FCC RF Test Report

For

Condeco Ltd

Test Standards:	FCC Part 15 Subpart C §15.209 FCC Part 15 Subpart C §15.225
Product Description:	V3 Desk Screen
Tested Model:	201850
FCC ID:	2ACML-201850
Classification	(DXX) Low Power Communication Device Transmitter
Report No.:	EC1911039RF06
Tested Date:	2019-12-10 to 2019-12-30
Issued Date:	2019-12-30
Prepared By:	Jerry Wang / Engineer
Approved By:	Bacon Wu / RF Manager

Hunan Ecloud Testing Technology Co., Ltd.

Building A1, Changsha E Center, No. 18 Xiangtai Avenue, Liuyang Economic and Technological Development Zone, Hunan, P.R.C

Tel.: +86-731-89634887 Fax.: +86-731-89634887

www.hn-ecloud.com

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	2019.12.30	Valid	Original Report

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Summary of Test RESULT

FCC Rule	Description	Limit	Result	Remark
-	99% Bandwidth	-	Pass	-
15.225(a)(b)(c)	Field Strength of Fundamental Emissions	15.225(a)(b)(c)	Pass	-
2.1049	20dB Spectrum Bandwidth	2.1049	Pass	-
15.225(d) 15.209	Radiated Emission	15.225(d) & 15.209	Pass	Under limit 17.69 dB at 38.73 MHz
15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 16.10 dB at 0.204 MHz
15.225(e)	Frequency Stability	< ±100 ppm	Pass	
15.203	Antenna Requirement	N/A	Pass	-

1. Test Laboratory

1.1 Test facility

CNAS (accreditation number:L11138)

Hunan Ecloud Testing Technology Co., Ltd. has obtained the accreditation of China National Accreditation Service for Conformity Assessment (CNAS).

FCC (Designation number:CN1244 , Test Firm Registration Number:793308)

Hunan Ecloud Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

ISED(CAB identifier: CN0012, ISED# :24347)

Hunan Ecloud Testing Technology Co., Ltd. has been listed on the Wireless Device Testing Laboratories list of innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements.

A2LA (Certificate Number:4895.01)

Hunan Ecloud Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

2. General Description

2.1 Applicant

Condeco Ltd
8th Floor Exchange Tower, 2 Harbour Exchange Square. London. E14 9GE London United Kingdom

2.2 Manufacturer

Condeco Ltd
8th Floor Exchange Tower, 2 Harbour Exchange Square. London. E14 9GE London United Kingdom

2.3 General Description Of EUT

Items	Description
Tx/Rx Frequency Range	13.56MHz
Channel Number	1
20dBW	2.58 KHz
99%OBW	2.19 KHz
Antenna Type	PCB Antenna
Type of Modulation	ASK

Items	Description
Tx/Rx Frequency Range	125kHz
Channel Number	1
Antenna Type	PCB Antenna
Type of Modulation	ASK

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

2.4 Modification of EUT

No modifications are made to the EUT during all test items.

2.5 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart C §15.225
- FCC Part 15 Subpart C §15.209
- ANSI C63.10-2013

3. Test Configuration of Equipment Under Test

3.1 Descriptions of Test Mode

Investigation has been done on all the possi NFC configurations for searching the worst cases. The following taNFC is a list of the test modes shown in this test report.

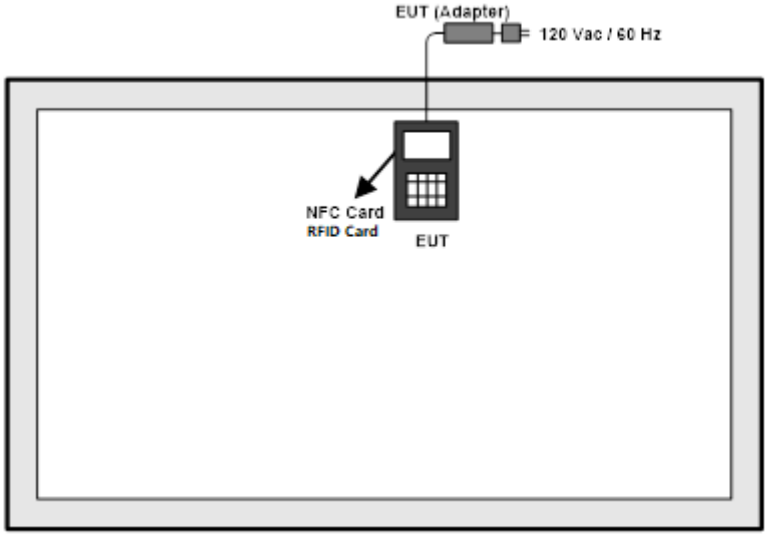
Test Items	
AC Power Line Conducted Emissions	Field Strength of Fundamental Emissions
20dB Spectrum Bandwidth	Frequency Stability
Radiated Emissions 9kHz~30MHz	Radiated Emissions 30MHz~1GHz

Note:

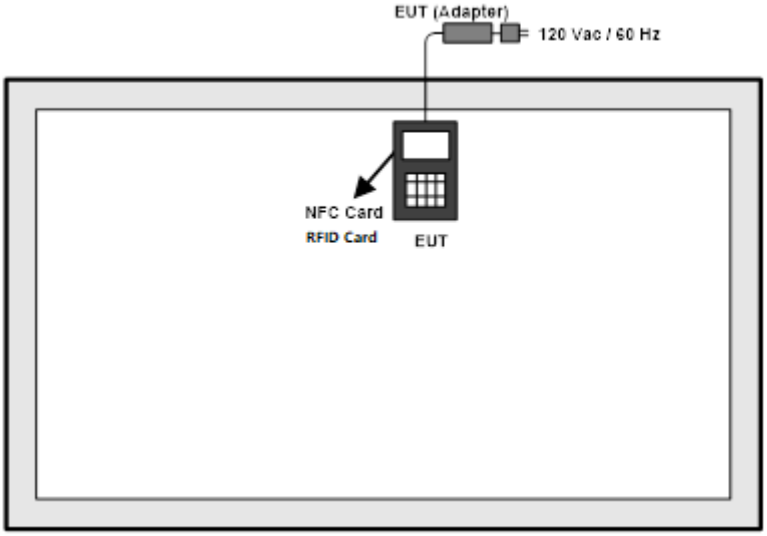
1. The EUT was programmed to be in continuously transmitting mode.
2. The ancillary equipment, NFC/RFID card, is used to make the EUT (NFC/RFID) continuously transmit at 13.56MHz/125kHz and is placed around 3 cm gap to the EUT.

