EMC TEST REPORT



Report No.: 17070654-FCC-E
Supersede Report No: N/A

Applicant	oplicant SHENZHEN KENXINDA TECHNOLOGY CO.,LTD				
Product Name	Mobile Phone				
Model No.	S200	S200			
Serial No.	N/A				
Test Standard	FCC Part 1	5 Subpart B Class B:2016, A	NSI C63.4: 2014		
Test Date	August 23 to September 06, 2017				
Issue Date	September 07, 2017				
Test Result	Pass Fail				
Equipment complied with the specification					
Equipment did not comply with the specification					
mas. He		David Huang			
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



Test Report	17070654-FCC-E
Page	2 of 35

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	



Test Report	17070654-FCC-E
Page	3 of 35

This page has been left blank intentionally.



Test Report	17070654-FCC-E
Page	4 of 35

CONTENTS

1.	REPORT REVISION HISTORY	5
2.	CUSTOMER INFORMATION	5
3.	TEST SITE INFORMATION	5
4.	EQUIPMENT UNDER TEST (EUT) INFORMATION	6
5.	TEST SUMMARY	8
6.	MEASUREMENTS, EXAMINATION AND DERIVED RESULTS	9
6.1	AC POWER LINE CONDUCTED EMISSIONS	9
6.2	RADIATED EMISSIONS	15
ANI	NEX A. TEST INSTRUMENT	20
ANI	NEX B. EUT AND TEST SETUP PHOTOGRAPHS	21
ANI	NEX C. TEST SETUP AND SUPPORTING EQUIPMENT	31
INA	NEX D. USER MANUAL / BLOCK DIAGRAM / SCHEMATICS / PARTLIST	34
INA	NEX E. DECLARATION OF SIMILARITY	35



Test Report	17070654-FCC-E
Page	5 of 35

1. Report Revision History

Report No.	Report Version	Description	Issue Date
17070654-FCC-E	NONE	Original	September 07, 2017

2. Customer information

	_	
Applicant Name	SHENZHEN KENXINDA TECHNOLOGY CO.,LTD	
Applicant Add	18TH FLOOR,FUCHUN ORIENT BUILDING,SHENNAN AV	
	7006,SHENZHEN,CHINA	
Manufacturer	SHENZHEN KENXINDA TECHNOLOGY CO.,LTD	
Manufacturer Add	18TH FLOOR,FUCHUN ORIENT BUILDING,SHENNAN AV	
	7006,SHENZHEN,CHINA	

3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES	
Lab performing tests		
	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park	
Lab Address	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	EZ EMC(ver len 02.44)	
Conducted Emission	EZ-EMC(ver.lcp-03A1)	



Test Report	17070654-FCC-E	
Page	6 of 35	

4. Equipment under Test (EUT) Information

4.	Equipment under	rest (EUT) information
Desci	ription of EUT:	Mobile Phone
Main	Model:	S200
Seria	Model:	N/A
Anter	nna Gain:	GSM850: 0.5dBi PCS1900: 0.8dBi Bluetooth:1.0dBi
Anter	nna Type:	BT: Monopole antenna GSM: PIFA antenna
Input	Power:	Adapter: Model: HWT-2.5W-5050G Input: AC100-240V~50/60Hz,100mA Output: DC 5.0V,500mA Battery: Spec: 3.7V, 2000mAh, 7.4Wh
Equip	ment Category :	JBP
Туре	of Modulation:	GSM / GPRS: GMSK Bluetooth: GFSK, π /4DQPSK, 8DPSK
RF O	perating 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
Numb	per of Channels:	GSM 850: 124CH PCS1900: 299CH Bluetooth: 79CH
Port:		USB Port, Earphone Port

Kenxinda

Trade Name:



Test Report	17070654-FCC-E
Page	7 of 35

FCC ID: ZSHS200

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

Date EUT received: August 22, 2017

Test Date(s): August 23 to September 06, 2017



Test Report	17070654-FCC-E
Page	8 of 35

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	±3.11dB	
(150kHz~30MHz)		
Radiated Emission(30MHz~1GHz)	±5.12dB	
Radiated Emission(1GHz~6GHz)	±5.34dB	



