



FCC TEST REPORT

FCC ID:2BN9C-A5MINIG

Report Number: ZKT-2502182511E-2

Date of Test: Nov. 20, 2024 to Mar. 12, 2025

Date of issue: Mar. 12, 2025

Total number of pages: 74

Test Result: PASS

Testing Laboratory: Shenzhen ZKT Technology Co., Ltd.

Address: 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

Applicant's name: Shenzhen Youle Technology Co., Ltd

Address: Block B, Fencheng Zhigu Building, No. 60 Tiezai Road, Google Community, xixiang street, Bao 'an District, Shenzhen

Manufacturer's name: Shenzhen Youle Technology Co., Ltd

Address: Block B, Fencheng Zhigu Building, No. 60 Tiezai Road, Google Community, xixiang street, Bao 'an District, Shenzhen

Test specification:

Standard: FCC CFR Title 47 Part 15 Subpart C Section 15.247
ANSI C63.10:2013

Test procedure: /

Non-standard test method: N/A

Test Report Form No.: TRF-EL-110_V0

Test Report Form(s) Originator: ZKT Testing

Master TRF: Dated: 2020-01-06

This device described above has been tested by ZKT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

This report shall not be reproduced except in full, without the written approval of ZKT, this document may be altered or revised by ZKT, personal only, and shall be noted in the revision of the document.



Product name..... : Car Media Player Box

Trademark : N/A

Model/Type reference..... : A5 Mini G

A5 Mini A, A5 Mini C, A5 Mini D, A5 Mini E, A5 Mini F, A5 Mini B, A5 Mini H, A5 Mini I, A5 Mini J, A5 Mini K, A5 Mini E-S, A5 Mini F-S, A5, A5 SE, A5 Air, A5 Pro, A5 Plus, A5 Ultra, A6, A6 SE, A6 Air, A6 Pro, A6 Plus, A6 Ultra, A8, A8 Pro, A8 Plus, A8 Ultra, A9, A9 Pro, A9 Plus, A9 Ultra, A10, A10 Pro, A10 Plus, A10 Ultra, A5 Mini G, CA2, CA3, CA4, CA5, CA6, CA7, DAC1, DCA2, DCA3, CP30-C2CMini, CP30-C2CMini2, CP30-C2CMini3, CP30-C2CMini4, CP30-C2CMini5, CP30-C2CMini6, CP30-A2AMini, CP30-A2AMini2, CP30-A2AMini3, CP30-A2AMini4, CP30-A2AMini5, CP30-A2AMini6, CP30-Mini, CP30-Mini2, CP30-Mini3, CP30-Mini4, CP30-Mini5, CP30-Mini6, CP30-Mini7, CP30-Mini8, CP30-Mini9, CP30-Mini10, CP30-Mini11, CP30-Mini12, CP30-Mini13, CP30-Mini14, CP30-Mini15, CP30-air, CP30-air2, CP30-air3, CP30-air4, CP30-air5, CP30-air6, CP30-air7, CP30-air8, CP30-air9, CP30-air10, CP30-air11, CP30-air12, CP30-air13, CP30-air14, CP30-air15, CP30-CS5, CP30-CS5 Mini, CP30-CS5 Pro, CP30-CS5 Plus, CP30-CS5-D, CP30-CS5-D Mini, CP30-CS5-D Pro, CP30-CS5-D Plus, CP30-CS6, CP30-CS6 Mini, CP30-CS6 Pro, CP30-CS6 Plus, CP30-CS7, CP30-CS7 Mini, CP30-CS7 Pro, CP30-CS7 Plus, CP30-CS8, CP30-CS8 Mini, CP30-CS8 Pro, CP30-CS8 Plus, CP30-CS9, CP30-CS9 SE, CP30-CS9 Mini, CP30-CS9 Pro, CP30-CS9 Max, CP30-CS9 Ultra, CP30-CS10, CP30-CS10 SE, CP30-CS10 Mini, CP30-CS10 Pro, , CP30-CS10 Max, CP30-CS10 Ultra, CP30-CS11, CP30-CS11 Mini, CP30-CS11 Pro, CP30-CS11 Plus, CP30-CS11 Max, CP30-CS11 Ultra, CP30-CS12, CP30-CS12 Mini, CP30-CS12 Pro, CP30-CS12 Plus, CP30-CS12 Max, CP30-CS12 Ultra, CP30-CM5, CP30-CM5 Mini, CP30-CM5 Pro, CP30-CM5 Plus, CP30-CM5 Max, CP30-CM5 Ultra, CP30-CM6, CP30-CM6 Mini, CP30-CM6 Pro, CP30-CM6 Plus, CP30-CM6 Max, CP30-CM6 Ultra, CP30-CM7, CP30-CM7 Mini, CP30-CM7 Pro, CP30-CM7 Plus, CP30-CM7 Max, CP30-CM7 Ultra, CP30-C2C01, CP30-C2C01 Pro

Ratings..... : Input: DC 5V, 1A

**Testing procedure and testing location:****Testing Laboratory.....:** Shenzhen ZKT Technology Co., Ltd.**Address.....:** 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China**Tested by (name + signature).....:** Jim.Liu**Reviewer (name + signature).....:** Jackson.Fang**Approved (name + signature).....:** Lake Xie



Table of Contents

	Page
1. VERSION	6
2. SUMMARY OF TEST RESULTS	7
2.1 TEST FACILITY	8
2.2 MEASUREMENT UNCERTAINTY	8
3. GENERAL INFORMATION	9
3.1 GENERAL DESCRIPTION OF EUT	9
3.2 DESCRIPTION OF TEST MODES	10
3.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	11
3.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)	11
3.5 EQUIPMENTS LIST FOR ALL TEST ITEMS	12
4. EMC EMISSION TEST	14
4.1 CONDUCTED EMISSION MEASUREMENT	14
4.1.1 POWER LINE CONDUCTED EMISSION Limits	14
4.1.2 TEST PROCEDURE	14
4.1.3 DEVIATION FROM TEST STANDARD	14
4.1.4 TEST SETUP	15
4.1.5 EUT OPERATING CONDITIONS	15
4.2.1 RADIATED EMISSION LIMITS	18
4.2.2 TEST PROCEDURE	19
4.2.3 DEVIATION FROM TEST STANDARD	19
4.2.4 TEST SETUP	19
4.2.5 EUT OPERATING CONDITIONS	20
4.2.6 TEST RESULTS	20
5. RADIATED BAND EMISSION MEASUREMENT	41
5.1 TEST REQUIREMENT:	41
5.2 TEST PROCEDURE	41
5.3 DEVIATION FROM TEST STANDARD	41
5.4 TEST SETUP	42
5.5 EUT OPERATING CONDITIONS	42
5.6 TEST RESULT	43
6. POWER SPECTRAL DENSITY TEST	47
6.1 APPLIED PROCEDURES / LIMIT	47
6.2 TEST PROCEDURE	47
6.3 DEVIATION FROM STANDARD	47
6.4 TEST SETUP	47
6.5 EUT OPERATION CONDITIONS	47
6.6 TEST RESULT	48



7. CHANNEL BANDWIDTH OCCUPY BANDWIDTH	56
7.1 APPLIED PROCEDURES / LIMIT	56
7.2 TEST PROCEDURE	56
7.3 DEVIATION FROM STANDARD	56
7.4 TEST SETUP	56
7.5 EUT OPERATION CONDITIONS	56
7.6 TEST RESULT	57
8. PEAK OUTPUT POWER TEST	60
8.1 APPLIED PROCEDURES/LIMIT	60
8.2 TEST PROCEDURE	60
8.3 DEVIATION FROM STANDARD	60
8.4 TEST SETUP	60
8.5 EUT OPERATION CONDITIONS	60
8.6 TEST RESULT	61
9. CONDUCTED BAND EDGE AND SPURIOUS EMISSION	62
9.1 APPLICABLE STANDARD	62
9.2 TEST PROCEDURE	62
9.3 DEVIATION FROM STANDARD	62
9.4 TEST SETUP	62
9.5 EUT OPERATION CONDITIONS	62
9.6 TEST RESULTS	62
10. DUTY CYCLE	69
10.1 APPLIED PROCEDURES / LIMIT	69
10.2 DEVIATION FROM STANDARD	69
10.3 TEST SETUP	69
11. ANTENNA REQUIREMENT	73
12. TEST SETUP PHOTO	74
13. EUT CONSTRUCTIONAL DETAILS	74

**1. VERSION**

ReportNo.	Version	Description	Approved
ZKT-2502182511E-2	Rev.01	Initial issue of report	Mar. 12, 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 Channel Bandwidth	PASS	
FCC part 15.247 (e)	Power Spectral Density	PASS	
FCC part 15.247(d)	Band Edge	PASS	
FCC part 15.205/15.209	Spurious Emission	PASS	

NOTE:

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



2.1 TEST FACILITY

Shenzhen ZKT Technology Co., Ltd.

Add. : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

FCC Test Firm Registration Number: 692225

Designation Number: CN1299

IC Registered No.: 27033

CAB identifier: CN0110

2.2 MEASUREMENT UNCERTAINTY

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

No.	Item	Uncertainty
1	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:	Car Media Player Box
Model No.:	A5 Mini G See page 2 for detailed models
Model Different.:	The additional models have slight differences in exterior design. Some models retain the same USB plug-in design as the EUT but feature various optimizations, such as textured anti-slip surfaces, geometric cut patterns, circular openings, or airflow grooves, to meet different user needs. Additionally, some models adopt a cabled design, providing more flexible connectivity and adapting to a wider range of usage scenarios. Despite the differences in casing, all additional models share the exact same core PCB board, internal circuitry, and chip modules as the EUT, meaning there are no differences in hardware functionality or performance.
Serial No.:	N/A
Sample ID	ZKT-2502182511E-2
Sample(s) Status:	Engineer sample
Channel numbers:	802.11b/802.11g /802.11n(HT20):11 802.11n(HT40):7
Channel separation:	5MHz
Modulation technology:	802.11b: Direct Sequence Spread Spectrum(DSSS) 802.11g/802.11n(H20/H40): Orthogonal Frequency Division Multiplexing(OFDM)
Frequency range:	20M: 2412MHz-2462MHz 40M: 2422MHz-2452MHz
Antenna Type and Antenna gain:	802.11b/g/n20/n40: PCB Antenna Antenna gain: 2.24 dBi
Power Supply:	Input: DC 5V, 1A
AC/DC Adapter:	N/A
AC/DC Adapter Mode:	N/A



Operation Frequency each of channel							
Channel	Frequency	Chann el	Frequency	Chann el	Frequency	Chann el	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 (MHz)	
	802.11b/802.11g/802.11n(HT20)	802.11n(HT40)
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.	

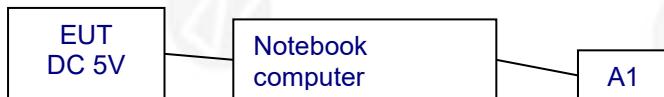
We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:										
Pre-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.										
<table border="1"><tr><td>Mode</td><td>802.11b</td><td>802.11g</td><td>802.11n(HT20)</td><td>802.11n(HT40)</td></tr><tr><td>Data rate</td><td>1Mbps</td><td>6Mbps</td><td>6.5Mbps</td><td>13Mbps</td></tr></table>	Mode	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)	Data rate	1Mbps	6Mbps	6.5Mbps	13Mbps
Mode	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)						
Data rate	1Mbps	6Mbps	6.5Mbps	13Mbps						

Test Software	Dbgmon (CMD) Test Tool
Powerlevelsetup	<17dBm

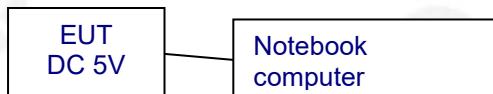


3.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Conducted Emission



Radiated Emission



Radiated Emission



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
E-1	Car Media Player Box	N/A	A5 Mini G	N/A	EUT
A-9	Notebook computer	SAMSUNG	RC510	N/A	Auxiliary
A1	AC/DC adapter	N/A	H6157-W1	N/A	Auxiliary

Item	Shielded Type	Ferrite Core	Length	Note

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

Conduction Emissions Test

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Firmware Version	Last calibration	Calibrated until
1	LISN	R&S	ENV216	101471	N/A	Sep. 30, 2024	Sep. 29, 2025
2	LISN	CYBERTEK	EM5040A	E1850400149	N/A	Sep. 30, 2024	Sep. 29, 2025
3	Test Cable	N/A	C-01	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
4	EMI Test Receiver	R&S	ESCI3	101393	4.42 SP3	Sep. 29, 2024	Sep. 28, 2025
5	EMC Software	Frad	EZ-EMC	Ver.EMC-CON 3A1.1	N/A	\	\

Radiation Emissions & Radiation Spurious Emissions Test

Item	Equipment	Manufacturer	Type No.	Serial No.	Firmware Version	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	KEYSIGHT	N9020A	MY55370835	A.17.05	Sep. 29, 2024	Sep. 28, 2025
2	Spectrum Analyzer (10kHz-39.9GHz)	R&S	FSV40-N	100363	1.71 SP2	Sep. 30, 2024	Sep. 29, 2025
3	EMI Test Receiver (9kHz-7GHz)	R&S	ESCI7	100969	4.32	Sep. 29, 2024	Sep. 28, 2025
4	Bilog Antenna (30MHz-1500MHz)	Schwarzbeck	VULB9168	00877	N/A	Sep. 30, 2024	Sep. 29, 2025
5	Horn Antenna (1GHz-18GHz)	Agilent	AH-118	071145	N/A	Sep. 30, 2024	Sep. 29, 2025
6	Horn Antenna (15GHz-40GHz)	A.H.System	SAS-574	588	N/A	Sep. 30, 2024	Sep. 29, 2025
7	Loop Antenna	TESEQ	HLA6121	58357	N/A	Oct. 11, 2024	Oct. 10, 2025
8	Amplifier (30-1000MHz)	EM Electronics	EM330 Amplifier	60747	N/A	Sep. 29, 2024	Sep. 28, 2025
9	Amplifier (1GHz-26.5GHz)	HuiPu	8449B	3008A00315	N/A	Sep. 29, 2024	Sep. 28, 2025
10	Amplifier (500MHz-40GHz)	QuanJuDa	DLE-161	097	N/A	Sep. 30, 2024	Sep. 29, 2025
11	Test Cable	N/A	R-01	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
12	Test Cable	N/A	R-02	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
13	Test Cable	N/A	R-03	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
14	D.C. Power Supply	LongWei	TPR-6405D	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
15	EMC Software	Frad	EZ-EMC	Ver.EMC-CO N 3A1.1	N/A	\	\
16	Turntable	MF	MF-7802BS	N/A	N/A	\	\
17	Antenna tower	MF	MF-7802BS	N/A	N/A	\	\

RF Conducted Test

Item	Equipment	Manufacturer	Type No.	Serial No.	Firmware Version	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	KEYSIGHT	N9020A	MY55370835	A.17.05	Sep. 29, 2024	Sep. 28, 2025

Shenzhen ZKT Technology Co., Ltd.

1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China



2	Spectrum Analyzer (10kHz-39.9GHz)	R&S	FSV40-N	100363	1.71 SP2	Sep. 30, 2024	Sep. 29, 2025
3	Test Cable	N/A	RF-01	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
4	Test Cable	N/A	RF-02	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
5	Test Cable	N/A	RF-03	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
6	ESG Signal Generator	Agilent	E4421B	GB40051203	B.03.84	Sep. 29, 2024	Sep. 28, 2025
7	Signal Generator	Agilent	N5182A	MY47420215	A.01.87	Sep. 29, 2024	Sep. 28, 2025
8	Magnetic Field Probe Tester	Narda	ELT-400	0-0344	N/A	Sep. 29, 2024	Sep. 28, 2025
9	Van der Hoofden measuring head	Schwarzbeck Mess-elektronik	VDHH 9502	9502-039	N/A	Sep. 30, 2024	Sep. 29, 2025
10	Wideband Radio Communication Test	R&S	CMW500	106504	V 3.7.22	Sep. 30, 2024	Sep. 29, 2025
11	MWRF Power Meter Test system	MW	MW100-RF CB	10371	N/A	Sep. 29, 2024	Sep. 28, 2025
12	Power Meter	KEYSIGHT	N1912AP	926431	A.05.00	Sep. 29, 2024	Sep. 28, 2025
13	D.C. Power Supply	LongWei	TPR-6405 D	GQ7516	N/A	Sep. 29, 2024	Sep. 28, 2025
14	RF Software	MW	MTS8310	V2.0.0.0	N/A	\	\



4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
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

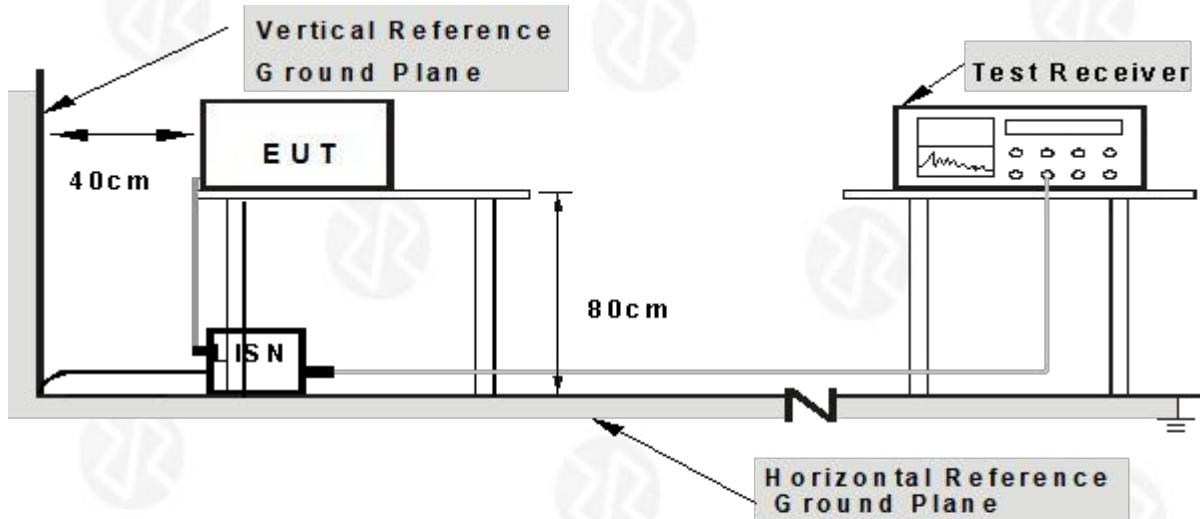
- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 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.

