EMC TEST REPORT

Report No.: Q191108S002-FCC-E

Supersede Report No: N/A

Applicant	Cedar Kingdom Corporation Limited
Product Name	Mobile Phone
Model No.	V205
Serial No.	N/A
Test Standard	FCC Part 15 Subpart B Class B, ANSI C63.4: 2014
Test Date	Nov. 15 to Dec. 03, 2019
Issue Date	Dec. 10, 2019
Test Result	☑ Pass ☐ Fail
Equipment complied with the specification	☑
Equipment did not comply with the specification	☐
Evans He	David Huang
Evans He Test Engineer	David Huang Checked By

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Test result presented in this test report is applicable to the tested sample only

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

Zone A, Floor 1, Building 2 Wan Ye Long Technology Park

South Side of Zhoushi Road, Bao'an District, Shenzhen, Guangdong China 518108

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Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.

In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety

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CONTENTS

1. Report Revision History

Report No.	Report Version	Description	Issue Date
Q191108S002-FCC-E	NONE	Original	Dec. 10, 2019

2. Customer information

Applicant Name	Cedar Kingdom Corporation Limited
Applicant Add	Flat/Rm 05, 14/F, Lucky Centre, 165-171 Wanchai Road, Wanchai, Hong Kong
Manufacturer	Cedar Kingdom Corporation Limited
Manufacturer Add	Flat/Rm 05, 14/F, Lucky Centre, 165-171 Wanchai Road, Wanchai, Hong Kong

3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES
Lab Address	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park South Side of Zhoushi Road, Bao'an District, Shenzhen, Guangdong China 518108
FCC Test Site No.	535293
IC Test Site No.	4842E-1
Test Software of Radiated Emission	Radiated Emission Program-To Shenzhen v2.0
Test Software of Conducted Emission	EZ-EMC(ver.lcp-03A1)

4. Equipment under Test (EUT) Information

Description of EUT:	Mobile Phone
Main Model:	V205
Serial Model:	N/A
Antenna Gain:	GSM850: -1.12dBi PCS1900: -1.45dBi Bluetooth: -2.06dBi
Antenna Type:	Fixed Internal Antenna
Input Power:	Adapter : Model: V205 Input: AC100-240V~50/60Hz,.0.15A Output: DC 5.0V, 500mA Battery : Model: BL-25BI Spec: 3.7V, 3000mAh/11.1Wh Limited charge voltage: 4.2V
Equipment Category :	JBP
Type of Modulation:	GSM / GPRS: GMSK Bluetooth: GFSK, π /4DQPSK, 8DPSK
RF Operating Frequency (ies):	GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz Bluetooth& : 2402-2480 MHz
Number of Channels:	GSM 850: 124CH PCS1900: 299CH

	Bluetooth: 79CH
Port:	Please refer to the user's manual
Trade Name :	VIRZO
FCC ID:	2AKQUVZCKV205
GPRS Multi-slot class	13
Date EUT received:	Nov. 13, 2019
Test Date(s):	Nov. 15 to Dec. 03, 2019

5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

FCC Rules	Description of Test	Result
§15.107; ANSI C63.4: 2014	AC Power Line Conducted Emissions	Compliance
§15.109; ANSI C63.4: 2014	Radiated Emissions	Compliance

Measurement Uncertainty

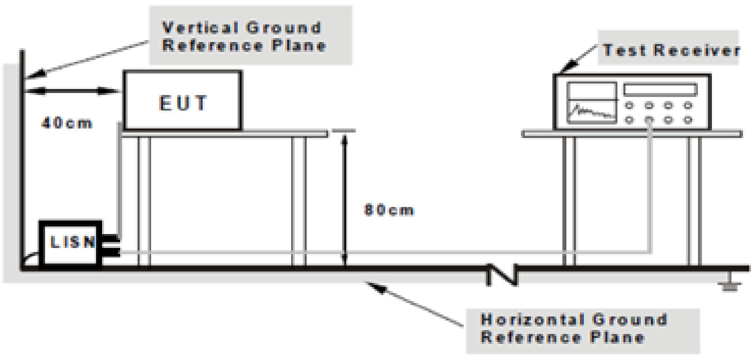
Parameter	Uncertainty
AC Power Line Conducted Emissions (150kHz~30MHz)	±2.70dB
Radiated Emission(30MHz~1GHz)	±3.74dB
Radiated Emission(1GHz~6GHz)	±4.67dB

6. Measurements, Examination And Derived Results

6.1 AC Power Line Conducted Emissions

Temperature	25oC
Relative Humidity	39%
Atmospheric Pressure	1017mbar
Test date :	Dec. 02, 2019
Tested By :	Evans He

Requirement(s):

