

TEST REPORT

Applicant:	SHANTOU CITY CHENGHAI DISTRICT FEIJIE TOYS FACTORY
Address:	Shantou Chenghai District, Lianxia Town, Nanwan Village East reservoir area Shantou China

Manufacturer or Supplier	SHANTOU CITY CHENGHAI DISTRICT FEIJIE TOYS FACTORY
Address	Shantou Chenghai District, Lianxia Town, Nanwan Village East reservoir area Shantou China
Product:	R/C toys
Brand Name:	N/A
Model:	82001
Additional Models & Model Difference	925-111 925-112, 925-113, 925-114 925-115, 925-116, 925-117, 925-118, 925-119; see item 3.1
Date of tests:	Sep. 06, 2023 ~ Sep. 12, 2023

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 Loren Luo Project Engineer / EMC Department	Approved by Glyn He Assistant Manager / EMC Department
	
	Date: Sep. 27, 2023

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. 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. 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. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

TABLE OF CONTENTS

RELEASE CONTROL RECORD	3
1 SUMMARY OF TEST RESULTS.....	4
2 MEASUREMENT UNCERTAINTY	4
3 GENERAL INFORMATION	5
3.1 GENERAL DESCRIPTION OF EUT.....	5
3.2 DESCRIPTION OF TEST MODES.....	6
3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS.....	8
3.4 DESCRIPTION OF SUPPORT UNITS.....	8
3.5 DUTY CYCLE OF TESET SIGNAL	9
4. TEST TYPES AND RESULTS.....	10
4.1 RADIATED EMISSION MEASUREMENT	10
4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT	10
4.1.2 TEST INSTRUMENTS.....	11
4.1.3 TEST PROCEDURES	12
4.1.4 DEVIATION FROM TEST STANDARD	12
4.1.5 TEST SETUP	13
4.1.6 EUT OPERATING CONDITIONS	14
4.1.7 TEST RESULTS	15
4.2 20DB BANDWIDTH MEASUREMENT.....	22
4.2.1 LIMITS OF 20DB BANDWIDTH MEASUREMENT.....	22
4.2.2 TEST INSTRUMENTS	22
4.2.3 TEST PROCEDURE	23
4.2.4 DEVIATION FROM TEST STANDARD	23
4.2.5 TEST SETUP	23
4.2.6 EUT OPERATING CONDITIONS.....	23
4.2.7 TEST RESULTS	24
5. PHOTOGRAPHS OF THE TEST CONFIGURATION.....	26
6. APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	27

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2306WDG0240	Original release	Sep. 27, 2023

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 from 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	2.72dB
	30MHz ~ 1GMHz	4.24dB
	1GHz ~ 18GHz	4.78dB
	18GHz ~ 40GHz	4.50dB

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	R/C toys
MODEL NO.	82001
ADDITIONAL MODEL	925-111 925-112, 925-113, 925-114 925-115, 925-116, 925-117, 925-118, 925-119
FCC ID	2A9SLBB925
NOMINAL VOLTAGE	DC 3V(1.5V*AA*2) from battery;
MODULATION TECHNOLOGY	GFSK
OPERATING FREQUENCY	2410MHz ~ 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.: 2306WDG0240) for detailed product photo.
4. Additional models (see above table) are identical with the test model 82001 except the color of the appearance 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 Battery

Where **RE<1G**: Radiated Emission below 1GHz
PLC: Power Line Conducted Emission

RE≥1G: Radiated Emission above 1GHz
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	2410 MHz
Middle	2442 MHz
High	2470 MHz

Channel List

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

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	Ryker
BW	25deg. C, 56%RH	DC 3V from Battery	Ryker
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

