



Test Report



CERTIFICATE #5443.01
No.: AJT200925045E-1

Applicant name : SHEN HUA INTERNATIONAL LIMITED
Applicant address : UNIT 2, 10/F, NEO, 123 HOI BUN ROAD, KWUN TONG, KOWLOON, HONG KONG
Sample Description : RC CAR
Model No. : 062300
Additional Model : 062298
Client Specified Age Grade : /
Tested Age Grade : /
Sample received date : 25 September, 2020
Testing completed date : 19 October, 2020

Tests conducted: For compliance with application, refer to attached page(s) for details.

Assess standard used:	Conclusion
FCC Part 15, Subpart C, Section 15.249 & ANSI C63,10-2013	PASS

Tested by:

Glory

Reviewed by:

Fly Liang

Approved by:

Grando Jeng

Position: Technical Supervisor

Date: 2020-10-22



This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenghua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





Test Report



CERTIFICATE #5443.01
No.: AJT200925045E-1

TABLE OF CONTENTS

1 Test Standards	3
2 Summary	3
2.1 General Remarks.....	3
2.2 Final Assessment	3
3 Equipment Under Test.....	3
3.1 Short Description of the Equipment Under Test (EUT).....	3
3.2 EUT Configuration	4
3.3 Description of Test Modes	4
4 Test Environment.....	5
4.1 Address of the Test Laboratory	5
4.2 Test Facility	5
4.3 Environmental Conditions	5
4.4 Statement of the Measurement Uncertainty	6
4.5 Test Types and Results	6
5 Test Conditions and Results.....	6
5.1 Radiated Emission.....	6
5.2 20dB Bandwidth.....	19
5.3 Antenna Requirements	22
6 Test Equipment	23
7 Test Photographs	24
8 Photos of the EUT	24
9 Manufacturer/ Approval Holder Declaration.....	24

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com

Page 2 of 24





Test Report



CERTIFICATE #5443.01
No.: AJT200925045E-1

1 Test Standards

The tests were performed according to following standards:
FCC Part 15, Subpart C, Section 15.249: Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz
ANSI C63,10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

2 Summary

2.1 General Remarks

Date of receipt of test sample	25 September, 2020
Testing commenced on	25 September, 2020 ---- 19 October, 2020
Testing concluded on	19 October, 2020

2.2 Final Assessment

Test Content:	Assessment
The RF requirements pertaining to the technical standards and tested operation modes are	Fulfilled
The equipment under test	Fulfilled the RF requirements

3 Equipment Under Test

3.1 Short Description of the Equipment Under Test (EUT)

EUT Name	RC CAR
Model No.	062300
FCC ID	2AWPN-SHENHUA202007
Number of Tested Samples	1
Power Supply Voltage	DC: 3.0V(AA*2)
Operating Mode	TX Mode
Operation Frequency	2410-2473MHz
Number of Channel	64
Modulation	GFSK
Antenna Type	Integral Antenna
Antenna Gain	-3dBi

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com



3.2 EUT Configuration

(The CDF filled by the applicant can be viewed at the test laboratory.)

The following peripheral devices and interface cables were connected during the measurement:

Not Applicable

EUT

3.3 Description of Test Modes

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and packet type. The worst case was found when the EUT was positioned on Y axis for radiated emission. The EUT was tested under the following mode.

EUT configure mode	Applicable to				Description
	RE < 1G	RE ≥ 1G	PLC	BW	
A	√	√	N/A	√	DC 3V from battery

Where RE < 1G: Radiated Emission below 1GHz

RE ≥ 1G: Radiated Emission above 1GHz

PLC: Power Line Conducted Emission

BW: 20dB bandwidth

Following channel(s) was (were) selected for the test as listed below.

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2410	18	2427	35	2444	52	2461
2	2411	19	2428	36	2445	53	2462
3	2412	20	2429	37	2446	54	2463
4	2413	21	2430	38	2447	55	2464
5	2414	22	2431	39	2448	56	2465
6	2415	23	2432	40	2449	57	2466
7	2416	24	2433	41	2450	58	2467
8	2417	25	2434	42	2451	59	2468
9	2418	26	2435	43	2452	60	2469
10	2419	27	2436	44	2453	61	2470
11	2420	28	2437	45	2454	62	2471
12	2421	29	2438	46	2455	63	2472
13	2422	30	2439	47	2456	64	2473
14	2423	31	2440	48	2457		
15	2424	32	2441	49	2458		
16	2425	33	2442	50	2459		
17	2426	34	2443	51	2460		

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





Test Report



CERTIFICATE #5443.01
No.: AJT200925045E-1

Channel list

Channel	Frequency (MHz)
The lowest channel	2410
The middle channel	2442
The highest channel	2473

Note: The more detailed channel, please refer to the product specifications

4 Test Environment

4.1 Address of the Test Laboratory

Test Laboratory:	AJT Testing Services Limited
Test Site:	1F&2F YIFENG BUILDING, CHENGHUA INDUSTRIAL ZONE, CHENGHAI DISTRICT, SHANTOU CITY
Tel:	86-754-85860999
Fax:	86-754-86984098

4.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:	
CNAS Accreditation NO.:	L4735
A2LA Accreditation NO.:	5443.01
Designation Number:	CN1263
Test Firm Registration Number:	127385
Industry Canada Site Registration Number:	25345
FCC Registration NO.:	0028094555

4.3 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:	
Temperature	15~35°C
Humidity	30~75%

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenghua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com



4.4 Statement of the Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. Furthermore, component and process variability of devices are similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Measurement Uncertainty (Standard: ETSI TR 100 028)	
Conducted Emissions	±2.14dB
Radiated Emission below 1GHz	±4.44dB
Radiated Emission above 1GHz	±5.26dB

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

4.5 Test Types and Results

Standard: FCC PART 15, SUBPART C (SECTION 15.249)		
Standard Section	Test Type	Result
§15.209 & §15.249(a)	Radiated Emission	PASS
§15.215(c)	20dB Bandwidth	PASS
§15.207(a)	Conducted Emission	N/A
§15.203	Antenna Requirement	PASS
§15.205	Restricted Band Around Fundamental Frequency	PASS

