

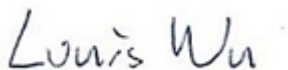


NCC RADIO TEST REPORT

Equipment : Mobile Cellular Phone
Brand Name : Motorola
Model Name : XT2201-1
Applicant : Motorola Mobility LLC
222 W, Merchandise Mart Plaza, Chicago, IL60654 USA
Manufacturer : Motorola Mobility LLC
222 W, Merchandise Mart Plaza, Chicago, IL60654 USA
Standard : NCC LP0002 (2020-07-01)

The product was received on Nov. 09, 2021 and testing was started from Nov. 25, 2021 and completed on Jan. 13, 2022. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures NCC LP0002 (2020-07-01) 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 Inc. Wensan Laboratory, the test report shall not be reproduced except in full.



Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan



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 Product Specification of Equipment Under Test	6
1.3 Modification of EUT	6
1.4 Testing Location	6
1.5 Applicable Standards.....	7
2. Test Configuration of Equipment Under Test.....	8
2.1 Descriptions of Test Mode	8
2.2 Connection Diagram of Test System	8
2.3 Support Unit used in test configuration and system	9
2.4 EUT Operation Test Setup	9
3. Test Results	10
3.1 AC Power Line Conducted Emissions Measurement	10
3.2 20dB and 99% OBW Spectrum Bandwidth Measurement.....	12
3.3 Radiated Emissions Measurement.....	13
3.4 Antenna Requirements.....	16
4. List of Measuring Equipment	17
5. Uncertainty of Evaluation	18
Appendix A. Test Results of Conducted Emission Test	
Appendix B. Test Results of RF Near Field Test Items	
Appendix C. Test Results of Radiated Test Items	
C1. Results of Radiated Emissions (9 kHz~30MHz)	
C3. Results of Radiated Emissions (30MHz~1GHz)	
Annex A. Receiver Radiated Emission	



History of this test report

Report No.	Version	Description	Issued Date
TR1O1903-02H	01	Initial issue of report	Jan. 19, 2022
TR1O1903-02H	02	Revise accessory information	Jan. 27, 2022

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	LP0002 3.3	AC Power Line Conducted Emissions	Pass	9.75 dB under the limit at 3.094MHz
3.2	-	20dB Spectrum Bandwidth	Pass	-
	-	99% OBW Spectrum Bandwidth	Reporting only	-
3.3	LP0002 3.6	Field Strength of Fundamental Emissions	Pass	Max level -4.44 dB μ V/m at 0.148 MHz
		Radiated Spurious Emissions	Pass	3.06 dB under the limit at 42.610MHz
3.4	LP0002 3.2	Antenna Requirements	Pass	-
Annex A	LP0002 3.9	Receiver Radiated Emission	Pass	Please refer to Annex A

Declaration of Conformity:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
2. The measurement uncertainty please refer to report "Uncertainty of Evaluation".

Comments and Explanations:

The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Keven Cheng

Report Producer: Cindy Liu

1. General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2201-1
Sample 1	1st source (refer to the PED)
Sample 2	2nd source (refer to the PED)
IMEI Code	Conducted : IMEI 1: 355871980021591 IMEI 2: 355871980021609 <Sample 1>: Conduction : IMEI 1: 355871980021591 IMEI 2: 355871980021609 Radiation : IMEI 1: 355871980014752 IMEI 2: 355871980014760
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/5G NR/ Galileo/Glonass/GPS/SBAS/NFC/WPC/WPT WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE
HW Version	DVT2
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer.

Specification of Accessory		
AC Adapter 1	Brand Name :	Motorola
	Model Name :	MC-681
	Manufacturer :	Salom
AC Adapter 2	Brand Name :	Motorola
	Model Name :	MC-681
	Manufacturer :	Chenyang
Battery	Brand Name :	Motorola
	Model Name :	NA50
Earphone 1	Brand Name :	Motorola
	Model Name :	MD211(SH38D20195)
Earphone 2	Brand Name :	Motorola
	Model Name :	MD211(SH38D39180)
USB Cable	Brand Name :	Motorola
	Model Name :	SC18D24968
OceanBlue	Brand Name :	ThinkReality A3 AR Glasses
	Model Name :	A3
OceanBlue Industrial Kit-Y Cable	Brand Name :	ThinkReality A3 Industrial Kit-Y Cable
	Model Name :	A3 Y Cable

1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard				
Transmitter Frequency Range			110kHz ~ 148.5kHz	
99%OBW			0.660 kHz	
Type of Modulation			ASK	
Antenna Information				
Antenna	Brand Name	Moto	Peak Gain	N/A
	Model Name	wireless charging	Type	Coil Antenna

Remark:

- The detail internal, external and transmit antenna photo please refer to Sporton report no.: EP101903-02.
- The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.3 Modification of EUT

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

1.4 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 TEL: +886-3-327-0868 FAX: +886-3-327-0855		
Test Site No.	Sporton Site No.		
	TH05-HY	03CH11-HY	CO07-HY
Test Engineer	Oscar Chi	Troye Hsieh	Tom Lee
Temperature (°C)	22~24	20.1~21.4	23~26
Relative Humidity (%)	53~55	57.1~67.2	45~55

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

FCC designation No.: TW3786

1.5 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 §15.209
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01
- ♦ ANSI C63.10-2013
- ♦ NCC LP0002 (2020-07-01)

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing
2. The TAF code is not including all the FCC KDB listed without accreditation.

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.

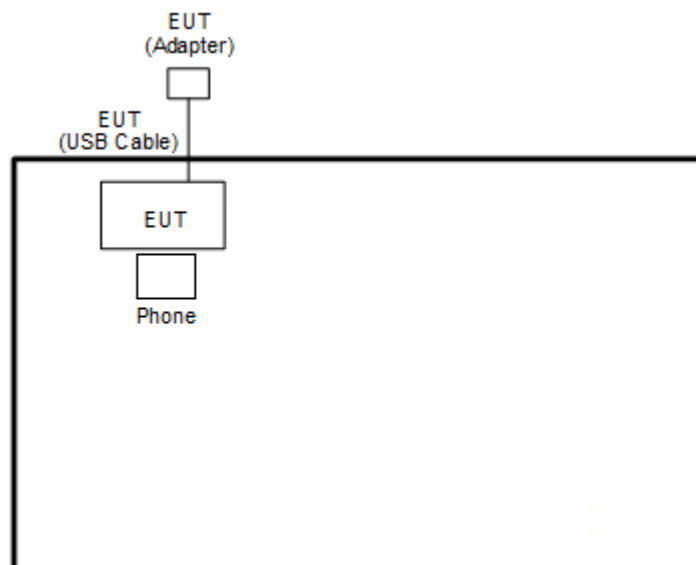
Test Items	
AC Power Line Conducted Emissions	20dB Spectrum Bandwidth
Field Strength of Fundamental Emissions	
Radiated Emissions 9kHz~30MHz	Radiated Emissions 30MHz~1GHz

Remark: For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find X plane as worst plane.

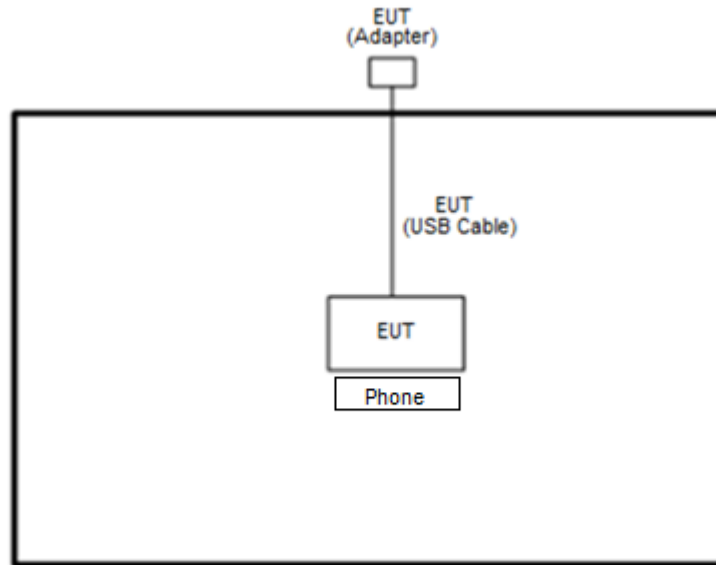
Test Cases	
AC Conducted Emission	Mode 1: WPT Charging with Mobile Phone + USB Cable (Charging from Adapter 1) for Sample 1
Remark: - For Radiated Test Cases, the tests were performed with Adapter 1 and Sample 1. - For radiation spurious emission, after the test voltage (120Vac/60Hz and 110Vac/60Hz) is verified by lab, the test data can conform to the test requirements of NCC rule.	

2.2 Connection Diagram of Test System

<AC Conducted Emission Mode>



<WPT Tx Mode>



2.3 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Phone	Moto	motorola edge+	N/A	N/A	N/A
2.	Phone	Moto	XT2201-1	IHDT56AB1	N/A	N/A

Remark: Applicant has ensured support unit would not be attached with the product on the market, support unit is provided by applicant for testing.

2.4 EUT Operation Test Setup

EUT does not use extra SW tool for WPC function, the power setting setup default power setting.

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 (dB μ V)	
	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.

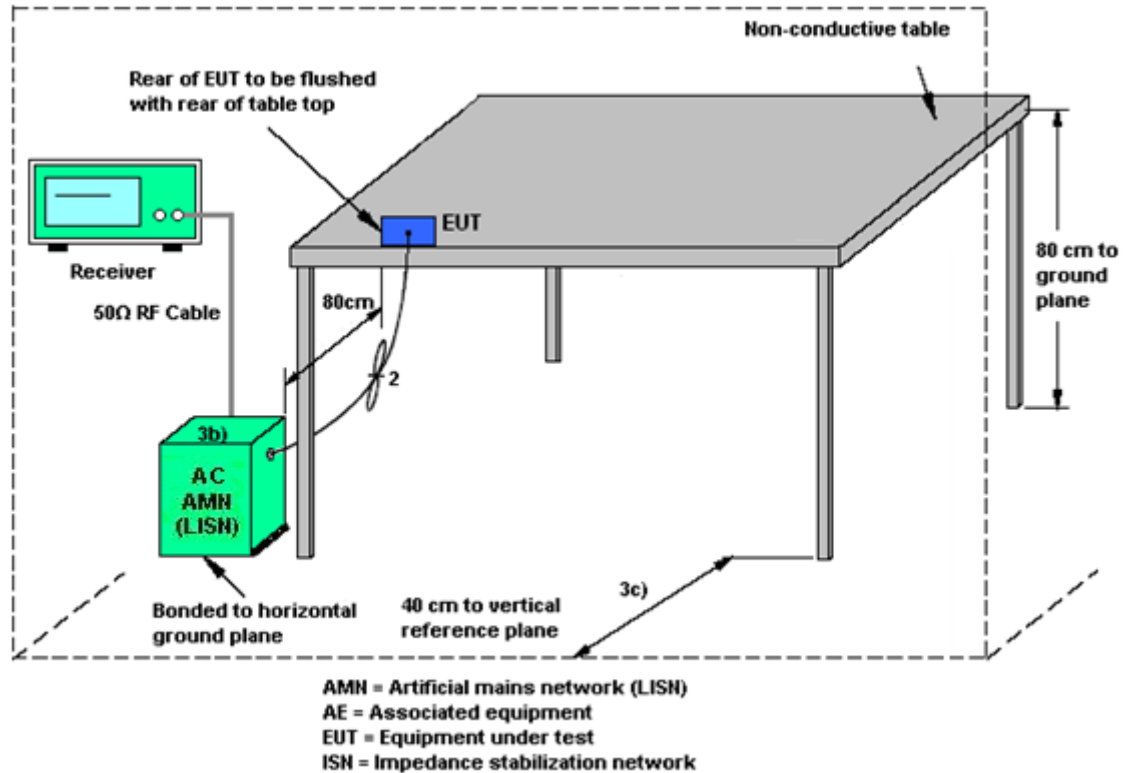
3.1.2 Measuring Instruments

Please refer to the measuring equipment list in 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.

3.2 20dB and 99% OBW Spectrum Bandwidth Measurement

3.2.1 Limit

Reporting only

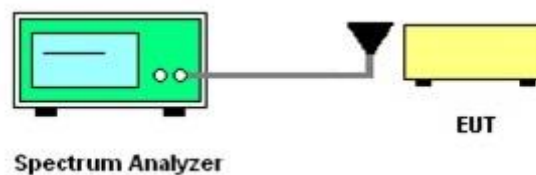
3.2.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.2.3 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 300Hz and the video bandwidth of 300 Hz were used.
3. Measured the spectrum width with power higher than 20dB below carrier.
4. Measured the 99% OBW.

3.2.4 Test Setup



3.2.5 Test Result of RF Near Field Test Items

Please refer to Appendix B.

3.3 Radiated Emissions Measurement

3.3.1 Limit

The field strength of any emissions which appear band shall not exceed the general radiated emissions limits.

Frequencies (MHz)	Field Strength ($\mu\text{V/m}$)	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

Please refer to the measuring equipment list in 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

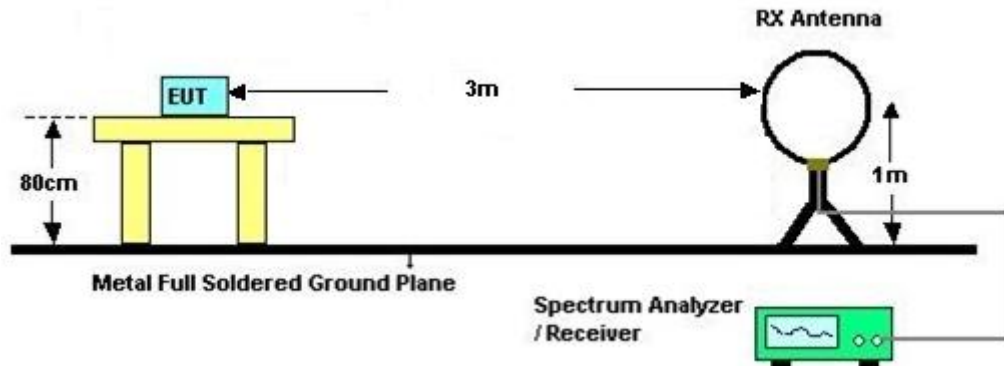
Note: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz and 110-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

3.3.4 Test Procedures

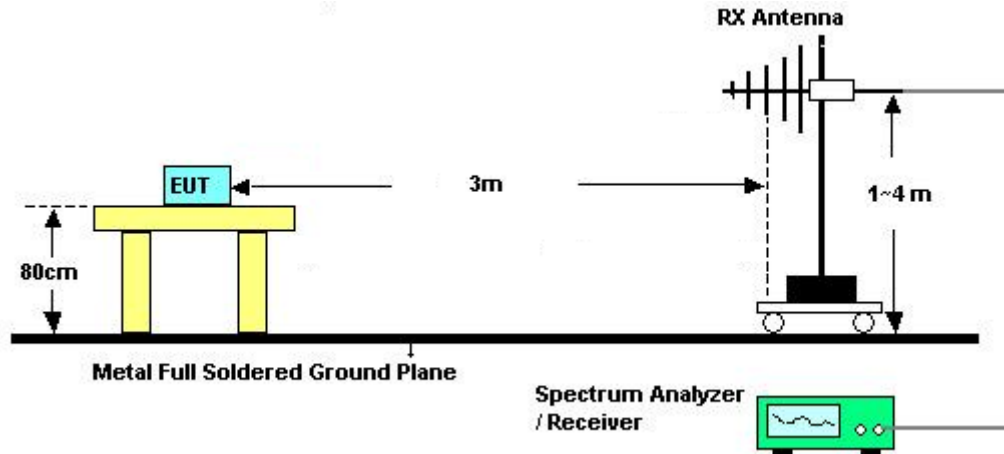
1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting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

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 C.

