



Appendix A: Transmitter Output Power

1 Result Table

1.1 Channel Power (Total)

The output power of the EUT was measured at the antenna terminal. Since the EUT transmits on two antennas simultaneously in the same frequency with MIMO mode, using the Measure-and-sum approach, the output power at both antennas were tested, and the total output power were then summed.

The antenna is not the standard configuration of the EUT, so the antenna gain is assumed as 0 dBi.

1.1.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.1.2 Downlink Test Results (without AGC activated)

1.1.2.1 LTE system

EUT Conf.	Channel Power [dBm]	total[dBW]	Verdict
DL_1L_1.4M_B_ANTA& DL_1L_1.4M_B_ANTB	42.47&42.12	33.95	Pass
DL_1L_1.4M_M_ANTA& DL_1L_1.4M_M_ANTB	42.87&43.11	39.83	Pass
DL_1L_1.4M_T_ANTA& DL_1L_1.4M_T_ANTB	42.64&42.81	37.46	Pass
DL_1L_20M_B_ANTA& DL_1L_20M_B_ANTB	42.63&42.95	38.05	Pass
DL_1L_20M_M_ANTA& DL_1L_20M_M_ANTB	42.65&42.92	38.00	Pass
DL_1L_20M_T_ANTA& DL_1L_20M_T_ANTB	42.13&42.54	34.28	Pass

1.1.3 Downlink Test Results (input signal +10dB with AGC activated)

1.1.3.1 LTE system

EUT Conf.	Channel Power [dBm]	total[W]	Verdict
DL_1L_1.4M_B_ANTA& DL_1L_1.4M_B_ANTB	42.57&42.14	34.43	Pass
DL_1L_1.4M_M_ANTA& DL_1L_1.4M_M_ANTB	42.97&43.16	40.51	Pass



EUT Conf.	Channel Power [dBm]	total[W]	Verdict
DL_1L_1.4M_T_ANTA& DL_1L_1.4M_T_ANTB	42.67&42.86	37.82	Pass
DL_1L_20M_B_ANTA& DL_1L_20M_B_ANTB	42.7&43.01	38.61	Pass
DL_1L_20M_M_ANTA& DL_1L_20M_M_ANTB	42.75&42.96	38.58	Pass
DL_1L_20M_T_ANTA& DL_1L_20M_T_ANTB	42.17&42.61	34.73	Pass

1.2 Power Spectral Density

The output power Spectral Density of the EUT was measured at the antenna terminal. Since the EUT transmits on two antennas simultaneously in the same frequency with MIMO mode, using the Measure-and-sum approach, the output power Spectral Density at both antennas were tested, and the total output power Spectral Density were then summed.

1.2.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.2.2 Downlink Test Results

EUT Conf.	Power Spectral Density [dBm/100kHz]	total[W/100kHz]	Verdict
DL_1L_1.4M_B_ANTA& DL_1L_1.4M_B_ANTB	33.35&32.55	3.96	Pass
DL_1L_1.4M_M_ANTA& DL_1L_1.4M_M_ANTB	33.41&33.68	4.53	Pass
DL_1L_1.4M_T_ANTA& DL_1L_1.4M_T_ANTB	33.13&33.29	4.19	Pass
DL_1L_20M_B_ANTA& DL_1L_20M_B_ANTB	20.69&20.93	0.24	Pass
DL_1L_20M_M_ANTA& DL_1L_20M_M_ANTB	20.62&20.82	0.24	Pass
DL_1L_20M_T_ANTA& DL_1L_20M_T_ANTB	20.08&20.43	0.21	Pass

1.3 Peak-to-Average Ratio

1.3.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.3.2 Downlink Test Results

1.3.2.1.1 LTE system

EUT Conf.	Peak-to-Average Ratio [dB]	Verdict
DL_1L_1.4M_M_ANTA	9.74	Pass



EUT Conf.	Peak-to-Average Ratio [dB]	Verdict
DL_1L_1.4M_M_ANTB	9.79	Pass
DL_1L_20M_M_ANTA	10.21	Pass
DL_1L_20M_M_ANTB	10.63	Pass

2 Test Plot

NOTE: Only the test plots for the measurements of Spectral Density and Peak-to-Average Ratio are supplied.

2.1 Power Spectral Density

2.1.1 Uplink Test Plots

Not applicable.

