FCC Report

Application Purpose	: Original grant
Applicant Name:	: INFINIX MOBILITY LIMITED
FCC I D	: 2AIZN-X557
Equipment Type	: Mobile phone
Model Name	: X557
Report Number	: FCC16083920A-4
Standard(S)	: FCC Part 15 Subpart C
Date Of Receipt	: August 19, 2016
Date Of Issue	: September 07, 2016
Test By	Daisy DEN
Reviewed By	(Daisy Qin) : Sol Gin
Authorized by	(Sol Qin) : Anisheding
Prepared by	 (Michal Ling) QTC Certification & Testing Co., Ltd. 2nd Floor, Bl Building, Fengyeyuan Industrial Plant,, Liuxian 2st. Road, Xin'an Street, Bao'an District,, Shenzhen, 518000 Registration Number: 588523

REPORT REVISE RECORD							
Report Version	Revise Time	Issued Date	Valid Version	Notes			
V1.0	/	September 07, 2016	Valid	Original Report			

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1. GENERAL INFORMATION

Test Model	X557
Applicant	INFINIX MOBILITY LIMITED
Address	RMS 05-15, 13A/F SOUTH TOWER WORLD FINANCE CTR HARBOUR CITY 17 CANTON RD TST KLN HONG KONG
Manufacturer	SHENZHEN TECNO TECHNOLOGY CO.,LTD.
Address	1-4th Floor,3rd Building,Pacific Industrial Park,No.2088,Shenyan Road,Yantian District,Shenzhen,Guangdong,China
Equipment Type	Mobile phone
Brand Name	Infinix
Hardware	V1.2
Software	X557-H807C1-M-160810V3
Battery information:	Li-Polymer Battery : BL-39AX Voltage: 3.85V Capacity: 3950mAh/ 4000mAh Limited Charge Voltage: 4.4V
Adapter Information:	Adapter: A88-502000 Input: 100-240V 50/60Hz 350mA Output: 5V 2A
Data of receipt	August 19, 2016
Date of test	August 19, 2016, to September 06, 2016
Deviation	None
Condition of Test Sample	Normal

We hereby certify that:

The above equipment was tested by QTC Certification & Testing Co., Ltd.

2nd Floor,BI Building,Fengyeyuan Industrial Plant,, Liuxian 2st. Road, Xin'an Street, Bao'an District,,Shenzhen,518000

Registration Number: 588523

The data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C 63.4:2014. The sample tested as described in this report is in compliance with the FCC Rules Part15 Subpart B.

The test results of this report relate only to the tested sample identified in this report.

2. TEST DESCRIPTION

2.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y \pm U $_{\rm 2}$ where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of ~k=2 , providing a level of confidence of approximately 95 % $_{\circ}$

No.	Item	Uncertainty
1	Conducted Emission Test	±3.2dB
2	RF power, conducted	±0.16dB
3	Spurious emissions, conducted	±0.21dB
4	All emissions, radiated(<1G)	±4.7dB
5	All emissions, radiated(>1G)	±4.7dB
6	Temperature	±0.5°C
7	Humidity	±2%

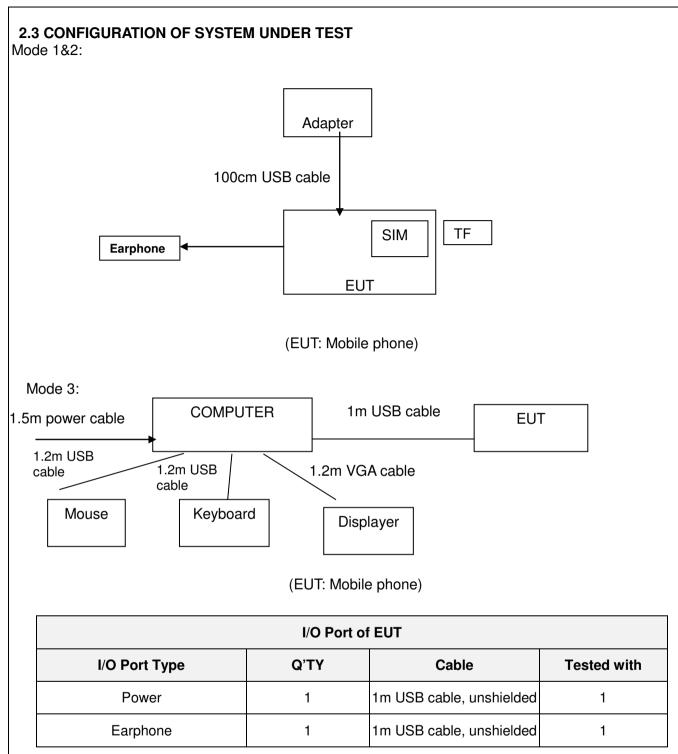
2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description			
Mode 1	Video Recording			
Model 2	Video Playing			
Mode 3	Exchange data with computer			

For Conducted Emission			
Final Test Mode Test with Keyboard and Mouse			
Mode 1	Video Recording		
Model 2	Video Playing		
Mode 3	Exchange data with computer		

For Radiated Emission			
Final Test Mode Test with Keyboard and Mouse			
Mode 1	Video Recording		
Model 2	Video Playing		
Mode 3	Exchange data with computer		



2.4 DESCRIPTION OF SUPPORT UNITS (CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
1	Adapter	/	A88-502000	/	/
2	Keyboard	HP	SK-2880	435302-AA-	/
3	Mouse	DELL	MS111-1	/	/

Note:

- (1) (2)
- The support equipment was authorized by Declaration of Confirmation. For detachable type I/O cable should be specified the length in cm in $\[\]$ Length $\[\]$ column.

3. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15, Subpart B					
Standard Section	Test Item	Judgment	Remark		
15.107	CONDUCTED EMISSION	PASS			
15.109	RADIATED EMISSION	PASS			

NOTE:

(1)" N/A" denotes test is not applicable in this test report.

