



## Compliance Certification Services (Kunshan) Inc. Shenzhen Branch

SZCCS-TRF-01 Rev. A/0 Aug01,2022

Report No.: FYCR230100001701

Page: 1 of 31

# TEST REPORT

**Application No.:** FYCR2301000017AT  
**Applicant:** GuangDong WauTech Co., Ltd.  
**Address of Applicant:** 3rd Building, 1Rd. Nanhu, Xiegang Town, Dongguan Guanfdong. 523109 China  
**Manufacturer:** GuangDong WauTech Co., Ltd.  
**Address of Manufacturer:** 3rd Building, 1Rd. Nanhu, Xiegang Town, Dongguan Guanfdong. 523109 China  
**Factory:** GuangDong WauTech Co., Ltd.  
**Address of Factory:** 3rd Building, 1Rd. Nanhu, Xiegang Town, Dongguan Guanfdong. 523109 China  
**Equipment Under Test (EUT):**  
**EUT Name:** Box Rocker  
**Model No.:** F2P28980  
**Trade Mark:** Box Rocker  
**FCC ID:** 2A963-BR0118-WT01  
**Standard(s) :** 47 CFR Part 15, Subpart C 15.231  
**Date of Receipt:** 2023-01-11  
**Date of Test:** 2023-01-13 to 2023-03-07  
**Date of Issue:** 2023-03-09

**Test Result:**

**Pass\***

\* In the configuration tested, the EUT complied with the standards specified above.

*Winkey Wang*

Winkey Wang  
EMC Technical Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2023-03-09		Original

Authorized for issue by:				
		Tree Zhan		
		Tree Zhan/Project Engineer		
		Winkey Wang		
		Winkey Wang/Reviewer		



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## 2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart C 15.231	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 15.231	ANSI C63.10 (2013) Section 6.9	47 CFR Part 15, Subpart C 15.231(c)	Pass
Dwell Time (15.231(a))		N/A	47 CFR Part 15, Subpart C 15.231(a)	Pass
Radiated Emissions below 1GHz		ANSI C63.10 (2013) Section 6.4&6.5	47 CFR Part 15C Section 15.231(b) and 15.209	Pass
Radiated Emissions above 1GHz		ANSI C63.10 (2013) Section 6.6	47 CFR Part 15C Section 15.231(b) and 15.209	Pass
Field Strength of the Fundamental Signal (15.231(b))		ANSI C63.10 (2013) Section 6.5	47 CFR Part 15, Subpart C 15.231(b)	Pass



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## 4 General Information

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

Power supply:	3V DC (1.5Vx2"AAA" Size Batteries) for remote controller
Operation Frequency	433.92MHz
Channel Numbers:	1
Modulation Type:	ASK
Antenna Gain:	1.61dBi
Antenna Type:	PCB Antenna

Remark: The information in this section is provided by the applicant or manufacturer, CCS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

### 4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
--	--	--	--

The EUT has been tested as an independent unit.



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### 4.3 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc. Shenzhen branch.

Fuyong lab. Xinlong TechnoPark, Fengtang Road, Fuyong Subdistrict, Bao'an, Shenzhen, China

Tel: +86 755 8866 3988 Fax: +86 755 2671 0594

No tests were sub-contracted.

### 4.4 Test Facility

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

#### • A2LA (Certificate No. 6606.01)

Compliance Certification Services (Kunshan) Inc. Shenzhen branch is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 6606.01.

#### • FCC –Designation Number: CN1322

Compliance Certification Services (Kunshan) Inc. Shenzhen branch has been recognized as an accredited testing laboratory.

Designation Number: CN1322. Test Firm Registration Number: 718073

#### • Innovation, Science and Economic Development Canada

Compliance Certification Services (Kunshan) Inc. Shenzhen branch has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0129.

IC#: 28189.

### 4.5 Deviation from Standards

None

### 4.6 Abnormalities from Standard Conditions

None



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## 5 Equipment List

20dB Bandwidth					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2022/7/12	2023/7/11
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-25	2022/5/30	2023/5/29
Programmable DC Source	Chroma	62024P-80-60	SEM011-09	2022/7/12	2023/7/11
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2022/7/12	2023/7/11
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A

Dwell Time (15.231(a))					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-25	2022/5/30	2023/5/29
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2022/7/12	2023/7/11
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A

Radiated Emissions below 1GHz					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
3m Anechoic Chamber	CRT	N/A	SEM001-13	2021/7/13	2024/7/12
Trilog-Broadband Antenna	Schwarzbeck	VULB9168	SEM003-33	2021/9/25	2024/9/24
Loop Antenna	ETS-LINDGREN	6502	SEM003-36	2021/9/26	2024/9/25
MXE EMI receiver	Agilent	N9038A	SEM004-05	2022/7/12	2023/7/11
Pre-amplifier	HP	8447D	SEM005-02	2022/7/12	2023/7/11
Coaxial Cable	CCS	N/A	SEM035-01	2022/5/16	2023/5/15
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A



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Radiated Emissions above 1GHz					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
3m Anechoic Chamber	CRT	N/A	SEM001-13	2021/7/13	2024/7/12
MXE EMI receiver	Agilent	N9038A	SEM004-05	2022/7/12	2023/7/11
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9120D	SEM003-32	2021/9/26	2024/9/25
Pre-amplifier	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2022/7/12	2023/7/11
Pre-amplifier	Rohde & Schwarz	CH14-H052	SEM005-17	2022/7/12	2023/7/11
Coaxial Cable	CCS	N/A	SEM035-02	2022/5/16	2023/5/15
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A

Field Strength of the Fundamental Signal (15.231(b))					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
3m Anechoic Chamber	CRT	N/A	SEM001-13	2021/7/13	2024/7/12
Trilog-Broadband Antenna	Schwarzbeck	VULB9168	SEM003-33	2021/9/25	2024/9/24
MXE EMI receiver	Agilent	N9038A	SEM004-05	2022/7/12	2023/7/11
Pre-amplifier	HP	8447D	SEM005-02	2022/7/12	2023/7/11
Coaxial Cable	CCS	N/A	SEM035-01	2022/5/16	2023/5/15
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A

General used equipment					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	Mingle	TH607	SEM002-22	2022/7/12	2023/7/11
Humidity/ Temperature Indicator	Mingle	TH607	SEM002-23	2022/7/12	2023/7/11
Barometer	DUMAI	DYM3	SEM002-24	2022/7/12	2023/7/11



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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

#### 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 integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 1.61 dBi.