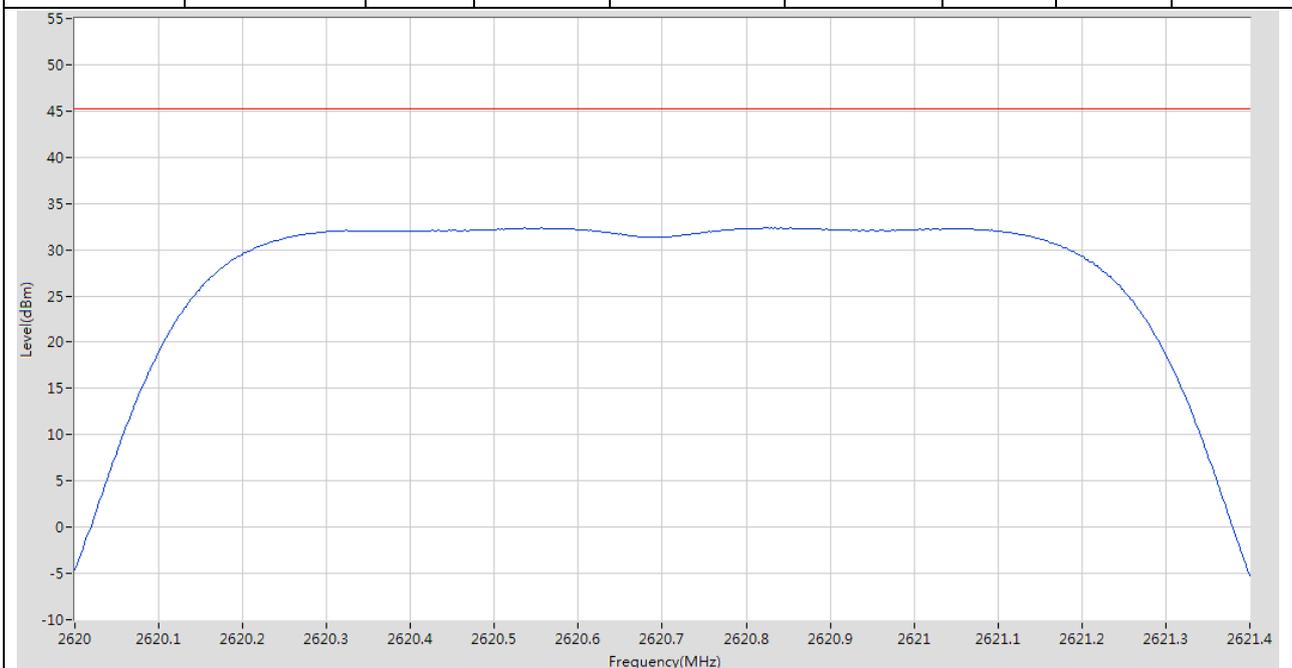
Notes: The EUT does not transmit over the air in the uplink direction.

2.1.2 Downlink Test Plots

2.1.2.1 LTE system

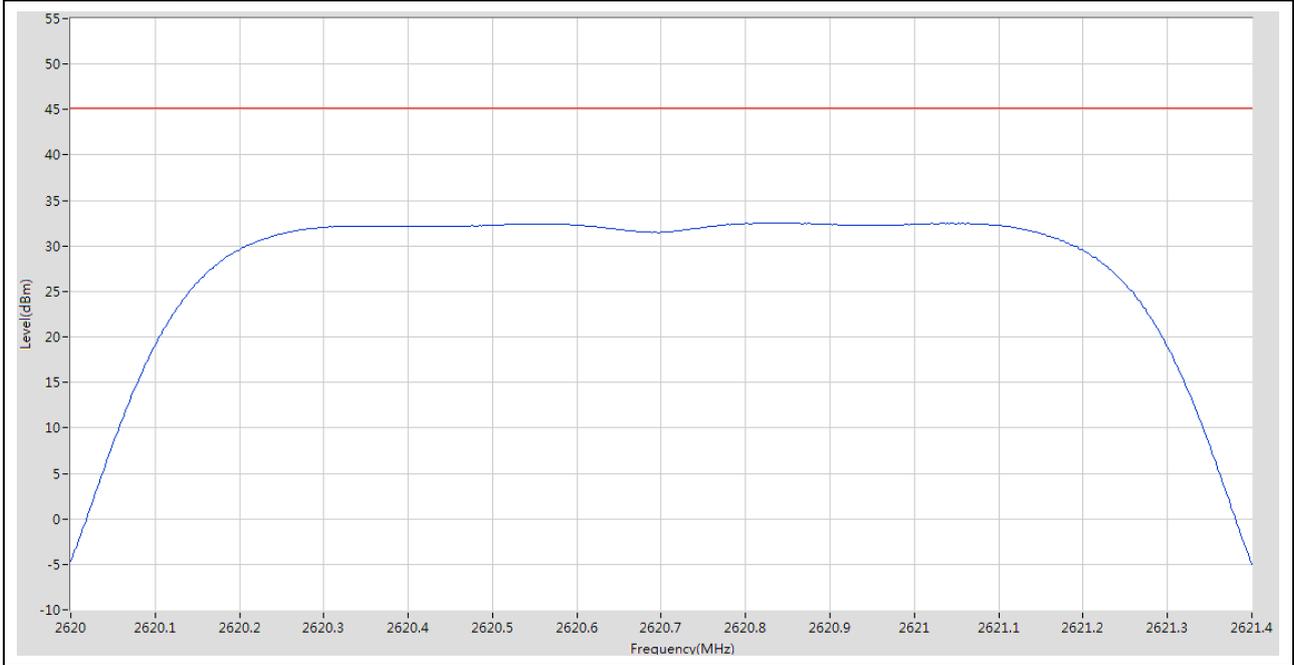
2.1.2.1.1 DL_1L_1.4M_B_ANTA

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
2620	2621.4	0.1	RMS	2620.55641 M	32.35	45.2	Pass	625



