

Report No.: FR050617-02



# **FCC RADIO TEST REPORT**

FCC ID UZ7CR6080SA

**Equipment** 4D Cup **Brand Name** Zebra

**Model Name** CR6080-SA

**Applicant Zebra Technologies Corporation** 

1 Zebra Plaza, Holtsville, NY 11742

Manufacturer **Zebra Technologies Corporation** 

1 Zebra Plaza, Holtsville, NY 11742

**Standard** FCC Part 15 Subpart C §15.209

The product was received on Aug. 12, 2020 and testing was started from Aug. 18, 2020 and completed on Aug. 29, 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

Approved by: Louis Wu

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

TEL: 886-3-327-3456 Page Number : 1 of 17 FAX: 886-3-328-4978 Issued Date

: Sep. 09, 2020 : 01

## **Table of Contents**

Report No. : FR050617-02

: 01

History	of this test report	3
	ry of Test Result	
	eral Description	
1.1	Product Feature of Equipment Under Test	5
1.2	Product Specification of Equipment Under Test	5
1.3	Modification of EUT	5
1.4	Testing Location	6
1.5	Applicable Standards	
2. Test	Configuration of Equipment Under Test	7
2.1	Descriptions of Test Mode	7
2.2	Connection Diagram of Test System	
2.3	EUT Operation Test Setup	8
3. Test	Results	_
3.1	AC Power Line Conducted Emissions Measurement	
3.2	20dB and 99% OBW Spectrum Bandwidth Measurement	
3.3	Radiated Emissions Measurement	12
3.4	Antenna Requirements	
	of Measuring Equipment	
5. Unce	ertainty of Evaluation	17
Append	lix A. Test Results of Conducted Emission Test	
Append	lix B. Test Results of Conducted Test Items	
B1. T	est Result	
Append	lix C. Test Results of Radiated Test Items	
C1. 7	est Result of Field Strength of Fundamental Emissions	
C2. F	Results of Radiated Emissions (9 kHz~30MHz)	
C3. F	Results of Radiated Emissions (30MHz~1GHz)	
Append	lix D. Setup Photographs	

TEL: 886-3-327-3456 Page Number : 2 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

## History of this test report

Report No. : FR050617-02

Report No.	Version	Description	Issued Date
FR050617-02	01	Initial issue of report	Sep. 09, 2020

TEL: 886-3-327-3456 Page Number : 3 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

## **Summary of Test Result**

Report No.: FR050617-02

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.207	AC Power Line Conducted Emissions	Pass	Under limit 8.83 dB at 0.498MHz
3.2	15.215(c)	20dB Spectrum Bandwidth	Reporting only	-
3.2	2.1049	99% OBW Spectrum Bandwidth	Reporting only	-
0.0	45.000	Field Strength of Fundamental Emissions	Pass	Max level 6.78 dBµV/m at 0.150 MHz
3.3	.3 15.209	Radiated Spurious Emissions	Pass	Under limit 6.39 dB at 195.510MHz
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

TEL: 886-3-327-3456 Page Number : 4 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

## 1. General Description

### 1.1 Product Feature of Equipment Under Test

Product Feature				
Equipment	4D Cup			
Brand Name	Zebra			
Model Name	CR6080-SA			
FCC ID	UZ7CR6080SA			
EUT supports Radios application	WPC/WPT			
MFD	29JUL20			
EUT Stage	Engineering sample			

Report No.: FR050617-02

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

Specification of Accessories				
AC Adapter	Brand Name	Zebra	Part Number	PWR-BGA12V50W0WW
DC Cable	<b>Brand Name</b>	Zebra	Part Number	CBL-DC-388A1-01

Supported Unit Used in Test Configuration and System				
Scanner	<b>Brand Name</b>	Zebra	<b>Model Number</b>	CS6080

