

Applicant address





# **Test Report**

No.: AJT200723026E

Applicant name GUANGDONG HENGDI TECHNOLOGY CORP., LTD.

: THE WEST OF NINGCHUAN ROAD AND THE SOUTH OF HUANCUL

ROAD, CHENGHAI ZONE, SHANTOU CITY, GUANGDONG PROVINCE,

**CHINA** 

Manufacturer name GUANGDONG HENGDI TECHNOLOGY CORP., LTD.

: THE WEST OF NINGCHUAN ROAD AND THE SOUTH OF HUANCUI

Manufacturer address ROAD, CHENGHAI ZONE, SHANTOU CITY, GUANGDONG PROVINCE,

**CHINA** 

: RC TOYS Sample Description

Model No. T03B

> : T01, T01B, T02, T02B, T03, T04, T04B, T05, T05B, T06, T06B, T07, T07B, T08, T08B, T09, T09B, T10, T10B, T11, T11B, T12, T12B, T13,

Additional Model T13B, T14, T14B, T15, T15B, ZYJH121, ZYJH122, ZYJH129, E20-1,

E20-2, E20-3, E20-4, E20-5, E20-6, E20-1B, E20-2B, E20-3B, E20-4B,

E20-5B, E20-6B

Client Specified Age Grade Tested Age Grade

Sample received date : 03 DEC. 2019 : 09 DEC. 2019 Testing completed date

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	PASS

Note: "--" is represent for blank. "N/A" means not applicable.

Tested by:

Reviewed by: Fly Living Approved by:

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### 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	03 DEC. 2019
Testing commenced on	03 DEC. 2019 09 DEC. 2019
Testing concluded on	09 DEC. 2019

#### 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
	0.1.0.0.0.5.0.5

Remark: The data of this report are from the test report of AJT191203056E.

### 3 Equipment Under Test

### 3.1 Short description of the Equipment Under Test (EUT)

EUT Name:	RC TOYS		
FCC ID:	2AWZK-T03B		
Model No.:	T03B		
Number of tested samples:	1 7 2 2 2		
Power supply voltage	DC: 3.0V(AAA*2)		
Operating Mode	TX Mode		
Operation frequency	2405-2475MHz		
Number of Channel	71		
Modulation	GFSK		
Antenna Type	Integral Antenna		
Antenna Gain	0dBi		

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### 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.

<b>FUT£</b>		Applicable	to	7.7	Description
EUT configure mode	RE < 1G	RE≥1G	PLC	BW	DC 3V from battery
A	V	V	N/A	<b>V</b>	DC 3V Horri 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	2405	19	2423	37	2441	55	2459
2	2406	20	2424	38	2442	56	2460
3	2407	21	2425	39	2443	57	2461
4	2408	22	2426	40	2444	58	2462
5	2409	23	2427	41	2445	59	2463
6	2410	24	2428	42	2446	60	2464
7	2411	25	2429	43	2447	61	2465
8	2412	26	2430	44	2448	62	2466
9	2413	27	2431	45	2449	63	2467
10	2414	28	2432	46	2450	64	2468
11	2415	29	2433	47	2451	65	2469
12	2416	30	2434	48	2452	66	2470
13	2417	31	2435	49	2453	67	2471
14	2418	32	2436	50	2454	68	2472
15	2419	33	2437	51	2455	69	2473
16	2420	34	2438	52	2456	70	2474
17	2421	35	2439	53	2457	71	2475
18	2422	36	2440	54	2458	7 /	

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Channel list

Channel	Frequency (MHz)
The lowest channel	2405
The middle channel	2440
The highest channel	2475

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		
1F&2F YIFENG BUILDING, CHENGHUA INDUSTRIAL ZONE,			
Test site:	CHENGHAI DISTRICT, SHANTOU CITY		
Tel:	86-754-85860999		
Fax:	86-754-86984098		

### 4.2 Test facility

The test facility is recognized, certified, or acc	credited 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 env	rironmental conditions were within the listed ranges:
Temperature	15~35℃
Humidity	30~75%

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### 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 ±4.88dB		
Radiated Emission above 1GHz ±4.65dB		

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

Stand	lard: FCC PART 15, SUBPART C (SECTION 15.249)	1 4/
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.