5 Test Conditions and Results

5.1 Radiated Emission

For test instruments and accessories used see section 6

5.1.1 Test Procedures

- (1) The EUT was placed on the top of a rotating table 1.5 meters (above 1GHz) and 0.8 meters (below 1GHz) above the ground at a 3 meters 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 one meter to four 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.
- (4) 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.
- (5) The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com

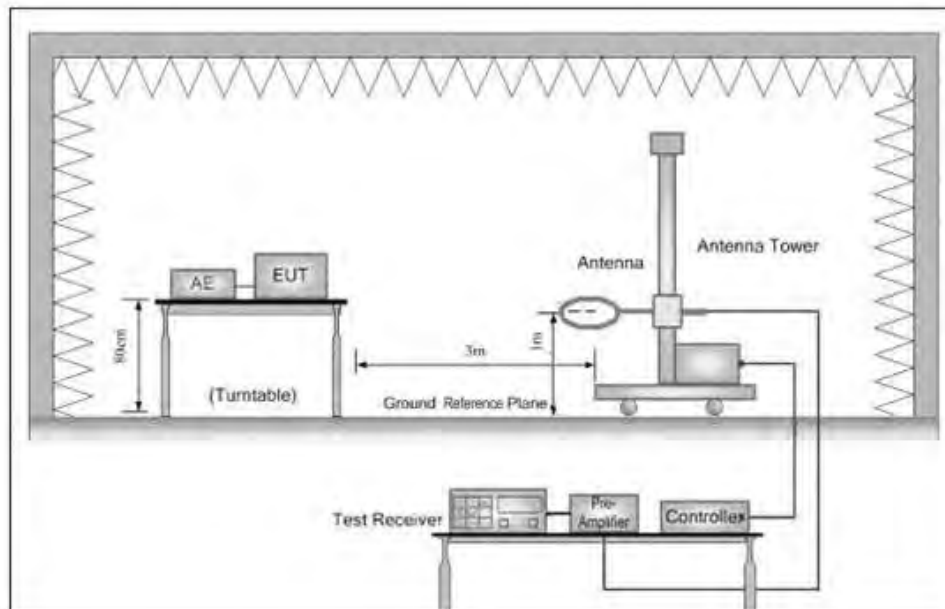


- (6) For below 30MHz, a loop antenna with its vertical plane is placed 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.
- (7) If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. All modes of operation were investigated and the worst-case emissions are reported
4. The testing of the EUT was performed on all 3 orthogonal axes; the worst-case test configuration was reported on the file test setup photo.

5.1.2 Test Setup



Below 30MHz

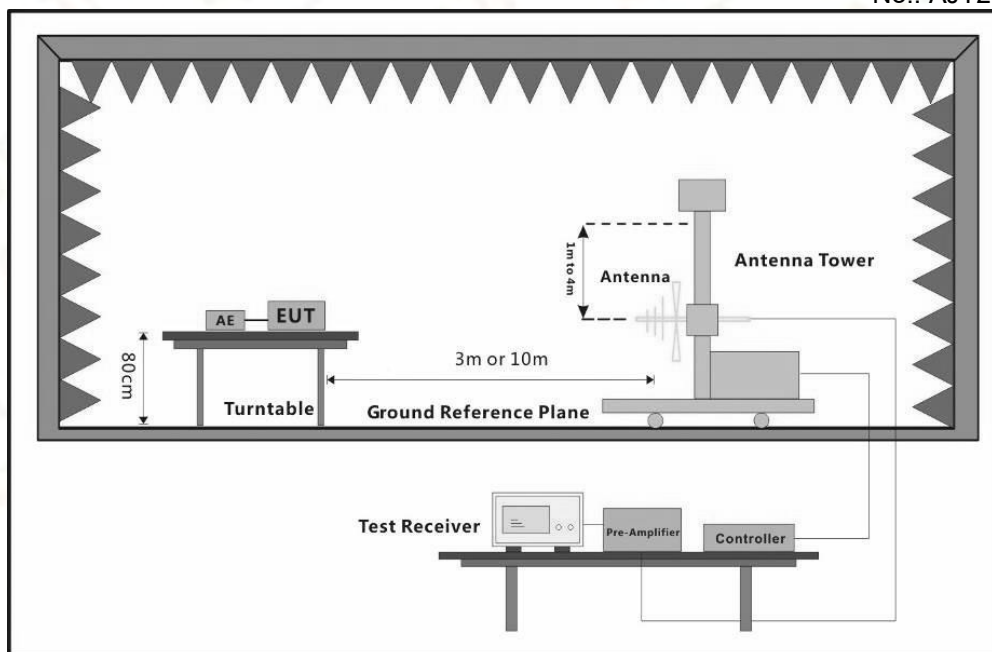
This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

