Certificate # 2951.01

TEST REPORT

Applicant:	GuangDong XinYu Technology Industrial Co., Ltd.
Address:	Laimei Industrial zone, Chenghai District, Shantou, Guangdong

Manufacturer or Supplier	GuangDong XinYu Technology Industrial Co., Ltd.
Address	Laimei Industrial zone, Chenghai District, Shantou, Guangdong
Product	RC TOYS
Brand Name	N/A
Models	XQRC18-2AA
Additional Model & Model Difference	XQRC24-13, XQRC18-2PAA, XQ063-AA, etc. ; See items 2.1
Date of tests	May 24, 2017 ~ Jun. 07, 2017

The submitted sample of the above equipment has been tested according to the requirements of the following standards:

☒ **Draft EN 301 489-1 V2.2.0 (2017-03)**
☒ **Final draft EN 301 489-3 V2.1.1 (2017-03)**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Andy Zhu Project Engineer / EMC Department	Approved by Madison Luo Supervisor / EMC Department
Andy	Date: Jun. 27, 2017

Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RM170524N091	Original Release	Jun. 27, 2017

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Dongguan Branch

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1 SUMMARY OF TEST RESULTS

After estimating all the combination of every test mode, the result shown as below is the worst case.

The EUT has been tested according to the following specifications.

EMISSION			
Standard	**Test Type**	**Result**	**Remarks**
EN 55032:2015	Radiated test (30MHz~1GHz)	PASS	Meets limits minimum passing margin is -9.73Db at 478.868MHz
	Radiated test (Above 1GHz)	PASS	Meets limits minimum passing margin is -11.22Db at 4328.000MHz

IMMUNITY			
Standard	**Test Type**	**Result**	**Remarks**
EN 61000-4-2:2009	Electrostatic discharge immunity test	PASS	Meets the requirements of Performance Criterion A
EN 61000-4-3:2006 + A1:2008 + A2:2010	Radiated, radio-frequency, electromagnetic field immunity test	PASS	Meets the requirements of Performance Criterion A

1.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Frequency	Uncertainty
Radiated emissions	30MHz~1GHz	+/- 4.06Db
	1GHz-18GHz	+/- 4.58Db

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	RC TOYS
MODEL NO.	XQRC18-2AA
ADDITIONAL MODELS	XQRC24-13, XQRC18-2PAA, XQ063-AA, XQRC18-7AA, XQRC18-9AA, XQRC18-23AA, 3708,3709, XQRC18-3AA, XQRC18-4AA, XQRC18-4PAA, 3285, 3331, 3438, 3439, XQRC18-1AA, XQRC18-5AA, XQRC18-16AA, XQRC18-20AA, XQRC18-11AA, XQRC18-11PAA, 3490(3284), 3444, XQRC18-15AA, 3429, 3144, 3435, 3440, 3443, 3803, 3330, XQRC24-13AAA, 3710, 3711, XQRC24-18AA, 3431, 3810, 3811, 3812, 3803
POWER SUPPLY	Remote Control(TX): DC 3V(1.5V*AA*2) from Battery Car(RX): DC 6V(1.5V*AA*4) from Battery
MODULATION TYPE	GFSK
RANGE OF FREQUENCY	2407-2477MHz
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

NOTE:

1. For a more detailed features description, please refer to the product specifications or the User's Manual.
2. For the test results, the EUT had been tested with all conditions, and only the worst case was shown in this test report.
3. Please refer to the EUT photo document (Reference No.: 170524N091) for detailed product photo.
4. Additional models (see about table) are identical with the test model XQRC18-2AA except the model no. for trading purpose.

2.2 DESCRIPTION OF TEST MODE

The EUT was tested under the following modes, and the final worst mode was marked in boldface and recorded in this report.

◆ For Radiated Emission Test

Test Mode	Test Voltage
TX RX Link Normal Working	**TX: DC 3V from Battery RX: DC 6V from Battery**
Standby	
Transmitting	
Receiver	

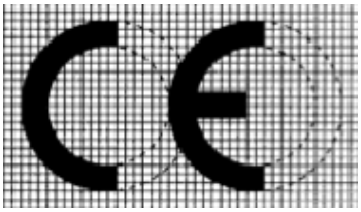
◆ For Immunity Test

◆ Test Mode	Test Voltage
TX RX Link Normal Working	**TX: DC 3V from Battery RX: DC 6V from Battery**
Transmitting	
Standby	
Receiver	

2.3 MISCELLANEOUS

➢ Affix CE marking

The marking must be placed visibly and legibly on the product or, if not possible due to the nature of the product, be affixed to the packaging and the accompanying document. The CE marking shall consist of the initials 'CE' taking the following form:



The various components of the CE marking must have the same vertical dimension, and may not be smaller than 5 mm. If the CE marking is reduced or enlarged, the proportions given in the graduated drawing above must be respected.

When the product is subject to other Directives covering other aspects and which also provide for the 'CE' marking, the accompanying documents must indicate that the product also conforms to those other Directives.

However, when one or more of those Directives allow the manufacturer, during a transitional period, to choose which arrangements to apply, the 'CE' marking has to indicate conformity only with the Directives applied by the manufacturer. In this case, the particularities of the Directives applied, as published in the Official Journal of the European Union, must be given in the documents, notices or instructions required by the Directives and accompanying such products.

