



# FCC RADIO TEST REPORT

FCC ID	: A4RGB7N6
Equipment	: Phone
Model Name	: GB7N6, GR1YH
Applicant	: Google LLC
	1600 Amphitheatre Parkway,
	Mountain View, California, 94043 USA
Standard	: FCC Part 15 Subpart C §15.209

The product was received on Jun. 03, 2021 and testing was started from Jun. 11, 2021 and completed on Jun. 30, 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 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

Approved 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 t	this test report	3
Summary o	this test report of Test Result	4
1. General	Description	5
1.1 Pro	oduct Feature of Equipment Under Test	5
	oduct Specification of Equipment Under Test	
1.3 Mo	dification of EUT	5
	sting Location	
1.5 App	plicable Standards	6
2. Test Con	nfiguration of Equipment Under Test	7
2.1 Des	scriptions of Test Mode	7
2.2 Co	nnection Diagram of Test System	8
	pport Unit used in test configuration and system	
2.4 EU	JT Operation Test Setup	9
	sults 1	
	Power Line Conducted Emissions Measurement 1	
	dB and 99% OBW Spectrum Bandwidth Measurement1	
	diated Emissions Measurement1	
3.4 Ant	tenna Requirements1	6
4. List of M	leasuring Equipment 1	7
5. Uncertai	nty of Evaluation1	8
Appendix A	A. Test Results of Conducted Emission Test	

#### Appendix B. Test Results of Conducted Test Items

B1. Test Result

#### Appendix C. Test Results of Radiated Test Items

- C1. Test Result of Field Strength of Fundamental Emissions
- C2. Results of Radiated Emissions (9 kHz~30MHz)
- C3. Results of Radiated Emissions (30MHz~1GHz)



# History of this test report

Report No.	Version	Description	Issued Date
FR0D2942-05H	01	Initial issue of report	Aug. 06, 2021
FR0D2942-05H	02	Revise Support Unit used in test configuration and system	Sep. 17, 2021



# Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark	
3.1	15.207	AC Power Line Conducted Emissions	Pass	Under limit 15.79 dB at 2.814MHz	
2.2	15.215(c) 20dB Spectrum Bandwidth		Reporting only	-	
3.2	2.1049	99% OBW Spectrum Bandwidth	Reporting only	-	
3.3	15.209	Field Strength of Fundamental Emissions	Field Strength of Fundamental Emissions	Pass	Max level 9.38 dBµV/m at 0.141 MHz
		Radiated Spurious Emissions	Pass	Under limit 6.93 dB at 0.708 MHz	
3.4	15.203	Antenna Requirements	Pass	-	

#### 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: William Chen**

**Report Producer: Tina Chuang** 



## 1. General Description

## 1.1 **Product Feature of Equipment Under Test**

Product Feature			
Equipment	Phone		
Model Name	GB7N6, GR1YH		
FCC ID	A4RGB7N6		
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/5G NR/NFC/GNSS/ WPC/WPT WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE		

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

EUT Information List				
S/N Performed Test Item				
15171FDF6000A7	RF conducted measurement			
15171FDF6000C1 Radiated Spurious Emissions				
15141FDF600064	Conducted Emission			

## **1.2 Product Specification of Equipment Under Test**

Product Specification subjective to this standard				
Transmitter Frequency Range110kHz ~ 148.5kHz				
99%OBW	0.660 kHz			
Antenna Type	Single Coil Antenna			
Type of Modulation ASK				

**Remark:** 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. EMC & Wireless Communications Laboratory			
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978			
Toot Site No	Sportor	n Site No.		
Test Site No.	TH03-HY (TAF Code: 1190)			
Test Engineer	Osc	ar Chi		
Temperature	22~	<b>-24</b> ℃		
Relative Humidity	53~	~55%		
Demand	The Conducted Emission test item subcontracted to Sporton International			
Remark	Inc. EMC & Wireless Communications Laboratory			
Test Site	Sporton International Inc. Wensan La	aboratory		
Test Site Test Site Location	Sporton International Inc. Wensan La No.58, Aly. 75, Ln. 564, Wenhua 3rd, Taoyuan City 333010, Taiwan (R.O.C TEL: +886-3-327-0868 FAX: +886-3-327-0855	Rd., Guishan Dist.,		
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Taoyuan City 333010, Taiwan (R.O.C TEL: +886-3-327-0868 FAX: +886-3-327-0855	Rd., Guishan Dist.,		
	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Taoyuan City 333010, Taiwan (R.O.C TEL: +886-3-327-0868 FAX: +886-3-327-0855	Rd., Guishan Dist., 2.)		
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Taoyuan City 333010, Taiwan (R.O.C TEL: +886-3-327-0868 FAX: +886-3-327-0855 Sportor	Rd., Guishan Dist., 2.) <b>n Site No.</b>		
Test Site Location Test Site No.	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Taoyuan City 333010, Taiwan (R.O.C TEL: +886-3-327-0868 FAX: +886-3-327-0855 Sportor CO07-HY	Rd., Guishan Dist., 2.) <b>n Site No.</b> 03CH11-HY Harvey Guo, Fu Chen, and Troye		

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

FCC designation No.: TW1190 and 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

Remark: 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			

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 (Y plane for battery 20%; X plane for battery 50%; X plane for battery 100%) as worst plane.

Test Cases				
	Mode 1:	WPC Charging with Wireless Charger + USB Cable 2 (Charging from		
AC		Adapter 2); Battery 20%		
Conducted	Mode 2:	WPT Charging with Another Phone + USB Cable 2 (Charging from		
		Adapter 2); Battery 50%		
Emission	Mode 3:	WPT Charging with Another Phone + USB Cable 2 (Charging from		
		Adapter 2); Battery 100%		
Remark:				

The worst appendix of appducted or

1. The worst case of conducted emission is mode 3; only the test data of it was reported.

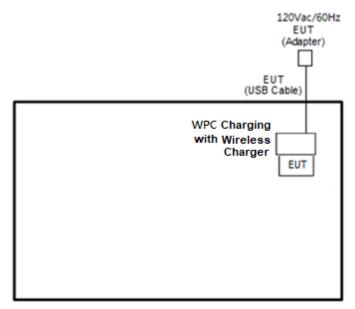
2. For Radiated Test Cases, the tests were performed with Adapter 2 and USB Cable 2.

