

Report No.: SHEM210500404801

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# TEST REPORT

Application No.: SHEM2105004048CR

FCC ID: 2AZV7-P201

Applicant: Beijing Dynamics Technology Co.,LTD

**Address of Applicant:** Room 202, Floor 2, Building 23, No.2 North street Jingyuan, BDA, Beijing

100176 China

Manufacturer: Beijing Dynamics Technology Co.,LTD

Address of Manufacturer: Room 202, Floor 2, Building 23, No.2 North street Jingyuan, BDA, Beijing

100176 China

**Equipment Under Test (EUT):** 

**EUT Name:** Bravo Monster Remote Controller

Model No.: BMRC-01 Trade mark: **Bravo Monster** 

47 CFR Part 15, Subpart C 15.249 Standard(s):

2021-05-06 **Date of Receipt:** 

2021-05-18 to 2021-06-07 **Date of Test:** 

Date of Issue: 2021-06-08

PASS\* **Test Result:** 

Parlam Zhan **E&E Section Manager** 

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.



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Revision Record							
Version Description Date Remark							
00	Original	2021-06-08	1				

Authorized for issue by:		
	Vint -m	
	Vincent Zhu / Project Engineer	
	Parlam Zhan	
	Parlam Zhan / Reviewer	



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# 2 Test Summary

Radio Spectrum Technical Requirement						
Item Standard Method Requirement Resu						
Antenna Requirement	47 CFR Part 15, Subpart C 15.249	N/A	47 CFR Part 15, Subpart C 15.203	Pass		

Radio Spectrum Matter Part							
Item	Standard	Method	Requirement	Result			
20dB Bandwidth	47 CFR Part 15, Subpart C 15.249	ANSI C63.10 (2013) Section 6.9	47 CFR Part 15, Subpart C 15.215	Pass			
Field Strength of the Fundamental Signal (15.249(a))	47 CFR Part 15, Subpart C 15.249	ANSI C63.10 (2013) Section 6.5&6.6	47 CFR Part 15, Subpart C 15.249(a)	Pass			
Restricted Band Around Fundamental Frequency	47 CFR Part 15, Subpart C 15.249	ANSI C63.10 (2013) Section 6.4&6.5&6.6	47 CFR Part 15, Subpart C 15.205 & 15.249(d) & 15.209	Pass			
Radiated Emissions	47 CFR Part 15, Subpart C 15.249	ANSI C63.10 (2013) Section 6.4&6.5&6.6	47 CFR Part 15, Subpart C 15.209 & 15.249 (a),(d)	Pass			



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## 4 General Information

### 4.1 Details of E.U.T.

Power supply: DC 3V By 2\*AAA size batteries

Test voltage: DC 3V
Modulation Type FSK
Number of Channels 15

Operation Frequency 2405MHz~2475MHz

Channel Spacing 5MHz

Antenna Type PCB Antenna

Antenna Gain: 0dBi (Provided by the manufacturer)

### 4.2 Description of Support Units

The EUT has been tested as an independent unit.

## 4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4 x 10 <sup>-8</sup>
2	Occupied Bandwidth	3%
3	RF Radiated Power	5.1dB (Below 1GHz)
3	RF Radiated Power	4.9dB (Above 1GHz)
		4.2dB (Below 30MHz)
4	Dadiated Courieus Ensissies Test	4.5dB (30MHz-1GHz)
4	Radiated Spurious Emission Test	5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
5	Temperature Test	1°C
6	Humidity Test	3%
7	Supply Voltages	1.5%
8	Time	3%

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



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#### 4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