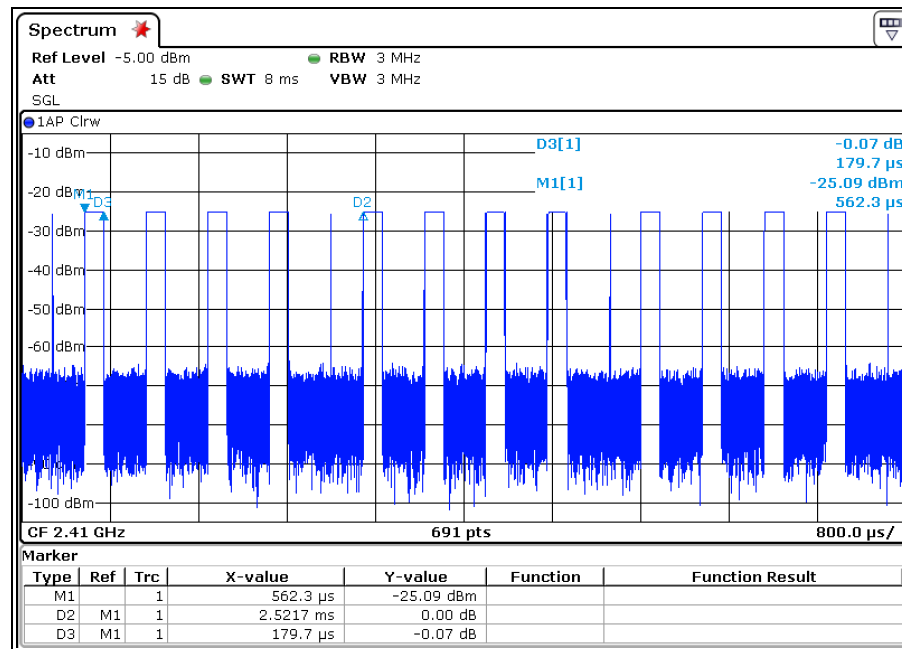
3.5 DUTY CYCLE OF TESET SIGNAL

$T_p = 2.5217\text{ms}$

$T_{on} = (179.7)/1000 \times 4 = 0.7188\text{ms}$

Duty Cycle = $T_{on} / T_p \times 100\% = 0.7188/2.5217 \approx 28.50\%$

AV factor = $20 \log (\text{Duty cycle}) = 20\text{Log}(28.5\%) = -10.90\text{dB}$



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.

NOTES:

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	FSV3044	101326	July 13, 24
EMI Test Receiver	Rohde&Schwarz	ESU8	100372	Apr. 06, 24
Bilog Antenna	SCHWARZBECK	VULB 9168	9168-555	Jan. 08, 24
Pre-Amplifier	Agilent	8447D	2944A10488	July. 26, 24
3m Semi-anechoic Chamber	ETS-Lindgren	9m*6m*6m	D3040003DG-1	July 30, 24
Coaxial RF Cable	Joinfront	JFAA6-NMNM-8000	2100033742	July 10, 24
Coaxial RF Cable	Joinfront	JFAR-NMBNCM-2000	2100033742	July 10, 24
Coaxial RF Cable	Joinfront	JFAR-BNCMSMM-500	2100033742	July 10, 24
Test software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A
Horn Antenna	ETS-Lindgren	3117	00240041	May 06, 24
Horn Antenna	SCHWARZBECK	BBHA 9170	01024	Oct. 16, 23
Pre-Amplifier (1GHz-18GHz)	Rohde&Schwarz	SCU18	102265	Apr. 01, 24
Pre-Amplifier (18GHz-40GHz)	Rohde&Schwarz	SCU40	100437	Oct. 27, 23
Coaxial RF Cable	Joinfront	JFAA6-NMNM-8000	2100033742	July 10, 24
Coaxial RF Cable	Joinfront	JFAA6-NMSMM-2000	2100033742	July 10, 24
Coaxial RF Cable	Joinfront	JFAA6-NMSMM-800	2100033742	July 10, 24

NOTES:

1. The test was performed in 966 Chamber.
2. The calibration interval of the above test instruments are 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 1GHz if tested.
4. The FCC Site Registration No. is 749762.
5. Test site: No. 122, Houjie Avenue West Houjie Town, Dongguan City Guangdong Province, 523960, People's Republic of China.

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 1.3m 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.

NOTES:

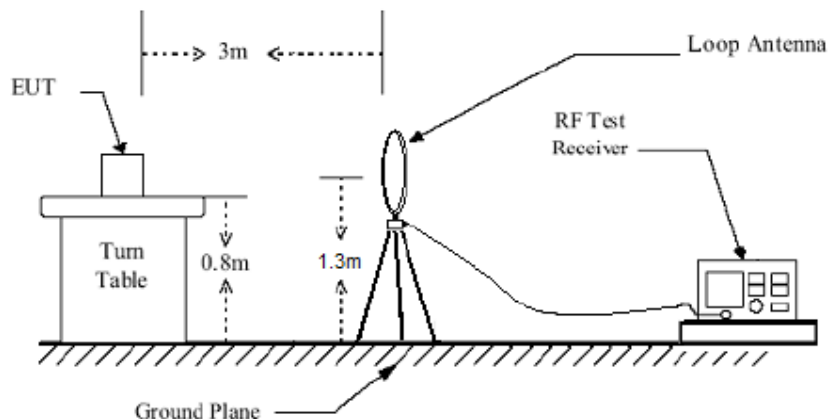
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. Average value =PK Emission +AV Factor.
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