TEL : 886-3-327-0868	Page Number	: 7 of 18
FAX : 886-3-327-0855	Issued Date	: Sep. 17, 2021
Report Template No.: BU5-FR15C Version 2.4	Report Version	: 02

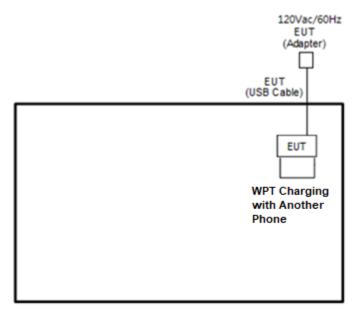


## 2.2 Connection Diagram of Test System

<AC Conducted Emission Mode>

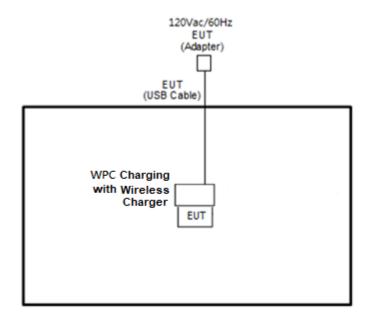


<AC Conducted Emission with WPT Mode>

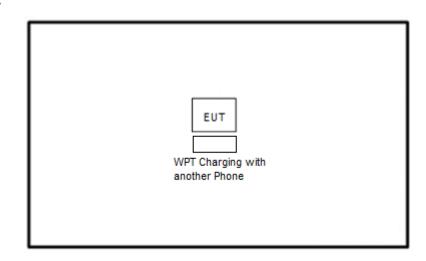




#### <WPC Mode>



<WPT Mode>



## 2.3 Support Unit used in test configuration and system

lte	em	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1	١.	Wireless charger	Google	#7*	N/A	N/A	N/A
2	2.	Smart Phone	Google	#4*	N/A	N/A	N/A

\* Stands for Sporton internal control code

## 2.4 EUT Operation Test Setup

The Wireless Charging with Wireless Charging Pad or another phone via wireless power transfer function.



## 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	Conducted Limit (dBµV)					
(MHz)	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

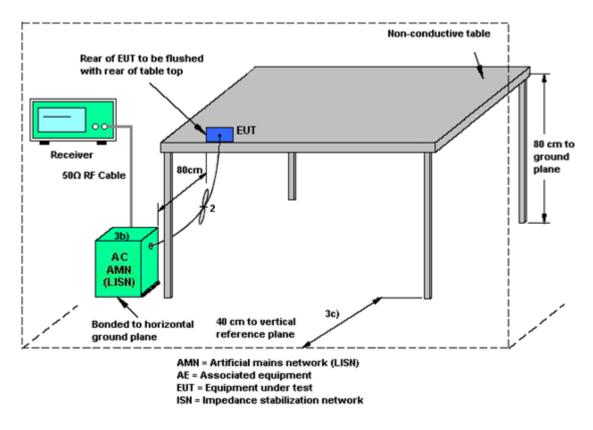
See list of measuring equipment of this test report.

#### 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.
- 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**

See list of measuring instruments of 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 1 kHz and the video bandwidth of 3 kHz were used.
- 3. Measured the spectrum width with power higher than 20dB below carrier.
- 4. Measured the 99% OBW.

#### 3.2.4 Test Setup



Spectrum Analyzer

#### 3.2.5 Test Result of Conducted 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	Field Strength	Measurement Distance
(MHz)	(µV/m)	(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 and 110-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.