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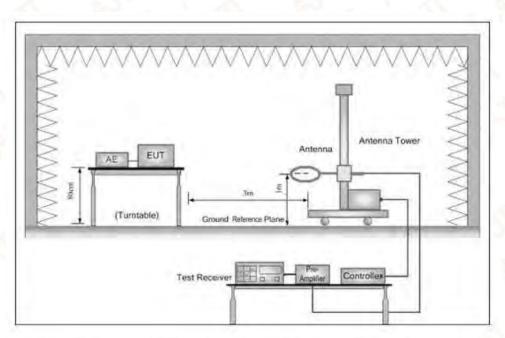
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- (5) The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- (6) For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response 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

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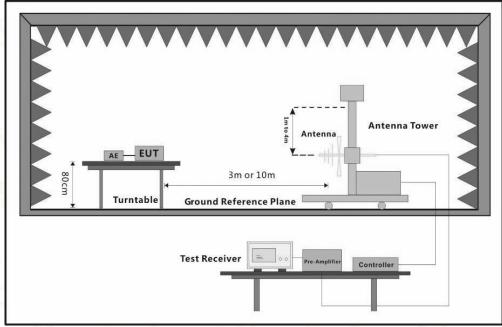
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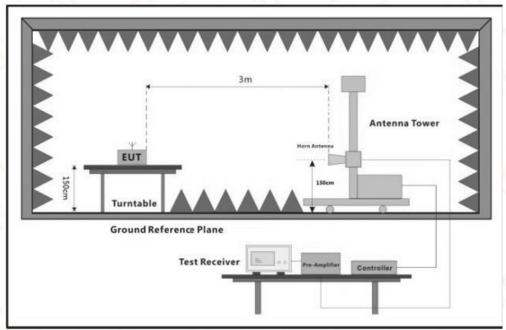




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30MHz-1000MHz



Above 1GHz

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#### 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.

- 1. The lower limit shall apply at the transition frequencies.
- 2. Emission level (dB $\mu$ V/m) = 20 log Emission level ( $\mu$ V/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.

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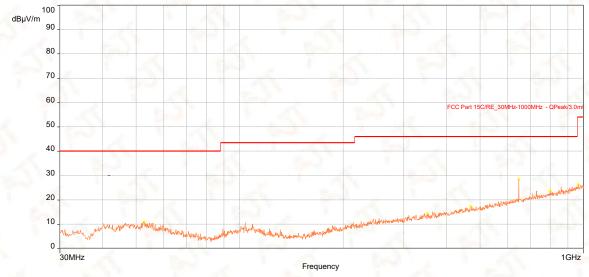
#### 5.1.4 Test results

The disturbance below 30MHz was very low, 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: 2440MHz)	PASS

EUT	RC TOYS
Operating Condition	DC: 3.0V(AAA*2)
Test Condition	Ambient Temperature: 20°C Humidity: 42%RH



Frequency (MHz)	Peak (dBµV/m)	QP (dBµV/m)	QP Lim. (dBµV/m)	Margin (dB)	Angle (°)	Height (m)	Polarization
52.698	10.92	<u> </u>	40.00	-29.08	205.00	1.01	Horizontal
351.07	14.30	-	46.00	-31.70	226.00	2.00	Horizontal
471.059	17.26		46.00	-28.74	105.00	2.00	Horizontal
647.987	28.40	-	46.00	-17.60	324.00	2.00	Horizontal
800.083	23.63		46.00	-22.37	315.00	1.01	Horizontal
965.662	26.36	-	54.00	-27.64	25.00	2.00	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

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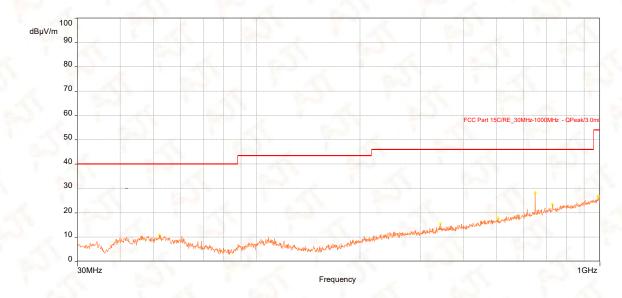