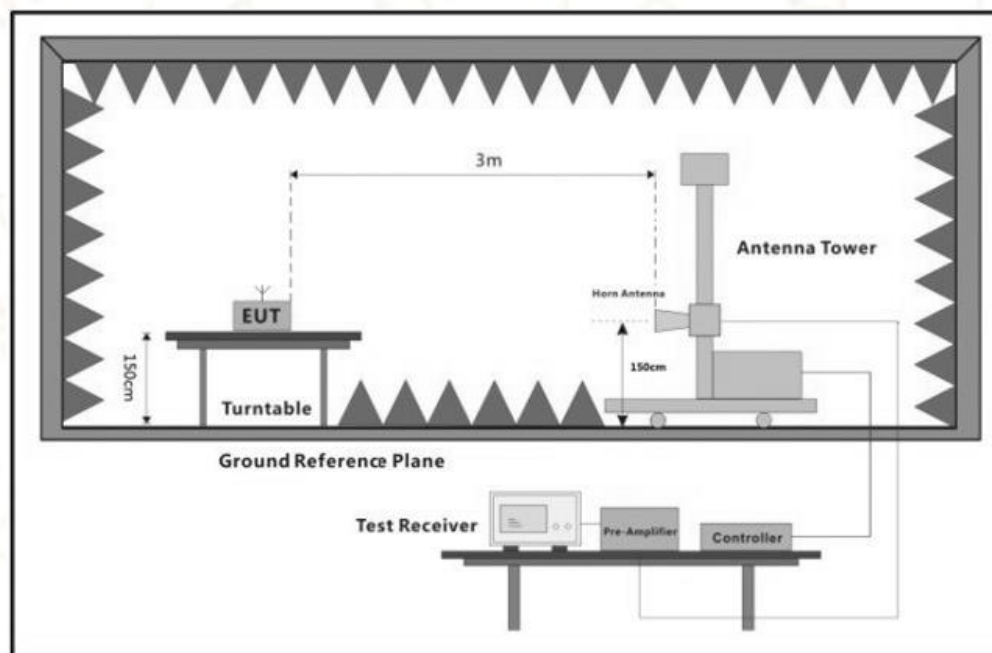
Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





30MHz-1000MHz



Above 1GHz

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





Test Report



CERTIFICATE #5443.01
No.: AJT200925045E-1

5.1.3 Test Limits

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

According to §15.249(a), the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Filed strength of fundamental(milli-volts/meter)	Field strength of harmonics (micro-volts/meter)
902 ~ 928 MHz	50	500
2400 ~ 2483.5 MHz	50	500
5725 ~5875 MHz	50	500
24.0 ~24.25 GHz	250	2500

The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply.

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBμV/m) = 20 log Emission level (μV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.
4. Emission from 9kHz to 30MHz is more than 20dB below the limit.

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com



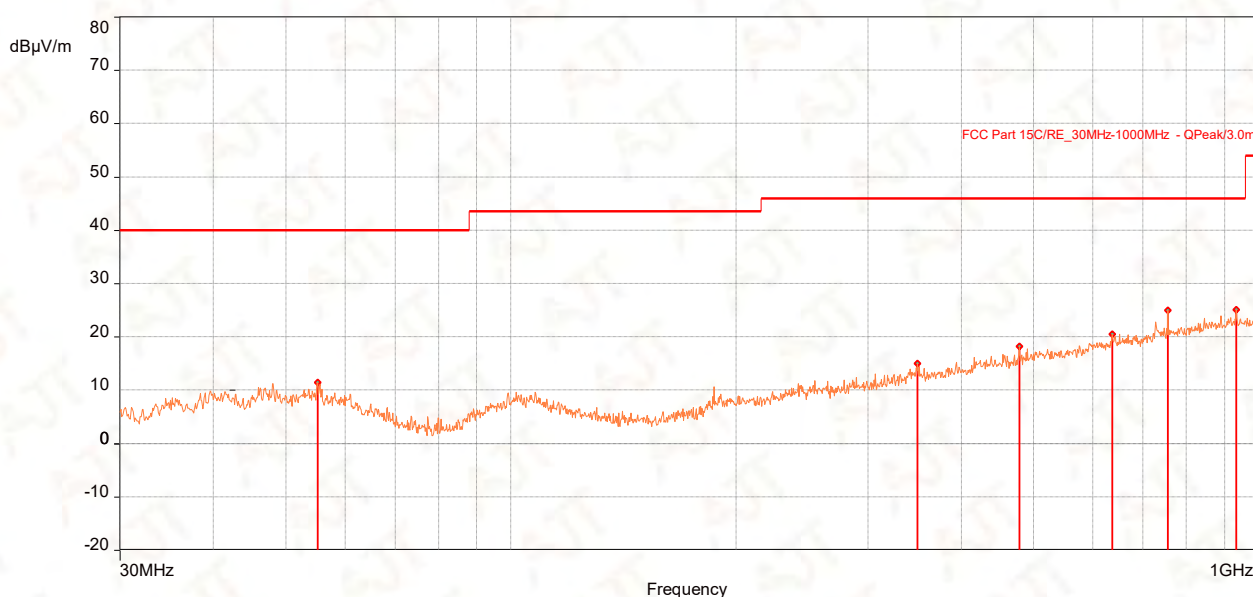
5.1.4 Test Results

The disturbance below 30MHz was less than 20dB, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

5.1.4.1 Radiated Emissions Test (Below 1GHz)

Test point	Operation mode	Result
Horizontal	TX mode (The worst channel: 2410MHz)	PASS

EUT Name	RC CAR
Operating Condition	DC: 3.0V(AA*2)
Test Condition	Ambient Temperature: 26°C Humidity: 55%RH



Frequency (MHz)	Peak (dBμV/m)	QP (dBμV/m)	QP Lim. (dBμV/m)	Margin (dB)	Angle (°)	Height (m)	Polarization
55.123	11.38	/	40.00	-28.62	323.00	1.00	Horizontal
349.421	15.03	/	46.00	-30.97	3.00	1.00	Horizontal
478.722	18.20	/	46.00	-27.80	0.00	1.00	Horizontal
637.22	20.45	/	46.00	-25.55	206.00	1.00	Horizontal
756.045	25.00	/	46.00	-21.00	300.00	1.00	Horizontal
932.779	25.11	/	46.00	-20.89	55.00	1.00	Horizontal

Note:

- 1.QP is abbreviation of Quasi-Peak
- 2.Margin = Emission Level - Limit Value
- 3.The emission levels of other frequencies were more than 20dB margin against the limit

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com



Test point	Operation mode	Result
Vertical	TX mode (The worst channel: 2410MHz)	PASS

EUT Name	RC CAR
Operating Condition	DC: 3.0V(AA*2)
Test Condition	Ambient Temperature: 26°C Humidity: 55%RH