Remark: There is adequate comparison measurement 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.

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	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 15, 2021	Dec. 18, 2021~ Jan. 13, 2022	Dec. 14, 2022	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 09, 2021	Dec. 18, 2021~ Jan. 13, 2022	Oct. 08, 2022	Radiation (03CH11-HY)
Loop Antenna	TESEQ	HLA6120	31244	9 kHz~30 MHz	Mar. 16, 2021	Dec. 18, 2021~ Jan. 13, 2022	Mar. 15, 2022	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 15, 2021	Dec. 18, 2021~ Jan. 13, 2022	Oct. 14, 2022	Radiation (03CH11-HY)
EMI Test Receiver	Keysight	N9038A (MXE)	MY55420170	20MHz~8.4GHz	Jul. 15, 2021	Dec. 18, 2021~ Jan. 13, 2022	Jul. 14, 2022	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102 , SUCOFLEX 104	811852/4,MY 2859/2,MY98 37/4PE	30MHz~18GHz	Nov. 15, 2021	Dec. 18, 2021~ Jan. 13, 2022	Nov. 14, 2022	Radiation (03CH11-HY)
Filter	Wainwright	WHK20/1000C7/4 OSS	SN2	20MHz High Pass Filter	Sep. 13, 2021	Dec. 18, 2021~ Jan. 13, 2022	Sep. 12, 2022	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Dec. 18, 2021~ Jan. 13, 2022	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Dec. 18, 2021~ Jan. 13, 2022	N/A	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Dec. 18, 2021~ Jan. 13, 2022	N/A	Radiation (03CH11-HY)
AC Power Source	ACPOWER	AFC-11003G	F317040033	N/A	N/A	Dec. 01, 2021	N/A	Conduction (CO07-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Dec. 01, 2021	N/A	Conduction (CO07-HY)
Pulse Limiter	SCHWARZBE CK	VTSD 9561-F N	9561-F N00373	9kHz~200MHz	Oct. 29, 2021	Dec. 01, 2021	Oct. 28, 2022	Conduction (CO07-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	N/A	Dec. 01, 2021	N/A	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 51	45051	N/A	Feb. 01, 2021	Dec. 01, 2021	Jan. 31, 2022	Conduction (CO07-HY)
EMI Test Receiver	Rohde & Schwarz	ESC17	100724	9kHz~7GHz	Feb. 18, 2021	Dec. 01, 2021	Feb. 17, 2022	Conduction (CO07-HY)
Hygrometer	TECPEL	DTM-303B	TP200728	N/A	Mar. 09, 2021	Dec. 01, 2021	Mar. 08, 2022	Conduction (CO07-HY)
5kVAAC Power Source	TESEQ	NSG 1007	1521A01677	N/A	Jun. 08, 2021	Nov. 25, 2021	Jun. 07, 2022	Conducted (TH05-HY)
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 01, 2021	Nov. 25, 2021	Feb. 28, 2022	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101329	9kHz~30GHz	Sep. 30, 2021	Nov. 25, 2021	Sep. 29, 2022	Conducted (TH05-HY)

5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.3 dB
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Uncertainty of Radiated Emission Measurement (9 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	3.7 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	5.8 dB
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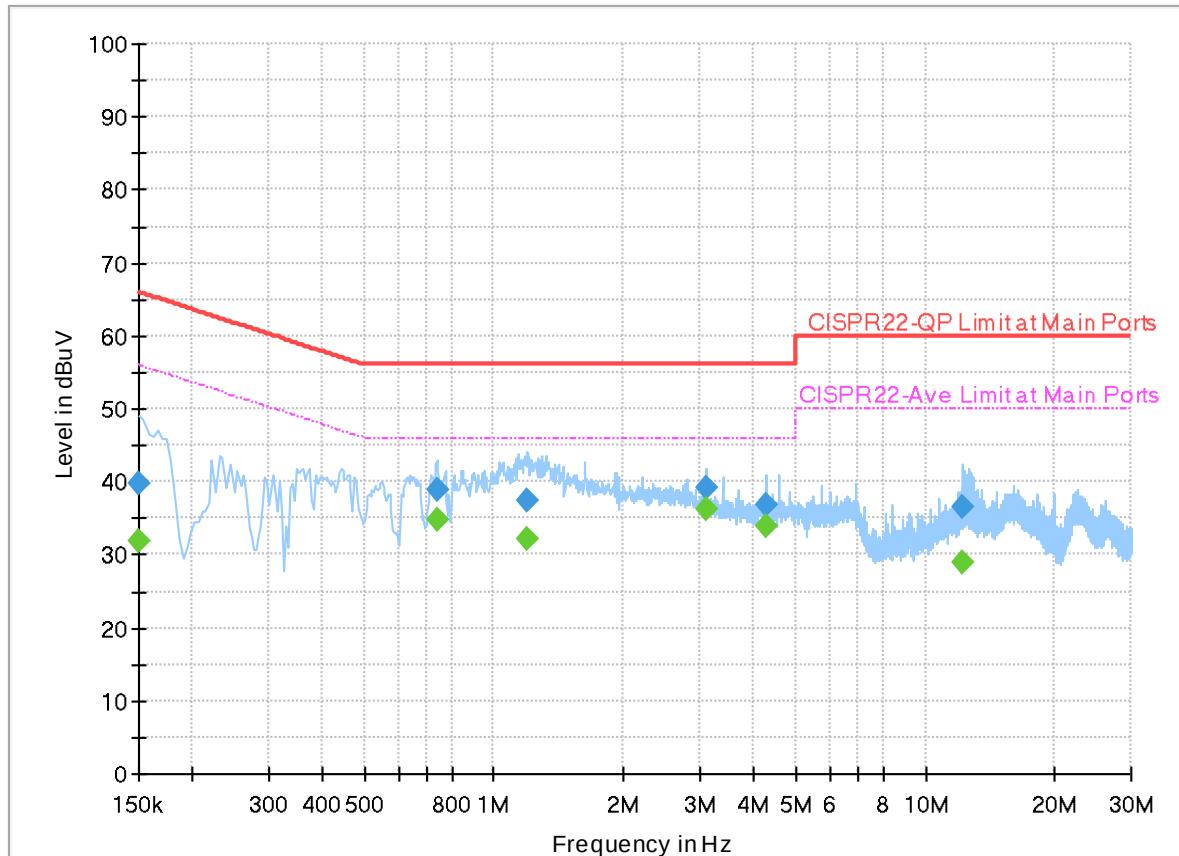


Appendix A. Test Results of Conducted Emission Test

EUT Information

Report NO : 1O1903-02
 Test Mode : Mode 1
 Test Voltage : 110Vac/60Hz
 Phase : Line

Full Spectrum



Final Result

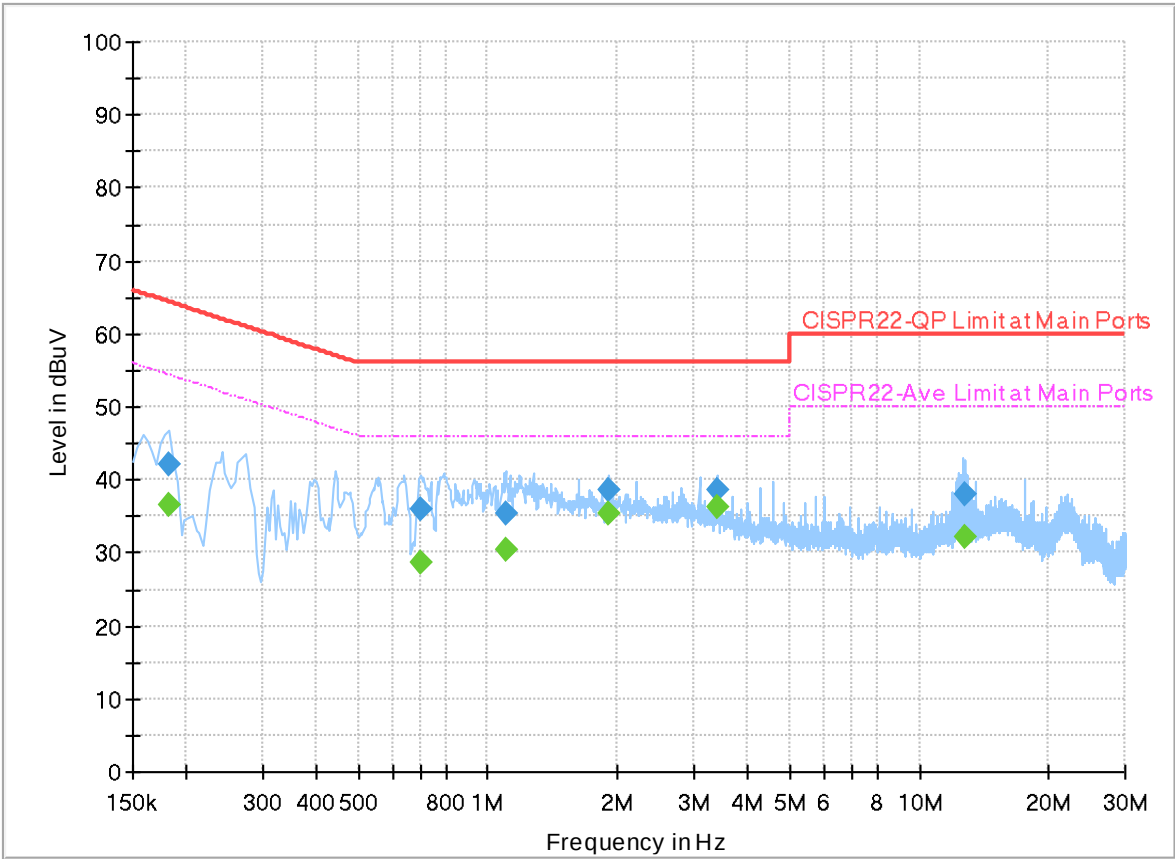
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	31.87	56.00	24.13	L1	OFF	20.1
0.150000	39.66	---	66.00	26.34	L1	OFF	20.1
0.738000	---	34.72	46.00	11.28	L1	OFF	20.0
0.738000	39.01	---	56.00	16.99	L1	OFF	20.0
1.198000	---	32.09	46.00	13.91	L1	OFF	20.1
1.198000	37.56	---	56.00	18.44	L1	OFF	20.1
3.094000	---	36.25	46.00	9.75	L1	OFF	20.1
3.094000	39.16	---	56.00	16.84	L1	OFF	20.1
4.274000	---	33.93	46.00	12.07	L1	OFF	20.1
4.274000	36.97	---	56.00	19.03	L1	OFF	20.1
12.258000	---	28.99	50.00	21.01	L1	OFF	20.3
12.258000	36.47	---	60.00	23.53	L1	OFF	20.3

EUT Information

Report NO :
Test Mode :
Test Voltage :
Phase :

1O1903-02
Mode 1
110Vac/60Hz
Neutral

Full Spectrum

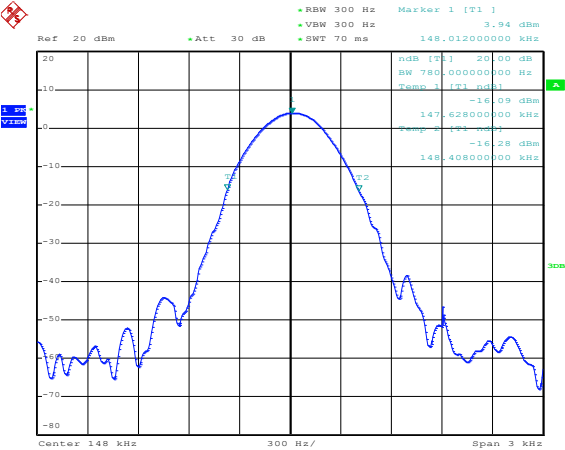
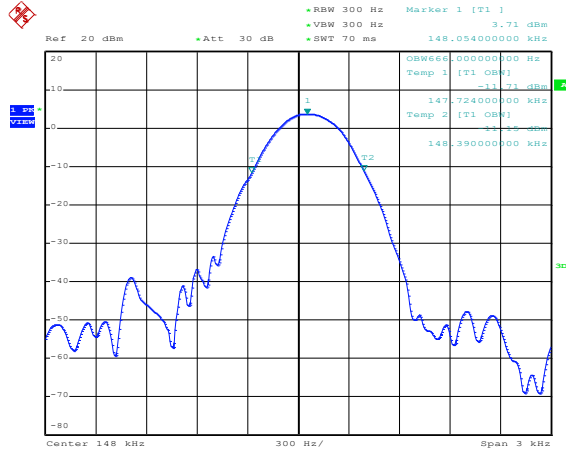


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.182000	---	36.56	54.39	17.83	N	OFF	20.1
0.182000	42.16	---	64.39	22.23	N	OFF	20.1
0.702000	---	28.63	46.00	17.37	N	OFF	20.0
0.702000	36.06	---	56.00	19.94	N	OFF	20.0
1.098000	---	30.35	46.00	15.65	N	OFF	20.1
1.098000	35.48	---	56.00	20.52	N	OFF	20.1
1.914000	---	35.44	46.00	10.56	N	OFF	20.1
1.914000	38.58	---	56.00	17.42	N	OFF	20.1
3.386000	---	36.17	46.00	9.83	N	OFF	20.1
3.386000	38.46	---	56.00	17.54	N	OFF	20.1
12.762000	---	32.13	50.00	17.87	N	OFF	20.2
12.762000	37.99	---	60.00	22.01	N	OFF	20.2



