# EMC TEST REPORT



Report No.: 16070396-FCC-E Supersede Report No.: N/A

Applicant	Social Mobile Telecommunications				
Product Name	Mobile Phone				
Model No.	X325				
Serial No.	N/A				
Test Standard	FCC Part 1	5 Subpart B C	lass B:2015, A	NSI C63.4: 2014	
Test Date	April 23 to N	April 23 to May 06, 2016			
Issue Date	May 09, 2016				
Test Result	Pass Fail				
Equipment compl	Equipment complied with the specification				
Equipment did not comply with the specification					
Winnie.Zi	hang	David	Huang		
Winnie Zhang Test Engineer			Huang ked 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

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### **Laboratories Introduction**

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#### **Accreditations for Conformity Assessment**

Country/Region	Scope	
USA	EMC, RF/Wireless, SAR, Telecom	
Canada EMC, RF/Wireless, SAR, Teleco		
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
16070396-FCC-E	NONE	Original	May 09, 2016

### 2. Customer information

Applicant Name	Social Mobile Telecommunications
Applicant Add	16400 NW 2nd Ave Suite 201 Miami, Florida 33169
Manufacturer	SMT TELECOMM HK LIMITED
Manufacturer Add	Unit C 8/F, CHARMHILL CTR 50 HILLWOOD RD TST KL

### 3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES		
	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.	718246		
IC Test Site No.	4842E-1		
Test Software	Radiated Emission Program-To Shenzhen v2.0		



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### 4. Equipment under Test (EUT) Information

Description	of EUT:	Mobile Phone

Main Model: X325

Serial Model: N/A

Date EUT received: April 22, 2016

Test Date(s): April 23 to May 06, 2016

Equipment Category: Class B

GSM850: -2.22dBi

PCS1900: -1.14dBi

UMTS-FDD Band V: -2.22dBi

Antenna Gain: UMTS-FDD Band II: -1.14dBi

Bluetooth/BLE: 2.93dBi

WIFI: 2.93dBi GPS:0 dBi

GSM / GPRS: GMSK

EGPRS: GMSK

UMTS-FDD: QPSK, 16QAM

Type of Modulation: 802.11b/g/n: DSSS, OFDM

Bluetooth: GFSK, π /4DQPSK, 8DPSK

BLE: GFSK GPS:BPSK



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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

UMTS-FDD Band V TX: 826.4 ~ 846.6 MHz; RX: 871.4 ~ 891.6 MHz

UMTS-FDD Band II TX:1852.4 ~ 1907.6 MHz;

RF Operating Frequency (ies): RX: 1932.4 ~ 1987.6 MHz

WIFI:802.11b/g/n(20M): 2412-2462 MHz WIFI:802.11n(40M): 2422-2452 MHz Bluetooth& BLE: 2402-2480 MHz

GPS RX:1575.42 MHz

GSM 850: 124CH PCS1900: 299CH

UMTS-FDD Band V : 102CH UMTS-FDD Band II : 277CH

Number of Channels: WIFI :802.11b/g/n(20M): 11CH

WIFI:802.11n(40M): 7CH

Bluetooth: 79CH

BLE: 40CH GPS:1CH

Port: Power Port, Earphone Port, USB Port

Adapter:

Model:PC325

Input: AC 100-240V~50/60Hz,0.15A

Output: DC 5.0V,500mA

Input Power: Battery:

Model: BPX325 Spec:3.7V, 4.44Wh

Battery Capacity:1200mAh Limited charger voltage :4.2V

Trade Name: N/A

FCC ID: 2ACLMX325



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### 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**

Emissions			
Test Item Description Uncer			
Band Edge and Radiated Spurious Emissions	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+5.6dB/-4.5dB	
-	-	-	



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# 6. Measurements, Examination And Derived Results

### 6.1 AC Power Line Conducted Emissions

Temperature	23°C
Relative Humidity	55%
Atmospheric Pressure	1003mbar
Test date :	May 03, 2016
Tested By:	Winnie Zhang

#### Requirement(s):

Spec	Item	Requirement			Applicable
47CFR§15.	a)	For Low-power radio-freconnected to the public voltage that is conducted frequency or frequencies not exceed the limits in [mu] H/50 ohms line im lower limit applies at the	c utility (AC) power line ed back onto the AC poses, within the band 150 the following table, as appedance stabilization r	the radio frequency ower line on any kHz to 30 MHz, shall measured using a 50 network (LISN). The	
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	Vertical Ground Reference Plane  EUT  ### ### ############################				
		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.			
Procedure	<ol> <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 50W/50mH EUT LISN, connected to</li> </ol>				
	filte	ered mains.			