### 1.2 Product Specification of Equipment Under Test

Standards-related Product Specification			
Tx/Rx Frequency	x/Rx Frequency 1111 kHz ~ 205 kHz		
Channel Number	1		
	<for 1="" slot="">: 0.780 kHZ</for>		
20dBW	<for 2="" slot="">: 0.780 kHZ</for>		
200BW	<for 3="" slot="">: 0.780 kHZ</for>		
	<for 4="" slot="">: 0.800 kHZ</for>		
	<for 1="" slot="">: 0.650 kHZ</for>		
000/ OPW	<for 2="" slot="">: 0.660 kHZ</for>		
99%OBW	<for 3="" slot="">: 0.670 kHZ</for>		
	<for 4="" slot="">: 0.670 kHZ</for>		
Antenna Type Loop Antenna			
Type of Modulation ASK			

**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.

TEL: 886-3-327-3456 Page Number : 5 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

1.4 Testing Location

coming Ecoation				
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.			
rest site No.	TH03-HY	CO05-HY	03CH07-HY	
Test Engineer	Engineer Oscar Chi Tom Lee Stan Hsieh and			
Temperature	23.9~24.9°C 24~26°C 23~25°C			
Relative Humidity	48.8~49.8% 42~50% 51~58%			

Report No.: FR050617-02

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

FCC designation No.: TW1190

### 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:

- 1. The TAF code is not including all the FCC KDB listed without accreditation.
- 2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

TEL: 886-3-327-3456 Page Number : 6 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

## 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		

Report No.: FR050617-02

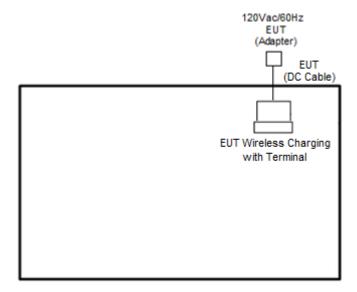
Pre-scanned tests, X, Y, Z in three orthogonal panels to determine the final configuration (Y Plane as worst plane) from all possible combinations.

	Test Cases				
AC Conducted	AC Conducted Mode 1: Wireless Charging with Terminal (CS6080) + DC Cable (Charging				
Emission from AC Adapter)					

TEL: 886-3-327-3456 Page Number : 7 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

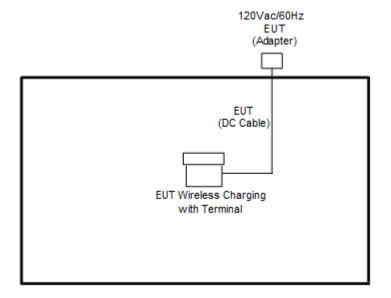
## 2.2 Connection Diagram of Test System

<EUT Wireless Charging with Terminal>



Report No.: FR050617-02

<WPT Mode>



## 2.3 EUT Operation Test Setup

The Terminal charger from the EUT via wireless power transfer function.

TEL: 886-3-327-3456 Page Number : 8 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

### 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.

Report No.: FR050617-02

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	

<sup>\*</sup>Decreases with the logarithm of the frequency.

#### 3.1.2 Measuring Instruments

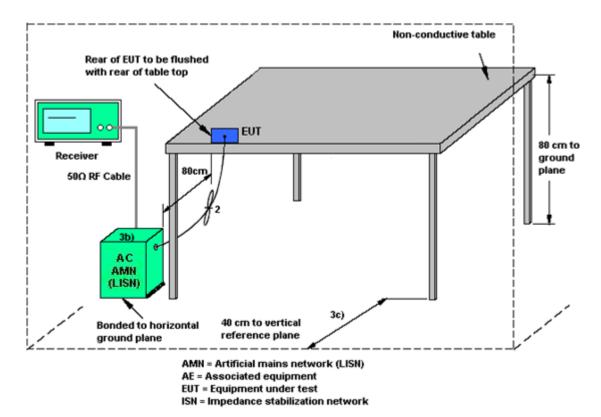
See list of measuring equipment of this test report.

