



JAPAN RADIO TEST REPORT

DFS

Product Name : AI Home Gateway

Model Name : NCP-HG100

Applicant : Sony Mobile Communications Inc.
4-12-3, Higashi-shinagawa, Shinagawa-ku, Tokyo,
140-0002, Japan

Manufacturer : Wistron Corporation
21F, No. 88, Sec. 1, Hsin Tai Wu Rd., Hsichih Dist, New
Taipei City 221, Taiwan R.O.C.

Declaration Output Power : 4.4, 4.0 mW/MHz (OFDM_W53_802.11a_SISO) ;
4.2, 4.0 mW/MHz (OFDM_W53_802.11n_HT20_SISO) ;
2.4, 1.8 mW/MHz (OFDM_W53_802.11n_HT40_SISO) ;
1.2, 1.0 mW/MHz (OFDM_W53_802.11ac-VHT80_SISO) ;
4.0 mW/MHz (OFDM_W53_802.11a_MIMO) ;
4.0 mW/MHz (OFDM_W53_802.11n_HT20_MIMO) ;
2.0 mW/MHz (OFDM_W53_802.11n_HT40_MIMO) ;
1.0 mW/MHz (OFDM_W53_802.11ac-VHT80_MIMO) ;
7.0, 5.9 mW/MHz (OFDM_W56_802.11a_SISO) ;
6.2, 5.6 mW/MHz (OFDM_W56_802.11n_HT20_SISO) ;
3.2, 3.1 mW/MHz (OFDM_W56_802.11n_HT40_SISO) ;
1.4, 1.3 mW/MHz (OFDM_W56_802.11ac-VHT80_SISO) ;
9.0 mW/MHz (OFDM_W56_802.11a_MIMO) ;
10.0 mW/MHz (OFDM_W56_802.11n_HT20_MIMO) ;
4.7 mW/MHz (OFDM_W56_802.11n_HT40_MIMO) ;
2.0 mW/MHz (OFDM_W56_802.11ac-VHT80_MIMO)

STANDARD : Article 49-20, the relevant articles and MIC Notice No.
48 of the Ordinance Regulating Radio Equipment.

test procedure : MIC Notice No.88 Appendix No.45



The product sample received on Jul. 12, 2018 and testing was started from Jul. 23, 2018 and completed on Aug. 24, 2018. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in MIC Notice No.88 Appendix No.45 and shown to be compliant with the applicable technical standards. Article 2 Paragraph 1 Item 19-3 and Item 19-3-2 of the Certificate Ordinance of the Radio Law indicates the classification of the specified radio equipment.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



Report No. : JZ871228

JAPAN RADIO TEST REPORT – DFS

Report No. : JZ871228

History of this test report

HISTORY OF THIS TEST REPORT	4
SUMMARY OF TEST RESULT	5
1 GENERAL DESCRIPTION	6
1.1 Feature of Equipment Under Test	6
1.2 Modification of EUT	7
1.3 Testing Site	8
1.4 Applied Standards	8
1.5 Ancillary Equipment List	8
2 REQUIREMENTS AND PARAMETERS FOR DFS TEST	9
2.1 Interference Threshold values	9
2.2 DFS Response requirement values	9
2.3 Radar Test Waveforms	9
3 CALIBRATION SETUP AND DFS TEST RESULTS	11
3.1 Calibration of Radar Waveform	11
3.2 Check Availability Channels	13
3.3 Monitoring of operating channel	15
4 LIST OF MEASURING EQUIPMENT	17
APPENDIX A. SETUP PHOTOGRAPHS	
APPENDIX B. TEST RESULTS	

[illegible]



SUMMARY OF TEST RESULT

Support Band	Item	Description	Measured	Limit	Result
W53 Band 5250-5350MHz	Confirming available channels	Channel Availability Check Time	≧ 60 sec	≧ 60 sec	Pass
		Detection Probability	4 times	4 times	Pass
	Monitoring of operating channel	Channel Move Time	0.7997 sec	≦ 10 sec	Pass
		Non-Occupancy Period	≧ 30 minutes	≧ 30 minutes	Pass
		Channel Closing Transmission time	208.4 msec (aggregate)	≦ 260 ms	Pass
		Detection Probability	65%	≧ 60%	Pass
W56 Band 5470-5725MHz	Confirming available channels	Channel Availability Check Time	≧ 60 sec	≧ 60 sec	Pass
		Detection Probability	4 times	4 times	Pass
	Monitoring of operating channel	Channel Move Time	0.5213 sec	≦ 10 sec	Pass
		Non-Occupancy Period	≧ 30 minutes	≧ 30 minutes	Pass
		Channel Closing Transmission time	205.6 msec (aggregate)	≦ 260 ms	Pass
		Detection Probability	Pulse: 93.75% Chirp: 100 % Hopping: 100 %	Pulse ≧ 80% Chirp ≧ 80% Hopping ≧ 70%	Pass



1 General Description

1.1 Feature of Equipment Under Test

Product Feature & Specification			
Product Name	AI Home Gateway		
Model Name	NCP-HG100		
Tx/Rx Frequency Range	<input type="checkbox"/> 5150MHz ~ 5250MHz (W52 Band) <input checked="" type="checkbox"/> 5250MHz ~ 5350MHz (W53 Band) <input checked="" type="checkbox"/> 5470MHz ~ 5725MHz (W56 Band)		
WLAN Type of Modulation	<input type="checkbox"/> Direct Spreading (DS) <input checked="" type="checkbox"/> Orthogonal frequency-division multiplexing (OFDM) <input type="checkbox"/> Frequency Hopping (FH)		
RF Technology	<input checked="" type="checkbox"/> 802.11a <input checked="" type="checkbox"/> 802.11n-HT20 <input checked="" type="checkbox"/> 802.11ac-VHT20 <input checked="" type="checkbox"/> 802.11n-HT40 <input checked="" type="checkbox"/> 802.11ac-VHT40 <input checked="" type="checkbox"/> 802.11ac-VHT80 <input type="checkbox"/> 802.11ac-VHT160 <input type="checkbox"/> 802.11ac-80+80MHz System		
Number of Channels		W53 Band	W56 Band
	20MHz System	8	11
	40MHz System	4	5
	80MHz System	2	2
Channel Spacing	20MHz System	20MHz	
	40MHz System	40MHz	
	80MHz System	80MHz	
Declaration RF Output Power	4.4, 4.0 mW/MHz (OFDM_W53_802.11a mode_SISO)		
	4.2, 4.0 mW/MHz (OFDM_W53_802.11n HT20 mode_SISO)		
	2.4, 1.8 mW/MHz (OFDM_W53_802.11n HT40 mode_SISO)		
	1.2, 1.0 mW/MHz (OFDM_W53_802.11ac-VHT80 mode_SISO)		
	4.0 mW/MHz (OFDM_W53_802.11a mode_MIMO)		
	4.0 mW/MHz (OFDM_W53_802.11n HT20 mode_MIMO)		
	2.0 mW/MHz (OFDM_W53_802.11n HT40 mode_MIMO)		
	1.0 mW/MHz (OFDM_W53_802.11ac-VHT80 mode_MIMO)		
	7.0, 5.9 mW/MHz (OFDM_W56_802.11a mode_SISO)		
	6.2, 5.6 mW/MHz (OFDM_W56_802.11n HT20 mode_SISO)		
	3.2, 3.1 mW/MHz (OFDM_W56_802.11n HT40 mode_SISO)		
	1.4, 1.3 mW/MHz (OFDM_W56_802.11ac-VHT80 mode_SISO)		
	9.0 mW/MHz (OFDM_W56_802.11a mode_MIMO)		
	10.0 mW/MHz (OFDM_W56_802.11n HT20 mode_MIMO)		
	4.7 mW/MHz (OFDM_W56_802.11n HT40 mode_MIMO)		
	2.0 mW/MHz (OFDM_W56_802.11ac-VHT80 mode_MIMO)		



