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TEST REPORT

FCC PART 15 SUBPART C 15.247

Report Reference No.: CTL1905077021-WF03

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Ivan Xie

Product Name.....: Notebook

Model/Type reference: HNB-IA26XX

List Model(s).....: N/A

Brand Name.....: Haitech

FCC ID: 2ATES-HNB-IA26XX

Applicant's name: China Hainergy New Energy Co., Ltd.

Address of applicant: Unit 1908, 19/F, Harbour Centre, 25 Harbour Road, Wan Chai, Hong Kong

Test Firm: Shenzhen CTL Testing Technology Co., Ltd.

Address of Test Firm: Floor 1-A, Baisha Technology Park, No.3011, Shaheji Road, Nanshan District, Shenzhen, China 518055

Test specification.....:

Standard.....: 47 CFR FCC Part 15 Subpart C 15.247

TRF Originator: Shenzhen CTL Testing Technology Co., Ltd.

Master TRF: Dated 2011-01

Date of receipt of test item.....: May 08, 2019

Date of sampling.....: May 08, 2019

Date of Test Date.....: May 08, 2019–May 23, 2019

Data of Issue.....: May 23, 2019

Result.....: Pass

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TEST REPORT

Test Report No. :	CTL1905077021-WF03	May 23, 2019
		Date of issue

Equipment under Test : Notebook

Model /Type : HNB-IA26XX

Listed Models : N/A

Applicant : **China Hainergy New Energy Co., Ltd.**

Address : Unit 1908, 19/F, Harbour Centre, 25 Harbour Road,
Wan Chai, Hong Kong

Manufacturer : **China Hainergy New Energy Co., Ltd.**

Address : Unit 1908, 19/F, Harbour Centre, 25 Harbour Road,
Wan Chai, Hong Kong

Test result	Pass *
--------------------	---------------

* In the configuration tested, the EUT complied with the standards specified page 5.

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory.

** Modified History **

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Table of Contents**Page**

1. SUMMARY.....	5
1.1. TEST STANDARDS.....	5
1.2. TEST DESCRIPTION.....	5
1.3. TEST FACILITY	6
1.4. STATEMENT OF THE MEASUREMENT UNCERTAINTY.....	6
1.5. ENVIRONMENTAL CONDITIONS	8
1.6. GENERAL DESCRIPTION OF EUT	8
2. DESCRIPTION OF TEST MODES AND TEST FREQUENCY	8
2.1. EQUIPMENTS USED DURING THE TEST	10
2.2. RELATED SUBMITTAL(s) / GRANT (s).....	10
2.3. MODIFICATIONS.....	10
3. TEST CONDITIONS AND RESULTS	11
3.1. CONDUCTED EMISSIONS TEST	11
3.2. RADIATED EMISSIONS AND BAND EDGE	14
3.3. MAXIMUM CONDUCTED OUTPUT POWER.....	21
3.4. POWER SPECTRAL DENSITY	22
3.5. 6dB BANDWIDTH.....	27
3.6. OUT-OF-BAND EMISSIONS.....	32
3.7. ANTENNA REQUIREMENT.....	49
4. TEST SETUP PHOTOS OF THE EUT	50
5. EXTERNAL AND INTERNAL PHOTOS OF THE EUT	51

1. SUMMARY

1.1. TEST STANDARDS

The tests were performed according to following standards:

FCC Rules Part 15.247: Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz

RSS-247-Issue 2: Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices.

RSS-Gen Issue 4: General Requirements for Compliance of Radio Apparatus

ANSI C63.10:2013 : American National Standard for Testing Unlicensed Wireless Devices

KDB558074 D01 V03r05: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247

KDB 662911: D01Emissions Testing of Transmitters with Multiple Outputs in the Same Band

1.2. Test Description

FCC PART 15.247		
FCC Part 15.207 RSS-Gen 8.8	AC Power Conducted Emission	PASS
FCC Part 15.247(a)(2) RSS 247 5.2 (1) RSS GEN 6.6	6dB Bandwidth	PASS
FCC Part 15.247(d) RSS 247 5.5	Spurious RF Conducted Emission	PASS
FCC Part 15.247(b) RSS 247 5.4 (4)	Maximum Conducted Output Power	PASS
FCC Part 15.247(e) RSS 247 5.2 (2)	Power Spectral Density	PASS
FCC Part 15.205/ 15.209 RSS-Gen 8.9	Radiated Emissions	PASS
FCC Part 15.247(d) RSS-Gen 8.10	Band Edge	PASS
FCC Part 15.203/15.247 (b)	Antenna Requirement	PASS

1.3. Test Facility

1.3.1 Address of the test laboratory

Shenzhen CTL Testing Technology Co., Ltd.

