



FCC Part 15C Test Report

FCC ID: 2A8JR-DN39C

Applicant: Shenzhen Weikesen Electronic Technology Co., Ltd.

Address: 1909, No. 2, Baolong Factory, Anbo Tech, No. 2, Baolong 4th Road, Longgang Dist., Shenzhen

Manufacturer: Shenzhen Weikesen Electronic Technology Co., Ltd.

Address: 1909, No. 2, Baolong Factory, Anbo Tech, No. 2, Baolong 4th Road, Longgang Dist., Shenzhen

EUT: notebook

Trade Mark: N/A

Model Number: DN39C(MGI i5 12500H Pro)

Date of Receipt: Oct. 03, 2022

Test Date: Oct. 03, 2022 – Dec. 29, 2022

Date of Report: Dec. 29, 2022

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

Test Result: Pass

Report Number: DL-20221111009E

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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 expended 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:	notebook
Trademark	N/A
Model No.:	DN39C(MGI i5 12500H Pro)
Model Difference	N/A
Operation Frequency:	5180-5240 (802.11a/ac/ax/n(HT20)) 5190-5230 (802.11ac/ax n(HT40)) 5210MHz (802.11ac/ax80)
Channel numbers:	See channel list
Channel separation:	20MHz for 802.11a/ac/ax/n(HT20) 40MHz for 802.11ac/ax/n(HT40)
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 300Mbps 802.11ac: up to 867Mbps 802.11ax: up to 1200Mbps
Antenna Type:	Internal Antenna*2
Antenna gain:	-4.62dBi MIMO Gain=-4.62dBi+10log(2)=-1.62dBi
Power supply:	For Adapter Model Number: A879-200500C-US1 Input: 100-240V~ 50/60Hz, 2.5A PD Output: DC 5V/3A, DC 9V/3A, DC 12V/3A, DC 15C/3A, DC 20V/5A PPS: DC 3.3-11V/5A 55W Max 3.3-21V/5A 100W Max DC 11.55V from battery

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.
3. The MIMO mode is only used for 802.11 ac/ax/n mode.
4. This product only support SU mode for 802.11ax.



2. Channel List

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

802.11ac/ax/n(HT40)				802.11ac/ax 80	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230	42	5210

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
Mode 1	802.11a /ac/ax/n HT20	CH36, CH44, CH48
Mode 2	802.11n/ac/ax HT40	CH38, CH46
Mode 3	802.11ac/ax HT80	CH42
Mode 4	Other	Link Mode

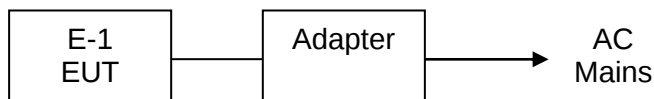
For Radiated Emission		
Pretest Mode	Channel	Band 1
Mode 1	802.11a/n/acHT20	CH36, CH44, CH48
Mode 2	802.11n/acHT40	CH38, CH46
Mode 3	802.11ac/ax HT80	CH42
Mode 4	Other	Link Mode

Note: 1. The measurements are performed at the highest, middle, lowest available channels.

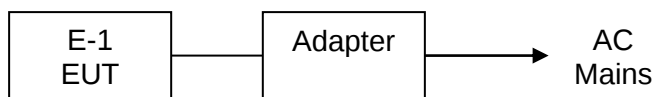


2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

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	notebook	DN39C(MGI i5 12500H Pro)	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/ac/ax	802.11n HT20	802.11n HT40
Data Rate	MCS0	MSC0	MSC0
Power Setting of Softwave	45	45	45

**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	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
2	Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
3	Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
4	Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
5	Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	588	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
6	Amplifier (9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
7	Amplifier (1GHz-18GHz)	EMEC	EM01G8GA	00270	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
8	Amplifier (18GHz-40GHz)	Quanjuda	DLE-161	97	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
9	Loop Antenna (9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
10	RF cables1 (9kHz-1GHz)	ChengYu	966	004	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
11	RF cables2 (1GHz-40GHz)	ChengYu	966	003	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
12	Antenna connector	Florida RF Labs	N/A	RF 01#	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
13	Power probe	KEYSIGHT	U2021XA	MY55210018	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
14	Signal Analyzer 9kHz-26.5GHz	Agilent	N9020A	MY55370280	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
15	Test Receiver 20kHz-40GHz	R&S	ESU 40	100376	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
16	D.C. Power Supply	LongWei	PS-305D	010964729	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023

Conduction Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	843 Shielded Room	ChengYu	843 Room	843	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
2	EMI Receiver	R&S	ESR	101421	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
3	LISN	R&S	ENV216	102417	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023
4	843 Cable 1#	ChengYu	CE Cable	001	Oct. 05, 2021 Nov. 06, 2022	Oct. 04, 2021 Nov. 05, 2023

Other

Item	Name	Manufacturer	Model	Software version
1	EMC Conduction Test System	FALA	EZ EMC	EMC-CON 3A1.1
2	EMC radiation test system	FALA	EZ EMC	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

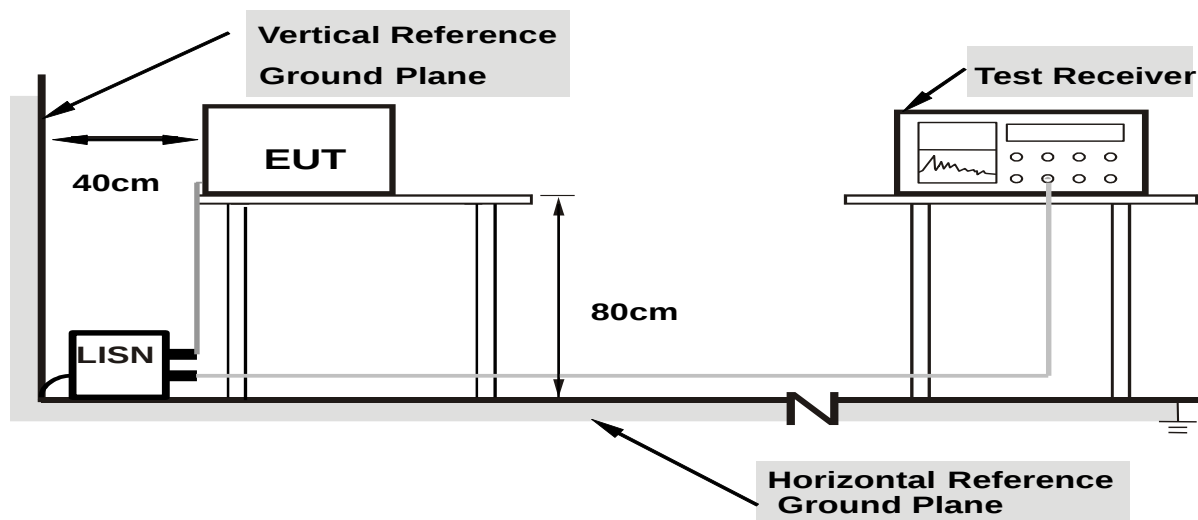
3.1.2 TEST PROCEDURE

- a. 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.
- b. 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.
- c. 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.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. 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

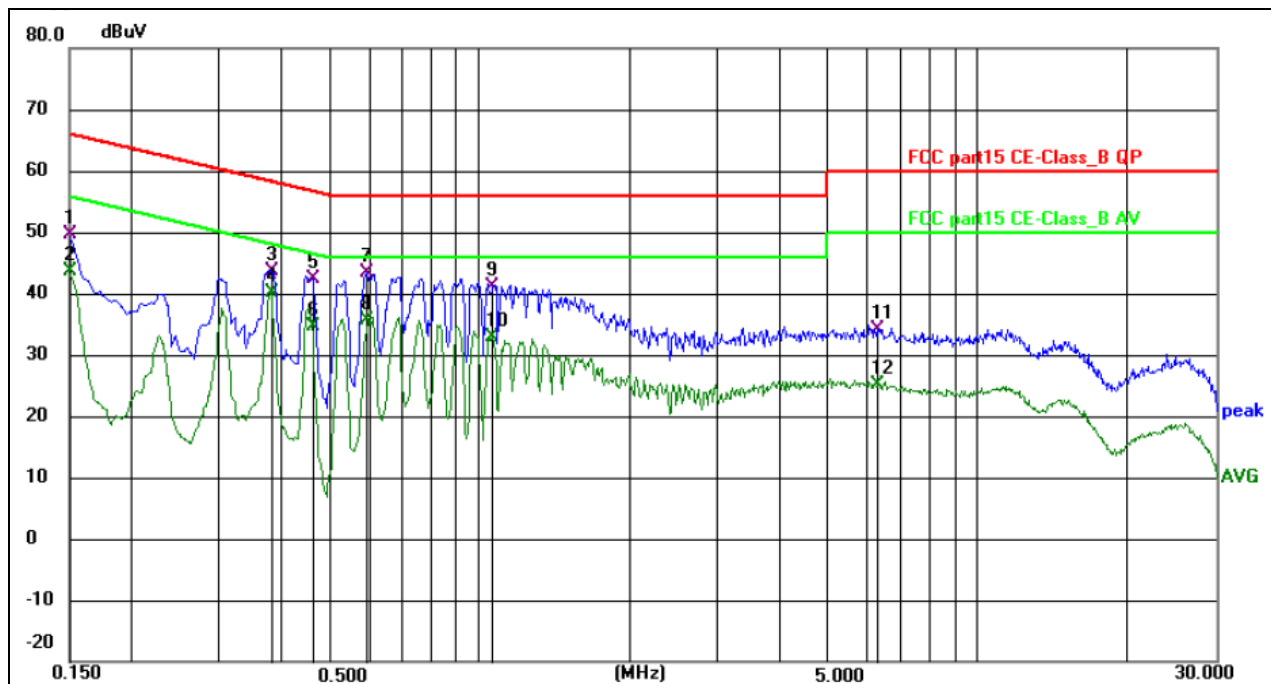
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

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



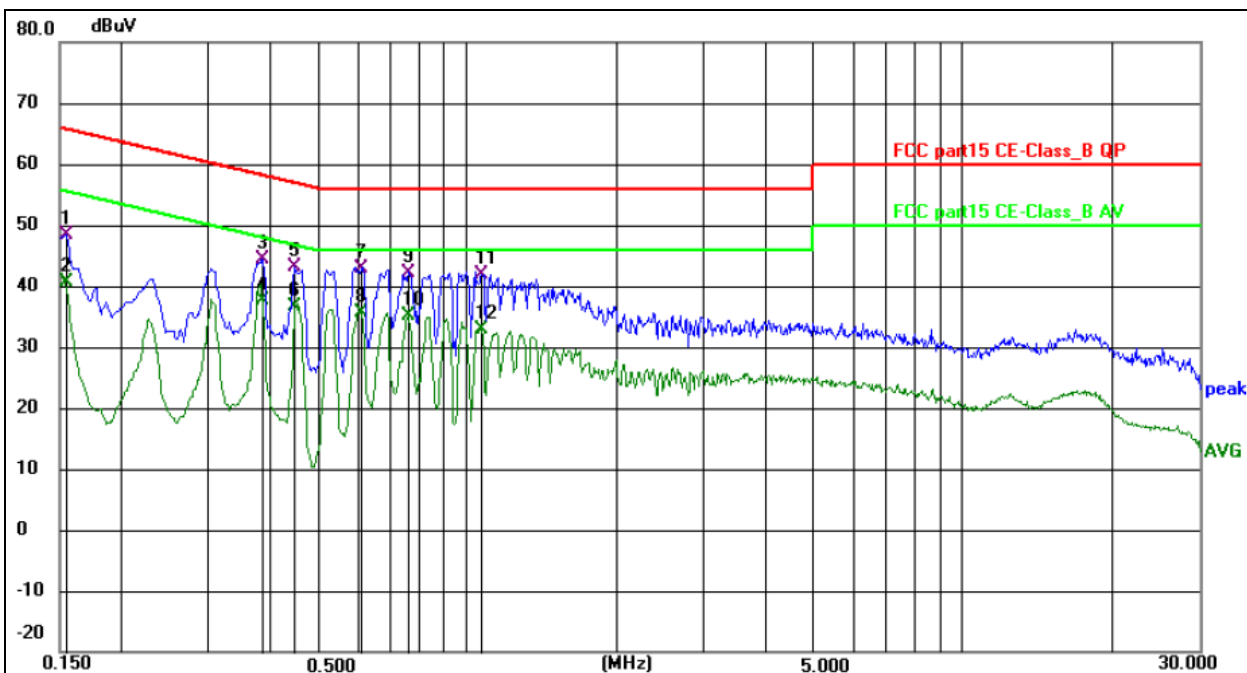
Remark:

