FCC Part 15E Test Report
FCC ID: 2BHX3-L49101A

Applicant:	Shenzhen Trolink Technology Co., Ltd
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Manufacturer:	Shenzhen Trolink Technology Co., Ltd
Address:	Floor 4, 5, and 7, Building 5, Phase 2, Donghua Intelligent Manufacturing Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen
EUT:	network card
Trade Mark:	N/A
Model Number:	L4-9101U-A, L6M2-8800M, L5M2-8821CU, L6M3-8800M, L5M1-8821CU, L6M1-8800FC, L6M1-8800FC, L6M2-8800M, L5M1-8821CU
Date of Receipt:	Nov. 04, 2025
Test Date:	Nov. 04, 2025 - Nov. 19, 2025
Date of Report:	Nov. 19, 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 C63.10-2020
Test Result:	Pass
Report Number:	DLE-251104050R

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.

Table of Contents **Page**

1 . SUMMARY OF TEST RESULTS 5
1.1 MEASUREMENT UNCERTAINTY 5
2 . GENERAL INFORMATION 6
2.1 GENERAL DESCRIPTION OF EUT 6
2.2 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED 7
2.3 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE) 8
2.4 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING 8
2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS 9
3 . EMC EMISSION TEST 10
3.1 CONDUCTED EMISSION MEASUREMENT 10
3.1.1 POWER LINE CONDUCTED EMISSION LIMITS 10
3.1.2 TEST PROCEDURE 10
3.1.3 DEVIATION FROM TEST STANDARD 10
3.1.4 TEST SETUP 11
3.1.5 EUT OPERATING CONDITIONS 11
3.1.6 TEST RESULTS 11
3.2 RADIATED EMISSION MEASUREMENT 12
3.2.1 RADIATED EMISSION LIMITS 12
3.2.2 TEST PROCEDURE 13
3.2.3 DEVIATION FROM TEST STANDARD 13
3.2.4 TEST SETUP 14
3.2.5 EUT OPERATING CONDITIONS 15
3.2.6 TEST RESULTS (BETWEEN 9KHZ – 30 MHZ) 16
3.2.7 TEST RESULTS (BETWEEN 30MHZ – 1GHZ) 17
3.2.8 TEST RESULTS (1GHZ~40GHZ) 19
3.3 RADIATED BAND EMISSION MEASUREMENT 22
3.3.1 TEST REQUIREMENT: 22
3.3.2 TEST PROCEDURE 23
3.3.3 DEVIATION FROM TEST STANDARD 23
3.3.4 TEST SETUP 23
3.3.5 EUT OPERATING CONDITIONS 23
3.4 CONDUCTED BAND EMISSION MEASUREMENT 27
3.4.1 TEST REQUIREMENT: 27
3.4.2 TEST PROCEDURE 27
3.4.3 DEVIATION FROM TEST STANDARD 27
3.4.4 TEST SETUP 27
3.4.5 EUT OPERATING CONDITIONS 27

Table of Contents **Page**

4 . AVERAGE OUTPUT POWER 29
4.1 APPLIED PROCEDURES / LIMIT 29
4.1.1 TEST PROCEDURE 29
4.1.2 DEVIATION FROM STANDARD 29
4.1.3 TEST SETUP 29
4.1.4 EUT OPERATION CONDITIONS 29
4.1.5 TEST RESULTS 30
5 . POWER SPECTRAL DENSITY TEST 33
5.1 APPLIED PROCEDURES / LIMIT 33
5.1.1 TEST PROCEDURE 33
5.1.2 DEVIATION FROM STANDARD 33
5.1.3 TEST SETUP 33
5.1.4 EUT OPERATION CONDITIONS 33
5.1.5 TEST RESULTS 34
6 . 6DB BANDWIDTH TEST 37
6.1 APPLIED PROCEDURES / LIMIT 37
6.1.1 TEST PROCEDURE 37
6.1.2 DEVIATION FROM STANDARD 37
6.1.3 TEST SETUP 37
6.1.4 EUT OPERATION CONDITIONS 37
6.1.5 TEST RESULTS 38
7 . DUTY CYCLE TEST SIGNAL 41
7.1 APPLIED PROCEDURES / LIMIT 41
7.1.1 TEST PROCEDURE 41
7.1.2 DEVIATION FROM STANDARD 41
7.1.3 TEST SETUP 41
7.1.4 EUT OPERATION CONDITIONS 41
7.1.5 TEST RESULTS 42
8 . FREQUENCY STABILITY 45
8.1 APPLIED PROCEDURES / LIMIT 45
8.1.1 TEST PROCEDURE 45
8.1.2 DEVIATION FROM STANDARD 45
8.1.3 TEST SETUP 45
8.1.4 EUT OPERATION CONDITIONS 45
8.1.5 TEST RESULTS 46
9 . TRANSMISSION IN THE ABSENCE OF DATA 47
9.1 STANDARD REQUIREMENT 47
9.2 TEST RESULT 47

Table of Contents **Page**

10 . ANTENNA REQUIREMENT **47**
10.1 STANDARD REQUIREMENT **47**
10.2 EUT ANTENNA **47**
11 . TEST SEUUP PHOTO **47**
12 . EUT PHOTO **47**

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	N/A	
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)	6dB 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, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China

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(<1G)	±3.65dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%
8	Bandwidth	±0.2%
9	Power Spectral Density	±2.45dBm
10	Frequency Stability	±0.3MHz
11	Time	±2%

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product Name:	network card
Trademark	N/A
Model No.:	L4-9101U-A, L6M2-8800M, L5M2-8821CU, L6M3-8800M, L5M1-8821CU, L6M1-8800FC, L6M1-8800FC, L6M2-8800M, L5M1-8821CU
Model Difference	All the models are the same as the sample, except for the model name, color and appearance (the shape of the casing), their structure and circuitry are exactly the same.
Operation Frequency:	5745-5825MHz(802.11a/n(HT20)) 5755-5795MHz(802.11n(HT40))
Channel numbers:	See channel list
Channel separation:	20MHz/40MHz
Modulation technology:	64QAM, 16QAM, QPSK, BPSK for OFDM
Rate of Transmitter	802.11a: 6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps,54Mbps 802.11n: Up to 500Mbps
Antenna Type:	Internal antenna
Antenna gain:	2.67dBi
Power supply:	DC 5V from USB Port

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

2.1.1 DESCRIPTION OF TEST MODES

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

Pretest Mode	Modulation	Channel
Mode 1	802.11a	CH149
Mode 2		CH157
Mode 3		CH165
Mode 4	802.11n HT20	CH149
Mode 5		CH157
Mode 6		CH165
Mode 7	802.11n HT40	CH149
Mode 8		CH157
Mode 9		CH165

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 und that the worst case was under the nominal rated supply condition. So the report just shows that ondition's data.
(3) For the two items of conducted disturbance at the power supply end and space radiation below 1GHz, all modes have undergone pre-tests. The report only shows the worst test results of mode 3.

2.2 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test

2.3 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	network card	L4-9101U-A	N/A	EUT
E-2	Notebook	Vostro 3420	N/A	DELL

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.

2.4 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

2.5 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. 25, 2025	Oct. 24, 2026
2	Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Oct. 25, 2025	Oct. 24, 2026
3	Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Oct. 25, 2025	Oct. 24, 2026
4	Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Oct. 25, 2025	Oct. 24, 2026
5	Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	588	Oct. 25, 2025	Oct. 24, 2026
6	Amplifier (9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Oct. 25, 2025	Oct. 24, 2026
7	Amplifier (1GHz-18GHz)	EMEC	EM01G8GA	00270	Oct. 25, 2025	Oct. 24, 2026
8	Amplifier (18GHz-40GHz)	Quanjuda	DLE-161	97	Oct. 25, 2025	Oct. 24, 2026
9	Loop Antenna (9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Oct. 25, 2025	Oct. 24, 2026
10	RF cables1 (9kHz-1GHz)	ChengYu	966	004	Oct. 25, 2025	Oct. 24, 2026
11	RF cables2 (1GHz-40GHz)	ChengYu	966	003	Oct. 25, 2025	Oct. 24, 2026
12	Antenna connector	Florida RF Labs	N/A	RF 01#	Oct. 25, 2025	Oct. 24, 2026
13	Power probe	KEYSIGHT	U2021XA	MY55210018	Oct. 25, 2025	Oct. 24, 2026
14	Signal Analyzer 9kHz-26.5GHz	Agilent	N9020A	MY55370280	Oct. 25, 2025	Oct. 24, 2026
15	Test Receiver 20kHz-40GHz	R&S	ESU 40	100376	Oct. 25, 2025	Oct. 24, 2026
16	D.C. Power Supply	LongWei	PS-305D	010964729	Oct. 25, 2025	Oct. 24, 2026

Conduction Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	843 Shielded Room	ChengYu	843 Room	843	Nov. 05, 2023	Nov. 04, 2026
2	EMI Receiver	R&S	ESR	101421	Oct. 25, 2025	Oct. 24, 2026
3	LISN	R&S	ENV216	102417	Oct. 25, 2025	Oct. 24, 2026
4	843 Cable 1#	ChengYu	CE Cable	001	Oct. 25, 2025	Oct. 24, 2026

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.

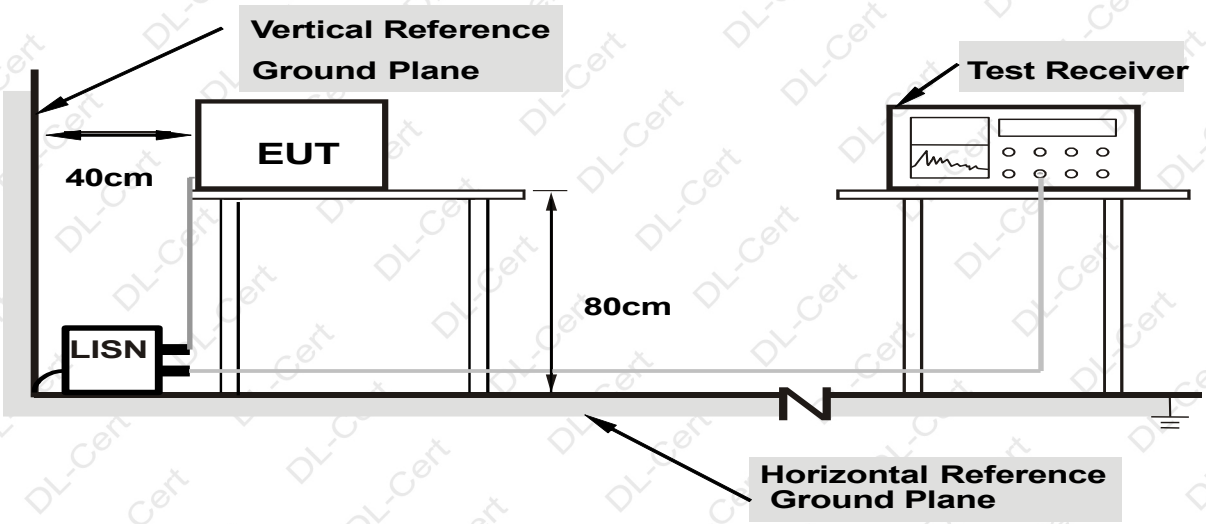
d. LISN at least 80 cm from nearest part of EUT chassis.

