LTE Band 41

Band

LTE41

20MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: LG
Project #: 15I19834
Date: 2/2/2015
Test Engineer: Kiya Kedida
Configuration: EUT Only
Location: Chamber B
Mode: LTE_16QAM Band 41 Fundamentals, 20MHz Bandwidth

Test Equpment:
Receiving: Horn T1345, and Chamber B SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2506.00	11.64	V	0.9	9.5	20.22	33.0	-12.8	
2506.00	16.26	H	0.9	9.5	24.84	33.0	-8.2	
Mid Ch								
2593.00	11.70	V	0.9	9.5	20.31	33.0	-12.7	
2593.00	16.80	H	0.9	9.5	25.41	33.0	-7.6	
High Ch								
2680.00	11.10	V	0.9	9.7	19.93	33.0	-13.1	
2680.00	16.20	H	0.9	9.7	25.03	33.0	-8.0	

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Band

LTE41

20MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: LG
Project #: 15I19834
Date: 2/2/2015
Test Engineer: Kiya Kedida
Configuration: EUT Only
Location: Chamber B
Mode: LTE_QPSK Band 41 Fundamentals, 20MHz Bandwidth

Test Equipment:
Receiving: Horn T1345, and Chamber B SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2506.00	12.42	V	0.9	9.5	21.00	33.0	-12.0	
2506.00	17.06	H	0.9	9.5	25.64	33.0	-7.4	
Mid Ch								
2593.00	12.60	V	0.9	9.5	21.21	33.0	-11.8	
2593.00	17.94	H	0.9	9.5	26.55	33.0	-6.5	
High Ch								
2680.00	12.01	V	0.9	9.7	20.84	33.0	-12.2	
2680.00	17.31	H	0.9	9.7	26.14	33.0	-6.9	

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Band

LTE41

15MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: LG
Project #: 15I19834
Date: 2/2/2015
Test Engineer: Kiya Kedida
Configuration: EUT Only
Location: Chamber B
Mode: LTE_16QAM Band 41 Fundamentals, 15MHz Bandwidth

Test Equipment:
Receiving: Horn T1345, and Chamber B SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2503.50	10.97	V	0.9	9.5	19.55	33.0	-13.5	
2503.50	15.76	H	0.9	9.5	24.34	33.0	-8.7	
Mid Ch								
2593.00	11.70	V	0.9	9.5	20.31	33.0	-12.7	
2593.00	17.86	H	0.9	9.5	26.47	33.0	-6.5	
High Ch								
2682.50	11.20	V	0.9	9.7	20.03	33.0	-13.0	
2682.50	16.50	H	0.9	9.7	25.33	33.0	-7.7	

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Band

LTE41

15MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: LG
Project #: 15I19834
Date: 2/2/2015
Test Engineer: Kiya Kedida
Configuration: EUT Only
Location: Chamber B
Mode: LTE_QPSK Band 41 Fundamentals, 15MHz Bandwidth

Test Equipment:
Receiving: Horn T1345, and Chamber B SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2503.50	11.57	V	0.9	9.5	20.15	33.0	-12.9	
2503.50	16.79	H	0.9	9.5	25.37	33.0	-7.6	
Mid Ch								
2593.00	12.44	V	0.9	9.5	21.05	33.0	-12.0	
2593.00	17.00	H	0.9	9.5	25.61	33.0	-7.4	
High Ch								
2682.50	12.26	V	0.9	9.7	21.09	33.0	-11.9	
2682.50	16.73	H	0.9	9.7	25.56	33.0	-7.4	

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Band

LTE41

10MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: LG
Project #: 15I19834
Date: 2/2/2015
Test Engineer: Kiya Kedida
Configuration: EUT Only
Location: Chamber B
Mode: LTE_16QAM Band 41 Fundamentals, 10MHz Bandwidth

Test Equpment:
Receiving: Horn T1345, and Chamber B SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2501.00	11.00	V	0.9	9.5	19.58	33.0	-13.4	
2501.00	15.76	H	0.9	9.5	24.34	33.0	-8.7	
Mid Ch								
2593.00	11.90	V	0.9	9.5	20.51	33.0	-12.5	
2593.00	16.80	H	0.9	9.5	25.41	33.0	-7.6	
High Ch								
2685.00	10.90	V	0.9	9.7	19.74	33.0	-13.3	
2685.00	15.40	H	0.9	9.7	24.24	33.0	-8.8	

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Band

LTE41

10MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: LG
Project #: 15I19834
Date: 2/2/2015
Test Engineer: Kiya Kedida
Configuration: EUT Only
Location: Chamber B
Mode: LTE_QPSK Band 41 Fundamentals, 10MHz Bandwidth

Test Equpment:
Receiving: Horn T1345, and Chamber B SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2501.00	11.85	V	0.9	9.5	20.43	33.0	-12.6	
2501.00	16.44	H	0.9	9.5	25.02	33.0	-8.0	
Mid Ch								
2593.00	12.99	V	0.9	9.5	21.60	33.0	-11.4	
2593.00	17.70	H	0.9	9.5	26.31	33.0	-6.7	
High Ch								
2685.00	11.82	V	0.9	9.7	20.66	33.0	-12.3	
2685.00	16.20	H	0.9	9.7	25.04	33.0	-8.0	

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Band

LTE41

5MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: LG
Project #: 15I19834
Date: 2/2/2015
Test Engineer: Kiya Kedida
Configuration: EUT Only
Location: Chamber B
Mode: LTE_16QAM Band 41 Fundamentals, 5MHz Bandwidth

Test Equpment:
Receiving: Horn T1345, and Chamber B SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2498.50	10.80	V	0.9	9.5	19.37	33.0	-13.6	
2498.50	15.41	H	0.9	9.5	23.98	33.0	-9.0	
Mid Ch								
2593.00	12.20	V	0.9	9.5	20.81	33.0	-12.2	
2593.00	16.14	H	0.9	9.5	24.75	33.0	-8.3	
High Ch								
2687.50	10.40	V	0.9	9.7	19.25	33.0	-13.8	
2687.50	15.30	H	0.9	9.7	24.15	33.0	-8.9	

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Band

LTE41

5MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: LG
Project #: 15I19834
Date: 2/2/2015
Test Engineer: Kiya Kedida
Configuration: EUT Only
Location: Chamber B
Mode: LTE_QPSK Band 41 Fundamentals, 5MHz Bandwidth

Test Equpment:
Receiving: Horn T1345, and Chamber B SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2498.50	11.64	V	0.9	9.5	20.21	33.0	-12.8	
2498.50	16.21	H	0.9	9.5	24.78	33.0	-8.2	
Mid Ch								
2593.00	11.50	V	0.9	9.5	20.11	33.0	-12.9	
2593.00	17.06	H	0.9	9.5	25.67	33.0	-7.3	
High Ch								
2687.50	11.29	V	0.9	9.7	20.14	33.0	-12.9	
2687.50	15.95	H	0.9	9.7	24.80	33.0	-8.2	

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12.2. ADDITIONAL TESTS (Phone with Smart Case and Stylus Pen)

12.2.1. RADIATED POWER (ERP & EIRP) WITH SMART COVER

12.2.1.1. CDMA (MID CHANNEL ONLY)

Band

BC1

1xRTT

High Frequency Substitution Measurement
UL Fremont Radiated Chamber F

Company: LG
Project #: 15I19834
Date: 02/13/15
Test Engineer: R.Z
Configuration: EUT w/HS+AC
Mode: CDMA 1XRTT 1900MHz

Test Equipment:
Receiving: Horn T120 and Chamber F SMA Cables
Substitution: Horn T60 Substitution, 8ft SMA Cable Warehouse

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Mid Ch								
1.880	13.6	V	0.98	8.53	21.15	33.0	-11.9	
1.880	17.4	H	0.98	8.68	25.10	33.0	-7.9	

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Band

BC0

1xRTT

High Frequency Substitution Measurement
UL Fremont Radiated Chamber F

Company: LG
Project #: 15I19834
Date: 02/13/15
Test Engineer: R.Z
Configuration: EUT w/HS+AC
Mode: CDMA 1XRTT 850MHz

Test Equipment:
Receiving: Sunol T122, and Chamber F Cable
Substitution: Dipole S/N: 00022117, 8ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Mid Ch										
836.52	16.53	V	0.6	0.0	15.91	18.06	38.45	40.60	-22.5	
836.52	21.56	H	0.6	0.0	20.94	23.09	38.45	40.60	-17.5	

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Band

BC10

1xRTT

High Frequency Substitution Measurement
UL Fremont Radiated Chamber F

Company: LG
Project #: 15I19834
Date: 02/13/15
Test Engineer: R.Z
Configuration: EUT w/HS+AC
Mode: CDMA 1XRTT 800MHz

Test Equipment:
Receiving: Sunol T122, and Chamber F Cable
Substitution: Dipole S/N: 00022117, 8ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Mid Ch										
819.15	17.06	V	0.6	0.0	16.44	18.59	38.45	40.60	-22.0	
819.15	20.90	H	0.6	0.0	20.28	22.43	38.45	40.60	-18.2	

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12.2.1.2. LTE (MID CHANNEL ONLY)

Band

LTE41

10MHz

QPSK

High Frequency Substitution Measurement
UL Fremont Radiated Chamber F

Company: LG
Project #: 15I19834
Date: 2/12/2015
Test Engineer: R.Z
Configuration: EUT w/ HS+AC
Mode: LTE Band 41 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T120, and Chamber F SMA Cables
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Mid Ch								
2.593	15.9	V	1.16	9.63	24.39	33.0	-8.6	
2.593	15.4	H	1.16	9.69	23.91	33.0	-9.1	

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Band

LTE41

10MHz

16QAM

High Frequency Substitution Measurement
UL Fremont Radiated Chamber F

Company: LG
Project #: 15I19834
Date: 2/12/2015
Test Engineer: R.Z
Configuration: EUT w/ HS+AC
Mode: LTE Band 41 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T120, and Chamber F SMA Cables
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Mid Ch								
2.593	15.5	V	1.16	9.63	23.94	33.0	-9.1	
2.593	14.9	H	1.16	9.69	23.45	33.0	-9.5	

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Band

LTE12

10MHz

QPSK

High Frequency Substitution Measurement
UL Fremont Radiated Chamber F

Company: LG
Project #: 15I19834
Date: 2/12/2015
Test Engineer: R.Z
Configuration: EUT w/ HS+AC
Mode: LTE Band 12 QPSK 10MHz BW

Test Equipment:
Receiving: Sunol T122, and Chamber F Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Mid Ch										
707.50	12.68	V	0.55	0.0	12.13	14.28	34.77	36.99	-22.7	
707.50	16.91	H	0.55	0.0	16.36	18.51	34.77	36.99	-18.5	

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Band

LTE12

10MHz

16QAM

High Frequency Substitution Measurement
UL Fremont Radiated Chamber E

Company: LG
Project #: 15I19834
Date: 2/12/2015
Test Engineer: R.Z
Configuration: EUT w/ HS+AC
Mode: LTE Band 12 16QAM 10MHz BW

Test Equipment:
Receiving: Sunol T122, and Chamber F Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Mid Ch										
707.50	10.06	V	0.55	0.0	9.51	11.66	34.77	36.99	-25.3	
707.50	12.58	H	0.55	0.0	12.03	14.18	34.77	36.99	-22.8	

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Band

LTE5

10MHz

QPSK

High Frequency Substitution Measurement
UL Fremont Radiated Chamber F

Company: LG
Project #: 15I19834
Date: 2/12/2015
Test Engineer: R.Z
Configuration: EUT w/ HS+AC
Mode: LTE Band 5 QPSK 10MHz BW

Test Equipment:
Receiving: Sunol T122, and Chamber F Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Mid Ch										
836.50	18.11	V	0.6	0.0	17.49	19.64	38.45	40.60	-21.0	
836.50	17.40	H	0.6	0.0	16.78	18.93	38.45	40.60	-21.7	

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Band

LTE5

10MHz

16QAM

High Frequency Substitution Measurement
UL Fremont Radiated Chamber F

Company: LG
Project #: 15I19834
Date: 2/12/2015
Test Engineer: R.Z
Configuration: EUT w/ HS+AC
Mode: LTE Band 5 16QAM 10MHz BW

Test Equipment:
Receiving: Sunol T122, and Chamber F Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Mid Ch										
836.50	17.57	V	0.6	0.0	16.95	19.10	38.45	40.60	-21.5	
836.50	16.99	H	0.6	0.0	16.37	18.52	38.45	40.60	-22.1	

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Band

LTE4

10MHz

QPSK

High Frequency Substitution Measurement
UL Fremont Radiated Chamber F

Company: LG
Project #: 15I19834
Date: 2/12/2015
Test Engineer: R.Z
Configuration: EUT w/ HS+AC
Mode: LTE Band 4 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T120, and Chamber F SMA Cables
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Mid Ch								
1.733	9.5	V	0.95	8.50	17.05	30.0	-12.9	
1.733	17.8	H	0.95	8.70	25.59	30.0	-4.4	

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Band

LTE4

10MHz

16QAM

High Frequency Substitution Measurement
UL Fremont Radiated Chamber F

Company: LG
Project #: 15I19834
Date: 2/12/2015
Test Engineer: R.Z
Configuration: EUT w/ HS+AC
Mode: LTE Band 4 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T120, and Chamber F SMA Cables
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Mid Ch								
1.733	8.9	V	0.95	8.50	16.49	30.0	-13.5	
1.733	17.3	H	0.95	8.70	25.05	30.0	-5.0	

Rev. 2.12.15

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Band

LTE2

10MHz

QPSK

High Frequency Substitution Measurement
UL Fremont Radiated Chamber F

Company: LG
Project #: 15I19834
Date: 2/12/2015
Test Engineer: R.Z
Configuration: EUT w/ HS+AC
Mode: LTE Band 2 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T120, and Chamber F SMA Cables
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Mid Ch								
1.880	10.8	V	0.98	8.53	18.38	33.0	-14.6	
1.880	17.0	H	0.98	8.68	24.70	33.0	-8.3	

Rev. 2.12.15

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Band

LTE2

10MHz

16QAM

High Frequency Substitution Measurement
UL Fremont Radiated Chamber F

Company: LG
Project #: 15I19834
Date: 2/12/2015
Test Engineer: R.Z
Configuration: EUT w/ HS+AC
Mode: LTE Band 2 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T120, and Chamber F SMA Cables
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Mid Ch								
1.880	10.3	V	0.98	8.53	17.83	33.0	-15.2	
1.880	16.9	H	0.98	8.68	24.60	33.0	-8.4	

Rev. 2.12.15

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12.3. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238, §27.53 and §90.691

LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

Part 27: (m)(4) For mobile station, the attenuation factor shall be not less than 43+10Log(P)dB at the channel edge and (55+10Log(P)dB) at 5.5MHz from the channel edges.

TEST PROCEDURE

For Cellular equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For PCS equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

MODES TESTED

CDMA and LTE

RESULTS

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701I
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12.3.1. SPURIOUS RADIATION PLOTS

CDMA

Band

BC1

EVDO

UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: K.Kedida
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: EVDO BC1

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.25 MHz									
3.703	-14.9	H	3.0	35.4	1.0	-49.3	-13.0	-36.3	
5.554	1.9	H	3.0	34.7	1.0	-31.8	-13.0	-18.8	
7.405	-8.4	H	3.0	34.9	1.0	-42.3	-13.0	-29.3	
3.703	-15.0	V	3.0	35.4	1.0	-49.4	-13.0	-36.4	
5.554	-2.1	V	3.0	34.7	1.0	-35.8	-13.0	-22.8	
7.405	-8.5	V	3.0	34.9	1.0	-42.4	-13.0	-29.4	
Mid Ch, 1880 MHz									
3.760	-15.3	H	3.0	35.3	1.0	-49.7	-13.0	-36.7	
5.640	0.8	H	3.0	34.7	1.0	-32.9	-13.0	-19.9	
7.520	-8.1	H	3.0	34.9	1.0	-42.1	-13.0	-29.1	
3.760	-15.7	V	3.0	35.3	1.0	-50.0	-13.0	-37.0	
5.640	-2.4	V	3.0	34.7	1.0	-36.1	-13.0	-23.1	
7.520	-9.0	V	3.0	34.9	1.0	-42.9	-13.0	-29.9	
High Ch, 1908.75 MHz									
3.818	-15.2	H	3.0	35.3	1.0	-49.5	-13.0	-36.5	
5.726	-0.3	H	3.0	34.7	1.0	-34.1	-13.0	-21.1	
7.635	-8.1	H	3.0	34.9	1.0	-42.0	-13.0	-29.0	
3.818	-15.1	V	3.0	35.3	1.0	-49.4	-13.0	-36.4	
5.726	-2.0	V	3.0	34.7	1.0	-35.7	-13.0	-22.7	
7.635	-7.2	V	3.0	34.9	1.0	-41.1	-13.0	-28.1	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 02/02/15
Test Engineer: K.Kedida
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: RTT BC1 HARM

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 24

Band

BC1

1xRTT

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.25 MHz									
3.703	-13.9	H	3.0	35.4	1.0	-48.3	-13.0	-35.3	
5.554	-0.2	H	3.0	34.7	1.0	-34.0	-13.0	-21.0	
7.405	-8.3	H	3.0	34.9	1.0	-42.2	-13.0	-29.2	
3.703	-14.5	V	3.0	35.4	1.0	-48.9	-13.0	-35.9	
5.554	-1.2	V	3.0	34.7	1.0	-34.9	-13.0	-21.9	
7.405	-8.6	V	3.0	34.9	1.0	-42.5	-13.0	-29.5	
Mid Ch, 1880 MHz									
3.760	-15.3	H	3.0	35.3	1.0	-49.6	-13.0	-36.6	
5.640	0.3	H	3.0	34.7	1.0	-33.4	-13.0	-20.4	
7.520	-9.0	H	3.0	34.9	1.0	-43.0	-13.0	-30.0	
3.760	-14.6	V	3.0	35.3	1.0	-49.0	-13.0	-36.0	
5.640	-1.8	V	3.0	34.7	1.0	-35.5	-13.0	-22.5	
7.520	-10.8	V	3.0	34.9	1.0	-44.8	-13.0	-31.8	
High Ch, 1908.75 MHz									
3.818	-15.8	H	3.0	35.3	1.0	-50.1	-13.0	-37.1	
5.726	-0.2	H	3.0	34.7	1.0	-33.9	-13.0	-20.9	
7.635	-10.7	H	3.0	34.9	1.0	-44.7	-13.0	-31.7	
3.818	-15.4	V	3.0	35.3	1.0	-49.7	-13.0	-36.7	
5.726	-1.6	V	3.0	34.7	1.0	-35.3	-13.0	-22.3	
7.635	-11.7	V	3.0	34.9	1.0	-45.7	-13.0	-32.7	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: K.Kedida
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: EVDO BC0

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 22

Band

BC0

EVDO

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.7MHz									
1.649	-24.7	H	3.0	37.4	1.0	-61.0	-13.0	-48.0	
2.474	-8.4	H	3.0	36.4	1.0	-43.8	-13.0	-30.8	
3.299	-19.9	H	3.0	35.8	1.0	-54.7	-13.0	-41.7	
1.649	-20.2	V	3.0	37.4	1.0	-56.6	-13.0	-43.6	
2.474	-6.9	V	3.0	36.4	1.0	-42.3	-13.0	-29.3	
3.299	-19.1	V	3.0	35.8	1.0	-53.9	-13.0	-40.9	
Mid Ch, 836.52MHz									
1.673	-24.0	H	3.0	37.3	1.0	-60.4	-13.0	-47.4	
2.510	-6.5	H	3.0	36.4	1.0	-41.9	-13.0	-28.9	
3.346	-19.5	H	3.0	35.8	1.0	-54.3	-13.0	-41.3	
1.673	-21.2	V	3.0	37.3	1.0	-57.6	-13.0	-44.6	
2.510	-5.9	V	3.0	36.4	1.0	-41.2	-13.0	-28.2	
3.346	-18.3	V	3.0	35.8	1.0	-53.1	-13.0	-40.1	
High Ch, 848.31MHz									
1.697	-24.5	H	3.0	37.3	1.0	-60.8	-13.0	-47.8	
2.545	-7.3	H	3.0	36.3	1.0	-42.6	-13.0	-29.6	
3.393	-19.3	H	3.0	35.7	1.0	-54.0	-13.0	-41.0	
1.697	-20.8	V	3.0	37.3	1.0	-57.1	-13.0	-44.1	
2.545	-4.4	V	3.0	36.3	1.0	-39.7	-13.0	-26.7	
3.393	-19.5	V	3.0	35.7	1.0	-54.2	-13.0	-41.2	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 02/20/15
Test Engineer: K.Kedida
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: RTT BC0

