EMC Test Report

For

JIB-Germany Technology GmbH

Test Standards:	EN 55032 :2015/A1:2020 EN 55035 :2017/A11:2020 EN IEC 61000-3-2 :2019/A1:2021 EN 61000-3-3 :2017/A11:2020
Product Description:	Audio Video cable
Tested Model:	BEB
Adding Models:	BB, RB,BAS, GEB series
Report No.:	EBSZ241225658E
Tested Date:	2024-Dec-31
Issued Date:	2025-Jan-10
Tested By:	Ana He Ana He
Approved By:	Jerry Liu

Guangdong Eurber Testing Co., Ltd.
Room 401/402, Building A, Tangxi Zhigu, No.21, Xijing Road, Gushu,
Xixiang Subdistrict, Bao'an District, Shenzhen, Guangdong, China

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	2025-Jan-10	Valid	Original Report

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1. GENERAL INFORMATION

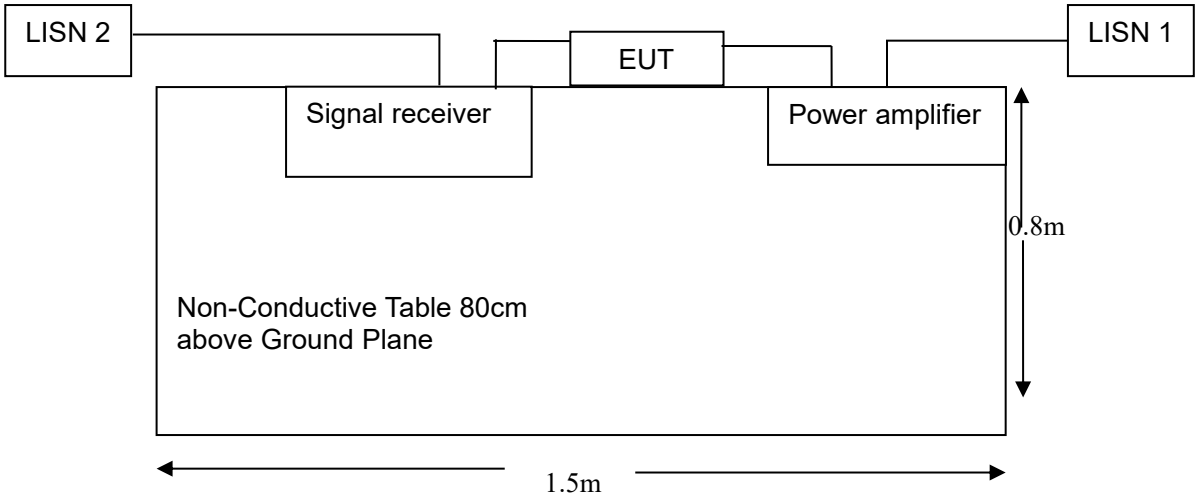
1.1 Product Description for Equipment Under Test (EUT)

Client Information	
Applicant:	JIB-Germany Technology GmbH
Address of applicant:	Am Großen Rohrpfuhl 25, 12355 Berlin-Germany
Manufacturer:	JIB-Germany Technology GmbH
Address of manufacturer:	Am Lückefeld 83, 15831 Blankenfelde-Mahlow Germany

General Description of EUT	
Product Name:	Audio Video cable
Trade Name:	JIB/Boaacoustic
Model No.:	BEB
Adding Model(s):	BB, RB,BAS, GEB series
Difference description	All models have the same circuit schematics, but the model names and appearance are different. All tests are carried out on BEB.
Test Voltage:	AC/DC230V/50Hz
Rated Voltage:	300V, 1000W

1.2 EUT Setup and Operation Mode

Block Configuration Diagram for Conducted Emissions



Test Mode List		
Test Mode	Description	Remark
1	Working	for all test

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Power amplifier	N/A	N/A	N/A
Signal receiver	N/A	N/A	N/A