3.2 Test Configurations

<AC Conducted Emissions>



< For Fundamental Emissions and Mask and Radiated Emissions Measurement >



3.3 Support Equipment

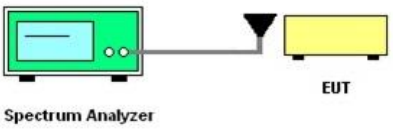
Item	Equipment	Trade Name	Model Name	FCC ID	Data CaNFC	Power Cord
1.	USB Power Adapter	Apple	A1401	FCC DoC	N/A	N/A

3.4 Test Setup

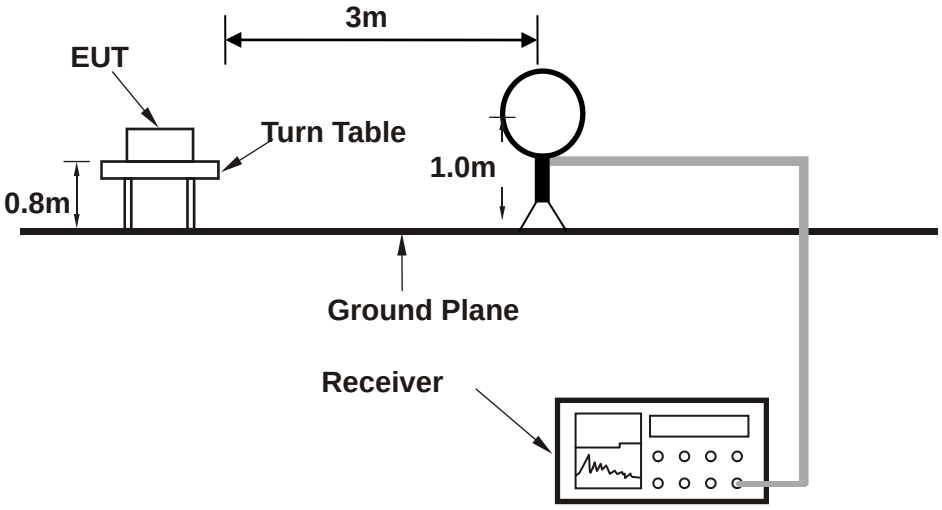
The EUT is continuously communicating during the tests.

EUT was set in the Hidden menu mode to enable NFC and RFID communications.

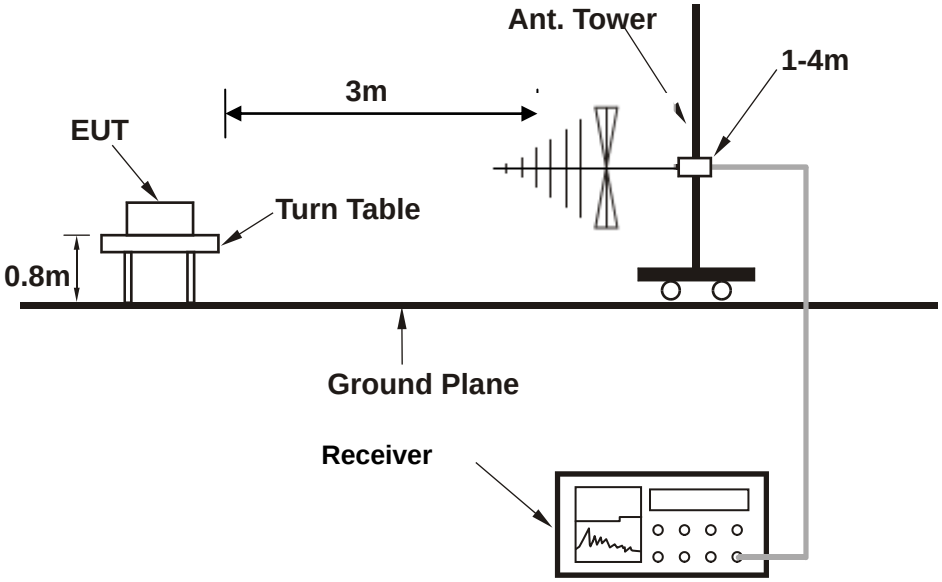
Setup diagram for Conducted Test



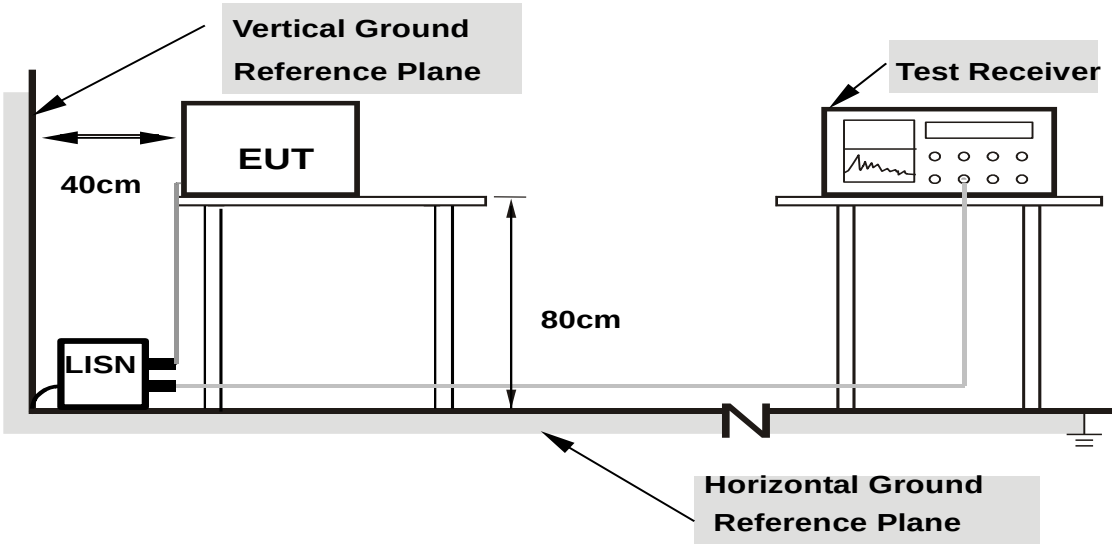
Setup diagram for Raidation(9KHz~30MHz) Test



Setup diagram for Raidation(Below 1G) Test



Setup diagram for AC Conducted Emission Test



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.5 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF caNFC loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example:

The spectrum analyzer offset is derived from RF caNFC loss and attenuator factor.

Offset = RF caNFC loss + attenuator factor.

Following shows an offset computation example with caNFC loss 5 dB and 10dB attenuator.