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 22

Band

BC0

1xRTT

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.7MHz									
1.649	-23.7	H	3.0	37.4	1.0	-60.0	-13.0	-47.0	
2.474	-12.8	H	3.0	36.4	1.0	-48.2	-13.0	-35.2	
3.299	-18.5	H	3.0	35.8	1.0	-53.3	-13.0	-40.3	
1.649	-23.5	V	3.0	37.4	1.0	-59.8	-13.0	-46.8	
2.474	-9.6	V	3.0	36.4	1.0	-45.0	-13.0	-32.0	
3.299	-18.4	V	3.0	35.8	1.0	-53.2	-13.0	-40.2	
Mid Ch, 836.52MHz									
1.673	-24.6	H	3.0	37.3	1.0	-60.9	-13.0	-47.9	
2.510	-10.6	H	3.0	36.4	1.0	-46.0	-13.0	-33.0	
3.346	-19.7	H	3.0	35.8	1.0	-54.5	-13.0	-41.5	
1.673	-22.8	V	3.0	37.3	1.0	-59.1	-13.0	-46.1	
2.510	-7.7	V	3.0	36.4	1.0	-43.1	-13.0	-30.1	
3.346	-18.9	V	3.0	35.8	1.0	-53.7	-13.0	-40.7	
High Ch, 848.31MHz									
1.697	-20.5	H	3.0	37.3	1.0	-56.8	-13.0	-43.8	
2.545	-11.1	H	3.0	36.3	1.0	-46.5	-13.0	-33.5	
3.393	-18.8	H	3.0	35.7	1.0	-53.5	-13.0	-40.5	
1.697	-23.8	V	3.0	37.3	1.0	-60.1	-13.0	-47.1	
2.545	-17.7	V	3.0	36.3	1.0	-53.0	-13.0	-40.0	
3.393	-17.7	V	3.0	35.7	1.0	-52.5	-13.0	-39.5	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: K.Kedida
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: EVDO BC10

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 22

Band

BC10

EVDO

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.7MHz									
1.649	-23.1	H	3.0	37.4	1.0	-59.4	-13.0	-46.4	
2.474	-7.3	H	3.0	36.4	1.0	-42.7	-13.0	-29.7	
3.299	-18.5	H	3.0	35.8	1.0	-53.3	-13.0	-40.3	
1.649	-19.4	V	3.0	37.4	1.0	-55.8	-13.0	-42.8	
2.474	-7.9	V	3.0	36.4	1.0	-43.3	-13.0	-30.3	
3.299	-18.2	V	3.0	35.8	1.0	-53.0	-13.0	-40.0	
Mid Ch, 836.52MHz									
1.673	-22.7	H	3.0	37.3	1.0	-59.0	-13.0	-46.0	
2.510	-7.7	H	3.0	36.4	1.0	-43.0	-13.0	-30.0	
3.346	-18.2	H	3.0	35.8	1.0	-53.0	-13.0	-40.0	
1.673	-22.6	V	3.0	37.3	1.0	-58.9	-13.0	-45.9	
2.510	-7.3	V	3.0	36.4	1.0	-42.6	-13.0	-29.6	
3.346	-18.4	V	3.0	35.8	1.0	-53.1	-13.0	-40.1	
High Ch, 848.31MHz									
1.697	-23.6	H	3.0	37.3	1.0	-59.9	-13.0	-46.9	
2.545	-8.1	H	3.0	36.3	1.0	-43.4	-13.0	-30.4	
3.393	-18.1	H	3.0	35.7	1.0	-52.8	-13.0	-39.8	
1.697	-22.7	V	3.0	37.3	1.0	-59.0	-13.0	-46.0	
2.545	-6.3	V	3.0	36.3	1.0	-41.6	-13.0	-28.6	
3.393	-17.8	V	3.0	35.7	1.0	-52.5	-13.0	-39.5	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 02/02/15
Test Engineer: K.Kedida
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: RTT BC10

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 22

Band

BC10

1xRTT

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.7MHz									
1.649	-24.0	H	3.0	37.4	1.0	-60.4	-13.0	-47.4	
2.474	-11.9	H	3.0	36.4	1.0	-47.3	-13.0	-34.3	
3.299	-19.3	H	3.0	35.8	1.0	-54.1	-13.0	-41.1	
1.649	-22.9	V	3.0	37.4	1.0	-59.2	-13.0	-46.2	
2.474	-9.1	V	3.0	36.4	1.0	-44.5	-13.0	-31.5	
3.299	-19.1	V	3.0	35.8	1.0	-53.9	-13.0	-40.9	
Mid Ch, 836.52MHz									
1.673	-24.0	H	3.0	37.3	1.0	-60.3	-13.0	-47.3	
2.510	-10.3	H	3.0	36.4	1.0	-45.7	-13.0	-32.7	
3.346	-19.4	H	3.0	35.8	1.0	-54.1	-13.0	-41.1	
1.673	-23.4	V	3.0	37.3	1.0	-59.8	-13.0	-46.8	
2.510	-10.5	V	3.0	36.4	1.0	-45.8	-13.0	-32.8	
3.346	-19.1	V	3.0	35.8	1.0	-53.8	-13.0	-40.8	
High Ch, 848.31MHz									
1.697	-24.7	H	3.0	37.3	1.0	-61.0	-13.0	-48.0	
2.545	-11.1	H	3.0	36.3	1.0	-46.5	-13.0	-33.5	
3.393	-18.9	H	3.0	35.7	1.0	-53.6	-13.0	-40.6	
1.697	-22.8	V	3.0	37.3	1.0	-59.1	-13.0	-46.1	
2.545	-9.5	V	3.0	36.3	1.0	-44.9	-13.0	-31.9	
3.393	-19.1	V	3.0	35.7	1.0	-53.8	-13.0	-40.8	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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LTE Band 2

Band

LTE2

20MHz

16QAM

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_16QAM Band 2 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1860									
3720.00	-11.0	V	3.0	35.8	1.0	-45.8	-13.0	-32.8	
5580.00	-7.4	V	3.0	35.5	1.0	-41.9	-13.0	-28.9	
7440.00	-1.4	V	3.0	35.7	1.0	-36.2	-13.0	-23.2	
3720.00	-10.8	H	3.0	35.8	1.0	-45.6	-13.0	-32.6	
5580.00	-6.5	H	3.0	35.5	1.0	-41.0	-13.0	-28.0	
7440.00	-0.5	H	3.0	35.7	1.0	-35.2	-13.0	-22.2	
Mid Ch, 1880									
3760.00	-9.9	V	3.0	35.8	1.0	-44.7	-13.0	-31.7	
5640.00	-7.1	V	3.0	35.5	1.0	-41.5	-13.0	-28.5	
7520.00	-2.5	V	3.0	35.7	1.0	-37.2	-13.0	-24.2	
3760.00	-10.5	H	3.0	35.8	1.0	-45.3	-13.0	-32.3	
5640.00	-5.1	H	3.0	35.5	1.0	-39.6	-13.0	-26.6	
7520.00	-1.8	H	3.0	35.7	1.0	-36.5	-13.0	-23.5	
High Ch, 1900									
3800.00	-9.7	V	3.0	35.8	1.0	-44.5	-13.0	-31.5	
5700.00	-6.9	V	3.0	35.5	1.0	-41.4	-13.0	-28.4	
7600.00	-0.8	V	3.0	35.8	1.0	-35.5	-13.0	-22.5	
3800.00	-10.4	H	3.0	35.8	1.0	-45.2	-13.0	-32.2	
5700.00	-6.6	H	3.0	35.5	1.0	-41.1	-13.0	-28.1	
7600.00	-0.9	H	3.0	35.8	1.0	-35.6	-13.0	-22.6	

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Band

LTE2

20MHz

QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_QPSK Band 2 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1860									
3720.00	-9.7	V	3.0	35.8	1.0	-44.5	-13.0	-31.5	
5580.00	-6.7	V	3.0	35.5	1.0	-41.2	-13.0	-28.2	
7440.00	-1.6	V	3.0	35.7	1.0	-36.3	-13.0	-23.3	
3720.00	-9.7	H	3.0	35.8	1.0	-44.6	-13.0	-31.6	
5580.00	-5.7	H	3.0	35.5	1.0	-40.2	-13.0	-27.2	
7440.00	-1.3	H	3.0	35.7	1.0	-36.0	-13.0	-23.0	
Mid Ch, 1880									
3760.00	-9.6	V	3.0	35.8	1.0	-44.4	-13.0	-31.4	
5640.00	-7.5	V	3.0	35.5	1.0	-42.0	-13.0	-29.0	
7520.00	-2.2	V	3.0	35.7	1.0	-36.9	-13.0	-23.9	
3760.00	-10.4	H	3.0	35.8	1.0	-45.2	-13.0	-32.2	
5640.00	-5.3	H	3.0	35.5	1.0	-39.8	-13.0	-26.8	
7520.00	-0.8	H	3.0	35.7	1.0	-35.6	-13.0	-22.6	
High Ch, 1900									
3800.00	-9.5	V	3.0	35.8	1.0	-44.3	-13.0	-31.3	
5700.00	-7.1	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7600.00	-1.1	V	3.0	35.8	1.0	-35.9	-13.0	-22.9	
3800.00	-10.4	H	3.0	35.8	1.0	-45.1	-13.0	-32.1	
5700.00	-6.2	H	3.0	35.5	1.0	-40.7	-13.0	-27.7	
7600.00	-0.7	H	3.0	35.8	1.0	-35.4	-13.0	-22.4	

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701I
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Band

LTE2

15MHz

16QAM

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_16QAM Band 2 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1857.5									
3715.00	-10.1	V	3.0	35.8	1.0	-44.9	-13.0	-31.9	
5572.50	-7.1	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7430.00	-2.0	V	3.0	35.7	1.0	-36.7	-13.0	-23.7	
3715.00	-11.4	H	3.0	35.8	1.0	-46.2	-13.0	-33.2	
5572.50	-7.3	H	3.0	35.5	1.0	-41.8	-13.0	-28.8	
7430.00	-0.9	H	3.0	35.7	1.0	-35.6	-13.0	-22.6	
Mid Ch, 1880									
3760.00	-10.4	V	3.0	35.8	1.0	-45.2	-13.0	-32.2	
5640.00	-7.3	V	3.0	35.5	1.0	-41.8	-13.0	-28.8	
7520.00	-2.2	V	3.0	35.7	1.0	-37.0	-13.0	-24.0	
3760.00	-9.5	H	3.0	35.8	1.0	-44.3	-13.0	-31.3	
5640.00	-6.5	H	3.0	35.5	1.0	-41.0	-13.0	-28.0	
7520.00	-1.8	H	3.0	35.7	1.0	-36.5	-13.0	-23.5	
High Ch, 1902.5									
3805.00	-10.2	V	3.0	35.8	1.0	-45.0	-13.0	-32.0	
5707.50	-6.5	V	3.0	35.5	1.0	-41.0	-13.0	-28.0	
7610.00	-1.2	V	3.0	35.8	1.0	-36.0	-13.0	-23.0	
3805.00	-9.4	H	3.0	35.8	1.0	-44.2	-13.0	-31.2	
5707.50	-6.1	H	3.0	35.5	1.0	-40.6	-13.0	-27.6	
7610.00	-0.2	H	3.0	35.8	1.0	-35.0	-13.0	-22.0	

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Band

LTE2

15MHz

QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_QPSK Band 2 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1857.5									
3715.00	-10.2	V	3.0	35.8	1.0	-45.1	-13.0	-32.1	
5572.50	-7.2	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7430.00	-1.7	V	3.0	35.7	1.0	-36.5	-13.0	-23.5	
3715.00	-9.0	H	3.0	35.8	1.0	-43.9	-13.0	-30.9	
5572.50	-7.6	H	3.0	35.5	1.0	-42.0	-13.0	-29.0	
7430.00	-0.6	H	3.0	35.7	1.0	-35.3	-13.0	-22.3	
Mid Ch, 1880									
3760.00	-9.6	V	3.0	35.8	1.0	-44.5	-13.0	-31.5	
5640.00	-7.6	V	3.0	35.5	1.0	-42.1	-13.0	-29.1	
7520.00	-2.3	V	3.0	35.7	1.0	-37.0	-13.0	-24.0	
3760.00	-10.5	H	3.0	35.8	1.0	-45.3	-13.0	-32.3	
5640.00	-6.9	H	3.0	35.5	1.0	-41.3	-13.0	-28.3	
7520.00	-1.0	H	3.0	35.7	1.0	-35.8	-13.0	-22.8	
High Ch, 1902.5									
3805.00	-10.0	V	3.0	35.8	1.0	-44.8	-13.0	-31.8	
5707.50	-7.1	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7610.00	-1.3	V	3.0	35.8	1.0	-36.1	-13.0	-23.1	
3805.00	-9.5	H	3.0	35.8	1.0	-44.3	-13.0	-31.3	
5707.50	-5.9	H	3.0	35.5	1.0	-40.4	-13.0	-27.4	
7610.00	-0.1	H	3.0	35.8	1.0	-34.9	-13.0	-21.9	

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701I
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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_16QAM Band 2 Harmonics, 10MHz Bandwidth

Band
LTE2
10MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1855									
3710.00	-10.7	V	3.0	35.9	1.0	-45.5	-13.0	-32.5	
5565.00	-7.3	V	3.0	35.5	1.0	-41.8	-13.0	-28.8	
7420.00	-2.2	V	3.0	35.7	1.0	-36.9	-13.0	-23.9	
3710.00	-10.0	H	3.0	35.9	1.0	-44.9	-13.0	-31.9	
5565.00	-6.6	H	3.0	35.5	1.0	-41.1	-13.0	-28.1	
7420.00	-1.2	H	3.0	35.7	1.0	-35.9	-13.0	-22.9	
Mid Ch, 1880									
3760.00	-9.6	V	3.0	35.8	1.0	-44.4	-13.0	-31.4	
5640.00	-7.1	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7520.00	-2.2	V	3.0	35.7	1.0	-37.0	-13.0	-24.0	
3760.00	-11.3	H	3.0	35.8	1.0	-46.2	-13.0	-33.2	
5640.00	-6.9	H	3.0	35.5	1.0	-41.4	-13.0	-28.4	
7520.00	-1.2	H	3.0	35.7	1.0	-36.0	-13.0	-23.0	
High Ch, 1905									
3810.00	-11.1	V	3.0	35.8	1.0	-45.9	-13.0	-32.9	
5715.00	-6.4	V	3.0	35.5	1.0	-40.9	-13.0	-27.9	
7620.00	-1.3	V	3.0	35.8	1.0	-36.1	-13.0	-23.1	
3810.00	-10.3	H	3.0	35.8	1.0	-45.0	-13.0	-32.0	
5715.00	-6.1	H	3.0	35.5	1.0	-40.6	-13.0	-27.6	
7620.00	0.0	H	3.0	35.8	1.0	-34.7	-13.0	-21.7	

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701I
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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_QPSK Band 2 Harmonics, 10MHz Bandwidth

Band LTE2 10MHz QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1855									
3710.00	-10.3	V	3.0	35.9	1.0	-45.2	-13.0	-32.2	
5565.00	-7.5	V	3.0	35.5	1.0	-42.0	-13.0	-29.0	
7420.00	-0.8	V	3.0	35.7	1.0	-35.5	-13.0	-22.5	
3710.00	-10.8	H	3.0	35.9	1.0	-45.6	-13.0	-32.6	
5565.00	-6.9	H	3.0	35.5	1.0	-41.4	-13.0	-28.4	
7420.00	-1.5	H	3.0	35.7	1.0	-36.2	-13.0	-23.2	
Mid Ch, 1880									
3760.00	-10.1	V	3.0	35.8	1.0	-44.9	-13.0	-31.9	
5640.00	-6.8	V	3.0	35.5	1.0	-41.3	-13.0	-28.3	
7520.00	-2.5	V	3.0	35.7	1.0	-37.3	-13.0	-24.3	
3760.00	-10.7	H	3.0	35.8	1.0	-45.5	-13.0	-32.5	
5640.00	-7.1	H	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7520.00	-1.5	H	3.0	35.7	1.0	-36.3	-13.0	-23.3	
High Ch, 1905									
3810.00	-9.8	V	3.0	35.8	1.0	-44.6	-13.0	-31.6	
5715.00	-6.7	V	3.0	35.5	1.0	-41.2	-13.0	-28.2	
7620.00	-1.7	V	3.0	35.8	1.0	-36.5	-13.0	-23.5	
3810.00	-9.6	H	3.0	35.8	1.0	-44.4	-13.0	-31.4	
5715.00	-5.7	H	3.0	35.5	1.0	-40.2	-13.0	-27.2	
7620.00	-1.1	H	3.0	35.8	1.0	-35.8	-13.0	-22.8	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_16QAM Band 2 Harmonics, 5MHz Bandwidth

Band

LTE2

5MHz

16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.5									
3705.00	-9.9	V	3.0	35.9	1.0	-44.7	-13.0	-31.7	
5557.50	-7.3	V	3.0	35.5	1.0	-41.8	-13.0	-28.8	
7410.00	-1.6	V	3.0	35.7	1.0	-36.4	-13.0	-23.4	
3705.00	-10.6	H	3.0	35.9	1.0	-45.4	-13.0	-32.4	
5557.50	-6.9	H	3.0	35.5	1.0	-41.4	-13.0	-28.4	
7410.00	-1.2	H	3.0	35.7	1.0	-36.0	-13.0	-23.0	
Mid Ch, 1880									
3760.00	-10.5	V	3.0	35.8	1.0	-45.3	-13.0	-32.3	
5640.00	-7.0	V	3.0	35.5	1.0	-41.5	-13.0	-28.5	
7520.00	-1.8	V	3.0	35.7	1.0	-36.6	-13.0	-23.6	
3760.00	-9.5	H	3.0	35.8	1.0	-44.3	-13.0	-31.3	
5640.00	-6.7	H	3.0	35.5	1.0	-41.2	-13.0	-28.2	
7520.00	-1.1	H	3.0	35.7	1.0	-35.8	-13.0	-22.8	
High Ch, 1907.5									
3815.00	-9.8	V	3.0	35.8	1.0	-44.6	-13.0	-31.6	
5722.50	-6.5	V	3.0	35.5	1.0	-41.0	-13.0	-28.0	
7630.00	-1.6	V	3.0	35.8	1.0	-36.4	-13.0	-23.4	
3815.00	-9.9	H	3.0	35.8	1.0	-44.7	-13.0	-31.7	
5722.50	-6.0	H	3.0	35.5	1.0	-40.5	-13.0	-27.5	
7630.00	-0.7	H	3.0	35.8	1.0	-35.5	-13.0	-22.5	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_QPSK Band 2 Harmonics, 5MHz Bandwidth

Band
LTE2
5MHz
QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.5									
3705.00	-10.4	V	3.0	35.9	1.0	-45.2	-13.0	-32.2	
5557.50	-7.4	V	3.0	35.5	1.0	-41.9	-13.0	-28.9	
7410.00	-1.9	V	3.0	35.7	1.0	-36.6	-13.0	-23.6	
3705.00	-9.6	H	3.0	35.9	1.0	-44.5	-13.0	-31.5	
5557.50	-6.2	H	3.0	35.5	1.0	-40.6	-13.0	-27.6	
7410.00	0.3	H	3.0	35.7	1.0	-34.4	-13.0	-21.4	
Mid Ch, 1880									
3760.00	-9.8	V	3.0	35.8	1.0	-44.6	-13.0	-31.6	
5640.00	-5.7	V	3.0	35.5	1.0	-40.2	-13.0	-27.2	
7520.00	-2.2	V	3.0	35.7	1.0	-36.9	-13.0	-23.9	
3760.00	-10.9	H	3.0	35.8	1.0	-45.7	-13.0	-32.7	
5640.00	-5.3	H	3.0	35.5	1.0	-39.8	-13.0	-26.8	
7520.00	-0.8	H	3.0	35.7	1.0	-35.5	-13.0	-22.5	
High Ch, 1907.5									
3815.00	-9.9	V	3.0	35.8	1.0	-44.6	-13.0	-31.6	
5722.50	-6.7	V	3.0	35.5	1.0	-41.2	-13.0	-28.2	
7630.00	-1.3	V	3.0	35.8	1.0	-36.0	-13.0	-23.0	
3815.00	-10.5	H	3.0	35.8	1.0	-45.2	-13.0	-32.2	
5722.50	-6.3	H	3.0	35.5	1.0	-40.8	-13.0	-27.8	
7630.00	-0.4	H	3.0	35.8	1.0	-35.2	-13.0	-22.2	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_16QAM Band 2 Harmonics, 3MHz Bandwidth

