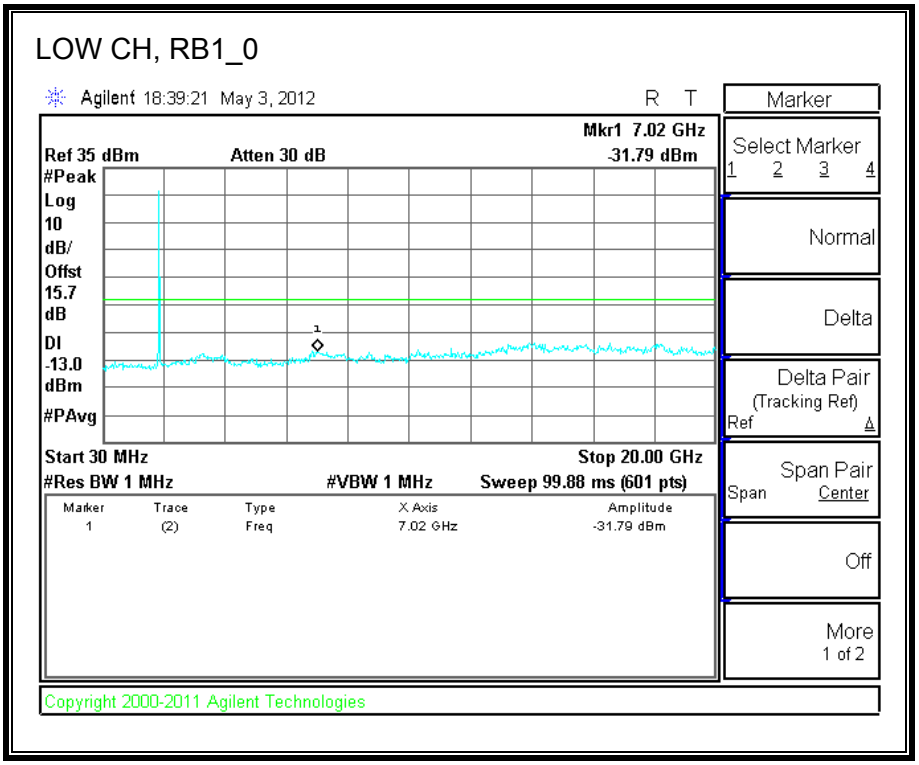
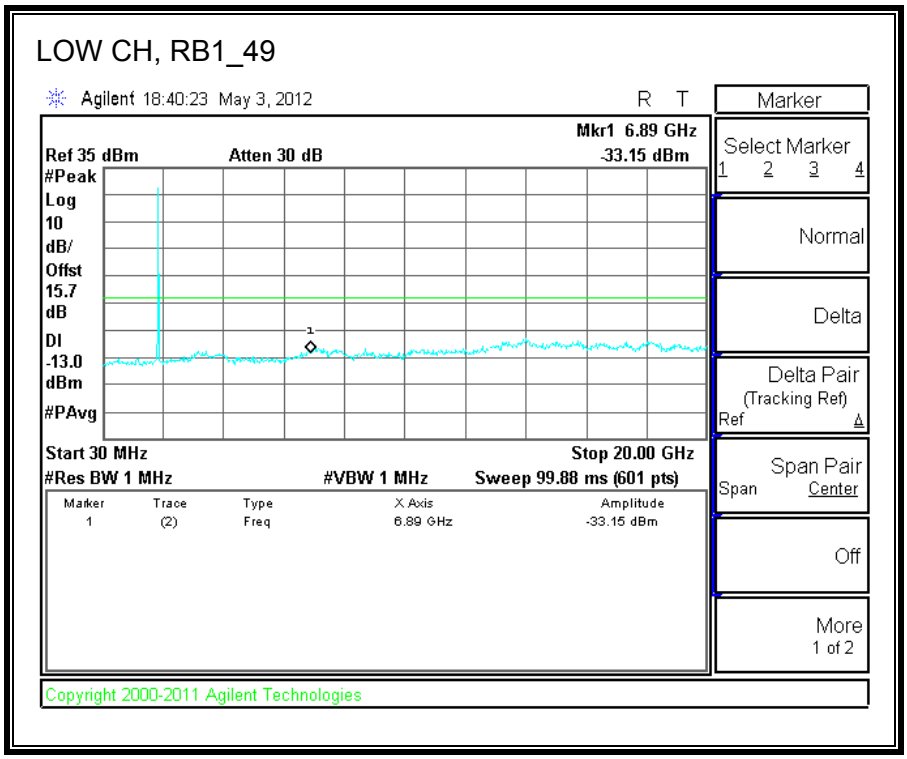
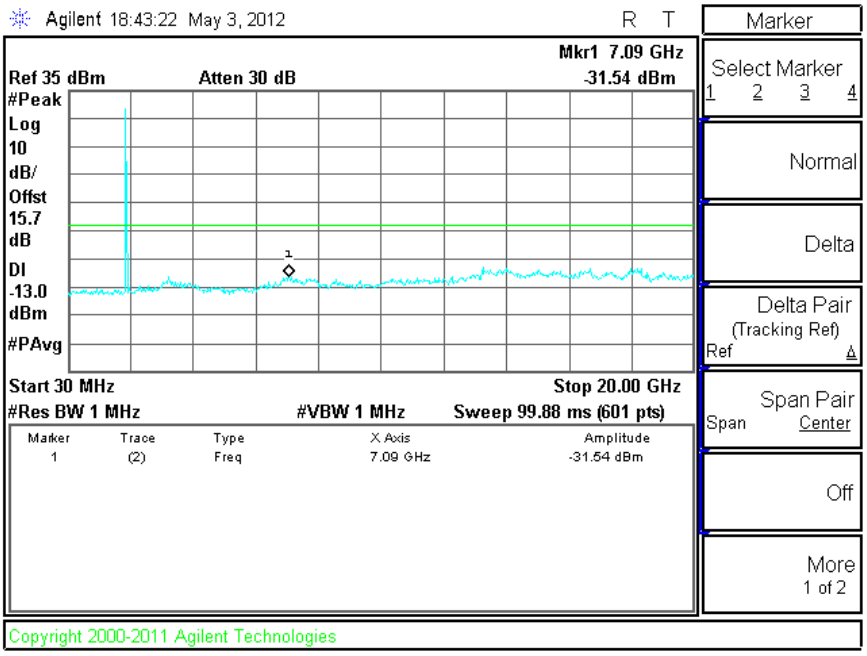
## LTE, Band 2 (10.0MHz BAND WIDTH )

