Test Report

FCC RF TEST REPORT

for

Product: DASH CAM

Model: C2,C1

FCC ID: 2AW5W-C2

Report No.: RKEYS250801096

Issued for

REXING INC.

34 Ludwig St,Little Ferry, NJ, 07643 USA.

Issued by

Guangdong KEYS Testing Technology Co., Ltd.

Building 1, No.18, Shihuan Road, Dongcheng Subdistrict, Dongguan, Guangdong, China

CONTENTS

1. TEST CERTIFICATION

Product:	DASH CAM
Trade mark:	REXING
Model:	C2
Model list(s)	C1
Applicant :	REXING INC.
Address:	34 Ludwig St,Little Ferry, NJ, 07643 USA.
Manufacturer:	KA FUNG TECHNOLOGY CO LIMITED
Address:	Rm.202, C5 Building, Hengfeng Industry Park, No.739 Zhoushi Rd, Hangcheng Subdistrict, Bao'an Dist., Shenzhen,China
Sample Receive Date:	Aug. 01, 2025
Test Date:	Aug. 01, 2025~Sep. 05, 2025
Applicable Standards:	FCC 47, CFR Part 15.407
Application Purpose	Original Grant

The above equipment has been tested by Guangdong KEYS Testing Technology Co., Ltd. and found compliance with the requirements in the technical standards mentioned above. The test results presented in this report only relate to the product/system tested. The Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Prepared by: Evan Fang / Engineer

Approved by: Bruce Zhang / Manager

2. TEST SUMMARY

FCC Rules	Description of Test	Result
AC Conducted Emission	15.207, 15.407(b)	Pass
Unwanted Emissions Measurements	15.205,15.209, 15.407(b)	Pass
Maximum conducted output power	15.407(a)	Pass
Maximum Power Spectrum Density	15.407(a)	Pass
6 dB Emission Bandwidth	15.407(e)	Pass
26 dB and 99% Emission Bandwidth	15.407(a)	Reference Only
Frequency Stability	15.407(g)	Pass
Dynamic Frequency Selection(DFS)	15.407(h)	N/A
Antenna Requirement	15.247(b),15.203	Pass

Note:

All models are same as the samples except model name,they have the same structure/circuit.

3. TEST SITE

3.1. TEST FACILITY

Guangdong KEYS Testing Technology Co., Ltd.
Address: Building 1, No.18, Shihuan Road, Dongcheng Subdistrict, Dongguan, Guangdong, China
A2LA Certificate Number.:7547.01
Designation Number:CN1419
Test Firm Registration Number:361541

3.2. MEASUREMENT UNCERTAINTY

Parameter	Uncertainty
Conducted Emission(150KHz-30MHz)	±3.2dB
Radiated Emission(30MHz-1GHz)	±4.7dB
Radiated Emission (1GHz-6GHz)	±5.1dB
Radiated Emission (6GHz-18GHz)	±5.1dB

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

3.3. Test Environment Condition

Ambient Temperature:	25 °C
Ambient Relative Humidity:	55 %

4. Test Equipment List

Equipment	Manufacturer	Model	Equipment No.	Cal. Date	Cal. Interval
EMI Test Receiver	Rohde&Schwarz	ESCI	KEYS-EL-203	Mar. 03, 2025	1 Year
Pulse limiter	Rohde&Schwarz	ESH3-Z2	KEYS-EL-201	Mar. 03, 2025	1 Year
LISN	Rohde&Schwarz	ENV216	KEYS-EL-202	Mar. 03, 2025	1 Year
Shielding Room	Taihe Mao Rui Electronic Equipment Co., Ltd.	8m*4m*4m	KEYS-EL-230	Oct.12,,2024	5 Year
EMI Test Receiver	Rohde&Schwarz	ESCI7	KEYS-EL-205	Mar. 03, 2025	1 Year
Logarithmic Periodic Broadband Antenna	SCHWARZBECK	VULB9168	KEYS-EL-209	Mar. 06, 2025	3 Year
Preamplifier	HP	8447F	KEYS-EL-210	Mar. 03, 2025	1 Year
Horn Antenna	SCHWARZBECK	BBHA 9120D	KEYS-EL-239	Mar. 06, 2025	3 Year
Preamplifier	/	1-18-53G22	KEYS-EL-240	Mar. 03, 2025	1 Year
Anechoic Chamber	Taihe Mao Rui Electronic Equipment Co., Ltd.	9m*6m*6m	KEYS-EL-230	Oct.12,,2024	5 Year
Signal Analyzer	Keysight	N9020A	KEYS-EL-238	Mar. 03, 2025	1 Year
Spectrum Analyzer	Rohde&Schwarz	FSV-40N	KEYS-EL-269	Mar. 03, 2025	1 Year

WDEBAND RADIOCOMMUNICATION TESTER	Rohde&Schwarz	CMW500	KEYS-EL-236	Mar. 03, 2025	1 Year
18-40GHz Antenna	COM-MW	ZLB7-18-40G-777	KEYS-EL-276	May 19, 2025	1 Year
18-40GHz Preamplifier	QUANJUDA	LNA-18004000-50G35	KEYS-EL-277	May 17, 2025	1 Year
Filter	WCS Technology	ZBSF6-C2400-2483.5-294	KEYS-EL-270	May 17, 2025	1 Year
RF Cable	Rosenberger	/	KEYS-EL-278	May 17, 2025	3 Year
RF Cable	COM-MW	DCA9-2.92M80002.92M3.6-1304	KEYS-EL-279	May 17, 2025	3 Year
DC Power	Agilent	E3632A	KEYS-EL-243	Mar. 03, 2025	1Year
Power Switch	WCS Technology	SMU-3002	KEYS-EL-247	Apr. 16, 2025	1 Year
Power Meter	Agilent	E4417A	KEYS-EL-260	May 17, 2025	1 Year
Power Probe	Agilent	E9304A	KEYS-EL-261	May 17, 2025	1 Year
Temperature Chamber	Guangke	GK-TH-1000	KEYS-EL-139	Oct.16,,2024	1 Year

Note:The attenuator is integrated into the Power Switch Box and taken into consideration during testing.

