



TEST REPORT

Product Name: Electric Standing Desk
FCC ID: 2BLHZ-LTD01
Trademark: N/A
Model Number: LTD01, LTD02, LTD03, LTD04, LTD05, LTD06
Prepared For: Shenzhen iterative Innovation Technology Co., Ltd
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Sample Received Date: Oct. 25, 2024
Sample tested Date: Oct. 25, 2024 to Feb. 14, 2025
Issue Date: Feb. 14, 2025
Report No.: CTB24102504104RF03
Test Standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247
ANSI C63.10:2013
Test Results: PASS
Remark: This is WIFI-2.4GHz band radio test report.

Compiled by:

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Note: If there is any objection to the inspection results in this report, please submit a written report to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen CTB Testing Technology Co., Ltd. this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client. "*" indicates the testing items were fulfilled by subcontracted lab. "#" indicates the items are not in CNAS accreditation scope.

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(Note: N/A means not applicable)



1. VERSION

Report No.	Issue Date	Description	Approved
CTB24102504104RF03	Feb. 14, 2025	Original	Valid

2. TEST SUMMARY

The Product has been tested according to the following specifications:

Test Item	Test Requirement	Test method	Result
AC Power Line Conducted Emission	47 CFR Part 15 Subpart C Section 15.207	ANSI C63.10-2013	PASS
Radiated Spurious emissions	47 CFR Part 15 Subpart C Section 15.205/15.209	ANSI C63.10-2013	PASS
Band edge and RF Conducted Spurious Emissions	47 CFR Part 15 Subpart C Section 15.247(d)/15.205(a)	ANSI C63.10-2013	PASS
Conducted Peak Output Power	47 CFR Part 15 Subpart C Section 15.247 (b)(3)	ANSI C63.10-2013	PASS
6dB Occupied Bandwidth	47 CFR Part 15 Subpart C Section 15.247 (a)(2)	ANSI C63.10-2013	PASS
Power Spectral Density	47 CFR Part 15 Subpart C Section 15.247 (e)	ANSI C63.10-2013/ KDB 558074 D05v02	PASS
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203/15.247 (b)	/	PASS
RF Exposure Evaluation	47 CFR Part 15 Subpart C Section 15.247 (i)/1.1310/2.1091	KDB447498D01v06	PASS

Remark:

Test according to ANSI C63.10-2013.

3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Item	Uncertainty
Occupancy bandwidth	U=±54.3Hz
Conducted output power Above 1G	U=±1.0dB
Conducted output power below 1G	U=±0.9dB
Power Spectral Density , Conduction	U=±1.0dB
Conduction spurious emissions	U=±2.8dB
Out of band emission	U=±54Hz
3m camber Radiated spurious emission(9KHz-30MHz)	U=±4.8dB
3m camber Radiated spurious emission(30MHz-1GHz)	U=±4.3dB
3m chamber Radiated spurious emission(1GHz-18GHz)	U=±4.5dB
3m chamber Radiated spurious emission(18GHz-40GHz)	U=±3.4dB
humidity uncertainty	U=±5.3%
Temperature uncertainty	U=±0.59°C
Supply voltages	U=±3%
Time	U=±5%

4. PRODUCT INFORMATION AND TEST SETUP

4.1 Product Information

Model(s):	LTD01, LTD02, LTD03, LTD04, LTD05, LTD06
Model Description:	All the model are the same circuit and RF module, only the name, appearance and color are different. Test sample model: LTD01
Wi-Fi Specification:	IEEE 802.11b/g/n
Hardware Version:	V1.0
Software Version:	V1.0
Operation Frequency:	WiFi: IEEE 802.11b/g/n 20: 2412-2462MHz/ 11 channel
Max. RF output power:	WiFi (2.4G): 14.275dBm
Type of Modulation:	WiFi (2.4G): DSSS, OFDM
Antenna installation:	WiFi (2.4G):PCB antenna
Antenna Gain:	WiFi (2.4G): 2.45dBi
Ratings:	AC 110-230V-50/60Hz Wireless charge output: 5W/7.5W/10W/15W

4.2 Test Setup Configuration

See test photographs attached in EUT TEST SETUP PHOTOGRAPHS for the actual connections between Product and support equipment.

4.3 Support Equipment

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
1.	Laptop	DELL	Vostro 5490	N/A	AE

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.4 Channel List

CH	Frequency (MHz)	CH	Frequency (MHz)	CH	Frequency (MHz)	CH	Frequency (MHz)
1	2412	2	2417	3	2422	4	2427
5	2432	6	2437	7	2442	8	2447
9	2452	10	2457	11	2462	/	/

4.5 Test Mode

All test mode(s) and condition(s) mentioned were considered and evaluated respectively by performing full tests, the worst data were recorded and reported.

Test mode	Low channel	Middle channel	High channel
Transmitting(802.11b/g/n20)	2412MHz	2437MHz	2462MHz

NOTE: Duty cycle>98%.

Test mode	Rate
802.11b	11M
802.11g	54M
802.11/n20	65M

4.6 Test Environment

Humidity(%):	54
Atmospheric Pressure(kPa):	101
Normal Voltage(AC):	120V
Normal Temperature(°C)	23
Low Temperature(°C)	0
High Temperature(°C)	50

5. TEST FACILITY AND TEST INSTRUMENT USED

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at 1&2F., Building A, No. 26, Xinghe Road, Xinqiao, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.

FCC test lab designation number: CN1276

5.2 Test Instrument Used

No.	Equipment	Manufacturer	Type No.	Serial No.	Firmware Version	Calibration Last	Calibrated until
1	Spectrum Analyzer	Agilent	N9020A	MY52090073	A.14.16	2024/6/28	2025/6/28
2	Power Sensor	Agilent	U2021XA	MY56120032	/	2024/6/28	2025/6/28
3	Power Sensor	Agilent	U2021XA	MY56120034	/	2024/6/28	2025/6/28
4	Communication test set	R&S	CMW500	108058	V3.5.80	2024/6/28	2025/6/28
5	Spectrum Analyzer	KEYSIGHT	N9020A	MY51289897	A.14.16	2024/6/28	2025/6/28
6	Signal Generator	Agilent	N5181A	MY50140365	A.01.60	2024/6/28	2025/6/28
7	Vector signal generator	Agilent	N5182A	MY47420195	A.01.87	2024/6/28	2025/6/28
8	Communication test set	Agilent	E5515C	MY50102567	B.19.07 (E1962B)	2024/6/28	2025/6/28
9	2.4 GHz Filter	Shenxiang	MSF2400-24 83.5MS-1154	20181015001	/	2024/6/30	2025/6/30
10	5 GHz Filter	Shenxiang	MSF5150-58 50MS-1155	20181015001	/	2024/6/30	2025/6/30
11	Filter	Xingbo	XBLBQ-DZA 120	190821-1-1	/	2024/6/30	2025/6/30
12	BT&WI-FI Automatic test software	Microwave	MTS8310	Ver. 2.0.0.0	/	/	/
13	Rohde & Schwarz SFU Broadcast Test System	R&S	SFU	101017	/	2024/6/28	2025/6/28
14	Temperature humidity chamber	Hongjing	TH-80CH	DG-15174	/	2024/6/28	2025/6/28
15	234G Automatic test software	Microwave	MTS8200	Ver. 2.0.0.0	/	/	/
16	966 chamber	C.R.T.	966	/	/	2024/6/21	2027/6/21
17	Receiver	R&S	ESPI	100362	RF_ATTEN_7 (104489/003)	2024/6/28	2025/6/28
18	Amplifier	HP	8447E	2945A02747	/	2024/6/28	2025/6/28
19	Amplifier	Agilent	8449B	3008A01838	/	2024/6/28	2025/6/28
20	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	00869	/	2024/6/28	2025/6/28

