

## Above 1GHz

Test Mode:	Transmitting Mode
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### Low Channel (2412 MHz) (b mode worst case)

Frequency (MHz)	S.A. Reading (dBμV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4824	39.66	AV	V	33.8	6.86	32.69	47.63	54	-6.37
4824	38.87	AV	H	33.8	6.86	32.69	46.84	54	-7.16
4824	48.59	PK	V	33.8	6.86	32.69	56.56	74	-17.44
4824	47.91	PK	H	33.8	6.86	32.69	55.88	74	-18.12
17899	24.15	AV	V	45.12	11.57	32.11	48.73	54	-5.27
17899	23.23	AV	H	45.12	11.57	32.11	47.81	54	-6.19
17899	40.11	PK	V	45.12	11.57	32.11	64.69	74	-9.31
17899	39.74	PK	H	45.12	11.57	32.11	64.32	74	-9.68

### Middle Channel (2437 MHz) (b mode worst case)

Frequency (MHz)	S.A. Reading (dBμV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4874	38.95	AV	V	33.6	6.82	32.71	46.66	54	-7.34
4874	39.68	AV	H	33.6	6.82	32.71	47.39	54	-6.61
4874	48.34	PK	V	33.6	6.82	32.71	56.05	74	-17.95
4874	48.26	PK	H	33.6	6.82	32.71	55.97	74	-18.03
17923	24.41	AV	V	45.17	11.63	32.18	49.03	54	-4.97
17923	23.05	AV	H	45.17	11.63	32.18	47.67	54	-6.33
17923	40.17	PK	V	45.17	11.63	32.18	64.79	74	-9.21
17923	39.88	PK	H	45.17	11.63	32.18	64.5	74	-9.5

**High Channel (2462 MHz) (b mode worst case)**

Frequency (MHz)	S.A. Reading (dBμV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4924	39.33	AV	V	33.83	6.95	32.79	47.32	54	-6.68
4924	39.45	AV	H	33.83	6.95	32.79	47.44	54	-6.56
4924	47.59	PK	V	33.83	6.95	32.79	55.58	74	-18.42
4924	48.27	PK	H	33.83	6.95	32.79	56.26	74	-17.74
17919	23.34	AV	V	45.19	11.61	32.24	47.9	54	-6.1
17919	23.85	AV	H	45.19	11.61	32.24	48.41	54	-5.59
17919	40.46	PK	V	45.19	11.61	32.24	65.02	74	-8.98
17919	39.79	PK	H	45.19	11.61	32.24	64.35	74	-9.65

**Note:**

- 1, The testing has been conformed to  $10 \times 2462 \text{ MHz} = 24,620 \text{ MHz}$
- 2, All other emissions more than 30 dB below the limit
- 3, X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.

## Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Due	In use
<b>AC Line Conducted</b>					
EMI test receiver	ESCS30	8471241027	09/16/2016	09/15/2017	<input checked="" type="checkbox"/>
Line Impedance	LI-125A	191106	09/24/2016	09/23/2017	<input checked="" type="checkbox"/>
Line Impedance	LI-125A	191107	09/24/2016	09/23/2017	<input checked="" type="checkbox"/>
LISN	ISN T800	34373	09/24/2016	09/23/2017	<input checked="" type="checkbox"/>
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71283	09/23/2016	09/22/2017	<input checked="" type="checkbox"/>
Transient Limiter	LIT-153	531118	08/31/2016	08/30/2017	<input checked="" type="checkbox"/>
<b>RF conducted test</b>					
Agilent ESA-E SERIES	E4407B	MY45108319	09/16/2016	09/15/2017	<input checked="" type="checkbox"/>
Power Splitter	1#	1#	08/31/2016	08/30/2017	<input checked="" type="checkbox"/>
DC Power Supply	E3640A	MY40004013	09/16/2016	09/15/2017	<input checked="" type="checkbox"/>
<b>Radiated Emissions</b>					
EMI test receiver	ESL6	100262	09/16/2016	09/15/2017	<input checked="" type="checkbox"/>
Positioning Controller	UC3000	MF780208282	11/18/2016	11/17/2017	<input checked="" type="checkbox"/>
OPT 010 AMPLIFIER (0.1-1300MHz)	8447E	2727A02430	08/31/2016	08/30/2017	<input checked="" type="checkbox"/>
Microwave Preamplifier (1 ~ 26.5GHz)	8449B	3008A02402	03/24/2016	03/23/2017	<input checked="" type="checkbox"/>
Bilog Antenna (30MHz~6GHz)	JB6	A110712	09/20/2016	09/19/2017	<input checked="" type="checkbox"/>
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71283	09/23/2016	09/22/2017	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	CMU200	121393	09/24/2016	09/23/2017	<input checked="" type="checkbox"/>

