MHz
Sample Number	:	A2503274-S0001

Note 1: EUT is the abbreviation of equipment under test.

Note 2: “☐” means to be chosen or applicable; “☐” means don't to be chosen or not applicable; This note applies to entire report.

Note 3: Equipment meeting Class A requirements may not offer adequate protection to broadcast services within a residential environment; The Class B requirements for equipment are intended to offer adequate protection to broadcast services within the residential environment. Equipment compliant with the class A requirements should have a warning notice in the user manual stating that it could cause radio interference. For example, Warning: Operation of this equipment in a residential environment could cause radio interference.

Note 4: The accessories of this product are only power cables, and the length of other signal cables and control cables used during the test is less than 3 meters.

2.2. Primary function of EUT

Function	Description
☐ /	/

2.3. Port of EUT

Port	Description
☐ /	/

2.4. Accessories of EUT

Accessories	Manufacturer	Model number	Description
/	/	/	/

2.5. Test mode description

Mode 1	Working	DC Power From PC
--------	---------	------------------

2.6. Decision of final test mode

According pre-test, the worst test modes were reported as below.

Emission	Radiated Emissions	Mode 1: Working
Immunity	Electrostatic Discharge Test	Mode 1: Working
	Continuous Radio Frequency Disturbances Test	Mode 1: Working

2.7. Deviations of test standard

No deviation.

2.8. Test environment conditions

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

Temperature range:	20-25°C
Humidity range:	40-75%
Pressure range:	86-106 kPa

Note: The specific temperature and humidity information of each test item refers to the temperature and humidity record in the corresponding test data.

2.9. Test laboratory

Shenzhen Alpha Product Testing Co., Ltd.

Add.: Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen City, Guangdong Province, P.R. China.

Tel.: 4008-3008-95, Website: <http://www.a-lab.cn>, Email: service@a-lab.cn

2.10. Measurement uncertainty

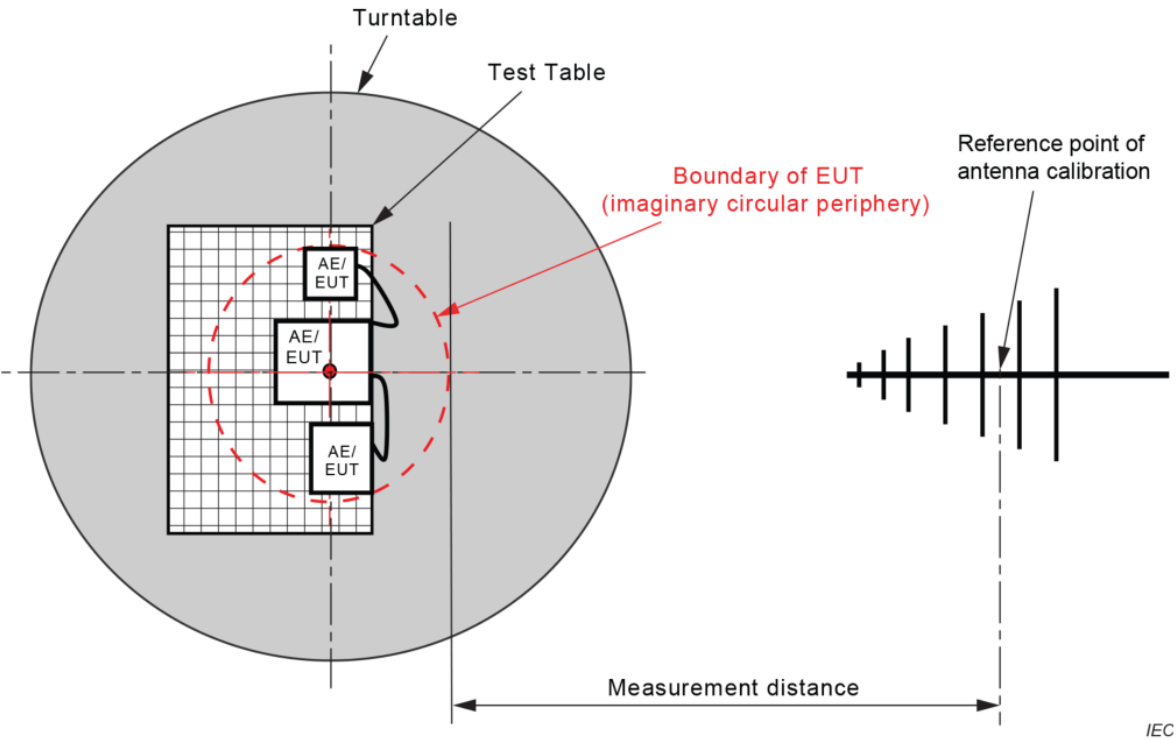
Test Item	Uncertainty
Uncertainty in conducted measurements	1.63dB
Uncertainty for radiation emission test(30 MHz-1 GHz)	3.74 dB (Distance: 3m Polarize: V)
	3.76 dB (Distance: 3m Polarize: H)
Uncertainty for radiation disturbance test (1 GHz to 18 GHz)	3.77 dB (Distance: 3m Polarize: V)
	3.80 dB (Distance: 3m Polarize: H)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3. Radiated Emissions