Offset(dB) = RF caNFC loss(dB) + attenuator factor(dB).

= 5 + 10 = 15 (dB)

4. Test Result

4.1 20dB and 99% Bandwidth Measurement

4.1.1 Limit of 20dB and 99% Bandwidth

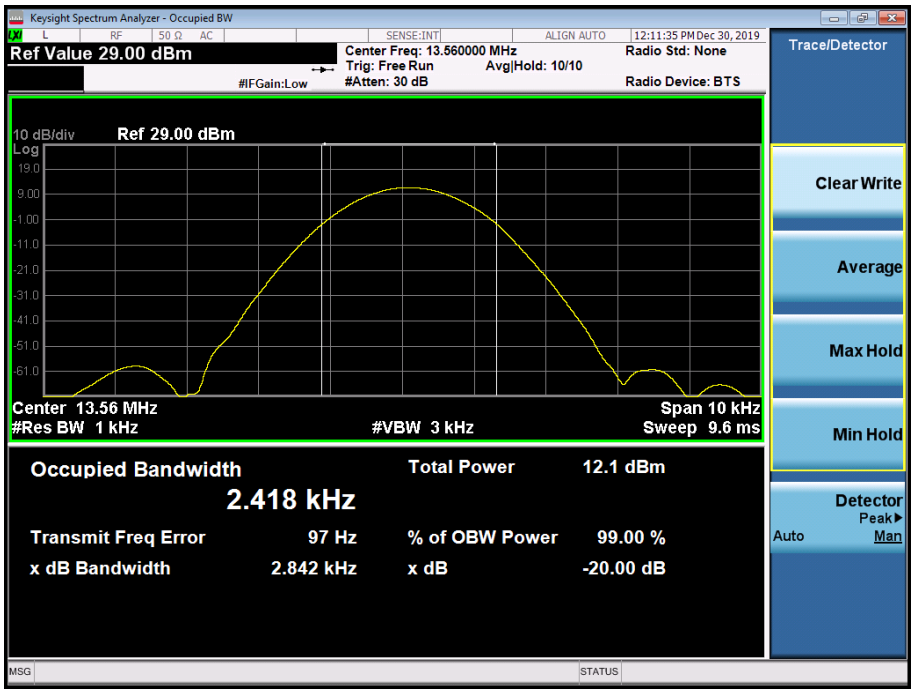
Intentional radiators must be designed to ensure that the 20dB and 99% emission bandwidth in the specific band 13.553~13.567MHz.

4.1.2 Test Procedures

1. The spectrum analyzer connected via a receive antenna placed near the EUT in peak Max hold mode.
2. The resolution bandwidth of 1 kHz and the video bandwidth of 3 kHz were used.
3. Measured the spectrum width with power higher than 20dB below carrier.
4. Measured the 99% OBW.

4.1.3 Test Result of 20dB and 99% Bandwidth

Test Mode :	NFC	Temperature :	20~23℃
Test Engineer :	Vicotrique Gao	Relative Humidity :	50~65%

Mode	Frequency	20dB Bandwidth [kHz]	99% OBW[kHz]	Verdict
NFC	13.56MHz	2.842	2.418	PASS
Test Graphs				
13.56MHz				

4.2 Frequency Stability Measurement

4.2.1 Limit of Frequency Stability

The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% (100ppm) of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

4.2.2 Test Procedures

1. The spectrum analyzer connected via a receive antenna placed near the EUT.
2. EUT have transmitted signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire emissions bandwidth.
4. Set RBW = 1 kHz, VBW = 3 kHz with peak detector and maxhold settings.
5. The fc is declaring of channel frequency. Then the frequency error formula is (fc-f)/fc × 10^6 ppm and the limit is less than ±100ppm.
6. Extreme temperature rule is -20°C~50°C.

4.2.3 Test Result of Frequency Stability

Voltage vs. Frequency Stability		Temperature vs. Frequency Stability	
Voltage (Vac)	**Measurement Frequency (MHz)**	**Temperature (℃)**	**Measurement Frequency (MHz)**
120	13.559899	-20	13.559884
102	13.559884	-10	13.559884
138	13.559884	0	13.559884
-	-	10	13.559884
-	-	20	13.559884
-	-	30	13.559884
-	-	40	13.559884
-	-	50	13.559884
Max.Deviation (MHz)	-0.000116	**Max.Deviation (MHz)**	-0.000116
Max.Deviation (ppm)	-8.5546	**Max.Deviation (ppm)**	-8.5546
Limit	**FS < ±100 ppm**	**Limit**	**FS < ±100 ppm**
Test Result	**PASS**	**Test Result**	**PASS**

4.3 Field Strength of Fundamental Emissions and Mask Measurement

4.3.1 Limit of Field Strength of Fundamental Emissions and Mask

Rules and specifications	FCC CFR 47 Part 15 section 15.225 IC RSS-210 A2.6			
Description	Compliance with the spectrum mask is tested with RBW set to 9kHz.			
Freq. of Emission (MHz)	Field Strength (μV/m) at 30m	Field Strength (dBμV/m) at 30m	Field Strength (dBμV/m) at 10m	Field Strength (dBμV/m) at 3m
1.705~13.110	30	29.5	48.58	69.5
13.110~13.410	106	40.5	59.58	80.5
13.410~13.553	334	50.5	69.58	90.5
13.553~13.567	15848	84.0	103.08	124.0
13.567~13.710	334	50.5	69.58	90.5
13.710~14.010	106	40.5	59.58	80.5
14.010~30.000	30	29.5	48.58	69.5