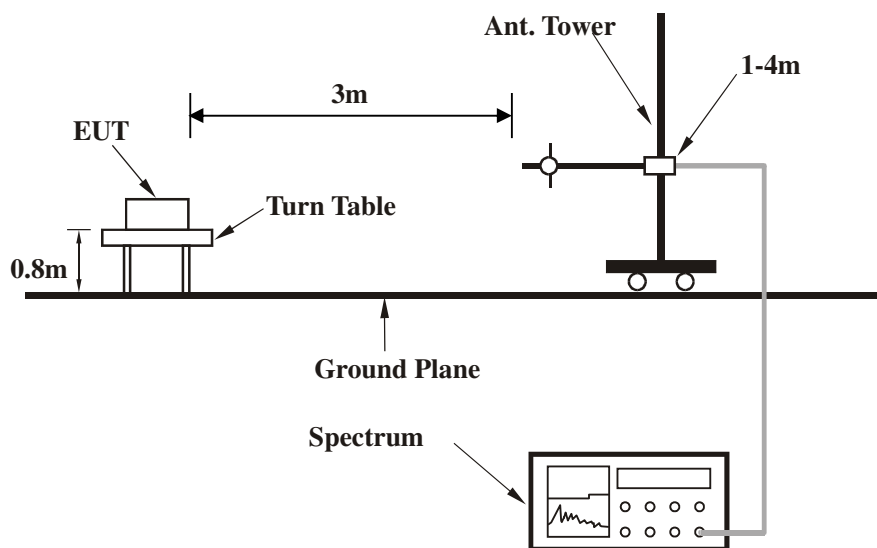
No deviation.

4.1.5 TEST SETUP

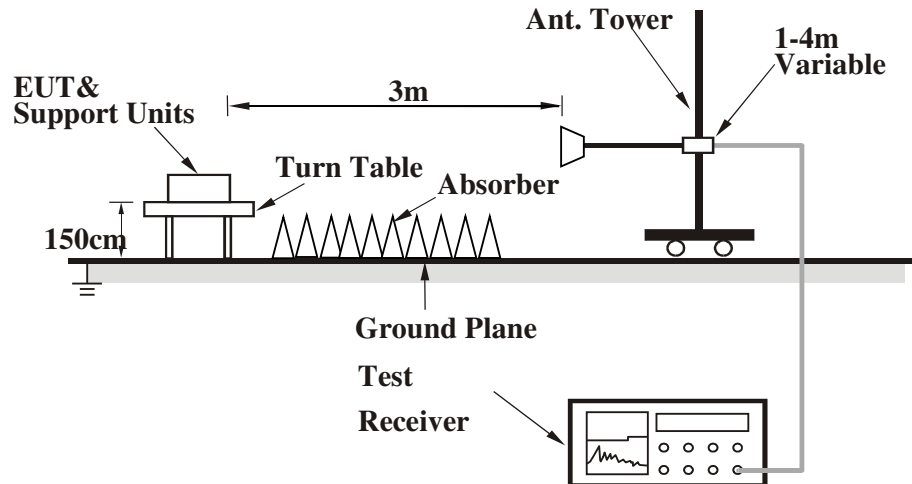
Below 30MHz test setup



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

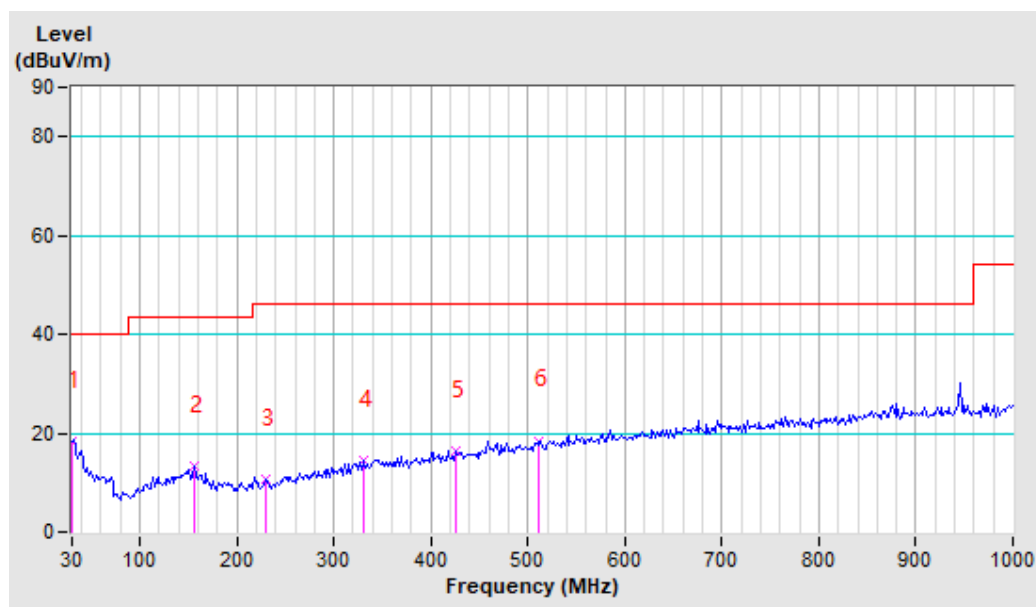
BELOW 1GHz WORST-CASE DATA

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	30.00	18.37QP	40.00	-21.63	1.00 H	208	37.03	-18.66
2	155.91	13.30QP	43.50	-30.20	1.00 H	190	29.91	-16.61
3	228.97	10.51QP	46.00	-35.49	1.00 H	178	28.78	-18.27
4	330.02	14.52QP	46.00	-31.48	1.00 H	165	29.10	-14.58
5	424.84	16.50QP	46.00	-29.50	1.00 H	153	28.71	-12.21
6	510.34	18.48QP	46.00	-27.52	1.00 H	139	28.65	-10.17

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.