Floor 1-A, Baisha Technology Park, No. 3011, Shahexi Road, Nanshan, Shenzhen 518055 China

There is one 3m semi-anechoic chamber and two line conducted labs for final test. The Test Sites meet the requirements in documents ANSI C63.4 and CISPR 22/EN 55022 requirements.

1.3.2 Laboratory accreditation

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

CNAS-Lab Code: L7497

Shenzhen CTL Testing Technology Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA-Lab Cert. No. 4343.01

Shenzhen CTL Testing Technology Co., Ltd, EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

IC Registration No.: 9518B

CAB identifier: CN0041

The 3m alternate test site of Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements with Registration No.: 9518B on Jan. 22, 2019.

FCC-Registration No.: 399832

Designation No.: CN1216

Shenzhen CTL Testing 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 399832, December 08, 2017.

1.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the Shenzhen CTL Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for CTL laboratory is reported:

Test	Measurement Uncertainty	Notes
Transmitter power conducted	± 0.57 dB	(1)
Transmitter power Radiated	± 2.20 dB	(1)
Conducted spurious emission 9KHz-40 GHz	± 2.20 dB	(1)
Occupied Bandwidth	± 0.01 ppm	(1)
Radiated Emission 30~1000MHz	± 3.53 dB	(1)
Radiated Emission Above 1GHz	± 4.32 dB	(1)
Conducted Disturbance 0.15~30MHz	± 3.20 dB	(1)

- (1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

1.5.Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

1.6.General Description of EUT

Product Name:	Notebook
Model/Type reference:	HNB-IA26XX
Power supply:	DC 7.4V from battery
Adapter information:	Model: SOY-1200250US Input: 100-240V~, 50/60Hz, 1.0A Output: 12V---2.5A
WIFI	
Supported type:	802.11b/802.11g/802.11n(H20)/802.11n(H40)
Modulation:	802.11b: DSSS 802.11g/802.11n(H20)/802.11n(H40): OFDM
Operation frequency:	802.11b/802.11g/802.11n(H20): 2412MHz~2462MHz 802.11n(H40): 2422MHz~2452MHz
Channel number:	802.11b/802.11g/802.11n(H20): 11 802.11n(H40): 7
Channel separation:	5MHz
Antenna type:	FPC Antenna : 2*TX 2*RX
Antenna gain:	1.7dBi

Note: For more details, refer to the user's manual of the EUT.

2. Description of Test Modes and Test Frequency

The Applicant provides communication tools software to control the EUT for staying in continuous transmitting (Duty Cycle more than 98%) and receiving mode for testing.

There are 11 channels provided to the EUT and Channel 01/06/11 were selected for 802.11b/ 802.11g/ 802.11n(H20) test, Channel 03/06/09 were selected for 802.11n(H40) test.

Operation Frequency WIFI :

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

Note: The line display in grey were the channel selected for testing

Data Rate Used:

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Channel
Maximum Conducted Output Power Power Spectral Density 6dB Bandwidth Spurious RF conducted emission Radiated Emission 9kHz~1GHz& Radiated Emission 1GHz~10th Harmonic	11b/DSSS	1 Mbps	1/6/11
	11g/OFDM	6 Mbps	1/6/11
	11n(20MHz)/OFDM	6.5Mbps	1/6/11
	11n(40MHz)/OFDM	13.5 Mbps	3/6/9
Band Edge	11b/DSSS	1 Mbps	1/11
	11g/OFDM	6 Mbps	1/11
	11n(20MHz)/OFDM	6.5Mbps	1/11
	11n(40MHz)/OFDM	13.5 Mbps	3//9

2.1. Equipments Used during the Test

Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
LISN	R&S	ENV216	3560.6550.1 2	2018/05/25	2019/05/24
LISN	R&S	ESH2-Z5	860014/010	2018/05/25	2019/05/24
Bilog Antenna	Sunol Sciences Corp.	JB1	A061713	2018/05/25	2019/05/24
EMI Test Receiver	R&S	ESCI	1166.5950.03	2018/05/25	2019/05/24
Spectrum Analyzer	Agilent	E4407B	MY41440676	2018/05/25	2019/05/24
Spectrum Analyzer	Agilent	N9020	US46220290	2018/05/25	2019/05/24
Controller	EM Electronics	EM 1000	060859	2018/05/25	2019/05/24
Horn Antenna	Sunol Sciences Corp.	DRH-118	A062013	2018/05/25	2019/05/24
Active Loop Antenna	Da Ze	ZN30900A	/	2018/05/25	2019/05/24
Amplifier	Agilent	8449B	3008A02306	2018/05/25	2019/05/24
Amplifier	Agilent	8447D	2944A10176	2018/05/25	2019/05/24
Temperature/Humidity Meter	Gangxing	CTH-608	02	2018/05/25	2019/05/24
High-Pass Filter	micro-tranics	HPM50108	G174	2018/05/25	2019/05/24
High-Pass Filter	micro-tranics	HPM50111	G142	2018/05/25	2019/05/24
Coaxial Cables	HUBER+SUHNER	SUCOFLEX 104PEA-10M	10m	2018/05/25	2019/05/24
Coaxial Cables	HUBER+SUHNER	SUCOFLEX 104PEA-3M	3m	2018/05/25	2019/05/24
Coaxial Cables	HUBER+SUHNER	SUCOFLEX 104PEA-3M	3m	2018/05/25	2019/05/24
RF Cable	Megalon	RF-A303	N/A	2018/05/25	2019/05/24