### 4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

### • CNAS (No. CNAS L0599)

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

#### • A2LA (Certificate No. 6332.01)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

### • FCC (Designation Number: CN1301)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

### • ISED (CAB Identifier: CN0020)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 8617A

### • VCCI (Member No.: 3061)

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

### 4.6 Deviation from Standards

None

### 4.7 Abnormalities from Standard Conditions

None



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# **Equipment List**

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
RF Radiated Test			-		•
EMI test Receiver	R&S	ESU40	SHEM051-1	2020-12-20	2021-12-19
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2020-12-20	2021-12-19
Loop Antenna (9kHz-30MHz)	Schwarzbeck	FMZB1519	SHEM135-1	2020-12-20	2021-12-19
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM048-1	2019-10-14	2021-10-13
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM202-1	2020-04-30	2022-04-29
Horn Antenna (1-18GHz)	Schwarzbeck	HF906	SHEM009-1	2018-10-24	2021-10-23
Horn Antenna (1-18GHz)	Schwarzbeck	BBHA9120D	SHEM050-1	2019-10-14	2021-10-13
Horn Antenna (14-40GHz)	Schwarzbeck	BBHA 9170	SHEM049-1	2018-10-31	2021-10-30
Pre-amplifier (9KHz-2GHz)	CLAVIIO	BDLNA-0001	SHEM164-1	2020-08-13	2021-08-12
Pre-amplifier (1-18GHz)	CLAVIIO	BDLNA-0118	SHEM050-2	2020-08-13	2021-08-12
High-amplifier (14-40GHz)	Schwarzbeck	10001	SHEM049-2	2020-12-20	2021-12-19
Signal Generator	R&S	SMR40	SHEM058-1	2020-08-13	2021-08-12
Band Filter	LORCH	9BRX-875/X150	SHEM156-1	1	1
Band Filter	LORCH	13BRX-1950/X500	SHEM083-2	1	1
Band Filter	LORCH	5BRX-2400/X200	SHEM155-1	1	1
Band Filter	LORCH	5BRX-5500/X1000	SHEM157-2	1	1
High pass Filter	Wainwright	WHK3.0/18G	SHEM157-1	/	1
High pass Filter	Wainwright	WHKS1700	SHEM157-3	1	1
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2020-05-25	2023-05-24
RE test Cable	/	RE01, RE02, RE06	1	2020-12-20	2021-12-19
Test software ESE		E3	Version: 6.1112 21a	1	1



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# 6 Radio Spectrum Technical Requirement

### 6.1 Antenna Requirement

#### 6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 Limit:

#### 15.203 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.

#### 6.1.2 Conclusion

#### 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 PCB antenna 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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# 7 Radio Spectrum Matter Test Results

## 7.1 20dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.215 Test Method: ANSI C63.10 (2013) Section 6.9

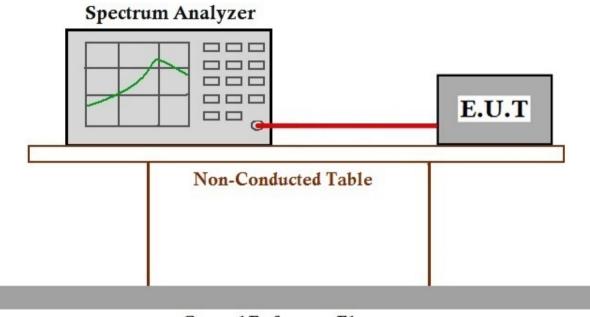
### 7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 20 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

Test mode a:TX mode\_Keep the EUT in transmitting with modulation mode.

#### 7.1.2 Test Setup Diagram



### Ground Reference Plane

#### 7.1.3 Measurement Procedure and Data

- 1. Place the EUT on the table and set it in Engineering mode.
- Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 3. Set the spectrum analyzer as RBW = approximately 1 % to 5 % of the OBW (set 30 kHz), VBW =3\* RBW, Span=5MHz, Sweep=auto
- 4. Mark the peak frequency and -20dB (upper and lower) frequency.
- **5.** Repeat above procedures until all frequency measured was complete.



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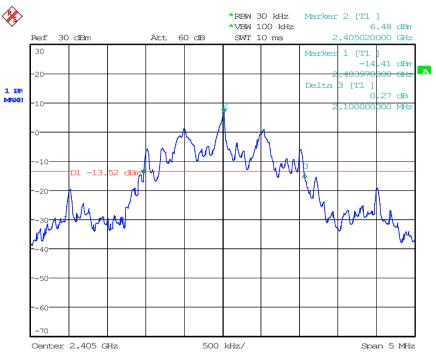
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Frequency (MHz)	Bandwidth (MHz)	Result
2405	2.10	PASS
2440	2.14	PASS
2475	2.10	PASS

