FCC Part 15E Test Report
FCC ID: 2BPL2-S1

Applicant:	shenzhenjiuyuezhichuangxinxikejiyouxiangongsi
Address:	China, GuangDong, Shenzhen, longhuaquminzhijiedaolongtangshequlongguangjiuyuetai5dong305
Manufacturer:	shenzhenjiuyuezhichuangxinxikejiyouxiangongsi
Address:	China, GuangDong, Shenzhen, longhuaquminzhijiedaolongtangshequlongguangjiuyuetai5dong305
EUT:	Phone Vlog Selfie Monitor Screen
Trade Mark:	Gitfos
Model Number:	GITFOS Vlog S1
Date of Receipt:	Apr. 14, 2025
Test Date:	Apr. 14, 2025 - Apr. 29, 2025
Date of Report:	Apr. 29, 2025
Prepared By:	Shenzhen DL Testing Technology Co., Ltd.
Address:	101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China
Applicable Standards:	FCC PART 15 E 15.407 ANSI C63.10:2013
Test Result:	Pass
Report Number:	DLE-250415029R

Prepared (Test Engineer):	Ken Tan
Reviewer (Supervisor):	Jack Bu
Approved (Manager):	Jade Yang

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 E			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.407(b), 15.205, 15.209	Radiated Spurious Emission	PASS	
15.407 (b), 15.205, 15.209	Band Edge Emission	PASS	
15.407 (a)	Average Output Power	PASS	
15.407 (a)	Power Spectral Density	PASS	
15.407(a) (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

Test lab: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China

The test results presented in this report relate only to the object tested.

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FCC Test Firm Registration Number: 854456

Designation Number: CN1307

IC Registered No.: 27485

CAB ID.: CN0118

1.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **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	±2.56dB
2	RF power,conducted	±0.42dB
3	Spurious emissions,conducted	±2.76dB
4	All emissions,radiated(<30MHz)	±3.54dB
5	All emissions,radiated(<1G)	±3.65dB
6	All emissions,radiated(>1G)	±4.89dB
7	Occupied bandwidth	±0.2MHz
8	PSD	±0.69dB
9	Temperature	±0.5°C
10	Humidity	±2%
11	Time	±2%

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product Name:	Phone Vlog Selfie Monitor Screen
Trademark	Gitfos
Model No.:	GITFOS Vlog S1
Model Difference	N/A
Operation Frequency:	5745-5825MHz(802.11a/n(HT20)) 5755-5795MHz(802.11n(HT40))
Channel numbers:	See channel list
Channel separation:	5MHz
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
Antenna Type:	Internal Antenna
Antenna gain:	4.09dBi
Power Supply:	DC 3.7V from battery DC 5V from adapter

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

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

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.

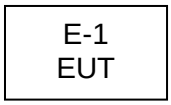
Description			
Pretest Mode	Channel	Band 4	
Mode 1	802.11a/nHT20	CH149, CH157, CH165	
Mode 2	802.11nHT40	CH151, CH159	
Mode 3	Link Mode		

For Conducted & Radiated Emission			
Pretest Mode	Channel	Band 4	
Mode 1	802.11a/nHT20	CH149, CH157, CH165	
Mode 2	802.11nHT40	CH151, CH159	
Mode 3	Link Mode		

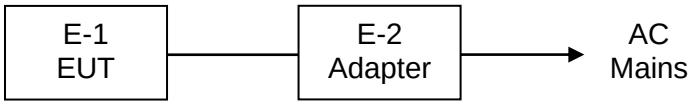
Note: 1. The measurements are performed at the highest, middle, lowest available channels.
2. During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's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

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



Power Line Conducted 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	Phone Vlog Selfie Monitor Screen	GITFOS Vlog S1	N/A	EUT
E-2	Adapter	HW-0501000E	N/A	XIAOMI

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: RF Test_V1.4		
Mode	802.11a	802.11n HT20	802.11n HT40
Data Rate	6Mbps	MSC0	MSC0
Power Setting of Softwave	60	60	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. 01, 2024	Oct. 31, 2025
2	Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Nov. 01, 2024	Oct. 31, 2025
3	Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Nov. 01, 2024	Oct. 31, 2025
4	Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Nov. 01, 2024	Oct. 31, 2025
5	Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	588	Nov. 01, 2024	Oct. 31, 2025
6	Amplifier (9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Nov. 01, 2024	Oct. 31, 2025
7	Amplifier (1GHz-18GHz)	EMEC	EM01G8GA	00270	Nov. 01, 2024	Oct. 31, 2025
8	Amplifier (18GHz-40GHz)	Quanjuda	DLE-161	97	Nov. 01, 2024	Oct. 31, 2025
9	Loop Antenna (9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Nov. 01, 2024	Oct. 31, 2025
10	RF cables1 (9kHz-1GHz)	ChengYu	966	004	Nov. 01, 2024	Oct. 31, 2025
11	RF cables2 (1GHz-40GHz)	ChengYu	966	003	Nov. 01, 2024	Oct. 31, 2025
12	Antenna connector	Florida RF Labs	N/A	RF 01#	Nov. 01, 2024	Oct. 31, 2025
13	Power probe	KEYSIGHT	U2021XA	MY55210018	Nov. 01, 2024	Oct. 31, 2025
14	Signal Analyzer 9kHz-26.5GHz	Agilent	N9020A	MY55370280	Nov. 01, 2024	Oct. 31, 2025
15	Test Receiver 20kHz-40GHz	R&S	ESU 40	100376	Nov. 01, 2024	Oct. 31, 2025
16	D.C. Power Supply	LongWei	PS-305D	010964729	Nov. 01, 2024	Oct. 31, 2025
17	Temperature & humidity chamber	Changfeng	CF-150-40-P	CF170802-01	Nov. 01, 2024	Oct. 31, 2025

Conduction Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	843 Shielded Room	YIHENG	843 Room	843	Nov. 05, 2023	Nov. 04, 2026
2	EMI Receiver	R&S	ESR	101421	Nov. 01, 2024	Oct. 31, 2025
3	LISN	R&S	ENV216	102417	Nov. 01, 2024	Oct. 31, 2025
4	843 Cable 1#	ChengYu	CE Cable	001	Nov. 01, 2024	Oct. 31, 2025

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.

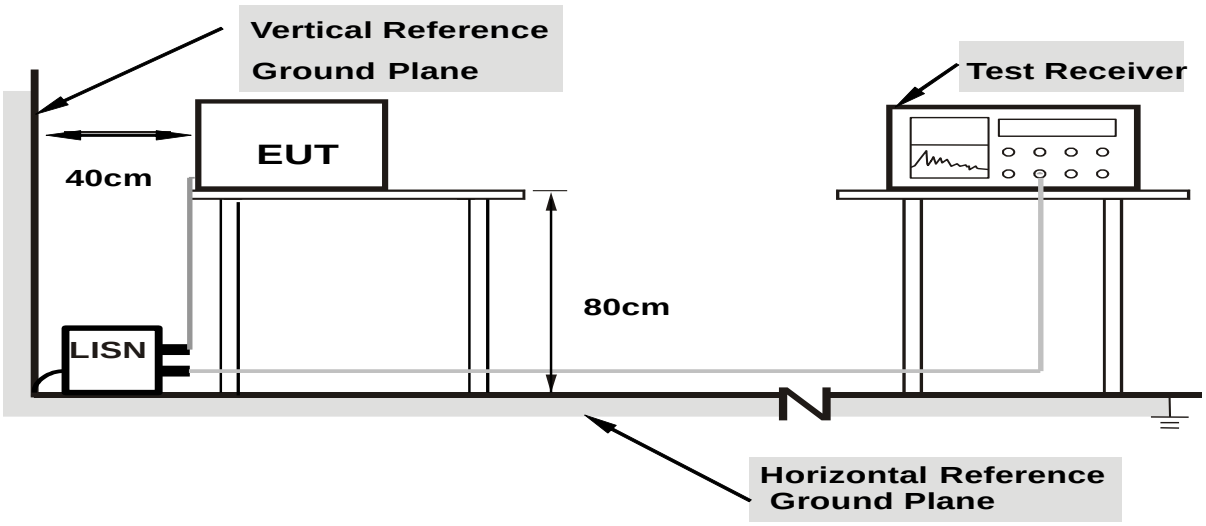
d. LISN at least 80 cm from nearest part of EUT chassis.

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

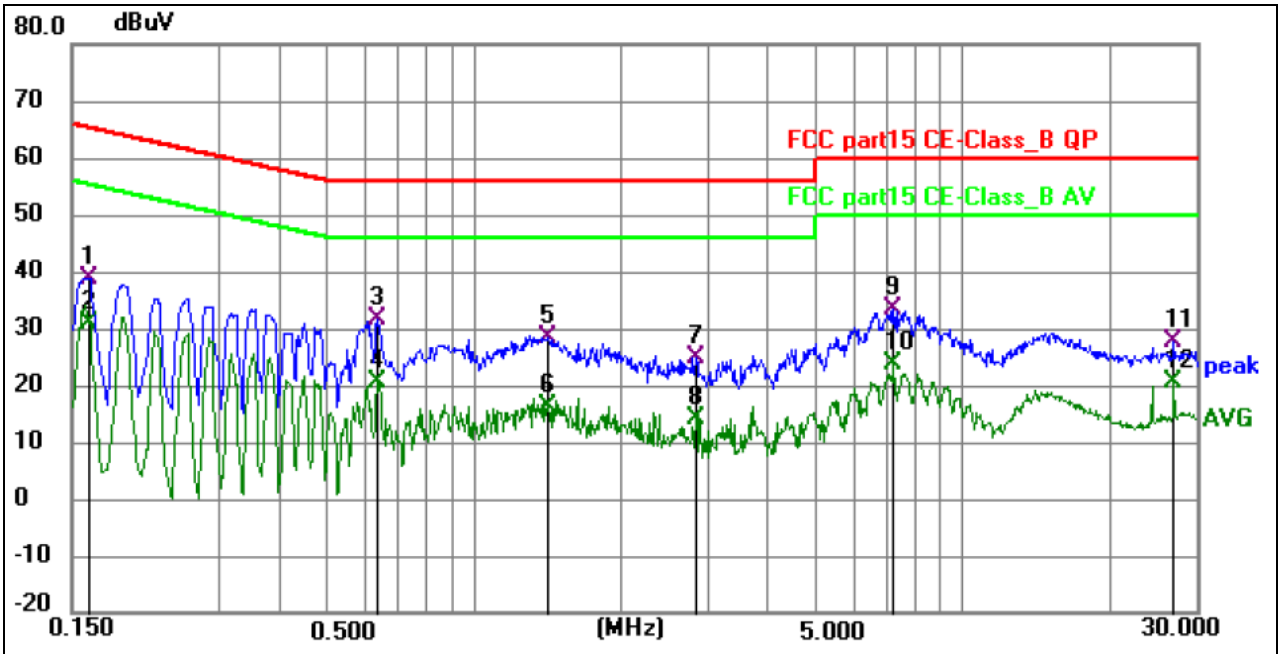
3.1.5 EUT OPERATING CONDITIONS

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.

