FCC RF Test Report

APPLICANT	:	**Motorola Mobility LLC**
EQUIPMENT	:	**Mobile Cellular Phone**
BRAND NAME	:	**Motorola**
FCC ID	:	**IHDT56XJ1**
STANDARD	:	**FCC Part 15 Subpart C §15.225**
CLASSIFICATION	:	**(DXX) Low Power Communication Device Transmitter**

The product was received on Jun. 15, 2018 and testing was completed on Jun. 29, 2018. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.

James Huang

TESTING
NVLAP LAB CODE 600155-0

Approved by: James Huang / Manager

Sporton International (Kunshan) Inc.
No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335
China

TABLE OF CONTENTS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR861509D	Rev. 01	Initial issue of report	Jul. 26, 2018

SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart C §15.225				
Part	**FCC Rule**	**Description of Test**	**Result**	**Remark**
3.1	15.207	AC Power Line Conducted Emissions	Complies	Under limit 1.01 dB at 0.160MHz
-	15.215(c)	20dB Spectrum Bandwidth	Complies	-
	-	99% OBW Spectrum Bandwidth	Complies	-
-	15.225(e)	Frequency Stability	Complies	-
3.2	15.225(a)(b)(c)	Field Strength of Fundamental Emissions	Complies	Max level 57.65 dBμV/m at 13.560 MHz
3.3	15.225(d) & 15.209	Radiated Spurious Emissions	Complies	Under limit 8.58 dB at 40.670MHz
3.4	15.203	Antenna Requirements	Complies	-

1. General Description

1.1 Applicant

Motorola Mobility LLC

222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC

222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
FCC ID	IHDT56XJ1
IMEI Code	IMEI: 355550090016408 (For Conduction) IMEI: N/A (For Radiation)
EUT supports Radios application	CDMA/EV-DO/GSM/GPRS/EGPRS/WCDMA/HSPA/ DC-HSDPA/HSPA+(16QAM is not supported)/LTE/NFC WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
HW Version	DVT2
SW Version	fastboot_messi_verizon_oem_vzw_userdebug_8.1.0_ODX28.56_50ee_intcfg-test-keys_vzw
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. This is a variant report by adding WPC Back Cover. All the test cases were performed on original report which can be referred to Sporton Report Number FR851503D. Based on the original report, only worst case was verified.

Accessory List	
WPC Cover	Brand Name : Motorola
	Model Name : MD100W

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	13.553 ~ 13.567MHz
Channel Number	1
Antenna Type	Internal 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.

1.5 Modification of EUT

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

1.6 Testing Location

Sporton Lab is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600155-0) and the FCC designation No is CN5013.

Test Site	Sporton International (Kunshan) Inc.		
Test Site Location	No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China TEL: +86-512-57900158 FAX: +86-512-57900958		
Test Site No.	**Sporton Site No.**		**FCC Registration No.**
	CO01-KS	03CH02-KS	630927
Test Engineer	Amos Zhang	Rock Shi	
Temperature	25.1~25.3℃	21~22℃	
Relative Humidity	44~47%	41~42%	

Note: The test site complies with ANSI C63.4 2014 requirement.

1.7 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
- ANSI C63.10-2013

2. Test Configuration of Equipment Under Test

2.1 Descriptions of Test Mode

Investigation has been done on all the possible configurations.

The following table is a list of the test modes shown in this test report.

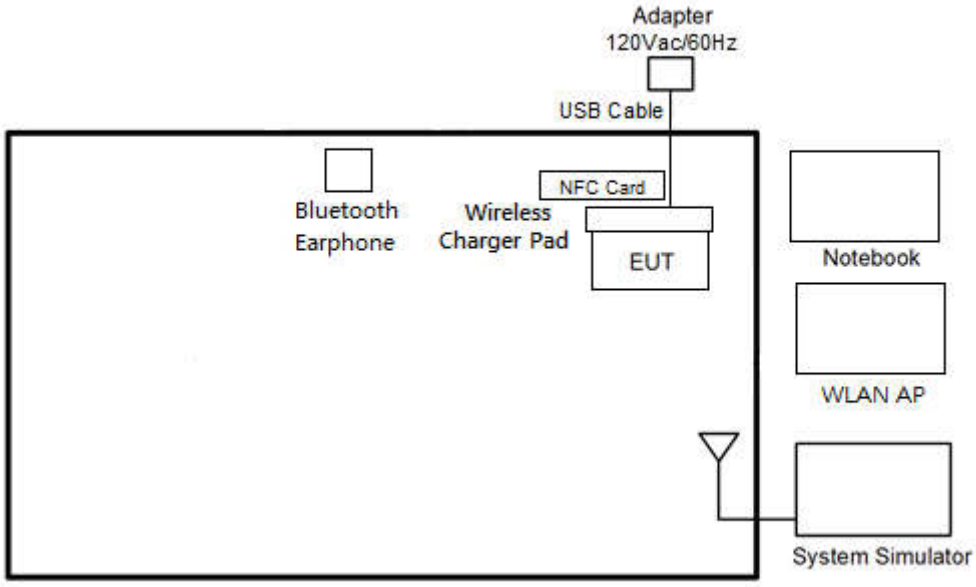
Test Items	
AC Power Line Conducted Emissions	Field Strength of Fundamental Emissions
Radiated Emissions 9kHz~30MHz	Radiated Emissions 30MHz~1GHz

The EUT pre-scanned in four NFC type, A, B, F, V. The worst type (type F) was recorded in this report.

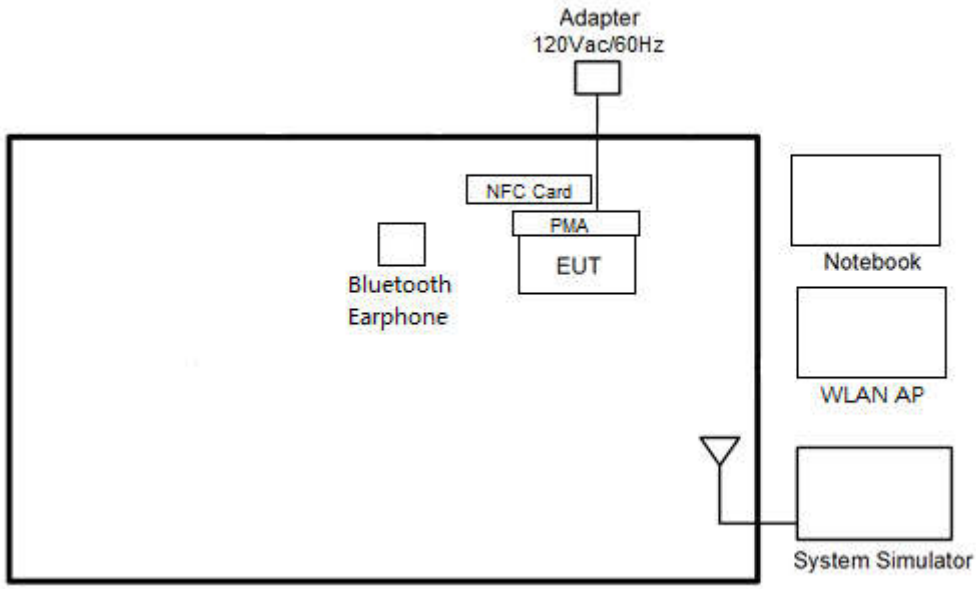
Test Cases	
AC Conducted Emission	Mode 1 : GSM850 Idle + Bluetooth Link + WLAN Link + NFC Tx + WPC Back cover + Battery + NOKIA Charging pad + USB Cable (Charging from Adapter) Mode 2 : GSM850 Idle + Bluetooth Link + WLAN Link + NFC Tx + WPC Back cover + Battery + PMA Charging pad + Adapter
Remark: The worst case of conducted emission is mode 2; only the test data of it was reported.	