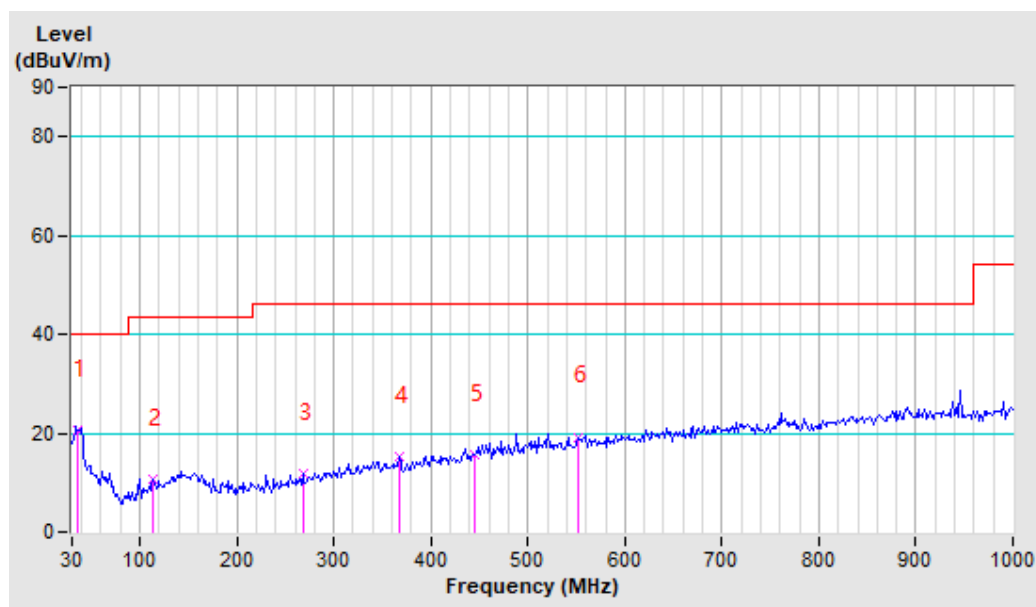


CHANNEL	TX Middle Channel	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 1GHz		

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	36.22	20.53QP	40.00	-19.47	1.00 V	82	38.22	-17.69
2	113.94	10.67QP	43.50	-32.83	1.00 V	95	29.83	-19.16
3	267.84	11.66QP	46.00	-34.34	1.00 V	112	28.37	-16.71
4	367.32	15.09QP	46.00	-30.91	1.00 V	132	28.68	-13.59
5	445.05	15.67QP	46.00	-30.33	1.00 V	146	27.37	-11.70
6	552.31	19.25QP	46.00	-26.75	1.00 V	159	28.44	-9.19

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)

