

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: Certification Ordinance Article 2-1-19-3
Report No.: RJBBQZ-WTW-P25100605-2
Product: BE5000 Dual-Band PoE 2.5G Insight Managed WiFi 7 Outdoor Access Point
Brand: NETGEAR
Model No.: WBE700Y
Series Model: WBE708Y
Received Date: 2025/11/15
Test Date: 2026/7/1 ~ 2026/7/3
Issued Date: 2026/8/7
Applicant: NETGEAR, INC.
Address: 3553 N. First St., San Jose, California 95134, United States
Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory
Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan

Approved by: _____, **Date:** 2026/8/7
May Chen / Manager

This test report consists of 60 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The test results in the report only apply to the tested sample. The test results in this report are traceable to the national or international standards.

Prepared by : Phoenix Huang / Specialist



This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

Table of Contents

Release Control Record	3
1 Certificate	4
2 Summary of Test Results	5
2.1 Supplementary Information	5
3 General Information	6
3.1 General Description of EUT	6
3.2 Antenna Description of EUT	7
4 Test Instruments	9
4.1 Channel Availability Check Time	9
4.2 Channel Closing Transmission and Channel Move Time	9
4.3 Non-Occupancy Period	9
4.4 In-Service Monitoring	9
5 Limits of Test Items	10
5.1 Working Modes and Required Test Items	10
5.2 Test Limits and Radar Signal Parameters	10
6 Test Arrangements	13
6.1 Test Setup	13
6.2 Test Procedure	14
6.2.1 DFS Measurement System	14
6.2.2 Calibration of DFS Detection Threshold Level	16
6.2.3 DFS Detection Threshold	17
6.2.4 DFS Companion Device	27
7 Test Results of Test Item	28
7.1 Channel Availability Check Time	28
7.2 Channel Closing Transmission and Channel Move Time	32
7.3 Non-Occupancy Period	40
7.4 In-Service Monitoring	42
8 Uniform Spreading	58
9 Pictures of Test Arrangements	59
10 Information of the Testing Laboratories	60



Release Control Record

Issue No.	Description	Date Issued
RJBBQZ-WTW-P25100605-2	Original release.	2026/8/7

1 Certificate

Product: BE5000 Dual-Band PoE 2.5G Insight Managed WiFi 7 Outdoor Access Point
Brand: NETGEAR
Test Model: WBE700Y
Series Model: WBE708Y
Sample Status: Engineering sample
Applicant: NETGEAR, INC.
Test Date: 2026/7/1 ~ 2026/7/3
Standard: Certification Ordinance Article 2-1-19-3
Measurement procedure: MIC notice 88 Appendix 45

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

2 Summary of Test Results

Certification Ordinance Article 2-1-19-3		
Clause	Test Item	Result
OR: Article 49-20. Note: No.295 of 2022 OC: Annex 2. 3-12	Channel Availability Check Time	Pass
OR: Article 49-20. Note: No.295 of 2022 OC: Annex 2. 3-12	Channel Closing Transmission and Channel Move Time	Pass
OR: Article 49-20. Note: No.295 of 2022 OC: Annex 2. 3-12	Non-Occupancy Period	Pass
OR: Article 49-20. Note: No.295 of 2022 OC: Annex 2. 3-12	In-Service Monitoring	Pass

Notes:

1. OR: Ordinance Regulating Radio Equipment.
2. OC: Ordinance concerning Technical Regulations Conformity Certification etc. of Specified Radio Equipment.
3. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	BE5000 Dual-Band PoE 2.5G Insight Managed WiFi 7 Outdoor Access Point
Brand	NETGEAR
Test Model	WBE700Y
Series Model	WBE708Y
DFS Firmware/software version	5.4.213
Operational Mode	Master (with TPC function)
Operating Frequency Band	5.47 GHz ~ 5.725 GHz

Note:

1. All models are listed as below.

Model	HW	FW	Differences
WBE700Y	Identical	Identical	SKU, Packing and labelling information. Target retail markets.
WBE708Y	Identical	Identical	SKU, Packing and labelling information. Target service provider markets.

Note: From the above models, model: WBE700Y was selected as the representative model for the test and its data is recorded in this report.

2. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna NO.	RF Chain NO.	Brand	Model	Maximum Antenna Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type
Internal Ant 1_2G	0	WHAYU	7102A1428000	7.93	2.4~2.4835	Patch	ipex(MHF)
Internal Ant 2_2G	1	WHAYU	7102A1428000	8.22	2.4~2.4835	Patch	ipex(MHF)
Internal Ant 3_5G	0	WHAYU	7102A1428000	11.21	5.15~5.25	Patch Array	ipex(MHF)
				11.19	5.25~5.35		
				10.87	5.47~5.725		
				10.87	5.725~5.85		
				10.71	5.850~5.895		
Internal Ant 4_5G	1	WHAYU	7102A1428000	11.25	5.15~5.25	Patch Array	ipex(MHF)
				11.25	5.25~5.35		
				11.83	5.47~5.725		
				11.83	5.725~5.85		
				10.73	5.850~5.895		
External Ant 1_2G	0	AWAN	7102A1389000	3.77	2.4~2.4835	Dipole	RP-SMA
External Ant 2_2G	1	AWAN	7102A1389000	3.8	2.4~2.4835	Dipole	RP-SMA
External Ant 3_5G	0	AWAN	7102A1389000	4.16	5.15~5.25	Dipole	RP-SMA
				4.16	5.25~5.35		
				4.53	5.47~5.725		
				4.9	5.725~5.85		
				4.9	5.850~5.895		
External Ant 4_5G	1	AWAN	7102A1389000	3.6	5.15~5.25	Dipole	RP-SMA
				3.23	5.25~5.35		
				4.18	5.47~5.725		
				4.31	5.725~5.85		
				3.95	5.850~5.895		

For DFS and Carrier sense related test requirements, select the minimum antenna gain value as the representative test. The table below shows the applicable minimum gain values for each operating frequency band.

Frequency Band	Minimum Antenna Gain (dBi)
5 GHz UNII-2a & UNII-2c	Internal Antenna: 10.31 External Antenna: 2.68

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

2. The EUT incorporates a MIMO function:

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
802.11ac (VHT20)	2TX	2RX
802.11ac (VHT40)	2TX	2RX
802.11ac (VHT80)	2TX	2RX
802.11ac (VHT160)	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX
802.11ax (HE160)	2TX	2RX
802.11be (EHT20)	2TX	2RX
802.11be (EHT40)	2TX	2RX
802.11be (EHT80)	2TX	2RX
802.11be (EHT160)	2TX	2RX

3. Antenna Pattern:

Please refer to the attached file (Antenna pattern).

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 Channel Availability Check Time

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until	Calibration Authority	Calibration Method
MXG Vector Signal Generator Keysight	N5182B	MY53052700	2025/7/19	2026/7/18	ETC	(c)
Programmable Step Attenuator Agilent	8496H-002	MY42143989	2025/10/22	2026/10/21	BV CPS E&E	(d)
Signal & Spectrum Analyzer R&S	FSV3044	101506	2026/6/22	2027/6/21	ETC	(c)
Software BV	BVDFS_Auto- ISM_Workbench_V2A2	N/A	N/A	N/A	N/A	N/A

Notes:

- Calibration method:
 - Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) Japan Calibration Service System.
 - 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).
 - Calibration conducted by using other equipment that listed above from a) to c).
- The test was performed in HC - DFS-2 room(Hsinchu).
- Tested Date: 2026/7/1 ~ 2026/7/3

4.2 Channel Closing Transmission and Channel Move Time

Refer to section 4.1 to get the tested date and information of the instruments.

4.3 Non-Occupancy Period

Refer to section 4.1 to get the tested date and information of the instruments.

4.4 In-Service Monitoring

Refer to section 4.1 to get the tested date and information of the instruments.

5 Limits of Test Items

5.1 Working Modes and Required Test Items

The manufacturer shall state whether the UUT is capable of operating as a Master and/or a Slave. If the UUT is capable of operating in more than one operating mode then each operating mode shall be tested separately. See tables A and B for the applicability of DFS requirements prior to use a channel (Channel Availability Check) and during normal operation (In-Service Monitoring) for each of the operational modes.

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	✓

5.2 Test Limits and Radar Signal Parameters

Detection Threshold Values

Maximum E.I.R.P.	Received power (average)
less than 0.2 W	-62 dBm
0.2 W or more	-64 dBm
This level is only for 0 dBi EUT antenna gain. (Received power of a master station).	

DFS Requirement Time 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 Test Waveforms

W53

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

Note 1. The detection probability is the total transmission time in any 100ms from the master station radio equipment (connection method is limited to carrier sense multiple access type) to the slave station radio equipment. It refers to the case of performing transmission of 30ms or more.

Note 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 $P_o \geq 200 \text{ mW}$; $\geq -64 \text{ dBm(avg.)}$ / The case of $P_o < 200 \text{ mW}$; $P_o \geq -62 \text{ dBm(avg.)}$
(P_o ; Max. Transmit Power (EIRP) of EUT)

W56

Radar Type	Pulse Repetition Frequency (PRF)	Pulse Width (μsec)	The number of continuous pulses	Detection Probability
DFS-J2-1	720 Hz	0.5	18	60% or more
DFS-J2-2	250 Hz	2	18	60% or more
DFS-US-1	700 Hz	1	18	60% or more
DFS-US-2	4347 – 6667 Hz	1-5	23-29	60% or more
DFS-US-3	2000 – 5000 Hz	6-10	16-18	60% or more
DFS-US-4	2000 - 5000 Hz	11-20	12-16	60% or more
Aggregate (Radar Types 1-6)				80% or more
*1. In the transmission of the 17% of maximum signal access speed (an error correction and a control signal are not included), when the master station is transmitting to the slave station. *2. The average value of the "detection probability" for every classification of the radio wave which a radar transmits shall be "80% or more". *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 $P_o \geq 200 \text{ mW}$; $\geq -64 \text{ dBm(avg.)}$ / The case of $P_o < 200 \text{ mW}$; $P_o \geq -62 \text{ dBm(avg.)}$ (Po; Max. Transmit Power (EIRP) of EUT)				

Radar Type	Pulse Repetition Frequency (pps)	Pulse Width (μsec)	The number of continuous pulses	Detection Probability
DFS-US-5	500-1000 Hz	50 - 100	1-3	80% or more
*1. In the transmission of the 17% of maximum signal access speed (an error correction and a control signal are not included), when the master station is transmitting to the slave station. *2. A mass of the number of continuous pulses (burst) shall be radiated for 12 seconds. *3. Chirp width : $5\text{MHz} \leq X \leq 20\text{MHz}$ ("5MHz" or "frequency width which added the integral multiple of 1MHz to 5MHz") In this case, "chirp width" is arbitrary to each burst, "chirp width" in the same burst shall be an equal thing. *4. Number of burst : $8 \leq X \leq 20$ (arbitrary integer), Burst interval : Time which divided 12 seconds by the number of burst. *5. When there are two or more pulses within the burst of 1, the pulse width shall be an equal thing. *6. When there are two or more pulses within the burst of 1, the "repetition frequency" must not have relevance between the "repetition frequency" of the pulse of 1, and the "repetition frequency" of the pulse of next 1. *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 $P_o \geq 200 \text{ mW}$; $\geq -64 \text{ dBm(avg.)}$ / The case of $P_o < 200 \text{ mW}$; $P_o \geq -62 \text{ dBm(avg.)}$ (Po; Max. Transmit Power (EIRP) of EUT)				

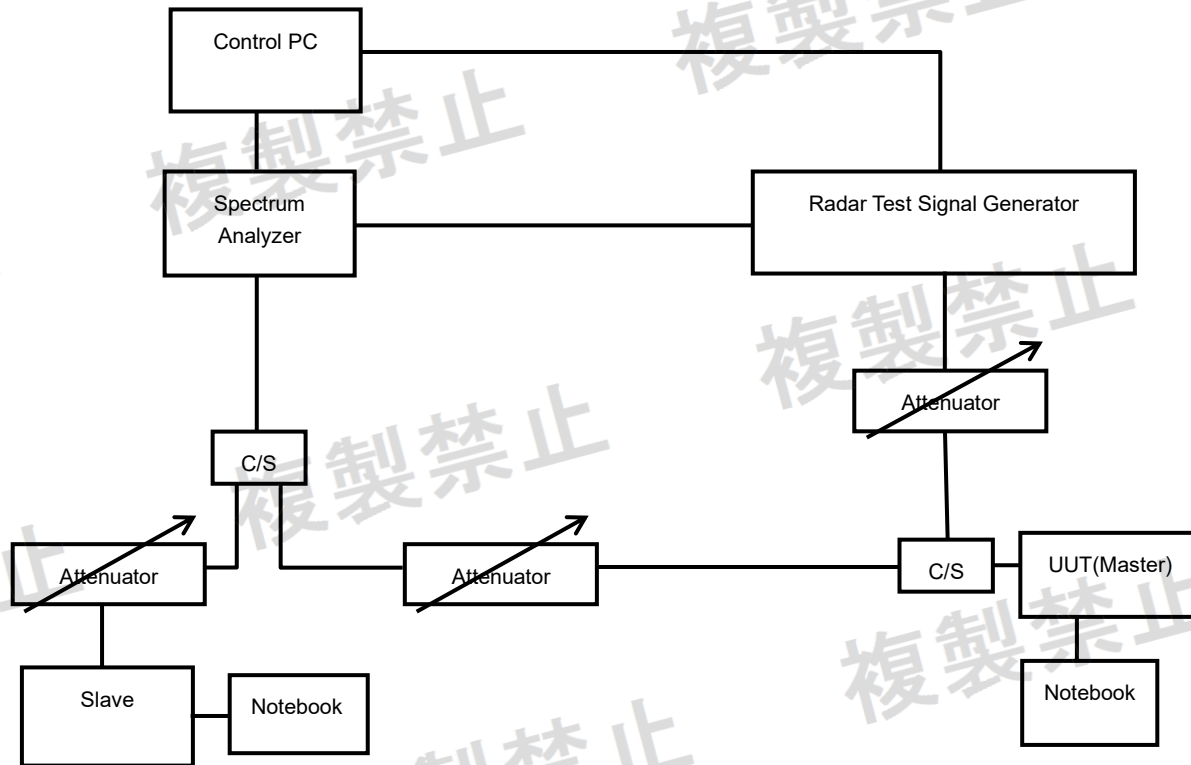
Radar Type	Pulse Repetition Frequency (pps)	Pulse Width (μsec)	Number of pulses in a burst of 1	Detection Probability
DFS-US-6	3000 Hz	1	9	70% or more
*1. In the transmission of the 17% of maximum signal access speed (an error correction and a control signal are not included), when the master station is transmitting to the slave station. *2. Burst : One mass of the number of continuous pulses. *3. Hopping frequency : $5250 \text{ MHz} \leq X \leq 5724 \text{ MHz}$. ("5250 MHz" or "the arbitrary frequency which added the integral multiple of 1MHz to 5250 MHz".) *4. Switching interval of the hopping frequency : "3ms", Total switching interval of the all hopping frequency : "300ms". *5. Burst interval : "3 ms". The case of $P_o \geq 200 \text{ mW}$; $\geq -64 \text{ dBm(avg.)}$ / The case of $P_o < 200 \text{ mW}$; $P_o \geq -62 \text{ dBm(avg.)}$ (Po; Max. Transmit Power (EIRP) of EUT)				

6 Test Arrangements

6.1 Test Setup

Conducted measurement

Master Mode



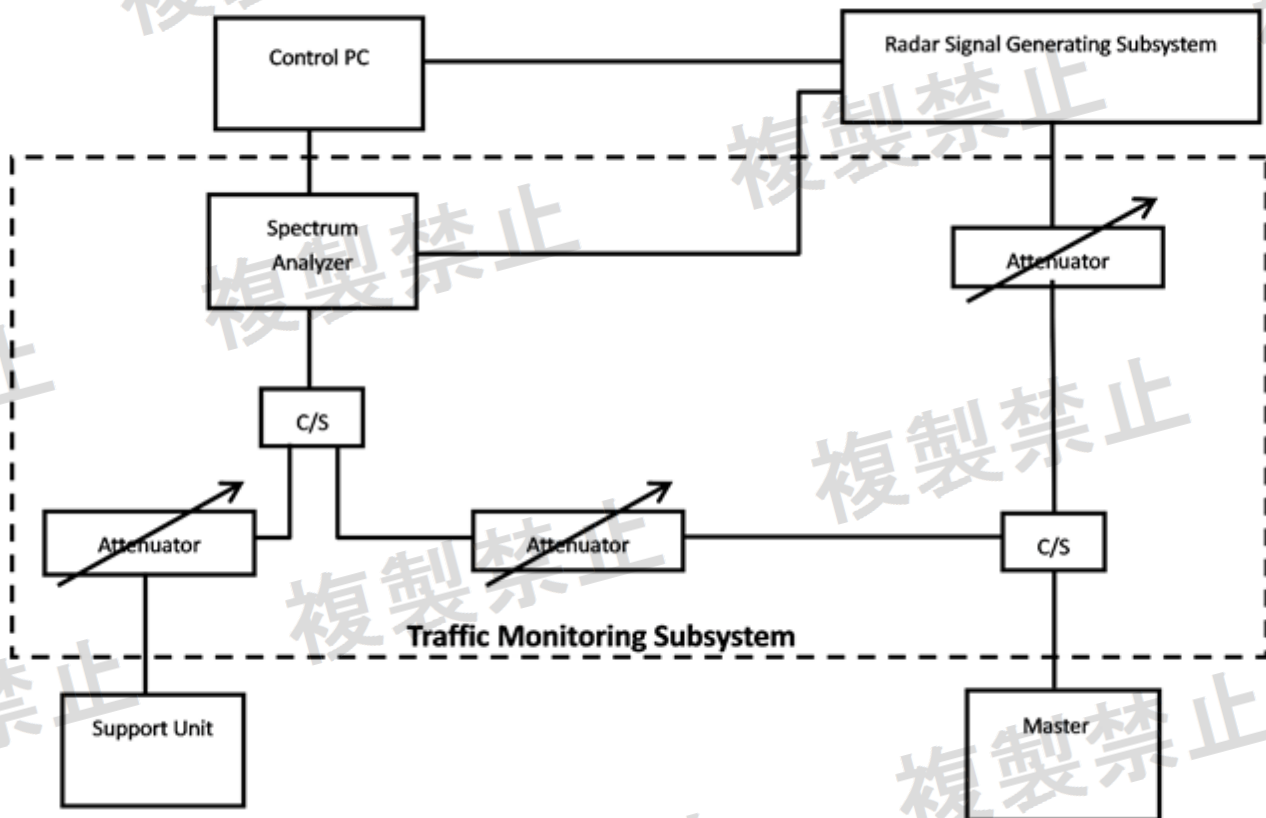
The UUT is a U-NII Device operating in Master mode. The radar test signals are injected into the Master Device.

6.2 Test Procedure

6.2.1 DFS Measurement System

The measured channels are in the DFS bands. The radar signal was the same as transmitted channels, and injected into the antenna port of AP (master) with -64 dBm power level for DFS 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.