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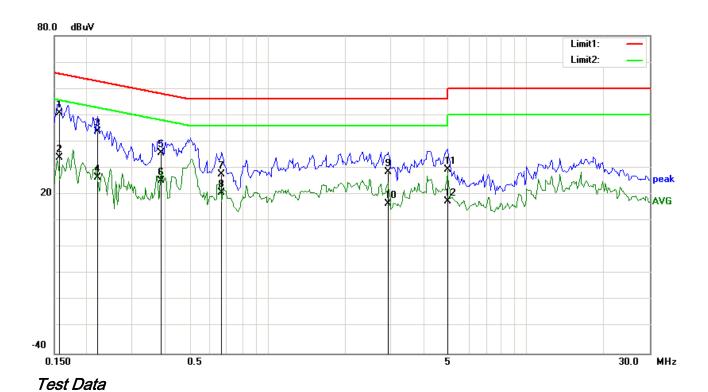
	3. The RF OUT of the EUT LISN was connected to the EMI test receiver via a low-loss
	coaxial cable.
	4. All other supporting equipment were powered separately from another main supply.
	5. The EUT was switched on and allowed to warm up to its normal operating condition.
	6. A scan was made on the NEUTRAL 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 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	□ <sub>N/A</sub>
Test Plot	Yes (See below)	□ <sub>N/A</sub>



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USB Mode



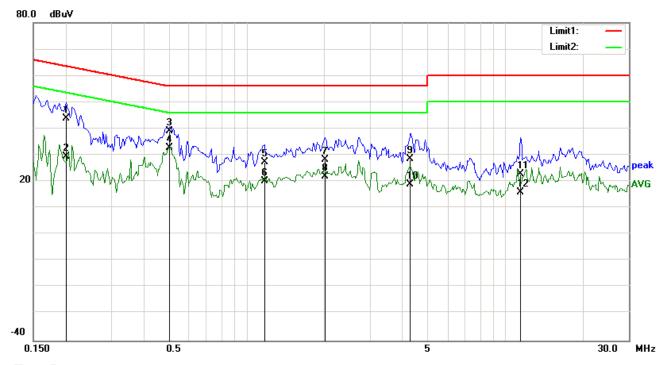
#### Phase Line Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB)	(dBuV)	(dBuV)	(dB)
1	L1	0.1578	40.66	QP	10.03	50.69	65.58	-14.89
2	L1	0.1578	23.80	AVG	10.03	33.83	55.58	-21.75
3	L1	0.2203	33.81	QP	10.03	43.84	62.81	-18.97
4	L1	0.2203	16.33	AVG	10.03	26.36	52.81	-26.45
5	L1	0.3883	25.60	QP	10.03	35.63	58.10	-22.47
6	L1	0.3883	15.07	AVG	10.03	25.10	48.10	-23.00
7	L1	0.6656	17.70	QP	10.03	27.73	56.00	-28.27
8	L1	0.6656	10.64	AVG	10.03	20.67	46.00	-25.33
9	L1	2.9234	18.56	QP	10.05	28.61	56.00	-27.39
10	L1	2.9234	6.49	AVG	10.05	16.54	46.00	-29.46
11	L1	4.9727	19.50	QP	10.08	29.58	56.00	-26.42
12	L1	4.9727	7.27	AVG	10.08	17.35	46.00	-28.65



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Test Mode:
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#### Test Data

