

Prüfbericht-Nr.: Test report no.:	CN22S34Z(P15C-433MHz) 001	Auftrags-Nr.: Order no.:	238523317	Seite 1 von 22 Page 1 of 22
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2021-12-08	
Auftraggeber: Client:	SUNBOW TELECOM CO, LTD. 3F., No. 503-3, Zhongzheng Rd., Xindian Dist., New Taipei City 231614, Taiwan (R.O.C.)			
Prüfgegenstand: Test item:	Wireless Door sensor			
Bezeichnung / Typ-Nr.: Identification / Type no.:	SB1802P			
Auftrags-Inhalt: Order content:	FCC Part 15C Test report			
Prüfgrundlage: Test specification:	FCC CFR47 Part 15: Subpart C Section 15.231			
Wareneingangsdatum: Date of sample receipt:	2021-12-20			
Prüfmuster-Nr.: Test sample no:	A003187138-001 A003187138-002			
Prüfzeitraum: Testing period:	2021-12-29 - 2022-01-17			
Ort der Prüfung: Place of testing:	EMC/RF Taipei Testing Site			
Prüflaboratorium: Testing laboratory:	Taipei Testing laboratories			
Prüfergebnis*: Test result*:	Pass			
überprüft von: reviewed by:	genehmigt von: authorized by:			
Datum: Date:	2022-01-20	Ausstellungsdatum: Issue date:	2022-01-20	
Stellung / Position:	Assistant Project Engineer	Stellung / Position:	Senior Project Manager	
Sonstiges / Other:				
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend 3 = satisfactory	4 = ausreichend 4 = sufficient
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	5 = mangelhaft N/A = nicht anwendbar N/A = not applicable	5 = poor N/T = nicht getestet N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

TEST SUMMARY

Report Section	FCC Clause	Test Item	Result
5.1.1	15.203	Antenna Requirement	Pass
5.1.2	15.231(c)	20 dB Bandwidth and Occupied Bandwidth	Pass
5.1.3	15.231(a)	Pulse Width / TX Gap	Pass
5.1.4	15.231(b)	Field Strength of Fundamental Emissions	Pass
5.1.5	15.231(b) & 15.205 & 15.209	Radiated Spurious Emissions	Pass
-	15.207	Mains Conducted Emission	Not Applicable
-	FCC KDB 447498 D01 v06	RF Exposure Compliance	Refer to report no. CN22S34Z(FCC-MPE) 001

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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Test Report No.

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HISTORY OF THIS TEST REPORT

Report No.	Description	Date Issued
CN22S34Z(P15C-433MHz) 001	Original Release	2022-01-20

1. General Remarks

1.1 Complementary Materials

The following attachments are integral parts of this test report:

Appendix A - Test Result of Radiated Emissions
Appendix SP - Photographs of Test Setup
Appendix EP - Photographs of EUT

Test Specifications
The following standards were applied.

Applied Standard and Test Levels

Radio
FCC 47CFR Part 15: Subpart C Section 15.231 ANSI C63.10:2013 KDB 447498 D01 General RF Exposure Guidance v06

1.2 Decision Rule of Conformity

The decision rule of conformity of this test report is following the requirements of the requested standard in the quotation, and agreed among testing laboratory and manufacturer (applicant) to exclude the consideration of Measurement Uncertainty, unless it is required by the specific standard.

2. Test Sites

2.1 Test Laboratory

Taipei Testing Laboratories

11F. No.758, Sec. 4, Bade Rd., Songshan Dist.
Taipei City 105
Taiwan (R.O.C.)

2.2 Test Facility

Taipei Testing Laboratories

No.458-18, Sec. 2, Fenliao Rd., Linkou Dist.,
New Taipei City 244
Taiwan (R.O.C.)
FCC Registration No.: 226631
ISED Registration No.: 25563

2.3 Traceability

All measurement equipment calibrations are traceable to NML(Taiwan)/NIST(USA) or where calibration is performed outside Taiwan, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically in a suitably accredited Calibration Lab. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

All measurement uncertainty values are shown with a coverage factor of $k=2$ to indicate a 95% level of confidence.

Emission Measurement Uncertainty

Parameter	Uncertainty
Radiated Emission (9 kHz ~ 30 MHz)	± 1.15 dB
Radiated Emission (30 MHz ~ 200 MHz)	± 1.30 dB
Radiated Emission (200 MHz ~ 1 GHz)	± 1.30 dB
Radiated Emission (1 GHz ~ 18 GHz)	± 1.54 dB
Radiated Emission (18 GHz ~ 40 GHz)	± 2.52 dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT is a Wireless Door sensor working at 433.92 MHz.
For details refer to the User Guide, Data Sheet and Circuit Diagram.

3.2 System Details and Ratings

Basic Information of EUT

Item	EUT information
Kind of Equipment/Test Item	Wireless Door sensor
Type Identification	SB1802P
FCC ID	2A4D6-SB1802P

Technical Specification of EUT

Item	EUT information
Operating Frequency	433.92 MHz
Operation Voltage	3Vdc
Modulation	FSK
Antenna Information	Refer to 5.1.1
Accessory Device	Refer to 4.3

3.3 Noise Generating and Noise Suppressing Parts

Nothing mentioned explicitly. Please refer to the circuit diagram.

3.4 Submitted Documents

- Circuit Diagram
- Instruction Manual
- Rating Label
- Technical Description

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum emission level.
The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Setup for testing: Test samples are modified to continuous transmitter mode which makes it possible to transmit when power on.

