

Procert No.: TM-2209000216P
Report No.: TMWK2209003699KR

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Rev. 01

FCC RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART C

Class II Permissive Change

Test Standard	FCC Part 15.231+ IC RSS-210 Issue 10
FCC ID	KR5GEN1
IC	7812D-GEN1
Product name	Radio Frequency Transmitter SBRT
Model No.	GEN1
Trade name	Continental
Operation Freq.	TX: 433.66MHz & 433.92MHz, RX: 125KHz
Test Result	Pass
Statements of Conformity	Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.

The test Report of full or partial shall not copy. Without written approval of SGS Compliance Certification Services Inc. (Wugu Laboratory)

Approved by:



Shawn Wu
Supervisor

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	October 26, 2022	Initial Issue Note.(01)	ALL	Allison Chen
01	October 28, 2022	See the following Note Rev.(01)	P.11-13	Allison Chen

Note. (01)

1. Applicant modifies new matching components and applicant information.

As per requested to verified radiated emission test data.

Other test data is referenced from cross authorization(s) measurement results in the original test report (TMWK2108000552KR) under issue date November 30, 2021) are fully leveraged in this test report.

Rev. (01)

1. Modify standard in section 3.3.

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1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	Continental Automotive Technologies GmbH Siemensstrasse 12, Regensburg ,93055 Germany
Manufacturer	Continental Automotive Technologies GmbH Siemensstrasse 12, Regensburg ,93055 Germany
Factory	Continental Aguascalientes, Mexico Carretera Panamericana Sur Km 114 + 354, int. 9 Parque Industrial FINSA CP 20393 Aguascalientes , Mexico
Equipment	Radio Frequency Transmitter SBRT
Model Name	GEN1
Model Discrepancy	N/A
Received Date	September 14, 2022
Date of Test	September 26, 2022
Periodic operation	<input checked="" type="checkbox"/> (1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released. <input type="checkbox"/> (2) A transmitter activated automatically shall cease transmission within 5 seconds after activation <input type="checkbox"/> (3) Periodic transmissions at regular predetermined intervals are not permitted. <input type="checkbox"/> (4) Periodic transmissions (lower field strength): each transmission is not greater than 1 sec and the silent period between transmissions is at least 30 times the duration of the transmission but in no case less than 10 sec.
Power Operation	Power from Battery: CR2450X x1 (Lithium: 3V)
Operation Frequency	TX: 433.66MHz & 433.92MHz RX: 125KHz
H/W Version	AF
S/W Version	0403

Remark:

1. For more details, please refer to the User's manual of the EUT.

1.2 EUT CHANNEL INFORMATION

Frequency Range	TX: 433.66MHz & 433.92MHz RX: 125KHz
Modulation Type	FSK

Remark:

Refer as ANSI 63.10:2013 clause 5.6.1 Table 4 for test channels

Number of frequencies to be tested		
Frequency range in which device operates	Number of frequencies	Location in frequency range of operation
<input checked="" type="checkbox"/> 1 MHz or less	1	Middle
<input type="checkbox"/> 1 MHz to 10 MHz	2	1 near top and 1 near bottom
<input type="checkbox"/> More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

1.3 ANTENNA INFORMATION

Antenna Type	TX: Bult-in loop antenna RX: Coil Antenna
Antenna Gain	TX: -12.87 dBi RX: 0 dBi
Antenna Connector	N/A

Remark:

1. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	± 2.1183
Channel Bandwidth	± 2.1863
Radiated Emission_9kHz-30MHz	± 3.814
Radiated Emission_30MHz-200MHz	± 4.272
Radiated Emission_200MHz-1GHz	± 4.619
Radiated Emission_1GHz-6GHz	± 5.522

Remark:

- 1.This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.

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1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

- ☒ No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan.
☐ No. 12, Ln. 116, Wugong 3rd Rd., Wugu Dist., New Taipei City, Taiwan.

CABID: TW1309

Test site	Test Engineer	Remark
AC Conduction Room	-	Not applicable, because EUT doesn't connect to AC Main Source direct.
Radiation	Tony Chao	-

Remark: The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

1.6 INSTRUMENT CALIBRATION

3M 966A Chamber Test Site					
Equipment	Manufacturer	Model	S/N	Cal Date	Cal Due
Bi-Log Antenna	Sunol Sciences	JB3	A030105	2022-08-03	2023-08-02
Spectrum Analyzer	Agilent	E4446A	MY46180323	2021-12-06	2022-12-05
Thermo-Hygro Meter	WISEWIND	1206	D07	2021-12-28	2022-12-27
Loop Antenna	COM-POWER	AL-130	121051	2022-04-13	2023-04-12
Preamplifier	EMEC	EM330	060609	2022-02-23	2023-02-22
Preamplifier	HP	8449B	3008A00965	2021-12-24	2022-12-23
Cable	Huber+Suhner	104PEA	20995+11112+182330	2022-02-23	2023-02-22
Coaxial Cable	EMCI	EMC105	190914+33953	2022-06-15	2023-06-14
Horn Antenna	ETC	MCTD 1209	DRH13M02003	2022-01-25	2023-01-24
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Software	e3 6.11-20180419c				

Remark:

- Each piece of equipment is scheduled for calibration once a year.
- N.C.R. = No Calibration Required.

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

There are no accessories and support equipment be used during the test.

EUT Accessories Equipment					
No.	Equipment	Brand	Model	Series No.	FCC ID
	N/A				

Support Equipment					
No.	Equipment	Brand	Model	Series No.	FCC ID
	N/A				

1.8 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC 15.231, IC RSS-210, IC RSS-Gen Rules.