Conducted Setup Configuration of DFS Measurement System

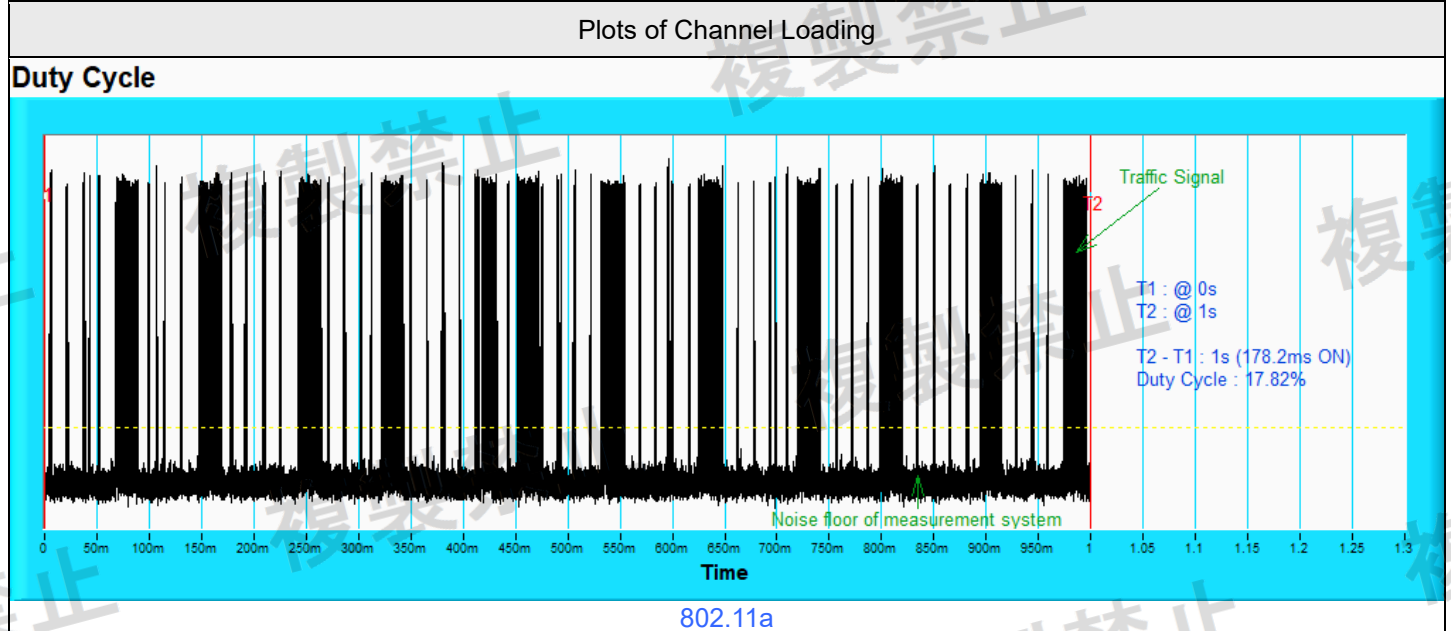


Channel Loading

System testing will be performed with channel-loading using means appropriate to the data types that are used by the unlicensed device. The following requirements apply:

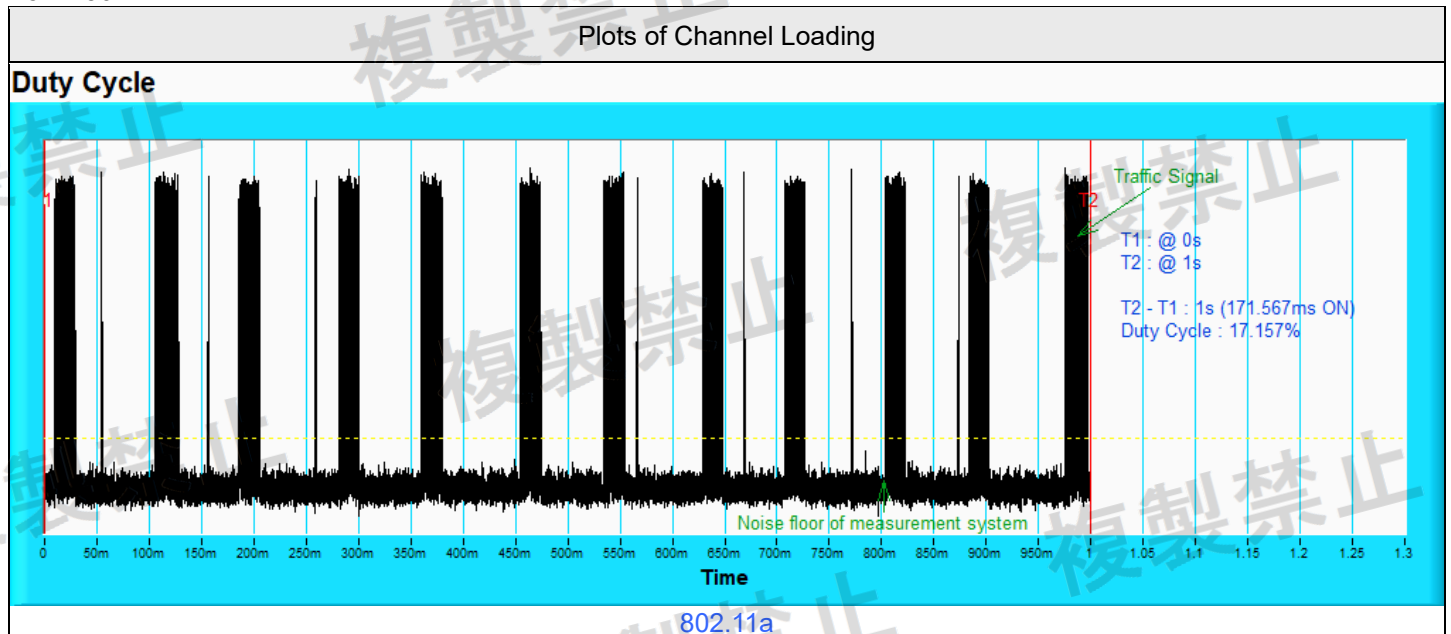
External Antenna

For W56



Internal Antenna

For W56



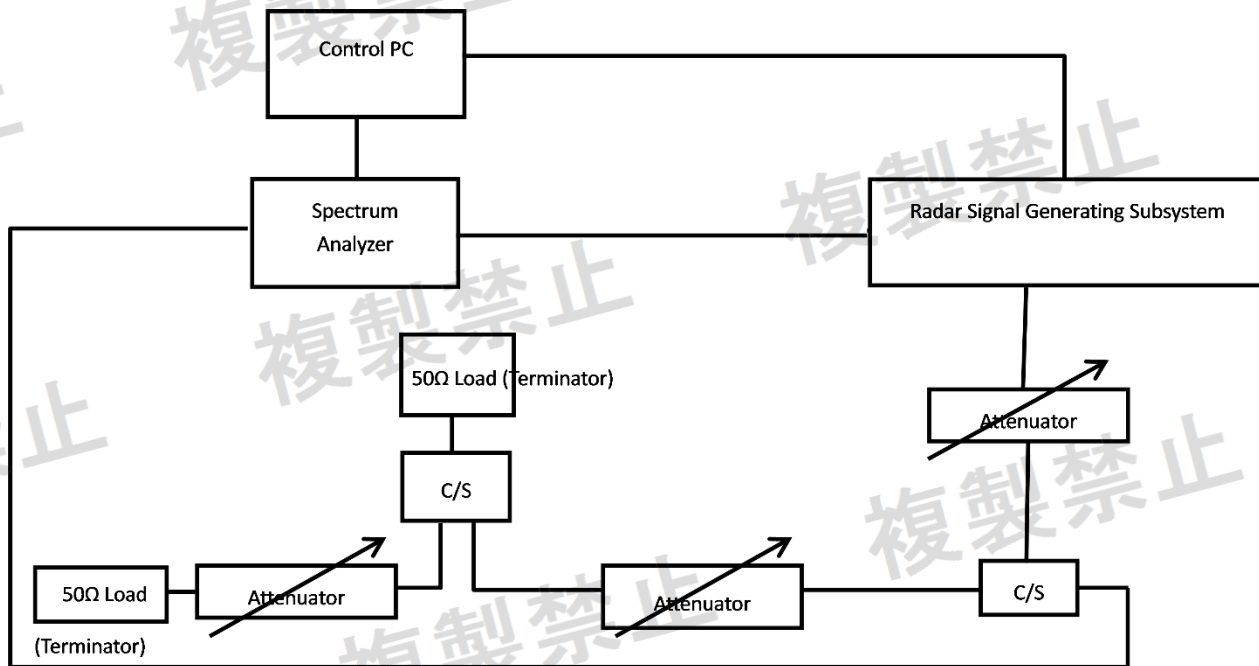
Note: T1 denotes the start of duty cycle period is 0th second. T2 denotes the end of duty cycle period is 1th second. T2 – T1 = 1 seconds. Duty Cycle = 17.157%

6.2.2 Calibration of DFS Detection Threshold Level

The measured channel is chosen from the operating channels of the UUT within the DFS band and using the all bandwidth mode available for the link. The radar signal was the same as transmitted channels, and injected into the antenna of AP (master), measured the channel closing transmission time and channel move time.

Conducted Setup Configuration of Calibration of DFS Detection Threshold Level

The calibrated conducted detection threshold level is set to -64 dBm. The tested level is lower than required level hence it provides margin to the limit.



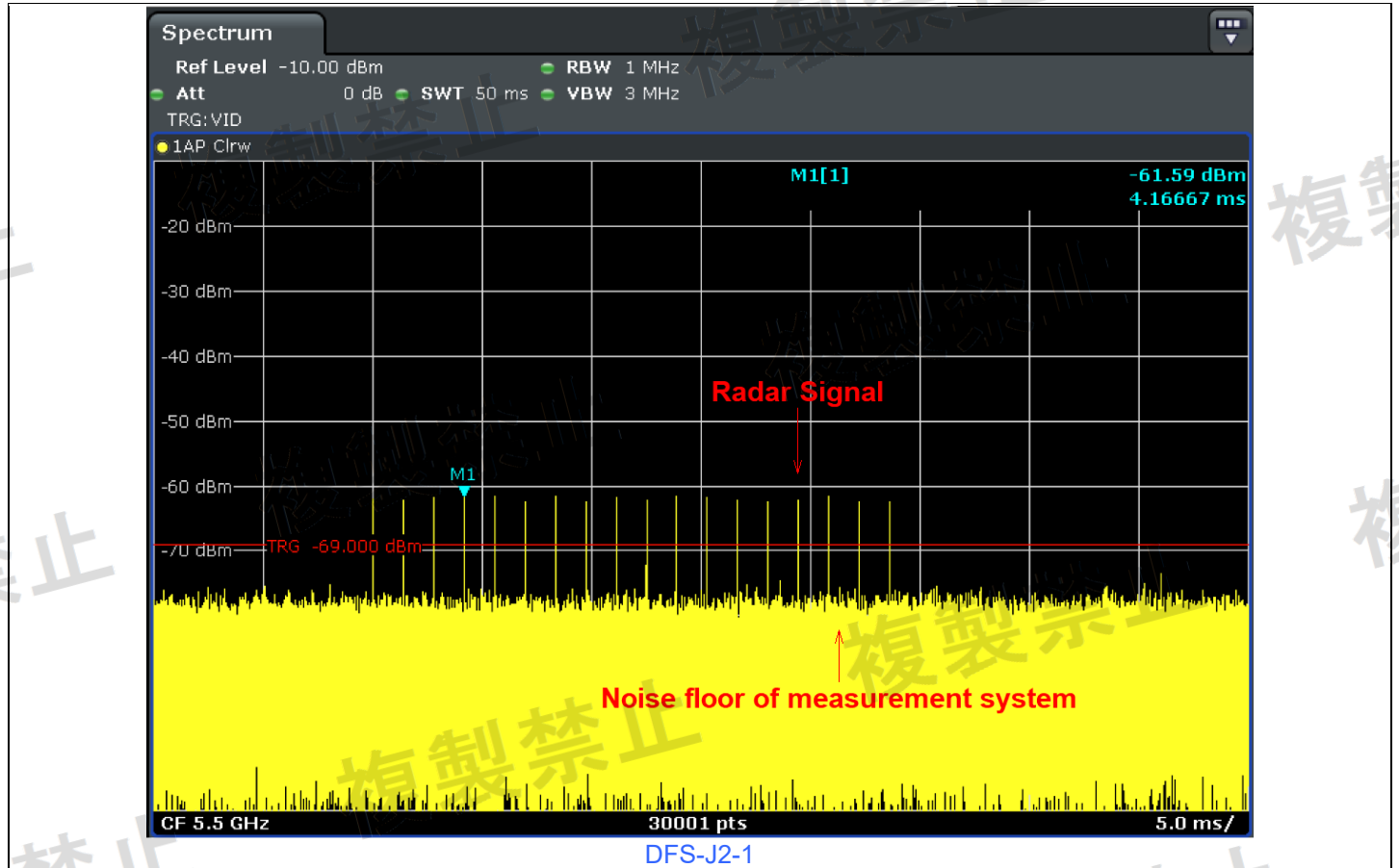
6.2.3 DFS Detection Threshold

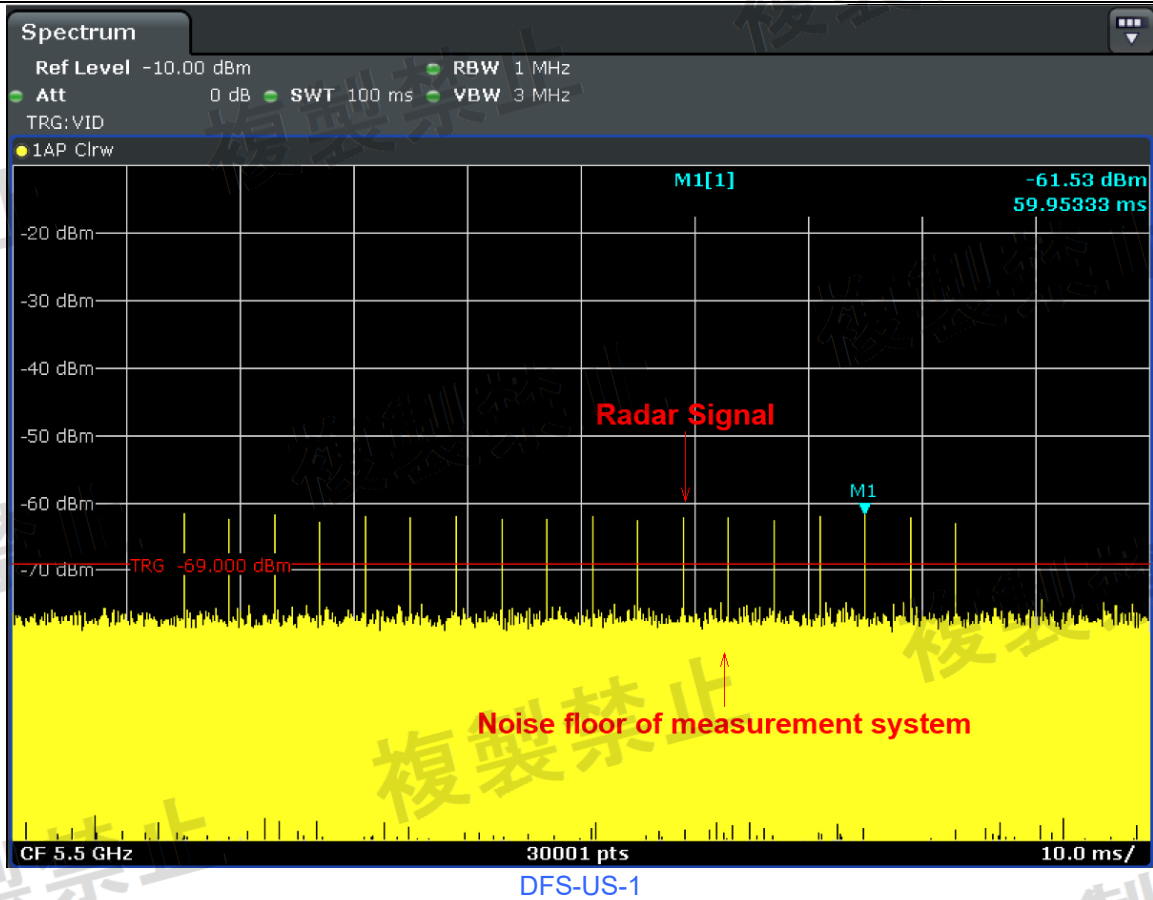
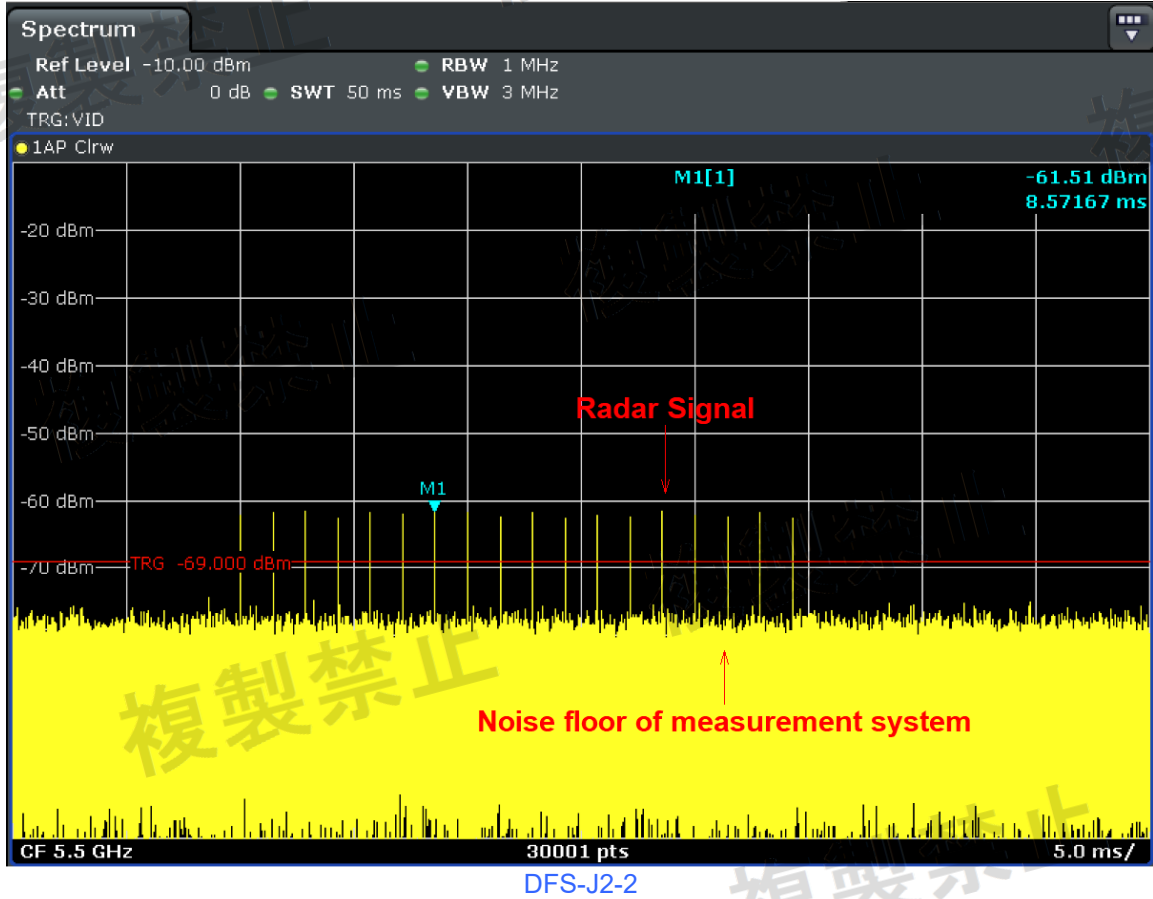
External Antenna

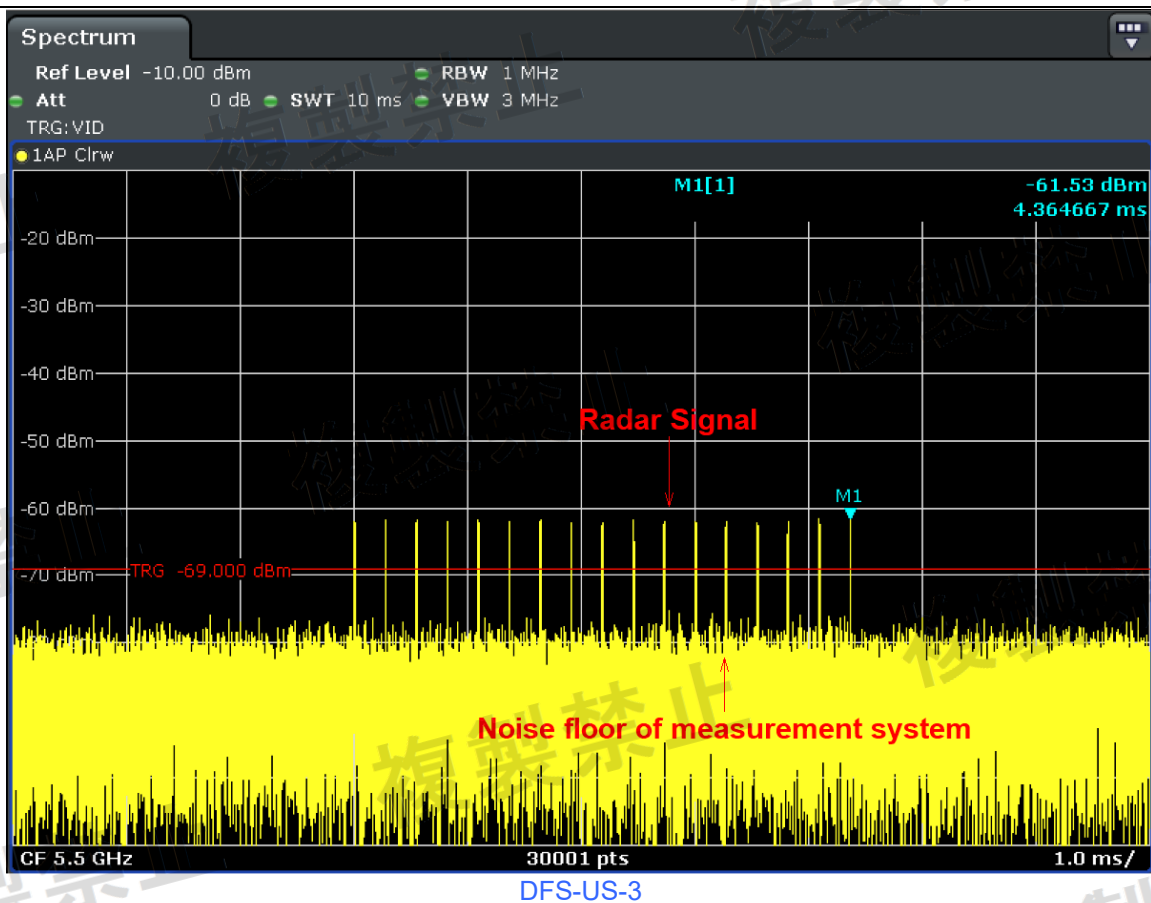
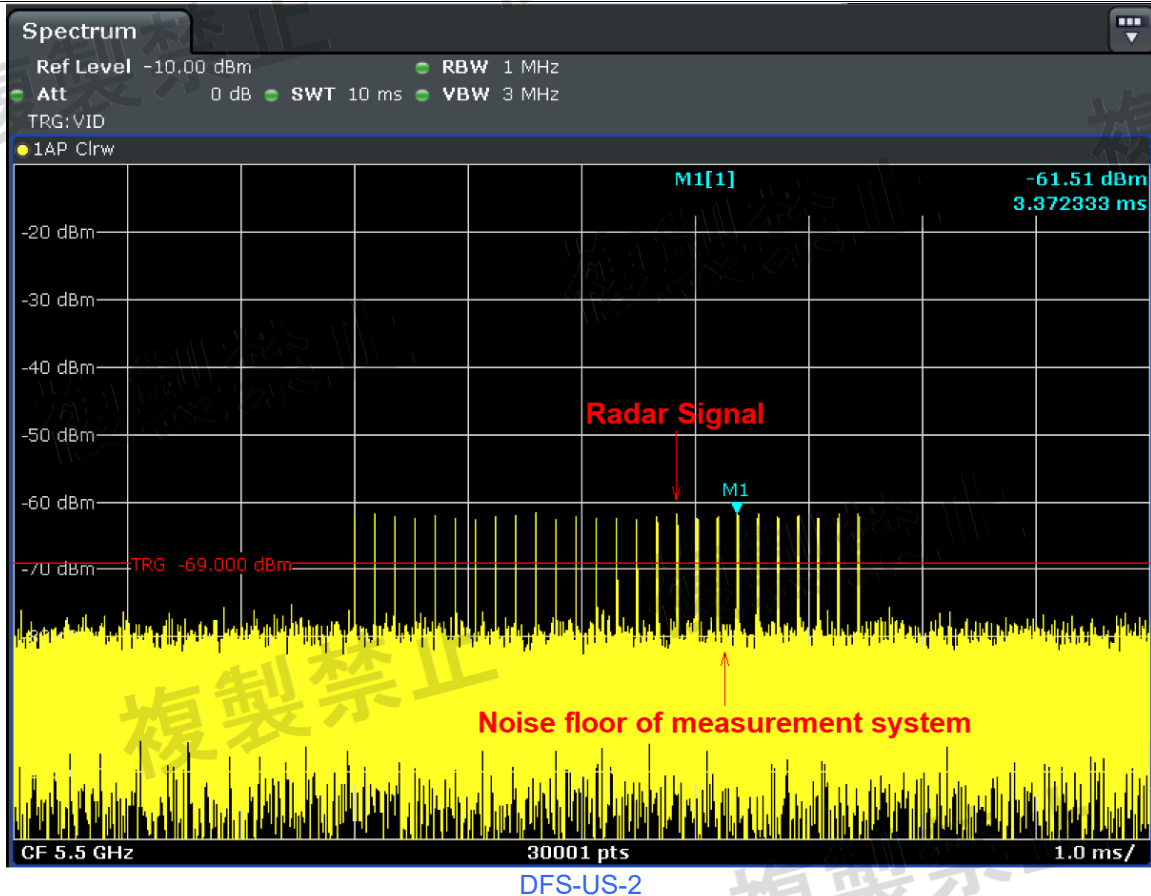
For Interference Threshold Values Injected into EUT

