

Report No. : FR011718-01H



# FCC RADIO TEST REPORT

FCC ID	:	A4RGD1YQ
Equipment	:	Phone
Model Name	:	GD1YQ
Applicant	:	Google LLC
		1600 Amphitheatre Parkway,
		Mountain View, California, 94043 USA
Standard	:	FCC Part 15 Subpart C §15.209

The product was received on Apr. 17, 2020 and testing was started from May 04, 2020 and completed on Aug. 04, 2020. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications 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. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Win

Reviewed by: Louis Wu SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



# **Table of Contents**

Aistory of this test report	3
History of this test report 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	
1.3 Modification of EUT	5
1.4 Testing Location	
1.5 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	8
2.3 Support Unit used in test configuration and system	
2.4 EUT Operation Test Setup	9
3. Test Results	. 10
3.1 AC Power Line Conducted Emissions Measurement	
3.2 99% OBW Spectrum Bandwidth Measurement	12
3.3 Radiated Emissions Measurement	
3.4 Antenna Requirements	16
4. List of Measuring Equipment	
5. Uncertainty of Evaluation	. 18
Appendix A. Test Results of Conducted Emission Test	

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

B1. Test Result of 20dB Spectrum Bandwidth

#### 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
FR011718-01H	01	Initial issue of report	Jul. 10, 2020
FR011718-01H	02	Updated the marker within the fundamental frequency range from 110kHz to 148kHz at page C3.	Jul. 31, 2020
FR011718-01H	03	Updated the field strength of fundamental emissions and radiated emissions (9 kHz~30MHz) at page C1 and C2	Aug. 04, 2020



# **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 10.28 dB at 0.203MHz
3.2	2.1049	99% OBW Spectrum Bandwidth Reporting only		-
3.3 15.	45.000	Field Strength of Fundamental Emissions	Pass	Max level -21.18 dBµV/m at 0.148 MHz
	15.209	15.209	Radiated Spurious Emissions	Pass
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: Wii Chang**

**Report Producer: Dara Chiu** 



## 1. General Description

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

Product Feature				
Equipment	Phone			
Model Name	GD1YQ			
FCC ID	A4RGD1YQ			
EUT supports Radios application	CDMA/EV-DO/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 Bluetooth BR/EDR/LE			

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

EUT Information List				
S/N	Performed Test Item			
03281FDD400039	Radiated Spurious Emission			
03311FDD40001W	Conducted Emission			

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

Standards-related Product Specification				
Tx/Rx Frequency	110~148.5kHz			
99%OBW	0.672 kHZ			
Antenna Type	Single Coil Antenna			

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

### **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, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978			
Test Site No.	Sporton Site No.			
Test Site No.	TH03-HY	CO05-HY		
Test Engineer Louis Chung Ton		Tom Lee		
Temperature	22~24℃ 23~25℃			
Relative Humidity	53~55% 42~50%			

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

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory		
Test Site LocationNo.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855			
Test Site No.	Sporton Site No.		
lest Site NO.	03CH11-HY		
Test Engineer	Cookie Gu and Troye Hsieh		
Temperature	<b>20.2~21.8</b> ℃		
Relative Humidity	63.1~66.7%		

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

FCC designation No.: TW1190 and TW0007

### **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				

Pre-scanned tests, X, Y, Z in three orthogonal panels to determine the final configuration (X Plane for Battery 0%; Y Plane for Battery 50% and Battery 100%) from all possible combinations.

Mada 1	
woue r.	WPT Charging with Phone + USB Cable (Charging from Adapter 2);
	Battery 0%
Mode 2:	WPT Charging with Phone + USB Cable (Charging from Adapter 2);
	Battery 50%
Mode 3:	WPT Charging with Phone + USB Cable (Charging from Adapter 2);
	Battery 100%

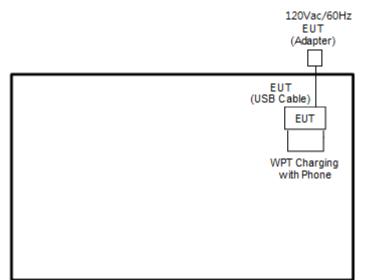
1. The worst case of conducted emission is mode 2; only the test data of it was reported

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

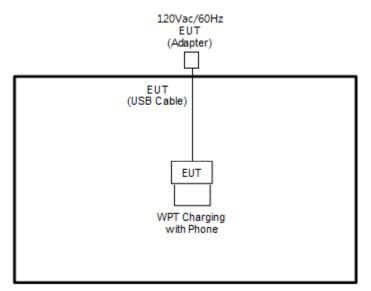


### 2.2 Connection Diagram of Test System

#### <AC Conducted Emission Mode>



#### <WPT Tx Mode>



### 2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Phone	Google	N/A	N/A	N/A	N/A



### 2.4 EUT Operation Test Setup

For WPT Tx test items, utility "CMD" was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

The EUT charger with other 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**

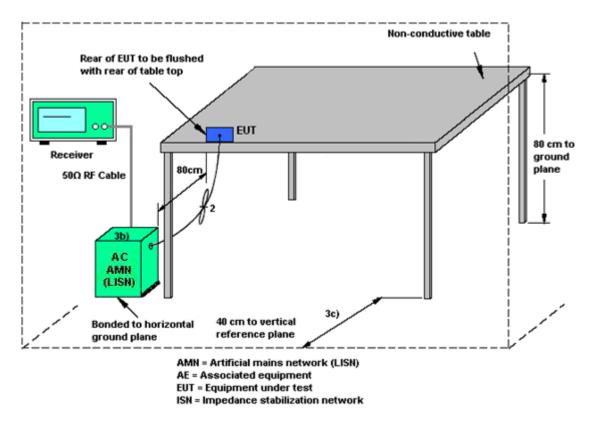
See list of measuring equipment of this test report.

### 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 99% OBW Spectrum Bandwidth Measurement

### 3.2.1 Limit

Reporting only

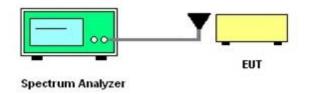
### **3.2.2 Measuring Instruments**

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



### 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.



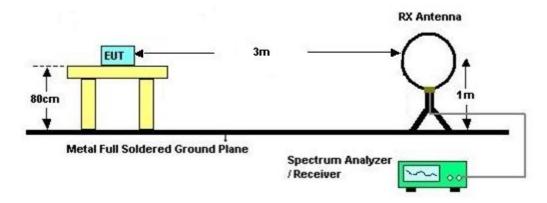
### 3.3.4 Test Procedures

- 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.

