

RADIO TEST REPORT

For

CELESTRON ACQUISITION LLC

SkyPortal WiFi Module

Test Model: 93973

Prepared for : CELESTRON ACQUISITION LLC
Address : 2835 Columbia Street, Torrance, CA 90503, USA

Prepared by : Guangzhou LCS Compliance Testing Laboratory Ltd.
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Date of receipt of test sample : January 19, 2026
Number of tested samples : 2
Sample No. : C260119001-1, C260119001-2
Sample number : Prototype
Date of Test : January 19, 2026 ~ February 10, 2026
Date of Report : February 11, 2026

RADIO TEST REPORT	
MIC Notice No.88 appendix No.45 Article 2, paragraph 1, item 19-3	
Low Power Data Communication System in the 5 GHz band	
Report Reference No.	LCSC01096004EB
Date of Issue	February 11, 2026
Testing Laboratory Name	Guangzhou LCS Compliance Testing Laboratory Ltd.
Address	No.44-1, Qianfeng North Road, Shiqi, Panyu District, Guangzhou, Guangdong, China
Testing Location/ Procedure	Full application of Harmonised standards ■ Partial application of Harmonised standards □ Other standard testing method □
Applicant's Name	CELESTRON ACQUISITION LLC
Address	2835 Columbia Street, Torrance, CA 90503, USA
Test Specification	
Standard	MIC Notice No.88 appendix No.45 Article 2, paragraph 1, item 19-3
Test Report Form No.	TRF-4-E-117 A/0
TRF Originator	Guangzhou LCS Compliance Testing Laboratory Ltd.
Master TRF	Dated 2011-03
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Test Item Description	
Trade Mark	CELESTRON
Test Model	93973
Ratings	Please Refer to Page 6
Result	PASS

Compiled by:**Supervised by:****Approved by:**




Lifeng Le / Administrator

Justin Zhu/ Technique Director

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RADIO -- TEST REPORT**Test Report No. : LCSC01096004EB**February 11, 2026

Date of issue

Test Model..... : 93973

EUT..... : SkyPortal WiFi Module

Applicant..... : CELESTRON ACQUISITION LLC

Address..... : 2835 Columbia Street, Torrance, CA 90503, USA

Telephone..... : /

Fax..... : /

Manufacturer..... : ShenZhen XinJunMeng Energy Technology Co. Ltd.

Address..... : Rooms 201, Building 2, No.27 Longwo 1st Road, Longtian Community, Longtian Subdistrict, Pingshan District, Shenzhen City, Guangdong Province, China.

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Fax..... : /

Factory..... : ShenZhen XinJunMeng Energy Technology Co. Ltd.

Address..... : Rooms 201, Building 2, No.27 Longwo 1st Road, Longtian Community, Longtian Subdistrict, Pingshan District, Shenzhen City, Guangdong Province, China.

Telephone..... : /

Fax..... : /

Test Result**PASS**

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Revision History

Report Version	Issue Date	Revision Content	Revised By
000	February 11, 2026	Initial Issue	---

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1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	SkyPortal WiFi Module
Test Model	93973
Rated Voltage:	: DC 12V 2A
Adapter information:	100-240V 50/60Hz
Hardware Version	: /
Software Version	: /
WIFI (2.4G Band)	/
Frequency Range	: 2412-2472MHz for 802.11b/g/n(HT20) 2484MHz for 802.11b 2422-2462MHz for 802.11n(HT40)
Channel Spacing	: 5MHz
Channel Number	: 13 Channel for 802.11b/g/n(HT20)(2412~2472MHz) 14 Channel for 802.11b(2412~2484MHz) 9 channels for 802.11n(HT40) (2422~2462MHz)
Modulation Type	: 802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Declared Antenna Power	: 802.11b: 5.0mW/MHz 802.11g: 4.0mW/MHz 802.11n(HT20): 4.0mW/MHz 802.11n(HT40): 2.0mW/MHz
Antenna Description	: Internal Antenna, 2.5dBi(Max.)
WIFI (5.2G Band)	
Frequency Range	: 5180-5240MHz
Channel Number	: 4 Channel for 20MHz bandwidth(5180-5240MHz) 2 Channel for 40MHz bandwidth(5190-5230MHz)
Modulation Type	: 802.11a/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Declared Antenna Power	: 802.11a: 3.0mW/MHz 802.11n(HT20): 3.0mW/MHz 802.11n(HT40): 1.0mW/MHz
Antenna Description	: Internal Antenna, 4.5dBi(Max.)
WIFI (5.3G Band)	
Frequency Range	: 5260-5320MHz
Channel Number	: 4 channels for 20MHz bandwidth(5260-5320MHz) 2 channels for 40MHz bandwidth(5270-5310MHz)
Modulation Type	: 802.11a/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Declared Antenna Power	: 802.11a: 1.7mW/MHz 802.11n(HT20): 1.1mW/MHz 802.11n(HT40): 0.5mW/MHz
Antenna Description	: Internal Antenna, 4.5dBi(Max.)
WIFI (5.6G Band)	
Frequency Range	: 5500~5720MHz
Channel Number	: 12 Channels for 20MHz bandwidth(5500-5720MHz) 6 Channels for 40MHz bandwidth(5510-5710MHz)
Modulation Type	: 802.11a/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Declared Antenna Power	: 802.11a: 3.0mW/MHz 802.11n(HT20): 3.0mW/MHz 802.11n(HT40): 1.0mW/MHz
Antenna Description	: Internal Antenna, 4.5dBi(Max.)

Note: For a more detailed antenna description, please refer to the antenna specifications or the antenna report provided by the customer.

1.2. Support Equipment List

Manufacturer	Description	Model	Serial Number	Certificate
---	---	---	---	---

1.3. External I/O

I/O Port Description	Quantity	Cable
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1.4. Description of Test Facility

CNAS Registration Number is L11555

A2LA Certificate Number: 5099.01

FCC Designation Number is CN1379

Test Firm Registration Number: 729882

1.5. Test Conditions

Temperature Range	:	21-25℃
Humidity Range	:	45-85%
Pressure Range	:	86-106kPa

1.6. Frequency of Channels

Channel & Frequency:

Frequency Band	Channel No.	Frequency(MHz)	Channel No.	Frequency(MHz)
5180~5240MHz	36	5180	44	5220
	38	5190	46	5230
	40	5200	48	5240
	42	5210		
For 802.11a/n(HT20), Channel 36, 40 and 48 were tested. For 802.11n(HT40), Channel 38 and 46 were tested.				

Frequency Band	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
5260~5320MHz	52	5260	60	5300
	54	5270	62	5310
	56	5280	64	5320
	58	5290		
For 802.11a/n(HT20), Channel 52, 56 and 64 were tested. For 802.11n(HT40), Channel 54 and 62 were tested.				

Frequency Band	Channel No.	Frequency(MHz)	Channel No.	Frequency(MHz)
5500~5720MHz	100	5500	124	5620
	102	5510	126	5630
	104	5520	128	5640
	106	5530	132	5660
	108	5540	134	5670
	110	5550	136	5680
	112	5560	138	5690
	116	5580	140	5700
	118	5590	142	5710
	120	5600	144	5720
	122	5610		
For 802.11a/n(HT20), Channel 100, 120 and 144 were tested. For 802.11n(HT40), Channel 102, 110 and 142 were tested.				

2. TEST METHODOLOGY

2.1. EUT Exercise

The EUT was operated in the engineering mode to fix the TX/RX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements of MIC Notice No.88 Article 2, paragraph 1, item 19-3.

2.2. Measurement Uncertainty

Test Item		MU	Remark
Bandwidth	:	$\pm 2 \times 10^{-7}$ MHz	/
Antenna Power	:	± 0.33 dB	/
Frequency Tolerance	:	$\pm 3 \times 10^{-7}$ MHz	/
Conducted spurious emission	:	± 0.13 dB	/
DC Power	:	$\pm 1\%$	/

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

2.3. Description Of Test Modes

Test Software Version	setup			
Operating band	20M		40MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)
5.2GWIFI (5180-5240MHz)	36	5180	38	5190
	40	5200		
	48	5240	46	5230
	--	--		
5.3GWIFI (5260-5320MHz)	52	5260	54	5270
	56	5280		
	64	5320	62	5310
	--	--		
5.6GWIFI (5500~5720MHz)	100	5500	102	5510
	120	5600	110	5550
	144	5720	142	5710

2.4. Test Voltage

POWER SUPPLY VOLTAGE FLUCTUATION TEST

Voltage Fluctuation Test	Normal Voltage	High Voltage +10% of Normal Voltage	Low Voltage -10% of Normal Voltage
Input To EUT	DC 12V	DC 13.2V	DC 10.8V
Output To RF Module	DC 3.3V	DC 3.3V	DC 3.3V
Voltage Variation (%)	--	--	--

Note: As the EUT was powered by DC 12V, and with the voltage stabilizing circuit used, the chip voltage received floating not exceed $\pm 1\%$ of nominal condition when working on extreme voltage, so all test performed at nominal voltage only.

3. SYSTEM TEST CONFIGURATION

3.1. Justification

The system was configured for testing in engineering mode.

3.2. EUT Exercise Software

N/A.

3.3. Special Accessories

N/A.

3.4. Block Diagram/Schematics

Please refer to the related document.

