

EMI CERTIFICATION REPORT

Applicant:

LG Electronics MobileComm U.S.A., Inc.
1000 Sylvan Avenue, Englewood Cliffs NJ 07632

Date of Receipt: April 02, 2014

Date of Issue: April 15, 2014

Test Report No. HCT-E-1404-F026

HCT FRN: 0005866421

FCC ID:

ZNFD725

Rule Part(s) / Standard(s) : FCC PART 15 Subpart B Class B
EUT Type : Multi-band GSM/EDGE/WCDMA/LTE Phone with WLAN,
Bluetooth & RFID
Model Name : LG-D725
Additional Model Name : LGD725, D725
Port / Connector(s) : USB / Earphone Port
Date of Test : April 11, 2014 - April 12, 2014

The device bearing the trade name and model specified above, has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2003. (See Test Report if any modifications were made for compliance)

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

HCT certifies that no party to application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C 862

Tested By



Gyeong-Seon Kim
Test Engineer
EMC Team
Certification Division

Reviewed By



Sang-Jun Lee
Technical Manager
EMC Team
Certification Division

This report only responds to the tested sample and may not be reproduced, except in full, without written approval of the HCT Co., Ltd.



DOCUMENT HISTORY

The revision history for this document is shown in table.

Version	Date	Description
HCT-E-1404-F026	April 15, 2014	Initial Release



TABLE OF CONTENTS

	PAGE
1. GENERAL INFORMATION	4
1.1 Description of EUT	4
1.2 Related Submittal(s) / Grant(s).....	4
1.3 Test Facility	5
1.4 Tested System Details.....	6
1.5 Cable Description	7
1.6 Noise Suppression Parts on Cable. (I/O Cable)	7
2. DESCRIPTION OF TEST	8
3. PRELIMINARY TEST	11
3.1 Conducted Emission Test	11
3. 2 Radiated Emission Test	11
4. CONDUCTED AND RADIATED EMISSION TEST SUMMARY	12
4.1 Conducted Emission Test	12
4.2 Radiated Emission Test	13
5. LIST OF TEST EQUIPMENT	26
6. CONCLUSION	27

ATTACHMENT: TEST SETUP PHOTOGRAPHS



1. GENERAL INFORMATION

1.1 Description of EUT

Equipment Under Test is manufactured by **LG Electronics MobileComm U.S.A., Inc.**
Its basic purpose is used for communications.

Model	LG-D725
FCC ID	ZNFD725
Additional Model	LGD725, D725
EUT Type	Multi-band GSM/EDGE/WCDMA/LTE Phone with WLAN, Bluetooth & RFID
TX Frequency	824.20 MHz to 848.80 MHz (GSM 850) 1 850.20 MHz to 1 909.80 MHz (GSM 1 900) 826.40 MHz to 846.60 MHz (WCDMA 850) 1 852.4 MHz to 1 907.6 MHz (WCDMA 1 900) 1 850.7 MHz to 1 909.3 MHz (LTE B2) 1 710 MHz to 1 755 MHz (LTE B4) 824 MHz to 849 MHz (LTE B5) 2500 MHz to 2570 MHz (LTE B7) 704 MHz to 716 MHz (LTE B17)
RX Frequency	869.20 MHz to 893.80 MHz (GSM 850) 1 930.20 MHz to 1 989.80 MHz (GSM 1 900) 871.40 MHz to 891.60 MHz (WCDMA 850) 1 932.4 MHz to 1 987.6 MHz (WCDMA 1 900) 1 930.00 MHz to 1 990.00 MHz (LTE B2) 2 110 MHz to 2 155 MHz (LTE B4) 869 MHz to 894 MHz (LTE B5) 2620 MHz to 2690 MHz (LTE B7) 734 MHz to 746 MHz (LTE B17)

1.2 Related Submittal(s) / Grant(s)

Original submittal only.



1.3 Test Facility

Test site is located at 74, SEOICHEON-RO, 578BEON-GIL, MAJANG-MYEON, ICHEON-SI, GYEONGGI-DO, SOUTH KOREA. Those measurement facilities are constructed in conformance with the requirements of ANSI C63.4-2003.

Measurement Facilities	Reg. No.
Radiated Field strength measurement facility (3 m)	90661 (February 28, 2014)
Radiated Field strength measurement facility (10 m)	90661 (February 28, 2014)



1.4 Tested System Details

All equipment descriptions used in the tested system (including inserted cards) are:

Device Type	Model Name	Manufacturer	FCC ID / DoC	Connected To
EUT	LG-D725	LG	ZNFD725	Notebook PC Ear-phone
USB cable	BD/EAD62572502	Ningbo Broad	-	EUT Notebook PC
USB cable	EAD62572501	CRESYN	-	EUT Notebook PC
Ear-phone	EAB62729001	I-SOUND	-	EUT
Standard cover	-	LG	-	EUT
Wireless charger cover	-	LG	-	EUT
Notebook PC	ProBook6560b	H.P	DoC	EUT Notebook PC adaptor
Notebook PC adaptor	PPP009D	DELTA Electronics (JIANGSU)LTD	-	Notebook PC
Gateway	MV440	Axesstel	PH7MV440	Notebook PC, Adaptor
Mouse	Serial 2 button mouse	Radio shack	FSUGMZE3	Notebook PC
Adaptor	DA-60M12	Yang Ming Industrial	-	Gateway
RJ45 cable	-	-	-	Notebook PC, Gateway
Micro SD Card	8 GB	SanDisk	-	EUT



1.5 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (m)
EUT	Micro USB	Y	Y	(P,D)1.0
	Ear-phone	N/A	N	(D)1.2
Notebook PC	RJ 45	N/A	N	(D)1.5
	Serial (Mouse)	N/A	Y	(D)1.8
	DC in	N	N/A	(P)1.8
Gateway	DC in	N	N/A	(P)1.8

* The marked "(D)" means the data cable and "(P)" means the power cable.

