Report No: CCISE190302005

FCC REPORT

Applicant: MOVILTELCO TRADE, S.L

Address of Applicant: ABTAO, 25-1Floor A-office MADRID Spain

Equipment Under Test (EUT)

Product Name: mobile phone

Model No.: A86, A86A, A86B, A86C, A86D

Trade mark: mtt

FCC ID: 2ACQKTELCO020

Applicable standards: FCC CFR Title 47 Part 15 Subpart B

Date of sample receipt: 08 Mar., 2019

Date of Test: 12 Mar., to 27 Mar., 2019

Date of report issued: 28 Mar., 2019

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	28 Mar., 2019	Original

Tested by: Date: 28 Mar., 2019

Test Engir⊯er

Reviewed by: Date: 28 Mar., 2019

Project Engineer



3 Contents

		h in the second of the second	-age
1	C	OVER PAGE	1
2	V	ERSION	2
3	C	ONTENTS	3
4		EST SUMMARY	
- 5		ENERAL INFORMATION	
	5.1	CLIENT INFORMATION	
	5.2	GENERAL DESCRIPTION OF E.U.T.	
	5.3	TEST MODE	
	5.4	MEASUREMENT UNCERTAINTY	
	5.5	DESCRIPTION OF SUPPORT UNITS	
	5.6	RELATED SUBMITTAL(s) / GRANT (s)	
	5.7	DESCRIPTION OF CABLE USED	6
	5.8	LABORATORY FACILITY	6
	5.9	LABORATORY LOCATION	6
	5.10	TEST INSTRUMENTS LIST	7
6	TI	EST RESULTS AND MEASUREMENT DATA	8
	6.1	CONDUCTED EMISSION	8
	6.2	RADIATED EMISSION	11
7	TI	EST SETUP PHOTO	17
8	E	UT CONSTRUCTIONAL DETAILS	18





4 Test Summary

Test Item	Section in CFR 47	Result
Conducted Emission	Part 15.107	Pass
Radiated Emission	Part 15.109	Pass

Remark:

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

N/A: The EUT not applicable of the test item.



5 General Information

5.1 Client Information

Applicant:	MOVILTELCO TRADE, S.L
Address:	ABTAO, 25-1Floor A-office MADRID Spain
Manufacturer/Factory:	MOVILTELCO TRADE, S.L
Address:	6 floor, building 2, Zhenyan industrial park, No.1 xiangxing road, lanlian, longgang District, Shenzhen, China.

5.2 General Description of E.U.T.

Product Name:	mobile phone
Model No.:	A86, A86A, A86B, A86C, A86D
Power supply:	Rechargeable Li-ion Battery DC3.7V, 1400mAh
AC adapter :	US and Europe have the same adapter specifications Model: A86 Input: AC100-240V, 50/60Hz, 0.15A Output: DC 5.0V, 500mA
Test Sample Condition:	The test samples were provided in good working order with no visible defects.
Remarks:	item No.: A86, A86A, A86B, A86C, A86D were identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being model name

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)	±2.22 dB (k=2)
Radiated Emission (9kHz ~ 30MHz)	±2.76 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	±4.28 dB (k=2)
Radiated Emission (1GHz ~ 18GHz)	±5.72 dB (k=2)
Radiated Emission (18GHz ~ 40GHz)	±2.88 dB (k=2)

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,
Bao'an District, Shenzhen, Guangdong, China
Telephone: +86 (0) 755 2311 8282 Fax: +86 (0) 755 2311 6366



5.5 Description of Support Units

Manufacturer	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
LENOVO	Laptop	SL510	2847A65	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
Detached headset cable	Unshielded	1.2m	EUT	Headset

5.8 Laboratory Facility

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

• FCC - Registration No.: 727551

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

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.

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: https://portal.a2la.org/scopepdf/4346-01.pdf

5.9 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

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
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Page 6 of 18