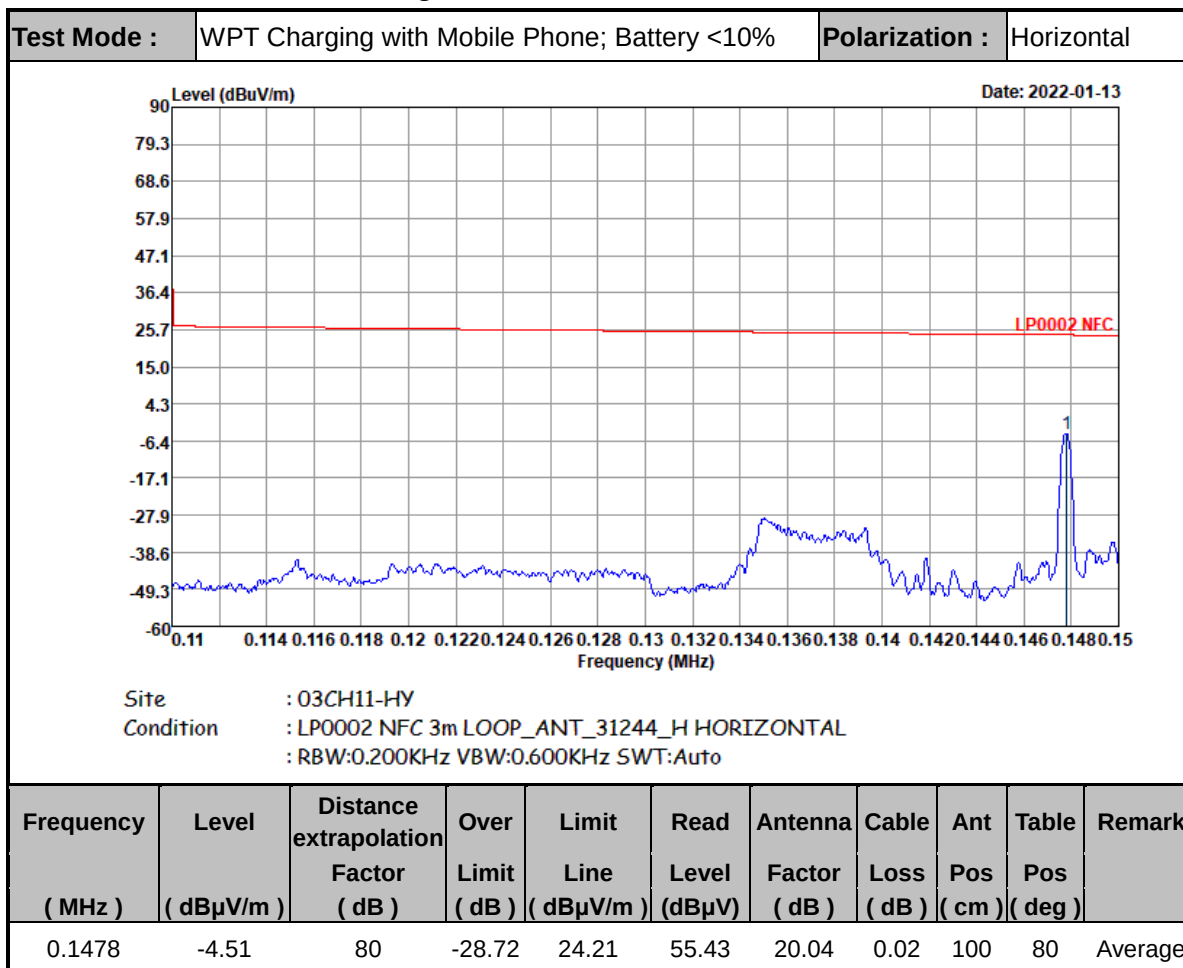
Appendix B. Test Results of RF Near Field Test Items

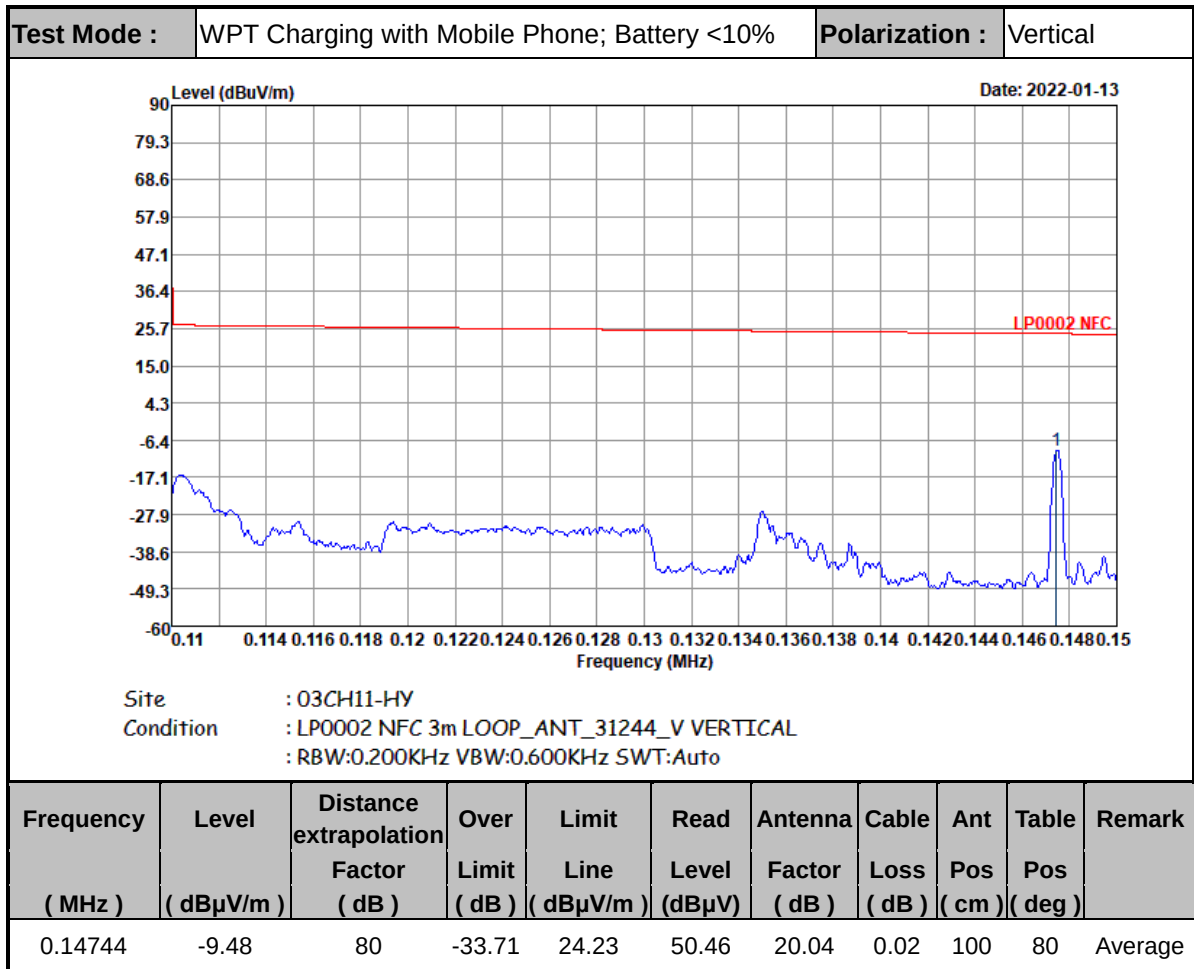
Test mode		WPT Tx	
 Ref 20 dBm Att 30 dB RBW 300 Hz Marker 1 [T1] 3.94 dBm VSW 300 Hz 148.01200000 kHz SWT 70 ms Center 148 kHz 300 Hz/ Span 3 kHz Date: 25.NOV.2021 20:22:32		 Ref 20 dBm Att 30 dB RBW 300 Hz Marker 1 [T1] 3.71 dBm VSW 300 Hz 148.05400000 kHz SWT 70 ms Center 148 kHz 300 Hz/ Span 3 kHz Date: 25.NOV.2021 20:21:39	
20dB Bandwidth (kHz)		0.780	99% Occupied BW(kHz)
			0.666

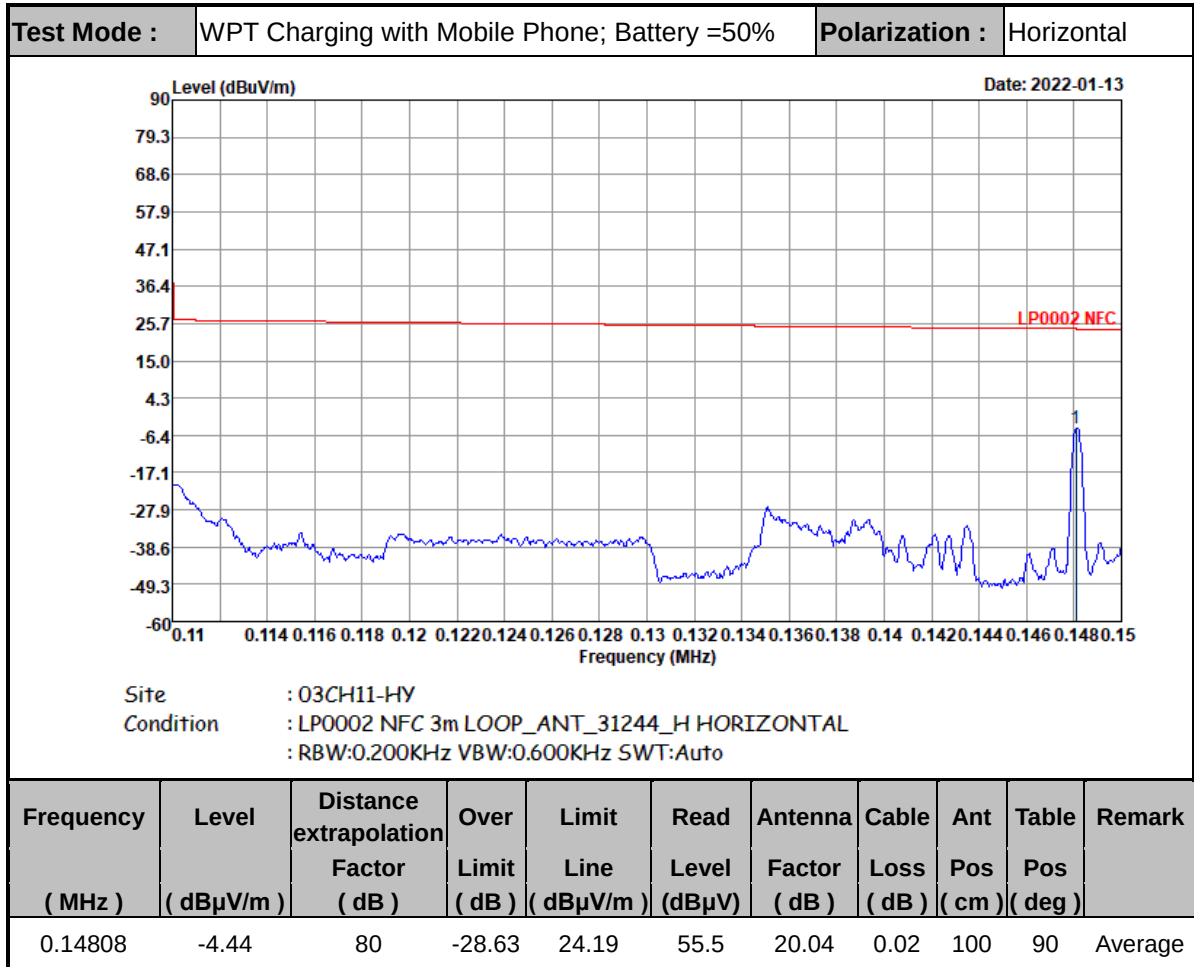
Remark: Because the measured signal is CW adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

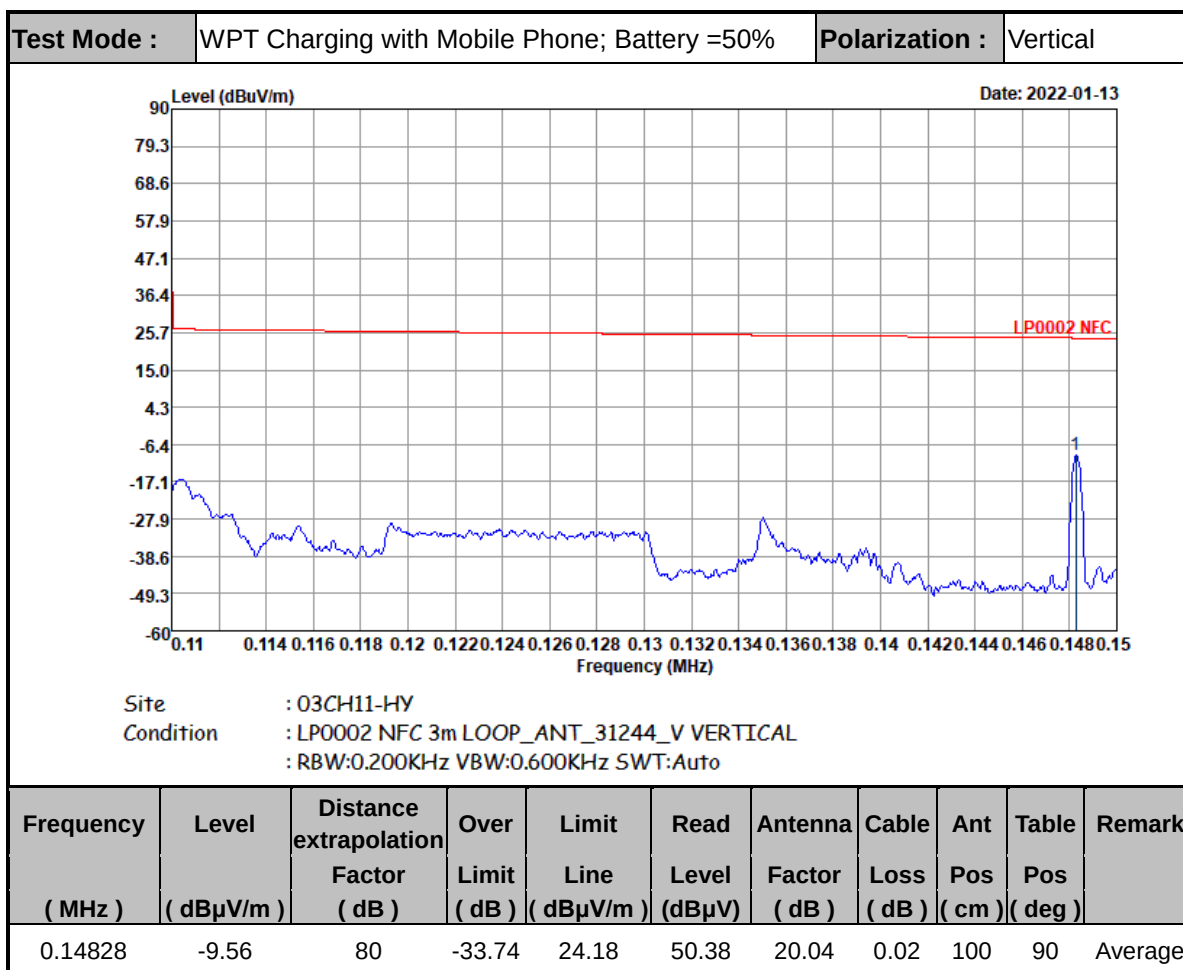
Appendix C. Test Results of Radiated Test Items

