FCC RADIO TEST REPORT

FCC ID	:	**PY7-16813Y**
Equipment	:	**GSM/WCDMA/LTE/5G Phone with BT, DTS/UNII a/b/g/n/ac/ax, GPS, WPC and NFC**
Brand Name	:	**Sony**
Applicant	:	**Sony Corporation 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan**
Manufacturer	:	**Sony Corporation 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan**
Standard	:	**FCC Part 15 Subpart C §15.225**

The product was received on Mar. 08, 2021 and testing was started from Mar. 18, 2021 and completed on Apr. 20, 2021. We, Sporton International Inc. Wensan Laboratory, 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 spot check data report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Reviewed by: Louis Wu

Sporton International Inc. Wensan Laboratory
No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)

Table of Contents

History of this test report **3**
Summary of Test Result **4**
1. General Description **5**
1.1 Product Feature of Equipment Under Test 5
1.2 Modification of EUT 5
1.3 Testing Location 6
1.4 Applicable Standards 6
2. Test Configuration of Equipment Under Test **7**
2.1 Descriptions of Test Mode 7
2.2 Connection Diagram of Test System 7
2.3 Table for Supporting Units 8
2.4 EUT Operation Test Setup 8
3. Test Results **9**
3.1 Field Strength of Fundamental Emissions and Mask Measurement 9
3.2 Radiated Emissions Measurement 11
3.3 Antenna Requirements 14
4. List of Measuring Equipment **15**
5. Uncertainty of Evaluation **16**
Appendix A. Test Results of Radiated Test Items
A1. Test Result of Field Strength of Fundamental Emissions
A2. Results of Radiated Emissions (9 kHz~30MHz)
A3. Results of Radiated Emissions (30MHz~1GHz)

History of this test report

Report No.	Version	Description	Issued Date
FR0D2217D	01	Initial issue of report	Apr. 09, 2021
FR0D2217D	02	Revise description of summary note.	Apr. 14, 2021
FR0D2217D	03	1. Revise test data 2. Revise list of measuring equipment	Apr. 20, 2021

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
-	15.207	AC Power Line Conducted Emissions	-	See Note
-	15.215(c)	20dB Spectrum Bandwidth	-	See Note
	2.1049	99% OBW Spectrum Bandwidth	-	See Note
-	15.225(e)	Frequency Stability	-	See Note
3.1	15.225(a)(b)(c)	Field Strength of Fundamental Emissions	Pass	Max level 20.38 dBμV/m at 13.560 MHz
3.2	15.225(d) 15.209	Radiated Spurious Emissions	Pass	Under limit 5.80 dB at 42.610MHz
3.3	15.203	Antenna Requirements	Pass	-

Note: The RF circuit, output power level and antenna performance is the same in NFC function across all two FCC ID PY7-16813Y and PY7-26726G, since the change, only verify radiated spurious emission test data the worst mode was reported in this report.

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Lucy Wu

1. General Description

1.1 Product Feature of Equipment Under Test

GSM/WCDMA/LTE, Bluetooth, DTS/UNII a/b/g/n/ac/ax, FM Receiver, NFC, WPC/WPT, and GNSS.

Product Specification subjective to this standard	
Antenna Type	Loop Antenna

Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

EUT Information List			
HW Version	**SW Version**	**S/N**	**Performed Test Item**
A	0.505	QV7200KK6J	Radiated Spurious Emission

Accessory List	
AC Adapter	Model Name : XQZ-UC1
	S/N : 0020W51300160
Earphone	Model Name : STH40D
	S/N : N/A
USB Cable	Model Name : XQZ-UB1
	S/N : N/A

Note:

1. Above EUT list used are electrically identical per declared by manufacturer.
2. Above the accessories list are used to exercise the EUT during test, and the serial number of each type of accessories is listed in each section of this report.
3. For other wireless features of this EUT, test report will be issued separately.

1.2 Modification of EUT

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

1.3 Testing Location

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH11-HY
Test Engineer	Bill Chang, Fu Chen and Troye Hsieh
Temperature	19.1~23.2℃
Relative Humidity	54.8~68.9%

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

FCC designation No.: TW0007

1.4 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 KDB 414788 D01 Radiated Test Site v01r01
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF code is not including all the FCC KDB listed without accreditation.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

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.

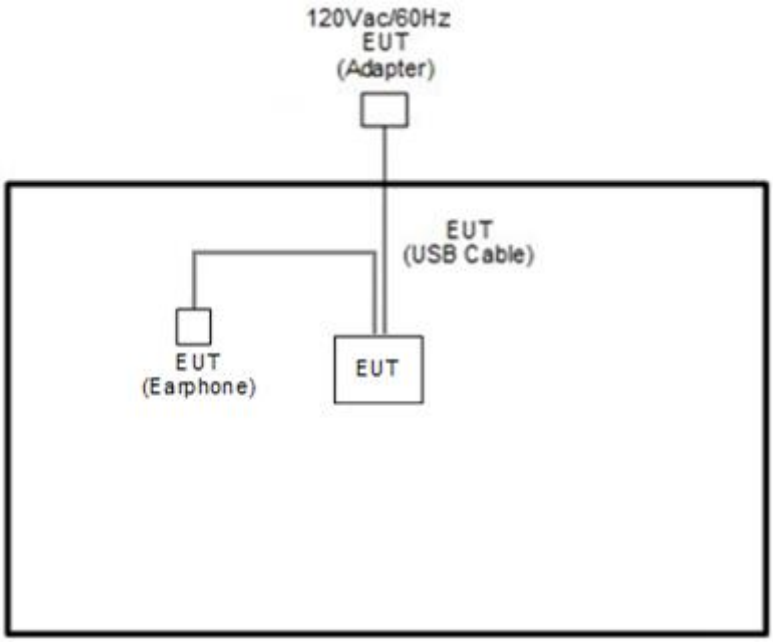
Test Items
Field Strength of Fundamental Emissions
Radiated Emissions 9kHz~30MHz
Radiated Emissions 30MHz~1GHz

The NFC test is performed with app “NFC PRBS” installed in the mobile phone. It can enable continuous transmission with type F tag respectively.

