ACCREDITED
CERT #6827.01

FCC Test Report

Client Name	:	Shenzhen Anboqi Technology Co.,Ltd
Client Address	:	3F Building B,No.1 Road 1, Shangxue Technology Park Bantian Town, Longgang District, Shenzhen, Guangdong
Product Name	:	Wifi Camera
Report Date	:	Mar. 11, 2024

Shenzhen Tian Hai Test Technology Co., Ltd.

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TEST REPORT

Applicant	:	Shenzhen Anboqi Technology Co.,Ltd
Manufacturer	:	3F Building B,No.1 Road 1, Shangxue Technology Park Bantian Town, Longgang District, Shenzhen, Guangdong
Product Name	:	Wifi Camera
Model No.	:	ABQ-A28, ABQ-A1, ABQ-A6, ABQ-A8, ABQ-A9, ABQ-A15, ABQ-A18, ABQ-A21, ABQ-A22, ABQ-A23, ABQ-A25, ABQ-A26, ABQ-A27, ABQ-A29, ABQ-A30, ABQ-A31, ABQ-A32, A33
Trade Mark	:	N/A
Rating(s)	:	Input:100-240V~ 50-60Hz 0.3A Output:12V ⎓ 2000mA
Test Standard(s)	:	**FCC Part15 Subpart C, Section 15.247**
Test Method(s)	:	**ANSI C63.10: 2020, KDB 558074 D01 15.247 Meas Guidance v05r02**

The device described above is tested by Shenzhen Tian Hai Test Technology Co., Ltd to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Tian Hai Test Technology Co., Ltd is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 15 Subpart C requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Tian Hai Test Technology Co., Ltd.

Date of Receipt	Jan. 29, 2024
Date of Test	Jan. 19~29, 2024
Tested by	(Suny Zhuo)
Reviewed by	(Blue Hu)
Approved & Authorized Signer	(Binglee)

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Revision History

Report Version	Description	Issued Date
R00	Original Issue.	Mar. 11, 2024

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1. General Information

1.1. Client Information

Applicant	:	SHENZHEN AILSEE TECHNICAL., LTD
Address	:	3F Building B,No.1 Road 1, Shangxue Technology Park Bantian Town, Longgang District, Shenzhen, Guangdong
Manufacturer	:	SHENZHEN AILSEE TECHNICAL., LTD
Address	:	3F Building B,No.1 Road 1, Shangxue Technology Park Bantian Town, Longgang District, Shenzhen, Guangdong
Factory	:	SHENZHEN AILSEE TECHNICAL., LTD
Address	:	3F Building B,No.1 Road 1, Shangxue Technology Park Bantian Town, Longgang District, Shenzhen, Guangdong

1.2. Description of Device (EUT)

Product Name	:	Wifi Camera
Model No.	:	ABQ-A28, ABQ-A1, ABQ-A6, ABQ-A8, ABQ-A9, ABQ-A15, ABQ-A18, ABQ-A21, ABQ-A22, ABQ-A23, ABQ-A25, ABQ-A26, ABQ-A27, ABQ-A29, ABQ-A30, ABQ-A31, ABQ-A32, A33(All samples are the same except the model number, so we prepare "ABQ-A28" for test only.)
Trade Mark	:	N/A
Test Power Supply	:	Input:100-240V~ 50-60Hz 0.3A Output:12V ⎓ 2000mA
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)
Operation Mode	:	☒802.11b ☒802.11g ☒802.11n(HT20)
Operation Frequency	:	2412~2462MHz
Number of Channel	:	11 Channel for 20MHz bandwidth (2412~2462MHz)
Modulation Type	:	☒ 802.11b: DSSS (CCK, DQPSK, DBPSK) ☒ 802.11g: OFDM (BPSK, QPSK, 16QAM, 64QAM) ☒ 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	:	Buckle Antenna
Antenna Gain(Peak)	:	3.27 dBi (Provided by customer)
Remark: 1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. 2) The power supply voltage shall be determined by the customer and communicated with the seller to confirm that it can be used normally in the United States		

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1.3. Auxiliary Equipment Used During Test

Description	Model	Manufacturer
Apple phone	Redmi K50 Ultra	Redmi

1.4. Description of Test Configuration

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
01	**2412**	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	**11**	**2462**
03	2422	06	**2437**	09	2452		

Note:

1. The engineering test program was provided and the EUT was programmed to be in continuously transmitting mode.

2. For 802.11b, 802.11g, and 802.11n(HT20) modes were test with channel 1, 6, 11.

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1.5. Test Equipment List

Conducted Emission				
Kind of Equipment	**Manufacturer**	**Type**	**S/N**	**Calibrate until**
EMI Test Receiver	R&S	ESR7	102333	2024-11-13
L.I.S.N	Schwarzbeck	NNLK 8128	5089	2024-11-13
8-Wire ISN CAT6	Schwarzbeck	NTFM 8158	231	2024-11-13
BT-6058 Limiter	Schwarzbeck	VTSD 9561-F	847	2024-11-13
Test software	FALA	/	EMC-CON 3A1.1	/
Radiated Emission (3m)				
EMI Test Receiver	R&S	ESR7	102333	2024-11-13
MXA Signal Analyzer	Keysight	N9020A	MY51281805	2024-04-15
Bilog Antenna	Schwarzbeck	VULB 9168	01148	2024-11-13
Pre-Amplifier	Schwarzbeck	BBV 9718 B	00109	2024-11-13
Pre-Amplifier	Schwarzbeck	BBV 9743 B	00253	2024-11-13
Pre-Amplifier	GUANGGU ELECTRONIC	GLNA18-40GK-5372	20210331001	2024-11-13
Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00148	2024-11-13
Horn Antenna	Schwarzbeck	BBHA 9120	02379	2024-11-13
Pre-Amplifier	GUANGGU ELECTRONIC	GLNA18-40GK-5372	20210331001	2024-11-13
Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00148	2024-11-13
Broadband horn antenna	OCEAN MICROWAVE	0BH100400	26999002	2024-11-13
Test software	FALA	/	FA-03A2 RE	/
RF Test System				
Wideband radio communication tester	R&S	CMW500	131134	2024-11-13
EXA Signal Analyzer	Keysight	N9010A	MY54488841	2024-04-20
MXG Vector Signal Generator	Agilent	N5182B	MY59100603	2024-11-13
Signal Generator	R&S	SMB100A	113650	2024-04-15
RF control unit	Tonscend	JS0806-2	21C8060397	/
DC Power supply	Agilent	E3632A	MY50120052	/
RF test system	Tonscend	/	V2.6.88.0346	/

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1.6. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 6.3 dB
Conduction Uncertainty	:	Uc = 3.8 dB

(1) Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus.
(2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.
(3) The measurement uncertainty is not included in the test result.

1.7. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 173438

Shenzhen Tian Hai Test Technology Co,.Ltd, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 173438

Test Location

Shenzhen Tian Hai Test Technology Co., Ltd.
125-126, No.66, Zhangge Road, Zhangge Community, Fucheng Street, Longhua District, Shenzhen, Guangdong, China

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2. Summary of Test Results

Standard Section	Test Item	Result
15.203/15.247(c)	Antenna Requirement	PASS
15.207	Conducted Emission	PASS
15.205/15.209	Spurious Emission	PASS
15.247(b)(3)	Conducted Peak Output Power	PASS
15.247(a)(2)	6dB Occupied Bandwidth	PASS
15.247(e)	Power Spectral Density	PASS
15.247(d)	Band Edge	PASS
Remark: "N/A" is an abbreviation for Not Applicable.		

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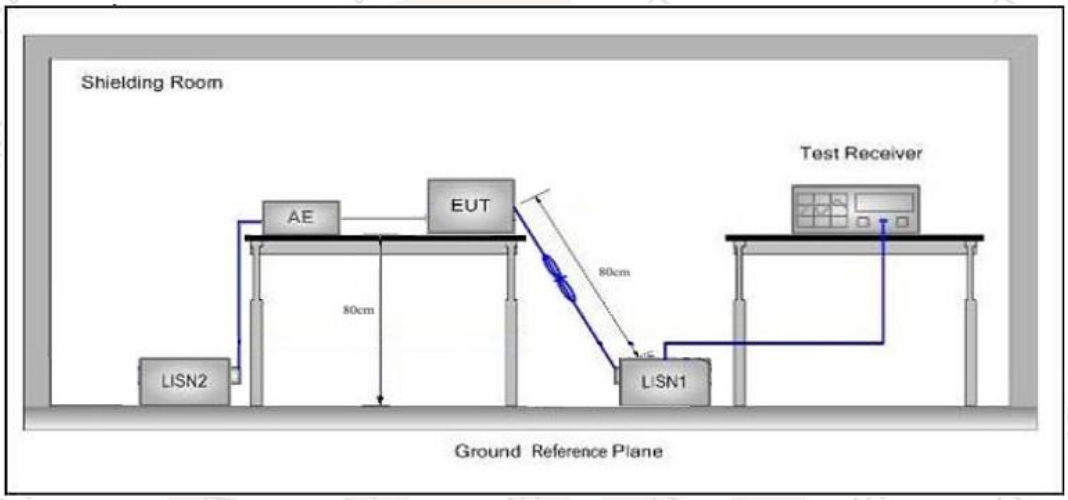
3. Conducted Emission Test

3.1. Test Standard and Limit

Test Standard	FCC Part15 Section 15.207		
Test Limit	Frequency	Maximum RF Line Voltage (dBuV)	
		Quasi-peak Level	Average Level
	150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
	500kHz~5MHz	56	46
	5MHz~30MHz	60	50
Remark: (1) *Decreasing linearly with logarithm of the frequency. (2) The lower limit shall apply at the transition frequency.			

3.2. Test Setup



3.3. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.10: 2020 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

3.4. Test Data

During the test, pre-scan all modes, only the worst case is recorded in the report.

AC conducted emission pre-test at both at AC 120V/60Hz and AC 240V/60Hz modes, recorded worst case AC 120V/60Hz.

Please to see the following pages.

