Test Report for FCC

Report Number		ESTF150711-003		
Applicant	Company name	LG Electronics Inc.		
	Address	60-39, Gasan-dong, Gumchon-gu, Seoul, 153-023, Korea		
	Telephone	82-2-2033-3847		
Product	Product name	GSM Phone		
	Model No.	KP110a, KP115a	Manufacturer	LG Electronics Inc.
	Serial No.	#1	Country of origin	KOREA
Test date	9-Nov-07		Date of issue	12-Nov-07
Testing location	ESTECH. Co., Ltd. 97-1 Hoiuk-Ri Majang-Myon, Icheon-city, KyungKi-Do, Korea			
Standard	FCC PART 15 2006 , ANSI C 63.4 2003			
Test item	■ Conducted Emission	□ Class A ■ Class B	Test result	**OK**
	■ Radiated Emission	□ Class A ■ Class B	Test result	**OK**
Measurement facility registration number		94696		
Tested by	Engineer M. J. Song	(Signature)		
Reviewed by	Engineering Manager J.M.Yang	(Signature)		
Abbreviation	OK, Pass = Passed, Fail = Failed, N/A = not applicable			

* Note
- Basic Model : KP110a
- Additional Models : KP115a
- Basic Model and Addition Models are same product,only model name is different.
- This test report is not permitted to copy partly without our permission
- This test result is dependent on only equipment to be used
- This test result based on a single evaluation of one sample of the above mentioned

Contents

1. Laboratory Information

1.1 General

This EUT (Equipment Under Test) has been shown to be capable of compliance with the applicable technical standards and is tested in accordance with the measurement procedures as indicated in this report.
ESTECH Lab attests to accuracy of test data. All measurement reported herein were performed by ESTECH Co., Ltd.
ESTECH Lab assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

1.2 Test Lab.

Corporation Name : ESTECH Co. Ltd

Head Office : Rm 1015, World Venture Center II, 426-5, Gasan-dong, Geumcheon-gu, Seoul, Kor
(Safety & Telecom. Test Lab)

EMC Test Lab : 58-1 Osan-Ri, GaNam-Myon, YeoJoo-Gun, KyungKi-Do, Korea
97-1 Hoiuk-Ri Majang-Myon, Icheon-city, KyungKi-Do, Korea

1.3 Official Qualification(s)

MIC : Granted Accreditation from Ministry of Information & Communication for EMC, Safety and Telecommunication
KOLAS : Accredited Lab By Korea Laboratory Accreditation Schema base on CENELEC requirements
FCC : Filed Laboratory at Federal Communications Commission
VCCI : Granted Accreditation from Voluntary Control Council for Interference from ITE

2. Description of EUT

2.1 Summary of Equipment Under Test

Product name : GSM Phone
Model Number : KP110a, KP115a
Serial Number : #1
Manufacturer : LG Electronics Inc.
Country of origin : KOREA
Rating : Supplied from Note PC
Receipt Date : 29-Oct-07

3. Test Standards

Test Standard : FCC PART 15 (2006)

This Standard sets out the regulations under which an intentional, unintentional, or incidental radiator may be operated without an individual license. It also contains the technical specifications, administrative requirements and other conditions relating to the marketing of Part 15 devices.

Test Method : ANSI C 63.4 (2003)

