

DFS TEST REPORT

Product : AI Dashcam

Model Name : AWD-T01

Test Regulation : Article 2 paragraph 1 item (19)-3, Test method temporarily determined by TACOYAKI, ARIB STD-T71

Received Date : 2023/5/4

Test Date : 2023/9/14 ~ 2023/10/19

Issued Date : 2023/10/23

Applicant : Alpha Networks Inc.
No. 8, Li-Shing 7th Road, Science-Based Industrial Park,
Hsinchu 300, Taiwan, R.O.C.

Issued By : Underwriters Laboratories Taiwan Co., Ltd.
Building A, B and E, No. 372-7, Sec. 4, Zhongxing Rd.,
Zhudong Township, Hsinchu County, Taiwan

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Doc No: Form-ULID-004804 (DCS:17-EM-F0971) / 3.1

REVISION HISTORY

Original Test Report No.: 4790841034-JP-R2-V0

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1. Attestation of Test Results

APPLICANT: Alpha Networks Inc.
No. 8, Li-Shing 7th Road, Science-Based Industrial Park, Hsinchu
300, Taiwan, R.O.C.

EUT DESCRIPTION: AI Dashcam

BRAND: SenseTime

MODEL: AWD-T01

SAMPLE STAGE: Engineering Verification Test sample

DATE of TESTED: 2023/9/14 ~ 2023/10/19

APPLICABLE STANDARDS

STANDARD	Test Results
Article 2 paragraph 1 item (19)-3, Test method temporarily determined by TACOYAKI, ARIB STD-T71	PASS
ARIB STD-T71	PASS

Underwriters Laboratories Taiwan Co., Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by Underwriters Laboratories Taiwan Co., Ltd. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Underwriters Laboratories Taiwan Co., Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Underwriters Laboratories Taiwan Co., Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Prepared By:



Sally Lu
Project Handler

Date : 2023/10/23

Approved and Authorized By:



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2. Test Methodology and Reference Procedures

The tests documented in this report were performed in accordance with Article 2 paragraph 1 item (19)-3, Test method temporarily determined by TACOYAKI, ARIB STD-T71

3. Facilities and Accreditation

Test Location	Underwriters Laboratories Taiwan Co., Ltd.
Address	Building A, B and E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

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4. Calibration and Uncertainty

4.1. Measuring Instrument Calibration

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. Measurement Uncertainty

For statement of conformity, Simple acceptance (Section 3.1.4 of IEC Guide 115) was applied as decision rule for measurement in this test report.

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus.

The following uncertainties have been calculated to provide a confidence level of 95 % using a coverage factor $k=2$.

Determining compliance based on the results of the compliance measurement, not considering measurement instrumentation uncertainty.

Parameter	Uncertainty
RF power conducted	1.1 dB
Humidity	2.9 %
Temperature	0.86 °C
Time	0.24 %

5. Equipment under Test

5.1. Description of EUT

Product	AI Dashcam
Brand	SenseTime
Model Name	AWD-T01
Operating Frequency	5470 ~ 5730 MHz (W56)
Type of Modulation	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to MCS 7 802.11ac: up to MCS 9 802.11ax: up to MCS11
Nominal Voltage	5 Vdc
Operational Mode	Master

5.2. EUT Software and Firmware Version

Software/Firmware Version
1.0.1.0.394

5.3. Support Equipment

No.	Equipment	Brand Name	Model Name	S/N
1	Notebook	DELL	Latitude E5470	5M2MWF2
2	Wireless network card	TOTOLINK	A200UA	A2000UA161112949
3	Smart WiFi Router	ASUS	RT-AX88U	K6ITHP000052
4	DC Power Supply	GW INSTEK	GPD-2303S	GEQ902325

5.4. Description of Available Antennas

Ant. No.	Brand Name	Model Name	Ant. Type	Connector Type	Maximum Gain (dBi)	
					2.4 GHz	5GHz
1	Alpha	8AWDT01..1A1G	Printed	N/A	2.56	4.77

The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual, the laboratory shall not be held responsible.

5.5. Test Condition

Test Item	Test Site No.	Environmental Condition	Input Power	Test Date	Tested by
Antenna Port Conducted Measurement	SR4	26°C / 68%RH	5 Vdc	2023/9/14 ~ 2023/10/19	Jubo Shen

6. Test Equipment

Description	Manufacturer	Model No.	Serial No.	Calibration Authority	Cal. Method	Cal. Date	Expired date
Spectrum Analyzer	Keysight	N9010A	MY56070834	Electronics Testing Center	c)	2022/10/24	2023/10/23
Signal Generator	Keysight	N5182B	MY57300028	Electronics Testing Center	c)	2022/11/15	2023/11/14

Note: 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 ~.
- d) : Calibration conducted by using other equipment that listed above from a) to c).

UL Software

Software	Test Item	Version
N7607B Signal Studio	DFS Radar Profiles	3.0.0.0
ISMointor10	DFS measurement	10.0.0.0

7. Dynamic Frequency Selection (DFS)

7.1. Applicability of DFS requirements

Table A: Applicability of DFS requirements prior to use a channel

Requirement	Operational Mode
	Master
Interference Detection Threshold	✓
Channel Availability Check Time	✓
Non-Occupancy Period	✓

Table B: Applicability of DFS requirements during normal operation

Requirement	Operational Mode
	Master
Interference Detection Threshold	✓
Channel Closing Transmission Time	✓
Channel Move Time	✓
Non-Occupancy Period	✓

7.2. Test Limit and Radar Signal Parameters

Interference Detection Threshold Vales

Maximum Transmit Power	Power Value
$\geq 200\text{mW}$ ($\geq 23\text{dBm}$)	-64dBm
$< 200\text{mW}$ ($< 23\text{dBm}$)	-62dBm
This level is only for 0dBi EUT antenna gain	

DFS requirement values

Parameter	Value
Channel Availability Check Time	60 s
Non-occupancy Period	30 minutes
Channel Move Time	10 s
Channel Closing Transmission Time	260 ms

Parameters of DFS Signal

W53

Radar Test Signal	Pulse Repetition Frequency (PRF)	Pulse Width (us)	Number of Pulses per Burst	Radar Detection Probability
DFS-J1-1	200-1000	0.5-5	10	60% or more
DFS-J1-2	200-1600	0.5-15	15	60% or more
DFS-J1-3	200-1000	0.5-5	22-30	60% or more
DFS-J1-4	200-1600	0.5-15	22-30	60% or more
DFS-J1-5	1114-1118	0.5-1.5	30	60% or more
DFS-J1-6	928-932	0.5-1.5	25	60% or more
DFS-J1-7	886-890	0.5-1.5	24	60% or more
DFS-J1-8	738-742	0.5-1.5	20	60% or more

*1. The Channel Loading is 30% of Maximum Transmission Data Rate.

*2. The receiving threshold level is the following. (This is the average power while receiving radar with an absolute gain 0 dBi antenna.)

The case of $P_o \geq 200\text{mW}$; $\geq -64\text{dBm}(\text{avg.})$ / The case of $P_o < 200\text{mW}$; $\geq -62\text{dBm}(\text{avg.})$

(P_o ; Max. Transmit Power (EIRP) of EUT)

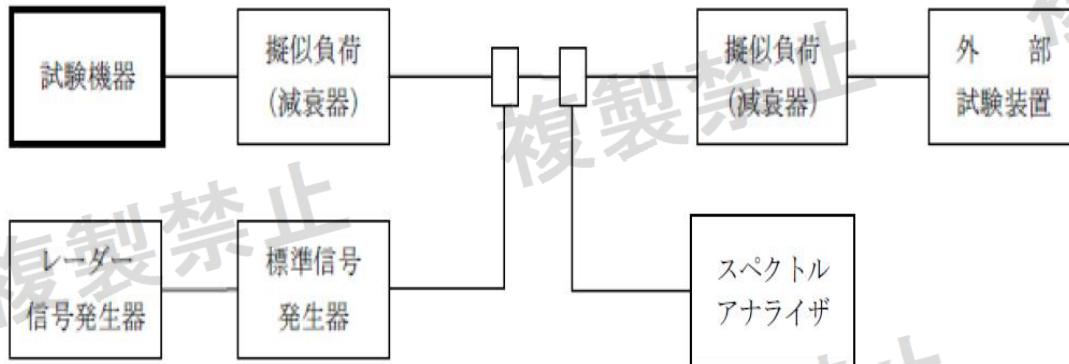
W56

Radar Type	Pulse Repetition Frequency (PRF)	Pulse Width (μsec)	Number of Pulses	Radar Detection Probability
DFS-J2-1	720	0.5	18	60% or more
DFS-J2-2	250	2	18	60% or more
DFS-US-1	700	1	18	60% or more
DFS-US-2	4347 – 6667	1-5	23-29	60% or more
DFS-US-3	2000 – 5000	6-10	16-18	60% or more
DFS-US-4	2000 – 5000	11-20	12-16	60% or more
Aggregate (Radar Types 1-6)				80% or more
*1. The Channel Loading is 17% of Maximum Transmission Data Rate. *2. The aggregate is the average of the percentage of successful detections of 6 Radar Types. *3. The receiving threshold level is the following. (This is the average power while receiving radar with an absolute gain 0 dBi antenna.) The case of $P_o \geq 200\text{mW}$; $\geq -64\text{dBm}(\text{avg.})$ / The case of $P_o < 200\text{mW}$; $\geq -62\text{dBm}(\text{avg.})$ (Po; Max. Transmit Power (EIRP) of EUT)				

