



FCC Part 15C Test Report

FCC ID: 2A7Z7-ZASDT01

Applicant: Shenzhen zhonganshi Technology Co., Ltd

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Manufacturer: Shenzhen zhonganshi Technology Co., Ltd

Address: 602, 6th floor, building a, Sanzhi industrial building, No. 95, Gushu 1st Road, Xixiang street, Bao'an District, Shenzhen

EUT: WIFI Camera

Trade Mark: N/A

Model Number: ZAS-DT01
ZAS-DP01, ZAS-W01, ZAS-Q01, i-100

Date of Receipt: Jul. 04, 2022

Test Date: Jul. 04, 2022 – Jul. 28, 2022

Date of Report: Jul. 28, 2022

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Applicable Standards: FCC PART 15 C 15.407
ANSI C63.10:2013

Test Result: Pass

Report Number: DL-20220719019E

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This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.



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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.407) , Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.407(b), 15.209	Radiated Spurious Emission	PASS	
15.407 (b)	Band Edge Emission	PASS	
15.407 (a)	Peak Output Power	PASS	
15.407 (a)	Power Spectral Density	PASS	
15.403(i) 15.407(e)	26dB bandwidth and 99%dB Bandwidth 6dB bandwidth and 99%dB Bandwidth	PASS	
15.407(g)	Frequency Stability	PASS	
15.407(c)	Transmission in case of Absence of Information	PASS	
15.203	Antenna Requirement	PASS	

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

1.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$ providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 2.56\text{dB}$
2	RF power,conducted	$\pm 0.42\text{dB}$
3	Spurious emissions,conducted	$\pm 2.76\text{dB}$
4	All emissions,radiated(<1G)	$\pm 3.65\text{dB}$
5	All emissions,radiated(>1G)	$\pm 4.89\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2\%$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product Name:	WIFI Camera
Trademark	N/A
Model No.:	ZAS-DT01 ZAS-DP01, ZAS-W01, ZAS-Q01, i-100
Model Difference	All samples are the same except the mode names and outlook color, so we prepare "ZAS-DT01" for test only.
Operation Frequency:	5180-5240, 5745-5825MHz(802.11a/n/ac(HT20)) 5190-5230, 5755-5795MHz(802.11n/ac(HT40)) 5210MHz , 5775MHz (802.11ac(HT80))
Channel numbers:	See channel list
Channel separation:	20MHz/40MHz/80MHz
Modulation technology:	64QAM, 16QAM, QPSK, BPSK for OFDM
Rate of Transmitter	802.11a: 6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps,54Mbps 802.11n: Up to 500Mbps
Antenna Type:	Internal antenna
Antenna gain:	4dBi
Power supply:	110-240V~ 50/60Hz

Note:

- 1.For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- 2.The EUT's all information provided by client.



2. Channel List

Channel List for 802.11a/n(HT20)/ac(HT20)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
40	5200	48	5240

Channel List for 802.11a/n(HT20)/ac(HT20)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	161	5805
153	5765	165	5825
157	5785		

Channel List for 802.11n(HT40)/ac(HT40)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230

Channel List for 802.11n(HT40)/ac(HT40)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

Channel List for 802.11ac(HT80)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	/	/

Channel List for 802.11ac(HT80)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
155	5775	/	/



2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Description			
Pretest Mode	Channel	Band 1	Band 4
Mode 1	802.11a/n/acHT20	CH36, CH44, CH48	CH149, CH157, CH165
Mode 2	802.11n/acHT40	CH38, CH46	CH151, CH159
Mode 3	802.11acHT80	CH42	CH155
Mode 4	Other	Link Mode	

For Radiated Emission			
Pretest Mode	Channel	Band 1	Band 4
Mode 1	802.11a/n/acHT20	CH36, CH44, CH48	CH149, CH157, CH165
Mode 2	802.11n/acHT40	CH38, CH46	CH151, CH159
Mode 3	802.11acHT80	CH42	CH155
Mode 4	Other	Link Mode	

Note: 1. The measurements are performed at the highest, middle, lowest available channels.
2. During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.



2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



Conducted Spurious Emission Test



2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

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.

Item	Equipment	Model/Type No.	Series No.	Note
E-1	WIFI Camera	ZAS-DT01	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.



2.5 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the end product.

Max output power Setting				
Test software Version	Test program: AXDN-0002.0			
Mode	802.11a	802.11n HT20	802.11n HT40	802.11ac HT20/HT40/HT80
Data Rate	6Mbps	MSC0	MSC0	MSC0
Power Setting of Software	60	60	66	66



2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation test, Band-edge test and 6db bandwidth test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	Agilent	E4408B	MY50140780	Nov. 06, 2021	Nov. 05, 2022
2	Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Nov. 06, 2021	Nov. 05, 2022
3	Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Nov. 06, 2021	Nov. 05, 2022
4	Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Nov. 06, 2021	Nov. 05, 2022
5	Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	588	Nov. 06, 2021	Nov. 05, 2022
6	Amplifier (9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Nov. 06, 2021	Nov. 05, 2022
7	Amplifier (1GHz-18GHz)	EMEC	EM01G8GA	00270	Nov. 06, 2021	Nov. 05, 2022
8	Amplifier (18GHz-40GHz)	Quanjuda	DLE-161	97	Nov. 06, 2021	Nov. 05, 2022
9	Loop Antenna (9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Nov. 06, 2021	Nov. 05, 2022
10	RF cables1 (9kHz-1GHz)	ChengYu	966	004	Nov. 06, 2021	Nov. 05, 2022
11	RF cables2 (1GHz-40GHz)	ChengYu	966	003	Nov. 06, 2021	Nov. 05, 2022
12	Antenna connector	Florida RF Labs	N/A	RF 01#	Nov. 06, 2021	Nov. 05, 2022
13	Power probe	KEYSIGHT	U2021XA	MY55210018	Nov. 06, 2021	Nov. 05, 2022
14	Signal Analyzer 9kHz-26.5GHz	Agilent	N9020A	MY55370280	Nov. 06, 2021	Nov. 05, 2022
15	Test Receiver 20kHz-40GHz	R&S	ESU 40	100376	Nov. 06, 2021	Nov. 05, 2022
16	D.C. Power Supply	LongWei	PS-305D	010964729	Nov. 06, 2021	Nov. 05, 2022

Conduction Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	843 Shielded Room	ChengYu	843 Room	843	Nov. 25, 2019	Nov. 24, 2022
2	EMI Receiver	R&S	ESR	101421	Nov. 06, 2021	Nov. 05, 2022
3	LISN	R&S	ENV216	102417	Nov. 06, 2021	Nov. 05, 2022
4	843 Cable 1#	ChengYu	CE Cable	001	Nov. 06, 2021	Nov. 05, 2022

Other

Item	Name	Manufacturer	Model	Software version
1	EMC Conduction Test System	FALA	EZ_EMCC	EMC-CON 3A1.1
2	EMC radiation test system	FALA	EZ_EMCC	FA-03A2
3	RF test system	MAIWEI	MTS8310	2.0.0.0
4	RF communication test system	MAIWEI	MTS8200	2.0.0.0



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Limit (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.5 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

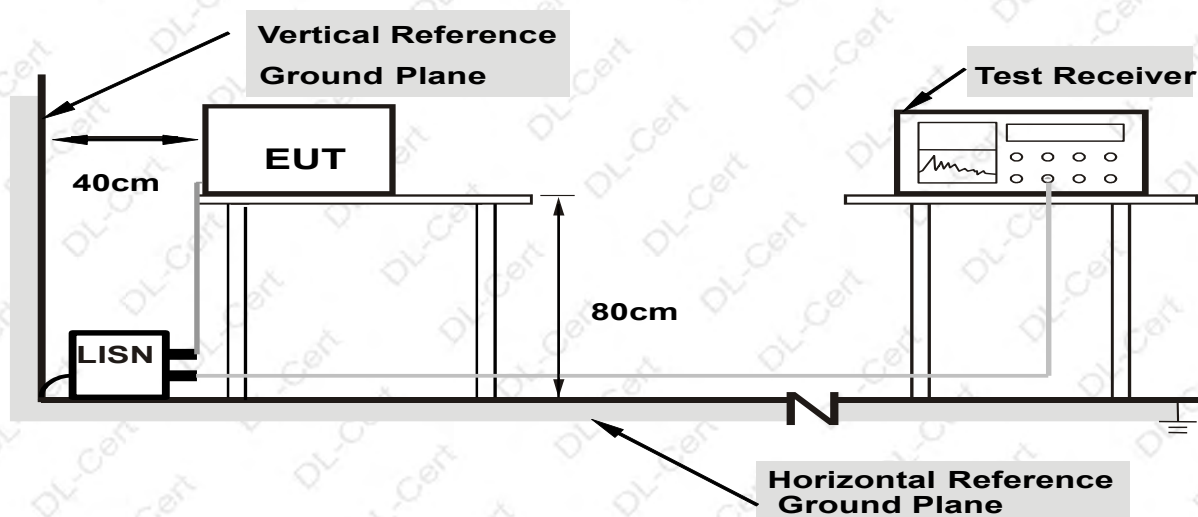
- The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation



3.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.5 EUT OPERATING CONDITIONS

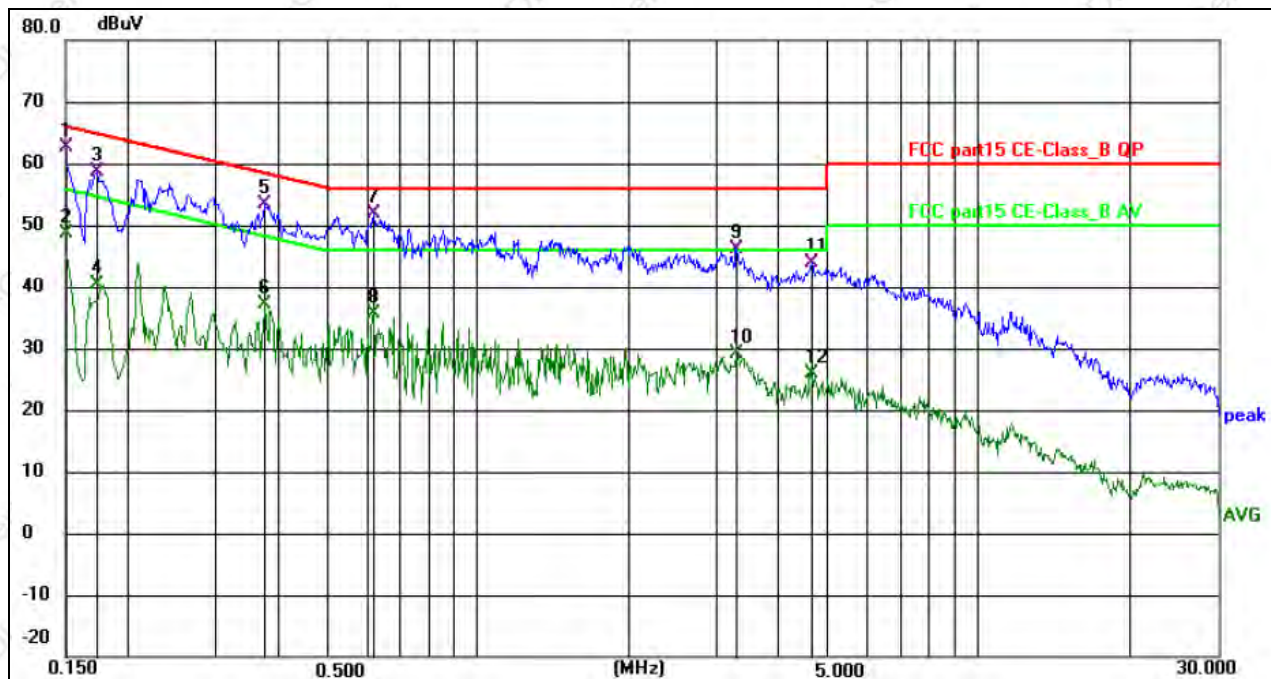
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

We pretest AC 120V and AC 230V, the worst voltage was AC 120V and the data recording in the report.

3.1.6 TEST RESULTS



Temperature:	25 °C	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 4



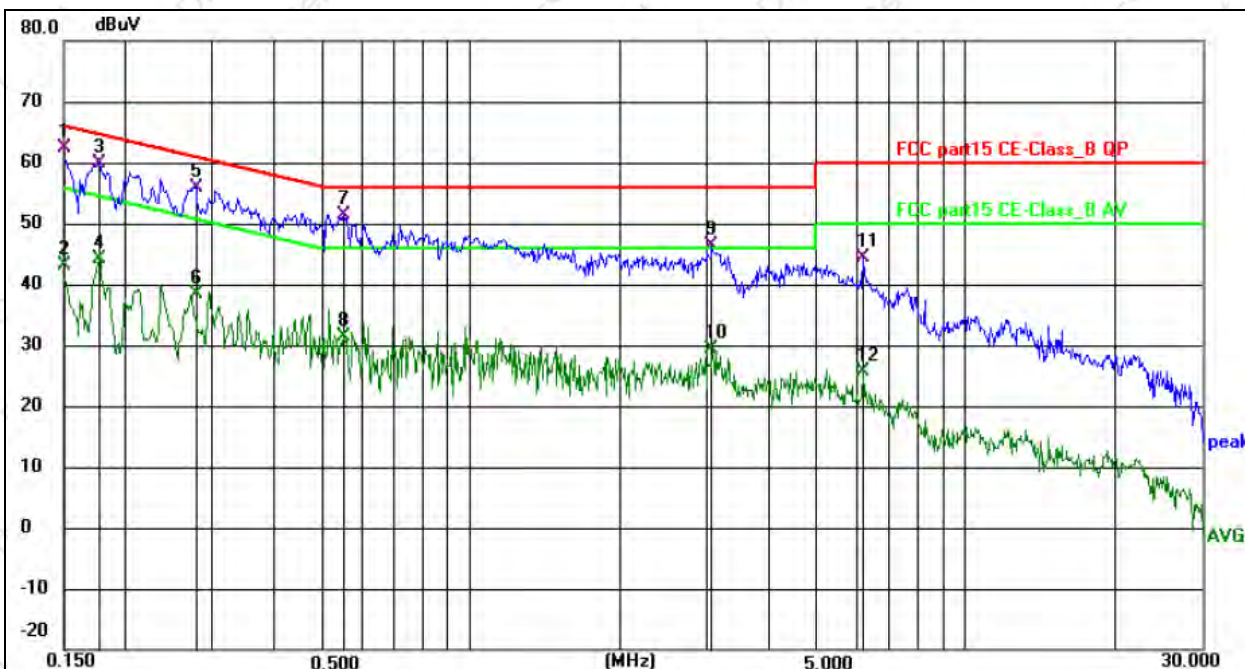
Remark:

Margin = Limit – Level, Correct Factor = Cable lose + LISN insertion loss, Level= Reading + Correct factor

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1 *	0.150000	52.08	10.50	62.58	66.00	-3.42	QP	P	
2	0.150000	38.10	10.50	48.60	56.00	-7.40	AVG	P	
3	0.172300	48.61	10.04	58.65	64.85	-6.20	QP	P	
4	0.172300	30.39	10.04	40.43	54.85	-14.42	AVG	P	
5	0.375000	44.19	9.10	53.29	58.39	-5.10	QP	P	
6	0.375000	28.11	9.10	37.21	48.39	-11.18	AVG	P	
7	0.617900	42.53	9.33	51.86	56.00	-4.14	QP	P	
8	0.617900	26.41	9.33	35.74	46.00	-10.26	AVG	P	
9	3.277400	37.23	8.86	46.09	56.00	-9.91	QP	P	
10	3.277400	20.20	8.86	29.06	46.00	-16.94	AVG	P	
11	4.641000	34.14	9.66	43.80	56.00	-12.20	QP	P	
12	4.641000	16.18	9.66	25.84	46.00	-20.16	AVG	P	



Temperature:	25 °C	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	N
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 4



Remark:

Margin = Limit – Level, Correct Factor = Cable lose + LISN insertion loss, Level= Reading + Correct factor

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1 *	0.150000	51.96	10.35	62.31	66.00	-3.69	QP	P	
2	0.150000	32.87	10.35	43.22	56.00	-12.78	AVG	P	
3	0.176600	50.28	9.55	59.83	64.64	-4.81	QP	P	
4	0.176600	34.54	9.55	44.09	54.64	-10.55	AVG	P	
5	0.276000	46.92	9.00	55.92	60.94	-5.02	QP	P	
6	0.276000	29.36	9.00	38.36	50.94	-12.58	AVG	P	
7	0.552200	42.03	9.31	51.34	56.00	-4.66	QP	P	
8	0.552200	21.96	9.31	31.27	46.00	-14.73	AVG	P	
9	3.065900	36.46	9.83	46.29	56.00	-9.71	QP	P	
10	3.065900	19.53	9.83	29.36	46.00	-16.64	AVG	P	
11	6.216000	34.58	9.84	44.42	60.00	-15.58	QP	P	
12	6.216000	15.87	9.84	25.71	50.00	-24.29	AVG	P	