2. TEST SUMMARY

FCC Standard Sec.	IC Standard Sec.	Chapter	Test Item	Result
15.207	RSS-GEN Sec. 8.8	4.1	AC Power-line Conducted Emission	Not applicable
15.231(c)	RSS-210 A.1.3	-	Emission Bandwidth	N/A
15.231(b)	RSS-210 A.1.2	-	Fundamental Emission	N/A
15.209(b)	RSS-GEN Sec. 8.9	4.2	Transmitter Radiated Emission	Pass
15.231(a)(1)	RSS-210 A.1.2	-	Operation Restriction	N/A
15.203	RSS-GEN Sec. 6.8	4.3	Antenna Requirement	Pass

3. DESCRIPTION OF TEST MODES

3.1 THE WORST MODE OF OPERATING CONDITION

Operation mode	TX: 433.66 & 433.92MHz RX: 125kHz
----------------	--------------------------------------

3.2 THE WORST MODE OF MEASUREMENT

Radiated Emission Measurement Above 1G	
Test Condition	Radiated Emission Above 1G
Power supply Mode	Mode 1: EUT power by Battery
Worst Mode	<input checked="" type="checkbox"/> Mode 1 <input type="checkbox"/> Mode 2 <input type="checkbox"/> Mode 3 <input type="checkbox"/> Mode 4
Worst Position	<input type="checkbox"/> Placed in fixed position. <input checked="" type="checkbox"/> Placed in fixed position at X-Plane (E2-Plane) <input type="checkbox"/> Placed in fixed position at Y-Plane (E1-Plane) <input type="checkbox"/> Placed in fixed position at Z-Plane (H-Plane)

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by Battery
Worst Mode	<input checked="" type="checkbox"/> Mode 1 <input type="checkbox"/> Mode 2 <input type="checkbox"/> Mode 3 <input type="checkbox"/> Mode 4

Remark:

1. The worst mode was record in this test report.
2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(X-Plane) were recorded in this report

3.3 FCC PART 15.205 & RSS GEN SECTION 8.10 RESTRICTED BANDS OF OPERATIONS

According to FCC 15.205,

- (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	(²)
13.36 - 13.41	322 - 335.4		

¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

² Above 38.6

- (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

According to RSS-GEN section 8.10 Restricted bands of operation,

Restricted frequency bands, identified in table 7, are designated primarily for safety-of-life services (distress calling and certain aeronautical activities), certain satellite downlinks, radio astronomy and some government uses. Except where otherwise indicated, the following conditions related to the restricted frequency bands apply:

- (a) The transmit frequency, including fundamental components of modulation, of licence-exempt radio apparatus shall not fall within the restricted frequency bands listed in table 7 except for apparatus compliant with RSS-287, Emergency Position Indicating Radio Beacons (EPIRB), Emergency Locator Transmitters (ELT), Personal Locator Beacons (PLB), and Maritime Survivor Locator Devices (MSLD).
- (b) Unwanted emissions that fall into restricted frequency bands listed in table 7 shall comply with the limits specified in table 5 and table 6.
- (c) Unwanted emissions that do not fall within the restricted frequency bands listed in table 7 shall comply either with the limits specified in the applicable RSS or with those specified in table 5 and table 6.

Table 7 – Restricted frequency bands ^{Note 1}		
MHz	MHz	GHz
0.090 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	156.7 - 156.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 – 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5
8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	
8.37625 - 8.38675	1718.8 - 1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 - 2390	
12.51975 - 12.52025	2483.5 - 2500	
12.57675 - 12.57725	2655 - 2900	
13.36 - 13.41	3260 – 3267	
16.42 - 16.423	3332 - 3339	
16.69475 - 16.69525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 – 8500	
108 – 138		

Note 1: Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a), RSS-Gen Sec.8.8,

Frequency Range (MHz)	Limits(dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

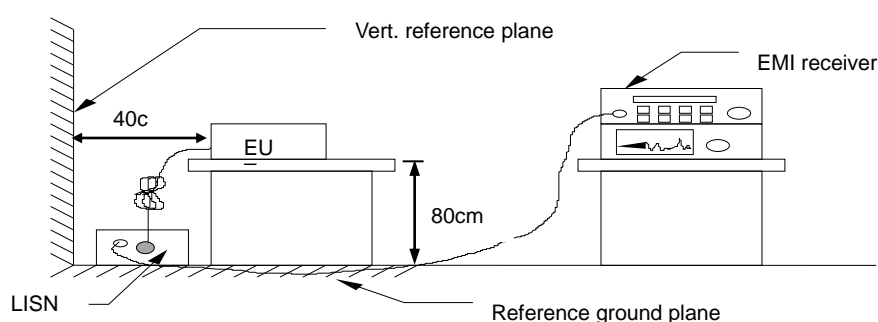
* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

Test method Refer as ANSI 63.10:2013 clause 6.2,

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete

4.1.3 Test Setup



4.1.4 Test Result

Not applicable, because EUT doesn't connect to AC Main Source direct.

4.2 RADIATION UNWANTED EMISSION

4.2.1 Test Limit

According to §15.231(b) and §15.209, §15.205

Unwanted emissions limit follow the table or the FCC Part 15.209, whichever limit permits higher field strength.

According to §15.231(b)

Fundamental frequency (MHz)	Field strength of fundamental (microvolts/meter)	Field strength of fundamental (microvolts/meter)
40.66-40.70	2,250	225
70-130	1,250	125
130-174	¹ 1,250 to 3,750	¹ 125 to 375
174-260	3,750	375
260-470	¹ 3,750 to 12,500	¹ 375 to 1,250
Above 470	12,500	1,250

¹Linear interpolations.

