

Report No: CCISE191210106V01

# FCC REPORT

Applicant:	VINSMART RESEARCH AND MANUFACTURE JOINT STOCK			
Address of Applicant:	Lot CN1-06B-1&2 Hi-Tech Industrial Park 1, Hoa Lac Hi-Tech Park, Ha Bang, Thach That, Hanoi, Vietnam			
Equipment Under Test (E	EUT)			
Product Name:	SMARTPHONE			
Model No.:	V230L			
Trade mark:	Vsmart			
FCC ID:	2AVD3-V230LDS			
Applicable standards:	FCC CFR Title 47 Part 15 Subpart B			
Date of sample receipt:	25 Dec., 2019			
Date of Test:	26 Dec., 2019 to 03 Jan., 2020			
Date of report issued:	01 Apr., 2020			
Test Result:	PASS *			

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

Authorized Signature:



#### Laboratory Manager

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 CCIS 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	06 Jan., 2020	Original	
01	01 Apr., 2020	Updated test date on P.1	

Tested by:

Date: 01 Apr., 2020

01 Apr., 2020

Date:

Test Engineer Winner Thang

Reviewed by:

**Project Engineer** 

# <u>CCIS</u>

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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 essen	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:	VINSMART RESEARCH AND MANUFACTURE JOINT STOCK COMPANY
Address:	Lot CN1-06B-1&2 Hi-Tech Industrial Park 1, Hoa Lac Hi-Tech Park, Ha Bang, Thach That, Hanoi, Vietnam
Manufacturer/Factory:	VINSMART RESEARCH AND MANUFACTURE JOINT STOCK COMPANY
Address:	Lot CN1-06B-1&2 Hi-Tech Industrial Park 1, Hoa Lac Hi-Tech Park, Ha Bang, Thach That, Hanoi, Vietnam

#### 5.2 General Description of E.U.T.

Product Name:	SMARTPHONE		
Model No.:	V230L		
Power supply:	Rechargeable Li-ion Battery DC3.8V, 3000mAh		
AC adapter:	Model: ADS-5RE-06 05050EPCU		
	Input: AC100-240V, 50/60Hz, 0.15A		
	Output: DC 5V, 1A		
Test Sample Condition:	The test samples were provided in good working order with no visible defects.		

#### 5.3 Test Mode

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.

#### 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)	±5.38 dB (k=2)
Radiated Emission (18GHz ~ 40GHz)	±3.36 dB (k=2)

### 5.5 Description of Support Units

Manufacturer	Description	Model Serial Number		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		1.0m	EUT	PC/Adapter

#### 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

Shenzhen Zhongjian Nanfang Testing 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 Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

• CNAS - Registration No.: CNAS L6048

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

#### • 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: <a href="https://portal.a2la.org/scopepdf/4346-01.pdf">https://portal.a2la.org/scopepdf/4346-01.pdf</a>

#### 5.10 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd. Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road, Bao'an District, Shenzhen, Guangdong, China Tel: +86-755-23118282, Fax: +86-755-23116366 Email: info@ccis-cb.com, Website: http://www.ccis-cb.com

# 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	07-22-2017	07-21-2020	
Loop Antenna	SCHWARZBECK	FMZB1519B	00044	03-18-2019	03-17-2020	
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-18-2019	03-17-2020	
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-18-2019	03-17-2020	
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-22-2017	06-21-2020	
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-21-2019	11-20-2020	
EMI Test Software	AUDIX	E3	Version: 6.110919b			
Pre-amplifier	HP	8447D	2944A09358	03-18-2019	03-17-2020	
Pre-amplifier	CD	PAP-1G18	11804	03-18-2019	03-17-2020	
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-18-2019	03-17-2020	
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-21-2019	11-20-2020	
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-18-2019	03-17-2020	
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-18-2019	03-17-2020	
Cable	MICRO-COAX	MFR64639	K10742-5	03-18-2019	03-17-2020	
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-18-2019	03-17-2020	

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	03-18-2019	03-17-2020	
Pulse Limiter	SCHWARZBECK	OSRAM 2306	9731	03-18-2019	03-17-2020	
LISN	CHASE	MN2050D	1447	03-18-2019	03-17-2020	
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	07-21-2019	07-20-2020	
Cable	HP	10503A	N/A	03-18-2019	03-17-2020	
EMI Test Software	AUDIX	E3	Version: 6.110919b			



