



RF Test Report



Report Number : 6128625069602
Applicant : Changzhou Yooksmart Innovation
Product : Wireless Remote Control
Model : ST-16-02
FCC ID : 2A9IA-ST-16-02
IC : 32635-ST1602

In accordance with
FCC rule part §15.231
ISED RSS-210

RESPONSIBLE FOR	NAME	SIGNATURE	DATE
Approved By	Jack Chang		2025.12.30
Prepared By	Ariel Hsu		2025.12.30

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	2025.12.18
2	Information update	2025.12.30

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 : Changzhou Yooksmart Innovation Co., Ltd.
Address : 1F, Building 6C, No. 8 Xihu Road Jintong Industrial Park 213000
Changzhou PEOPLE'S REPUBLIC OF CHINA
Manufacturer : Changzhou Yooksmart Innovation Co., Ltd.
Product Name : Wireless Remote Control
Model Number(s) : ST-16-02
Date of Receipt of EUT : 2025-10-16
Start of Test : 2025-11-27
Finish of Test : 2025-12-18
Test Laboratory : TÜV SÜD Asia Ltd., Taiwan Branch
Address : 7F., No. 37, Sec. 2, Zhongyang S. Rd., Beitou District, Taipei
City 11270, R.O.C. Taiwan
Test Location : TÜV SÜD Asia Ltd., Taiwan Branch, Guishan Laboratory
Address : 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

ISED CAB identifier No./ Company Number: TW2573 / 32030

1.3 Applied Standard

FCC rule part §15.231 ISED RSS-210
Deviation from standards FCC Part 15, Subpart C §15.231 RSS-210 issue 11 June 2024 RSS-Gen, Issue 5 April 2018 (Amendment 2 February 2021) ANSI C63.10-2020 + Cor.1-2023 + C63.10a-2024 + Errata to C63.10a-2024

1.4 Deviation from standards

None

1.5 List of applied test(s) of the EUT

FCC rule part §15.231 ISED RSS-210				
FCC Rules	ISED Rules	Test item	Result	Remark
§15.203		Antenna Requirement	Compliant	
§15.207	RSS-Gen § 8.8	AC Power Line Conducted Emission	Not applicable	*
§15.231(b), §15.209	RSS-210 A1.3, RSS-Gen 8.9, 8.2	Spurious Emission	Compliant	
§15.231(a)(1)	RSS-210 A1.2(a)	Periodic Operation	Compliant	
§15.231(c)	RSS-210 A1.4	Emission Bandwidth	Compliant	

* Powered by Battery

2 General EUT Information

All information in this chapter was provided by the applicant.

2.1 Variation of family model(s)

2.1.1 List of family model(s)

Not applicable

2.2 Technical Specification of EUT

Items	EUT information
Operating Frequency	433.92 MHz
Channel number	1
Field Strength of Fundamental	92.14dBuV/m @3m
Operation Voltage	3Vdc from battery
Modulation	ASK
Product Type	Manually Operation Device
Test Software Version	V2.2

Note:

1: The transmitter and receiver of the low-power radio-frequency device are sold in one set

2.3 Antenna List

Antenna Type	Brand	Model	Frequency (MHz)	Connector
PCB	N/A	N/A	433.92	Permanently attached antenna

Note:

1: The applicant provides antenna information.

2.4 Accessory of EUT

Not applicable

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

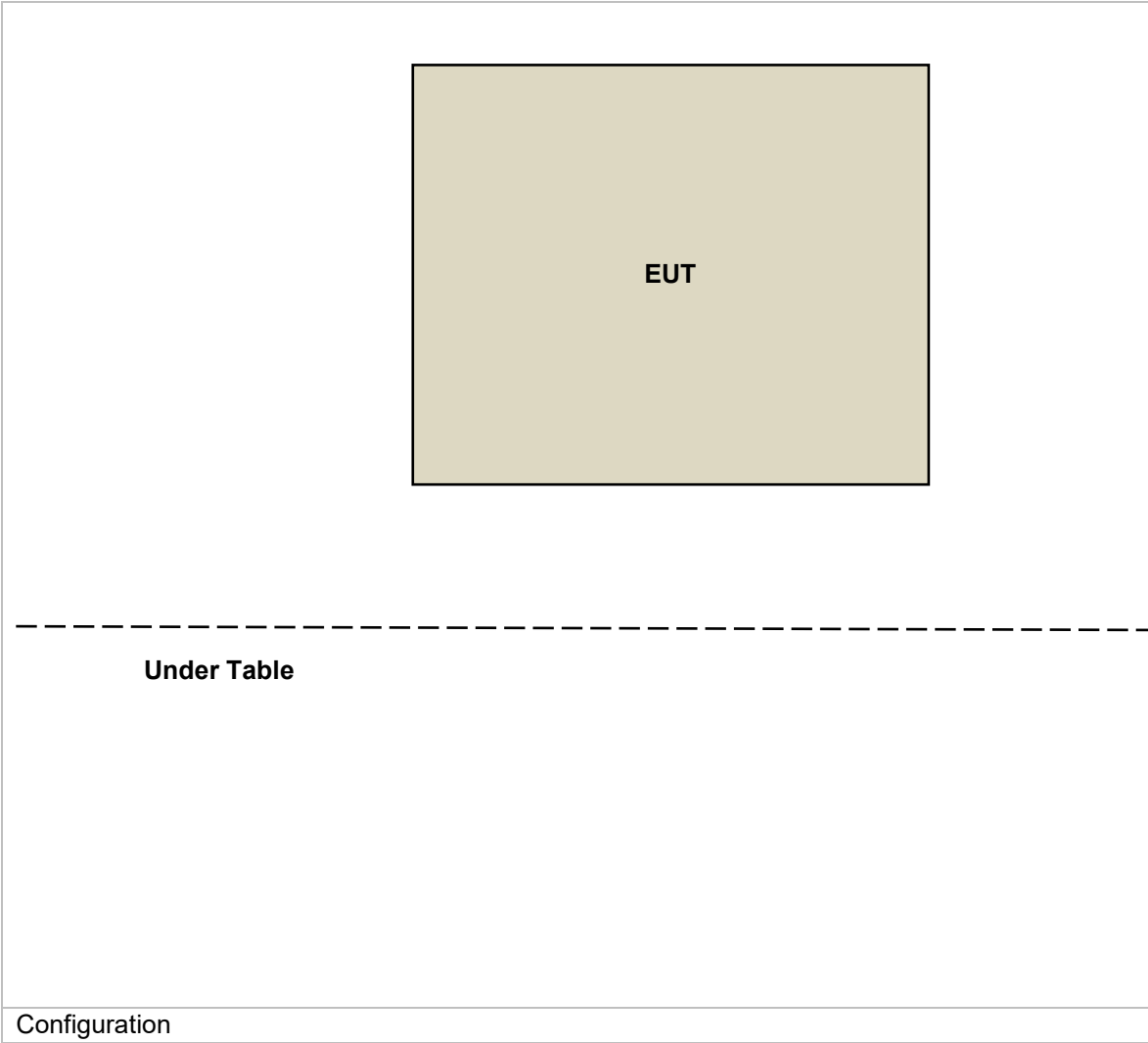
Not applicable

3.2 Cable(s) used

Not applicable



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

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 %	Sam Huang
Time for Ceasing Transmission	22-26 °C	50-68 %	Sam Huang

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 = $40 \log (\text{required distance} / \text{test distance})$ (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.

