

# EMC TEST REPORT



Report No.: 18070343-FCC-E

Supersede Report No: N/A

Applicant	G-TOUCH LLC.	
Product Name	Mobile phone	
Model No.	Magic	
Serial No.	N/A	
Test Standard	FCC Part 15 Subpart B Class B, ANSI C63.4: 2014	
Test Date	April 26 to May 15, 2018	
Issue Date	May 16, 2018	
Test Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	
Equipment complied with the specification	<input checked="" type="checkbox"/>	
Equipment did not comply with the specification	<input type="checkbox"/>	
<i>Evans He</i>	<i>David Huang</i>	
Evans He Test Engineer	David Huang Checked By	
This test report may be reproduced in full only 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

Phone: +86 0755 2601 4629801 Email: [China@siemic.com.cn](mailto:China@siemic.com.cn)

## 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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## 1. Report Revision History

Report No.	Report Version	Description	Issue Date
18070343-FCC-E	NONE	Original	May 16, 2018

## 2. Customer information

Applicant Name	G-TOUCH LLC.
Applicant Add	1750 NW 107TH Avenue, STE P-411, Miami,Florida, United States
Manufacturer	G-TOUCH LLC.
Manufacturer Add	1750 NW 107TH Avenue, STE P-411, Miami,Florida, United States

## 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:	Magic
Serial Model:	N/A
Antenna Gain:	GSM850: 0dBi PCS1900: 0dBi Bluetooth: -0.56dBi
Antenna Type:	GSM: PIFA antenna BT: Monopole antenna
Input Power:	<b>Adapter(Trade name: TUCEL):</b> Input: AC100-240V~50/60Hz,0.15A Output: DC 5.0V, 500mA <b>Adapter(Trade name: G TOUCH):</b> Input: AC100-240V~50/60Hz,0.15A Output: DC 5.0V, 500mA <b>Battery(Trade name: TUCEL):</b> Model: TS241WA-BAT Spec: 3.7V, 800mAh Charging Limited Voltage: 4.2V <b>Battery(Trade name: G TOUCH):</b> Model: BT015200 Spec: 3.7V, 800mAh Charging Limited Voltage: 4.2V
Equipment Category :	JBP
Type of Modulation:	GSM / GPRS: GMSK EGPRS: GMSK Bluetooth: GFSK, $\pi$ /4DQPSK, 8DPSK GPS:BPSK
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 : G TOUCH,TUCEL

FCC ID: 2AJDZMAGIC

GPRS Multi-slot class 8/10/11/12

Date EUT received: April 26, 2018

Test Date(s): April 26 to May 15, 2018

## 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)	±3.11dB
Radiated Emission(30MHz~1GHz)	±5.12dB
Radiated Emission(1GHz~6GHz)	±5.34dB



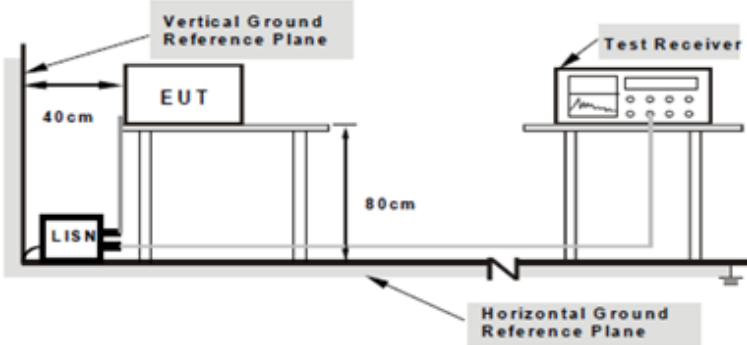
## 6. Measurements, Examination And Derived Results

### 6.1 AC Power Line Conducted Emissions

Temperature	25 °C
Relative Humidity	57%
Atmospheric Pressure	1022mbar
Test date :	April 28, 2018
Tested By :	Evans He

#### Requirement(s):

Spec	Item	Requirement	Applicable														
47CFR§15.107	a)	<p>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.</p> <table border="1"> <thead> <tr> <th rowspan="2">Frequency ranges (MHz)</th> <th colspan="2">Limit (dBµV)</th> </tr> <tr> <th>QP</th> <th>Average</th> </tr> </thead> <tbody> <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> </tbody> </table>	Frequency ranges (MHz)	Limit (dBµV)		QP	Average	0.15 ~ 0.5	66 – 56	56 – 46	0.5 ~ 5	56	46	5 ~ 30	60	50	<input checked="" type="checkbox"/>
Frequency ranges (MHz)	Limit (dBµV)																
	QP	Average															
0.15 ~ 0.5	66 – 56	56 – 46															
0.5 ~ 5	56	46															
5 ~ 30	60	50															