### QPSK

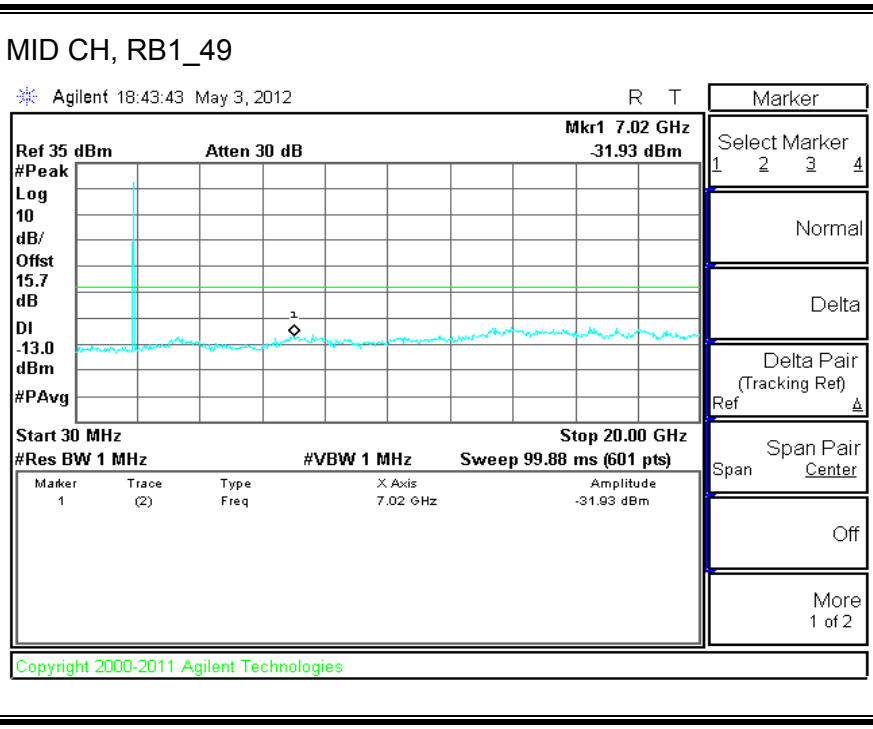


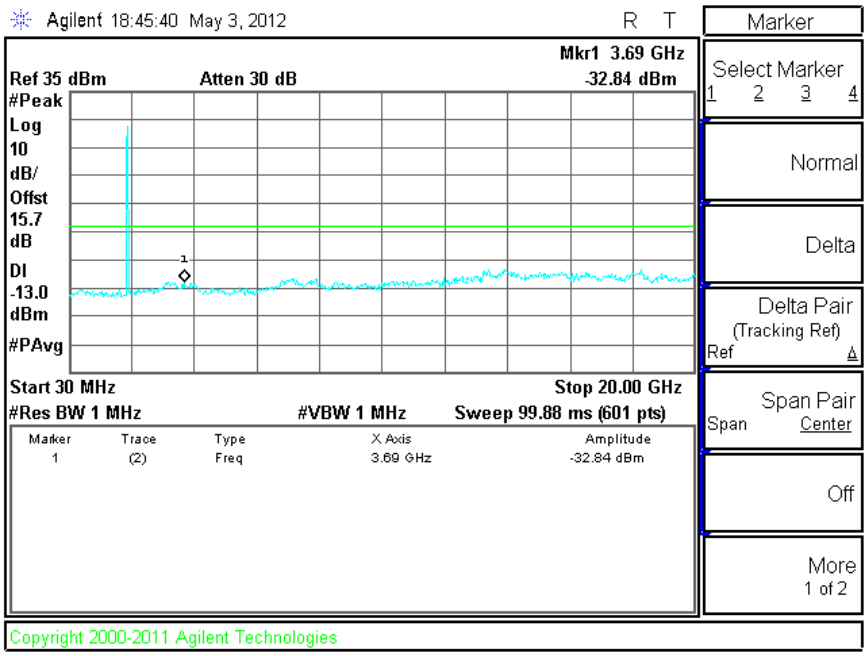
MID CH, RB1_0



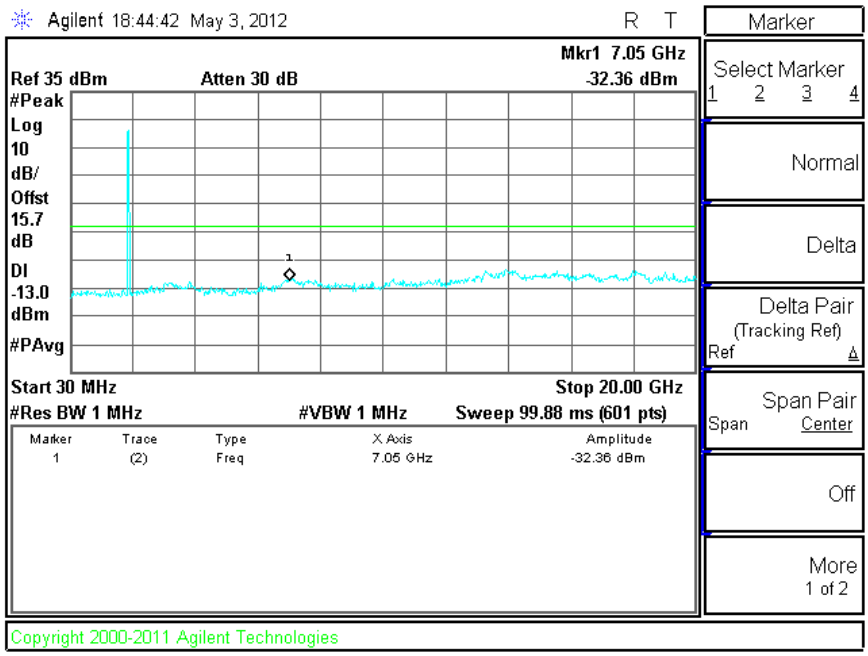

MID CH, RB1_49



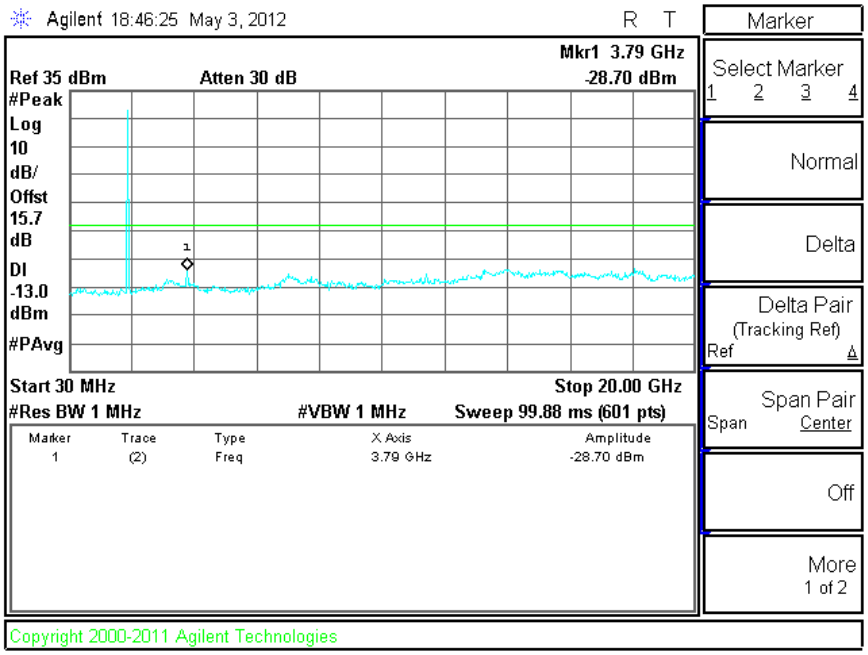
MID CH, RB25_12



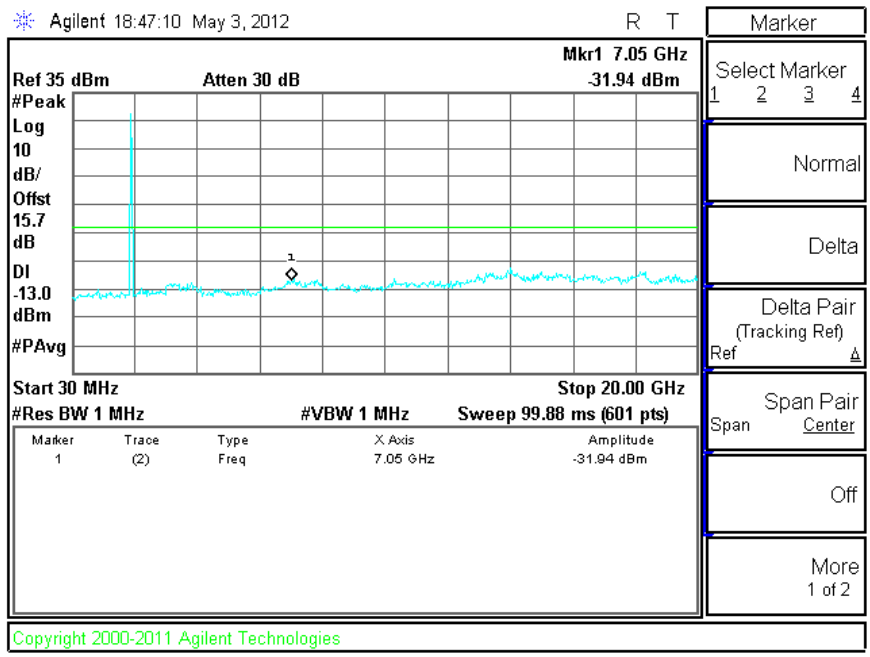

MID CH, RB50_0



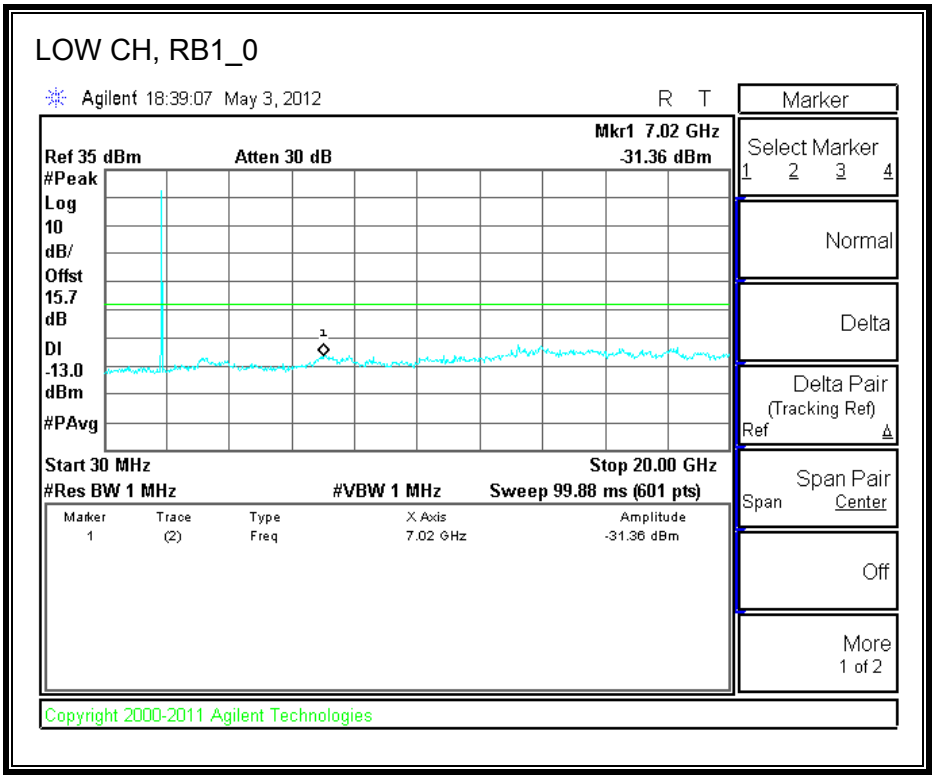
HI CH, RB1_0

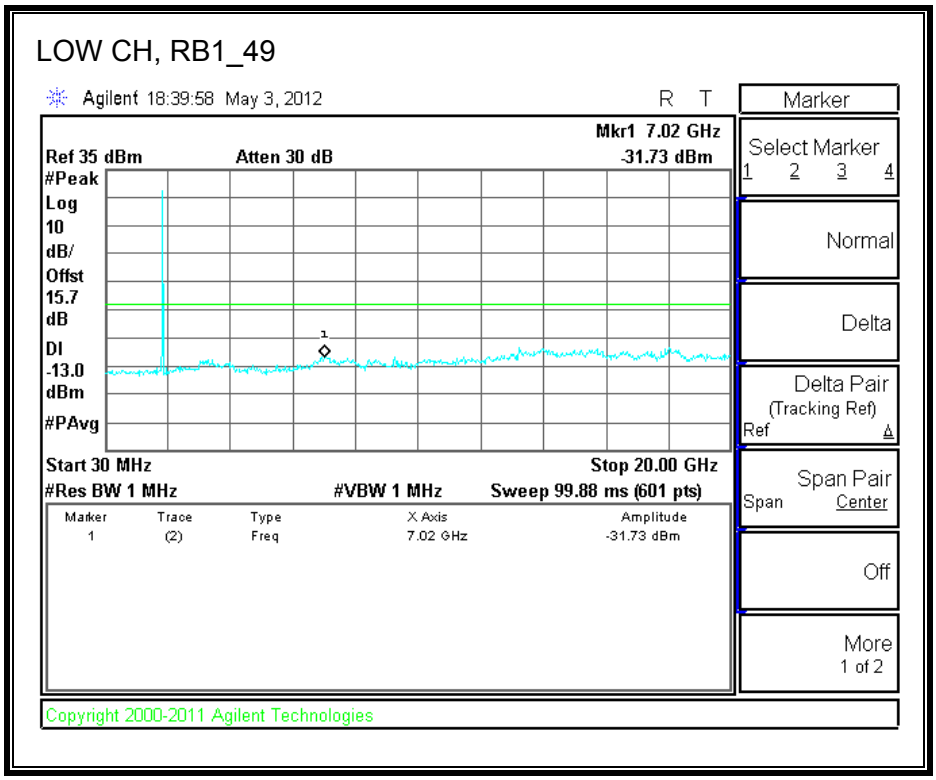



HI CH, RB1_49

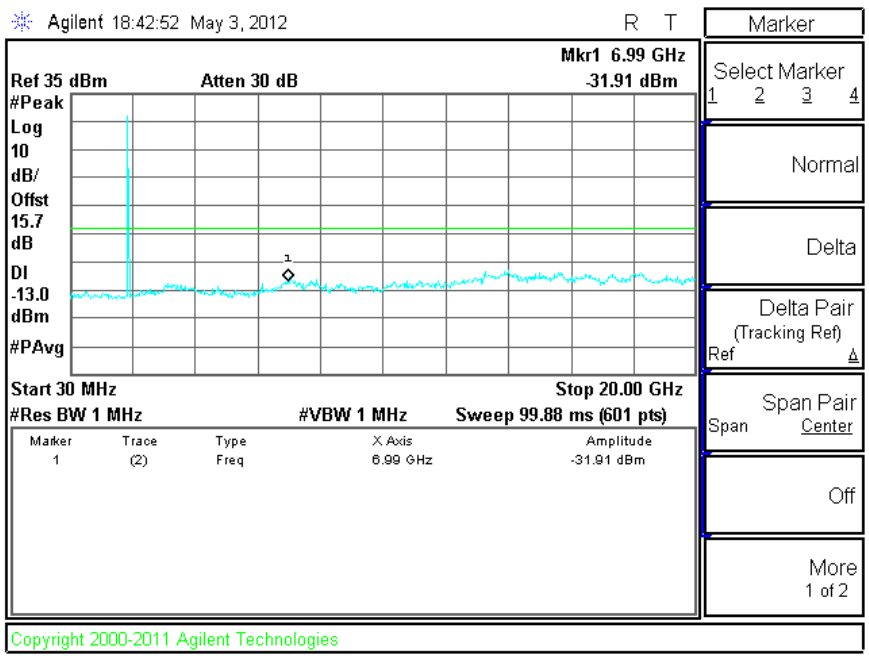


**16QAM**

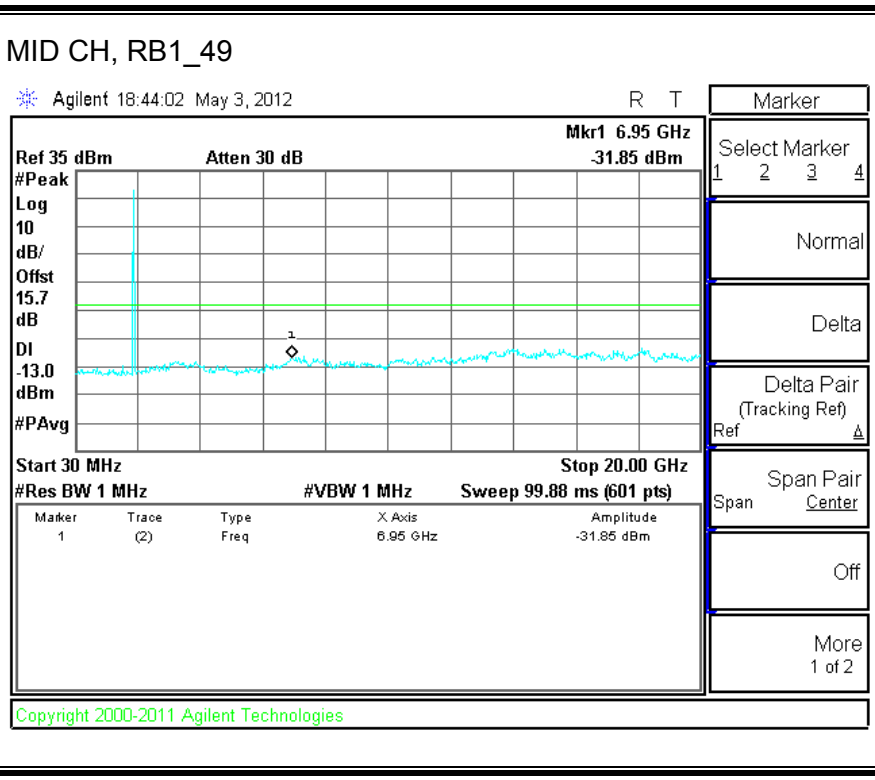


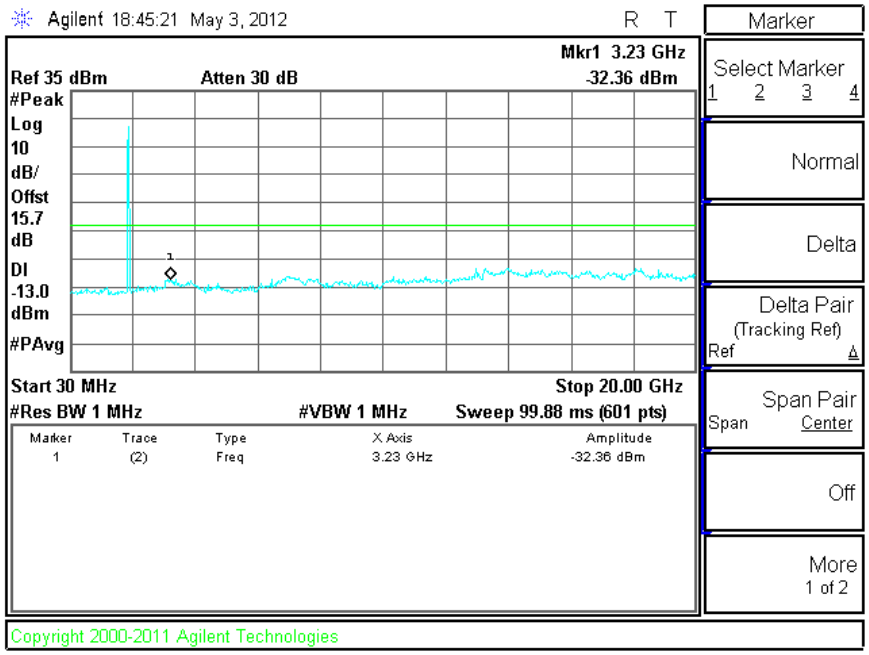
MID CH, RB1_0



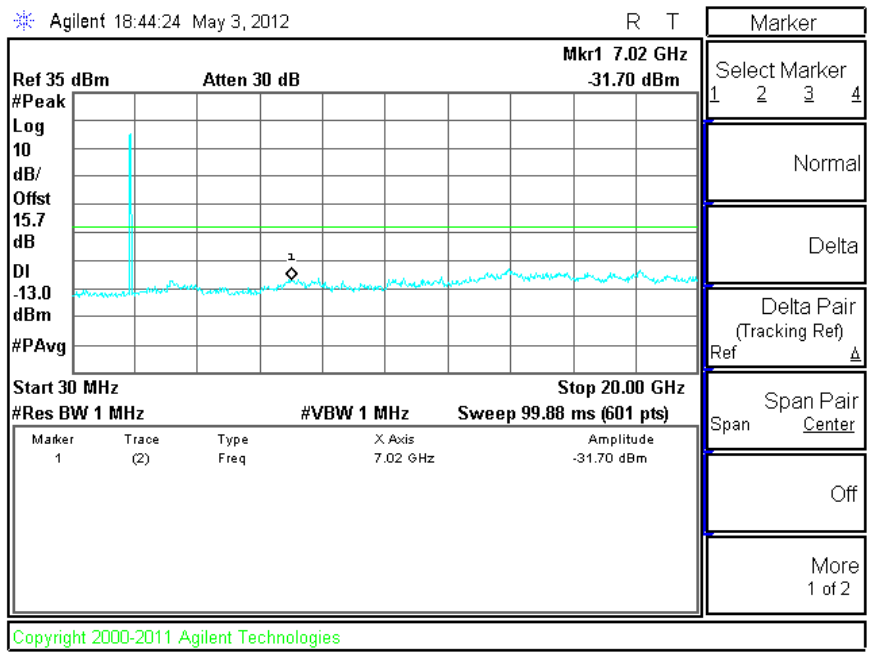

MID CH, RB1_49



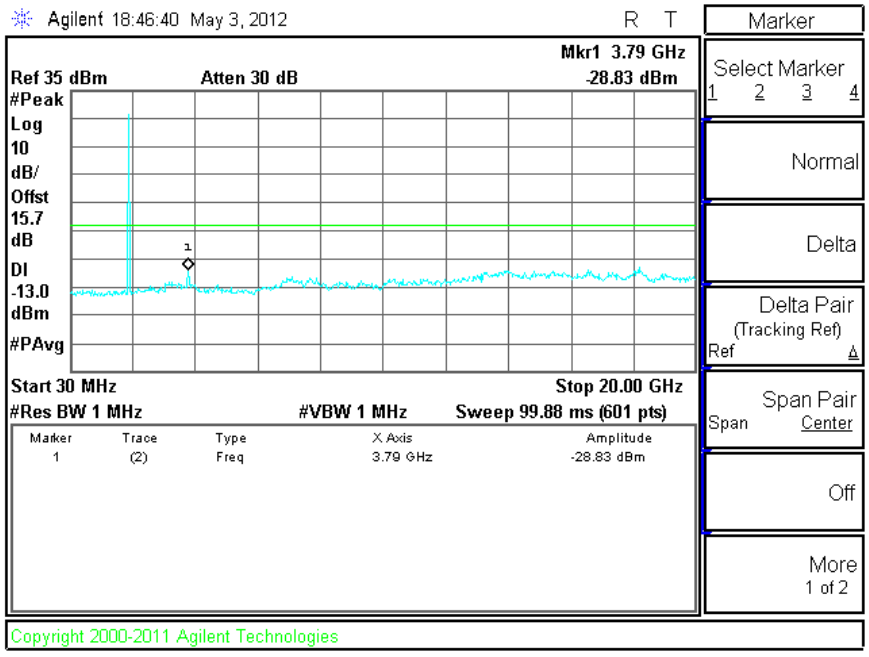
MID CH, RB25_12



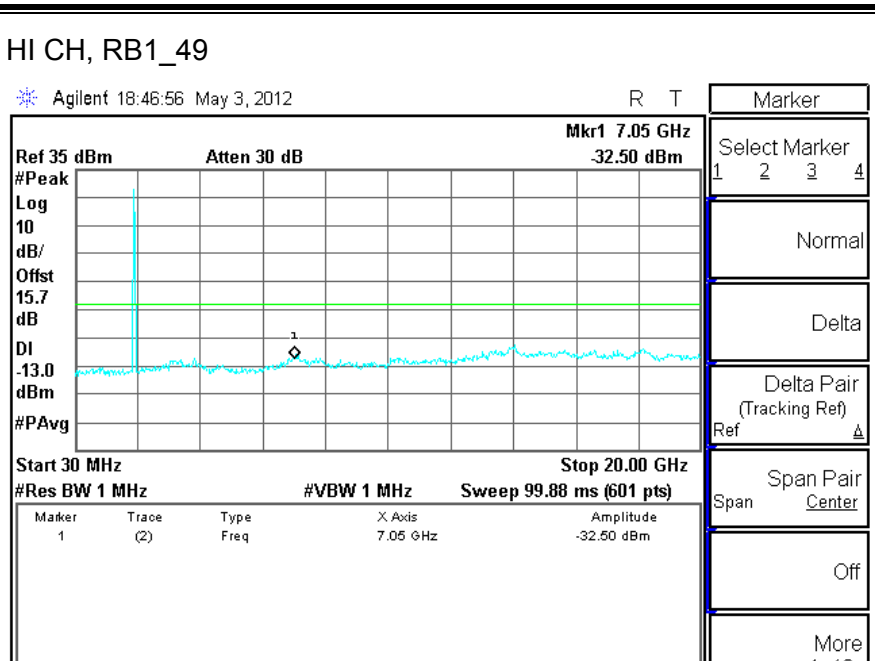

MID CH, 50_0



HI CH, RB1_0




HI CH, RB1_49



## 8.4. FREQUENCY STABILITY

**RULE PART(S)**

FCC: §2.1055, §22.355, §24.235, §27.54.

**LIMITS**

§22.355 & RSS-132 4.3 - The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations.

§24.235 - The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

**TEST PROCEDURE**

Use Agilent 8960 and CMW 500 with Frequency Error measurement capability.

- Temp. = −30° to +50°C
- Voltage = Normal, 3.7Vdc, Low, 3.5Vdc and High, 4.26Vdc.

**Frequency Stability vs Temperature:**
The EUT is place inside a temperature chamber. The temperature is set to 20ºC and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until +50ºC is reached.

**Frequency Stability vs Voltage:**
The peak frequency error is recorded (worst-case).

**MODES TESTED**

- CDMA 2000 1xRTT
- AWS
- LTE Band 2 and 4

**RESULTS**

See the following pages.

**CELL, 1xRTT MODULATION – MID CHANNEL**

| Reference Frequency: Cellular Mid Channel 836.520010MHz @ 20°C<br>Limit: to stay +- 2.5 ppm = 2091.300 Hz | | | | |
|---|---|---|---|---|
| Power Supply (Vdc) | Environment Temperature (°C) | Frequency Deviation Measureed with Time Elapse (MHz) | Delta (ppm) | Limit (ppm) |
| 3.70 | 50 | 836.520021 | -0.013 | 2.5 |
| 3.70 | 40 | 836.520015 | -0.006 | 2.5 |
| 3.70 | 30 | 836.520013 | -0.004 | 2.5 |
| ***3.70*** | ***20*** | ***836.520010*** | ***0*** | 2.5 |
| 3.70 | 10 | 836.520005 | 0.006 | 2.5 |
| 3.70 | 0 | 836.519986 | 0.029 | 2.5 |
| 3.70 | -10 | 836.519990 | 0.024 | 2.5 |
| 3.70 | -20 | 836.519988 | 0.026 | 2.5 |
| 3.70 | -30 | 836.519985 | 0.030 | 2.5 |
| **Reference Frequency: Cellular Mid Channel 836.5200101MHz @ 20°C<br>Limit: to stay +- 2.5 ppm = 2091.300 Hz** | | | | |
| **Power Supply (Vdc)** | **Environment Temperature (°C)** | **Frequency Deviation Measureed with Time Elapse (MHz)** | **Delta (ppm)** | **Limit (ppm)** |
| ***3.70*** | ***20*** | ***836.520010*** | ***0*** | ***2.5*** |
| 4.26 | 20 | 836.520015 | *-0.006* | 2.5 |
| 3.50 | 20 | 836.520018 | *-0.010* | 2.5 |
| End Voltage(3.3V) | 20 | 836.520014 | *-0.005* | 2.5 |

**PCS, 1xRTT MODULATION – MID CHANNEL**

| Reference Frequency: PCS Mid Channel 1880.000048MHz @ 20ºC<br>Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz | | | | |
|---|---|---|---|---|
| Power Supply (Vdc) | Environment Temperature (*C) | Frequency Deviation Measureed with Time Elapse (MHz) | Delta (ppm) | Limit (ppm) |
| 3.70 | 50 | 1880.000068 | -0.011 | 2.5 |
| 3.70 | 40 | 1880.000065 | -0.009 | 2.5 |
| 3.70 | 30 | 1880.000072 | -0.013 | 2.5 |
| 3.70 | ***20*** | ***1880.000048*** | ***0*** | ***2.5*** |
| 3.70 | 10 | 1880.000032 | 0.009 | 2.5 |
| 3.70 | 0 | 1880.000015 | 0.018 | 2.5 |
| 3.70 | -10 | 1879.999998 | 0.027 | 2.5 |
| 3.70 | -20 | 1879.999993 | 0.029 | 2.5 |
| *3.70* | -30 | 1879.999985 | 0.034 | 2.5 |
| | | | | |
| **Reference Frequency: PCS Mid Channel 1880.000048MHz @ 20ºC<br>Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz** | | | | |
| **Power Supply (Vdc)** | **Environment Temperature (*C)** | **Frequency Deviation Measureed with Time Elapse (MHz)** | **Delta (ppm)** | **Limit (ppm)** |
| ***3.70*** | ***20*** | ***1880.000048*** | ***0*** | ***2.5*** |
| 4.26 | 20 | 1880.000056 | *-0.004* | 2.5 |
| 3.50 | 20 | 1880.000064 | *-0.009* | 2.5 |
| End Voltage(3.3V) | 20 | 1880.000052 | *-0.002* | 2.5 |

**AWS, EVDO– MID CHANNEL**

| Reference Frequency: Cellular Mid Channel 1732.499977MHz @ 20°C<br>Limit: to stay +- 2.5 ppm = 4331.250 Hz | | | | |
|---|---|---|---|---|
| Power Supply (Vdc) | Environment Temperature (°C) | Frequency Deviation Measureed with Time Elapse (MHz) | Delta (ppm) | Limit (ppm) |
| 3.70 | 50 | 1732.500011 | -0.020 | 2.5 |
| 3.70 | 40 | 1732.500008 | -0.018 | 2.5 |
| 3.70 | 30 | 1732.499995 | -0.010 | 2.5 |
| 3.70 | ***20*** | ***1732.499977*** | ***0*** | 2.5 |
| 3.70 | 10 | 1732.499973 | 0.002 | 2.5 |
| 3.70 | 0 | 1732.499969 | 0.005 | 2.5 |
| 3.70 | -10 | 1732.499965 | 0.007 | 2.5 |
| 3.70 | -20 | 1732.499963 | 0.008 | 2.5 |
| 3.70 | -30 | 1732.499962 | 0.009 | 2.5 |

| Reference Frequency: Cellular Mid Channel 1732.499977MHz @ 20°C<br>Limit: to stay +- 2.5 ppm = 4331.250 Hz | | | | |
|---|---|---|---|---|
| Power Supply (Vdc) | Environment Temperature (°C) | Frequency Deviation Measureed with Time Elapse (MHz) | Delta (ppm) | Limit (ppm) |
| ***3.70*** | ***20*** | ***1732.499977*** | ***0*** | ***2.5*** |
| 4.26 | 20 | 1732.499969 | *0.005* | 2.5 |
| 3.50 | 20 | 1732.499965 | *0.007* | 2.5 |
| End Voltage(3.3) | 20 | 1732.499972 | *0.003* | 2.5 |

**QPSK-LTE BAND 4 – 1732.5 MHz**

| Reference Frequency: LTE Band 1732.500007MHz @ 20°C<br>Limit: to stay +- 2.5 ppm = 4331.250 Hz | | | | |
|---|---|---|---|---|
| Power Supply (Vdc) | Environment Temperature (°C) | Frequency Deviation Measureed with Time Elapse (MHz) | Delta (ppm) | Limit (ppm) |
| 3.70 | 50 | 1732.500012 | -0.003 | 2.5 |
| 3.70 | 40 | 1732.500009 | -0.001 | 2.5 |
| 3.70 | 30 | 1732.500005 | 0.001 | 2.5 |
| 3.70 | ***20*** | ***1732.500007*** | ***0*** | 2.5 |
| 3.70 | 10 | 1732.500005 | 0.001 | 2.5 |
| 3.70 | 0 | 1732.499998 | 0.005 | 2.5 |
| 3.70 | -10 | 1732.499993 | 0.008 | 2.5 |
| 3.70 | -20 | 1732.499991 | 0.009 | 2.5 |
| 3.70 | -30 | 1732.499988 | 0.011 | 2.5 |

| Reference Frequency: Cellular Mid Channel 1732.500007MHz @ 20°C<br>Limit: to stay +- 2.5 ppm = 4331.250 Hz | | | | |
|---|---|---|---|---|
| Power Supply (Vdc) | Environment Temperature (°C) | Frequency Deviation Measureed with Time Elapse (MHz) | Delta (ppm) | Limit (ppm) |
| ***3.70*** | ***20*** | ***1732.500007*** | ***0*** | ***2.5*** |
| 4.26 | 20 | 1732.500012 | *-0.003* | 2.5 |
| 3.50 | 20 | 1732.500006 | *0.001* | 2.5 |
| End Voltage(3.3) | 20 | 1732.500008 | *-0.001* | 2.5 |

**16QAM-LTE BAND 4 – 1732.5 MHz**

| Reference Frequency: LTE Band 1732.500064MHz @ 20°C<br>Limit: to stay +- 2.5 ppm = 4331.250 Hz | | | | |
|---|---|---|---|---|
| Power Supply (Vdc) | Environment Temperature (°C) | Frequency Deviation Measureed with Time Elapse | | |
| | | (MHz) | Delta (ppm) | Limit (ppm) |
| 3.70 | 50 | 1732.500069 | -0.003 | 2.5 |
| 3.70 | 40 | 1732.500057 | 0.004 | 2.5 |
| 3.70 | 30 | 1732.500054 | 0.006 | 2.5 |
| 3.70 | ***20*** | ***1732.500064*** | ***0*** | 2.5 |
| 3.70 | 10 | 1732.500061 | 0.002 | 2.5 |
| 3.70 | 0 | 1732.500063 | 0.001 | 2.5 |
| 3.70 | -10 | 1732.500065 | -0.001 | 2.5 |
| 3.70 | -20 | 1732.500067 | -0.002 | 2.5 |
| 3.70 | -30 | 1732.500074 | -0.006 | 2.5 |

| Reference Frequency: Cellular Mid Channel 1732.500064MHz @ 20°C<br>Limit: to stay +- 2.5 ppm = 4331.250 Hz | | | | |
|---|---|---|---|---|
| Power Supply (Vdc) | Environment Temperature (°C) | Frequency Deviation Measureed with Time Elapse | | |
| | | (MHz) | Delta (ppm) | Limit (ppm) |
| ***3.70*** | ***20*** | ***1732.500064*** | ***0*** | ***2.5*** |
| 4.26 | 20 | 1732.500062 | *0.001* | 2.5 |
| 3.50 | 20 | 1732.500062 | *0.001* | 2.5 |
| End Voltage(3.3) | 20 | 1732.500053 | *0.006* | 2.5 |

**QPSK-LTE BAND 2 – 1880.0 MHz**

| Reference Frequency: LTE Band 1880.000013MHz @ 20°C<br>Limit: to stay +- 2.5 ppm = 4700.000 Hz | | | | |
|---|---|---|---|---|
| Power Supply (Vdc) | Environment Temperature (°C) | Frequency Deviation Measureed with Time Elapse | | |
| | | (MHz) | Delta (ppm) | Limit (ppm) |
| 3.70 | 50 | 1880.000019 | -0.003 | 2.5 |
| 3.70 | 40 | 1880.000015 | -0.001 | 2.5 |
| 3.70 | 30 | 1880.000011 | 0.001 | 2.5 |
| 3.70 | ***20*** | ***1880.000013*** | ***0*** | 2.5 |
| 3.70 | 10 | 1880.000012 | 0.001 | 2.5 |
| 3.70 | 0 | 1880.000005 | 0.004 | 2.5 |
| 3.70 | -10 | 1880.000008 | 0.003 | 2.5 |
| 3.70 | -20 | 1880.000015 | -0.001 | 2.5 |
| 3.70 | -30 | 1880.000018 | -0.003 | 2.5 |

| Reference Frequency: Cellular Mid Channel 1880.000013MHz @ 20°C<br>Limit: to stay +- 2.5 ppm = 4700.000 Hz | | | | |
|---|---|---|---|---|
| Power Supply (Vdc) | Environment Temperature (°C) | Frequency Deviation Measureed with Time Elapse | | |
| | | (MHz) | Delta (ppm) | Limit (ppm) |
| ***3.70*** | ***20*** | ***1880.000013*** | ***0*** | ***2.5*** |
| 4.26 | 20 | 1880.000004 | *0.005* | 2.5 |
| 3.50 | 20 | 1880.000007 | *0.003* | 2.5 |
| End Voltage(3.3) | 20 | 1880.000008 | *0.003* | 2.5 |

**16QAM-LTE BAND 2– 1880.0 MHz**

| Reference Frequency: LTE Band 1880.000068MHz @ 20°C<br>Limit: to stay +- 2.5 ppm = 4700.000 Hz | | | | |
|---|---|---|---|---|
| Power Supply (Vdc) | Environment Temperature (°C) | Frequency Deviation Measureed with Time Elapse | | |
| | | (MHz) | Delta (ppm) | Limit (ppm) |
| 3.70 | 50 | 1880.000075 | -0.004 | 2.5 |
| 3.70 | 40 | 1880.000073 | -0.003 | 2.5 |
| 3.70 | 30 | 1880.000072 | -0.002 | 2.5 |
| 3.70 | ***20*** | ***1880.000068*** | ***0*** | 2.5 |
| 3.70 | 10 | 1880.000069 | -0.001 | 2.5 |
| 3.70 | 0 | 1880.000063 | 0.003 | 2.5 |
| 3.70 | -10 | 1880.000067 | 0.001 | 2.5 |
| 3.70 | -20 | 1880.000079 | -0.006 | 2.5 |
| 3.70 | -30 | 1880.000082 | -0.007 | 2.5 |

| Reference Frequency: Cellular Mid Channel 1880.000068MHz @ 20°C<br>Limit: to stay +- 2.5 ppm = 4700.000 Hz | | | | |
|---|---|---|---|---|
| Power Supply (Vdc) | Environment Temperature (°C) | Frequency Deviation Measureed with Time Elapse | | |
| | | (MHz) | Delta (ppm) | Limit (ppm) |
| ***3.70*** | ***20*** | ***1880.000068*** | ***0*** | ***2.5*** |
| 4.26 | 20 | 1880.000076 | *-0.004* | 2.5 |
| 3.50 | 20 | 1880.000066 | *0.001* | 2.5 |
| End Voltage(3.3) | 20 | 1880.000060 | *0.004* | 2.5 |

# 9. RADIATED TEST RESULTS

## 9.1. RADIATED POWER (ERP & EIRP)

**RULE PART(S)**

FCC: §2.1046, §22.913, §24.232, §27.50(d) (2)

**LIMITS**

22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

24.232(c) - Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

27.50 (c)(10) Portable stations (hand-held devices) transmitting in the 746–757 MHz, 758–763 MHz, 776–793 MHz, and 805–806 MHz bands are limited to 3 watts ERP.