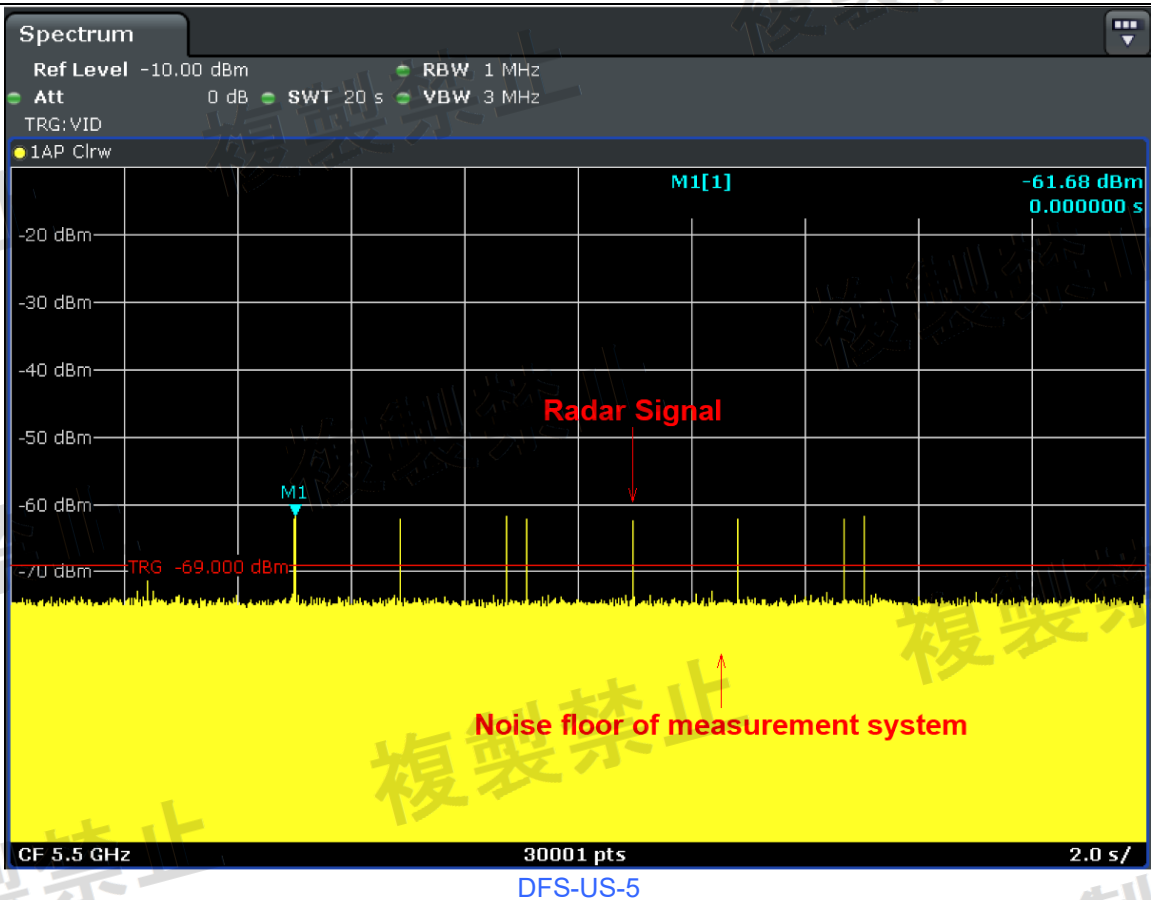
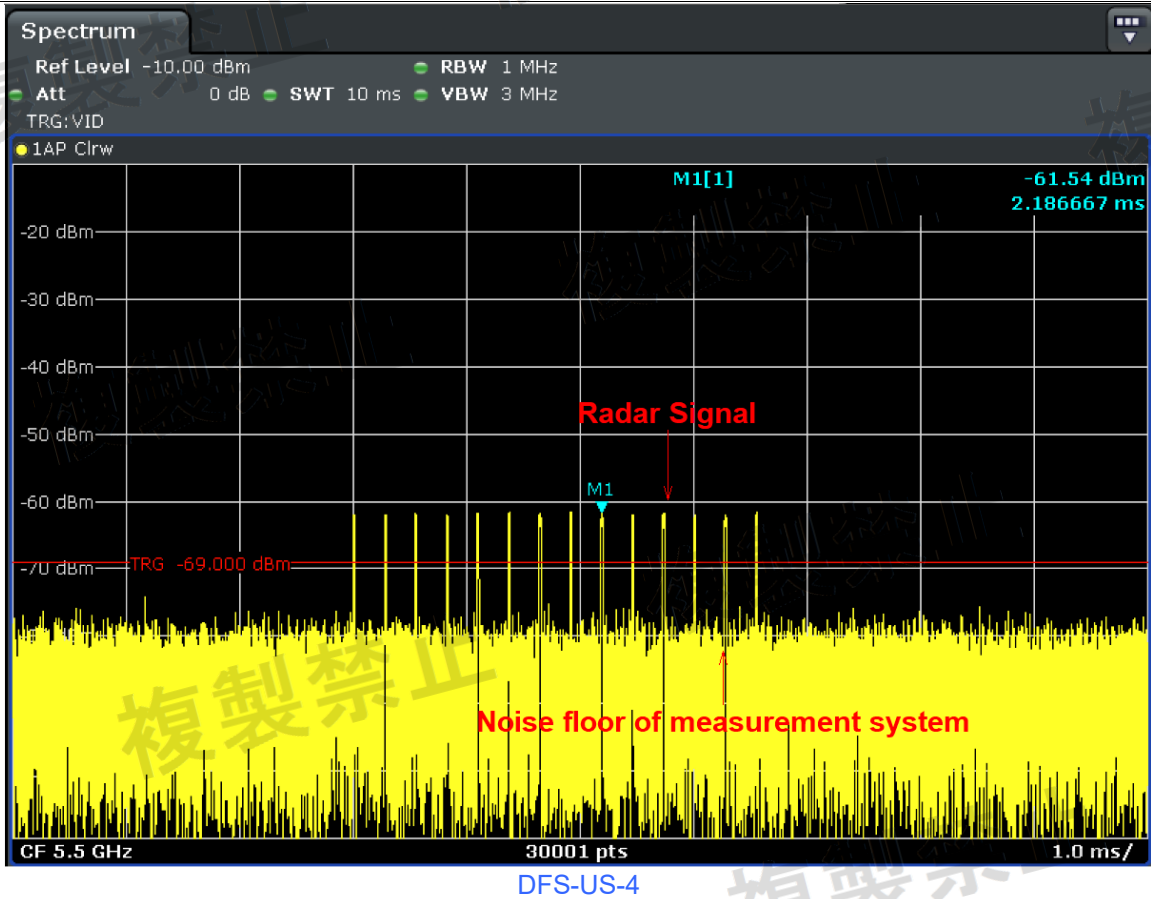
For W56

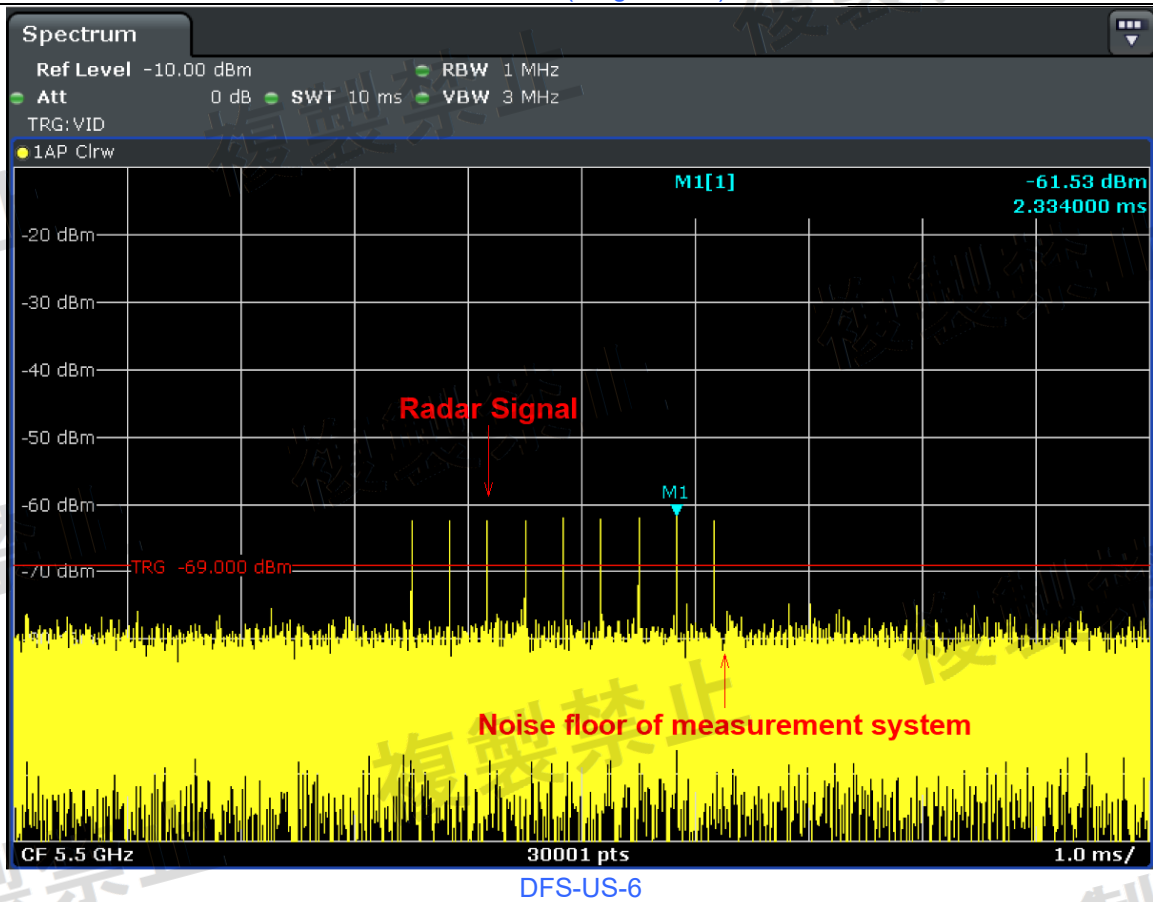
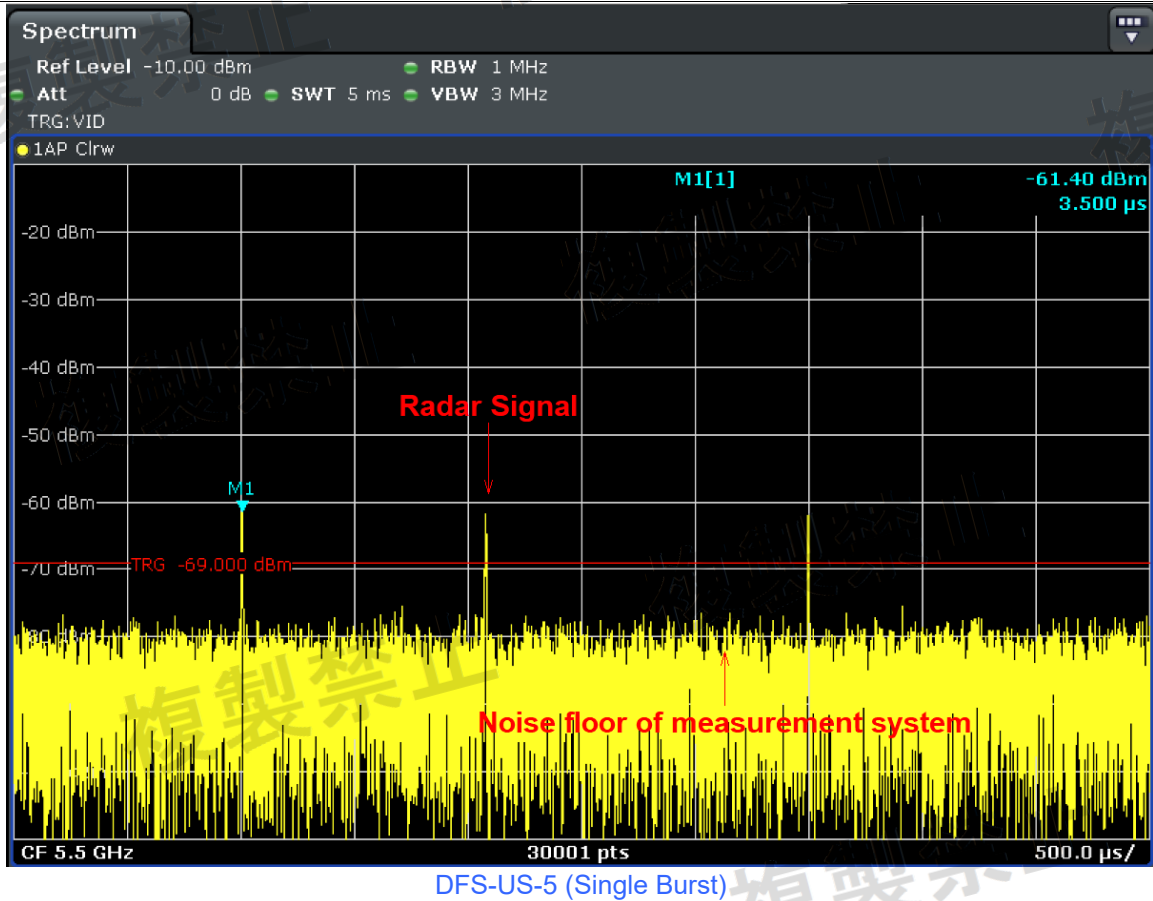
The interference threshold level of -64 dBm and the EUT antenna gain is 2.68 dBi. Then the radar burst signal level to the EUT is lower than -61.32 dBm at the antenna connector.