Test Setup	 <p style="text-align: center;"> <b>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.</b> </p>
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Procedure	<ol style="list-style-type: none"> <li>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.</li> <li>The power supply for the EUT was fed through a 50Ω /50mH EUT LISN, connected to filtered mains.</li> </ol>
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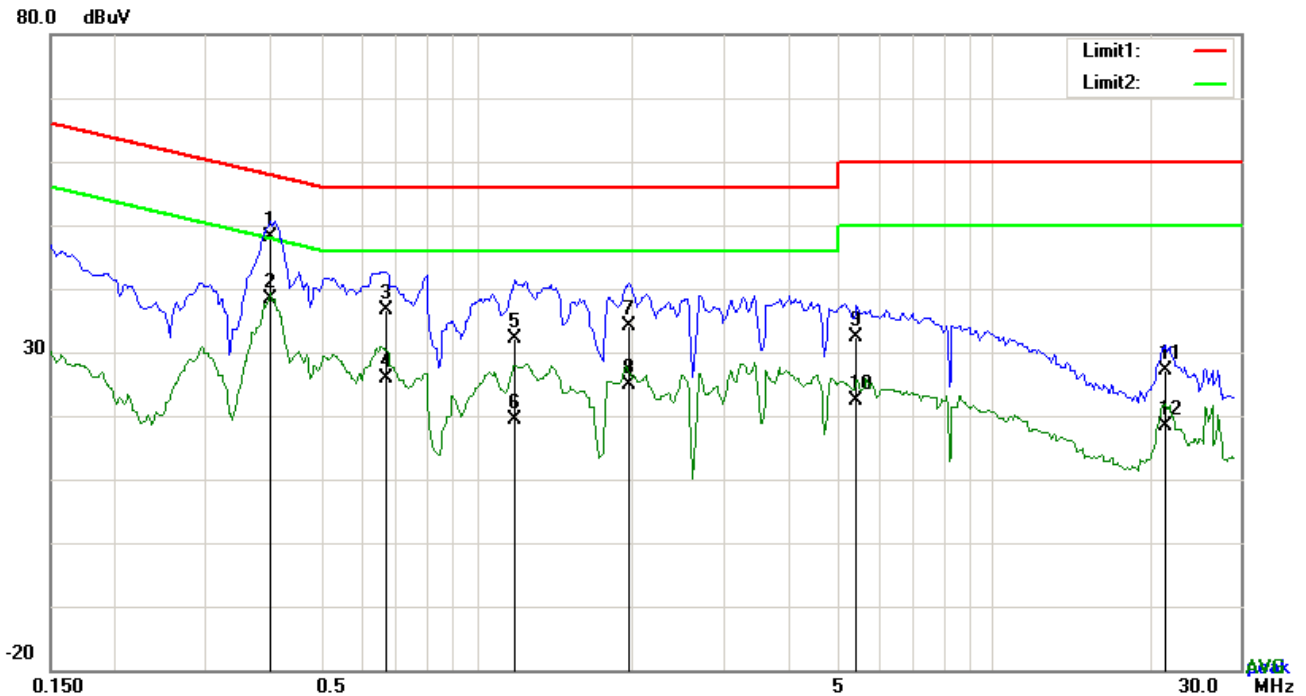
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	<ol style="list-style-type: none"> <li>3. The RF OUT of the EUT LISN was connected to the EMI test receiver via a low-loss coaxial cable.</li> <li>4. All other supporting equipment were powered separately from another main supply.</li> <li>5. The EUT was switched on and allowed to warm up to its normal operating condition.</li> <li>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.</li> <li>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.</li> <li>8. Step 7 was then repeated for the LIVE line (for AC mains) or DC line (for DC power).</li> </ol>
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test Data     Yes                       N/A