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	39.17	10.50	49.67	66.00	-16.33	QP	P	
2	0.150000	33.05	10.50	43.55	56.00	-12.45	AVG	P	
3	0.379500	34.46	9.10	43.56	58.29	-14.73	QP	P	
4 *	0.379500	31.11	9.10	40.21	48.29	-8.08	AVG	P	
5	0.460500	33.29	9.16	42.45	56.68	-14.23	QP	P	
6	0.460500	25.48	9.16	34.64	46.68	-12.04	AVG	P	
7	0.590900	34.17	9.31	43.48	56.00	-12.52	QP	P	
8	0.590900	26.32	9.31	35.63	46.00	-10.37	AVG	P	
9	1.063400	31.91	9.32	41.23	56.00	-14.77	QP	P	
10	1.063400	23.57	9.32	32.89	46.00	-13.11	AVG	P	
11	6.265500	24.47	9.71	34.18	60.00	-25.82	QP	P	
12	6.265500	15.50	9.71	25.21	50.00	-24.79	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	0.154400	38.22	10.22	48.44	65.76	-17.32	QP	P	
2	0.154400	30.41	10.22	40.63	55.76	-15.13	AVG	P	
3	0.384000	35.17	9.20	44.37	58.19	-13.82	QP	P	
4	0.384000	28.51	9.20	37.71	48.19	-10.48	AVG	P	
5	0.447000	33.84	9.31	43.15	56.93	-13.78	QP	P	
6	0.447000	27.22	9.31	36.53	46.93	-10.40	AVG	P	
7	0.608900	33.61	9.24	42.85	56.00	-13.15	QP	P	
8 *	0.608900	26.47	9.24	35.71	46.00	-10.29	AVG	P	
9	0.762000	33.02	9.23	42.25	56.00	-13.75	QP	P	
10	0.762000	25.79	9.23	35.02	46.00	-10.98	AVG	P	
11	1.068000	32.46	9.44	41.90	56.00	-14.10	QP	P	
12	1.068000	23.55	9.44	32.99	46.00	-13.01	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 (micorvolts/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	25GHz
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:

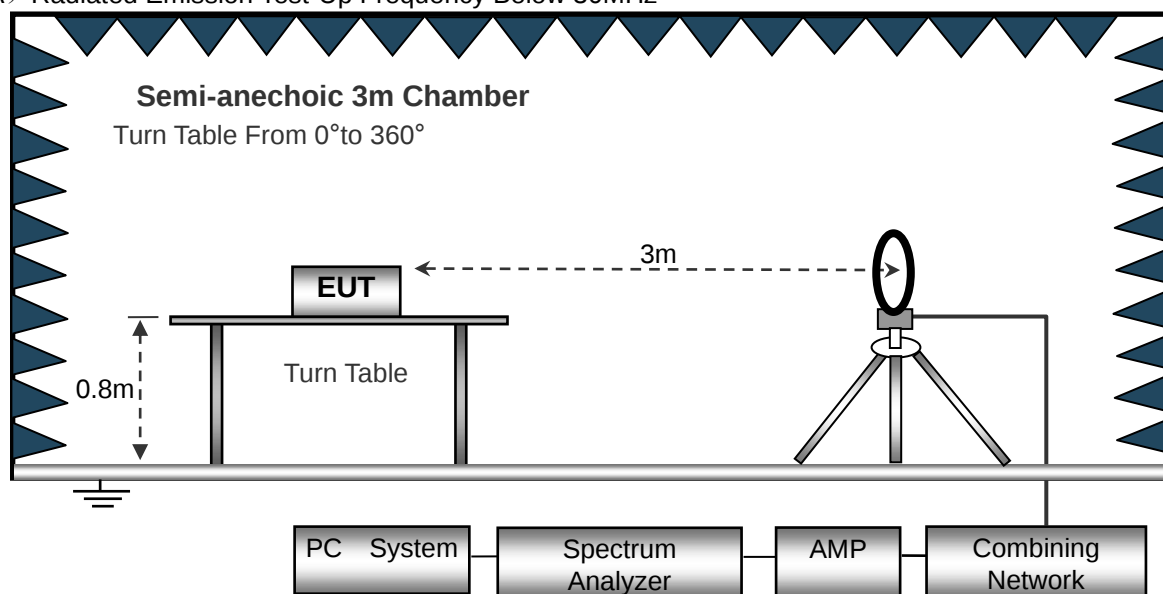
Both horizontal and vertical antenna polarities were tested and performed pretest to all antenna,. The worst case was antenna 1 and emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

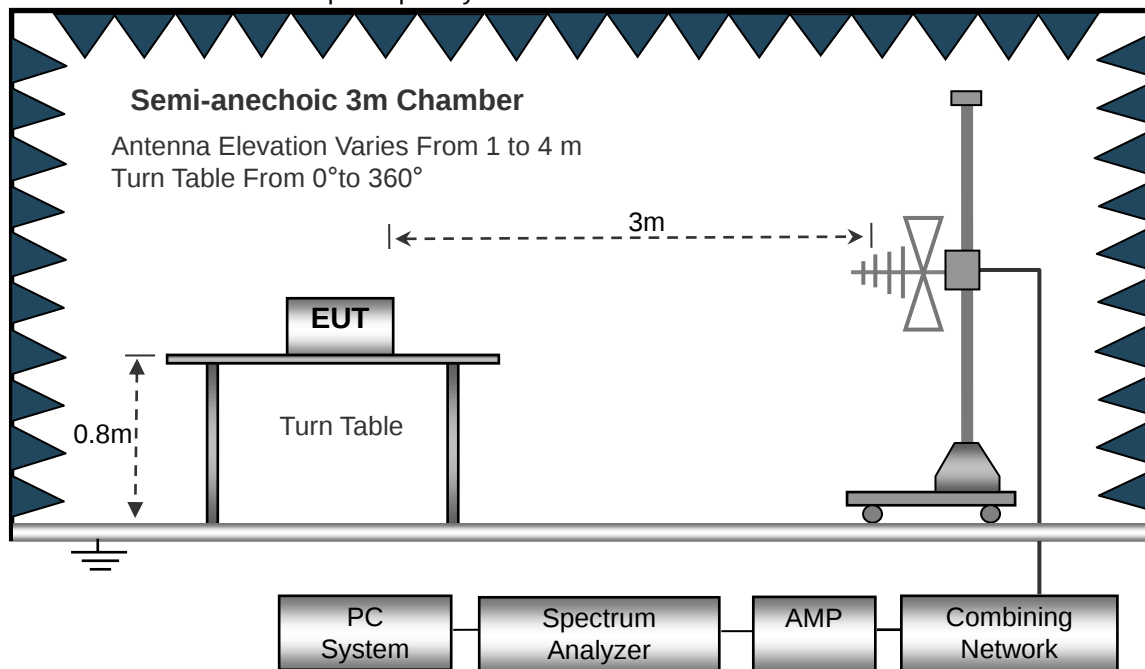
No deviation

3.2.4 TEST SETUP

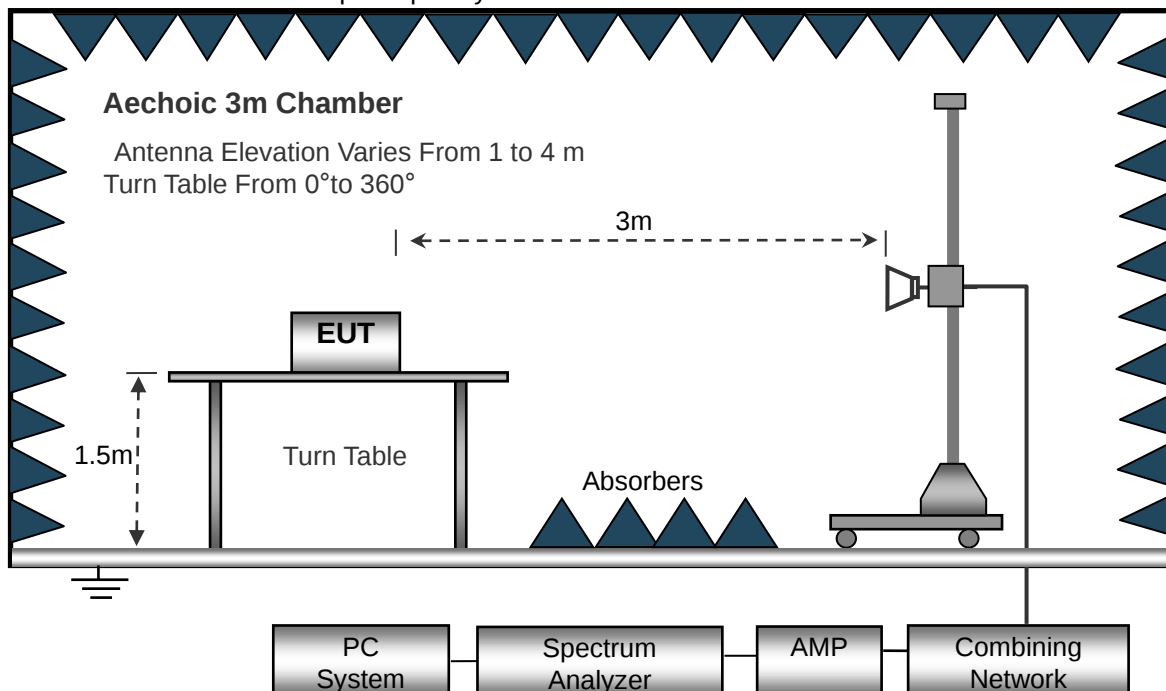
(A) Radiated Emission Test-Up Frequency Below 30MHz



(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°C	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:

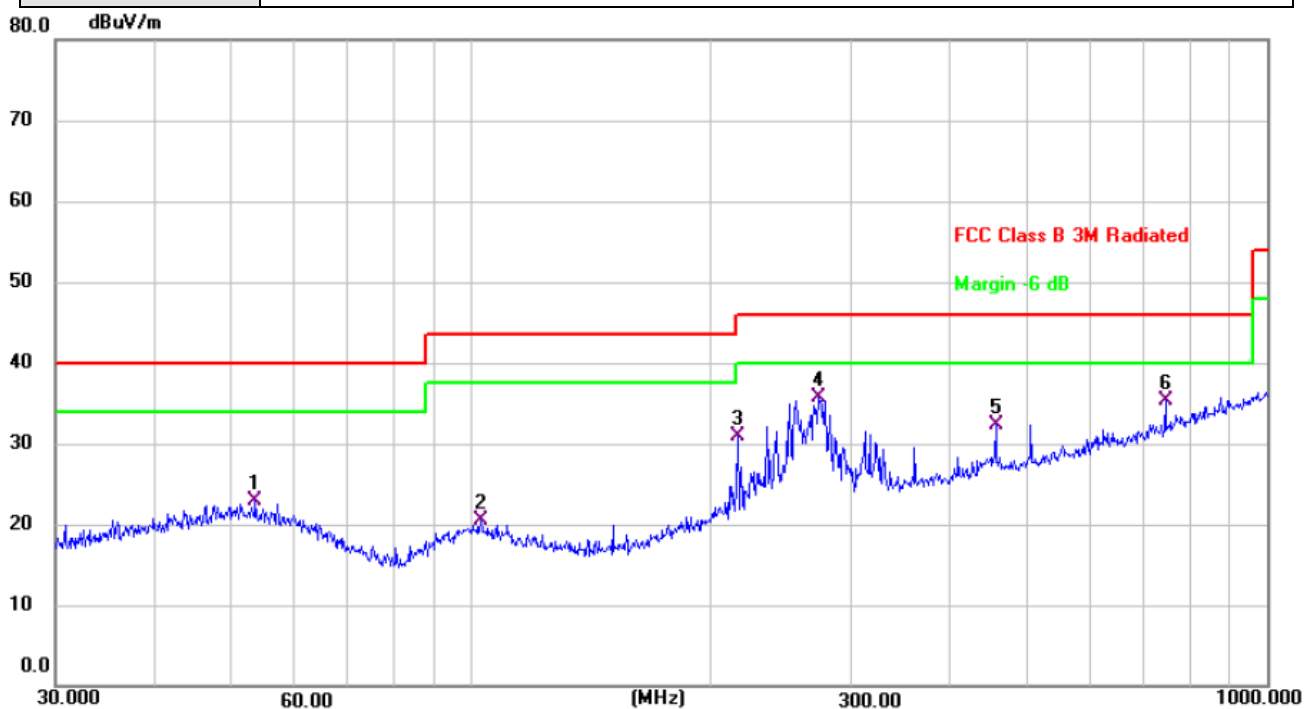
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance}/\text{test distance})$ (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	53.5052	34.62	-11.81	22.81	40.00	-17.19	QP
2	102.7192	34.26	-13.77	20.49	43.50	-23.01	QP
3	216.0240	43.28	-12.34	30.94	46.00	-15.06	QP
4 *	273.2341	46.40	-10.66	35.74	46.00	-10.26	QP
5	455.9058	39.74	-7.38	32.36	46.00	-13.64	QP
6	744.8661	37.75	-2.42	35.33	46.00	-10.67	QP