<table>
<tr><th>Spec</th><th>Item</th><th>Requirement</th><th>Applicable</th></tr>
<tr><td>47CFR§15.107</td><td>a)</td><td>For Low-power radio-frequency devices 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, as measured using a 50 [mu] H/50 ohms line impedance stabilization network (LISN). The lower limit applies at the boundary between the frequencies ranges.
<table>
<tr><th rowspan="2">Frequency ranges (MHz)</th><th colspan="2">Limit (dBμV)</th></tr>
<tr><th>QP</th><th>Average</th></tr>
<tr><td>0.15 ~ 0.5</td><td>66 – 56</td><td>56 – 46</td></tr>
<tr><td>0.5 ~ 5</td><td>56</td><td>46</td></tr>
<tr><td>5 ~ 30</td><td>60</td><td>50</td></tr>
</table>
</td><td>☑</td></tr>
<tr><td>Test Setup</td><td colspan="3">

Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80cm from EUT and at least 80cm from other units and other metal planes support units.</td></tr>
<tr><td>Procedure</td><td colspan="3">1. The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m x 1m x 0.8m high, non-metallic table.
2. The power supply for the EUT was fed through a 50Ω /50mH EUT LISN, connected to filtered mains.
3. The RF OUT of the EUT LISN was connected to the EMI test receiver via a low-loss</td></tr>
</table>

	coaxial cable. 4. All other supporting equipment were powered separately from another main supply. 5. The EUT was switched on and allowed to warm up to its normal operating condition. 6. A scan was made on the NEUTRAL line (for AC mains) or Earth line (for DC power) over the required frequency range using an EMI test receiver. 7. High peaks, relative to the limit line, The EMI test receiver was then tuned to the selected frequencies and the necessary measurements made with a receiver bandwidth setting of 10 kHz. 8. Step 7 was then repeated for the LIVE line (for AC mains) or DC line (for DC power).
Remark	
Result	☑ Pass ☐ Fail

Test Data ☑ Yes ☐ N/A

Test Plot ☑ Yes (See below) ☐ N/A

Test Mode 1 :	**Charging and light Mode**

Test Mode 2:	**Charging and Camera Mode**

Test Mode 3:	**Charging and video Mode**

Test Mode 4:	**Charging and audio Mode**

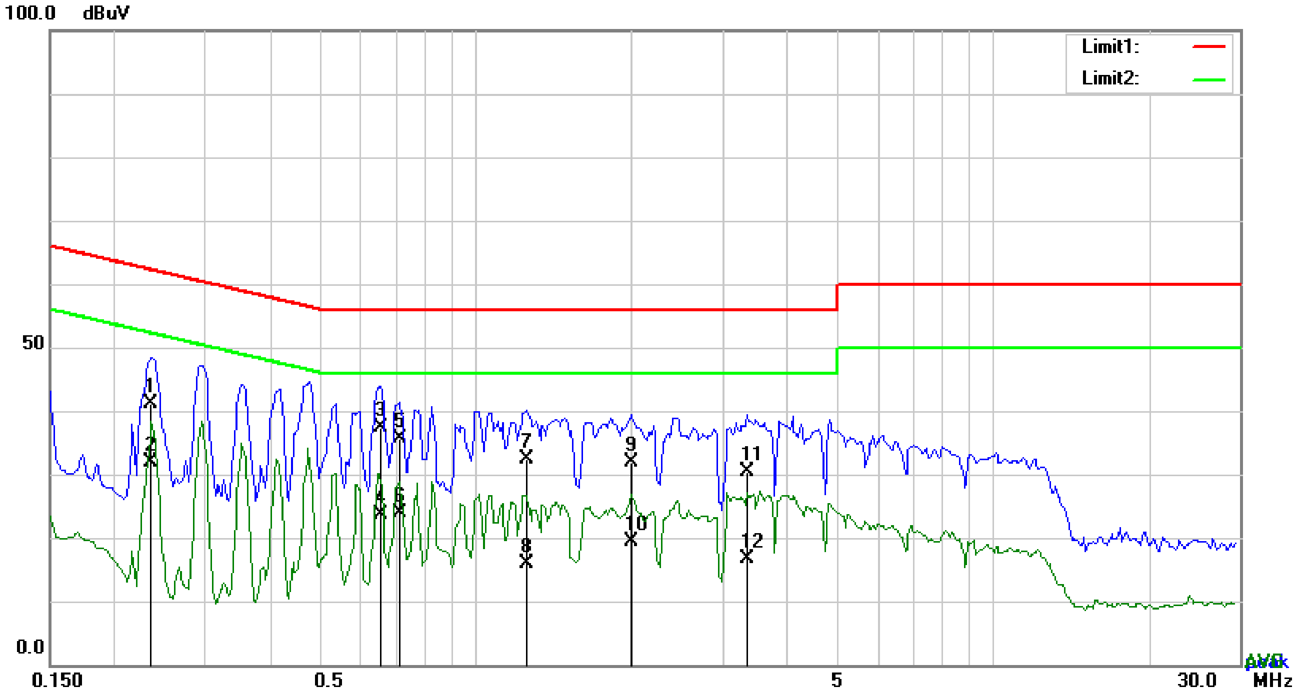
Test Mode 5:	**Charging and FM Mode**

Test Mode 6:	**USB downloading Mode**

Note: 1, All above test modes were investigated. The results below show only the worst case.

