



RF Test Report



Report Number : 6128626025802
Applicant : Rollease Acmeda Inc.
Product : Push PRO Remote
Brand : AUTOMATE
Model : MT02-0101-067013 r2
FCC ID : 2AGGZ003B9ACA60

In accordance with
FCC rule part §15.231

RESPONSIBLE FOR	NAME	SIGNATURE	DATE
Approved By	Jack Chang	<i>Jack Chang</i>	2026-07-28
Prepared By	Ariel Hsu	<i>Ariel Hsu</i>	2026-07-28

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD Product Service control rules.

EXECUTIVE SUMMARY

TÜV SÜD Asia Ltd., reports apply only to the specific samples tested under stated test conditions. Construction of the actual test samples has been documented. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. The manufacturer/importer is responsible to the Competent Authorities for any modifications made to the production units which result in non-compliance to the relevant regulations. TÜV SÜD Asia Ltd. shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV SÜD Asia Ltd. issued reports.

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1 General Information

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

History of this test report

Issue	Description of Change	Date of Issue
1	Initial Issue	2026-05-08
2	Revised Product Name	2026-07-28

1.2 Introduction

The information contained in this report is intended to show verification of RF qualification approval. The testing requirements of the standards for the tests listed in Section 1.5.

Applicant : Rollease Acmeda Inc.
Address : 750 East Main Street, 7th Floor, Stamford, CT 06902
Manufacturer : Rollease Acmeda Inc.
Brand Name : AUTOMATE
Product Name : Push PRO Remote
Model Number(s) : MT02-0101-067013 r2
Date of Receipt of EUT : 2026-03-31
Start of Test : 2026-04-20
Finish of Test : 2026-05-06
Test Laboratory : TÜV SÜD Asia Ltd., Taiwan Branch
7F., No. 37, Sec. 2, Zhongyang S. Rd., Beitou District, Taipei
City 11270, R.O.C. Taiwan
Test Location : Guishan Laboratory
No. 31, Dinghu Road, Guishan District, Taoyuan City, TAIWAN
(R.O.C.)

The test facility is accredited by TAF (member of ILAC), under number 2573 according to ISO/IEC 17025: 2017.

FCC Designation Number No.: TW2573

1.3 Applied Standard

FCC rule part §15.231
FCC Part 15, Subpart C §15.231 ANSI C63.10-2020

1.4 Deviation from standards

None

1.5 List of applied test(s) of the EUT

FCC rule part §15.231			
FCC Rules	Test item	Result	Remark
§15.203	Antenna Requirement	Compliant	
§15.207	AC Power Line Conducted Emission	Compliant	
§15.231(b), §15.209	Spurious Emission	Compliant	
§15.231(a)(1)	Periodic Operation	Compliant	
§15.231(c)	Emission Bandwidth	Compliant	

2 General EUT Information

All information in this chapter was provided by the applicant.

2.1 Technical Specification of EUT

Items	EUT information
Operating Frequency	433.92 MHz
Channel number	1
Field Strength of Fundamental	84.38dBuV/m @3m
Operation Voltage	5Vdc Via USB C 3.7Vdc Via Li-ion Battery
Modulation	ASK
Product Type	Manually Operation Device
Sample ID	Conducted Sample: 718877053-E1-003 Radiated Sample: 718877053-E1-004
Test Software Version	V2.2.0

Note:

- 1: The transmitter and receiver of the low-power radio-frequency device are sold in one set
- 2: TÜV SÜD Asia Ltd assumes no responsibility for any technical specification (including antenna information) provided by the applicant.

2.2 Antenna List

The antenna has been confirmed to be fully compliant with the requirements of FCC §15.203.

Antenna Type	Brand	Model	Frequency (MHz)	Connector
PCB	ROLLEASE ACMEDA	PCB Antenna	433.92	Permanently attached antenna

Note:

- 1: The applicant provides antenna information.

2.3 Accessory of EUT

Not applicable

2.4 Variation of family model(s)

2.4.1 List of family model(s)

Brand Name / Description	Trade Name	Type Identification / Colour	Difference
AUTOMATE / Push PRO Remote	Rollease Acmeda	MT02-0101-067013 r2 / White	Push PRO Remote control will be manufactured under different model numbers with two-color codes. All models are exactly same and identical in electrical, mechanical construction and material design with the following exceptions: Model Number on the product label Color Code (available in White and Black)
AUTOMATE / Push PRO Remote	Rollease Acmeda	MT02-0101-050013 r2 / Black	
TSS / Push PRO Remote	The Shade Store	MT02-0101-067014 r2 / White	
TSS / Push PRO Remote	The Shade Store	MT02-0101-050014 r2 / Black	
SHC / Push PRO Remote	Budget Blinds	MT02-0101-067018 r2 / White	
SHC / Push PRO Remote	Budget Blinds	MT02-0101-050018 r2 / Black	

3 Configuration of Equipment

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

An engineering test mode (software/firmware) that applicant provided was utilized to manipulate the EUT into transmit, selection of the test channel, and modulation scheme.

Numbers assigned to equipment on the diagram in "3.3 System configuration" correspond to the list in "3.1 Equipment used" and "3.2 Cable(s) used".

This test configuration is based on the manufacture's instruction.

Cabling and setup(s) were taken into consideration and test data was taken under worse case condition.

The EUT has been tested as an independent unit with other necessary accessories or support units.

3.1 Equipment used

No.	Product	Brand	Model No.	Serial No.	Remarks
A	Laptop	Lenovo	TP00048A	PC-00NQMT	Provided by Lab
B	Adapter	Lenovo	ADLX65YAC3E	8SGX21J75549 A1WH	Provided by Lab

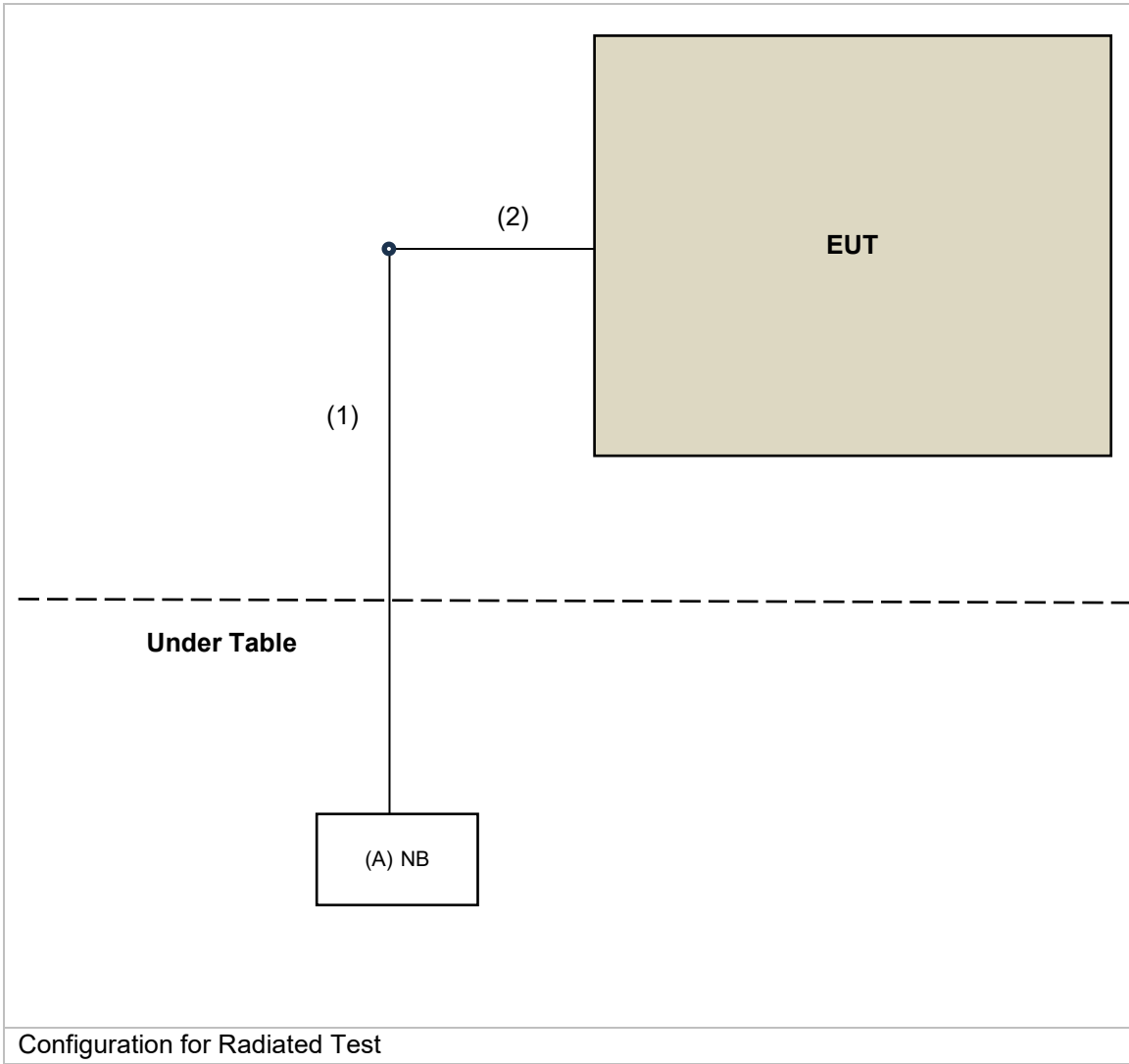
*The software is used to configure the EUT on the desired channel, BW and power settings for compliance testing.