4. MEASUREMENT INSTRUMENTS						
Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibrated	Calibrated until	
ESCI Test Receiver	R&S	ESCI	100005	08/19/2016	08/18/2017	
LISN	AFJ	LS16	16010222119	08/19/2016	08/18/2017	
LISN(EUT)	Mestec	AN3016	04/10040	08/19/2016	08/18/2017	
pre-amplifier	CDSI	PAP-1G18-38		08/19/2016	08/18/2017	
System Controller	СТ	SC100	-	08/19/2016	08/18/2017	
Bi-log Antenna	Chase	CBL6111C	2576	08/19/2016	08/18/2017	
Spectrum analyzer	R&S	FSU26	200409	08/19/2016	08/18/2017	
Horn Antenna	SCHWARZBECK	9120D	1141	08/19/2016	08/18/2017	
Bi-log Antenna	SCHWAREBECK	VULB9163	9163/340	08/19/2016	08/18/2017	
Pre Amplifier	H.P.	HP8447E	2945A02715	10/13/2016	10/12/2017	
9*6*6 Anechoic				08/21/2016	08/20/2017	

5. EMC EMISSION TEST

5.1 CONDUCTED EMISSION MEASUREMENT

5.1.1 POWER LINE CONDUCTED EMISSION Limits

mits (Frequency Range 150KHz-30MHz)

	Class A (dBuV)		Class B (dBuV)		Standard	
FREQUENCY (MHz)	Quasi-peak	Average	Quasi-peak	Average		
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC	
0.50 -5.0	73.00	60.00	56.00	46.00	FCC	
5.0 -30.0	73.00	60.00	60.00	50.00	FCC	

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

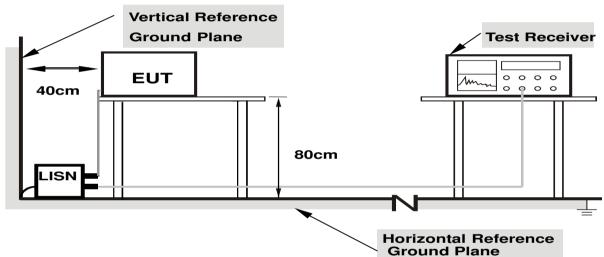
5.1.2 TEST PROCEDURE

- a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

5.1.3 DEVIATION FROM TEST STANDARD

No deviation

5.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.

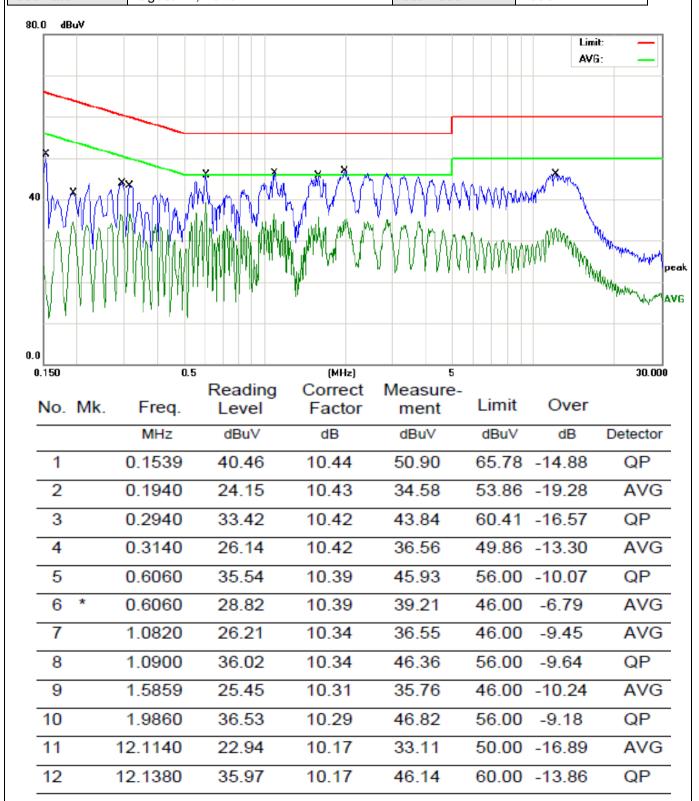
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

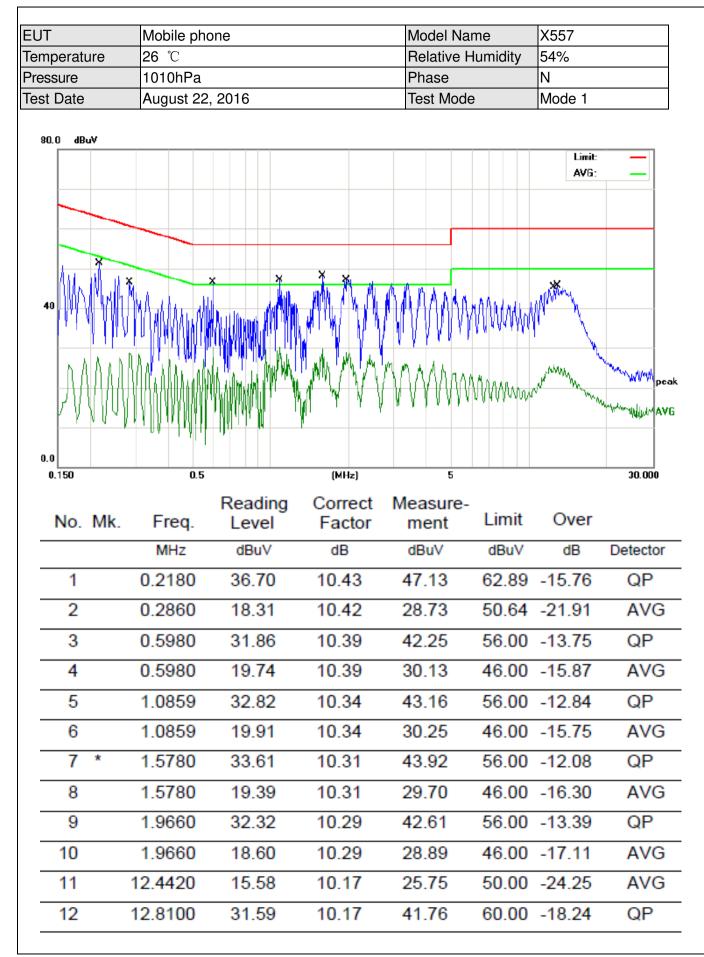
5.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

