

TEST REPORT



Applicant:	RUICHENG PLASTIC TOYS INDUSTRY CO., LTD
Address:	Xinxiang industry, North side of Dengfeng road, Chenghai, Guangdong, China

Manufacturer or Supplier	RUICHENG PLASTIC TOYS INDUSTRY CO., LTD
Address	Xinxiang industry, North side of Dengfeng road, Chenghai, Guangdong, China
Product:	RC ENGINEERING TRUCK
Brand Name:	N/A
Model:	NO.9208A
Additional Models & Model Difference	NO.9209A, NO.9210A, NO.9204A, NO.9205A, NO.9206A, NO.9207A, TR-111S, TR-112S, TR-113S; see item 2.1
Date of tests:	Mar. 22, 2022 ~ Mar. 28, 2022

the tests have been carried out according to the requirements of the following standard:

FCC Part 15, Subpart C, Section 15.249

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

Tested by Andy Zhu Supervisor / EMC Department	Approved by Glyn He Assistant Manager / EMC Department
	 Date: Mar. 29, 2022

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Test Report No.: RF2203WDG0157

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2203WDG0157	Original release	Mar. 29, 2022

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.249)			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
§15.203	Antenna Requirement	PASS	No antenna connector is used
§15.207 (a)	Conducted Emission	N/A	Powered by battery
§15.205	Restricted Band of Operation	PASS	Compliant
§15.209 §15.249(a)	Radiated Emission	PASS	Compliant
§15.215(c)	20dB Bandwidth Test	PASS	Compliant

2 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:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Radiated emissions	9KHz ~ 30MHz	2.66dB
	30MHz ~ 1GMHz	4.06dB
	1GHz ~ 18GHz	4.90dB
	18GHz ~ 40GHz	4.58dB

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

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	RC ENGINEERING TRUCK
MODEL NO.	NO.9208A
ADDITIONAL MODELS	NO.9209A, NO.9210A, NO.9204A, NO.9205A, NO.9206A, NO.9207A, TR-111S, TR-112S, TR-113S
FCC ID	S53RCNO9208AGT
NOMINAL VOLTAGE	Remote Control: DC 3V(1.5*AA*2) from battery
MODULATION TECHNOLOGY	GFSK
OPERATING FREQUENCY	2406-2470MHz
ANTENNA TYPE	Wire Antenna, with 0dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

NOTES:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions, but only the worst case was shown in test report.
3. Please refer to the EUT photo document (Reference No.: 2203WDG0157) for detailed product photo.
4. Additional models (see above table) are identical with the test model NO.9208A except the color of the appearance, trade name and model number for trading purpose.

3.2 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	√	√	-	√	DC 3V from full Battery

Where **RE<1G**: Radiated Emission below 1GHz **RE≥1G**: Radiated Emission above 1GHz
PLC: Power Line Conducted Emission **BW**: 20db bandwidth

NOTE: No need to concern of Conducted Emission due to the EUT is powered by battery.

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

TESTED CHANNEL	TESTED FREQUENCY
Low	2406 MHz
Middle	2438 MHz
High	2470 MHz



Channel List

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
1	2406	23	2428	45	2450
2	2407	24	2429	46	2451
3	2408	25	2430	47	2452
4	2409	26	2431	48	2453
5	2410	27	2432	49	2454
6	2411	28	2433	50	2455
7	2012	29	2434	51	2456
8	2413	30	2435	52	2457
9	2414	31	2436	53	2458
10	2415	32	2437	54	2459
11	2416	33	2438	55	2760
12	2417	34	2439	56	2461
13	2418	35	2440	57	2462
14	2419	36	2441	58	2463
15	2420	37	2442	59	2464
16	2421	38	2443	60	2465
17	2422	39	2444	61	2466
18	2423	40	2445	62	2467
19	2424	41	2446	63	2468
20	2425	42	2447	64	2469
21	2426	43	2448	65	2470
22	2427	44	2449		

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

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE	25deg. C, 55%RH	DC 3V from Battery	Ray
BW	25deg. C, 56%RH	DC 3V from Battery	Vincent
PLC	-	-	-



3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart C, Section 15.249

ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

3.4 DESCRIPTION OF SUPPORT UNITS

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

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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	Field 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 (dBuV/m) = 20 log Emission level (uV/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.