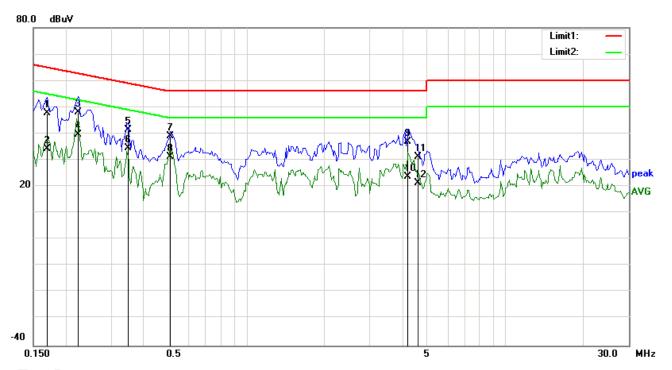
#### Phase Neutral Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB)	(dBuV)	(dBuV)	(dB)
1	N	0.2008	33.90	QP	10.02	43.92	63.58	-19.66
2	N	0.2008	19.31	AVG	10.02	29.33	53.58	-24.25
3	N	0.5055	28.94	QP	10.02	38.96	56.00	-17.04
4	N	0.5055	22.60	AVG	10.02	32.62	46.00	-13.38
5	N	1.1734	17.26	QP	10.03	27.29	56.00	-28.71
6	N	1.1734	10.26	AVG	10.03	20.29	46.00	-25.71
7	N	2.0133	18.27	QP	10.04	28.31	56.00	-27.69
8	N	2.0133	11.88	AVG	10.04	21.92	46.00	-24.08
9	N	4.3125	18.46	QP	10.06	28.52	56.00	-27.48
10	N	4.3125	8.88	AVG	10.06	18.94	46.00	-27.06
11	N	11.4844	12.65	QP	10.16	22.81	60.00	-37.19
12	N	11.4844	5.87	AVG	10.16	16.03	50.00	-33.97



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Test Mode:
------------



#### Test Data

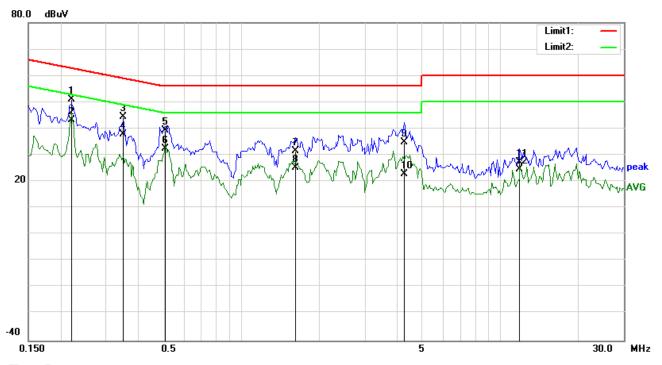
#### Phase Line Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB)	(dBuV)	(dBuV)	(dB)
1	L1	0.1695	37.79	QP	10.03	47.82	64.98	-17.16
2	L1	0.1695	24.08	AVG	10.03	34.11	54.98	-20.87
3	L1	0.2242	38.09	QP	10.03	48.12	62.66	-14.54
4	L1	0.2242	29.52	AVG	10.03	39.55	52.66	-13.11
5	L1	0.3492	31.40	QP	10.03	41.43	58.98	-17.55
6	L1	0.3492	24.40	AVG	10.03	34.43	48.98	-14.55
7	L1	0.5094	29.17	QP	10.03	39.20	56.00	-16.80
8	L1	0.5094	21.31	AVG	10.03	31.34	46.00	-14.66
9	L1	4.2109	26.74	QP	10.07	36.81	56.00	-19.19
10	L1	4.2109	13.77	AVG	10.07	23.84	46.00	-22.16
11	L1	4.5979	21.18	QP	10.07	31.25	56.00	-24.75
12	L1	4.5979	11.28	AVG	10.07	21.35	46.00	-24.65