1.3 Measurement Uncertainty

Measurement uncertainty			
Parameter	Frequency	Polarity	Measurement uncertainty
Conducted Emission	150kHz~30MHz	----	2.42dB
Radiated Emission	30MHz-200MHz	Horizontal	3.70dB
Radiated Emission	30MHz-200MHz	Vertical	3.84dB
Radiated Emission	200MHz-1000MHz	Horizontal	4.05dB
Radiated Emission	200MHz-1000MHz	Vertical	5.28dB
Radiated Emission	1000MHz-6000MHz	----	4.89dB

1.4 Test Facility

Site	Guangdong Eurber Testing Co., Ltd.
Location	Room 401/402, Building A, Tangxi Zhigu, No.21, Xijing Road, Gushu, Xixiang Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Telephone:	+86-755-23284856
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1.5 Test Equipment List and Details

Test Equipment for Conducted Emission					
Description	**Manufacturer**	**Model**	**Serial Number**	**Cal Date**	**Due Date**
LISN	R&S	ENV216	102125	2024/6/22	2025/6/21
LISN	R&S	ENV432	101327	2024/6/22	2025/6/21
EMI Test Receiver	R&S	ESR3	102143	2024/6/22	2025/6/21
EMI Test Software	Audix	E3	N/A	N/A	N/A
Test Equipment for Radiated Emission					
Description	**Manufacturer**	**Model**	**Serial Number**	**Cal Date**	**Due Date**
EMI Test Receiver	R&S	ESR-3	102144	2024/6/22	2025/6/21
Amplifier	Sonoma	310	363917	2024/6/22	2025/6/21
Broadband Antenna	Schwarz beck	VULB9168	9168-757	2023/3/03	2026/3/02
EMI Test Software	Audix	E3	N/A	N/A	N/A
Test Equipment for ESD					
Description	**Manufacturer**	**Model**	**Serial Number**	**Cal Date**	**Due Date**
ESD Generator	Teseq	NSG 437	1121	2024/6/22	2025/6/21
Test Equipment for EFT/SURGE/DIPS					
Description	**Manufacturer**	**Model**	**Serial Number**	**Cal Date**	**Due Date**
Surge Generator	Teseq	NSG 3060-MF	4040	2024/6/22	2025/6/21
CDN	Teseq	CDN 3061-S16	3003	2024/6/22	2025/6/21
EFT/DIPS Generator	Teseq	NSG 3040-MF	6033	2024/6/22	2025/6/21
Transformer	Teseq	INA6501	1002	2024/6/22	2025/6/21
Test Equipment for CS					
Description	**Manufacturer**	**Model**	**Serial Number**	**Cal Date**	**Due Date**
CS Generator	Teseq	NSG 4070B-80	45341	2024/6/22	2025/6/21
6dB Attenuator	Teseq	ATN 6075	32154	2024/6/22	2025/6/21
CDN	Teseq	CDN M016	45065	2024/6/22	2025/6/21
Test Equipment for RS					
Description	**Manufacturer**	**Model**	**Serial Number**	**Cal Date**	**Due Date**
Signal generator	R&S	SMB100A	113825	2024/6/22	2025/6/21
Power Meter	R&S	NRP2	105581	2024/6/22	2025/6/21
Power Sensor	R&S	NRP-Z91	103778	2024/6/22	2025/6/21
Power Sensor	R&S	NRP-Z91	103779	2024/6/22	2025/6/21
Power Amplifier	R&S	BBA150	102377	2024/6/22	2025/6/21
Antenna	R&S	HL046E	100230	N/A	N/A
RS Test Software	Fala	EZ-RS	N/A	N/A	N/A

1.6 Performance Criteria for EMS

According Clause 8 of EN 55035,

• General

General performance criteria are defined in the following. These criteria shall be used during the testing of primary functions where no relevant annex is applicable.

When assessing the impact of a disturbance on a function, the assessment should take into consideration the impact of a disturbance on a function, the assessment should take into consideration the function's performance prior to the application of the disturbance and only identify as failures those changes in performance that are a result of the disturbance.