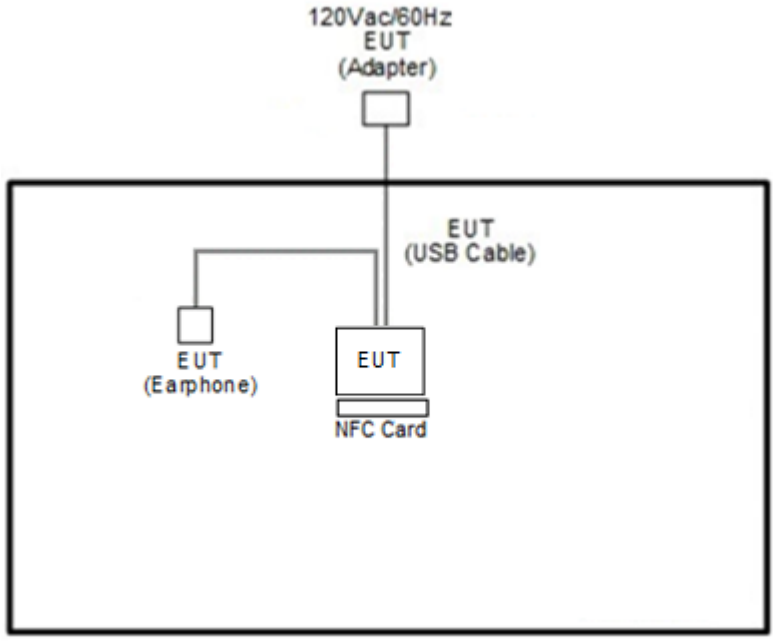
The EUT pre-scanned in four NFC type, A, B, F, V. The worst type (type F) was recorded in this report. Pre-scanned tests, X, Y, Z in three orthogonal panels to determine the final configuration (Z plane as worst plane) from all possible combinations.

2.2 Connection Diagram of Test System

<For Radiated Emissions Measurement with Tx Tool>



<For Radiated Emissions Measurement with NFC Card>



2.3 Table for Supporting Units

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	NFC Card	N/A	N/A	N/A	N/A	N/A

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 transmitting signal (Power Level: Default) at 13.56MHz and is placed around 1 cm gap to the EUT.

The RF test items, utility “NFC PRBS” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level (Power setting: Default), data rate (Type F Bit Rate: 424kbps) and the application type and for continuous transmitting signals.

3. Test Results

3.1 Field Strength of Fundamental Emissions and Mask Measurement

3.1.1 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

Remark:

1. The field strength test result is in 3m test distance, follow test rules the test data use distance extrapolation factor and reported in this report at 30m test result.
2. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)

3.1.2 Measuring Instruments

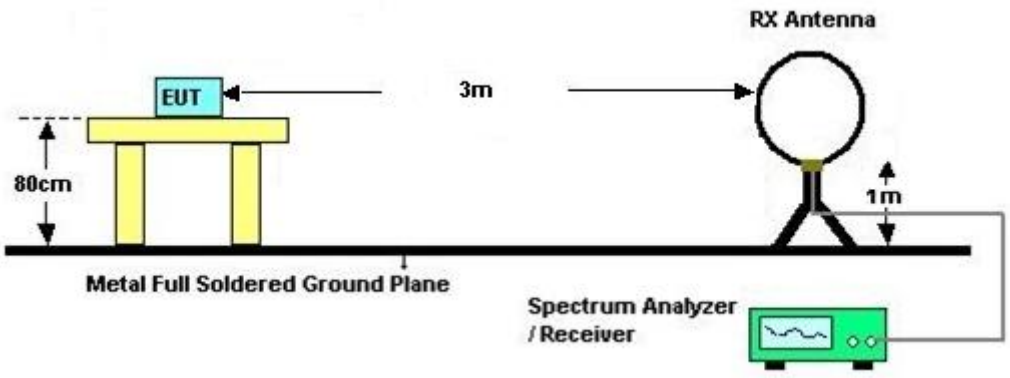
See list of measuring instruments of this test report.

3.1.3 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 9 kHz.
   Note: Emission level (dBμV/m) = 20 log Emission level (μV/m).

3.1.4 Test Setup

For radiated test below 30MHz



3.1.5 Test Result of Field Strength of Fundamental Emissions and Mask

Please refer to Appendix A.

3.2 Radiated Emissions Measurement

3.2.1 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

3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 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

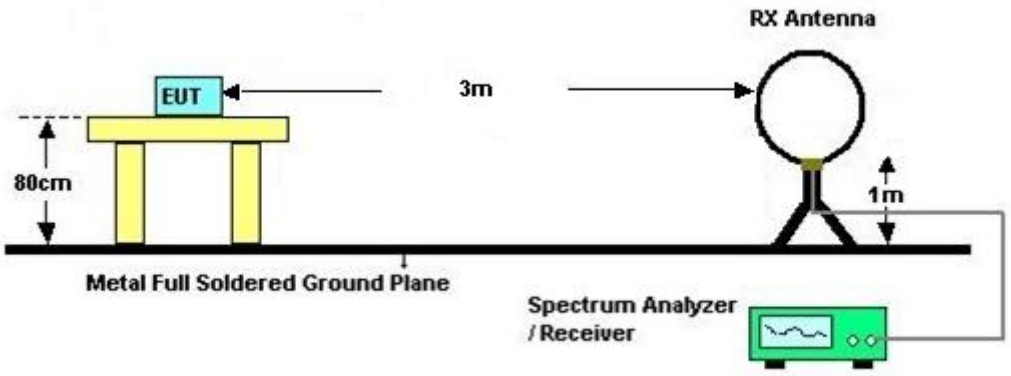
Note: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz and 110-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

