

TEST REPORT

Applicant : Shenzhen Zhimei Lihe Industrial Development Co., Ltd.
Address : Floor 5, Building C, Hengshunyuan Industrial Park, 6th Road, Building 1, Loucun Community, Xinhua Street, Shenzhen City, Guangdong Province, China
Manufacturer : Shenzhen Zhimei Lihe Industrial Development Co., Ltd.
Address : Floor 5, Building C, Hengshunyuan Industrial Park, 6th Road, Building 1, Loucun Community, Xinhua Street, Shenzhen City, Guangdong Province, China
Product Name : AI Intelligent skin analyzer (K33)
Model Number : ZMLH-K33
Trademark : N/A
FCC ID : 2BGPD-ZMLH-K33
Test Date : Apr. 01, 2026 to Apr. 10, 2026
Date of Report : Apr. 10, 2026
Test Result : This device described above has been tested by BKC, and the test results show that the equipment under test (EUT) is in compliance with the Standard requirements. And it is applicable only to the tested sample identified in the report.
Test Procedure Used:
Standards : FCC CFR Title 47 Part 15 Subpart C Section 15.247
ANSI C63.10:2020

Prepared by (Test Engineer):
Sten Huang



Reviewer (Supervisor):
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Approved (Manager):
Jerry Liao



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Revision History of This Test Report

[illegible]

General Information

1.1.Description of Device (EUT)

EUT Name : AI Intelligent skin analyzer (K33)

Model No. : ZMLH-K33

Model Difference : N/A

Power supply : Input: AC 100-240V

Adapter : N/A

Operation frequency : 2412-2462MHz

Max. RF output power: : 7.77 dBm

Modulation : 802.11b: Direct Sequence Spread Spectrum(DSSS)
802.11g/802.11n(HT20)//802.11n(HT40)
Orthogonal Frequency Division Multiplexing(OFDM)

Antenna Type : FPC Antenna, Maximum Gain is 2.08dBi

Hardware Version : V1.0

Software Version : V1.0

Intend use environment : Residential, commercial and light industrial environment

1.2.Channel List

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
1	2412	2	2417	3	2422	4	2427
5	2432	6	2437	7	2442	8	2447
9	2452	10	2457	11	2462	/	/

1.3.Summary of test result

RF PART		
Test Items	Test Requirement	Result
Antenna requirement	FCC part 15.203/15.247(b)(4)	PASS
AC Power Line Conducted Emission	FCC part 15.207	PASS
Conducted Peak Output Power	FCC part 15.247 (b)(3)	PASS
Channel Bandwidth& 99% OCB	FCC part 15.247 (a)(2)	PASS
Power Spectral Density	FCC part 15.247 (e)	PASS
Band Edge	FCC part 15.247(d)	PASS
Spurious Emission	FCC part 15.205/15.209	PASS
Remark: N/A is an abbreviation for Not Applicable. Measurement Uncertainty is not taken into account for conformity statement		

1.4.Special Accessories and Auxiliary Equipment

Description	Manufacturer	Model No.	Hardware Version	Software Version
Serial port board	/	/	/	/
Laptop	HP	14s	/	/

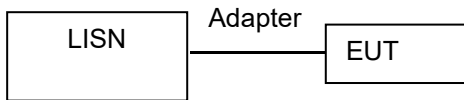
1.5.Test mode

The special RF test software was used to control EUT work in Continuous WIFI TX mode, and select test channel, wireless mode.

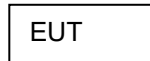
Test mode	Description	Low channel	Middle channel	High channel
TM1	802.11b	2412MHz	2437MHz	2462MHz
TM2	802.11g	2412MHz	2437MHz	2462MHz
TM3	802.11n20	2412MHz	2437MHz	2462MHz
TM4	802.11n40	2422MHz	2437MHz	2452MHz
Note: /				

1.6.Block Diagram

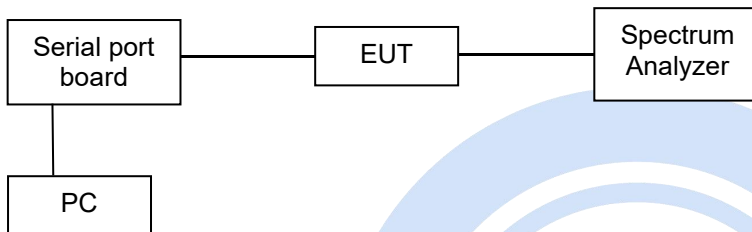
AC Power Line Conducted Emission



Radiated Emission



RF Conducted Test



1.7.Test Conditions

Category	Normal Conditions	Extreme Conditions
Temperature range	15-35°C	N/A
Humidity range	20-75%	N/A
Pressure range	86-106kPa	N/A
Power supply	AC 120V	N/A
Note: N/A is an abbreviation for Not Applicable.		

1.8.Measurement Uncertainty (95% confidence levels, k=2)

Item	MU	Remark
Uncertainty for radio frequency	$\pm 7 \times 10^{-8}$	
Conducted Emissions (150kHz~30MHz)	$\pm 2.54\text{dB}$	
Radiated Emission(9KHz~30MHz)	$\pm 1.6\text{ dB}$	
Radiated Emission(30MHz~1GHz)	Vertical: $\pm 4.14\text{dB}$ Horizontal: $\pm 4.25\text{dB}$	
Radiated Emission(1GHz~6GHz)	$\pm 3.9\text{dB}$	
Radiated Emission(6GHz~18GHz)	$\pm 4.3\text{dB}$	
Radiated Emission(18GHz~40GHz)	$\pm 3.38\text{dB}$	
Uncertainty for conducted RF Power	$\pm 0.20\text{dB}$	
Conducted spurious emissions	$\pm 0.24\text{dB}$	
Uncertainty for temperature	0.6°C	
Uncertainty for humidity	1%	
Bandwidth	$\pm 1.5 \times 10^{-6}$	
Time	$\pm 2\%$	
Duty Cycle	$\pm 2\%$	

Remark: The coverage Factor (k=2), and measurement Uncertainty for a level of Confidence of 95%

1.9.Test Facility

Site Description	
Name of Firm	: Shenzhen BKC Testing Co., Ltd.
Site Location	: Room 103, 1/F, Huaya Building, Huaya Industrial Park, Longhua Community, Longhua District, Shenzhen, Guangdong, China.
ISED CAB identifier	: CN0188
ISED Company Number	: 34333
FCC Designation Number	: CN1416
FCC Test Firm Registration Number	: 701543

1.10.Test Equipment

Conducted Test Site

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	LISN	R&S	ENV216	102762	Mar. 10. 2026	Mar. 09. 2027
2	EMI Test Receiver	R&S	ESCI	101424	Mar. 10. 2026	Mar. 09. 2027
3	Rf cables	HTEC	HCE 2M-CE	N/A	Mar. 10. 2026	Mar. 09. 2027
4	Coupling/ Decoupling Network	Diamond	CX210	N/A	Mar. 10. 2026	Mar. 09. 2027
5	CE Testing software	EZ	EZ-EMC	/	/	/



6	Thermo-hygrometer	Dele	HTC-1	N/A	Mar. 10. 2026	Mar. 09. 2027
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Radiated Test Site(Below 1G and Above 1G)