2.2 Connection Diagram of Test System

<AC Conducted Emissions with WPC Charging Mode>

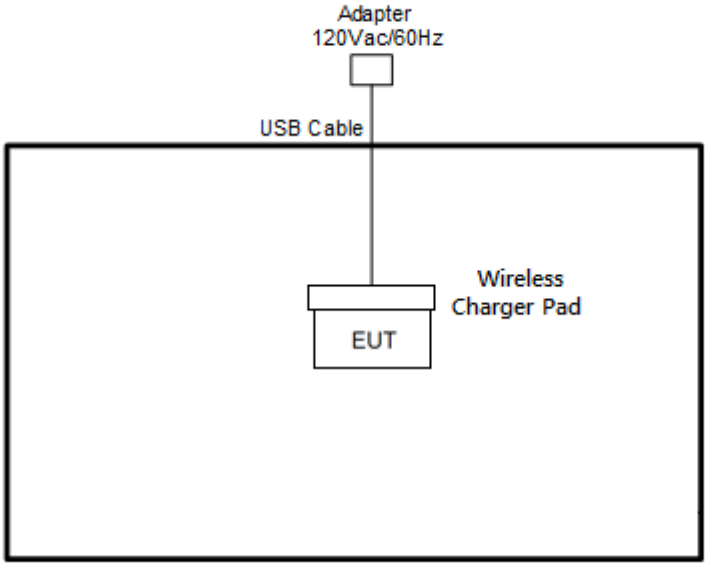


<AC Conducted Emissions with PMA Charging Mode>

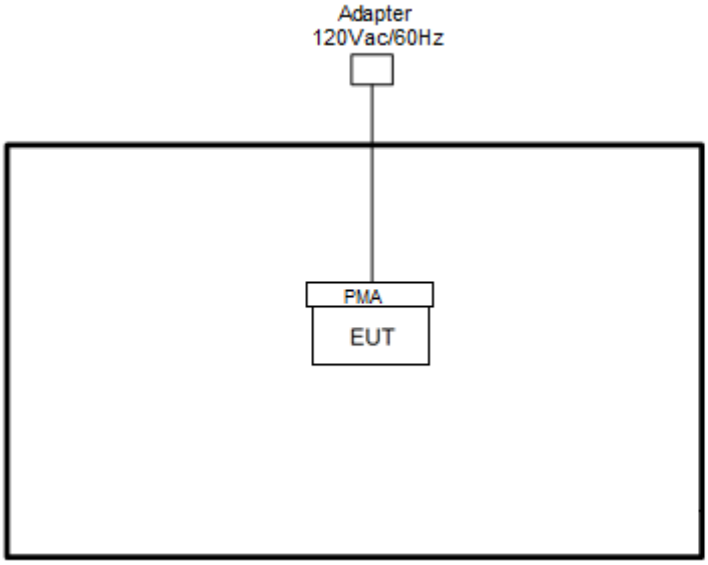


< For Fundamental Emissions and Mask and Radiated Emissions Measurement >

<WPC Charging Mode>



<PMA Charging Mode>



2.3 Table for Supporting Units

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded,1.8m
3.	SD Card	Kingston	8GB	N/A	N/A	N/A
4.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A
5.	Notebook	Lenovo	G480	PRC4	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
6.	Charging pad	NOKIA	DT-900	N/A	N/A	Unshielded, 1.8 m
7.	PMA Charging pad	DURACELL	M-018B518A	FCC DoC	N/A	N/A
8.	USB Cable	N/A	N/A	N/A	N/A	N/A
9.	Adapter	N/A	N/A	N/A	N/A	N/A
10.	NFC Card	NA	NA	NA	NA	NA

2.4 EUT Operation Test Setup

The EUT was programmed to be in continuously transmitting mode.

The ancillary equipment, NFC card, is used to make the EUT (NFC) continuously transmit at 13.56MHz and is placed around 0 cm gap to the EUT.

3. Test Results

3.1 AC Power Line Conducted Emissions Measurement

3.1.1 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 table.

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.

For terminal test result, the testing follows FCC KDB 174176.

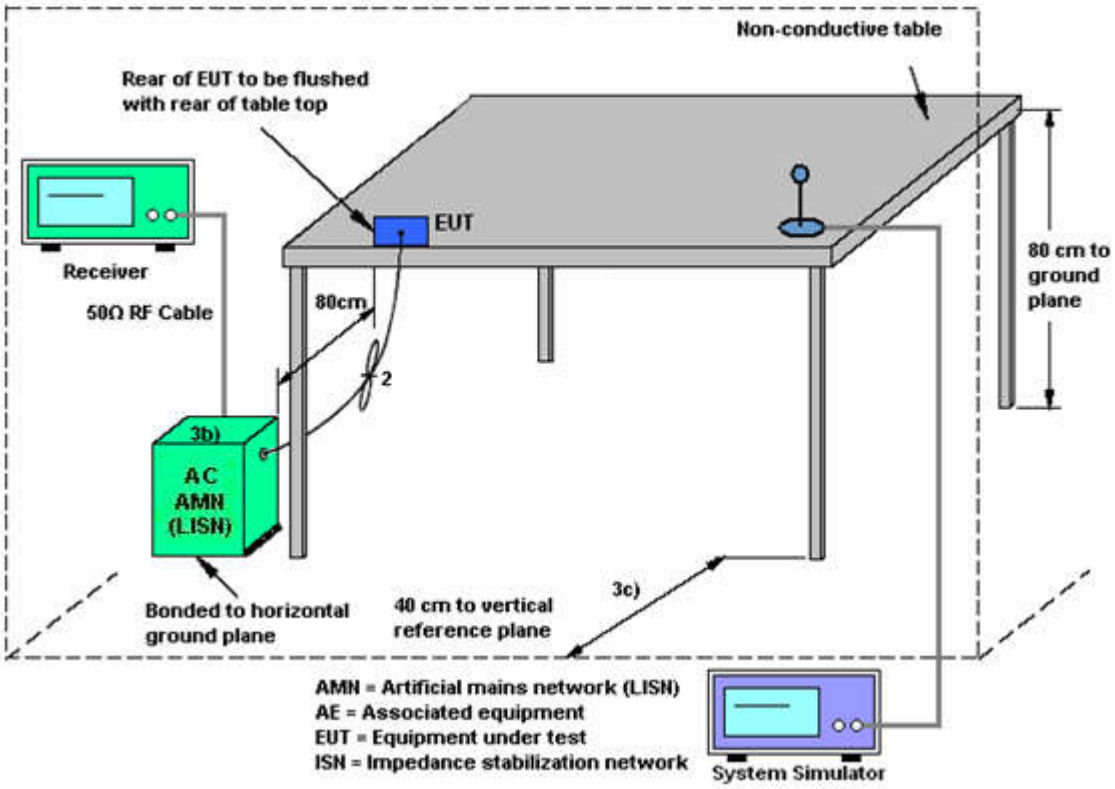
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 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.

3.1.4 Test setup



3.1.5 Test Result of AC Conducted Emission

Please refer to Appendix A.

Note:

(1) with antenna

Remark: 13.56 MHz is the NFC RF fundamental signal.

(2) with dummy load

Remark: Only the fundamental NFC signal needs to be retested per C63.4.

3.2 Field Strength of Fundamental Emissions and Mask Measurement

3.2.1 Limit

Rules and specifications	FCC CFR 47 Part 15 section 15.225			
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

3.2.2 Measuring Instruments

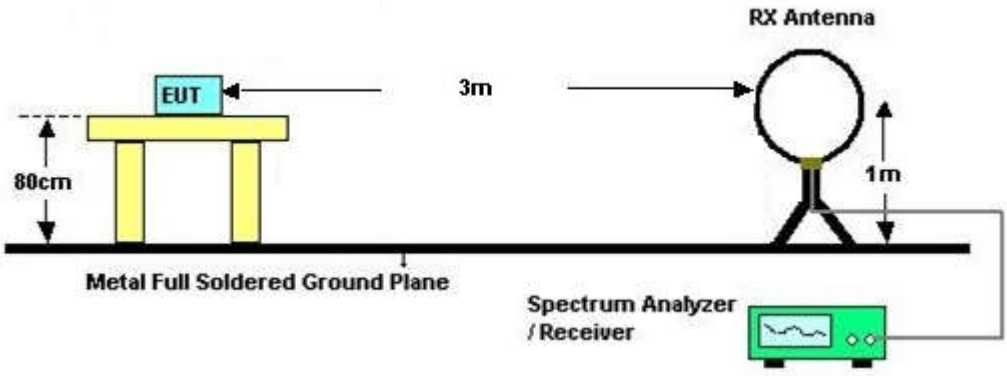
See list of measuring instruments of this test report.