Test Plot     Yes (See below)             N/A

**Test Mode : USB Mode**

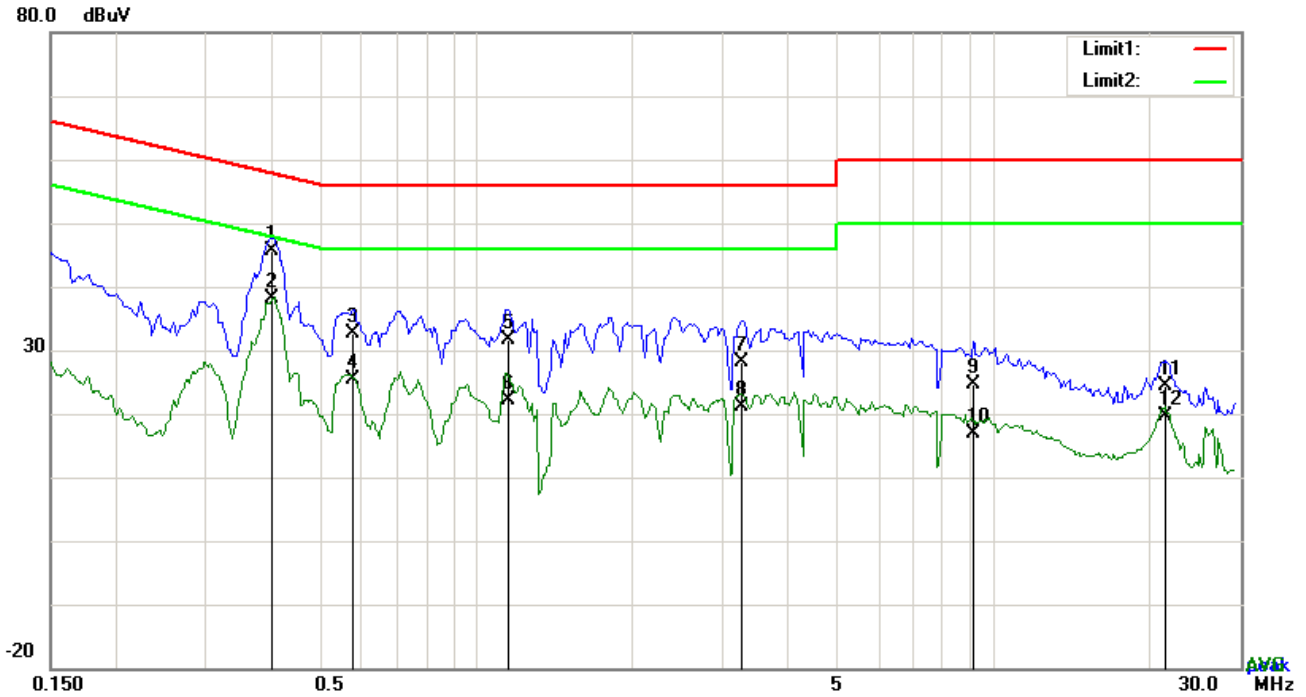


**Test Data**

**Phase Line Plot at 120Vac, 60Hz**

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB)	(dBuV)	(dBuV)	(dB)
1	L1	0.3996	38.19	QP	10.03	48.22	57.86	-9.64
2	L1	0.3996	28.39	AVG	10.03	38.42	47.86	-9.44
3	L1	0.6687	26.62	QP	10.03	36.65	56.00	-19.35
4	L1	0.6687	15.77	AVG	10.03	25.80	46.00	-20.20
5	L1	1.1874	22.19	QP	10.03	32.22	56.00	-23.78
6	L1	1.1874	9.40	AVG	10.03	19.43	46.00	-26.57
7	L1	1.9752	24.00	QP	10.04	34.04	56.00	-21.96
8	L1	1.9752	14.77	AVG	10.04	24.81	46.00	-21.19
9	L1	5.4453	22.27	QP	10.09	32.36	60.00	-27.64
10	L1	5.4453	12.38	AVG	10.09	22.47	50.00	-27.53
11	L1	21.4704	16.85	QP	10.33	27.18	60.00	-32.82
12	L1	21.4704	8.04	AVG	10.33	18.37	50.00	-31.63

<b>Test Mode:</b>	<b>USB Mode</b>
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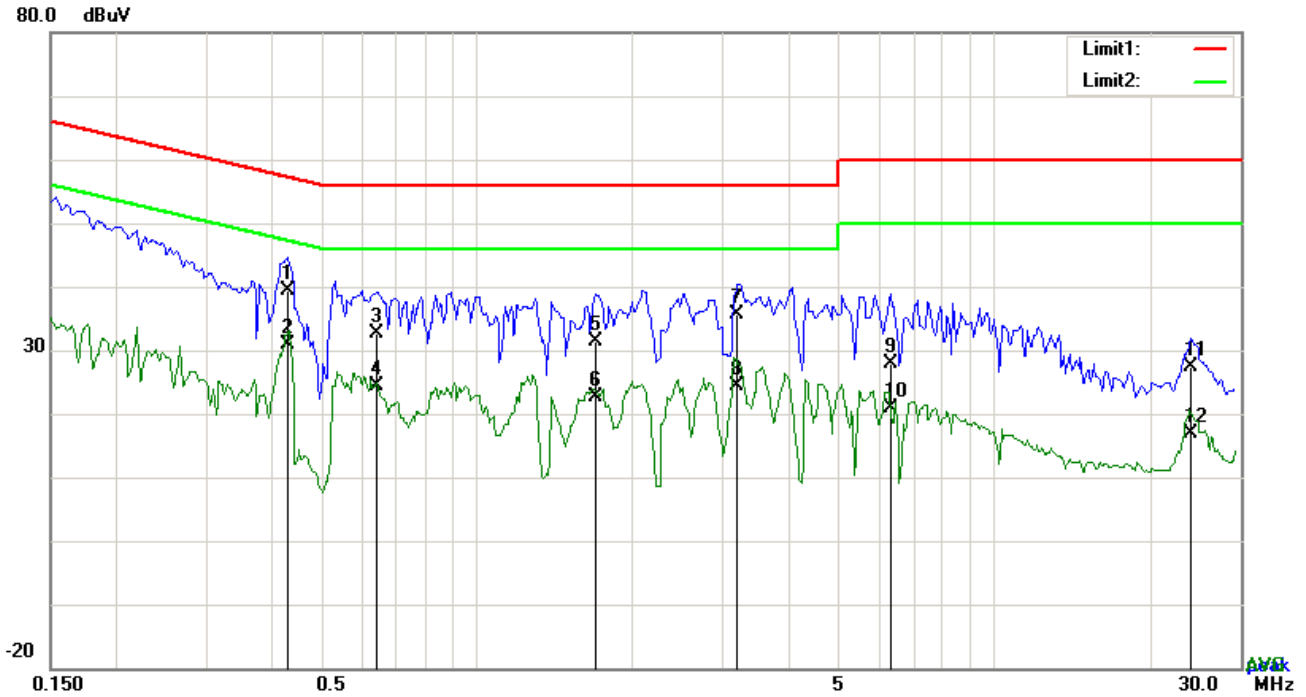


**Test Data**

**Phase Neutral Plot at 120Vac, 60Hz**

No.	P/L	Frequency (MHz)	Reading (dBuV)	Detector	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)
1	N	0.4035	35.54	QP	10.02	45.56	57.78	-12.22
2	N	0.4035	28.04	AVG	10.02	38.06	47.78	-9.72
3	N	0.5790	22.67	QP	10.02	32.69	56.00	-23.31
4	N	0.5790	15.42	AVG	10.02	25.44	46.00	-20.56
5	N	1.1562	21.63	QP	10.03	31.66	56.00	-24.34
6	N	1.1562	12.18	AVG	10.03	22.21	46.00	-23.79
7	N	3.2496	17.99	QP	10.05	28.04	56.00	-27.96
8	N	3.2496	11.09	AVG	10.05	21.14	46.00	-24.86
9	N	9.1425	14.52	QP	10.13	24.65	60.00	-35.35
10	N	9.1425	6.75	AVG	10.13	16.88	50.00	-33.12
11	N	21.3768	14.17	QP	10.28	24.45	60.00	-35.55
12	N	21.3768	9.45	AVG	10.28	19.73	50.00	-30.27