1.6 Noise Suppression Parts on Cable. (I/O Cable)

Product Name	Port	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
EUT	Micro USB	N	N/A	Y	Both End
	Ear-phone	N	N/A	Y	EUT End
Notebook PC	RJ 45	N	N/A	N	N/A
	Serial (Mouse)	N	N/A	Y	Notebook PC End



2. DESCRIPTION OF TEST

2.1 Measurement of Conducted Emission

The test procedure was in accordance with ANSI C63.4-2003, Clause 7

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both conducted lines are measured in Quasi-Peak and Average mode, including the worst-case data points for each tested configuration.
- c. The frequency range from 150 kHz to 30 MHz was searched.

[Conducted Emission Limits]

Frequency (MHz)	Resolution Bandwidth	Quasi-Peak(dB μ V)	Average(dB μ V)
0.15 to 0.5	9 kHz	66 to 56*	56 to 46*
0.5 to 5	9 kHz	56	46
5 to 30	9 kHz	60	50

**Decreases with the logarithm of the frequency.*



2.2 Measurement of Radiated Emission

The test procedure was in accordance with ANSI C63.4-2003, Clause 8

- a. The EUT was placed on the top of a turn table 0.8 meters above the ground at a 3 m shield room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 m away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from 1 m to 4 m 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.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 m to 4 m and the turn table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to Peak and Average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- g. The antenna height scans apply for both horizontal and vertical polarizations, except that for vertical polarization, the minimum height of the center of the antenna shall be increased so that the lowest point of the bottom of the lowest antenna element clears the site reference ground plane by at least 25 cm. (below 1 GHz)

[Radiated Emission Limits]

Frequency (MHz)	Antenna Distance (m)	Field Strength ($\mu V/m$)	Quasi-Peak (dB $\mu V/m$)
30 to 88	3	100	40.0
88 to 216	3	150	43.5
216 to 960	3	200	46.0
Above 960	3	500	54.0
Frequency (MHz)	Antenna Distance (m)	Peak (dB $\mu V/m$)	Average (dB $\mu V/m$)
Above 1 000	3	74	54

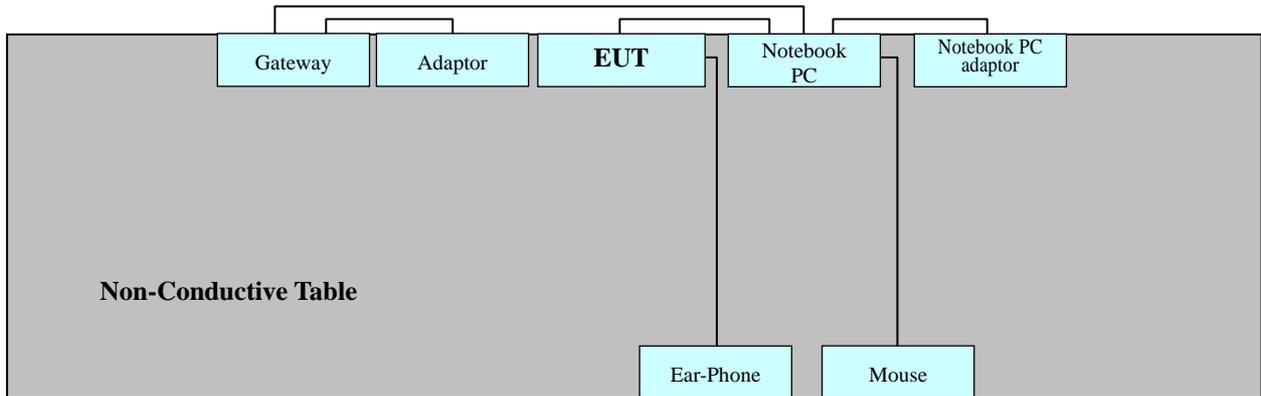


2.2.1 Frequency Range of Radiated Measurements

An unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a Radiated Emission limit is specified, up to the frequency shown in the following table

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 to 108	1 000
108 to 500	2 000
500 to 1 000	5 000
Above 1 000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

2.3 Configuration of Tested System



Power Line: 120 VAC, 60 Hz



3. PRELIMINARY TEST

3.1 Conducted Emission Test

■ It was tested Data Communication mode, after connecting all peripheral devices.

Operation Mode: Data Communication mode

Test Configuration: USB cable (Ningbo) & Standard cover
 USB cable (CRESYN) & Standard cover
 USB cable (Ningbo) & Wireless charger cover
 USB cable (CRESYN) & Wireless charger cover

※The worst-case emissions are reported.