3.5. Equipment Modifications

Guangzhou LCS Compliance Testing Laboratory Ltd. has not done any modification on the EUT.

4. SUMMARY OF TEST RESULTS

MIC Notice No.88 Appendix No.45		
rule	Description of Test	Result
Article 2, paragraph 1, item 19-3	Tolerance Of Frequency	PASS
	Tolerances Of Antenna Power & E.I.R.P	PASS
	Tolerance of Occupied Bandwidth	PASS
	Spread Bandwidth	N/A
	Tolerance Of Unwanted Emission Intensity & Tolerance Of Out-Of-Band Leakage Power	PASS
	Secondary Radiated Emissions	PASS
	Transmission Burst Length	PASS
	Tolerance Of Adjacent Channel Leakage Power	PASS
	Interference prevention function	PASS
	Carrier Sensing function	PASS
	Dynamic Frequency Selection	PASS
Remark: 1. N/A is an abbreviation for Not Applicable. 2. This device is a master device.		

5. TEST RESULT

5.1. Tolerance of Frequency

5.1.1. Standard Applicable

Tolerance of frequency shall be $\pm 20\text{ppm}$.

5.1.2. Test Procedures

- Set EUT work in non-modulation condition.
- Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the channel under test.

Resolution BW: 10KHz.

Video BW: 10KHz.

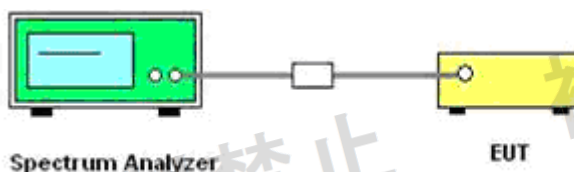
Span: 1MHz.

Detector: Peak.

Trace Mode: Max Hold.

- When the trace is complete, find the peak value of the power envelope and record.

5.1.3. Test Setup Layout



5.1.4. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

5.1.5. Test Result

PASS

Please refer to the Appendix B.1 for 5.2G WIFI RF Test Data.

Please refer to the Appendix C.1 for 5.6G WIFI RF Test Data.

Please refer to the Appendix D.1 for 5.6G WIFI RF Test Data.

5.2. Tolerances of Antenna Power & E.I.R.P

5.2.1. Standard Applicable

Operation Band	item		20MHz system		40MHz system	80MHz system	160MHz system
W52&W53	Antenna Power		DSSS,etc	OFDM	OFDM	OFDM	OFDM
			10mW/MHz	10mW/MHz	5mW/MHz	2.5mW/MHz	1.25mW/MHz
	Antenna power Tolerance		+20%, -80%				
	W52		10mW/MHz		5mW/MHz	2.5mW/MHz	1.25mW/MHz
	EIRP	W53	10mW/MHz: with TPC 5mW/MHz: without TPC		5mW/MHz: with TPC 2.5mW/MHz: without TPC	2.5mW/MHz: with TPC 1.25mW/MHz: without TPC	1.25mW/MHz: with TPC 0.625mW/MHz: without TPC
W56	Antenna Pwer		DSSS,etc	OFDM	OFDM	OFDM	OFDM
			10mW/MHz	10mW/MHz	5mW/MHz	2.5mW/MHz	1.25mW/MHz
	Antenna power Tolerance		+50%, -50%				
					25mW/MHz: with TPC	12.5mW/MHz: with TPC	1.25mW/MHz: with TPC
	EIRP		50mW/MHz: with TPC 25mW/MHz: without TPC		12.5mW/MHz: without TPC	6.25mW/MHz: without TPC	0.625mW/MHz: without TPC

5.2.2. Test Procedures

- Set EUT work in test mode as described in clause 2.3.
- Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the channel under test.

Resolution BW: 1MHz.

Video BW: 1MHz.

Span: Wide enough to cover the complete power envelope of the signal of the EUT.

Trigger condition: Free run.

Sweep mode: Continuous sweeping.

Detector: Peak.

Trace Mode: Max Hold.

- When the trace is complete, find the peak value of the power envelope and record.

d. Make the following changes to the setting of the Spectrum Analyzer:

Centre Frequency: Equal to the frequency recorded in step c

Resolution BW: 1MHz.

Video BW: 1MHz.

Span: 3MHz

Trigger condition: Free run.

Sweep mode: Continuous sweeping.

Detector: Average

Trace Mode: Max Hold.

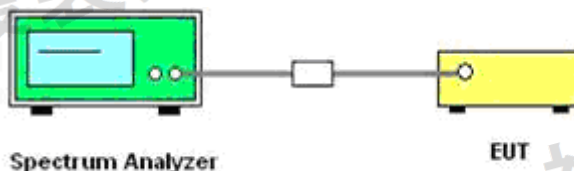
When the trace is complete, find the peak value (value "A" in dBm) of the power envelope and record.

- Add the (stated) antenna assembly gain "G" in dBi of the individual antenna.
- If applicable, add the additional beamforming gain "Y" in dB.

The equivalent isotropically radiated power (P) shall be calculated using the formula below:

$$P = A + G + Y$$

5.2.3. Test Setup



5.2.4. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

5.2.5. Test Result

PASS

Please refer to the Appendix B.2 for 5.2G WIFI RF Test Data.

Please refer to the Appendix C.2 for 5.6G WIFI RF Test Data.

Please refer to the Appendix D.2 for 5.6G WIFI RF Test Data.

5.3. Tolerance of Occupied Bandwidth

5.3.1. Standard Applicable

Operation Band	20MHz system		40MHz system	80MHz system	160MHz system
W52 & W53	DSSS,etc	OFDM	OFDM	OFDM	OFDM
	18MHz	20MHz	40MHz	80MHz	80MHz
W56	18MHz	20MHz	40MHz	80MHz	80MHz

5.3.2. Test Procedures

- Set EUT work in test mode as described in clause 2.3.
- Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the channel under test.

RBW/VBW: 300KHz/300KHz

Span: Wide enough to cover the complete power envelope of the signal of the EUT.

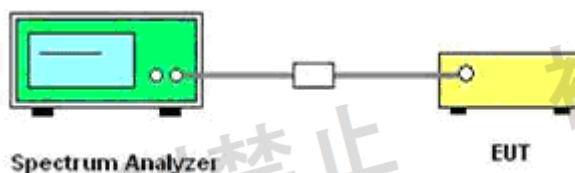
Sweep mode: Continuous sweeping.

Detector: Peak.

Trace Mode: Max Hold.

- When the trace is complete, measure the occupied bandwidth (99% bandwidth) with spectrum analyzer's bandwidth measure function.

5.3.3. Test Setup Layout



5.3.4. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

5.3.5. Test Result of 99% Spectrum Bandwidth

PASS

Please refer to the Appendix B.3 for 5.2G WIFI RF Test Data.

Please refer to the Appendix C.3 for 5.6G WIFI RF Test Data.

Please refer to the Appendix D.3 for 5.6G WIFI RF Test Data.

5.4. Spread Bandwidth

5.4.1. Standard Applicable

Spread Bandwidth shall be 500 kHz or more.

5.4.2. Test Procedures

- a. Set EUT work in test mode as described in clause 2.3.
- b. Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the channel under test.

RBW/VBW: 300KHz/300KHz

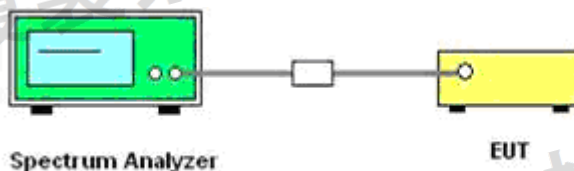
Span: Wide enough to cover the complete power envelope of the signal of the EUT.

Detector: Peak.

Trace Mode: Max Hold.

- c. When the trace is complete, measure the occupied bandwidth (90% bandwidth) with spectrum analyzer's bandwidth measure function.

5.4.3. Test Setup Layout



5.4.4. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

5.4.5. Test Result of Spread Bandwidth

Not Applicable.

5.5. Tolerance of Unwanted Emission Intensity & Tolerance of Out-of-Band Leakage Power

5.5.1. Standard Applicable

For W52:

20MHz system	
OBW : 18MHz or less	OBW : 18 - 20 MHz
5,142 MHz or less : 2.5 μ W/MHz	5,142 MHz or less : 2.5 μ W/MHz
5,142 - 5,150 MHz : 15 μ W/MHz	5,142 - 5,150 MHz : 15 μ W/MHz
	5,250 - 5,250.2 MHz : $10^{1-(8/3)(f-9.75)}$ mW/MHz
5,250 - 5,251 MHz : $10^{1-(f-9)}$ mW/MHz	5,250.2 - 5,251 MHz : $10^{1-(f-9)}$ mW/MHz
5,251 - 5,260 MHz : $10^{-1-(8/90)(f-11)}$ mW/MHz	5,251 - 5,260 MHz : $10^{-1-(8/90)(f-11)}$ mW/MHz
5,260 - 5,266.7 MHz : $10^{-1.8-(6/50)(f-20)}$ mW/MHz	5,260 - 5,266.7 MHz : $10^{-1.8-(6/50)(f-20)}$ mW/MHz
5,266.7 MHz or more : 2.5 μ W/MHz	5,266.7 MHz or more : 2.5 μ W/MHz
f = MHz, Difference from 5240 (MHz)	f = MHz, Difference from 5240 (MHz)