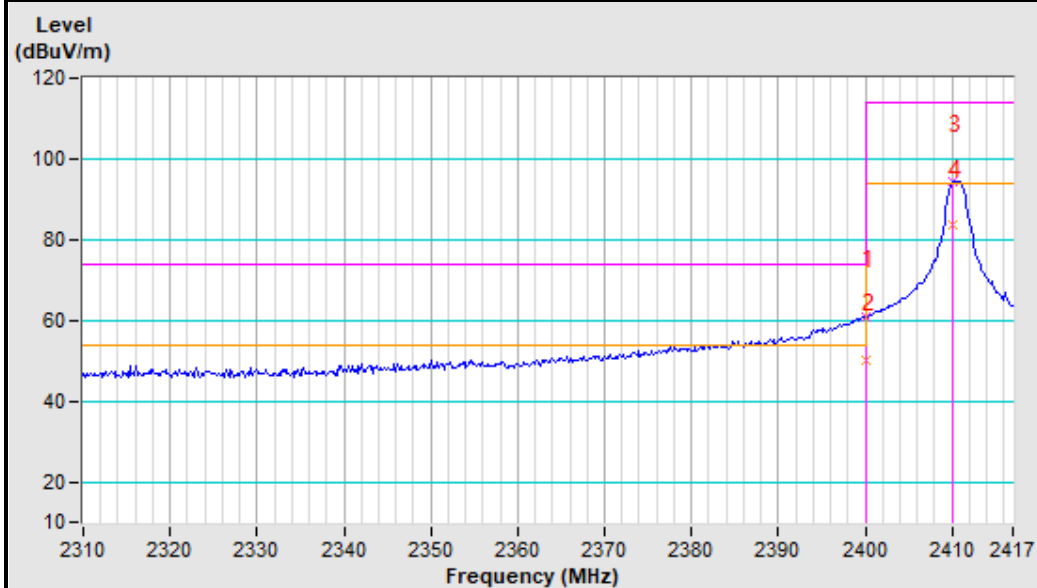
ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2400.00	60.99PK	74.00	-13.01	1.50 H	136	57.98	3.01
2	2400.00	50.09AV	54.00	-3.91	1.50 H	136	47.08	3.01
3	*2410.00	94.42PK	114.00	-19.58	1.50 H	136	91.39	3.03
4	*2410.00	83.52AV	94.00	-10.48	1.50 H	136	80.49	3.03
5	4820.00	53.96PK	74.00	-20.04	1.48 H	320	46.09	7.87
6	4820.00	43.06AV	54.00	-10.94	1.48 H	320	35.19	7.87
7	7230.00	50.50PK	74.00	-23.50	1.48 H	185	40.09	10.41
8	7230.00	39.60AV	54.00	-14.40	1.48 H	185	29.19	10.41
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	61.19PK	74.00	-12.81	1.10 V	300	58.18	3.01
2	2400.00	50.29AV	54.00	-3.71	1.10 V	300	47.28	3.01
3	*2410.00	95.08PK	114.00	-18.92	1.10 V	300	92.05	3.03
4	*2410.00	84.18AV	94.00	-9.82	1.10 V	300	81.15	3.03
5	4820.00	53.54PK	74.00	-20.46	1.45 V	320	45.67	7.87
6	4820.00	42.64AV	54.00	-11.36	1.45 V	320	34.77	7.87
7	7230.00	50.90PK	74.00	-23.10	1.77 V	320	40.49	10.41
8	7230.00	40.00AV	54.00	-14.00	1.77 V	320	29.59	10.41

REMARK:

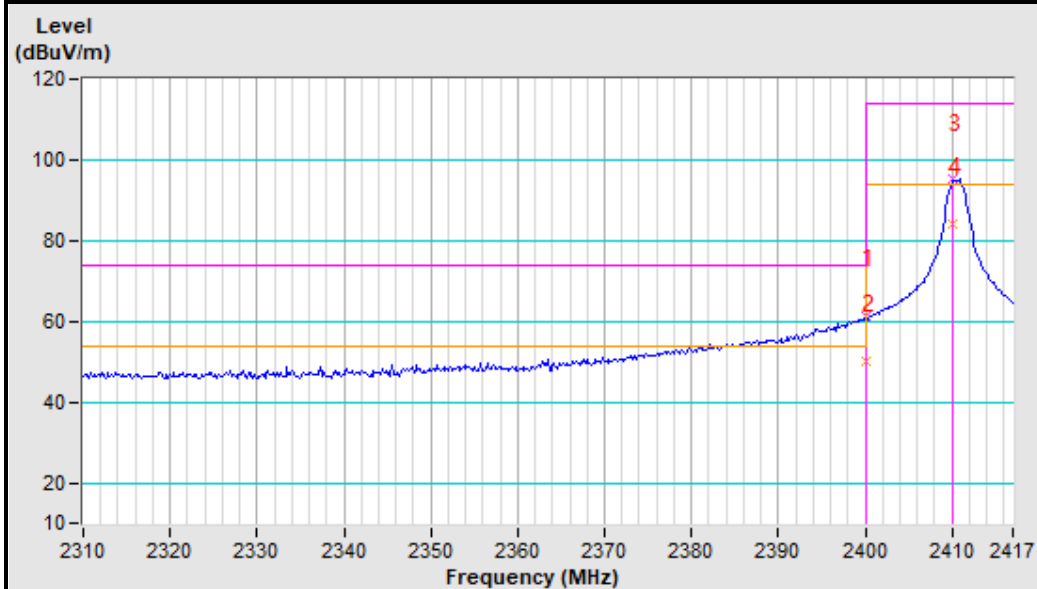
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. Average value = PK Emission + 20*log(duty cycle) Where the duty factor is calculated from following formula: 20 log (Duty cycle) = 20Log(28.50%) = -10.90dB, Please see page 9 for plotted duty.