27.50 (d)(4) The following power and antenna height requirements apply to stations transmitting in the 1710–1755 MHz and 2110–2155 MHz bands: Fixed, mobile, and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP.

**TEST PROCEDURE**

ANSI / TIA / EIA 603C Clause 2.2.17

**MODES TESTED**

- CDMA 2000 1xRTT
- CDMA 2000 EVDO REV. A
- LTE Band 2 and 4

**RESULTS**

**CELLULAR BAND (ERP)**

| Mode | Channel | f (MHz) | ERP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 1xRTT | 1013 | 824.70 | 27.07 | 509.33 |
| | 384 | 836.60 | 27.94 | 622.30 |
| | 777 | 848.31 | 26.71 | 468.81 |

**PCS BAND (EIRP)**

| Mode | Channel | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 1xRTT | 25 | 1851.25 | 31.02 | 1264.74 |
| | 600 | 1880.00 | 30.99 | 1256.03 |
| | 1175 | 1908.75 | 29.63 | 918.33 |
| EVDO REV. A | 25 | 1851.25 | 28.33 | 680.77 |
| | 600 | 1880.00 | 29.31 | 853.10 |
| | 1175 | 1908.75 | 24.83 | 304.09 |

**AWS BAND (EIRP)**

| Mode | Channel | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 1xRTT | 25 | 1711.25 | 29.41 | 872.97 |
| | 450 | 1732.50 | 28.89 | 774.46 |
| | 875 | 1753.75 | 29.78 | 950.60 |
| EVDO REV. A | 25 | 1711.25 | 22.41 | 174.18 |
| | 460 | 1732.50 | 26.39 | 435.51 |
| | 895 | 1753.75 | 22.98 | 198.61 |

**ERP LTE Band 4 (1.4MHz BAND WIDTH)**

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 1.4 MHZ BAND QPSK | 1/0 | 1710.70 | 27.09 | 511.68 |
| | | 1732.50 | 26.87 | 486.41 |
| | | 1754.30 | 26.36 | 432.51 |
| | 1/5 | 1710.70 | 27.49 | 561.05 |
| | | 1732.50 | 26.87 | 486.41 |
| | | 1754.30 | 25.56 | 359.75 |
| | 3/2 | 1710.70 | 27.49 | 561.05 |
| | | 1732.50 | 26.87 | 486.41 |
| | | 1754.30 | 25.96 | 394.46 |
| | 6/0 | 1710.70 | 27.29 | 535.80 |
| | | 1732.50 | 26.97 | 497.74 |
| | | 1754.30 | 25.76 | 376.70 |

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 1.4 MHZ BAND 16QAM | 1/0 | 1710.70 | 27.29 | 535.80 |
| | | 1732.50 | 26.77 | 475.34 |
| | | 1754.30 | 26.66 | 463.45 |
| | 1/5 | 1710.70 | 27.29 | 535.80 |
| | | 1732.50 | 27.07 | 509.33 |
| | | 1754.30 | 25.66 | 368.13 |
| | 3/2 | 1710.70 | 27.29 | 535.80 |
| | | 1732.50 | 26.87 | 486.41 |
| | | 1754.30 | 25.16 | 328.10 |
| | 6/0 | 1710.70 | 27.19 | 523.60 |
| | | 1732.50 | 26.97 | 497.74 |
| | | 1754.30 | 25.56 | 359.75 |

**ERP LTE Band 4 (3.0MHz BAND WIDTH)**

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 3.0 MHZ BAND QPSK | 1/0 | 1711.50 | 26.79 | 477.53 |
| | | 1732.50 | 26.27 | 423.64 |
| | | 1753.50 | 26.16 | 413.05 |
| | 1/14 | 1711.50 | 26.91 | 490.91 |
| | | 1732.50 | 27.67 | 584.79 |
| | | 1753.50 | 25.26 | 335.74 |
| | 8/4 | 1711.50 | 24.69 | 294.44 |
| | | 1732.50 | 27.57 | 571.48 |
| | | 1753.50 | 25.16 | 328.10 |
| | 15/0 | 1711.50 | 24.49 | 281.19 |
| | | 1732.50 | 27.87 | 612.35 |
| | | 1753.50 | 25.16 | 328.10 |

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 3.0 MHZ BAND 16QAM | 1/0 | 1711.50 | 24.69 | 294.44 |
| | | 1732.50 | 25.97 | 395.37 |
| | | 1753.50 | 26.26 | 422.67 |
| | 1/14 | 1711.50 | 25.49 | 354.00 |
| | | 1732.50 | 27.57 | 571.48 |
| | | 1753.50 | 25.06 | 320.63 |
| | 8/4 | 1711.50 | 24.29 | 268.53 |
| | | 1732.50 | 27.07 | 509.33 |
| | | 1753.50 | 24.96 | 313.33 |
| | 15/0 | 1711.50 | 24.49 | 281.19 |
| | | 1732.50 | 27.57 | 571.48 |
| | | 1753.50 | 25.36 | 343.56 |

**EIRP LTE Band 4 (5MHz BAND WIDTH)**

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 5.0 MHZ BAND QPSK | 1/0 | 1712.50 | 24.19 | 262.42 |
| | | 1732.50 | 27.19 | 523.60 |
| | | 1752.50 | 25.86 | 385.48 |
| | 1/24 | 1712.50 | 23.99 | 250.61 |
| | | 1732.50 | 26.67 | 464.52 |
| | | 1752.50 | 25.16 | 328.10 |
| | 12/6 | 1712.50 | 24.39 | 274.79 |
| | | 1732.50 | 25.98 | 396.28 |
| | | 1752.50 | 24.16 | 260.62 |
| | 25/0 | 1712.50 | 24.39 | 274.79 |
| | | 1732.50 | 25.98 | 396.28 |
| | | 1752.50 | 24.46 | 279.25 |

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 5.0 MHZ BAND 16QAM | 1/0 | 1712.50 | 24.09 | 256.45 |
| | | 1732.50 | 27.07 | 509.33 |
| | | 1752.50 | 25.76 | 376.70 |
| | 1/24 | 1712.50 | 23.89 | 244.91 |
| | | 1732.50 | 26.57 | 453.94 |
| | | 1752.50 | 24.96 | 313.33 |
| | 12/6 | 1712.50 | 24.29 | 268.53 |
| | | 1732.50 | 25.87 | 386.37 |
| | | 1752.50 | 24.26 | 266.69 |
| | 25/0 | 1712.50 | 24.69 | 294.44 |
| | | 1732.50 | 26.07 | 404.58 |
| | | 1752.50 | 24.96 | 313.33 |

**EIRP LTE Band 4 (10MHz BAND WIDTH)**

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 10.0 MHZ BAND QPSK | 1/0 | 1715.00 | 23.93 | 247.17 |
| | | 1732.50 | 25.68 | 369.83 |
| | | 1750.00 | 26.07 | 404.58 |
| | 1/49 | 1715.00 | 24.79 | 301.30 |
| | | 1732.50 | 26.97 | 497.74 |
| | | 1750.00 | 25.39 | 345.94 |
| | 25/12 | 1715.00 | 25.76 | 376.70 |
| | | 1732.50 | 27.97 | 626.61 |
| | | 1750.00 | 27.28 | 534.56 |
| | 50/0 | 1715.00 | 25.69 | 370.68 |
| | | 1732.50 | 27.87 | 612.35 |
| | | 1750.00 | 27.26 | 532.11 |

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 10.0 MHZ BAND 16QAM | 1/0 | 1715.00 | 24.09 | 256.45 |
| | | 1732.50 | 25.37 | 344.35 |
| | | 1750.00 | 26.00 | 398.11 |
| | 1/49 | 1715.00 | 24.78 | 300.61 |
| | | 1732.50 | 27.06 | 508.16 |
| | | 1750.00 | 25.45 | 350.75 |
| | 25/12 | 1715.00 | 25.11 | 324.34 |
| | | 1732.50 | 27.25 | 530.88 |
| | | 1750.00 | 26.76 | 474.24 |
| | 50/0 | 1715.00 | 25.79 | 379.31 |
| | | 1732.50 | 27.28 | 534.56 |
| | | 1750.00 | 27.26 | 532.11 |

**ERP LTE Band 2 (1.4MHz BAND WIDTH)**

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 1.4 MHZ BAND QPSK | 1/0 | 1850.70 | 27.37 | 545.76 |
| | | 1880.00 | 27.01 | 502.34 |
| | | 1909.30 | 24.55 | 285.10 |
| | 1/5 | 1850.70 | 27.27 | 533.33 |
| | | 1880.00 | 26.61 | 458.14 |
| | | 1909.30 | 24.95 | 312.61 |
| | 3/2 | 1850.70 | 26.97 | 497.74 |
| | | 1880.00 | 26.81 | 479.73 |
| | | 1909.30 | 24.55 | 285.10 |
| | 6/0 | 1850.70 | 26.87 | 486.41 |
| | | 1880.00 | 26.51 | 447.71 |
| | | 1909.30 | 24.95 | 312.61 |

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 1.4 MHZ BAND 16QAM | 1/0 | 1850.70 | 27.17 | 521.19 |
| | | 1880.00 | 27.11 | 514.04 |
| | | 1909.30 | 24.75 | 298.54 |
| | 1/5 | 1850.70 | 27.07 | 509.33 |
| | | 1880.00 | 26.71 | 468.81 |
| | | 1909.30 | 24.55 | 285.10 |
| | 3/2 | 1850.70 | 26.87 | 486.41 |
| | | 1880.00 | 26.91 | 490.91 |
| | | 1909.30 | 24.75 | 298.54 |
| | 6/0 | 1850.70 | 26.87 | 486.41 |
| | | 1880.00 | 26.21 | 417.83 |
| | | 1909.30 | 24.25 | 266.07 |

**ERP LTE Band 2 (3.0MHz BAND WIDTH)**

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 3.0 MHZ BAND QPSK | 1/0 | 1851.50 | 26.67 | 464.52 |
| | | 1880.00 | 26.51 | 447.71 |
| | | 1908.50 | 25.45 | 350.75 |
| | 1/14 | 1851.50 | 27.77 | 598.41 |
| | | 1880.00 | 26.91 | 490.91 |
| | | 1908.50 | 26.05 | 402.72 |
| | 8/4 | 1851.50 | 27.17 | 521.19 |
| | | 1880.00 | 26.71 | 468.81 |
| | | 1908.50 | 25.35 | 342.77 |
| | 15/0 | 1851.50 | 26.07 | 404.58 |
| | | 1880.00 | 26.21 | 417.83 |
| | | 1908.50 | 25.15 | 327.34 |

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 3.0 MHZ BAND 16QAM | 1/0 | 1851.50 | 26.97 | 497.74 |
| | | 1880.00 | 26.51 | 447.71 |
| | | 1908.50 | 25.55 | 358.92 |
| | 1/14 | 1851.50 | 27.07 | 509.33 |
| | | 1880.00 | 27.11 | 514.04 |
| | | 1908.50 | 25.75 | 375.84 |
| | 8/4 | 1851.50 | 26.97 | 497.74 |
| | | 1880.00 | 26.01 | 399.02 |
| | | 1908.50 | 25.85 | 384.59 |
| | 15/0 | 1851.50 | 26.07 | 404.58 |
| | | 1880.00 | 25.91 | 389.94 |
| | | 1908.50 | 25.25 | 334.97 |

**LTE Band 2 (5MHz BAND WIDTH)**

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 5.0 MHZ BAND QPSK | 1/0 | 1852.50 | 26.47 | 443.61 |
| | | 1880.00 | 25.91 | 389.94 |
| | | 1907.50 | 25.55 | 358.92 |
| | 1/24 | 1852.50 | 26.47 | 443.61 |
| | | 1880.00 | 26.51 | 447.71 |
| | | 1907.50 | 24.55 | 285.10 |
| | 12/6 | 1852.50 | 27.27 | 533.33 |
| | | 1880.00 | 26.71 | 468.81 |
| | | 1907.50 | 25.45 | 350.75 |
| | 25/0 | 1852.50 | 27.07 | 509.33 |
| | | 1880.00 | 26.81 | 479.73 |
| | | 1907.50 | 24.75 | 298.54 |

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 5.0 MHZ BAND 16QAM | 1/0 | 1852.50 | 26.37 | 433.51 |
| | | 1880.00 | 26.11 | 408.32 |
| | | 1907.50 | 26.45 | 441.57 |
| | 1/24 | 1852.50 | 27.17 | 521.19 |
| | | 1880.00 | 26.91 | 490.91 |
| | | 1907.50 | 24.65 | 291.74 |
| | 12/6 | 1852.50 | 27.37 | 545.76 |
| | | 1880.00 | 27.01 | 502.34 |
| | | 1907.50 | 25.85 | 384.59 |
| | 25/0 | 1852.50 | 27.37 | 545.76 |
| | | 1880.00 | 26.71 | 468.81 |
| | | 1907.50 | 24.85 | 305.49 |

**LTE Band 2 (10MHz BAND WIDTH)**

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 10.0 MHZ BAND QPSK | 1/0 | 1855.00 | 27.07 | 509.33 |
| | | 1880.00 | 26.21 | 417.83 |
| | | 1905.00 | 26.05 | 402.72 |
| | 1/49 | 1855.00 | 27.47 | 558.47 |
| | | 1880.00 | 26.91 | 490.91 |
| | | 1905.00 | 26.55 | 451.86 |
| | 25/12 | 1855.00 | 28.57 | 719.45 |
| | | 1880.00 | 27.71 | 590.20 |
| | | 1905.00 | 27.05 | 506.99 |
| | 50/0 | 1855.00 | 28.37 | 687.07 |
| | | 1880.00 | 27.71 | 590.20 |
| | | 1905.00 | 27.35 | 543.25 |

| Mode | RB/RB SIZE | f (MHz) | EIRP | |
|---|---|---|---|---|
| | | | dBm | mW |
| 10.0 MHZ BAND 16QAM | 1/0 | 1855.00 | 26.97 | 497.74 |
| | | 1880.00 | 26.51 | 447.71 |
| | | 1905.00 | 26.05 | 402.72 |
| | 1/49 | 1855.00 | 27.72 | 591.56 |
| | | 1880.00 | 27.11 | 514.04 |
| | | 1905.00 | 26.85 | 484.17 |
| | 25/12 | 1855.00 | 28.47 | 703.07 |
| | | 1880.00 | 27.61 | 576.77 |
| | | 1905.00 | 27.25 | 530.88 |
| | 50/0 | 1855.00 | 27.97 | 626.61 |
| | | 1880.00 | 27.71 | 590.20 |
| | | 1905.00 | 27.15 | 518.80 |

**1xRTT 850 BAND**

**High Frequency Substitution Measurement**
**Compliance Certification Services Chamber B**

| | |
|---|---|
| **Company:** | LG ELECTRONICS |
| **Project #:** | 12U14406 |
| **Date:** | 04/24/12 |
| **Test Engineer:** | Chin Pang |
| **Configuration:** | EUT with AC Adapter and Headset |
| **Mode:** | TX, 850 MHz BAND, CDMA 1xRTT MODE |
| | Worst cast at Y position. |

**Test Equipment:**
**Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT)**
**Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.**

| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Margin (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 824.20 | 27.57 | V | 0.5 | 0.0 | 27.07 | 38.5 | -11.4 | |
| 824.20 | 25.40 | H | 0.5 | 0.0 | 24.90 | 38.5 | -13.5 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 836.60 | 28.44 | V | 0.5 | 0.0 | 27.94 | 38.5 | -10.5 | |
| 836.60 | 25.00 | H | 0.5 | 0.0 | 24.50 | 38.5 | -14.0 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 848.80 | 27.21 | V | 0.5 | 0.0 | 26.71 | 38.5 | -11.7 | |
| 848.80 | 25.70 | H | 0.5 | 0.0 | 25.20 | 38.5 | -13.2 | |
| | | | | | | | | |

Rev. 3.17.11

**1xRTT 1900 BAND**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 04/24/12
**Test Engineer:** Chin Pang
**Configuration:** EUT AND AC ADAPTER
**Mode:** TX, 1900 MHz BAND, CDMA 1xRTT MODE
Worst Case at Y position

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.851 | 23.3 | V | 0.85 | 8.62 | 31.02 | 33.0 | -2.0 | |
| 1.851 | 12.0 | H | 0.85 | 8.47 | 19.58 | 33.0 | -13.4 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 23.4 | V | 0.85 | 8.46 | 30.99 | 33.0 | -2.0 | |
| 1.880 | 12.3 | H | 0.85 | 8.36 | 19.83 | 33.0 | -13.2 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.909 | 22.2 | V | 0.85 | 8.30 | 29.63 | 33.0 | -3.4 | |
| 1.909 | 12.5 | H | 0.85 | 8.25 | 19.86 | 33.0 | -13.1 | |

Rev. 3.17.11

**1xRTT 1700 BAND**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG
**Project #:** 12U14406
**Date:** 04/24/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter
**Mode:** TX, CDMA2000, 1xRTT AWS Band 15

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.711 | 21.7 | V | 0.85 | 8.56 | 29.41 | 33.0 | -3.6 | |
| 1.711 | 13.4 | H | 0.85 | 8.43 | 20.98 | 33.0 | -12.0 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.733 | 21.1 | V | 0.85 | 8.64 | 28.89 | 33.0 | -4.1 | |
| 1.733 | 12.9 | H | 0.85 | 8.48 | 20.53 | 33.0 | -12.5 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.753 | 21.9 | V | 0.85 | 8.73 | 29.78 | 33.0 | -3.2 | |
| 1.753 | 13.2 | H | 0.85 | 8.54 | 20.89 | 33.0 | -12.1 | |
| | | | | | | | | |

Rev. 3.17.11

**EVDO REV A 1900 BAND**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 04/28/12
**Test Engineer:** Chin Pang
**Configuration:** EUT only
**Mode:** TX, 1900 MHz BAND, CDMA EVDO Rev A mode

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.851 | 20.6 | V | 0.85 | 8.62 | 28.33 | 33.0 | -4.7 | |
| 1.851 | 14.3 | H | 0.85 | 8.47 | 21.88 | 33.0 | -11.1 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 21.7 | V | 0.85 | 8.46 | 29.31 | 33.0 | -3.7 | |
| 1.880 | 14.4 | H | 0.85 | 8.36 | 21.93 | 33.0 | -11.1 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.910 | 17.4 | V | 0.85 | 8.30 | 24.83 | 33.0 | -8.2 | |
| 1.910 | 13.8 | H | 0.85 | 8.25 | 21.16 | 33.0 | -11.8 | |
| | | | | | | | | |