Product Feature & Specification	
Antenna Power (E.I.R.P)	9.625, 9.971 dBm/MHz (OFDM_W53_802.11a mode_SISO) 9.422, 9.971 dBm/MHz (OFDM_W53_802.11n HT20 mode_SISO) 6.992, 6.503 dBm/MHz (OFDM_W53_802.11n HT40 mode_SISO) 3.982, 3.950dBm/MHz(OFDM_W53_802.11ac_VHT80 mode_SISO) 9.971 dBm/MHz (OFDM_W53_802.11a mode_MIMO) 9.971 dBm/MHz (OFDM_W53_802.11n HT20 mode_MIMO) 6.960 dBm/MHz (OFDM_W53_802.11n HT40 mode_MIMO) 3.950 dBm/MHz (OFDM_W53_802.11ac_VHT80 mode_MIMO)
	11.161, 12.629 dBm/MHz (OFDM_W56_802.11a mode_SISO) 10.634, 12.402 dBm/MHz (OFDM_W56_802.11n HT20 mode_SISO) 7.761, 9.834 dBm/MHz (OFDM_W56_802.11n HT40 mode_SISO) 4.171, 6.059 dBm/MH (OFDM_W56_802.11ac_VHT80 mode_SISO) 14.462 dBm/MHz (OFDM_W56_802.11a mode_MIMO) 14.920 dBm/MHz (OFDM_W56_802.11n HT20 mode_MIMO) 11.641 dBm/MHz (OFDM_W56_802.11n HT40 mode_MIMO) 7.930 dBm/MHz (OFDM_W56_802.11ac_VHT80 mode_MIMO)
Type of Modulation	<input checked="" type="checkbox"/> BPSK <input checked="" type="checkbox"/> QPSK <input checked="" type="checkbox"/> 16QAM <input checked="" type="checkbox"/> 64QAM <input checked="" type="checkbox"/> 256QAM
Power Source ^{NOTE}	<input checked="" type="checkbox"/> Commercial power AC 100 ~ 240V
	<input checked="" type="checkbox"/> External Power Source DC 12V, 2.5A
	<input type="checkbox"/> Lithium battery DC 3.7V
	<input type="checkbox"/> UM battery DC 1.2V

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.2 Modification of EUT

No modifications are made to the EUT during all test items.



1.3 Testing Site

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-3273456 / FAX: +886-3-3284978
Test Site No.	Sporton Site No. DFS02-HY

1.4 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- Article 49-20 and the relevant articles of the Ordinance Regulating Radio Equipment
- MIC Notice No. 48 to Article 49-20 of the Ordinance

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The measurement was implemented in accordance with MIC Notice No. 88 Appendix No. 45.

1.5 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	JRL Certification	TBL Certification	Note
1.	Notebook	Lenovo	TP00034A	007GZCUL0701 007XWAUL0702 007YWAUL0703	D11-5003 201	



2 Requirements and Parameters for DFS Test

2.1 Interference Threshold values

Maximum Transmit Power (E.I.R.P)	Output Level ^{Note} (E.I.R.P)
< 0.2 watt	-62 dBm
≥ 0.2 watt	-64 dBm

Note : This is the level at the input of the receiver assuming a 0dBi receive antenna.

2.2 DFS Response requirement values

Parameter	Value
Channel Availability Check Time	≥ 60 seconds
Channel Move Time	≤ 10 seconds
Non-Occupancy Period	≥ 30 minutes
Channel Closing Transmission time	≤ 260 milliseconds

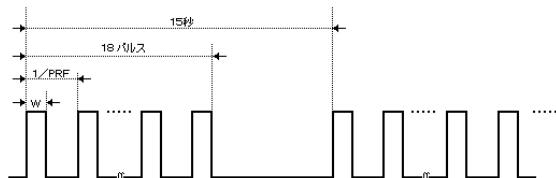
2.3 Radar Test Waveforms

2.3.1 For W53 Band

Follow MIC Notice No.48 Appendix No.1

Radar Type	Pulse Width (μsec)	PRF (Hz)	Number of Pulses	Repetition period	Radar Detection Probability
Fixed pulse 1	1.0	700	18	15 sec	≥ 60%
Fixed pulse 2	2.5	260	18	15 sec	≥ 60%

Note : The Channel Loading is 50 % of Maximum Transmission Data Rate.



2.3.2 For W56 Band

A. Follow MIC Notice No.48 Appendix No.2

Radar Type	Pulse Width (μsec)	PRF (Hz)	Number of Pulses	Repetition period	Radar Detection Probability
Fixed Pulse 1	0.5	720	18	15 sec	≥ 60%
Fixed Pulse 2	1.0	700	18	15 sec	≥ 60%
Fixed Pulse 3	2.0	250	18	15 sec	≥ 60%
Variable Pulse 4	1.0 ~ 5.0	4347 ~ 6667	23 ~ 29	15 sec	≥ 60%
Variable Pulse 5	6.0 ~ 10.0	2000 ~ 5000	16 ~ 18	15 sec	≥ 60%
Variable Pulse 6	11.0 ~ 20.0	2000 ~ 5000	12 ~ 16	15 sec	≥ 60%
Aggregate (Radar Types 1-6)					≥ 80%

Note :

- The Channel Loading is 17 % of Maximum Transmission Data Rate.
- The aggregate is the average of the percentage of successful detections of 6 Radar Types.

B. Follow MIC Notice No.48 Appendix No.3

Radar Type	Pulse Width (μsec)	PRF (Hz)	Number of Pulses	Repetition period	Radar Detection Probability
Chirp	5 ~ 100	500 ~ 1000	1 ~ 3	12 sec	≥ 80%

Note :

- The Channel Loading is 17 % of Maximum Transmission Data Rate.
- The chirp width shall be a frequency width that ranges from 5 to 20 MHz in increments of 1MHz.
- In the case of being lots pulse in the Burst, each pulse is same as them.
- 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 from dividing 12 seconds with the number of bursts.