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

The EUT is powered by DC, no requirements for this item.

3.2 RADIATED EMISSION MEASUREMENT

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

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

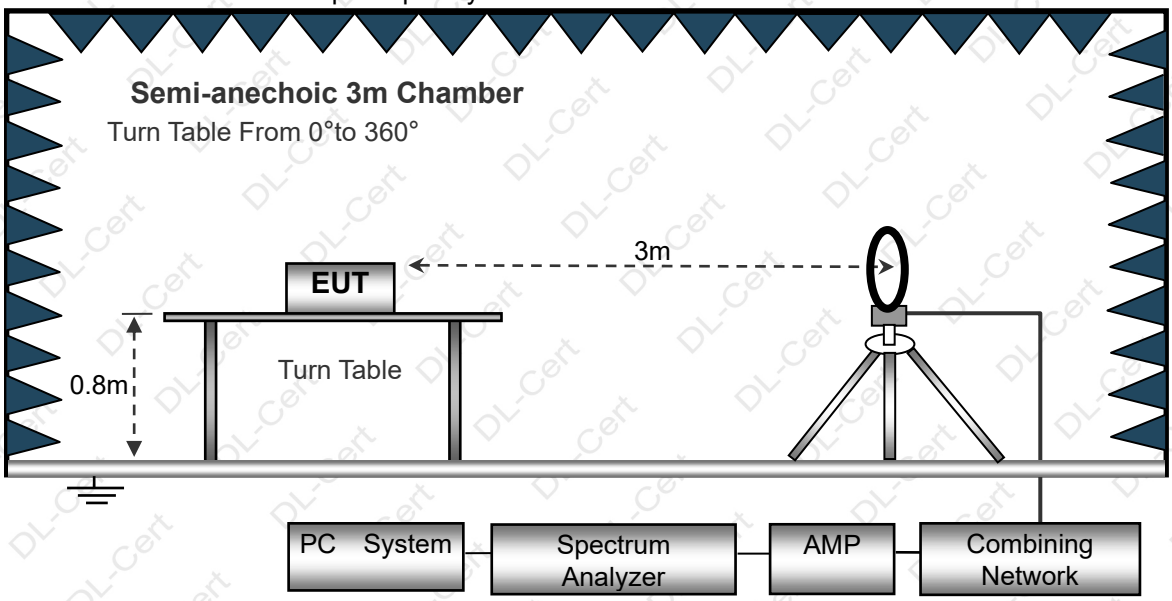
Note:
The horizontal and vertical polarities of the antenna were tested, and a pre-test was conducted on the EUT placement as three orthogonal axes X,Y,Z. The worst display of the test results was the Y-axis. The worst case emissions were reported.

3.2.3 DEVIATION FROM TEST STANDARD

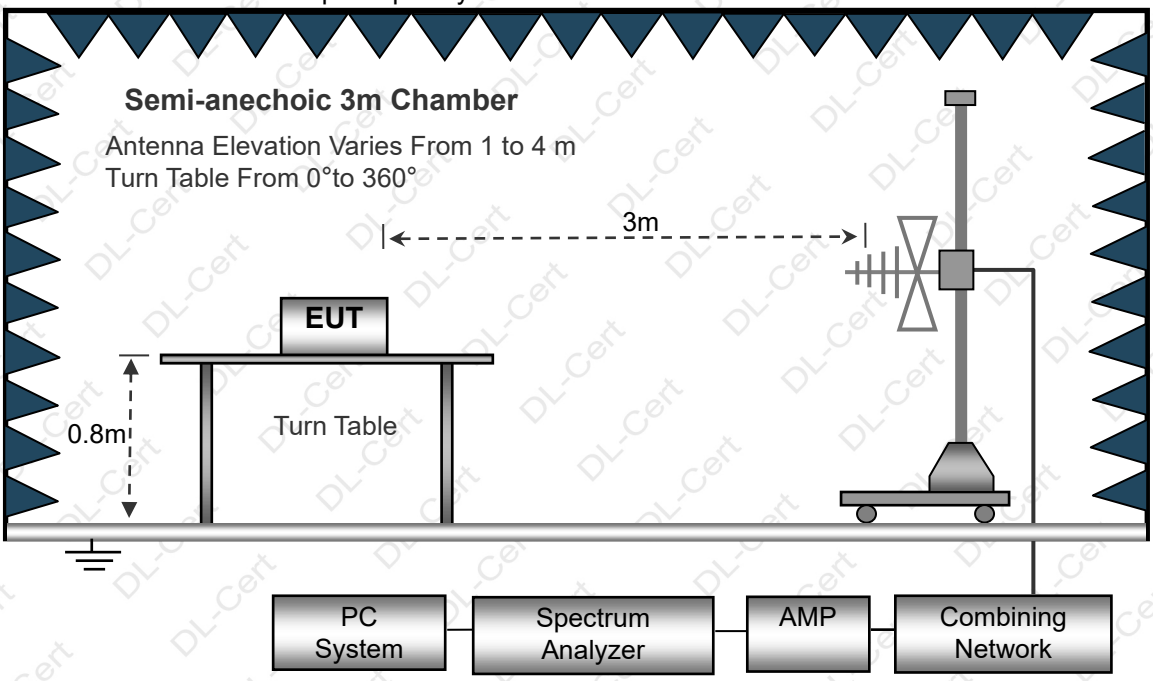
No deviation

3.2.4 TEST SETUP

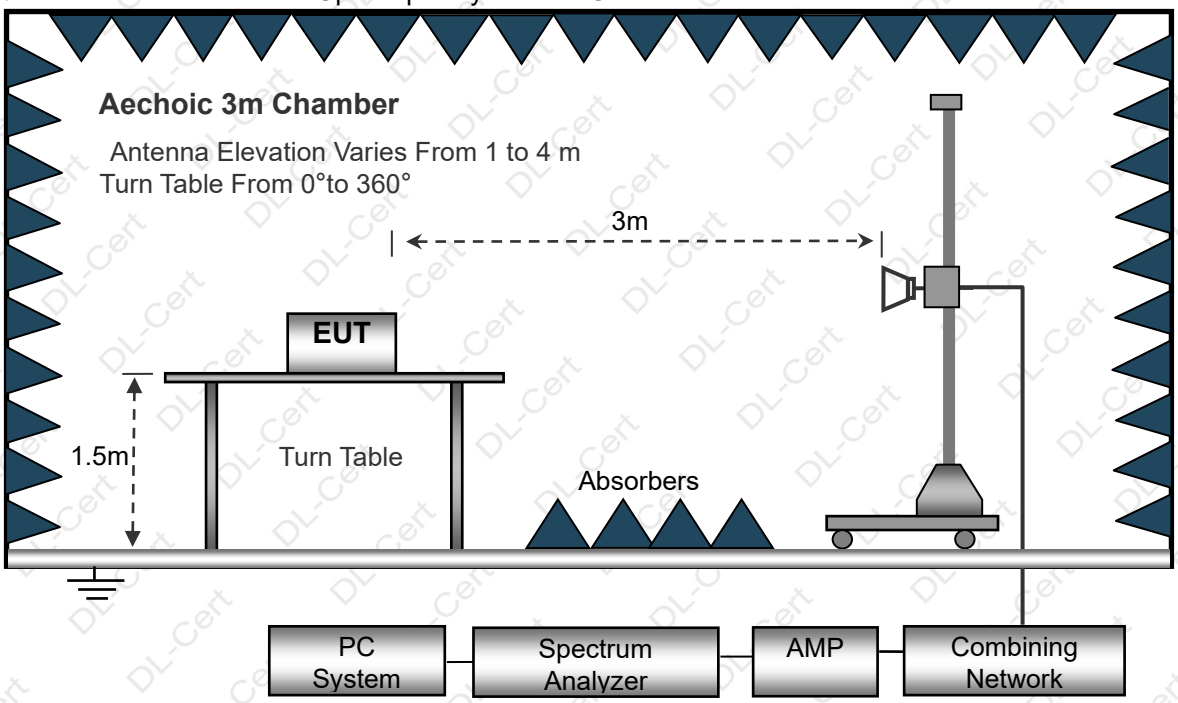
（A）Radiated Emission Test-Up Frequency Below 30MHz



（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 5V
Test Mode :	Mode 3	Polarization :	--

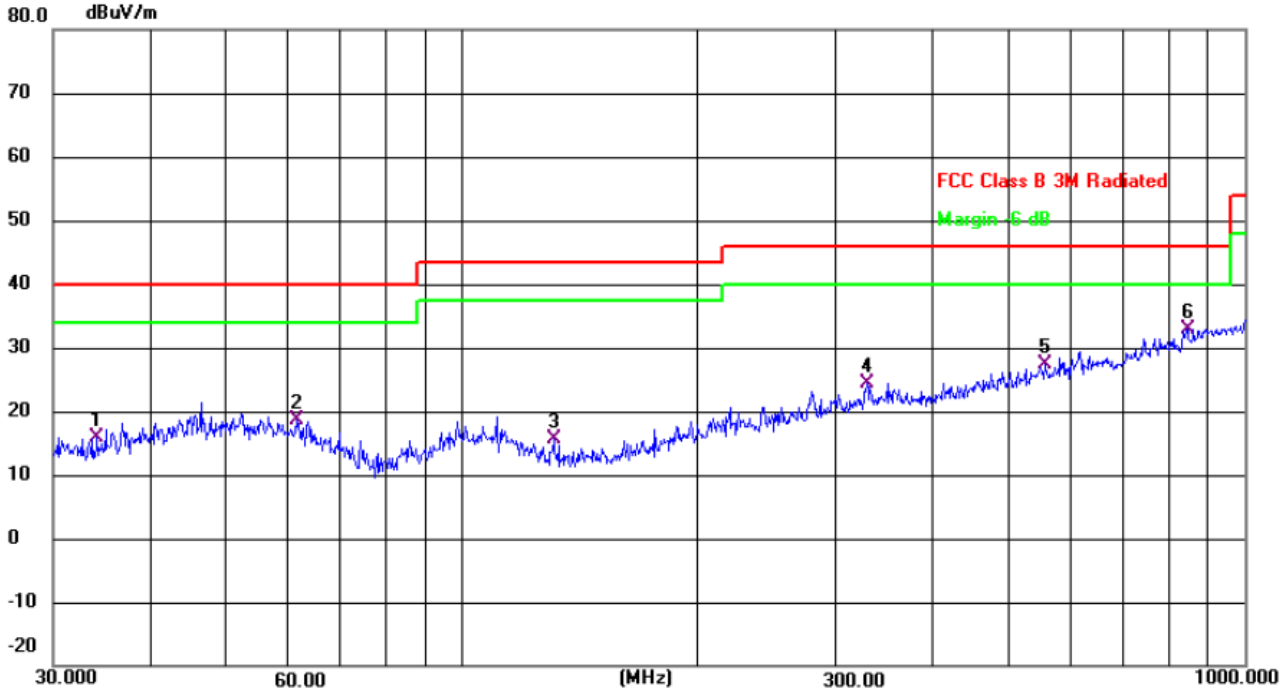
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

