



FCC TEST REPORT

FCC ID: 2A2LL-FL3000

Applicant: FJ Dynamics Co., Ltd.
Address: Floor 21, Das Tower, No. 28, 1st South Keji Road, High-tech Zone, Yuehai Subdistrict, Nanshan District, Shenzhen, China
Manufacturer: FJ Dynamics Technology (Fujian) Co., Ltd.
Address: Room 305, Unit 5, Huajian Building, No. 12, 16, and 18, East Keji Road, Shangjie Town, Minhou County, Fuzhou City, Fujian Province, China
EUT: Robotic Lawn Mower
Trade Mark: 
Model Number: FL3000
Date of Receipt: Oct.27, 2025
Test Date: Oct.29, 2025 to Mar.18, 2025
Date of Report: Mar.18, 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 CFR Title 47 Part 15 Subpart C Section 15.247
ANSI C63.10:2020
Test Result: Pass
Report Number: DLE-260128015R

Prepared (Test Engineer): Dimon 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. VERSION	4
2. SUMMARY OF TEST RESULTS	5
2.1 TEST FACILITY	6
2.2 MEASUREMENT UNCERTAINTY	6
3. GENERAL INFORMATION	7
3.1 GENERAL DESCRIPTION OF EUT	7
3.2 DESCRIPTION OF TEST MODES	8
3.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	9
3.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)	9
3.5 EQUIPMENTS LIST FOR ALL TEST ITEMS	10
4. EMC EMISSION TEST	11
4.1 CONDUCTED EMISSION MEASUREMENT	11
4.1.1 POWER LINE CONDUCTED EMISSION LIMITS	11
4.1.2 TEST PROCEDURE	11
4.1.3 DEVIATION FROM TEST STANDARD	11
4.1.4 TEST SETUP	12
4.1.5 EUT OPERATING CONDITIONS	12
4.1.6 TEST RESULT	13
4.2 RADIATED EMISSION MEASUREMENT	15
4.2.1 RADIATED EMISSION LIMITS	15
4.2.2 TEST PROCEDURE	15
4.2.3 DEVIATION FROM TEST STANDARD	16
4.2.4 TEST SETUP	16
4.2.5 EUT OPERATING CONDITIONS	17
4.2.6 TEST RESULTS	17
5 RADIATED BAND EMISSIONMEASUREMENT	32
5.1 TEST REQUIREMENT	32
5.2 TEST PROCEDURE	32
5.3 DEVIATION FROM TEST STANDARD	33
5.4 TEST SETUP	33
5.5 EUT OPERATING CONDITIONS	33
5.6 TEST RESULT	34
6 POWER SPECTRAL DENSITY TEST	37
6.1 APPLIED PROCEDURES / LIMIT	37
6.2 TEST PROCEDURE	37
6.3 DEVIATION FROM STANDARD	37
6.4 TEST SETUP	37



6.5 EUT OPERATION CONDITIONS	37
6.6 TEST RESULT	38
7. 6DB OCCUPIED BANDWIDTH	47
7.1 APPLIED PROCEDURES / LIMIT	47
7.2 TEST PROCEDURE	47
7.3 DEVIATION FROM STANDARD	47
7.4 TEST SETUP	47
7.5 EUT OPERATION CONDITIONS	47
7.6 TEST RESULT	48
8.1 APPLIED PROCEDURES/LIMIT	57
8.2 TEST PROCEDURE	57
8.3 DEVIATION FROM STANDARD	57
8.4 TEST SETUP	57
8.5 EUT OPERATION CONDITIONS	57
8.6 TEST RESULT	58
9. CONDUCTED BAND EDGE AND SPURIOUS EMISSION	59
9.1 APPLICABLE STANDARD	59
9.2 TEST PROCEDURE	59
9.3 DEVIATION FROM STANDARD	60
9.4 TEST SETUP	60
9.5 EUT OPERATION CONDITIONS	60
9.6 TEST RESULTS	61
10. DUTY CYCLE	96
10.1 APPLIED PROCEDURES / LIMIT	96
10.2 DEVIATION FROM STANDARD	96
10.3 TEST SETUP	96
10.4 EUT OPERATION CONDITIONS	96
10.5 TEST RESULTS	97
11. ANTENNA REQUIREMENT	100
12. TEST SETUP PHOTO	101
13. EUT CONSTRUCTIONAL DETAILS	101

**1. VERSION**

Report No.	Version	Description	Approved
DLE-260128015R	Rev.01	Initial issue of report	Mar.18, 2025



2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C			
Standard Section	Test Item	Result	Remark
FCC part 15.203/15.247 (c)	Antenna requirement	PASS	
FCC part 15.207	AC Power Line Conducted Emission	PASS	
FCC part 15.247 (b)(3)	Conducted Peak Output Power	PASS	
FCC part 15.247 (a)(2)	6dB Occupied Bandwidth	PASS	
FCC part 15.247 (e)	Power Spectral Density	PASS	
FCC part 15.247 (d)	Conducted Band Edge & Unwanted Spurious Emission	PASS	
FCC part 15.205/15.209	Radiated Band Edge & Unwanted Spurious Emission	PASS	
ANSI C63.10:2020	Duty Cycle	PASS	

NOTE:

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



2.1 TEST FACILITY

Shenzhen DL Testing Technology Co., Ltd.

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

FCC Test Firm Registration Number: 854456

Designation Number: CN1307

IC Registered No.: 27485

CAB identifier: CN0118

2.2 MEASUREMENT UNCERTAINTY

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

No.	Item	Uncertainty
1	3m camber Radiated spurious emission (9KHz-30MHz)	U=4.5dB
2	3m camber Radiated spurious emission (30MHz-1GHz)	U=4.8dB
3	3m chamber Radiated spurious emission (1GHz-6GHz)	U=4.9dB
4	3m chamber Radiated spurious emission (6GHz-40GHz)	U=5.0dB
5	Conducted Disturbance	U=3.2dB
6	RF Band Edge	U=1.68dB
7	RF Power Conducted	U=1.86dB
8	RF Conducted Spurious Emission	U=2.2dB
9	RF Occupied Bandwidth	U=1.8MHz
10	RF Power Spectral Density	U=1.75dB
11	Humidity Uncertainty	U=5.3%
12	Temperature Uncertainty	U=0.59°C



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Product Name:	Robotic Lawn Mower
Trademark:	
Model No.:	FL3000
Serial No.:	N/A
Model Different.:	N/A
Hardware Version:	V1.0
Software Version:	V1.0
Sample(s) Status:	Engineer sample
Frequency Range:	2412-2462MHz for 802.11 b/g/n20/ax20
Channel Numbers:	802.11b/g/n/ax (20M): 11 Channels
Channel Separation:	5MHz
Modulation Technology:	802.11b: Direct Sequence Spread Spectrum(DSSS) 802.11g/n: Orthogonal Frequency Division Multiplexing(OFDM) 802.11ax: Orthogonal Frequency Division Multiple Access(OFDMA)
Data Rate:	802.11b: 1/2/5.5/11Mbit/s 802.11g: 6/9/12/24/18/36/48/54Mbit/s 802.11n: MCS0-MCS7 802.11ax: MCS0-MCS9
description	802.11b/g supports SISO 802.11n/ax supports MIMO
Antenna Type:	FPC Antenna
Antenna Gain:	3.5dBi
Power Supply:	Input: 16.8V==Max 5A
AC/DC Adapter:	Input:100-240VAC,50/60Hz,MAX 5A Output:24VDC,7.5A,180W
AC/DC Adapter Model:	SOY-2400750-454
Note1: The report test used a adapter maximum output voltage of 24V. Note2: 802.11ax Full RU is supported only. Note3: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. Note4: The EUT's all information provided by client.	



Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Test channel	Frequency	
	802.11b/g/n/ax (20M)	802.11n/ax (40M)
Lowest channel	2412MHz	2422MHz
Middle channel	2437MHz	2437MHz
Highest channel	2462MHz	2452MHz

3.2 DESCRIPTION OF TEST MODES

Transmitting mode	Keep the EUT in continuously transmitting mode
Remark: 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.	

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Pre-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	802.11b	802.11g	802.11n20	802.11n40	802.11ax20	802.11ax40
Data rate	1Mbps	6Mbps	MCS0(HT0)	MCS0(HT0)	MCS0(HE0)	MCS0(HE0)

Test Software	CMD
Power level setup	Default



3.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Conducted Emission

AC Line

EUT

Radiated Emission

EUT

Conducted Spurious

EUT

3.4 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	Mfr/Brand	Model/Type No.	Series No.	Note

Item	Shielded Type	Ferrite Core	Length	Note
C1	NO	NO	0.3M	RF Line

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.



3.5 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. 27, 2025	Oct. 26, 2026
4	Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Oct. 27, 2025	Oct. 26, 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	YIHENG	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_EMCC	EMC-CON 3A1.1
2	EMC radiation test system	FALA	EZ_EMCC	FA-03A2
3	RF test system	MAIWEI	MTS8310	2.0.0.0
4	RF communication test system	MAIWEI	MTS8200	2.0.0.0



4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2020
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto

4.1.1 POWER LINE CONDUCTED EMISSION LIMITS

FREQUENCY (MHz)	Limit (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

(1) *Decreases with the logarithm of the frequency.

4.1.2 TEST PROCEDURE

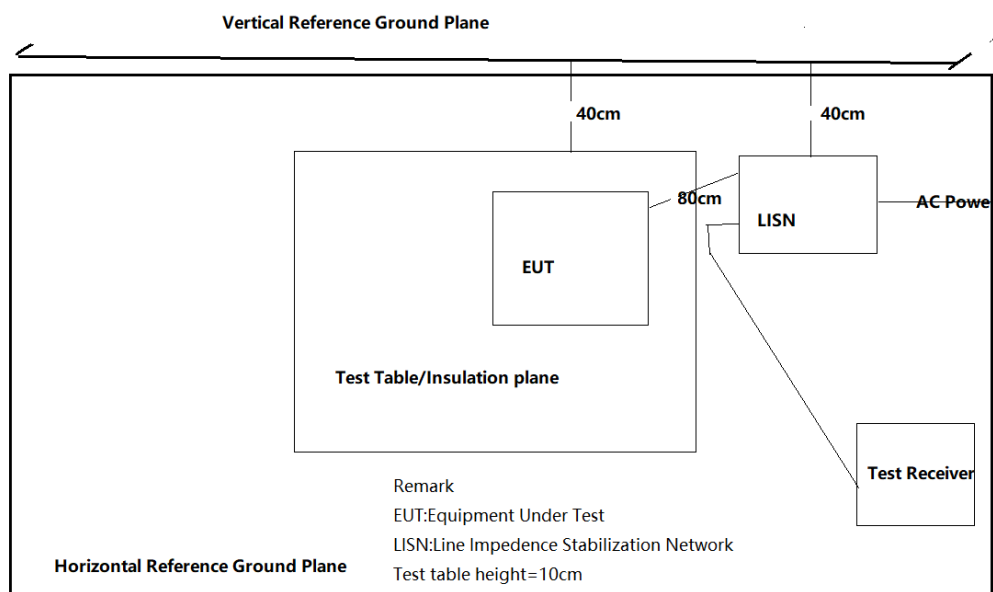
- The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.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

4.1.3 DEVIATION FROM TEST STANDARD

No deviation



4.1.4 TEST SETUP



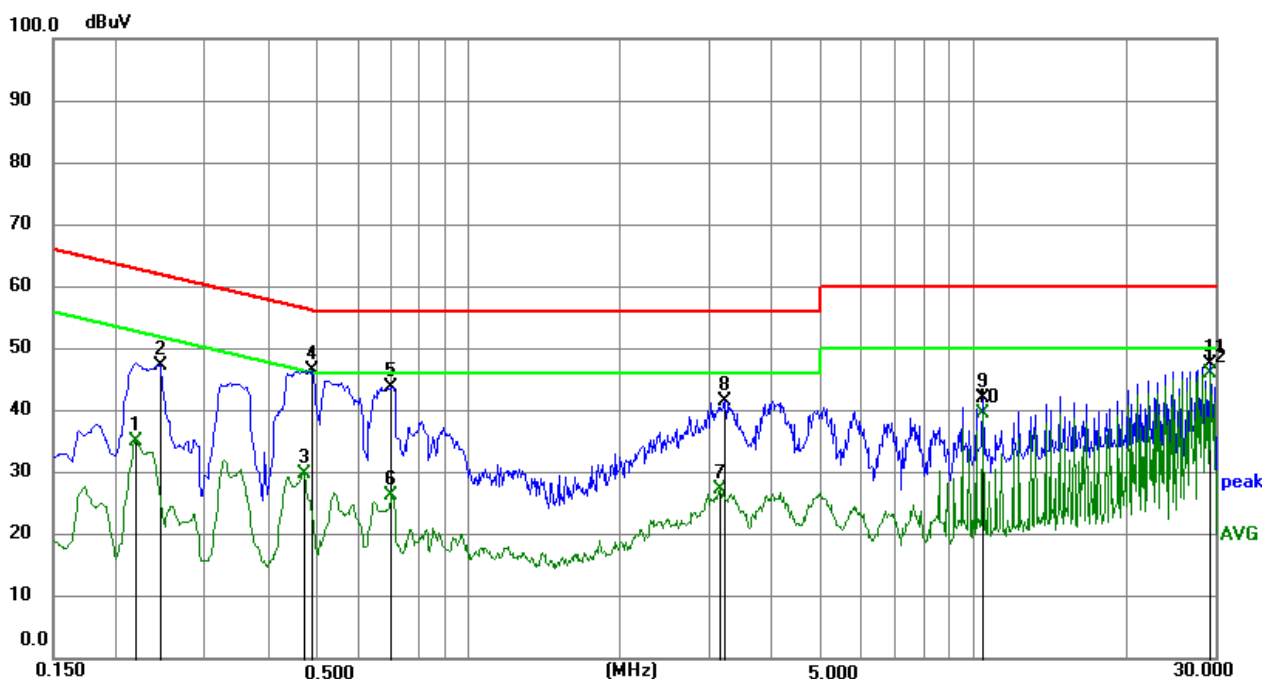
4.1.5 EUT OPERATING CONDITIONS

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.