5. EUT DESCRIPTION

Product	DASH CAM
Test Model	C2
Model list(s)	C1
Rating	DC 5V
FCC ID	2AW5W-C2
Antenna Type	chip antenna
Antenna Gain	2.62dBi
Mode Supported	802.11a,802.11n(HT20), 802.11n(HT40)
Operation Frequency	☐ U-NII-1(Band 1): 5150 MHz~5250MHz ☐ U-NII-2A(Band 2): 5250MHz~5350MHz ☐ U-NII-2C(Band 3): 5470MHz~5725MHz ☒ U-NII-3(Band 4): 5725 MHz ~5850 MHz
Function	☐ Outdoor AP ☐ Indoor AP ☐ Fixed P2P ☒ Client
DFS Type	☐ master devices ☐ Slave devices with radar detection ☒ Slave devices without radar detection
Support TPC	☐ Yes ☒ No
Modulation Type	OFDM

Note:
1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2) Antenna gain was provided by the manufacturer, and the manufacturer is responsible for its validity.
3) The test results in the report only apply to the tested sample.

Models difference: All models are same as the samples except model name,they have the same structure/circuit.

5.1. DESCRIPTION OF TEST CONFIGURATION

Test channel list is as below:
For U-NII-3(Band 4): 5725 MHz ~5850 MHz:
5 channels are provided for 802.11a,802.11n (HT20):

Channel	Frequency(MHz)	Channel	Frequency(MHz)
149	5745	161	5805
153	5765	165	5825
157	5785		

2 channels are provided for 802.11n (HT40):

Channel	Frequency(MHz)	Channel	Frequency(MHz)
151	5755	159	5795

Test Channel
Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports.
Following channel(s) was (were) selected for the final test as listed below.

Band	Mode	Tested Channel	Data Rate(MHz)
U-NII-3(Band 4): 5725 MHz ~5850 MHz	802.11a	149,157,165	6.0
	802.11n (HT20)	149,157,165	6.5
	802.11n (HT40)	151,159	13.5

5.2. EQUIPMENT MODIFICATIONS

Any modifications installed previous to testing by REXING INC.will be incorporated in each production model sold / leased in the United States.
No modifications were installed by KEYS Testing Technology Co., Ltd.

6. TEST METHODOLOGY

(1) KDB 789033 D02 v02r01

(2) KDB 662911 D01 v02r01

(3) KDB 905462 D02 v02

(4) ANSI C63.10-2020

6.1. EUT SYSTEM OPERATION

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables were manipulated to produce worst case emissions. The EUT was powered by DC 5V during the test.

7. SETUP OF EQUIPMENT UNDER TEST

7.1. 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.	Equipment	Model	Serial No.	Manufacturer
1	Notebook	Lenovo Rescuer 15ISK	PF0GS9S1	Lenovo
2	/	/	/	/

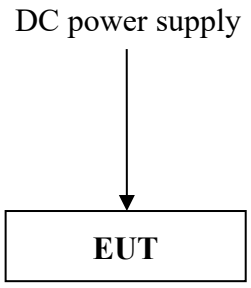
Support Cable

No.	Description	Shield	Length	Manufacturer
1	/	/	/	/
2	/	/	/	/

Note: 1) All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

2) Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

7.2. BLOCK DIAGRAM OF EUT CONFIGURATION



(EUT: C2)

7.3. EUT EXERCISE SOFTWARE

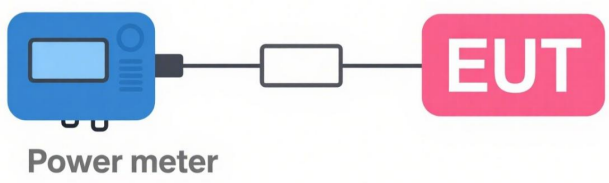
Test Software	ADB Command		
Frequency	5745MHz	5785MHz	5825MHz
802.11a	12	12	12
802.11 n20	12	12	12
Frequency	5755MHz	/	5795MHz
802.11 n40	12	/	

8. TEST RESULTS AND MEASUREMENT DATA

8.1. MAXIMUM CONDUCTED OUTPUT POWER

Test Requirement:	FCC Part 15 C Section 15.407(a)
Test Mode:	Transmitting mode with modulation
Test Procedure:	The power output per FCC §15.407(a) was measured on the EUT using a 50 ohm SMA cable connected to Power Meter and the measurement method refer to 789033 D02. Power was read directly and cable loss correction (0.5dB) was added to the reading to obtain power at the EUT antenna terminals.
Test Result:	PASS

8.1.1. Test Setup:



8.1.2. Limit:

Operation Fre. (MHz)	EUT Category		Max EIRP
5150~5250	☐	Outdoor Access Point	1 Watt (30 dBm) (Max.EIRP≦ 125mW(21dBm) at any elevation angle above 30 degrees as measured from the horizon)
	☐	Fixed point-to-point Access Point	1 Watt (30 dBm)
	☐	Indoor Access Point	1 Watt (30 dBm)
	☐	Mobile and Portable client device	250mW(24 dBm)
5250~5350	☐		250mW (24 dBm) or 11 dBm+10log B*
5470~5725	☐		250mW (24 dBm) or 11 dBm+10log B*

5725~5850	☒	1 Watt (30 dBm)

*B is the 26 dB emission bandwidth in megahertz

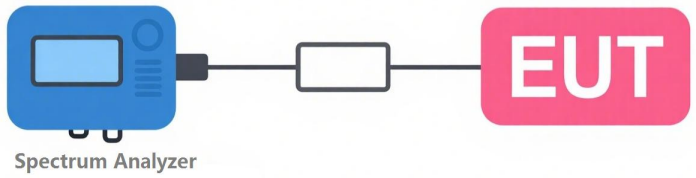
8.1.3. Test Result:

Please refer to Appendix A:Test Results of 5.8GHz RLAN.