#### 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.
- 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.

TEL: 886-3-327-3456 Page Number : 9 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

### 3.1.4 Test setup



Report No.: FR050617-02

### 3.1.5 Test Result of AC Conducted Emission

Please refer to Appendix A.

TEL: 886-3-327-3456 Page Number : 10 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

## 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.

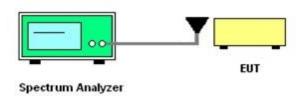
#### 3.2.3 Test Procedures

1. The spectrum analyzer connected via a receive antenna placed near the EUT in peak Max hold mode.

Report No.: FR050617-02

- 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.

TEL: 886-3-327-3456 Page Number : 11 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

#### 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.

Report No.: FR050617-02

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.

TEL: 886-3-327-3456 Page Number : 12 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

#### 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.

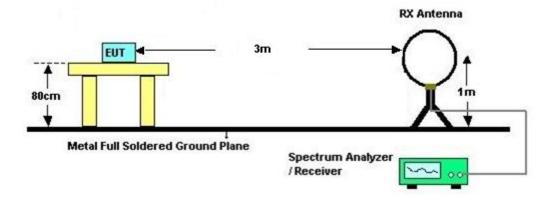
Report No.: FR050617-02

- 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.
- 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.
- 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.

TEL: 886-3-327-3456 Page Number : 13 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

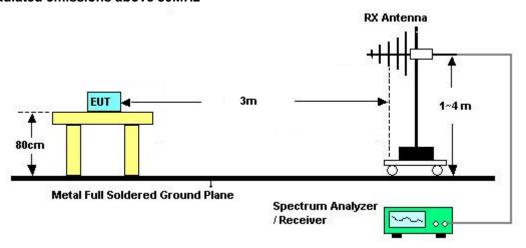
### 3.3.5 Test Setup

#### For radiated emissions below 30MHz



Report No.: FR050617-02

#### For radiated emissions above 30MHz



#### 3.3.6 Test Result of Radiated Emissions Measurement

Please refer to Appendix C.

TEL: 886-3-327-3456 Page Number : 14 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

### 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.

Report No.: FR050617-02

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.

TEL: 886-3-327-3456 Page Number : 15 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

## 4. List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	AC POWER	AFC-500W	F104070011	50Hz~60Hz	Apr. 09, 2020	Aug. 29, 2020	Apr. 08, 2021	Conducted (TH03-HY)
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 26, 2020	Aug. 29, 2020	Mar. 25, 2021	Conducted (TH03-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101329	9kHz~30GHz	Sep. 04, 2019	Aug. 29, 2020	Sep. 03, 2020	Conducted (TH03-HY)
Temperature Chamber	ESPEC	SU-641	92013721	-30°C ~70°C	Nov. 26, 2019	Aug. 29, 2020	Nov. 25, 2020	Conducted (TH03-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	35419 & 03	30MHz~1GHz	Apr. 29, 2020	Aug. 24, 2020~ Aug. 25, 2020	Apr. 28, 2021	Radiation (03CH07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Dec. 26, 2019	Aug. 24, 2020~ Aug. 25, 2020	Dec. 25, 2020	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz~1GHz	May 19, 2020	Aug. 24, 2020~ Aug. 25, 2020	May 18, 2021	Radiation (03CH07-HY)
Filter	Wainwright	WHK20/1000C 7/40SS	SN1	20MHz High Pass Filter	Aug. 21, 2020	Aug. 24, 2020~ Aug. 25, 2020	Aug. 20, 2021	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24971/4, MY28655/4	9kHz~30MHz	Feb. 25, 2020	Aug. 24, 2020~ Aug. 25, 2020	Feb. 24, 2021	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	30MHz~1GHz	Feb. 25, 2020	Aug. 24, 2020~ Aug. 25, 2020	Feb. 24, 2021	Radiation (03CH07-HY)
Controller	ChainTek	Chaintek 3000	N/A	Control Turn table	N/A	Aug. 24, 2020~ Aug. 25, 2020	N/A	Radiation (03CH07-HY)
Controller	Max-Full	MF7802	MF78020836 8	Control Ant Mast	N/A	Aug. 24, 2020~ Aug. 25, 2020	N/A	Radiation (03CH07-HY)
Antenna Mast	Max-Full	MFA520BS	N/A	1m~4m	N/A	Aug. 24, 2020~ Aug. 25, 2020	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Aug. 24, 2020~ Aug. 25, 2020	N/A	Radiation (03CH07-HY)
EMI Test Receiver	Agilent	N9038A(MXE)	MY53290053	20Hz~26.5GHz	May 21, 2020	Aug. 24, 2020~ Aug. 25, 2020	May 20, 2021	Radiation (03CH07-HY)
Software	Audix	E3 6.2009-8-24	80504004656 H	N/A	N/A	Aug. 24, 2020~ Aug. 25, 2020	N/A	Radiation (03CH07-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Aug. 18, 2020	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 15, 2019	Aug. 18, 2020	Nov. 14, 2020	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 07, 2019	Aug. 18, 2020	Nov. 06, 2020	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 15, 2019	Aug. 18, 2020	Nov. 14, 2020	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Aug. 18, 2020	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 02, 2020	Aug. 18, 2020	Jan. 01, 2021	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 02, 2020	Aug. 18, 2020	Jan. 01, 2021	Conduction (CO05-HY)