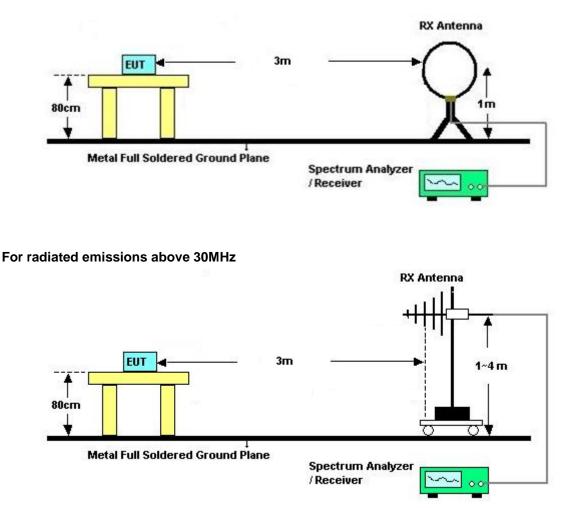
#### 3.3.4 Test Procedures

- 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



#### 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
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 03, 2021	Jun. 11, 2021	Mar. 02, 2022	Conducted (TH03-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101329	9kHz~30GHz	Sep. 03, 2020	Jun. 11, 2021	Sep. 02, 2021	Conducted (TH03-HY)
AC Power Source	ACPOWER	AFC-11003G	F317040033	N/A	N/A	Jun. 30, 2021	N/A	Conduction (CO07-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jun. 30, 2021	N/A	Conduction (CO07-HY)
Pulse Limiter	SCHWARZBE CK	VTSD 9561-F N	9561-F N00373	9kHz-200MHz	Nov. 02, 2020	Jun. 30, 2021	Nov. 01, 2021	Conduction (CO07-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	Mar. 17, 2021	Jun. 30, 2021	Mar. 16, 2022	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 51	45051	N/A	Feb. 01, 2021	Jun. 30, 2021	Jan. 31, 2022	Conduction (CO07-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102317	9kHz~3.6GHz	Sep. 11, 2020	Jun. 30, 2021	Sep. 10, 2021	Conduction (CO07-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Jun. 21, 2021~ Jun. 24, 2021	N/A	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 02, 2020	Jun. 21, 2021~ Jun. 24, 2021	Dec. 01, 2021	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 11, 2020	Jun. 21, 2021~ Jun. 24, 2021	Oct. 10, 2021	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Jun. 21, 2021~ Jun. 24, 2021	Jan. 03, 2022	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Jun. 21, 2021~ Jun. 24, 2021	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Jun. 21, 2021~ Jun. 24, 2021	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Jun. 21, 2021~ Jun. 24, 2021	N/A	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 23, 2020	Jun. 21, 2021~ Jun. 24, 2021	Oct. 22, 2021	Radiation (03CH11-HY)
Filter	Wainwright	WHK20/1000C 7/40SS	SN2	20M High Pass	Sep. 14, 2020	Jun. 21, 2021~ Jun. 24, 2021	Sep. 13, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz-30MHz	Mar. 11, 2021	Jun. 21, 2021~ Jun. 24, 2021	Mar. 10, 2022	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	30M-18G	Mar. 11, 2021	Jun. 21, 2021~ Jun. 24, 2021	Mar. 10, 2022	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 11, 2021	Jun. 21, 2021~ Jun. 24, 2021	Mar. 10, 2022	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30MHz-40GHz	Mar. 11, 2021	Jun. 21, 2021~ Jun. 24, 2021	Mar. 10, 2022	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTN-303B	TP200880	QA-3-031	Oct. 22, 2020	Jun. 21, 2021~ Jun. 24, 2021	Oct. 21, 2021	Radiation (03CH11-HY)



## 5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence	2.2 dB
of 95% (U = 2Uc(y))	2.2 dB

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

Measuring Uncertainty for a Level of Confidence	3.4 dB
of 95% (U = 2Uc(y))	5.4 dB

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

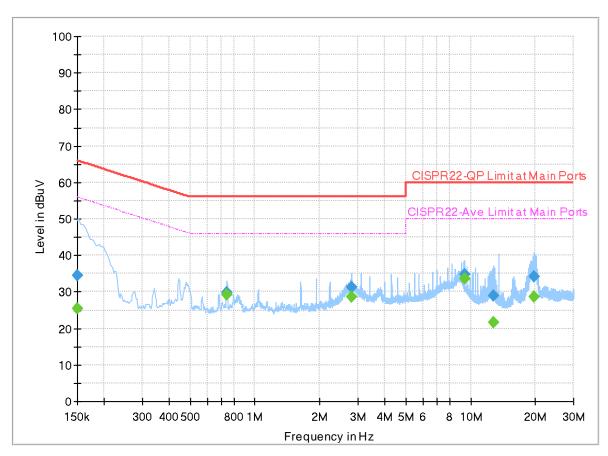
Measuring Uncertainty for a Level of Confidence	4.4 dB
of 95% (U = 2Uc(y))	4.4 <b>u</b> B



# Appendix A. Test Results of Conducted Emission Test

## **EUT Information**

Report NO : Test Mode : Test Voltage : Phase : 0D2942-05 Mode 3 120Vac/60Hz Line



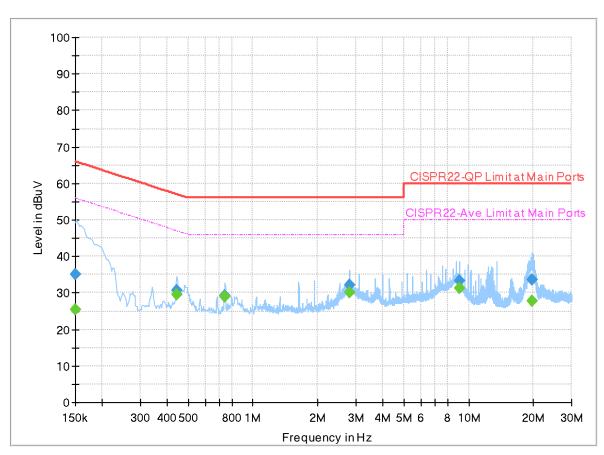
FullSpectrum

## Final\_Result

Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Filter	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)			(dB)
0.150203		25.36	55.99	30.63	L1	OFF	20.0
0.150203	34.52		65.99	31.47	L1	OFF	20.0
0.740580		29.28	46.00	16.72	L1	OFF	20.0
0.740580	29.77		56.00	26.23	L1	OFF	20.0
2.812650		28.79	46.00	17.21	L1	OFF	20.1
2.812650	31.39		56.00	24.61	L1	OFF	20.1
9.331170		33.71	50.00	16.29	L1	OFF	20.1
9.331170	34.71		60.00	25.29	L1	OFF	20.1
12.754500		21.75	50.00	28.25	L1	OFF	20.2
12.754500	29.05		60.00	30.95	L1	OFF	20.2
19.756590		28.68	50.00	21.32	L1	OFF	20.2
19.756590	34.17		60.00	25.83	L1	OFF	20.2

## **EUT Information**

Report NO : Test Mode : Test Voltage : Phase : 0D2942-05 Mode 3 120Vac/60Hz Neutral



#### FullSpectrum

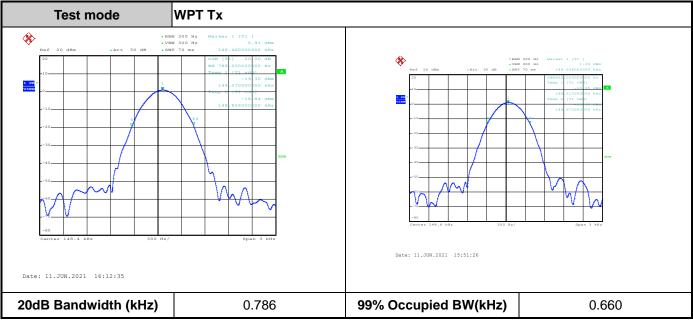
## Final\_Result

Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Filter	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)			(dB)
0.150135		25.33	55.99	30.66	Ν	OFF	20.0
0.150135	35.01		65.99	30.98	Ν	OFF	20.0
0.444210		29.53	46.98	17.45	Ν	OFF	20.0
0.444210	30.57		56.98	26.41	Ν	OFF	20.0
0.740490		28.81	46.00	17.19	Ν	OFF	20.0
0.740490	29.24		56.00	26.76	Ν	OFF	20.0
2.813730		30.21	46.00	15.79	Ν	OFF	20.1
2.813730	32.18		56.00	23.82	Ν	OFF	20.1
9.038130		31.18	50.00	18.82	Ν	OFF	20.1
9.038130	33.44		60.00	26.56	Ν	OFF	20.1
19.734000		27.84	50.00	22.16	Ν	OFF	20.3
19.734000	33.53		60.00	26.47	Ν	OFF	20.3