8.2. POWER SPECTRUM DENSITY TEST

Test Requirement:	FCC Part 15 C Section 15.407(a)
Test Mode:	Transmitting mode with modulation
Test Procedure:	The power spectrum density pler FCC §15.407(a) was measured from the antenna port of the EUT using a 50 ohm spectrum analyzer with the resolution bandwidth set at 1MHz/500KHz, the video bandwidth set at 3 MHz/2MHz(measurement method refer to KDB 789033 D02). Power spectrum density was read directly and cable loss (1.0 dB) reading to obtain power at the EUT antenna terminals.
Test Result:	PASS

8.2.1. Test Setup:



8.2.2. Limit

Operation Fre. (MHz)	EUT Category		Limit
5150~5250	☐	Outdoor Access Point	17dBm/ MHz
	☐	Fixed point-to-point Access Point	
	☐	Indoor Access Point	
	☐	Mobile and Portable client device	11dBm/MHz
5250~5350	☐		11dBm/MHz
5470~5725	☐		11dBm/MHz
5725~5850	☒		30dBm/500kHz

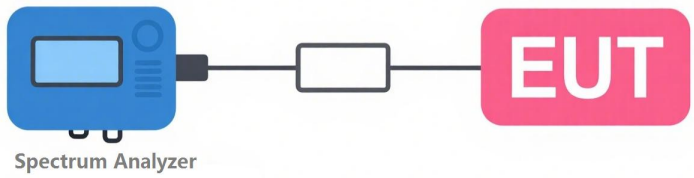
8.2.3. Test Result

Please refer to Appendix A:Test Results of 5.8GHz RLAN.

8.3. OCCUPIED BANDWIDTH

Test Requirement:	FCC Part 15 C Section 15.407(a)
Test Mode:	Transmitting mode with modulation
Limit:	N/A (Reference only)
Test Procedure:	The 99% Occupied Bandwidth per 789033 D02 was measured from the antenna port of the EUT using a 50 ohm spectrum analyzer with the resolution bandwidth set center frequency to the nominal EUT channel center frequency, set span = 1.5 times to 5.0 times the OBW, set RBW = 1 % to 5 % of the OBW, set VBW ≥ 3x RBW, The 99% occupied bandwidth was determined from where the channel output spectrum intersected the display line.
Test Result:	PASS

8.3.1. Test Setup:



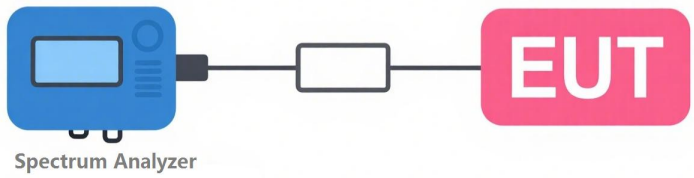
8.3.2. Test Result

Please refer to Appendix A:Test Results of 5.8GHz RLAN.

8.4. 26DB BANDWIDTH

Test Requirement:	FCC Part 15 C Section 15.407(a)
Test Mode:	Transmitting mode with modulation
Limit:	N/A (Reference only)
Test Procedure:	The 26dB down Emission Bandwidth per 789033 D02 was measured from the antenna port of the EUT using a 50 ohm spectrum analyzer with the resolution bandwidth set RBW = approximately 1% of the emission bandwidth. Set the VBW > RBW, Detector = Peak, Trace mode = max hold (Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%).
Test Result:	Pass

8.4.1. Test Setup:



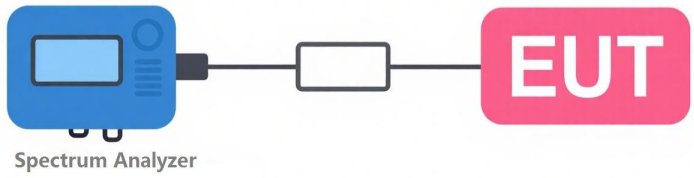
8.4.2. Test Result

Please refer to Appendix A:Test Results of 5.8GHz RLAN.

8.5. 6DB BANDWIDTH

Test Requirement:	FCC Part15 C Section 15.407(e)
Test Mode:	Transmitting mode with modulation
Test Procedure:	The Minimum 6 dB RF Bandwidth per 789033 D02 was measured from the antenna port of the EUT using a 50 ohm spectrum analyzer with the resolution bandwidth set at 100kHz, and set the video bandwidth (VBW) ≥ 3 x RBW. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was taken, a DISPLAY line was drawn 6 dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.
Test Result:	Pass

8.5.1. Test Setup:



8.5.2. Limit

Operating Frequency (MHz)	Minimum 6 dB RF Bandwidth Limit
5150~5250	N/A
5250~5350	N/A
5470~5725	N/A
5725~ 5850	≥500kHz