40MHz system	80MHz system
5,141.6 MHz or less : 2.5 μ W/MHz	5,123.2 MHz or less : 2.5 μ W/MHz
5,141.6 - 5,150 MHz : 15 μ W/MHz	5,123.2 - 5,150 MHz : 15 μ W/MHz
5,250 - 5,251 MHz : $10^{-(f-20)+\log(1/2)}$ mW/MHz	5,250 - 5,251 MHz : $10^{-(f-40)+\log(1/4)}$ mW/MHz
5,251 - 5,270 MHz : $10^{-(8/190)(f-21)-1+\log(1/2)}$ mW/MHz	5,251 - 5,290 MHz : $10^{-(8/390)(f-41)-1+\log(1/4)}$ mW/MHz
5,270 - 5,278.4 MHz : $10^{-(3/50)(f-40)-1.8+\log(1/2)}$ mW/MHz	5,290 - 5,296.7 MHz : $10^{-(3/100)(f-80)-1.8+\log(1/4)}$ mW/MHz
5,278.4 MHz or more : 2.5 μ W/MHz	5,296.7 MHz or more : 2.5 μ W/MHz
f = MHz, Difference from 5230 (MHz)	f = MHz, Difference from 5210 (MHz)

For W53:

20MHz system	
OBW : 18MHz or less	OBW : 18 - 20 MHz
5,233.3 MHz or less : 2.5 μ W/MHz	5,233.3 MHz or less : 2.5 μ W/MHz
5,233.3 - 5,240 MHz : $10^{-1.8-(6/50)(f-20)}$ mW/MHz	5,233.3 - 5,240 MHz : $10^{-1.8-(6/50)(f-20)}$ mW/MHz
5,240 - 5,249 MHz : $10^{-1-(8/90)(f-11)}$ mW/MHz	5,240 - 5,249 MHz : $10^{-1-(8/90)(f-11)}$ mW/MHz
5,249 - 5,250 MHz : $10^{1-(f-9)}$ mW/MHz	5,249 - 5,249.8 MHz : $10^{1-(f-9)}$ mW/MHz
	5,249.8 - 5,250 MHz : $10^{1-(8/3)(f-9.75)}$ mW/MHz
5,350 MHz or more : 2.5 μ W/MHz	5,350 MHz or more : 2.5 μ W/MHz
f = MHz, Difference from 5260 (MHz)	f = MHz, Difference from 5260 (MHz)

40MHz system	80MHz system
5,221.6 MHz or less : 2.5 μ W/MHz	5,203.3 MHz or less : 2.5 μ W/MHz
5,221.6 - 5,230 MHz : $10^{-(3/50)(f-40)-1.8+\log(1/2)}$ mW/MHz	5,203.3 - 5,210 MHz : $10^{-(3/100)(f-80)-1.8+\log(1/4)}$ mW/MHz
5,230 - 5,249 MHz : $10^{-(8/190)(f-21)-1+\log(1/2)}$ mW/MHz	5,210 - 5,249 MHz : $10^{-(8/390)(f-41)-1+\log(1/4)}$ mW/MHz
5,249 - 5,250 MHz : $10^{-(f-20)+\log(1/2)}$ mW/MHz	5,249 - 5,250 MHz : $10^{-(f-40)+\log(1/4)}$ mW/MHz
5,350 - 5,358.4 MHz : 15 μ W/MHz	5,350 - 5,376.8 MHz : 15 μ W/MHz
5,358.4 MHz or more : 2.5 μ W/MHz	5,376.8 MHz or more : 2.5 μ W/MHz
f = MHz, Difference from 5270 (MHz)	f = MHz, Difference from 5290 (MHz)

For W56

20MHz system	
DSSS, etc.	OFDM
5,470 MHz or less : 12.5 μ W/MHz	5,460 MHz or less : 2.5 μ W/MHz
	5,460 - 5,470 MHz : 12.5 μ W/MHz
5,730 MHz or more : 12.5 μ W/MHz	5,745 - 5,765 MHz : 12.5 μ W/MHz
	Over 5,765 MHz : 2.5 μ W/MHz

40MHz system	80MHz system
5,460 MHz or less : 12.5 μ W/MHz	5,460 MHz or less : 12.5 μ W/MHz
5,460 - 5,470 MHz : 50 μ W/MHz	5,460 - 5,469.5 MHz : 50 μ W/MHz
5,770 MHz or more : 12.5 μ W/MHz	5,469.5 - 5,470 MHz : 51.2 μ W/MHz
	5,770 MHz or more : 12.5 μ W/MHz

5.5.2. Test Procedures

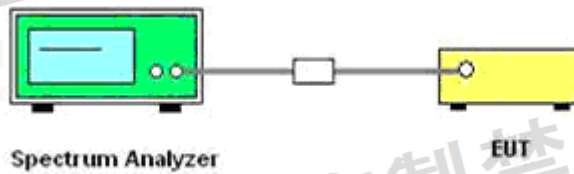
- Set EUT work in test mode as described in clause 2.3.
- Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

RBW/VBW= 1MHz / 1MHz

Detector: Peak.

Trace Mode: Max Hold.

5.5.3. Test Setup Layout



5.5.4. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

5.4.5. Test Results

PASS

Please refer to the Appendix B.4 for 5.2G WIFI RF Test Data.

Please refer to the Appendix C.4 for 5.6G WIFI RF Test Data.

Please refer to the Appendix D.4 for 5.6G WIFI RF Test Data.

5.6. Secondary Radiated Emissions

5.6.1. Standard Applicable

4nW or less at a frequency below 1 GHz and 20 nW or less at a frequency of 1 GHz.

5.6.2. Test Procedures

- a. Set EUT work in test mode as described in clause 2.3.
- b. Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Resolution BW: 100 KHz for frequency below 1GHz and
1MHz for frequency above 1GHz

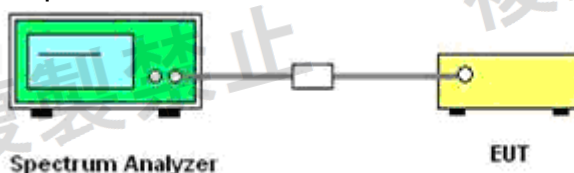
Video BW: 100 KHz for frequency below 1GHz and
1MHz for frequency above 1GHz

Detector: Peak.

Trace Mode: Max Hold.

- c. All the emissions from 30MHz to 26.5GHz were measured and record.

5.6.3. Test Setup



5.6.4. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

5.6.5. Test Results

PASS

Please refer to the Appendix B.5 for 5.2G WIFI RF Test Data.

Please refer to the Appendix C.5 for 5.6G WIFI RF Test Data.

Please refer to the Appendix D.5 for 5.6G WIFI RF Test Data.

5.7. Transmission Burst Length

5.7.1. Standard Applicable

Transmission Burst Length shall be 8ms or less.

5.7.2. Test Procedures

- Set EUT work in test mode as described in clause 2.3.
- Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the channel under test.

Resolution BW: 8MHz.

Video BW: 50MHz.

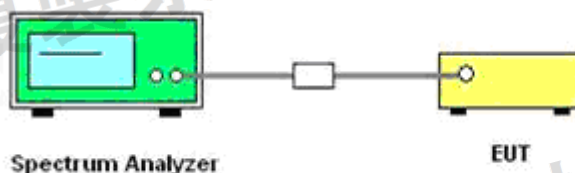
Span: 0Hz

Sweep mode: Auto

Detector: Peak.

Trace Mode: View.

5.7.3. Test Setup Layout



5.7.4. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

5.7.5. Test Result

PASS

Please refer to the Appendix B.6 for 5.2G WIFI RF Test Data.

Please refer to the Appendix C.6 for 5.6G WIFI RF Test Data.

Please refer to the Appendix D.6 for 5.6G WIFI RF Test Data.

5.8. Tolerance of Adjacent Channel Leakage Power

5.8.1. Standard Applicable

20MHz system		40MHz system	80MHz system	160MHz system
DSSS, etc	OFDM	OFDM	OFDM	OFDM
$F_c \pm 20\text{MHz}$ $\pm 9\text{MHz BW}$: -25dBc	$F_c \pm 20\text{MHz}$ $\pm 10\text{MHz BW}$: -25dBc	$F_c \pm 40\text{MHz}$ $\pm 20\text{MHz BW}$: -25dBc	$F_c \pm 80\text{MHz}$ $\pm 40\text{MHz BW}$: -25dBc	$F_c \pm 80\text{MHz}$ $\pm 40\text{MHz BW}$: -25dBc
$F_c \pm 40\text{MHz}$ $\pm 9\text{MHz BW}$: -40dBc	$F_c \pm 40\text{MHz}$ $\pm 10\text{MHz BW}$: -40dBc	$F_c \pm 80\text{MHz}$ $\pm 20\text{MHz BW}$: -40dBc		

5.8.2. Test Procedures

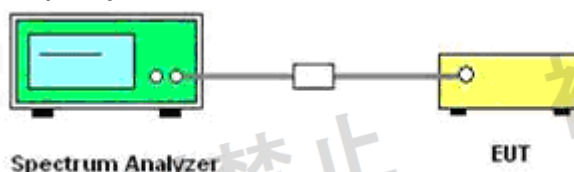
- Set EUT work in test mode as described in clause 2.3.
- Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

RBW/VBW= 300KHz / 300KHz.

Detector: Peak.

