

TEST REPORT

Application No.: GZEM2012016941CR
Applicant: FOCAL POINT FIRES LTD
Address of Applicant: Unit 10, Avon Trading Park CHRISTCHURCH BH23 2BT UNITED KINGDOM
Manufacturer: Guangdong Paite Electrical Technology Co., Ltd.
Address of Manufacturer: No.2 South Shenghui Rd, Nantou town, Zhongshan, Guangdong, China
Factory: Guangdong Paite Electrical Technology Co., Ltd.
Address of Factory: No.2 South Shenghui Rd, Nantou town, Zhongshan, Guangdong, China
Equipment Under Test (EUT):
FCC ID: 2AV93-EF40RC

EUT Name: Electric Fireplace
Model No.: EF40-48B, EF40-32B, EF40-63B

☒ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.

Standard(s): 47 CFR Part 15, Subpart C 15.231

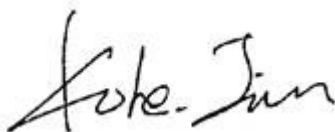
Date of Receipt: 2020-12-02

Date of Test: 2020-12-04 to 2020-12-28

Date of Issue: 2020-06-12 (for original report: GZEM200401150702)
 2020-09-23 (for copy report: GZEM200401150704)
 2020-12-30 (for copy report: GZEM200401150706)

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.



Kobe Jian
EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2020-06-12		Original
02		2020-09-23		Copy report: Added model: EF40-63B.
03		2020-12-30		Copy report: Alternative remote control.

Authorized for issue by:			
Tested By			
			2020-12-04 to 2020-12-28
	Curry_Wu /Project Engineer		Date
Checked By			
			2020-12-30
	Ricky_Liu /Reviewer		Date



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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

N/A: Not applicable

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))	47 CFR Part 15, Subpart C 15.231	ANSI C63.10 (2013) Section 7.8.4	47 CFR Part 15, Subpart C 15.231(a)	Pass
Field Strength of the Fundamental Signal (15.231(b))	47 CFR Part 15, Subpart C 15.231	ANSI C63.10 (2013) Section 6.5	47 CFR Part 15, Subpart C 15.231(b)	Pass
Radiated Emissions & Restricted bands	47 CFR Part 15, Subpart C 15.231	ANSI C63.10 (2013) Section 6.4&6.5&6.6	47 CFR Part 15, Subpart C 15.231(b) & 15.209	Pass

Remark for original report GZEM200401150702:

✕ Declaration of EUT Family Grouping:

Model No.: EF40-48B, EF40-32B

According to the declaration from the applicant, the electrical circuit design, layout, components used and internal wiring were identical for all models, with only difference on appearance size and Lamp plate length of receiver.

Therefore only models EF40-48B was tested in this report.



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Remark for copy report GZEM200401150704:

The GZEM200401150704 report was an additional report based on and only valid with the report GZEM200401150702. Only added new model EF40-63B.

Model no.: EF40-48B, EF40-32B, EF40-63B

According the declaration from applicant, the model EF40-63B added in GZEM200401150704 report and models in GZEM200401150702 report were identical, with difference on main electric control board , size and LED light panel.

Both of this model's transmitter are identical.

Therefore all test data was keep in this report.

Remark for the report GZEM200401150706:

This report **GZEM200401150706** was an additional report based on the **GZEM200401150704** original/previous report, just Alternative remote control.

Considering the updated, full tests were performed on the remote control used for all the original models in GZEM200401150706 report.

Therefore new data were recorded in this report GZEM200401150706. Tests for original data please refer to report GZEM200401150704 for details.



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4 General Information

4.1 Details of E.U.T.

Power Supply:	DC 3V = 2 x 1.5V with size 'AAA' battery for remote control (Tx) AC 120V 60Hz for main unit (Rx only)
Test Voltage:	DC 3V for Tx
Antenna Gain:	0dBi declared by applicant
Antenna Type:	Integrated antenna
Channel Spacing:	N/A
Modulation Type:	OOK
Number of Channels:	1
Operation Frequency:	433.92MHz
SN	A1
Hardware	QSD-433-002-V1(2)
Software	SV01
Power setting	Default

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	$\pm 5.5 \times 10^{-8}$
2	Duty cycle	$\pm 0.57\%$
3	Occupied Bandwidth	$\pm 3\%$
4	RF Conducted power	0.68dB
5	RF Power Density	1.50dB
6	Conducted Spurious Emissions	1.04dB
7	RF Radiated Power	4.5dB (below 1GHz)
		4.8dB (above 1GHz)
8	Radiated Spurious Emission Test	4.5dB (30MHz-1GHz)
		4.8dB (1GHz-18GHz)
9	Temperature	$\pm 0.4^{\circ}\text{C}$
10	Humidity	$\pm 1.3\%$
11	Supply Voltages	$\pm 1.5\%$
12	Time	$\pm 3\%$



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4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,
 198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District,
 Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.



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4.5 Test Facility

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

● **NVLAP (Lab Code: 200611-0)**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

● **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.

● **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

● **CNAS (Lab Code: L0167)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2018 accreditation criteria for testing laboratories (identical to

ISO/IEC 17025:2017 General Requirements) for the Competence of Testing Laboratories.

● **FCC Recognized 2.948 Listed Test Firm(Registration No.: 282399)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 282399, May 31, 2002.

● **FCC Recognized Accredited Test Firm(Registration No.: 486818)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818, Jul 13, 2017.

● **Industry Canada (Registration No.: 4620B, CAB identifier: CN0052)**

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

● **VCCI (Registration No.: R-12460, C-12584, G-10449 and T-11179)**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-10449 and T-11179 respectively.

● **CBTL (Lab Code: TL129)**

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2005, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.