Radar Type	Pulse Repetition Frequency (pps)	Pulse Width (μsec)	Number of Pulses per Burst	Radar Detection Probability
DFS-US-5	500-1000	50 - 100	1-3	80% or more
*1. The Channel Loading is 17% of Maximum Transferred Data Rate. *2. The transmission period for Long Pulse Radar test signal is 12 seconds. *3. Each pulse has a liner frequency modulated chirp between 5 and 20 MHz, with the chirp width being randomly chosen. Each pulse within a Burst will have the same chirp width. Pulse in different Bursts may have different chirp widths. *4. There are a total of 8 to 20 Bursts in the 12 second period. The interval of Burst is the time when divided 12 seconds by the number of the bursts. *5. In the case of being lots pulse in the Burst, each pulse is same as them. *6. In the case of being lots pulse in the Burst, each Burst within the 12 second sequence must have a different number of pulses. *7. The receiving threshold level is the following. (This is the average power while receiving radar with an absolute gain 0 dBi antenna.) The case of $P_o \geq 200\text{mW}$; $\geq -64\text{dBm}(\text{avg.})$ / The case of $P_o < 200\text{mW}$; $\geq -62\text{dBm}(\text{avg.})$ (Po; Max. Transmit Power (EIRP) of EUT)				

Radar Type	Pulse Repetition Frequency (pps)	Pulse Width (μsec)	Pulses per Hop	Radar Detection Probability
DFS-US-6	3000	1	9	70% or more
<p>*1. The Channel Loading is 17% of Maximum Transferred Data Rate.</p> <p>*2. The frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250MHz to 5724MHz.</p> <p>*3. The Switching Interval of Hopping Sequence is 3 millisecond, and the Hopping Sequence Length is 300 millisecond.</p> <p>*4. The Burst Interval is 3 millisecond.</p> <p>*5. The receiving threshold level is the following. (This is the average power while receiving radar with an absolute gain 0 dBi antenna.)</p> <p>The case of $P_o \geq 200\text{mW}$; $\geq -64\text{dBm}(\text{avg.})$ / The case of $P_o < 200\text{mW}$; $\geq -62\text{dBm}(\text{avg.})$</p> <p>($P_o$; Max. Transmit Power (EIRP) of EUT)</p>				

7.3. Test Setup Configuration



7.4. Test Procedure

The measured channels are in the W53 and W56 bands. The radar signal was the same as transmitted channels and injected into the antenna port of AP (master) with -64dBm power level for W53 band and -64dBm power level for W56 band, measured the Channel Availability Check time and channel closing transmission time and channel move time and Non-Occupancy Period. When test W53 Band, The Channel Loading is 30% of Maximum Transmission Data Rate. When test W56 Band, The Channel Loading is 17% of Maximum Transmission Data Rate.

8. Test Result

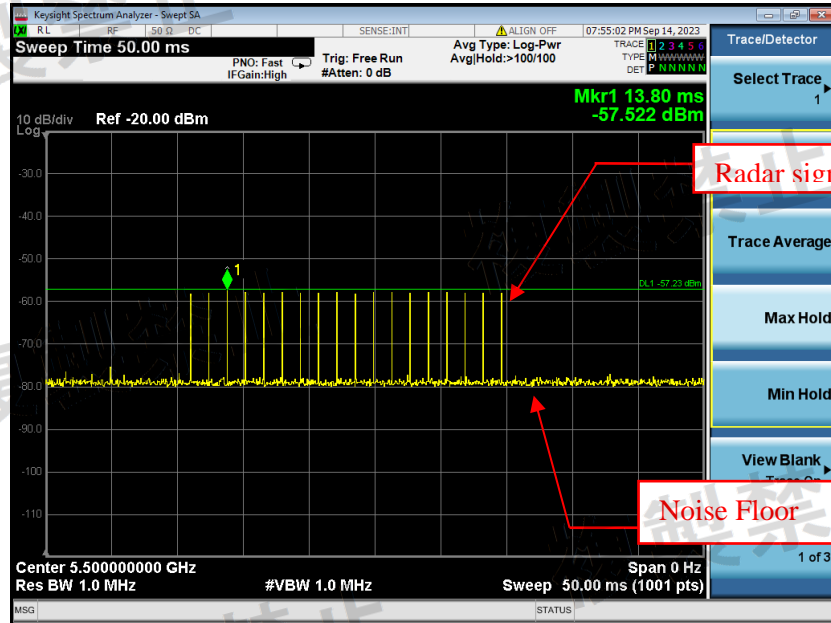
Test Parameter	Remarks	Pass/Fail
Interference Detection Threshold	Applicable	Pass
Channel Availability Check Time	Applicable	Pass
Channel Closing Transmission Time	Applicable	Pass
Channel Move Time	Applicable	Pass
Non-Occupancy Period	Applicable	Pass

8.1. Interference threshold values

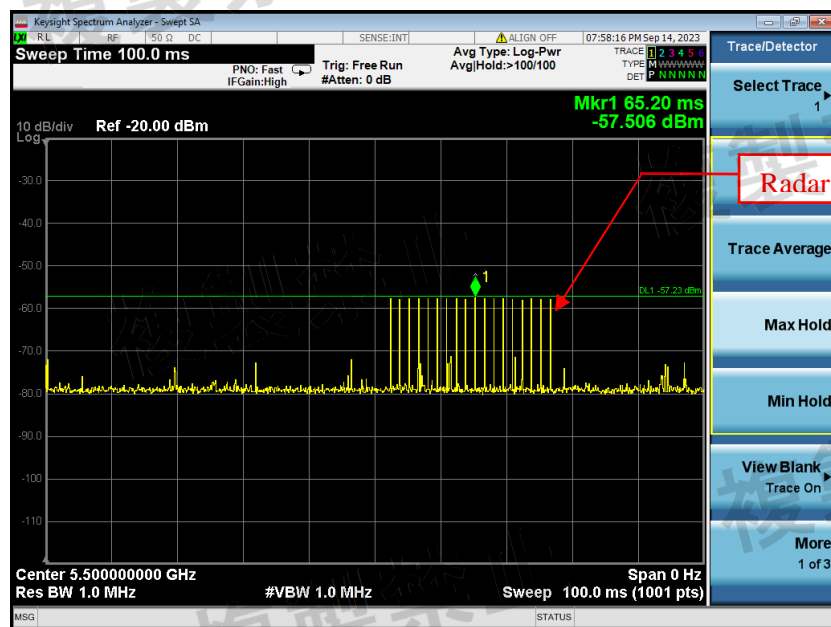
W56

For an interference threshold level of -62 dBm and the UUT antenna gain is 4.77 dBi. Then the radar Burst signal level to the UUT connector is lower than -57.23 dBm.

Note: Maximum conducted power is 11a CH100: 17.88 dBm, and EIRP = conducted power + antenna gain = 17.88 + 4.77 = 22.65 dBm (less than 23 dBm)



DFS-J1-1



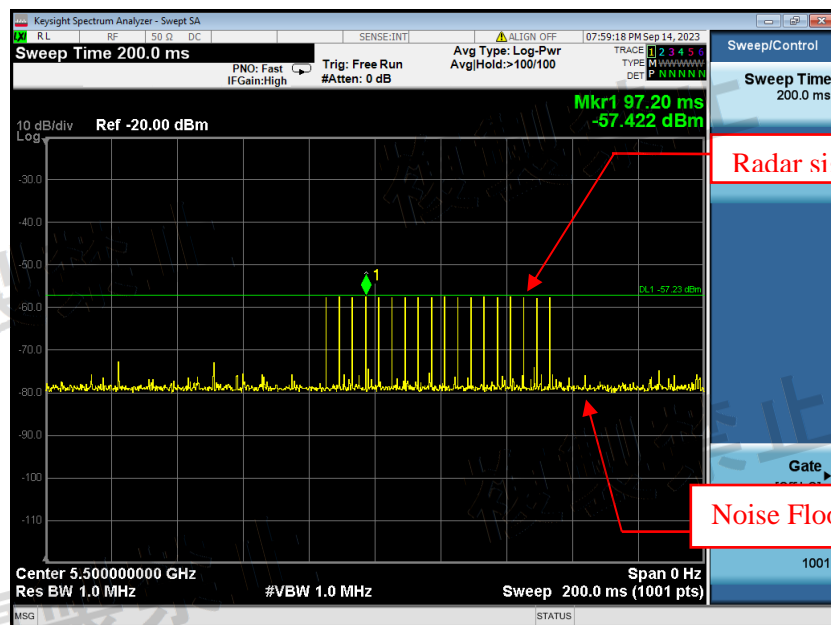
DFS-J1-2

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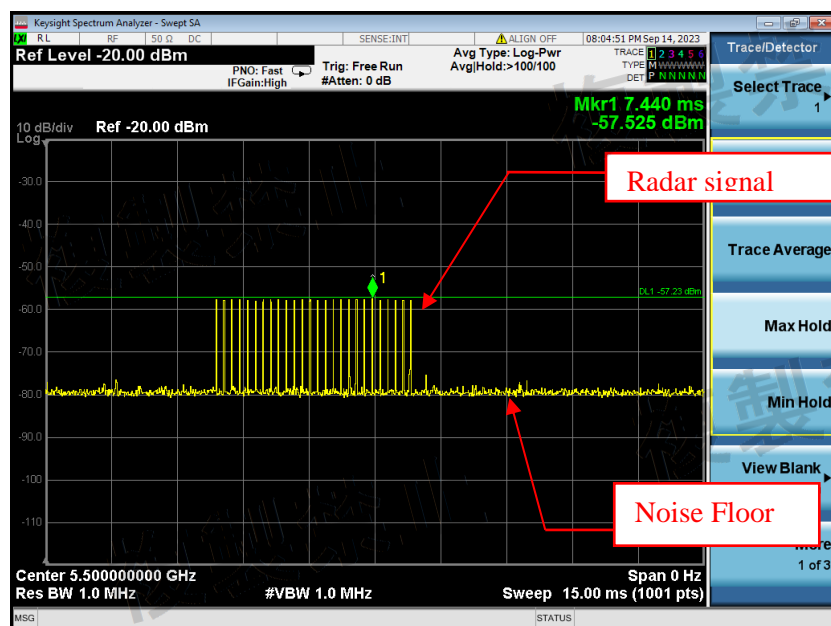
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DFS-J1-3