3.2.4 Test Procedures

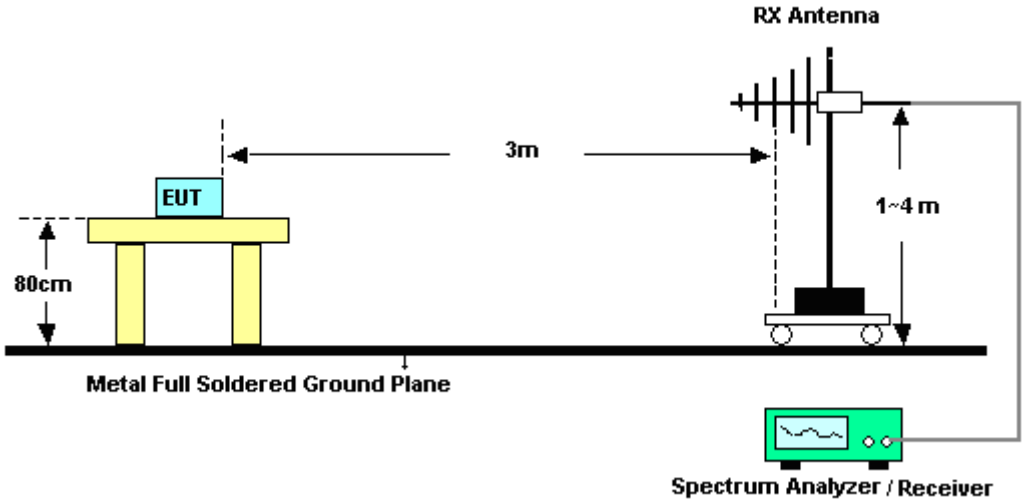
1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting 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 30 MHz, loop antenna has to be used for measurement and the recorded data shall be QP measured by receiver.

3.2.5 Test Setup

For radiated test below 30MHz



For radiated test above 30MHz



3.2.6 Test Result of Radiated Emissions Measurement

Please refer to Appendix A.

Remark:

1. There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.
2. According to C63.10 radiated Test, the EUT pre-scanned horizontal, vertical, and ground-parallel three polarization's, the worst case is horizontal & vertical polarization, test data of two mode was reported.

3.3 Antenna Requirements

3.3.1 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.

3.3.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

4. List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 11, 2020	Mar. 18, 2021~ Apr. 20, 2021	Oct. 10, 2021	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Mar. 18, 2021~ Apr. 20, 2021	Jan. 03, 2022	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 02, 2020	Mar. 18, 2021~ Apr. 20, 2021	Dec. 01, 2021	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 23, 2020	Mar. 18, 2021~ Apr. 20, 2021	Oct. 22, 2021	Radiation (03CH11-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY55420170	20MHz~8.4GHz	May 21, 2020	Mar. 18, 2021~ Apr. 20, 2021	May 20, 2021	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Mar. 18, 2021~ Apr. 20, 2021	N/A	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Mar. 18, 2021~ Apr. 20, 2021	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Mar. 18, 2021~ Apr. 20, 2021	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Mar. 18, 2021~ Apr. 20, 2021	N/A	Radiation (03CH11-HY)
Filter	Wainwright	WHK20/1000 C7/40SS	SN2	20M High Pass	Sep. 14, 2020	Mar. 18, 2021~ Apr. 20, 2021	Sep. 13, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 PE	9kHz-30MHz	Mar. 11, 2021	Mar. 18, 2021~ Apr. 20, 2021	Mar. 10, 2022	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 PE	30M-18G	Mar. 11, 2021	Mar. 18, 2021~ Apr. 20, 2021	Mar. 10, 2022	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 11, 2021	Mar. 18, 2021~ Apr. 20, 2021	Mar. 10, 2022	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTN-303B	TP200880	QA-3-031	Oct. 22, 2020	Mar. 18, 2021~ Apr. 20, 2021	Oct. 21, 2021	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTN-303B	TP140325	N/A	Nov. 18, 2020	Mar. 18, 2021~ Apr. 20, 2021	Nov. 17, 2021	Radiation (03CH11-HY)

5. Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (9 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.4**

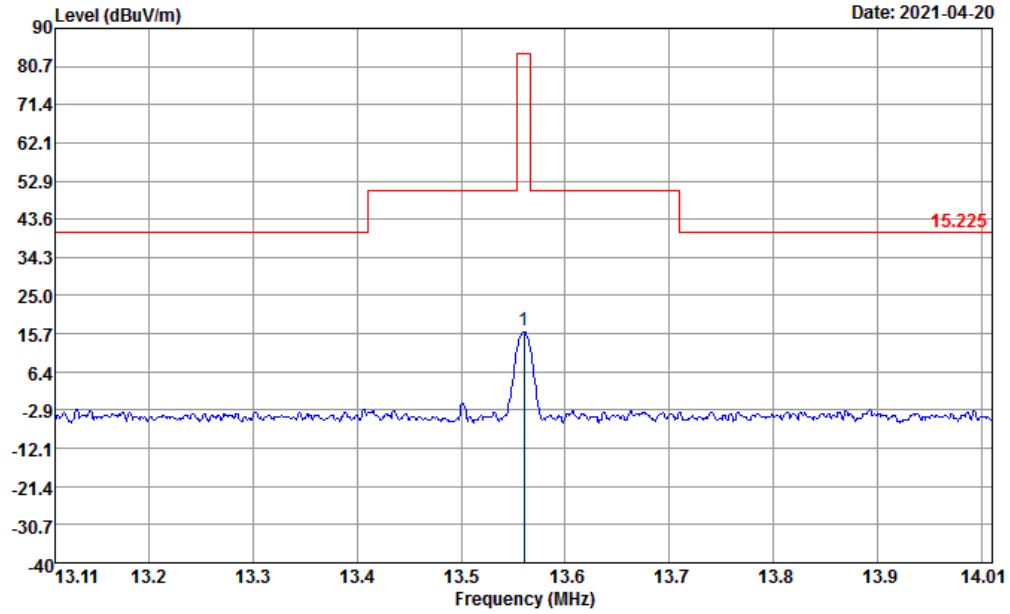
Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.4**