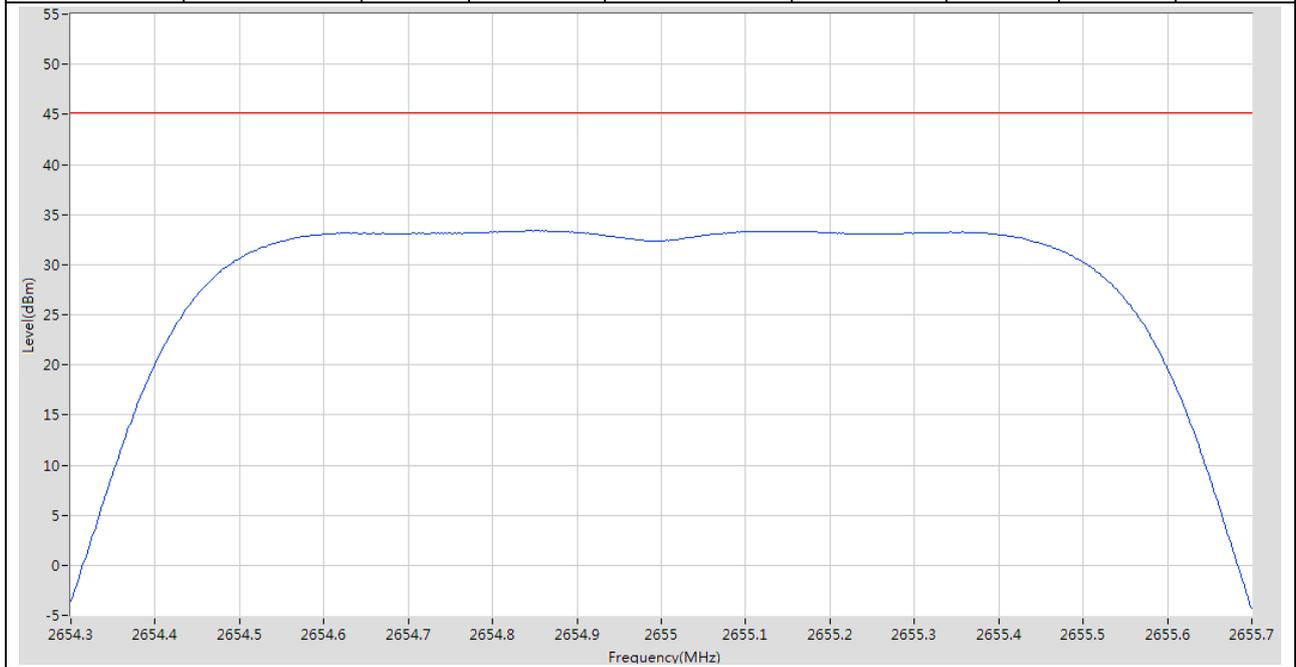
2.1.2.1.2 DL_1L_1.4M_B_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
2620	2621.4	0.1	RMS	2620.832372 M	32.55	45.2	Pass	625



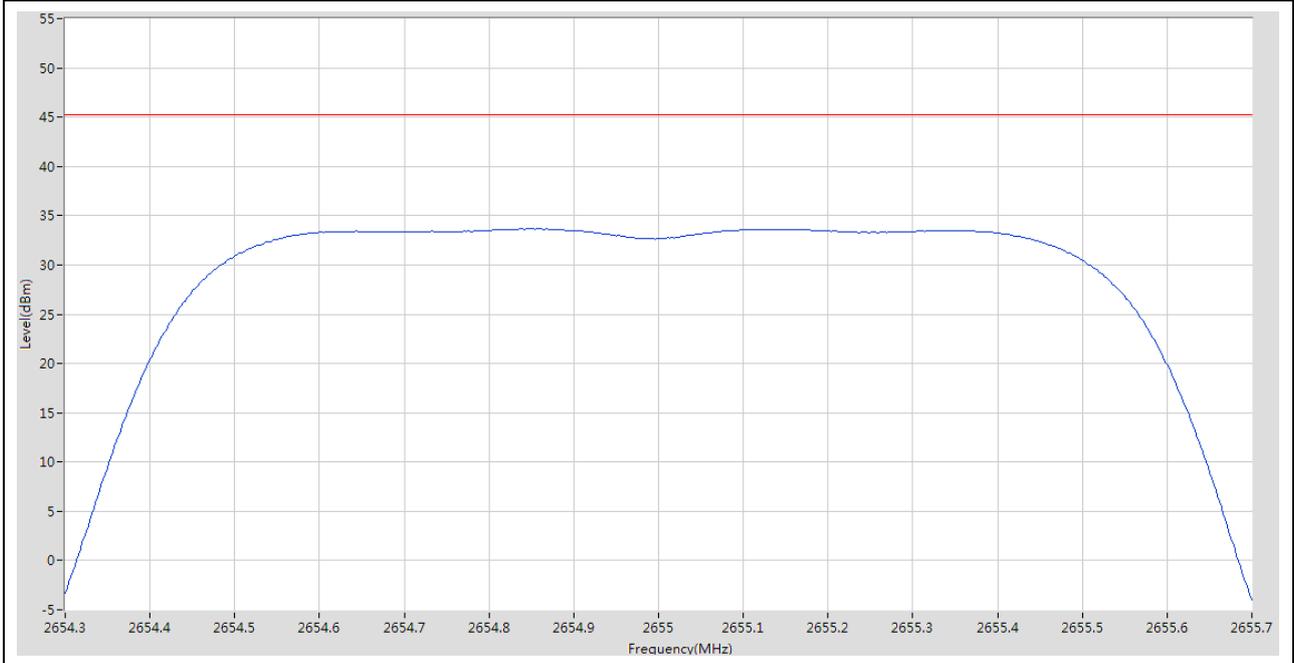
2.1.2.1.3 DL_1L_1.4M_M_ANTA

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
2654.3	2655.7	0.1	RMS	2654.851923 M	33.41	45.2	Pass	625