# 6 Test results and Measurement Data

### 6.1 Conducted Emission

FCC Part 15 B Section 15.107		
RBW=9kHz, VBW=30kHz		( )=
Frequency range (MHz)		· · /
0.15-0.5		Average 56 to 46*
		46
		50
Reference Plane		
AUX Equipment E.U.T Test table/Insulation plane Remarkc E.U.T: Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m	Filter AC powe	
<ul> <li>impedance stabilization network coupling impedance for the metal devices are all LISN that provides a 500hm/s termination. (Please refers to photographs).</li> <li>Both sides of A.C. line are interference. In order to find positions of equipment and set the stabilization of equipment and set the stabilization.</li> </ul>	ork(L.I.S.N.). The prov neasuring equipment. Iso connected to the m 50uH coupling impeda the block diagram of t checked for maximum d the maximum emissi all of the interface cat	ide a 50ohm/50uH ain power through a nce with 50ohm he test setup and conducted on, the relative oles must be changed
Refer to section 5.11 for details		
Refer to section 5.3 for details		
Pass		
	0.15-0.5 0.5-30 * Decreases with the logarithm Reference Plane USN 40cm 80cm Equipment Under Test LISN Equipment Under Test LISN Line Impedence Stabilization Network Test table/Insulation plane Remarkc E.U.T. Equipment Under Test LISN Line Impedence Stabilization Network Test table height=0.8m 1. The E.U.T and simulators are impedance stabilization network coupling impedance for the n 2. The peripheral devices are a LISN that provides a 500hm/ termination. (Please refers to photographs). 3. Both sides of A.C. line are interference. In order to fin positions of equipment and according to ANSI C63.4(la Refer to section 5.11 for details Refer to section 5.3 for details	Class B         RBW=9kHz, VBW=30kHz         Limit         Frequency range (MHz)       Limit         Quasi-peak       0.15-0.5       66 to 56*         0.5-5       56       0.5         0.5-30       60         * Decreases with the logarithm of the frequency.         Reference Plane         IIISN       IIISN         Feiture         Remark:         EUT: Equipment Under Test         LISN: Line impedence Stabilization Network         Test table/Insulation plane         Remark:         EUT: Equipment Under Test         LISN: Line impedence Stabilization Network         Test table/Insulation plane         Remark:         EUT: Equipment Under Test         LISN: Line impedence Stabilization Network         Test table/Insulation Network         Test table/Insulation network (L.I.S.N.). The provide a 500hm/50uH coupling impeda         1. The E.U.T and simulators are connected to the main impedance stabilization network(L.I.S.N.).       The provides a 500hm/50uH coupling impeda         2. The peripheral