4.1.3 DEVIATION FROM TEST STANDARD

No deviation



4.1.4 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 cm from other units and other metal planes

4.1.5 EUT OPERATING CONDITIONS

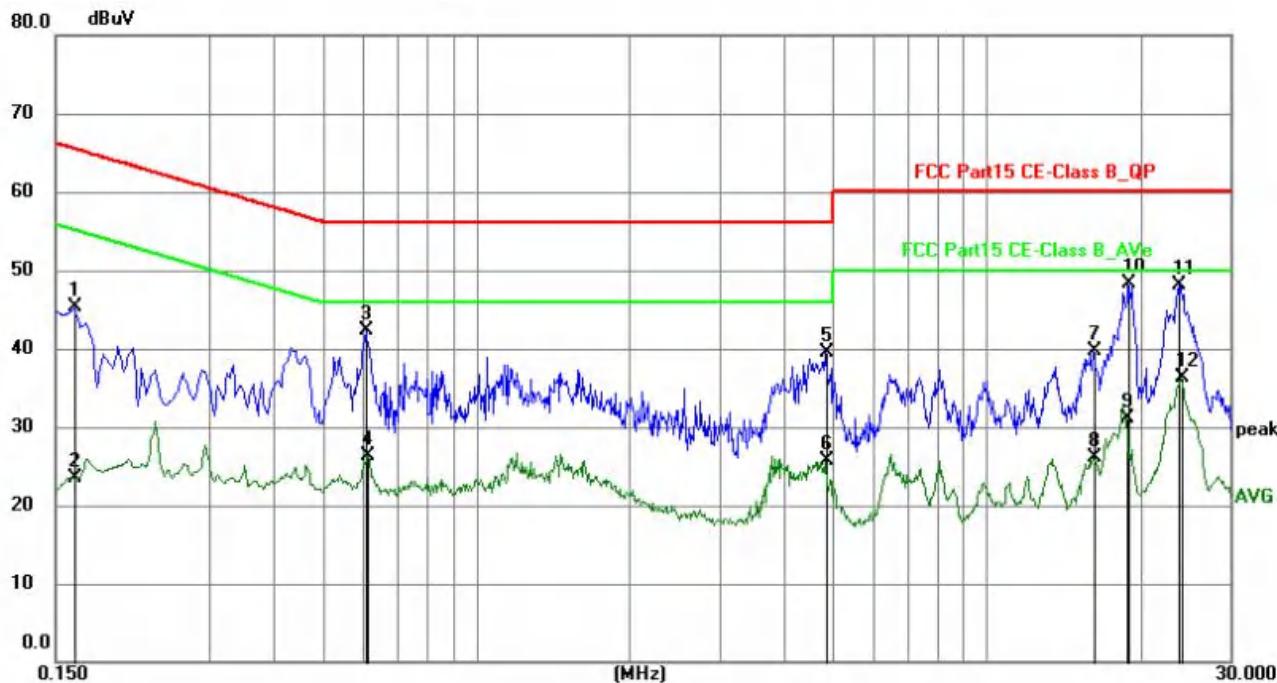
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

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



4.1.6 Test Result

Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	L
Test Voltage:	AC 120V/60Hz		



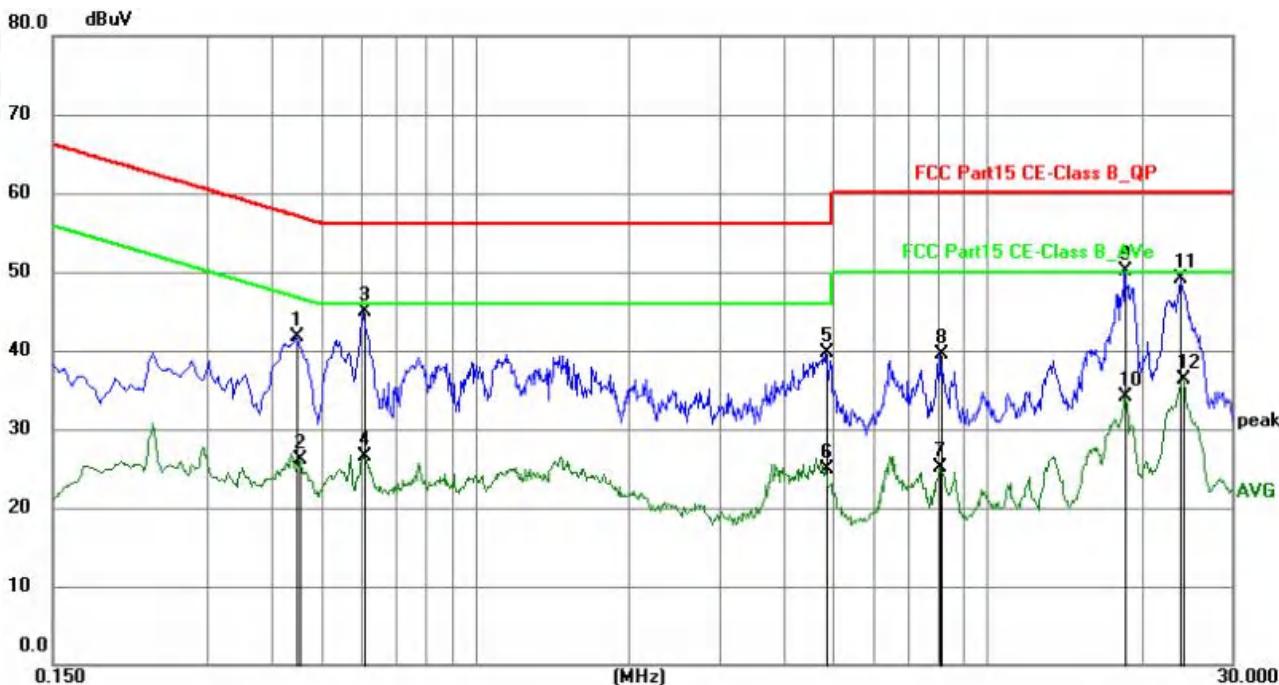
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1635	24.33	20.89	45.22	65.28	-20.06	QP	P	
2	0.1641	2.54	20.89	23.43	55.25	-31.82	AVG	P	
3	0.6089	21.43	20.87	42.30	56.00	-13.70	QP	P	
4	0.6134	5.47	20.87	26.34	46.00	-19.66	AVG	P	
5	4.8480	18.17	21.24	39.41	56.00	-16.59	QP	P	
6	4.8480	4.51	21.24	25.75	46.00	-20.25	AVG	P	
7	16.1790	16.53	23.11	39.64	60.00	-20.36	QP	P	
8	16.1790	3.09	23.11	26.20	50.00	-23.80	AVG	P	
9	18.7260	7.64	23.55	31.19	50.00	-18.81	AVG	P	
10	18.9420	24.68	23.60	48.28	60.00	-11.72	QP	P	
11	23.8380	23.79	24.37	48.16	60.00	-11.84	QP	P	
12	24.0540	11.80	24.41	36.21	50.00	-13.79	AVG	P	

Notes:

- An initial pre-scan was performed on the line and neutral lines with peak detector.
- Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- Measurement Level = Reading level + Correct Factor
- The test data shows only the worst case 802.11g 2437MHz



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	N
Test Voltage:	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.4470	20.83	20.90	41.73	56.93	-15.20	QP	P	
2	0.4560	5.14	20.89	26.03	46.77	-20.74	AVG	P	
3	0.6044	23.98	20.83	44.81	56.00	-11.19	QP	P	
4	0.6044	5.76	20.83	26.59	46.00	-19.41	AVG	P	
5	4.8480	18.47	21.18	39.65	56.00	-16.35	QP	P	
6	4.8480	3.71	21.18	24.89	46.00	-21.11	AVG	P	
7	8.0925	3.45	21.65	25.10	50.00	-24.90	AVG	P	
8	8.1420	17.84	21.66	39.50	60.00	-20.50	QP	P	
9	18.5505	26.62	23.46	50.08	60.00	-9.92	QP	P	
10	18.5505	10.63	23.46	34.09	50.00	-15.91	AVG	P	
11	23.7930	24.82	24.32	49.14	60.00	-10.86	QP	P	
12	24.0450	11.88	24.36	36.24	50.00	-13.76	AVG	P	

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.Measurement Level = Reading level + Correct Factor
- 4.The test data shows only the worst case 802.11g 2437MHz



4.2 RADIATED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.10:2013				
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	100KHz	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 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 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 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 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:

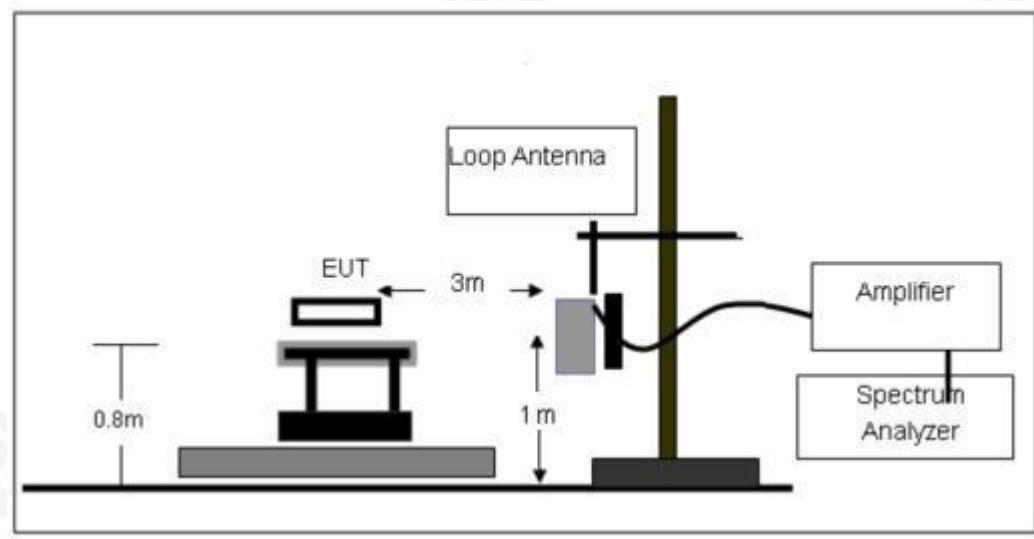
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

4.2.3 DEVIATION FROM TEST STANDARD

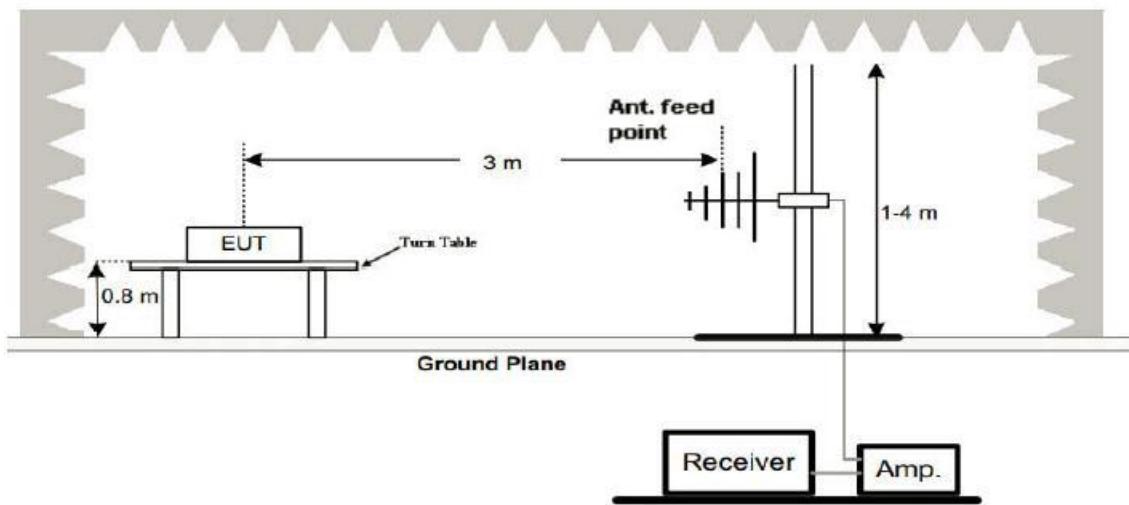
No deviation

4.2.4 TEST SETUP

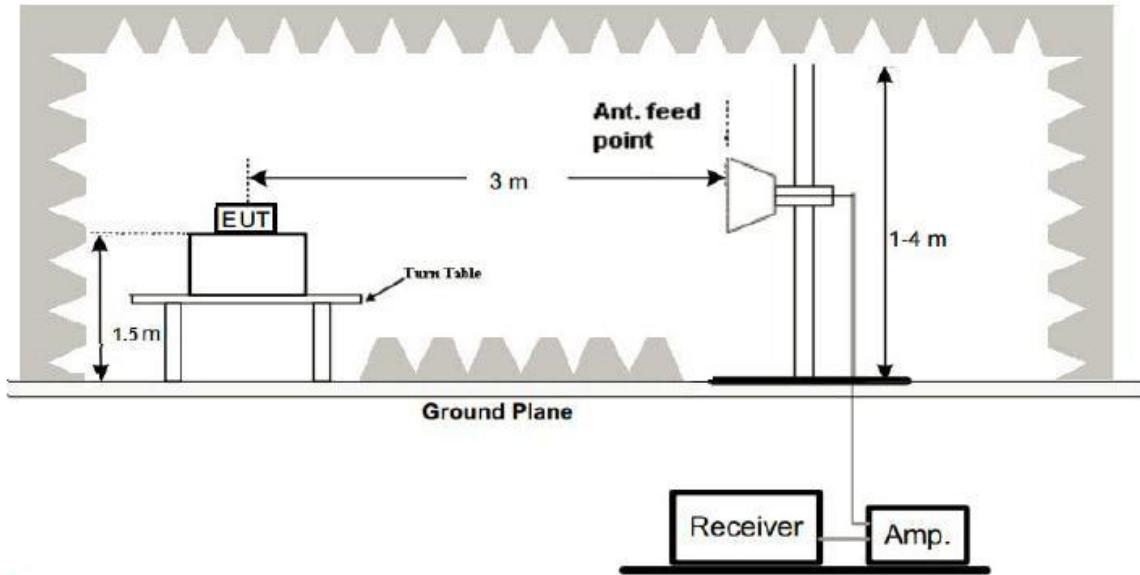
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



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



4.2.5 EUT OPERATING CONDITIONS

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

4.2.6 TEST RESULTS

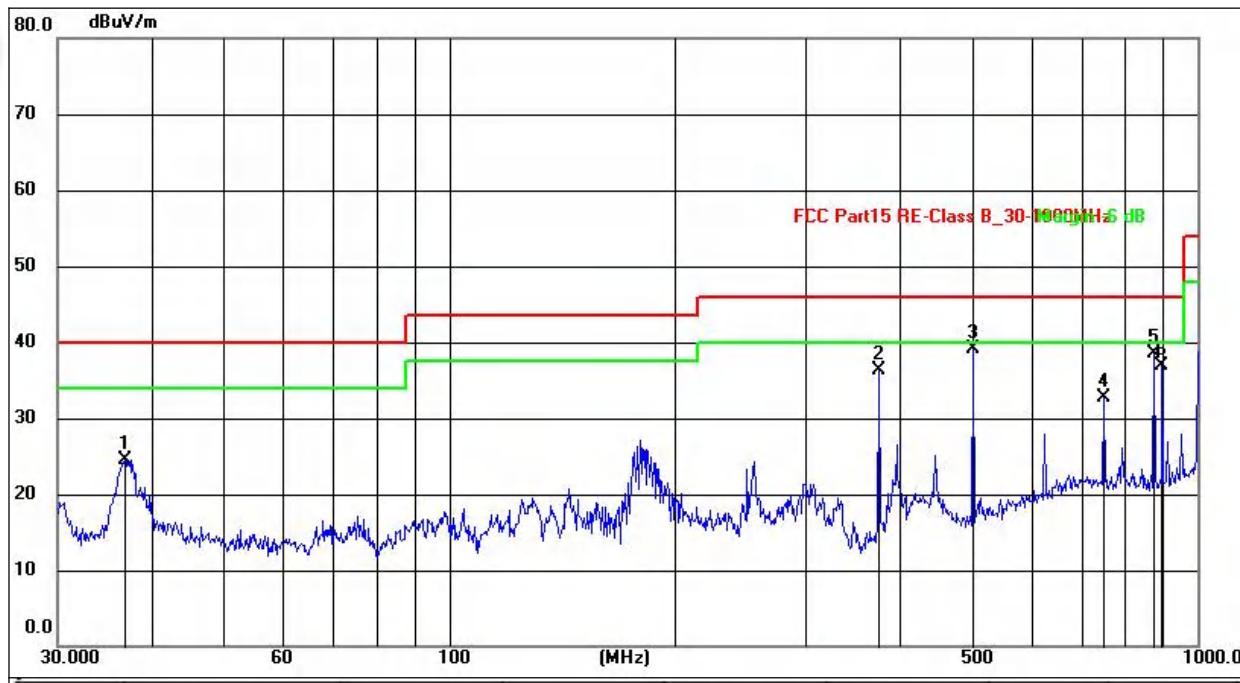
Between 9KHz – 30MHz

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°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	DC 5V	Test Mode	A5 Mini G 802.11g 2437MHz



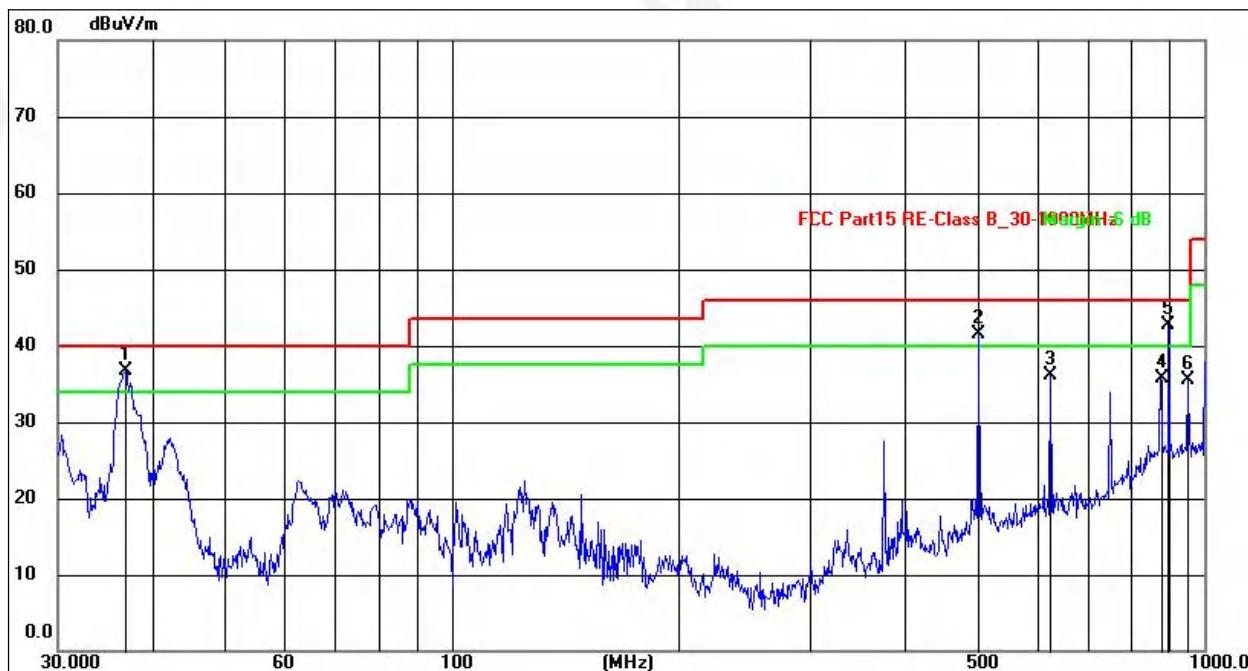
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	36.8953	39.26	-14.70	24.56	40.00	-15.44	QP
2	375.9385	53.04	-16.66	36.38	46.00	-9.62	QP
3	501.1790	50.74	-11.59	39.15	46.00	-6.85	QP
4	750.1082	39.61	-6.82	32.79	46.00	-13.21	QP
5	875.2469	45.45	-6.98	38.47	46.00	-7.53	QP
6	896.9965	43.94	-6.99	36.95	46.00	-9.05	QP