2, The USB Downloading Mode were investigated. The results below show only the worst case.

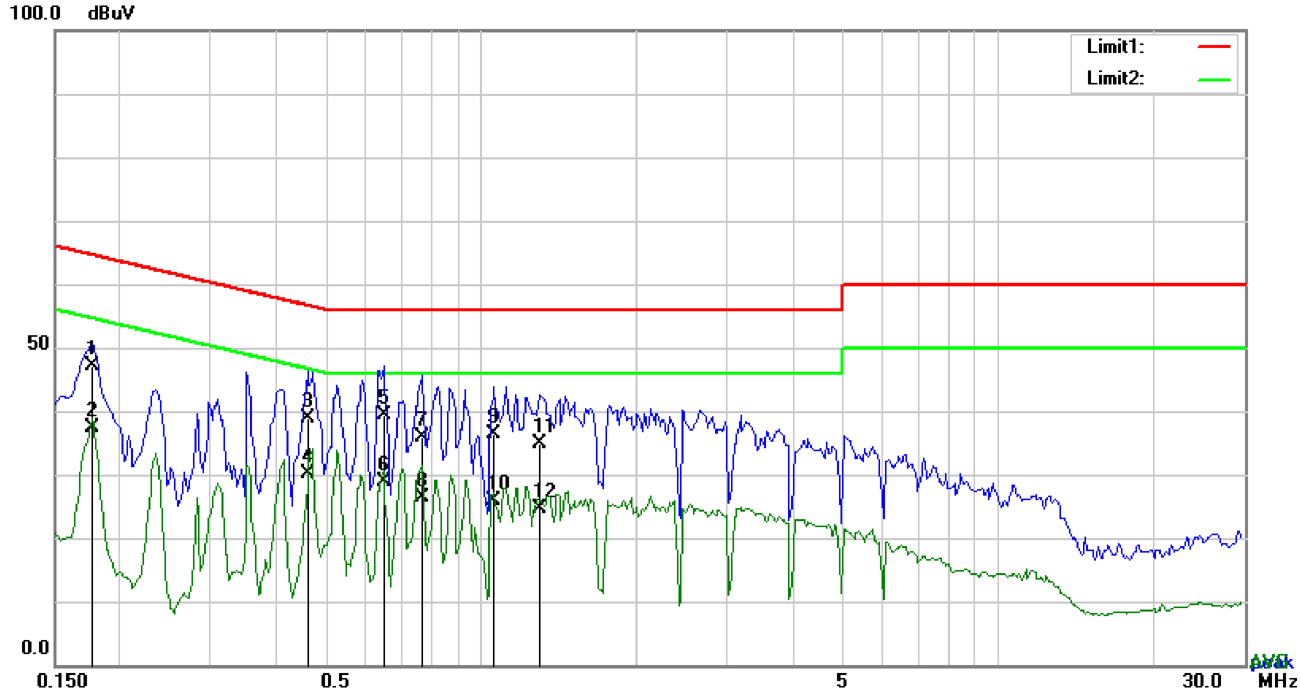
Test Mode 1 :	Charging and light Mode (worst case)



Test Data

Phase Line Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	L1	0.2358	31.13	QP	10.11	41.24	62.24	-21.00
2	L1	0.2358	21.65	AVG	10.11	31.76	52.24	-20.48
3	L1	0.6570	27.39	QP	10.11	37.50	56.00	-18.50
4	L1	0.6570	13.58	AVG	10.11	23.69	46.00	-22.31
5	L1	0.7155	25.50	QP	10.11	35.61	56.00	-20.39
6	L1	0.7155	13.67	AVG	10.11	23.78	46.00	-22.22
7	L1	1.2537	22.30	QP	10.13	32.43	56.00	-23.57
8	L1	1.2537	5.65	AVG	10.13	15.78	46.00	-30.22
9	L1	1.9947	21.75	QP	10.15	31.90	56.00	-24.10
10	L1	1.9947	9.22	AVG	10.15	19.37	46.00	-26.63
11	L1	3.3627	20.32	QP	10.17	30.49	56.00	-25.51
12	L1	3.3627	6.48	AVG	10.17	16.65	46.00	-29.35