Trace Mode: Max Hold.

5.8.3. Test Setup Layout



5.8.4. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

5.8.5. Test Results

PASS

Please refer to the Appendix B.7 for 5.2G WIFI RF Test Data.

Please refer to the Appendix C.7 for 5.6G WIFI RF Test Data.

Please refer to the Appendix D.7 for 5.6G WIFI RF Test Data.

5.9. Carrier sensing function

5.9.1. Standard Applicable

Item	Limits
Carrier Sense	Good – EUT stop RF transmission signal after carrier inject to EUT. (On $22.79+Gr-20*\log(f)$ [dBm] (Gr: dBi; f: MHz) or 100mV/m)

5.9.2. Measuring Instruments and Setting

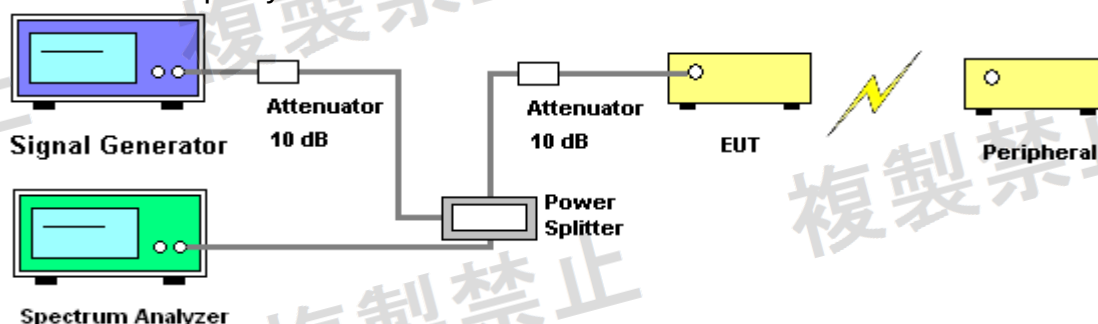
Please refer to section 9 of equipments list in this report. The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
RB / VB	1 MHz
Span	0 MHz
Sweep	Continuous
Detector	Peak
Trigger mode	Video

5.9.3. Test Procedures

1. SSG adjusted the frequency as same as the EUT transmitted signal and emitted the absence of modulation from SSG and power level is (On $22.79+Gr-20*\log(f)$ [dBm] (Gr: dBi; f: MHz). Then turn off the RF signal of SSG.
2. EUT have transmitted the maximum modulation signal and fixed channelize.
3. Setting of SA is following as: RB:1MHz / VB:1MHz / SPAN: 50MHz / AT: 10dB /Ref: 0dBm / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak.
4. SSG RF Signal On.
5. EUT shall be stop the transmitted any signal and SSG RF Signal Off. Then EUT will be continuous transmitted signal.

5.9.4. Test Setup Layout



5.9.5. EUT Operation during Test

The EUT was programmed to be in normal transmitting mode.

5.9.6. Test Result

Test Mode	Test Result
802.11a	Pass
802.11n(HT20)	Pass
802.11n(HT40)	Pass

after a carrier signal $22.79 + Gr - 20 \cdot \log(f)$ [dBm] was injected into EUT, it stopped transmission.

2. The EUT has three carriers in the test

5.10. Interference prevention function

5.10.1. Standard Applicable

Item	Limits
Identification code	$\geq$ 48 bits

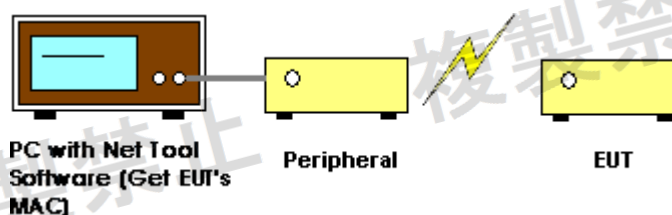
5.10.2. Measuring ID Code Software

PC with NetTool	Setting
MAC IP List	MAC Scan

5.10.3. Test Procedures

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

5.10.4. Test Setup Layout



5.10.5. EUT Operation during Test

The EUT was programmed to be in normal transmitting mode.

5.10.6. Test Result

MAC Address: 48:A3:E2:DA:26C:7F

Complies.

5.11. Dynamic Frequency Selection

5.11.1 Technical Requirements for DFS

5.11.1.1 Applicability of DFS Requirements

Requirement	Operational Mode
	Master
Confirming available channels	Yes
Monitoring of operating channel	Yes

5.11.1.2 DFS Interference Thresholds and Response Requirement

Interference threshold values

Maximum Transmit power (eirp)	Value (see notes)
≥ 200 mW	-64 dBm
< 200 mW	-62 dBm
NOTE : This is the level at the input of the receiver assuming a 0 dBi receive antenna.	

DFS requirement values

Parameter		Value
Confirming available channels		60 s
Monitoring of operating channel	Channel Move Time	10 s
	Channel Closing Transmission Time	260 ms
Non-Occupancy Period		30 minutes

5.11.2 DFS test signals

5.11.2.1 Parameters of the DFS test signal in the 5250-5350 MHz band

The radio wave which a radar transmits						Detection probability
Classification	Pulse width		Repetition frequency		Minimum number of consecutive pulses	
	minimum value	maximum value	minimum value	maximum value		
1	0.5μS	5μS	200 Hz	1000 Hz	10	60% or more
2	0.5μS	15μS	200 Hz	1600 Hz	15	60% or more
3	0.5μS	5μS	200 Hz	1000 Hz	“Repetition frequency x 0.026” (Round up to less than 1), or “22”, whichever is larger, or “30”, whichever is smaller	60% or more
4	0.5μS	15μS	200 Hz	1600 Hz	“Repetition frequency x 0.026” (Round up to less than 1), or “22”, whichever is larger, or “30”, whichever is smaller	60% or more
5	0.5μS	1.5μS	1114 Hz	1118 Hz	30	60% or more
6	0.5μS	1.5μS	928 Hz	932 Hz	25	60% or more
7	0.5μS	1.5μS	886 Hz	890 Hz	24	60% or more
8	0.5μS	1.5μS	738 Hz	742 Hz	20	60% or more

5.11.2.1 Parameters of the DFS test signal in the 5470-5730 MHz band

A. Fixed pulse radar wave test signals

Test signal	Pulse width [μs]	Pulse repetition frequency [Hz]	Number of continuous pulses	Repetition cycle [s]
Fixed Pulse 1	0.5	720	18	15.0
Fixed Pulse 2	1.0	700	18	15.0
Fixed Pulse 3	2.0	250	18	15.0

B. Variable pulse radar wave test signals

Test signal	Pulse width [μs]	Pulse repetition frequency [Hz]	Number of continuous pulses	Repetition cycle [s]
Variable Pulse 4	Width in a range of 1 to 5 μs in increments of 1 μs	Any one frequency in a range of 4,347 to 6,667 Hz	Any one integer between 23 and 29	15.0
Variable Pulse 5	Width in a range of 6 to 10 μs in increments of 1 μs	Any one frequency in a range of 2,000 to 5,000 Hz	Any one integer between 16 and 18	15.0
Variable Pulse 6	Width in a range of 11 to 20 μs in increments of 1 μs	Any one frequency in a range of 2,000 to 5,000 Hz	Any one integer between 12 and 16	15.0

Note: Each item in the table shall consist of any combination of 1.

C. Chirp radar wave test signal

Test signal	Pulse width [μs]	Pulse repetition frequency [Hz]	Number of continuous pulses	Repetition cycle [s]
Chirp	Width in a range of 50 to 100 μs in increments of 1 μs	Any one frequency in a range of 500 to 1,000 Hz	Any one integer between 1 and 3	12.0

Note 1: Bursts shall be transmitted within 12 seconds.

Note 2: The Chirp width shall be a frequency width that ranges from 5 to 20 MHz in increments of 1 MHz.

An individual Chirp width can be any in each burst and Chirp widths within the same burst shall be equal.

Note 3: The number of bursts shall be any integer in a range of 8 to 20 and a burst interval shall be a time period derived
&nb sp; from dividing 12 seconds with the number of bursts.

Note 4: If there are multiple pulses within a burst of 1s, the width of each pulse shall be equal and the pulse repetition
frequency shall not have any relationships with that for the subsequent pulses of 1.

Note 5: Each item in the table shall consist of any combination of 1.

D. Frequency hopping radar wave test signal

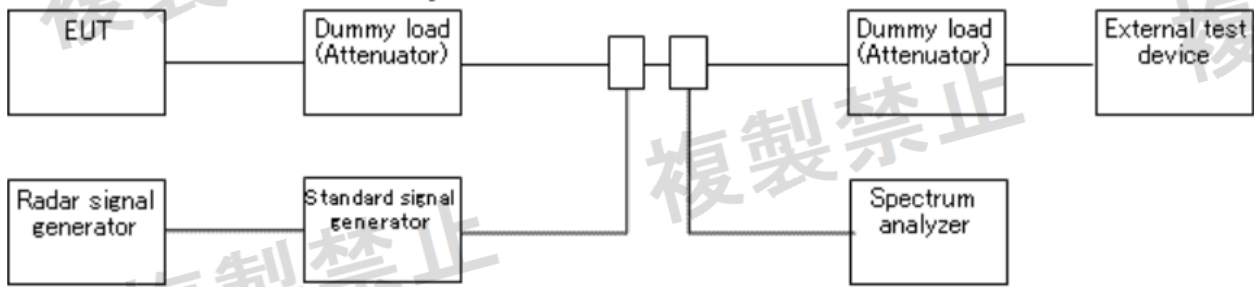
Test signal	Pulse width [μs]	Pulse repetition frequency [Hz]	Number of continuous pulses	Repetition cycle [s]
Hopping	1.0	3,000	9	10.0

Note 1: The hopping frequency shall be any frequency that ranges from 5,250 to 5,724 MHz in increments of 1 MHz.

