Japan Test Report

Test Report
On Behalf of
Guangdong Weili Intelligent Development Co., Ltd.
For
Remote control vehicle
Model No.: 16800, 14800, 14600, 555-12, 555-13, 555-15, 555-61, 555-62, 555-63, 555-64, 555-65

Prepared For:	**Guangdong Weili Intelligent Development Co., Ltd.** **The south side of Laimei Rd. and the west side of Fengxin 2nd Rd., Fengxiang St., Chenghai Dist., Shantou, Guangdong, China**
Prepared By:	**Shenzhen HUAK Testing Technology Co., Ltd.** **1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China**
Date of Test:	**Jun. 17, 2025 ~ Jun. 30, 2025**
Date of Report:	**Jun. 30, 2025**
Report Number:	**HK2506173185-E**

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Test Result Certification

Applicant's Name	:	Guangdong Weili Intelligent Development Co., Ltd.
Address	:	The south side of Laimei Rd. and the west side of Fengxin 2nd Rd., Fengxiang St., Chenghai Dist., Shantou, Guangdong, China
Manufacturer's Name	:	Guangdong Weili Intelligent Development Co., Ltd.
Address	:	The south side of Laimei Rd. and the west side of Fengxin 2nd Rd., Fengxiang St., Chenghai Dist., Shantou, Guangdong, China

Product Description

Trade Mark	:	N/A
Product Name	:	Remote control vehicle
Model and/or Type Reference:		16800, 14800, 14600, 555-12, 555-13, 555-15, 555-61, 555-62, 555-63, 555-64, 555-65
Standards	:	Article 2 paragraph 1 item(19)

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Date of Test	:	
Date (s) of Performance of Tests	:	**Jun. 17, 2025 ~ Jun. 30, 2025**
Date of Issue	:	**Jun. 30, 2025**
Test Result	:	**Pass**

Testing Engineer Len Liao

Len Liao

Technical Manager Sliver Wan

Sliver Wan

Authorized Signatory Jason Zhou

Jason Zhou

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** Modified History **

Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	Jun. 30, 2025	Jason Zhou

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1. Summary of Test Results

Test procedures according to the technical standards:

Part	Rule Section	Description of Test	Result
4.1	Appendix No.43 of MIC Notification No 88 section 3	Frequency Error	Complies
4.3	Appendix No.43 of MIC Notification No 88 section 4	Occupied Bandwidth (99%)	Complies
4.4	Appendix No.43 of MIC Notification No 88 section 5	Unwanted Emission Intensity	Complies
4.2	Appendix No.43 of MIC Notification No 88 section 6	Antenna Power Error	Complies
4.5	Appendix No.43 of MIC Notification No 88 section 7	Limitation of Collateral Emission of Receiver	Complies
4.6	Appendix No.43 of MIC Notification No 88 section 8	Transmission Antenna Gain (EIRP Antenna Power)	N/A
4.7	Appendix No.43 of MIC Notification No 88 section 11	Transmission Radiation Angle Width (3dB Beam width)	N/A
4.8	Appendix No.43 of MIC Notification No 88 section 12	Radio Interference Prevention Capability	Complies
4.9	/	Carrier Sense Capability	N/A

NOTE:

(1) “N/A” denotes test is not applicable in this Test Report.

(2) MIC Public Notice 88:2023, annex 1 and annex 43.

(3) MIC Ordinance Regulating Radio Equipment Section 4.17 of Article 49.20.

(4) Referenced in the standard ARIB STD-T66.

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1.1 Information of the Test Laboratory

Shenzhen HUAK Testing Technology Co., Ltd.
Add.: 1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Testing Laboratory Authorization:
A2LA Accreditation Code is 4781.01.
FCC Designation Number is CN1229.
Canada IC CAB identifier is CN0045.
CNAS Registration Number is L9589.

1.2 Measurement Uncertainty

The reported uncertainty of measurement **y ±U**, where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95** %.

No.	Item	Uncertainty
1	Conducted Emission Test	±2.71dB
2	Radiated Emission Test	±3.35dB
3	RF power, conducted	±0.37dB
4	Spurious emissions, conducted	±0.11dB
5	All emissions, radiated(<1G)	±3.90dB
6	All emissions, radiated(>1G)	±4.28dB

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2. General Information

2.1 General Description of EUT

Equipment	Remote control vehicle
Model Name	16800
Series Models	14800, 14600, 555-12, 555-13, 555-15, 555-61, 555-62, 555-63, 555-64, 555-65
Model Difference	All model's the function, software and electric circuit are the same, only with product model named different. Test sample model: 16800.
Trade Mark	N/A
Antenna Type	Internal Antenna
Antenna Gain	0.17dBi
Operation Frequency	2410-2470MHz
Number of Channels	61CH
Modulation Type	GFSK
Power Source	DC6V From Battery
Power Rating	DC6V From Battery
Firmware Version	1.01
Hardware Version	1.01

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. Antenna gain Refer to the antenna specifications.
3. The cable loss data is obtained from the supplier.
4. The test results in the report only apply to the tested sample.
5. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	N/A	Internal Antenna	N/A	0.17	

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2.2 Operation Frequency of Channel

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2410	22	2431	43	2452
2	2411	23	2432	44	2453
3	2412	24	2433	45	2454
4	2413	25	2434	46	2455
5	2414	26	2435	47	2456
6	2415	27	2436	48	2457
7	2416	28	2437	49	2458
8	2417	29	2438	50	2459
9	2418	30	2439	51	2460
10	2419	31	2440	52	2461
11	2420	32	2441	53	2462
12	2421	33	2442	54	2463
13	2422	34	2443	55	2464
14	2423	35	2444	56	2465
15	2424	36	2445	57	2466
16	2425	37	2446	58	2467
17	2426	38	2447	59	2468
18	2427	39	2448	60	2469
19	2428	40	2449	61	2470
20	2429	41	2450	/	/
21	2430	42	2451	/	/

2.2 Description of Test Modes

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	CH01:2410MHz
Mode 2	CH31:2440MHz
Mode 3	CH61:2470MHz

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2.3 Test Conditions

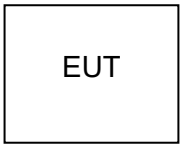
The module was tested while in a continuous transmitter/receiver mode.
The EUT was tuned to a low, middle, and high channel for all tests. For all test case pre/scans were completed in all Modes to determine worst case levels.

Power Supply Voltage Fluctuation Test

Voltage Mode	Input Voltage	Radio Unit Voltage
Battery Input	DC 5.4V	3.31V
	DC 6.0V	3.30V
	DC 6.6V	3.30V
Note: 1 The radio unit Voltage with the module regulator IC regulator. 2 The radio unit less than 1%, so the test only rated voltage (Normal voltage) with the DC power.		

During the input supply voltage to the EUT from the external power source is varied by +/- 10%, if output voltage had been confirmed that the fluctuation of power supply to the RF circuit of EUT (excluding power source) is equal to or less than +/-1%. Exempt extremely high and low supply voltage condition test, EUT only operated in normal voltage to test all regulations.

2.4 Block Digram Showing the Configuration of System Tested



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2.5 Description of Support Units (Conducted Mode)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Trade Mark	Model/Type No.	Specification	Note
1	Remote control vehicle	N/A	16800	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note

Note:

(1) The support equipment was authorized by Declaration of Confirmation.

(2) For detachable type I/O cable should be specified the length in cm in『Length』column.

(3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.

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2.6 Equipments List for All Test Items