Band
LTE2
3MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.5									
3703.00	-12.0	V	3.0	35.9	1.0	-46.9	-13.0	-33.9	
5554.50	-10.4	V	3.0	35.5	1.0	-44.9	-13.0	-31.9	
7406.00	-5.4	V	3.0	35.7	1.0	-40.1	-13.0	-27.1	
3703.00	-9.4	H	3.0	35.9	1.0	-44.3	-13.0	-31.3	
5554.50	-6.5	H	3.0	35.5	1.0	-41.0	-13.0	-28.0	
7406.00	-0.6	H	3.0	35.7	1.0	-35.3	-13.0	-22.3	
Mid Ch, 1880									
3760.00	-1.1	V	3.0	35.8	1.0	-35.9	-13.0	-22.9	
5640.00	2.3	V	3.0	35.5	1.0	-32.2	-13.0	-19.2	
7520.00	8.2	V	3.0	35.7	1.0	-26.6	-13.0	-13.6	
3760.00	-10.2	H	3.0	35.8	1.0	-45.0	-13.0	-32.0	
5640.00	-6.2	H	3.0	35.5	1.0	-40.7	-13.0	-27.7	
7520.00	-1.6	H	3.0	35.7	1.0	-36.3	-13.0	-23.3	
High Ch, 1908.5									
3817.00	-9.5	V	3.0	35.8	1.0	-44.3	-13.0	-31.3	
5725.50	-6.3	V	3.0	35.5	1.0	-40.8	-13.0	-27.8	
7634.00	-0.6	V	3.0	35.8	1.0	-35.4	-13.0	-22.4	
3817.00	-9.9	H	3.0	35.8	1.0	-44.7	-13.0	-31.7	
5725.50	-5.5	H	3.0	35.5	1.0	-40.0	-13.0	-27.0	
7634.00	0.1	H	3.0	35.8	1.0	-34.7	-13.0	-21.7	

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Band

LTE2

3MHz

QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_QPSK Band 2 Harmonics, 3MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.5									
3703.00	-11.5	V	3.0	35.9	1.0	-46.4	-13.0	-33.4	
5554.50	-11.1	V	3.0	35.5	1.0	-45.6	-13.0	-32.6	
7406.00	-5.5	V	3.0	35.7	1.0	-40.2	-13.0	-27.2	
3703.00	-10.5	H	3.0	35.9	1.0	-45.4	-13.0	-32.4	
5554.50	-6.5	H	3.0	35.5	1.0	-41.0	-13.0	-28.0	
7406.00	-1.3	H	3.0	35.7	1.0	-36.0	-13.0	-23.0	
Mid Ch, 1880									
3760.00	-0.5	V	3.0	35.8	1.0	-35.3	-13.0	-22.3	
5640.00	2.5	V	3.0	35.5	1.0	-32.0	-13.0	-19.0	
7520.00	7.2	V	3.0	35.7	1.0	-27.5	-13.0	-14.5	
3760.00	-10.0	H	3.0	35.8	1.0	-44.8	-13.0	-31.8	
5640.00	-5.3	H	3.0	35.5	1.0	-39.8	-13.0	-26.8	
7520.00	-0.6	H	3.0	35.7	1.0	-35.4	-13.0	-22.4	
High Ch, 1908.5									
3817.00	-9.4	V	3.0	35.8	1.0	-44.1	-13.0	-31.1	
5725.50	-5.7	V	3.0	35.5	1.0	-40.2	-13.0	-27.2	
7634.00	-1.3	V	3.0	35.8	1.0	-36.0	-13.0	-23.0	
3817.00	-9.9	H	3.0	35.8	1.0	-44.7	-13.0	-31.7	
5725.50	-5.5	H	3.0	35.5	1.0	-40.0	-13.0	-27.0	
7634.00	-0.6	H	3.0	35.8	1.0	-35.3	-13.0	-22.3	

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701I
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Band

LTE2

1.4MHz

16QAM

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/27/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_16QAM Band 2 Harmonics, 1.4MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.7									
3701.40	-9.7	V	3.0	35.9	1.0	-44.5	-13.0	-31.5	
5552.10	-7.4	V	3.0	35.5	1.0	-41.9	-13.0	-28.9	
7402.80	-0.8	V	3.0	35.7	1.0	-35.5	-13.0	-22.5	
3701.40	-10.6	H	3.0	35.9	1.0	-45.4	-13.0	-32.4	
5552.10	-7.0	H	3.0	35.5	1.0	-41.5	-13.0	-28.5	
7402.80	-0.2	H	3.0	35.7	1.0	-34.9	-13.0	-21.9	
Mid Ch, 1880									
3760.00	-9.9	V	3.0	35.8	1.0	-44.7	-13.0	-31.7	
5640.00	-7.1	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7520.00	-2.2	V	3.0	35.7	1.0	-37.0	-13.0	-24.0	
3760.00	-9.6	H	3.0	35.8	1.0	-44.4	-13.0	-31.4	
5640.00	-4.3	H	3.0	35.5	1.0	-38.8	-13.0	-25.8	
7520.00	-1.0	H	3.0	35.7	1.0	-35.7	-13.0	-22.7	
High Ch, 1909.3									
3818.60	-9.3	V	3.0	35.8	1.0	-44.0	-13.0	-31.0	
5727.90	-5.8	V	3.0	35.5	1.0	-40.3	-13.0	-27.3	
7637.20	-0.9	V	3.0	35.8	1.0	-35.6	-13.0	-22.6	
3818.60	-11.1	H	3.0	35.8	1.0	-45.9	-13.0	-32.9	
5727.90	-6.8	H	3.0	35.5	1.0	-41.3	-13.0	-28.3	
7637.20	0.6	H	3.0	35.8	1.0	-34.2	-13.0	-21.2	

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Band

LTE2

1.4MHz

QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/27/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_QPSK Band 2 Harmonics, 1.4MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.7									
3701.40	-8.2	V	3.0	35.9	1.0	-43.1	-13.0	-30.1	
5552.10	-6.4	V	3.0	35.5	1.0	-40.9	-13.0	-27.9	
7402.80	-2.0	V	3.0	35.7	1.0	-36.7	-13.0	-23.7	
3701.40	-9.3	H	3.0	35.9	1.0	-44.2	-13.0	-31.2	
5552.10	-7.3	H	3.0	35.5	1.0	-41.7	-13.0	-28.7	
7402.80	-1.0	H	3.0	35.7	1.0	-35.7	-13.0	-22.7	
Mid Ch, 1880									
3760.00	-10.5	V	3.0	35.8	1.0	-45.3	-13.0	-32.3	
5640.00	-7.0	V	3.0	35.5	1.0	-41.5	-13.0	-28.5	
7520.00	-1.9	V	3.0	35.7	1.0	-36.6	-13.0	-23.6	
3760.00	-9.2	H	3.0	35.8	1.0	-44.0	-13.0	-31.0	
5640.00	-4.9	H	3.0	35.5	1.0	-39.4	-13.0	-26.4	
7520.00	-1.1	H	3.0	35.7	1.0	-35.8	-13.0	-22.8	
High Ch, 1909.3									
3818.60	-10.1	V	3.0	35.8	1.0	-44.9	-13.0	-31.9	
5727.90	-6.7	V	3.0	35.5	1.0	-41.2	-13.0	-28.2	
7637.20	-0.1	V	3.0	35.8	1.0	-34.8	-13.0	-21.8	
3818.60	-10.5	H	3.0	35.8	1.0	-45.3	-13.0	-32.3	
5727.90	-6.2	H	3.0	35.5	1.0	-40.7	-13.0	-27.7	
7637.20	-0.6	H	3.0	35.8	1.0	-35.3	-13.0	-22.3	

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LTE Band 4

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber B
Mode: LTE_16QAM Band 4 Harmonics, 20MHz Bandwidth

Band

LTE4

20MHz

16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1720									
3440.00	-7.7	V	3.0	36.0	1.0	-42.8	-13.0	-29.8	
5160.00	-1.4	V	3.0	35.4	1.0	-35.8	-13.0	-22.8	
6880.00	-16.8	V	3.0	35.7	1.0	-51.5	-13.0	-38.5	
3440.00	-4.8	H	3.0	36.0	1.0	-39.8	-13.0	-26.8	
5160.00	-0.5	H	3.0	35.4	1.0	-34.9	-13.0	-21.9	
6880.00	-14.9	H	3.0	35.7	1.0	-49.6	-13.0	-36.6	
Mid Ch, 1732.5									
3465.00	-14.9	V	3.0	36.0	1.0	-50.0	-13.0	-37.0	
5197.50	-1.9	V	3.0	35.4	1.0	-36.3	-13.0	-23.3	
6930.00	-15.4	V	3.0	35.7	1.0	-50.0	-13.0	-37.0	
3465.00	-13.0	H	3.0	36.0	1.0	-48.0	-13.0	-35.0	
5197.50	-6.8	H	3.0	35.4	1.0	-41.2	-13.0	-28.2	
6930.00	-13.4	H	3.0	35.7	1.0	-48.1	-13.0	-35.1	
High Ch, 1745									
3490.00	-5.8	V	3.0	36.0	1.0	-40.8	-13.0	-27.8	
5235.00	-13.2	V	3.0	35.4	1.0	-47.6	-13.0	-34.6	
6980.00	-17.7	V	3.0	35.7	1.0	-52.4	-13.0	-39.4	
3490.00	-6.6	H	3.0	36.0	1.0	-41.6	-13.0	-28.6	
5235.00	-9.8	H	3.0	35.4	1.0	-44.3	-13.0	-31.3	
6980.00	-13.5	H	3.0	35.7	1.0	-48.2	-13.0	-35.2	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber B
Mode: LTE_QPSK Band 4 Harmonics, 20MHz Bandwidth

Band
LTE4
20MHz
QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1720									
3440.00	-7.3	V	3.0	36.0	1.0	-42.4	-13.0	-29.4	
5160.00	-0.3	V	3.0	35.4	1.0	-34.7	-13.0	-21.7	
6880.00	-16.3	V	3.0	35.7	1.0	-51.0	-13.0	-38.0	
3440.00	-4.0	H	3.0	36.0	1.0	-39.0	-13.0	-26.0	
5160.00	-0.1	H	3.0	35.4	1.0	-34.5	-13.0	-21.5	
6880.00	-14.7	H	3.0	35.7	1.0	-49.4	-13.0	-36.4	
Mid Ch, 1732.5									
3465.00	-14.5	V	3.0	36.0	1.0	-49.5	-13.0	-36.5	
5197.50	-5.0	V	3.0	35.4	1.0	-39.4	-13.0	-26.4	
6930.00	-13.6	V	3.0	35.7	1.0	-48.2	-13.0	-35.2	
3465.00	-12.5	H	3.0	36.0	1.0	-47.5	-13.0	-34.5	
5197.50	-6.5	H	3.0	35.4	1.0	-40.9	-13.0	-27.9	
6930.00	-12.7	H	3.0	35.7	1.0	-47.4	-13.0	-34.4	
High Ch, 1745									
3490.00	-5.6	V	3.0	36.0	1.0	-40.6	-13.0	-27.6	
5235.00	-12.3	V	3.0	35.4	1.0	-46.7	-13.0	-33.7	
6980.00	-17.2	V	3.0	35.7	1.0	-51.9	-13.0	-38.9	
3490.00	-6.4	H	3.0	36.0	1.0	-41.4	-13.0	-28.4	
5235.00	-10.5	H	3.0	35.4	1.0	-45.0	-13.0	-32.0	
6980.00	-13.6	H	3.0	35.7	1.0	-48.3	-13.0	-35.3	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber B
Mode: LTE_16QAM Band 4 Harmonics, 15MHz Bandwidth

Band
LTE4
15MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1717.5									
3435.00	-16.0	V	3.0	36.1	1.0	-51.1	-13.0	-38.1	
5152.50	-11.2	V	3.0	35.4	1.0	-45.7	-13.0	-32.7	
6870.00	-10.3	V	3.0	35.7	1.0	-45.0	-13.0	-32.0	
3435.00	-15.7	H	3.0	36.1	1.0	-50.7	-13.0	-37.7	
5152.50	-10.1	H	3.0	35.4	1.0	-44.5	-13.0	-31.5	
6870.00	-9.2	H	3.0	35.7	1.0	-43.9	-13.0	-30.9	
Mid Ch, 1732.5									
3465.00	-14.6	V	3.0	36.0	1.0	-49.7	-13.0	-36.7	
5197.50	-7.7	V	3.0	35.4	1.0	-42.1	-13.0	-29.1	
6930.00	-6.2	V	3.0	35.7	1.0	-40.8	-13.0	-27.8	
3465.00	-13.4	H	3.0	36.0	1.0	-48.5	-13.0	-35.5	
5197.50	-10.6	H	3.0	35.4	1.0	-45.0	-13.0	-32.0	
6930.00	-8.6	H	3.0	35.7	1.0	-43.3	-13.0	-30.3	
High Ch, 1747.5									
3495.00	-1.4	V	3.0	36.0	1.0	-36.4	-13.0	-23.4	
5242.50	-1.7	V	3.0	35.4	1.0	-36.1	-13.0	-23.1	
6990.00	-8.0	V	3.0	35.7	1.0	-42.7	-13.0	-29.7	
3495.00	-14.4	H	3.0	36.0	1.0	-49.4	-13.0	-36.4	
5242.50	-10.9	H	3.0	35.4	1.0	-45.4	-13.0	-32.4	
6990.00	-8.3	H	3.0	35.7	1.0	-43.0	-13.0	-30.0	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber B
Mode: LTE_QPSK Band 4 Harmonics, 15MHz Bandwidth

Band
LTE4
15MHz
QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1717.5									
3435.00	-16.3	V	3.0	36.1	1.0	-51.3	-13.0	-38.3	
5152.50	-10.9	V	3.0	35.4	1.0	-45.3	-13.0	-32.3	
6870.00	-10.1	V	3.0	35.7	1.0	-44.8	-13.0	-31.8	
3435.00	-15.6	H	3.0	36.1	1.0	-50.6	-13.0	-37.6	
5152.50	-10.3	H	3.0	35.4	1.0	-44.7	-13.0	-31.7	
6870.00	-8.6	H	3.0	35.7	1.0	-43.3	-13.0	-30.3	
Mid Ch, 1732.5									
3465.00	-14.4	V	3.0	36.0	1.0	-49.5	-13.0	-36.5	
5197.50	-8.0	V	3.0	35.4	1.0	-42.4	-13.0	-29.4	
6930.00	-6.6	V	3.0	35.7	1.0	-41.2	-13.0	-28.2	
3465.00	-13.3	H	3.0	36.0	1.0	-48.3	-13.0	-35.3	
5197.50	-10.0	H	3.0	35.4	1.0	-44.4	-13.0	-31.4	
6930.00	-7.8	H	3.0	35.7	1.0	-42.5	-13.0	-29.5	
High Ch, 1747.5									
3495.00	-1.8	V	3.0	36.0	1.0	-36.8	-13.0	-23.8	
5242.50	-0.2	V	3.0	35.4	1.0	-34.6	-13.0	-21.6	
6990.00	-8.5	V	3.0	35.7	1.0	-43.2	-13.0	-30.2	
3495.00	-13.6	H	3.0	36.0	1.0	-48.6	-13.0	-35.6	
5242.50	-10.6	H	3.0	35.4	1.0	-45.1	-13.0	-32.1	
6990.00	-8.5	H	3.0	35.7	1.0	-43.2	-13.0	-30.2	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber B
Mode: LTE_16QAM Band 4 Harmonics, 10MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 1715									
LTE4	3430.00	-8.9	V	3.0	36.1	1.0	-44.0	-13.0	-31.0	
	5145.00	-10.9	V	3.0	35.4	1.0	-45.4	-13.0	-32.4	
	6860.00	-13.9	V	3.0	35.7	1.0	-48.5	-13.0	-35.5	
10MHz	3430.00	-19.5	H	3.0	36.1	1.0	-54.6	-13.0	-41.6	
	5145.00	-8.1	H	3.0	35.4	1.0	-42.5	-13.0	-29.5	
	6860.00	-14.7	H	3.0	35.7	1.0	-49.4	-13.0	-36.4	
16QAM	Mid Ch, 1732.5									
	3465.00	-10.3	V	3.0	36.0	1.0	-45.3	-13.0	-32.3	
	5197.50	-5.1	V	3.0	35.4	1.0	-39.5	-13.0	-26.5	
	6930.00	-15.4	V	3.0	35.7	1.0	-50.0	-13.0	-37.0	
	3465.00	-12.7	H	3.0	36.0	1.0	-47.7	-13.0	-34.7	
	5197.50	-8.4	H	3.0	35.4	1.0	-42.8	-13.0	-29.8	
	6930.00	-13.0	H	3.0	35.7	1.0	-47.6	-13.0	-34.6	
	High Ch, 1750									
	3500.00	-18.5	V	3.0	36.0	1.0	-53.5	-13.0	-40.5	
	5250.00	-7.9	V	3.0	35.4	1.0	-42.3	-13.0	-29.3	
	7000.00	-16.0	V	3.0	35.7	1.0	-50.7	-13.0	-37.7	
	3500.00	-21.7	H	3.0	36.0	1.0	-56.7	-13.0	-43.7	
	5250.00	-2.7	H	3.0	35.4	1.0	-37.1	-13.0	-24.1	
	7000.00	-12.5	H	3.0	35.7	1.0	-47.2	-13.0	-34.2	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber B
Mode: LTE_QPSK Band 4 Harmonics, 10MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 1715									
LTE4	3430.00	-9.3	V	3.0	36.1	1.0	-44.4	-13.0	-31.4	
	5145.00	-10.7	V	3.0	35.4	1.0	-45.2	-13.0	-32.2	
	6860.00	-15.1	V	3.0	35.7	1.0	-49.8	-13.0	-36.8	
10MHz	3430.00	-19.1	H	3.0	36.1	1.0	-54.2	-13.0	-41.2	
	5145.00	-7.5	H	3.0	35.4	1.0	-42.0	-13.0	-29.0	
	6860.00	-14.1	H	3.0	35.7	1.0	-48.8	-13.0	-35.8	
QPSK	Mid Ch, 1732.5									
	3465.00	-10.8	V	3.0	36.0	1.0	-45.9	-13.0	-32.9	
	5197.50	-5.4	V	3.0	35.4	1.0	-39.8	-13.0	-26.8	
	6930.00	-15.7	V	3.0	35.7	1.0	-50.3	-13.0	-37.3	
	3465.00	-12.7	H	3.0	36.0	1.0	-47.7	-13.0	-34.7	
	5197.50	-8.4	H	3.0	35.4	1.0	-42.8	-13.0	-29.8	
	6930.00	-13.0	H	3.0	35.7	1.0	-47.6	-13.0	-34.6	
	High Ch, 1750									
	3500.00	-18.1	V	3.0	36.0	1.0	-53.1	-13.0	-40.1	
	5250.00	-7.6	V	3.0	35.4	1.0	-42.0	-13.0	-29.0	
	7000.00	-15.2	V	3.0	35.7	1.0	-49.9	-13.0	-36.9	
	3500.00	-21.0	H	3.0	36.0	1.0	-56.0	-13.0	-43.0	
	5250.00	-3.1	H	3.0	35.4	1.0	-37.5	-13.0	-24.5	
	7000.00	-12.2	H	3.0	35.7	1.0	-46.9	-13.0	-33.9	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber B
Mode: LTE_16QAM Band 4 Harmonics, 5MHz Bandwidth