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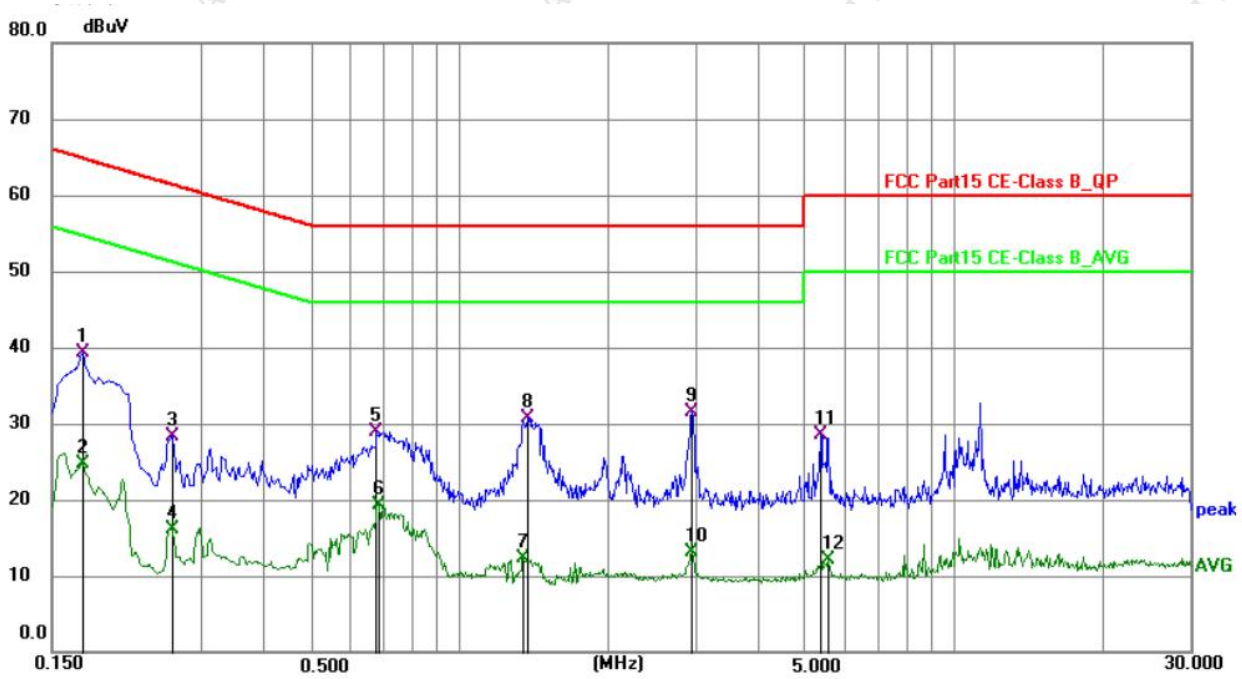
Conducted Emission Test Data

Test Site:	1# Shielded Room
Operating Condition:	802.11n (HT20) 2412MHz
Test Specification:	AC 120V/60Hz
Comment:	Live Line
Temp.(℃)/Hum.(%RH):	22℃/54%RH



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1723	28.74	10.57	39.31	64.85	-25.54	QP	P
2	0.1723	14.23	10.57	24.80	54.85	-30.05	AVG	P
3	0.2625	17.80	10.59	28.39	61.35	-32.96	QP	P
4	0.2625	5.50	10.59	16.09	51.35	-35.26	AVG	P
5	0.6809	18.23	10.64	28.87	56.00	-27.13	QP	P
6	0.6854	8.72	10.64	19.36	46.00	-26.64	AVG	P
7	1.3467	1.58	10.66	12.24	46.00	-33.76	AVG	P
8	1.3785	20.00	10.66	30.66	56.00	-25.34	QP	P
9 *	2.9489	20.75	10.69	31.44	56.00	-24.56	QP	P
10	2.9489	2.48	10.69	13.17	46.00	-32.83	AVG	P
11	5.3868	17.73	10.72	28.45	60.00	-31.55	QP	P
12	5.5715	1.30	10.72	12.02	50.00	-37.98	AVG	P

Note: Result=Reading+Factor Over Limit=Result-Limit

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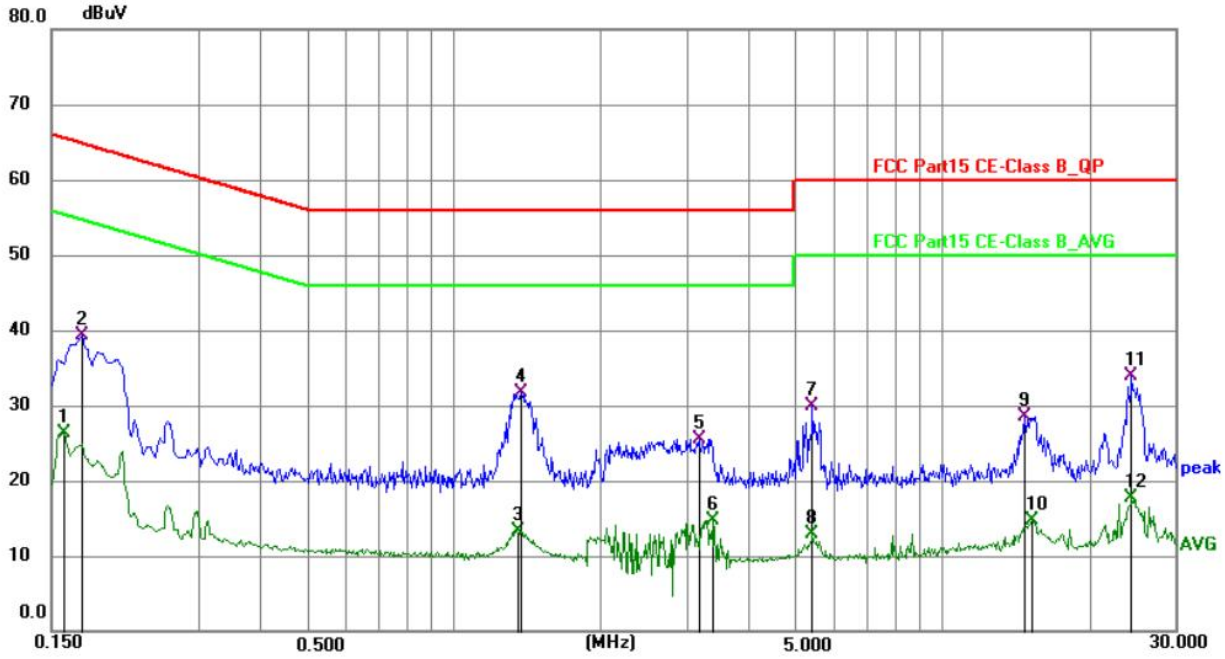
Conducted Emission Test Data