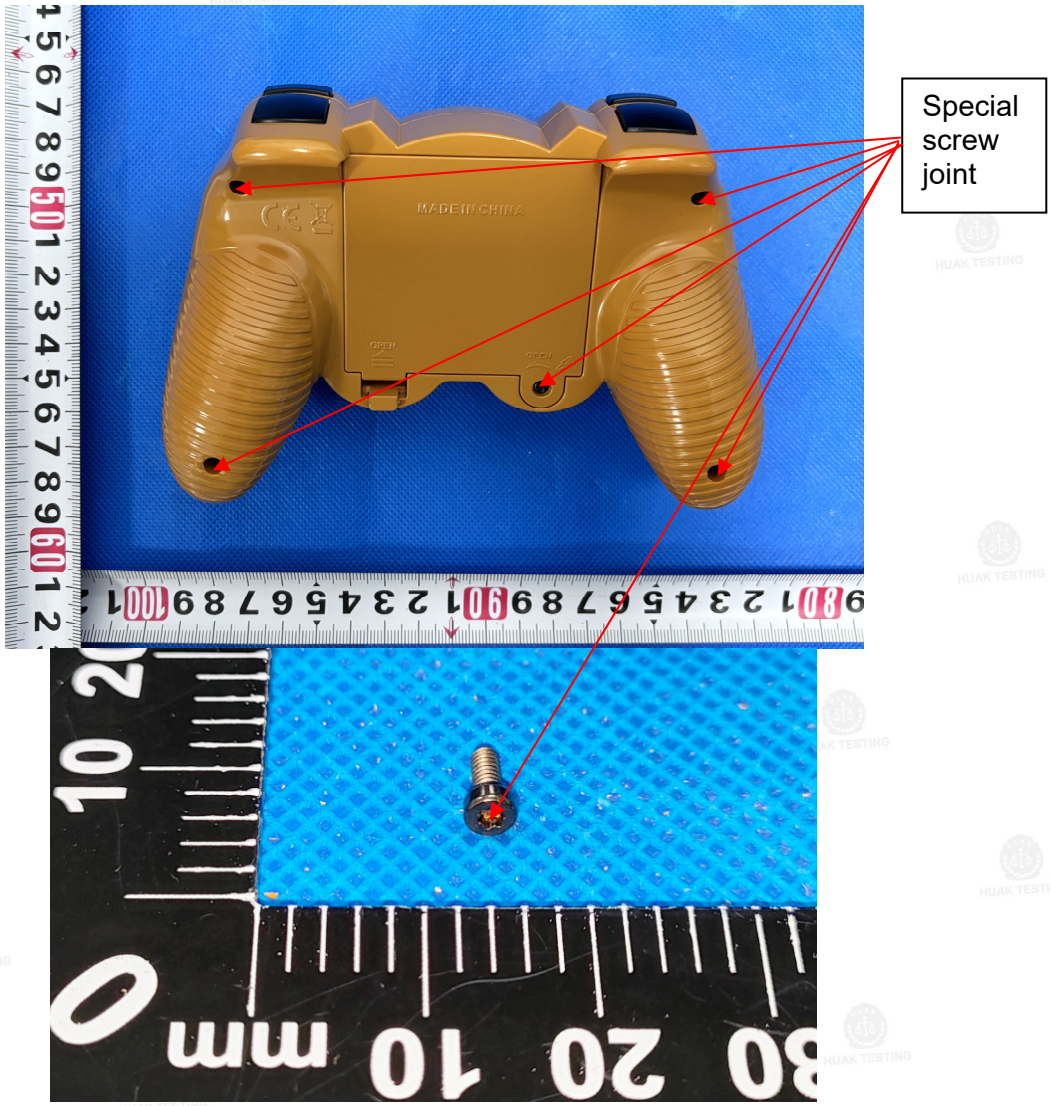
Item	Equipment	Manufacturer	Calibration Institution	Model No.	Serial No.	Equipment Number	Last Cal.	Cal. Interval
1	Spectrum analyzer	Agilent	Guangzhou LiSai Metrology & Test Co. ,Ltd.	N9020A	101431	HKE-025	2025/02/19	1 Year
2	Spectrum analyzer	R&S	Guangzhou LiSai Metrology & Test Co. ,Ltd.	FSV3044	25984	HKE-126	2025/02/19	1 Year
3	RF Automatic control unit	Tonscend	Guangzhou LiSai Metrology & Test Co. ,Ltd.	JS0806-2	71557	HKE-060	2025/02/19	1 Year
4	High pass filter unit	Tonscend	Guangzhou LiSai Metrology & Test Co. ,Ltd.	JS0806-F	17155	HKE-055	2025/02/19	1 Year
5	Wireless Communication Test Set	R&S	Guangzhou LiSai Metrology & Test Co. ,Ltd.	CMU200	105255	HKE-026	2025/02/19	1 Year
6	Wireless Communication Test Set	R&S	Guangzhou LiSai Metrology & Test Co. ,Ltd.	CMW500	103974	HKE-027	2025/02/19	1 Year
7	RF Test Software	Tonscend	/	JS1120-3 Version 3.5.39	/	HKE-083	/	/

Note: The calibration agency listed on the table corresponds to item ii c) of Article 24-2 paragraph 4.

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3. RF Shielding Method

Our products apply for Japanese radio frequency(rf) certification. Using special screw joint, it is not easy to open it.



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4. Test Result

4.1 Frequency Error

4.1.1 Limit

Item	Limits
Frequency Error	+/-50ppm

4.1.2 Measuring Instruments and Setting

The following table is the setting of Spectrum Analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
RB / VB	10KHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.1.3 Test Procedures

(1)In the case of un-modulated signal (continuous or continuous burst), measure the frequency directly by a spectrum analyzer.

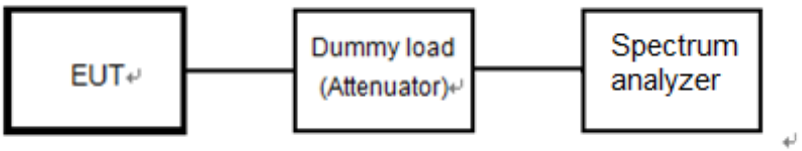
(2)In the case of burst waves, the measurement shall be done for enough time in order to obtain the enough measuring accuracy, and the average of the measured values becomes the final value.

(3)In the case of a test mode with a specific frequency spectrum, measure the frequency of the specific spectrum by a spectrum analyzer.

(4)In the cases above, if the frequency equivalent to the test frequency is not directly measured in principle, it shall be obtained by necessary calculation.

In the case of modulated signal, if there is no specific spectrum measurable by a spectrum analyzer but a specific dip is observed, it is allowed to measure the frequency with the signal generator (synthesized). That is, observe a signal of the signal generator concurrently (or alternately) with the tested signal using the spectrum analyzer while setting the frequency of the signal generator to the position of the dip on the screen of the spectrum analyzer, and determine the frequency of the signal generator at the time as a measured value.

4.1.4 Test Setup Layout



4.1.5 EUT Operation during Test

The EUT was placed on the test table and programmed in un-modulation function.

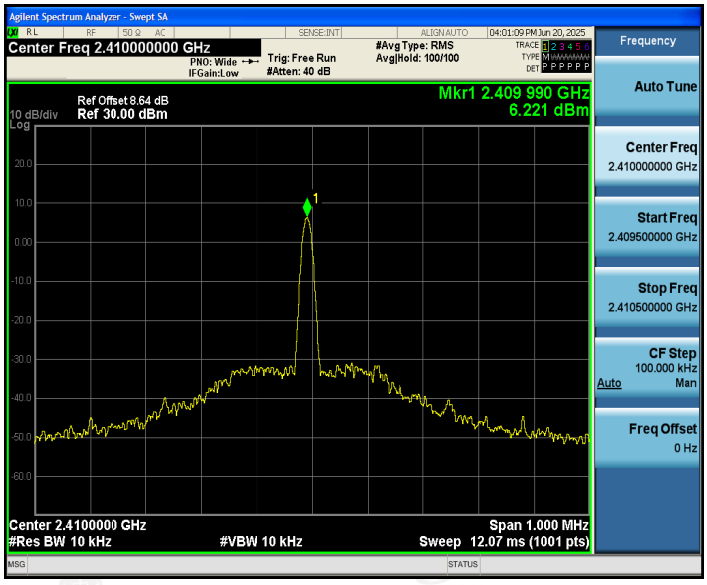
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4.1.6 Test Result

EUT:	Remote control vehicle	Test Date:	Jun. 20, 2025
Temperature:	25^{0}C	Tested by:	Len Liao
Humidity:	55 % RH	Test Voltage	Normal Voltage
Operation Mode:	Normal Voltage- Carrier Tx Mode		

Mode	CH	Measured	Tolerance	Result	Limit
		MHz	MHz	ppm	ppm
Carrier	CH01:2410MHz	2409.99	-0.01	-4.14938	+/-50
	CH31:2440MHz	2439.99	-0.01	-4.09836	+/-50
	CH61:2470MHz	2469.99	-0.01	-4.04858	+/-50
Conclusion : PASS					

CH01:2410MHz:

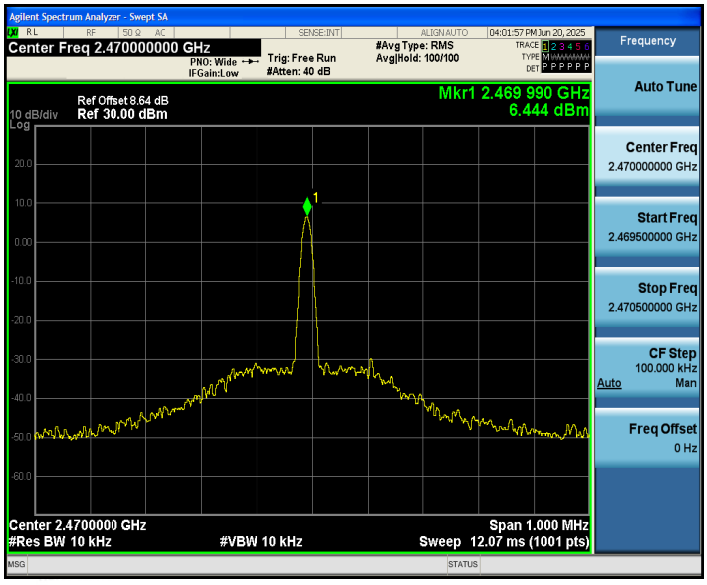


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CH31:2440MHz:



CH61:2470MHz:



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4.2 Antenna Power

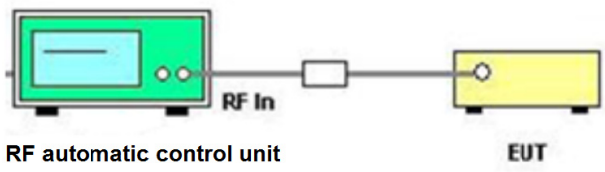
4.2.1 Limit

Item	Limits
Antenna Power Density	≦3mW/MHz (FH form 2427 - 2470.75 MHz) ≦10mW/MHz (OFDM,DS from2400~2483.5MHz) ≦10mW (Other from 2400~2483.5MHz)
Antenna Power Error	+20% (Base on manufacturer declare antenna power density)

4.2.2 Measuring Instruments and Setting

1. The EUT was placed on a table which is 0.8m above ground plane.
2. The EUT was directly connected to the RF automatic control unit.