<b>Test Mode :</b>	<b>USB Mode</b>
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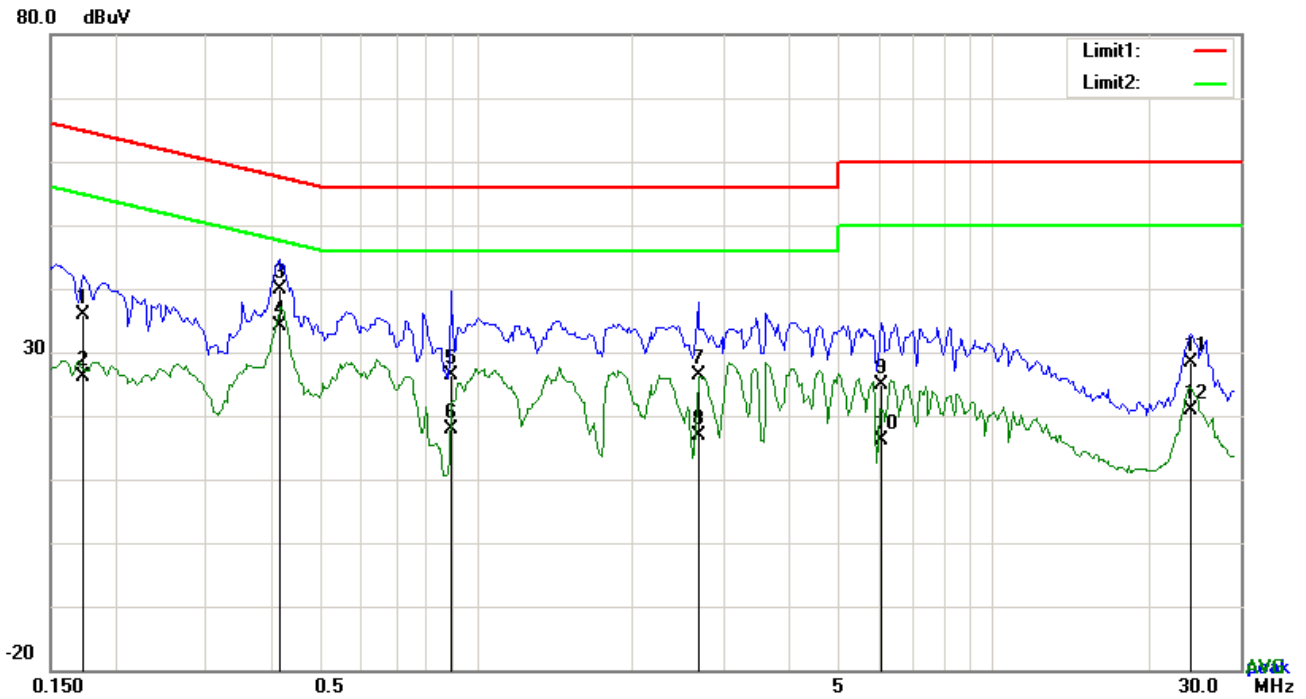


**Test Data**

**Phase Line Plot at 240Vac, 60Hz**

No.	P/L	Frequency (MHz)	Reading (dBuV)	Detector	Corrected (dB}	Result (dBuV)	Limit (dBuV)	Margin (dB)
1	L1	0.4308	29.42	QP	10.03	39.45	57.24	-17.79
2	L1	0.4308	20.93	AVG	10.03	30.96	47.24	-16.28
3	L1	0.6414	22.70	QP	10.03	32.73	56.00	-23.27
4	L1	0.6414	14.23	AVG	10.03	24.26	46.00	-21.74
5	L1	1.7022	21.23	QP	10.04	31.27	56.00	-24.73
6	L1	1.7022	12.63	AVG	10.04	22.67	46.00	-23.33
7	L1	3.2067	25.53	QP	10.06	35.59	56.00	-20.41
8	L1	3.2067	14.29	AVG	10.06	24.35	46.00	-21.65
9	L1	6.3345	17.88	QP	10.10	27.98	60.00	-32.02
10	L1	6.3345	10.70	AVG	10.10	20.80	50.00	-29.20
11	L1	24.0834	16.98	QP	10.38	27.36	60.00	-32.64
12	L1	24.0834	6.60	AVG	10.38	16.98	50.00	-33.02

<b>Test Mode :</b>	<b>USB Mode</b>
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**Test Data**