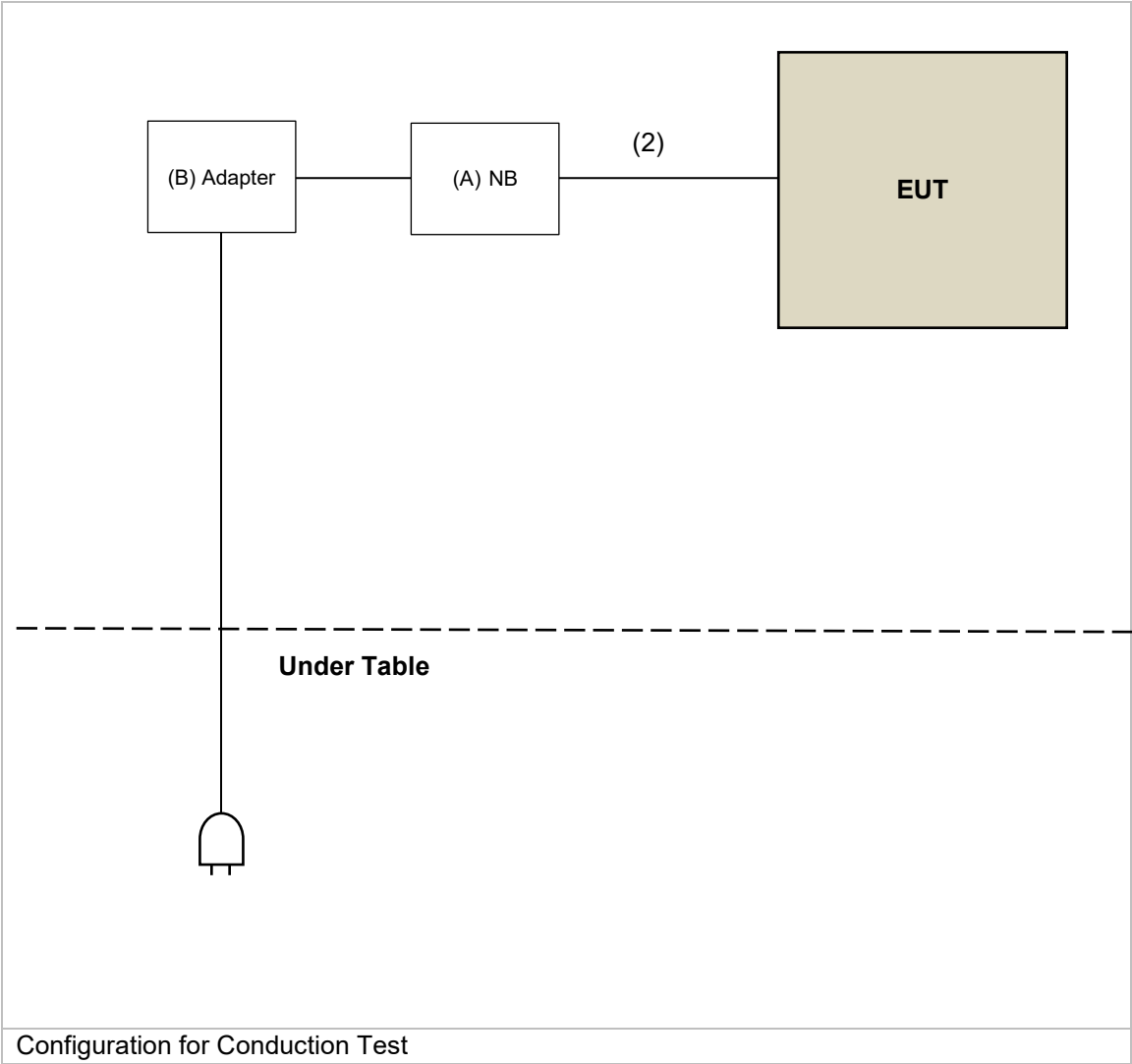
3.2 Cable(s) used

No.	Product	Brand	Model No.	Length (m)	Remarks
1	extension USB cable	Benevo	BUSB0300AMF	5	Provided by Lab
2	USB cable	IQOS	USB Type C	1	Provided by Lab



3.3 System configuration





4 General Test Configurations

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.

4.1 Description of test mode

1. The EUT has been tested under continuous transmission mode.
2. The frequency 433.92 MHz is the default channel to test, where it is the only manipulative channel as this application supports.
3. The field strength of radiation emission was measured as the EUT positioned in different orthogonal planes (X/Y/Z) based on actual usage of the EUT to pre-scan the emissions for determining the worst case scenario.
4. Only one configuration is supported/applicable as follows.

Radiated Spurious Emissions

- ☐ Pre-scan full test was applied on all test modes, but only the 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

Emission Bandwidth

- ☐ Pre-scan full test was applied on all test modes, but only the 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 the 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 the 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

AC Power Line Conducted Emission

- ☐ Pre-scan full test was applied on all test modes, but only the 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

4.2 Test Condition

Test Item	Ambient Temperature	Relative Humidity	Tested by
Radiated Spurious Emissions	22-26 °C	50-68 %	Sam Huang
Field Strength of Fundamental	22-26 °C	50-68 %	Sam Huang
Emission Bandwidth	22-26 °C	50-68 %	Kevin Syu
Time for Ceasing Transmission	22-26 °C	50-68 %	Kevin Syu

5 Test Result

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

Low-power radio frequency transmitter or transceiver(receiver) shall utilize a permanently, semi-permanently attached antenna or uses a unique coupling of the antenna and at any cable connector between the transmitter and the antenna. The antenna shall be an omni-directional type. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector or other than authorized is prohibited. Such standard connectors are for example: BNC, F type, N type, M type, UG type, RCA, SMA, SMB, and other standard type antenna connectors.

Refer to EUT photo for details.

5.2 Field Strength of Fundamental Emissions

5.2.1 Measurement procedure

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where FS = Field Strength

RA = Reading Amplitude

AF = Antenna Factor

CL = Cable Attenuation Factor (Cable Loss)

AG = Amplifier Gain

Notes:

1. Distance extrapolation factor = $40 \log (\text{required distance/ test distance})$ (dB)
2. The lower limit shall apply at the transition frequencies.
3. KDB 414788 D01 OATS and 3m semi-anechoic chamber Justification:
Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. OATS and 3m SAC chamber testing had been performed and 3m SAC measured test result is the worst case test result.

Actual FS (dB μ V/m) = Spectrum. Reading level(dB μ V) + Factor(dB)

Below 30 MHz of Factor(dB) = Antenna Factor(dB μ V/m) + Cable Loss(dB) – Distance Factor (dB)

Above 30 MHz of Factor(dB) = Antenna Factor(dB μ V/m) + Cable Loss(dB) – Pre_Amp Gain (dB)

The trace on RE (radiation emission) plot is as colored blue, and the detection manner we've employed is peak detector.

5.2.2 Measurement procedure

1. 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.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. Parallel (OPEN), perpendicular (CLOSE), and ground-parallel (GROUND) orientations of the antenna are set to make the measurement.
4. 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.
5. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.

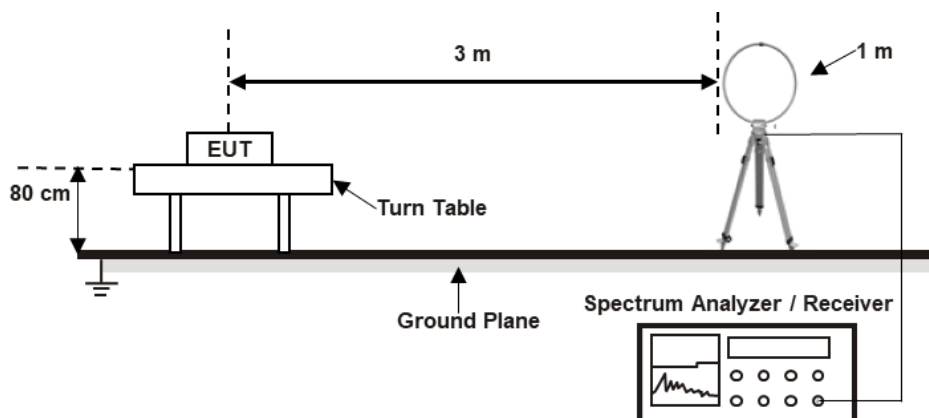
Test Results

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

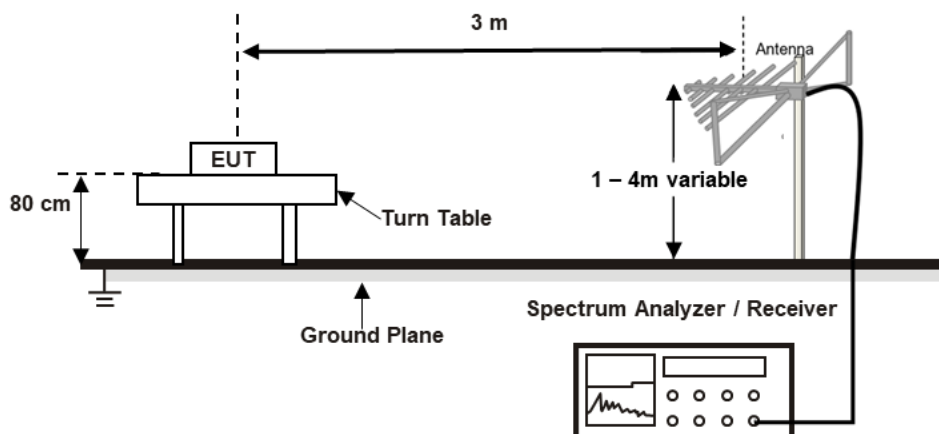
Level (dBuV/m) = Reading (dBuV) + Factor (dB/m)

5.2.3 Test Setup

<Radiated Emissions below 30 MHz>



<Radiated Emissions 30 MHz to 1 GHz>



5.2.4 Limit

15.231(b)

Frequency (MHz)	Field strength of fundamental emissions (microvolts/meter)	Unwanted emissions (microvolts/meter)
$40.66 \leq f \leq 40.70$	2250	225
$70 < f \leq 130$	1250	125
$130 < f \leq 174$	1250 ~ 3750 (Note 1, 2)	125 ~ 375 (Note 1, 2)
$174 < f \leq 260$	3750	375
$260 < f \leq 470$	3750 ~ 12500 (Note 1, 2)	375 ~ 1250 (Note 1, 2)
$470 < f$	12500	1250

Note:

- With linear interpolations, the formulas for calculating the maximum permitted fundamental field strengths shall be as follows:
 $130 \text{ MHz} \sim 174 \text{ MHz}$, $\mu\text{V/m}$ at 3 meters = $56.81818 \times (\text{frequency bands, MHz}) - 6136.3636$
 $260 \text{ MHz} \sim 470 \text{ MHz}$, $\mu\text{V/m}$ at 3 meters = $41.6667 \times (\text{frequency bands, MHz}) - 7083.3333$
- The maximum permitted unwanted emission level shall be 20dB below the maximum permitted fundamental level, or meets the requirement of §15.231, whichever is less.
- $41.6667 \times 433.92 - 7083.3333 = 10996.68 \mu\text{V/m}$
 $20 \log (10996.681) = 80.82 \text{ dB}\mu\text{V/m}$ (Average limit)
 $80.82.20 = 100.82 \text{ dB}\mu\text{V/m}$ (Peak limit)
- Frequency bands 225-328.6 MHz and 335.4-399.9 MHz are designated for the exclusive use of the Government of Canada. Manufacturers should be aware of possible harmful interference and degradation of their licence-exempt radio equipment in these frequency bands.