Test Data

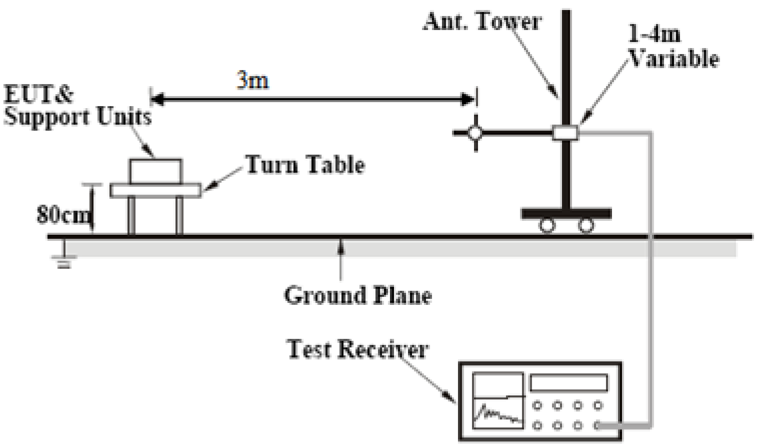
Phase Neutral Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	N	0.1773	36.97	QP	10.14	47.11	64.61	-17.50
2	N	0.1773	27.32	AVG	10.14	37.46	54.61	-17.15
3	N	0.4620	28.72	QP	10.12	38.84	56.66	-17.82
4	N	0.4620	19.96	AVG	10.12	30.08	46.66	-16.58
5	N	0.6492	29.29	QP	10.13	39.42	56.00	-16.58
6	N	0.6492	18.75	AVG	10.13	28.88	46.00	-17.12
7	N	0.7701	25.75	QP	10.13	35.88	56.00	-20.12
8	N	0.7701	16.35	AVG	10.13	26.48	46.00	-19.52
9	N	1.0626	26.20	QP	10.15	36.35	56.00	-19.65
10	N	1.0626	15.72	AVG	10.15	25.87	46.00	-20.13
11	N	1.3005	24.73	QP	10.15	34.88	56.00	-21.12
12	N	1.3005	14.41	AVG	10.15	24.56	46.00	-21.44

6.1 Radiated Emissions

Temperature	25°C
Relative Humidity	39%
Atmospheric Pressure	1017mbar
Test date :	Dec. 02, 2019
Tested By :	Evans He

Requirement(s):

<table>
<tr><th>Spec</th><th>Item</th><th>Requirement</th><th>Applicable</th></tr>
<tr><td>47CFR§15.109(d)</td><td>a)</td><td>Except higher limit as specified elsewhere in other section, the emissions from the low-power radio-frequency devices shall not exceed the field strength levels specified in the following table and the level of any unwanted emissions shall not exceed the level of the fundamental emission. The tighter limit applies at the band edges
<table>
<tr><th>Frequency range (MHz)</th><th>Field Strength (µV/m)</th></tr>
<tr><td>30 – 88</td><td>100</td></tr>
<tr><td>88 – 216</td><td>150</td></tr>
<tr><td>216 - 960</td><td>200</td></tr>
<tr><td>Above 960</td><td>500</td></tr>
</table></td><td>☑</td></tr>
<tr><td>Test Setup</td><td colspan="3">
</td></tr>
<tr><td>Procedure</td><td colspan="3">1. The EUT was switched on and allowed to warm up to its normal operating condition.
2. The test was carried out at the selected frequency points obtained from the EUT characterization. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner:
a. Vertical or horizontal polarization (whichever gave the higher emission level</td></tr>
</table>

	over a full rotation of the EUT) was chosen. b. The EUT was then rotated to the direction that gave the maximum emission. c. Finally, the antenna height was adjusted to the height that gave the maximum emission. 3. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasiy Peak detection at frequency below 1GHz. 4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz with Peak detection for Peak measurement at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth with Peak detection for Average Measurement as below at frequency above 1GHz. ■ 1 kHz (Duty cycle < 98%) □ 10 Hz (Duty cycle > 98%) 5. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.
Remark	
Result	☑ Pass ☐ Fail