4.6 Deviation from Standards

None

4.7 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
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01

Dwell Time (15.231(a))					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01

Radiated Emissions					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver	Rohde & Schwarz	ESIB26	EMC0522	2020-01-10	2021-01-09
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC0056	2020-01-10	2021-01-09
Chamber cable	HangTianXing	N/A	EMC0542	2019-06-28	2021-06-27
Trilog Broadband Antenna 25MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9168	EMC2174	2018-09-06	2021-09-05
Trilog Broadband Antenna 30MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Bi-log Type Antenna	Schaffner Chase	CBL6143	EMC0519	2020-06-08	2023-06-07
Horn Antenna 1GHz-18GHz	Rohde & Schwarz	HF906	EMC0518	2018-09-02	2021-09-01
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2020-01-10	2021-01-09
Amplifier	HP	8447F	EMC2065	2020-05-26	2021-05-25
Pre-Amplifier MH648A	ANRITSU CORP	MH648A	EMC2086	2020-11-18	2021-11-17
Active Loop Antenna	ETS-Lindgren	6502	EMC2190	2019-12-27	2021-12-26
High Pass Filter	WAINWRIGHT INSTRUMENTS GMBH	WHKS650-10S	EMC2092	2020-01-10	2021-01-09
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2020-01-10	2021-01-09
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-19	2021-12-18
MXE EMI Receiver	Keysight	N9038A	EMC2139	2020-11-18	2021-11-17
EXA Signal Analyzer	Keysight	N9010A	EMC2138	2020-11-18	2021-11-17



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Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
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General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DMM	Fluke	73	EMC0006	2020-07-09	2021-07-08
DMM	Fluke	73	EMC0007	2020-07-09	2021-07-08



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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 antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an 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 photo please refer to internal photo.

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 0dBi.



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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

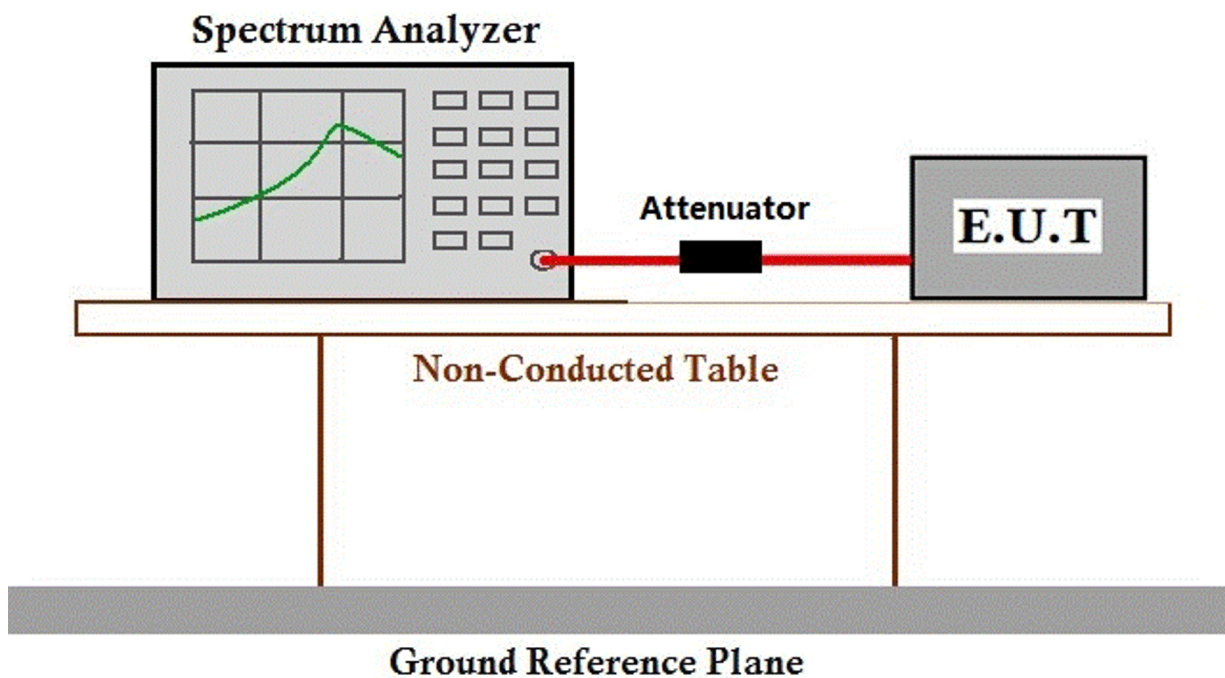
7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22.8 °C Humidity: 54.1 % RH Atmospheric Pressure: 1020 mbar

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

7.1.2 Test Setup Diagram



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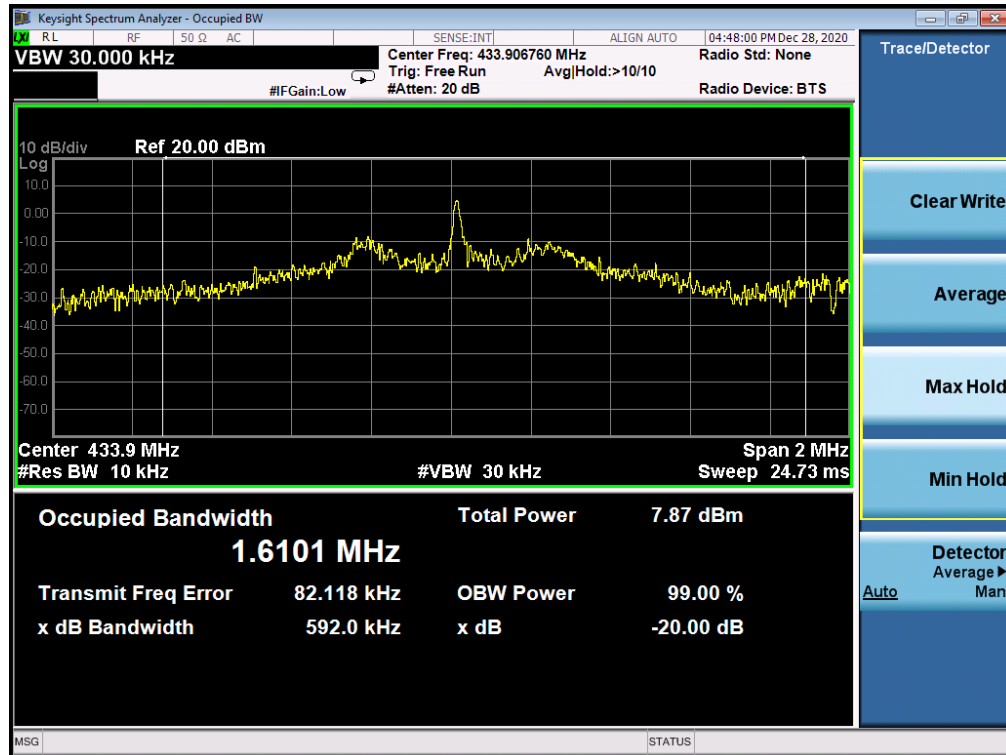
7.1.3 Measurement Procedure and Data