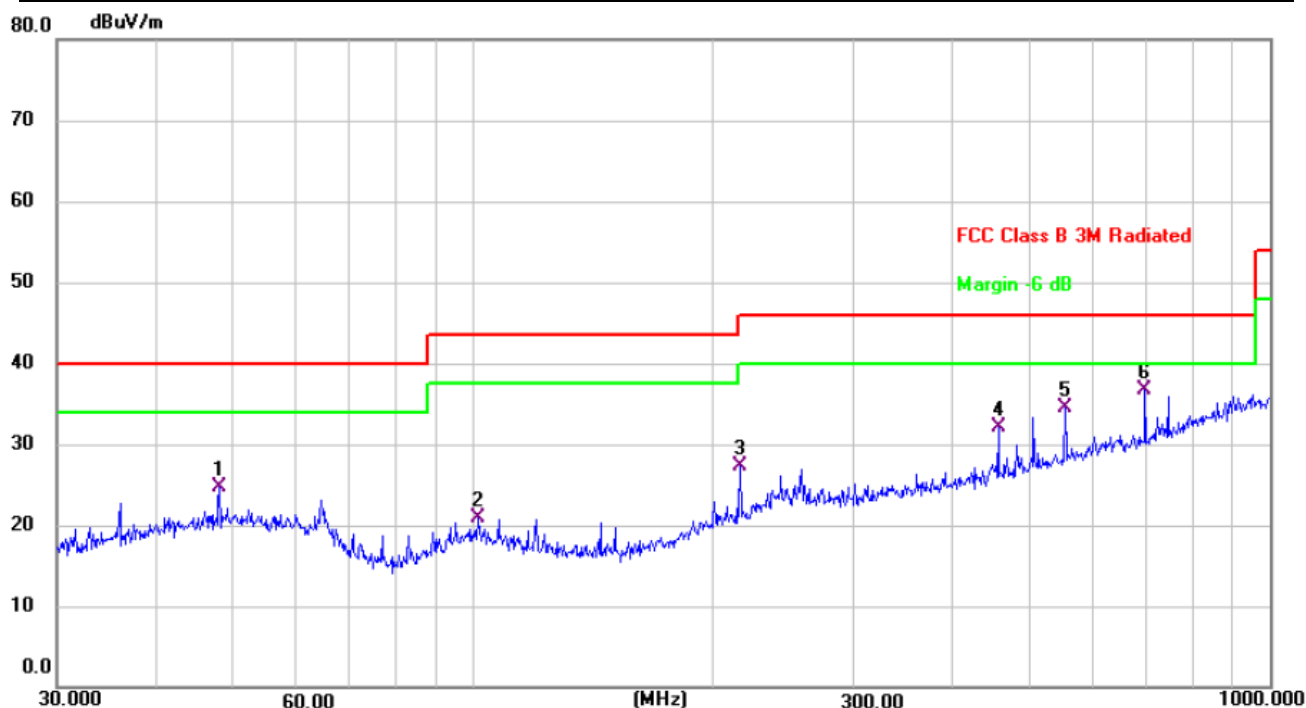
Remark:

Correct Factor = Cable loss + Antenna factor – Preamplifier;

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



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	47.9940	36.47	-11.68	24.79	40.00	-15.21	QP
2	101.2885	34.56	-13.63	20.93	43.50	-22.57	QP
3	216.0240	39.65	-12.34	27.31	46.00	-18.69	QP
4	455.9058	39.42	-7.38	32.04	46.00	-13.96	QP
5	552.8832	40.10	-5.62	34.48	46.00	-11.52	QP
6 *	696.8567	39.84	-3.06	36.78	46.00	-9.22	QP

Remark:

Correct Factor = Cable loss + Antenna factor – Preamplifier;

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



3.2.8 TEST RESULTS (1ghz~40ghZ)

802.11a band 1

We test all antenna's data, the data only show the antenna1 worst mode1,2,3.

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	56.33	49.05	15.3	37.39	59.97	68.2	-8.23	PK
V	10360	41.41	49.05	15.3	37.39	45.05	68.2	-23.15	AV
V	15540	56.62	49.16	15.27	40.45	63.18	74	-10.82	PK
V	15540	39.17	49.16	15.27	40.45	45.73	54	-8.27	AV
H	10360	56.05	49.05	15.3	37.39	59.69	68.2	-8.51	PK
H	10360	40.43	49.05	15.3	37.39	44.07	68.2	-24.13	AV
H	15540	59.12	49.16	15.27	40.45	65.68	74	-8.32	PK
H	15540	38.08	49.16	15.27	40.45	44.64	54	-9.36	AV
operation frequency:5200									
V	10400	57.43	49.09	15.34	37.42	61.1	68.2	-7.10	PK
V	10400	39.31	49.09	15.34	37.42	42.98	68.2	-25.22	AV
V	15600	59.42	49.18	15.29	40.47	66	74	-8.00	PK
V	15600	38.19	49.18	15.29	40.47	44.77	54	-9.23	AV
H	10400	56.33	49.09	15.34	37.42	60	68.2	-8.20	PK
H	10400	39.75	49.09	15.34	37.42	43.42	68.2	-24.78	AV
H	15600	59.43	49.18	15.29	40.47	66.01	74	-7.99	PK
H	15600	38.34	49.18	15.29	40.47	44.92	54	-9.08	AV
operation frequency:5240									
V	10480	58.52	49.11	15.37	37.46	62.24	68.2	-5.96	PK
V	10480	39.38	49.11	15.37	37.46	43.1	68.2	-25.10	AV
V	15720	59.12	49.21	15.34	40.51	65.76	74	-8.24	PK
V	15720	38.33	49.21	15.34	40.51	44.97	54	-9.03	AV
H	10480	57.24	49.11	15.37	31.31	54.81	68.2	-13.39	PK
H	10480	45.53	49.11	15.37	31.31	43.1	68.2	-25.10	AV
H	15720	57.48	49.21	15.34	40.51	64.12	74	-9.88	PK
H	15720	37.51	49.21	15.34	40.51	44.15	54	-9.85	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.



802.11ac20 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	56.12	49.05	15.3	37.39	59.76	68.2	-8.44	PK
V	10360	38.46	49.05	15.3	37.39	42.1	68.2	-26.10	AV
V	15540	56.55	49.16	15.27	40.45	63.11	74	-10.89	PK
V	15540	38.23	49.16	15.27	40.45	44.79	54	-9.21	AV
H	10360	56.64	49.05	15.3	37.39	60.28	68.2	-7.92	PK
H	10360	39.33	49.05	15.3	37.39	42.97	68.2	-25.23	AV
H	15540	54.17	49.16	15.27	40.45	60.73	74	-13.27	PK
H	15540	38.31	49.16	15.27	40.45	44.87	54	-9.13	AV
operation frequency:5200									
V	10400	56.26	49.09	15.34	37.42	59.93	68.2	-8.27	PK
V	10400	39.73	49.09	15.34	37.42	43.4	68.2	-24.80	AV
V	15600	55.38	49.18	15.29	40.47	61.96	74	-12.04	PK
V	15600	38.34	49.18	15.29	40.47	44.92	54	-9.08	AV
H	10400	55.51	49.09	15.34	37.42	59.18	68.2	-9.02	PK
H	10400	40.36	49.09	15.34	37.42	44.03	68.2	-24.17	AV
H	15600	55.02	49.18	15.29	40.47	61.6	74	-12.40	PK
H	15600	39.28	49.18	15.29	40.47	45.86	54	-8.14	AV
operation frequency:5240									
V	10480	57.13	49.11	15.37	37.46	60.85	68.2	-7.35	PK
V	10480	40.58	49.11	15.37	37.46	44.3	68.2	-23.90	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	57.11	49.11	15.37	31.31	54.68	68.2	-13.52	PK
H	10480	44.69	49.11	15.37	31.31	42.26	68.2	-25.94	AV
H	15720	55.35	49.21	15.34	40.51	61.99	74	-12.01	PK
H	15720	39.23	49.21	15.34	40.51	45.87	54	-8.13	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.



802.11ax20 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	56.33	49.05	15.3	37.39	59.97	68.2	-8.23	PK
V	10360	41.48	49.05	15.3	37.39	45.12	68.2	-23.08	AV
V	15540	56.63	49.16	15.27	40.45	63.19	74	-10.81	PK
V	15540	39.14	49.16	15.27	40.45	45.7	54	-8.30	AV
H	10360	56.02	49.05	15.3	37.39	59.66	68.2	-8.54	PK
H	10360	40.49	49.05	15.3	37.39	44.13	68.2	-24.07	AV
H	15540	59.14	49.16	15.27	40.45	65.7	74	-8.30	PK
H	15540	38.05	49.16	15.27	40.45	44.61	54	-9.39	AV
operation frequency:5200									
V	10400	57.41	49.09	15.34	37.42	61.08	68.2	-7.12	PK
V	10400	39.33	49.09	15.34	37.42	43	68.2	-25.20	AV
V	15600	59.47	49.18	15.29	40.47	66.05	74	-7.95	PK
V	15600	38.15	49.18	15.29	40.47	44.73	54	-9.27	AV
H	10400	56.33	49.09	15.34	37.42	60	68.2	-8.20	PK
H	10400	39.78	49.09	15.34	37.42	43.45	68.2	-24.75	AV
H	15600	59.41	49.18	15.29	40.47	65.99	74	-8.01	PK
H	15600	38.32	49.18	15.29	40.47	44.9	54	-9.10	AV
operation frequency:5240									
V	10480	58.53	49.11	15.37	37.46	62.25	68.2	-5.95	PK
V	10480	39.38	49.11	15.37	37.46	43.1	68.2	-25.10	AV
V	15720	59.11	49.21	15.34	40.51	65.75	74	-8.25	PK
V	15720	38.39	49.21	15.34	40.51	45.03	54	-8.97	AV
H	10480	57.23	49.11	15.37	31.31	54.8	68.2	-13.40	PK
H	10480	45.54	49.11	15.37	31.31	43.11	68.2	-25.09	AV
H	15720	57.41	49.21	15.34	40.51	64.05	74	-9.95	PK
H	15720	37.57	49.21	15.34	40.51	44.21	54	-9.79	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	56.39	49.05	15.3	37.39	60.03	68.2	-8.17	PK
V	10360	41.42	49.05	15.3	37.39	45.06	68.2	-23.14	AV
V	15540	56.61	49.16	15.27	40.45	63.17	74	-10.83	PK
V	15540	39.16	49.16	15.27	40.45	45.72	54	-8.28	AV
H	10360	56.08	49.05	15.3	37.39	59.72	68.2	-8.48	PK
H	10360	40.43	49.05	15.3	37.39	44.07	68.2	-24.13	AV
H	15540	59.15	49.16	15.27	40.45	65.71	74	-8.29	PK
H	15540	38.01	49.16	15.27	40.45	44.57	54	-9.43	AV
operation frequency:5200									
V	10400	57.46	49.09	15.34	37.42	61.13	68.2	-7.07	PK
V	10400	39.37	49.09	15.34	37.42	43.04	68.2	-25.16	AV
V	15600	59.43	49.18	15.29	40.47	66.01	74	-7.99	PK
V	15600	38.12	49.18	15.29	40.47	44.7	54	-9.30	AV
H	10400	56.35	49.09	15.34	37.42	60.02	68.2	-8.18	PK
H	10400	39.73	49.09	15.34	37.42	43.4	68.2	-24.80	AV
H	15600	59.48	49.18	15.29	40.47	66.06	74	-7.94	PK
H	15600	38.33	49.18	15.29	40.47	44.91	54	-9.09	AV
operation frequency:5240									
V	10480	58.54	49.11	15.37	37.46	62.26	68.2	-5.94	PK
V	10480	39.33	49.11	15.37	37.46	43.05	68.2	-25.15	AV
V	15720	59.18	49.21	15.34	40.51	65.82	74	-8.18	PK
V	15720	38.33	49.21	15.34	40.51	44.97	54	-9.03	AV
H	10480	57.25	49.11	15.37	31.31	54.82	68.2	-13.38	PK
H	10480	45.52	49.11	15.37	31.31	43.09	68.2	-25.11	AV
H	15720	57.48	49.21	15.34	40.51	64.12	74	-9.88	PK
H	15720	37.56	49.21	15.34	40.51	44.2	54	-9.80	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.