2.4 GENERAL DESCRIPTION OF APPLIED STANDARD

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Draft EN 301 489-1 V2.2.0 (2017-03)
Final draft EN 301 489-3 V2.1.1 (2017-03)
EN 55032:2015
EN 61000-4-2:2009
EN 61000-4-3:2006 + A1:2008 + A2:2010

Note: The above EN basic standards are applied with latest version if customer has no special requirement.
Due to the EUT is powered by Battery, there was no need for the Conducted, Harmonics, Flicker, EFT, Surge, CS and Dips tests.

2.5 DESCRIPTION OF SUPPORT UNIT

The EUT has been tested as an independent unit without any other necessary accessories or support units.

2.6 CONFIGURATION OF SYSTEM UNDER TEST

Please refer to chapter 5 photos of test configuration.

3 EMISSION TEST

3.1 RADIATED EMISSION MEASUREMENT

3.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

TEST STANDARD: EN 55032

FOR FREQUENCY BELOW 1000 MHz

FREQUENCY (MHz)	Class A (at 10m) Quasi-Peak dBuV/m	Class B (at 10m) Quasi-Peak dBuV/m
30 – 230	40	30
230 – 1000	47	37

FREQUENCY (MHz)	Class A (at 3m) Quasi-Peak dBuV/m	Class B (at 3m) Quasi-Peak dBuV/m
30 – 230	50	40
230 – 1000	57	47

For FM receivers

Distance (m)	Source	Frequency Range (MHz)	Limits dB (uV/m) Quasi-peak	
10	Local oscillator	≤1000	Fundamental	50
		30 to 300	Harmonics	42
		300 to 1000	Harmonics	46
	Other	30 to 230		30
		230 to 1000		37
3	Local oscillator	≤1000	Fundamental	60
		30 to 300	Harmonics	52
		300 to 1000	Harmonics	56
	Other	30 to 230		40
		230 to 1000		47

FREQUENCY RANGE OF RADIATED MEASUREMENT
(For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	Up to 5 times of the highest frequency or 6 GHz, whichever is less

FOR FREQUENCY ABOVE 1000 MHz

FREQUENCY (GHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
1 to 3	76	56	70	50
3 to 6	80	60	74	54

NOTE: (1) The lower limit shall apply at the transition frequencies.
(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).
(3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.1.2 TEST INSTRUMENTS

FOR FREQUENCY BELOW 1GHz

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101564	Feb. 27,17	Feb. 26,18
EMI Test Receiver	Rohde&Schwarz	ESCI	101418	Feb. 27,17	Feb. 26,18
Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-555	Nov. 13, 16	Nov. 12, 17
Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-554	Dec. 17, 16	Dec. 16, 17
Signal Amplifier	Agilent	8447D	2944A10488	Jun. 25,16	Jun. 24,17
Signal Amplifier	Agilent	8447D	2944A11174	Jun. 25,16	Jun. 24,17
10m Semi-anechoic Chamber	CHANGLING	21.4m*12.1m*8.8m	NSEMC006	Mar. 06,17	Mar. 05,18
Test Software	ADT	ADT_Radiated_V8.7.07	N/A	N/A	N/A

NOTES: 1. The test was performed in 10m Chamber.
2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

FREQUENCY RANGE ABOVE 1GHZ

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Horn Antenna	ETS-Lindgren	3117	00085519	Dec. 30, 15	Dec. 29, 17
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170242	Mar. 15,17	Mar. 14,18
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101003	Apr. 05,17	Apr. 04,18
Broadband Preamplifier	SCHWARZBECK	BBV9718	266	Mar. 21,17	Mar. 20,18
Pre-Amplifier (100MHz-26.5GHz)	EMCI	EMC 012645	980077	May 04,17	May 03,18
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Nov. 04,16	Nov. 03,17
Test Software	ADT	ADT_Radiated_V8.7.07	N/A	N/A	N/A

NOTES: 1. The test was performed in 10m Chamber.
2. The calibration interval of the above test instruments are 12 or 24 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA

3.1.3 TEST PROCEDURE

<Frequency Range below 1GHz>

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from 1 meter to 4 meters 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.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1GHz.

NOTE:

1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
3. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) (if the raw value not contains the amplifier);
4. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain(dB) (if the raw value contains the amplifier).
5. Margin value = Emission level – Limit value.

<Frequency Range above 1GHz>

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna can be varied from one meter to four meters, the height of adjustment depends on the EUT height and the antenna 3dB beamwidth both, to detect the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. The bore sight should be used during the test above 1GHz. The bore sight should be used during the test above 1GHz.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test receiver/spectrum was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

NOTE:

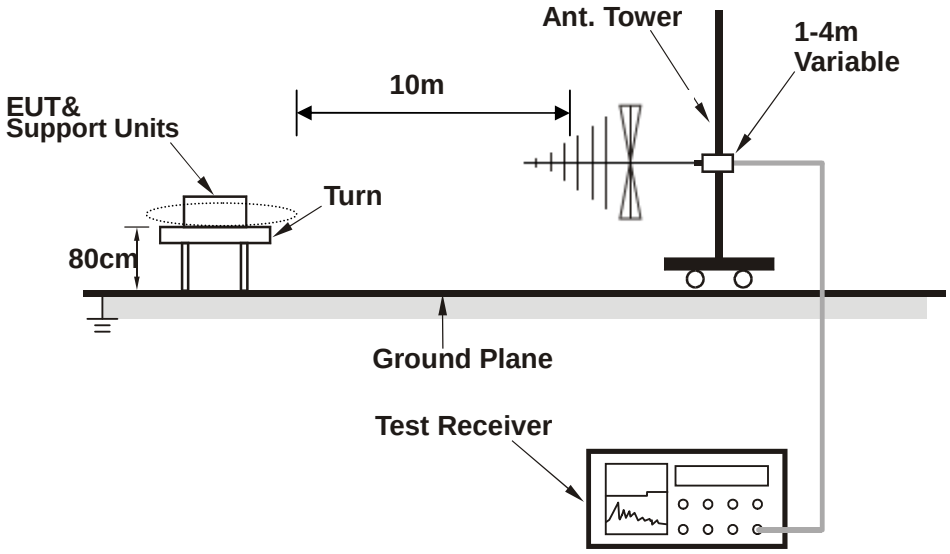
1. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz for Average detection (AV) at frequency above 1GHz.
2. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the receiver antenna.
3. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
4. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) (if the raw value not contains the amplifier);
5. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain(dB) (if the raw value contains the amplifier).
6. Margin value = Emission level – Limit value.

3.1.4 DEVIATION FROM TEST STANDARD

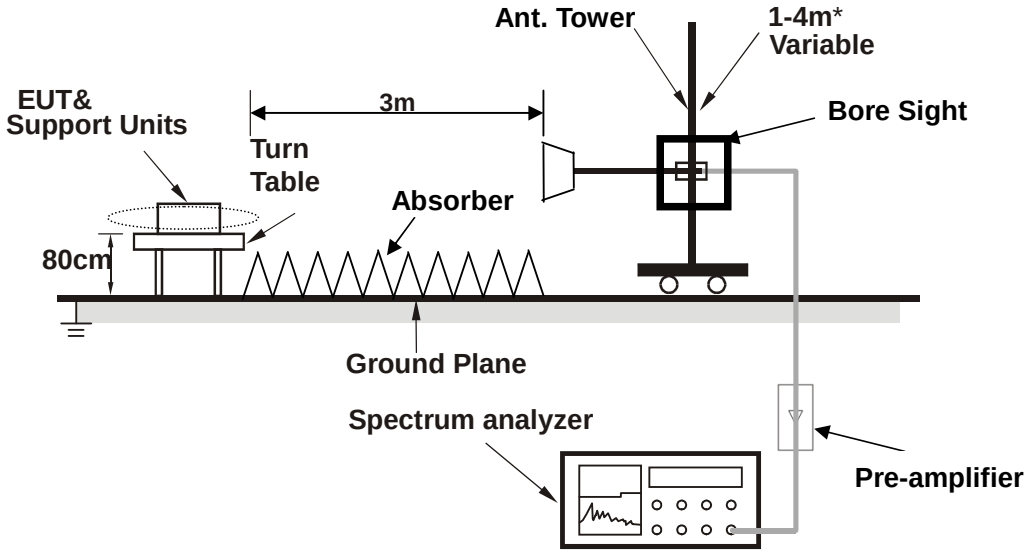
No deviation.

3.1.5 TEST SETUP

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



*: depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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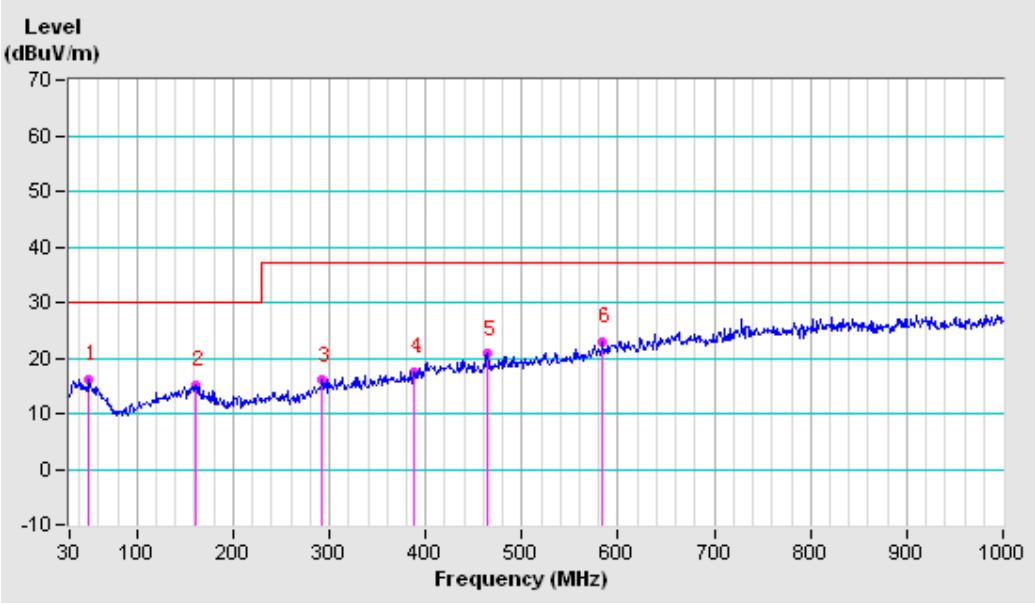
3.1.6 TEST RESULTS (BELOW 1GHz)