C. Follow MIC Notice No.48 Appendix No.4

Radar Type	Pulse Width (μsec)	PRF (Hz)	Number of Pulses (in 1 Burst)	Repetition period	Radar Detection Probability
Hopping	1	3000	9	10 sec	≥ 70%

Note :

- The Channel Loading is 17 % of Maximum Transmission Data Rate.
- The hopping frequency shall be any frequency that ranges from 5,250 to 5,724 MHz in increments of 1MHz.
- An individual hopping interval shall be 3ms and a total of all hopping intervals shall be 300ms.
- Burst intervals shall be 3ms

3 Calibration Setup and DFS Test Results

3.1 Calibration of Radar Waveform

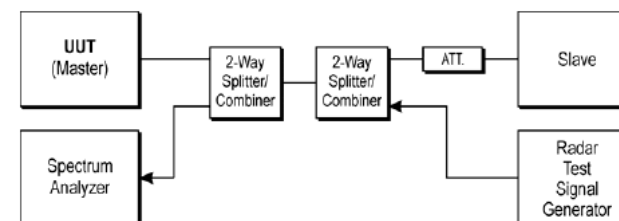
3.1.1 Radar Waveform Calibration Procedure

Follow MIC Notice No.88 Appendix 45.

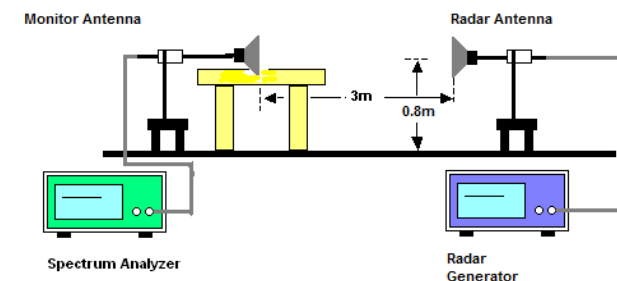
The Interference Radar Detection Threshold Level is -62dBm (or -64dBm) that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the radiated Radar Waveform. A vector signal generator was utilized to establish the test signal level for each radar type. During this process there were replace 50ohm terminal form Master and Client device and no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero span (Time Domain) at the frequency of the Radar Waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) was set to 1MHz and video bandwidth (VBW) was set to 3MHz. The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was -61.5dBm (or -63.5dBm). Capture the spectrum analyzer plots on short pulse radar waveform.

3.1.2 Calibration Setup

Conducted Test Setup Diagram



Radiated Test Setup Diagram



3.1.3 Calibration Deviation

There is no deviation with the original standard.

3.1.4 Result of Radar Waveform Calibration

Please refer to APPENDIX B.

3.2 Check Availability Channels

3.2.1 Limit

Support Band	Radar Type	Channel Availability Check Time	Times of Detection ¹ (Detection Probability)
W53 Band	Fixed pulse 1	≥ 60 sec	≥ 4 times
	Fixed pulse 2		
W56 Band	Fixed pulse 1 or 2 ²	≥ 60 sec	≥ 4 times
	Fixed pulse 3		
	Variable Pulse 4		
	Variable Pulse 5 or 6 ³		
	Chirp		
	Hopping		

Note :

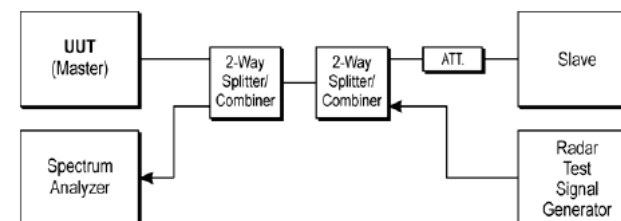
- Total times were 4 times during testing.
- Regarding "Fixed Pulse 1" and "Fixed Pulse 2", tests for either pulse type may be omitted. If sampling intervals during which EUT detects radar wave exceed 0.5 μ s, however, tests for "Fixed Pulse 1" must be performed.
- Regarding "Variable Pulse 5" and "Variable Pulse 6", tests for either pulse type may be omitted.

3.2.2 Test Procedures

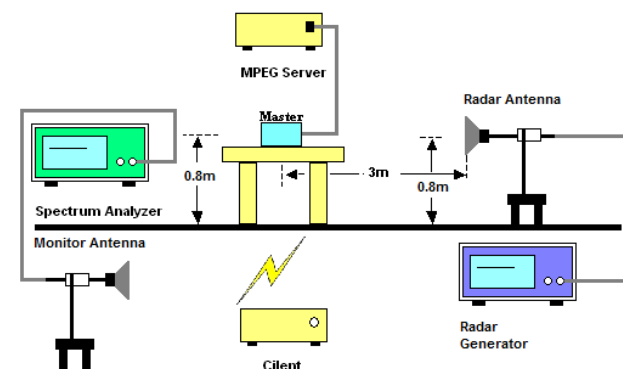
Follow MIC Notice No.88 Appendix No.45.

3.2.3 Test Setup

Conducted Test Setup Diagram



Radiated Test Setup Diagram



3.2.4 Test Deviation

There is no deviation with the original standard.

3.2.5 Result of Check Availability Channels

Please refer to APPENDIX B.

3.3 Monitoring of operating channel

3.3.1 Limit

Support Band	Radar Type	Non-Occupancy Period	Channel Move Time	Channel Closing Transmission Time	Times of Detection ¹ (Detection Probability)
W53 Band	Fixed pulse 1	≥ 30 min	≤ 10 sec	≤ 260 msec	$\geq 60\%$ (each) and
	Fixed pulse 2				
W56 Band	Fixed pulse 1 or 2 ²	≥ 30 min	≤ 10 sec	≤ 260 msec	$\geq 60\%$ (each) and $\geq 80\%$ (aggregate)
	Fixed pulse 3				
	Variable Pulse 4				
	Variable Pulse 5 or 6 ³	≥ 30 min	≤ 10 sec	≤ 260 msec	$\geq 80\%$
	Chirp				
	Hopping	≥ 30 min	≤ 10 sec	≤ 260 msec	$\geq 70\%$

Note :

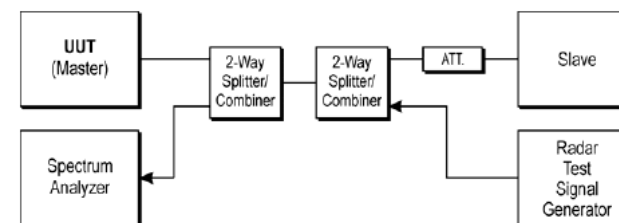
1. First total times were 20 times. If times of detection were less than 15 and more than 10 after the first testing, it must be retested 20 times and total times be more than 24 times.
2. Regarding "Fixed Pulse 1" and "Fixed Pulse 2", tests for either pulse type may be omitted. If sampling intervals during which EUT detects radar wave exceed $0.5 \mu\text{s}$, however, tests for "Fixed Pulse 1" must be performed.
3. Regarding "Variable Pulse 5" and "Variable Pulse 6", tests for either pulse type may be omitted.

3.3.2 Test Procedures

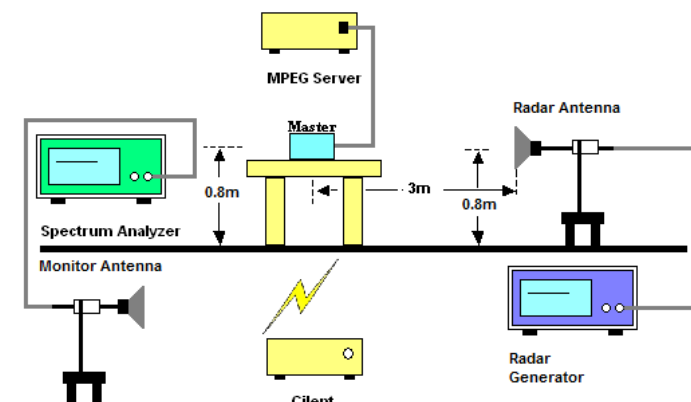
Follow MIC Notice No.88 Appendix 45.