3. 2 Radiated Emission Test

■ It was tested Data Communication mode, after connecting all peripheral devices.

Operation Mode: Data Communication mode

Test Configuration: USB cable (Ningbo) & Standard cover
 USB cable (CRESYN) & Standard cover
 USB cable (Ningbo) & Wireless charger cover
 USB cable (CRESYN) & Wireless charger cover

※The worst-case emissions are reported.



4. CONDUCTED AND RADIATED EMISSION TEST SUMMARY

4.1 Conducted Emission Test

The following table shows the highest levels of conducted emissions on both polarization of hot and neutral line.

Limit Apply to	: FCC PART 15 Subpart B Class B
Detector	: Quasi-Peak, Average (6 dB Bandwidth: 9 kHz)
Operation Mode	: Data Communication mode
Battery & USB Cable Type	: Standard Cover & CRESYN
	※ The worst-case emissions are reported.
Temperature	: 21.8°C
Humidity Level	: 33.8 %
Test Date	: April 11, 2014

Frequency (MHz)	Corr. (dB)	Conductor	Quasi-Peak			Average		
			Limit (dBuV)	Measurement Level (dBuV)	Result Level (dBuV)	Limit (dBuV)	Measurement Level (dBuV)	Result Level (dBuV]
0.1500	9.7	N	66.0	38.2	47.9	56.0	13.1	22.8
0.1500	9.7	L1	66.0	37.8	47.5	56.0	12.7	22.4
0.1995	9.7	L1	63.6	39.7	49.4	53.6	22.9	32.6
0.1995	9.7	N	63.6	40.0	49.7	53.6	22.6	32.3
0.2580	9.7	N	61.5	33.0	42.7	51.5	-	-
0.2085	9.7	L1	63.3	37.8	47.5	53.3	-	-

※ Calculation Formula:

1. Conductor L1 = Hot, Conductor N = Neutral
 2. Corr. = LISN Factor + Cable Loss
 3. Measurement Level (Receiver Reading) = Result Level - Corr.
 4. Result Level = Measurement Level + Corr.
- * 'Result Level' in above table is same as the 'Quasi-Peak' and 'CAverage' of the Test Data Graph (Refer to page 13 to page 16 for details.)



- Test Data Graph

EMI Auto Test(2)

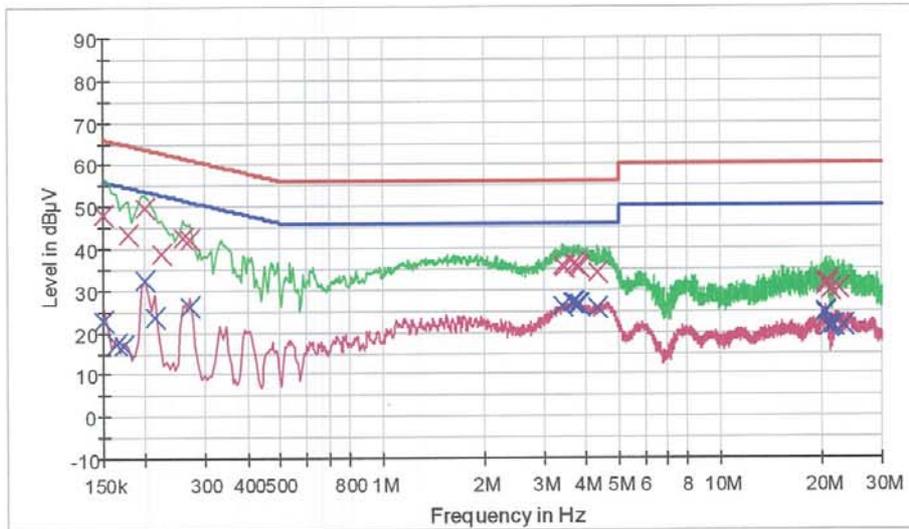
1 / 2

HCT TEST Report

Common Information

EUT: LG-D725
 Manufacturer: LG
 Test Site: SHIELD ROOM
 Operating Conditions: DATA MODE(CRESYN)(STANDARD COVER)
 Operator Name:

FCC CLASS B



— FCC CLASS B_QP
 — FCC CLASS B_AV
 — Preview Result 1-PK+
— Preview Result 2-AVG
 x Final Result 1-QPK
 x Final Result 2-CAV

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	47.9	9.000	Off	N	9.7	18.1	66.0
0.177000	43.5	9.000	Off	N	9.7	21.1	64.6
0.199500	49.7	9.000	Off	N	9.7	13.9	63.6
0.222000	38.5	9.000	Off	N	9.7	24.2	62.7
0.258000	42.7	9.000	Off	N	9.7	18.8	61.5
0.271500	42.0	9.000	Off	N	9.7	19.1	61.1
3.398000	35.8	9.000	Off	N	10.0	20.2	56.0
3.438500	35.3	9.000	Off	N	10.0	20.7	56.0
3.681500	36.1	9.000	Off	N	10.0	19.9	56.0
3.780500	35.8	9.000	Off	N	10.0	20.2	56.0
3.843500	35.4	9.000	Off	N	10.0	20.6	56.0
4.320500	34.3	9.000	Off	N	10.1	21.7	56.0
20.394500	31.4	9.000	Off	N	10.8	28.6	60.0
20.462000	31.4	9.000	Off	N	10.8	28.6	60.0
20.534000	31.3	9.000	Off	N	10.8	28.7	60.0
20.543000	31.8	9.000	Off	N	10.8	28.2	60.0