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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	0.2203	41.05	QP	10.02	51.07	62.81	-11.74
2	N	0.2203	33.17	AVG	10.02	43.19	52.81	-9.62
3	N	0.3492	34.34	QP	10.02	44.36	58.98	-14.62
4	Ν	0.3492	27.75	AVG	10.02	37.77	48.98	-11.21
5	Ν	0.5094	29.20	QP	10.02	39.22	56.00	-16.78
6	N	0.5094	22.43	AVG	10.02	32.45	46.00	-13.55
7	N	1.6148	21.60	QP	10.04	31.64	56.00	-24.36
8	N	1.6148	15.15	AVG	10.04	25.19	46.00	-20.81
9	N	4.2500	24.92	QP	10.06	34.98	56.00	-21.02
10	N	4.2500	12.92	AVG	10.06	22.98	46.00	-23.02
11	N	11.9023	17.25	QP	10.16	27.41	60.00	-32.59
12	N	11.9023	14.60	AVG	10.16	24.76	50.00	-25.24



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### 6.2 Radiated Emissions

Temperature	22°C
Relative Humidity	58%
Atmospheric Pressure	1025mbar
Test date :	April 25, 2016
Tested By:	Winnie Zhang

#### Requirement(s):

Spec	Item	Requirement Applicable					
47CFR§15.	a)	Except higher limit as specified else emissions from the low-power radio exceed the field strength levels spe the level of any unwanted emission the fundamental emission. The tigh edges	₹				
107(d)	,	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	<ol> <li>The EUT was switched on and allowed to warm up to its normal operating condition.</li> <li>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:         <ul> <li>Vertical or horizontal polarization (whichever gave the higher emission level</li> </ul> </li> </ol>						



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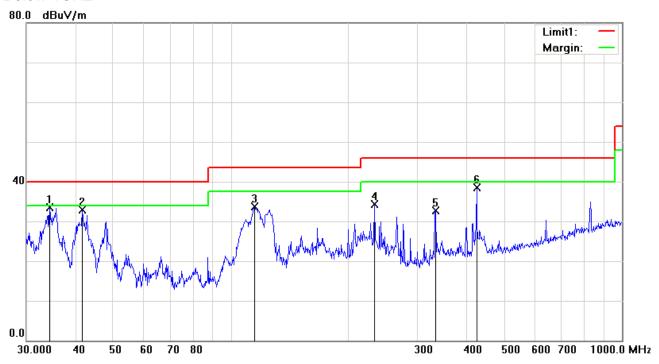
			over a full rotation of the EUT) was chosen.
		b.	The EUT was then rotated to the direction that gave the maximum
			emission.
		C.	Finally, the antenna height was adjusted to the height that gave the maximum
			emission.
	3.	The res	solution bandwidth and video bandwidth of test receiver/spectrum analyzer is
		120 kH	z for Quasiy Peak detection at frequency below 1GHz.
	4.	The res	olution bandwidth of test receiver/spectrum analyzer is 1MHz and video
		bandwi	dth is 3MHz with Peak detection for Peak measurement at frequency above
		1GHz.	
		The re	esolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video
		bandw	vidth with Peak detection for Average Measurement as below at frequency
		above	1GHz.
		■ 1 kH	Hz (Duty cycle < 98%) □ 10 Hz (Duty cycle > 98%)
	5.	Steps 2	2 and 3 were repeated for the next frequency point, until all selected frequency
		points	were measured.
Remark			
Result	<b>☑</b> Pa	ss	☐ Fail
	7		
Test Data	Yes		N/A
Test Plot	Yes (S	ee belo	w) N/A