Test Report	17070654-FCC-E
Page	9 of 35

6. Measurements, Examination And Derived Results

6.1 AC Power Line Conducted Emissions

Temperature	25 °C		
Relative Humidity	57%		
Atmospheric Pressure	1024mbar		
Test date :	August 24, 2017		
Tested By :	Evans He		

Requirement(s):

Spec	Item	Requirement Applicable					
47CFR§15.	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.				V		
107		Frequency ranges	Limit (_		
		(MHz)	QP	Average			
		0.15 ~ 0.5	66 – 56	56 – 46			
		0.5 ~ 5	56	46			
		5 ~ 30	60	50			
Test Setup			scal Ground Frence Plane	Test Receiver			
Procedure	 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. The power supply for the EUT was fed through a 50Ω /50mH EUT LISN, connected to filtered mains. 						



Test Report	17070654-FCC-E
Page	10 of 35

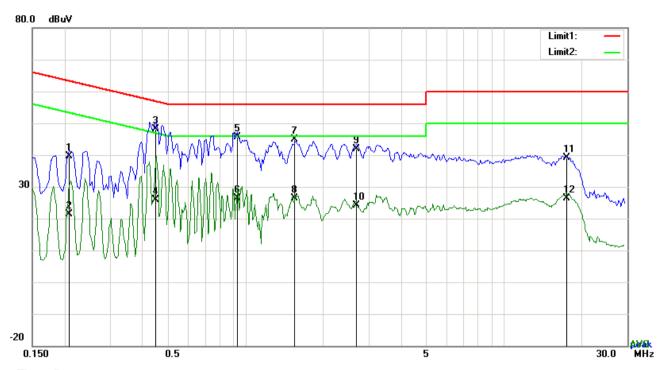
	3. The RF OUT of the EUT LISN was connected to the EMI test receiver via a low-loss		
	coaxial cable.		
	4. All other supporting equipment were powered separately from another main supply.		
	5. The EUT was switched on and allowed to warm up to its normal operating condition.		
	6. A scan was made on 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			
	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 Report	17070654-FCC-E
Page	11 of 35

Test Mode : USB Mode



Test Data

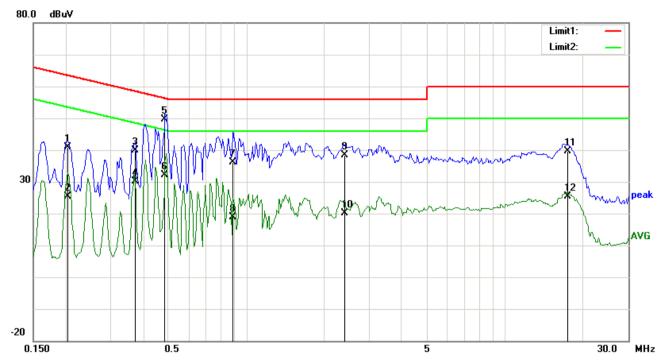
Phase Line Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	L1	0.2085	29.58	QP	10.03	39.61	63.26	-23.65
2	L1	0.2085	11.41	AVG	10.03	21.44	53.26	-31.82
3	L1	0.4503	38.10	QP	10.03	48.13	56.87	-8.74
4	L1	0.4503	15.82	AVG	10.03	25.85	46.87	-21.02
5	L1	0.9300	35.58	QP	10.03	45.61	56.00	-10.39
6	L1	0.9300	16.25	AVG	10.03	26.28	46.00	-19.72
7	L1	1.5579	34.85	QP	10.04	44.89	56.00	-11.11
8	L1	1.5579	16.45	AVG	10.04	26.49	46.00	-19.51
9	L1	2.6967	31.87	QP	10.05	41.92	56.00	-14.08
10	L1	2.6967	14.06	AVG	10.05	24.11	46.00	-21.89
11	L1	17.5041	28.84	QP	10.26	39.10	60.00	-20.90
12	L1	17.5041	16.20	AVG	10.26	26.46	50.00	-23.54



Test Report	17070654-FCC-E
Page	12 of 35

Test Mode:



Test Data

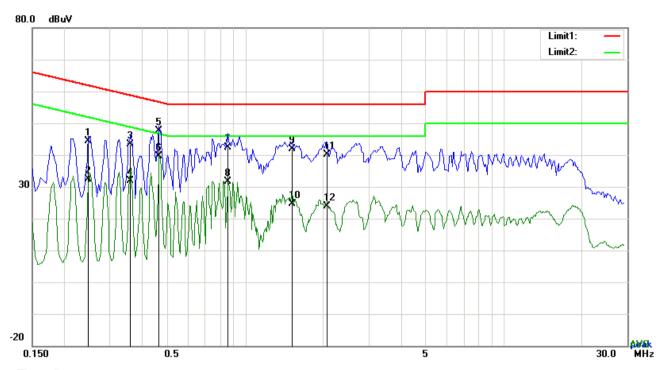
Phase Neutral Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	N	0.2046	30.94	QP	10.02	40.96	63.42	-22.46
2	N	0.2046	15.42	AVG	10.02	25.44	53.42	-27.98
3	N	0.3723	29.92	QP	10.02	39.94	58.45	-18.51
4	N	0.3723	20.11	AVG	10.02	30.13	48.45	-18.32
5	N	0.4854	39.55	QP	10.02	49.57	56.25	-6.68
6	Ν	0.4854	22.06	AVG	10.02	32.08	46.25	-14.17
7	N	0.8871	26.09	QP	10.03	36.12	56.00	-19.88
8	N	0.8871	8.89	AVG	10.03	18.92	46.00	-27.08
9	Ν	2.4042	28.31	QP	10.04	38.35	56.00	-17.65
10	Ν	2.4042	10.06	AVG	10.04	20.10	46.00	-25.90
11	Ν	17.4963	29.43	QP	10.23	39.66	60.00	-20.34
12	N	17.4963	15.22	AVG	10.23	25.45	50.00	-24.55



Test Report	17070654-FCC-E
Page	13 of 35

Test Mode : USB Mode



Test Data

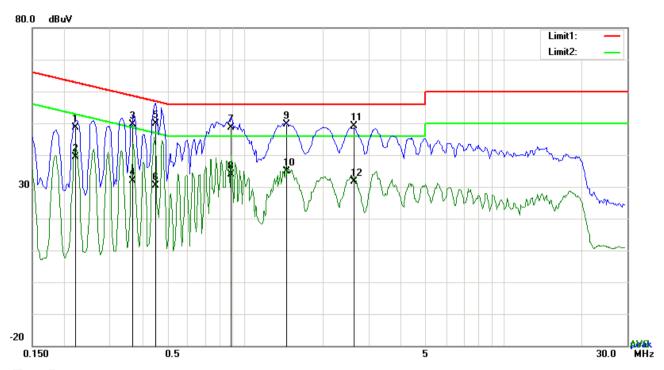
Phase Line Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB)	(dBuV)	(dBuV)	(dB)
1	L1	0.2475	34.39	QP	10.02	44.41	61.84	-17.43
2	L1	0.2475	22.24	AVG	10.02	32.26	51.84	-19.58
3	L1	0.3606	33.42	QP	10.02	43.44	58.71	-15.27
4	L1	0.3606	21.88	AVG	10.02	31.90	48.71	-16.81
5	L1	0.4620	37.49	QP	10.02	47.51	56.66	-9.15
6	L1	0.4620	29.59	AVG	10.02	39.61	46.66	-7.05
7	L1	0.8559	32.40	QP	10.03	42.43	56.00	-13.57
8	L1	0.8559	21.59	AVG	10.03	31.62	46.00	-14.38
9	L1	1.5150	31.74	QP	10.04	41.78	56.00	-14.22
10	L1	1.5150	14.62	AVG	10.04	24.66	46.00	-21.34
11	L1	2.0688	29.99	QP	10.04	40.03	56.00	-15.97
12	L1	2.0688	13.90	AVG	10.04	23.94	46.00	-22.06