Rev. 3.17.11

**EVDO REV A 1700 BAND**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG
**Project #:** 12U14406
**Date:** 04/28/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter
**Mode:** TX, CDMA2000, EVDO, AWS Band 15

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.711 | 14.7 | V | 0.85 | 8.56 | 22.41 | 33.0 | -10.6 | |
| 1.711 | 8.4 | H | 0.85 | 8.43 | 15.98 | 33.0 | -17.0 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.6 | V | 0.85 | 8.64 | 26.39 | 33.0 | -6.6 | |
| 1.733 | 11.1 | H | 0.85 | 8.48 | 18.73 | 33.0 | -14.3 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.753 | 15.1 | V | 0.85 | 8.73 | 22.98 | 33.0 | -10.0 | |
| 1.753 | 7.4 | H | 0.85 | 8.54 | 15.09 | 33.0 | -17.9 | |
| | | | | | | | | |
| | | | | | | | | |

Rev. 3.17.11

**LTE QPSK Band 4 (1.4MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 09/06/11
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_1.4 MHz BW_QPSK_RB#1_0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.711 | 19.2 | V | 0.67 | 8.56 | 27.09 | 30.0 | -2.9 | |
| 1.711 | 13.2 | H | 0.67 | 8.43 | 20.96 | 30.0 | -9.0 | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.9 | V | 0.67 | 8.64 | 26.87 | 30.0 | -3.1 | |
| 1.733 | 13.4 | H | 0.67 | 8.48 | 21.21 | 30.0 | -8.8 | |
| High Ch | | | | | | | | |
| 1.754 | 18.3 | V | 0.67 | 8.73 | 26.36 | 30.0 | -3.6 | |
| 1.754 | 12.3 | H | 0.67 | 8.54 | 20.17 | 30.0 | -9.8 | |

Rev. 1.24.7

**RB1-5**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 09/06/11
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_1.4 MHz BW_QPSK_RB#1_5 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.711 | 19.6 | V | 0.67 | 8.56 | 27.49 | 30.0 | -2.5 | |
| 1.711 | 14.6 | H | 0.67 | 8.43 | 22.36 | 30.0 | -7.6 | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.9 | V | 0.67 | 8.64 | 26.87 | 30.0 | -3.1 | |
| 1.733 | 16.6 | H | 0.67 | 8.48 | 24.41 | 30.0 | -5.6 | |
| High Ch | | | | | | | | |
| 1.754 | 17.5 | V | 0.67 | 8.73 | 25.56 | 30.0 | -4.4 | |
| 1.754 | 15.8 | H | 0.67 | 8.54 | 23.67 | 30.0 | -6.3 | |

Rev. 1.24.7

**RB3-2**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_1.4 MHz BW_QPSK_RB3_2 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.711 | 19.6 | V | 0.67 | 8.56 | 27.49 | 30.0 | -2.5 | |
| 1.711 | 15.8 | H | 0.67 | 8.43 | 23.56 | 30.0 | -6.4 | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.9 | V | 0.67 | 8.64 | 26.87 | 30.0 | -3.1 | |
| 1.733 | 17.0 | H | 0.67 | 8.48 | 24.81 | 30.0 | -5.2 | |
| High Ch | | | | | | | | |
| 1.754 | 17.9 | V | 0.67 | 8.73 | 25.96 | 30.0 | -4.0 | |
| 1.754 | 14.8 | H | 0.67 | 8.54 | 22.67 | 30.0 | -7.3 | |

Rev. 1.24.7

**RB6-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 09/06/11
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_1.4 MHz BW_QPSK_RB6_0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.711 | 19.4 | V | 0.67 | 8.56 | 27.29 | 30.0 | -2.7 | |
| 1.711 | 14.4 | H | 0.67 | 8.43 | 22.16 | 30.0 | -7.8 | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.0 | V | 0.67 | 8.64 | 26.97 | 30.0 | -3.0 | |
| 1.733 | 16.4 | H | 0.67 | 8.48 | 24.21 | 30.0 | -5.8 | |
| High Ch | | | | | | | | |
| 1.754 | 17.7 | V | 0.67 | 8.73 | 25.76 | 30.0 | -4.2 | |
| 1.754 | 15.6 | H | 0.67 | 8.54 | 23.44 | 30.0 | -6.6 | |

Rev. 1.24.7

**ERP LTE 16QAM Band 4 (1.4MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 09/06/11
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_1.4 MHz BW_16QAM_RB#1_0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.711 | 19.4 | V | 0.67 | 8.56 | 27.29 | 30.0 | -2.7 | |
| 1.711 | 12.8 | H | 0.67 | 8.43 | 20.56 | 30.0 | -9.4 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.8 | V | 0.67 | 8.64 | 26.77 | 30.0 | -3.2 | |
| 1.733 | 13.5 | H | 0.67 | 8.48 | 21.31 | 30.0 | -8.7 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.754 | 18.6 | V | 0.67 | 8.73 | 26.66 | 30.0 | -3.3 | |
| 1.754 | 13.2 | H | 0.67 | 8.54 | 21.07 | 30.0 | -8.9 | |

Rev. 1.24.7

**RB1-5**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 09/06/11
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_1.4 MHz BW_16QAM_RB#1_0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.711 | 19.4 | V | 0.67 | 8.56 | 27.29 | 30.0 | -2.7 | |
| 1.711 | 14.6 | H | 0.67 | 8.43 | 22.36 | 30.0 | -7.6 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.1 | V | 0.67 | 8.64 | 27.07 | 30.0 | -2.9 | |
| 1.733 | 16.8 | H | 0.67 | 8.48 | 24.61 | 30.0 | -5.4 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.754 | 17.6 | V | 0.67 | 8.73 | 25.66 | 30.0 | -4.3 | |
| 1.754 | 15.7 | H | 0.67 | 8.54 | 23.57 | 30.0 | -6.4 | |

Rev. 1.24.7

**RB3-2**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_1.4 MHz BW_16QAM_RB3_2 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.711 | 19.4 | V | 0.67 | 8.56 | 27.29 | 30.0 | -2.7 | |
| 1.711 | 15.6 | H | 0.67 | 8.43 | 23.36 | 30.0 | -6.6 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.9 | V | 0.67 | 8.64 | 26.87 | 30.0 | -3.1 | |
| 1.733 | 16.5 | H | 0.67 | 8.48 | 24.31 | 30.0 | -5.7 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.754 | 17.1 | V | 0.67 | 8.73 | 25.16 | 30.0 | -4.8 | |
| 1.754 | 15.8 | H | 0.67 | 8.54 | 23.67 | 30.0 | -6.3 | |

Rev. 1.24.7

**RB6-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 09/06/11
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_1.4 MHz BW_16QAM_RB6_0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.711 | 19.3 | V | 0.67 | 8.56 | 27.19 | 30.0 | -2.8 | |
| 1.711 | 14.4 | H | 0.67 | 8.43 | 22.16 | 30.0 | -7.8 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.0 | V | 0.67 | 8.64 | 26.97 | 30.0 | -3.0 | |
| 1.733 | 16.6 | H | 0.67 | 8.48 | 24.41 | 30.0 | -5.6 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.754 | 17.5 | V | 0.67 | 8.73 | 25.56 | 30.0 | -4.4 | |
| 1.754 | 15.5 | H | 0.67 | 8.54 | 23.37 | 30.0 | -6.6 | |

Rev. 1.24.7

**ERP LTE QPSK Band 4 (3.0MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_3 MHz BW_QPSK_RB1 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.712 | 18.9 | V | 0.67 | 8.56 | 26.79 | 30.0 | -3.2 | |
| 1.712 | 13.7 | H | 0.67 | 8.43 | 21.46 | 30.0 | -8.5 | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.3 | V | 0.67 | 8.64 | 26.27 | 30.0 | -3.7 | |
| 1.733 | 16.5 | H | 0.67 | 8.48 | 24.31 | 30.0 | -5.7 | |
| High Ch | | | | | | | | |
| 1.754 | 18.1 | V | 0.67 | 8.73 | 26.16 | 30.0 | -3.8 | |
| 1.754 | 15.5 | H | 0.67 | 8.54 | 23.37 | 30.0 | -6.6 | |

Rev. 1.24.7

**RB1-14**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_3 MHz BW_QPSK_RB1 14 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.712 | 17.9 | V | 0.67 | 8.56 | 25.79 | 30.0 | -4.2 | |
| 1.712 | 19.2 | H | 0.67 | 8.43 | 26.91 | 30.0 | -3.1 | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.7 | V | 0.67 | 8.64 | 27.67 | 30.0 | -2.3 | |
| 1.733 | 16.6 | H | 0.67 | 8.48 | 24.41 | 30.0 | -5.6 | |
| High Ch | | | | | | | | |
| 1.754 | 17.2 | V | 0.67 | 8.73 | 25.26 | 30.0 | -4.7 | |
| 1.754 | 14.6 | H | 0.67 | 8.54 | 22.44 | 30.0 | -7.6 | |

Rev. 1.24.7

**RB8-4**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_3 MHz BW_QPSK_RB8 4 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.712 | 16.8 | V | 0.67 | 8.56 | 24.69 | 30.0 | -5.3 | |
| 1.712 | 14.1 | H | 0.67 | 8.43 | 21.86 | 30.0 | -8.1 | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.6 | V | 0.67 | 8.64 | 27.57 | 30.0 | -2.4 | |
| 1.733 | 15.3 | H | 0.67 | 8.48 | 23.11 | 30.0 | -6.9 | |
| High Ch | | | | | | | | |
| 1.754 | 17.1 | V | 0.67 | 8.73 | 25.16 | 30.0 | -4.8 | |
| 1.754 | 14.8 | H | 0.67 | 8.54 | 22.67 | 30.0 | -7.3 | |

Rev. 1.24.7

**RB15-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_3 MHz BW_QPSK_RB15 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.712 | 16.6 | V | 0.67 | 8.56 | 24.49 | 30.0 | -5.5 | |
| 1.712 | 14.9 | H | 0.67 | 8.43 | 22.66 | 30.0 | -7.3 | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.9 | V | 0.67 | 8.64 | 27.87 | 30.0 | -2.1 | |
| 1.733 | 16.8 | H | 0.67 | 8.48 | 24.61 | 30.0 | -5.4 | |
| High Ch | | | | | | | | |
| 1.754 | 17.1 | V | 0.67 | 8.73 | 25.16 | 30.0 | -4.8 | |
| 1.754 | 15.1 | H | 0.67 | 8.54 | 22.97 | 30.0 | -7.0 | |

Rev. 1.24.7

**LTE 16QAM Band 4 (3.0MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_3 MHz BW_16QAM_RB1 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.712 | 16.8 | V | 0.67 | 8.56 | 24.69 | 30.0 | -5.3 | |
| 1.712 | 13.5 | H | 0.67 | 8.43 | 21.26 | 30.0 | -8.7 | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.0 | V | 0.67 | 8.64 | 25.97 | 30.0 | -4.0 | |
| 1.733 | 16.2 | H | 0.67 | 8.48 | 24.01 | 30.0 | -6.0 | |
| High Ch | | | | | | | | |
| 1.754 | 18.2 | V | 0.67 | 8.73 | 26.26 | 30.0 | -3.7 | |
| 1.754 | 14.5 | H | 0.67 | 8.54 | 22.37 | 30.0 | -7.6 | |

Rev. 1.24.7

**RB1-14**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_3 MHz BW_16QAM_RB1_14 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.712 | 17.6 | V | 0.67 | 8.56 | 25.49 | 30.0 | -4.5 | |
| 1.712 | 14.1 | H | 0.67 | 8.43 | 21.86 | 30.0 | -8.1 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.6 | V | 0.67 | 8.64 | 27.57 | 30.0 | -2.4 | |
| 1.733 | 16.3 | H | 0.67 | 8.48 | 24.11 | 30.0 | -5.9 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.754 | 17.0 | V | 0.67 | 8.73 | 25.06 | 30.0 | -4.9 | |
| 1.754 | 14.3 | H | 0.67 | 8.54 | 22.17 | 30.0 | -7.8 | |

Rev. 1.24.7

**RB8-4**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_3 MHz BW_16QAM_RB8 4 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.712 | 16.4 | V | 0.67 | 8.56 | 24.29 | 30.0 | -5.7 | |
| 1.712 | 14.2 | H | 0.67 | 8.43 | 21.96 | 30.0 | -8.0 | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.1 | V | 0.67 | 8.64 | 27.07 | 30.0 | -2.9 | |
| 1.733 | 15.5 | H | 0.67 | 8.48 | 23.31 | 30.0 | -6.7 | |
| High Ch | | | | | | | | |
| 1.754 | 16.9 | V | 0.67 | 8.73 | 24.96 | 30.0 | -5.0 | |
| 1.754 | 14.9 | H | 0.67 | 8.54 | 22.77 | 30.0 | -7.2 | |

Rev. 1.24.7

**RB15-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_3 MHz BW_16QAM_RB15_0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.712 | 16.6 | V | 0.67 | 8.56 | 24.49 | 30.0 | -5.5 | |
| 1.712 | 14.4 | H | 0.67 | 8.43 | 22.16 | 30.0 | -7.8 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.6 | V | 0.67 | 8.64 | 27.57 | 30.0 | -2.4 | |
| 1.733 | 16.2 | H | 0.67 | 8.48 | 24.01 | 30.0 | -6.0 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.754 | 17.3 | V | 0.67 | 8.73 | 25.36 | 30.0 | -4.6 | |
| 1.754 | 15.3 | H | 0.67 | 8.54 | 23.17 | 30.0 | -6.8 | |

Rev. 1.24.7

**LTE QPSK Band 4 (5.0MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_5 MHz BW_QPSK_RB1 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.713 | 16.3 | V | 0.67 | 8.56 | 24.19 | 30.0 | -5.8 | |
| 1.713 | 8.9 | H | 0.67 | 8.43 | 16.66 | 30.0 | -13.3 | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.2 | V | 0.67 | 8.64 | 27.19 | 30.0 | -2.8 | |
| 1.733 | 11.6 | H | 0.67 | 8.48 | 19.41 | 30.0 | -10.6 | |
| High Ch | | | | | | | | |
| 1.753 | 17.8 | V | 0.67 | 8.73 | 25.86 | 30.0 | -4.1 | |
| 1.753 | 9.3 | H | 0.67 | 8.54 | 17.17 | 30.0 | -12.8 | |

Rev. 1.24.7

**RB1-24**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_5 MHz BW_QPSK_RB1 24 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.713 | 16.1 | V | 0.67 | 8.56 | 23.99 | 30.0 | -6.0 | |
| 1.713 | 8.8 | H | 0.67 | 8.43 | 16.56 | 30.0 | -13.4 | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.7 | V | 0.67 | 8.64 | 26.67 | 30.0 | -3.3 | |
| 1.733 | 11.6 | H | 0.67 | 8.48 | 19.41 | 30.0 | -10.6 | |
| High Ch | | | | | | | | |
| 1.753 | 17.1 | V | 0.67 | 8.73 | 25.16 | 30.0 | -4.8 | |
| 1.753 | 9.3 | H | 0.67 | 8.54 | 17.14 | 30.0 | -12.9 | |

Rev. 1.24.7

**RB12-6**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_5 MHz BW_QPSK_RB12 6 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.713 | 16.5 | V | 0.67 | 8.56 | 24.39 | 30.0 | -5.6 | |
| 1.713 | 9.1 | H | 0.67 | 8.43 | 16.86 | 30.0 | -13.1 | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.0 | V | 0.67 | 8.64 | 25.98 | 30.0 | -4.0 | |
| 1.733 | 11.3 | H | 0.67 | 8.48 | 19.11 | 30.0 | -10.9 | |
| High Ch | | | | | | | | |
| 1.753 | 16.1 | V | 0.67 | 8.73 | 24.16 | 30.0 | -5.8 | |
| 1.753 | 10.0 | H | 0.67 | 8.54 | 17.87 | 30.0 | -12.1 | |

Rev. 1.24.7

**RB25-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_5 MHz BW_QPSK_RB25 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.713 | 16.5 | V | 0.67 | 8.56 | 24.39 | 30.0 | -5.6 | |
| 1.713 | 9.4 | H | 0.67 | 8.43 | 17.16 | 30.0 | -12.8 | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.0 | V | 0.67 | 8.64 | 25.98 | 30.0 | -4.0 | |
| 1.733 | 11.8 | H | 0.67 | 8.48 | 19.61 | 30.0 | -10.4 | |
| High Ch | | | | | | | | |
| 1.753 | 16.4 | V | 0.67 | 8.73 | 24.46 | 30.0 | -5.5 | |
| 1.753 | 12.0 | H | 0.67 | 8.54 | 19.87 | 30.0 | -10.1 | |

Rev. 1.24.7

**LTE 16QAM Band 4 (5.0MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_5 MHz BW_16QAM_RB1 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.713 | 16.2 | V | 0.67 | 8.56 | 24.09 | 30.0 | -5.9 | |
| 1.713 | 8.9 | H | 0.67 | 8.43 | 16.66 | 30.0 | -13.3 | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.1 | V | 0.67 | 8.64 | 27.07 | 30.0 | -2.9 | |
| 1.733 | 11.6 | H | 0.67 | 8.48 | 19.41 | 30.0 | -10.6 | |
| High Ch | | | | | | | | |
| 1.753 | 17.7 | V | 0.67 | 8.73 | 25.76 | 30.0 | -4.2 | |
| 1.753 | 9.3 | H | 0.67 | 8.54 | 17.17 | 30.0 | -12.8 | |

Rev. 1.24.7

**RB1-24**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_5 MHz BW_16QAM_RB1 24 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.713 | 16.0 | V | 0.67 | 8.56 | 23.89 | 30.0 | -6.1 | |
| 1.713 | 8.7 | H | 0.67 | 8.43 | 16.41 | 30.0 | -13.6 | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.6 | V | 0.67 | 8.64 | 26.57 | 30.0 | -3.4 | |
| 1.733 | 11.6 | H | 0.67 | 8.48 | 19.41 | 30.0 | -10.6 | |
| High Ch | | | | | | | | |
| 1.753 | 16.9 | V | 0.67 | 8.73 | 24.96 | 30.0 | -5.0 | |
| 1.753 | 9.2 | H | 0.67 | 8.54 | 17.07 | 30.0 | -12.9 | |

Rev. 1.24.7

**RB12-6**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_5 MHz BW_16QAM_RB12 6 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.713 | 16.4 | V | 0.67 | 8.56 | 24.29 | 30.0 | -5.7 | |
| 1.713 | 8.9 | H | 0.67 | 8.43 | 16.66 | 30.0 | -13.3 | |
| Mid Ch | | | | | | | | |
| 1.733 | 17.9 | V | 0.67 | 8.64 | 25.87 | 30.0 | -4.1 | |
| 1.733 | 11.4 | H | 0.67 | 8.48 | 19.25 | 30.0 | -10.8 | |
| High Ch | | | | | | | | |
| 1.753 | 16.2 | V | 0.67 | 8.73 | 24.26 | 30.0 | -5.7 | |
| 1.753 | 9.4 | H | 0.67 | 8.54 | 17.25 | 30.0 | -12.8 | |

Rev. 1.24.7

**RB25-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_5 MHz BW_16QAM_RB25 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.713 | 16.8 | V | 0.67 | 8.56 | 24.69 | 30.0 | -5.3 | |
| 1.713 | 8.7 | H | 0.67 | 8.43 | 16.41 | 30.0 | -13.6 | |
| Mid Ch | | | | | | | | |
| 1.733 | 18.1 | V | 0.67 | 8.64 | 26.07 | 30.0 | -3.9 | |
| 1.733 | 11.6 | H | 0.67 | 8.48 | 19.41 | 30.0 | -10.6 | |
| High Ch | | | | | | | | |
| 1.753 | 16.9 | V | 0.67 | 8.73 | 24.96 | 30.0 | -5.0 | |
| 1.753 | 9.2 | H | 0.67 | 8.54 | 17.07 | 30.0 | -12.9 | |

Rev. 1.24.7

**LTE QPSK Band 4 (10.0MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_10 MHz BW_QPSK_RB1 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.715 | 16.0 | V | 0.67 | 8.56 | 23.93 | 30.0 | -6.1 | |
| 1.715 | 9.3 | H | 0.67 | 8.43 | 17.06 | 30.0 | -12.9 | |
| Mid Ch | | | | | | | | |
| 1.733 | 17.7 | V | 0.67 | 8.64 | 25.68 | 30.0 | -4.3 | |
| 1.733 | 11.5 | H | 0.67 | 8.48 | 19.31 | 30.0 | -10.7 | |
| High Ch | | | | | | | | |
| 1.750 | 18.0 | V | 0.67 | 8.73 | 26.07 | 30.0 | -3.9 | |
| 1.750 | 10.3 | H | 0.67 | 8.54 | 18.17 | 30.0 | -11.8 | |

Rev. 1.24.7

**RB1-49**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_10 MHz BW_QPSK_RB1 49 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.715 | 16.9 | V | 0.67 | 8.56 | 24.79 | 30.0 | -5.2 | |
| 1.715 | 9.1 | H | 0.67 | 8.43 | 16.86 | 30.0 | -13.1 | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.0 | V | 0.67 | 8.64 | 26.97 | 30.0 | -3.0 | |
| 1.733 | 11.4 | H | 0.67 | 8.48 | 19.21 | 30.0 | -10.8 | |
| High Ch | | | | | | | | |
| 1.750 | 17.3 | V | 0.67 | 8.73 | 25.39 | 30.0 | -4.6 | |
| 1.750 | 10.2 | H | 0.67 | 8.54 | 18.07 | 30.0 | -11.9 | |