Remarks:

- 1.Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- 2.The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3.The test data shows only the worst case A5 Mini G 802.11g 2437MHz



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Vertical
Test Voltage:	DC 5V	Test Mode	A5 Mini G 802.11g 2437MHz



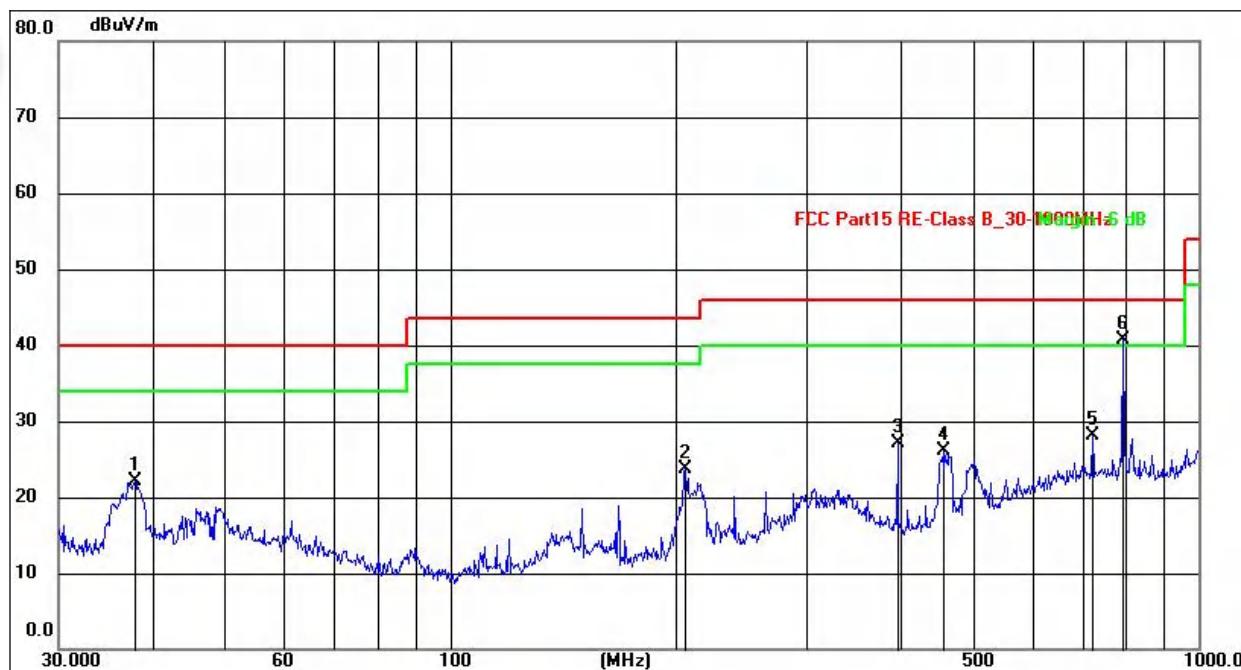
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	36.8953	54.01	-17.32	36.69	40.00	-3.31	QP
2	501.1790	53.12	-11.53	41.59	46.00	-4.41	QP
3	625.0780	43.76	-7.73	36.03	46.00	-9.97	QP
4	875.2470	37.15	-1.44	35.71	46.00	-10.29	QP
5	896.9965	43.46	-0.82	42.64	46.00	-3.36	QP
6	952.0937	35.98	-0.47	35.51	46.00	-10.49	QP

Remarks:

- 1.Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- 2.The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3.The test data shows only the worst case A5 Mini G 802.11g 2437MHz



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	DC 5V	Test Mode	A5 Mini G TX 802.11g 2437MHz



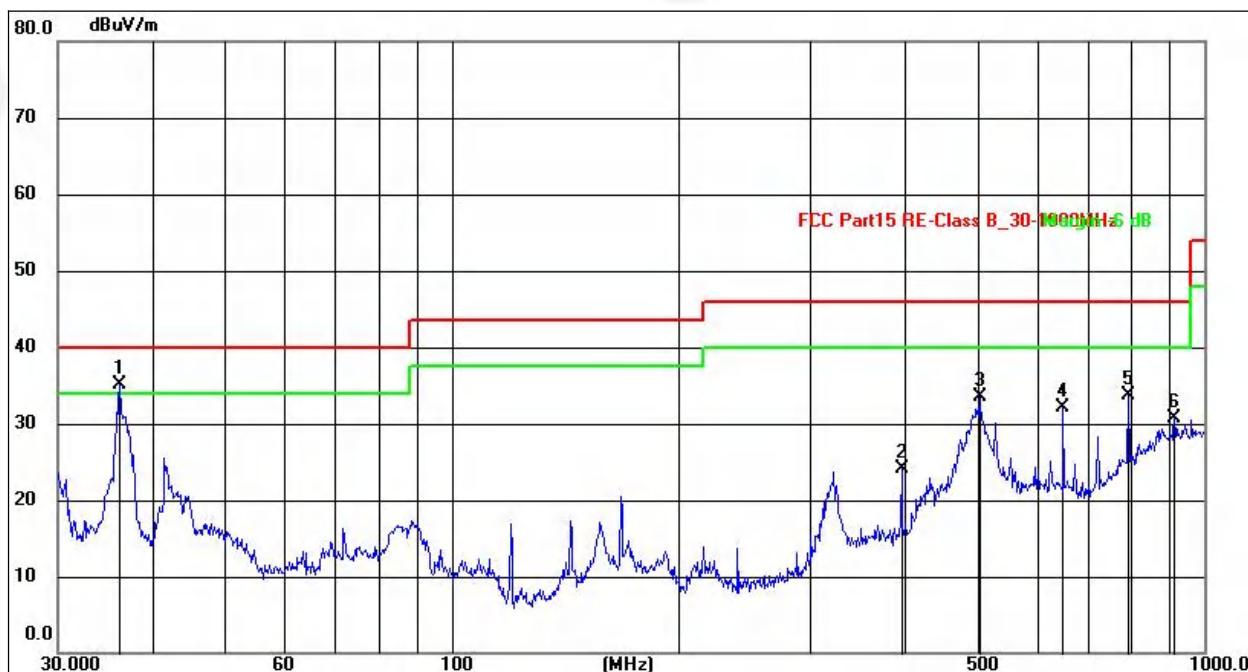
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	37.9448	36.46	-14.41	22.05	40.00	-17.95	QP
2	206.3975	41.96	-18.17	23.79	43.50	-19.71	QP
3	396.2414	43.19	-16.07	27.12	46.00	-18.88	QP
4	455.9057	39.27	-13.25	26.02	46.00	-19.98	QP
5	721.7258	34.58	-6.48	28.10	46.00	-17.90	QP
6	793.3958	47.34	-6.64	40.70	46.00	-5.30	QP

Remarks:

- 1.Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- 2.The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3.The test data shows only the worst case A5 Mini G TX 802.11g 2437MHz
- 4 For the additional model variants, random sampling tests were conducted on 10 casings in total. This particular dataset is identified as the worst - performing among all tested groups.



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Vertical
Test Voltage:	DC 5V	Test Mode	A5 Mini G TX 802.11g 2437MHz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	36.2539	52.35	-17.31	35.04	40.00	-4.96	QP
2	396.2412	38.79	-14.64	24.15	46.00	-21.85	QP
3	502.9395	44.31	-10.87	33.44	46.00	-12.56	QP
4	649.6594	39.50	-7.34	32.16	46.00	-13.84	QP
5	793.3958	37.26	-3.55	33.71	46.00	-12.29	QP
6	912.8618	31.17	-0.37	30.80	46.00	-15.20	QP

Remarks:

- 1.Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- 2.The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3.The test data shows only the worst case A5 Mini G TX 802.11g 2437MHz
- 4 For the additional model variants, random sampling tests were conducted on 10 casings in total. This particular dataset is identified as the worst - performing among all tested groups.



A5 Mini G 1GHz~25GHz

802.11b

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)	
Low Channel:2412MHz									
V	4824.00	51.77	30.55	5.77	24.66	51.65	74.00	-22.35	PK
V	4824.00	43.05	30.55	5.77	24.66	42.93	54.00	-11.07	AV
V	7236.00	53.73	30.33	6.32	24.55	54.27	74.00	-19.73	PK
V	7236.00	43.32	30.33	6.32	24.55	43.86	54.00	-10.14	AV
V	9648.00	52.54	30.85	7.45	24.69	53.83	74.00	-20.17	PK
V	9648.00	43.50	30.85	7.45	24.69	44.79	54.00	-9.21	AV
V	12060.00	54.74	31.02	8.99	25.57	58.28	74.00	-15.72	PK
V	12060.00	43.87	31.02	8.99	25.57	47.41	54.00	-6.59	AV
H	4824.00	53.14	30.55	5.77	24.66	53.02	74.00	-20.98	PK
H	4824.00	43.40	30.55	5.77	24.66	43.28	54.00	-10.72	AV
H	7236.00	54.85	30.33	6.32	24.55	55.39	74.00	-18.61	PK
H	7236.00	43.42	30.33	6.32	24.55	43.96	54.00	-10.04	AV
H	9648.00	51.44	30.85	7.45	24.69	52.73	74.00	-21.27	PK
H	9648.00	43.33	30.85	7.45	24.69	44.62	54.00	-9.38	AV
H	12060.00	52.91	31.02	8.99	25.57	56.45	74.00	-17.55	PK
H	12060.00	43.52	31.02	8.99	25.57	47.06	54.00	-6.94	AV
Middle Channel:2437MHz									
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)	
V	4874.00	54.64	30.55	5.77	24.66	54.52	74.00	-19.48	PK
V	4874.00	43.47	30.55	5.77	24.66	43.35	54.00	-10.65	AV
V	7311.00	51.92	30.33	6.32	24.55	52.46	74.00	-21.54	PK
V	7311.00	43.70	30.33	6.32	24.55	44.24	54.00	-9.76	AV
V	9748.00	51.70	30.85	7.45	24.69	52.99	74.00	-21.01	PK
V	9748.00	43.25	30.85	7.45	24.69	44.54	54.00	-9.46	AV
V	12185.00	52.72	31.02	8.99	25.57	56.26	74.00	-17.74	PK
V	12185.00	43.04	31.02	8.99	25.57	46.58	54.00	-7.42	AV
H	4874.00	52.32	30.55	5.77	24.66	52.20	74.00	-21.80	PK
H	4874.00	43.12	30.55	5.77	24.66	43.00	54.00	-11.00	AV
H	7311.00	54.60	30.33	6.32	24.55	55.14	74.00	-18.86	PK
H	7311.00	43.62	30.33	6.32	24.55	44.16	54.00	-9.84	AV
H	9748.00	52.70	30.85	7.45	24.69	53.99	74.00	-20.01	PK
H	9748.00	43.20	30.85	7.45	24.69	44.49	54.00	-9.51	AV
H	12185.00	54.70	31.02	8.99	25.57	58.24	74.00	-15.76	PK
H	12185.00	43.82	31.02	8.99	25.57	47.36	54.00	-6.64	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	51.70	30.55	5.77	24.66	51.58	74.00	-22.42	PK
V	4924.00	43.59	30.55	5.77	24.66	43.47	54.00	-10.53	AV
V	7386.00	50.70	30.33	6.32	24.55	51.24	74.00	-22.76	PK
V	7386.00	43.17	30.33	6.32	24.55	43.71	54.00	-10.29	AV
V	9848.00	52.09	30.85	7.45	24.69	53.38	74.00	-20.62	PK
V	9848.00	43.38	30.85	7.45	24.69	44.67	54.00	-9.33	AV
V	12310.00	50.90	31.02	8.99	25.57	54.44	74.00	-19.56	PK
V	12310.00	43.56	31.02	8.99	25.57	47.10	54.00	-6.90	AV
H	4924.00	53.13	30.55	5.77	24.66	53.01	74.00	-20.99	PK
H	4924.00	43.30	30.55	5.77	24.66	43.18	54.00	-10.82	AV
H	7386.00	52.44	30.33	6.32	24.55	52.98	74.00	-21.02	PK
H	7386.00	43.30	30.33	6.32	24.55	43.84	54.00	-10.16	AV
H	9848.00	54.73	30.85	7.45	24.69	56.02	74.00	-17.98	PK
H	9848.00	43.03	30.85	7.45	24.69	44.32	54.00	-9.68	AV
H	12310.00	54.69	31.02	8.99	25.57	58.23	74.00	-15.77	PK
H	12310.00	43.20	31.02	8.99	25.57	46.74	54.00	-7.26	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.



802.11g

Polar (H/V)	Frequency	Meter Reading	Pre-amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dB)	(dB)	
Low Channel:2412MHz									
V	4824.00	52.90	30.55	5.77	24.66	52.78	74.00	-21.22	PK
V	4824.00	43.82	30.55	5.77	24.66	43.70	54.00	-10.30	AV
V	7236.00	51.71	30.33	6.32	24.55	52.25	74.00	-21.75	PK
V	7236.00	43.03	30.33	6.32	24.55	43.57	54.00	-10.43	AV
V	9648.00	53.47	30.85	7.45	24.69	54.76	74.00	-19.24	PK
V	9648.00	43.34	30.85	7.45	24.69	44.63	54.00	-9.37	AV
V	12060.00	50.88	31.02	8.99	25.57	54.42	74.00	-19.58	PK
V	12060.00	43.51	31.02	8.99	25.57	47.05	54.00	-6.95	AV
H	4824.00	51.56	30.55	5.77	24.66	51.44	74.00	-22.56	PK
H	4824.00	43.96	30.55	5.77	24.66	43.84	54.00	-10.16	AV
H	7236.00	51.10	30.33	6.32	24.55	51.64	74.00	-22.36	PK
H	7236.00	43.17	30.33	6.32	24.55	43.71	54.00	-10.29	AV
H	9648.00	52.70	30.85	7.45	24.69	53.99	74.00	-20.01	PK
H	9648.00	43.57	30.85	7.45	24.69	44.86	54.00	-9.14	AV
H	12060.00	51.49	31.02	8.99	25.57	55.03	74.00	-18.97	PK
H	12060.00	43.80	31.02	8.99	25.57	47.34	54.00	-6.66	AV
Middle Channel:2437MHz									
V	4874.00	53.67	30.55	5.77	24.66	53.55	74.00	-20.45	PK
V	4874.00	43.78	30.55	5.77	24.66	43.66	54.00	-10.34	AV
V	7311.00	53.36	30.33	6.32	24.55	53.90	74.00	-20.10	PK
V	7311.00	43.16	30.33	6.32	24.55	43.70	54.00	-10.30	AV
V	9748.00	53.16	30.85	7.45	24.69	54.45	74.00	-19.55	PK
V	9748.00	43.79	30.85	7.45	24.69	45.08	54.00	-8.92	AV
V	12185.00	52.48	31.02	8.99	25.57	56.02	74.00	-17.98	PK
V	12185.00	43.52	31.02	8.99	25.57	47.06	54.00	-6.94	AV
H	4874.00	50.34	30.55	5.77	24.66	50.22	74.00	-23.78	PK
H	4874.00	43.03	30.55	5.77	24.66	42.91	54.00	-11.09	AV
H	7311.00	51.11	30.33	6.32	24.55	51.65	74.00	-22.35	PK
H	7311.00	43.13	30.33	6.32	24.55	43.67	54.00	-10.33	AV
H	9748.00	54.10	30.85	7.45	24.69	55.39	74.00	-18.61	PK
H	9748.00	43.94	30.85	7.45	24.69	45.23	54.00	-8.77	AV
H	12185.00	50.69	31.02	8.99	25.57	54.23	74.00	-19.77	PK
H	12185.00	43.06	31.02	8.99	25.57	46.60	54.00	-7.40	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	53.97	30.55	5.77	24.66	53.85	74.00	-20.15	PK
V	4924.00	43.18	30.55	5.77	24.66	43.06	54.00	-10.94	AV
V	7386.00	50.79	30.33	6.32	24.55	51.33	74.00	-22.67	PK
V	7386.00	43.05	30.33	6.32	24.55	43.59	54.00	-10.41	AV
V	9848.00	53.67	30.85	7.45	24.69	54.96	74.00	-19.04	PK
V	9848.00	43.37	30.85	7.45	24.69	44.66	54.00	-9.34	AV
V	12310.00	50.53	31.02	8.99	25.57	54.07	74.00	-19.93	PK
V	12310.00	43.50	31.02	8.99	25.57	47.04	54.00	-6.96	AV
H	4924.00	51.80	30.55	5.77	24.66	51.68	74.00	-22.32	PK
H	4924.00	43.41	30.55	5.77	24.66	43.29	54.00	-10.71	AV
H	7386.00	51.97	30.33	6.32	24.55	52.51	74.00	-21.49	PK
H	7386.00	43.64	30.33	6.32	24.55	44.18	54.00	-9.82	AV
H	9848.00	51.42	30.85	7.45	24.69	52.71	74.00	-21.29	PK
H	9848.00	43.09	30.85	7.45	24.69	44.38	54.00	-9.62	AV
H	12310.00	50.95	31.02	8.99	25.57	54.49	74.00	-19.51	PK
H	12310.00	43.20	31.02	8.99	25.57	46.74	54.00	-7.26	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.