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Test point	Operation mode	Result
Vertical	TX mode (The worst channel: 2440MHz)	PASS

EUT	RC TOYS
Operating Condition	DC: 3.0V(AAA*2)
Test Condition	Ambient Temperature: 20°C Humidity: 42%RH



Frequency (MHz)	Peak (dBµV/m)	QP (dBµV/m)	QP Lim. (dBµV/m)	Margin (dB)	Angle (°)	Height (m)	Polarization
52.116	10.86		40.00	-29.14	189.00	1.01	Vertical
342.922	15.44		46.00	-30.56	104.00	1.01	Vertical
506.076	17.83	1	46.00	-28.17	234.00	2.00	Vertical
647.987	28.26	<b>~</b>	46.00	-17.74	65.00	2.00	Vertical
728.594	23.36		46.00	-22.64	189.00	1.01	Vertical
988.457	26.76		54.00	-27.24	325.00	2.00	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

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### 5.1.4.2 Radiated emissions test (above 1GHz)

EUT	RC TOYS	1	
Channel	The lowest channel (2405MHz)	Detector function	Peak (PK) Average (AV)
Frequency range	above 1GHz	Result	PASS

		Antenna Pola	arity & Te	st Distand	ce: Horizo	ontal At 3m		
Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Correction (dB)	Detector
2390.04	33.66	54.00	-20.34	1.50	221.00	Horizontal	-11.81	Average
2400	42.48	54.00	-11.52	1.50	41.00	Horizontal	-11.81	Average
*2405.28	69.96	94.00	-24.04	1.50	41.00	Horizontal	-11.81	Average
4808.175	34.6	54.00	-19.4	1.01	133.00	Horizontal	-11.81	Average
7215.75	41.93	54.00	-12.07	2.00	341.00	Horizontal	-11.81	Average
2390.04	45.47	74.00	-28.53	1.50	221.00	Horizontal	-3.50	Peak
2400	54.29	74.00	-19.71	1.50	41.00	Horizontal	-3.27	Peak
*2405.28	81.77	114.00	-32.23	1.50	41.00	Horizontal	-3.24	Peak
4808.175	46.41	74.00	-27.59	1.01	133.00	Horizontal	2.12	Peak
7215.75	53.74	74.00	-20.26	2.00	341.00	Horizontal	10.30	Peak
-47		Antenna Po	larity & T	est Distar	nce: Verti	cal At 3m		
Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Correction (dB)	Detector
2390.04	41.92	54.00	-12.08	1.50	121.00	Vertical	-11.81	Average
2400	E0 E6	54.00	2.44	4.50		17 C 1	44.04	Average
2400	50.56	54.00	-3.44	1.50	110.00	Vertical	-11.81	Avelage
*2405.04	77.03	94.00	-3.44	1.50	110.00	Vertical Vertical	-11.81 -11.81	
			-16.97					Average
*2405.04	77.03	94.00		1.50	113.00	Vertical	-11.81	Average Average
*2405.04 4810.525	77.03 39.47	94.00 54.00	-16.97 -14.53	1.50 1.00	113.00 169.00	Vertical Vertical	-11.81 -11.81	Average
*2405.04 4810.525 7214.575	77.03 39.47 36.53	94.00 54.00 54.00	-16.97 -14.53 -17.47	1.50 1.00 1.99	113.00 169.00 315.00	Vertical Vertical Vertical	-11.81 -11.81 -11.81	Average Average Average
*2405.04 4810.525 7214.575 2390.04	77.03 39.47 36.53 53.73	94.00 54.00 54.00 74.00	-16.97 -14.53 -17.47 -20.27	1.50 1.00 1.99 1.50	113.00 169.00 315.00 121.00	Vertical Vertical Vertical Vertical	-11.81 -11.81 -11.81 -3.30	Average Average Average Peak
*2405.04 4810.525 7214.575 2390.04 2400	77.03 39.47 36.53 53.73 62.37	94.00 54.00 54.00 74.00 74.00	-16.97 -14.53 -17.47 -20.27 -11.63	1.50 1.00 1.99 1.50 1.50	113.00 169.00 315.00 121.00 110.00	Vertical Vertical Vertical Vertical Vertical	-11.81 -11.81 -11.81 -3.30 -3.07	Average Average Average Peak 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 value = 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 (25.68%)

=-11.81dB, please see 5.1.4.3.