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Limit (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	40GHz
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP



3.2.2 TEST PROCEDURE

Below 1GHz test procedure as below:

- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Above 1GHz test procedure as below:

- Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre(Above 18GHz the distance is 1 meter and table is 1.5 metre).
- Test the EUT in the lowest channel, the middle channel, the Highest channel

Note:

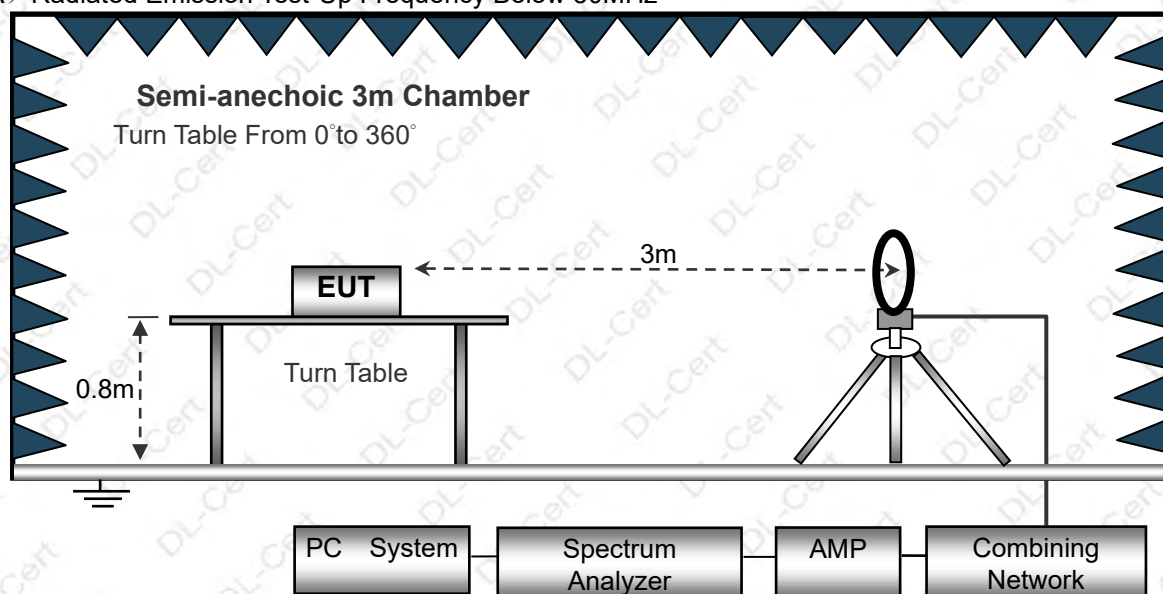
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

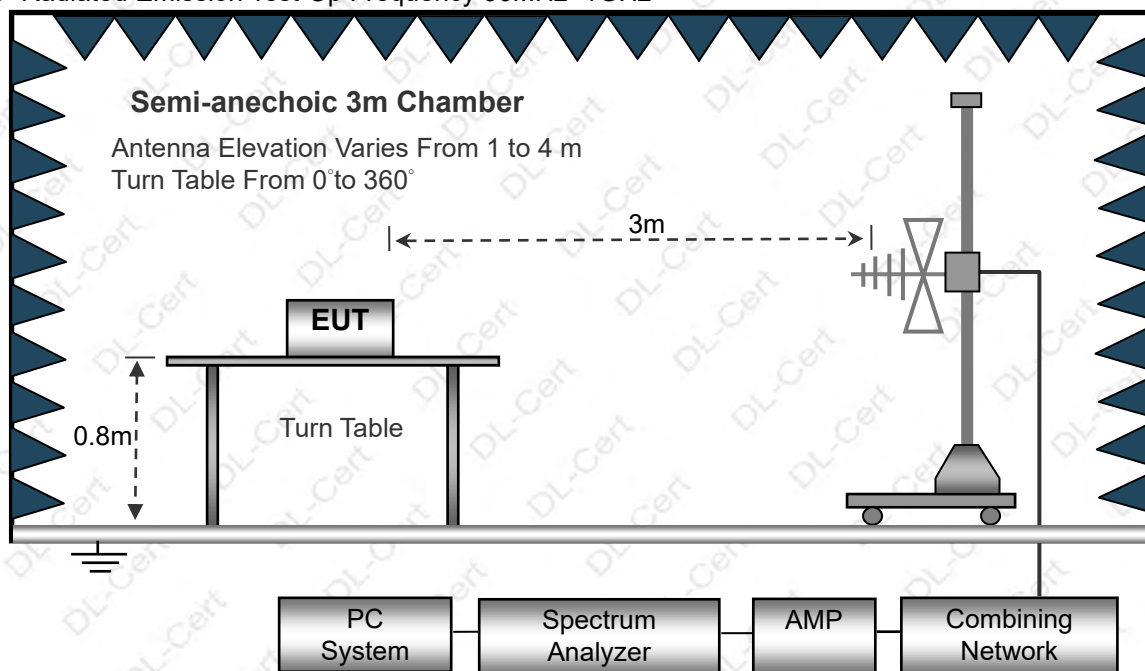
No deviation

3.2.4 TEST SETUP

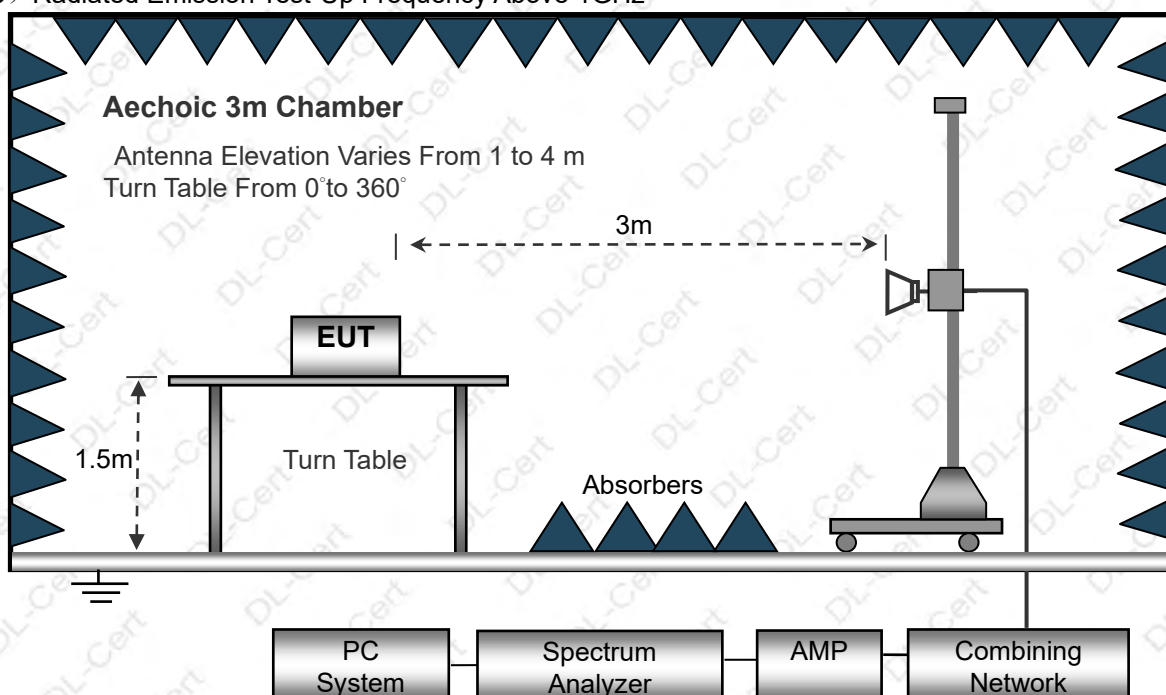
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

**3.2.6 TEST RESULTS (Between 9KHz – 30 MHz)**

Temperature:	20℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Mode 4	Polarization :	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log(\text{specific distance/test distance})$ (dB);

Limit line = specific limits(dBuV) + distance extrapolation factor.

**3.2.7 TEST RESULTS (Between 30MHz – 1GHz)**

Temperature:	26℃	Relative Humidity:	54%
Pressure:	1010 hPa	Polarization :	Horizontal
Test Voltage :	AC 120V/60Hz		
Test Mode :	Mode 4		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	51.1209	34.59	-11.47	23.12	40.00	-16.88	QP
2	139.3613	41.57	-16.10	25.47	43.50	-18.03	QP
3	250.3012	45.37	-11.74	33.63	46.00	-12.37	QP
4	263.8190	47.28	-11.46	35.82	46.00	-10.18	QP
5 *	312.1794	50.25	-10.53	39.72	46.00	-6.28	QP
6	360.4476	45.77	-9.85	35.92	46.00	-10.08	QP

Remark:

Correct Factor = Cable loss + Antenna factor – Preamplifier;

Level = Reading Level + Correct Factor; Margin = Level - Limit;



Temperature:	26℃	Relative Humidity:	54%
Pressure:	1010 hPa	Polarization :	Vertical
test voltage :	AC 120V/60Hz		
Test Mode :	Mode 4		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	87.7248	42.72	-15.45	27.27	40.00	-12.73	QP
2	139.8508	52.75	-16.17	36.58	43.50	-6.92	QP
3	216.0240	45.50	-12.34	33.16	46.00	-12.84	QP
4	248.5519	45.17	-11.01	34.16	46.00	-11.84	QP
5 !	312.1794	49.71	-9.44	40.27	46.00	-5.73	QP
6 *	383.9318	49.14	-8.50	40.64	46.00	-5.36	QP

Remark:

Correct Factor = Cable loss + Antenna factor – Preamplifier;

Level = Reading Level + Correct Factor; Margin = Level - Limit;

**3.2.8 TEST RESULTS (1ghz~40ghZ)**

802.11a band 1

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5180									
V	10360	56.19	49.05	15.3	37.39	59.83	74	-14.17	PK
V	10360	41.23	49.05	15.3	37.39	44.87	54	-9.13	AV
V	15540	56.65	49.16	15.27	40.45	63.21	74	-10.79	PK
V	15540	39.12	49.16	15.27	40.45	45.68	54	-8.32	AV
H	10360	56.08	49.05	15.3	37.39	59.72	74	-14.28	PK
H	10360	40.46	49.05	15.3	37.39	44.1	54	-9.90	AV
H	15540	59.15	49.16	15.27	40.45	65.71	74	-8.29	PK
H	15540	38.04	49.16	15.27	40.45	44.6	54	-9.40	AV
operation frequency:5200									
V	10400	57.46	49.09	15.34	37.42	61.13	74	-12.87	PK
V	10400	39.38	49.09	15.34	37.42	43.05	54	-10.95	AV
V	15600	59.42	49.18	15.29	40.47	66	74	-8.00	PK
V	15600	38.14	49.18	15.29	40.47	44.72	54	-9.28	AV
H	10400	56.38	49.09	15.34	37.42	60.05	74	-13.95	PK
H	10400	39.78	49.09	15.34	37.42	43.45	54	-10.55	AV
H	15600	59.41	49.18	15.29	40.47	65.99	74	-8.01	PK
H	15600	38.35	49.18	15.29	40.47	44.93	54	-9.07	AV
operation frequency:5240									
V	10480	58.54	49.11	15.37	37.46	62.26	74	-11.74	PK
V	10480	39.36	49.11	15.37	37.46	43.08	54	-10.92	AV
V	15720	59.18	49.21	15.34	40.51	65.82	74	-8.18	PK
V	15720	38.34	49.21	15.34	40.51	44.98	54	-9.02	AV
H	10480	57.06	49.11	15.37	31.31	54.63	74	-19.37	PK
H	10480	45.58	49.11	15.37	31.31	43.15	54	-10.85	AV
H	15720	57.43	49.21	15.34	40.51	64.07	74	-9.93	PK
H	15720	37.58	49.21	15.34	40.51	44.22	54	-9.78	AV
Remark:									
1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit									
2. If peak below the average limit, the average emission was no test.									
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.									



802.11n HT20

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5180									
V	10360	56.73	49.05	15.3	37.39	60.37	74	-13.63	PK
V	10360	38.64	49.05	15.3	37.39	42.28	54	-11.72	AV
V	15540	56.21	49.16	15.27	40.45	62.77	74	-11.23	PK
V	15540	38.33	49.16	15.27	40.45	44.89	54	-9.11	AV
H	10360	56.65	49.05	15.3	37.39	60.29	74	-13.71	PK
H	10360	39.39	49.05	15.3	37.39	43.03	54	-10.97	AV
H	15540	54.15	49.16	15.27	40.45	60.71	74	-13.29	PK
H	15540	38.34	49.16	15.27	40.45	44.9	54	-9.10	AV
operation frequency:5200									
V	10400	56.26	49.09	15.34	37.42	59.93	74	-14.07	PK
V	10400	39.74	49.09	15.34	37.42	43.41	54	-10.59	AV
V	15600	55.31	49.18	15.29	40.47	61.89	74	-12.11	PK
V	15600	38.32	49.18	15.29	40.47	44.9	54	-9.10	AV
H	10400	55.58	49.09	15.34	37.42	59.25	74	-14.75	PK
H	10400	40.34	49.09	15.34	37.42	44.01	54	-9.99	AV
H	15600	55.03	49.18	15.29	40.47	61.61	74	-12.39	PK
H	15600	39.21	49.18	15.29	40.47	45.79	54	-8.21	AV
operation frequency:5240									
V	10480	57.13	49.11	15.37	37.46	60.85	74	-13.15	PK
V	10480	40.58	49.11	15.37	37.46	44.3	54	-9.70	AV
V	15720	54.34	49.21	15.34	40.51	60.98	74	-13.02	PK
V	15720	38.43	49.21	15.34	40.51	45.07	54	-8.93	AV
H	10480	57.18	49.11	15.37	31.31	54.75	74	-19.25	PK
H	10480	44.64	49.11	15.37	31.31	42.21	54	-11.79	AV
H	15720	55.33	49.21	15.34	40.51	61.97	74	-12.03	PK
H	15720	39.25	49.21	15.34	40.51	45.89	54	-8.11	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11n HT40

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5190									
V	10380	56.76	49.07	15.33	37.41	60.43	74	-13.57	PK
V	10380	39.27	49.07	15.33	37.41	42.94	54	-11.06	AV
V	15570	56.21	49.17	15.28	40.46	62.78	74	-11.22	PK
V	15570	38.32	49.17	15.28	40.46	44.89	54	-9.11	AV
H	10380	56.67	49.07	15.33	37.41	60.34	74	-13.66	PK
H	10380	40.33	49.07	15.33	37.41	44	54	-10.00	AV
H	15570	54.65	49.17	15.28	40.46	61.22	74	-12.78	PK
H	15570	38.29	49.17	15.28	40.46	44.86	54	-9.14	AV
operation frequency:5230									
V	10460	57.14	49.11	15.37	37.46	60.86	74	-13.14	PK
V	10460	39.43	49.11	15.37	37.46	43.15	54	-10.85	AV
V	15690	54.48	49.21	15.34	40.51	61.12	74	-12.88	PK
V	15690	38.34	49.21	15.34	40.51	44.98	54	-9.02	AV
H	10460	57.23	49.11	15.37	31.31	54.8	74	-19.20	PK
H	10460	44.83	49.11	15.37	31.31	42.4	54	-11.60	AV
H	15690	55.37	49.21	15.34	40.51	62.01	74	-11.99	PK
H	15690	39.01	49.21	15.34	40.51	45.65	54	-8.35	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11ac HT20

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5180									
V	10360	56.74	49.05	15.3	37.39	60.38	74	-13.62	PK
V	10360	39.56	49.05	15.3	37.39	43.2	54	-10.80	AV
V	15540	56.17	49.16	15.27	40.45	62.73	74	-11.27	PK
V	15540	38.32	49.16	15.27	40.45	44.88	54	-9.12	AV
H	10360	56.13	49.05	15.3	37.39	59.77	74	-14.23	PK
H	10360	38.17	49.05	15.3	37.39	41.81	54	-12.19	AV
H	15540	54.22	49.16	15.27	40.45	60.78	74	-13.22	PK
H	15540	39.39	49.16	15.27	40.45	45.95	54	-8.05	AV
operation frequency:5200									
V	10400	56.54	49.09	15.34	37.42	60.21	74	-13.79	PK
V	10400	41.76	49.09	15.34	37.42	45.43	54	-8.57	AV
V	15600	55.53	49.18	15.29	40.47	62.11	74	-11.89	PK
V	15600	40.37	49.18	15.29	40.47	46.95	54	-7.05	AV
H	10400	55.15	49.09	15.34	37.42	58.82	74	-15.18	PK
H	10400	40.59	49.09	15.34	37.42	44.26	54	-9.74	AV
H	15600	55.04	49.18	15.29	40.47	61.62	74	-12.38	PK
H	15600	41.23	49.18	15.29	40.47	47.81	54	-6.19	AV
operation frequency:5240									
V	10480	57.48	49.11	15.37	37.46	61.2	74	-12.80	PK
V	10480	40.64	49.11	15.37	37.46	44.36	54	-9.64	AV
V	15720	54.33	49.21	15.34	40.51	60.97	74	-13.03	PK
V	15720	39.72	49.21	15.34	40.51	46.36	54	-7.64	AV
H	10480	57.13	49.11	15.37	31.31	54.7	74	-19.30	PK
H	10480	44.55	49.11	15.37	31.31	42.12	54	-11.88	AV
H	15720	55.64	49.21	15.34	40.51	62.28	74	-11.72	PK
H	15720	40.06	49.21	15.34	40.51	46.7	54	-7.30	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11ac HT40