3.2.3 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 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).

3.2.4 Test Setup

For radiated emissions below 30MHz



3.2.5 Test Result of Field Strength of Fundamental Emissions and Mask

Please refer to Appendix B.

3.3 Radiated Emissions Measurement

3.3.1 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

3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 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

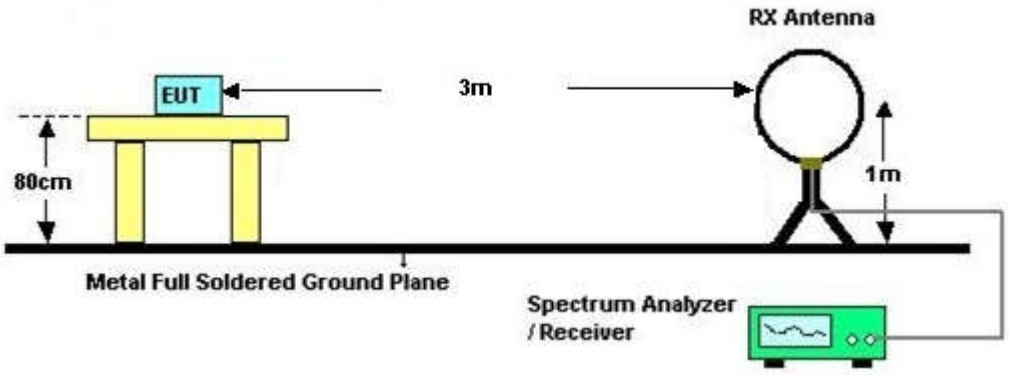
Note: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

3.3.4 Test Procedures

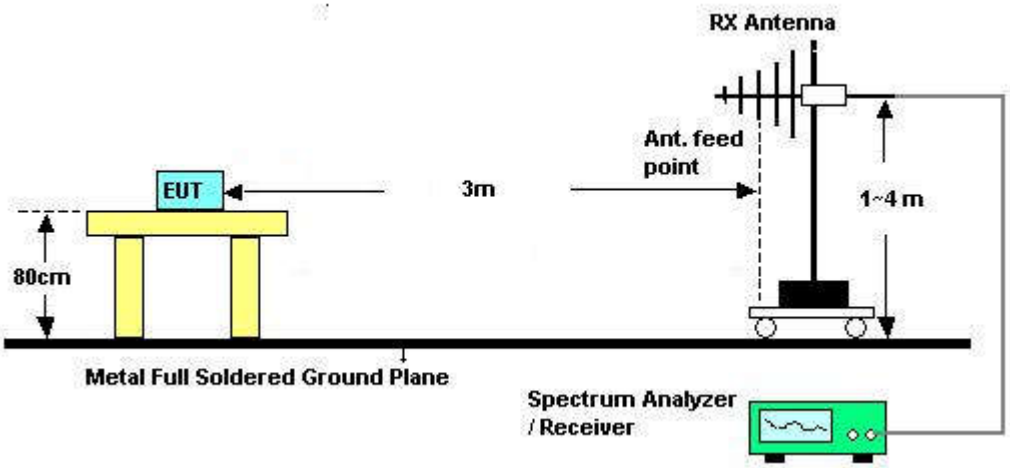
1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting 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. Antenna Requirements

3.3.5 Test Setup

For radiated emissions below 30MHz



For radiated emissions above 30MHz



3.3.6 Test Result of Radiated Emissions Measurement

Please refer to Appendix B.

Remark: There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.4 Antenna Requirements

3.4.1 Standard Applicable

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.

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 rule.

3.4.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 19, 2018	Jun. 29, 2018	Apr. 18, 2019	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2017	Jun. 29, 2018	Oct. 12, 2018	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 13, 2017	Jun. 29, 2018	Oct. 12, 2018	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP00000 0811	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2017	Jun. 29, 2018	Oct. 11, 2018	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Aug. 08, 2017	Jun. 22, 2018	Aug. 07, 2018	Radiation (03CH02-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 22, 2017	Jun. 22, 2018	Oct. 21, 2018	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	23182	30MHz-2GHz	Jan. 29, 2018	Jun. 22, 2018	Jan. 28, 2019	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Aug. 07, 2017	Jun. 22, 2018	Aug. 06, 2018	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	61601000 2473	N/A	NCR	Jun. 22, 2018	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Jun. 22, 2018	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Jun. 22, 2018	NCR	Radiation (03CH02-KS)

5. Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

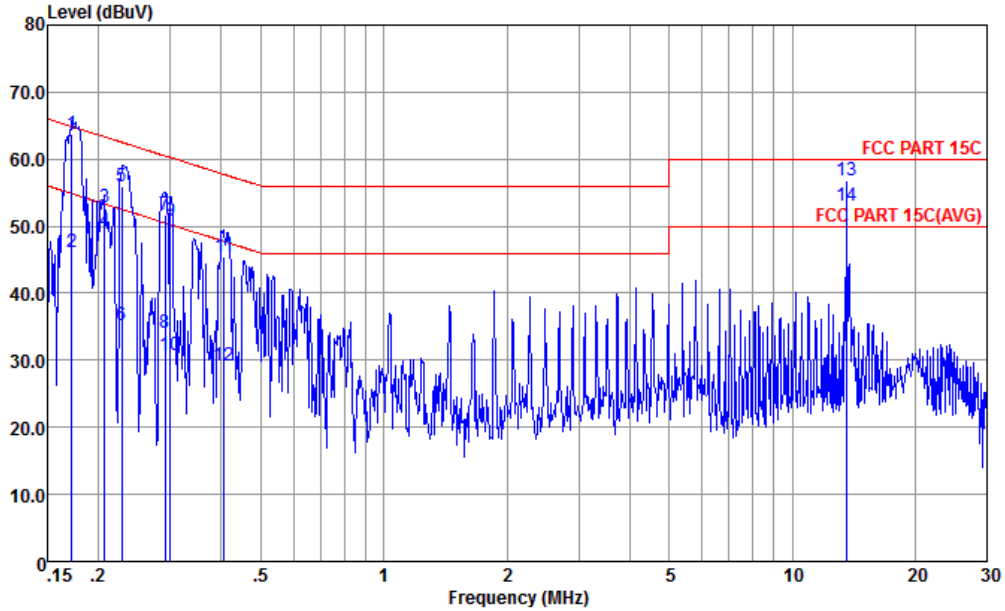
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.90**

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.20**

Appendix A. Test Results of Conducted Emission Test

Test Engineer :	Amos Zhang	**Temperature :**	25.1~25.3℃
		Relative Humidity :	44~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line