**Phase Neutral Plot at 240Vac, 60Hz**

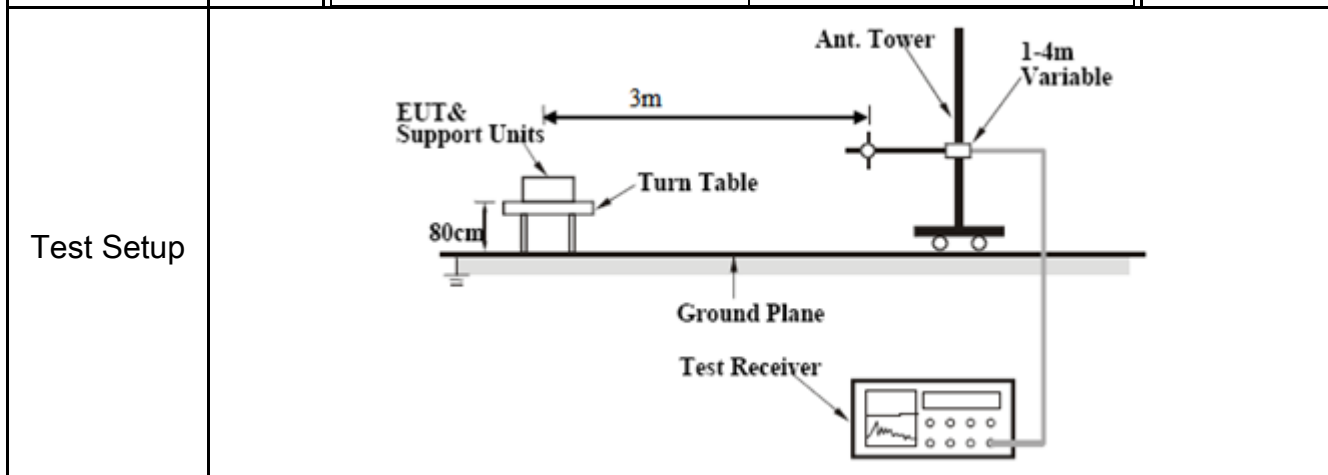
No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB)	(dBuV)	(dBuV)	(dB)
1	N	0.1734	25.88	QP	10.02	35.90	64.80	-28.90
2	N	0.1734	16.03	AVG	10.02	26.05	54.80	-28.75
3	N	0.4152	29.92	QP	10.02	39.94	57.54	-17.60
4	N	0.4152	24.17	AVG	10.02	34.19	47.54	-13.35
5	N	0.8910	16.45	QP	10.03	26.48	56.00	-29.52
6	N	0.8910	7.95	AVG	10.03	17.98	46.00	-28.02
7	N	2.6811	16.41	QP	10.05	26.46	56.00	-29.54
8	N	2.6811	6.86	AVG	10.05	16.91	46.00	-29.09
9	N	6.0771	14.88	QP	10.09	24.97	60.00	-35.03
10	N	6.0771	6.14	AVG	10.09	16.23	50.00	-33.77
11	N	24.0717	18.01	QP	10.33	28.34	60.00	-31.66
12	N	24.0717	10.62	AVG	10.33	20.95	50.00	-29.05

## 6.2 Radiated Emissions

Temperature	25 °C
Relative Humidity	57%
Atmospheric Pressure	1022mbar
Test date :	April 28, 2018
Tested By :	Evans He

### Requirement(s):

Spec	Item	Requirement	Applicable										
47CFR§15.109(d)	a)	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	<input checked="" type="checkbox"/>										
		<table border="1"> <thead> <tr> <th>Frequency range (MHz)</th> <th>Field Strength (<math>\mu\text{V}/\text{m}</math>)</th> </tr> </thead> <tbody> <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> </tbody> </table>		Frequency range (MHz)	Field Strength ( $\mu\text{V}/\text{m}$ )	30 – 88	100	88 – 216	150	216 - 960	200	Above 960	500
		Frequency range (MHz)		Field Strength ( $\mu\text{V}/\text{m}$ )									
		30 – 88		100									
		88 – 216		150									
216 - 960	200												
Above 960	500												



Procedure	<ol style="list-style-type: none"> <li>1. The EUT was switched on and allowed to warm up to its normal operating condition.</li> <li>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:             <ol style="list-style-type: none"> <li>a. Vertical or horizontal polarization (whichever gave the higher emission level</li> </ol> </li> </ol>
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	<p>over a full rotation of the EUT) was chosen.</p> <p>b. The EUT was then rotated to the direction that gave the maximum emission.</p> <p>c. Finally, the antenna height was adjusted to the height that gave the maximum emission.</p> <p>3. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasiy Peak detection at frequency below 1GHz.</p> <p>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 &lt; 98%) □ 10 Hz (Duty cycle &gt; 98%)</p> <p>5. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.</p>
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test Data     Yes                       N/A

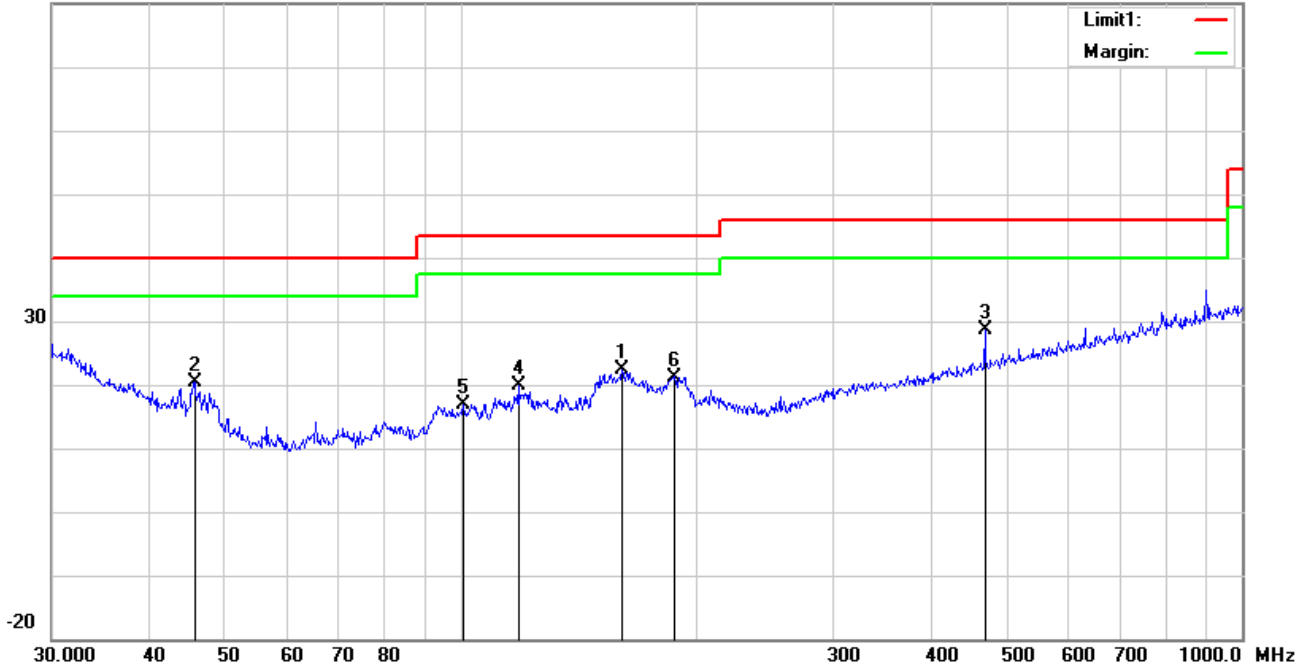
Test Plot     Yes (See below)             N/A