3.3.3 Test Setup

Conducted Test Setup Diagram



Radiated Test Setup Diagram



3.3.4 Test Deviation

There is no deviation with the original standard.

3.3.5 Result of Monitoring of operating channel

Please refer to APPENDIX B.



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Test Periods	Due Date	Calibration Body	Calibration Method
Spectrum Analyzer	Keysight	N9010A	MY57120784	Nov. 08, 2017	Aug. 23, 2018~ Aug. 24, 2018	Nov. 07, 2018	ETC, R.O.C	C
Signal Generator	Keysight	N5182B	MY56200377	Apr. 16, 2018	Aug. 23, 2018~ Aug. 24, 2018	Apr. 15, 2019	ETC, R.O.C	C

Note: Above test equipment was used and kept valid calibration period during test.

Calibration Method :

a) : Calibration conducted by the National Institute of Information and Communications Technology ~ NICT ~ or a designated calibration agency under Article 102-18 paragraph

(1) TELEC Engineering Center, Intertek Japan K.K., Keysight Technologies, Inc. ~.

b) : Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) ~ Japan Calibration Service System ~

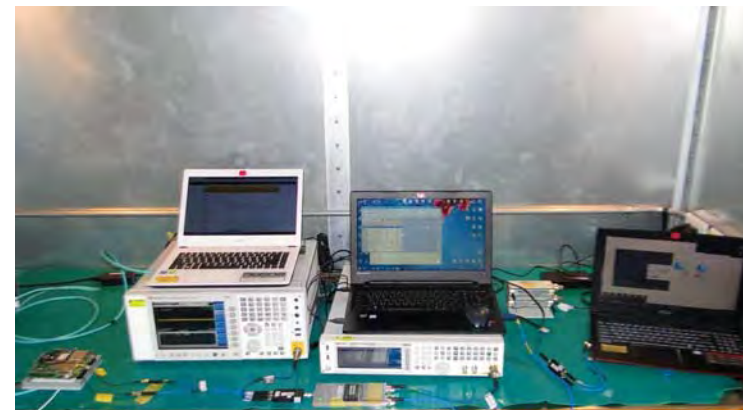
c) : Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph

(1) ~ TELEC Engineering Center, Intertek Japan K.K., Keysight Technologies, Inc. ~.



Appendix A. Setup Photographs

Front View



Rear View



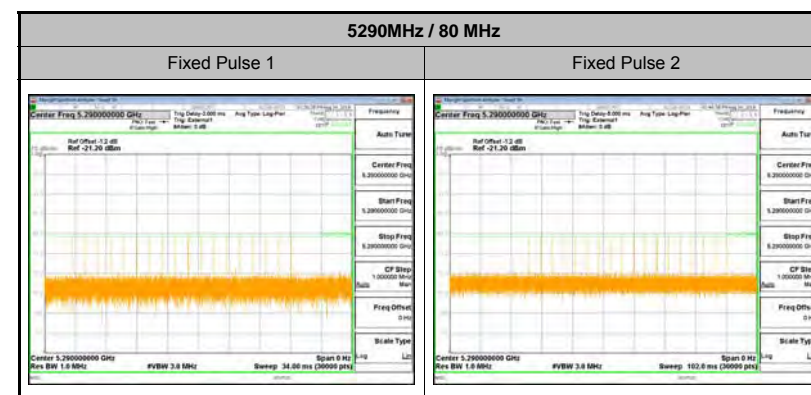
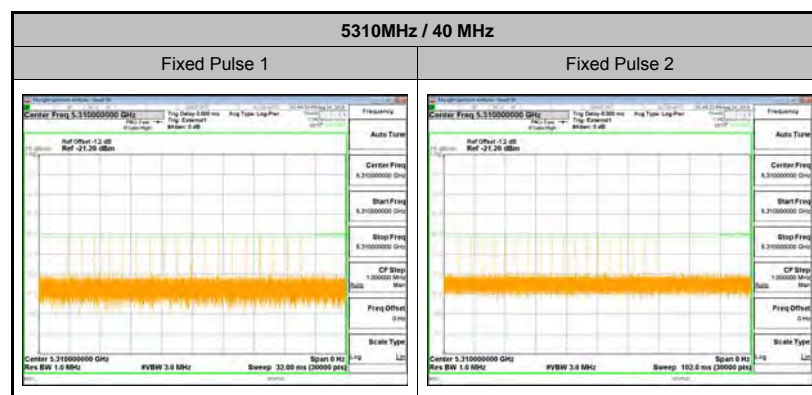
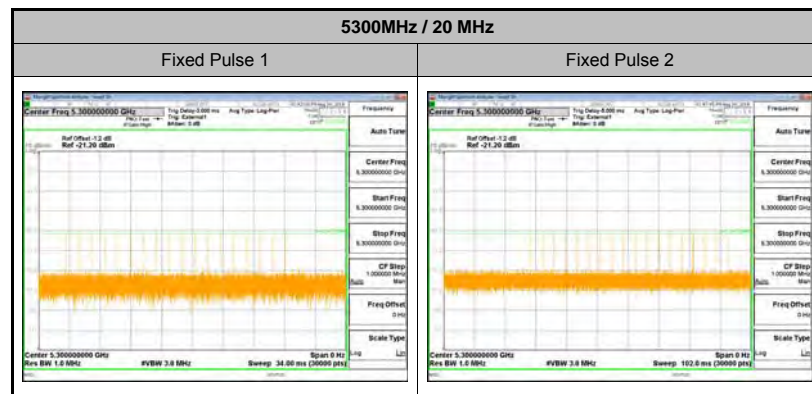


Appendix B. Test Result and Report

Information of Testing Environment			
Temperature	22~24 °C	Humidity	45~85 %
Test Voltage	12 V	Test Engineer	AnAn Wu / PH Yang