Report No. : FR050617-02

TEL: 886-3-327-3456 Page Number : 16 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

## 5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence	2.2
of 95% (U = 2Uc(y))	2.3

Report No.: FR050617-02

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

Measuring Uncertainty for a Level of Confidence	2.9
of 95% (U = 2Uc(y))	2.3

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

Measuring Uncertainty for a Level of Confidence	4.7
of 95% (U = 2Uc(y))	4.7

TEL: 886-3-327-3456 Page Number : 17 of 17
FAX: 886-3-328-4978 Issued Date : Sep. 09, 2020

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

Test Engineer :	Tom Loo	Temperature :	<b>24~26</b> ℃
	Tom Lee	Relative Humidity :	42~50%

Report No. : FR050617-02

TEL: 886-3-327-3456 Page Number : A1 of A1

### **EUT Information**

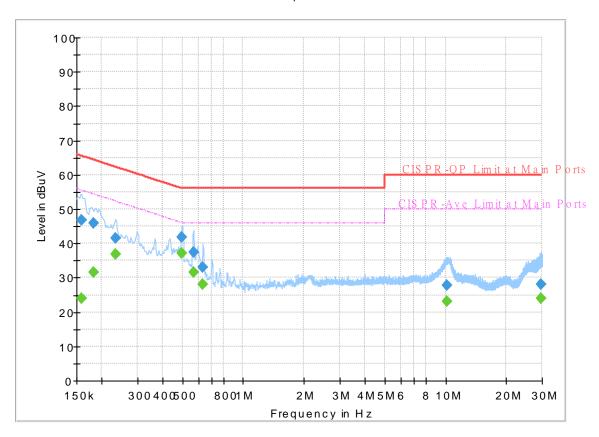
 Report NO :
 050617-02

 Test Mode :
 Mode 1

 Test Voltage :
 120Vac/60Hz

Phase: Line

#### FullSpectrum



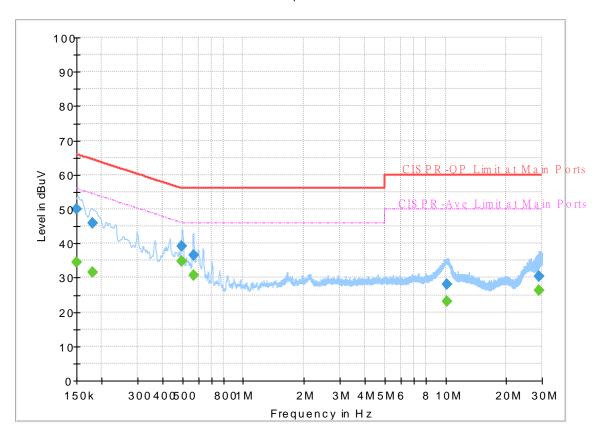
## Final\_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.157920		24.10	55.57	31.47	L1	OFF	19.5
0.157920	46.79		65.57	18.78	L1	OFF	19.5
0.181500		31.55	54.42	22.87	L1	OFF	19.5
0.181500	45.92		64.42	18.50	L1	OFF	19.5