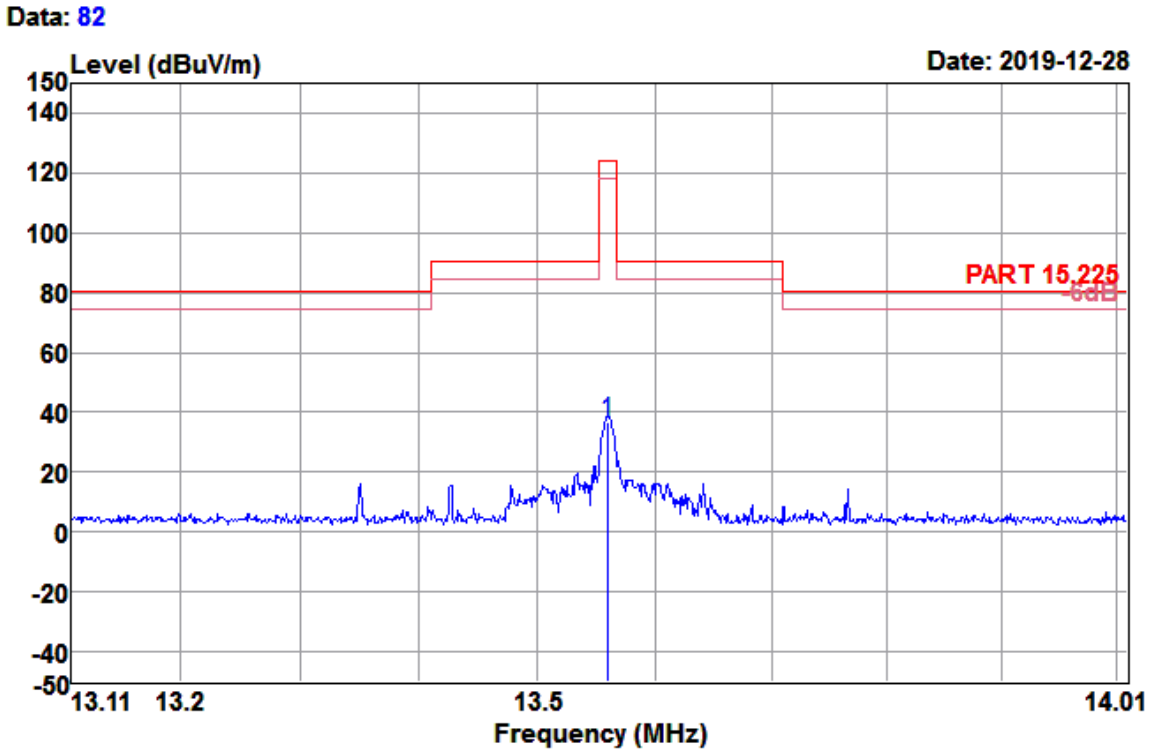
4.3.2 Test Procedures

1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the loop receiving antenna mounted antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the receiving antenna was fixed at one meter above ground to find the maximum emissions field strength.
4. For Fundamental emissions, use the receiver to measure QP reading.
5. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.
6. Compliance with the spectrum mask is tested with RBW set to 9kHz.

   Note: Emission level (dBμV/m) = 20 log Emission level (μV/m).

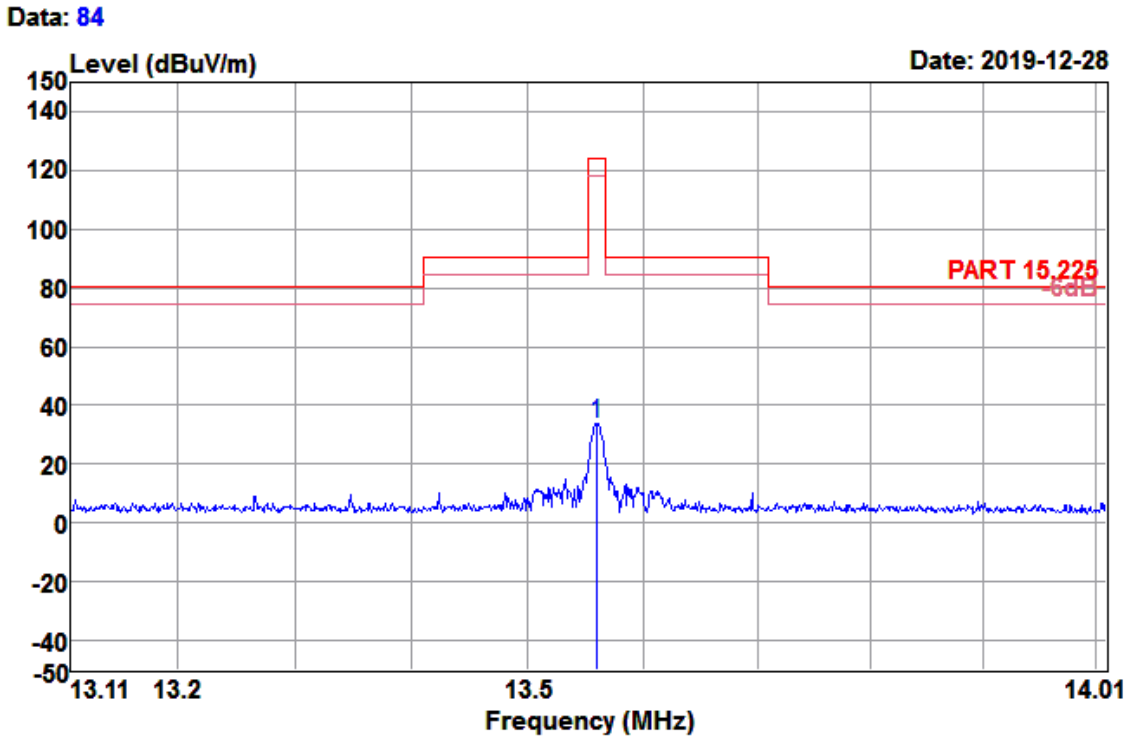
4.3.3 Test Results of Field Strength of Fundamental Emissions and Mask

Test Mode :	NFC (13.56 MHz)	**Temperature :**	21~23℃
Test Engineer :	Jack Liu	**Relative Humidity :**	63~65%
Frequencey Range	13.11MHz~14.01MHz	**Polarization :**	Horizontal



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
13.560	35.95	0.00	0.75	0.00	36.70	124.00	-87.30	QP

Test Mode :	NFC (13.56 MHz)	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequencey Range	13.11MHz~14.01MHz	Polarization :	Vertical



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
13.560	32.86	0.00	0.75	0.00	33.61	124.00	-90.39	QP

4.4 Radiated Emissions Measurement

4.4.1 Limit

The field strength of any emissions which appear outside of 13.110 ~14.010MHz band shall not exceed the general radiated emissions limits.

Frequencies (MHz)	Field Strength (μV/m)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

4.4.2 Measuring Instrument Setting

The following table is the setting of receiver.