802.11n20

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)	(dB)	(dB)	
Low Channel:2412MHz									
V	4824.00	51.50	30.55	5.77	24.66	51.38	74.00	-22.62	PK
V	4824.00	43.44	30.55	5.77	24.66	43.32	54.00	-10.68	AV
V	7236.00	50.61	30.33	6.32	24.55	51.15	74.00	-22.85	PK
V	7236.00	44.00	30.33	6.32	24.55	44.54	54.00	-9.46	AV
V	9648.00	51.16	30.85	7.45	24.69	52.45	74.00	-21.55	PK
V	9648.00	43.59	30.85	7.45	24.69	44.88	54.00	-9.12	AV
V	12060.00	50.20	31.02	8.99	25.57	53.74	74.00	-20.26	PK
V	12060.00	43.90	31.02	8.99	25.57	47.44	54.00	-6.56	AV
H	4824.00	54.69	30.55	5.77	24.66	54.57	74.00	-19.43	PK
H	4824.00	43.51	30.55	5.77	24.66	43.39	54.00	-10.61	AV
H	7236.00	50.28	30.33	6.32	24.55	50.82	74.00	-23.18	PK
H	7236.00	43.08	30.33	6.32	24.55	43.62	54.00	-10.38	AV
H	9648.00	53.72	30.85	7.45	24.69	55.01	74.00	-18.99	PK
H	9648.00	43.60	30.85	7.45	24.69	44.89	54.00	-9.11	AV
H	12060.00	52.91	31.02	8.99	25.57	56.45	74.00	-17.55	PK
H	12060.00	43.25	31.02	8.99	25.57	46.79	54.00	-7.21	AV
Middle Channel:2437MHz									
V	4874.00	51.76	30.55	5.77	24.66	51.64	74.00	-22.36	PK
V	4874.00	43.85	30.55	5.77	24.66	43.73	54.00	-10.27	AV
V	7311.00	54.40	30.33	6.32	24.55	54.94	74.00	-19.06	PK
V	7311.00	43.68	30.33	6.32	24.55	44.22	54.00	-9.78	AV
V	9748.00	50.02	30.85	7.45	24.69	51.31	74.00	-22.69	PK
V	9748.00	43.62	30.85	7.45	24.69	44.91	54.00	-9.09	AV
V	12185.00	53.94	31.02	8.99	25.57	57.48	74.00	-16.52	PK
V	12185.00	43.37	31.02	8.99	25.57	46.91	54.00	-7.09	AV
H	4874.00	53.93	30.55	5.77	24.66	53.81	74.00	-20.19	PK
H	4874.00	43.90	30.55	5.77	24.66	43.78	54.00	-10.22	AV
H	7311.00	50.03	30.33	6.32	24.55	50.57	74.00	-23.43	PK
H	7311.00	43.07	30.33	6.32	24.55	43.61	54.00	-10.39	AV
H	9748.00	53.20	30.85	7.45	24.69	54.49	74.00	-19.51	PK
H	9748.00	43.98	30.85	7.45	24.69	45.27	54.00	-8.73	AV
H	12185.00	51.12	31.02	8.99	25.57	54.66	74.00	-19.34	PK
H	12185.00	43.92	31.02	8.99	25.57	47.46	54.00	-6.54	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	50.37	30.55	5.77	24.66	50.25	74.00	-23.75	PK
V	4924.00	43.47	30.55	5.77	24.66	43.35	54.00	-10.65	AV
V	7386.00	51.44	30.33	6.32	24.55	51.98	74.00	-22.02	PK
V	7386.00	43.52	30.33	6.32	24.55	44.06	54.00	-9.94	AV
V	9848.00	50.67	30.85	7.45	24.69	51.96	74.00	-22.04	PK
V	9848.00	43.52	30.85	7.45	24.69	44.81	54.00	-9.19	AV
V	12310.00	51.95	31.02	8.99	25.57	55.49	74.00	-18.51	PK
V	12310.00	43.72	31.02	8.99	25.57	47.26	54.00	-6.74	AV
H	4924.00	52.55	30.55	5.77	24.66	52.43	74.00	-21.57	PK
H	4924.00	43.73	30.55	5.77	24.66	43.61	54.00	-10.39	AV
H	7386.00	51.26	30.33	6.32	24.55	51.80	74.00	-22.20	PK
H	7386.00	43.44	30.33	6.32	24.55	43.98	54.00	-10.02	AV
H	9848.00	51.76	30.85	7.45	24.69	53.05	74.00	-20.95	PK
H	9848.00	43.15	30.85	7.45	24.69	44.44	54.00	-9.56	AV
H	12310.00	53.96	31.02	8.99	25.57	57.50	74.00	-16.50	PK
H	12310.00	43.51	31.02	8.99	25.57	47.05	54.00	-6.95	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.



802.11n40

Polar (H/V)	Frequenc	Meter	Pre-ampli	Cable	Antenna	Emission	Limits	Margin	Detect or Type
	(MHz)	Reading	fier	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Low Channel:2422MHz									
V	4844.00	53.92	30.55	5.77	24.66	53.80	74.00	-20.20	PK
V	4844.00	43.07	30.55	5.77	24.66	42.95	54.00	-11.05	AV
V	7266.00	54.02	30.33	6.32	24.55	54.56	74.00	-19.44	PK
V	7266.00	43.90	30.33	6.32	24.55	44.44	54.00	-9.56	AV
V	9688.00	54.34	30.85	7.45	24.69	55.63	74.00	-18.37	PK
V	9688.00	43.46	30.85	7.45	24.69	44.75	54.00	-9.25	AV
V	12110.00	51.34	31.02	8.99	25.57	54.88	74.00	-19.12	PK
V	12110.00	43.47	31.02	8.99	25.57	47.01	54.00	-6.99	AV
H	4844.00	53.46	30.55	5.77	24.66	53.34	74.00	-20.66	PK
H	4844.00	43.39	30.55	5.77	24.66	43.27	54.00	-10.73	AV
H	7266.00	52.83	30.33	6.32	24.55	53.37	74.00	-20.63	PK
H	7266.00	43.75	30.33	6.32	24.55	44.29	54.00	-9.71	AV
H	9688.00	52.92	30.85	7.45	24.69	54.21	74.00	-19.79	PK
H	9688.00	43.80	30.85	7.45	24.69	45.09	54.00	-8.91	AV
H	12110.00	54.48	31.02	8.99	25.57	58.02	74.00	-15.98	PK
H	12110.00	43.71	31.02	8.99	25.57	47.25	54.00	-6.75	AV

Polar (H/V)	Frequenc	Meter	Pre-ampli	Cable	Antenna	Emission	Limits	Margin	Detect or Type
	(MHz)	Reading	fier	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Middle Channel:2437MHz									
V	4874.00	53.16	30.55	5.77	24.66	53.04	74.00	-20.96	PK
V	4874.00	43.89	30.55	5.77	24.66	43.77	54.00	-10.23	AV
V	7311.00	50.62	30.33	6.32	24.55	51.16	74.00	-22.84	PK
V	7311.00	43.26	30.33	6.32	24.55	43.80	54.00	-10.20	AV
V	9748.00	54.95	30.85	7.45	24.69	56.24	74.00	-17.76	PK
V	9748.00	43.46	30.85	7.45	24.69	44.75	54.00	-9.25	AV
V	12185.00	54.20	31.02	8.99	25.57	57.74	74.00	-16.26	PK
V	12185.00	43.72	31.02	8.99	25.57	47.26	54.00	-6.74	AV
H	4874.00	53.53	30.55	5.77	24.66	53.41	74.00	-20.59	PK
H	4874.00	43.52	30.55	5.77	24.66	43.40	54.00	-10.60	AV
H	7311.00	54.35	30.33	6.32	24.55	54.89	74.00	-19.11	PK
H	7311.00	43.52	30.33	6.32	24.55	44.06	54.00	-9.94	AV
H	9748.00	54.00	30.85	7.45	24.69	55.29	74.00	-18.71	PK
H	9748.00	43.12	30.85	7.45	24.69	44.41	54.00	-9.59	AV
H	12185.00	54.58	31.02	8.99	25.57	58.12	74.00	-15.88	PK
H	12185.00	43.04	31.02	8.99	25.57	46.58	54.00	-7.42	AV



Polar (H/V)	Frequency	Meter Reading	Pre-amp lifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:2452MHz									
V	4904.00	50.71	30.55	5.77	24.66	50.59	74.00	-23.41	PK
V	4904.00	43.47	30.55	5.77	24.66	43.35	54.00	-10.65	AV
V	7356.00	50.57	30.33	6.32	24.55	51.11	74.00	-22.89	PK
V	7356.00	43.88	30.33	6.32	24.55	44.42	54.00	-9.58	AV
V	9808.00	52.17	30.85	7.45	24.69	53.46	74.00	-20.54	PK
V	9808.00	43.04	30.85	7.45	24.69	44.33	54.00	-9.67	AV
V	12260.00	50.62	31.02	8.99	25.57	54.16	74.00	-19.84	PK
V	12260.00	43.69	31.02	8.99	25.57	47.23	54.00	-6.77	AV
H	4904.00	52.32	30.55	5.77	24.66	52.20	74.00	-21.80	PK
H	4904.00	43.82	30.55	5.77	24.66	43.70	54.00	-10.30	AV
H	7356.00	51.25	30.33	6.32	24.55	51.79	74.00	-22.21	PK
H	7356.00	43.59	30.33	6.32	24.55	44.13	54.00	-9.87	AV
H	9808.00	50.86	30.85	7.45	24.69	52.15	74.00	-21.85	PK
H	9808.00	43.74	30.85	7.45	24.69	45.03	54.00	-8.97	AV
H	12260.00	54.42	31.02	8.99	25.57	57.96	74.00	-16.04	PK
H	12260.00	43.35	31.02	8.99	25.57	46.89	54.00	-7.11	AV

Remark:

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



A5 Mini G 1GHz~25GHz

802.11b

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampl ifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detec or Type
Low Channel:2412MHz									
V	4824.00	54.21	30.55	5.77	24.66	54.09	74.00	-19.91	PK
V	4824.00	43.00	30.55	5.77	24.66	42.88	54.00	-11.12	AV
V	7236.00	52.90	30.33	6.32	24.55	53.44	74.00	-20.56	PK
V	7236.00	43.91	30.33	6.32	24.55	44.45	54.00	-9.55	AV
V	9648.00	54.05	30.85	7.45	24.69	55.34	74.00	-18.66	PK
V	9648.00	43.74	30.85	7.45	24.69	45.03	54.00	-8.97	AV
V	12060.00	54.32	31.02	8.99	25.57	57.86	74.00	-16.14	PK
V	12060.00	43.28	31.02	8.99	25.57	46.82	54.00	-7.18	AV
H	4824.00	50.59	30.55	5.77	24.66	50.47	74.00	-23.53	PK
H	4824.00	43.35	30.55	5.77	24.66	43.23	54.00	-10.77	AV
H	7236.00	52.47	30.33	6.32	24.55	53.01	74.00	-20.99	PK
H	7236.00	43.56	30.33	6.32	24.55	44.10	54.00	-9.90	AV
H	9648.00	52.33	30.85	7.45	24.69	53.62	74.00	-20.38	PK
H	9648.00	43.85	30.85	7.45	24.69	45.14	54.00	-8.86	AV
H	12060.00	54.14	31.02	8.99	25.57	57.68	74.00	-16.32	PK
H	12060.00	43.66	31.02	8.99	25.57	47.20	54.00	-6.80	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampl ifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detec or Type
Middle Channel:2437MHz									
V	4874.00	51.11	30.55	5.77	24.66	50.99	74.00	-23.01	PK
V	4874.00	43.59	30.55	5.77	24.66	43.47	54.00	-10.53	AV
V	7311.00	51.79	30.33	6.32	24.55	52.33	74.00	-21.67	PK
V	7311.00	43.34	30.33	6.32	24.55	43.88	54.00	-10.12	AV
V	9748.00	54.47	30.85	7.45	24.69	55.76	74.00	-18.24	PK
V	9748.00	43.73	30.85	7.45	24.69	45.02	54.00	-8.98	AV
V	12185.00	54.46	31.02	8.99	25.57	58.00	74.00	-16.00	PK
V	12185.00	43.54	31.02	8.99	25.57	47.08	54.00	-6.92	AV
H	4874.00	51.58	30.55	5.77	24.66	51.46	74.00	-22.54	PK
H	4874.00	43.51	30.55	5.77	24.66	43.39	54.00	-10.61	AV
H	7311.00	50.08	30.33	6.32	24.55	50.62	74.00	-23.38	PK
H	7311.00	43.68	30.33	6.32	24.55	44.22	54.00	-9.78	AV
H	9748.00	53.94	30.85	7.45	24.69	55.23	74.00	-18.77	PK
H	9748.00	43.27	30.85	7.45	24.69	44.56	54.00	-9.44	AV
H	12185.00	53.54	31.02	8.99	25.57	57.08	74.00	-16.92	PK
H	12185.00	43.55	31.02	8.99	25.57	47.09	54.00	-6.91	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	54.11	30.55	5.77	24.66	53.99	74.00	-20.01	PK
V	4924.00	43.75	30.55	5.77	24.66	43.63	54.00	-10.37	AV
V	7386.00	50.82	30.33	6.32	24.55	51.36	74.00	-22.64	PK
V	7386.00	43.73	30.33	6.32	24.55	44.27	54.00	-9.73	AV
V	9848.00	50.55	30.85	7.45	24.69	51.84	74.00	-22.16	PK
V	9848.00	43.50	30.85	7.45	24.69	44.79	54.00	-9.21	AV
V	12310.00	53.66	31.02	8.99	25.57	57.20	74.00	-16.80	PK
V	12310.00	43.97	31.02	8.99	25.57	47.51	54.00	-6.49	AV
H	4924.00	52.86	30.55	5.77	24.66	52.74	74.00	-21.26	PK
H	4924.00	43.65	30.55	5.77	24.66	43.53	54.00	-10.47	AV
H	7386.00	54.47	30.33	6.32	24.55	55.01	74.00	-18.99	PK
H	7386.00	43.47	30.33	6.32	24.55	44.01	54.00	-9.99	AV
H	9848.00	53.13	30.85	7.45	24.69	54.42	74.00	-19.58	PK
H	9848.00	43.52	30.85	7.45	24.69	44.81	54.00	-9.19	AV
H	12310.00	52.06	31.02	8.99	25.57	55.60	74.00	-18.40	PK
H	12310.00	44.00	31.02	8.99	25.57	47.54	54.00	-6.46	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. For the additional model variants, random sampling tests were conducted on 10 casings in total. This particular dataset is identified as the worst - performing among all tested groups.



802.11g

Polar (H/V)	Frequency	Meter Reading	Pre-amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dB)	(dB)	
Low Channel:2412MHz									
V	4824.00	53.86	30.55	5.77	24.66	53.74	74.00	-20.26	PK
V	4824.00	43.88	30.55	5.77	24.66	43.76	54.00	-10.24	AV
V	7236.00	50.27	30.33	6.32	24.55	50.81	74.00	-23.19	PK
V	7236.00	43.91	30.33	6.32	24.55	44.45	54.00	-9.55	AV
V	9648.00	54.10	30.85	7.45	24.69	55.39	74.00	-18.61	PK
V	9648.00	43.35	30.85	7.45	24.69	44.64	54.00	-9.36	AV
V	12060.00	51.76	31.02	8.99	25.57	55.30	74.00	-18.70	PK
V	12060.00	43.18	31.02	8.99	25.57	46.72	54.00	-7.28	AV
H	4824.00	54.70	30.55	5.77	24.66	54.58	74.00	-19.42	PK
H	4824.00	43.59	30.55	5.77	24.66	43.47	54.00	-10.53	AV
H	7236.00	50.28	30.33	6.32	24.55	50.82	74.00	-23.18	PK
H	7236.00	43.36	30.33	6.32	24.55	43.90	54.00	-10.10	AV
H	9648.00	53.07	30.85	7.45	24.69	54.36	74.00	-19.64	PK
H	9648.00	43.90	30.85	7.45	24.69	45.19	54.00	-8.81	AV
H	12060.00	50.69	31.02	8.99	25.57	54.23	74.00	-19.77	PK
H	12060.00	43.93	31.02	8.99	25.57	47.47	54.00	-6.53	AV
Middle Channel:2437MHz									
V	4874.00	52.26	30.55	5.77	24.66	52.14	74.00	-21.86	PK
V	4874.00	43.96	30.55	5.77	24.66	43.84	54.00	-10.16	AV
V	7311.00	54.29	30.33	6.32	24.55	54.83	74.00	-19.17	PK
V	7311.00	43.62	30.33	6.32	24.55	44.16	54.00	-9.84	AV
V	9748.00	52.19	30.85	7.45	24.69	53.48	74.00	-20.52	PK
V	9748.00	43.74	30.85	7.45	24.69	45.03	54.00	-8.97	AV
V	12185.00	54.37	31.02	8.99	25.57	57.91	74.00	-16.09	PK
V	12185.00	43.36	31.02	8.99	25.57	46.90	54.00	-7.10	AV
H	4874.00	51.14	30.55	5.77	24.66	51.02	74.00	-22.98	PK
H	4874.00	43.26	30.55	5.77	24.66	43.14	54.00	-10.86	AV
H	7311.00	53.92	30.33	6.32	24.55	54.46	74.00	-19.54	PK
H	7311.00	43.81	30.33	6.32	24.55	44.35	54.00	-9.65	AV
H	9748.00	53.39	30.85	7.45	24.69	54.68	74.00	-19.32	PK
H	9748.00	43.99	30.85	7.45	24.69	45.28	54.00	-8.72	AV
H	12185.00	54.56	31.02	8.99	25.57	58.10	74.00	-15.90	PK
H	12185.00	43.96	31.02	8.99	25.57	47.50	54.00	-6.50	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	53.58	30.55	5.77	24.66	53.46	74.00	-20.54	PK
V	4924.00	43.92	30.55	5.77	24.66	43.80	54.00	-10.20	AV
V	7386.00	53.71	30.33	6.32	24.55	54.25	74.00	-19.75	PK
V	7386.00	43.07	30.33	6.32	24.55	43.61	54.00	-10.39	AV
V	9848.00	52.95	30.85	7.45	24.69	54.24	74.00	-19.76	PK
V	9848.00	43.48	30.85	7.45	24.69	44.77	54.00	-9.23	AV
V	12310.00	50.33	31.02	8.99	25.57	53.87	74.00	-20.13	PK
V	12310.00	43.11	31.02	8.99	25.57	46.65	54.00	-7.35	AV
H	4924.00	50.23	30.55	5.77	24.66	50.11	74.00	-23.89	PK
H	4924.00	43.19	30.55	5.77	24.66	43.07	54.00	-10.93	AV
H	7386.00	51.16	30.33	6.32	24.55	51.70	74.00	-22.30	PK
H	7386.00	43.99	30.33	6.32	24.55	44.53	54.00	-9.47	AV
H	9848.00	53.69	30.85	7.45	24.69	54.98	74.00	-19.02	PK
H	9848.00	43.12	30.85	7.45	24.69	44.41	54.00	-9.59	AV
H	12310.00	51.22	31.02	8.99	25.57	54.76	74.00	-19.24	PK
H	12310.00	43.00	31.02	8.99	25.57	46.54	54.00	-7.46	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. For the additional model variants, random sampling tests were conducted on 10 casings in total. This particular dataset is identified as the worst - performing among all tested groups.