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Test Mode : USB Mode

#### Below 1GHz



#### Test Data

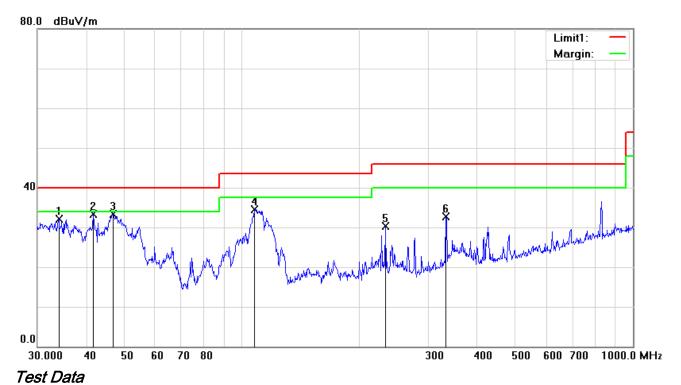
### Horizontal Polarity Plot @3m

No.	P/L	Frequency	Readin g	Detector	Corrected	Result	Limit	Margin	Height	Degree
		(MHz)	(dBuV/ m)		(dB/m)	(dBuV/m )	(dBuV/m)	(dB)	(cm)	( )
1	н	34.3964	36.98	peak	-3.50	33.48	40.00	-6.52	100	15
2	Н	41.7130	41.63	peak	-8.73	32.90	40.00	-7.10	100	276
3	Н	114.9169	41.82	peak	-8.17	33.65	43.50	-9.85	100	169
4	Н	232.5318	43.41	peak	-9.04	34.37	46.00	-11.63	100	68
5	Н	333.6867	38.71	peak	-5.93	32.78	46.00	-13.22	100	157
6	Н	425.0280	42.19	peak	-3.69	38.50	46.00	-7.50	100	218



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### Below 1GHz



# Vertical Polarity Plot @3m

No.	P/L	Frequency	Readin g	Detector	Corrected	Result	Limit	Margin	Height	Degree
		(MHz)	(dBuV/ m)		(dB/m)	(dBuV/m )	(dBuV/m)	(dB)	(cm)	( )
1	>	34.0365	35.36	peak	-3.24	32.12	40.00	-7.88	100	336
2	٧	41.7130	42.03	peak	-8.73	33.30	40.00	-6.70	100	348
3	V	46.8303	45.08	peak	-11.76	33.32	40.00	-6.68	100	186
4	V	107.8877	43.94	peak	-9.40	34.54	43.50	-8.96	100	352
5	V	232.5318	39.33	peak	-9.04	30.29	46.00	-15.71	100	243
6	V	332.5187	38.73	peak	-5.97	32.76	46.00	-13.24	100	0



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#### Above 1GHz

Frequency (MHz)	Amplitude (dΒμV/m)	Azimuth	Height (cm)	Polarity (H/V)	Factors (dB)	Limit (dBµV/m)	Margin (dB)	Detector (PK/AV)
936.33	56.23	55	167	V	-20.32	74	-17.77	PK
1022.35	57.41	123	164	V	-21.56	74	-16.59	PK
1093.48	53.55	89	145	V	-23.65	74	-20.45	PK
837.26	52.13	96	249	Н	-23.42	74	-21.87	PK
1135.26	48.72	115	200	Н	-21.56	74	-25.28	PK
1542.39	56.32	107	165	Н	-21.69	74	-17.68	PK

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

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.



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### Annex A. TEST INSTRUMENT