4/11/2014

7:45:35



EMI Auto Test(2)

2 / 2

Frequency (MHz)	QuasiPeak (dB μ V)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
21.105500	29.9	9.000	Off	N	10.9	30.1	60.0
22.446500	30.5	9.000	Off	N	10.9	29.5	60.0

Final Result 2

Frequency (MHz)	CAverage (dB μ V)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.150000	22.8	9.000	Off	N	9.7	33.2	56.0
0.163500	17.4	9.000	Off	N	9.7	37.9	55.3
0.172500	16.9	9.000	Off	N	9.7	37.9	54.8
0.199500	32.3	9.000	Off	N	9.7	21.3	53.6
0.213000	23.7	9.000	Off	N	9.7	29.4	53.1
0.271500	26.1	9.000	Off	N	9.7	25.0	51.1
3.398000	25.9	9.000	Off	N	10.0	20.1	46.0
3.663500	27.0	9.000	Off	N	10.0	19.0	46.0
3.681500	26.8	9.000	Off	N	10.0	19.2	46.0
3.780500	26.5	9.000	Off	N	10.0	19.5	46.0
3.807500	26.4	9.000	Off	N	10.0	19.6	46.0
4.320500	25.6	9.000	Off	N	10.1	20.4	46.0
20.394500	24.9	9.000	Off	N	10.8	25.1	50.0
20.462000	24.5	9.000	Off	N	10.8	25.5	50.0
20.903000	21.3	9.000	Off	N	10.8	28.7	50.0
21.105500	21.4	9.000	Off	N	10.9	28.6	50.0
21.614000	21.4	9.000	Off	N	10.9	28.6	50.0
23.013500	21.4	9.000	Off	N	10.9	28.6	50.0

4/11/2014

7:45:35



EMI Auto Test(2)

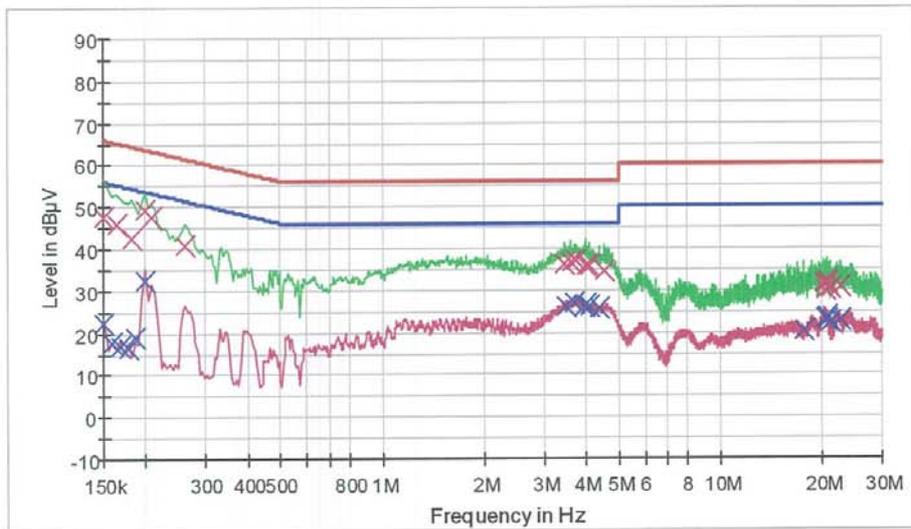
1 / 2

HCT TEST Report

Common Information

EUT: LG-D725
 Manufacturer: LG
 Test Site: SHIELD ROOM
 Operating Conditions: DATA MODE(CRESYN)(STANDARD COVER)
 Operator Name:

FCC CLASS B



— FCCCLASS B_QP — FCCCLASS B_AV — Preview Result 1-PK+
 — Preview Result 2-AVG x Final Result 1-CPK x Final Result 2-CAV

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	47.5	9.000	Off	L1	9.7	18.5	66.0
0.163500	45.7	9.000	Off	L1	9.7	19.6	65.3
0.181500	42.6	9.000	Off	L1	9.7	21.8	64.4
0.199500	49.4	9.000	Off	L1	9.7	14.2	63.6
0.208500	47.5	9.000	Off	L1	9.7	15.8	63.3
0.262500	41.0	9.000	Off	L1	9.7	20.4	61.4
3.470000	36.4	9.000	Off	L1	10.0	19.6	56.0
3.609500	36.7	9.000	Off	L1	10.0	19.3	56.0
3.753500	37.0	9.000	Off	L1	10.0	19.0	56.0
3.978500	35.6	9.000	Off	L1	10.0	20.4	56.0
4.109000	35.9	9.000	Off	L1	10.1	20.1	56.0
4.532000	34.6	9.000	Off	L1	10.1	21.4	56.0
20.273000	31.6	9.000	Off	L1	10.9	28.4	60.0
20.498000	29.9	9.000	Off	L1	10.9	30.1	60.0
20.615000	31.9	9.000	Off	L1	10.9	28.1	60.0
20.691500	31.4	9.000	Off	L1	10.9	28.6	60.0