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5190									
V	10380	56.74	49.07	15.33	37.41	60.41	74	-13.59	PK
V	10380	40.28	49.07	15.33	37.41	43.95	54	-10.05	AV
V	15570	56.36	49.17	15.28	40.46	62.93	74	-11.07	PK
V	15570	39.71	49.17	15.28	40.46	46.28	54	-7.72	AV
H	10380	56.57	49.07	15.33	37.41	60.24	74	-13.76	PK
H	10380	40.44	49.07	15.33	37.41	44.11	54	-9.89	AV
H	15570	54.56	49.17	15.28	40.46	61.13	74	-12.87	PK
H	15570	39.31	49.17	15.28	40.46	45.88	54	-8.12	AV
operation frequency:5230									
V	10460	57.14	49.11	15.37	37.46	60.86	74	-13.14	PK
V	10460	41.19	49.11	15.37	37.46	44.91	54	-9.09	AV
V	15690	54.47	49.21	15.34	40.51	61.11	74	-12.89	PK
V	15690	39.32	49.21	15.34	40.51	45.96	54	-8.04	AV
H	10460	57.14	49.11	15.37	31.31	54.71	74	-19.29	PK
H	10460	44.56	49.11	15.37	31.31	42.13	54	-11.87	AV
H	15690	55.35	49.21	15.34	40.51	61.99	74	-12.01	PK
H	15690	40.02	49.21	15.34	40.51	46.66	54	-7.34	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11ac HT80

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5210									
V	10420	56.29	49.07	15.33	37.41	59.96	74	-14.04	PK
V	10420	41.62	49.07	15.33	37.41	45.29	54	-8.71	AV
V	15630	56.13	49.17	15.28	40.46	62.7	74	-11.30	PK
V	15630	39.14	49.17	15.28	40.46	45.71	54	-8.29	AV
H	10420	56.36	49.07	15.33	37.41	60.03	74	-13.97	PK
H	10420	41.21	49.07	15.33	37.41	44.88	54	-9.12	AV
H	15630	54.08	49.17	15.28	40.46	60.65	74	-13.35	PK
H	15630	40.34	49.17	15.28	40.46	46.91	54	-7.09	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11a band 4

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5745									
V	11490	53.26	49.05	15.3	37.39	56.9	74	-17.10	PK
V	11490	41.34	49.05	15.3	37.39	44.98	54	-9.02	AV
V	17235	51.52	49.16	15.27	40.45	58.08	68.2	-10.12	PK
V	17235	40.84	49.16	15.27	40.45	47.4	54	-6.60	AV
H	11490	50.36	49.05	15.3	37.39	54	74	-20.00	PK
H	11490	42.27	49.05	15.3	37.39	45.91	54	-8.09	AV
H	17235	50.33	49.16	15.27	40.45	56.89	68.2	-11.31	PK
H	17235	40.55	49.16	15.27	40.45	47.11	54	-6.89	AV
operation frequency:5785									
V	11570	51.33	49.09	15.34	37.42	55	74	-19.00	PK
V	11570	41.77	49.09	15.34	37.42	45.44	54	-8.56	AV
V	17355	50.25	49.18	15.29	40.47	56.83	68.2	-11.37	PK
V	17355	40.36	49.18	15.29	40.47	46.94	54	-7.06	AV
H	11570	50.61	49.09	15.34	37.42	54.28	74	-19.72	PK
H	11570	42.22	49.09	15.34	37.42	45.89	54	-8.11	AV
H	17355	48.26	49.18	15.29	40.47	54.84	68.2	-13.36	PK
H	17355	40.67	49.18	15.29	40.47	47.25	54	-6.75	AV
operation frequency:5825									
V	11650	52.14	49.11	15.37	37.46	55.86	74	-18.14	PK
V	11650	41.56	49.11	15.37	37.46	45.28	54	-8.72	AV
V	17475	49.12	49.21	15.34	40.51	55.76	68.2	-12.44	PK
V	17475	40.64	49.21	15.34	40.51	47.28	54	-6.72	AV
H	11650	57.16	49.11	15.37	31.31	54.73	74	-19.27	PK
H	11650	48.37	49.11	15.37	31.31	45.94	54	-8.06	AV
H	17475	49.13	49.21	15.34	40.51	55.77	68.2	-12.43	PK
H	17475	40.11	49.21	15.34	40.51	46.75	54	-7.25	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11n HT20

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5745									
V	11490	49.63	49.05	15.3	37.39	53.27	74	-20.73	PK
V	11490	42.48	49.05	15.3	37.39	46.12	54	-7.88	AV
V	17235	48.64	49.16	15.27	40.45	55.2	68.2	-13.00	PK
V	17235	40.76	49.16	15.27	40.45	47.32	54	-6.68	AV
H	11490	49.32	49.05	15.3	37.39	52.96	74	-21.04	PK
H	11490	41.83	49.05	15.3	37.39	45.47	54	-8.53	AV
H	17235	48.38	49.16	15.27	40.45	54.94	68.2	-13.26	PK
H	17235	40.65	49.16	15.27	40.45	47.21	54	-6.79	AV
operation frequency:5785									
V	11570	52.42	49.09	15.34	37.42	56.09	74	-17.91	PK
V	11570	42.14	49.09	15.34	37.42	45.81	54	-8.19	AV
V	17355	49.36	49.18	15.29	40.47	55.94	68.2	-12.26	PK
V	17355	40.23	49.18	15.29	40.47	46.81	54	-7.19	AV
H	11570	49.28	49.09	15.34	37.42	52.95	74	-21.05	PK
H	11570	43.44	49.09	15.34	37.42	47.11	54	-6.89	AV
H	17355	49.52	49.18	15.29	40.47	56.1	68.2	-12.10	PK
H	17355	40.06	49.18	15.29	40.47	46.64	54	-7.36	AV
operation frequency:5825									
V	11650	51.14	49.11	15.37	37.46	54.86	74	-19.14	PK
V	11650	41.66	49.11	15.37	37.46	45.38	54	-8.62	AV
V	17475	48.18	49.21	15.34	40.51	54.82	68.2	-13.38	PK
V	17475	40.41	49.21	15.34	40.51	47.05	54	-6.95	AV
H	11650	57.63	49.11	15.37	31.31	55.2	74	-18.80	PK
H	11650	44.22	49.11	15.37	31.31	41.79	54	-12.21	AV
H	17475	49.37	49.21	15.34	40.51	56.01	68.2	-12.19	PK
H	17475	40.45	49.21	15.34	40.51	47.09	54	-6.91	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11n HT40

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5755									
V	11510	49.14	49.07	15.33	37.41	52.81	74	-21.19	PK
V	11510	41.52	49.07	15.33	37.41	45.19	54	-8.81	AV
V	17265	49.13	49.17	15.28	40.46	55.7	68.2	-12.50	PK
V	17265	40.74	49.17	15.28	40.46	47.31	54	-6.69	AV
H	11510	48.53	49.07	15.33	37.41	52.2	74	-21.80	PK
H	11510	41.32	49.07	15.33	37.41	44.99	54	-9.01	AV
H	17265	49.24	49.17	15.28	40.46	55.81	68.2	-12.39	PK
H	17265	40.59	49.17	15.28	40.46	47.16	54	-6.84	AV
operation frequency:5795									
V	11590	49.44	49.11	15.37	37.46	53.16	74	-20.84	PK
V	11590	41.63	49.11	15.37	37.46	45.35	54	-8.65	AV
V	17385	48.51	49.21	15.34	40.51	55.15	68.2	-13.05	PK
V	17385	40.48	49.21	15.34	40.51	47.12	54	-6.88	AV
H	11590	57.36	49.11	15.37	31.31	54.93	74	-19.07	PK
H	11590	44.52	49.11	15.37	31.31	42.09	54	-11.91	AV
H	17385	48.05	49.21	15.34	40.51	54.69	68.2	-13.51	PK
H	17385	40.53	49.21	15.34	40.51	47.17	54	-6.83	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11ac HT20

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5745									
V	11490	49.44	49.05	15.3	37.39	53.08	74	-20.92	PK
V	11490	42.63	49.05	15.3	37.39	46.27	54	-7.73	AV
V	17235	48.02	49.16	15.27	40.45	54.58	68.2	-13.62	PK
V	17235	40.11	49.16	15.27	40.45	46.67	54	-7.33	AV
H	11490	48.29	49.05	15.3	37.39	51.93	74	-22.07	PK
H	11490	41.65	49.05	15.3	37.39	45.29	54	-8.71	AV
H	17235	48.51	49.16	15.27	40.45	55.07	68.2	-13.13	PK
H	17235	40.63	49.16	15.27	40.45	47.19	54	-6.81	AV
operation frequency:5785									
V	11570	48.24	49.09	15.34	37.42	51.91	74	-22.09	PK
V	11570	41.73	49.09	15.34	37.42	45.4	54	-8.60	AV
V	17355	49.38	49.18	15.29	40.47	55.96	68.2	-12.24	PK
V	17355	40.64	49.18	15.29	40.47	47.22	54	-6.78	AV
H	11570	49.46	49.09	15.34	37.42	53.13	74	-20.87	PK
H	11570	43.31	49.09	15.34	37.42	46.98	54	-7.02	AV
H	17355	49.32	49.18	15.29	40.47	55.9	68.2	-12.30	PK
H	17355	40.47	49.18	15.29	40.47	47.05	54	-6.95	AV
operation frequency:5825									
V	11650	49.23	49.11	15.37	37.46	52.95	74	-21.05	PK
V	11650	41.42	49.11	15.37	37.46	45.14	54	-8.86	AV
V	17475	48.11	49.21	15.34	40.51	54.75	68.2	-13.45	PK
V	17475	40.57	49.21	15.34	40.51	47.21	54	-6.79	AV
H	11650	57.65	49.11	15.37	31.31	55.22	74	-18.78	PK
H	11650	44.16	49.11	15.37	31.31	41.73	54	-12.27	AV
H	17475	48.53	49.21	15.34	40.51	55.17	68.2	-13.03	PK
H	17475	40.24	49.21	15.34	40.51	46.88	54	-7.12	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11ac HT40

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5755									
V	11510	49.36	49.07	15.33	37.41	53.03	74	-20.97	PK
V	11510	42.18	49.07	15.33	37.41	45.85	54	-8.15	AV
V	17265	48.64	49.17	15.28	40.46	55.21	68.2	-12.99	PK
V	17265	41.43	49.17	15.28	40.46	48	54	-6.00	AV
H	11510	48.55	49.07	15.33	37.41	52.22	74	-21.78	PK
H	11510	42.61	49.07	15.33	37.41	46.28	54	-7.72	AV
H	17265	48.31	49.17	15.28	40.46	54.88	68.2	-13.32	PK
H	17265	40.24	49.17	15.28	40.46	46.81	54	-7.19	AV
operation frequency:5795									
V	11590	49.56	49.11	15.37	37.46	53.28	74	-20.72	PK
V	11590	41.35	49.11	15.37	37.46	45.07	54	-8.93	AV
V	17385	48.11	49.21	15.34	40.51	54.75	68.2	-13.45	PK
V	17385	40.62	49.21	15.34	40.51	47.26	54	-6.74	AV
H	11590	57.19	49.11	15.37	31.31	54.76	74	-19.24	PK
H	11590	44.88	49.11	15.37	31.31	42.45	54	-11.55	AV
H	17385	48.64	49.21	15.34	40.51	55.28	68.2	-12.92	PK
H	17385	40.53	49.21	15.34	40.51	47.17	54	-6.83	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11ac HT80

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5775									
V	11550	48.12	49.07	15.33	37.41	51.79	74	-22.21	PK
V	11550	42.65	49.07	15.33	37.41	46.32	54	-7.68	AV
V	17325	49.17	49.17	15.28	40.46	55.74	68.2	-12.46	PK
V	17325	40.22	49.17	15.28	40.46	46.79	54	-7.21	AV
H	11550	48.46	49.07	15.33	37.41	52.13	74	-21.87	PK
H	11550	41.14	49.07	15.33	37.41	44.81	54	-9.19	AV
H	17325	48.68	49.17	15.28	40.46	55.25	68.2	-12.95	PK
H	17325	40.56	49.17	15.28	40.46	47.13	54	-6.87	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

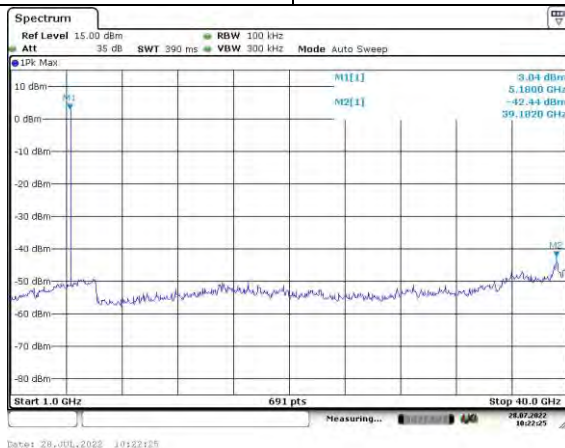


For Conducted

During the test, pre-scan the all modulation, the modulation below were found to have the worst test results, as reflected in the report.

Test channel:

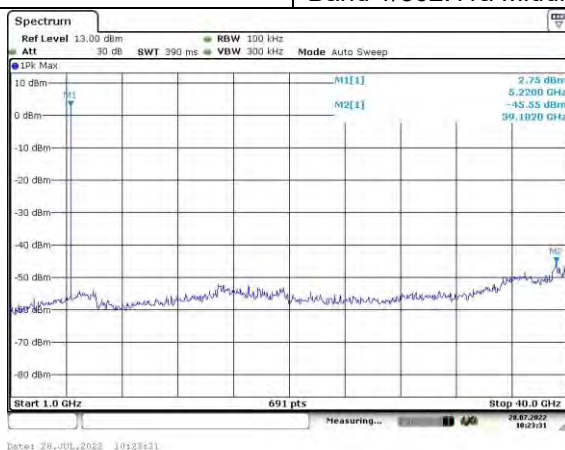
Band 1/802.11a Lowest channel



0.03Hz~40GHz

Test channel:

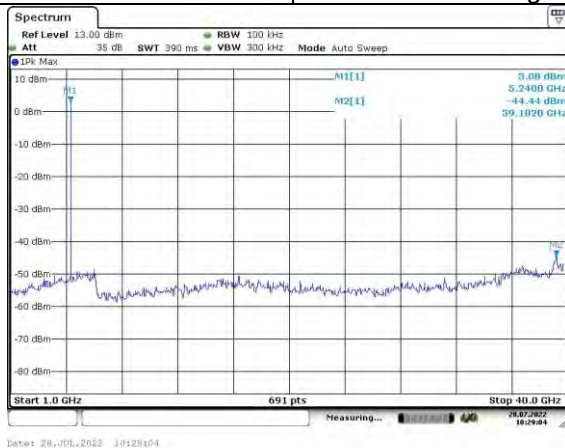
Band 1/802.11a Middle channel



0.03GHz~40GHz

Test channel:

Band 1/802.11a Highest channel

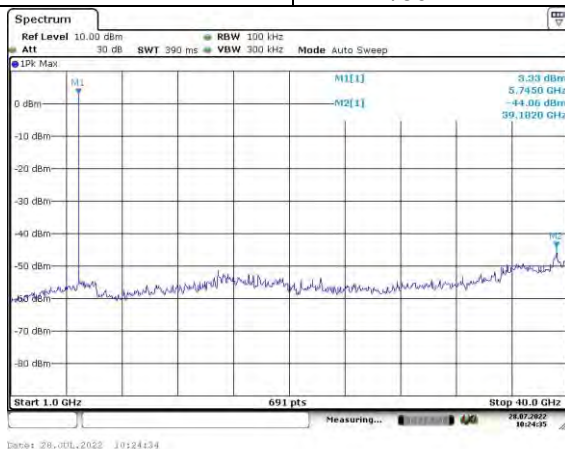


0.03GHz~40GHz



Test channel:

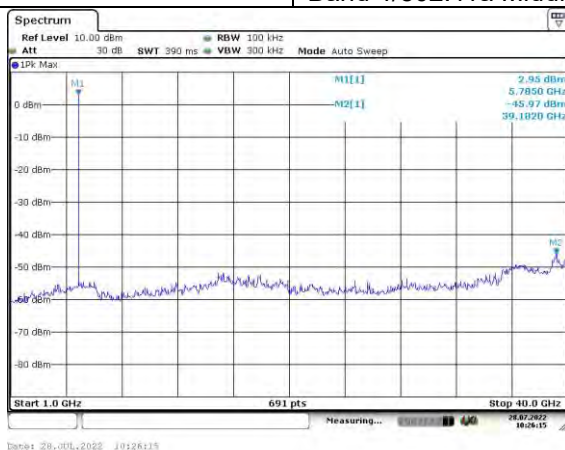
Band 4/802.11a Lowest channel



0.03Hz~40GHz

Test channel:

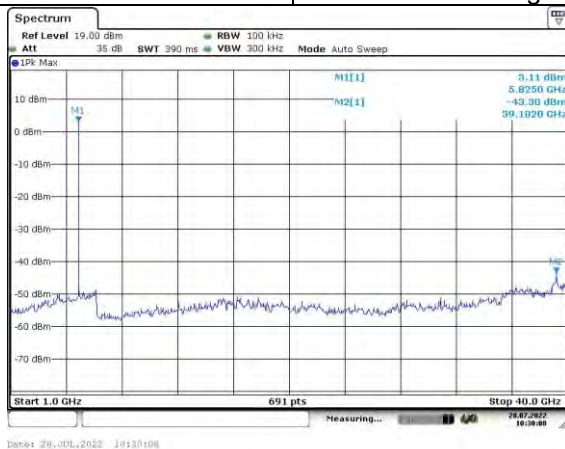
Band 4/802.11a Middle channel



0.03GHz~40GHz

Test channel:

Band 4/802.11a Highest channel



0.03GHz~40GHz



3.3 CONDUCTED BAND EMISSION MEASUREMENT

3.3.1 TEST REQUIREMENT:

FCC Part15 C Section 15.209 and 15.407

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band: 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 10dBm/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.