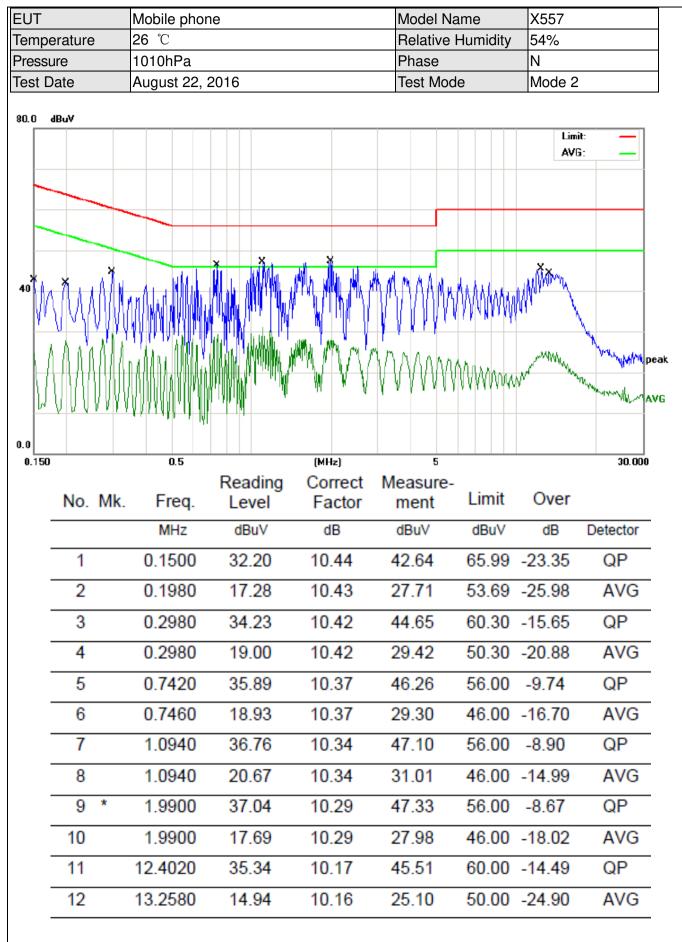
5.1.6 TEST RESULTS

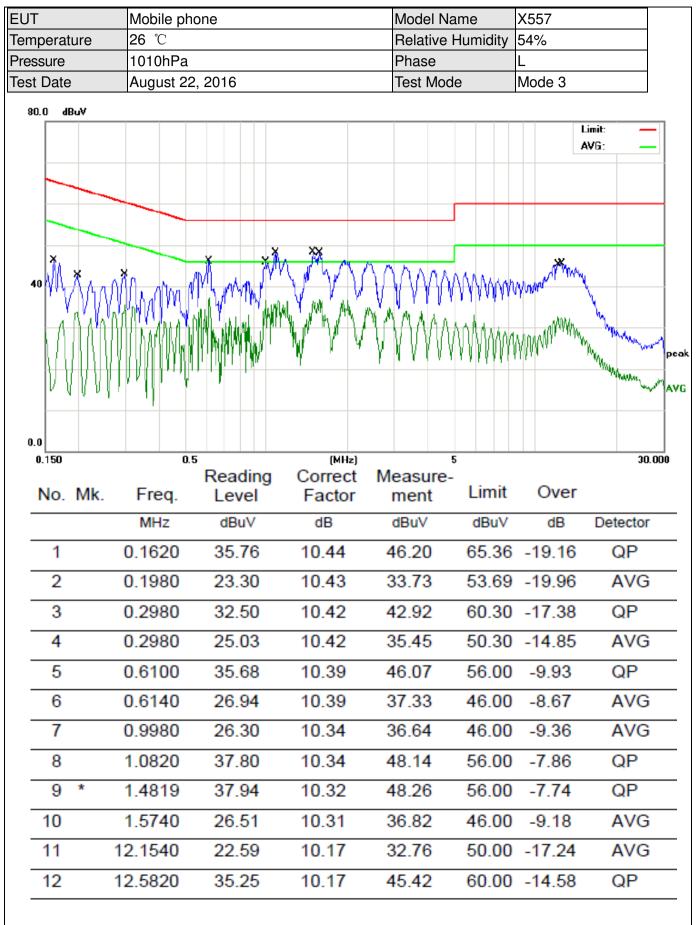
EUT	Mobile phone	Model Name X557
Temperature	26 ℃	Relative Humidity 54%
Pressure	1010hPa	Phase L
Test Date	August 22, 2016	Test Mode Mode 1