4.1.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Spectrum Analyzer	Rohde&Schwarz	FSV40-N	101817	July 04, 22
Bilog Antenna	SCHWARZBECK	VULB 9168	01281	July 30, 22
Pre-Amplifier	Agilent	8447D	2944A10488	Aug.08, 22
3m Semi-anechoic Chamber	ETS-Lindgren	9m*6m*6m	D3040003DG-1	July 30, 24
Coaxial RF Cable	Joinfront	JFAA6-NMNM-8000	2100033742	Aug.08, 22
Coaxial RF Cable	Joinfront	JFAR-NMBNCM-2000	2100033742	Aug.08, 22
Coaxial RF Cable	Joinfront	JFAR-BNCMSMM-500	2100033742	Aug.08, 22
Test software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A
Horn Antenna	ETS-Lindgren	3117	00240041	July 22, 22
Horn Antenna	SCHWARZBECK	BBHA 9170	01024	Dec. 25, 22
Pre-Amplifier (1GHz-18GHz)	SCHWARZBECK	BBV 9718C	00142	Aug. 06, 22
Pre-Amplifier (18GHz-40GHz)	Rohde&Schwarz	SCU40	100437	Nov. 16, 22
Coaxial RF Cable	Joinfront	JFAA6-NMNM-8000	2100033742	Aug.08, 22
Coaxial RF Cable	Joinfront	JFAA6-NMSMM-2000	2100033742	Aug.08, 22
Coaxial RF Cable	Joinfront	JFAA6-NMSMM-800	2100033742	Aug.08, 22

NOTES:

1. The test was performed at 966 Chamber-3 (Baodun).
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.
3. The horn antenna is used only for the measurement of emission frequency above 1 GHz if tested.
4. The FCC Site Registration No. is 749762.

4.1.3 TEST PROCEDURES

- a. 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.
- 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 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.
- 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 Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. 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.
- g. 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:

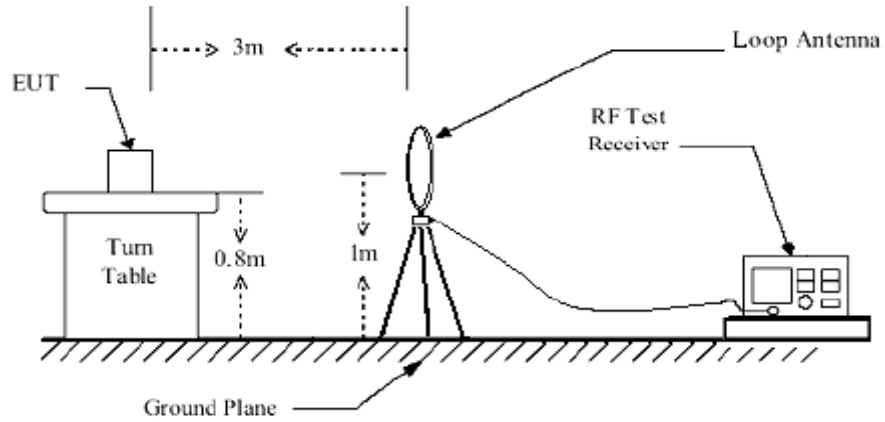
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.
5. 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.

4.1.4 DEVIATION FROM TEST STANDARD

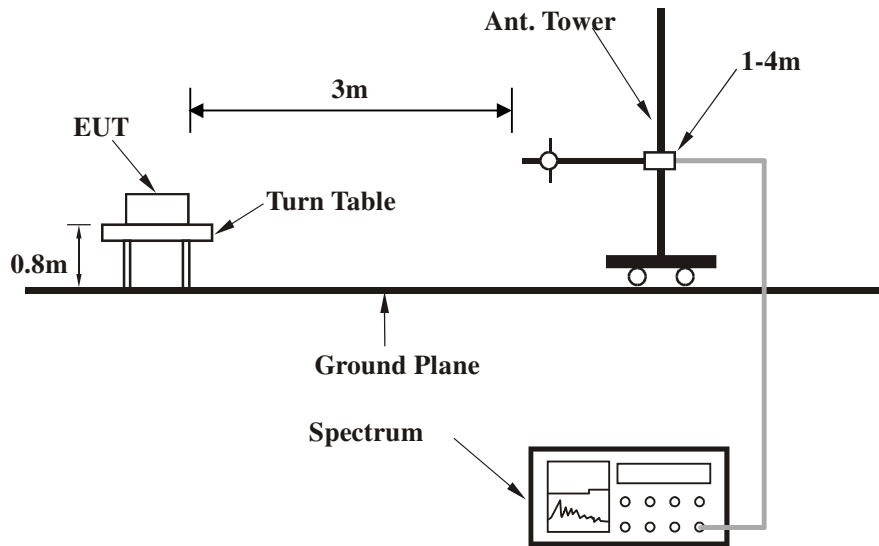
No deviation.