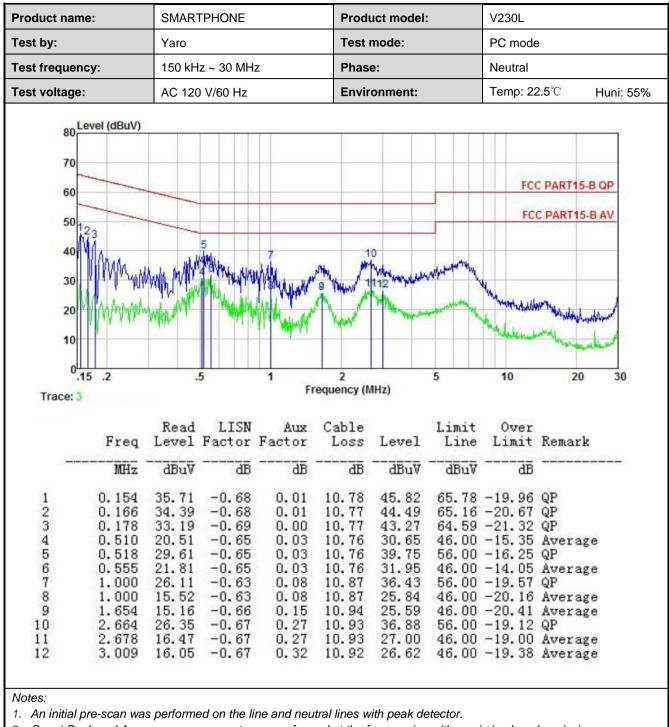
Product nam	e:	SMART	PHONE		Prod	uct mode	l:	V230L	V230L			
Fest by:		Yaro			Test	Test mode:			PC mode			
Test frequen	cy:	150 kHz	z ~ 30 MHz	7	Phas	Phase:			Line			
Test voltage:	:	AC 120	V/60 Hz		Envir	onment:		Temp:	Temp: 22.5℃ Hu			
8	0 Level (dBuV	0										
7	0											
1									FOC DADT			
6	0		_						FCC PART	15-B QP		
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2	0 0 0.15 .2		LISN	Aux	Frequency	(MHz)	5 Limit	10 Over	Remark	andard		
2 1 Trace	0 0.15.2 Freq MHz	Level dBuV	LISN Factor dB	Aux Factor dB	Frequency Cable Loss dB	(MHz) Level	5 Limit Line dBuV	10 Over Limit dB	Remark	andard		
2 1 Trace 	0 0.15 .2 E Freq MHz 0.150 0.150 0.150	Level dBuV 40.89 23.34	LISN Factor  dB -0.45 -0.45	Aux Factor dB -0.05 -0.05	Cable Loss dB 10.78 10.78	(MHz) Level dBuV 51.17 33.62	5 Limit Line dBuV 66.00 56.00	10 Over Limit -14.83 -22.38	Remark  QP Average	20 30		
2 1 Trace 	0 0.15 .2 Freq MHz 0.150 0.150 0.150 0.182	Level dBuV 40.89 23.34 38.51	LISN Factor -0.45 -0.45 -0.45	Aux Factor dB -0.05 -0.05 -0.12	Frequency Cable Loss dB 10.78 10.78 10.77	(MHz) Level dBuV 51. 17 33. 62 48. 74	5 Limit Line dBuV 66.00 56.00 64.42	10 Over Limit -14.83 -22.38 -15.68	Remark  QP Average QP	20 30		
2 1 Trace 	0 0.15 .2 Freq MHz 0.150 0.150 0.150 0.182 0.222	Level dBuV 40.89 23.34 38.51 33.03	LISN Factor -0.45 -0.45 -0.45 -0.42 -0.40	Aux Factor dB -0.05 -0.05 -0.12 -0.19	Cable Loss dB 10.78 10.78 10.77 10.76	(MHz) Level dBuV 51.17 33.62 48.74 43.20	5 Limit Line dBuV 66.00 56.00 64.42 62.74	10 Over Limit -14.83 -22.38 -15.68 -19.54	Remark  QP Average QP QP	20 30		
2 1 Trace 	0 0.15 .2 Freq MHz 0.150 0.150 0.150 0.150 0.182 0.222 0.230	Level dBuV 40.89 23.34 38.51 33.03 32.39	LISN Factor -0.45 -0.45 -0.45 -0.42 -0.40 -0.40	Aux Factor dB -0.05 -0.05 -0.12 -0.19 -0.20	Frequency Cable Loss dB 10.78 10.78 10.78 10.77 10.76 10.75	(MHz) Level dBuV 51.17 33.62 48.74 43.20 42.54	5 Limit Line dBuV 66.00 56.00 64.42 62.74 62.44	10 Over Limit -14.83 -22.38 -15.68 -19.54 -19.90	Remark  QP Average QP QP QP	20 30		
2 1 Trace 1 2 3 4 5 6	0 0.15 .2 Freq MHz 0.150 0.150 0.150 0.182 0.222 0.230 0.489	Level dBuV 40. 89 23. 34 38. 51 33. 03 32. 39 29. 36	LISN Factor -0.45 -0.45 -0.45 -0.42 -0.40 -0.40 -0.39	Aux Factor dB -0.05 -0.05 -0.12 -0.19 -0.20 -0.26	Cable Loss dB 10.78 10.78 10.78 10.77 10.76 10.75 10.76	(MHz) Level dBuV 51.17 33.62 48.74 43.20 42.54 39.47	5 Limit Line dBuV 66.00 56.00 64.42 62.74 62.44 56.19	10 Over Limit -14.83 -22.38 -15.68 -19.54 -19.90 -16.72	Remark QP Average QP QP QP QP	20 30		