Appendix A. Test Results of Radiated Test Items

A1. Test Result of Field Strength of Fundamental Emissions

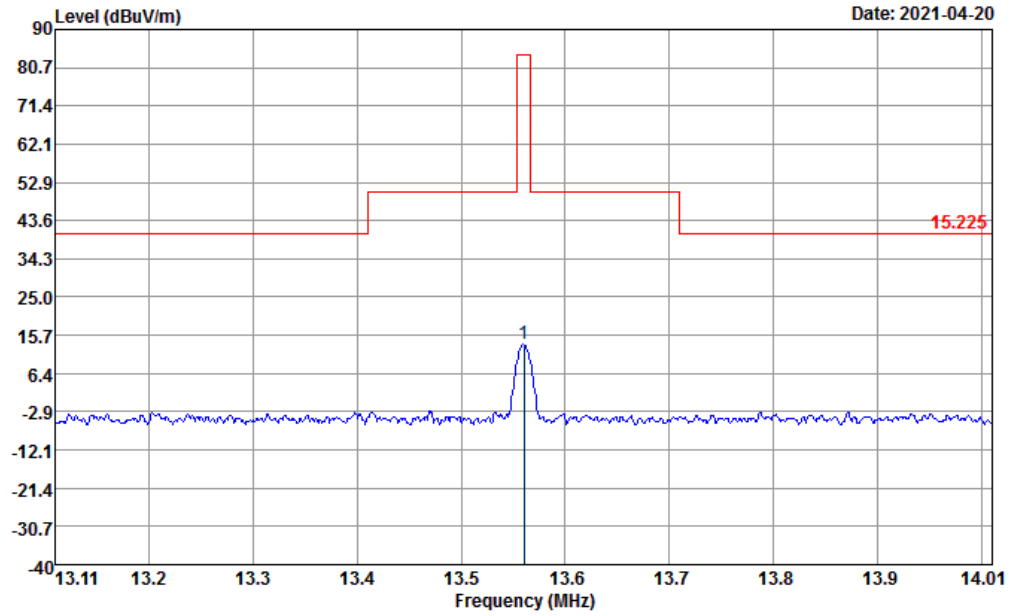
Test Mode :	NFC with Tx Tool	Test Frequency (MHz)	13.56



Site : 03CH11-HY
Condition : 15.225 3m LOOP_ANT(H)_100315 HORIZONTAL
: RBW:9.000KHz VBW:9.000KHz SWT:Auto

Frequency (MHz)	Level (dBµV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
13.56	16.57	40	-67.43	84	35.17	21.39	0.01	100	331	QP

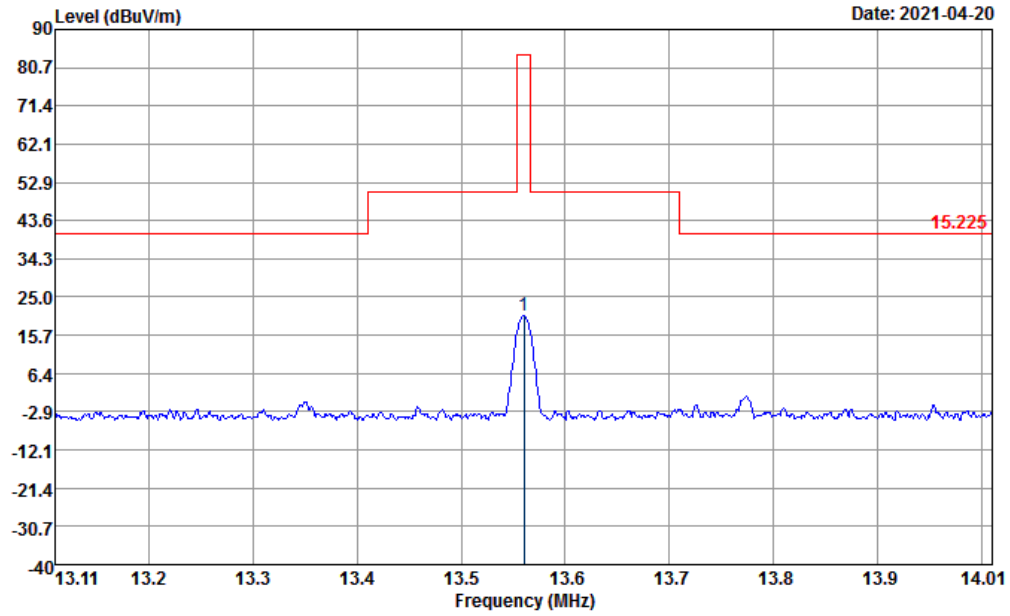
Test Mode :	NFC with Tx Tool	Test Frequency (MHz)	13.56



Site : 03CH11-HY
Condition : 15.225 3m LOOP_ANT(V)_100315 VERTICAL
: RBW:9.000KHz VBW:9.000KHz SWT:Auto

Frequency (MHz)	Level (dBµV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
13.56	13.64	40	-70.36	84	32.24	21.39	0.01	100	42	QP

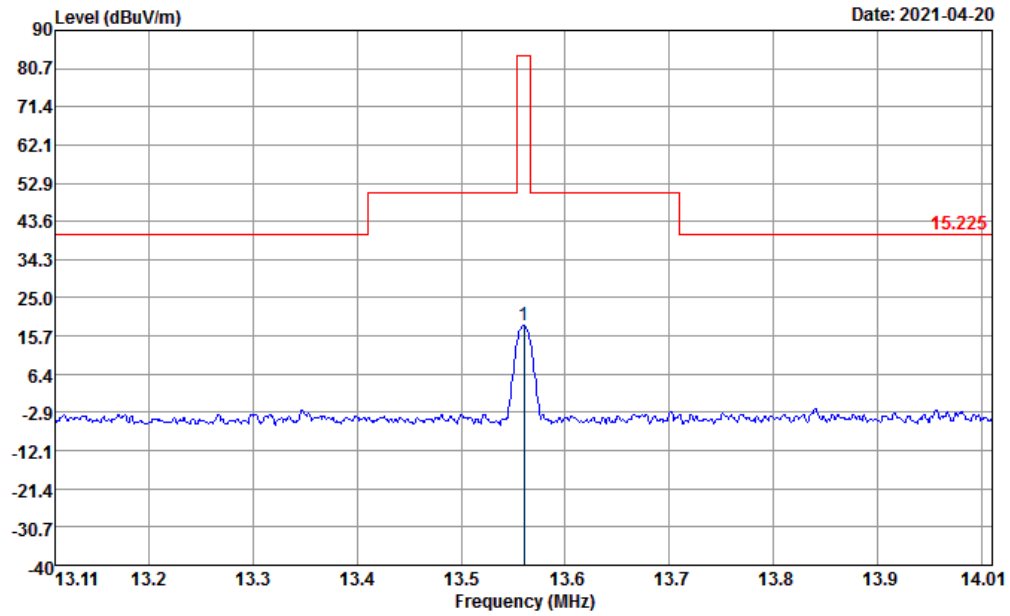
Test Mode :	NFC with NFC Card	Test Frequency (MHz)	13.56