Band
LTE4
5MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1712.5									
3425.00	-12.3	V	3.0	36.1	1.0	-47.4	-13.0	-34.4	
5137.50	-11.1	V	3.0	35.4	1.0	-45.5	-13.0	-32.5	
6850.00	-18.3	V	3.0	35.7	1.0	-52.9	-13.0	-39.9	
3425.00	-22.1	H	3.0	36.1	1.0	-57.2	-13.0	-44.2	
5137.50	-6.4	H	3.0	35.4	1.0	-40.8	-13.0	-27.8	
6850.00	-10.5	H	3.0	35.7	1.0	-45.2	-13.0	-32.2	
Mid Ch, 1732.5									
3465.00	-19.9	V	3.0	36.0	1.0	-54.9	-13.0	-41.9	
5197.50	-6.8	V	3.0	35.4	1.0	-41.2	-13.0	-28.2	
6930.00	-8.9	V	3.0	35.7	1.0	-43.5	-13.0	-30.5	
3465.00	-13.8	H	3.0	36.0	1.0	-48.8	-13.0	-35.8	
5197.50	-5.1	H	3.0	35.4	1.0	-39.5	-13.0	-26.5	
6930.00	-7.8	H	3.0	35.7	1.0	-42.5	-13.0	-29.5	
High Ch, 1752.5									
3505.00	-15.6	V	3.0	36.0	1.0	-50.6	-13.0	-37.6	
5257.50	-10.8	V	3.0	35.4	1.0	-45.3	-13.0	-32.3	
7010.00	-14.6	V	3.0	35.7	1.0	-49.3	-13.0	-36.3	
3505.00	-16.1	H	3.0	36.0	1.0	-51.1	-13.0	-38.1	
5257.50	-5.7	H	3.0	35.4	1.0	-40.1	-13.0	-27.1	
7010.00	-13.9	H	3.0	35.7	1.0	-48.6	-13.0	-35.6	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber B
Mode: LTE_QPSK Band 4 Harmonics, 5MHz Bandwidth

Band
LTE4
5MHz
QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1712.5									
3425.00	-10.9	V	3.0	36.1	1.0	-45.9	-13.0	-32.9	
5137.50	-10.3	V	3.0	35.4	1.0	-44.7	-13.0	-31.7	
6850.00	-20.8	V	3.0	35.7	1.0	-55.4	-13.0	-42.4	
3425.00	-21.3	H	3.0	36.1	1.0	-56.4	-13.0	-43.4	
5137.50	-6.3	H	3.0	35.4	1.0	-40.7	-13.0	-27.7	
6850.00	-10.7	H	3.0	35.7	1.0	-45.3	-13.0	-32.3	
Mid Ch, 1732.5									
3465.00	-21.0	V	3.0	36.0	1.0	-56.1	-13.0	-43.1	
5197.50	-7.7	V	3.0	35.4	1.0	-42.1	-13.0	-29.1	
6930.00	-9.0	V	3.0	35.7	1.0	-43.6	-13.0	-30.6	
3465.00	-14.0	H	3.0	36.0	1.0	-49.0	-13.0	-36.0	
5197.50	-4.6	H	3.0	35.4	1.0	-39.0	-13.0	-26.0	
6930.00	-6.5	H	3.0	35.7	1.0	-41.2	-13.0	-28.2	
High Ch, 1752.5									
3505.00	-15.5	V	3.0	36.0	1.0	-50.5	-13.0	-37.5	
5257.50	-10.2	V	3.0	35.4	1.0	-44.7	-13.0	-31.7	
7010.00	-14.9	V	3.0	35.7	1.0	-49.5	-13.0	-36.5	
3505.00	-14.7	H	3.0	36.0	1.0	-49.7	-13.0	-36.7	
5257.50	-5.1	H	3.0	35.4	1.0	-39.5	-13.0	-26.5	
7010.00	-13.6	H	3.0	35.7	1.0	-48.3	-13.0	-35.3	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber C
Mode: LTE_16QAM Band 4 Harmonics, 3MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 1711.5									
	3423.00	-16.6	V	3.0	36.1	1.0	-51.6	-13.0	-38.6	
LTE4	5134.50	-15.3	V	3.0	35.4	1.0	-49.8	-13.0	-36.8	
	6846.00	-18.2	V	3.0	35.7	1.0	-52.9	-13.0	-39.9	
3MHz	3423.00	-17.6	H	3.0	36.1	1.0	-52.6	-13.0	-39.6	
	5134.50	-11.8	H	3.0	35.4	1.0	-46.2	-13.0	-33.2	
	6846.00	-14.4	H	3.0	35.7	1.0	-49.1	-13.0	-36.1	
16QAM	Mid Ch, 1732.5									
	3465.00	-10.8	V	3.0	36.0	1.0	-45.9	-13.0	-32.9	
	5197.50	-9.8	V	3.0	35.4	1.0	-44.2	-13.0	-31.2	
	6930.00	-14.4	V	3.0	35.7	1.0	-49.0	-13.0	-36.0	
	3465.00	-15.4	H	3.0	36.0	1.0	-50.4	-13.0	-37.4	
	5197.50	-16.9	H	3.0	35.4	1.0	-51.3	-13.0	-38.3	
	6930.00	-12.0	H	3.0	35.7	1.0	-46.7	-13.0	-33.7	
	High Ch, 1753.5									
	3507.00	-16.4	V	3.0	36.0	1.0	-51.4	-13.0	-38.4	
	5260.50	-11.3	V	3.0	35.4	1.0	-45.7	-13.0	-32.7	
	7014.00	-3.5	V	3.0	35.7	1.0	-38.1	-13.0	-25.1	
	3507.00	-16.4	H	3.0	36.0	1.0	-51.4	-13.0	-38.4	
	5260.50	-9.6	H	3.0	35.4	1.0	-44.0	-13.0	-31.0	
	7014.00	-8.1	H	3.0	35.7	1.0	-42.8	-13.0	-29.8	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber C
Mode: LTE_QPSK Band 4 Harmonics, 3MHz Bandwidth

Band: LTE4 3MHz QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1711.5									
3423.00	-15.6	V	3.0	36.1	1.0	-50.7	-13.0	-37.7	
5134.50	-15.1	V	3.0	35.4	1.0	-49.5	-13.0	-36.5	
6846.00	-17.7	V	3.0	35.7	1.0	-52.3	-13.0	-39.3	
3423.00	-18.3	H	3.0	36.1	1.0	-53.3	-13.0	-40.3	
5134.50	-12.6	H	3.0	35.4	1.0	-47.0	-13.0	-34.0	
6846.00	-13.9	H	3.0	35.7	1.0	-48.6	-13.0	-35.6	
Mid Ch, 1732.5									
3465.00	-11.1	V	3.0	36.0	1.0	-46.1	-13.0	-33.1	
5197.50	-9.9	V	3.0	35.4	1.0	-44.3	-13.0	-31.3	
6930.00	-13.9	V	3.0	35.7	1.0	-48.6	-13.0	-35.6	
3465.00	-15.7	H	3.0	36.0	1.0	-50.7	-13.0	-37.7	
5197.50	-15.6	H	3.0	35.4	1.0	-50.0	-13.0	-37.0	
6930.00	-11.8	H	3.0	35.7	1.0	-46.4	-13.0	-33.4	
High Ch, 1753.5									
3507.00	-16.6	V	3.0	36.0	1.0	-51.6	-13.0	-38.6	
5260.50	-11.0	V	3.0	35.4	1.0	-45.5	-13.0	-32.5	
7014.00	-5.2	V	3.0	35.7	1.0	-39.9	-13.0	-26.9	
3507.00	-15.9	H	3.0	36.0	1.0	-50.9	-13.0	-37.9	
5260.50	-8.9	H	3.0	35.4	1.0	-43.4	-13.0	-30.4	
7014.00	-7.7	H	3.0	35.7	1.0	-42.4	-13.0	-29.4	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber C
Mode: LTE_16QAM Band 4 Harmonics, 1.4MHz Bandwidth

Band

LTE4

1.4MHz

16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1710.7									
3421.40	-13.6	V	3.0	36.1	1.0	-48.6	-13.0	-35.6	
5132.10	-3.8	V	3.0	35.4	1.0	-38.2	-13.0	-25.2	
6842.80	-15.9	V	3.0	35.7	1.0	-50.6	-13.0	-37.6	
3421.40	-14.7	H	3.0	36.1	1.0	-49.8	-13.0	-36.8	
5132.10	-11.8	H	3.0	35.4	1.0	-46.3	-13.0	-33.3	
6842.80	-14.6	H	3.0	35.7	1.0	-49.2	-13.0	-36.2	
Mid Ch, 1732.5									
3465.00	-16.0	V	3.0	36.0	1.0	-51.0	-13.0	-38.0	
5197.50	-6.7	V	3.0	35.4	1.0	-41.1	-13.0	-28.1	
6930.00	-12.6	V	3.0	35.7	1.0	-47.3	-13.0	-34.3	
3465.00	-16.4	H	3.0	36.0	1.0	-51.4	-13.0	-38.4	
5197.50	-5.1	H	3.0	35.4	1.0	-39.5	-13.0	-26.5	
6930.00	-10.3	H	3.0	35.7	1.0	-44.9	-13.0	-31.9	
High Ch, 1754.3									
3508.60	-18.0	V	3.0	36.0	1.0	-53.0	-13.0	-40.0	
5262.90	-13.5	V	3.0	35.4	1.0	-47.9	-13.0	-34.9	
7017.20	-8.9	V	3.0	35.7	1.0	-43.6	-13.0	-30.6	
3508.60	-16.4	H	3.0	36.0	1.0	-51.4	-13.0	-38.4	
5262.90	-6.8	H	3.0	35.4	1.0	-41.3	-13.0	-28.3	
7017.20	-9.4	H	3.0	35.7	1.0	-44.1	-13.0	-31.1	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber C
Mode: LTE_QPSK Band 4 Harmonics, 1.4MHz Bandwidth

Band
LTE4
1.4MHz
QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1710.7									
3421.40	-15.2	V	3.0	36.1	1.0	-50.3	-13.0	-37.3	
5132.10	-4.3	V	3.0	35.4	1.0	-38.7	-13.0	-25.7	
6842.80	-15.5	V	3.0	35.7	1.0	-50.2	-13.0	-37.2	
3421.40	-17.2	H	3.0	36.1	1.0	-52.3	-13.0	-39.3	
5132.10	-11.4	H	3.0	35.4	1.0	-45.9	-13.0	-32.9	
6842.80	-14.4	H	3.0	35.7	1.0	-49.1	-13.0	-36.1	
Mid Ch, 1732.5									
3465.00	-16.8	V	3.0	36.0	1.0	-51.9	-13.0	-38.9	
5197.50	-7.2	V	3.0	35.4	1.0	-41.6	-13.0	-28.6	
6930.00	-12.3	V	3.0	35.7	1.0	-47.0	-13.0	-34.0	
3465.00	-17.7	H	3.0	36.0	1.0	-52.7	-13.0	-39.7	
5197.50	-5.1	H	3.0	35.4	1.0	-39.5	-13.0	-26.5	
6930.00	-10.0	H	3.0	35.7	1.0	-44.7	-13.0	-31.7	
High Ch, 1754.3									
3508.60	-18.5	V	3.0	36.0	1.0	-53.5	-13.0	-40.5	
5262.90	-13.0	V	3.0	35.4	1.0	-47.5	-13.0	-34.5	
7017.20	-8.8	V	3.0	35.7	1.0	-43.5	-13.0	-30.5	
3508.60	-16.6	H	3.0	36.0	1.0	-51.6	-13.0	-38.6	
5262.90	-7.2	H	3.0	35.4	1.0	-41.7	-13.0	-28.7	
7017.20	-10.2	H	3.0	35.7	1.0	-44.9	-13.0	-31.9	

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LTE Band 5

UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: James Jackson
Configuration: EUT w/ AC Adaptor + HS, X-pos
Mode: LTE5 10MHz 16QAM HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band

LTE5

10MHz

16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 829MHz									
1.658	-22.3	V	3.0	37.4	1.0	-58.7	-13.0	-45.7	
2.487	-22.1	V	3.0	36.4	1.0	-57.5	-13.0	-44.5	
3.316	-23.0	V	3.0	35.8	1.0	-57.8	-13.0	-44.8	
1.658	-24.7	H	3.0	37.4	1.0	-61.0	-13.0	-48.0	
2.487	-25.8	H	3.0	36.4	1.0	-61.2	-13.0	-48.2	
3.316	-23.4	H	3.0	35.8	1.0	-58.2	-13.0	-45.2	
Mid Ch, 836.5MHz									
1.673	-26.2	V	3.0	37.3	1.0	-62.5	-13.0	-49.5	
2.510	-23.0	V	3.0	36.4	1.0	-58.4	-13.0	-45.4	
3.346	-23.4	V	3.0	35.8	1.0	-58.2	-13.0	-45.2	
1.673	-27.7	H	3.0	37.3	1.0	-64.1	-13.0	-51.1	
2.510	-23.7	H	3.0	36.4	1.0	-59.1	-13.0	-46.1	
3.346	-23.6	H	3.0	35.8	1.0	-58.3	-13.0	-45.3	
High Ch, 844MHz									
1.688	-24.3	V	3.0	37.3	1.0	-60.7	-13.0	-47.7	
2.532	-22.5	V	3.0	36.3	1.0	-57.8	-13.0	-44.8	
3.376	-23.2	V	3.0	35.7	1.0	-57.9	-13.0	-44.9	
1.688	-23.6	H	3.0	37.3	1.0	-60.0	-13.0	-47.0	
2.532	-25.4	H	3.0	36.3	1.0	-60.7	-13.0	-47.7	
3.376	-23.4	H	3.0	35.7	1.0	-58.1	-13.0	-45.1	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: James Jackson
Configuration: EUT w/ AC Adaptor + HS, X-pos
Mode: LTE5 10MHz QPSK HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band

LTE5

10MHz

QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	(dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 829MHz									
1.658	-22.3	V	3.0	37.4	1.0	-58.7	-13.0	-45.7	
2.487	-22.4	V	3.0	36.4	1.0	-57.8	-13.0	-44.8	
3.316	-23.4	V	3.0	35.8	1.0	-58.2	-13.0	-45.2	
1.658	-24.4	H	3.0	37.4	1.0	-60.8	-13.0	-47.8	
2.487	-25.3	H	3.0	36.4	1.0	-60.7	-13.0	-47.7	
3.316	-24.0	H	3.0	35.8	1.0	-58.7	-13.0	-45.7	
Mid Ch, 836.5MHz									
1.673	-25.5	V	3.0	37.3	1.0	-61.9	-13.0	-48.9	
2.510	-19.4	V	3.0	36.4	1.0	-54.7	-13.0	-41.7	
3.346	-24.0	V	3.0	35.8	1.0	-58.7	-13.0	-45.7	
1.673	-27.6	H	3.0	37.3	1.0	-63.9	-13.0	-50.9	
2.510	-24.4	H	3.0	36.4	1.0	-59.7	-13.0	-46.7	
3.346	-23.0	H	3.0	35.8	1.0	-57.8	-13.0	-44.8	
High Ch, 844 MHz									
1.688	-23.5	V	3.0	37.3	1.0	-59.9	-13.0	-46.9	
2.532	-23.0	V	3.0	36.3	1.0	-58.3	-13.0	-45.3	
3.376	-23.2	V	3.0	35.7	1.0	-57.9	-13.0	-44.9	
1.688	-24.7	H	3.0	37.3	1.0	-61.0	-13.0	-48.0	
2.532	-25.9	H	3.0	36.3	1.0	-61.3	-13.0	-48.3	
3.376	-24.1	H	3.0	35.7	1.0	-58.8	-13.0	-45.8	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: James Jackson
Configuration: EUT w/ AC Adaptor + HS, X-pos
Mode: LTE5 5MHz 16QAM HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band

LTE5

5MHz

16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.5MHz									
1.653	-26.3	V	3.0	37.4	1.0	-62.7	-13.0	-49.7	
2.480	-23.5	V	3.0	36.4	1.0	-58.9	-13.0	-45.9	
3.306	-23.6	V	3.0	35.8	1.0	-58.4	-13.0	-45.4	
1.653	-26.5	H	3.0	37.4	1.0	-62.9	-13.0	-49.9	
2.480	-26.2	H	3.0	36.4	1.0	-61.6	-13.0	-48.6	
3.306	-23.3	H	3.0	35.8	1.0	-58.1	-13.0	-45.1	
Mid Ch, 836.5MHz									
1.673	-21.6	V	3.0	37.3	1.0	-57.9	-13.0	-44.9	
2.510	-22.6	V	3.0	36.4	1.0	-57.9	-13.0	-44.9	
3.346	-22.9	V	3.0	35.8	1.0	-57.7	-13.0	-44.7	
1.673	-24.8	H	3.0	37.3	1.0	-61.1	-13.0	-48.1	
2.510	-25.7	H	3.0	36.4	1.0	-61.0	-13.0	-48.0	
3.346	-23.6	H	3.0	35.8	1.0	-58.3	-13.0	-45.3	
High Ch, 846.5MHz									
1.693	-24.7	V	3.0	37.3	1.0	-61.0	-13.0	-48.0	
2.540	-23.3	V	3.0	36.3	1.0	-58.6	-13.0	-45.6	
3.386	-23.6	V	3.0	35.7	1.0	-58.3	-13.0	-45.3	
1.693	-25.3	H	3.0	37.3	1.0	-61.6	-13.0	-48.6	
2.540	-25.7	H	3.0	36.3	1.0	-61.0	-13.0	-48.0	
3.386	-24.1	H	3.0	35.7	1.0	-58.8	-13.0	-45.8	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: James Jackson
Configuration: EUT w/ AC Adaptor + HS, X-pos
Mode: LTE5 5MHz QPSK HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band
LTE5
5MHz
QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	(dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.5MHz									
1.653	-25.5	V	3.0	37.4	1.0	-61.9	-13.0	-48.9	
2.480	-22.9	V	3.0	36.4	1.0	-58.3	-13.0	-45.3	
3.306	-23.9	V	3.0	35.8	1.0	-58.7	-13.0	-45.7	
1.653	-26.2	H	3.0	37.4	1.0	-62.6	-13.0	-49.6	
2.480	-25.6	H	3.0	36.4	1.0	-60.9	-13.0	-47.9	
3.306	-22.3	H	3.0	35.8	1.0	-57.1	-13.0	-44.1	
Mid Ch, 836.5MHz									
1.673	-20.9	V	3.0	37.3	1.0	-57.3	-13.0	-44.3	
2.510	-22.3	V	3.0	36.4	1.0	-57.7	-13.0	-44.7	
3.346	-23.0	V	3.0	35.8	1.0	-57.7	-13.0	-44.7	
1.673	-24.8	H	3.0	37.3	1.0	-61.1	-13.0	-48.1	
2.510	-24.8	H	3.0	36.4	1.0	-60.2	-13.0	-47.2	
3.346	-23.3	H	3.0	35.8	1.0	-58.1	-13.0	-45.1	
High Ch, 846.5 MHz									
1.693	-23.9	V	3.0	37.3	1.0	-60.3	-13.0	-47.3	
2.540	-23.5	V	3.0	36.3	1.0	-58.8	-13.0	-45.8	
3.386	-23.4	V	3.0	35.7	1.0	-58.1	-13.0	-45.1	
1.693	-25.0	H	3.0	37.3	1.0	-61.3	-13.0	-48.3	
2.540	-23.2	H	3.0	36.3	1.0	-58.5	-13.0	-45.5	
3.386	-24.0	H	3.0	35.7	1.0	-58.7	-13.0	-45.7	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: J. Jackson
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: LTE5_3M_16QAM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band

LTE5

3MHz

16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	(dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 825.5MHz									
1.65	-25.6	V	3.0	37.4	1.0	-62.0	-13.0	-49.0	
2.48	-24.1	V	3.0	36.4	1.0	-59.5	-13.0	-46.5	
3.30	-23.9	V	3.0	35.8	1.0	-58.7	-13.0	-45.7	
1.65	-25.9	H	3.0	37.4	1.0	-62.3	-13.0	-49.3	
2.48	-26.1	H	3.0	36.4	1.0	-61.5	-13.0	-48.5	
3.30	-23.6	H	3.0	35.8	1.0	-58.4	-13.0	-45.4	
Mid Ch, 836.5MHz									
1.673	-21.3	V	3.0	37.3	1.0	-57.6	-13.0	-44.6	
2.510	-23.6	V	3.0	36.4	1.0	-58.9	-13.0	-45.9	
3.346	-23.5	V	3.0	35.8	1.0	-58.3	-13.0	-45.3	
1.673	-24.4	H	3.0	37.3	1.0	-60.8	-13.0	-47.8	
2.510	-24.9	H	3.0	36.4	1.0	-60.3	-13.0	-47.3	
3.346	-22.9	H	3.0	35.8	1.0	-57.6	-13.0	-44.6	
High Ch, 847.5 MHz									
1.70	-24.0	V	3.0	37.3	1.0	-60.3	-13.0	-47.3	
2.54	-22.3	V	3.0	36.3	1.0	-57.6	-13.0	-44.6	
3.39	-23.4	V	3.0	35.7	1.0	-58.1	-13.0	-45.1	
1.70	-23.6	H	3.0	37.3	1.0	-59.9	-13.0	-46.9	
2.54	-24.5	H	3.0	36.3	1.0	-59.8	-13.0	-46.8	
3.39	-23.6	H	3.0	35.7	1.0	-58.3	-13.0	-45.3	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: J. Jackson
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: LTE5_3M_QPSK