### Test plot as follows:

### Channel: 2405MHz



Date: 7.JUN.2021 11:15:58



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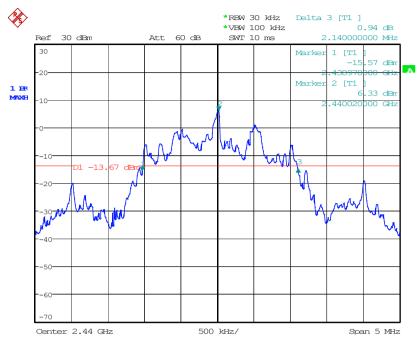
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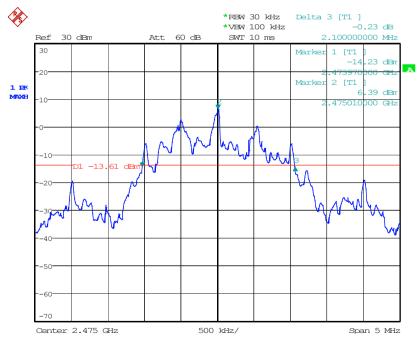
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#### Channel: 2440MHz



Date: 7.JUN.2021 11:17:46

#### Channel: 2475MHz



Date: 7.JUN.2021 11:20:47



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### 7.2 Field Strength of the Fundamental Signal (15.249(a))

Test Requirement 47 CFR Part 15, Subpart C 15.249(a)
Test Method: ANSI C63.10 (2013) Section 6.5&6.6

**Test Site:** 

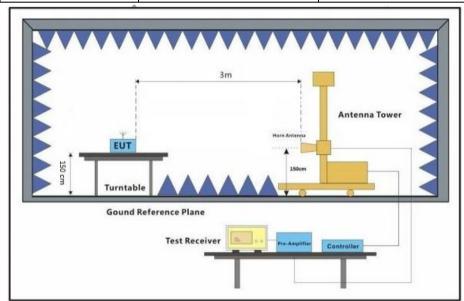
Measurement Distance: 3m

**Receiver Setup:** 

Frequency	Detector	RBW	VBW	Remark
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Limit:

Frequency	Limit (dBuV/m)	Remark
2400~2483.5 MHz	114	Peak
	94	Average



Test Setup:

#### **Test Procedure:**

测专用章

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. 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 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) 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. If the emission level of the EUT in peak mode was 10dB lower than the limit

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specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Test Results: Pass

#### **Measurement Data**

#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
	116.03	-8.23	107.80	114	-6.20	Peak	Horizontal
0.405	100.47	-8.23	92.24	94	-1.76	Average	Horizontal
2405	110.50	-8.23	102.27	114	-11.73	Peak	Vertical
	93.37	-8.23	85.14	94	-8.86	Average	Vertical

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
	111.54	-8.25	103.29	114	-10.71	Peak	Horizontal
0.4.40	96.77	-8.25	88.52	94	-5.48	Average	Horizontal
2440	108.97	-8.25	100.72	114	-13.28	Peak	Vertical
	91.90	-8.25	83.65	94	-10.35	Average	Vertical

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
	105.67	-8.27	97.40	114	-16.60	Peak	Horizontal
0.475	89.81	-8.27	81.54	94	-12.46	Average	Horizontal
2475	105.57	-8.27	97.30	07.30 114 -16.70		Peak	Vertical
	90.29	-8.27	82.02	94	-11.98	Average	Vertical

### Remark:

1) The basic equation with a sample calculation is as follows: Level = Read Level + Factor.

### (The Factor is calculated by adding the Antenna Factor, Cable Loss and Preamp Factor)

2) If the Peak value below the Average Limit, the Quasi-Peak test doesn't perform for this submission.



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### 7.3 Restricted Band Around Fundamental Frequency

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.249(d) & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4&6.5&6.6

Limit:

Frequency(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

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

### 7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1002 mbar

Test mode a:TX mode Keep the EUT in transmitting with modulation mode.



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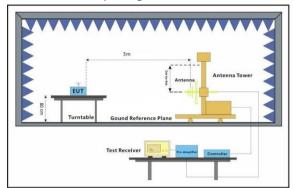
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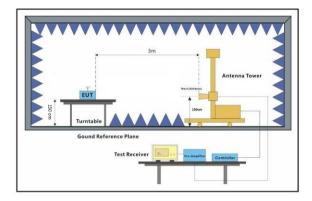


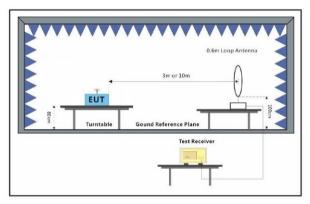
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### 7.3.2 Test Setup Diagram









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#### 7.3.3 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna 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.
- e. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.
- Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