# Appendix B. Test Results of Conducted Test Items

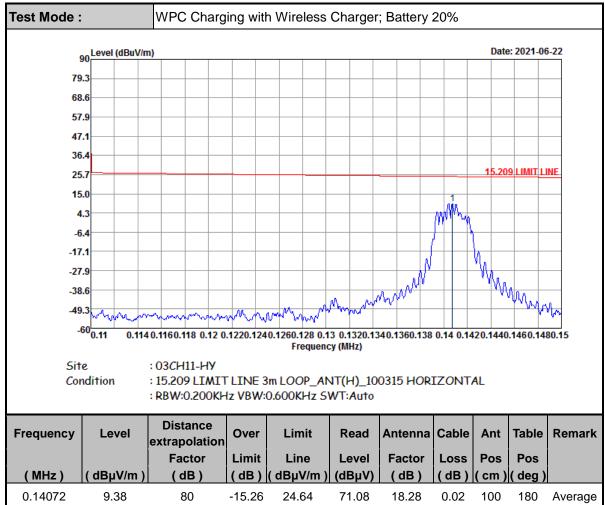
### B1.Test Result



**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.

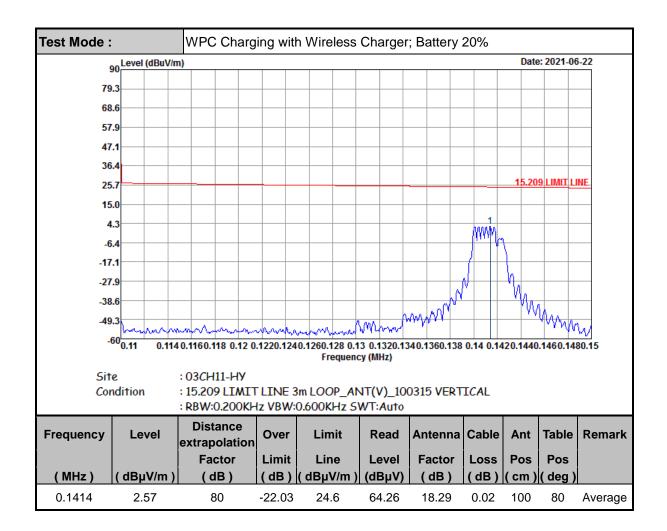


## Appendix C. Test Results of Radiated Test Items

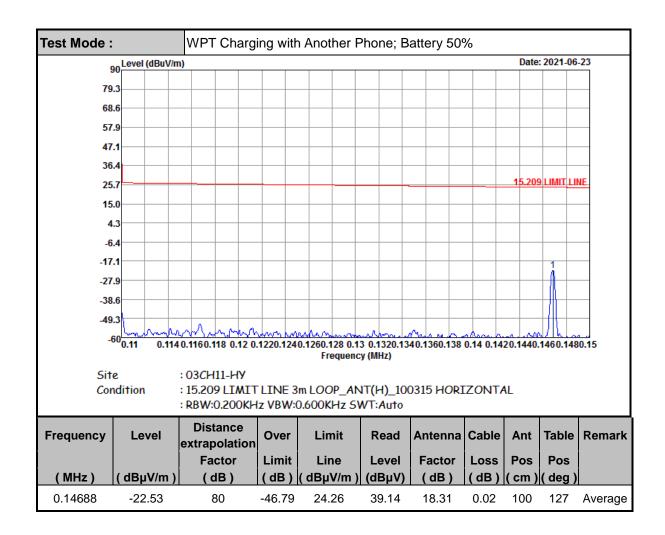


#### C1. Test Result of Field Strength of Fundamental Emissions

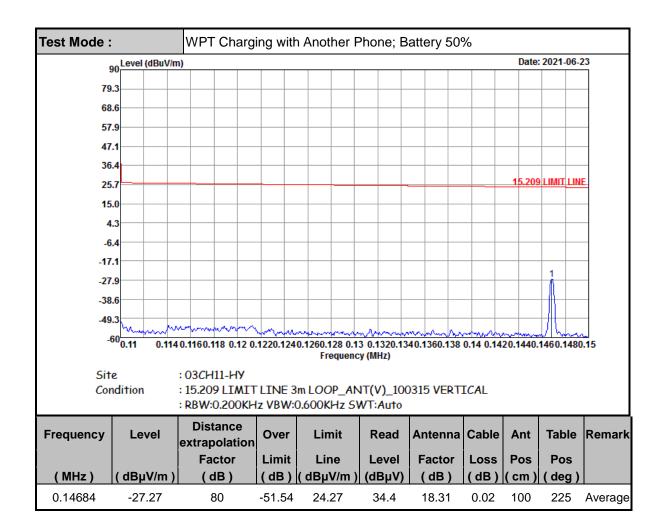




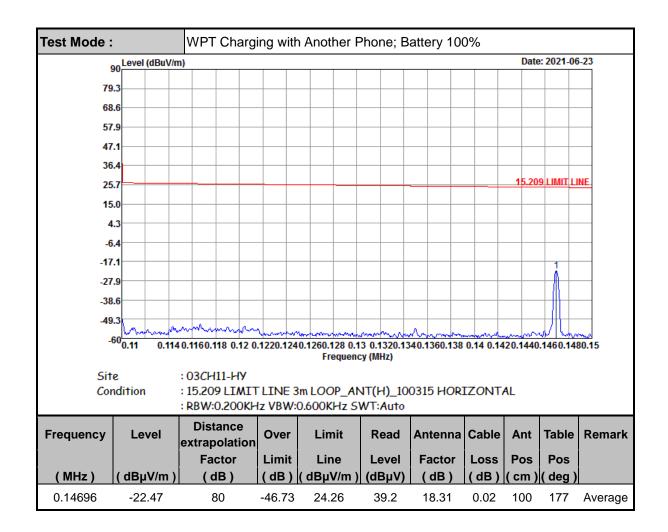




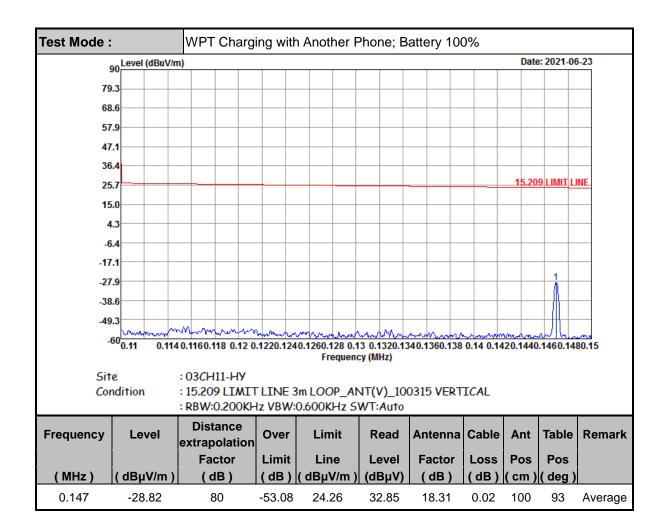








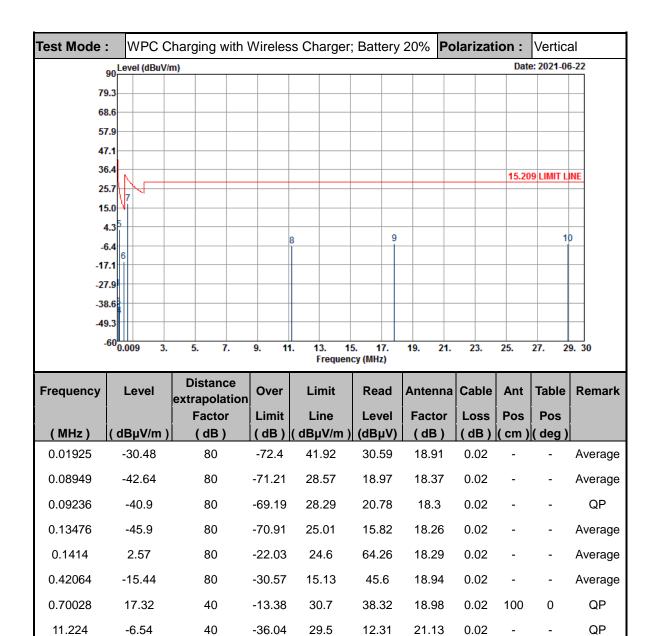




Test Mode :	WPC C	harging with	Wireles	s Charger	; Battery	20% <b>Po</b>	larizati	ion :	Horizo	ontal
	Devel (dBuV/	m)						Date:	2021-06	5-22
79	.3									
68	.6									
57	.9									
47										
36								15.209	LIMIT L	INE
	.0									
	.3									
-6	.4 6	8			9				10	
-17										
-27										
-38 -49										
	60 <mark>0.009 3.</mark>	5. 7.	9. 1	1. 13. 1	5. 17.	19. 21.	23.	25. 2	27. 2	9. 30
	0.009 5.	5. 7.	5. 1		cy (MHz)	19. 21.	23.	23. 2		5. 50
Frequency	Level	Distance extrapolation	Over	Limit	Read	Antenna	Cable	Ant	Table	Remark
		Factor	Limit	Line	Level	Factor	Loss	Pos	Pos	
(MHz)	(dBµV/m)	( dB )	( dB )	( dBµV/m )	(dBµV)	( dB )	( dB )	( cm ) (	deg )	
0.01925	-26.03	80	-67.95	41.92	35.04	18.91	0.02	-	-	Average