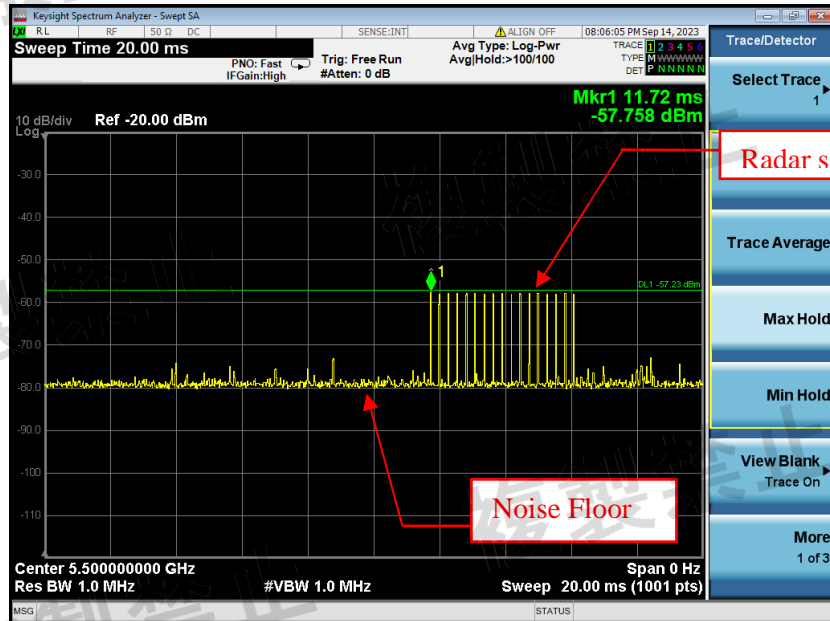
DFS-J1-4

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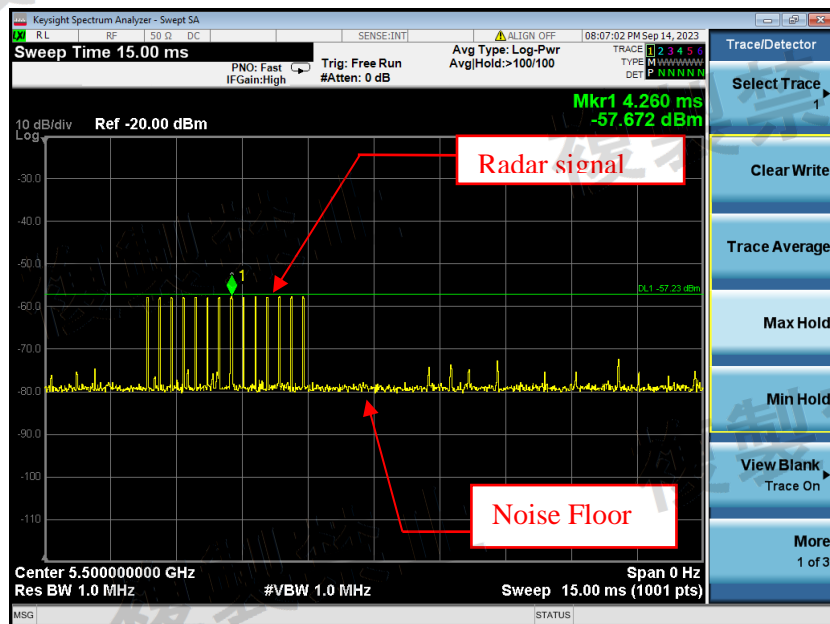
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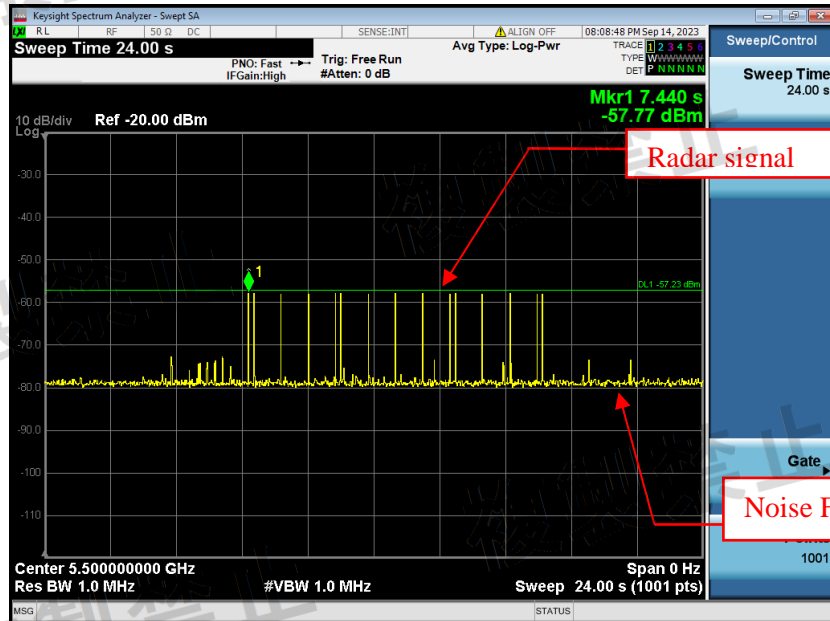
Doc No: Form-ULID-004804 (DCS:17-EM-F0971) / 3.1



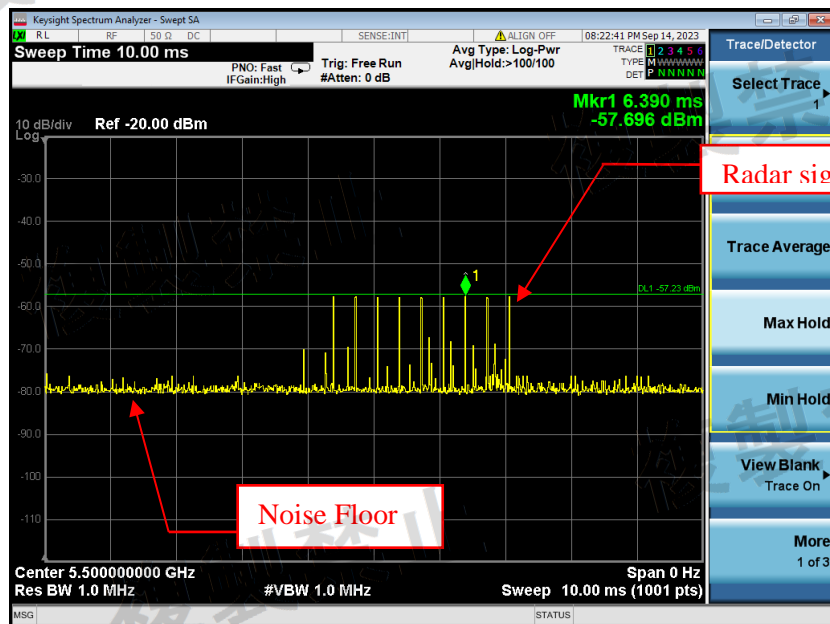
DFS-J1-5



DFS-J1-6



DFS-J1-7



DFS-J1-8

8.2. Channel Availability Check Time

Channel Availability Check Time for W53 & W56 band

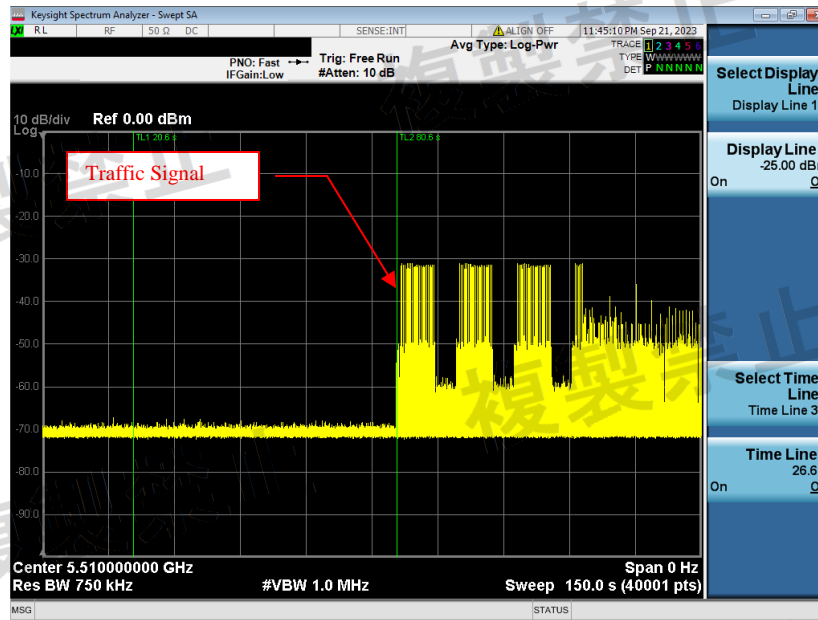
If the UUT successfully detected the radar burst, it should be observed as the UUT has no transmissions occurred until the UUT starts transmitting on another channel.