3.1.6 TEST RESULTS

PASS
Please refer to the following page.

Temperature:	25 ℃	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 3

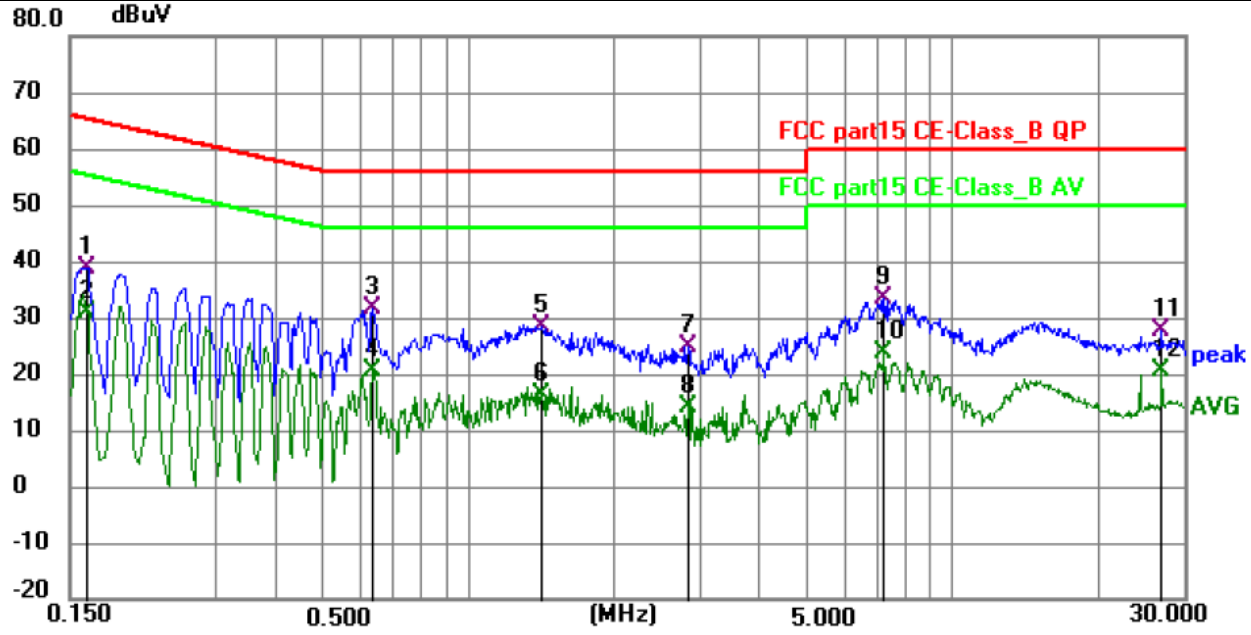


Remark:

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	0.1635	28.66	10.14	38.80	65.28	-26.48	QP	P	
2	0.1635	20.69	10.14	30.83	55.28	-24.45	AVG	P	
3 *	0.6313	21.59	10.15	31.74	56.00	-24.26	QP	P	
4	0.6313	10.25	10.15	20.40	46.00	-25.60	AVG	P	
5	1.4233	18.42	10.08	28.50	56.00	-27.50	QP	P	
6	1.4233	6.32	10.08	16.40	46.00	-29.60	AVG	P	
7	2.8500	14.80	10.08	24.88	56.00	-31.12	QP	P	
8	2.8500	3.89	10.08	13.97	46.00	-32.03	AVG	P	
9	7.2240	22.72	10.76	33.48	60.00	-26.52	QP	P	
10	7.2240	12.87	10.76	23.63	50.00	-26.37	AVG	P	
11	27.0015	14.88	12.81	27.69	60.00	-32.31	QP	P	
12	27.0015	7.62	12.81	20.43	50.00	-29.57	AVG	P	

Temperature:	25 ℃	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	N
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 3



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	0.1635	28.66	10.14	38.80	65.28	-26.48	QP	P	
2	0.1635	20.69	10.14	30.83	55.28	-24.45	AVG	P	
3 *	0.6313	21.59	10.15	31.74	56.00	-24.26	QP	P	
4	0.6313	10.25	10.15	20.40	46.00	-25.60	AVG	P	
5	1.4233	18.42	10.08	28.50	56.00	-27.50	QP	P	
6	1.4233	6.32	10.08	16.40	46.00	-29.60	AVG	P	
7	2.8500	14.80	10.08	24.88	56.00	-31.12	QP	P	
8	2.8500	3.89	10.08	13.97	46.00	-32.03	AVG	P	
9	7.2240	22.72	10.76	33.48	60.00	-26.52	QP	P	
10	7.2240	12.87	10.76	23.63	50.00	-26.37	AVG	P	
11	27.0015	14.88	12.81	27.69	60.00	-32.31	QP	P	
12	27.0015	7.62	12.81	20.43	50.00	-29.57	AVG	P	

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

15.407(b)Undesirable emission limits. Except as shown in paragraph (b) (10) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

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

(2)For transmitters operating in the 5.25-5.35 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.

(3)For transmitters operating in the 5.47-5.725GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4)For transmitters operating solely in the 5.725-5.850GHz 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 to10dBm/MHzat25 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.

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	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:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. 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.
d. 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.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. 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:

g. 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.
h. Test the EUT in the lowest channel, the middle channel, the Highest channel

Note:

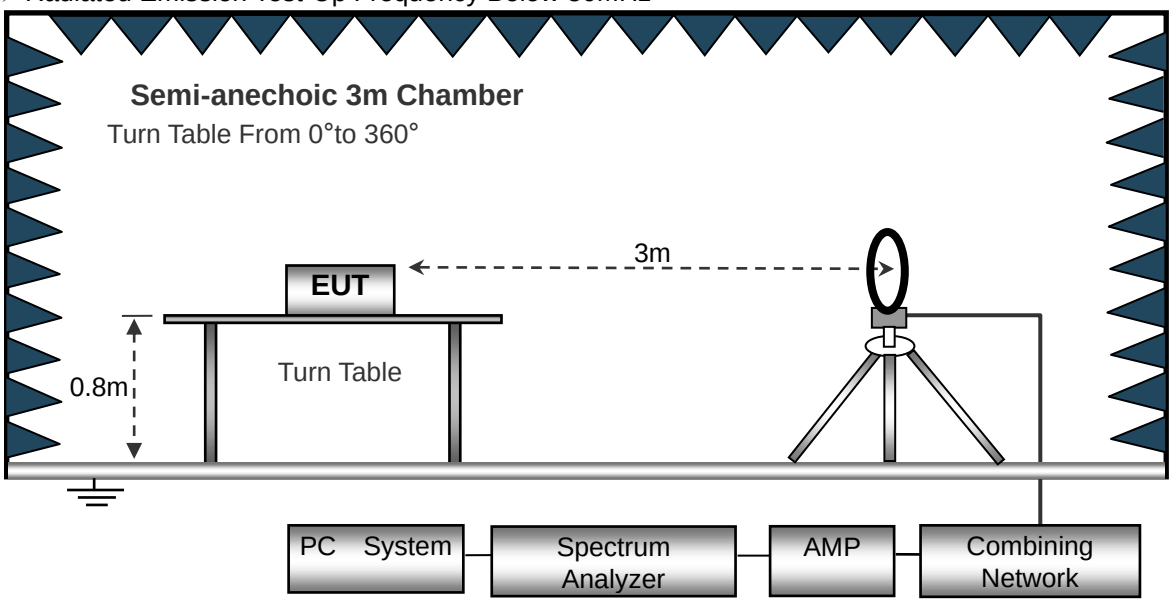
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