Test Site:	1# Shielded Room
Operating Condition:	802.11n (HT20) 2412MHz
Test Specification:	AC 120V/60Hz
Comment:	Neutral Line
Temp.(℃)/Hum.(%RH):	22℃/54%RH



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1590	15.82	10.57	26.39	55.52	-29.13	AVG	P
2	0.1723	28.69	10.57	39.26	64.85	-25.59	QP	P
3	1.3510	2.69	10.66	13.35	46.00	-32.65	AVG	P
4 *	1.3740	21.12	10.66	31.78	56.00	-24.22	QP	P
5	3.1739	14.89	10.70	25.59	56.00	-30.41	QP	P
6	3.4125	3.99	10.70	14.69	46.00	-31.31	AVG	P
7	5.4455	19.23	10.72	29.95	60.00	-30.05	QP	P
8	5.4455	2.28	10.72	13.00	50.00	-37.00	AVG	P
9	14.7606	17.68	10.86	28.54	60.00	-31.46	QP	P
10	15.3100	3.85	10.86	14.71	50.00	-35.29	AVG	P
11	24.5076	22.99	10.93	33.92	60.00	-26.08	QP	P
12	24.5076	6.68	10.93	17.61	50.00	-32.39	AVG	P

Note: Result=Reading+Factor Over Limit=Result-Limit

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4. Radiation Spurious Emission and Band Edge

4.1. Test Standard and Limit

Test Standard	FCC Part15 C Section 15.209 and 15.205				
Test Limit	Frequency (MHz)	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
	0.009MHz~0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz~88MHz	100	40.0	Quasi-peak	3
	88MHz~216MHz	150	43.5	Quasi-peak	3
	216MHz~960MHz	200	46.0	Quasi-peak	3
	960MHz~1000MHz	500	54.0	Quasi-peak	3
	Above 1000MHz	500	54.0	Average	3
		-	74.0	Peak	3

Remark:
(1)The lower limit shall apply at the transition frequency.
(2) 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.