0.0774	-38.34	80	-68.17	29.83			0.02	-	-	Average
0.0901			00.17	23.05	22.95	18.69	0.02			°,
0.0001	-41.68	80	-70.19	28.51	22.95 19.94	18.69 18.36	0.02	-	-	QP
0.1308	-41.68 -43.43	80 80						-	-	-
			-70.19	28.51	19.94	18.36	0.02	- -		QP
0.1308	-43.43	80	-70.19 -68.7	28.51 25.27	19.94 18.31	18.36 18.24	0.02 0.02	- - -	- - -	QP Average
0.1308 0.14072	-43.43 9.38	80 80	-70.19 -68.7 -15.26	28.51 25.27 24.64	19.94 18.31 71.08	18.36 18.24 18.28	0.02 0.02 0.02	- - - 100	- - - 0	QP Average Average
0.1308 0.14072 0.422	-43.43 9.38 -8.85	80 80 80	-70.19 -68.7 -15.26 -23.95	28.51 25.27 24.64 15.1	19.94 18.31 71.08 52.19	18.36 18.24 18.28 18.94	0.02 0.02 0.02 0.02	- - - 100	-	QP Average Average Average
0.1308 0.14072 0.422 0.70779	-43.43 9.38 -8.85 23.68	80 80 80 40	-70.19 -68.7 -15.26 -23.95 -6.93	28.51 25.27 24.64 15.1 30.61	19.94 18.31 71.08 52.19 44.68	18.36 18.24 18.28 18.94 18.98	0.02 0.02 0.02 0.02 0.02	- - - 100 - -	-	QP Average Average Average QP

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





17.809

28.96

-5.32

-5.31

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

29.5

29.5

12.79

11.99

21.86

22.46

0.03

0.24

\_

\_

-

\_

QP

QP

2. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)