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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	56.71	49.07	15.33	37.41	60.38	68.2	-7.82	PK
V	10380	40.29	49.07	15.33	37.41	43.96	68.2	-24.24	AV
V	15570	56.33	49.17	15.28	40.46	62.9	74	-11.10	PK
V	15570	39.75	49.17	15.28	40.46	46.32	54	-7.68	AV
H	10380	56.52	49.07	15.33	37.41	60.19	68.2	-8.01	PK
H	10380	40.44	49.07	15.33	37.41	44.11	68.2	-24.09	AV
H	15570	54.53	49.17	15.28	40.46	61.1	74	-12.90	PK
H	15570	39.38	49.17	15.28	40.46	45.95	54	-8.05	AV
operation frequency:5230									
V	10460	57.11	49.11	15.37	37.46	60.83	68.2	-7.37	PK
V	10460	41.28	49.11	15.37	37.46	45	68.2	-23.20	AV
V	15690	54.42	49.21	15.34	40.51	61.06	74	-12.94	PK
V	15690	39.31	49.21	15.34	40.51	45.95	54	-8.05	AV
H	10460	57.15	49.11	15.37	31.31	54.72	68.2	-13.48	PK
H	10460	44.56	49.11	15.37	31.31	42.13	68.2	-26.07	AV
H	15690	55.14	49.21	15.34	40.51	61.78	74	-12.22	PK
H	15690	40.09	49.21	15.34	40.51	46.73	54	-7.27	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	41.67	49.07	15.33	37.41	45.34	54	-8.66	AV
V	15630	56.12	49.17	15.28	40.46	62.69	74	-11.31	PK
V	15630	39.13	49.17	15.28	40.46	45.7	54	-8.30	AV
H	10420	56.38	49.07	15.33	37.41	60.05	74	-13.95	PK
H	10420	41.24	49.07	15.33	37.41	44.91	54	-9.09	AV
H	15630	54.06	49.17	15.28	40.46	60.63	74	-13.37	PK
H	15630	40.38	49.17	15.28	40.46	46.95	54	-7.05	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.									



802.11ax 40

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	56.79	49.07	15.33	37.41	60.46	68.2	-7.74	PK
V	10380	40.23	49.07	15.33	37.41	43.9	68.2	-24.30	AV
V	15570	56.35	49.17	15.28	40.46	62.92	74	-11.08	PK
V	15570	39.77	49.17	15.28	40.46	46.34	54	-7.66	AV
H	10380	56.56	49.07	15.33	37.41	60.23	68.2	-7.97	PK
H	10380	40.42	49.07	15.33	37.41	44.09	68.2	-24.11	AV
H	15570	54.58	49.17	15.28	40.46	61.15	74	-12.85	PK
H	15570	39.33	49.17	15.28	40.46	45.9	54	-8.10	AV
operation frequency:5230									
V	10460	57.15	49.11	15.37	37.46	60.87	68.2	-7.33	PK
V	10460	41.26	49.11	15.37	37.46	44.98	68.2	-23.22	AV
V	15690	54.43	49.21	15.34	40.51	61.07	74	-12.93	PK
V	15690	39.38	49.21	15.34	40.51	46.02	54	-7.98	AV
H	10460	57.19	49.11	15.37	31.31	54.76	68.2	-13.44	PK
H	10460	44.53	49.11	15.37	31.31	42.1	68.2	-26.10	AV
H	15690	55.15	49.21	15.34	40.51	61.79	74	-12.21	PK
H	15690	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.									

802.11ax 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	56.25	49.07	15.33	37.41	59.92	74	-14.08	PK
V	10420	41.61	49.07	15.33	37.41	45.28	54	-8.72	AV
V	15630	56.16	49.17	15.28	40.46	62.73	74	-11.27	PK
V	15630	39.18	49.17	15.28	40.46	45.75	54	-8.25	AV
H	10420	56.34	49.07	15.33	37.41	60.01	74	-13.99	PK
H	10420	41.26	49.07	15.33	37.41	44.93	54	-9.07	AV
H	15630	54.03	49.17	15.28	40.46	60.6	74	-13.40	PK
H	15630	40.37	49.17	15.28	40.46	46.94	54	-7.06	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	56.73	49.07	15.33	37.41	60.4	68.2	-7.80	PK
V	10380	40.21	49.07	15.33	37.41	43.88	68.2	-24.32	AV
V	15570	56.39	49.17	15.28	40.46	62.96	74	-11.04	PK
V	15570	39.75	49.17	15.28	40.46	46.32	54	-7.68	AV
H	10380	56.53	49.07	15.33	37.41	60.2	68.2	-8.00	PK
H	10380	40.45	49.07	15.33	37.41	44.12	68.2	-24.08	AV
H	15570	54.18	49.17	15.28	40.46	60.75	74	-13.25	PK
H	15570	39.32	49.17	15.28	40.46	45.89	54	-8.11	AV
operation frequency:5230									
V	10460	57.12	49.11	15.37	37.46	60.84	68.2	-7.36	PK
V	10460	41.29	49.11	15.37	37.46	45.01	68.2	-23.19	AV
V	15690	54.44	49.21	15.34	40.51	61.08	74	-12.92	PK
V	15690	39.32	49.21	15.34	40.51	45.96	54	-8.04	AV
H	10460	57.17	49.11	15.37	31.31	54.74	68.2	-13.46	PK
H	10460	44.56	49.11	15.37	31.31	42.13	68.2	-26.07	AV
H	15690	55.11	49.21	15.34	40.51	61.75	74	-12.25	PK
H	15690	40.05	49.21	15.34	40.51	46.69	54	-7.31	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 MIMO mode

802.11ac20

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	56.33	49.05	15.3	37.39	59.97	68.2	-8.23	PK
V	10360	41.48	49.05	15.3	37.39	45.12	68.2	-23.08	AV
V	15540	56.62	49.16	15.27	40.45	63.18	74	-10.82	PK
V	15540	39.13	49.16	15.27	40.45	45.69	54	-8.31	AV
H	10360	56.04	49.05	15.3	37.39	59.68	68.2	-8.52	PK
H	10360	40.41	49.05	15.3	37.39	44.05	68.2	-24.15	AV
H	15540	59.16	49.16	15.27	40.45	65.72	74	-8.28	PK
H	15540	38.08	49.16	15.27	40.45	44.64	54	-9.36	AV
operation frequency:5200									
V	10400	57.43	49.09	15.34	37.42	61.1	68.2	-7.10	PK
V	10400	39.35	49.09	15.34	37.42	43.02	68.2	-25.18	AV
V	15600	59.42	49.18	15.29	40.47	66	74	-8.00	PK
V	15600	38.16	49.18	15.29	40.47	44.74	54	-9.26	AV
H	10400	56.31	49.09	15.34	37.42	59.98	68.2	-8.22	PK
H	10400	39.79	49.09	15.34	37.42	43.46	68.2	-24.74	AV
H	15600	59.44	49.18	15.29	40.47	66.02	74	-7.98	PK
H	15600	38.32	49.18	15.29	40.47	44.9	54	-9.10	AV
operation frequency:5240									
V	10480	58.53	49.11	15.37	37.46	62.25	68.2	-5.95	PK
V	10480	39.29	49.11	15.37	37.46	43.01	68.2	-25.19	AV
V	15720	59.11	49.21	15.34	40.51	65.75	74	-8.25	PK
V	15720	38.39	49.21	15.34	40.51	45.03	54	-8.97	AV
H	10480	57.21	49.11	15.37	31.31	54.78	68.2	-13.42	PK
H	10480	45.53	49.11	15.37	31.31	43.1	68.2	-25.10	AV
H	15720	57.45	49.21	15.34	40.51	64.09	74	-9.91	PK
H	15720	37.53	49.21	15.34	40.51	44.17	54	-9.83	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.



802.11ax20 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	56.39	49.05	15.3	37.39	60.03	68.2	-8.17	PK
V	10360	41.43	49.05	15.3	37.39	45.07	68.2	-23.13	AV
V	15540	56.64	49.16	15.27	40.45	63.2	74	-10.80	PK
V	15540	39.19	49.16	15.27	40.45	45.75	54	-8.25	AV
H	10360	56.03	49.05	15.3	37.39	59.67	68.2	-8.53	PK
H	10360	40.45	49.05	15.3	37.39	44.09	68.2	-24.11	AV
H	15540	59.11	49.16	15.27	40.45	65.67	74	-8.33	PK
H	15540	38.06	49.16	15.27	40.45	44.62	54	-9.38	AV
operation frequency:5200									
V	10400	57.42	49.09	15.34	37.42	61.09	68.2	-7.11	PK
V	10400	39.34	49.09	15.34	37.42	43.01	68.2	-25.19	AV
V	15600	59.46	49.18	15.29	40.47	66.04	74	-7.96	PK
V	15600	38.13	49.18	15.29	40.47	44.71	54	-9.29	AV
H	10400	56.38	49.09	15.34	37.42	60.05	68.2	-8.15	PK
H	10400	39.73	49.09	15.34	37.42	43.4	68.2	-24.80	AV
H	15600	59.45	49.18	15.29	40.47	66.03	74	-7.97	PK
H	15600	38.36	49.18	15.29	40.47	44.94	54	-9.06	AV
operation frequency:5240									
V	10480	58.52	49.11	15.37	37.46	62.24	68.2	-5.96	PK
V	10480	39.27	49.11	15.37	37.46	42.99	68.2	-25.21	AV
V	15720	59.16	49.21	15.34	40.51	65.8	74	-8.20	PK
V	15720	38.35	49.21	15.34	40.51	44.99	54	-9.01	AV
H	10480	57.23	49.11	15.37	31.31	54.8	68.2	-13.40	PK
H	10480	45.58	49.11	15.37	31.31	43.15	68.2	-25.05	AV
H	15720	57.44	49.21	15.34	40.51	64.08	74	-9.92	PK
H	15720	37.59	49.21	15.34	40.51	44.23	54	-9.77	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	56.32	49.05	15.3	37.39	59.96	68.2	-8.24	PK
V	10360	41.45	49.05	15.3	37.39	45.09	68.2	-23.11	AV
V	15540	56.66	49.16	15.27	40.45	63.22	74	-10.78	PK
V	15540	39.17	49.16	15.27	40.45	45.73	54	-8.27	AV
H	10360	56.01	49.05	15.3	37.39	59.65	68.2	-8.55	PK
H	10360	40.46	49.05	15.3	37.39	44.1	68.2	-24.10	AV
H	15540	59.13	49.16	15.27	40.45	65.69	74	-8.31	PK
H	15540	38.04	49.16	15.27	40.45	44.6	54	-9.40	AV
operation frequency:5200									
V	10400	57.43	49.09	15.34	37.42	61.1	68.2	-7.10	PK
V	10400	39.38	49.09	15.34	37.42	43.05	68.2	-25.15	AV
V	15600	59.44	49.18	15.29	40.47	66.02	74	-7.98	PK
V	15600	38.16	49.18	15.29	40.47	44.74	54	-9.26	AV
H	10400	56.33	49.09	15.34	37.42	60	68.2	-8.20	PK
H	10400	39.78	49.09	15.34	37.42	43.45	68.2	-24.75	AV
H	15600	59.41	49.18	15.29	40.47	65.99	74	-8.01	PK
H	15600	38.33	49.18	15.29	40.47	44.91	54	-9.09	AV
operation frequency:5240									
V	10480	58.55	49.11	15.37	37.46	62.27	68.2	-5.93	PK
V	10480	39.29	49.11	15.37	37.46	43.01	68.2	-25.19	AV
V	15720	59.14	49.21	15.34	40.51	65.78	74	-8.22	PK
V	15720	38.33	49.21	15.34	40.51	44.97	54	-9.03	AV
H	10480	57.25	49.11	15.37	31.31	54.82	68.2	-13.38	PK
H	10480	45.54	49.11	15.37	31.31	43.11	68.2	-25.09	AV
H	15720	57.43	49.21	15.34	40.51	64.07	74	-9.93	PK
H	15720	37.57	49.21	15.34	40.51	44.21	54	-9.79	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 40