Mode:a

Test Result:

Test Channel	Bandwidth	Limit	Verdict
433.92MHz	0.592MHz	1.08MHz	PASS

Test Plot:



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7.2 Dwell Time (15.231(a))

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

Test Method: ANSI C63.10 (2013) Section 7.8.4

Limit:

Device type	Limit
Manually operated transmitter	The switch automatically deactivate the transmitter within not more than 5 seconds of being released
Automatically activated 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

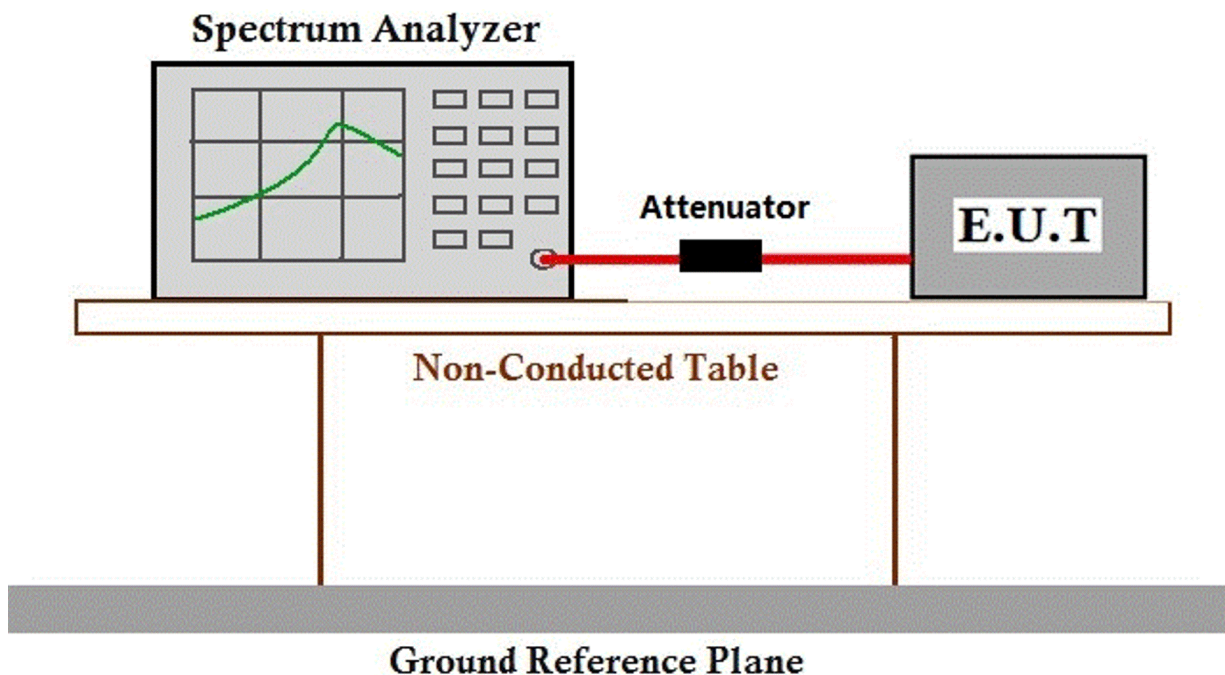
7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 22.8 °C Humidity: 54.1 % RH Atmospheric Pressure: 1020 mbar