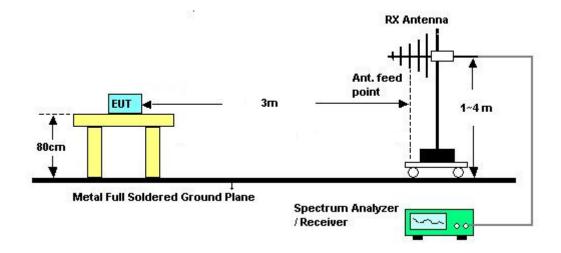


### 3.3.5 Test Setup

For radiated emissions below 30MHz



#### For radiated emissions above 30MHz



### 3.3.6 Test Result of Radiated Emissions Measurement

Please refer to Appendix C.



### 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

SPORTON LAB.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jun. 24, 2020	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 15, 2019	Jun. 24, 2020	Nov. 14, 2020	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 07, 2019	Jun. 24, 2020	Nov. 06, 2020	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 20, 2019	Jun. 24,.2020	Nov. 19, 2020	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 15, 2019	Jun. 24, 2020	Nov. 14, 2020	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jun. 24, 2020	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 02, 2020	Jun. 24, 2020	Jan. 01, 2021	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 02, 2020	Jun. 24, 2020	Jan. 01, 2021	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 26, 2020	May 04, 2020	Mar. 25, 2021	Conducted (TH03-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101329	9kHz~30GHz	Sep. 04, 2019	May 04, 2020	Sep. 03, 2020	Conducted (TH03-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	May 04, 2020 ~ Aug. 04, 2020	N/A	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 03, 2019	May 04, 2020 ~ Aug. 04, 2020	Dec. 02, 2020	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 12, 2019	May 04, 2020 ~ Aug. 04, 2020	Oct. 11, 2020	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jan. 09, 2020	May 04, 2020 ~ May 05, 2020	Jan. 08, 2021	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jul. 14, 2020	Aug. 04, 2020	Jul. 13, 2021	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	May 04, 2020 ~ Aug. 04, 2020	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	May 04, 2020 ~ Aug. 04, 2020	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	May 04, 2020 ~ Aug. 04, 2020	N/A	Radiation (03CH11-HY)
EMI Test Receiver	Agilent	N9038A(MXE)	MY53290045	20MHz~8.4GHz	Jan. 18, 2020	May 04, 2020 ~ Aug. 04, 2020	Jan. 17, 2021	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 28, 2019	May 04, 2020 ~ Aug. 04, 2020	Oct. 27, 2020	Radiation (03CH11-HY)
Filter	Wainwright	WHK20/1000C 7/40SS	SN2	20M High Pass	Sep. 15, 2019	May 04, 2020 ~ Aug. 04, 2020	Sep. 14, 2020	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz-30MHz	Mar. 12, 2020	May 04, 2020 ~ Aug. 04, 2020	Mar. 11, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	30M-18G	Mar. 12, 2020	May 04, 2020 ~ Aug. 04, 2020	Mar. 11, 2021	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTN-303B	TP140325	N/A	Nov. 07, 2019	May 04, 2020 ~ Aug. 04, 2020	Nov. 06, 2020	Radiation (03CH11-HY)

: 17 of 18 : Aug. 04, 2020



# 5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence	2.30
of 95% (U = 2Uc(y))	2.30

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

Measuring Uncertainty for a Level of Confidence	3.12
of 95% (U = 2Uc(y))	3.12

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

Measuring Uncertainty for a Level of Confidence	5.20
of 95% (U = 2Uc(y))	5.20

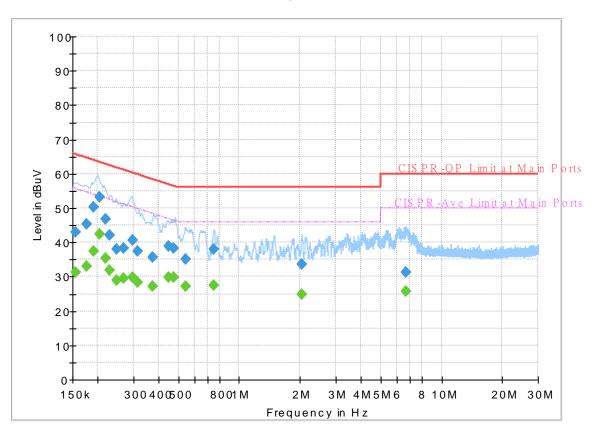


# **Appendix A. Test Results of Conducted Emission Test**

Test Engineer :	Tom Loo	Temperature :	<b>23~25</b> ℃
rest Engineer.	Tom Lee	Relative Humidity :	42~50%

### **EUT Information**

Test Mode : Test Voltage : Phase : Mode 2 120Vac/60Hz Line



FullSpectrum

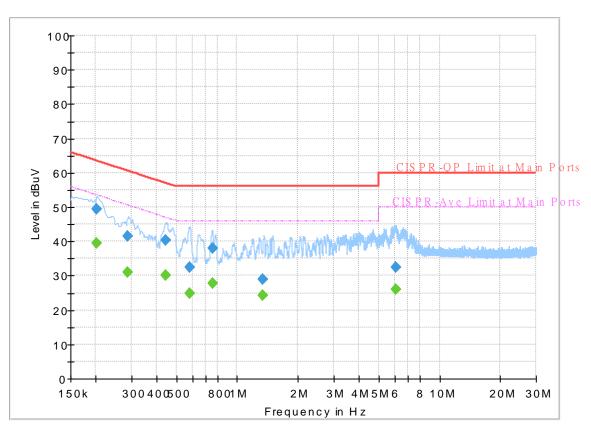
### Final\_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
. ,	(ubuv)	. ,			1.4	055	
0.154500		31.40	55.75	24.35	L1	OFF	19.6
0.154500	43.00		65.75	22.75	L1	OFF	19.6
0.175290		33.14	54.71	21.57	L1	OFF	19.6
0.175290	45.44		64.71	19.27	L1	OFF	19.6
0.190230		37.28	54.03	16.75	L1	OFF	19.6
0.190230	50.43		64.03	13.60	L1	OFF	19.6
0.202920		42.52	53.49	10.97	L1	OFF	19.6
0.202920	53.21		63.49	10.28	L1	OFF	19.6
0.217500		35.35	52.91	17.56	L1	OFF	19.6
0.217500	46.70		62.91	16.21	L1	OFF	19.6
0.228120		31.94	52.52	20.58	L1	OFF	19.6
0.228120	42.08		62.52	20.44	L1	OFF	19.6
0.246480		28.94	51.88	22.94	L1	OFF	19.6
0.246480	37.94		61.88	23.94	L1	OFF	19.6
0.268260		29.58	51.17	21.59	L1	OFF	19.6
0.268260	38.42		61.17	22.75	L1	OFF	19.6
0.298500		29.84	50.28	20.44	L1	OFF	19.6
0.298500	40.59		60.28	19.69	L1	OFF	19.6
0.314250		28.27	49.86	21.59	L1	OFF	19.6
0.314250	37.36		59.86	22.50	L1	OFF	19.6
0.374100		27.08	48.41	21.33	L1	OFF	19.6