Test Software	None.
---------------	-------

The samples were used as follows:

A003187138-001 for radiated test

A003187138-002 for conducted test

Full test was applied on all test modes, but only worst case was shown.

EUT Configure Mode	Applicable To					Description
	20 dB Bandwidth	Pulse Width / TX Gap	Field Strength of Fundamental Emissions	Radiated Spurious Emissions	Mains Conducted Emission	
-	√	√	√	√	-	-

Note:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when position on Z-plane.
2. "-" means no effect.

20 dB Bandwidth

- ☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Frequency (MHz)	Tested Frequency (MHz)
-	433.92	433.92

Pulse Width / TX Gap

- ☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Frequency (MHz)	Tested Frequency (MHz)
-	433.92	433.92

Field Strength of Fundamental

- ☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Frequency (MHz)	Tested Frequency (MHz)
-	433.92	433.92

Radiated Spurious Emissions

- ☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Frequency (MHz)	Tested Frequency (MHz)
-	433.92	433.92

Test Condition

Test Item	Ambient Temperature	Relative Humidity	Tested by
20 dB Bandwidth	20.3 °C	71 %	Stanislas Charles
Pulse Width / TX Gap	20.3 °C	71 %	Stanislas Charles
Field Strength of Fundamental	20.1-23 °C	52-57 %	Hunter Wang
Radiated Spurious Emissions	20.1-23 °C	52-57 %	Hunter Wang

4.3 Special Accessories and Auxiliary Equipment

The product has been tested together with the following additional accessories:

Accessory of EUT

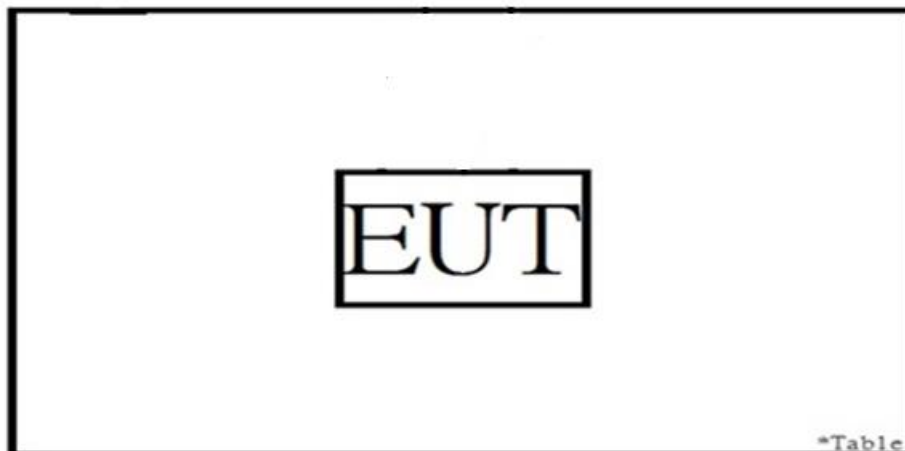
None.

Support Unit

None.

4.4 Test Setup Diagram

<Radiated Spurious Emissions mode>



5. Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

Requirement Use of approved antennas only

According to the manufacturer declaration, the EUT has an antenna with a directional gain of -5 dBi. The antenna is dipole antenna with no possibility of replacement with a non-approved antenna by the end-user. Therefore, the EUT is considered to comply with this provision.

Refer to EUT photo for details.

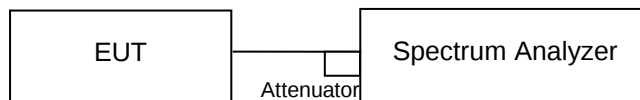
5.1.2 20 dB Bandwidth and Occupied Bandwidth

Limit

The bandwidth of the emission shall be no wider than 0.25 % of the center frequency for devices operating above 70 MHz and below 900 MHz.