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Antenna	Schwarzbeck	VULB 9168	01321	Mar. 20. 2025	Mar. 19. 2028
2	EMI Test Receiver	R&S	ESRP	101478	Mar. 10. 2026	Mar. 09. 2027
3	Preamplifier	HP	8447D	2727A05345	Mar. 10. 2026	Mar. 09. 2027
4	Double Ridged Broadband	SCHWARZBEC K	BBHA 9120D	02621	Mar. 10. 2025	Mar. 19. 2028
5	Preamplifier	Schwarzbeck	BBV 9718D	00041	Mar. 10. 2026	Mar. 09. 2027
6	Rf cables	HUBER+SUHNE R	8M-RE	N/A	Mar. 10. 2026	Mar. 09. 2027
7	Rf cables	HUBER+SUHNE R	1.5M-RE	N/A	Mar. 10. 2026	Mar. 09. 2027
8	Rf cables	HUBER+SUHNE R	1.5M-AP-RE	N/A	Mar. 10. 2026	Mar. 09. 2027
9	Loop antenna	TESEQ	HLA6121	58357	Mar. 09. 2026	Mar. 10. 2027
10	Spectrum analyzer	R&S	FSP40	200061	Mar. 09. 2026	Mar. 10. 2027
11	Double Ridged Broadband Horn Antenna	COM-POWER	AH-1840	10100009	Mar. 10. 2026	Mar. 09. 2027
12	Spectrum	Agilent	N9020A	MY50510311	Mar. 10. 2026	Mar. 09. 2027
13	RE Testing software	EZ	EZ-EMC	/	/	/
14	Thermo-hygrometer	Dele	HTC-1	N/A	Mar. 10. 2026	Mar. 09. 2027

RF Test Site

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum	Agilent	N9020A	MY50510311	Mar. 10. 2026	Mar. 09. 2027
2	Vector source	Agilent	N5182A	MY47420223	Mar. 10. 2026	Mar. 09. 2027
3	All instrument	Rohde & Schwarz	CMW 500	101131	Mar. 10. 2026	Mar. 09. 2027
4	RF Automatic Test System	TST	TSTRF562	MW200411BK-34	Mar. 09. 2026	Mar. 10. 2027
5	Spectrum analyzer	R&S	FSP40	200061	Mar. 10. 2026	Mar. 09. 2027
6	Thermo-hygrometer	Dele	HTC-1	N/A	Mar. 10. 2026	Mar. 09. 2027

Test software

Software name	RF Testing software
Software version	2.0.0.0
Software name	RE Testing software
Software version	EMEC-03A2 RE+
Software name	CE Testing software
Software version	EMEC-3A1+



Software Configuration Version

Software name	sscom
Software version	5.3.1

Power setting

Channel	Power Level
Lowest	Default
Middle	Default
Highest	Default



2. Conducted emission at the mains terminals test

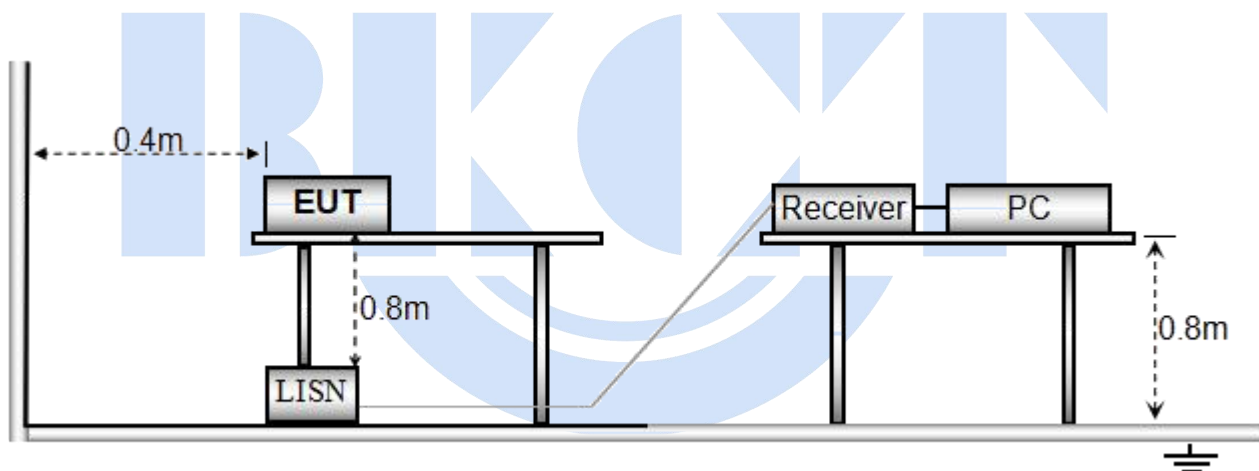
2.1.Limit

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

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

2.2.Test Setup

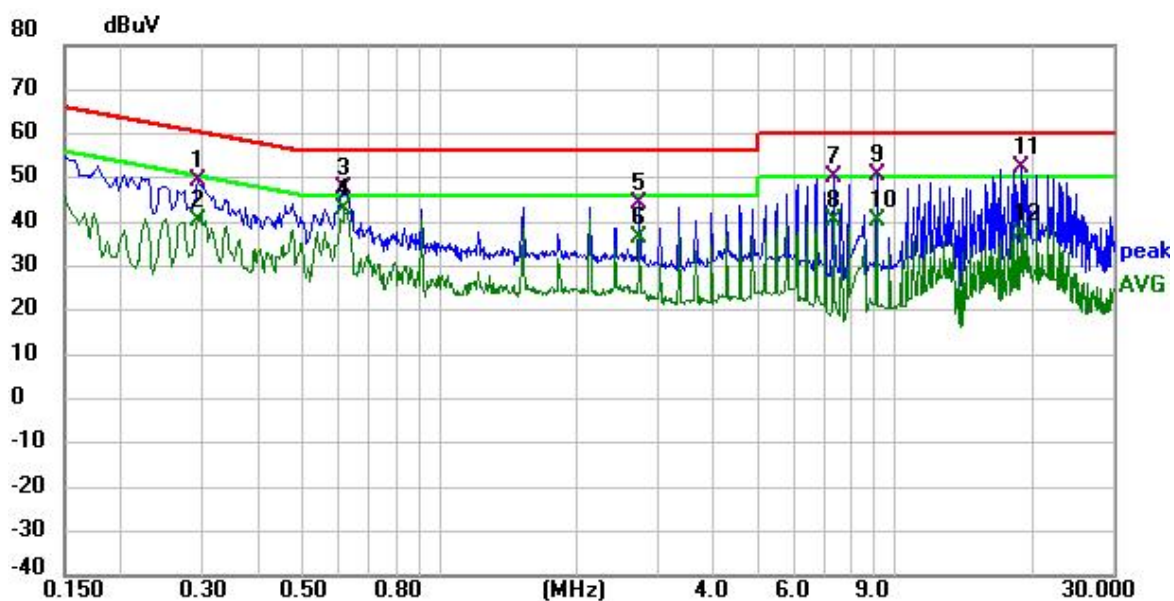


2.3.Test Procedure

1. 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.
2. 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.
3. 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.
4. LISN at least 80 cm from nearest part of EUT chassis.
5. For the actual test configuration, please refer to the related Item - EUT Test Photos.

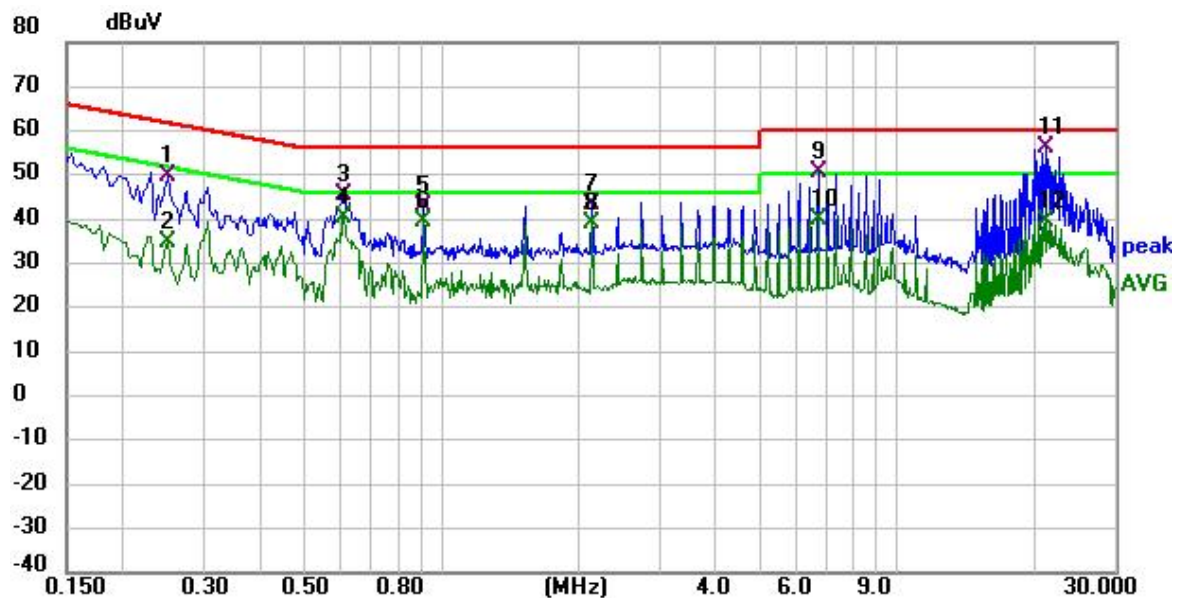
2.4.Test Result

Conducted Emission Test Data			
Temperature:	25.3℃	Relative Humidity:	55%
Pressure:	1008hPa	Phase :	L
Test Voltage :	AC 120V	Test Mode	Charging