Rev. 1.24.7

**RB25-12**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_10 MHz BW_QPSK_RB25 12 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.715 | 17.9 | V | 0.67 | 8.56 | 25.76 | 30.0 | -4.2 | |
| 1.715 | 9.8 | H | 0.67 | 8.43 | 17.56 | 30.0 | -12.4 | |
| Mid Ch | | | | | | | | |
| 1.733 | 20.0 | V | 0.67 | 8.64 | 27.97 | 30.0 | -2.0 | |
| 1.733 | 13.5 | H | 0.67 | 8.48 | 21.31 | 30.0 | -8.7 | |
| High Ch | | | | | | | | |
| 1.750 | 19.2 | V | 0.67 | 8.73 | 27.28 | 30.0 | -2.7 | |
| 1.750 | 11.7 | H | 0.67 | 8.54 | 19.57 | 30.0 | -10.4 | |

Rev. 1.24.7

**RB50-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_10 MHz BW_QPSK_RB50 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.715 | 17.8 | V | 0.67 | 8.56 | 25.69 | 30.0 | -4.3 | |
| 1.715 | 9.9 | H | 0.67 | 8.43 | 17.66 | 30.0 | -12.3 | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.9 | V | 0.67 | 8.64 | 27.87 | 30.0 | -2.1 | |
| 1.733 | 13.7 | H | 0.67 | 8.48 | 21.46 | 30.0 | -8.5 | |
| High Ch | | | | | | | | |
| 1.750 | 19.2 | V | 0.67 | 8.73 | 27.26 | 30.0 | -2.7 | |
| 1.750 | 11.7 | H | 0.67 | 8.54 | 19.57 | 30.0 | -10.4 | |

Rev. 1.24.7

**LTE 16QAM Band 4 (10.0MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_10 MHz BW_16QAM_RB1 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.715 | 16.2 | V | 0.67 | 8.56 | 24.09 | 30.0 | -5.9 | |
| 1.715 | 9.4 | H | 0.67 | 8.43 | 17.16 | 30.0 | -12.8 | |
| Mid Ch | | | | | | | | |
| 1.733 | 17.4 | V | 0.67 | 8.64 | 25.37 | 30.0 | -4.6 | |
| 1.733 | 11.7 | H | 0.67 | 8.48 | 19.51 | 30.0 | -10.5 | |
| High Ch | | | | | | | | |
| 1.750 | 17.9 | V | 0.67 | 8.73 | 26.00 | 30.0 | -4.0 | |
| 1.750 | 10.5 | H | 0.67 | 8.54 | 18.37 | 30.0 | -11.6 | |

Rev. 1.24.7

**RB1-49**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_10 MHz BW_16QAM_RB1 49 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.715 | 16.9 | V | 0.67 | 8.56 | 24.78 | 30.0 | -5.2 | |
| 1.715 | 9.2 | H | 0.67 | 8.43 | 16.96 | 30.0 | -13.0 | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.1 | V | 0.67 | 8.64 | 27.06 | 30.0 | -2.9 | |
| 1.733 | 11.4 | H | 0.67 | 8.48 | 19.25 | 30.0 | -10.8 | |
| High Ch | | | | | | | | |
| 1.750 | 17.4 | V | 0.67 | 8.73 | 25.45 | 30.0 | -4.6 | |
| 1.750 | 10.3 | H | 0.67 | 8.54 | 18.17 | 30.0 | -11.8 | |

Rev. 1.24.7

**RB25-12**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_10 MHz BW_16QAM_RB25 12 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.715 | 17.2 | V | 0.67 | 8.56 | 25.11 | 30.0 | -4.9 | |
| 1.715 | 9.8 | H | 0.67 | 8.43 | 17.56 | 30.0 | -12.4 | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.3 | V | 0.67 | 8.64 | 27.25 | 30.0 | -2.8 | |
| 1.733 | 13.3 | H | 0.67 | 8.48 | 21.11 | 30.0 | -8.9 | |
| High Ch | | | | | | | | |
| 1.750 | 18.7 | V | 0.67 | 8.73 | 26.76 | 30.0 | -3.2 | |
| 1.750 | 11.7 | H | 0.67 | 8.54 | 19.57 | 30.0 | -10.4 | |

Rev. 1.24.7

**RB50-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** TX, LTE BAND 4_10 MHz BW_16QAM_RB50 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (244640002) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.715 | 17.9 | V | 0.67 | 8.56 | 25.79 | 30.0 | -4.2 | |
| 1.715 | 10.0 | H | 0.67 | 8.43 | 17.71 | 30.0 | -12.3 | |
| Mid Ch | | | | | | | | |
| 1.733 | 19.3 | V | 0.67 | 8.64 | 27.28 | 30.0 | -2.7 | |
| 1.733 | 13.4 | H | 0.67 | 8.48 | 21.21 | 30.0 | -8.8 | |
| High Ch | | | | | | | | |
| 1.750 | 19.2 | V | 0.67 | 8.73 | 27.26 | 30.0 | -2.7 | |
| 1.750 | 11.4 | H | 0.67 | 8.54 | 19.27 | 30.0 | -10.7 | |

Rev. 1.24.7

**LTE QPSK Band 2 (1.4MHz BAND WIDTH )**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 1.4MHz at RB1 0 QPSK

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.851 | 19.6 | V | 0.85 | 8.62 | 27.37 | 33.0 | -5.6 | |
| 1.851 | 14.6 | H | 0.85 | 8.47 | 22.22 | 33.0 | -10.8 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 19.4 | V | 0.85 | 8.46 | 27.01 | 33.0 | -6.0 | |
| 1.880 | 15.0 | H | 0.85 | 8.36 | 22.51 | 33.0 | -10.5 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.909 | 17.1 | V | 0.85 | 8.30 | 24.55 | 33.0 | -8.5 | |
| 1.909 | 13.0 | H | 0.85 | 8.25 | 20.40 | 33.0 | -12.6 | |

Rev. 3.17.11

**RB1-5**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 1.4MHz at RB1 5 QPSK

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.851 | 19.5 | V | 0.85 | 8.62 | 27.27 | 33.0 | -5.7 | |
| 1.851 | 15.2 | H | 0.85 | 8.47 | 22.82 | 33.0 | -10.2 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 19.0 | V | 0.85 | 8.46 | 26.61 | 33.0 | -6.4 | |
| 1.880 | 15.5 | H | 0.85 | 8.36 | 23.01 | 33.0 | -10.0 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.909 | 17.5 | V | 0.85 | 8.30 | 24.95 | 33.0 | -8.1 | |
| 1.909 | 15.3 | H | 0.85 | 8.25 | 22.70 | 33.0 | -10.3 | |

Rev. 3.17.11

**RB3-2**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 1.4MHz at RB3 2 QPSK

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.851 | 19.2 | V | 0.85 | 8.62 | 26.97 | 33.0 | -6.0 | |
| 1.851 | 14.8 | H | 0.85 | 8.47 | 22.42 | 33.0 | -10.6 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 19.2 | V | 0.85 | 8.46 | 26.81 | 33.0 | -6.2 | |
| 1.880 | 15.2 | H | 0.85 | 8.36 | 22.71 | 33.0 | -10.3 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.909 | 17.1 | V | 0.85 | 8.30 | 24.55 | 33.0 | -8.5 | |
| 1.909 | 14.6 | H | 0.85 | 8.25 | 22.00 | 33.0 | -11.0 | |

Rev. 3.17.11

**RB6-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 1.4MHz at RB6 0 QPSK

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.851 | 19.1 | V | 0.85 | 8.62 | 26.87 | 33.0 | -6.1 | |
| 1.851 | 14.5 | H | 0.85 | 8.47 | 22.12 | 33.0 | -10.9 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 18.9 | V | 0.85 | 8.46 | 26.51 | 33.0 | -6.5 | |
| 1.880 | 15.0 | H | 0.85 | 8.36 | 22.51 | 33.0 | -10.5 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.909 | 17.5 | V | 0.85 | 8.30 | 24.95 | 33.0 | -8.1 | |
| 1.909 | 14.3 | H | 0.85 | 8.25 | 21.70 | 33.0 | -11.3 | |

Rev. 3.17.11

**LTE 16QAM Band 2 (1.4MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and earphone
**Mode:** TX, 1.4MHz at RB1 0 16QAM

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.851 | 19.4 | V | 0.85 | 8.62 | 27.17 | 33.0 | -5.8 | |
| 1.851 | 14.2 | H | 0.85 | 8.47 | 21.82 | 33.0 | -11.2 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 19.5 | V | 0.85 | 8.46 | 27.11 | 33.0 | -5.9 | |
| 1.880 | 14.6 | H | 0.85 | 8.36 | 22.11 | 33.0 | -10.9 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.909 | 17.3 | V | 0.85 | 8.30 | 24.75 | 33.0 | -8.3 | |
| 1.909 | 14.3 | H | 0.85 | 8.25 | 21.70 | 33.0 | -11.3 | |

Rev. 3.17.11

**RB1-5**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 1.4MHz at RB1 5 16QAM

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.851 | 19.3 | V | 0.85 | 8.62 | 27.07 | 33.0 | -5.9 | |
| 1.851 | 14.8 | H | 0.85 | 8.47 | 22.42 | 33.0 | -10.6 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 19.1 | V | 0.85 | 8.46 | 26.71 | 33.0 | -6.3 | |
| 1.880 | 15.2 | H | 0.85 | 8.36 | 22.71 | 33.0 | -10.3 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.909 | 17.1 | V | 0.85 | 8.30 | 24.55 | 33.0 | -8.5 | |
| 1.909 | 14.8 | H | 0.85 | 8.25 | 22.20 | 33.0 | -10.8 | |

Rev. 3.17.11

**RB3-2**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 1.4MHz at RB3 2 16QAM

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.851 | 19.1 | V | 0.85 | 8.62 | 26.87 | 33.0 | -6.1 | |
| 1.851 | 14.8 | H | 0.85 | 8.47 | 22.42 | 33.0 | -10.6 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 19.3 | V | 0.85 | 8.46 | 26.91 | 33.0 | -6.1 | |
| 1.880 | 15.3 | H | 0.85 | 8.36 | 22.81 | 33.0 | -10.2 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.909 | 17.3 | V | 0.85 | 8.30 | 24.75 | 33.0 | -8.3 | |
| 1.909 | 14.8 | H | 0.85 | 8.25 | 22.20 | 33.0 | -10.8 | |

Rev. 3.17.11

**RB6-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 1.4MHz at RB6 0 16QAM

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.851 | 19.1 | V | 0.85 | 8.62 | 26.87 | 33.0 | -6.1 | |
| 1.851 | 14.4 | H | 0.85 | 8.47 | 22.02 | 33.0 | -11.0 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 18.6 | V | 0.85 | 8.46 | 26.21 | 33.0 | -6.8 | |
| 1.880 | 14.8 | H | 0.85 | 8.36 | 22.31 | 33.0 | -10.7 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.909 | 16.8 | V | 0.85 | 8.30 | 24.25 | 33.0 | -8.8 | |
| 1.909 | 14.0 | H | 0.85 | 8.25 | 21.40 | 33.0 | -11.6 | |

Rev. 3.17.11

**LTE QPSK Band 2 (3.0MHz BAND WIDTH )**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 3MHz at RB1 0 QPSK

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| 1.852 | 18.9 | V | 0.85 | 8.62 | 26.67 | 33.0 | -6.3 | |
| 1.852 | 15.4 | H | 0.85 | 8.47 | 23.02 | 33.0 | -10.0 | |
| 1.880 | 18.9 | V | 0.85 | 8.46 | 26.51 | 33.0 | -6.5 | |
| 1.880 | 15.6 | H | 0.85 | 8.36 | 23.11 | 33.0 | -9.9 | |
| 1.909 | 18.0 | V | 0.85 | 8.30 | 25.45 | 33.0 | -7.6 | |
| 1.909 | 15.5 | H | 0.85 | 8.25 | 22.90 | 33.0 | -10.1 | |

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**RB1-14**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 3MHz at RB1 14 QPSK

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| 1.852 | 20.0 | V | 0.85 | 8.62 | 27.77 | 33.0 | -5.2 | |
| 1.852 | 13.4 | H | 0.85 | 8.47 | 21.02 | 33.0 | -12.0 | |
| 1.880 | 19.3 | V | 0.85 | 8.46 | 26.91 | 33.0 | -6.1 | |
| 1.880 | 17.7 | H | 0.85 | 8.36 | 25.21 | 33.0 | -7.8 | |
| 1.909 | 18.6 | V | 0.85 | 8.30 | 26.05 | 33.0 | -7.0 | |
| 1.909 | 14.8 | H | 0.85 | 8.25 | 22.20 | 33.0 | -10.8 | |

Rev. 3.17.11

**RB8-4**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 3MHz at RB8 4 QPSK

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| 1.852 | 19.4 | V | 0.85 | 8.62 | 27.17 | 33.0 | -5.8 | |
| 1.852 | 13.2 | H | 0.85 | 8.47 | 20.82 | 33.0 | -12.2 | |
| 1.880 | 19.1 | V | 0.85 | 8.46 | 26.71 | 33.0 | -6.3 | |
| 1.880 | 13.6 | H | 0.85 | 8.36 | 21.11 | 33.0 | -11.9 | |
| 1.909 | 17.9 | V | 0.85 | 8.30 | 25.35 | 33.0 | -7.7 | |
| 1.909 | 13.8 | H | 0.85 | 8.25 | 21.20 | 33.0 | -11.8 | |

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**RB15-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 3MHz at RB15 0 QPSK

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| 1.852 | 18.3 | V | 0.85 | 8.62 | 26.07 | 33.0 | -6.9 | |
| 1.852 | 13.8 | H | 0.85 | 8.47 | 21.42 | 33.0 | -11.6 | |
| 1.880 | 18.6 | V | 0.85 | 8.46 | 26.21 | 33.0 | -6.8 | |
| 1.880 | 14.2 | H | 0.85 | 8.36 | 21.71 | 33.0 | -11.3 | |
| 1.909 | 17.7 | V | 0.85 | 8.30 | 25.15 | 33.0 | -7.9 | |
| 1.909 | 14.3 | H | 0.85 | 8.25 | 21.70 | 33.0 | -11.3 | |

Rev. 3.17.11

**ERP LTE 16QAM Band 2 (3.0MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 3MHz at RB1 0 16QAM

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| 1.852 | 19.2 | V | 0.85 | 8.62 | 26.97 | 33.0 | -6.0 | |
| 1.852 | 15.7 | H | 0.85 | 8.47 | 23.32 | 33.0 | -9.7 | |
| 1.880 | 18.9 | V | 0.85 | 8.46 | 26.51 | 33.0 | -6.5 | |
| 1.880 | 16.0 | H | 0.85 | 8.36 | 23.51 | 33.0 | -9.5 | |
| 1.909 | 18.1 | V | 0.85 | 8.30 | 25.55 | 33.0 | -7.5 | |
| 1.909 | 15.8 | H | 0.85 | 8.25 | 23.20 | 33.0 | -9.8 | |

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**RB1-14**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 3MHz at RB1 14 16QAM

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| 1.852 | 19.3 | V | 0.85 | 8.62 | 27.07 | 33.0 | -5.9 | |
| 1.852 | 13.3 | H | 0.85 | 8.47 | 20.92 | 33.0 | -12.1 | |
| 1.880 | 19.5 | V | 0.85 | 8.46 | 27.11 | 33.0 | -5.9 | |
| 1.880 | 17.9 | H | 0.85 | 8.36 | 25.41 | 33.0 | -7.6 | |
| 1.909 | 18.3 | V | 0.85 | 8.30 | 25.75 | 33.0 | -7.3 | |
| 1.909 | 14.7 | H | 0.85 | 8.25 | 22.10 | 33.0 | -10.9 | |

Rev. 3.17.11

**RB8-4**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 3MHz at RB8 4 16QAM

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| 1.852 | 19.2 | V | 0.85 | 8.62 | 26.97 | 33.0 | -6.0 | |
| 1.852 | 12.6 | H | 0.85 | 8.47 | 20.22 | 33.0 | -12.8 | |
| 1.880 | 18.4 | V | 0.85 | 8.46 | 26.01 | 33.0 | -7.0 | |
| 1.880 | 13.3 | H | 0.85 | 8.36 | 20.81 | 33.0 | -12.2 | |
| 1.909 | 18.4 | V | 0.85 | 8.30 | 25.85 | 33.0 | -7.2 | |
| 1.909 | 13.8 | H | 0.85 | 8.25 | 21.20 | 33.0 | -11.8 | |

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**RB15-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 3MHz at RB15 0 16QAM

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| 1.852 | 18.3 | V | 0.85 | 8.62 | 26.07 | 33.0 | -6.9 | |
| 1.852 | 13.9 | H | 0.85 | 8.47 | 21.52 | 33.0 | -11.5 | |
| 1.880 | 18.3 | V | 0.85 | 8.46 | 25.91 | 33.0 | -7.1 | |
| 1.880 | 14.3 | H | 0.85 | 8.36 | 21.81 | 33.0 | -11.2 | |
| 1.909 | 17.8 | V | 0.85 | 8.30 | 25.25 | 33.0 | -7.8 | |
| 1.909 | 13.8 | H | 0.85 | 8.25 | 21.20 | 33.0 | -11.8 | |

Rev. 3.17.11

**ERP LTE QPSK Band 2 (5.0MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT ALONE
**Mode:** TX, LTE BAND 2_5 MHz BW_QPSK_RB1 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.853 | 18.7 | V | 0.85 | 8.62 | 26.47 | 33.0 | -6.5 | |
| 1.853 | 15.4 | H | 0.85 | 8.47 | 23.02 | 33.0 | -10.0 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 18.3 | V | 0.85 | 8.46 | 25.91 | 33.0 | -7.1 | |
| 1.880 | 15.8 | H | 0.85 | 8.36 | 23.31 | 33.0 | -9.7 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.908 | 18.1 | V | 0.85 | 8.30 | 25.55 | 33.0 | -7.5 | |
| 1.908 | 16.2 | H | 0.85 | 8.25 | 23.60 | 33.0 | -9.4 | |

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**RB1-24**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT ALONE
**Mode:** TX, LTE BAND 2_5 MHz BW_QPSK_RB1 24 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.853 | 18.7 | V | 0.85 | 8.62 | 26.47 | 33.0 | -6.5 | |
| 1.853 | 14.9 | H | 0.85 | 8.47 | 22.52 | 33.0 | -10.5 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 18.9 | V | 0.85 | 8.46 | 26.51 | 33.0 | -6.5 | |
| 1.880 | 15.3 | H | 0.85 | 8.36 | 22.81 | 33.0 | -10.2 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.908 | 17.1 | V | 0.85 | 8.30 | 24.55 | 33.0 | -8.5 | |
| 1.908 | 15.3 | H | 0.85 | 8.25 | 22.70 | 33.0 | -10.3 | |

Rev. 3.17.11

**RB12-6**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT ALONE
**Mode:** TX, LTE BAND 2_5 MHz BW_QPSK_RB12 6 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.853 | 19.5 | V | 0.85 | 8.62 | 27.27 | 33.0 | -5.7 | |
| 1.853 | 15.4 | H | 0.85 | 8.47 | 23.02 | 33.0 | -10.0 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 19.1 | V | 0.85 | 8.46 | 26.71 | 33.0 | -6.3 | |
| 1.880 | 15.6 | H | 0.85 | 8.36 | 23.11 | 33.0 | -9.9 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.908 | 18.0 | V | 0.85 | 8.30 | 25.45 | 33.0 | -7.6 | |
| 1.908 | 15.6 | H | 0.85 | 8.25 | 23.00 | 33.0 | -10.0 | |

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**RB25-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT ALONE
**Mode:** TX, LTE BAND 2_5 MHz BW_QPSK_RB25 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.853 | 19.3 | V | 0.85 | 8.62 | 27.07 | 33.0 | -5.9 | |
| 1.853 | 16.6 | H | 0.85 | 8.47 | 24.22 | 33.0 | -8.8 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 19.2 | V | 0.85 | 8.46 | 26.81 | 33.0 | -6.2 | |
| 1.880 | 17.0 | H | 0.85 | 8.36 | 24.51 | 33.0 | -8.5 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.908 | 17.3 | V | 0.85 | 8.30 | 24.75 | 33.0 | -8.3 | |
| 1.908 | 17.0 | H | 0.85 | 8.25 | 24.40 | 33.0 | -8.6 | |

Rev. 3.17.11

**LTE 16QAM Band 2 (10.0MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 5MHz at RB1 0 16QAM

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| 1.853 | 18.6 | V | 0.85 | 8.62 | 26.37 | 33.0 | -6.6 | |
| 1.853 | 15.3 | H | 0.85 | 8.47 | 22.92 | 33.0 | -10.1 | |
| 1.880 | 18.5 | V | 0.85 | 8.46 | 26.11 | 33.0 | -6.9 | |
| 1.880 | 15.6 | H | 0.85 | 8.36 | 23.11 | 33.0 | -9.9 | |
| 1.908 | 19.0 | V | 0.85 | 8.30 | 26.45 | 33.0 | -6.6 | |
| 1.908 | 16.0 | H | 0.85 | 8.25 | 23.40 | 33.0 | -9.6 | |

Rev. 3.17.11

**RB1-24**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 5MHz at RB1 24 16QAM

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| 1.853 | 19.4 | V | 0.85 | 8.62 | 27.17 | 33.0 | -5.8 | |
| 1.853 | 14.8 | H | 0.85 | 8.47 | 22.42 | 33.0 | -10.6 | |
| 1.880 | 19.3 | V | 0.85 | 8.46 | 26.91 | 33.0 | -6.1 | |
| 1.880 | 15.2 | H | 0.85 | 8.36 | 22.71 | 33.0 | -10.3 | |
| 1.908 | 17.2 | V | 0.85 | 8.30 | 24.65 | 33.0 | -8.4 | |
| 1.908 | 15.2 | H | 0.85 | 8.25 | 22.60 | 33.0 | -10.4 | |