Note 2: An individual hopping interval shall be 3 ms and a total of all hopping intervals shall be 300 ms.

Note 3: Burst intervals shall be 3ms.

5.11.3 DFS Test Setup



5.11.4 Communication Load

☒	5250-5350 MHz band: 47% of the maximum signal transmission speed
☒	5470-5730 MHz Band: 20% of the maximum signal transmission speed

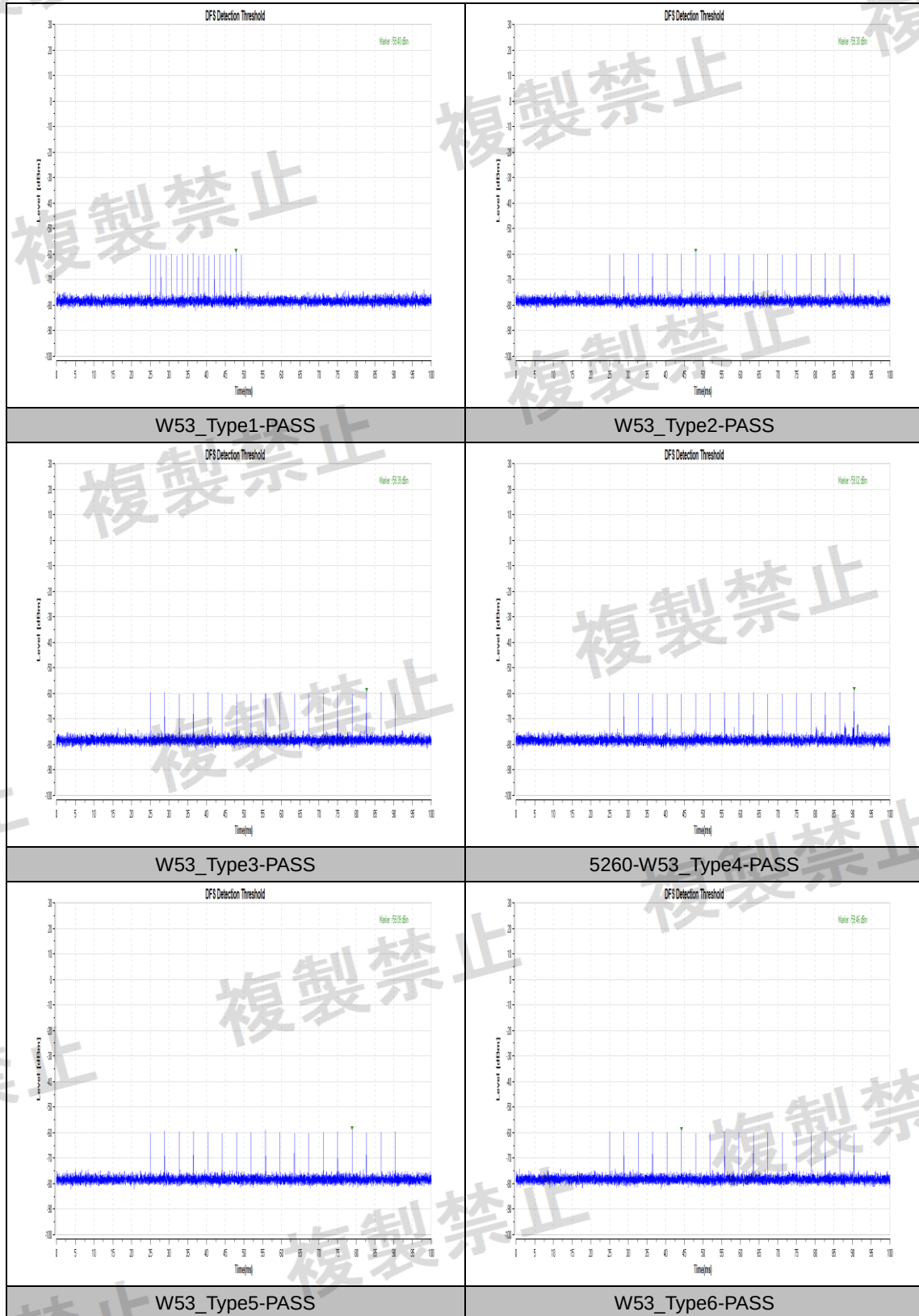
5.11.5. Test Results

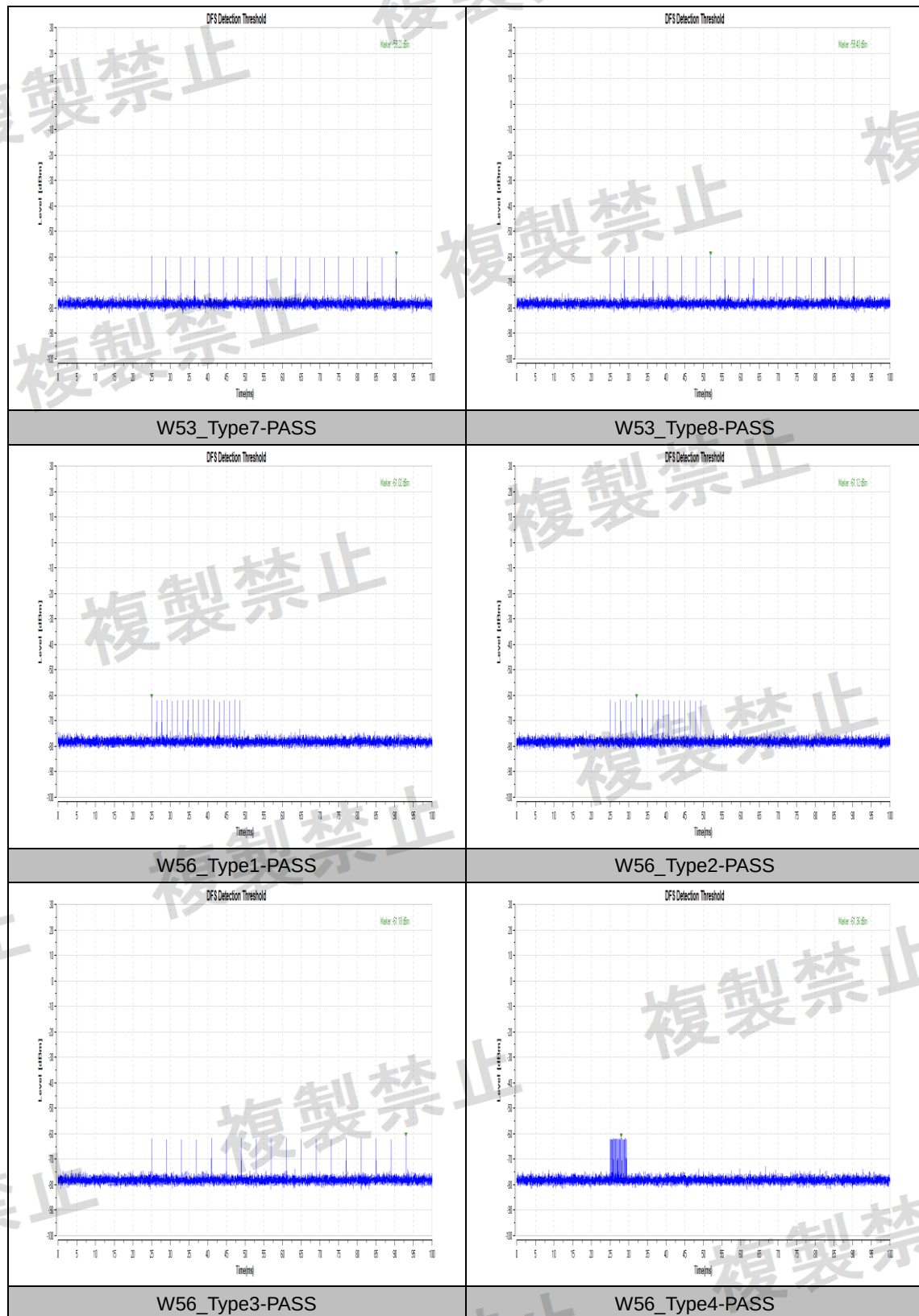
Appendix A: DFS Detection Thresholds

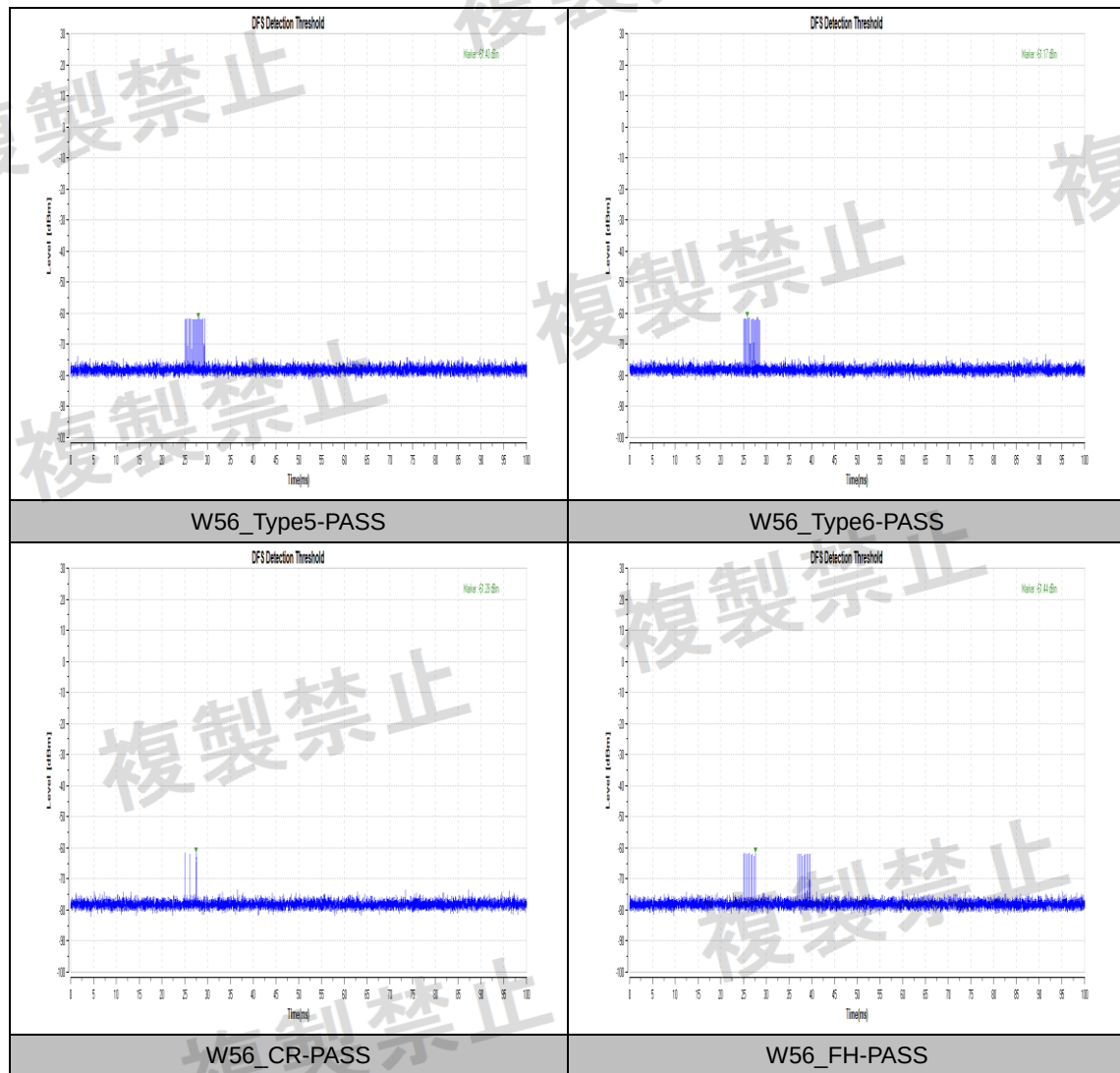
1. Test Result

Radar Type	Result	Limit[dbm]	Verdict
W53_Type1	-59.40	-59.00	PASS
W53_Type2	-59.30	-59.00	PASS
W53_Type3	-59.39	-59.00	PASS
W53_Type4	-59.02	-59.00	PASS
W53_Type5	-59.09	-59.00	PASS
W53_Type6	-59.46	-59.00	PASS
W53_Type7	-59.22	-59.00	PASS
W53_Type8	-59.40	-59.00	PASS
W56_Type1	-61.02	-61.00	PASS
W56_Type2	-61.12	-61.00	PASS
W56_Type3	-61.18	-61.00	PASS
W56_Type4	-61.36	-61.00	PASS
W56_Type5	-61.40	-61.00	PASS
W56_Type6	-61.17	-61.00	PASS
W56_CR	-61.28	-61.00	PASS
W56_FH	-61.44	-61.00	PASS