0.233610		36.97	52.32	15.35	L1	OFF	19.5
0.233610	41.62		62.32	20.70	L1	OFF	19.5
0.497760		37.21	46.04	8.83	L1	OFF	19.5
0.497760	41.72		56.04	14.32	L1	OFF	19.5
0.569580		31.56	46.00	14.44	L1	OFF	19.5
0.569580	37.35		56.00	18.65	L1	OFF	19.5
0.627540		28.09	46.00	17.91	L1	OFF	19.5
0.627540	33.15		56.00	22.85	L1	OFF	19.5
10.173750		22.96	50.00	27.04	L1	OFF	19.8
10.173750	27.89		60.00	32.11	L1	OFF	19.8
29.733000	-	24.03	50.00	25.97	L1	OFF	19.8
29.733000	28.02		60.00	31.98	L1	OFF	19.8

### **EUT Information**

Report NO: 050617-02
Test Mode: Mode 1
Test Voltage: 120Vac/60Hz
Phase: Neutral

FullSpectrum



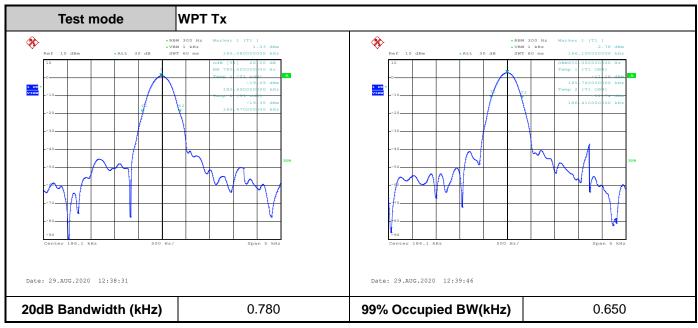
### **Final Result**

Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Filter	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)			(dB)
0.150000		34.51	56.00	21.49	N	OFF	19.5
0.150000	50.10		66.00	15.90	N	OFF	19.5
0.180780		31.50	54.45	22.95	N	OFF	19.5
0.180780	45.84	-	64.45	18.61	N	OFF	19.5
0.498210		34.90	46.03	11.13	N	OFF	19.5
0.498210	39.29		56.03	16.74	N	OFF	19.5
0.567600		30.71	46.00	15.29	N	OFF	19.5
0.567600	36.51		56.00	19.49	N	OFF	19.5
10.110750		23.16	50.00	26.84	N	OFF	19.8
10.110750	28.10	-	60.00	31.90	N	OFF	19.8
29.033250		26.36	50.00	23.64	N	OFF	20.0
29.033250	30.39		60.00	29.61	N	OFF	20.0