4.2. Test Setup

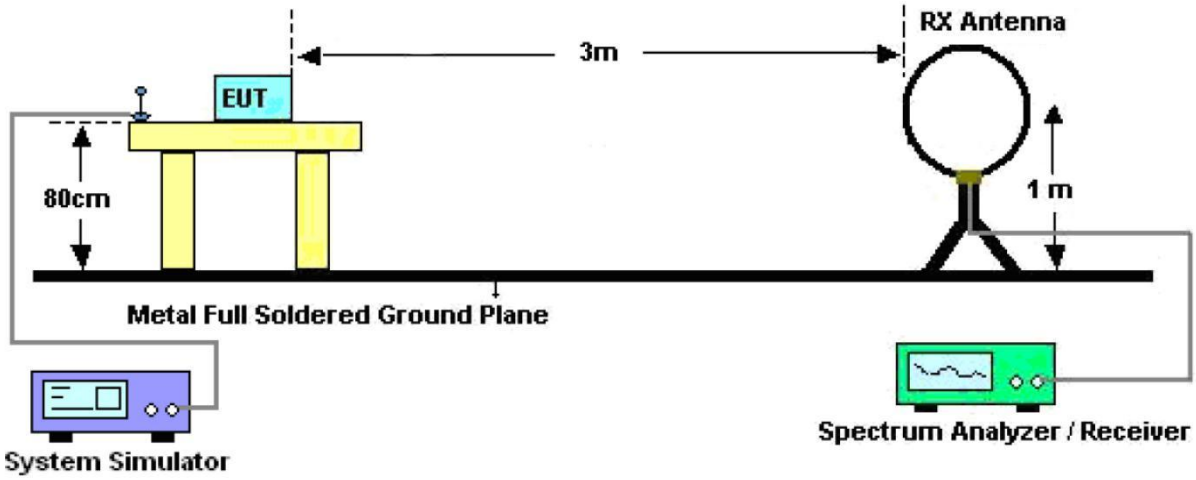

Figure 1. Below 30MHz

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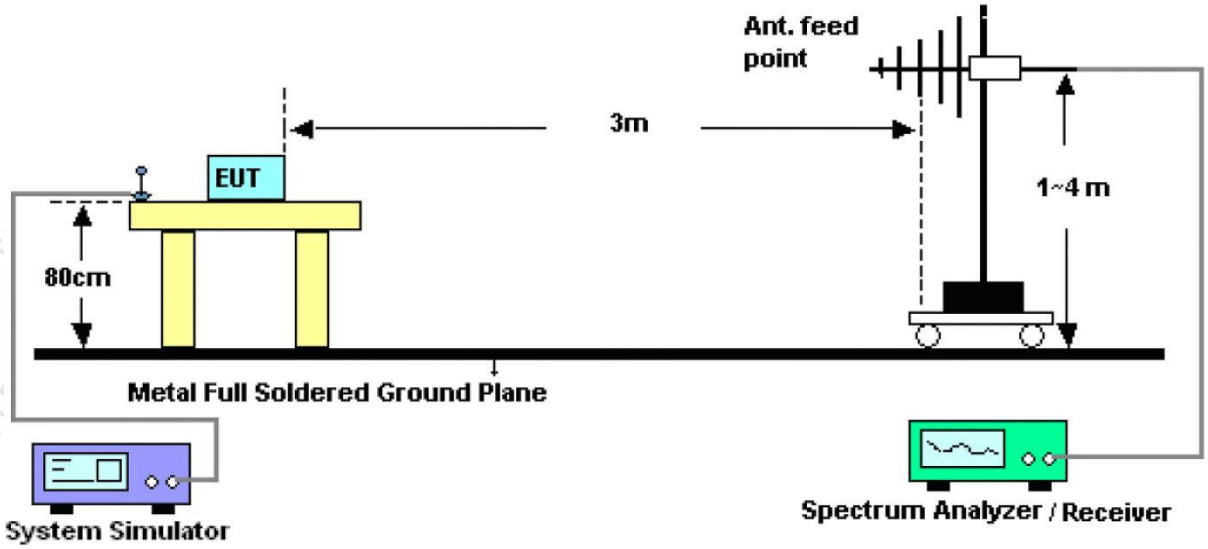

Figure 2. 30MHz to 1GHz

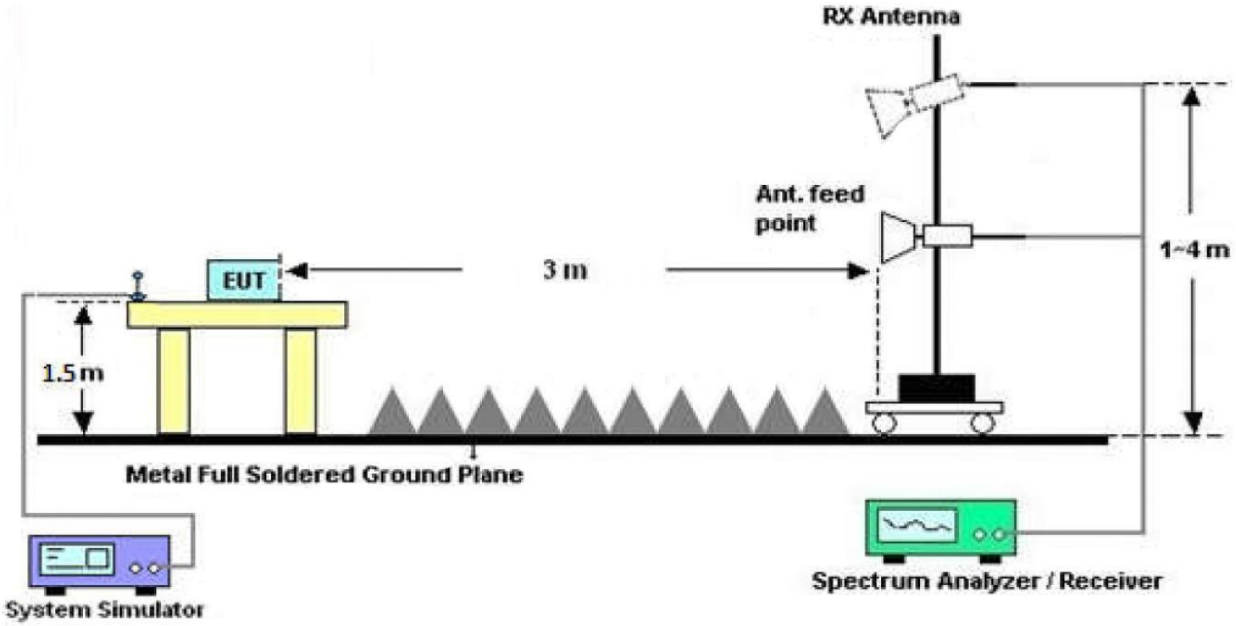

Figure 3. Above 1 GHz

4.3. Test Procedure

For below 1GHz: The EUT is placed on a turntable, which is 0.8m above the ground plane.
For above 1GHz: The EUT is placed on a turntable, which is 1.5m above the ground plane.
The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Rotated the EUT through three orthogonal axes to determine the maximum emissions, both horizontal and vertical polarization of the antenna are set on test. The EUT is tested in 9*6*6 Chamber. The device is evaluated in xyz orientation.

For the radiated emission test above 1GHz:

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

For 9kHz to 150kHz, Set the spectrum analyzer as:

RBW = 200Hz, VBW =1kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 150kHz to 30MHz, Set the spectrum analyzer as:

RBW = 9KHz, VBW =30kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 30MHz to 1000MHz, Set the spectrum analyzer as:

RBW = 100kHz, VBW =300kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

.

For above 1GHz,Set the spectrum analyzer as:

RBW =1MHz, VBW =1MHz, Detector= Peak, Trace mode= Max hold, Sweep- auto couple.

For average measurement:

–VBW=10Hz, When duty cycle is no less than 98 percent

–VBW $\geqslant$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation, so refer to this clause 5.4 duty cycle.

4.4. Test Data

PASS

During the test, Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the X-axis is the worst case.

The test results of 9kHz-30MHz was attenuated more than 20dB below the permissible limits, so the results don't record in the report.

During the test, pre-scan all modes, only the worst case is recorded in the report.