According to RSS-210 A1.2 and RSS-GEN Sec. 8.9

Unwanted emissions shall comply with the general field strength limits specified in RSS-Gen or 10 times below the fundamental emissions field strength limit in table as below, whichever is less stringent.

According to RSS-210 A.1.4(d)

Fundamental frequency (MHz)	Field strength of Spurious emission (uv/m) at 3m	Field strength of Spurious emission (dBuv/m) at 3m
40.66-40.70	225	47
70-130	125	41.9
*130-174	*125-375	41.9-51.5
174-260	375	51.5
*260-470	*375-1250	51.5-61.9
Above 470	1250	61.9

¹Linear interpolations.

Below 30MHz

Frequency (MHz)	Field Strength				
	($\mu\text{V/m}$)	(dB $\mu\text{V/m}$)	Measurement Distance (meter)	(dB $\mu\text{V/m}$)	Measurement Distance (meter)
0.009 - 0.490	2400/F(kHz)	48.52 – 13.80	300	128.52–104.84	3
0.490 - 1.705	24000/F(kHz)	33.80 – 22.97	30	73.80– 62.97	3
1.705 – 30.0	30	29.54	30	69.54	3

Above 30MHz

Frequency (MHz)	Field Strength		Measurement Distance (meter)
	($\mu\text{V/m}$)	(dB $\mu\text{V/m}$)	
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

4.2.2 Test Procedure

Test method Refer as ANSI 63.10:2013

<input checked="" type="checkbox"/> Unwanted Emission	<input checked="" type="checkbox"/> clause 4.1.4.2.2: Measurement Peak value. <input type="checkbox"/> clause 4.1.4.2.3: Duty cycle $\geq 100\%$. <input checked="" type="checkbox"/> clause 4.1.4.2.4: Measurement Average value.
<input checked="" type="checkbox"/> Radiated Emission	<input checked="" type="checkbox"/> clause 6.4: below 30 MHz and test distance is 3m. <input checked="" type="checkbox"/> clause 6.5: below 30 MHz -1 GHz and test distance is 3m. <input checked="" type="checkbox"/> clause 6.6: Above 30 MHz and test distance is 3m.

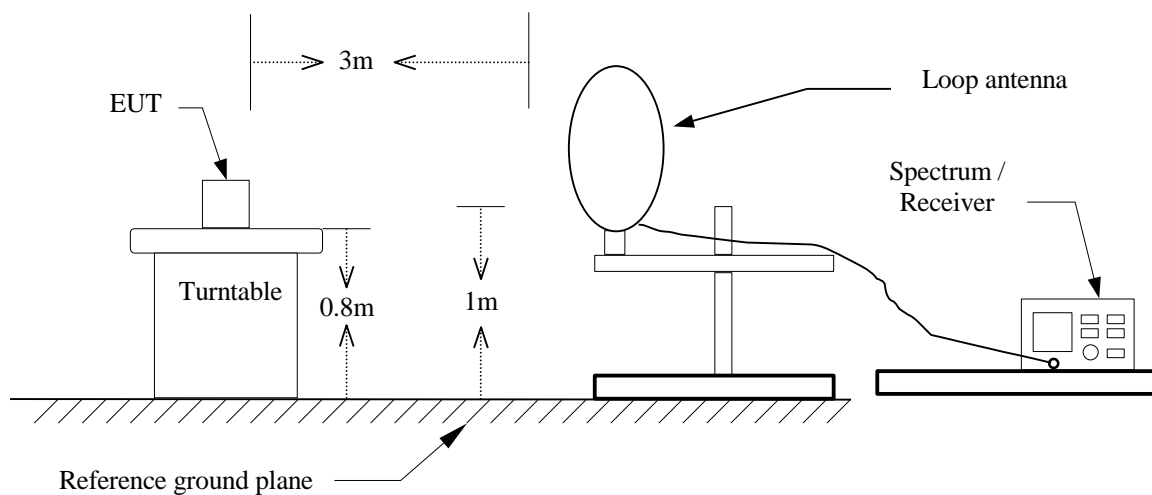
- The EUT is placed on a turntable, which is 0.8m for test below 1GHz and 1.5m for test above 1GHz, above ground plane.
- The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- Set the spectrum analyzer in the following setting as:
Below 1GHz:
RBW=100kHz / VBW=300kHz / Sweep=AUTO
Above 1GHz:
(a)PEAK: RBW=1MHz / VBW=3MHz / Sweep=AUTO
(b)AVERAGE: RBW=1MHz,
- Repeat above procedures until the measurements for all frequencies are complete.

Remark.