19.6	OFF	L1	22.78	58.41		35.63	0.374100
19.6	OFF	L1	16.98	46.89	29.91		0.449250
19.6	OFF	L1	17.87	56.89		39.02	0.449250
19.6	OFF	L1	16.43	46.40	29.97		0.476340
19.6	OFF	L1	18.17	56.40		38.23	0.476340
19.6	OFF	L1	18.87	46.00	27.13		0.544290
19.6	OFF	L1	21.04	56.00		34.96	0.544290
19.6	OFF	L1	18.52	46.00	27.48		0.747150
19.6	OFF	L1	18.04	56.00		37.96	0.747150
19.6	OFF	L1	21.13	46.00	24.87		2.042250
19.6	OFF	L1	22.34	56.00		33.66	2.042250
19.9	OFF	L1	24.17	50.00	25.83		6.645750
19.9	OFF	L1	28.76	60.00		31.24	6.645750

### **EUT Information**

Test Mode : Test Voltage : Phase : Mode 2 120Vac/60Hz Neutral



Full Spectrum

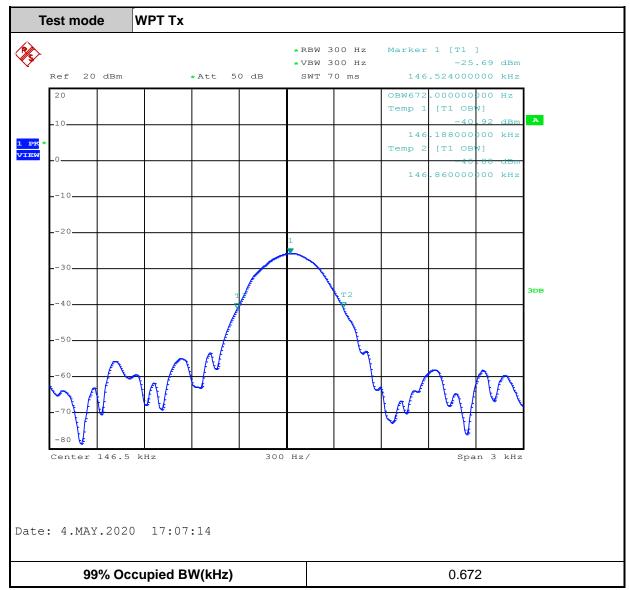
### Final\_Result

Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Filter	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)			(dB)
0.202560		39.49	53.51	14.02	Ν	OFF	19.5
0.202560	49.56		63.51	13.95	Ν	OFF	19.5
0.288420		30.87	50.57	19.70	Ν	OFF	19.5
0.288420	41.54		60.57	19.03	Ν	OFF	19.5
0.441960		30.11	47.03	16.92	Ν	OFF	19.5
0.441960	40.32		57.03	16.71	Ν	OFF	19.5
0.583710		24.88	46.00	21.12	Ν	OFF	19.5
0.583710	32.45		56.00	23.55	Ν	OFF	19.5
0.754530		27.73	46.00	18.27	Ν	OFF	19.5
0.754530	38.13		56.00	17.87	Ν	OFF	19.5
1.344750		24.27	46.00	21.73	Ν	OFF	19.6
1.344750	29.01		56.00	26.99	Ν	OFF	19.6
6.087660		26.03	50.00	23.97	Ν	OFF	19.7
6.087660	32.55		60.00	27.45	Ν	OFF	19.7



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

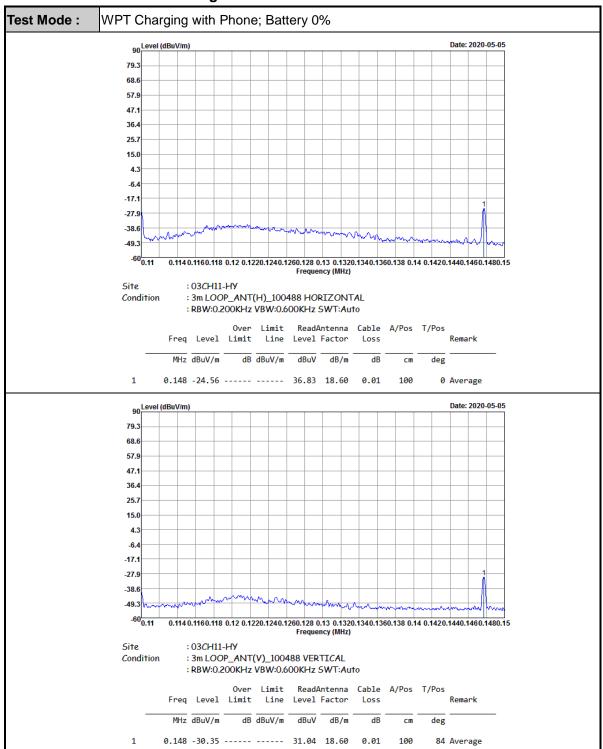
### B1. Test Result of 20dB Spectrum Bandwidth