4.1.6 TEST RESULT

Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	L
Test Voltage:	AC 120V/60Hz	Test Mode:	TX 802.11g - 2437MHz



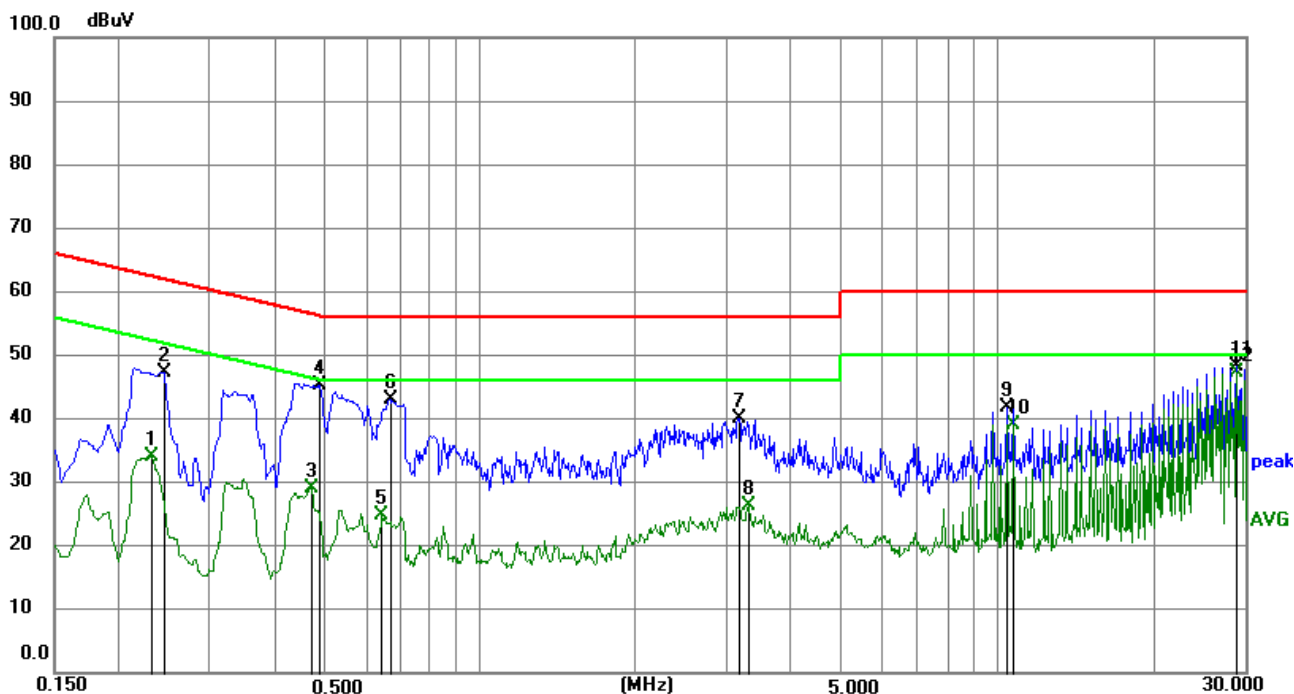
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2175	14.86	20.23	35.09	52.91	-17.82	AVG
2	0.2445	26.91	20.30	47.21	61.94	-14.73	peak
3	0.4695	9.22	20.59	29.81	46.52	-16.71	AVG
4	0.4875	25.82	20.59	46.41	56.21	-9.80	peak
5	0.6990	23.20	20.58	43.78	56.00	-12.22	peak
6	0.7035	5.71	20.58	26.29	46.00	-19.71	AVG
7	3.1425	6.72	20.48	27.20	46.00	-18.80	AVG
8	3.2100	20.97	20.47	41.44	56.00	-14.56	peak
9	10.4055	21.49	20.48	41.97	60.00	-18.03	peak
10	10.4055	18.99	20.48	39.47	50.00	-10.53	AVG
11	29.3280	27.22	20.40	47.62	60.00	-12.38	peak
12	29.3280	25.71	20.40	46.11	50.00	-3.89	AVG

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi - Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Reading level + Correct Factor.
4. Correct Factor = Lissn factor+ Cable loss factor + limiter factor.
5. Margin = Measurement Level-Limit.
6. The test data shows only the worst case TX 802.11g - 2437MHz.



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	N
Test Voltage:	AC 120V/60Hz	Test Mode:	TX 802.11g - 2437MHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2310	13.62	20.43	34.05	52.41	-18.36	AVG
2	0.2445	26.70	20.45	47.15	61.94	-14.79	peak
3	0.4695	8.77	20.31	29.08	46.52	-17.44	AVG
4	0.4875	25.02	20.28	45.30	56.21	-10.91	peak
5	0.6450	4.46	20.39	24.85	46.00	-21.15	AVG
6	0.6675	22.69	20.41	43.10	56.00	-12.90	peak
7	3.1695	19.71	20.43	40.14	56.00	-15.86	peak
8	3.2955	5.85	20.41	26.26	46.00	-19.74	AVG
9	10.4100	21.16	20.68	41.84	60.00	-18.16	peak
10	10.7250	18.50	20.64	39.14	50.00	-10.86	AVG
11	29.0265	27.94	20.33	48.27	60.00	-11.73	peak
12	29.0265	26.99	20.33	47.32	50.00	-2.68	AVG

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi - Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Reading level + Correct Factor.
4. Correct Factor = Lish factor+ Cable loss factor + limiter factor.
5. Margin = Measurement Level-Limit.
6. The test data shows only the worst case TX 802.11g - 2437MHz.



4.2 RADIATED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.10:2020				
Test Frequency Range:	9kHz to 25GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Value
	9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
	150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	10Hz	Average

4.2.1 RADIATED EMISSION LIMITS

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

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).

4.2.2 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 chamber. 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 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 1meter) 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 10dBmargin 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 meter to 1.5 meter(Above 18GHz the distance is 1 meter and table is 1.5 meter).
- h. Test the EUT in the lowest channel ,the middle channel ,the Highest channel

Note:

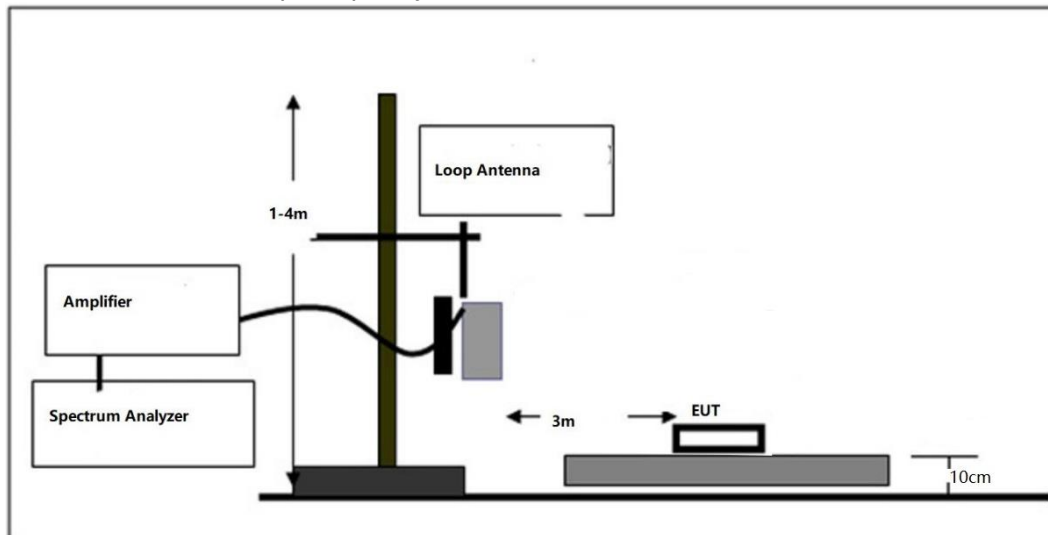
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

4.2.3 DEVIATION FROM TEST STANDARD

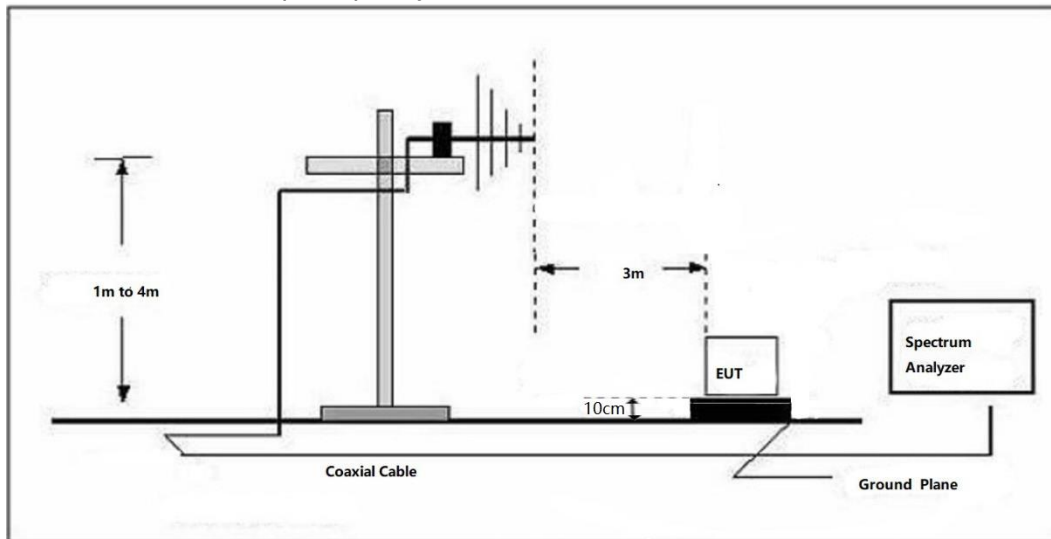
No deviation

4.2.4 TEST SETUP

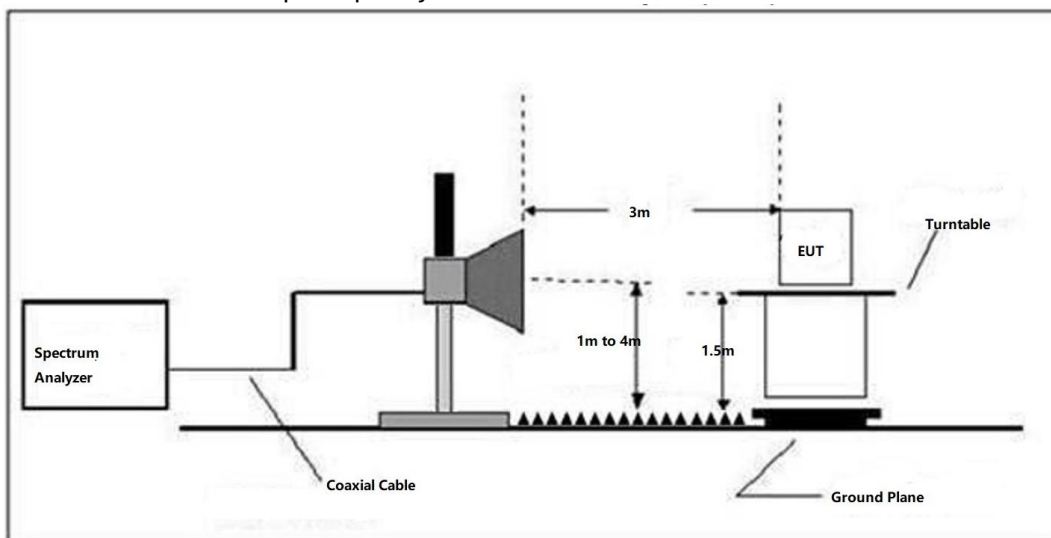
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



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



4.2.5 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.

4.2.6 TEST RESULTS

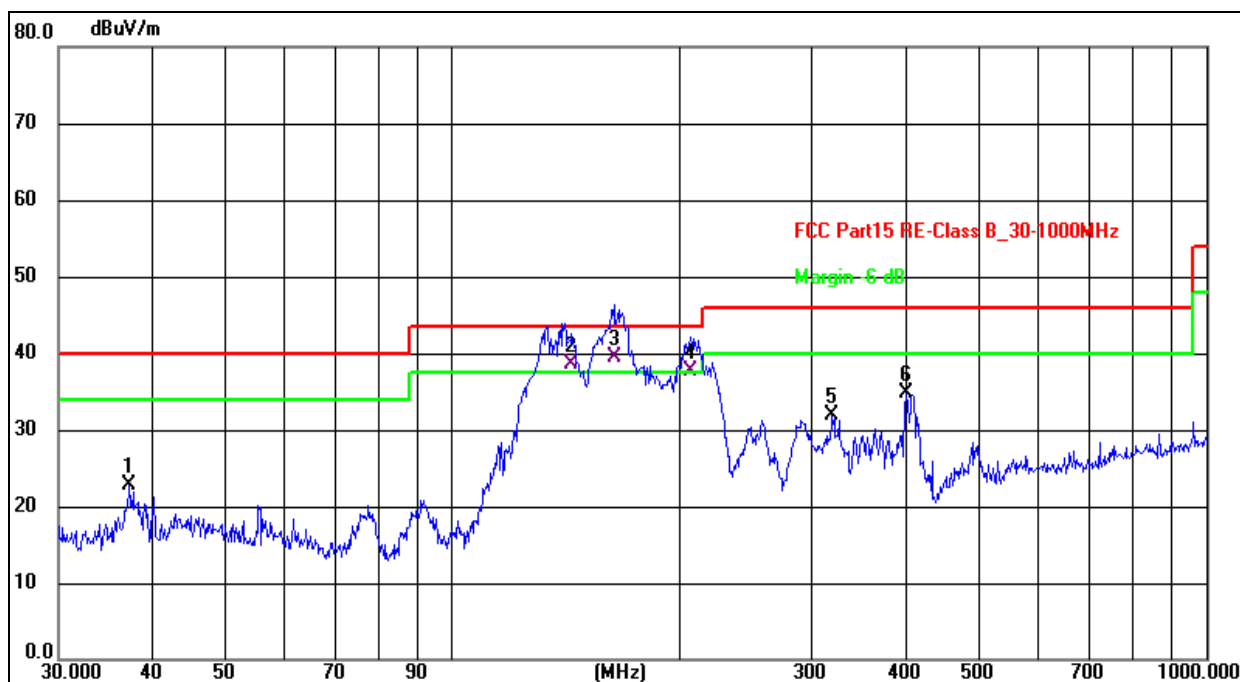
Between 9KHz – 30MHz

The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o) & RSS-Gen 6.13, the test result no need to reported.