Test Data ☑ Yes ☐ N/A

Test Plot ☑ Yes (See below) ☐ N/A

Test Mode 1:	Charging and light Mode

Test Mode 2:	Charging and Camera Mode

Test Mode 3:	Charging and video Mode

Test Mode 4:	Charging and audio Mode

Test Mode 5:	Charging and FM Mode

Test Mode 6:	USB downloading Mode

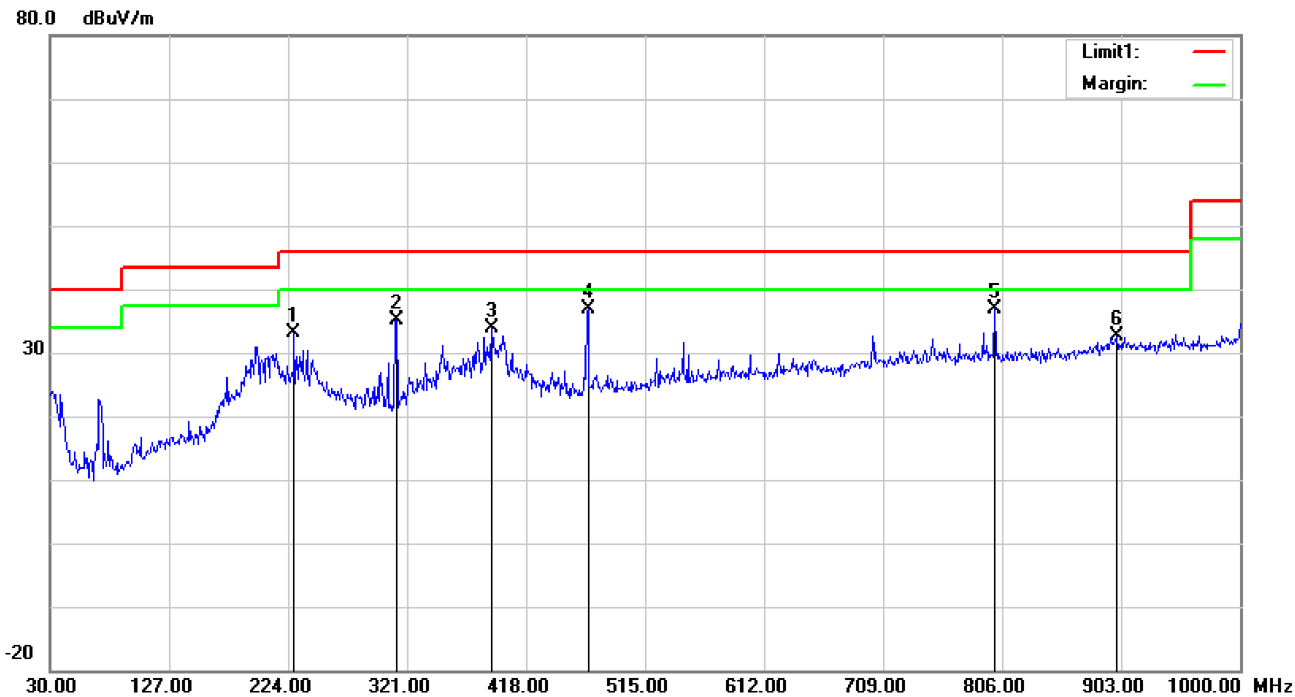
Test Mode 7:	Discharging Mode

Note: 1, All above test modes were investigated. The results below show only the worst case.

2, The USB Downloading Mode were investigated. The results below show only the worst case.

Test Mode 1:	Charging and light Mode (worst case)