4.1.5 TEST SETUP

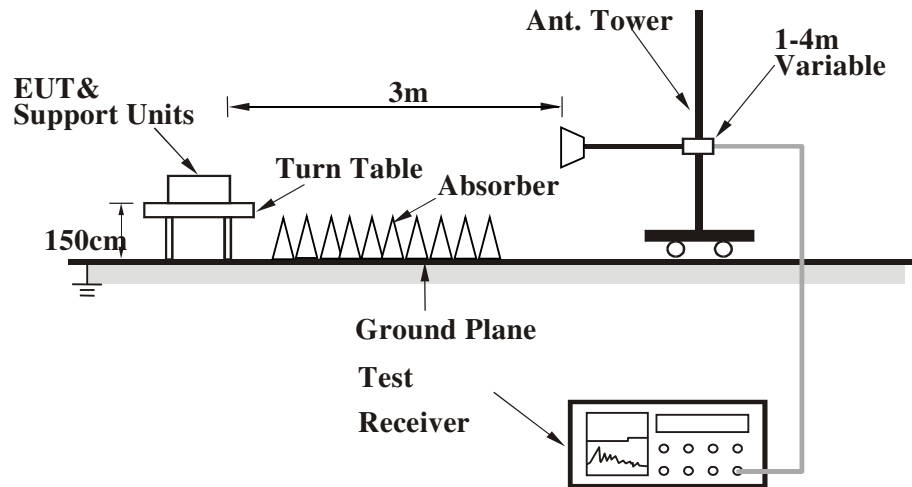
Below 30MHz test setup



Below 1GHz test setup



Above 1GHz test setup



Note: For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT OPERATING CONDITIONS

- Turned on the power of all equipment.
- EUT was operated according to the type used was description in manufacturer's specifications or the User's Manual.

4.1.7 TEST RESULTS

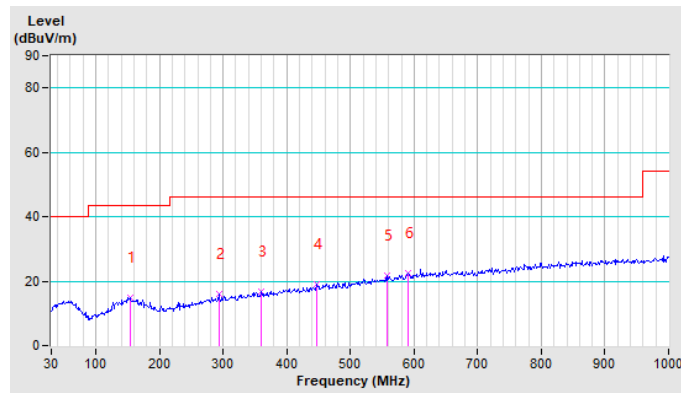
BELOW 1GHz WORST-CASE DATA

CHANNEL	TX Middle Channel	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	153.71	14.81 QP	43.50	-28.69	2.00 H	43	28.41	-13.60
2	292.88	15.94 QP	46.00	-30.06	1.00 H	275	28.58	-12.64
3	360.36	16.90 QP	46.00	-29.10	1.00 H	102	28.22	-11.32
4	447.52	18.90 QP	46.00	-27.10	1.00 H	57	28.83	-9.93
5	557.17	21.85 QP	46.00	-24.15	1.00 H	103	29.62	-7.77
6	590.91	22.49 QP	46.00	-23.51	1.00 H	211	29.28	-6.79

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 greater than 20dB margin.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.