21	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA9120D	01911	/	2024/6/28	2025/6/28
22	EMI test software	Fala	EZ-EMC	FA-03A2 RE	/	/	/
23	Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-224	/	2024/6/28	2025/6/28
24	loop antenna	ZHINAN	ZN30900A	GTS534	/	/	/
25	40G Horn antenna	A/H/System	SAS-574	588	/	2024/6/28	2025/6/28
26	Amplifier	AEROFLEX	Aeroflex	097	/	2024/6/28	2025/6/28
27	Power Metter	KEYSIGHT	N1912AP	N/A	A.05.00	2024/6/28	2025/6/28

Continuous disturbance

No.	Equipment	Manufacturer	Model No.	Serial No.	Firmware version	Calibration Last	Calibrated until
1	843 Shield Room	C/ R/ T	843	/	/	2024/6/21	2027/6/21
2	AMN	ROHDE&SCHWARZ	ESH3-Z5	831551852	/	2024/6/30	2025/6/30
3	Pulse limiter	ROHDE&SCHWARZ	ESH3Z2	357881052	/	2024/6/28	2025/6/28
4	EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100428	V4.42.SP3	2024/6/30	2025/6/30
5	Coaxial cable	ZDECL	Z302S	18091904	/	2024/6/30	2025/6/30
6	ISN	Schwarzbeck	NTFM8158	183	/	2024/6/30	2025/6/30
7	Voltage sensor	Schwarzbeck	TK 9420	01189	/	2024/10/25	2025/10/25
8	EZ-EMC	Frad	EMC-con3A1.1	/	/	/	/
9	Current Probe	FCC	F-52B	199453	/	2024/5/27	2025/5/27
10	Communication test set	R&S	CMW500	108058	B.19.07 (E1962B)	2024/6/28	2025/6/28
11	Communication test set	Agilent	E5515C	MY50102567	V3.5.80	2024/6/28	2025/6/28

Radiated emission(No.2 Chamber)

No.	Equipment	Manufacturer	Model No.	Serial No.	Firmware version	Calibration Last	Calibrated until
1	966 Chamber	C/ R/ T	966	/	/	2024/11/14	2026/11/14
2	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA 9120 D	01911	/	2024/7/07	2026/7/07
3	Broadband Antenna	Schwarzbeck	VULB 9168	1471	/	2024/7/06	2025/7/06
4	Amplifier	Agilent	8449B	3008A01838	/	2024/6/30	2025/6/30
5	Preamplifier	Schwarzbeck	BBV 9743 B	00500	/	2024/5/23	2025/5/23
6	EMI TEST RECEIVER	R&S	ESCI7	100861	/	2024/10/25	2025/10/25
7	Spectrum Analyzer	KEYSIGHT	N9020A	MY51289897	A.14.16	2024/6/28	2025/6/28
8	EMI test software	Farad	EZ-EMC	/	Ver. FARAD-3A1+	/	/

9	Coaxial cable	Rosenberg	8m	/	/	2024/10/25	2025/10/25
10	Coaxial cable	Times	2m	/	/	2024/10/25	2025/10/25
11	Coaxial cable	Times	2m	/	/	2024/10/25	2025/10/25
12	Coaxial cable	Times	1m	/	/	2024/10/25	2025/10/25
13	loop antenna	Schwarzbeck	FMZB 1519B	1519B-224	/	2024/6/29	2025/6/29
14	Communication test set	R&S	CMW500	108058	B.19.07 (E1962B)	2024/6/28	2025/6/28
15	Communication test set	Agilent	E5515C	MY50102567	V3.5.80	2024/6/28	2025/6/28

This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0,8 m from the LISN 2.

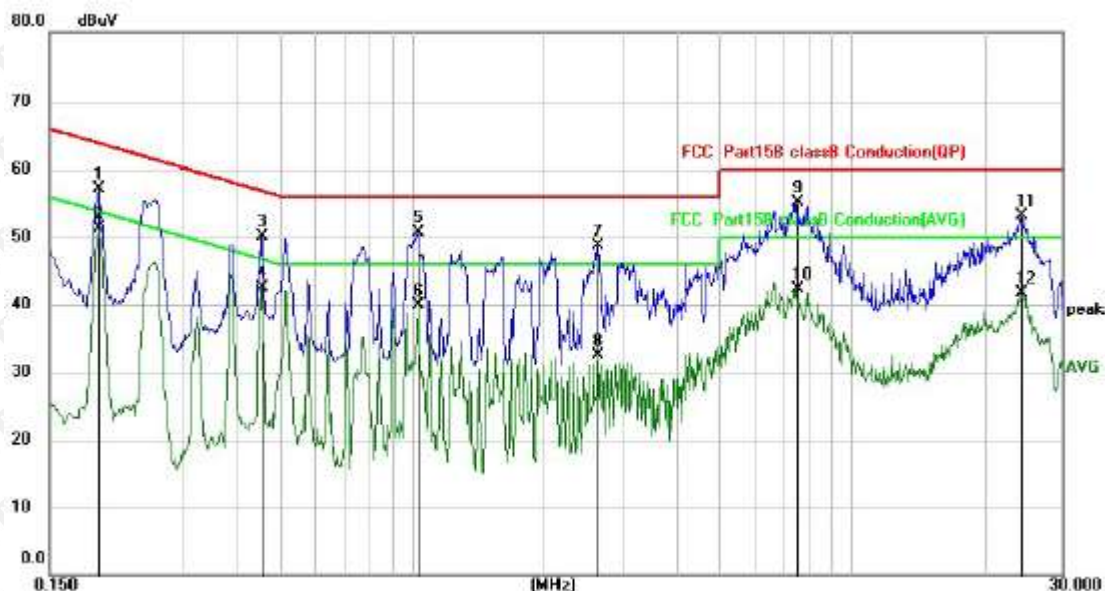
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.

6.4 Test Result

Test Specification: Line

AC 120V 60Hz

the worst: 802.11b (low channel)

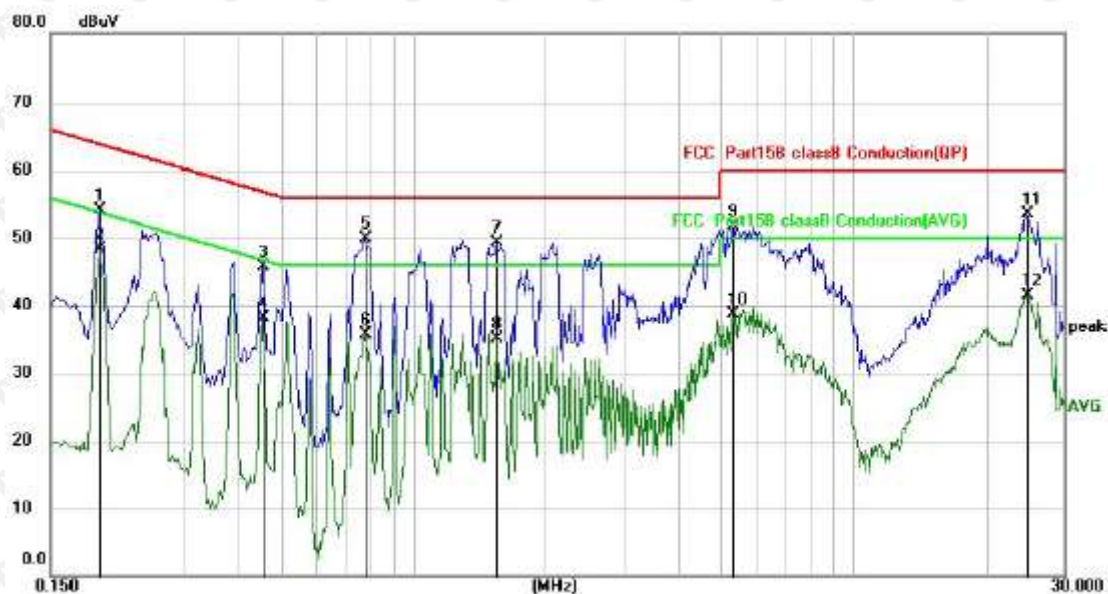


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1940	46.33	10.73	57.06	63.86	-6.80	QP
2	*	0.1940	40.58	10.73	51.31	53.86	-2.55	AVG
3		0.4540	39.52	10.53	50.05	56.80	-6.75	QP
4		0.4540	32.07	10.53	42.60	46.80	-4.20	AVG
5		1.0339	39.79	10.97	50.76	56.00	-5.24	QP
6		1.0339	29.02	10.97	39.99	46.00	-6.01	AVG
7		2.6459	37.07	11.72	48.79	56.00	-7.21	QP
8		2.6459	20.86	11.72	32.58	46.00	-13.42	AVG
9		7.5058	42.15	12.99	55.14	60.00	-4.86	QP
10		7.5058	29.32	12.99	42.31	50.00	-7.69	AVG
11		24.1660	39.14	13.95	53.09	60.00	-6.91	QP
12		24.1660	27.68	13.95	41.63	50.00	-8.37	AVG