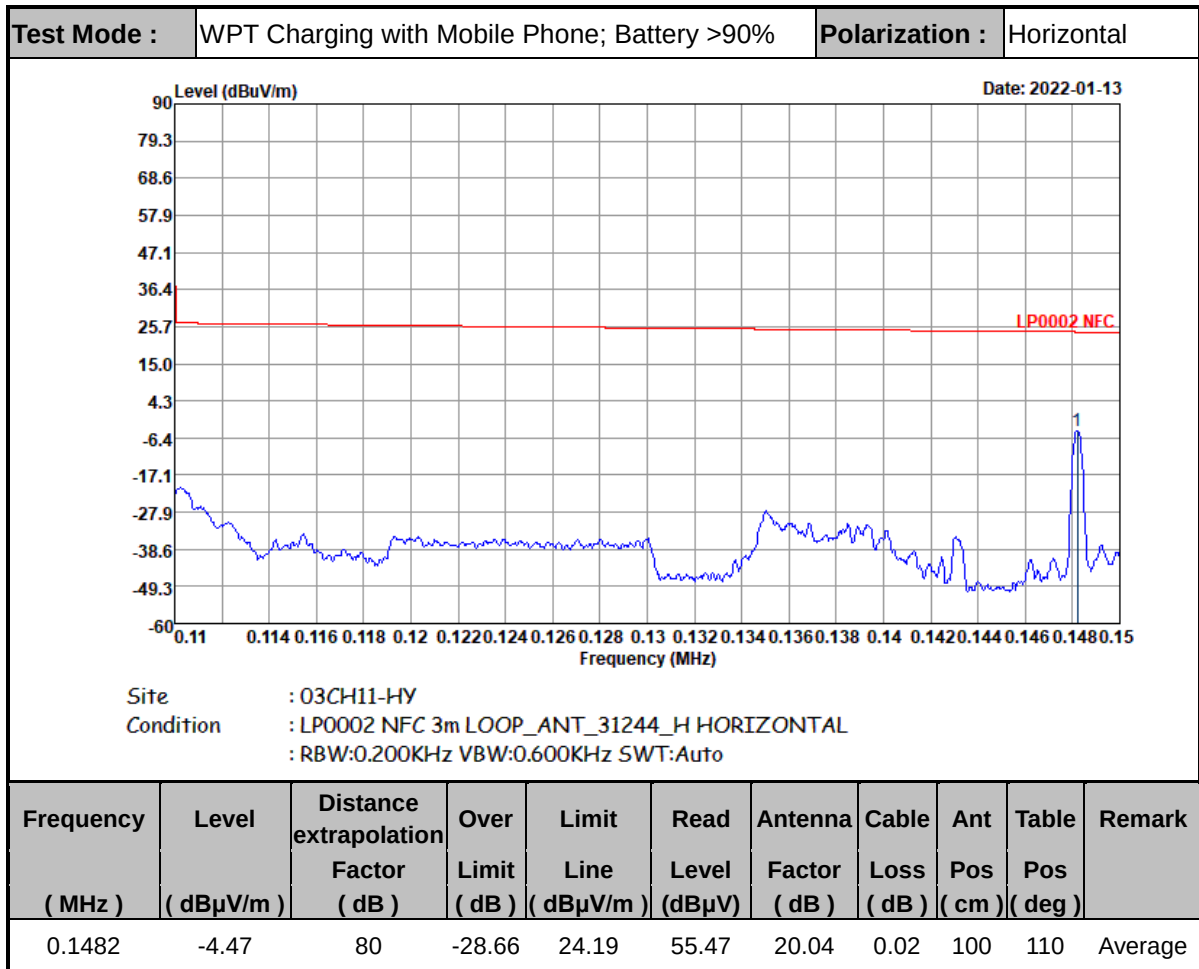
C1. Test Result of Field Strength of Fundamental Emissions