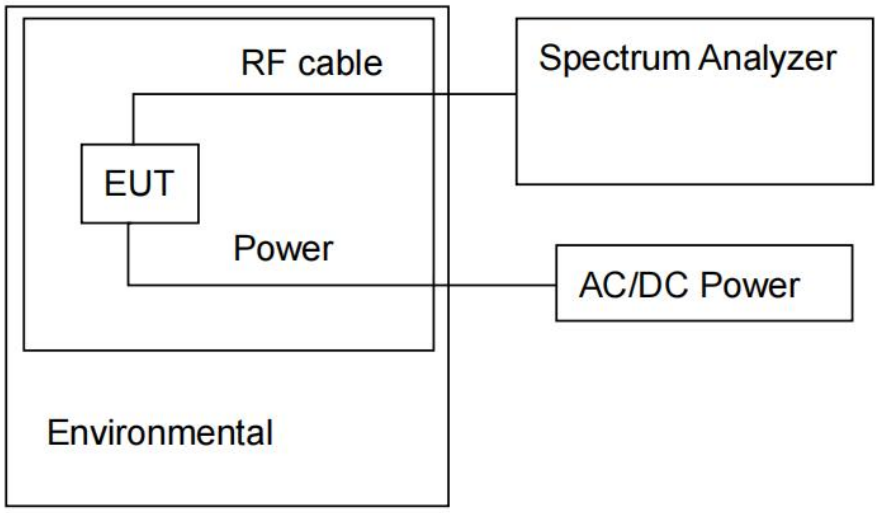
6.5.3. Test Result

Please refer to Appendix A:Test Results of 5.8GHz RLAN.

8.6. FREQUENCY STABILITY

Test Requirement:	FCC Part15 C Section 15.407(g)
Test Mode:	Transmitting mode with modulation
Limit:	The frequency of the carrier signal shall be maintained within band of operation
Test Procedure:	The EUT was placed inside the environmental test chamber and powered by nominal voltage. Turn the EUT on and couple its output to a spectrum analyzer. Turn the EUT off and set the chamber to the highest temperature specified. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2,5, and 10 minutes. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.
Test Result:	PASS

8.6.1. Test Setup:



8.6.2. Test Result

Frequency	Voltage (V)	Antenna	Calculated Value of Center Frequency(MHz)	Limit (ppm)	Result
5745	DC 5V	-30	5745.117962	Within authorized band	PASS
		-20	5745.117253		PASS
		-10	5745.128325		PASS
		0	5745.134537		PASS
		10	5745.143012		PASS
		20	5745.132686		PASS
		30	5745.176114		PASS
		40	5745.098214		PASS
		50	5745.096165		PASS
	DC 5.5V	25	5745.083529		PASS
	DC 4.5V	25	5745.097468		PASS

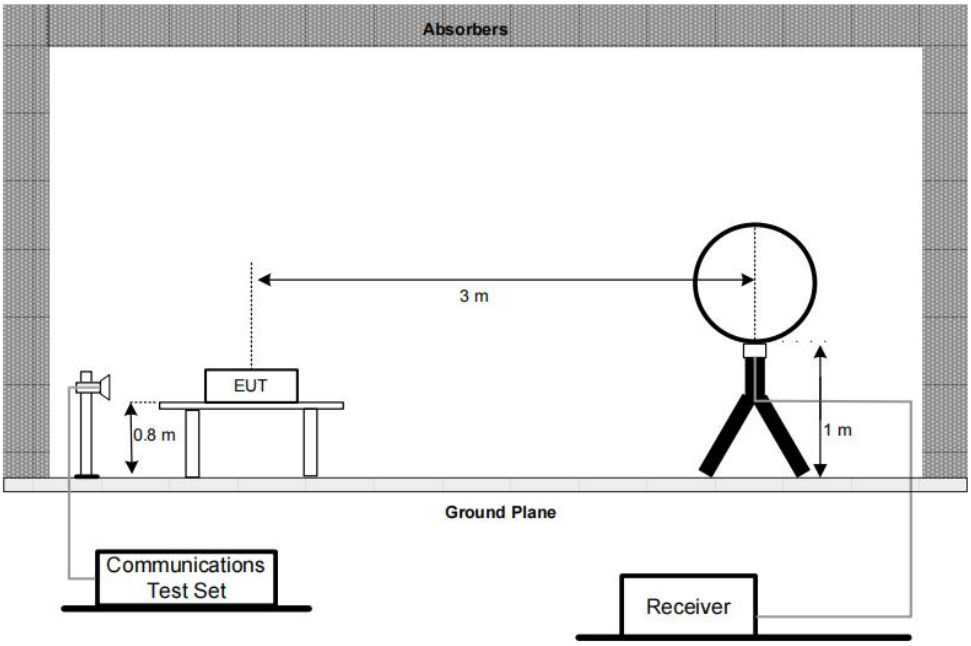
Frequency	Voltage (V)	Antenna	Calculated Value of Center Frequency(MHz)	Limit (ppm)	Result
5785	DC 5V	-30	5784.967935	Within authorized band	PASS
		-20	5784.957254		PASS
		-10	5784.978325		PASS
		0	5785.034514		PASS
		10	5785.042471		PASS
		20	5784.982686		PASS
		30	5784.996169		PASS
		40	5784.995821		PASS
		50	5784.996162		PASS
	DC 5.5V	25	5784.997828		PASS
	DC 4.5V	25	5784.997469		PASS