• Performance criterion A

The equipment shall continue to operate as intended without operator intervention. No degradation of performance, loss of function or change of operation state is allowed below a performance level specified by the manufacturer when the equipment is use as intended.

The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

• Performance criterion B

During the application of the disturbance, degradation of performance is allowed. However, no unintended change of actual operating state or stored data is allowed to persist after the test.

After the test, the equipment shall continue to operate as intended without operator intervention; no degradation of performance or loss of function is allowed, below a performance level specified by the manufacturer, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance.

If the minimum performance level (or the permissible performance loss), or recovery time, is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

• Performance criterion C

Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions. A reboot or re-start operation is allowed.

Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

2. SUMMARY OF TEST RESULTS

EN 55032:2015/A1:2020 Emissions		
Test Standards	**Description of Test Item**	**Result**
EN 55032:2015	Conducted Emissions	N/A
EN 55032:2015	Radiated Emissions	Compliance

EN 55035:2017/A11:2020 Immunity		
Test Standards	**Description of Test Item**	**Result**
IEC 61000-4-2	Electrostatic Discharge	Compliance
IEC 61000-4-3	Radio Frequency Electromagnetic Field	Compliance
IEC 61000-4-4	Electrical Fast Transients	N/A
IEC 61000-4-5	Surges	N/A
IEC 61000-4-6	Continuous conducted disturbances	N/A
IEC 61000-4-8	Power Frequency Magnetic Field	N/A
IEC 61000-4-11	Voltage Dips and Interruptions	N/A

EN IEC 61000-3-2 :2019/A1:2021		
Rule	**Description of Test Item**	**Result**
EN IEC 61000-3-2	Harmonic Current Emissions	N/A

EN 61000-3-3 :2017/A11:2020		
Rule	**Description of Test Item**	**Result**
EN 61000-3-3	Voltage fluctuations & flicker	N/A

*Note1: N/A means not applicable.

3. Radiated Emissions

3.1. Radiated Emission Limit

Requirements for radiated emissions at frequencies up to 1GHz for Class B equipment

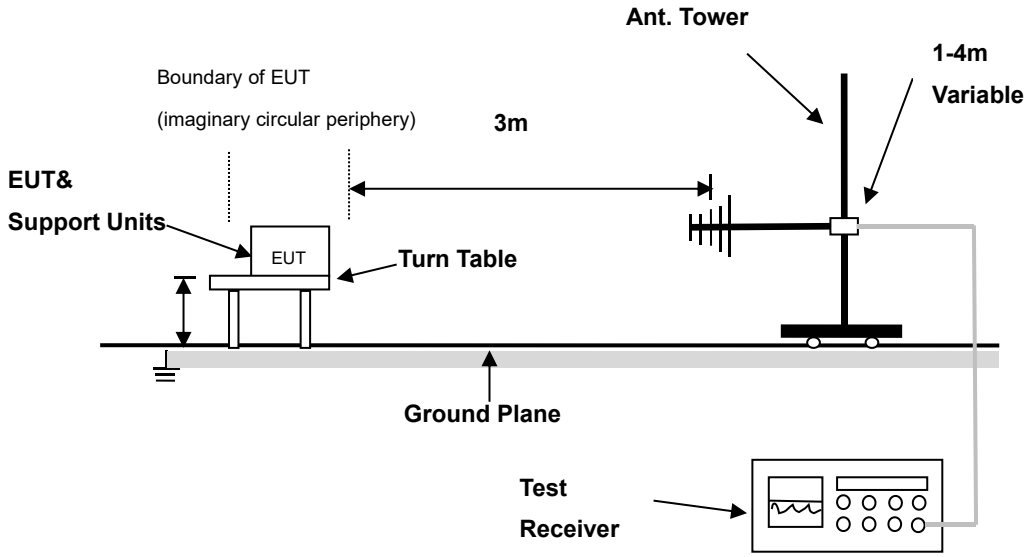
Frequency range (MHz)	Measurement		Class A limits dB(μV/m)
	Distance (m)	Detector type/bandwidth	
30 ~ 230	3	Quasi Peak/120kHz	40
230 ~ 1000			47