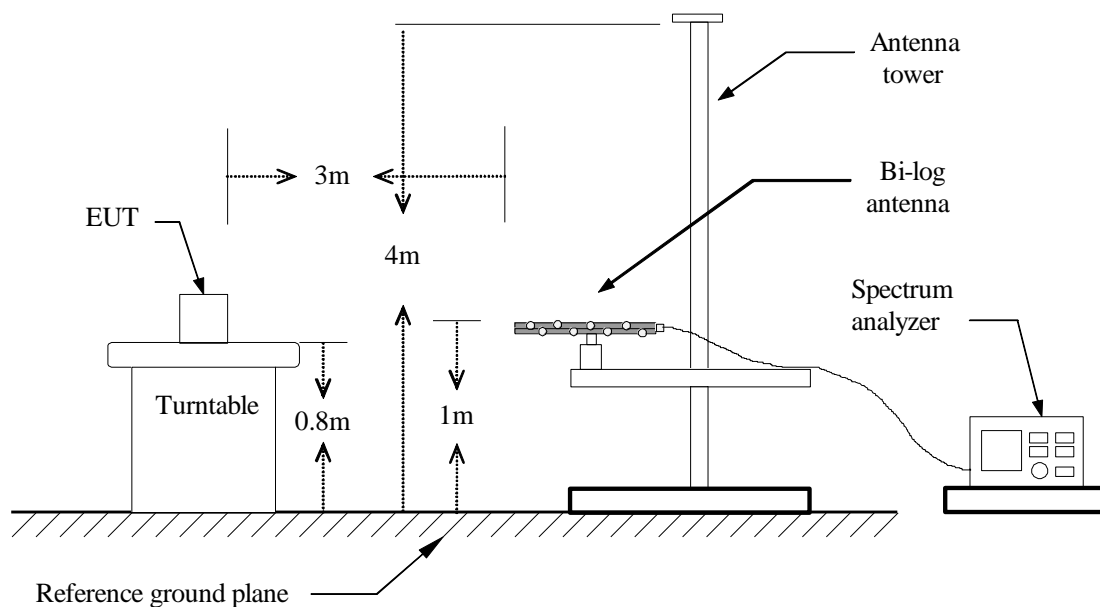
- Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open area test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.
- No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).

4.2.3 Test Setup

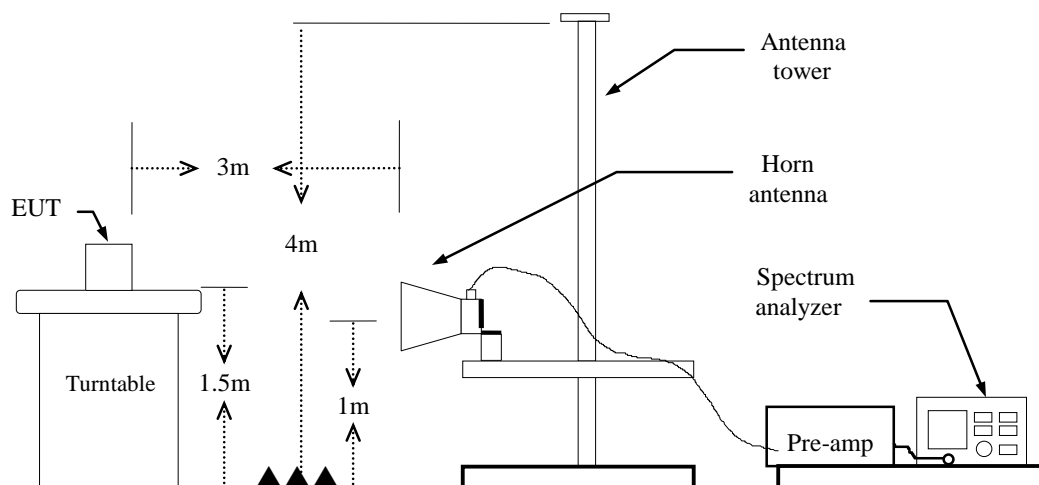
9kHz ~ 30MHz



30MHz ~ 1 GHz



Above 1 GHz

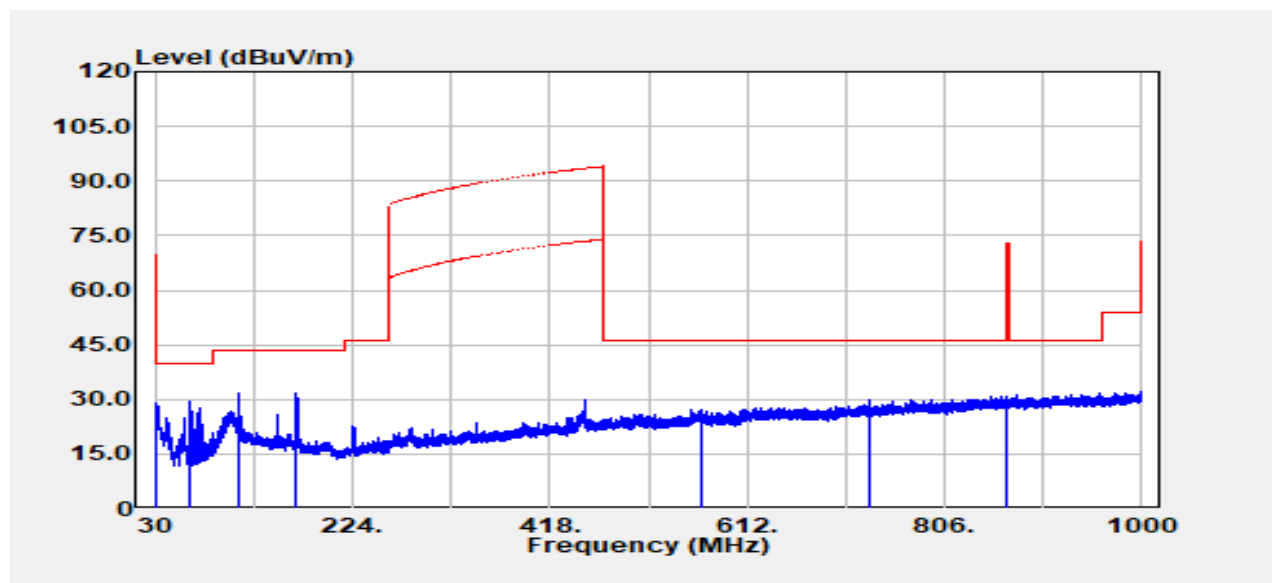


4.2.4 Test Result

Pass.