Rev. 3.17.11

**RB12-6**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 5MHz at RB12 6 16QAM

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| 1.853 | 19.6 | V | 0.85 | 8.62 | 27.37 | 33.0 | -5.6 | |
| 1.853 | 15.1 | H | 0.85 | 8.47 | 22.72 | 33.0 | -10.3 | |
| 1.880 | 19.4 | V | 0.85 | 8.46 | 27.01 | 33.0 | -6.0 | |
| 1.880 | 15.3 | H | 0.85 | 8.36 | 22.81 | 33.0 | -10.2 | |
| 1.908 | 18.4 | V | 0.85 | 8.30 | 25.85 | 33.0 | -7.2 | |
| 1.908 | 15.3 | H | 0.85 | 8.25 | 22.70 | 33.0 | -10.3 | |

Rev. 3.17.11

**RB25-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter and Earphone
**Mode:** TX, 5MHz at RB25 0 16QAM

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| 1.853 | 19.6 | V | 0.85 | 8.62 | 27.37 | 33.0 | -5.6 | |
| 1.853 | 16.4 | H | 0.85 | 8.47 | 24.02 | 33.0 | -9.0 | |
| 1.880 | 19.1 | V | 0.85 | 8.46 | 26.71 | 33.0 | -6.3 | |
| 1.880 | 16.8 | H | 0.85 | 8.36 | 24.31 | 33.0 | -8.7 | |
| 1.908 | 17.4 | V | 0.85 | 8.30 | 24.85 | 33.0 | -8.2 | |
| 1.908 | 16.6 | H | 0.85 | 8.25 | 24.00 | 33.0 | -9.0 | |

Rev. 3.17.11

**ERP LTE QPSK Band 2 (10.0MHz BAND WIDTH )**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT ALONE
**Mode:** TX, LTE BAND 2_10 MHz BW_QPSK_RB1 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.855 | 19.3 | V | 0.85 | 8.62 | 27.07 | 33.0 | -5.9 | |
| 1.855 | 15.9 | H | 0.85 | 8.47 | 23.52 | 33.0 | -9.5 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 18.6 | V | 0.85 | 8.46 | 26.21 | 33.0 | -6.8 | |
| 1.880 | 15.9 | H | 0.85 | 8.36 | 23.41 | 33.0 | -9.6 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.905 | 18.6 | V | 0.85 | 8.30 | 26.05 | 33.0 | -7.0 | |
| 1.905 | 15.8 | H | 0.85 | 8.25 | 23.20 | 33.0 | -9.8 | |

Rev. 3.17.11

**RB1-49**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT ALONE
**Mode:** TX, LTE BAND 2_10 MHz BW_QPSK_RB1 49 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.855 | 19.7 | V | 0.85 | 8.62 | 27.47 | 33.0 | -5.5 | |
| 1.855 | 15.9 | H | 0.85 | 8.47 | 23.52 | 33.0 | -9.5 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 19.3 | V | 0.85 | 8.46 | 26.91 | 33.0 | -6.1 | |
| 1.880 | 15.8 | H | 0.85 | 8.36 | 23.31 | 33.0 | -9.7 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.905 | 19.1 | V | 0.85 | 8.30 | 26.55 | 33.0 | -6.5 | |
| 1.905 | 15.0 | H | 0.85 | 8.25 | 22.40 | 33.0 | -10.6 | |

Rev. 3.17.11

**RB25-12**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT ALONE
**Mode:** TX, LTE BAND 2_10 MHz BW_QPSK_RB25 12 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.855 | 20.8 | V | 0.85 | 8.62 | 28.57 | 33.0 | -4.4 | |
| 1.855 | 18.1 | H | 0.85 | 8.47 | 25.72 | 33.0 | -7.3 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 20.1 | V | 0.85 | 8.46 | 27.71 | 33.0 | -5.3 | |
| 1.880 | 16.9 | H | 0.85 | 8.36 | 24.41 | 33.0 | -8.6 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.905 | 19.6 | V | 0.85 | 8.30 | 27.05 | 33.0 | -6.0 | |
| 1.905 | 16.8 | H | 0.85 | 8.25 | 24.20 | 33.0 | -8.8 | |

Rev. 3.17.11

**RB50-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT ALONE
**Mode:** TX, LTE BAND 2_10 MHz BW_QPSK_RB50 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.855 | 20.6 | V | 0.85 | 8.62 | 28.37 | 33.0 | -4.6 | |
| 1.855 | 16.2 | H | 0.85 | 8.47 | 23.82 | 33.0 | -9.2 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 20.1 | V | 0.85 | 8.46 | 27.71 | 33.0 | -5.3 | |
| 1.880 | 16.4 | H | 0.85 | 8.36 | 23.92 | 33.0 | -9.1 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.905 | 19.9 | V | 0.85 | 8.30 | 27.35 | 33.0 | -5.7 | |
| 1.905 | 16.8 | H | 0.85 | 8.25 | 24.20 | 33.0 | -8.8 | |

Rev. 3.17.11

**LTE 16QAM Band 2 (10.0MHz BAND WIDTH)**

**RB1-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT ALONE
**Mode:** TX, LTE BAND 2_10 MHz BW_16QAM_RB1 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.855 | 19.2 | V | 0.85 | 8.62 | 26.97 | 33.0 | -6.0 | |
| 1.855 | 16.2 | H | 0.85 | 8.47 | 23.78 | 33.0 | -9.2 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 18.9 | V | 0.85 | 8.46 | 26.51 | 33.0 | -6.5 | |
| 1.880 | 15.8 | H | 0.85 | 8.36 | 23.31 | 33.0 | -9.7 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.905 | 18.6 | V | 0.85 | 8.30 | 26.05 | 33.0 | -7.0 | |
| 1.905 | 16.0 | H | 0.85 | 8.25 | 23.40 | 33.0 | -9.6 | |

Rev. 3.17.11

**RB1-49**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT ALONE
**Mode:** TX, LTE BAND 2_10 MHz BW_16QAM_RB1 49 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.855 | 20.0 | V | 0.85 | 8.62 | 27.72 | 33.0 | -5.3 | |
| 1.855 | 16.0 | H | 0.85 | 8.47 | 23.57 | 33.0 | -9.4 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 19.5 | V | 0.85 | 8.46 | 27.11 | 33.0 | -5.9 | |
| 1.880 | 16.1 | H | 0.85 | 8.36 | 23.61 | 33.0 | -9.4 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.905 | 19.4 | V | 0.85 | 8.30 | 26.85 | 33.0 | -6.2 | |
| 1.905 | 14.9 | H | 0.85 | 8.25 | 22.30 | 33.0 | -10.7 | |

Rev. 3.17.11

**RB25-12**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT ALONE
**Mode:** TX, LTE BAND 2_10 MHz BW_16QAM_RB25 12 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.855 | 20.7 | V | 0.85 | 8.62 | 28.47 | 33.0 | -4.5 | |
| 1.855 | 17.6 | H | 0.85 | 8.47 | 25.22 | 33.0 | -7.8 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 20.0 | V | 0.85 | 8.46 | 27.61 | 33.0 | -5.4 | |
| 1.880 | 16.9 | H | 0.85 | 8.36 | 24.41 | 33.0 | -8.6 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.905 | 19.8 | V | 0.85 | 8.30 | 27.25 | 33.0 | -5.8 | |
| 1.905 | 15.8 | H | 0.85 | 8.25 | 23.20 | 33.0 | -9.8 | |

Rev. 3.17.11

**RB50-0**

**High Frequency Fundamental Measurement**
**Compliance Certification Services Chamber B**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/04/12
**Test Engineer:** Chin Pang
**Configuration:** EUT ALONE
**Mode:** TX, LTE BAND 2_10 MHz BW_16QAM_RB50 0 MODE

**Test Equipment:**
**Receiving: Horn T59, and Camber B SMA Cables**
**Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse**

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|
| Low Ch | | | | | | | | |
| 1.855 | 20.2 | V | 0.85 | 8.62 | 27.97 | 33.0 | -5.0 | |
| 1.855 | 16.4 | H | 0.85 | 8.47 | 24.02 | 33.0 | -9.0 | |
| | | | | | | | | |
| Mid Ch | | | | | | | | |
| 1.880 | 20.1 | V | 0.85 | 8.46 | 27.71 | 33.0 | -5.3 | |
| 1.880 | 16.0 | H | 0.85 | 8.36 | 23.51 | 33.0 | -9.5 | |
| | | | | | | | | |
| High Ch | | | | | | | | |
| 1.905 | 19.7 | V | 0.85 | 8.30 | 27.15 | 33.0 | -5.9 | |
| 1.905 | 16.3 | H | 0.85 | 8.25 | 23.70 | 33.0 | -9.3 | |

Rev. 3.17.11

# 9.2. FIELD STRENGTH OF SPURIOUS RADIATION

**RULE PART(S)**

FCC: §2.1053, §22.917, §24.238, & §27.53

**LIMIT**

§22.917 (e) and §24.238 (a): Out of band emissions. 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.

§27.53 (g) For operations in the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB.

§27.53 (h) For operations in the 1710–1755 MHz and 2110–2155 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 + 10 log10(P) dB.

**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 2000 1xRTT
- CDMA 2000 EVDO REV. A
- LTE Band 2 and 4

## RESULTS

### 1XRTT 850 BAND

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

| | |
|---|---|
| **Company:** | LG ELECTRONICS INC |
| **Project #:** | 12U14406 |
| **Date:** | 04/24/12 |
| **Test Engineer:** | Chin Pang |
| **Configuration:** | EUT with AC Adapter |
| **Mode:** | TX, CELL BAND 1xRTT MODE |

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber A | T144 8449B | Filter 1 | FCC Part 22 |

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Distance (m) | Preamp (dB) | Filter (dB) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Low Channel (824.7MHz) | | | | | | | | | |
| 1.649 | -5.2 | V | 3.0 | 38.2 | 1.0 | -42.3 | -13.0 | -29.3 | |
| 2.474 | -17.3 | V | 3.0 | 37.5 | 1.0 | -53.8 | -13.0 | -40.8 | |
| 1.649 | -3.4 | H | 3.0 | 38.2 | 1.0 | -40.6 | -13.0 | -27.6 | |
| 2.474 | -18.0 | H | 3.0 | 37.5 | 1.0 | -54.5 | -13.0 | -41.5 | |
| | | | | | | | | | |
| Mid Channel (836.52MHz) | | | | | | | | | |
| 1.673 | -11.9 | V | 3.0 | 38.1 | 1.0 | -49.0 | -13.0 | -36.0 | |
| 2.510 | -16.1 | V | 3.0 | 37.5 | 1.0 | -52.6 | -13.0 | -39.6 | |
| 1.673 | -11.2 | H | 3.0 | 38.1 | 1.0 | -48.3 | -13.0 | -35.3 | |
| 2.510 | -17.9 | H | 3.0 | 37.5 | 1.0 | -54.3 | -13.0 | -41.3 | |
| | | | | | | | | | |
| High Channel (848.31MHz) | | | | | | | | | |
| 1.697 | -6.6 | V | 3.0 | 38.1 | 1.0 | -43.7 | -13.0 | -30.7 | |
| 2.545 | -14.0 | V | 3.0 | 37.5 | 1.0 | -50.5 | -13.0 | -37.5 | |
| 1.697 | -13.0 | H | 3.0 | 38.1 | 1.0 | -50.1 | -13.0 | -37.1 | |
| 2.545 | -17.7 | H | 3.0 | 37.5 | 1.0 | -54.1 | -13.0 | -41.1 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

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

**EIRP 1xRTT 1900 BAND**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 04/24/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with AC Adapter
**Mode:** TX, PCS BAND 1xRTT MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber A | T144 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, 1851.25MHz | | | | | | | | | |
| 3.702 | -12.1 | V | 3.0 | 36.8 | 1.0 | -47.9 | -13.0 | -34.9 | |
| 7.405 | -8.2 | V | 3.0 | 36.6 | 1.0 | -43.7 | -13.0 | -30.7 | |
| 9.256 | -5.8 | V | 3.0 | 37.0 | 1.0 | -41.8 | -13.0 | -28.8 | |
| 3.702 | -11.0 | H | 3.0 | 36.8 | 1.0 | -46.8 | -13.0 | -33.8 | |
| 7.405 | -6.1 | H | 3.0 | 36.6 | 1.0 | -41.7 | -13.0 | -28.7 | |
| 9.256 | -4.7 | H | 3.0 | 37.0 | 1.0 | -40.8 | -13.0 | -27.8 | |
| | | | | | | | | | |
| Mid Ch, 1880MHz | | | | | | | | | |
| 3.760 | -9.4 | V | 3.0 | 36.8 | 1.0 | -45.2 | -13.0 | -32.2 | |
| 7.520 | -4.0 | V | 3.0 | 36.6 | 1.0 | -39.6 | -13.0 | -26.6 | |
| 9.400 | -5.6 | V | 3.0 | 37.0 | 1.0 | -41.6 | -13.0 | -28.6 | |
| 3.760 | -8.8 | H | 3.0 | 36.8 | 1.0 | -44.6 | -13.0 | -31.6 | |
| 5.640 | -7.9 | H | 3.0 | 36.3 | 1.0 | -43.2 | -13.0 | -30.2 | |
| 9.400 | -4.6 | H | 3.0 | 37.0 | 1.0 | -40.6 | -13.0 | -27.6 | |
| | | | | | | | | | |
| High Ch, 1908.75MHz | | | | | | | | | |
| 3.818 | -3.8 | V | 3.0 | 36.7 | 1.0 | -39.5 | -13.0 | -26.5 | |
| 7.635 | -2.9 | V | 3.0 | 36.6 | 1.0 | -38.5 | -13.0 | -25.5 | |
| 9.544 | -4.4 | V | 3.0 | 37.1 | 1.0 | -40.5 | -13.0 | -27.5 | |
| 3.818 | -8.7 | H | 3.0 | 36.7 | 1.0 | -44.4 | -13.0 | -31.4 | |
| 7.635 | -3.8 | H | 3.0 | 36.6 | 1.0 | -39.4 | -13.0 | -26.4 | |
| 9.544 | -4.4 | H | 3.0 | 37.1 | 1.0 | -40.5 | -13.0 | -27.5 | |
| | | | | | | | | | |

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

**EIRP 1xRTT 1700 BAND**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 04/24/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with ACadapter
**Mode:** TX, AWS BAND 1xRTT MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber A | T144 8449B | Filter 1 | Part 27 |

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Distance (m) | Preamp (dB) | Filter (dB) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Low Ch, 1711.25MHz | | | | | | | | | |
| 3.423 | -9.7 | V | 3.0 | 37.0 | 1.0 | -45.7 | -13.0 | -32.7 | |
| 5.134 | -10.4 | V | 3.0 | 36.3 | 1.0 | -45.7 | -13.0 | -32.7 | |
| 6.845 | -8.9 | V | 3.0 | 36.5 | 1.0 | -44.4 | -13.0 | -31.4 | |
| 3.423 | -13.8 | H | 3.0 | 37.0 | 1.0 | -49.8 | -13.0 | -36.8 | |
| 5.134 | -7.8 | H | 3.0 | 36.3 | 1.0 | -43.1 | -13.0 | -30.1 | |
| 6.845 | -7.9 | H | 3.0 | 36.5 | 1.0 | -43.3 | -13.0 | -30.3 | |
| | | | | | | | | | |
| Mid Ch, 1732.5MHz | | | | | | | | | |
| 3.465 | -9.6 | V | 3.0 | 37.0 | 1.0 | -45.6 | -13.0 | -32.6 | |
| 5.198 | -10.2 | V | 3.0 | 36.2 | 1.0 | -45.5 | -13.0 | -32.5 | |
| 6.930 | -8.8 | V | 3.0 | 36.5 | 1.0 | -44.3 | -13.0 | -31.3 | |
| 3.465 | -13.7 | H | 3.0 | 37.0 | 1.0 | -49.7 | -13.0 | -36.7 | |
| 5.198 | -10.7 | H | 3.0 | 36.2 | 1.0 | -45.9 | -13.0 | -32.9 | |
| 6.930 | -8.7 | H | 3.0 | 36.5 | 1.0 | -44.2 | -13.0 | -31.2 | |
| | | | | | | | | | |
| High Ch, 1753.75MHz | | | | | | | | | |
| 3.508 | -8.5 | V | 3.0 | 37.0 | 1.0 | -44.5 | -13.0 | -31.5 | |
| 5.261 | -10.6 | V | 3.0 | 36.3 | 1.0 | -45.9 | -13.0 | -32.9 | |
| 7.015 | -9.7 | V | 3.0 | 36.5 | 1.0 | -45.2 | -13.0 | -32.2 | |
| 3.508 | -14.5 | H | 3.0 | 37.0 | 1.0 | -50.5 | -13.0 | -37.5 | |
| 5.261 | -10.6 | H | 3.0 | 36.3 | 1.0 | -45.8 | -13.0 | -32.8 | |
| 7.015 | -9.6 | H | 3.0 | 36.5 | 1.0 | -45.1 | -13.0 | -32.1 | |
| | | | | | | | | | |

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

**EIRP EVDO REV. A. 1700 BAND**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 04/24/12
**Test Engineer:** Chin Pang
**Configuration:** EUT with ACadapter
**Mode:** TX, AWS BAND EVDO REV. A MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber A | T144 8449B | Filter 1 | Part 27 |

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Distance (m) | Preamp (dB) | Filter (dB) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Low Ch, 1711.25MHz | | | | | | | | | |
| 3.423 | -0.2 | V | 3.0 | 37.0 | 1.0 | -36.2 | -13.0 | -23.2 | |
| 5.134 | 2.6 | V | 3.0 | 36.3 | 1.0 | -32.7 | -13.0 | -19.7 | |
| 6.845 | 1.1 | V | 3.0 | 36.5 | 1.0 | -34.4 | -13.0 | -21.4 | |
| 11.979 | 2.2 | V | 3.0 | 36.7 | 1.0 | -33.5 | -13.0 | -20.5 | |
| 3.423 | -3.8 | H | 3.0 | 37.0 | 1.0 | -39.8 | -13.0 | -26.8 | |
| 5.134 | 12.2 | H | 3.0 | 36.3 | 1.0 | -23.1 | -13.0 | -10.1 | |
| 6.845 | 1.1 | H | 3.0 | 36.5 | 1.0 | -34.3 | -13.0 | -21.3 | |
| 11.979 | -0.4 | H | 3.0 | 36.7 | 1.0 | -36.1 | -13.0 | -23.1 | |
| | | | | | | | | | |
| Mid Ch, 1732.5MHz | | | | | | | | | |
| 3.465 | -0.6 | V | 3.0 | 37.0 | 1.0 | -36.6 | -13.0 | -23.6 | |
| 5.198 | -3.2 | V | 3.0 | 36.2 | 1.0 | -38.5 | -13.0 | -25.5 | |
| 6.930 | -2.8 | V | 3.0 | 36.5 | 1.0 | -38.3 | -13.0 | -25.3 | |
| 12.128 | -2.7 | V | 3.0 | 36.6 | 1.0 | -38.2 | -13.0 | -25.2 | |
| 3.465 | -6.7 | H | 3.0 | 37.0 | 1.0 | -42.7 | -13.0 | -29.7 | |
| 5.198 | 8.3 | H | 3.0 | 36.2 | 1.0 | -26.9 | -13.0 | -13.9 | |
| 6.930 | -2.7 | H | 3.0 | 36.5 | 1.0 | -38.2 | -13.0 | -25.2 | |
| 12.128 | -0.2 | H | 3.0 | 36.6 | 1.0 | -35.8 | -13.0 | -22.8 | |
| | | | | | | | | | |
| High Ch, 1753.75MHz | | | | | | | | | |
| 3.508 | 3.0 | V | 3.0 | 37.0 | 1.0 | -33.0 | -13.0 | -20.0 | |
| 5.261 | -0.1 | V | 3.0 | 36.3 | 1.0 | -35.4 | -13.0 | -22.4 | |
| 7.015 | 5.3 | V | 3.0 | 36.5 | 1.0 | -30.2 | -13.0 | -17.2 | |
| 8.769 | -6.4 | V | 3.0 | 36.9 | 1.0 | -42.3 | -13.0 | -29.3 | |
| 3.508 | -1.5 | H | 3.0 | 37.0 | 1.0 | -37.5 | -13.0 | -24.5 | |
| 5.261 | 11.4 | H | 3.0 | 36.3 | 1.0 | -23.8 | -13.0 | -10.8 | |
| 7.015 | 5.4 | H | 3.0 | 36.5 | 1.0 | -30.1 | -13.0 | -17.1 | |
| 8.769 | -1.4 | H | 3.0 | 36.9 | 1.0 | -37.3 | -13.0 | -24.3 | |
| | | | | | | | | | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

**LTE QPSK Band 4 (1.4 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 4_1.4 MHz BW_ QPSK MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 8449B | Filter 1 | Part 27 |