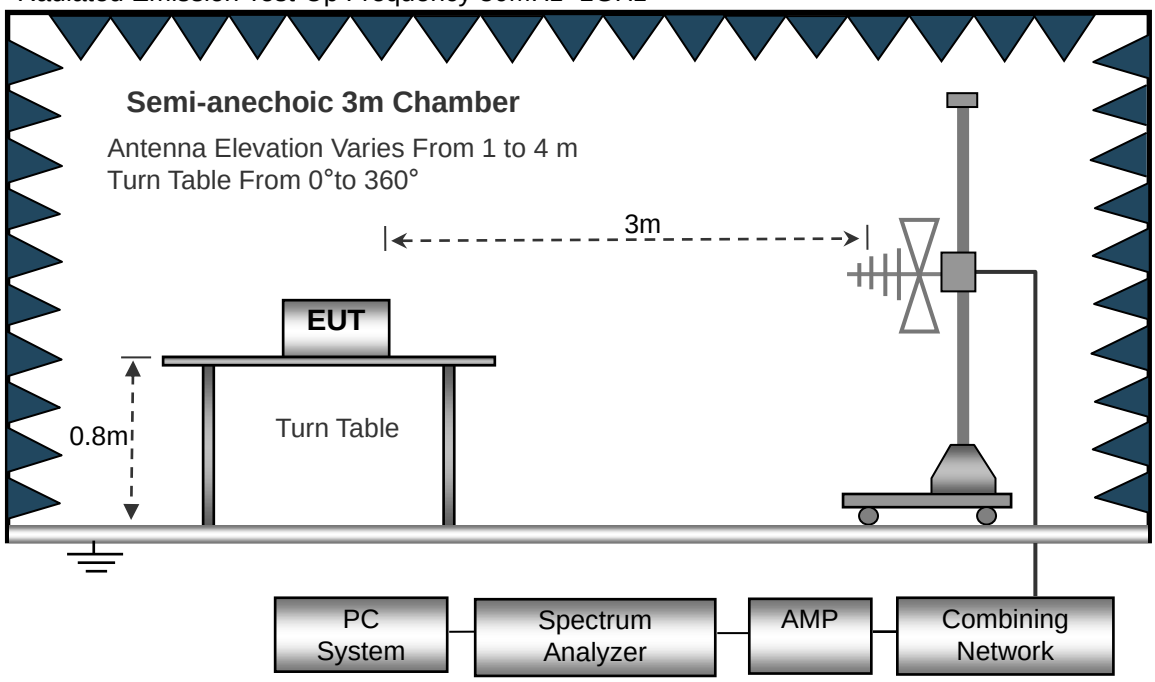
No deviation

3.2.4 TEST SETUP

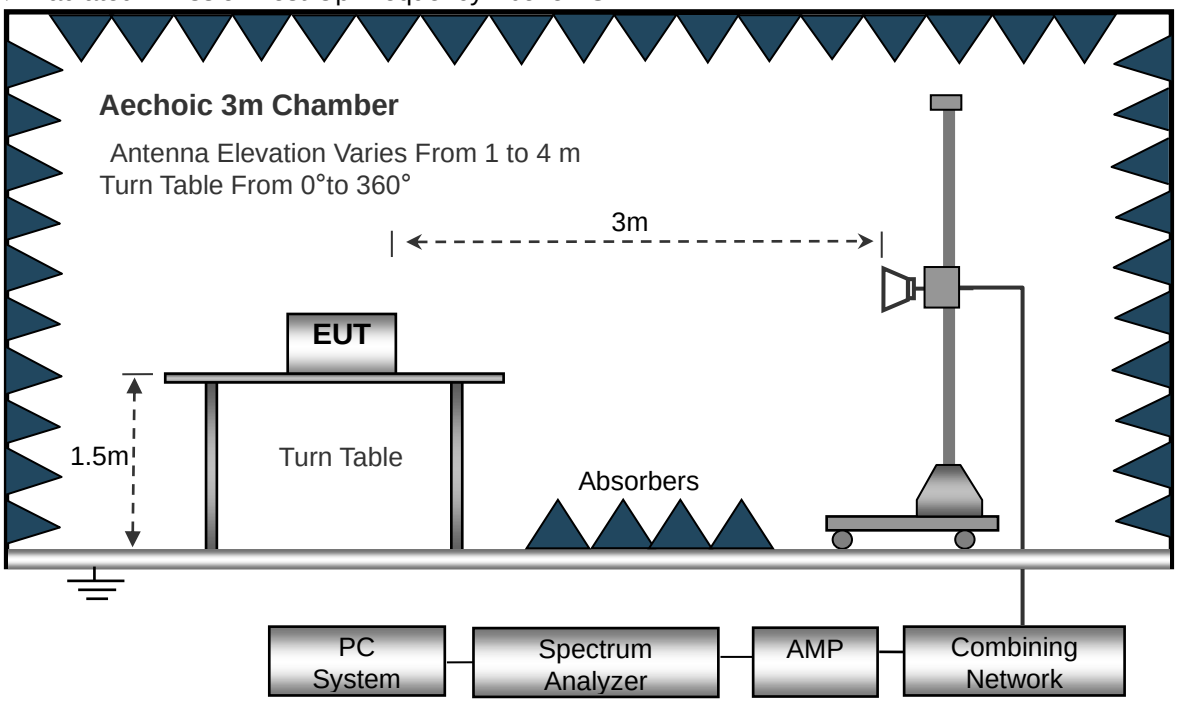
（A）Radiated Emission Test-Up Frequency Below 30MHz



（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 Humidtity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 3	Polarization :	--

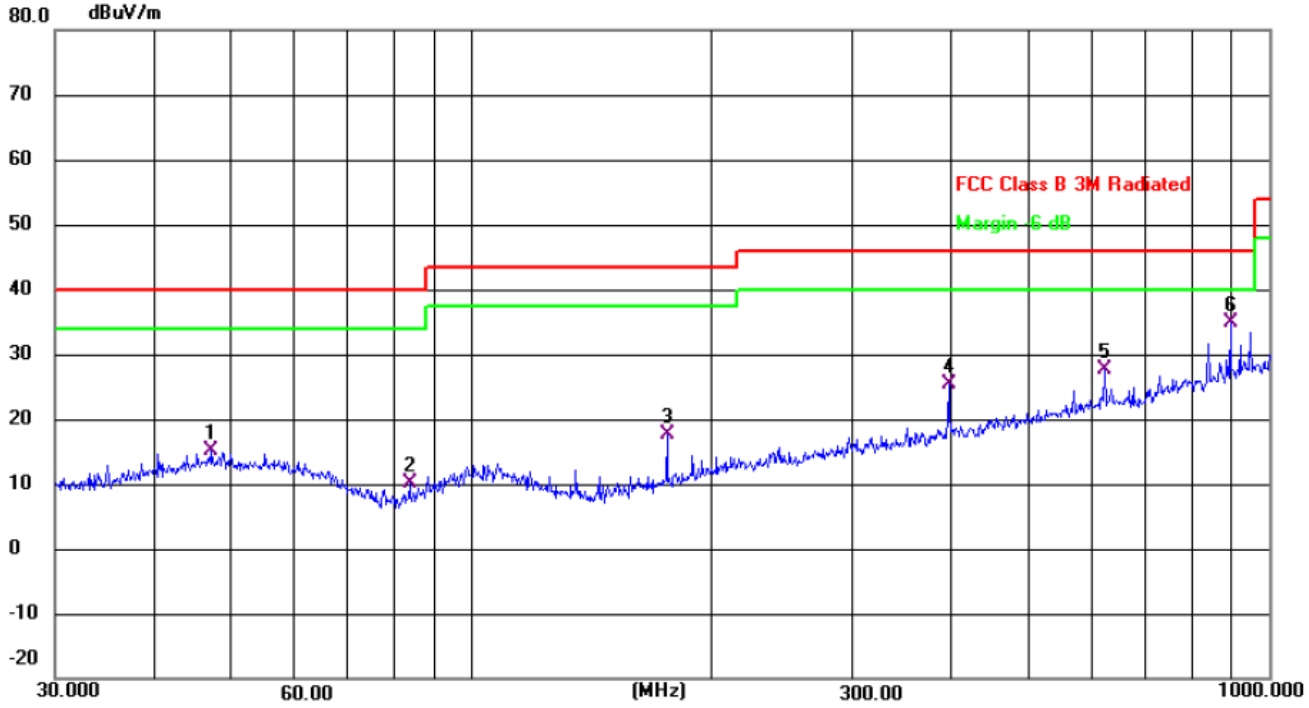
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

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 (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 :	DC 3.7V		
Test Mode :	Mode 3		



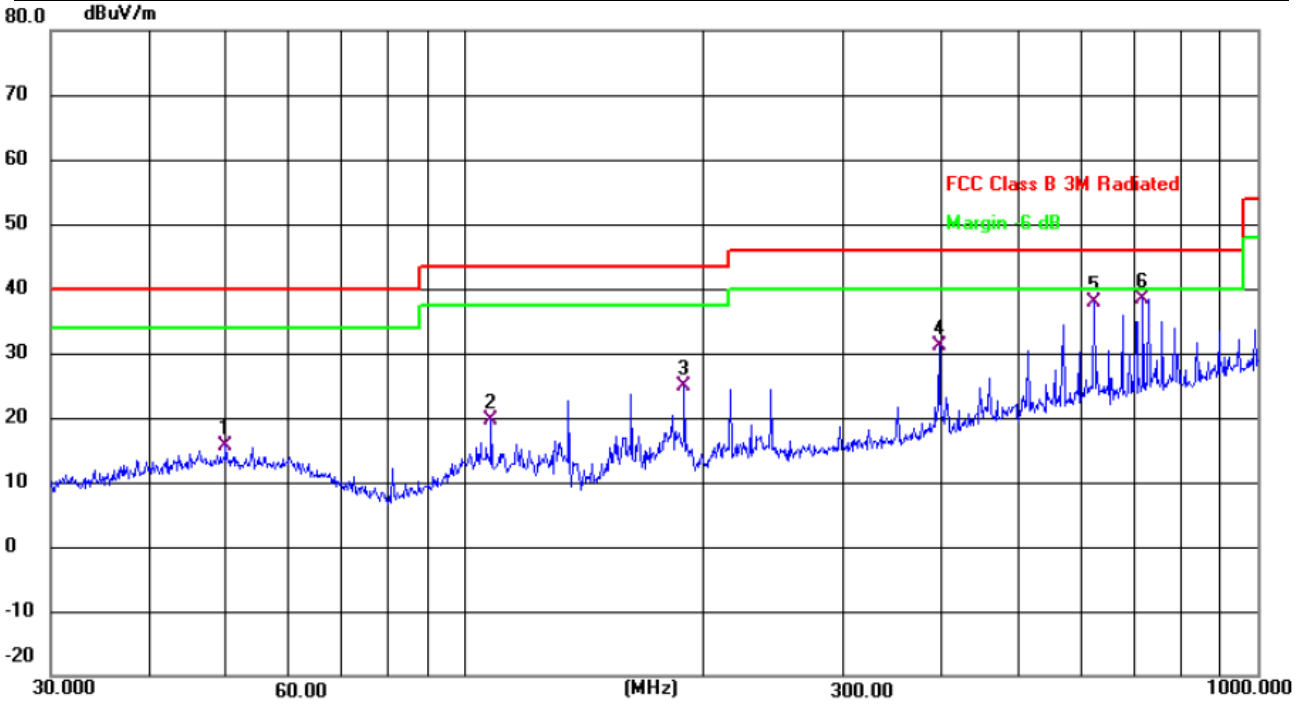
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		47.1599	27.74	-12.71	15.03	40.00	-24.97	QP
2		83.5222	28.55	-18.45	10.10	40.00	-29.90	QP
3		175.6516	34.37	-16.68	17.69	43.50	-25.81	QP
4		396.2415	35.18	-9.72	25.46	46.00	-20.54	QP
5		622.8900	32.63	-5.01	27.62	46.00	-18.38	QP
6	*	893.8567	35.80	-0.83	34.97	46.00	-11.03	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 :	DC 3.7V		
Test Mode :	Mode 3		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		49.8814	28.51	-12.84	15.67	40.00	-24.33	QP
2		107.8877	34.35	-14.76	19.59	43.50	-23.91	QP
3		189.0743	40.34	-15.44	24.90	43.50	-18.60	QP
4		396.2415	40.74	-9.72	31.02	46.00	-14.98	QP
5		622.8900	42.92	-5.01	37.91	46.00	-8.09	QP
6	*	716.6820	42.24	-3.82	38.42	46.00	-7.58	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 4