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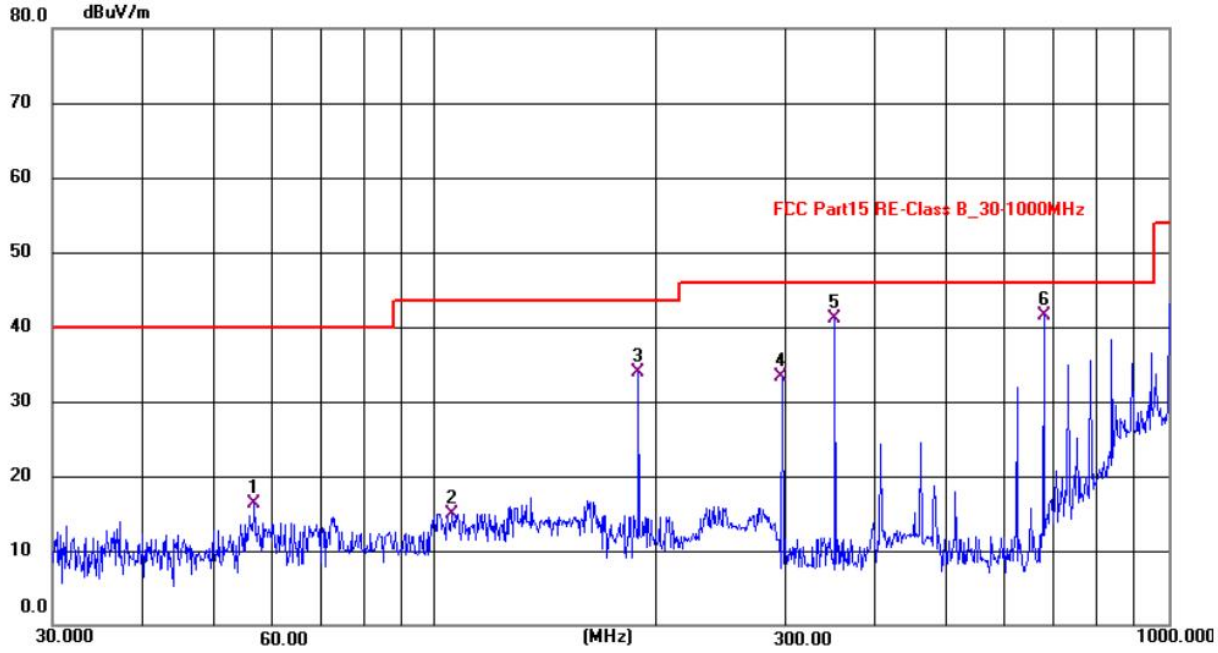
Test Results (30~1000MHz)

Test Mode:	802.11n (HT20) 2412MHz
Power Source:	AC 120V/60Hz
Polarization:	Horizontal
Temp.(℃)/Hum.(%RH):	23℃/56%RH



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	56.6921	31.31	-14.92	16.39	40.00	-23.61	QP
2	105.4564	33.18	-18.20	14.98	43.50	-28.52	QP
3	189.0742	50.86	-17.04	33.82	43.50	-9.68	QP
4	297.2238	47.85	-14.48	33.37	46.00	-12.63	QP
5	351.0917	54.71	-13.60	41.11	46.00	-4.89	QP
6 *	675.2078	47.32	-5.90	41.42	46.00	-4.58	QP

Note: Result=Reading+Factor Over Limit=Result-Limit

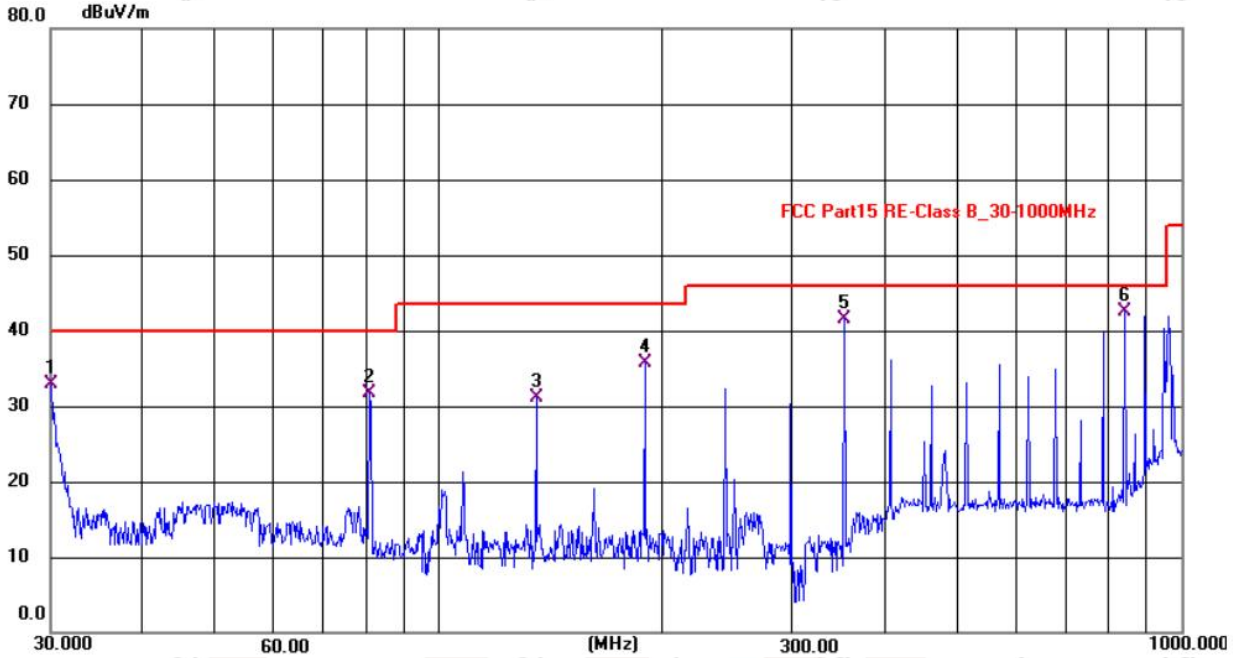
Test Results (30~1000MHz)