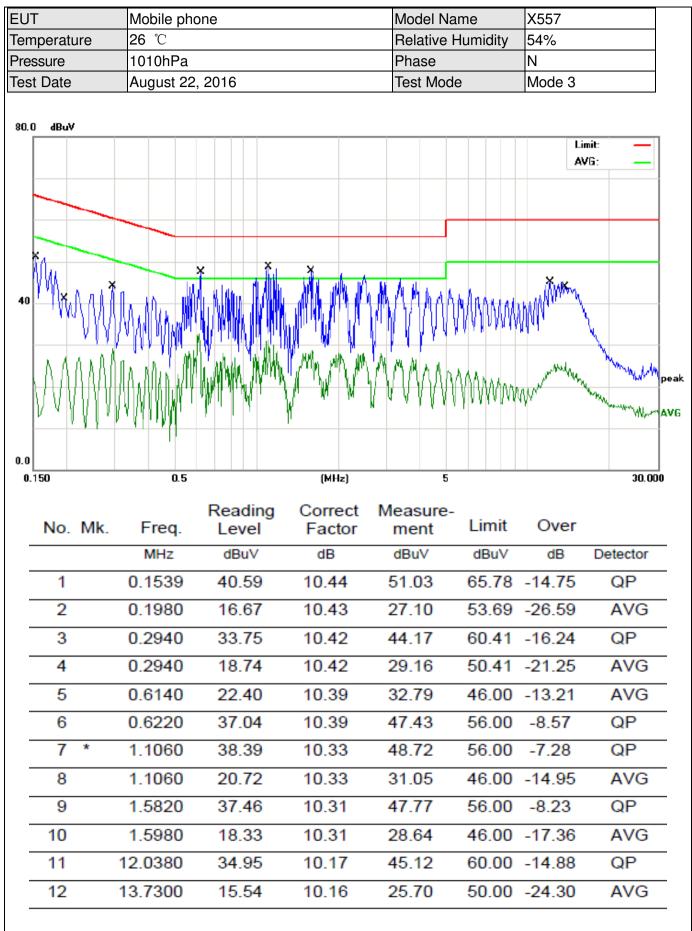




UT	Mobile pho	one		Model Na	ime	X557	
emperature	26 ℃	26 °C				54%	
Pressure	1010hPa	1010hPa				L	
Fest Date	August 22	, 2016		Test Mod	е	Mode 2	
80.0 dBuV		×		×			mit: VG:
40					YYYYYY WWW	MAMMANAMM WANNA ANA	
0.150	0.9	5	(MHz)		j		30.000
No. Mk.	From	Reading	Correct	Measure-	Limit	Over	
INO. IVIK.	Freq. MHz	Level	Factor	ment			Detector
		dBuV	dB	dBuV	dBuV	dB	Detector
1	0.1516	35.79	10.44	46.23	65.91		QP
2	0.1980	23.20	10.43	33.63	53.69	-20.06	AVG
3	0.2980	32.93	10.42	43.35	60.30	-16.95	QP
4	0.2980	25.63	10.42	36.05	50.30	-14.25	AVG
5	0.5980	38.33	10.39	48.72	56.00	-7.28	QP
6 *	0.5980	30.57	10.39	40.96	46.00	-5.04	AVG
7	1.5660	28.28	10.31	38.59	46.00		AVG
8	1.5700	37.97	10.31	48.28	56.00		QP
9	2.3900	25.77	10.31	36.05	46.00		AVG
10	2.8860	35.36	10.27	45.63		-10.37	QP
	12.1180	22.23	10.17	32.40	50.00	-17.60	AVG
11 12	12.1940	35.99	10.17	46.16		-13.84	QP







5.2 RADIATED EMISSION MEASUREMENT

5.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Limit (dBuV/m) (at 3M)			
	PEAK	AVERAGE		
Above 1000	74	54		
Above 1000	74	54		

Notes:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

Spectrum Parameter	Setting		
Attenuation	Auto		
Start Frequency	1000 MHz		
Stop Frequency	10th carrier harmonic		
RB / VB (emission in restricted	1 MHz / 1 MHz for Dook 1 MHz / 1Hz for Average		
band)	1 MHz / 1 MHz for Peak, 1 MHz / 1Hz for Average		

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

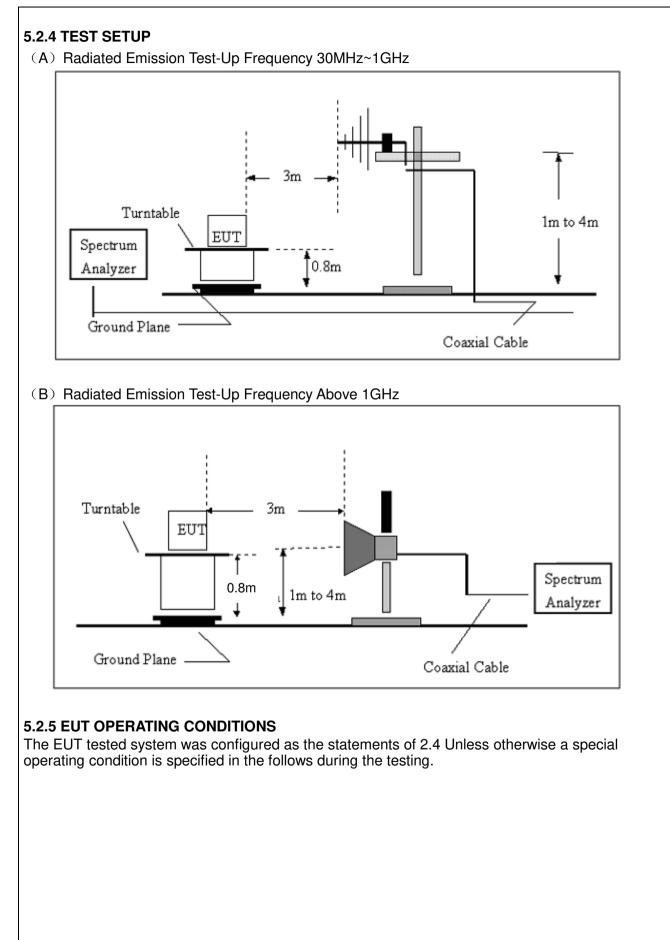
5.2.2 TEST PROCEDURE

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos. Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