TEST MODE	TX RX Link Normal Working	**FREQUENCY RANGE**	30-1000 MHz
TEST VOLTAGE	TX: DC 3V from Battery RX: DC 6V from Battery	**DETECTOR FUNCTION & BANDWIDTH**	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	21deg. C, 54% RH	**TESTED BY**: Wang	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value（dBuV）	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	49.764	-9.93	26.10	16.17	30.00	-13.83	400	136
2	160.829	-9.04	24.20	15.16	30.00	-14.84	400	24
3	292.749	-7.91	23.92	16.01	37.00	-20.99	400	254
4	388.051	-6.24	23.85	17.61	37.00	-19.39	400	124
5	463.832	-4.70	25.40	20.70	37.00	-16.30	400	41
6	584.234	-1.90	24.88	22.98	37.00	-14.02	400	16

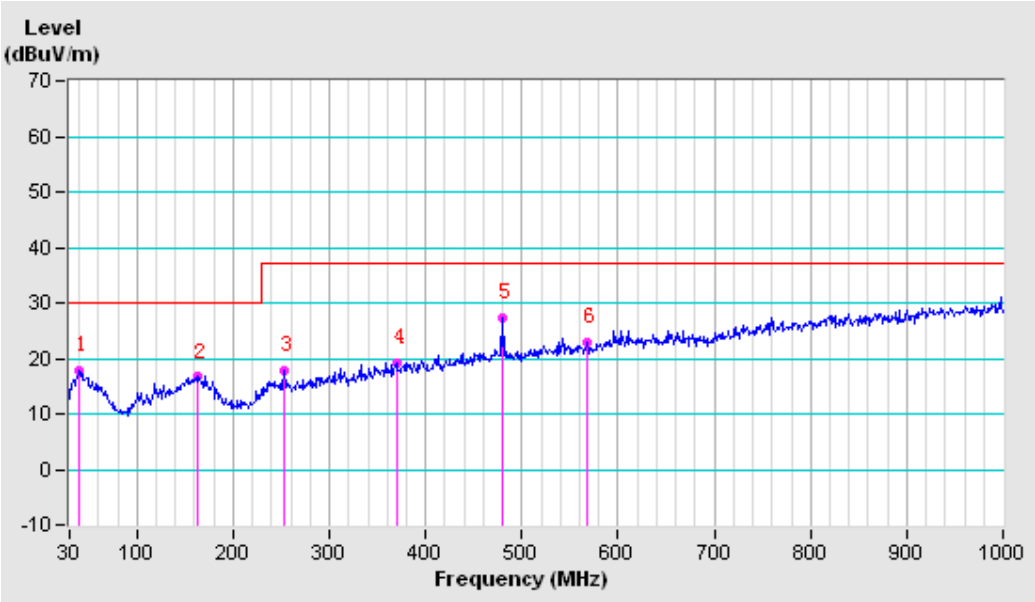
REMARKS: 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 30MHz to 1000MHz.
4. Only emissions significantly above equipment noise floor are reported.



TEST MODE	TX RX Link Normal Working	**FREQUENCY RANGE**	30-1000 MHz
TEST VOLTAGE	TX: DC 3V from Battery RX: DC 6V from Battery	**DETECTOR FUNCTION & BANDWIDTH**	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	21deg. C, 54% RH	**TESTED BY**: Wang	

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 10M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value （dBuV）	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	40.549	-7.59	25.47	17.88	30.00	-12.12	100	22
2	163.496	-7.87	24.51	16.64	30.00	-13.36	100	343
3	252.615	-7.77	25.49	17.72	37.00	-19.28	100	86
4	369.621	-4.66	23.94	19.28	37.00	-17.72	100	42
5	**478.868**	**-2.72**	**29.99**	**27.27**	**37.00**	**-9.73**	**100**	**345**
6	567.986	-1.09	24.12	23.03	37.00	-13.97	100	151

REMARKS: 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 30MHz to 1000MHz.
4. Only emissions significantly above equipment noise floor are reported.



3.1.7 TEST RESULTS (ABOVE 1GHZ)

TEST MODE	TX RX Link Normal Working	**DETECTOR FUNCTION & BANDWIDTH**	Peak , Average, 1MHz
TEST VOLTAGE	TX: DC 3V from Battery RX: DC 6V from Battery	**FREQUENCY RANGE**	1000-6000MHz
ENVIRONMENTAL CONDITIONS	21deg. C, 54% RH	**TESTED BY**: Wang	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	3216.000PK	1.00	60.23	61.23	74.00	-12.77	100	187
2	3216.000AV	1.00	41.53	42.53	54.00	-11.47	100	187
3	3872.000PK	2.72	59.71	62.43	74.00	-11.57	200	146
4	3872.000AV	2.72	39.85	42.57	54.00	-11.43	200	146
5	**4328.000PK**	**3.57**	**59.21**	**62.78**	**74.00**	**-11.22**	**300**	**157**
6	4328.000AV	3.57	39.18	42.75	54.00	-11.25	300	157
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	3216.000PK	1.00	60.53	61.53	74.00	-12.47	100	156
2	3216.000AV	1.00	41.15	42.15	54.00	-11.85	100	156
3	3758.000PK	2.44	59.99	62.43	74.00	-11.57	200	175
4	3758.000AV	2.44	39.09	41.53	54.00	-12.47	200	175
5	4245.000PK	3.43	59.10	62.53	74.00	-11.47	100	157
6	4245.000AV	3.43	39.35	42.78	54.00	-11.22	100	157

REMARKS: 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 1GHz to 6GHz.
4. Only emissions significantly above equipment noise floor are reported.