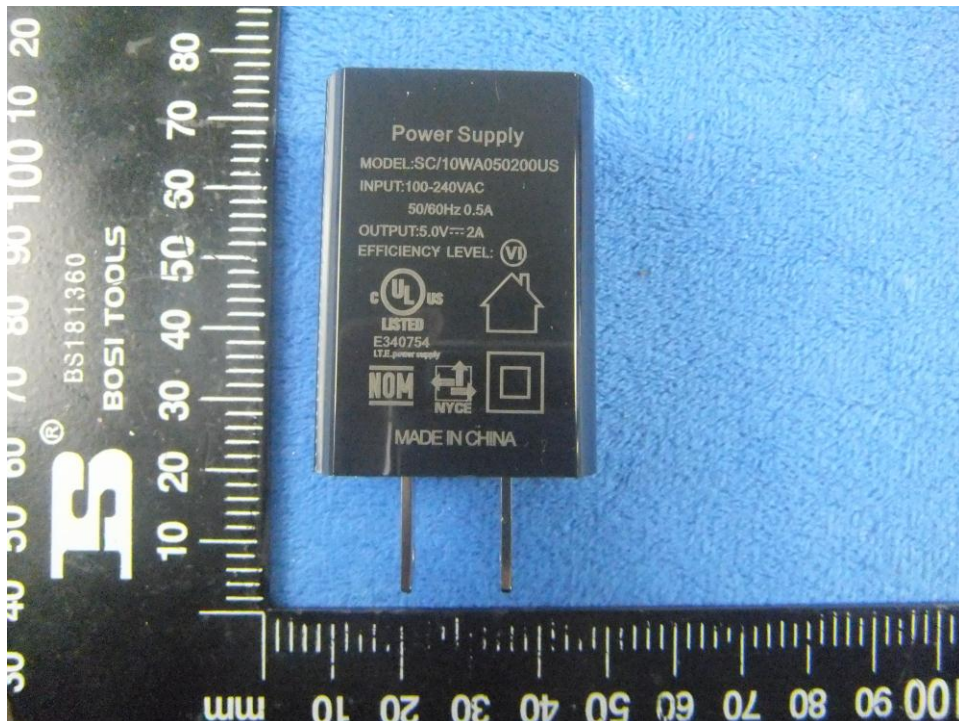
## Annex B. EUT and Test Setup Photographs