Band edge Plot

2410MHz Horizontal



2410MHz Vertical



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	*2442.00	94.62PK	114.00	-19.38	1.56 H	201	91.53	3.09
2	*2442.00	83.72AV	94.00	-10.28	1.56 H	201	80.63	3.09
3	4882.00	55.88PK	74.00	-18.12	1.69 H	140	47.86	8.02
4	4882.00	44.98AV	54.00	-9.02	1.69 H	140	36.96	8.02
5	7326.00	51.29PK	74.00	-22.71	1.40 H	320	40.55	10.74
6	7326.00	40.39AV	54.00	-13.61	1.40 H	320	29.65	10.74
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	*2442.00	95.26PK	114.00	-18.74	1.45 V	52	92.17	3.09
2	*2442.00	84.36AV	94.00	-9.64	1.45 V	52	81.27	3.09
3	4884.00	53.12PK	74.00	-20.88	1.68 V	210	45.10	8.02
4	4884.00	42.22AV	54.00	-11.78	1.68 V	210	34.20	8.02
5	7326.00	50.27PK	74.00	-23.73	1.69 V	52	39.53	10.74
6	7326.00	39.37AV	54.00	-14.63	1.69 V	52	28.63	10.74

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.
6. Average value =PK Emission +20*log(duty cycle)Where the duty factor is calculated from following formula:20 log (Duty cycle) = 20Log(28.50%)= -10.90dB, Please see page 9 for plotted duty.

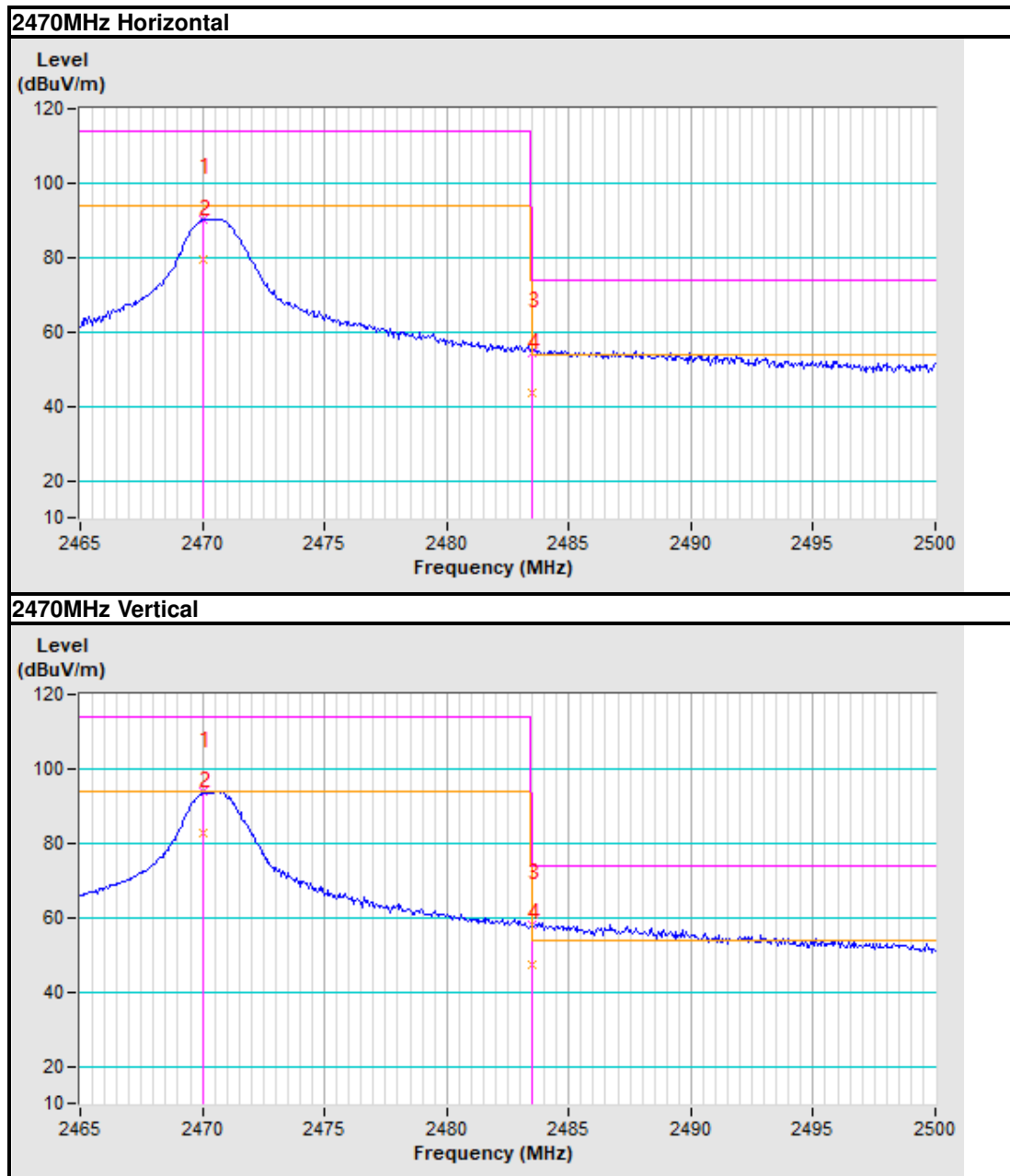
CHANNEL	TX High Channel	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	90.24PK	114.00	-23.76	1.20 H	29	87.09	3.15
2	*2470.00	79.34AV	94.00	-14.66	1.20 H	29	76.19	3.15
3	2483.50	54.28PK	74.00	-19.72	1.20 H	217	51.11	3.17
4	2483.50	43.38AV	54.00	-10.62	1.20 H	217	40.21	3.17
5	4940.00	54.03PK	74.00	-19.97	1.50 H	272	45.87	8.16
6	4940.00	43.13AV	54.00	-10.87	1.50 H	272	34.97	8.16
7	7410.00	54.17PK	74.00	-19.83	1.44 H	15	43.15	11.02
8	7410.00	43.27AV	54.00	-10.73	1.44 H	15	32.25	11.02
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	93.69PK	114.00	-20.31	1.20 V	335	90.54	3.15
2	*2470.00	82.79AV	94.00	-11.21	1.20 V	335	79.64	3.15
3	2483.50	58.19PK	74.00	-15.81	1.20 V	335	55.02	3.17
4	2483.50	47.29AV	54.00	-6.71	1.20 V	335	44.12	3.17
5	4940.00	53.94PK	74.00	-20.06	1.48 V	172	45.78	8.16
6	4940.00	43.04AV	54.00	-10.96	1.48 V	172	34.88	8.16
7	7410.00	52.00PK	74.00	-22.00	1.05 V	92	40.98	11.02
8	7410.00	41.10AV	54.00	-12.90	1.05 V	92	30.08	11.02