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 5V		
Test Mode :	Mode 3		



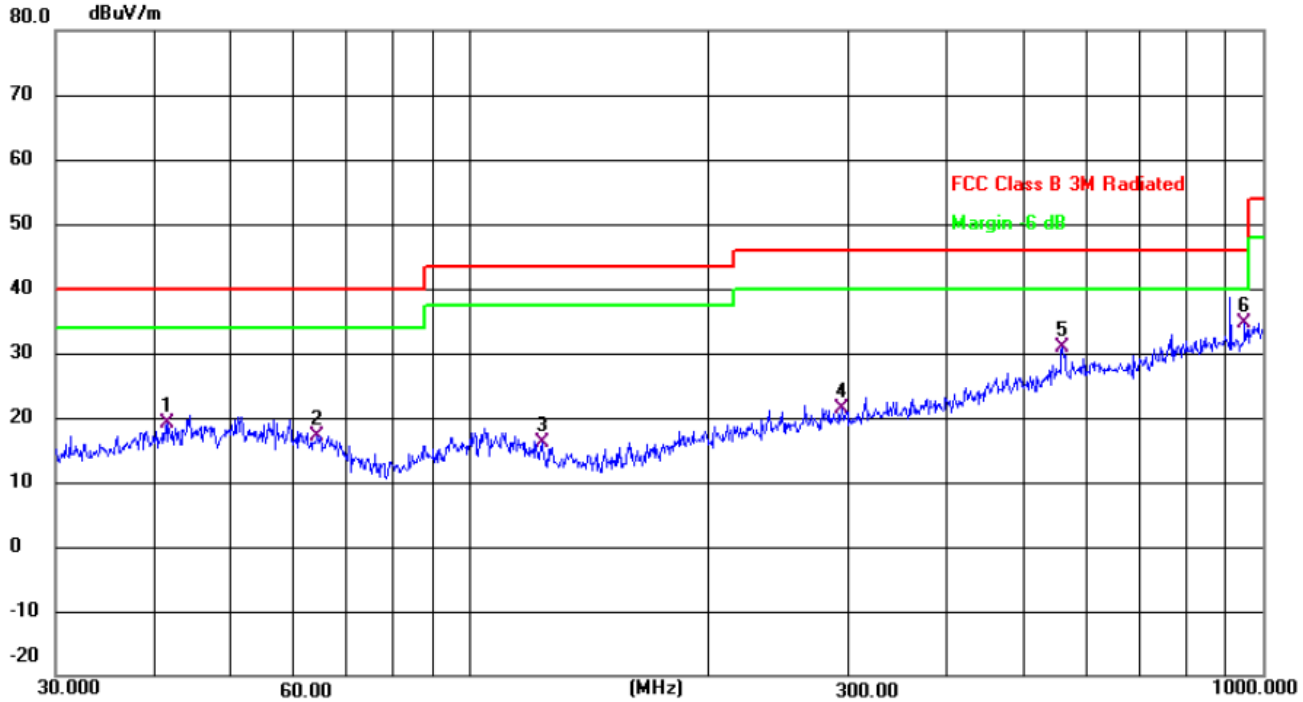
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		34.1561	25.48	-9.48	16.00	40.00	-24.00	QP
2		61.3463	26.83	-8.11	18.72	40.00	-21.28	QP
3		130.8369	27.68	-11.98	15.70	43.50	-27.80	QP
4		329.0390	29.96	-5.50	24.46	46.00	-21.54	QP
5		554.8254	27.45	-0.02	27.43	46.00	-18.57	QP
6	*	845.0878	28.24	4.62	32.86	46.00	-13.14	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 5V		
Test Mode :	Mode 3		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		41.5670	26.66	-7.65	19.01	40.00	-20.99	QP
2		64.2074	25.89	-8.76	17.13	40.00	-22.87	QP
3		123.2655	27.51	-11.30	16.21	43.50	-27.29	QP
4		294.1137	27.47	-5.99	21.48	46.00	-24.52	QP
5		558.7302	30.80	0.07	30.87	46.00	-15.13	QP
6	*	948.7610	29.00	5.51	34.51	46.00	-11.49	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	54.30	49.05	15.3	37.39	57.94	74	-16.06	PK
V	11490	41.90	49.05	15.3	37.39	45.54	54	-8.46	AV
V	17235	55.22	49.16	15.27	40.45	61.78	68.2	-6.42	PK
V	17235	40.63	49.16	15.27	40.45	47.19	54	-6.81	AV
H	11490	52.57	49.05	15.3	37.39	56.21	74	-17.79	PK
H	11490	42.13	49.05	15.3	37.39	45.77	54	-8.23	AV
H	17235	51.53	49.16	15.27	40.45	58.09	68.2	-10.11	PK
H	17235	40.63	49.16	15.27	40.45	47.19	54	-6.81	AV
operation frequency:5785									
V	11570	51.16	49.09	15.34	37.42	54.83	74	-19.17	PK
V	11570	41.23	49.09	15.34	37.42	44.9	54	-9.10	AV
V	17355	50.44	49.18	15.29	40.47	57.02	68.2	-11.18	PK
V	17355	40.46	49.18	15.29	40.47	47.04	54	-6.96	AV
H	11570	50.48	49.09	15.34	37.42	54.15	74	-19.85	PK
H	11570	42.25	49.09	15.34	37.42	45.92	54	-8.08	AV
H	17355	48.21	49.18	15.29	40.47	54.79	68.2	-13.41	PK
H	17355	40.57	49.18	15.29	40.47	47.15	54	-6.85	AV
operation frequency:5825									
V	11650	52.58	49.11	15.37	37.46	56.3	74	-17.70	PK
V	11650	41.21	49.11	15.37	37.46	44.93	54	-9.07	AV
V	17475	49.59	49.21	15.34	40.51	56.23	68.2	-11.97	PK
V	17475	40.87	49.21	15.34	40.51	47.51	54	-6.49	AV
H	11650	57.27	49.11	15.37	31.31	54.84	74	-19.16	PK
H	11650	48.53	49.11	15.37	31.31	46.1	54	-7.90	AV
H	17475	49.51	49.21	15.34	40.51	56.15	68.2	-12.05	PK
H	17475	40.63	49.21	15.34	40.51	47.27	54	-6.73	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	49.17	49.05	15.3	37.39	52.81	74	-21.19	PK
V	11490	42.58	49.05	15.3	37.39	46.22	54	-7.78	AV
V	17235	48.49	49.16	15.27	40.45	55.05	68.2	-13.15	PK
V	17235	40.93	49.16	15.27	40.45	47.49	54	-6.51	AV
H	11490	49.54	49.05	15.3	37.39	53.18	74	-20.82	PK
H	11490	41.23	49.05	15.3	37.39	44.87	54	-9.13	AV
H	17235	48.30	49.16	15.27	40.45	54.86	68.2	-13.34	PK
H	17235	40.55	49.16	15.27	40.45	47.11	54	-6.89	AV
operation frequency:5785									
V	11570	52.58	49.09	15.34	37.42	56.25	74	-17.75	PK
V	11570	42.60	49.09	15.34	37.42	46.27	54	-7.73	AV
V	17355	49.54	49.18	15.29	40.47	56.12	68.2	-12.08	PK
V	17355	40.63	49.18	15.29	40.47	47.21	54	-6.79	AV
H	11570	49.50	49.09	15.34	37.42	53.17	74	-20.83	PK
H	11570	43.83	49.09	15.34	37.42	47.5	54	-6.50	AV
H	17355	49.20	49.18	15.29	40.47	55.78	68.2	-12.42	PK
H	17355	40.63	49.18	15.29	40.47	47.21	54	-6.79	AV
operation frequency:5825									
V	11650	51.39	49.11	15.37	37.46	55.11	74	-18.89	PK
V	11650	41.64	49.11	15.37	37.46	45.36	54	-8.64	AV
V	17475	48.23	49.21	15.34	40.51	54.87	68.2	-13.33	PK
V	17475	40.68	49.21	15.34	40.51	47.32	54	-6.68	AV
H	11650	57.48	49.11	15.37	31.31	55.05	74	-18.95	PK
H	11650	44.81	49.11	15.37	31.31	42.38	54	-11.62	AV
H	17475	49.17	49.21	15.34	40.51	55.81	68.2	-12.39	PK
H	17475	40.38	49.21	15.34	40.51	47.02	54	-6.98	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	49.59	49.07	15.33	37.41	53.26	74	-20.74	PK
V	11510	41.64	49.07	15.33	37.41	45.31	54	-8.69	AV
V	17265	49.80	49.17	15.28	40.46	56.37	68.2	-11.83	PK
V	17265	40.18	49.17	15.28	40.46	46.75	54	-7.25	AV
H	11510	48.33	49.07	15.33	37.41	52	74	-22.00	PK
H	11510	41.81	49.07	15.33	37.41	45.48	54	-8.52	AV
H	17265	49.24	49.17	15.28	40.46	55.81	68.2	-12.39	PK
H	17265	40.41	49.17	15.28	40.46	46.98	54	-7.02	AV
operation frequency:5795									
V	11590	49.59	49.11	15.37	37.46	53.31	74	-20.69	PK
V	11590	41.64	49.11	15.37	37.46	45.36	54	-8.64	AV
V	17385	48.15	49.21	15.34	40.51	54.79	68.2	-13.41	PK
V	17385	40.63	49.21	15.34	40.51	47.27	54	-6.73	AV
H	11590	57.47	49.11	15.37	31.31	55.04	74	-18.96	PK
H	11590	44.50	49.11	15.37	31.31	42.07	54	-11.93	AV
H	17385	48.10	49.21	15.34	40.51	54.74	68.2	-13.46	PK
H	17385	40.31	49.21	15.34	40.51	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.