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2940	29.65	19.68	49.33	60.41	-11.08	QP
2	0.2940	20.78	19.68	40.46	50.41	-9.95	AVG
3	0.6180	27.75	19.80	47.55	56.00	-8.45	QP
4 *	0.6180	23.04	19.80	42.84	46.00	-3.16	AVG
5	2.7420	24.60	19.73	44.33	56.00	-11.67	QP
6	2.7420	16.64	19.73	36.37	46.00	-9.63	AVG
7	7.3100	30.35	19.77	50.12	60.00	-9.88	QP
8	7.3100	20.41	19.77	40.18	50.00	-9.82	AVG
9	9.1380	30.62	19.86	50.48	60.00	-9.52	QP
10	9.1380	20.62	19.86	40.48	50.00	-9.52	AVG
11	18.8940	32.64	19.89	52.53	60.00	-7.47	QP
12	18.8940	17.44	19.89	37.33	50.00	-12.67	AVG

Conducted Emission Test Data			
Temperature:	25.3℃	Relative Humidity:	55%
Pressure:	1008hPa	Phase :	N
Test Voltage :	AC 120V	Test Mode	Charging



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2500	30.25	19.70	49.95	61.76	-11.81	QP
2	0.2500	15.00	19.70	34.70	51.76	-17.06	AVG
3	0.6100	25.84	19.78	45.62	56.00	-10.38	QP
4	0.6100	20.45	19.78	40.23	46.00	-5.77	AVG
5	0.9140	23.14	19.82	42.96	56.00	-13.04	QP
6	0.9140	19.75	19.82	39.57	46.00	-6.43	AVG
7	2.1340	23.56	19.91	43.47	56.00	-12.53	QP
8	2.1340	18.96	19.91	38.87	46.00	-7.13	AVG
9	6.7100	30.63	19.84	50.47	60.00	-9.53	QP
10	6.7100	19.89	19.84	39.73	50.00	-10.27	AVG
11 *	21.3580	36.59	19.77	56.36	60.00	-3.64	QP
12	21.3580	19.77	19.77	39.54	50.00	-10.46	AVG

Note:1.Level = Reading + factor; Margin = Level - Limit, Factor = Cable Loss+Amplifier Factor + Antenna Factor

2.Have pre-scan all test channel, found CH11(802.11b) which it was worst case, so only show the worst case' s data on this report.

3. Radiated Spurious Emissions

3.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.209 & 15.247
Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;
ANSI C63.10:2020
Test Result: PASS
Measurement Distance: 3m

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

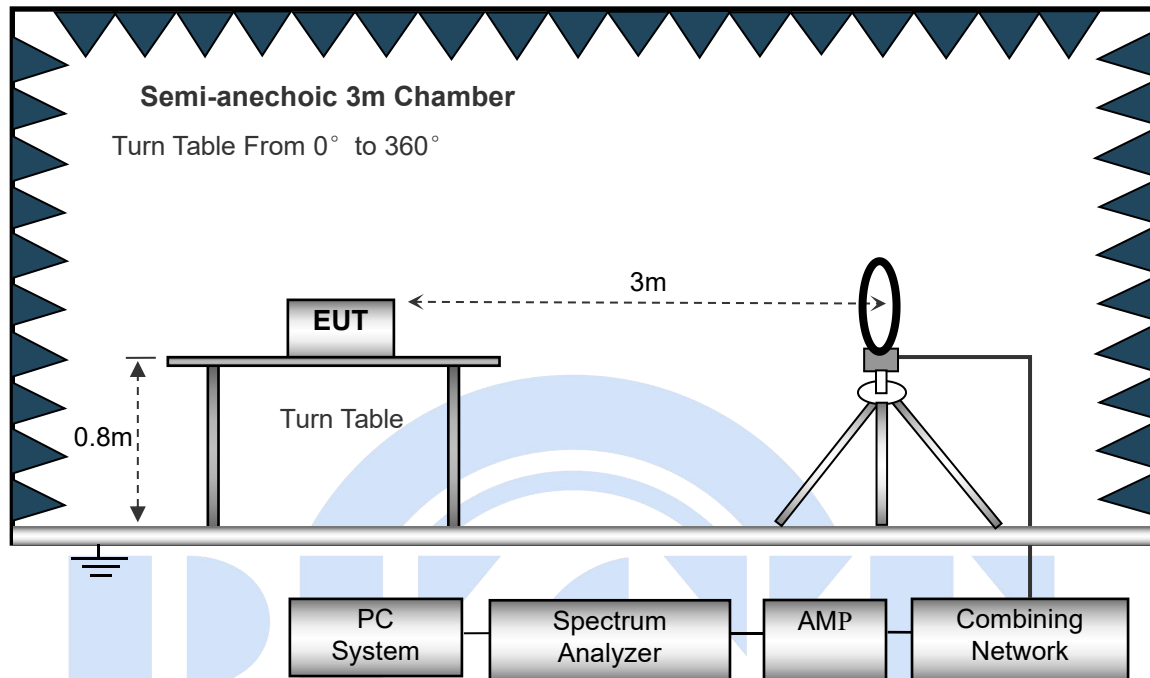
Limit:

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	20log(2400/F(kHz)) + 80
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	20log(24000/F(kHz)) + 40
1.705 ~ 30	30	30	100 * 30	20log(30) + 40
30 ~ 88	100	3	100	20log(100)
88 ~ 216	150	3	150	20log(150)
216 ~ 960	200	3	200	20log(200)
Above 960	500	3	500	20log(500)

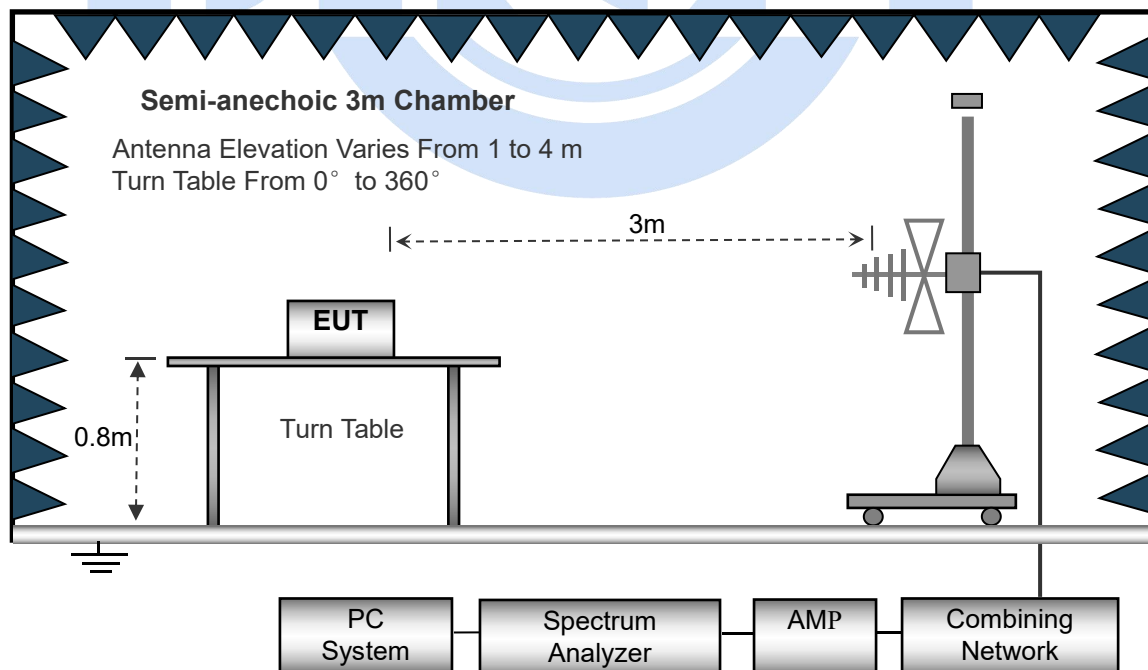
3.2. Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.10.