Between 30MHz – 1GHz

Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	DC 16.8V	Test Mode :	TX 802.11g - 2437MHz



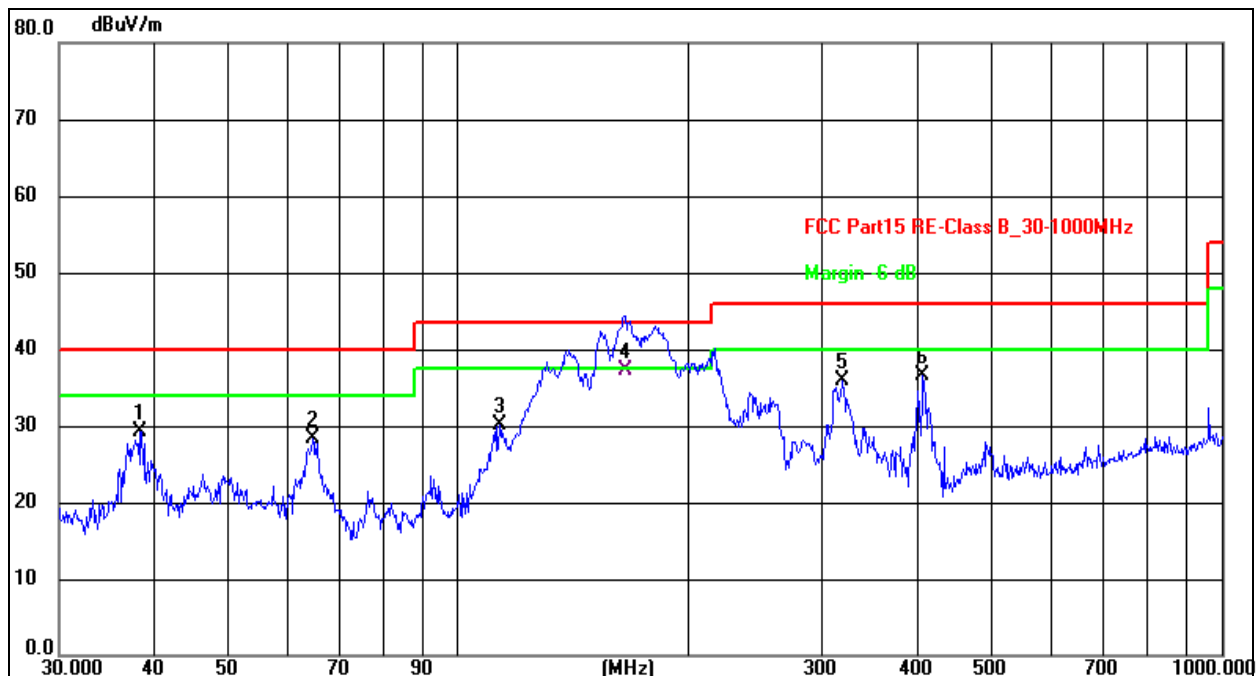
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	37.285	39.64	-16.87	22.77	40.00	-17.23	peak	/
2	143.830	54.41	-15.91	38.50	43.50	-5.00	QP	/
3 *	163.755	55.11	-15.61	39.50	43.50	-4.00	QP	/
4	207.123	56.36	-18.76	37.60	43.50	-5.90	QP	/
5	318.817	47.69	-15.83	31.86	46.00	-14.14	peak	/
6	399.030	48.67	-13.80	34.87	46.00	-11.13	peak	/

Remarks:

1. An initial pre-scan was performed on the peak detector.
2. Quasi - Peak measurement were performed at the frequencies with maximized peak emission.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Final Level = Reading level + Correct Factor.
5. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
6. Margin = Measurement Level-Limit.
7. The test data shows only the worst case TX 802.11g - 2437MHz.



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Vertical
Test Voltage:	DC 16.8V	Test Mode :	TX 802.11g - 2437MHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	38.346	46.05	-16.72	29.33	40.00	-10.67	peak	/
2	64.433	45.98	-17.73	28.25	40.00	-11.75	peak	/
3	113.316	47.92	-17.85	30.07	43.50	-13.43	peak	/
4 *	165.487	52.95	-15.65	37.30	43.50	-6.20	QP	/
5	318.817	51.75	-15.83	35.92	46.00	-10.08	peak	/
6	406.088	50.04	-13.58	36.46	46.00	-9.54	peak	/

Remarks:

1. An initial pre-scan was performed on the peak detector.
2. Quasi - Peak measurement were performed at the frequencies with maximized peak emission.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Final Level = Reading level + Correct Factor.
5. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
6. Margin = Measurement Level-Limit.
7. The test data shows only the worst case TX 802.11g - 2437MHz.

1GHz~25GHz
ANT1

802.11b

Polar (H/V)	Frequency	Meter Reading	Pre-amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel:2412MHz									
V	4824.00	51.9	30.55	5.77	24.66	51.78	74.00	-22.22	PK
V	4824.00	42.25	30.55	5.77	24.66	42.13	54.00	-11.87	AV
V	7236.00	49.22	30.33	6.32	24.55	49.76	74.00	-24.24	PK
V	7236.00	41.93	30.33	6.32	24.55	42.47	54.00	-11.53	AV
V	9648.00	48.01	30.85	7.45	24.69	49.3	74.00	-24.7	PK
V	9648.00	41.7	30.85	7.45	24.69	42.99	54.00	-11.01	AV
V	12060.00	50.16	31.02	8.99	25.57	53.7	74.00	-20.3	PK
V	12060.00	41.76	31.02	8.99	25.57	45.3	54.00	-8.7	AV
H	4824.00	49.87	30.55	5.77	24.66	49.75	74.00	-24.25	PK
H	4824.00	41.13	30.55	5.77	24.66	41.01	54.00	-12.99	AV
H	7236.00	51.36	30.33	6.32	24.55	51.9	74.00	-22.1	PK
H	7236.00	41.59	30.33	6.32	24.55	42.13	54.00	-11.87	AV
H	9648.00	50.05	30.85	7.45	24.69	51.34	74.00	-22.66	PK
H	9648.00	42.03	30.85	7.45	24.69	43.32	54.00	-10.68	AV
H	12060.00	51.62	31.02	8.99	25.57	55.16	74.00	-18.84	PK
H	12060.00	42.58	31.02	8.99	25.57	46.12	54.00	-7.88	AV

Polar (H/V)	Frequency	Meter Reading	Pre-amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Middle Channel:2437MHz									
V	4874.00	51	30.55	5.77	24.66	50.88	74.00	-23.12	PK
V	4874.00	43.16	30.55	5.77	24.66	43.04	54.00	-10.96	AV
V	7311.00	51.08	30.33	6.32	24.55	51.62	74.00	-22.38	PK
V	7311.00	42.17	30.33	6.32	24.55	42.71	54.00	-11.29	AV
V	9748.00	50.8	30.85	7.45	24.69	52.09	74.00	-21.91	PK
V	9748.00	41.48	30.85	7.45	24.69	42.77	54.00	-11.23	AV
V	12185.00	50.46	31.02	8.99	25.57	54	74.00	-20	PK
V	12185.00	43	31.02	8.99	25.57	46.54	54.00	-7.46	AV
H	4874.00	50.4	30.55	5.77	24.66	50.28	74.00	-23.72	PK
H	4874.00	42.06	30.55	5.77	24.66	41.94	54.00	-12.06	AV
H	7311.00	49.33	30.33	6.32	24.55	49.87	74.00	-24.13	PK
H	7311.00	42.45	30.33	6.32	24.55	42.99	54.00	-11.01	AV
H	9748.00	50.55	30.85	7.45	24.69	51.84	74.00	-22.16	PK
H	9748.00	41.12	30.85	7.45	24.69	42.41	54.00	-11.59	AV
H	12185.00	51.11	31.02	8.99	25.57	54.65	74.00	-19.35	PK
H	12185.00	44.15	31.02	8.99	25.57	47.69	54.00	-6.31	AV



Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:2462MHz									
V	4924.00	51.01	30.55	5.77	24.66	50.89	74.00	-23.11	PK
V	4924.00	42.48	30.55	5.77	24.66	42.36	54.00	-11.64	AV
V	7386.00	52.39	30.33	6.32	24.55	52.93	74.00	-21.07	PK
V	7386.00	43.82	30.33	6.32	24.55	44.36	54.00	-9.64	AV
V	9848.00	48.59	30.85	7.45	24.69	49.88	74.00	-24.12	PK
V	9848.00	41.88	30.85	7.45	24.69	43.17	54.00	-10.83	AV
V	12310.00	50.58	31.02	8.99	25.57	54.12	74.00	-19.88	PK
V	12310.00	41.96	31.02	8.99	25.57	45.5	54.00	-8.5	AV
H	4924.00	54.16	30.55	5.77	24.66	54.04	74.00	-19.96	PK
H	4924.00	42.69	30.55	5.77	24.66	42.57	54.00	-11.43	AV
H	7386.00	52.5	30.33	6.32	24.55	53.04	74.00	-20.96	PK
H	7386.00	42.27	30.33	6.32	24.55	42.81	54.00	-11.19	AV
H	9848.00	49.07	30.85	7.45	24.69	50.36	74.00	-23.64	PK
H	9848.00	43.82	30.85	7.45	24.69	45.11	54.00	-8.89	AV
H	12310.00	50.05	31.02	8.99	25.57	53.59	74.00	-20.41	PK
H	12310.00	41.47	31.02	8.99	25.57	45.01	54.00	-8.99	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. The test data shows only the worst case.



802.11g

Polar (H/V)	Frequency	Meter Reading	Pre-amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel:2412MHz									
V	4824.00	49.25	30.55	5.77	24.66	49.13	74.00	-24.87	PK
V	4824.00	42.11	30.55	5.77	24.66	41.99	54.00	-12.01	AV
V	7236.00	50.5	30.33	6.32	24.55	51.04	74.00	-22.96	PK
V	7236.00	41.75	30.33	6.32	24.55	42.29	54.00	-11.71	AV
V	9648.00	47.78	30.85	7.45	24.69	49.07	74.00	-24.93	PK
V	9648.00	43.1	30.85	7.45	24.69	44.39	54.00	-9.61	AV
V	12060.00	51.96	31.02	8.99	25.57	55.5	74.00	-18.5	PK
V	12060.00	41.89	31.02	8.99	25.57	45.43	54.00	-8.57	AV
H	4824.00	48.05	30.55	5.77	24.66	47.93	74.00	-26.07	PK
H	4824.00	42.85	30.55	5.77	24.66	42.73	54.00	-11.27	AV
H	7236.00	53.08	30.33	6.32	24.55	53.62	74.00	-20.38	PK
H	7236.00	40.88	30.33	6.32	24.55	41.42	54.00	-12.58	AV
H	9648.00	51.53	30.85	7.45	24.69	52.82	74.00	-21.18	PK
H	9648.00	40.5	30.85	7.45	24.69	41.79	54.00	-12.21	AV
H	12060.00	51.72	31.02	8.99	25.57	55.26	74.00	-18.74	PK
H	12060.00	41.91	31.02	8.99	25.57	45.45	54.00	-8.55	AV

Polar (H/V)	Frequency	Meter Reading	Pre-amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Middle Channel:2437MHz									
V	4874.00	51.52	30.55	5.77	24.66	51.4	74.00	-22.6	PK
V	4874.00	41.15	30.55	5.77	24.66	41.03	54.00	-12.97	AV
V	7311.00	52.7	30.33	6.32	24.55	53.24	74.00	-20.76	PK
V	7311.00	42.34	30.33	6.32	24.55	42.88	54.00	-11.12	AV
V	9748.00	49.95	30.85	7.45	24.69	51.24	74.00	-22.76	PK
V	9748.00	43.16	30.85	7.45	24.69	44.45	54.00	-9.55	AV
V	12185.00	50.8	31.02	8.99	25.57	54.34	74.00	-19.66	PK
V	12185.00	41.78	31.02	8.99	25.57	45.32	54.00	-8.68	AV
H	4874.00	49.31	30.55	5.77	24.66	49.19	74.00	-24.81	PK
H	4874.00	41.17	30.55	5.77	24.66	41.05	54.00	-12.95	AV
H	7311.00	48.88	30.33	6.32	24.55	49.42	74.00	-24.58	PK
H	7311.00	40.73	30.33	6.32	24.55	41.27	54.00	-12.73	AV
H	9748.00	48.95	30.85	7.45	24.69	50.24	74.00	-23.76	PK
H	9748.00	40.5	30.85	7.45	24.69	41.79	54.00	-12.21	AV
H	12185.00	49.44	31.02	8.99	25.57	52.98	74.00	-21.02	PK
H	12185.00	42.33	31.02	8.99	25.57	45.87	54.00	-8.13	AV



Polar (H/V)	Frequency	Meter Reading	Pre-amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
High Channel:2462MHz									
V	4924.00	49.49	30.55	5.77	24.66	49.37	74.00	-24.63	PK
V	4924.00	40.72	30.55	5.77	24.66	40.6	54.00	-13.4	AV
V	7386.00	50.24	30.33	6.32	24.55	50.78	74.00	-23.22	PK
V	7386.00	43.94	30.33	6.32	24.55	44.48	54.00	-9.52	AV
V	9848.00	50.56	30.85	7.45	24.69	51.85	74.00	-22.15	PK
V	9848.00	42.2	30.85	7.45	24.69	43.49	54.00	-10.51	AV
V	12310.00	49.8	31.02	8.99	25.57	53.34	74.00	-20.66	PK
V	12310.00	40.38	31.02	8.99	25.57	43.92	54.00	-10.08	AV
H	4924.00	52.84	30.55	5.77	24.66	52.72	74.00	-21.28	PK
H	4924.00	41.88	30.55	5.77	24.66	41.76	54.00	-12.24	AV
H	7386.00	52.53	30.33	6.32	24.55	53.07	74.00	-20.93	PK
H	7386.00	41.72	30.33	6.32	24.55	42.26	54.00	-11.74	AV
H	9848.00	46.59	30.85	7.45	24.69	47.88	74.00	-26.12	PK
H	9848.00	42.41	30.85	7.45	24.69	43.7	54.00	-10.3	AV
H	12310.00	50.98	31.02	8.99	25.57	54.52	74.00	-19.48	PK
H	12310.00	40.51	31.02	8.99	25.57	44.05	54.00	-9.95	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. The test data shows only the worst case.