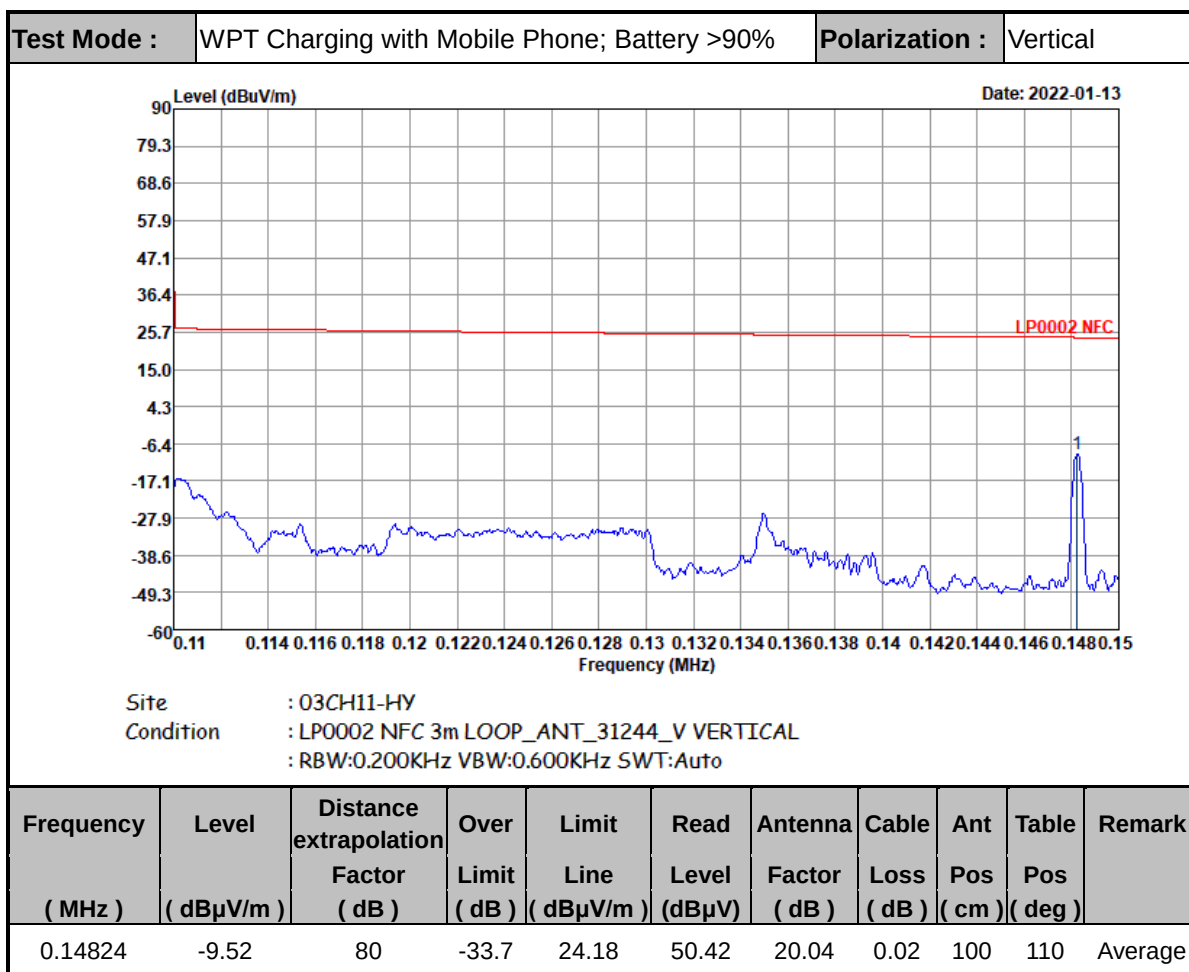




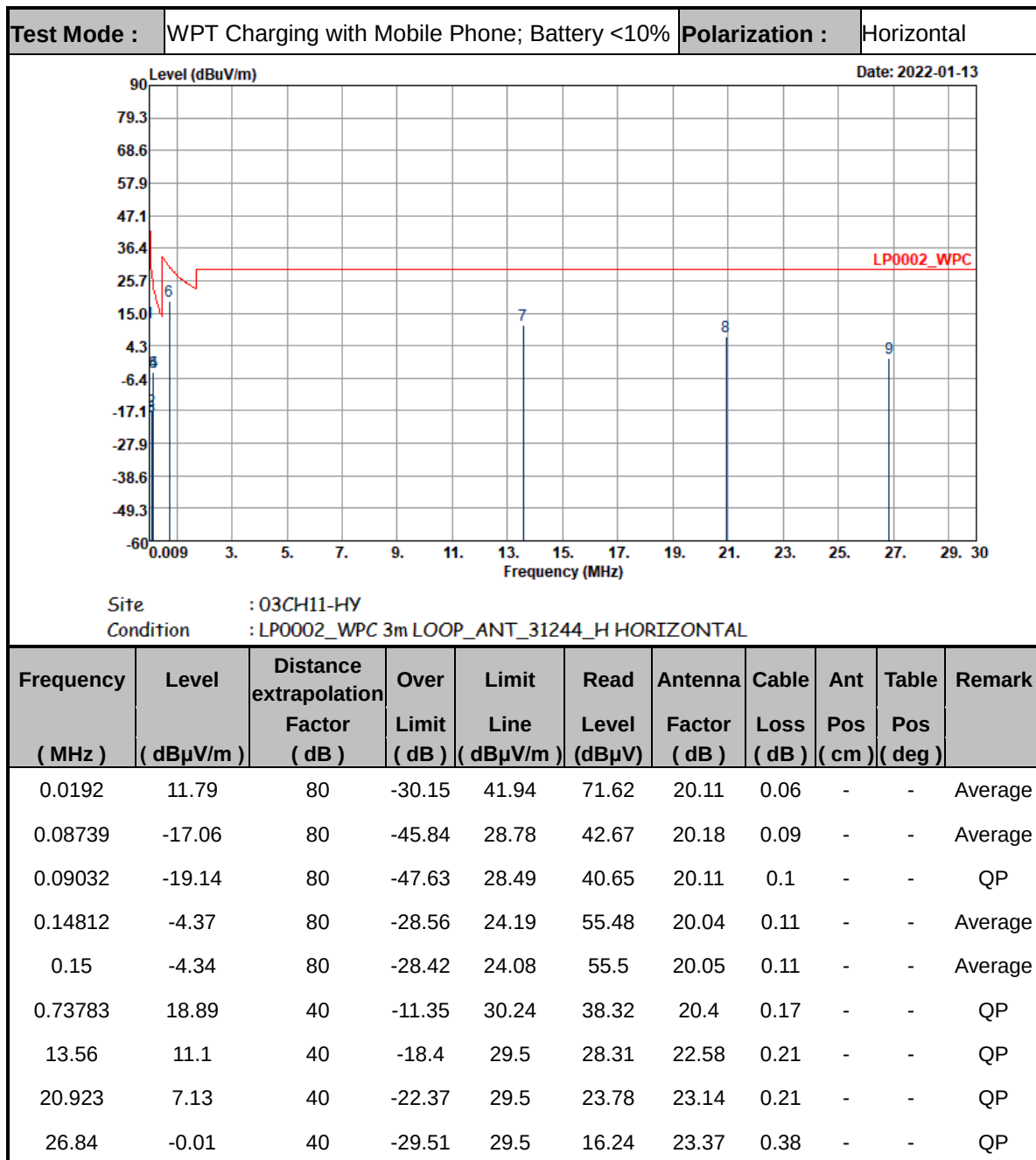


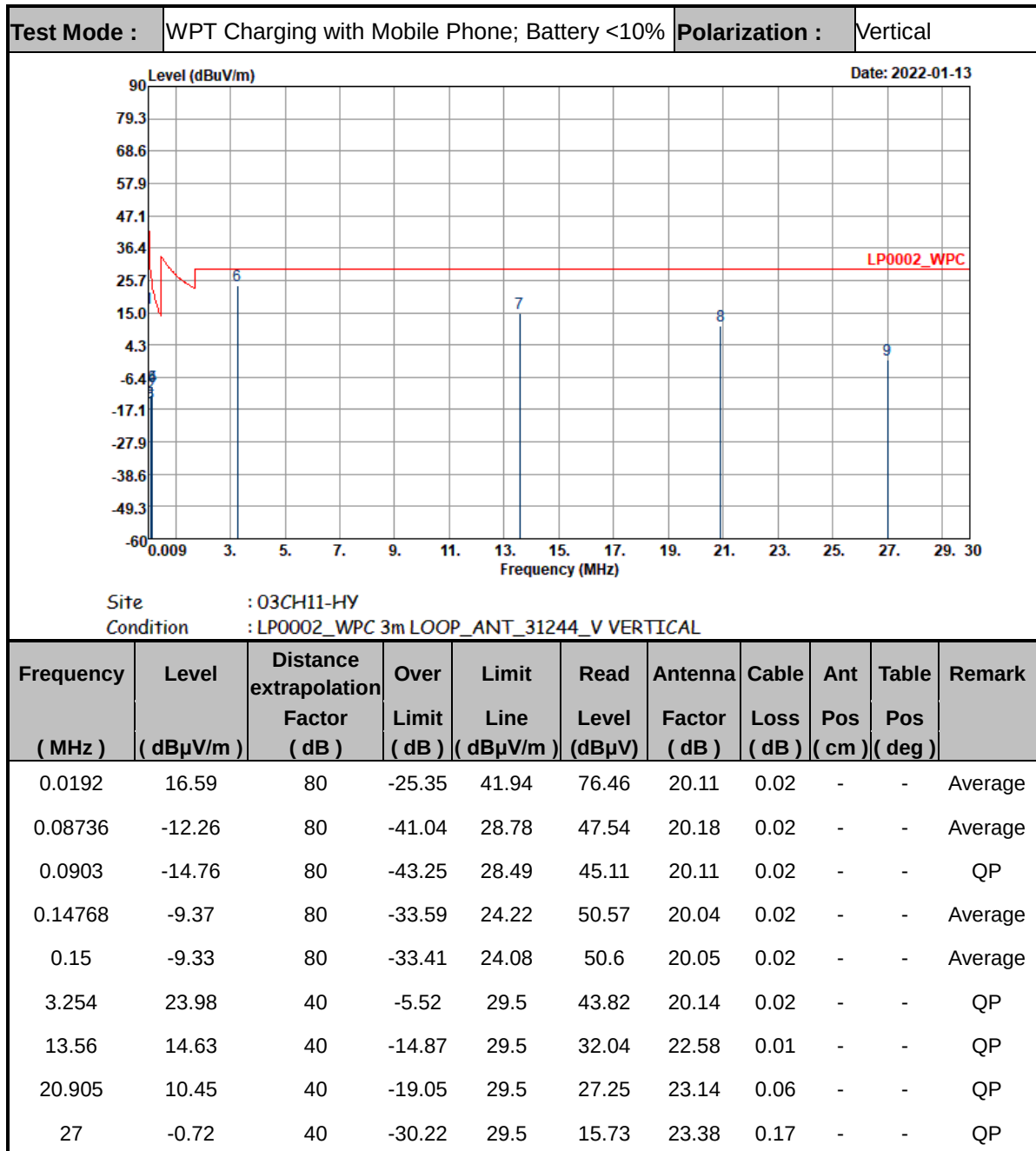


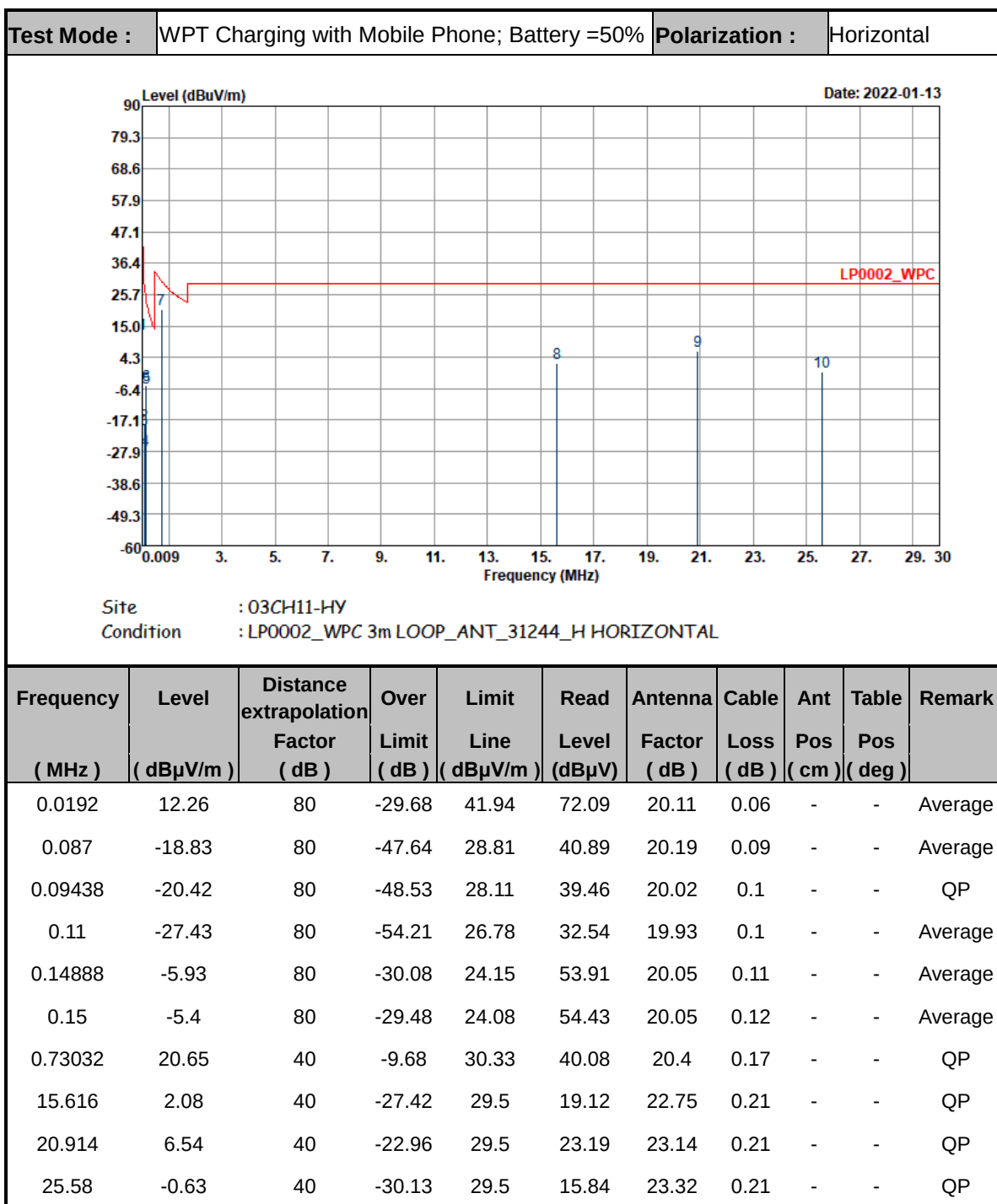


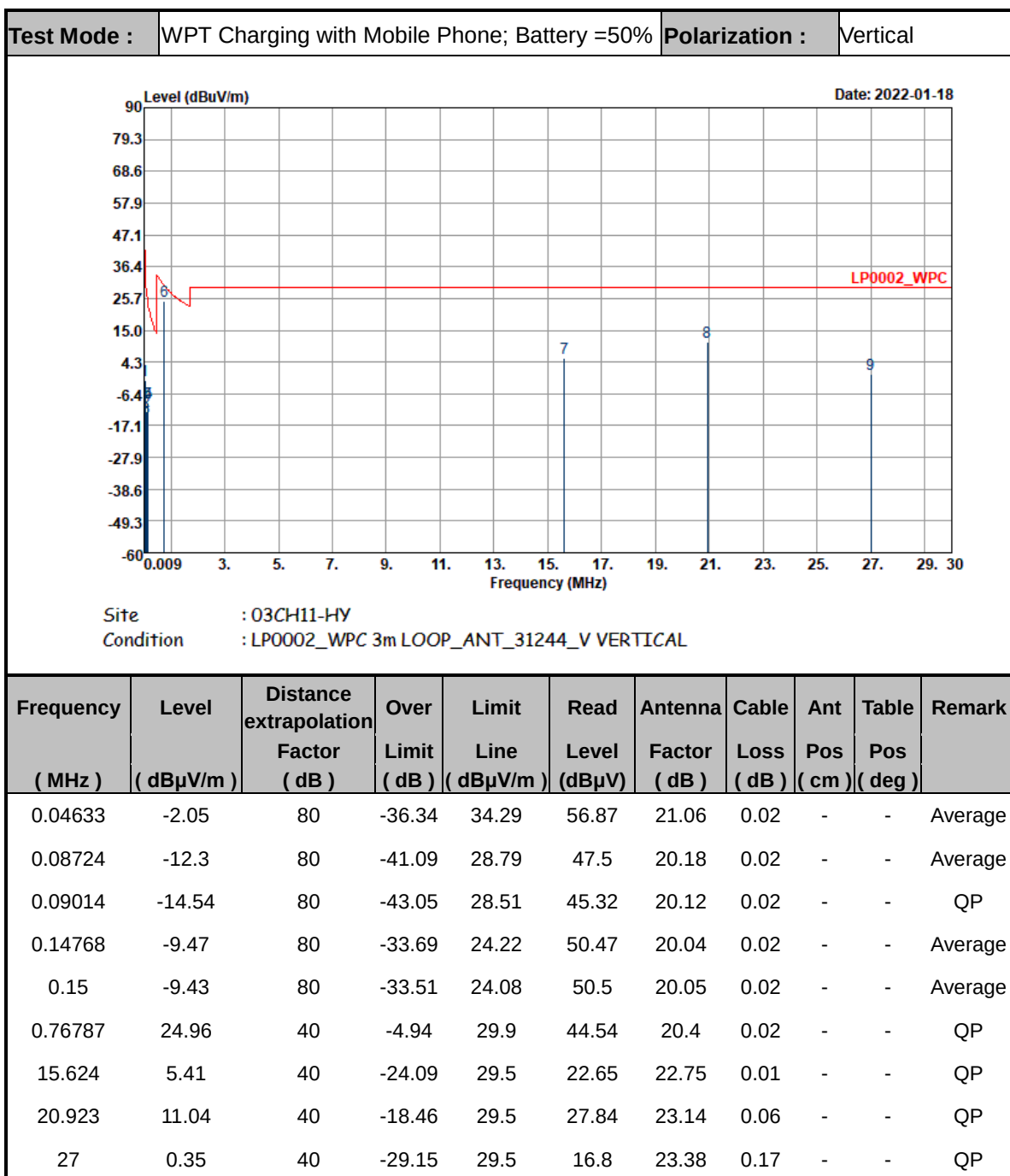

Note:

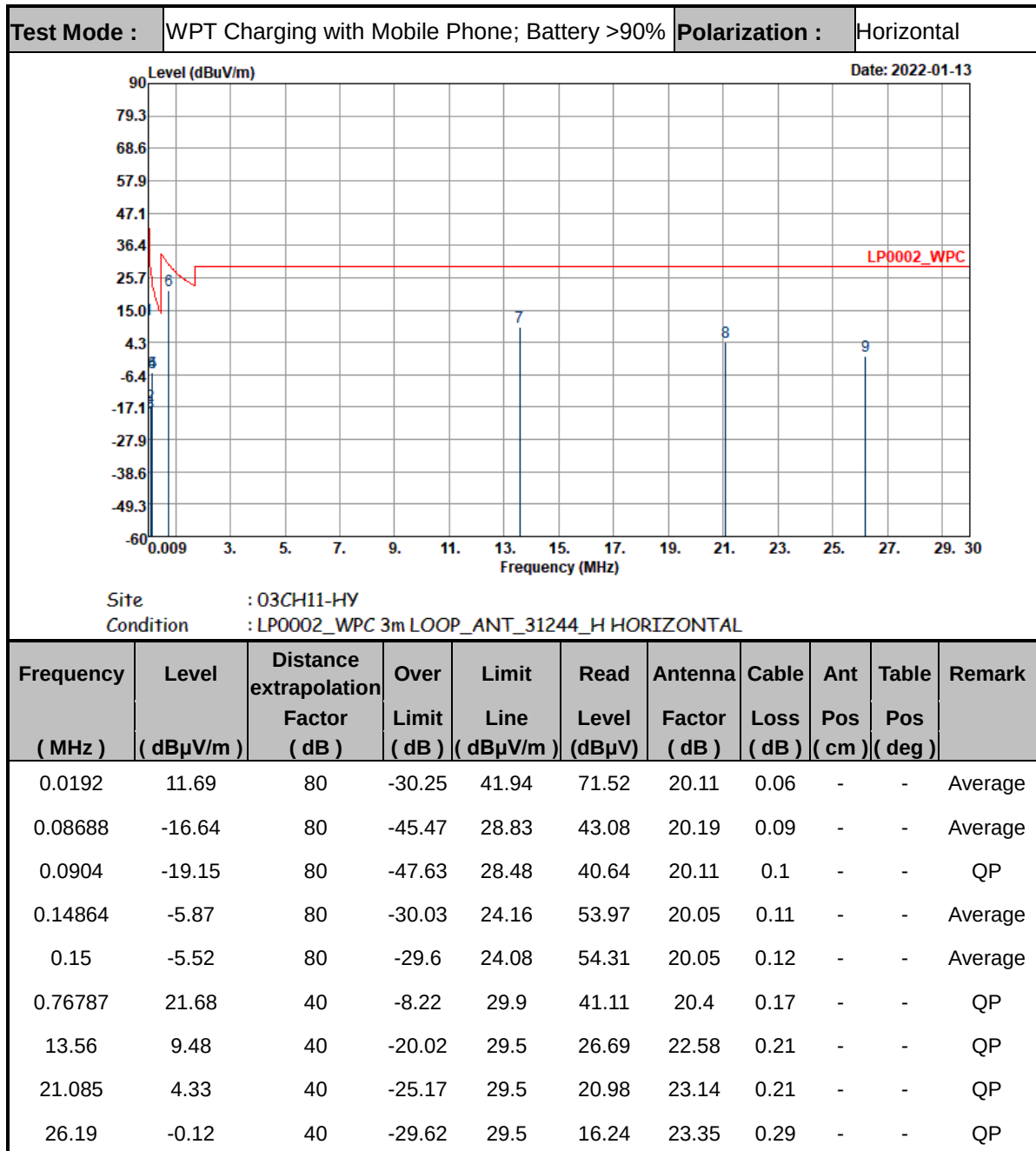
1. Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB).
2. Level= Read Level + Antenna Factor + Cable loss - distance extrapolation factor.

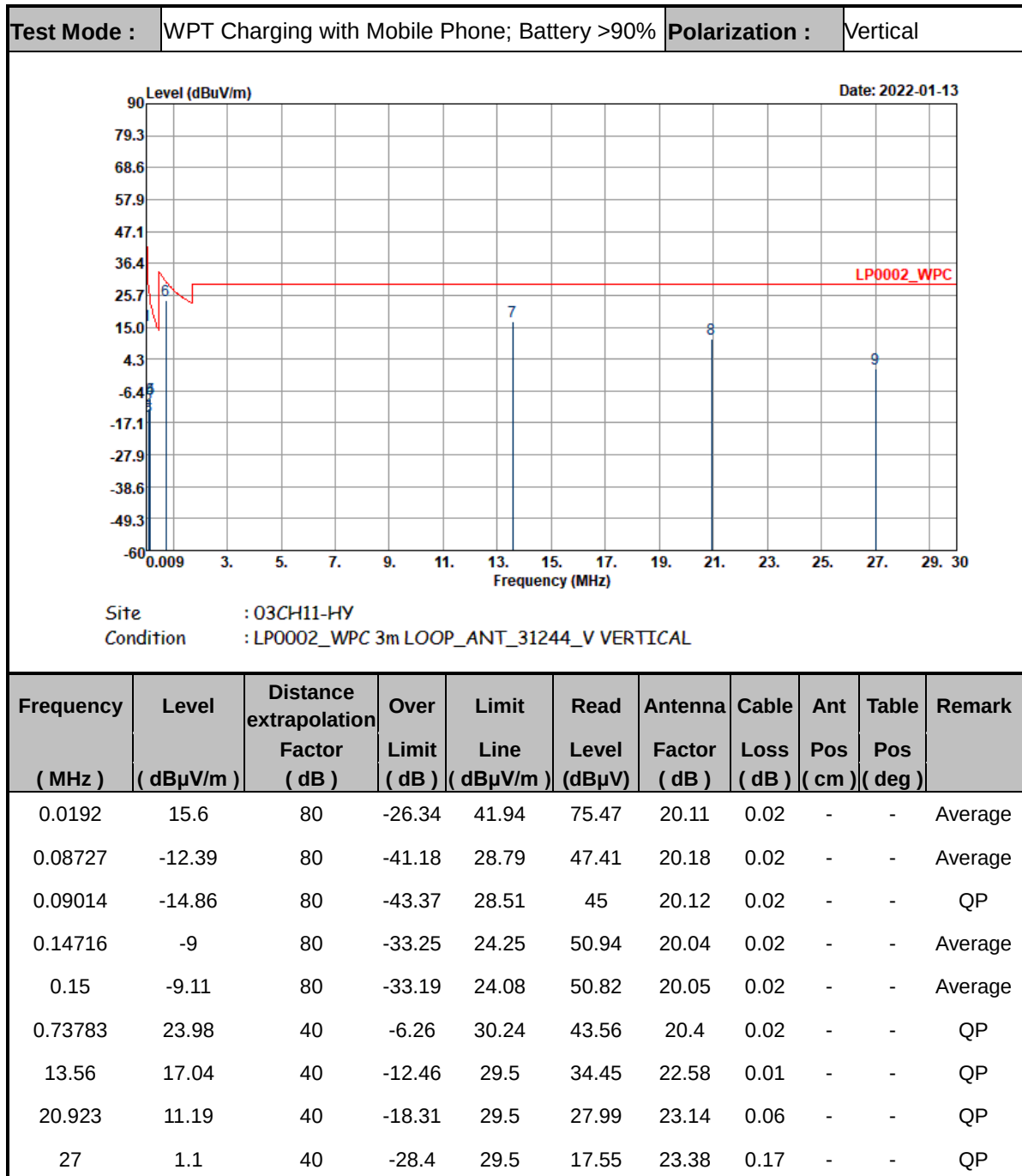
C2.Results of Radiated Spurious Emissions (9 kHz~30MHz)