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band
LTE5
3MHz
QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	(dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 825.5MHz									
1.65	-25.2	V	3.0	37.4	1.0	-61.6	-13.0	-48.6	
2.48	-24.1	V	3.0	36.4	1.0	-59.4	-13.0	-46.4	
3.30	-24.3	V	3.0	35.8	1.0	-59.1	-13.0	-46.1	
1.65	-26.4	H	3.0	37.4	1.0	-62.8	-13.0	-49.8	
2.48	-26.8	H	3.0	36.4	1.0	-62.1	-13.0	-49.1	
3.30	-23.6	H	3.0	35.8	1.0	-58.4	-13.0	-45.4	
Mid Ch, 836.5MHz									
1.673	-21.1	V	3.0	37.3	1.0	-57.4	-13.0	-44.4	
2.510	-24.0	V	3.0	36.4	1.0	-59.4	-13.0	-46.4	
3.346	-23.8	V	3.0	35.8	1.0	-58.6	-13.0	-45.6	
1.673	-24.1	H	3.0	37.3	1.0	-60.5	-13.0	-47.5	
2.510	-25.0	H	3.0	36.4	1.0	-60.4	-13.0	-47.4	
3.346	-23.2	H	3.0	35.8	1.0	-57.9	-13.0	-44.9	
High Ch, 847.5 MHz									
1.70	-25.3	V	3.0	37.3	1.0	-61.6	-13.0	-48.6	
2.54	-22.9	V	3.0	36.3	1.0	-58.3	-13.0	-45.3	
3.39	-23.6	V	3.0	35.7	1.0	-58.3	-13.0	-45.3	
1.70	-23.3	H	3.0	37.3	1.0	-59.6	-13.0	-46.6	
2.54	-25.6	H	3.0	36.3	1.0	-60.9	-13.0	-47.9	
3.39	-23.6	H	3.0	35.7	1.0	-58.3	-13.0	-45.3	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: J. Jackson
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: LTE5 1.4MHz 16QAM HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band
LTE5
1.4MHz
16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	(dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.7MHz									
1.65	-25.7	V	3.0	37.4	1.0	-62.1	-13.0	-49.1	
2.47	-23.3	V	3.0	36.4	1.0	-58.6	-13.0	-45.6	
3.30	-23.2	V	3.0	35.8	1.0	-58.0	-13.0	-45.0	
1.65	-27.1	H	3.0	37.4	1.0	-63.5	-13.0	-50.5	
2.47	-25.8	H	3.0	36.4	1.0	-61.2	-13.0	-48.2	
3.30	-24.0	H	3.0	35.8	1.0	-58.8	-13.0	-45.8	
Mid Ch, 836.5MHz									
1.673	-24.9	V	3.0	37.3	1.0	-61.2	-13.0	-48.2	
2.510	-23.2	V	3.0	36.4	1.0	-58.6	-13.0	-45.6	
3.346	-23.8	V	3.0	35.8	1.0	-58.6	-13.0	-45.6	
1.673	-24.7	H	3.0	37.3	1.0	-61.0	-13.0	-48.0	
2.510	-24.2	H	3.0	36.4	1.0	-59.6	-13.0	-46.6	
3.346	-23.7	H	3.0	35.8	1.0	-58.5	-13.0	-45.5	
High Ch, 848.3 MHz									
1.70	-24.2	V	3.0	37.3	1.0	-60.5	-13.0	-47.5	
2.54	-22.3	V	3.0	36.3	1.0	-57.7	-13.0	-44.7	
3.39	-23.7	V	3.0	35.7	1.0	-58.4	-13.0	-45.4	
1.70	-23.1	H	3.0	37.3	1.0	-59.4	-13.0	-46.4	
2.54	-26.3	H	3.0	36.3	1.0	-61.6	-13.0	-48.6	
3.39	-23.4	H	3.0	35.7	1.0	-58.1	-13.0	-45.1	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: J. Jackson
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: LTE5 1.4MHz QPSK HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band

LTE5

1.4MHz

QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	(dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.7MHz									
1.65	-26.1	V	3.0	37.4	1.0	-62.4	-13.0	-49.4	
2.47	-22.7	V	3.0	36.4	1.0	-58.1	-13.0	-45.1	
3.30	-23.6	V	3.0	35.8	1.0	-58.4	-13.0	-45.4	
1.65	-26.5	H	3.0	37.4	1.0	-62.9	-13.0	-49.9	
2.47	-26.0	H	3.0	36.4	1.0	-61.4	-13.0	-48.4	
3.30	-24.0	H	3.0	35.8	1.0	-58.8	-13.0	-45.8	
Mid Ch, 836.5MHz									
1.673	-24.3	V	3.0	37.3	1.0	-60.6	-13.0	-47.6	
2.510	-23.4	V	3.0	36.4	1.0	-58.7	-13.0	-45.7	
3.346	-23.9	V	3.0	35.8	1.0	-58.7	-13.0	-45.7	
1.673	-25.2	H	3.0	37.3	1.0	-61.5	-13.0	-48.5	
2.510	-25.9	H	3.0	36.4	1.0	-61.3	-13.0	-48.3	
3.346	-23.6	H	3.0	35.8	1.0	-58.3	-13.0	-45.3	
High Ch, 848.3 MHz									
1.70	-24.2	V	3.0	37.3	1.0	-60.5	-13.0	-47.5	
2.54	-23.1	V	3.0	36.3	1.0	-58.5	-13.0	-45.5	
3.39	-23.7	V	3.0	35.7	1.0	-58.4	-13.0	-45.4	
1.70	-23.0	H	3.0	37.3	1.0	-59.3	-13.0	-46.3	
2.54	-25.1	H	3.0	36.3	1.0	-60.5	-13.0	-47.5	
3.39	-23.2	H	3.0	35.7	1.0	-57.9	-13.0	-44.9	

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LTE Band 12

UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: J. Jackson
Configuration: EUT , AC Adapter
Location: Chamber C
Mode: LTE_16QAM Band 12 Harmonics, 10MHz Bandwidth

Band
LTE12
10MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch,704									
1408.00	-24.6	V	3.0	37.4	1.0	-60.9	-13.0	-47.9	
2112.00	-22.9	V	3.0	36.6	1.0	-58.5	-13.0	-45.5	
2816.00	-22.6	V	3.0	36.4	1.0	-58.0	-13.0	-45.0	
1408.00	-12.6	H	3.0	37.4	1.0	-49.0	-13.0	-36.0	
2112.00	-18.2	H	3.0	36.6	1.0	-53.8	-13.0	-40.8	
2816.00	-22.5	H	3.0	36.4	1.0	-57.9	-13.0	-44.9	
Mid Ch,707.5									
1415.00	-25.5	V	3.0	37.3	1.0	-61.8	-13.0	-48.8	
2122.50	-23.4	V	3.0	36.6	1.0	-59.0	-13.0	-46.0	
2830.00	-22.4	V	3.0	36.4	1.0	-57.8	-13.0	-44.8	
1415.00	-22.8	H	3.0	37.3	1.0	-59.1	-13.0	-46.1	
2122.50	-23.7	H	3.0	36.6	1.0	-59.2	-13.0	-46.2	
2830.00	-23.5	H	3.0	36.4	1.0	-58.8	-13.0	-45.8	
High Ch,711									
1422.00	-22.4	V	3.0	37.3	1.0	-58.8	-13.0	-45.8	
2133.00	-17.3	V	3.0	36.6	1.0	-52.9	-13.0	-39.9	
2844.00	-21.5	V	3.0	36.4	1.0	-56.9	-13.0	-43.9	
1422.00	-13.9	H	3.0	37.3	1.0	-50.3	-13.0	-37.3	
2133.00	-19.7	H	3.0	36.6	1.0	-55.3	-13.0	-42.3	
2844.00	-19.4	H	3.0	36.4	1.0	-54.8	-13.0	-41.8	

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UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: J. Jackson
Configuration: EUT , AC Adapter
Location: Chamber C
Mode: LTE_QPSK Band 12 Harmonics, 10MHz Bandwidth

Band
LTE12
10MHz
QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch,704									
1408.00	-25.1	V	3.0	37.4	1.0	-61.5	-13.0	-48.5	
2112.00	-23.0	V	3.0	36.6	1.0	-58.6	-13.0	-45.6	
2816.00	-22.3	V	3.0	36.4	1.0	-57.7	-13.0	-44.7	
1408.00	-12.8	H	3.0	37.4	1.0	-49.1	-13.0	-36.1	
2112.00	-16.2	H	3.0	36.6	1.0	-51.7	-13.0	-38.7	
2816.00	-22.6	H	3.0	36.4	1.0	-58.0	-13.0	-45.0	
Mid Ch,707.5									
1415.00	-25.8	V	3.0	37.3	1.0	-62.1	-13.0	-49.1	
2122.50	-23.5	V	3.0	36.6	1.0	-59.1	-13.0	-46.1	
2830.00	-23.0	V	3.0	36.4	1.0	-58.4	-13.0	-45.4	
1415.00	-20.0	H	3.0	37.3	1.0	-56.3	-13.0	-43.3	
2122.50	-23.4	H	3.0	36.6	1.0	-59.0	-13.0	-46.0	
2830.00	-22.2	H	3.0	36.4	1.0	-57.6	-13.0	-44.6	
High Ch,711									
1422.00	-22.7	V	3.0	37.3	1.0	-59.0	-13.0	-46.0	
2133.00	-18.0	V	3.0	36.6	1.0	-53.6	-13.0	-40.6	
2844.00	-20.6	V	3.0	36.4	1.0	-56.0	-13.0	-43.0	
1422.00	-13.9	H	3.0	37.3	1.0	-50.2	-13.0	-37.2	
2133.00	-19.2	H	3.0	36.6	1.0	-54.8	-13.0	-41.8	
2844.00	-18.8	H	3.0	36.4	1.0	-54.2	-13.0	-41.2	

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UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: J. Jackson
Configuration: EUT , AC Adapter
Location: Chamber C
Mode: LTE_16QAM Band 12 Harmonics, 5MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
LTE12	Low Ch, 701.50									
	1403.00	-13.8	V	3.0	37.4	1.0	-50.1	-13.0	-37.1	
5MHz	2104.50	-17.1	V	3.0	36.6	1.0	-52.7	-13.0	-39.7	
	2806.00	-22.0	V	3.0	36.4	1.0	-57.4	-13.0	-44.4	
16QAM	1403.00	-12.7	H	3.0	37.4	1.0	-49.0	-13.0	-36.0	
	2104.50	-17.0	H	3.0	36.6	1.0	-52.5	-13.0	-39.5	
	2806.00	-21.0	H	3.0	36.4	1.0	-56.3	-13.0	-43.3	
	Mid Ch, 707.50									
	1415.00	-16.0	V	3.0	37.3	1.0	-52.3	-13.0	-39.3	
	2122.50	-19.6	V	3.0	36.6	1.0	-55.1	-13.0	-42.1	
	2830.00	-17.5	V	3.0	36.4	1.0	-52.9	-13.0	-39.9	
	1415.00	-15.5	H	3.0	37.3	1.0	-51.8	-13.0	-38.8	
	2122.50	-24.4	H	3.0	36.6	1.0	-59.9	-13.0	-46.9	
	2830.00	-20.8	H	3.0	36.4	1.0	-56.2	-13.0	-43.2	
	High Ch, 713.50									
	1427.00	-13.1	V	3.0	37.3	1.0	-49.5	-13.0	-36.5	
	2140.50	-21.9	V	3.0	36.6	1.0	-57.4	-13.0	-44.4	
	2854.00	-18.0	V	3.0	36.4	1.0	-53.4	-13.0	-40.4	
	1427.00	-14.6	H	3.0	37.3	1.0	-50.9	-13.0	-37.9	
	2140.50	-19.1	H	3.0	36.6	1.0	-54.7	-13.0	-41.7	
	2854.00	-23.9	H	3.0	36.4	1.0	-59.3	-13.0	-46.3	

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UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: J. Jackson
Configuration: EUT , AC Adapter
Location: Chamber C
Mode: LTE_QPSK Band 12 Harmonics, 5MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
LTE12	Low Ch, 701.50									
	1403.00	-13.9	V	3.0	37.4	1.0	-50.3	-13.0	-37.3	
5MHz	2104.50	-16.5	V	3.0	36.6	1.0	-52.1	-13.0	-39.1	
	2806.00	-21.9	V	3.0	36.4	1.0	-57.2	-13.0	-44.2	
QPSK	1403.00	-12.7	H	3.0	37.4	1.0	-49.0	-13.0	-36.0	
	2104.50	-16.6	H	3.0	36.6	1.0	-52.2	-13.0	-39.2	
	2806.00	-19.5	H	3.0	36.4	1.0	-54.9	-13.0	-41.9	
	Mid Ch, 707.50									
	1415.00	-15.9	V	3.0	37.3	1.0	-52.2	-13.0	-39.2	
	2122.50	-18.8	V	3.0	36.6	1.0	-54.4	-13.0	-41.4	
	2830.00	-16.7	V	3.0	36.4	1.0	-52.1	-13.0	-39.1	
	1415.00	-15.3	H	3.0	37.3	1.0	-51.6	-13.0	-38.6	
	2122.50	-25.0	H	3.0	36.6	1.0	-60.6	-13.0	-47.6	
	2830.00	-21.3	H	3.0	36.4	1.0	-56.7	-13.0	-43.7	
	High Ch, 713.50									
	1427.00	-13.3	V	3.0	37.3	1.0	-49.6	-13.0	-36.6	
	2140.50	-21.8	V	3.0	36.6	1.0	-57.3	-13.0	-44.3	
	2854.00	-20.6	V	3.0	36.4	1.0	-55.9	-13.0	-42.9	
	1427.00	-14.5	H	3.0	37.3	1.0	-50.8	-13.0	-37.8	
	2140.50	-19.3	H	3.0	36.6	1.0	-54.8	-13.0	-41.8	
	2854.00	-22.1	H	3.0	36.4	1.0	-57.5	-13.0	-44.5	

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UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 02/02/15
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber C
Mode: LTE_16QAM Band 12 Harmonics, 3MHz Bandwidth

Band
LTE12
3MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 700.5									
1401.00	-16.4	V	3.0	37.4	1.0	-52.7	-13.0	-39.7	
2101.50	-4.7	V	3.0	36.6	1.0	-40.3	-13.0	-27.3	
2802.00	-20.3	V	3.0	36.4	1.0	-55.7	-13.0	-42.7	
1401.00	-15.0	H	3.0	37.4	1.0	-51.4	-13.0	-38.4	
2101.50	-6.3	H	3.0	36.6	1.0	-41.9	-13.0	-28.9	
2802.00	-20.6	H	3.0	36.4	1.0	-56.0	-13.0	-43.0	
Mid Ch, 707.50									
1415.00	-14.2	V	3.0	37.3	1.0	-50.5	-13.0	-37.5	
2122.00	-6.2	V	3.0	36.6	1.0	-41.8	-13.0	-28.8	
2830.00	-17.9	V	3.0	36.4	1.0	-53.3	-13.0	-40.3	
1415.00	-15.3	H	3.0	37.3	1.0	-51.7	-13.0	-38.7	
2122.00	-5.1	H	3.0	36.6	1.0	-40.7	-13.0	-27.7	
2830.00	-16.8	H	3.0	36.4	1.0	-52.2	-13.0	-39.2	
High Ch, 714.5									
1429.00	-19.9	V	3.0	37.3	1.0	-56.2	-13.0	-43.2	
2143.50	-8.5	V	3.0	36.6	1.0	-44.0	-13.0	-31.0	
2858.00	-18.3	V	3.0	36.4	1.0	-53.7	-13.0	-40.7	
1429.00	-18.1	H	3.0	37.3	1.0	-54.5	-13.0	-41.5	
2143.50	-8.6	H	3.0	36.6	1.0	-44.1	-13.0	-31.1	
2858.00	-20.3	H	3.0	36.4	1.0	-55.7	-13.0	-42.7	

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UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 02/02/15
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber C
Mode: LTE_QPSK Band 12 Harmonics, 3MHz Bandwidth

Band
LTE12
3MHz
QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 700.5									
1401.00	-16.7	V	3.0	37.4	1.0	-53.1	-13.0	-40.1	
2101.50	-4.1	V	3.0	36.6	1.0	-39.7	-13.0	-26.7	
2802.00	-19.7	V	3.0	36.4	1.0	-55.1	-13.0	-42.1	
1401.00	-15.2	H	3.0	37.4	1.0	-51.5	-13.0	-38.5	
2101.50	-6.7	H	3.0	36.6	1.0	-42.3	-13.0	-29.3	
2802.00	-20.1	H	3.0	36.4	1.0	-55.5	-13.0	-42.5	
Mid Ch, 707.50									
1415.00	-14.0	V	3.0	37.3	1.0	-50.4	-13.0	-37.4	
2122.00	-6.7	V	3.0	36.6	1.0	-42.2	-13.0	-29.2	
2830.00	-17.8	V	3.0	36.4	1.0	-53.1	-13.0	-40.1	
1415.00	-15.1	H	3.0	37.3	1.0	-51.5	-13.0	-38.5	
2122.00	-5.2	H	3.0	36.6	1.0	-40.7	-13.0	-27.7	
2830.00	-16.6	H	3.0	36.4	1.0	-52.0	-13.0	-39.0	
High Ch, 714.5									
1429.00	-19.7	V	3.0	37.3	1.0	-56.0	-13.0	-43.0	
2143.50	-8.4	V	3.0	36.6	1.0	-43.9	-13.0	-30.9	
2858.00	-18.1	V	3.0	36.4	1.0	-53.5	-13.0	-40.5	
1429.00	-18.4	H	3.0	37.3	1.0	-54.7	-13.0	-41.7	
2143.50	-8.6	H	3.0	36.6	1.0	-44.1	-13.0	-31.1	
2858.00	-19.2	H	3.0	36.4	1.0	-54.6	-13.0	-41.6	

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UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 02/02/15
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber C
Mode: LTE_16QAM Band 12 Harmonics, 1.4MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
LTE12	Low Ch, 699.7									
	1399.40	-15.5	V	3.0	37.4	1.0	-51.8	-13.0	-38.8	
1.4MHz	2099.10	-3.0	V	3.0	36.6	1.0	-38.5	-13.0	-25.5	
	2798.80	-22.5	V	3.0	36.4	1.0	-57.9	-13.0	-44.9	
16QAM	1399.40	-15.1	H	3.0	37.4	1.0	-51.5	-13.0	-38.5	
	2099.10	-4.0	H	3.0	36.6	1.0	-39.5	-13.0	-26.5	
	2798.80	-20.0	H	3.0	36.4	1.0	-55.4	-13.0	-42.4	
	Mid Ch, 707.50									
	1415.00	-12.8	V	3.0	37.3	1.0	-49.1	-13.0	-36.1	
	2122.00	-4.6	V	3.0	36.6	1.0	-40.2	-13.0	-27.2	
	2830.00	-19.2	V	3.0	36.4	1.0	-54.6	-13.0	-41.6	
	1415.00	-13.5	H	3.0	37.3	1.0	-49.8	-13.0	-36.8	
	2122.00	-6.4	H	3.0	36.6	1.0	-42.0	-13.0	-29.0	
	2830.00	-17.3	H	3.0	36.4	1.0	-52.7	-13.0	-39.7	
	High Ch, 715.3									
	1430.60	-16.4	V	3.0	37.3	1.0	-52.8	-13.0	-39.8	
	2145.90	-8.3	V	3.0	36.6	1.0	-43.8	-13.0	-30.8	
	2861.20	-20.5	V	3.0	36.4	1.0	-55.9	-13.0	-42.9	
	1430.60	-18.2	H	3.0	37.3	1.0	-54.6	-13.0	-41.6	
	2145.90	-9.3	H	3.0	36.6	1.0	-44.8	-13.0	-31.8	
	2861.20	-21.9	H	3.0	36.4	1.0	-57.3	-13.0	-44.3	