Antenna location: Refer to internal photo.



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## 7 Radio Spectrum Matter Test Results

### 7.1 20dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.231(c)  
Test Method: ANSI C63.10 (2013) Section 6.9

Limit:

Frequency range(MHz)	Limit
70-900	No wider than 0.25% of the center frequency
Above 900	No wider than 0.5% of the center frequency

Remark: For this device, the limit is  $433.92\text{MHz} \times 0.25\% = 1.0848\text{MHz}$

#### 7.1.1 E.U.T. Operation

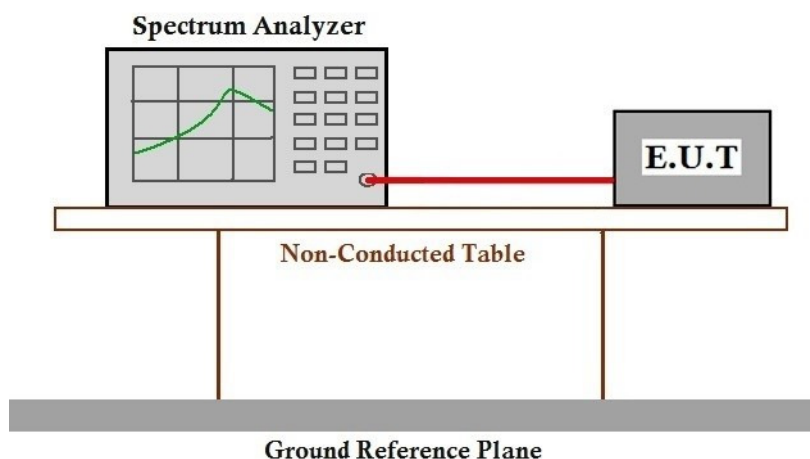
Operating Environment:

Temperature: 25.4 °C Humidity: 54.6 % RH Atmospheric Pressure: 1020 mbar

#### 7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode.

#### 7.1.3 Test Setup Diagram



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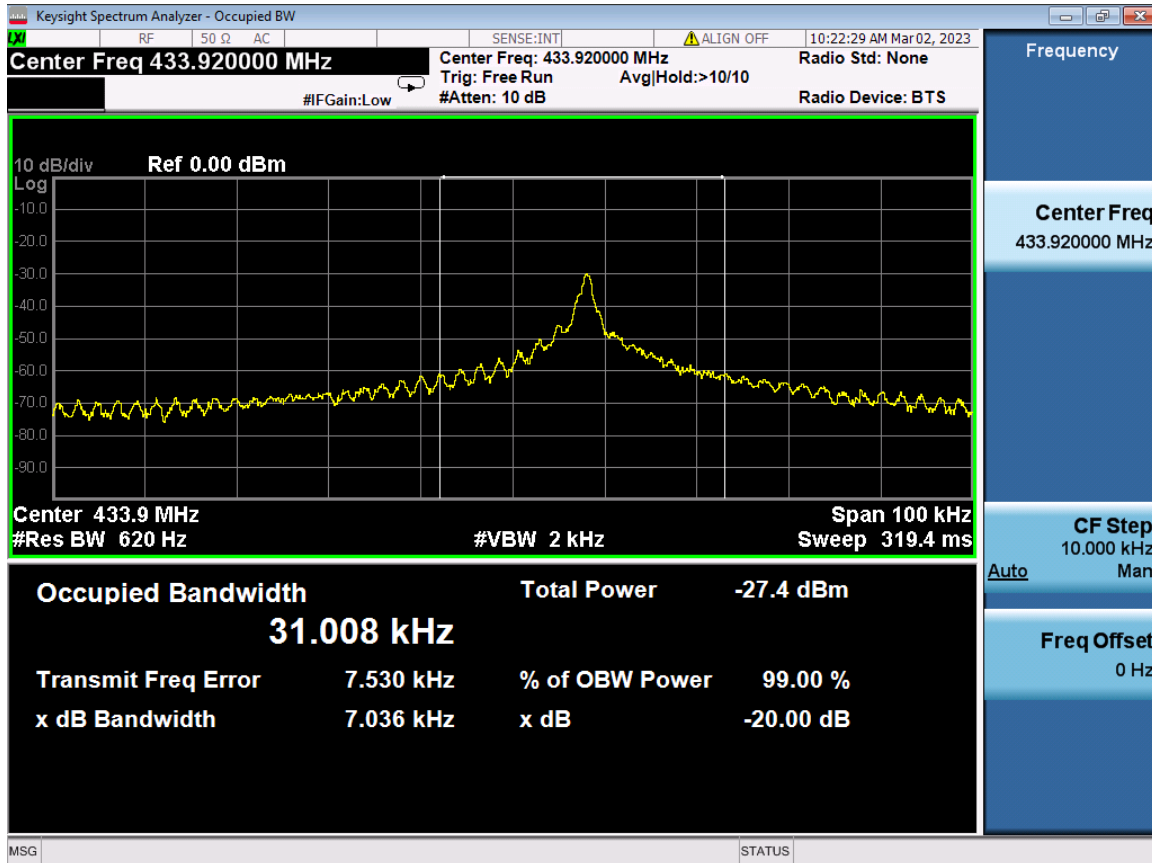
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### 7.1.4 Measurement Procedure and Data

Test Channel	Bandwidth	Limit	Verdict
433.92MHz	31.008kHz	1.0848MHz	PASS



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### 7.2 Dwell Time (15.231(a))

Test Requirement 47 CFR Part 15, Subpart C 15.231(a)

Test Method: N/A

Limit:

Device type	Limit
Manually operated transmitter	The switch automatically deactivate the transmitter within not more than 5 seconds of being released
Automatically actived transmitter	Cease transmission within 5 seconds after activation
Periodic transmissions to determine system integrity of transmitters used in security or safety applications	The total transmission time does not exceed 2 seconds per hour