2. Test Graphs







Appendix B: Radar Detection Threshold during CAC

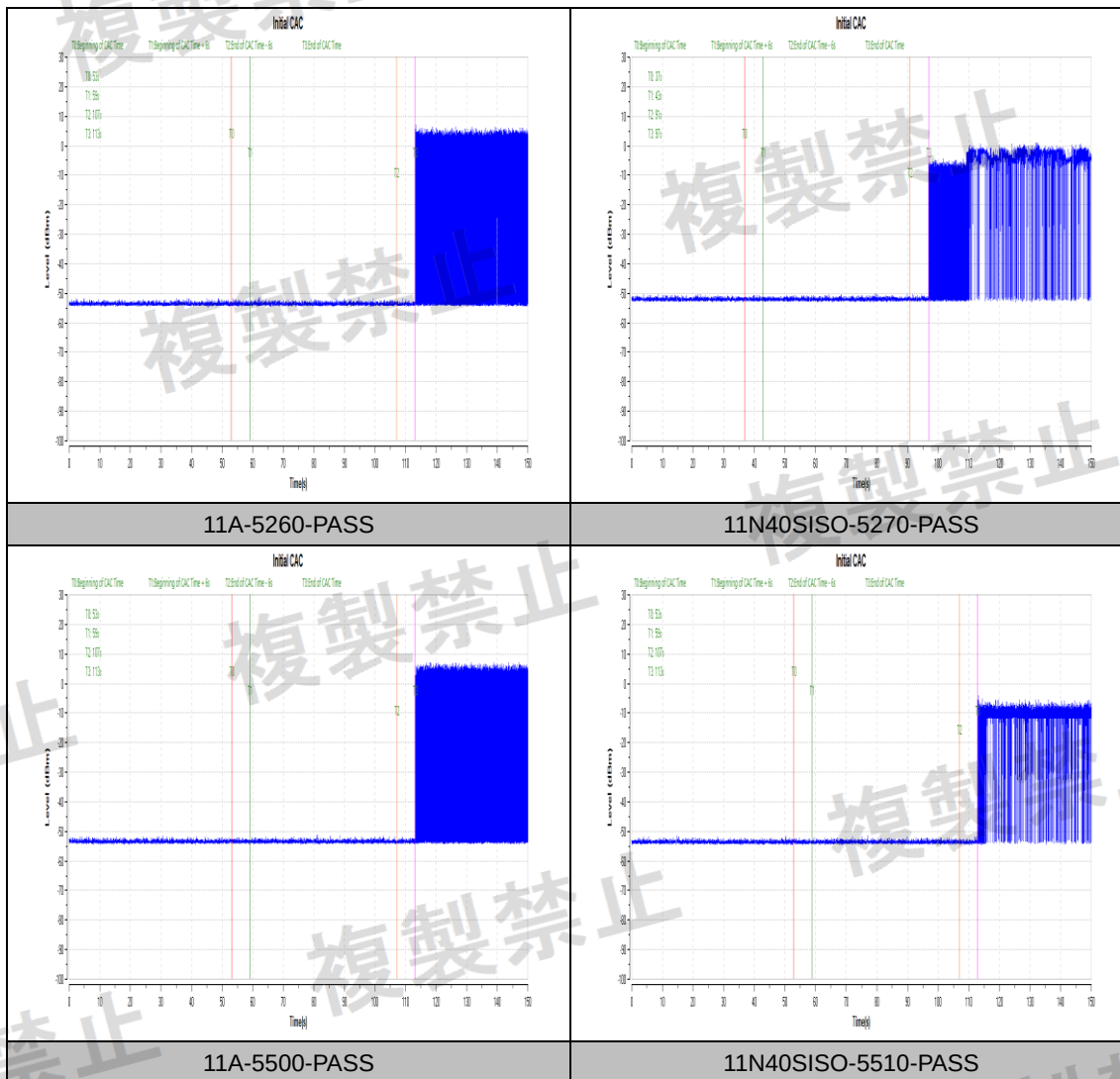
3. Test Result

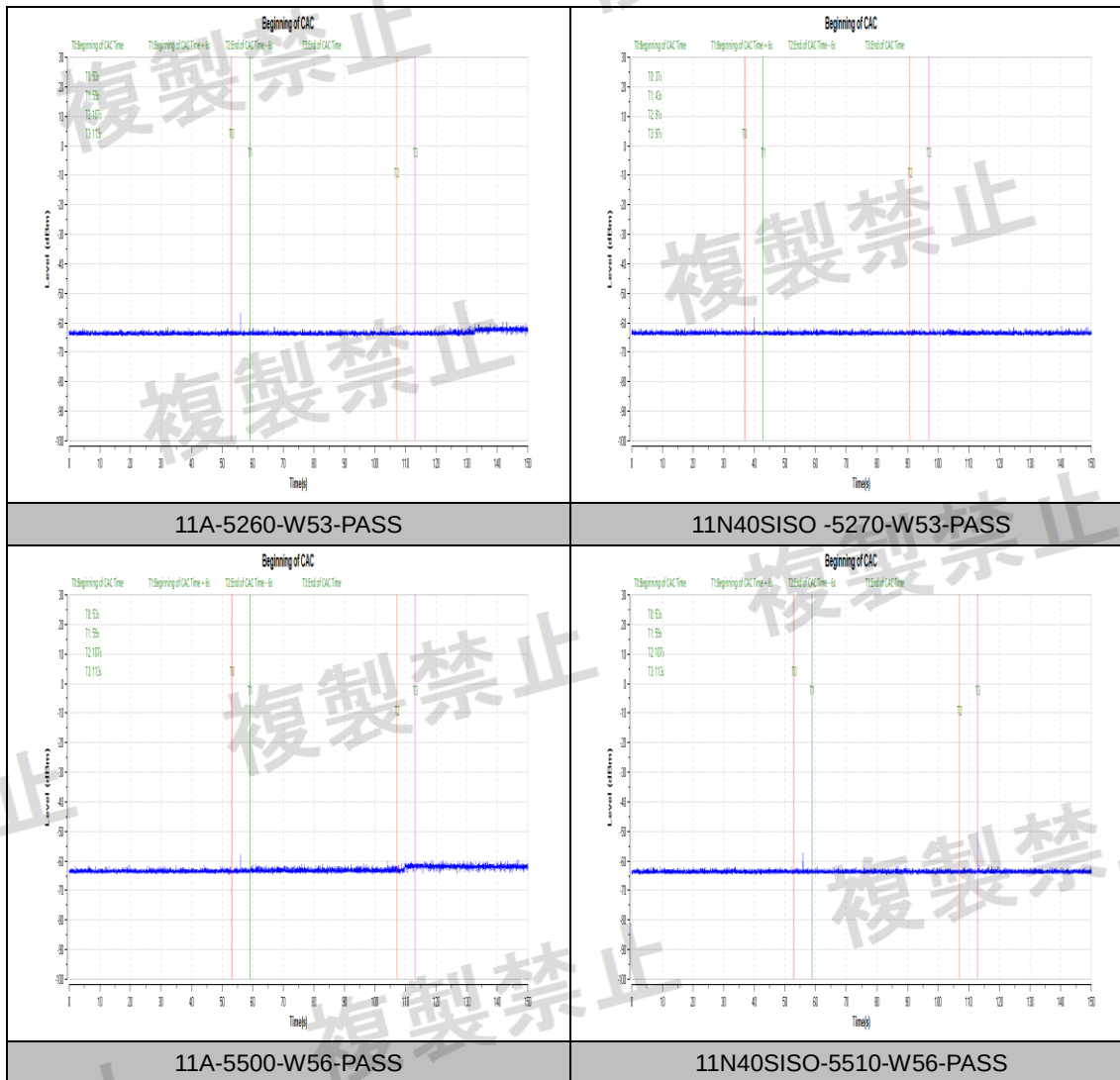
TestMode	Frequency[MHz]	Result	Verdict
11A	5260	See test Graph	PASS
11N40SISO	5270	See test Graph	PASS
11A	5500	See test Graph	PASS
11N40SISO	5510	See test Graph	PASS

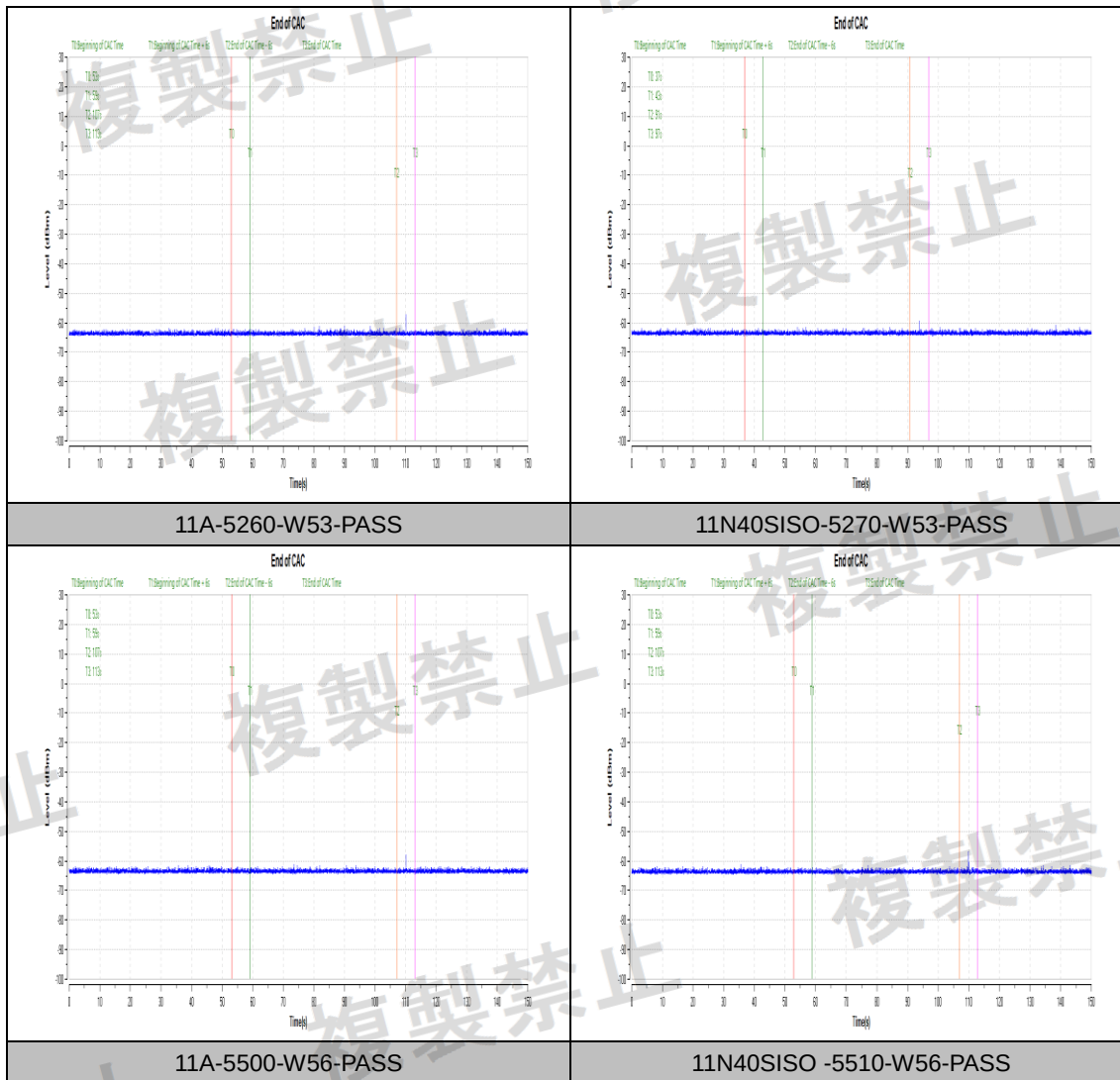
TestMode	Frequency[MHz]	Result	Verdict
11A	5260	See test Graph	PASS
11N40SISO	5270	See test Graph	PASS
11A	5500	See test Graph	PASS