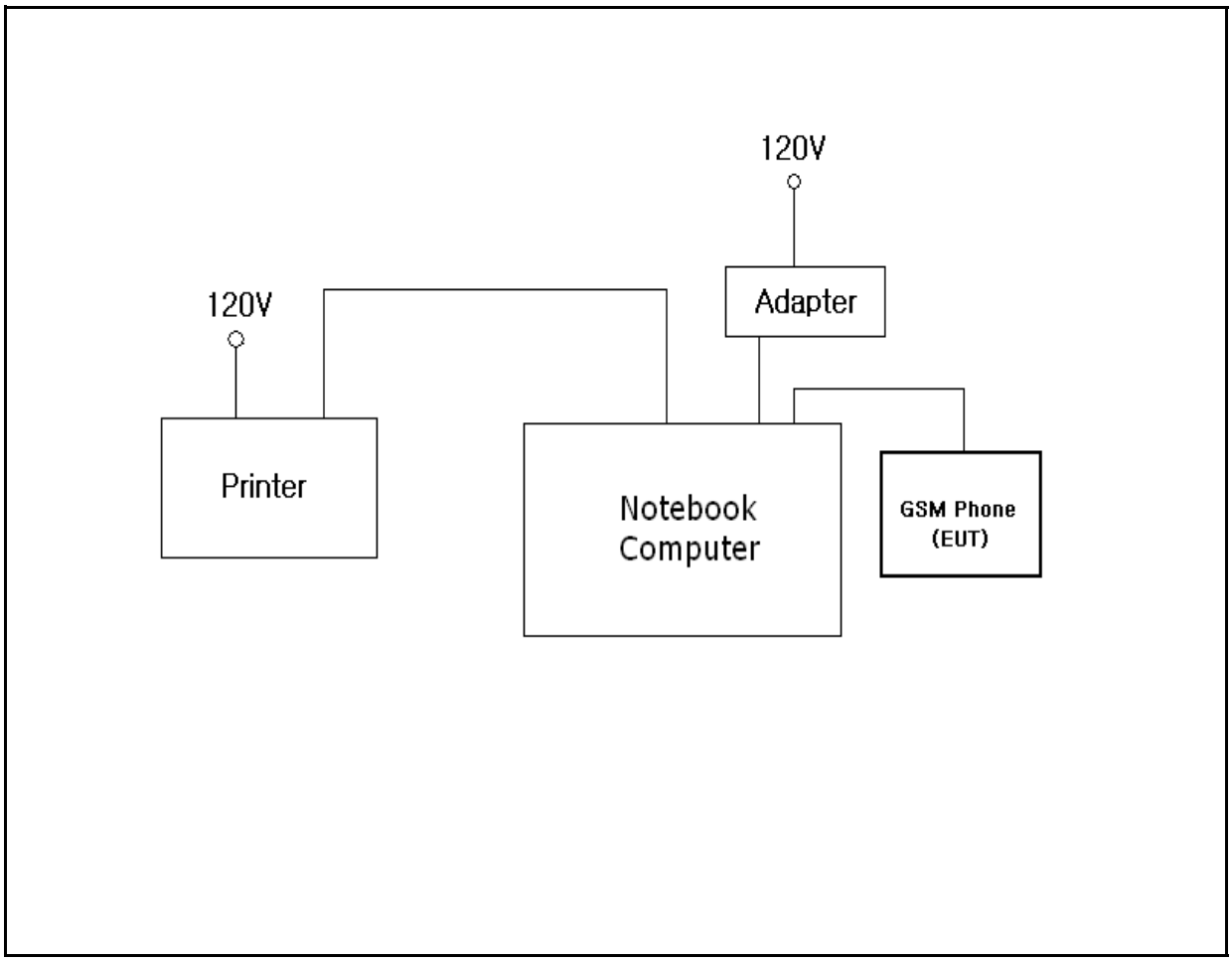
This standard sets forth uniform methods of measurement of radio-frequency (RF) signals and noise emitted from both unintentional and intentional emitters of RF energy in the frequency range 9 kHz to 40 GHz. Methods for the measurement of radiated and AC power-line conducted radio noise are covered and may be applied to any such equipment unless otherwise specified by individual equipment requirements. These methods cover measurement of certain decides that deliberately radiate energy, such as intentional emitters, but does not cover licensed transmitters. This standard is not intended for certification/approval of avionic equipment or for industrial, scientific, and medical (ISM) equipment These method apply to the measurement of individual units or systems comprised of multiple units

4. Measurement Condition

4.1 EUT Operation.

* The EUT was in the following operation mode during all testing
* The operational conditions of the EUT was determined by the manufacturer according to the typical use of the EUT with respect to the expected hightest level of emission.
* Connect the EUT to Note PC.
* Install sync program to Note PC.
* Transferred "H" character data between the phone and note pc during the test.