Frequency (MHz)	Peak (dBμV/m)	QP (dBμV/m)	QP Lim. (dBμV/m)	Margin (dB)	Angle (°)	Height (m)	Polarization
46.199	10.73	/	40.00	-29.27	257.00	1.00	Vertical
322.261	14.82	/	46.00	-31.18	327.00	1.00	Vertical
491.817	18.12	/	46.00	-27.88	63.00	1.00	Vertical
656.329	20.83	/	46.00	-25.17	126.00	1.00	Vertical
756.045	25.22	/	46.00	-20.78	72.00	1.00	Vertical
905.231	24.14	/	46.00	-21.86	236.00	1.00	Vertical

Note:

- 1.QP is abbreviation of Quasi-Peak
- 2.Margin = Emission Level - Limit Value
- 3.The emission levels of other frequencies were more than 20dB margin against the limit

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





Test Report



No.: AJT200925045E-1

5.1.4.2 Radiated emissions test (above 1GHz)

EUT Name	RC CAR		
Channel	The lowest channel (2410MHz)	Detector function	Peak (PK) Average (AV)
Frequency range	1-26 GHz	Result	PASS

Antenna Polarity & Test Distance: Horizontal At 3m								
Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Correction (dB)	Detector
2390.04	19.47	54.00	-34.53	2.00	346.00	Horizontal	-22.81	Average
2398.08	29.12	54.00	-24.88	2.00	359.00	Horizontal	-22.81	Average
2400	24.97	54.00	-29.03	2.00	359.00	Horizontal	-22.81	Average
*2410.08	73.61	94.00	-20.39	2.00	6.00	Horizontal	-22.81	Average
4819.925	22.50	54.00	-31.50	2.00	354.00	Horizontal	-22.81	Average
7229.85	25.00	54.00	-29.00	2.00	154.00	Horizontal	-22.81	Average
2390.04	42.28	74.00	-31.72	2.00	346.00	Horizontal	-2.58	Peak
2398.08	51.93	74.00	-22.07	2.00	359.00	Horizontal	-2.54	Peak
2400	47.78	74.00	-26.22	2.00	359.00	Horizontal	-2.53	Peak
*2410.08	96.42	114.00	-17.58	2.00	6.00	Horizontal	-2.43	Peak
4819.925	45.31	74.00	-28.69	2.00	354.00	Horizontal	2.45	Peak
7229.85	47.81	74.00	-26.19	2.00	154.00	Horizontal	8.04	Peak

Antenna Polarity & Test Distance: Vertical At 3m								
Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Correction (dB)	Detector
2390.04	24.69	54.00	-29.31	1.00	130.00	Vertical	-22.81	Average
2398.08	34.63	54.00	-19.37	1.00	90.00	Vertical	-22.81	Average
2400	29.41	54.00	-24.59	1.00	204.00	Vertical	-22.81	Average
*2410.08	79.14	94.00	-14.86	1.00	154.00	Vertical	-22.81	Average
4819.925	33.20	54.00	-20.80	1.00	146.00	Vertical	-22.81	Average
7229.85	23.18	54.00	-30.82	1.99	117.00	Vertical	-22.81	Average
2390.04	47.50	74.00	-26.50	1.00	130.00	Vertical	-2.58	Peak
2398.08	57.44	74.00	-16.56	1.00	90.00	Vertical	-2.54	Peak
2400	52.22	74.00	-21.78	1.00	204.00	Vertical	-2.53	Peak
*2410.08	101.95	114.00	-12.05	1.00	154.00	Vertical	-2.43	Peak
4819.925	56.01	74.00	-17.99	1.00	146.00	Vertical	2.45	Peak
7229.85	45.99	74.00	-28.01	1.99	117.00	Vertical	8.04	Peak

Remarks:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The emission levels of other frequencies were more than 20dB margin against the limit.
4. Margin = Emission level - Limit value
5. " * ": Fundamental frequency.
6. The average value of fundamental frequency is: Average value = Peak value +AV factor, where the AV factor is calculated from following formula: AV factor=20 log (Duty cycle) = 20 log (7.23%) = -22.81dB, please see 5.1.4.3.

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

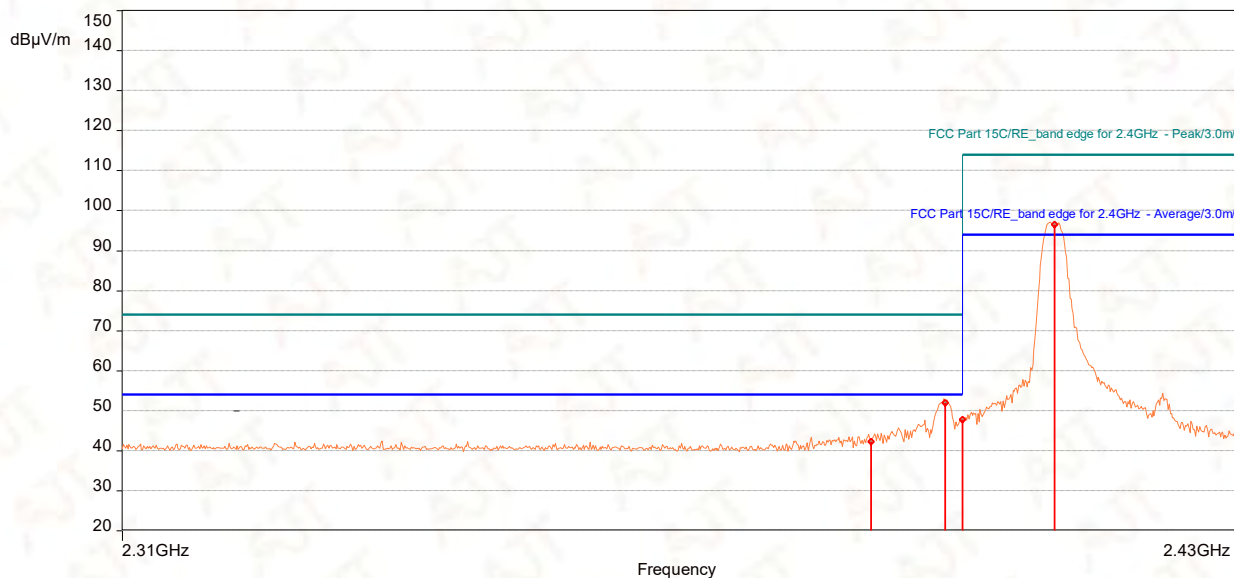
Add: 1F & 2F Yifeng Building, Chenghua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com