11N40SISO	5510	See test Graph	PASS

TestMode	Frequency[MHz]	Result	Verdict
11A	5260	See test Graph	PASS
11N40SISO	5270	See test Graph	PASS
11A	5500	See test Graph	PASS
11N40SISO	5510	See test Graph	PASS

4. Test Graphs





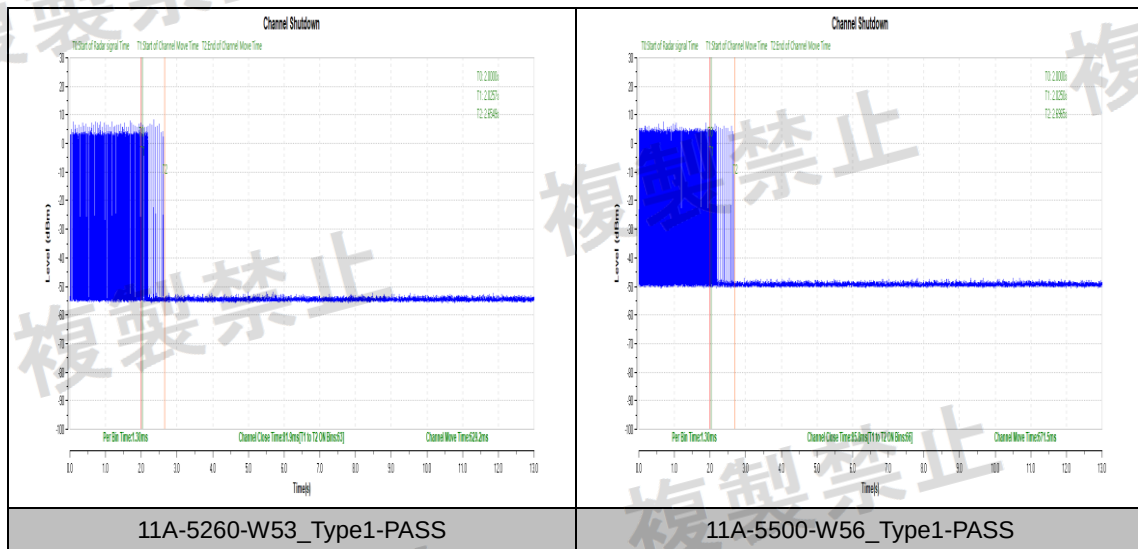


Appendix C: Channel Move Time and Channel Closing Transmission Time

5. Test Result

TestMode	Frequency[MHz]	Radar Type	CCT[ms]	Limit[ms]	CMT[ms]	Limit[ms]	Verdict
11A	5260	W53_Type1	81.9	260	629.2	10000	PASS
11A	5500	W56_Type1	85.8	260	671.5	10000	PASS