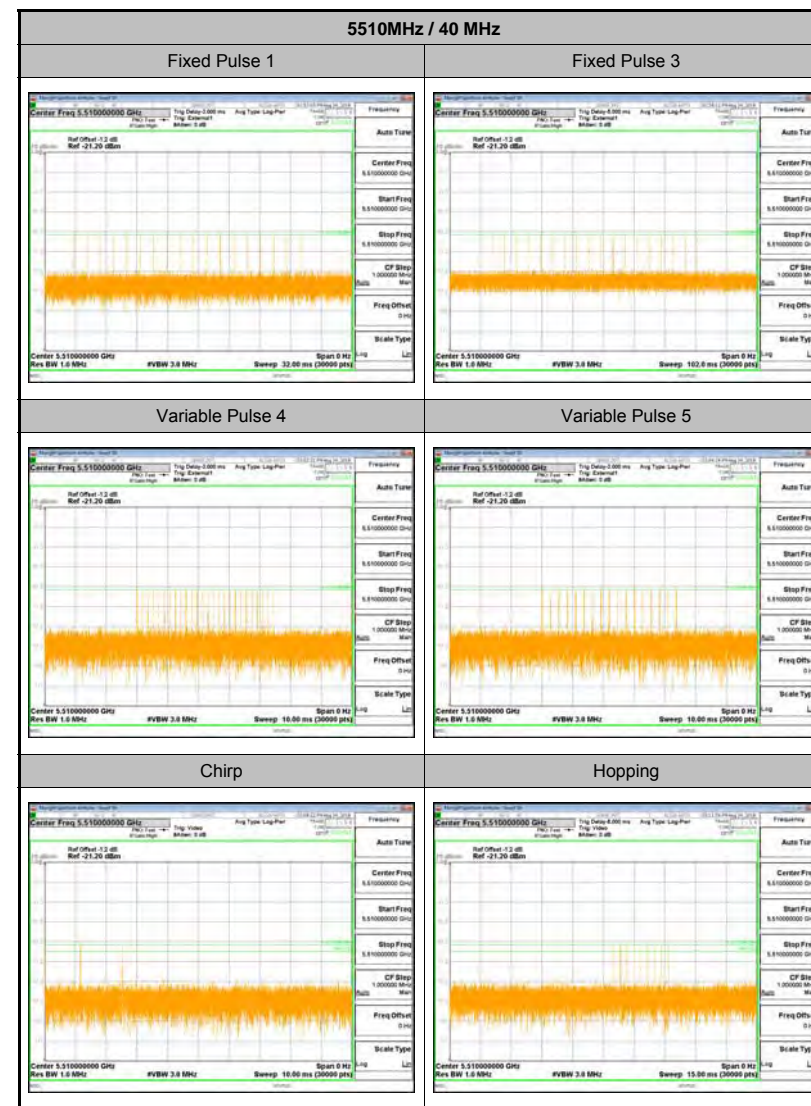
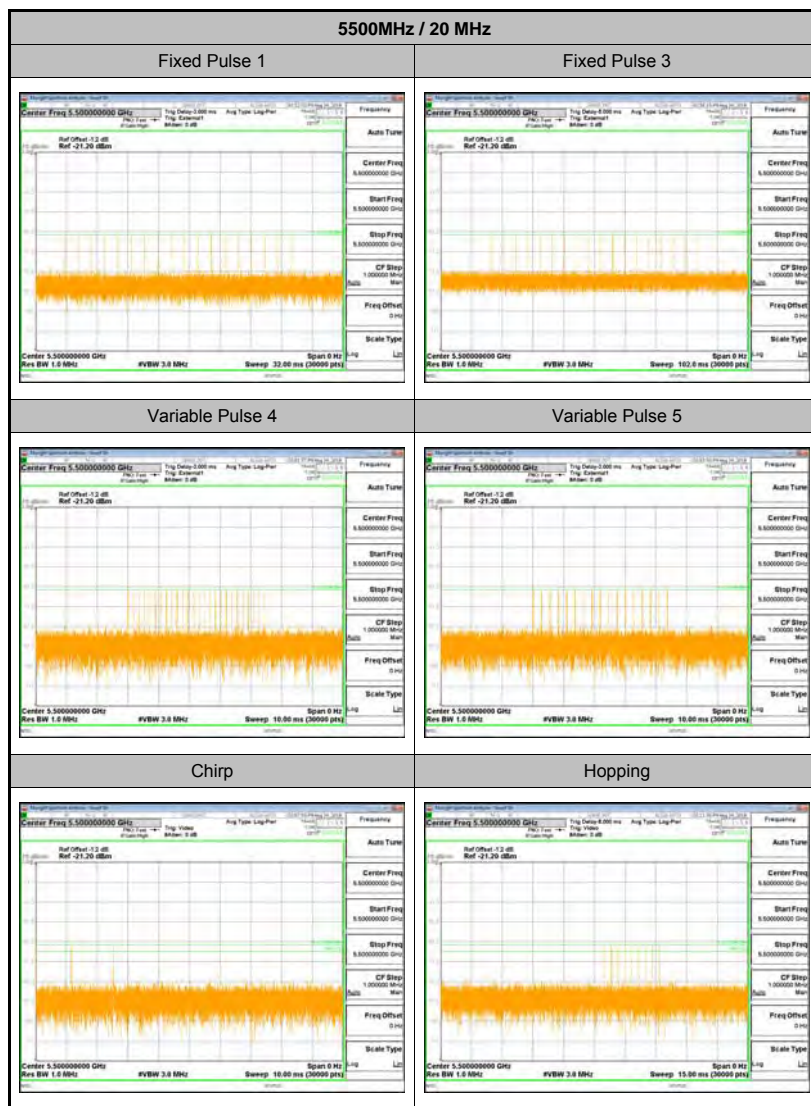
B.1. Calibration of Radar Waveform