Below 1GHz

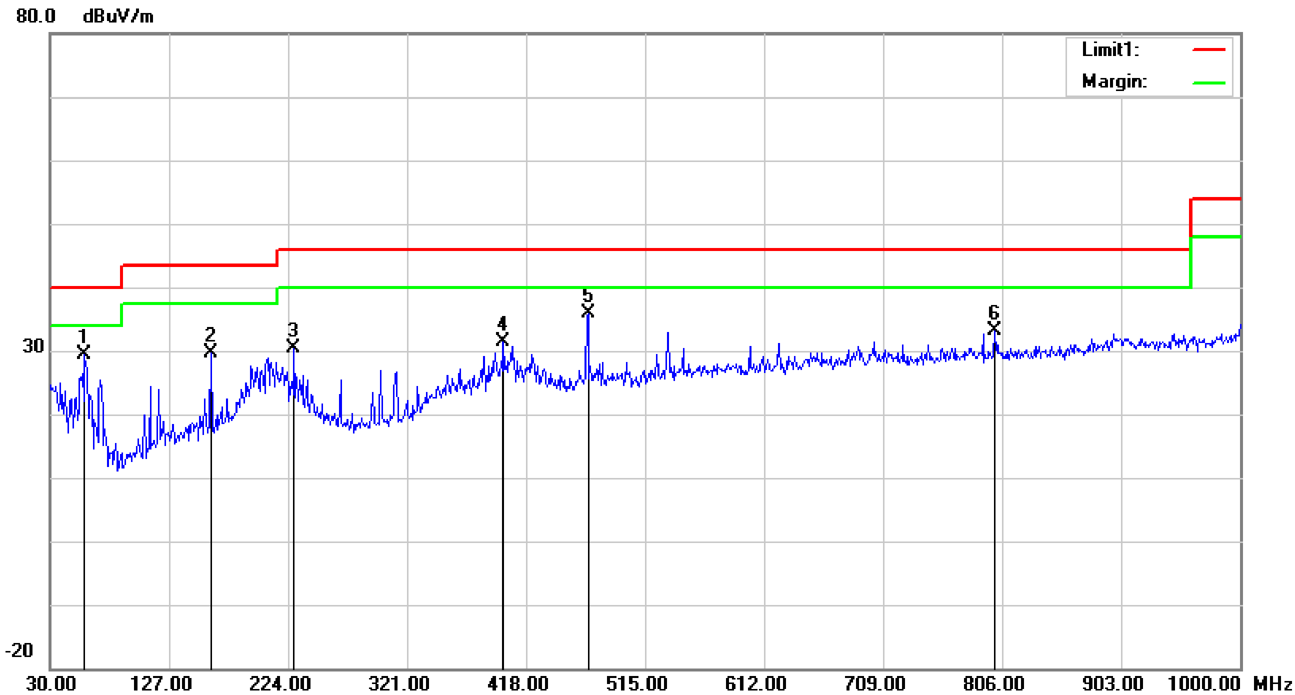


Test Data

Horizontal Polarity Plot @3m

No.	P/L	Frequency	Reading	Ant_F	PA_G	Cab_L	Result	Limit	Margin	Height	Degree
		(MHz)	(dBuV/ m)	(dB/m)	(dB)	(dB)	(dBuV/ m)	(dBuV/ m)	(dB)	(cm)	(º)
1	H	228.8500	42.47	11.48	22.33	1.58	33.20	46.00	-12.80	100	248
2	H	312.2700	41.78	13.95	22.26	1.75	35.22	46.00	-10.78	100	148
3	H	389.8700	38.12	15.84	22.04	1.91	33.83	46.00	-12.17	100	22
4	H	468.4400	38.76	18.06	21.87	2.05	37.00	46.00	-9.00	200	180
5	H	800.1800	33.22	22.30	21.15	2.56	36.93	46.00	-9.07	100	52
6	H	900.0900	26.97	23.90	20.88	2.65	32.64	46.00	-13.36	100	36

Below 1GHz



Test Data

Vertical Polarity Plot @3m

No.	P/L	Frequency	Reading	Ant_F	PA_G	Cab_L	Result	Limit	Margin	Height	Degree
		(MHz)	(dBuV/m)	(dB/m)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(º)
1	V	58.1300	44.22	7.21	22.40	0.26	29.29	40.00	-10.71	100	227
2	V	160.9500	39.63	11.03	22.27	1.33	29.72	43.50	-13.78	200	13
3	V	228.8500	39.61	11.48	22.33	1.58	30.34	46.00	-15.66	100	201
4	V	399.5700	35.58	15.99	22.01	1.93	31.49	46.00	-14.51	100	163
5	V	468.4400	37.55	18.06	21.87	2.05	35.79	46.00	-10.21	100	215
6	V	800.1800	29.44	22.30	21.15	2.56	33.15	46.00	-12.85	100	197

Above 1GHz

Worst case data (USB Downloading Mode)

Frequency (MHz)	Read_level (dBµV/m)	Azimuth	Height (cm)	Polarity (H/V)	Factors (dB)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector (PK/AV)
1024.5	51.25	314	100	H	-18.72	69.97	74	-22.75	PK
1024.5	30.1	314	100	H	-18.72	48.82	54	-23.9	AV
1335.4	50.49	137	100	H	-17.8	68.29	74	-23.51	PK
1335.4	30.49	137	100	H	-17.8	48.29	54	-23.51	AV
1699.5	52.46	294	100	H	-16.08	68.54	74	-21.54	PK
1699.5	34.26	294	100	H	-16.08	50.34	54	-19.74	AV
1247.8	50.95	137	100	V	-18.03	68.98	74	-23.05	PK
1247.8	30.04	137	100	V	-18.03	48.07	54	-23.96	AV
1665.4	51.85	215	100	V	-16.08	67.93	74	-22.15	PK
1665.4	31.46	215	100	V	-16.08	47.54	54	-22.54	AV
1588.9	53.42	322	100	V	-16.6	70.02	74	-20.58	PK
1588.9	33.28	322	100	V	-16.6	49.88	54	-20.72	AV

*Note1: The highest frequency of the EUT is 2480 MHz, so the testing has been conformed to 5*2480MHz=12,400MHz.*

Note2: The frequency that above 3GHz is mainly from the environment noise.

Annex A. TEST INSTRUMENT

Conducted Emission:

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCS30	8.471E+09	Apr. 04,19	Apr. 03,20
Artificial Mains Network	SCHWARZBECK	8127	8127713	Mar. 28,19	Mar. 27,20
ISN	Com-Power	ISN T800	34373	Mar. 28,19	Mar. 27,20
Test software	EZ-EMC	ICP-03A1	N/A	N/A	N/A

RE& RSE

Frequency Range Below 1GHz

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESL6	1300.5001K06-100262-eQ	Apr. 04, 19	Apr. 03, 20
Bilog Antenna	Sunol Sciences	JB6	A110712	Apr. 08, 19	Apr. 07, 20
Active Antenna	CMO-POWER	AL-130	121031	Mar. 27, 19	Mar. 26, 20
Signal Amplifier	HP	8447E	443008	Mar. 28, 19	Mar. 27, 20
3m Semi-anechoic Chamber	SAEMC	9m*6m*6m	N/A	Oct. 18,18	Oct. 17,21
Test Software	EZ-EMC	ICP-03A1	N/A	N/A	N/A
Universal Radio Communication	ROHDE&SCHWARZ	CMU200	112012	Mar. 28,19	Mar. 27,20
Universal Radio Communication	ROHDE&SCHWARZ	CMU200	121393	Mar. 28,19	Mar. 27,20
Wireless Communication Test Set	ROHDE&SCHWARZ	CMW500	1201.0002K500-155842-Gd	Aug. 06, 19	Aug. 05, 20