#### 7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.4 °C

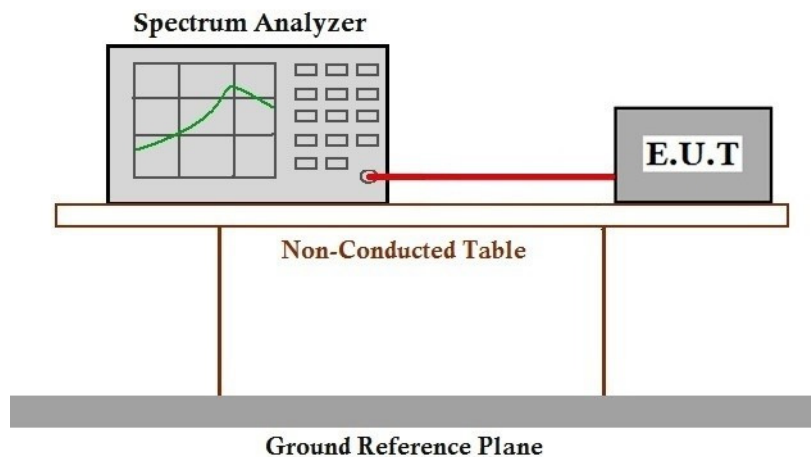
Humidity: 54.6 % RH

Atmospheric Pressure: 1020 mbar

#### 7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode.

#### 7.2.3 Test Setup Diagram



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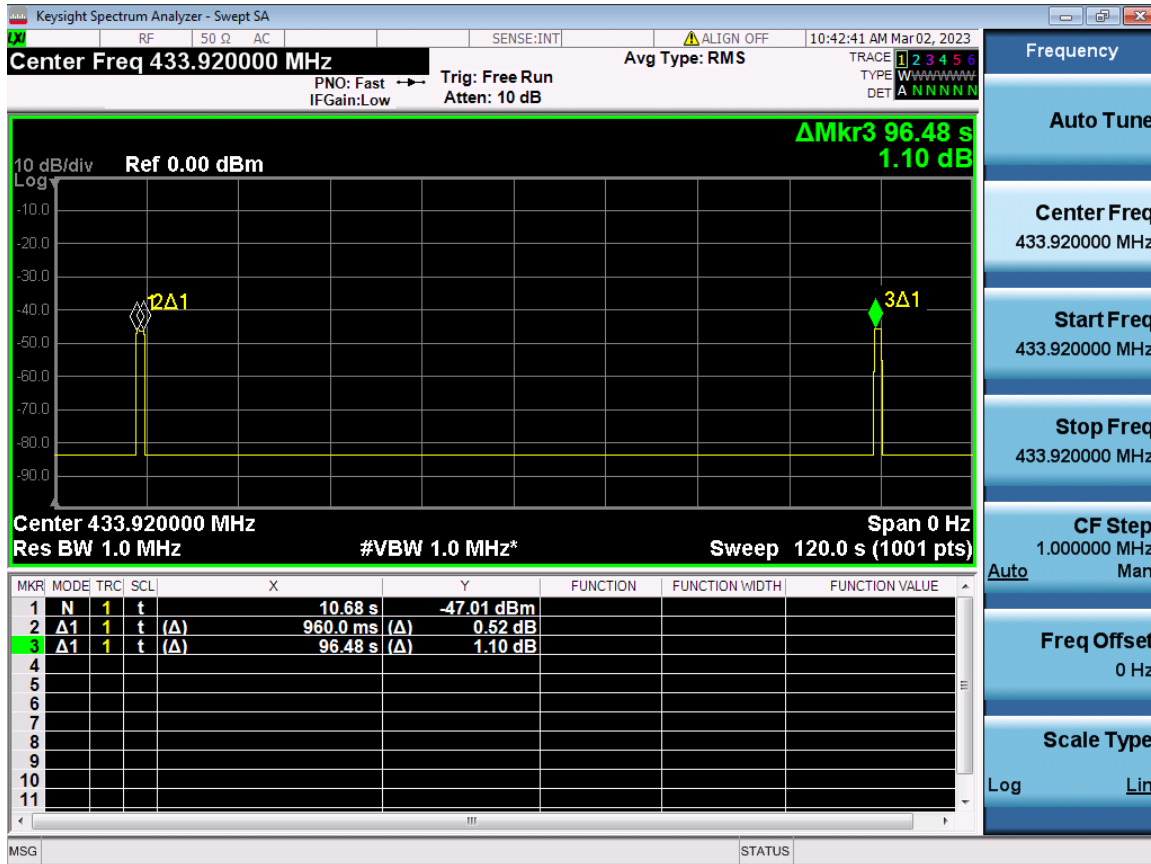
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### 7.2.4 Measurement Procedure and Data



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## 7.3 Radiated Emissions below 1GHz

Test Requirement 47 CFR Part 15C Section 15.231(b) and 15.209

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

Measurement Distance: 3m

Limit:

For Restricted bands

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.

For Other bands

Fundamental Frequency MHz	Field Strength of Fundamental (dBμV/m @ 3 m)	Field Strength of Hasrmonics and Spurious Emissions (dBμV/m @ 3 m)
40.66 to 40.70	67.04	47.04
70 to 130	61.94	41.94
130 to 174	**61.94 to 71.48	41.94 to 51.48
174 to 260	71.48	51.48
260 to 470	**71.48 to 81.94	51.48 to 61.94
Above 470	81.94	61.94
<b>Detector:</b>	Peak for pre-scan	
	QP for 30MHz to 1000 MHz: 120 kHz resolution bandwidth	
	Peak for Above 1 GHz: 1 MHz resolution bandwidth	

\*\* linear interpolations

[Where F is the frequency in MHz, the formulas for calculating the maximum permitted fundamental field strengths are as follows:

for the band 130-174 MHz, uV/m at 3 meters = 56.81818(F) - 6136.3636;

for the band 260-470 MHz, uV/m at 3 meters = 41.6667(F) - 7083.3333.



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The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level.]

The fundamental frequency of the EUT is 433.92 MHz

The limit for average or QP field strength dBuV/m for the fundamental emission= 80.83 dBuV/m

No fundamental is allowed in the restricted bands.

The limit for average field strength dBuV/m for the spurious emission=60.83 dBuV/m. Spurious in the restricted bands must be less than 60.83 dBuV/m or 15.209, whichever limit permits a higher field strength.