4.2.3 Test Setup Layout



4.2.4 EST Deviation

There is no deviation with the original standard.

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4.2.5 Test Result

EUT:	Remote control vehicle	Test Date:	Jun. 20, 2025
Temperature:	25℃	Tested by:	Len Liao
Humidity:	55 % RH	Test Voltage	Normal Voltage
Operation Mode:	Normal Voltage		

Test Frequency	Antenna Power (dBm)	Result (mW)	Limit (mW)
2410MHz	6.02	3.9994	10
2440MHz	6.10	4.0738	10
2470MHz	6.34	4.3053	10

Test Frequency	Conducted RF output power density (mW)	Rated power density (mW)	Antenna Power Error (%)
2410MHz	3.9994	9	-55.56
2440MHz	4.0738	9	-54.74
2470MHz	4.3053	9	-52.16
Limit : +20% (Base on manufacturer declare antenna power density)			

Test Frequency	Antenna Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)
2410MHz	6.02	0.17	6.19	12.14
2440MHz	6.10	0.17	6.27	12.14
2470MHz	6.34	0.17	6.51	12.14

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4.3 Occupied Bandwidth

4.3.1 Limit

Item	Limits
Occupied Band Width:	FH 83.5MHz; OFDM,DS ≦26MHz; Others≦26MHz

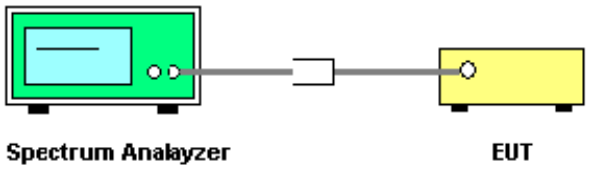
4.3.2 Measuring Instruments and Setting

Spectrum Parameter	Setting
Attenuation	Auto
RB / VB	300kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.3.3 Test Procedures

1. Setting of SA is following as: RB: 300kHz / VB: 300kHz / SPAN: 4MHz / AT: 40dB Ref: 30dBm / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold.
2. EUT have transmitted the maximum modulation signal and fixed channelize (For DSSS or OFDM Device) or continuous maximum power of hopping mode (For FHSS Device).
   SA set to 99% of occupied bandwidth to measure occupied bandwidth. The limit is less than 26MHz (For DSSS or OFDM Device) or 83.5MHz (For FHSS Device).

4.3.4 Test Setup Layout



4.3.5 Test Deviation

There is no deviation with the original standard.

4.3.6 EUT Operation during Test

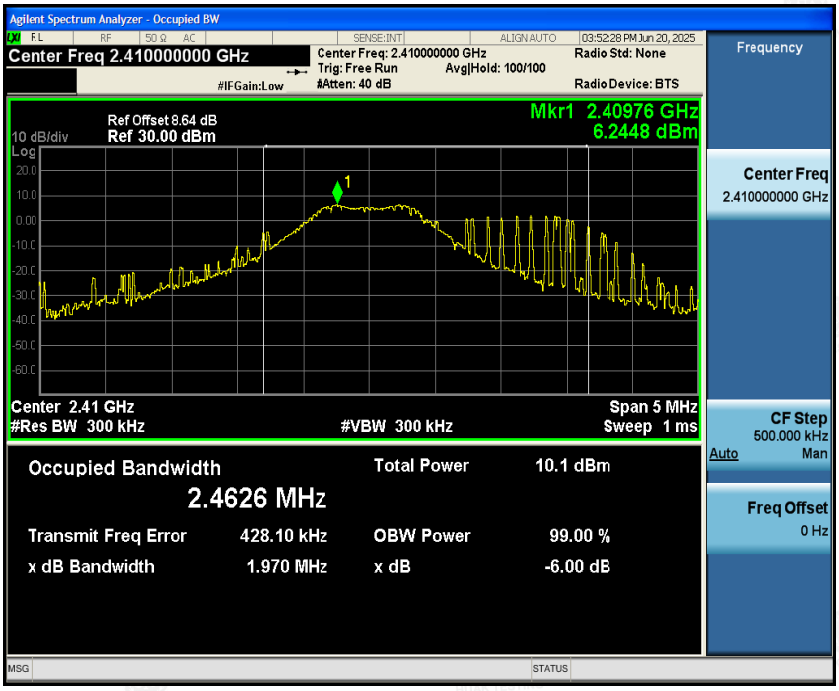
The EUT was programmed to be in continuously transmitting mode.

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4.3.7 Test Result

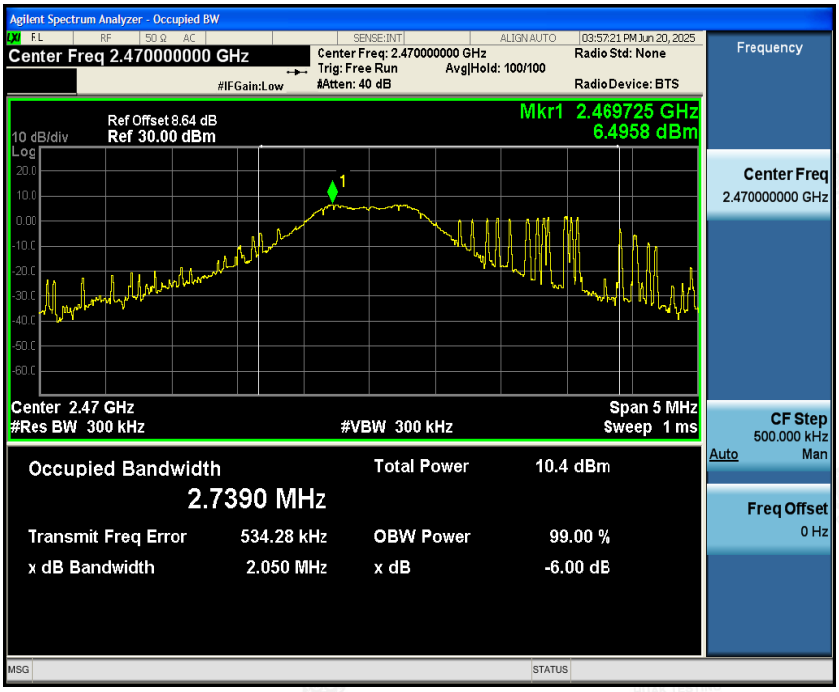
EUT:	Remote control vehicle	Test Date:	Jun. 20, 2025
Temperature:	25^{0}C	Tested by:	Len Liao
Humidity:	55 % RH	Test Voltage	Normal Voltage
Operation Mode:	Normal Voltage		

Test Voltage	Test Frequency (MHz)	Occupied Bandwidth (MHz)
Normal Voltage	2410	2.463
	2440	2.667
	2470	2.739



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4.4 Unwanted Emission Intensity Measurement

4.4.1 Limit

Item	Limits
TX Spurious Emission	≦2.5 μW (30MHz≦f≦1000MHz)
	≦2.5 μW(1000MHz<f≦2387MHz)
	≦25 μW (2387MHz<f≦2400MHz)
	≦25 μW(2483.5MHz≦f<2496.5MHz)
	≦2.5 μW (2496.5MHz≦f<12500MHz)

4.4.2. Measuring Instruments and Setting

Please refer to section 5 in this report. The following table is the setting of Spectrum Analyzer.

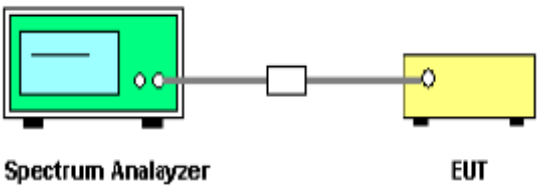
Spectrum Parameter	Setting
Attenuation	Auto
RB / VB	1 MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.4.3. Test Procedures

1. EUT have transmitted the maximum modulation signal and fixed channelize.
2. Setting of SA is following as: Below 1GHz RB:1MHz / VB:1MHz
   Above 1GHz RB:1MHz / VB:1MHz / AT: Auto Ref: Auto / Sweep time: Auto
   Sweep Mode: Continuous sweep / Detect mode: Positive peak
   Trace mode: Max hold
3. Setting of SA is following as 30MHz and stop frequency 1000MHz Then to mark peak reading value + cable loss shall be less than 0.25μW.
4. Setting of SA is following as 1000MHz and stop frequency 2387MHz Then to mark peak reading value + cable loss shall be less than 2.5μW.
5. SA adjusted to start frequency 2387MHz and stop frequency 2400MHz. Then to mark peak reading value + cable loss shall be less than 25μW.
6. SA adjusted to start frequency 2483.5MHz and stop frequency 2496.5MHz Then to mark peak reading value + cable loss shall be less than 25μW
7. SA adjusted to start frequency 2496.5MHz and stop frequency 12500MHz Then to mark peak reading value + cable loss shall be less than 2.5μW
8. Measure side band spurious as follows: For 2.4GHz band: 2374MHz~2400MHz and 2483.5MHz~2509.5MHz RBW = VBW = 30kHz, Result_Value = Meaured_ Value + 15.2 [dBm]
9. If the Result_Value is over the requirement, take total sum of 1MHz band centered at the spur frequency like ACLP measurement as Result_Value.