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UL Verification Services Chamber B
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 02/02/15
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber C
Mode: LTE_QPSK Band 12 Harmonics, 1.4MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
LTE12	Low Ch, 699.7									
	1399.40	-15.6	V	3.0	37.4	1.0	-52.0	-13.0	-39.0	
1.4MHz	2099.10	-4.3	V	3.0	36.6	1.0	-39.9	-13.0	-26.9	
	2798.80	-22.0	V	3.0	36.4	1.0	-57.4	-13.0	-44.4	
QPSK	1399.40	-15.4	H	3.0	37.4	1.0	-51.7	-13.0	-38.7	
	2099.10	-4.9	H	3.0	36.6	1.0	-40.5	-13.0	-27.5	
	2798.80	-22.4	H	3.0	36.4	1.0	-57.8	-13.0	-44.8	
	Mid Ch, 707.50									
	1415.00	-13.1	V	3.0	37.3	1.0	-49.4	-13.0	-36.4	
	2122.00	-6.1	V	3.0	36.6	1.0	-41.7	-13.0	-28.7	
	2830.00	-18.9	V	3.0	36.4	1.0	-54.3	-13.0	-41.3	
	1415.00	-13.8	H	3.0	37.3	1.0	-50.2	-13.0	-37.2	
	2122.00	-5.1	H	3.0	36.6	1.0	-40.7	-13.0	-27.7	
	2830.00	-17.0	H	3.0	36.4	1.0	-52.4	-13.0	-39.4	
	High Ch, 715.3									
	1430.60	-16.5	V	3.0	37.3	1.0	-52.8	-13.0	-39.8	
	2145.90	-8.2	V	3.0	36.6	1.0	-43.8	-13.0	-30.8	
	2861.20	-20.2	V	3.0	36.4	1.0	-55.6	-13.0	-42.6	
	1430.60	-17.8	H	3.0	37.3	1.0	-54.2	-13.0	-41.2	
	2145.90	-9.0	H	3.0	36.6	1.0	-44.6	-13.0	-31.6	
	2861.20	-21.3	H	3.0	36.4	1.0	-56.7	-13.0	-43.7	

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LTE Band 25

Band

LTE25

20MHz

16QAM

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_16QAM Band 25 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1860									
3720.00	-11.0	V	3.0	35.8	1.0	-45.8	-13.0	-32.8	
5580.00	-7.4	V	3.0	35.5	1.0	-41.9	-13.0	-28.9	
7440.00	-1.4	V	3.0	35.7	1.0	-36.2	-13.0	-23.2	
3720.00	-10.8	H	3.0	35.8	1.0	-45.6	-13.0	-32.6	
5580.00	-6.5	H	3.0	35.5	1.0	-41.0	-13.0	-28.0	
7440.00	-0.5	H	3.0	35.7	1.0	-35.2	-13.0	-22.2	
Mid Ch, 1882.5									
3765.00	-9.9	V	3.0	35.8	1.0	-44.7	-13.0	-31.7	
5647.50	-7.1	V	3.0	35.5	1.0	-41.5	-13.0	-28.5	
7530.00	-2.5	V	3.0	35.7	1.0	-37.2	-13.0	-24.2	
3765.00	-10.5	H	3.0	35.8	1.0	-45.3	-13.0	-32.3	
5647.50	-5.1	H	3.0	35.5	1.0	-39.6	-13.0	-26.6	
7530.00	-1.8	H	3.0	35.7	1.0	-36.5	-13.0	-23.5	
High Ch, 1905									
3810.00	-9.7	V	3.0	35.8	1.0	-44.5	-13.0	-31.5	
5715.00	-6.9	V	3.0	35.5	1.0	-41.4	-13.0	-28.4	
7620.00	-0.8	V	3.0	35.8	1.0	-35.5	-13.0	-22.5	
3810.00	-10.4	H	3.0	35.8	1.0	-45.2	-13.0	-32.2	
5715.00	-6.6	H	3.0	35.5	1.0	-41.1	-13.0	-28.1	
7620.00	-0.9	H	3.0	35.8	1.0	-35.6	-13.0	-22.6	

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Band

LTE25

20MHz

QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_QPSK Band 25 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1860									
3720.00	-9.7	V	3.0	35.8	1.0	-44.5	-13.0	-31.5	
5580.00	-6.7	V	3.0	35.5	1.0	-41.2	-13.0	-28.2	
7440.00	-1.6	V	3.0	35.7	1.0	-36.3	-13.0	-23.3	
3720.00	-9.7	H	3.0	35.8	1.0	-44.6	-13.0	-31.6	
5580.00	-5.7	H	3.0	35.5	1.0	-40.2	-13.0	-27.2	
7440.00	-1.3	H	3.0	35.7	1.0	-36.0	-13.0	-23.0	
Mid Ch, 1882.5									
3765.00	-9.6	V	3.0	35.8	1.0	-44.4	-13.0	-31.4	
5647.50	-7.5	V	3.0	35.5	1.0	-42.0	-13.0	-29.0	
7530.00	-2.2	V	3.0	35.7	1.0	-36.9	-13.0	-23.9	
3765.00	-10.4	H	3.0	35.8	1.0	-45.2	-13.0	-32.2	
5647.50	-5.3	H	3.0	35.5	1.0	-39.8	-13.0	-26.8	
7530.00	-0.8	H	3.0	35.7	1.0	-35.6	-13.0	-22.6	
High Ch, 1905									
3810.00	-9.5	V	3.0	35.8	1.0	-44.3	-13.0	-31.3	
5715.00	-7.1	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7620.00	-1.1	V	3.0	35.8	1.0	-35.9	-13.0	-22.9	
3810.00	-10.4	H	3.0	35.8	1.0	-45.1	-13.0	-32.1	
5715.00	-6.2	H	3.0	35.5	1.0	-40.7	-13.0	-27.7	
7620.00	-0.7	H	3.0	35.8	1.0	-35.4	-13.0	-22.4	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_16QAM Band 25 Harmonics, 15MHz Bandwidth

Band
LTE25
15MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1857.5									
3715.00	-10.1	V	3.0	35.8	1.0	-44.9	-13.0	-31.9	
5572.50	-7.1	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7430.00	-2.0	V	3.0	35.7	1.0	-36.7	-13.0	-23.7	
3715.00	-11.4	H	3.0	35.8	1.0	-46.2	-13.0	-33.2	
5572.50	-7.3	H	3.0	35.5	1.0	-41.8	-13.0	-28.8	
7430.00	-0.9	H	3.0	35.7	1.0	-35.6	-13.0	-22.6	
Mid Ch, 1882.5									
3815.00	-10.4	V	3.0	35.8	1.0	-45.2	-13.0	-32.2	
5722.50	-7.3	V	3.0	35.5	1.0	-41.8	-13.0	-28.8	
7630.00	-2.2	V	3.0	35.7	1.0	-37.0	-13.0	-24.0	
3815.00	-9.5	H	3.0	35.8	1.0	-44.3	-13.0	-31.3	
5722.50	-6.5	H	3.0	35.5	1.0	-41.0	-13.0	-28.0	
7630.00	-1.8	H	3.0	35.7	1.0	-36.5	-13.0	-23.5	
High Ch, 1907.5									
3815.00	-10.2	V	3.0	35.8	1.0	-45.0	-13.0	-32.0	
5722.50	-6.5	V	3.0	35.5	1.0	-41.0	-13.0	-28.0	
7630.00	-1.2	V	3.0	35.8	1.0	-36.0	-13.0	-23.0	
3815.00	-9.4	H	3.0	35.8	1.0	-44.2	-13.0	-31.2	
5722.50	-6.1	H	3.0	35.5	1.0	-40.6	-13.0	-27.6	
7630.00	-0.2	H	3.0	35.8	1.0	-35.0	-13.0	-22.0	

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Band

LTE25

15MHz

QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_QPSK Band 25 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1857.5									
3715.00	-10.2	V	3.0	35.8	1.0	-45.1	-13.0	-32.1	
5572.50	-7.2	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7430.00	-1.7	V	3.0	35.7	1.0	-36.5	-13.0	-23.5	
3715.00	-9.0	H	3.0	35.8	1.0	-43.9	-13.0	-30.9	
5572.50	-7.6	H	3.0	35.5	1.0	-42.0	-13.0	-29.0	
7430.00	-0.6	H	3.0	35.7	1.0	-35.3	-13.0	-22.3	
Mid Ch, 1882.5									
3765.00	-9.6	V	3.0	35.8	1.0	-44.5	-13.0	-31.5	
5647.50	-7.6	V	3.0	35.5	1.0	-42.1	-13.0	-29.1	
7530.00	-2.3	V	3.0	35.7	1.0	-37.0	-13.0	-24.0	
3765.00	-10.5	H	3.0	35.8	1.0	-45.3	-13.0	-32.3	
5647.50	-6.9	H	3.0	35.5	1.0	-41.3	-13.0	-28.3	
7530.00	-1.0	H	3.0	35.7	1.0	-35.8	-13.0	-22.8	
High Ch, 1907.5									
3815.00	-10.0	V	3.0	35.8	1.0	-44.8	-13.0	-31.8	
5722.50	-7.1	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7630.00	-1.3	V	3.0	35.8	1.0	-36.1	-13.0	-23.1	
3815.00	-9.5	H	3.0	35.8	1.0	-44.3	-13.0	-31.3	
5722.50	-5.9	H	3.0	35.5	1.0	-40.4	-13.0	-27.4	
7630.00	-0.1	H	3.0	35.8	1.0	-34.9	-13.0	-21.9	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_16QAM Band 25 Harmonics, 10MHz Bandwidth

Band

LTE25

10MHz

16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1855									
3710.00	-10.7	V	3.0	35.9	1.0	-45.5	-13.0	-32.5	
5565.00	-7.3	V	3.0	35.5	1.0	-41.8	-13.0	-28.8	
7420.00	-2.2	V	3.0	35.7	1.0	-36.9	-13.0	-23.9	
3710.00	-10.0	H	3.0	35.9	1.0	-44.9	-13.0	-31.9	
5565.00	-6.6	H	3.0	35.5	1.0	-41.1	-13.0	-28.1	
7420.00	-1.2	H	3.0	35.7	1.0	-35.9	-13.0	-22.9	
Mid Ch, 1882.5									
3765.00	-9.6	V	3.0	35.8	1.0	-44.4	-13.0	-31.4	
5647.50	-7.1	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7530.00	-2.2	V	3.0	35.7	1.0	-37.0	-13.0	-24.0	
3765.00	-11.3	H	3.0	35.8	1.0	-46.2	-13.0	-33.2	
5647.50	-6.9	H	3.0	35.5	1.0	-41.4	-13.0	-28.4	
7530.00	-1.2	H	3.0	35.7	1.0	-36.0	-13.0	-23.0	
High Ch, 1910									
3820.00	-11.1	V	3.0	35.8	1.0	-45.9	-13.0	-32.9	
5730.00	-6.4	V	3.0	35.5	1.0	-40.9	-13.0	-27.9	
7640.00	-1.3	V	3.0	35.8	1.0	-36.1	-13.0	-23.1	
3820.00	-10.3	H	3.0	35.8	1.0	-45.0	-13.0	-32.0	
5730.00	-6.1	H	3.0	35.5	1.0	-40.6	-13.0	-27.6	
7640.00	0.0	H	3.0	35.8	1.0	-34.7	-13.0	-21.7	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_QPSK Band 25 Harmonics, 10MHz Bandwidth

Band LTE25 10MHz QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1855									
3710.00	-10.3	V	3.0	35.9	1.0	-45.2	-13.0	-32.2	
5565.00	-7.5	V	3.0	35.5	1.0	-42.0	-13.0	-29.0	
7420.00	-0.8	V	3.0	35.7	1.0	-35.5	-13.0	-22.5	
3710.00	-10.8	H	3.0	35.9	1.0	-45.6	-13.0	-32.6	
5565.00	-6.9	H	3.0	35.5	1.0	-41.4	-13.0	-28.4	
7420.00	-1.5	H	3.0	35.7	1.0	-36.2	-13.0	-23.2	
Mid Ch, 1882.5									
3765.00	-10.1	V	3.0	35.8	1.0	-44.9	-13.0	-31.9	
5647.50	-6.8	V	3.0	35.5	1.0	-41.3	-13.0	-28.3	
7530.00	-2.5	V	3.0	35.7	1.0	-37.3	-13.0	-24.3	
3765.00	-10.7	H	3.0	35.8	1.0	-45.5	-13.0	-32.5	
5647.50	-7.1	H	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7530.00	-1.5	H	3.0	35.7	1.0	-36.3	-13.0	-23.3	
High Ch, 1910									
3820.00	-9.8	V	3.0	35.8	1.0	-44.6	-13.0	-31.6	
5730.00	-6.7	V	3.0	35.5	1.0	-41.2	-13.0	-28.2	
7640.00	-1.7	V	3.0	35.8	1.0	-36.5	-13.0	-23.5	
3820.00	-9.6	H	3.0	35.8	1.0	-44.4	-13.0	-31.4	
5730.00	-5.7	H	3.0	35.5	1.0	-40.2	-13.0	-27.2	
7640.00	-1.1	H	3.0	35.8	1.0	-35.8	-13.0	-22.8	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_16QAM Band 25 Harmonics, 5MHz Bandwidth

Band

LTE25

5MHz

16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.5									
3705.00	-9.9	V	3.0	35.9	1.0	-44.7	-13.0	-31.7	
5557.50	-7.3	V	3.0	35.5	1.0	-41.8	-13.0	-28.8	
7410.00	-1.6	V	3.0	35.7	1.0	-36.4	-13.0	-23.4	
3705.00	-10.6	H	3.0	35.9	1.0	-45.4	-13.0	-32.4	
5557.50	-6.9	H	3.0	35.5	1.0	-41.4	-13.0	-28.4	
7410.00	-1.2	H	3.0	35.7	1.0	-36.0	-13.0	-23.0	
Mid Ch, 1882.5									
3765.00	-10.5	V	3.0	35.8	1.0	-45.3	-13.0	-32.3	
5647.50	-7.0	V	3.0	35.5	1.0	-41.5	-13.0	-28.5	
7530.00	-1.8	V	3.0	35.7	1.0	-36.6	-13.0	-23.6	
3765.00	-9.5	H	3.0	35.8	1.0	-44.3	-13.0	-31.3	
5647.50	-6.7	H	3.0	35.5	1.0	-41.2	-13.0	-28.2	
7530.00	-1.1	H	3.0	35.7	1.0	-35.8	-13.0	-22.8	
High Ch, 1912.5									
3825.00	-9.8	V	3.0	35.8	1.0	-44.6	-13.0	-31.6	
5737.50	-6.5	V	3.0	35.5	1.0	-41.0	-13.0	-28.0	
7650.00	-1.6	V	3.0	35.8	1.0	-36.4	-13.0	-23.4	
3825.00	-9.9	H	3.0	35.8	1.0	-44.7	-13.0	-31.7	
5737.50	-6.0	H	3.0	35.5	1.0	-40.5	-13.0	-27.5	
7650.00	-0.7	H	3.0	35.8	1.0	-35.5	-13.0	-22.5	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_QPSK Band 25 Harmonics, 5MHz Bandwidth

Band
LTE25
5MHz
QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.5									
3705.00	-10.4	V	3.0	35.9	1.0	-45.2	-13.0	-32.2	
5557.50	-7.4	V	3.0	35.5	1.0	-41.9	-13.0	-28.9	
7410.00	-1.9	V	3.0	35.7	1.0	-36.6	-13.0	-23.6	
3705.00	-9.6	H	3.0	35.9	1.0	-44.5	-13.0	-31.5	
5557.50	-6.2	H	3.0	35.5	1.0	-40.6	-13.0	-27.6	
7410.00	0.3	H	3.0	35.7	1.0	-34.4	-13.0	-21.4	
Mid Ch, 1882.5									
3765.00	-9.8	V	3.0	35.8	1.0	-44.6	-13.0	-31.6	
5647.50	-5.7	V	3.0	35.5	1.0	-40.2	-13.0	-27.2	
7530.00	-2.2	V	3.0	35.7	1.0	-36.9	-13.0	-23.9	
3765.00	-10.9	H	3.0	35.8	1.0	-45.7	-13.0	-32.7	
5647.50	-5.3	H	3.0	35.5	1.0	-39.8	-13.0	-26.8	
7530.00	-0.8	H	3.0	35.7	1.0	-35.5	-13.0	-22.5	
High Ch, 1912.5									
3825.00	-9.9	V	3.0	35.8	1.0	-44.6	-13.0	-31.6	
5737.50	-6.7	V	3.0	35.5	1.0	-41.2	-13.0	-28.2	
7650.00	-1.3	V	3.0	35.8	1.0	-36.0	-13.0	-23.0	
3825.00	-10.5	H	3.0	35.8	1.0	-45.2	-13.0	-32.2	
5737.50	-6.3	H	3.0	35.5	1.0	-40.8	-13.0	-27.8	
7650.00	-0.4	H	3.0	35.8	1.0	-35.2	-13.0	-22.2	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_16QAM Band 25 Harmonics, 3MHz Bandwidth

Band
LTE25
3MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.5									
3703.00	-12.0	V	3.0	35.9	1.0	-46.9	-13.0	-33.9	
5554.50	-10.4	V	3.0	35.5	1.0	-44.9	-13.0	-31.9	
7406.00	-5.4	V	3.0	35.7	1.0	-40.1	-13.0	-27.1	
3703.00	-9.4	H	3.0	35.9	1.0	-44.3	-13.0	-31.3	
5554.50	-6.5	H	3.0	35.5	1.0	-41.0	-13.0	-28.0	
7406.00	-0.6	H	3.0	35.7	1.0	-35.3	-13.0	-22.3	
Mid Ch, 1882.5									
3765.00	-1.1	V	3.0	35.8	1.0	-35.9	-13.0	-22.9	
5647.50	2.3	V	3.0	35.5	1.0	-32.2	-13.0	-19.2	
7530.00	8.2	V	3.0	35.7	1.0	-26.6	-13.0	-13.6	
3765.00	-10.2	H	3.0	35.8	1.0	-45.0	-13.0	-32.0	
5647.50	-6.2	H	3.0	35.5	1.0	-40.7	-13.0	-27.7	
7530.00	-1.6	H	3.0	35.7	1.0	-36.3	-13.0	-23.3	
High Ch, 1913.5									
3827.00	-9.5	V	3.0	35.8	1.0	-44.3	-13.0	-31.3	
5740.50	-6.3	V	3.0	35.5	1.0	-40.8	-13.0	-27.8	
7654.00	-0.6	V	3.0	35.8	1.0	-35.4	-13.0	-22.4	
3827.00	-9.9	H	3.0	35.8	1.0	-44.7	-13.0	-31.7	
5740.50	-5.5	H	3.0	35.5	1.0	-40.0	-13.0	-27.0	
7654.00	0.1	H	3.0	35.8	1.0	-34.7	-13.0	-21.7	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/29/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_QPSK Band 25 Harmonics, 3MHz Bandwidth

Band LTE25 3MHz QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.5									
3703.00	-11.5	V	3.0	35.9	1.0	-46.4	-13.0	-33.4	
5554.50	-11.1	V	3.0	35.5	1.0	-45.6	-13.0	-32.6	
7406.00	-5.5	V	3.0	35.7	1.0	-40.2	-13.0	-27.2	
3703.00	-10.5	H	3.0	35.9	1.0	-45.4	-13.0	-32.4	
5554.50	-6.5	H	3.0	35.5	1.0	-41.0	-13.0	-28.0	
7406.00	-1.3	H	3.0	35.7	1.0	-36.0	-13.0	-23.0	
Mid Ch, 1882.5									
3765.00	-0.5	V	3.0	35.8	1.0	-35.3	-13.0	-22.3	
5647.50	2.5	V	3.0	35.5	1.0	-32.0	-13.0	-19.0	
7530.00	7.2	V	3.0	35.7	1.0	-27.5	-13.0	-14.5	
3765.00	-10.0	H	3.0	35.8	1.0	-44.8	-13.0	-31.8	
5647.50	-5.3	H	3.0	35.5	1.0	-39.8	-13.0	-26.8	
7530.00	-0.6	H	3.0	35.7	1.0	-35.4	-13.0	-22.4	
High Ch, 1913.5									
3827.00	-9.4	V	3.0	35.8	1.0	-44.1	-13.0	-31.1	
5740.50	-5.7	V	3.0	35.5	1.0	-40.2	-13.0	-27.2	
7654.00	-1.3	V	3.0	35.8	1.0	-36.0	-13.0	-23.0	
3827.00	-9.9	H	3.0	35.8	1.0	-44.7	-13.0	-31.7	
5740.50	-5.5	H	3.0	35.5	1.0	-40.0	-13.0	-27.0	
7654.00	-0.6	H	3.0	35.8	1.0	-35.3	-13.0	-22.3	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/27/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_16QAM Band 25 Harmonics, 1.4MHz Bandwidth