Spectrum Parameter	Setting	
Attenuation	Auto	
Start Frequency	5150MHz	5725MHz
Stop Frequency	5250MHz	5850MHz
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average	

3.3.2 TEST PROCEDURE

Test method: FCC KDB 789033 G)& Parts 15.407(b)(4) & 15.209(a)

3.3.3 DEVIATION FROM TEST STANDARD

No deviation

3.3.4 TEST SETUP



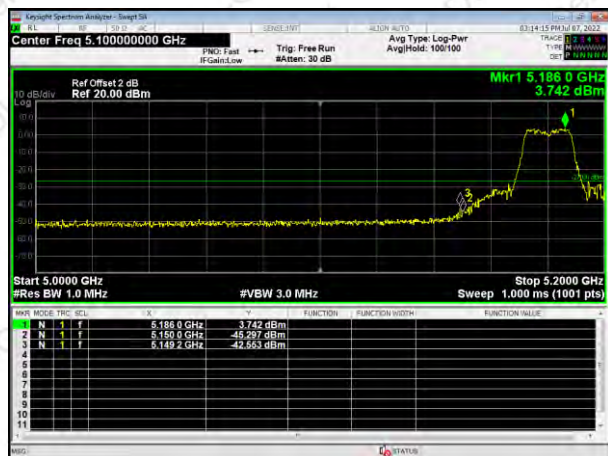
3.3.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

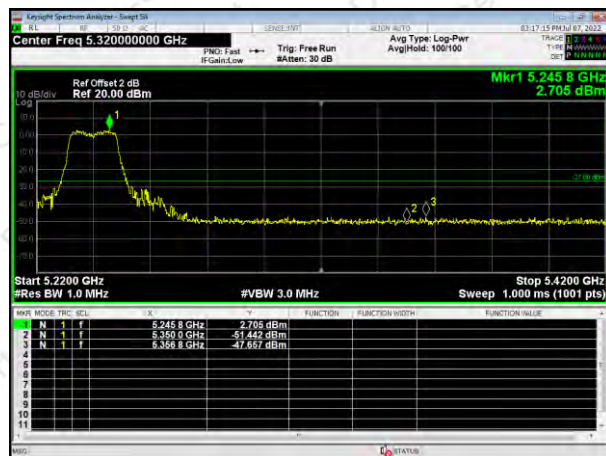


3.3.6 TEST RESULT

802.11a

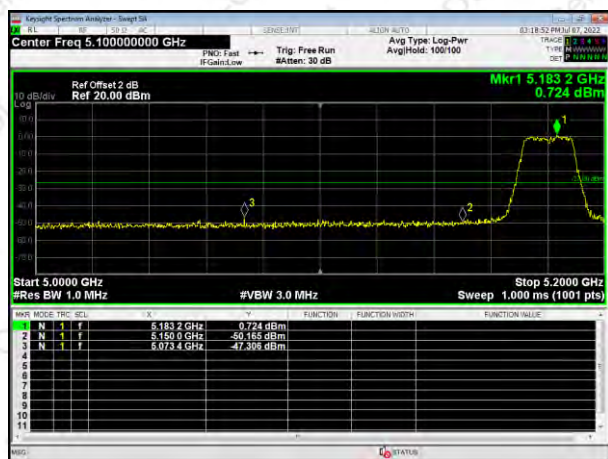


5180MHz

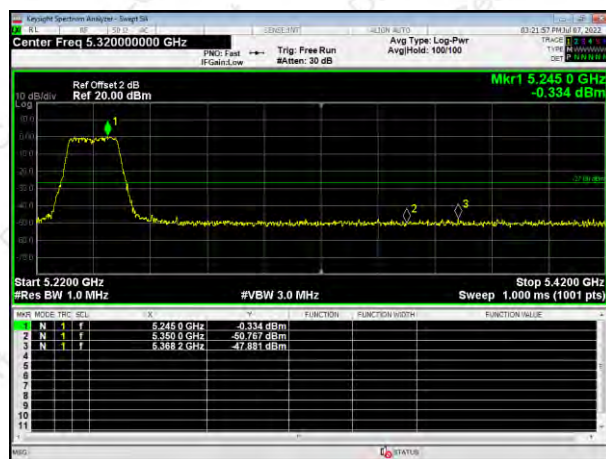


5240MHz

802.11n HT20

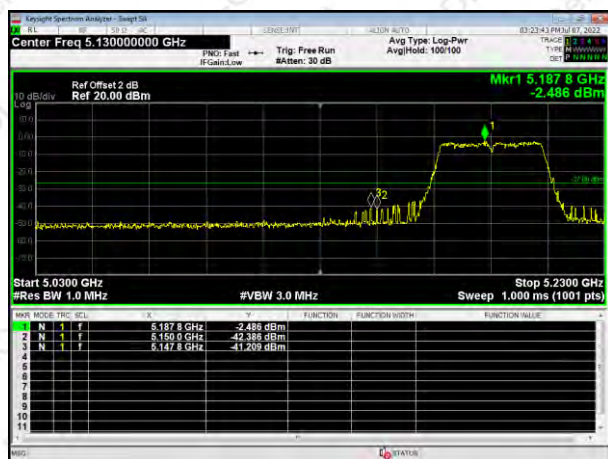


5180MHz

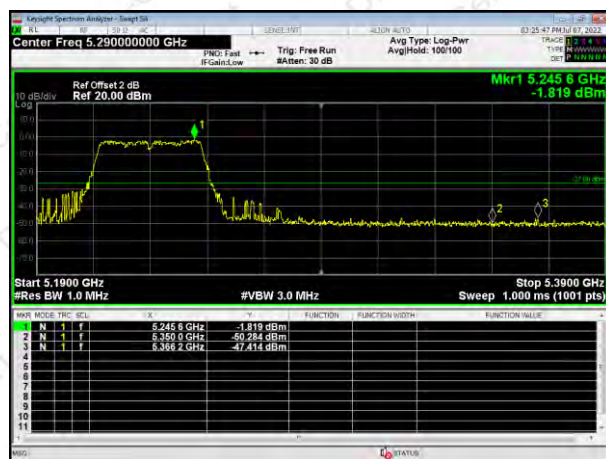


5240MHz

802.11n HT40



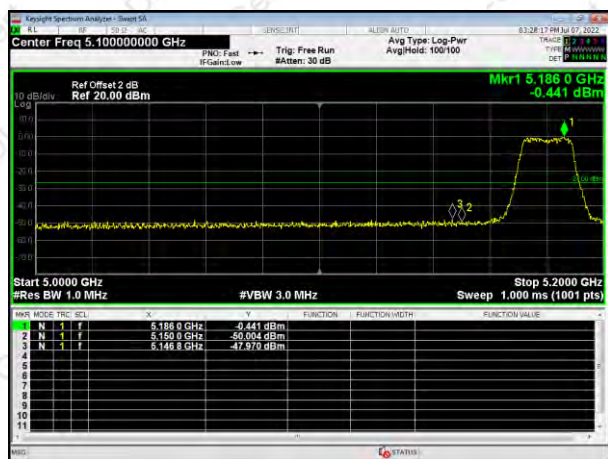
5190MHz



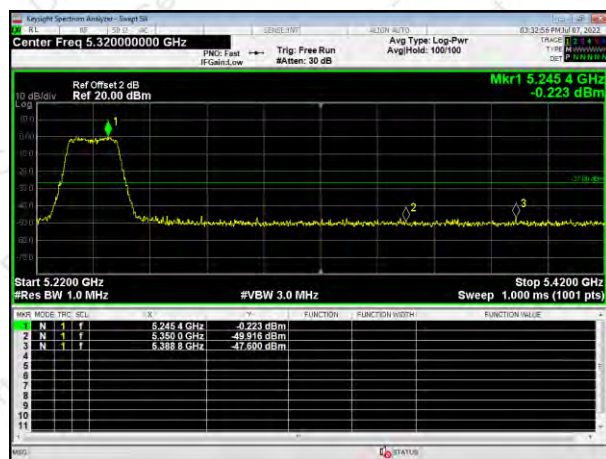
5230MHz



802.11ac HT20

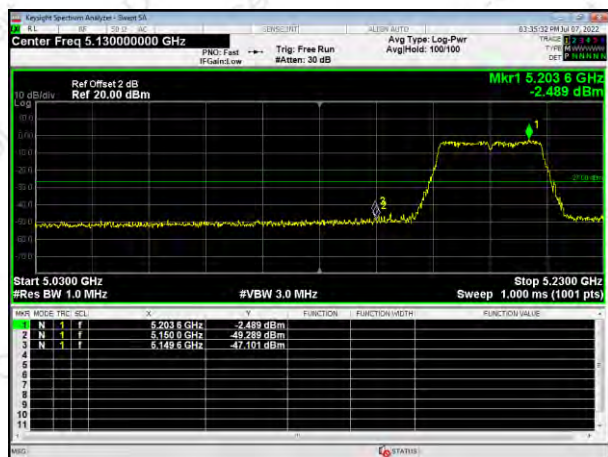


5180MHz



5240MHz

802.11ac HT40

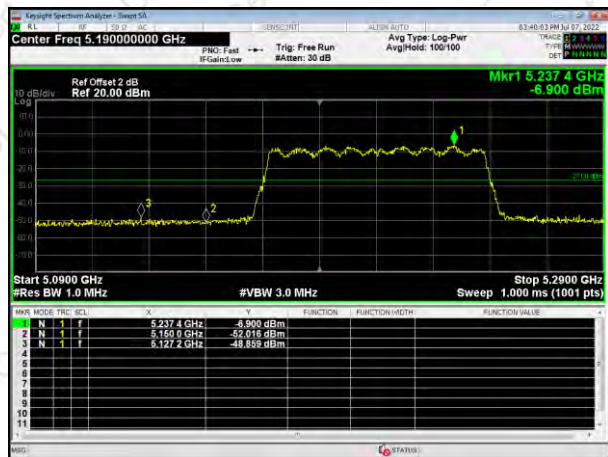


5190MHz



5230MHz

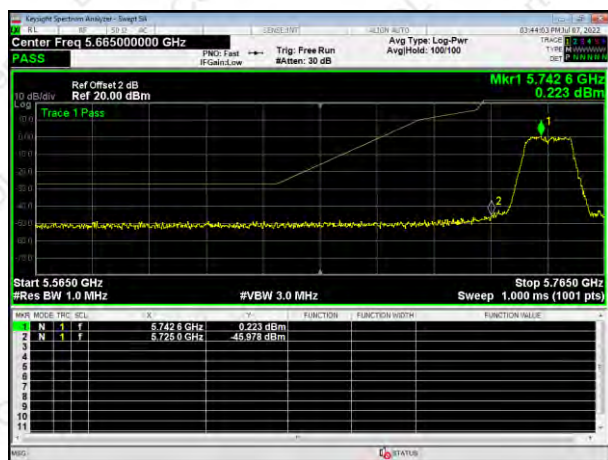
802.11ac HT80



5210MHz



802.11a



5745MHz



5825MHz

802.11n HT20

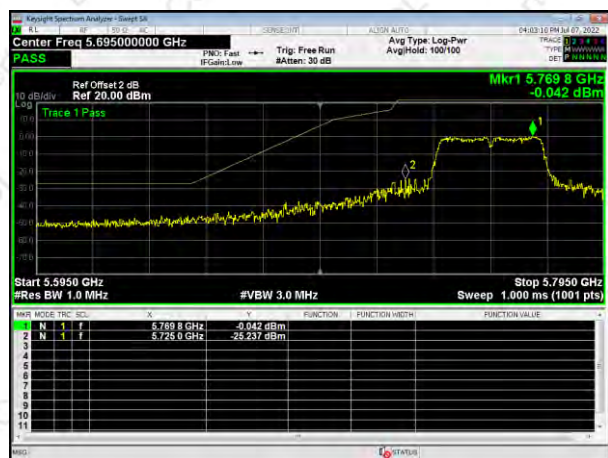


5745MHz



5825MHz

802.11n HT40



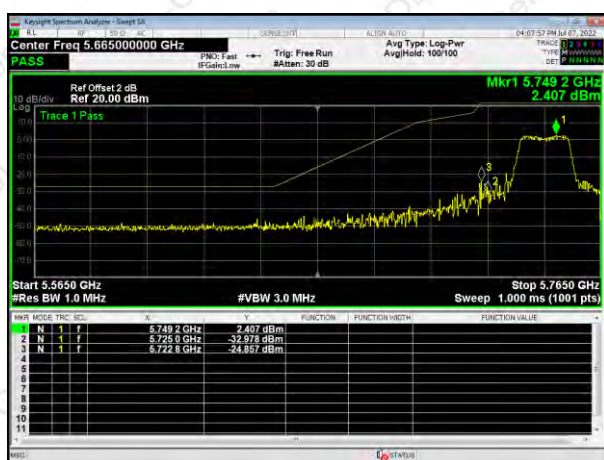
5755MHz



5795MHz



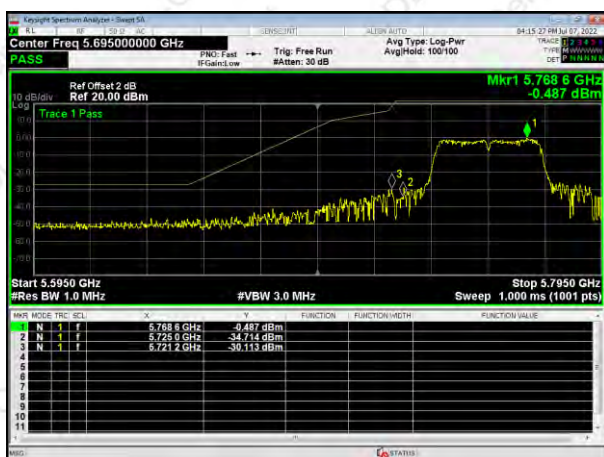
802.11ac HT20



5745MHz

5825MHz

802.11ac HT40



5755MHz

5795MHz

802.11ac HT80



5775MHz



4. PEAK OUTPUT POWER

4.1 APPLIED PROCEDURES / LIMIT

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

4.1.1 TEST PROCEDURE

- The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,
- Spectrum Setting : RBW > the 20 dB bandwidth of the emission being measured
Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel
VBW $\geq$ RBW
Sweep = auto
Detector function = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
Trace = max hold

4.1.2 DEVIATION FROM STANDARD

No deviation.