**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.

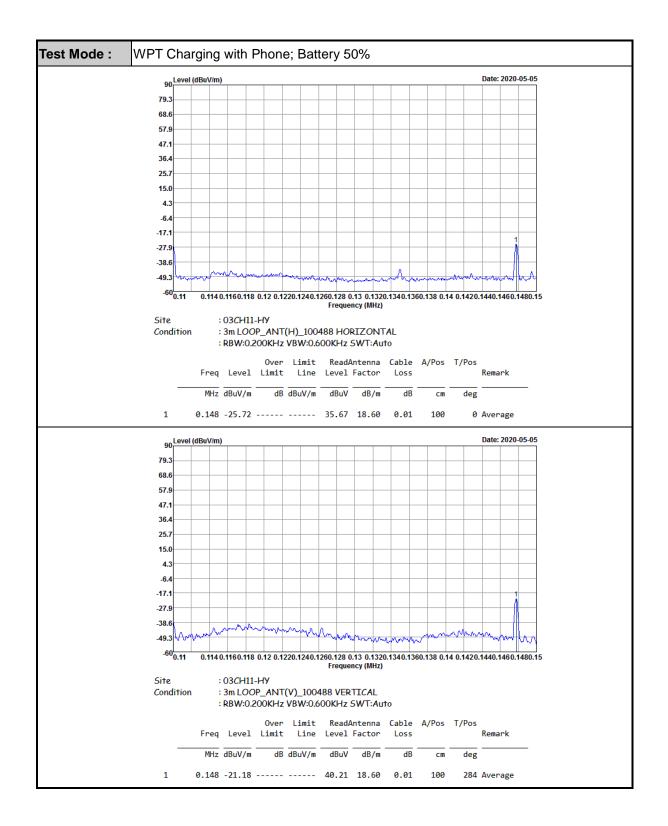


# Appendix C. Test Results of Radiated Test Items

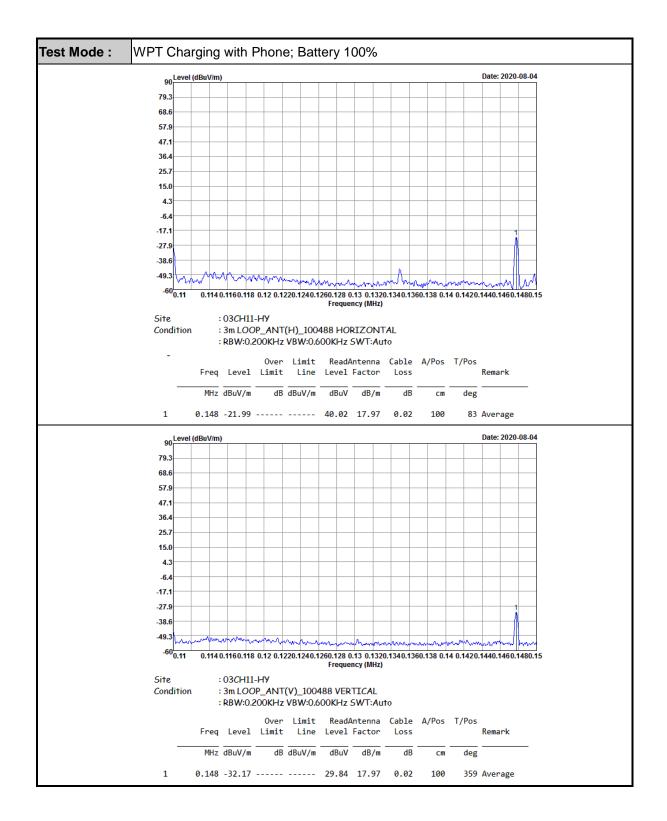


#### C1. Test Result of Field Strength of Fundamental Emissions









Test Mode :	W	PT Chargi	ng with	Phon	e; Battery	0%	Polaria	zation :	Horiz	ontal	
	90 Level (dE	uV/m)							Date	: 2020-05	-05
	9.3										
68	8.6										
57	7.9						_				_
	7.1										_
	5.7								15.20	9 LIMIT LII	NE
	5.0 7										
	4.3		8				9				10
-(	6.4						Ť				Ť
-17	8										+
	7.9 <sup>7</sup> 6 8.6										
	9.3										
Sit	-60 <mark>0.009</mark>	3. 5. : 03CH1 : 15.209	11-НУ	9. 11	Frequen	cy (MHz)		1. 23.		27. 29	. 30
Sit	-60 <mark>0.009</mark>	: 03CH1 : 15.209 Dista	11-HY 9 LIMIT ance			cy (MHz)		DRIZONT		27. 29 Table	Remark
Sit Co	60 <mark>0.009</mark> te ndition	: 03CH1 : 15.209 Dista	11-HY 9 LIMIT ance olation	LINE	Frequen 3m LOOP_AI	су (MHz) NT(H)_10	0488 H(	DRIZONT	AL		
Sit Co Frequency ( MHz )	.60 0.009 te ndition Level ( dBµV/r	: 03CH1 : 15.209 Dista extrapo Fac n ) (di	11-HY 9 LIMIT ance olation ctor B )	Over Limit (dB)	Frequen 3m LOOP_AI Limit Line ( dBµV/m )	cy (MHz) NT(H)_10 Read Level (dBµV)	0488 H0 Anteni Facto ( dB )	DRIZONT na Cable or Loss ) (dB)	AL Ant	Table Pos	Remark
Sit Co Frequency	.6000.009 te ndition Level	: 03CH1 : 15.209 Dista extrapo Fac	11-HY 9 LIMIT ance olation ctor B )	UINE 3 Over Limit	Frequen 3m LOOP_AI Limit Line ( dBµV/m ) 41.92	cy (MHz) NT(H)_10 Read Level (dBµV) 59.32	0488 Ho Anteni Facto ( dB ) 19.13	DRIZONT na Cable or Loss ) (dB) 3 0.01	AL Ant Pos	Table Pos	Remark
Sit Co Frequency ( MHz )	.60 0.009 te ndition Level ( dBµV/r	: 03CH1 : 15.209 Dista extrapo Fac n) (dl 80	11-HY 9 LIMIT ance olation ctor B) 0	Over Limit (dB)	Frequen 3m LOOP_AI Limit Line ( dBµV/m ) 41.92	cy (MHz) NT(H)_10 Read Level (dBµV)	0488 H0 Anteni Facto ( dB )	DRIZONT na Cable or Loss ) (dB) 3 0.01	AL Ant Pos	Table Pos	Remark
Sit <i>C</i> o <b>Frequency</b> ( MHz ) 0.01925	.60 0.009 te ndition Level ( dBµV/r -1.54	: 03CH1 : 15.209 Dista extrapo Fac n) (dl 80	11-HY 9 LIMIT ance olation tor B) 0	Over Limit (dB) -43.46	Frequen 3m LOOP_AI Limit Line ( dBµV/m ) 41.92	cy (MHz) NT(H)_10 Read Level (dBµV) 59.32	0488 Ho Anteni Facto ( dB ) 19.13	Cable Cable Loss (dB) 0.01	AL Ant Pos	Table Pos	Remark
Sit Co Frequency ( MHz ) 0.01925 0.06912	.60 0.009 te ndition Level ( dBµV/r -1.54 -30.85	: 03CH1 : 15.209 Dista extrapo Fac n) (dl 80 5 80	11-HY 9 LIMIT ance olation tor B) 0 0 0	Over Limit (dB) -43.46 -61.66	Frequen 3m LOOP_AI Limit Line ( dBµV/m ) 41.92 30.81 26.78	cy (MHz) NT(H)_10 Read Level (dBµV) 59.32 30.23	0488 Ho Anteni Facto ( dB ) 19.13 18.91	Cable   Ima Cable   Ima Loss   Ima (dB)   Ima 0.01   Ima 0.01	AL Ant Pos	Table Pos	Remark Average Average
Sit Co Frequency ( MHz ) 0.01925 0.06912 0.11	.600.009 te ndition ( dBµV/r -1.54 -30.85 -27.62	: 03CH1 : 15.209 Dista extrapo Fac Fac 80 : 80 : 80	11-HY 9 LIMIT ance olation tor B) 0 0 0 0	Over Limit (dB) -43.46 -61.66 -54.4	Frequen 3m LOOP_AI Limit Line ( dBµV/m ) 41.92 30.81 26.78	cy (MHz) NT(H)_10 Read Level (dBµV) 59.32 30.23 33.77	0488 Ho Anteni Facto ( dB 19.13 18.91 18.6	Cable   or Loss   0 (dB)   3 0.01   0.01 0.01   0.01 0.01	AL Ant Pos	Table Pos ( deg ) - -	Remark Average Average QP
Sit Co Frequency ( MHz ) 0.01925 0.06912 0.11 0.11	600.009 te ndition ( dBµV/r -1.54 -30.85 -27.62 -27.37	: 03CH1 : 15.209 Dista extrapo Fac Fac 80 : 80 : 80 : 80 : 80 : 80 : 80 : 80	11-HY 9 LIMIT ance olation tor B) 0 0 0 0 0 0	Over Limit (dB) -43.46 -61.66 -54.4 -54.15	Frequen 3m LOOP_AI Limit Line ( dBµV/m ) 41.92 30.81 26.78 26.78	cy (MHz) NT(H)_10 Read Level (dBµV) 59.32 30.23 33.77 34.02	0488 H0 Anteni Facto ( dB ) 19.13 18.91 18.6 18.6	Cable   r Loss   (dB)   3 0.01   0.01   0.01   0.01   0.01	AL Ant Pos	Table Pos ( deg ) - -	Remark Average Average QP Average
Sit Co Frequency (MHz) 0.01925 0.06912 0.11 0.11 0.11 0.14772	600.009 te ndition ( dBµV/r -1.54 -30.85 -27.62 -27.37 -24.56	: 03CH1 : 15.209 Dista extrapo Fac 7 80 80 80 80 80 80 80 80 80 80 80 80 80 8	11-HY 9 LIMIT ance olation tor B) 0 0 0 0 0 0 0	Over Limit (dB) -43.46 -61.66 -54.4 -54.15 -48.78	Frequen 3m LOOP_AI Limit Line ( dBµV/m ) 41.92 30.81 26.78 26.78 26.78 24.22	cy (MHz) NT(H)_10 Read Level (dBµV) 59.32 30.23 33.77 34.02 36.83	0488 H0 Anteni Facto ( dB) 19.13 18.91 18.6 18.6 18.6	Cable   r Loss   0 (dB)   3 0.01   0.01 0.01   0.01 0.01   0.01 0.01   0.01 0.01	AL Ant Pos	Table Pos ( deg ) - -	Remark Average Average QP Average
Sit Co Frequency (MHz) 0.01925 0.06912 0.11 0.11 0.11 0.14772 0.4764	60 0.009 te ndition Level ( dBµV/r -1.54 -30.85 -27.62 -27.37 -24.56 -32.61	: 03CH1 : 15.209 Dista extrapo Fac Fac 80 : 80 : 80 : 80 : 80 : 80 : 80 : 80 :	11-HY 9 LIMIT ance olation tor B) 0 0 0 0 0 0 0 0 0 0 0 0 0	<b>Over</b> Limit (dB) -43.46 -61.66 -54.4 -54.15 -48.78 -46.65	Frequen 3m LOOP_AI Limit Line ( dBµV/m ) 41.92 30.81 26.78 26.78 26.78 24.22 14.04 25.68	cy (MHz) NT(H)_10 Read Level (dBµV) 59.32 30.23 33.77 34.02 36.83 28.78	0488 H0 Anteni Facto ( dB) 19.13 18.91 18.6 18.6 18.6 18.6 18.6	Cable   r Loss   0 (dB)   3 0.01   0.01 0.01   0.01 0.01   0.01 0.01   0.01 0.01   0.01 0.01	AL Pos ( cm ) - - - - -	Table Pos ( deg ) - - - - - - - - -	Remark Average QP Average Average Average
Sit Co Frequency (MHz) 0.01925 0.06912 0.11 0.11 0.11 0.14772 0.4764 1.249	60 0.009 te ndition Level ( dBµV/r -1.54 -30.85 -27.62 -27.62 -27.37 -24.56 -32.61 13.82	: 03CH1 : 15.209 Dista extrapo Fac Fac 80 : 80 : 80 : 80 : 80 : 80 : 80 : 80 :	11-HY PLIMIT ance olation tor B) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<b>Over</b> <b>Limit</b> ( <b>dB</b> ) -43.46 -61.66 -54.4 -54.15 -48.78 -46.65 -11.86	Frequen 3m LOOP_AI Limit Line ( dBµV/m ) 41.92 30.81 26.78 26.78 26.78 24.22 14.04 25.68 29.5	cy (MHz) NT(H)_10 Read Level (dBµV) 59.32 30.23 33.77 34.02 36.83 28.78 35.21	0488 Ho Anteni Factor ( dB) 19.13 18.01 18.6 18.6 18.6 18.6 18.6 18.6 18.6	Cable   Image Cable   or Loss   (dB) (dB)   3 0.01   0.01 0.01   0.01 0.01   0.01 0.01   0.01 0.01   0.01 0.01   0.01 0.01   0.01 0.01   0.01 0.01	AL Pos ( cm ) - - - - -	Table Pos ( deg ) - - - - - - - - -	Remark Average QP Average Average Average QP