### Annex B.i. Photograph: EUT External Photo

Whole Package View



Adapter - Label View





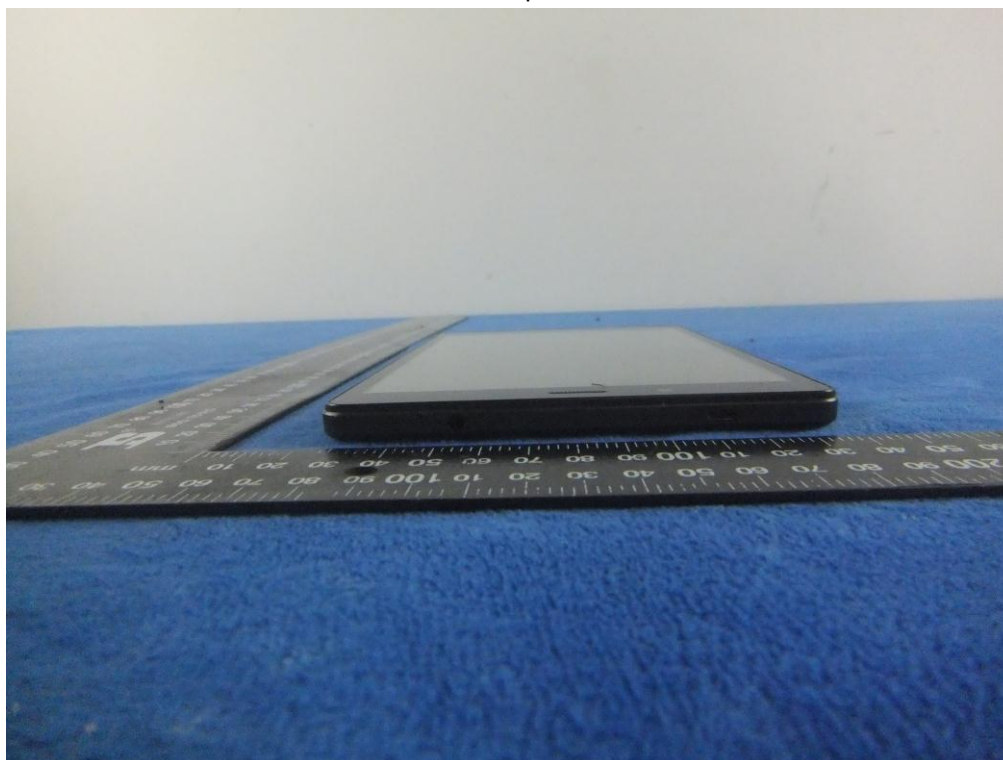
EUT - Front View



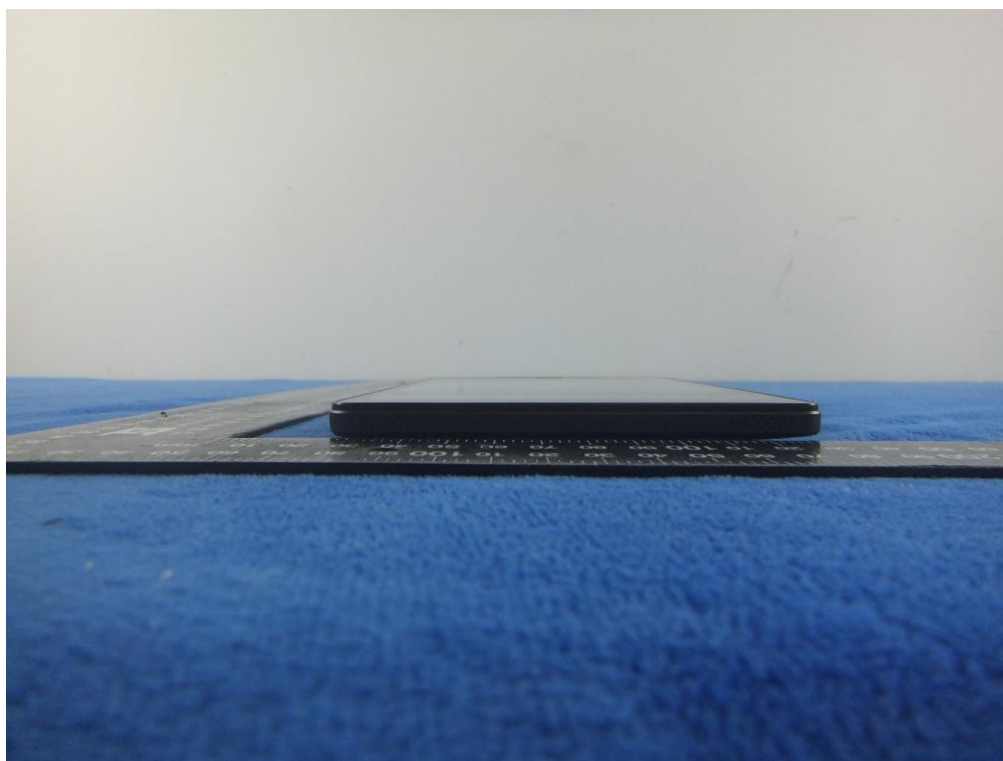
EUT - Rear View



EUT - Top View



EUT - Bottom View

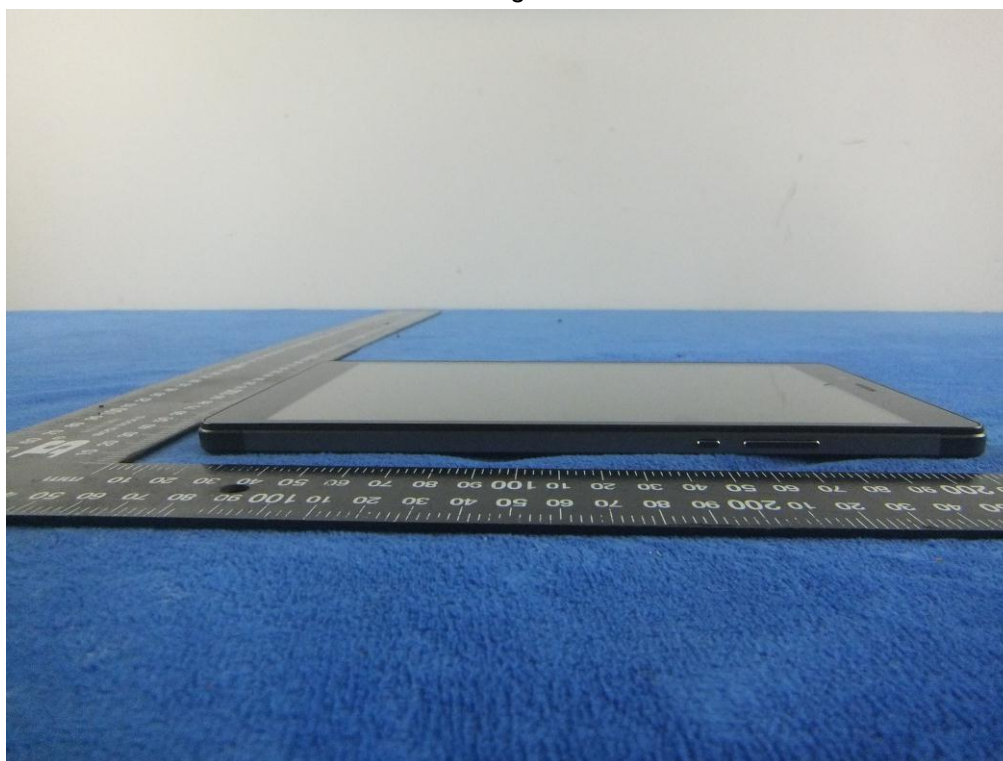