5.10 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 Antonno	SCHWARZBECK	FMZB1519B	00044	03-16-2018	03-15-2019
Loop Antenna	SCHWARZBECK	FINIZD 1319D	00044	03-16-2019	03-15-2020
RiConil og Antonna	SCHWARZBECK	VULB9163	497	03-16-2018	03-15-2019
BiConiLog Antenna	SURWARZBEUK	VULD9103	497	03-16-2019	03-15-2020
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-16-2018	03-15-2019
Hom Antenna	SCHWARZBECK	DDI IA9 120D	910	03-16-2019	03-15-2020
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-22-2017	06-21-2020
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-21-2018	11-20-2019
EMI Test Software	AUDIX	E3	\	Version: 6.110919b	
Due emplifier	LID	0447D	2044400250	03-07-2018	03-06-2019
Pre-amplifier	HP	8447D	2944A09358	03-07-2019	03-06-2020
Pre-amplifier	CD	PAP-1G18	11804	03-07-2018	03-06-2019
Fre-ampliller	CD	PAP-1G10	11004	03-07-2019	03-06-2020
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-07-2018	03-06-2019
Spectrum analyzer	Nonde & Schwarz	1 31 30	101434	03-07-2019	03-06-2020
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-21-2018	11-20-2019
EMI Took Doooiiyan	Dahda 9 Cahwara	ECDD7	404070	03-07-2018	03-06-2019
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-07-2019	03-06-2020
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-07-2018	03-06-2019
Cable	ZDECL	∠100-INJ-INJ-81	1000400	03-07-2019	03-06-2020
Cable	MICRO-COAX	MFR64639	K10742-5	03-07-2018	03-06-2019
Capie	WIICKU-COAX	IVIF NO4039	N10/42-3	03-07-2019	03-06-2020
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-07-2018	03-06-2019
Cable	SULINER	30COFLEX 100	30133/4FE	03-07-2019	03-06-2020

Conducted Emission:						
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)	
FMI Toot Dogoiyor	Rohde & Schwarz	ESCI	101189	03-07-2018	03-06-2019	
EMI Test Receiver	Ronde & Schwarz	ESCI	101169	03-07-2019	03-06-2020	
Dulas Limitar	SCHWARZBECK	OSRAM 2306	9731	03-07-2018	03-06-2019	
Pulse Limiter	SCHWARZBECK	USKAWI 2306		03-07-2019	03-06-2020	
LICN	CHACE	MNIOOEOD	4.447	03-19-2018	03-18-2019	
LISN	CHASE	MN2050D	1447	03-19-2019	03-18-2020	
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	07-21-2018	07-20-2019	
Cabla	LID	405024	NI/A	03-07-2018	03-06-2019	
Cable	HP	10503A	N/A	03-07-2019	03-06-2020	
EMI Test Software	AUDIX	E3	\	Version: 6.110919	b	



6 Test results and Measurement Data

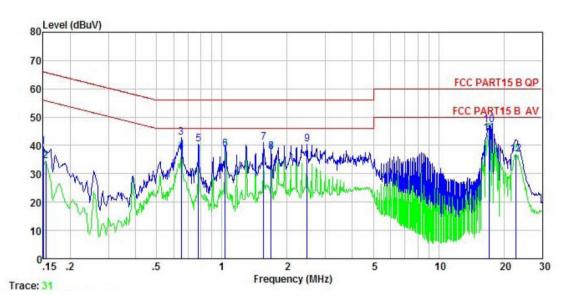
6.1 Conducted Emission

Test Requirement:	FCC Part 15 B Section 15.10	07		
Test Method:	ANSI C63.4:2014			
Test Frequency Range:	150kHz to 30MHz			
Class / Severity:	Class B			
Receiver setup:	RBW=9kHz, VBW=30kHz			
Limit:	_	Limit	(dBµV)	
	Frequency range (MHz)	Quasi-peak	Average	
	0.15-0.5	66 to 56*	56 to 46*	
	0.5-5	56	46	
	0.5-30	60	50	
	* Decreases with the logarith	nm of the frequency.		
Test setup:	Reference Plan	ne		
	AUX Filter AC power Equipment E.U.T Test table/Insulation plane Remark E.U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m			
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: 2014 on conducted measurement. 			
Test environment:	Temp.: 22.5 °C Humid.: 55% Press.: 101kPa			
Test Instruments:	Refer to section 5.9 for details			
Test mode:	Refer to section 5.3 for details			
Test results:	Pass			



Measurement data:

Product name:	mobile phone	Product model:	A86
Test by:	YT	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%



Remark

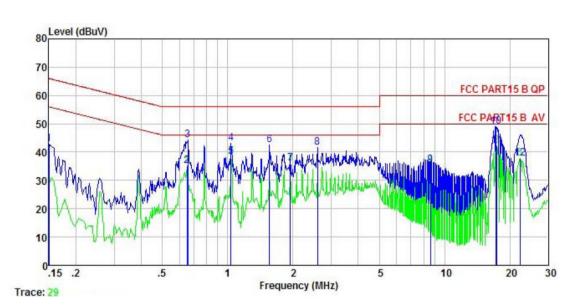
	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
100	MHz	dBu∀	dB	<u>dB</u>	dBu∀	dBu∜	<u>dB</u>	
1	0.150	28.72	0.18	10.78	39.68	66.00	-26.32	QP
2	0.154	23.61	0.18	10.78	34.57	55.78	-21.21	Average
3	0.651	31.91	0.13	10.77	42.81	56.00	-13.19	QP
1 2 3 4 5 6 7 8 9	0.651	26.95	0.13	10.77	37.85	46.00	-8.15	Average
5	0.779	29.40	0.13	10.80	40.33	56.00	-15.67	QP
6	1.037	27.56	0.13	10.87	38.56	46.00	-7.44	Average
7	1.560	29.82	0.14	10.93	40.89	56.00	-15.11	QP
8	1.689	26.70	0.14	10.94	37.78	46.00	-8.22	Average
9	2.474	29.31	0.15	10.94	40.40		-15.60	
10	17.109	36.09	0.30	10.91	47.30	60.00	-12.70	QP
11	17.109	33.12	0.30	10.91	44.33	50.00	-5.67	Average
12	22.775	25.75	0.31	10.90	36.96			Average