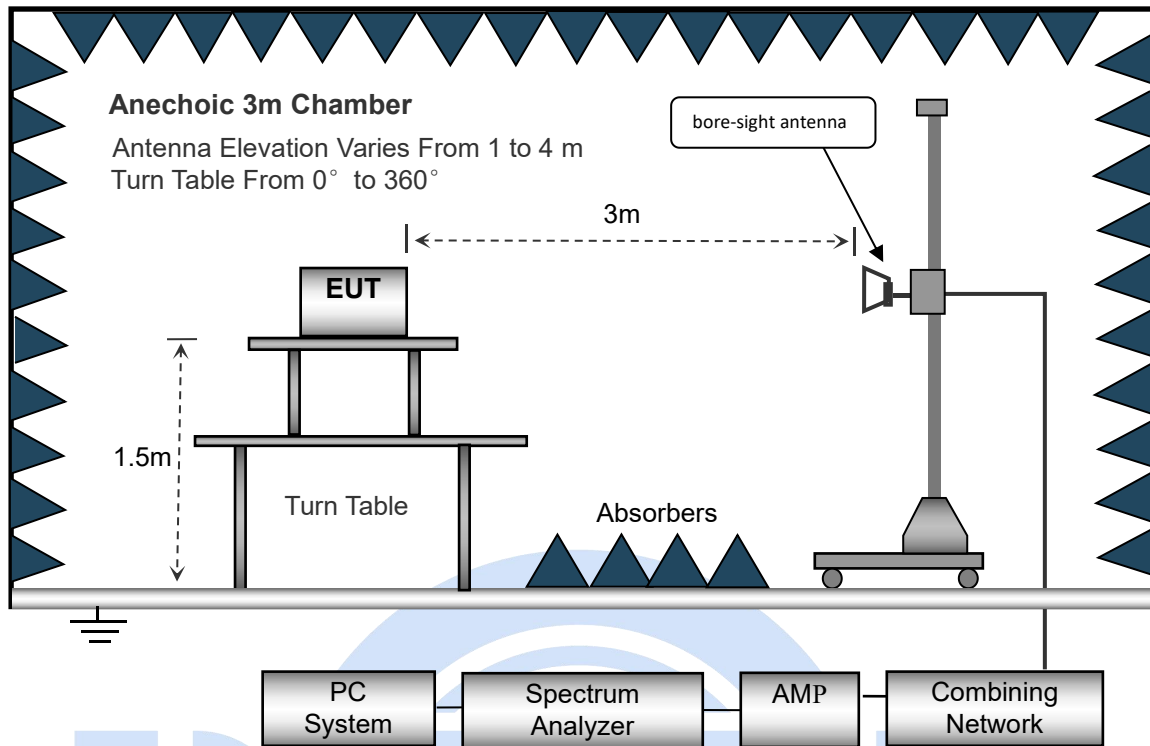
The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz.



3.3.Test Procedure

1. The EUT is placed on a turntable, which is 0.8m above ground plane for below 1GHz and 1.5m for above 1GHz.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The radiation measurements are performed in X,Y and Z axis positioning(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand),the worst condition was tested putting the eut in Z axis,so the worst data were shown as follow.
8. Remark: Level = Reading + Factor, Margin = Level - Limit



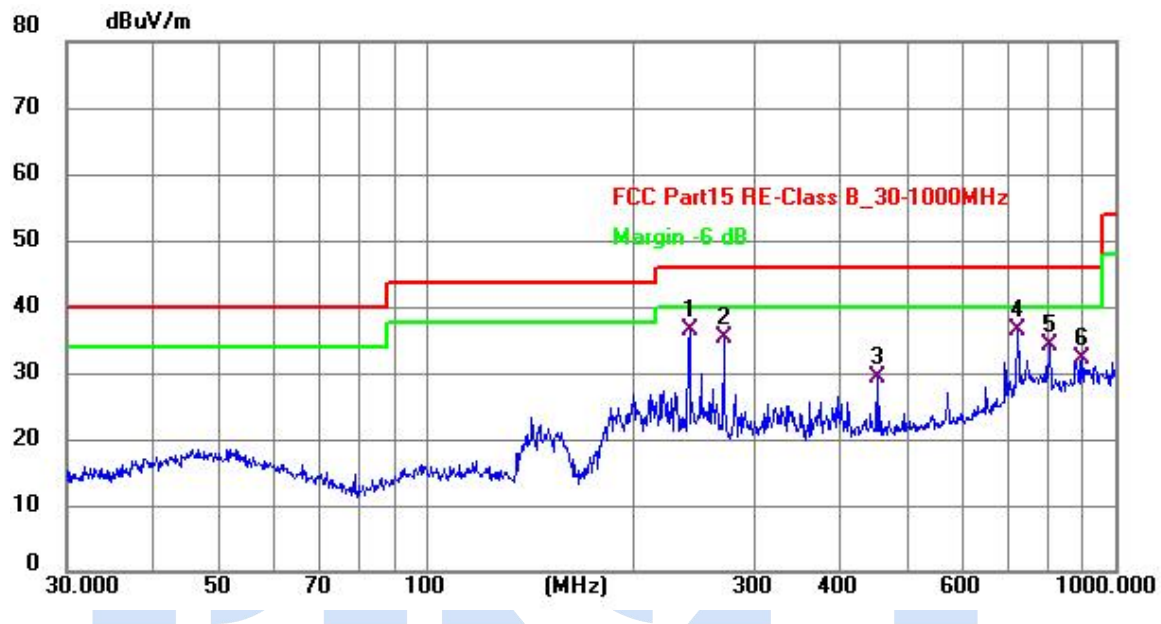
3.4.Test Result

Test Frequency: 9KHz~30MHz

The measurements were more than 20 dB below the limit and not reported.

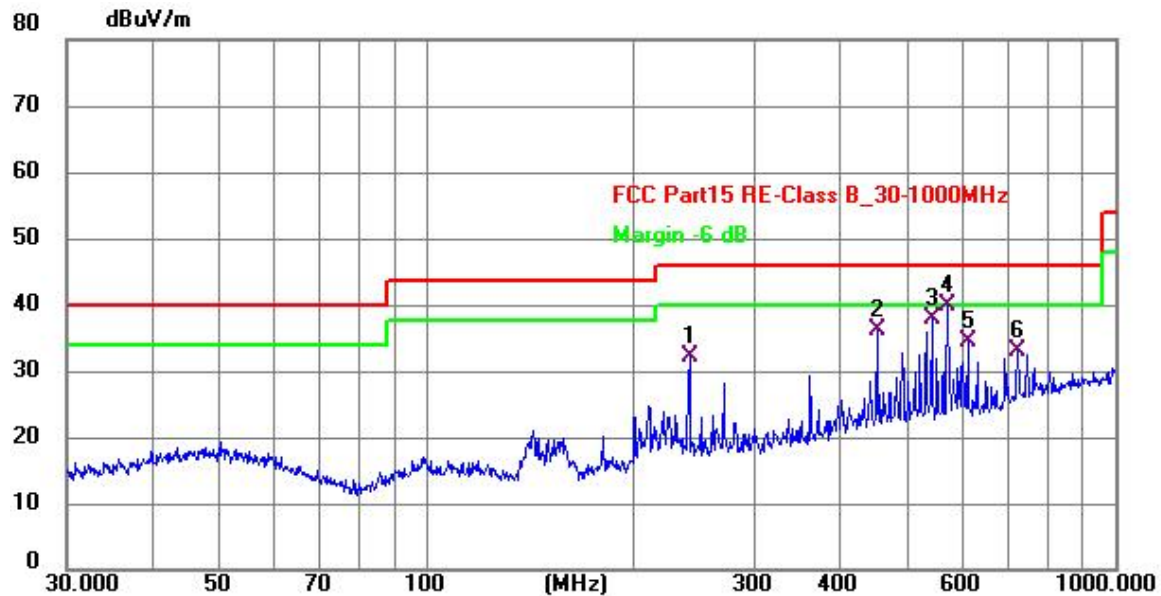
Test Frequency : 30MHz ~ 1GHz

Radiation Emission Test Data			
Temperature:	23.4℃	Relative Humidity:	58%
Pressure:	1008hPa	Phase :	Horizontal
Test Voltage :	AC 120V	Test Mode	802.11b CH11