The calibration interval was one year

2.2. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: 2ASOD-YNA18008 filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

2.3. Modifications

No modifications were implemented to meet testing criteria.

3. TEST CONDITIONS AND RESULTS

3.1. Conducted Emissions Test

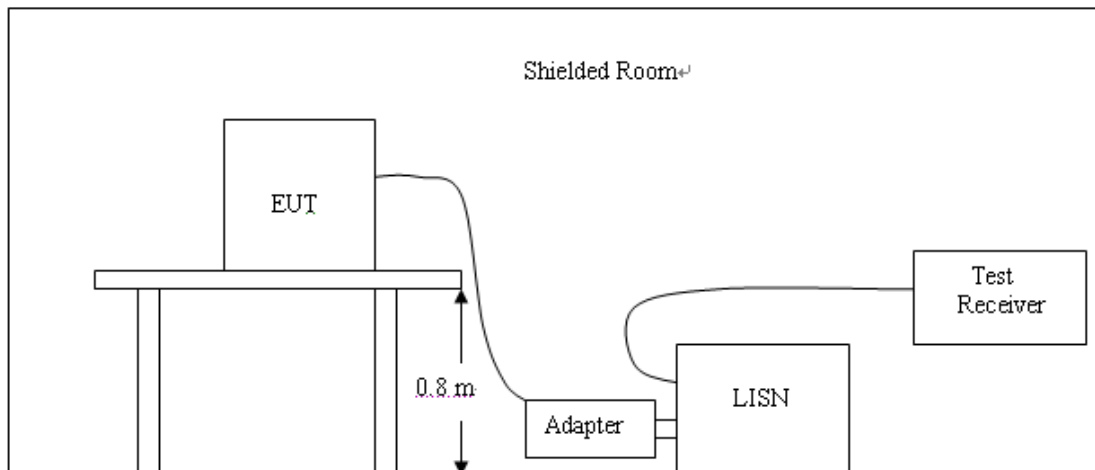
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.207

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST CONFIGURATION

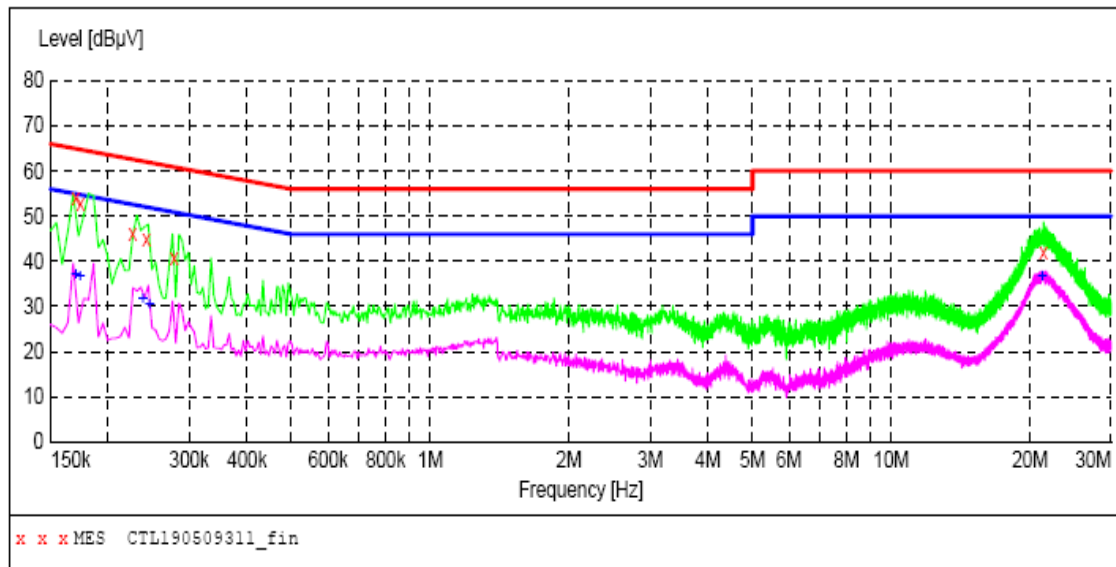


TEST PROCEDURE

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10:2013.
2. Support equipment, if needed, was placed as per ANSI C63.10:2013.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10:2013.
4. The adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5. All support equipments received AC power from a second LISN, if any.
6. The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.