Test Report	17070654-FCC-E
Page	14 of 35

Test Mode : USB Mode



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	0.2202	38.54	QP	10.02	48.56	62.81	-14.25
2	N	0.2202	29.27	AVG	10.02	39.29	52.81	-13.52
3	N	0.3684	39.63	QP	10.02	49.65	58.54	-8.89
4	N	0.3684	21.78	AVG	10.02	31.80	48.54	-16.74
5	N	0.4503	39.94	QP	10.02	49.96	56.87	-6.91
6	N	0.4503	20.34	AVG	10.02	30.36	46.87	-16.51
7	N	0.8832	38.68	QP	10.03	48.71	56.00	-7.29
8	Ν	0.8832	23.79	AVG	10.03	33.82	46.00	-12.18
9	Ν	1.4448	39.66	QP	10.03	49.69	56.00	-6.31
10	N	1.4448	24.91	AVG	10.03	34.94	46.00	-11.06
11	Ν	2.6343	39.02	QP	10.05	49.07	56.00	-6.93
12	N	2.6343	21.66	AVG	10.05	31.71	46.00	-14.29



Test Report	17070654-FCC-E
Page	15 of 35

6.2 Radiated Emissions

Temperature	25 °C
Relative Humidity	57%
Atmospheric Pressure	1024mbar
Test date :	August 24, 2017
Tested By :	Evans He

Requirement(s):

Spec	Item	tem Requirement Applicable				
47CFR§15.	a)	Except higher limit as specified else emissions from the low-power radio exceed the field strength levels spet the level of any unwanted emission the fundamental emission. The tight edges	V			
109(d)	ŕ	Frequency range (MHz)	Field Strength (μV/m)			
		30 – 88	100			
		88 – 216	150			
		216 - 960	200			
		Above 960	500			
Test Setup	Ant. Tower Support Units Turn Table Ground Plane Test Receiver					
Procedure 1. The EUT was switched on and allowed to was 2. The test was carried out at the selected frequencharacterization. Maximization of the emission changing the antenna polarization, and adjust manner: a. Vertical or horizontal polarization (where the procedure)			ed frequency points obtained from emissions, was carried out by rota d adjusting the antenna height in	the EUT ating the EUT, the following		



Test Report	17070654-FCC-E
Page	16 of 35

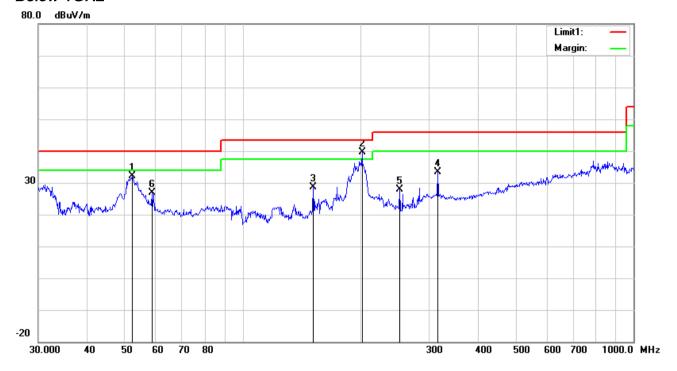
			over a full rotation of the EUT) was chosen.
		b.	The EUT was then rotated to the direction that gave the maximum
			emission.
		C.	Finally, the antenna height was adjusted to the height that gave the maximum
			emission.
	3.	The res	olution bandwidth and video bandwidth of test receiver/spectrum analyzer is
		120 kHz	z for Quasiy Peak detection at frequency below 1GHz.
	4.	The reso	olution bandwidth of test receiver/spectrum analyzer is 1MHz and video
		bandwid	dth is 3MHz with Peak detection for Peak measurement at frequency above
		1GHz.	
		The res	solution bandwidth of test receiver/spectrum analyzer is 1MHz and the video
		bandw	idth with Peak detection for Average Measurement as below at frequency
		above	1GHz.
		■ 1 kH	z (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 w	vere measured.
Remark			
i verriark			
Result	Pas	SS	Fail
1.7	1		
Test Data	Yes		N/A
Test Plot	Yes (Se	∍e belo\	w) $\square_{N/A}$