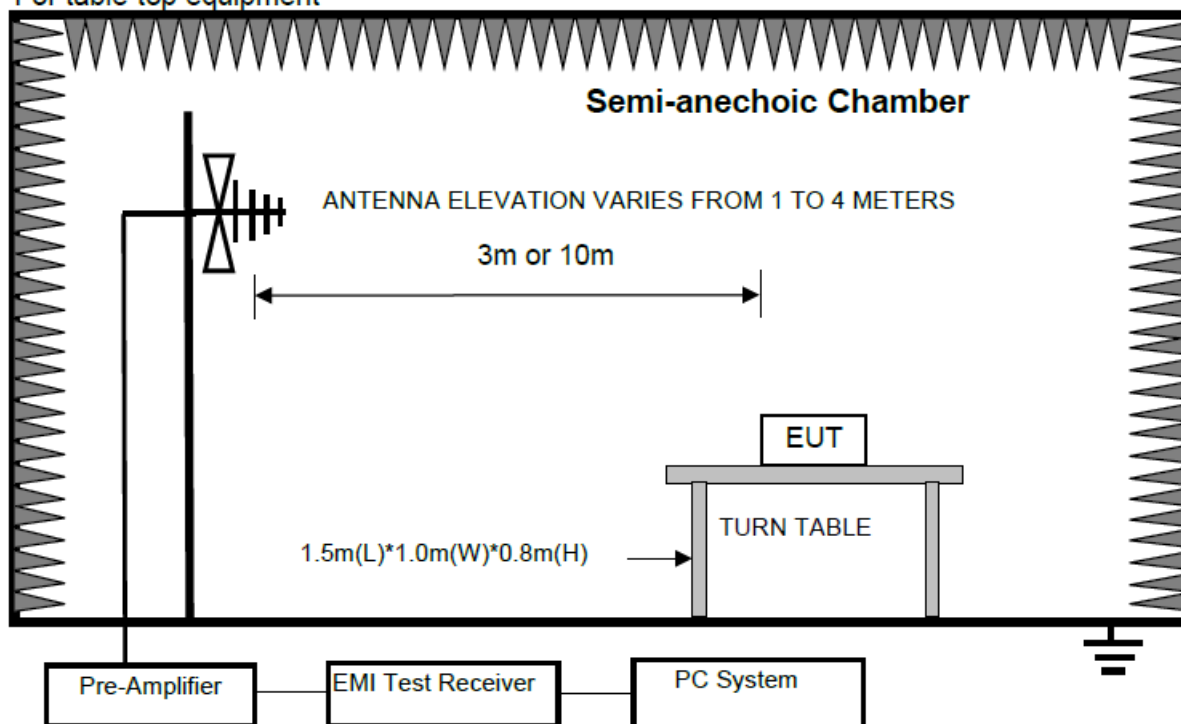
3.1. Test equipment

Equipment	Manufacturer	Model No.	Equipment No.	Cal Due To
Test Receiver	ROHDE&SCHW ARZ	ESR	Aa-EE048	2025/08/07
Bilog Antenna	SCHWARZBEC K	VULB 9168	Aa-EE001	2025/08/27

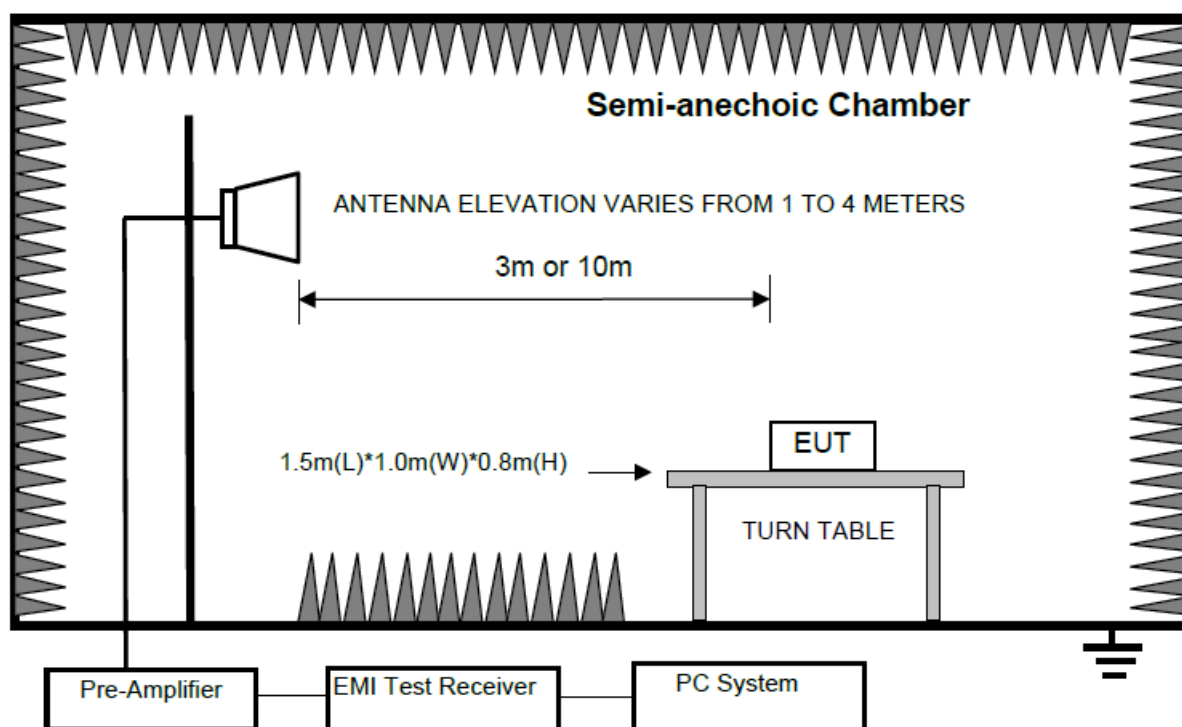
3.2. Block diagram of test setup



Below 1 GHz
For table-top equipment



Above 1 GHz
For table-top equipment



3.3. Limits

Class A			
Equipment	Frequency	Field Strengths Limits at 10m measuring distance dB(μV)/m	Field Strengths Limits at 3m measuring distance dB(μV)/m
Class A Equipment	30 MHz to 230 MHz	40	50
	230 MHz to 1 GHz	47	57
	1 GHz to 3 GHz	/	Average:56; Peak:76
	3 GHz to 6 GHz	/	Average:60; Peak:80
Class B			
Equipment	Frequency	Field Strengths Limits at 10m measuring distance dB(μV)/m	Field Strengths Limits at 3m measuring distance dB(μV)/m
Class B Equipment	30 MHz to 230 MHz	30	40
	230 MHz to 1 GHz	37	47
	1 GHz to 3 GHz	/	Average:50; Peak:70
	3 GHz to 6 GHz	/	Average:54; Peak:74
FM receivers*	30 MHz to 1 GHz	Fundamental 50	Fundamental 60
	30 MHz to 300 MHz	Harmonics 42	Harmonics 52
	300 MHz to 1 GHz	Harmonics 46	Harmonics 56
*: These relaxed limits apply only to emission at the fundamental and harmonic frequencies of the local oscillator signals at all other frequencies shall be compliant with the limits of class B equipment given above. Note: (1) The smaller limit shall apply at the cross point between two frequency bands. (2) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.			