4.1.3 TEST SETUP



4.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



4.1.5 TEST RESULTS

Temperature:	25 °C	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz

Band	Mode	Test Channel	Peak Output Power (dBm)	Duty factor (dB)	Total Output Power(dB)	LIMIT (dBm)
Band 1	802.11a	Low	12.31	0.85	13.16	23.98
		Moddle	11.59	0.85	12.44	23.98
		High	11.25	0.85	12.1	23.98
	802.11n HT20	Low	9.69	0.13	9.82	23.98
		Moddle	9.64	0.13	9.77	23.98
		High	9.61	0.13	9.74	23.98
	802.11n HT40	Low	9.49	0.26	9.75	23.98
		High	10.65	0.26	10.91	23.98
	802.11ac HT20	Low	9.04	0.14	9.18	23.98
		Moddle	9.24	0.14	9.38	23.98
		High	9.33	0.14	9.47	23.98
	802.11ac HT40	Low	9.39	0.27	9.66	23.98
		High	10.51	0.27	10.78	23.98
	802.11ac HT80	/	7.03	0.51	7.54	23.98

Band	Mode	Test Channel	Peak Output Power (dBm)	Duty factor (dB)	Total Output Power(dB)	LIMIT (dBm)
Band 4	802.11a	Low	8.84	0.85	9.69	30
		Moddle	9.43	0.85	10.28	30
		High	9.39	0.85	10.24	30
	802.11n HT20	Low	12.65	0.14	12.79	30
		Moddle	12.88	0.14	13.02	30
		High	12.53	0.14	12.67	30
	802.11n HT40	Low	13.06	0.26	13.32	30
		High	12.71	0.26	12.97	30
	802.11ac HT20	Low	12.40	0.14	12.54	30
		Moddle	12.98	0.14	13.12	30
		High	12.61	0.14	12.75	30
	802.11ac HT40	Low	11.52	0.27	11.79	30
		High	12.32	0.27	12.59	30
	802.11ac HT80	/	10.81	0.51	11.32	30



802.11a



802.11n HT20



5180MHz



5180MHz



5200MHz



5200MHz

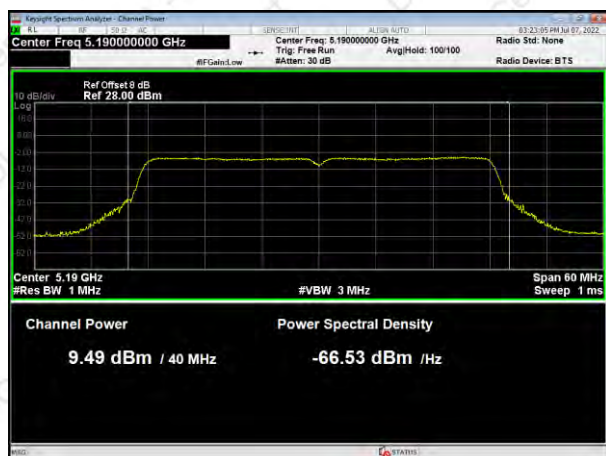


5240MHz

5240MHz



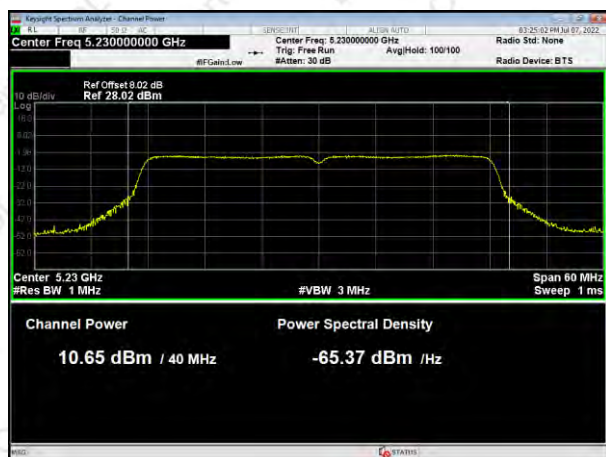
802.11n HT40



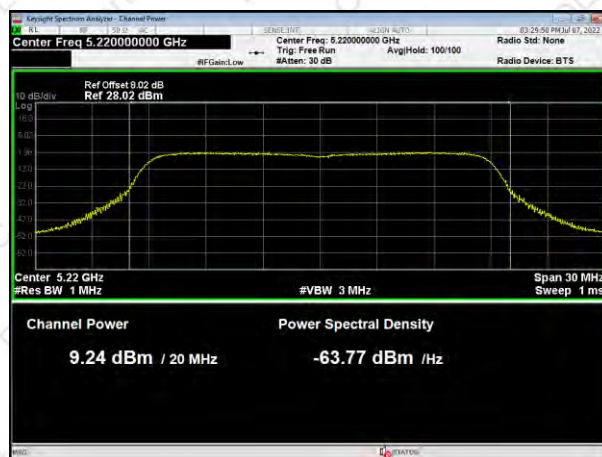
802.11ac HT20



5190MHz



5180



5230MHz



5200

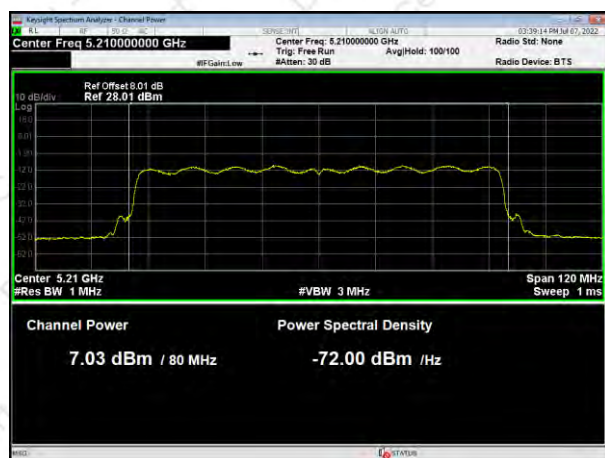
5240



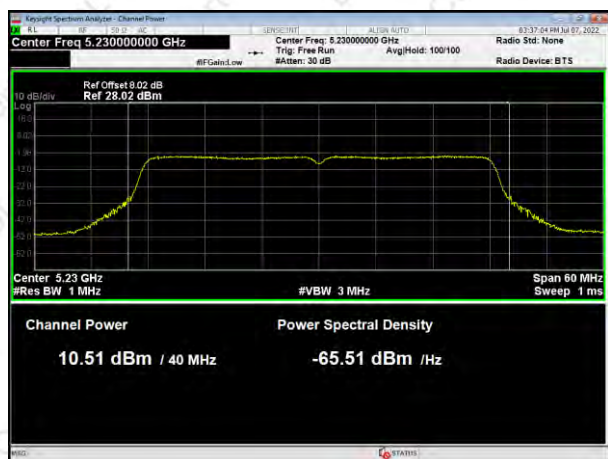
802.11ac HT40



802.11ac HT80



5190MHz



5210

5230MHz



802.11a



802.11n HT20



5745MHz



5745MHz



5785MHz



5785MHz



5825MHz

5825MHz



802.11n HT40



802.11ac HT20



5755MHz

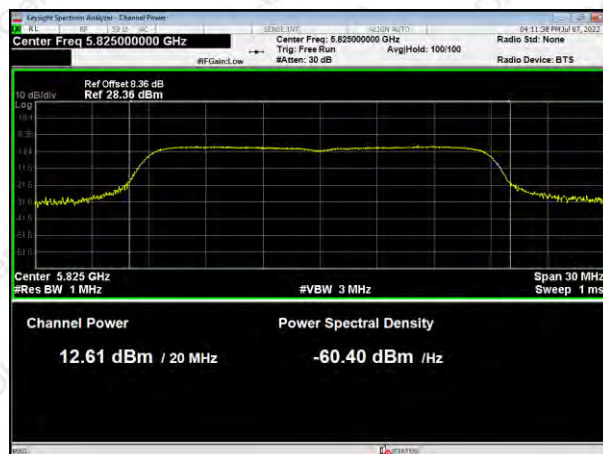


5745MHz



5795MHz

5785MHz



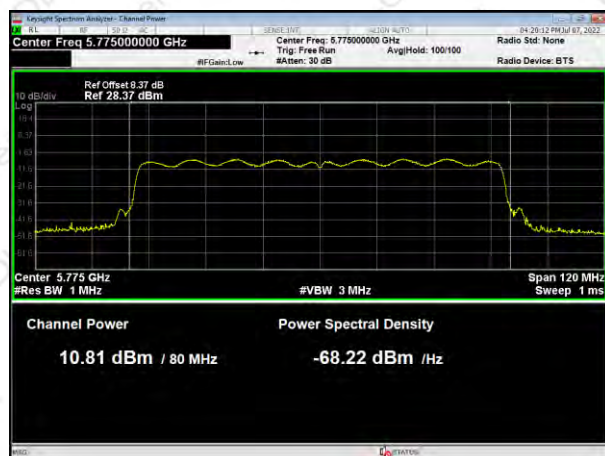
5825MHz



802.11ac HT40



802.11ac HT80



5755MHz



5775MHz

5795MHz



5. POWER SPECTRAL DENSITY TEST

5.1 APPLIED PROCEDURES / LIMIT

In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.
In addition, the maximum power spectral density shall not exceed 30 dBm in any 500 kHz band.

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	= the frequency band of operation
RB	RBW $\geq$ 1MHz for band 1 RBW $\geq$ 510KHz for band 4
VB	VBW $\geq$ 3RBW
Detector	RMS (i.e., power averaging).
Trace	Max Hold
Sweep Time	Auto

5.1.1 TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. The testing follows FCC KDB 789033 D02.
3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to Spectrum.
4. For U-NII1, U-NII-2A, U-NII-2C Band:
Set RBW=1MHz, VBW=3MHz, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)
For U-NII-3 Band:
Set RBW=510 kHz, VBW=3*RBW, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)
5. Use the cursor on spectrum to peak search the highest level of trace
6. Record the max. reading and add 10 log(1/duty cycle).
we test all antennas, the antenna 1 was worst mode and the data recording in the report.
7. Duty factor Reference is made to the test results in Section 7.1.5.

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



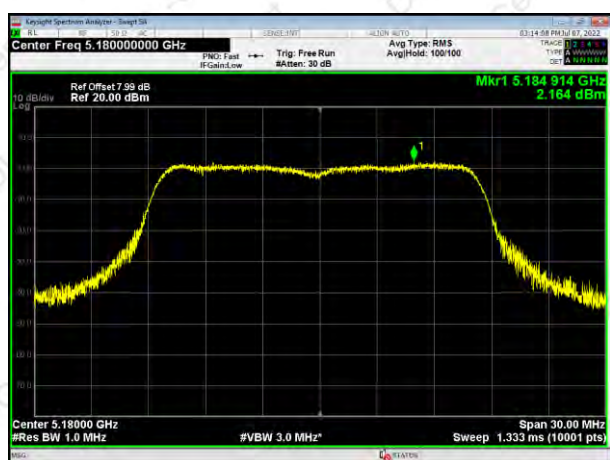
5.1.5 TEST RESULTS

	Mode	Test Channel	Reading Level (dBm)	Duty factor (dB)	PSD (dBm/MHz)	Limit (dBm)	Result
Band1	802.11a	Low	2.164	0.85	3.014	11.00	PASS
		Moddle	1.409	0.85	2.259	11.00	PASS
		High	1.029	0.85	1.879	11.00	PASS
	802.11n20	Low	-1.151	0.13	-1.021	11.00	PASS
		Moddle	-0.959	0.13	-0.829	11.00	PASS
		High	-0.995	0.13	-0.865	11.00	PASS
	802.11n40	Low	-3.973	0.26	-3.713	11.00	PASS
		High	-3.339	0.26	-3.079	11.00	PASS
	802.11ac20	Low	-1.675	0.14	-1.535	11.00	PASS
		Moddle	-1.316	0.14	-1.176	11.00	PASS
		High	-1.185	0.14	-1.045	11.00	PASS
	802.11ac40	Low	-4.134	0.27	-3.864	11.00	PASS
		High	-3.047	0.27	-2.777	11.00	PASS
	802.11ac80	/	-8.589	0.51	-8.079	11.00	PASS

	Mode	Test Channel	Reading Level (dBm)	Duty factor (dB)	PSD (dBm/500kHz)	Limit (dBm)	Result
Band4	802.11a	Low	-3.78	0.85	-2.93	30.00	PASS
		Moddle	-3.453	0.85	-2.603	30.00	PASS
		High	-3.257	0.85	-2.407	30.00	PASS
	802.11n20	Low	-0.897	0.14	-0.757	30.00	PASS
		Moddle	-0.936	0.14	-0.796	30.00	PASS
		High	-1.198	0.14	-1.058	30.00	PASS
	802.11n40	Low	-4.006	0.26	-3.746	30.00	PASS
		High	-4.014	0.26	-3.754	30.00	PASS
	802.11ac20	Low	-1.492	0.14	-1.352	30.00	PASS
		Moddle	-0.73	0.14	-0.59	30.00	PASS
		High	-1.147	0.14	-1.007	30.00	PASS
	802.11ac40	Low	-4.979	0.27	-4.709	30.00	PASS
		High	-4.314	0.27	-4.044	30.00	PASS
	802.11ac80	/	-8.05	0.51	-7.54	30.00	PASS



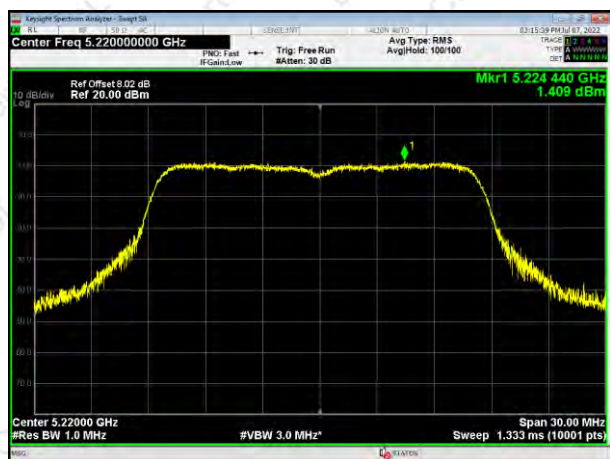
802.11a



802.11n HT20



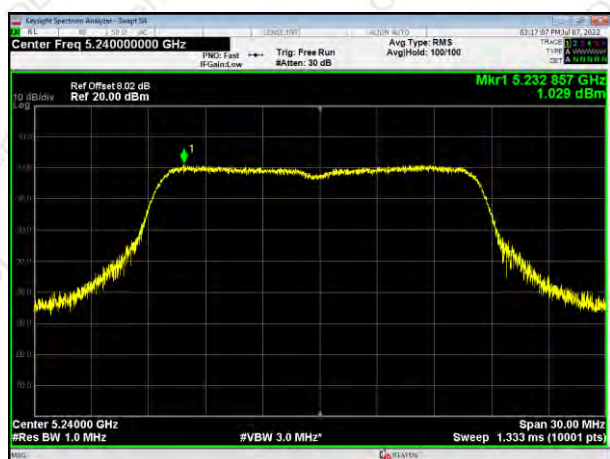
5180MHz



5180MHz



5200MHz



5200MHz



5240MHz

5240MHz



802.11n HT40



802.11ac HT20



5190MHz



5180

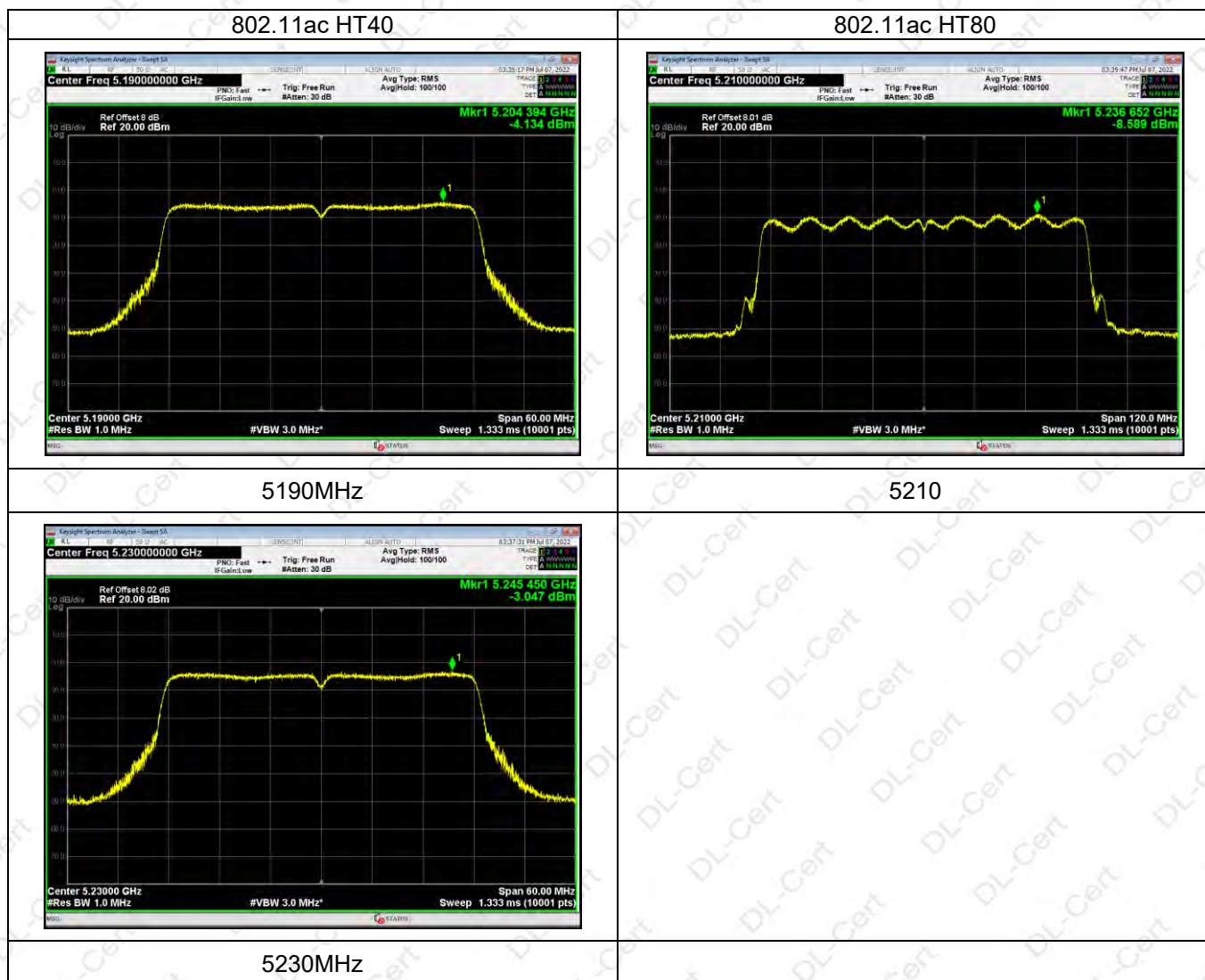


5230MHz



5200

5240





802.11a



802.11n HT20



5745MHz



5745MHz



5785MHz



5785MHz



5825MHz

5825MHz



802.11n HT40



802.11ac HT20



5755MHz



5745MHz



5795MHz



5785MHz

5825MHz



802.11ac HT40



802.11ac HT80



5755MHz



5775MHz

5795MHz



6. 6DB&26DB&99% BANDWIDTH TEST

6.1 APPLIED PROCEDURES / LIMIT

The 26 dB bandwidth is used to determine the conducted power limits.