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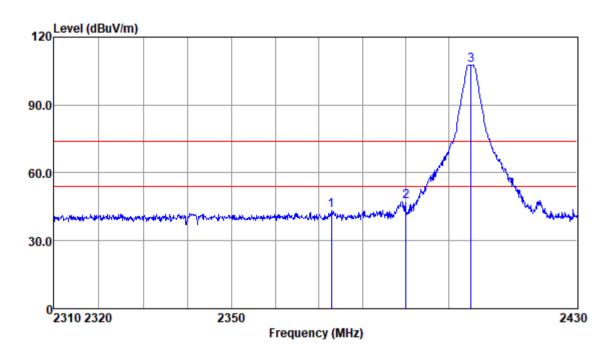
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#### 2405MHz:



## Antenna Polarity : HORIZONTAL

	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2372.84	51.56	26.01	3.17	37.39	43.35	74.00	-30.65	Peak
2390.00	55.66	26.03	3.15	37.40	47.44	74.00	-26.56	Peak
2405.15	116.03	26.06	3.14	37.43	107.80	74.00	33.80	Peak

Note: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



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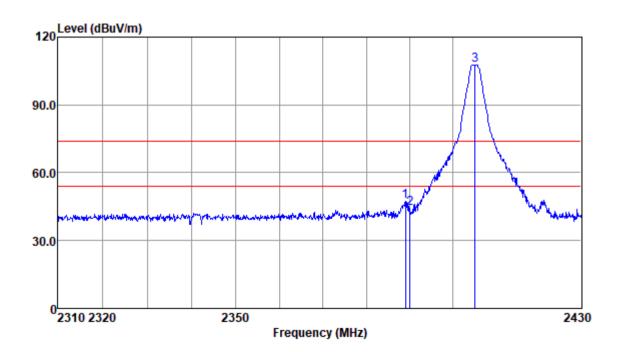
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### Antenna Polarity : HORIZONTAL

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2389.00	55.66	26.03	3.15	37.40	47.44	74.00	-26.56	Peak
2390.00	52.33	26.03	3.15	37.40	44.11	74.00	-29.89	Peak
2405.15	116.03	26.06	3.14	37.43	107.80	74.00	33.80	Peak

Note: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



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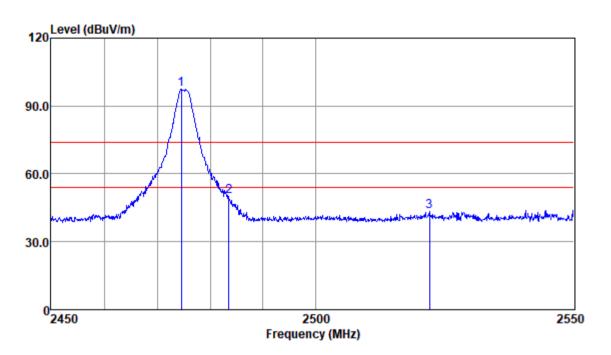
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#### 2475MHz:



### Antenna Polarity : HORIZONTAL

	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2474.53	105.67	26.16	3.14	37.57	97.40	74.00	23.40	Peak
2483.50	58.07	26.18	3.14	37.57	49.82	74.00	-24.18	Peak
2521.90	51.45	26.27	3.16	37.62	43.26	74.00	-30.74	Peak

Note: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



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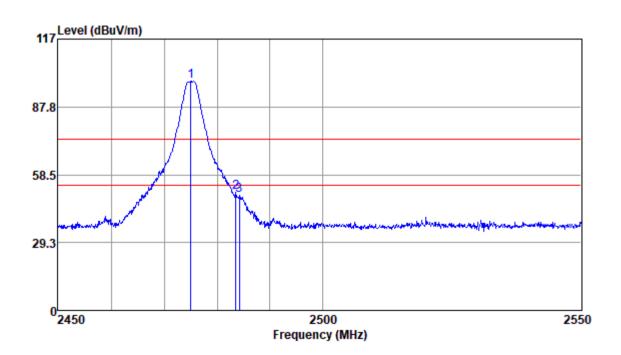
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## Antenna Polarity : VERTICAL

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2475.02	107.00	26.17	3.14	37.57	98.74	74.00	24.74	Peak
2483.50	59.27	26.18	3.14	37.57	51.02	74.00	-22.98	Peak
2484.25	57.85	26.18	3.14	37.57	49.60	74.00	-24.40	Peak

Note: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



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### 7.4 Radiated Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.249 (a),(d)

Test Method: ANSI C63.10 (2013) Section 6.4&6.5&6.6

Limit:

Frequency(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

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

### 7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1002 mbar

Test mode a:TX mode Keep the EUT in transmitting with modulation mode.