4.2 Configuration and Peripherals



4.3 EUT and Support equipment

Equipment Name	Model Name	S/N	Manufacturer	Remark (FCC ID)
GSM Phone	KP110a, KP115a	#1	LG Electronics Inc.	EUT
Notebook Computer	PPLLE	35748823888	Dell Asia Pacific Sdn.	
Adapter	PA-1650-05DK	DLL00	Dongguang Lite Power 2nd Plant	
Printer	LQ-570H+	B1021095782	Trigem Computer Inc.	

4.4 Cable Connecting

Start Equipment		End Equipment		Cable Standard		Remark
Name	I/O port	Name	I/O port	Length	Shielded	
GSM Phone	COM	Notebook Computer	Serial	1.5	Yes	
Notebook Computer	Parallel	Printer	Parallel	2	Yes	
Notebook Computer	DC Power	Adapter	-	2	No	

5. Measurement of radiated disturbance

Above 30 MHz Electric Field strength was measured in accordance with FCC Part 15 (2006) & ANSI C 63.4 (2003). The test setup was made according to FCC Part 15 (2006) & ANSI C 63.4 (2003) on an open test site, which allows a 3m distance measurement. The EUT was placed in the center of wooden turntable. The height of this table was 0.8m. The measurement was conducted with both horizontal and vertical antenna polarization. The turntable has fully rotated. For further description of the configuration refer to the picture of the test setup.

5.1 Measurement equipments

Equipment Name	Type	Manufacturer	Serial No.	Next Calibration date
TEST Receiver	ESVS10	Rohde & Schwarz	838562/002	2008. 1. 23
Spectrum Analyzer	R3261C	ADVANTEST	61720116	2008. 4. 20
LogBicon Antenna	VULB 9160	Schwarzbeck	3142	2008. 5. 07
Amplifier	8447F	HP	2805A02972	2008. 6. 26
Horm Antenna	BBHA 9120 D	Schwarzbeck	469	2008. 3. 31
Turn Table	2087	EMCO	2129	-
Antenna Mast	2070-01	EMCO	9702-203	-
ANT Mast Controller	2090	EMCO	1535	-
Turn Table Controller	2090	EMCO	1535	-

5.2 Environmental Condition

Test Place : Open site(3m)
Temperature (°C) : 20 °C
Humidity (%) : 48 %

5.3 Test data

Test Date : 9-Nov-07 Measurement Distance : 3 m

Frequency (MHz)	Reading (dBμV)	Position (V/H)	Height (m)	Correction Factor		Result Value		
				Ant Factor (dB)	Cable (dB)	Limit (dBμV/m)	Result (dBμV/m)	Margin (dB)
109.08	17.40	V	1.0	10.17	1.6	43.5	29.19	-14.31
113.10	16.50	V	1.0	10.54	1.6	43.5	28.69	-14.81
135.25	15.00	H	2.2	12.36	1.8	43.5	29.17	-14.33
198.79	13.70	V	1.0	9.71	2.2	43.5	25.63	-17.87
214.95	17.20	H	1.5	10.18	2.3	43.5	29.73	-13.77
218.06	17.10	H	1.4	10.30	2.4	46.0	29.78	-16.22
249.26	13.50	H	1.2	11.49	2.6	46.0	27.61	-18.39
300.17	14.20	H	1.1	13.11	3.0	46.0	30.29	-15.71
365.07	17.90	H	1.0	14.56	3.4	46.0	35.87	-10.13
400.02	16.30	H	1.0	15.31	3.6	46.0	35.19	-10.81
630.50	13.60	V	1.0	19.97	5.0	46.0	38.54	-7.46
900.41	6.20	H	1.0	23.22	6.5	46.0	35.89	-10.11

Remark	H : Horizontal, V : Vertical *Checked in all 3 axis and the maximum measured data were reported. *CL = Cable Loss-Amplifier Gain(In case of above1000Mhz) *CL = Cable Loss(In case of below1000Mhz) *The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120KHz for Quasi-peak detection at frequency below 1GHz.