Test Mode: 802.11n (HT20) 2412MHz

Power Source: AC 120V/60Hz

Polarization: Vertical

Temp.(℃)/Hum.(%RH): 23℃/56%RH



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.1055	48.51	-15.52	32.99	40.00	-7.01	QP
2	80.7240	50.61	-18.85	31.76	40.00	-8.24	QP
3	135.2353	46.36	-15.35	31.01	43.50	-12.49	QP
4	189.4231	52.77	-17.15	35.62	43.50	-7.88	QP
5	351.3402	55.07	-13.58	41.49	46.00	-4.51	QP
6 *	839.0345	45.22	-2.68	42.54	46.00	-3.46	QP

Note: Result=Reading+Factor Over Limit=Result-Limit

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Test Results (Above 1000MHz)

Test Mode: 802.11n (HT20) Mode			Test channel: Lowest			
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2412	36.21	25.32	61.53	74.00	-12.47	Vertical
4824	35.41	31.41	66.82	74.00	-7.18	Vertical
7236	26.44	36.35	62.79	74.00	-11.21	Vertical
9648	*			74.00		Vertical
12060	*			74.00		Vertical
2412	35.58	25.32	60.90	74.00	-13.10	Horizontal
4824	32.14	31.41	63.55	74.00	-10.45	Horizontal
7236	24.19	36.35	60.54	74.00	-13.46	Horizontal
9648	*			74.00		Horizontal
12060	*			74.00		Horizontal
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2412	21.14	25.36	46.5	54.00	-7.50	Vertical
4824	18.97	28.45	47.42	54.00	-6.58	Vertical
7236	19.99	26.28	46.27	54.00	-7.73	Vertical
9648	*			54.00		Vertical
12060	*			54.00		Vertical
2412	18.89	25.36	44.25	54.00	-9.75	Horizontal
4824	20.14	28.45	48.59	54.00	-5.41	Horizontal
7236	15.69	26.28	41.97	54.00	-12.03	Horizontal
9648	*			54.00		Horizontal
12060	*			54.00		Horizontal

Remark:

1.Result =Reading + Factor

2. “*” means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

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Test Results (Above 1000MHz)

Test Mode: 802.11n (HT20) Mode				Test channel: Middle		
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2437	36.63	25.32	61.95	74.00	-12.05	Vertical
4874	31.82	31.41	63.23	74.00	-10.77	Vertical
7311	30.21	36.35	66.56	74.00	-7.44	Vertical
9748	*			74.00		Vertical
12185	*			74.00		Vertical
2437	35.47	25.32	60.79	74.00	-13.21	Horizontal
4874	32.14	31.41	63.55	74.00	-10.45	Horizontal
7311	29.87	36.35	66.22	74.00	-7.78	Horizontal
9748	*			74.00		Horizontal
12185	*			74.00		Horizontal
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2437	17.84	25.36	43.2	54.00	-10.80	Vertical
4874	17.65	28.45	46.1	54.00	-7.90	Vertical
7311	16.58	26.28	42.86	54.00	-11.14	Vertical
9748	*			54.00		Vertical
12185	*			54.00		Vertical
2437	18.88	25.36	44.24	54.00	-9.76	Horizontal
4874	16.61	28.45	45.06	54.00	-8.94	Horizontal
7311	17.08	26.28	43.36	54.00	-10.64	Horizontal
9748	*			54.00		Horizontal
12185	*			54.00		Horizontal

Remark:

1.Result =Reading + Factor

2. “*” means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

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Test Results (Above 1000MHz)

Test Mode: 802.11n (HT20) Mode				Test channel: Highest		
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2462	36.32	25.18	61.5	74.00	-12.50	Vertical
4924	34.25	31.67	65.92	74.00	-8.08	Vertical
7386	27.49	35.87	63.36	74.00	-10.64	Vertical
9848	*			74.00		Vertical
12310	*			74.00		Vertical
2462	35.55	25.18	60.73	74.00	-13.27	Horizontal
4924	36.47	31.67	68.14	74.00	-5.86	Horizontal
7386	28.62	35.87	64.49	74.00	-9.51	Horizontal
9848	*			74.00		Horizontal
12310	*			74.00		Horizontal
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2462	22.30	25.36	47.66	54.00	-6.34	Vertical
4924	18.14	28.45	46.59	54.00	-7.41	Vertical
7386	17.02	26.28	43.3	54.00	-10.70	Vertical
9848	*			54.00		Vertical
12310	*			54.00		Vertical
2462	20.03	25.36	45.39	54.00	-8.61	Horizontal
4924	18.09	28.45	46.54	54.00	-7.46	Horizontal
7386	18.27	26.28	44.55	54.00	-9.45	Horizontal
9848	*			54.00		Horizontal
12310	*			54.00		Horizontal

Remark:

1. During the test, pre-scan. the 802.11b, g, n (HT20) mode, and find that 802.11n (HT20) mode is worse. The report only records this mode.