Notes:

- 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.



Product name:	mobile phone	Product model:	A86
Test by:	YT	Test mode:	PC mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Neutral
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%



Remark

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
-	MHz	dBu∜	₫B	<u>dB</u>	dBu∜	dBu∜	dB	
1	0.150	30.90	0.99	10.78	42.67	66.00	-23.33	QP
2	0.651	23.66	0.63	10.77	35.06	46.00	-10.94	Average
3	0.654	32.42	0.97	10.77	44.16	56.00	-11.84	QP
1 2 3 4 5 6 7 8 9	1.037	31.31	0.97	10.87	43.15	56.00	-12.85	QP
5	1.037	26.72	0.67	10.87	38.26	46.00	-7.74	Average
6	1.560	30.71	0.98	10.93	42.62	56.00	-13.38	QP
7	1.949	24.41	0.67	10.96	36.04	46.00	-9.96	Average
8	2.594	29.83	0.99	10.93	41.75		-14.25	
9	8.592	23.86	0.69	10.88	35.43	50.00	-14.57	Average
10	17.291	37.31	0.80	10.91	49.02		-10.98	
11	17.383	30.52	0.69	10.92	42.13	50.00	-7.87	Average
12	22.298	26.14	0.69	10.90	37.73			Average

Notes:

- 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.



6.2 Radiated Emission

= :	 					1		
Test Requirement:	FCC Part 15 B S	ection 15.1	09					
Test Method:	ANSI C63.4:2014	1						
Test Frequency Range:	30MHz to 6000M	lHz						
Test site:	Measurement Dis	stance: 3m	(Sen	ni-Anechoic	Chamber)			
Receiver setup:	Frequency	Detect		RBW	VBW	Remark		
	30MHz-1GHz	Quasi-pe		120kHz	300kHz	Quasi-peak Value		
	Above 1GHz	Peak		1MHz	3MHz	Peak Value		
	RMS 1MHz 3MHz Average Valu							
Limit:						Remark		
	30MHz-88N			40.0		Quasi-peak Value		
	88MHz-216I			43.5 46.0		Quasi-peak Value		
	216MHz-960 960MHz-10			54.0		Quasi-peak Value		
	90010172-10	סחב		54.0 54.0		Quasi-peak Value Average Value		
	Above 1G	Hz						
Test setup:	Tum Table 0.8m	Below 1GHz 74.0 Peak Value Search Antenna Tower Antenna RF Test Receiver Ground Plane						
	Horn Anlenna Tower AE EUT Ground Reference Plane Test Receiver Test Receiver Test Receiver							





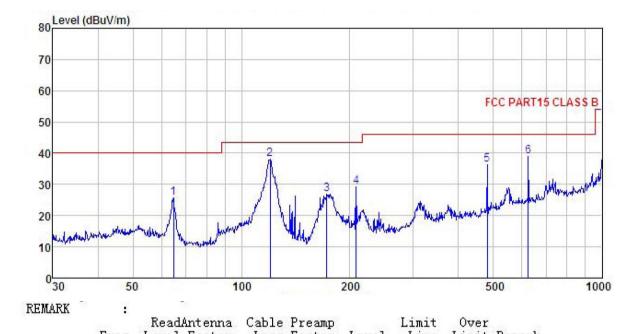
Test Procedure:	 The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted 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 al and vertica	the maximun	n value of the	field stren			
	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.							
		t-receiver sys d Bandwidth				on and		
	limit spe the EUT 10dB m	ecified, then to would be re	esting could be ported. Other oe re-tested o	oe stopped a wise the emi	nd the pea ssions that sing peak, o	did not have quasi-peak or		
Test environment:	Temp.:	24 °C	Humid.:	57%	Press.:	1 01kPa		
Test Instruments:	Refer to se	ection 5.9 for	details					
Test mode:	Refer to se	ection 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:	mobile phone	Product model:	A86
Test By:	YT	Test mode:	PC mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	—dBu∇		<u>ab</u>	<u>ab</u>	dBuV/m	dBuV/m	<u>dB</u>	
1	64.887	43.25	10.72	1.38	29.76	25.59	40.00	-14.41	QP
2	120.277	55.13	10.16	2.17	29.39	38.07	43.50	-5.43	QP
3	172.599	43.69	9.51	2.68	29.03	26.85	43.50	-16.65	QP
4	207.850	43.45	11.81	2.86	28.78	29.34	43.50	-14.16	QP
5	480.528	44.88	16.97	3.46	28.92	36.39	46.00	-9.61	QP
2 3 4 5 6	625.078	44.33	19.51	3.90	28.86	38.88	46.00	-7.12	QP

Remark:

- 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.