3.3 RADIATED BAND EMISSION MEASUREMENT

3.3.1 TEST REQUIREMENT:

15.407 (b)

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)
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.
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

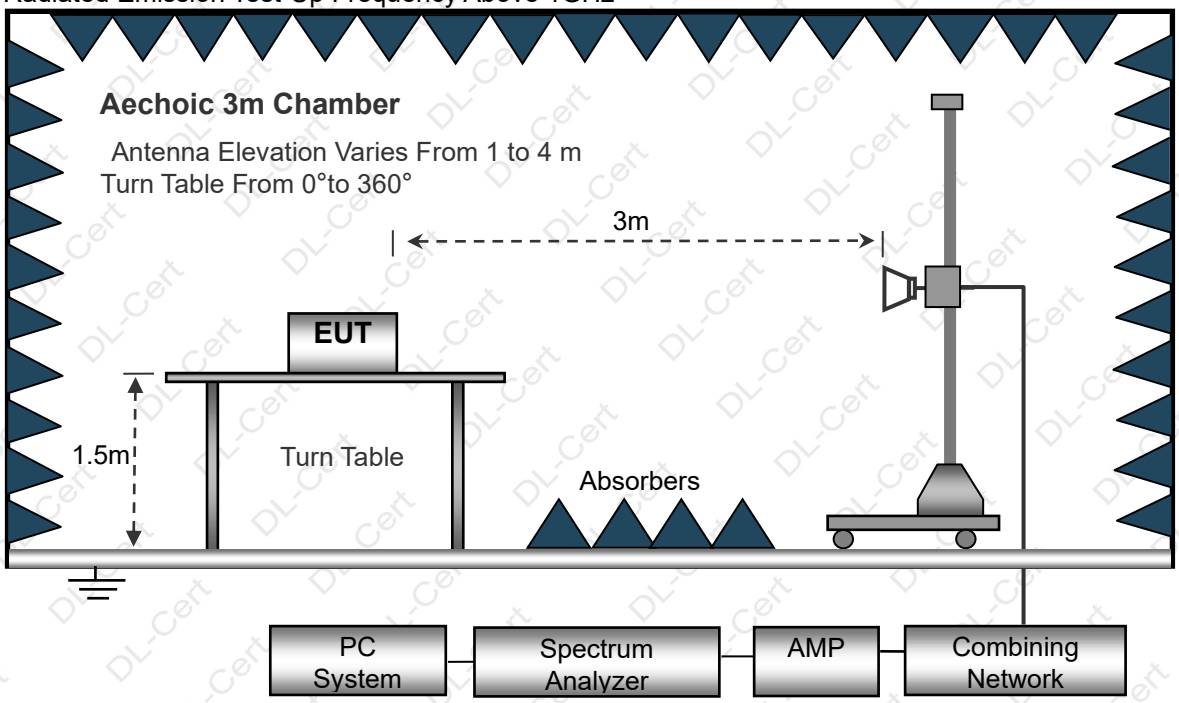
Above 1GHz test procedure as below:
a. 1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, 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	5725	53.20	46.38	12.43	35.65	54.9	68.2	-13.3	PK
V	5725	39.96	46.38	12.43	35.65	41.66	54	-12.34	AV
V	5720	54.28	46.56	12.47	35.76	55.95	68.2	-12.25	PK
V	5720	36.86	46.56	12.47	35.76	38.53	54	-15.47	AV
H	5725	52.51	46.38	12.43	35.65	54.21	68.2	-13.99	PK
H	5725	37.55	46.38	12.43	35.65	39.25	54	-14.75	AV
H	5720	54.12	46.56	12.47	35.76	55.79	68.2	-12.41	PK
H	5720	33.65	46.56	12.47	35.76	35.32	54	-18.68	AV

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:5825									
V	5850	53.08	46.55	12.65	35.87	55.05	68.2	-13.15	PK
V	5850	35.87	46.55	12.65	35.87	37.84	54	-16.16	AV
V	5870	53.11	46.58	12.67	35.93	55.13	68.2	-13.07	PK
V	5870	32.20	46.58	12.67	35.93	34.22	54	-19.78	AV
H	5850	52.58	46.55	12.65	35.87	54.55	68.2	-13.65	PK
H	5850	40.74	46.55	12.65	35.87	42.71	54	-11.29	AV
H	5870	52.40	46.58	12.67	35.93	54.42	68.2	-13.78	PK
H	5870	32.88	46.58	12.67	35.93	34.9	54	-19.1	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	5725	51.57	47.36	13.18	36.26	53.65	68.2	-14.55	PK
V	5725	33.17	47.36	13.18	36.26	35.25	54	-18.75	AV
V	5720	51.83	47.38	13.2	36.29	53.94	68.2	-14.26	PK
V	5720	33.65	47.38	13.2	36.29	35.76	54	-18.24	AV
H	5725	51.20	47.36	13.18	36.26	53.28	68.2	-14.92	PK
H	5725	33.39	47.36	13.18	36.26	35.47	54	-18.53	AV
H	5720	50.81	47.38	13.2	36.29	52.92	68.2	-15.28	PK
H	5720	32.39	47.38	13.2	36.29	34.5	54	-19.5	AV

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:5825									
V	5850	53.04	48.32	15.24	37.37	57.33	68.2	-10.87	PK
V	5850	34.78	48.32	15.24	37.37	39.07	54	-14.93	AV
V	5870	50.66	48.36	15.27	37.39	54.96	68.2	-13.24	PK
V	5870	33.29	48.36	15.27	37.39	37.59	54	-16.41	AV
H	5850	54.03	48.32	15.24	37.37	58.32	68.2	-9.88	PK
H	5850	36.59	48.32	15.24	37.37	40.88	54	-13.12	AV
H	5870	51.21	48.36	15.27	37.39	55.51	68.2	-12.69	PK
H	5870	33.81	48.36	15.27	37.39	38.11	54	-15.89	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	5725	52.42	46.38	12.43	35.65	54.12	68.2	-14.08	PK
V	5725	35.48	46.38	12.43	35.65	37.18	54	-16.82	AV
V	5720	51.46	46.56	12.47	35.76	53.13	68.2	-15.07	PK
V	5720	34.36	46.56	12.47	35.76	36.03	54	-17.97	AV
H	5725	52.37	46.38	12.43	35.65	54.07	68.2	-14.13	PK
H	5725	34.88	46.38	12.43	35.65	36.58	54	-17.42	AV
H	5720	50.36	46.56	12.47	35.76	52.03	68.2	-16.17	PK
H	5720	35.16	46.56	12.47	35.76	36.83	54	-17.17	AV

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:5795									
V	5850	53.08	46.55	12.65	35.87	55.05	68.2	-13.15	PK
V	5850	37.31	46.55	12.65	35.87	39.28	54	-14.72	AV
V	5870	50.00	46.58	12.67	35.93	52.02	68.2	-16.18	PK
V	5870	36.42	46.58	12.67	35.93	38.44	54	-15.56	AV
H	5850	54.14	46.55	12.65	35.87	56.11	68.2	-12.09	PK
H	5850	41.71	46.55	12.65	35.87	43.68	54	-10.32	AV
H	5870	52.35	46.58	12.67	35.93	54.37	68.2	-13.83	PK
H	5870	36.37	46.58	12.67	35.93	38.39	54	-15.61	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.

3.4 CONDUCTED BAND EMISSION MEASUREMENT

3.4.1 TEST REQUIREMENT:

FCC Part15 C Section 15.209 and 15.407

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(4) For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	5725MHz
Stop Frequency	5850MHz
RB / VB (emission in restricted band)	1 MHz / 3 MHz for Peak, 1 MHz / 10Hz for Average

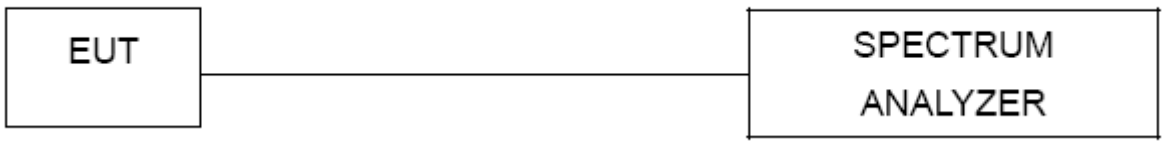
3.4.2 TEST PROCEDURE

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

3.4.3 DEVIATION FROM TEST STANDARD

No deviation

3.4.4 TEST SETUP

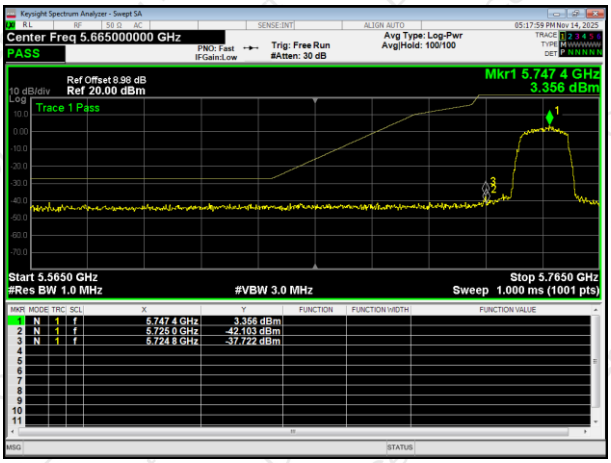
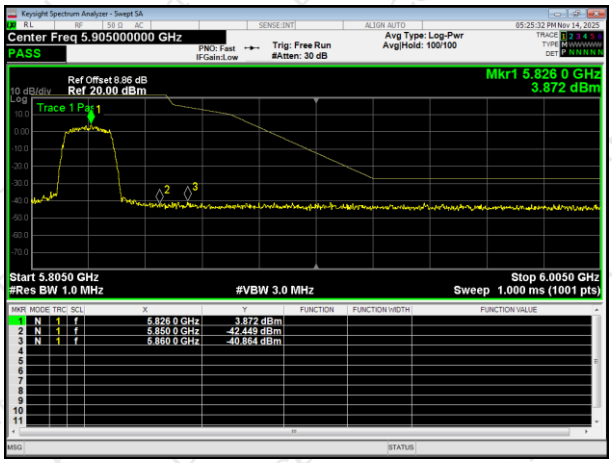