-34.82

-34.81

3. Limit line = specific limits (dBµV) + distance extrapolation factor

40

40



Test Mode	: WPT C	harging with A	Anothe	r Phone; B	attery 50	% Pola	arizatio	on :	Horizo	ontal
	90 Level (dBuV/	'm)						Date	e: 2021-0	6-23
7	9.3									
6	8.6									
57	7.9									
	7.1									
	6.4 5.7							15.20	9 LIMIT L	INE
	5.0									
	4.3 7									
-1	6.4		8		9				10	
-17	7.1									
	7.9									
	8.6									
	9.3									
	-60 <mark>0.009 3.</mark>	5. 7.	9. 11		5. 17. cy (MHz)	19. 21.	23.	25.	27. 2	9.30
Frequency		Distance								
	Level	extrapolation		Limit	Read	Antenna		Ant	Table	Remark
(		extrapolation Factor	Limit	Line	Level	Factor	Loss	Pos	Pos	Remark
( MHz )	(dBµV/m)	extrapolation Factor ( dB )	Limit ( dB )	Line ( dBµV/m )	Level (dBµV)	Factor (dB)	Loss (dB)		Pos	
0.0192	<mark>( dBµV/m )</mark> -26.72	extrapolation Factor (dB) 80	Limit ( dB ) -68.66	<b>Line</b> ( <b>dBµV/m )</b> 41.94	Level (dBµV) 34.35	Factor (dB) 18.91	Loss ( dB ) 0.02	Pos	Pos ( deg ) -	Average
· · · ·	(dBµV/m)	extrapolation Factor ( dB )	Limit ( dB )	Line ( dBµV/m )	Level (dBµV)	Factor (dB)	Loss (dB)	Pos	Pos	Average
0.0192	<mark>( dBµV/m )</mark> -26.72	extrapolation Factor (dB) 80	Limit ( dB ) -68.66	<b>Line</b> ( <b>dBµV/m )</b> 41.94	Level (dBµV) 34.35	Factor (dB) 18.91	Loss ( dB ) 0.02	Pos	Pos ( deg ) -	Remark Average Average QP
0.0192 0.06144	( <b>dBµV/m )</b> -26.72 -43.11	extrapolation Factor (dB) 80 80	Limit (dB) -68.66 -74.95	Line ( dBµV/m ) 41.94 31.84	Level (dВµV) 34.35 17.77	Factor (dB) 18.91 19.1	Loss (dB) 0.02 0.02	Pos	Pos ( deg ) -	Average Average
0.0192 0.06144 0.09094	( <b>dBµV/m )</b> -26.72 -43.11 -47.06	extrapolation Factor (dB) 80 80 80 80	Limit (dB) -68.66 -74.95 -75.49	Line ( dBµV/m ) 41.94 31.84 28.43	Level (dBµV) 34.35 17.77 14.58	Factor (dB) 18.91 19.1 18.34	Loss (dB) 0.02 0.02 0.02	Pos	Pos ( deg ) -	Average Average QP
0.0192 0.06144 0.09094 0.11	( dBµV/m ) -26.72 -43.11 -47.06 -46.06	extrapolation Factor (dB) 80 80 80 80 80	Limit (dB) -68.66 -74.95 -75.49 -72.84	Line ( dBµV/m ) 41.94 31.84 28.43 26.78	Level (dBµV) 34.35 17.77 14.58 15.77	Factor (dB) 18.91 19.1 18.34 18.15	Loss (dB) 0.02 0.02 0.02 0.02	Pos	Pos ( deg ) -	Average Average QP Average
0.0192 0.06144 0.09094 0.11 0.14688	( dBµV/m ) -26.72 -43.11 -47.06 -46.06 -22.53	extrapolation Factor (dB) 80 80 80 80 80 80	Limit (dB) -68.66 -74.95 -75.49 -72.84 -46.79	Line ( dBµV/m ) 41.94 31.84 28.43 26.78 24.26	Level (dBµV) 34.35 17.77 14.58 15.77 39.14	Factor (dB) 18.91 19.1 18.34 18.15 18.31	Loss (dB) 0.02 0.02 0.02 0.02 0.02	Pos	Pos ( deg ) -	Average Average QP Average Average
0.0192 0.06144 0.09094 0.11 0.14688 0.19352	( dBµV/m ) -26.72 -43.11 -47.06 -46.06 -22.53 -39.94	extrapolation Factor (dB) 80 80 80 80 80 80 80 80	Limit (dB) -68.66 -74.95 -75.49 -72.84 -46.79 -61.81	Line ( dBµV/m ) 41.94 31.84 28.43 26.78 24.26 21.87	Level (dBµV) 34.35 17.77 14.58 15.77 39.14 21.52	Factor (dB) 18.91 19.1 18.34 18.15 18.31 18.52	Loss (dB) 0.02 0.02 0.02 0.02 0.02 0.02	Pos ( cm ) - - - -	Pos ( deg ) - - - - - - - - -	Average Average QP Average Average
0.0192 0.06144 0.09094 0.11 0.14688 0.19352 1.098	( dBµV/m ) -26.72 -43.11 -47.06 -46.06 -22.53 -39.94 1.43	extrapolation Factor ( dB ) 80 80 80 80 80 80 80 80 40	Limit (dB) -68.66 -74.95 -75.49 -72.84 -46.79 -61.81 -25.36	Line ( dBµV/m ) 41.94 31.84 28.43 26.78 24.26 21.87 26.79	Level (dBµV) 34.35 17.77 14.58 15.77 39.14 21.52 22.31	Factor (dB) 18.91 19.1 18.34 18.15 18.31 18.52 19.1	Loss (dB) 0.02 0.02 0.02 0.02 0.02 0.02 0.02	Pos ( cm ) - - - -	Pos ( deg ) - - - - - - - - -	Average Average Average Average Average QP