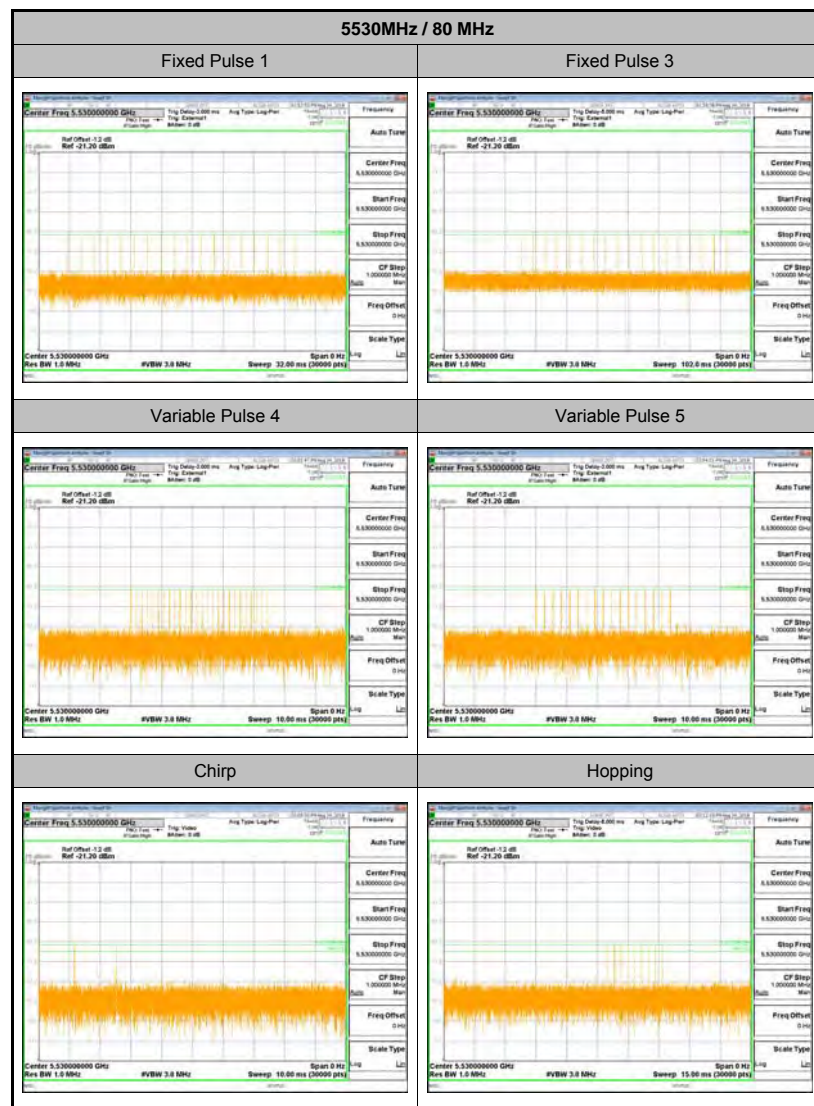
1. W53 Band





2. W56 Band



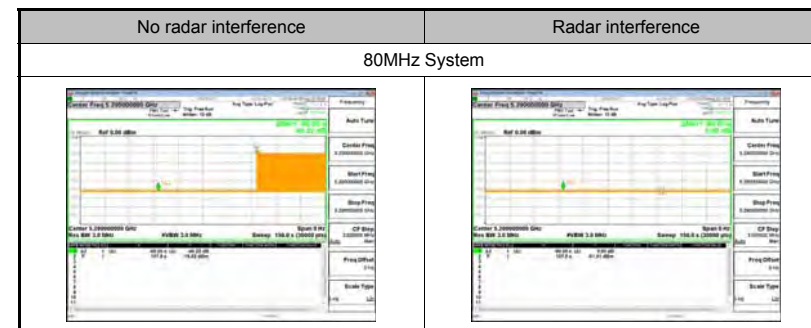


B.2. W53 Band

1. Check Availability Channels

a. Channel Availability Check Time

Measured Value	Limit	Result
≥ 60 sec	≥ 60 sec	Pass



b. Detection Probability

5290MHz / 80 MHz			
Radar Type	Times of Detection	Limit	Result
Fixed pulse 1	4	4 times	Pass
Fixed pulse 2	4	4 times	Pass



2. Monitoring of operating channel

a. Detection Probability

5300MHz / 20 MHz			
Radar Type	Times of Detection	Limit	Result
Fixed pulse 1	(1). First "X" of 20 times		Pass
	■ X = 18	$X \geq 15$ times	
	□ X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	□ X =	$X \geq 24$ times	
Fixed pulse 2	(1). First "X" of 20 times		Pass
	■ X = 19	$X \geq 15$ times	
	□ X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	□ X =	$X \geq 24$ times	

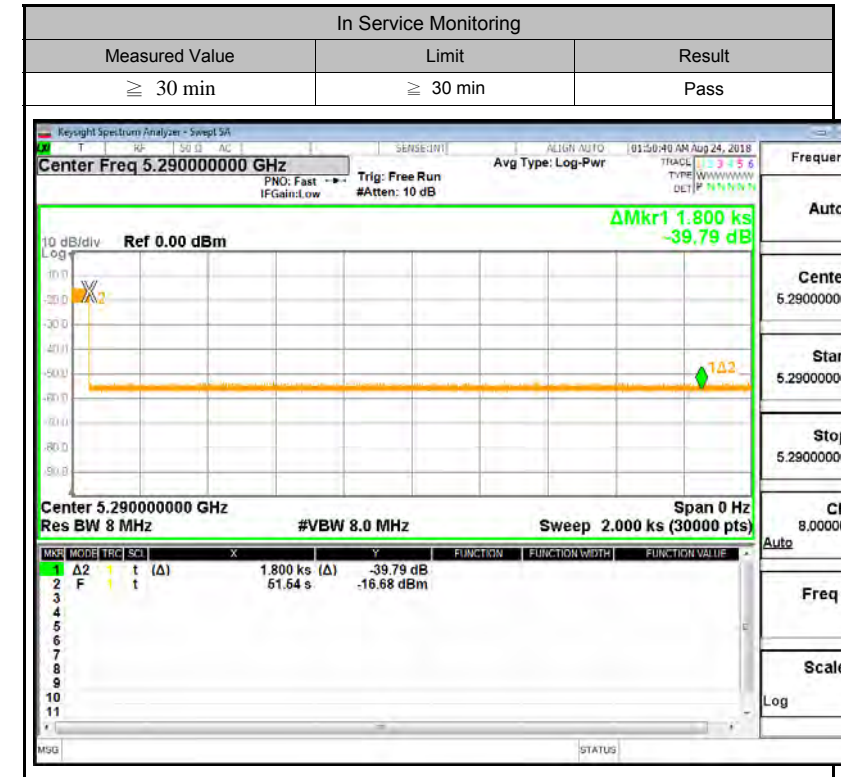
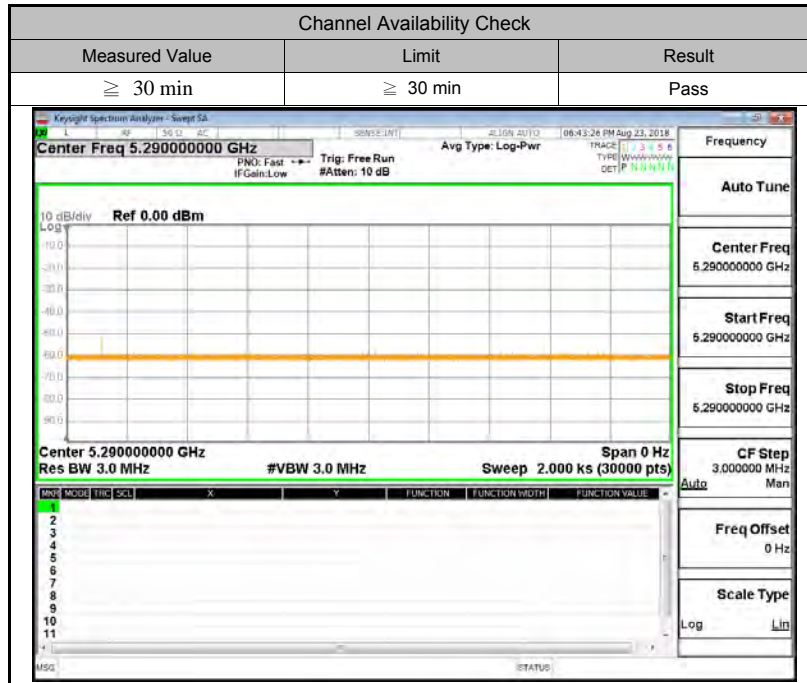
5310MHz / 40 MHz			
Radar Type	Times of Detection	Limit	Result
Fixed pulse 1	(1). First "X" of 20 times		Pass
	■ X = 18	$X \geq 15$ times	
	□ X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	□ X =	$X \geq 24$ times	
Fixed pulse 2	(1). First "X" of 20 times		Pass
	■ X = 19	$X \geq 15$ times	
	□ X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	□ X =	$X \geq 24$ times	