Timing of Radar Signal	Observation	
	UUT	Spectrum Analyzer
Within 1 to 6 second	Detected	No transmissions
Within 54 to 60 second	Detected	No transmissions

Note: Worse case channel for final “Channel Availability Check Time” test.

Initial Channel Availability Check Time

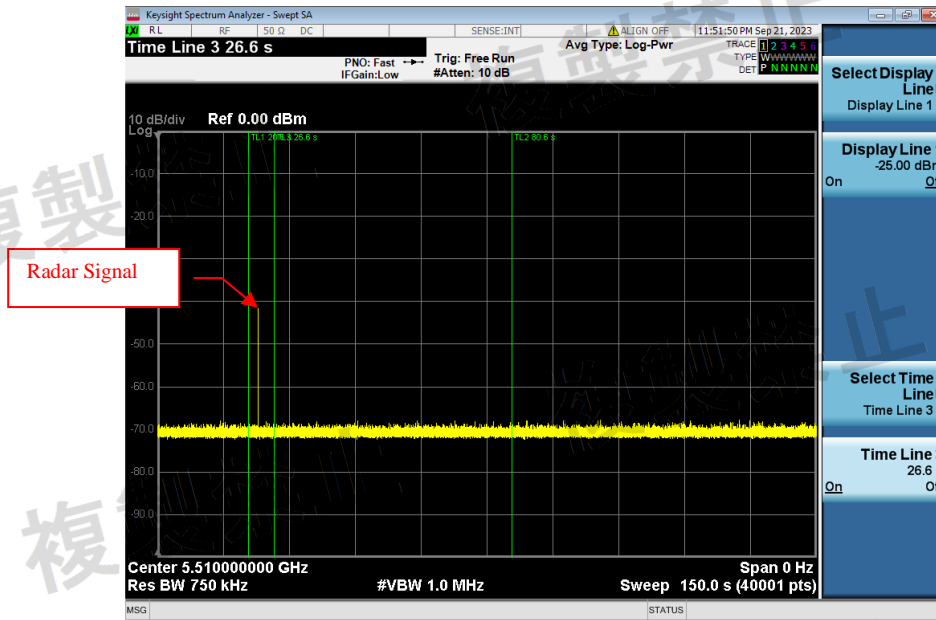
802.11ax (HE40) @ CH102



NOTE: TL2 denotes the end of Channel Availability Check time is 80.6th second. Channel Availability Check time is equal to (TL2 – 60) seconds.

Radar Burst at the Beginning of the Channel Availability Check Time

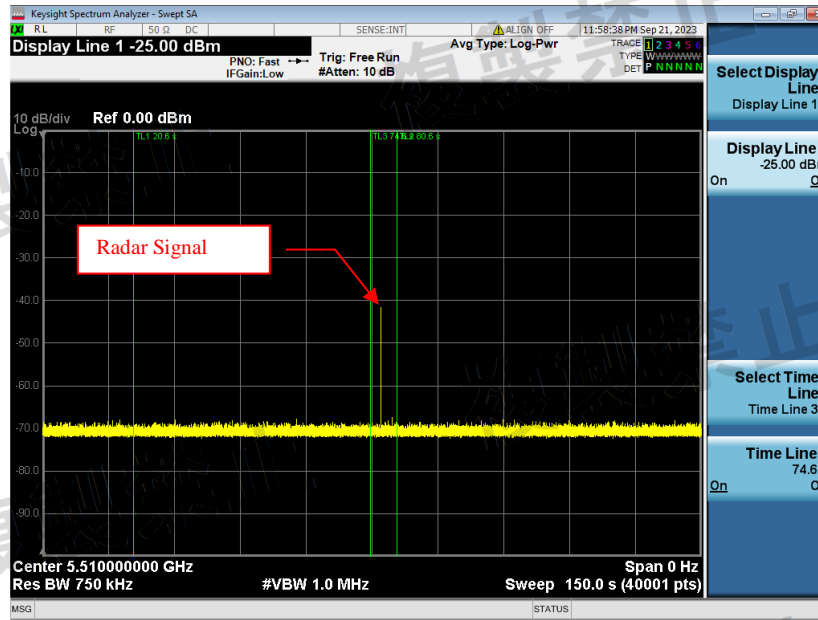
802.11ax (HE40) @ CH102



NOTE: The end of power up time period is (TL2 – 60) second. The radar burst was commenced within a 6 second (TL1 ~ TL3) window starting from the end of power-up sequence. TL2 denotes the 80.6th second.

Radar Burst at the End of the Channel Availability Check Time

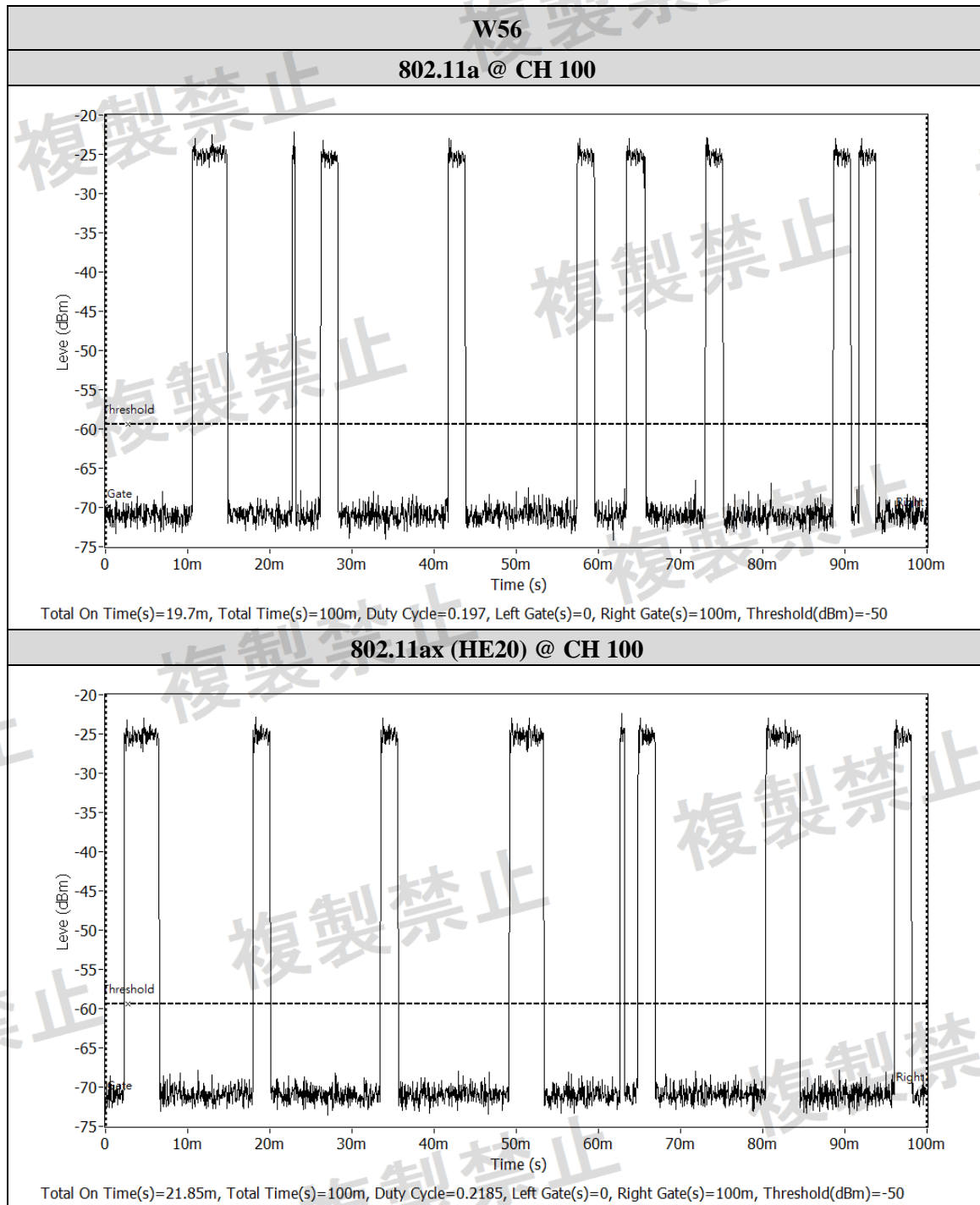
802.11ax (HE40) @ CH102



NOTE: The end of power up time period is (TL2 – 60) second. The radar burst was commenced within a 6 second (TL2 ~ TL3) window starting from the end of power-up sequence. TL2 denotes the 80.6th second.