Site : CO01-KS
Condition : FCC PART 15C LISN-L-171013-060103 LINE

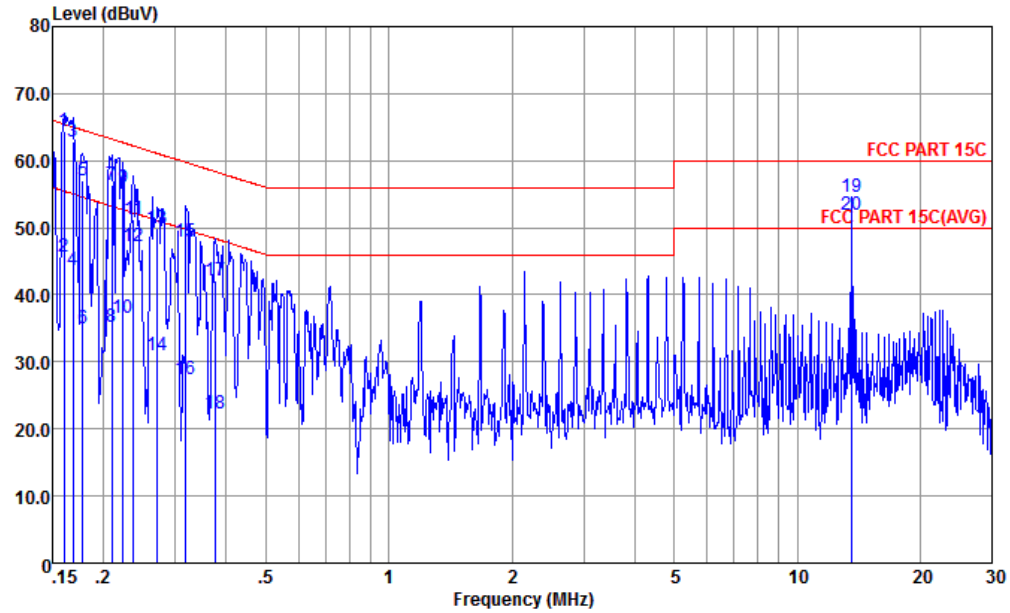
mode : Mode 2
: 355550090016408 #18

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.172	63.62	-1.24	64.86	52.90	0.18	10.54	QP
2	0.172	46.02	-8.84	54.86	35.30	0.18	10.54	Average
3	0.207	52.86	-10.46	63.32	42.21	0.20	10.45	QP
4	0.207	49.26	-4.06	53.32	38.61	0.20	10.45	Average
5	0.228	55.85	-6.67	62.52	45.19	0.21	10.45	QP
6	0.228	35.15	-17.37	52.52	24.49	0.21	10.45	Average
7	0.291	51.75	-8.75	60.50	41.10	0.22	10.43	QP
8	0.291	34.15	-16.35	50.50	23.50	0.22	10.43	Average
9	0.300	50.75	-9.49	60.24	40.09	0.23	10.43	QP
10	0.300	30.85	-19.39	50.24	20.19	0.23	10.43	Average
11	0.406	45.55	-12.18	57.73	34.90	0.25	10.40	QP
12	0.406	29.25	-18.48	47.73	18.60	0.25	10.40	Average
13	13.560	56.78	-3.22	60.00	46.11	0.28	10.39	QP
14 *	13.560	52.98	2.98	50.00	42.31	0.28	10.39	Average

(1) with antenna

Remark: 13.560MHz is the NFC RF fundamental signal.

Test Engineer :	Amos Zhang	Temperature :	25.1~25.3℃
		Relative Humidity :	44~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral



Site : CO01-KS
Condition : FCC PART 15C LISN-N-171013-060103 NEUTRAL

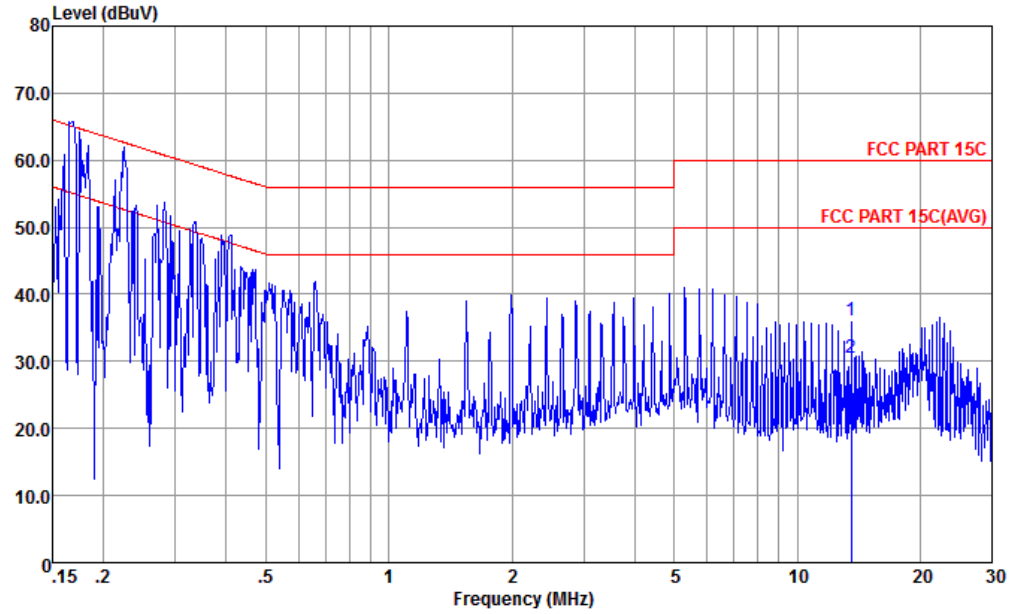
mode : Mode 2
: 355550090016408 #18

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.160	64.46	-1.01	65.47	53.60	0.28	10.58	QP
2	0.160	45.66	-9.81	55.47	34.80	0.28	10.58	Average
3	0.169	62.93	-2.10	65.03	52.10	0.28	10.55	QP
4	0.169	43.73	-11.30	55.03	32.90	0.28	10.55	Average
5	0.178	57.10	-7.49	64.59	46.30	0.28	10.52	QP
6	0.178	35.00	-19.59	54.59	24.20	0.28	10.52	Average
7	0.209	56.33	-6.90	63.23	45.60	0.28	10.45	QP
8	0.209	35.23	-18.00	53.23	24.50	0.28	10.45	Average
9	0.223	55.93	-6.77	62.70	45.20	0.28	10.45	QP
10	0.223	36.63	-16.07	52.70	25.90	0.28	10.45	Average
11	0.237	51.33	-10.89	62.22	40.61	0.28	10.44	QP
12	0.237	47.33	-4.89	52.22	36.61	0.28	10.44	Average
13	0.272	50.02	-11.05	61.07	39.31	0.28	10.43	QP
14	0.272	31.02	-20.05	51.07	20.31	0.28	10.43	Average
15	0.318	47.91	-11.84	59.75	37.20	0.29	10.42	QP
16	0.318	27.31	-22.44	49.75	16.60	0.29	10.42	Average
17	0.375	42.20	-16.19	58.39	31.50	0.29	10.41	QP
18	0.375	22.30	-26.09	48.39	11.60	0.29	10.41	Average
19	13.560	54.53	-5.47	60.00	43.91	0.23	10.39	QP
20 *	13.560	52.03	2.03	50.00	41.41	0.23	10.39	Average

(1) with antenna

Remark: 13.560MHz is the NFC RF fundamental signal.