1GHz~25GHz
ANT2

802.11b

Polar (H/V)	Frequency	Meter Reading	Pre-amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel:2412MHz									
V	4824.00	51.23	30.55	5.77	24.66	51.11	74.00	-22.89	PK
V	4824.00	41.74	30.55	5.77	24.66	41.62	54.00	-12.38	AV
V	7236.00	48.9	30.33	6.32	24.55	49.44	74.00	-24.56	PK
V	7236.00	40.79	30.33	6.32	24.55	41.33	54.00	-12.67	AV
V	9648.00	47.22	30.85	7.45	24.69	48.51	74.00	-25.49	PK
V	9648.00	41.83	30.85	7.45	24.69	43.12	54.00	-10.88	AV
V	12060.00	52.17	31.02	8.99	25.57	55.71	74.00	-18.29	PK
V	12060.00	42.28	31.02	8.99	25.57	45.82	54.00	-8.18	AV
H	4824.00	50.55	30.55	5.77	24.66	50.43	74.00	-23.57	PK
H	4824.00	43.64	30.55	5.77	24.66	43.52	54.00	-10.48	AV
H	7236.00	51.17	30.33	6.32	24.55	51.71	74.00	-22.29	PK
H	7236.00	39.83	30.33	6.32	24.55	40.37	54.00	-13.63	AV
H	9648.00	50.75	30.85	7.45	24.69	52.04	74.00	-21.96	PK
H	9648.00	41.88	30.85	7.45	24.69	43.17	54.00	-10.83	AV
H	12060.00	50.08	31.02	8.99	25.57	53.62	74.00	-20.38	PK
H	12060.00	41.23	31.02	8.99	25.57	44.77	54.00	-9.23	AV

Polar (H/V)	Frequency	Meter Reading	Pre-amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Middle Channel:2437MHz									
V	4874.00	52.52	30.55	5.77	24.66	52.4	74.00	-21.6	PK
V	4874.00	43.09	30.55	5.77	24.66	42.97	54.00	-11.03	AV
V	7311.00	49.97	30.33	6.32	24.55	50.51	74.00	-23.49	PK
V	7311.00	42.43	30.33	6.32	24.55	42.97	54.00	-11.03	AV
V	9748.00	49.97	30.85	7.45	24.69	51.26	74.00	-22.74	PK
V	9748.00	42.76	30.85	7.45	24.69	44.05	54.00	-9.95	AV
V	12185.00	52.8	31.02	8.99	25.57	56.34	74.00	-17.66	PK
V	12185.00	44.51	31.02	8.99	25.57	48.05	54.00	-5.95	AV
H	4874.00	49.17	30.55	5.77	24.66	49.05	74.00	-24.95	PK
H	4874.00	42.57	30.55	5.77	24.66	42.45	54.00	-11.55	AV
H	7311.00	47.75	30.33	6.32	24.55	48.29	74.00	-25.71	PK
H	7311.00	41.8	30.33	6.32	24.55	42.34	54.00	-11.66	AV
H	9748.00	51.17	30.85	7.45	24.69	52.46	74.00	-21.54	PK
H	9748.00	40.58	30.85	7.45	24.69	41.87	54.00	-12.13	AV
H	12185.00	50.39	31.02	8.99	25.57	53.93	74.00	-20.07	PK
H	12185.00	44.14	31.02	8.99	25.57	47.68	54.00	-6.32	AV



Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:2462MHz									
V	4924.00	49.27	30.55	5.77	24.66	49.15	74.00	-24.85	PK
V	4924.00	41.77	30.55	5.77	24.66	41.65	54.00	-12.35	AV
V	7386.00	50.53	30.33	6.32	24.55	51.07	74.00	-22.93	PK
V	7386.00	42.06	30.33	6.32	24.55	42.6	54.00	-11.4	AV
V	9848.00	49.65	30.85	7.45	24.69	50.94	74.00	-23.06	PK
V	9848.00	42.24	30.85	7.45	24.69	43.53	54.00	-10.47	AV
V	12310.00	50.63	31.02	8.99	25.57	54.17	74.00	-19.83	PK
V	12310.00	39.93	31.02	8.99	25.57	43.47	54.00	-10.53	AV
H	4924.00	52.89	30.55	5.77	24.66	52.77	74.00	-21.23	PK
H	4924.00	43.3	30.55	5.77	24.66	43.18	54.00	-10.82	AV
H	7386.00	50.27	30.33	6.32	24.55	50.81	74.00	-23.19	PK
H	7386.00	42.58	30.33	6.32	24.55	43.12	54.00	-10.88	AV
H	9848.00	47.72	30.85	7.45	24.69	49.01	74.00	-24.99	PK
H	9848.00	43.9	30.85	7.45	24.69	45.19	54.00	-8.81	AV
H	12310.00	49.73	31.02	8.99	25.57	53.27	74.00	-20.73	PK
H	12310.00	40.02	31.02	8.99	25.57	43.56	54.00	-10.44	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. The test data shows only the worst case.



802.11g

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel:2412MHz									
V	4824.00	51.76	30.55	5.77	24.66	51.64	74.00	-22.36	PK
V	4824.00	40.79	30.55	5.77	24.66	40.67	54.00	-13.33	AV
V	7236.00	49.98	30.33	6.32	24.55	50.52	74.00	-23.48	PK
V	7236.00	42.41	30.33	6.32	24.55	42.95	54.00	-11.05	AV
V	9648.00	48.97	30.85	7.45	24.69	50.26	74.00	-23.74	PK
V	9648.00	43.58	30.85	7.45	24.69	44.87	54.00	-9.13	AV
V	12060.00	49.86	31.02	8.99	25.57	53.4	74.00	-20.6	PK
V	12060.00	43.22	31.02	8.99	25.57	46.76	54.00	-7.24	AV
H	4824.00	49.81	30.55	5.77	24.66	49.69	74.00	-24.31	PK
H	4824.00	42.21	30.55	5.77	24.66	42.09	54.00	-11.91	AV
H	7236.00	52.43	30.33	6.32	24.55	52.97	74.00	-21.03	PK
H	7236.00	40.58	30.33	6.32	24.55	41.12	54.00	-12.88	AV
H	9648.00	49.46	30.85	7.45	24.69	50.75	74.00	-23.25	PK
H	9648.00	42.16	30.85	7.45	24.69	43.45	54.00	-10.55	AV
H	12060.00	51.43	31.02	8.99	25.57	54.97	74.00	-19.03	PK
H	12060.00	41.61	31.02	8.99	25.57	45.15	54.00	-8.85	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Middle Channel:2437MHz									
V	4874.00	52.5	30.55	5.77	24.66	52.38	74.00	-21.62	PK
V	4874.00	41.72	30.55	5.77	24.66	41.6	54.00	-12.4	AV
V	7311.00	52.11	30.33	6.32	24.55	52.65	74.00	-21.35	PK
V	7311.00	41.4	30.33	6.32	24.55	41.94	54.00	-12.06	AV
V	9748.00	48.64	30.85	7.45	24.69	49.93	74.00	-24.07	PK
V	9748.00	43.19	30.85	7.45	24.69	44.48	54.00	-9.52	AV
V	12185.00	51.9	31.02	8.99	25.57	55.44	74.00	-18.56	PK
V	12185.00	42.24	31.02	8.99	25.57	45.78	54.00	-8.22	AV
H	4874.00	50.01	30.55	5.77	24.66	49.89	74.00	-24.11	PK
H	4874.00	42.44	30.55	5.77	24.66	42.32	54.00	-11.68	AV
H	7311.00	48.5	30.33	6.32	24.55	49.04	74.00	-24.96	PK
H	7311.00	40.17	30.33	6.32	24.55	40.71	54.00	-13.29	AV
H	9748.00	50.97	30.85	7.45	24.69	52.26	74.00	-21.74	PK
H	9748.00	42.37	30.85	7.45	24.69	43.66	54.00	-10.34	AV
H	12185.00	51.85	31.02	8.99	25.57	55.39	74.00	-18.61	PK
H	12185.00	44.23	31.02	8.99	25.57	47.77	54.00	-6.23	AV



Polar (H/V)	Frequency	Meter Reading	Pre-amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
High Channel:2462MHz									
V	4924.00	50.92	30.55	5.77	24.66	50.8	74.00	-23.2	PK
V	4924.00	43.22	30.55	5.77	24.66	43.1	54.00	-10.9	AV
V	7386.00	50.56	30.33	6.32	24.55	51.1	74.00	-22.9	PK
V	7386.00	43.4	30.33	6.32	24.55	43.94	54.00	-10.06	AV
V	9848.00	49.05	30.85	7.45	24.69	50.34	74.00	-23.66	PK
V	9848.00	41.25	30.85	7.45	24.69	42.54	54.00	-11.46	AV
V	12310.00	50.95	31.02	8.99	25.57	54.49	74.00	-19.51	PK
V	12310.00	40.11	31.02	8.99	25.57	43.65	54.00	-10.35	AV
H	4924.00	52.88	30.55	5.77	24.66	52.76	74.00	-21.24	PK
H	4924.00	41.31	30.55	5.77	24.66	41.19	54.00	-12.81	AV
H	7386.00	50.3	30.33	6.32	24.55	50.84	74.00	-23.16	PK
H	7386.00	42.33	30.33	6.32	24.55	42.87	54.00	-11.13	AV
H	9848.00	47.14	30.85	7.45	24.69	48.43	74.00	-25.57	PK
H	9848.00	43.5	30.85	7.45	24.69	44.79	54.00	-9.21	AV
H	12310.00	50	31.02	8.99	25.57	53.54	74.00	-20.46	PK
H	12310.00	40.28	31.02	8.99	25.57	43.82	54.00	-10.18	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. The test data shows only the worst case.



802.11n20 (ANT1+ANT2)

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel:2412MHz									
V	4824.00	49.35	30.55	5.77	24.66	49.23	74.00	-24.77	PK
V	4824.00	43.03	30.55	5.77	24.66	42.91	54.00	-11.09	AV
V	7236.00	51.25	30.33	6.32	24.55	51.79	74.00	-22.21	PK
V	7236.00	40.22	30.33	6.32	24.55	40.76	54.00	-13.24	AV
V	9648.00	47.09	30.85	7.45	24.69	48.38	74.00	-25.62	PK
V	9648.00	43.96	30.85	7.45	24.69	45.25	54.00	-8.75	AV
V	12060.00	49.91	31.02	8.99	25.57	53.45	74.00	-20.55	PK
V	12060.00	43.15	31.02	8.99	25.57	46.69	54.00	-7.31	AV
H	4824.00	49.19	30.55	5.77	24.66	49.07	74.00	-24.93	PK
H	4824.00	43.37	30.55	5.77	24.66	43.25	54.00	-10.75	AV
H	7236.00	50.88	30.33	6.32	24.55	51.42	74.00	-22.58	PK
H	7236.00	41.81	30.33	6.32	24.55	42.35	54.00	-11.65	AV
H	9648.00	50.4	30.85	7.45	24.69	51.69	74.00	-22.31	PK
H	9648.00	40.77	30.85	7.45	24.69	42.06	54.00	-11.94	AV
H	12060.00	49.89	31.02	8.99	25.57	53.43	74.00	-20.57	PK
H	12060.00	41.12	31.02	8.99	25.57	44.66	54.00	-9.34	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Middle Channel:2437MHz									
V	4874.00	52.72	30.55	5.77	24.66	52.6	74.00	-21.4	PK
V	4874.00	41.84	30.55	5.77	24.66	41.72	54.00	-12.28	AV
V	7311.00	50.04	30.33	6.32	24.55	50.58	74.00	-23.42	PK
V	7311.00	41.34	30.33	6.32	24.55	41.88	54.00	-12.12	AV
V	9748.00	50.81	30.85	7.45	24.69	52.1	74.00	-21.9	PK
V	9748.00	40.92	30.85	7.45	24.69	42.21	54.00	-11.79	AV
V	12185.00	51.1	31.02	8.99	25.57	54.64	74.00	-19.36	PK
V	12185.00	42.35	31.02	8.99	25.57	45.89	54.00	-8.11	AV
H	4874.00	51.31	30.55	5.77	24.66	51.19	74.00	-22.81	PK
H	4874.00	43.28	30.55	5.77	24.66	43.16	54.00	-10.84	AV
H	7311.00	47.61	30.33	6.32	24.55	48.15	74.00	-25.85	PK
H	7311.00	42.07	30.33	6.32	24.55	42.61	54.00	-11.39	AV
H	9748.00	49.23	30.85	7.45	24.69	50.52	74.00	-23.48	PK
H	9748.00	42.11	30.85	7.45	24.69	43.4	54.00	-10.6	AV
H	12185.00	50.66	31.02	8.99	25.57	54.2	74.00	-19.8	PK
H	12185.00	42.81	31.02	8.99	25.57	46.35	54.00	-7.65	AV



Polar (H/V)	Frequency	Meter Reading	Pre-ampl ifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:2462MHz									
V	4924.00	49.45	30.55	5.77	24.66	49.33	74.00	-24.67	PK
V	4924.00	42.23	30.55	5.77	24.66	42.11	54.00	-11.89	AV
V	7386.00	50.1	30.33	6.32	24.55	50.64	74.00	-23.36	PK
V	7386.00	43.2	30.33	6.32	24.55	43.74	54.00	-10.26	AV
V	9848.00	50.4	30.85	7.45	24.69	51.69	74.00	-22.31	PK
V	9848.00	41.03	30.85	7.45	24.69	42.32	54.00	-11.68	AV
V	12310.00	51.6	31.02	8.99	25.57	55.14	74.00	-18.86	PK
V	12310.00	40.02	31.02	8.99	25.57	43.56	54.00	-10.44	AV
H	4924.00	54.48	30.55	5.77	24.66	54.36	74.00	-19.64	PK
H	4924.00	42.42	30.55	5.77	24.66	42.3	54.00	-11.7	AV
H	7386.00	52.22	30.33	6.32	24.55	52.76	74.00	-21.24	PK
H	7386.00	42.47	30.33	6.32	24.55	43.01	54.00	-10.99	AV
H	9848.00	47.05	30.85	7.45	24.69	48.34	74.00	-25.66	PK
H	9848.00	42.9	30.85	7.45	24.69	44.19	54.00	-9.81	AV
H	12310.00	49.83	31.02	8.99	25.57	53.37	74.00	-20.63	PK
H	12310.00	41.78	31.02	8.99	25.57	45.32	54.00	-8.68	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. The test data shows only the worst case.