4/11/2014

7:38:09



EMI Auto Test(2)

2 / 2

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
21.033500	30.5	9.000	Off	L1	11.0	29.5	60.0
22.730000	30.7	9.000	Off	L1	11.0	29.3	60.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	22.4	9.000	Off	L1	9.7	33.6	56.0
0.159000	17.6	9.000	Off	L1	9.7	37.9	55.5
0.168000	16.9	9.000	Off	L1	9.7	38.2	55.1
0.177000	16.4	9.000	Off	L1	9.7	38.2	54.6
0.186000	19.2	9.000	Off	L1	9.7	35.0	54.2
0.199500	32.6	9.000	Off	L1	9.7	21.0	53.6
3.488000	26.3	9.000	Off	L1	10.0	19.7	46.0
3.686000	27.2	9.000	Off	L1	10.0	18.8	46.0
3.965000	26.3	9.000	Off	L1	10.0	19.7	46.0
3.978500	26.4	9.000	Off	L1	10.0	19.6	46.0
4.109000	26.1	9.000	Off	L1	10.1	19.9	46.0
4.392500	25.7	9.000	Off	L1	10.1	20.3	46.0
17.708000	20.4	9.000	Off	L1	10.8	29.6	50.0
20.498000	23.2	9.000	Off	L1	10.9	26.8	50.0
20.682500	23.6	9.000	Off	L1	10.9	26.4	50.0
20.691500	22.9	9.000	Off	L1	10.9	27.1	50.0
21.033500	22.2	9.000	Off	L1	11.0	27.8	50.0
22.730000	22.6	9.000	Off	L1	11.0	27.4	50.0

4/11/2014

7:38:09



Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Quasi-Peak, Average (6 dB Bandwidth: 9 kHz)

Operation Mode : Data Communication mode

Battery & USB Cable Type : Wireless Charger Cover & Ningbo

※ The worst-case emissions are reported.

Temperature : 21.8°C

Humidity Level : 33.8 %

Test Date : April 11, 2014

Frequency (MHz)	Corr. (dB)	Conductor	Quasi-Peak			Average		
			Limit (dBuV)	Measurement Level (dBuV)	Result Level (dBuV)	Limit (dBuV)	Measurement Level (dBuV)	Result Level (dBuV)
0.1500	9.7	N	66.0	38.3	48.0	56.0	13.1	22.8
0.1545	9.7	L1	65.8	37.4	47.1	55.8	-	-
0.1995	9.7	L1	63.6	39.4	49.1	53.6	-	-
0.1950	9.7	N	63.8	40.1	49.8	53.8	21.4	31.1
0.2130	9.7	L1	63.1	35.7	45.4	53.1	-	-
3.7490	10.0	N	56.0	26.4	36.4	46.0	16.9	26.9

※ Calculation Formula:

1. Conductor L1 = Hot, Conductor N = Neutral
2. Corr. = LISN Factor + Cable Loss
3. Measurement Level (Receiver Reading) = Result Level - Corr.
4. Result Level = Measurement Level + Corr.

* 'Result Level' in above table is same as the 'Quasi-Peak' and 'CAverage' of the Test Data Graph (Refer to page 18 to page 21 for details.)



- Test Data Graph

EMI Auto Test(2)

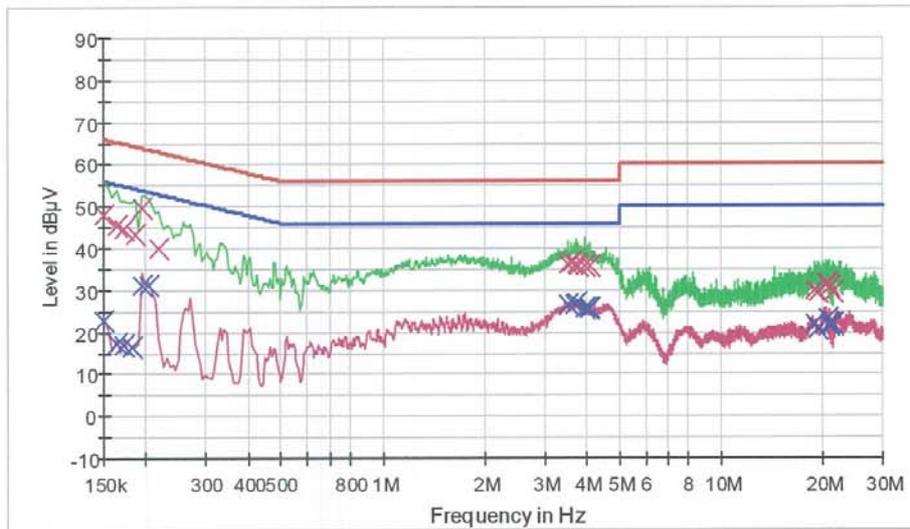
1 / 2

HCT TEST Report

Common Information

EUT: LG-D725
 Manufacturer: LG
 Test Site: SHIELD ROOM
 Operating Conditions: DATA MODE(NINGBO)(WIRELESS CHARGER COVER)
 Operator Name:

FCC CLASS B



— FCCCLASS_B_QP — FCCCLASS_B_AV — Preview Result 1-PK+
 — Preview Result 2-AVG X Final Result 1-QPK X Final Result 2-CAV