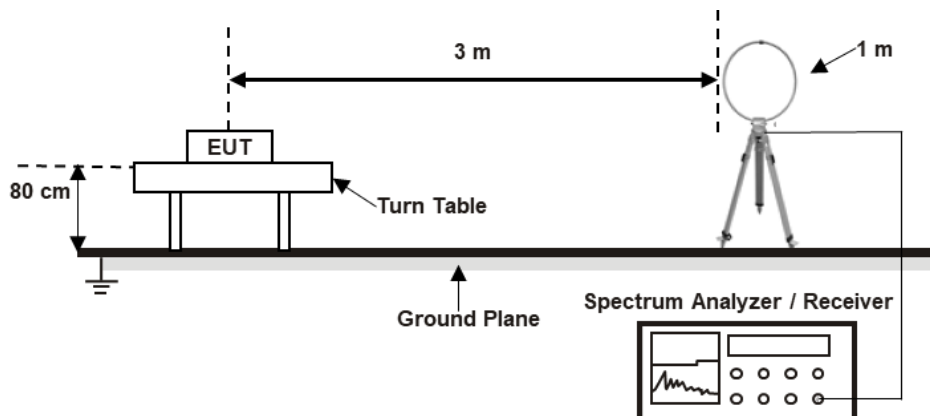
Test Results

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

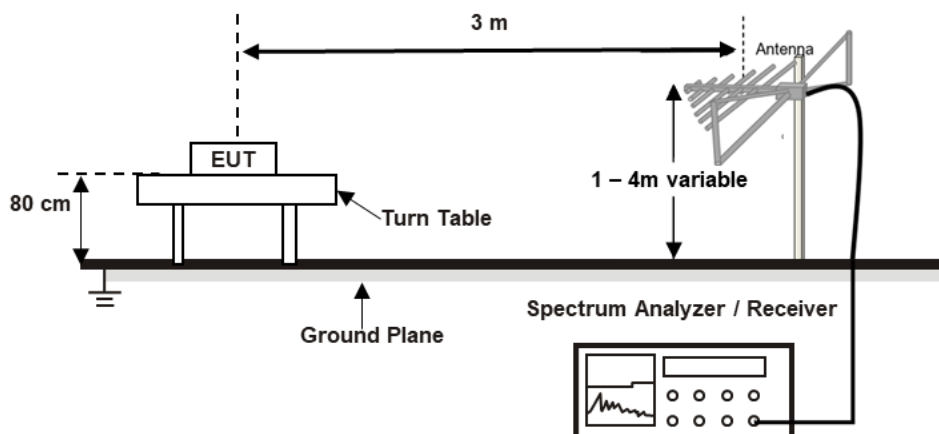
Level (dBuV/m) = Reading (dBuV) + Factor (dB/m)

5.2.3 Test Setup

<Radiated Emissions below 30 MHz>



<Radiated Emissions 30 MHz to 1 GHz>



5.2.4 Limit

15.231(b) and RSS-210 A1.2

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.
- $41.6667 \times 433.92 - 7083.3333 = 10996.68 \mu\text{V/m}$
 $20 \log(10996.681) = 80.82 \text{ dBuV/m}$ (Average limit)
 $80.82 \times 2.0 = 100.82 \text{ dBuV/m}$ (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.

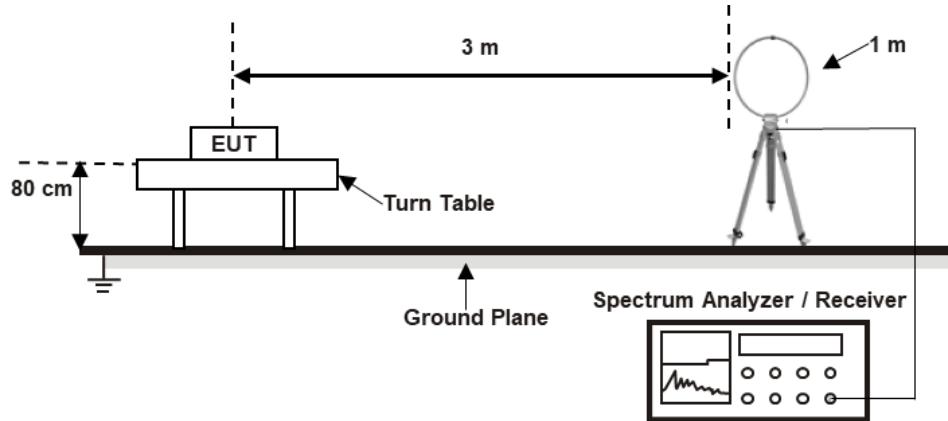
Test Results

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

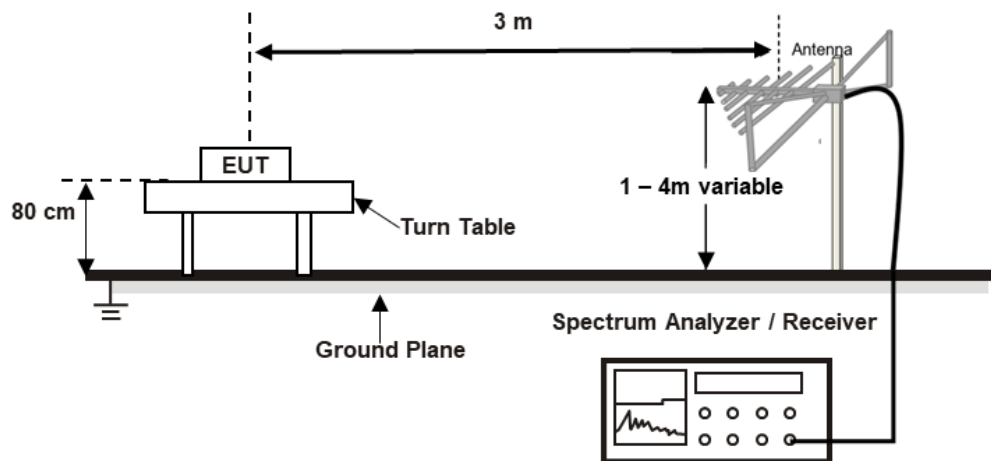
Level (dBuV/m) = Reading (dBuV) + Factor (dB/m)

5.3.2 Test Setup

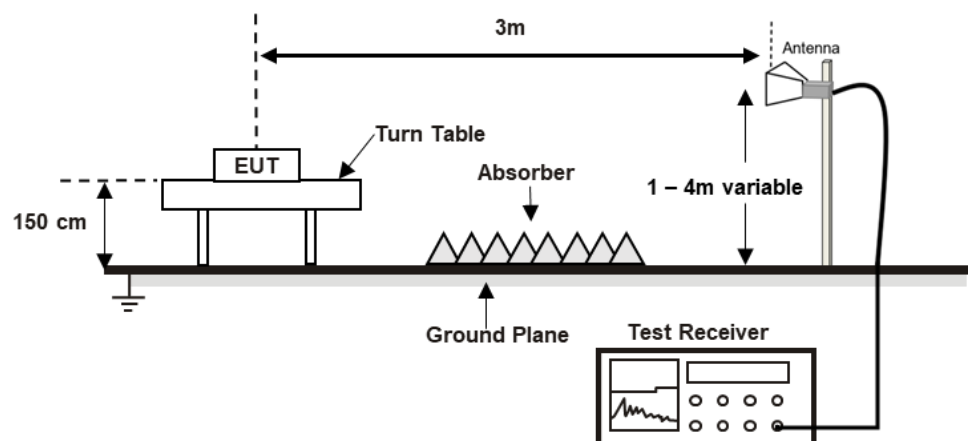
<Radiated Emissions below 30 MHz>



<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) and RSS-210 A1.2 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 and RSS-Gen §8.10
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 and RSS-Gen §8.9 Table 5 apply.
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