There is no limit bandwidth for U-NII-1, U-NII-2-A and U-NII-2-C.

The minimum of 6dB Bandwidth measurement is 0.5 MHz for U-NII-3

6.1.1 TEST PROCEDURE

6dB Bandwidth	
Spectrum Parameters	Setting
RBW	100KHz
VBW	300KHz
Span	30MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

26dB Bandwidth	
Spectrum Parameters	Setting
RBW	approximately 1% of the emission bandwidth
VBW	>RBW
Span	30MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

99% Occupied Bandwidth	
Spectrum Parameters	Setting
RBW	1% to 5% of the OBW
VBW	Approximately three times the RBW
Span	between 1.5 times and 5.0 times the OBW
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP





6.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.5 TEST RESULTS

		Test Channel	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Result
Band 1	802.11a	Low	19.51	16.417	Pass
		Middle	19.63	16.425	Pass
		High	19.66	16.418	Pass
	802.11n HT20	Low	20.74	17.633	Pass
		Middle	20.70	17.616	Pass
		High	20.69	17.601	Pass
	802.11n HT40	Low	43.22	36.397	Pass
		High	43.33	36.385	Pass
	802.11ac HT20	Low	20.76	17.621	Pass
		Middle	20.72	17.614	Pass
		High	20.78	17.623	Pass
	802.11ac HT40	Low	42.77	36.378	Pass
		High	42.74	36.368	Pass
	802.11ac HT80	/	82.55	75.483	Pass

		Test Channel	6dB Bandwidth (MHz)	6dB Bandwidth Limit (MHz)	Result
Band 4	802.11a	Low	16.44	>0.5	Pass
		Middle	16.41	>0.5	Pass
		High	16.44	>0.5	Pass
	802.11n HT20	Low	17.03	>0.5	Pass
		Middle	17.11	>0.5	Pass
		High	17.29	>0.5	Pass
	802.11n HT40	Low	36.03	>0.5	Pass
		High	36.29	>0.5	Pass
	802.11ac HT20	Low	17.52	>0.5	Pass
		Middle	17.34	>0.5	Pass
		High	17.33	>0.5	Pass
	802.11ac HT40	Low	35.94	>0.5	Pass
		High	36.29	>0.5	Pass
	802.11ac HT80	/	75.14	>0.5	Pass



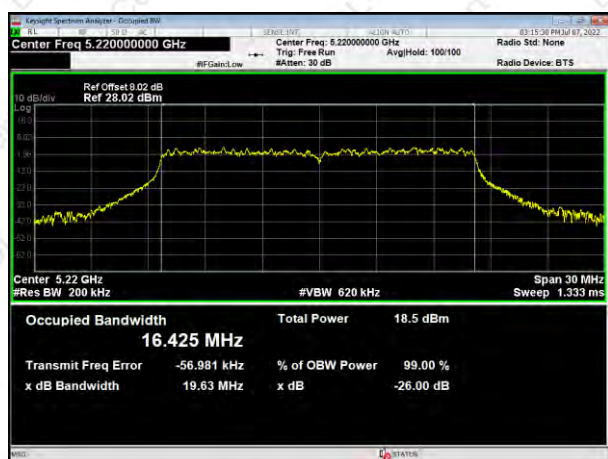
802.11a



802.11n HT20



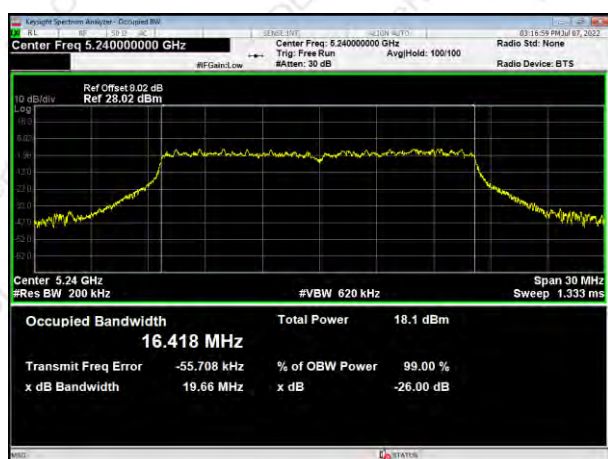
5180MHz



5180MHz



5200MHz



5200MHz



5240MHz

5240MHz



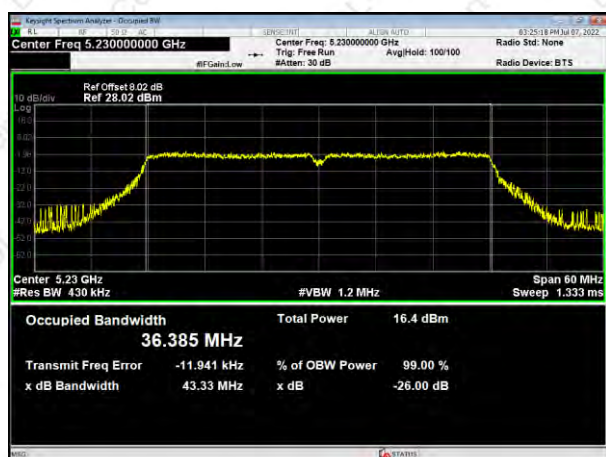
802.11n HT40



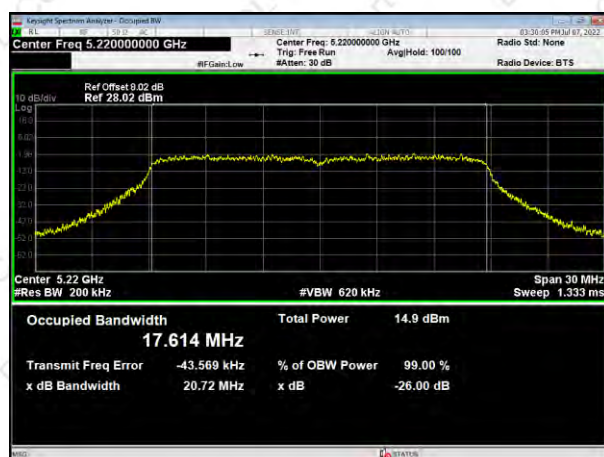
802.11ac HT20



5190MHz



5180



5230MHz



5200

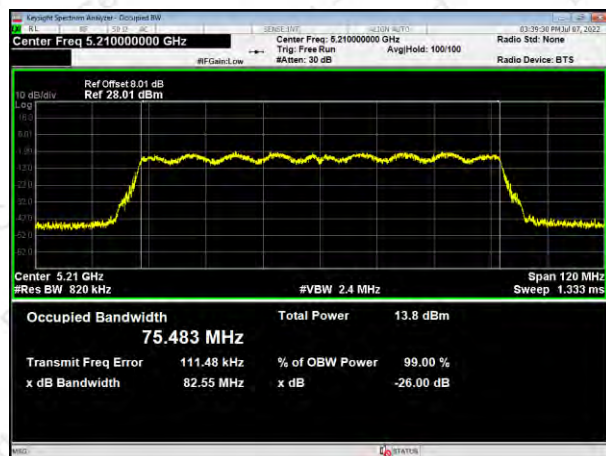
5240



802.11ac HT40



802.11ac HT80



5190MHz



5210

5230MHz



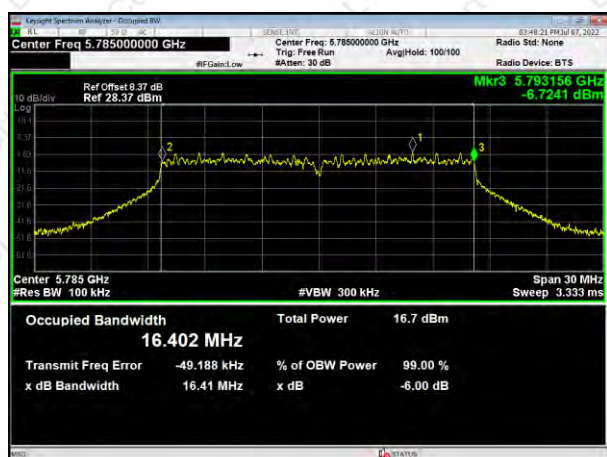
802.11a



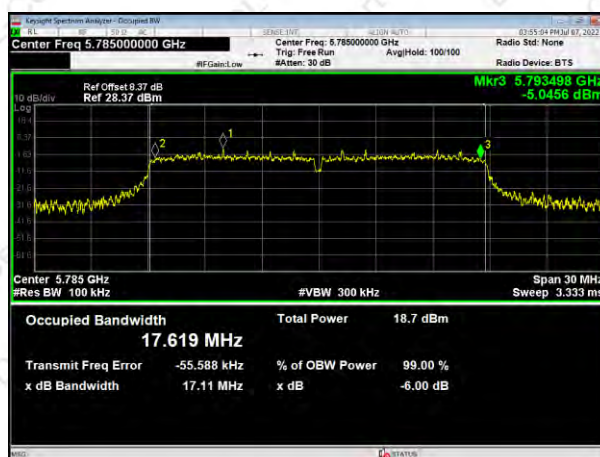
802.11n HT20



5745MHz



5745MHz



5785MHz



5785MHz



5825MHz

5825MHz



802.11n HT40



802.11ac HT20



5755MHz



5745MHz



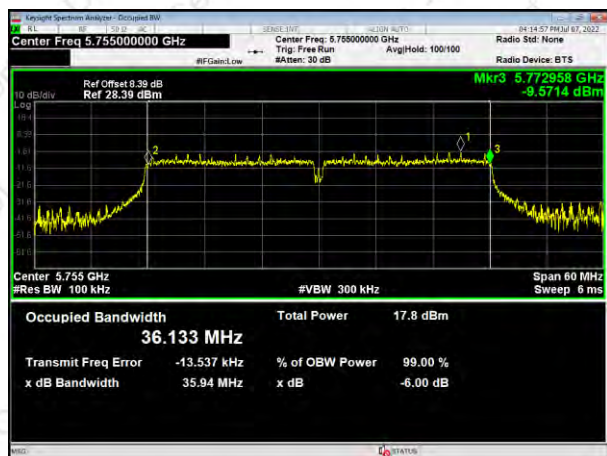
5795MHz



5825MHz



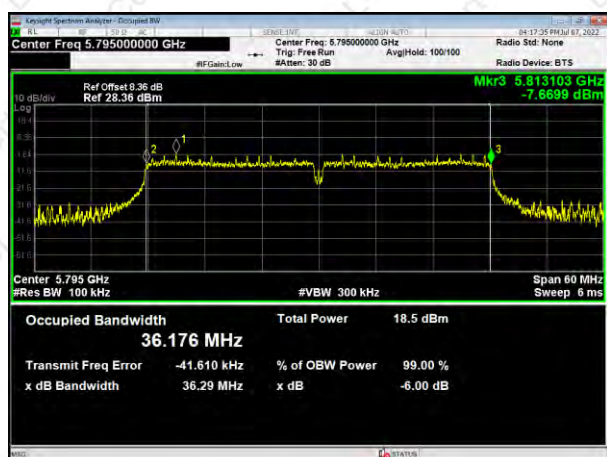
802.11ac HT40



802.11ac HT80



5755MHz



5775MHz

5795MHz



7. DUTY CYCLE TEST SIGNAL

7.1 APPLIED PROCEDURES / LIMIT

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle. All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

7.1.1 TEST PROCEDURE

1. Set RBW = 1 MHz.
2. Set the video bandwidth (VBW) $\geq$ RBW.
3. Detector = Peak.
4. Sweep = auto couple.
5. Allow the trace to stabilize.
6. Span=0

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP



7.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

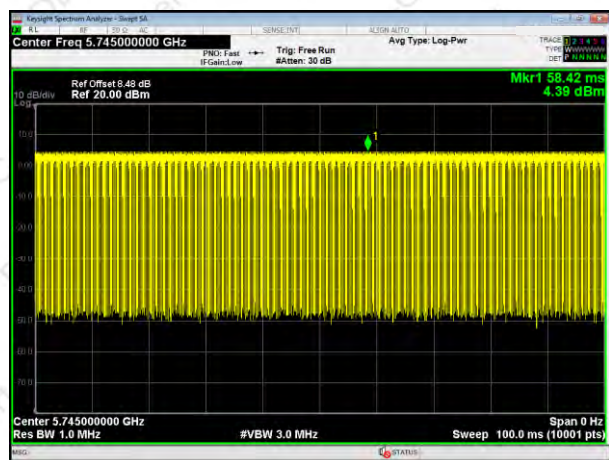
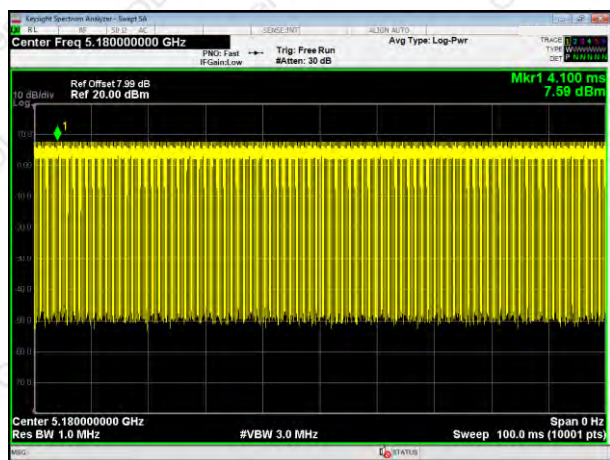