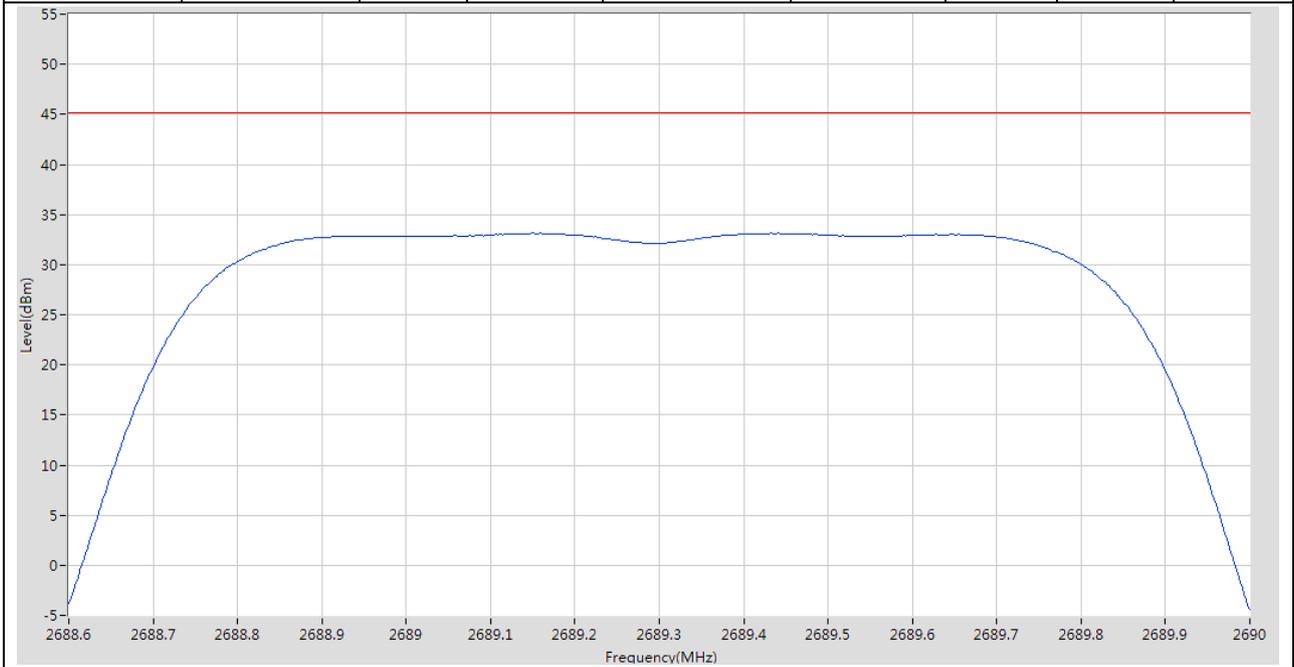
2.1.2.1.4 DL_1L_1.4M_M_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
2654.3	2655.7	0.1	RMS	2654.847436 M	33.68	45.2	Pass	625