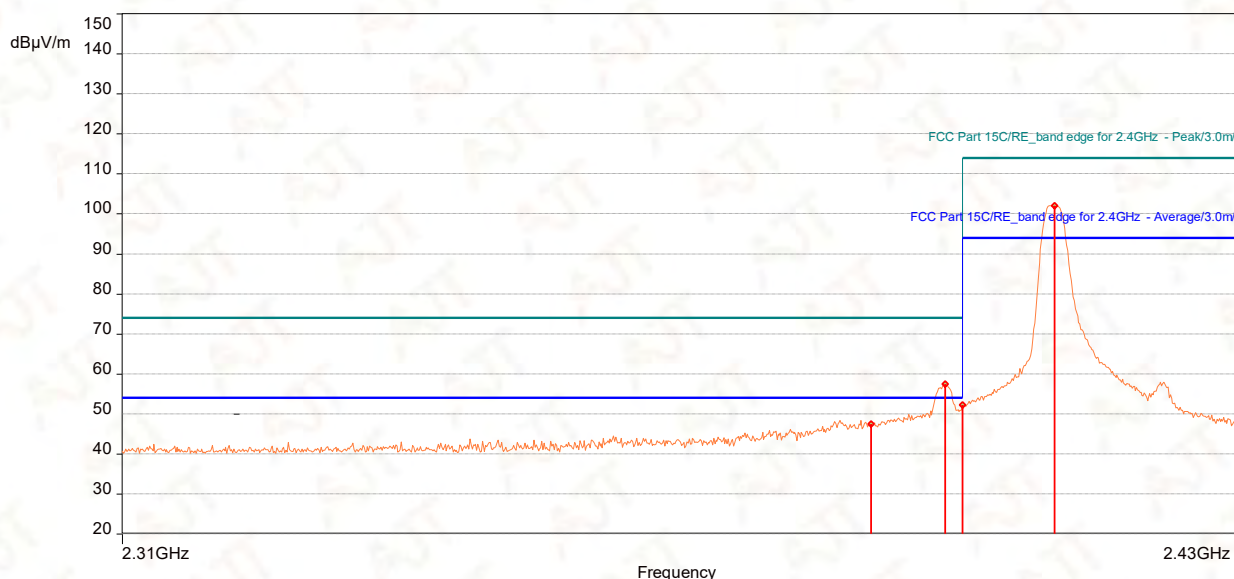


Band Edge Plot

2410MHz Horizontal



2410MHz Vertical



This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenghua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





Test Report



No.: AJT200925045E-1

EUT Name	RC CAR		
Channel	The middle channel (2442MHz)	Detector function	Peak (PK) Average (AV)
Frequency range	1-26 GHz	Result	PASS

Antenna Polarity & Test Distance: Horizontal At 3m								
Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Correction (dB)	Detector
*2442.0005	73.81	94.00	-20.19	1.01	199.00	Horizontal	-22.81	Average
4884.55	22.01	54.00	-31.99	2.00	354.00	Horizontal	-22.81	Average
7327.375	26.99	54.00	-27.01	2.00	154.00	Horizontal	-22.81	Average
*2442.0005	96.62	114.00	-17.38	1.01	199.00	Horizontal	-2.63	Peak
4884.55	44.82	74.00	-29.18	2.00	354.00	Horizontal	1.85	Peak
7327.375	49.80	74.00	-24.20	2.00	154.00	Horizontal	8.20	Peak
Antenna Polarity & Test Distance: Vertical At 3m								
Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Correction (dB)	Detector
*2442.0005	79.42	94.00	-14.58	1.00	147.00	Vertical	-22.81	Average
4884.55	32.34	54.00	-21.66	1.00	146.00	Vertical	-22.81	Average
7327.375	27.89	54.00	-26.11	1.99	117.00	Vertical	-22.81	Average
*2442.0005	102.23	114.00	-11.77	1.00	147.00	Vertical	-2.63	Peak
4884.55	55.15	74.00	-18.85	1.00	146.00	Vertical	1.85	Peak
7327.375	50.70	74.00	-23.30	1.99	117.00	Vertical	8.20	Peak
Remarks:								
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)								
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)								
3. The emission levels of other frequencies were more than 20dB margin against the limit.								
4. Margin = Emission level - Limit value								
5. " * ": Fundamental frequency.								
6. The average value of fundamental frequency is: Average value = Peak value +AV factor, where the AV factor is calculated from following formula: AV factor=20 log (Duty cycle) = 20 log (7.23%) = -22.81dB, please see 5.1.4.3.								

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenghua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





Test Report



CERTIFICATE #5443.01
No.: AJT200925045E-1

EUT Name	RC CAR		
Channel	The highest channel (2473MHz)	Detector function	Peak (PK) Average (AV)
Frequency range	1-26 GHz	Result	PASS