Remark:

Factor = Cable loss + LISN factor, Margin = Measurement – Limit

Test Specification: Neutral
AC 120V 60Hz
the worst: 802.11b (low channel)



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
		MHz	Level	Factor	ment			Detector
			dBuV	dB	dBuV	dBuV	dB	
1		0.1940	43.28	10.73	54.01	63.86	-9.85	QP
2	*	0.1940	37.54	10.73	48.27	53.86	-5.59	AVG
3		0.4540	35.21	10.53	45.74	56.80	-11.06	QP
4		0.4540	27.63	10.53	38.16	46.80	-8.64	AVG
5		0.7780	39.10	10.78	49.88	56.00	-6.12	QP
6		0.7780	24.87	10.78	35.65	46.00	-10.35	AVG
7		1.5500	37.92	11.30	49.22	56.00	-6.78	QP
8		1.5500	23.83	11.30	35.13	46.00	-10.87	AVG
9		5.3059	39.35	12.35	51.70	60.00	-8.30	QP
10		5.3059	26.31	12.35	38.66	50.00	-11.34	AVG
11		24.7459	39.50	14.00	53.50	60.00	-6.50	QP
12		24.7459	27.55	14.00	41.55	50.00	-8.45	AVG

Remark:

Factor = Cable loss + LISN factor, Margin = Measurement – Limit

7. RADIATED SPURIOUS EMISSION

7.1 Block Diagram Of Test Setup

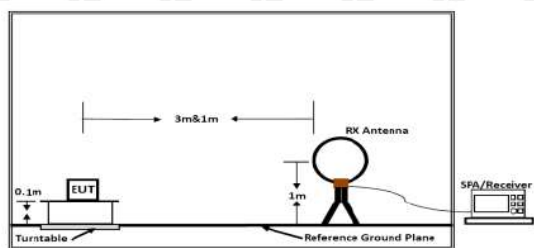


Figure 1. Below 30MHz

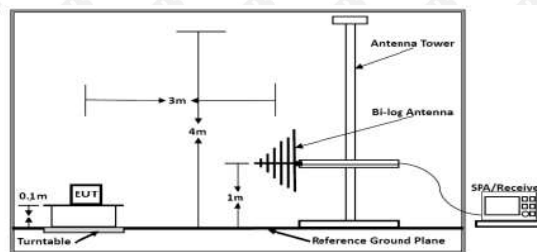


Figure 2. 30MHz to 1GHz

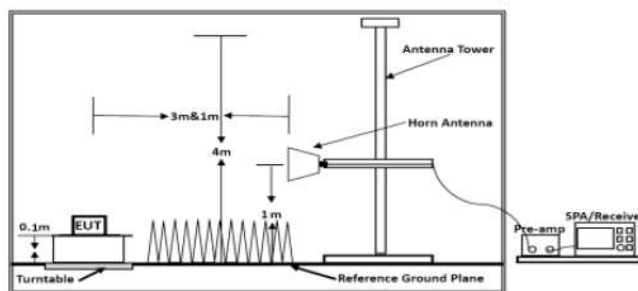


Figure 3. Above 1GHz

7.2 Limit

Spurious Emissions:

Frequency	Field strength (microvolt/meter)	Limit (dB μ V/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-1GHz	500	54.0	Quasi-peak	3
Above 1GHz	500	54.0	Average	3

Note: 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.

7.3 Test procedure

Below 1GHz test procedure as below:

- The EUT was placed on the top of a rotating table 0.1 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.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rota table table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 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:

- Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.1 meter to 1.5 meter(Above 18GHz the distance is 1 meter and table is 1.5 meter).
- Test the EUT in the lowest channel ,the middle channel ,the Highest channel
- Repeat above procedures until all frequencies measured was complete.

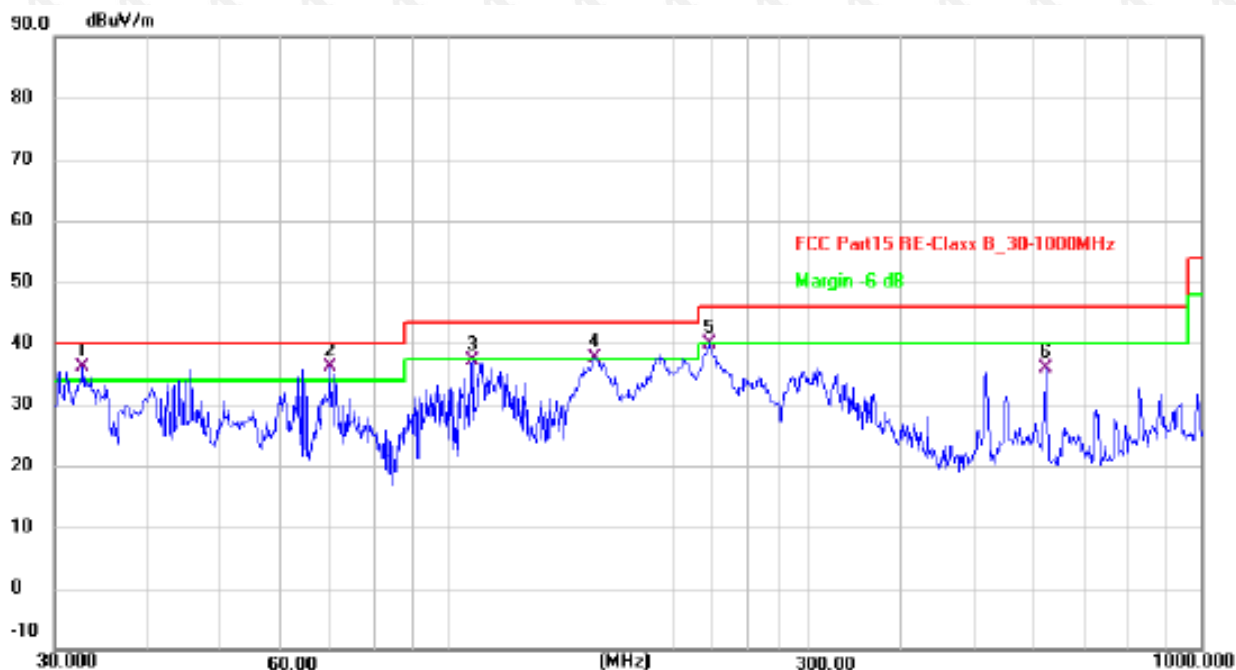
Receiver set:

Frequency	Detector	RBW	VBW	Remark
0.009MHz-0.090MHz	Peak	10kHz	30KHz	Peak
0.009MHz-0.090MHz	Average	10kHz	30KHz	Average
0.090MHz-0.110MHz	Quasi-peak	10kHz	30KHz	Quasi-peak
0.110MHz-0.490MHz	Peak	10kHz	30KHz	Peak
0.110MHz-0.490MHz	Average	10kHz	30KHz	Average
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120 kHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

7.4 Test Result

Below 1GHz Test Results:

Antenna polarity: H



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	32.7486	49.18	-13.08	36.10	40.00	-3.90	QP
2 !	69.6003	53.75	-17.69	36.06	40.00	-3.94	QP
3	107.8876	54.47	-17.29	37.18	43.50	-6.32	QP
4 !	156.4576	50.91	-13.24	37.67	43.50	-5.83	QP
5	222.1697	56.60	-16.76	39.84	46.00	-6.16	QP
6	620.7096	42.03	-6.26	35.77	46.00	-10.23	QP

Remark: Factor = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level

Antenna polarity: V



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 !	33.5623	49.10	-13.12	35.98	40.00	-4.02	QP
2 *	63.9827	52.59	-15.91	36.68	40.00	-3.32	QP
3 !	129.4677	55.16	-15.14	40.02	43.50	-3.48	QP
4 !	209.3130	56.65	-16.93	39.72	43.50	-3.78	QP
5	336.0350	49.18	-13.29	35.89	46.00	-10.11	QP
6 !	519.0650	50.50	-8.73	41.77	46.00	-4.23	QP

Remark: Factor = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level

1. The margin of 9K-30MH measurement exceeds 20dB, so the test chart is not included. Test Mode: 802.11b low channel (the worst)
2. All modes have been tested, and the test results show that b-mode data is the worst, only b-mode test chart is put. Test Mode: 802.11b low channel (the worst)
3. After pre-scanning three directions, the report recorded the worst case Test Mode: 802.11b low channel (the worst)

Above 1 GHz Test Results:

LOW CH1 (802.11b Mode)/2412

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	65.19	-3.64	61.55	74	-12.45	peak
4824	50.93	-3.64	47.29	54	-6.71	AVG
7236	59.23	-0.95	58.28	74	-15.72	peak
7236	46.71	-0.95	45.76	54	-8.24	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	64.76	-3.64	61.12	74	-12.88	peak
4824	49.51	-3.64	45.87	54	-8.13	AVG
7236	58.43	-0.95	57.48	74	-16.52	peak
7236	44.39	-0.95	43.44	54	-10.56	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

MID CH6 (802.11b Mode)/2437

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	64.77	-3.51	61.26	74	-12.74	peak
4874	48.21	-3.51	44.70	54	-9.30	AVG
7311	57.58	-0.82	56.76	74	-17.24	peak
7311	44.75	-0.82	43.93	54	-10.07	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	64.42	-3.51	60.91	74	-13.09	peak
4874	47.24	-3.51	43.73	54	-10.27	AVG
7311	59.31	-0.82	58.49	74	-15.51	peak
7311	42.82	-0.82	42.00	54	-12.00	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

HIGH CH11 (802.11b Mode)/2462

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4924	63.45	-3.43	60.02	74	-13.98	peak
4924	47.09	-3.43	43.66	54	-10.34	AVG
7386	57.64	-0.75	56.89	74	-17.11	peak
7386	42.36	-0.75	41.61	54	-12.39	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4924	63.97	-3.43	60.54	74	-13.46	peak
4924	46.10	-3.43	42.67	54	-11.33	AVG
7386	58.32	-0.75	57.57	74	-16.43	peak
7386	41.75	-0.75	41.00	54	-13.00	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Remark:

- (1) Measuring frequencies from 1 GHz to the 25 GHz.
- (2) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (3) Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.

LOW CH1 (802.11g Mode)/2412

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	65.57	-3.64	61.93	74	-12.07	peak
4824	47.59	-3.64	43.95	54	-10.05	AVG
7236	56.99	-0.95	56.04	74	-17.96	peak
7236	46.33	-0.95	45.38	54	-8.62	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	62.76	-3.64	59.12	74	-14.88	peak
4824	46.54	-3.64	42.90	54	-11.10	AVG
7236	59.09	-0.95	58.14	74	-15.86	peak
7236	42.78	-0.95	41.83	54	-12.17	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

MID CH6 (802.11g Mode)/2437

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	62.66	-3.51	59.15	74	-14.85	peak
4874	48.03	-3.51	44.52	54	-9.48	AVG
7311	58.68	-0.82	57.86	74	-16.14	peak
7311	45.68	-0.82	44.86	54	-9.14	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	63.97	-3.51	60.46	74	-13.54	peak
4874	47.12	-3.51	43.61	54	-10.39	AVG
7311	56.09	-0.82	55.27	74	-18.73	peak
7311	41.33	-0.82	40.51	54	-13.49	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

HIGH CH11 (802.11g Mode)/2462

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	62.49	-3.43	59.06	74	-14.94	peak
4924	47.94	-3.43	44.51	54	-9.49	AVG
7386	57.89	-0.75	57.14	74	-16.86	peak
7386	42.77	-0.75	42.02	54	-11.98	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	63.47	-3.43	60.04	74	-13.96	peak
4924	46.87	-3.43	43.44	54	-10.56	AVG
7386	56.97	-0.75	56.22	74	-17.78	peak
7386	42.89	-0.75	42.14	54	-11.86	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Remark:

(1) Measuring frequencies from 1 GHz to the 25 GHz。

(2) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.

(3) Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.

LOW CH1 (802.11n/H20 Mode)/2412

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	64.36	-3.64	60.72	74	-13.28	peak
4824	46.54	-3.64	42.90	54	-11.10	AVG
7236	59.46	-0.95	58.51	74	-15.49	peak
7236	43.37	-0.95	42.42	54	-11.58	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	65.86	-3.64	62.22	74	-11.78	peak
4824	47.45	-3.64	43.81	54	-10.19	AVG
7236	60.44	-0.95	59.49	74	-14.51	peak
7236	46.94	-0.95	45.99	54	-8.01	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits

MID CH6 (802.11n/H20 Mode)/2437

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874.00	63.10	-3.51	59.59	74.00	-14.41	peak
4874.00	46.63	-3.51	43.12	54.00	-10.88	AVG
7311.00	58.69	-0.82	57.87	74.00	-16.13	peak
7311.00	43.19	-0.82	42.37	54.00	-11.63	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874.00	63.46	-3.51	59.95	74.00	-14.05	peak
4874.00	45.73	-3.51	42.22	54.00	-11.78	AVG
7311.00	57.46	-0.82	56.64	74.00	-17.36	peak
7311.00	42.79	-0.82	41.97	54.00	-12.03	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

HIGH CH11 (802.11n/H20 Mode)/2462

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	63.09	-3.43	59.66	74	-14.34	peak
4924	46.54	-3.43	43.11	54	-10.89	AVG
7386	57.84	-0.75	57.09	74	-16.91	peak
7386	41.85	-0.75	41.10	54	-12.90	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	65.49	-3.43	62.06	74	-11.94	peak
4924	46.95	-3.43	43.52	54	-10.48	AVG
7386	57.81	-0.75	57.06	74	-16.94	peak
7386	41.60	-0.75	40.85	54	-13.15	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Remark :

(1) Measuring frequencies from 1 GHz to the 25 GHz .

(2) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.

(3) Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed

(5)Have tested in three orientations for radiated emissions, Only The worst record is in this report

Restricted bands around fundamental frequency (Radiated)

Operation Mode:

802.11b Mode TX CH Low (2412MHz)

Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2390	56.25	-5.81	50.44	74	-23.56	
2390	/	-5.81	/	54	/	AVG
2399	64.38	-5.84	58.54	74	-15.46	peak
2399	48.14	-5.84	42.30	54	-11.70	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2390	57.59	-5.81	51.78	74	-22.22	
2390	/	-5.81	/	54	/	AVG
2399	63.29	-5.84	57.45	74	-16.55	peak
2399	47.36	-5.84	41.52	54	-12.48	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

When the peak value is smaller than the AVG limit, AVG is not reflected.

Operation Mode: TX CH High (2462MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	57.24	-5.65	51.59	74	-22.41	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	55.70	-5.65	50.05	74	-23.95	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

When the peak value is smaller than the AVG limit, AVG is not reflected.