802.11ax20 (ANT1+ANT2)

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel:2412MHz									
V	4824.00	49.49	30.55	5.77	24.66	49.37	74.00	-24.63	PK
V	4824.00	41.07	30.55	5.77	24.66	40.95	54.00	-13.05	AV
V	7236.00	49.14	30.33	6.32	24.55	49.68	74.00	-24.32	PK
V	7236.00	40.17	30.33	6.32	24.55	40.71	54.00	-13.29	AV
V	9648.00	46.55	30.85	7.45	24.69	47.84	74.00	-26.16	PK
V	9648.00	42.96	30.85	7.45	24.69	44.25	54.00	-9.75	AV
V	12060.00	52.11	31.02	8.99	25.57	55.65	74.00	-18.35	PK
V	12060.00	41.33	31.02	8.99	25.57	44.87	54.00	-9.13	AV
H	4824.00	49.07	30.55	5.77	24.66	48.95	74.00	-25.05	PK
H	4824.00	42.85	30.55	5.77	24.66	42.73	54.00	-11.27	AV
H	7236.00	52.66	30.33	6.32	24.55	53.2	74.00	-20.8	PK
H	7236.00	39.83	30.33	6.32	24.55	40.37	54.00	-13.63	AV
H	9648.00	49.64	30.85	7.45	24.69	50.93	74.00	-23.07	PK
H	9648.00	41.89	30.85	7.45	24.69	43.18	54.00	-10.82	AV
H	12060.00	49.83	31.02	8.99	25.57	53.37	74.00	-20.63	PK
H	12060.00	41.42	31.02	8.99	25.57	44.96	54.00	-9.04	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Middle Channel:2437MHz									
V	4874.00	50.85	30.55	5.77	24.66	50.73	74.00	-23.27	PK
V	4874.00	43.73	30.55	5.77	24.66	43.61	54.00	-10.39	AV
V	7311.00	50.26	30.33	6.32	24.55	50.8	74.00	-23.2	PK
V	7311.00	42.8	30.33	6.32	24.55	43.34	54.00	-10.66	AV
V	9748.00	48.93	30.85	7.45	24.69	50.22	74.00	-23.78	PK
V	9748.00	40.32	30.85	7.45	24.69	41.61	54.00	-12.39	AV
V	12185.00	52.13	31.02	8.99	25.57	55.67	74.00	-18.33	PK
V	12185.00	43.08	31.02	8.99	25.57	46.62	54.00	-7.38	AV
H	4874.00	48.55	30.55	5.77	24.66	48.43	74.00	-25.57	PK
H	4874.00	41.32	30.55	5.77	24.66	41.2	54.00	-12.8	AV
H	7311.00	49.37	30.33	6.32	24.55	49.91	74.00	-24.09	PK
H	7311.00	40.68	30.33	6.32	24.55	41.22	54.00	-12.78	AV
H	9748.00	49.08	30.85	7.45	24.69	50.37	74.00	-23.63	PK
H	9748.00	40.03	30.85	7.45	24.69	41.32	54.00	-12.68	AV
H	12185.00	51.65	31.02	8.99	25.57	55.19	74.00	-18.81	PK
H	12185.00	41.94	31.02	8.99	25.57	45.48	54.00	-8.52	AV



Polar (H/V)	Frequency	Meter Reading	Pre-ampl ifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:2462MHz									
V	4924.00	51.06	30.55	5.77	24.66	50.94	74.00	-23.06	PK
V	4924.00	42.39	30.55	5.77	24.66	42.27	54.00	-11.73	AV
V	7386.00	51.68	30.33	6.32	24.55	52.22	74.00	-21.78	PK
V	7386.00	41.61	30.33	6.32	24.55	42.15	54.00	-11.85	AV
V	9848.00	51.02	30.85	7.45	24.69	52.31	74.00	-21.69	PK
V	9848.00	40.85	30.85	7.45	24.69	42.14	54.00	-11.86	AV
V	12310.00	50.88	31.02	8.99	25.57	54.42	74.00	-19.58	PK
V	12310.00	40.59	31.02	8.99	25.57	44.13	54.00	-9.87	AV
H	4924.00	53.38	30.55	5.77	24.66	53.26	74.00	-20.74	PK
H	4924.00	42.86	30.55	5.77	24.66	42.74	54.00	-11.26	AV
H	7386.00	50.31	30.33	6.32	24.55	50.85	74.00	-23.15	PK
H	7386.00	41.01	30.33	6.32	24.55	41.55	54.00	-12.45	AV
H	9848.00	46.66	30.85	7.45	24.69	47.95	74.00	-26.05	PK
H	9848.00	42.02	30.85	7.45	24.69	43.31	54.00	-10.69	AV
H	12310.00	49.6	31.02	8.99	25.57	53.14	74.00	-20.86	PK
H	12310.00	42.49	31.02	8.99	25.57	46.03	54.00	-7.97	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. The test data shows only the worst case.



5. RADIATED BAND EMISSION MEASUREMENT

5.1 TEST REQUIREMENT

Test Requirement:	FCC Part15 C Section 15.209 and 15.205 and 15.247(d)					
Test Method:	ANSI C63.10:2020					
Test Frequency Range:	All of the restrict bands were tested, only the worst band's (2310MHz to 2500MHz) data was showed.					
Test site:	Measurement Distance: 3m					
Receiver setup:	Frequency	Detector	RBW	VBW	Value	
	Above	Peak	1MHz	3MHz	Peak	
	1GHz	Average	1MHz	3MHz	Average	

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

Frequency (MHz)	Class B (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	2310MHz
Stop Frequency	2500MHz
RB / VB (emission in restricted band)	1 MHz / 3 MHz for Peak, 1 MHz / 3MHz for Average

5.2 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:

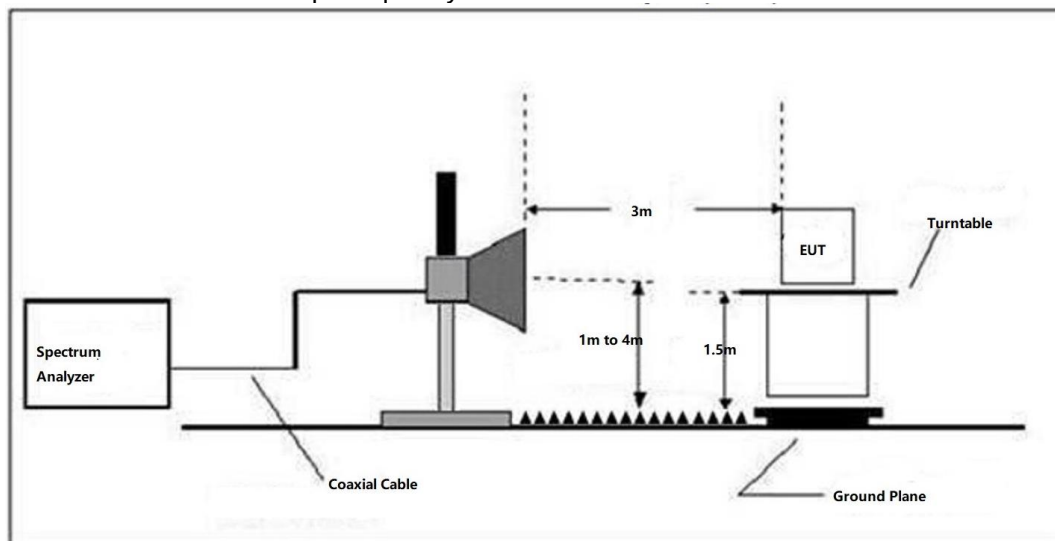
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

5.3 DEVIATION FROM TEST STANDARD

No deviation

5.4 TEST SETUP

Radiated Emission Test-Up Frequency Above 1GHz



5.5 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.



5.6 TEST RESULT

ANT1

	Polar (H/V)	Frequenc y (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV /m)	Detec tor Type	Result
802.11b	Low Channel 2412MHz									
	H	2390.00	56.92	30.22	4.85	23.98	55.53	74.00	PK	PASS
	H	2390.00	43.89	30.22	4.85	23.98	42.50	54.00	AV	PASS
	H	2400.00	53.86	30.22	4.85	23.98	52.47	74.00	PK	PASS
	H	2400.00	44.35	30.22	4.85	23.98	42.96	54.00	AV	PASS
	V	2390.00	55.10	30.22	4.85	23.98	53.71	74.00	PK	PASS
	V	2390.00	48.89	30.22	4.85	23.98	47.50	54.00	AV	PASS
	V	2400.00	56.36	30.22	4.85	23.98	54.97	74.00	PK	PASS
	V	2400.00	49.51	30.22	4.85	23.98	48.12	54.00	AV	PASS
	High Channel 2462MHz									
	H	2483.50	57.37	30.22	4.85	23.98	55.98	74.00	PK	PASS
	H	2483.50	47.56	30.22	4.85	23.98	46.17	54.00	AV	PASS
	H	2500.00	56.33	30.22	4.85	23.98	54.94	74.00	PK	PASS
	H	2500.00	47.05	30.22	4.85	23.98	45.66	54.00	AV	PASS
	V	2483.50	57.05	30.22	4.85	23.98	55.66	74.00	PK	PASS
	V	2483.50	47.29	30.22	4.85	23.98	45.90	54.00	AV	PASS
	V	2500.00	57.91	30.22	4.85	23.98	56.52	74.00	PK	PASS
	V	2500.00	46.59	30.22	4.85	23.98	45.20	54.00	AV	PASS
802.11g	Low Channel 2412MHz									
	H	2390.00	56.57	30.22	4.85	23.98	55.18	74.00	PK	PASS
	H	2390.00	43.74	30.22	4.85	23.98	42.35	54.00	AV	PASS
	H	2400.00	53.24	30.22	4.85	23.98	51.85	74.00	PK	PASS
	H	2400.00	43.69	30.22	4.85	23.98	42.30	54.00	AV	PASS
	V	2390.00	56.47	30.22	4.85	23.98	55.08	74.00	PK	PASS
	V	2390.00	47.17	30.22	4.85	23.98	45.78	54.00	AV	PASS
	V	2400.00	55.54	30.22	4.85	23.98	54.15	74.00	PK	PASS
	V	2400.00	49.89	30.22	4.85	23.98	48.50	54.00	AV	PASS
	High Channel 2462MHz									
	H	2483.50	58.10	30.22	4.85	23.98	56.71	74.00	PK	PASS
	H	2483.50	49.12	30.22	4.85	23.98	47.73	54.00	AV	PASS
	H	2500.00	56.08	30.22	4.85	23.98	54.69	74.00	PK	PASS
	H	2500.00	49.29	30.22	4.85	23.98	47.90	54.00	AV	PASS
	V	2483.50	58.00	30.22	4.85	23.98	56.61	74.00	PK	PASS
	V	2483.50	49.58	30.22	4.85	23.98	48.19	54.00	AV	PASS
	V	2500.00	59.85	30.22	4.85	23.98	58.46	74.00	PK	PASS
	V	2500.00	48.85	30.22	4.85	23.98	47.46	54.00	AV	PASS
Remark:										
1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limi										



ANT2

	Polar (H/V)	Frequenc y (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV /m)	Detec tor Type	Result
802.11b	Low Channel 2412MHz									
	H	2390.00	55.08	30.22	4.85	23.98	53.69	74.00	PK	PASS
	H	2390.00	46.21	30.22	4.85	23.98	44.82	54.00	AV	PASS
	H	2400.00	55.62	30.22	4.85	23.98	54.23	74.00	PK	PASS
	H	2400.00	43.70	30.22	4.85	23.98	42.31	54.00	AV	PASS
	V	2390.00	55.84	30.22	4.85	23.98	54.45	74.00	PK	PASS
	V	2390.00	48.39	30.22	4.85	23.98	47.00	54.00	AV	PASS
	V	2400.00	54.87	30.22	4.85	23.98	53.48	74.00	PK	PASS
	V	2400.00	51.18	30.22	4.85	23.98	49.79	54.00	AV	PASS
	High Channel 2462MHz									
	H	2483.50	56.60	30.22	4.85	23.98	55.21	74.00	PK	PASS
	H	2483.50	47.83	30.22	4.85	23.98	46.44	54.00	AV	PASS
	H	2500.00	57.40	30.22	4.85	23.98	56.01	74.00	PK	PASS
	H	2500.00	49.18	30.22	4.85	23.98	47.79	54.00	AV	PASS
	V	2483.50	57.95	30.22	4.85	23.98	56.56	74.00	PK	PASS
	V	2483.50	49.16	30.22	4.85	23.98	47.77	54.00	AV	PASS
	V	2500.00	57.58	30.22	4.85	23.98	56.19	74.00	PK	PASS
	V	2500.00	48.91	30.22	4.85	23.98	47.52	54.00	AV	PASS
802.11g	Low Channel 2412MHz									
	H	2390.00	56.99	30.22	4.85	23.98	55.60	74.00	PK	PASS
	H	2390.00	44.23	30.22	4.85	23.98	42.84	54.00	AV	PASS
	H	2400.00	54.08	30.22	4.85	23.98	52.69	74.00	PK	PASS
	H	2400.00	45.19	30.22	4.85	23.98	43.80	54.00	AV	PASS
	V	2390.00	55.77	30.22	4.85	23.98	54.38	74.00	PK	PASS
	V	2390.00	47.63	30.22	4.85	23.98	46.24	54.00	AV	PASS
	V	2400.00	56.48	30.22	4.85	23.98	55.09	74.00	PK	PASS
	V	2400.00	48.37	30.22	4.85	23.98	46.98	54.00	AV	PASS
	High Channel 2462MHz									
	H	2483.50	56.99	30.22	4.85	23.98	55.60	74.00	PK	PASS
	H	2483.50	44.23	30.22	4.85	23.98	42.84	54.00	AV	PASS
	H	2500.00	54.08	30.22	4.85	23.98	52.69	74.00	PK	PASS
	H	2500.00	45.19	30.22	4.85	23.98	43.80	54.00	AV	PASS
	V	2483.50	55.77	30.22	4.85	23.98	54.38	74.00	PK	PASS
	V	2483.50	47.63	30.22	4.85	23.98	46.24	54.00	AV	PASS
	V	2500.00	56.48	30.22	4.85	23.98	55.09	74.00	PK	PASS
	V	2500.00	48.37	30.22	4.85	23.98	46.98	54.00	AV	PASS
Remark:										
1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limi										



802.11n20 (MIMO)

802.11n20	Low Channel 2412MHz									
	H	2390.00	55.48	30.22	4.85	23.98	54.09	74.00	PK	PASS
	H	2390.00	45.14	30.22	4.85	23.98	43.75	54.00	AV	PASS
	H	2400.00	55.90	30.22	4.85	23.98	54.51	74.00	PK	PASS
	H	2400.00	44.63	30.22	4.85	23.98	43.24	54.00	AV	PASS
	V	2390.00	56.99	30.22	4.85	23.98	55.60	74.00	PK	PASS
	V	2390.00	49.30	30.22	4.85	23.98	47.91	54.00	AV	PASS
	V	2400.00	57.10	30.22	4.85	23.98	55.71	74.00	PK	PASS
	V	2400.00	50.31	30.22	4.85	23.98	48.92	54.00	AV	PASS
	High Channel 2462MHz									
	H	2483.50	55.55	30.22	4.85	23.98	54.16	74.00	PK	PASS
	H	2483.50	47.21	30.22	4.85	23.98	45.82	54.00	AV	PASS
	H	2500.00	56.70	30.22	4.85	23.98	55.31	74.00	PK	PASS
	H	2500.00	46.72	30.22	4.85	23.98	45.33	54.00	AV	PASS
	V	2483.50	57.11	30.22	4.85	23.98	55.72	74.00	PK	PASS
	V	2483.50	48.66	30.22	4.85	23.98	47.27	54.00	AV	PASS
	V	2500.00	59.30	30.22	4.85	23.98	57.91	74.00	PK	PASS
	V	2500.00	48.71	30.22	4.85	23.98	47.32	54.00	AV	PASS
Remark:										
1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit										

802.11ax20 (MIMO)