802.11n20

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)	(dB)	(dB)	
Low Channel:2412MHz									
V	4824.00	52.30	30.55	5.77	24.66	52.18	74.00	-21.82	PK
V	4824.00	43.24	30.55	5.77	24.66	43.12	54.00	-10.88	AV
V	7236.00	51.53	30.33	6.32	24.55	52.07	74.00	-21.93	PK
V	7236.00	43.56	30.33	6.32	24.55	44.10	54.00	-9.90	AV
V	9648.00	54.57	30.85	7.45	24.69	55.86	74.00	-18.14	PK
V	9648.00	43.76	30.85	7.45	24.69	45.05	54.00	-8.95	AV
V	12060.00	53.11	31.02	8.99	25.57	56.65	74.00	-17.35	PK
V	12060.00	43.62	31.02	8.99	25.57	47.16	54.00	-6.84	AV
H	4824.00	50.05	30.55	5.77	24.66	49.93	74.00	-24.07	PK
H	4824.00	43.88	30.55	5.77	24.66	43.76	54.00	-10.24	AV
H	7236.00	54.91	30.33	6.32	24.55	55.45	74.00	-18.55	PK
H	7236.00	43.54	30.33	6.32	24.55	44.08	54.00	-9.92	AV
H	9648.00	52.16	30.85	7.45	24.69	53.45	74.00	-20.55	PK
H	9648.00	43.73	30.85	7.45	24.69	45.02	54.00	-8.98	AV
H	12060.00	52.37	31.02	8.99	25.57	55.91	74.00	-18.09	PK
H	12060.00	43.10	31.02	8.99	25.57	46.64	54.00	-7.36	AV
Middle Channel:2437MHz									
V	4874.00	52.13	30.55	5.77	24.66	52.01	74.00	-21.99	PK
V	4874.00	43.48	30.55	5.77	24.66	43.36	54.00	-10.64	AV
V	7311.00	54.27	30.33	6.32	24.55	54.81	74.00	-19.19	PK
V	7311.00	43.05	30.33	6.32	24.55	43.59	54.00	-10.41	AV
V	9748.00	52.62	30.85	7.45	24.69	53.91	74.00	-20.09	PK
V	9748.00	43.22	30.85	7.45	24.69	44.51	54.00	-9.49	AV
V	12185.00	54.36	31.02	8.99	25.57	57.90	74.00	-16.10	PK
V	12185.00	43.51	31.02	8.99	25.57	47.05	54.00	-6.95	AV
H	4874.00	50.92	30.55	5.77	24.66	50.80	74.00	-23.20	PK
H	4874.00	43.39	30.55	5.77	24.66	43.27	54.00	-10.73	AV
H	7311.00	50.00	30.33	6.32	24.55	50.54	74.00	-23.46	PK
H	7311.00	43.95	30.33	6.32	24.55	44.49	54.00	-9.51	AV
H	9748.00	51.43	30.85	7.45	24.69	52.72	74.00	-21.28	PK
H	9748.00	43.76	30.85	7.45	24.69	45.05	54.00	-8.95	AV
H	12185.00	52.86	31.02	8.99	25.57	56.40	74.00	-17.60	PK
H	12185.00	43.53	31.02	8.99	25.57	47.07	54.00	-6.93	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	52.92	30.55	5.77	24.66	52.80	74.00	-21.20	PK
V	4924.00	43.68	30.55	5.77	24.66	43.56	54.00	-10.44	AV
V	7386.00	51.21	30.33	6.32	24.55	51.75	74.00	-22.25	PK
V	7386.00	43.46	30.33	6.32	24.55	44.00	54.00	-10.00	AV
V	9848.00	52.09	30.85	7.45	24.69	53.38	74.00	-20.62	PK
V	9848.00	43.56	30.85	7.45	24.69	44.85	54.00	-9.15	AV
V	12310.00	52.53	31.02	8.99	25.57	56.07	74.00	-17.93	PK
V	12310.00	43.41	31.02	8.99	25.57	46.95	54.00	-7.05	AV
H	4924.00	54.51	30.55	5.77	24.66	54.39	74.00	-19.61	PK
H	4924.00	43.67	30.55	5.77	24.66	43.55	54.00	-10.45	AV
H	7386.00	50.71	30.33	6.32	24.55	51.25	74.00	-22.75	PK
H	7386.00	43.39	30.33	6.32	24.55	43.93	54.00	-10.07	AV
H	9848.00	54.04	30.85	7.45	24.69	55.33	74.00	-18.67	PK
H	9848.00	43.03	30.85	7.45	24.69	44.32	54.00	-9.68	AV
H	12310.00	54.16	31.02	8.99	25.57	57.70	74.00	-16.30	PK
H	12310.00	43.04	31.02	8.99	25.57	46.58	54.00	-7.42	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. For the additional model variants, random sampling tests were conducted on 10 casings in total. This particular dataset is identified as the worst - performing among all tested groups.



802.11n40

Polar (H/V)	Frequenc	Meter	Pre-ampli	Cable	Antenna	Emission	Limits	Margin	Detect or Type
	(MHz)	Reading	fier	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Low Channel:2422MHz									
V	4844.00	52.14	30.55	5.77	24.66	52.02	74.00	-21.98	PK
V	4844.00	43.15	30.55	5.77	24.66	43.03	54.00	-10.97	AV
V	7266.00	51.99	30.33	6.32	24.55	52.53	74.00	-21.47	PK
V	7266.00	43.96	30.33	6.32	24.55	44.50	54.00	-9.50	AV
V	9688.00	53.79	30.85	7.45	24.69	55.08	74.00	-18.92	PK
V	9688.00	43.15	30.85	7.45	24.69	44.44	54.00	-9.56	AV
V	12110.00	50.32	31.02	8.99	25.57	53.86	74.00	-20.14	PK
V	12110.00	43.63	31.02	8.99	25.57	47.17	54.00	-6.83	AV
H	4844.00	54.52	30.55	5.77	24.66	54.40	74.00	-19.60	PK
H	4844.00	43.72	30.55	5.77	24.66	43.60	54.00	-10.40	AV
H	7266.00	54.31	30.33	6.32	24.55	54.85	74.00	-19.15	PK
H	7266.00	43.55	30.33	6.32	24.55	44.09	54.00	-9.91	AV
H	9688.00	54.02	30.85	7.45	24.69	55.31	74.00	-18.69	PK
H	9688.00	43.64	30.85	7.45	24.69	44.93	54.00	-9.07	AV
H	12110.00	51.39	31.02	8.99	25.57	54.93	74.00	-19.07	PK
H	12110.00	43.49	31.02	8.99	25.57	47.03	54.00	-6.97	AV

Polar (H/V)	Frequenc	Meter	Pre-ampli	Cable	Antenna	Emission	Limits	Margin	Detect or Type
	(MHz)	Reading	fier	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Middle Channel:2437MHz									
V	4874.00	51.93	30.55	5.77	24.66	51.81	74.00	-22.19	PK
V	4874.00	43.80	30.55	5.77	24.66	43.68	54.00	-10.32	AV
V	7311.00	52.27	30.33	6.32	24.55	52.81	74.00	-21.19	PK
V	7311.00	43.86	30.33	6.32	24.55	44.40	54.00	-9.60	AV
V	9748.00	51.70	30.85	7.45	24.69	52.99	74.00	-21.01	PK
V	9748.00	43.37	30.85	7.45	24.69	44.66	54.00	-9.34	AV
V	12185.00	52.99	31.02	8.99	25.57	56.53	74.00	-17.47	PK
V	12185.00	43.42	31.02	8.99	25.57	46.96	54.00	-7.04	AV
H	4874.00	52.61	30.55	5.77	24.66	52.49	74.00	-21.51	PK
H	4874.00	43.19	30.55	5.77	24.66	43.07	54.00	-10.93	AV
H	7311.00	51.10	30.33	6.32	24.55	51.64	74.00	-22.36	PK
H	7311.00	43.26	30.33	6.32	24.55	43.80	54.00	-10.20	AV
H	9748.00	51.98	30.85	7.45	24.69	53.27	74.00	-20.73	PK
H	9748.00	43.90	30.85	7.45	24.69	45.19	54.00	-8.81	AV
H	12185.00	53.57	31.02	8.99	25.57	57.11	74.00	-16.89	PK
H	12185.00	43.15	31.02	8.99	25.57	46.69	54.00	-7.31	AV



Polar (H/V)	Frequency	Meter Reading	Pre-amp lifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:2452MHz									
V	4904.00	51.44	30.55	5.77	24.66	51.32	74.00	-22.68	PK
V	4904.00	43.89	30.55	5.77	24.66	43.77	54.00	-10.23	AV
V	7356.00	52.18	30.33	6.32	24.55	52.72	74.00	-21.28	PK
V	7356.00	43.09	30.33	6.32	24.55	43.63	54.00	-10.37	AV
V	9808.00	50.92	30.85	7.45	24.69	52.21	74.00	-21.79	PK
V	9808.00	43.53	30.85	7.45	24.69	44.82	54.00	-9.18	AV
V	12260.00	53.70	31.02	8.99	25.57	57.24	74.00	-16.76	PK
V	12260.00	43.88	31.02	8.99	25.57	47.42	54.00	-6.58	AV
H	4904.00	53.02	30.55	5.77	24.66	52.90	74.00	-21.10	PK
H	4904.00	43.84	30.55	5.77	24.66	43.72	54.00	-10.28	AV
H	7356.00	54.17	30.33	6.32	24.55	54.71	74.00	-19.29	PK
H	7356.00	43.22	30.33	6.32	24.55	43.76	54.00	-10.24	AV
H	9808.00	50.33	30.85	7.45	24.69	51.62	74.00	-22.38	PK
H	9808.00	43.28	30.85	7.45	24.69	44.57	54.00	-9.43	AV
H	12260.00	50.52	31.02	8.99	25.57	54.06	74.00	-19.94	PK
H	12260.00	43.54	31.02	8.99	25.57	47.08	54.00	-6.92	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. For the additional model variants, random sampling tests were conducted on 10 casings in total. This particular dataset is identified as the worst - performing among all tested groups.



5.RADIATED BAND EMISSIONMEASUREMENT

5.1 TEST REQUIREMENT:

Test Requirement:	FCC Part15 C Section 15.209 and 15.205				
Test Method:	ANSI C63.10: 2013				
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).

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 10dBmargin 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

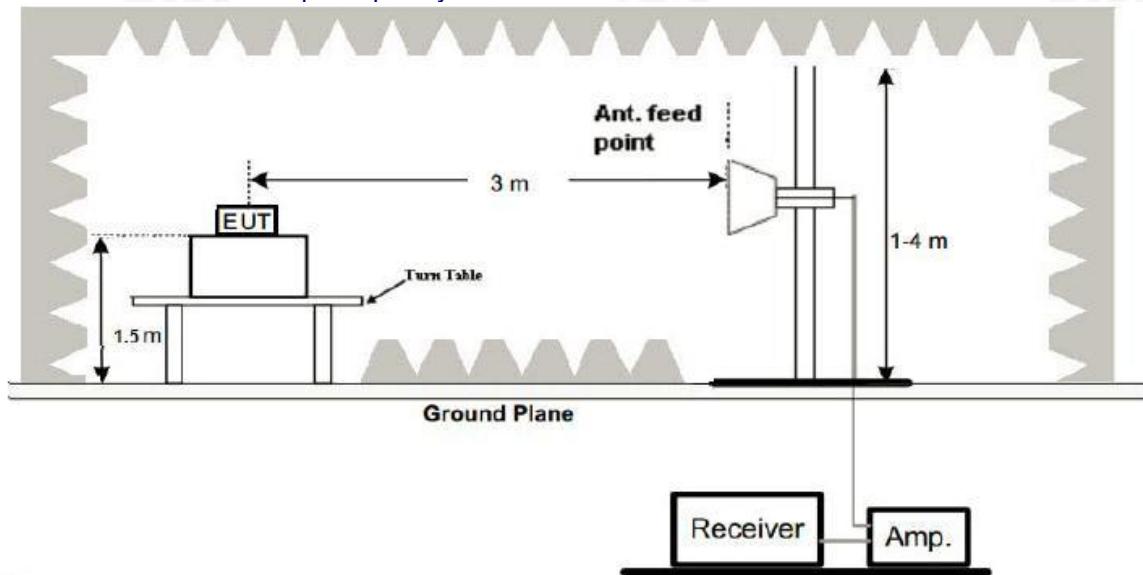
5.3 DEVIATION FROM TEST STANDARD

No deviation



5.4 TEST SETUP

Radiated Emission Test-Up Frequency Above 1GHz



5.5 EUT OPERATING CONDITIONS

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



5.6 TEST RESULT

A5 Mini G

	Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Detector Type	Result
LowChannel 2412MHz										
802.11b	H	2390.00	54.72	30.22	4.85	23.98	53.33	74.00	PK	PASS
	H	2390.00	44.49	30.22	4.85	23.98	43.10	54.00	AV	PASS
	H	2400.00	53.10	30.22	4.85	23.98	51.71	74.00	PK	PASS
	H	2400.00	44.37	30.22	4.85	23.98	42.98	54.00	AV	PASS
	V	2390.00	53.59	30.22	4.85	23.98	52.20	74.00	PK	PASS
	V	2390.00	44.70	30.22	4.85	23.98	43.31	54.00	AV	PASS
	V	2400.00	54.02	30.22	4.85	23.98	52.63	74.00	PK	PASS
	V	2400.00	44.63	30.22	4.85	23.98	43.24	54.00	AV	PASS
	HighChannel 2462MHz									
	H	2483.50	54.42	30.22	4.85	23.98	53.03	74.00	PK	PASS
	H	2483.50	44.85	30.22	4.85	23.98	43.46	54.00	AV	PASS
	H	2500.00	54.59	30.22	4.85	23.98	53.20	74.00	PK	PASS
	H	2500.00	44.14	30.22	4.85	23.98	42.75	54.00	AV	PASS
	V	2483.50	53.75	30.22	4.85	23.98	52.36	74.00	PK	PASS
	V	2483.50	44.05	30.22	4.85	23.98	42.66	54.00	AV	PASS
	V	2500.00	54.05	30.22	4.85	23.98	52.66	74.00	PK	PASS
	V	2500.00	44.50	30.22	4.85	23.98	43.11	54.00	AV	PASS
802.11g	LowChannel 2412MHz									
	H	2390.00	54.65	30.22	4.85	23.98	53.26	74.00	PK	PASS
	H	2390.00	44.38	30.22	4.85	23.98	42.99	54.00	AV	PASS
	H	2400.00	54.75	30.22	4.85	23.98	53.36	74.00	PK	PASS
	H	2400.00	44.81	30.22	4.85	23.98	43.42	54.00	AV	PASS
	V	2390.00	54.15	30.22	4.85	23.98	52.76	74.00	PK	PASS
	V	2390.00	44.10	30.22	4.85	23.98	42.71	54.00	AV	PASS
	V	2400.00	53.01	30.22	4.85	23.98	51.62	74.00	PK	PASS
	V	2400.00	44.66	30.22	4.85	23.98	43.27	54.00	AV	PASS
	High Channel 2462MHz									
	H	2483.50	53.67	30.22	4.85	23.98	52.28	74.00	PK	PASS
	H	2483.50	44.73	30.22	4.85	23.98	43.34	54.00	AV	PASS
	H	2500.00	53.30	30.22	4.85	23.98	51.91	74.00	PK	PASS
	H	2500.00	44.90	30.22	4.85	23.98	43.51	54.00	AV	PASS
	V	2483.50	54.85	30.22	4.85	23.98	53.46	74.00	PK	PASS
	V	2483.50	44.13	30.22	4.85	23.98	42.74	54.00	AV	PASS
	V	2500.00	54.44	30.22	4.85	23.98	53.05	74.00	PK	PASS
	V	2500.00	44.03	30.22	4.85	23.98	42.64	54.00	AV	PASS

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit



802.11n20	LowChannel 2412MHz									
	H	2390.00	54.64	30.22	4.85	23.98	53.25	74.00	PK	PASS
	H	2390.00	44.31	30.22	4.85	23.98	42.92	54.00	AV	PASS
	H	2400.00	53.58	30.22	4.85	23.98	52.19	74.00	PK	PASS
	H	2400.00	44.93	30.22	4.85	23.98	43.54	54.00	AV	PASS
	V	2390.00	54.10	30.22	4.85	23.98	52.71	74.00	PK	PASS
	V	2390.00	44.07	30.22	4.85	23.98	42.68	54.00	AV	PASS
	V	2400.00	54.93	30.22	4.85	23.98	53.54	74.00	PK	PASS
	V	2400.00	44.11	30.22	4.85	23.98	42.72	54.00	AV	PASS
	High Channel 2462MHz									
802.11n40	H	2483.50	53.86	30.22	4.85	23.98	52.47	74.00	PK	PASS
	H	2483.50	44.73	30.22	4.85	23.98	43.34	54.00	AV	PASS
	H	2500.00	53.38	30.22	4.85	23.98	51.99	74.00	PK	PASS
	H	2500.00	44.06	30.22	4.85	23.98	42.67	54.00	AV	PASS
	V	2483.50	54.84	30.22	4.85	23.98	53.45	74.00	PK	PASS
	V	2483.50	44.98	30.22	4.85	23.98	43.59	54.00	AV	PASS
	V	2500.00	54.05	30.22	4.85	23.98	52.66	74.00	PK	PASS
	V	2500.00	44.94	30.22	4.85	23.98	43.55	54.00	AV	PASS
	LowChannel 2422MHz									
	H	2390.00	53.87	30.22	4.85	23.98	52.48	74.00	PK	PASS
802.11n40	H	2390.00	44.54	30.22	4.85	23.98	43.15	54.00	AV	PASS
	H	2400.00	53.52	30.22	4.85	23.98	52.13	74.00	PK	PASS
	H	2400.00	44.43	30.22	4.85	23.98	43.04	54.00	AV	PASS
	V	2390.00	53.97	30.22	4.85	23.98	52.58	74.00	PK	PASS
	V	2390.00	44.16	30.22	4.85	23.98	42.77	54.00	AV	PASS
	V	2400.00	53.71	30.22	4.85	23.98	52.32	74.00	PK	PASS
	V	2400.00	44.64	30.22	4.85	23.98	43.25	54.00	AV	PASS
	High Channel 2452MHz									
	H	2483.50	54.12	30.22	4.85	23.98	52.73	74.00	PK	PASS
	H	2483.50	44.86	30.22	4.85	23.98	43.47	54.00	AV	PASS

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit



CA1

Project No.: ZKT-2502182511E-2

Page 45 of 74

	Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Detector Type	Result
LowChannel 2412MHz										
802.11b	H	2390.00	53.95	30.22	4.85	23.98	52.56	74.00	PK	PASS
	H	2390.00	44.37	30.22	4.85	23.98	42.98	54.00	AV	PASS
	H	2400.00	54.27	30.22	4.85	23.98	52.88	74.00	PK	PASS
	H	2400.00	44.24	30.22	4.85	23.98	42.85	54.00	AV	PASS
	V	2390.00	53.27	30.22	4.85	23.98	51.88	74.00	PK	PASS
	V	2390.00	44.69	30.22	4.85	23.98	43.30	54.00	AV	PASS
	V	2400.00	54.99	30.22	4.85	23.98	53.60	74.00	PK	PASS
	V	2400.00	44.89	30.22	4.85	23.98	43.50	54.00	AV	PASS
	HighChannel 2462MHz									
	H	2483.50	54.60	30.22	4.85	23.98	53.21	74.00	PK	PASS
	H	2483.50	44.95	30.22	4.85	23.98	43.56	54.00	AV	PASS
	H	2500.00	54.62	30.22	4.85	23.98	53.23	74.00	PK	PASS
	H	2500.00	44.16	30.22	4.85	23.98	42.77	54.00	AV	PASS
	V	2483.50	53.83	30.22	4.85	23.98	52.44	74.00	PK	PASS
	V	2483.50	44.83	30.22	4.85	23.98	43.44	54.00	AV	PASS
	V	2500.00	53.30	30.22	4.85	23.98	51.91	74.00	PK	PASS
	V	2500.00	44.68	30.22	4.85	23.98	43.29	54.00	AV	PASS
LowChannel 2412MHz										
802.11g	H	2390.00	53.94	30.22	4.85	23.98	52.55	74.00	PK	PASS
	H	2390.00	44.24	30.22	4.85	23.98	42.85	54.00	AV	PASS
	H	2400.00	53.41	30.22	4.85	23.98	52.02	74.00	PK	PASS
	H	2400.00	44.47	30.22	4.85	23.98	43.08	54.00	AV	PASS
	V	2390.00	55.00	30.22	4.85	23.98	53.61	74.00	PK	PASS
	V	2390.00	44.16	30.22	4.85	23.98	42.77	54.00	AV	PASS
	V	2400.00	53.82	30.22	4.85	23.98	52.43	74.00	PK	PASS
	V	2400.00	44.64	30.22	4.85	23.98	43.25	54.00	AV	PASS
	High Channel 2462MHz									
	H	2483.50	53.10	30.22	4.85	23.98	51.71	74.00	PK	PASS
	H	2483.50	44.98	30.22	4.85	23.98	43.59	54.00	AV	PASS
	H	2500.00	54.83	30.22	4.85	23.98	53.44	74.00	PK	PASS
	H	2500.00	44.25	30.22	4.85	23.98	42.86	54.00	AV	PASS
	V	2483.50	54.48	30.22	4.85	23.98	53.09	74.00	PK	PASS
	V	2483.50	44.83	30.22	4.85	23.98	43.44	54.00	AV	PASS
	V	2500.00	53.55	30.22	4.85	23.98	52.16	74.00	PK	PASS
	V	2500.00	44.02	30.22	4.85	23.98	42.63	54.00	AV	PASS

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit
2. For the additional model variants, random sampling tests were conducted on 10 casings in total. This particular dataset is identified as the worst - performing among all tested groups.