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

#### **B1.Test Result**

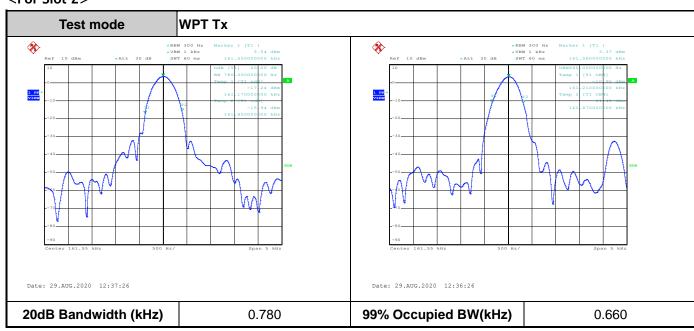
#### <For Slot 1>



Report No.: FR050617-02

**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.

#### <For Slot 2>

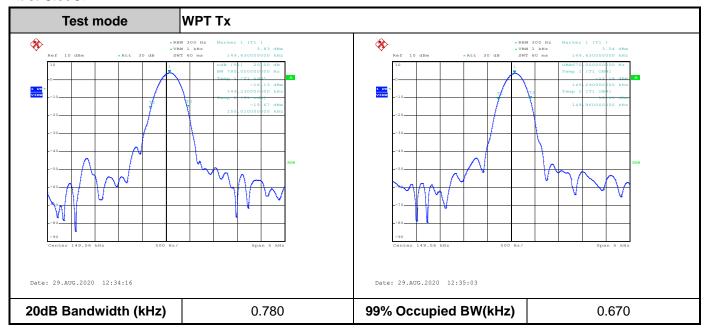


**Remark:** Because the measured signal is CW adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

TEL: 886-3-327-3456 Page Number : B1 of B2

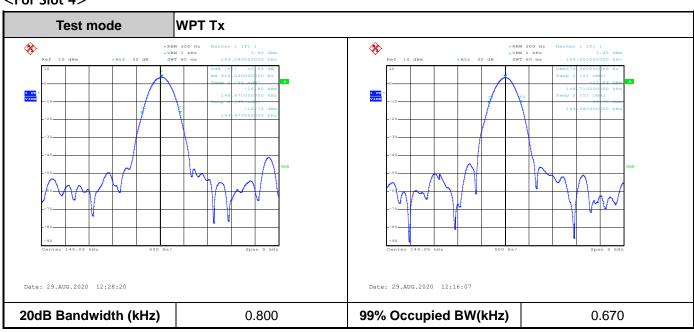


#### <For Slot 3>



**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.

#### <For Slot 4>



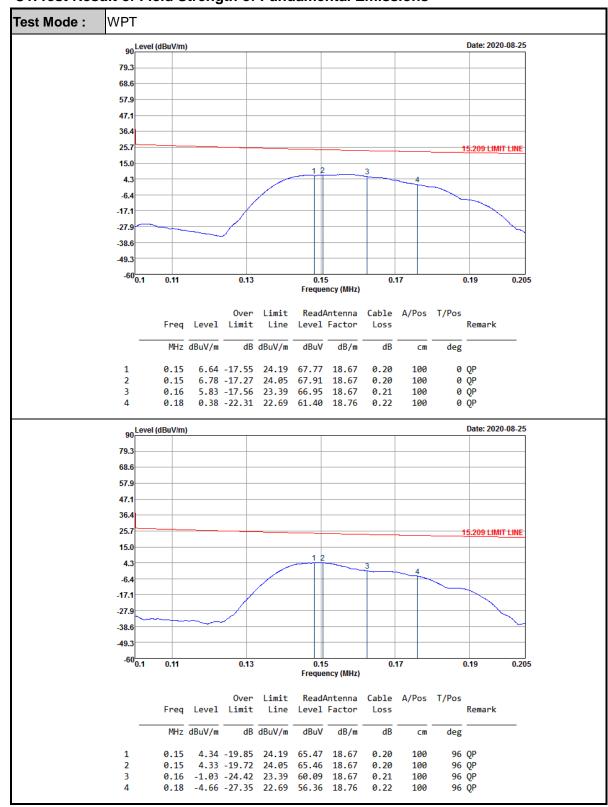
**Remark:** Because the measured signal is CW adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