### 7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C

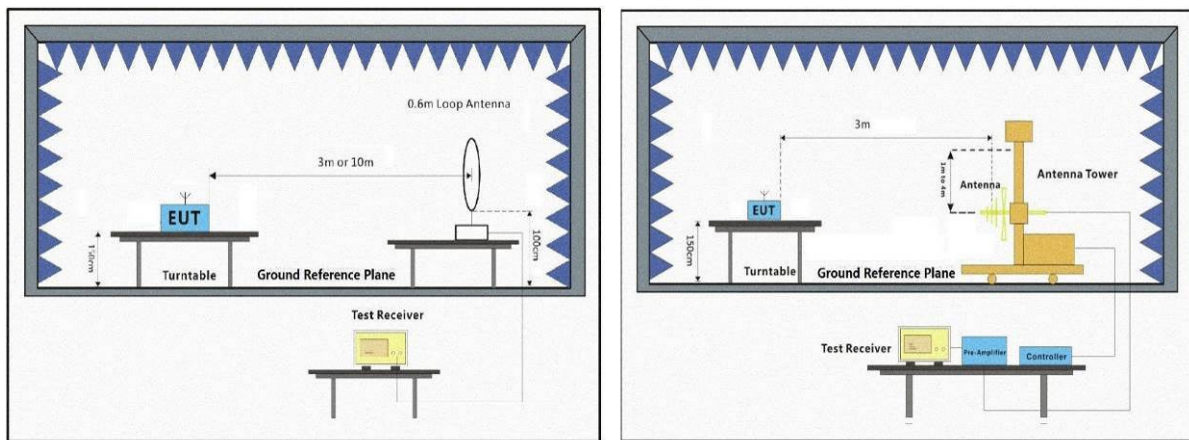
Humidity: 52.6 % RH

Atmospheric Pressure: 1020 mbar

### 7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode.

### 7.3.3 Test Setup Diagram



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### 7.3.4 Measurement Procedure and Data

For testing performed with the loop antenna, the center of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specified distance from the EUT. During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane. Only the worst position of Horizontal was shown in the report.

Measured Level = Read Level + Antenna Factor + Cable Loss - Preamplifier Factor

The average correction factor is computed by analyzing the on time in 100ms over one complete pulse train. Analysis of the remote transmitter on time in one complete pulse train, therefore the average value of fundamental frequency is: Average = Peak value + 20log (Duty cycle), where the duty factor is calculated from following formula:

$20\log(\text{Duty cycle}) = 20\log(40\%) = -7.96 \text{ dB}$

Here:

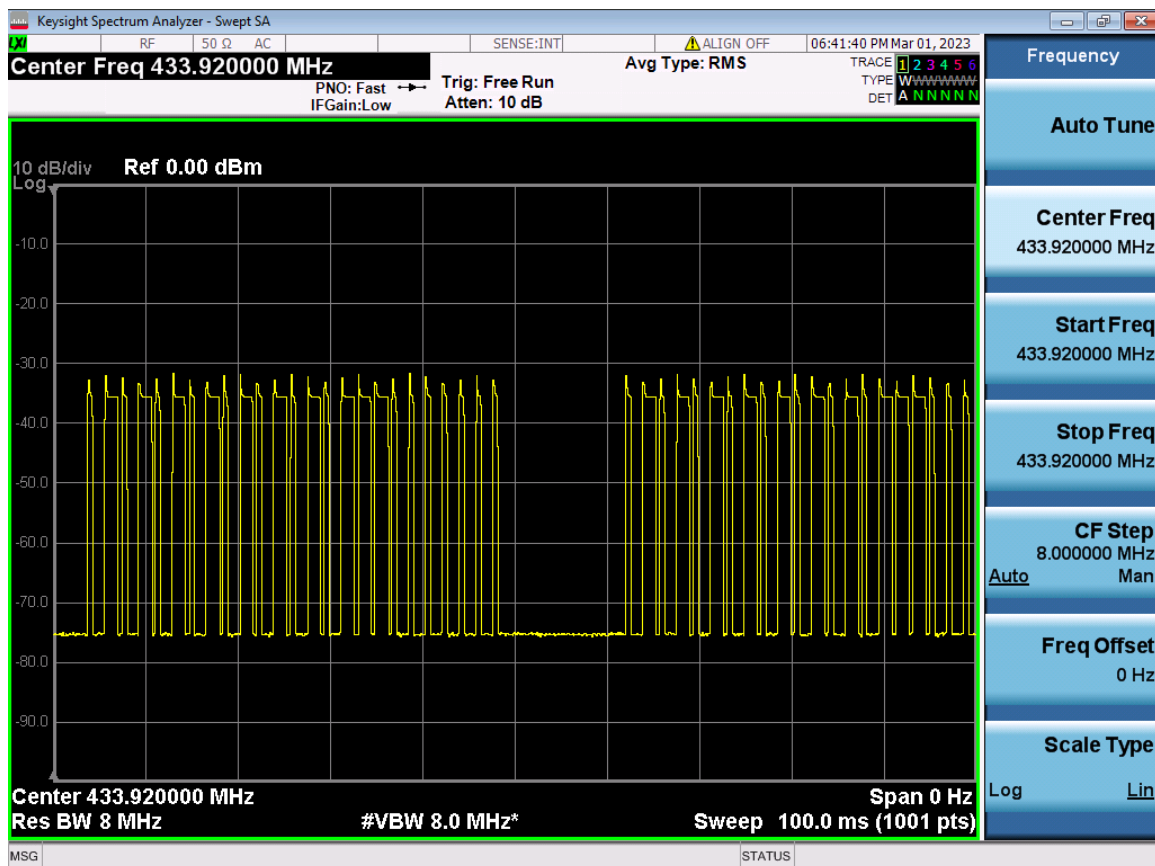
$\text{Duty cycle} = \text{Ton\_cum} / \text{Ton+off}$

$\text{Ton\_cum} = (26 \times 0.5) + (20 \times 1.35) = 40\text{ms}$

$\text{Ton+off} = 100.0\text{ms}$

$\text{Duty cycle} = 40/100.0 = 40\%$

Please refer to below plot for more details.