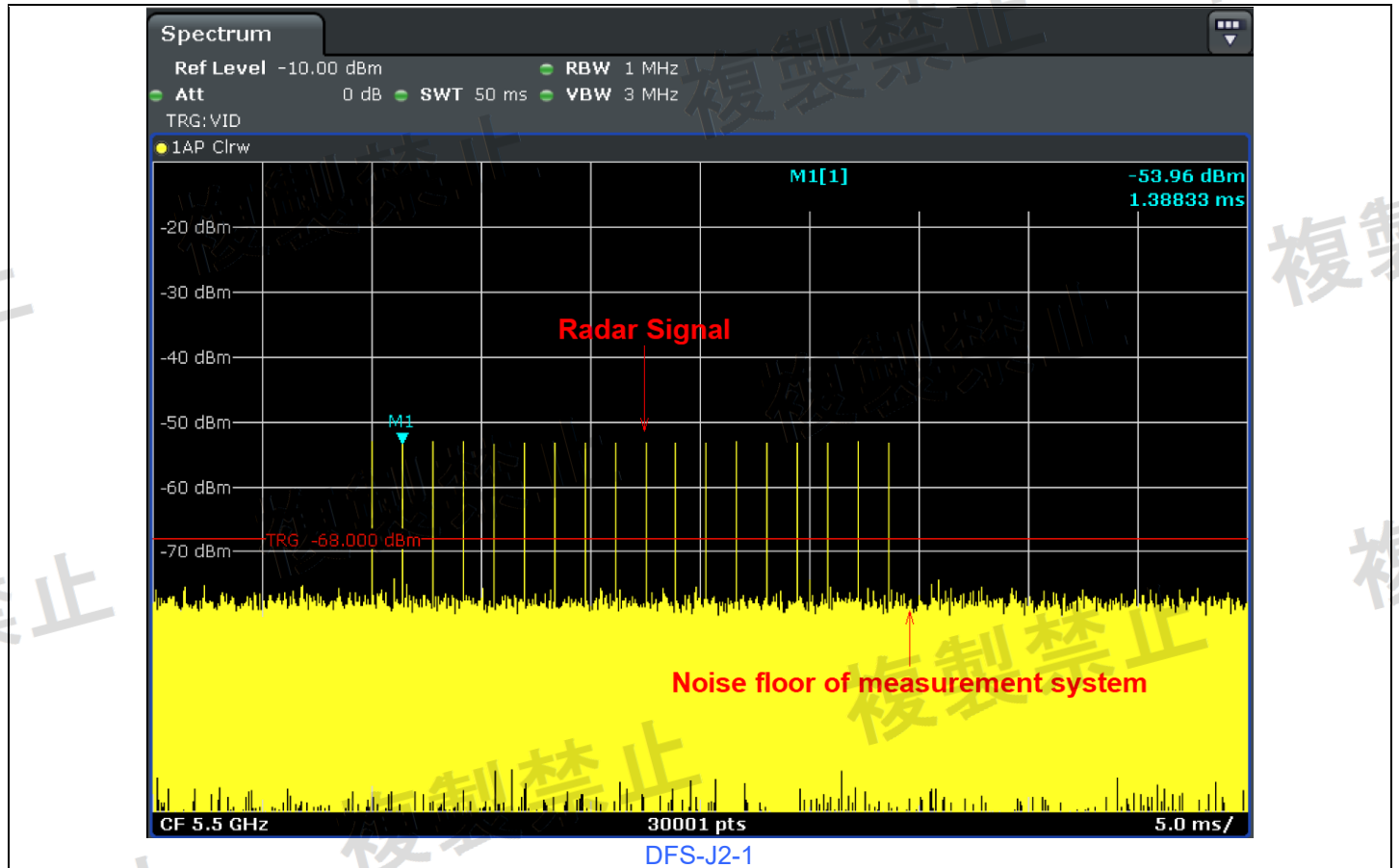


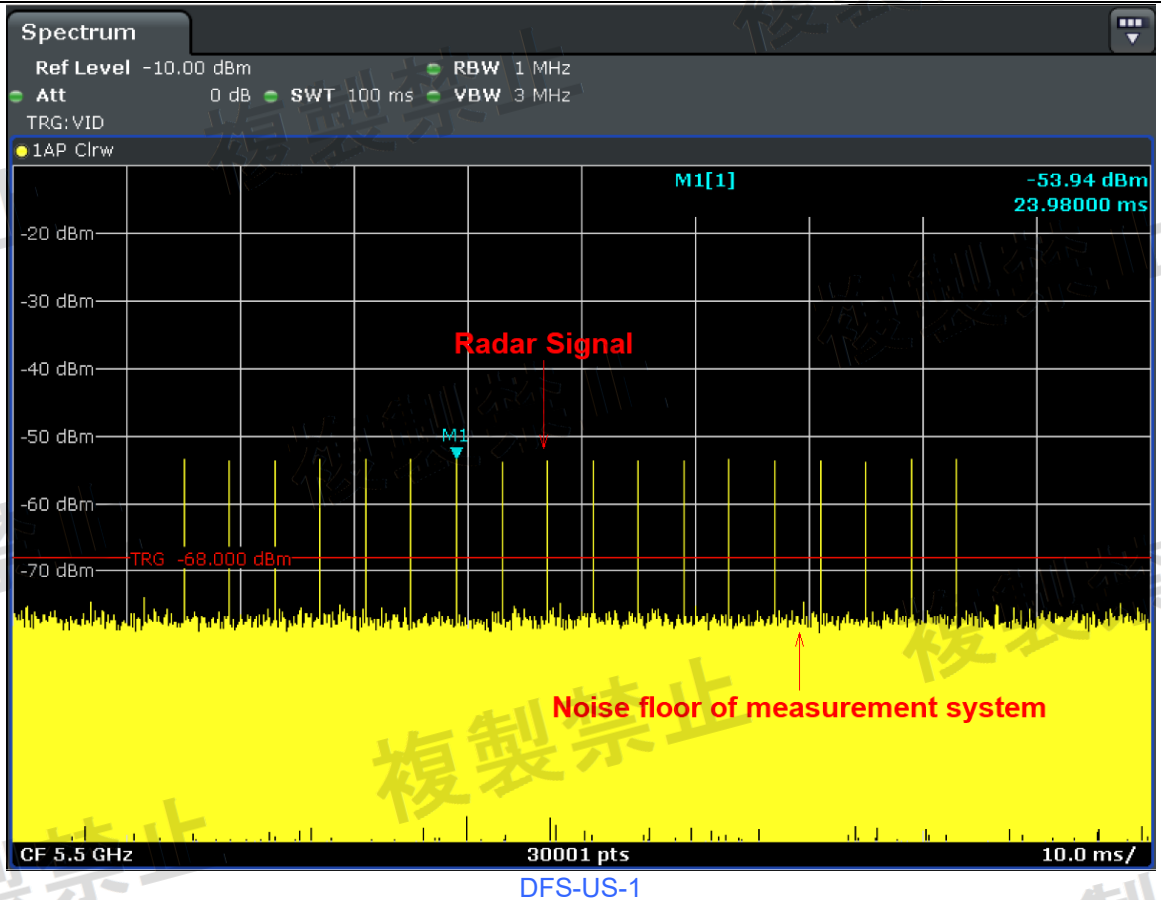
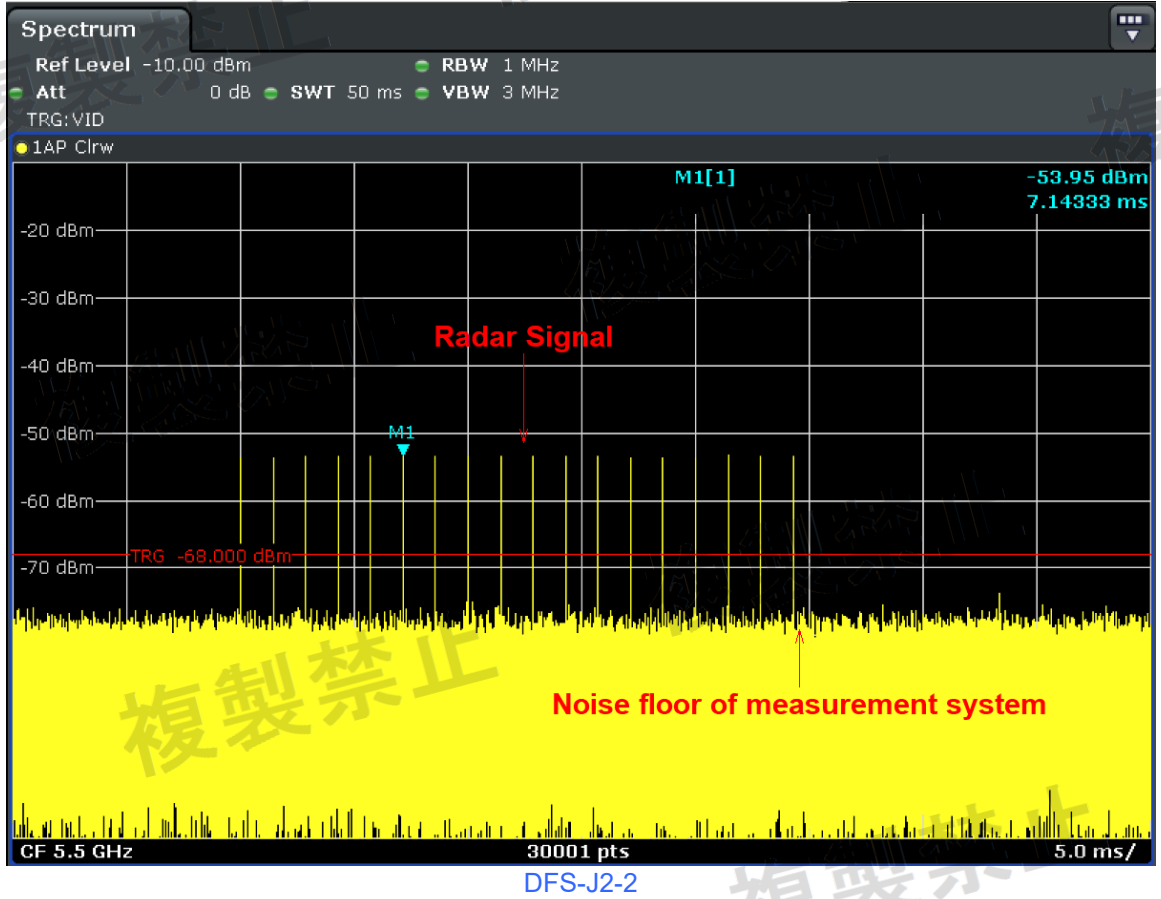
Internal Antenna

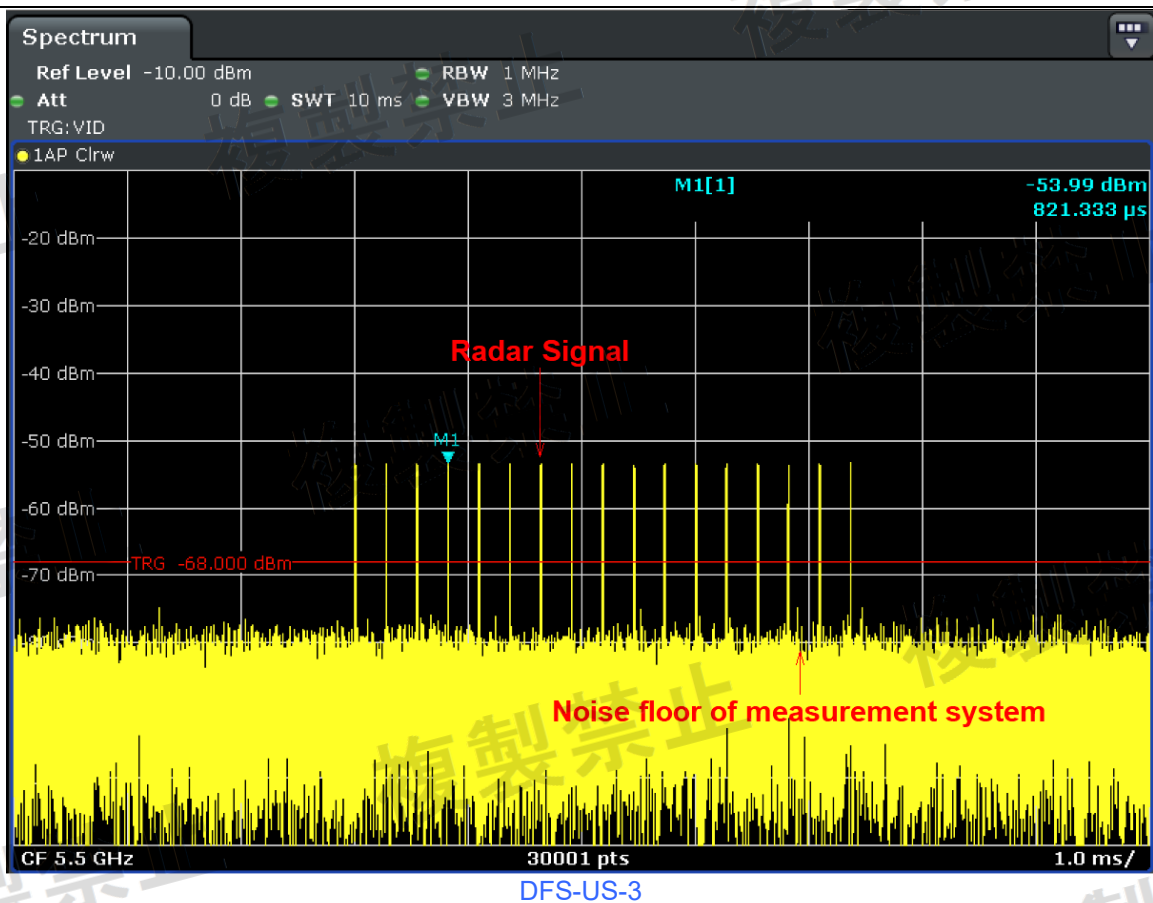
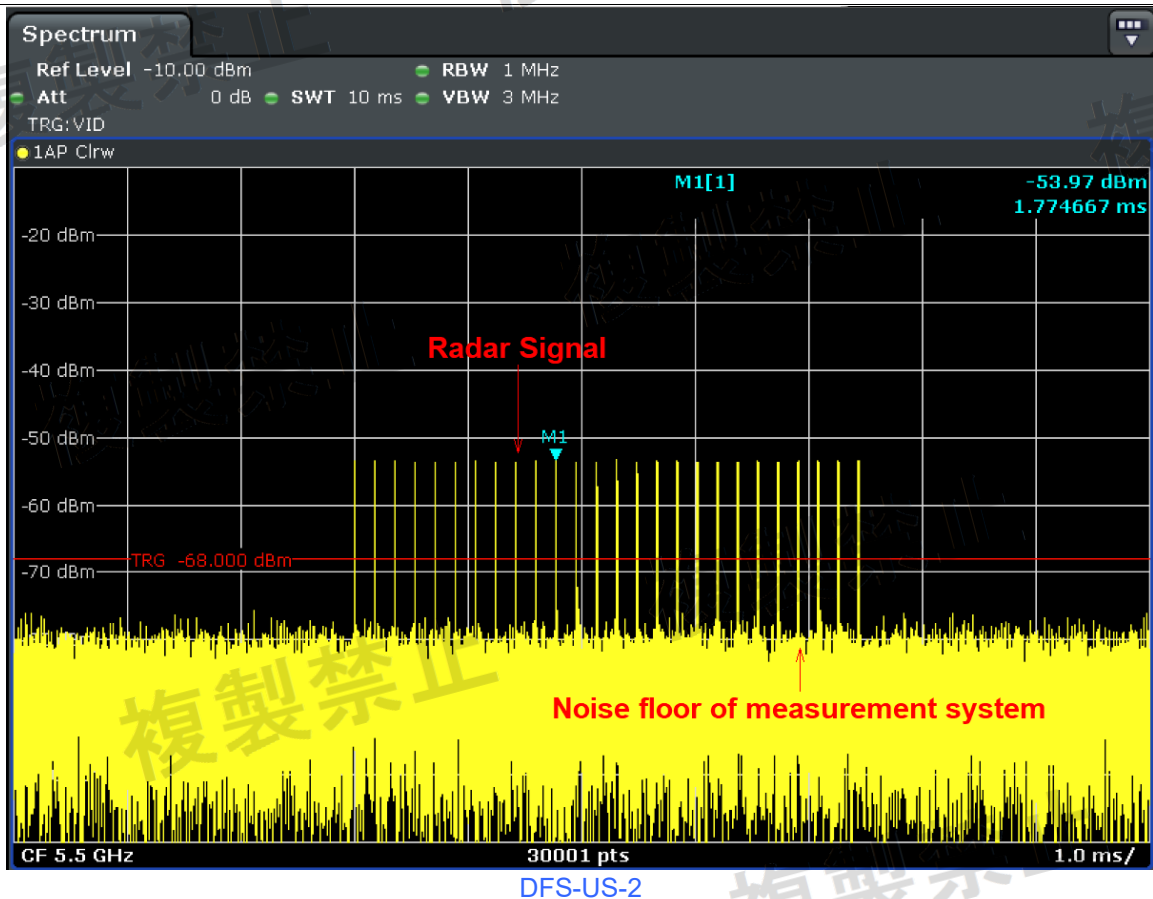
For Interference Threshold Values Injected into EUT

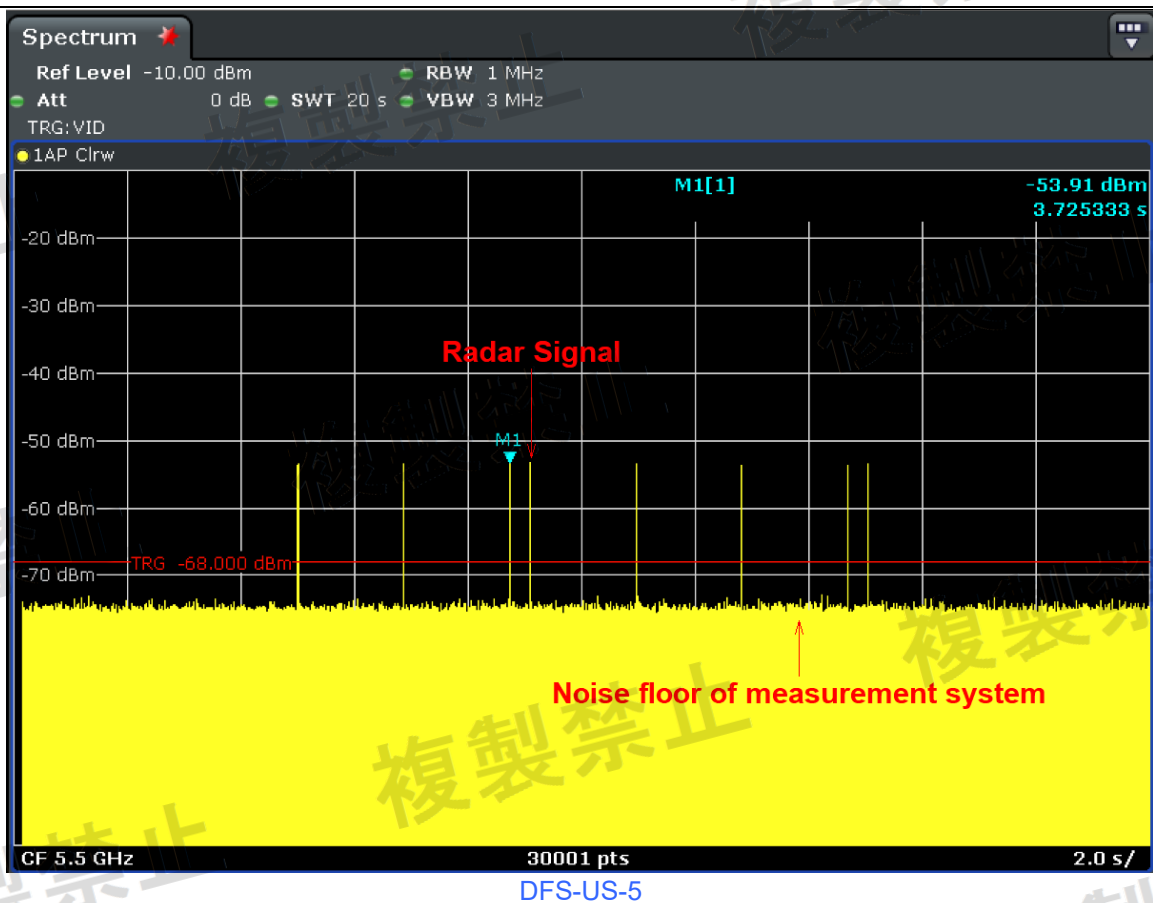
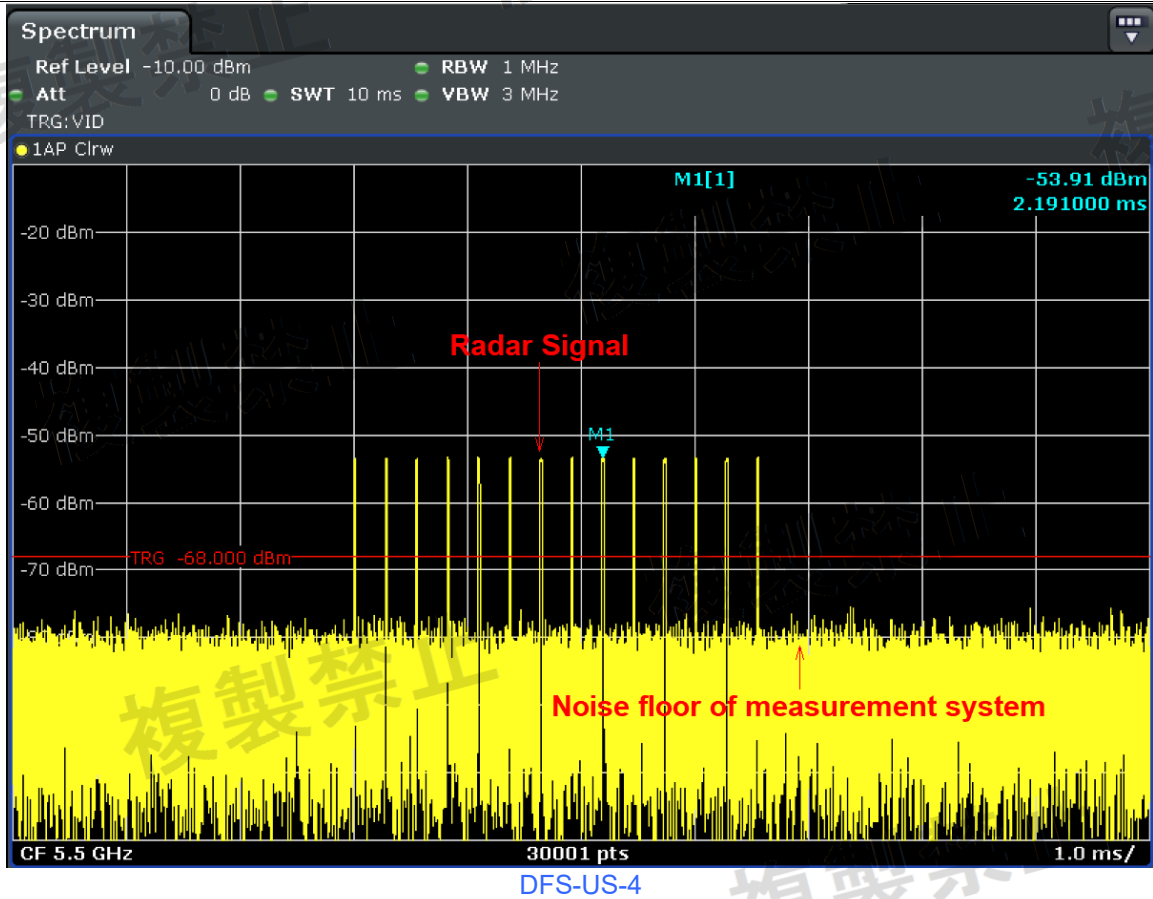
For W56