TEL: 886-3-327-3456 Page Number: B2 of B2



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

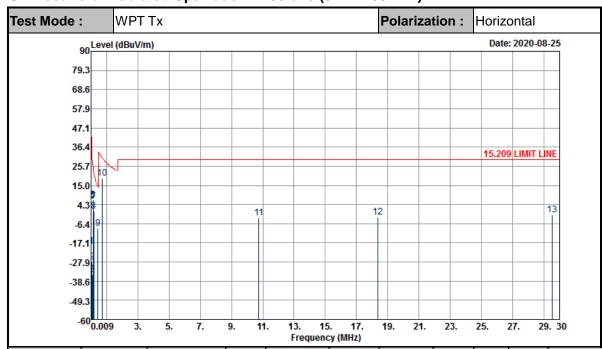
#### C1. Test Result of Field Strength of Fundamental Emissions



Report No.: FR050617-02

TEL: 886-3-327-3456 Page Number : C1 of C5

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

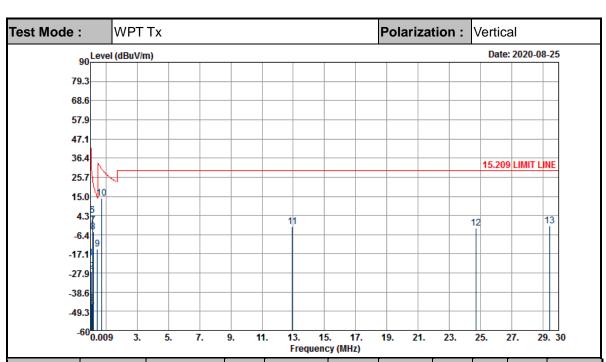


Report No. : FR050617-02

Frequency	Level	Distance extrapolation	Over	Limit	Read	Antenna	Cable	Ant	Table	Remark
		Factor	Limit	Line	Level	Factor	Loss	Pos	Pos	
(MHz)	$(dB\mu V/m)$	( dB )	(dB)	( dBµV/m )	(dBµV)	( dB )	(dB)	( cm )	(deg)	
0.01313	-19.05	-80	-64.29	45.24	42.13	18.7	0.12	-	-	Average
0.07356	-27.75	-80	-58.02	30.27	33.09	19	0.16	-	-	Average
0.09878	-34.74	-80	-62.45	27.71	26.59	18.5	0.17	-	-	QP
0.1428	-34.05	-80	-58.56	24.51	27.16	18.59	0.2	-	-	Average
0.1482	6.64	-80	-17.55	24.19	67.77	18.67	0.2	-	-	Average
0.15051	6.78	-80	-17.27	24.05	67.91	18.67	0.2	-	-	Average
0.16248	5.83	-80	-17.56	23.39	66.95	18.67	0.21	-	-	Average
0.17602	0.38	-80	-22.31	22.69	61.4	18.76	0.22	-	-	Average
0.44648	-9.05	-80	-23.66	14.61	51.44	19.18	0.33	-	-	Average
0.74534	18.88	-40	-11.28	30.16	39.47	19.09	0.32	100	0	QP
10.744	-3.19	-40	-32.69	29.5	15.64	20.77	0.4	-	-	QP
18.349	-2.67	-40	-32.17	29.5	15.4	21.54	0.39	-	-	QP
29.5	-1.62	-40	-31.12	29.5	15.04	22.46	0.88	-	-	QP