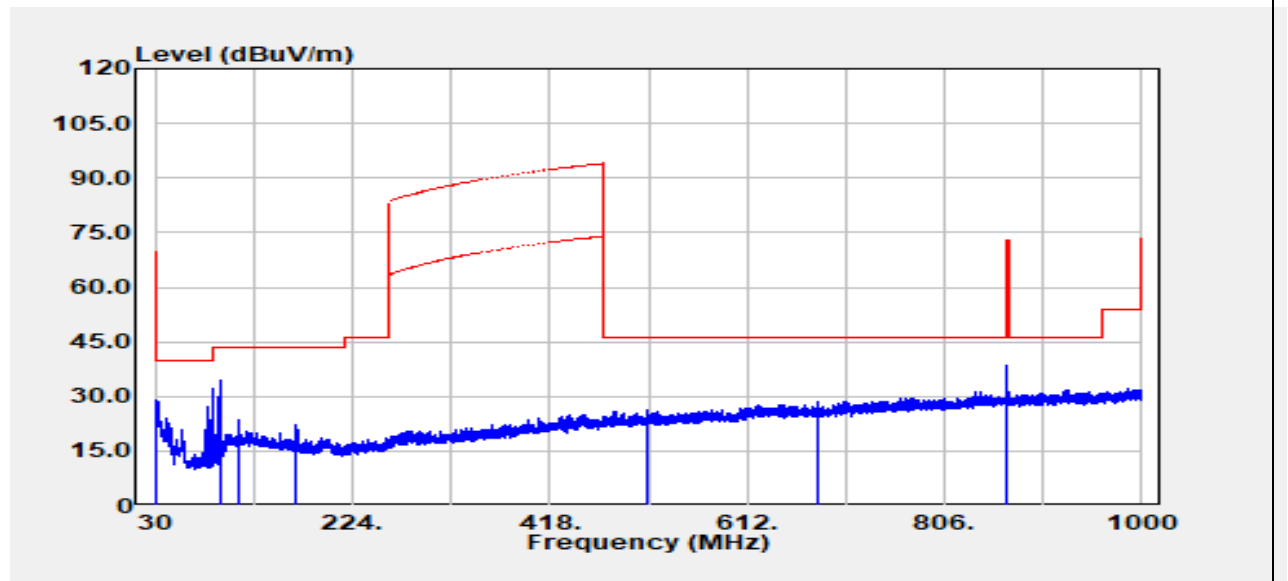
Below 1GHz

Test Mode:	TX-433.66MHz	Temp/Hum	23.7(°C)/ 63%RH
Test Item	Below 1GHz	Test Date	September 26, 2022
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak		



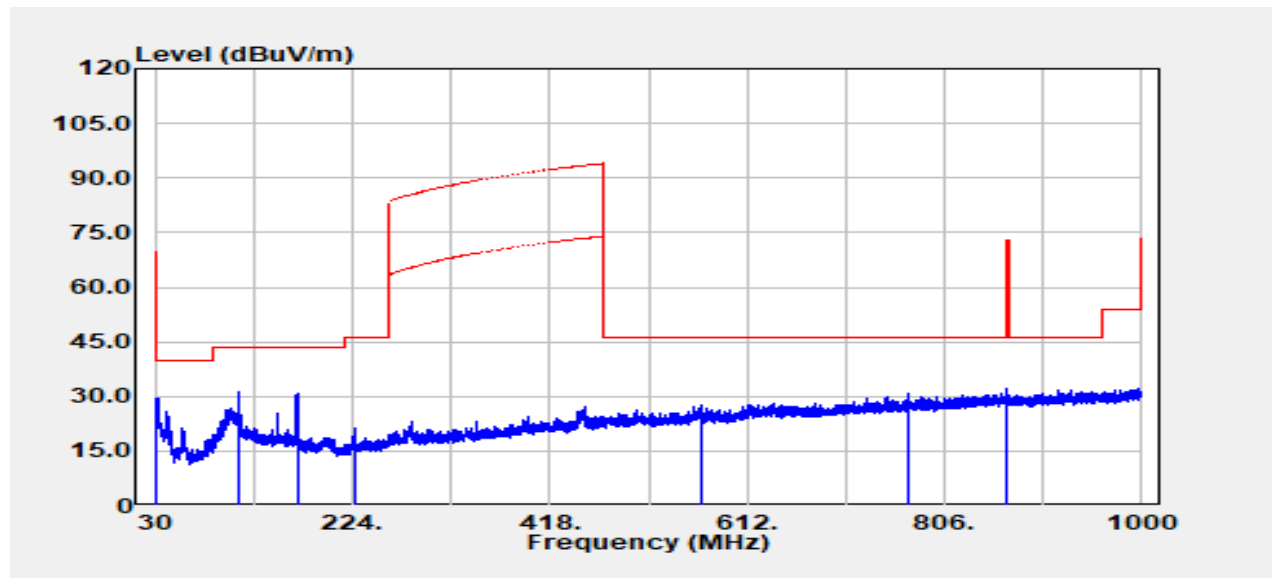
Frequency (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBUV)	Factor (dB)	Actual FS (dBUV/m)	Limit (dBUV/m)	Margin (dB)
31.819	Peak	32.61	-3.76	28.85	40.00	-11.15
63.223	Peak	45.50	-16.02	29.48	40.00	-10.52
113.178	Peak	41.71	-10.14	31.57	43.50	-11.93
167.498	Peak	42.92	-11.18	31.74	43.50	-11.76
566.653	Peak	29.83	-2.49	27.35	46.00	-18.65
733.371	Peak	29.74	0.24	29.98	46.00	-16.02
867.320	Peak	28.93	2.16	31.09	72.86	-41.77