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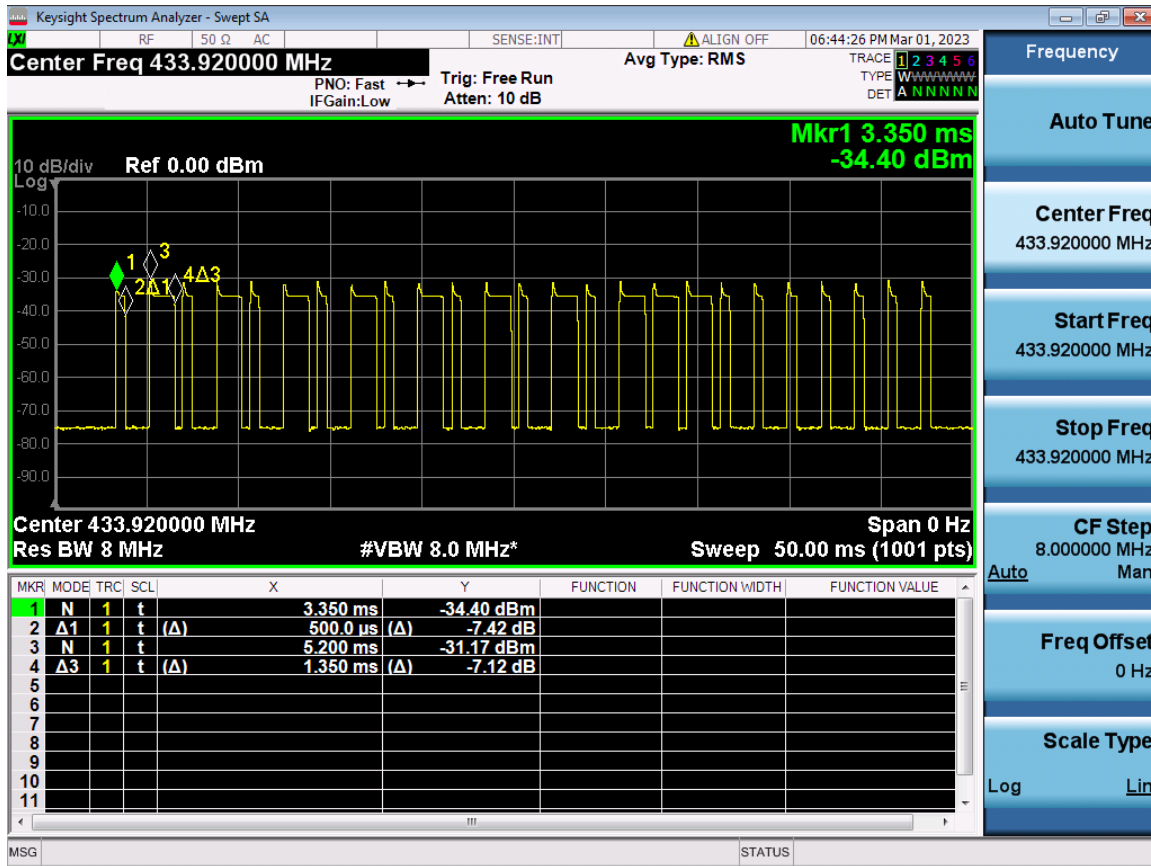
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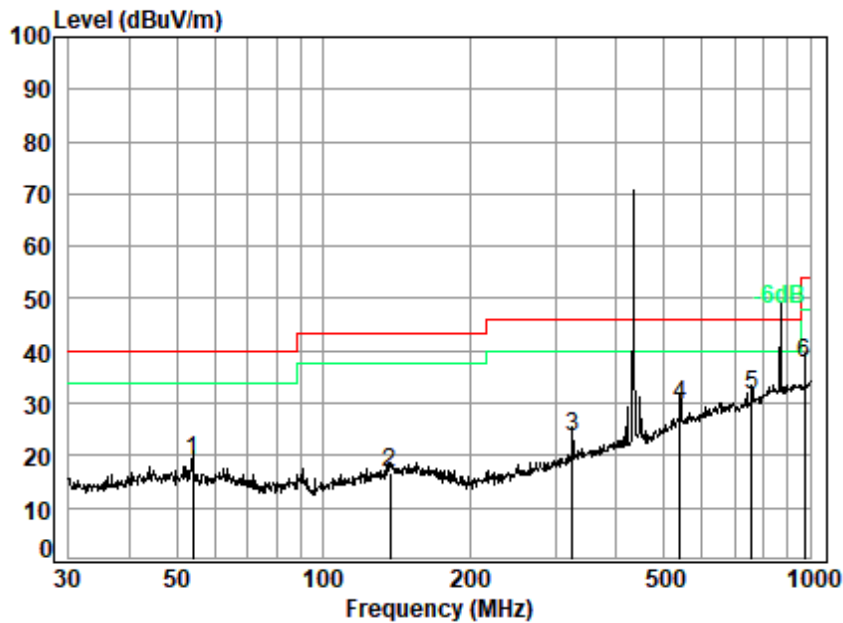
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### Radiated emission below 30MHz

The measurements with active loop antenna were greater than 20dB below the limit, so the test data were not recorded in the test report.



Site : chamber  
Condition: 3m HORIZONTAL  
Job No : 00017AT  
Mode : 00

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	53.882	0.24	17.26	25.97	27.36	18.89	40.00	-21.11	QP
2	136.939	0.97	17.20	25.54	24.18	16.81	43.50	-26.69	QP
3	325.596	1.28	19.40	25.42	28.38	23.64	46.00	-22.36	QP
4	541.373	1.78	23.72	25.28	29.35	29.57	46.00	-16.43	QP
5	758.041	1.89	26.44	24.35	27.45	31.43	46.00	-14.57	QP
6	975.753	2.55	29.12	24.02	29.95	37.60	54.00	-16.40	QP