TEL: 886-3-327-3456 Page Number : C2 of C5





Report No.: FR050617-02

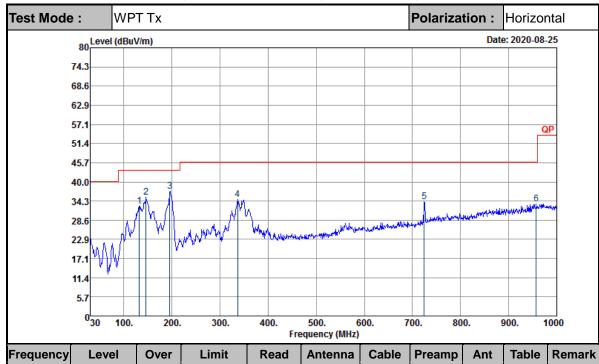
Frequency	Level	Distance extrapolation	Over	Limit	Read	Antenna	Cable	Ant	Table	Remark
		Factor	Limit	Line	Level	Factor	Loss	Pos	Pos	
(MHz)	$(dB\mu V/m)$	( dB )	(dB)	$(dB\mu V/m)$	(dBµV)	(dB)	(dB)	( cm )	(deg)	
0.01313	-19.39	-80	-64.63	45.24	41.79	18.7	0.12	-	-	Average
0.07176	-26.89	-80	-57.38	30.49	33.96	19	0.15	-	-	Average
0.09018	-45.07	-80	-73.57	28.5	16.27	18.5	0.16	-	-	QP
0.13968	-46.88	-80	-71.58	24.7	14.34	18.59	0.19	-	-	Average
0.1482	4.34	-80	-19.85	24.19	65.47	18.67	0.2	-	-	Average
0.1501	4.33	-80	-19.75	24.08	65.46	18.67	0.2	-	-	Average
0.16248	-1.03	-80	-24.42	23.39	60.09	18.67	0.21	-	-	Average
0.17602	-4.66	-80	-27.35	22.69	56.36	18.76	0.22	-	-	Average
0.44886	-14.44	-80	-29	14.56	46.05	19.18	0.33	-	-	Average
0.74534	14.09	-40	-16.07	30.16	34.68	19.09	0.32	100	0	QP
12.952	-2.07	-40	-31.57	29.5	16.52	21	0.41	-	-	QP
24.721	-2.59	-40	-32.09	29.5	14.9	22.08	0.43	-	-	QP
29.45	-1.63	-40	-31.13	29.5	15.03	22.46	0.88	-	-	QP

#### Note:

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

TEL: 886-3-327-3456 Page Number : C3 of C5

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

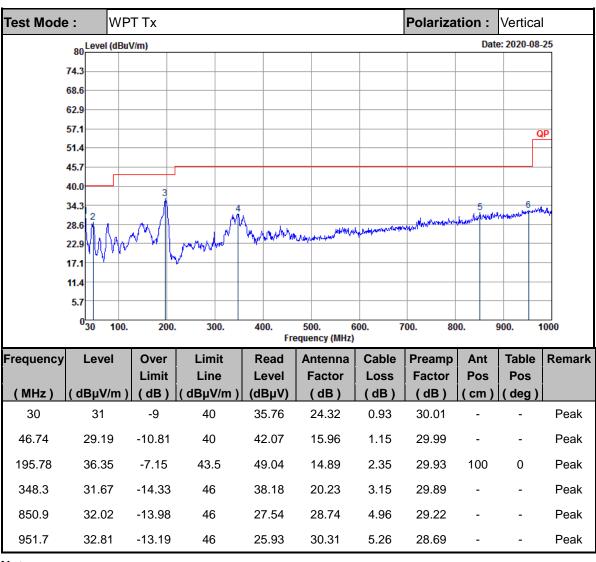


Report No. : FR050617-02

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	( dBµV/m )	(dB)	( $dB\mu V/m$ )	(dBµV)	(dB)	(dB)	( dB )	( cm )	(deg)	
132.06	32.8	-10.7	43.5	43.27	17.57	1.92	29.96	-	-	Peak
146.1	35.5	-8	43.5	46.13	17.29	2.03	29.95	-	-	Peak
195.51	37.11	-6.39	43.5	49.8	14.89	2.35	29.93	100	0	Peak
336.4	34.82	-11.18	46	41.72	19.89	3.1	29.89	-	-	Peak
724.2	34.15	-11.85	46	32.31	26.9	4.56	29.62	-	-	Peak
957.3	33.33	-12.67	46	26.24	30.47	5.28	28.66	-	-	Peak

TEL: 886-3-327-3456 Page Number : C4 of C5





Report No.: FR050617-02

#### 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 (dB $\mu$ V/m) = 20 log Emission level ( $\mu$ V/m).
- 3. Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor= Level.

TEL: 886-3-327-3456 Page Number : C5 of C5