Report No: CCISE160504204

FCC REPORT

Applicant: Plus One Marketing Ltd.

Address of Applicant: Sumitomofudosan Hibiya, Building 2F, 2-8-6 Nishi-Shimbashi,

Minatoku, Tokyo, 107-0053, JAPAN

Equipment Under Test (EUT)

Product Name: Mobile Phone

Model No.: FTU161E

Trade mark: Freetel

FCC ID: 2AG5L-FTU161E

Applicable standards: FCC CFR Title 47 Part 15 Subpart B

Date of sample receipt: 16 May, 2016

Date of Test: 16 May, to 20 May, 2016

Date of report issued: 23 May, 2016

Test Result: Pass *

Authorized Signature:



Bruce Zhang 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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^{*} In the configuration tested, the EUT complied with the standards specified above.





2 Version

Version No.	Date	Description
00	23 May, 2016	Original

Tested by: Date: 23 May, 2016

Test Engineer

Reviewed by: Over then Date: 23 May, 2016

Project Engineer





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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

Pass: The EUT complies with the essential requirements in the standard.



5 General Information

5.1 Client Information

Applicant:	Plus One Marketing Ltd.
Address of Applicant:	Sumitomofudosan Hibiya, Building 2F, 2-8-6 Nishi-Shimbashi, Minatoku, Tokyo, 107-0053, JAPAN
Manufacturer	Shenzhen Wellstec Communications Co., Ltd
Address of Manufacturer:	No. 707, 7th floor, B building., CR city, the park of science and technology, Nanshan district, shenzhen, China

5.2 General Description of E.U.T.

Product Name:	Mobile Phone
Model No.:	FTU161E
Power supply:	Rechargeable Li-ion Battery DC3.7V-1350mAh
	Model: UT-051A-5065
AC adapter :	Input: AC100-240V 50/60Hz 0.2A
	Output: DC 5.0V, 650mA

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.

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5.4 Description of Support Units

Manufacturer	acturer Description Model Serial Number		FCC ID/DoC	
DELL	PC	OPTIPLEX745	N/A	DoC
DELL	MONITOR	E178FPC	N/A	DoC
DELL	KEYBOARD	SK-8115	N/A	DoC
DELL	MOUSE	MOC5UO	N/A	DoC
HP	Printer	CB495A	05257893	DoC
MERCURY	Wireless router	MW150R	12922104015	FCC ID
NAKAMICHI	Bluetooth earphone	T8	N/A	FCC ID

5.5 Laboratory Facility

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

• FCC - Registration No.: 817957

Shenzhen Zhongjian Nanfang Testing Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in out files. Registration 817957, February 27, 2012.

• IC - Registration No.: 10106A-1

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.

5.6 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





5.7 Test Instruments list

Radi	Radiated Emission:								
Item	Test Equipment	Manufacturer Model No.		Inventory No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)			
1	3m SAC	SAEMC	9(L)*6(W)* 6(H)	CCIS0001	08-23-2014	08-22-2017			
2	BiConiLog Antenna	SCHWARZBECK	VULB9163	CCIS0005	03-25-2016	03-25-2017			
3	Horn Antenna	SCHWARZBECK	BBHA9120D	CCIS0006	03-25-2016	03-25-2017			
4	Pre-amplifier (10kHz-1.3GHz)	HP	8447D	CCIS0003	04-01-2016	03-31-2017			
5	Pre-amplifier (1GHz-18GHz)	Compliance Direction Systems Inc.	PAP-1G18	CCIS0011	04-01-2016	03-31-2017			
6	Spectrum analyzer 9k-30GHz	Rohde & Schwarz	FSP30	CCIS0023	03-30-2016	03-30-2017			
7	EMI Test Receiver	Rohde & Schwarz	ESRP7	CCIS0167	03-24-2016	03-24-2017			
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A			

Conducted Emission:									
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)			
1	Shielding Room	ZhongShuo Electron	11.0(L)x4.0(W)x3.0(H)	CCIS0061	08-23-2014	08-22-2017			
2	EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	03-24-2016	03-24-2017			
3	LISN	CHASE	MN2050D	CCIS0074	03-26-2016	03-26-2017			
4	Coaxial Cable	CCIS	N/A	CCIS0086	04-01-2016	03-31-2017			
5	EMI Test Software	AUDIX	E3	N/A	N/A	N/A			