6. Measurement of conducted disturbance

The continuous disturbance voltage of AC Mains in the frequency from 0.15 to 30 MHz was measured in accordance to FCC Part 15 (2006) & ANSI C 63.4 (2003) The test setup was made according to FCC Part 15 (2006) & ANSI C 63.4 (2003) in a shielded Room. The EUT was placed on a non-conductive table at least 80 above the ground plan. A grounded vertical reference plane was positioned in a distance of 40cm from the EUT. The distance from the EUT to other metal surfaces was at least 0.8m. The EUT was only earthen by its power cord through the line impedance stabilizing network. The power cord has been bundled to a length of 1.0m.. The test receiver with Quasi Peak detector complies with CISPR 16.

6.1 Measurement equipments

Equipment Name	Type	Manufacturer	Serial No.	Next Calibration date
LISN	ESH3-Z5	Schwarzbeck	838979/010	2008. 2. 28
LISN	NNLA8120A	Schwarzbeck	8120161	2008. 2. 28
TEST Receiver	ESPI7	Rohde & Schwarz	100185	2008. 8. 27
Pulse Limiter	ESH3Z2	Rohde & Schwarz	NONE	-

6.2 Environmental Condition

Test Place : Shielded Room
Temperature (°C) : 22 °C
Humidity (%) : 46 %

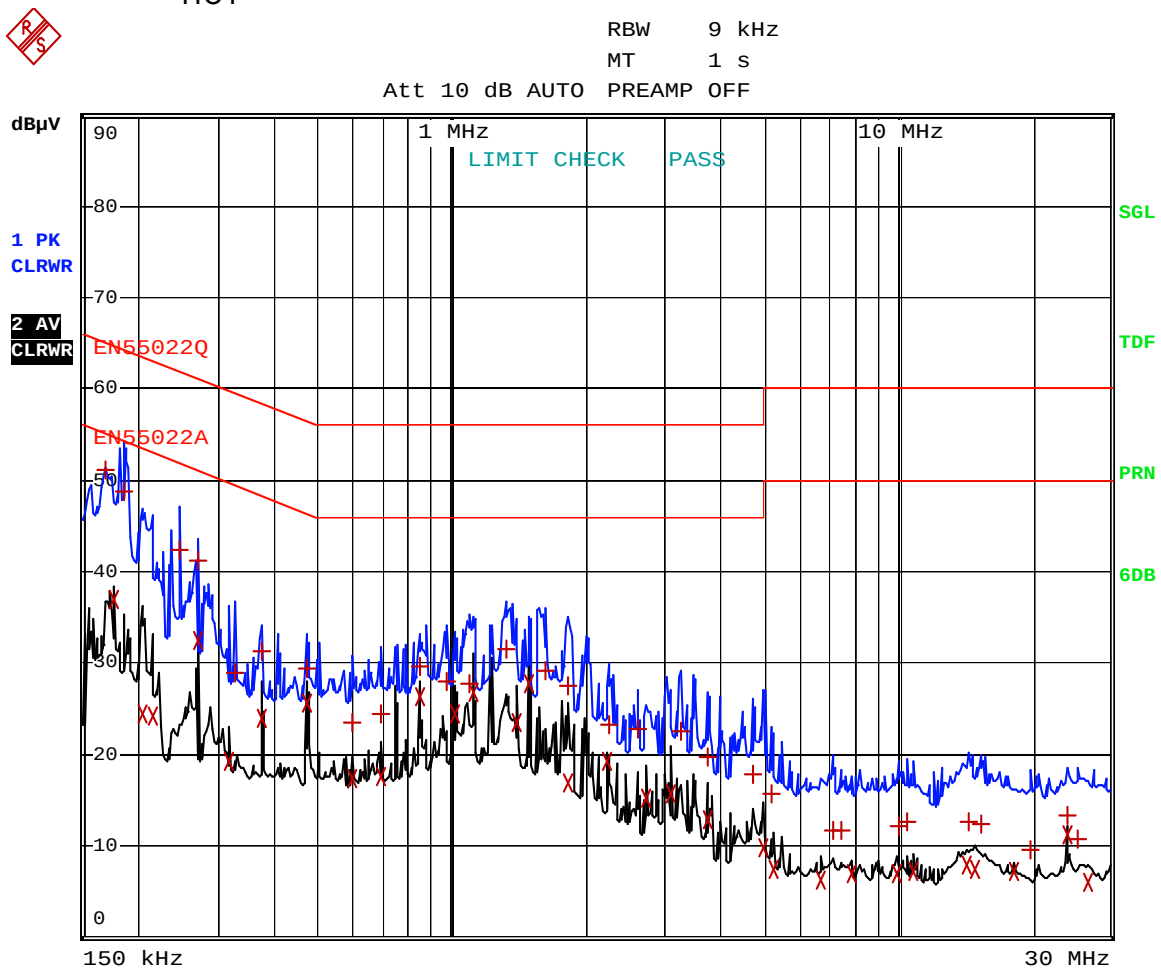
6.3 Test data