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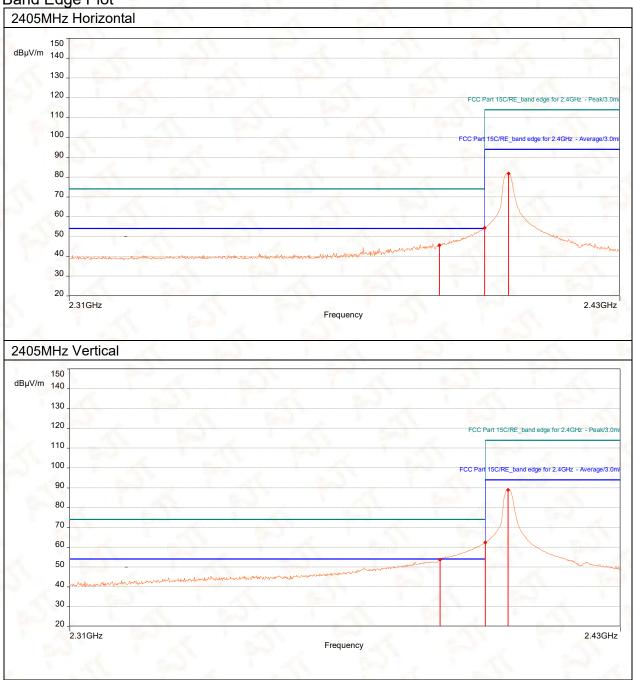






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EUT	RC TOYS	F 1	
Channel	The middle channel (2440MHz)	Detector function	Peak (PK) Average (AV)
Frequency range	above 1GHz	Result	PASS

	F	Antenna Pola	arity & Te	st Distan	ce: Horizo	ontal At 3m	TA	
Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Correction (dB)	Detector
*2440.414	70.22	94.00	-23.78	1.51	48.00	Horizontal	-11.81	Average
4756.475	35.05	54.00	-18.95	1.01	321.00	Horizontal	-11.81	Average
7320.325	41.41	54.00	-12.59	1.99	334.00	Horizontal	-11.81	Average
*2440.414	82.03	114.00	-31.97	1.51	48.00	Horizontal	-3.20	Peak
4756.475	46.86	74.00	-27.14	1.01	321.00	Horizontal	1.09	Peak
7320.325	53.22	74.00	-20.78	1.99	334.00	Horizontal	10.27	Peak
1 -4/		Antenna Po	larity & T	est Dista	nce: Verti	cal At 3m		
Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Correction (dB)	Detector
*2440.4975	78.25	94.00	-15.75	1.50	131.00	Vertical	-11.81	Average
4756.475	39.31	54.00	-14.69	1.00	181.00	Vertical	-11.81	Average
7321.5	34.21	54.00	-19.79	1.99	113.00	Vertical	-11.81	Average
*2440.4975	90.06	114.00	-23.94	1.50	131.00	Vertical	-3.00	Peak
4756.475	51.12	74.00	-22.88	1.00	181.00	Vertical	0.94	Peak
7321.5	46.02	74.00	-27.98	1.99	113.00	Vertical	10.24	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 value = 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 (25.68%) =-11.81dB, please see 5.1.4.3.