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Distance (m) | Preamp (dB) | Filter (dB) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Low Ch, 1710.7MHz | | | | | | | | | |
| 3.421 | 3.1 | V | 3.0 | 35.5 | 1.0 | -31.3 | -13.0 | -18.3 | |
| 5.131 | 2.6 | V | 3.0 | 35.3 | 1.0 | -31.7 | -13.0 | -18.7 | |
| 6.841 | -1.4 | V | 3.0 | 35.7 | 1.0 | -36.1 | -13.0 | -23.1 | |
| 3.421 | -3.6 | H | 3.0 | 35.5 | 1.0 | -38.1 | -13.0 | -25.1 | |
| 5.131 | -1.8 | H | 3.0 | 35.3 | 1.0 | -36.1 | -13.0 | -23.1 | |
| 6.841 | -0.9 | H | 3.0 | 35.7 | 1.0 | -35.6 | -13.0 | -22.6 | |
| | | | | | | | | | |
| Mid Ch, 1732.50MHz | | | | | | | | | |
| 3.464 | -7.5 | V | 3.0 | 35.5 | 1.0 | -41.9 | -13.0 | -28.9 | |
| 5.196 | 0.8 | V | 3.0 | 35.3 | 1.0 | -33.6 | -13.0 | -20.6 | |
| 6.928 | -6.3 | V | 3.0 | 35.7 | 1.0 | -41.0 | -13.0 | -28.0 | |
| 3.464 | -4.5 | H | 3.0 | 35.5 | 1.0 | -38.9 | -13.0 | -25.9 | |
| 5.196 | -7.6 | H | 3.0 | 35.3 | 1.0 | -41.9 | -13.0 | -28.9 | |
| 6.928 | -5.6 | H | 3.0 | 35.7 | 1.0 | -40.3 | -13.0 | -27.3 | |
| | | | | | | | | | |
| High Ch, 1754.3MHz | | | | | | | | | |
| 3.508 | -7.3 | V | 3.0 | 35.4 | 1.0 | -41.8 | -13.0 | -28.8 | |
| 5.262 | 8.9 | V | 3.0 | 35.3 | 1.0 | -25.5 | -13.0 | -12.5 | |
| 7.016 | -1.2 | V | 3.0 | 35.7 | 1.0 | -35.9 | -13.0 | -22.9 | |
| 3.508 | -3.3 | H | 3.0 | 35.4 | 1.0 | -37.8 | -13.0 | -24.8 | |
| 5.262 | -3.5 | H | 3.0 | 35.3 | 1.0 | -37.8 | -13.0 | -24.8 | |
| 7.016 | 0.7 | H | 3.0 | 35.7 | 1.0 | -34.0 | -13.0 | -21.0 | |
| | | | | | | | | | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

**LTE 16QAM Band 4 (1.4 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 4_1.4 MHz BW_ 16QAM MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 8449B | Filter 1 | Part 27 |

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Distance (m) | Preamp (dB) | Filter (dB) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Low Ch, 1710.7MHz | | | | | | | | | |
| 3.421 | 2.4 | V | 3.0 | 35.5 | 1.0 | -32.0 | -13.0 | -19.0 | |
| 5.131 | 1.6 | V | 3.0 | 35.3 | 1.0 | -32.7 | -13.0 | -19.7 | |
| 6.841 | -3.4 | V | 3.0 | 35.7 | 1.0 | -38.1 | -13.0 | -25.1 | |
| 3.421 | -4.6 | H | 3.0 | 35.5 | 1.0 | -39.1 | -13.0 | -26.1 | |
| 5.131 | -2.5 | H | 3.0 | 35.3 | 1.0 | -36.8 | -13.0 | -23.8 | |
| 6.841 | -1.8 | H | 3.0 | 35.7 | 1.0 | -36.5 | -13.0 | -23.5 | |
| | | | | | | | | | |
| Mid Ch, 1732.5MHz | | | | | | | | | |
| 3.464 | -8.5 | V | 3.0 | 35.5 | 1.0 | -42.9 | -13.0 | -29.9 | |
| 5.196 | -0.2 | V | 3.0 | 35.3 | 1.0 | -34.6 | -13.0 | -21.6 | |
| 6.928 | -7.3 | V | 3.0 | 35.7 | 1.0 | -42.0 | -13.0 | -29.0 | |
| 3.464 | -5.3 | H | 3.0 | 35.5 | 1.0 | -39.7 | -13.0 | -26.7 | |
| 5.196 | -8.5 | H | 3.0 | 35.3 | 1.0 | -42.8 | -13.0 | -29.8 | |
| 6.928 | -6.4 | H | 3.0 | 35.7 | 1.0 | -41.1 | -13.0 | -28.1 | |
| | | | | | | | | | |
| High Ch, 1754.3MHz | | | | | | | | | |
| 3.508 | -8.3 | V | 3.0 | 35.4 | 1.0 | -42.8 | -13.0 | -29.8 | |
| 5.262 | 7.9 | V | 3.0 | 35.3 | 1.0 | -26.5 | -13.0 | -13.5 | |
| 7.015 | -2.2 | V | 3.0 | 35.7 | 1.0 | -36.9 | -13.0 | -23.9 | |
| 3.508 | -4.3 | H | 3.0 | 35.4 | 1.0 | -38.8 | -13.0 | -25.8 | |
| 5.262 | -3.7 | H | 3.0 | 35.3 | 1.0 | -38.0 | -13.0 | -25.0 | |
| 7.015 | 0.5 | H | 3.0 | 35.7 | 1.0 | -34.2 | -13.0 | -21.2 | |
| | | | | | | | | | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

**LTE QPSK Band 4 (3.0 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 4_1.4 MHz BW_ QPSK MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 8449B | Filter 1 | Part 27 |

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Distance (m) | Preamp (dB) | Filter (dB) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Low Ch, 1711.5MHz | | | | | | | | | |
| 3.421 | 4.4 | V | 3.0 | 35.5 | 1.0 | -30.0 | -13.0 | -17.0 | |
| 5.131 | 3.0 | V | 3.0 | 35.3 | 1.0 | -31.3 | -13.0 | -18.3 | |
| 6.841 | -0.4 | V | 3.0 | 35.7 | 1.0 | -35.1 | -13.0 | -22.1 | |
| 3.421 | -3.2 | H | 3.0 | 35.5 | 1.0 | -37.7 | -13.0 | -24.7 | |
| 5.131 | -0.8 | H | 3.0 | 35.3 | 1.0 | -35.1 | -13.0 | -22.1 | |
| 6.841 | -0.5 | H | 3.0 | 35.7 | 1.0 | -35.2 | -13.0 | -22.2 | |
| | | | | | | | | | |
| Mid Ch, 1732.50MHz | | | | | | | | | |
| 3.463 | -7.6 | V | 3.0 | 35.5 | 1.0 | -42.0 | -13.0 | -29.0 | |
| 5.196 | 1.8 | V | 3.0 | 35.3 | 1.0 | -32.6 | -13.0 | -19.6 | |
| 6.925 | -5.3 | V | 3.0 | 35.7 | 1.0 | -40.0 | -13.0 | -27.0 | |
| 3.463 | -5.0 | H | 3.0 | 35.5 | 1.0 | -39.4 | -13.0 | -26.4 | |
| 5.196 | -7.8 | H | 3.0 | 35.3 | 1.0 | -42.1 | -13.0 | -29.1 | |
| 6.925 | -2.4 | H | 3.0 | 35.7 | 1.0 | -37.1 | -13.0 | -24.1 | |
| | | | | | | | | | |
| High Ch, 1753.5MHz | | | | | | | | | |
| 3.504 | -6.4 | V | 3.0 | 35.4 | 1.0 | -40.8 | -13.0 | -27.8 | |
| 5.257 | 7.7 | V | 3.0 | 35.3 | 1.0 | -26.7 | -13.0 | -13.7 | |
| 7.009 | -1.0 | V | 3.0 | 35.7 | 1.0 | -35.7 | -13.0 | -22.7 | |
| 3.504 | -3.5 | H | 3.0 | 35.4 | 1.0 | -38.0 | -13.0 | -25.0 | |
| 5.257 | -1.5 | H | 3.0 | 35.3 | 1.0 | -35.8 | -13.0 | -22.8 | |
| 7.009 | 1.5 | H | 3.0 | 35.7 | 1.0 | -33.2 | -13.0 | -20.2 | |
| | | | | | | | | | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

**LTE 16QAM Band 4 (3.0 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 4_3 MHz BW_ 16QAM MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 8449B | Filter 1 | Part 27 |

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Distance (m) | Preamp (dB) | Filter (dB) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Low Ch, 1711.5MHz | | | | | | | | | |
| 3.420 | 3.4 | V | 3.0 | 35.5 | 1.0 | -31.0 | -13.0 | -18.0 | |
| 5.131 | 2.6 | V | 3.0 | 35.3 | 1.0 | -31.7 | -13.0 | -18.7 | |
| 6.841 | -1.0 | V | 3.0 | 35.7 | 1.0 | -35.7 | -13.0 | -22.7 | |
| 3.421 | -3.6 | H | 3.0 | 35.5 | 1.0 | -38.1 | -13.0 | -25.1 | |
| 5.131 | -1.8 | H | 3.0 | 35.3 | 1.0 | -36.1 | -13.0 | -23.1 | |
| 6.841 | -0.8 | H | 3.0 | 35.7 | 1.0 | -35.5 | -13.0 | -22.5 | |
| | | | | | | | | | |
| Mid Ch, 1732.5MHz | | | | | | | | | |
| 3.463 | -8.4 | V | 3.0 | 35.5 | 1.0 | -42.8 | -13.0 | -29.8 | |
| 5.194 | 1.3 | V | 3.0 | 35.3 | 1.0 | -33.1 | -13.0 | -20.1 | |
| 6.925 | -6.5 | V | 3.0 | 35.7 | 1.0 | -41.2 | -13.0 | -28.2 | |
| 3.463 | -5.5 | H | 3.0 | 35.5 | 1.0 | -39.9 | -13.0 | -26.9 | |
| 5.194 | -8.2 | H | 3.0 | 35.3 | 1.0 | -42.5 | -13.0 | -29.5 | |
| 6.925 | -2.6 | H | 3.0 | 35.7 | 1.0 | -37.3 | -13.0 | -24.3 | |
| | | | | | | | | | |
| High Ch, 1753.5MHz | | | | | | | | | |
| 3.504 | -7.4 | V | 3.0 | 35.4 | 1.0 | -41.8 | -13.0 | -28.8 | |
| 5.257 | 6.8 | V | 3.0 | 35.3 | 1.0 | -27.5 | -13.0 | -14.5 | |
| 7.009 | 103.8 | V | 3.0 | 35.7 | 1.0 | 69.1 | -13.0 | 82.1 | |
| 3.504 | -4.5 | H | 3.0 | 35.4 | 1.0 | -39.0 | -13.0 | -26.0 | |
| 5.257 | -3.1 | H | 3.0 | 35.3 | 1.0 | -37.4 | -13.0 | -24.4 | |
| 7.009 | 0.0 | H | 3.0 | 35.7 | 1.0 | -34.7 | -13.0 | -21.7 | |
| | | | | | | | | | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

**LTE QPSK Band 4 (5.0 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 4_5 MHz BW_ QPSK MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 8449B | Filter 1 | Part 27 |

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Distance (m) | Preamp (dB) | Filter (dB) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Low Ch, 1712.5MHz | | | | | | | | | |
| 3.421 | -3.6 | V | 3.0 | 35.5 | 1.0 | -38.0 | -13.0 | -25.0 | |
| 5.131 | 4.6 | V | 3.0 | 35.3 | 1.0 | -29.7 | -13.0 | -16.7 | |
| 6.842 | -6.4 | V | 3.0 | 35.7 | 1.0 | -41.1 | -13.0 | -28.1 | |
| 3.421 | -7.2 | H | 3.0 | 35.5 | 1.0 | -41.7 | -13.0 | -28.7 | |
| 5.131 | -2.9 | H | 3.0 | 35.3 | 1.0 | -37.2 | -13.0 | -24.2 | |
| 6.842 | -1.8 | H | 3.0 | 35.7 | 1.0 | -36.5 | -13.0 | -23.5 | |
| | | | | | | | | | |
| Mid Ch, 1732.50MHz | | | | | | | | | |
| 3.460 | -8.5 | V | 3.0 | 35.5 | 1.0 | -42.9 | -13.0 | -29.9 | |
| 5.191 | 3.8 | V | 3.0 | 35.3 | 1.0 | -30.6 | -13.0 | -17.6 | |
| 6.925 | -5.3 | V | 3.0 | 35.7 | 1.0 | -40.0 | -13.0 | -27.0 | |
| 3.463 | -4.0 | H | 3.0 | 35.5 | 1.0 | -38.4 | -13.0 | -25.4 | |
| 5.196 | -4.6 | H | 3.0 | 35.3 | 1.0 | -38.9 | -13.0 | -25.9 | |
| 6.925 | -1.2 | H | 3.0 | 35.7 | 1.0 | -35.9 | -13.0 | -22.9 | |
| | | | | | | | | | |
| High Ch, 1752.5MHz | | | | | | | | | |
| 3.501 | -3.4 | V | 3.0 | 35.4 | 1.0 | -37.8 | -13.0 | -24.8 | |
| 5.251 | 6.8 | V | 3.0 | 35.3 | 1.0 | -27.5 | -13.0 | -14.5 | |
| 7.002 | -2.2 | V | 3.0 | 35.7 | 1.0 | -36.9 | -13.0 | -23.9 | |
| 3.504 | -2.3 | H | 3.0 | 35.4 | 1.0 | -36.8 | -13.0 | -23.8 | |
| 5.257 | 0.2 | H | 3.0 | 35.3 | 1.0 | -34.1 | -13.0 | -21.1 | |
| 7.009 | 0.4 | H | 3.0 | 35.7 | 1.0 | -34.3 | -13.0 | -21.3 | |
| | | | | | | | | | |
| | | | | | | | | | |

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

**LTE 16QAM Band 4 (5.0 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 4_5 MHz BW_ 16QAM MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 8449B | Filter 1 | Part 27 |

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Distance (m) | Preamp (dB) | Filter (dB) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Low Ch, 1712.5MHz | | | | | | | | | |
| 3.421 | -5.6 | V | 3.0 | 35.5 | 1.0 | -40.0 | -13.0 | -27.0 | |
| 5.131 | 4.1 | V | 3.0 | 35.3 | 1.0 | -30.2 | -13.0 | -17.2 | |
| 6.842 | -7.4 | V | 3.0 | 35.7 | 1.0 | -42.1 | -13.0 | -29.1 | |
| 3.421 | -8.6 | H | 3.0 | 35.5 | 1.0 | -43.1 | -13.0 | -30.1 | |
| 5.131 | -2.8 | H | 3.0 | 35.3 | 1.0 | -37.1 | -13.0 | -24.1 | |
| 6.842 | -3.8 | H | 3.0 | 35.7 | 1.0 | -38.5 | -13.0 | -25.5 | |
| | | | | | | | | | |
| Mid Ch, 1732.5MHz | | | | | | | | | |
| 3.460 | -9.5 | V | 3.0 | 35.5 | 1.0 | -43.9 | -13.0 | -30.9 | |
| 5.190 | 0.8 | V | 3.0 | 35.3 | 1.0 | -33.6 | -13.0 | -20.6 | |
| 6.922 | -5.3 | V | 3.0 | 35.7 | 1.0 | -40.0 | -13.0 | -27.0 | |
| 3.460 | -6.7 | H | 3.0 | 35.5 | 1.0 | -41.2 | -13.0 | -28.2 | |
| 5.190 | -6.6 | H | 3.0 | 35.3 | 1.0 | -40.9 | -13.0 | -27.9 | |
| 6.922 | -1.6 | H | 3.0 | 35.7 | 1.0 | -36.3 | -13.0 | -23.3 | |
| | | | | | | | | | |
| High Ch, 1752.5MHz | | | | | | | | | |
| 3.501 | -5.7 | V | 3.0 | 35.4 | 1.0 | -40.1 | -13.0 | -27.1 | |
| 5.251 | 5.5 | V | 3.0 | 35.3 | 1.0 | -28.8 | -13.0 | -15.8 | |
| 7.002 | -3.2 | V | 3.0 | 35.7 | 1.0 | -37.9 | -13.0 | -24.9 | |
| 3.501 | -2.7 | H | 3.0 | 35.4 | 1.0 | -37.1 | -13.0 | -24.1 | |
| 5.251 | -0.5 | H | 3.0 | 35.3 | 1.0 | -34.8 | -13.0 | -21.8 | |
| 7.002 | -0.5 | H | 3.0 | 35.7 | 1.0 | -35.2 | -13.0 | -22.2 | |
| | | | | | | | | | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

**LTE QPSK Band 4 (10.0 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 4_10 MHz BW_ QPSK MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 8449B | Filter 1 | Part 27 |

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Distance (m) | Preamp (dB) | Filter (dB) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Low Ch, 1715MHz | | | | | | | | | |
| 3.421 | -5.6 | V | 3.0 | 35.5 | 1.0 | -40.0 | -13.0 | -27.0 | |
| 5.131 | 3.6 | V | 3.0 | 35.3 | 1.0 | -30.7 | -13.0 | -17.7 | |
| 6.842 | 1.6 | V | 3.0 | 35.7 | 1.0 | -33.1 | -13.0 | -20.1 | |
| 3.421 | -5.6 | H | 3.0 | 35.5 | 1.0 | -40.1 | -13.0 | -27.1 | |
| 5.131 | 0.2 | H | 3.0 | 35.3 | 1.0 | -34.1 | -13.0 | -21.1 | |
| 6.842 | 4.2 | H | 3.0 | 35.7 | 1.0 | -30.5 | -13.0 | -17.5 | |
| | | | | | | | | | |
| Mid Ch, 1732.50MHz | | | | | | | | | |
| 3.456 | -10.5 | V | 3.0 | 35.5 | 1.0 | -44.9 | -13.0 | -31.9 | |
| 5.184 | 4.7 | V | 3.0 | 35.3 | 1.0 | -29.6 | -13.0 | -16.6 | |
| 6.913 | -3.3 | V | 3.0 | 35.7 | 1.0 | -38.0 | -13.0 | -25.0 | |
| 3.456 | -5.5 | H | 3.0 | 35.5 | 1.0 | -40.0 | -13.0 | -27.0 | |
| 5.184 | 2.2 | H | 3.0 | 35.3 | 1.0 | -32.2 | -13.0 | -19.2 | |
| 6.913 | -2.2 | H | 3.0 | 35.7 | 1.0 | -37.0 | -13.0 | -24.0 | |
| | | | | | | | | | |
| High Ch, 1750MHz | | | | | | | | | |
| 3.491 | -5.4 | V | 3.0 | 35.5 | 1.0 | -39.8 | -13.0 | -26.8 | |
| 5.237 | 4.3 | V | 3.0 | 35.3 | 1.0 | -30.0 | -13.0 | -17.0 | |
| 6.983 | 0.8 | V | 3.0 | 35.7 | 1.0 | -33.9 | -13.0 | -20.9 | |
| 3.491 | -2.4 | H | 3.0 | 35.5 | 1.0 | -36.8 | -13.0 | -23.8 | |
| 5.237 | -5.5 | H | 3.0 | 35.3 | 1.0 | -39.9 | -13.0 | -26.9 | |
| 6.983 | 2.2 | H | 3.0 | 35.7 | 1.0 | -32.6 | -13.0 | -19.6 | |
| | | | | | | | | | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

**LTE 16QAM Band 4 (10.0 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 4_10 MHz BW_ 16QAM MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 8449B | Filter 1 | Part 27 |

| f GHz | SG reading (dBm) | Ant. Pol. (H/V) | Distance (m) | Preamp (dB) | Filter (dB) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Low Ch, 1715MHz | | | | | | | | | |
| 3.421 | -6.6 | V | 3.0 | 35.5 | 1.0 | -41.0 | -13.0 | -28.0 | |
| 5.131 | 2.6 | V | 3.0 | 35.3 | 1.0 | -31.7 | -13.0 | -18.7 | |
| 6.842 | 1.0 | V | 3.0 | 35.7 | 1.0 | -33.7 | -13.0 | -20.7 | |
| 3.421 | -6.2 | H | 3.0 | 35.5 | 1.0 | -40.7 | -13.0 | -27.7 | |
| 5.131 | -1.8 | H | 3.0 | 35.3 | 1.0 | -36.1 | -13.0 | -23.1 | |
| 6.842 | 3.2 | H | 3.0 | 35.7 | 1.0 | -31.5 | -13.0 | -18.5 | |
| | | | | | | | | | |
| Mid Ch, 1732.5MHz | | | | | | | | | |
| 3.456 | -10.5 | V | 3.0 | 35.5 | 1.0 | -44.9 | -13.0 | -31.9 | |
| 5.184 | 3.7 | V | 3.0 | 35.3 | 1.0 | -30.6 | -13.0 | -17.6 | |
| 6.913 | -4.3 | V | 3.0 | 35.7 | 1.0 | -39.0 | -13.0 | -26.0 | |
| 3.456 | -11.5 | H | 3.0 | 35.5 | 1.0 | -46.0 | -13.0 | -33.0 | |
| 5.184 | 1.4 | H | 3.0 | 35.3 | 1.0 | -33.0 | -13.0 | -20.0 | |
| 6.913 | -3.6 | H | 3.0 | 35.7 | 1.0 | -38.4 | -13.0 | -25.4 | |
| | | | | | | | | | |
| High Ch, 1750MHz | | | | | | | | | |
| 3.491 | -6.0 | V | 3.0 | 35.5 | 1.0 | -40.4 | -13.0 | -27.4 | |
| 5.237 | 3.8 | V | 3.0 | 35.3 | 1.0 | -30.5 | -13.0 | -17.5 | |
| 6.983 | -0.2 | V | 3.0 | 35.7 | 1.0 | -34.9 | -13.0 | -21.9 | |
| 3.491 | -3.0 | H | 3.0 | 35.5 | 1.0 | -37.4 | -13.0 | -24.4 | |
| 5.237 | -6.5 | H | 3.0 | 35.3 | 1.0 | -40.9 | -13.0 | -27.9 | |
| 6.983 | 1.5 | H | 3.0 | 35.7 | 1.0 | -33.3 | -13.0 | -20.3 | |
| | | | | | | | | | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

