

Report No: JYTSZB-R01-2100089

FCC REPORT

Applicant:	TECNO MOBILE LIMITED		
Address of Applicant:	FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET FOTAN NT		
Equipment Under Test (E	EUT)		
Product Name:	Mobile Phone		
Model No.:	LE7		
Trade mark:	TECNO		
FCC ID:	2ADYY-LE7		
Applicable standards:	FCC CFR Title 47 Part 15 Subpart B		
Date of sample receipt:	25 Feb., 2021		
Date of Test:	26 Feb., to 16 Mar., 2021		
Date of report issued:	17 Mar., 2021		
Test Result:	PASS *		

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the JYT product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

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Version 2

Version No.	Date	Description
00	17 Mar., 2021	Original

Tested by:

Mike.OU Test Engineer Winner Mang Project Engineer

17 Mar., 2021 Date:

Date:

Reviewed by:

17 Mar., 2021

Project No.: JYTSZE2102019



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4 Test Summary

Test Item	Section in CFR 47	Result		
Conducted Emission	Part 15.107	Pass		
Radiated Emission	Part 15.109	Pass		
Remark: 1. Pass: The EUT complies with the essential requirements in the standard. 2. N/A: The EUT not applicable of the test item.				
Test Method: ANSI C63.4:2014				



5 General Information

5.1 Client Information

Applicant:	TECNO MOBILE LIMITED
Address:	FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET FOTAN NT
Manufacturer:	TECNO MOBILE LIMITED
Address:	FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET FOTAN NT
Factory:	SHENZHEN TECNO TECHNOLOGY CO., LTD.
Address:	101, Building 24, Waijing Industrial Park, Fumin Community, Fucheng Street, Longhua District, Shenzhen City, P.R.China

5.2 General Description of E.U.T.

Product Name:	Mobile Phone		
Model No.:	LE7		
Power supply:	Rechargeable Li-ion polymer Battery DC3.87, 6850mAh		
AC adapter:	Model: U180TSA		
	Input: AC100-240V, 50/60Hz, 0.6A		
	Output: DC 5.0V - 9.0V - 2A, 9.0V - 12.0V 1.5A		
Test Sample Condition:	The test samples were provided in good working order with no visible defects.		

5.3 Test Mode and test samples plans

Operating mode	Detail description	
PC mode	Keep the EUT in Downloading mode(Worst case)	
Charging+Recording mode Keep the EUT in Charging+Recording mode		
Charging+Playing mode	Keep the EUT in Charging+Playing mode	
FM mode	Keep the EUT in FM receiver mode	
GPS mode	Keep the EUT in GPS receiver mode	

The sample was placed 0.8m above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

Test Samples Plans :

Samples Number	Used for Test Items		
4#	Conducted Emission		
1#	Radiated Emission		
1#	EUT constructional details		
Remark: JianYan Testing Group Shenzhen Co., Ltd. is only responsible for the test project data of the above samples,			
and will keep the above samples for a month.			



5.4 Measurement Uncertainty

Parameters	Expanded Uncertainty		
Conducted Emission (9kHz ~ 30MHz)	±1.60 dB (k=2)		
Radiated Emission (9kHz ~ 30MHz)	±3.12 dB (k=2)		
Radiated Emission (30MHz ~ 1000MHz)	±4.32 dB (k=2)		
Radiated Emission (1GHz ~ 18GHz)	±5.16 dB (k=2)		
Radiated Emission (18GHz ~ 40GHz)	±3.20 dB (k=2)		

5.5 Description of Support Units

Manufacturer	Description	Model Serial Numb		FCC ID/DoC
DELL	PC	OPTIPLEX7070	2J8XSZ2	DoC
DELL	MONITOR	SE2018HR	3M7QPY2	DoC
DELL	KEYBOARD	KB216d N/A		DoC
DELL	MOUSE	MS116t1	N/A	DoC
HP	Printer	HP LaserJet P1007	VNFP409729	DoC

5.6 Related Submittal(s) / Grant (s)

This is an original grant, no related submittals and grants.