TEST RESULTS**SCAN TABLE: "Voltage (9K-30M) FIN"**

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT: "CTL190509311_fin"**

2019-5-9 12:13??

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.170000	54.20	11.2	65	10.8	QP	L1	GND
0.174000	52.80	11.2	65	12.0	QP	L1	GND
0.226000	46.30	11.2	63	16.3	QP	L1	GND
0.242000	44.80	11.2	62	17.2	QP	L1	GND
0.278000	40.70	11.2	61	20.2	QP	L1	GND
21.392000	42.20	11.5	60	17.8	QP	L1	GND

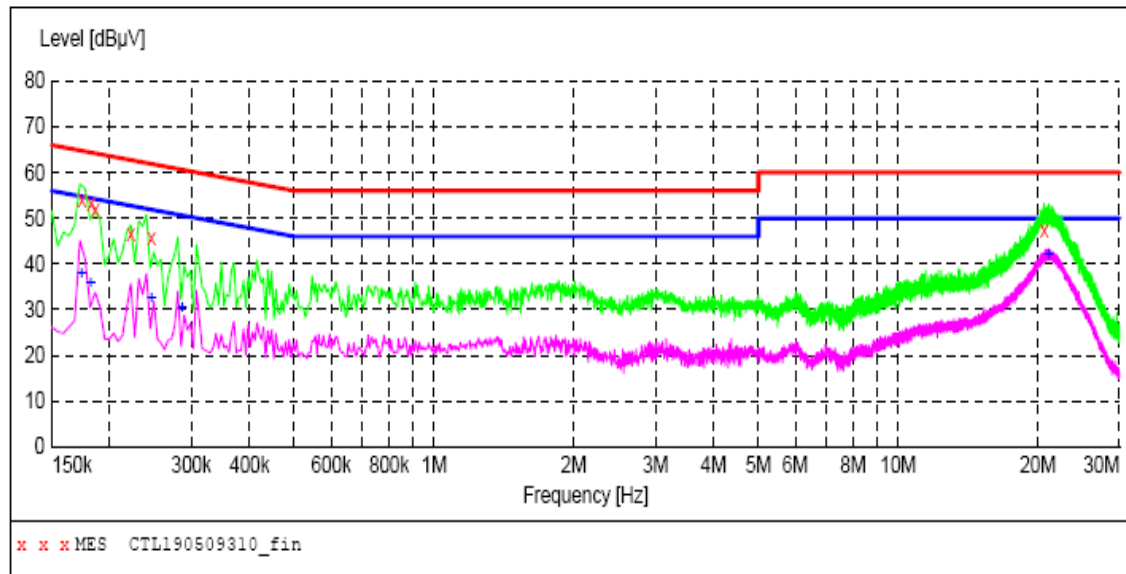
MEASUREMENT RESULT: "CTL190509311_fin2"

2019-5-9 12:13??

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.170000	37.00	11.2	55	18.0	AV	L1	GND
0.174000	36.70	11.2	55	18.1	AV	L1	GND
0.238000	31.70	11.2	52	20.5	AV	L1	GND
0.246000	30.40	11.2	52	21.5	AV	L1	GND
21.272000	36.40	11.5	50	13.6	AV	L1	GND

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT: "CTL190509310_fin"**

2019-5-9 12:10??

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.174000	53.90	11.2	65	10.9	QP	N	GND
0.182000	53.20	11.2	64	11.2	QP	N	GND
0.186000	51.90	11.2	64	12.3	QP	N	GND
0.222000	46.40	11.2	63	16.3	QP	N	GND
0.246000	45.60	11.2	62	16.3	QP	N	GND
20.636000	47.30	11.5	60	12.7	QP	N	GND

MEASUREMENT RESULT: "CTL190509310_fin2"

2019-5-9 12:10??

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.174000	37.90	11.2	55	16.9	AV	N	GND
0.182000	35.90	11.2	54	18.5	AV	N	GND
0.246000	32.50	11.2	52	19.4	AV	N	GND
0.286000	30.30	11.2	51	20.3	AV	N	GND
21.152000	41.80	11.5	50	8.2	AV	N	GND

3.2. Radiated Emissions and Band Edge

Limit

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission out of authorized band shall not exceed the following table at a 3 meters measurement distance.