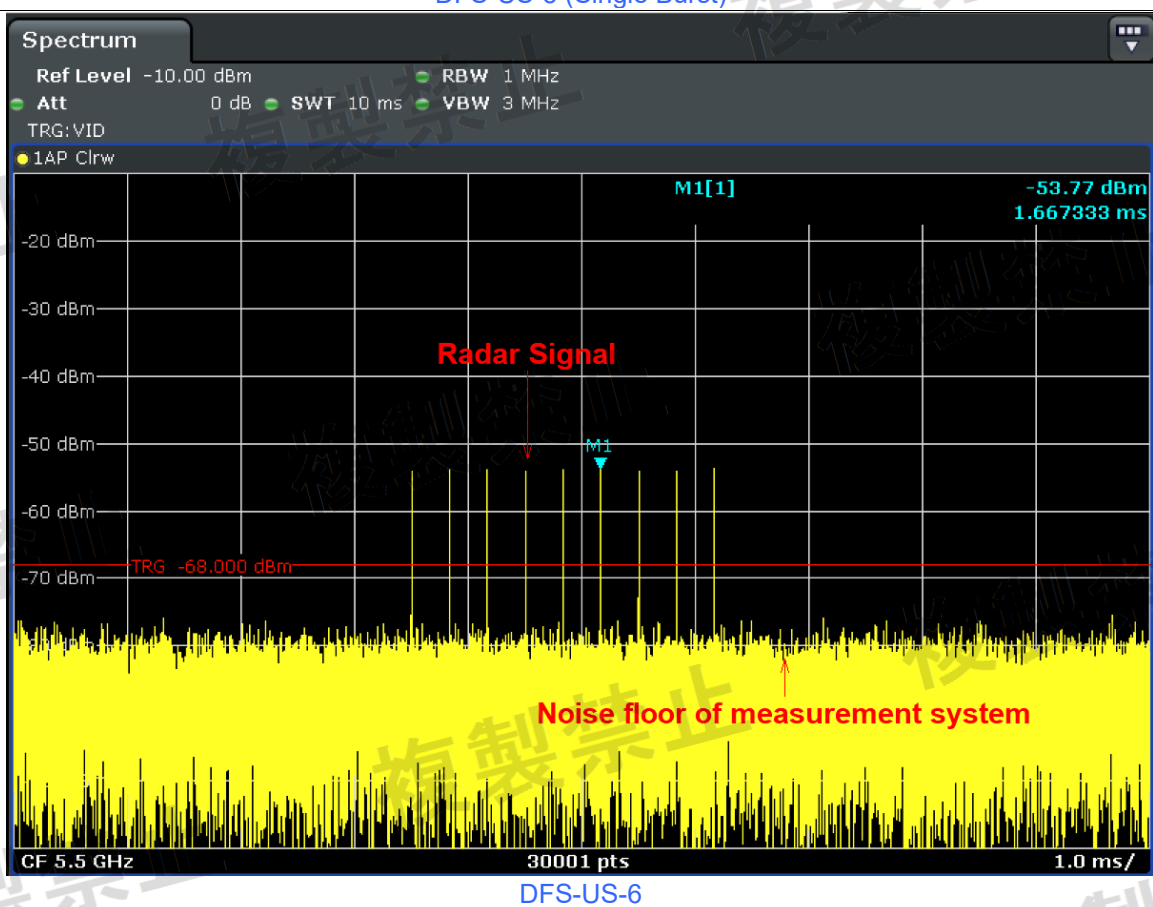
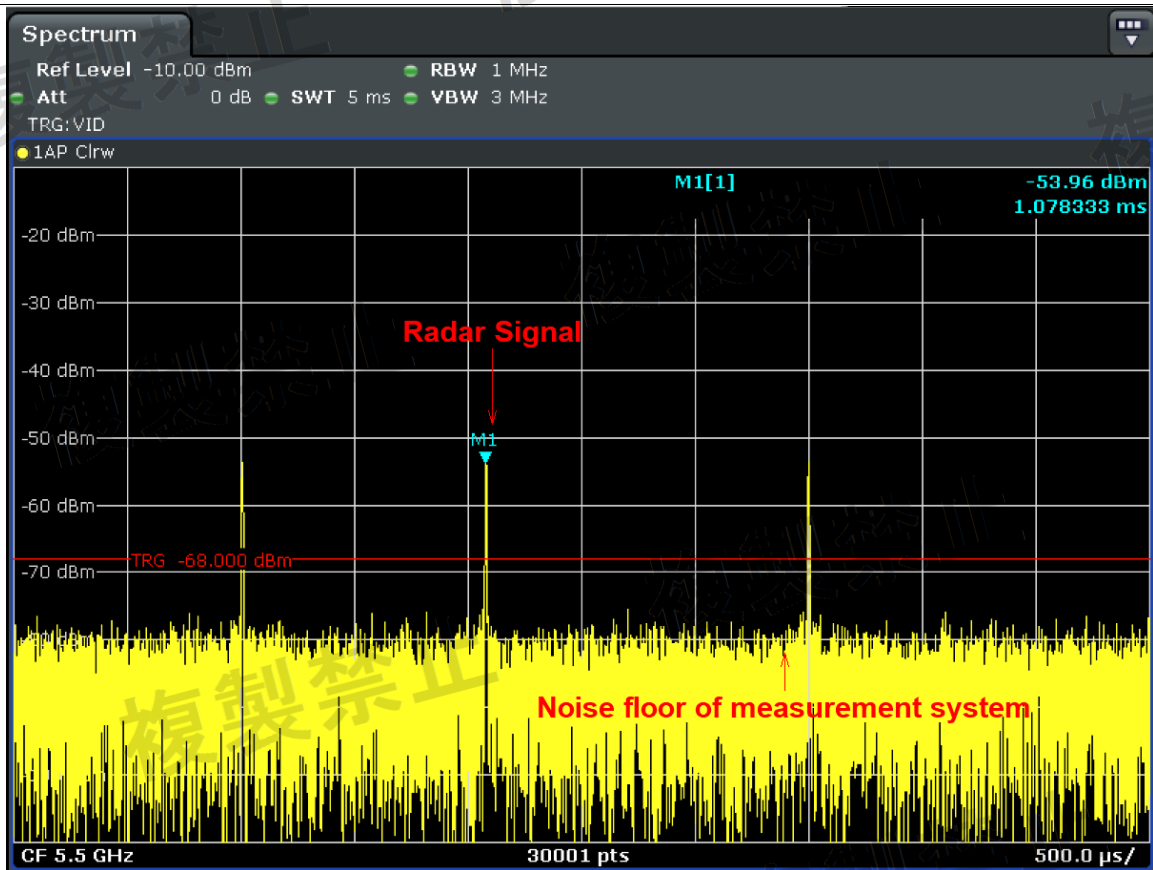
The interference threshold level of -64 dBm and the EUT antenna gain is 10.31 dBi. Then the radar burst signal level to the EUT is lower than -53.69 dBm at the antenna connector.











6.2.4 DFS Companion Device

Companion Device Information			
Product	Brand	Model No.	Software/Firmware Version
Intel® Wi-Fi 6 AX200	Intel	AX200NGW	21.80.2.1

Note: This device was functioned as a Slave device during the DFS test.

7 Test Results of Test Item

7.1 Channel Availability Check Time

Environmental Conditions:	24°C, 65% RH	Tested By:	Chilin Lee
---------------------------	--------------	------------	------------

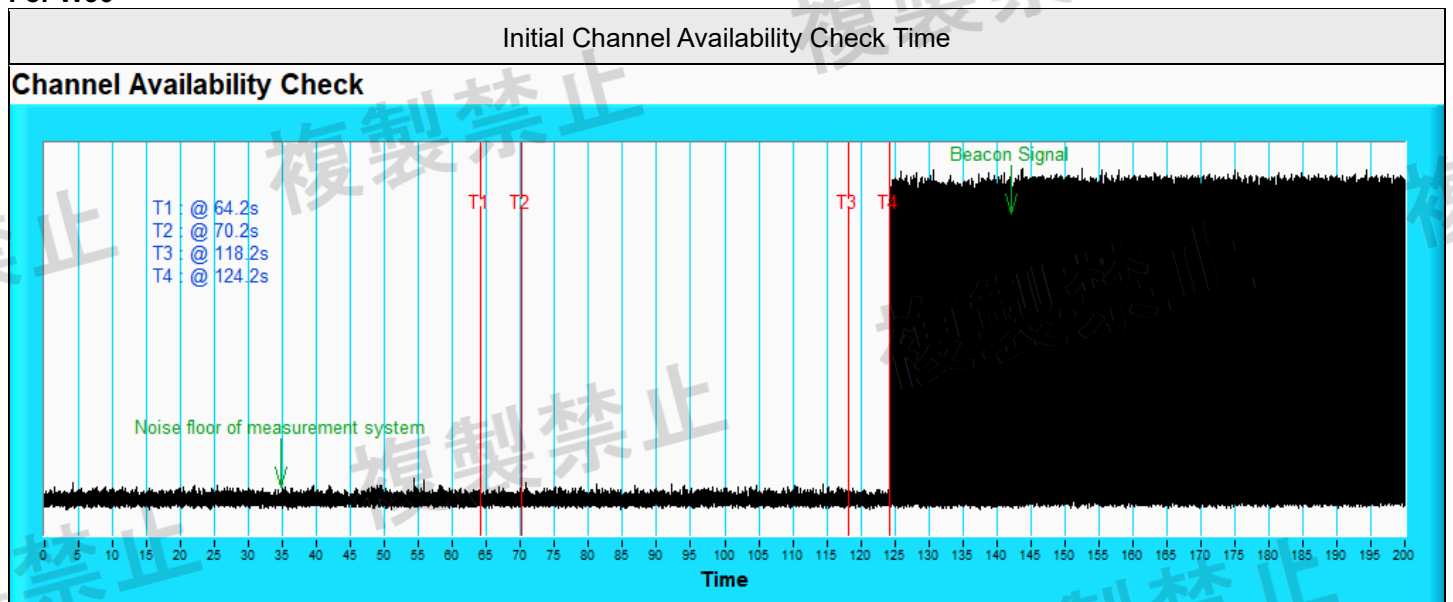
External Antenna

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

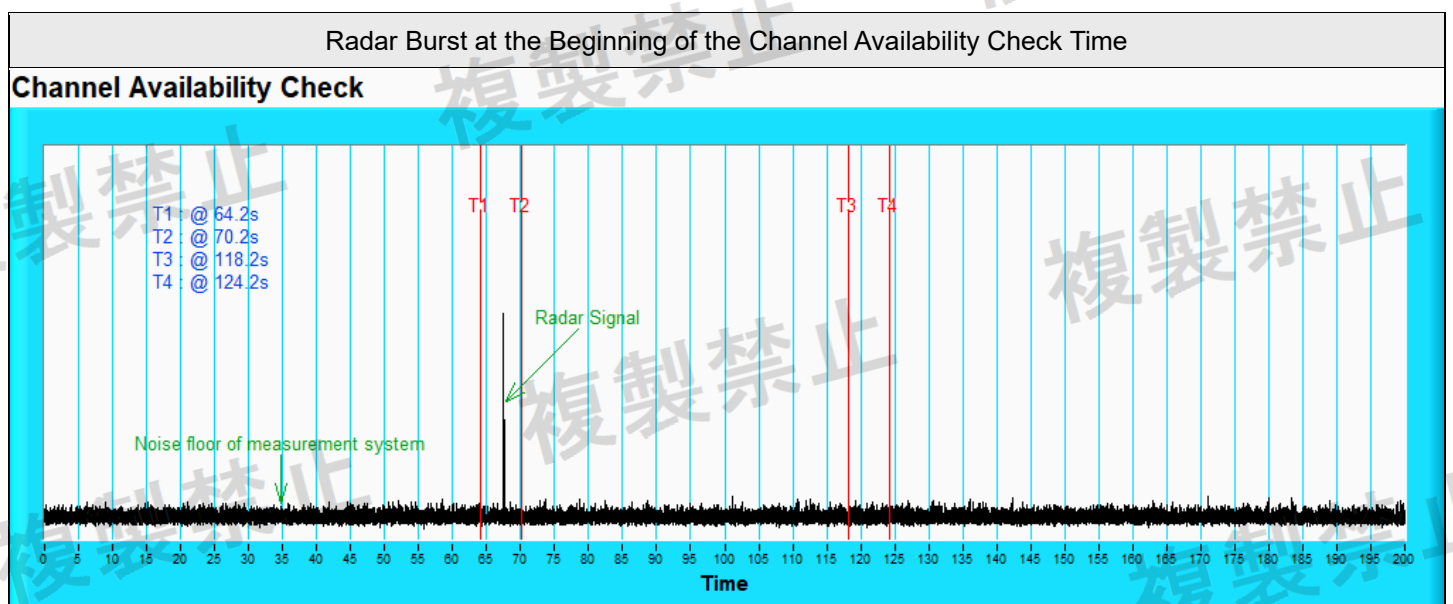
Timing of Radar Signal	Observation	
	EUT	Spectrum Analyzer
Within 0 to 6 seconds	Detected	No transmissions
Within 54 to 60 seconds	Detected	No transmissions

Note: Worst case channel for final "Channel Availability Check" test.

For W56



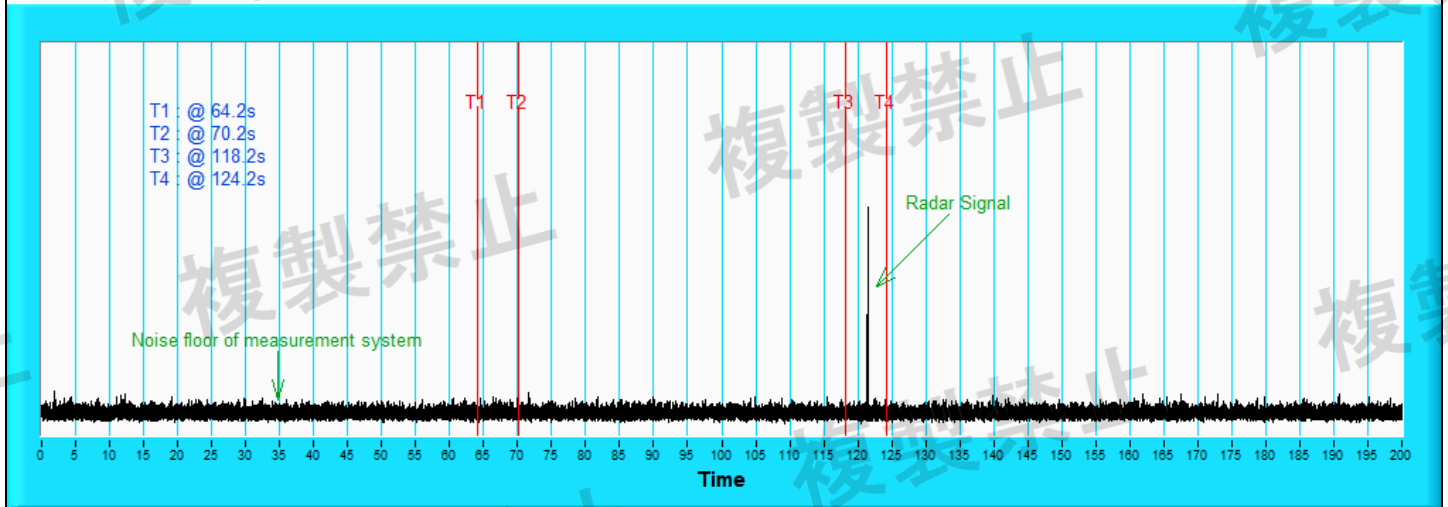
Note: T1 denotes the end of power-up time period is 64.2th second. T4 denotes the end of Channel Availability Check time is 124.2th second. Channel Availability Check time is equal to (T4 – T1) 60 seconds.



Note: T1 denotes the end of power-up time period is 64.2th second. T2 denotes 70.2th second and the radar burst was commenced within a 6 second window starting from the end of power-up sequence. T4 denotes the 124.2th second.

Radar Burst at the End of the Channel Availability Check Time

Channel Availability Check



Note: T1 denotes the end of power-up time period is 64.2th second. T3 denotes 118.2th second and the radar burst was commenced within 54th second to 60th second window starting from the end of power-up sequence. T4 denotes the 124.2th second.

Environmental Conditions:	24°C, 62% RH	Tested By:	Chilin Lee
---------------------------	--------------	------------	------------

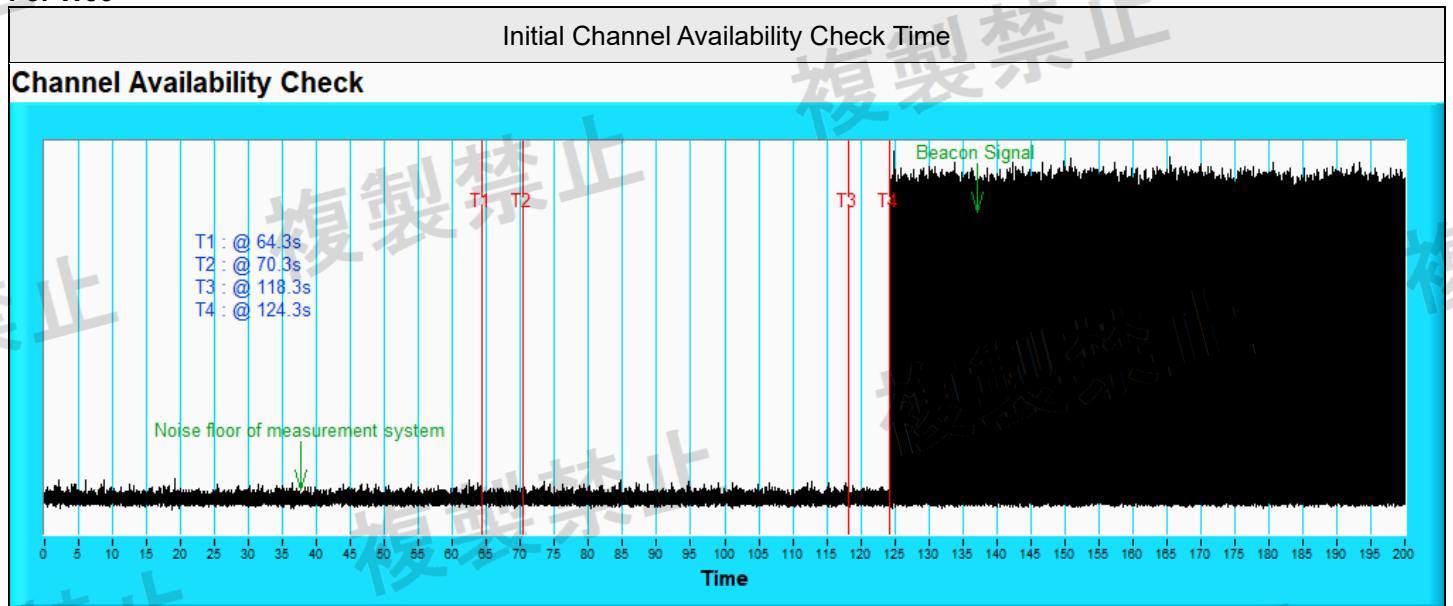
Internal Antenna

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

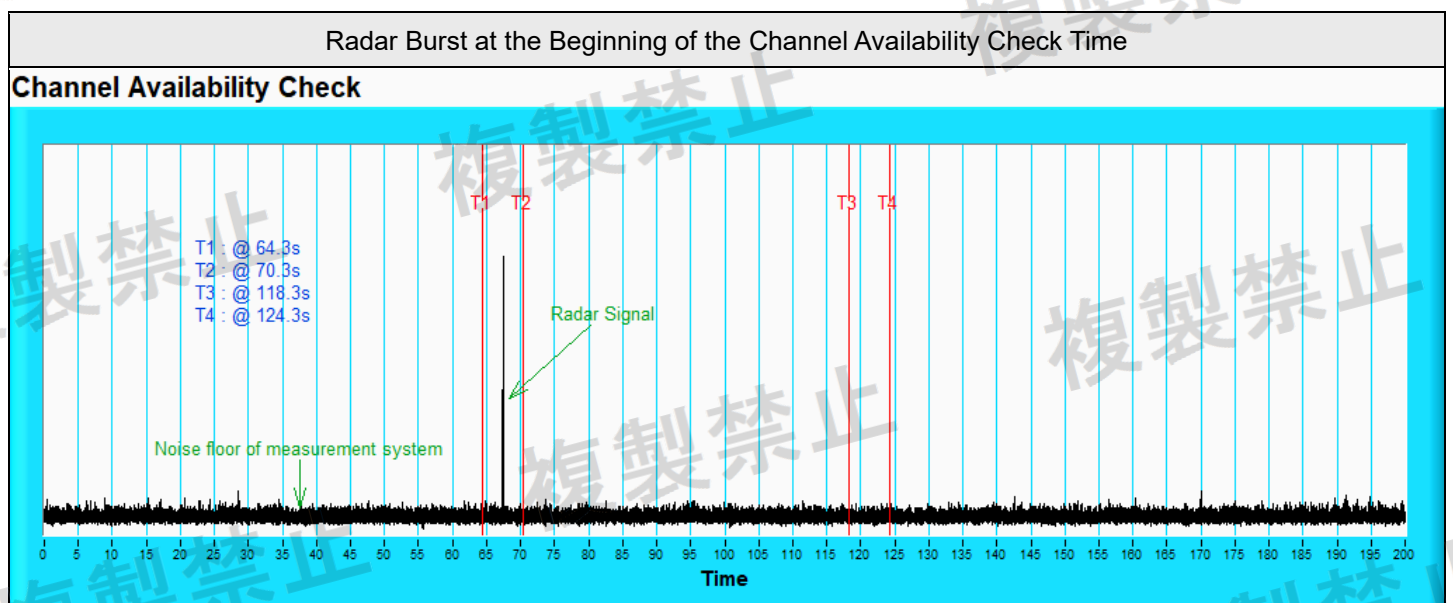
Timing of Radar Signal	Observation	
	EUT	Spectrum Analyzer
Within 0 to 6 seconds	Detected	No transmissions
Within 54 to 60 seconds	Detected	No transmissions

Note: Worst case channel for final "Channel Availability Check" test.