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5745									
V	11490	54.76	49.05	15.3	37.39	58.4	74	-15.60	PK
V	11490	42.24	49.05	15.3	37.39	45.88	54	-8.12	AV
V	17235	56.09	49.16	15.27	40.45	62.65	68.2	-5.55	PK
V	17235	41.34	49.16	15.27	40.45	47.9	54	-6.10	AV
H	11490	52.71	49.05	15.3	37.39	56.35	74	-17.65	PK
H	11490	43.28	49.05	15.3	37.39	46.92	54	-7.08	AV
H	17235	51.65	49.16	15.27	40.45	58.21	68.2	-9.99	PK
H	17235	41.26	49.16	15.27	40.45	47.82	54	-6.18	AV
operation frequency:5785									
V	11570	51.89	49.09	15.34	37.42	55.56	74	-18.44	PK
V	11570	42.25	49.09	15.34	37.42	45.92	54	-8.08	AV
V	17355	50.69	49.18	15.29	40.47	57.27	68.2	-10.93	PK
V	17355	41.37	49.18	15.29	40.47	47.95	54	-6.05	AV
H	11570	51.26	49.09	15.34	37.42	54.93	74	-19.07	PK
H	11570	42.45	49.09	15.34	37.42	46.12	54	-7.88	AV
H	17355	48.85	49.18	15.29	40.47	55.43	68.2	-12.77	PK
H	17355	41.26	49.18	15.29	40.47	47.84	54	-6.16	AV
operation frequency:5825									
V	11650	52.76	49.11	15.37	37.46	56.48	74	-17.52	PK
V	11650	42.26	49.11	15.37	37.46	45.98	54	-8.02	AV
V	17475	50.07	49.21	15.34	40.51	56.71	68.2	-11.49	PK
V	17475	40.77	49.21	15.34	40.51	47.41	54	-6.59	AV
H	11650	58.23	49.11	15.37	31.31	55.8	74	-18.20	PK
H	11650	49.46	49.11	15.37	31.31	47.03	54	-6.97	AV
H	17475	49.77	49.21	15.34	40.51	56.41	68.2	-11.79	PK
H	17475	40.73	49.21	15.34	40.51	47.37	54	-6.63	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 (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5745									
V	11490	49.95	49.05	15.3	37.39	53.59	74	-20.41	PK
V	11490	42.59	49.05	15.3	37.39	46.23	54	-7.77	AV
V	17235	49.16	49.16	15.27	40.45	55.72	68.2	-12.48	PK
V	17235	41.03	49.16	15.27	40.45	47.59	54	-6.41	AV
H	11490	49.71	49.05	15.3	37.39	53.35	74	-20.65	PK
H	11490	41.93	49.05	15.3	37.39	45.57	54	-8.43	AV
H	17235	48.62	49.16	15.27	40.45	55.18	68.2	-13.02	PK
H	17235	41.14	49.16	15.27	40.45	47.7	54	-6.30	AV
operation frequency:5785									
V	11570	52.99	49.09	15.34	37.42	56.66	74	-17.34	PK
V	11570	42.84	49.09	15.34	37.42	46.51	54	-7.49	AV
V	17355	49.94	49.18	15.29	40.47	56.52	68.2	-11.68	PK
V	17355	41.26	49.18	15.29	40.47	47.84	54	-6.16	AV
H	11570	50.47	49.09	15.34	37.42	54.14	74	-19.86	PK
H	11570	44.39	49.09	15.34	37.42	48.06	54	-5.94	AV
H	17355	49.64	49.18	15.29	40.47	56.22	68.2	-11.98	PK
H	17355	41.37	49.18	15.29	40.47	47.95	54	-6.05	AV
operation frequency:5825									
V	11650	51.85	49.11	15.37	37.46	55.57	74	-18.43	PK
V	11650	42.04	49.11	15.37	37.46	45.76	54	-8.24	AV
V	17475	48.83	49.21	15.34	40.51	55.47	68.2	-12.73	PK
V	17475	41.26	49.21	15.34	40.51	47.9	54	-6.10	AV
H	11650	58.42	49.11	15.37	31.31	55.99	74	-18.01	PK
H	11650	45.08	49.11	15.37	31.31	42.65	54	-11.35	AV
H	17475	49.87	49.21	15.34	40.51	56.51	68.2	-11.69	PK
H	17475	41.03	49.21	15.34	40.51	47.67	54	-6.33	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.

802.11n HT40

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5755									
V	11510	49.85	49.07	15.33	37.41	53.52	74	-20.48	PK
V	11510	41.65	49.07	15.33	37.41	45.32	54	-8.68	AV
V	17265	50.14	49.17	15.28	40.46	56.71	68.2	-11.49	PK
V	17265	41.2	49.17	15.28	40.46	47.77	54	-6.23	AV
H	11510	49.13	49.07	15.33	37.41	52.8	74	-21.20	PK
H	11510	42.04	49.07	15.33	37.41	45.71	54	-8.29	AV
H	17265	50.13	49.17	15.28	40.46	56.7	68.2	-11.50	PK
H	17265	40.84	49.17	15.28	40.46	47.41	54	-6.59	AV
operation frequency:5795									
V	11590	49.76	49.11	15.37	37.46	53.48	74	-20.52	PK
V	11590	41.69	49.11	15.37	37.46	45.41	54	-8.59	AV
V	17385	48.9	49.21	15.34	40.51	55.54	68.2	-12.66	PK
V	17385	40.86	49.21	15.34	40.51	47.5	54	-6.50	AV
H	11590	58.16	49.11	15.37	31.31	55.73	74	-18.27	PK
H	11590	44.98	49.11	15.37	31.31	42.55	54	-11.45	AV
H	17385	49.45	49.21	15.34	40.51	56.09	68.2	-12.11	PK
H	17385	41.24	49.21	15.34	40.51	47.88	54	-6.12	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.

3.3 RADIATED BAND EMISSION MEASUREMENT

3.3.1 TEST REQUIREMENT:

15.407 (b)

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)
For transmitters operating solely in the 5.725-5.850 GHz band:
(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
The provisions of §15.205 apply to intentional radiators operating under this section,15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

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	5600MHz-5785MHz
Stop Frequency	5780MHz-6000MHz
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

3.3.2 TEST PROCEDURE

Above 1GHz test procedure as below:

a. 1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. 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.
d. 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 and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. 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.
g. Test the EUT in the lowest channel,the Highest channel

Note:

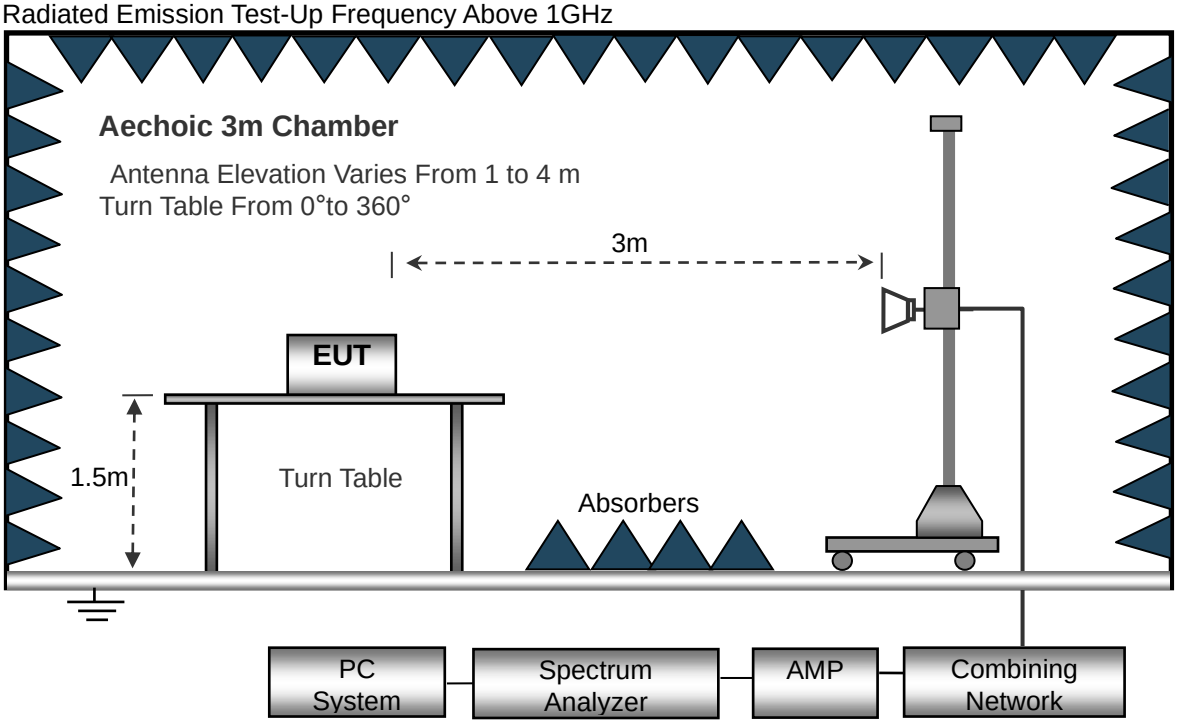
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.3.3 DEVIATION FROM TEST STANDARD

No deviation

3.3.4 TEST SETUP

Radiated Emission Test-Up Frequency Above 1GHz



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(Band 4)

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5745									
V	5650	51.18	46.38	12.43	35.65	52.88	68.2	-15.32	PK
V	5650	40.73	46.38	12.43	35.65	42.43	54	-11.57	AV
H	5720	51.56	46.56	12.47	35.76	53.23	68.2	-14.97	PK
H	5720	40.92	46.56	12.47	35.76	42.59	54	-11.41	AV
V	5650	51.87	46.38	12.43	35.65	53.57	68.2	-14.63	PK
V	5650	40.92	46.38	12.43	35.65	42.62	54	-11.38	AV
H	5720	51.16	46.56	12.47	35.76	52.83	68.2	-15.37	PK
H	5720	40.85	46.56	12.47	35.76	42.52	54	-11.48	AV
operation frequency:5825									
V	5855	51.75	46.55	12.65	35.87	53.72	68.2	-14.48	PK
V	5855	40.02	46.55	12.65	35.87	41.99	54	-12.01	AV
H	5875	52.27	46.58	12.67	35.93	54.29	68.2	-13.91	PK
H	5875	39.75	46.58	12.67	35.93	41.77	54	-12.23	AV
V	5855	50.92	46.55	12.65	35.87	52.89	68.2	-15.31	PK
V	5855	38.96	46.55	12.65	35.87	40.93	54	-13.07	AV
H	5875	50.84	46.58	12.67	35.93	52.86	68.2	-15.34	PK
H	5875	39.19	46.58	12.67	35.93	41.21	54	-12.79	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 (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5745									
V	5650	51.65	47.36	13.18	36.26	53.73	68.2	-14.47	PK
V	5650	41.78	47.36	13.18	36.26	43.86	54	-10.14	AV
H	5720	51.61	47.38	13.2	36.29	53.72	68.2	-14.48	PK
H	5720	41.49	47.38	13.2	36.29	43.6	54	-10.4	AV
V	5650	51.98	47.36	13.18	36.26	54.06	68.2	-14.14	PK
V	5650	41.11	47.36	13.18	36.26	43.19	54	-10.81	AV
H	5720	51.31	47.38	13.2	36.29	53.42	68.2	-14.78	PK
H	5720	40.1	47.38	13.2	36.29	42.21	54	-11.79	AV
operation frequency:5825									
V	5855	51.38	48.32	15.24	37.37	55.67	68.2	-12.53	PK
V	5855	41.34	48.32	15.24	37.37	45.63	54	-8.37	AV
H	5875	51.38	48.36	15.27	37.39	55.68	74	-18.32	PK
H	5875	41.61	48.36	15.27	37.39	45.91	54	-8.09	AV
V	5855	51.59	48.32	15.24	37.37	55.88	68.2	-12.32	PK
V	5855	40.12	48.32	15.24	37.37	44.41	54	-9.59	AV
H	5875	51.16	48.36	15.27	37.39	55.46	74	-18.54	PK
H	5875	40.15	48.36	15.27	37.39	44.45	54	-9.55	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 (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5745									
V	5650	51.63	46.38	12.43	35.65	53.33	68.2	-14.87	PK
V	5650	42.07	46.38	12.43	35.65	43.77	54	-10.23	AV
H	5720	51.96	46.56	12.47	35.76	53.63	68.2	-14.57	PK
H	5720	40.35	46.56	12.47	35.76	42.02	54	-11.98	AV
V	5650	52	46.38	12.43	35.65	53.7	68.2	-14.5	PK
V	5650	40.99	46.38	12.43	35.65	42.69	54	-11.31	AV
H	5720	51.63	46.56	12.47	35.76	53.3	68.2	-14.9	PK
H	5720	41.41	46.56	12.47	35.76	43.08	54	-10.92	AV
operation frequency:5825									
V	5855	51.28	46.55	12.65	35.87	53.25	68.2	-14.95	PK
V	5855	41.29	46.55	12.65	35.87	43.26	54	-10.74	AV
H	5875	51.28	46.58	12.67	35.93	53.3	68.2	-14.9	PK
H	5875	41.56	46.58	12.67	35.93	43.58	54	-10.42	AV
V	5855	51.49	46.55	12.65	35.87	53.46	68.2	-14.74	PK
V	5855	40.08	46.55	12.65	35.87	42.05	54	-11.95	AV
H	5875	51.06	46.58	12.67	35.93	53.08	68.2	-15.12	PK
H	5875	40.11	46.58	12.67	35.93	42.13	54	-11.87	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.