Kind of Test Site Shielded room

Test Setup



Test Instruments

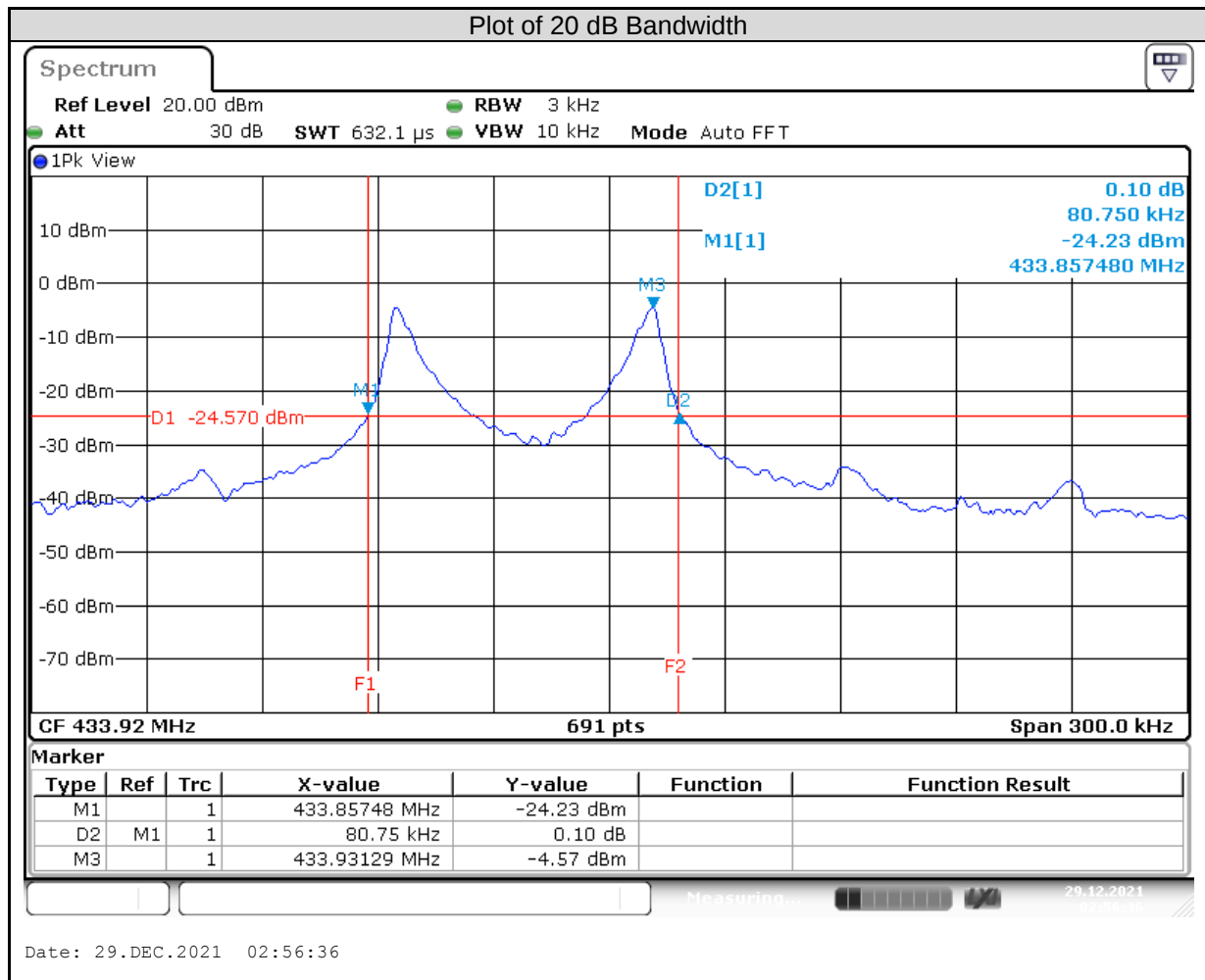
Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date	Test Date	
						From	Until
Spectrum Analyzer	R&S	FSV40	101512	2021/1/29	2022/1/28	2021/12/29	2021/12/29

Test Procedures

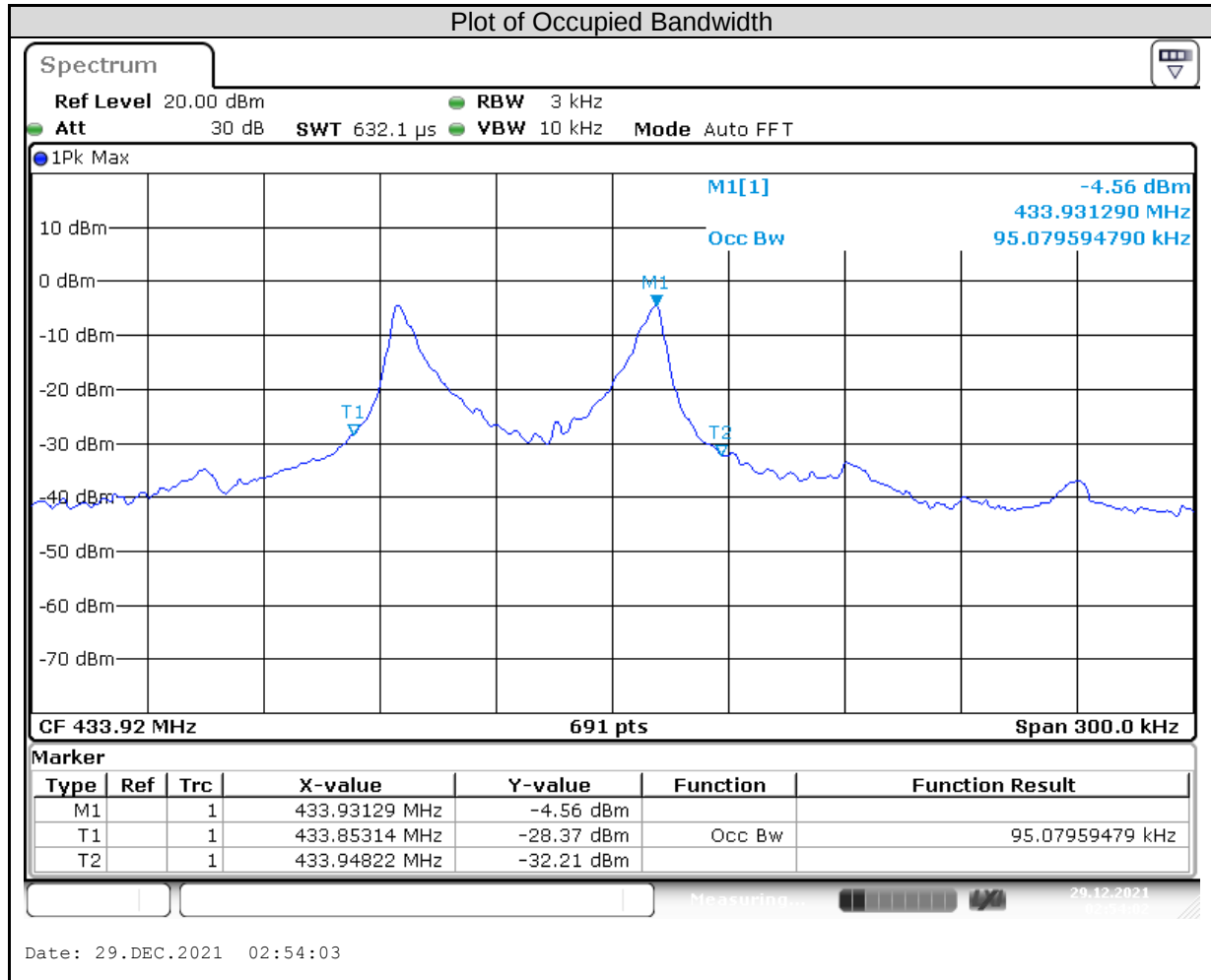
- Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
- Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
- Repeat above procedures until all frequencies measured were complete.
- For occupied bandwidth, the transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1 % to 5 % of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to Sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