802.11n20	LowChannel 2412MHz									
	H	2390.00	54.69	30.22	4.85	23.98	53.30	74.00	PK	PASS
	H	2390.00	44.52	30.22	4.85	23.98	43.13	54.00	AV	PASS
	H	2400.00	54.13	30.22	4.85	23.98	52.74	74.00	PK	PASS
	H	2400.00	44.73	30.22	4.85	23.98	43.34	54.00	AV	PASS
	V	2390.00	54.33	30.22	4.85	23.98	52.94	74.00	PK	PASS
	V	2390.00	44.87	30.22	4.85	23.98	43.48	54.00	AV	PASS
	V	2400.00	54.90	30.22	4.85	23.98	53.51	74.00	PK	PASS
	V	2400.00	44.80	30.22	4.85	23.98	43.41	54.00	AV	PASS
	High Channel 2462MHz									
802.11n40	H	2483.50	53.39	30.22	4.85	23.98	52.00	74.00	PK	PASS
	H	2483.50	44.91	30.22	4.85	23.98	43.52	54.00	AV	PASS
	H	2500.00	54.93	30.22	4.85	23.98	53.54	74.00	PK	PASS
	H	2500.00	45.00	30.22	4.85	23.98	43.61	54.00	AV	PASS
	V	2483.50	54.51	30.22	4.85	23.98	53.12	74.00	PK	PASS
	V	2483.50	44.98	30.22	4.85	23.98	43.59	54.00	AV	PASS
	V	2500.00	53.53	30.22	4.85	23.98	52.14	74.00	PK	PASS
	V	2500.00	44.28	30.22	4.85	23.98	42.89	54.00	AV	PASS
	LowChannel 2422MHz									
	H	2390.00	53.29	30.22	4.85	23.98	51.90	74.00	PK	PASS
802.11n40	H	2390.00	44.90	30.22	4.85	23.98	43.51	54.00	AV	PASS
	H	2400.00	53.28	30.22	4.85	23.98	51.89	74.00	PK	PASS
	H	2400.00	44.58	30.22	4.85	23.98	43.19	54.00	AV	PASS
	V	2390.00	54.27	30.22	4.85	23.98	52.88	74.00	PK	PASS
	V	2390.00	44.62	30.22	4.85	23.98	43.23	54.00	AV	PASS
	V	2400.00	54.66	30.22	4.85	23.98	53.27	74.00	PK	PASS
	V	2400.00	44.78	30.22	4.85	23.98	43.39	54.00	AV	PASS
	High Channel 2452MHz									
	H	2483.50	53.86	30.22	4.85	23.98	52.47	74.00	PK	PASS
	H	2483.50	44.87	30.22	4.85	23.98	43.48	54.00	AV	PASS

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit
2. For the additional model variants, random sampling tests were conducted on 10 casings in total. This particular dataset is identified as the worst - performing among all tested groups.



6. POWER SPECTRAL DENSITY TEST

Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	ANSI C63.10:2013 and KDB558074 D01DTS 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 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

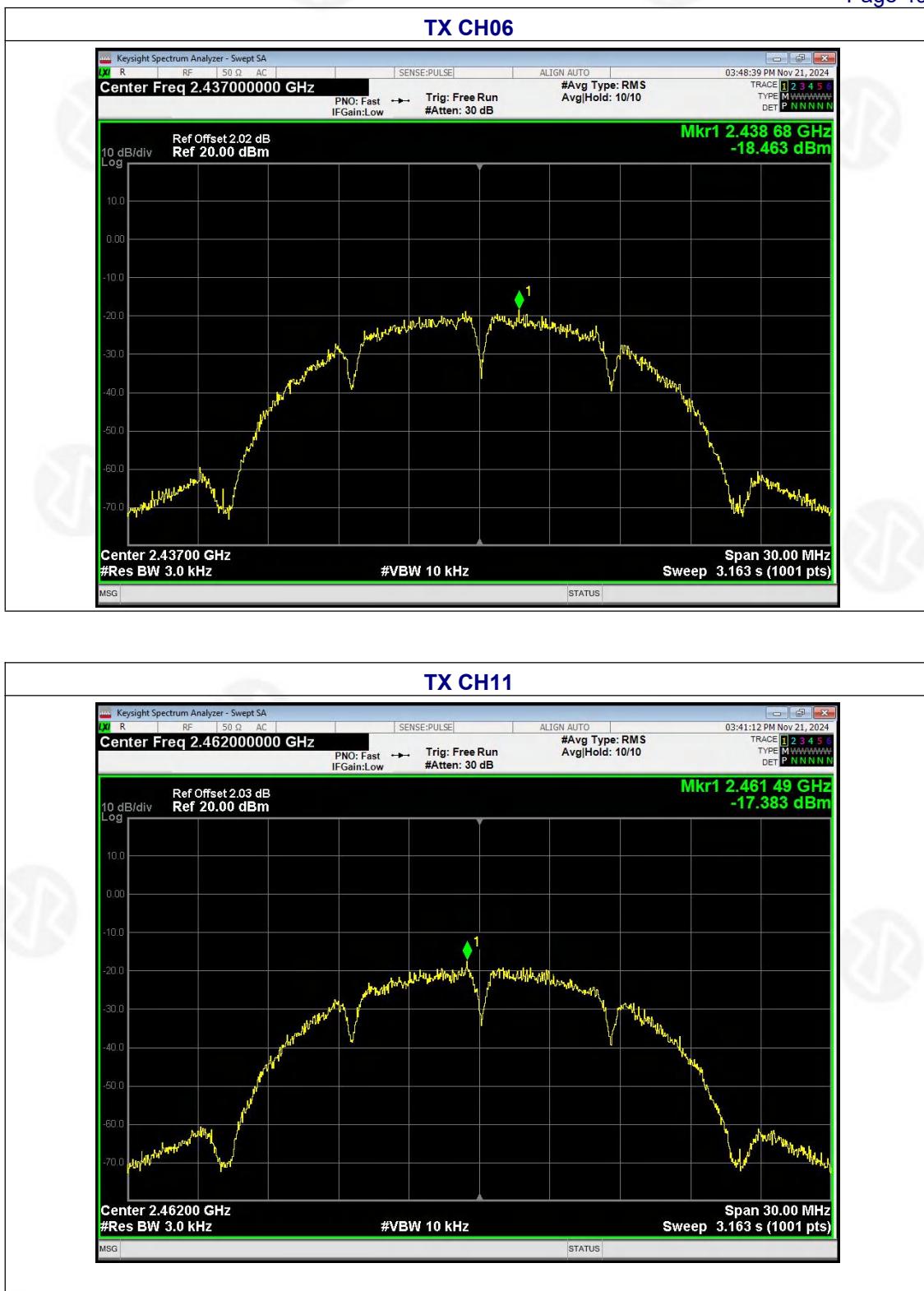


6.6 TEST RESULT

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage :	DC 5V
Test Mode :	TX b Mode		

Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412 MHz	-19.108	8	PASS
2437 MHz	-18.463	8	PASS
2462 MHz	-17.383	8	PASS

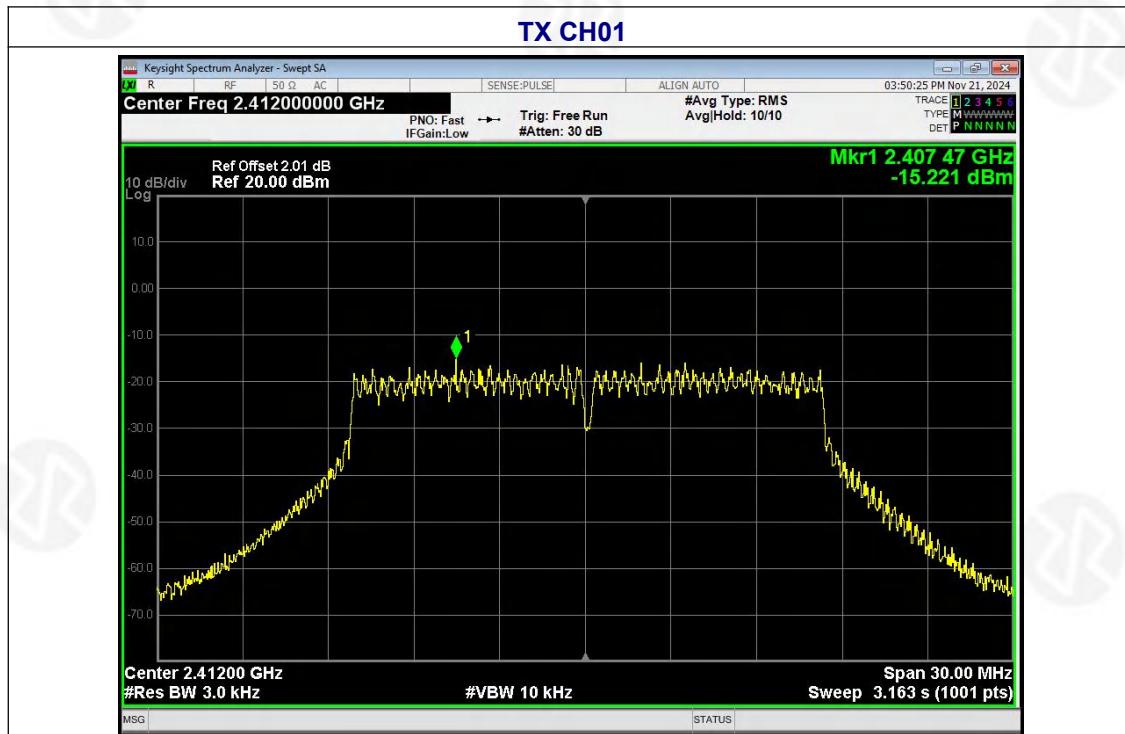


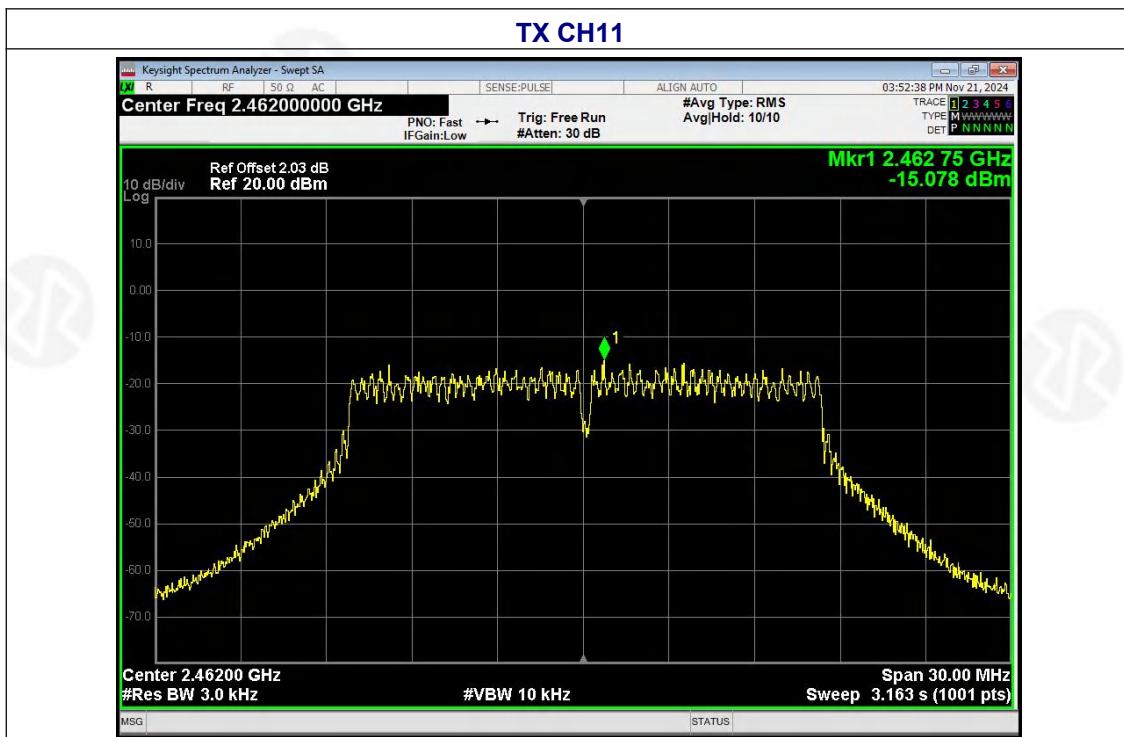
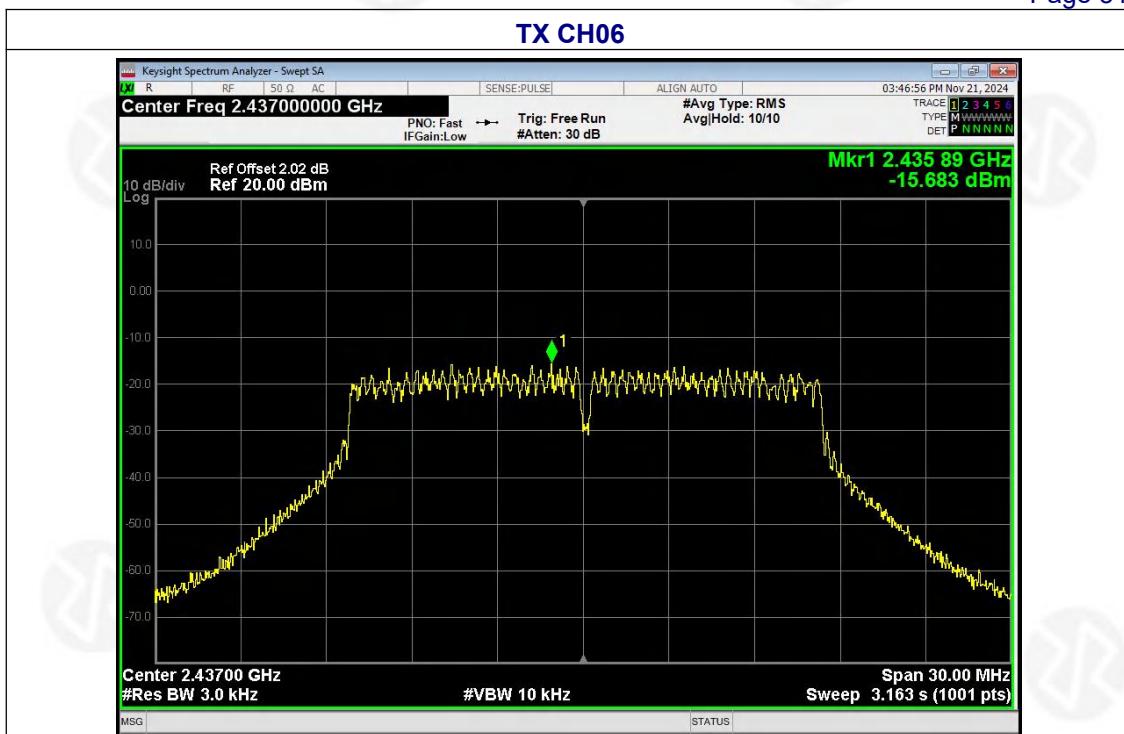




Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	DC 5V
Test Mode :	TX g Mode		

Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412 MHz	-15.221	8	PASS
2437 MHz	-15.683	8	PASS
2462 MHz	-15.078	8	PASS







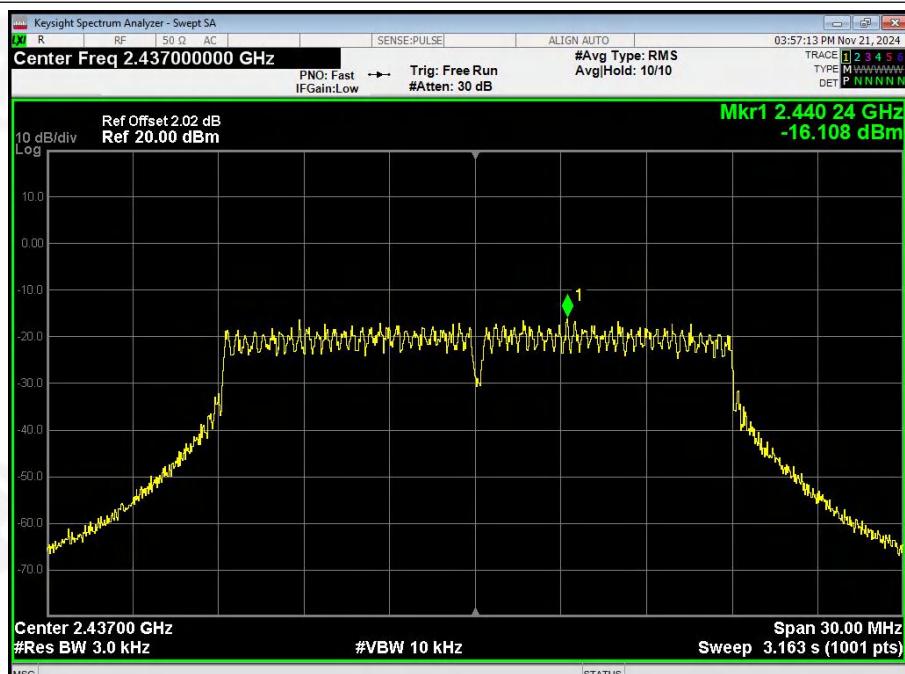
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	DC 5V
Test Mode :	TX n Mode(20M)		

Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz z)	Result
2412 MHz	-14.884	8	PASS
2437 MHz	-16.108	8	PASS
2462 MHz	-16.477	8	PASS





TX CH06



TX CH11

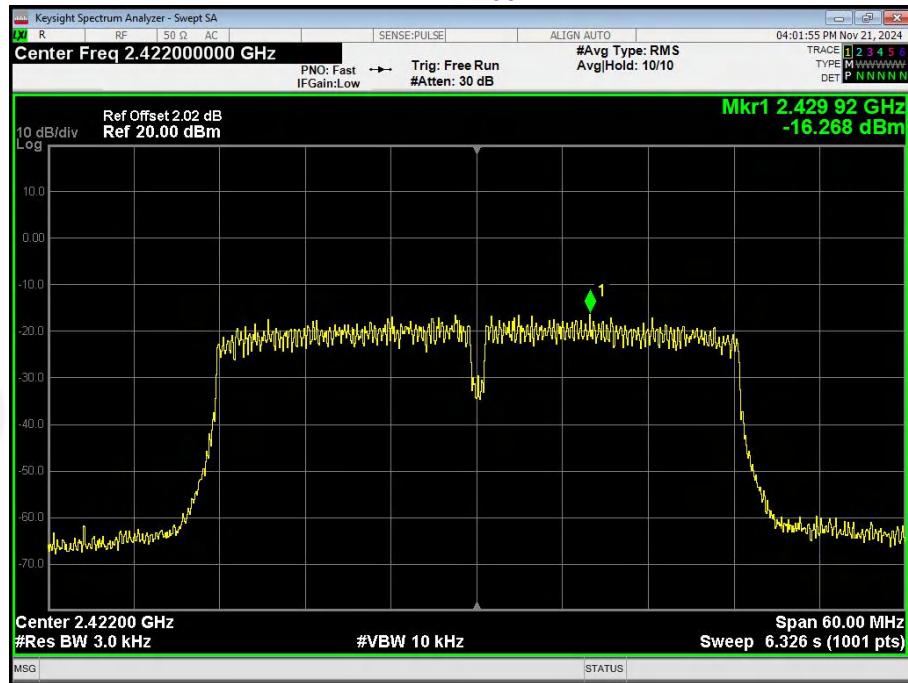




Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	DC 5V
Test Mode :	TX n Mode(40M)		

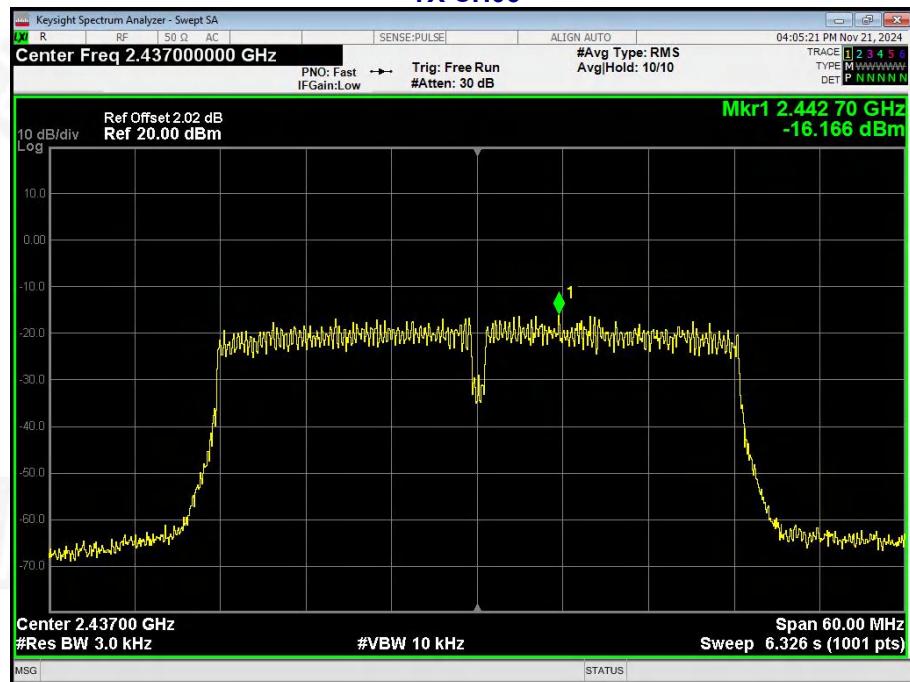
Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2422 MHz	-16.268	8	PASS
2437 MHz	-16.166	8	PASS
2452 MHz	-16.017	8	PASS

TX CH03

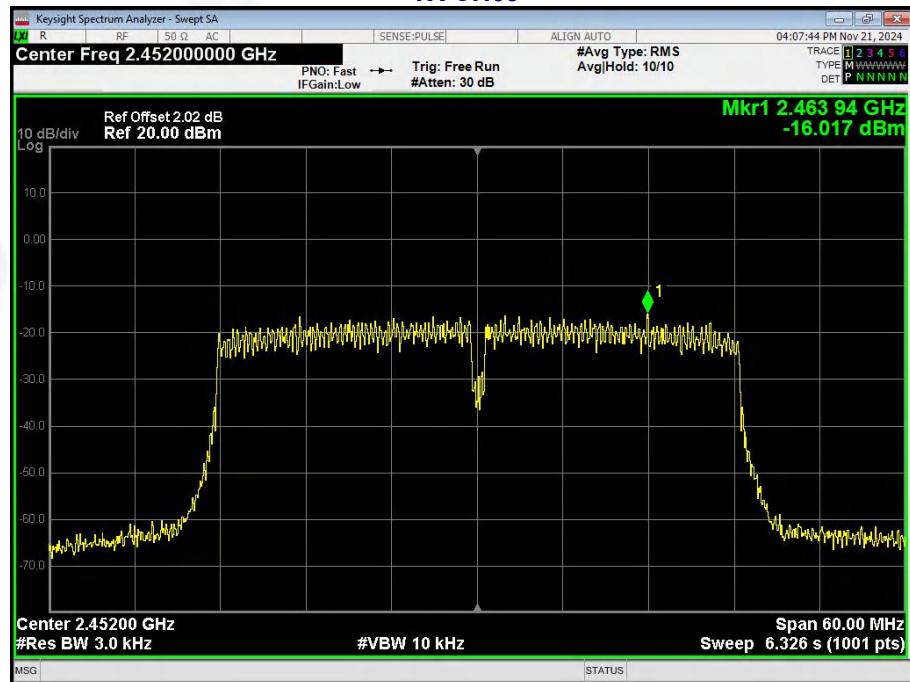




TX CH06



TX CH09





7. CHANNEL BANDWIDTH OCCUPY BANDWIDTH

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	ANSI C63.10:2013 and KDB558074 D01DTS 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	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS

7.2 TEST PROCEDURE

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

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 2.4 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 5V
Test Mode :	TX b Mode		

Test CH	-6dB Occupy Bandwidth (MHz)				
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)	Limit(KHz)
Lowest	9.566	16.327	17.321	35.099	>500
Middle	9.53	16.318	17.16	35.057	
Highest	10.02	16.325	17.299	35.097	



Test plot as follows:

Lowest channel

802.11b



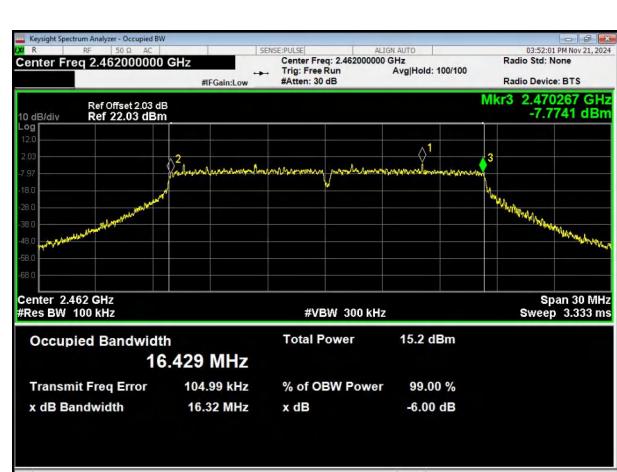
802.11g



Middle channel



Highest channel





Lowest channel

802.11n20



802.11n40



Middle channel



Highest channel





8. PEAK OUTPUT POWER TEST

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	ANSI C63.10:2013 and KDB558074 D01DTS Meas Guidancev05r02

8.1 APPLIED PROCEDURES/LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

8.2 TEST PROCEDURE

- The EUT was directly connected to the Power meter

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 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.



8.6 TEST RESULT

Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage :	DC 5V

Test CH	Peak Output Power (dBm)				Limit(dBm)	Result
	802.11b	802.11g	802.11n20	802.11n40		
Lowest	5.327	8.011	8.217	8.594	30.00	Pass
Middle	5.649	8.614	7.715	8.806		
Highest	6.219	8.247	7.699	8.407		



9. CONDUCTED BAND EDGE AND SPURIOUS EMISSION

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013 and KDB558074 D01DTS Meas Guidancev05r02

9.1 APPLICABLE STANDARD

in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in§15.205(a), must also comply with the radiated emission limits specified in15.209(a).

9.2 TEST PROCEDURE

Using the following spectrum analyzer setting:

- A) Set the RBW = 100KHz.
- B) Set the VBW = 300KHz.
- C) Sweep time = auto couple.
- D) Detector function = peak.
- E) Trace mode = max hold.
- F) Allow trace to fully stabilize.

9.3 DEVIATION FROM STANDARD

No deviation.

9.4 TEST SETUP



9.5 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.

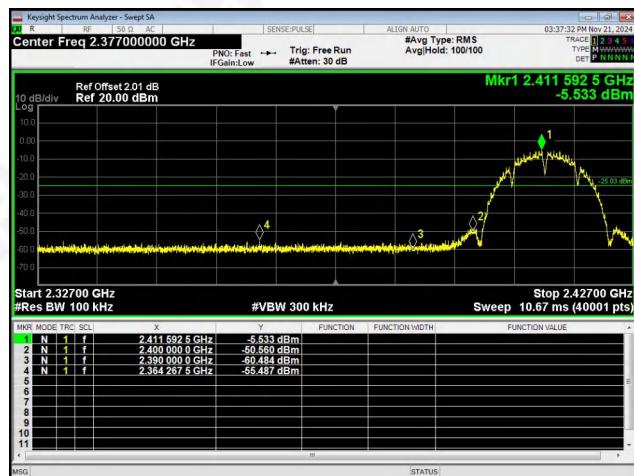
9.6 TEST RESULTS



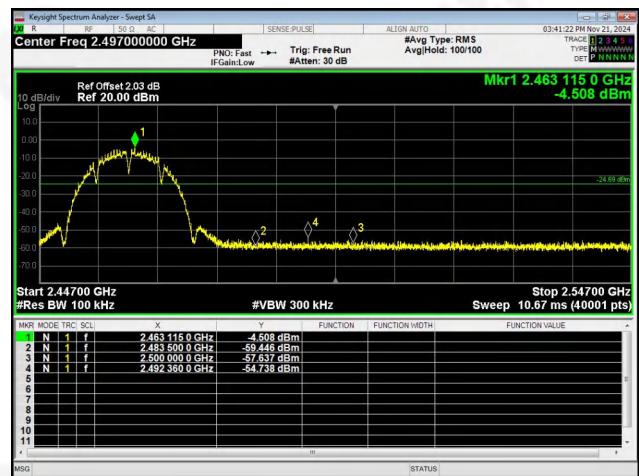
Test plot as follows:

Test mode:

802.11b



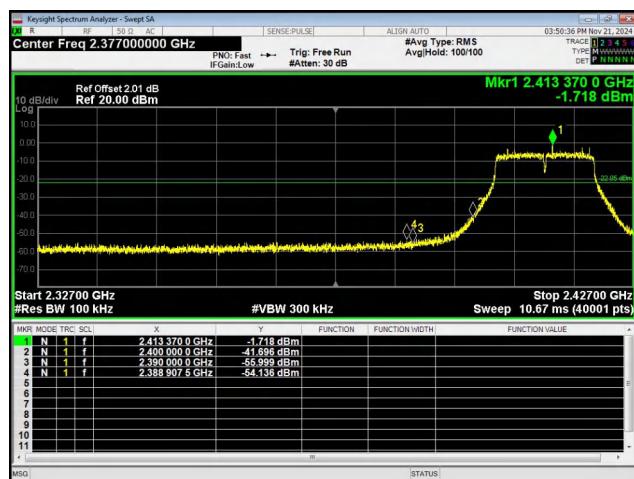
Lowest channel



Highest channel

Test mode:

802.11g



Lowest channel

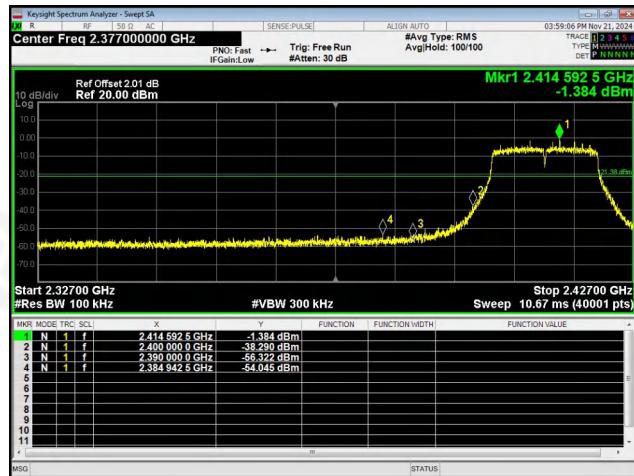


Highest channel

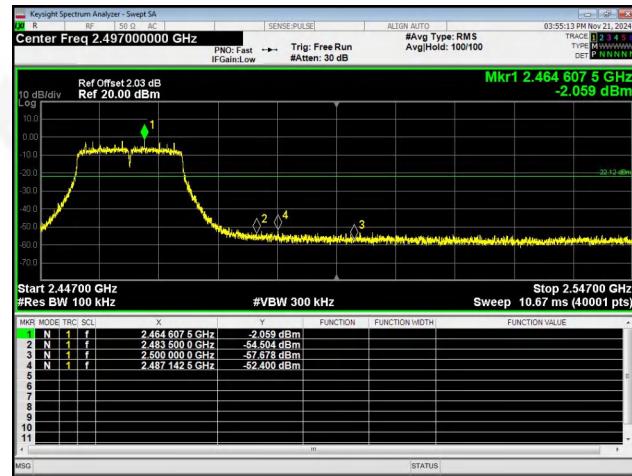


Test mode:

802.11n(HT20)



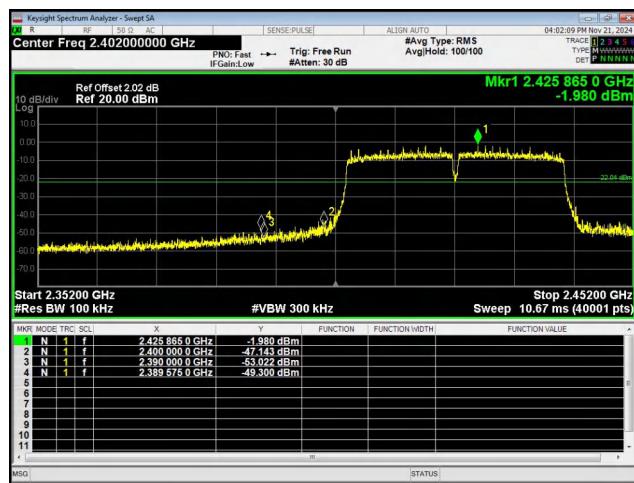
Lowest channel



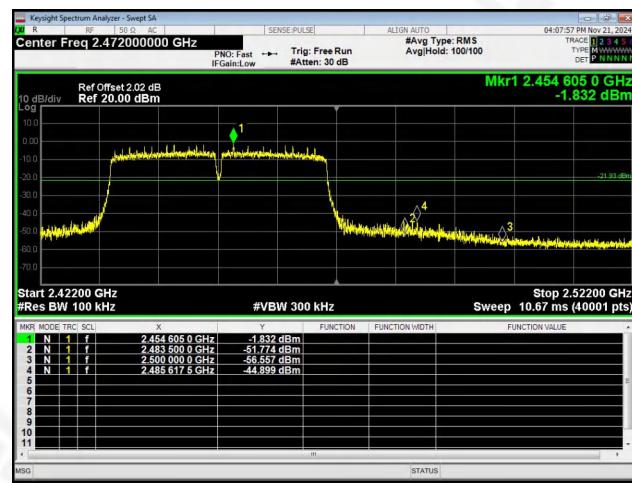
Highest channel

Test mode:

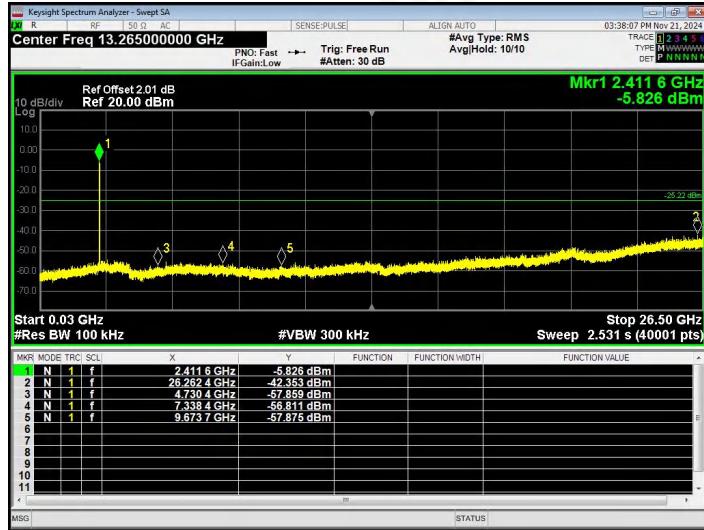
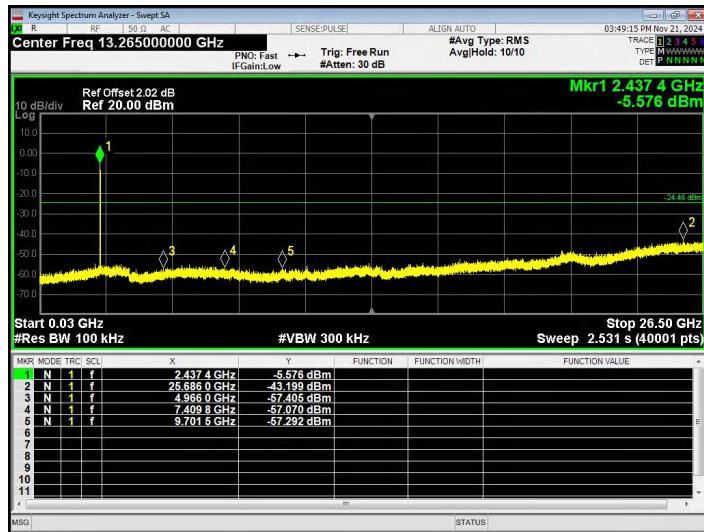
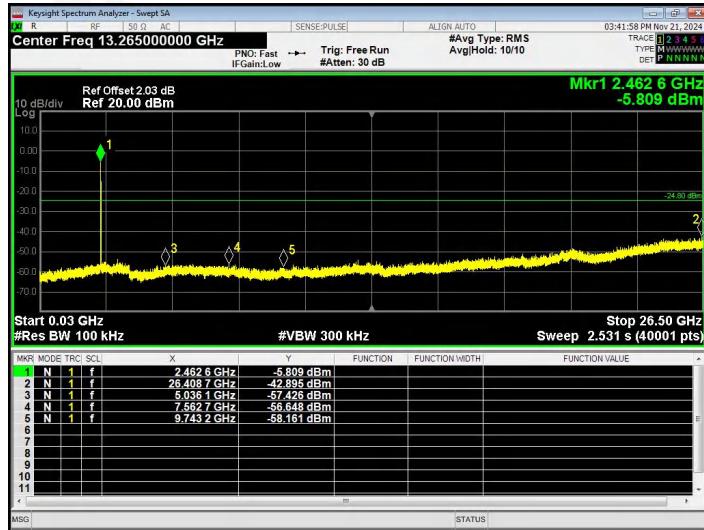
802.11n(HT40)