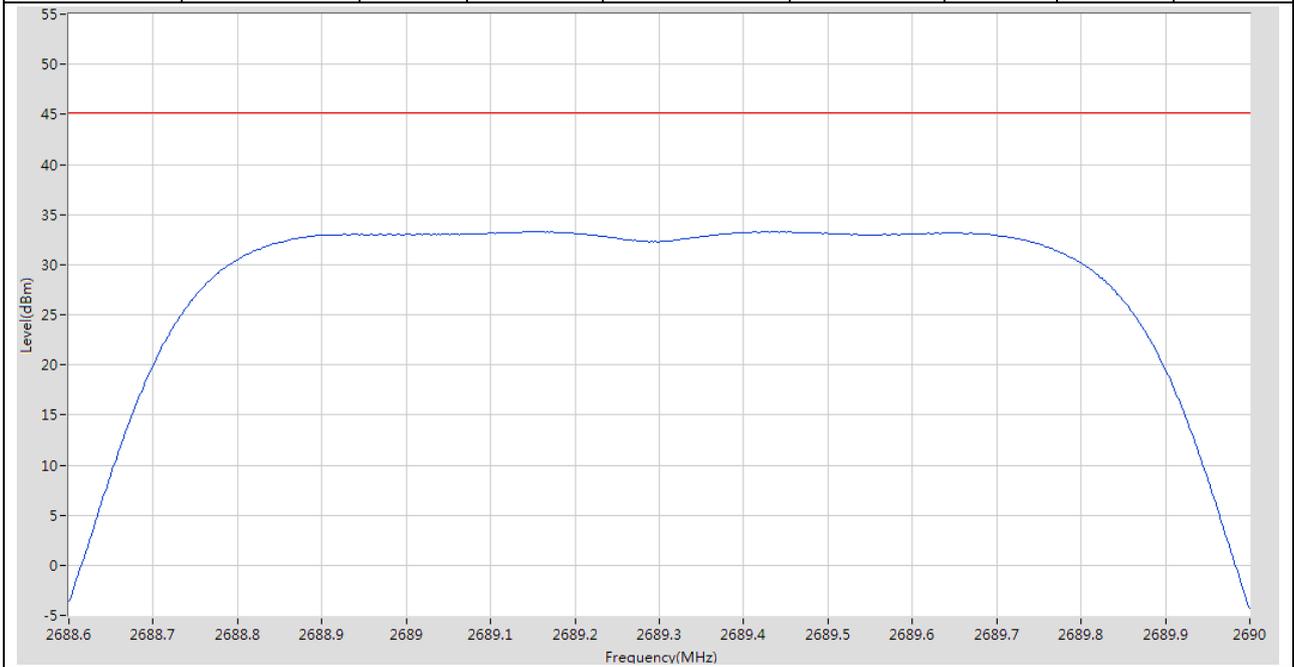
2.1.2.1.5 DL_1L_1.4M_T_ANTA

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
2688.6	2690	0.1	RMS	2689.441346 M	33.13	45.2	Pass	625



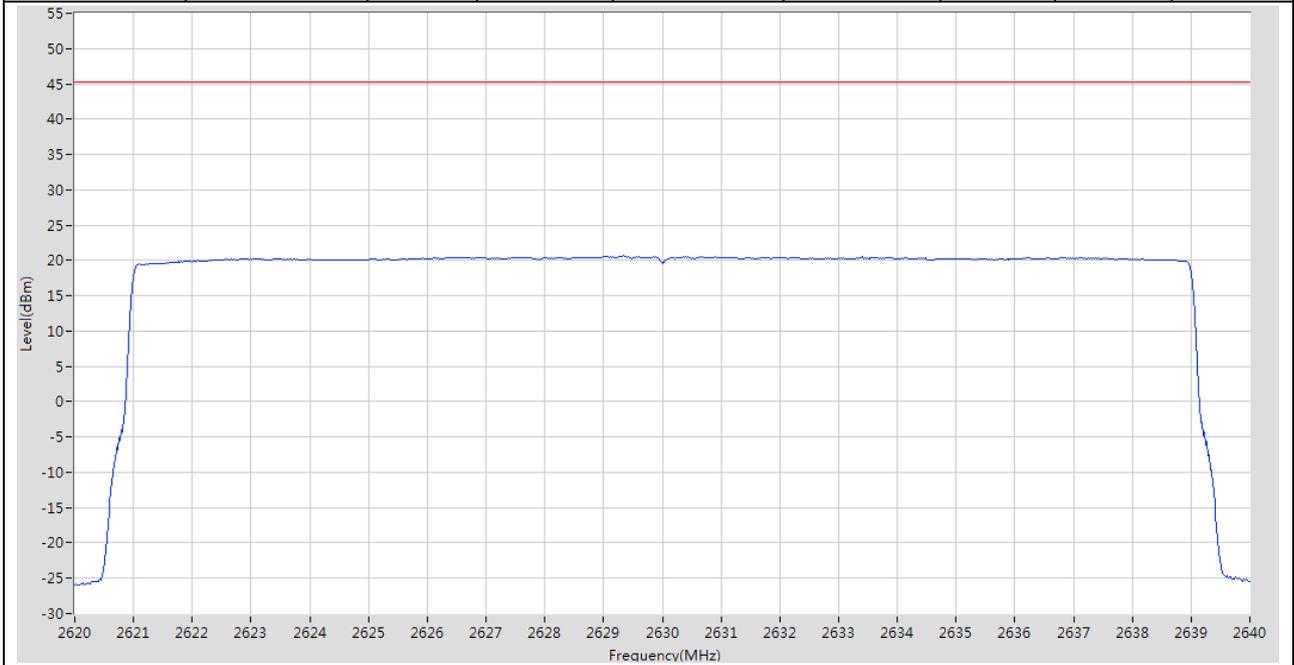
2.1.2.1.6 DL_1L_1.4M_T_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
2688.6	2690	0.1	RMS	2689.151923 M	33.29	45.2	Pass	625