Test Report	17070654-FCC-E
Page	17 of 35

Test Mode : USB Mode

Below 1GHz



Test Data

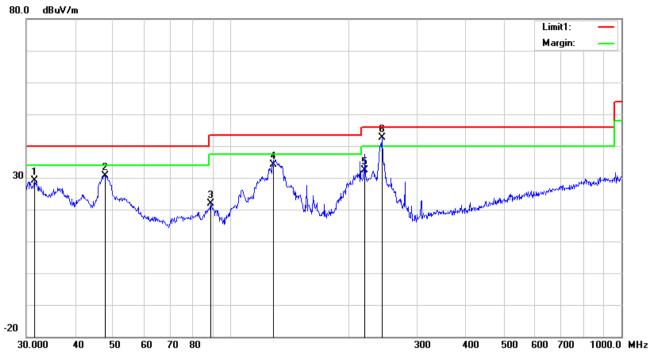
Horizontal Polarity Plot @3m

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	Н	52.2079	45.56	peak	8.16	22.39	0.79	32.12	40.00	-7.88	100	11
2	Н	202.1005	48.47	peak	12.07	22.38	1.55	39.71	43.50	-3.79	100	252
3	П	151.5972	37.13	peak	12.60	22.33	1.35	28.75	43.50	-14.75	100	61
4	Н	315.4808	39.82	peak	13.93	22.25	1.87	33.37	46.00	-12.63	100	109
5	Н	252.0627	36.88	peak	11.49	22.29	1.70	27.78	46.00	-18.22	100	174
6	Н	58.6126	41.04	peak	7.45	22.41	0.76	26.84	40.00	-13.16	200	341



Test Report	17070654-FCC-E
Page	18 of 35

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	31.5095	30.58	peak	20.24	22.27	0.66	29.21	40.00	-10.79	100	145
2	٧	47.6586	42.79	peak	9.43	22.34	0.78	30.66	40.00	-9.34	100	43
3	V	88.9639	35.18	peak	7.96	22.33	0.97	21.78	43.50	-21.72	100	53
4	V	128.5630	42.01	peak	13.34	22.38	1.19	34.16	43.50	-9.34	100	321
5	٧	220.6171	41.19	peak	11.81	22.34	1.61	32.27	46.00	-13.73	100	204
6	V	244.2321	51.87	peak	11.48	22.30	1.68	42.73	46.00	-3.27	100	271



Test Report	17070654-FCC-E
Page	19 of 35

Above 1GHz

Frequency	Read_level	A!	Height	Polarity	Level	Factors	Limit	Margin	Detector
(MHz)	(dBµV/m)	Azimuth	(cm)	(H/V)	(dBµV/m)	(dB)	(dBµV/m)	(dB)	(PK/AV)
1579.5	67.06	331	100	V	-18.55	48.51	74	-25.49	PK
1684.4	62.33	242	100	V	-17.51	44.82	74	-29.18	PK
2364.3	59.17	276	100	V	-14.18	44.99	74	-29.01	PK
1655.5	68.08	271	100	Н	-17.26	50.82	74	-23.18	PK
2170	64.05	196	100	Н	-14.7	49.35	74	-24.65	PK
2850.3	62.98	116	100	Н	-13.15	49.83	74	-24.17	PK

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

Note 2: 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.



Test Report	17070654-FCC-E
Page	20 of 35

Annex A. TEST INSTRUMENT

Instrument	Model	Serial#	Cal Date	Cal Due	In use		
AC Line Conducted Emissions							
EMI test receiver	ESCS30	8471241027	09/16/2016	09/15/2017	•		
Line Impedance	LI-125A	191106	09/24/2016	09/23/2017	₹		
Stabilization Network							
Line Impedance Stabilization Network	LI-125A	191107	09/24/2016	09/23/2017	>		
ISN	ISN T800	34373	09/24/2016	09/23/2017			
Transient Limiter	LIT-153	531118	08/31/2016	08/30/2017	<		
Radiated Emissions							
EMI test receiver	ESL6	100262	09/16/2016	09/15/2017	<		
OPT 010 AMPLIFIER (0.1-1300MHz)	8447E	2727A02430	08/31/2016	08/30/2017	\		
Microwave Preamplifier (1 ~ 26.5GHz)	8449B	3008A02402	03/23/2017	03/22/2018	\		
Bilog Antenna (30MHz~6GHz)	JB6	A110712	09/20/2016	09/19/2017	>		
Double Ridge Horn Antenna	AH-118	71259	09/23/2016	09/22/2017	\(\z\)		