For W56



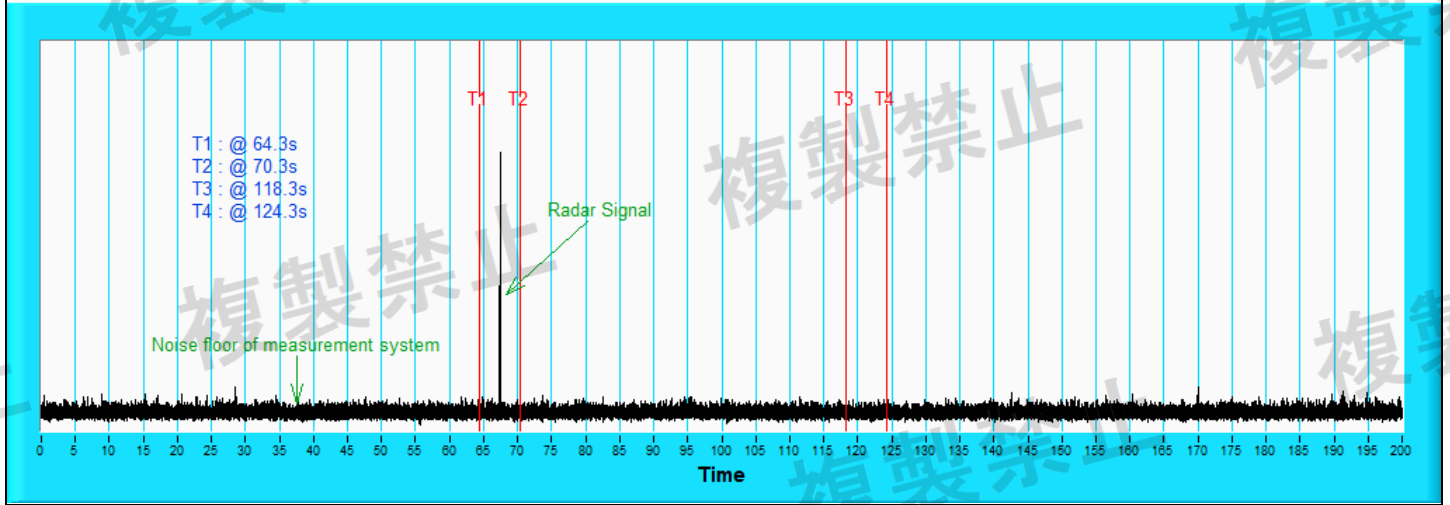
Note: T1 denotes the end of power-up time period is 64.3th second. T4 denotes the end of Channel Availability Check time is 124.3th second. Channel Availability Check time is equal to (T4 – T1) 60 seconds.



Note: T1 denotes the end of power-up time period is 64.3th second. T2 denotes 70.3th second and the radar burst was commenced within a 6 second window starting from the end of power-up sequence. T4 denotes the 124.3th second.

Radar Burst at the End of the Channel Availability Check Time

Channel Availability Check

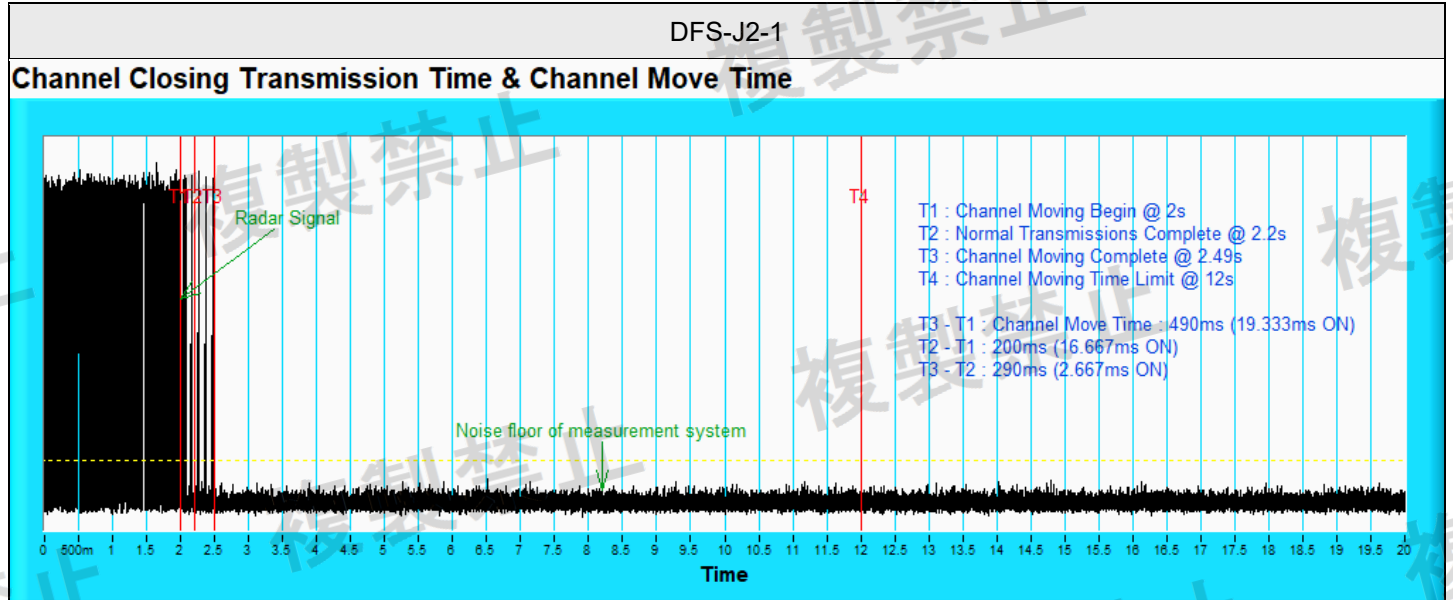


7.2 Channel Closing Transmission and Channel Move Time

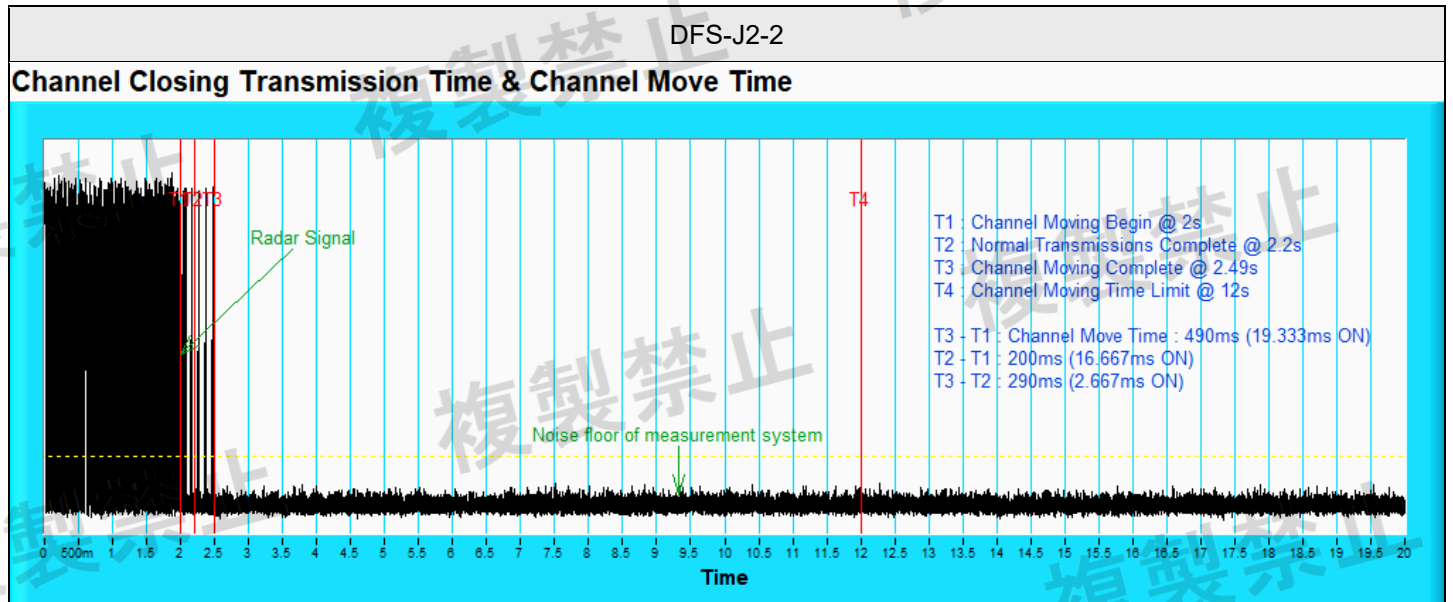
Environmental Conditions:	24°C, 65% RH	Tested By:	Chilin Lee
---------------------------	--------------	------------	------------

External Antenna

For W56



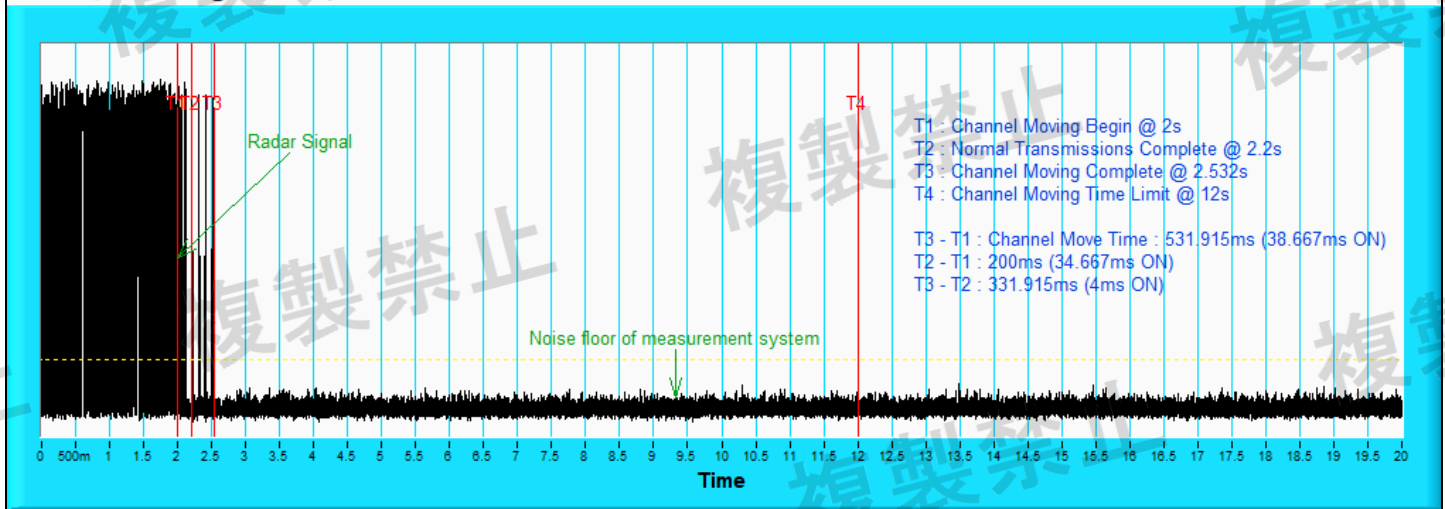
Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

DFS-US1

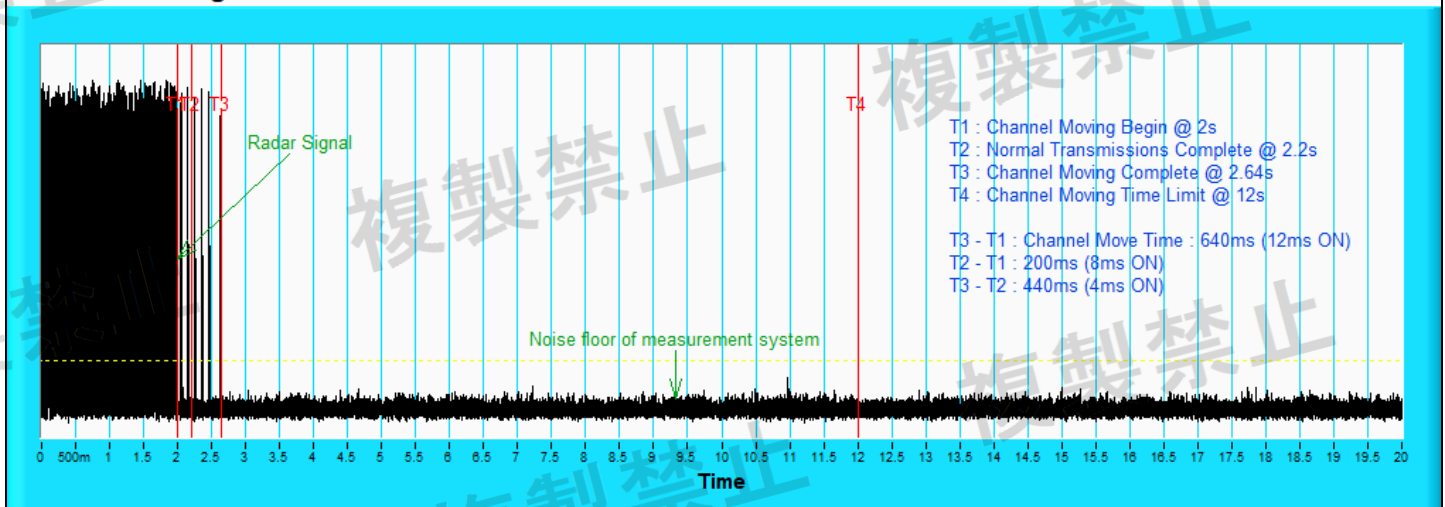
Channel Closing Transmission Time & Channel Move Time



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

DFS-US2

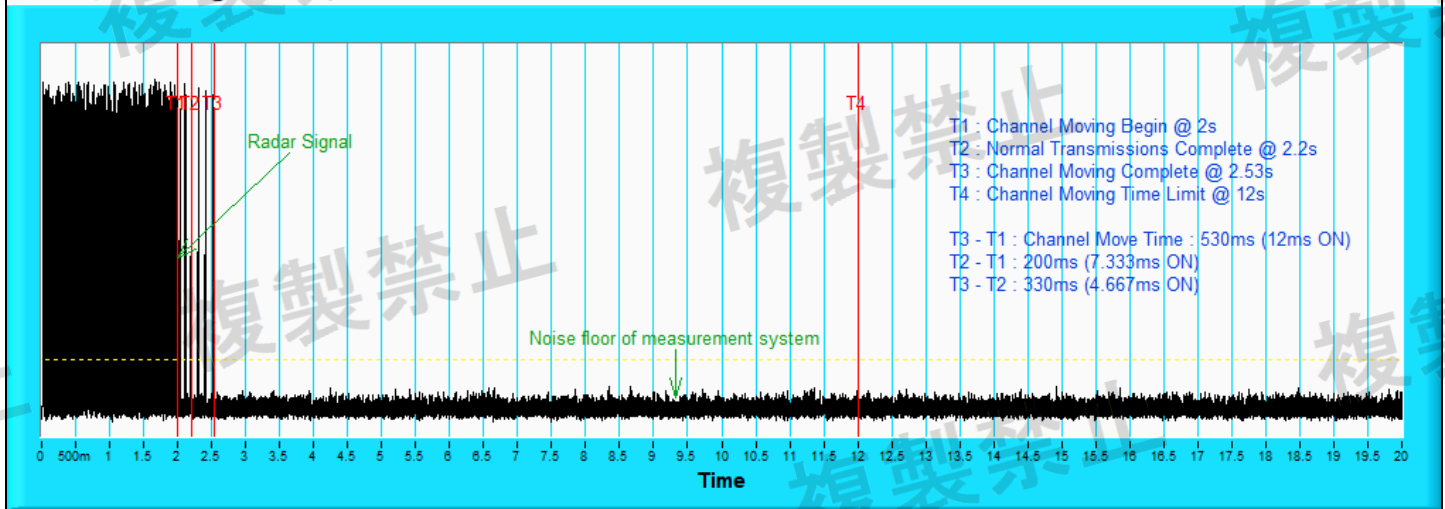
Channel Closing Transmission Time & Channel Move Time



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

DFS-US3

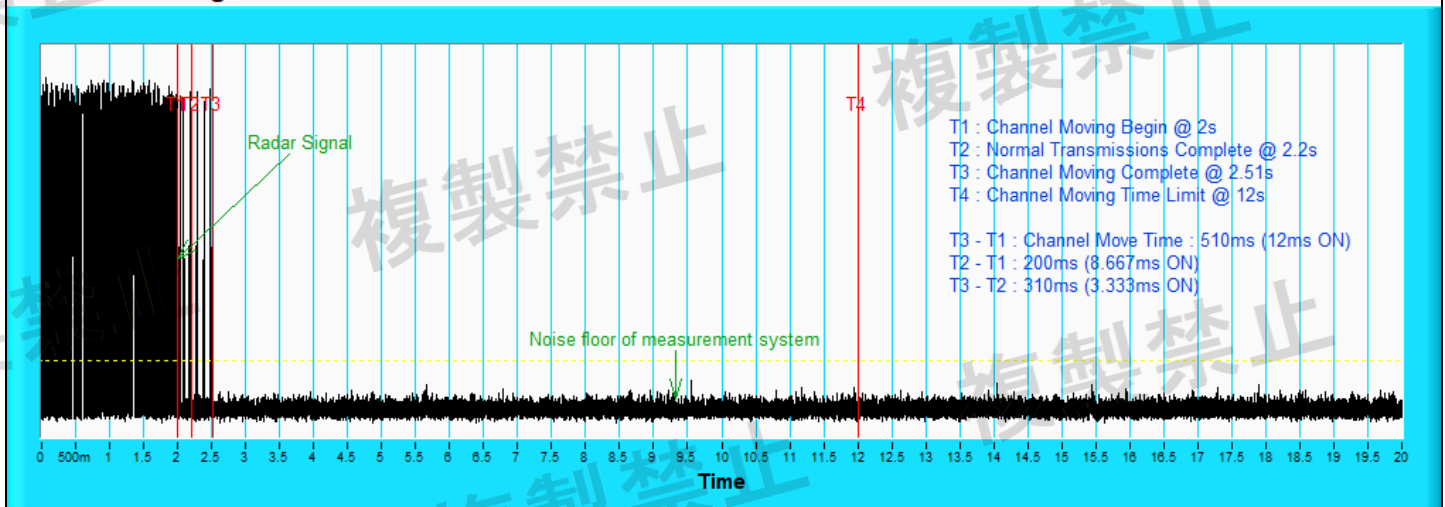
Channel Closing Transmission Time & Channel Move Time



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

DFS-US4

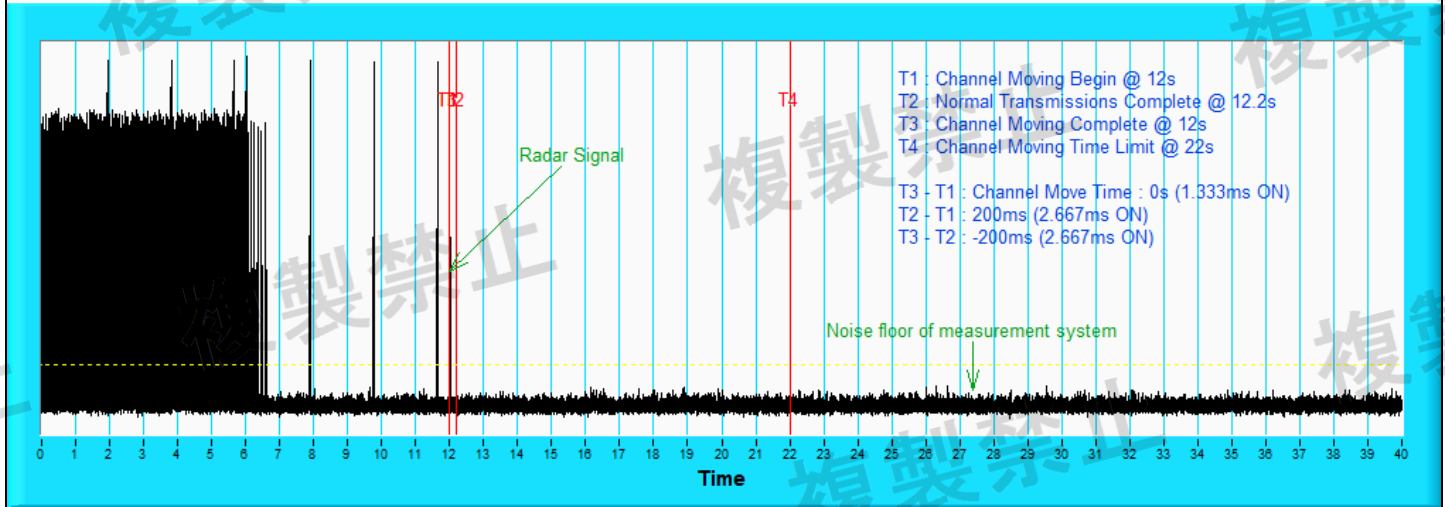
Channel Closing Transmission Time & Channel Move Time



