

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

Report No: CCISE191206805

FCC REPORT

Applicant: GSM GLOBE.COM INC

Address of Applicant: 134 N. E 1 Street, Miami Florida United States

Equipment Under Test (EUT)

Product Name: Mobile Phone

Model No.: F4

Trade mark: GOL

FCC ID: 2AEJAF4

Applicable standards: FCC CFR Title 47 Part 15 Subpart B

Date of sample receipt: 16 Dec., 2019

Date of Test: 17 Dec., to 25 Feb., 2020

Date of report issued: 26 Feb., 2020

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.





Version

Version No.	Date	Description
00	26 Feb., 2020	Original

Test Engineer

Winner Thang

Project Engineer 26 Feb., 2020 Tested by: Date:

26 Feb., 2020

Reviewed by: Date:



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Test Summary

Test Item	Section in CFR 47	Result
Conducted Emission	Part 15.107	Pass
Radiated Emission	Part 15.109	Pass
Pomark:	<u> </u>	

- Pass: The EUT complies with the essential requirements in the standard.
- N/A: The EUT not applicable of the test item.

Test Method: ANSI C63.4:2014



5 General Information

5.1 Client Information

Applicant:	GSM GLOBE.COM INC
Address:	134 N. E 1 Street, Miami Florida United States
Manufacturer/ Factory:	ESTONEHK TECHNOLOGY LIMITED
Address:	FLAT/RM B, 5F GAYLORD COMMERIAL BUILDING, 114-118 LOCKHART ROAD, HK

5.2 General Description of E.U.T.

Product Name:	Mobile Phone
Model No.:	F4
Power supply:	Rechargeable Li-ion Battery DC3.7V, 1500mAh
AC adapter:	Model: F4 Input: AC100-240V, 50/60Hz, 0.15A
	Output: DC 5.0V, 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	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
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	0.85m	EUT	PC/Adapter
Detached headset cable	Unshielded	1.2m	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

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

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

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 23118282 Fax: +86 (0) 755 23116366



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	DD1140470500	11-21-2018	11-20-2019	
nom Antenna	SURWARZBEUK	DDNA 9170	BBHA9170582	11-21-2019	11-20-2020	
EMI Test Software	AUDIX	E3	\	/ersion: 6.110919	b	
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	
Spootrum analyzor	Rohde & Schwarz	FSP40	100363	11-21-2018	11-20-2019	
Spectrum analyzer	Ronde & Schwarz	F3F40	100303	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	07-21-2018	07-20-2019	
LISIN	Ronde & Schwarz	ESH3-25	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

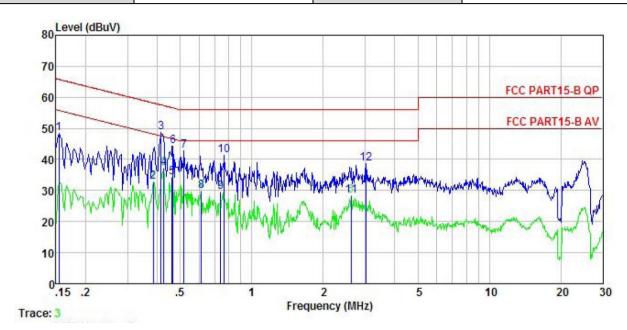
6.1 Conducted Emission

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)	Limit (dRuV)				
	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 logarithm	of the frequency.				
Test setup:	Reference Plane LISN 40cm 80cm Filter AC power Equipment 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(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:	F4
Test by:	Yaro	Test mode:	PC mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Line
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5°C Huni: 55%