Site : 03CH11-HY
Condition : 15.225 3m LOOP_ANT(H)_100315 HORIZONTAL
: RBW:9.000KHz VBW:9.000KHz SWT:Auto

Frequency (MHz)	Level (dBµV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
13.56	20.38	40	-63.62	84	38.98	21.39	0.01	100	0	QP

Test Mode :	NFC with NFC Card	Test Frequency (MHz)	13.56

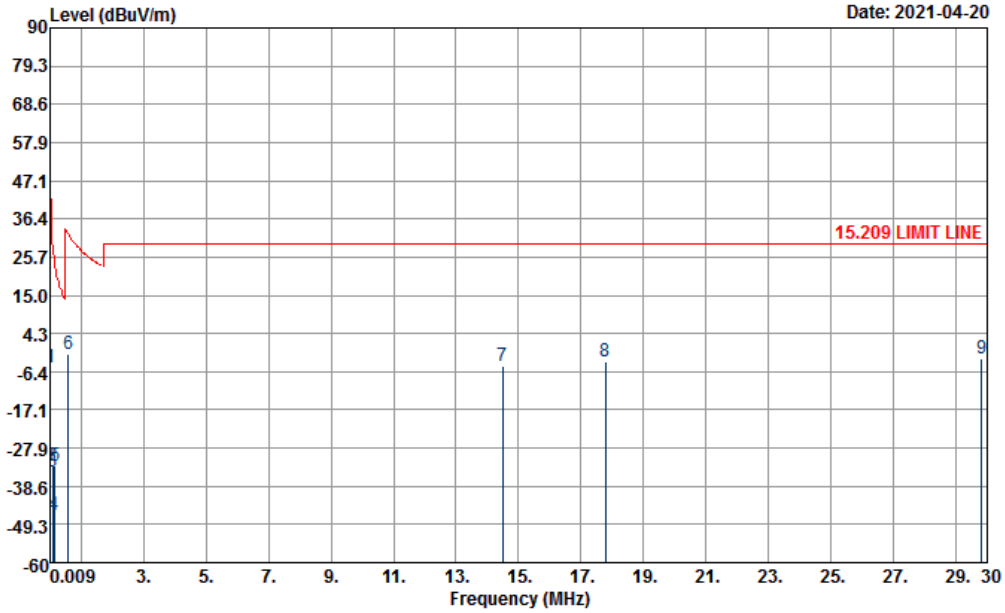


Site : 03CH11-HY
Condition : 15.225 3m LOOP_ANT(V)_100315 VERTICAL
: RBW:9.000KHz VBW:9.000KHz SWT:Auto

Frequency (MHz)	Level (dBµV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
13.56	18.18	40	-65.82	84	36.78	21.39	0.01	100	252	QP

A2. Results of Radiated Spurious Emissions (9 kHz~30MHz)

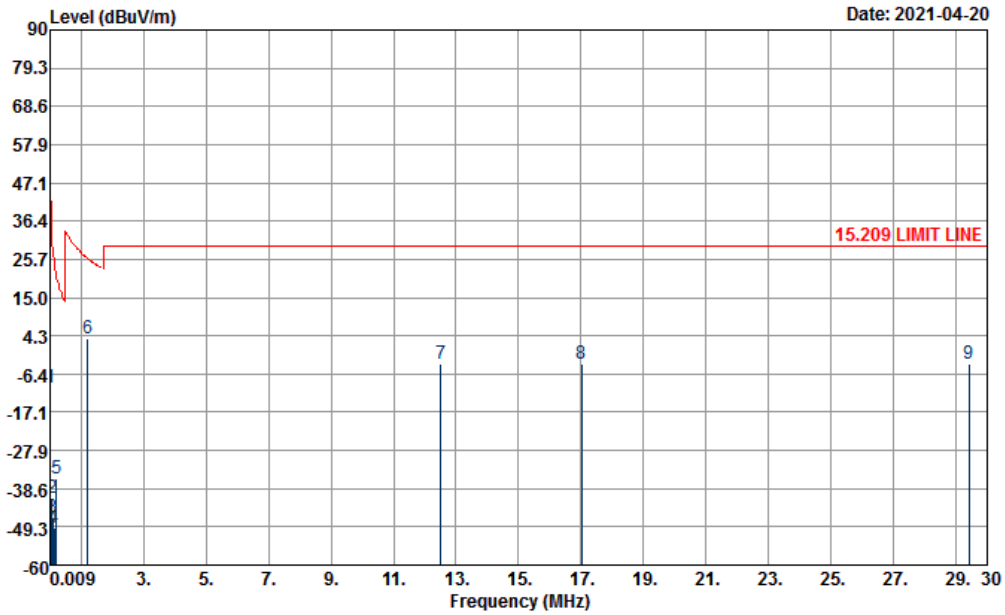
Test Mode :	NFC with Tx Tool	Polarization :	Horizontal



Frequency (MHz)	Level (dBµV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.0192	-5.33	80	-47.27	41.94	55.74	18.91	0.02	-	-	Average
0.08763	-32.65	80	-61.4	28.75	28.91	18.42	0.02	-	-	Average
0.09276	-34.48	80	-62.74	28.26	27.21	18.29	0.02	-	-	QP
0.13304	-46.65	80	-71.77	25.12	15.08	18.25	0.02	-	-	Average
0.17176	-32.77	80	-55.68	22.91	28.79	18.42	0.02	-	-	Average
0.59514	-1.68	40	-33.79	32.11	19.36	18.94	0.02	-	-	QP
14.488	-4.77	40	-34.27	29.5	13.73	21.49	0.01	-	-	QP
17.791	-3.42	40	-32.92	29.5	14.69	21.86	0.03	-	-	QP
29.815	-2.7	40	-32.2	29.5	14.54	22.49	0.27	100	0	QP

Note: For 0.0192MHz is noise floor.