FCC PART 15.249(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

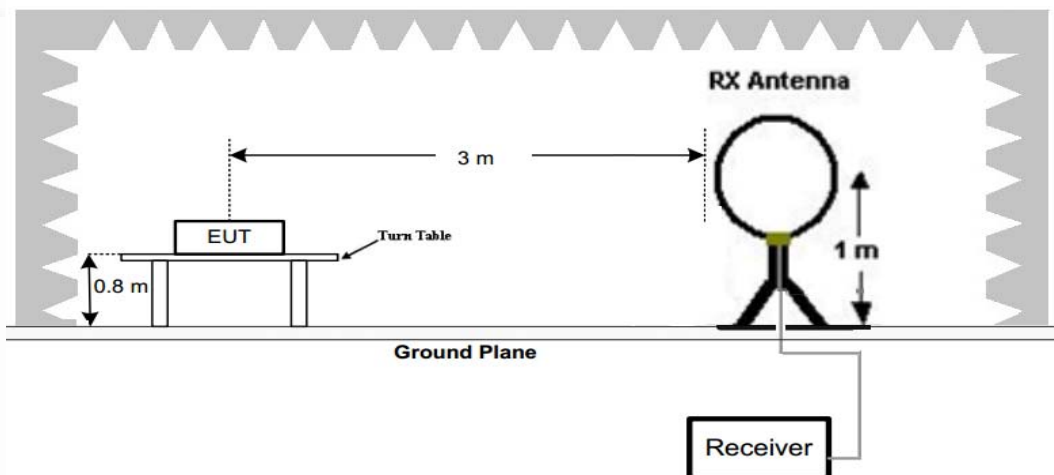
In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Radiated emission limits

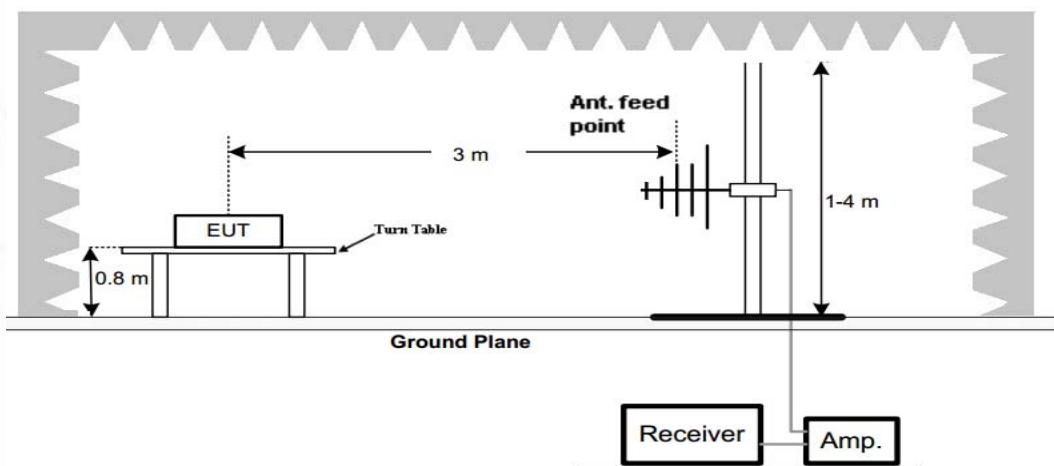
Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
0.009-0.49	3	$20\log(2400/F(\text{KHz}))+40\log(300/3)$	$2400/F(\text{KHz})$
0.49-1.705	3	$20\log(24000/F(\text{KHz}))+40\log(30/3)$	$24000/F(\text{KHz})$
1.705-30	3	$20\log(30)+40\log(30/3)$	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST CONFIGURATION

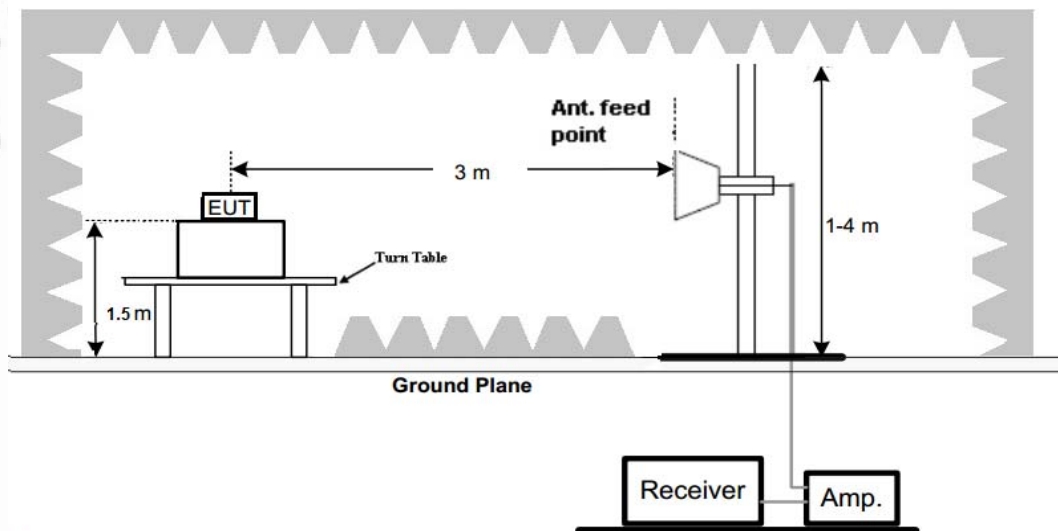
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz

**Test Procedure**

1. Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane, and above 1GHz measurement EUT was placed on a low permittivity and low loss tangent turn table which is 1.5m above ground plane.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0°C to 360°C to acquire the highest emissions from EUT
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.

TEST RESULTS

Remark:

1. We tested three channels (lowest/middle/highest) of each mode and recorded worst case at 802.11b mode low channel for measurement below 1GHz.
2. We tested three channels (lowest/middle/highest) of each mode and recorded worst case at 802.11b mode above 1GHz.

For 9 KHz-30MHz

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

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

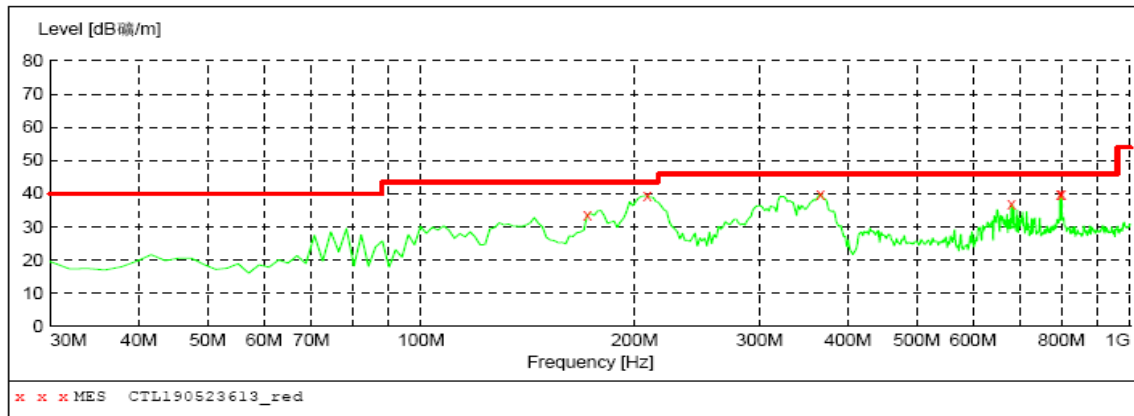
Distance extrapolation factor= $40 \log (\text{specific distance} / \text{test distance})$ (dB);
 Limit line= specific limits (dBuV) + distance extrapolation factor.

For 30MHz-1GHz

Horizontal

SWEEP TABLE: "test (30M-1G)"

Short Description: Field Strength
Start Stop Detector Meas. IF Transducer
Frequency Frequency Time Bandw.
30.0 MHz 1.0 GHz MaxPeak 300.0 ms 120 kHz VULB9168