Operation Mode: 802.11g Mode TX CH Low (2412MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	58.36	-5.81	52.55	74	-21.45	peak
2390	/	-5.81	/	54	/	AVG
2399	62.36	-5.84	56.52	74	-17.48	peak
2399	46.44	-5.84	40.60	54	-13.40	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	56.43	-5.81	50.62	74	-23.38	peak
2390	/	-5.81	/	54	/	AVG
2399	61.77	-5.84	55.93	74	-18.07	peak
2399	46.74	-5.84	40.90	54	-13.10	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

When the peak value is smaller than the AVG limit, AVG is not reflected.

Operation Mode: TX CH High (2462MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	57.14	-5.65	51.49	74	-22.51	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	57.93	-5.65	52.28	74	-21.72	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

When the peak value is smaller than the AVG limit, AVG is not reflected.

Operation Mode: 802.11n/H20 Mode TX CH Low (2412MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	56.87	-5.81	51.06	74	-22.94	peak
2390	/	-5.81	/	54	/	AVG
2399	62.17	-5.84	56.33	74	-17.67	peak
2399	48.33	-5.84	42.49	54	-11.51	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	55.68	-5.81	49.87	74	-24.13	peak
2390	/	-5.81	/	54	/	AVG
2399	60.01	-5.84	54.17	74	-19.83	peak
2399	48.23	-5.84	42.39	54	-11.61	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

When the peak value is smaller than the AVG limit, AVG is not reflected.

Operation Mode: TX CH High (2462MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	56.25	-5.65	50.60	74	-23.40	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

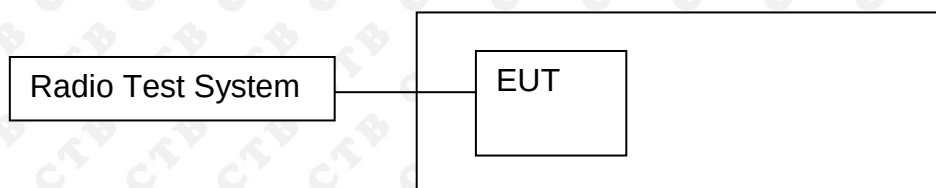
Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	55.44	-5.65	49.79	74	-24.21	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

When the peak value is smaller than the AVG limit, AVG is not reflected.

8. BAND EDGE AND RF CONDUCTED SPURIOUS EMISSIONS

8.1 Block Diagram Of Test Setup



8.2 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 §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)).

8.3 Test procedure

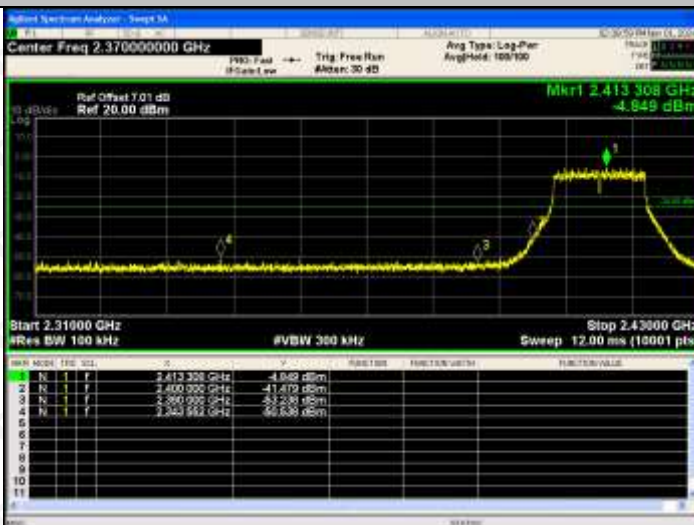
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer:
 Below 30MHz:
 RBW = 100kHz, VBW = 300kHz, Sweep = auto
 Detector function = peak, Trace = max hold
 Above 30MHz:
 RBW = 100KHz, VBW = 300KHz, Sweep = auto
 Detector function = peak, Trace = max hold