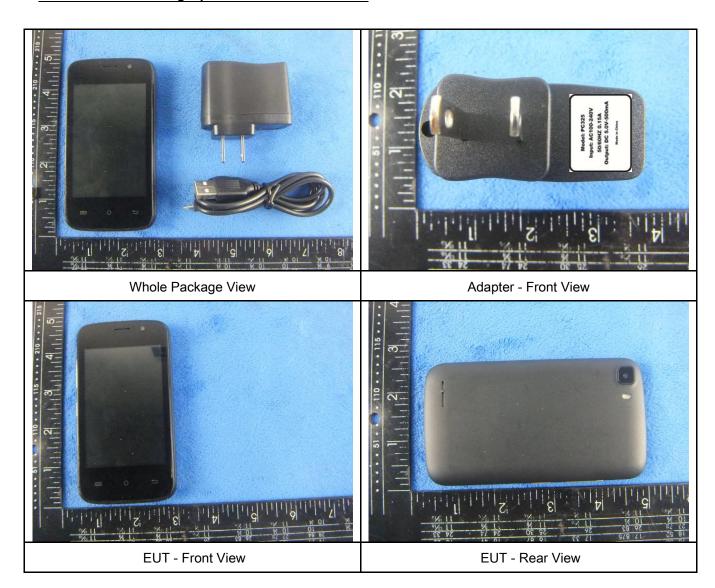
Instrument	Model	Serial #	Cal Date	Cal Due	In use		
AC Line Conducted Emissions							
EMI test receiver	ESCS30	8471241027	09/17/2015	09/16/2016	•		
Line Impedance Stabilization Network	LI-125A	191106	09/25/2015	09/24/2016	<b>&gt;</b>		
Line Impedance Stabilization Network	LI-125A	191107	09/25/2015	09/24/2016	<u> </u>		
LISN	ISN T800	34373	09/25/2015	09/24/2016	<		
Transient Limiter	LIT-153	531118	09/01/2015	08/31/2016	<		
Radiated Emissions							
EMI test receiver	ESL6	100262	09/17/2015	09/16/2016	>		
OPT 010 AMPLIFIER (0.1-1300MHz)	8447E	2727A02430	09/01/2015	08/31/2016	<b>&gt;</b>		
Microwave Preamplifier (1 ~ 26.5GHz)	8449B	3008A02402	03/24/2016	03/23/2017	<b>\(\z\)</b>		
Bilog Antenna (30MHz~6GHz)	JB6	A110712	09/21/2015	09/20/2016	<b>\</b>		
Double Ridge Horn Antenna	AH-118	71259	09/24/2015	09/23/2016	<b>\(\z\)</b>		



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### Annex B. EUT And Test Setup Photographs

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





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EUT - Top View

**EUT - Bottom View** 



EUT - Left View



**EUT - Right View** 



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





Cover Off - Top View 1

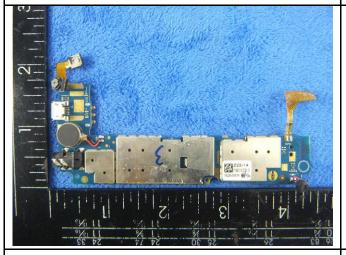
Cover Off - Top View 2



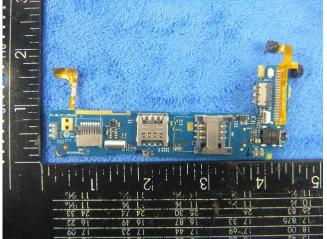




Battery - Rear View



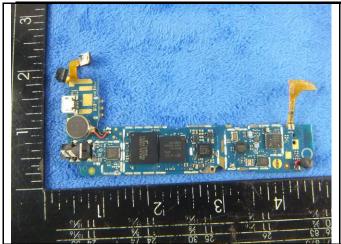
Mainboard with Shielding - Front View



Mainboard with Shielding - Rear View

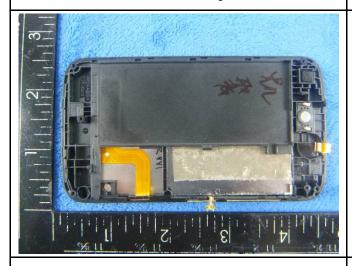


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Mainboard without Shielding - Front View

LCD - Front View





LCD - Rear View

GSM/PCS/UMTS-FDD Antenna View



WIFI/BT/BLE/GPS - Antenna View



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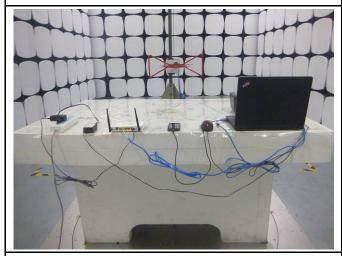
### Annex B.iii. Photograph: Test Setup Photo