3.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description
Portable laptop	Lenovo	ThinkPad E14	/

3.5. Test procedure

(1) The EUT was placed on a non-metallic table (Refer to the 'Block diagram of test setup'). above the ground plane inside an anechoic chamber.

(2) Test antenna center was located 3m or 10m from the EUT and assistant equipment boundary (imaginary circular periphery) on an adjustable mast. A pre-scan was first performed in order to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to EN 55032 on radiated emission test.

(3) Spectrum frequency from 30 MHz to □1 GHz/□6 GHz was investigated.

(4) For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to EN 55032 on Radiated Emission test.

(5) For emissions from 30 MHz to 1 GHz, Quasi-Peak values were measured with EMI Receiver and the bandwidth of Receiver is 120 kHz.

(6) For emissions above 1 GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1 MHz VBW is set at 3 MHz.

3.6. Test result

PASS. (See below detailed test result)

Note 1: All emissions not reported below are too low against the prescribed limits.

Note 2: "----" means Peak detection; "----" means Average detection.

3.7. Test data



深圳阿尔法商品检验有限公司

SHENZHEN ALPHA PRODUCT TESTING CO.,LTD.

深圳阿尔法商品检验有限公司

Shenzhen Alpha Product Testing Co.,Ltd.

地址: ALPHA 广东省深圳市宝安区福永街道立新路 2 号 i 栋

TEL: 4008-3008-95

Site	LAB 966 Chamber 1	Polarization:	Vertical	Temperature:	22.7
Limit:	EN 55032 Class B Radiation	Power:	Power From PC	Humidity:	50 %
EUT/Task No	: A2503274-C01	Distance:	3m		
M/N/Sample No:	A2503274-S0001				
Mode	: Mode 1				
Note:					
Engineer Signature:					

Lily Wang

Radiated Emission Measurement



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Antenna	Table	
		MHz	dBuV	Factor	ment	dBuV/m	dB	Height	Degree	
				dB	dBuV/m			cm	degree	Comment
1		30.2535	18.49	13.54	32.03	40.00	-7.97	QP		
2		41.6205	17.33	14.35	31.68	40.00	-8.32	peak		
3	*	57.2048	22.32	13.41	35.73	40.00	-4.27	QP		
4		111.2948	18.23	11.98	30.21	40.00	-9.79	peak		
5		168.0205	18.43	14.27	32.70	40.00	-7.30	QP		
6		215.9987	15.86	11.47	27.33	40.00	-12.67	peak		

Note: 1. *:Maximum data; x:Over limit; !:over margin.
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



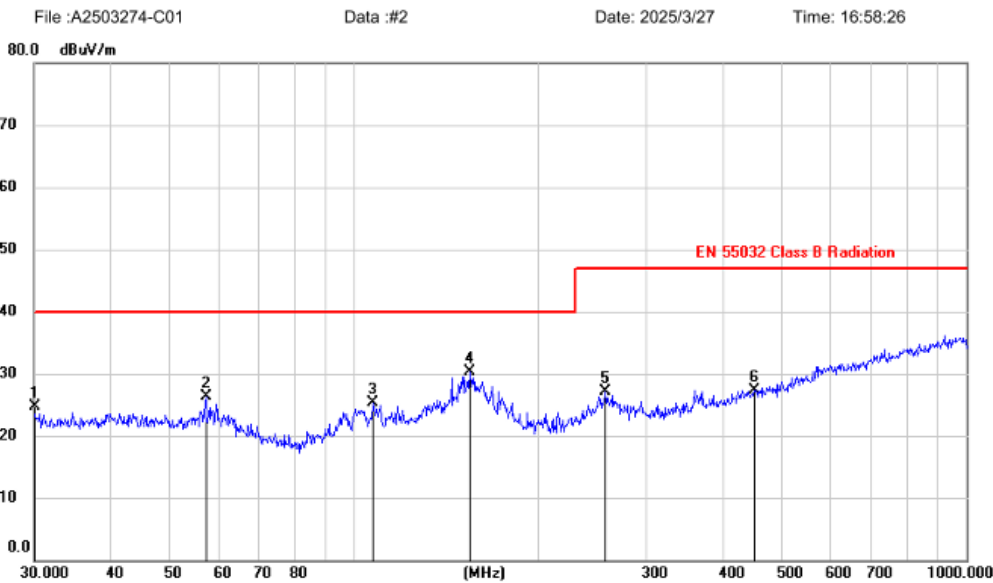
深圳阿尔法商品检验有限公司 深圳阿尔法商品检验有限公司
SHENZHEN ALPHA PRODUCT TESTING CO.,LTD. Shenzhen Alpha Product Testing Co.,Ltd.

地址: ALPHA 广东省深圳市宝安区福永街道立新路 2 号 i 栋
TEL: 4008-3008-95

Site LAB 966 Chamber 1	Polarization: Horizontal	Temperature: 22.7
Limit: EN 55032 Class B Radiation	Power: Power From PC	Humidity: 50 %
EUT/Task No : A2503274-C01	Distance: 3m	
M/N/Sample No: A2503274-S0001		
Mode : Mode 1		
Note:		
Engineer Signature:		

Lily Wang

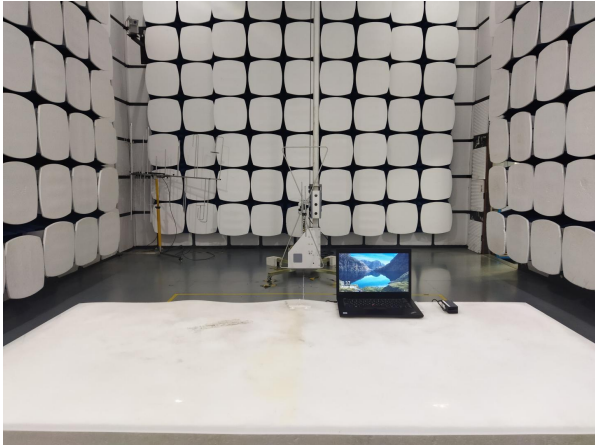
Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		30.0843	11.15	13.53	24.68	40.00	-15.32	peak		
2		57.2249	12.96	13.41	26.37	40.00	-13.63	peak		
3		107.3594	13.71	11.57	25.28	40.00	-14.72	peak		
4	*	154.6216	15.17	15.05	30.22	40.00	-9.78	peak		
5		257.5726	14.10	12.92	27.02	47.00	-19.98	peak		
6		451.1350	9.80	17.58	27.38	47.00	-19.62	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

