



Test Report No.:  
**FCCSZ2025-0033-RF3**

## RF Test Report

**FCC ID** : 2ASWV-PG17MAX  
**EUT** : Dash Cam  
**BRAND NAME** : N/A  
**APPLICANT** : Shenzhen LINGDU Auto Electronics Co., Ltd.  
**Classification Of Test** : N/A

**CVC Testing Technology (Shenzhen) Co., Ltd.**



<b>Applicant</b>		<b>Name: Shenzhen LINGDU Auto Electronics Co., Ltd.</b> <b>Address: Room2901, Unit 1, Building 1, Lechuanghui Building Guihua Community, Guanlan Street, Longhua District, ShenZhen, China</b>	
<b>Manufacturer</b>		<b>Name: Shenzhen LINGDU Auto Electronics Co., Ltd.</b> <b>Address: Room2901, Unit 1, Building 1, Lechuanghui Building Guihua Community, Guanlan Street, Longhua District, ShenZhen, China</b>	
<b>Equipment Under Test</b>		<b>Product Name: Dash Cam</b> <b>Model/Type: See Section 2.2</b> <b>Brand Name: N/A</b> <b>Serial NO.: N/A</b> <b>Sample NO.:3-1</b>	
Date of Receipt.	Apr.14,2025	Date of Testing	Apr.14,2025~May.24,2025
<b>Test Specification</b>			<b>Test Result</b>
FCC Part 15, Subpart E, Section 15.407			PASS
<b>Evaluation of Test Result</b>		The equipment under test was found to comply with the requirements of the standards applied.	
		Seal of CVC <b>Issue Date: May.24,2025</b>	
Compiled by:  <u>Cai Jianyu</u>  <u>Cai Jianyu</u> Name      Signature	Reviewed by:  <u>Mo Xianbiao</u>  <u>Mo Xianbiao</u> Name      Signature	Approved by:    <u>Dong Sanbi</u> Name      Signature	
<b>Other Aspects: NONE.</b>			
Abbreviations:OK, Pass= passed      Fail = failed      N/A= not applicable      EUT= equipment, sample(s) under tested			

This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.

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**RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCCSZ2025-0033-RF3	Original release	May.24,2025



## 1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
FCC 15.407	Channel Move Time	PASS	705.9 ms
FCC 15.407	Channel Closing Transmission Time	PASS	200+9.1ms
FCC 15.407	Non-Occupancy Period and Client Beacon Test	PASS	≥30 min

Note: Since the product is client without radar detection function, only Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period and Client Beacon Test are required to be performed