5.7 Description of Cable Used

Cable Type	Description	Length	From	То
Detached USB Cable	Shielding	1.02m	EUT	PC/Adapter
Detached headset cable	Unshielded	1.24m	EUT	Headset

5.8 Additions to, deviations, or exclusions from the method

No

5.9 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

• FCC - Designation No.: CN1211

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

• ISED – CAB identifier.: CN0021

The 3m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

• A2LA - Registration No.: 4346.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <u>https://portal.a2la.org/scopepdf/4346-01.pdf</u>

5.10 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd. Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China. Tel: +86-755-23118282, Fax: +86-755-23116366 Email: info@ccis-cb.com, Website: <u>http://www.ccis-cb.com</u>

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5.11 Test Instruments list

Radiated Emission:						
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)	
3m SAC	SAEMC	9m*6m*6m	966	07-22-2020	07-21-2021	
Leen Antenne			00044	03-07-2020	03-06-2021	
Loop Antenna	SCHWARZBECK	FMZB1519B	00044	03-07-2021	03-06-2022	
DiCaril en Antenne			407	03-07-2020	03-06-2021	
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-07-2021	03-06-2022	
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-07-2020	03-06-2021	
	SCHWARZDECK	DDHA9120D	910	03-07-2021	03-06-2022	
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-22-2020	06-21-2021	
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-18-2019	11-17-2020	
EMI Test Software	AUDIX	E3	١	/ersion: 6.110919	b	
Dre emplifier	HP	0447D	20444.00250	03-07-2020	03-06-2021	
Pre-amplifier		8447D	2944A09358	03-07-2021	03-06-2022	
Dro omplifior	CD	PAP-1G18	11804	03-07-2020	03-06-2021	
Pre-amplifier	CD	PAP-IGIO	11604	03-07-2021	03-06-2022	
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-05-2020	03-04-2021	
	Ronue & Schwarz	F3F30	101454	03-05-2021	03-04-2022	
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-18-2019	11-17-2020	
	Dahda 8 Oshuusan	50007	404070	03-05-2020	03-04-2021	
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-05-2021	03-04-2022	
Cable	ZDECL	Z108-NJ-NJ-81	1000450	03-07-2020	03-06-2021	
Cable	ZDECL	Z 100-INJ-INJ-01	1608458	03-07-2021	03-06-2022	
Cable			K40740 F	03-07-2020	03-06-2021	
Cable	MICRO-COAX	MFR64639	K10742-5	03-07-2021	03-06-2022	
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-07-2020	03-06-2021	
Cable	SUTINER		00193/4FE	03-07-2021	03-06-2022	

Conducted Emission:									
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)				
EMI Test Receiver	Rohde & Schwarz	ESCI	101189	03-05-2021	03-04-2022				
EIVIT Test Receiver	Ronde & Schwarz	ESCI	101169	03-05-2021	03-04-2022				
Pulse Limiter			03-05-2020	03-04-2021					
Puise Limiter	SCHWARZBECK	OSRAM 2306	9731	03-05-2021	03-04-2022				
	СЦАСЕ		1 4 4 7	03-05-2020	03-04-2021				
LISN	CHASE	MN2050D	1447	03-05-2021	03-04-2022				
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	07-21-2020	07-20-2021				
Cabla		405004	N1/A	03-05-2020	03-04-2021				
Cable	Cable HP 10503A N/A		IN/A	03-05-2021	03-04-2022				
EMI Test Software	AUDIX	E3	Version: 6.110919b						