Test Mode :	NFC with Tx Tool	Polarization :	Vertical

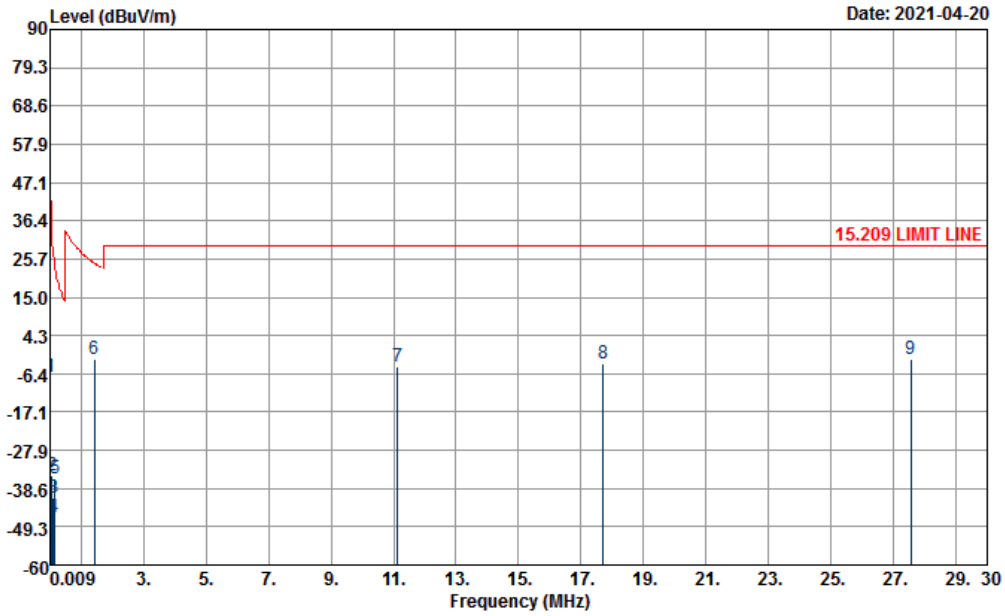


Frequency (MHz)	Level (dBµV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.0192	-10.26	80	-52.2	41.94	50.81	18.91	0.02	-	-	Average
0.06585	-41.11	80	-72.34	31.23	19.88	18.99	0.02	-	-	Average
0.09304	-46.48	80	-74.71	28.23	15.22	18.28	0.02	-	-	QP
0.13488	-49.53	80	-74.54	25.01	12.19	18.26	0.02	-	-	Average
0.20644	-35.86	80	-57.17	21.31	25.54	18.58	0.02	-	-	Average
1.203	3.69	40	-22.31	26	24.57	19.1	0.02	100	0	QP
12.512	-3.8	40	-33.3	29.5	14.91	21.28	0.01	-	-	QP
17.026	-3.58	40	-33.08	29.5	14.62	21.77	0.03	-	-	QP
29.405	-3.43	40	-32.93	29.5	13.83	22.48	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
4. For 0.0192MHz is noise floor.

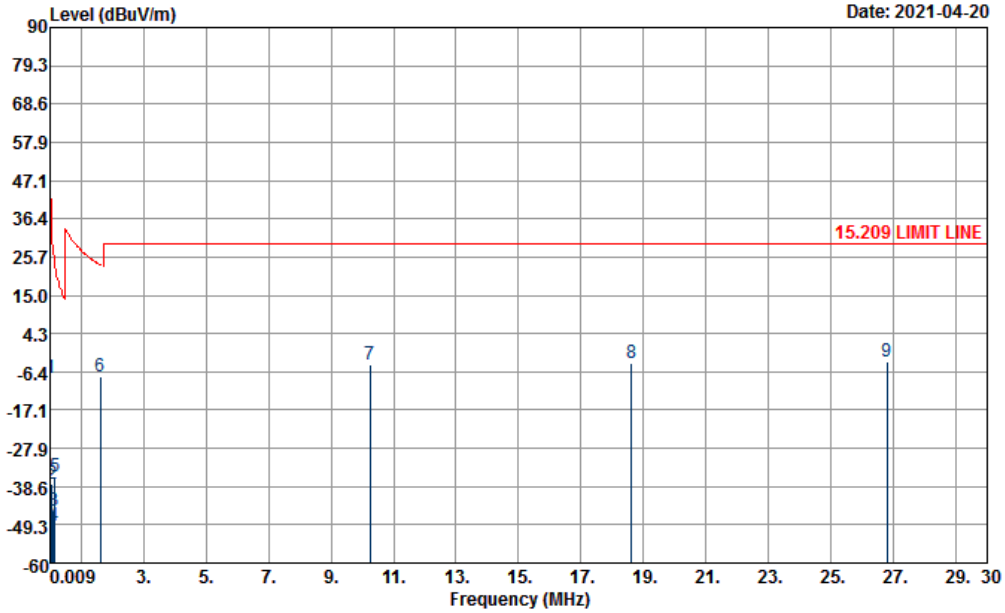
Test Mode :	NFC with NFC Card	Polarization :	Horizontal



Frequency (MHz)	Level (dBµV/m)	Distance extrapolation Factor (dB)	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	-7.39	80	-49.35	41.96	53.69	18.9	0.02			Average
0.06	-34.75	80	-66.79	32.04	26.09	19.14	0.02			Average
0.11	-41.02	80	-67.8	26.78	20.81	18.15	0.02			QP
0.11676	-46.43	80	-72.69	26.26	15.37	18.18	0.02			Average
0.17448	-35.57	80	-58.34	22.77	25.97	18.44	0.02			Average
1.429	-2.54	40	-27.05	24.51	18.34	19.1	0.02	100	0	QP
11.128	-4.31	40	-33.81	29.5	14.55	21.12	0.02			QP
17.71	-3.63	40	-33.13	29.5	14.49	21.85	0.03			QP
27.555	-2.53	40	-32.03	29.5	14.88	22.4	0.19			QP

Note: For 0.01915MHz is noise floor.