5.2.5 Measurement result

Please refer to Appendix E

5.3 Radiated Spurious Emissions

5.3.1 Measurement procedure

For Radiated Emissions below 30 MHz

1. 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.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. Parallel (OPEN), perpendicular (CLOSE), and ground-parallel (GROUND) orientations of the antenna are set to make the measurement.
4. 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.
5. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Notes:

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

1. 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.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. 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.
4. 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.
5. 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.
6. 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.

Notes:

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, Y and Z axis orientation. The worst-case Axis orientation is recorded in this test report.

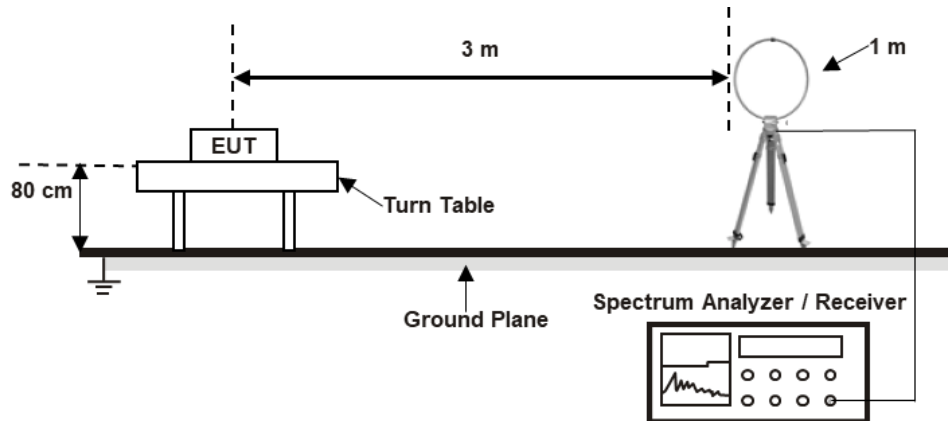
Test Results

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

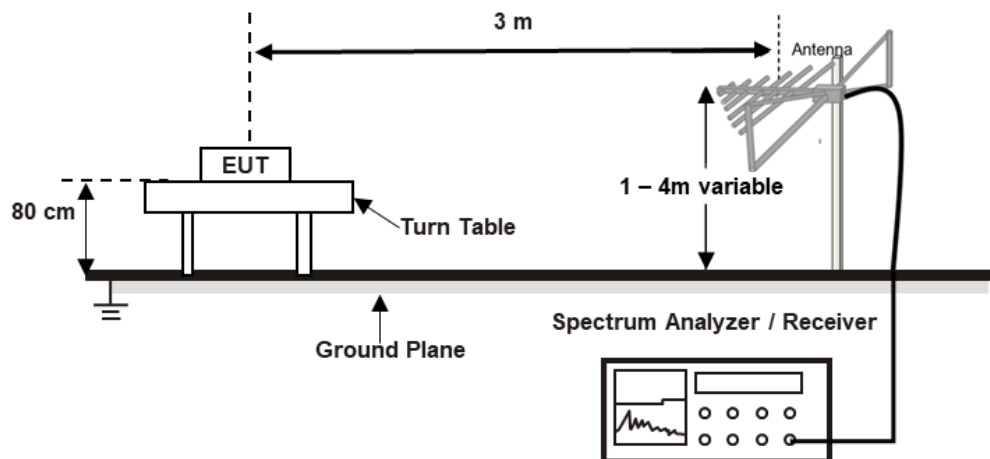
Level (dBuV/m) = Reading (dBuV) + Factor (dB/m)

5.3.2 Test Setup

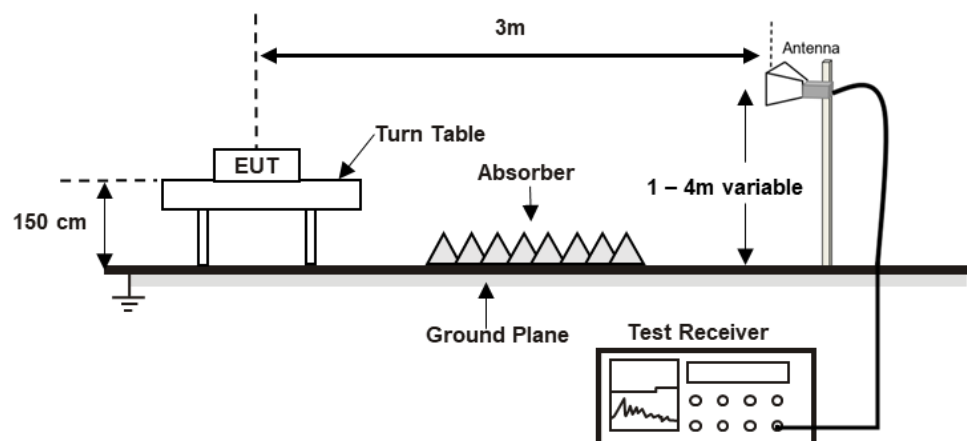
<Radiated Emissions below 30 MHz>



<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).

5.3.3 Limit

The field strength of any emissions appearing outside of the above 70MHz shall not exceed the general radiated emission limits according to 15.231(b) as below.

Frequency (MHz)	Field strength of fundamental emissions (microvolts/meter)	Unwanted emissions (microvolts/meter)
$40.66 \leq f \leq 40.70$	2250	225
$70 < f \leq 130$	1250	125
$130 < f \leq 174$	1250 ~ 3750 (Note 1, 2)	125 ~ 375 (Note 1, 2)
$174 < f \leq 260$	3750	375
$260 < f \leq 470$	3750 ~ 12500 (Note 1, 2)	375 ~ 1250 (Note 1, 2)
$470 < f$	12500	1250

Frequency (MHz)	Field strength ($\mu\text{V/m}$)	Distance (meters)
0.009~0.490	$2400/f(\text{kHz})$	300
0.490~1.705	$24000/f(\text{kHz})$	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Notes:

1. Emission level in $\text{dB}\mu\text{V/m} = 20 \log (\mu\text{V/m})$
2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of § 15.205.
4. Emission spurious frequency which appearing within the Restricted Bands specified in provision of §15.205 and RSS-Gen §8.10, then the general radiated emission limits in § 15.209.
5. For the band 130-174MHz, $\mu\text{V/m}$ at 3meters = $56.81818(F) - 6136.3636$;
For the band 260-470MHz $\mu\text{V/m}$ at 3meters = $41.6667(F) - 7083.3333$;
Where F is the frequency in MHz.

5.3.4 Measurement result

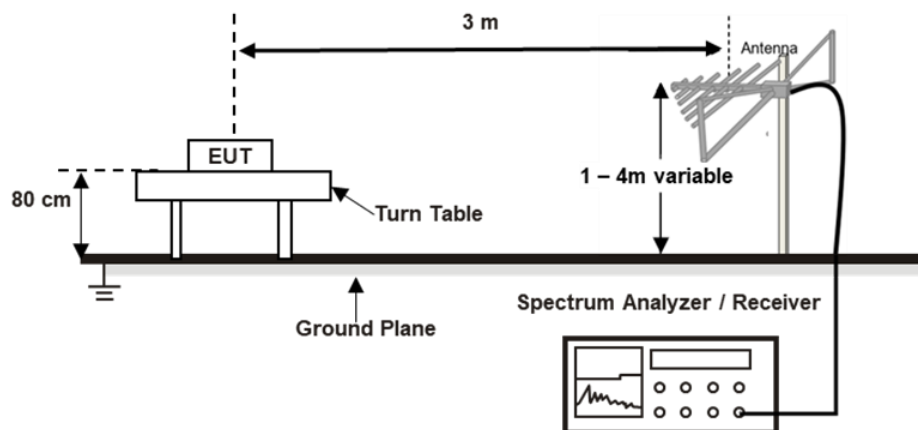
Please refer to Appendix F

5.4 Emission Bandwidth

5.4.1 Measurement procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as transmitting mode.
3. Set SPA Center Frequency = fundamental frequency, RBW=1% to 5% OBW, VBW= 3 x RBW, Span = large enough to capture all products of the modulation process.
4. Set SPA -20dB Occupied bandwidth. (FCC)

5.4.2 Test Setup



5.4.3 Limit

According to 15.231 (c), 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. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

5.4.4 Measurement result

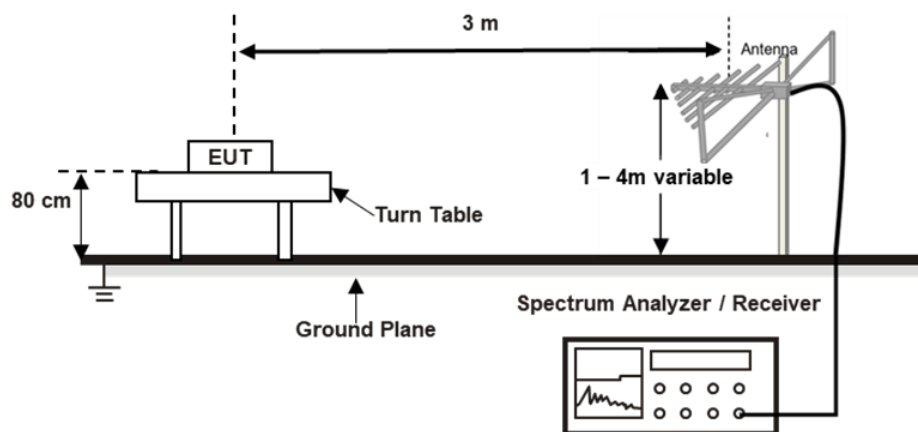
Please refer to Appendix C

5.5 Time for Ceasing Transmission (Optional for manually Transmitter)

5.5.1 Measurement procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set SPA Center Frequency = fundamental frequency, RBW=100kHz, VBW= 300kHz, Span =0Hz. Sweep Time= 5s.
3. Set EUT as normal operation and press Transmitter bottom for 1 time
4. Set SPA Max hold. Delta Mark.