Test Results

Channel Frequency (MHz)	20 dB Bandwidth (kHz)
433.92	80.75



Channel Frequency (MHz)	Occupied Bandwidth (kHz)
434.92	95.08



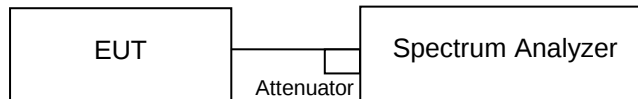
5.1.3 Pulse Width/TX Gap

Limit

For operation in 433-435 MHz: A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds being released. A transmitter activated automatically shall cease transmission within 5 seconds after activation.

Kind of Test Site Shielded room

Test Setup



Test Instruments

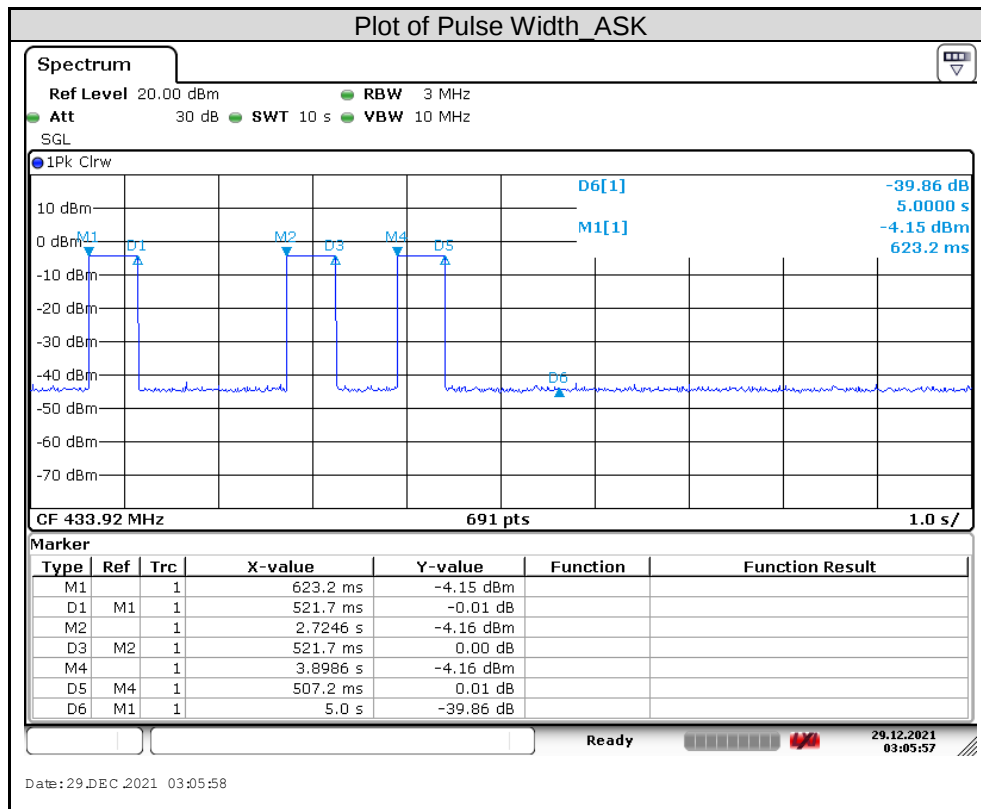
Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date	Test Date	
						From	Until
Spectrum Analyzer	R&S	FSV40	101512	2021/1/29	2022/1/28	2021/12/29	2021/12/29

Test Procedures

- Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
- Measure the transmission time (Pulse width) and stop duration of a transmission period (TX gap).
- Repeat above procedures until all frequencies measured were complete.