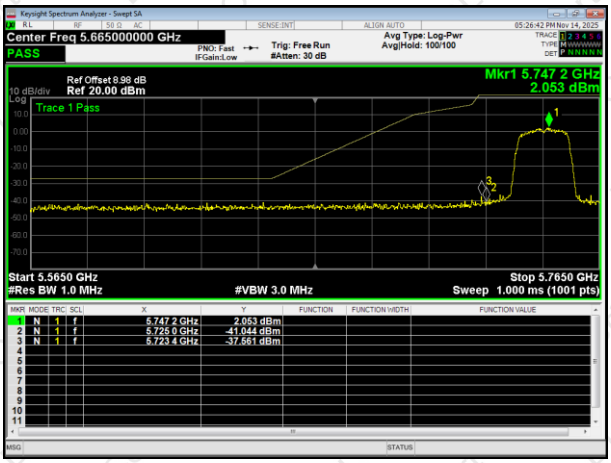
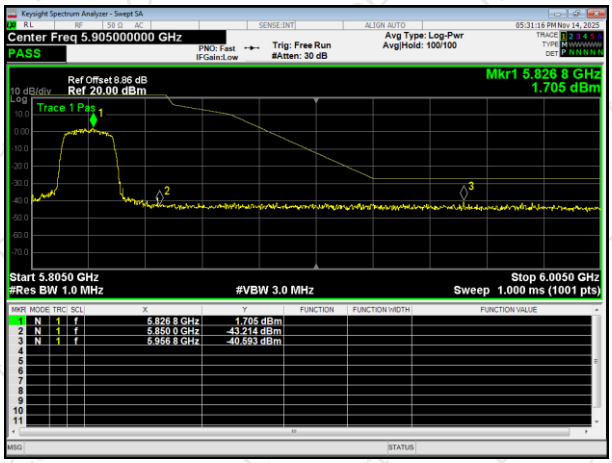
3.4.5 EUT OPERATING CONDITIONS

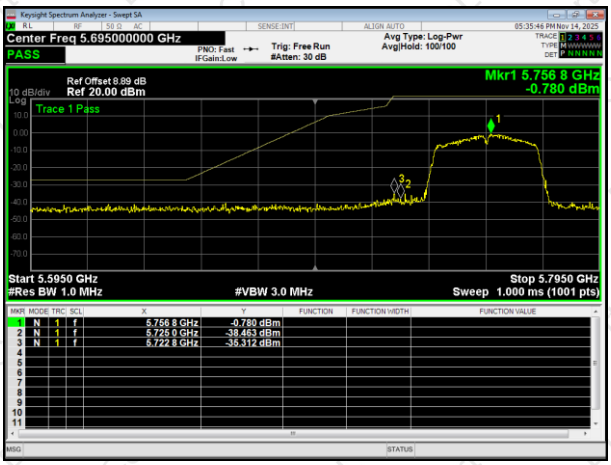
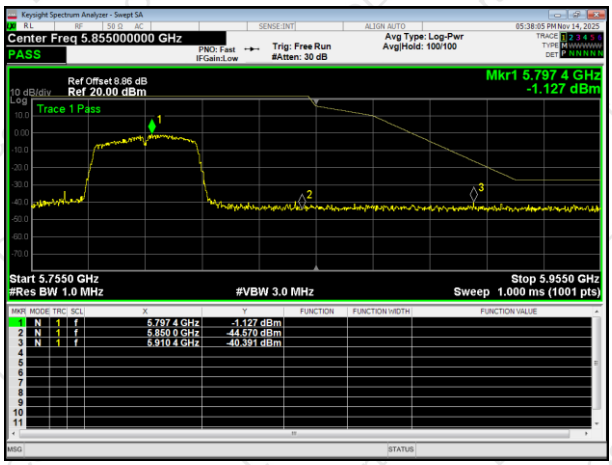
The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

3.4.6 TEST RESULT

The antenna gain is compensated in the test data.

802.11a	
	
5745MHz	5825MHz

802.11n HT20	
	
5745MHz	5825MHz

802.11n HT40	
	
5755MHz	5795MHz

4. AVERAGE 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.

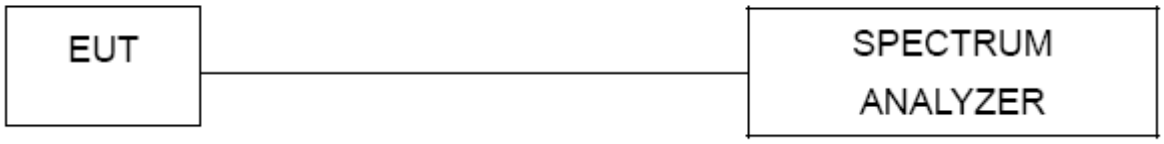
4.1.1 TEST PROCEDURE

a. 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=1MHz
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 1 MHz 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



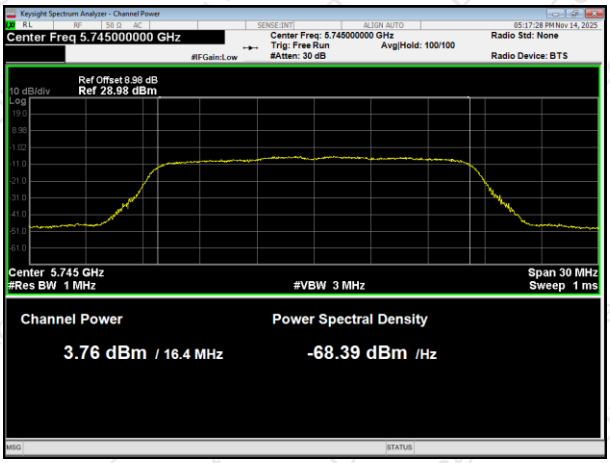
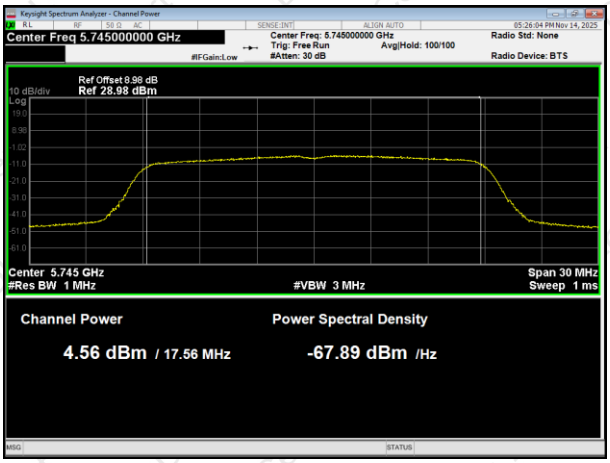
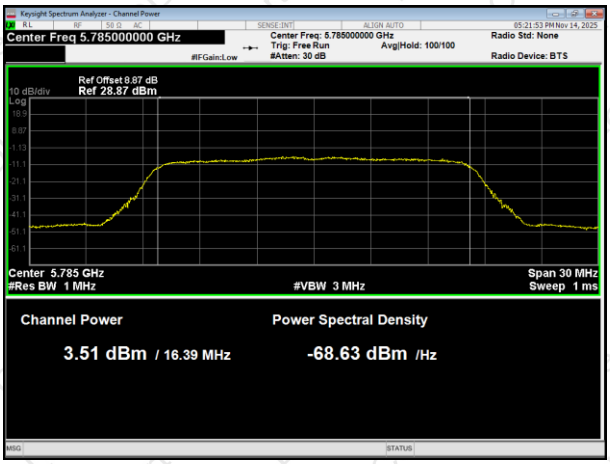
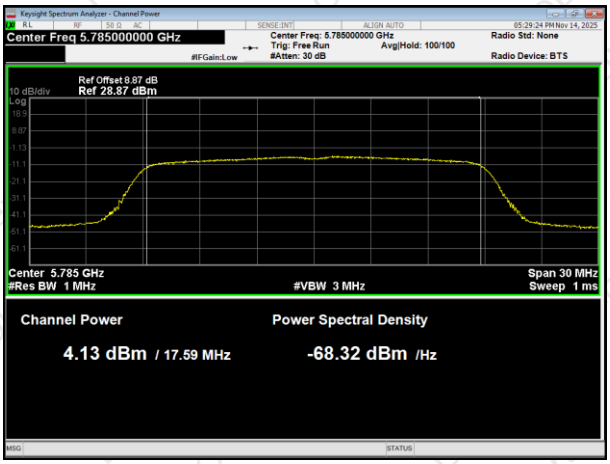
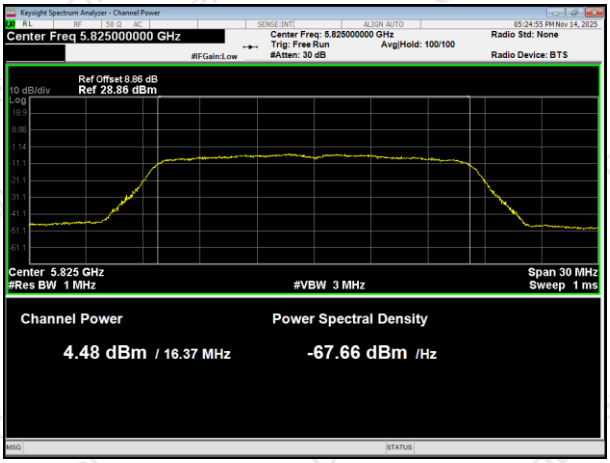
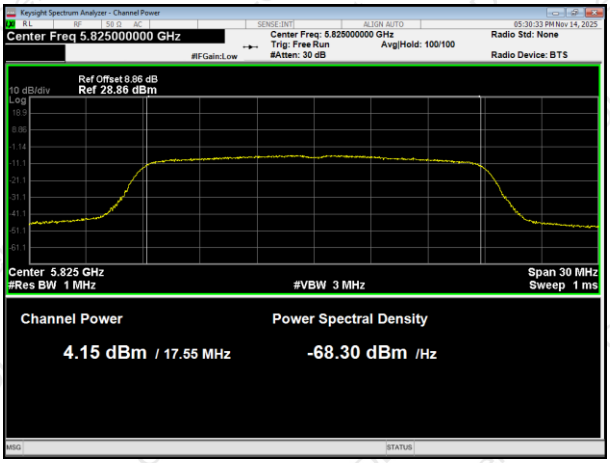
4.1.4 EUT OPERATION CONDITIONS

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.