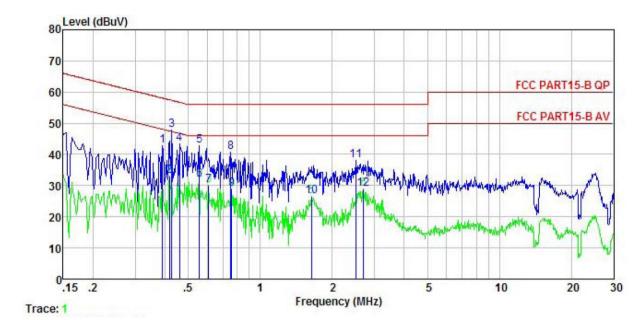
	Freq	Read Level	LISN Factor	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
-	MHz	₫₿uѶ	<u>dB</u>	₫B	₫B	dBu∀	₫₿uѶ	<u>d</u> B	
1	0.154	38.14	-0.45	-0.06	10.78	48.41	65.78	-17.37	QP
1 2 3	0.385	22.01	-0.37	0.33	10.72	32.69	48.17	-15.48	Average
3	0.415	38.05	-0.37	0.31	10.73	48.72	57.55	-8.83	QP
4	0.426	26.66	-0.38	0.19	10.73	37.20	47.33	-10.13	Average
5	0.461	24.05	-0.38	-0.06	10.74	34.35			Average
6	0.466	34.10	-0.38	-0.12	10.75	44.35		-12.23	
7	0.518	32.70	-0.39	-0.36	10.76	42.71	56.00	-13.29	QP
4 5 6 7 8 9	0.614	19.75	-0.38	-0.38	10.77	29.76	46.00	-16.24	Average
9	0.739	19.53	-0.38	-0.28	10.79	29.66			Average
10	0.767	31.00	-0.38	-0.19	10.80	41.23		-14.77	
11	2.622	18.00	-0.43		10.93	28.25			Average
12	3.025	28.39	-0.44	-0.21	10.92	38.66		-17.34	

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:	F4
Test by:	Yaro	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%



	Freq	Read Level	LISN Factor	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
_	MHz	dBu∇	<u>dB</u>	<u>d</u> B	₫B	dBu√	dBu∀	<u>dB</u>	
1	0.389	32.76	-0.64	-0.05	10.72	42.79	58.08	-15.29	QP
2	0.417	23.15	-0.64	-0.04	10.73	33.20	47.51	-14.31	Average
3	0.426	37.89	-0.64	-0.03	10.73	47.95	57.33		
4	0.459	33.40	-0.65	0.00	10.74	43.49	56.71	-13.22	QP
1 2 3 4 5	0.555	32.57	-0.65	0.03	10.76	42.71	56.00	-13.29	QP
6	0.555	21.87	-0.65	0.03	10.76	32.01	46.00	-13.99	Average
	0.608	19.99	-0.64	0.04	10.77	30.16			Average
8	0.751	30.62	-0.64	0.05	10.79	40.82	56.00	-15.18	QP
7 8 9	0.759	18.70	-0.64	0.05	10.80	28.91	46.00	-17.09	Average
10	1.636	16.19	-0.66	0.14	10.93	26.60			Average
11	2,500	27.58	-0.67	0.25	10.94	38.10		-17.90	
12	2.707	18.49	-0.67	0.27	10.93	29.02			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

Test Requirement:	FCC Part 15 B Se	ection 15.10	9				
Test Frequency Range:	30MHz to 6000M	Hz					
Test site:	Measurement Dis	tance: 3m (Sem	i-Anechoic (Chamber)		
Receiver setup:	Frequency Detector		r	RBW VE		Remark	
, 1000, 101 001ap	30MHz-1GHz	Quasi-pe	ak	120kHz 300kH			
	Above 1GHz	Peak		1MHz 3MHz		Peak Value	
	Above 1GHz	RMS	RMS 1MHz 3MHz Average V			Average Value	
Limit:	Frequenc		Lim	it (dBuV/m	@3m)	Remark	
	30MHz-88N			40.0		Quasi-peak Value	
	88MHz-216I			43.5		Quasi-peak Value	
	216MHz-960			46.0		Quasi-peak Value	
	960MHz-10	ÞΗΖ		54.0 54.0		Quasi-peak Value	
	Above 1GI	Hz		74.0		Average Value Peak Value	
Test setup:	Below 1GHz	*			Antenna Tower Search Antenna		
	Above 1GHz						
	AE - (Turnt	IV V V	3m	Pra	Antenna Tow	ver W	
Test Procedure:	ground at a 3 nd degrees to detect 2. The EUT was swhich was mou	neter semi- ermine the p set 3 meters unted on the eight is vari rmine the m	aneclositi s awa top ed from	hoic camber on of the hig by from the in of a variable om one mete um value of	The tab ghest radi nterference height a er to four the field	ce-receiving antenna, intenna tower. meters above the	