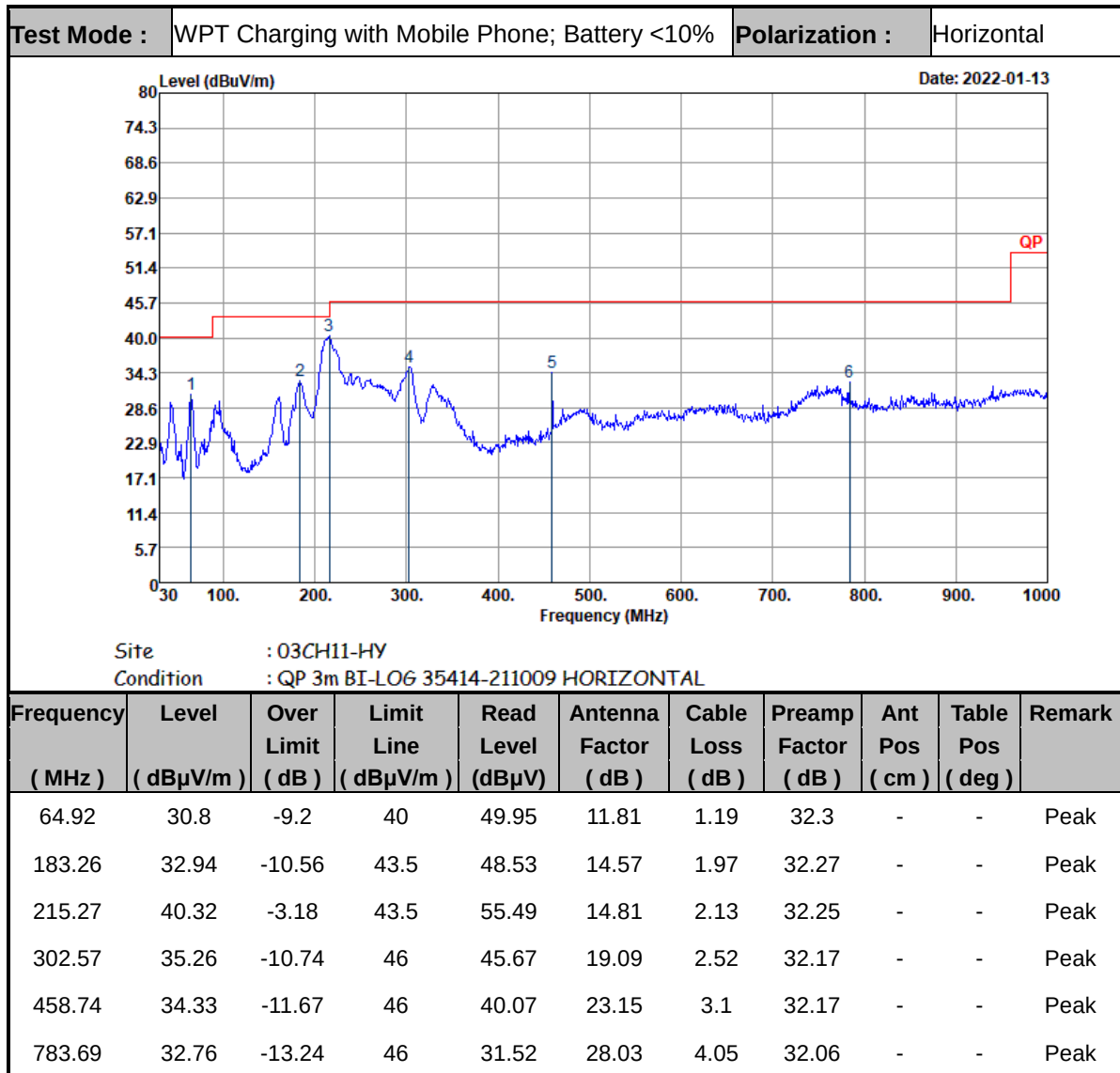


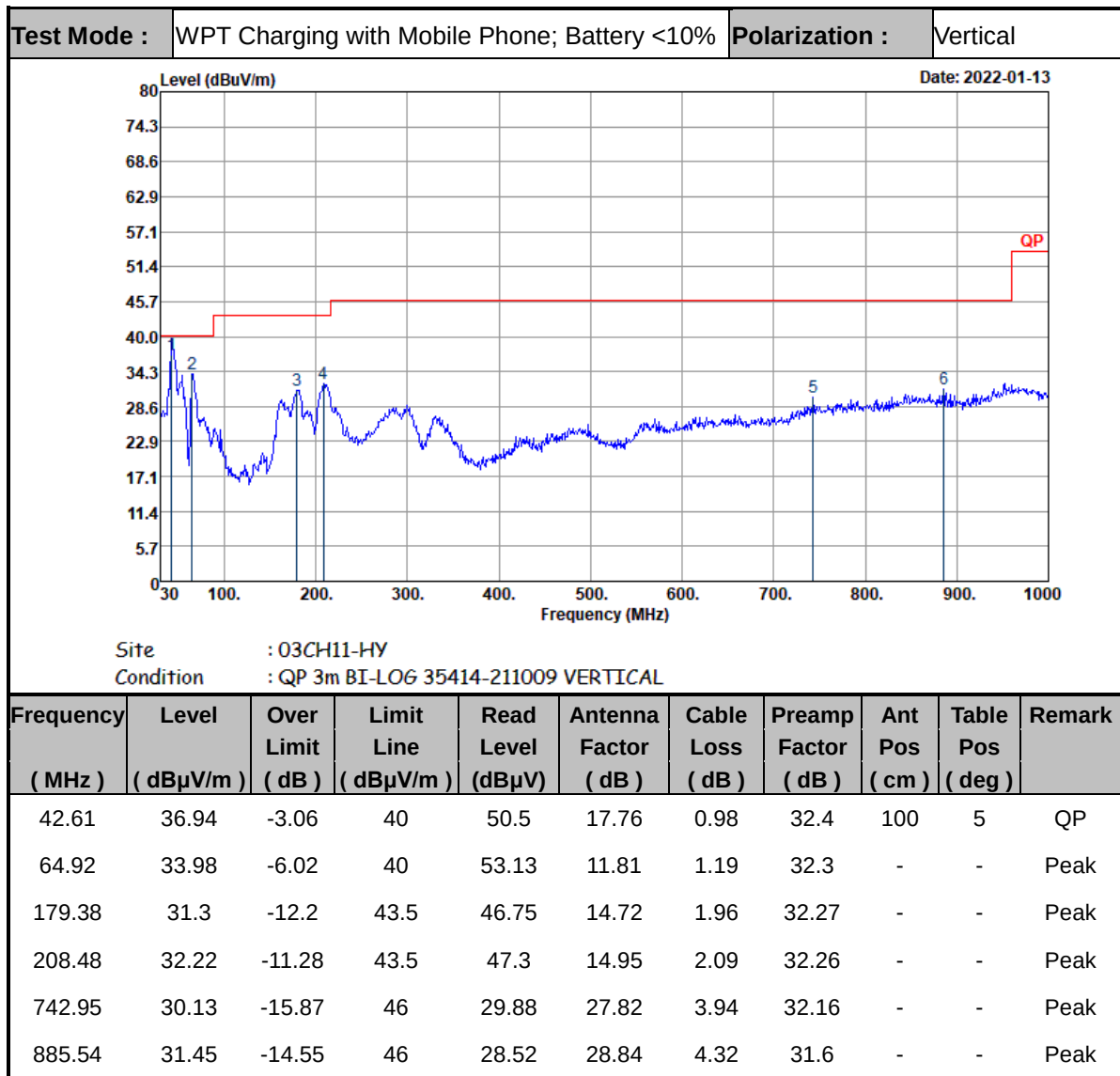


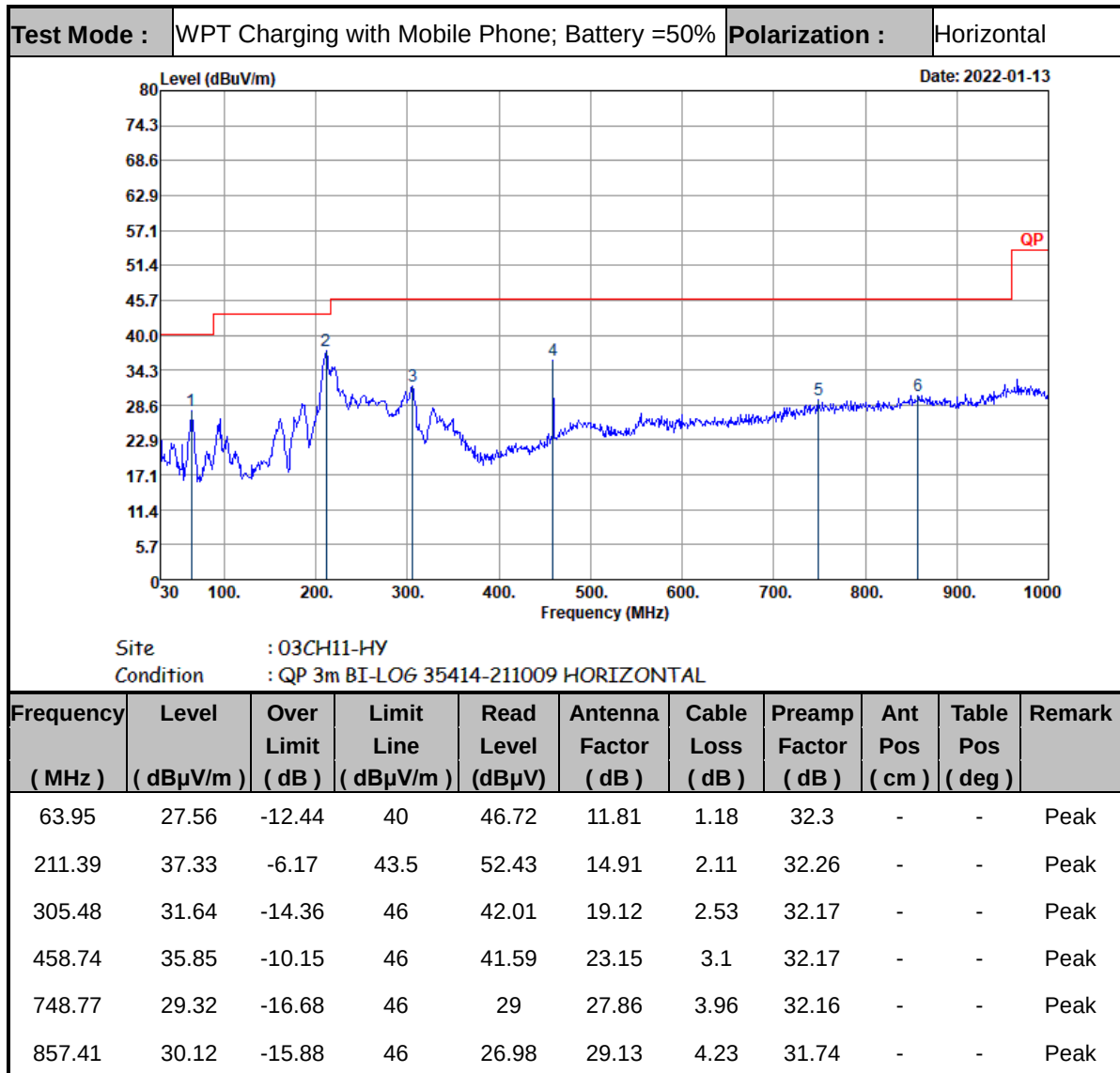


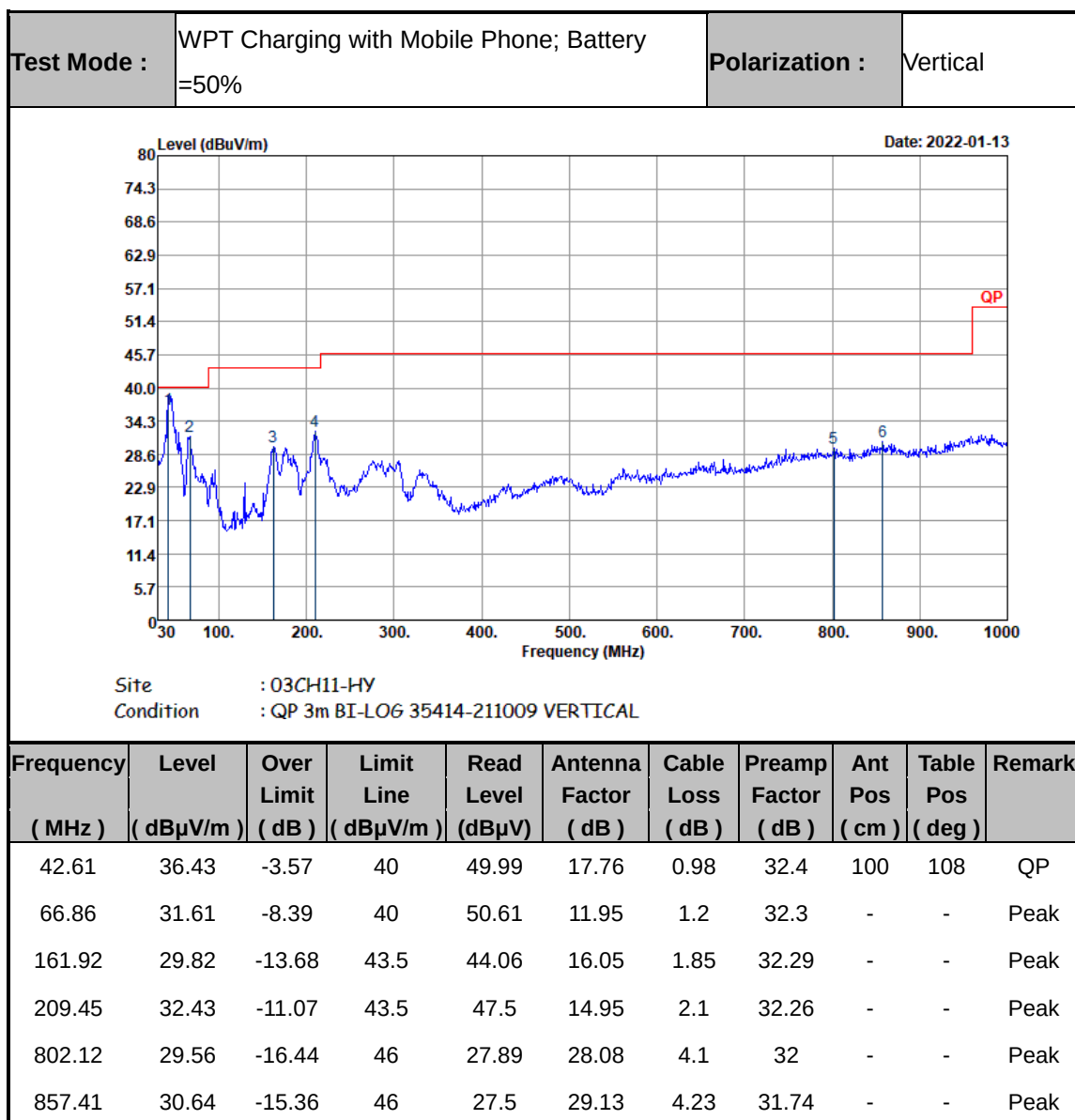

Note:

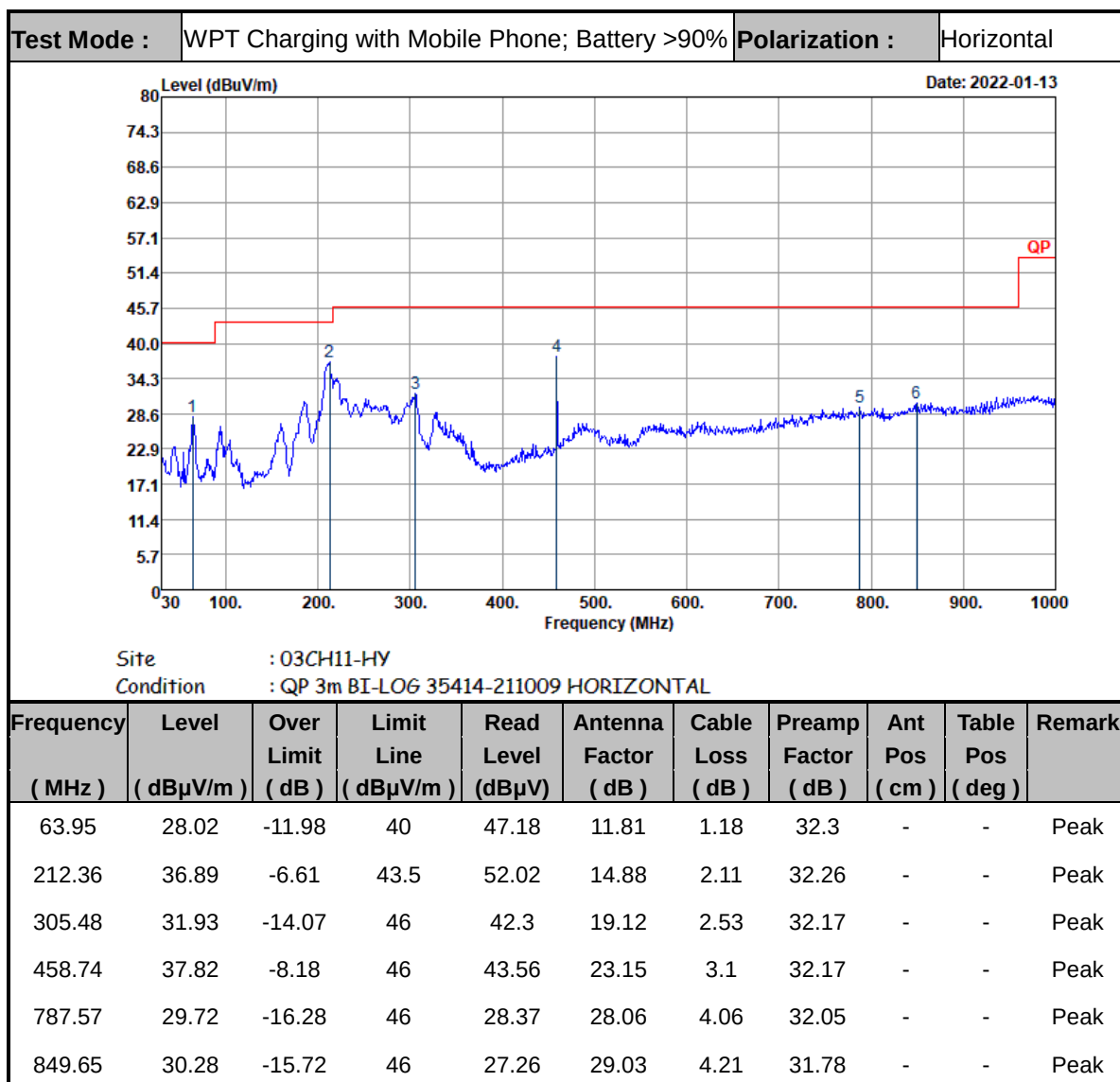
1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Distance extrapolation factor = 40 log (specific distance / test distance) (dB);
3. Level= Read Level + Antenna Factor + Cable loss - distance extrapolation factor.
4. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

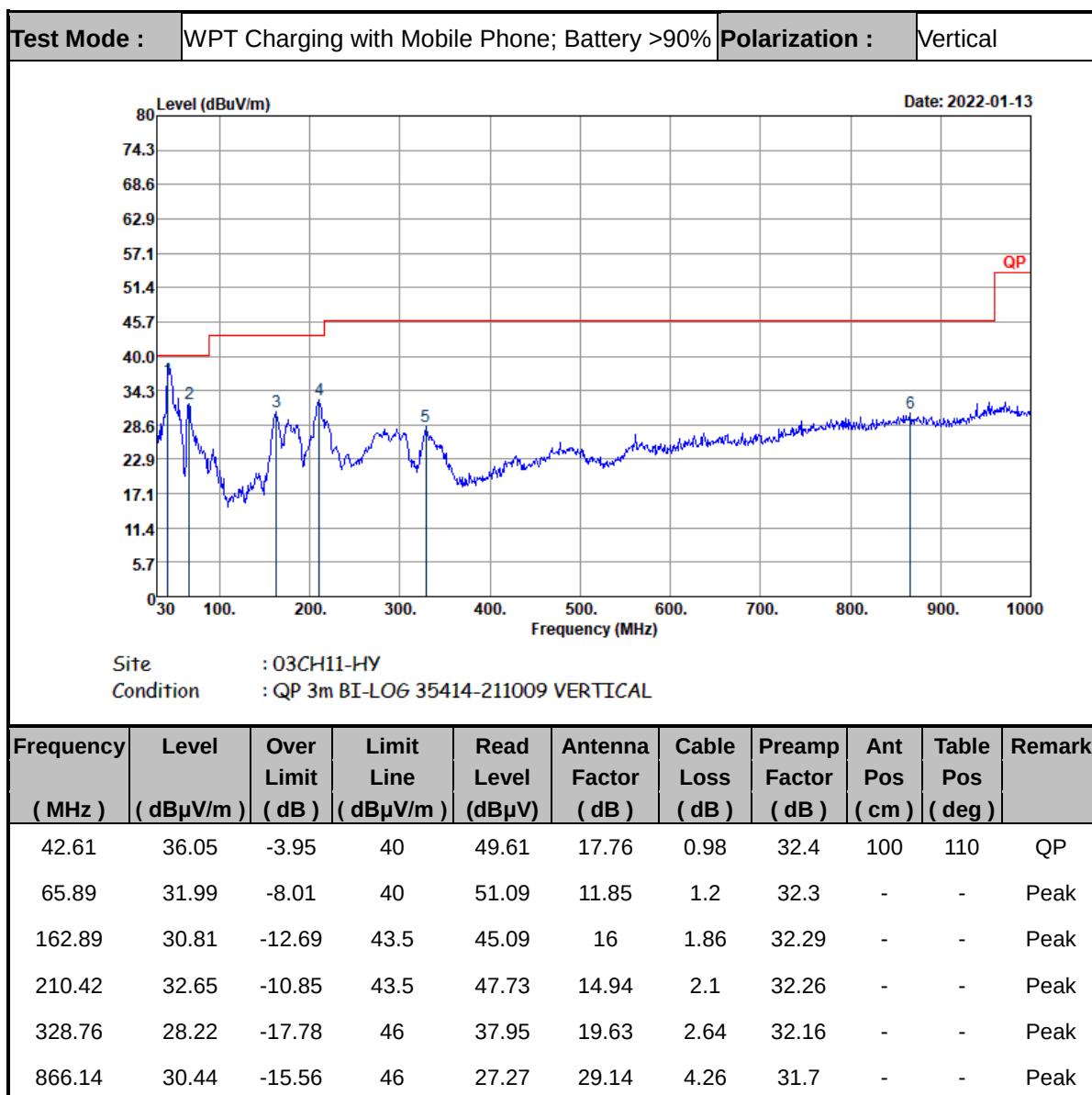
C3. Results of Radiated Spurious Emissions (30MHz~1GHz)











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.
4. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Annex. A Receiver Radiated Emission Measurement

A.1 Limit of Receiver Radiated Emission

Frequency (MHz)	Field Strength (microvolts/meter)	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

A.2 Measuring Instruments

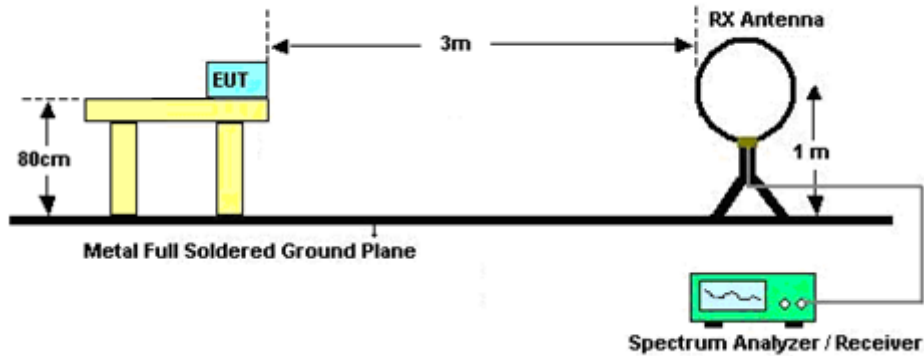
See list of measuring equipment of this test report.

A.3 Test Procedures

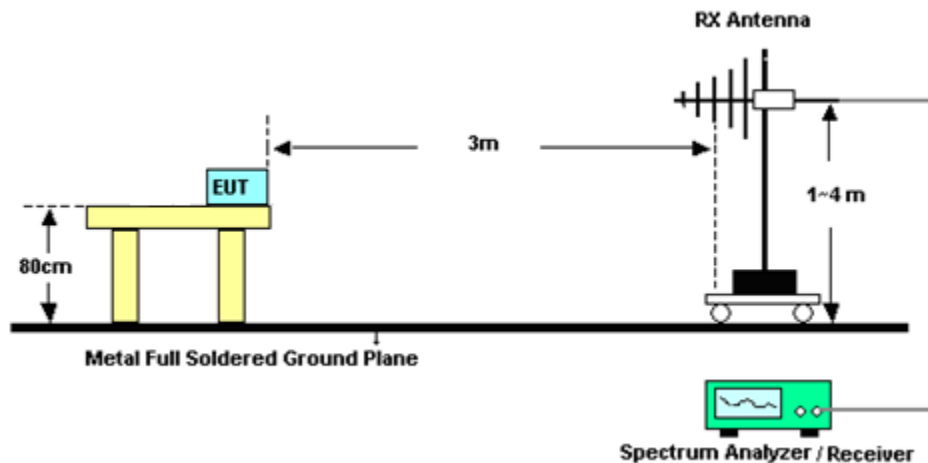
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
8. Emission level (dBμV/m) = 20 log Emission level (μV/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

A.4 Test Setup

For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz

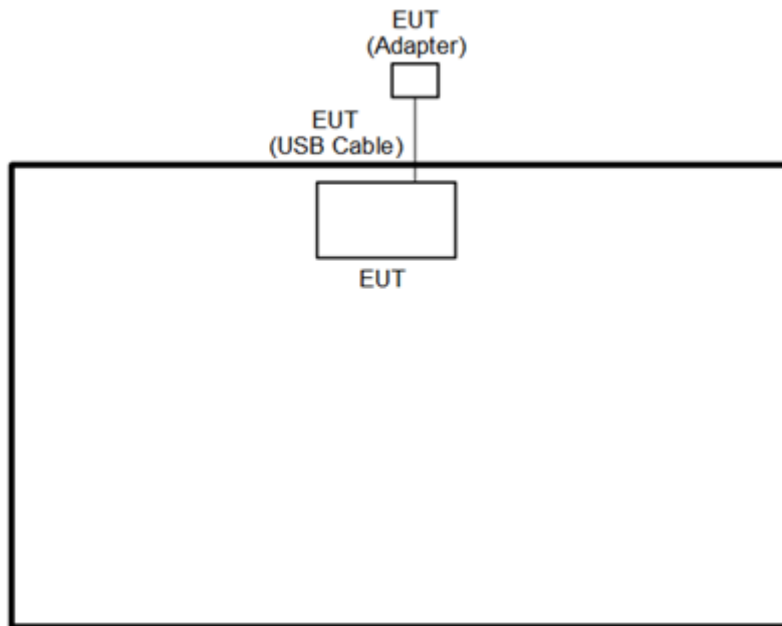


A.5 Test Result of Receiver Radiated Spurious Emissions (9kHz ~ 30MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per NCC LP0002 section 6.13 was not reported.

There is adequate comparison measurement 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.