6 Test results and Measurement Data

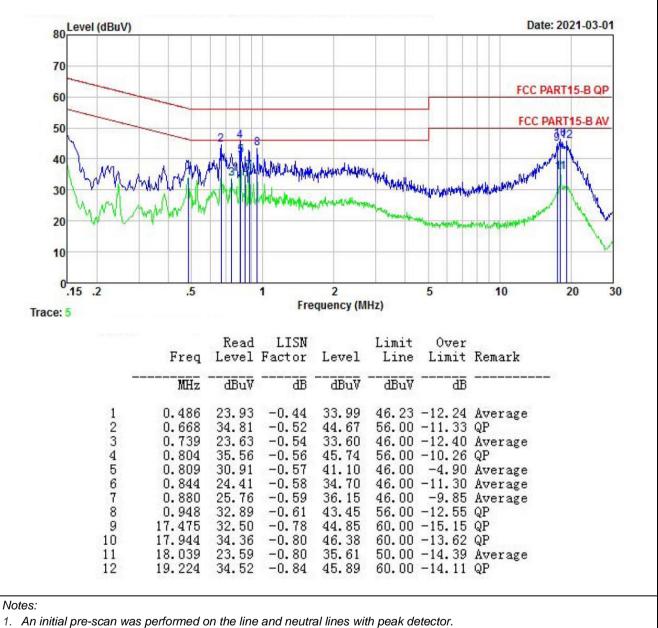
6.1 Conducted Emission

Test Requirement:	FCC Part 15 B Section 15.107					
Test Frequency Range:	150kHz to 30MHz					
Class / Severity:	Class B					
Receiver setup:	RBW=9kHz, VBW=30kHz					
Limit:	Frequency range (MHz)					
		Average				
	0.15-0.5	66 to 56*	56 to 46*			
	0.5-5 0.5-30	56 60	46 50			
	* Decreases with the logarithm		50			
Test setup:	Reference Plane	or the frequency.				
Test procedure	Test table/Insulation plane Remarkc E.U.T: Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m	EMI Receiver				
Test procedure	 The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4(latest version) on conducted measurement. 					
Test Instruments:	Refer to section 5.11 for details					
Test mode:	Refer to section 5.3 for details					
Test results:	Pass					



Measurement data:

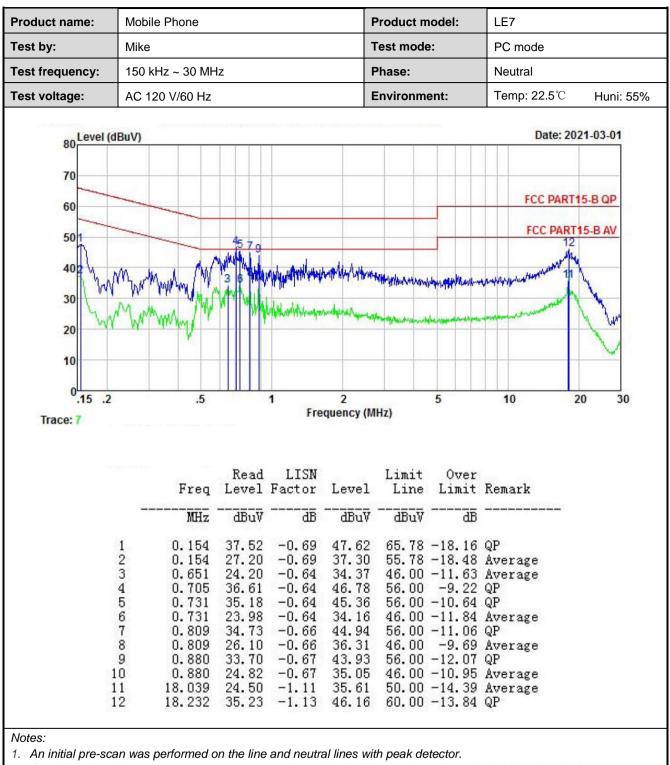
Product name:	Mobile Phone	Product model:	LE7
Test by:	Mike	Test mode:	PC mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Line
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%



2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.

3. Final Level =Receiver Read level + LISN Factor + Cable Loss.





2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.