4. AVERAGING 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.

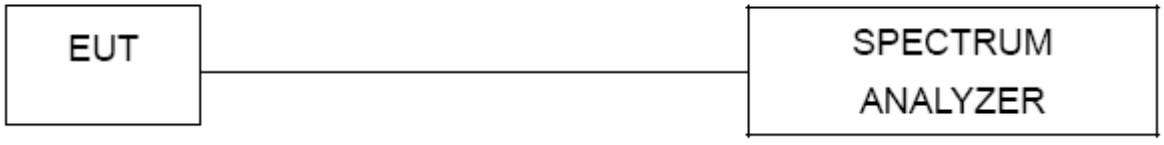
4.1.1 TEST PROCEDURE

Method SA-2 uses trace averaging across ON and OFF times of the EUT transmissions, followed by duty cycle correction. The procedure for this method is as follows:
a)Measure the duty cycle D of the transmitter output signal as described in 12.2.
b)Set span to encompass the entire 26 dB EBW or 99% OBW of the signal.
c)Set RBW=1 MHz.
d)Set VBW ≥3 MHz.
e)Number of points in sweep ≥ [2 x span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
f)Sweep time = auto.
g) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
h) Do not use sweep triggering. Allow the sweep to "free run."
i) Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed such that the average accurately represents the true average over the ON and OFF periods of the transmitter.
j)Compute power by integrating the spectrum across the 26 dB EBW or 99% OBW of the signal using the instrument's band power measurement function with band limits set equal to the EBW or OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at 1MHz intervals extending across the 26 dB EBW or 99% OBW of the spectrum.
k) Add [10 log (1 / D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times (because the measurement represents an average over both the ON and ofF times of the transmission). For example, add [10 log (1 / 0.25)] = 6 dB if the duty cycle is 25%.

4.1.2 DEVIATION FROM STANDARD

No deviation.

4.1.3 TEST SETUP



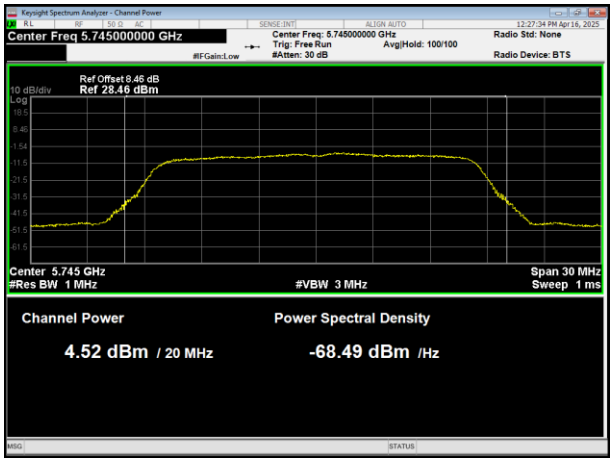
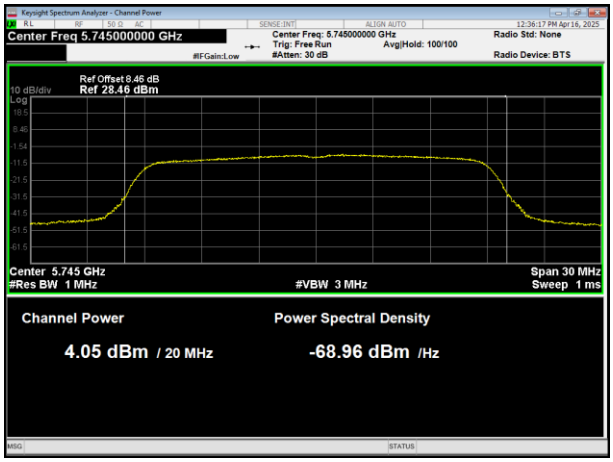
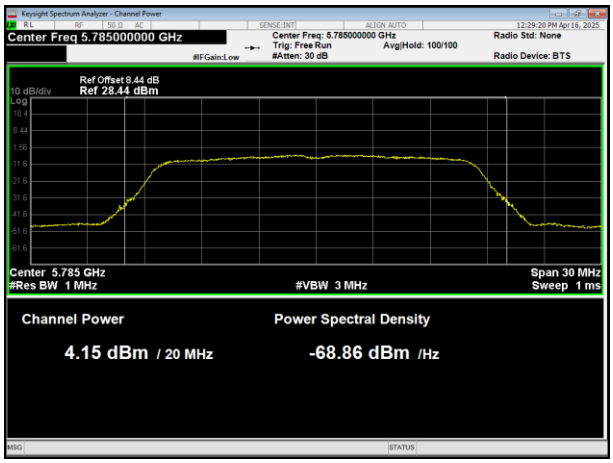
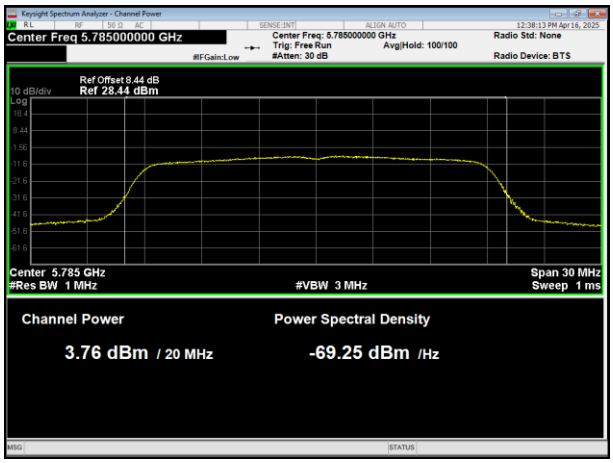
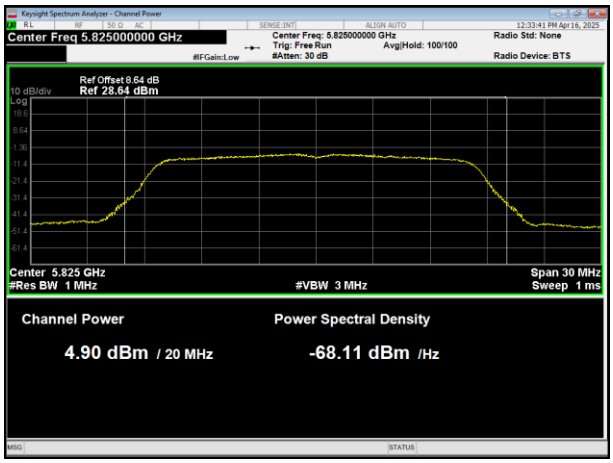
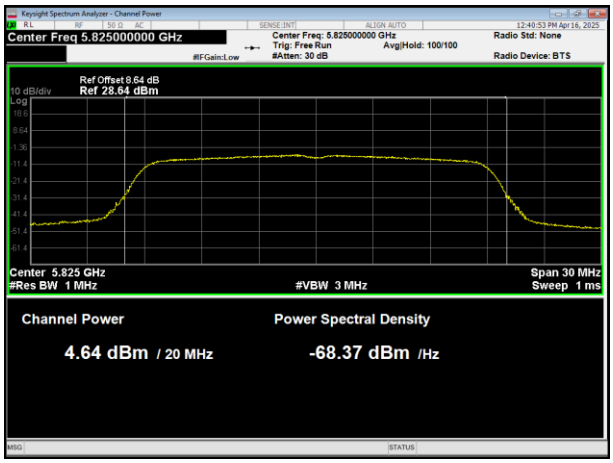
4.1.4 EUT OPERATION CONDITIONS

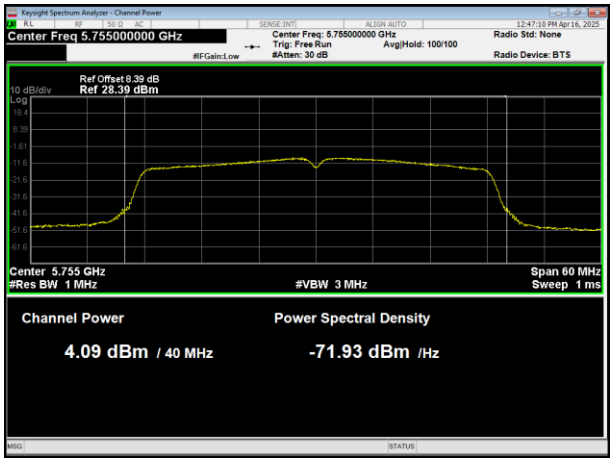
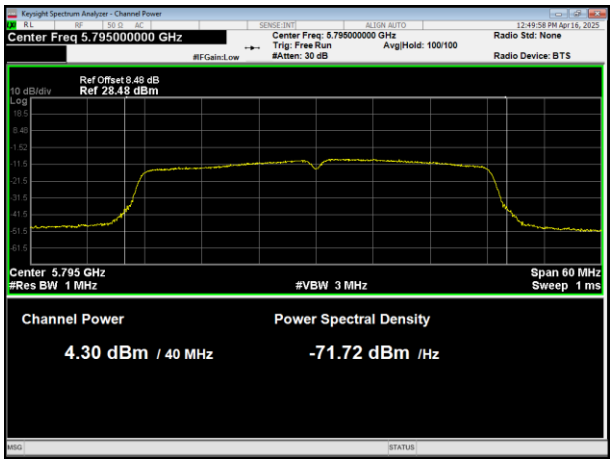
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