5290MHz / 80 MHz			
Radar Type	Times of Detection	Limit	Result
Fixed pulse 1	(1). First "X" of 20 times		Pass
	□ X =	$X \geq 15$ times	
	■ X = 13	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	■ X = 27	$X \geq 24$ times	
Fixed pulse 2	(1). First "X" of 20 times		Pass
	□ X =	$X \geq 15$ times	
	■ X = 13	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	■ X = 25	$X \geq 24$ times	



b. Non-Occupancy Period

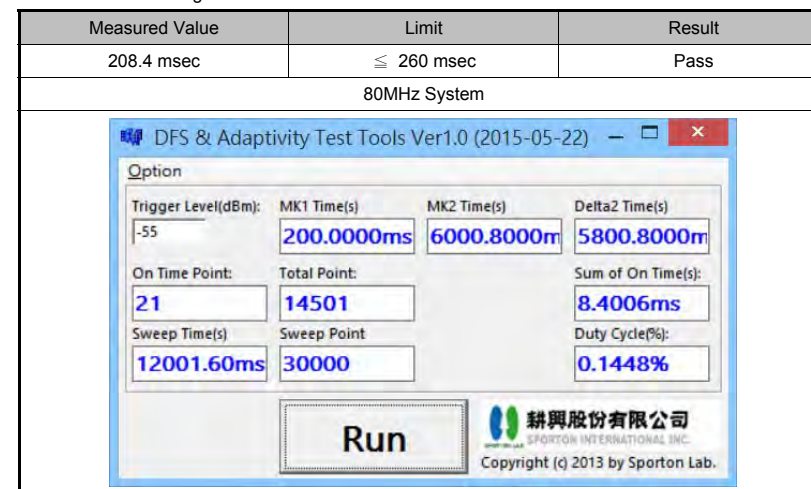




c. Channel Move Time



d. Channel Closing Transmission Time



Note : 80MHz Measured Value = 200 + (20) * (12000 / 30000)

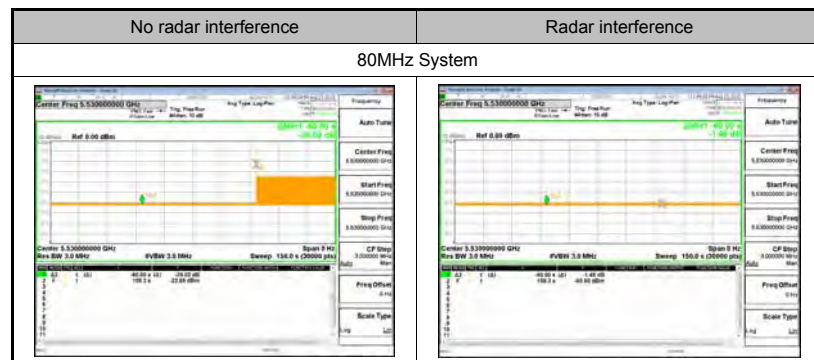


B.3. W56 Band

1. Check Availability Channels

a. Channel Availability Check Time

Measured Value	Limit	Result
≥ 60 sec	≥ 60 sec	Pass



b. Detection Probability

5530MHz / 80 MHz			
Radar Type	Times of Detection	Limit	Result
Fixed Pulse 1	4	4 times	Pass
Fixed pulse 3	4	4 times	Pass
Variable Pulse 4	4	4 times	Pass
Variable Pulse 5	4	4 times	Pass
Chirp	4	4 times	Pass
Hopping	4	4 times	Pass

2. Monitoring of operating channel

a. Detection Probability

5500MHz / 20 MHz			
Radar Type	Times of Detection	Limit	Result
Fixed Pulse 1Fixed Pulse 1	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X \geq 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	<input type="checkbox"/> X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X \geq 32 times	
Fixed pulse 3	(3) Total "X" of 40 times		Pass
	<input type="checkbox"/> X =	Go to "Aggregate"	
	(1). First "X" of 20 times		
	<input checked="" type="checkbox"/> X = 20	X \geq 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	<input type="checkbox"/> X =	X = 11 ~ 14 times	
Variable Pulse 4	(2) Total "X" of 40 times		Pass
	<input type="checkbox"/> X =	X \geq 32 times	
	(3) Total "X" of 40 times		
	<input type="checkbox"/> X =	Go to "Aggregate"	
	(1). First "X" of 20 times		
	<input checked="" type="checkbox"/> X = 20	X \geq 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	<input type="checkbox"/> X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X \geq 32 times	
	(3) Total "X" of 40 times		
	<input type="checkbox"/> X =	Go to "Aggregate"	



Variable Pulse 5	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X ≥ 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	<input type="checkbox"/> X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 32 times	
	(3) Total "X" of 40 times		
	<input type="checkbox"/> X =	Go to "Aggregate"	
Aggregate	Total "X" of 80 times		Pass
	<input checked="" type="checkbox"/> X = 80 (= 100%)	≥ 80%	
Chirp	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X ≥ 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 32 times	
Hopping	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X ≥ 16 times	
	<input type="checkbox"/> X =	X = 13 ~ 15 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 28 times	



5510MHz / 40 MHz			
Radar Type	Times of Detection	Limit	Result
Fixed Pulse 1Fixed Pulse 1	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X ≥ 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	<input type="checkbox"/> X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 32 times	
	(3) Total "X" of 40 times		
<input type="checkbox"/> X =	Go to "Aggregate"		
Fixed pulse 3	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X ≥ 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	<input type="checkbox"/> X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 32 times	
	(3) Total "X" of 40 times		
<input type="checkbox"/> X =	Go to "Aggregate"		
Variable Pulse 4	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X ≥ 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	<input type="checkbox"/> X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 32 times	
	(3) Total "X" of 40 times		
<input type="checkbox"/> X =	Go to "Aggregate"		



Variable Pulse 5	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 16	X ≥ 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	<input type="checkbox"/> X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 32 times	
	(3) Total "X" of 40 times		
	<input type="checkbox"/> X =	Go to "Aggregate"	
Aggregate	Total "X" of 80 times		Pass
	<input checked="" type="checkbox"/> X = 76 (= 95%)	≥ 80%	
Chirp	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X ≥ 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 32 times	
Hopping	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X ≥ 16 times	
	<input type="checkbox"/> X =	X = 13 ~ 15 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 28 times	



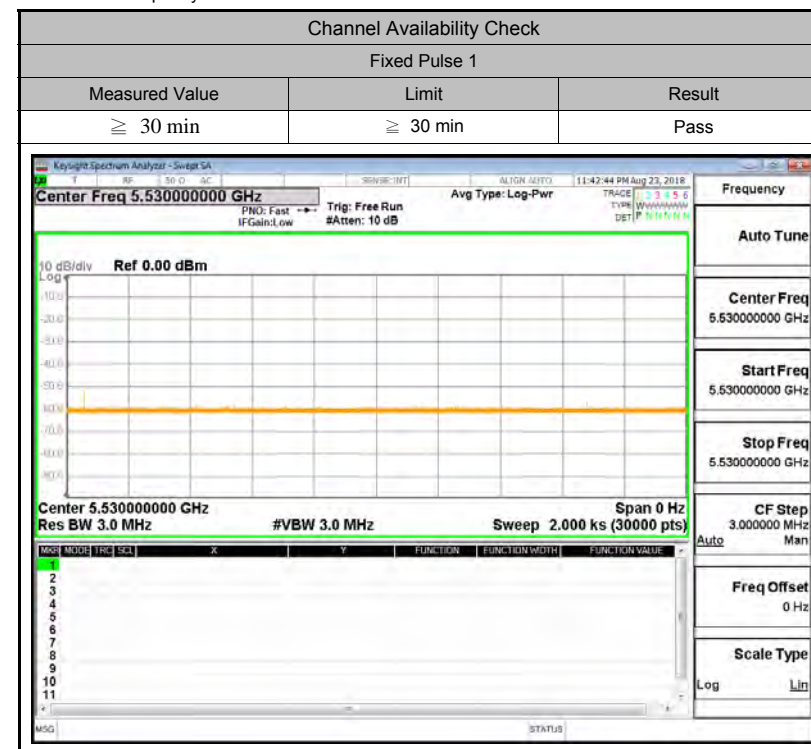
5530MHz / 80 MHz			
Radar Type	Times of Detection	Limit	Result
Fixed Pulse 1Fixed Pulse 1	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X ≥ 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	<input type="checkbox"/> X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 32 times	
	(3) Total "X" of 40 times		
<input type="checkbox"/> X =	Go to "Aggregate"		
Fixed pulse 3	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X ≥ 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	<input type="checkbox"/> X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 32 times	
	(3) Total "X" of 40 times		
<input type="checkbox"/> X =	Go to "Aggregate"		
Variable Pulse 4	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 18	X ≥ 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	<input type="checkbox"/> X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 32 times	
	(3) Total "X" of 40 times		
<input type="checkbox"/> X =	Go to "Aggregate"		