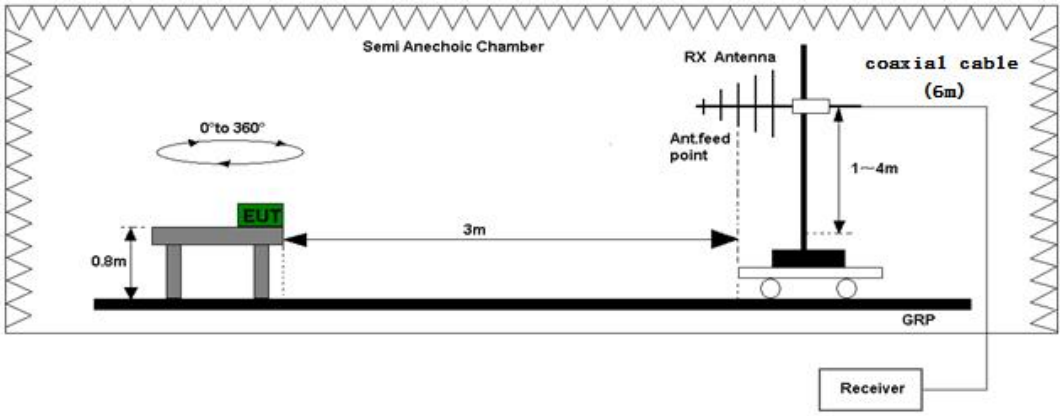
Frequency	Voltage (V)	Antenna	Calculated Value of Center Frequency(MHz)	Limit (ppm)	Result
5825	DC 5V	-30	5825.027235	Within authorized band	PASS
		-20	5825.017247		PASS
		-10	5825.018326		PASS
		0	5825.014514		PASS
		10	5825.023017		PASS
		20	5825.012112		PASS
		30	5825.016246		PASS
		40	5825.011476		PASS
		50	5825.016314		PASS
	DC 5.5V	25	5825.018174		PASS
	DC 4.5V	25	5825.026315		PASS

8.7. UNWANTED EMISSIONS MEASUREMENTS

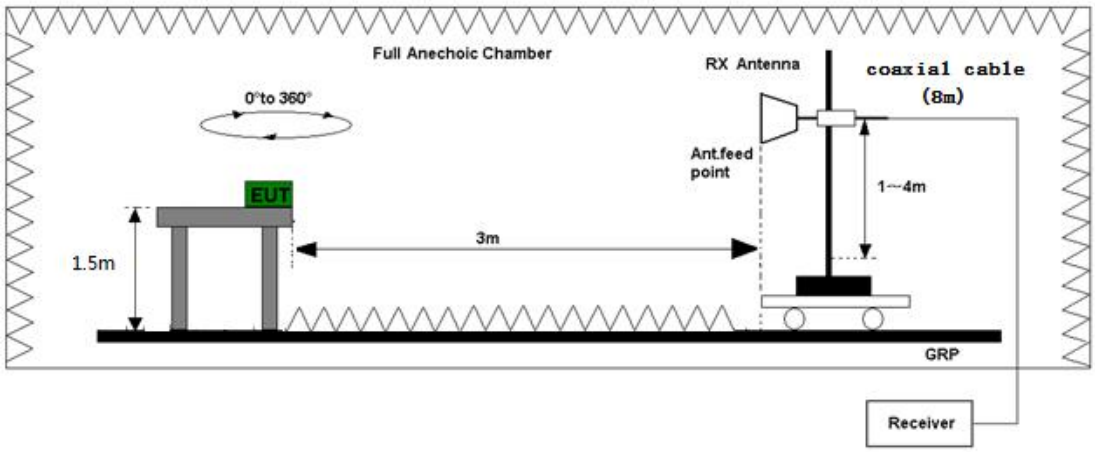
Test Requirement:	FCC Part15 C Section 15.205,15.209, 15.407(b)
Test Mode:	Transmitting mode with modulation
Test Result:	Pass

8.7.1. Test Setup:





Test set-up of radiated disturbance (Up to 1GHz)



Test set-up of radiated disturbance (Above 1GHz)

8.7.2. Test Procedure:

Radiated emission measurements were performed from 9kHz to tenth harmonic or 40GHz.

The EUT for testing is arranged on a styrene turntable with the height of 0.8m up to 1GHz and 1.5m above 1GHz. If some peripherals apply to the EUT, the peripherals will be connected to EUT and the whole system. During the test, all cables were arranged to produce worst-case emissions. The signal is maximized through rotation. The height of antenna and polarization is changing constantly for exploring for maximum signal level. The height of antenna can be up to 4 meters and down to 1 meter.

The measurement for radiated emission will be done at the distance of three meters unless the signal level is too low to measure at that distance. In the case of the reading under noise floor, a pre-amplifier is used and/or the test is conducted at a closer distance. And then all readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance.

Testing settings (refer to KDB 789033 D02)

Quasi-Peak Measurements below 1GHz

1, Analyzer center frequency was set to the frequency of the radiated spurious emission.

2, Span=encompass the entire emission 3,

RBW=120KHz

4, Detector=Quasi-Peak

5, Trace was allowed to stabilize

Peak Measurements above 1GHz

1, Analyzer center frequency was set to the frequency of the radiated spurious emission.

2, Span=encompass the entire emission

3, RBW=1MHz

4, VBW=3MHz

4, Detector= Peak (Max-hold)

5, Trace was allowed to stabilize

Average Measurements above 1GHz

1, Analyzer center frequency was set to the frequency of the radiated spurious emission.

2, Span=encompass the entire emission

3, RBW=1MHz

4, VBW=3MHz

4, Detector= RMS (Max-hold)

5, Trace was allowed to stabilize

8.7.3. Limit:

The spurious Emission shall test through the 10th harmonic or 40GHz (whichever is lower). In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

Notes:

1, All emission out-side of the 5.15-5.35GHz & 5.47-5.725GHz band shall not exceed an EIRP of -27dBm/MHz (68.2dBμV/m, test distance: 3 meter), For the band

5.725-5.85GHz, all emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

2, The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using QP detector below 1GHz, above 1GHz, average & peak measurements were taken using for test. The worst-case emission is reported however emission whose levels were not within 20dB of the respective limited were not reported.