REMARK:

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.
6. Average value = PK Emission + 20*log(duty cycle) Where the duty factor is calculated from following formula: 20 log (Duty cycle) = 20Log(28.50%) = -10.90dB, Please see page 9 for plotted duty.

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. 01, 23
Spectrum Analyzer	Rohde&Schwarz	FSV40	101003	Jan. 15, 24
Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Jan. 11, 24
Frequency Analyzer	Keysight	N9010B	MY60240432	Nov. 01, 23
Programmable Temperature&Humidity Chamber	Hongjin	HYC-TH-225DH	DG-180746	Jan. 11, 24
Attenuator	MINI	BW-S10W2+	S130129FGE2	N/A
DC Source	Agilent	E3640A	MY40004013	Feb. 08, 24
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 Test Shielded Room.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
3. Test site: No. 122, Houjie Avenue West Houjie Town, Dongguan City Guangdong Province, 523960, People's Republic of China.

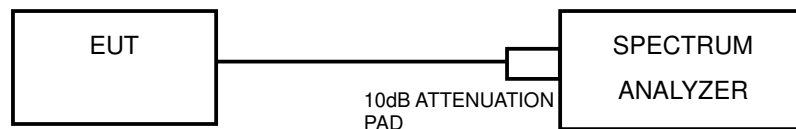
4.2.3 TEST PROCEDURE

- 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



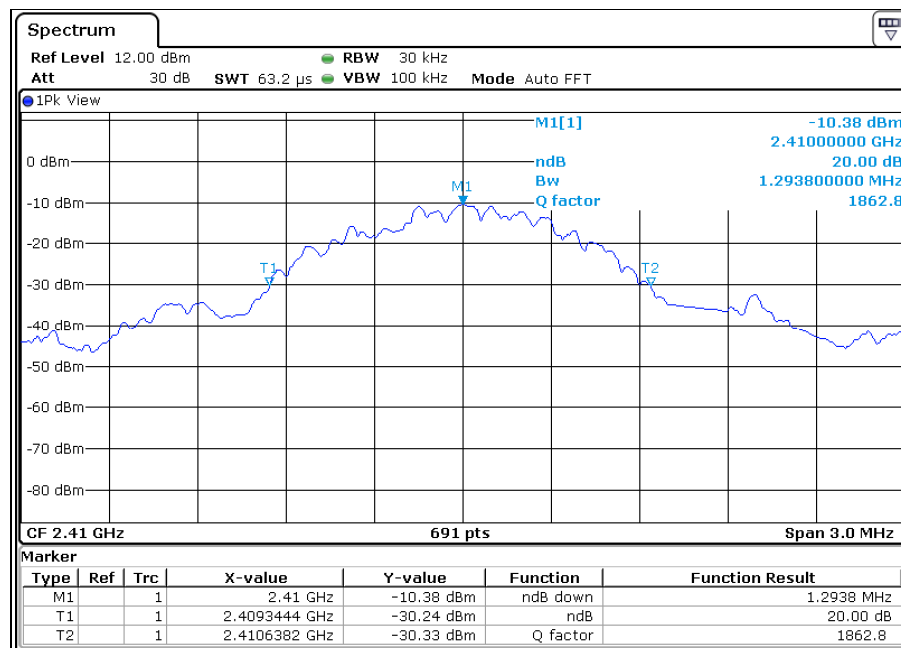
4.2.6 EUT OPERATING CONDITIONS

- 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.