A.6 Connection Diagram of Test System



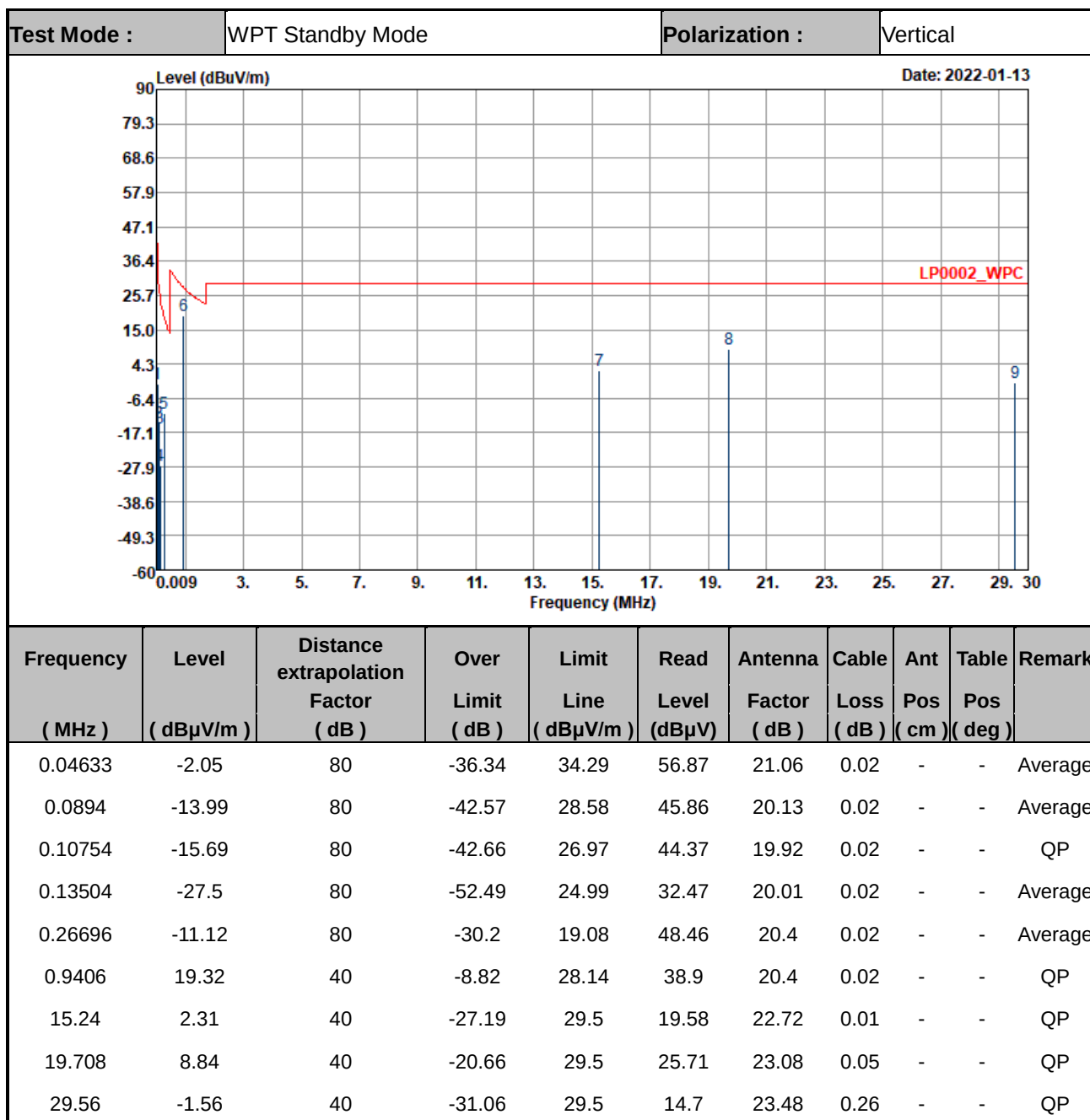


A.7 Test Result Results of Receiver Radiated Spurious Emissions

Test Engineer :	Troye Hsieh	Temperature :	20.1~21.4°C
		Relative Humidity :	57.1~67.2%
Frequency :	40.670 MHz	Margin :	Under 11.57 dB

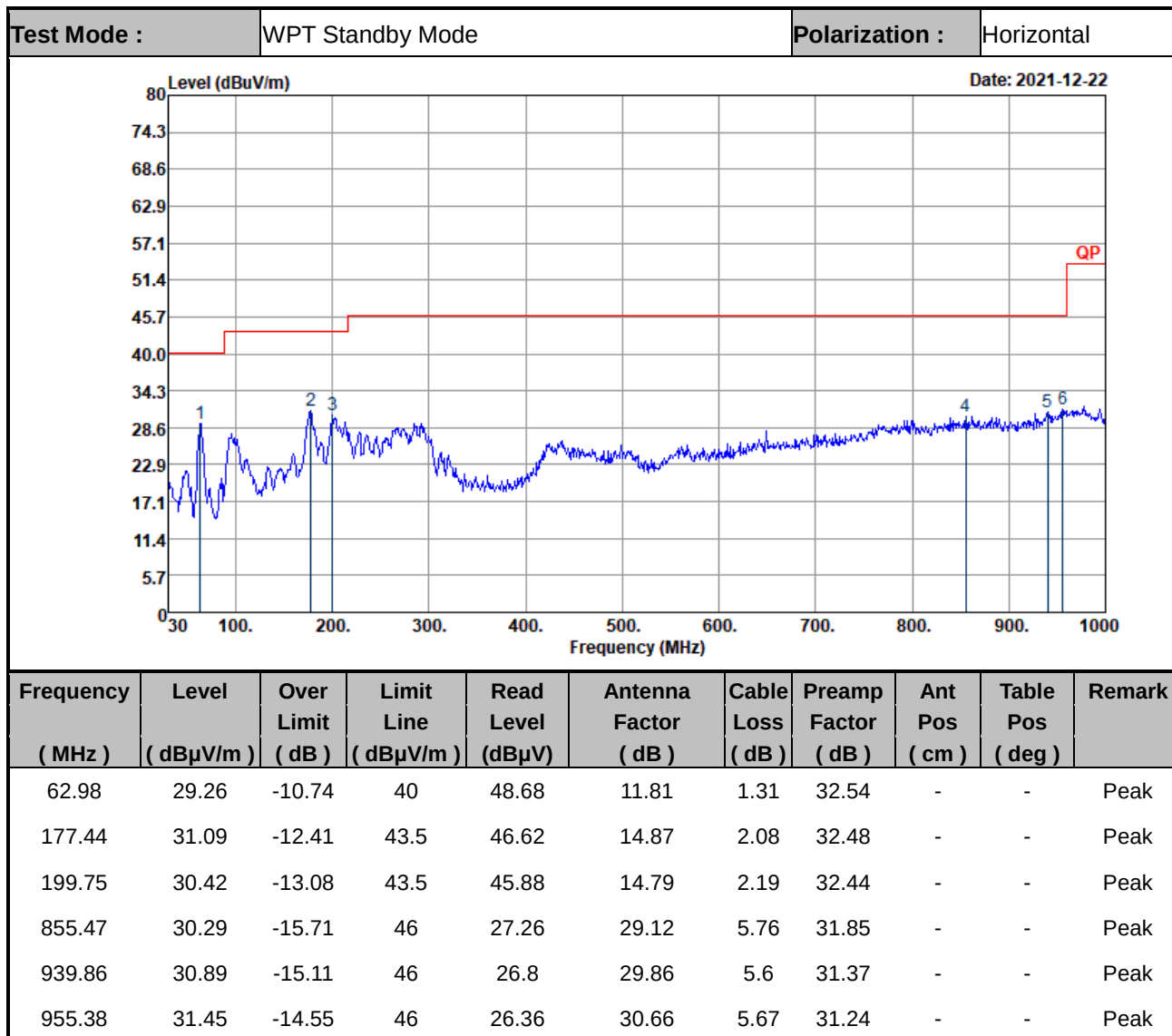
<For 9 kHz ~ 30 MHz>

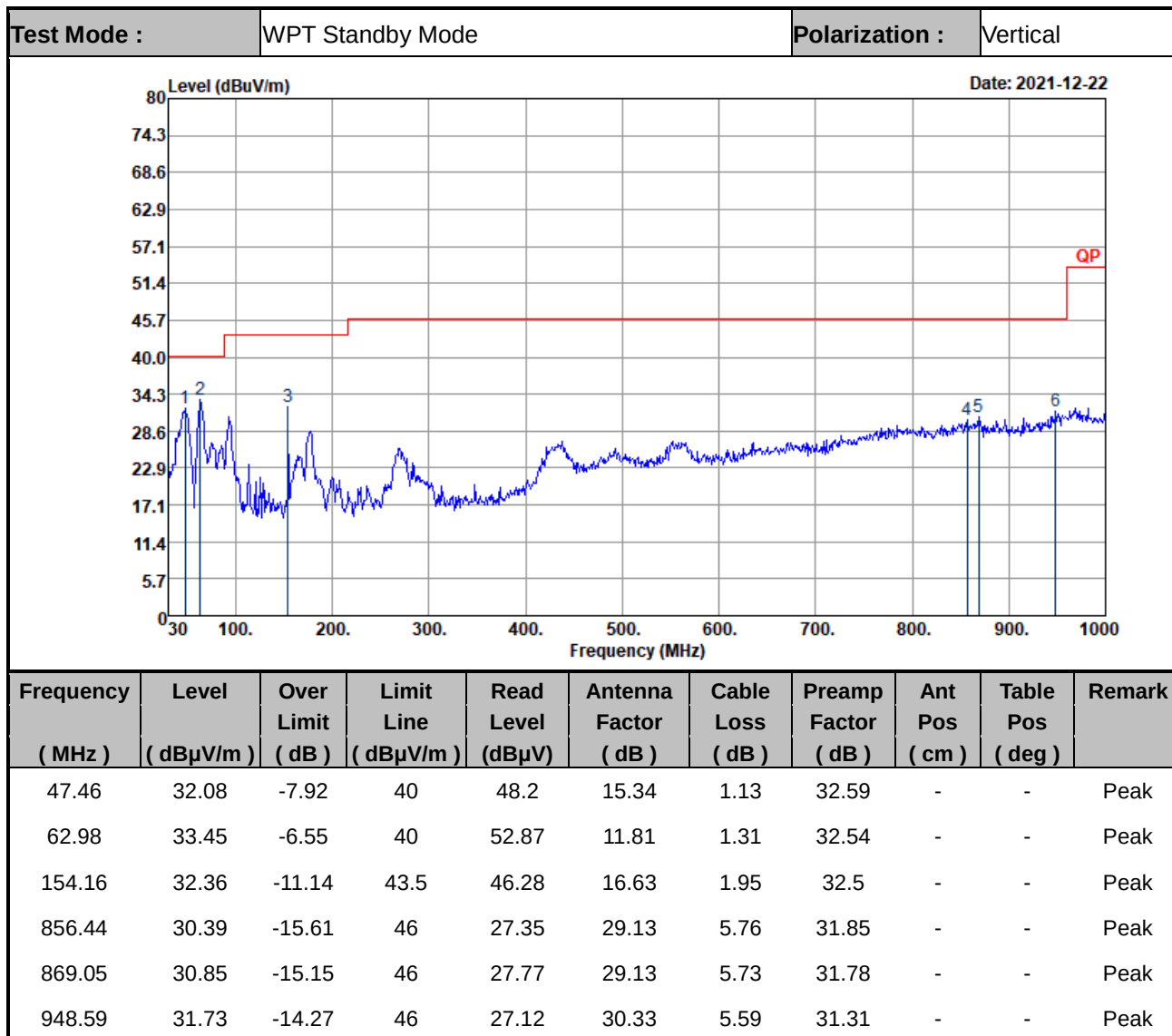
Test Mode :		WPT Standby Mode				Polarization :		Horizontal																																																																																																																											
Level (dBuV/m) Date: 2022-01-13 Frequency (MHz) <table><tr><th>Frequency</th><th>Level</th><th>Distance extrapolation</th><th>Over</th><th>Limit</th><th>Read</th><th>Antenna</th><th>Cable</th><th>Ant</th><th>Table</th><th>Remark</th></tr><tr><th>(MHz)</th><th>(dBuV/m)</th><th>Factor (dB)</th><th>Limit (dB)</th><th>Line (dBuV/m)</th><th>Level (dBuV)</th><th>Factor (dB)</th><th>Loss (dB)</th><th>Pos (cm)</th><th>Pos (deg)</th><th></th></tr><tr><td>0.03833</td><td>-5.73</td><td>80</td><td>-41.66</td><td>35.93</td><td>53.02</td><td>21.18</td><td>0.07</td><td>-</td><td>-</td><td>Average</td></tr><tr><td>0.06255</td><td>-20.72</td><td>80</td><td>-52.4</td><td>31.68</td><td>38.48</td><td>20.72</td><td>0.08</td><td>-</td><td>-</td><td>Average</td></tr><tr><td>0.10742</td><td>-21.4</td><td>80</td><td>-48.38</td><td>26.98</td><td>38.58</td><td>19.92</td><td>0.1</td><td>-</td><td>-</td><td>QP</td></tr><tr><td>0.1194</td><td>-34.38</td><td>80</td><td>-60.44</td><td>26.06</td><td>25.55</td><td>19.96</td><td>0.11</td><td>-</td><td>-</td><td>Average</td></tr><tr><td>0.22004</td><td>-14.76</td><td>80</td><td>-35.51</td><td>20.75</td><td>44.85</td><td>20.26</td><td>0.13</td><td>-</td><td>-</td><td>Average</td></tr><tr><td>0.90305</td><td>17.09</td><td>40</td><td>-11.4</td><td>28.49</td><td>36.52</td><td>20.4</td><td>0.17</td><td>-</td><td>-</td><td>QP</td></tr><tr><td>12.592</td><td>-0.43</td><td>40</td><td>-29.93</td><td>29.5</td><td>16.85</td><td>22.51</td><td>0.21</td><td>-</td><td>-</td><td>QP</td></tr><tr><td>22.453</td><td>1.06</td><td>40</td><td>-28.44</td><td>29.5</td><td>17.67</td><td>23.2</td><td>0.19</td><td>-</td><td>-</td><td>QP</td></tr><tr><td>28.005</td><td>-1.68</td><td>40</td><td>-31.18</td><td>29.5</td><td>14.38</td><td>23.42</td><td>0.52</td><td>-</td><td>-</td><td>QP</td></tr></table>											Frequency	Level	Distance extrapolation	Over	Limit	Read	Antenna	Cable	Ant	Table	Remark	(MHz)	(dBuV/m)	Factor (dB)	Limit (dB)	Line (dBuV/m)	Level (dBuV)	Factor (dB)	Loss (dB)	Pos (cm)	Pos (deg)		0.03833	-5.73	80	-41.66	35.93	53.02	21.18	0.07	-	-	Average	0.06255	-20.72	80	-52.4	31.68	38.48	20.72	0.08	-	-	Average	0.10742	-21.4	80	-48.38	26.98	38.58	19.92	0.1	-	-	QP	0.1194	-34.38	80	-60.44	26.06	25.55	19.96	0.11	-	-	Average	0.22004	-14.76	80	-35.51	20.75	44.85	20.26	0.13	-	-	Average	0.90305	17.09	40	-11.4	28.49	36.52	20.4	0.17	-	-	QP	12.592	-0.43	40	-29.93	29.5	16.85	22.51	0.21	-	-	QP	22.453	1.06	40	-28.44	29.5	17.67	23.2	0.19	-	-	QP	28.005	-1.68	40	-31.18	29.5	14.38	23.42	0.52	-	-	QP
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Note:

1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
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3. Level = Antenna Factor + Cable Loss + Read Level - Distance extrapolation factor.

<For 30 MHz ~ 1 GHz>




Note:

1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
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3. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.
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—THE END—