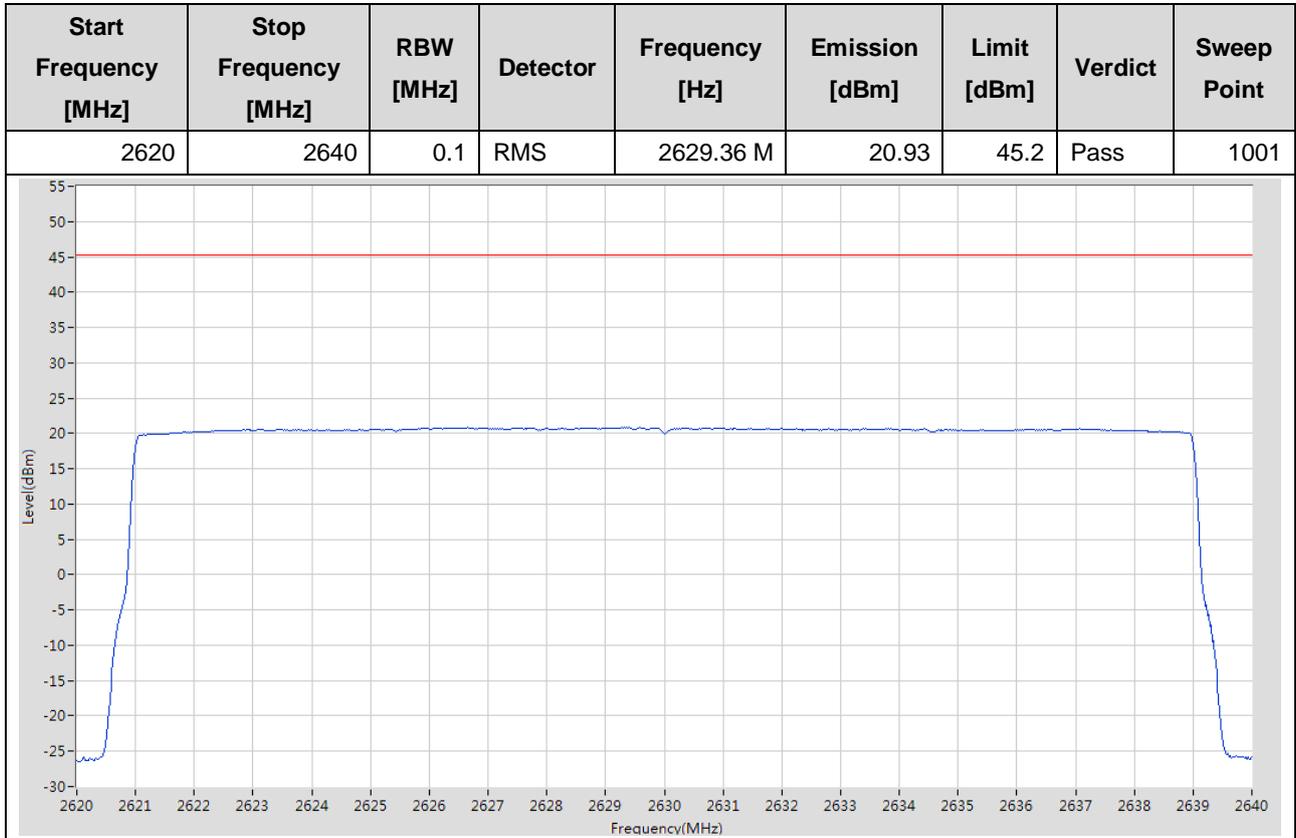


2.1.2.1.7 DL_1L_20M_B_ANTA

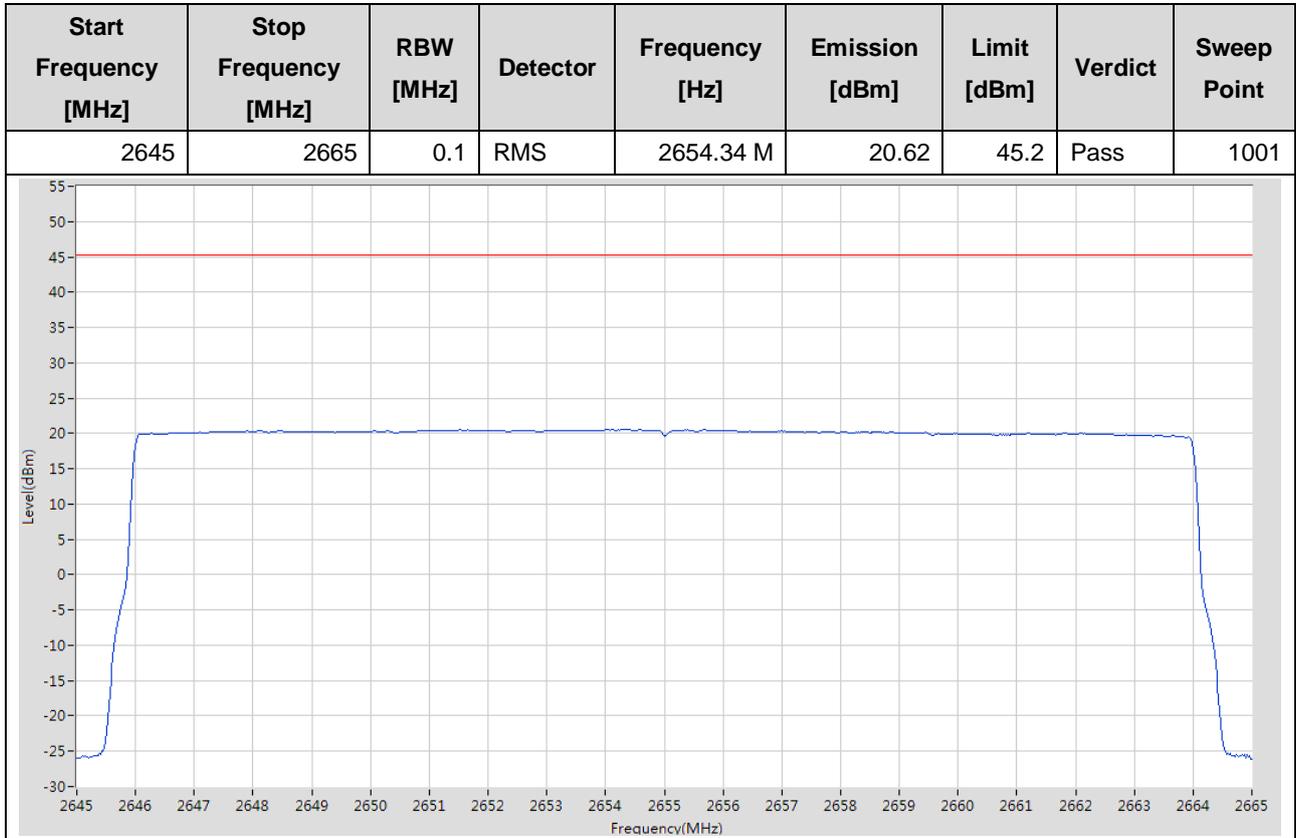
Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
2620	2640	0.1	RMS	2629.34 M	20.69	45.2	Pass	1001