## 1.1 LIST OF TEST AND MEASUREMENT INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial Number	Cal. interval	Cal. Due
Antenna Port Conducted Test					
Signal&Spectrum Analyzer	Rohde&Schwarz	FSV 30	104408	1 year	2026/4/22
#3Shielding room	MORI	443	N/A	3 year	2026/5/16
Analog signal Generator (100kHz ~ 40GHz)	Rohde&Schwarz	SMB 100A	181934	1 year	2026/4/22
Vector signal Generator (9kHz ~ 6GHz)	Rohde&Schwarz	SGT 100A	111724	1 year	2026/4/22
RF control unit(BT/WiFi)	Tonscend	JS0806-2-8CH	CS0300023	1 year	2026/4/22
Temperature and humidity meter	/	C193561457	C193561457	1 year	2026/4/28
10db attenuator	JUNKE	SMA-10-18-N	250312743	1 year	2026/5/21
power splitter	Anritsu	K240CPOWERDIVIDER	012334	1 year	2026/1/7
Radiation Spurious Test - 3M Chamber #2					
Signal&Spectrum Analyzer	Rohde&Schwarz	FSV 40	101898	1 year	2026/4/22
EMI Test Receiver	Rohde&Schwarz	ESR3	102694	1 year	2026/5/21
Antenna(30MHz~1001MHz)	SCHWARZBECK	VULB 9168	01133	1 year	2026/1/22
Horn antenna(1GHz-18GHz)	ETS	3117	227611	1 year	2026/3/28
Horn antenna(18GHz-40GHz)	QMS	QMS-00880	22051	1 year	2026/3/21
3m anechoic chamber	MORI	966	CS0300011	3 year	2026/5/18
Filter group(RSE-BT/WiFi)	Rohde&Schwarz	WiFi /BT Variant 1	100820	1 year	2026/4/22
Filter group(RSE-Cellular)	Rohde&Schwarz	Cellular Variant 1	100768	1 year	2026/4/22
Preamplifier(10kHz-1GHz)	Rohde&Schwarz	SCU-01F	100299	1 year	2026/4/22
Preamplifier(1GHz-18GHz)	Rohde&Schwarz	SCU-18F	100799	1 year	2026/4/22
Preamplifier(1GHz-18GHz)	Rohde&Schwarz	SCU-18F	100801	1 year	2026/4/22
Preamplifier(18GHz-40GHz)	Rohde&Schwarz	SCU-40A	101209	1 year	2026/4/22
Temperature and humidity meter	/	C193561517	C193561517	1 year	2026/4/28
Radiation Spurious Test - 3M Chamber #1					
EMI Test Receiver	Rohde&Schwarz	ESR 26	101718	1 year	2026/5/21
Loop antenna(8.3k~30MHz)	Rohde&Schwarz	HFH2-Z2E	100951	1 year	2025/6/3
Antenna(30MHz~1000MHz)	SCHWARZBECK	VULB 9168	01132	1 year	2026/2/27
Horn antenna(1GHz-18GHz)	SCHWARZBECK	BBHA9120D	02793	1 year	2026/1/20
3m anechoic chamber	MORI	966	N/A	1 year	2026/5/18
Preamplifier(10kHz-1GHz)	Rohde&Schwarz	SCU-01F	100298	1 year	2026/4/22
Preamplifier(1GHz-18GHz)	Rohde&Schwarz	SCU-18F	100799	1 year	2026/4/22
Attenuator	/	SJ-5dB	607684	1 year	2026/2/27
#1 control room	MORI	433	/	1 year	2026/5/16
Temperature and humidity meter	/	C193561473	C193561473	1 year	2026/4/28
Conducted emission					
EMI Test Receiver	Rohde&Schwarz	ESR3	102693	1 year	2026/5/21
limiter(10 dB)	Rohde&Schwarz	VTSD 9561	01216	1 year	2026/4/22
Voltage probe	Rohde&Schwarz	CVP9222C	00028	1 year	2026/4/28
Current probe	Rohde&Schwarz	EZ-17	101442	1 year	2026/4/22
ISN network	Rohde&Schwarz	ENV 81	100401	1 year	2026/4/22
ISN network	Rohde&Schwarz	ENV 81 Cat6	101896	1 year	2026/4/22
#1Shielding room	MORI	854	N/A	3 year	2026/5/16
LISN	SCHWARZBECK	NSLK 8129	05021	1 year	2026/4/22
Temperature and humidity meter	/	C193561430	C193561430	1 year	2026/4/28

## 1.2 TEST LOCATION

The tests and measurements refer to this report were performed by EMC testing Lab. of CVC Testing Technology (Shenzhen) Co., Ltd.

CABID:CN0137

Lab Address: No. 1301-14&16, Guanguang Road, Xinlan Community, Guanlan Subdistrict, Longhua District, Shenzhen, Guangdong, China

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FCC(Test firm designation number: CN1363)

IC(Test firm CAB identifier number: CN0137)

CNAS(Test firm designation number: L16091)



## 2 GENERAL INFORMATION

### 2.1 GENERAL PRODUCT INFORMATION

PRODUCT	Dash Cam
BRAND	N/A
TEST MODEL	PG17 Max
ADDITIONAL MODEL	See section2.2
POWER SUPPLY	DC 5V
OPERATING FREQUENCY	5260MHz ~ 5320MHz, 5500MHz ~ 5700MHz
ANTENNA TYPE (Note 4)	FPC Antenna with 1.98dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A
DEVICE TYPE	<input type="checkbox"/> Master <input checked="" type="checkbox"/> Client without radar detection <input type="checkbox"/> Client with radar detection
Note:	
1. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.	
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.	
3. EUT photo refer to report (Report NO.: FCCSZ2025-0033-EUT).	
4. Since the above data and/or information is provided by the client, CVC is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.	