Test Mode :	NFC with NFC Card	Polarization :	Vertical



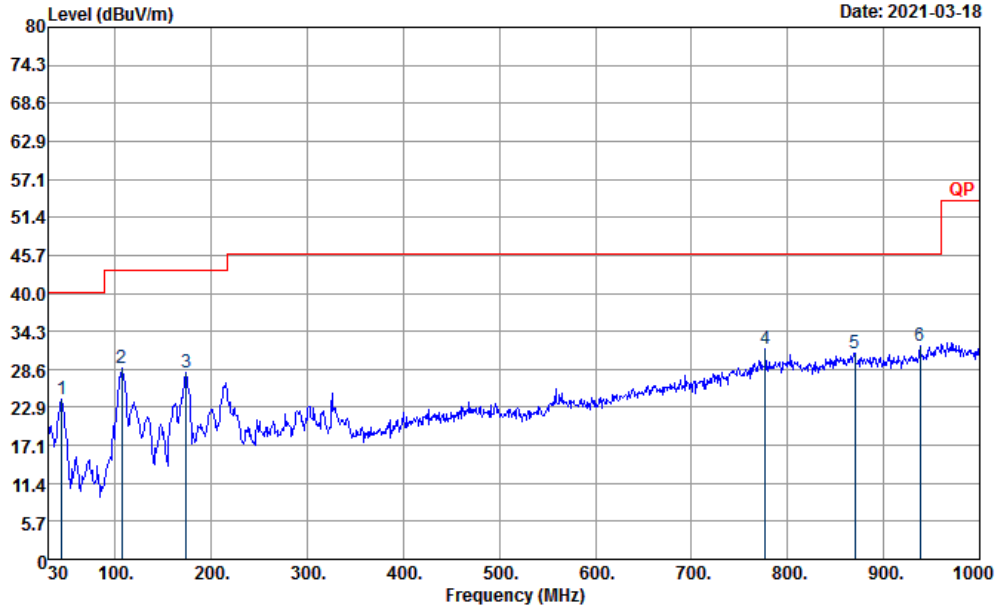
Frequency (MHz)	Level (dBµV/m)	Distance extrapolation Factor (dB)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
0.01925	-8.06	80	-49.98	41.92	53.01	18.91	0.02			Average
0.06657	-37.98	80	-69.12	31.14	23.03	18.97	0.02			Average
0.11	-45.58	80	-72.36	26.78	16.25	18.15	0.02			QP
0.11872	-49.44	80	-75.55	26.11	12.36	18.18	0.02			Average
0.15544	-35.9	80	-59.67	23.77	25.73	18.35	0.02			Average
1.609	-7.69	40	-31.16	23.47	13.19	19.1	0.02	100	0	QP
10.24	-4.43	40	-33.93	29.5	14.52	21.03	0.02			QP
18.628	-3.96	40	-33.46	29.5	14.05	21.95	0.04			QP
26.785	-3.65	40	-33.15	29.5	13.82	22.37	0.16			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
4. For 0.01925MHz is noise floor.

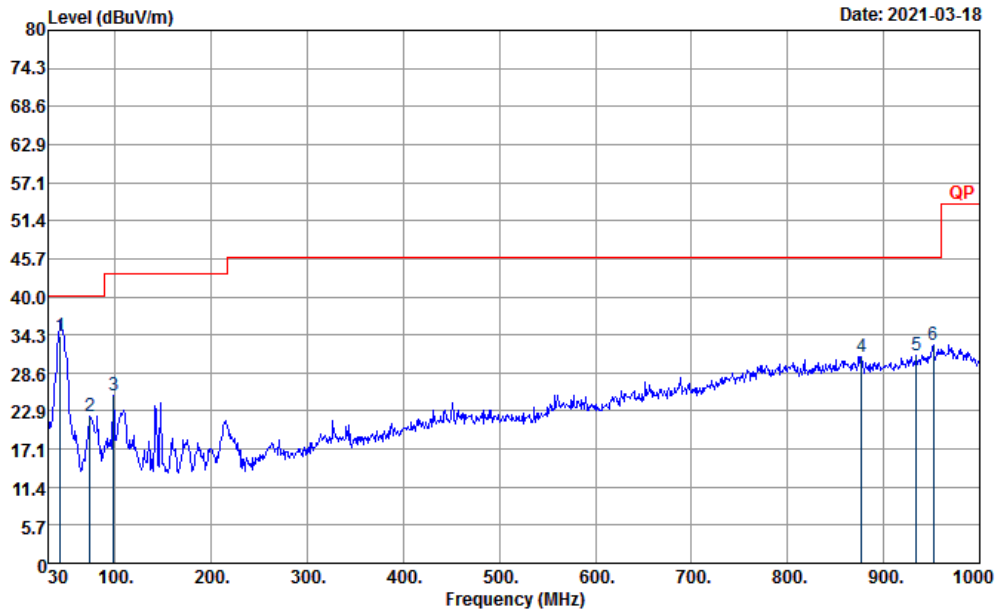
A3. Results of Radiated Spurious Emissions (30MHz~1GHz)

Test Mode :	NFC with Tx Tool	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
44.55	24.14	-15.86	40	38.7	16.88	1.08	32.52	-	-	Peak
106.63	28.66	-14.84	43.5	43.06	16.44	1.66	32.5	-	-	Peak
173.56	28.01	-15.49	43.5	43.26	15.22	2.06	32.53	-	-	Peak
776.9	31.69	-14.31	46	30.27	28.14	5.06	31.78	-	-	Peak
870.02	31.08	-14.92	46	27.65	29.32	5.43	31.32	-	-	Peak
937.92	31.99	-14.01	46	27.54	29.93	5.47	30.95	100	0	Peak