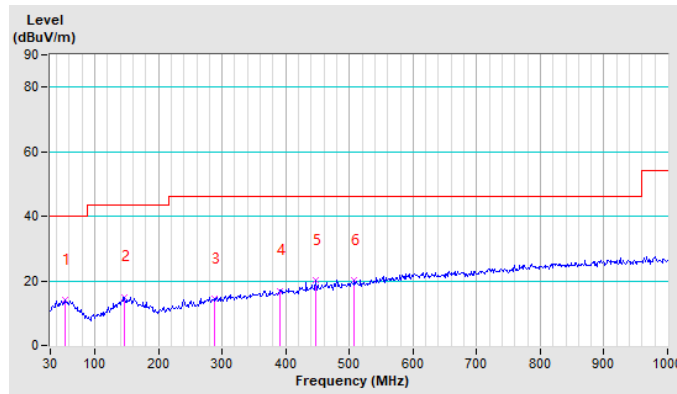


CHANNEL	TX Middle Channel	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	52.49	14.16 QP	40.00	-25.84	1.00 V	46	28.21	-14.05
2	146.68	15.06 QP	43.50	-28.44	1.00 V	107	28.82	-13.76
3	287.26	14.50 QP	46.00	-31.50	1.00 V	355	27.23	-12.73
4	389.88	16.96 QP	46.00	-29.04	1.00 V	164	27.82	-10.86
5	447.52	20.35 QP	46.00	-25.65	1.00 V	92	30.28	-9.93
6	507.97	20.15 QP	46.00	-25.85	1.00 V	135	29.10	-8.95

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 greater than 20dB margin.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.



ABOVE 1GHz WORST-CASE DATA:

CHANNEL	TX Low Channel	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#2400.00	59.80 PK	74.00	-14.20	1.05 H	353	59.23	0.57
2	#2400.00	20.04 AV	54.00	-33.96	1.05 H	353	19.47	0.57
3	#2406.00	86.62 PK	114.00	-27.38	1.05 H	353	86.02	0.60
4	#2406.00	46.86 AV	94.00	-47.14	1.05 H	353	46.26	0.60
5	4812.00	56.28 PK	74.00	-17.72	1.09 H	344	50.97	5.31
6	4812.00	16.52 AV	54.00	-37.48	1.09 H	344	11.21	5.31
7	#7218.00	55.16 PK	74.00	-18.84	1.00 H	201	45.45	9.71
8	#7218.00	15.40 AV	54.00	-38.60	1.00 H	201	5.69	9.71