0.14684

0.17312

0.78289

14.048

21.346

28.885

-27.27

-40.5

-5.78

-5.68

-5.28

-5.18

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

24.27

22.84

29.73

29.5

29.5

29.5

34.4

21.05

15.19

12.86

12.51

12.12

18.31

18.43

19.01

21.45

22.15

22.46

0.02

0.02

0.02

0.01

0.06

0.24

\_

\_

\_

-

-

100

\_

-

\_

-

-

0

Average

Average

QP

QP

QP

QP

2. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)

-51.54

-63.34

-35.51

-35.18

-34.78

-34.68

3. Limit line = specific limits (dBµV) + distance extrapolation factor

80

80

40

40

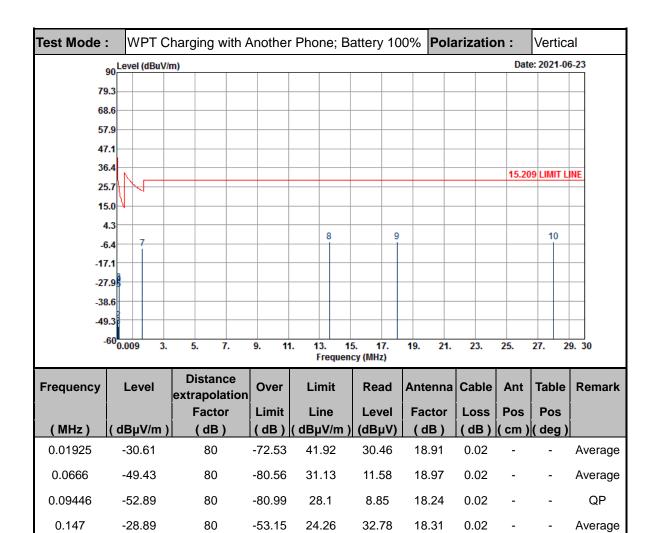
40

40



Test Mode	: WPT C	harging with A	Another	Phone; B	attery 10	0% <b>Pola</b>	arizatio	n :	Horizo	ontal
	90 Level (dBuV/	m)					1	Dat	e: 2021-0	6-23
7	9.3									
6	8.6									
5	7.9									
	7.1									
	6.4							15.20	9 LIMIT L	INE
	5.7									
	4.3 7									
L	6.4		_		8	9				10
-1	7.1									
	7.9									
	9.3									
	-60 <mark>0.009 3.</mark>	5. 7.	9. 11		5. 17. cy (MHz)	19. 21.	23.	25.	27. 2	9.30
Frequency	Level	Distance extrapolation	Over	Limit	Read	Antenna	Cable	Ant	Table	Remark
<i>/</i> .		Factor	Limit	Line	Level	Factor	Loss	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( dB )	( dBµV/m )		(dB)	( dB )	( cm )	(deg)	
0.0192	-25.75	80	-67.69	41.94	35.32	18.91	0.02	-	-	Average
0.06909	-45.67	80	-76.49	30.82	15.41	18.9	0.02	-	-	Average
0.10998	-48.49	80	-75.27	26.78	13.35	18.14	0.02	-	-	QP
0.11	-48.86	00	75.64	26.78	12.97	18.15	0.02	-	-	Average
••••		80	-75.64	20.70	12.97	10.10	0.0-			
0.14704	-24.03	80 80	-48.29	24.26	37.64	18.31	0.02	-	-	Average
-								-	-	Average Average
0.14704	-24.03	80	-48.29	24.26	37.64	18.31	0.02	- - 100	- - 0	-
0.14704 0.15	-24.03 -24.41	80 80	-48.29 -48.49	24.26 24.08	37.64 37.24	18.31 18.33	0.02 0.02	- - 100 -	-	Average
0.14704 0.15 1.061	-24.03 -24.41 -1.38	80 80 40	-48.29 -48.49 -28.47	24.26 24.08 27.09	37.64 37.24 19.5	18.31 18.33 19.1	0.02 0.02 0.02	- - 100 -	-	Average QP





0.14808

0.15

1.647

13.624

17.971

27.975

-32.09

-28.45

-9.06

-5.21

-5.32

-5.38

The amplitude of spurious emissions which are attenuated by more than 20dB below the 1. permissible value has no need to be reported.

24.19

24.08

23.27

29.5

29.5

29.5

29.57

33.2

11.82

13.38

12.77

12

18.32

18.33

19.1

21.4

21.88

22.42

2. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)

-56.28

-52.53

-32.33

-34.71

-34.82

-34.88

Limit line = specific limits (dBµV) + distance extrapolation factor 3.