## 2.2 ADDITIONAL MEODL/TYPE

Test Model	Additional Model	Difference
PG17 Max	N1, PG17, AR09, PG17 Pro, PG17 Ultra, PG17 Lite, AR09 Pro, AR09 Lite, AR12, LD4K, LD2K	Just difference is the model name,others are the same.

## 2.3 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

BANDWIDTH	CHAIN	CHANNEL	TEST TYPE AND LIMIT
20MHz	CHAIN1	CH100	Channel Move Time
			Channel Closing Transmission Time
			Non-Occupancy Period and Client Beacon Test

This test was investigated for different bandwidth (20MHz, 40MHz). The following plots done on 20MHz was worst case.



## 2.4 DESCRIPTION OF SUPPORT UNITS

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

Support Equipment						
NO	Description	Brand	Model No.	FCC ID	SN	Supplied by
1	Wireless router	LINKSYS	WRT3200ACM	Q87-WRT3200ACM	19811609801281	Lab
2	Laptop	Lenovo	K4e-ARE120	/	MP20kshe	Lab

Support Cable							
NO	Description	Quantity (Number)	Length (m)	Detachable (Yes/ No)	Shielded (Yes/ No)	Cores (Number)	Supplied by
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A



## 3 REQUIREMENTS AND PARAMETERS FOR DFS TEST

### 3.1 APPLICABILITY OF DFS REQUIREMENTS

#### APPLICABILITY OF DFS REQUIREMENTS PRIOR TO USE A CHANNEL

REQUIREMENT	OPERATIONAL MODE		
	MASTER	CLIENT WITHOUT RADAR DETECTION	CLIENT WITH RADAR DETECTION
Non-Occupancy Period	✓	✓	✓
DFS Detection Threshold	✓	Not required	✓
Channel Availability Check Time	✓	Not required	Not required
Uniform Spreading	✓	Not required	Not required
U-NII Detection Bandwidth	✓	Not required	✓

#### APPLICABILITY OF DFS REQUIREMENTS DURING NORMAL OPERATION

REQUIREMENT	OPERATIONAL MODE		
	MASTER	CLIENT WITHOUT RADAR DETECTION	CLIENT WITH RADAR DETECTION
DFS Detection Threshold	✓	Not required	✓
Channel Closing Transmission Time	✓	✓	✓
Channel Move Time	✓	✓	✓
U-NII Detection Bandwidth	✓	Not required	✓



## 3.2 DETECTION THRESHOLD VALUES

### DFS DETECTION THRESHOLDS FOR MASTER DEVICES AND CLIENT DEVICES WITH RADAR DETECTION

MAXIMUM TRANSMIT POWER	VALUE (SEE Note 1 and 2)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm

**Note 1:** This is the level at the input of the receiver assuming a 0 dBi receive antenna.

**Note 2:** Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

## 3.3 DFS RESPONSE REQUIREMENT VALUES

PARAMETER	VALUE
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	100% of the UNII transmission power bandwidth. See Note 3.

**Note 1:** The instant that the Channel Move Time and the Channel Closing Transmission Time begins is as follows:

- For the Short Pulse Radar Test Signals this instant is the end of the Burst.
- For the Frequency Hopping radar Test Signal, this instant is the end of the last radar Burst generated.
- For the Long Pulse Radar Test Signal this instant is the end of the 12 second period defining the Radar Waveform.