Test Results

Mode	Channel Frequency (MHz)	Pulse Width (ms)	Limit (ms)	Result
FSK	433.92	1550.6	5000	Pass

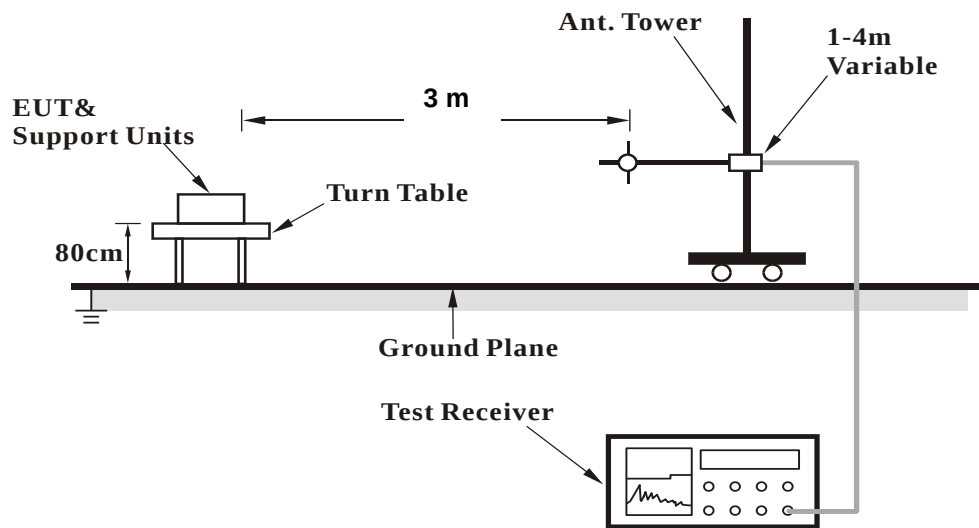


5.1.4 Field Strength of Fundamental Emissions

Limit Refer to §15.231(b) for reference

Kind of Test Site 3m Semi-Anechoic Chamber

Test Setup



For the actual test configuration, please refer to the attached file (Test Setup Photo).

Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Receiver	R&S	ESR7	102109	2021/3/16	2022/3/15
Signal Analyzer	R&S	FSV40	101508	2021/3/16	2022/3/15
Bilog Antenna	SCHWARZBECK	VULB-9168	00951	2021/2/18	2022/2/17
Horn Antenna	ETS-Lindgren	3117	00218929	2021/11/25	2022/11/24
Horn Antenna	SCHWARZBECK	BBHA 9170	00887	2021/4/8	2022/4/7
LF-AMP	Agilent	8447D	2944A10772	2021/2/18	2022/2/17
HF-AMP + AC source	EMCI	EMC051845SE	980633	2021/2/9	2022/2/8
HF-AMP + AC source	EMCI	EMC184045SE	980657	2021/2/1	2022/1/31
Microwave Cable	HUBER+SUHNER	SUCOFLEX 104EA	800056/4EA	2021/3/17	2022/3/16
Microwave Cable	HUBER+SUHNER	SUCOFLEX 104	804680/4	2021/3/17	2022/3/16
Microwave Cable	HUBER+SUHNER	SUCOFLEX 104	MY37202/4	2021/3/17	2022/3/16
Microwave Cable	HUBER+SUHNER	SUCOFLEX 102EA	800898/2EA	2021/4/16	2022/4/15
Microwave Cable	HUBER+SUHNER	SUCOFLEX 102EA	800901/2EA	2021/4/16	2022/4/15
Loop Antenna	SCHWARZBECK	FMZB1519B	00215	12/8/2021	2022/12/7

Test Procedures

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30 MHz ~ 1 GHz) above the ground at 3 meter chamber room for test. 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 height of antenna 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 and average detect function and specified bandwidth with maximum hold mode.

Note:

1. All modes of operation were investigated and the worst-case emissions are reported.
2. The Radiated Emissions testing was performed in the X(E1), Y(H) and Z(E2) axis orientation.
The worst-case Axis orientation is recorded in this test report.

Test Results

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Antenna Orientation	Detector or calculated value
433.92	72.01	100.83	Horizontal	Peak
433.92	70.26	80.83		Average
433.92	62.96	100.83	Vertical	Peak
433.92	61.67	80.83		Average

5.1.5 Radiated Spurious Emissions

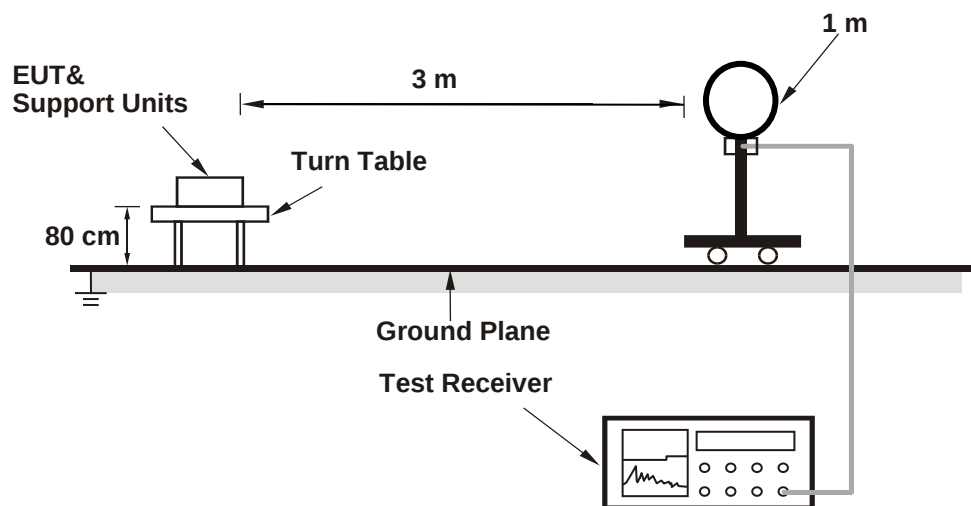
Limit

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must comply with the radiated emission limits specified in §15.209(a).