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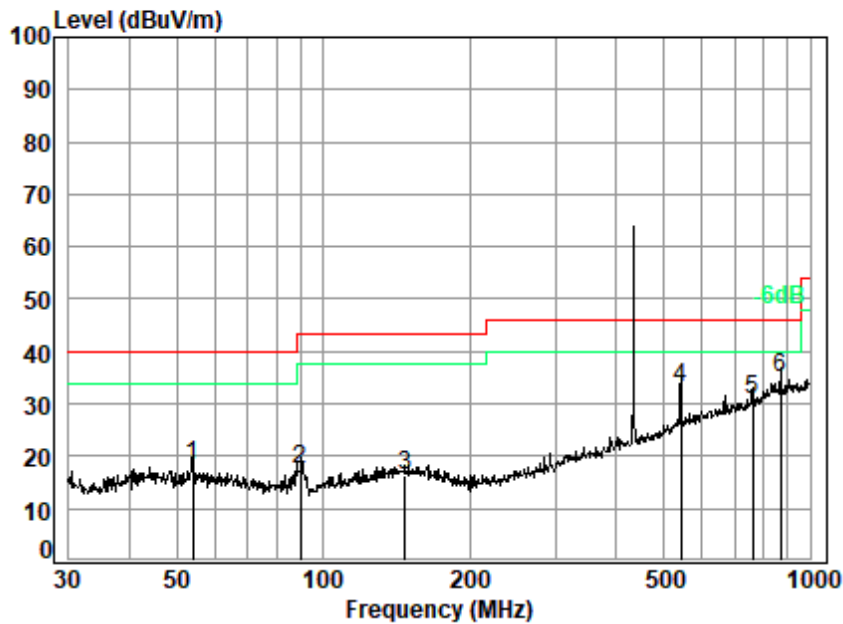
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Site : chamber  
Condition: 3m VERTICAL  
Job No : 00017AT  
Mode : 00

		Cable	Ant	Preamp	Read	Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	53.882	0.24	17.26	25.97	26.73	18.26	40.00	-21.74 QP
2	89.905	0.67	13.61	25.70	29.07	17.65	43.50	-25.85 QP
3	146.888	0.93	17.43	25.53	23.60	16.43	43.50	-27.07 QP
4	543.274	1.80	23.74	25.27	32.85	33.12	46.00	-12.88 QP
5	760.704	1.90	26.49	24.34	26.91	30.96	46.00	-15.04 QP
6	869.130	2.75	27.61	24.13	28.63	34.86	46.00	-11.14 QP



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### 7.4 Radiated Emissions above 1GHz

Test Requirement 47 CFR Part 15C Section 15.231(b) and 15.209

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

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1000	500	3

#### 7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 23.2 °C

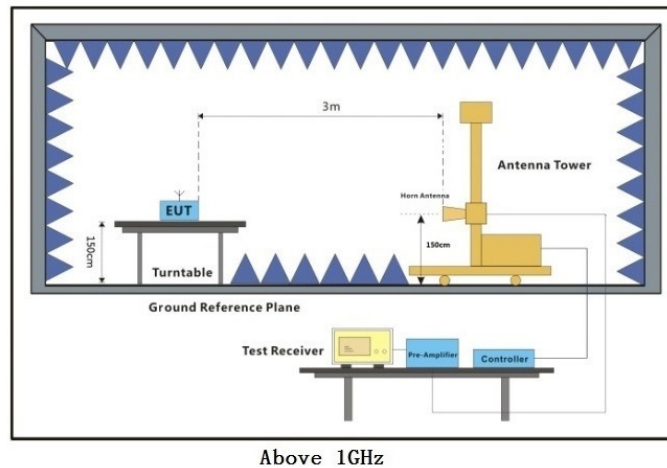
Humidity: 52.9 % RH

Atmospheric Pressure: 1020 mbar

#### 7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode.

#### 7.4.3 Test Setup Diagram



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### 7.4.4 Measurement Procedure and Data

- a. 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.
- 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 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 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.
- g. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.

Remark:

- 1) 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
- 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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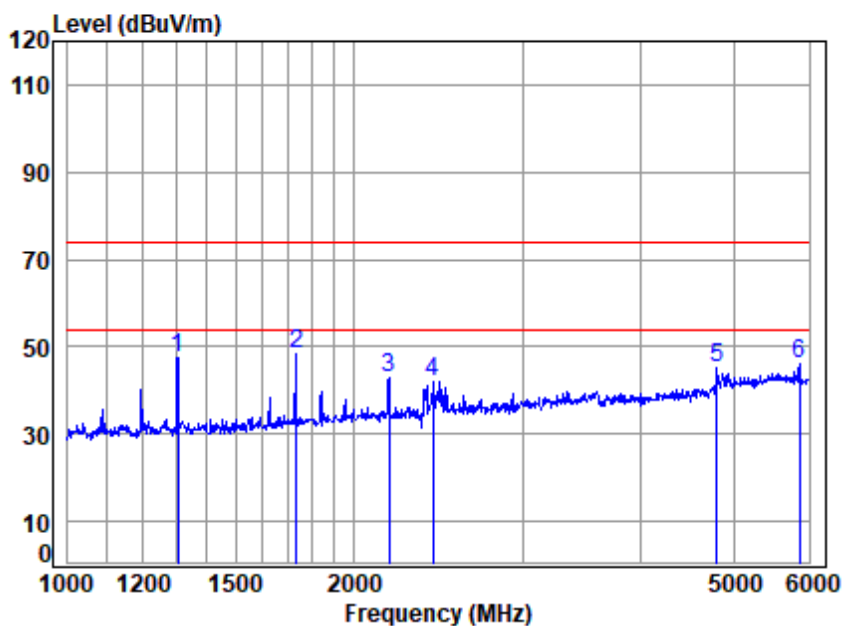
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Test Mode: 00; Polarity: Horizontal



Site : chamber  
Condition: 3m HORIZONTAL  
Job No : 00017AT  
Mode : 00  
Note :

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1303.666	3.47	24.29	52.73	72.60	47.63	74.00	-26.37	Peak
2	1736.483	4.33	25.07	52.98	72.14	48.56	74.00	-25.44	Peak
3	2172.398	5.03	26.60	53.10	64.14	42.67	74.00	-31.33	Peak
4	2418.959	5.23	27.20	53.10	62.70	42.03	74.00	-31.97	Peak
5	4804.636	8.32	30.81	53.05	58.97	45.05	74.00	-28.95	Peak
6	5861.858	8.05	32.50	52.84	58.56	46.27	74.00	-27.73	Peak