Lowest channel



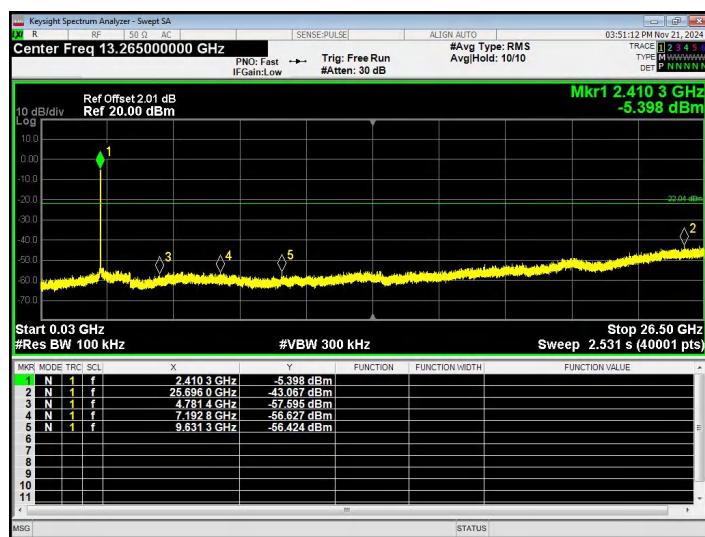
Highest channel

**Test plot as follows:****802.11b****Lowest channel****Middle channel****Highest channel**



802.11g

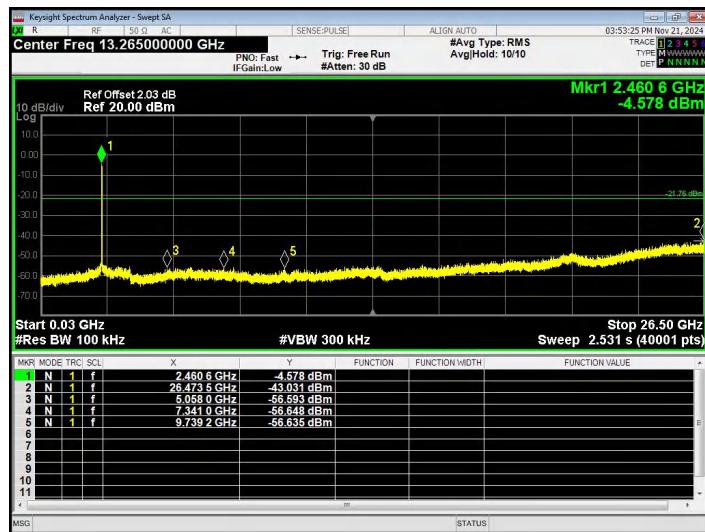
Lowest channel



Middle channel



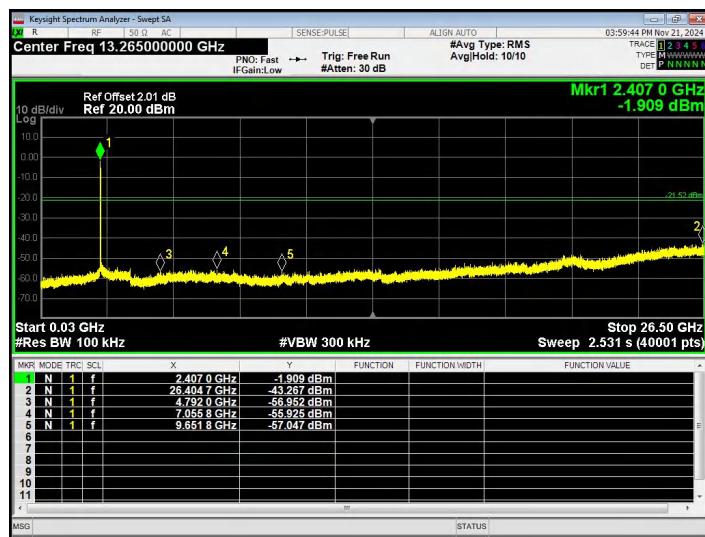
Highest channel



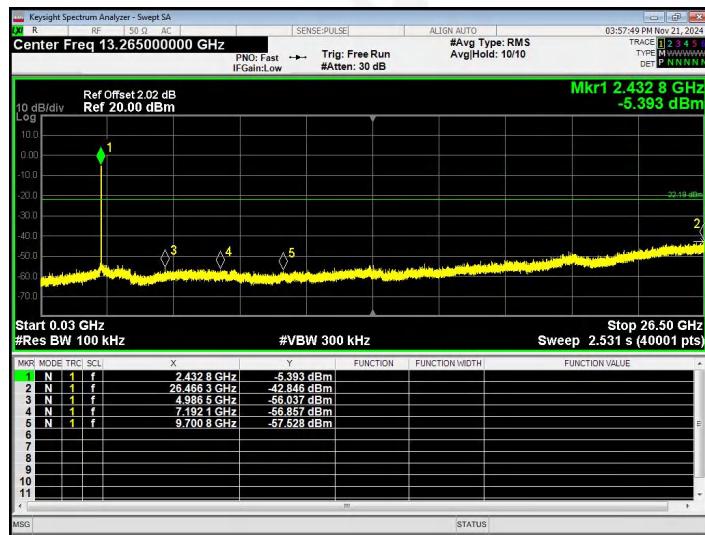


802.11n(HT20)

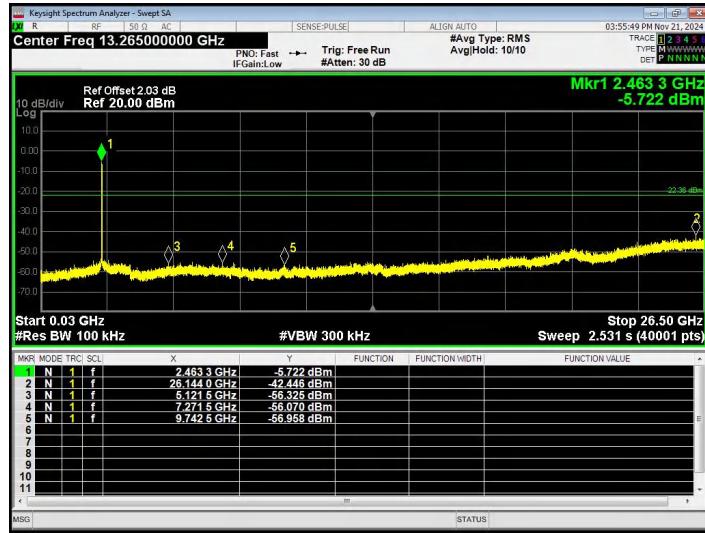
Lowest channel



Middle channel



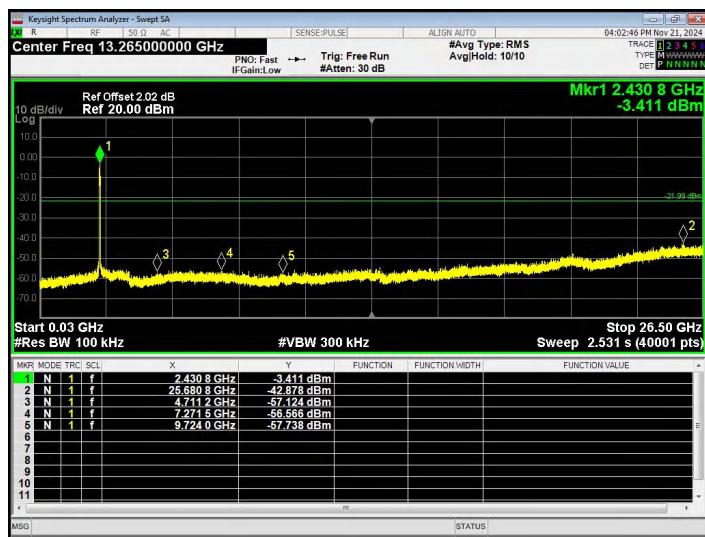
Highest channel



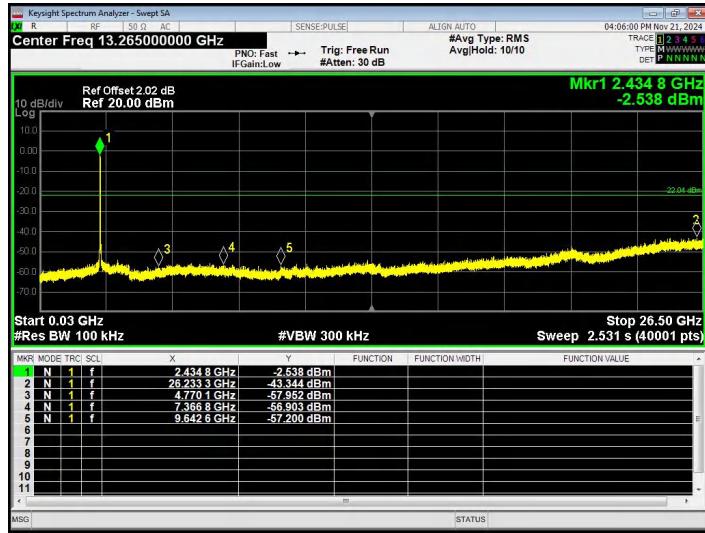


802.11n(HT40)

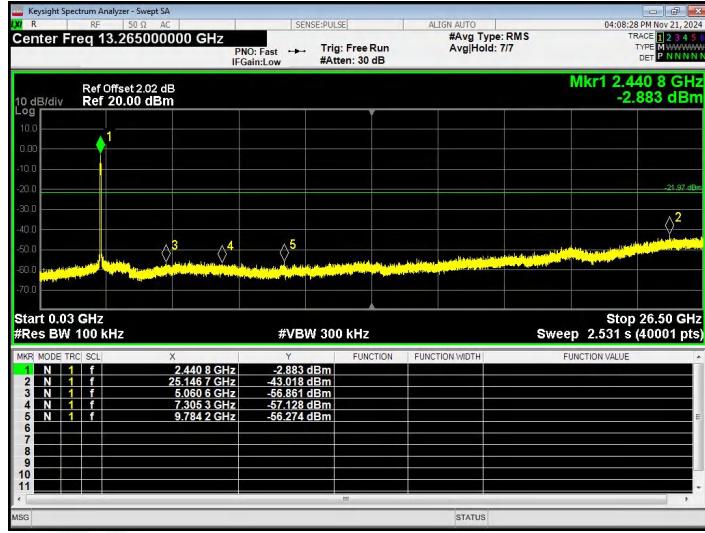
Lowest channel



Middle channel



Highest channel





10. DUTY CYCLE

Test Method:	ANSI C63.10:2013
--------------	------------------

10.1 APPLIED PROCEDURES / LIMIT

Measurements of duty cycle and transmission duration shall be performed using one of the following techniques:

- a) A diode detector and an oscilloscope that together have a sufficiently short response time to permit accurate measurements of the ON and OFF times of the transmitted signal.
- b) The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the ON and OFF times of the transmitted signal:
 - 1) Set the center frequency of the instrument to the center frequency of the transmission.
 - 2) Set RBW \geq OBW if possible; otherwise, set RBW to the largest available value.
 - 3) Set VBW \geq RBW. Set detector = peak or average.
 - 4) The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$ and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring the duty cycle shall not be used if $T \leq 16.7 \mu s$.)

10.2 DEVIATION FROM STANDARD

No deviation.

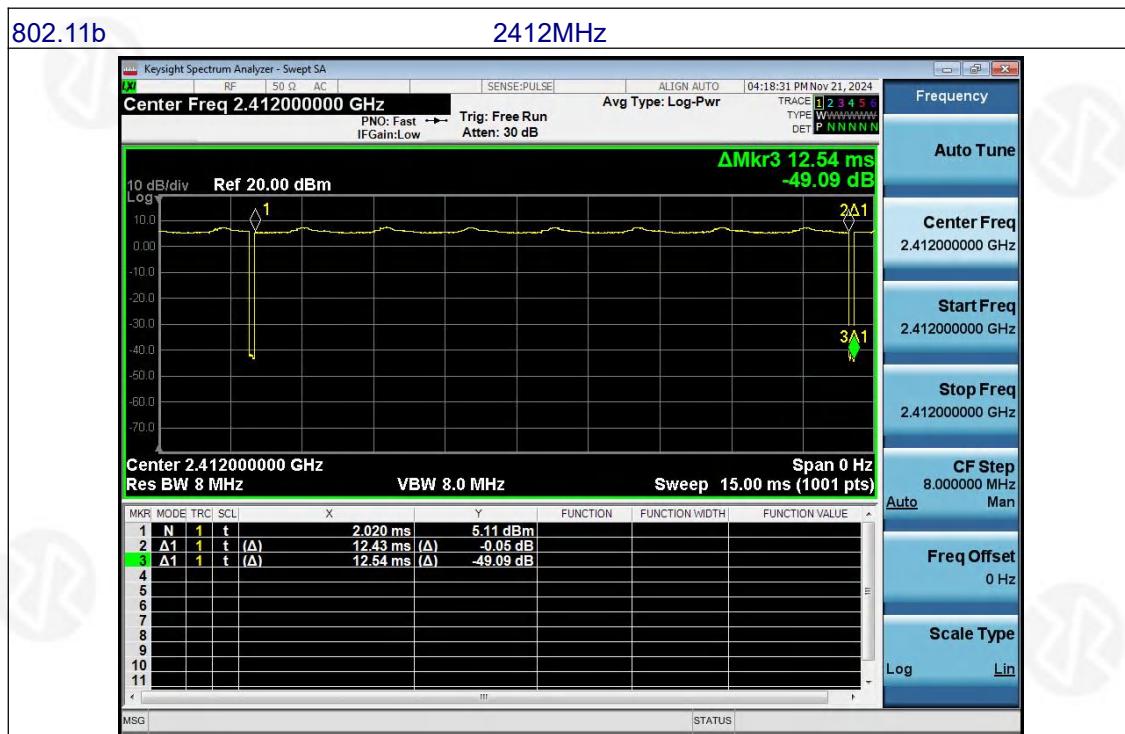
10.3 TEST SETUP





10.4 TEST RESULTS

Mode	Frequency (MHz)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Result
802.11b	2412	99.12	0.04	Pass
802.11g	2412	94.25	0.26	Pass
802.11n20	2412	93.84	0.27	Pass
802.11n40	2422	88.24	0.54	Pass





802.11g

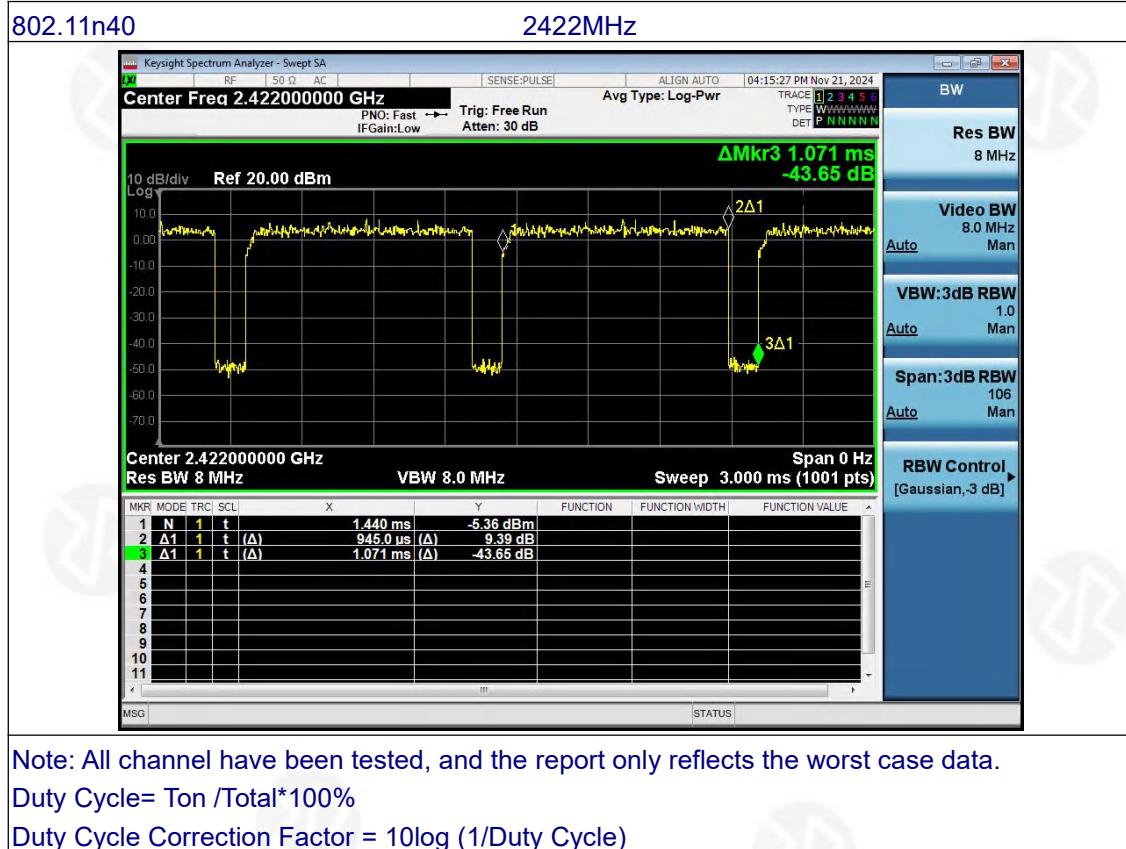
2412MHz



802.11n20

2412MHz







11. ANTENNA REQUIREMENT

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
<p>15.203 requirement: 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.</p> <p>15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi. A transmitter can only be sold or operated with antennas with which it was approved.</p>	
<p>EUT Antenna: The antenna is PCB Antenna, the best case gain of the antenna is 2.24 dBi, reference to the appendix II for details</p>	



12. TEST SETUP PHOTO

Reference to the appendix I for details.

13. EUT CONSTRUCTIONAL DETAILS

Reference to the appendix II for details.

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