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	48.0	9.000	Off	N	9.7	18.0	66.0
0.163500	45.6	9.000	Off	N	9.7	19.7	65.3
0.172500	44.5	9.000	Off	N	9.7	20.3	64.8
0.186000	43.2	9.000	Off	N	9.7	21.0	64.2
0.195000	49.8	9.000	Off	N	9.7	14.0	63.8
0.217500	39.9	9.000	Off	N	9.7	23.0	62.9
3.542000	36.1	9.000	Off	N	10.0	19.9	56.0
3.609500	36.5	9.000	Off	N	10.0	19.5	56.0
3.749000	36.4	9.000	Off	N	10.0	19.6	56.0
3.771500	36.0	9.000	Off	N	10.0	20.0	56.0
3.965000	35.9	9.000	Off	N	10.1	20.1	56.0
4.109000	35.7	9.000	Off	N	10.1	20.3	56.0
18.905000	29.9	9.000	Off	N	10.8	30.1	60.0
19.260500	29.3	9.000	Off	N	10.8	30.7	60.0
20.462000	31.7	9.000	Off	N	10.8	28.3	60.0
20.678000	31.5	9.000	Off	N	10.8	28.5	60.0

4/11/2014

8:11:51



EMI Auto Test(2)

2 / 2

Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
20.826500	30.9	9.000	Off	N	10.8	29.1	60.0
21.240500	29.5	9.000	Off	N	10.9	30.5	60.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	22.8	9.000	Off	N	9.7	33.2	56.0
0.163500	17.2	9.000	Off	N	9.7	38.1	55.3
0.172500	17.1	9.000	Off	N	9.7	37.7	54.8
0.181500	16.6	9.000	Off	N	9.7	37.8	54.4
0.195000	31.1	9.000	Off	N	9.7	22.7	53.8
0.204000	31.1	9.000	Off	N	9.7	22.3	53.4
3.542000	26.6	9.000	Off	N	10.0	19.4	46.0
3.686000	26.7	9.000	Off	N	10.0	19.3	46.0
3.749000	26.9	9.000	Off	N	10.0	19.1	46.0
3.965000	25.8	9.000	Off	N	10.1	20.2	46.0
4.032500	25.6	9.000	Off	N	10.1	20.4	46.0
4.104500	25.8	9.000	Off	N	10.1	20.2	46.0
18.905000	22.0	9.000	Off	N	10.8	28.0	50.0
19.260500	20.8	9.000	Off	N	10.8	29.2	50.0
20.678000	23.0	9.000	Off	N	10.8	27.0	50.0
20.826500	22.1	9.000	Off	N	10.8	27.9	50.0
20.894000	21.5	9.000	Off	N	10.8	28.5	50.0
21.240500	22.1	9.000	Off	N	10.9	27.9	50.0

4/11/2014

8:11:51



EMI Auto Test(2)

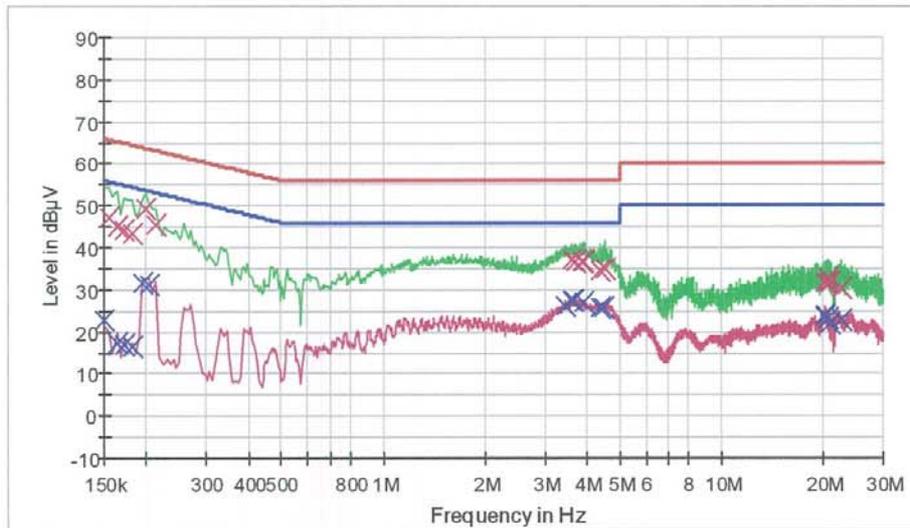
1 / 2

HCT TEST Report

Common Information

EUT: LG-D725
 Manufacturer: LG
 Test Site: SHIELD ROOM
 Operating Conditions: DATA MODE(NINGBO)(WIRELESS CHARGER COVER)
 Operator Name:

FCC CLASS B



— FCCCLASS B_QP — FCCCLASS B_AV — Preview Result 1-PK+
 — Preview Result 2-AVG X Final Result 1-QPK X Final Result 2-CAV