5.5.2 Test Setup



5.5.3 Limit

According to 15.231 (a) (1) and a manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being selected

5.5.4 Measurement result

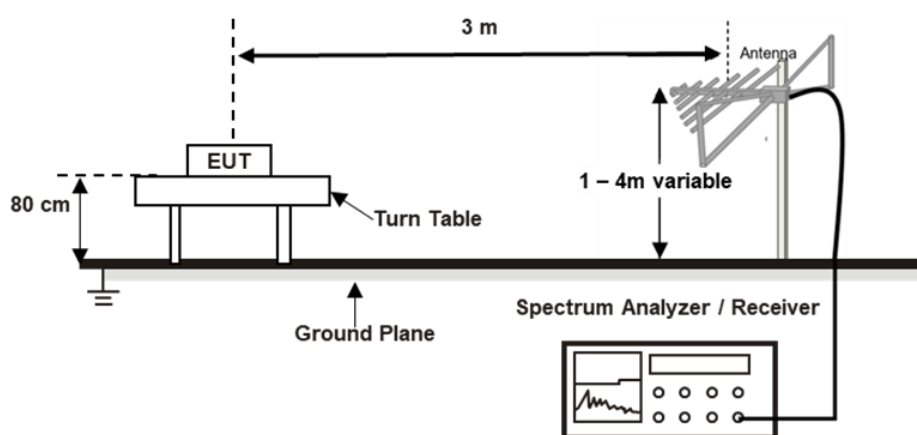
Please refer to Appendix D

5.6 Duty cycle

5.6.1 Measurement procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT normal operating mode
3. Set SPA Center Frequency = fundamental frequency, RBW, VBW= 100kHz, Span =0 Hz. Adjacent sweep.
4. Set SPA Max hold. Delta Mark.

5.6.2 Test Setup



5.6.3 Limit

According to 15. 35(c), the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value. The exact method of calculating the average field strength shall be submitted with any application for certification

5.6.4 Measurement result

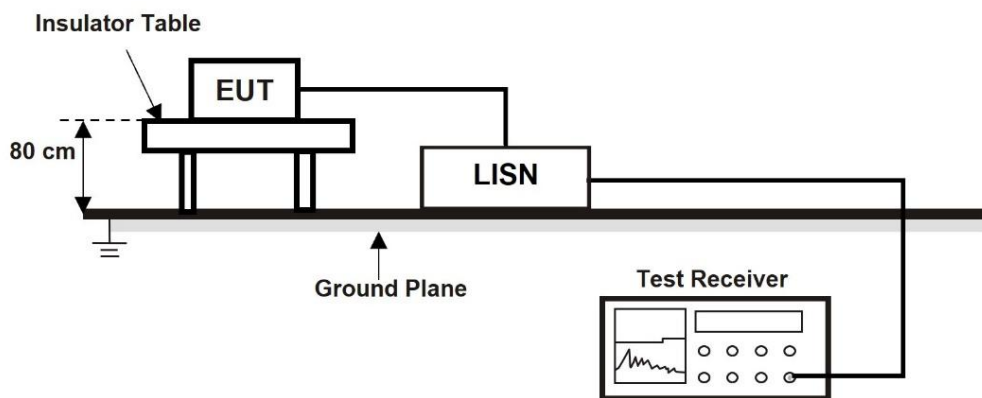
Please refer to Appendix B

5.7 AC Mains Conducted Emission

5.7.1 Measurement procedure

1. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50 μ H of coupling impedance for the measuring instrument.
2. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
3. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.
Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz – 30 MHz.

5.7.2 Test Setup



5.7.3 Limit

According to §15.207, frequency within 150 kHz to 30MHz shall not exceed the limit table as below.

Frequency range (MHz)	Limits (dB μ V)	
	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

Notes:

1. The lower limit shall apply at the transition frequencies
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

5.7.4 Measurement result

Please refer to Appendix G

6 Measurement Uncertainty

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

Item	Measurement Uncertainty			
	Test Site	Description	U	Unit
AC Power Line Conducted Emission	Shielded Room A	0.15 – 30MHz	2.69	dB
Radiated Emission, Horizontal @3m distance	Chamber 966B	9kHz – 30MHz	2.61	dB
		30 – 1000MHz	1.82	dB
		1 – 18GHz	2.11	dB
		18 – 40GHz	2.41	dB
Radiated Emission, Vertical @3m distance	Chamber 966B	9kHz – 30MHz	2.61	dB
		30 – 1000MHz	1.8	dB
		1 – 18GHz	2.11	dB
		18 – 40GHz	2.41	dB
Frequency stability	RF Room	--	± 29	Hz
Bandwidth Measurement	RF Room	6dB BW	± 29.78	kHz
	RF Room	20dB BW	± 46.91	kHz
	RF Room	26dB BW	± 55.99	kHz
	RF Room	99% OBW	± 28.95	kHz
Output Power	RF Room	Spectrum	± 1.44	dB
		Power Sensor	± 0.81	
Power Spectral Density	RF Room	--	± 1.44	dB
Conducted Spurious Emission	RF Room	--	± 1.62	dB

Appendix A. Test Equipment

Test Equipment Used (Field Strength of Fundamental Emissions / spurious emission)

Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
Spectrum Analyzer	Rohde & Schwarz	FSV3044	101346	2025-07-29	1 Year
Spectrum Analyzer	Rohde & Schwarz	ESR7	102602	2025-08-05	1 Year
Horn(1-18G)	RF SPIN	DRH18-E	211218A18EN	2025-11-05	1 Year
Bi-Log Antenna	Schwarzbeck	VULB 9168	01496	2026-02-11	1 Year
Preamplifier(1-18G)	SGH	SGH118-HS	20230214-6	2025-05-26	1 Year
Preamplifier(30M-1G)	EMCI	EMC330N-P	981122	2026-03-30	1 Year
Loop Antenna	TESEQ	HLA 6121	64165	2026-05-06	1 Year
Test Software	Audix	e3	221118, V9	NCR	NCR

Test Equipment Used (Pulse Width / TX Gap, DCCF, Emission Bandwidth)

Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
Spectrum Analyzer	Keysight	N9010B	MY63440384	2025-07-11	1 Year

*: The calibrations of the above equipment are traceable to NIST or equivalent standards of the reference organizations.

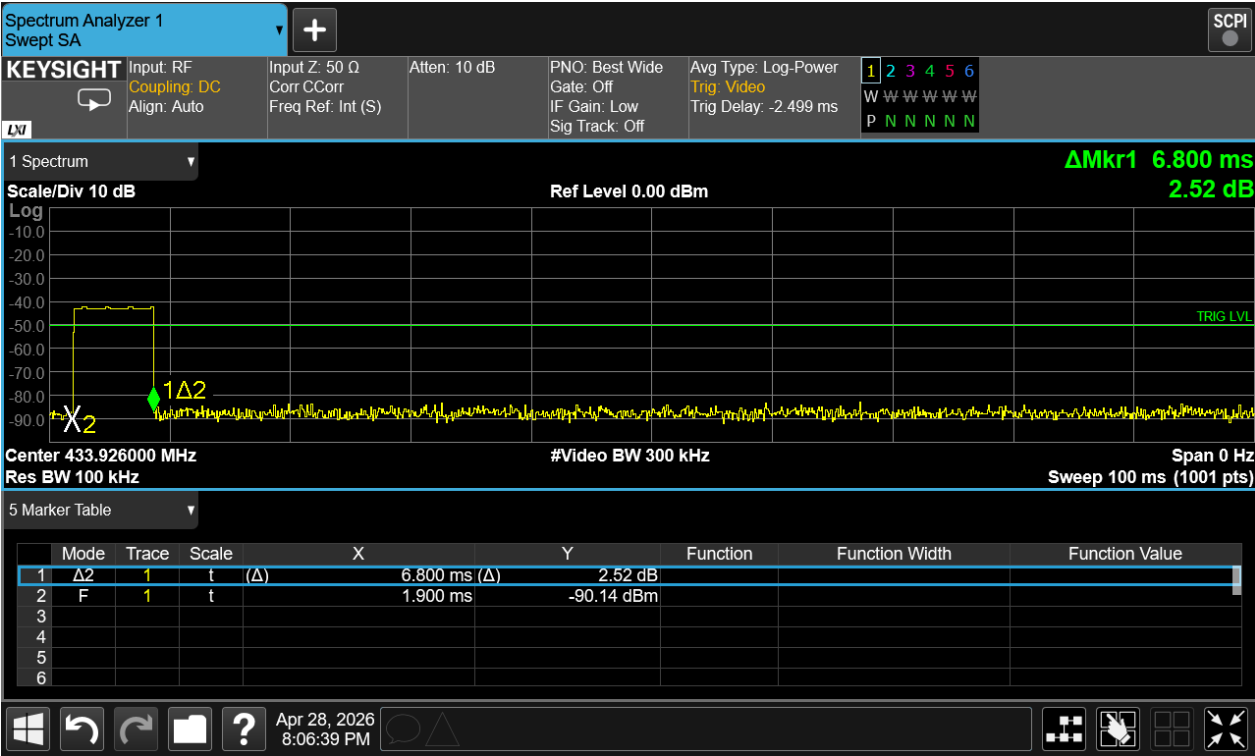


Appendix B. Duty cycle

DCCF

433MHz		
T _{on} (ms):	6.8	Duty Cycle Correction Factor* (dB)
T _{on+off} (ms):	100	-23.35

* Duty Cycle Correction Factor = $20 \cdot \log \left(\frac{T_{on}}{T_{on+off}} \right)$, T_{on+off} shall be 100 ms if the actual transmission period exceeds 100 ms.