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	240.8304	46.98	-10.60	36.38	46.00	-9.62	QP
2	270.3748	45.49	-10.14	35.35	46.00	-10.65	QP
3	451.1350	36.53	-7.35	29.18	46.00	-16.82	QP
4	721.7259	39.94	-3.44	36.50	46.00	-9.50	QP
5	804.6028	35.90	-1.70	34.20	46.00	-11.80	QP
6	896.9965	32.67	-0.50	32.17	46.00	-13.83	QP

Radiation Emission Test Data			
Temperature:	25.1°C	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Vertical
Test Voltage :	AC 120V	Test Mode	802.11b CH11



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	240.8304	42.84	-10.60	32.24	46.00	-13.76	QP
2	451.1350	43.50	-7.35	36.15	46.00	-9.85	QP
3	541.3725	44.43	-6.43	38.00	46.00	-8.00	QP
4	572.6144	45.90	-6.00	39.90	46.00	-6.10	QP
5	612.0642	39.16	-4.80	34.36	46.00	-11.64	QP
6	721.7259	36.31	-3.44	32.87	46.00	-13.13	QP

Note:

- 1.Level = Reading + factor; Margin = Level - Limit, Factor = Cable Loss+Amplifier Factor + Antenna Factor
- 2.Have pre-scan all test channel, found 802.11b CH11 which it was worst case, so only show the worst case' s data on this report.

Test Frequency 1GHz-25GHz:

802.11b

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)	Detect or Type
Low Channel:2412MHz									
V	4824.00	66.57	30.55	5.77	24.66	66.45	74	-7.55	Pk
V	4824.00	45.96	30.55	5.77	24.66	45.84	54	-8.16	AV
V	7236.00	66.74	30.33	6.32	24.55	67.28	74	-6.72	Pk
V	7236.00	46.95	30.33	6.32	24.55	47.49	54	-6.51	AV
V	9648.00	66.04	30.85	7.45	24.69	67.33	74	-6.67	Pk
V	9648.00	46.42	30.85	7.45	24.69	47.71	54	-6.29	AV
V	12060.00	66.53	31.02	8.99	25.57	70.07	74	-3.93	Pk
V	12060.00	46.67	31.02	8.99	25.57	50.21	54	-3.79	AV
H	4824.00	65.90	30.55	5.77	24.66	65.78	74	-8.22	Pk
H	4824.00	46.45	30.55	5.77	24.66	46.33	54	-7.67	AV
H	7236.00	66.80	30.33	6.32	24.55	67.34	74	-6.66	Pk
H	7236.00	46.97	30.33	6.32	24.55	47.51	54	-6.49	AV
H	9648.00	66.20	30.85	7.45	24.69	67.49	74	-6.51	Pk
H	9648.00	46.54	30.85	7.45	24.69	47.83	54	-6.17	AV
H	12060.00	66.55	31.02	8.99	25.57	70.09	74	-3.91	Pk
H	12060.00	46.55	31.02	8.99	25.57	50.09	54	-3.91	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)	Detect or Type
Middle Channel:2437MHz									
V	4874.00	66.61	30.55	5.77	24.66	66.49	74	-7.51	Pk
V	4874.00	45.96	30.55	5.77	24.66	45.84	54	-8.16	AV
V	7311.00	66.78	30.33	6.32	24.55	67.32	74	-6.68	Pk
V	7311.00	46.70	30.33	6.32	24.55	47.24	54	-6.76	AV
V	9748.00	66.02	30.85	7.45	24.69	67.31	74	-6.69	Pk
V	9748.00	46.54	30.85	7.45	24.69	47.83	54	-6.17	AV
V	12185.00	66.73	31.02	8.99	25.57	70.27	74	-3.73	Pk
V	12185.00	46.62	31.02	8.99	25.57	50.16	54	-3.84	AV
H	4874.00	66.04	30.55	5.77	24.66	65.92	74	-8.08	Pk
H	4874.00	46.55	30.55	5.77	24.66	46.43	54	-7.57	AV
H	7311.00	66.92	30.33	6.32	24.55	67.46	74	-6.54	Pk
H	7311.00	46.89	30.33	6.32	24.55	47.43	54	-6.57	AV
H	9748.00	66.11	30.85	7.45	24.69	67.40	74	-6.60	Pk
H	9748.00	46.52	30.85	7.45	24.69	47.81	54	-6.19	AV
H	12185.00	66.39	31.02	8.99	25.57	69.93	74	-4.07	Pk
H	12185.00	46.66	31.02	8.99	25.57	50.20	54	-3.80	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:2462MHz									
V	4924.00	66.74	30.55	5.77	24.66	66.62	74	-7.38	Pk
V	4924.00	45.92	30.55	5.77	24.66	45.80	54	-8.20	AV
V	7386.00	66.50	30.33	6.32	24.55	67.04	74	-6.96	Pk
V	7386.00	46.89	30.33	6.32	24.55	47.43	54	-6.57	AV
V	9848.00	66.05	30.85	7.45	24.69	67.34	74	-6.66	Pk
V	9848.00	46.52	30.85	7.45	24.69	47.81	54	-6.19	AV
V	12310.00	66.76	31.02	8.99	25.57	70.30	74	-3.70	Pk
V	12310.00	46.50	31.02	8.99	25.57	50.04	54	-3.96	AV
H	4924.00	66.11	30.55	5.77	24.66	65.99	74	-8.01	Pk
H	4924.00	46.45	30.55	5.77	24.66	46.33	54	-7.67	AV
H	7386.00	66.95	30.33	6.32	24.55	67.49	74	-6.51	Pk
H	7386.00	46.92	30.33	6.32	24.55	47.46	54	-6.54	AV
H	9848.00	66.21	30.85	7.45	24.69	67.50	74	-6.50	Pk
H	9848.00	46.65	30.85	7.45	24.69	47.94	54	-6.06	AV
H	12310.00	66.51	31.02	8.99	25.57	70.05	74	-3.95	Pk
H	12310.00	46.48	31.02	8.99	25.57	50.02	54	-3.98	AV