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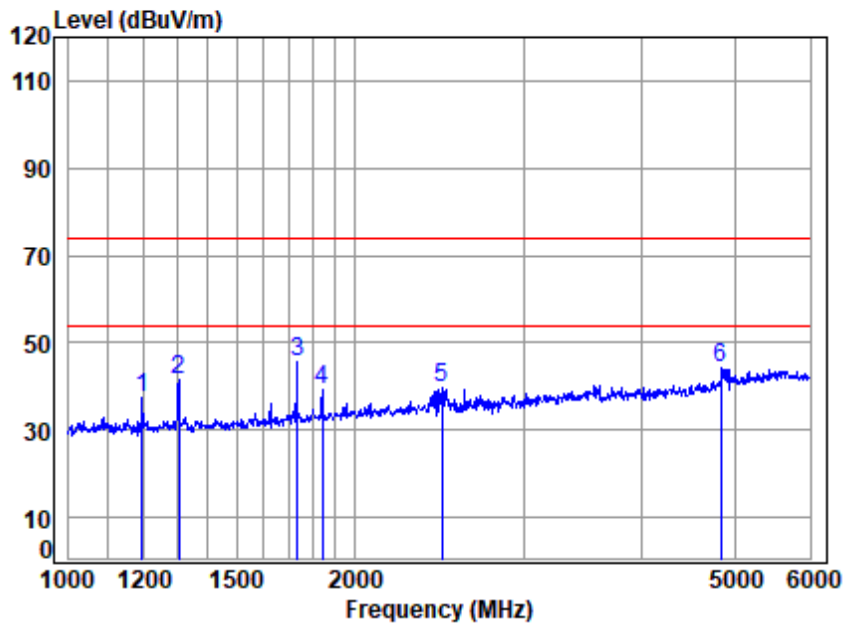
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Test Mode: 00; Polarity: Vertical



Site : chamber  
Condition: 3m VERTICAL  
Job No : 00017AT  
Mode : 00  
Note :

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1194.090	3.27	24.29	52.65	62.49	37.40	74.00	-36.60	Peak
2	1303.666	3.47	24.29	52.73	66.32	41.35	74.00	-32.65	Peak
3	1736.483	4.33	25.07	52.98	69.40	45.82	74.00	-28.18	Peak
4	1845.558	4.56	25.29	53.03	62.52	39.34	74.00	-34.66	Peak
5	2467.108	5.27	27.27	53.10	60.36	39.80	74.00	-34.20	Peak
6	4839.195	8.40	30.88	53.06	58.12	44.34	74.00	-29.66	Peak



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## 7.5 Field Strength of the Fundamental Signal (15.231(b))

Test Requirement 47 CFR Part 15, Subpart C 15.231(b)

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

Measurement Distance: 3m

Limit:

Fundamental Frequency MHz	Field Strength of Fundamental (dBμV/m @ 3 m)	Field Strength of Harmonics and Spurious Emissions (dBμV/m @ 3 m)
40.66 to 40.70	67.04	47.04
70 to 130	61.94	41.94
130 to 174	**61.94 to 71.48	**41.94 to 51.48
174 to 260	71.48	51.48
260 to 470	**71.48 to 81.94	**51.48 to 61.94
Above 470	81.94	61.94
<b>Detector:</b>	Peak for pre-scan	
	QP for 30MHz to1000 MHz:120 kHz resolution bandwidth	
	Peak for Above 1 GHz: 1 MHz resolution bandwidth	

\*\* linear interpolations

[Where F is the frequency in MHz, the formulas for calculating the maximum permitted fundamental field strengths are as follows:

for the band 130-174 MHz, uV/m at 3 meters = 56.81818(F) - 6136.3636;

for the band 260-470 MHz, uV/m at 3 meters = 41.6667(F) - 7083.3333.

The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level.]

The fundamental frequency of the EUT is 433.92 MHz

The limit for peak or QP field strength dBuV/m for the fundamental emission= 100.83 dBμV/m

The limit for average or QP field strength dBuV/m for the fundamental emission= 80.83 dBμV/m

No fundamental is allowed in the restricted bands.

The limit for peak field strength dBuV/m for the spurious emission=80.83 dBuV/m.

The limit for average field strength dBuV/m for the spurious emission=60.83 dBuV/m.

Spurious in the restricted bands must be less than 60.83 dBuV/m or 15.209, whichever limit permits a higher field strength.



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### 7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 20.2 °C

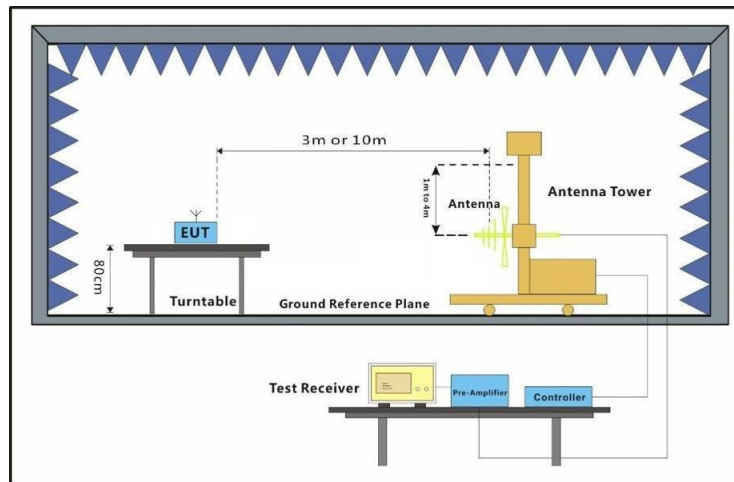
Humidity: 45.2 % RH

Atmospheric Pressure: 1020 mbar

### 7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode.

### 7.5.3 Test Setup Diagram



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### 7.5.4 Measurement Procedure and Data

And according 15.35(a)

15.35(a) On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a CISPR quasi-peak detector function and related measurement bandwidths, unless otherwise specified. The specifications for the measuring instrument using the CISPR quasi-peak detector can be found in Publication 16 of the International Special Committee on Radio Interference (CISPR) of the International Electrotechnical Commission. As an alternative to CISPR quasi-peak measurements, the responsible party, at its option, may demonstrate compliance with the emission limits using measuring equipment employing a peak detector function, properly adjusted for such factors as pulse desensitization, as long as the same bandwidths as indicated for CISPR quasi-peak measurements are employed.