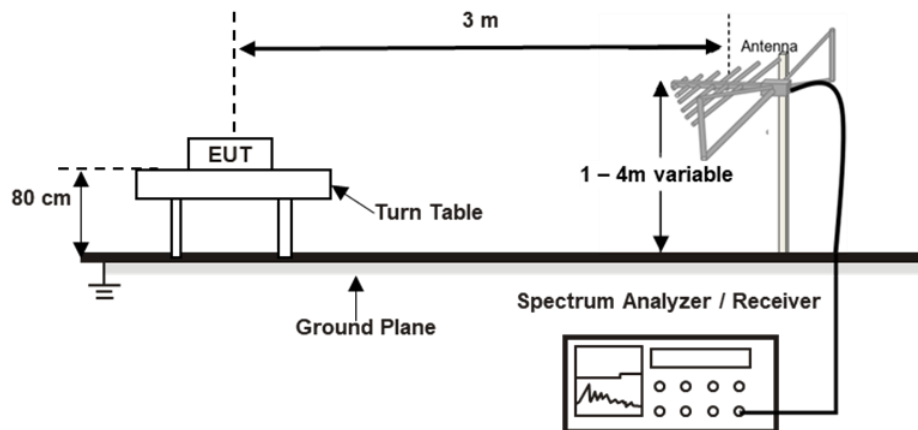
Please refer to Appendix F

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. Set SPA 99% Occupied bandwidth.(ISED)

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.

According RSS-Gen §6.7: The 99% bandwidth of momentarily operated devices shall be less or equal to 0.25% of the centre frequency for devices operating between 70 MHz and 900 MHz. For devices operating above 900 MHz, the 99% bandwidth shall be less or equal to 0.5% of the centre frequency.

5.4.4 Measurement result

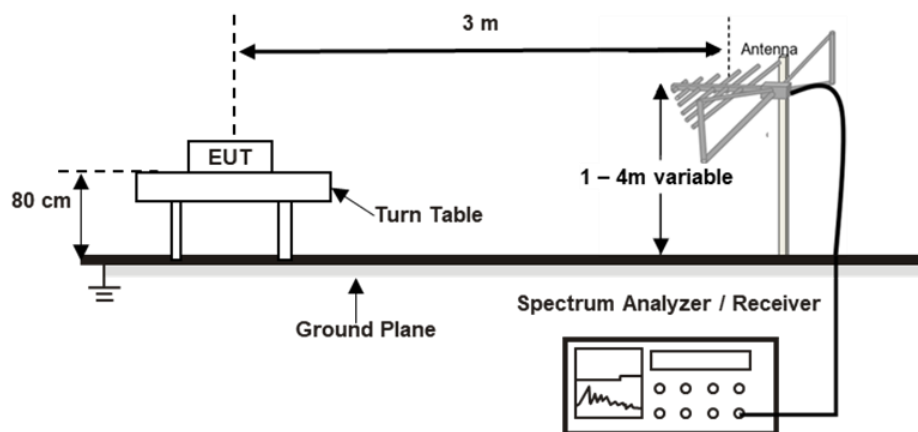
Please refer to Appendix C

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 RSS-210 Annex A.1.1 A 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

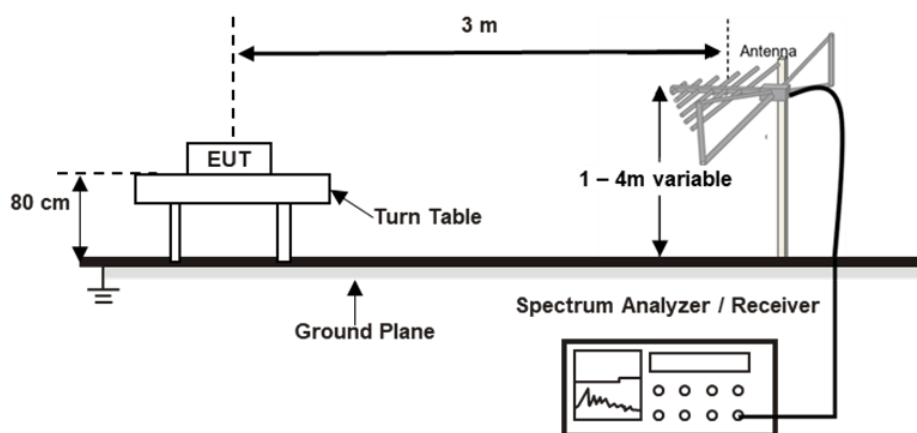
Please refer to Appendix D

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) and RSS-Gen §8.2, 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

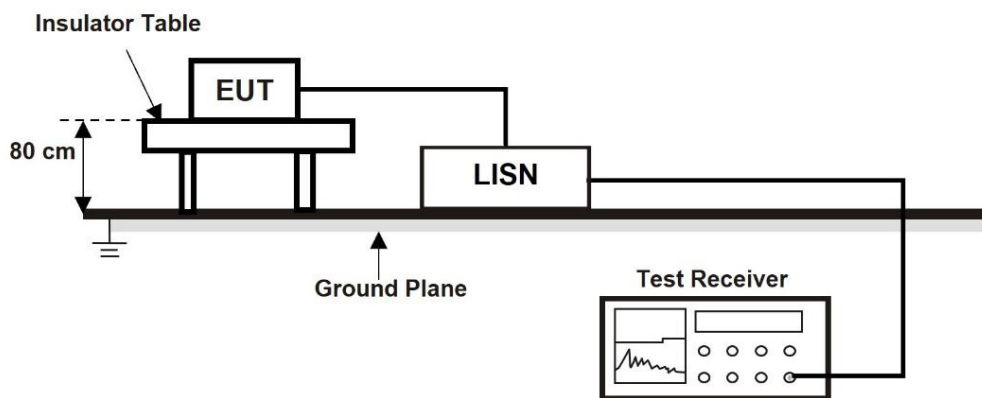
Please refer to Appendix B

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/50μH 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 and RSS-Gen §8.8, frequency within 150 kHz to 30MHz shall not exceed the limit table as below.

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

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 F

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.

Radiated Spurious Emission Measurement Uncertainty		
Frequency	Polarization	Measurement uncertainty
9kHz~30MHz	Vertical	± 2.8 dB
30MHz - 1000MHz		± 4.82 dB
1GHz - 18GHz		± 4.37 dB
18GHz - 40GHz		± 4.21 dB
9kHz~30MHz	Horizontal	± 2.8 dB
30MHz - 1000MHz		± 4.54 dB
1GHz - 18GHz		± 4.37 dB
18GHz - 40GHz		± 4.21 dB

Test Items	Measurement uncertainty
AC Power Line Conducted Emission	± 2.32 dB
Emission Bandwidth	± 1.53 Hz
Undesignable radiated emission measurement	± 1.68 dB
Temperature	± 0.7 °C
Humidity	± 3 %
DC / AC Power Source	± 1 %

7 Photographs of the Test Set-Up

Set-up for Spurious Emissions
Front View



Set-up for Spurious Emissions
Rear View



Set-up for Spurious Emissions
Front View



Set-up for Spurious Emissions
Rear View



Appendix A. Test Equipment

Test Software	Manufacturer	Model No.	Version	Remark
Test Software	Audix	e3	V9	Radiation