8.3. Channel Move Time & Channel Closing Transmission Time

Traffic Loading

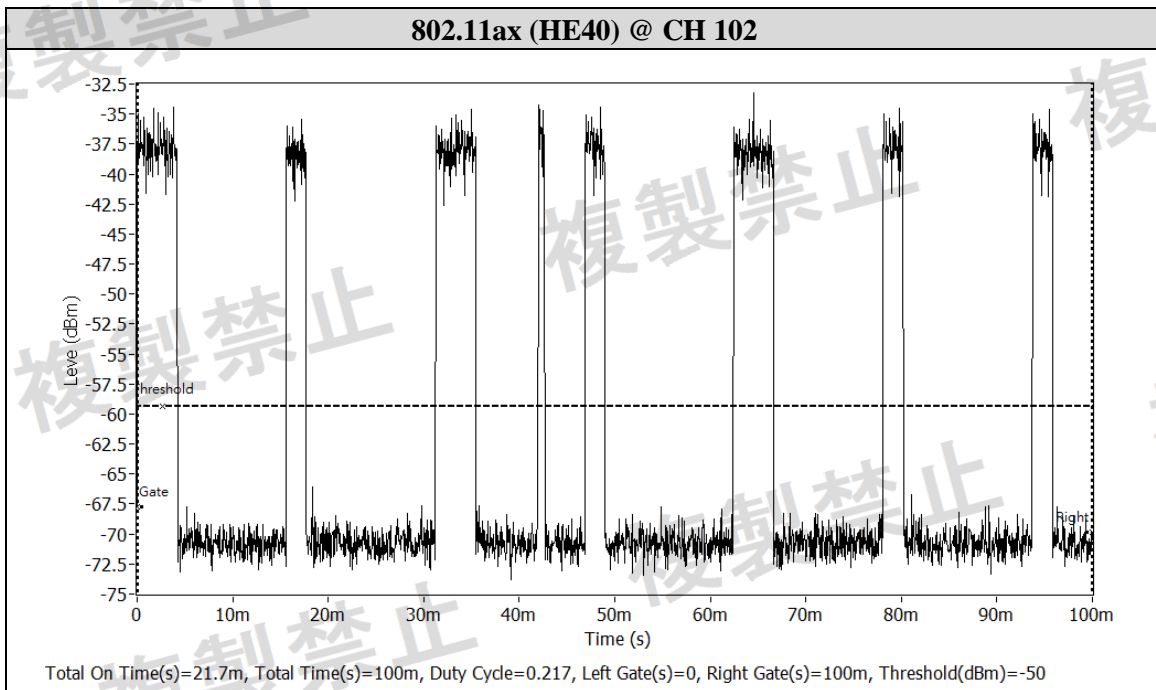


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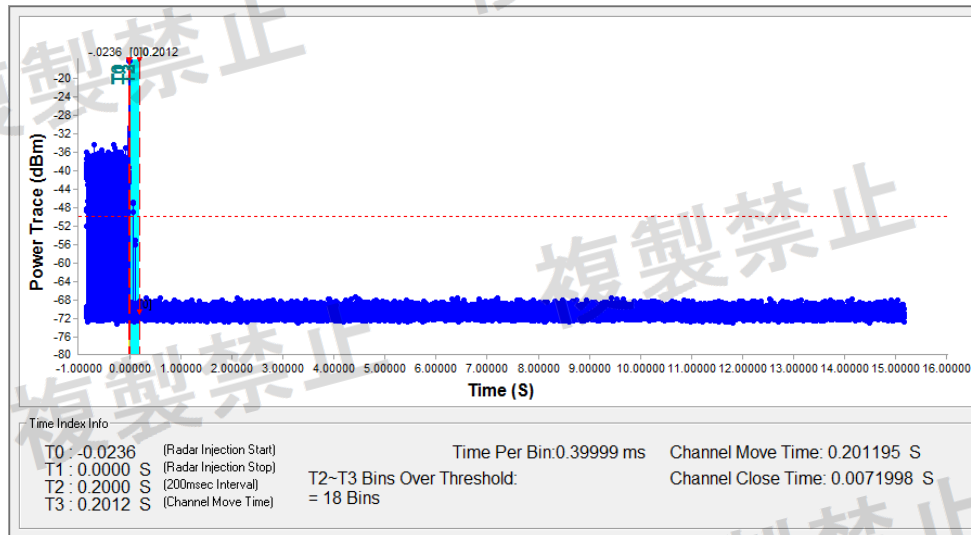
Test Result of Channel Move Time & Channel Closing Transmission Time**W56**

Radar Test Signal	Minimum Percentage of Successful Detection	Percentage of Successful Detection (%)		
		802.11a	802.11ax (HE20)	802.11ax (HE40)
DFS-J2-1	60%	100.0%	90.0%	90.0%
DFS-J2-2	60%	96.7%	100.0%	100.0%
DFS-US-1	60%	100.0%	100.0%	100.0%
DFS-US-2	60%	100.0%	100.0%	100.0%
DFS-US-3	60%	100.0%	96.7%	96.7%
DFS-US-4	60%	100.0%	100.0%	100.0%
Aggregate	80%	99.44%	97.78%	97.78%

Radar Test Signal	Minimum Percentage of Successful Detection	Percentage of Successful Detection (%)		
		802.11a	802.11ax (HE20)	802.11ax (HE40)
DFS-US-5	80%	100%	100%	100%
DFS-US-6	70%	100%	100%	100%

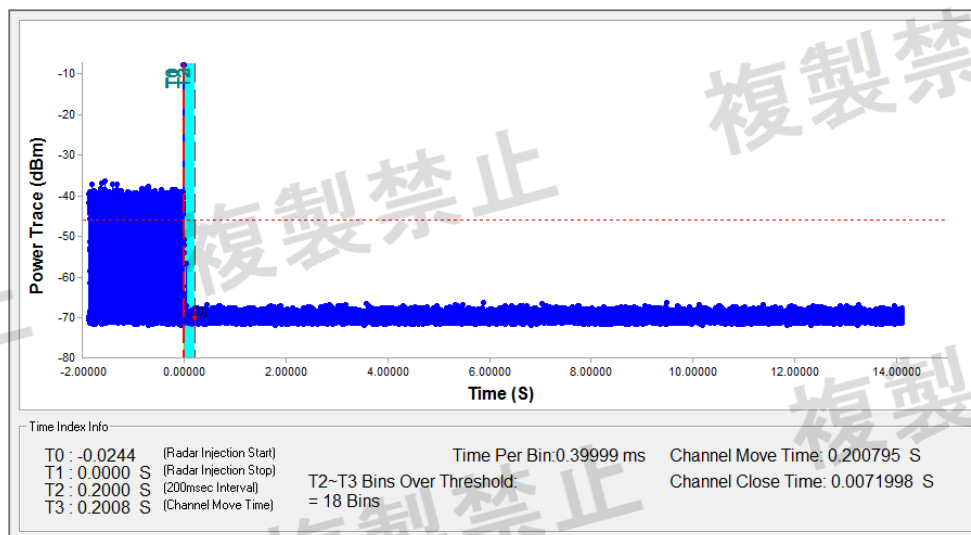
Radar DFS-J2-1

Channel Move Time(s)	Limit(s)	Result
0.20	10	PASS
Channel Closing Transmission Time(ms)	Limit(ms)	Result
7.20	60	PASS



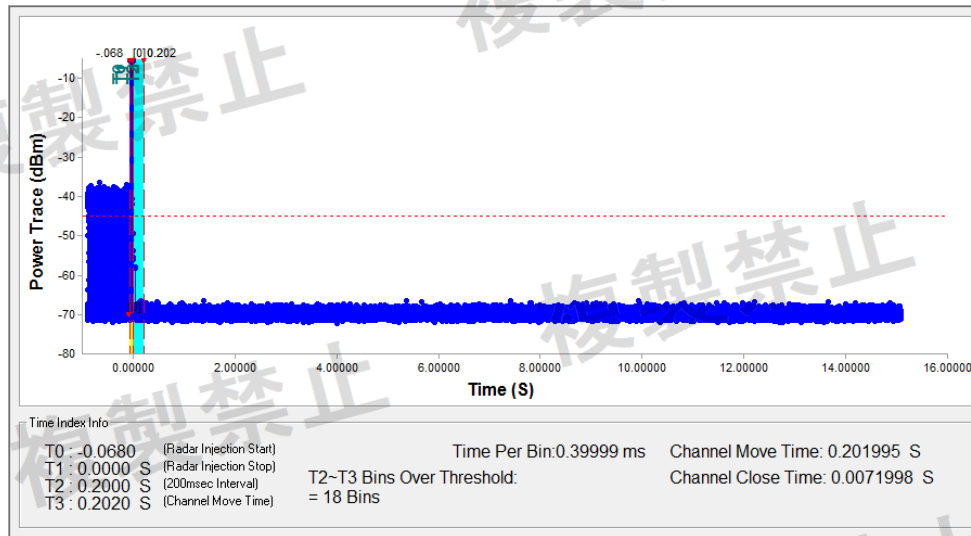
Radar DFS-J2-2

Channel Move Time(s)	Limit(s)	Result
0.20	10	PASS
Channel Closing Transmission Time(ms)	Limit(ms)	Result
7.20	60	PASS



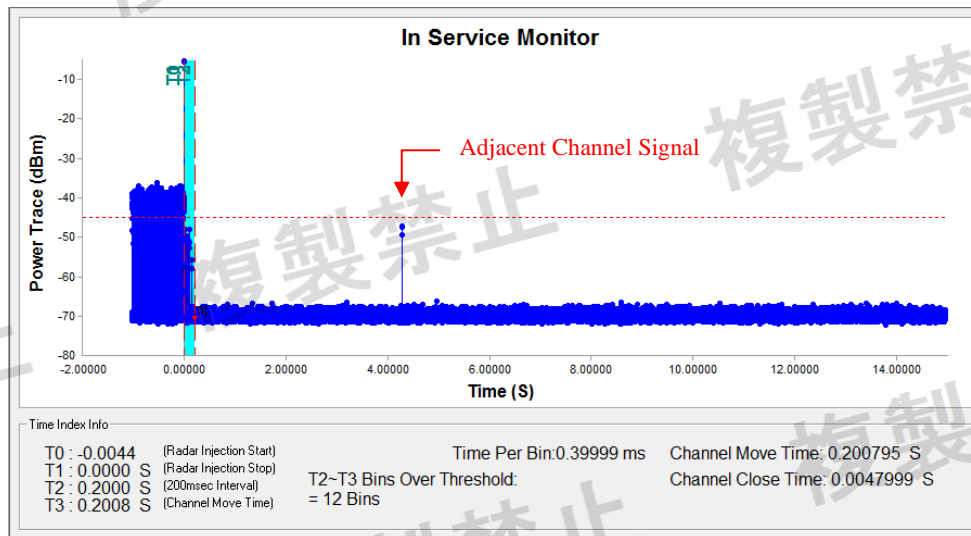
Radar DFS-US-1

Channel Move Time(s)	Limit(s)	Result
0.20	10	PASS
Channel Closing Transmission Time(ms)	Limit(ms)	Result
7.20	60	PASS