6 Test results and Measurement Data

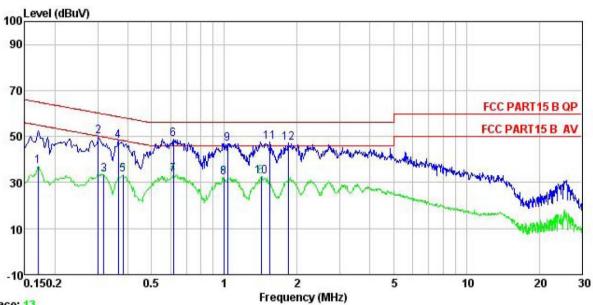
6.1 Conducted Emission

Test Requirement:	FCC Part 15 B Section 15.10	FCC Part 15 B Section 15.107					
Test Method:	ANSI C63.4:2009	ANSI C63.4:2009					
Test Frequency Range:	150kHz to 30MHz	150kHz to 30MHz					
Class / Severity:	Class B						
Receiver setup:	RBW=9kHz, VBW=30kHz						
Limit:	Frequency range (MHz)	Limit	(dBµV)				
		Quasi-peak	Average				
	0.15-0.5	66 to 56*	56 to 46*				
	0.5-5	56	46				
	0.5-30 * Decreases with the logarith	60	50				
Test setup:	Reference Plai	· · · · · ·					
	AUX Equipment Test table/Insulation plane Remark E.U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m	Filter — AC po					
Test procedure	 The E.U.T and simulators line impedance stabilization 500hm/50uH coupling impedance. The peripheral devices are a LISN that provides a 500 termination. (Please refers photographs). Both sides of A.C. line are interference. In order to fir positions of equipment an according to ANSI C63.4: 	on network(L.I.S.N.). The pedance for the measure also connected to the ohm/50uH coupling imports to the block diagram are checked for maximum and the maximum emissing all of the interface care	ne provide a ring equipment. e main power through bedance with 50ohm of the test setup and m conducted ion, the relative bles must be changed				
Test environment:	Temp.: 23 °C Hun	nid.: 56% Pr	ess.: 101kPa				
Measurement Record:		U	ncertainty: ±3.28dB				
Test Instruments:	Refer to section 5.7 for detail	ls					
Test mode:	Refer to section 5.3 for detail	Refer to section 5.3 for details					
Test results:	Pass						



Measurement data:

Line:



Trace: 13

Site

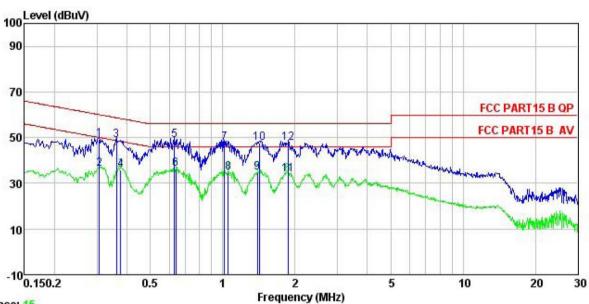
: CCIS Shielding Room : FCC PART15 B QP LISN LINE : Mobile Phone Condition

: FIU161E
Test Mode : PC mode
Power Rating : AC120/60Hz
Environment : Temp: 23 °C Huni:56% Atmos:101KPa
Test Engineer: YT
Remark : EUT

MHz dBuV dB dB dBuV dBuV dB dB dBuV dBuV dB	rk
1 0.170 26.08 0.14 10.77 36.99 54.94 -17.95 Aver 2 0.302 39.07 0.16 10.74 49.97 60.19 -10.22 QP	
2 0.302 39.07 0.16 10.74 49.97 60.19 -10.22 QP	age
0 010 00 00 0 10 10 74 00 01 40 75 10 14 4	
3 0.318 22.69 0.18 10.74 33.61 49.75 -16.14 Aver	age
4 0.365 37.29 0.22 10.73 48.24 58.61 -10.37 QP	V264-204 Center
5 0.381 22.48 0.23 10.72 33.43 48.25 -14.82 Aver	age
6 0.617 37.90 0.29 10.77 48.96 56.00 -7.04 QP	
7 0.617 22.23 0.29 10.77 33.29 46.00 -12.71 Aver 8 0.994 21.20 0.26 10.87 32.33 46.00 -13.67 Aver 9 1.032 35.90 0.26 10.87 47.03 56.00 -8.97 QP	age
8 0.994 21.20 0.26 10.87 32.33 46.00 -13.67 Aver	age
9 1.032 35.90 0.26 10.87 47.03 56.00 -8.97 QP	
10 1.418 21.23 0.29 10.92 32.44 46.00 -13.56 Aver	age
11 1.544 36.41 0.30 10.93 47.64 56.00 -8.36 QP	
12 1.839 35.86 0.31 10.95 47.12 56.00 -8.88 QP	