EUT - Left View



EUT - Right View



**Annex B.ii. Photograph: EUT Internal Photo**

Cover Off - Top View 1



Cover Off - Top View 2

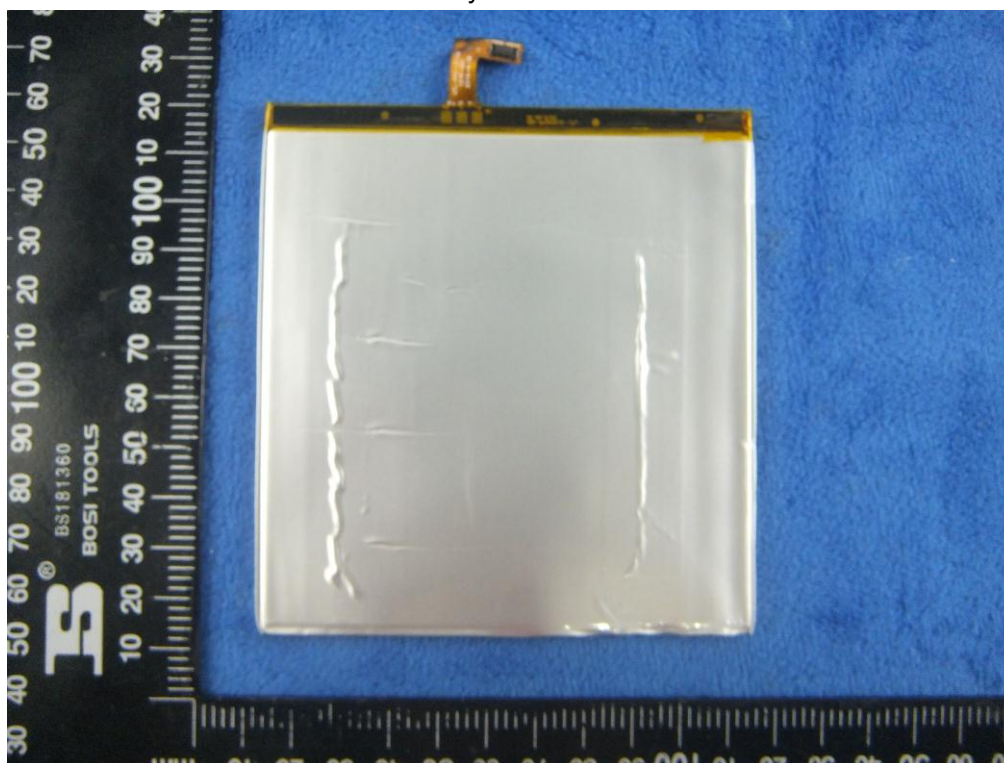




Battery - Front View

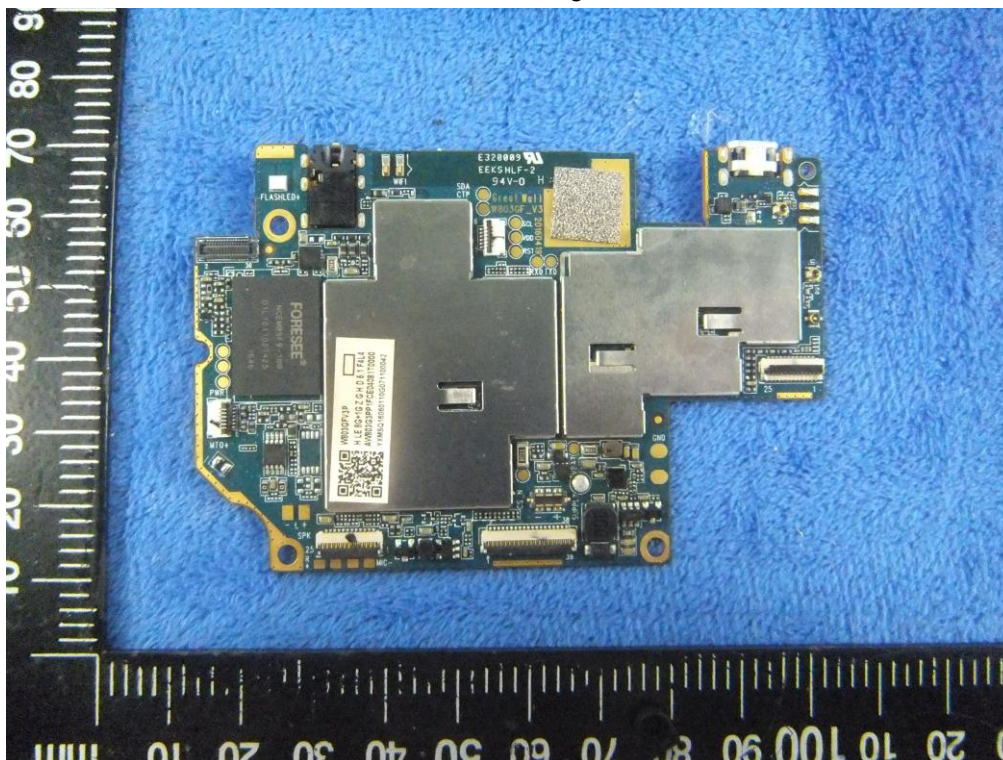


Battery - Rear View