3, The test was performed on EUT under 802.11a/n-HT20/n-HT40/ac-VHT20/VHT40 /VHT80 continuously transmitting mode. Simultaneous transmitting was considered during the testing. All mode had been tested, but only the worst-case is recorded in the following graph and table.

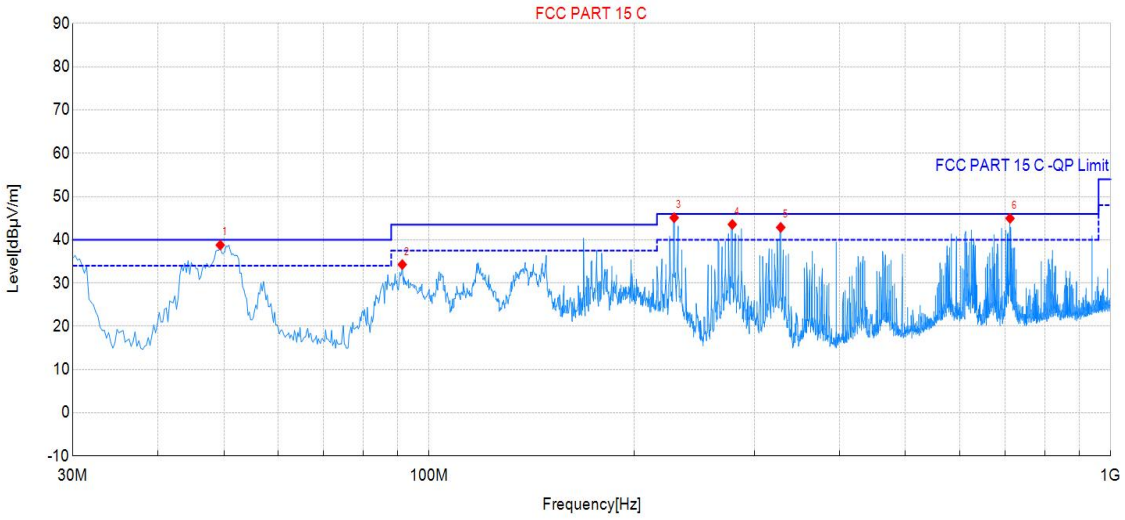
8.7.4. Test Result

Worst-case Spurious Emission below 1GHz

The worst case occurred at 802.11n-HT20 Channel 165

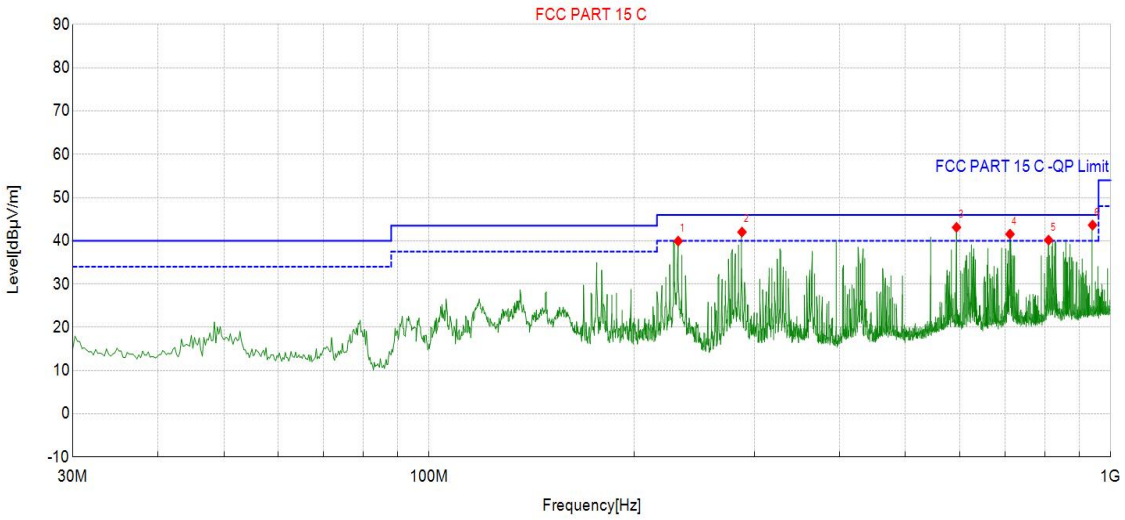
Please refer to the following diagram:

Vertical:



Suspected Data List											
NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	49.40	56.00	38.79	-17.21	40.00	1.21	100	53	QP	Vert	PASS
2	91.35	54.74	34.28	-20.46	43.50	9.22	100	129	QP	Vert	PASS
3	228.85	63.92	45.11	-18.81	46.00	0.89	100	232	QP	Vert	PASS
4	278.56	60.85	43.55	-17.30	46.00	2.45	100	119	QP	Vert	PASS
5	328.03	58.95	42.87	-16.08	46.00	3.13	100	110	QP	Vert	PASS
6	711.67	53.65	44.96	-8.69	46.00	1.04	100	359	QP	Vert	PASS

Horizontal:



Suspected Data List											
NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	232.00	58.61	39.93	-18.68	46.00	6.07	100	318	QP	Hori	PASS
2	287.78	59.07	42.03	-17.04	46.00	3.97	100	348	QP	Hori	PASS
3	594.06	53.35	43.12	-10.23	46.00	2.88	100	215	QP	Hori	PASS
4	711.67	50.24	41.55	-8.69	46.00	4.45	100	168	QP	Hori	PASS
5	810.85	48.01	40.17	-7.84	46.00	5.83	100	344	QP	Hori	PASS
6	940.59	50.52	43.63	-6.89	46.00	2.37	100	344	QP	Hori	PASS