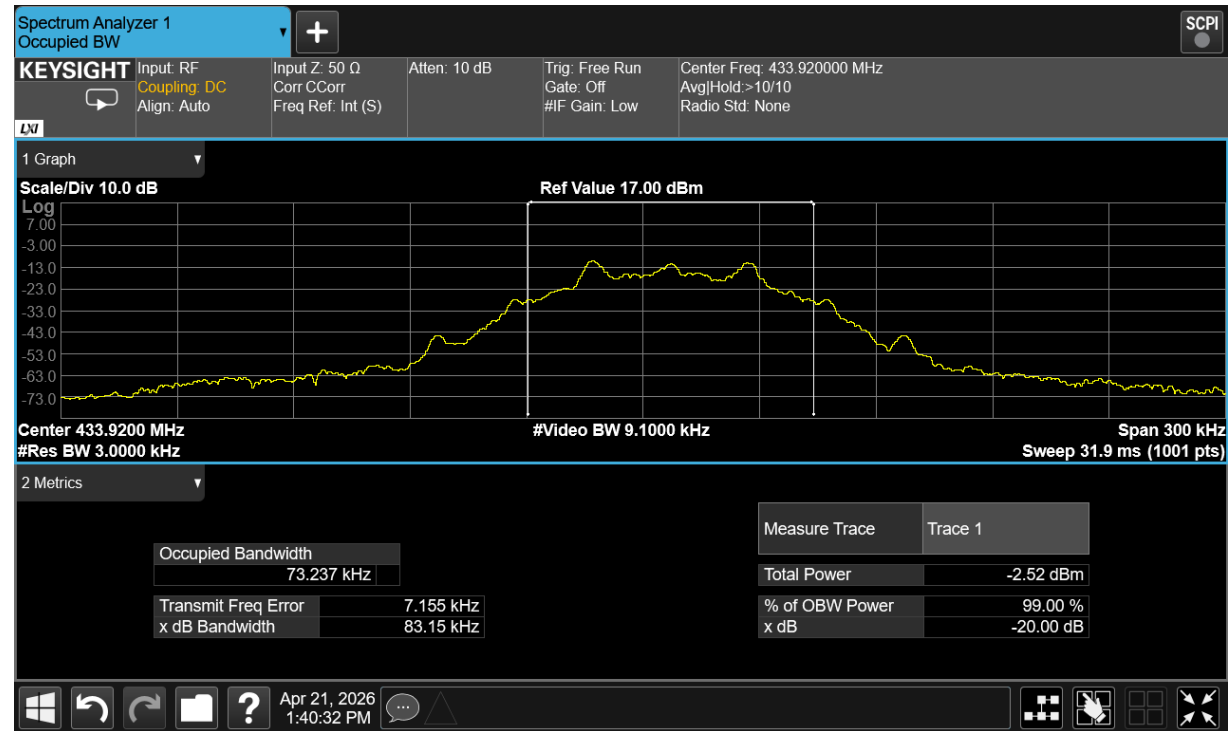


Appendix C. Emission Bandwidth

20dB Bandwidth

<433.92MHz>

Channel Frequency	20dB Bandwidth	Limit
(MHz)	(kHz)	
433.92	83.15	1084.8





99% Bandwidth

<433.92MHz>

Channel Frequency	99% Bandwidth	Limit (kHz)
(MHz)	(kHz)	
433.92	73.237	1084.8



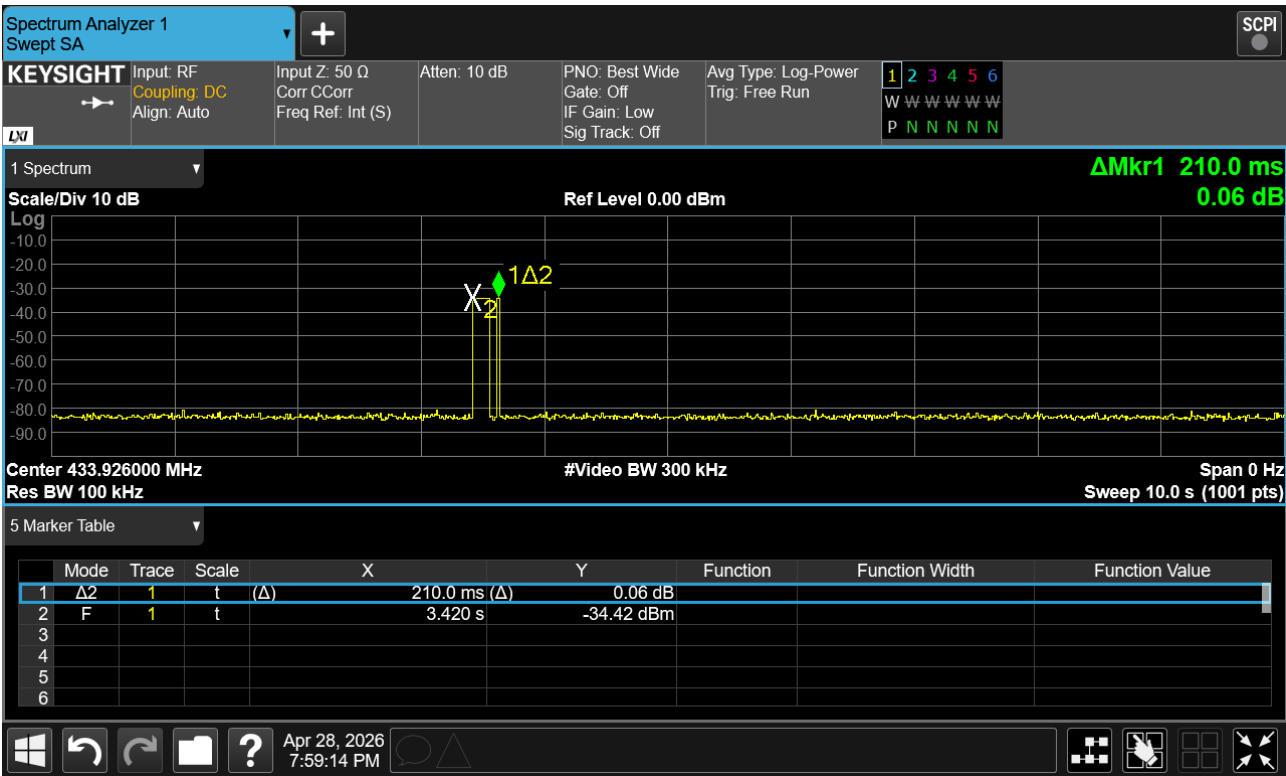


Appendix D. Time for Ceasing Transmission

Time for Ceasing Transmission

<433.92MHz>

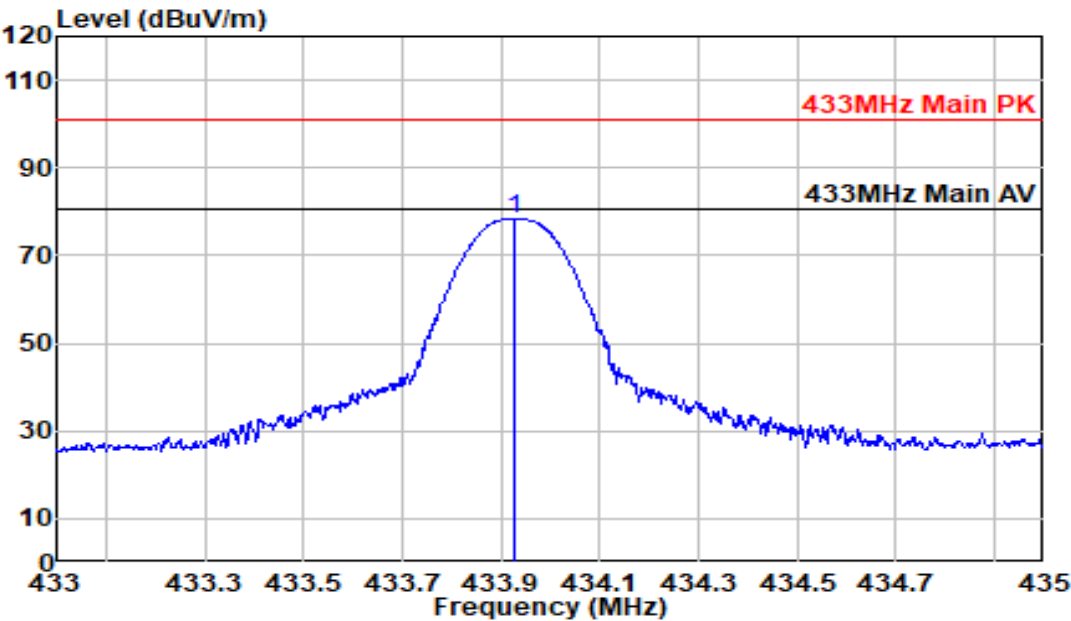
Channel Frequency	Transmission Time	Limit
(MHz)	(ms)	
433.92	210	<5000





Appendix E. Field Strength of Fundamental

Report No.	:612626025801	Test Date	:2026-04-20
Channel	:433.926MHz	Temp/Humi	:22.7C/56%
Mode	:Main	Antenna Pol	:Vertical
Power Setting	:Default	Test Engineer	:Sam Huang
Plane	:Y Plane	Test Site	:chamber B
Note	:	Voltage	:5Vdc Via USB C