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	56.79	49.07	15.33	37.41	60.46	68.2	-7.74	PK
V	10380	40.22	49.07	15.33	37.41	43.89	68.2	-24.31	AV
V	15570	56.33	49.17	15.28	40.46	62.9	74	-11.10	PK
V	15570	39.78	49.17	15.28	40.46	46.35	54	-7.65	AV
H	10380	56.54	49.07	15.33	37.41	60.21	68.2	-7.99	PK
H	10380	40.46	49.07	15.33	37.41	44.13	68.2	-24.07	AV
H	15570	54.55	49.17	15.28	40.46	61.12	74	-12.88	PK
H	15570	39.38	49.17	15.28	40.46	45.95	54	-8.05	AV
operation frequency:5230									
V	10460	57.16	49.11	15.37	37.46	60.88	68.2	-7.32	PK
V	10460	41.13	49.11	15.37	37.46	44.85	68.2	-23.35	AV
V	15690	54.47	49.21	15.34	40.51	61.11	74	-12.89	PK
V	15690	39.36	49.21	15.34	40.51	46	54	-8.00	AV
H	10460	57.11	49.11	15.37	31.31	54.68	68.2	-13.52	PK
H	10460	44.52	49.11	15.37	31.31	42.09	68.2	-26.11	AV
H	15690	55.18	49.21	15.34	40.51	61.82	74	-12.18	PK
H	15690	40.03	49.21	15.34	40.51	46.67	54	-7.33	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	41.67	49.07	15.33	37.41	45.34	54	-8.66	AV
V	15630	56.15	49.17	15.28	40.46	62.72	74	-11.28	PK
V	15630	39.11	49.17	15.28	40.46	45.68	54	-8.32	AV
H	10420	56.39	49.07	15.33	37.41	60.06	74	-13.94	PK
H	10420	41.23	49.07	15.33	37.41	44.9	54	-9.10	AV
H	15630	54.07	49.17	15.28	40.46	60.64	74	-13.36	PK
H	15630	40.38	49.17	15.28	40.46	46.95	54	-7.05	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.									



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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	56.73	49.07	15.33	37.41	60.4	68.2	-7.80	PK
V	10380	40.25	49.07	15.33	37.41	43.92	68.2	-24.28	AV
V	15570	56.32	49.17	15.28	40.46	62.89	74	-11.11	PK
V	15570	39.71	49.17	15.28	40.46	46.28	54	-7.72	AV
H	10380	56.56	49.07	15.33	37.41	60.23	68.2	-7.97	PK
H	10380	40.44	49.07	15.33	37.41	44.11	68.2	-24.09	AV
H	15570	54.57	49.17	15.28	40.46	61.14	74	-12.86	PK
H	15570	39.33	49.17	15.28	40.46	45.9	54	-8.10	AV
operation frequency:5230									
V	10460	57.11	49.11	15.37	37.46	60.83	68.2	-7.37	PK
V	10460	41.18	49.11	15.37	37.46	44.9	68.2	-23.30	AV
V	15690	54.46	49.21	15.34	40.51	61.1	74	-12.90	PK
V	15690	39.33	49.21	15.34	40.51	45.97	54	-8.03	AV
H	10460	57.15	49.11	15.37	31.31	54.72	68.2	-13.48	PK
H	10460	44.51	49.11	15.37	31.31	42.08	68.2	-26.12	AV
H	15690	55.17	49.21	15.34	40.51	61.81	74	-12.19	PK
H	15690	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.									

802.11ax 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	56.25	49.07	15.33	37.41	59.92	74	-14.08	PK
V	10420	41.66	49.07	15.33	37.41	45.33	54	-8.67	AV
V	15630	56.17	49.17	15.28	40.46	62.74	74	-11.26	PK
V	15630	39.15	49.17	15.28	40.46	45.72	54	-8.28	AV
H	10420	56.36	49.07	15.33	37.41	60.03	74	-13.97	PK
H	10420	41.27	49.07	15.33	37.41	44.94	54	-9.06	AV
H	15630	54.04	49.17	15.28	40.46	60.61	74	-13.39	PK
H	15630	40.39	49.17	15.28	40.46	46.96	54	-7.04	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	56.78	49.07	15.33	37.41	60.45	68.2	-7.75	PK
V	10380	40.23	49.07	15.33	37.41	43.9	68.2	-24.30	AV
V	15570	56.35	49.17	15.28	40.46	62.92	74	-11.08	PK
V	15570	39.79	49.17	15.28	40.46	46.36	54	-7.64	AV
H	10380	56.53	49.07	15.33	37.41	60.2	68.2	-8.00	PK
H	10380	40.45	49.07	15.33	37.41	44.12	68.2	-24.08	AV
H	15570	54.56	49.17	15.28	40.46	61.13	74	-12.87	PK
H	15570	39.32	49.17	15.28	40.46	45.89	54	-8.11	AV
operation frequency:5230									
V	10460	57.18	49.11	15.37	37.46	60.9	68.2	-7.30	PK
V	10460	41.26	49.11	15.37	37.46	44.98	68.2	-23.22	AV
V	15690	54.43	49.21	15.34	40.51	61.07	74	-12.93	PK
V	15690	39.38	49.21	15.34	40.51	46.02	54	-7.98	AV
H	10460	57.13	49.11	15.37	31.31	54.7	68.2	-13.50	PK
H	10460	44.55	49.11	15.37	31.31	42.12	68.2	-26.08	AV
H	15690	55.16	49.21	15.34	40.51	61.8	74	-12.20	PK
H	15690	40.04	49.21	15.34	40.51	46.68	54	-7.32	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.



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.

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	

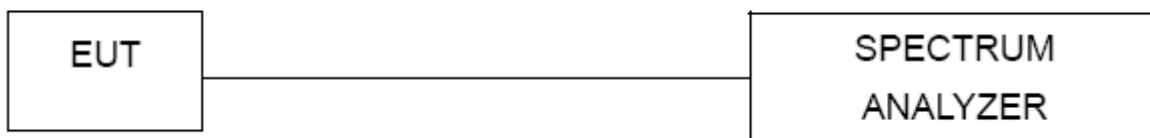
3.3.2 TEST PROCEDURE

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

For Conducted

Please see annex 2

The test result of ANT1 & ANT 2 are all attenuated 3dB below the limit. So the MIMO mode is passed.



4. PEAK OUTPUT POWER

4.1 APPLIED PROCEDURES / LIMIT

For 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.

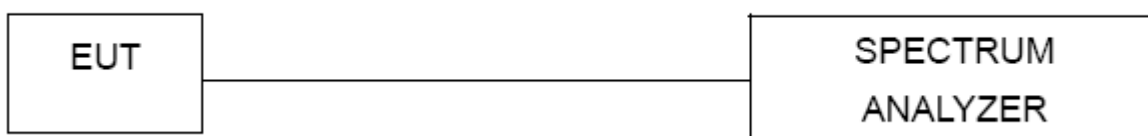
4.1.1 TEST PROCEDURE

- a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,
- b. (i) Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.
(ii) Set RBW = 1 MHz.
(iii) Set VBW $\geq$ 3 MHz.
(iv) Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$. (This ensures that bin-to-bin spacing is $\leq \text{RBW}/2$, so that narrowband signals are not lost between frequency bins.)
(v) Sweep time = auto.
(vi) Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
(vii) If transmit duty cycle < 98%, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle $\geq$ 98%, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."
(viii) Trace average at least 100 traces in power averaging (rms) mode.
(ix) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

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

Please see annex 2

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. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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	AVG
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

Please see annex 2



6. 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.

6.1.1 TEST PROCEDURE

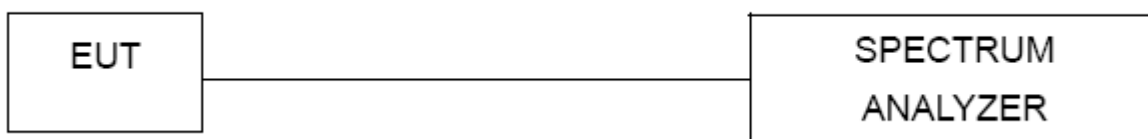
26dB Bandwidth	
Spectrum Parameters	Setting
RBW	approximately 1% of the emission bandwidth
VBW	>RBW
Span	30MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

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

Please see annex 2



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

Please see annex 2



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.

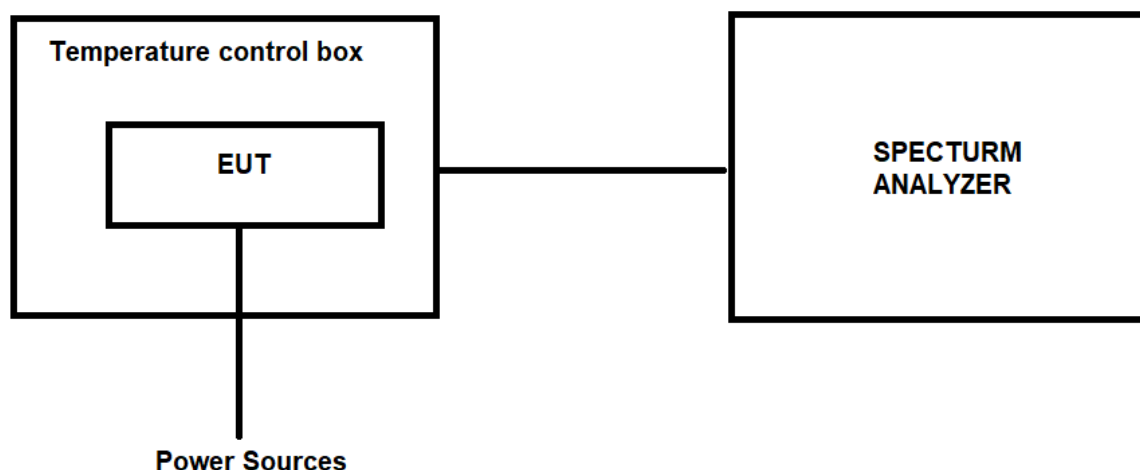
8.1.1 TEST PROCEDURE

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**

ANT1

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)		Δ Frequency (MHz)	
			802.11a	802.11n HT20	802.11a	802.11n HT20
132V	-20℃	5180.0000	5180.0276	5180.0156	-0.0276	-0.0156
		5220.0000	5220.0317	5220.0232	-0.0317	-0.0232
		5240.0000	5240.0267	5240.0132	-0.0267	-0.0132
108V		5180.0000	5180.0346	5180.0176	-0.0346	-0.0176
		5220.0000	5220.0276	5220.0765	-0.0276	-0.0765
		5240.0000	5240.0211	5240.0432	-0.0211	-0.0432
120V	25℃	5180.0000	5180.0277	5180.0342	-0.0277	-0.0342
		5220.0000	5220.0326	5220.0432	-0.0326	-0.0432
		5240.0000	5240.0278	5240.0321	-0.0278	-0.0321
132V	50℃	5180.0000	5180.0298	5180.0267	-0.0298	-0.0267
		5220.0000	5220.0278	5220.0154	-0.0278	-0.0154
		5240.0000	5240.0297	5240.0178	-0.0297	-0.0178
108V	50℃	5180.0000	5180.0278	5180.0321	-0.0278	-0.0321
		5220.0000	5220.0297	5220.0187	-0.0297	-0.0187
		5240.0000	5240.0178	5240.0167	-0.0178	-0.0167

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)		Δ Frequency (MHz)	
			802.11ac 20	802.11ax 20	802.11ac 20	802.11ax 20
132V	-20℃	5180.0000	5180.0245	5180.0123	-0.0245	-0.0123
		5220.0000	5220.0202	5220.0227	-0.0202	-0.0227
		5240.0000	5240.0053	5240.0187	-0.0053	-0.0187
108V		5180.0000	5180.0134	5180.0093	-0.0134	-0.0093
		5220.0000	5220.0242	5220.0185	-0.0242	-0.0185
		5240.0000	5240.0253	5240.0268	-0.0253	-0.0268
120V	25℃	5180.0000	5180.0444	5180.0418	-0.0444	-0.0418
		5220.0000	5220.0123	5220.0094	-0.0123	-0.0094
		5240.0000	5240.0122	5240.0197	-0.0122	-0.0197
132V	50℃	5180.0000	5180.0243	5180.0183	-0.0243	-0.0183
		5220.0000	5220.0174	5220.0068	-0.0174	-0.0068
		5240.0000	5240.0342	5240.0363	-0.0342	-0.0363
108V	50℃	5180.0000	5180.0345	5180.0363	-0.0345	-0.0363
		5220.0000	5220.0296	5220.0322	-0.0296	-0.0322
		5240.0000	5240.0345	5240.0234	-0.0345	-0.0234



Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)			Δ Frequency (MHz)		
			802.11ac 40	802.11ax 40	802.11n HT40	802.11ac 40	802.11 ax 40	802.11n HT40
132V	-20℃	5190.000	5190.0198	5190.0214	5190.0356	-0.0198	-0.0214	-0.0356
		5230.000	5230.0339	5230.0276	5230.0467	-0.0339	-0.0276	-0.0467
108V		5190.000	5190.0247	5190.0276	5190.0387	-0.0247	-0.0276	-0.0387
		5230.000	5230.0312	5230.0367	5230.0289	-0.0312	-0.0367	-0.0289
120V	25℃	5190.000	5190.0231	5190.045	5190.0467	-0.0231	-0.0450	-0.0467
		5230.000	5230.0650	5230.0672	5230.0533	-0.0650	-0.0672	-0.0533
132V	50℃	5190.000	5190.0631	5190.0513	5190.0654	-0.0631	-0.0513	-0.0654
		5230.000	5230.0543	5230.0557	5230.0511	-0.0543	-0.0557	-0.0511
108V	50℃	5190.000	5190.0533	5190.0558	5190.0378	-0.0533	-0.0558	-0.0378
		5230.000	5230.0342	5230.0397	5230.0411	-0.0342	-0.0397	-0.0411

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)		Δ Frequency (MHz)	
			802.11ac 80	802.11ax 80	802.11ac 80	802.11ax 80
132V	-20℃	5210.0000	5210.0265	5210.0476	-0.0265	-0.0476
108V		5210.0000	5210.0378	5210.0653	-0.0378	-0.0653
120V	25℃	5210.0000	5210.0657	5210.0646	-0.0657	-0.0646
132V	50℃	5210.0000	5210.0685	5210.0598	-0.0685	-0.0598
108V	50℃	5210.0000	5210.0459	5210.0589	-0.0459	-0.0589



ANT2

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)		Δ Frequency (MHz)	
			802.11a	802.11n HT20	802.11a	802.11n HT20
132V	-20℃	5180.0000	5180.0286	5180.0166	-0.0286	-0.0166
		5220.0000	5220.0327	5220.0242	-0.0327	-0.0242
		5240.0000	5240.0277	5240.0142	-0.0277	-0.0142
108V		5180.0000	5180.0356	5180.0186	-0.0356	-0.0186
		5220.0000	5220.0286	5220.0775	-0.0286	-0.0775
		5240.0000	5240.0221	5240.0442	-0.0221	-0.0442
120V	25℃	5180.0000	5180.0287	5180.0352	-0.0287	-0.0352
		5220.0000	5220.0336	5220.0442	-0.0336	-0.0442
		5240.0000	5240.0288	5240.0331	-0.0288	-0.0331
132V	50℃	5180.0000	5180.0308	5180.0277	-0.0308	-0.0277
		5220.0000	5220.0288	5220.0164	-0.0288	-0.0164
		5240.0000	5240.0307	5240.0188	-0.0307	-0.0188
108V	50℃	5180.0000	5180.0288	5180.0331	-0.0288	-0.0331
		5220.0000	5220.0307	5220.0197	-0.0307	-0.0197
		5240.0000	5240.0188	5240.0177	-0.0188	-0.0177

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)		Δ Frequency (MHz)	
			802.11ac 20	802.11ax 20	802.11ac 20	802.11ax 20
132V	-20℃	5180.0000	5180.0255	5180.0133	-0.0255	-0.0133
		5220.0000	5220.0212	5220.0237	-0.0212	-0.0237
		5240.0000	5240.0063	5240.0197	-0.0063	-0.0197
108V		5180.0000	5180.0144	5180.0103	-0.0144	-0.0103
		5220.0000	5220.0252	5220.0195	-0.0252	-0.0195
		5240.0000	5240.0263	5240.0278	-0.0263	-0.0278
120V	25℃	5180.0000	5180.0454	5180.0428	-0.0454	-0.0428
		5220.0000	5220.0133	5220.0104	-0.0133	-0.0104
		5240.0000	5240.0132	5240.0207	-0.0132	-0.0207
132V	50℃	5180.0000	5180.0253	5180.0193	-0.0253	-0.0193
		5220.0000	5220.0184	5220.0078	-0.0184	-0.0078
		5240.0000	5240.0352	5240.0373	-0.0352	-0.0373
108V	50℃	5180.0000	5180.0355	5180.0373	-0.0355	-0.0373
		5220.0000	5220.0306	5220.0332	-0.0306	-0.0332
		5240.0000	5240.0355	5240.0244	-0.0355	-0.0244



Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)			Δ Frequency (MHz)		
			802.11ac 40	802.11ax 40	802.11n HT40	802.11ac 40	802.11 ax 40	802.11n HT40
132V	-20℃	5190.000	5190.0208	5190.0224	5190.0366	-0.0208	-0.0224	-0.0366
		5230.000	5230.0349	5230.0286	5230.0477	-0.0349	-0.0286	-0.0477
108V		5190.000	5190.0257	5190.0286	5190.0397	-0.0257	-0.0286	-0.0397
		5230.000	5230.0322	5230.0377	5230.0299	-0.0322	-0.0377	-0.0299
120V	25℃	5190.000	5190.0241	5190.0460	5190.0477	-0.0241	-0.0460	-0.0477
		5230.000	5230.0660	5230.0682	5230.0543	-0.0660	-0.0682	-0.0543
132V	50℃	5190.000	5190.0641	5190.0523	5190.0664	-0.0641	-0.0523	-0.0664
		5230.000	5230.0553	5230.0567	5230.0521	-0.0553	-0.0567	-0.0521
108V	50℃	5190.000	5190.0543	5190.0568	5190.0388	-0.0543	-0.0568	-0.0388
		5230.000	5230.0352	5230.0407	5230.0421	-0.0352	-0.0407	-0.0421

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)		Δ Frequency (MHz)	
			802.11ac 80	802.11ax 80	802.11ac 80	802.11ax 80
132V	-20°C	5210.0000	5210.0275	5210.0486	-0.0275	-0.0486
108V		5210.0000	5210.0388	5210.0663	-0.0388	-0.0663
120V	25°C	5210.0000	5210.0667	5210.0656	-0.0667	-0.0656
132V	50°C	5210.0000	5210.0695	5210.0608	-0.0695	-0.0608
108V	50°C	5210.0000	5210.0469	5210.0599	-0.0469	-0.0599



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.

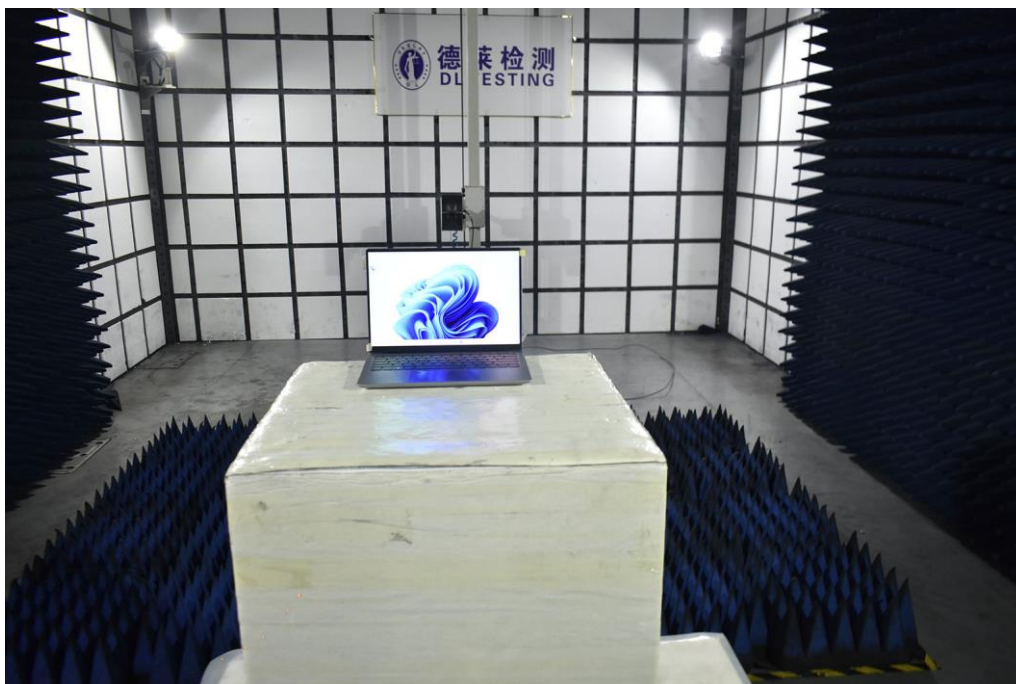
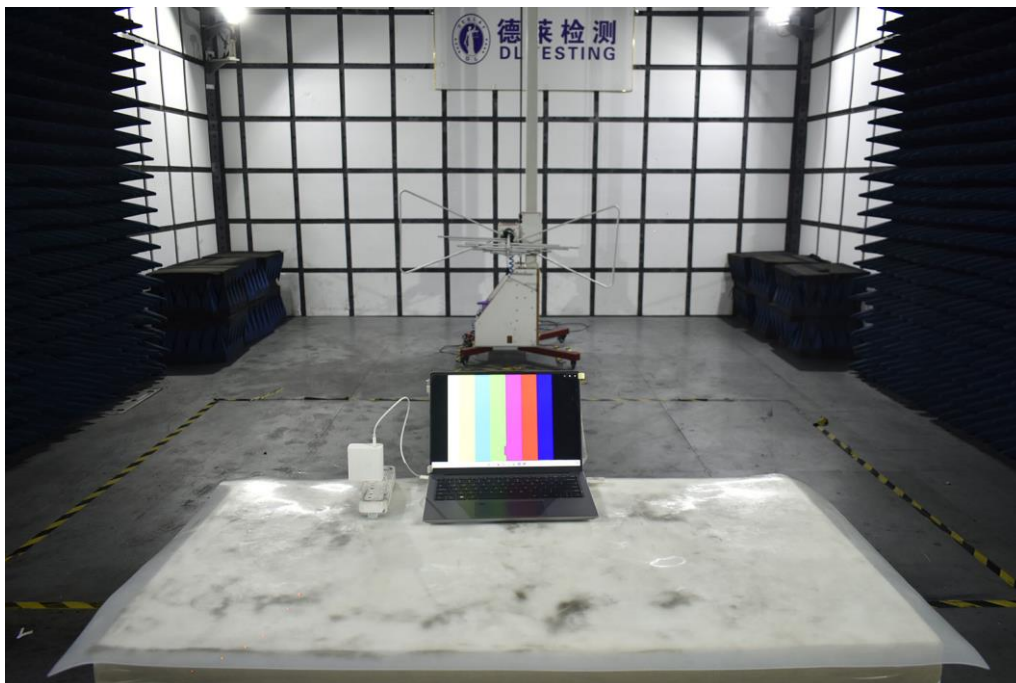
10.2 EUT ANTENNA

The EUT antenna is equipped unique antenna connector and antenna gain less than 6dBi, It comply with the standard requirement.