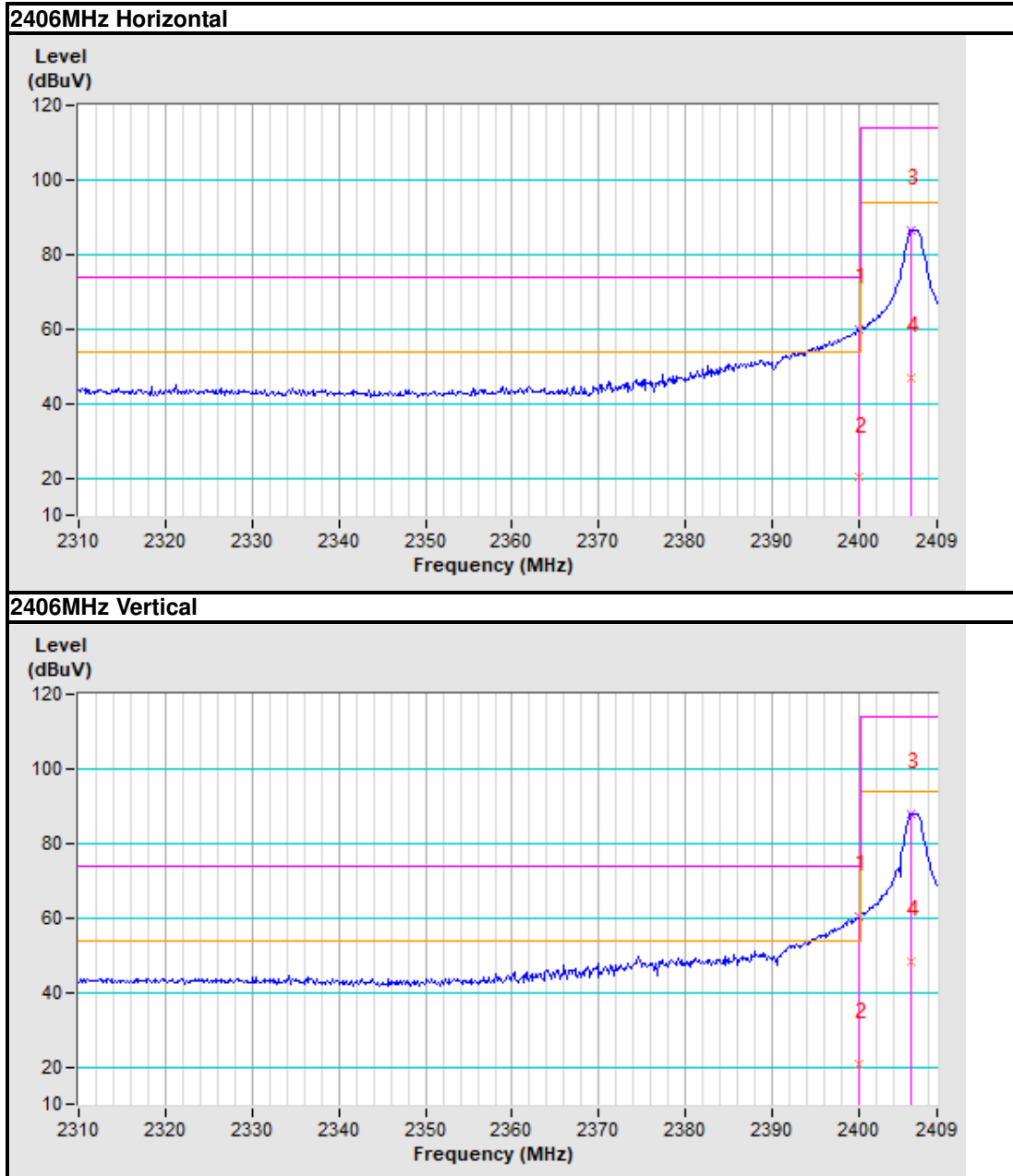
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#2400.00	60.52 PK	74.00	-13.48	1.16 V	129	59.95	0.57
2	#2400.00	20.76 AV	54.00	-33.24	1.16 V	129	20.19	0.57
3	#2406.00	88.04 PK	114.00	-25.96	1.16 V	129	87.44	0.60
4	#2406.00	48.28 AV	94.00	-45.72	1.16 V	129	47.68	0.60
5	4812.00	57.88 PK	74.00	-16.12	1.51 V	96	52.57	5.31
6	4812.00	18.12 AV	54.00	-35.88	1.51 V	96	12.81	5.31
7	#7218.00	56.74 PK	74.00	-17.26	1.00 V	204	47.03	9.71
8	#7218.00	16.98 AV	54.00	-37.02	1.00 V	204	7.27	9.71

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

Band edge Plot



CHANNEL	TX Middle Channel	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2438.00	86.29 PK	114.00	-27.71	2.00 H	51	85.57	0.72
2	2438.00	46.53 AV	94.00	-47.47	2.00 H	51	45.81	0.72
3	4876.00	56.71 PK	74.00	-17.29	1.35 H	244	51.32	5.39
4	4876.00	16.95 AV	54.00	-37.05	1.35 H	244	11.56	5.39
5	7314.00	55.39 PK	74.00	-18.61	1.00 H	352	45.62	9.77
6	7314.00	15.63 AV	54.00	-38.37	1.00 H	352	5.86	9.77
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2438.00	88.56 PK	114.00	-25.44	1.16 V	139	87.84	0.72
2	2438.00	48.80 AV	94.00	-45.20	1.16 V	139	48.08	0.72
3	4876.00	57.39 PK	74.00	-16.61	1.00 V	257	52.00	5.39
4	4876.00	17.63 AV	54.00	-36.37	1.00 V	257	12.24	5.39
5	7314.00	56.43 PK	74.00	-17.57	1.00 V	254	46.66	9.77
6	7314.00	16.67 AV	54.00	-37.33	1.00 V	254	6.90	9.77