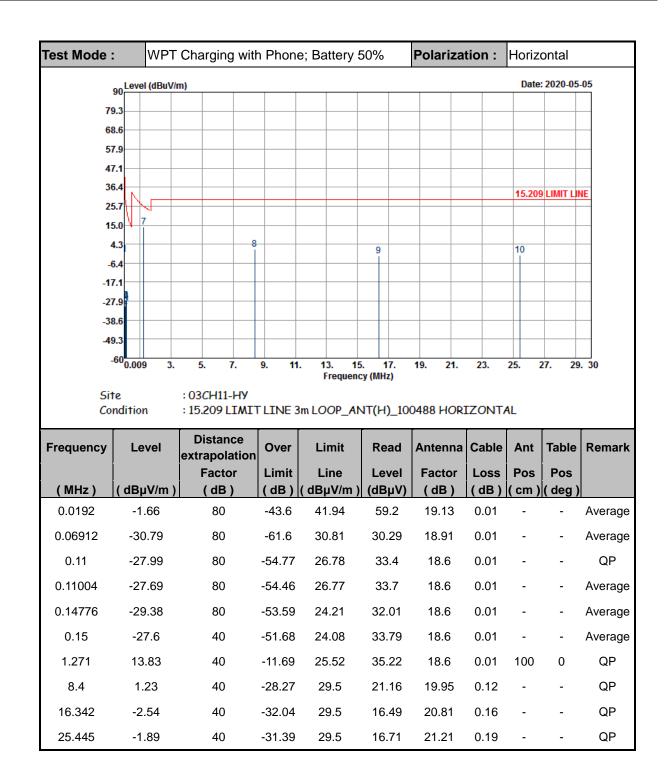
### C2. Results of Radiated Spurious Emissions (9 kHz~30MHz)