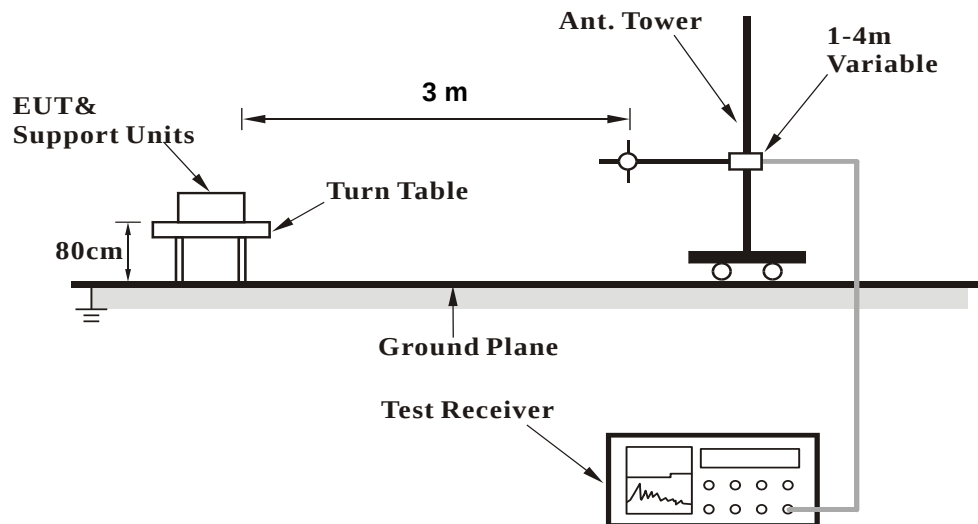
Kind of Test Site 3m Semi-Anechoic Chamber

Test Setup

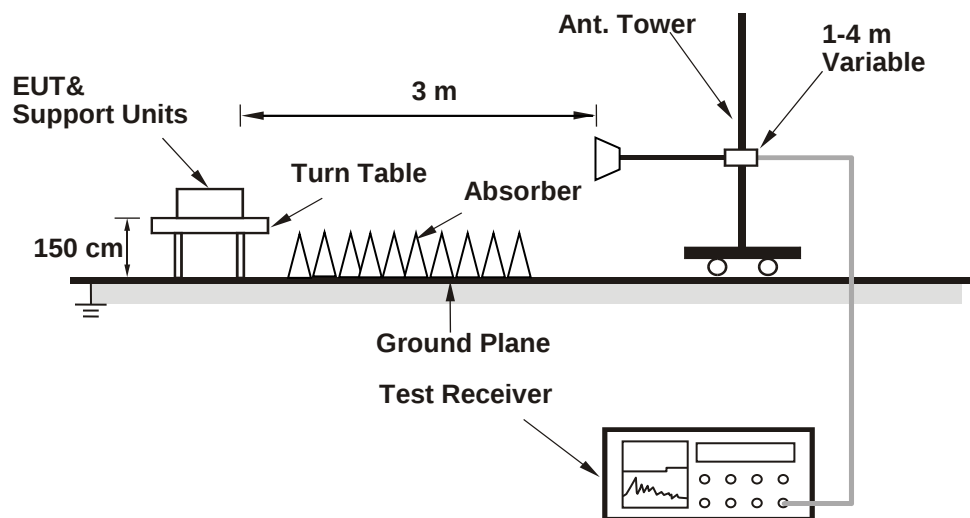
<Radiated Emissions below 30 MHz>



<Radiated Emissions 30 MHz to 1 GHz>



<Radiated Emissions above 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

Test Instruments

Please refer to 5.1.4 Instruments

Test Procedures**For Radiated Emissions below 30 MHz**

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. 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. Parallel (OPEN), perpendicular (CLOSE), and ground-parallel (GROUND) orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case 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 Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated Emissions above 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30 MHz ~ 1 GHz) / 1.5 meters (for above 1 GHz) above the ground at 3 meter chamber room for test. 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 height of antenna 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.
3. The Radiated Emissions testing was performed in the X(E1), Y(H) and Z(E2) axis orientation. The worst-case Axis orientation is recorded in this test report.

Test Results

Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Level (dBuV/m) = Reading (dBuV) + Factor (dB/m)

Please refer to Appendix A.

Appendix A: Test Results of Radiated Spurious Emissions

Band Edges, 2.31GHz ~ 2.9GHz

433.92MHz

(Horizontal) Peak

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Date: 2022-01-06

FCC Class B_AVG(15.231(b)) -60dB

FCC Class B_PK(15.231(b)) -60dB

Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg				
1	433.92	72.01	75.96	-3.95	100.83	-28.82	197	90	Peak	Horizontal	

(Vertical) Peak

TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322

Date: 2022-01-06

FCC Class B_AVG(15.231(b)) -60dB

FCC Class B_PK(15.231(b)) -60dB

Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg				
1	433.92	62.96	66.91	-3.95	100.83	-37.87	221	192	Peak	Vertical	