3. Final Level =Receiver Read level + LISN Factor + Cable Loss.



6.2 Radiated Emission

Test Requirement:	FCC Part 15 B Section 15.109						
Test Frequency Range:	30MHz to 6000MHz						
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)						
Receiver setup:	Frequency	ency Detecto				Remark	
	30MHz-1GHz	Quasi-pea	ak	120kHz	300kHz	Quasi-peak Value	
	Above 1GHz Peak			1MHz	3MHz	Peak Value	
	Above TGH2 RMS 1MHz 3MH Frequency Limit (dBuV/m @3m)		3MHz	Average Value			
Limit:	Frequenc	Remark					
	30MHz-88M			40.0		Quasi-peak Value	
	88MHz-216MHz 43.5				Quasi-peak Value		
					Quasi-peak Value		
					Quasi-peak Value		
	Above 1GHz 54.0 74.0			Average Value Peak Value			
Test setup:	Below 1GHz			74.0		Feak value	
	EUT Turn Table Ground Plane Above 1GHz			RFT]	
	AE EUT Horr Antenna Tower Horr Antenna Tower Ground Reference Plane Test Receiver						
Test Procedure:	 The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 						

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	4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
	5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
	6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test Instruments:	Refer to section 5.11 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Remark:	All of the observed value above 6GHz ware the niose floor , which were no recorded



Measurement Data:

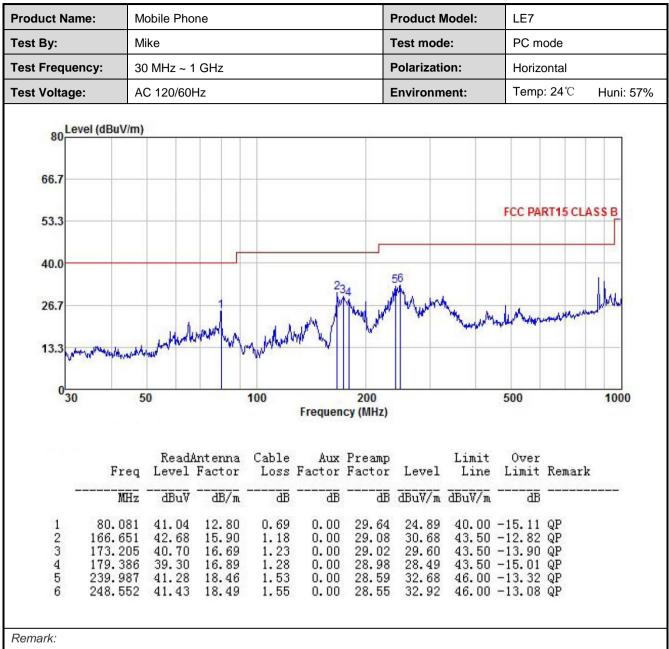
Below 1GHz:

roduct Nan	ne: M	Mobile Phone				1	Product Model:			LE7	
est By:	M	Mike				-	Test mode: P		PC m	PC mode	
est Frequer	n cy: 30	30 MHz ~ 1 GHz AC 120/60Hz				Polarization:		Vertic	Vertical		
est Voltage	: A				Environment:		ent:	Temp: 24°C Huni: 57		Huni: 579	
80	vel (dBuV/m)					51341					
66.7											
53.3									FCC PA	RT15 CI	ASSB
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40.0					-	5			_		
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		₩ 50		100	Frequer	200 ncy (MHz)		hand from the second		h spin harden	1000
			Antenna Factor	Cable	Aux	n <mark>cy (MHz)</mark> Preamp		Limit			
		ReadA		Cable	Aux	n <mark>cy (MHz)</mark> Preamp Factor		Limit Line	500 Over	Remar	
0 <u>30</u>	Freq MHz 65.114	Read# Level 	Factor 	Cable Loss dB 0.61	Aux Factor dB 0.00	Preamp Factor 	Level dBuV/m 34.81	Limit Line dBuV/m 40.00	500 Over Limit -5.19	Remar QP	
0 <u>30</u> 	Freq MHz 65.114 79.243 80.081	Read# Level dBuV	Factor 	Cable Loss dB	Aux Factor dB 0.00 0.00 0.00	Preamp Factor dB 29.76 29.65 29.64	Level dBuV/m 34.81 33.39 33.32	Limit Line dBuV/m 40.00 40.00 40.00	500 Over Limit -5.19 -6.61 -6.68	Remar QP QP QP	
0 <mark>30</mark>	Freq MHz 65.114 79.243 80.081 146.888	Read# Level dBuV 54.15 49.76 49.47 47.51	Factor dB/m 9.81 12.59 12.80 14.06	Cable Loss dB 0.61 0.69 0.69 1.02	Aux Factor dB 0.00 0.00 0.00 0.00 0.00	Preamp Factor dB 29.76 29.65 29.64 29.24	Level dBuV/m 34.81 33.39 33.32 33.35	Limit Line dBuV/m 40.00 40.00 40.00 40.00 43.50	500 Over Limit -5.19 -6.61 -6.68 -10.15	Remar QP QP QP QP	
0 <u>30</u> 	Freq MHz 65.114 79.243 80.081	Read# Level 	Factor 	Cable Loss dB 0.61 0.69 0.69	Aux Factor dB 0.00 0.00 0.00	Preamp Factor dB 29.76 29.65 29.64 29.24 29.23	Level dBuV/m 34.81 33.39 33.32 33.35 33.24	Limit Line dBuV/m 40.00 40.00 40.00 43.50 43.50	500 Over Limit -5.19 -6.61 -6.68	Remar QP QP QP QP QP QP	