**Note 2:** The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

**Note 3:** During the U-NII Detection Bandwidth detection test, radar type 1 is used and for each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.



## 3.4 PARAMETERS OF DFS TEST SIGNALS

Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

### Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A Test B	Roundup $\left\lceil \frac{1}{\frac{360}{19 \cdot 10^6}} \right\rceil = \left\lceil \frac{19 \cdot 10^6}{360} \right\rceil = \left\lceil \frac{19 \cdot 10^3}{36} \right\rceil = \left\lceil 527.78 \right\rceil = 528$	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

### LONG PULSE RADAR TEST WAVEFORM

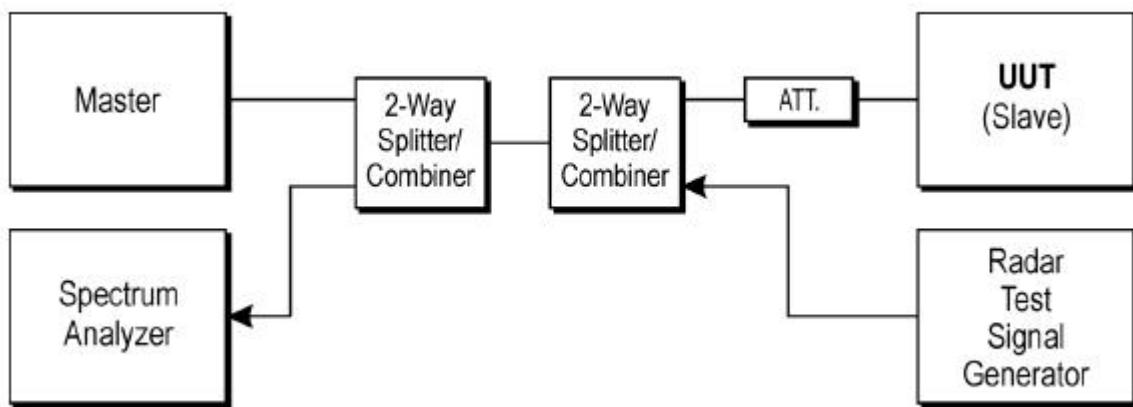
RADAR TYPE	PULSE WIDTH (μsec)	CHIRP WIDTH (MHz)	PRI (μsec)	NUMBER OF PULSES PER BURST	NUMBER OF BURSTS	MINIMUM PERCENTAGE OF SUCCESSFUL DETECTION	MINIMUM NUMBER OF TRIALS
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