7.1.5 TEST RESULTS

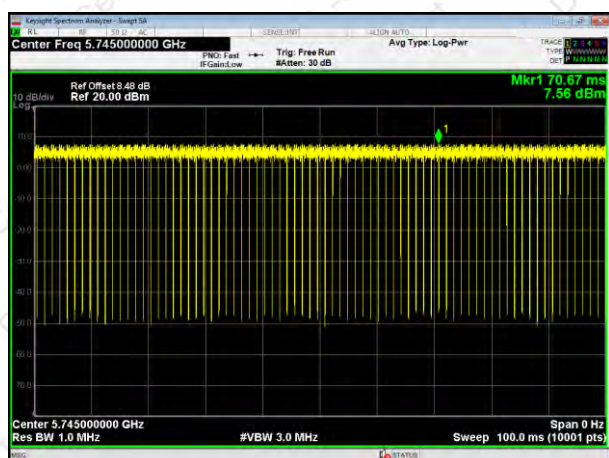
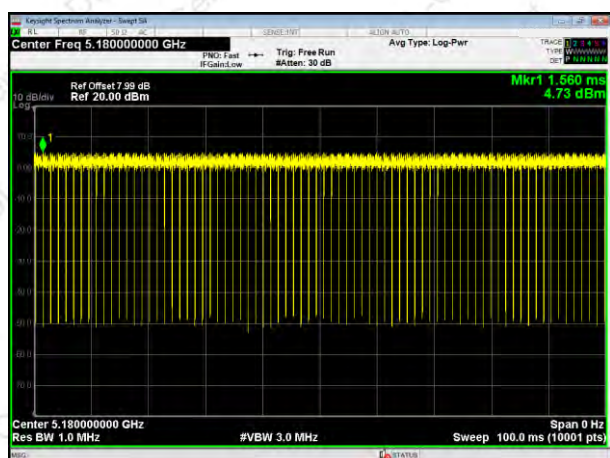
Operation Mode		Duty Cycle(%)	Duty Fator (dB) $10 * \log (1/ \text{Duty cycle})$
Band 1	802.11a	82.24	0.85
	802.11n(HT20)	96.96	0.13
	802.11n(HT40)	94.16	0.26
	802.11ac(HT20)	96.89	0.14
	802.11ac(HT40)	94.06	0.27
	802.11ac(HT80)	88.83	0.51
Band 4	802.11a	82.22	0.85
	802.11n(HT20)	96.76	0.14
	802.11n(HT40)	94.16	0.26
	802.11ac(HT20)	96.92	0.14
	802.11ac(HT40)	94.03	0.27
	802.11ac(HT80)	88.88	0.51



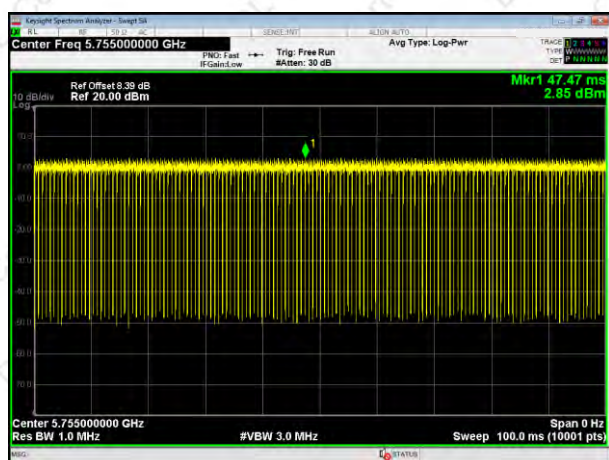
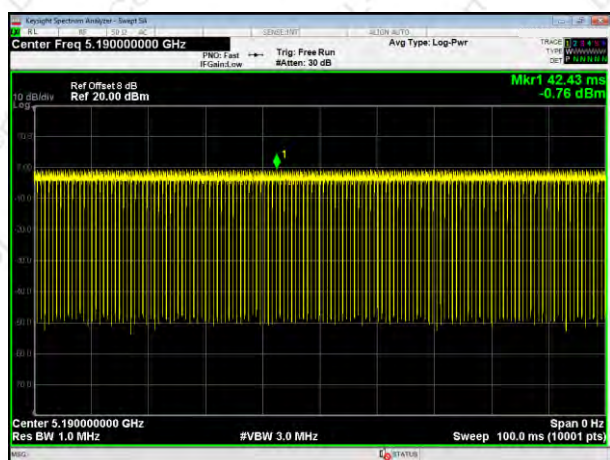
802.11a



802.11n HT20



802.11n HT40

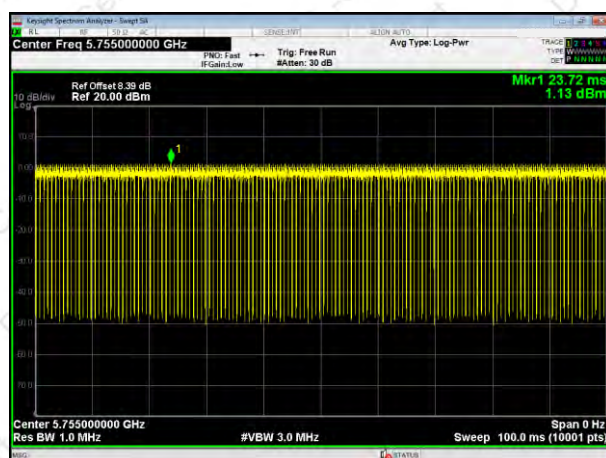
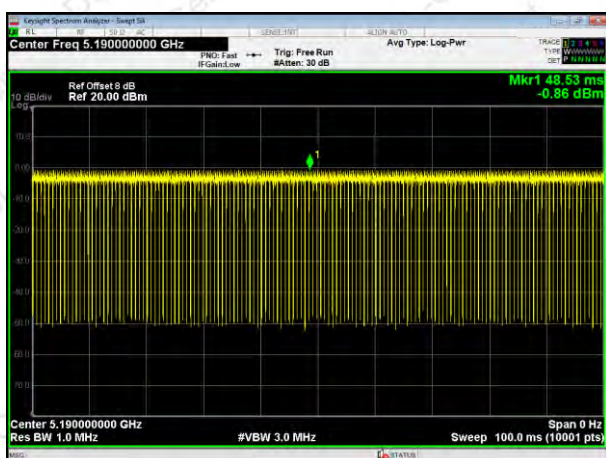




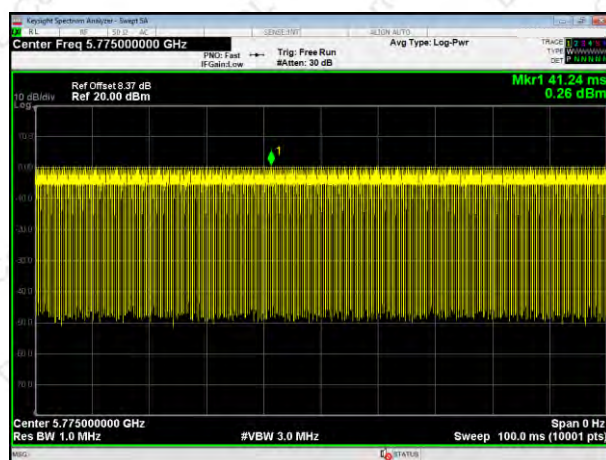
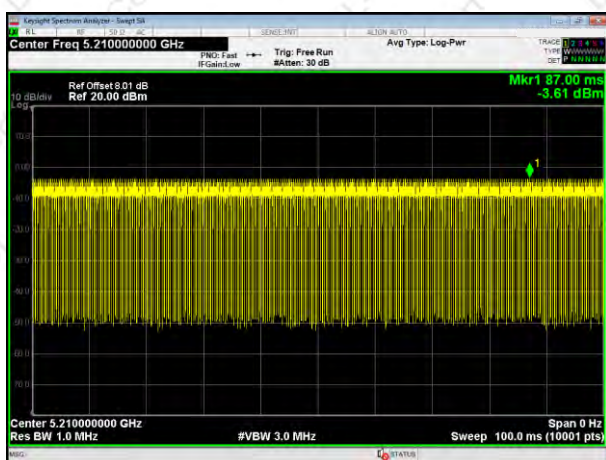
802.11ac HT20



802.11ac HT40



802.11ac HT80





8. FREQUENCY STABILITY

8.1 APPLIED PROCEDURES / LIMIT

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

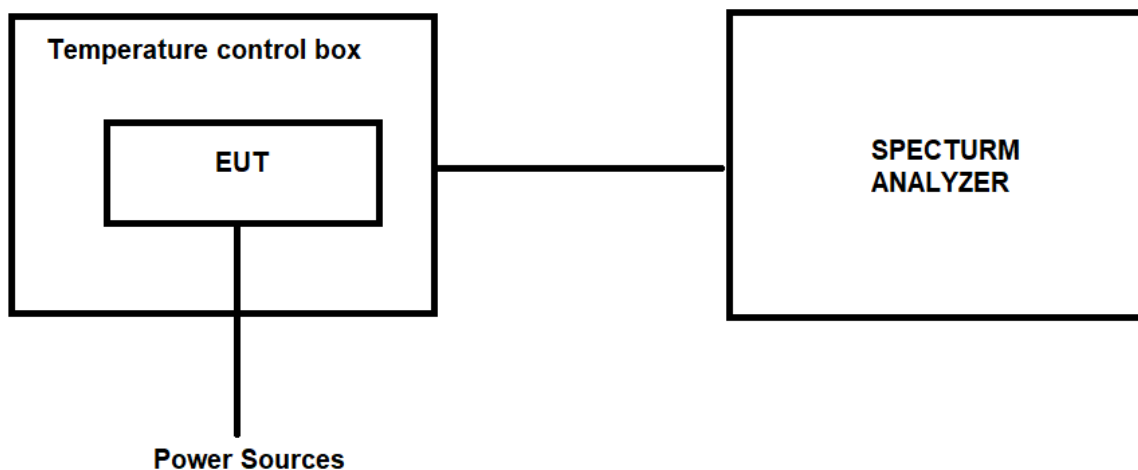
8.1.1 TEST PROCEDURE

1. The EUT was placed inside temperature chamber and powered and powered by nominal DC voltage.
2. Set EUT as normal operation.
3. Turn the EUT on and couple its output to spectrum.
4. Turn the EUT off and set the chamber to the highest temperature specified.
5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT and measure the operating frequency.
6. Repeat step with the temperature chamber set to the lowest temperature.

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP



8.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.



8.1.5 TEST RESULTS

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)			Δ Frequency (MHz)		
			802.11a	802.11n HT20	802.11ac HT20	802.11a	802.11n HT20	802.11ac HT20
132V	-20°C	5180	5180.0317	5180.0357	5180.0347	-0.0317	-0.0357	-0.0347
		5220	5220.0355	5220.0314	5220.0363	-0.0355	-0.0314	-0.0363
		5240	5240.0234	5240.0263	5240.0255	-0.0234	-0.0263	-0.0255
		5745	5745.0368	5745.0334	5745.0316	-0.0368	-0.0334	-0.0316
		5785	5785.0387	5785.0343	5785.0337	-0.0387	-0.0343	-0.0337
		5825	5825.0343	5825.0375	5825.0353	-0.0343	-0.0375	-0.0353
108V	-20°C	5180	5180.0231	5180.0231	5180.0238	-0.0231	-0.0231	-0.0238
		5220	5220.0322	5220.0355	5220.0345	-0.0322	-0.0355	-0.0345
		5240	5240.0261	5240.0267	5240.0237	-0.0261	-0.0267	-0.0237
		5745	5745.0227	5745.0224	5745.0224	-0.0227	-0.0224	-0.0224
		5785	5785.0383	5785.0315	5785.0346	-0.0383	-0.0315	-0.0346
		5825	5825.0447	5825.0457	5825.0465	-0.0447	-0.0457	-0.0465
120V	25°C	5180	5180.0545	5180.0536	5180.0579	-0.0545	-0.0536	-0.0579
		5220	5220.0263	5220.0286	5220.0265	-0.0263	-0.0286	-0.0265
		5240	5240.0351	5240.0346	5240.0346	-0.0351	-0.0346	-0.0346
		5745	5745.0344	5745.0324	5745.0357	-0.0344	-0.0324	-0.0357
		5785	5785.0486	5785.0417	5785.0464	-0.0486	-0.0417	-0.0464
		5825	5825.0224	5825.0288	5825.0248	-0.0224	-0.0288	-0.0248
132V	50°C	5180	5180.0313	5180.0365	5180.0356	-0.0313	-0.0365	-0.0356
		5220	5220.0274	5220.0246	5220.0233	-0.0274	-0.0246	-0.0233
		5240	5240.0323	5240.0353	5240.0375	-0.0323	-0.0353	-0.0375
		5745	5745.0665	5745.0635	5745.0658	-0.0665	-0.0635	-0.0658
		5785	5785.0426	5785.0424	5785.0443	-0.0426	-0.0424	-0.0443
		5825	5825.0611	5825.0613	5825.0644	-0.0611	-0.0613	-0.0644
108V	50°C	5180	5180.0315	5180.0329	5180.0366	-0.0315	-0.0329	-0.0366
		5220	5220.0214	5220.0261	5220.0277	-0.0214	-0.0261	-0.0277
		5240	5240.0327	5240.0359	5240.0355	-0.0327	-0.0359	-0.0355
		5745	5745.0431	5745.0437	5745.0431	-0.0431	-0.0437	-0.0431
		5785	5785.0254	5785.0255	5785.0244	-0.0254	-0.0255	-0.0244
		5825	5825.0728	5825.0725	5825.0756	-0.0728	-0.0725	-0.0756



Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)		Δ Frequency (MHz)	
			802.11n HT40	802.11ac HT40	802.11n HT40	802.11ac HT40
132V	-20℃	5190	5190.0215	5190.0236	-0.0215	-0.0236
		5230	5230.0326	5230.0368	-0.0326	-0.0368
		5755	5755.0558	5755.0554	-0.0558	-0.0554
		5795	5795.0612	5795.0615	-0.0612	-0.0615
108V		5190	5190.0254	5190.0232	-0.0254	-0.0232
		5230	5230.0323	5230.0344	-0.0323	-0.0344
		5755	5755.0245	5755.0663	-0.0245	-0.0663
		5795	5795.0442	5795.0477	-0.0442	-0.0477
120V	25℃	5190	5190.0275	5190.0252	-0.0275	-0.0252
		5230	5230.0661	5230.0654	-0.0661	-0.0654
		5755	5755.0254	5755.0265	-0.0254	-0.0265
		5795	5795.0566	5795.0536	-0.0566	-0.0536
132V	50℃	5190	5190.0657	5190.0644	-0.0657	-0.0644
		5230	5230.0567	5230.0554	-0.0567	-0.0554
		5755	5755.0461	5755.0437	-0.0461	-0.0437
		5795	5795.0365	5795.0324	-0.0365	-0.0324
108V	50℃	5190	5190.0557	5190.0545	-0.0557	-0.0545
		5230	5230.0335	5230.0331	-0.0335	-0.0331
		5755	5755.0314	5755.0337	-0.0314	-0.0337
		5795	5795.0464	5795.0445	-0.0464	-0.0445

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)	Δ Frequency (MHz)
			802.11ac HT80	802.11ac HT80
132V	-20℃	5210	5210.0135	-0.0135
		5775	5775.0165	-0.0165
108V		5210	5210.0244	-0.0244
		5775	5775.0323	-0.0323
230V	25℃	5210	5210.0475	-0.0475
		5775	5775.0361	-0.0361
132V	50℃	5210	5210.0314	-0.0314
		5775	5775.0268	-0.0268
108V	50℃	5210	5210.0334	-0.0334
		5775	5775.0547	-0.0547



9. TRANSMISSION IN THE ABSENCE OF DATA

9.1 STANDARD REQUIREMENT

According to §15.407(c)

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

9.2 TEST RESULT

No non-compliance noted:
Refer to the theory of operation.

10. ANTENNA REQUIREMENT

10.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 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.