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

7.2.2 Test Setup Diagram



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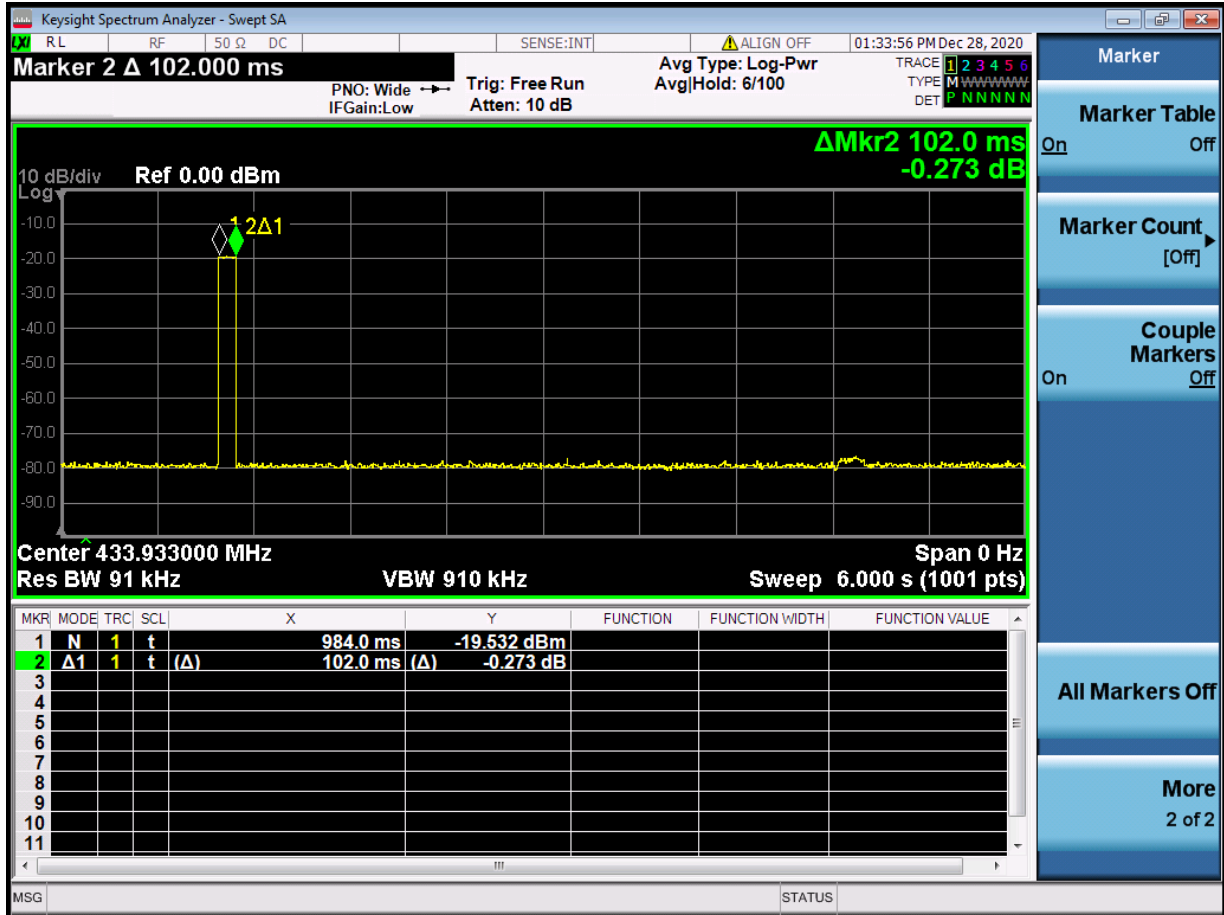
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7.2.3 Measurement Procedure and Data

Test Channel	Shutdown Time	Limit	Verdict
433.92MHz	0.102s	≤5s	PASS



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7.3 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(microvolts/meter)	Field strength of spurious emissions(microvolts/meter)
40.66-40.70	2250	225
70-130	1250	125
130-174	1250 to 3750	125 to 375
174-260	3750	375
260-470	3750 to 12500	375 to 1250
Above 470	12500	1250

*Linear interpolation with frequency, f, in MHz:

For 130-174 MHz: Field Strength ($\mu\text{V/m}$) = $(56.82 \times f) - 6136$

For 260-470 MHz: Field Strength ($\mu\text{V/m}$) = $(41.67 \times f) - 7083$

Remark: the emission limit is based on measurement instrumentation employing an average detector at a distance of 3 meters. The frequencies above 1000MHz 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.

The fundamental frequency of the EUT is 433.92 MHz, so the limit for average or QP field strength dB $\mu\text{V/m}$ for the fundamental emission= 80.8 dB $\mu\text{V/m}$.

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 cycle is calculated from formula:

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

Here,

$$\text{Ton_cum} = 0.2 + 40.4 + 2.8 + 40.6 = 84 \text{ (ms)}$$

$$\text{Ton+off} = 100 \text{ (ms)}$$

$$\text{Duty cycle} = 84 / 100 = 0.84$$

$$20\log (\text{Duty cycle}) = 20\log(0.84) = -1.51\text{dB}$$

Please refer to below test plots for more details.



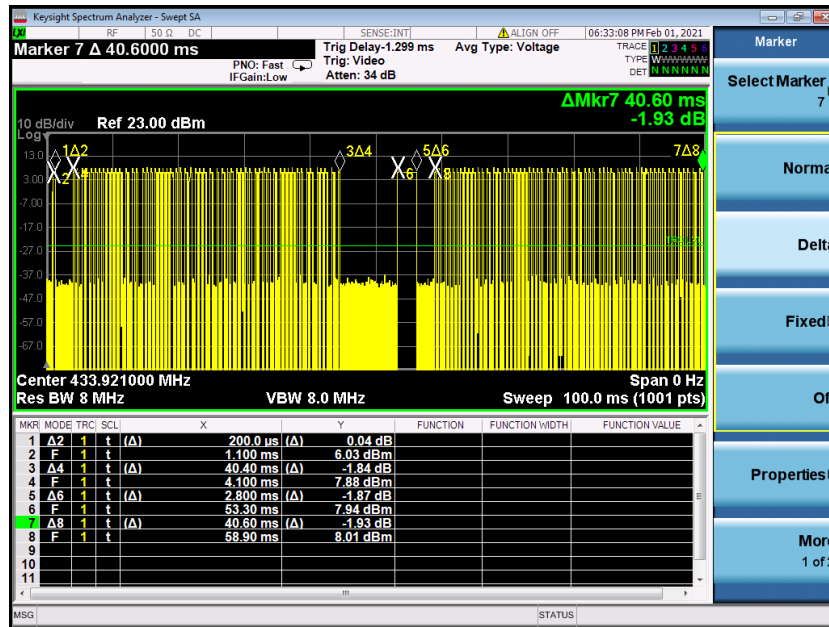
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Test Plots