8.4 Test Result



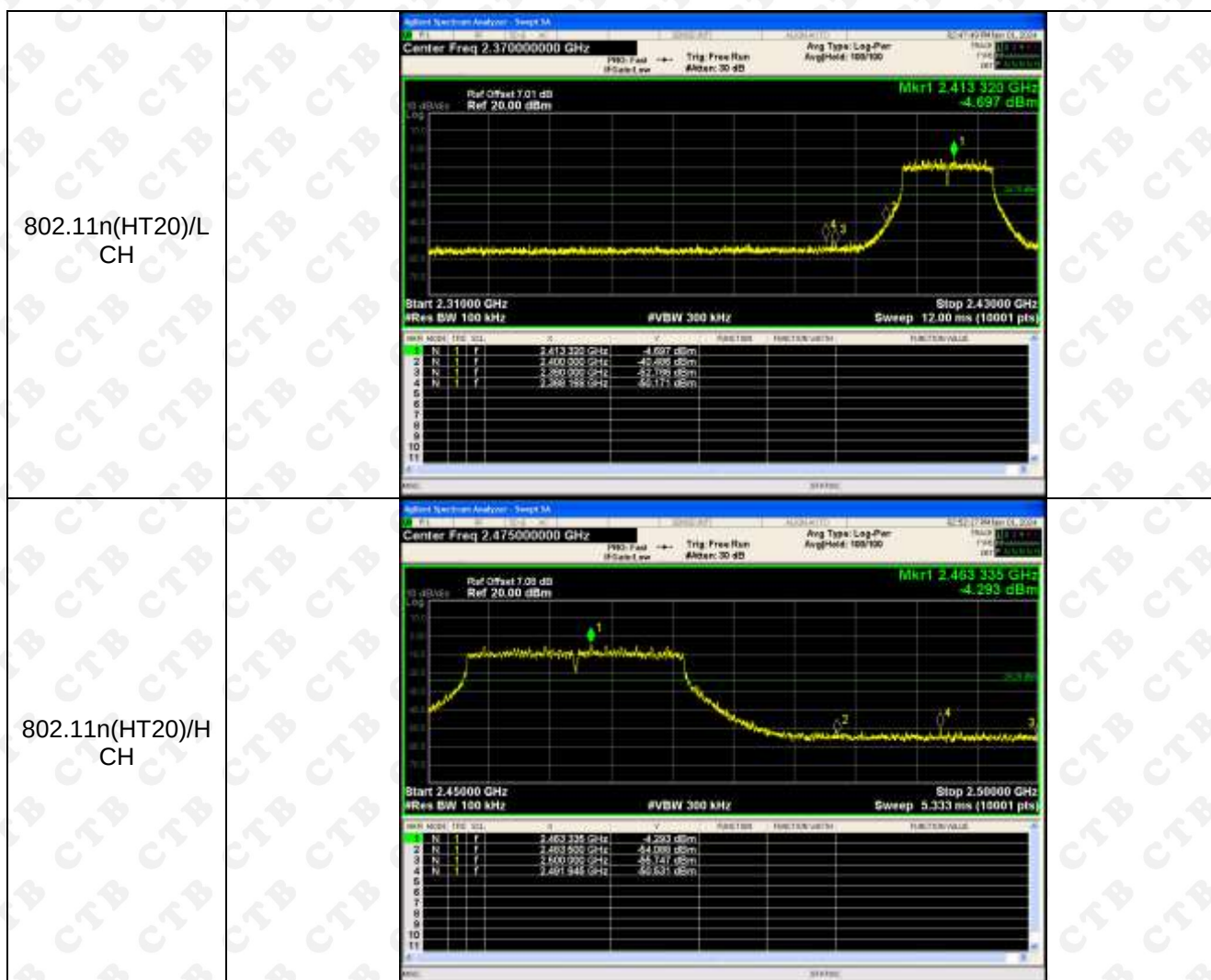
BAND EDGE Graphs

802.11g/LCH



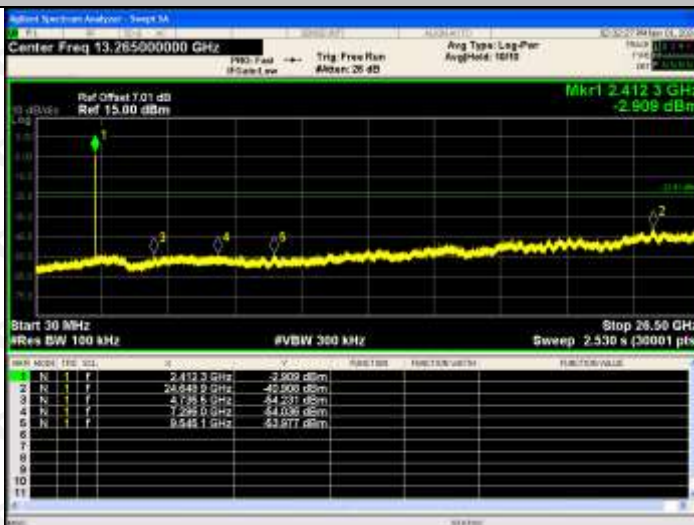
802.11g/HCH



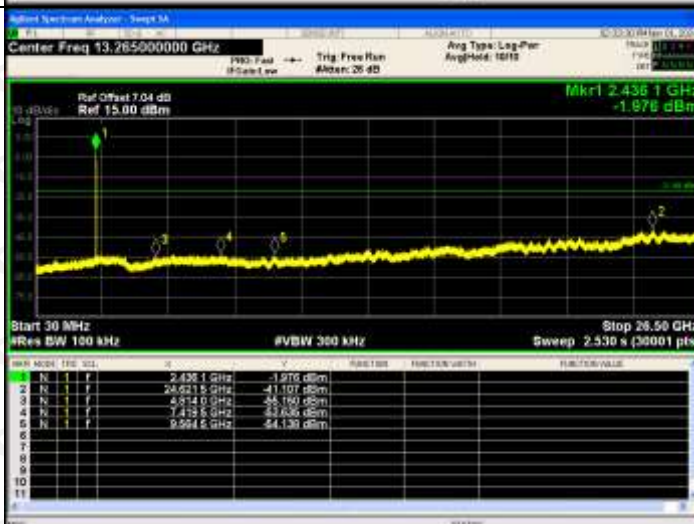


RF Conducted Spurious Emissions Graphs

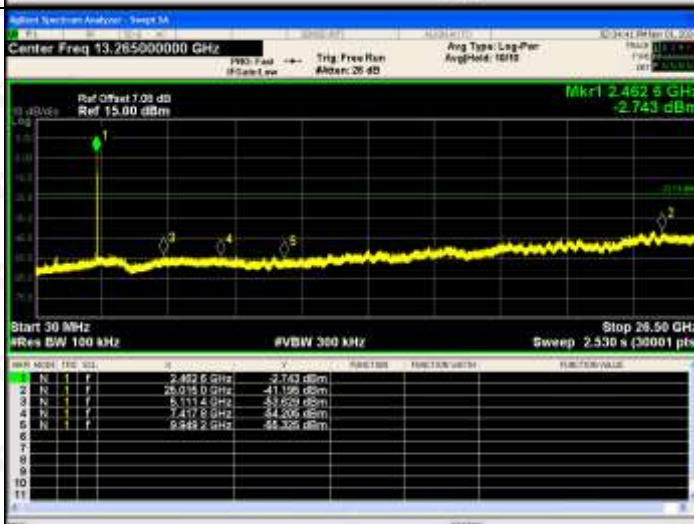
802.11b/LCH



802.11b/MCH

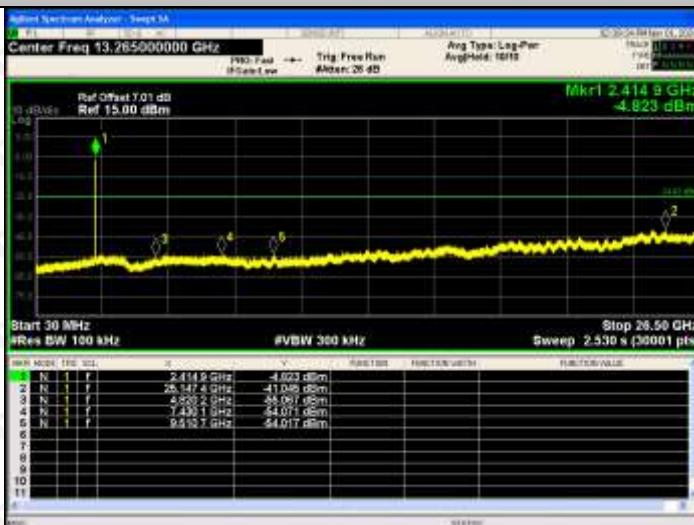


802.11b/HCH

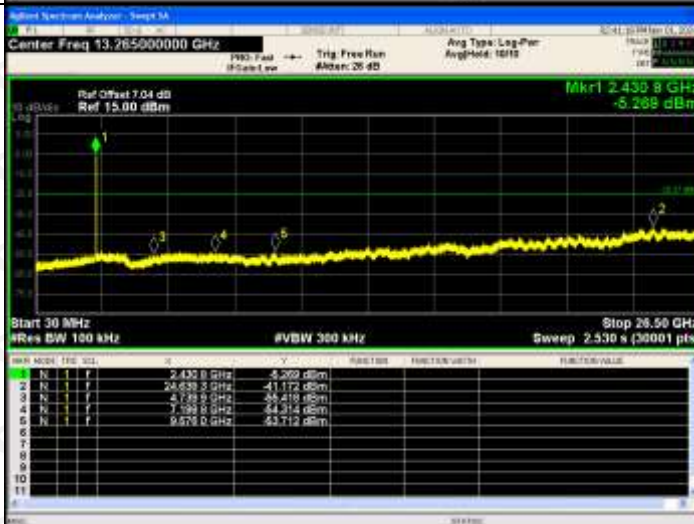


RF Conducted Spurious Emissions Graphs

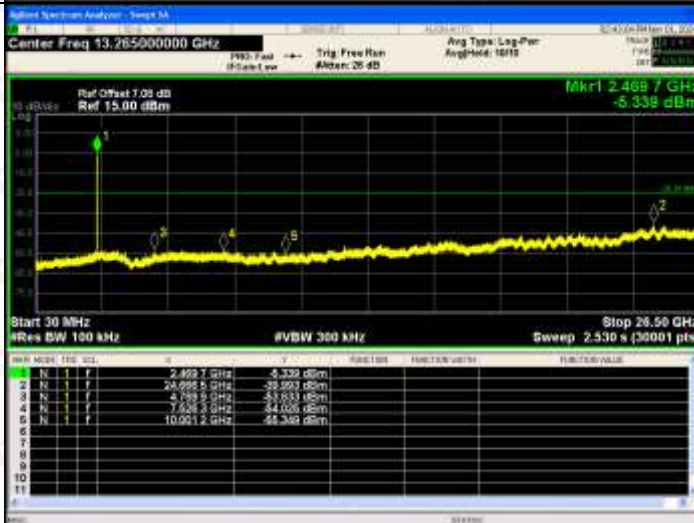
802.11g/LCH



802.11g/MCH

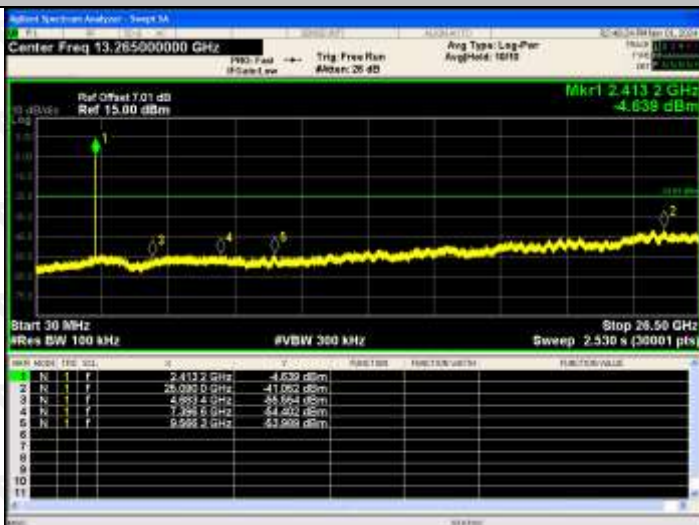


802.11g/HCH



RF Conducted Spurious Emissions Graphs

802.11n(HT20)/LCH



802.11 n(HT20)/MCH



802.11 n(HT20)/HCH



9. COUDUCTED OUTPUT POWER

9.1 Block Diagram Of Test Setup



9.2 Limit

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

9.3 Test procedure

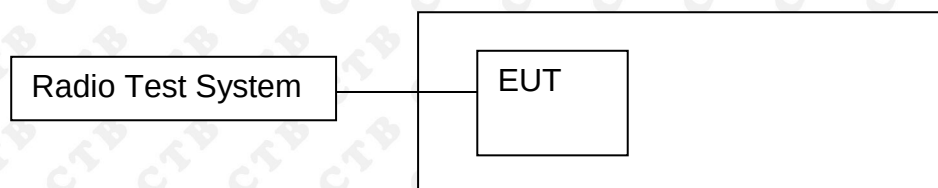
1. The EUT was directly connected to the Power meter