4 IMMUNITY TEST

4.1 GENERAL DESCRIPTION

Product Standard	**Draft EN 301 489-1 V2.2.0 (2017-03)** **Final draft EN 301 489-3 V2.1.1 (2017-03)**	
Basic Standard, Specification, and Performance Criterion required	EN 61000-4-2	Electrostatic Discharge – ESD: 2, 4, 8 kV air discharge, 4 kV Contact discharge, Performance Criterion B
	EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test – RS: 80~6000 MHz, 3 V/m, 80% AM (1 kHz), Performance Criterion A

4.2 GENERAL PERFORMANCE CRITERIA DESCRIPTION

For EN 301 489-3

The phenomena allowed during and after test in each criterion are clearly stated in the following table.

Performance criteria		
Criteria	**During test**	**After test**
A	Operate as intended No loss of function No unintentional responses	Operate as intended No loss of function No degradation of performance No loss of stored data or user programmable functions
B	May show loss of function No unintentional responses	Operate as intended Loss of function(s) shall be self-recoverable No degradation of performance No loss of stored data or user programmable functions

4.3 ELECTROSTATIC DISCHARGE IMMUNITY TEST (ESD)

4.3.1 TEST SPECIFICATION

Basic Standard:	EN 61000-4-2
Discharge Impedance:	330 ohm / 150 pF
Discharge Voltage:	Air Discharge: 2, 4, 8 kV (Direct) Contact Discharge: 4 kV (Direct and Indirect)
Polarity:	Positive & Negative
Number of Discharge:	20 times on each test points
Discharge Mode:	Single Discharge
Discharge Period:	1 second

4.3.2 TEST INSTRUMENT

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
ESD Generator	TESEQ	NSG 437	279	Mar. 07,17	Mar. 06,18
Test Software	TESEQ	V03.03	N/A	N/A	N/A
ESD Generator	EM TEST	Dito	V1211112265	Mar. 17,17	Mar. 16,18
Test Software	EM TEST	V 2.31	N/A	N/A	N/A

NOTE: 1. The test was performed in ESD Room.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

4.3.3 TEST PROCEDURE

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 complete.

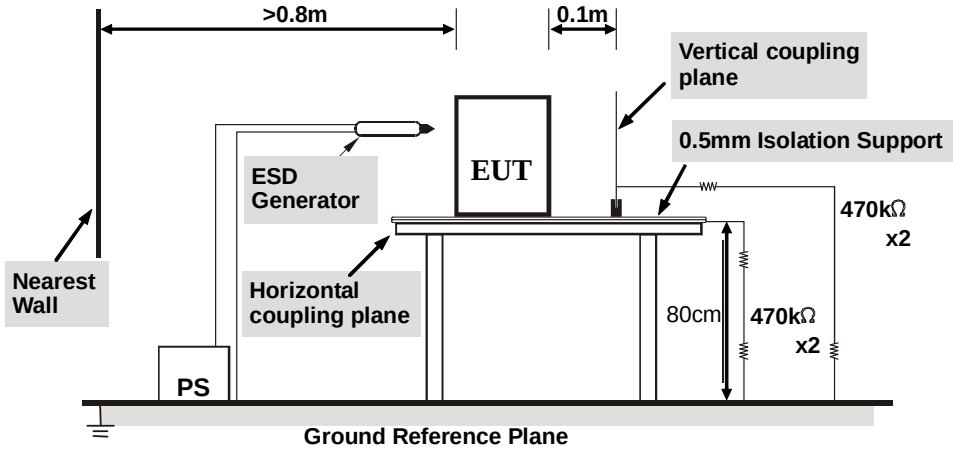
g. At least ten single discharges (in the most sensitive polarity) were applied to the **H**orizontal **C**oupling **P**lane at points on each side of the EUT. The ESD generator was positioned horizontally at a distance of 0.1 meters from the EUT with the discharge electrode touching the **HCP.**

h. At least ten single discharges (in the most sensitive polarity) were applied to the center of one vertical edge of the **V**ertical **C**oupling **P**lane in sufficiently different positions that the four faces of the EUT were completely illuminated. The **VCP** (dimensions 0.5m x 0.5m) was placed vertically to and 0.1 meters from the EUT.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation.

4.3.5 TEST SETUP



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

NOTE:
TABLE-TOP EQUIPMENT
The configuration consisted of a wooden table 0.8 meters high standing on the **G**round **R**eference **P**lane. The **GRP** consisted of a sheet of aluminum at least 0.25mm thick, and 2.5 meters square connected to the protective grounding system. A **H**orizontal **C**oupling **P**lane (1.6m x 0.8m) was placed on the table and attached to the **GRP** by means of a cable with 940kΩ total impedance. The equipment under test, was installed in a representative system as described in section 7 of EN 61000-4-2 and its cables were placed on the **HCP** and isolated by an insulating support of 0.5mm thickness. A distance of 0.8-meter minimum was provided between the EUT and the walls of the laboratory and any other metallic structure.

4.3.6 TEST RESULTS

TEST VOLTAGE	TX: DC 3V from Battery RX: DC 6V from Battery	**ENVIRONMENTAL CONDITIONS**	23deg. C, 54% RH, 101.3KPa
TESTED BY	Daniel		

Direct Discharge Application				
Test Level (kV)	**Polarity**	**Test Point**	**Test Result of Contact Discharge**	**Test Result of Air Discharge**
4	+ / -	All metal parts	A	N/A
2,4,8	+ /-	All non-metal parts	N/A	A

Indirect Discharge Application				
Discharge Level (kV)	**Polarity**	**Test Point**	**Test Result of HCP**	**Test Result of VCP**
4	+ /-	HCP	A	N/A
4	+ /-	VCP	N/A	A

NOTE: A: There was no change compared with initial operation during the test.