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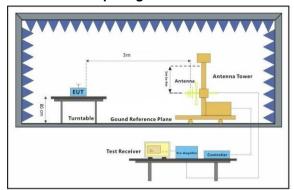
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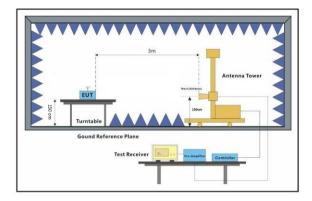


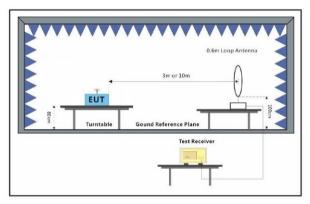
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### 7.4.2 Test Setup Diagram









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#### 7.4.3 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna 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.
- e. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

#### Remark:

- 1) For emission below 1GHz, through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.
- 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

- 3) Scan from 9kHz to 25GHz, the disturbance above 12.75GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 4) For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown



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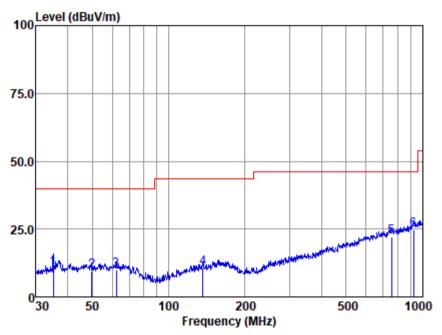


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30MHz-1GHz:

Mode:a; Polarization:Horizontal



Antenna Polarity :HORIZONTAL EUT/Project :4048CR

Test mode :a

	Read	Antenna	Cable	Preamp	Emission	ı Limit	Over	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
35.128	29.39	12.42	0.83	31.85	10.79	40.00	-29.21	QP
49.881	26.80	13.69	1.00	32.06	9.43	40.00	-30.57	QP
62.213	27.49	12.78	1.14	31.52	9.89	40.00	-30.11	QP
136.460	28.52	12.27	1.77	31.71	10.85	43.50	-32.65	QP
755.387	26.59	22.12	4.37	30.89	22.19	46.00	-23.81	QP
922.516	28.00	23.68	4.85	31.84	24.69	46.00	-21.31	QP
	MHz 35.128 49.881 62.213 136.460 755.387	MHz dBuV 35.128 29.39 49.881 26.80 62.213 27.49 136.460 28.52 755.387 26.59	Freq Level Factor  MHz dBuV dB/m  35.128 29.39 12.42  49.881 26.80 13.69  62.213 27.49 12.78  136.460 28.52 12.27  755.387 26.59 22.12	Freq Level Factor Loss  MHz dBuV dB/m dB  35.128 29.39 12.42 0.83  49.881 26.80 13.69 1.00  62.213 27.49 12.78 1.14  136.460 28.52 12.27 1.77  755.387 26.59 22.12 4.37	Freq Level Factor Loss Factor  MHz dBuV dB/m dB dB  35.128 29.39 12.42 0.83 31.85  49.881 26.80 13.69 1.00 32.06  62.213 27.49 12.78 1.14 31.52  136.460 28.52 12.27 1.77 31.71  755.387 26.59 22.12 4.37 30.89	Freq Level Factor Loss Factor Level  MHz dBuV dB/m dB dB dBuV/m  35.128 29.39 12.42 0.83 31.85 10.79  49.881 26.80 13.69 1.00 32.06 9.43  62.213 27.49 12.78 1.14 31.52 9.89  136.460 28.52 12.27 1.77 31.71 10.85  755.387 26.59 22.12 4.37 30.89 22.19	Freq Level Factor Loss Factor Level Line  MHz dBuV dB/m dB dB dBuV/m dBuV/m  35.128 29.39 12.42 0.83 31.85 10.79 40.00  49.881 26.80 13.69 1.00 32.06 9.43 40.00  62.213 27.49 12.78 1.14 31.52 9.89 40.00  136.460 28.52 12.27 1.77 31.71 10.85 43.50  755.387 26.59 22.12 4.37 30.89 22.19 46.00	Read         Antenna Cable Preamp Emission Limit         Over Level           Freq         Level         Factor         Loss Factor Level         Line         Limit           MHz         dBuV         dB/m         dB         dB dB wv/m         dBuv/m         dB wv/m         dB           35.128         29.39         12.42         0.83         31.85         10.79         40.00         -29.21           49.881         26.80         13.69         1.00         32.06         9.43         40.00         -30.57           62.213         27.49         12.78         1.14         31.52         9.89         40.00         -30.11           136.460         28.52         12.27         1.77         31.71         10.85         43.50         -32.65           755.387         26.59         22.12         4.37         30.89         22.19         46.00         -23.81           922.516         28.00         23.68         4.85         31.84         24.69         46.00         -21.31