Note: For pulse modulated devices with a pulse-repetition frequency of 20 Hz or less and for which CISPR quasi-peak measurements are specified, compliance with the regulations shall be demonstrated using measuring equipment employing a peak detector function, properly adjusted for such factors as pulse desensitization, using the same measurement bandwidths that are indicated for CISPR quasi-peak measurements.

According to 15.35 (b) Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1 MHz. When average radiated emission measurements are specified in this part, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. Unless otherwise specified, e.g., see §§ 15.250, 15.252, 15.255, and 15.509-15.519 of this part, the limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device, e.g., the total peak power level. Note that the use of a pulse desensitization correction factor may be needed to determine the total peak emission level. The instruction manual or application note for the measurement instrument should be consulted for determining pulse desensitization factors, as necessary.



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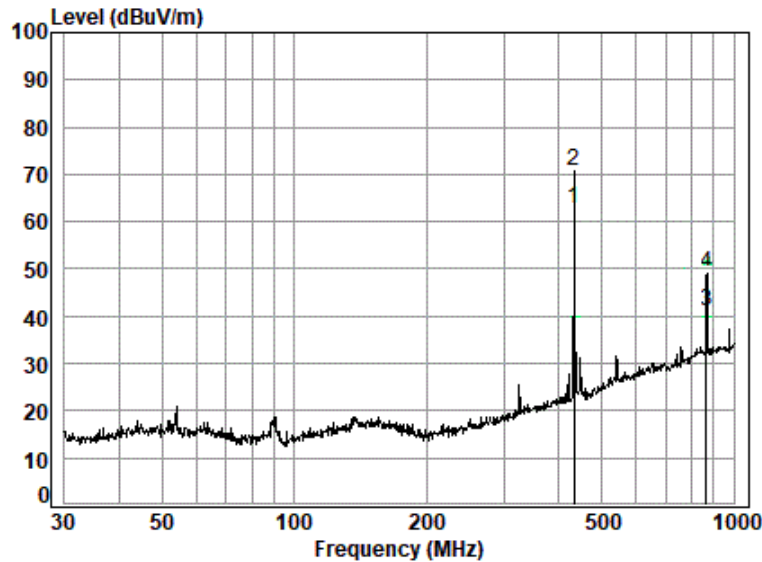
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Site : chamber  
Condition: 3m HORIZONTAL  
Job No : 00017AT  
Mode : 00

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	433.920	1.55	21.37	25.47	65.34	62.79	80.83	-18.04	Average
2	433.920	1.55	21.37	25.47	73.30	70.75	100.83	-30.08	Peak
3	867.840	2.77	27.60	24.13	34.76	41.00	60.83	-19.83	Average
4	867.840	2.77	27.60	24.13	42.72	48.96	80.83	-31.87	Peak



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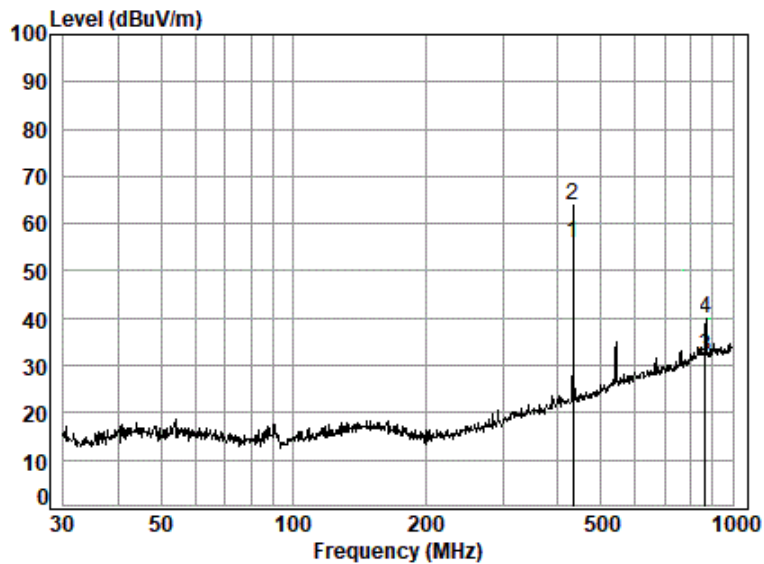
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## Compliance Certification Services (Kunshan) Inc. Shenzhen Branch

SZCCS-TRF-01 Rev. A/0 Aug01,2022

Report No.: FYCR230100001701

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Site : chamber  
Condition: 3m VERTICAL  
Job No : 00017AT  
Mode : 00

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Over Line	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	433.920	1.55	21.37	25.47	58.59	56.04	80.83	-24.79 Average
2	433.920	1.55	21.37	25.47	66.55	64.00	100.83	-36.83 Peak
3	867.840	2.77	27.60	24.13	25.66	31.90	60.83	-28.93 Average
4	867.840	2.77	27.60	24.13	33.62	39.86	80.83	-40.97 Peak



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Report No.: FYCR230100001701

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### Peak value:

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
433.92	1.55	21.37	25.47	73.30	70.75	100.83	-30.08	Horizontal
433.92	1.55	21.37	25.47	66.55	64.00	100.83	-36.83	Vertical
867.84	2.77	27.60	24.13	42.72	48.96	80.83	-31.87	Horizontal
867.84	2.77	27.60	24.13	33.62	39.86	80.83	-40.97	Vertical

### Average value:

Frequency (MHz)	Average correction factor	Peak Level (dBuV/m)	Average Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
433.92	-7.96	70.75	62.79	80.83	-18.04	Horizontal
433.92	-7.96	64.00	56.04	80.83	-24.79	Vertical
867.84	-7.96	48.96	41.00	60.83	-19.83	Horizontal
867.84	-7.96	39.86	31.90	60.83	-28.93	Vertical

Note: The Average correction factor calculation please refer to Clause 7.3.4



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## 8 Test Setup Photo

Refer to Appendix - Test Setup Photo for FYCR2301000017AT

## 9 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for FYCR2301000017AT

- End of the Report -



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