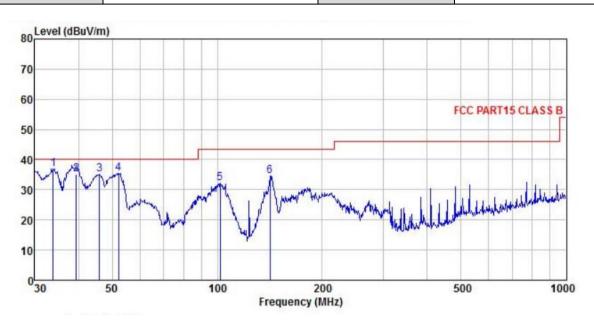
	 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified
	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:	Mobile Phone	Product Model:	F4
Test By:	Yaro	Test mode:	PC mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



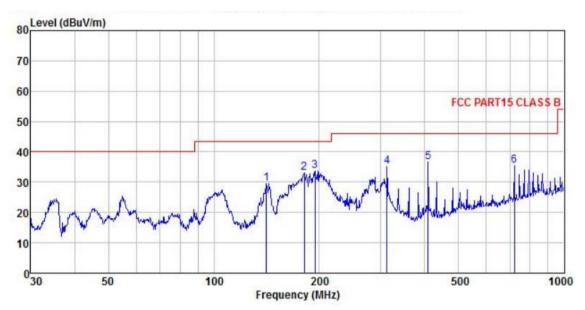
	Freq		Antenna Factor				Limit Line		Remark
	MHz	dBu₹		āB	<u>dB</u>	$\overline{dBuV/m}$	dBu∀/m		
1	33.917	54.91	11.07	0.98	29.96	37.00	40.00	-3.00	QP
2	39.437	51.60	12.25	1.21	29.91	35.15	40.00	-4.85	QP
2	46.016	51.58	12.26	1.28	29.85	35.27	40.00	-4.73	QP
4	52.208	52.01	11.87	1.29	29.81	35.36	40.00	-4.64	QP
5	102.001	47.24	12.35	1.96	29.51	32.04	43.50	-11.46	QP
6	141.826	52.03	9.39	2.42	29.26	34.58	43.50	-8.92	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:	F4
Test By:	Yaro	Test mode:	PC mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%
rest voltage.	AC 120/00112	Liivii Oliilielit.	1611p. 24 © 11d11. 37 /6



MHz	dBu∀							Remark
		dB/m	dB	dB	$\overline{dBuV/m}$	dBuV/m	dB	
11.330	46.89	9.42	2.42	29.27	29.46	43.50	-14.04	QP
31.283	49.34	10.01	2.74	28.96	33.13	43.50	-10.37	QP
94.453	49.39	10.43	2.83	28.87	33.78	43.50	-9.72	QP
2.179	46.72	13.87	2.98	28.48	35.09	46.00	-10.91	QP
8.946	46.68	15.51	3.10	28.80	36.49	46.00	-9.51	QP
21.726	39.13	20.49	4.26					
	11.283 14.453 2.179 18.946	11.283 49.34 14.453 49.39 2.179 46.72 18.946 46.68	11.283 49.34 10.01 14.453 49.39 10.43 2.179 46.72 13.87 18.946 46.68 15.51	11.283 49.34 10.01 2.74 14.453 49.39 10.43 2.83 2.179 46.72 13.87 2.98 18.946 46.68 15.51 3.10	81.283 49.34 10.01 2.74 28.96 84.453 49.39 10.43 2.83 28.87 2.179 46.72 13.87 2.98 28.48 18.946 46.68 15.51 3.10 28.80	81.283 49.34 10.01 2.74 28.96 33.13 84.453 49.39 10.43 2.83 28.87 33.78 2.179 46.72 13.87 2.98 28.48 35.09 18.946 46.68 15.51 3.10 28.80 36.49	81.283 49.34 10.01 2.74 28.96 33.13 43.50 94.453 49.39 10.43 2.83 28.87 33.78 43.50 2.179 46.72 13.87 2.98 28.48 35.09 46.00 18.946 46.68 15.51 3.10 28.80 36.49 46.00	11.283 49.34 10.01 2.74 28.96 33.13 43.50 -10.37 14.453 49.39 10.43 2.83 28.87 33.78 43.50 -9.72 2.179 46.72 13.87 2.98 28.48 35.09 46.00 -10.91 18.946 46.68 15.51 3.10 28.80 36.49 46.00 -9.51