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



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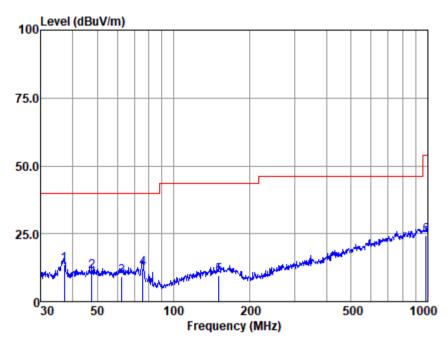
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Mode:a; Polarization:Vertical



Antenna Polarity :VERTICAL EUT/Project :4048CR

Test mode :a

		Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	37.025	31.92	12.74	0.84	31.92	13.58	40.00	-26.42	QP
2	47.659	28.64	13.61	0.98	32.12	11.11	40.00	-28.89	QP
3	62.651	26.78	12.72	1.14	31.50	9.14	40.00	-30.86	QP
4	75.711	31.97	10.25	1.27	31.21	12.28	40.00	-27.72	QP
5	151.067	26.25	12.93	1.87	31.37	9.68	43.50	-33.82	QP
6	989.536	27.32	24.00	5.04	32.19	24.17	54.00	-29.83	QP

Note: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



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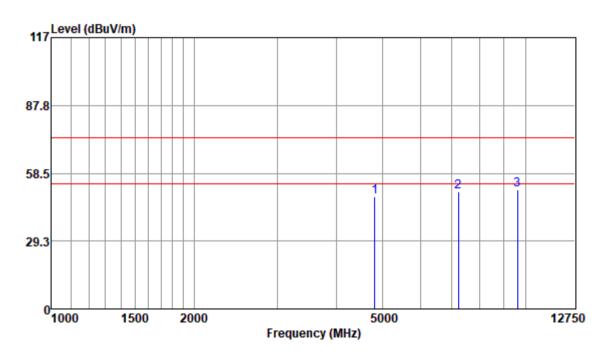
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Above 1GHz: 2405MHz:



## Antenna Polarity : HORIZONTAL

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4809.50	51.12	30.87	5.09	38.71	48.37	74.00	-25.63	Peak
7215.00	48.75	33.38	5.77	37.17	50.73	74.00	-23.27	Peak
9620.00	43.84	35.16	6.72	34.18	51.54	74.00	-22.46	Peak

Note: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



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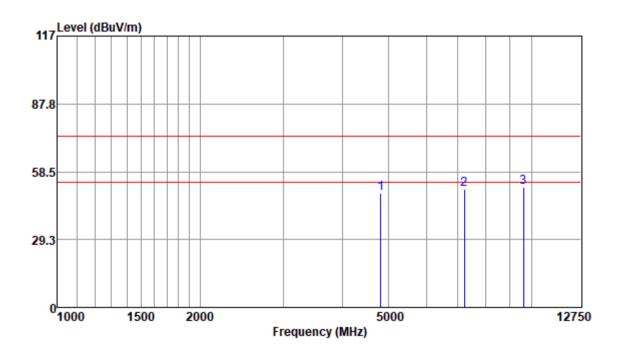
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## Antenna Polarity : VERTICAL

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4810.00	52.01	30.87	5.09	38.71	49.26	74.00	-24.74	Peak
7215.00	48.95	33.38	5.77	37.17	50.93	74.00	-23.07	Peak
9620.00	43.94	35.16	6.72	34.18	51.64	74.00	-22.36	Peak