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

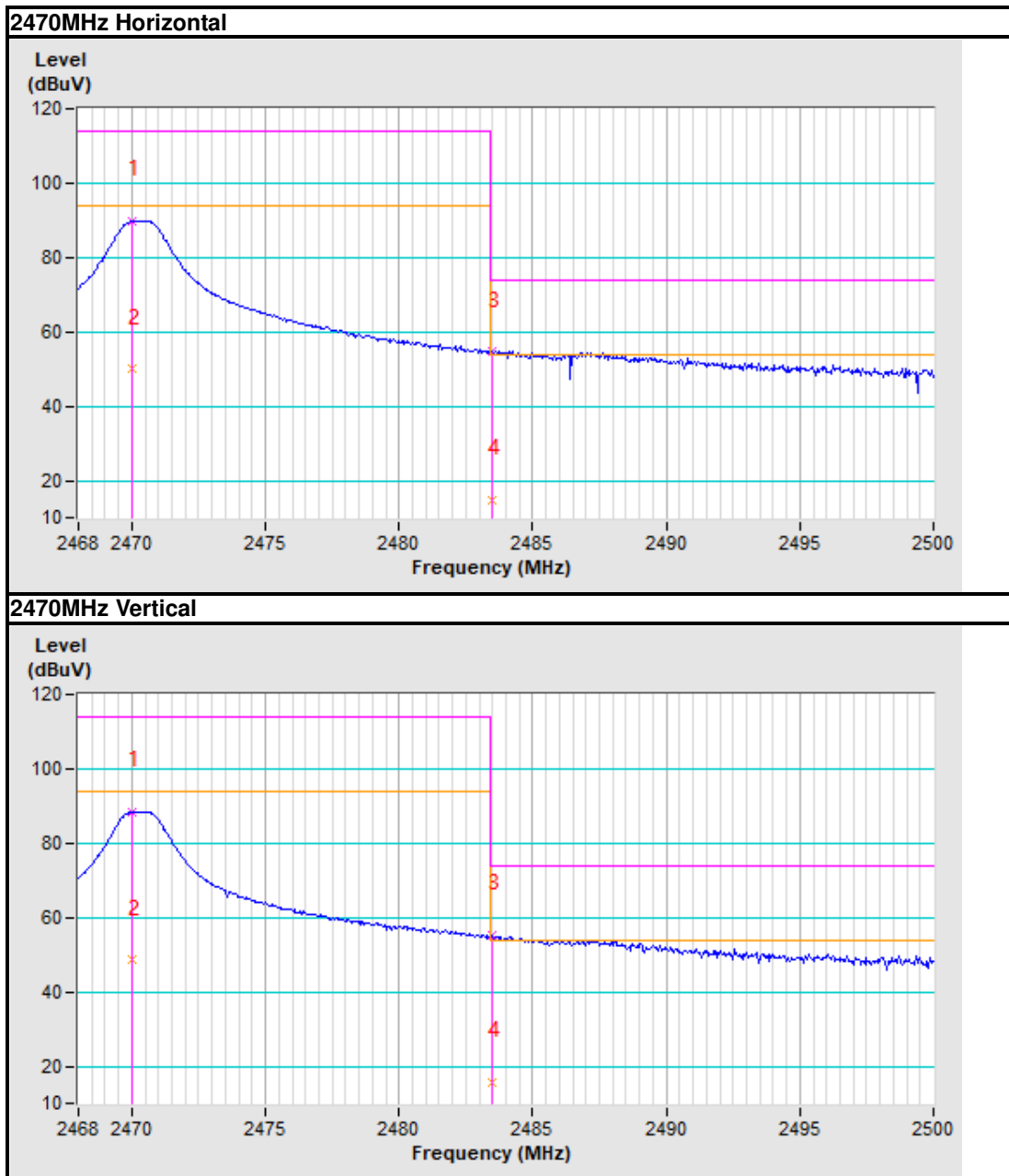
CHANNEL	TX High Channel	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#2470.00	89.65 PK	114.00	-24.35	1.08 H	350	88.81	0.84
2	#2470.00	49.89 AV	94.00	-44.11	1.08 H	350	49.05	0.84
3	2483.50	54.58 PK	74.00	-19.42	1.08 H	350	53.69	0.89
4	2483.50	14.82 AV	54.00	-39.18	1.08 H	350	13.93	0.89
5	4940.00	57.39 PK	74.00	-16.61	1.48 H	30	51.93	5.46
6	4940.00	17.63 AV	54.00	-36.37	1.48 H	30	12.17	5.46
7	7410.00	56.44 PK	74.00	-17.56	1.00 H	317	46.60	9.84
8	7410.00	16.68 AV	54.00	-37.32	1.00 H	317	6.84	9.84
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#2470.00	88.30 PK	114.00	-25.70	1.02 V	29	87.46	0.84
2	#2470.00	48.54 AV	94.00	-45.46	1.02 V	29	47.70	0.84
3	2483.50	55.26 PK	74.00	-18.74	1.02 V	29	54.37	0.89
4	2483.50	15.50 AV	54.00	-38.50	1.02 V	29	14.61	0.89
5	4940.00	58.11 PK	74.00	-15.89	1.04 V	16	52.65	5.46
6	4940.00	18.35 AV	54.00	-35.65	1.04 V	16	12.89	5.46
7	7410.00	57.25 PK	74.00	-16.75	1.00 V	157	47.41	9.84
8	7410.00	17.49 AV	54.00	-36.51	1.00 V	157	7.65	9.84

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

Band edge Plot



4.2 20dB BANDWIDTH MEASUREMENT

4.2.1 LIMITS OF 20dB BANDWIDTH MEASUREMENT

According to FCC 15.215(c), must be designed to ensure that the 20 dB 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.