Receiver Parameter	Setting
Attenuation	Auto
Frequency Range: 9kHz~150kHz	RBW 200Hz for QP
Frequency Range: 150kHz~30MHz	RBW 9kHz for QP
Frequency Range: 30MHz~1000MHz	RBW 120kHz for Peak

Note: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

4.4.3 Test Procedures

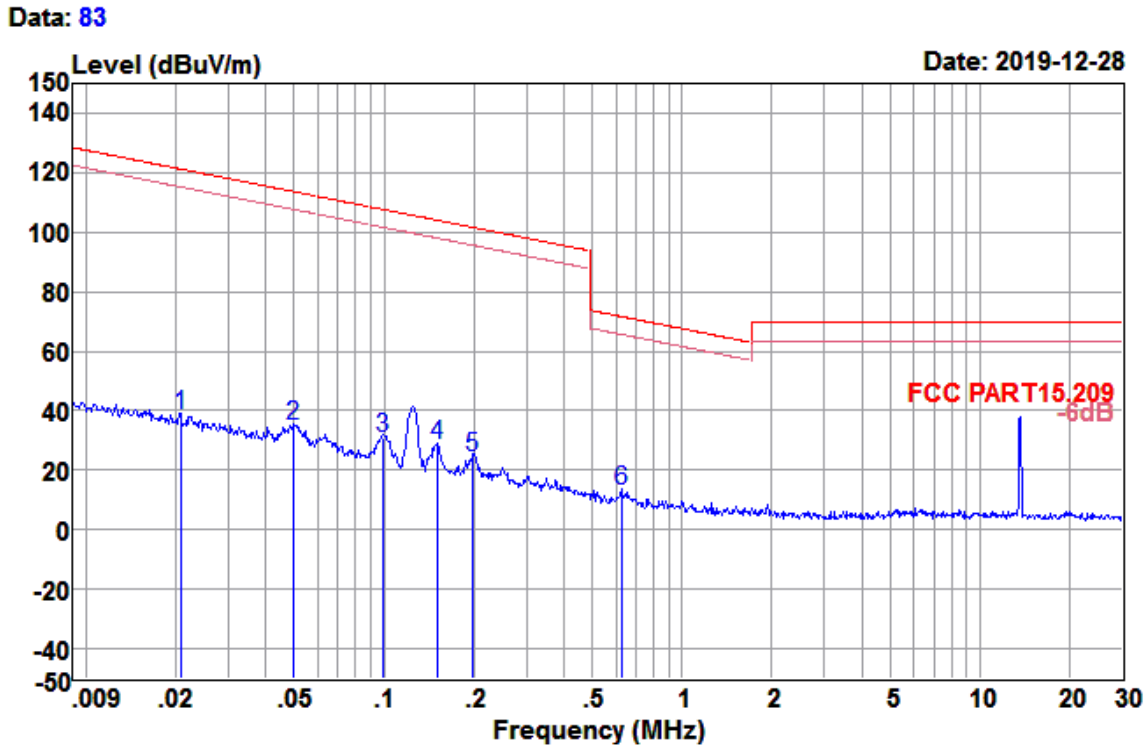
1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical

polarization.

4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.
7. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver.

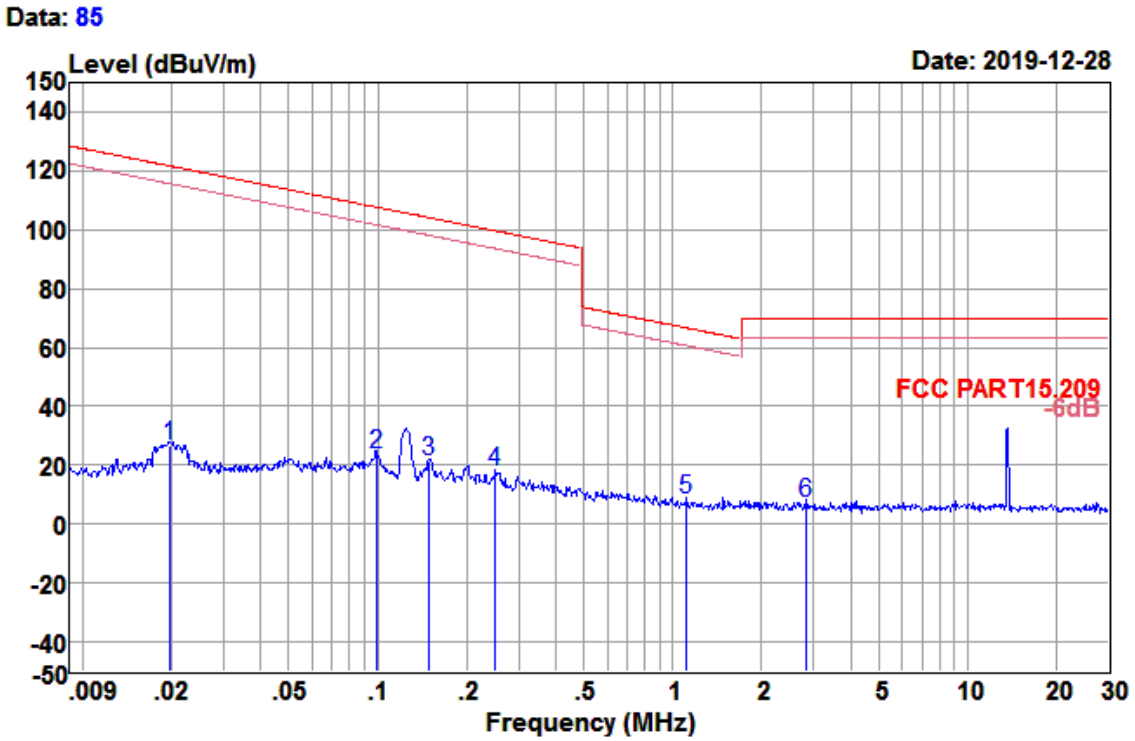
4.4.4 Test Results of Radiated Emissions (9 KHz ~ 30 MHz)

Test Mode :	NFC (13.56 MHz)	**Temperature :**	21~23℃
Test Engineer :	Jack Liu	**Relative Humidity :**	63~65%
Frequencey Range	9 KHz ~ 30 MHz	**Polarization :**	Horizontal



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
0.021	38.59	0.00	0.01	0.00	38.60	121.25	-82.65	QP
0.049	34.82	0.00	0.01	0.00	34.83	113.72	-78.89	QP
0.099	30.87	0.00	0.02	0.00	30.89	107.65	-76.76	QP
0.150	28.59	0.00	0.02	0.00	28.61	104.07	-75.46	QP
0.200	24.51	0.00	0.02	0.00	24.53	101.60	-77.07	QP
0.626	12.92	0.00	0.12	0.00	13.04	71.67	-58.63	QP

Test Mode :	NFC (13.56 MHz)	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequencey Range	9 KHz ~ 30 MHz	Polarization :	Horizontal