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EUT	RC TOYS	F X	J - X
Channel	The highest channel (2475MHz)	Detector function	Peak (PK) Average (AV)
Frequency range	above 1GHz	Result	PASS

	F	Antenna Pola	arity & Te	st Distan	ce: Horizo	ontal At 3m	1	
Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Correction (dB)	Detector
*2475.4	72.94	94.00	-21.06	1.50	59.00	Horizontal	-11.81	Average
2483.5	42.51	54.00	-11.49	1.50	59.00	Horizontal	-11.81	Average
4948	35.77	54.00	-18.23	1.01	335.00	Horizontal	-11.81	Average
7426.075	41.66	54.00	-12.34	1.99	345.00	Horizontal	-11.81	Average
*2475.4	84.75	114.00	-29.25	1.50	59.00	Horizontal	-3.24	Peak
2483.5	54.32	74.00	-19.68	1.50	59.00	Horizontal	-3.10	Peak
4948	47.58	74.00	-26.42	1.01	335.00	Horizontal	1.77	Peak
7426.075	53.47	74.00	-20.53	1.99	345.00	Horizontal	10.39	Peak
6-9		Antenna Po	larity & T	est Dista	nce: Verti	cal At 3m	A	27/
Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Correction (dB)	Detector
*2475.25	79.07	94.00	-14.93	1.50	156.00	Vertical	-11.81	Average
2483.5	49.23	54.00	-4.77	1.50	160.00	Vertical	-11.81	Average
4948	38.37	54.00	-15.63	1.00	160.00	Vertical	-11.81	Average
7423.725	34.96	54.00	-19.04	1.98	254.00	Vertical	-11.81	Average
*2475.25	90.88	114.00	-23.12	1.50	156.00	Vertical	-3.04	Peak
2483.5	61.04	74.00	-12.96	1.50	160.00	Vertical	-2.90	Peak
4948	50.18	74.00	-23.82	1.00	160.00	Vertical	1.58	Peak
7423.725	46.77	74.00	-27.23	1.98	254.00	Vertical	10.44	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 value = 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 (25.68%) =-11.81dB, please see 5.1.4.3.

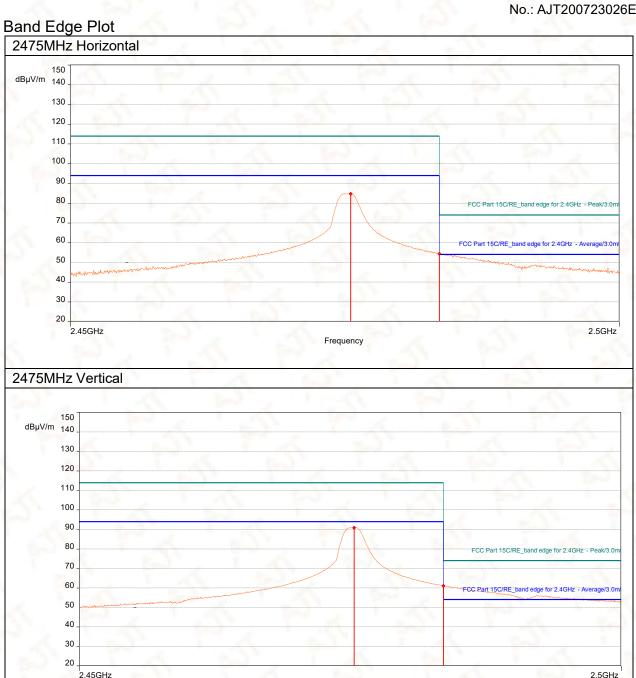
This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically 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.

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Frequency

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5.1.4.3 Calculation of Average Factor

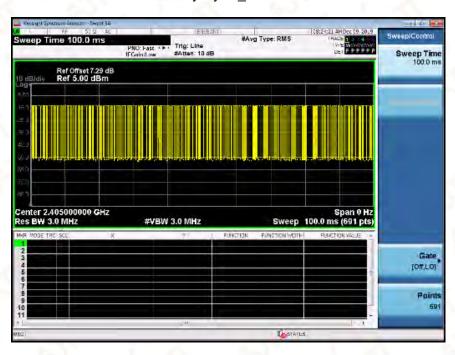
Effective period of the cycle =138.1µs

The duration of one cycle =537.7µs

Duty Cycle = 138.1µs / 537.7µs =25.68%

Averaging factor in dB = 20 log (duty cycle) = 20 log (25.68%) = -11.81

Duty Cycle 100ms



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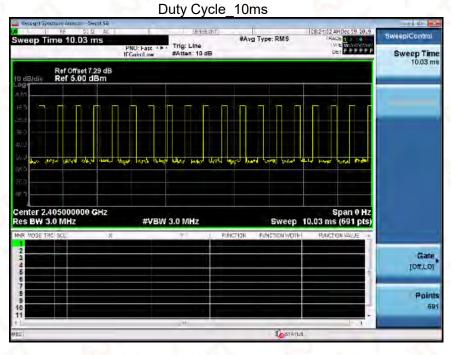
AJT TESTING SERVICES LIMITED