Requirements for radiated emissions at frequencies above 1GHz for Class A equipment

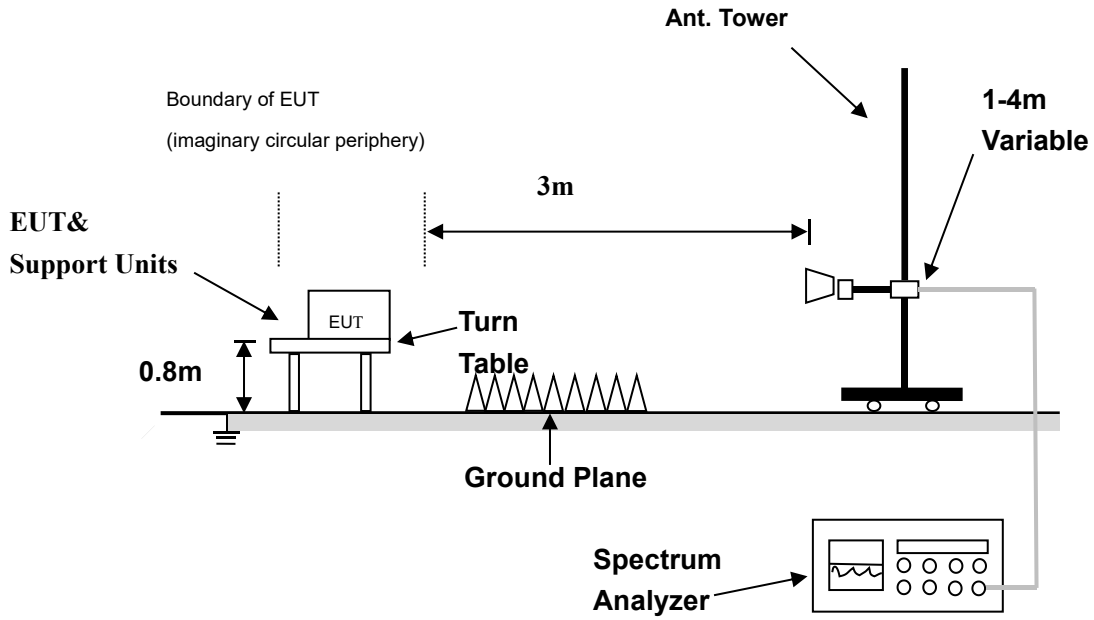
Frequency range (MHz)	Measurement		Class A limits dB(μV/m)
	Distance (m)	Detector type/bandwidth	
1000 ~ 3000	3	Average/1MHz	50
3000 ~ 6000			54
1000 ~ 3000	3	Peak/1MHz	70
3000 ~ 6000			74

3.2.Block Diagram of Test Setup

Radiated Emissions Frequency:30MHz to 1000MHz:



Radiated Emissions Frequency:1000MHz to 6000MHz:



3.3 Test Procedure

(1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual.

(2) Support equipment, if needed, was placed as per EN 55032.All I/O cables were positioned to simulate typical actual usage as per EN 55032

(3) The EUT is placed on a turntable, which is 0.8 meter high above the ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.

(4) Recorded at least the six highest emissions.

3.4 Result Level & Over Limit Calculation

The Result Level is calculated by Reading Level adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Result Level = Reading Level + Antenna Factor + Cable Factor - Amplifier Gain

The "**Over Limit**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB means the emission is 6dB below the maximum limit for Class B device. The equation for margin calculation is as follows:

Over Limit = Result Level –Limit

3.5 Environmental Conditions

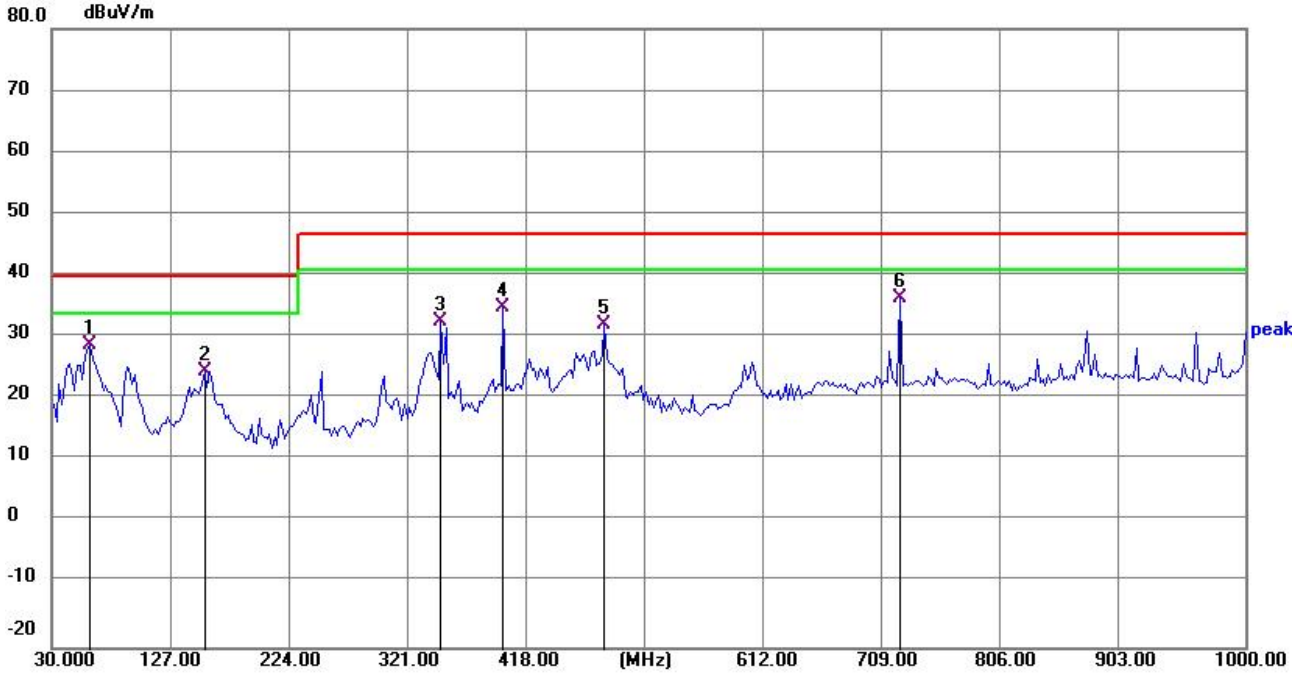
Temperature:	23.7° C
Relative Humidity:	553%RH
Atmospheric Pressure:	102.5kPa
Test Date:	2024-Dec-31
Tested By:	Ana He

3.6 Test Data and Result

Horizontal:

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	346.3043	48.17	-19.03	29.14	47.00	17.86	QP
2	396.9130	50.10	-18.15	31.95	47.00	15.05	QP
3	599.3478	41.14	-14.71	26.43	47.00	20.57	QP
4	719.5434	48.47	-13.18	35.29	47.00	11.71	QP
5	871.3695	46.76	-11.68	35.08	47.00	11.92	QP
6	959.9347	46.41	-10.71	35.70	47.00	11.30	QP

Vertical:



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	61.6304	49.78	-20.84	28.94	40.00	11.06	QP
2	154.4130	43.76	-19.07	24.69	40.00	15.31	QP
3	346.3043	51.81	-19.03	32.78	47.00	14.22	QP
4	396.9130	53.23	-18.15	35.08	47.00	11.92	QP
5	479.1521	48.98	-16.71	32.27	47.00	14.73	QP
6	719.5434	49.81	-13.18	36.63	47.00	10.37	QP