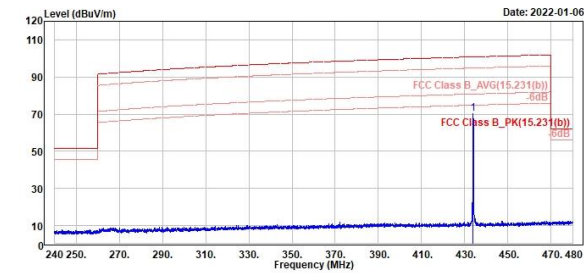
433.92MHz

(Horizontal) Average

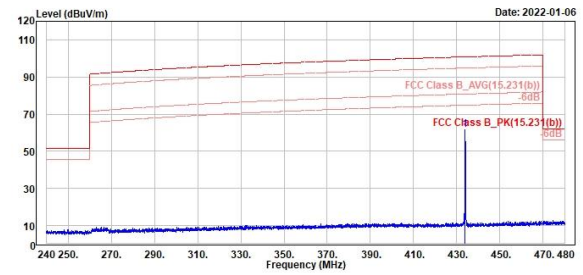
(Vertical) Average



TÜV Rheinland Taiwan Ltd.
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Spurious Emissions, Tx Mode, 9kHz ~ 30MHz

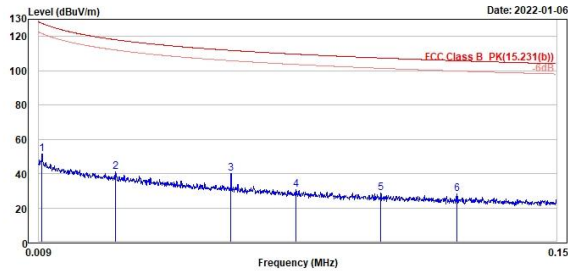
433.92MHz

(Open) 9kHz~150kHz

(Open) 150kHz~30MHz



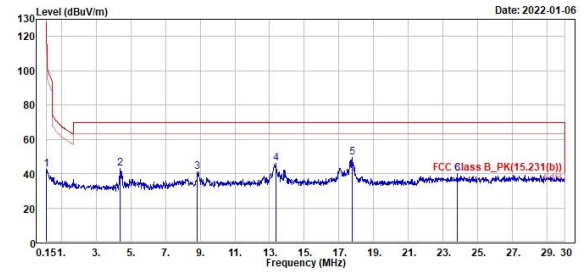
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg				
1	0.01	51.19	33.42	17.77	127.66	-76.47	100	163	QP	Open		
2	0.03	41.15	21.61	19.54	118.07	-76.92	100	255	QP	Open		
3	0.06	40.10	21.00	19.10	111.83	-71.73	100	117	QP	Open		
4	0.08	30.57	11.85	18.72	109.63	-79.06	100	306	QP	Open		
5	0.10	28.60	10.33	18.27	107.41	-78.81	100	338	QP	Open		
6	0.12	28.09	9.75	18.34	105.81	-77.72	100	61	QP	Open		



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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	Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg				
1	0.15	42.71	24.27	18.44	104.88	-61.37	100	215	QP	Open		
2	4.40	42.81	23.41	19.40	69.50	-26.69	100	81	QP	Open		
3	8.84	41.26	20.36	20.90	69.50	-28.24	100	274	QP	Open		
4	13.36	45.88	24.28	21.60	69.50	-23.62	100	92	QP	Open		
5	17.75	49.26	27.36	21.90	69.50	-20.24	100	327	QP	Open		
6	23.82	40.01	17.62	22.19	69.50	-29.49	100	65	QP	Open		

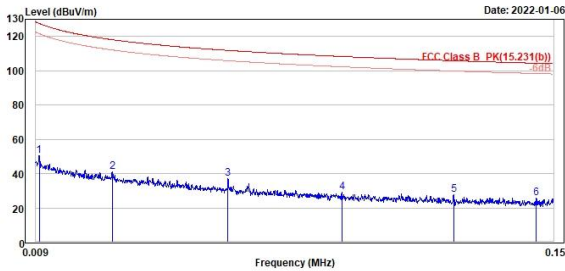
433.92MHz

(Close) 9kHz~150kHz

(Close) 150kHz~30MHz



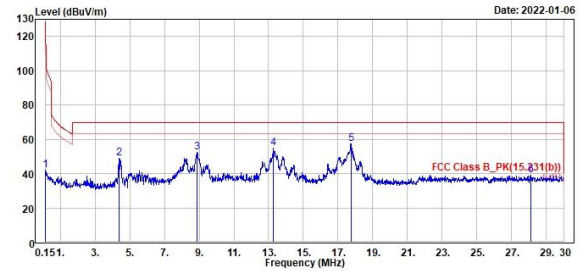
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Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg				
1	0.01	50.27	32.53	17.74	127.60	-77.33	100	130	QP	Close	
2	0.03	41.10	21.56	19.54	118.09	-76.99	100	242	QP	Close	
3	0.06	37.26	18.16	19.10	111.83	-74.57	100	240	QP	Close	
4	0.09	28.96	10.53	18.43	108.28	-79.32	100	279	QP	Close	
5	0.12	27.78	9.44	18.34	105.81	-78.03	100	355	QP	Close	
6	0.15	25.48	7.06	18.42	104.35	-78.07	100	240	QP	Close	



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Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg				
1	0.15	41.90	23.46	18.44	104.00	-62.18	100	147	QP	Close	
2	4.40	40.69	29.29	19.40	69.50	-20.81	100	360	QP	Close	
3	8.90	52.51	31.58	20.93	69.50	-16.99	100	243	QP	Close	
4	13.28	54.66	33.06	21.60	69.50	-14.84	100	166	QP	Close	
5	17.75	57.55	35.65	21.90	69.50	-11.95	100	42	QP	Close	
6	28.12	39.28	16.93	22.35	69.50	-30.22	100	136	QP	Close	