3.8. Test photo

	/
RE 30Mhz-1GHz	/

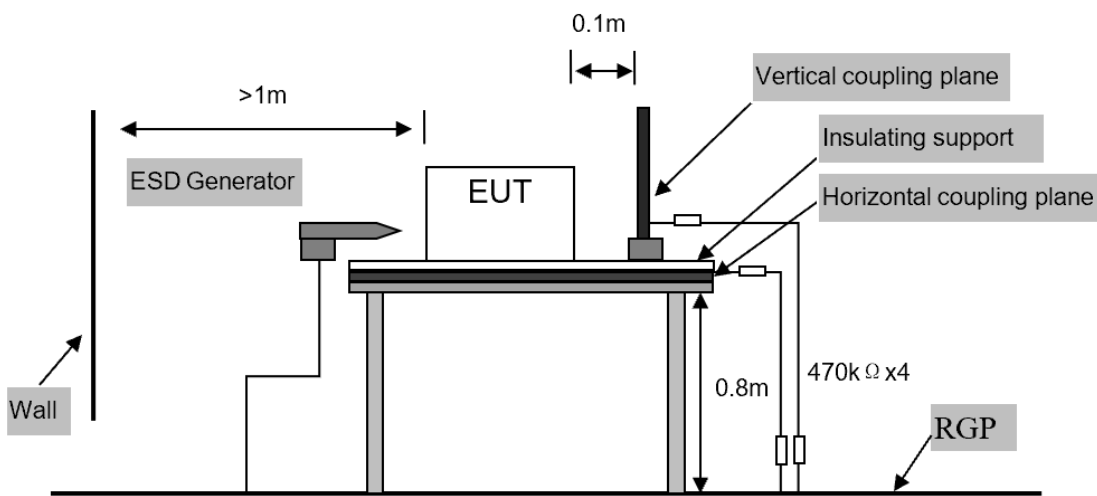
4. Electrostatic Discharge Test

4.1. Test equipment

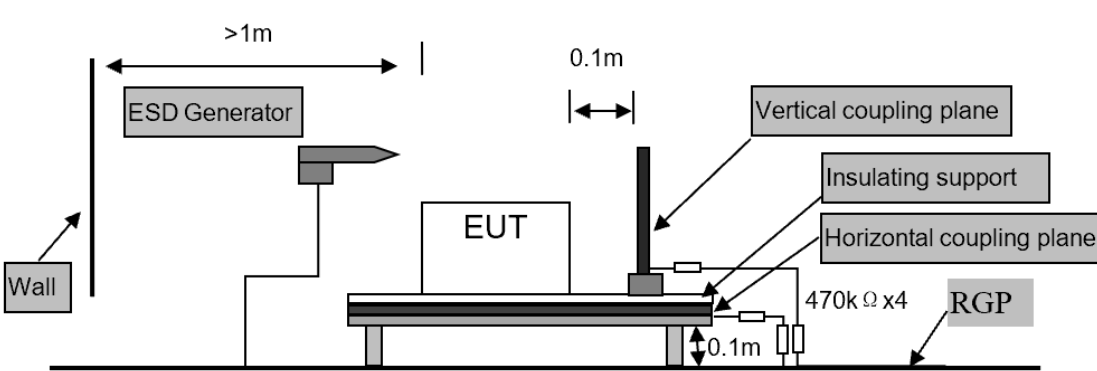
Equipment	Manufacturer	Model No.	Equipment No.	Cal. Due to
ESD Tester	HAEFELY	PESD1610	Aa-EE009	2025/08/12
ESD Tester	3ctest	EDS 30V	Aa-EE113	2026/03/06

4.2. Block diagram of test setup

Table-top equipment



Floor-standing equipment



4.3. Test levels and performance criterion

Test Level		Performance Criteria
Air Discharge	±2kV, ±4kV and ±8kV	B
Contact Discharge	±4kV	
Performance criteria B description: During the test, degradation of performance is allowed. However, no change of operating state or stored data is allowed to persist after the test. After the test, the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacturer, when the EUT is used as intended.		

4.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description
Portable laptop	Lenovo	ThinkPad L14 Gen 1	/

4.5. Test procedure

Air Discharge:

The test was applied on non-conductive surfaces of EUT. The round discharge tip of the discharge electrode was approached as fast as possible to touch the EUT. After each discharge, the discharge electrode was removed from the EUT. The generator was re-triggered for a new single discharge and repeated 20 times for each pre-selected test point. This procedure was repeated until all the air discharge completed.

Contact Discharge:

All the procedure was same as air discharge. Except that the generator was re-triggered for a new single discharge. The tip of the discharge electrode was touching the EUT before the discharge switch was operated.

Indirect discharge for horizontal coupling plane:

At least 20 single discharges were applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

Indirect discharge for vertical coupling plane:

At least 20 single discharges were applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, was placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges were applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

4.6. Test result

Test Site: ESD Laboratory	Test Date: 2025/03/31--2025/03/31
Condition: 24°C,55%,101.3kPa	Test Engineer: Lily Wang
Memo: /	

EUT Name: Silicone covered earphones	EUT Model: MO7267
Sample No.: A2503274-S0001	Test Mode: Working
Power supply: DC Power From PC	Memo:/

Measure parameters: 20 times at each point for contact discharge; 20 times at each point for air discharge. 1 second interval for each discharge.