RE& RSE

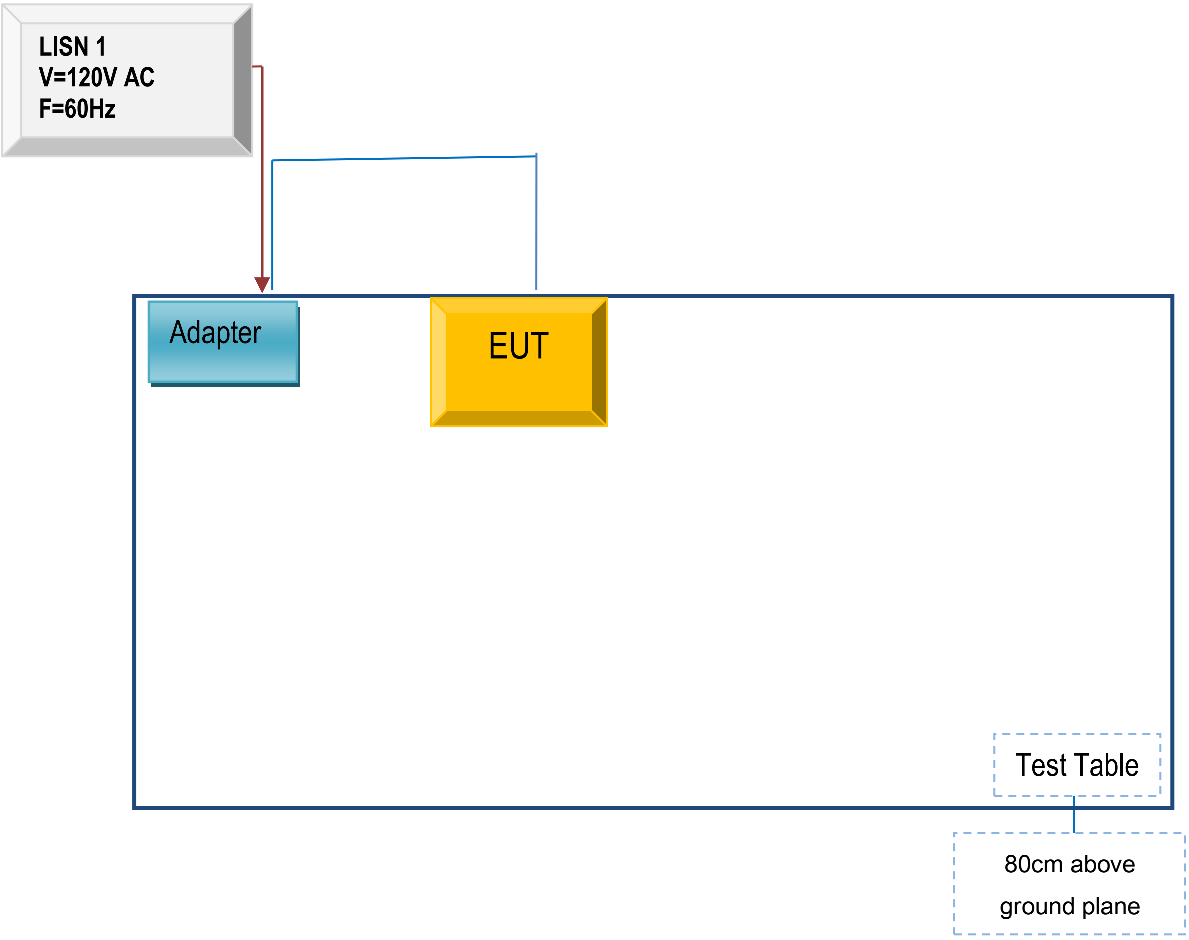
Frequency Range Above 1GHz

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Spectrum	Agilent	E4446A	MY46180622	May. 08,19	Mar. 07, 20
MXA signal analyzer	Agilent	N9020A	MY49100060	Mar. 28, 19	Mar. 27, 20
Horn Antenna	COM-POWER	HAH-118	71259	Mar. 22, 19	Mar. 21, 20
Horn Antenna	COM-POWER	HAH-118	71283	Mar. 20, 19	Mar. 19, 20
SHF-EHF Horn	Schwarzbeck	BBHA9170	BBHA9170147	Jun. 30, 19	Jun. 29, 20
SHF-EHF Horn	Schwarzbeck	BBHA9170	BBHA9170242	Jun. 30, 19	Jun. 29, 20
AMPLIFIER	EM Electornic Corporation	EM01G26G	60613	Mar. 28, 19	Mar. 27, 20
AMPLIFIER	Emc Instruments Corporation	Emc012645	980077	Jan. 04, 19	Jan. 03,20
3m Semi-anechoic Chamber	SAEMC	9m*6m*6m	N/A	Oct. 18,18	Oct. 17,21
Test Software	EZ-EMC	ICP-03A1	N/A	N/A	N/A
Universal Radio Communication	ROHDE&SCHWARZ	CMU200	112012	Mar. 28,19	Mar. 27,20
Universal Radio Communication	ROHDE&SCHWARZ	CMU200	121393	Mar. 28,19	Mar. 27,20
Wireless Communication Test Set	ROHDE&SCHWARZ	CMW500	1201.0002K500-155842-Gd	Aug. 06, 19	Aug. 05, 20