Conducted Emissions Test Setup – TF Card Front View

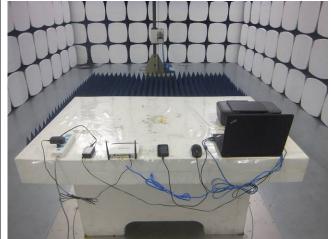


Conducted Emissions Test Setup – TF Card Side View



Radiated Emissions Test Setup Below 1GHz - TF

Card Front View



Radiated Emissions Test Setup Above 1GHz - TF

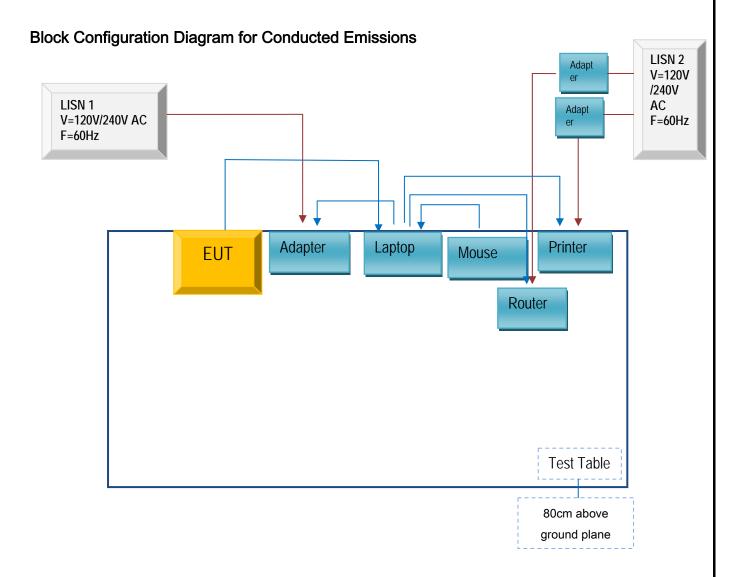
Card Side View



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### Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

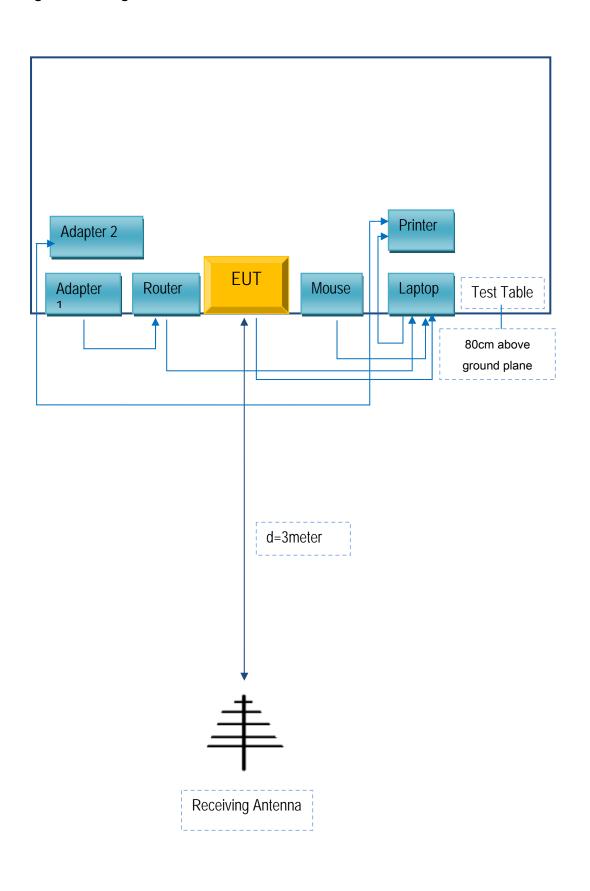
#### Annex C.ii. TEST SET UP BLOCK





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### **Block Configuration Diagram for Radiated Emissions**





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#### 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	Lenovo Laptop	E40& 0579A52	LR-1EHRX
GOLDWEB	Router	R102	1202032094
HP	Printer	VCVRA-1003	CN36M19JWX
DELL	Mouse	E100	912NMTUT41481

#### Supporting Cable:

Cable type	Shield Type	Ferrite Core	Length	Serial No
USB Cable	Un-shielding	No	2m	JX120051274
RJ45 Cable	Un-shielding	No	2m	KX156327541
Router Power cable	Un-shielding	No	2m	13274630Z
Printer Power cable	Un-shielding	No	2m	127581031
USB Cable	Un-shielding	No	0.8m	ST1274111



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

N/A



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### Annex E. DECLARATION OF SIMILARITY

N/A