Type of discharge	Test level	Test point	Required	Observation	Result
Contact to EUT	±4kV	/	/	/	/
Contact to coupling planes	±4kV	Coupling planes	B	A	Pass
Air	±2 kV /±4 kV /±8kV	⊙	B	A	Pass

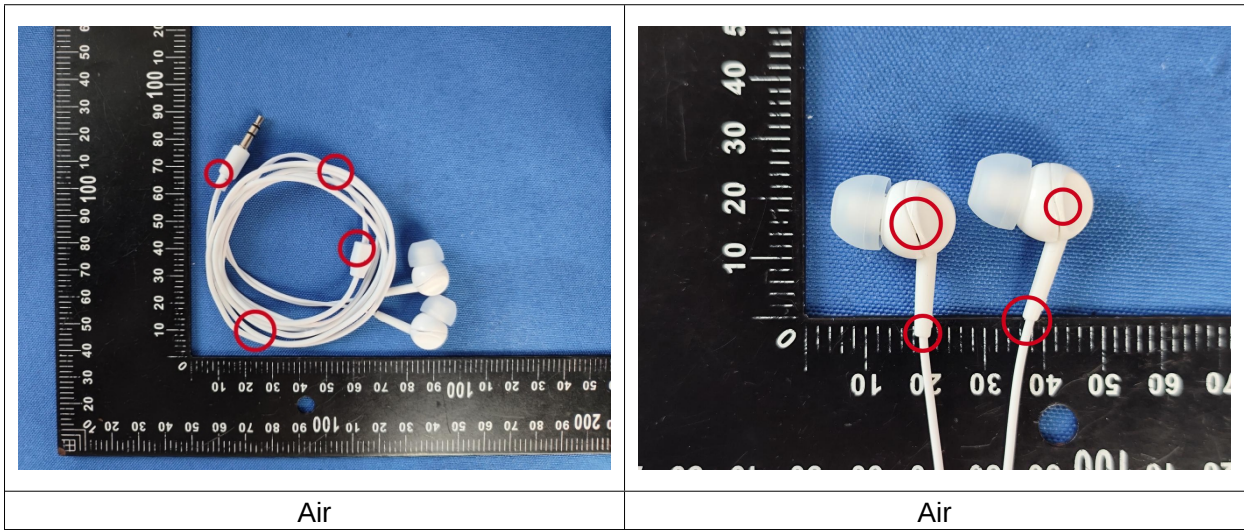
Observation description:

A: Normal performance within limits specified by the manufacturer requestor or purchaser.

B: Temporary loss of function or degradation of performance which ceases after the disturbance ceases, and from which the equipment under test recovers its normal performance, without operator intervention.

Note: "▲"---contact discharge, "⊙"---air discharge.

4.7. ESD test points



4.8. Test photo

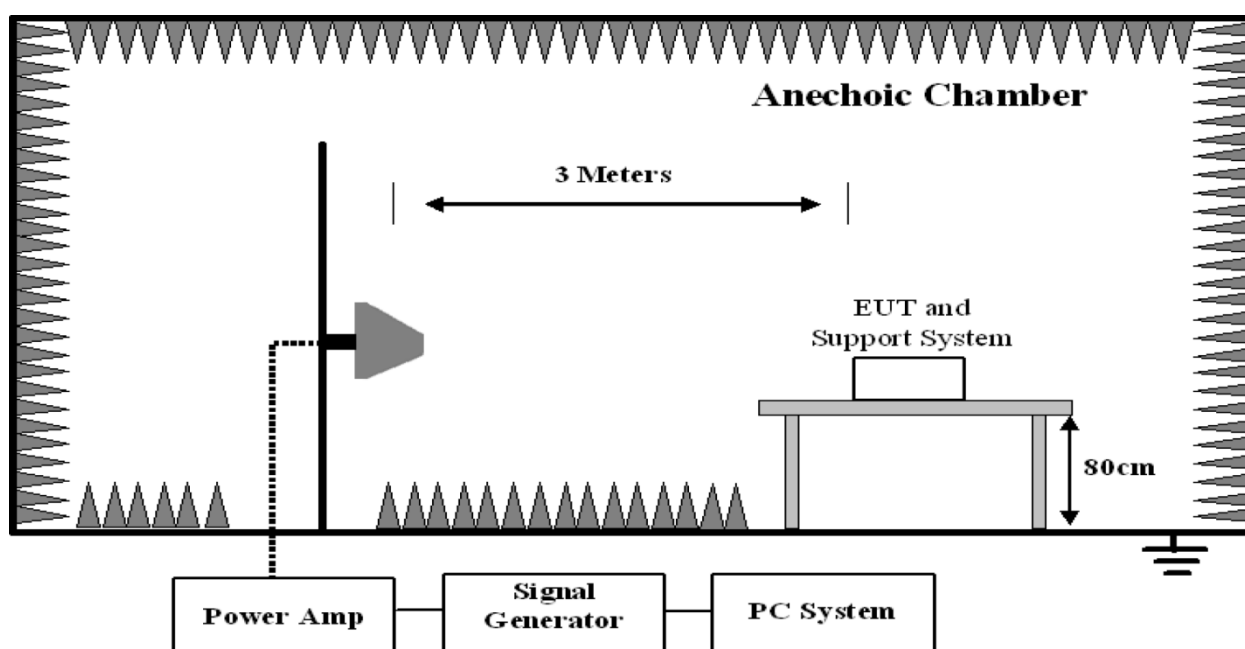
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ESD Test	/

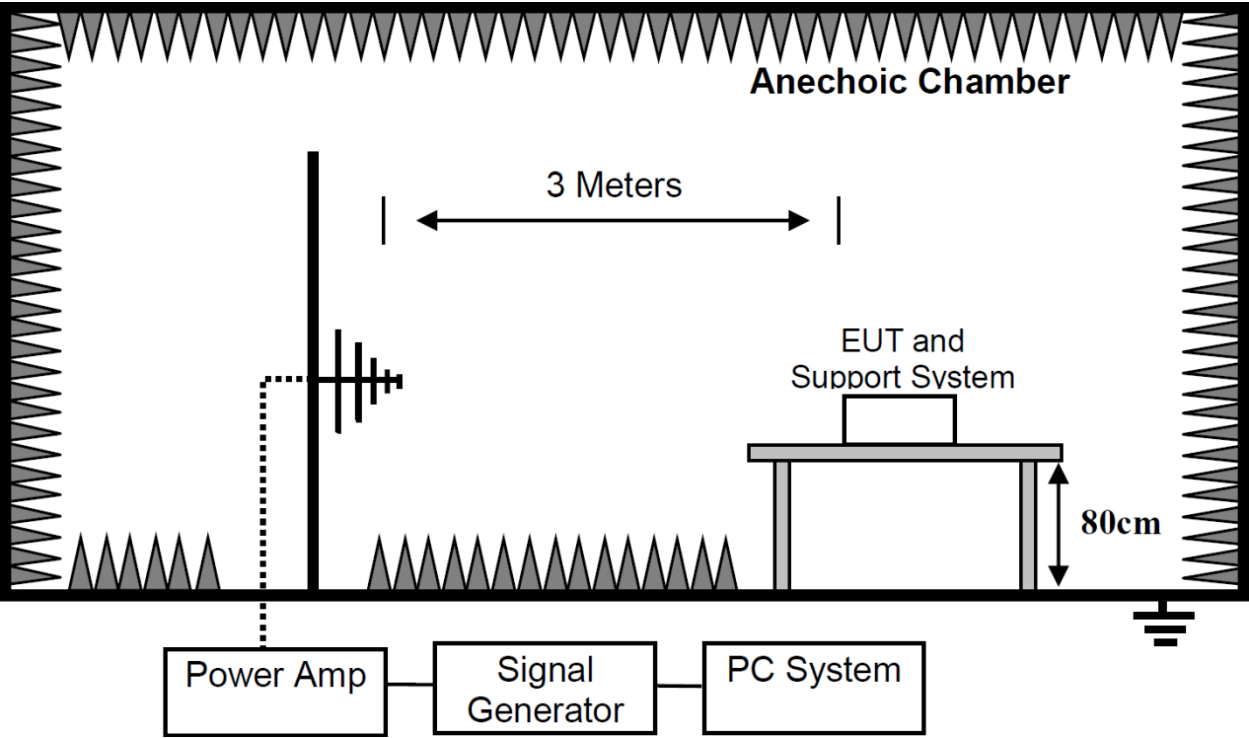
5. Continuous Radio Frequency Disturbances Test