4.1.5 TEST RESULTS

Temperature:	25 ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V

Band	Mode	Test Channel	Average Output Power (dBm)	Duty factor (dB)	Total Output Power(dBm)	LIMIT (dBm)
Band 4	802.11a	Low	4.521	0.87	5.391	30
		Middle	4.153	0.87	5.023	30
		High	4.896	0.87	5.766	30
	802.11n HT20	Low	4.049	0.13	4.179	30
		Middle	3.758	0.16	3.918	30
		High	4.642	0.16	4.802	30
	802.11n HT40	Low	4.092	0.26	4.352	30
		High	4.303	0.26	4.563	30

802.11a	802.11n HT20
	
5745MHz	5745MHz
	
5785MHz	5785MHz
	
5825MHz	5825MHz

802.11n HT40

5755MHz

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 ≥ 1MHz for band 1 RBW ≥ 510KHz for band 4
VB	VBW ≥ 3RBW
Detector	RMS (i.e., power averaging).
Trace	Average
Sweep Time	Auto

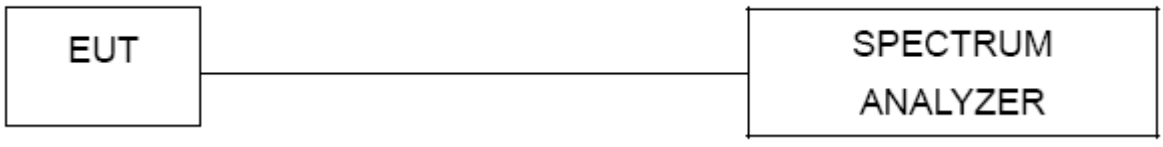
5.1.1 TEST PROCEDURE

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. User 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

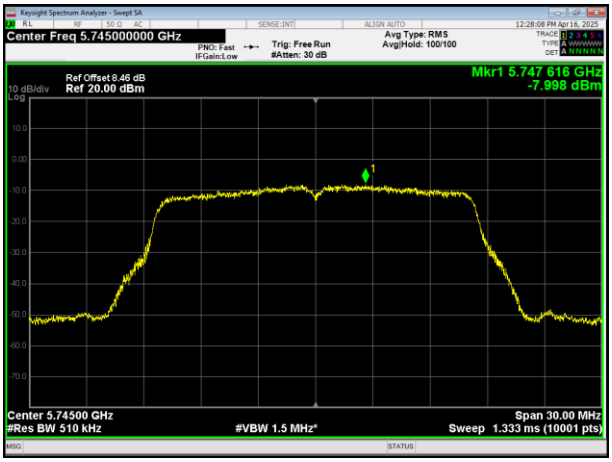
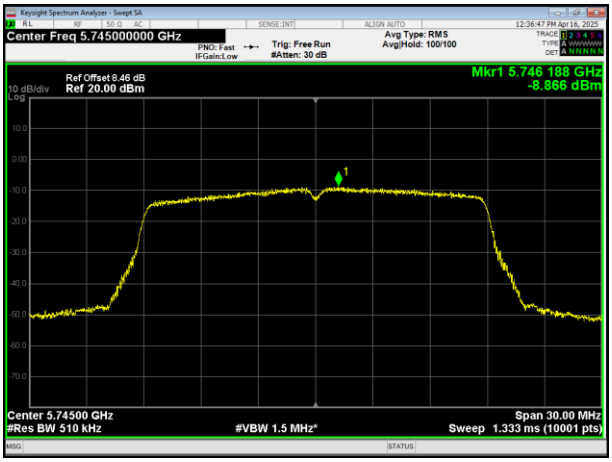
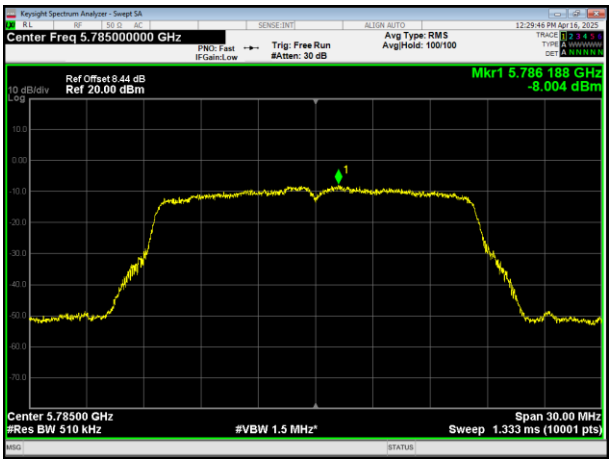
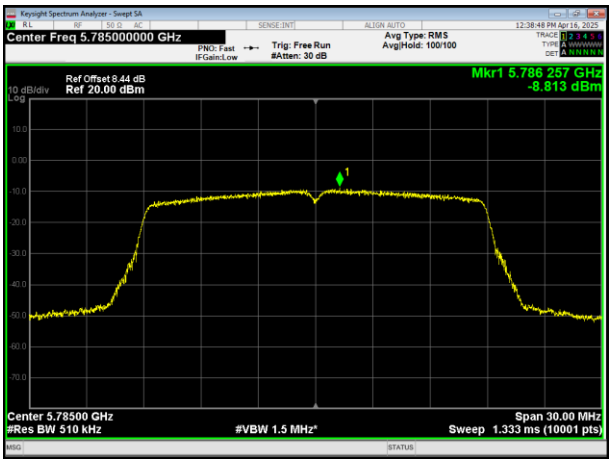
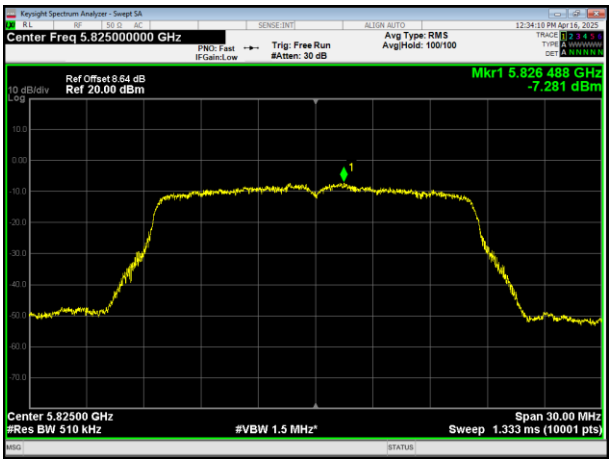
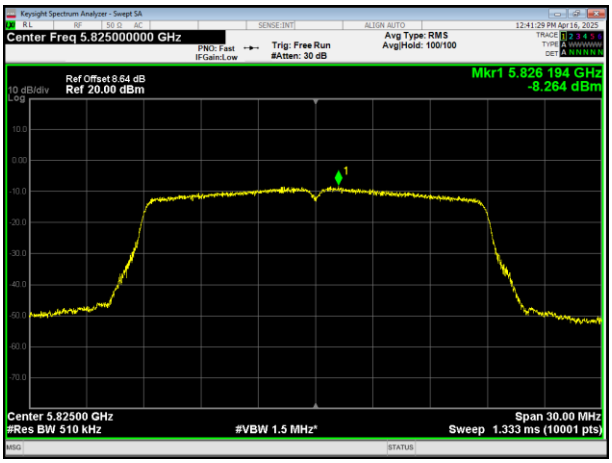


5.1.4 EUT OPERATION CONDITIONS

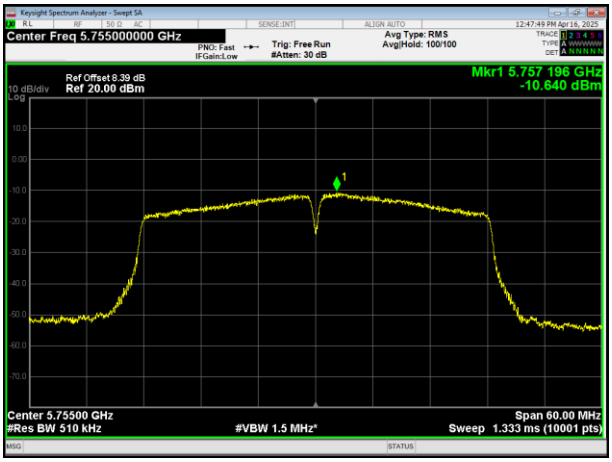
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.5 TEST RESULTS

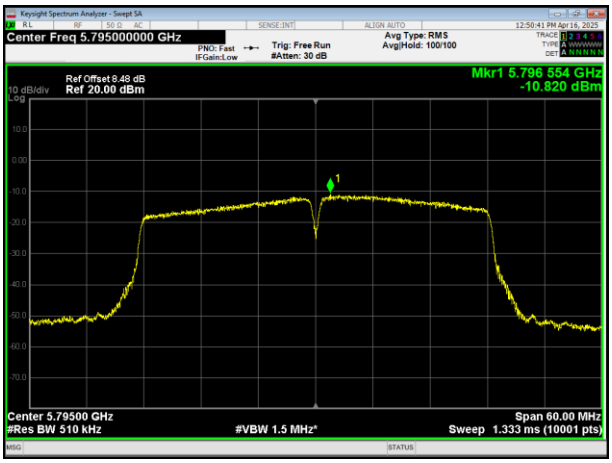
	Mode	Test Channel	Reading Level (dBm/ 510kHz)	Duty factor (dB)	PSD (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Result
Band4	802.11a	Low	-7.998	0.87	-7.128	30.00	PASS
		Middle	-8.004	0.87	-7.134	30.00	PASS
		High	-7.281	0.87	-6.411	30.00	PASS
	802.11n20	Low	-8.866	0.13	-8.736	30.00	PASS
		Middle	-8.813	0.16	-8.653	30.00	PASS
		High	-8.264	0.16	-8.104	30.00	PASS
	802.11n40	Low	-10.64	0.26	-10.38	30.00	PASS
		High	-10.82	0.26	-10.56	30.00	PASS