80

80

40

40

40

40

-

\_

-

100

-

-

\_

0.02

0.02

0.02

0.01

0.03

0.2

-

-

-

0

-

-

\_

Average

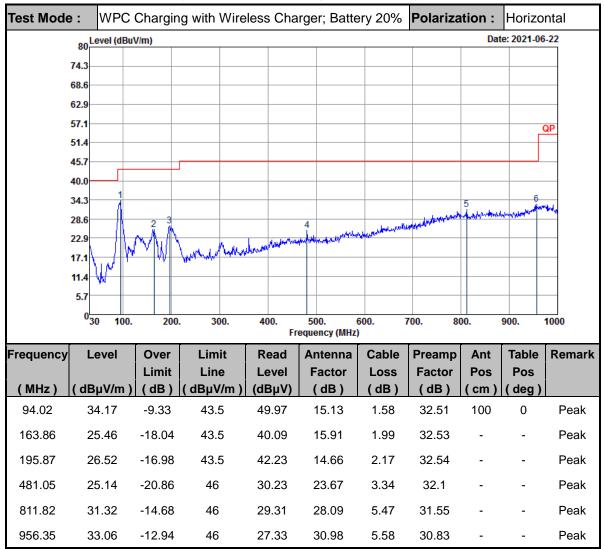
Average

QP

QP

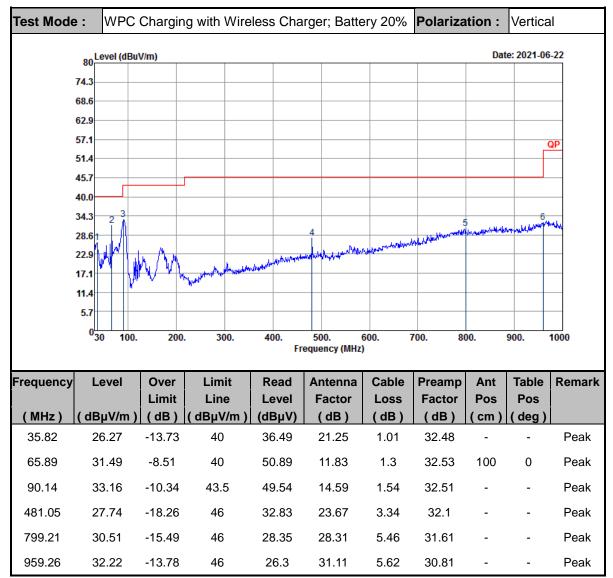
QP

QP



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



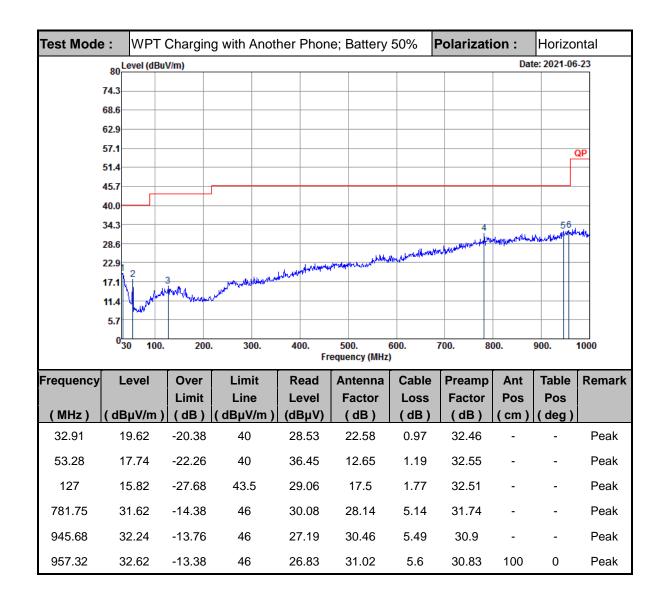


1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

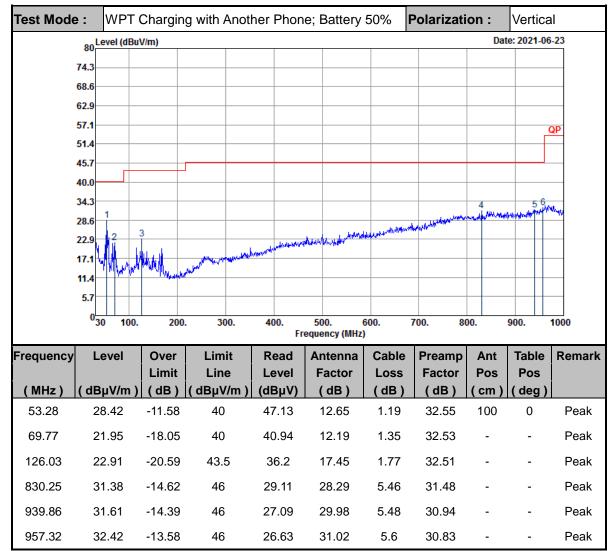
2. Emission level (dB $\mu$ V/m) = 20 log Emission level ( $\mu$ V/m).

3. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor= Level.







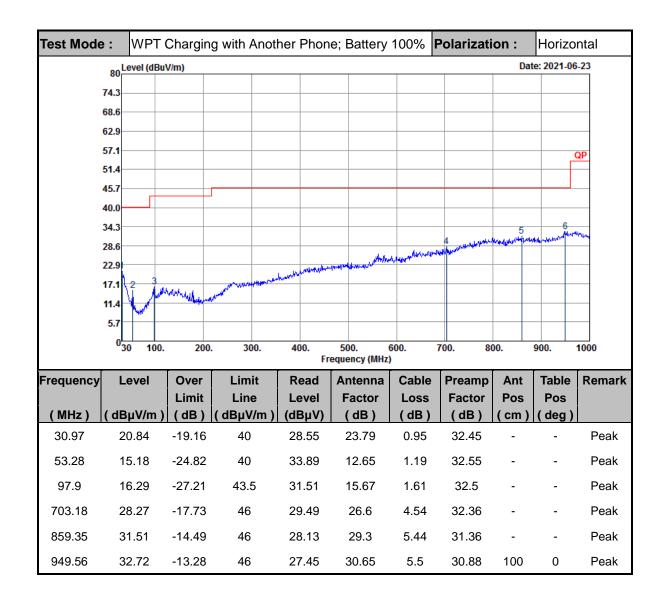


1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

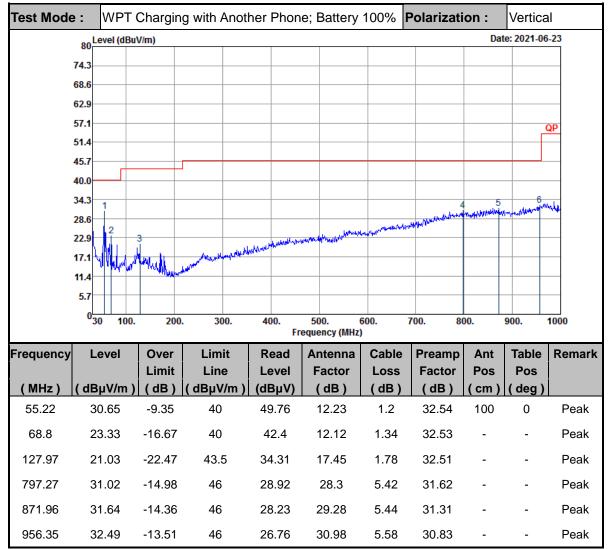
2. Emission level (dB $\mu$ V/m) = 20 log Emission level ( $\mu$ V/m).

3. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor= Level.









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 (dB $\mu$ V/m) = 20 log Emission level ( $\mu$ V/m).

3. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor= Level.