11. TEST SEUUP PHOTO

Radiated Measurement Photos



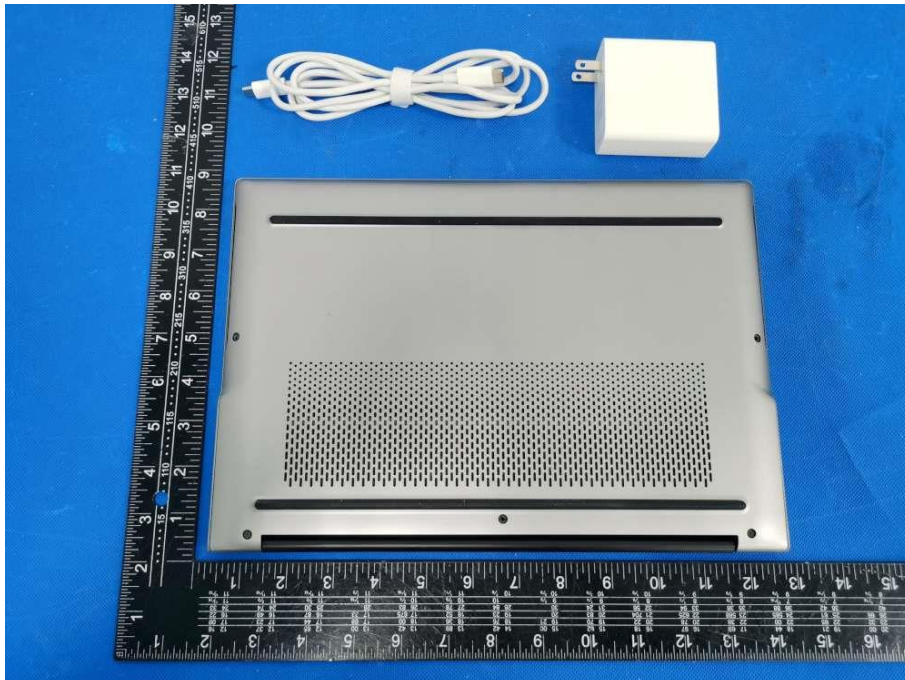


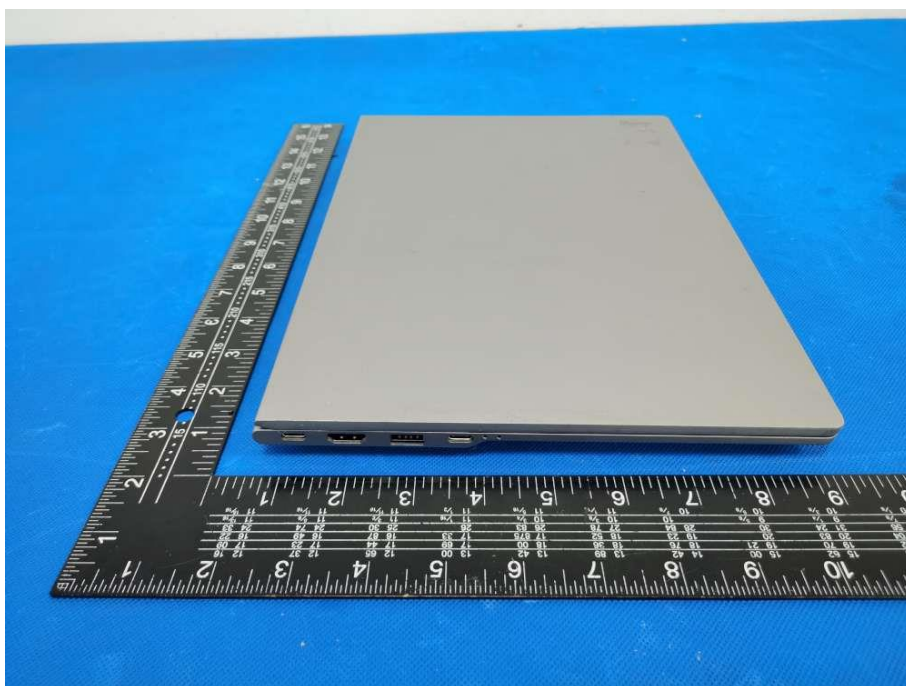
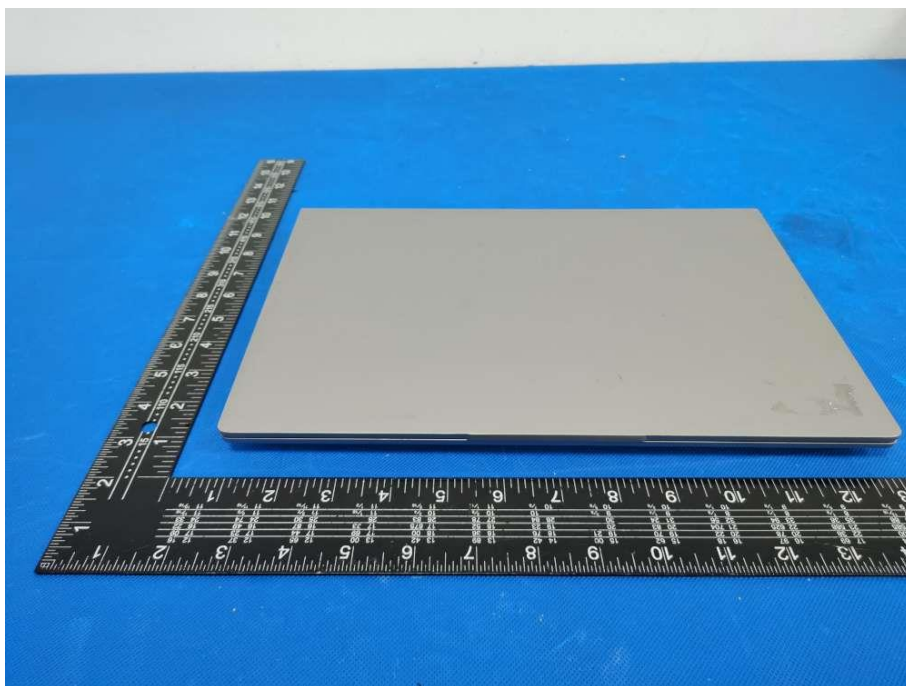
Conducted Measurement Photos



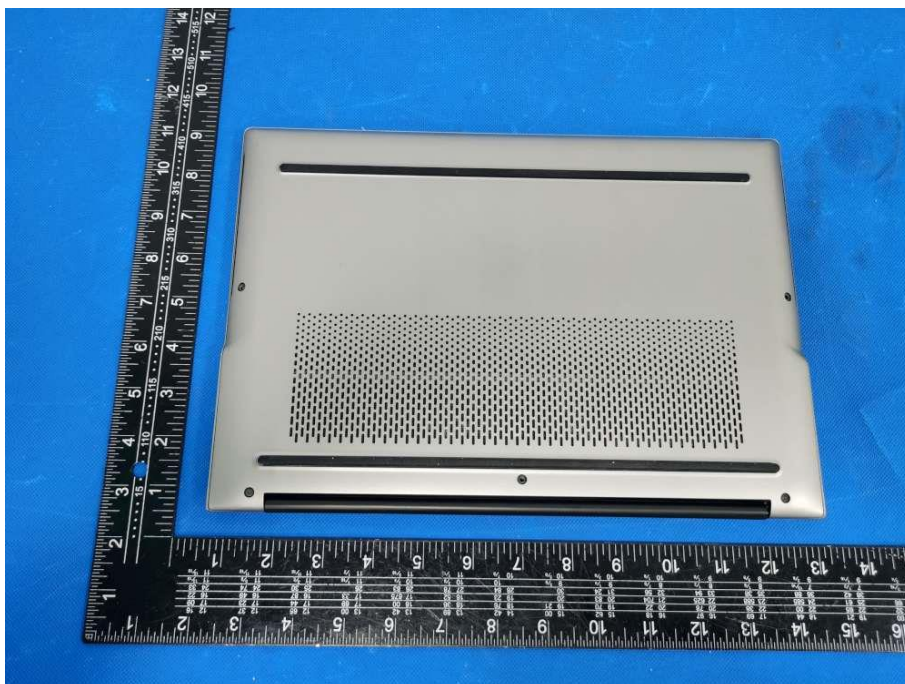
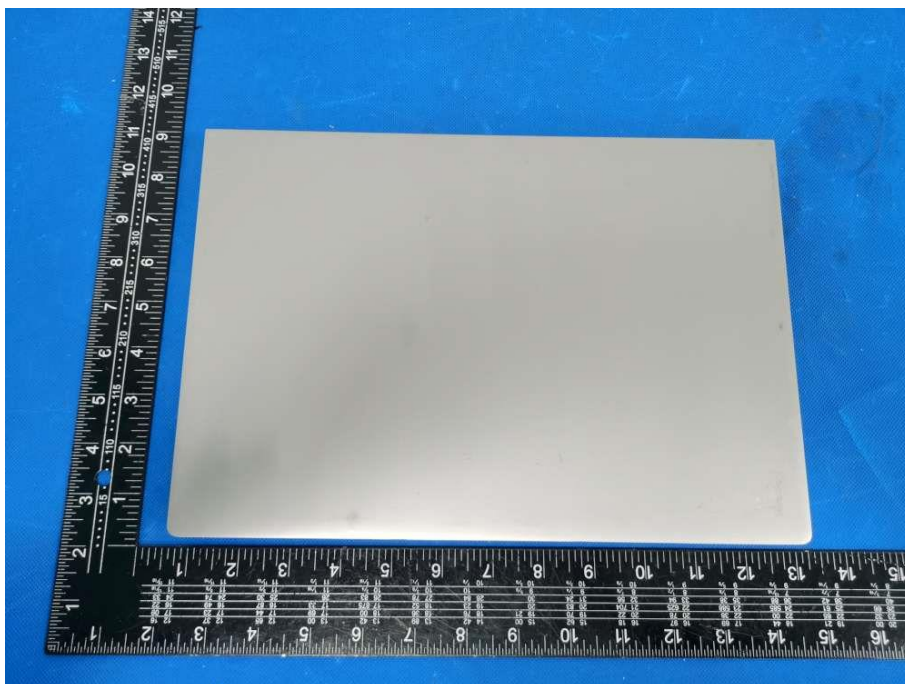