Test Engineer :	Amos Zhang	**Temperature :**	25.1~25.3℃
		Relative Humidity :	44~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line



Site : CO01-KS
Condition : FCC PART 15C LISN-L-171013-060103 LINE

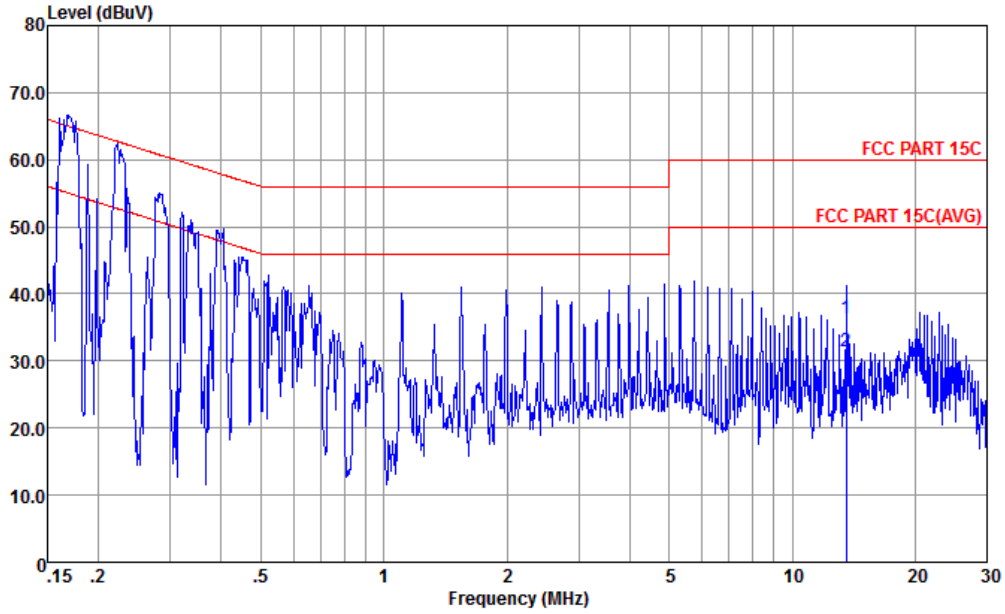
mode : Mode 2
: 355550090016408 #18

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	13.560	36.18	-23.82	60.00	25.51	0.28	10.39	QP
2 *	13.560	30.48	-19.52	50.00	19.81	0.28	10.39	Average

(2) With dummy load

Remark: Only the fundamental NFC signal needs to be retested per C63.4.

Test Engineer :	Amos Zhang	**Temperature :**	25.1~25.3℃
		Relative Humidity :	44~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral



Site : CO01-KS
Condition : FCC PART 15C LISN-N-171013-060103 NEUTRAL

mode : Mode 2
: 355550090016408 #18

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	13.560	36.23	-23.77	60.00	25.61	0.23	10.39	QP
2 *	13.560	31.53	-18.47	50.00	20.91	0.23	10.39	Average

(2) With dummy load

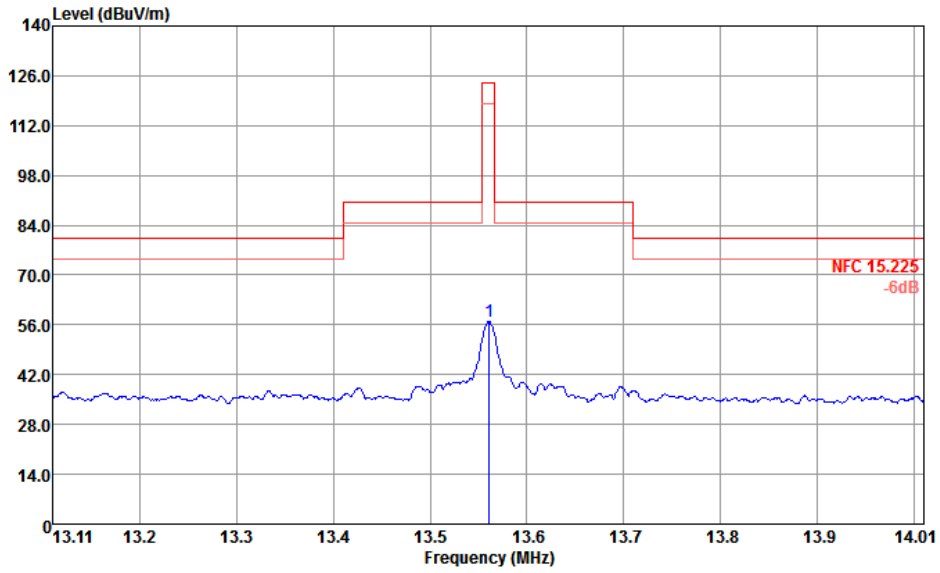
Remark: Only the fundamental NFC signal needs to be retested per C63.4.

Appendix B. Test Results of Radiated Test Items

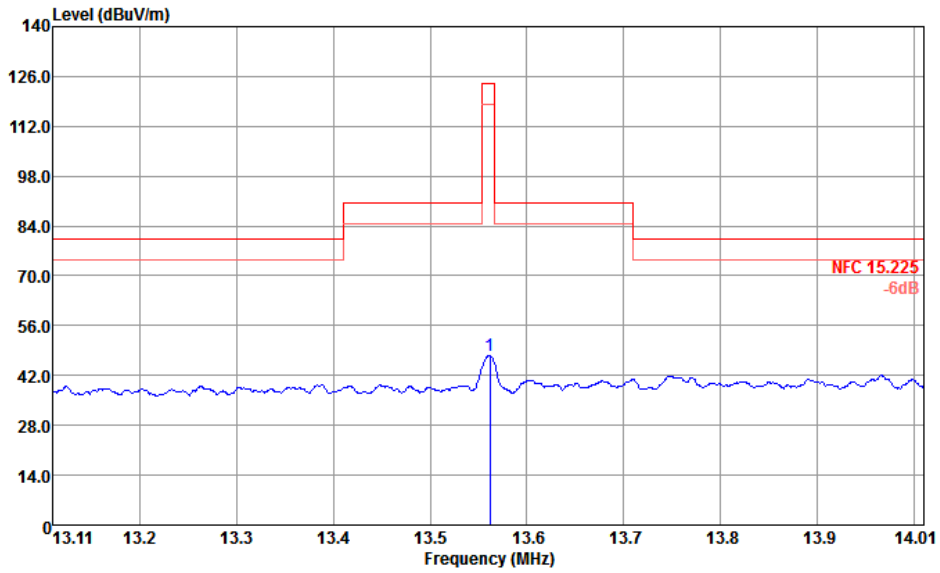
B1. Test Result of Field Strength of Fundamental Emissions

<WPC Charging Mode>

Test Mode :	NFC Tx	Test Frequency (MHz)	13.56



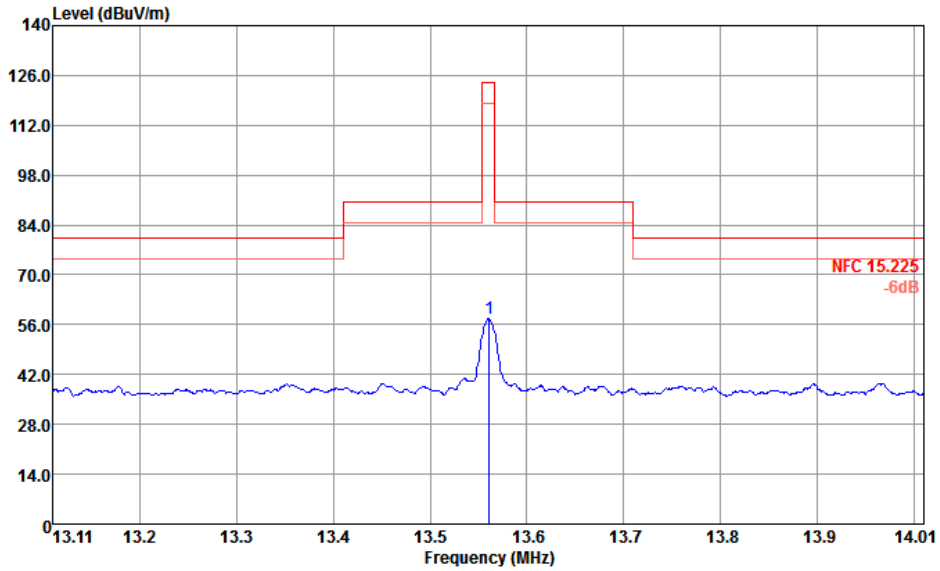
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	13.56	56.91	-67.09	124.00	35.95	20.80	0.16	---	---	QP