### FREQUENCY HOPPING RADAR TEST WAVEFORM

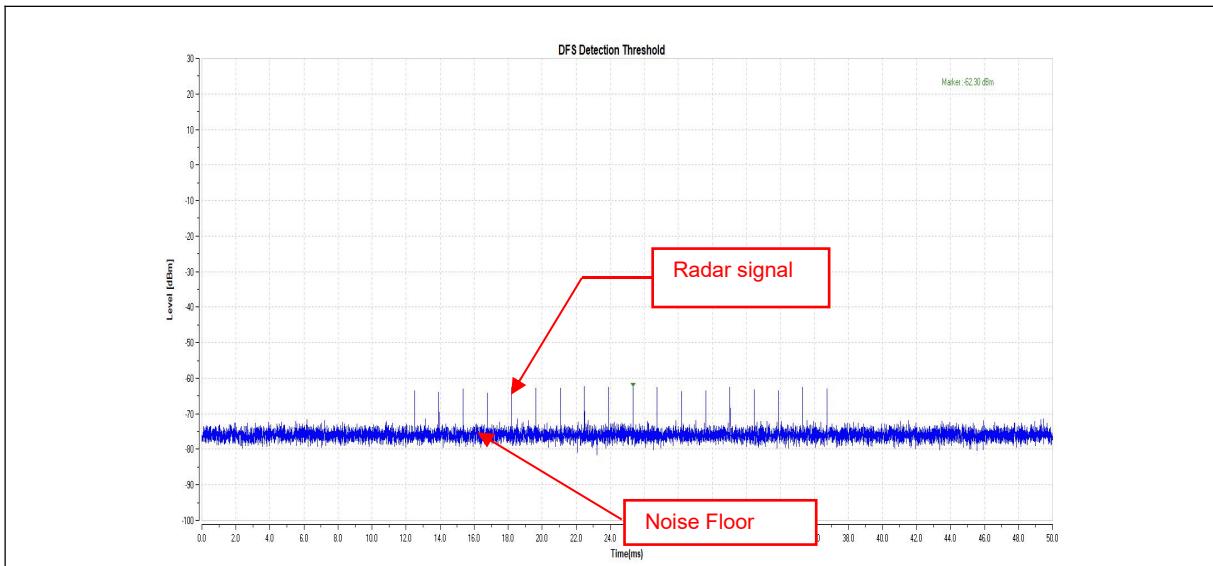
RADAR TYPE	PULSE WIDTH (μsec)	PRI (μsec)	PULSES PER HOP	HOPPING RATE (kHz)	HOPPING SEQUENCE LENGTH (msec)	MINIMUM PERCENTAGE OF SUCCESSFUL DETECTION	MINIMUM NUMBER OF TRIALS
6	1	333	9	0.333	300	70%	30

## 4 TEST RESULTS

### 4.1 TEST SETUP OF DFS

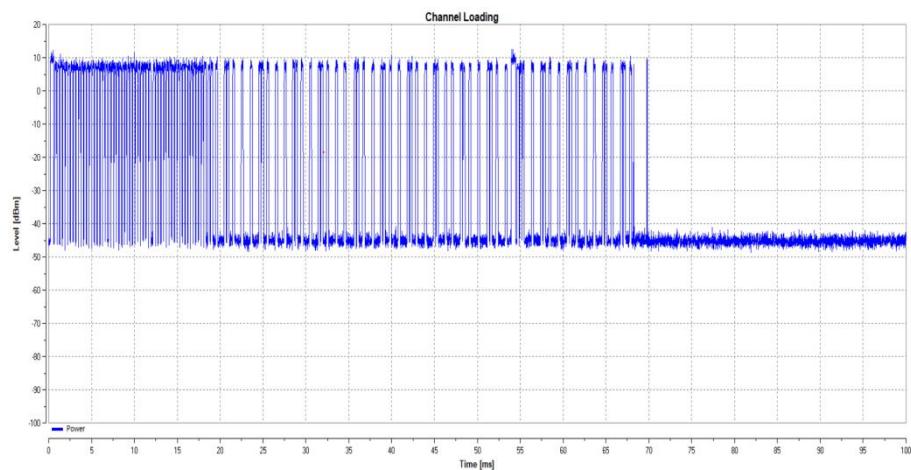


## 4.2 DFS DETECTION THRESHOLD



### 4.3 CHANNEL LOADING

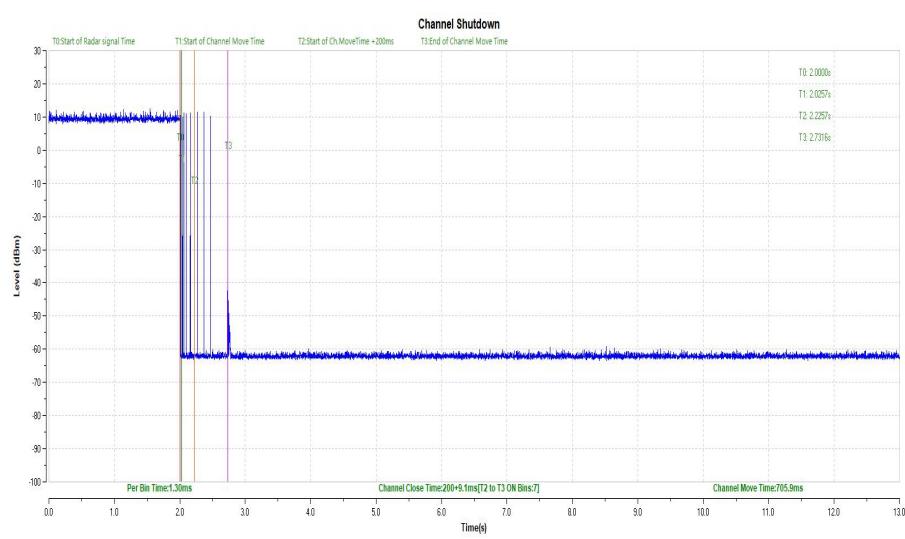
The radar signal was the same as transmitted channels, and injected into the antenna port of AP (master) with radar signal, measured the channel shutdown. The slave transmitted the test data to master, the transmitted duty cycle is 32.7%.