Test Mode:	TX-433.66MHz	Temp/Hum	23.7(°C)/ 63%RH
Test Item	Below 1GHz	Test Date	September 26, 2022
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak		



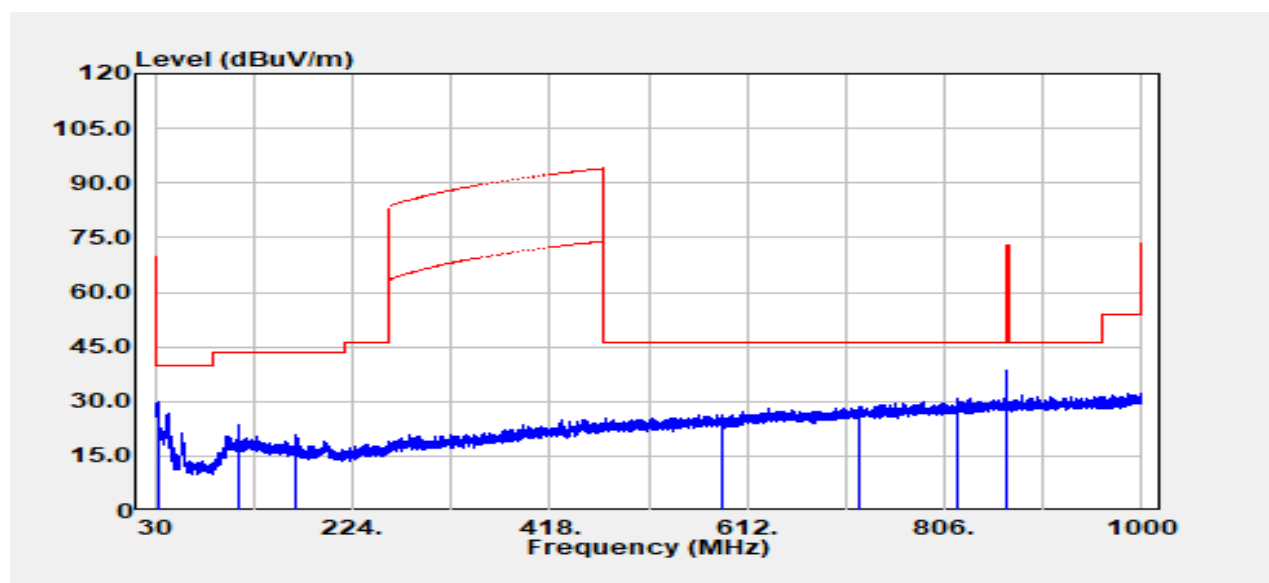
Frequency (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBUV)	Factor (dB)	Actual FS (dBUV/m)	Limit (dBUV/m)	Margin (dB)
32.183	Peak	32.69	-3.89	28.80	40.00	-11.20
93.414	Peak	49.15	-14.85	34.30	43.50	-9.20
113.178	Peak	33.68	-10.14	23.54	43.50	-19.96
167.376	Peak	33.15	-11.18	21.97	43.50	-21.53
512.696	Peak	29.99	-3.68	26.31	46.00	-19.69
682.689	Peak	29.41	-0.80	28.60	46.00	-17.40
867.320	Peak	36.14	2.16	38.31	72.86	-34.55

Test Mode:	TX-433.92MHz	Temp/Hum	23.7(°C)/ 63%RH
Test Item	Below 1GHz	Test Date	September 26, 2022
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak		



Frequency (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBUV)	Factor (dB)	Actual FS (dBUV/m)	Limit (dBUV/m)	Margin (dB)
32.183	Peak	33.20	-3.89	29.31	40.00	-10.69
113.178	Peak	41.23	-10.14	31.09	43.50	-12.41
169.923	Peak	42.07	-11.38	30.69	43.50	-12.81
225.698	Peak	33.19	-11.86	21.33	46.00	-24.67
566.168	Peak	30.08	-2.50	27.58	46.00	-18.42
770.716	Peak	29.82	0.79	30.61	46.00	-15.39
867.840	Peak	29.83	2.15	31.99	72.87	-40.88

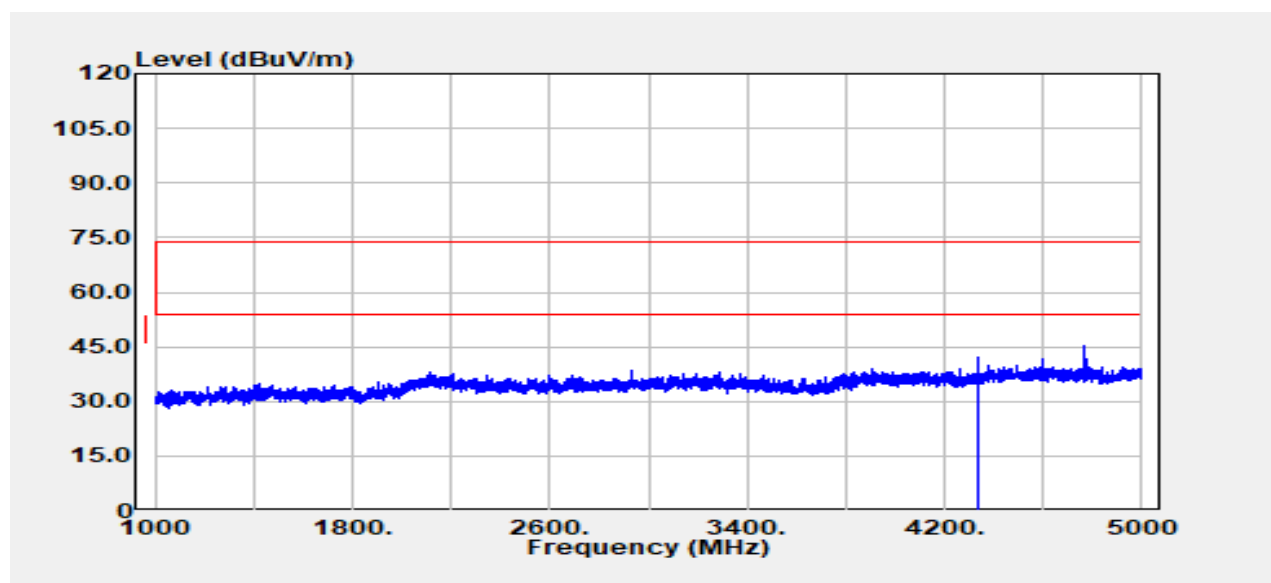
Test Mode:	TX-433.92MHz	Temp/Hum	23.7(°C)/ 63%RH
Test Item	Below 1GHz	Test Date	September 26, 2022
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak		