802.11a	802.11n HT20
	
5745MHz	5745MHz
	
5785MHz	5785MHz
	
5825MHz	5825MHz

802.11n HT40



5755MHz



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

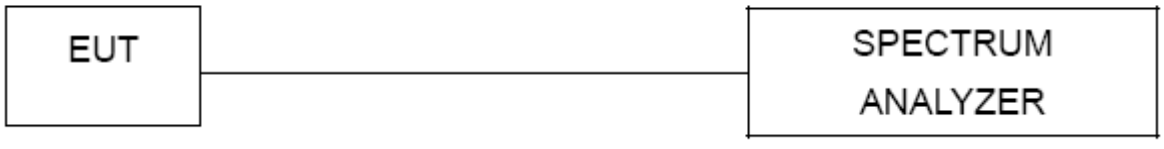
26dB Bandwidth	
Spectrum Parameters	Setting
RBW	approximately 1% of the emission bandwidth
VBW	>RBW
Span	30MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

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

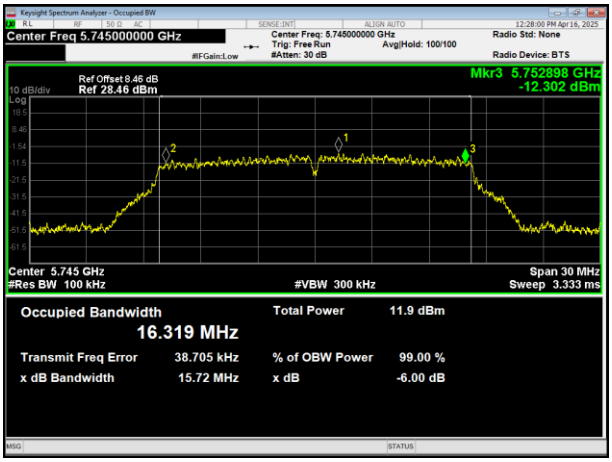
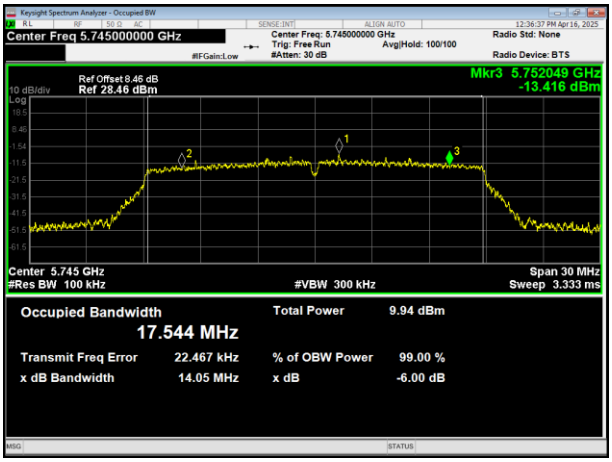
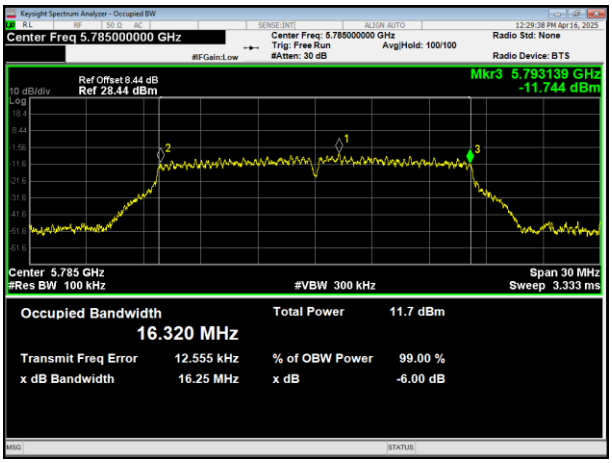
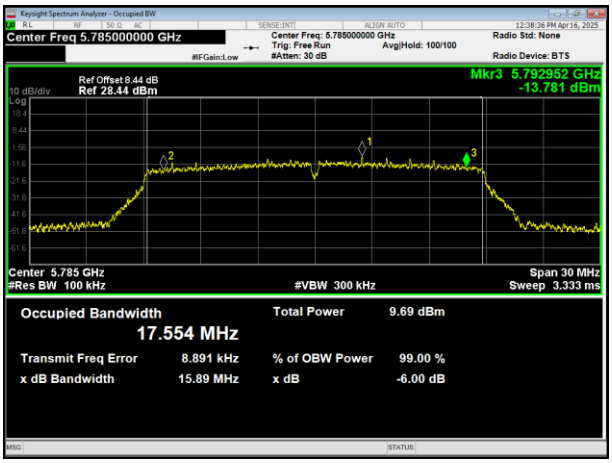
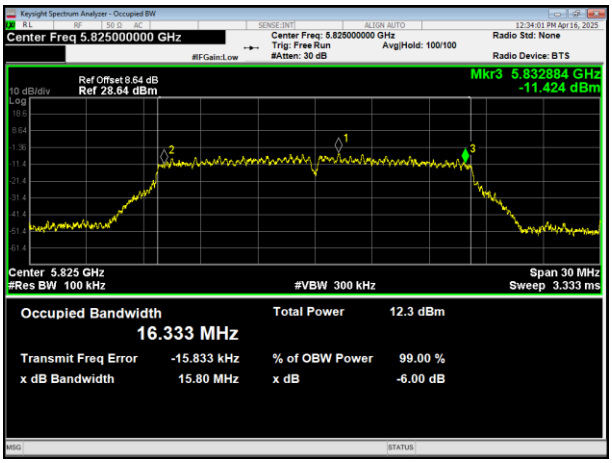
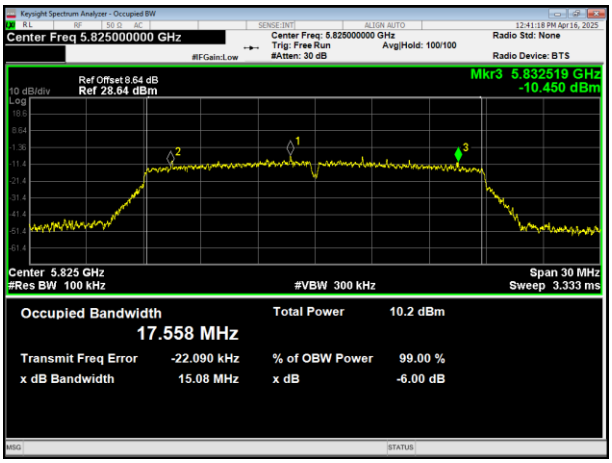


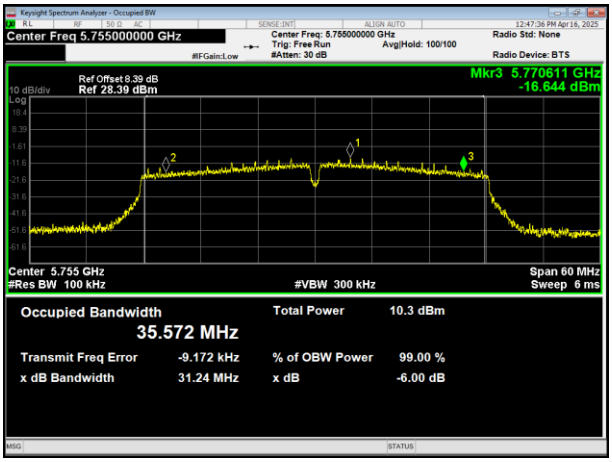
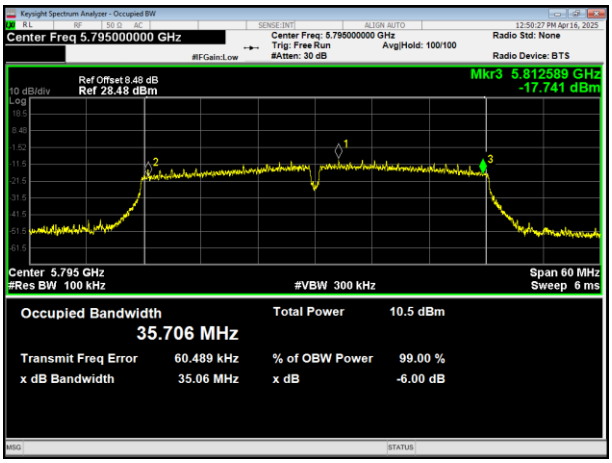
6.1.4 EUT OPERATION CONDITIONS

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	6dB Bandwidth (MHz)	6dB Bandwidth Limit (MHz)	Result
Band 4	802.11a	Low	15.719	>0.5	Pass
		Middle	16.252	>0.5	Pass
		High	15.799	>0.5	Pass
	802.11n HT20	Low	14.053	>0.5	Pass
		Middle	15.886	>0.5	Pass
		High	15.082	>0.5	Pass
	802.11n HT40	Low	31.24	>0.5	Pass
		High	35.058	>0.5	Pass

802.11a	802.11n HT20
	
5745MHz	5745MHz
	
5785MHz	5785MHz
	
5825MHz	5825MHz

802.11n HT40

5755MHz

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.