<b>Test Mode :</b>	<b>USB Mode</b>
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**Below 1GHz**

80.0 dBuV/m

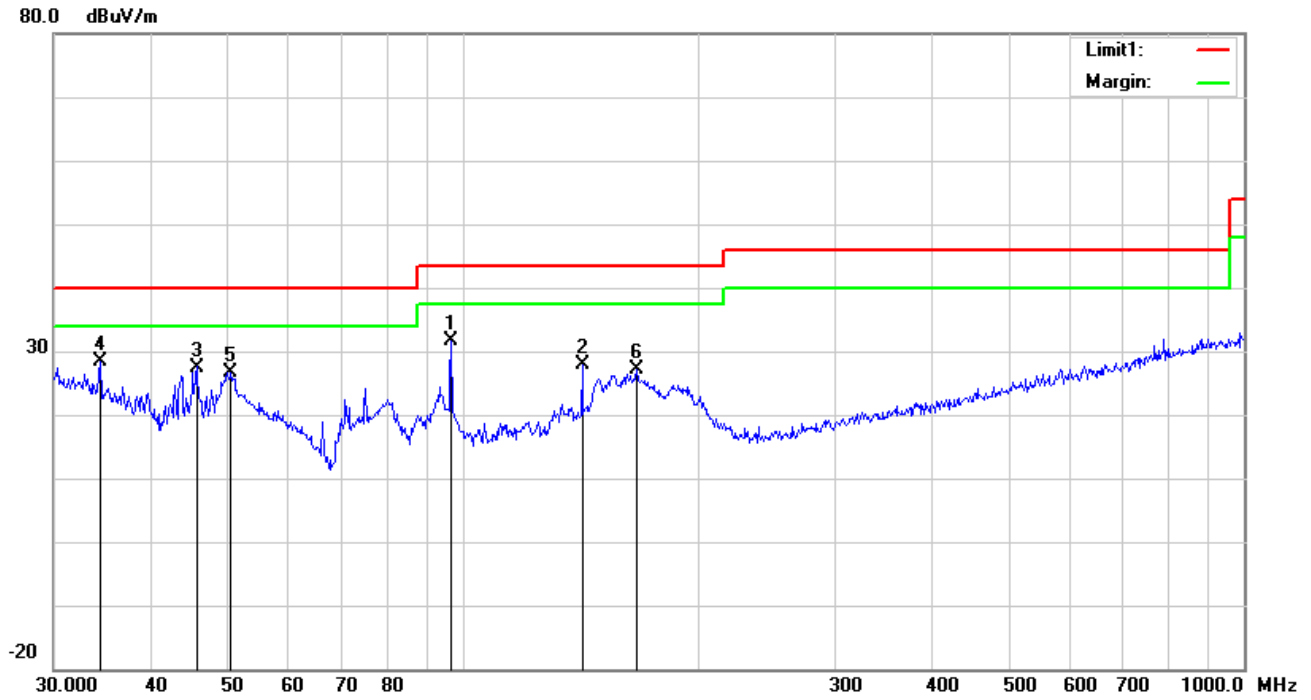


**Test Data**

**Horizontal Polarity Plot @3m**

No.	P/L	Frequency (MHz)	Reading (dBuV/m)	Detector	Ant_F (dB/m)	PA_G (dB)	Cab_L (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)
1	H	160.9089	30.66	peak	12.53	22.27	1.39	22.31	43.50	-21.19	100	24
2	H	45.6948	31.55	peak	10.29	22.30	0.76	20.30	40.00	-19.70	100	283
3	H	468.8762	31.18	peak	17.08	21.87	2.24	28.63	46.00	-17.37	100	271
4	H	118.6014	27.36	peak	13.66	22.36	1.16	19.82	43.50	-23.68	100	39
5	H	100.9340	27.57	peak	10.56	22.32	1.12	16.93	43.50	-26.57	100	250
6	H	187.7530	30.62	peak	11.43	22.30	1.50	21.25	43.50	-22.25	200	315

**Below 1GHz**



**Test Data**

**Vertical Polarity Plot @3m**

No.	P/L	Frequency	Reading	Detector	Ant_F	PA_G	Cab_L	Result	Limit	Margin	Height	Degree
		(MHz)	(dBuV/m)		(dB/m)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)
1	V	96.7749	43.21	peak	9.63	22.32	1.04	31.56	43.50	-11.94	100	328
2	V	142.3244	36.32	peak	12.60	22.39	1.29	27.82	43.50	-15.68	100	70
3	V	45.6948	38.75	peak	10.29	22.30	0.76	27.50	40.00	-12.50	100	6
4	V	34.3964	31.85	peak	18.01	22.25	0.74	28.35	40.00	-11.65	100	35
5	V	50.5860	39.85	peak	8.34	22.38	0.80	26.61	40.00	-13.39	100	45
6	V	167.2368	35.95	peak	12.02	22.26	1.37	27.08	43.50	-16.42	100	82