Worst-case Spurious Emission Above 1GHz

The worst case occurred at 802.11n-HT20

Channel 149(5745MHz)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss（dB）	Emission Level (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	11490.00	59.7	54.0	40.8	10.6	57.1	68.20	-11.1
Horizontal	11490.00	44.8	54.0	40.8	10.6	42.2	54.00	-11.8

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss（dB）	Emission Level (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
Vertical	11490.00	58.8	54.0	40.8	10.6	56.2	68.20	-12.0
Vertical	11490.00	45.2	54.0	40.8	10.6	42.6	54.00	-11.4

Channel 157:

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss（dB）	Emission Level (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	11570.00	56.8	53.9	40.7	10.7	54.3	68.20	-13.9
Horizontal	11570.00	45.8	53.9	40.7	10.7	43.3	54.00	-10.7

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss（dB）	Emission Level (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
Vertical	11570.00	57.2	53.9	40.7	10.7	54.7	68.20	-13.5
Vertical	11570.00	45.2	53.9	40.7	10.7	42.7	54.00	-11.3

Channel 165(5825MHz):

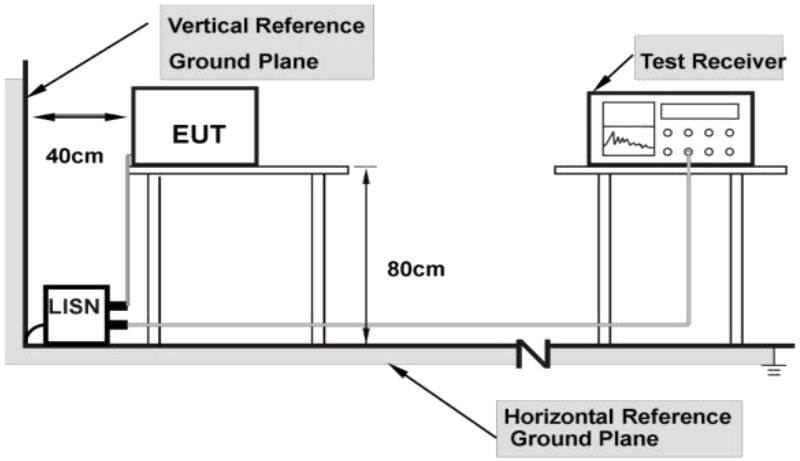
Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss （dB）	Emission Level (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	11650.00	56.3	53.8	40.6	10.8	53.9	68.20	-14.3
Horizontal	11650.00	44.7	53.8	40.6	10.8	42.3	54.00	-11.7

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss （dB）	Emission Level (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
Vertical	11650.00	56.9	53.8	40.6	10.8	54.5	68.20	-13.7
Vertical	11650.00	45.1	53.8	40.6	10.8	42.7	54.00	-11.3

8.8. CONDUCTED EMISSION

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.207, 15.407(b)</td></tr>
<tr><td>Test Mode:</td><td>Transmitting mode with modulation</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><td rowspan="2">Frequency of Emission (MHz)</td><td colspan="2">Conducted Limit (dBuV)</td></tr>
<tr><td>Quasi-peak</td><td>Average</td></tr>
<tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr>
<tr><td>0.5-5</td><td>56</td><td>46</td></tr>
<tr><td>5-30</td><td>60</td><td>50</td></tr>
</table>
*Decreases with the logarithm of the frequency.
</td></tr>
<tr><td>Test Procedure:</td><td>For tabletop equipment, the EUT along with its peripherals were placed on a 1.0m(W)×1.5m(L) and 0.8m in height wooden table. The EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane. The EUT was connected to power mains through a line impedance stabilization network (LISN), which provided 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room. The excess power cable between the EUT and the LISN was bundled.</td></tr>
<tr><td>Test Result:</td><td>Pass</td></tr>
</table>

8.8.1. Test Setup:



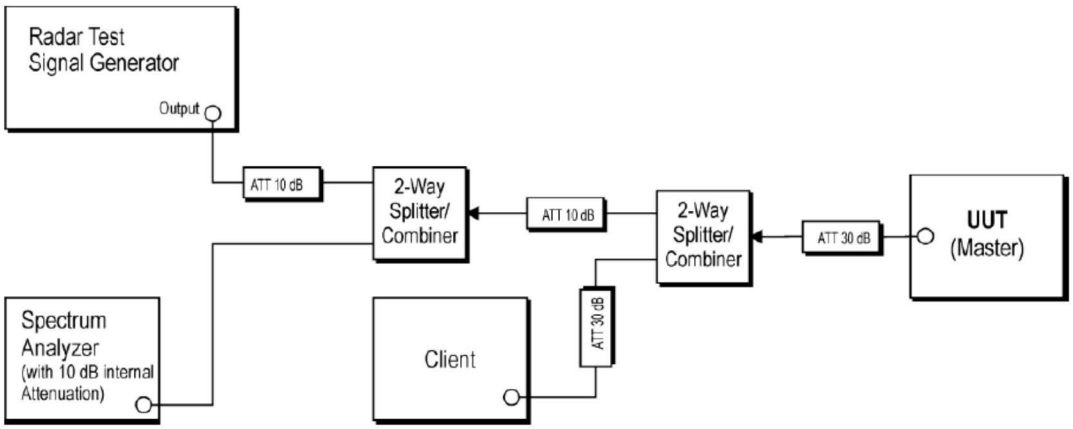
8.8.2. Test Result

The EUT is an in-vehicle device, so this test item is not applicable for the EUT.