2 1 Trace 1 2 3 4 5 6 7	0 0.15 .2 Freq MHz 0.150 0.150 0.150 0.150 0.182 0.222 0.230 0.489 0.502	Level dBuV 40. 89 23. 34 38. 51 33. 03 32. 39 29. 36 21. 03	LISN Factor -0.45 -0.45 -0.45 -0.42 -0.40 -0.40 -0.39 -0.39	Aux Factor dB -0.05 -0.05 -0.12 -0.19 -0.20 -0.26 -0.35	Cable Loss dB 10.78 10.78 10.77 10.76 10.75 10.76 10.76	(MHz) Level dBuV 51.17 33.62 48.74 43.20 42.54 39.47 31.05	5 Limit Line dBuV 66.00 56.00 64.42 62.74 62.44 56.19 46.00	10 Over Limit -14.83 -22.38 -15.68 -19.54 -19.90 -16.72 -14.95	Remark QP Average QP QP QP QP Average	20 30		
2 1 Trace 1 2 3 4 5 6 7 8	0 0.15 .2 Freq MHz 0.150 0.150 0.150 0.150 0.182 0.222 0.230 0.489 0.502 0.521	Level dBuV 40. 89 23. 34 38. 51 33. 03 32. 39 29. 36 21. 03 21. 77	LISN Factor -0.45 -0.45 -0.45 -0.42 -0.40 -0.40 -0.39 -0.39 -0.39 -0.39	Aux Factor dB -0.05 -0.05 -0.12 -0.19 -0.20 -0.26 -0.35 -0.36	Cable Loss dB 10.78 10.78 10.77 10.76 10.75 10.76 10.76 10.76 10.76	(MHz) Level dBuV 51.17 33.62 48.74 43.20 42.54 39.47 31.05 31.78	5 Limit Line dBuV 66.00 56.00 64.42 62.74 62.44 56.19 46.00 46.00	10 Over Limit -14.83 -22.38 -15.68 -19.54 -19.90 -16.72 -14.95 -14.22	Remark QP Average QP QP QP QP Average Average	20 30		
2 1 Trace 1 2 3 4 5 6 7 8 9	0 0.15 .2 Freq MHz 0.150 0.150 0.150 0.150 0.182 0.222 0.230 0.489 0.502 0.521 1.043	Level dBuV 40. 89 23. 34 38. 51 33. 03 32. 39 29. 36 21. 03 21. 77 28. 40	LISN Factor -0.45 -0.45 -0.45 -0.42 -0.40 -0.40 -0.39 -0.39 -0.39 -0.39 -0.38	Aux Factor dB -0.05 -0.05 -0.12 -0.19 -0.20 -0.26 -0.35 -0.36 0.41	Cable Loss dB 10.78 10.78 10.77 10.76 10.75 10.76 10.76 10.76 10.76 10.88	(MHz) Level dBuV 51.17 33.62 48.74 43.20 42.54 39.47 31.05 31.78 39.31	5 Limit Line dBuV 66.00 56.00 64.42 62.74 62.44 56.19 46.00 46.00 56.00	10 Over Limit -14.83 -22.38 -15.68 -19.54 -19.90 -16.72 -14.95 -14.22 -16.69	Remark QP Average QP QP QP QP Average Average QP	20 30		
2 1 Trace 1 2 3 4 5 6 7 8	0 0.15 .2 Freq MHz 0.150 0.150 0.150 0.150 0.182 0.222 0.230 0.489 0.502 0.521	Level dBuV 40. 89 23. 34 38. 51 33. 03 32. 39 29. 36 21. 03 21. 77	LISN Factor -0.45 -0.45 -0.45 -0.42 -0.40 -0.40 -0.39 -0.39 -0.39 -0.39	Aux Factor dB -0.05 -0.05 -0.12 -0.19 -0.20 -0.26 -0.35 -0.36	Cable Loss dB 10.78 10.78 10.77 10.76 10.75 10.76 10.76 10.76 10.76	(MHz) Level dBuV 51.17 33.62 48.74 43.20 42.54 39.47 31.05 31.78	5 Limit Line dBuV 66.00 56.00 64.42 62.74 62.44 56.19 46.00 46.00 56.00 46.00	10 Over Limit -14.83 -22.38 -15.68 -19.54 -19.90 -16.72 -14.95 -14.22 -16.69 -19.90	Remark QP Average QP QP QP QP Average Average	20 30		