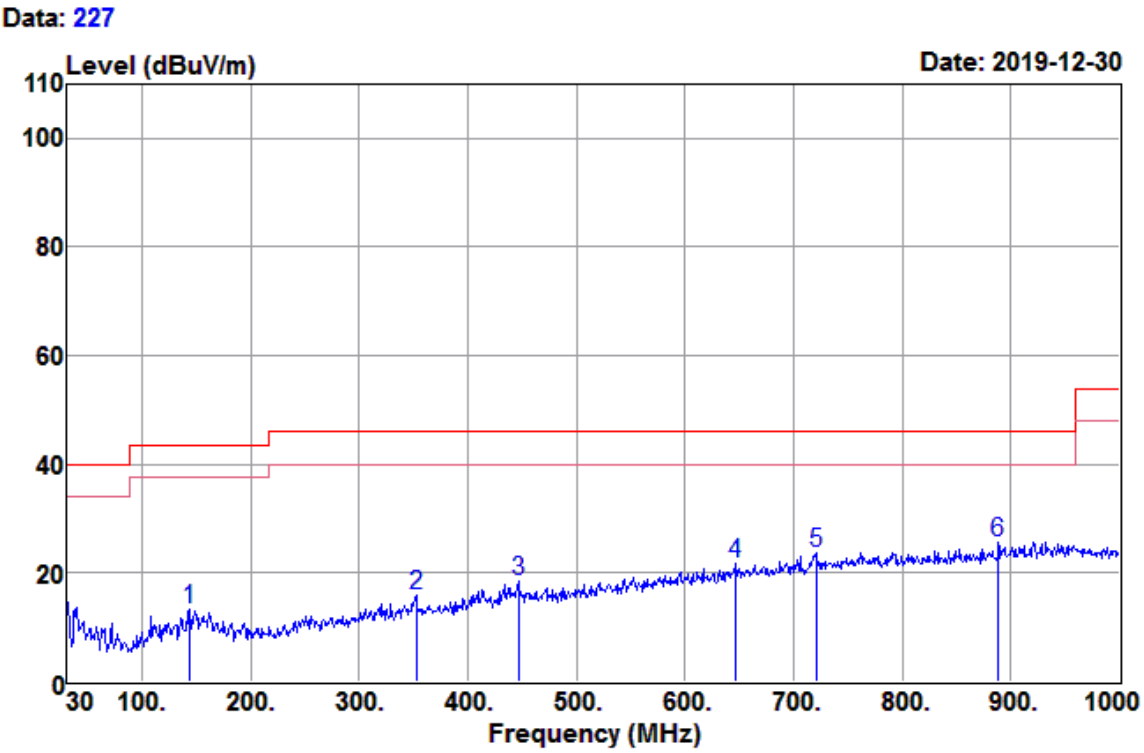


Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
0.020	26.59	0.00	0.01	0.00	26.60	121.67	-95.07	QP
0.099	23.54	0.00	0.02	0.00	23.56	107.65	-84.09	QP
0.149	21.59	0.00	0.02	0.00	21.61	104.14	-82.53	QP
0.250	17.92	0.00	0.02	0.00	17.94	99.63	-81.69	QP
1.114	7.93	0.00	0.40	0.00	8.33	66.67	-58.34	QP
2.831	6.92	0.00	0.46	0.00	7.38	69.54	-62.16	QP

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

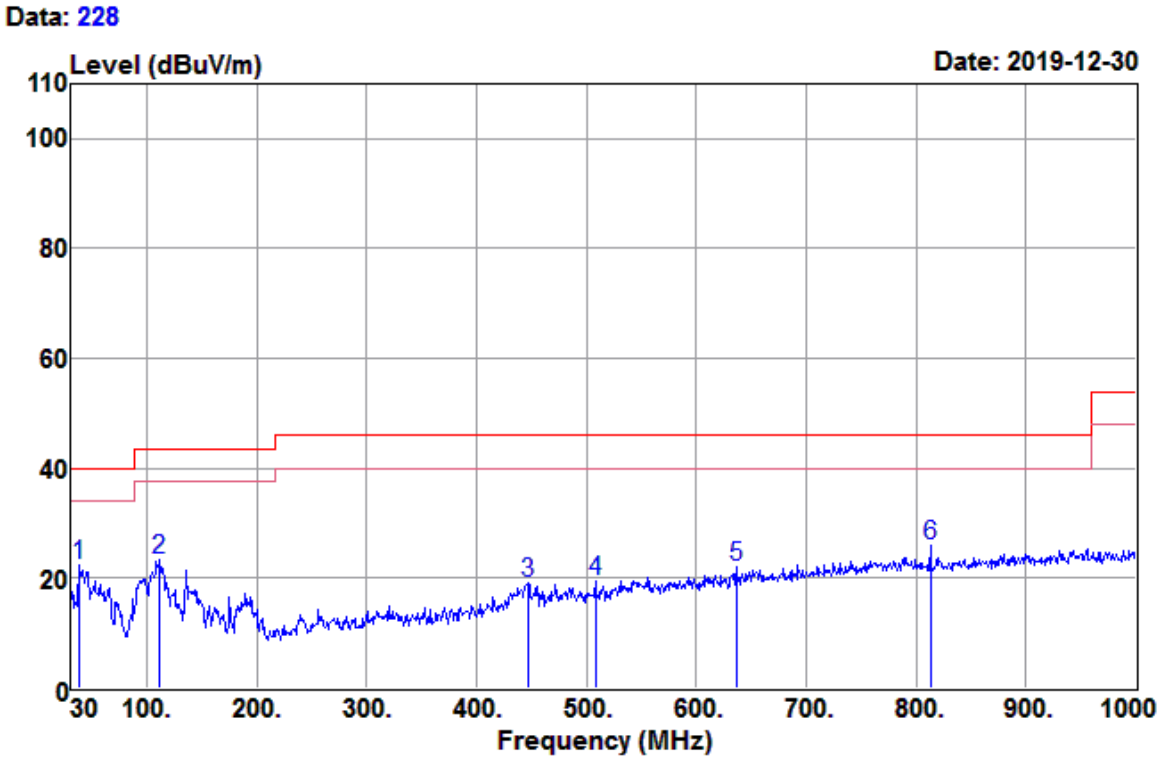
4.4.5 Test Result of Radiated Spurious Emission (30MHz ~ 1GHz)

Test Mode :	NFC (13.56MHz)	**Temperature :**	21~23℃
Test Engineer :	Jack Liu	**Relative Humidity :**	63~65%
Frequencey Range	30MHz~1GHz	**Polarization :**	Horizontal