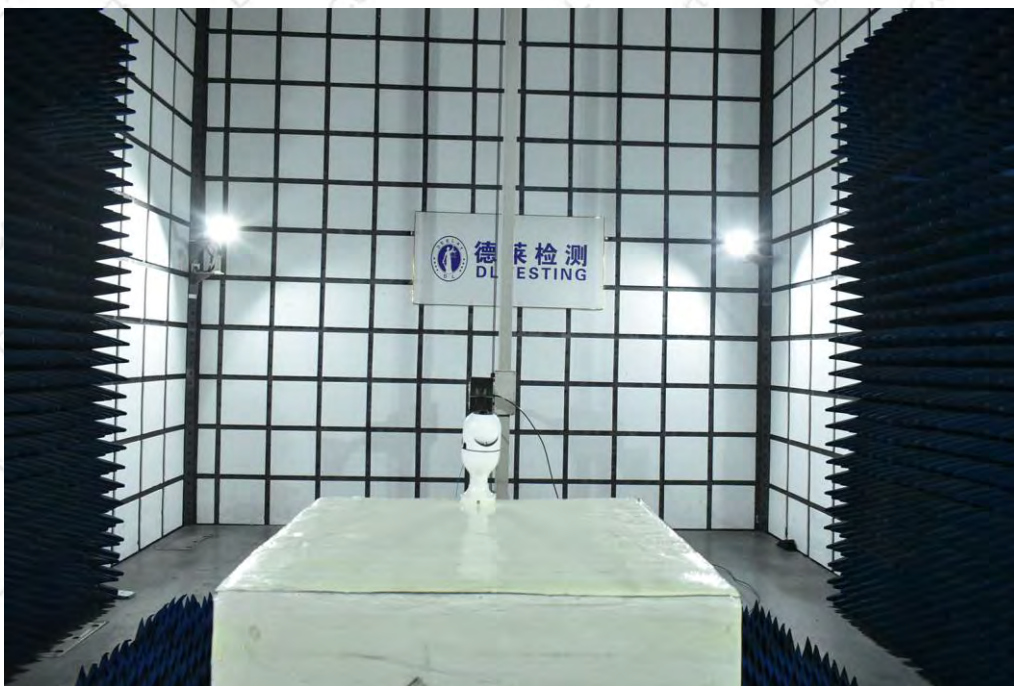
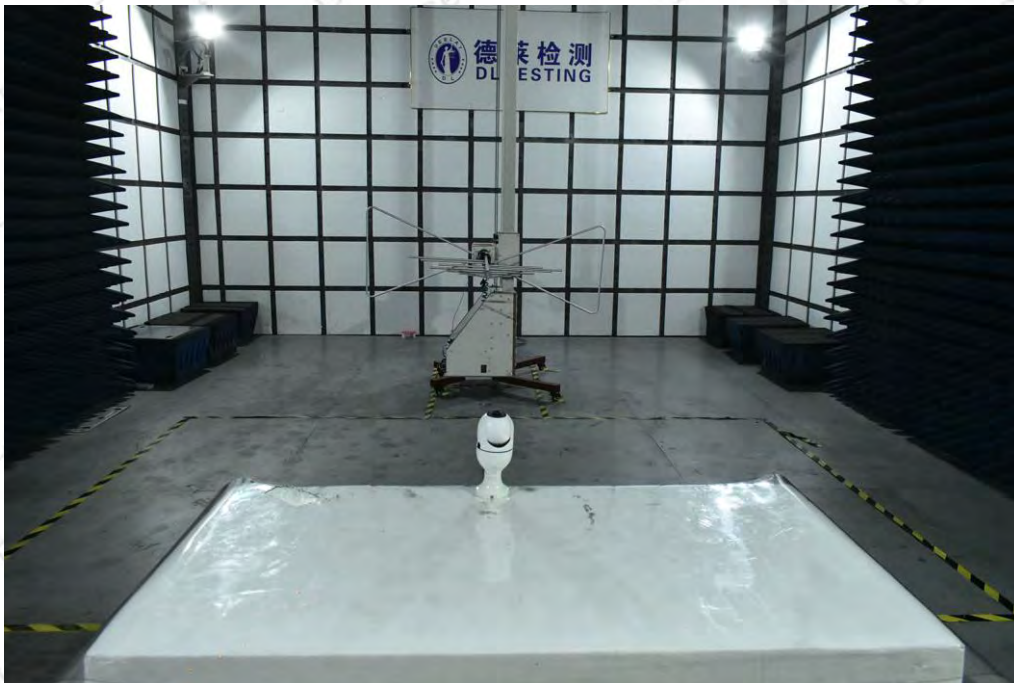
10.2 EUT ANTENNA

The EUT antenna is internal antenna, It comply with the standard requirement.



11. TEST SEUUP PHOTO

Radiated Measurement Photos





Conducted Measurement Photos



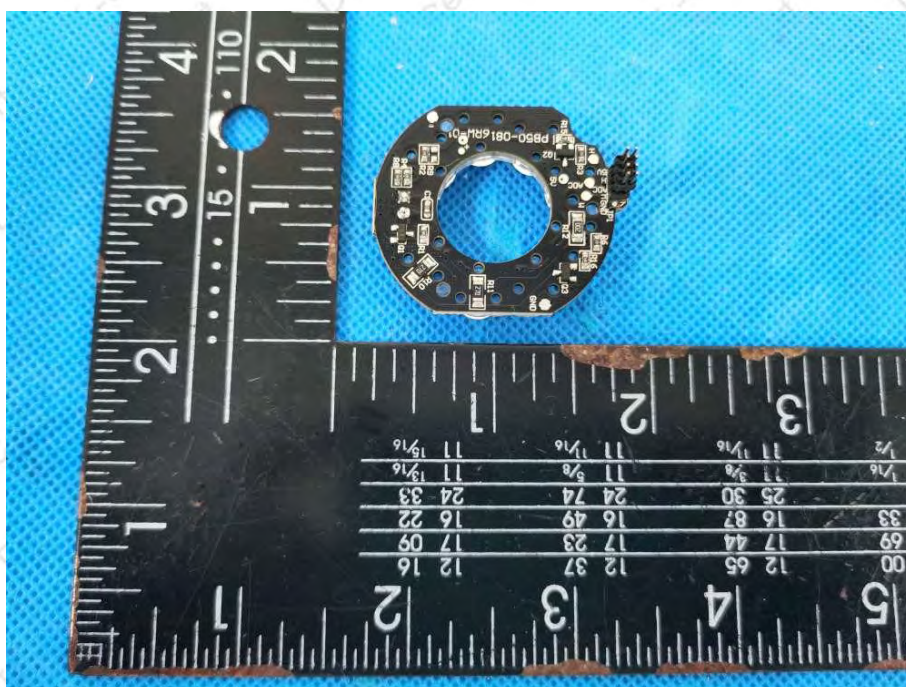
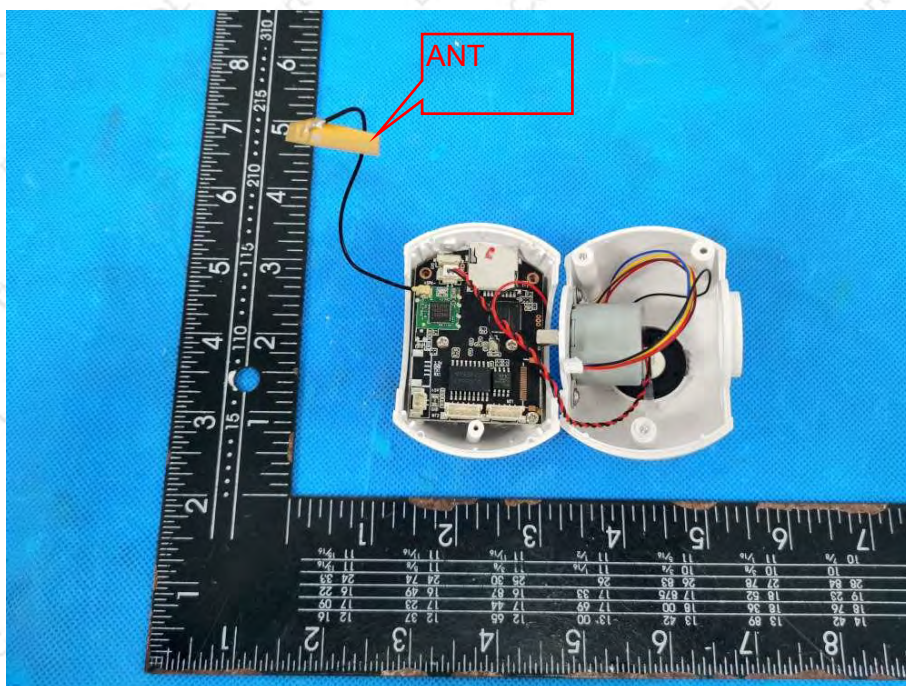


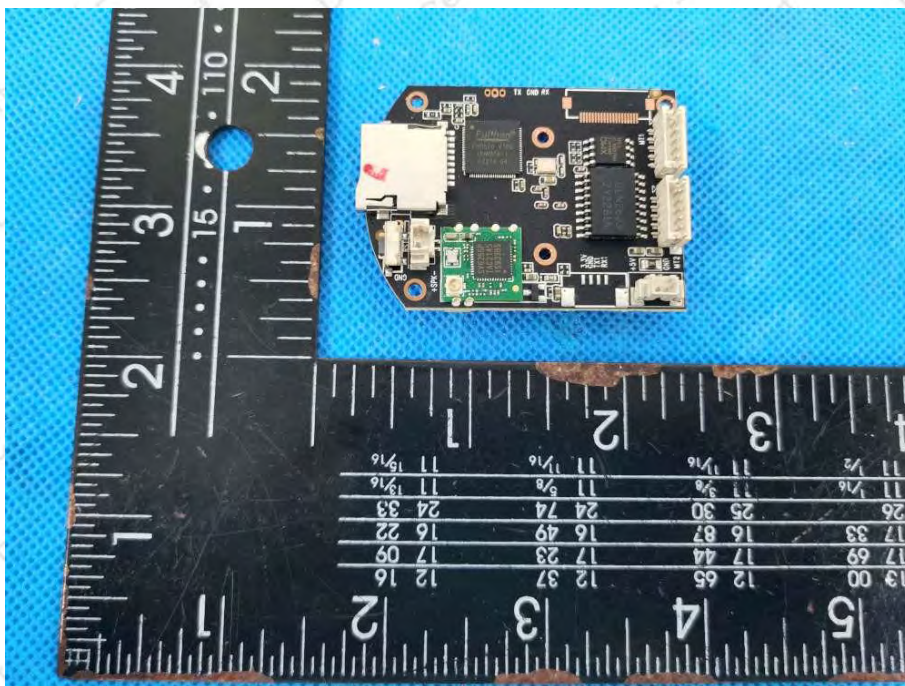
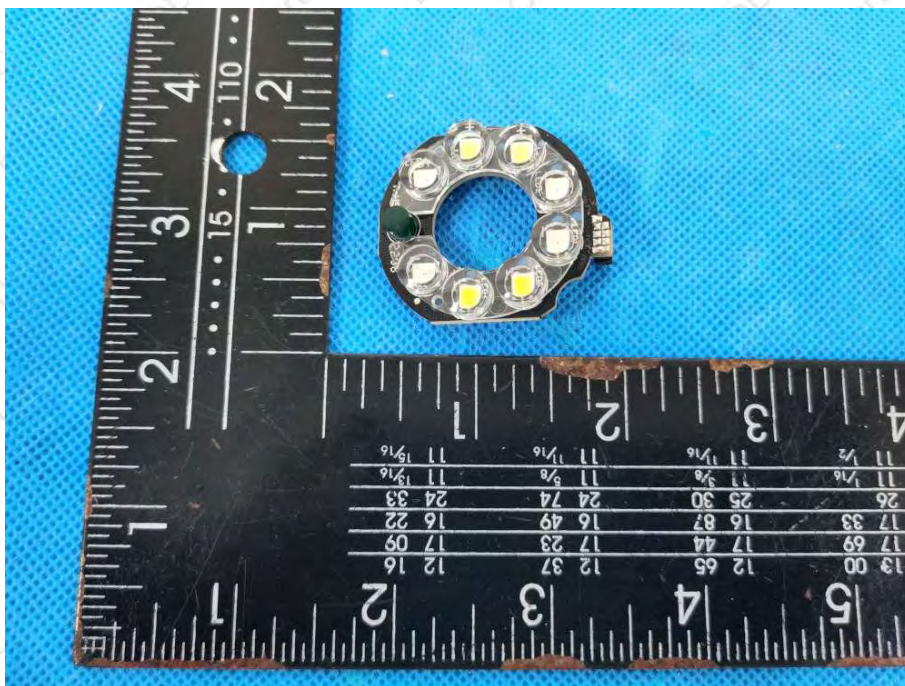
12. EUT PHOTO

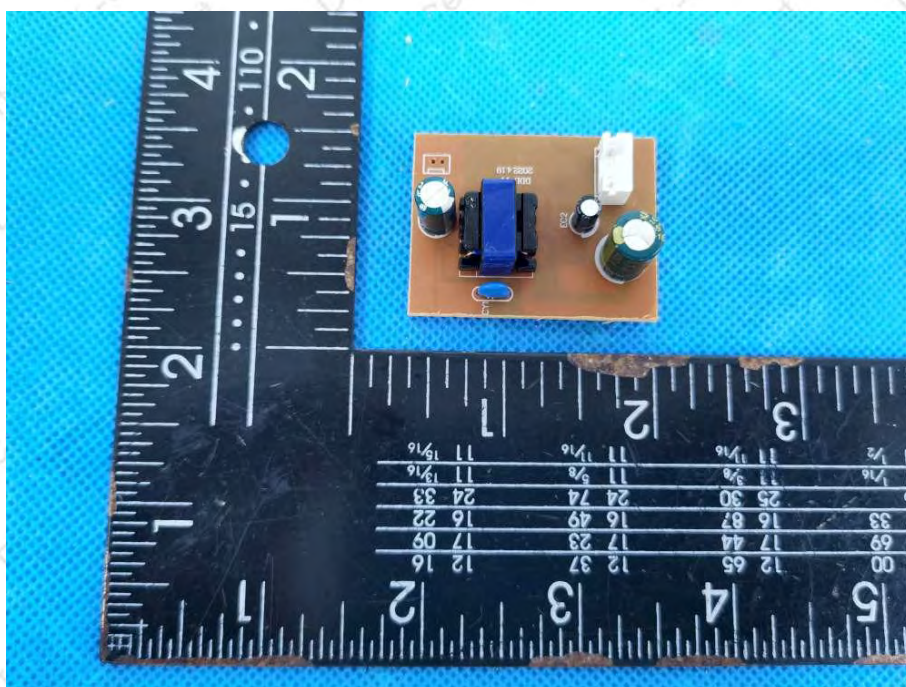
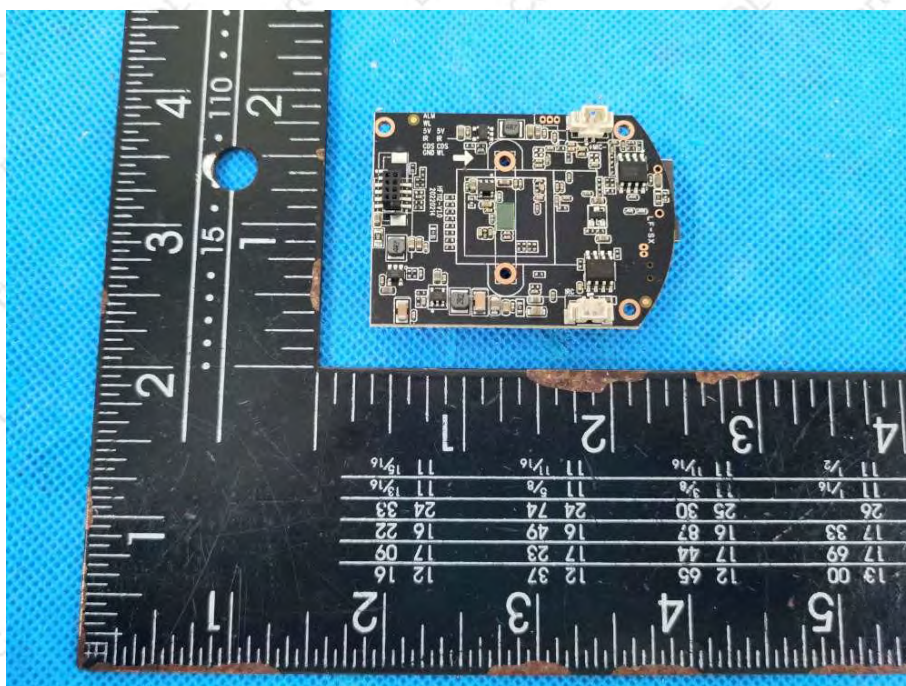


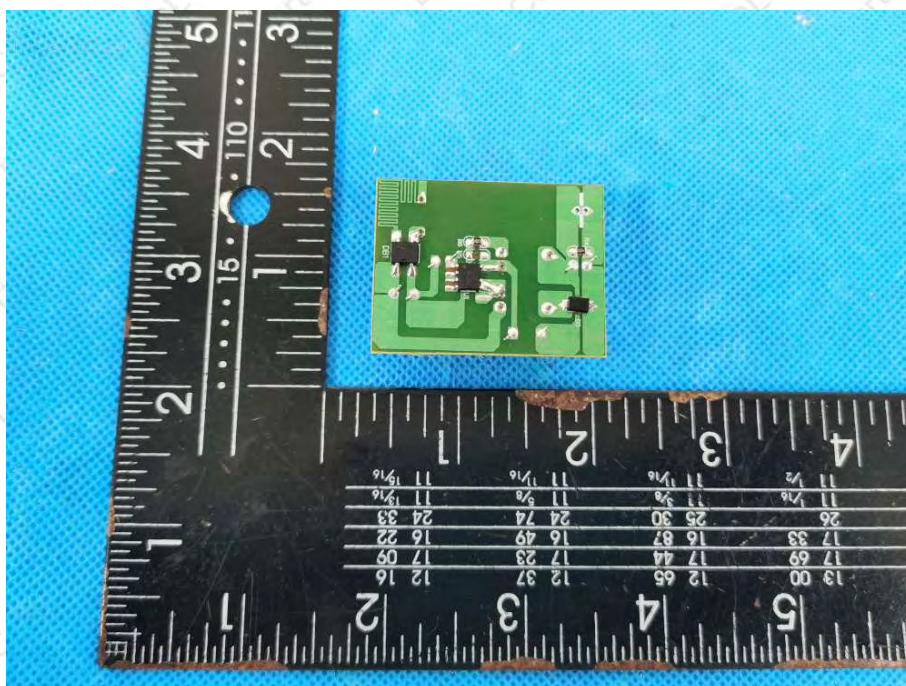












***** END OF REPORT *****