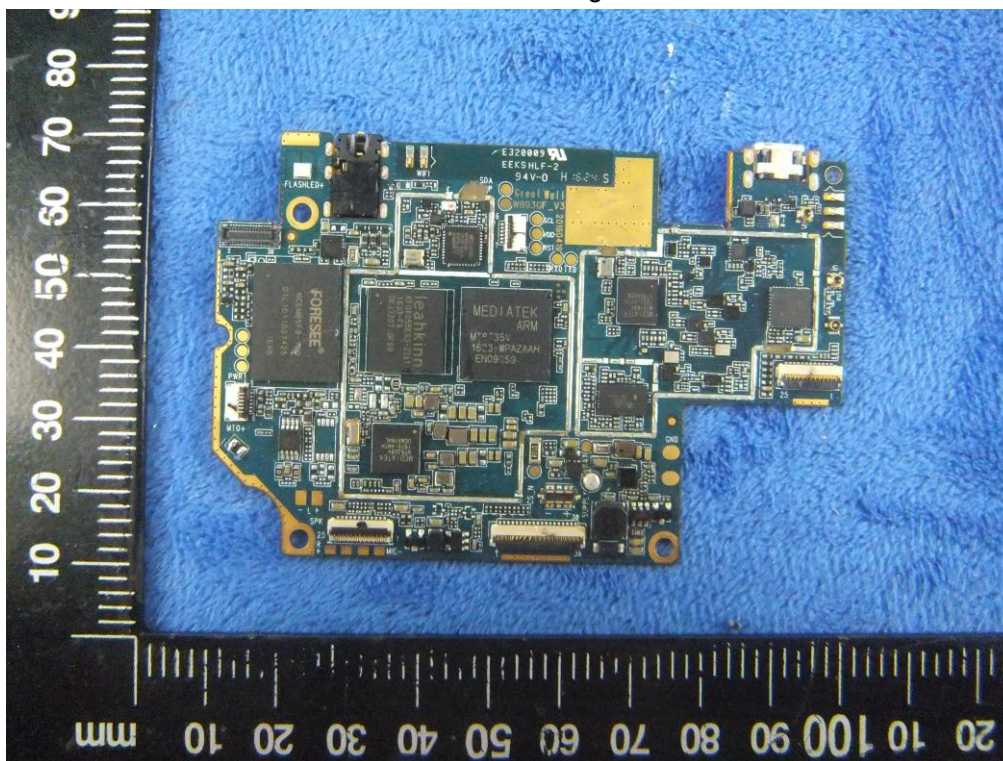




Mainboard with Shielding - Front View

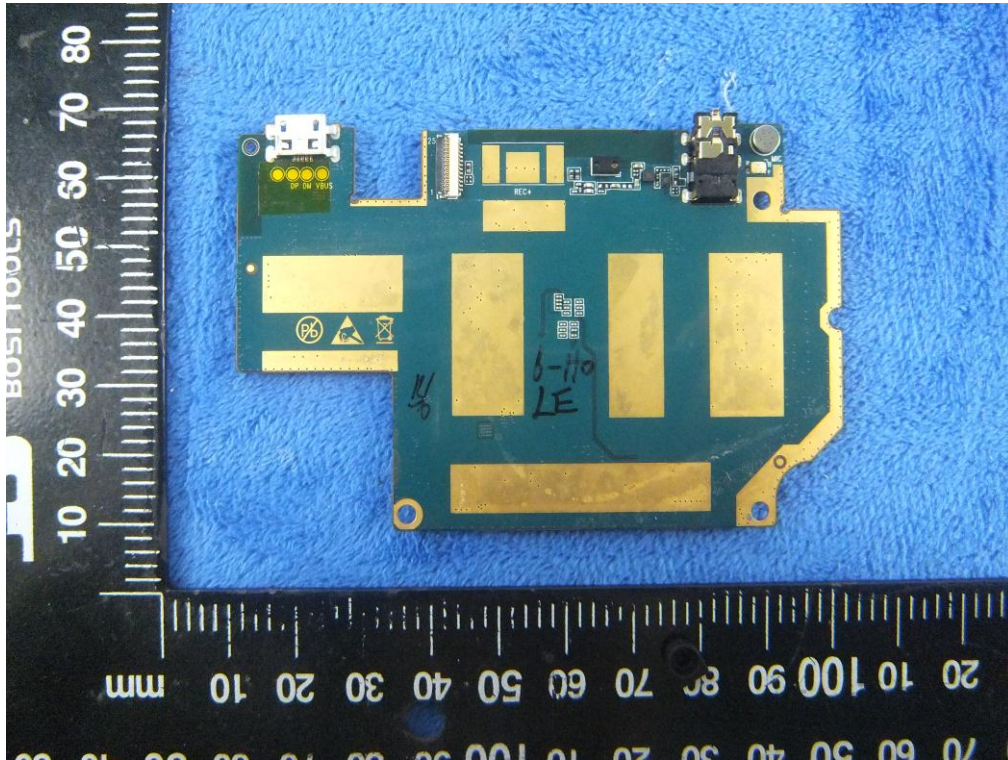


Mainboard without Shielding - Front View





Mainboard – Rear View



LCD – Front View

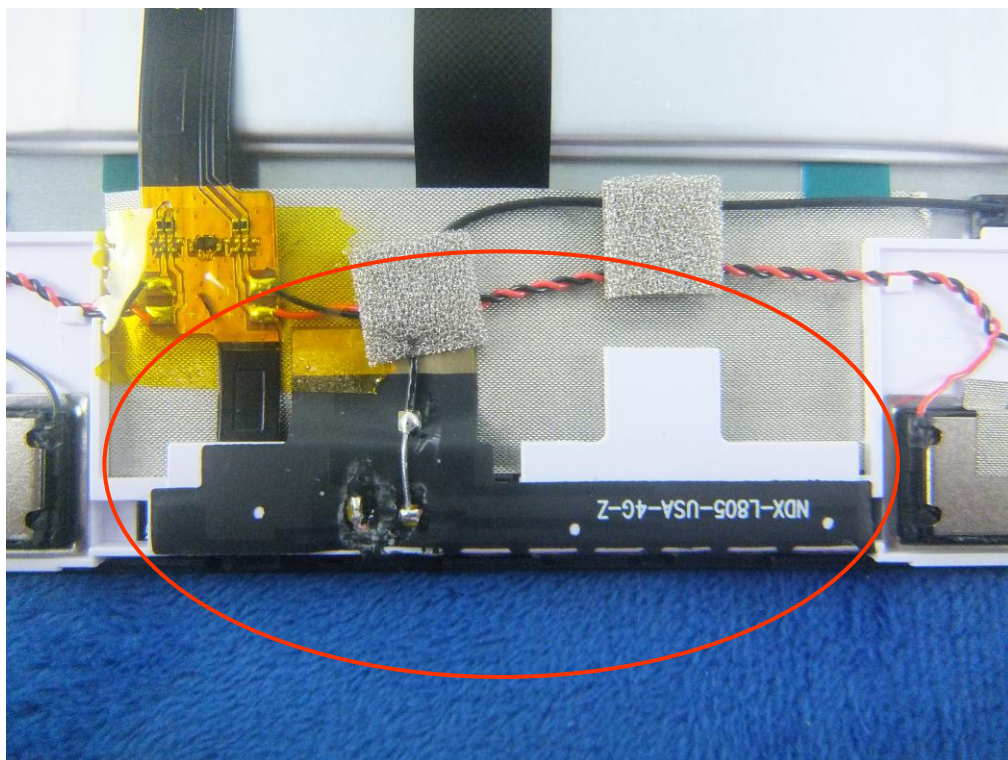




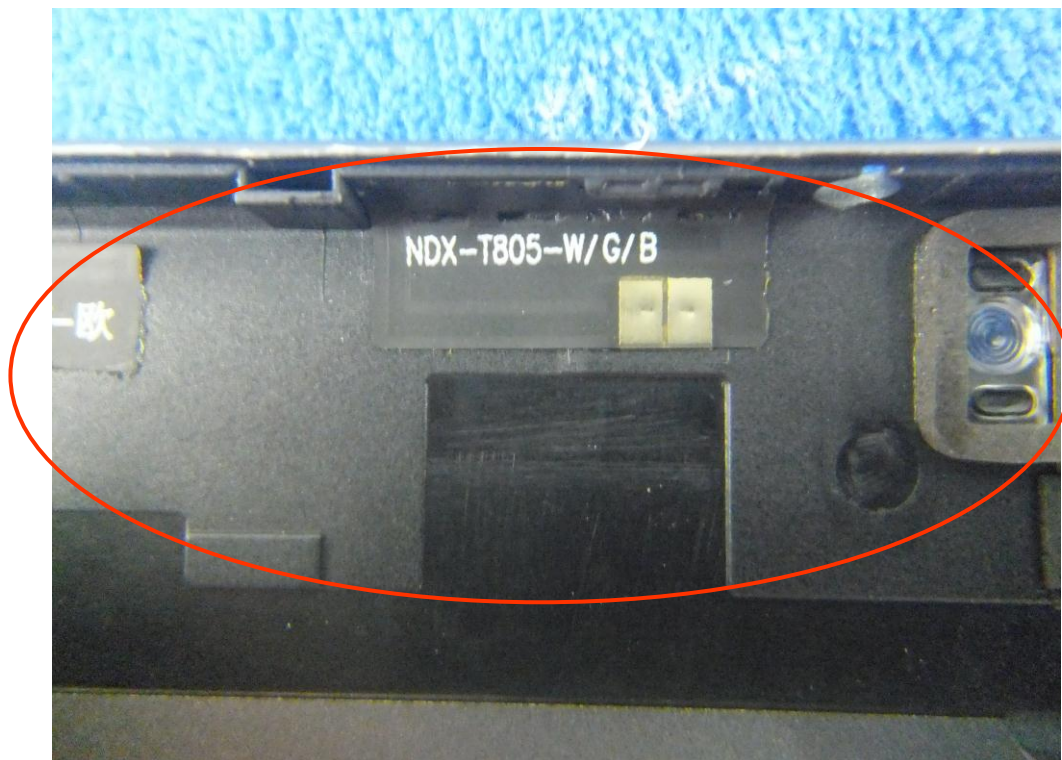