2. Result=Reading + Factor/Over Limit=Result-Limit

3.“*” means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

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Radiated Band Edge:

Test Mode: 802.11n (HT20) Mode				Test channel: Lowest			
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Antenna Pol.	Detector
2390	18.98	23.57	42.55	54.00	-11.45	H	Peak
2400	21.14	23.64	44.78	54.00	-9.22	V	Peak
2390	43.21	23.70	66.91	74.00	-7.09	H	AVG
2400	41.39	23.91	65.30	74.00	-8.70	V	AVG
Test Mode: 802.11n (HT20) Mode				Test channel: Highest			
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Antenna Pol.	Detector
2483.5	23.21	23.57	46.78	54.00	-7.22	H	Peak
2500	21.38	23.64	45.02	54.00	-8.98	V	Peak
2483.5	44.18	23.70	67.88	74.00	-6.12	H	AVG
2500	40.19	23.91	64.10	74.00	-9.90	V	AVG

Remark:Remark:

1. During the test, pre-scan the .802.11b,g,n(HT20) mode, and found the 802.11n (HT20) mode is worse case , the report only record this mode.

2. Result=Reading + Factor/Over Limit=Result-Limit

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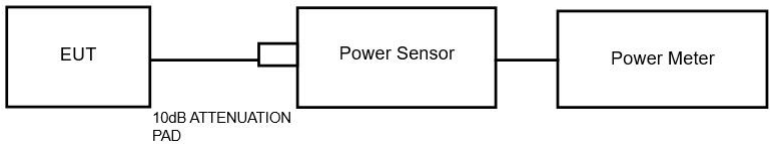
5. Maximum Peak Output Power Test

5.1. Test Standard and Limit

Test Standard	FCC Part15 C Section 15.247 (b)(3)
Test Limit	1W (30dBm)

5.2. Test Setup



5.3. Test Procedure

1. The Transmitter output (antenna port) was connected to the power meter.

2. Turn on the EUT and power meter and then record the power value.

3. Repeat above procedures on all channels needed to be tested.

Note: The cable loss and attenuator loss were offset into measure device as amplitude offset.

5.4. Test Data

Pass
Please refer to Appendix C of the Appendix Test Data.

Additional test for duty cycle.
Please refer to Appendix G of the Appendix Test Data.

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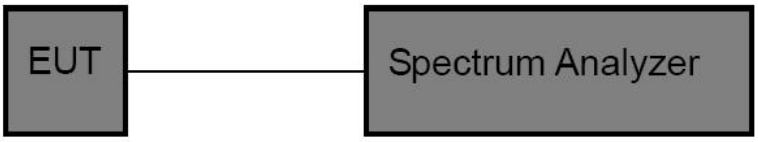
6. 6DB Occupy Bandwidth Test

6.1. Test Standard and Limit

Test Standard	FCC Part15 C Section 15.247 (a)(2)
Test Limit	≥500kHz

6.2. Test Setup



6.3. Test Procedure

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as:

   RBW= 100kHz, VBW≥3*RBW

   Detector= Peak

   Trace mode= Max hold.

   Sweep- auto couple.
4. Mark the peak frequency and –6dB (upper and lower) frequency.
5. Repeat until all the rest channels are investigated.

6.4. Test Data

Pass

Please refer to Appendix A of the Appendix Test Data.

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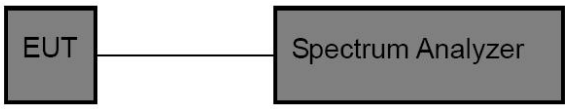
7. Power Spectral Density Test

7.1. Test Standard and Limit

Test Standard	FCC Part15 C Section
Test Limit	8dBm/3KHz

7.2. Test Setup



7.3. Test Procedure

1. Place the EUT on the table and set it in transmitting mode. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set the spectrum analyzer as RBW = 3kHz, VBW = 10kHz, Span = 1.5xDTS BW
3. Record the max. reading.
4. Repeat the above procedure until the measurements for all frequencies are completed.

7.4. Test Data

Pass

Please refer to Appendix D of the Appendix Test Data.

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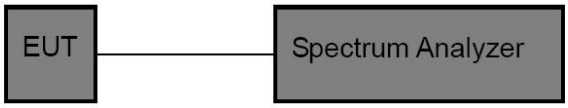
8. 100kHz Bandwidth of Frequency Band Edge Requirement

8.1. Test Standard and Limit

Test Standard	FCC Part15 C Section 15.247 (d)
Test Limit	In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in 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).

8.2. Test Setup



8.3. Test Procedure

Using the following spectrum analyzer setting:
1. Set the RBW = 100KHz.
2. Set the VBW = 300KHz.
3. Sweep time = auto couple.
4. Detector function = peak.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.

8.4. Test Data

Pass

Please refer to Appendix E&F of the Appendix Test Data.

Sidebands are tested using the conduction method

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9. Antenna Requirement

9.1. Test Standard and Requirement

Test Standard	FCC Part15 Section 15.203 /247(c)
Requirement	1) 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. 2) 15.247(c) (1)(i) requirement: 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 6 dBi.

9.2. Antenna Connected Construction

The antenna is a Buckle Antenna which permanently attached, and the best case gain of the antenna is 3.27dBi It complies with the standard requirement.

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APPENDIX I -- TEST SETUP PHOTOGRAPH

Please refer to separated files Appendix I -- Test Setup Photograph

APPENDIX II -- EXTERNAL PHOTOGRAPH

Please refer to separated files Appendix II -- External Photograph

APPENDIX III -- INTERNAL PHOTOGRAPH

Please refer to separated files Appendix III -- Internal Photograph

---------- End of Report ----------

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