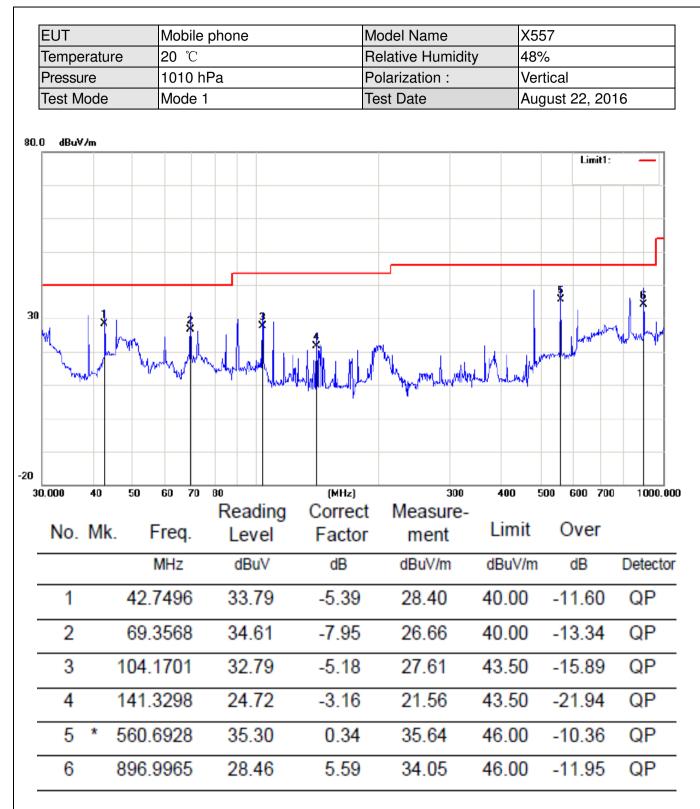
5.2.3 DEVIATION FROM TEST STANDARD

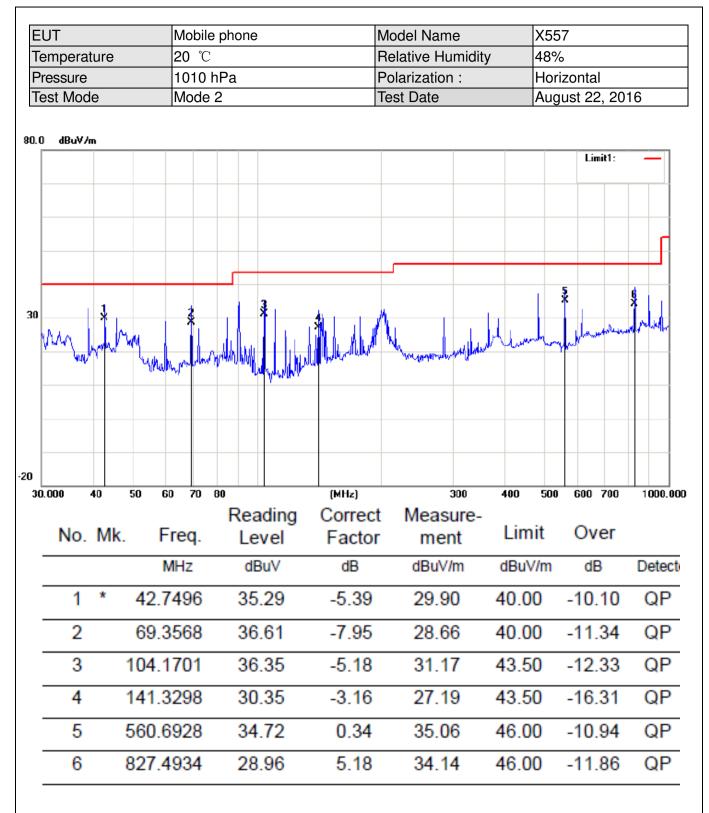
No deviation

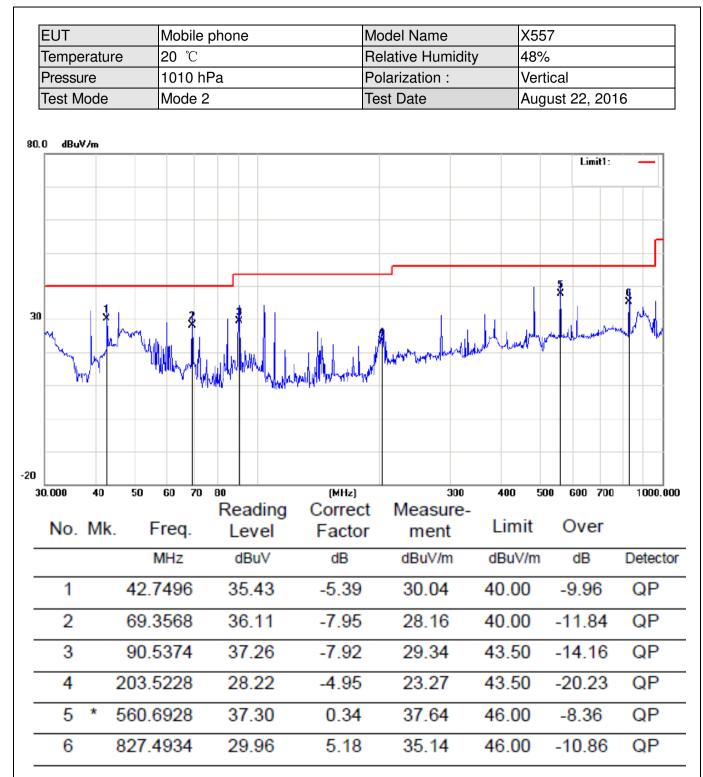


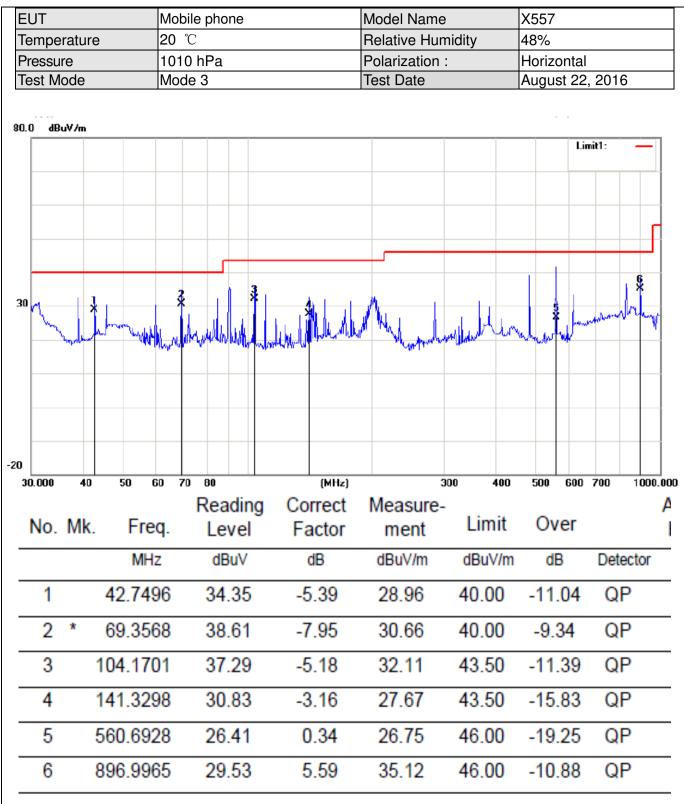
5.2.5.1 TEST RESULTS (BETWEEN 30M – 1000 MHZ)