Product Name:	mobile phone	Product model:	A86
Test By:	YT	Test mode:	PC mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



	Freq		Antenna Factor						Remark
_	MHz	−−dBuV	<u>dB</u> /m			$\overline{dBuV/m}$	$\overline{\mathtt{dBuV/m}}$	<u>ab</u>	
1	119.436	43.36	10.31	2.16	29.39	26.44	43.50	-17.06	QP
2	173.205	49.90	9.53	2.68	29.02	33.09	43.50	-10.41	QP
3	207.850	46.89	11.81		28.78				
2 3 4 5	316.589	38.60	13.95	2.99	28.49	27.05	46.00	-18.95	QP
5	480.528	45.75	16.97	3.46	28.92	37.26	46.00	-8.74	QP
6	625.078	44.14	19.51		28.86				-0.0.7 (-0.0)

Remark:

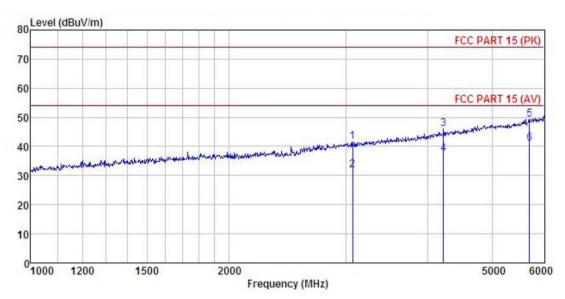
- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.

Page 14 of 18



Above 1GHz:

Product Name:	mobile phone	Product model:	A86
Test By:	YT	Test mode:	PC mode
Test Frequency:	1 GHz ~ 6 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



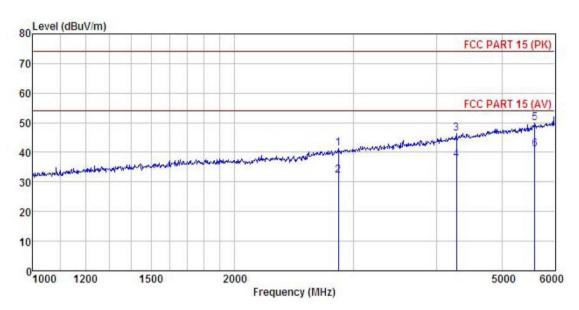
REMARI	Freq	TAMES OF THE PARTY	Antenna Factor		Preamp Factor	Level	Limit Line	Over Limit	Remark
-	MHz	dBu∜	<u>dB</u> /π		<u>dB</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	dB	
1 2 3 4 5	3073.417 3073.417 4220.584 4220.584 5695.313 5695.313	47.16 37.40 48.52 39.86 48.27 39.86	28.65 28.65 30.61 30.61 32.76 32.76	5.38 5.38 6.43 6.43 7.60 7.60	41.47 41.47 41.82 41.82 41.90 41.90	41.65 31.89 46.01 37.35 49.43 41.02	54.00 74.00 54.00 74.00	-27.99 -16.65 -24.57	Average Peak Average

Remark:

- 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.



Product Name:	mobile phone	Product model:	A86		
Test By:	YT	Test mode:	PC mode		
Test Frequency:	1 GHz ~ 6 GHz	Polarization:	Horizontal		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%		



REMARK	:
	Trac

	Freq		ntenna Cab Factor Lo		THE RESERVE OF THE PARTY OF THE		Limit Line	Over Limit	
	MHz	dBu∜	dB/m	d <u>B</u>	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>	
1	2854.354	47.68	28.33	5.19	41.62	41.43	74.00	-32.57	Peak
2	2854.354	38.52	28.33	5.19	41.62	32.27	54.00	-21.73	Average
2	4278.467	48.70	30.71	6.52	41.87	46.35	74.00	-27.65	Peak
4	4278.467	39.76	30.71	6.52	41.87	37.41	54.00	-16.59	Average
5	5596.439	49.12	32.58	7.30	41.79	49.89	74.00	-24.11	Peak
6	5596.439	40.36	32.58	7.30	41.79	41.13	54.00	-12.87	Average

Remark:

- 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.

Page 16 of 18