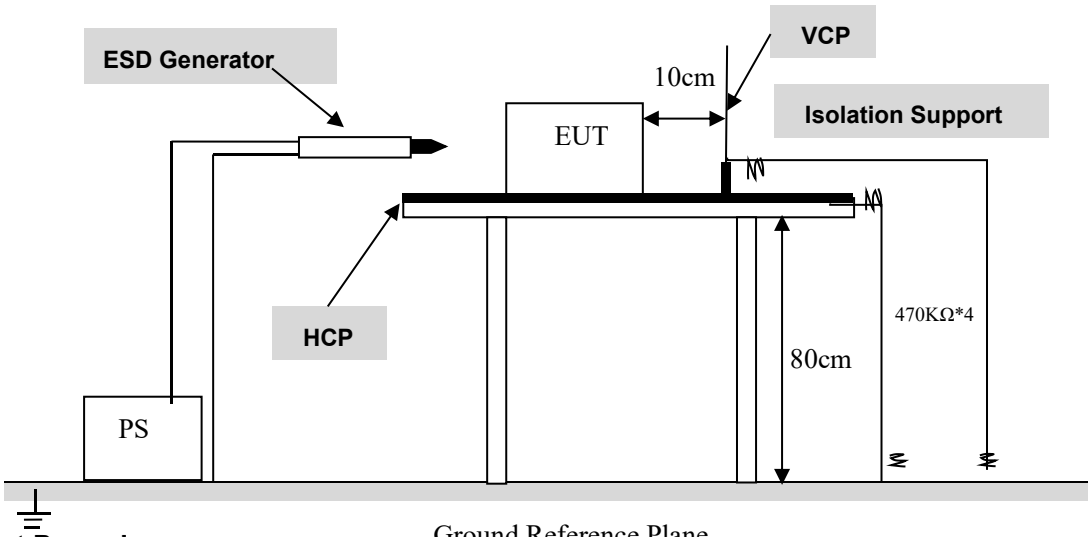
Note: 1. Level = Reading Level +Antenna Factor + Cable loss – Preamp factor

4. Electrostatic Discharge

4.1 ESD Immunity Requirements

Environmental Phenomenon	Port	Test Specification	Basic Standard	Performance criterion
Electrostatic discharge	Enclosure port	4kV(Contact Discharge)	IEC 61000-4-2	B
		8kV(Air Discharge)	IEC 61000-4-2	B

4.2 Block Diagram of Test Setup



4.3 Test Procedure

Air Discharges:

This test is done on a non-conductive surface. The round Discharges tip of the Discharges electrode shall be approached as fast as possible to touch the EUT. After each Discharge, the Discharges electrode shall be removed from the EUT. The generator is then re-triggered for a new single Discharge and repeated 10 times for each pre-selected test point. This procedure shall be repeated until all the air Discharges completed.

Contact Discharges:

All the procedure shall be same as Section 8.3.2 of IEC 61000-4-2, except that the tip of the Discharges electrode shall touch the EUT before the Discharges switch is operated.

Indirect Discharges for HCP

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

Indirect Discharges for VCP

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

4.4 Environmental Conditions

Temperature:	21.6° C
Relative Humidity:	52%
Atmospheric Pressure:	101.8kPa
Test Date:	2024-Dec-31
Tested By:	Ana He

4.5 Test Data and Result

EN 61000-4-2 Test Points	Test Levels (kV)							
	-2	+2	-4	+4	-8	+8	-15	+15
Air Discharge								
Slot	A	A	A	A	A	A	/	/
Surface	A	A	A	A	A	A	/	/

EN 61000-4-2 Test Points	Test Levels (kV)							
	-2	+2	-4	+4	-6	+6	-8	+8
Contact Discharge								
Surface	A	A	A	A	/	/	/	/