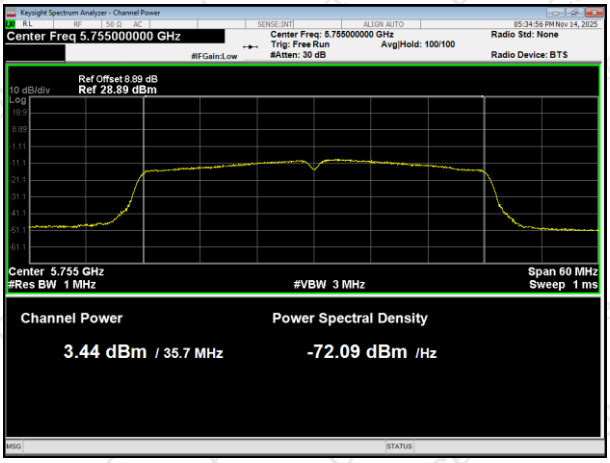
4.1.5 TEST RESULTS

Temperature:	25 ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 5V

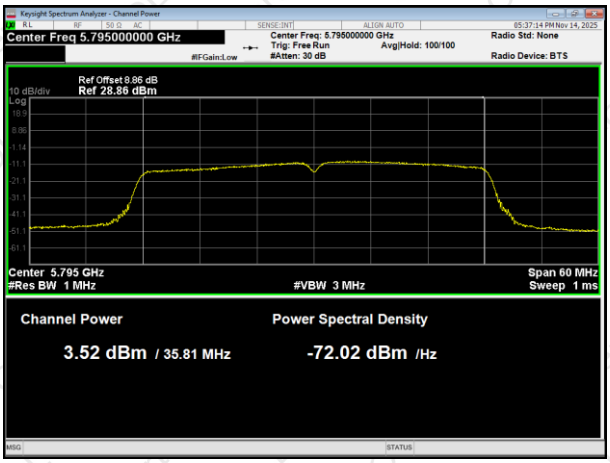
Mode	Test Channel	Average Output Power (dBm)	Duty factor (dB)	Total Output Power(dB)	LIMIT (dBm)
802.11a	Low	3.758	0.87	4.628	30
	Middle	3.51	0.87	4.38	30
	High	4.476	1.12	5.596	30
802.11n HT20	Low	4.556	0.13	4.686	30
	Middle	4.13	0.13	4.26	30
	High	4.145	0.13	4.275	30
802.11n HT40	Low	3.438	0.26	3.698	30
	High	3.521	0.26	3.781	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 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	Max Hold
Sweep Time	Auto

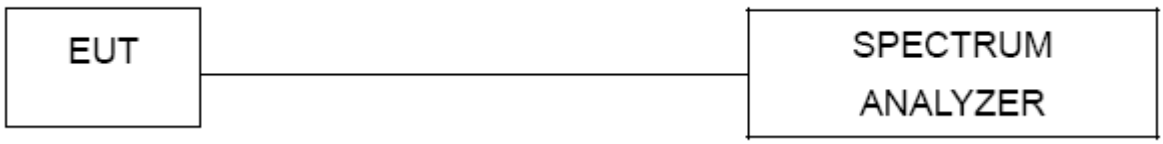
5.1.1 TEST PROCEDURE

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. 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

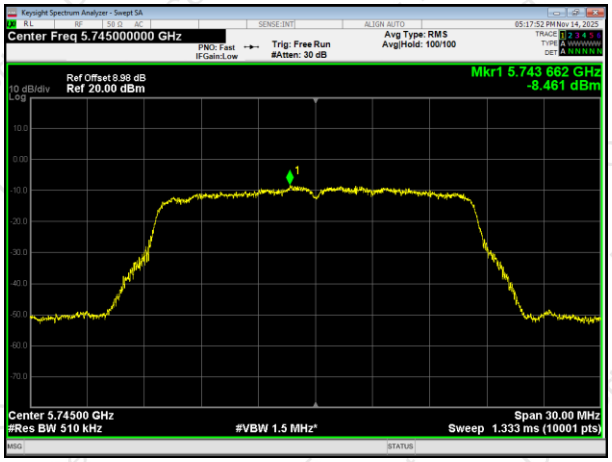
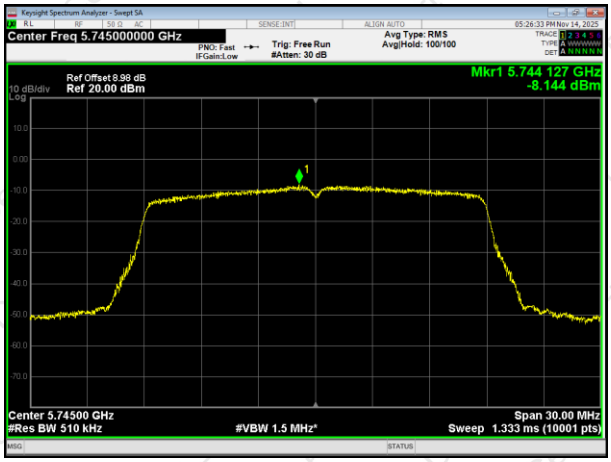
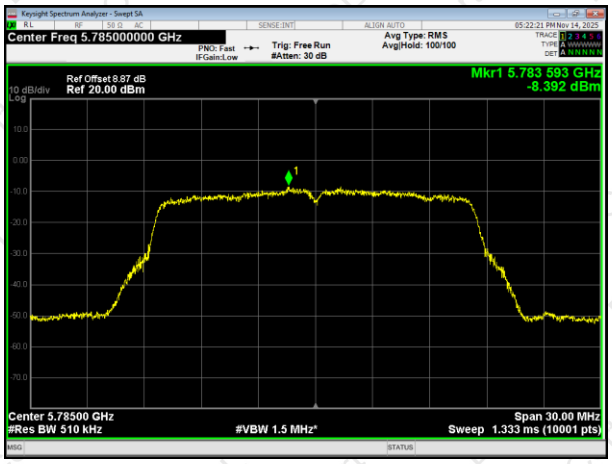
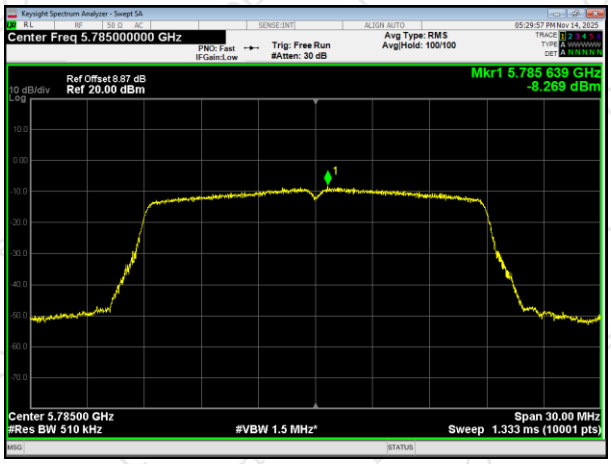
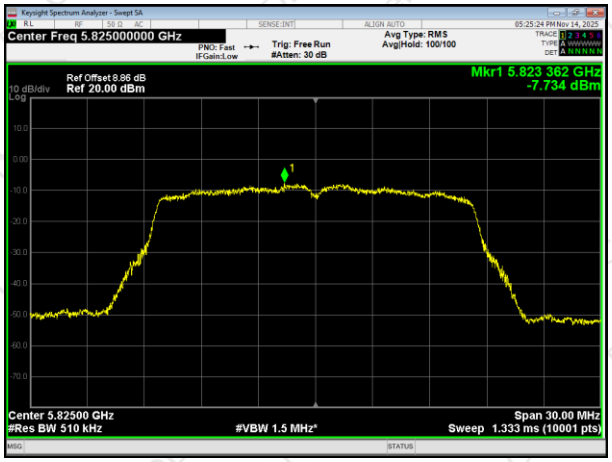
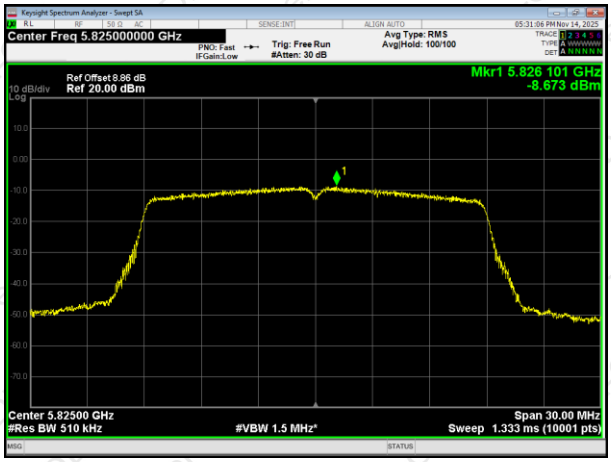


5.1.4 EUT OPERATION CONDITIONS

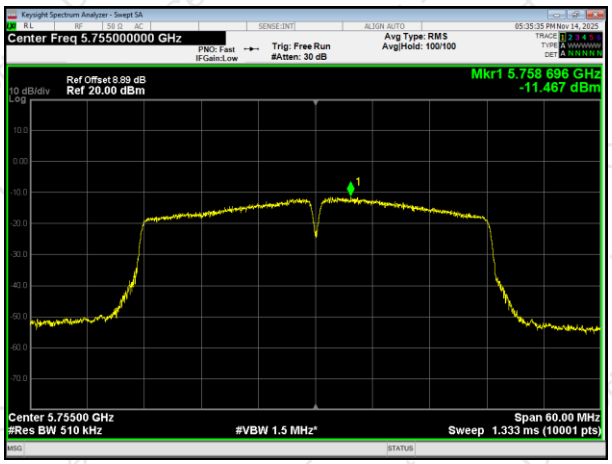
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.5 TEST RESULTS

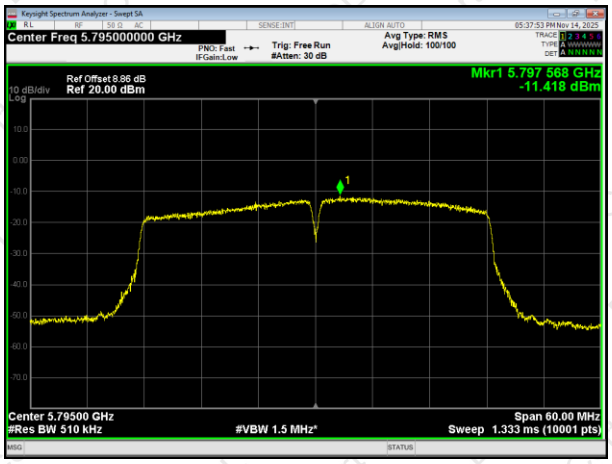
	Mode	Test Channel	Reading Level (dBm)	Duty factor (dB)	PSD (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Result
Band4	802.11a	Low	-8.461	0.87	-7.591	30.00	PASS
		Middle	-8.392	0.87	-7.522	30.00	PASS
		High	-7.734	1.12	-6.614	30.00	PASS
	802.11n20	Low	-8.144	0.13	-8.014	30.00	PASS
		Middle	-8.269	0.13	-8.139	30.00	PASS
		High	-8.673	0.13	-8.543	30.00	PASS
	802.11n40	Low	-11.467	0.26	-11.207	30.00	PASS
		High	-11.418	0.26	-11.158	30.00	PASS