Neutral:



Trace: 15 Site

: CCIS Shielding Room : FCC PART15 B QP LISN NEUTRAL Condition

EUT : Mobile Phone Model : FTU161E Test Mode : PC mode
Power Rating : AC120/60Hz
Environment : Temp: 23 °C Huni:56% Atmos:101KPa
Test Engineer: YT

Remark

Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
MHz	dBu∜	<u>dB</u>	dB	dBu₹	dBu∜	<u>dB</u>	
0.307	38.39	0.19	10.74	49.32	60.06	-10.74	QP
0.307	25.18	0.19	10.74	36.11	50.06	-13.95	Average
0.361	37.95	0.22	10.73	48.90	58.69	-9.79	QP
0.377	25.09	0.22	10.72	36.03	48.34	-12.31	Average
0.630	37.91	0.30	10.77	48.98	56.00	-7.02	QP
0.637	25.13	0.30	10.77	36.20	46.00	-9.80	Average
1.016	36.67	0.26	10.87	47.80	56.00	-8.20	QP
1.054	23.66	0.26	10.88	34.80	46.00	-11.20	Average
1.396	23.64	0.26	10.91	34.81	46.00	-11.19	Average
1.418	36.40	0.26	10.92	47.58	56.00	-8.42	QP
1.868	22.67	0.26	10.95	33.88	46.00	-12.12	Average
1.878	36.52	0.26	10.95	47.73	56.00	-8.27	QP
	MHz 0.307 0.307 0.361 0.377 0.630 0.637 1.016 1.054 1.396 1.418 1.868	Freq Level MHz dBuV 0.307 38.39 0.307 25.18 0.361 37.95 0.377 25.09 0.630 37.91 0.637 25.13 1.016 36.67 1.054 23.66 1.396 23.64 1.418 36.40 1.868 22.67	Freq Level Factor MHz dBuV dB 0.307 38.39 0.19 0.307 25.18 0.19 0.361 37.95 0.22 0.377 25.09 0.22 0.630 37.91 0.30 0.637 25.13 0.30 1.016 36.67 0.26 1.054 23.66 0.26 1.396 23.64 0.26 1.418 36.40 0.26 1.868 22.67 0.26	MHz dBuV dB dB 0.307 38.39 0.19 10.74 0.307 25.18 0.19 10.74 0.361 37.95 0.22 10.73 0.377 25.09 0.22 10.72 0.630 37.91 0.30 10.77 0.637 25.13 0.30 10.77 1.016 36.67 0.26 10.87 1.054 23.66 0.26 10.88 1.396 23.64 0.26 10.91 1.418 36.40 0.26 10.92 1.868 22.67 0.26 10.95	MHz dBuV dB dB dBuV 0.307 38.39 0.19 10.74 49.32 0.307 25.18 0.19 10.74 36.11 0.361 37.95 0.22 10.73 48.90 0.377 25.09 0.22 10.72 36.03 0.630 37.91 0.30 10.77 48.98 0.637 25.13 0.30 10.77 36.20 1.016 36.67 0.26 10.87 47.80 1.054 23.66 0.26 10.88 34.80 1.396 23.64 0.26 10.91 34.81 1.418 36.40 0.26 10.92 47.58 1.868 22.67 0.26 10.95 33.88	MHz dBuV dB dB dBuV dBuV 0.307 38.39 0.19 10.74 49.32 60.06 0.307 25.18 0.19 10.74 36.11 50.06 0.361 37.95 0.22 10.73 48.90 58.69 0.377 25.09 0.22 10.72 36.03 48.34 0.630 37.91 0.30 10.77 48.98 56.00 1.016 36.67 0.26 10.87 47.80 56.00 1.054 23.66 0.26 10.88 34.80 46.00 1.396 23.64 0.26 10.91 34.81 46.00 1.418 36.40 0.26 10.92 47.58 56.00 1.868 22.67 0.26 10.95 33.88 46.00	MHz dBuV dB dB dBuV dBuV dB 0.307 38.39 0.19 10.74 49.32 60.06 -10.74 0.307 25.18 0.19 10.74 36.11 50.06 -13.95 0.361 37.95 0.22 10.73 48.90 58.69 -9.79 0.377 25.09 0.22 10.72 36.03 48.34 -12.31 0.630 37.91 0.30 10.77 48.98 56.00 -7.02 0.637 25.13 0.30 10.77 36.20 46.00 -9.80 1.016 36.67 0.26 10.87 47.80 56.00 -8.20 1.054 23.66 0.26 10.88 34.80 46.00 -11.20 1.396 23.64 0.26 10.91 34.81 46.00 -11.19 1.418 36.40 0.26 10.92 47.58 56.00 -8.42 1.868 22.67 0.26

Notes:

- 1. The following Quasi-Peak and Average measurements were performed on the EUT
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.