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

Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSV3044	101346	Jul. 29, 2025	Jul. 28, 2026
Spectrum Analyzer	R&S	ESR	102601	Jul. 09, 2025	Jul. 08, 2026
Horn(1-18G)	RF SPIN	DRH18-E	211218A18EN	Nov. 05, 2025	Nov. 04, 2026
Bi-log	Schwarzbeck&EMEC	VULB9168&EM-ATT3000-6-NN	01498	Jan. 03, 2025	Jan. 02, 2026
Preamplifier(1-18G)	SGH	SGH118-HS	20230214-5	Apr. 10, 2025	Apr. 09, 2026
Preamplifier(30M-1G)	SGH	SGH0301	20221230-1	Apr. 11, 2025	Apr. 10, 2026
Loop Antenna	TESEQ	HLA-6121	64165	Mar. 27, 2025	Mar. 26, 2026

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

Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	Keysight	N9010B	MY63440384	Jul. 11, 2025	Jul. 10, 2026

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

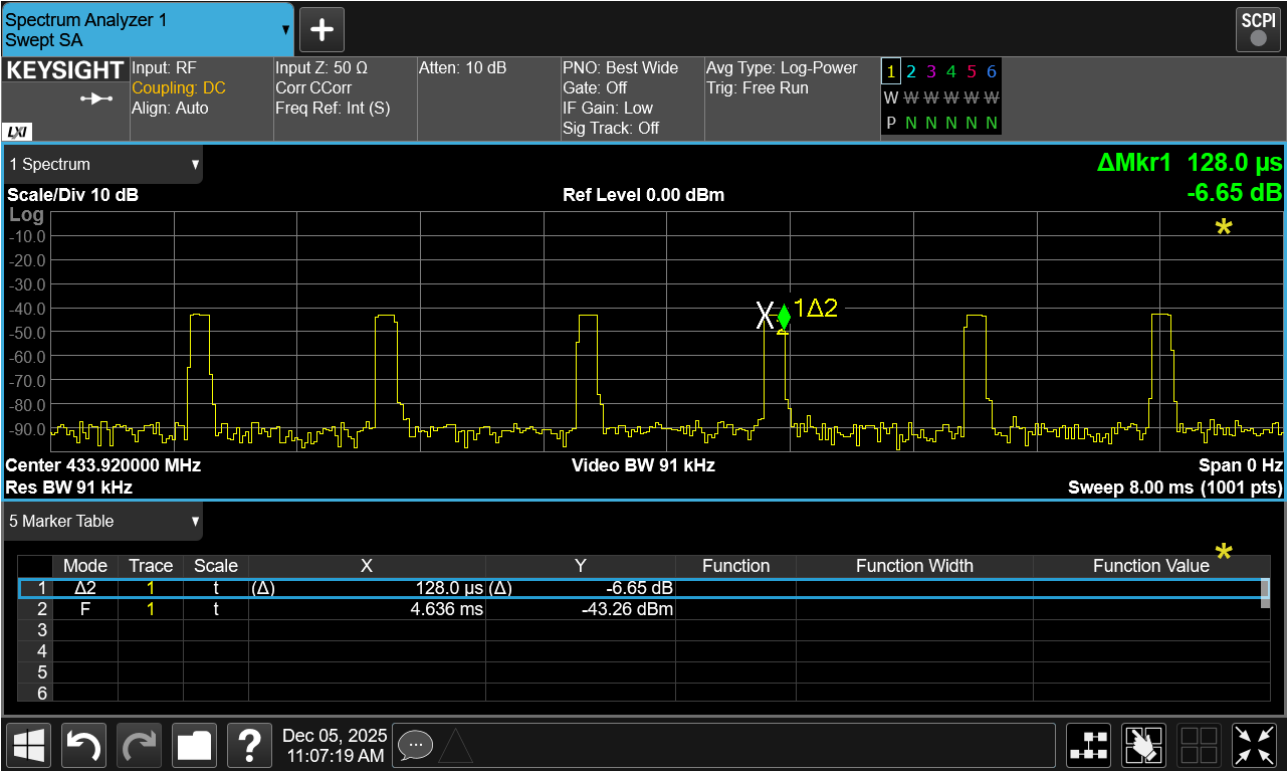
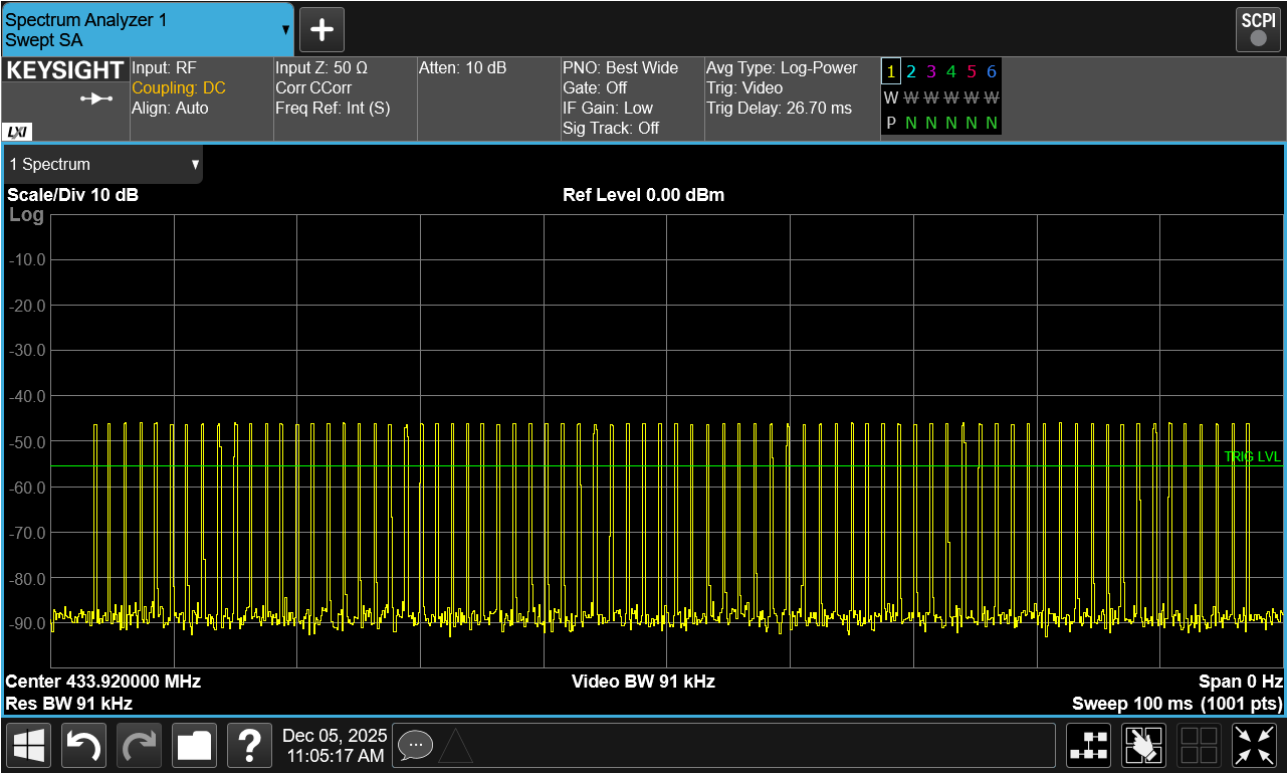


Appendix B. Duty cycle

DCCF

433.92MHz		
Duty On (ms):	9.472	Duty Cycle = Ton / (Ton + Toff)
Duty OnOff (ms):	100	

