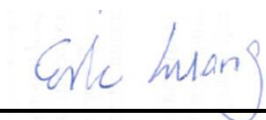


RF Exposure Evaluation Report

APPLICANT : LG Electronics Inc.
EQUIPMENT : WHP(Wireless Home Phone)
BRAND NAME : AT&T / LG
MODEL NAME : AF300, LGAF300,LG-AF300
FCC ID : ZNFAF300
STANDARD : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091, and pass the limit. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.



Reviewed by: Eric Huang / Deputy Manager



Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.



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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA442506	Rev. 01	Initial issue of report	May 14, 2014
FA442506	Rev. 02	Add the model name description on page 5.	May 19, 2014



1. Administration Data

1.1. Testing Laboratory

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978

1.2. Applicant

Company Name	LG Electronics Inc.
Address	22, Digital-ro 10-gil, Geumcheon-gu, Seoul gu, Korea

1.3. Manufacturer

Company Name	LG ELECTRONICS MOBILECOMM U.S.A., INC
Address	100 SYLVAN AVENUE ENGEWOOD CLIFFS, NEW JERSEY, 07632, U.S.A.

2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	WHP(Wireless Home Phone)
Brand Name	AT&T / LG
Model Name	AF300, LGAF300,LG-AF300
FCC ID	ZNFAF300
IMEI Code	014064000012047
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz
Mode	- GSM/GPRS class10 - AMR/RMC 12.2Kbps Rel 99
Antenna Type	PIFA Antenna
HW Version	Rev1.0
SW Version	AF30009i
EUT Stage	Identical Prototype
Remark: - The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description. - LG-AF300, AF300 and LGAF300 are same model and device. Only reason we need to listing for 3 kinds of model is Marketing propose.	

3. Maximum RF average output power among production units

Mode / Band			Maximum Average Power (dBm)
GSM	GSM850	GSM (GMSK, 1 Tx slot)	32.2
		GPRS (GMSK, 1 Tx slot)	32.2
		GPRS (GMSK, 2 Tx slots)	32.2
	GSM1900	GSM (GMSK, 1 Tx slot)	29.7
		GPRS (GMSK, 1 Tx slot)	29.7
		GPRS (GMSK, 2 Tx slots)	29.7
UMTS	Band V	AMR / RMC 12.2Kbps	23.7
	Band II	AMR / RMC 12.2Kbps	23.7

4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna



5. Radio Frequency Radiation Exposure Evaluation

5.1. Power Density Calculations

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)
GSM 850 (1 Tx slot)	824.2	0.31	32.2	32.510	1.782	224.388	0.045	0.549
GPRS 850 (1 Tx slot)	824.2	0.31	32.2	32.510	1.782	224.388	0.045	0.549
GPRS 850 (2 Tx slots)	824.2	0.31	32.2	32.510	1.782	447.713	0.089	0.549
GSM 1900 (1 Tx slot)	1850.2	3.55	29.7	33.250	2.113	266.073	0.053	1.000
GPRS 1900 (1 Tx slot)	1850.2	3.55	29.7	33.250	2.113	266.073	0.053	1.000
GPRS 1900 (2 Tx slots)	1850.2	3.55	29.7	33.250	2.113	530.884	0.106	1.000
WCDMA Band 5	826.4	0.31	23.7	24.010	0.252	251.768	0.050	0.551
WCDMA Band 2	1852.4	3.55	23.7	27.250	0.531	530.884	0.106	1.000

Note: For conservativeness, the lowest uplink frequency of each band is used to determine the MPE limit of that band.

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.