Radar DFS-US-2

Channel Move Time(s)	Limit(s)	Result
0.20	10	PASS
Channel Closing Transmission Time(ms)	Limit(ms)	Result
4.80	60	PASS



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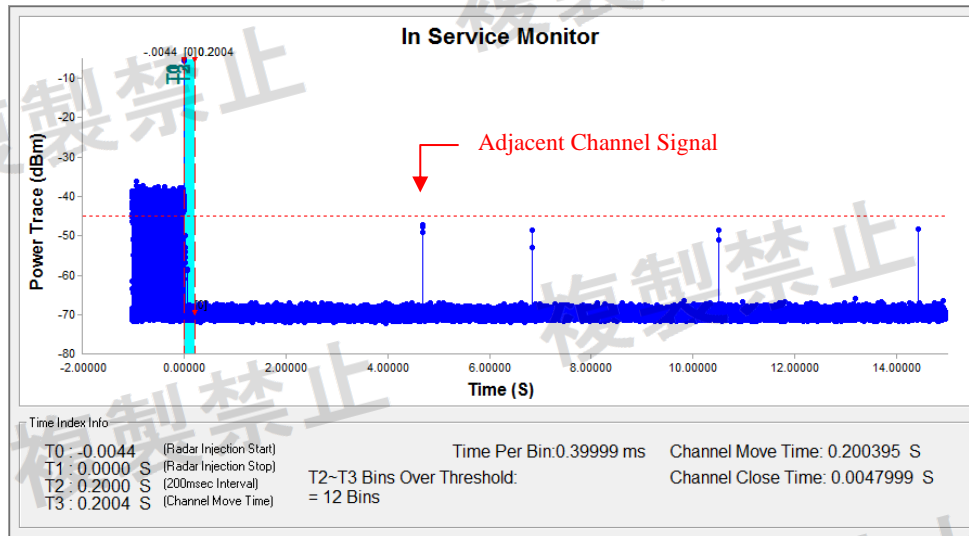
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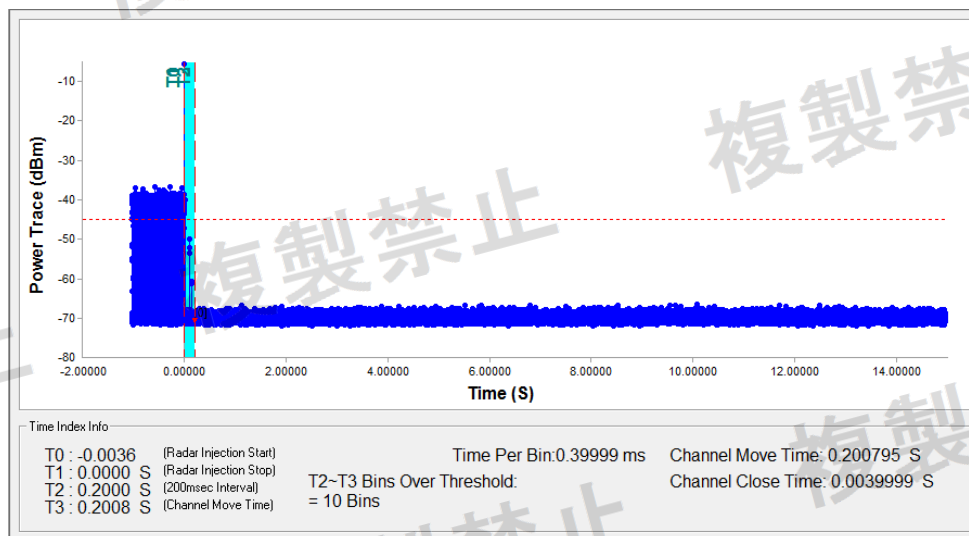
Radar DFS-US-3

Channel Move Time(s)	Limit(s)	Result
0.20	10	PASS
Channel Closing Transmission Time(ms)	Limit(ms)	Result
4.80	60	PASS



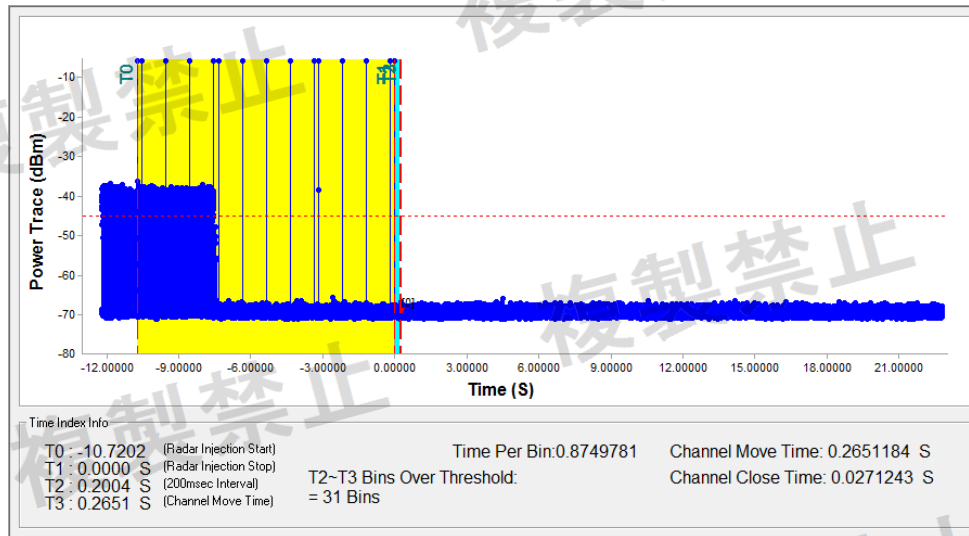
Radar DFS-US-4

Channel Move Time(s)	Limit(s)	Result
0.20	10	PASS
Channel Closing Transmission Time(ms)	Limit(ms)	Result
4.00	60	PASS



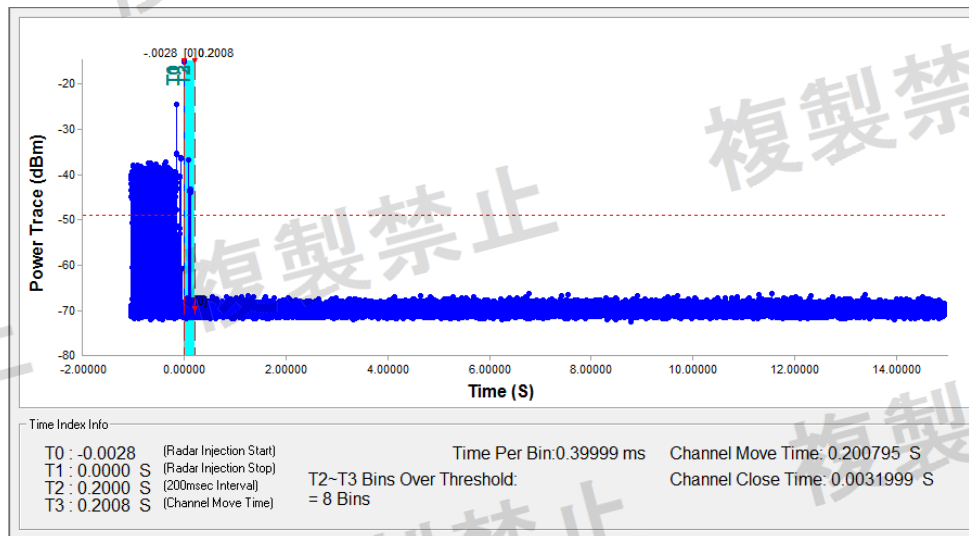
Radar DFS-US-5

Channel Move Time(s)	Limit(s)	Result
0.27	10	PASS
Channel Closing Transmission Time(ms)	Limit(ms)	Result
27.12	60	PASS



Radar DFS-US-6

Channel Move Time(s)	Limit(s)	Result
0.20	10	PASS
Channel Closing Transmission Time(ms)	Limit(ms)	Result
3.20	60	PASS



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DFS-J2-1 Radar Statistical Performances

Trial #	802.11a		802.11ax (HE20)		802.11ax (HE40)	
	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?
1	5700	Yes	5560	Yes	5710	No
2	5700	Yes	5680	Yes	5710	Yes
3	5640	Yes	5720	Yes	5710	Yes
4	5700	Yes	5660	Yes	5710	Yes
5	5660	Yes	5500	Yes	5550	No
6	5500	Yes	5700	No	5510	Yes
7	5600	Yes	5700	Yes	5710	Yes
8	5500	Yes	5520	Yes	5710	Yes
9	5580	Yes	5600	Yes	5710	Yes
10	5640	Yes	5600	Yes	5630	Yes
11	5700	Yes	5660	Yes	5710	Yes
12	5580	Yes	5680	Yes	5670	Yes
13	5520	Yes	5660	Yes	5710	Yes
14	5520	Yes	5620	No	5710	Yes
15	5540	Yes	5540	No	5710	Yes
16	5680	Yes	5540	Yes	5710	Yes
17	5640	Yes	5620	Yes	5630	Yes
18	5700	Yes	5500	Yes	5710	Yes
19	5500	Yes	5620	Yes	5710	Yes
20	5640	Yes	5680	Yes	5710	Yes
21	5620	Yes	5540	Yes	5630	No
22	5640	Yes	5720	Yes	5710	Yes
23	5540	Yes	5560	Yes	5710	Yes
24	5660	Yes	5660	Yes	5630	Yes
25	5700	Yes	5620	Yes	5710	Yes
26	5700	Yes	5540	Yes	5710	Yes
27	5680	Yes	5540	Yes	5670	Yes
28	5720	Yes	5560	Yes	5710	Yes
29	5500	Yes	5660	Yes	5710	Yes
30	5620	Yes	5620	Yes	5710	Yes
Detection Rate	100 %		90 %		90 %	