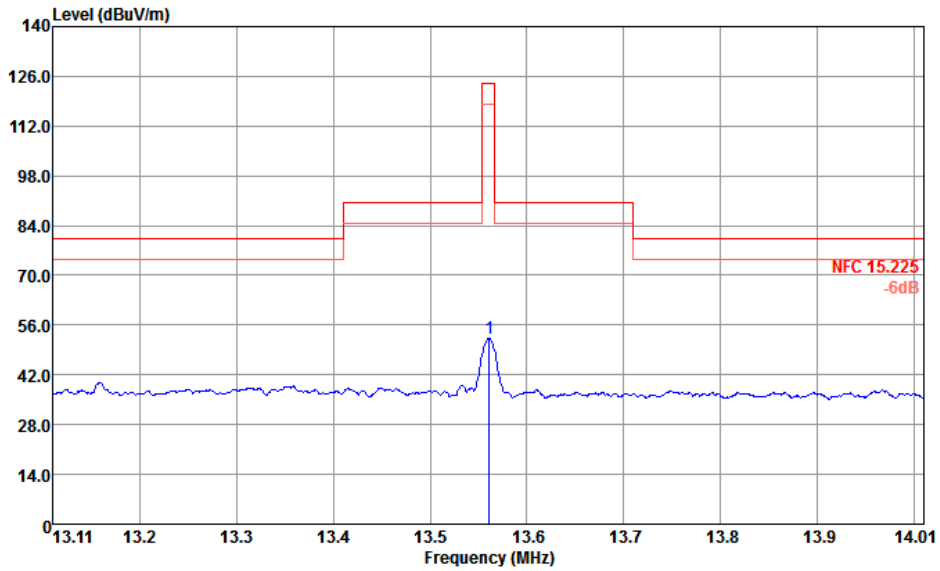
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	13.56	47.56	-76.44	124.00	26.60	20.80	0.16	---	---	QP

<PMA Charging Mode>

Test Mode :	NFC Tx	Test Frequency (MHz)	13.56



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	13.56	57.65	-66.35	124.00	36.69	20.80	0.16	---	---	QP

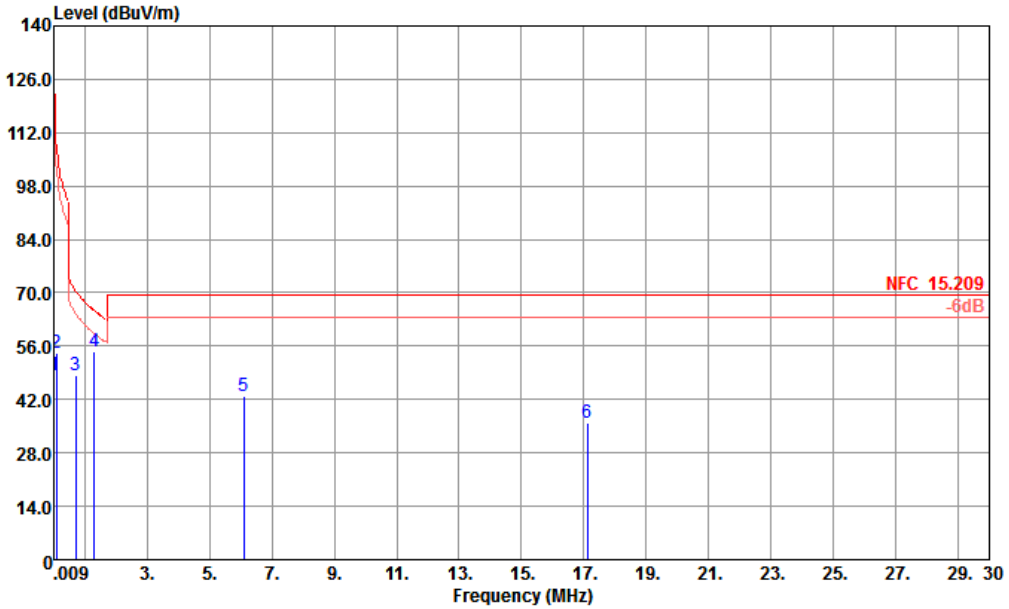


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	13.56	52.23	-71.77	124.00	31.27	20.80	0.16	---	---	QP

B2. Results of Radiated Spurious Emissions (9 kHz~30MHz)

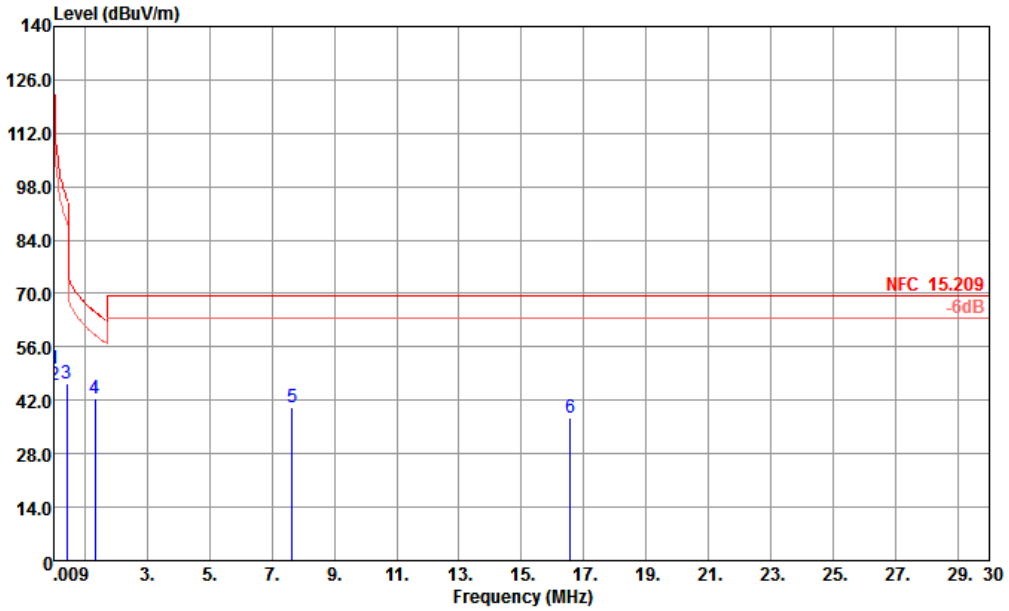
<WPC Charging Mode>

Test Mode :	NFC Tx	Polarization :	Horizontal



Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.01915	48.17	-73.79	121.96	28.06	20.1	0.01	-	-	Average
0.08232	54.11	-55.17	109.28	34.3	19.8	0.01	-	-	Average
0.71795	48.24	-22.23	70.47	27.98	20.24	0.02	-	-	QP
1.319	54.7	-10.49	65.19	33.98	20.7	0.02	-	-	QP
6.104	42.72	-26.82	69.54	22.15	20.49	0.08	-	-	QP
17.108	36.05	-33.49	69.54	14.88	20.97	0.2	-	-	QP