Band

LTE25

1.4MHz

16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.7									
3701.40	-9.7	V	3.0	35.9	1.0	-44.5	-13.0	-31.5	
5552.10	-7.4	V	3.0	35.5	1.0	-41.9	-13.0	-28.9	
7402.80	-0.8	V	3.0	35.7	1.0	-35.5	-13.0	-22.5	
3701.40	-10.6	H	3.0	35.9	1.0	-45.4	-13.0	-32.4	
5552.10	-7.0	H	3.0	35.5	1.0	-41.5	-13.0	-28.5	
7402.80	-0.2	H	3.0	35.7	1.0	-34.9	-13.0	-21.9	
Mid Ch, 1882.5									
3765.00	-9.9	V	3.0	35.8	1.0	-44.7	-13.0	-31.7	
5647.50	-7.1	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
7530.00	-2.2	V	3.0	35.7	1.0	-37.0	-13.0	-24.0	
3765.00	-9.6	H	3.0	35.8	1.0	-44.4	-13.0	-31.4	
5647.50	-4.3	H	3.0	35.5	1.0	-38.8	-13.0	-25.8	
7530.00	-1.0	H	3.0	35.7	1.0	-35.7	-13.0	-22.7	
High Ch, 1914.3									
3828.60	-9.3	V	3.0	35.8	1.0	-44.0	-13.0	-31.0	
5742.90	-5.8	V	3.0	35.5	1.0	-40.3	-13.0	-27.3	
7657.20	-0.9	V	3.0	35.8	1.0	-35.6	-13.0	-22.6	
3828.60	-11.1	H	3.0	35.8	1.0	-45.9	-13.0	-32.9	
5742.90	-6.8	H	3.0	35.5	1.0	-41.3	-13.0	-28.3	
7657.20	0.6	H	3.0	35.8	1.0	-34.2	-13.0	-21.2	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/27/2015
Test Engineer: D. Sblendorio
Configuration: EUT/ AC Charger/ Headset
Location: Chamber C
Mode: LTE_QPSK Band 25 Harmonics, 1.4MHz Bandwidth

Band LTE25 1.4MHz QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.7									
3701.40	-8.2	V	3.0	35.9	1.0	-43.1	-13.0	-30.1	
5552.10	-6.4	V	3.0	35.5	1.0	-40.9	-13.0	-27.9	
7402.80	-2.0	V	3.0	35.7	1.0	-36.7	-13.0	-23.7	
3701.40	-9.3	H	3.0	35.9	1.0	-44.2	-13.0	-31.2	
5552.10	-7.3	H	3.0	35.5	1.0	-41.7	-13.0	-28.7	
7402.80	-1.0	H	3.0	35.7	1.0	-35.7	-13.0	-22.7	
Mid Ch, 1882.5									
3765.00	-10.5	V	3.0	35.8	1.0	-45.3	-13.0	-32.3	
5647.50	-7.0	V	3.0	35.5	1.0	-41.5	-13.0	-28.5	
7530.00	-1.9	V	3.0	35.7	1.0	-36.6	-13.0	-23.6	
3765.00	-9.2	H	3.0	35.8	1.0	-44.0	-13.0	-31.0	
5647.50	-4.9	H	3.0	35.5	1.0	-39.4	-13.0	-26.4	
7530.00	-1.1	H	3.0	35.7	1.0	-35.8	-13.0	-22.8	
High Ch, 1914.3									
3828.60	-10.1	V	3.0	35.8	1.0	-44.9	-13.0	-31.9	
5742.90	-6.7	V	3.0	35.5	1.0	-41.2	-13.0	-28.2	
7657.20	-0.1	V	3.0	35.8	1.0	-34.8	-13.0	-21.8	
3828.60	-10.5	H	3.0	35.8	1.0	-45.3	-13.0	-32.3	
5742.90	-6.2	H	3.0	35.5	1.0	-40.7	-13.0	-27.7	
7657.20	-0.6	H	3.0	35.8	1.0	-35.3	-13.0	-22.3	

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LTE Band 26

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber B
Mode: LTE_16QAM Band 26 Harmonics, 15MHz Bandwidth

Band

LTE26

15MHz

16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 821.5									
1643.00	-22.0	V	3.0	37.0	1.0	-58.0	-13.0	-45.0	
2464.50	-12.0	V	3.0	36.4	1.0	-47.4	-13.0	-34.4	
3286.00	-24.7	V	3.0	36.2	1.0	-59.8	-13.0	-46.8	
1643.00	-24.0	H	3.0	37.0	1.0	-60.1	-13.0	-47.1	
2464.50	-11.2	H	3.0	36.4	1.0	-46.6	-13.0	-33.6	
3286.00	-24.6	H	3.0	36.2	1.0	-59.8	-13.0	-46.8	
Mid Ch, 831.5									
1663.00	-19.6	V	3.0	37.0	1.0	-55.6	-13.0	-42.6	
2494.50	-11.2	V	3.0	36.4	1.0	-46.6	-13.0	-33.6	
3326.00	-21.4	V	3.0	36.1	1.0	-56.5	-13.0	-43.5	
1663.00	-20.6	H	3.0	37.0	1.0	-56.6	-13.0	-43.6	
2494.50	-15.1	H	3.0	36.4	1.0	-50.5	-13.0	-37.5	
3326.00	-24.7	H	3.0	36.1	1.0	-59.8	-13.0	-46.8	
High Ch, 841.5									
1683.00	-18.8	V	3.0	37.0	1.0	-54.8	-13.0	-41.8	
2524.50	-19.2	V	3.0	36.4	1.0	-54.6	-13.0	-41.6	
3366.00	-24.6	V	3.0	36.1	1.0	-59.7	-13.0	-46.7	
1683.00	-18.6	H	3.0	37.0	1.0	-54.6	-13.0	-41.6	
2524.50	-14.0	H	3.0	36.4	1.0	-49.4	-13.0	-36.4	
3366.00	-24.9	H	3.0	36.1	1.0	-60.0	-13.0	-47.0	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 2/2/2015
Test Engineer: R.Zheng
Configuration: EUT , AC Adapter
Location: Chamber B
Mode: LTE_QPSK Band 26 Harmonics, 15MHz Bandwidth

Band
LTE26
15MHz
QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 821.5									
1643.00	-23.1	V	3.0	37.0	1.0	-59.1	-13.0	-46.1	
2464.50	-10.8	V	3.0	36.4	1.0	-46.2	-13.0	-33.2	
3286.00	-25.0	V	3.0	36.2	1.0	-60.1	-13.0	-47.1	
1643.00	-24.5	H	3.0	37.0	1.0	-60.6	-13.0	-47.6	
2464.50	-10.7	H	3.0	36.4	1.0	-46.1	-13.0	-33.1	
3286.00	-24.3	H	3.0	36.2	1.0	-59.5	-13.0	-46.5	
Mid Ch, 831.5									
1663.00	-19.2	V	3.0	37.0	1.0	-55.2	-13.0	-42.2	
2494.50	-12.4	V	3.0	36.4	1.0	-47.8	-13.0	-34.8	
3326.00	-23.0	V	3.0	36.1	1.0	-58.1	-13.0	-45.1	
1663.00	-20.0	H	3.0	37.0	1.0	-56.0	-13.0	-43.0	
2494.50	-14.8	H	3.0	36.4	1.0	-50.2	-13.0	-37.2	
3326.00	-25.0	H	3.0	36.1	1.0	-60.1	-13.0	-47.1	
High Ch, 841.5									
1683.00	-18.7	V	3.0	37.0	1.0	-54.7	-13.0	-41.7	
2524.50	-19.0	V	3.0	36.4	1.0	-54.4	-13.0	-41.4	
3366.00	-24.8	V	3.0	36.1	1.0	-59.9	-13.0	-46.9	
1683.00	-18.9	H	3.0	37.0	1.0	-54.9	-13.0	-41.9	
2524.50	-13.4	H	3.0	36.4	1.0	-48.8	-13.0	-35.8	
3366.00	-24.5	H	3.0	36.1	1.0	-59.6	-13.0	-46.6	

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: James Jackson
Configuration: EUT w/ AC Adaptor + HS, X-pos
Mode: LTE26 10MHz 16QAM HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band

LTE26

10MHz

16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 819MHz									
1.638	-22.5	V	3.0	37.4	1.0	-58.9	-13.0	-45.9	
2.457	-22.3	V	3.0	36.4	1.0	-57.7	-13.0	-44.7	
3.276	-23.1	V	3.0	35.8	1.0	-57.9	-13.0	-44.9	
1.638	-24.9	H	3.0	37.4	1.0	-61.3	-13.0	-48.3	
2.457	-25.9	H	3.0	36.4	1.0	-61.3	-13.0	-48.3	
3.276	-23.5	H	3.0	35.8	1.0	-58.4	-13.0	-45.4	
Mid Ch, 831.5MHz									
1.663	-26.3	V	3.0	37.4	1.0	-62.7	-13.0	-49.7	
2.495	-23.1	V	3.0	36.4	1.0	-58.4	-13.0	-45.4	
3.326	-23.5	V	3.0	35.8	1.0	-58.3	-13.0	-45.3	
1.663	-27.8	H	3.0	37.4	1.0	-64.2	-13.0	-51.2	
2.495	-23.8	H	3.0	36.4	1.0	-59.2	-13.0	-46.2	
3.326	-23.6	H	3.0	35.8	1.0	-58.4	-13.0	-45.4	
High Ch, 844MHz									
1.688	-24.3	V	3.0	37.3	1.0	-60.7	-13.0	-47.7	
2.532	-22.5	V	3.0	36.3	1.0	-57.8	-13.0	-44.8	
3.376	-23.2	V	3.0	35.7	1.0	-57.9	-13.0	-44.9	
1.688	-23.6	H	3.0	37.3	1.0	-60.0	-13.0	-47.0	
2.532	-25.4	H	3.0	36.3	1.0	-60.7	-13.0	-47.7	
3.376	-23.4	H	3.0	35.7	1.0	-58.1	-13.0	-45.1	

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: James Jackson
Configuration: EUT w/ AC Adaptor + HS, X-pos
Mode: LTE26 10MHz QPSK HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band

LTE26

10MHz

QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	(dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 819MHz									
1.638	-22.5	V	3.0	37.4	1.0	-58.9	-13.0	-45.9	
2.457	-22.6	V	3.0	36.4	1.0	-58.0	-13.0	-45.0	
3.276	-23.6	V	3.0	35.8	1.0	-58.4	-13.0	-45.4	
1.638	-24.6	H	3.0	37.4	1.0	-61.0	-13.0	-48.0	
2.457	-25.5	H	3.0	36.4	1.0	-60.9	-13.0	-47.9	
3.276	-24.1	H	3.0	35.8	1.0	-58.9	-13.0	-45.9	
Mid Ch, 831.5MHz									
1.663	-25.6	V	3.0	37.4	1.0	-62.0	-13.0	-49.0	
2.495	-19.4	V	3.0	36.4	1.0	-54.8	-13.0	-41.8	
3.326	-24.1	V	3.0	35.8	1.0	-58.8	-13.0	-45.8	
1.663	-27.7	H	3.0	37.4	1.0	-64.0	-13.0	-51.0	
2.495	-24.5	H	3.0	36.4	1.0	-59.8	-13.0	-46.8	
3.326	-23.1	H	3.0	35.8	1.0	-57.9	-13.0	-44.9	
High Ch, 844 MHz									
1.688	-23.5	V	3.0	37.3	1.0	-59.9	-13.0	-46.9	
2.532	-23.0	V	3.0	36.3	1.0	-58.3	-13.0	-45.3	
3.376	-23.2	V	3.0	35.7	1.0	-57.9	-13.0	-44.9	
1.688	-24.7	H	3.0	37.3	1.0	-61.0	-13.0	-48.0	
2.532	-25.9	H	3.0	36.3	1.0	-61.3	-13.0	-48.3	
3.376	-24.1	H	3.0	35.7	1.0	-58.8	-13.0	-45.8	

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: James Jackson
Configuration: EUT w/ AC Adaptor + HS, X-pos
Mode: LTE26 5MHz 16QAM HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band

LTE26

5MHz

16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 816.5MHz									
1.633	-26.5	V	3.0	37.4	1.0	-62.9	-13.0	-49.9	
2.450	-23.7	V	3.0	36.4	1.0	-59.2	-13.0	-46.2	
3.266	-23.7	V	3.0	35.8	1.0	-58.6	-13.0	-45.6	
1.633	-26.7	H	3.0	37.4	1.0	-63.1	-13.0	-50.1	
2.450	-26.3	H	3.0	36.4	1.0	-61.7	-13.0	-48.7	
3.266	-23.4	H	3.0	35.8	1.0	-58.3	-13.0	-45.3	
Mid Ch, 831.5MHz									
1.663	-21.7	V	3.0	37.4	1.0	-58.0	-13.0	-45.0	
2.495	-22.6	V	3.0	36.4	1.0	-58.0	-13.0	-45.0	
3.326	-23.0	V	3.0	35.8	1.0	-57.8	-13.0	-44.8	
1.663	-24.9	H	3.0	37.4	1.0	-61.2	-13.0	-48.2	
2.495	-25.8	H	3.0	36.4	1.0	-61.1	-13.0	-48.1	
3.326	-23.6	H	3.0	35.8	1.0	-58.4	-13.0	-45.4	
High Ch, 846.5MHz									
1.693	-24.7	V	3.0	37.3	1.0	-61.0	-13.0	-48.0	
2.540	-23.3	V	3.0	36.3	1.0	-58.6	-13.0	-45.6	
3.386	-23.6	V	3.0	35.7	1.0	-58.3	-13.0	-45.3	
1.693	-25.3	H	3.0	37.3	1.0	-61.6	-13.0	-48.6	
2.540	-25.7	H	3.0	36.3	1.0	-61.0	-13.0	-48.0	
3.386	-24.1	H	3.0	35.7	1.0	-58.8	-13.0	-45.8	

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: James Jackson
Configuration: EUT w/ AC Adaptor + HS, X-pos
Mode: LTE26 5MHz QPSK HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band

LTE26

5MHz

QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	(dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.5MHz									
1.633	-25.7	V	3.0	37.4	1.0	-62.1	-13.0	-49.1	
2.450	-23.1	V	3.0	36.4	1.0	-58.5	-13.0	-45.5	
3.266	-24.0	V	3.0	35.8	1.0	-58.8	-13.0	-45.8	
1.633	-26.4	H	3.0	37.4	1.0	-62.8	-13.0	-49.8	
2.450	-25.7	H	3.0	36.4	1.0	-61.1	-13.0	-48.1	
3.266	-22.4	H	3.0	35.8	1.0	-57.2	-13.0	-44.2	
Mid Ch, 836.5MHz									
1.663	-21.0	V	3.0	37.4	1.0	-57.4	-13.0	-44.4	
2.495	-22.4	V	3.0	36.4	1.0	-57.7	-13.0	-44.7	
3.326	-23.0	V	3.0	35.8	1.0	-57.8	-13.0	-44.8	
1.663	-24.8	H	3.0	37.4	1.0	-61.2	-13.0	-48.2	
2.495	-24.9	H	3.0	36.4	1.0	-60.2	-13.0	-47.2	
3.326	-23.4	H	3.0	35.8	1.0	-58.2	-13.0	-45.2	
High Ch, 846.5 MHz									
1.693	-23.9	V	3.0	37.3	1.0	-60.3	-13.0	-47.3	
2.540	-23.5	V	3.0	36.3	1.0	-58.8	-13.0	-45.8	
3.386	-23.4	V	3.0	35.7	1.0	-58.1	-13.0	-45.1	
1.693	-25.0	H	3.0	37.3	1.0	-61.3	-13.0	-48.3	
2.540	-23.2	H	3.0	36.3	1.0	-58.5	-13.0	-45.5	
3.386	-24.0	H	3.0	35.7	1.0	-58.7	-13.0	-45.7	

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: J. Jackson
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: LTE26_3M_16QAM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band
LTE26
3MHz
16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	(dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 815.5MHz									
1.631	-25.8	V	3.0	37.4	1.0	-62.2	-13.0	-49.2	
2.447	-24.3	V	3.0	36.4	1.0	-59.8	-13.0	-46.8	
3.262	-24.0	V	3.0	35.8	1.0	-58.9	-13.0	-45.9	
1.631	-26.1	H	3.0	37.4	1.0	-62.5	-13.0	-49.5	
2.447	-26.2	H	3.0	36.4	1.0	-61.6	-13.0	-48.6	
3.262	-23.7	H	3.0	35.8	1.0	-58.6	-13.0	-45.6	
Mid Ch, 831.5MHz									
1.663	-21.4	V	3.0	37.4	1.0	-57.8	-13.0	-44.8	
2.495	-23.6	V	3.0	36.4	1.0	-59.0	-13.0	-46.0	
3.326	-23.6	V	3.0	35.8	1.0	-58.4	-13.0	-45.4	
1.663	-24.5	H	3.0	37.4	1.0	-60.9	-13.0	-47.9	
2.495	-25.0	H	3.0	36.4	1.0	-60.4	-13.0	-47.4	
3.326	-22.9	H	3.0	35.8	1.0	-57.7	-13.0	-44.7	
High Ch, 847.5 MHz									
1.695	-24.0	V	3.0	37.3	1.0	-60.3	-13.0	-47.3	
2.543	-22.3	V	3.0	36.3	1.0	-57.6	-13.0	-44.6	
3.390	-23.4	V	3.0	35.7	1.0	-58.1	-13.0	-45.1	
1.695	-23.6	H	3.0	37.3	1.0	-59.9	-13.0	-46.9	
2.543	-24.5	H	3.0	36.3	1.0	-59.8	-13.0	-46.8	
3.390	-23.6	H	3.0	35.7	1.0	-58.3	-13.0	-45.3	

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: J. Jackson
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: LTE26_3M_QPSK

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band
LTE26
3MHz
QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	(dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 815.5MHz									
1.631	-25.4	V	3.0	37.4	1.0	-61.8	-13.0	-48.8	
2.447	-24.2	V	3.0	36.4	1.0	-59.7	-13.0	-46.7	
3.262	-24.4	V	3.0	35.8	1.0	-59.3	-13.0	-46.3	
1.631	-26.6	H	3.0	37.4	1.0	-63.0	-13.0	-50.0	
2.447	-26.9	H	3.0	36.4	1.0	-62.3	-13.0	-49.3	
3.262	-23.7	H	3.0	35.8	1.0	-58.5	-13.0	-45.5	
Mid Ch, 831.5MHz									
1.663	-21.2	V	3.0	37.4	1.0	-57.5	-13.0	-44.5	
2.495	-24.1	V	3.0	36.4	1.0	-59.4	-13.0	-46.4	
3.326	-23.9	V	3.0	35.8	1.0	-58.6	-13.0	-45.6	
1.663	-24.2	H	3.0	37.4	1.0	-60.6	-13.0	-47.6	
2.495	-25.1	H	3.0	36.4	1.0	-60.4	-13.0	-47.4	
3.326	-23.2	H	3.0	35.8	1.0	-58.0	-13.0	-45.0	
High Ch, 847.5 MHz									
1.695	-25.3	V	3.0	37.3	1.0	-61.6	-13.0	-48.6	
2.543	-22.9	V	3.0	36.3	1.0	-58.3	-13.0	-45.3	
3.390	-23.6	V	3.0	35.7	1.0	-58.3	-13.0	-45.3	
1.695	-23.3	H	3.0	37.3	1.0	-59.6	-13.0	-46.6	
2.543	-25.6	H	3.0	36.3	1.0	-60.9	-13.0	-47.9	
3.390	-23.6	H	3.0	35.7	1.0	-58.3	-13.0	-45.3	

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: J. Jackson
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: LTE26 1.4MHz 16QAM HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band