Test Mode :	NFC with Tx Tool	Polarization :	Vertical

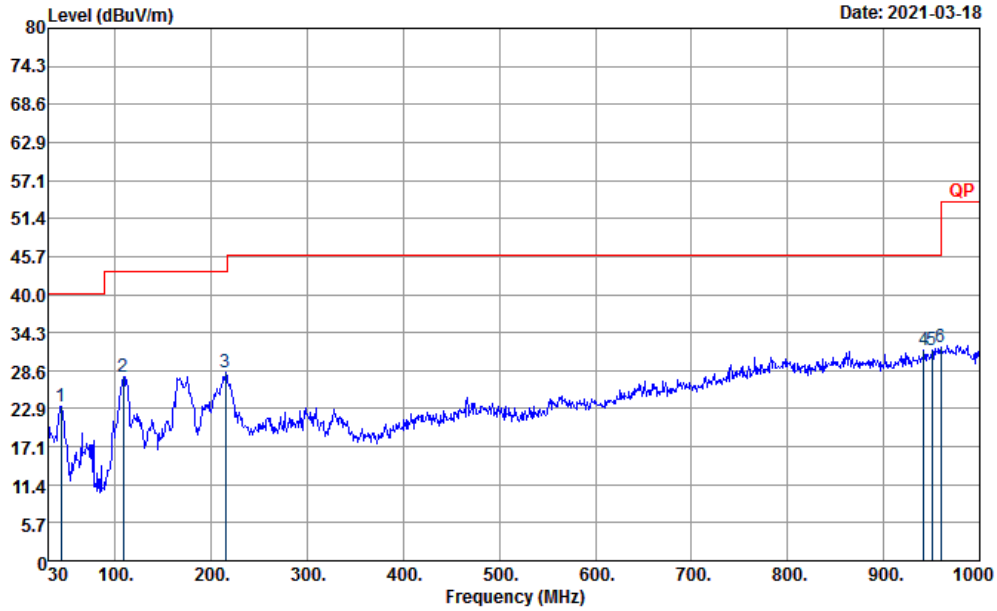


Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.61	34.2	-5.8	40	47.79	17.84	1.08	32.51	100	242	QP
73.65	22.09	-17.91	40	40.83	12.4	1.39	32.53	-	-	Peak
97.9	25.29	-18.21	43.5	40.51	15.67	1.61	32.5	-	-	Peak
876.81	31.08	-14.92	46	27.73	29.21	5.43	31.29	-	-	Peak
934.04	31.22	-14.78	46	26.91	29.82	5.47	30.98	-	-	Peak
951.5	32.7	-13.3	46	27.3	30.75	5.52	30.87	-	-	Peak

Note:

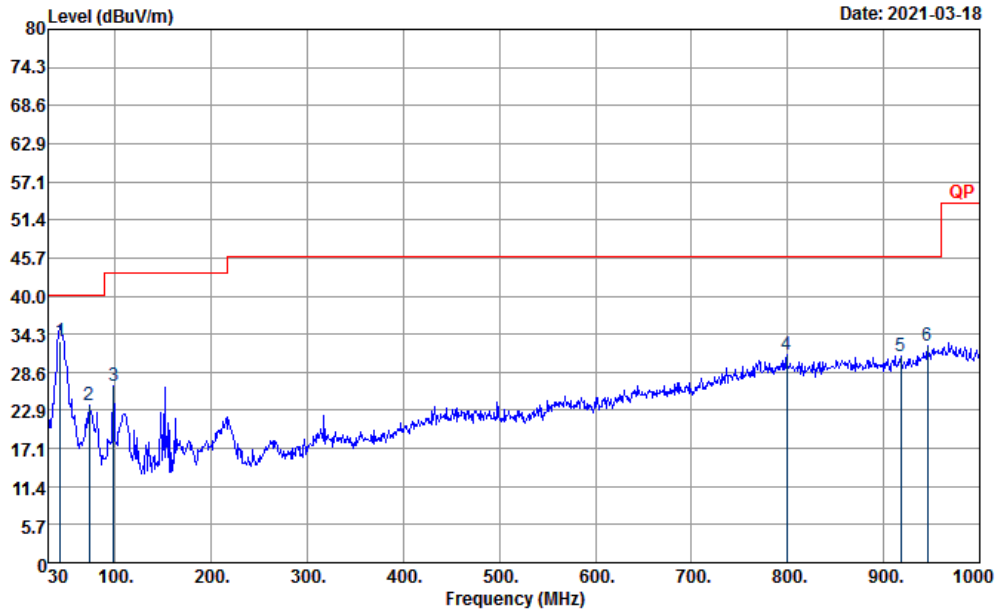
1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Emission level (dBµV/m) = 20 log Emission level (µV/m).
3. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor= Level.

Test Mode :	NFC with NFC Card	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
43.58	23.15	-16.85	40	37.29	17.3	1.08	32.52	-	-	Peak
108.57	27.61	-15.89	43.5	41.78	16.65	1.68	32.5	-	-	Peak
214.3	28.39	-15.11	43.5	43.76	14.85	2.26	32.48	-	-	Peak
941.8	31.55	-14.45	46	26.86	30.14	5.48	30.93	-	-	Peak
950.53	31.63	-14.37	46	26.29	30.7	5.51	30.87	-	-	Peak
959.26	32.11	-13.89	46	26.19	31.11	5.62	30.81	100	0	Peak

Test Mode :	NFC with NFC Card	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
42.61	33.24	-6.76	40	46.83	17.84	1.08	32.51	100	247	QP
72.68	23.54	-16.46	40	42.42	12.27	1.38	32.53	-	-	Peak
97.9	26.41	-17.09	43.5	41.63	15.67	1.61	32.5	-	-	Peak
799.21	31.19	-14.81	46	29.03	28.31	5.46	31.61	-	-	Peak
917.55	31.01	-14.99	46	27.39	29.27	5.44	31.09	-	-	Peak
945.68	32.57	-13.43	46	27.52	30.46	5.49	30.9	-	-	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.

————THE END————