***Above 1GHz***

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)
2308.79	63.49	1	100	V	-14.93	48.56	74	-25.44	PK
2235.11	62.97	81	100	V	-13.81	49.16	74	-24.84	PK
2481.28	63.52	180	100	V	-13.65	49.87	74	-24.13	PK
1765.53	64.66	109	100	H	-17.44	47.22	74	-26.78	PK
2976.15	58.84	353	100	H	-12.16	46.68	74	-27.32	PK
1378.76	65.7	275	100	H	-19.22	46.48	74	-27.52	PK

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

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

*Note3: The AV measurement performed, more than 20dB below limit so AV test data was not presented.*

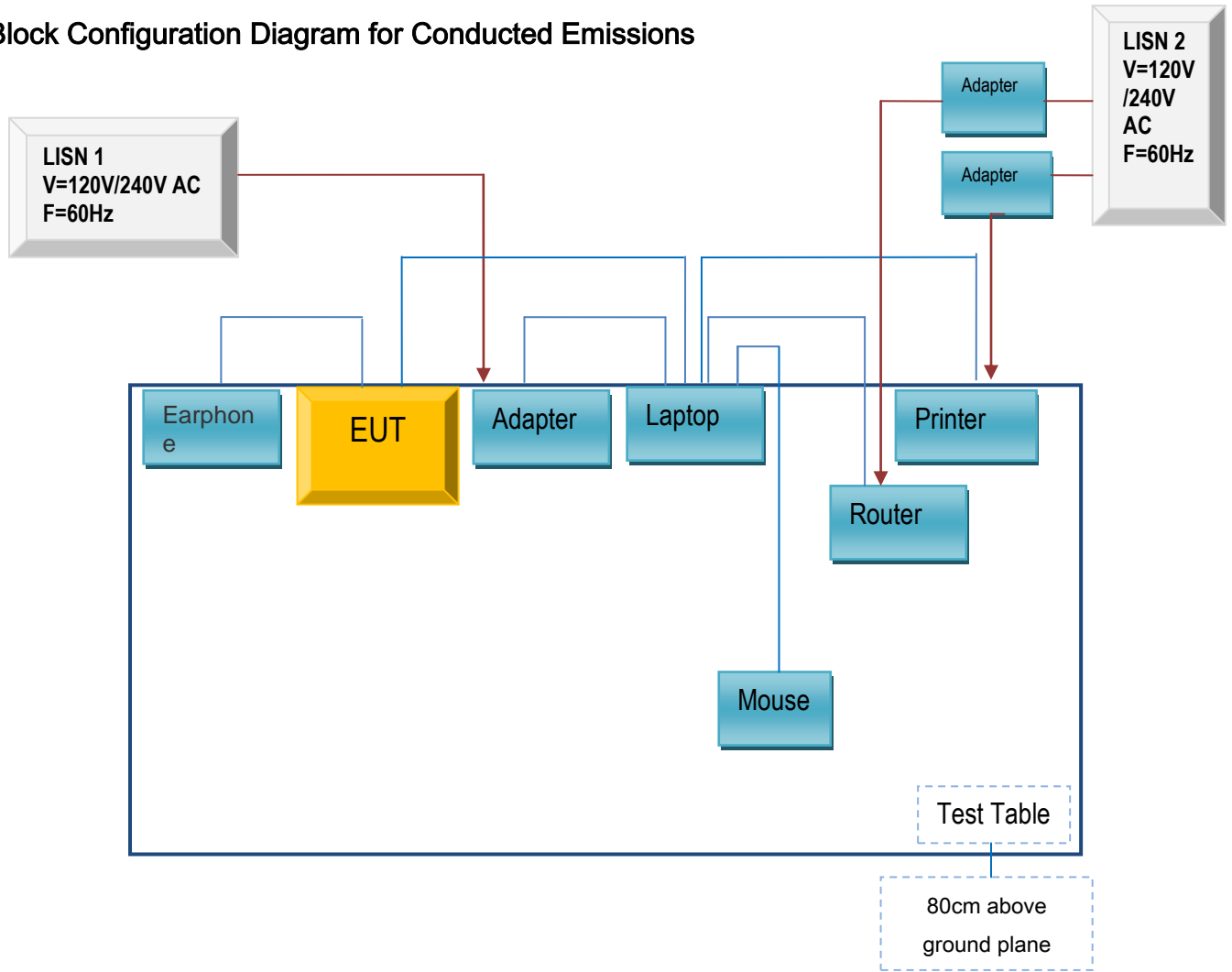
## Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Due	In use
<b>AC Line Conducted Emissions</b>					
EMI test receiver	ESCS30	8471241027	09/15/2017	09/14/2018	<input checked="" type="checkbox"/>
Line Impedance Stabilization Network	LI-125A	191106	09/23/2017	09/22/2018	<input checked="" type="checkbox"/>
Line Impedance Stabilization Network	LI-125A	191107	09/23/2017	09/22/2018	<input checked="" type="checkbox"/>
ISN	ISN T800	34373	09/23/2017	09/22/2018	<input type="checkbox"/>
Transient Limiter	LIT-153	531118	08/30/2017	08/29/2018	<input checked="" type="checkbox"/>
<b>Radiated Emissions</b>					
EMI test receiver	E SL6	100262	09/15/2017	09/14/2018	<input checked="" type="checkbox"/>
OPT 010 AMPLIFIER (0.1-1300MHz)	8447E	2727A02430	08/30/2017	08/29/2018	<input checked="" type="checkbox"/>
Microwave Preamplifier (1 ~ 26.5GHz)	8449B	3008A02402	03/22/2018	03/21/2019	<input checked="" type="checkbox"/>
Bilog Antenna (30MHz~6GHz)	JB6	A110712	09/19/2017	09/18/2018	<input checked="" type="checkbox"/>
Double Ridge Horn Antenna	AH-118	71259	09/22/2017	09/21/2018	<input checked="" type="checkbox"/>