***Duty cycle = 9.472ms/100ms = 0. 09472, Duty factor = 20*log (Duty cycle) ≈ -20.47dB**
Duty on = 0.128*47=9.472ms



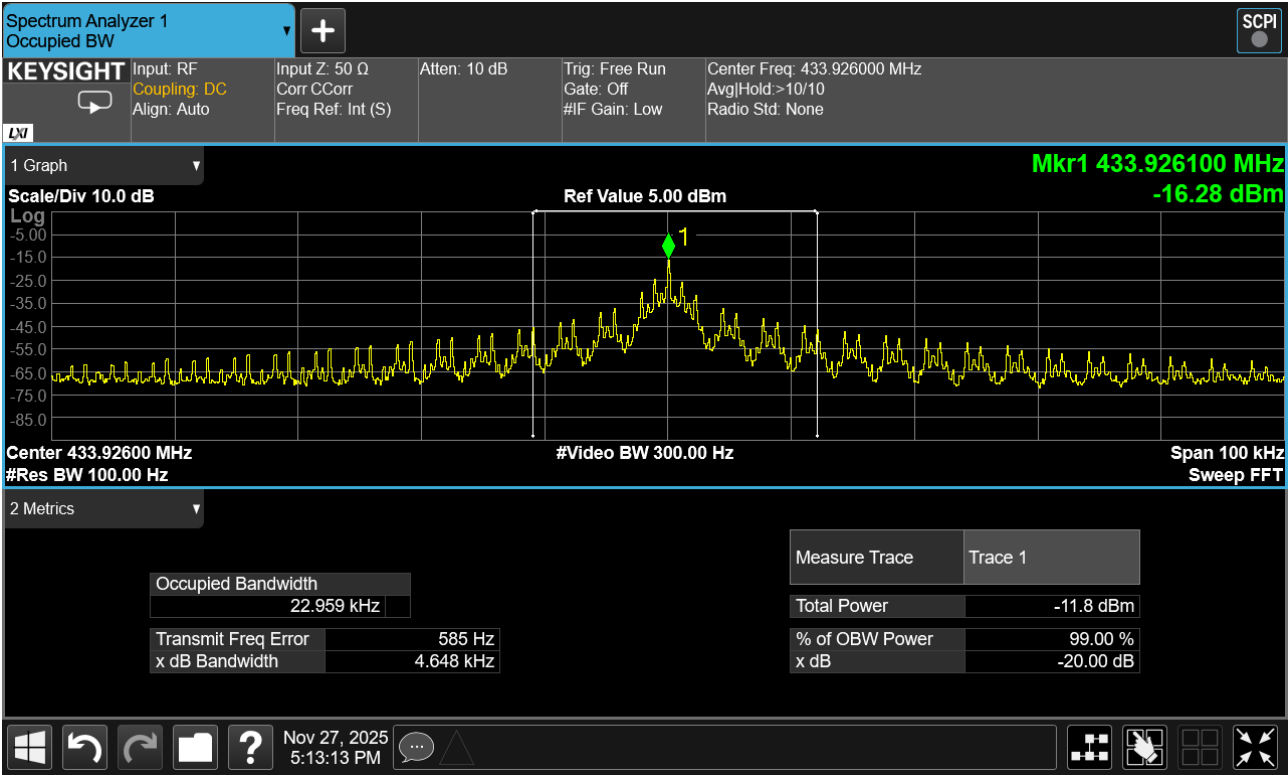


Appendix C. Emission Bandwidth

20dB Bandwidth

<433.92MHz>

Channel Frequency	20dB Bandwidth	Limit
(MHz)	(kHz)	(kHz)
433.92	4.648	1084.8

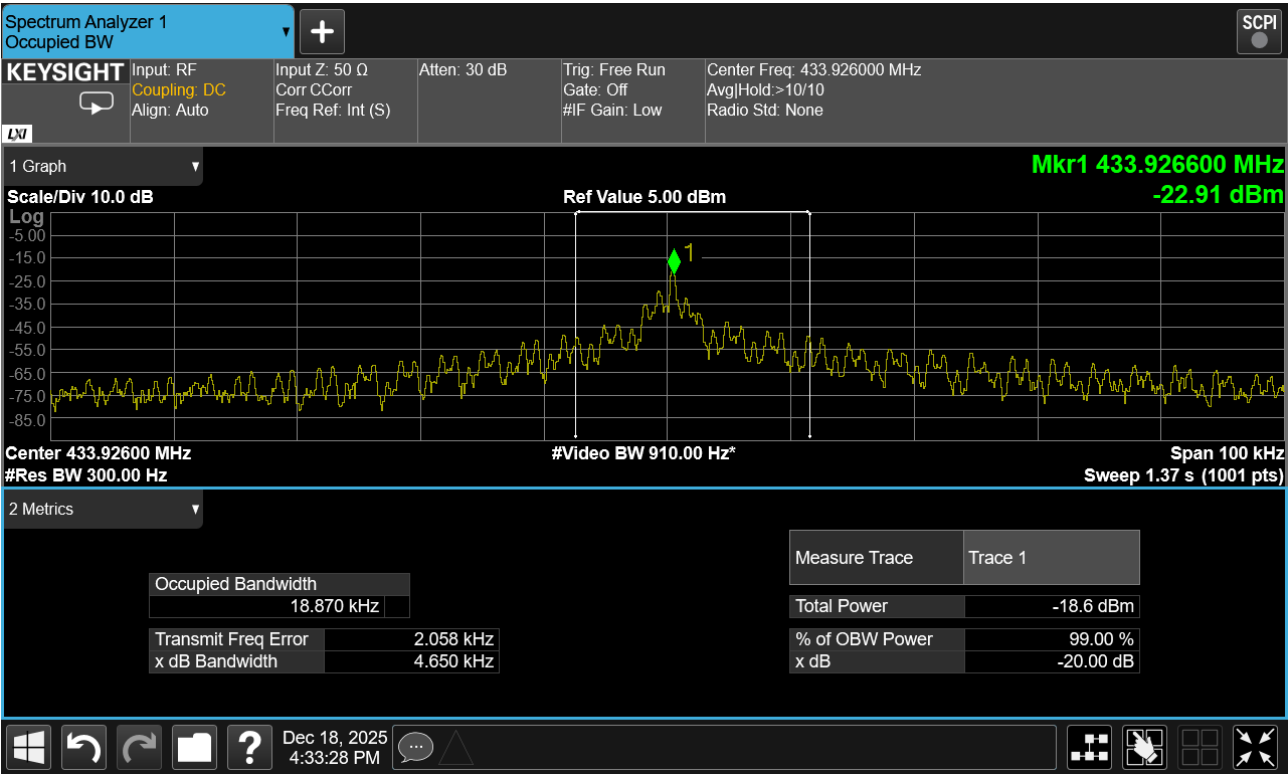




99% Bandwidth

<433.92MHz>

Channel Frequency	99% Bandwidth	Limit
(MHz)	(kHz)	(kHz)
433.92	18.870	1084.8



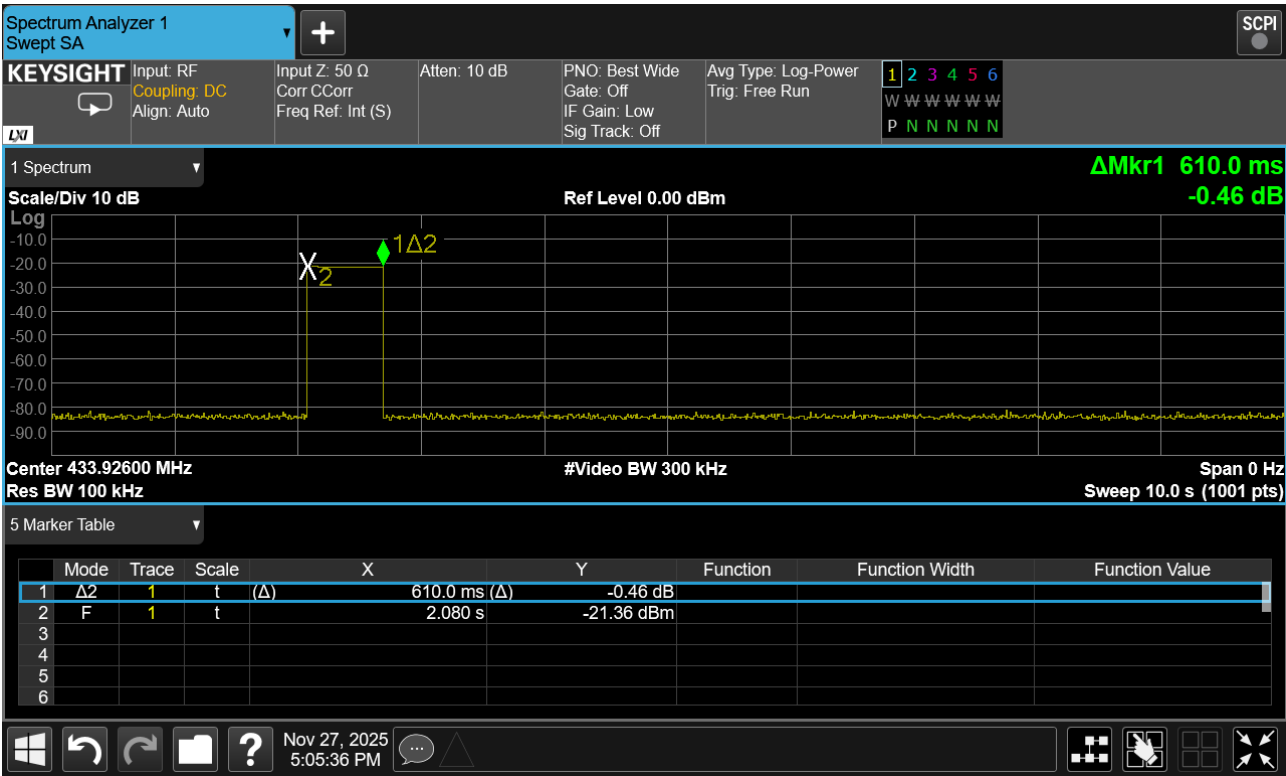


Appendix D. Time for Ceasing Transmission

發射時間

<433.92MHz>

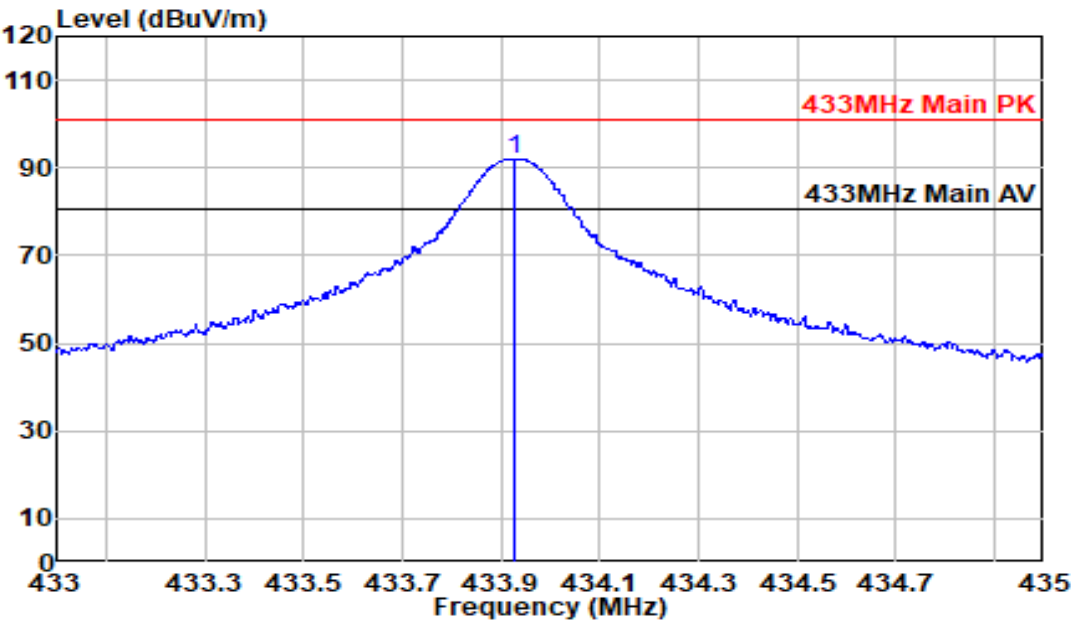
Channel Frequency	Transmission Time	Limit
(MHz)	(ms)	(ms)
433.92	610	<5000





Appendix E. Field Strength of Fundamental

Report No.	:6128625069601	Test Date	:2025-11-27
Product Name	:Wireless Remote Control	Model Name	:ST-16-02