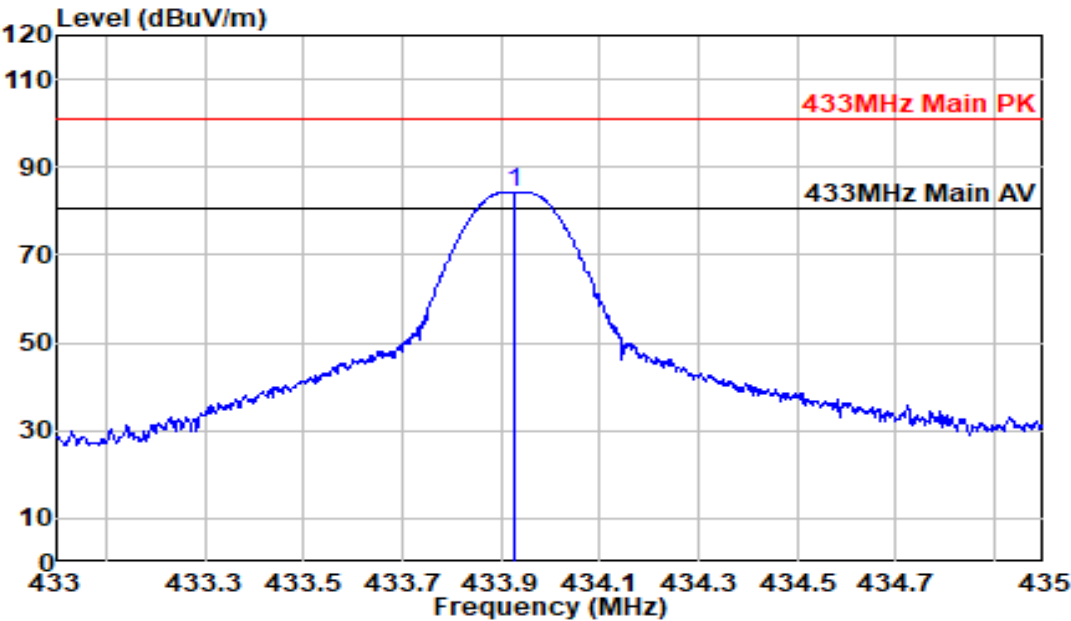


Freq	Read	Factor	Emission	Limit	Margin	Detector	Apos	TPos
MHz	LV		LV					
	dBuV	dB/m	dBuV/m	dBuV/m	dB	PK/QP/AV	CM	DEG
433.926	85.62	-7.39	78.23	100.82	-22.59	Peak	112	71

Average result = Peak level + Duty cycle correction factor						Apos	TPos
Freq	Emission	DCCF	Emission	Limit	Margin		
MHz	Peke LV		LV			CM	DEG
	dBuV	dB	dBuV/m	dBuV/m	dB		
433.926	78.23	-23.35	54.88	80.820	-25.94	112	71



Report No.	:612626025801	Test Date	:2026-04-20
Channel	:433.926MHz	Temp/Humi	:22.7C/56%
Mode	:Main	Antenna Pol	:Horizontal
Power Setting	:Default	Test Engineer	:Sam Huang
Plane	:Y Plane	Test Site	:chamber B
Note	:	Voltage	:5Vdc Via USB C



Freq	Read	Factor	Emission	Limit	Margin	Detector	Apos	TPos
MHz	LV		LV					
	dBuV	dB/m	dBuV/m	dBuV/m	dB	PK/QP/AV	CM	DEG
433.926	91.77	-7.39	84.38	100.82	-16.44	Peak	232	202

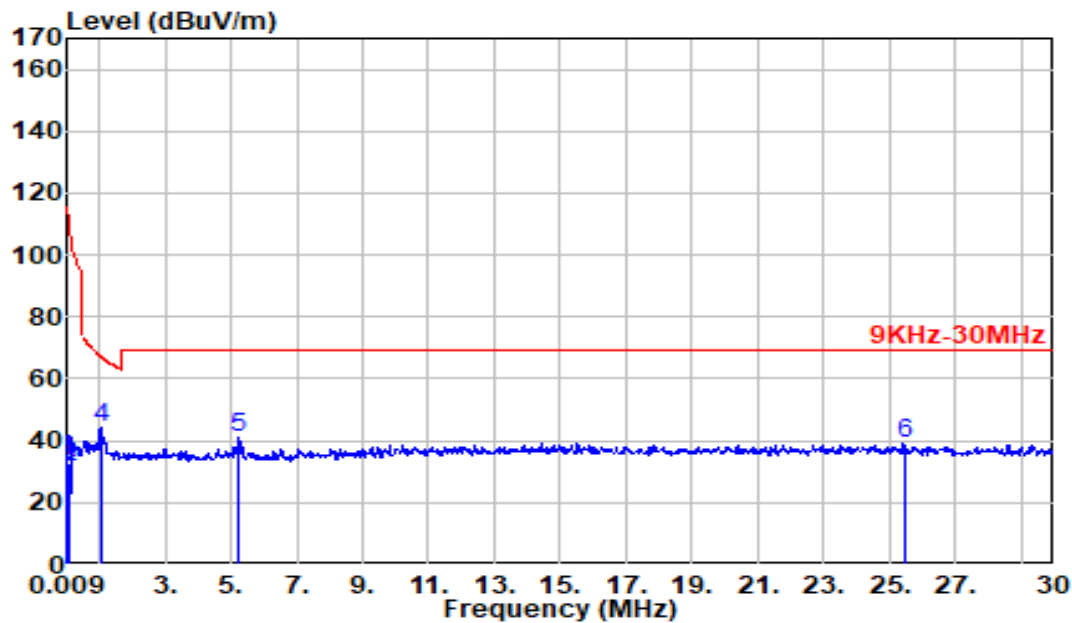
Average result = Peak level + Duty cycle correction factor

Freq	Emission	DCCF	Emission	Limit	Margin	Apos	TPos
MHz	Peke LV		LV				
	dBuV	dB	dBuV/m	dBuV/m	dB	CM	DEG
433.926	84.38	-23.35	61.03	80.820	-19.79	232	202



Appendix F. Radiated Spurious Emissions

Report No.	:612626025801	Test Date	:2026-05-06
Channel	:433.926MHz	Temp/Humi	:22.7C/56%
Mode	:Tx	Antenna Pol	:Vertical
Power Setting	:Default	Test Engineer	:Sam Huang
Plane	:Y Plane	Test Site	:chamber B
Note	:	Voltage	:5Vdc Via USB C



Freq	Read	Factor	Emission	Limit	Margin	Detector	Apos	TPos
MHz	LV.	dB/m	LV	dB	dB	PK/QP/AV	CM	DEG
0.038	13.30	20.64	33.94	116.02	-82.08	Peak	100	92
0.076	11.44	20.08	31.52	110.01	-78.50	Peak	100	98
0.114	12.50	19.60	32.10	106.49	-74.39	Peak	100	92
1.046	23.50	20.50	44.00	67.18	-23.17	Peak	100	165
5.254	20.39	20.61	40.99	69.54	-28.55	Peak	100	165
25.433	15.83	23.30	39.13	69.54	-30.41	Peak	100	165



Report No.

Channel

Mode

Power Setting

Plane

Note

:612626025801

:433.926MHz

:Tx

:Default

:Y Plane

:

Test Date

Temp/Humi

Antenna Pol

Test Engineer

Test Site

Voltage

:2026-05-06

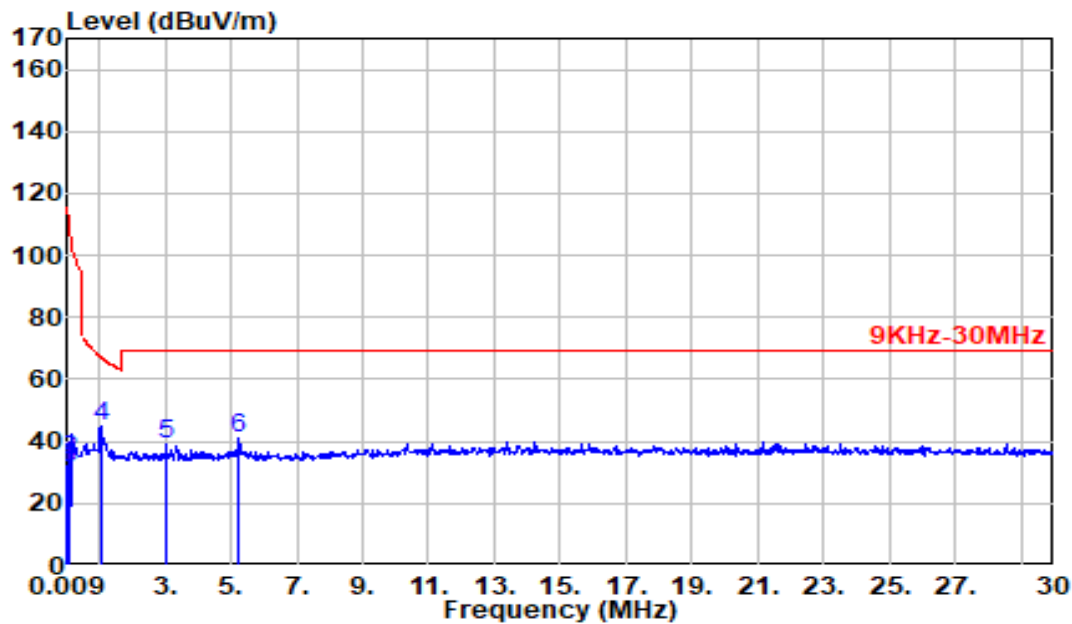
:22.7C/56%

:Horizontal

:Sam Huang

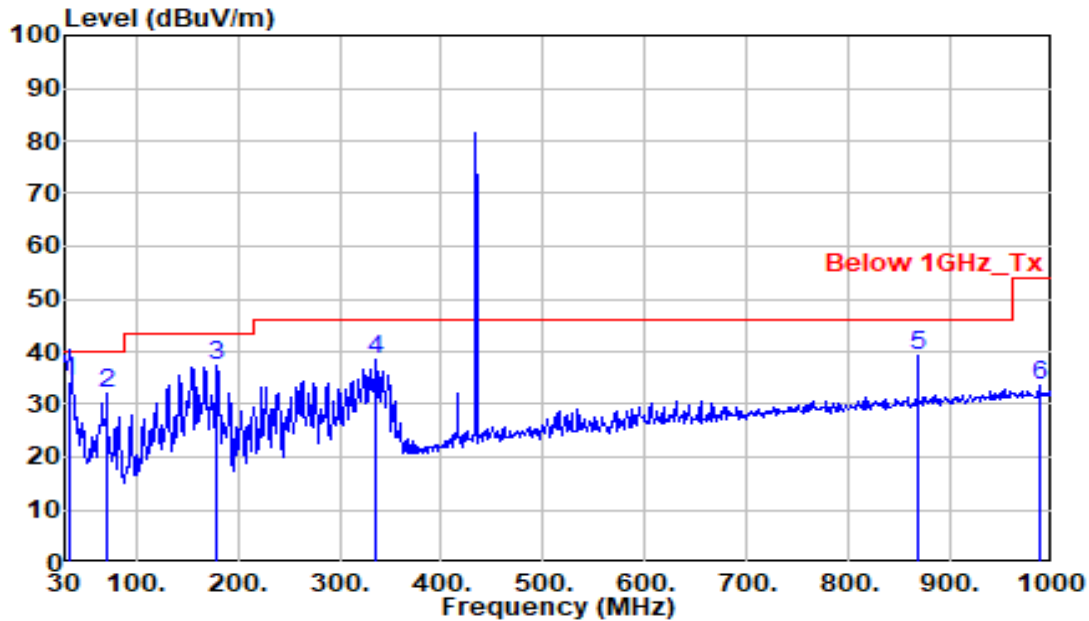
:chamber B

:5Vdc Via USB C



Freq	Read	Factor	Emission	Limit	Margin	Detector	Apos	TPos
MHz	LV.	dB/m	LV	dBuV/m	dB	PK/QP/AV	CM	DEG
0.038	11.16	20.64	31.80	116.02	-84.21	Peak	100	213
0.076	14.09	20.08	34.17	110.01	-75.84	Peak	100	250
0.114	11.60	19.60	31.20	106.49	-75.29	Peak	100	213
1.046	24.11	20.50	44.61	67.18	-22.56	Peak	100	300
3.045	18.33	20.55	38.88	69.54	-30.66	Peak	100	308
5.254	20.48	20.61	41.09	69.54	-28.45	Peak	100	300

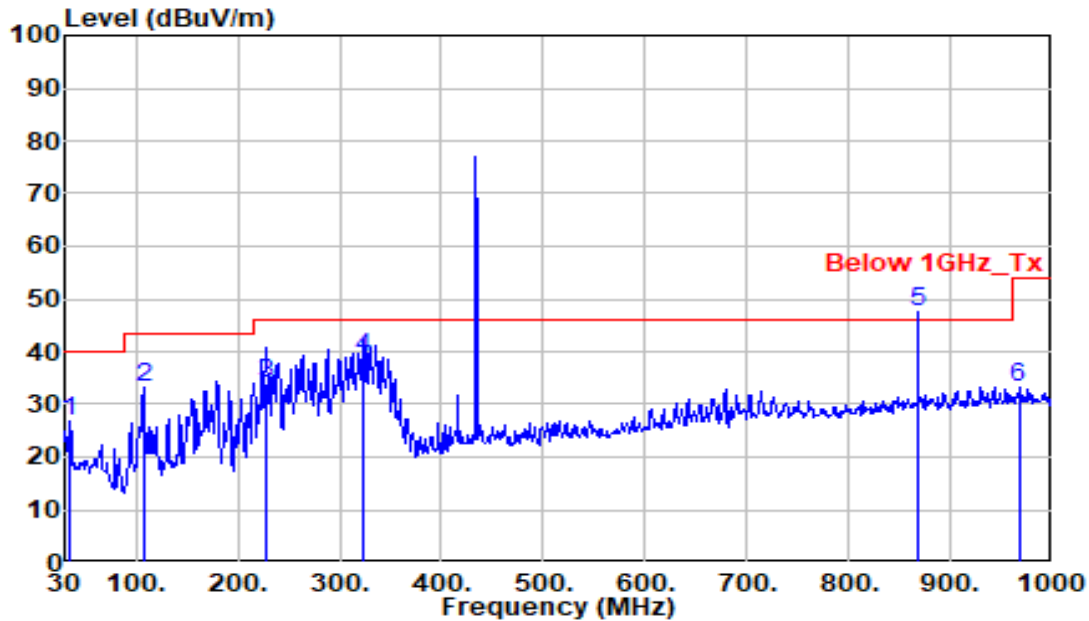
Report No.	:612626025801	Test Date	:2026-04-20
Channel	:433.926MHz	Temp/Humi	:22.7C/56%
Mode	:Tx	Antenna Pol	:Vertical
Power Setting	:Default	Test Engineer	:Sam Huang
Plane	:Y Plane	Test Site	:chamber B
Note	:	Voltage	:5Vdc Via USB C



Freq	Read	Factor	Emission	Limit	Margin	Detector	Apos	TPos
MHz	LV.		LV					
	dBuV	dB/m	dBuV/m	dBuV/m	dB	PK/QP/AV	CM	DEG
35.820	46.90	-12.49	34.41	40.00	-5.59	QP	142	289
71.710	46.54	-14.43	32.11	40.00	-7.89	Peak	186	134
179.380	50.68	-13.21	37.47	43.50	-6.03	Peak	333	337
335.550	48.82	-10.33	38.49	46.00	-7.51	Peak	104	159
*867.852	39.34	-0.04	39.30	60.86	-21.56	Peak	319	340
987.390	31.72	1.75	33.47	54.00	-20.53	Peak	173	246

*The limit of §15.231(b) was applied, as the frequency does not fall within the frequency ranges specified in §15.205.

Report No.	:612626025801	Test Date	:2026-04-20
Channel	:433.926MHz	Temp/Humi	:22.7C/56%
Mode	:Tx	Antenna Pol	:Horizontal
Power Setting	:Default	Test Engineer	:Sam Huang
Plane	:Y Plane	Test Site	:chamber B
Note	:	Voltage	:5Vdc Via USB C



Freq	Read	Factor	Emission	Limit	Margin	Detector	Apos	TPos
MHz	LV.		LV					
	dBuV	dB/m	dBuV/m	dBuV/m	dB	PK/QP/AV	CM	DEG
35.820	39.34	-12.49	26.85	40.00	-13.15	Peak	325	252
107.600	48.66	-15.41	33.25	43.50	-10.25	Peak	103	221
227.880	48.59	-14.75	33.84	46.00	-12.16	QP	305	214
323.910	49.60	-10.58	39.02	46.00	-6.98	QP	199	293
*867.852	47.40	-0.04	47.36	60.86	-13.50	Peak	235	137
967.020	31.50	1.53	33.03	54.00	-20.97	Peak	128	42

*The limit of §15.231(b) was applied, as the frequency does not fall within the frequency ranges specified in §15.205.



Report No.

:612626025801

Channel

:433.926MHz

Mode

:Tx

Power Setting

:Default

Plane

:Y Plane

Note

:

Test Date

:2026-04-20

Temp/Humi

:22.7C/56%

Antenna Pol

:Vertical

Test Engineer

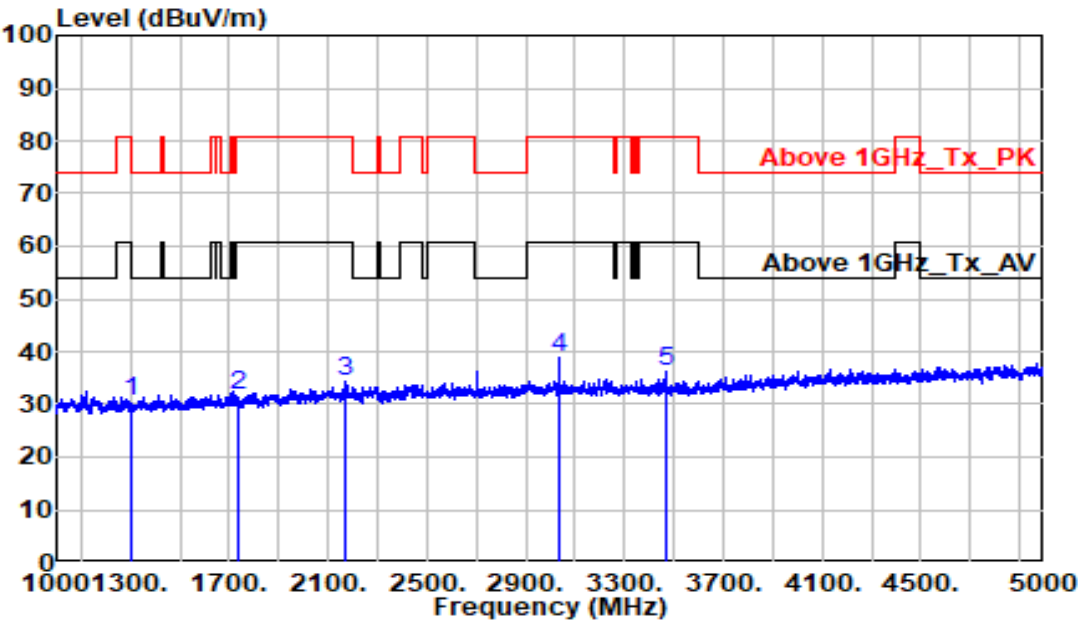
:Sam Huang

Test Site

:chamber B

Voltage

:5Vdc Via USB C



Freq	Read	Factor	Emission	Limit	Margin	Detector	Apos	TPos
MHz	LV.		LV					
	dBuV	dB/m	dBuV/m	dBuV/m	dB	PK/QP/AV	CM	DEG
1301.778	46.14	-15.58	30.56	74.00	-43.44	Peak	253	315
1735.704	45.58	-13.75	31.83	80.82	-48.99	Peak	165	92
2169.630	46.29	-12.00	34.29	80.82	-46.53	Peak	144	286
3037.482	47.93	-8.99	38.94	80.82	-41.88	Peak	172	284
3471.408	44.80	-8.76	36.04	80.82	-44.78	Peak	220	210



Report No.