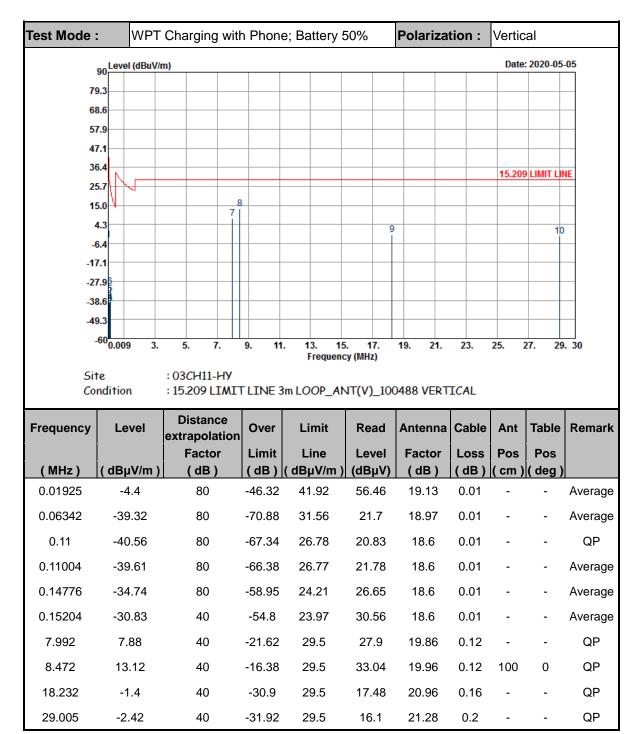
est Mode	: WPT	Charging wit	h Phone	e; Battery (	0%	Polariza	tion :	Vertic	al	
	90 Level (dBuV	//m)						Date	: 2020-05	-05
	9.3									
	8.6									_
5	7.9									_
4	7.1									_
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	5.7		8					_		_
	5.0 ¥ 4.3	7	•							
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	8.6									
-4	9.3									
Si	-60 <mark>0.009 3.</mark> te indition	. 5. 7. : 03CH11-HY : 15.209 LIMI	9. 11 TLINE 3	Frequen	cy (MHz)	19. 21. 0488 VERT	23. TCAL	25.	27. 29	. 30
Si	te	: 03CH11-HY : 15.209 LIMT Distance		Frequen	cy (MHz)		TCAL	25. : Ant	27. 29 Table	. 30 Remar
Si Co	te Indition	: 03CH11-HY : 15.209 LIMI		Frequent	Cy (MHz)	0488 VERT	TCAL			
Si Co	te Indition	: 03CH11-HY : 15.209 LIMI Distance extrapolation Factor	Over	Frequent Bm LOOP_A1	cy (MHz) NT(V)_100 Read Level	0488 VERT	TCAL Cable	Ant	Table	
Si Co Frequency	te ndition Level	: 03CH11-HY : 15.209 LIMI Distance extrapolation Factor	T LINE 3	Frequent Bm LOOP_A1 Limit Line	cy (MHz) NT(V)_100 Read Level	Antenna Factor	TCAL Cable Loss	Ant Pos	Table Pos	
Si Co Frequency ( MHz )	te ndition Level ( dBµV/m )	: 03CH11-HY : 15.209 LIMT Distance extrapolation Factor ( dB )	Over Limit (dB)	Frequent Bm LOOP_A1 Limit Line ( dBµV/m )	cy (MHz) NT(V)_100 Read Level (dBµV)	Antenna Factor ( dB )	ICAL Cable Loss ( dB )	Ant Pos	Table Pos	Remar
Si Co Frequency (MHz) 0.01925	te ndition Level ( dBµV/m ) -2.77	: 03CH11-HY : 15.209 LIMT Distance extrapolation Factor ( dB ) 80	Over Limit (dB) -44.69	Frequent Bm LOOP_AI Limit Line ( dBµV/m ) 41.92	cy (MHz) NT(V)_100 Read Level (dBµV) 58.09	Antenna Factor (dB) 19.13	Cable Loss (dB) 0.01	Ant Pos	Table Pos ( deg )	Reman
Sir Co Frequency (MHz) 0.01925 0.07281	te ndition Level ( dBµV/m ) -2.77 -39.58	: 03CH11-HY : 15.209 LIMT Distance extrapolation Factor (dB) 80 80	<b>Over</b> Limit (dB) -44.69 -69.94	Frequent Bm LOOP_AI Limit Line ( dBµV/m ) 41.92 30.36	cy (MHz) NT(V)_100 Read Level (dBµV) 58.09 21.54	Antenna Factor (dB) 19.13 18.87	Cable   Loss   (dB)   0.01   0.01	Ant Pos	Table Pos ( deg ) -	<b>Remar</b> Averag
Sir Co Frequency (MHz) 0.01925 0.07281 0.11	te Indition Level ( dBµV/m ) -2.77 -39.58 -41.99	: 03CH11-HY : 15.209 LIMI Distance extrapolation Factor ( dB ) 80 80 80	<b>Over</b> Limit (dB) -44.69 -69.94 -68.77	Frequent 3m LOOP_A1 Limit Line ( dBµV/m ) 41.92 30.36 26.78	cy (MHz) NT(V)_100 Read Level (dBµV) 58.09 21.54 19.4	Antenna Factor (dB) 19.13 18.87 18.6	Cable   Loss   (dB)   0.01   0.01   0.01	Ant Pos	Table Pos ( deg ) -	Remai Averaç Averaç QP
Sir Co Frequency 0.01925 0.07281 0.11 0.11	te Indition Level ( dBµV/m ) -2.77 -39.58 -41.99 -41.32	: 03CH11-HY : 15.209 LIMI Distance extrapolation Factor (dB) 80 80 80 80 80	<b>Over</b> Limit (dB) -44.69 -69.94 -68.77 -68.1	Frequent Bm LOOP_A1 Limit Line ( dBµV/m ) 41.92 30.36 26.78 26.78	cy (MHz) NT(V)_100 Read Level (dBµV) 58.09 21.54 19.4 20.07	Antenna Factor (dB) 19.13 18.87 18.6 18.6	Cable   Loss   (dB)   0.01   0.01   0.01   0.01	Ant Pos	Table Pos ( deg ) - - -	Reman Averaç Averaç QP Averaç
Sir Co Frequency (MHz) 0.01925 0.07281 0.11 0.11 0.11 0.14772	te Indition Level ( dBµV/m ) -2.77 -39.58 -41.99 -41.32 -30.35	: 03CH11-HY : 15.209 LIMT Distance extrapolation Factor (dB) 80 80 80 80 80 80 80	<b>Over</b> Limit (dB) -44.69 -69.94 -68.77 -68.1 -54.57	Frequent 3m LOOP_AI Limit Line ( dBµV/m ) 41.92 30.36 26.78 26.78 26.78 24.22	cy (MHz) NT(V)_100 Read Level (dBµV) 58.09 21.54 19.4 20.07 31.04	Antenna Factor (dB) 19.13 18.87 18.6 18.6 18.6	Cable   Loss   (dB)   0.01   0.01   0.01   0.01   0.01   0.01	Ant Pos	Table Pos ( deg ) - - -	Reman Averaç Averaç Averaç Averaç
Sir Co Frequency 0.01925 0.07281 0.11 0.11 0.14772 0.15272	te indition Level ( dBµV/m ) -2.77 -39.58 -41.99 -41.32 -30.35 -33.09	: 03CH11-HY : 15.209 LIMT Distance extrapolation Factor (dB) 80 80 80 80 80 80 80 80 40	<b>Over</b> Limit (dB) -44.69 -69.94 -68.77 -68.1 -54.57 -57.02	Frequent 3m LOOP_AI Limit Line ( dBµV/m ) 41.92 30.36 26.78 26.78 26.78 24.22 23.93	cy (MHz) NT(V)_100 Read Level (dBµV) 58.09 21.54 19.4 20.07 31.04 28.3	Antenna Factor (dB) 19.13 18.87 18.6 18.6 18.6 18.6	TCAL Cable Loss (dB) 0.01 0.01 0.01 0.01 0.01	Ant Pos	Table Pos ( deg ) - - -	Remai Averaç Averaç Averaç Averaç Averaç
Sir Co Frequency 0.01925 0.07281 0.11 0.11 0.14772 0.15272 5.477	te Indition Level ( dBµV/m ) -2.77 -39.58 -41.99 -41.32 -30.35 -33.09 7.66	: 03CH11-HY : 15.209 LIMT Distance extrapolation Factor (dB) 80 80 80 80 80 80 80 40 40	<b>Over</b> Limit (dB) -44.69 -69.94 -68.77 -68.1 -54.57 -57.02 -21.84	Frequent Bm LOOP_AI Limit Line ( dBµV/m ) 41.92 30.36 26.78 26.78 26.78 24.22 23.93 29.5	cy (MHz) NT(V)_100 Read Level (dBµV) 58.09 21.54 19.4 20.07 31.04 28.3 28.25	Antenna Factor (dB) 19.13 18.87 18.6 18.6 18.6 18.6 18.6 18.6 19.3	TCAL Cable Loss (dB) 0.01 0.01 0.01 0.01 0.01 0.01 0.01	Ant Pos ( cm ) - - - - - - - - - - -	Table Pos ( deg ) - - - - - - - - - - - - - -	Remai Averag Averag Averag Averag Averag