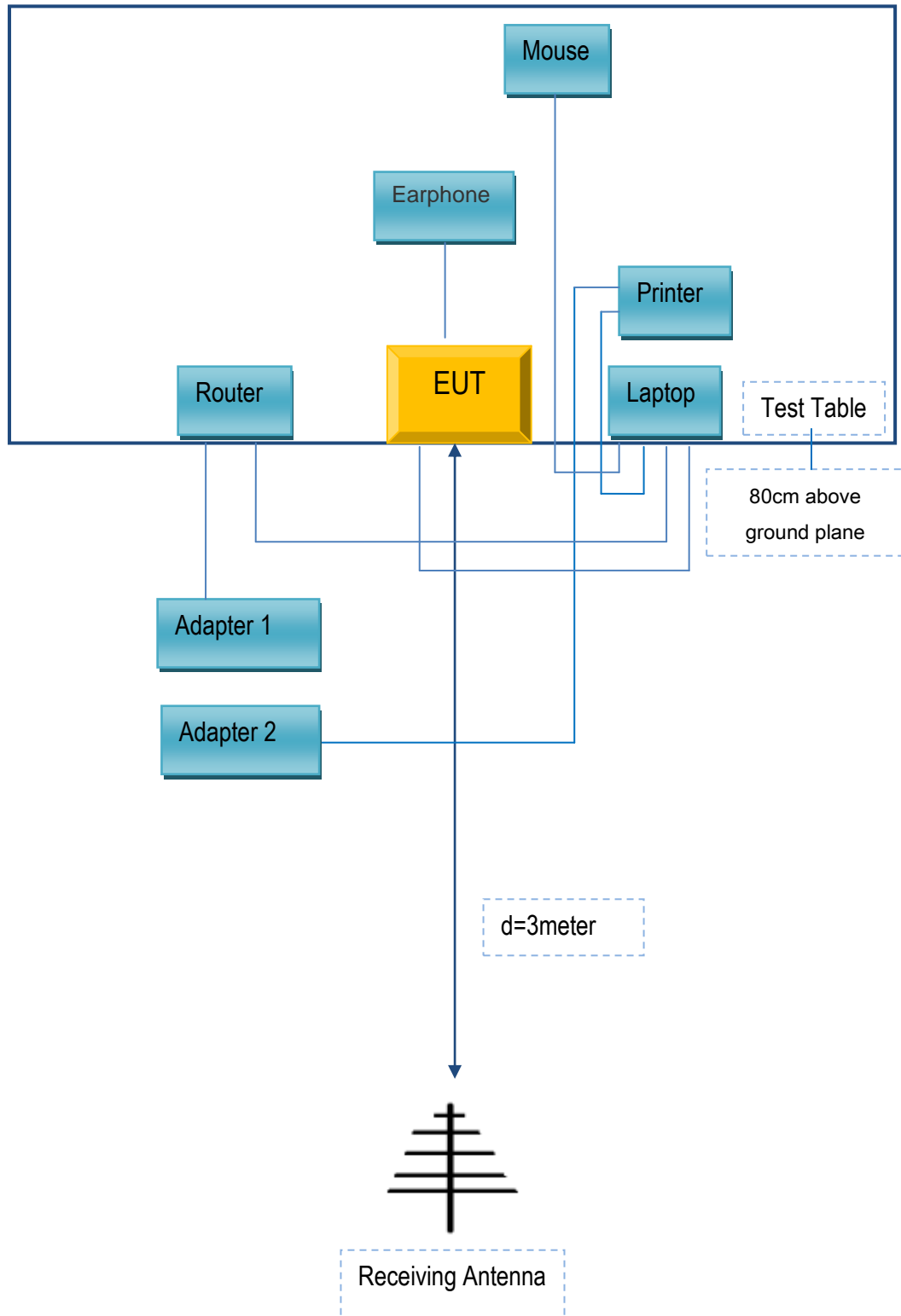
## Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

### Annex C.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:

Manufacturer	Equipment Description	Model	Serial No
Lenovo	Laptop	E40	LR-1EHRX
GOLDWEB	Router	R102	1202032094
Lenovo	AC Adapter	42T4416	21D9JU
HP	Printer	VCVRA-1003	CN36M19JWX
DELL	Mouse	E100	912NMTUT41481
BULL	Socket	GN-403	GN201203
SAMSUNG	headset	HS330	N/A

### Supporting Cable:

Cable type	Shield Type	Ferrite Core	Length	Serial No
USB Cable	Un-shielding	No	2m	JX120051274
USB Cable	Un-shielding	No	2m	CBA3000AH0C1
RJ45 Cable	Un-shielding	No	2m	KX156327541
Router Power cable	Un-shielding	No	2m	13274630Z
Printer Power cable	Un-shielding	No	2m	127581031
Power Cable	Un-shielding	No	0.8m	GT211032

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## Annex D. User Manual / Block Diagram / Schematics / Partlist

Please see the attachment



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## Annex E. DECLARATION OF SIMILARITY

N/A