Channel	:433.926 MHz	Temp/Humi	:22.6C/59%
Mode	:Main	Antenna Pol	:Vertical
Power Setting	:default	Test Engineer	:Sam Huang
Plane	:X Plane	Test Site	:chamber B
Note	:	Voltage	:3Vdc from battery



Freq	Read LV.	Factor	Emission LV	Limit	Margin	Detector	Apos	TPos
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	PK/QP/AV	CM	DEG
433.926	111.37	-19.23	92.14	100.82	-8.68	Peak	123	106

Average result = Peak level + Duty cycle correction factor

Freq	Emission Peke LV	DCCF	Emission LV	Limit	Margin	Apos	TPos
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	CM	DEG
433.926	92.14	-20.47	71.67	80.82	-9.15	123	106



Report No.
Product Name

Channel
Mode
Power Setting
Plane
Note

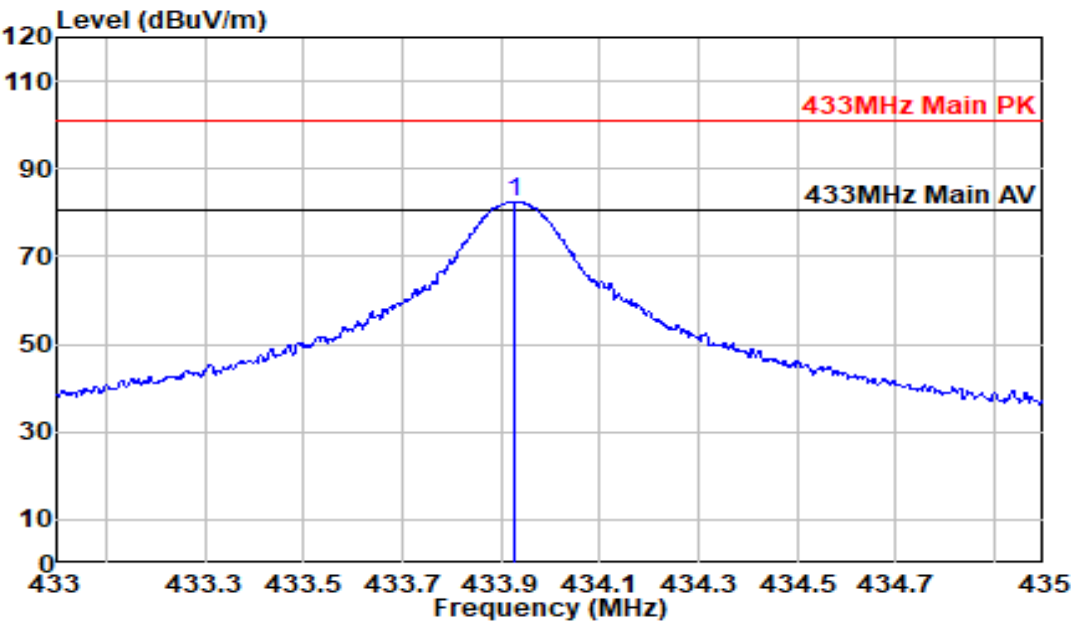
:6128625069601
:Wireless Remote
Control
:433.926 MHz
:Main
:default
:X Plane
:

Test Date
Model Name

Temp/Humi
Antenna Pol
Test Engineer
Test Site
Voltage

:2025-11-27
:ST-16-02

:22.6C/59%
:Horizontal
:Sam Huang
:chamber B
:3Vdc from battery



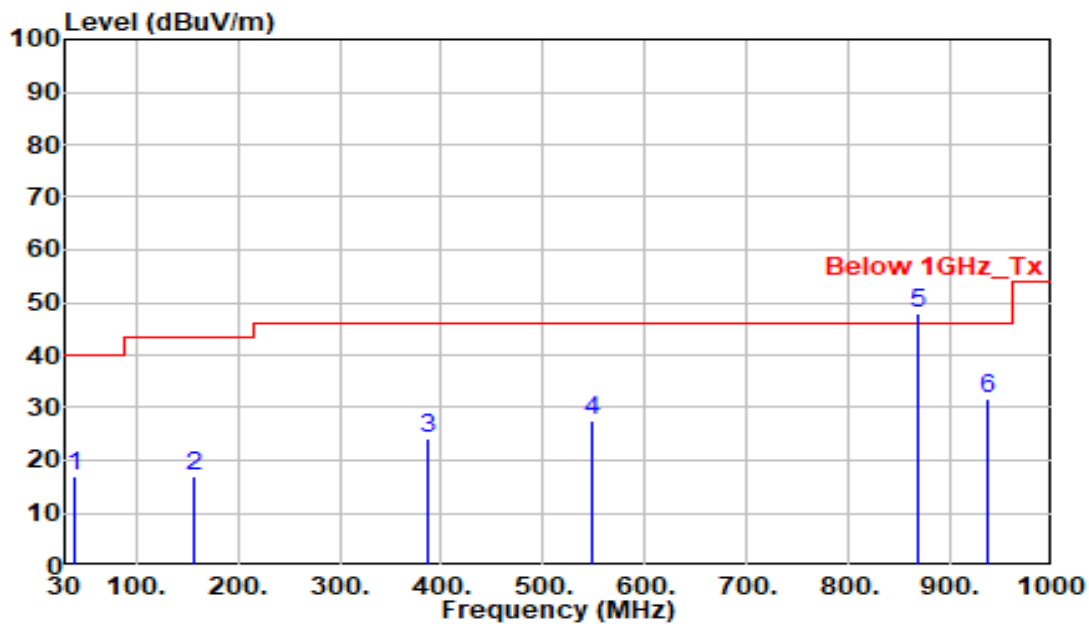
Freq	Read	Factor	Emission	Limit	Margin	Detector	Apos	TPos
MHz	LV.		LV					
	dBuV	dB/m	dBuV/m	dBuV/m	dB	PK/QP/AV	CM	DEG
433.926	101.70	-19.23	82.47	100.82	-18.35	Peak	194	345

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	82.47	-20.47	62.00	80.82	-18.82	194	345

Appendix F. Radiated Spurious Emissions

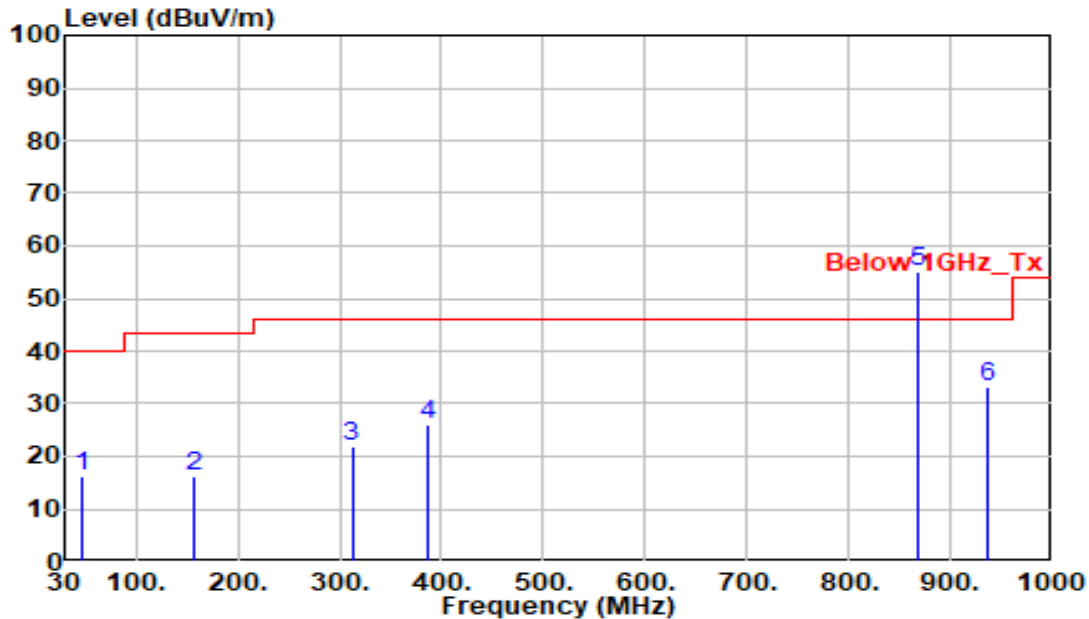
Report No.	:6128625069601	Test Date	:2025-12-08
Product Name	:Wireless Remote Control	Model Name	:ST-16-02
Channel Mode	:433.926MHz	Temp/Humi	:22.6C/59%
Power Setting	:Tx	Antenna Pol	:Vertical
Plane	:default	Test Engineer	:Sam Huang
Note	:X Plane	Test Site	:chamber B
		Voltage	:3Vdc from battery



Freq MHz	Read LV. dBUV	Factor dB/m	Emission LV dBUV/m	Limit dBUV/m	Margin dB	Detector PK/QP/AV	Apos CM	TPos DEG
40.670	41.26	-24.18	17.08	40.00	-22.92	Peak	203	167
156.100	40.57	-23.72	16.85	43.50	-26.65	Peak	283	294
387.930	44.82	-20.59	24.23	46.00	-21.77	Peak	254	6
547.010	44.69	-17.09	27.60	46.00	-18.40	Peak	249	149
*867.852	59.66	-11.59	48.07	60.82	-12.75	Peak	144	108
935.980	42.40	-10.65	31.75	46.00	-14.25	Peak	159	72