Antenna Polarity & Test Distance: Horizontal At 3m								
Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Correction (dB)	Detector
*2473	73.28	94.00	-20.72	1.00	346.00	Horizontal	-22.81	Average
2483.5	25.61	54.00	-28.39	1.99	221.00	Horizontal	-22.81	Average
2485	28.93	54.00	-25.07	1.00	323.00	Horizontal	-22.81	Average
4946.825	22.37	54.00	-31.63	1.00	331.00	Horizontal	-22.81	Average
7419.025	27.57	54.00	-26.43	1.99	163.00	Horizontal	-22.81	Average
*2473	96.09	114.00	-17.91	1.00	346.00	Horizontal	-2.61	Peak
2483.5	48.42	74.00	-25.58	1.99	221.00	Horizontal	-2.67	Peak
2485	51.74	74.00	-22.26	1.00	323.00	Horizontal	-2.68	Peak
4946.825	45.18	74.00	-28.82	1.00	331.00	Horizontal	2.15	Peak
7419.025	50.38	74.00	-23.62	1.99	163.00	Horizontal	8.36	Peak
Antenna Polarity & Test Distance: Vertical At 3m								
Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Correction (dB)	Detector
*2473	78.97	94.00	-15.03	1.01	284.00	Vertical	-22.81	Average
2483.5	31.87	54.00	-22.13	2.00	294.00	Vertical	-22.81	Average
2485	34.69	54.00	-19.31	1.01	194.00	Vertical	-22.81	Average
4946.825	30.91	54.00	-23.09	1.01	297.00	Vertical	-22.81	Average
7419.025	28.51	54.00	-25.49	2.00	100.00	Vertical	-22.81	Average
*2473	101.78	114.00	-12.22	1.01	284.00	Vertical	-2.61	Peak
2483.5	54.68	74.00	-19.32	2.00	294.00	Vertical	-2.67	Peak
2485	57.50	74.00	-16.50	1.01	194.00	Vertical	-2.68	Peak
4946.825	53.72	74.00	-20.28	1.01	297.00	Vertical	2.15	Peak
7419.025	51.32	74.00	-22.68	2.00	100.00	Vertical	8.36	Peak
Remarks:								
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)								
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)								
3. The emission levels of other frequencies were more than 20dB margin against the limit.								
4. Margin = Emission level - Limit value								
5. " * ": Fundamental frequency.								
6. The average value of fundamental frequency is: Average value = Peak value +AV factor, where the AV factor is calculated from following formula: AV factor=20 log (Duty cycle) = 20 log (7.23%) = -22.81dB, please see 5.1.4.3.								

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

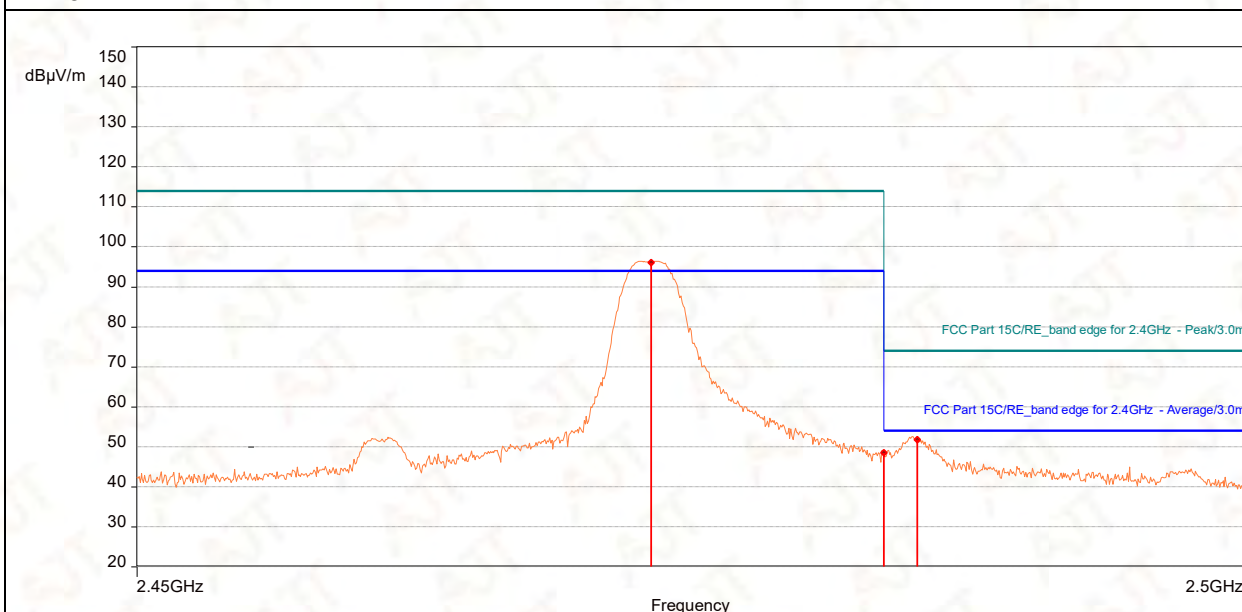
Add: 1F & 2F Yifeng Building, Chenghua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com