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)	(dBuV/m)	(dB)	
Low Channel:2412MHz									
V	4824.00	66.74	30.55	5.77	24.66	66.62	74	-7.38	Pk
V	4824.00	46.02	30.55	5.77	24.66	45.90	54	-8.10	AV
V	7236.00	66.77	30.33	6.32	24.55	67.31	74	-6.69	Pk
V	7236.00	46.96	30.33	6.32	24.55	47.50	54	-6.50	AV
V	9648.00	66.04	30.85	7.45	24.69	67.33	74	-6.67	Pk
V	9648.00	46.33	30.85	7.45	24.69	47.62	54	-6.38	AV
V	12060.00	66.64	31.02	8.99	25.57	70.18	74	-3.82	Pk
V	12060.00	46.40	31.02	8.99	25.57	49.94	54	-4.06	AV
H	4824.00	65.92	30.55	5.77	24.66	65.80	74	-8.20	Pk
H	4824.00	46.33	30.55	5.77	24.66	46.21	54	-7.79	AV
H	7236.00	66.70	30.33	6.32	24.55	67.24	74	-6.76	Pk
H	7236.00	46.89	30.33	6.32	24.55	47.43	54	-6.57	AV
H	9648.00	66.07	30.85	7.45	24.69	67.36	74	-6.64	Pk
H	9648.00	46.63	30.85	7.45	24.69	47.92	54	-6.08	AV
H	12060.00	66.43	31.02	8.99	25.57	69.97	74	-4.03	Pk
H	12060.00	46.53	31.02	8.99	25.57	50.07	54	-3.93	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)	
Middle Channel:2437MHz									
V	4874.00	66.80	30.55	5.77	24.66	66.68	74	-7.32	Pk
V	4874.00	45.93	30.55	5.77	24.66	45.81	54	-8.19	AV
V	7311.00	66.76	30.33	6.32	24.55	67.30	74	-6.70	Pk
V	7311.00	46.90	30.33	6.32	24.55	47.44	54	-6.56	AV
V	9748.00	66.12	30.85	7.45	24.69	67.41	74	-6.59	Pk
V	9748.00	46.52	30.85	7.45	24.69	47.81	54	-6.19	AV
V	12185.00	66.67	31.02	8.99	25.57	70.21	74	-3.79	Pk
V	12185.00	46.40	31.02	8.99	25.57	49.94	54	-4.06	AV
H	4874.00	66.06	30.55	5.77	24.66	65.94	74	-8.06	Pk
H	4874.00	46.33	30.55	5.77	24.66	46.21	54	-7.79	AV
H	7311.00	66.73	30.33	6.32	24.55	67.27	74	-6.73	Pk
H	7311.00	47.00	30.33	6.32	24.55	47.54	54	-6.46	AV
H	9748.00	66.17	30.85	7.45	24.69	67.46	74	-6.54	Pk
H	9748.00	46.76	30.85	7.45	24.69	48.05	54	-5.95	AV
H	12185.00	66.57	31.02	8.99	25.57	70.11	74	-3.89	Pk
H	12185.00	46.55	31.02	8.99	25.57	50.09	54	-3.91	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:2462MHz									
V	4924.00	66.80	30.55	5.77	24.66	66.68	74	-7.32	Pk
V	4924.00	45.94	30.55	5.77	24.66	45.82	54	-8.18	AV
V	7386.00	66.76	30.33	6.32	24.55	67.30	74	-6.70	Pk
V	7386.00	46.83	30.33	6.32	24.55	47.37	54	-6.63	AV
V	9848.00	65.88	30.85	7.45	24.69	67.17	74	-6.83	Pk
V	9848.00	46.55	30.85	7.45	24.69	47.84	54	-6.16	AV
V	12310.00	66.60	31.02	8.99	25.57	70.14	74	-3.86	Pk
V	12310.00	46.49	31.02	8.99	25.57	50.03	54	-3.97	AV
H	4924.00	65.98	30.55	5.77	24.66	65.86	74	-8.14	Pk
H	4924.00	46.35	30.55	5.77	24.66	46.23	54	-7.77	AV
H	7386.00	66.94	30.33	6.32	24.55	67.48	74	-6.52	Pk
H	7386.00	46.76	30.33	6.32	24.55	47.30	54	-6.70	AV
H	9848.00	66.10	30.85	7.45	24.69	67.39	74	-6.61	Pk
H	9848.00	46.61	30.85	7.45	24.69	47.90	54	-6.10	AV
H	12310.00	66.46	31.02	8.99	25.57	70.00	74	-4.00	Pk
H	12310.00	46.47	31.02	8.99	25.57	50.01	54	-3.99	AV

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)	(dBuV/ m)	(dB)	
Low Channel:2412MHz									
V	4824.00	66.63	30.55	5.77	24.66	66.51	74	-7.49	Pk
V	4824.00	46.08	30.55	5.77	24.66	45.96	54	-8.04	AV
V	7236.00	66.56	30.33	6.32	24.55	67.10	74	-6.90	Pk
V	7236.00	46.83	30.33	6.32	24.55	47.37	54	-6.63	AV
V	9648.00	65.83	30.85	7.45	24.69	67.12	74	-6.88	Pk
V	9648.00	46.43	30.85	7.45	24.69	47.72	54	-6.28	AV
V	12060.00	66.65	31.02	8.99	25.57	70.19	74	-3.81	Pk
V	12060.00	46.59	31.02	8.99	25.57	50.13	54	-3.87	AV
H	4824.00	66.14	30.55	5.77	24.66	66.02	74	-7.98	Pk
H	4824.00	46.47	30.55	5.77	24.66	46.35	54	-7.65	AV
H	7236.00	66.87	30.33	6.32	24.55	67.41	74	-6.59	Pk
H	7236.00	46.91	30.33	6.32	24.55	47.45	54	-6.55	AV
H	9648.00	66.18	30.85	7.45	24.69	67.47	74	-6.53	Pk
H	9648.00	46.80	30.85	7.45	24.69	48.09	54	-5.91	AV
H	12060.00	66.52	31.02	8.99	25.57	70.06	74	-3.94	Pk
H	12060.00	46.67	31.02	8.99	25.57	50.21	54	-3.79	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)	
Middle Channel:2437MHz									
V	4874.00	66.60	30.55	5.77	24.66	66.48	74	-7.52	Pk
V	4874.00	46.13	30.55	5.77	24.66	46.01	54	-7.99	AV
V	7311.00	66.56	30.33	6.32	24.55	67.10	74	-6.90	Pk
V	7311.00	46.79	30.33	6.32	24.55	47.33	54	-6.67	AV
V	9748.00	66.05	30.85	7.45	24.69	67.34	74	-6.66	Pk
V	9748.00	46.35	30.85	7.45	24.69	47.64	54	-6.36	AV
V	12185.00	66.62	31.02	8.99	25.57	70.16	74	-3.84	Pk
V	12185.00	46.56	31.02	8.99	25.57	50.10	54	-3.90	AV
H	4874.00	65.97	30.55	5.77	24.66	65.85	74	-8.15	Pk
H	4874.00	46.55	30.55	5.77	24.66	46.43	54	-7.57	AV
H	7311.00	66.94	30.33	6.32	24.55	67.48	74	-6.52	Pk
H	7311.00	46.78	30.33	6.32	24.55	47.32	54	-6.68	AV
H	9748.00	66.21	30.85	7.45	24.69	67.50	74	-6.50	Pk
H	9748.00	46.52	30.85	7.45	24.69	47.81	54	-6.19	AV
H	12185.00	66.40	31.02	8.99	25.57	69.94	74	-4.06	Pk
H	12185.00	46.55	31.02	8.99	25.57	50.09	54	-3.91	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:2462MHz									
V	4924.00	66.85	30.55	5.77	24.66	66.73	74	-7.27	Pk
V	4924.00	46.12	30.55	5.77	24.66	46.00	54	-8.00	AV
V	7386.00	66.69	30.33	6.32	24.55	67.23	74	-6.77	Pk
V	7386.00	46.87	30.33	6.32	24.55	47.41	54	-6.59	AV
V	9848.00	66.02	30.85	7.45	24.69	67.31	74	-6.69	Pk
V	9848.00	46.39	30.85	7.45	24.69	47.68	54	-6.32	AV
V	12310.00	66.72	31.02	8.99	25.57	70.26	74	-3.74	Pk
V	12310.00	46.49	31.02	8.99	25.57	50.03	54	-3.97	AV
H	4924.00	66.12	30.55	5.77	24.66	66.00	74	-8.00	Pk
H	4924.00	46.43	30.55	5.77	24.66	46.31	54	-7.69	AV
H	7386.00	66.93	30.33	6.32	24.55	67.47	74	-6.53	Pk
H	7386.00	46.86	30.33	6.32	24.55	47.40	54	-6.60	AV
H	9848.00	66.13	30.85	7.45	24.69	67.42	74	-6.58	Pk
H	9848.00	46.54	30.85	7.45	24.69	47.83	54	-6.17	AV
H	12310.00	66.36	31.02	8.99	25.57	69.90	74	-4.10	Pk
H	12310.00	46.42	31.02	8.99	25.57	49.96	54	-4.04	AV