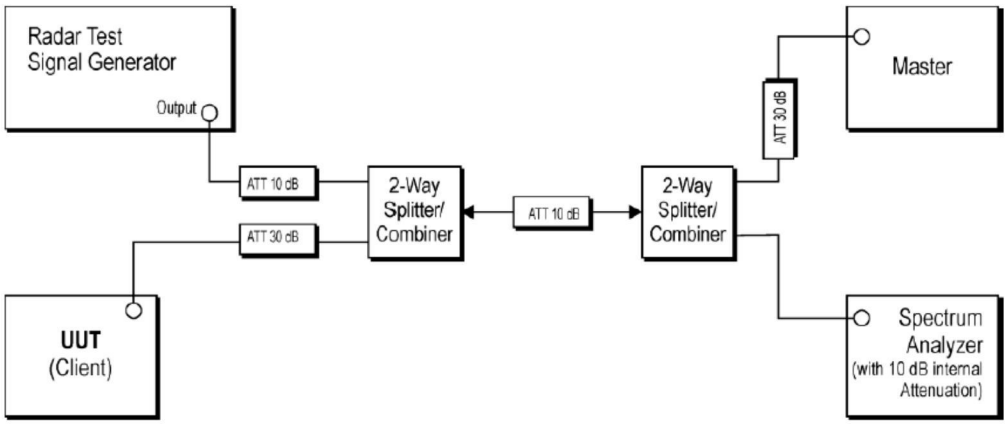
8.9. DYNAMIC FREQUENCY SELECTION (DFS)

Test Requirement:	FCC Part15 C Section 15.407(h)
Test Mode:	Transmitting mode with modulation
Test Result:	Pass

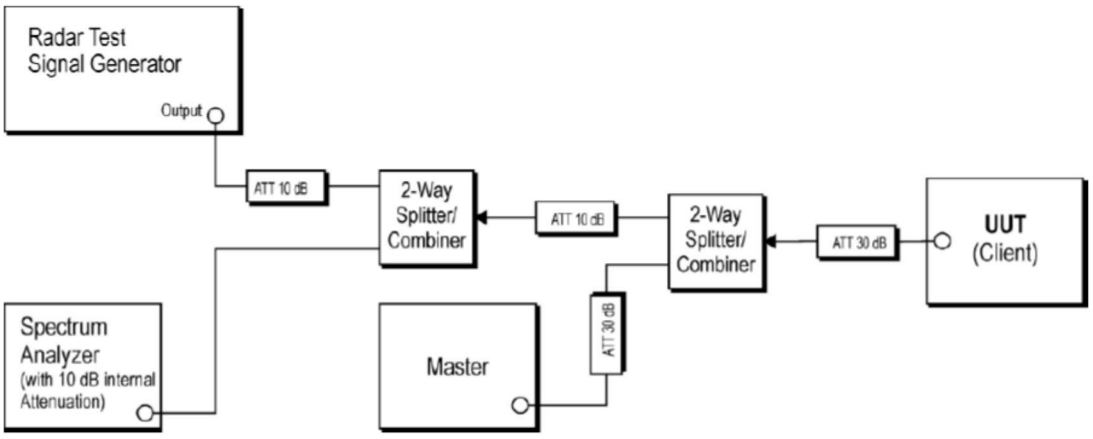
8.9.1. Test Setup:



Setup for Master with injection at the Master



Setup for Client with injection at the Master



Setup for Client with injection at the Client

Note: EUT is a client without DFS detection capabilities. Test procedures were made in accordance to KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02. DFS testing was setup as a client with injection into the master.

8.9.2. Test procedure

In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period

The EUT was configured to communicate with a master device. The test file was streamed from the Master to the Client (EUT) on the selected test channel. Measurements were made while utilizing the widest bandwidth of the EUT.

Channel closing transmission time and channel move time were measured by applying a radar type 0 at threshold + 1dB to the EUT. The EUT transmissions were observed on the EUT center channel. The time between the end of the applied radar waveform and the final transmission on the channel is the channel move time. The channel closing transmission time comprises only those fragments of the channel move time during which the EUT transmits.

The Channel Move time shall be less than 10 seconds

The Channel Close time shall be 200ms +60ms of aggregate time. The Non-occupancy time shall 30 minutes or greater.

8.9.3. Limit and requirement

Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode Mode		
	Master	Client Without Radar Detection	Client with Radar Detection
Non-Occupancy Period	Yes	Not Required	Yes
DFS Detection Threshold	Yes	Not Required	Yes
Channel Availability Check Time	Yes	Not Required	Not Required
U-NII Detection Bandwidth	Yes	Not Required	Yes

Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	Master Device or Client with Radar Detection	Client Without Radar Detection
DFS Detection Threshold	Yes	Not Required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not Required

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection

U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

DFS Detection Thresholds for Master or Client Devices with DFS Detection

Maximum Transmit Power	**Values (See Notes 1, 2, and 3)**
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 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. **Note3:** EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

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 ms + an aggregate of 60 ms over remaining 10 Second period. (see note 1 and 2)
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. (see note 3)

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

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 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Radar Test Waveforms

Test procedures were made in accordance to KDB 905462 D02 UNII DFS Compliance

Procedures New Rules v02, for more radar test waveform details please refer section 6 of KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02.

8.9.4. Test Result

N/A

8.10. ANTENNA REQUIREMENT

Test Requirement:	FCC Part Part 15.203 An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. FCC Part 15.247(b) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi.if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.
Test Result:	According to the manufacturer declared, the EUT has a chip antenna, the maximum gain of antenna is 2.62dBi.Therefore the EUT is considered sufficient to comply with the provision.Refer to EUT Photo for further details.

9. PHOTOGRAPHS OF TEST SET-UP

For photographs of the test set-up, refer to the appendix B.

*** End of Report ***