2.1.2.1.8 DL_1L_20M_B_ANTB

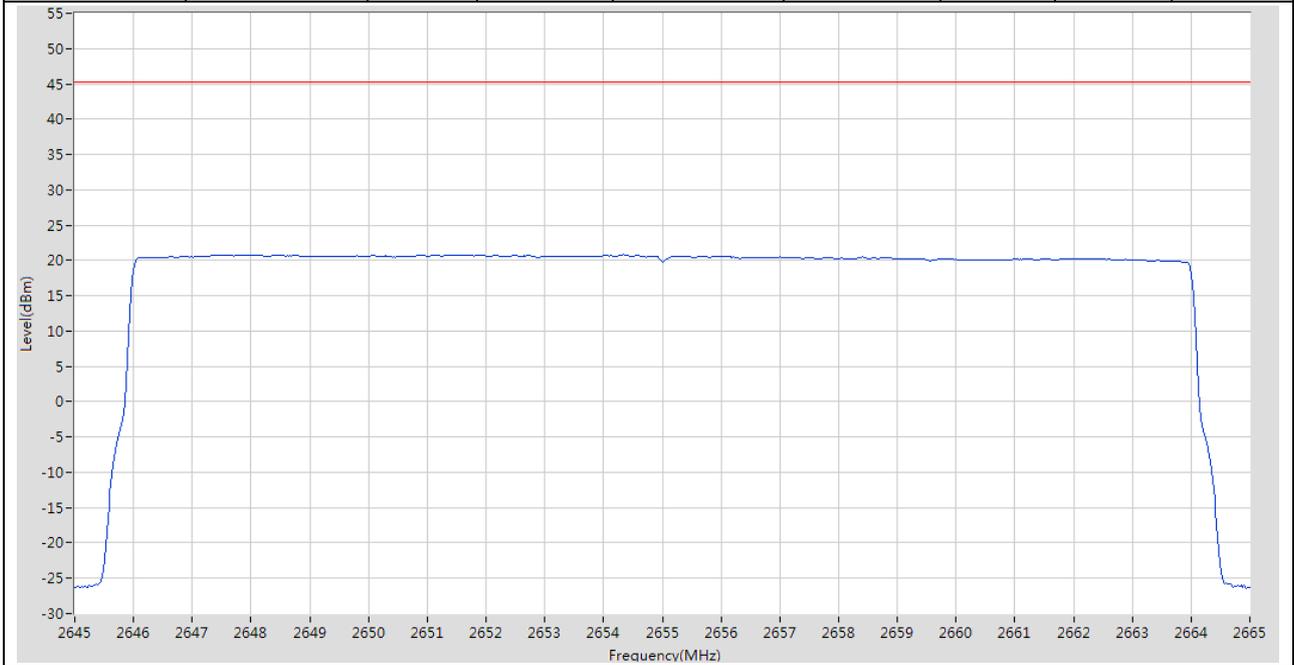


2.1.2.1.9 DL_1L_20M_M_ANTA

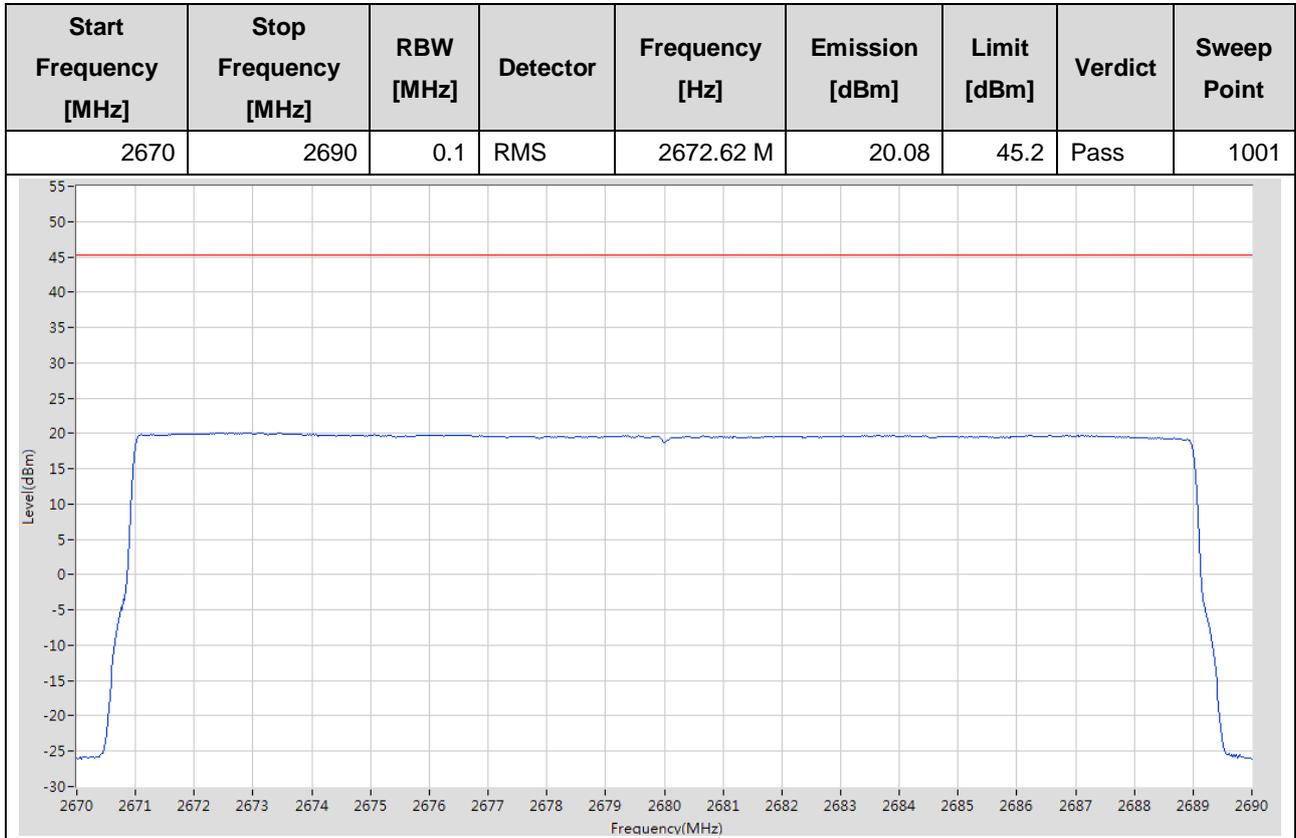


2.1.2.1.10 DL_1L_20M_M_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