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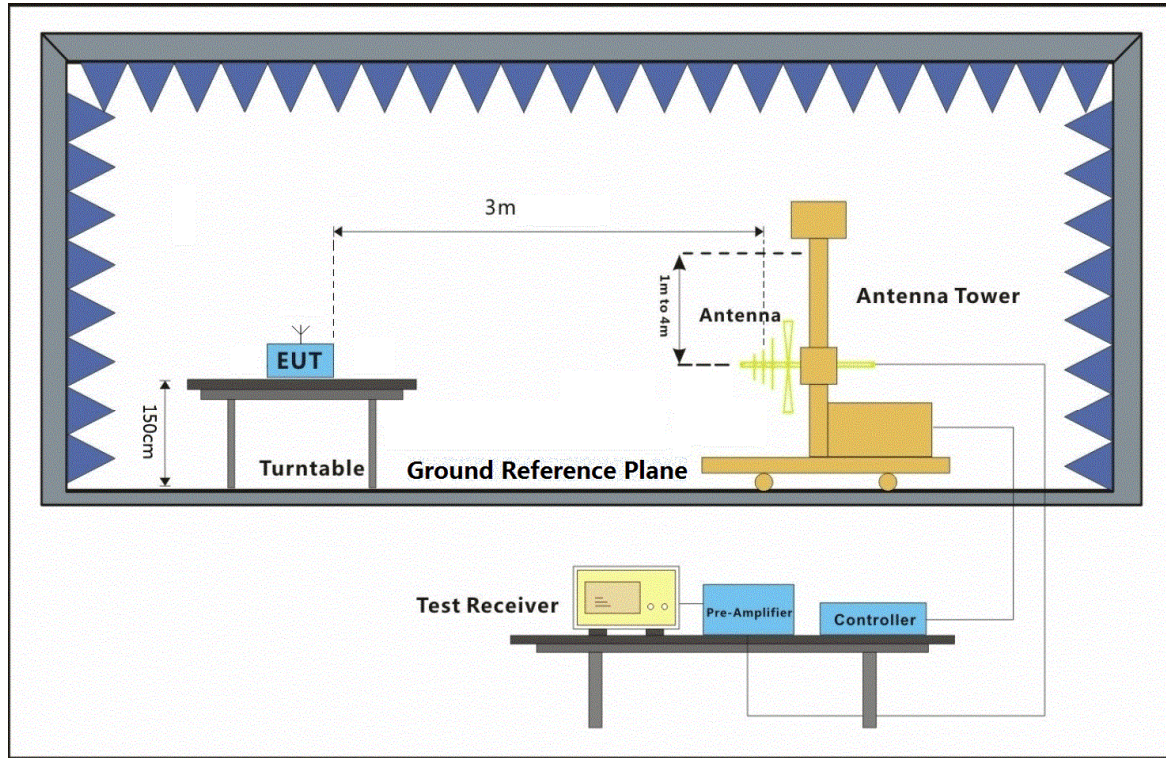
7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 23 °C Humidity: 52 % RH Atmospheric Pressure: 1020 mbar

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

7.3.2 Test Setup Diagram



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. 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: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

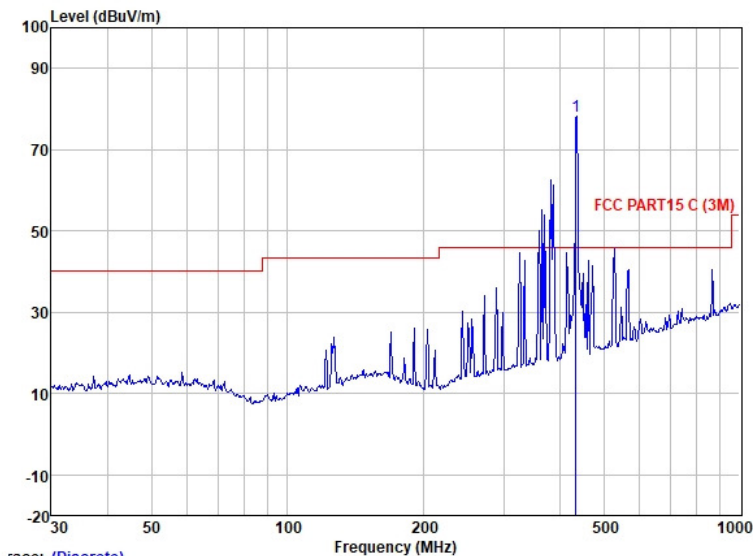
Frequency (MHz)	Polarization	Emission Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Remark	Verdict
433.92	Horizontal	81.06	100.8	-19.74	Peak	PASS
433.92	Horizontal	79.55	80.8	-1.25	Average	PASS
433.92	Vertical	78.10	100.8	-22.70	Peak	PASS
433.92	Vertical	76.59	80.8	-4.21	Average	PASS



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Vertical:



Trace: (Discrete)

Site : SGS

Condition: FCC PART15 C (3M) 3m VERTICAL

Job :

Model :

Power :

Test Mode:

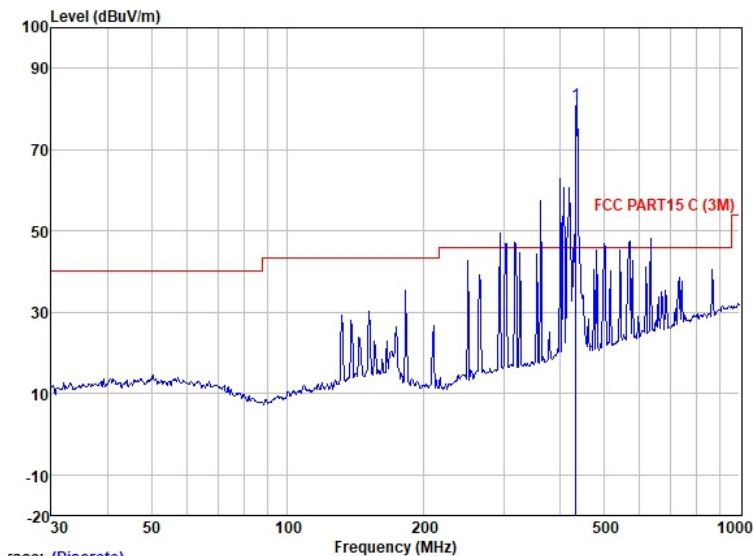
	ReadAntenna	Cable	Preamp	Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 *	433.920	84.69	16.85	4.09	27.53	78.10	46.00	32.10 VERTICAL
								Peak



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Horizontal:



Trace: (Discrete)

Site : SGS

Condition: FCC PART15 C (3M) 3m HORIZONTAL

Job :

Model :

Power :

Test Mode:

	ReadAntenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 *	433.920	87.65	16.85	4.09	27.53	81.06	46.00	35.06 HORIZONTAL Peak