LCD – Rear View



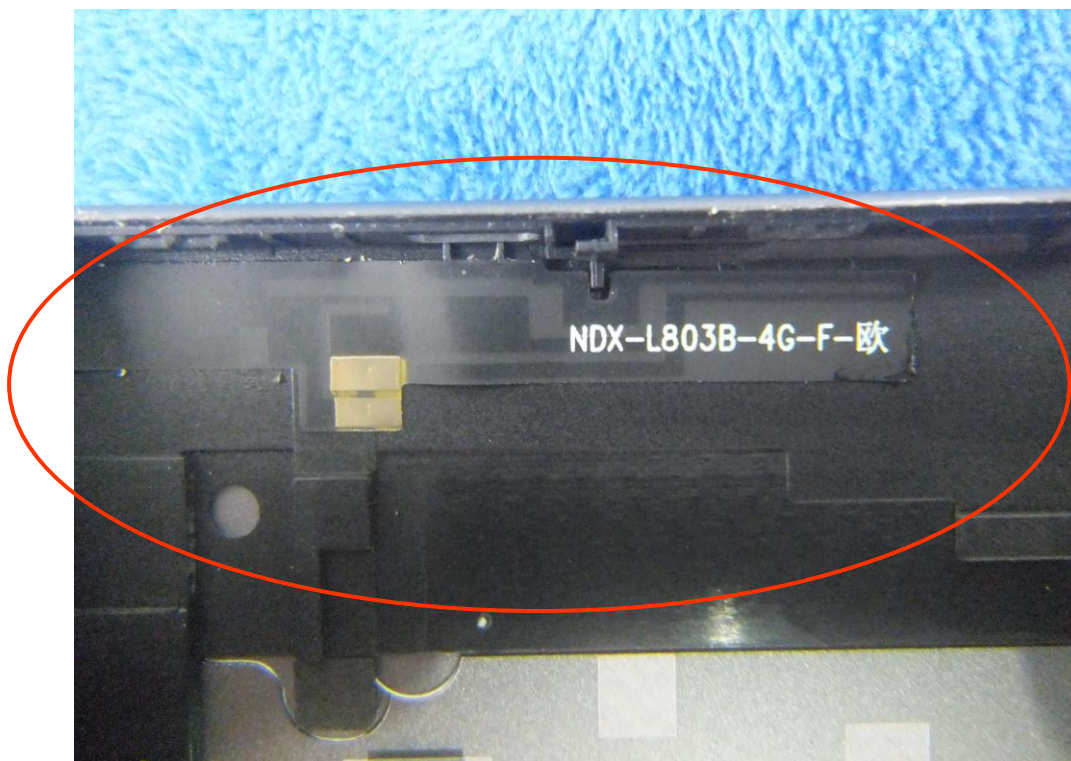
GSM/PCS/UMTS-FDD Antenna View



WIFI/BT/BLE - Antenna View



LTE - Antenna View





### Annex B.iii. Photograph: Test Setup Photo



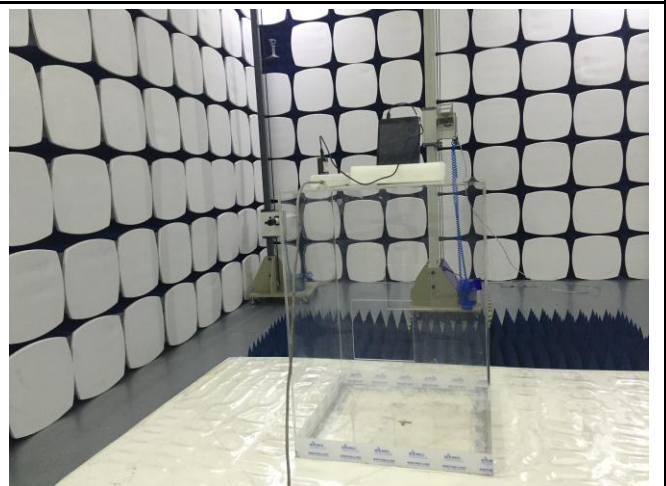
Conducted Emissions Test Setup Front View