802.11ax20	Low Channel 2412MHz									
	H	2390.00	54.51	30.22	4.85	23.98	53.12	74.00	PK	PASS
	H	2390.00	44.81	30.22	4.85	23.98	43.42	54.00	AV	PASS
	H	2400.00	55.02	30.22	4.85	23.98	53.63	74.00	PK	PASS
	H	2400.00	46.33	30.22	4.85	23.98	44.94	54.00	AV	PASS
	V	2390.00	56.65	30.22	4.85	23.98	55.26	74.00	PK	PASS
	V	2390.00	49.99	30.22	4.85	23.98	48.60	54.00	AV	PASS
	V	2400.00	55.11	30.22	4.85	23.98	53.72	74.00	PK	PASS
	V	2400.00	49.29	30.22	4.85	23.98	47.90	54.00	AV	PASS
	High Channel 2462MHz									
	H	2483.50	58.35	30.22	4.85	23.98	56.96	74.00	PK	PASS
	H	2483.50	47.17	30.22	4.85	23.98	45.78	54.00	AV	PASS
	H	2500.00	56.03	30.22	4.85	23.98	54.64	74.00	PK	PASS
	H	2500.00	46.81	30.22	4.85	23.98	45.42	54.00	AV	PASS
	V	2483.50	58.01	30.22	4.85	23.98	56.62	74.00	PK	PASS
	V	2483.50	49.86	30.22	4.85	23.98	48.47	54.00	AV	PASS
	V	2500.00	57.60	30.22	4.85	23.98	56.21	74.00	PK	PASS
	V	2500.00	46.41	30.22	4.85	23.98	45.02	54.00	AV	PASS
Remark:										
1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit										



6. POWER SPECTRAL DENSITY TEST

Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247	Power Spectral Density	8dBm/3kHz	2400-2483.5	PASS

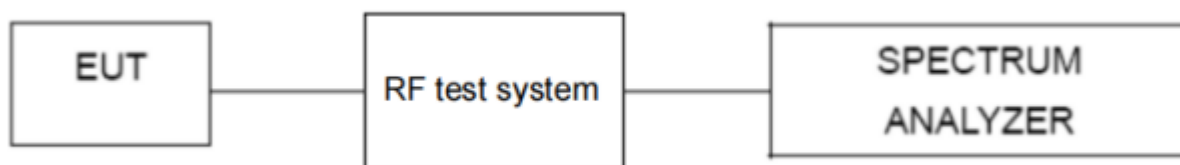
6.2 TEST PROCEDURE

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of chapter 3, Unless otherwise a special operating condition is specified in the follows during the testing.



6.6 TEST RESULT

Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 16.8V

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-4.59	≤8.00	PASS
	Ant2	2412	-4.69	≤8.00	PASS
	Ant1	2437	-4.99	≤8.00	PASS
	Ant2	2437	-4.75	≤8.00	PASS
	Ant1	2462	-4.11	≤8.00	PASS
	Ant2	2462	-4.64	≤8.00	PASS
11G	Ant1	2412	-14.25	≤8.00	PASS
	Ant2	2412	-11.09	≤8.00	PASS
	Ant1	2437	-15.77	≤8.00	PASS
	Ant2	2437	-7.63	≤8.00	PASS
	Ant1	2462	-7.46	≤8.00	PASS
	Ant2	2462	-7.08	≤8.00	PASS
11N20MIMO	Ant1	2412	-10.74	≤8.00	PASS
	Ant2	2412	-10.73	≤8.00	PASS
	total	2412	-7.72	≤7.49	PASS
	Ant1	2437	-6.88	≤8.00	PASS
	Ant2	2437	-6.45	≤8.00	PASS
	total	2437	-3.65	≤7.49	PASS
	Ant1	2462	-7.12	≤8.00	PASS
	Ant2	2462	-7.44	≤8.00	PASS
	total	2462	-4.27	≤7.49	PASS
11AX20MIMO	Ant1	2412	-6.55	≤8.00	PASS
	Ant2	2412	-4.84	≤8.00	PASS
	total	2412	-2.60	≤7.49	PASS
	Ant1	2437	-7.41	≤8.00	PASS
	Ant2	2437	-6.56	≤8.00	PASS
	total	2437	-3.95	≤7.49	PASS
	Ant1	2462	-7.03	≤8.00	PASS
	Ant2	2462	-5.76	≤8.00	PASS
	total	2462	-3.34	≤7.49	PASS

Remark :

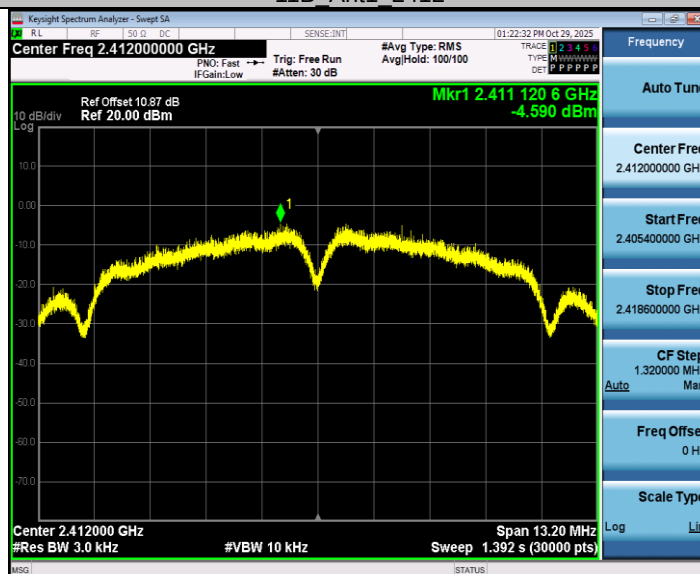
Directional gain = GANT + Array Gain=3.5 dBi+3.01 dBi =6.51 dBi ;

Array Gain = 10 log(NANT/NSS) dB (NANT=2;NSS=1)