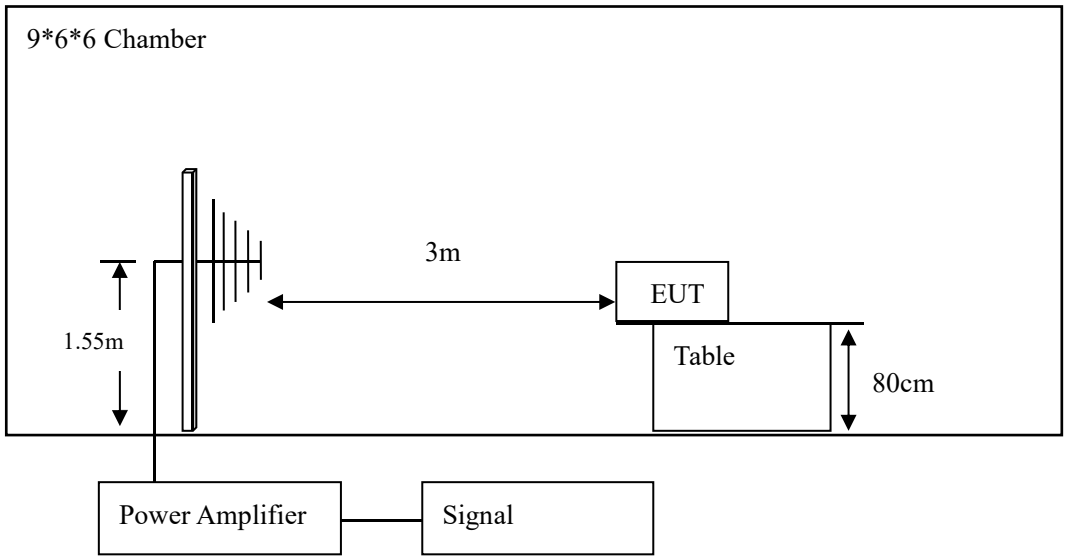
EN 61000-4-2 Test Points	Test Levels (kV)							
	Indirect Contact Discharge (HCP)				Indirect Contact Discharge (VCP)			
	-2	+2	-4	+4	-2	+2	-4	+4
Front Side	A	A	A	A	A	A	A	A
Back Side	A	A	A	A	A	A	A	A
Left Side	A	A	A	A	A	A	A	A
Right Side	A	A	A	A	A	A	A	A

5. Radio Frequency Electromagnetic Field

5.1 RS Immunity Requirements

Environmental Phenomenon	Port	Test Specification	Basic Standard	Performance criterion
Radio-frequency electromagnetic field Amplitude modulated	Enclosure port	80-1000MHz,1800MHz, 2600MHz,3500MHz,5000MHz 3V/m(unmodulated, r.m.s) 80% AM(1kHz)	IEC 61000-4-3	A

5.2 Block Diagram of Test Setup



5.3 Test Procedure

Test is conducting under the description of IEC61000-4-3.

(1)The EUT was switched on and allowed to warm up to its normal operating condition.

(2)The EUT was exercised and monitored in the manner specified by the customer.

(3)All test instruments were PC controlled, via their IEEE 488.2 bus interfaces, and the test conducted in the following manner:

The testing frequencies were swept over the required frequency range, with a step frequency equal to 1% of fundamental. The sweep rate was 1.0 x 10^{-3} decades/s.For each frequency tested, the signal generator output level was adjusted automatically until the unmodulated field strength registered by the field monitor reached the desired level. This level was held constant for the specified dwell time.

(4)The EUT was continuously monitored during the test in accordance with the Pass / Fail criteria declared by the customer.

(5)The test was done in both horizontal and vertical antenna polarizations, and for all necessary sides of the EUT.

5.4 Environmental Conditions

Temperature:	20° C
Relative Humidity:	52%RH
Atmospheric Pressure:	101.8kPa
Test Date:	2024-Dec-31
Tested By:	Ana He

5.5 Test Data and Result

Field Strength: 3V/m
Frequency step: 1% of fundamental
Dwell time: 1 second
Modulation: AM by 1kHz sine wave with 80% modulation depth

Frequency Range(MHz)	Field (V/m)	Front		Rear		Left Side		Right Side	
		VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-1000	3	A	A	A	A	A	A	A	A
1800,2600, 3500,5000	3	A	A	A	A	A	A	A	A

EXHIBIT B – PHOTOGRAPHS OF EUT

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