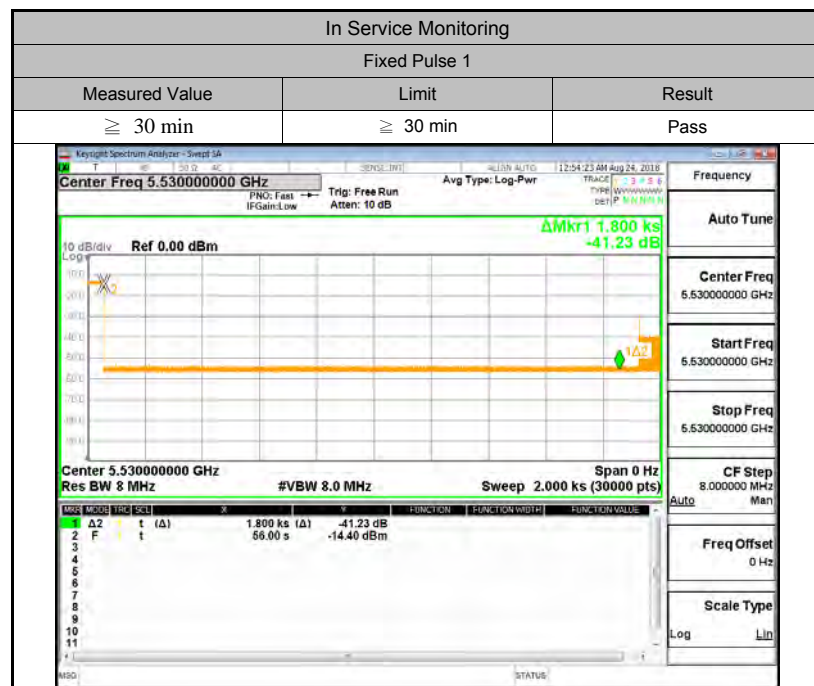


Variable Pulse 5	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 17	X ≥ 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	<input type="checkbox"/> X =	X = 11 ~ 14 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 32 times	
	(3) Total "X" of 40 times		
Aggregate	<input type="checkbox"/> X =	Go to "Aggregate"	
	Total "X" of 80 times		
	<input checked="" type="checkbox"/> X = 75 (= 93.75%)	≥ 80%	
Chirp	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X ≥ 18 times	
	<input type="checkbox"/> X =	X = 15 ~ 17 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 32 times	
Hopping	(1). First "X" of 20 times		Pass
	<input checked="" type="checkbox"/> X = 20	X ≥ 16 times	
	<input type="checkbox"/> X =	X = 13 ~ 15 times	
	(2) Total "X" of 40 times		
	<input type="checkbox"/> X =	X ≥ 28 times	

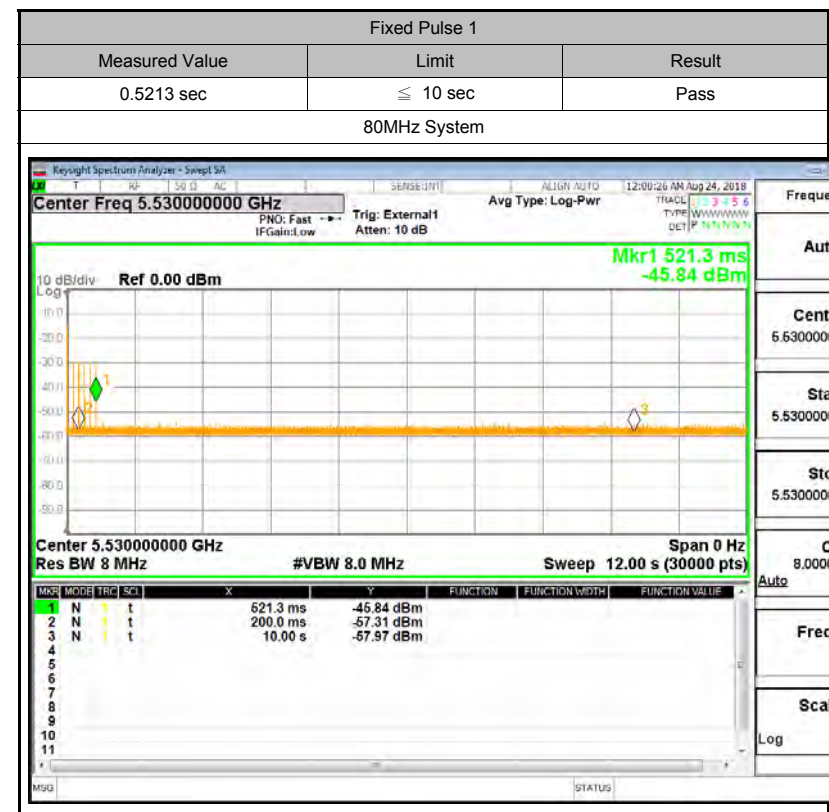


b. Non-Occupancy Period

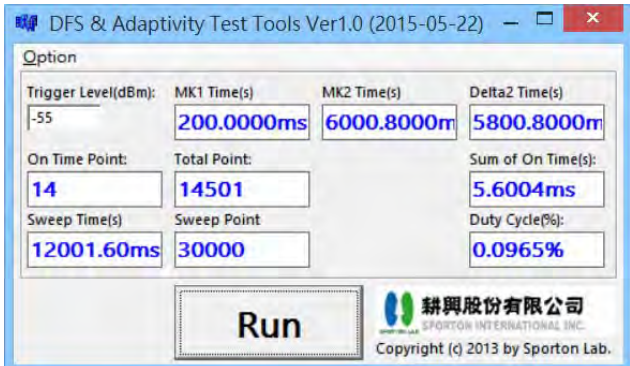




c. Channel Move Time



d. Channel Closing Transmission Time

Fixed Pulse 1		
Measured Value	Limit	Result
205.6 msec	≤ 260 msec	Pass
80MHz System		
		

Note : 80MHz Measured Value = 200 + (9) * (12000 / 30000))