Conducted Emissions Test Setup Side View



Radiated Spurious Emissions Test Setup Below 1GHz



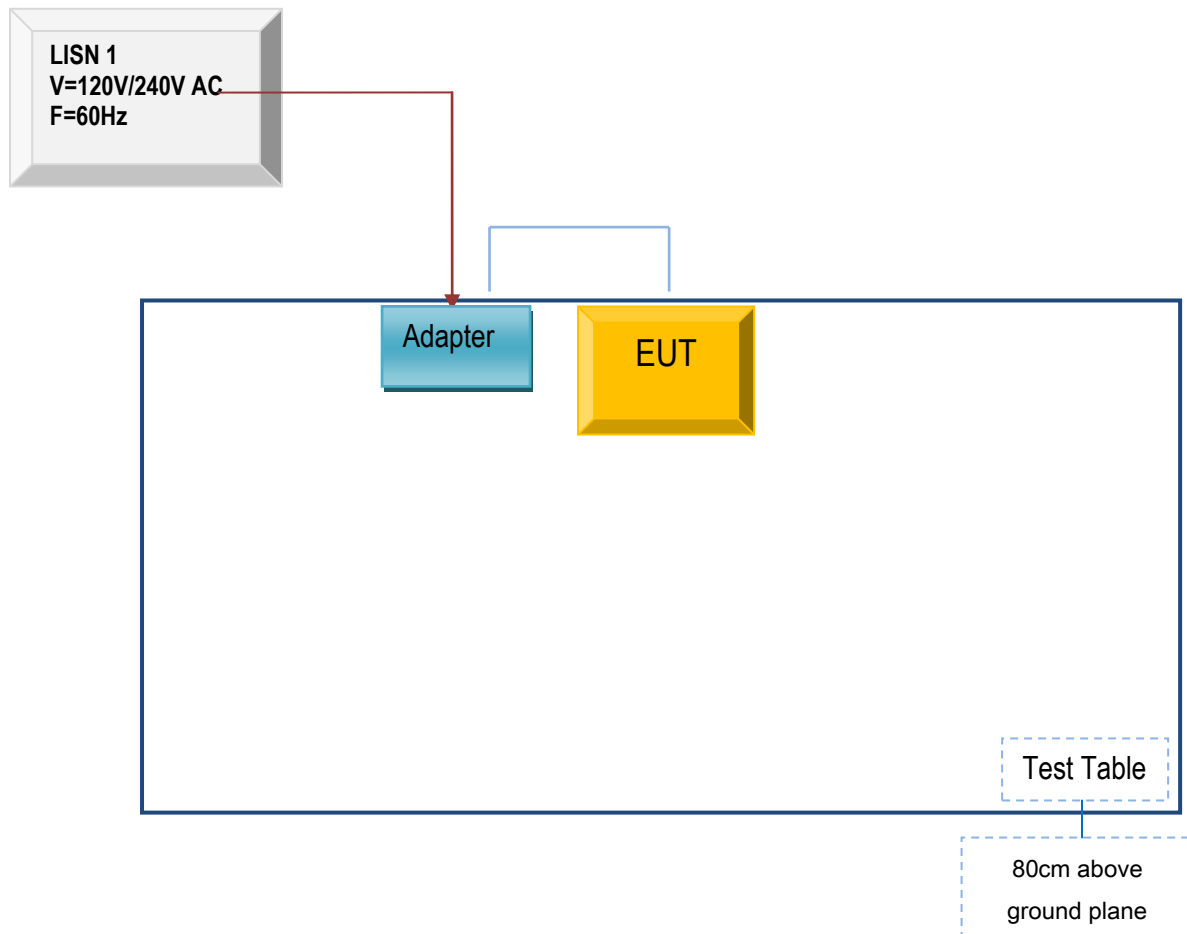
Radiated Spurious Emissions Test Setup Above  
1GHz



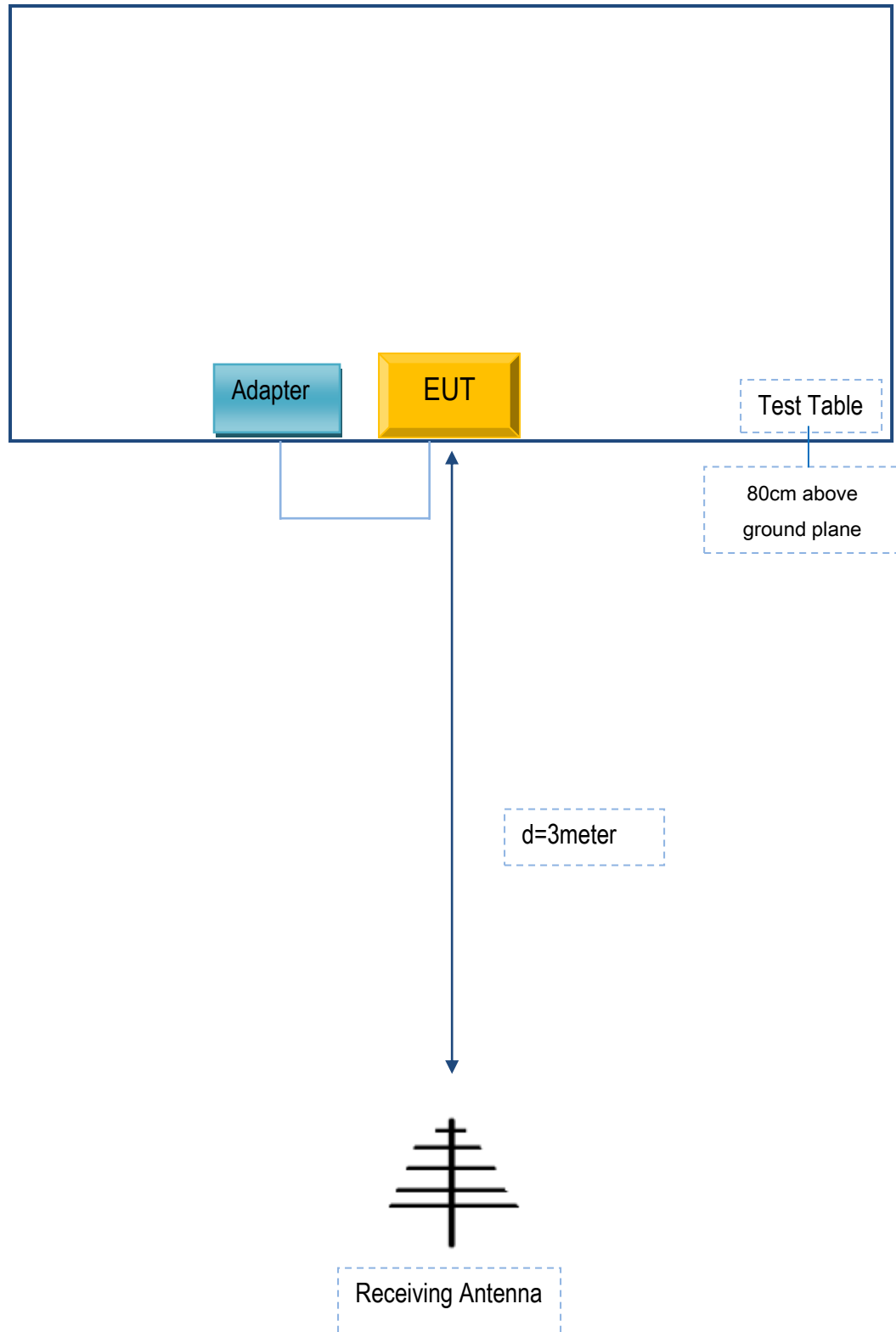
## Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