Spurious Emissions, Tx Mode, 30MHz ~ 1GHz

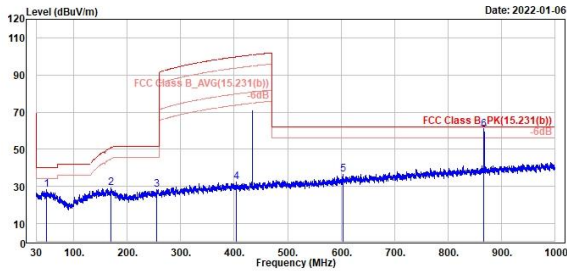
433.92MHz

(Horizontal)

(Vertical)



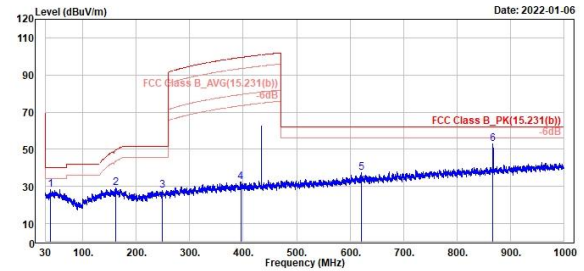
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	Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg				
1	48.04	28.29	35.94	-7.65	40.00	-11.71	120	360	QP	Horizontal		
2	169.78	29.19	36.43	-7.24	50.91	-21.72	300	347	QP	Horizontal		
3	255.33	28.08	36.12	-8.04	51.48	-23.40	200	145	QP	Horizontal		
4	403.35	32.32	36.55	-4.23	99.76	-67.44	200	360	QP	Horizontal		
5	603.76	36.39	37.62	-1.23	61.94	-25.55	400	87	QP	Horizontal		
6	867.84	60.77	57.93	2.84	61.94	-1.17	100	111	QP	Horizontal		



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	Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg				
1	39.31	28.30	36.41	-8.11	40.00	-11.70	300	189	QP	Vertical		
2	169.85	29.09	36.09	-7.00	49.55	-20.46	400	342	QP	Vertical		
3	248.64	27.92	36.12	-8.20	51.48	-23.56	100	307	QP	Vertical		
4	395.30	32.59	36.79	-4.20	99.45	-66.86	300	58	QP	Vertical		
5	621.51	37.42	38.18	-0.76	61.94	-24.52	100	360	QP	Vertical		
6	867.84	53.08	50.24	2.84	61.94	-8.66	300	194	QP	Vertical		

Spurious Emissions, Tx Mode, 1GHz ~ 5GHz

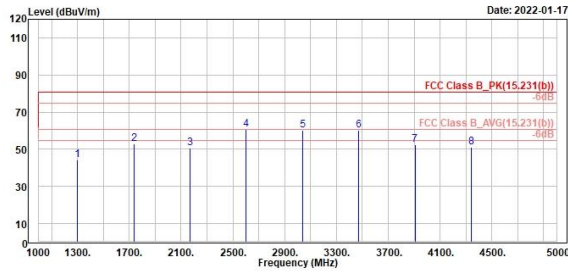
433.92MHz

(Horizontal)

(Vertical)



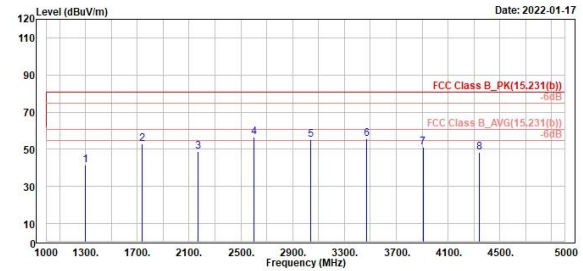
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Peak	Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg				
1	1382.00	44.26	63.37	-19.11	80.83	-36.57	100	111	Peak	Horizontal		
2	1736.00	53.14	70.63	-17.49	80.83	-27.69	400	118	Peak	Horizontal		
3	2170.00	50.59	65.78	-15.19	80.83	-30.24	300	134	Peak	Horizontal		
4	2684.00	60.56	74.26	-13.70	80.83	-20.27	400	73	Peak	Horizontal		
5	3038.00	60.14	72.67	-12.53	80.83	-20.69	300	26	Peak	Horizontal		
6	3472.00	60.17	72.59	-12.42	80.83	-20.66	300	30	Peak	Horizontal		
7	3906.00	52.60	63.74	-11.14	80.83	-28.23	300	88	Peak	Horizontal		
8	4339.00	51.32	62.07	-10.75	80.83	-29.51	100	43	Peak	Horizontal		



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Peak	Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg				
1	1382.00	41.48	60.59	-19.11	80.83	-39.35	256	33	Peak	Vertical		
2	1736.00	53.10	70.59	-17.49	80.83	-27.73	400	187	Peak	Vertical		
3	2170.00	48.82	64.01	-15.19	80.83	-32.01	300	189	Peak	Vertical		
4	2683.00	56.79	70.49	-13.70	80.83	-24.04	300	183	Peak	Vertical		
5	3038.00	55.29	67.82	-12.53	80.83	-25.54	300	242	Peak	Vertical		
6	3472.00	55.56	67.98	-12.42	80.83	-25.27	300	118	Peak	Vertical		
7	3906.00	51.12	62.26	-11.14	80.83	-29.71	300	290	Peak	Vertical		
8	4340.00	48.32	59.07	-10.75	80.83	-32.51	100	328	Peak	Vertical		