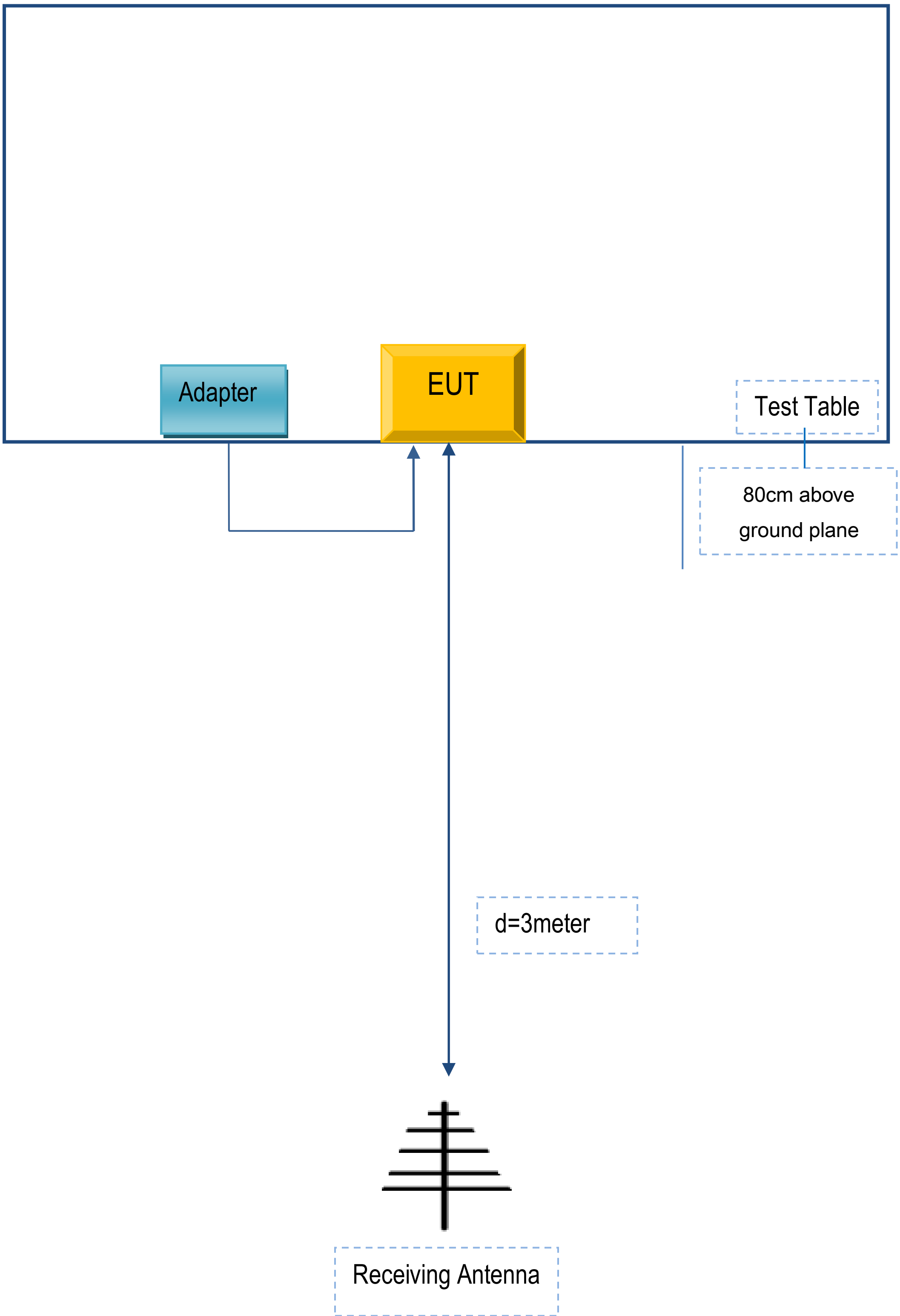
Annex B. TEST SETUP AND SUPPORTING EQUIPMENT

Annex B.ii. TEST SET UP BLOCK

Block Configuration Diagram for Conducted Emissions



Block Configuration Diagram for Radiated Emissions



Annex C. iI. SUPPORTING EQUIPMENT DESCRIPTION

The following is a description of supporting equipment and details of cables used with the EUT.

Supporting Equipment:

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	N/A	N/A	N/A	N/A	N/A

Supporting Cable:

NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	N/A

Annex C. User Manual / Block Diagram / Schematics / Partlist/ DECLARATION OF SIMILARITY

Please see the attachment