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154500	47.1	9.000	Off	L1	9.7	18.7	65.8
0.163500	45.2	9.000	Off	L1	9.7	20.1	65.3
0.172500	44.1	9.000	Off	L1	9.7	20.7	64.8
0.181500	43.3	9.000	Off	L1	9.7	21.1	64.4
0.199500	49.1	9.000	Off	L1	9.7	14.5	63.6
0.213000	45.4	9.000	Off	L1	9.7	17.7	63.1
3.609500	37.1	9.000	Off	L1	10.0	19.0	56.0
3.681500	36.8	9.000	Off	L1	10.0	19.2	56.0
3.852500	36.5	9.000	Off	L1	10.0	19.5	56.0
3.893000	36.4	9.000	Off	L1	10.0	19.6	56.0
4.388000	34.6	9.000	Off	L1	10.1	21.4	56.0
4.532000	34.9	9.000	Off	L1	10.1	21.1	56.0
20.178500	31.5	9.000	Off	L1	10.9	28.5	60.0
20.268500	31.6	9.000	Off	L1	10.9	28.4	60.0
20.678000	31.6	9.000	Off	L1	10.9	28.4	60.0
20.745500	32.7	9.000	Off	L1	10.9	27.3	60.0

4/11/2014

8:05:59



EMI Auto Test(2)

2 / 2

Frequency (MHz)	QuasiPeak (dB μ V)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
20.889500	31.5	9.000	Off	L1	11.0	28.5	60.0
22.662500	30.3	9.000	Off	L1	11.0	29.7	60.0

Final Result 2

Frequency (MHz)	CAverage (dB μ V)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.150000	22.7	9.000	Off	L1	9.7	33.3	56.0
0.163500	17.4	9.000	Off	L1	9.7	37.9	55.3
0.172500	16.9	9.000	Off	L1	9.7	37.9	54.8
0.181500	16.4	9.000	Off	L1	9.7	38.0	54.4
0.195000	31.6	9.000	Off	L1	9.7	22.2	53.8
0.204000	31.3	9.000	Off	L1	9.7	22.1	53.4
3.443000	26.1	9.000	Off	L1	10.0	19.9	46.0
3.609500	27.4	9.000	Off	L1	10.0	18.6	46.0
3.654500	27.2	9.000	Off	L1	10.0	18.8	46.0
3.893000	27.0	9.000	Off	L1	10.0	19.0	46.0
4.388000	25.8	9.000	Off	L1	10.1	20.2	46.0
4.460000	25.8	9.000	Off	L1	10.1	20.2	46.0
20.088500	23.8	9.000	Off	L1	10.9	26.2	50.0
20.178500	24.1	9.000	Off	L1	10.9	25.9	50.0
20.678000	23.3	9.000	Off	L1	10.9	26.7	50.0
20.745500	23.1	9.000	Off	L1	10.9	26.9	50.0
20.889500	21.8	9.000	Off	L1	11.0	28.2	50.0
22.662500	22.7	9.000	Off	L1	11.0	27.3	50.0

4/11/2014

8:05:59



4.2 Radiated Emission Test

The following table shows the highest levels of Radiated Emissions on both polarization of horizontal and vertical.

-For Measurement Below 1 GHz

Limit Apply to	: FCC PART 15 Subpart B Class B
Detector	: Quasi-Peak
6 dB Bandwidth:	: RBW 120 kHz, VBW 300 kHz
Operation Mode	: Data Communication mode
Battery & USB Cable Type	: Standard Cover & CRESYN ※ The worst-case emissions are reported.
Temperature	: 22.5°C
Humidity Level	: 31.3 %
Test Date	: April 12, 2014

Frequency (MHz)	Reading (dBuV)	Polarity (H/V)	Antenna Height (m)	Correction Factor		Limit (dBuV/m)	Total Level (dBuV/m)	Margin (dB)
				Antenna (dB/m)	Cable (dB)			
62.5	20.3	V	1.0	11.5	3.6	40.0	35.4	4.6
85.4	20.4	H	3.1	7.7	3.7	40.0	31.8	8.2
111.6	20.5	H	2.9	10.7	3.8	43.5	35.0	8.5
125.0	19.9	V	1.0	12.0	3.9	43.5	35.8	7.7
199.9	20.4	H	1.9	9.8	4.2	43.5	34.4	9.1
400.0	18.6	H	1.0	15.6	4.9	46.0	39.1	6.9

※ Calculation Formula:

1. Polarity H = Horizontal, Polarity V = Vertical
2. Reading (Receiver Reading) = Total Level – Correction Factor
3. Margin = Limit - Total Level
4. Total Level = Quasi-Peak



Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Quasi-Peak

6 dB Bandwidth: : RBW 120 kHz, VBW 300 kHz

Operation Mode : Data Communication mode

Battery & USB Cable Type : Wireless Charger Cover & CRESYN
 ※ The worst-case emissions are reported.

Temperature : 22.5°C

Humidity Level : 31.3 %

Test Date : April 12, 2014

Frequency (MHz)	Reading (dBuV)	Polarity (H/V)	Antenna Height (m)	Correction Factor		Limit (dBuV/m)	Total Level (dBuV/m)	Margin (dB)
				Antenna (dB/m)	Cable (dB)			
62.1	14.4	V	1.0	11.6	3.6	40.0	29.5	10.5
82.9	17.6	H	3.5	7.9	3.7	40.0	29.2	10.8
111.6	20.5	H	2.7	10.7	3.8	43.5	35.0	8.5
399.9	20.0	H	1.0	15.6	4.9	46.0	40.5	5.5

※ Calculation Formula:

1. Polarity H = Horizontal, Polarity V = Vertical
2. Reading (Receiver Reading) = Total Level – Correction Factor
3. Margin = Limit - Total Level
4. Total Level = Quasi-Peak



-For Measurement Above 1 GHz

Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Peak mode: Peak (RBW: 1 MHz, VBW: 3 MHz)
Average mode: Peak (RBW: 1 MHz, VBW: 10 Hz)

Operation Mode : Data Communication mode

Battery & USB Cable Type : Standard Cover & Ningbo
* The worst-case emissions are reported.