1. An initial pre-scan was performed on the line and neutral lines with peak detector.

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 Se	ection 15.109			
Test Frequency Range:	30MHz to 6000MI	Hz			
Test site:	Measurement Dis	tance: 3m (S	emi-Anechoic (	Chamber)	
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
Receiver setup.	30MHz-1GHz	Quasi-peal		300kHz	Quasi-peak Value
		Peak	1MHz	3MHz	Peak Value
	Above 1GHz	RMS	1MHz	3MHz	Average Value
Limit:	Frequenc	· · · · · · · · · · · · · · · · · · ·	Limit (dBuV/m		Remark
Linnt.	30MHz-88M		40.0	eom	Quasi-peak Value
	88MHz-216		43.5		Quasi-peak Value
	216MHz-960		46.0		Quasi-peak Value
	960MHz-1G		54.0		Quasi-peak Value
			54.0		Average Value
	Above 1G	Hz –	74.0		Peak Value
Test setup:	Below 1GHz EUT 3m Turn 0.8m Turn 0.8m Ground Plane	4m 4m 1m 1m 1m			
		EUT	Horn Antenna Horn Antenna	Antenna Tower	
Test Procedure:	ground at a 3 n degrees to dete 2. The EUT was s which was mou 3. The antenna he ground to deter	neter semi-an ermine the po set 3 meters a unted on the t eight is varied rmine the ma:	nechoic camber position of the hig away from the in op of a variable from one meter ximum value of	The table ghest radiat nterference height ant er to four m the field st	e-receiving antenna, tenna tower. eters above the



	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:

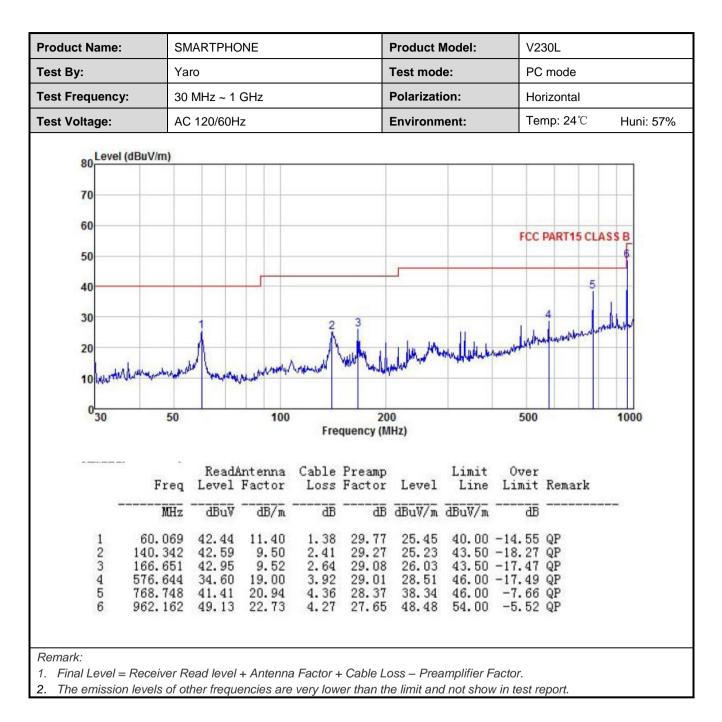
Below	1GHz:
-------	-------

Product Name	e: S	MARTPH	IONE			Product N	lodel:	V23	0L		
est By:	Y	aro				Test mod	est mode: PC mode				
est Frequen	<b>cy:</b> 3	0 MHz ~ <sup>-</sup>	1 GHz			Polarizati	Vertical				
est Voltage:	А	C 120/60	Hz			Environm	ent:	Tem	<b>Temp: 24℃</b>		
80 Lev	el (dBuV/m)										
70									_		
60							-	FCC	PART15 C	LASSB	
50										E C	
			-								
40									4	5	
		1				2		3	4	5	
30	1	Å			A L	2		3	4 5	5 Junior Marcado	
	muh l	Mary	M	n. il	Aught 1	2	Munderallins	3 Mulalitada	4	5 vananderskel	
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30 20 <mark>1</mark> 1	"What what	M				2 Juli Mudgad	remediation	3 	4 t	5 1000	
30 20 <mark>10</mark> 10	"What what	n Ang	10		21 requency (F	and the second se	Monthe	- Judallander	4 the	5 Junio 1000	
30 20 <mark>10</mark> 10	- Mhall which 50	Read	Antenna	Fr	equency (F Preamp	MHz)	Limit	500 Over	4 C		
30 20 <mark>10</mark> 10	- Mhall which 50	Read		Fr	equency (F Preamp	MHz)		500 Over	Remark		
30 20 <mark>10</mark> 10	- Mhall which 50	Read	Antenna Factor	Fr	equency (1 Preamp Factor	MHz)	Line	500 Over	Remark		
	Freq MHz 60.069	Read/ Level dBuV 47.91	Antenna Factor dB/m 11.40	Fr Cable Loss dB 1.38	equency (1 Preamp Factor dB 29.77	MHz) Level dBuV/m 30.92	Line dBuV/m 40.00	500 Over Limit -9.08			
30 20 10 0 30	Freq 60.069 222.950	Read/ Level dBuV 47.91 40.22	Antenna Factor 	Fr Cable Loss dB 1.38 2.84	Preamp Factor 29.77 28.69	Level dBuV/m 30.92 26.00	Line dBuV/m 40.00 46.00	500 500 Over Limit -9.08 -20.00	QP QP		
30 20 10 0 30 	Freq 60.069 222.950 420.580	Read/ Level dBuV 47.91 40.22 41.40	Antenna Factor 	Fr Cable Loss dB 1.38 2.84 3.13	equency ( Preamp Factor 29.77 28.69 28.82	Level <u>dBuV/m</u> 30.92 26.00 31.52	Line dBuV/m 40.00 46.00 46.00	500 Over Limit -9.08 -20.00 -14.48	QP QP QP		
30 20 10 0 30 	Freq Freq MHz 60.069 222.950 420.580 576.644	Read/ Level dBuV 47.91 40.22 41.40 38.83	Antenna Factor dB/m 11.40 11.63 15.81 19.00	Fr Cable Loss dB 1.38 2.84 3.13 3.92	equency ( Preamp Factor 29.77 28.69 28.82 29.01	Level <u>dBuV/m</u> 30.92 26.00 31.52 32.74	Line dBuV/m 40.00 46.00 46.00 46.00	500 Over Limit -9.08 -20.00 -14.48 -13.26	QP QP QP QP QP		
30 20 10 0 30 	Freq 60.069 222.950 420.580	Read/ Level dBuV 47.91 40.22 41.40	Antenna Factor 	Fr Cable Loss dB 1.38 2.84 3.13	equency ( Preamp Factor 29.77 28.69 28.82 29.01 28.37	Level <u>dBuV/m</u> 30.92 26.00 31.52 32.74	Line dBuV/m 40.00 46.00 46.00 46.00 46.00	500 Over Limit -9.08 -20.00 -14.48	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.