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

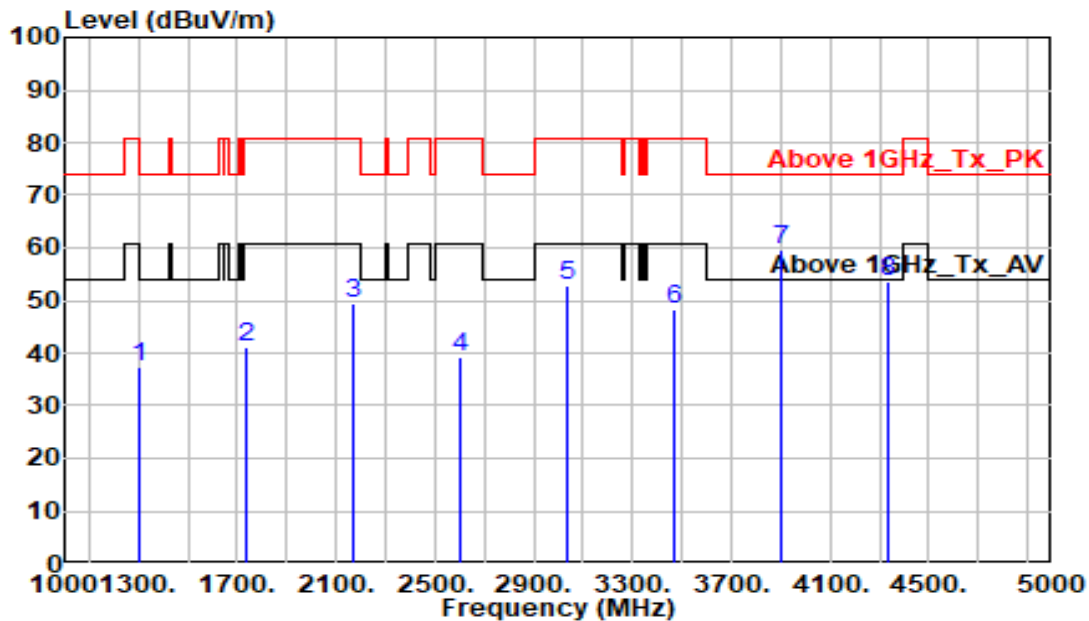
Report No.	:6128625069601	Test Date	:2025-12-08
Product Name	:Wireless Remote Control	Model Name	:ST-16-02
Channel	:433.926MHz	Temp/Humi	:22.6C/59%
Mode	:Tx	Antenna Pol	:Horizontal
Power Setting	:default	Test Engineer	:Sam Huang
Plane	:X Plane	Test Site	:chamber B
Note		Voltage	:3Vdc from battery



Freq MHz	Read LV. dBUV	Factor dB/m	Emission LV dBUV/m	Limit dBUV/m	Margin dB	Detector PK/QP/AV	Apos CM	TPos DEG
46.490	39.93	-23.71	16.22	40.00	-23.78	Peak	328	347
156.100	40.11	-23.72	16.39	43.50	-27.11	Peak	268	269
312.270	44.46	-22.61	21.85	46.00	-24.15	Peak	329	11
386.960	46.68	-20.62	26.06	46.00	-19.94	Peak	114	324
*867.852	66.82	-11.59	55.23	60.82	-5.59	Peak	117	270
935.980	43.77	-10.65	33.12	46.00	-12.88	Peak	243	161

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

Report No.	:6128625069601	Test Date	:2025-11-27
Product Name	:Wireless Remote Control	Model Name	:ST-16-02
Channel	:433.926MHz	Temp/Humi	:22.6C/59%
Mode	:Tx	Antenna Pol	:Vertical
Power Setting	:default	Test Engineer	:Sam Huang
Plane	:X Plane	Test Site	:chamber B
Note		Voltage	:3Vdc from battery

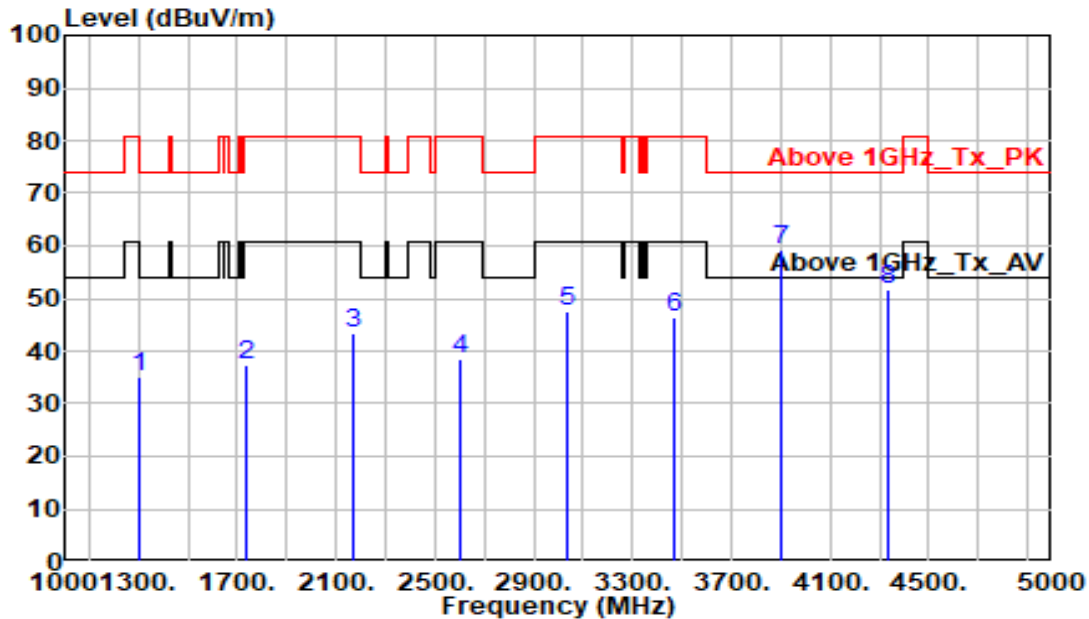


Freq	Read	Factor	Emission	Limit	Margin	Detector	Apos	TPos
MHz	LV		LV					
	dBuV	dB/m	dBuV/m	dBuV/m	dB	PK/QP/AV	CM	DEG
1301.778	52.91	-15.56	37.35	74.00	-36.65	Peak	346	360
1735.704	54.62	-13.63	40.99	80.82	-39.83	Peak	200	28
2169.630	61.48	-11.94	49.53	80.82	-31.29	Peak	200	26
2603.556	49.96	-10.78	39.18	80.82	-41.64	Peak	300	230
3037.482	61.66	-9.01	52.65	80.82	-28.17	Peak	100	193
3471.408	57.03	-8.62	48.42	80.82	-32.40	Peak	300	233
3905.334	66.31	-6.88	59.43	74.00	-14.57	Peak	300	114
4339.260	59.19	-5.68	53.51	74.00	-20.49	Peak	200	164

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
3905.334	59.43	-20.47	38.96	54.00	-15.04	300	114

Report No.	:6128625069601	Test Date	:2025-11-27
Product Name	:Wireless Remote Control	Model Name	:ST-16-02
Channel	:433.926MHz	Temp/Humi	:22.6C/59%
Mode	:Tx	Antenna Pol	:Horizontal
Power Setting	:default	Test Engineer	:Sam Huang
Plane	:X Plane	Test Site	:chamber B
Note		Voltage	:3Vdc from battery



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	50.68	-15.56	35.12	74.00	-38.88	Peak	100	254
1735.704	51.00	-13.63	37.37	80.82	-43.45	Peak	300	0
2169.630	55.44	-11.94	43.49	80.82	-37.33	Peak	100	154
2603.556	49.35	-10.78	38.57	80.82	-42.25	Peak	200	212
3037.482	56.73	-9.01	47.72	80.82	-33.10	Peak	200	312
3471.408	55.08	-8.62	46.47	80.82	-34.35	Peak	100	322
3905.334	66.29	-6.88	59.41	74.00	-14.59	Peak	400	205
4339.260	57.28	-5.68	51.60	74.00	-22.40	Peak	300	43

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
3905.334	59.41	-20.47	38.94	54.00	-15.06	400	205