Remark:

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

Margin= Emission Level - Limit

2. If peak below the average limit, the average emission was no test.

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

Radiated Band Emission Measurement:

	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
802.11 b	Low Channel 2412MHz									
	H	2310.00	66.12	30.22	4.85	23.98	64.73	74	Pk	PASS
	H	2310.00	46.05	30.22	4.85	23.98	44.66	54	AV	PASS
	H	2390.00	63.17	30.22	4.85	23.98	61.78	74	Pk	PASS
	H	2390.00	46.52	30.22	4.85	23.98	45.13	54	AV	PASS
	H	2400.00	65.47	30.22	4.85	23.98	64.08	74	Pk	PASS
	H	2400.00	46.50	30.22	4.85	23.98	45.11	54	AV	PASS
	V	2310.00	66.59	30.22	4.85	23.98	65.20	74	Pk	PASS
	V	2310.00	46.51	30.22	4.85	23.98	45.12	54	AV	PASS
	V	2390.00	60.01	30.22	4.85	23.98	58.62	74	Pk	PASS
	V	2390.00	46.83	30.22	4.85	23.98	45.44	54	AV	PASS
	V	2400.00	61.49	30.22	4.85	23.98	60.10	74	Pk	PASS
	V	2400.00	46.77	30.22	4.85	23.98	45.38	54	AV	PASS
	High Channel 2462MHz									
	H	2483.50	66.21	30.22	4.85	23.98	64.82	74	Pk	PASS
	H	2483.50	46.32	30.22	4.85	23.98	44.93	54	AV	PASS
	H	2500.00	63.55	30.22	4.85	23.98	62.16	74	Pk	PASS
	H	2500.00	46.33	30.22	4.85	23.98	44.94	54	AV	PASS
	V	2483.50	65.60	30.22	4.85	23.98	64.21	74	Pk	PASS
	V	2483.50	46.43	30.22	4.85	23.98	45.04	54	AV	PASS
	V	2500.00	66.54	30.22	4.85	23.98	65.15	74	Pk	PASS
	V	2500.00	46.32	30.22	4.85	23.98	44.93	54	AV	PASS
802.11 g	Low Channel 2412MHz									
	H	2310.00	66.51	30.22	4.85	23.98	65.12	74	Pk	PASS
	H	2310.00	46.93	30.22	4.85	23.98	45.54	54	AV	PASS
	H	2390.00	63.12	30.22	4.85	23.98	61.73	74	Pk	PASS
	H	2390.00	47.02	30.22	4.85	23.98	45.63	54	AV	PASS
	H	2400.00	65.86	30.22	4.85	23.98	64.47	74	Pk	PASS
	H	2400.00	46.79	30.22	4.85	23.98	45.40	54	AV	PASS
	V	2310.00	66.47	30.22	4.85	23.98	65.08	74	Pk	PASS
	V	2310.00	46.70	30.22	4.85	23.98	45.31	54	AV	PASS
	V	2390.00	59.03	30.22	4.85	23.98	57.64	74	Pk	PASS
	V	2390.00	46.82	30.22	4.85	23.98	45.43	54	AV	PASS
	V	2400.00	61.07	30.22	4.85	23.98	59.68	74	Pk	PASS
	V	2400.00	46.51	30.22	4.85	23.98	45.12	54	AV	PASS
	High Channel 2462MHz									
	H	2483.50	66.58	30.22	4.85	23.98	65.19	74	Pk	PASS
	H	2483.50	46.84	30.22	4.85	23.98	45.45	54	AV	PASS
	H	2500.00	63.78	30.22	4.85	23.98	62.39	74	Pk	PASS
	H	2500.00	46.90	30.22	4.85	23.98	45.51	54	AV	PASS
	V	2483.50	65.28	30.22	4.85	23.98	63.89	74	Pk	PASS

	V	2483.50	46.62	30.22	4.85	23.98	45.23	54	AV	PASS
	V	2500.00	66.11	30.22	4.85	23.98	64.72	74	Pk	PASS
	V	2500.00	46.24	30.22	4.85	23.98	44.85	54	AV	PASS
802.11 n20	Low Channel 2412MHz									
	H	2310.00	66.41	30.22	4.85	23.98	65.02	74	Pk	PASS
	H	2310.00	46.05	30.22	4.85	23.98	44.66	54	AV	PASS
	H	2390.00	63.46	30.22	4.85	23.98	62.07	74	Pk	PASS
	H	2390.00	46.66	30.22	4.85	23.98	45.27	54	AV	PASS
	H	2400.00	65.57	30.22	4.85	23.98	64.18	74	Pk	PASS
	H	2400.00	46.52	30.22	4.85	23.98	45.13	54	AV	PASS
	V	2310.00	66.46	30.22	4.85	23.98	65.07	74	Pk	PASS
	V	2310.00	46.44	30.22	4.85	23.98	45.05	54	AV	PASS
	V	2390.00	59.94	30.22	4.85	23.98	58.55	74	Pk	PASS
	V	2390.00	46.26	30.22	4.85	23.98	44.87	54	AV	PASS
	V	2400.00	60.90	30.22	4.85	23.98	59.51	74	Pk	PASS
	V	2400.00	46.84	30.22	4.85	23.98	45.45	54	AV	PASS
	High Channel 2462MHz									
	H	2483.50	66.81	30.22	4.85	23.98	65.42	74	Pk	PASS
	H	2483.50	47.21	30.22	4.85	23.98	45.82	54	AV	PASS
	H	2500.00	63.13	30.22	4.85	23.98	61.74	74	Pk	PASS
	H	2500.00	47.12	30.22	4.85	23.98	45.73	54	AV	PASS
	V	2483.50	65.68	30.22	4.85	23.98	64.29	74	Pk	PASS
	V	2483.50	47.01	30.22	4.85	23.98	45.62	54	AV	PASS
	V	2500.00	66.98	30.22	4.85	23.98	65.59	74	Pk	PASS
	V	2500.00	46.60	30.22	4.85	23.98	45.21	54	AV	PASS
802.11 n40	Low Channel 2412MHz									
	H	2310.00	66.73	30.22	4.85	23.98	65.34	74	Pk	PASS
	H	2310.00	46.41	30.22	4.85	23.98	45.02	54	AV	PASS
	H	2390.00	63.21	30.22	4.85	23.98	61.82	74	Pk	PASS
	H	2390.00	46.40	30.22	4.85	23.98	45.01	54	AV	PASS
	H	2400.00	65.59	30.22	4.85	23.98	64.20	74	Pk	PASS
	H	2400.00	46.10	30.22	4.85	23.98	44.71	54	AV	PASS
	V	2310.00	66.46	30.22	4.85	23.98	65.07	74	Pk	PASS
	V	2310.00	46.61	30.22	4.85	23.98	45.22	54	AV	PASS
	V	2390.00	59.81	30.22	4.85	23.98	58.42	74	Pk	PASS
	V	2390.00	46.25	30.22	4.85	23.98	44.86	54	AV	PASS
	V	2400.00	61.76	30.22	4.85	23.98	60.37	74	Pk	PASS
	V	2400.00	46.35	30.22	4.85	23.98	44.96	54	AV	PASS
	High Channel 2462MHz									
	H	2483.50	66.16	30.22	4.85	23.98	64.77	74	Pk	PASS
	H	2483.50	46.30	30.22	4.85	23.98	44.91	54	AV	PASS
	H	2500.00	63.41	30.22	4.85	23.98	62.02	74	Pk	PASS
	H	2500.00	46.55	30.22	4.85	23.98	45.16	54	AV	PASS
	V	2483.50	65.71	30.22	4.85	23.98	64.32	74	Pk	PASS
	V	2483.50	47.12	30.22	4.85	23.98	45.73	54	AV	PASS