Limit[dBm/3kHz]=8.00- (Directional gain -6dB) when Directional gain ≥6dB



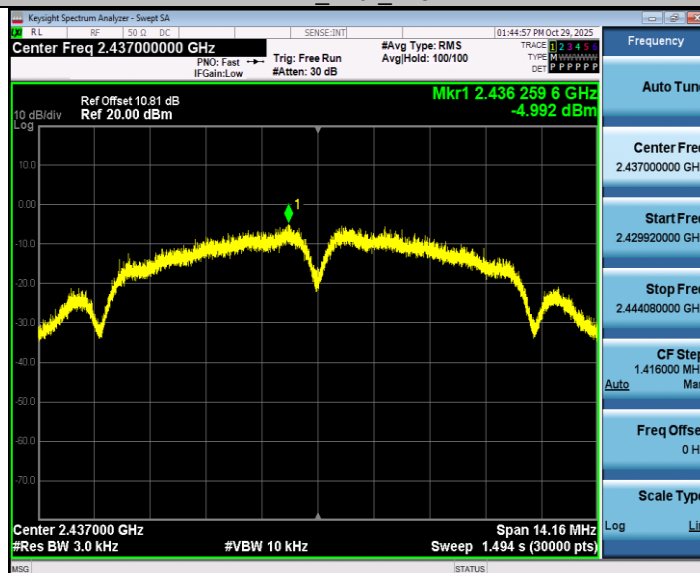
11B_Ant1_2412

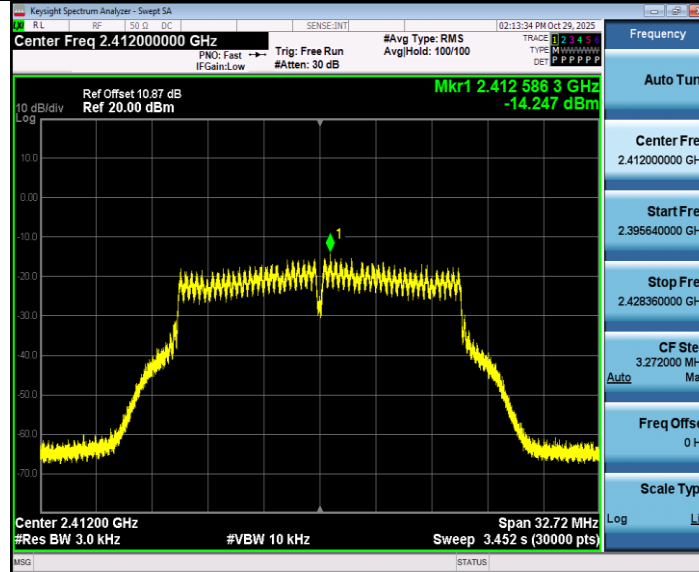


11B_Ant2_2412

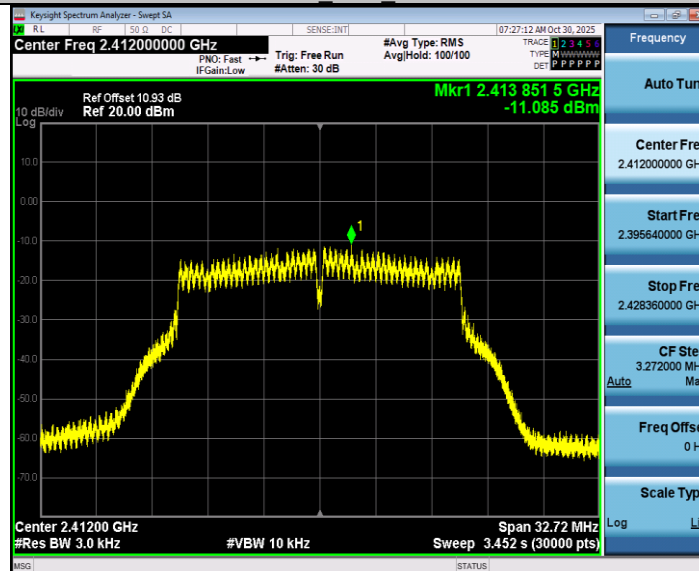


11B_Ant1_2437

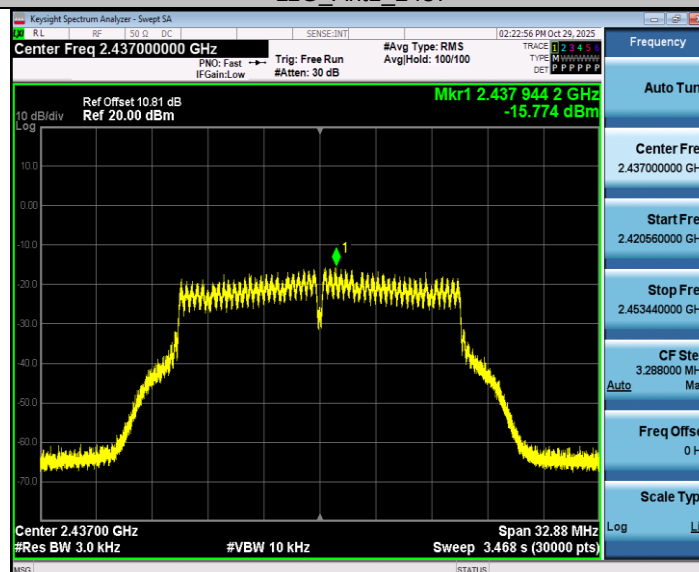




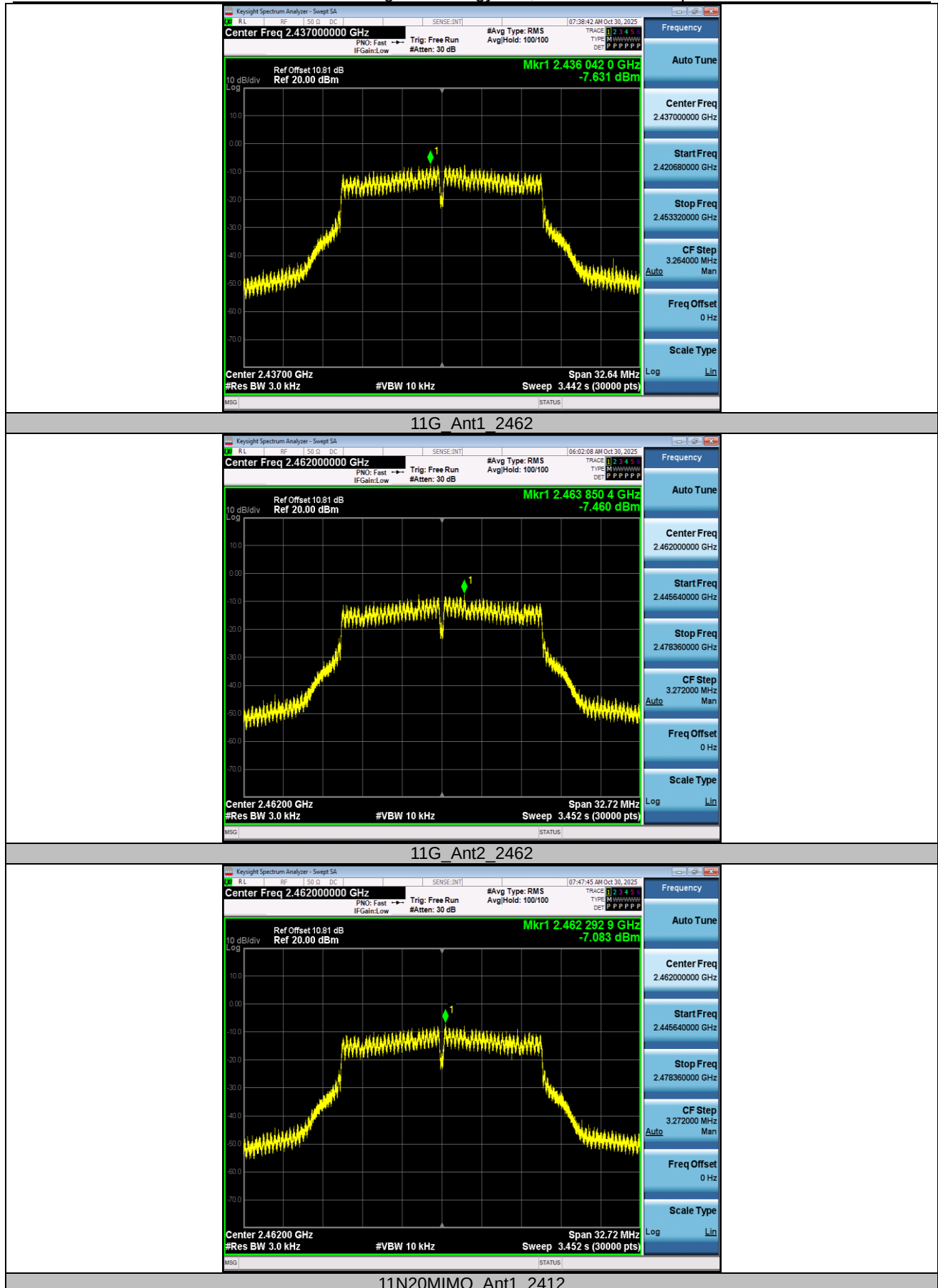
11G_Ant2_2412

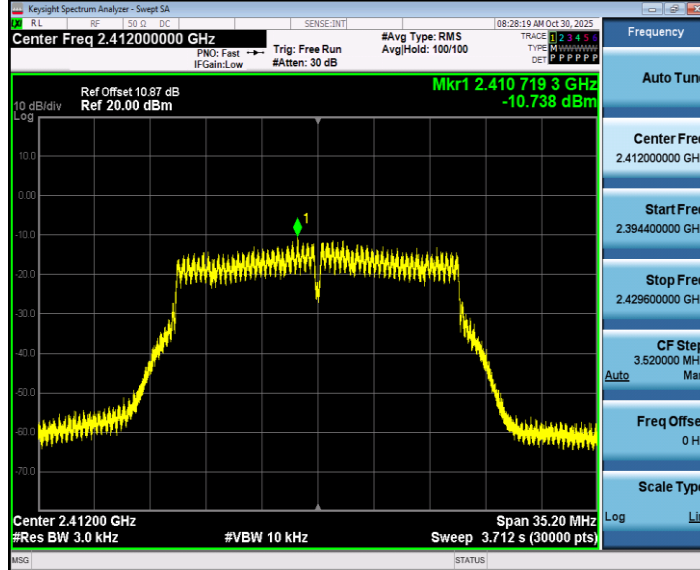


11G_Ant1_2437

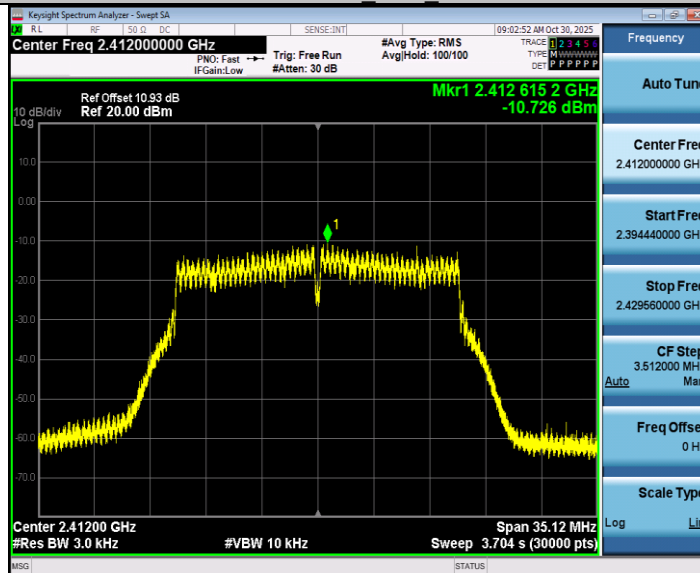


11G_Ant2_2437

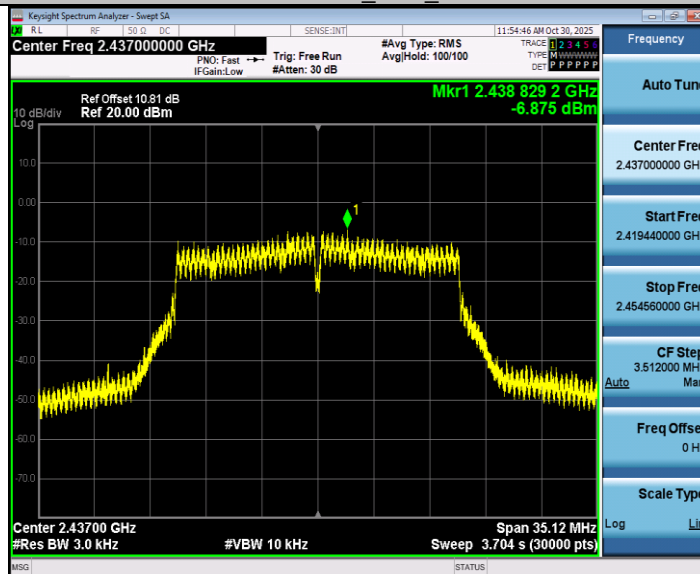




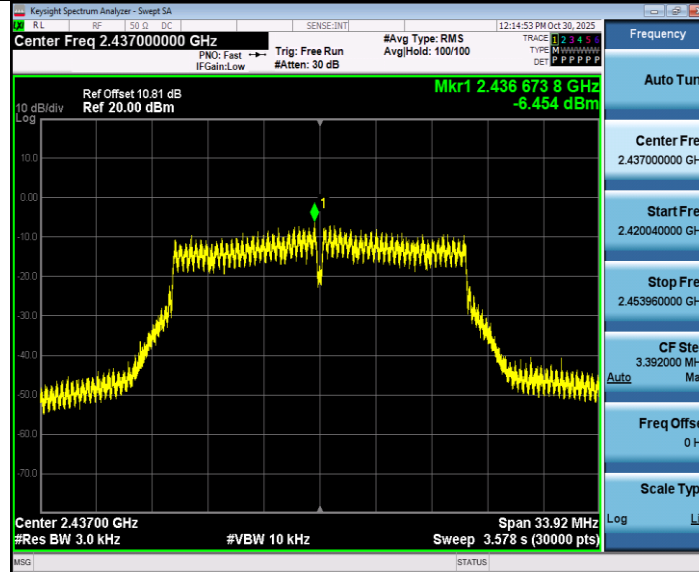
11N20MIMO_Ant2_2412



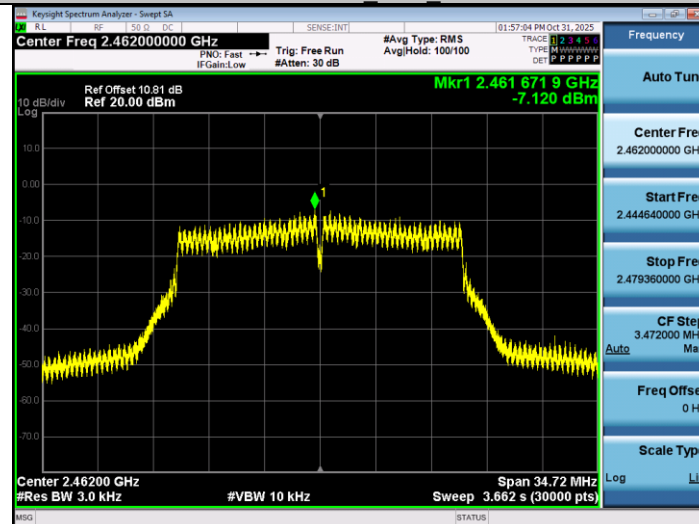
11N20MIMO_Ant1_2437



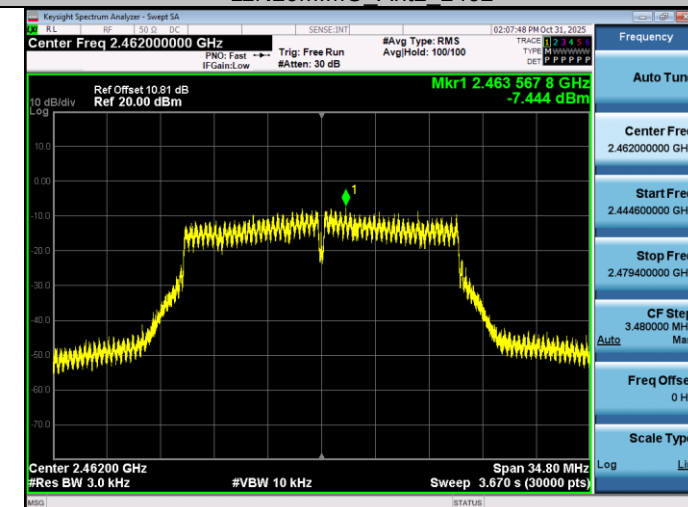
11N20MIMO_Ant2_2437



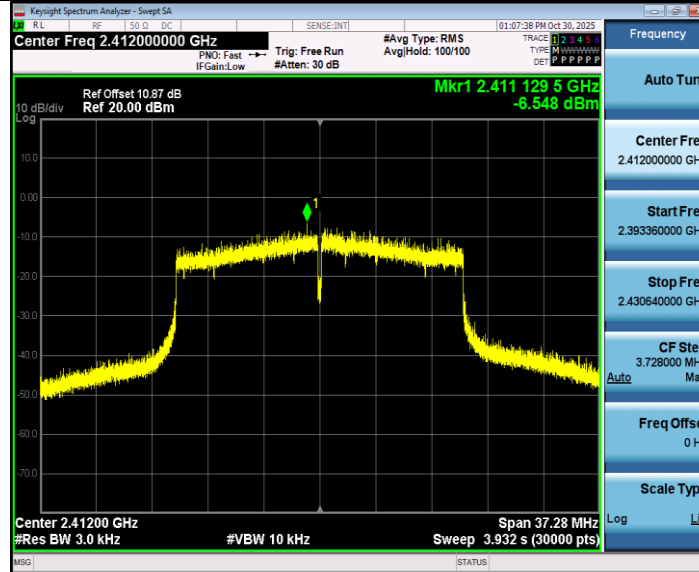
11N20MIMO Ant1 2462



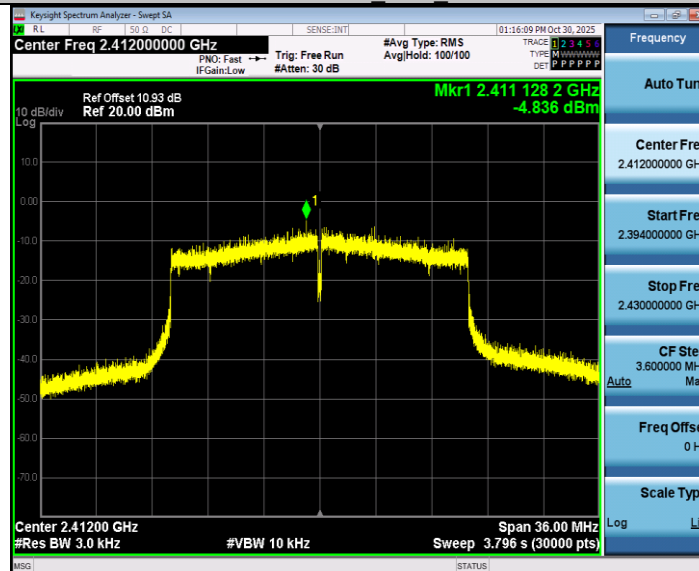
11N20MIMO Ant2 2462



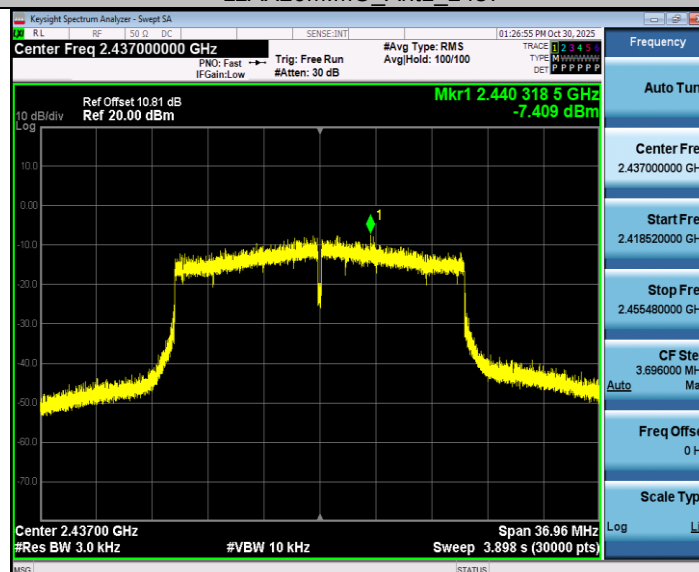
11AX20MIMO Ant1 2412



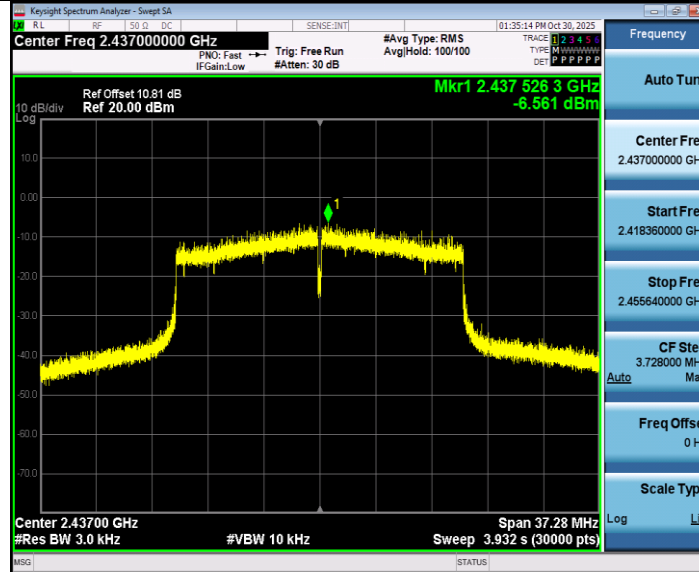
11AX20MIMO_Ant2_2412



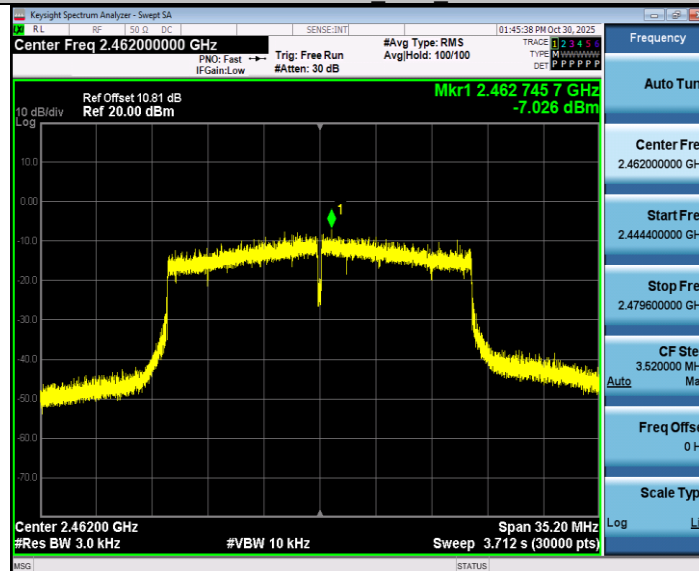
11AX20MIMO_Ant1_2437



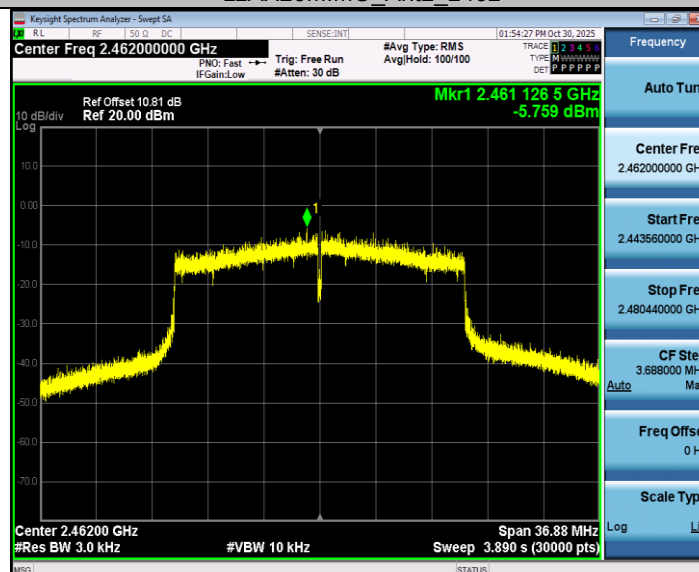
11AX20MIMO_Ant2_2437



11AX20MIMO_Ant1_2462



11AX20MIMO_Ant2_2462





7. 6DB OCCUPIED BANDWIDTH

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	$\geq 500\text{KHz}$ (6dB Occupied Bandwidth)	2400-2483.5	PASS