***MEASUREMENT RESULT: "CTL190523613_red"***

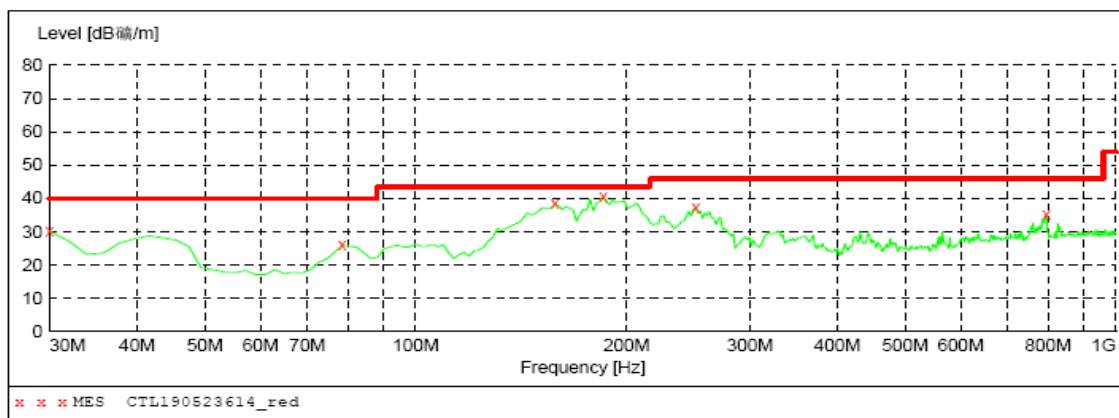
2019-5-23 16:33

Frequency MHz	Level dB μ /m	Transd dB	Limit dB μ /m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
171.620000	33.60	14.0	43.5	9.9	---	0.0	0.00	HORIZONTAL
208.480000	39.40	11.2	43.5	4.1	---	0.0	0.00	HORIZONTAL
365.620000	39.90	15.6	46.0	6.1	---	0.0	0.00	HORIZONTAL
679.900000	36.80	21.3	46.0	9.2	---	0.0	0.00	HORIZONTAL
796.300000	39.60	22.7	46.0	6.4	---	0.0	0.00	HORIZONTAL
800.180000	39.60	22.7	46.0	6.4	---	0.0	0.00	HORIZONTAL

Vertical

SWEEP TABLE: "test (30M-1G)"

Short Description: Field Strength
Start Stop Detector Meas. IF Transducer
Frequency Frequency Time Bandw.
30.0 MHz 1.0 GHz MaxPeak 300.0 ms 120 kHz VULB9168

***MEASUREMENT RESULT: "CTL190523614_red"***

2019-5-23 16:35

Frequency MHz	Level dB μ /m	Transd dB	Limit dB μ /m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
30.000000	30.20	13.9	40.0	9.8	---	0.0	0.00	VERTICAL
78.500000	25.90	10.3	40.0	14.1	---	0.0	0.00	VERTICAL
158.040000	38.40	15.2	43.5	5.1	---	0.0	0.00	VERTICAL
185.200000	40.70	12.2	43.5	2.8	---	0.0	0.00	VERTICAL
251.160000	37.20	12.8	46.0	8.8	---	0.0	0.00	VERTICAL
794.360000	35.10	22.7	46.0	10.9	---	0.0	0.00	VERTICAL

For 1GHz to 25GHz

Note: 802.11b/802.11g/802.11n (H20)/ 802.11n (H40) all have been tested, only worse case 802.11n (H20)

MIMO mode is reported

Frequency(MHz):			2412		Polarity:			HORIZONTAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4824.00	55.59	PK	74.00	18.41	51.04	33.52	6.92	35.89	4.55
4824.00	49.71	AV	54.00	4.29	45.16	33.52	6.92	35.89	4.55
6216.00	45.04	PK	74.00	28.96	37.84	34.38	7.10	34.28	7.20
6216.00	--	AV	54.00	--	--	--	--	--	--
7236.00	46.76	PK	74.00	27.24	35.49	37.10	9.19	35.02	11.27
7236.00	--	AV	54.00	--	--	--	--	--	--

Frequency(MHz):			2412		Polarity:			VERTICAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4824.00	53.19	PK	74.00	20.81	48.64	33.52	6.92	35.89	4.55
4824.00	48.82	AV	54.00	5.18	44.27	33.52	6.92	35.89	4.55
5341.00	46.23	PK	74.00	27.77	39.03	34.38	7.10	34.28	7.20
5341.00	--	AV	54.00	--	--	--	--	--	--
7236.00	45.11	PK	74.00	28.89	33.84	37.10	9.19	35.02	11.27
7236.00	--	AV	54.00	--	--	--	--	--	--

Frequency(MHz):			2437		Polarity:			HORIZONTAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4874.00	54.78	PK	74.00	19.22	48.54	33.59	6.95	34.30	6.24
4874.00	48.74	AV	54.00	5.26	42.50	33.59	6.95	34.30	6.24
5619.00	45.40	PK	74.00	28.60	37.80	34.56	7.15	34.11	7.60
5619.00	--	AV	54.00	--	--	--	--	--	--
7311.00	46.33	PK	74.00	27.67	34.67	37.44	9.22	35.00	11.66
7311.00	--	AV	54.00	--	--	--	--	--	--

Frequency(MHz):			2437		Polarity:			VERTICAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4874.00	54.41	PK	74.00	19.59	48.07	33.59	6.95	34.20	6.34
4874.00	47.80	AV	54.00	6.20	41.46	33.59	6.95	34.20	6.34
6852.00	46.97	PK	74.00	27.03	40.07	34.07	7.05	34.22	6.90
6852.00	--	AV	54.00	--	--	--	--	--	--
7311.00	45.26	PK	74.00	28.74	33.60	37.44	9.22	35.00	11.66
7311.00	--	AV	54.00	--	--	--	--	--	--