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4.4.4. Test Setup Layout



4.4.5. Test Deviation

There is no deviation with the original standard.

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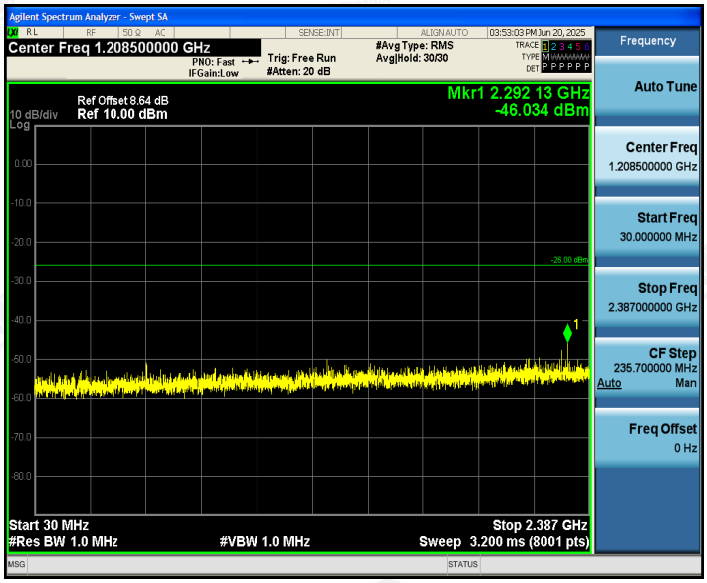
4.4.6. Test Result

EUT:	Remote control vehicle	Test Date:	Jun. 20, 2025
Temperature:	25^{0}C	Tested by:	Len Liao
Humidity:	55 % RH	Test Voltage	Normal Voltage
Operation Mode:	Normal Voltage		

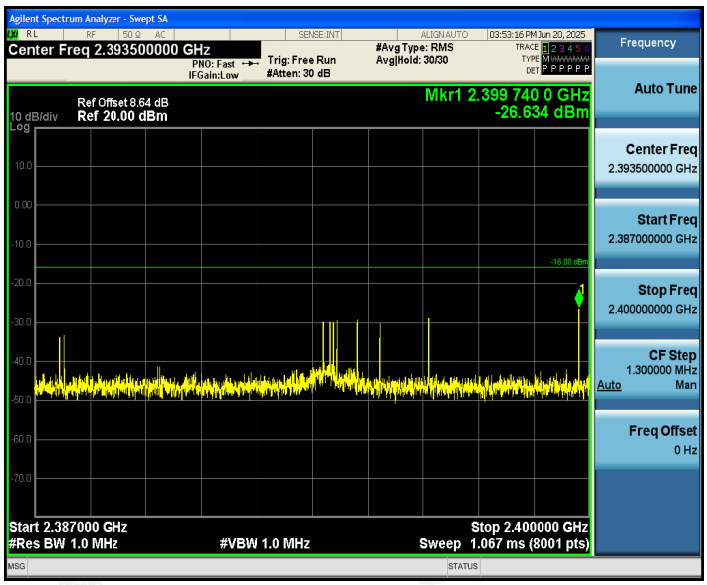
Test Channel	StartFre[MHz]	StopFre[MHz]	Mkr Fre[MHz]	Max.Level [dBm]	Max.Level[μW]	Limit[μW]	Verdict
2410	30	2387	2292.13	-46.03	0.0249	<2.5	PASS
2410	2387	2400	2399.74	-26.63	2.1727	<25	PASS
2410	2483.5	2496.5	2486.81	-40.47	0.0897	<25	PASS
2410	2496.5	13000	7229.61	-39.77	0.1054	<2.5	PASS
2440	30	2387	2371.68	-43.47	0.0450	<2.5	PASS
2440	2387	2400	2397.67	-37.44	0.1803	<25	PASS
2440	2483.5	2496.5	2483.73	-37.76	0.1675	<25	PASS
2440	2496.5	13000	7319.42	-36.65	0.2163	<2.5	PASS
2470	30	2387	2360.78	-46.15	0.0243	<2.5	PASS
2470	2387	2400	2394.30	-40.50	0.0891	<25	PASS
2470	2483.5	2496.5	2484.27	-30.31	0.9311	<25	PASS
2470	2496.5	13000	7410.81	-34.06	0.3926	<2.5	PASS

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CH 01:2410MHz - Frequency Band 1 (30 MHz ≦ f ≦2387 MHz)

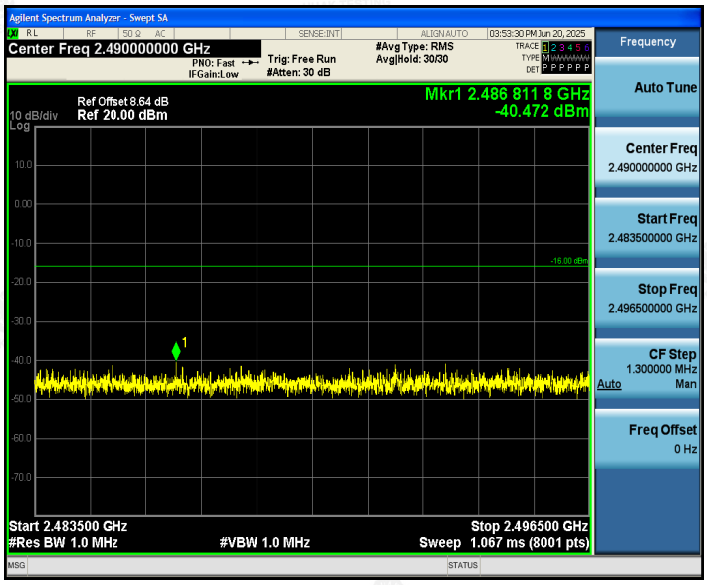


CH 01:2410MHz - Frequency Band 3 (2387 MHz < f ≦ 2400 MHz)

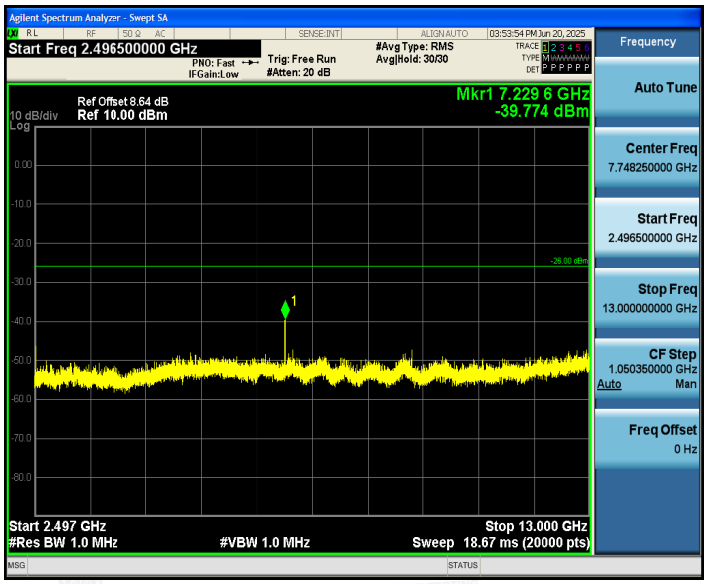


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CH 01:2410MHz - Frequency Band 4 (2483.5 MHz ≦ f < 2496.5 MHz)

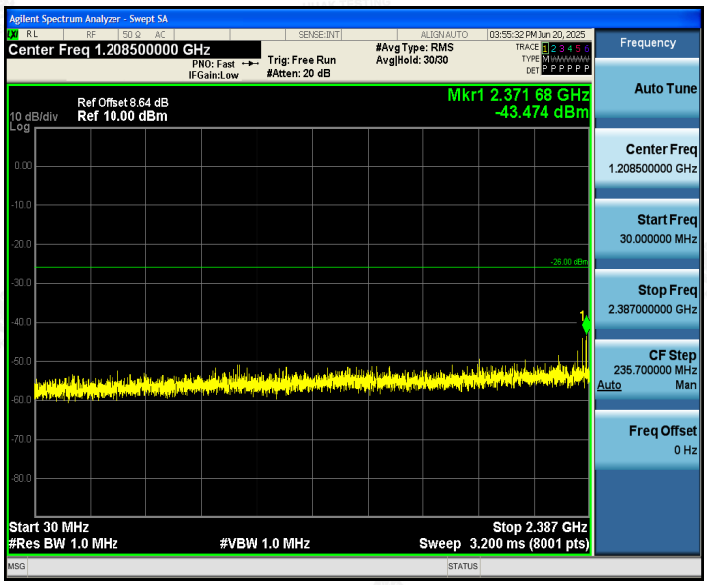


CH 01:2410MHz - Frequency Band 5 (2496.5 MHz ≦ f < 13 GHz)