- 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  $(dB\mu V)$  + distance extrapolation factor.



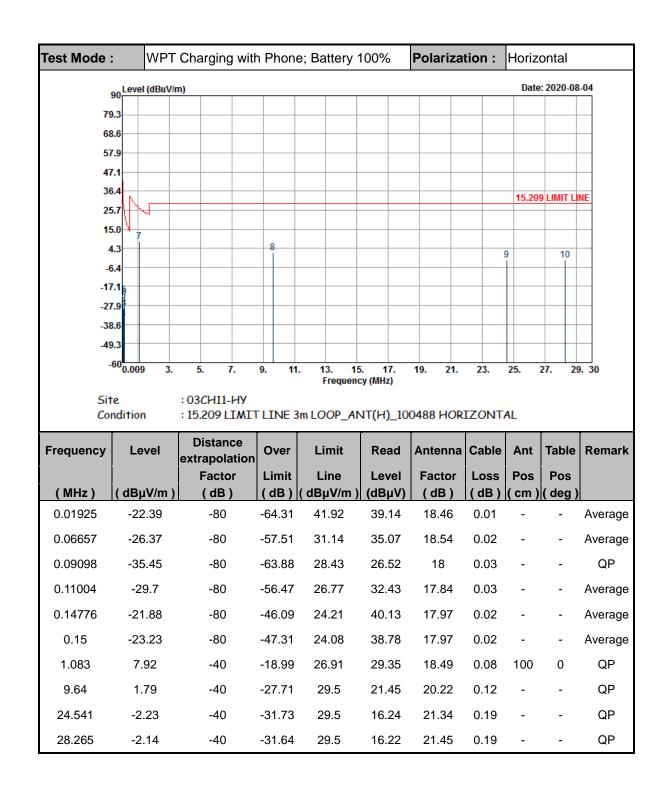




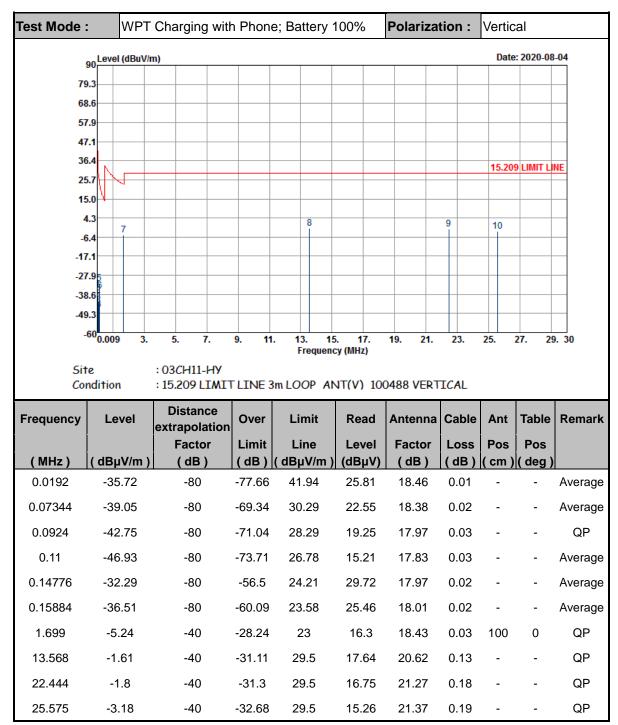


- 1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
- 2. Distance extrapolation factor = 40 log (specific distance / test distance) (dB);
- 3. Limit line = specific limits (dBµV) + distance extrapolation factor.