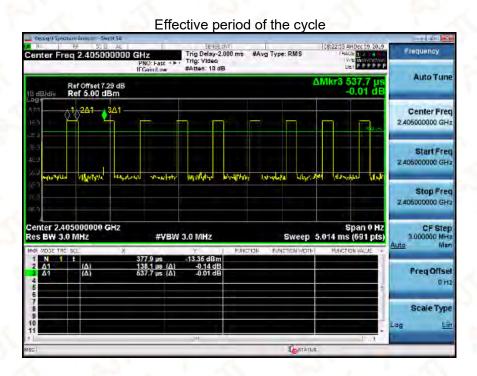






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#### 5.2 20dB bandwidth

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

 Spectrum Analyzer	Attenuator	EUT and Assistant System	<b>-</b>	DC Power
			J	

#### 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 <sub>L</sub> (MHz)	F <sub>H</sub> (MHz)	20dB Bandwidth (MHz)
The lowest channel	2405	2404.492	2405.692	1.200
The middle channel	2440	2439.476	2440.724	1.248
The highest channel	2475	2474.488	2475.736	1.248

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No.: AJT200723026E



2405MHz



2440MHz

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2475MHz

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### 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 0dBi.Antenna location: Refer to Appendix (Internal photos).

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### 6 Test Equipment

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1	Spectrum Analyzer	Keysight	N9010A	MY51120099	2019/07/17	2020/07/17
2	JS0806-2 RF Control Unit	Tonscend	JS0806-2	188060124	2018/12/12	2019/12/12
3	Broadband Preamplifier	SCHWARZBECK	BBV 9743B	00067	2019/04/15	2020/04/15
4	Broadband Preamplifier	SCHWARZBECK	BBV 9718B	00062	2019/04/15	2020/04/15
5	EMI Test Receiver	ROHDE & SCHWARZ	ESR3	102452	2019/07/15	2020/07/15
6	Trilog Broadband Antenna	SCHWARZBECK	VULB 9163	9163-1127	2019/06/04	2020/06/04
7	Horn Antenna	SCHWARZBECK	9120D	01829	2019/06/04	2020/06/04
8	DC power supply	ZHAOXIN	RXN-3010D	2009006313	2018/12/24	2019/12/23
9	Vector Signal Generator	Keysight	N5172B-506	MY53052255	2019/06/03	2020/06/03
10	EXG Analog Signal Generator	Keysight	N5171B-506	MY53051692	2019/05/31	2020/05/31
11	Constant temperature humidity chamber	REALE	RHP-225L	R2017032031 1	2019/07/05	2020/07/05
12	Temperature And Humidity Indicator	JianDaRenKe	Cos-03	0612058	2019/07/31	2020/07/31
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	2019/06/06	2020/06/06
16	Active loop antenna	BeiJing DaZe technology co. LTD	ZN30900C	15015	2019/03/10	2020/03/10

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### 7 Test Photographs

Referring to - "Test Setup Photos".

### 8 Photos of the EUT

Referring to - "External Photos of RC TOYS (T03B)" and "Internal Photos of RC TOYS (T03B)".

### 9 Manufacturer/ Approval holder Declaration

The following identical model(s):

T01, T01B, T02, T02B, T03, T04, T04B, T05, T05B, T06, T06B, T07, T07B, T08, T08B, T09, T09B, T10, T10B, T11, T11B, T12, T12B, T13, T13B, T14, T14B, T15, T15B, ZYJH121, ZYJH122, ZYJH129, E20-1, E20-2, E20-3, E20-4, E20-5, E20-6, E20-1B, E20-2B, E20-3B, E20-4B, E20-5B, E20-6B

Belong to the tested device:

Product description: RC TOYS Model No.: T03B

**END OF TEST REPORT** 

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