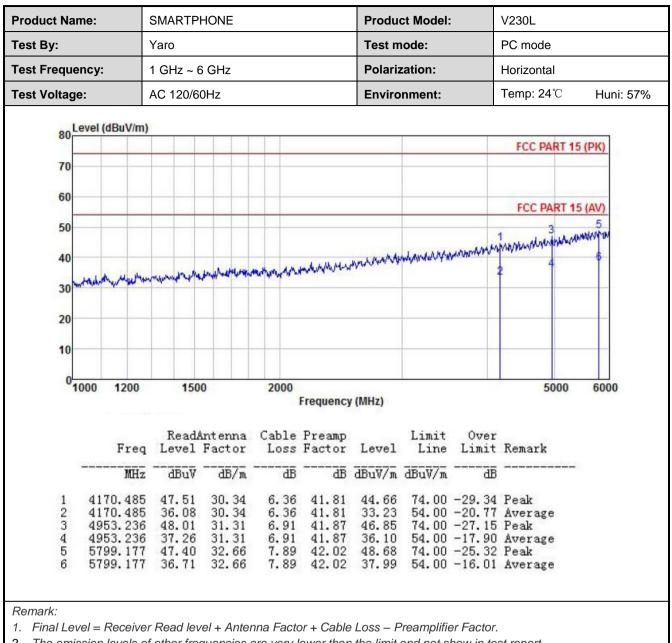


#### Above 1GHz:

Product Name	:	SMARTPH	IONE			Product	t Model:	V	230L							
ſest By:		Yaro	Test mode: PC mode						ro Test mode: PC mode				Test mode:			
Fest Frequenc	y:	1 GHz ~ 6	GHz			Polariza	ation:	V	Vertical							
Fest Voltage:		AC 120/60	Hz			Environment:		Т	Temp: 24°C Huni			Temp: 24°C				
Level	(dBuV/m)															
80									FCC PART 15	(PK)						
70																
60								_								
50									FCC PART 15	5						
50								I wallo	Annuman Man	NAME AND A DECEMBER OF A DE						
40			manda	a hereappy	unum	waterwater	4 white white white	2	4	-6						
30	in the second second second	INTERNAL DURING INSTRUCT	****													
20								_								
10																
01000	1200	1500		2000		Albert			5000	6000						
				Fre	equency (N	(Hz)										
		ReadA	Intenna	Cable	Preamp		Limit	Over								
	Freq	Level		Loss	Factor	Level	Line	Limit	Remark							
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB								
	3909.967		30.01	6.10	41.80	45.91		-28.09								
3 -	3909.967 4830.532	48.23	30.01 31.08	6.10 6.82	41.82	33.82 46.77	74.00	-27.23								
4	4830.532 5685.998		31.08 32.64	6.82 7.55	41.82 41.89	35.58		-18.42	Average Peak							
	5685.998		32.64	7.55					Average							







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



#### Below 1GHz:

			SMARTPHONE			roduct Mo	V230L			
Гest By:	Ň	/aro			т	est mode	Charging & Recording m			
Test Frequen	cy:	80 MHz ~ 1	1 GHz		Р	olarizatio	n:	Vertica	Vertical Temp: 24°C Huni: 57	
Test Voltage:	ļ	AC 120/60	Hz		E	nvironme	nt:	Temp:		
Le	vel (dBuV/m)									
80										
70										
60							_			
								FCC PART	15 CLAS	SB
50					1					
40					1		_		2	6
30					Numer					
				1	1 million	L		Mulu lund	while	1.44
20	Marman		1. Martin	July M	ny.	howwww.	Weeks Josepher & Wet			
20 10	Marrian	mal	When the had	Mulacial	N.Y	fragment with	multiplanties			
10	m	mal	history ballader	What		hanne rally	Nerodel and the second second			
And	5	non la	When What		200 Juency (MHz		West Justice of the second second	500		1000
10	5	2 Contraction	William William 100				Weight Juken & Her	500		1000
10	- 1001	Read	Antenna	Freq Cable	uency (MH) Preamp	z)	Limit	Over		5.
10	- 1001	Read		Freq Cable	quency (MH)	z)	Limit			5.
10	- 1001	Read	Antenna Factor	Freq Cable	uency (MH) Preamp Factor	z)	Limit Line	Over		5.
	Freq	Read/ Level	Antenna Factor B/m	Freq Cable Loss	Preamp Factor dB	z) Level	Limit Line dBuV/m	Over Limit	Remar	5.
10 0 30	Freq MHz 152.664 793.396	Read/ Level dBuV 52.20 39.45	Antenna Factor dB/m 9.00 21.39	Cable Loss dB 2.53 4.35	Preamp Factor dB 29.20 28.23	z) Level dBuV/m 34.53 36.96	Limit Line dBuV/m 43.50 46.00	Over Limit -8.97 -9.04	Remar  QP QP	5.
10 030 1 2 3	Freq MHz 152.664 793.396 842.130	Read/ Level dBuV 52.20 39.45 41.62	Antenna Factor dB/m 9.00 21.39 22.44	Cable Loss dB 2.53 4.35 4.22	Preamp Factor 29.20 28.23 28.03	z) Level dBuV/m 34.53 36.96 40.25	Limit Line dBuV/m 43.50 46.00 46.00	Over Limit dB -8.97 -9.04 -5.75	Remar  QP QP QP	5.
10 0 30	Freq MHz 152.664 793.396	Read/ Level dBuV 52.20 39.45	Antenna Factor dB/m 9.00 21.39 22.44 22.56 22.52	Cable Loss dB 2.53 4.35	Preamp Factor dB 29.20 28.23 28.03 27.96 27.90	z) Level dBuV/m 34.53 36.96	Limit Line dBuV/m 43.50 46.00 46.00 46.00 46.00	Over Limit -8.97 -9.04	QP QP QP QP QP QP QP	5.