6.2 Radiated Emission

0.2 Radiated Ellission										
Test Requirement:	FCC Part 15 B Section 15.109									
Test Method:	ANSI C63.4:2009									
Test Frequency Range:	30MHz to 6000MHz									
Test site:	Measurement D	Measurement Distance: 3m (Semi-Anechoic Chamber)								
Receiver setup:	Frequency Detector RBW VBW Remark									
	30MHz-1GHz					Hz	Quasi-peak Value			
	Above 1GHz	Pea RM			3MF					
Limit:	Frequenc			1MHz (dBuV/m @		12	Iz Average Value Remark			
LITTIL.	30MHz-88M		LIIIII	40.0	<i>(</i> 3111 <i>)</i>	(Quasi-peak Value			
	88MHz-216N			43.5			Quasi-peak Value			
	216MHz-960			46.0			Quasi-peak Value			
	960MHz-1G			54.0			Quasi-peak Value			
				54.0			Average Value			
	Above 1GI	ĦΖ		74.0			Peak Value			
	Below 1GHz Antenna Tower Search Antenna RF Test Receiver Ground Plane Above 1GHz									
	80CM	Turntable) Ground Reference Plane Test Receiver								





Test Procedure:	1. 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.							
	2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.							
	3. 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.							
	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 environment:	Temp.: 25 °C Humid.: 55% Press.: 1 01kPa							
Measurement Record:	Uncertainty: ±4.88dB							
Test Instruments:	Refer to section 5.7 for details							
Test mode:	Refer to section 5.3 for details							
Test results:	Passed							

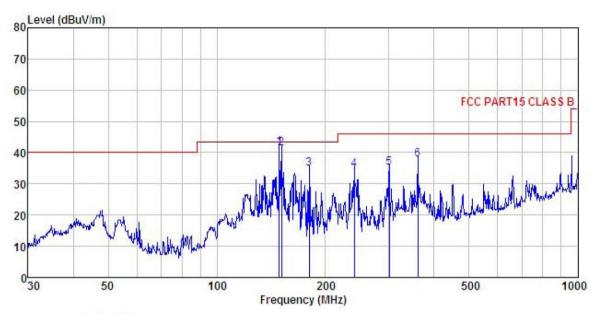




Measurement Data:

Below 1GHz

Horizontal:



Site

: 3m chamber : FCC PART15 CLASS B 3m VULB9163(30M3G) HORIZONTAL Condition

EUT : Mobile Phone Model : FTU161E Test mode : PC mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5°C Huni:55%
Test Engineer: YT

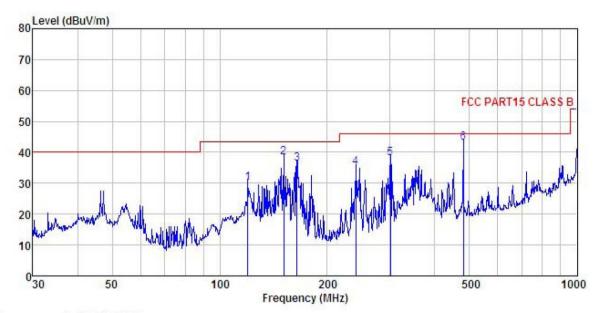
Remark

	Freq		Intenna Factor						Remark	
	MHz	dBu₹	dB/m		<u>dB</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>dB</u>		
1	148.963	57.48	10.77	2.51	29.23	41.53	43.50	-1.97	QP	
2	151.067	57.40	10.59	2.53	29.21	41.31	43.50	-2.19	QP	
1 2 3	180.017	51.79	9.20	2.73	28.97	34.75	43.50	-8.75	QP	
4	239.987	48.60	11.80	2.82	28.59	34.63	46.00	-11.37	QP	
5	300.367	47.92	12.70	2.94	28.45	35.11	46.00	-10.89	QP	
4 5 6	360.448	48.89	14.53	3.10	28.61	37.91	46.00	-8.09	QP	