Frequency (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit (dBuV/m)	Margin (dB)
32.425	Peak	34.04	-4.11	29.94	40.00	-10.06
113.178	Peak	33.83	-10.14	23.69	43.50	-19.81
167.376	Peak	32.16	-11.18	20.98	43.50	-22.52
587.508	Peak	29.02	-2.60	26.42	46.00	-19.58
721.004	Peak	28.59	-0.05	28.55	46.00	-17.45
817.883	Peak	29.24	1.47	30.71	46.00	-15.29
867.840	Peak	36.53	2.15	38.68	72.87	-34.19

Above 1GHz

Test Mode:	TX-433.66MHz	Temp/Hum	23.7(°C)/ 63%RH
Test Item	Above 1GHz	Test Date	September 26, 2022
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak		

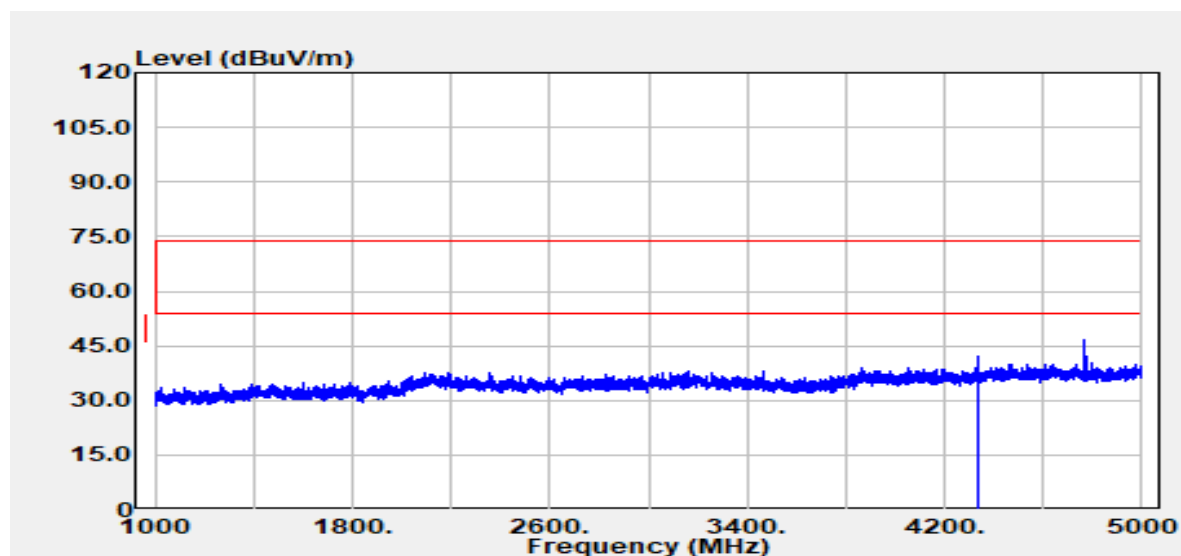


Frequency (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBUV)	Factor (dB)	Actual FS (dBUV/m)	Limit (dBUV/m)	Margin (dB)
4336.600	Peak	37.68	4.66	42.34	74.00	-31.66
4336.600	Average	-	-20.09	22.25	54.00	-31.75
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	TX-433.66MHz	Temp/Hum	23.7(°C)/ 63%RH
Test Item	Above 1GHz	Test Date	September 26, 2022
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak		