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
143.490	29.49	14.17	2.13	32.62	13.17	43.50	-30.33	Peak
352.040	30.84	14.84	3.05	32.75	15.98	46.00	-30.02	Peak
446.130	30.74	17.18	3.37	32.85	18.44	46.00	-27.56	Peak
646.920	29.32	20.66	4.13	32.46	21.65	46.00	-24.35	Peak
720.640	29.86	21.61	4.36	32.24	23.59	46.00	-22.41	Peak
888.450	29.21	23.34	4.94	31.87	25.62	46.00	-20.38	Peak

Test Mode :	NFC (13.56MHz)	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequencey Range	30MHz~1GHz	Polarization :	Vertical



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
38.730	40.83	12.53	1.51	32.56	22.31	40.00	-17.69	Peak
111.480	43.79	10.06	1.99	32.61	23.23	43.50	-20.27	Peak
446.130	31.37	17.18	3.37	32.85	19.07	46.00	-26.93	Peak
508.210	30.53	18.10	3.66	32.88	19.41	46.00	-26.59	Peak
636.250	30.07	20.51	4.06	32.49	22.15	46.00	-23.85	Peak
812.790	30.66	22.50	4.69	31.98	25.87	46.00	-20.13	Peak

4.5 AC Conducted Emission Measurement

4.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following taNFC.

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

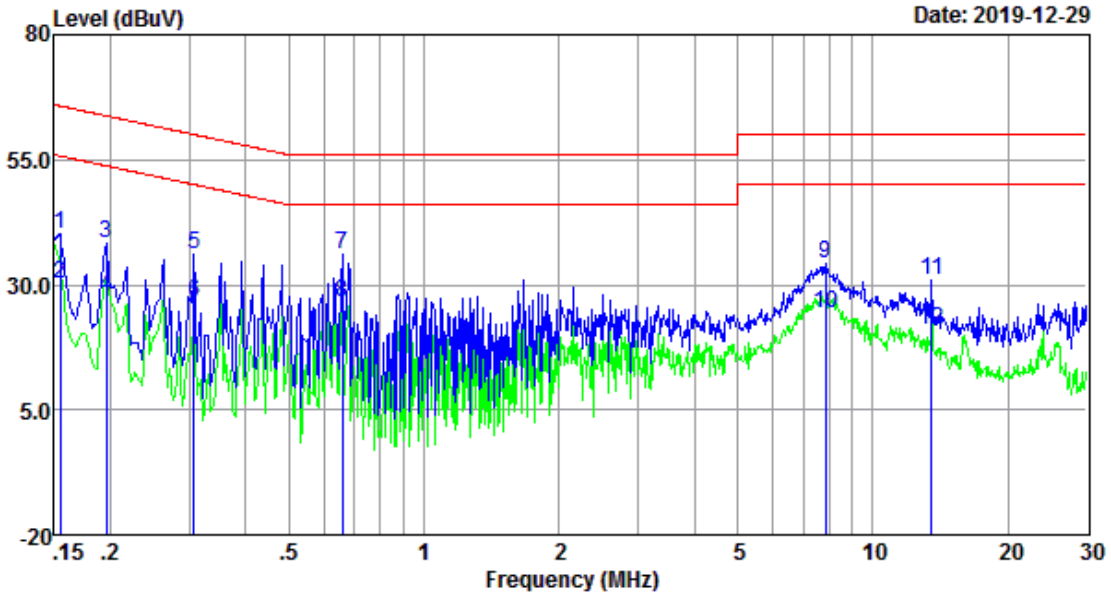
*Decreases with the logarithm of the frequency.

4.5.2 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.
1.

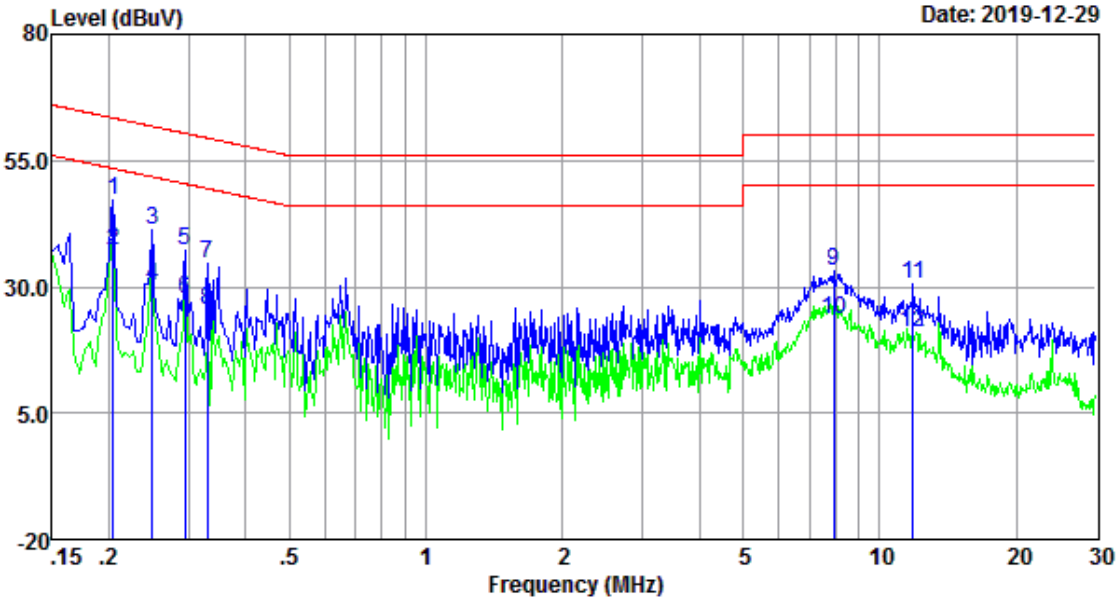
4.5.3 Test Result of AC Conducted Emission

Test Mode :	Mode 1	**Temperature :**	21~23℃
Test Engineer :	Jerry Wang	**Relative Humidity :**	41~43%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	BT Tethering+WLAN Link+NFC+RFID+Charging from Adapter		



Freq	Reading level	LISN/ISN factor	Cable loss	Result level	Limit level	Over limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.155	30.50	9.63	0.04	40.17	65.74	-25.57	QP
0.155	20.50	9.63	0.04	30.17	55.74	-25.57	Average
0.195	28.79	9.65	0.04	38.48	63.80	-25.32	QP
0.195	18.08	9.65	0.04	27.77	53.80	-26.03	Average
0.307	26.36	9.66	0.04	36.06	60.06	-24.00	QP
0.307	16.69	9.66	0.04	26.39	50.06	-23.67	Average
0.658	26.24	9.75	0.04	36.03	56.00	-19.97	QP
0.658	16.56	9.75	0.04	26.35	46.00	-19.65	Average
7.852	24.11	9.94	0.09	34.14	60.00	-25.86	QP
7.852	14.21	9.94	0.09	24.24	50.00	-25.76	Average
13.551	20.90	10.01	0.12	31.03	60.00	-28.97	QP
13.551	10.72	10.01	0.12	20.85	50.00	-29.15	Average