4.4 RADIATED, RADIO-FREQUENCY, ELECTROMAGNETIC FIELD IMMUNITY TEST (RS)

4.4.1 TEST SPECIFICATION

Basic Standard:	EN 61000-4-3
Frequency Range:	80 MHz ~ 6000 MHz
Field Strength:	3 V/m
Modulation:	1 kHz Sine Wave, 80%, AM Modulation
Frequency Step:	10% of preceding frequency value
Polarity of Antenna:	Horizontal and Vertical
Antenna Height:	1.5 m
Dwell Time:	3 seconds

4.4.2 TEST INSTRUMENT

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Signal Generator	Agilent	N5181A	MY50142530	Oct. 13,16	Oct. 12,17
Bilog Antenna	Teseq	CBL 6111D	27089	July 19,16	July 18,17
Antenna Log-Periodic	AR	ATR80M6G	0337307	N/A	N/A
Antenna Log-Periodic	AR	ATS700M11G	0336821	N/A	N/A
Switch Controller	AR	SC1000	0337343	N/A	N/A
RF Power Meter	ESE	4242	13984	Nov. 04,16	Nov. 03,17
Power Sensor	ESE	51011EMC	35716	Nov. 04,16	Nov. 03,17
Power Sensor	ESE	51011EMC	35715	Nov. 04,16	Nov. 03,17
E-Field probe	Narda	NBM-520	2403/01B	Mar. 08,17	Mar. 07,18
Power Amplifier	TESEQ	CBA 1G-150	T44029	N/A	N/A
Power Amplifier	TESEQ	CBA 3G-100	T44030	N/A	N/A
Power Amplifier	TESEQ	CBA 6G-050	1041204	N/A	N/A
Dual Directional Coupler	TESEQ	C5982	95208	Nov. 04,16	Nov. 03,17
Dual Directional Coupler	TESEQ	C6187	95175	Nov. 04,16	Nov. 03,17
Dual Directional Coupler	TESEQ	CPH-274F	M251304-01	Nov. 04,16	Nov. 03,17
Test Software	ADT	BVADT_RS_V 7.6.4-DG	N/A	N/A	N/A

NOTE: 1. The test was performed in RS chamber.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

4.4.3 TEST PROCEDURE

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

a. The testing was performed in a fully-anechoic chamber.

b. The frequency range is swept from 80 MHz to 6000 MHz with the signal 80% amplitude modulated with a 1 kHz sine wave.

c. The dwell time at each frequency shall not be less than the time necessary for the EUT to be exercised and to respond, but shall in no case be less than 0.5s.

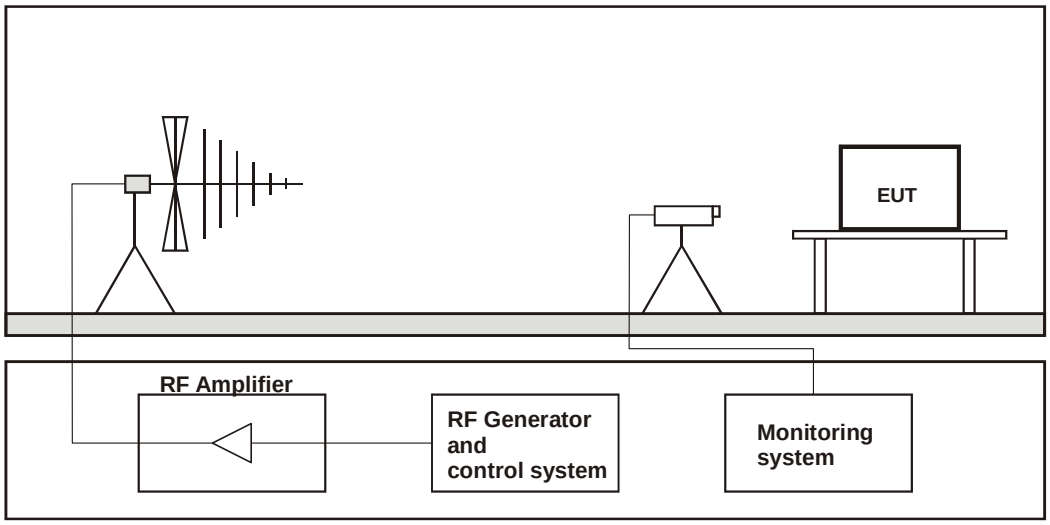
d. The field strength level was 3 V/m.

e. The test was performed with the EUT exposed to both vertically and horizontally polarized fields on each of the four sides.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation.

4.4.5 TEST SETUP



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

NOTE:
TABLETOP EQUIPMENT
The EUT installed in a representative system as described in section 7 of EN 61000-4-3 was placed on a non-conductive table 0.8 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.