12. EUT PHOTO

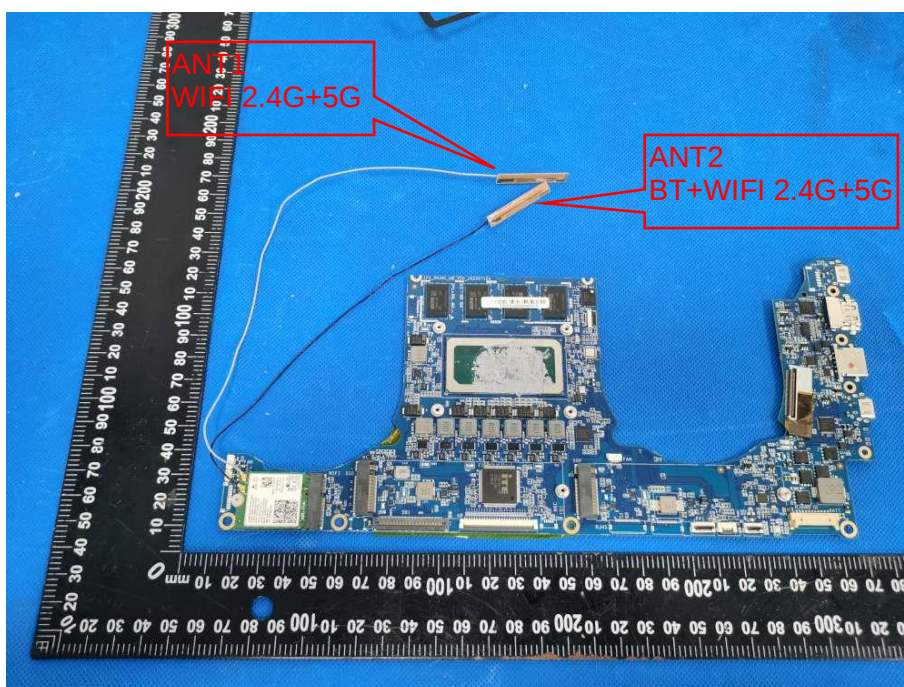


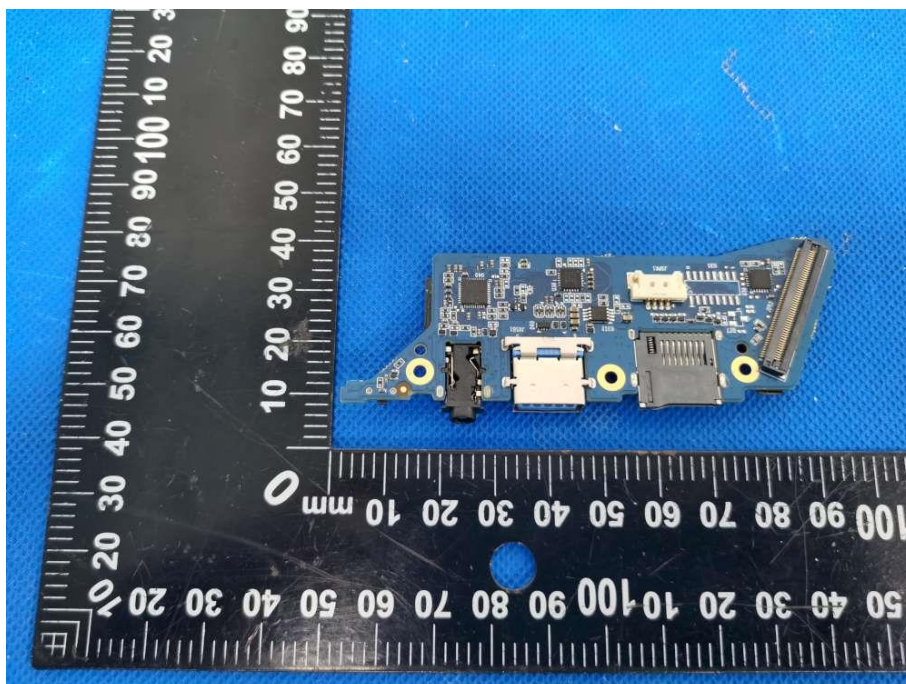
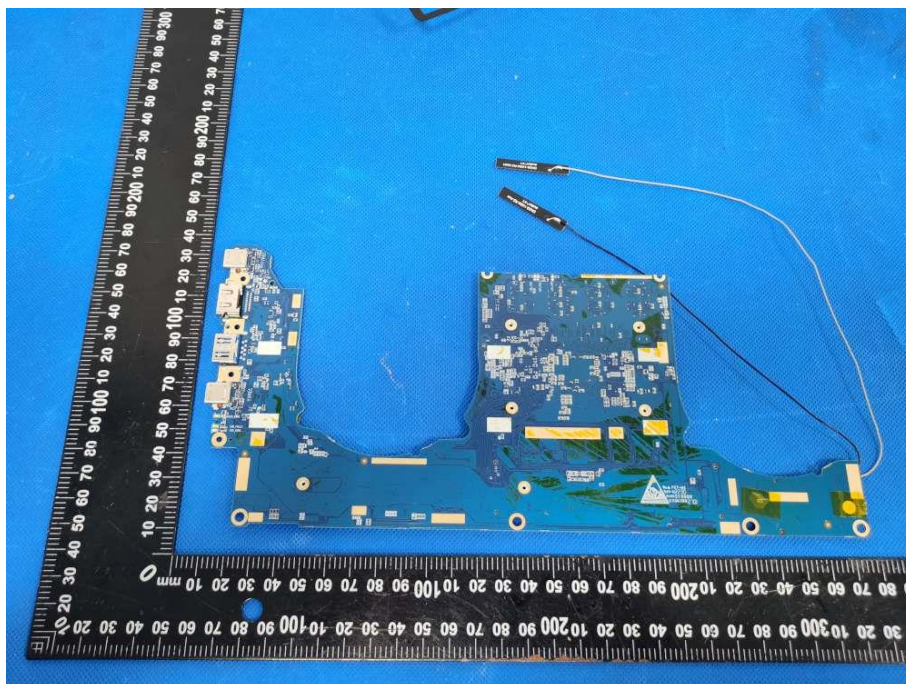


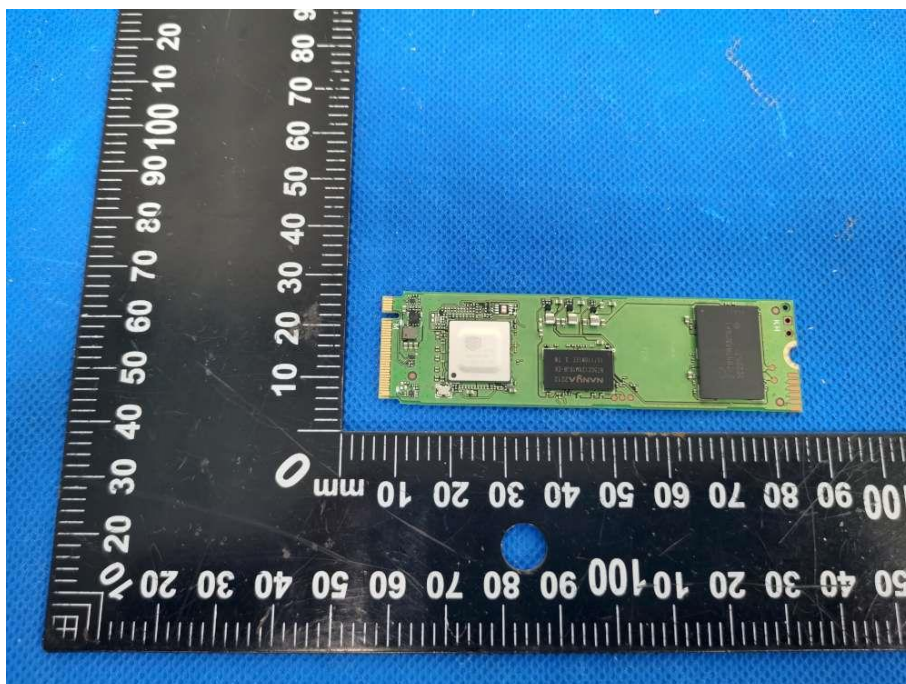
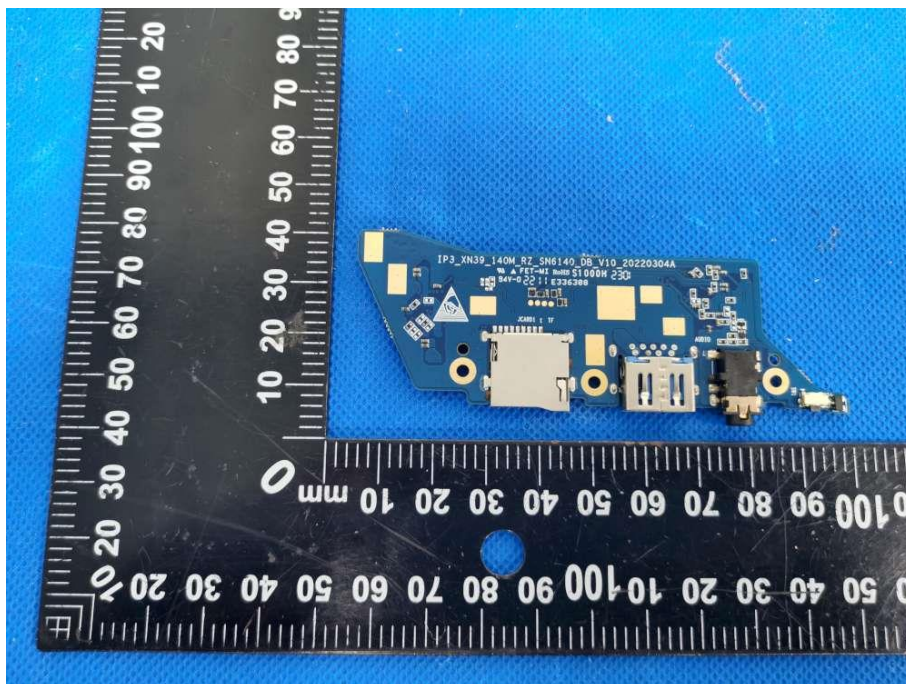


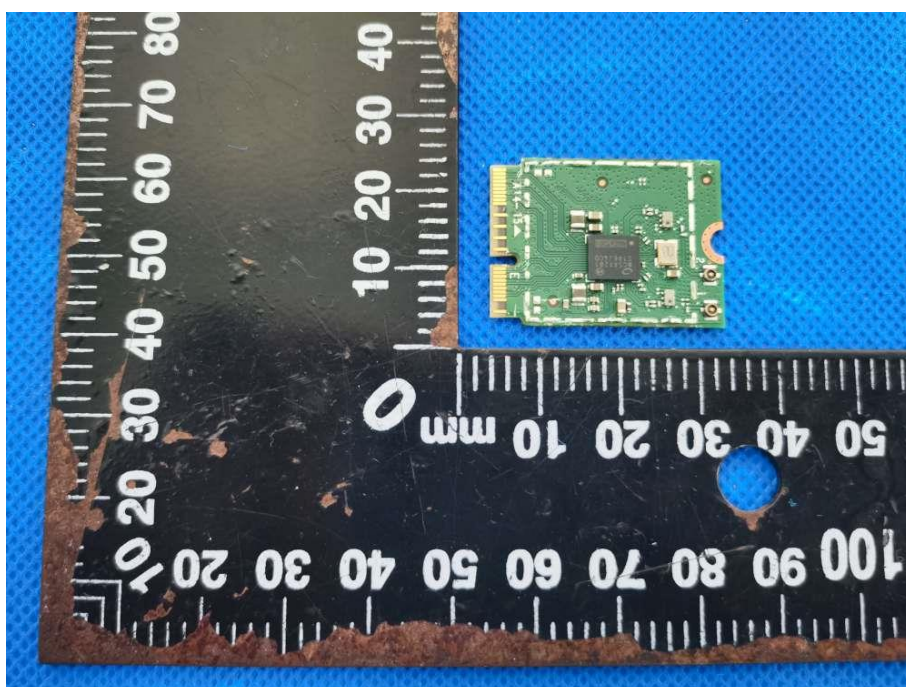
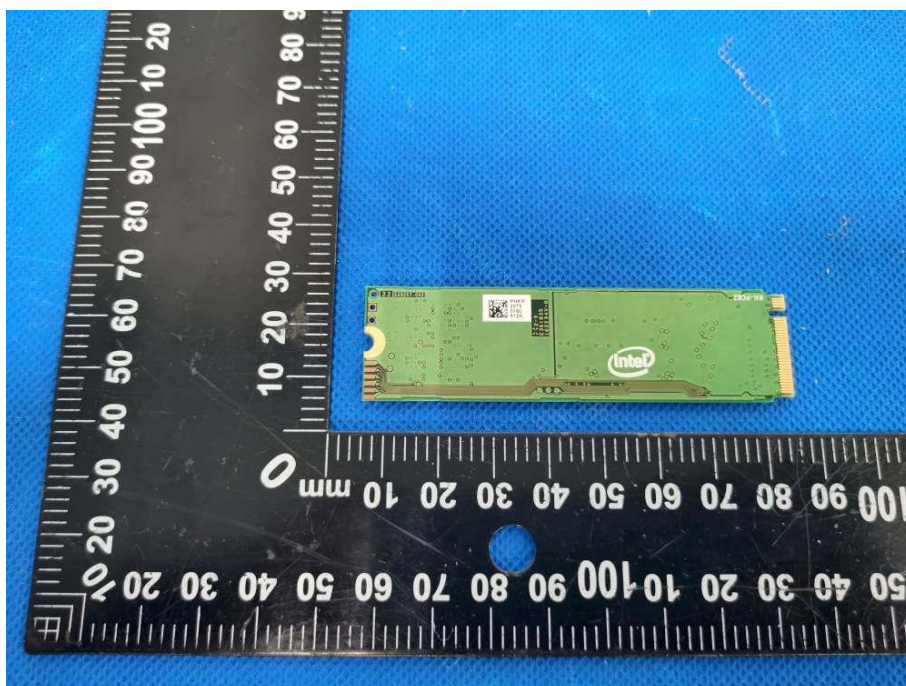


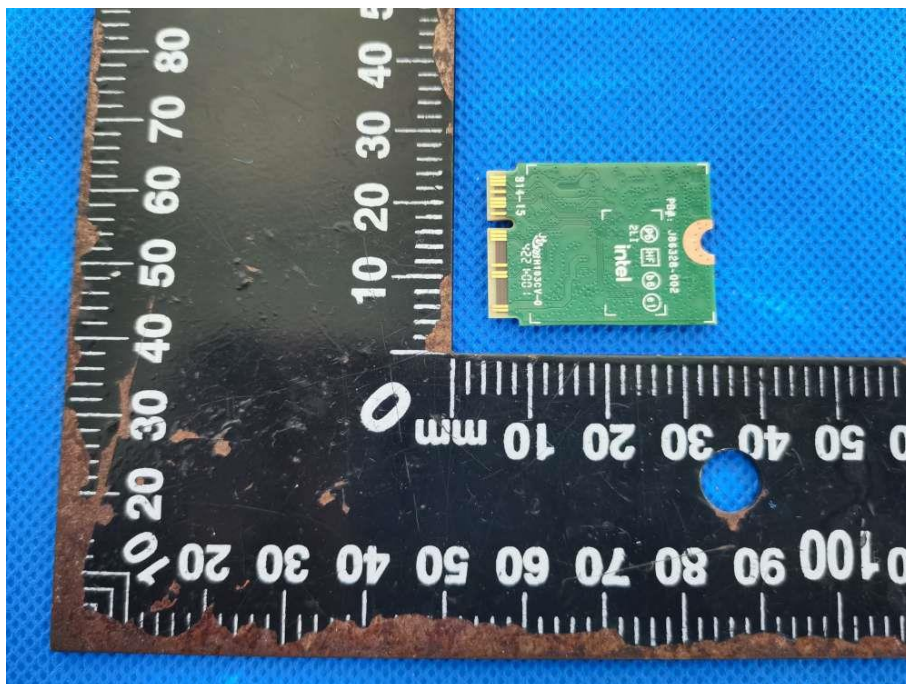














***** END OF REPORT *****