Frequency(MHz):			2462		Polarity:			HORIZONTAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre- amplifier (dB)	Correction Factor (dB/m)
4924.00	55.30	PK	74.00	18.70	53.55	33.71	6.98	35.91	4.78
4924.00	49.18	AV	54.00	4.82	43.73	33.71	6.98	35.91	4.78
7093.00	44.64	PK	74.00	29.36	41.24	34.34	7.09	34.27	7.17
7093.00	--	AV	54.00	--	--	--	--	--	--
7386.00	48.82	PK	74.00	25.18	37.40	37.61	9.25	34.98	11.88
7386.00	--	AV	54.00	--	--	--	--	--	--

Frequency(MHz):			2462		Polarity:			VERTICAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre- amplifier (dB)	Correction Factor (dB/m)
4924.00	54.21	PK	74.00	19.79	49.43	33.71	6.98	35.91	4.78
4924.00	49.94	AV	54.00	4.06	45.16	33.71	6.98	35.91	4.78
5619.00	45.55	PK	74.00	28.45	38.38	34.34	7.09	34.27	7.17
5919.00	--	AV	54.00	--	--	--	--	--	--
7386.00	48.58	PK	74.00	25.42	36.70	37.61	9.25	34.98	11.88
7386.00	--	AV	54.00	--	--	--	--	--	--

REMARKS:

1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
3. Margin value = Limit value- Emission level.
4. -- Mean the PK detector measured value is below average limit.
5. The other emission levels were very low against the limit.
6. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.

Results of Band Edges Test (Radiated)

Note: 802.11b/802.11g/802.11n (H20)/ 802.11n (H40) all have been tested, only worse case 802.11n (H20)

MIMO mode is reported

802.11n (H20) MIMO Mode (above 1GHz)

Frequency(MHz):			2412		Polarity:			HORIZONTAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2412.00	104.15	PK	--	--	70.76	28.78	4.61	0.00	33.39
2412.00	97.36	AV	--	--	63.97	28.78	4.61	0.00	33.39
2352.00	43.21	PK	74.00	30.79	10.13	28.52	4.56	0.00	33.08
2352.00	--	AV	54.00	--	--	--	--	--	--
2390.00	45.14	PK	74.00	28.86	11.82	28.72	4.60	0.00	33.32
2390.00	--	AV	54.00	--	--	--	--	--	--
2400.00	55.20	PK	74.00	18.80	21.81	28.78	4.61	0.00	33.39
2400.00	49.73	AV	54.00	4.27	16.34	28.78	4.61	0.00	33.39

Frequency(MHz):			2412		Polarity:			VERTICAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2412.00	103.83	PK	--	--	70.44	28.78	4.61	0.00	33.39
2412.00	97.52	AV	--	--	64.13	28.78	4.61	0.00	33.39
2330.00	44.59	PK	74.00	29.41	11.51	28.52	4.56	0.00	33.08
2330.00	--	AV	54.00	--	--	--	--	--	--
2390.00	44.48	PK	74.00	29.52	11.16	28.72	4.60	0.00	33.32
2390.00	--	AV	54.00	--	--	--	--	--	--
2400.00	54.24	PK	74.00	19.76	20.85	28.78	4.61	0.00	33.39
2400.00	47.10	AV	54.00	6.90	13.71	28.78	4.61	0.00	33.39

Frequency(MHz):			2462		Polarity:			HORIZONTAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2462.00	105.88	PK	--	--	72.26	28.92	4.70	0.00	33.62
2462.00	98.49	AV	--	--	64.87	28.92	4.70	0.00	33.62
2483.50	49.74	PK	74.00	24.26	16.11	28.93	4.70	0.00	33.63
2483.50	--	AV	54.00	--	--	--	--	--	--
2491.00	45.32	PK	74.00	28.68	11.68	28.94	4.71	0.00	33.64
2491.00	--	AV	54.00	--	--	--	--	--	--
2500.00	43.07	PK	74.00	30.93	9.39	28.96	4.72	0.00	33.68
2500.00	--	AV	54.00	--	--	--	--	--	--

Frequency(MHz):			2462		Polarity:			VERTICAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre- amplifier (dB)	Correction Factor (dB/m)
2462.00	105.87	PK	--	--	72.25	28.92	4.70	0.00	33.62
2462.00	98.25	AV	--	--	64.63	28.92	4.70	0.00	33.62
2483.50	49.28	PK	74.00	24.72	15.65	28.93	4.70	0.00	33.63
2483.50	--	AV	54.00	--	--	--	--	--	--
2495.00	46.27	PK	74.00	27.73	12.63	28.94	4.71	0.00	33.64
2495.00	--	AV	54.00	--	--	--	--	--	--
2500.00	42.90	PK	74.00	31.10	9.22	28.96	4.72	0.00	33.68
2500.00	--	AV	54.00	--	--	--	--	--	--

REMARKS:

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