Test Date : 9-Nov-07

Frequency (MHz)	Correction Factor		Line (H/N)	Quasi-peak Value			Average Value		
	Lisn (dB)	Cable (dB)		Limit (dBμV)	Reading (dBμV)	Result (dBμV)	Limit (dBμV)	Reading (dBμV)	Result (dB)
0.17	0.15	0.0	N	64.86	53.18	53.37	54.86	39.43	39.62
0.18	0.14	0.0	N	64.53	50.33	50.52	54.53	32.80	32.99
0.19	0.14	0.0	H	64.26	48.80	48.98	54.26	24.53	24.71
0.24	0.12	0.1	N	61.99	39.47	39.65	51.99	27.64	27.82
0.25	0.12	0.1	H	61.89	42.31	42.49	51.89	24.17	24.35
0.27	0.13	0.1	H	61.09	41.32	41.51	51.09	32.43	32.62
0.85	0.21	0.1	H	56.00	29.60	29.95	46.00	26.40	26.75
1.10	0.25	0.2	H	56.00	27.81	28.23	46.00	24.35	24.77
1.32	0.26	0.2	H	56.00	31.43	31.88	46.00	23.57	24.02
1.56	0.27	0.2	N	56.00	29.30	29.78	46.00	27.72	28.20
1.62	0.27	0.2	H	56.00	29.23	29.72	46.00	27.65	28.14
1.81	0.28	0.2	N	56.00	27.82	28.33	46.00	18.62	19.13
5.23	0.39	0.5	H	60.00	15.73	16.62	50.00	7.46	8.35
5.24	0.39	0.5	N	60.00	16.51	17.40	50.00	8.28	9.17
14.46	0.81	1.0	H	60.00	12.74	14.50	50.00	7.48	9.24
14.79	0.82	1.0	N	60.00	13.11	14.90	50.00	7.98	9.77
15.24	0.83	1.0	N	60.00	13.09	14.91	50.00	8.02	9.84
24.03	0.93	1.3	H	60.00	13.43	15.63	50.00	11.21	13.41
Remark	H : Hot Line, N : Neutral Line								