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

Long pulse radar signal

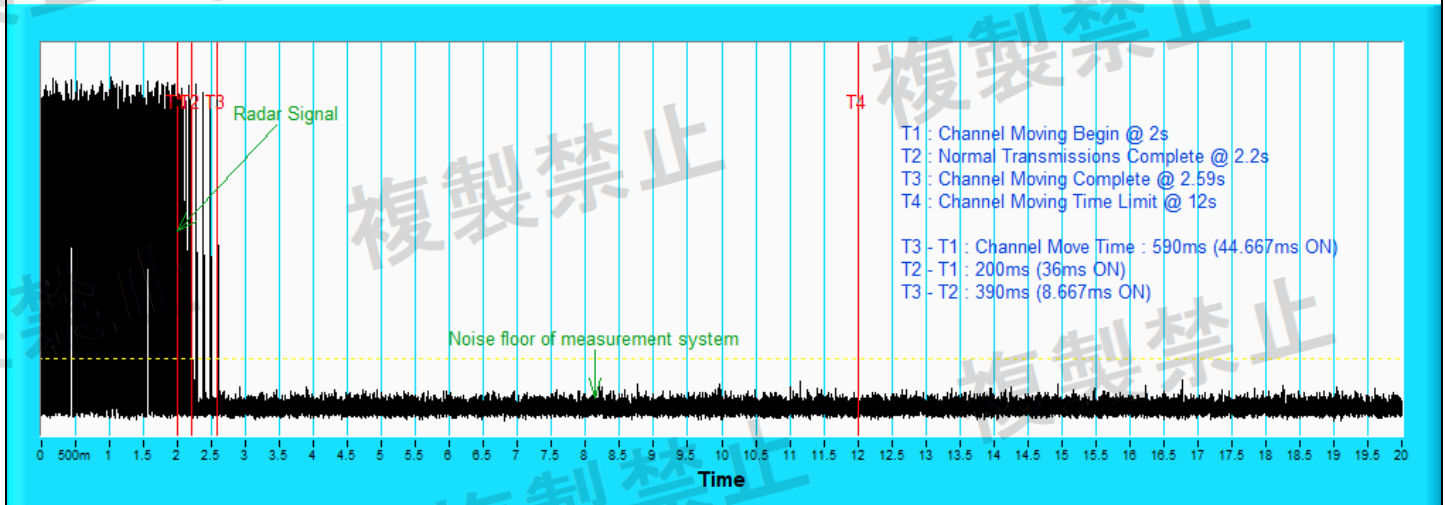
Channel Closing Transmission Time & Channel Move Time



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

Frequency hopping radar signal

Channel Closing Transmission Time & Channel Move Time



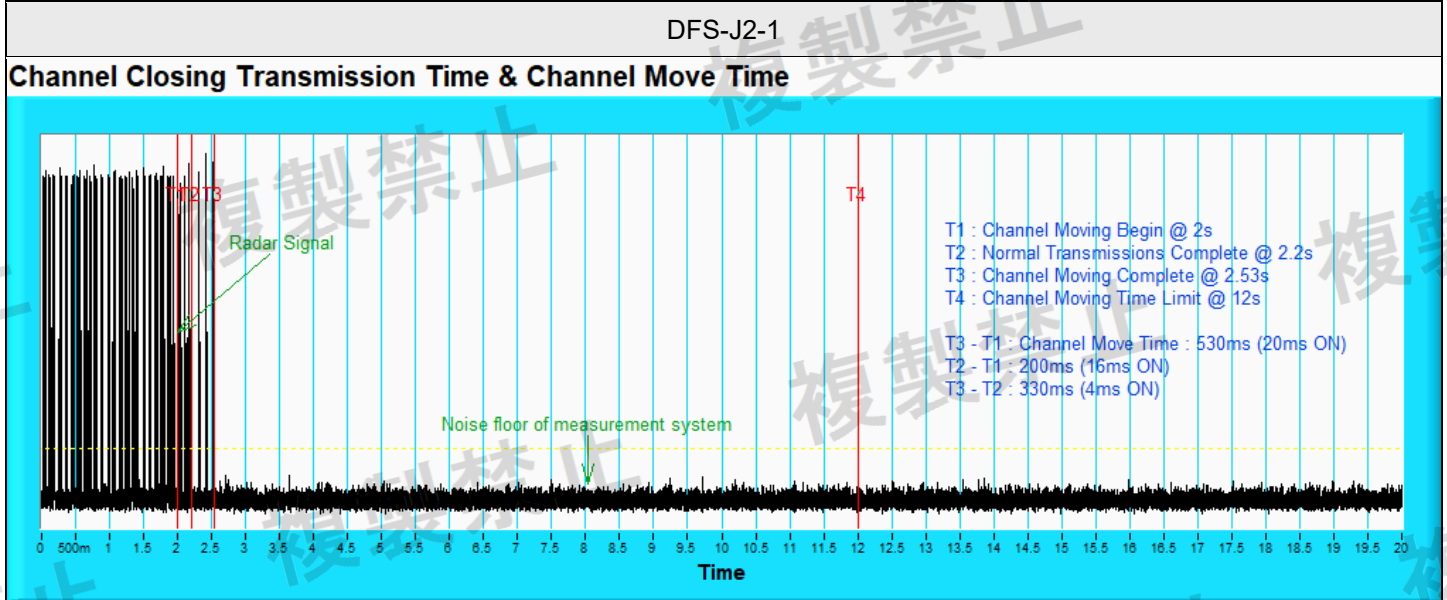
Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

複製禁止

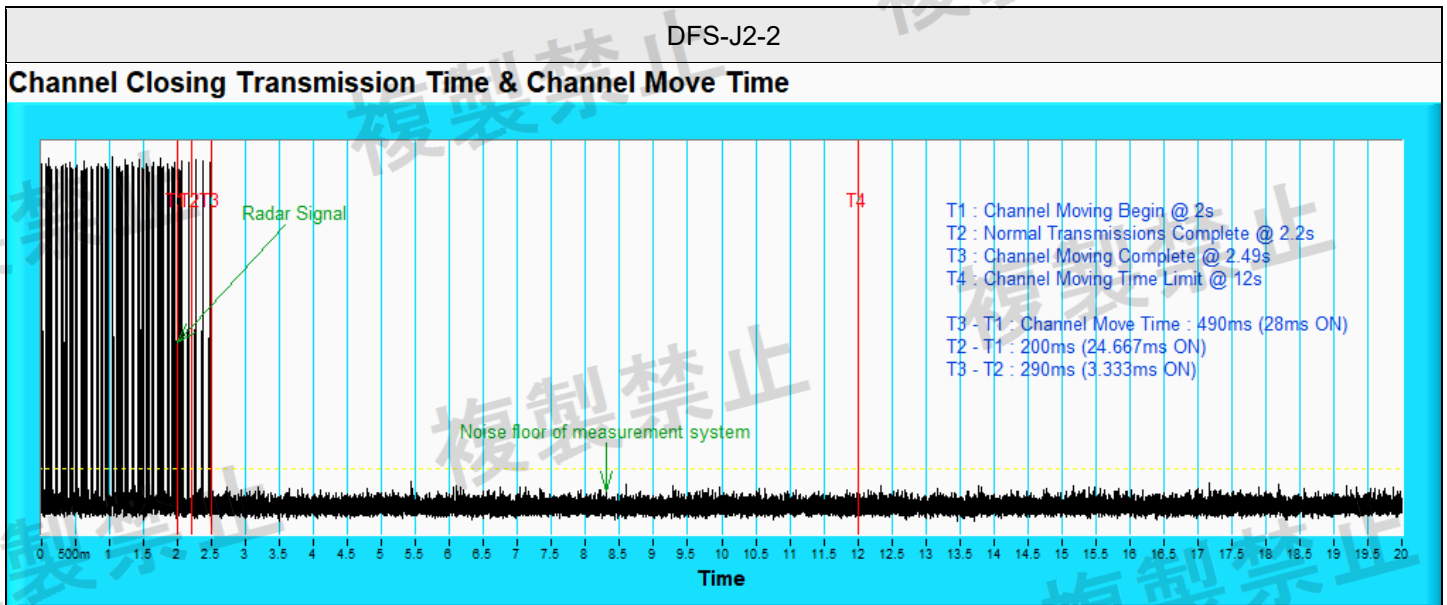
Environmental Conditions:	24°C, 62% RH	Tested By:	Chilin Lee
---------------------------	--------------	------------	------------

Internal Antenna

For W56



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

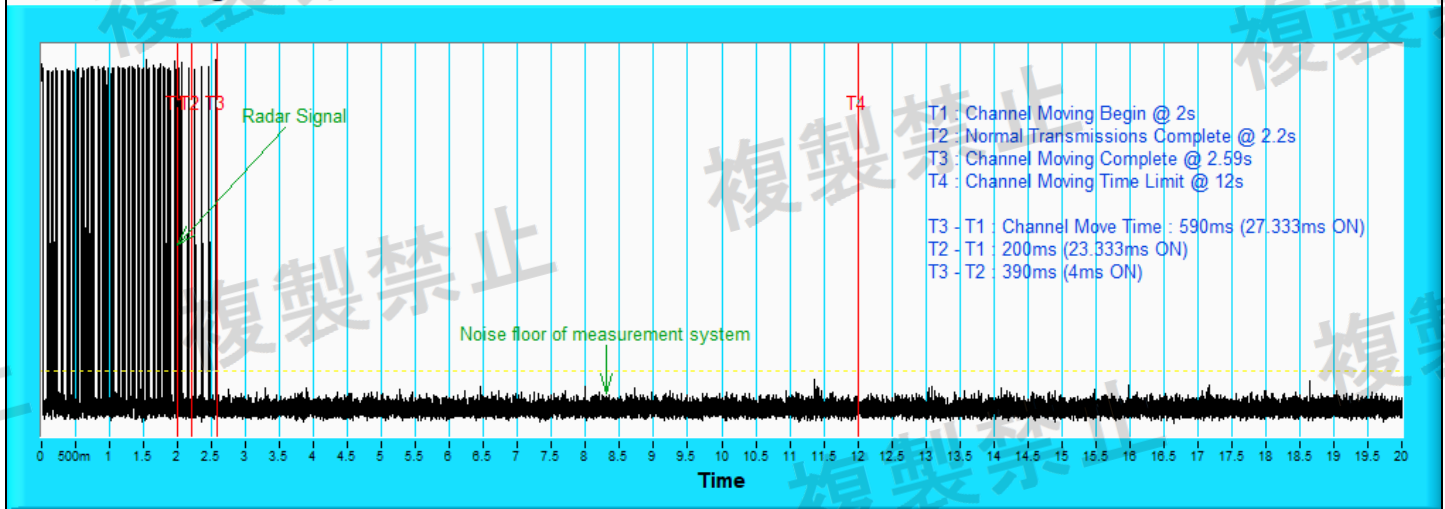
複製禁止

複製禁止

複製禁止

DFS-US1

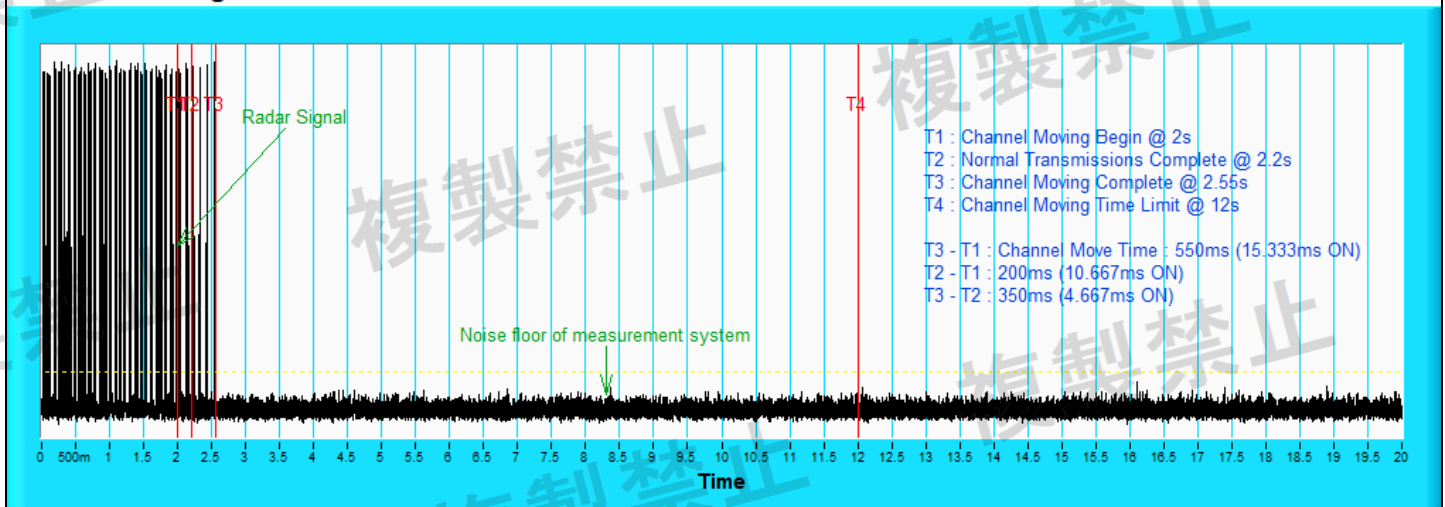
Channel Closing Transmission Time & Channel Move Time



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

DFS-US2

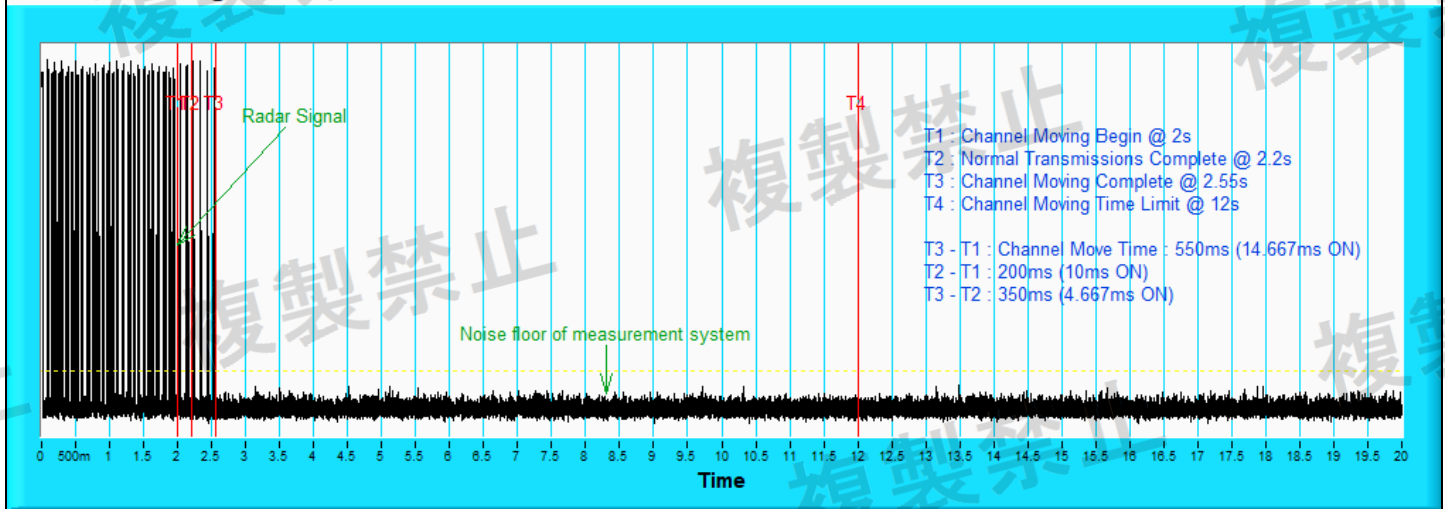
Channel Closing Transmission Time & Channel Move Time



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

DFS-US3

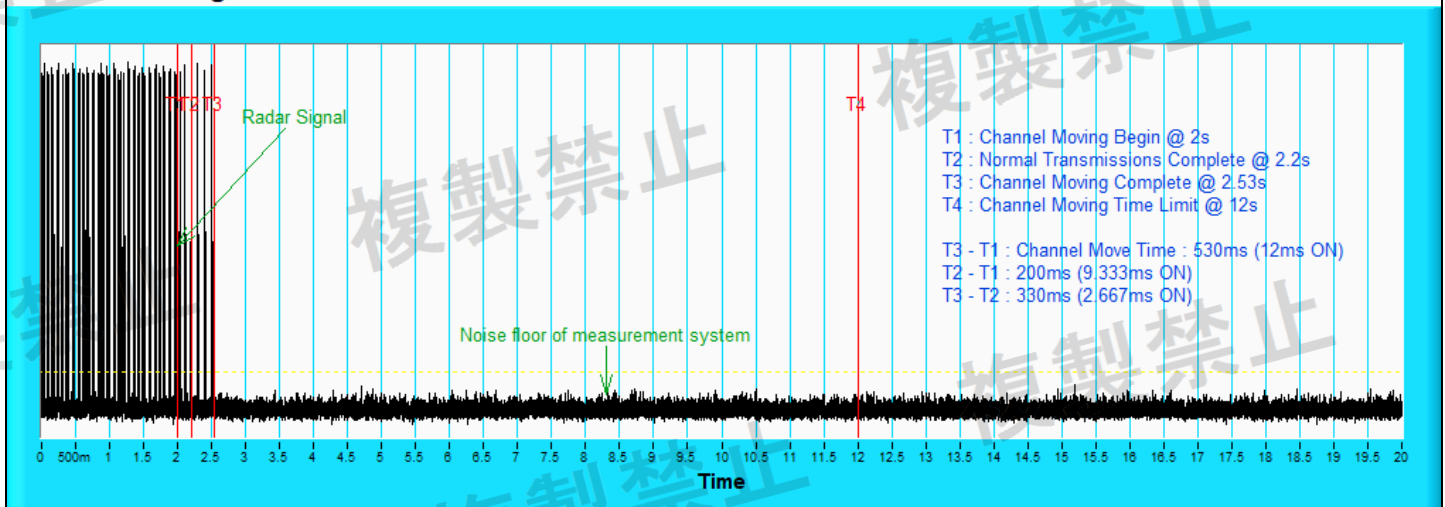
Channel Closing Transmission Time & Channel Move Time



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

DFS-US4

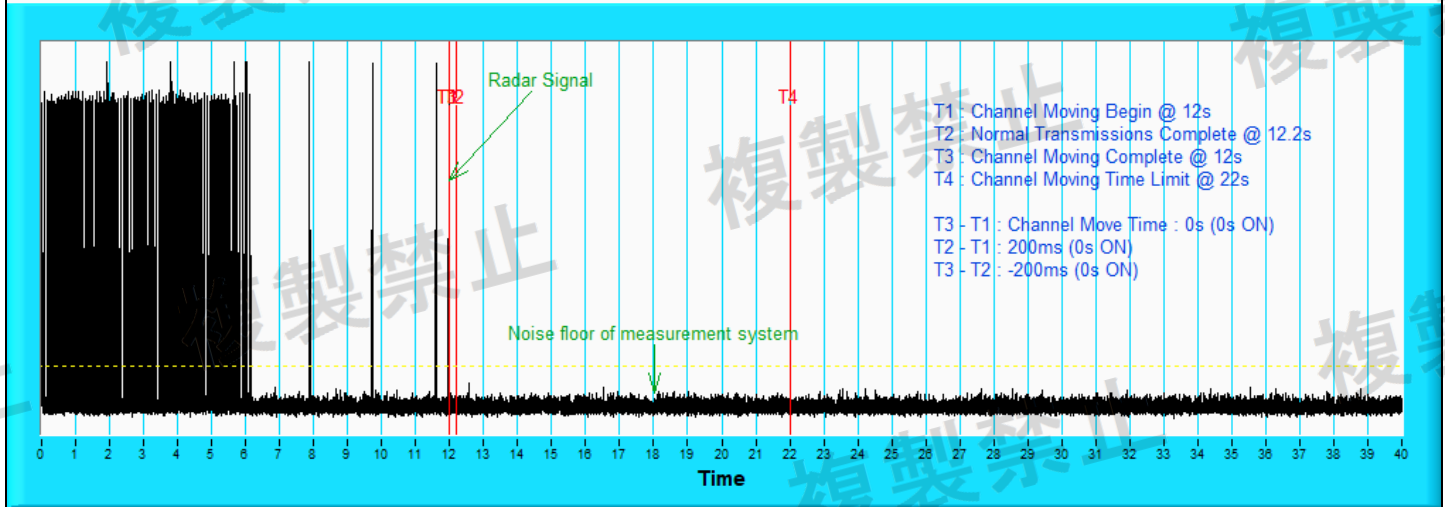
Channel Closing Transmission Time & Channel Move Time