### Annex C.ii. TEST SET UP BLOCK

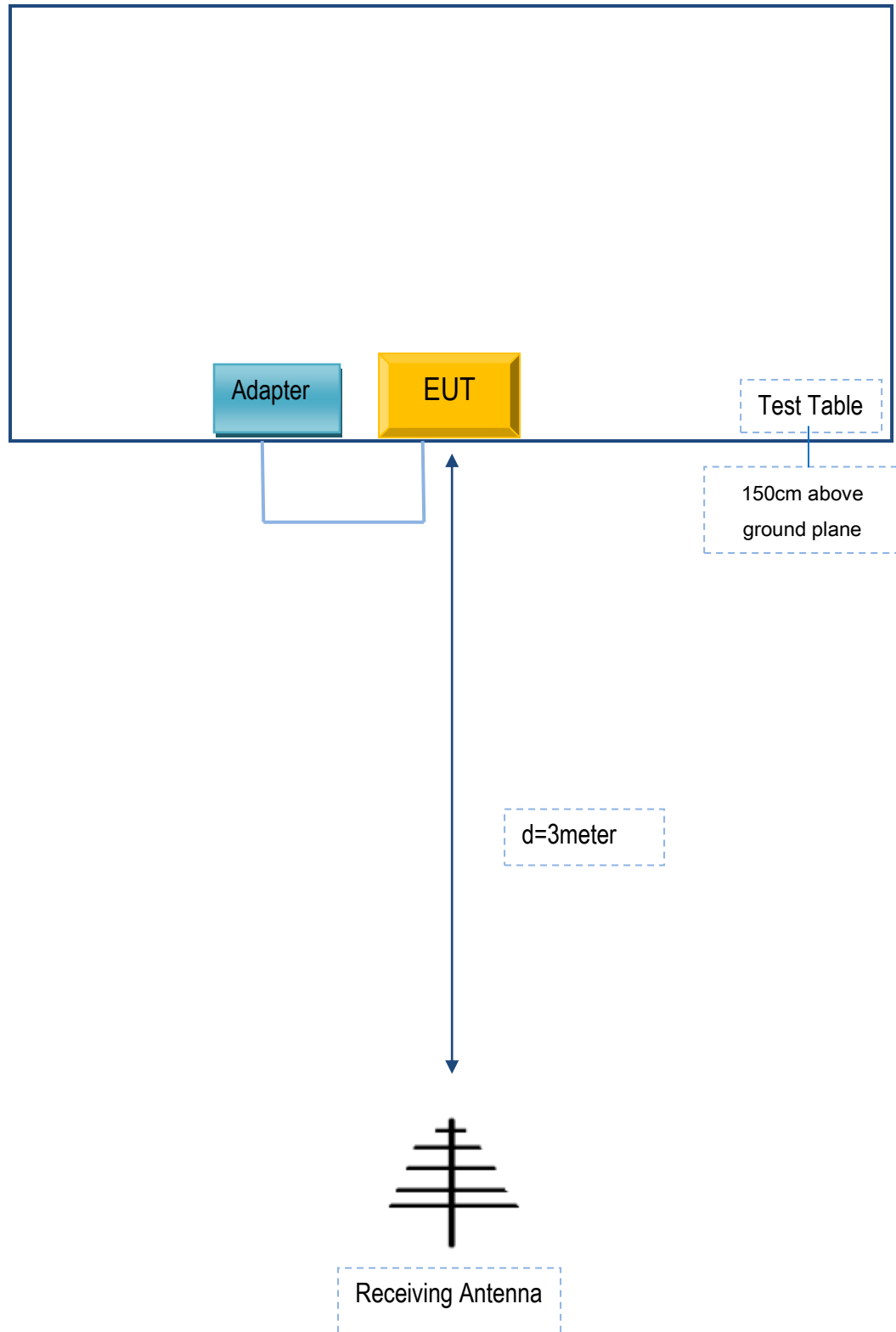
#### Block Configuration Diagram for AC Line Conducted Emissions



**Block Configuration Diagram for Radiated Emissions ( Below 1GHz ) .**



**Block Configuration Diagram for Radiated Emissions ( Above 1GHz ) .**





## **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
AOC	Adapter	SC/10WA050200US	C023542

### **Supporting Cable:**

Cable type	Shield Type	Ferrite Core	Length	Serial No
USB Cable	Un-shielding	No	0.8m	C023542

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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