7.2 TEST PROCEDURE

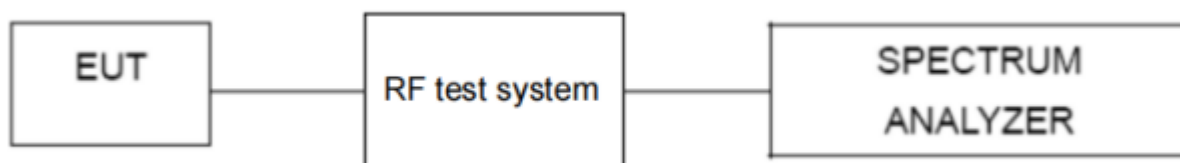
The steps for 6dB Bandwidth are as follows:

- Set RBW = shall be in the range of 1% to 5% of the OBW .
- Set the VBW $\geq [3 \times \text{RBW}]$.
- Detector = peak.
- Trace mode = max-hold.
- Sweep = No faster than coupled (auto) time.
- Allow the trace to stabilize.
- Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-6 dB down amplitude”. If a marker is below this “-6 dB down amplitude” value, then it shall be as close as possible to this value.

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of chapter 3, Unless otherwise a special operating condition is specified in the follows during the testing.



7.6 TEST RESULT

Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 16.8V
Test Mode :	TX		

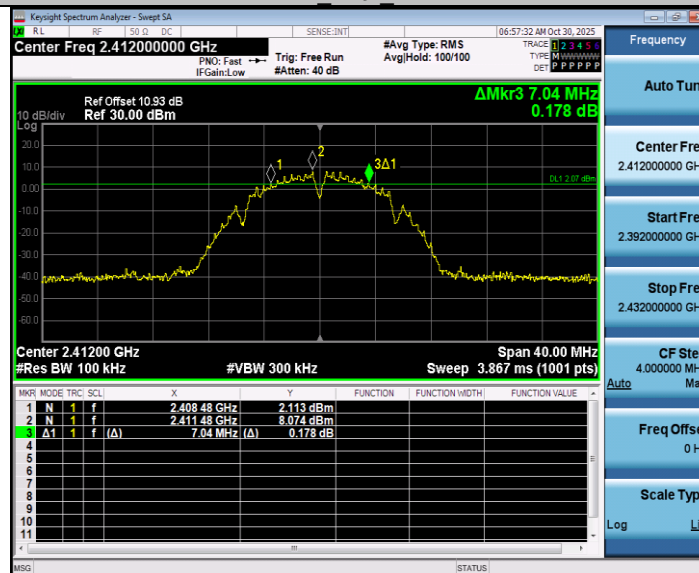
TestMode	Antenna	Channel Frequency[MHz]	-6dB Occupy Bandwidth [MHz]	Limit (kHz)	Result
11B	Ant1	2412	6.600	>500	Pass
	Ant2	2412	7.040		
	Ant1	2437	7.080		
	Ant2	2437	8.040		
	Ant1	2462	7.080		
	Ant2	2462	6.960		
11G	Ant1	2412	16.830		
	Ant2	2412	16.858		
	Ant1	2437	16.822		
	Ant2	2437	16.818		
	Ant1	2462	16.769		
	Ant2	2462	16.849		
11N20MIMO	Ant1	2412	16.953		
	Ant2	2412	17.926		
	Ant1	2437	16.896		
	Ant2	2437	17.953		
	Ant1	2462	16.931		
	Ant2	2462	17.937		
11AX20MIMO	Ant1	2412	19.080		
	Ant2	2412	19.038		
	Ant1	2437	19.051		
	Ant2	2437	19.083		
	Ant1	2462	19.077		
	Ant2	2462	19.027		



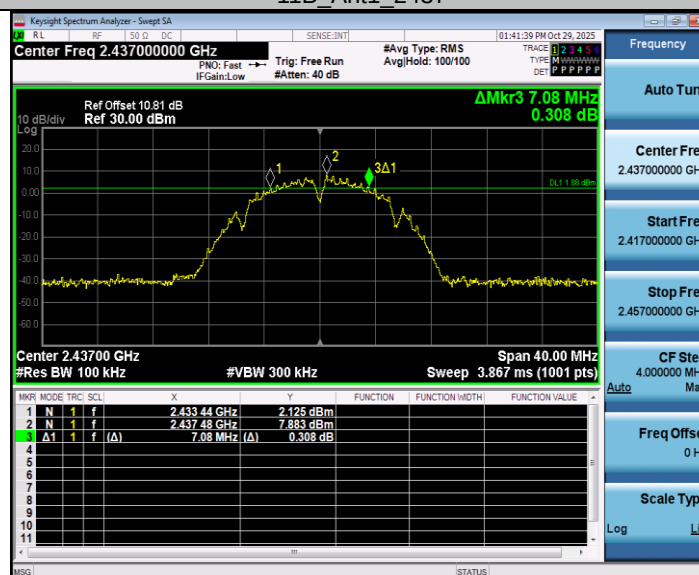
11B_Ant1_2412



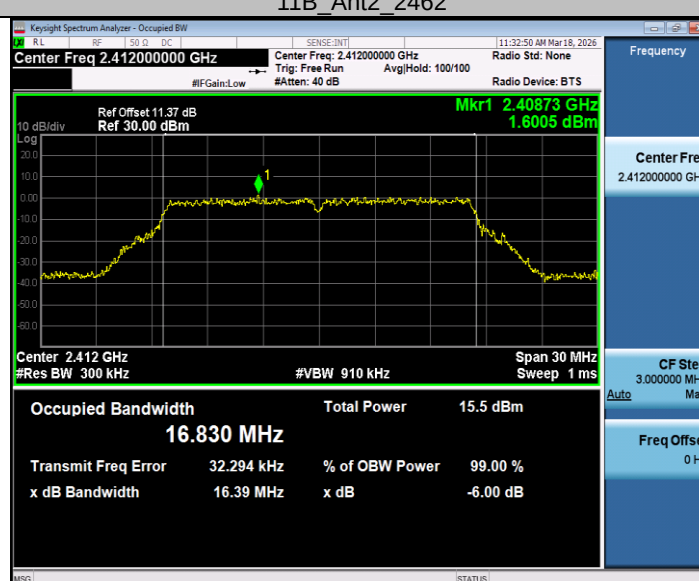
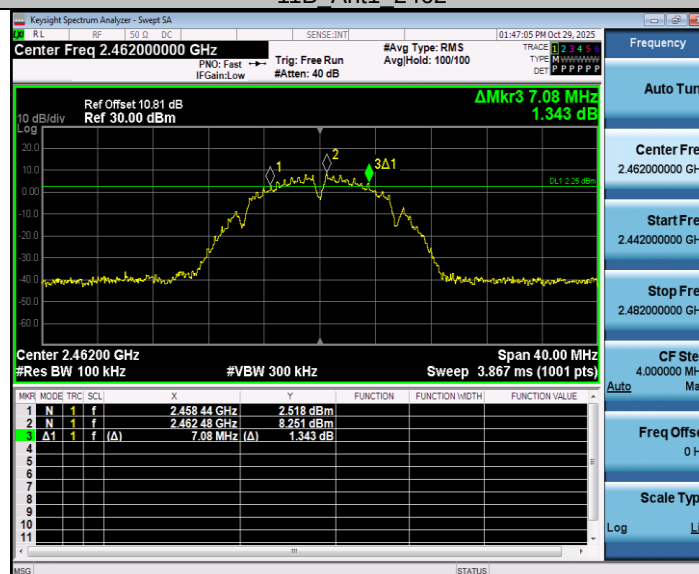
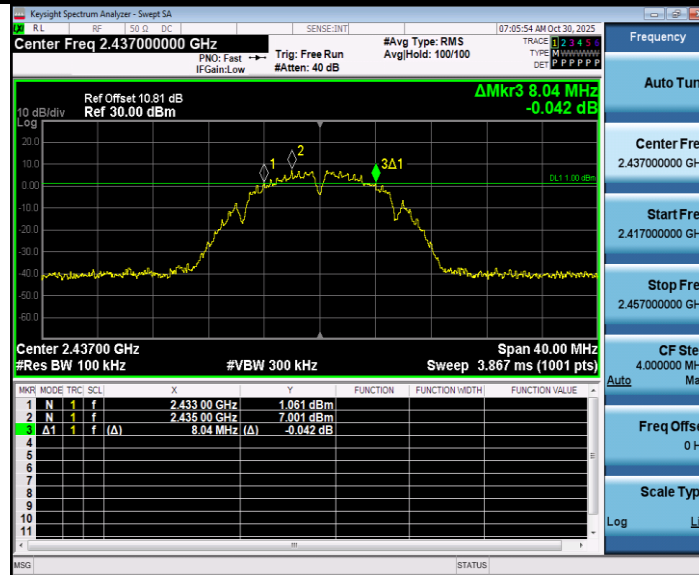
11B_Ant2_2412

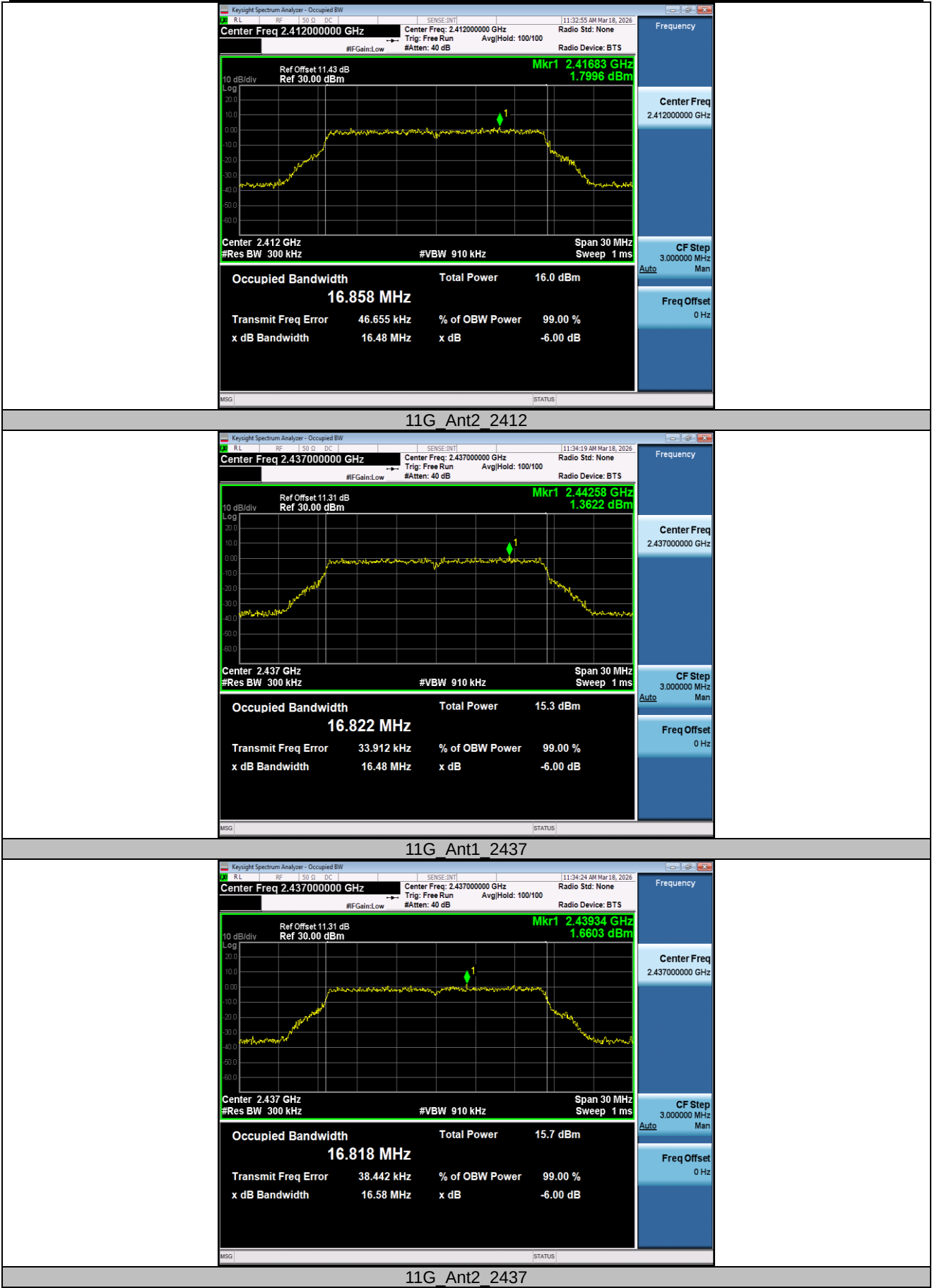


11B_Ant1_2437



11B_Ant2_2437





11G_Ant1_2437

KeySight Spectrum Analyzer - Occupied BW

Center Freq 2.437000000 GHz

Center Freq: 2.437000000 GHz

Trig: Free Run

Avg/Hold: 100/100

Radio Std: None

Radio Device: BTS

Ref Offset 11.31 dB

Ref 30.00 dBm

Mkr1 2.43934 GHz

1.6603 dBm

10 dB/div

Log

Center 2.437 GHz

#Res BW 300 kHz

#VBW 910 kHz

Span 30 MHz

Sweep 1 ms

Occupied Bandwidth

16.818 MHz

Total Power

15.7 dBm

Transmit Freq Error

38.442 kHz

% of OBW Power

99.00 %

x dB Bandwidth

16.58 MHz

x dB

-6.00 dB

MSG

STATUS

Frequency

Center Freq

2.437000000 GHz

CF Step

3.000000 MHz

Auto

Man

Freq Offset

0 Hz

11G_Ant2_2437