5.1. Test equipment

Equipment	Manufacturer	Model No.	Equipment No.	Cal. Due to
Vector Signal Generator	Agilent	E4438C	Aa-EE041	2025/08/07
Amplifier	Agilent	8449B	Aa-EE044	2025/08/07
Vector Signal Generator	Agilent	E4438C	Aa-EE041	2025/08/07
Power meter	Agilent	E4419B	Aa-EE045	2025/08/07
Power Sensor	Agilent	E9300A	Aa-EE046	2025/08/07
Power Sensor	Agilent	E9304A	Aa-EE047	2025/08/07
RF power Amplifier	OPHIR	5225R	Aa-EE065	2025/08/07
RF power Amplifier	OPHIR	5273R	Aa-EE066	2025/08/07
Isotropic Electric Field Probe	narda	EP-601	Aa-EE067	2025/08/10
Antenna	SCHWARZBEC K	STLP9128E- special	Aa-EE068	/

5.2. Block diagram of test setup





5.3. Test levels and performance criterion

Swept frequency test		Performance Criteria
Frequency (MHz)	80 to 1000	A
Field Strength	3V/m rms voltage level of the unmodulated signal	
Modulation	AM modulated to a depth of 80% by a sine wave of □1 kHz, □400 Hz (note 1)	
Step Size	1% increments	
Dwell time	≤5 Sec.	
Spot frequency test		Performance Criteria
Frequency (MHz)	1800, 2600, 3500, 5000	A
Field Strength	3V/m rms voltage level of the unmodulated signal	
Modulation	AM modulated to a depth of 80% by a sine wave of □1 kHz, □400 Hz (note 1)	
Dwell time	≤5 Sec.	
Performance criteria A description for other devices: During and after the test the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a minimum performance level specified by the manufacturer when the EUT is used as intended.		

5.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description
Portable laptop	Lenovo	ThinkPad L14 Gan 1	/

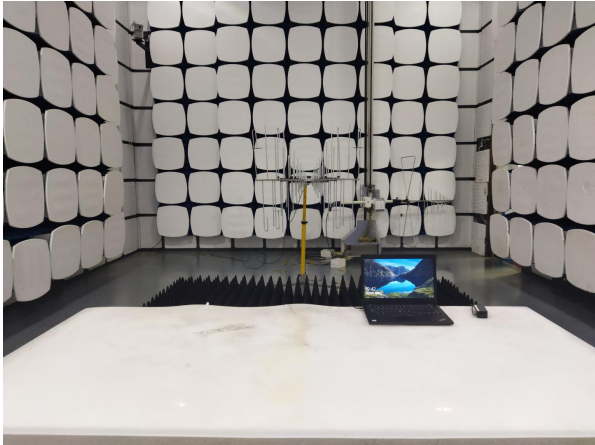
5.5. Test procedure

The field sensor is placed on the EUT table (Ground clearance height reference "block diagram of test setup") which is 3 meters away from the transmitting antenna. Through the signal generator, power amplifier and transmitting antenna to produce a uniformity field strength around the EUT table from frequency range specified and records the signal generator 's output level at the same time for whole measured frequency range. Then, put EUT and its simulators on the EUT turn table and keep them 3 meters away from the transmitting antenna which is mounted on an antenna tower and fixes at 1 meter height above the ground. Using the recorded signal generator's output level to measure the EUT from frequency range specified and both horizontal & vertical polarization of antenna must be set and measured. Each of the four sides of EUT must be faced this transmitting antenna and measures individually.