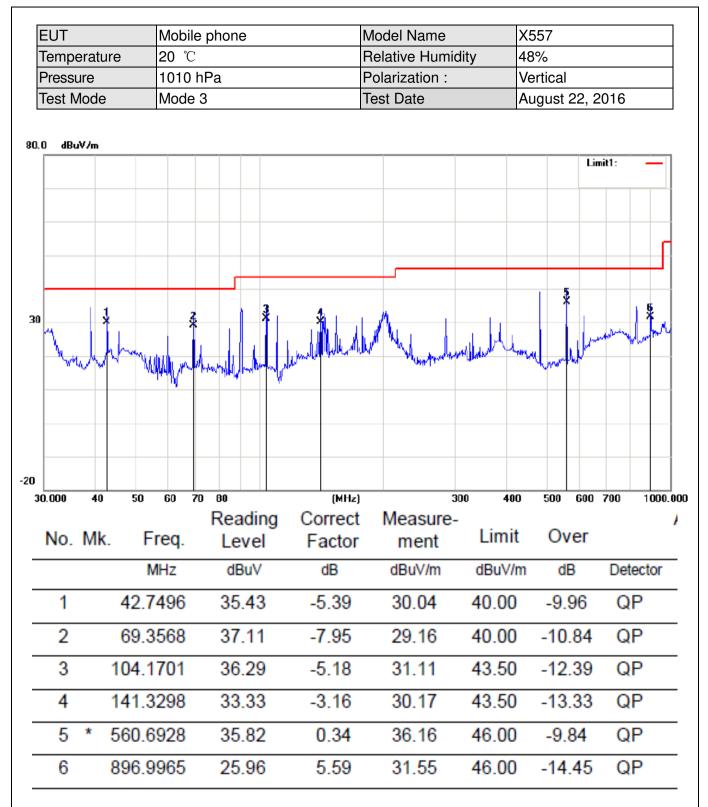
EUT				•			Model Name			X557			
Temperat	ture		20) °C				Relative	e Humic	lity	48% Horizontal		
Pressure			10)10 I	nPa			Polariza	ation :				
Test Mod	le		Mo	ode	1			Test Da	te		Au	gust 22,	2016
0.0 dBuV/	/m											Limit1:	
30		m y	tia way	3		*		A	n on bour	Mine		had and the second	and a start
							"YR"™₩₩ULA-RAHITULA"						
D 30.000	40	50	60	70	BO	ading		t Mea	300 ISUIR-	400	500	600 700	1000.000
			60 Freq		Rea	ading			300 asure- ent	400 Lim		600 700 Over	1000.000
30.000		F			Re: Le	_	Correc	r m	sure-		it		1000.000
30.000		F	Freq	-	Rea Le	evel	Correc Facto	r m	ent N/m	Lim	it /m	Over	
30.000 No. 1	Mk.	42.1 69.3	Freq MHz 7496 3568	3 3	Rea Le d 35	evel BuV 5.79 3.61) Correc Facto dB	r mo dBu 30. 30.	ent //m .40 .66	Lim dBuV 40.0 40.0	it //m D	Over dB	Detecto QP QP
30.000 No. 1 1 2 3	Mk. *	F 42.1 69.3	Freq MHz 7496 3568	3 1	Rea Le 35 38 34	evel BuV 5.79 3.61 4.29	Correc Facto dB -5.39 -7.95 -5.18	r m dBu 30. 30. 29.	ent ///m .40 .66 .11	Lim dBuV 40.0 40.0 43.5	it //m 0 0	Over dB -9.60 -9.34 -14.39	Detecto QP QP QP
No. 1	Mk. * 1	F 42. 69. 104.	Freq MHz 7496 3568 1701 3298	3 3 1 3	Re: Le 35 38 34 26	evel BuV 5.79 3.61 4.29 5.83	Correc Facto dB -5.39 -7.95 -5.18 -3.16	r m dBu 30. 30. 29. 23.	ent //m .40 .66 .11 .67	Lim dBuV 40.0 40.0 43.5 43.5	it //m D D D	Over dB -9.60 -9.34 -14.39 -19.83	Detecto QP QP QP QP
No. 1	Mk. * 1 2	42.1 69.3 104.1 141.3 203.9	Freq MHz 7496 3568	3 3 1 3	Re: Le 35 38 34 26 31	evel BuV 5.79 3.61 4.29	Correc Facto dB -5.39 -7.95 -5.18	r m. dBu 30. 29. 23. 26.	ent //m .40 .66 .11 .67	Lim dBuV 40.0 40.0 43.5	it //m D D D D D	Over dB -9.60 -9.34 -14.39	Detecto QP QP QP QP QP











5.2.5.2 TEST RESULTS(1GHZ TO 6GHZ)

EUT	Mobile phone	Model Name	X557
Temperature	20 (Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 1
Test Date	August 22, 2016		

Freq. (MHz)	Ant. Pol.	Emission Level(dBuV)		Limi 3m(dBu)	-	Over(dB)		
	H/V	PK	AV	PK	ÂV	PK	AV	
1632.45	V	60.03	40.57	74	54	-13.97	-13.43	
2829.27	V	59.63	40.43	74	54	-14.37	-13.57	
1684.52	Н	58.07	39.81	74	54	-15.93	-14.19	
2831.6	Н	59.97	40.97	74	54	-14.03	-13.03	

Remark:

All emissions not reported were more than 20dB below the specified limit or in the noise floor. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

All the x/y/z orientation has been investigated, and only worst case is presented in this report.

EUT	Mobile	Mobile phone				I Name	X557	X557	
Temperature	20 °C	20 ℃			Relative Humidity		48%	48%	
Pressure	1010 h	IPa			Test N	Mode	Mode 2		
Test Date	est Date August 22, 2016								
Freq. (MHz)	Ant. Pol.		ssion (dBuV)	2m	Limit dBu	-	Ove	r(dB)	
(101672)	H/V	PK	AV	Pł	·	AV	PK	AV	
1583.35	V	59.44	41.55	74	1	54	-14.56	-12.45	
2641.52	V	59.49	40.80	74	1	54	-14.51	-13.20	
1628.42	Н	58.62	39.82	74	1	54	-15.38	-14.18	
2810.39	Н	58.20	39.20	74	1	54	-15.80	-14.80	

Remark:

All emissions not reported were more than 20dB below the specified limit or in the noise floor. Factor = Antenna Factor + Cable Loss – Pre-amplifier. All the x/y/z orientation has been investigated, and only worst case is presented in this report.