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7.4 Radiated Emissions & Restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.231(b) & 15.209

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

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 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
Detector:	Peak for pre-scan	
	QP for 30MHz to1000 MHz:120 kHz resolution bandwidth	
	Peak for Above 1 GHz: 1 MHz resolution bandwidth	

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 21.7 °C Humidity: 55.7 % RH Atmospheric Pressure: 1020 mbar

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



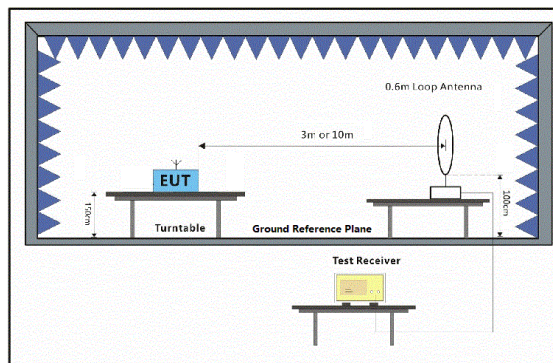
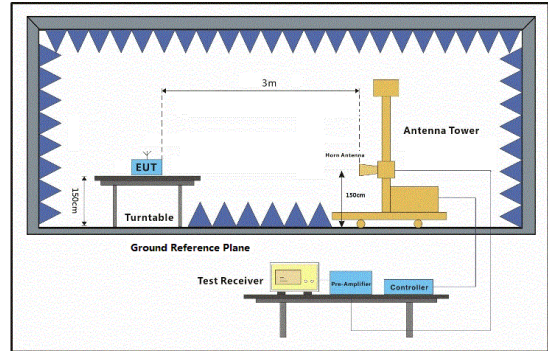
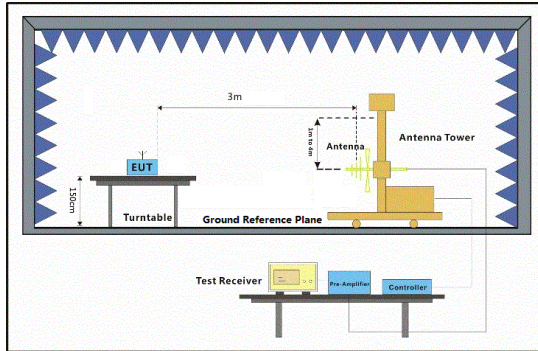
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7.4.2 Test Setup Diagram



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. 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: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

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.

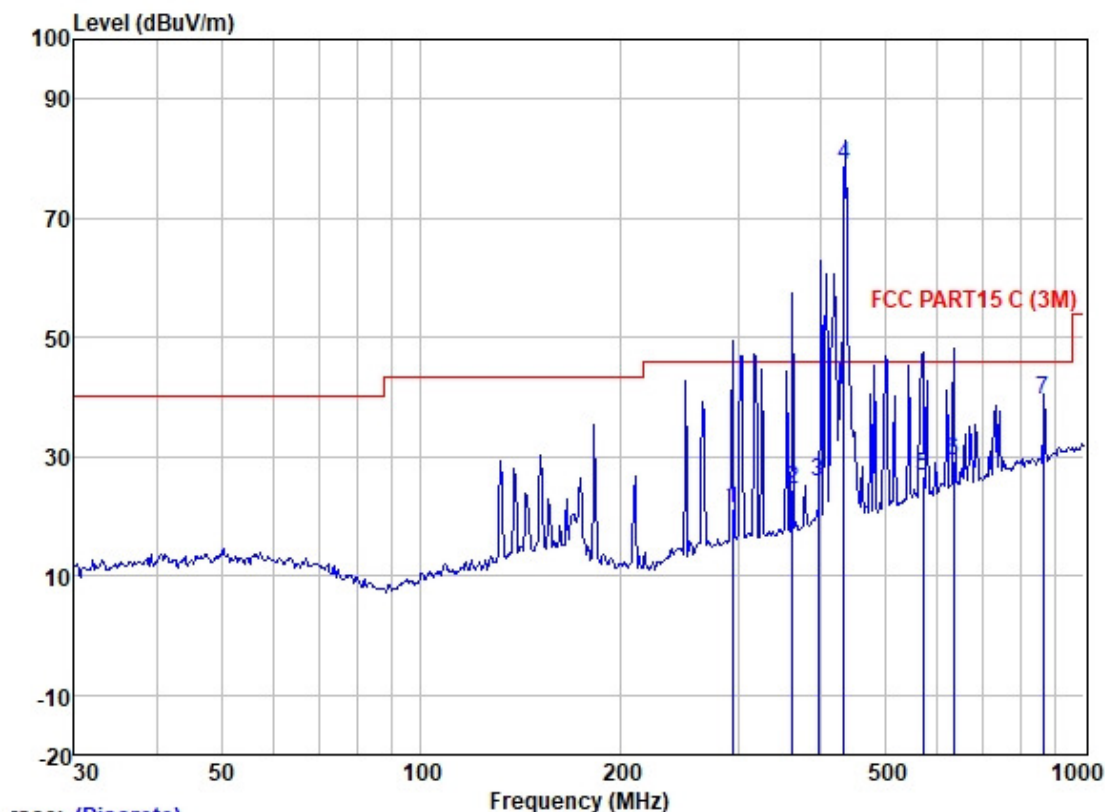


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 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

30MHz- 1G: Field Strength of Unwanted Emissions. Quasi-Peak Measurement

Mode:a; Polarization:Horizontal



Trace: (Discrete)

Site : SGS

Condition: FCC PART15 C (3M) 3m HORIZONTAL

Job :

Model :

Power :

Test Mode:

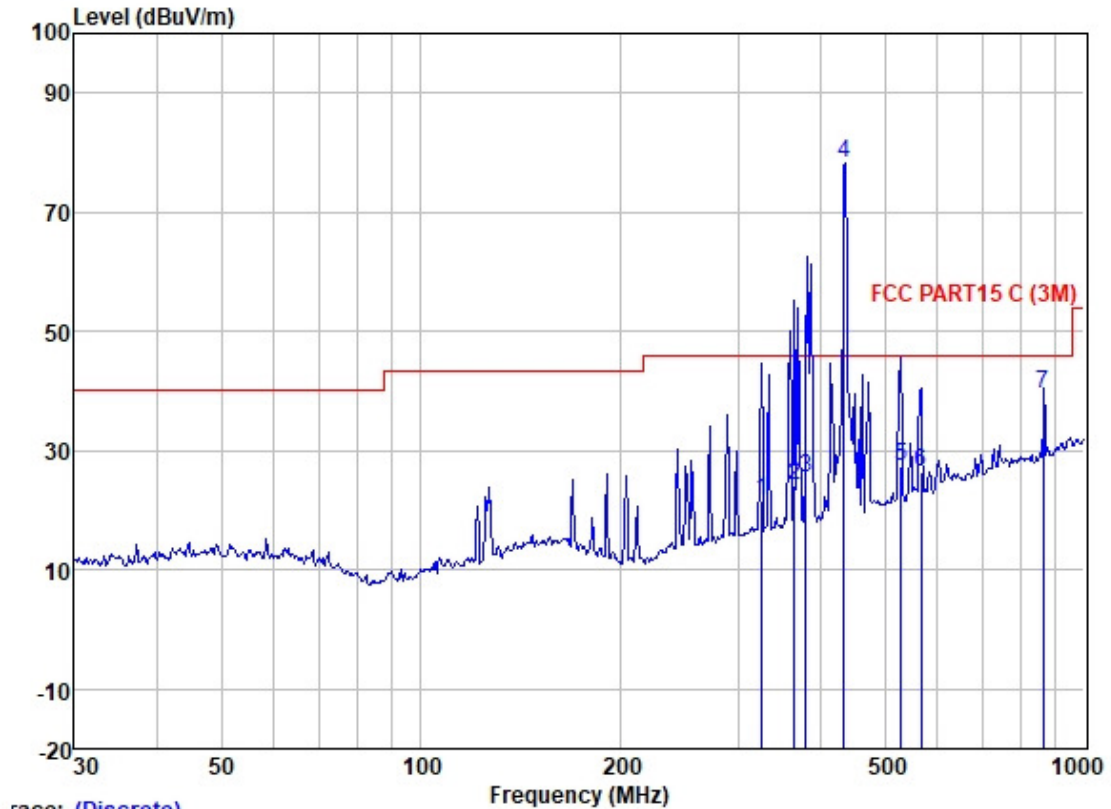
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	294.114	31.29	13.48	3.15	26.55	21.37	46.00	-24.63	HORIZONTAL	QP
2	362.985	32.79	14.95	3.73	27.14	24.33	46.00	-21.67	HORIZONTAL	QP
3	396.783	33.66	15.62	3.91	27.32	25.87	46.00	-20.13	HORIZONTAL	QP
4 *	433.920	85.47	16.85	4.09	27.53	78.88	46.00	32.88	HORIZONTAL	Peak
5	570.610	30.85	18.90	4.98	28.17	26.56	46.00	-19.44	HORIZONTAL	QP
6	633.907	31.56	20.40	5.39	28.20	29.15	46.00	-16.85	HORIZONTAL	QP
7	866.130	37.76	22.93	6.71	27.90	39.50	46.00	-6.50	HORIZONTAL	QP



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Mode:a; Polarization:Vertical



Trace: (Discrete)

Site : SGS

Condition: FCC PART15 C (3M) 3m VERTICAL

Job :

Model :

Power :

Test Mode:

		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	326.740	30.54	14.43	3.38	26.71	21.64	46.00	-24.36	VERTICAL	QP
2	365.539	32.66	15.00	3.73	27.16	24.23	46.00	-21.77	VERTICAL	QP
3	379.690	33.50	15.50	3.84	27.24	25.60	46.00	-20.40	VERTICAL	QP
4 *	433.920	84.69	16.85	4.09	27.53	78.10	46.00	32.10	VERTICAL	Peak
5	528.246	32.61	18.28	4.60	28.03	27.46	46.00	-18.54	VERTICAL	QP
6	566.622	30.72	18.85	4.93	28.16	26.34	46.00	-19.66	VERTICAL	QP
7	866.130	37.62	22.93	6.71	27.90	39.36	46.00	-6.64	VERTICAL	QP