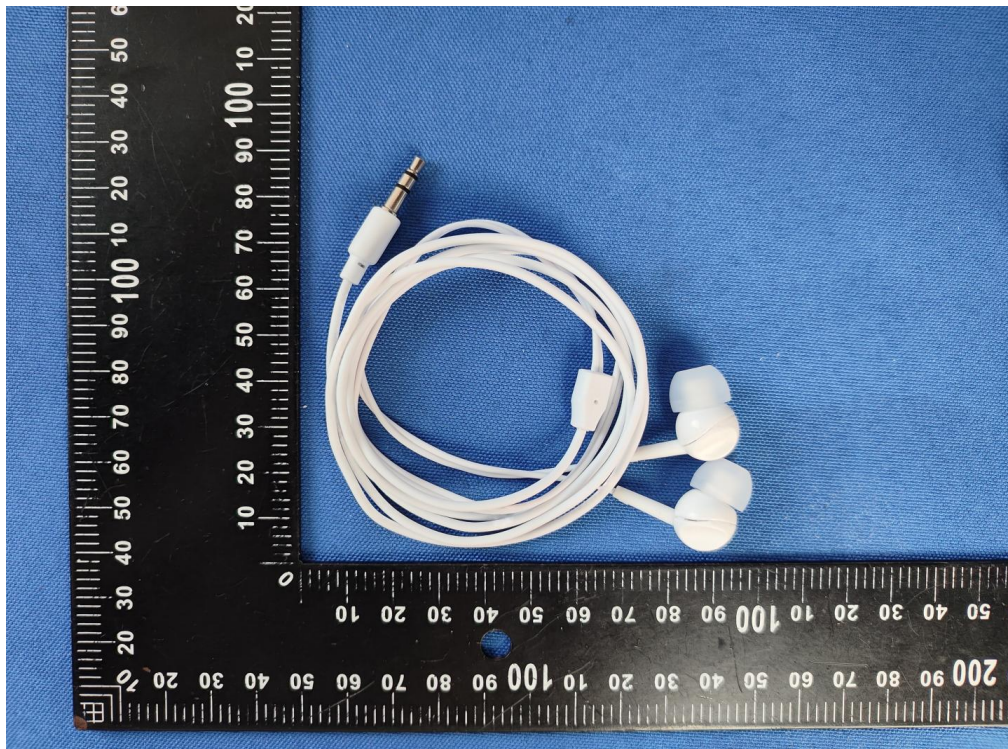
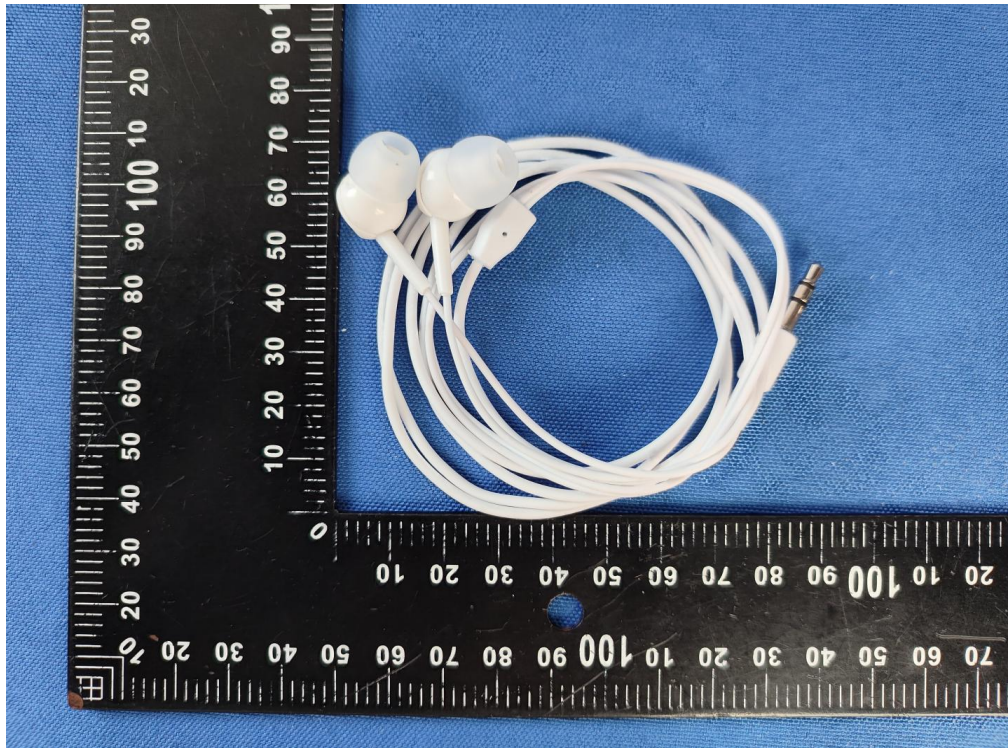
5.6. Test result

Test Site: Chamber 1#(RE/RS)				Test Date: 2025/03/31--2025/03/31		
Condition: 24.1°C,55.3%,101.3kPa				Test Engineer: Lily Wang		
Memo: /						
EUT Name: Silicone covered earphones				EUT Model: MO7267		
Sample No.: A2503274-S0001				Test Mode: Working		
Power supply: DC Power From PC				Memo:/		
Swept test: 80MHz to 1000MHz, Steps: 1%, Dwell time 1s, 1kHz 80% AM modulation Spot test: 1800MHz, 2600MHz, 3500MHz, 5000MHz, Dwell time 1s, 1kHz 80% AM modulation						
Test frequency	Level	EUT position	Antenna polarization	Required	Observation	Result
80MHz to 1000MHz	3V/m	Front	H	A	A	Pass
			V	A	A	Pass
		Left	H	A	A	Pass
			V	A	A	Pass
		Rear	H	A	A	Pass
			V	A	A	Pass
		Right	H	A	A	Pass
			V	A	A	Pass
1800MHz 2600MHz 3500MHz 5000MHz	3V/m	Front	H	A	A	Pass
			V	A	A	Pass
		Left	H	A	A	Pass
			V	A	A	Pass
		Rear	H	A	A	Pass
			V	A	A	Pass
		Right	H	A	A	Pass
			V	A	A	Pass
Observation description: A: Normal performance within limits specified by the manufacturer requestor or purchaser.						