2. The emission levels of other frequencies are very lower than the limit and not show in test report.

3. The Aux Factor is a notch filter switch box loss, this item is not used.





1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.

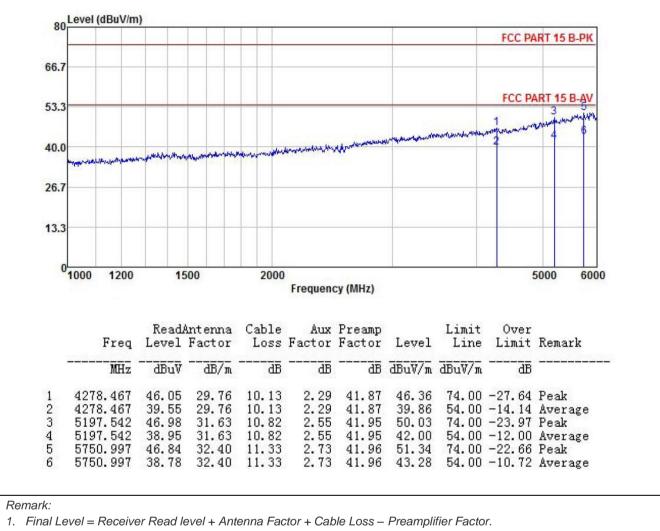
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

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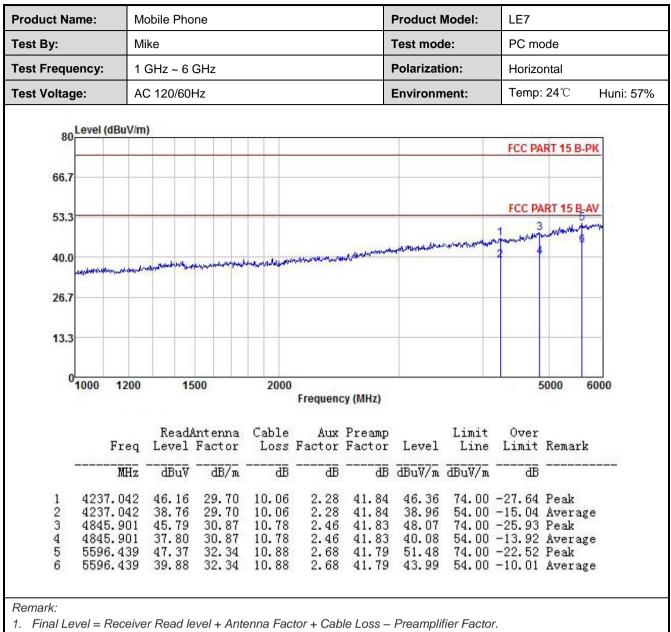
Above 1GHz:

Product Name:	Mobile Phone	Product Model:	LE7
Test By:	Mike	Test mode:	PC mode
Test Frequency:	1 GHz ~ 6 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



2. The emission levels of other frequencies are very lower than the limit and not show in test report.





2. The emission levels of other frequencies are very lower than the limit and not show in test report.