4.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Wireless Connectivity Tester	Rohde&Schwarz	CMW270	101601	Nov. 21, 22
MXA signal analyzer	Agilent	N9020A	MY49100060	Apr. 06, 22
Network Analyzer	Agilent	8753ES	US39173518	Mar. 28, 23
Spectrum Analyzer	Rohde&Schwarz	FSV7	101574	July 04, 22
Frequency Analyzer	Keysight	N9010B	MY60240432	Nov. 25, 22
Programmable Temperature&Humidity Chamber	Hongjin	HYC-TH-225DH	DG-180746	Feb. 16, 23
DC Source	Agilent	E3640A	MY40004013	Feb. 23, 23
Test software	ADT	ADT_RF Test Software V6.6.5.3	N/A	N/A
Test software	ADT	ADT_RF Test Software V6.6.5.4	N/A	N/A

NOTES:

1. The test was performed in RF Oven room(Baodun).
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.

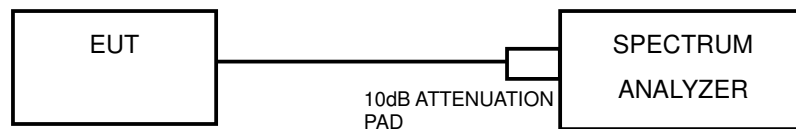
4.2.3 TEST PROCEDURE

- a. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- b. 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.
- c. Measure the frequency difference of two frequencies that were attenuated 20dB from the reference level. Record the frequency difference as the emission bandwidth.
- d. Repeat above procedures until all frequencies measured were complete.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



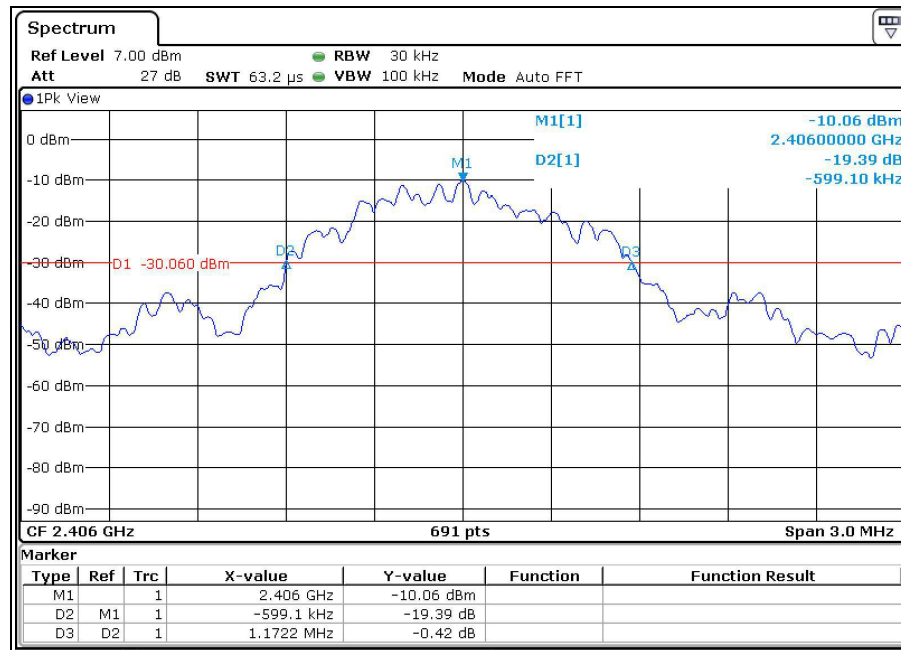
4.2.6 EUT OPERATING CONDITIONS

- a) Turned on the power of all equipment.
- b) EUT was operated according to the type used was description in manufacturer's specifications or the User's Manual.