Channel

Mode

Power Setting

Plane

Note

:612626025801

:433.926MHz

:Tx

:Default

:Y Plane

:

Test Date

Temp/Humi

Antenna Pol

Test Engineer

Test Site

Voltage

:2026-04-20

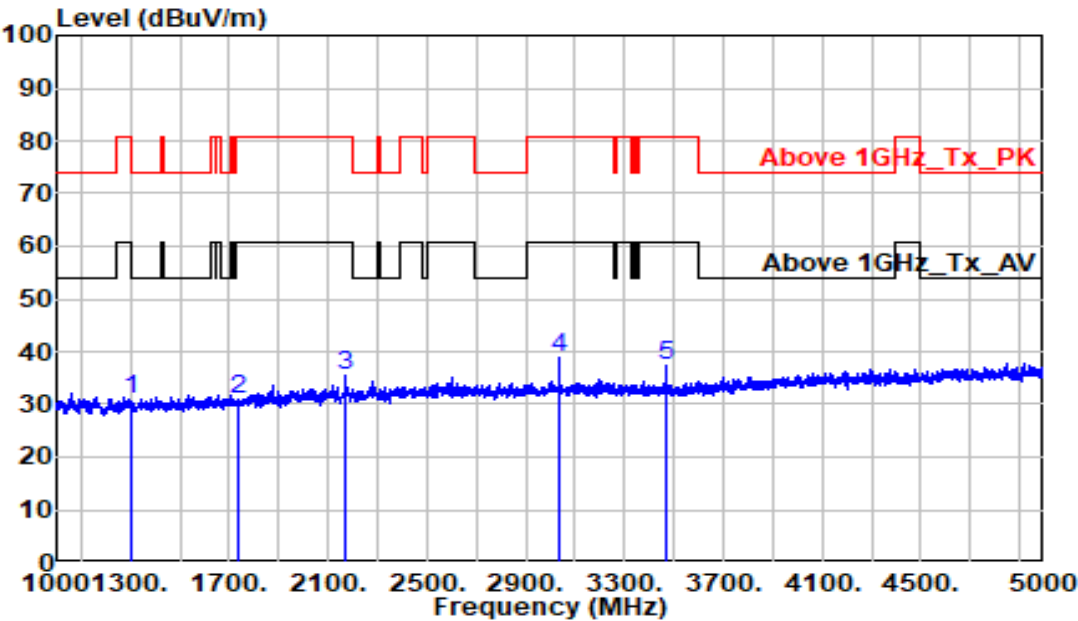
:22.7C/56%

:Horizontal

:Sam Huang

:chamber B

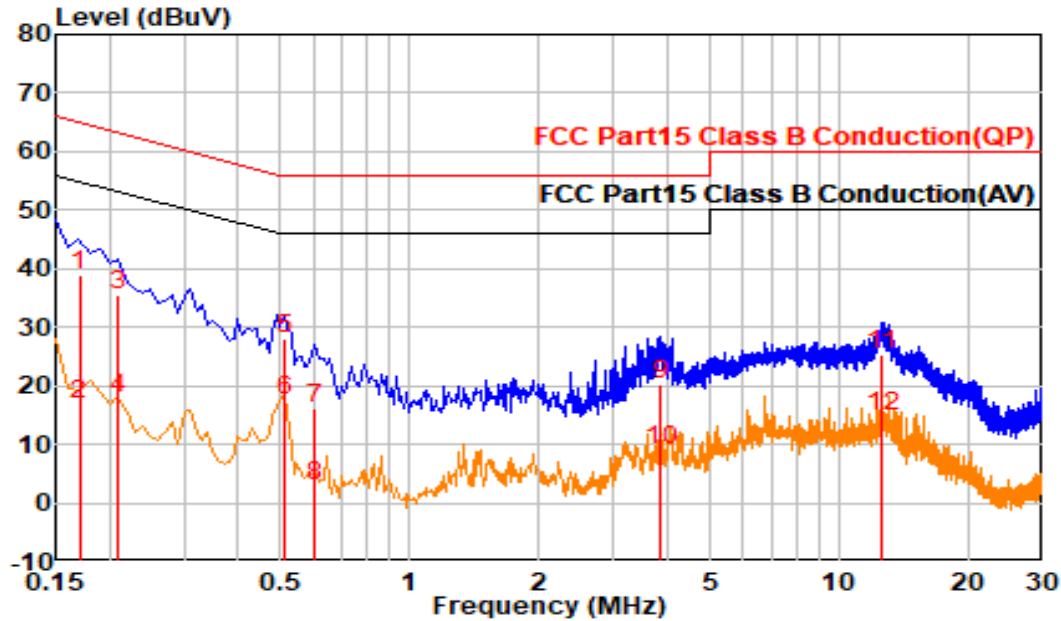
:5Vdc Via USB C



Freq	Read	Factor	Emission	Limit	Margin	Detector	Apos	TPos
MHz	LV.		LV					
	dBuV	dB/m	dBuV/m	dBuV/m	dB	PK/QP/AV	CM	DEG
1301.778	46.66	-15.58	31.08	74.00	-42.92	Peak	108	210
1735.704	44.63	-13.75	30.88	80.82	-49.94	Peak	290	319
2169.630	47.54	-12.00	35.54	80.82	-45.28	Peak	129	313
3037.482	47.71	-8.99	38.72	80.82	-42.10	Peak	129	337
3471.408	46.23	-8.76	37.47	80.82	-43.35	Peak	229	272

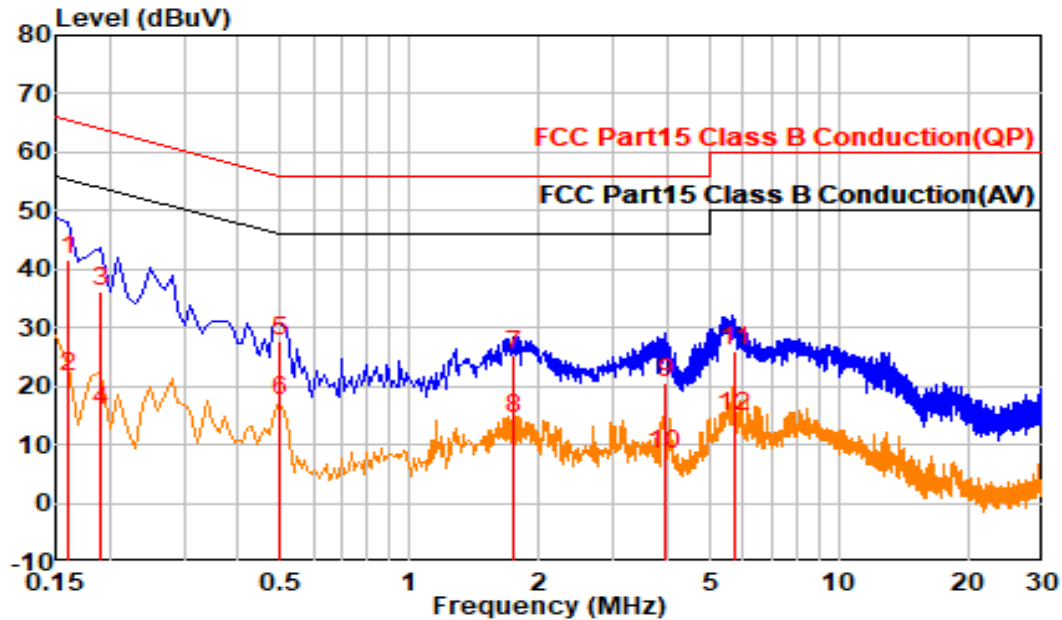
Appendix G. AC Mains Conducted Emission

Report No.	:6128626025801	Test Date	:2026-04-21
Operation Band	:433MHz	Temp/Humi	:21.7C/64%
Mode	:Tx	Test Engineer	:Sam Huang
Power	:120V/60Hz	Test Site	:Shielded Room A
Condition	:Line	Note	:



Trace: 1									
Freq	Read	Factor	Cable	LISN	Emission	Limit	Margin	Detect	
MHz	LV.	dB	Loss	Factor	LV	dBuV	dB	QP/AV	
0.170	29.25	9.65	0.01	9.64	38.90	64.95	-26.05	QP	
0.170	7.33	9.65	0.01	9.64	16.98	54.95	-37.97	Average	
0.210	25.81	9.64	0.01	9.63	35.45	63.19	-27.74	QP	
0.210	8.13	9.64	0.01	9.63	17.77	53.19	-35.43	Average	
0.510	18.51	9.64	0.01	9.63	28.15	56.00	-27.85	QP	
0.510	7.83	9.64	0.01	9.63	17.47	46.00	-28.53	Average	
0.600	6.43	9.64	0.01	9.63	16.08	56.00	-39.92	QP	
0.600	-6.73	9.64	0.01	9.63	2.92	46.00	-43.08	Average	
3.847	10.60	9.68	0.03	9.65	20.28	56.00	-35.72	QP	
3.847	-0.81	9.68	0.03	9.65	8.88	46.00	-37.12	Average	
12.553	15.54	9.71	0.06	9.66	25.25	60.00	-34.75	QP	
12.553	4.93	9.71	0.06	9.66	14.64	50.00	-35.36	Average	

Report No.	:6128626025801	Test Date	:2026-04-21
Operation Band	:433MHz	Temp/Humi	:21.7C/64%
Mode	:Tx	Test Engineer	:Sam Huang
Power	:120V/60Hz	Test Site	:Shielded Room A
Condition	:Neutral	Note	:



Trace: 1

Freq MHz	Read LV. dBuV	Factor dB	Cable Loss dB	LISN Factor dB	Emission LV dBuV	Limit dBuV	Margin dB	Detect QP/AV
0.160	31.94	9.64	0.01	9.63	41.58	65.48	-23.90	QP
0.160	11.78	9.64	0.01	9.63	21.42	55.48	-34.06	Average
0.190	26.53	9.64	0.01	9.63	36.17	64.02	-27.85	QP
0.190	6.06	9.64	0.01	9.63	15.70	54.02	-38.33	Average
0.500	18.18	9.64	0.01	9.63	27.82	56.00	-28.18	QP
0.500	7.75	9.64	0.01	9.63	17.39	46.00	-28.61	Average
1.741	15.50	9.66	0.02	9.64	25.16	56.00	-30.84	QP
1.741	4.83	9.66	0.02	9.64	14.49	46.00	-31.51	Average
3.923	10.80	9.68	0.03	9.65	20.48	56.00	-35.52	QP
3.923	-1.19	9.68	0.03	9.65	8.50	46.00	-37.50	Average
5.700	16.32	9.71	0.04	9.67	26.03	60.00	-33.97	QP
5.700	5.12	9.71	0.04	9.67	14.83	50.00	-35.17	Average