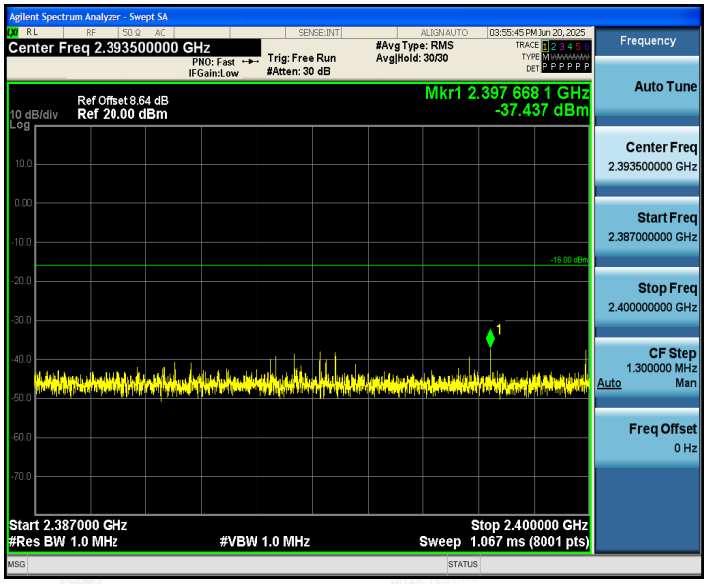


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CH 31:2440MHz - Frequency Band 1 (30 MHz ≦ f ≦2387 MHz)

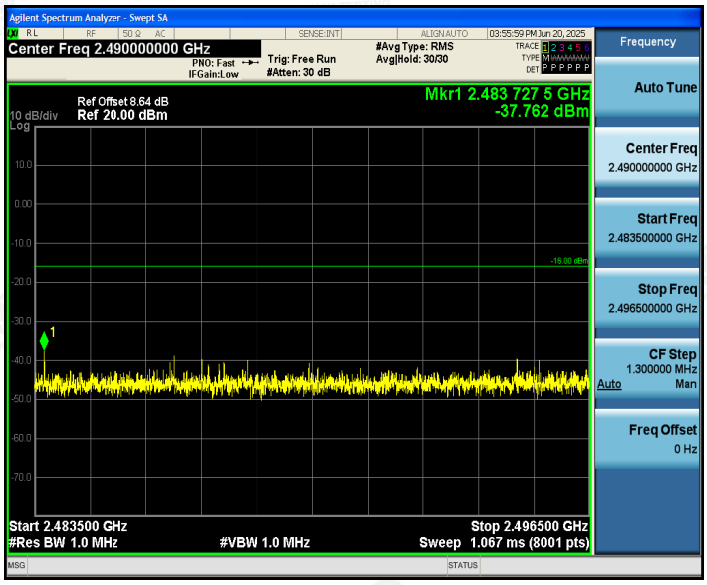


CH 31:2440MHz - Frequency Band 3 (2387 MHz < f ≦ 2400 MHz)

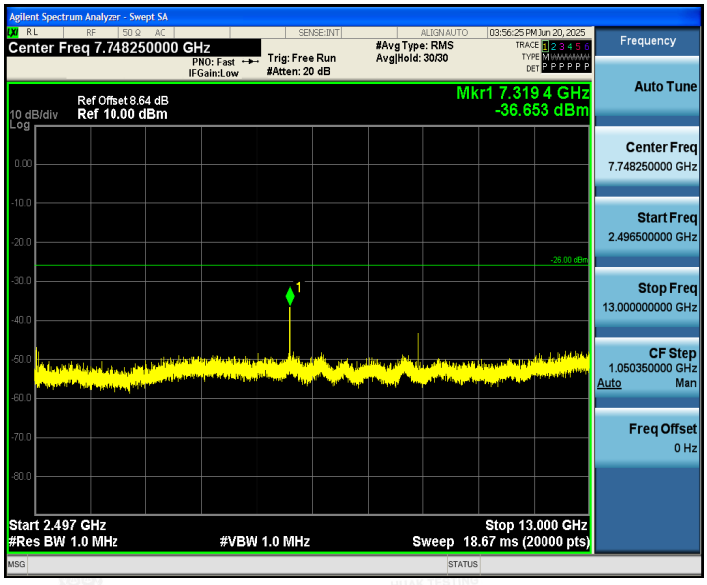


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CH 31:2440MHz - Frequency Band 4 (2483.5 MHz ≦ f < 2496.5 MHz)

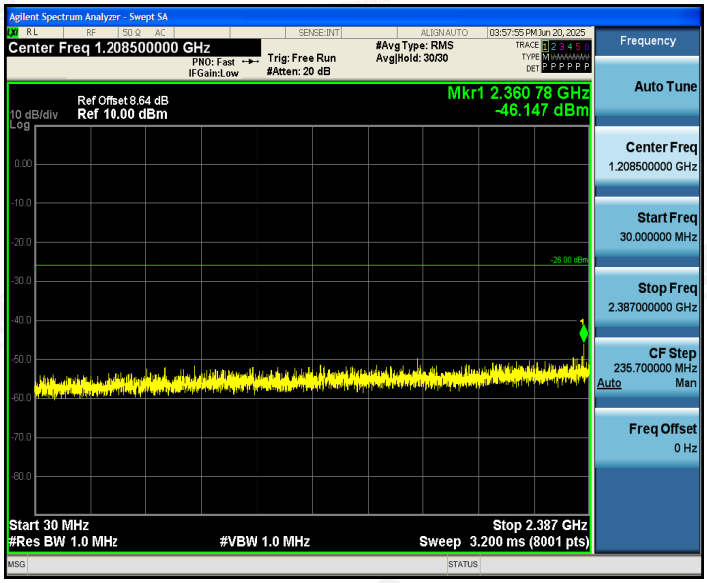


CH 31:2440MHz - Frequency Band 5 (2496.5 MHz ≦ f < 13 GHz)

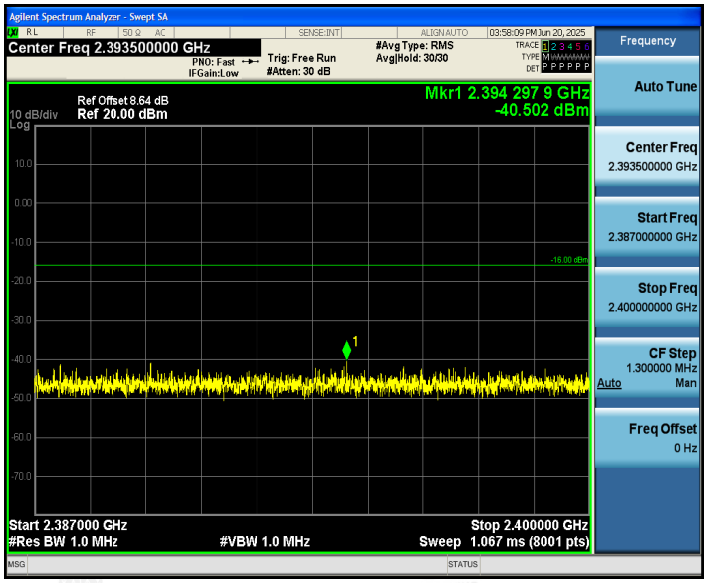


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CH 61:2470MHz- Frequency Band 1 (30 MHz ≦ f ≦2387 MHz)

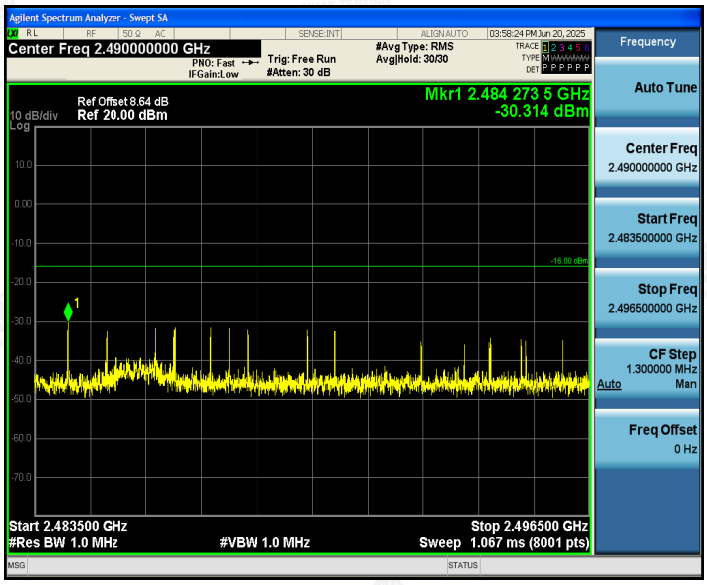


CH 61:2470MHz - Frequency Band 3 (2387 MHz < f ≦ 2400 MHz)

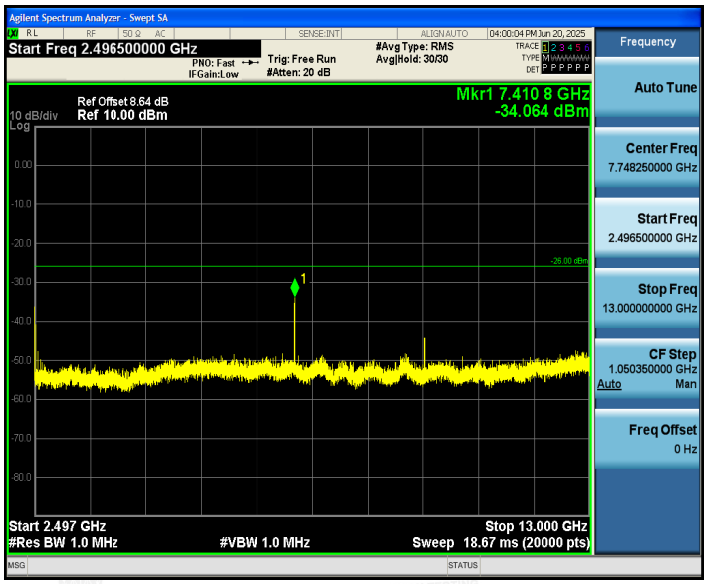


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CH 61:2470MHz - Frequency Band 4 (2483.5 MHz ≦ f < 2496.5 MHz)