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

802.11n HT40



5755MHz



5795MHz

6. 6DB BANDWIDTH TEST

6.1 APPLIED PROCEDURES / LIMIT

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

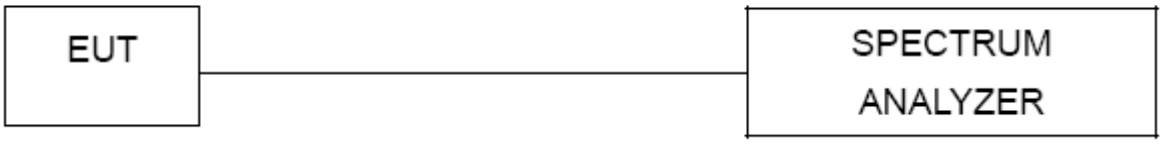
6.1.1 TEST PROCEDURE

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

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP

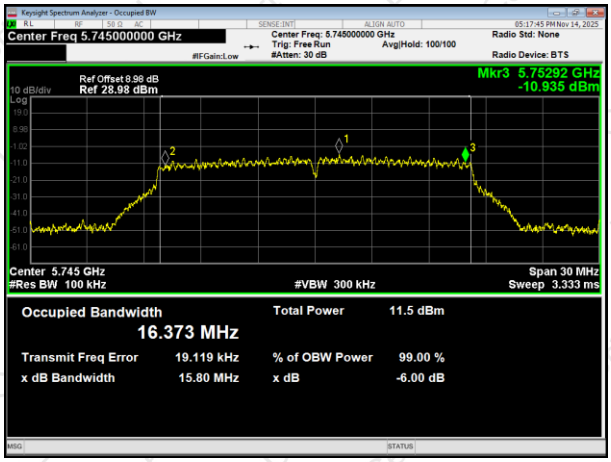
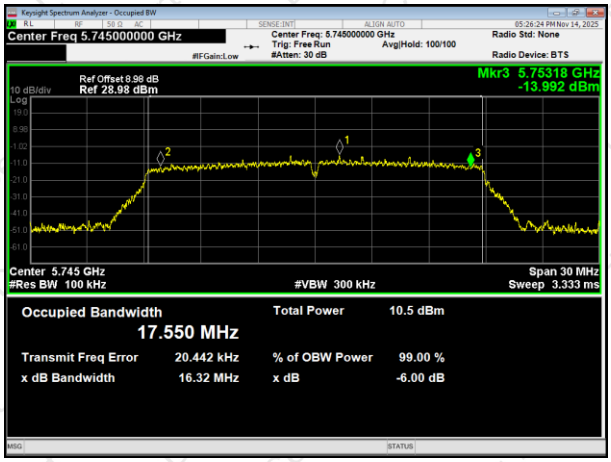
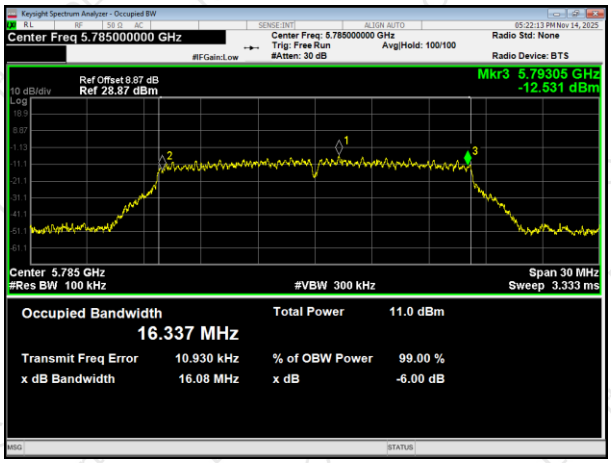
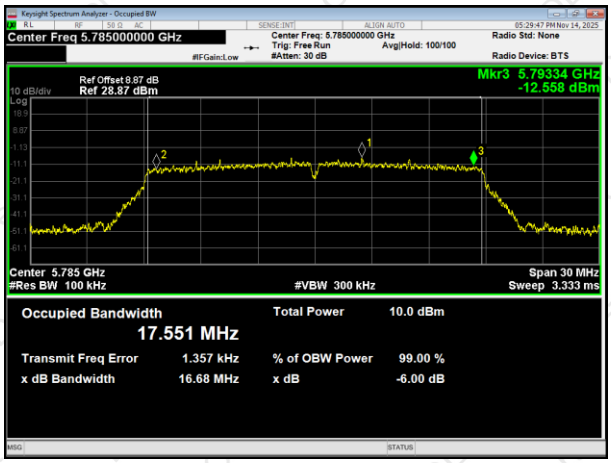
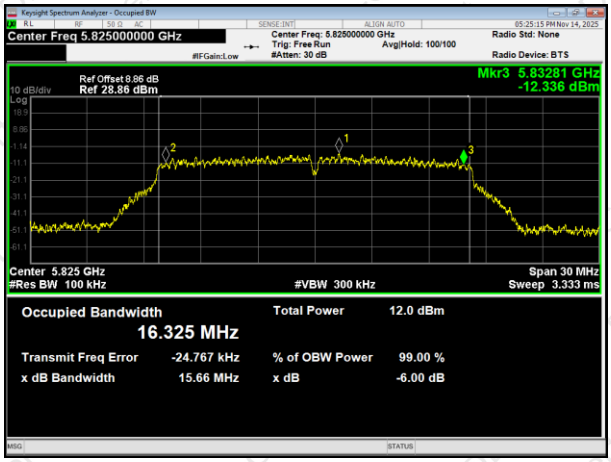
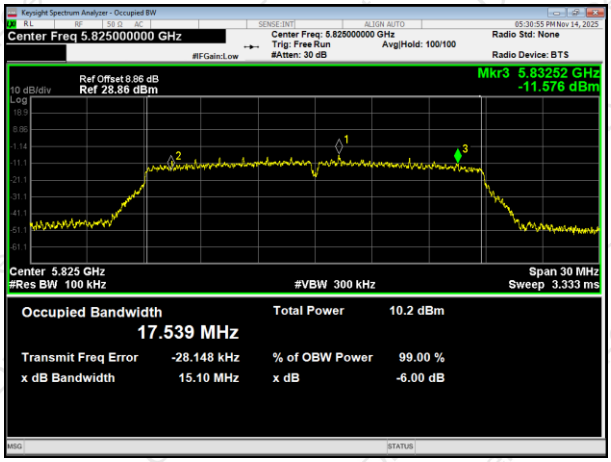


6.1.4 EUT OPERATION CONDITIONS

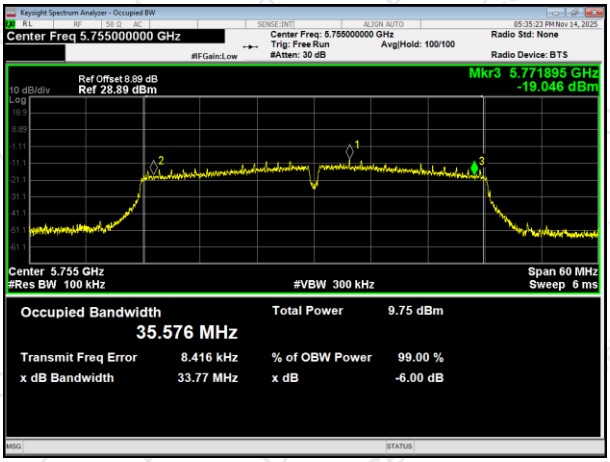
The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.5 TEST RESULTS

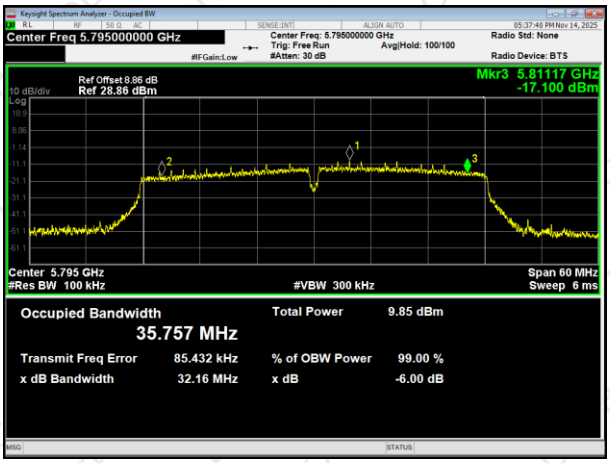
		Test Channel	6dB Bandwidth (MHz)	6dB Bandwidth Limit (MHz)	Result
Band 4	802.11a	Low	15.8	>0.5	Pass
		Middle	16.08	>0.5	Pass
		High	15.66	>0.5	Pass
	802.11n HT20	Low	16.32	>0.5	Pass
		Middle	16.68	>0.5	Pass
		High	15.1	>0.5	Pass
	802.11n HT40	Low	33.77	>0.5	Pass
		High	32.16	>0.5	Pass

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.