Test Report	17070654-FCC-E
Page	21 of 35

Annex B. EUT And Test Setup Photographs

Annex B.i. Photograph: EUT External Photo





Adapter View





Test Report	17070654-FCC-E
Page	22 of 35

EUT - Front View



EUT - Rear View



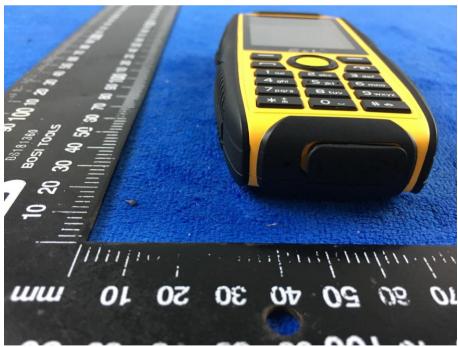


Test Report	17070654-FCC-E
Page	23 of 35

EUT - Top View



EUT - Bottom View





Test Report	17070654-FCC-E
Page	24 of 35

EUT - Left View



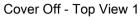
EUT - Right View





Test Report	17070654-FCC-E
Page	25 of 35

Annex B.ii. Photograph: EUT Internal Photo





Cover Off - Top View 2





Test Report	17070654-FCC-E
Page	26 of 35

Battery - Front View



Battery - Rear View





Test Report	17070654-FCC-E
Page	27 of 35

Mainboard without button - Front View



Mainboard with shielding - Rear View



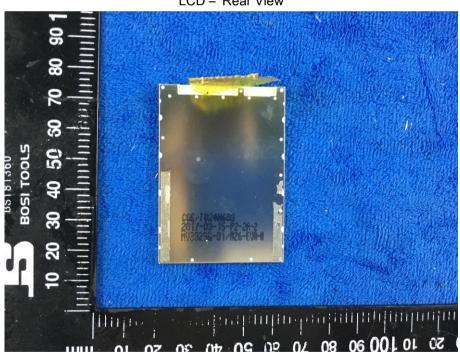


Test Report	17070654-FCC-E
Page	28 of 35

LCD - Front View



LCD - Rear View



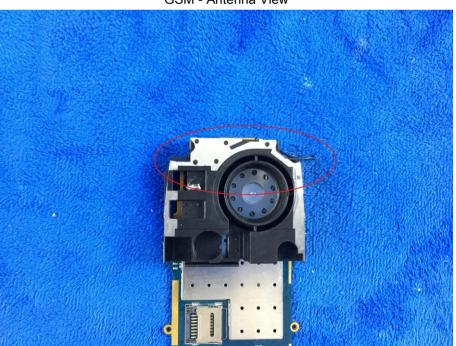


Test Report	17070654-FCC-E
Page	29 of 35

BT - Antenna View



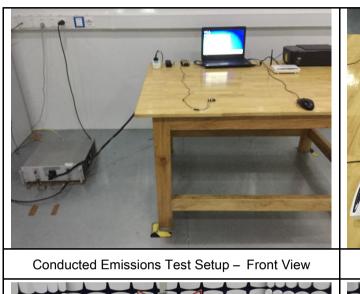
GSM - Antenna View

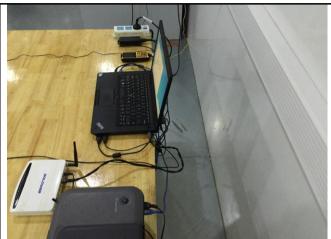




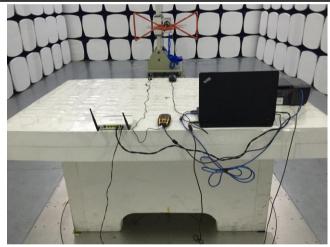
Test Report	17070654-FCC-E
Page	30 of 35