9.4 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
802.11b	LCH	13.141	30	PASS
	MCH	13.359	30	PASS
	HCH	13.338	30	PASS
802.11g	LCH	13.696	30	PASS
	MCH	14.131	30	PASS
	HCH	14.275	30	PASS
802.11n(HT20)	LCH	13.420	30	PASS
	MCH	13.835	30	PASS
	HCH	13.911	30	PASS

10. 6DB OCCUPIED BANDWIDTH

10.1 Block Diagram Of Test Setup



10.2 Limit

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

10.3 Test procedure

1. Rem1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$.
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.

10.4 Test Result

Test Mode	Frequency	6dB Bandwidth (MHz)	Limit(kHz)	Result
802.11b	LCH	9.185	500	PASS
	MCH	9.018	500	PASS
	HCH	8.610	500	PASS
802.11g	LCH	16.440	500	PASS
	MCH	16.449	500	PASS
	HCH	16.459	500	PASS
802.11n(HT20)	LCH	17.748	500	PASS
	MCH	17.663	500	PASS
	HCH	17.572	500	PASS

Test Graph:

Graphs	
802.11b /LCH	Center Freq: 2.41200000 GHz Center Freq: 2.41200000 GHz Trig: Free Run AvgHold: 100/100 Radio Std: None Radio Device: BTS Ref Offset: 7.01 dB Ref: 27.01 dBm Mkr3: 2.416887 GHz -10.108 dBm Center: 2.412 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 30 MHz Sweep: 2.933 ms Occupied Bandwidth: 13.925 MHz Total Power: 14.9 dBm Transmit Freq Error: 94.294 kHz OBW Power: 99.00 % x dB Bandwidth: 9.185 MHz x dB: -6.00 dB
802.11b /MCH	Center Freq: 2.43700000 GHz Center Freq: 2.43700000 GHz Trig: Free Run AvgHold: 100/100 Radio Std: None Radio Device: BTS Ref Offset: 7.04 dB Ref: 27.04 dBm Mkr3: 2.441572 GHz -7.8420 dBm Center: 2.437 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 30 MHz Sweep: 2.933 ms Occupied Bandwidth: 13.980 MHz Total Power: 15.2 dBm Transmit Freq Error: 83.449 kHz OBW Power: 99.00 % x dB Bandwidth: 9.018 MHz x dB: -6.00 dB
802.11b/HCH	Center Freq: 2.46200000 GHz Center Freq: 2.46200000 GHz Trig: Free Run AvgHold: 100/100 Radio Std: None Radio Device: BTS Ref Offset: 7.00 dB Ref: 27.06 dBm Mkr3: 2.466336 GHz -8.8323 dBm Center: 2.462 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 30 MHz Sweep: 2.933 ms Occupied Bandwidth: 13.991 MHz Total Power: 15.1 dBm Transmit Freq Error: 55.050 kHz OBW Power: 99.00 % x dB Bandwidth: 8.510 MHz x dB: -6.00 dB

802.11g/LCH

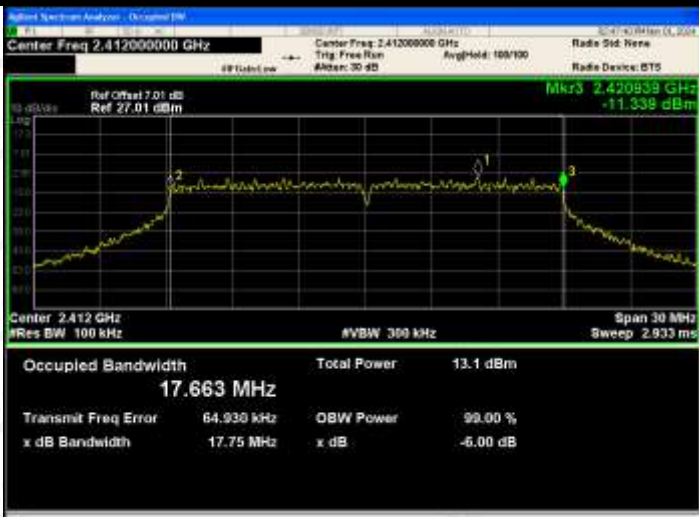


802.11g/MCH



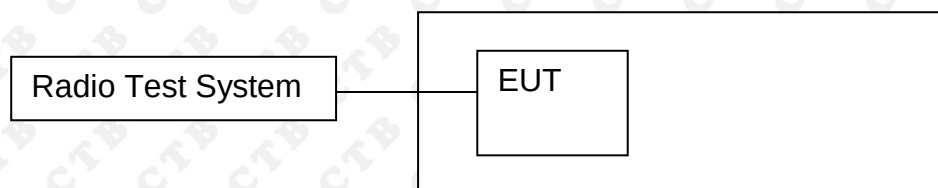
802.11g/HCH



802.11n(HT20)/LC H	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.412000000 GHz Center Freq 2.412000000 GHz Trig: Free Run AvgHold: 100/100 Radio Std: None Radio Device: BTS Ref Offset: 7.01 dB Ref 27.01 dBm Mkr3 2.420939 GHz -11.338 dBm Center 2.412 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.663 MHz Total Power 13.1 dBm Transmit Freq Error 64.930 kHz OSW Power 99.00 % x dB Bandwidth 17.75 MHz x dB -6.00 dB
802.11n(HT20)/MC H	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.437000000 GHz Center Freq 2.437000000 GHz Trig: Free Run AvgHold: 100/100 Radio Std: None Radio Device: BTS Ref Offset: 7.04 dB Ref 27.04 dBm Mkr3 2.445899 GHz -10.661 dBm Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.647 MHz Total Power 13.5 dBm Transmit Freq Error 65.975 kHz OSW Power 99.00 % x dB Bandwidth 17.66 MHz x dB -6.00 dB
802.11n(HT20)/HC H	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.462000000 GHz Center Freq 2.462000000 GHz Trig: Free Run AvgHold: 100/100 Radio Std: None Radio Device: BTS Ref Offset: 7.08 dB Ref 27.08 dBm Mkr3 2.47084 GHz -10.352 dBm Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.636 MHz Total Power 13.8 dBm Transmit Freq Error 53.561 kHz OSW Power 99.00 % x dB Bandwidth 17.57 MHz x dB -6.00 dB