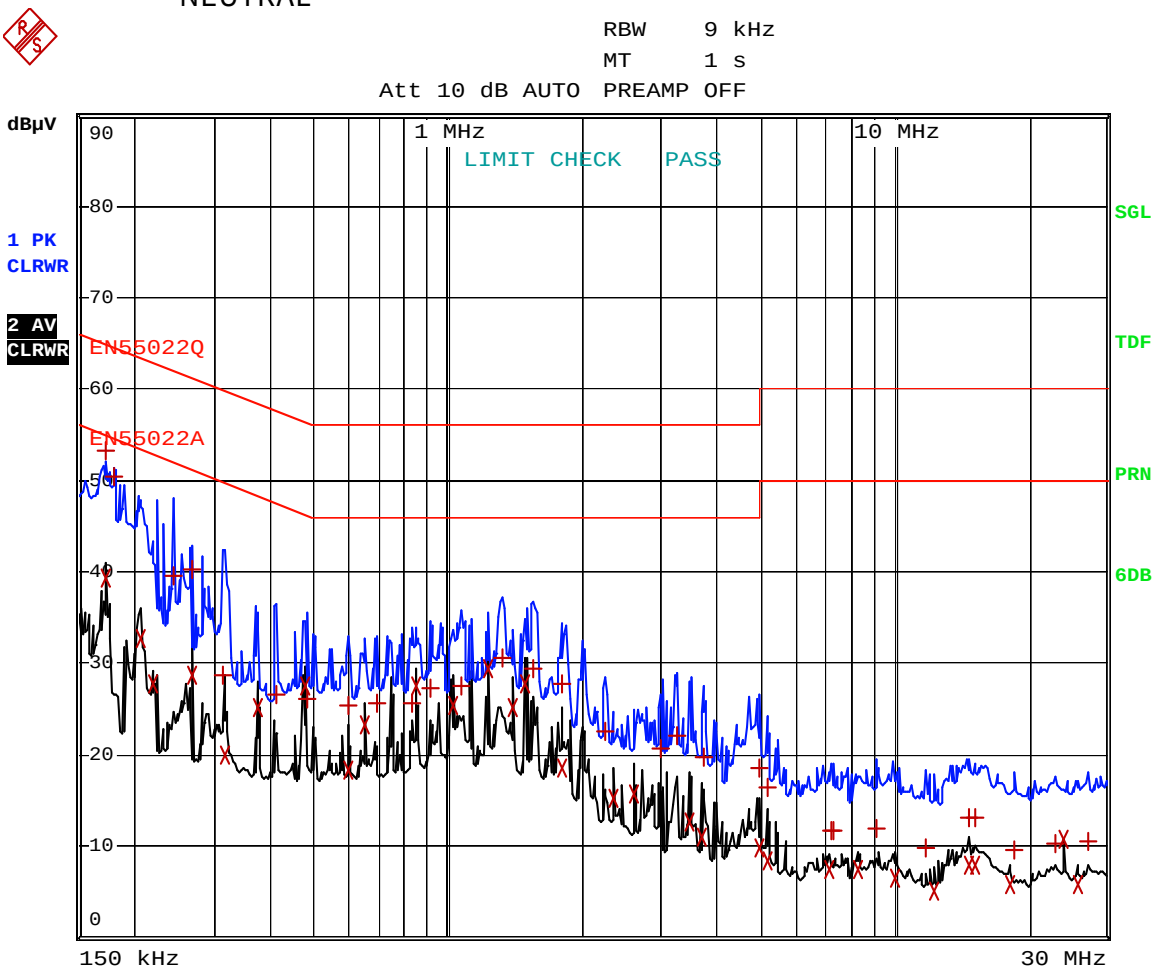
Appendix 1. Spectral diagram

*HOT



Comment: KP110a HOT
Date: 9.NOV.2007 10:08:07

*NEUTRAL



Comment: KP110a NEUTRAL
Date: 9.NOV.2007 10:03:04