Temperature : 22.5°C

Humidity Level : 31.3 %

Test Date : April 12, 2014

Frequency (GHz)	Polarity (H/V)	Antenna Height (m)	Peak			Average		
			Total Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Total Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
1.3280	V	1.0	50.5	74	23.5	32.0	54	22.0
1.9982	V	1.0	58.4	74	15.6	39.8	54	14.2
2.6658	V	1.0	52.7	74	21.3	34.0	54	20.0

* Calculation Formula:

1. Polarity H = Horizontal, Polarity V = Vertical
2. Margin = Limit - Total Level



Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Peak mode: Peak (RBW: 1 MHz, VBW: 3 MHz)
Average mode: Peak (RBW: 1 MHz, VBW: 10 Hz)

Operation Mode : Data Communication mode

Battery & USB Cable Type : Wireless Charger Cover & CRESYN
* The worst-case emissions are reported.

Temperature : 22.5°C

Humidity Level : 31.3 %

Test Date : April 12, 2014

Frequency (GHz)	Polarity (H/V)	Antenna Height (m)	Peak			Average		
			Total Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Total Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
1.3276	V	1.0	48.4	74	25.6	26.7	54	27.3
1.9985	V	1.0	54.6	74	19.4	30.9	54	23.1
2.6636	V	1.0	48.2	74	25.8	30.4	54	23.6

*** Calculation Formula:**

1. Polarity H = Horizontal, Polarity V = Vertical
2. Margin = Limit - Total Level



5. LIST OF TEST EQUIPMENT

<u>Type</u>	<u>Manufacturer</u>	<u>Model Name</u>	<u>Serial Number</u>	<u>Calibration Cycle</u>	<u>Next CAL Date</u>
<u>Conducted Emission</u>					
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESCI	100584	1 year	2015.01.24
<input checked="" type="checkbox"/> LISN	EMCO	3816/2SH	9706-1070	1 year	2015.04.07
<input checked="" type="checkbox"/> LISN	Rohde & Schwarz	ENV216	100073	1 year	2015.01.29
<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESCI	100033	1 year	2014.06.23
<input type="checkbox"/> LISN	Rohde & Schwarz	ESH3-Z5	100282	1 year	2014.07.03
<input type="checkbox"/> Attenuator	Rohde & Schwarz	ESH3-Z2	357.8810.352	1 year	2014.07.03
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32	-	-	-
<u>Radiated Emission</u>					
-For measurement below 1 GHz					
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	2015.04.07
<input checked="" type="checkbox"/> Trilog Antenna	Schwarzbeck	VULB9160	3301	2 year	2014.12.17
<input checked="" type="checkbox"/> Antenna master	HD GmbH	MA240	240/520	N/A	-
<input checked="" type="checkbox"/> Turn Table	HD GmbH	2090	9702/1224	N/A	-
<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	2014.07.01
<input type="checkbox"/> Trilog Antenna	Schwarzbeck	VULB9168	185	2 year	2015.04.16
<input type="checkbox"/> Antenna master	INNCO Systems	MA4000-EP	MA4000/283	N/A	-
<input type="checkbox"/> Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32	-	-	-
-For measurement above 1 GHz					
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	2015.04.07
<input checked="" type="checkbox"/> Antenna master	HD GmbH	MA240	240/520	N/A	-
<input checked="" type="checkbox"/> Turn Table	HD GmbH	2090	9702/1224	N/A	-
<input checked="" type="checkbox"/> Power Amplifier	CERNEX	CBLU1183540	21691	1 year	2014.07.24
<input type="checkbox"/> Power Amplifier	CERNEX	CBLU1183540	21690	1 year	2014.07.12
<input type="checkbox"/> Power Amplifier	CERNEX	CBLU1183540	22964	1 year	2014.07.24
<input checked="" type="checkbox"/> Horn Antenna	Schwarzbeck	BBHA 9120D	296	2 year	2014.12.13
<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	2014.07.01
<input type="checkbox"/> Antenna master	INNCO Systems	MA4000-EP	MA4000/283	N/A	-
<input type="checkbox"/> Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
<input type="checkbox"/> Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170124	2 year	2014.10.30
<input type="checkbox"/> Power Amplifier	CERNEX	CBL18265035	22966	1 year	2014.07.24
<input type="checkbox"/> Power Amplifier	CERNEX	CBL26405040	19660	1 year	2015.04.04
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32	-	-	-



6. CONCLUSION

The data collected shows that the **EUT type: Multi-band GSM/EDGE/WCDMA/LTE Phone with WLAN, Bluetooth & RFID, FCC ID: ZNFD725, Model: LG-D725** complies with §15.107 and §15.109 of the FCC rules.