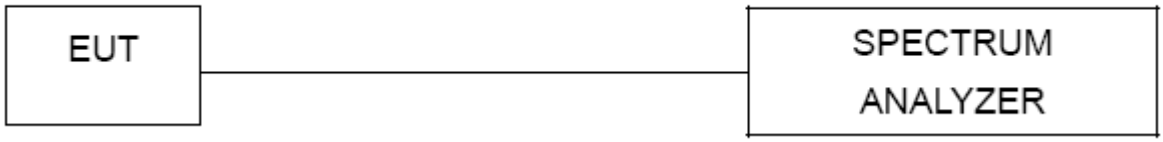
7.1.1 TEST PROCEDURE

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

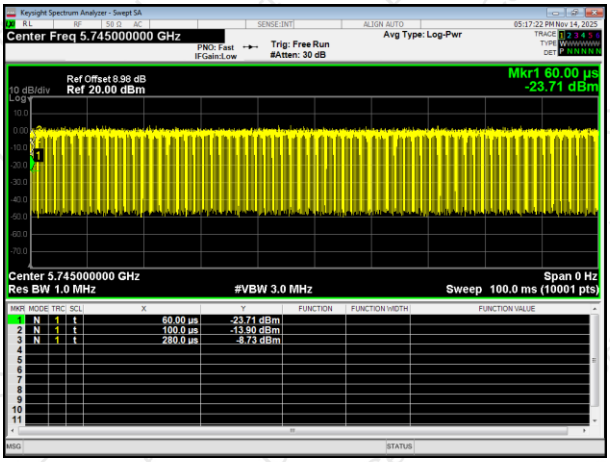
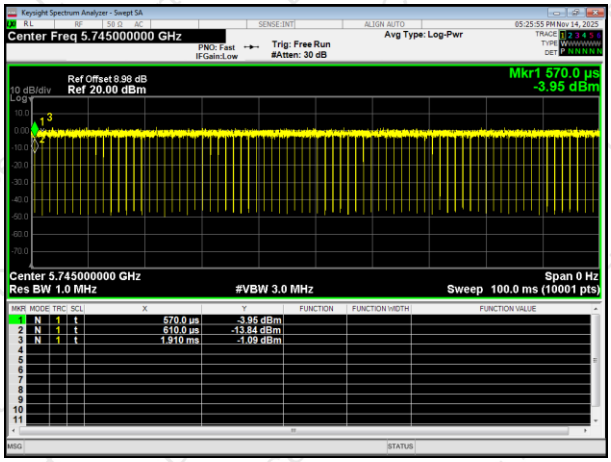
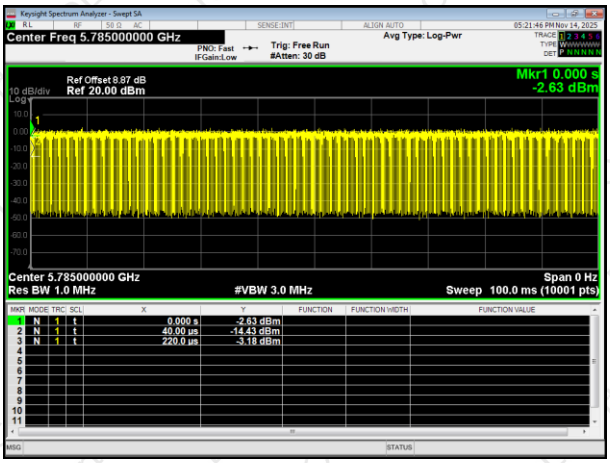
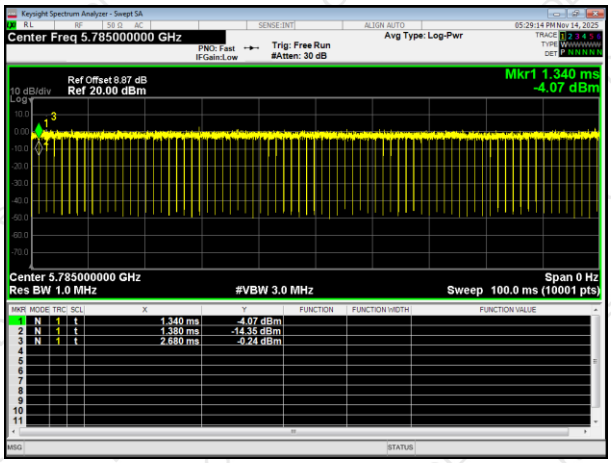
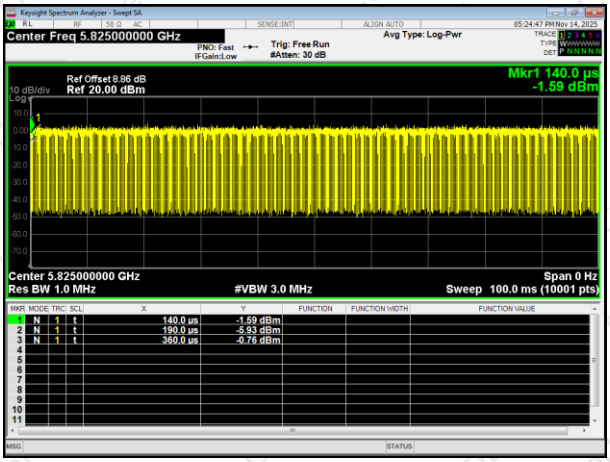
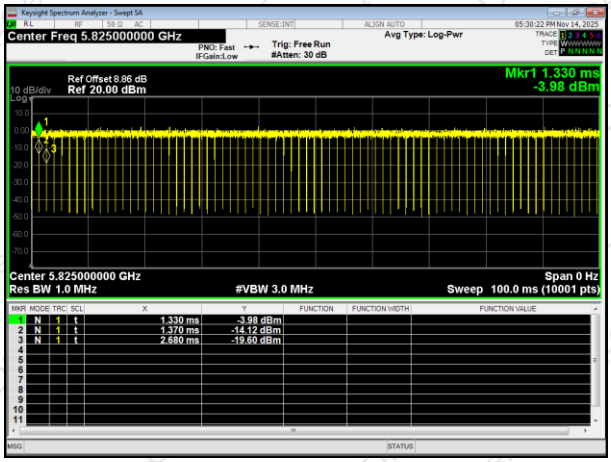


7.1.4 EUT OPERATION CONDITIONS

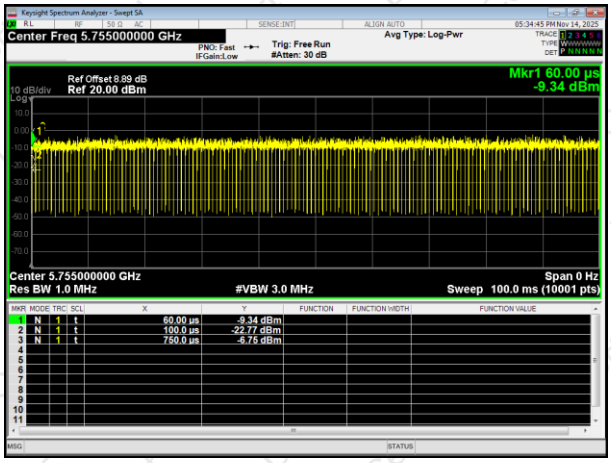
The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

7.1.5 TEST RESULTS

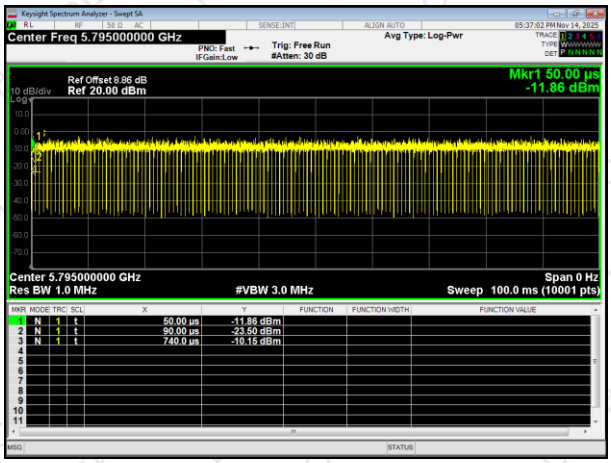
Operation Mode			Duty Cycle(%)	Duty Fator (dB) 10 * log (1/ Duty cycle)
Band 4	802.11a	Low	81.82	0.87
		Middle	81.82	0.87
		High	77.27	1.12
	802.11n HT20	Low	97.01	0.13
		Middle	97.01	0.13
		High	97.04	0.13
	802.11n HT40	Low	94.2	0.26
		High	94.2	0.26

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.

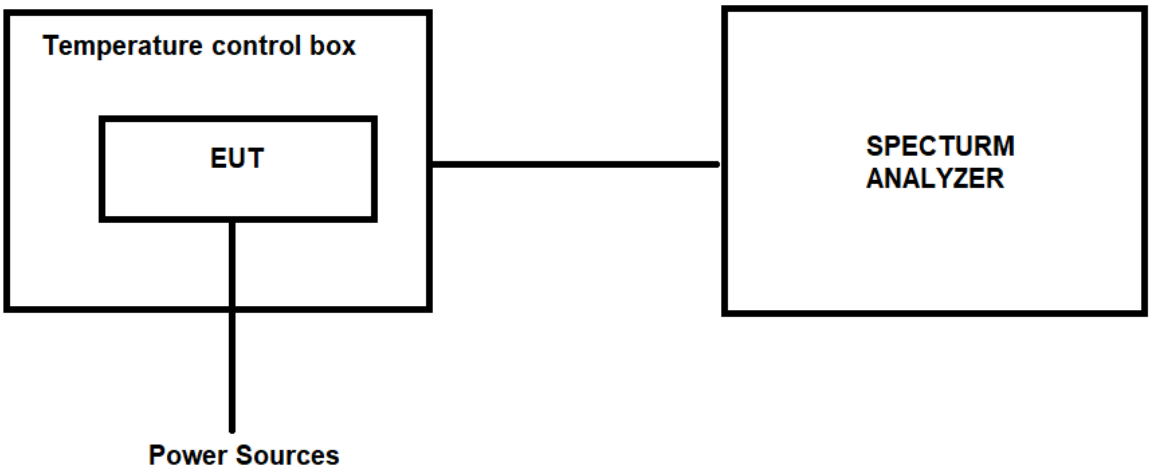
8.1.1 TEST PROCEDURE

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 (MHz)	Spectrum Frequency (MHz)		Δ Frequency (PPM)	
			802.11a	802.11n HT20	802.11a	802.11n HT20
5.5V	-20℃	5745	5745.0342	5745.0358	0.0342	0.0358
		5785	5785.0391	5785.0342	0.0391	0.0342
		5825	5825.0330	5825.0360	0.0330	0.0360
4.5V		5745	5745.0362	5745.0313	0.0362	0.0313
		5785	5785.0327	5785.0351	0.0327	0.0351
		5825	5825.0334	5825.0362	0.0334	0.0362
5V	25℃	5745	5745.0338	5745.0358	0.0338	0.0358
		5785	5785.0354	5785.0342	0.0354	0.0342
		5825	5825.0347	5825.0318	0.0347	0.0318
5.5V	50℃	5745	5745.0352	5745.0369	0.0352	0.0369
		5785	5785.0328	5785.0327	0.0328	0.0327
		5825	5825.0324	5825.0358	0.0324	0.0358
4.5V	50℃	5745	5745.0321	5745.0369	0.0321	0.0369
		5785	5785.0368	5785.0327	0.0368	0.0327
		5825	5825.0307	5825.0358	0.0307	0.0358

Note:The test result is PASS.

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)	Δ Frequency (PPM)
			802.11n HT40	802.11n HT40
5.5V	-20℃	5755	5755.0327	0.0327
		5795	5795.0342	0.0342
4.5V		5755	5755.0327	0.0327
		5795	5795.0310	0.0310
5V	25℃	5755	5755.0391	0.0391
		5795	5795.0338	0.0338
5.5V	50℃	5755	5755.0317	0.0317
		5795	5795.0309	0.0309
4.5V	50℃	5755	5755.0364	0.0364
		5795	5795.0347	0.0347

Note:The test result is PASS.

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** ※※※※※