6. Test Graphs

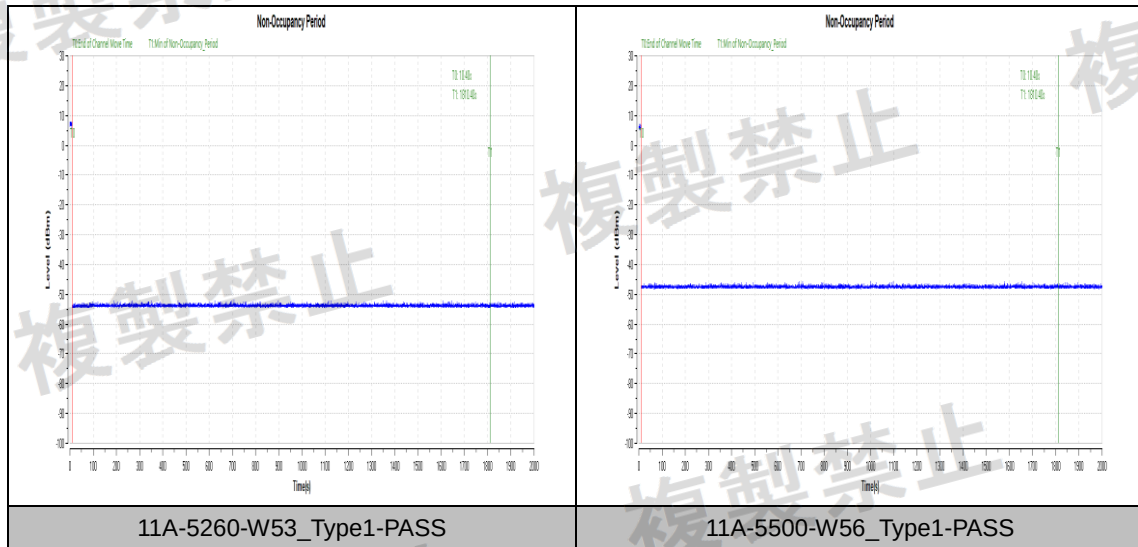


Appendix D: Non-Occupancy Period

7. Test Result

TestMode	Frequency[MHz]	Radar Type	Result	Limit[s]	Verdict
11A	5260	W53_Type1	see test graph	≥1800	PASS
11A	5500	W56_Type1	see test graph	≥1800	PASS

8. Test Graphs



Appendix E: Detection Probability Check

9. Test Result

Bandwidth	Freq.(MHz)	Test Trail	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7	Type 8
40MHz	5270	1	1	1	1	0	1	1	0	1
	5270	2	0	0	1	1	1	1	1	1
	5270	3	1	1	0	1	1	1	1	1
	5270	4	1	1	1	1	1	1	1	1
	5270	5	1	1	1	1	1	1	1	1
	5270	6	1	1	1	1	1	1	1	1
	5270	7	0	0	1	1	1	1	1	1
	5270	8	1	1	1	1	1	1	1	1
	5270	9	1	1	1	1	1	1	0	1
	5270	10	1	1	1	1	1	0	1	1
	5270	11	1	1	0	1	1	1	1	1
	5270	12	1	1	1	1	1	1	1	1
	5270	13	1	1	0	1	1	1	1	1
	5270	14	1	1	1	1	1	1	1	1
	5270	15	1	1	1	1	1	0	1	1
	5270	16	1	1	0	1	1	1	1	1
	5270	17	1	1	1	1	1	1	1	1
	5270	18	1	1	1	1	1	1	1	1
	5270	19	1	1	1	1	0	1	1	0
	5270	20	1	1	0	1	1	1	1	1
Detection Percentage			90%	90%	85%	95%	95%	90%	90%	95%
Limit			60%	60%	60%	60%	60%	60%	60%	60%
Result			Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

Bandwidth	Freq.(MHz)	Test Trail	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	CR	FH
40MHz	5510	1	1	1	1	1	1	1	1	1
	5510	2	1	1	1	0	1	1	1	1
	5510	3	1	1	1	1	0	0	0	1
	5510	4	1	1	1	1	1	1	1	1
	5510	5	1	1	1	0	1	0	1	1
	5510	6	1	1	1	1	0	0	1	1
	5510	7	1	1	1	1	1	1	1	1
	5510	8	1	1	1	1	1	1	1	1
	5510	9	1	1	1	1	1	1	1	1
	5510	10	1	1	1	1	1	1	1	1
	5510	11	1	1	1	1	1	1	1	1
	5510	12	1	1	1	1	1	1	1	1
	5510	13	1	1	1	1	1	1	1	1
	5510	14	1	1	1	1	1	1	1	1
	5510	15	1	1	1	0	1	0	1	1
	5510	16	1	1	1	1	1	0	1	1
	5510	17	1	1	1	1	1	1	1	1
	5510	18	1	1	1	1	1	1	1	0
	5510	19	1	1	1	1	1	0	1	1
	5510	20	1	1	1	1	1	1	1	1
Detection Percentage			100%	100%	100%	85%	90%	70%	95%	95%
Limit			60%	60%	60%	60%	60%	60%	60%	60%
Result			Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Aggregate (100% + 100% + 100% + 85%+ 90% + 70%+95%+95%)/8 =91.875%										

6. PHOTOGRAPHS OF TEST SETUP

Please refer to separated files Appendix E for Test Setup Photographs

7. EXTERNAL PHOTOGRAPHS OF THE EUT

Please refer to separated files Appendix F for External Photos of EUT

8. INTERNAL PHOTOGRAPHS OF THE EUT

Please refer to separated files Appendix G for Internal Photos of EUT

9. LIST OF MEASURING EQUIPMENTS

LIST OF MEASURING EQUIPMENTS OF CONDUCTED

Item	Equipment	Manufacturer	Model No.	Equipment No.	Cal Date	Due Date
1	Power Meter	Keysight	E4417A	GLCS-E-279	2025-04-10	2026-04-09
2	Power Sensor	Keysight	E9304A	GLCS-E-280	2025-04-10	2026-04-09
3	Power Sensor	Keysight	E9304A	GLCS-E-281	2025-04-10	2026-04-09
4	Spread Ppectrum Unit	Tonscend	TS-WF7U2	GLCS-E-364	N/A	N/A
5	Test Software	Tonscend	JS1120-3	GLCS-E-366	N/A	N/A
6	RF Control Unit	Tonscend	JS0806-2	GLCS-E-365	2025-09-01	2026-08-31
7	MXA Signal Analyzer	Keysight	N9020A	GLCS-E-356	2025-08-18	2026-08-17
8	DC Power Supply	Keysight	E3642A	GLCS-E-357	2025-08-18	2026-08-17
9	Oscilloscope	Tektronix	46084A/4609A	GLCS-E-113	2025-05-22	2026-05-21
10	Signal Generator	Keysight	N5181A	GLCS-E-354	2025-08-18	2026-08-17

Note: Calibration by the calibration agencies listed in the table correspond to paragraph 4 (ii) (c) of Article 24-2 in the Radio Law.
Calibration Agencies: Guangzhou LiSai Metrology & Test Co., Ltd.

☐ (a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18-1 of the Radio Act.

☐ (b) Calibration conducted based on the regulations of Article 135 or 144 of the Measurement Act.

☒ (c) Calibration conducted in foreign countries, which is equivalent to calibration conducted by the NICT or a designated calibration agency under Article 102-18-1 of the Radio Act.

☐ (d) Calibration, etc. conducted by using measuring instruments and other facilities listed at the bottom of appended table 3 of the Radio Act, which is to have been calibrated as described in (a) through (c) above.

LIST OF MEASURING EQUIPMENTS OF DFS

Manufacturer	Model / Equipment	Cal Date	Due Date	Serial No.
SAMSUNG ELECTRONICS	S2LF812265/ Wireless AP (Master Device)	N/A	N/A	S2LF812265
ADLINK	PXI/DFS Measurement System(S/G)	2025-03-18 2026-03-17	2026-03-17 2027-03-16	302581/735
ADLINK	PXI/DFS Measurement System(S/A)	2025-03-18 2026-03-17	2026-03-17 2027-03-16	303582/113
Agilent	N9020A / Signal Analyzer	2025-06-03	2026-06-02	MY52090906
Hewlett Packard	11636B/Power Divider	2025-02-17 2026-02-16	2026-02-16 2027-02-15	0531
Hewlett Packard	11667B / Power Splitter	2025-06-02	2026-06-01	05001
Agilent	8493C / Attenuator(10 dB)	2025-09-03	2026-09-02	07560
WEINSCHEL	2-3 / Attenuator(3 dB)	2025-08-06	2026-08-05	BR0617
Weinschel	AF9003-69-31 / Step Attenuator	2025-10-09	2026-10-08	5701
Cernex	CDPU5260404K / 4 Way Power Divider	2025-03-03 2026-03-02	2026-03-02 2027-03-01	14695
Narda	4426-4 / 4 Way Power Divider	2026-02-03	2027-02-02	11927

-----THE END OF REPORT-----