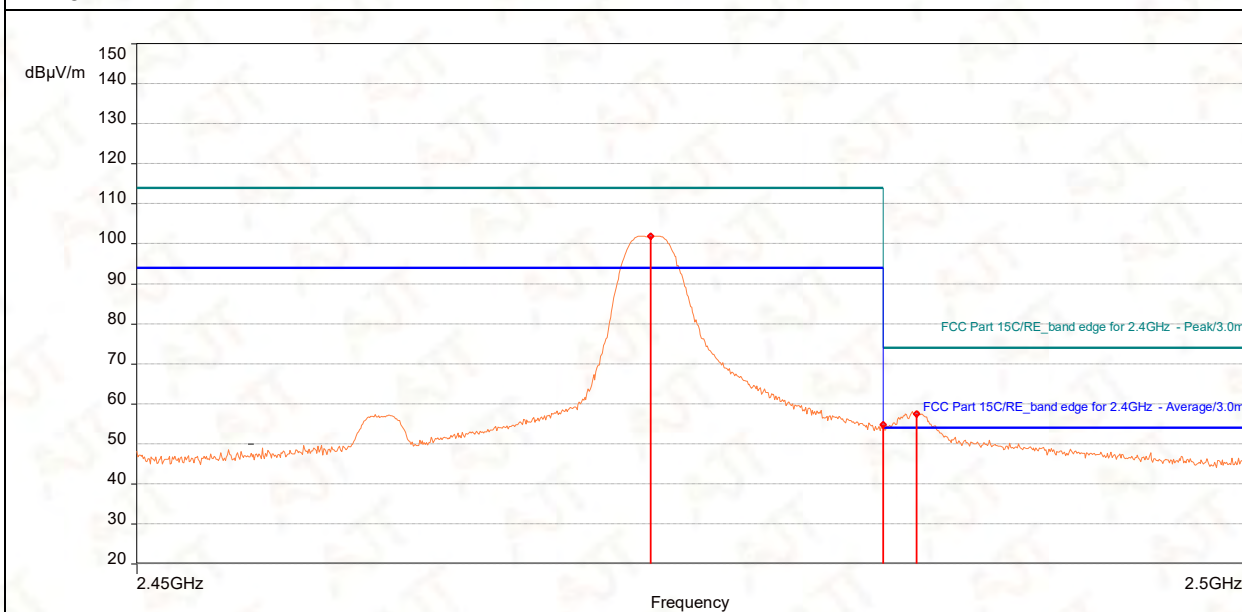


Band Edge Plot

2473MHz Horizontal



2473MHz Vertical



This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





Test Report



CERTIFICATE #5443.01

No.: AJT200925045E-1

5.1.4.3 Calculation of Average Factor

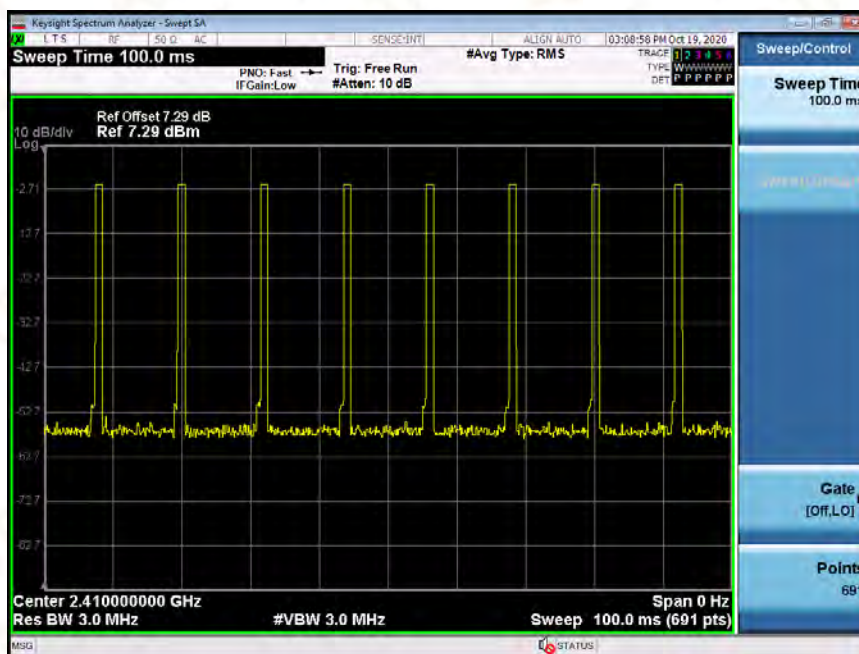
Effective period of the cycle = 0.87ms

The duration of one cycle = 12.03ms

Duty Cycle = 0.87ms / 12.03ms = 7.23%

Averaging factor in dB = 20 log (duty cycle) = 20 log (7.23%) = -22.81dB

100ms Duty Cycle



This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





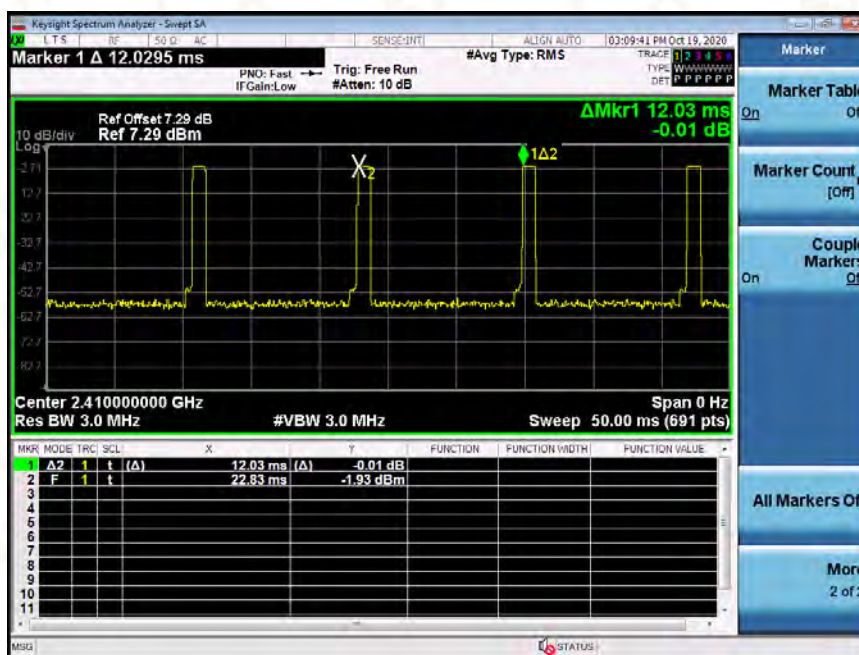
Test Report



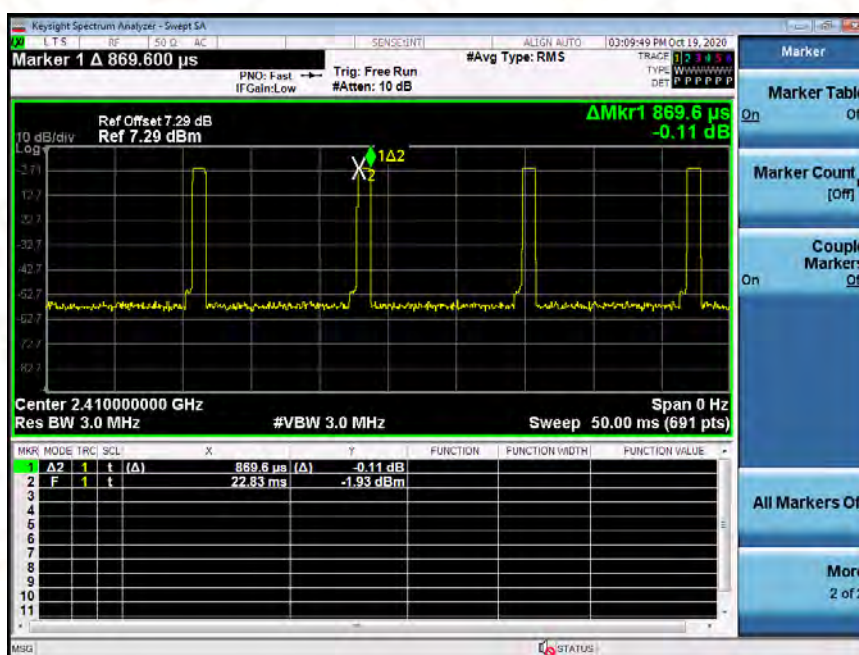
CERTIFICATE #5443.01

No.: AJT200925045E-1

The duration of one cycle



Ton



This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com



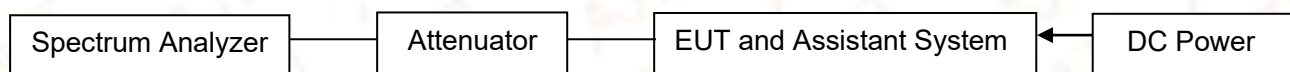
5.2 20dB Bandwidth

For test instruments and accessories used see section 6

5.2.1 Test Procedures

- (1) Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- (2) Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
- (3) Measure the frequency difference of two frequencies that were attenuated 20dB from the reference level. Record the frequency difference as the emission bandwidth.
- (4) Repeat above procedures until all frequencies measured were complete.

5.2.2 Test Setup



5.2.3 Test Limits

According to FCC 15.215(c), must be designed to ensure that the 20dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

5.2.4 Test Results

Channel	frequency (MHz)	F _L (MHz)	F _H (MHz)	20dB Bandwidth (MHz)
The lowest channel	2410	2409.380	2410.500	1.120
The middle channel	2442	2441.368	2442.564	1.196
The highest channel	2473	2472.368	2473.652	1.284

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





Test Report



CERTIFICATE #5443.01

No.: AJT200925045E-1



2410MHz



2442MHz

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





Test Report



CERTIFICATE #5443.01

No.: AJT200925045E-1



2473MHz

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenchua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





Test Report



CERTIFICATE #5443.01
No.: AJT200925045E-1

5.3 Antenna Requirements

Test Standard:
FCC Part 15, Subpart C 15.203

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user. but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is -3dBi. Antenna location: Refer to Appendix (Internal photos).

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenghua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.
Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





Test Report



CERTIFICATE #5443.01
No.: AJT200925045E-1

6 Test Equipment

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1	Spectrum Analyzer	Keysight	N9010A	MY51120099	2020/06/22	2021/06/22
2	JS0806-2 RF Control Unit	Tonscend	JS0806-2	188060124	2019/12/12	2020/12/12
3	Broadband Preamplifier	SCHWARZBECK	BBV 9743B	00067	2020/03/28	2021/03/28
4	Broadband Preamplifier	SCHWARZBECK	BBV 9718B	00062	2020/03/28	2021/03/28
5	EMI Test Receiver	ROHDE & SCHWARZ	ESR3	102452	2020/06/22	2021/06/22
6	Trilog Broadband Antenna	SCHWARZBECK	VULB 9163	9163-1127	2020/06/12	2021/06/12
7	Horn Antenna	SCHWARZBECK	BBHA 9120D	01829	2020/06/04	2021/06/04
8	DC Power Supply	SIGLENT	SPD1168X	SPD1XEAD3 R 0167	2020/06/02	2021/06/02
9	Vector Signal Generator	Keysight	N5172B-506	MY53052255	2020/06/04	2021/06/04
10	EXG Analog Signal Generator	Keysight	N5171B-506	MY53051692	2020/06/22	2021/06/22
11	Temperature Humidity Chamber	Yiheng	BPS-50CB	191005684	2019/12/06	2020/12/06
12	Temperature And Humidity Indicator	JianDaRenKe	Cos-03	0612058	2020/07/01	2021/07/01
13	BAT-EMC Testing (Test Software)	NEXIO	BAT-EMC	Version: 3.16.0.74	N/A	N/A
14	JS1120-3 Test System (Test Software)	Tonscend	JS1120-3	Version: 2.5.77.0418	N/A	N/A
15	Double Ridge Guide Horn Antennas	A.H.Systems	SAS-574	588	2020/07/02	2021/07/02
16	Active Loop Antenna	BeiJing DaZe technology co. LTD	ZN30900C	15015	2020/03/31	2021/03/31
17	Double Ridged Horn Antenna	A.H.Systems	SAS-574	588	2020/07/09	2021/07/09

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenghua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com





Test Report



CERTIFICATE #5443.01
No.: AJT200925045E-1

7 Test Photographs

Referring to – “Test Setup Photos”.

8 Photos of the EUT

Referring to – “External Photos of RC CAR (062300)” and “Internal Photos of RC CAR (062300)”.

9 Manufacturer/ Approval Holder Declaration

The following identical model(s):

062298

Belong to the tested device:

Product description: RC CAR
Model No.: 062300

END OF TEST REPORT

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Disagreement against this test report, if any, should be filed with to our company in writing within 15 days of receiving the report. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.

AJT TESTING SERVICES LIMITED

Add: 1F & 2F Yifeng Building, Chenghua Industrial Zone, Chenghai District, Shantou, Guangdong, China 515800.

Tel: 86-754-85860999 Fax: 86-754-86984098 Website: www.ajtesting.com Email: info@ajtesting.com

Page 24 of 24