CH 61:2470MHz- Frequency Band 5 (2496.5 MHz ≦ f < 13 GHz)



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4.5 Imitation of Collateral Emission of Receiver Measurement

4.5.1 Limit

Item	Limits
RX Spurious Emission:	≦4nW (f<1GHz)
	≦20nW (1GHz≦f)

4.5.2 Measuring Instruments and Setting

Please refer to section 5 in this report. The following table is the setting of Spectrum Analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
RB	100 kHz (below 1GHz emissions) 1 MHz (above 1GHz emissions)
VB	100 kHz (below 1GHz emissions) 1 MHz (above 1GHz emissions)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.5.3 Test Procedures

1. EUT have the continuous reception mode and fixed only one channelize.
2. Setting of SA is following as RB / VB: 100 kHz (below 1GHz emissions) / 1 MHz (above 1GHz emissions) /
   AT: Auto / Ref: Auto / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold
3. SA set RB: 100kHz and VB: 100kHz. Then adjust to start frequency 30MHz and stop frequency 1000MHz. Search to mark peak reading value + cable loss shall be less than 4nW
4. SA set RB: 1MHz and VB: 1MHz. Then adjust to start frequency 1000MHz and stop frequency 12500MHz. Search to mark peak reading value + cable loss shall be less than 20nW
5. If power level of lower emissions are more than 1/10 of limit (.0.4nW for f < 1GHz, 2nW for f >= 1GHz), all those are to be indicated in the 2nd and 3rd lines. If others are 1/10 or less more of the limit, no necessary to be indicated.

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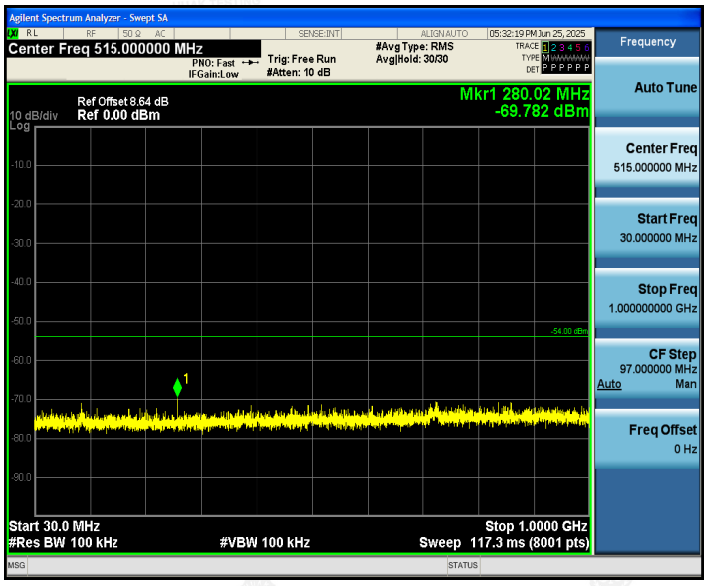
4.5.4 Test Result

EUT:	Remote control vehicle	Test Date:	Jun. 25, 2025
Temperature:	25^{0}C	Tested by:	Len Liao
Humidity:	55 % RH	Test Voltage	Normal Voltage
Operation Mode:	Normal Voltage		

The worst test channel of all channels was showed as the follow:

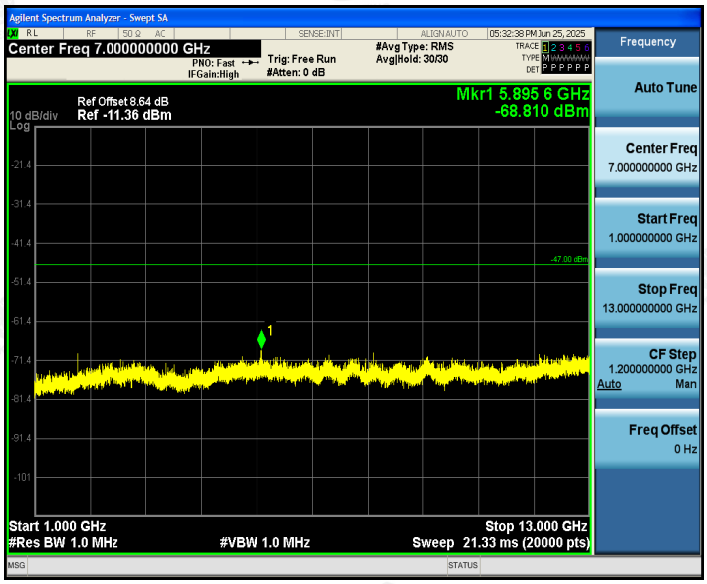
Test Channel	StartFre[MHz]	StopFre[MHz]	Mkr Fre[MHz]	Max.Level[dBm]	Max.Level[nW]	Limit[nW]	Verdict
2410	30	1000	280.02	-69.78	0.1052	<4	PASS
2410	1000	13000	5895.64	-68.81	0.1315	<20	PASS
2440	30	1000	938.77	-70.90	0.0813	<4	PASS
2440	1000	13000	12583.58	-68.77	0.1327	<20	PASS
2470	30	1000	850.38	-70.63	0.0865	<4	PASS
2470	1000	13000	12766.59	-68.97	0.1268	<20	PASS

CH 01:2410MHz-RX-Frequency Band 1 (30 MHz ≦ f < 1000 MHz)

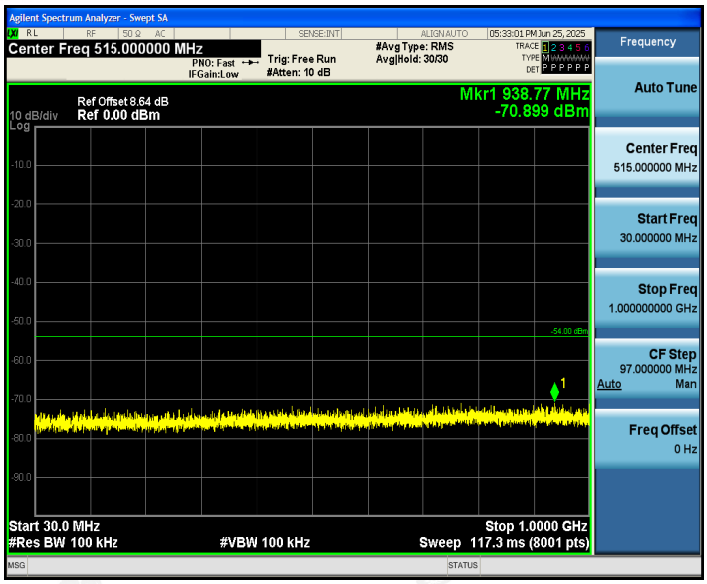


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CH 01:2410MHz-RX-Frequency Band 2 (1000 MHz ≦ f < 13000 MHz)

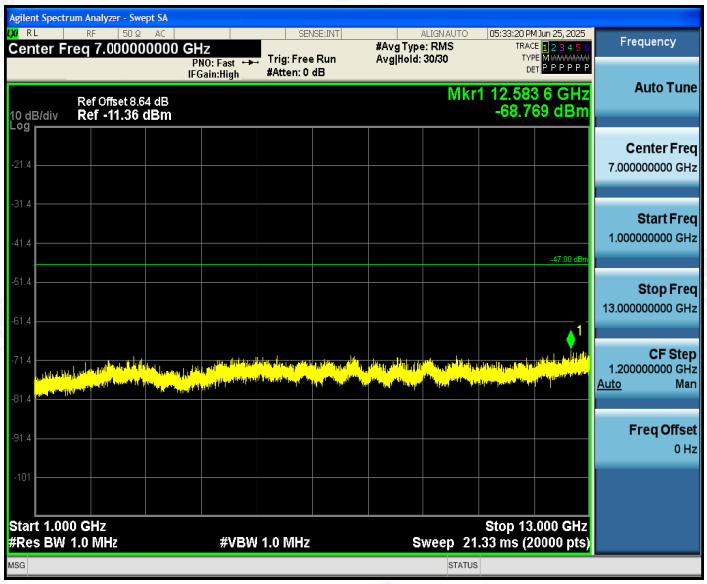


CH 31:2440MHz-RX-Frequency Band 1 (30 MHz ≦ f < 1000 MHz)