Test Mode :	NFC Tx	Polarization :	Vertical



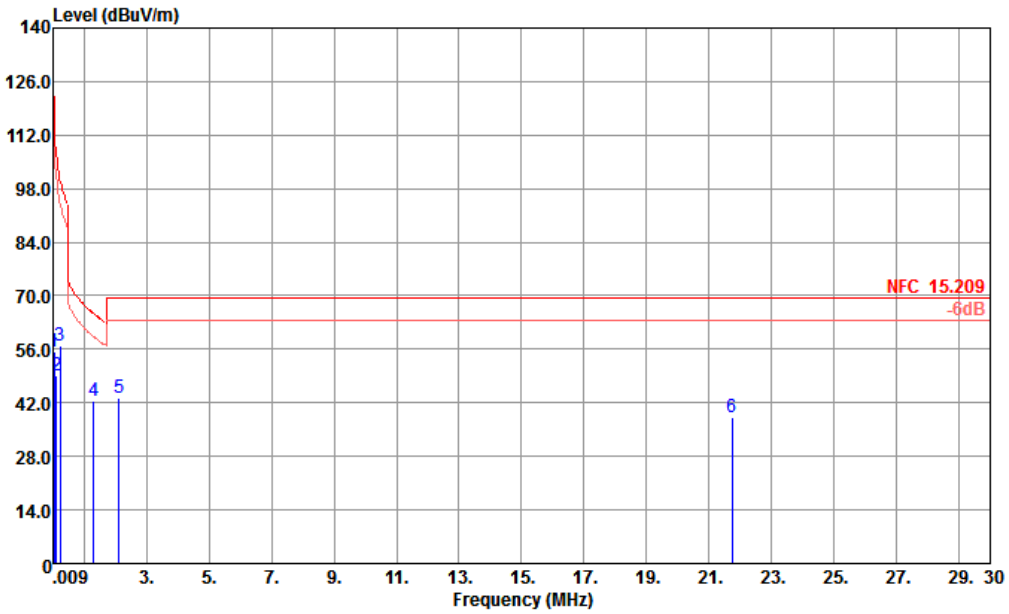
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.00999	46.50	-81.12	127.62	30.39	20.1	0.01	-	-	Average
0.01915	46.07	-75.89	121.96	25.96	20.1	0.01	-	-	Average
0.4312	46.42	-48.47	94.89	26.38	20.03	0.01	-	-	Average
1.321	42.44	-22.73	65.17	21.72	20.7	0.02	-	-	QP
7.64	40.19	-29.35	69.54	19.76	20.34	0.09	-	-	QP
16.558	37.47	-32.07	69.54	16.27	21.01	0.19	-	-	QP

Note:

1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Distance extrapolation factor = 40 log (specific distance / test distance) (dB);
3. Limit line = specific limits (dBµV) + distance extrapolation factor.

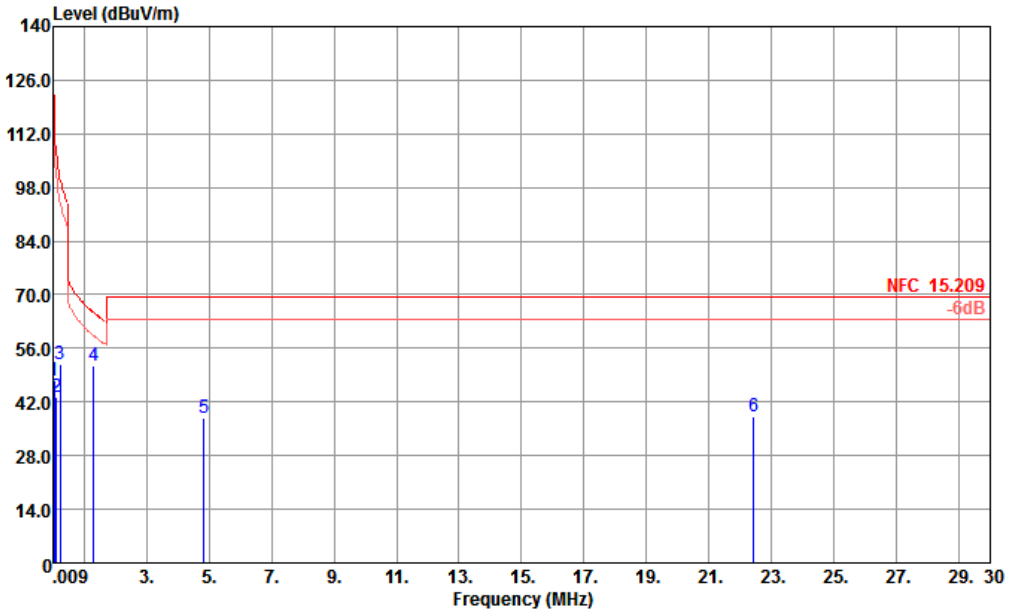
<PMA Charging Mode>

Test Mode :	NFC Tx	Polarization :	Horizontal



Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.05342	55.37	-57.67	113.04	35.96	19.4	0.01	-	-	Average
0.10446	49.14	-58.07	107.21	29.13	20	0.01	-	-	QP
0.24065	56.93	-43.03	99.96	37.02	19.9	0.01	-	-	Average
1.317	42.59	-22.61	65.2	21.87	20.7	0.02	-	-	QP
2.126	43.2	-26.34	69.54	23.06	20.11	0.03	-	-	QP
21.75	38.1	-31.44	69.54	16.84	21.01	0.25	-	-	QP

Test Mode :	NFC Tx	Polarization :	Vertical



Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.05483	47.54	-65.28	112.82	27.73	19.8	0.01	-	-	Average
0.11024	43.48	-63.27	106.75	23.47	20	0.01	-	-	Average
0.24065	51.98	-47.98	99.96	32.07	19.9	0.01	-	-	Average
1.317	51.44	-13.76	65.2	30.72	20.7	0.02	-	-	QP
4.826	37.9	-31.64	69.54	17.36	20.48	0.06	-	-	QP
22.432	38.11	-31.43	69.54	16.76	21.09	0.26	-	-	QP

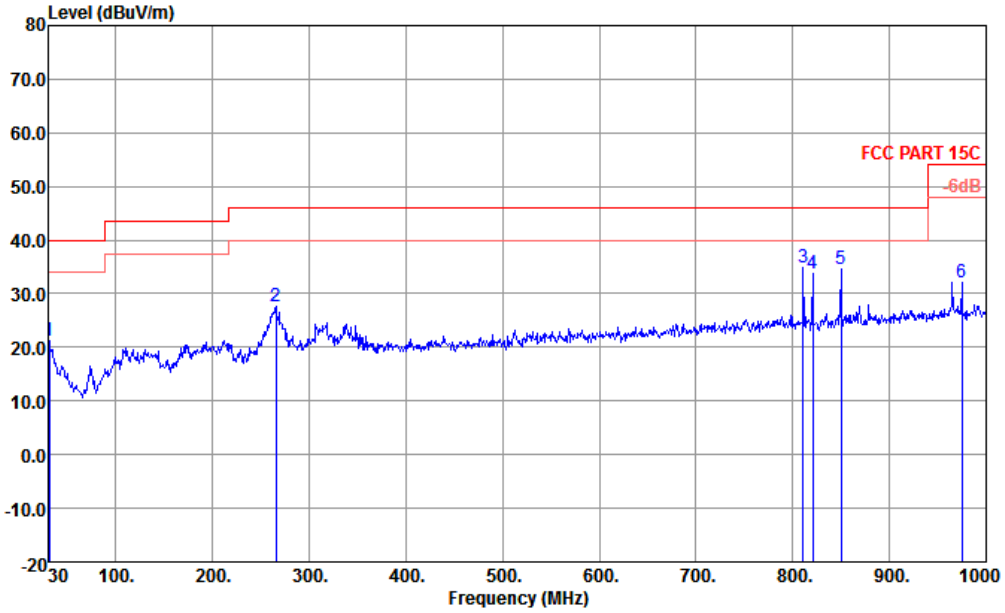
Note:

1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Distance extrapolation factor = 40 log (specific distance / test distance) (dB);
3. Limit line = specific limits (dBµV) + distance extrapolation factor.