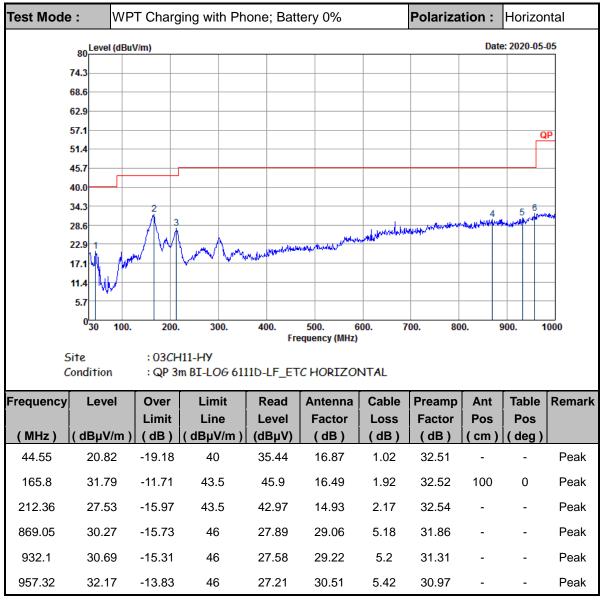






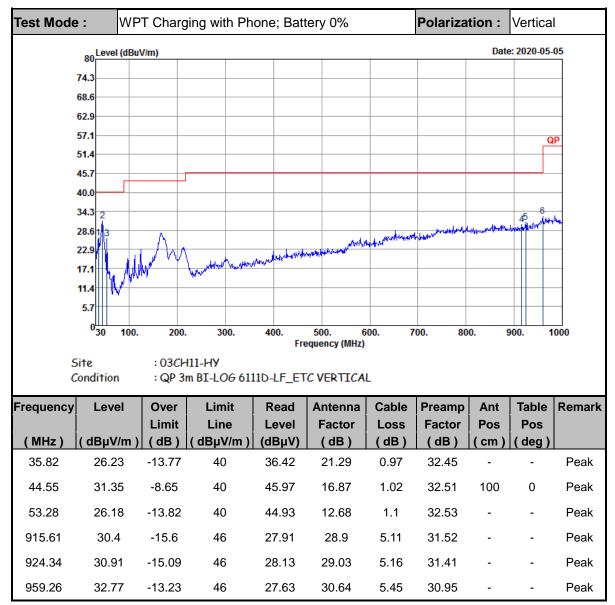


- 1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
- 2. Distance extrapolation factor = 40 log (specific distance / test distance) (dB);
- 3. Limit line = specific limits  $(dB\mu V)$  + distance extrapolation factor.



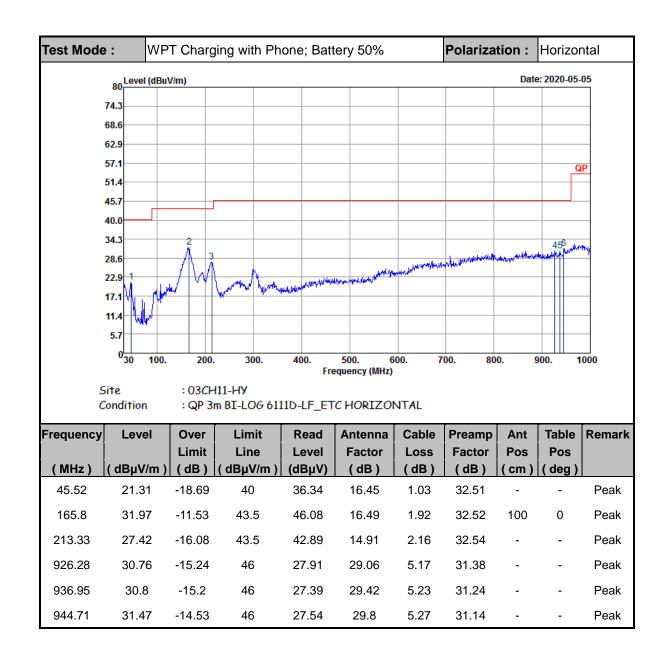
#### C3. Results of Radiated Spurious Emissions (30MHz~1GHz)



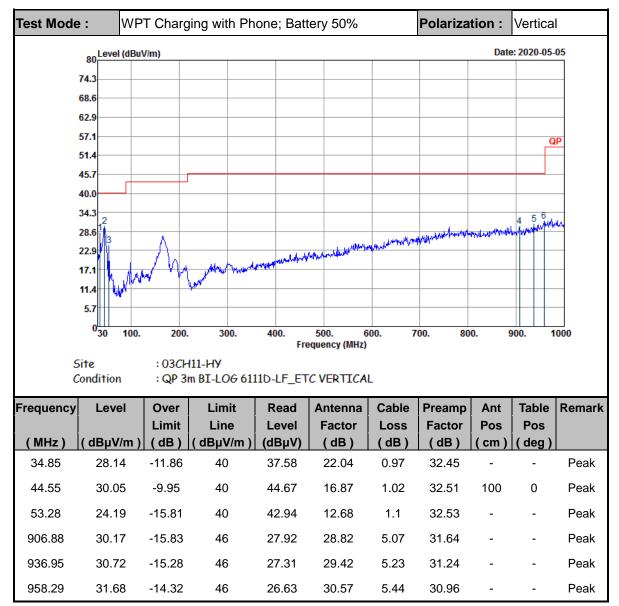


- 1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
- 2. Emission level (dB $\mu$ V/m) = 20 log Emission level ( $\mu$ V/m).
- 3. Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor= Level.



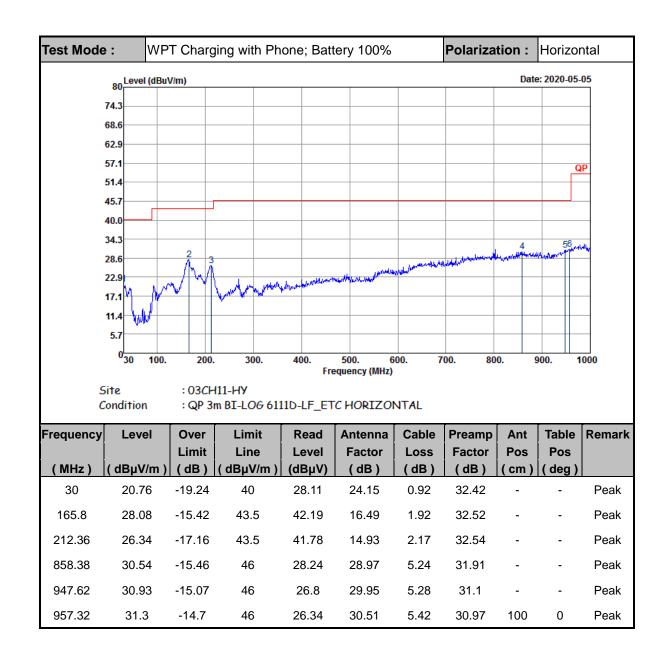




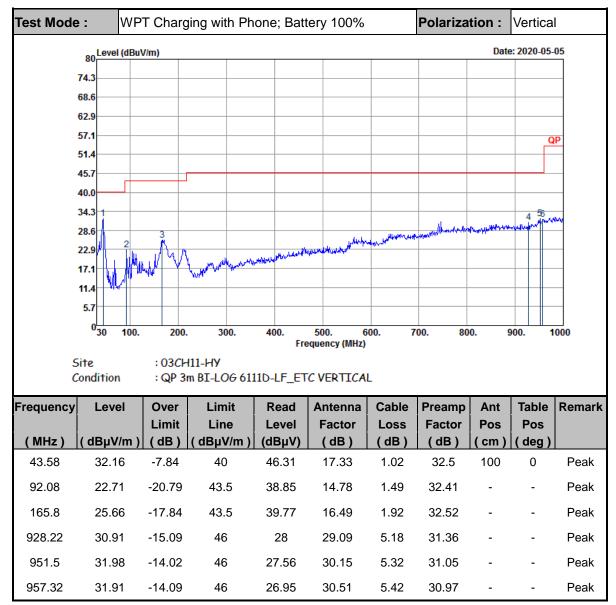


- 1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
- 2. Emission level (dB $\mu$ V/m) = 20 log Emission level ( $\mu$ V/m).
- 3. Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor= Level.









- 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.