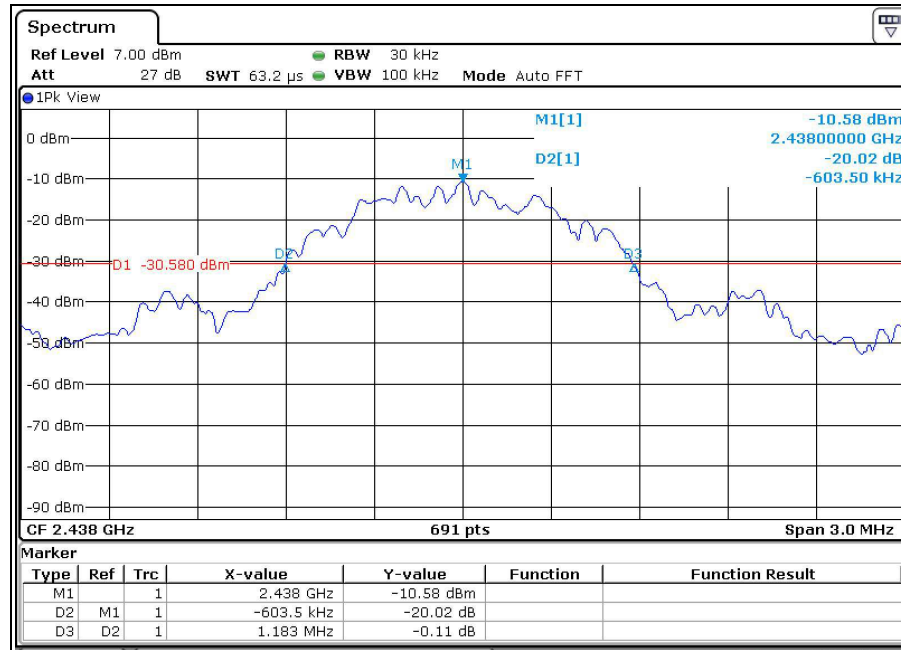
4.2.7 TEST RESULTS

CHANNEL	CHANNEL FREQUENCY (MHz)	20dB BANDWIDTH (MHz)
Low	2406	1.172
Middle	2438	1.183
High	2470	1.181

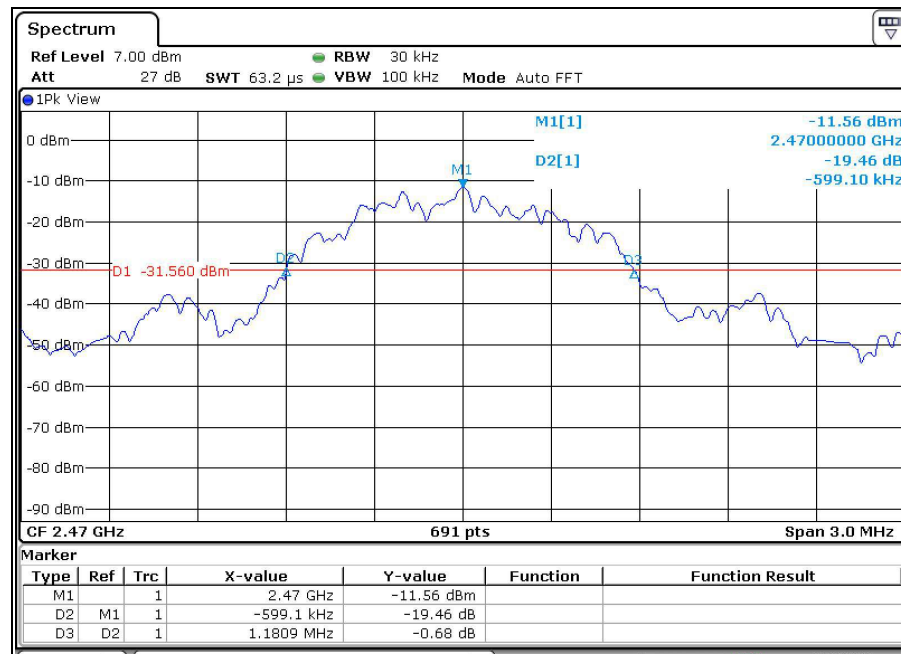
Test Data: Low channel



Test Data: Middle channel



Test Data: High channel





5. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



Test Report No.: RF2203WDG0157

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

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

---END---