11. POWER SPECTRAL DENSITY

11.1 Block Diagram Of Test Setup



11.2 Limit

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

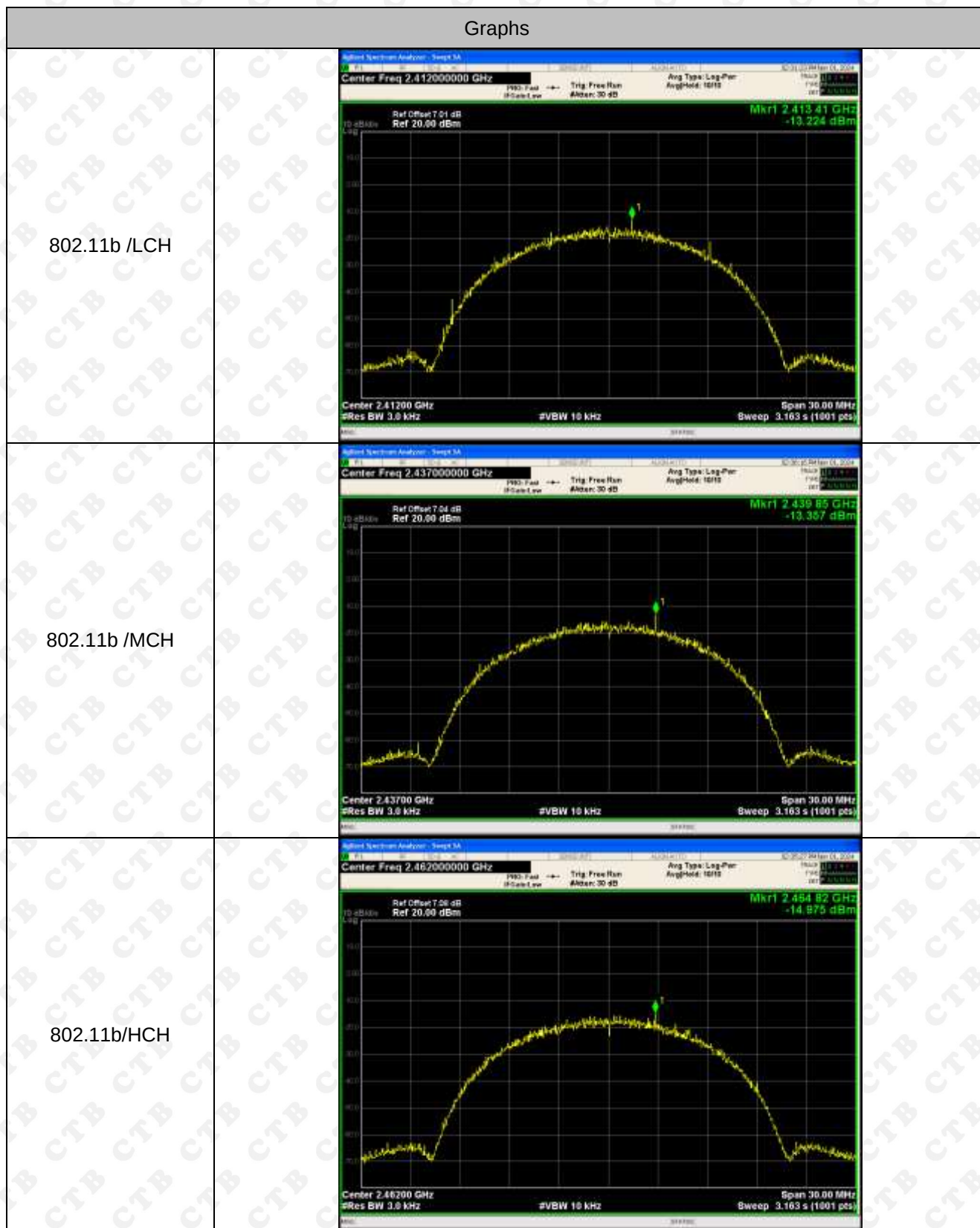
11.3 Test procedure

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.

11.4 Test Result

Mode	Channel.	Power Spectral Density [dBm /3KHz]	Limit(8 dBm (in any 3KHz))	Verdict
802.11b	LCH	-13.224	8	PASS
	MCH	-13.357	8	PASS
	HCH	-14.975	8	PASS
802.11g	LCH	-19.095	8	PASS
	MCH	-19.019	8	PASS
	HCH	-18.384	8	PASS
802.11n(H T20)	LCH	-19.821	8	PASS
	MCH	-19.312	8	PASS
	HCH	-18.526	8	PASS

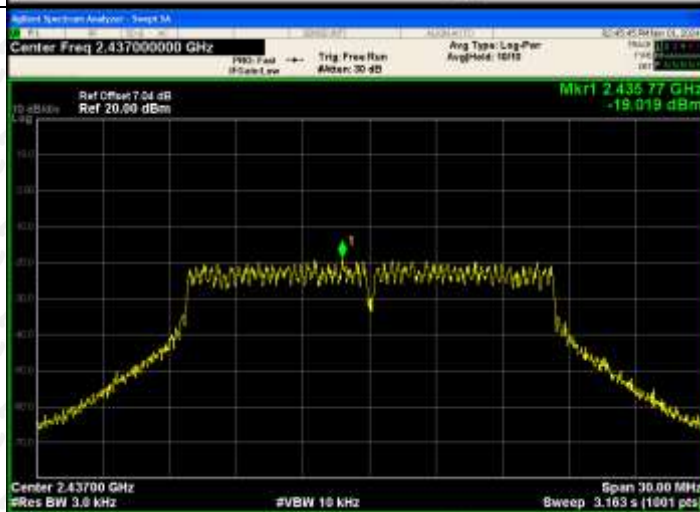
Test Graph



802.11g/LCH

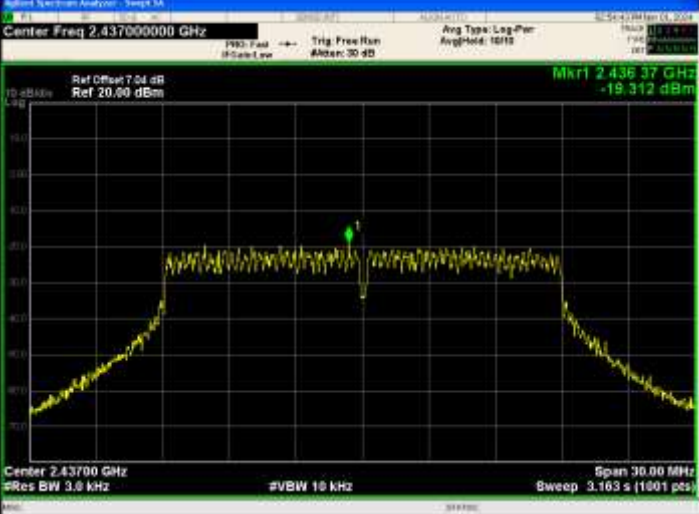
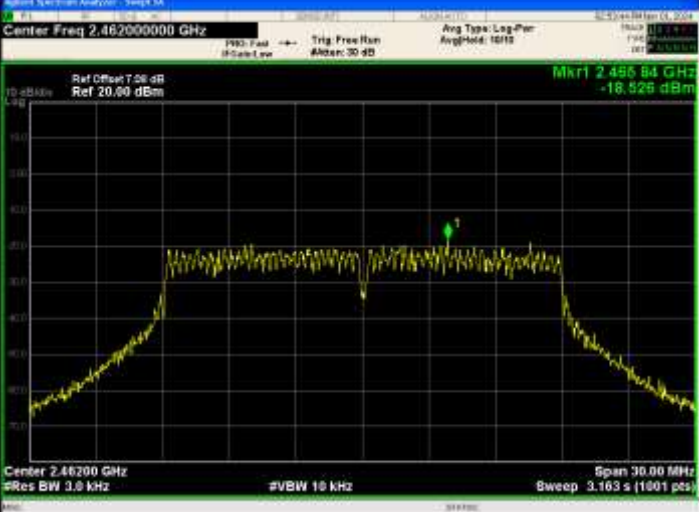


802.11g/MCH



802.11g/HCH



802.11n(HT20)/LCH	
802.11n(HT20)/MCH	
802.11n(HT20)/HCH	

12. ANTENNA REQUIREMENT

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.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is PCB antenna and no consideration of replacement. The best case gain of the antenna is 2.45dBi.

13. EUT TEST SETUP PHOTOGRAPHS

Radiated Emission

Below 1G



Above 1G



Conducted Emission



※※※※※ END OF REPORT ※※※※※