Test Mode :	Mode 1	Temperature :	21~23℃
Test Engineer :	Jerry Wang	Relative Humidity :	41~43%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	BT Tethering+WLAN Link+NFC+RFID+Charging from Adapter		



Freq MHz	Reading level dBuV	LISN/ISN factor dB	Cable loss dB	Result level dBuV	Limit level dBuV	Over limit dB	Remark
0.204	37.37	9.61	0.04	47.02	63.45	-16.43	QP
0.204	27.70	9.61	0.04	37.35	53.45	-16.10	Average
0.249	31.55	9.62	0.04	41.21	61.78	-20.57	QP
0.249	20.35	9.62	0.04	30.01	51.78	-21.77	Average
0.294	27.42	9.62	0.04	37.08	60.41	-23.33	QP
0.294	17.77	9.62	0.04	27.43	50.41	-22.98	Average
0.330	25.01	9.62	0.04	34.67	59.44	-24.77	QP
0.330	15.86	9.62	0.04	25.52	49.44	-23.92	Average
7.935	23.26	9.82	0.09	33.17	60.00	-26.83	QP
7.935	13.66	9.82	0.09	23.57	50.00	-26.43	Average
11.870	20.53	9.88	0.11	30.52	60.00	-29.48	QP
11.870	10.89	9.88	0.11	20.88	50.00	-29.12	Average

4.6 Antenna Requirements

4.6.1 Standard ApplicaNFC

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. 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 shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited.

4.6.2 Antenna Connected Construction

An embedded-in antenna design is used.

4.6.3 Antenna Gain

The antenna peak gain of EUT is 6 dBi.

5. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
Spectrum Analyzer	Keysight	N9010A	MY56070788	2019-01-23	2020-01-22	Conducted
Power Sensor	Keysight	U2021XA	MY56510025	2019-01-23	2020-01-22	Conducted
Power Sensor	Keysight	U2021XA	MY57030005	2019-01-23	2020-01-22	Conducted
Power Sensor	Keysight	U2021XA	MY56510018	2019-01-23	2020-01-22	Conducted
Power Sensor	Keysight	U2021XA	MY56480002	2019-01-23	2020-01-22	Conducted
Thermal Chamber	Sanmtest	SMC-408-CD	2435	2019-05-09	2020-05-08	Conducted
Base Station	R&S	CMW 270	101231	2019-01-23	2020-01-22	Conducted
Signal Generator (Interferer)	Keysight	N5182B	MY56200384	2019-04-19	2020-04-18	Conducted
Signal Generator (Blocker)	Keysight	N5171B	MY56200661	2019-01-23	2020-01-22	Conducted

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV 40	101433	2019-02-18	2020-02-17	Radiation
Amplifier	Sonoma	310	363917	2019-01-22	2020-01-21	Radiation
Amplifier	Schwarzbeck	BBV 9718	327	2019-01-22	2020-01-21	Radiation
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-051	2017-03-03	2020-03-02	Radiation
Broadband Antenna	Schwarzbeck	VULB 9168	9168-757	2017-03-03	2020-03-02	Radiation
Test Software	Audix	E3	6.111221a	N/A	N/A	Radiation
Filter	Micro-Tronics	BRM 50702	G266	N/A	N/A	Radiation

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
LISN	R&S	ENV216	102125	2019-01-22	2020-01-21	Conducted
LISN	R&S	ENV432	101327	2019-01-22	2020-01-21	Conducted
EMI Test Receiver	R&S	ESR3	102143	2019-01-23	2020-01-22	Conducted

EMI Test Software	Audix	E3	N/A	N/A	N/A	Conducted

N/A: No Calibration Required

6. Uncertainty of Evaluation

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.64dB
Radiated emission	30MHz ~ 1GMHz	5.05dB

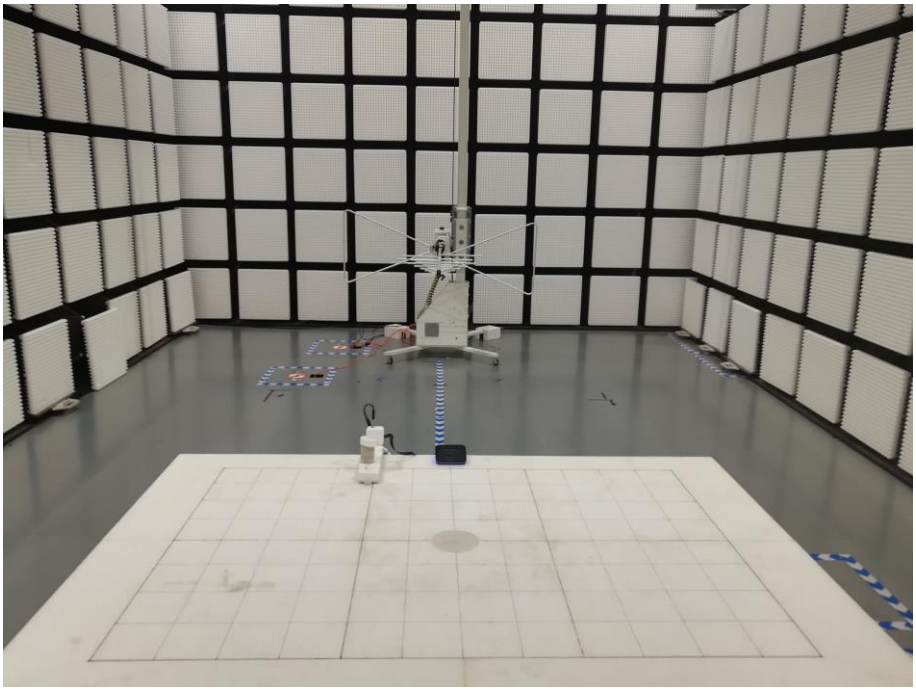
MEASUREMENT	UNCERTAINTY
Occupied Channel Bandwidth	±0.1%
RF output power, conducted	±1.2dB
Power density, conducted	±1.2dB

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

Appendix A. Setup Photographs

AC mains conducted emission

Radiated Emission:



----------End of the report----------