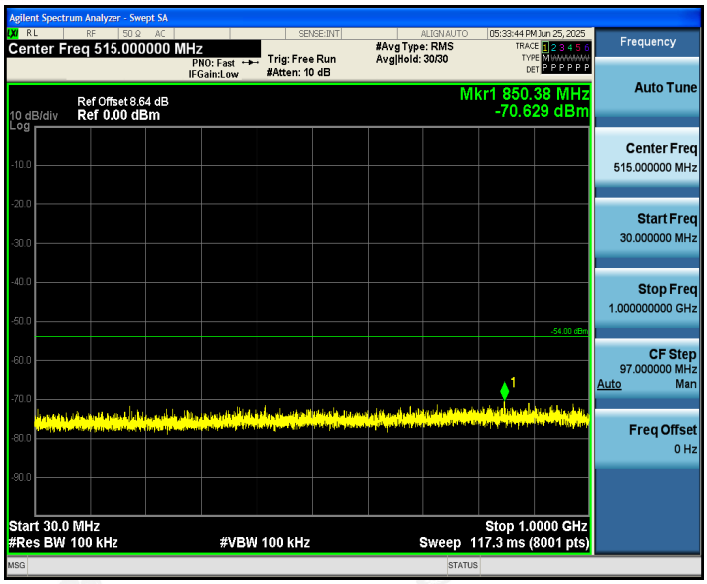


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CH 31:2440MHz-RX-Frequency Band 2 (1000 MHz ≦ f < 13000 MHz)

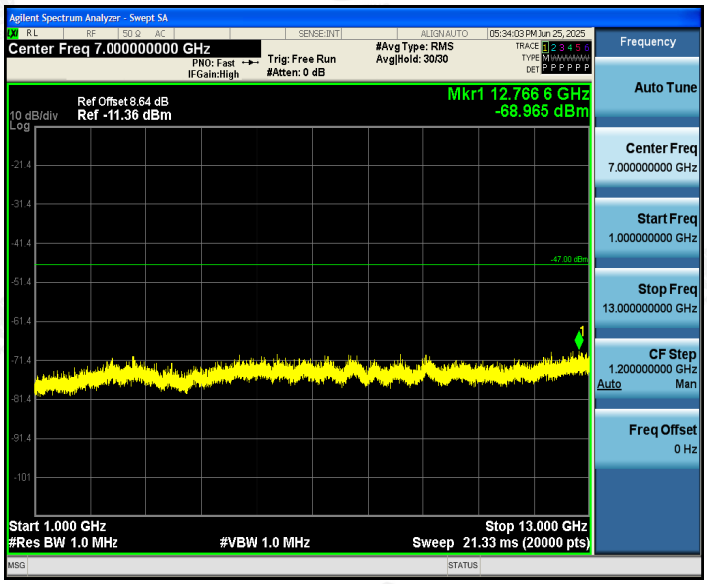


CH 61:2470MHz-RX-Frequency Band 1 (30 MHz ≦ f < 1000 MHz)



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CH 61:2470MHz-RX-Frequency Band 2 (1000 MHz ≦ f < 13000 MHz)



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4.6 Transmission Antenna Gain (EIRP Antenna Power) Measurement

4.6.1 Limit

Item	Limits
EIRP Power Density	≦6.91dBm/MHz (FH form 2427 - 2470.75 MHz) ≦12.14dBm/MHz (OFDM,DS from 2400~2483.5MHz) ≦12.14dBm (Other from 2400~2483.5MHz)
Note: This test item is not applied for radio equipment with equivalent isotropic radiation power lower than 12.14dBm/MHz, but Antenna Power(Conducted) limit is 10 mW/MHz (10 dBm/MHz), So the test item will not be applied to the transmission antenna which has a gain of 2.14dBi or less	

4.6.2 Measuring Instruments and Setting

Please refer to section 5 in this report. The following table is the setting of spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
RB/VB	1 MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

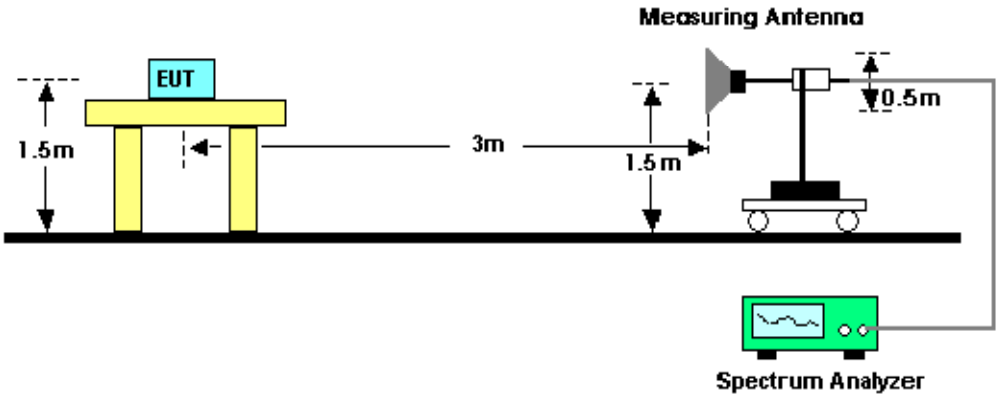
4.6.3 Test Procedures

1. Set EUT ad measuring antenna at the same height and roughly facing each other.
2. Move the measuring antenna height up and down within ± 50cm of EUT height and swing it to find the maximum output of the measuring antenna. The output level at the spectrum analyzer is read sa “E“.
3. Remove the EUT from the turn table and put the replacing antenna facing to measuring antenna at same height. Set the standard signal generator (SSG) at same frequency and transmit on then receive the signal
4. Swing the replacing antenna give a maximum receiving level.
5. Move the measuring antenna height up and down within ± 50cm of replacing antenna height and swing it to find the maximum receiving level.
6. Set SSG output power at Pt to give the equivalent output level of “E” or caluate Pt with SSG output which gives the nearest of “E” and difference (± 1dB). Record the Pt.
7. Calculate EIRP by the formula below EIRP = Gt – L + Pt.
   Gt: gain of replacing antenna (dBi)
   L: feeder loss between SSG and replacing antenna
   Pt: Output power of the SSG
8. If the antenna for the EUT has circular polarization, sum of V-field and H-field will be result if measuring antenna is linear polarization.

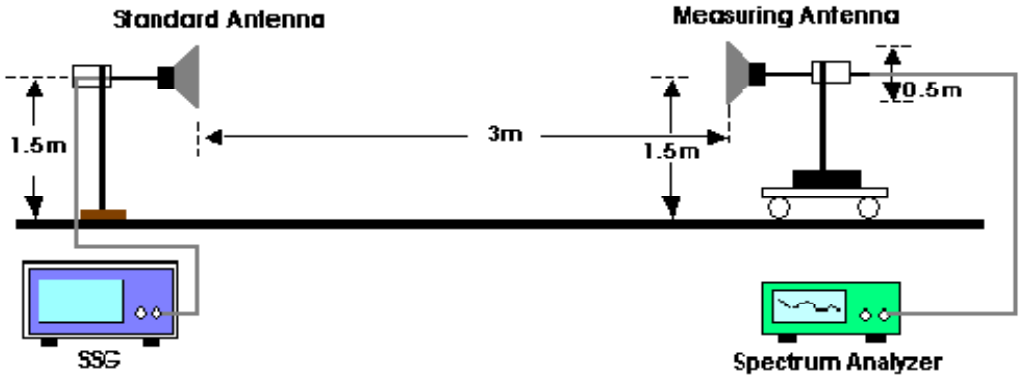
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4.6.4 Test Setup Layout

For EUT radiation measurement



For standard antenna measurement



4.6.5 Test Deviation

There is no deviation with the original standard.

4.6.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.6.7 Results of Transmission Antenna Gain

Note: This test item will not be applied to the transmission antenna which has a gain of 2.14dBi or less.

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4.7 Transmission Radiation Angle Width (3dB Beam width) Measurement

4.7.1 Limit

Item	Limits
3dB antenna beam width	360/A (If A<1; then A=1) A = {EIRP Power [mW] / 16.36 for DS, OFDM} or A = {EIRP Power [mW] / 4.9 for FH}
Note: This test item is not applied for radio equipment with equivalent isotropic radiation power lower than 12.14dBm/MHz, but Antenna Power(Conducted) limit is 10 mW/MHz (10 dBm/MHz), So the test item will not be applied to the transmission antenna which has a gain of2.14dBi or less	

4.7.2 Measuring Instruments and Setting

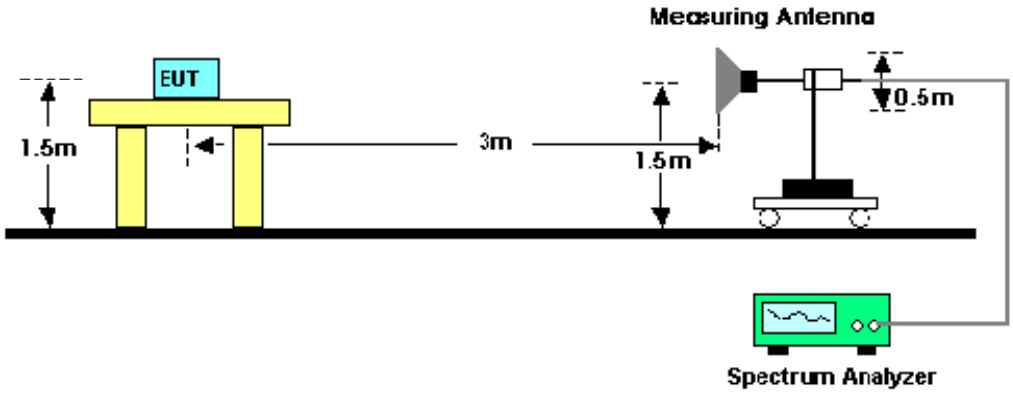
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	0 MHz
RB	1 MHz
VB	1 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.7.3 Test Procedures

1. Set EUT and measuring antenna at the same height and roughly facing each other.
2. Set spectrum analyzer with condition in section 4.7.2 and tune reference level to observe receiving signal position.
3. Rotate directions of the EUT horizontally and vertically to find the maximum receiving power.
4. Move the measuring antenna height up and down within ± 50cm of EUT height and swing it to find the maximum output of measuring antenna. The output level at the spectrum analyzer is read as “E”
5. Calculate permitted radiation angle in horizontal and vertical using EIRP measured in another test method.
6. Calculate 3dB antenna beam width by the formula below 360/A (If A<1; then A=1).
   A = {EIRP Power [mW] / 16.36 for DS, OFDM} or
   A = {EIRP Power [mW] / 4.9 for FH}

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4.7.4 Test Setup Layout



4.7.5 Test Deviation

There is no deviation with the original standard.