LTE26

1.4MHz

16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	(dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 814.7MHz									
1.63	-25.9	V	3.0	37.4	1.0	-62.4	-13.0	-49.4	
2.44	-23.4	V	3.0	36.4	1.0	-58.9	-13.0	-45.9	
3.26	-23.3	V	3.0	35.8	1.0	-58.2	-13.0	-45.2	
1.63	-27.3	H	3.0	37.4	1.0	-63.7	-13.0	-50.7	
2.44	-26.0	H	3.0	36.4	1.0	-61.4	-13.0	-48.4	
3.26	-24.1	H	3.0	35.8	1.0	-59.0	-13.0	-46.0	
Mid Ch, 831.5MHz									
1.663	-25.0	V	3.0	37.4	1.0	-61.3	-13.0	-48.3	
2.495	-23.3	V	3.0	36.4	1.0	-58.7	-13.0	-45.7	
3.326	-23.9	V	3.0	35.8	1.0	-58.7	-13.0	-45.7	
1.663	-24.7	H	3.0	37.4	1.0	-61.1	-13.0	-48.1	
2.495	-24.3	H	3.0	36.4	1.0	-59.7	-13.0	-46.7	
3.326	-23.8	H	3.0	35.8	1.0	-58.6	-13.0	-45.6	
High Ch, 848.3 MHz									
1.70	-24.2	V	3.0	37.3	1.0	-60.5	-13.0	-47.5	
2.54	-22.3	V	3.0	36.3	1.0	-57.7	-13.0	-44.7	
3.39	-23.7	V	3.0	35.7	1.0	-58.4	-13.0	-45.4	
1.70	-23.1	H	3.0	37.3	1.0	-59.4	-13.0	-46.4	
2.54	-26.3	H	3.0	36.3	1.0	-61.6	-13.0	-48.6	
3.39	-23.4	H	3.0	35.7	1.0	-58.1	-13.0	-45.1	

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UL Verification Services, Inc. Chamber C
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 01/30/15
Test Engineer: J. Jackson
Configuration: EUT w/ AC Adapter + HS, X-position
Mode: LTE26 1.4MHz QPSK HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band
LTE26
1.4MHz
QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	(dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 814.7MHz									
1.629	-26.3	V	3.0	37.4	1.0	-62.7	-13.0	-49.7	
2.444	-22.9	V	3.0	36.4	1.0	-58.3	-13.0	-45.3	
3.259	-23.7	V	3.0	35.8	1.0	-58.5	-13.0	-45.5	
1.629	-26.7	H	3.0	37.4	1.0	-63.1	-13.0	-50.1	
2.444	-26.1	H	3.0	36.4	1.0	-61.6	-13.0	-48.6	
3.259	-24.1	H	3.0	35.8	1.0	-59.0	-13.0	-46.0	
Mid Ch, 831.5MHz									
1.663	-24.4	V	3.0	37.4	1.0	-60.7	-13.0	-47.7	
2.495	-23.4	V	3.0	36.4	1.0	-58.8	-13.0	-45.8	
3.326	-24.0	V	3.0	35.8	1.0	-58.7	-13.0	-45.7	
1.663	-25.3	H	3.0	37.4	1.0	-61.6	-13.0	-48.6	
2.495	-26.0	H	3.0	36.4	1.0	-61.4	-13.0	-48.4	
3.326	-23.7	H	3.0	35.8	1.0	-58.4	-13.0	-45.4	
High Ch, 848.3 MHz									
1.697	-24.2	V	3.0	37.3	1.0	-60.5	-13.0	-47.5	
2.545	-23.1	V	3.0	36.3	1.0	-58.5	-13.0	-45.5	
3.393	-23.7	V	3.0	35.7	1.0	-58.4	-13.0	-45.4	
1.697	-23.0	H	3.0	37.3	1.0	-59.3	-13.0	-46.3	
2.545	-25.1	H	3.0	36.3	1.0	-60.5	-13.0	-47.5	
3.393	-23.2	H	3.0	35.7	1.0	-57.9	-13.0	-44.9	

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LTE Band 41

Band

LTE41

20MHz

16QAM

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/26/2015
Test Engineer: D. Sblendorio /O.Stoelting
Configuration: EUT/ AC Charger/ Headset
Location: Chamber B
Mode: LTE_16QAM Band 41 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2506									
5012.00	-7.7	V	3.0	35.5	1.0	-42.1	-25.0	-17.1	
7518.00	-5.5	V	3.0	35.7	1.0	-40.2	-25.0	-15.2	
10024.00	-10.7	V	3.0	36.0	1.0	-45.7	-25.0	-20.7	
5012.00	-7.4	H	3.0	35.5	1.0	-41.8	-25.0	-16.8	
7518.00	-3.4	H	3.0	35.7	1.0	-38.2	-25.0	-13.2	
10024.00	-4.4	H	3.0	36.0	1.0	-39.4	-25.0	-14.4	
Mid Ch, 2593									
5186.00	-12.7	V	3.0	35.4	1.0	-47.1	-25.0	-22.1	
7779.00	-4.8	V	3.0	35.8	1.0	-39.6	-25.0	-14.6	
10372.00	-11.9	V	3.0	35.8	1.0	-46.7	-25.0	-21.7	
5186.00	-12.0	H	3.0	35.4	1.0	-46.4	-25.0	-21.4	
7779.00	-12.1	H	3.0	35.8	1.0	-46.9	-25.0	-21.9	
10372.00	-11.0	H	3.0	35.8	1.0	-45.8	-25.0	-20.8	
High Ch, 2680									
5360.00	-15.2	V	3.0	35.4	1.0	-49.7	-25.0	-24.7	
8040.00	-13.0	V	3.0	35.8	1.0	-47.8	-25.0	-22.8	
10720.00	-11.7	V	3.0	35.7	1.0	-46.3	-25.0	-21.3	
5360.00	-12.7	H	3.0	35.4	1.0	-47.2	-25.0	-22.2	
8040.00	-4.5	H	3.0	35.8	1.0	-39.3	-25.0	-14.3	
10720.00	-9.7	H	3.0	35.7	1.0	-44.4	-25.0	-19.4	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/26/2015
Test Engineer: D. Sblendorio /O.Stoelting
Configuration: EUT/ AC Charger/ Headset
Location: Chamber B
Mode: LTE_QPSK Band 41 Harmonics, 20MHz Bandwidth

Band LTE41 20MHz QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2506									
5012.00	-8.1	V	3.0	35.5	1.0	-42.6	-25.0	-17.6	
7518.00	-5.9	V	3.0	35.7	1.0	-40.7	-25.0	-15.7	
10024.00	-11.2	V	3.0	36.0	1.0	-46.2	-25.0	-21.2	
5012.00	-7.8	H	3.0	35.5	1.0	-42.3	-25.0	-17.3	
7518.00	-3.9	H	3.0	35.7	1.0	-38.6	-25.0	-13.6	
10024.00	-4.8	H	3.0	36.0	1.0	-39.9	-25.0	-14.9	
Mid Ch, 2593									
5186.00	-13.1	V	3.0	35.4	1.0	-47.5	-25.0	-22.5	
7779.00	-5.3	V	3.0	35.8	1.0	-40.1	-25.0	-15.1	
10372.00	-12.3	V	3.0	35.8	1.0	-47.2	-25.0	-22.2	
5186.00	-12.5	H	3.0	35.4	1.0	-46.9	-25.0	-21.9	
7779.00	-12.6	H	3.0	35.8	1.0	-47.4	-25.0	-22.4	
10372.00	-11.4	H	3.0	35.8	1.0	-46.3	-25.0	-21.3	
High Ch, 2680									
5360.00	-15.7	V	3.0	35.4	1.0	-50.1	-25.0	-25.1	
8040.00	-13.5	V	3.0	35.8	1.0	-48.3	-25.0	-23.3	
10720.00	-12.1	V	3.0	35.7	1.0	-46.8	-25.0	-21.8	
5360.00	-13.2	H	3.0	35.4	1.0	-47.6	-25.0	-22.6	
8040.00	-5.0	H	3.0	35.8	1.0	-39.8	-25.0	-14.8	
10720.00	-10.1	H	3.0	35.7	1.0	-44.8	-25.0	-19.8	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/26/2015
Test Engineer: D. Sblendorio /O.Stoelting
Configuration: EUT/ AC Charger/ Headset
Location: Chamber B
Mode: LTE_16QAM Band 41 Harmonics, 15MHz Bandwidth

Band
LTE41
15MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2503.5									
5007.00	-12.8	V	3.0	35.5	1.0	-47.3	-25.0	-22.3	
7510.50	-13.6	V	3.0	35.7	1.0	-48.3	-25.0	-23.3	
10014.00	-10.9	V	3.0	36.0	1.0	-45.9	-25.0	-20.9	
5007.00	-6.1	H	3.0	35.5	1.0	-40.6	-25.0	-15.6	
7510.50	-3.6	H	3.0	35.7	1.0	-38.4	-25.0	-13.4	
10014.00	-10.1	H	3.0	36.0	1.0	-45.1	-25.0	-20.1	
Mid Ch, 2593									
5186.00	-14.5	V	3.0	35.4	1.0	-48.9	-25.0	-23.9	
7779.00	-11.3	V	3.0	35.8	1.0	-46.1	-25.0	-21.1	
10372.00	-11.7	V	3.0	35.8	1.0	-46.5	-25.0	-21.5	
5186.00	-13.8	H	3.0	35.4	1.0	-48.3	-25.0	-23.3	
7779.00	-12.8	H	3.0	35.8	1.0	-47.5	-25.0	-22.5	
10372.00	-10.1	H	3.0	35.8	1.0	-45.0	-25.0	-20.0	
High Ch, 2682.5									
5365.00	-15.5	V	3.0	35.4	1.0	-50.0	-25.0	-25.0	
8047.50	-13.4	V	3.0	35.8	1.0	-48.2	-25.0	-23.2	
10730.00	-11.8	V	3.0	35.7	1.0	-46.5	-25.0	-21.5	
5365.00	-12.1	H	3.0	35.4	1.0	-46.6	-25.0	-21.6	
8047.50	-8.6	H	3.0	35.8	1.0	-43.4	-25.0	-18.4	
10730.00	-11.0	H	3.0	35.7	1.0	-45.7	-25.0	-20.7	

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Band

LTE41

15MHz

QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/26/2015
Test Engineer: D. Sblendorio /O.Stoelting
Configuration: EUT/ AC Charger/ Headset
Location: Chamber B
Mode: LTE_QPSK Band 41 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2503.5									
5007.00	-13.3	V	3.0	35.5	1.0	-47.7	-25.0	-22.7	
7510.50	-14.8	V	3.0	35.7	1.0	-49.6	-25.0	-24.6	
10014.00	-12.5	V	3.0	36.0	1.0	-47.6	-25.0	-22.6	
5007.00	-6.0	H	3.0	35.5	1.0	-40.5	-25.0	-15.5	
7510.50	-5.4	H	3.0	35.7	1.0	-40.2	-25.0	-15.2	
10014.00	-11.1	H	3.0	36.0	1.0	-46.1	-25.0	-21.1	
Mid Ch, 2593									
5186.00	-14.6	V	3.0	35.4	1.0	-49.0	-25.0	-24.0	
7779.00	-11.6	V	3.0	35.8	1.0	-46.4	-25.0	-21.4	
10372.00	-12.0	V	3.0	35.8	1.0	-46.8	-25.0	-21.8	
5186.00	-14.2	H	3.0	35.4	1.0	-48.6	-25.0	-23.6	
7779.00	-12.2	H	3.0	35.8	1.0	-47.0	-25.0	-22.0	
10372.00	-10.3	H	3.0	35.8	1.0	-45.1	-25.0	-20.1	
High Ch, 2682.5									
5365.00	-15.2	V	3.0	35.4	1.0	-49.6	-25.0	-24.6	
8047.50	-12.9	V	3.0	35.8	1.0	-47.7	-25.0	-22.7	
10730.00	-11.7	V	3.0	35.7	1.0	-46.4	-25.0	-21.4	
5365.00	-13.4	H	3.0	35.4	1.0	-47.9	-25.0	-22.9	
8047.50	-9.0	H	3.0	35.8	1.0	-43.8	-25.0	-18.8	
10730.00	-10.8	H	3.0	35.7	1.0	-45.5	-25.0	-20.5	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/26/2015
Test Engineer: D. Sblendorio /O.Stoelting
Configuration: EUT/ AC Charger/ Headset
Location: Chamber B
Mode: LTE_16QAM Band 41 Harmonics, 10MHz Bandwidth

Band

LTE41

10MHz

16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2501									
5002.00	-7.2	V	3.0	35.5	1.0	-41.7	-25.0	-16.7	
7503.00	-14.5	V	3.0	35.7	1.0	-49.3	-25.0	-24.3	
10004.00	-12.0	V	3.0	36.0	1.0	-47.0	-25.0	-22.0	
5002.00	-9.6	H	3.0	35.5	1.0	-44.1	-25.0	-19.1	
7503.00	-12.3	H	3.0	35.7	1.0	-47.1	-25.0	-22.1	
10004.00	-10.1	H	3.0	36.0	1.0	-45.2	-25.0	-20.2	
Mid Ch, 2593									
5186.00	-14.9	V	3.0	35.4	1.0	-49.3	-25.0	-24.3	
7779.00	-10.2	V	3.0	35.8	1.0	-44.9	-25.0	-19.9	
10372.00	-11.2	V	3.0	35.8	1.0	-46.0	-25.0	-21.0	
5186.00	-13.7	H	3.0	35.4	1.0	-48.2	-25.0	-23.2	
7779.00	-12.0	H	3.0	35.8	1.0	-46.8	-25.0	-21.8	
10372.00	-10.7	H	3.0	35.8	1.0	-45.6	-25.0	-20.6	
High Ch, 2685									
5370.00	-16.8	V	3.0	35.4	1.0	-51.2	-25.0	-26.2	
8055.00	-13.6	V	3.0	35.8	1.0	-48.4	-25.0	-23.4	
10740.00	-11.1	V	3.0	35.7	1.0	-45.7	-25.0	-20.7	
5370.00	-16.0	H	3.0	35.4	1.0	-50.5	-25.0	-25.5	
8055.00	-12.4	H	3.0	35.8	1.0	-47.2	-25.0	-22.2	
10740.00	-10.5	H	3.0	35.7	1.0	-45.1	-25.0	-20.1	

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Band

LTE41

10MHz

QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/26/2015
Test Engineer: D. Sblendorio /O.Stoelting
Configuration: EUT/ AC Charger/ Headset
Location: Chamber B
Mode: LTE_QPSK Band 41 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2501									
5002.00	-7.1	V	3.0	35.5	1.0	-41.5	-25.0	-16.5	
7503.00	-14.6	V	3.0	35.7	1.0	-49.4	-25.0	-24.4	
10004.00	-11.3	V	3.0	36.0	1.0	-46.3	-25.0	-21.3	
5002.00	-10.0	H	3.0	35.5	1.0	-44.5	-25.0	-19.5	
7503.00	-12.8	H	3.0	35.7	1.0	-47.6	-25.0	-22.6	
10004.00	-10.9	H	3.0	36.0	1.0	-45.9	-25.0	-20.9	
Mid Ch, 2593									
5186.00	-13.1	V	3.0	35.4	1.0	-47.5	-25.0	-22.5	
7779.00	-8.8	V	3.0	35.8	1.0	-43.6	-25.0	-18.6	
10372.00	-11.0	V	3.0	35.8	1.0	-45.8	-25.0	-20.8	
5186.00	-14.0	H	3.0	35.4	1.0	-48.4	-25.0	-23.4	
7779.00	-11.7	H	3.0	35.8	1.0	-46.5	-25.0	-21.5	
10372.00	-10.2	H	3.0	35.8	1.0	-45.0	-25.0	-20.0	
High Ch, 2685									
5370.00	-16.7	V	3.0	35.4	1.0	-51.1	-25.0	-26.1	
8055.00	-13.5	V	3.0	35.8	1.0	-48.3	-25.0	-23.3	
10740.00	-10.9	V	3.0	35.7	1.0	-45.6	-25.0	-20.6	
5370.00	-15.6	H	3.0	35.4	1.0	-50.1	-25.0	-25.1	
8055.00	-11.6	H	3.0	35.8	1.0	-46.4	-25.0	-21.4	
10740.00	-10.4	H	3.0	35.7	1.0	-45.1	-25.0	-20.1	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/26/2015
Test Engineer: D. Sblendorio /O.Stoelting
Configuration: EUT/ AC Charger/ Headset
Location: Chamber B
Mode: LTE_16QAM Band 41 Harmonics, 5MHz Bandwidth

Band
LTE41
5MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2498.5									
4997.00	-10.4	V	3.0	35.5	1.0	-44.8	-25.0	-19.8	
7495.50	-8.9	V	3.0	35.7	1.0	-43.6	-25.0	-18.6	
9994.00	-8.2	V	3.0	36.0	1.0	-43.2	-25.0	-18.2	
4997.00	-5.5	H	3.0	35.5	1.0	-39.9	-25.0	-14.9	
7495.50	-8.2	H	3.0	35.7	1.0	-42.9	-25.0	-17.9	
9994.00	-7.4	H	3.0	36.0	1.0	-42.4	-25.0	-17.4	
Mid Ch, 2593									
5186.00	-4.4	V	3.0	35.4	1.0	-38.9	-25.0	-13.9	
7779.00	-7.6	V	3.0	35.8	1.0	-42.4	-25.0	-17.4	
10372.00	-6.6	V	3.0	35.8	1.0	-41.5	-25.0	-16.5	
5186.00	-9.5	H	3.0	35.4	1.0	-43.9	-25.0	-18.9	
7779.00	-8.0	H	3.0	35.8	1.0	-42.8	-25.0	-17.8	
10372.00	-5.6	H	3.0	35.8	1.0	-40.4	-25.0	-15.4	
High Ch, 2687.5									
5375.00	-10.3	V	3.0	35.4	1.0	-44.7	-25.0	-19.7	
8062.50	-5.4	V	3.0	35.8	1.0	-40.2	-25.0	-15.2	
10750.00	-5.3	V	3.0	35.7	1.0	-40.0	-25.0	-15.0	
5375.00	-10.4	H	3.0	35.4	1.0	-44.9	-25.0	-19.9	
8062.50	-8.0	H	3.0	35.8	1.0	-42.8	-25.0	-17.8	
10750.00	-6.7	H	3.0	35.7	1.0	-41.4	-25.0	-16.4	

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Band

LTE41

5MHz

QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: LG Electronics
Project #: 15I19834
Date: 1/26/2015
Test Engineer: D. Sblendorio /O.Stoelting
Configuration: EUT/ AC Charger/ Headset
Location: Chamber B
Mode: LTE_QPSK Band 41 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2498.5									
4997.00	-11.4	V	3.0	35.5	1.0	-45.9	-25.0	-20.9	
7495.50	-9.4	V	3.0	35.7	1.0	-44.2	-25.0	-19.2	
9994.00	-7.7	V	3.0	36.0	1.0	-42.7	-25.0	-17.7	
4997.00	-4.4	H	3.0	35.5	1.0	-38.9	-25.0	-13.9	
7495.50	-8.7	H	3.0	35.7	1.0	-43.4	-25.0	-18.4	
9994.00	-6.4	H	3.0	36.0	1.0	-41.5	-25.0	-16.5	
Mid Ch, 2593									
5186.00	-5.2	V	3.0	35.4	1.0	-39.7	-25.0	-14.7	
7779.00	-8.0	V	3.0	35.8	1.0	-42.8	-25.0	-17.8	
10372.00	-7.0	V	3.0	35.8	1.0	-41.8	-25.0	-16.8	
5186.00	-8.9	H	3.0	35.4	1.0	-43.3	-25.0	-18.3	
7779.00	-7.6	H	3.0	35.8	1.0	-42.4	-25.0	-17.4	
10372.00	-5.8	H	3.0	35.8	1.0	-40.6	-25.0	-15.6	
High Ch, 2687.5									
5375.00	-10.5	V	3.0	35.4	1.0	-44.9	-25.0	-19.9	
8062.50	-5.1	V	3.0	35.8	1.0	-39.9	-25.0	-14.9	
10750.00	-5.8	V	3.0	35.7	1.0	-40.5	-25.0	-15.5	
5375.00	-11.0	H	3.0	35.4	1.0	-45.4	-25.0	-20.4	
8062.50	-7.2	H	3.0	35.8	1.0	-42.0	-25.0	-17.0	
10750.00	-6.0	H	3.0	35.7	1.0	-40.6	-25.0	-15.6	

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