EUT	Mobile	Mobile phone				l Name	X557	
Temperature	20 ℃	120 C				ive dity	48%	
Pressure	1010 h	Pa			Test I	Vode	Mode 3	
Test Date	Augus	22, 2016						
Freq. (MHz)	Ant. Pol.		ssion dBuV)	3m	Limi (dBu)	-	Over(dB)	
	H/V	PK	AV	Pł	<	AV	PK	AV
1577.35	V	59.31	40.18	74	ŀ	54	-14.69	-13.82
2652.38	V	58.42	40.94	74	1	54	-15.58	-13.06
1699.33	Н	59.49	40.41	74	1	54	-14.51	-13.59
2739.42	Н	58.18	39.18	74	1	54	-15.82	-14.82

Remark:

All emissions not reported were more than 20dB below the specified limit or in the noise floor. Factor = Antenna Factor + Cable Loss – Pre-amplifier. All the x/y/z orientation has been investigated, and only worst case is presented in this report.

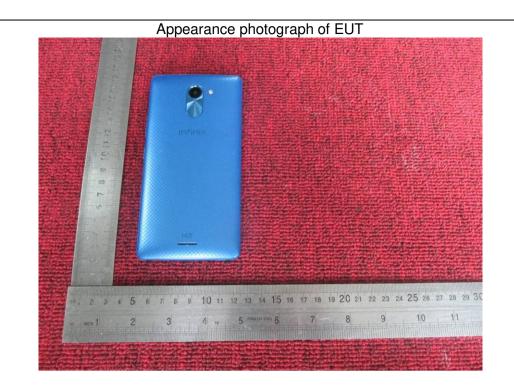


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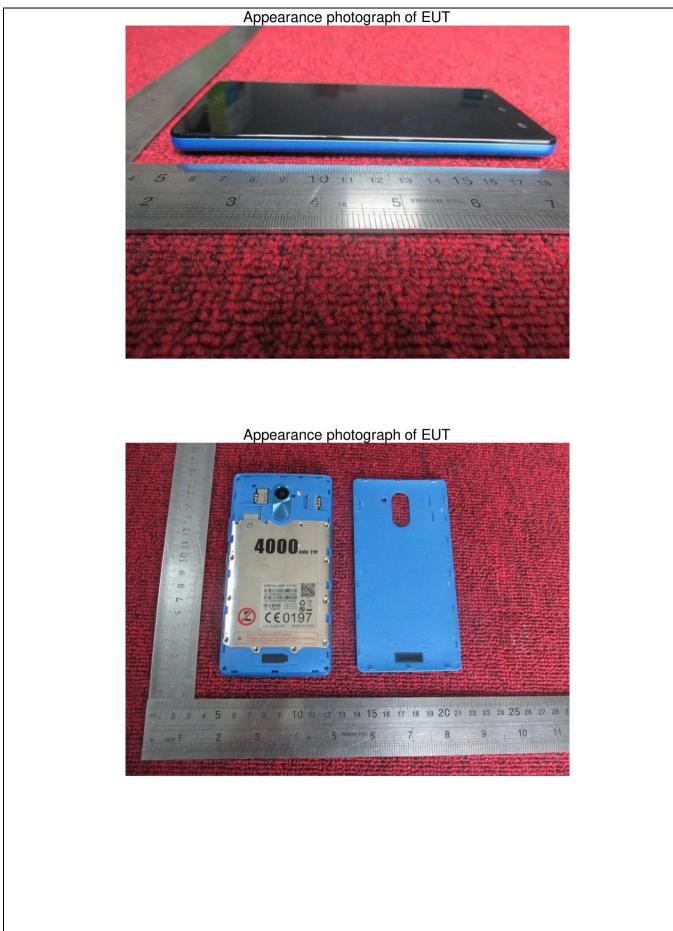