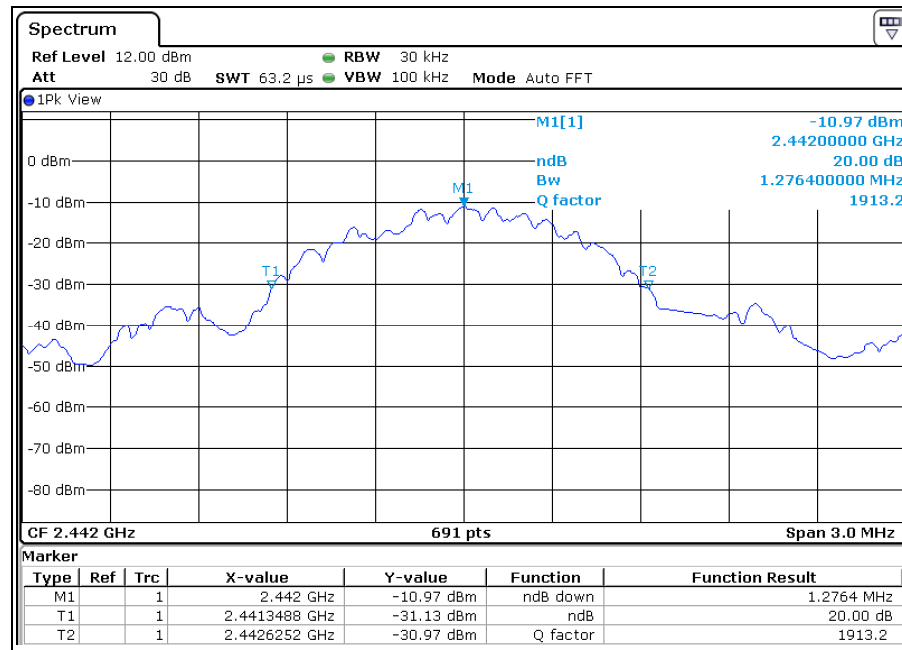
4.2.7 TEST RESULTS

CHANNEL	CHANNEL FREQUENCY (MHz)	20dB BANDWIDTH (MHz)
Low	2410	1.2938
Middle	2442	1.2764
High	2470	1.2677

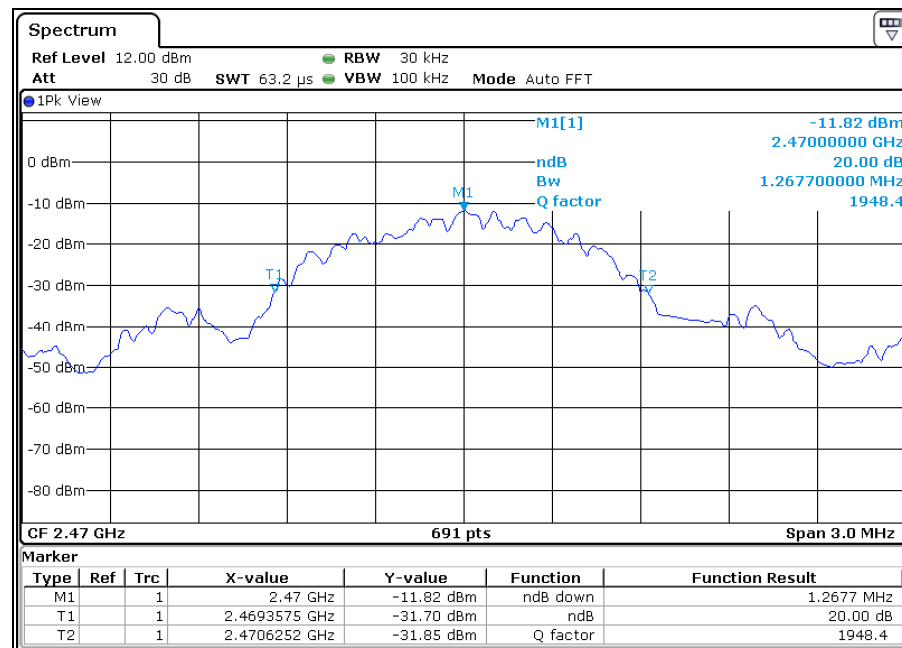
Test Data: Low channel



Test Data: Middle channel



Test Data: High channel





Test Report No.: RF2306WDG0240

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

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---