4.7.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.7.7 Test Result of Transmission Radiation Angle Width (3dB Beam width)

This test item will not be applied to the transmission antenna which has a gain of 2.14dBi or less.

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4.8 Radio Interference Prevention Capability Measurement

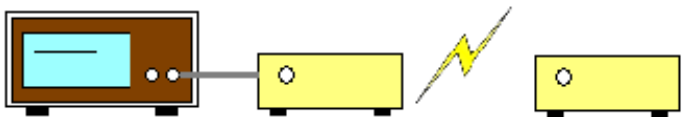
4.8.1 Limit

Item	Limits
Identification code	≧48 bits

4.8.2 Test Procedures

1. In the case that the EUT has the function of automatically transmitting the identification code:
   a. Transmit the predetermined identification codes form EUT.
   b. Check the transmitted identification codes with the demodulator.
2. In the case of receiving the identification code:
   a. Transmit the predetermined identification codes form the counterpart.
   b. Check if communication is normal.
   c. Transmit the signals other than predetermined ID codes form the counterpart.
   d. check if the EUT stops the transmission, or if it displays that identification codes are different from the predetermined ones.

4.8.3 Test Setup Layout



4.8.4 Test Deviation

There is no deviation with the original standard.

4.8.5 EUT Operation during Test

The EUT was programmed to be in normal transmitting mode.

4.8.6 Test Result of Radio Interference Prevention Capability

EUT:	Remote control vehicle	Test Date:	Jun. 25, 2025
Temperature:	25^{0}C	Tested by:	Len Liao
Humidity:	55 % RH		
Test result:	CONFORM (MAC: EE:46:3B:AC:43:98)		

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4.9 Carrier Sensing Function

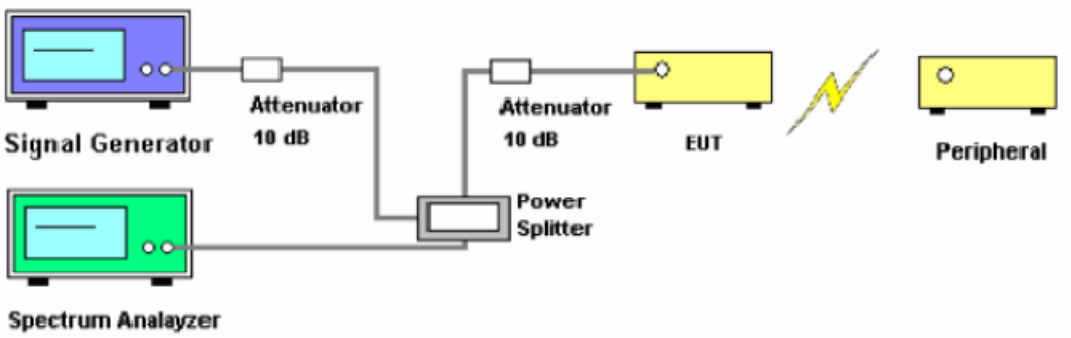
4.9.1 Test Requirement

MIC Notice No.88 Appendix No.43

Article 2, Paragraph 1, Item 19 Rules Section 10

4.9.2 Block Diagram of Test Setup

❖ Measurement System Diagram



❖ Conditions of Application Equipment (EUT)

- The EUT state shall be "normal mode link with wireless router".

4.9.3 Test Procedures

1 SG adjusted the frequency as same as the EUT transmitted signal and emitted the absence of modulation from SG and power level is (on 22.79+G-20*log(f)dBm)(G is the antenna gain, f is the test frequency).

2. Turn off the RF signal of the SG.

3. EUT have transmitted the maximum modulation signal and fixed channelize.

4. Setting of SA: RBW/VBW=1MHz/1MHz, Span=50MHz, Sweep time=auto, Sweep mode=continuous, Detect mode=positive peak

5. SG RF signal on.

6. EUT shall be stop the transmitted any signal and SG RF signal off, the EUT will be continuous

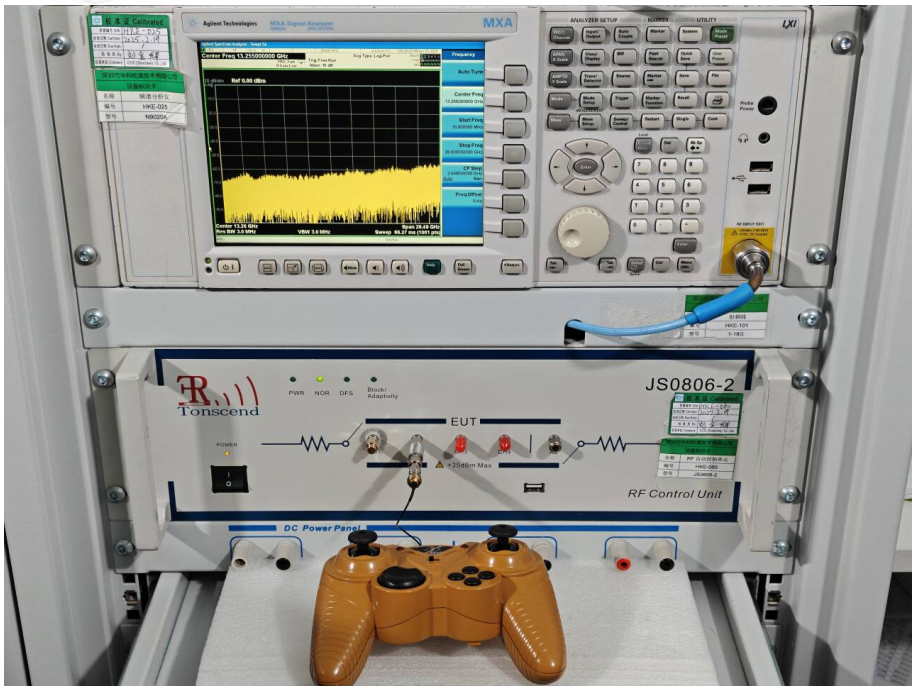
4.9.4 Test Result

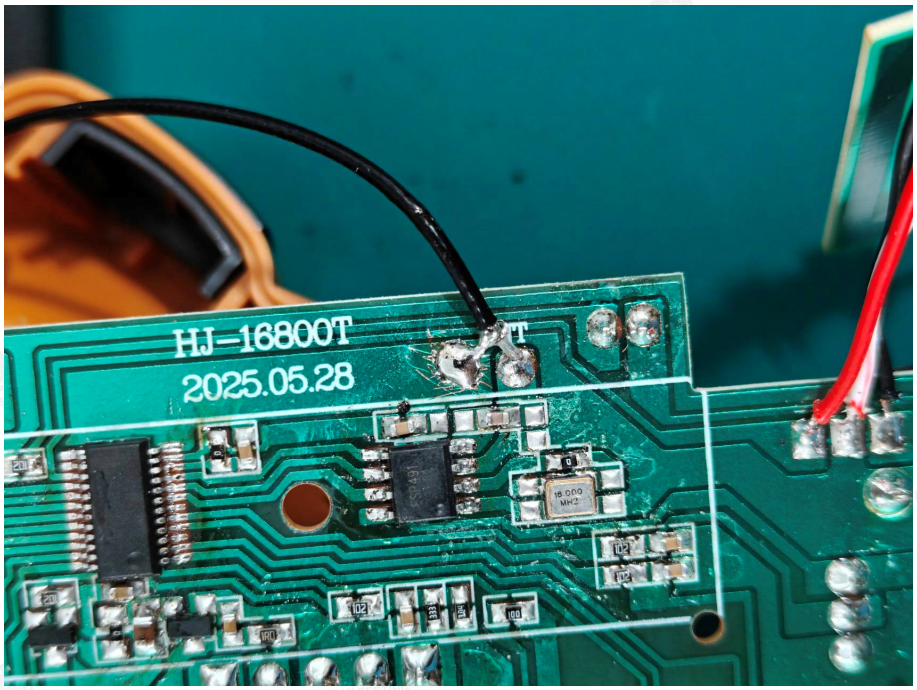
EUT:	Remote control vehicle	Test Date:	/
Temperature:	25^{0}C	Tested by:	/
Humidity:	55 % RH		
Test result:	Not applicable other than OFDM modulation.		

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5. Test Setup Photos of the EUT

Measurement Photos





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6. Photos of the EUT

Reference to the report: ANNEX A of external photos and ANNEX B of internal photos

----------End of report----------

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