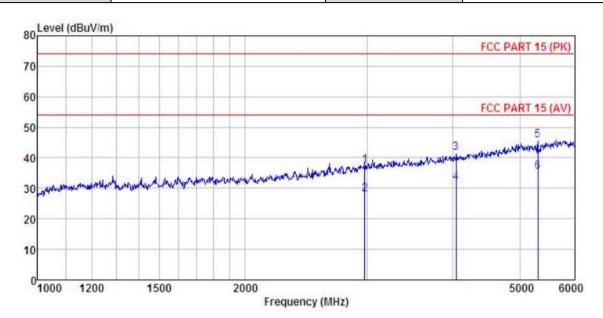
Remark:

- 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.



Above 1GHz:

Product Name:	Mobile Phone	Product Model:	F4
Test By:	Yaro	Test mode:	PC mode
Test Frequency:	1 GHz ~ 6 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



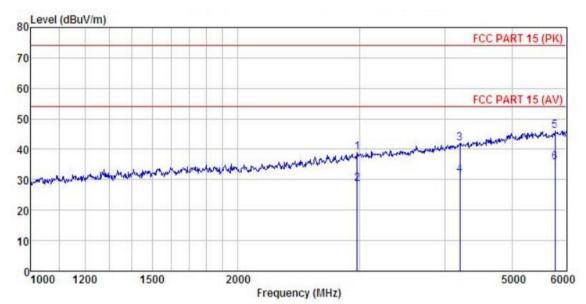
	Freq		Factor				Limit	Limit	Remark
	MHz	dBu∜	dB/m		<u>dB</u>	dBu√/m	dBuV/m	<u>dB</u>	
1	2977.790	45.27	28.56	5.33	41.52	37.64	74.00	-36.36	Peak
2	2977.790	35.78	28.56	5.33	41.52	28.15	54.00	-25.85	Average
2	4038.126	47.09	30.27	6.16	41.81	41.71	74.00	-32.29	Peak
4	4038.126	37.31	30.27	6.16	41.81	31.93	54.00	-22.07	Average
5	5311.742	48.38	32.22	7.10	41.90	45.80	74.00	-28.20	Peak
6	5311.742	38.13	32.22	7.10	41.90				Average

Remark:

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



Product Name:	Mobile Phone	Product Model:	F4		
Test By:	Yaro	Test mode:	PC mode		
Test Frequency:	1 GHz ~ 6 GHz	Polarization:	Horizontal		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%		
	<u> </u>				



	Freq	내용하다 어디에 마르게 되었다. 나는 아이들은 이 아이트를 했다.		Cable Preamp Loss Factor			Limit Line	Over Limit	Remark
	MHz	dBu∀			dB	$\overline{dBuV/m}$	dBu∜/m	dB	
1	2977.790	46.51	28.56	5.33	41.52	38.88	74.00	-35.12	Peak
2	2977.790	36.12	28.56	5.33	41.52	28.49	54.00	-25.51	Average
2	4200.482	46.85	30.57	6.41	41.81	42.02		-31.98	
4	4200.482	36.50	30.57	6.41	41.81	31.67	54.00	-22.33	Average
4	5778.433	47.18	32.91	7.84	42.00	45.93	74.00	-28.07	Peak
6	5778.433	37.07	32.91	7.84	42.00	35.82			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.