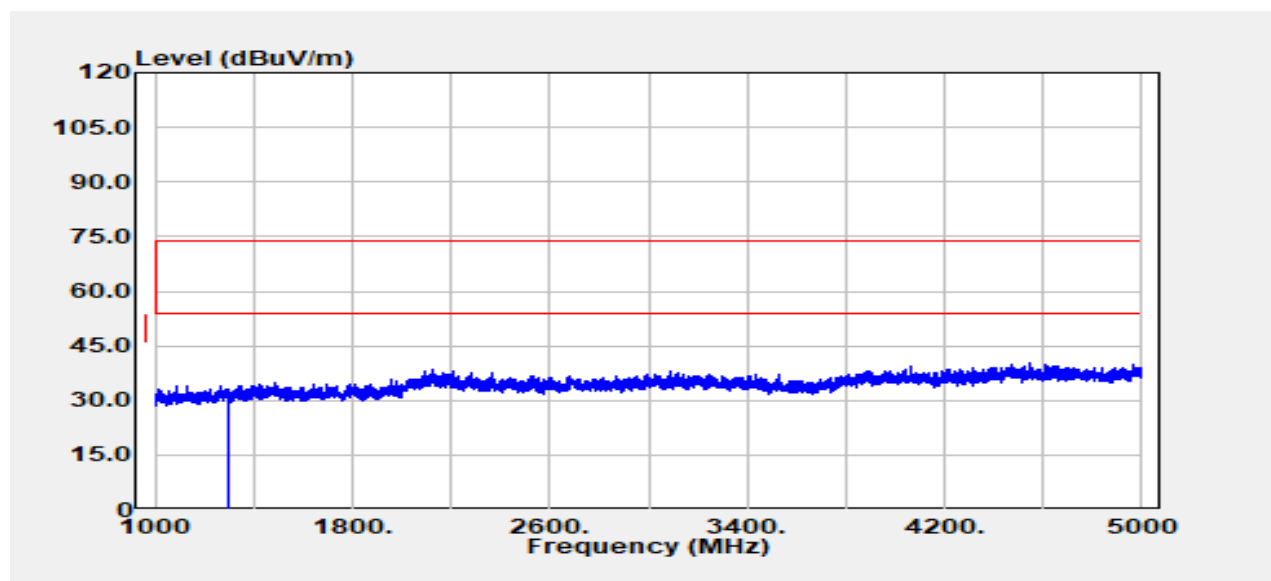


Frequency (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBUV)	Factor (dB)	Actual FS (dBUV/m)	Limit (dBUV/m)	Margin (dB)
4336.600	Peak	37.50	4.66	42.16	74.00	-31.84
4336.600	Average	-	-20.09	22.07	54.00	-31.93
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	TX-433.92MHz	Temp/Hum	23.7(°C)/ 63%RH
Test Item	Above 1GHz	Test Date	September 26, 2022
Polarize	Vertical	Test Engineer	Tony Chao
Detector	Peak		

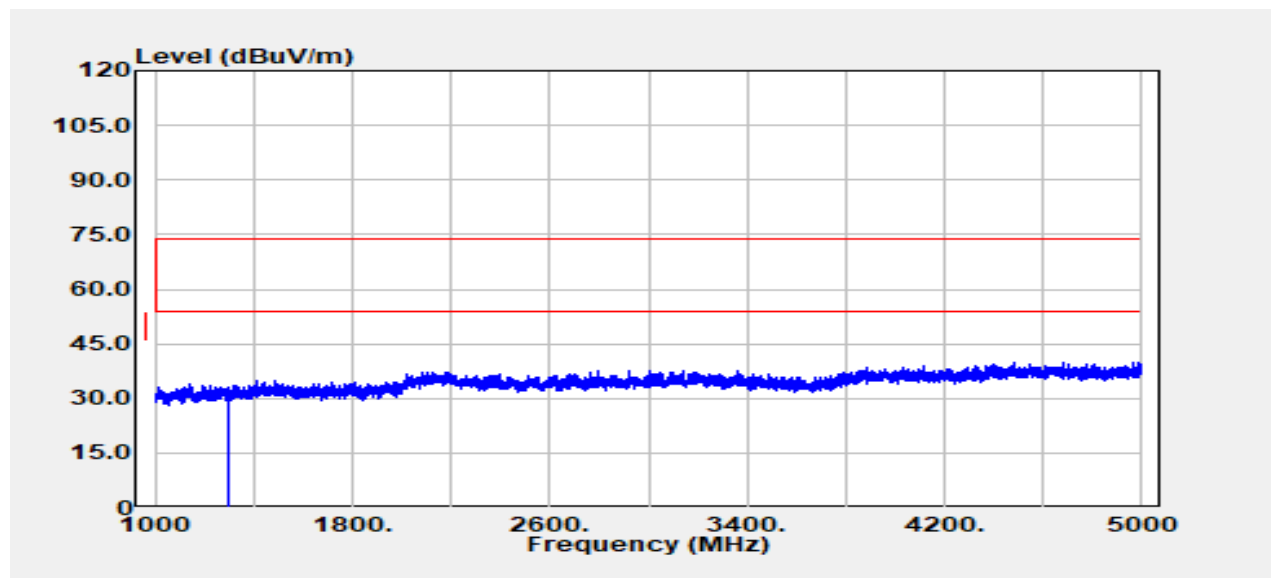


Frequency (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBUV)	Factor (dB)	Actual FS (dBUV/m)	Limit (dBUV/m)	Margin (dB)
1301.760	Peak	39.32	-6.32	33.00	74.00	-41.00
1301.760	Average	-	-18.13	14.87	54.00	-39.13
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode:	TX-433.92MHz	Temp/Hum	23.7(°C)/ 63%RH
Test Item	Above 1GHz	Test Date	September 26, 2022
Polarize	Horizontal	Test Engineer	Tony Chao
Detector	Peak		



Frequency (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBUV)	Factor (dB)	Actual FS (dBUV/m)	Limit (dBUV/m)	Margin (dB)
1301.760	Peak	39.63	-6.32	33.31	74.00	-40.69
1301.760	Average	-	-18.13	15.18	54.00	-38.82
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

4.3 ANTENNA REQUIREMENT

§ 15.203 Antenna 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 shall be considered sufficient to comply with the provisions of this section. 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. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

Antenna Type	TX: Bult-in loop antenna RX: Coil Antenna
Antenna Gain	TX: -12.87 dBi RX: 0 dBi

Remark:

1.The antenna(s) of the EUT are permanently attached and there are no provisions for connection to an external antenna. So the EUT complies with the requirements of §15.203 and RSS-Gen 6.8.

- End of Test Report -