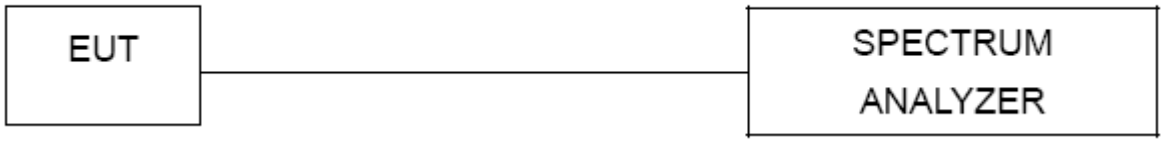
7.1.1 TEST PROCEDURE

1. Set RBW = 1 MHz.
2. Set the video bandwidth (VBW) ≥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

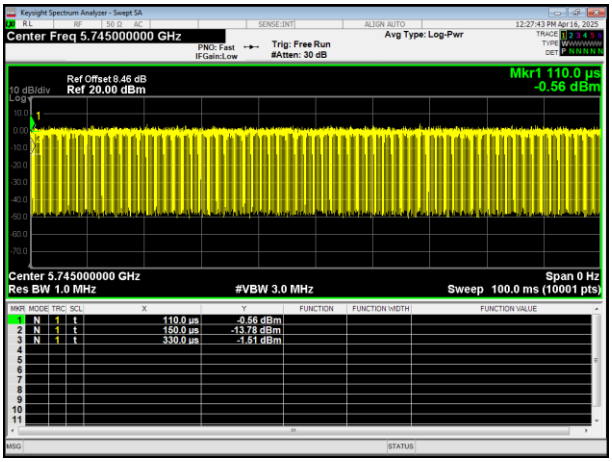
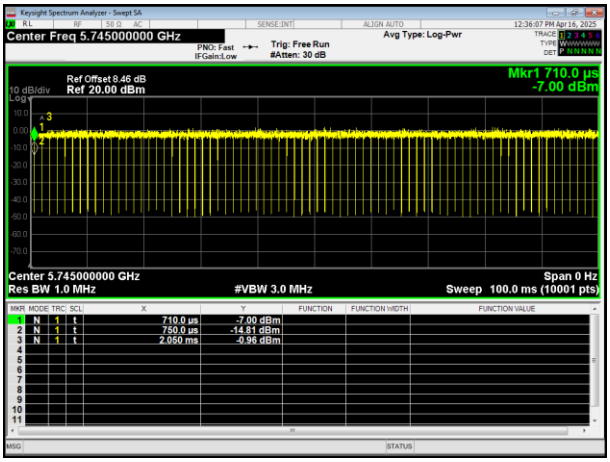
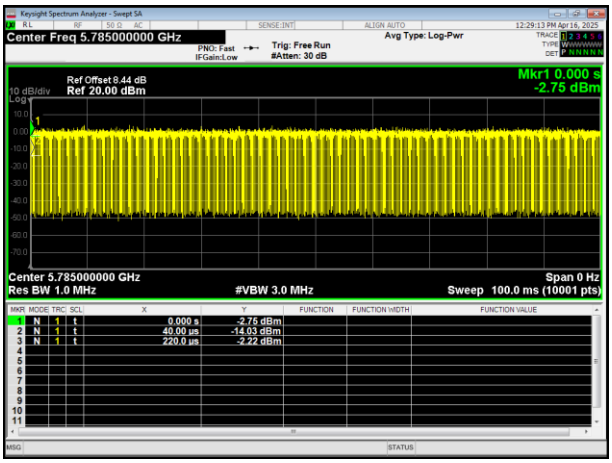
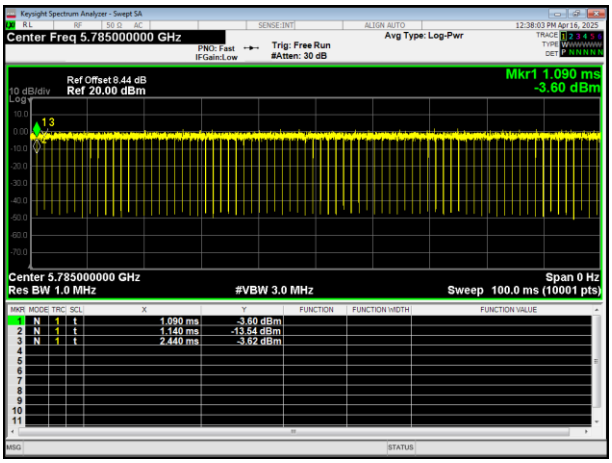
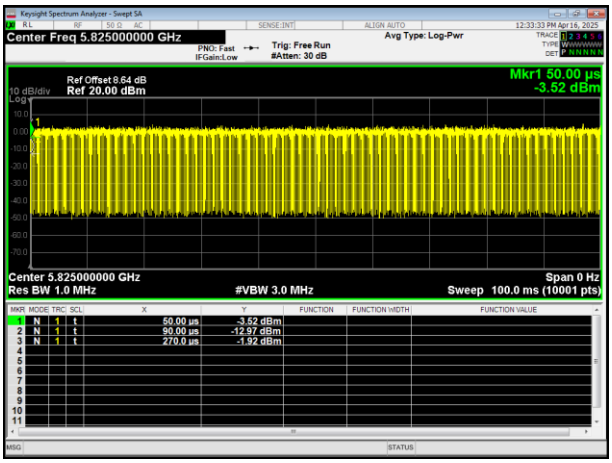
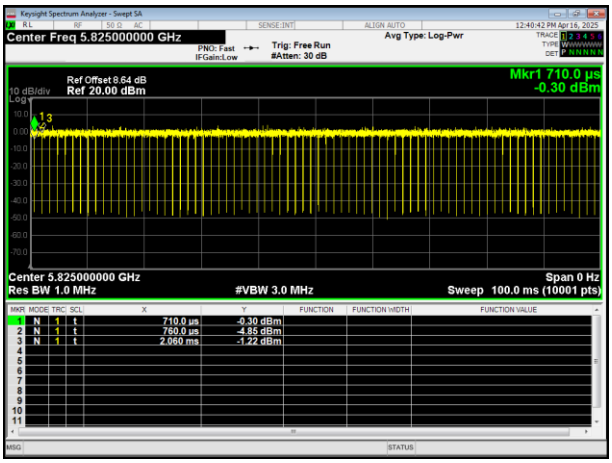


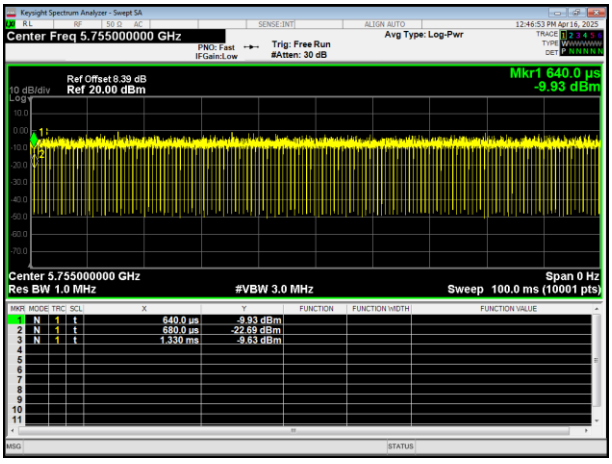
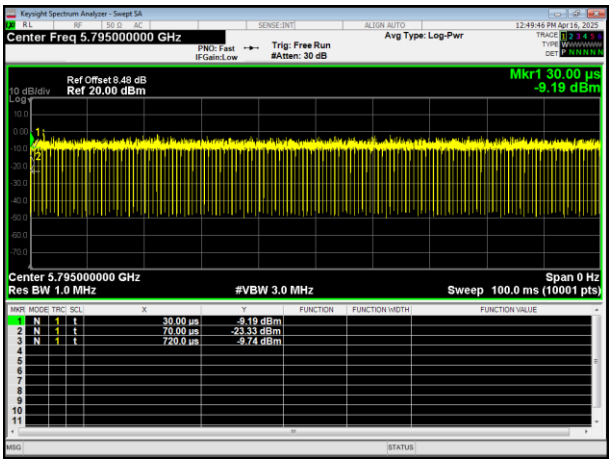
7.1.4 EUT OPERATION CONDITIONS

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

		Test Channel	Duty Cycle(%)	Duty Fator (dB) 10 * log (1/ Duty cycle)
Band 4	802.11a	Low	81.82	0.87
		Middle	81.82	0.87
		High	81.82	0.87
	802.11n HT20	Low	97.01	0.13
		Middle	96.3	0.16
		High	96.3	0.16
	802.11n HT40	Low	94.2	0.26
		High	94.2	0.26

802.11a	802.11n HT20
	
5745MHz	5745MHz
	
5785MHz	5785MHz
	
5825MHz	5825MHz

802.11n HT40

5755MHz

5795MHz

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.

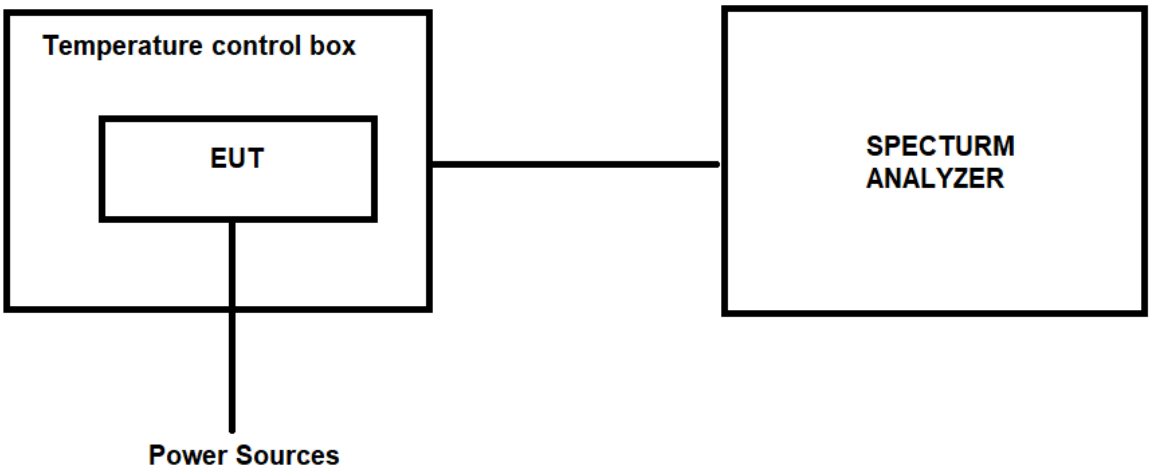
8.1.1 TEST PROCEDURE

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	Spectrum Frequency (MHz)		Δ Frequency (MHz)	
		(MHz)	802.11a	802.11n HT20	802.11a	802.11n HT20
4.07V	-20℃	5745	5745.0469	5745.0472	8.1636	8.2158
		5785	5785.0393	5785.0386	6.7934	6.6724
		5825	5825.0405	5825.0425	6.9528	7.2961
3.33V		5745	5745.0362	5745.0298	6.3011	5.1871
		5785	5785.0423	5785.0435	7.3120	7.5194
		5825	5825.0555	5825.0514	9.5279	8.8240
3.7V	25℃	5745	5745.0394	5745.0395	6.8581	6.8755
		5785	5785.0494	5785.0508	8.5393	8.7813
		5825	5825.0362	5825.0296	6.2146	5.0815
4.07V	50℃	5745	5745.0694	5745.0731	12.0801	12.7241
		5785	5785.0503	5785.0498	8.6949	8.6085
		5825	5825.0675	5825.0698	11.5880	11.9828
3.33V	50℃	5745	5745.0494	5745.0497	8.5988	8.6510
		5785	5785.0371	5785.0329	6.4131	5.6871
		5825	5825.0834	5825.0809	14.3176	13.8884

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)	Δ Frequency (MHz)
			802.11n HT40	802.11n HT40
4.07V	-20℃	5755	5755.0575	9.9913
		5795	5795.069	11.9068
3.33V		5755	5755.0305	5.2997
		5795	5795.0534	9.2148
3.7V	25℃	5755	5755.0278	4.8306
		5795	5795.0661	11.4064
4.07V	50℃	5755	5755.0563	9.7828
		5795	5795.0386	6.6609
3.33V	50℃	5755	5755.0441	7.6629
		5795	5795.0523	9.0250

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

Reference to the appendix I for details.

12. EUT PHOTO

Reference to the appendix II for details.

※※※※※ END OF REPORT ※※※※※