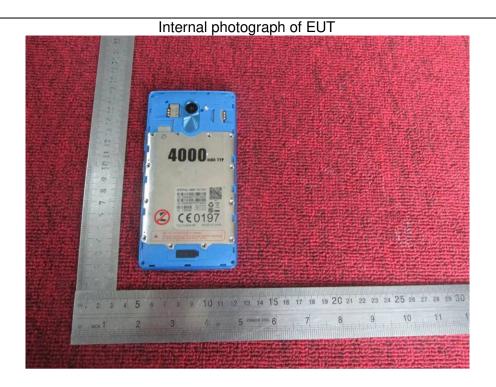
Appearance photograph of EUT







Report No.: FCC16083920A-4

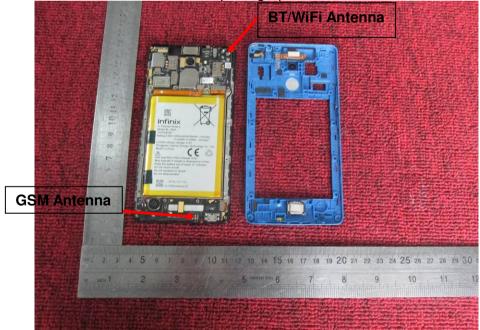


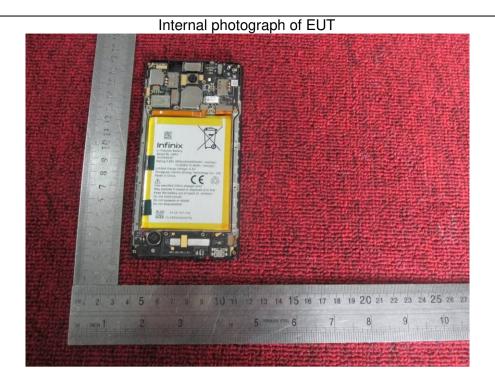
Internal photograph of EUT





Internal photograph of EUT





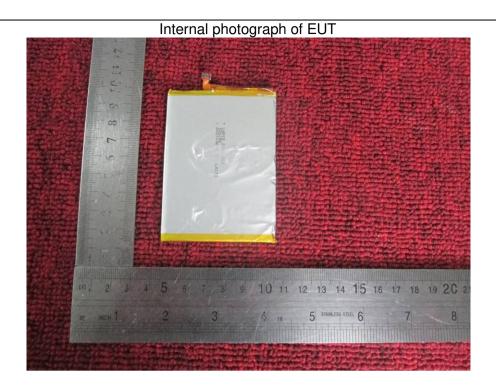
Internal photograph of EUT



Internal photograph of EUT

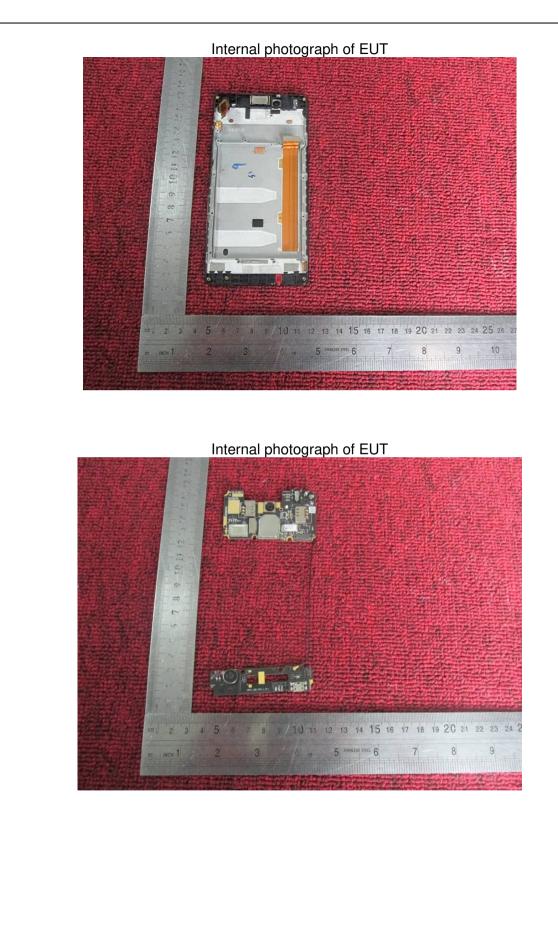
Internal photograph of EUT



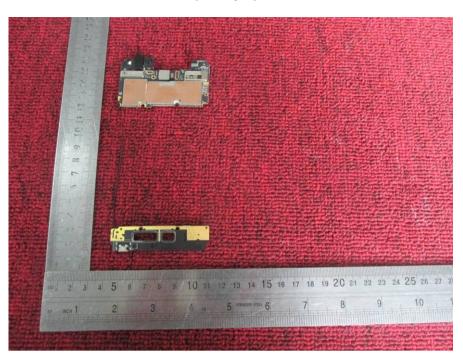


Internal photograph of EUT

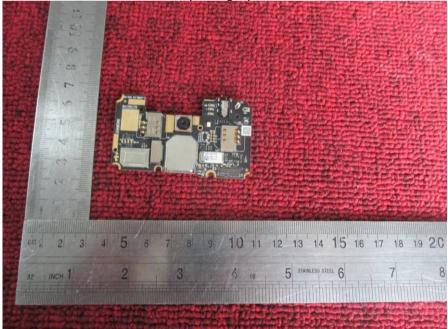


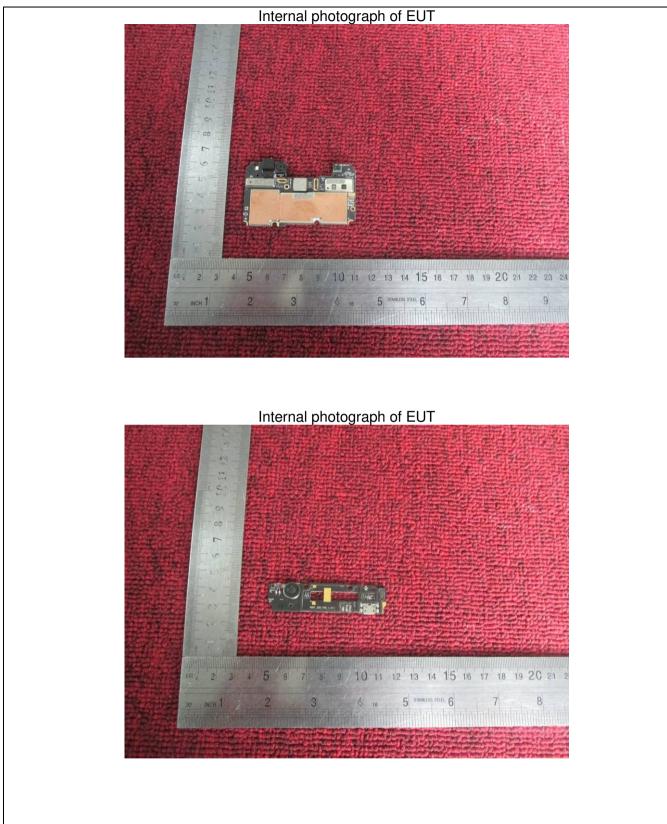


Internal photograph of EUT



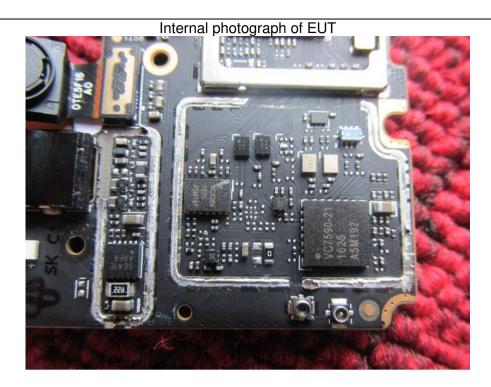
Internal photograph of EUT



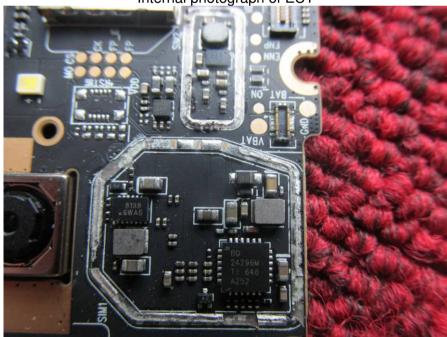


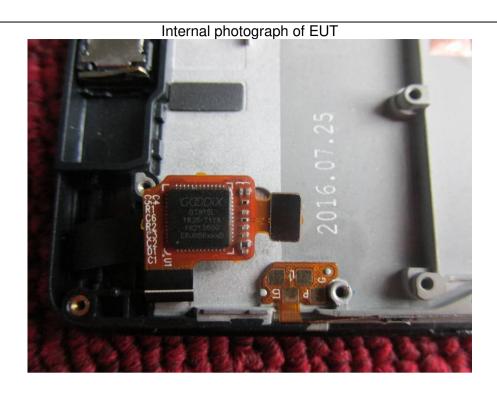


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Internal photograph of EUT





---END OF REPORT---