	V	2500.00	66.44	30.22	4.85	23.98	65.05	74	Pk	PASS
	V	2500.00	46.34	30.22	4.85	23.98	44.95	54	AV	PASS

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. Conducted Spurious Emissions

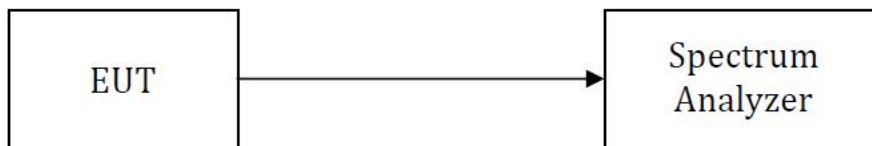
4.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247
Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;
ANSI C63.10:2020
Test Result: PASS

Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

4.2.Test Setup



4.3.Test Procedure

- 1) Remove the antenna from the EUT and connect to the spectrum analyzer via a low loss RF cable.
- 2) Set instrument center frequency to DTS channel center frequency.
- 3) Set the span to 1.5 times the DTS bandwidth.
- 4) Set the RBW = 100 kHz.
- 5) Set the VBW [3 × RBW].
- 6) Detector = peak.
- 7) Sweep time = auto couple.
- 8) Trace mode = max hold.
- 9) Allow trace to fully stabilize.
- 10) Use the peak marker function to determine the maximum PSD level.

Emission level measurement:

- 1) Set the center frequency and span to encompass frequency range to be measured.
- 2) Set the RBW = 100 kHz.
- 3) Set the VBW [3 × RBW].
- 4) Detector = peak.
- 5) Sweep time = auto couple.
- 6) Trace mode = max hold.
- 7) Allow trace to fully stabilize.
- 8) Use the peak marker function to determine the maximum amplitude level.

4.4.Test Result

Please see the attachment for data.

5. Band Edge Measurement

5.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;

ANSI C63.10:2020

Test Limit: Regulation 15.247 (d), In any 100 kHz bandwidth outside the frequency band which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. 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 in §15.209(a) (see §15.205(c)).

Test Mode: TM1

5.2.Test setup



5.3.Test Procedure

- 1) Remove the antenna from the EUT and connect to the spectrum analyzer via a low loss RF cable.
- 2) Set instrument center frequency to DTS channel center frequency.
- 3) Set the span to 1.5 times the DTS bandwidth.
- 4) Set the RBW = 100 kHz.
- 5) Set the VBW [3 × RBW].
- 6) Detector = peak.
- 7) Sweep time = auto couple.
- 8) Trace mode = max hold.
- 9) Allow trace to fully stabilize.
- 10) Use the peak marker function to determine the maximum PSD level.

Emission level measurement:

- 1) Set the center frequency and span to encompass frequency range to be measured.
- 2) Set the RBW = 100 kHz.
- 3) Set the VBW [3 × RBW].
- 4) Detector = peak.
- 5) Sweep time = auto couple.
- 6) Trace mode = max hold.
- 7) Allow trace to fully stabilize.
- 8) Use the peak marker function to determine the maximum amplitude level.

5.4.Test Result

Please see the attachment for data.

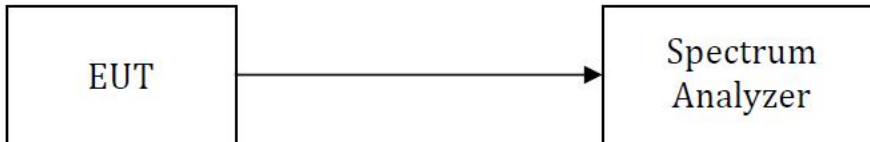
6. -6 dB Bandwidth and 99% Bandwidth Measurement

6.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02; ANSI C63.10:2020

6.2.Test Setup



6.3.Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. 6dB: Set RBW = shall be in the range of 1%% to 5% of the OBW but not less than 100 kHz.
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.

99%: Set RBW = 1%~5% of 99% bandwidth, VBW $\geq [3 \times \text{RBW}]$, Sweep = Auto.

6.4.Test Result

Please see the attachment for data.

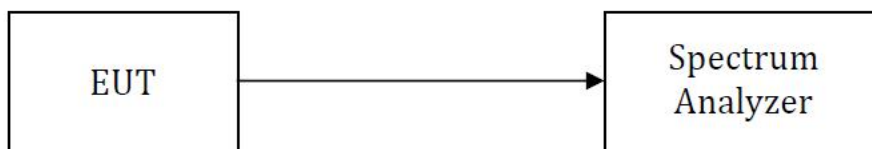
7. Maximum Output Power

7.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247
Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;
ANSI C63.10:2020

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

7.2.Test Setup



7.3.Test Procedure

ANSI C63.10:2020

Method AVGSA-1 uses trace averaging with the EUT transmitting at full power throughout each sweep. The procedure for this method is as follows:

- Set span to >1.5 times the OBW.
- Set RBW = 1% to 5% of the OBW, but do not exceed 1 MHz.
- Set VBW $\geq [3 \times \text{RBW}]$.
- Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- Sweep time = auto.
- Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
- If transmit duty cycle $< 98\%$, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at the maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFF intervals) or at duty cycle $\geq 98\%$, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."
- Trace average at least 100 traces in power averaging (rms) mode.
- Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band-edges. If the instrument does not have a band-power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

Method AVGSA-2 uses trace averaging across ON and OFF times of the EUT transmissions, followed by duty cycle correction. The procedure for this method is as follows:

- Measure the duty cycle D of the transmitter output signal as described in 11.6.
- Set span to >1.5 times the OBW.
- Set RBW = 1% to 5% of the OBW, but do not exceed 1 MHz.
- Set VBW $\geq [3 \times \text{RBW}]$.
- Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- Sweep time = auto.
- Detector = Power averaging (rms), if available. Otherwise, use the sample detector mode.

- h) Do not use sweep triggering. Allow the sweep to “free run.”
- i) Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 until trace is stabilized so that the average accurately represents the true average over the ON and OFF periods of the transmitter.
- j) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band-power measurement function with band limits set equal to the OBW band-edges. If the instrument does not have a band-power function, then sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.
- k) Add $[10 \log (1 / D)]$, where D is the duty cycle, to the measured power to compute the average power during the actual transmission times (because the measurement represents an average over both the ON and OFF times of the transmission). For example, add $[10 \log (1/0.25)] = 6 \text{ dB}$ if the duty cycle is 25%.

7.4.Test Result

Test plot Please see the attachment for data.



8. Power Spectral density

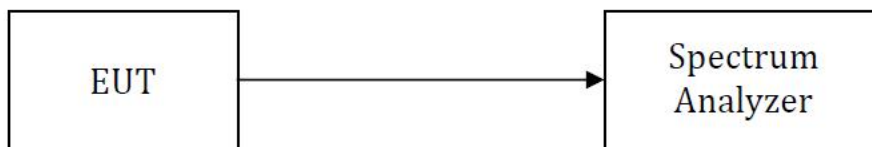
8.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02; ANSI C63.10:2020

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

8.2.Test Setup



8.3.Test Procedure

KDB 558074 D01 15.247 Meas Guidance v05r02;

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set instrument center frequency to DTS channel center frequency
3. Set span to > 1.5 times the OBW.
4. Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
5. Set VBW $\geq [3 \times \text{RBW}]$
6. Detector = power averaging (rms) or sample detector (when rms not available).
7. Ensure that the number of measurement points in the sweep $\geq [2 \times \text{span} / \text{RBW}]$.
8. Sweep time = auto couple.
9. Employ trace averaging (rms) mode over a minimum of 100 traces.
10. Use the peak marker function to determine the maximum amplitude level.
11. If the measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat(note that this might require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).
12. Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. The limit is specified in one of the subparagraphs of this Section Submit this plot.

8.4.Test Result

Please see the attachment for data.

9. Antenna Requirement

According to the FCC Part 15 Paragraph 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. This product has an FPC Antenna fulfill the requirement of this section.



10. Test Photographs

Please see the attachment for Test Photographs.

11. Appendix I: Photos of the EUT

Please see the attachment for External Photographs and Internal Photographs