Note: Traffic signal: from slave transmit to master.

#### 4.4 CHANNEL CLOSING TRANSMISSION AND CHANNEL MOVE TIME

##### Radar Signal 0

Channel Move Time(ms)	705.9	Channel Closing Transmission Time(ms)	200+9.1
			

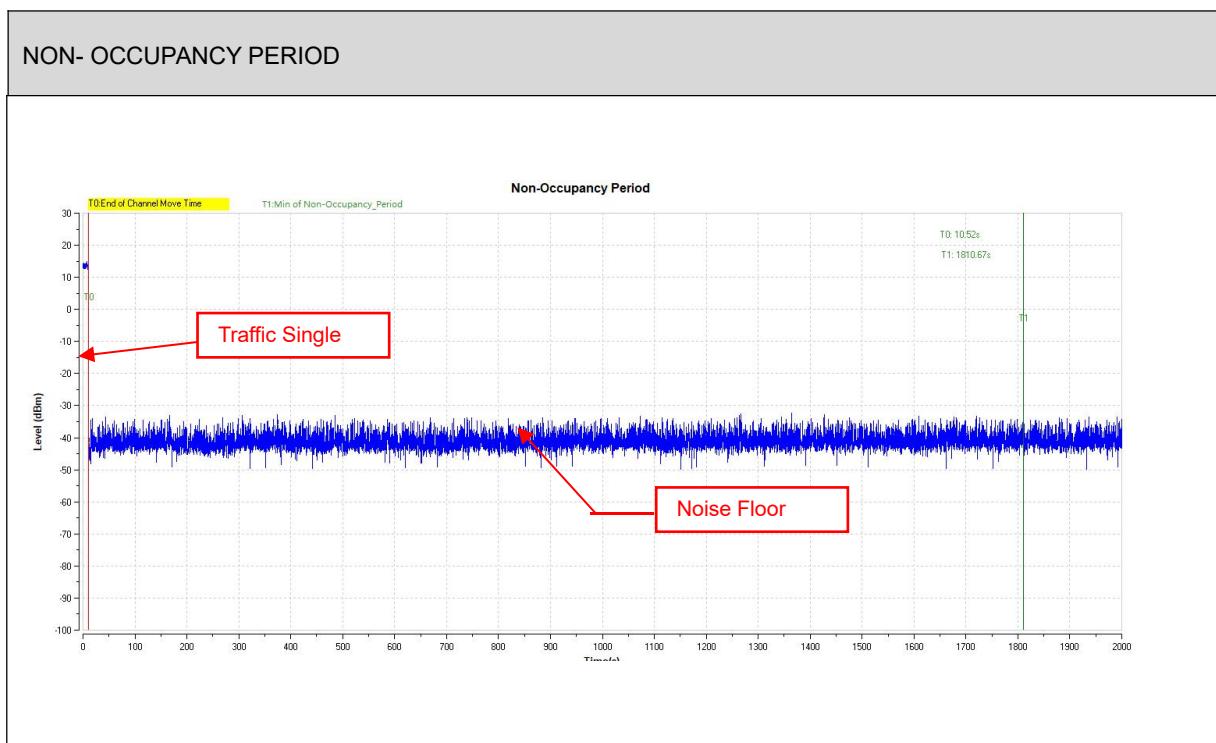
**NOTE:**

- 1.T0 denotes the Start of Rader Singnl Time.
- 2.T1 denotes the Start of Channel Move Time.
- 3.T2 denotes the Start of Channel Move Time + 200ms.
- 4.T3 denotes the End of Channel Move Time.
- 5.Per Bin Time = Sweep time (13000ms) / Sweep Point Bins (10000) =1.3ms
- 6.Channel Closing Transmission Time(200 + 16.9ms) = 200+ ON Bins\* Per Bin Time



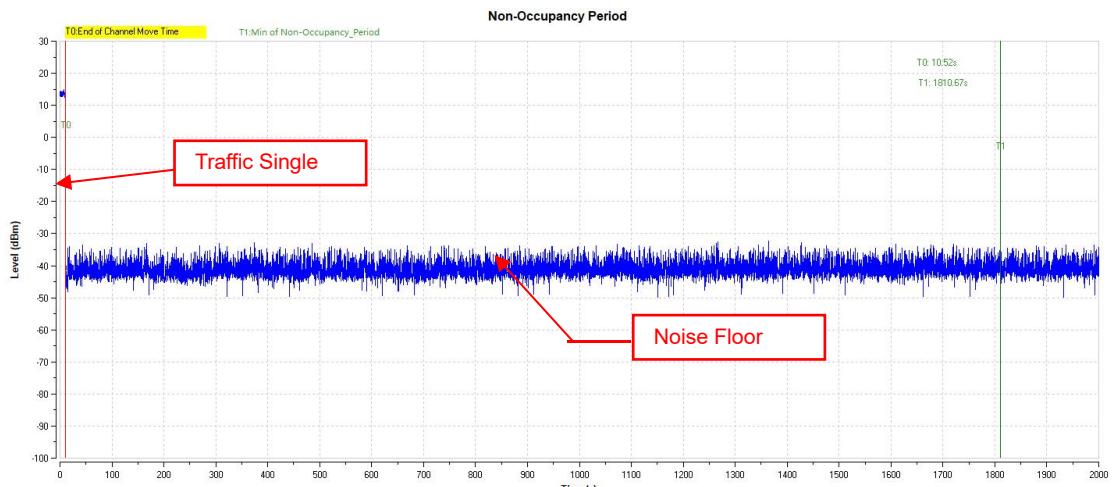
## 4.5 NON- OCCUPANCY PERIOD

- 1) Test results demonstrating an associated client link is established with the master on a test frequency
- 2) The client and DFS-certified master device are associated, and system testing will be performed with channel-loading for a non-occupancy period test.
- 3). The device transmits one type of radar as specified in the DFS Order.
- 4) The test frequency has been monitored to ensure no transmission of any type has occurred for 30 minutes;  
Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear;
- 5)An analyzer plot that contains a single 30-minute sweep on the original test frequency.



Master was off.

During the 30 minutes observation time, The UUT did not make any transmissions in the DFS band after UUT power up

**NON-ASSOCIATED TEST**

## 5 PHOTOGRAPHS OF THE EUT

Please refer to the attached file (External Photos report and Internal Photos).

----- End of the Report -----

**Important**

- (1) The test report is invalid without the official stamp of CVC;
- (2) Any part photocopies of the test report are forbidden without the written permission from CVC;
- (3) The test report is invalid without the signatures of Approval and Reviewer;
- (4) The test report is invalid if altered;
- (5) Objections to the test report must be submitted to CVC within 15 days.
- (6) Generally, commission test is responsible for the tested samples only.
- (7) As for the test result “-” or “N” means “not applicable”, “/” means “not test”, “P” means “pass” and “F” means “fail”

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