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

Long pulse radar signal

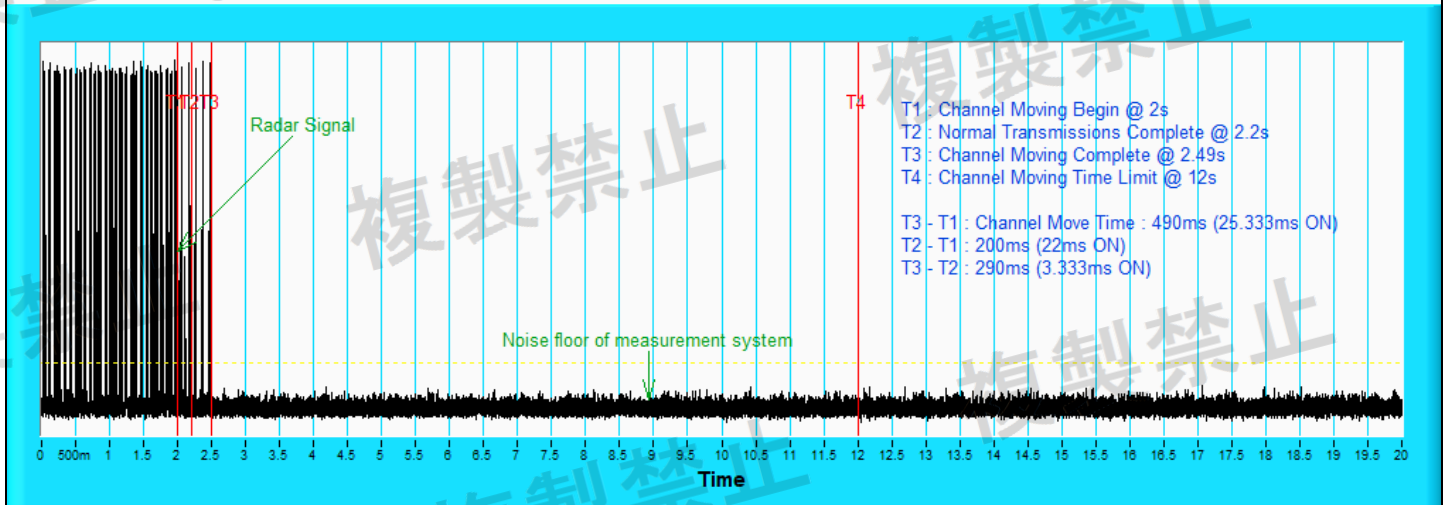
Channel Closing Transmission Time & Channel Move Time



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

Frequency hopping radar signal

Channel Closing Transmission Time & Channel Move Time



Note: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200 ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

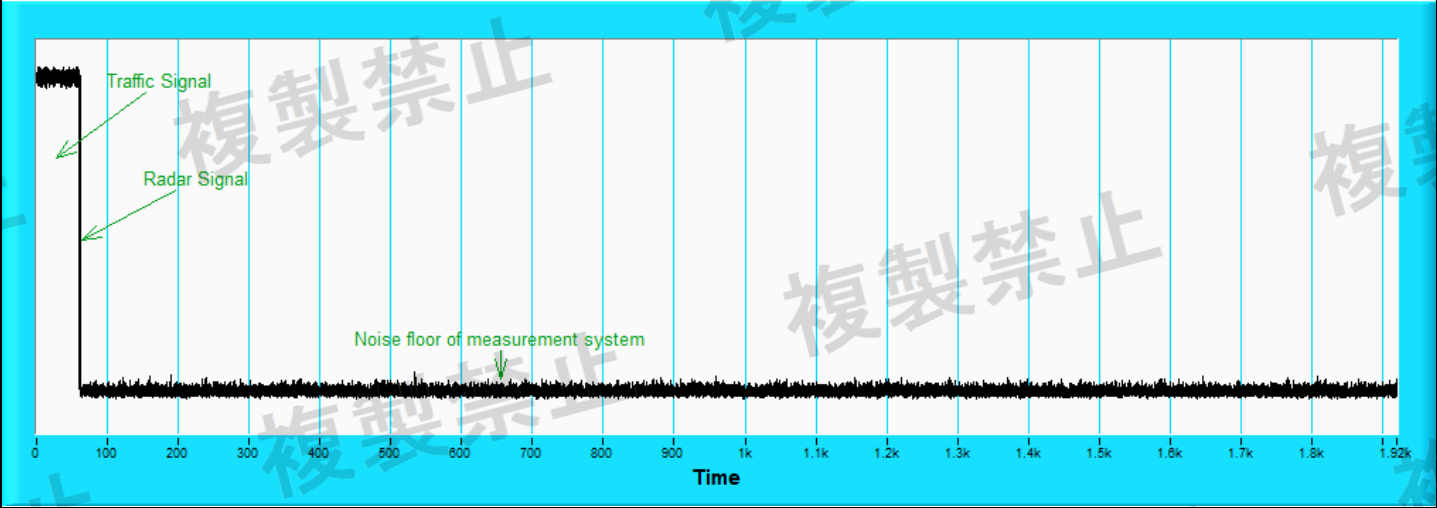
7.3 Non-Occupancy Period

Environmental Conditions:	24°C, 65% RH	Tested By:	Chilin Lee
---------------------------	--------------	------------	------------

External Antenna

During the 30 minutes observation time, EUT 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.

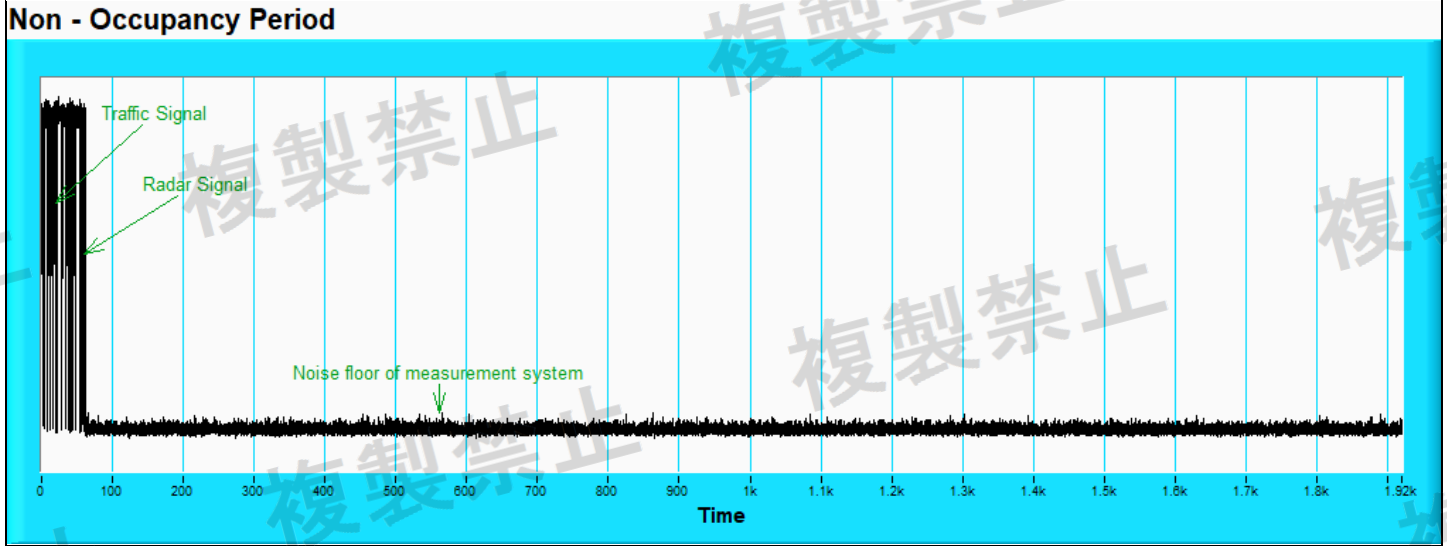
Non - Occupancy Period



Environmental Conditions:	24°C, 62% RH	Tested By:	Chilin Lee
---------------------------	--------------	------------	------------

Internal Antenna

During the 30 minutes observation time, EUT 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.



7.4 In-Service Monitoring

Environmental Conditions:	24°C, 65% RH	Tested By:	Chilin Lee
---------------------------	--------------	------------	------------

External Antenna

For W56

Radar Type	Number of Trials (Times)	Percentage of Successful Detection	Minimum Percentage of Successful Detection	Test Result
		802.11a		
DFS-J2-1	20	95.0%	60%	Pass
DFS-J2-2	20	100.0%	60%	Pass
DFS-US-1	20	100.0%	60%	Pass
DFS-US-2	20	80.0%	60%	Pass
DFS-US-3	20	85.0%	60%	Pass
DFS-US-4	20	85.0%	60%	Pass
Aggregate (Radar Types 1 - 6)		90.8%	80%	Pass
DFS-US-5	20	100.0%	80%	Pass
DFS-US-6	20	90.0%	70%	Pass

W56 802.11a

Type DFS-J2-1 Radar Statistical Performances		
Trial Id	Radar Frequency (MHz)	Detection
1	5500	Yes
2	5500	Yes
3	5500	Yes
4	5500	Yes
5	5500	Yes
6	5500	Yes
7	5500	No
8	5500	Yes
9	5500	Yes
10	5500	Yes
11	5500	Yes
12	5500	Yes
13	5500	Yes
14	5500	Yes
15	5500	Yes
16	5500	Yes
17	5500	Yes
18	5500	Yes
19	5500	Yes
20	5500	Yes
		Detection Rate: 95%

W56 802.11a

Type DFS-J2-2 Radar Statistical Performances

Trial Id	Radar Frequency (MHz)	Detection
1	5500	Yes
2	5500	Yes
3	5500	Yes
4	5500	Yes
5	5500	Yes
6	5500	Yes
7	5500	Yes
8	5500	Yes
9	5500	Yes
10	5500	Yes
11	5500	Yes
12	5500	Yes
13	5500	Yes
14	5500	Yes
15	5500	Yes
16	5500	Yes
17	5500	Yes
18	5500	Yes
19	5500	Yes
20	5500	Yes
		Detection Rate: 100%

W56 802.11a

Type DFS-US-1 Radar Statistical Performances		
Trial Id	Radar Frequency (MHz)	Detection
1	5500	Yes
2	5500	Yes
3	5500	Yes
4	5500	Yes
5	5500	Yes
6	5500	Yes
7	5500	Yes
8	5500	Yes
9	5500	Yes
10	5500	Yes
11	5500	Yes
12	5500	Yes
13	5500	Yes
14	5500	Yes
15	5500	Yes
16	5500	Yes
17	5500	Yes
18	5500	Yes
19	5500	Yes
20	5500	Yes
		Detection Rate: 100%

W56 802.11a

Type DFS-US-2 Radar Statistical Performances		
Trial Id	Radar Frequency (MHz)	Detection
1	5500	No
2	5500	Yes
3	5500	Yes
4	5500	Yes
5	5500	Yes
6	5500	No
7	5500	Yes
8	5500	Yes
9	5500	Yes
10	5500	Yes
11	5500	No
12	5500	Yes
13	5500	No
14	5500	Yes
15	5500	Yes
16	5500	Yes
17	5500	Yes
18	5500	Yes
19	5500	Yes
20	5500	Yes
		Detection Rate: 80%

W56 802.11a

Type DFS-US-3 Radar Statistical Performances

Trial Id	Radar Frequency (MHz)	Detection
1	5500	Yes
2	5500	Yes
3	5500	Yes
4	5500	Yes
5	5500	Yes
6	5500	No
7	5500	Yes
8	5500	Yes
9	5500	Yes
10	5500	No
11	5500	Yes
12	5500	Yes
13	5500	Yes
14	5500	Yes
15	5500	Yes
16	5500	Yes
17	5500	Yes
18	5500	Yes
19	5500	No
20	5500	Yes
		Detection Rate: 85%

W56 802.11a

Type DFS-US-4 Radar Statistical Performances		
Trial Id	Radar Frequency (MHz)	Detection
1	5500	Yes
2	5500	No
3	5500	Yes
4	5500	Yes
5	5500	Yes
6	5500	Yes
7	5500	Yes
8	5500	Yes
9	5500	Yes
10	5500	Yes
11	5500	Yes
12	5500	Yes
13	5500	Yes
14	5500	Yes
15	5500	No
16	5500	Yes
17	5500	No
18	5500	Yes
19	5500	Yes
20	5500	Yes
		Detection Rate: 85%

W56 802.11a

Type DFS-US-5 Radar Statistical Performances		
Trial Id	Radar Frequency (MHz)	Detection
1	5500	Yes
2	5500	Yes
3	5500	Yes
4	5500	Yes
5	5500	Yes
6	5500	Yes
7	5500	Yes
8	5500	Yes
9	5500	Yes
10	5500	Yes
11	5500	Yes
12	5500	Yes
13	5500	Yes
14	5500	Yes
15	5500	Yes
16	5500	Yes
17	5500	Yes
18	5500	Yes
19	5500	Yes
20	5500	Yes
		Detection Rate: 100%

W56 802.11a

Type DFS-US-6 Radar Statistical Performances	
Trial Id	Detection
1	Yes
2	Yes
3	Yes
4	Yes
5	Yes
6	Yes
7	Yes
8	Yes
9	Yes
10	Yes
11	Yes
12	Yes
13	Yes
14	Yes
15	No
16	Yes
17	No
18	Yes
19	Yes
20	Yes
Detection Rate: 90%	

Environmental Conditions:	24°C, 62% RH	Tested By:	Chilin Lee
---------------------------	--------------	------------	------------

Internal Antenna

For W56

Radar Type	Number of Trials (Times)	Percentage of Successful Detection	Minimum Percentage of Successful Detection	Test Result
		802.11a		
DFS-J2-1	20	90.0%	60%	Pass
DFS-J2-2	20	90.0%	60%	Pass
DFS-US-1	20	95.0%	60%	Pass
DFS-US-2	20	75.0%	60%	Pass
DFS-US-3	20	85.0%	60%	Pass
DFS-US-4	20	80.0%	60%	Pass
Aggregate (Radar Types 1 - 6)		85.8%	80%	Pass
DFS-US-5	20	100.0%	80%	Pass
DFS-US-6	20	90.0%	70%	Pass

W56 802.11a

Type DFS-J2-1 Radar Statistical Performances		
Trial Id	Radar Frequency (MHz)	Detection
1	5500	Yes
2	5500	Yes
3	5500	Yes
4	5500	Yes
5	5500	No
6	5500	Yes
7	5500	Yes
8	5500	Yes
9	5500	No
10	5500	Yes
11	5500	Yes
12	5500	Yes
13	5500	Yes
14	5500	Yes
15	5500	Yes
16	5500	Yes
17	5500	Yes
18	5500	Yes
19	5500	Yes
20	5500	Yes
Detection Rate: 90%		

W56 802.11a

Type DFS-J2-2 Radar Statistical Performances		
Trial Id	Radar Frequency (MHz)	Detection
1	5500	Yes
2	5500	Yes
3	5500	Yes
4	5500	Yes
5	5500	Yes
6	5500	Yes
7	5500	Yes
8	5500	Yes
9	5500	No
10	5500	Yes
11	5500	Yes
12	5500	Yes
13	5500	No
14	5500	Yes
15	5500	Yes
16	5500	Yes
17	5500	Yes
18	5500	Yes
19	5500	Yes
20	5500	Yes
		Detection Rate: 90%

W56 802.11a

Type DFS-US-1 Radar Statistical Performances		
Trial Id	Radar Frequency (MHz)	Detection
1	5500	Yes
2	5500	Yes
3	5500	Yes
4	5500	Yes
5	5500	Yes
6	5500	No
7	5500	Yes
8	5500	Yes
9	5500	Yes
10	5500	Yes
11	5500	Yes
12	5500	Yes
13	5500	Yes
14	5500	Yes
15	5500	Yes
16	5500	Yes
17	5500	Yes
18	5500	Yes
19	5500	Yes
20	5500	Yes
		Detection Rate: 95%

W56 802.11a

Type DFS-US-2 Radar Statistical Performances

Trial Id	Radar Frequency (MHz)	Detection
1	5500	No
2	5500	No
3	5500	Yes
4	5500	Yes
5	5500	Yes
6	5500	Yes
7	5500	Yes
8	5500	Yes
9	5500	No
10	5500	Yes
11	5500	Yes
12	5500	Yes
13	5500	No
14	5500	Yes
15	5500	Yes
16	5500	Yes
17	5500	Yes
18	5500	No
19	5500	Yes
20	5500	Yes
		Detection Rate: 75%

W56 802.11a

Type DFS-US-3 Radar Statistical Performances		
Trial Id	Radar Frequency (MHz)	Detection
1	5500	Yes
2	5500	Yes
3	5500	Yes
4	5500	Yes
5	5500	Yes
6	5500	Yes
7	5500	Yes
8	5500	No
9	5500	Yes
10	5500	Yes
11	5500	Yes
12	5500	No
13	5500	Yes
14	5500	Yes
15	5500	No
16	5500	Yes
17	5500	Yes
18	5500	Yes
19	5500	Yes
20	5500	Yes
		Detection Rate: 85%

W56 802.11a

Type DFS-US-4 Radar Statistical Performances

Trial Id	Radar Frequency (MHz)	Detection
1	5500	Yes
2	5500	No
3	5500	Yes
4	5500	Yes
5	5500	No
6	5500	Yes
7	5500	Yes
8	5500	Yes
9	5500	Yes
10	5500	Yes
11	5500	Yes
12	5500	No
13	5500	No
14	5500	Yes
15	5500	Yes
16	5500	Yes
17	5500	Yes
18	5500	Yes
19	5500	Yes
20	5500	Yes
		Detection Rate: 80%

W56 802.11a

Type DFS-US-5 Radar Statistical Performances		
Trial Id	Radar Frequency (MHz)	Detection
1	5500	Yes
2	5500	Yes
3	5500	Yes
4	5500	Yes
5	5500	Yes
6	5500	Yes
7	5500	Yes
8	5500	Yes
9	5500	Yes
10	5500	Yes
11	5500	Yes
12	5500	Yes
13	5500	Yes
14	5500	Yes
15	5500	Yes
16	5500	Yes
17	5500	Yes
18	5500	Yes
19	5500	Yes
20	5500	Yes
		Detection Rate: 100%

W56 802.11a

Type DFS-US-6 Radar Statistical Performances	
Trial Id	Detection
1	Yes
2	Yes
3	Yes
4	Yes
5	Yes
6	Yes
7	No
8	Yes
9	No
10	Yes
11	Yes
12	Yes
13	Yes
14	Yes
15	Yes
16	Yes
17	Yes
18	Yes
19	Yes
20	Yes
Detection Rate: 90%	

8 Uniform Spreading

The intention of the uniform spreading is to provide, on aggregate, a uniform loading of the spectrum. The operating channel is selected from within the declared channel plan's UUT such that the probability of selecting a given channel should be the same for all channels.

The UUT will select channel by random mode and remember this channel when detect radar signal, so that will select unused channel by random mode.

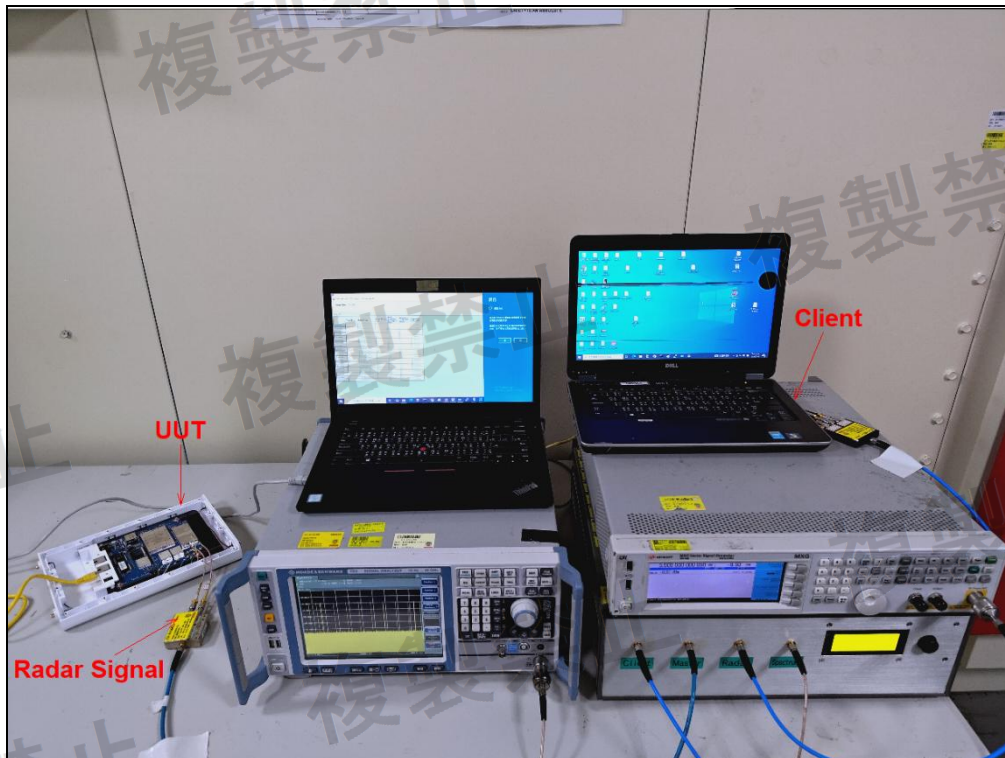
9 Pictures of Test Arrangements

Set EUT as Master mode (Radar injected into EUT)

< External Antenna >



< Internal Antenna >



10 Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Lin Kou EMC/RF Lab

Tel: 886-(0)2-26052180

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-(0)3-6668565 (SIP)

Tel: 886-(0)3-5120595 (WD)

Hwa Ya EMC/RF/Safety/SAR Lab & Wenming EMC/RF Lab

Tel: 886-(0)3-3183232

Email: service.adt@bureauveritas.com

Web Site: <http://ee.bureauveritas.com.tw>

The address and road map of all our labs can be found in our web site also.

--- END ---