5.7. Test photo

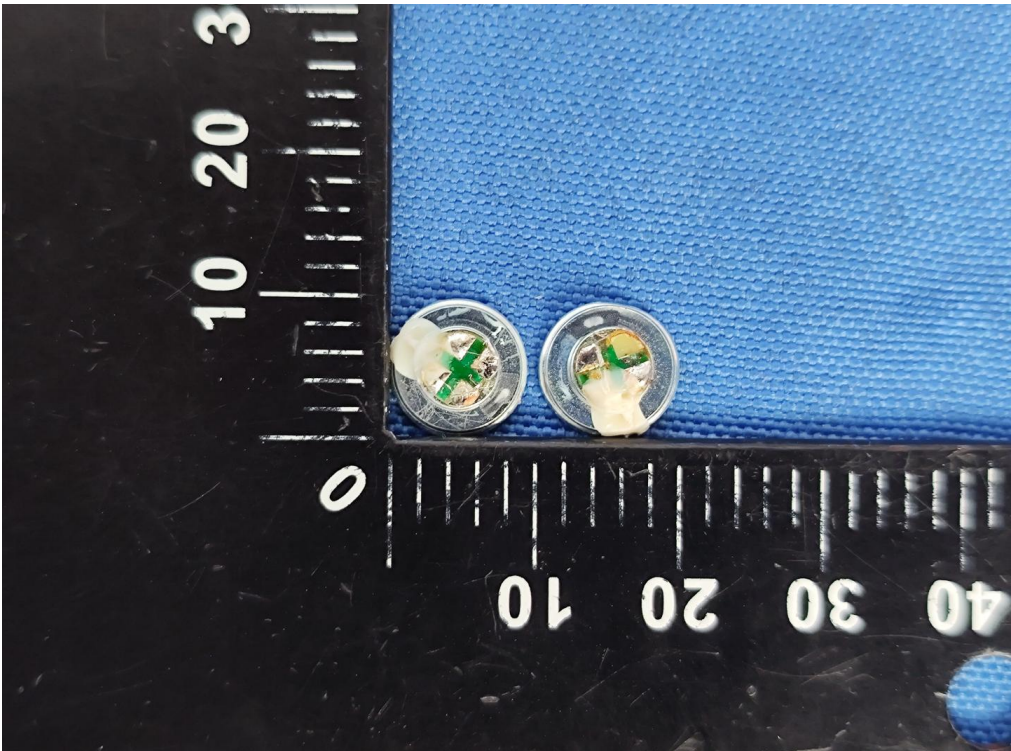
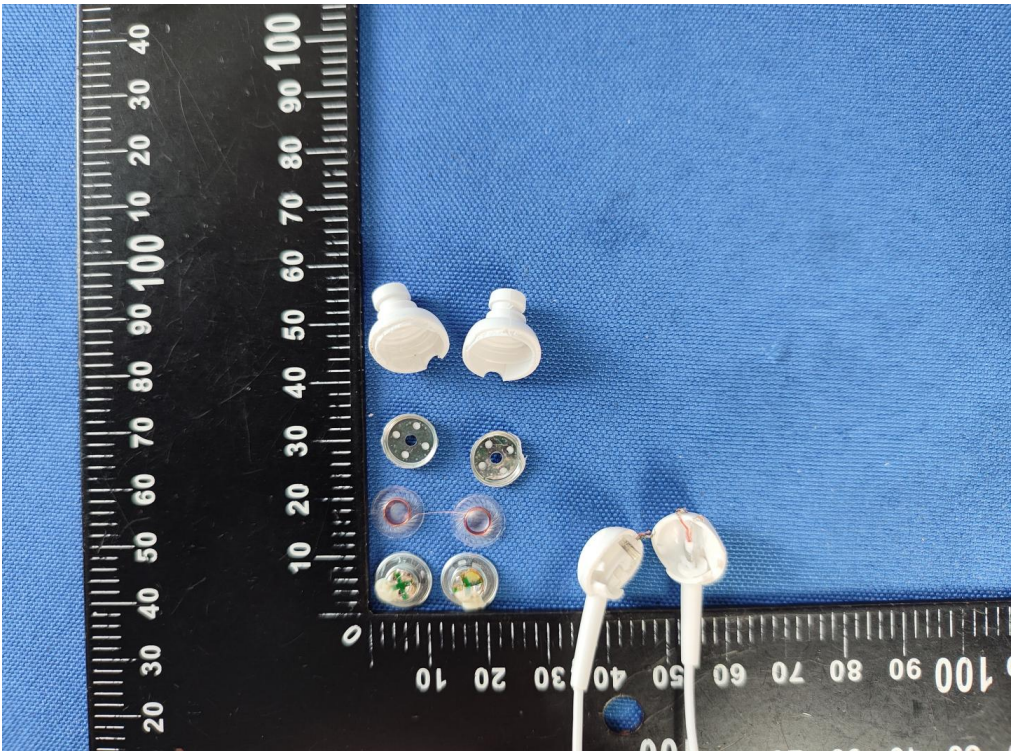
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RS Test	/

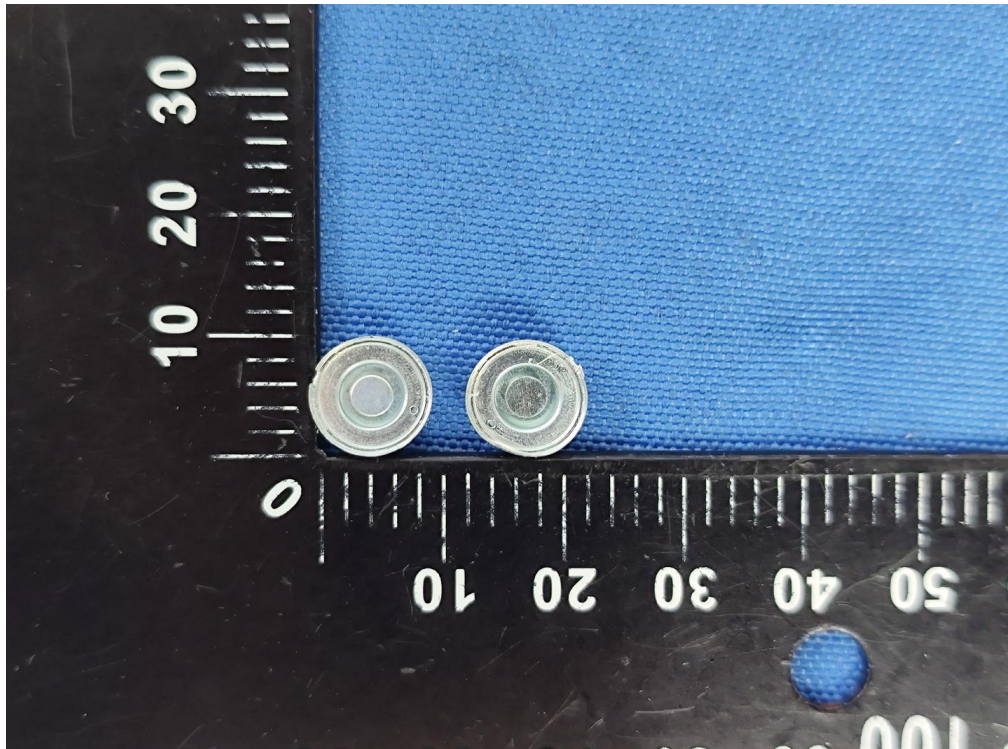
Appendix I : Photos of the EUT











-----End Report-----