Annex B.iii. Photograph: Test Setup Photo

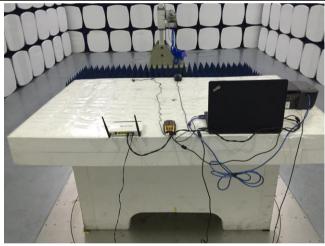




Conducted Emissions Test Setup - Side View



Radiated Emissions Test Setup Below 1GHz



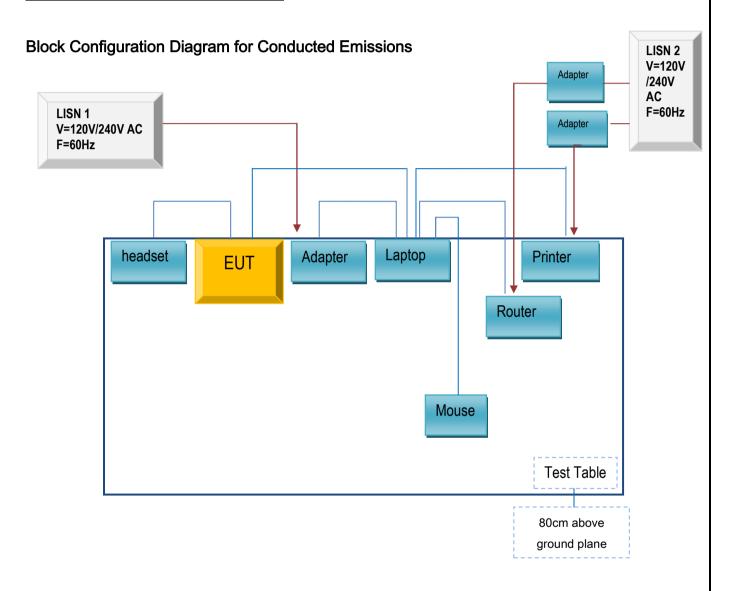
Radiated Emissions Test Setup Above 1GHz



Test Report	17070654-FCC-E
Page	31 of 35

Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

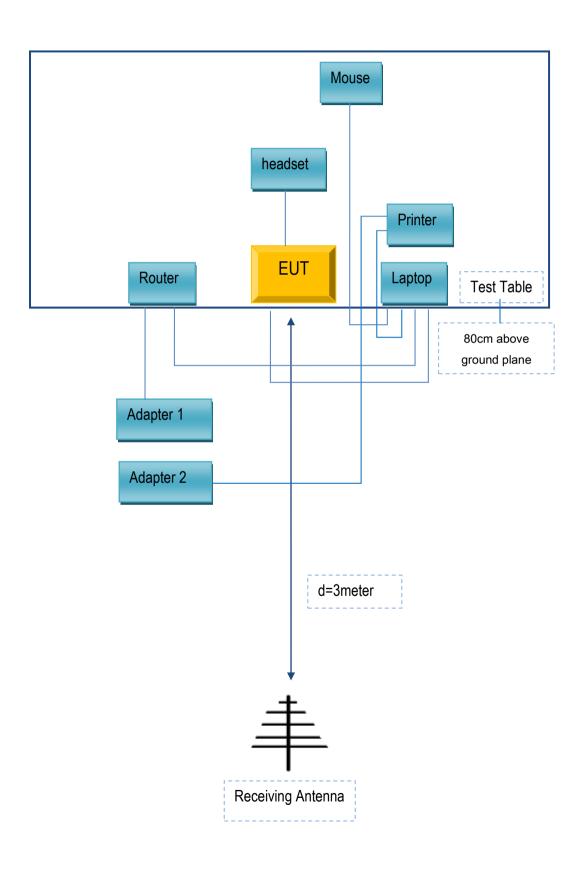
Annex C.ii. TEST SET UP BLOCK





Test Report	17070654-FCC-E
Page	32 of 35

Block Configuration Diagram for Radiated Emissions





Test Report	17070654-FCC-E
Page	33 of 35

Annex C. il. 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
НР	Printer	VCVRA-1003	CN36M19JWX
DELL	Mouse	E100	912NMTUT41481
BULL	Socket	GN-403	GN201203
SHENZHEN KENXINDA TECHNOLOGY CO.,LTD	headset	S200	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
Earphone Cables	Un-shielding	No	0.5m	N/A



Test Report	17070654-FCC-E
Page	34 of 35

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

Please see the attachment



Test Report	17070654-FCC-E
Page	35 of 35

Annex E. DECLARATION OF SIMILARITY

N/A