4.4.6 TEST RESULTS

TEST VOLTAGE	TX: DC 3V from Battery RX: DC 6V from Battery	ENVIRONMENTAL CONDITIONS	24deg. C, 53% RH,
TESTED BY	Daniel		

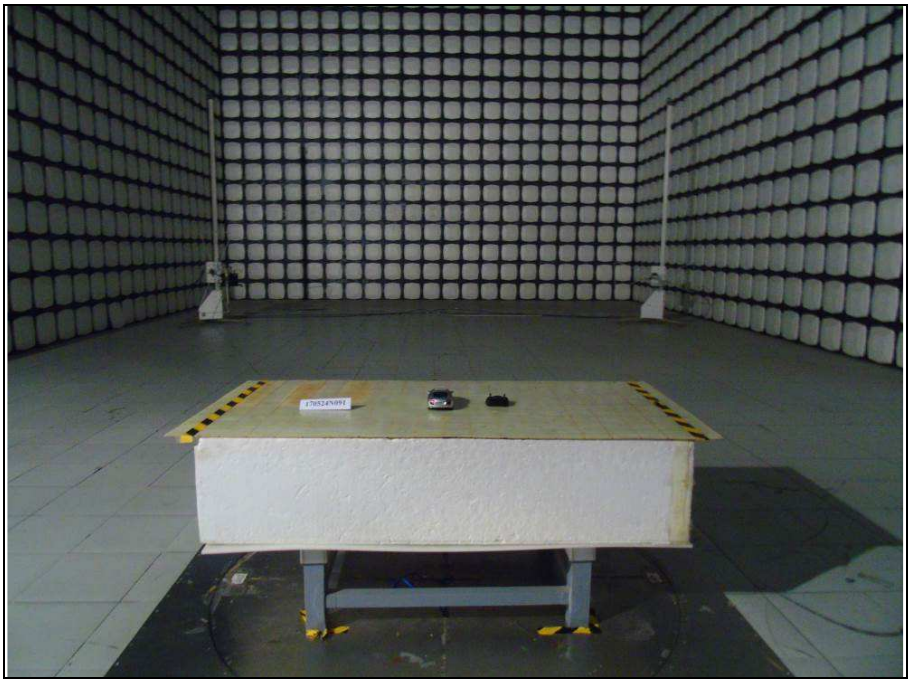
Field Strength (V/m)	Test Frequency Note#1 (MHz)	Polarization of antenna (Horizontal / Vertical)	Test Distance (m)	Test Result	Remark
3	80-6000	H / V	3	A	N/A

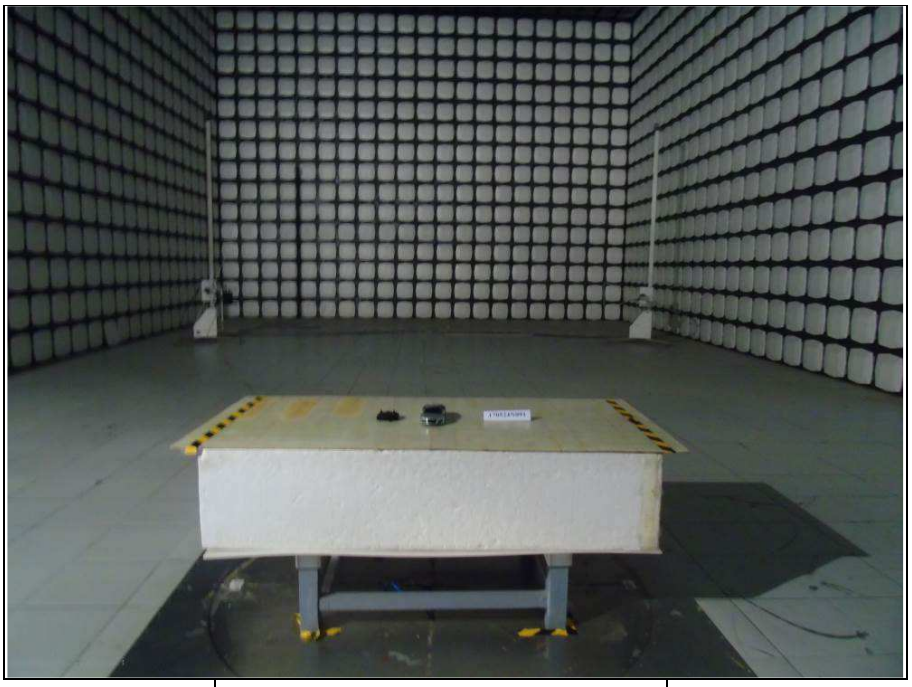
Note#1: Tested Israel SII Frequencies 89,100,107,144,163,196,244,315,434,460,600,825,845,880 MHz

NOTE: A: There was no change compared with initial operation during the test.