Vertical:



Site

: 3m chamber : FCC PART15 CLASS B 3m VULB9163(30M3G) VERTICAL Condition

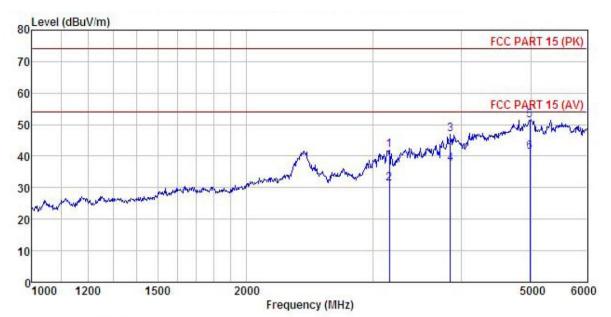
EUT : Mobile Phone Model : FTU161E Test mode : PC mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5°C Huni:55%
Test Engineer: YT

emark	:								
	Freq		Antenna Factor					Over Limit	Remark
_	MHz	—dBu∜	$-\overline{dB}/\overline{m}$	<u>d</u> B	<u>ab</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>dB</u>	
1	119.856	45.59	11.80	2.17	29.39	30.17	43.50	-13.33	QP
2	151.067	54.42	10.59	2.53	29.21	38.33	43.50	-5.17	QP
2 3 4 5	164.330	52.99	9.86	2.62	29.10	36.37	43.50	-7.13	QP
4	239.987	49.13	11.80	2.82	28.59	35.16	46.00	-10.84	QP
5	300.367	50.84	12.70	2.94	28.45	38.03	46.00	-7.97	QP
6	480.528	51.87	16.57	3.46	28.92	42.98	46.00	-3.02	QP



Above 1GHz

Horizontal:



Site Condition : 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL : Mobile Phone

EUT Model : FTU161E
Test mode : PC mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5°C Huni:55%
Test Engineer: YT
Remark

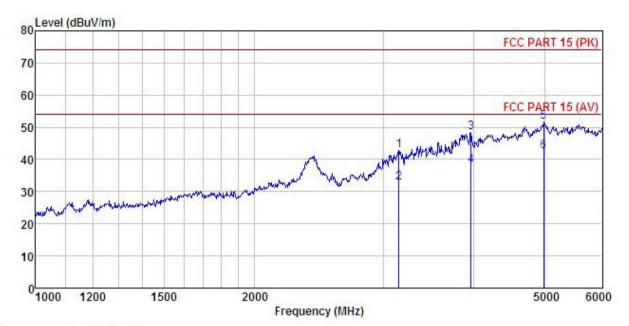
Remark

			Antenna Cable Factor Loss				Limit Line	Over Limit	Remark
	MHz	dBu∜			B	$\overline{dB} \overline{uV}/\overline{m}$	$\overline{dBuV/m}$	B	
1 3	3170.612	47.96	26.39	8.16	40.69	41.82	74.00	-32.18	Peak
2 3	3170.612	37.51	26.39	8.16	40.69	31.37	54.00	-22.63	Average
3 3	3859.207	47.25	31.06	9.39		46.96			
4	3859.207	37.86	31.06	9.39	40.74	37.57	54.00	-16.43	Average
5 4	4989.431	43.88	36.84	10.76		51.50			
6 4	4989.431	33.57	36.84	10.76	39.98	41.19	54.00	-12.81	Average





Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL : Mobile Phone Condition EUT

Model : FTU161E Test mode : PC mode Power Rating : AC 120V/60Hz

Environment : Temp: 25.5°C Huni: 55%

Test Engineer: YT Remark :

	200		Antenna Factor				Limit Line	Over Limit	
-	MHz	<u>d</u> Bu∇	<u>dB</u> /m	<u>d</u> B	<u>d</u> B	dBuV/m	dBuV/m	āB	
1	3152.157	48.97	26.31	8.13	40.68	42.73	74.00	-31.27	Peak
	3152.157	38.97	26.31	8.13	40.68	32.73	54.00	-21.27	Average
3	3965.787	47.76	32.01	9.57	41.05	48.29	74.00	-25.71	Peak
4	3965.787	37.54	32.01	9.57	41.05	38.07	54.00	-15.93	Average
5	4989.431	44.10	36.84	10.76	39.98	51.72	74.00	-22.28	Peak
6	4989.431	34.82	36.84	10.76	39.98	42.44	54.00	-11.56	Average