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Doc No: Form-ULID-004804 (DCS:17-EM-F0971) / 3.1

DFS-J2-2 Radar Statistical Performances						
Trial #	802.11a		802.11ax (HE20)		802.11ax (HE40)	
	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?
1	5680	Yes	5720	Yes	5550	Yes
2	5680	Yes	5600	Yes	5710	Yes
3	5500	Yes	5520	Yes	5670	Yes
4	5520	Yes	5620	Yes	5710	Yes
5	5700	Yes	5600	Yes	5670	Yes
6	5640	Yes	5660	Yes	5590	Yes
7	5580	Yes	5640	Yes	5510	Yes
8	5680	Yes	5640	Yes	5590	Yes
9	5660	Yes	5640	Yes	5710	Yes
10	5500	Yes	5520	Yes	5510	Yes
11	5720	Yes	5560	Yes	5710	Yes
12	5580	Yes	5620	Yes	5710	Yes
13	5700	Yes	5600	Yes	5670	Yes
14	5660	Yes	5580	Yes	5510	Yes
15	5640	Yes	5600	Yes	5550	Yes
16	5580	Yes	5620	Yes	5710	Yes
17	5700	Yes	5620	Yes	5710	Yes
18	5680	Yes	5580	Yes	5710	Yes
19	5680	Yes	5560	Yes	5710	Yes
20	5720	Yes	5720	Yes	5550	Yes
21	5660	Yes	5620	Yes	5710	Yes
22	5680	Yes	5720	Yes	5710	Yes
23	5560	Yes	5700	Yes	5590	Yes
24	5560	Yes	5720	Yes	5710	Yes
25	5560	Yes	5680	Yes	5710	Yes
26	5640	Yes	5660	Yes	5550	Yes
27	5680	Yes	5700	Yes	5710	Yes
28	5500	Yes	5620	Yes	5710	Yes
29	5660	No	5700	Yes	5670	Yes
30	5700	Yes	5700	Yes	5710	Yes
Detection Rate	96.7 %		100 %		100 %	

DFS-US-1 Radar Statistical Performances						
Trial #	802.11a		802.11ax (HE20)		802.11ax (HE40)	
	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?
1	5720	Yes	5620	Yes	5710	Yes
2	5640	Yes	5500	Yes	5710	Yes
3	5620	Yes	5540	Yes	5710	Yes
4	5560	Yes	5520	Yes	5630	Yes
5	5620	Yes	5540	Yes	5630	Yes
6	5620	Yes	5500	Yes	5710	Yes
7	5600	Yes	5720	Yes	5710	Yes
8	5660	Yes	5540	Yes	5550	Yes
9	5520	Yes	5500	Yes	5710	Yes
10	5580	Yes	5680	Yes	5710	Yes
11	5640	Yes	5560	Yes	5510	Yes
12	5680	Yes	5600	Yes	5710	Yes
13	5660	Yes	5620	Yes	5550	Yes
14	5680	Yes	5700	Yes	5550	Yes
15	5540	Yes	5560	Yes	5710	Yes
16	5700	Yes	5680	Yes	5710	Yes
17	5560	Yes	5520	Yes	5630	Yes
18	5560	Yes	5540	Yes	5710	Yes
19	5620	Yes	5540	Yes	5670	Yes
20	5680	Yes	5580	Yes	5710	Yes
21	5560	Yes	5640	Yes	5710	Yes
22	5620	Yes	5520	Yes	5590	Yes
23	5700	Yes	5700	Yes	5710	Yes
24	5600	Yes	5700	Yes	5510	Yes
25	5520	Yes	5500	Yes	5710	Yes
26	5580	Yes	5500	Yes	5630	Yes
27	5660	Yes	5500	Yes	5710	Yes
28	5620	Yes	5620	Yes	5710	Yes
29	5520	Yes	5680	Yes	5710	Yes
30	5660	Yes	5620	Yes	5710	Yes
Detection Rate	100 %		100 %		100 %	

DFS-US-2 Radar Statistical Performances						
Trial #	802.11a		802.11ax (HE20)		802.11ax (HE40)	
	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?
1	5720	Yes	5520	Yes	5710	Yes
2	5580	Yes	5680	Yes	5710	Yes
3	5700	Yes	5700	Yes	5710	Yes
4	5660	Yes	5700	Yes	5670	Yes
5	5500	Yes	5640	Yes	5590	Yes
6	5700	Yes	5680	Yes	5550	Yes
7	5580	Yes	5580	Yes	5710	Yes
8	5500	Yes	5500	Yes	5710	Yes
9	5620	Yes	5500	Yes	5670	Yes
10	5580	Yes	5660	Yes	5630	Yes
11	5500	Yes	5540	Yes	5710	Yes
12	5660	Yes	5620	Yes	5710	Yes
13	5660	Yes	5680	Yes	5710	Yes
14	5540	Yes	5540	Yes	5710	Yes
15	5680	Yes	5600	Yes	5630	Yes
16	5600	Yes	5560	Yes	5670	Yes
17	5720	Yes	5540	Yes	5710	Yes
18	5600	Yes	5660	Yes	5710	Yes
19	5660	Yes	5660	Yes	5710	Yes
20	5500	Yes	5640	Yes	5550	Yes
21	5540	Yes	5540	Yes	5670	Yes
22	5540	Yes	5640	Yes	5710	Yes
23	5640	Yes	5680	Yes	5710	Yes
24	5660	Yes	5540	Yes	5710	Yes
25	5580	Yes	5560	Yes	5710	Yes
26	5660	Yes	5660	Yes	5630	Yes
27	5620	Yes	5540	Yes	5550	Yes
28	5560	Yes	5520	Yes	5550	Yes
29	5560	Yes	5540	Yes	5710	Yes
30	5520	Yes	5500	Yes	5670	Yes
Detection Rate	100 %		100 %		100 %	

DFS-US-3 Radar Statistical Performances						
Trial #	802.11a		802.11ax (HE20)		802.11ax (HE40)	
	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?
1	5580	Yes	5660	Yes	5550	Yes
2	5720	Yes	5540	Yes	5710	Yes
3	5560	Yes	5720	Yes	5630	Yes
4	5560	Yes	5680	Yes	5710	Yes
5	5580	Yes	5540	Yes	5710	Yes
6	5520	Yes	5500	Yes	5710	Yes
7	5560	Yes	5520	Yes	5510	Yes
8	5660	Yes	5720	Yes	5710	Yes
9	5500	Yes	5680	Yes	5510	Yes
10	5540	Yes	5700	Yes	5590	Yes
11	5580	Yes	5720	Yes	5710	Yes
12	5640	Yes	5680	Yes	5710	Yes
13	5680	Yes	5720	Yes	5710	Yes
14	5700	Yes	5660	Yes	5590	Yes
15	5540	Yes	5660	Yes	5630	Yes
16	5620	Yes	5500	Yes	5710	Yes
17	5660	Yes	5520	Yes	5710	Yes
18	5660	Yes	5520	Yes	5590	Yes
19	5560	Yes	5660	Yes	5710	Yes
20	5520	Yes	5640	Yes	5670	Yes
21	5660	Yes	5640	Yes	5710	Yes
22	5620	Yes	5560	Yes	5710	No
23	5680	Yes	5540	No	5510	Yes
24	5520	Yes	5520	Yes	5550	Yes
25	5700	Yes	5660	Yes	5710	Yes
26	5580	Yes	5620	Yes	5590	Yes
27	5680	Yes	5600	Yes	5670	Yes
28	5660	Yes	5640	Yes	5630	Yes
29	5540	Yes	5600	Yes	5630	Yes
30	5600	Yes	5660	Yes	5710	Yes
Detection Rate	100 %		96.7 %		96.7 %	

DFS-US-4 Radar Statistical Performances

Trial #	802.11a		802.11ax (HE20)		802.11ax (HE40)	
	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?
1	5520	Yes	5520	Yes	5670	Yes
2	5580	Yes	5520	Yes	5710	Yes
3	5600	Yes	5620	Yes	5590	Yes
4	5580	Yes	5580	Yes	5590	Yes
5	5620	Yes	5720	Yes	5670	Yes
6	5540	Yes	5500	Yes	5710	Yes
7	5680	Yes	5640	Yes	5510	Yes
8	5680	Yes	5640	Yes	5670	Yes
9	5720	Yes	5720	Yes	5710	Yes
10	5680	Yes	5640	Yes	5630	Yes
11	5680	Yes	5620	Yes	5590	Yes
12	5560	Yes	5680	Yes	5510	Yes
13	5700	Yes	5600	Yes	5550	Yes
14	5580	Yes	5520	Yes	5670	Yes
15	5600	Yes	5720	Yes	5710	Yes
16	5660	Yes	5580	Yes	5710	Yes
17	5680	Yes	5680	Yes	5510	Yes
18	5660	Yes	5620	Yes	5710	Yes
19	5600	Yes	5620	Yes	5710	Yes
20	5520	Yes	5700	Yes	5510	Yes
21	5560	Yes	5720	Yes	5710	Yes
22	5540	Yes	5680	Yes	5710	Yes
23	5600	Yes	5560	Yes	5550	Yes
24	5580	Yes	5680	Yes	5710	Yes
25	5640	Yes	5720	Yes	5630	Yes
26	5640	Yes	5640	Yes	5630	Yes
27	5580	Yes	5540	Yes	5710	Yes
28	5680	Yes	5600	Yes	5710	Yes
29	5720	Yes	5560	Yes	5710	Yes
30	5660	Yes	5700	Yes	5510	Yes
Detection Rate	100 %		100 %		100 %	