Note: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



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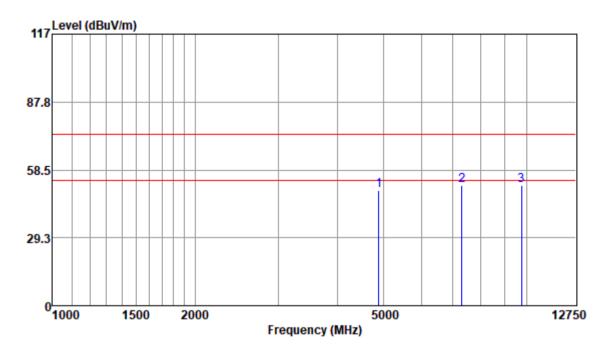
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#### 2440MHz:



## Antenna Polarity : HORIZONTAL

	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4880.00	52.83	31.06	4.48	38.78	49.59	74.00	-24.41	Peak
7320.00	49.52	33.50	5.80	37.10	51.72	74.00	-22.28	Peak
9760.00	44.19	35.10	6.48	34.15	51.62	74.00	-22.38	Peak

Note: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



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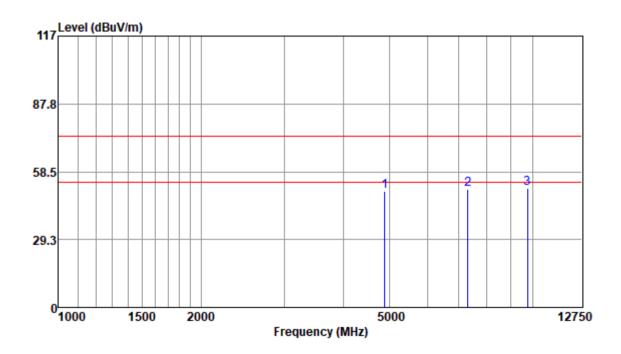
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## Antenna Polarity : VERTICAL

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4880.00	53.39	31.06	4.48	38.78	50.15	74.00	-23.85	Peak
7320.00	48.95	33.50	5.80	37.10	51.15	74.00	-22.85	Peak
9760.00	44.10	35.10	6.48	34.15	51.53	74.00	-22.47	Peak

Note: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



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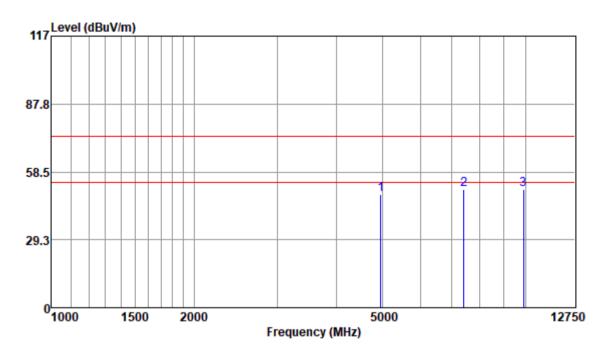
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### 2475MHz:



## Antenna Polarity : HORIZONTAL

	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4950.00	51.60	31.25	4.64	38.85	48.64	74.00	-25.36	Peak
7425.00	48.36	33.62	6.18	37.04	51.12	74.00	-22.88	Peak
9900.00	43.64	35.04	6.53	34.12	51.09	74.00	-22.91	Peak

Note: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



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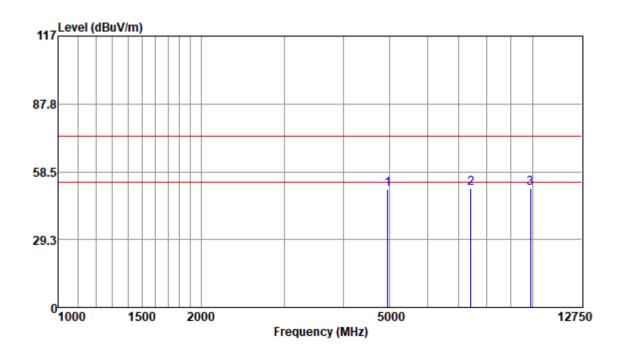
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## Antenna Polarity : VERTICAL

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4950.00	53.94	31.25	4.64	38.85	50.98	74.00	-23.02	Peak
7425.00	48.65	33.62	6.18	37.04	51.41	74.00	-22.59	Peak
9900.00	44.01	35.04	6.53	34.12	51.46	74.00	-22.54	Peak

Note: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



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# 8 Test Setup Photographs

Refer to the < Test Setup photos-FCC>.

## 9 EUT Constructional Details

Refer to the < External Photos > & < Internal Photos >.

- End of the Report -



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