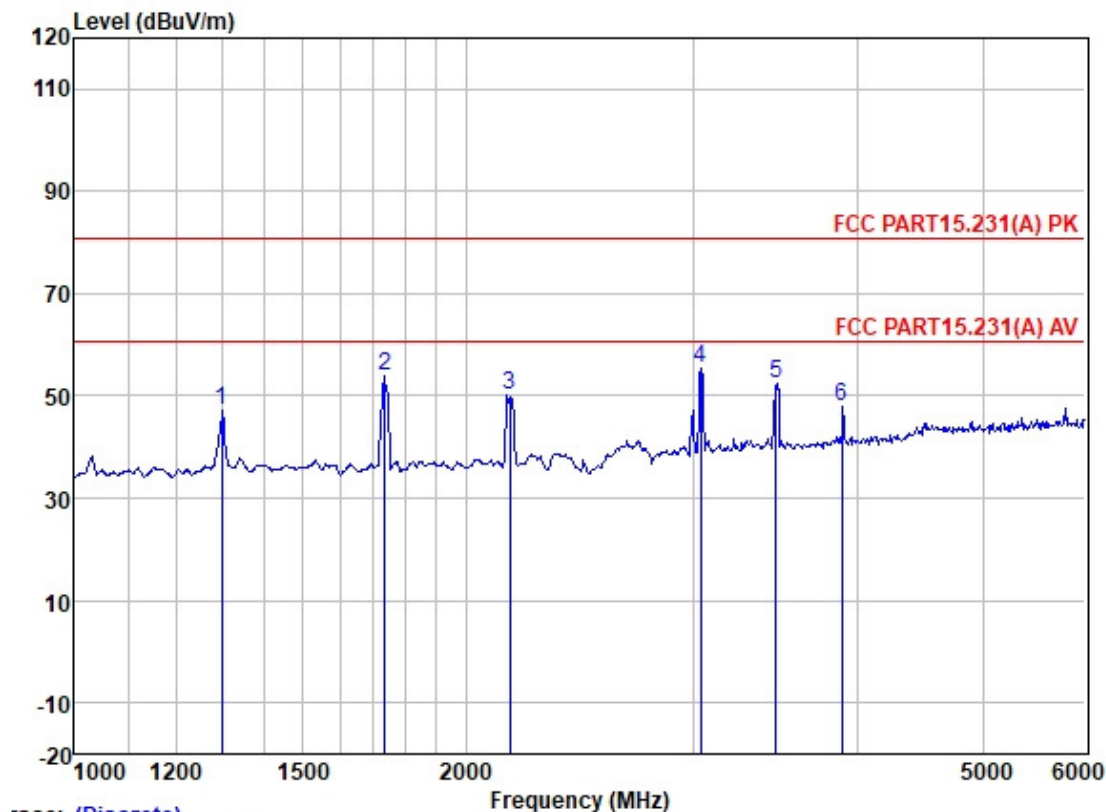


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1GHz~5 GHz Field Strength of Unwanted Emissions Measurement

Mode:a; Polarization:Horizontal



Trace: (Discrete)

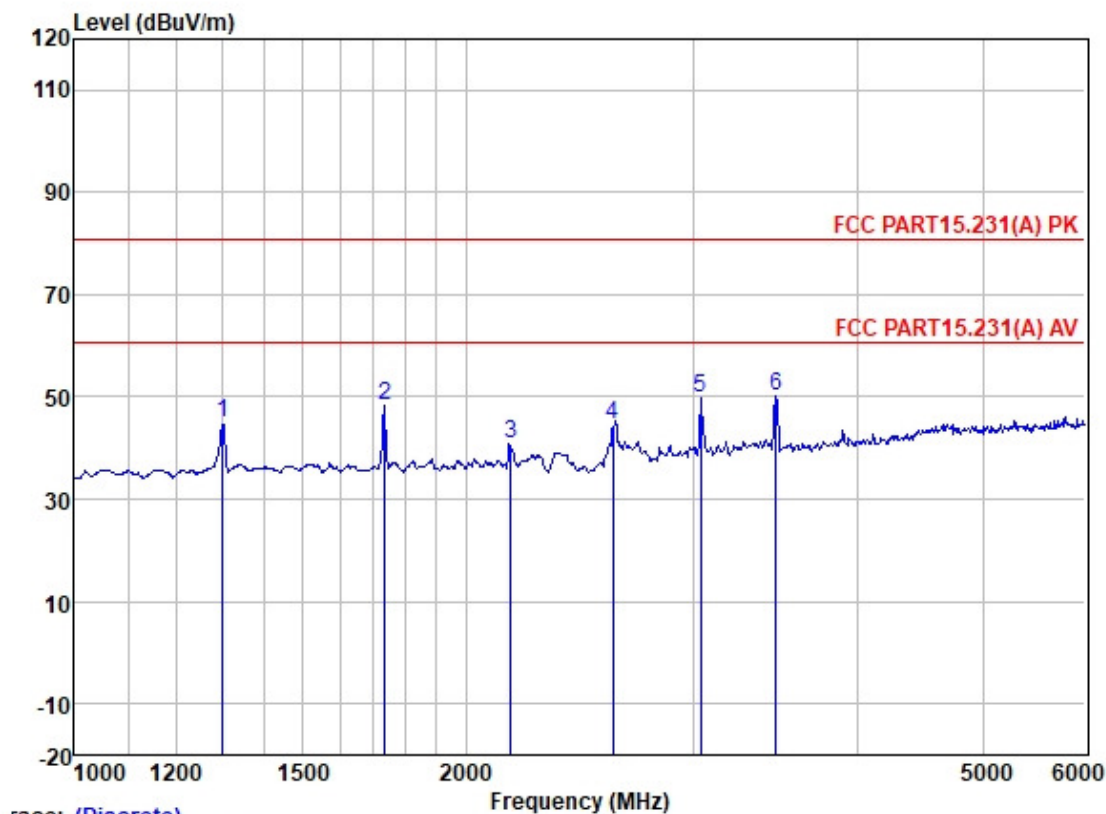
	ReadAntenna	Cable	Preamp		Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1299.332	57.63	25.20	2.60	38.31	47.12	80.80	-33.68	HORIZONTAL Peak
2	1732.272	63.06	25.80	2.85	37.87	53.84	80.80	-26.96	HORIZONTAL Peak
3	2165.023	58.29	26.47	3.19	37.66	50.29	80.80	-30.51	HORIZONTAL Peak
4	3031.626	60.24	28.42	3.83	37.22	55.27	80.80	-25.53	HORIZONTAL Peak
5	3464.883	56.18	28.88	4.22	36.95	52.33	80.80	-28.47	HORIZONTAL Peak
6	3897.968	50.46	29.69	4.60	36.82	47.93	80.80	-32.87	HORIZONTAL Peak



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Mode:a; Polarization:Vertical



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1299.726	55.56	25.20	2.60	38.31	45.05	80.80	-35.75	VERTICAL Peak
2	1732.272	57.46	25.80	2.85	37.87	48.24	80.80	-32.56	VERTICAL Peak
3	2165.753	48.81	26.47	3.19	37.66	40.81	80.80	-39.99	VERTICAL Peak
4	2598.383	50.87	27.62	3.49	37.52	44.46	80.80	-36.34	VERTICAL Peak
5	3031.626	54.89	28.42	3.83	37.22	49.92	80.80	-30.88	VERTICAL Peak
6	3464.664	53.89	28.88	4.22	36.95	50.04	80.80	-30.76	VERTICAL Peak

--End of Report--