DFS-US-5 Radar Statistical Performances						
Trial #	802.11a		802.11ax (HE20)		802.11ax (HE40)	
	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?
1	5540	Yes	5500	Yes	5710	Yes
2	5700	Yes	5720	Yes	5710	Yes
3	5540	Yes	5680	Yes	5510	Yes
4	5700	Yes	5560	Yes	5710	Yes
5	5640	Yes	5580	Yes	5710	Yes
6	5520	Yes	5720	Yes	5710	Yes
7	5660	Yes	5580	Yes	5630	Yes
8	5640	Yes	5520	Yes	5590	Yes
9	5620	Yes	5640	Yes	5710	Yes
10	5720	Yes	5540	Yes	5590	Yes
11	5560	Yes	5720	Yes	5670	Yes
12	5520	Yes	5620	Yes	5710	Yes
13	5540	Yes	5500	Yes	5670	Yes
14	5700	Yes	5600	Yes	5550	Yes
15	5680	Yes	5620	Yes	5710	Yes
16	5640	Yes	5580	Yes	5590	Yes
17	5620	Yes	5720	Yes	5510	Yes
18	5560	Yes	5540	Yes	5710	Yes
19	5620	Yes	5580	Yes	5710	Yes
20	5560	Yes	5700	Yes	5670	Yes
21	5640	Yes	5680	Yes	5710	Yes
22	5600	Yes	5620	Yes	5710	Yes
23	5560	Yes	5540	Yes	5710	Yes
24	5520	Yes	5640	Yes	5710	Yes
25	5520	Yes	5660	Yes	5710	Yes
26	5600	Yes	5660	Yes	5710	Yes
27	5660	Yes	5720	Yes	5590	Yes
28	5680	Yes	5680	Yes	5710	Yes
29	5560	Yes	5540	Yes	5710	Yes
30	5500	Yes	5720	Yes	5710	Yes
Detection Rate	100 %		100 %		100 %	

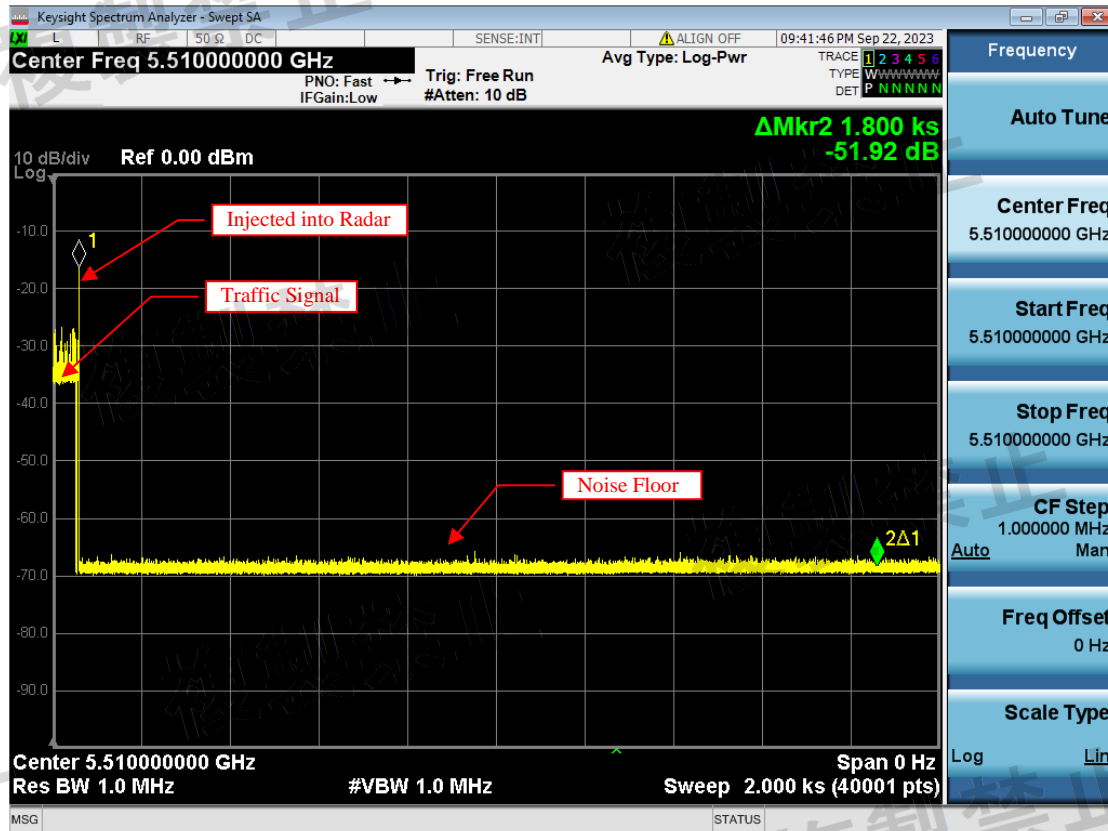
DFS-US-6 Radar Statistical Performances

Trial #	802.11a		802.11ax (HE20)		802.11ax (HE40)	
	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?	Channel (MHz)	UUT Detected?
1	5640	Yes	5540	Yes	5710	Yes
2	5580	Yes	5720	Yes	5710	Yes
3	5520	Yes	5620	Yes	5710	Yes
4	5500	Yes	5500	Yes	5550	Yes
5	5580	Yes	5560	Yes	5710	Yes
6	5680	Yes	5620	Yes	5550	Yes
7	5520	Yes	5720	Yes	5550	Yes
8	5580	Yes	5540	Yes	5670	Yes
9	5620	Yes	5560	Yes	5710	Yes
10	5540	Yes	5520	Yes	5630	Yes
11	5540	Yes	5600	Yes	5670	Yes
12	5620	Yes	5560	Yes	5710	Yes
13	5720	Yes	5660	Yes	5710	Yes
14	5520	Yes	5620	Yes	5710	Yes
15	5700	Yes	5640	Yes	5710	Yes
16	5720	Yes	5500	Yes	5630	Yes
17	5560	Yes	5500	Yes	5710	Yes
18	5520	Yes	5500	Yes	5510	Yes
19	5500	Yes	5680	Yes	5710	Yes
20	5720	Yes	5700	Yes	5710	Yes
21	5560	Yes	5500	Yes	5550	Yes
22	5540	Yes	5700	Yes	5550	Yes
23	5640	Yes	5660	Yes	5710	Yes
24	5560	Yes	5680	Yes	5510	Yes
25	5540	Yes	5680	Yes	5510	Yes
26	5720	Yes	5660	Yes	5710	Yes
27	5720	Yes	5600	Yes	5590	Yes
28	5640	Yes	5700	Yes	5710	Yes
29	5680	Yes	5620	Yes	5590	Yes
30	5500	Yes	5620	Yes	5550	Yes
Detection Rate	100 %		100 %		100 %	

8.4. Non-Occupancy Period

During the 30 minutes observation time, UUT did not make any transmissions on a channel after a radar signal was detected on that channel by either the Channel Availability Check or the In-Service Monitoring.

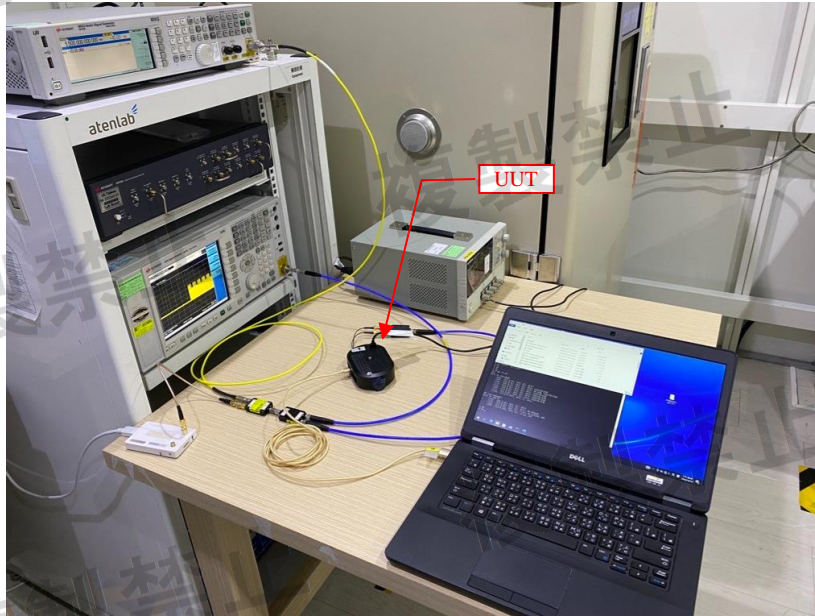
802.11ax (HE40) @ CH102



Note:

- 5510MHz has been monitored in 30 minutes period. In this period, no any transmission occurs.

Appendix I. Setup Configurations



END OF REPORT

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