**LTE QPSK Band 2 (1.4 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 2_1.4 MHz BW_ QPSK MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 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, 1850.7MHz | | | | | | | | | |
| 3.760 | 5.3 | V | 3.0 | 35.3 | 1.0 | -29.1 | -13.0 | -16.1 | |
| 5.552 | 4.2 | V | 3.0 | 35.4 | 1.0 | -30.2 | -13.0 | -17.2 | |
| 7.521 | -6.6 | V | 3.0 | 35.7 | 1.0 | -41.3 | -13.0 | -28.3 | |
| 3.701 | 6.3 | H | 3.0 | 35.4 | 1.0 | -28.0 | -13.0 | -15.0 | |
| 5.552 | 0.0 | H | 3.0 | 35.4 | 1.0 | -34.4 | -13.0 | -21.4 | |
| 7.521 | -4.9 | H | 3.0 | 35.7 | 1.0 | -39.6 | -13.0 | -26.6 | |
| | | | | | | | | | |
| Mid Ch, 1880.00MHz | | | | | | | | | |
| 3.761 | 5.4 | V | 3.0 | 35.3 | 1.0 | -29.0 | -13.0 | -16.0 | |
| 5.641 | -4.5 | V | 3.0 | 35.4 | 1.0 | -38.9 | -13.0 | -25.9 | |
| 7.522 | 0.4 | V | 3.0 | 35.7 | 1.0 | -34.3 | -13.0 | -21.3 | |
| 3.761 | 6.5 | H | 3.0 | 35.3 | 1.0 | -27.8 | -13.0 | -14.8 | |
| 5.641 | -6.8 | H | 3.0 | 35.4 | 1.0 | -41.3 | -13.0 | -28.3 | |
| 7.522 | -0.9 | H | 3.0 | 35.7 | 1.0 | -35.6 | -13.0 | -22.6 | |
| | | | | | | | | | |
| High Ch, 1909.3MHz | | | | | | | | | |
| 3.819 | 1.4 | V | 3.0 | 35.3 | 1.0 | -32.9 | -13.0 | -19.9 | |
| 5.640 | 4.2 | V | 3.0 | 35.4 | 1.0 | -30.2 | -13.0 | -17.2 | |
| 7.639 | 2.6 | V | 3.0 | 35.7 | 1.0 | -32.1 | -13.0 | -19.1 | |
| 3.819 | -4.3 | H | 3.0 | 35.3 | 1.0 | -38.6 | -13.0 | -25.6 | |
| 5.640 | 1.7 | H | 3.0 | 35.4 | 1.0 | -32.8 | -13.0 | -19.8 | |
| 7.639 | 3.2 | H | 3.0 | 35.7 | 1.0 | -31.5 | -13.0 | -18.5 | |
| | | | | | | | | | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

**LTE 16QAM Band 2 (1.4 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 2_1.4 MHz BW_ 16QAM MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 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, 1850.7MHz | | | | | | | | | |
| 3.701 | 3.9 | V | 3.0 | 35.4 | 1.0 | -30.4 | -13.0 | -17.4 | |
| 5.552 | 2.9 | V | 3.0 | 35.4 | 1.0 | -31.5 | -13.0 | -18.5 | |
| 7.403 | -7.0 | V | 3.0 | 35.7 | 1.0 | -41.7 | -13.0 | -28.7 | |
| 3.701 | 5.7 | H | 3.0 | 35.4 | 1.0 | -28.6 | -13.0 | -15.6 | |
| 5.552 | -0.8 | H | 3.0 | 35.4 | 1.0 | -35.2 | -13.0 | -22.2 | |
| 7.403 | -6.3 | H | 3.0 | 35.7 | 1.0 | -41.0 | -13.0 | -28.0 | |
| | | | | | | | | | |
| Mid Ch, 1880.00MHz | | | | | | | | | |
| 3.761 | 5.0 | V | 3.0 | 35.3 | 1.0 | -29.4 | -13.0 | -16.4 | |
| 5.641 | -4.7 | V | 3.0 | 35.4 | 1.0 | -39.1 | -13.0 | -26.1 | |
| 7.522 | -0.1 | V | 3.0 | 35.7 | 1.0 | -34.8 | -13.0 | -21.8 | |
| 3.761 | 6.2 | H | 3.0 | 35.3 | 1.0 | -28.1 | -13.0 | -15.1 | |
| 5.641 | -7.8 | H | 3.0 | 35.4 | 1.0 | -42.3 | -13.0 | -29.3 | |
| 7.522 | -1.4 | H | 3.0 | 35.7 | 1.0 | -36.1 | -13.0 | -23.1 | |
| | | | | | | | | | |
| High Ch, 1909.3MHz | | | | | | | | | |
| 3.760 | 0.8 | V | 3.0 | 35.3 | 1.0 | -33.5 | -13.0 | -20.5 | |
| 5.729 | 3.4 | V | 3.0 | 35.4 | 1.0 | -31.1 | -13.0 | -18.1 | |
| 3.760 | -3.6 | H | 3.0 | 35.3 | 1.0 | -37.9 | -13.0 | -24.9 | |
| 5.640 | -0.1 | H | 3.0 | 35.4 | 1.0 | -34.6 | -13.0 | -21.6 | |
| 7.520 | 2.7 | H | 3.0 | 35.7 | 1.0 | -32.0 | -13.0 | -19.0 | |
| | | | | | | | | | |
| | | | | | | | | | |

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

**LTE QPSK Band 2 (3.0 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 2_3MHz BW_ QPSK MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 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, 1851.5MHz | | | | | | | | | |
| 3.704 | 5.1 | V | 3.0 | 35.4 | 1.0 | -29.2 | -13.0 | -16.2 | |
| 5.555 | 1.2 | V | 3.0 | 35.4 | 1.0 | -33.2 | -13.0 | -20.2 | |
| 7.408 | -2.7 | V | 3.0 | 35.7 | 1.0 | -37.4 | -13.0 | -24.4 | |
| 3.704 | 3.8 | H | 3.0 | 35.4 | 1.0 | -30.5 | -13.0 | -17.5 | |
| 5.555 | -2.0 | H | 3.0 | 35.4 | 1.0 | -36.4 | -13.0 | -23.4 | |
| 7.408 | -5.3 | H | 3.0 | 35.7 | 1.0 | -40.0 | -13.0 | -27.0 | |
| | | | | | | | | | |
| Mid Ch, 1880.00MHz | | | | | | | | | |
| 3.762 | 6.5 | V | 3.0 | 35.3 | 1.0 | -27.9 | -13.0 | -14.9 | |
| 5.644 | -4.7 | V | 3.0 | 35.4 | 1.0 | -39.1 | -13.0 | -26.1 | |
| 7.525 | 1.4 | V | 3.0 | 35.7 | 1.0 | -33.2 | -13.0 | -20.2 | |
| 3.762 | 4.5 | H | 3.0 | 35.3 | 1.0 | -29.8 | -13.0 | -16.8 | |
| 5.644 | -5.8 | H | 3.0 | 35.4 | 1.0 | -40.3 | -13.0 | -27.3 | |
| 7.525 | 1.1 | H | 3.0 | 35.7 | 1.0 | -33.6 | -13.0 | -20.6 | |
| | | | | | | | | | |
| High Ch, 1908.5MHz | | | | | | | | | |
| 3.820 | 1.4 | V | 3.0 | 35.3 | 1.0 | -32.9 | -13.0 | -19.9 | |
| 5.729 | 7.4 | V | 3.0 | 35.4 | 1.0 | -27.1 | -13.0 | -14.1 | |
| 7.639 | 2.6 | V | 3.0 | 35.7 | 1.0 | -32.1 | -13.0 | -19.1 | |
| 3.820 | -2.3 | H | 3.0 | 35.3 | 1.0 | -36.6 | -13.0 | -23.6 | |
| 5.729 | 2.3 | H | 3.0 | 35.4 | 1.0 | -32.1 | -13.0 | -19.1 | |
| 7.639 | 3.2 | H | 3.0 | 35.7 | 1.0 | -31.5 | -13.0 | -18.5 | |

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

**LTE 16QAM Band 2 (3.0 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 2_3 MHz BW_ 16QAM MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 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, 1851.5MHz | | | | | | | | | |
| 3.706 | 4.8 | V | 3.0 | 35.4 | 1.0 | -29.5 | -13.0 | -16.5 | |
| 5.558 | 0.6 | V | 3.0 | 35.4 | 1.0 | -33.8 | -13.0 | -20.8 | |
| 7.411 | -2.9 | V | 3.0 | 35.7 | 1.0 | -37.6 | -13.0 | -24.6 | |
| 3.706 | 3.3 | H | 3.0 | 35.4 | 1.0 | -31.0 | -13.0 | -18.0 | |
| 5.558 | -2.3 | H | 3.0 | 35.4 | 1.0 | -36.7 | -13.0 | -23.7 | |
| 7.411 | -5.0 | H | 3.0 | 35.7 | 1.0 | -39.7 | -13.0 | -26.7 | |
| | | | | | | | | | |
| Mid Ch, 1880.00MHz | | | | | | | | | |
| 3.763 | 4.3 | V | 3.0 | 35.3 | 1.0 | -30.1 | -13.0 | -17.1 | |
| 5.644 | -3.7 | V | 3.0 | 35.4 | 1.0 | -38.1 | -13.0 | -25.1 | |
| 7.525 | 0.9 | V | 3.0 | 35.7 | 1.0 | -33.7 | -13.0 | -20.7 | |
| 3.763 | 4.0 | H | 3.0 | 35.3 | 1.0 | -30.3 | -13.0 | -17.3 | |
| 5.644 | -6.3 | H | 3.0 | 35.4 | 1.0 | -40.8 | -13.0 | -27.8 | |
| 7.525 | -0.9 | H | 3.0 | 35.7 | 1.0 | -35.6 | -13.0 | -22.6 | |
| | | | | | | | | | |
| High Ch, 1908.5MHz | | | | | | | | | |
| 3.820 | 0.4 | V | 3.0 | 35.3 | 1.0 | -33.9 | -13.0 | -20.9 | |
| 5.729 | 6.7 | V | 3.0 | 35.4 | 1.0 | -27.8 | -13.0 | -14.8 | |
| 7.639 | 2.4 | V | 3.0 | 35.7 | 1.0 | -32.3 | -13.0 | -19.3 | |
| 3.820 | -2.6 | H | 3.0 | 35.3 | 1.0 | -36.9 | -13.0 | -23.9 | |
| 5.729 | 2.2 | H | 3.0 | 35.4 | 1.0 | -32.2 | -13.0 | -19.2 | |
| 7.639 | 2.2 | H | 3.0 | 35.7 | 1.0 | -32.5 | -13.0 | -19.5 | |
| | | | | | | | | | |
| | | | | | | | | | |

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

**LTE QPSK Band 2 (5.0 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 2_5MHz BW_ QPSK MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 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, 1852.5MHz | | | | | | | | | |
| 3.704 | 4.1 | V | 3.0 | 35.4 | 1.0 | -30.2 | -13.0 | -17.2 | |
| 5.555 | -0.8 | V | 3.0 | 35.4 | 1.0 | -35.2 | -13.0 | -22.2 | |
| 7.408 | -4.7 | V | 3.0 | 35.7 | 1.0 | -39.4 | -13.0 | -26.4 | |
| 3.704 | 6.3 | H | 3.0 | 35.4 | 1.0 | -28.0 | -13.0 | -15.0 | |
| 5.555 | -2.0 | H | 3.0 | 35.4 | 1.0 | -36.4 | -13.0 | -23.4 | |
| 7.408 | -5.3 | H | 3.0 | 35.7 | 1.0 | -40.0 | -13.0 | -27.0 | |
| | | | | | | | | | |
| Mid Ch, 1880.00MHz | | | | | | | | | |
| 3.764 | 5.2 | V | 3.0 | 35.3 | 1.0 | -29.2 | -13.0 | -16.2 | |
| 5.645 | -6.3 | V | 3.0 | 35.4 | 1.0 | -40.7 | -13.0 | -27.7 | |
| 7.529 | 1.5 | V | 3.0 | 35.7 | 1.0 | -33.2 | -13.0 | -20.2 | |
| 3.764 | 4.0 | H | 3.0 | 35.3 | 1.0 | -30.3 | -13.0 | -17.3 | |
| 5.645 | -7.8 | H | 3.0 | 35.4 | 1.0 | -42.3 | -13.0 | -29.3 | |
| 7.529 | -1.7 | H | 3.0 | 35.7 | 1.0 | -36.4 | -13.0 | -23.4 | |
| | | | | | | | | | |
| High Ch, 1907.5MHz | | | | | | | | | |
| 3.818 | 1.4 | V | 3.0 | 35.3 | 1.0 | -32.9 | -13.0 | -19.9 | |
| 5.727 | 7.4 | V | 3.0 | 35.4 | 1.0 | -27.1 | -13.0 | -14.1 | |
| 7.636 | 2.6 | V | 3.0 | 35.7 | 1.0 | -32.1 | -13.0 | -19.1 | |
| 3.818 | -2.3 | H | 3.0 | 35.3 | 1.0 | -36.6 | -13.0 | -23.6 | |
| 5.727 | 2.3 | H | 3.0 | 35.4 | 1.0 | -32.1 | -13.0 | -19.1 | |
| 7.636 | 3.2 | H | 3.0 | 35.7 | 1.0 | -31.5 | -13.0 | -18.5 | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

**LTE 16QAM Band 2 (5.0 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 2_5 MHz BW_ 16QAM MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 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, 1852.5MHz | | | | | | | | | |
| 3.704 | 4.0 | V | 3.0 | 35.4 | 1.0 | -30.3 | -13.0 | -17.3 | |
| 5.556 | -1.0 | V | 3.0 | 35.4 | 1.0 | -35.4 | -13.0 | -22.4 | |
| 7.408 | -5.3 | V | 3.0 | 35.7 | 1.0 | -40.0 | -13.0 | -27.0 | |
| 3.704 | 5.8 | H | 3.0 | 35.4 | 1.0 | -28.5 | -13.0 | -15.5 | |
| 5.556 | -2.3 | H | 3.0 | 35.4 | 1.0 | -36.7 | -13.0 | -23.7 | |
| 7.408 | -5.0 | H | 3.0 | 35.7 | 1.0 | -39.7 | -13.0 | -26.7 | |
| | | | | | | | | | |
| Mid Ch, 1880.00MHz | | | | | | | | | |
| 3.764 | 4.4 | V | 3.0 | 35.3 | 1.0 | -30.0 | -13.0 | -17.0 | |
| 5.646 | -6.7 | V | 3.0 | 35.4 | 1.0 | -41.1 | -13.0 | -28.1 | |
| 7.522 | 0.8 | V | 3.0 | 35.7 | 1.0 | -33.9 | -13.0 | -20.9 | |
| 3.764 | 3.5 | H | 3.0 | 35.3 | 1.0 | -30.8 | -13.0 | -17.8 | |
| 5.646 | -8.3 | H | 3.0 | 35.4 | 1.0 | -42.8 | -13.0 | -29.8 | |
| 7.522 | -1.9 | H | 3.0 | 35.7 | 1.0 | -36.6 | -13.0 | -23.6 | |
| | | | | | | | | | |
| High Ch, 1907.5MHz | | | | | | | | | |
| 3.817 | 0.4 | V | 3.0 | 35.3 | 1.0 | -33.9 | -13.0 | -20.9 | |
| 5.727 | 6.7 | V | 3.0 | 35.4 | 1.0 | -27.8 | -13.0 | -14.8 | |
| 7.636 | 2.4 | V | 3.0 | 35.7 | 1.0 | -32.3 | -13.0 | -19.3 | |
| 3.817 | -2.6 | H | 3.0 | 35.3 | 1.0 | -36.9 | -13.0 | -23.9 | |
| 5.727 | 2.2 | H | 3.0 | 35.4 | 1.0 | -32.2 | -13.0 | -19.2 | |
| 7.636 | 2.2 | H | 3.0 | 35.7 | 1.0 | -32.5 | -13.0 | -19.5 | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

**LTE QPSK Band 2 (10.0 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 2_10MHz BW_ QPSK MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 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, 1855MHz | | | | | | | | | |
| 3.704 | 3.7 | V | 3.0 | 35.4 | 1.0 | -30.6 | -13.0 | -17.6 | |
| 5.578 | -5.8 | V | 3.0 | 35.4 | 1.0 | -40.2 | -13.0 | -27.2 | |
| 7.437 | -1.7 | V | 3.0 | 35.7 | 1.0 | -36.4 | -13.0 | -23.4 | |
| 3.704 | 6.1 | H | 3.0 | 35.4 | 1.0 | -28.2 | -13.0 | -15.2 | |
| 5.555 | -2.0 | H | 3.0 | 35.4 | 1.0 | -36.4 | -13.0 | -23.4 | |
| 7.408 | -5.0 | H | 3.0 | 35.7 | 1.0 | -39.7 | -13.0 | -26.7 | |
| | | | | | | | | | |
| Mid Ch, 1880.00MHz | | | | | | | | | |
| 3.769 | 4.3 | V | 3.0 | 35.3 | 1.0 | -30.0 | -13.0 | -17.0 | |
| 5.653 | 0.3 | V | 3.0 | 35.4 | 1.0 | -34.1 | -13.0 | -21.1 | |
| 7.529 | -0.5 | V | 3.0 | 35.7 | 1.0 | -35.2 | -13.0 | -22.2 | |
| 3.769 | 3.6 | H | 3.0 | 35.3 | 1.0 | -30.8 | -13.0 | -17.8 | |
| 5.653 | 0.2 | H | 3.0 | 35.4 | 1.0 | -34.2 | -13.0 | -21.2 | |
| 7.529 | -1.9 | H | 3.0 | 35.7 | 1.0 | -36.6 | -13.0 | -23.6 | |
| | | | | | | | | | |
| High Ch, 1905MHz | | | | | | | | | |
| 3.819 | 3.4 | V | 3.0 | 35.3 | 1.0 | -30.9 | -13.0 | -17.9 | |
| 5.728 | 1.4 | V | 3.0 | 35.4 | 1.0 | -33.1 | -13.0 | -20.1 | |
| 7.620 | 2.6 | V | 3.0 | 35.7 | 1.0 | -32.1 | -13.0 | -19.1 | |
| 3.819 | 2.7 | H | 3.0 | 35.3 | 1.0 | -31.6 | -13.0 | -18.6 | |
| 5.728 | 4.3 | H | 3.0 | 35.4 | 1.0 | -30.1 | -13.0 | -17.1 | |
| 7.620 | 3.2 | H | 3.0 | 35.7 | 1.0 | -31.5 | -13.0 | -18.5 | |
| | | | | | | | | | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

**LTE 16QAM Band 2 (10.0 MHz BAND WIDTH)**

**Compliance Certification Services**
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG ELECTRONICS INC
**Project #:** 12U14406
**Date:** 05/05/12
**Test Engineer:** Chin Pang
**Configuration:** EUT and AC Adapter
**Mode:** BAND 2_10 MHz BW_ 16QAM MODE

| Chamber | Pre-amplifer | Filter | Limit |
|---|---|---|---|
| 5m Chamber B | T145 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, 1855MHz | | | | | | | | | |
| 3.719 | 3.9 | V | 3.0 | 35.4 | 1.0 | -30.5 | -13.0 | -17.5 | |
| 5.578 | -6.1 | V | 3.0 | 35.4 | 1.0 | -40.5 | -13.0 | -27.5 | |
| 7.437 | -2.3 | V | 3.0 | 35.7 | 1.0 | -37.0 | -13.0 | -24.0 | |
| 3.719 | 6.3 | H | 3.0 | 35.4 | 1.0 | -28.1 | -13.0 | -15.1 | |
| 5.578 | -2.2 | H | 3.0 | 35.4 | 1.0 | -36.7 | -13.0 | -23.7 | |
| 7.437 | -4.6 | H | 3.0 | 35.7 | 1.0 | -39.3 | -13.0 | -26.3 | |
| | | | | | | | | | |
| Mid Ch, 1880.00MHz | | | | | | | | | |
| 3.764 | 4.1 | V | 3.0 | 35.3 | 1.0 | -30.3 | -13.0 | -17.3 | |
| 5.646 | -0.4 | V | 3.0 | 35.4 | 1.0 | -34.8 | -13.0 | -21.8 | |
| 7.522 | -0.9 | V | 3.0 | 35.7 | 1.0 | -35.6 | -13.0 | -22.6 | |
| 3.764 | 3.2 | H | 3.0 | 35.3 | 1.0 | -31.1 | -13.0 | -18.1 | |
| 5.646 | -0.5 | H | 3.0 | 35.4 | 1.0 | -35.0 | -13.0 | -22.0 | |
| 7.522 | -2.7 | H | 3.0 | 35.7 | 1.0 | -37.4 | -13.0 | -24.4 | |
| | | | | | | | | | |
| High Ch, 1905MHz | | | | | | | | | |
| 3.819 | 2.4 | V | 3.0 | 35.3 | 1.0 | -31.9 | -13.0 | -18.9 | |
| 5.728 | 0.7 | V | 3.0 | 35.4 | 1.0 | -33.8 | -13.0 | -20.8 | |
| 7.620 | 1.6 | V | 3.0 | 35.7 | 1.0 | -33.1 | -13.0 | -20.1 | |
| 3.819 | 2.0 | H | 3.0 | 35.3 | 1.0 | -32.3 | -13.0 | -19.3 | |
| 5.728 | 4.0 | H | 3.0 | 35.4 | 1.0 | -30.4 | -13.0 | -17.4 | |
| 7.620 | 2.7 | H | 3.0 | 35.7 | 1.0 | -32.0 | -13.0 | -19.0 | |
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Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.