B3.Results of Radiated Spurious Emissions (30MHz~1GHz)

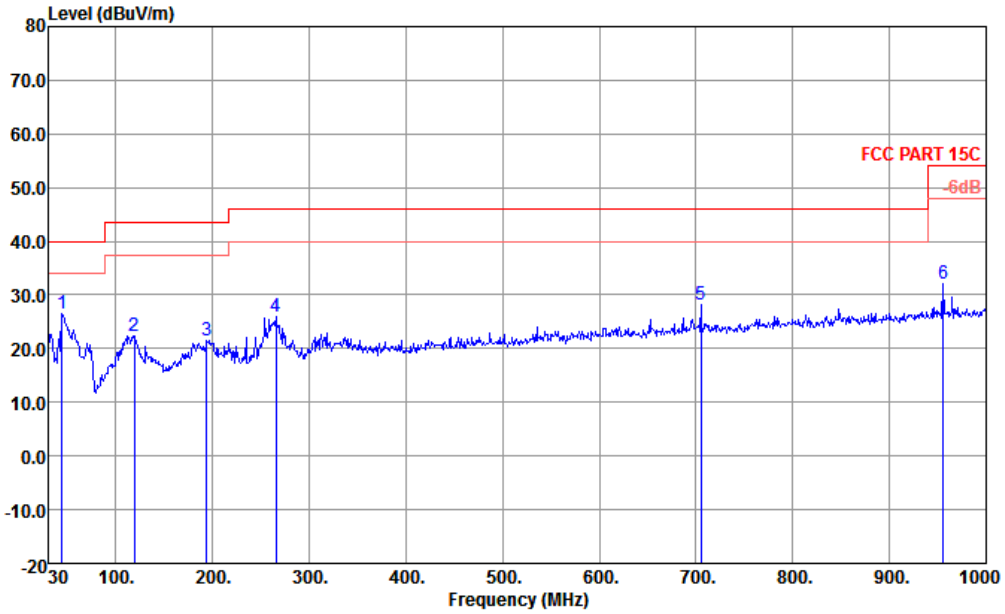
<WPC Charging Mode>

Test Mode :	NFC Tx	Polarization :	Horizontal



Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.97	21.16	-18.84	40	28.67	23.93	0.59	32.03	-	-	Peak
265.71	27.63	-18.37	46	38.12	19.13	1.8	31.42	-	-	Peak
810.85	34.9	-11.1	46	34.54	25.86	2.73	28.23	100	0	Peak
820.55	33.67	-12.33	46	33.1	25.92	2.81	28.16	-	-	Peak
849.65	34.59	-11.41	46	33.36	26.1	3.05	27.92	-	-	Peak
974.78	32.19	-21.81	54	28.76	27.22	3.22	27.01	-	-	Peak

Test Mode :	NFC Tx	Polarization :	Vertical



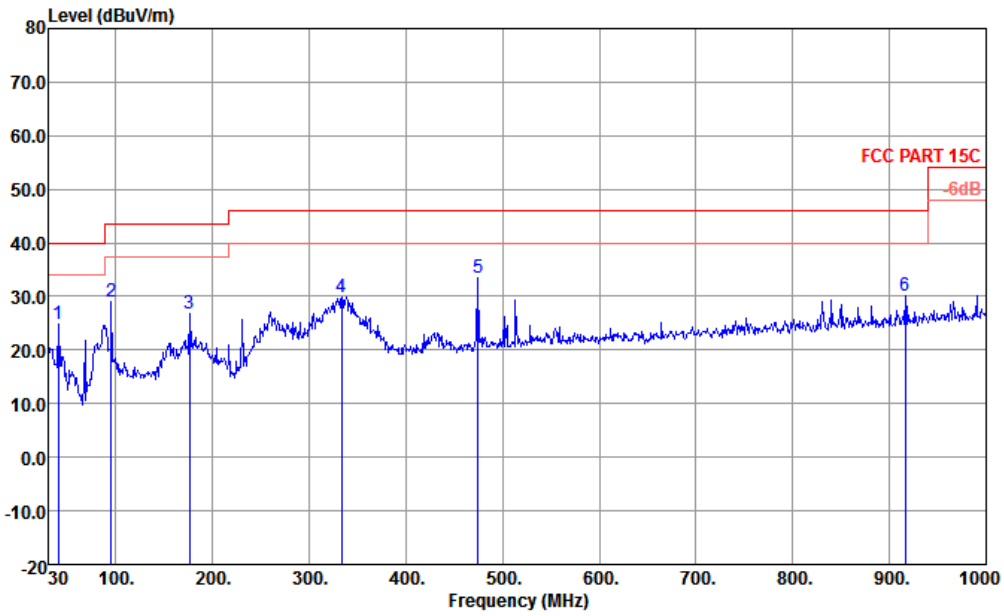
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
44.55	26.61	-13.39	40	41.53	16.53	0.66	32.11	100	0	Peak
119.24	22.45	-21.05	43.5	35.19	18.05	1.11	31.9	-	-	Peak
193.93	21.57	-21.93	43.5	36.57	15.27	1.42	31.69	-	-	Peak
265.71	26.04	-19.96	46	36.53	19.13	1.8	31.42	-	-	Peak
705.12	28.2	-17.8	46	29.64	24.66	2.76	28.86	-	-	Peak
955.38	31.99	-22.01	54	28.88	27.01	3.21	27.11	-	-	Peak

Note:

1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Emission level (dBµV/m) = 20 log Emission level (µV/m).
3. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor= Level.

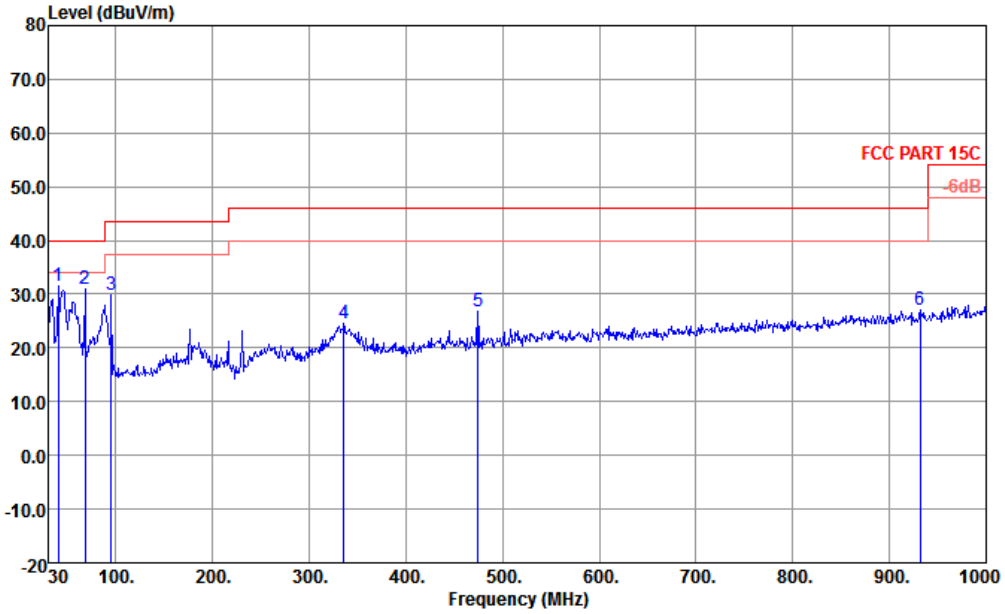
<PMA Charging Mode>

Test Mode :	NFC Tx	Polarization :	Horizontal



Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
40.67	24.75	-15.25	40	37.81	18.35	0.64	32.05	-	-	Peak
94.99	28.94	-14.56	43.5	43.91	16.05	0.98	32	-	-	Peak
176.47	26.86	-16.64	43.5	41.94	15.31	1.36	31.75	-	-	Peak
333.61	29.77	-16.23	46	38.95	19.88	1.91	30.97	-	-	Peak
474.26	33.57	-12.43	46	38.94	22.78	2.28	30.43	100	0	Peak
916.58	30.03	-15.97	46	27.71	26.58	3.13	27.39	-	-	Peak

Test Mode :	NFC Tx	Polarization :	Vertical



Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
40.67	31.42	-8.58	40	44.48	18.35	0.64	32.05	100	0	Peak
67.83	31.02	-8.98	40	49.66	12.56	0.85	32.05	-	-	Peak
94.99	29.99	-13.51	43.5	44.96	16.05	0.98	32	-	-	Peak
335.55	24.52	-21.48	46	33.64	19.93	1.91	30.96	-	-	Peak
474.26	26.88	-19.12	46	32.25	22.78	2.28	30.43	-	-	Peak
932.1	27.04	-18.96	46	24.4	26.75	3.16	27.27	-	-	Peak

Note:

1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Emission level (dBµV/m) = 20 log Emission level (µV/m).
3. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor= Level