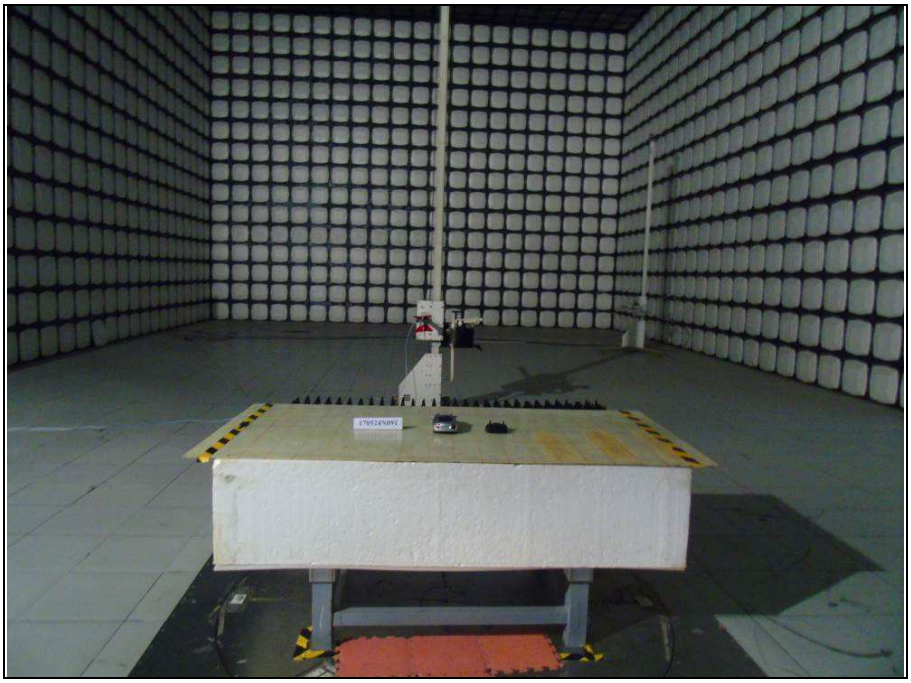
5 PHOTOGRAPHS OF THE TEST CONFIGURATION

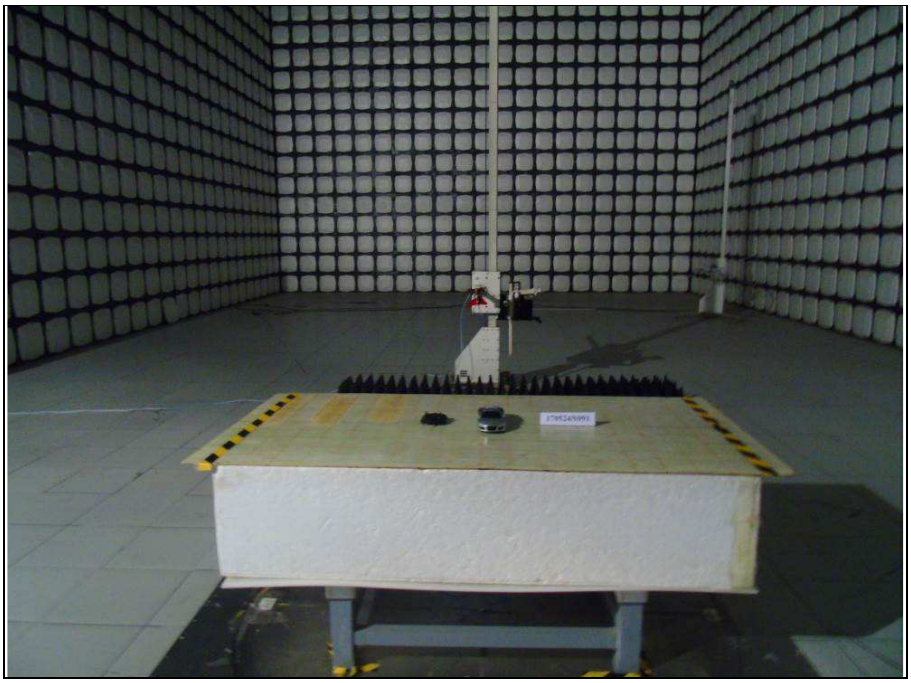
RADIATED EMISSION TEST < 30MHz~1GHz>





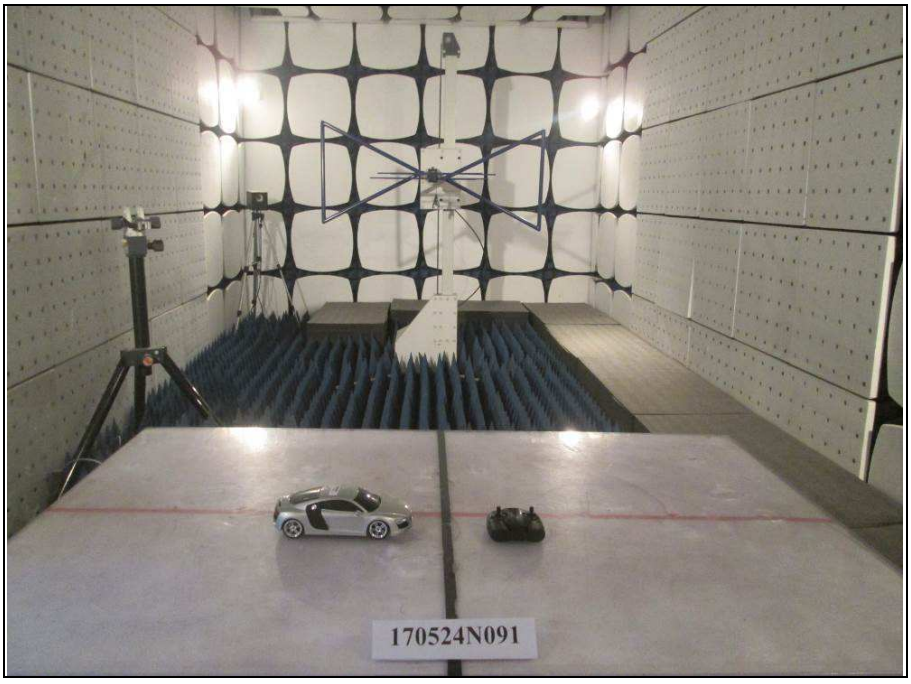
RADIATED EMISSION TEST < Above 1GHz>





ESD TEST

R/S TEST



6 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications were made to the EUT by the lab during the test.

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