2645	2665	0.1	RMS	2654.34 M	20.82	45.2	Pass	1001

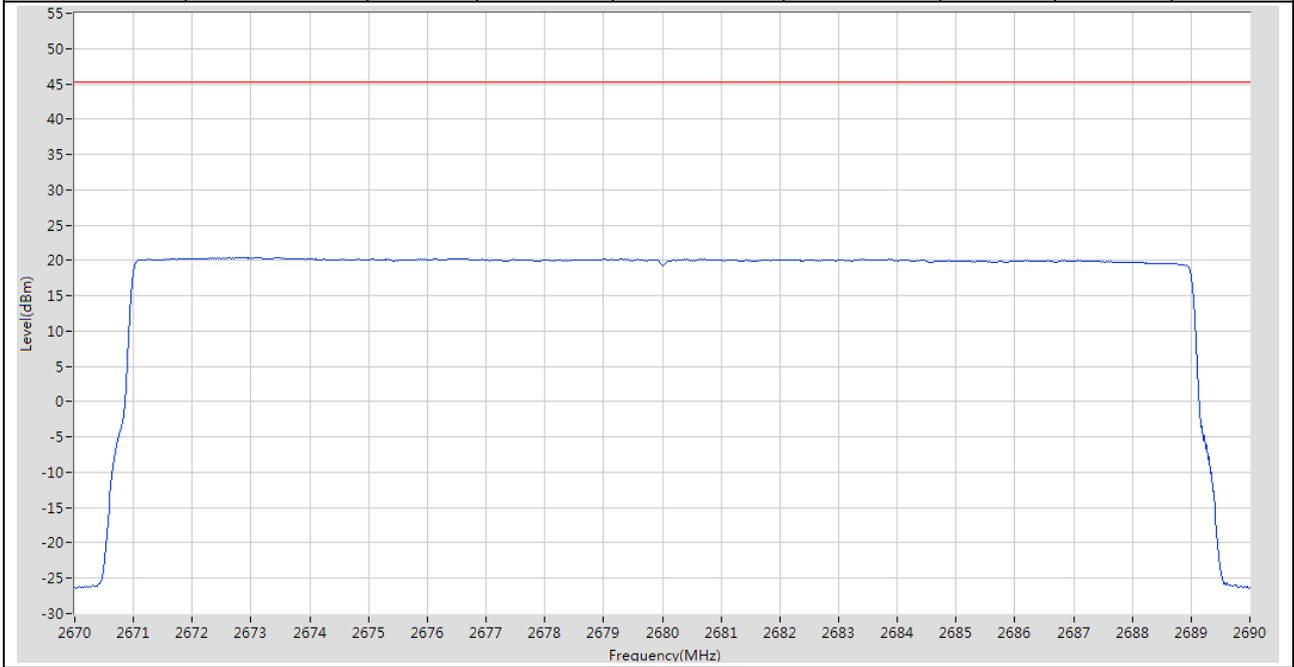


2.1.2.1.11 DL_1L_20M_T_ANTA



2.1.2.1.12 DL_1L_20M_T_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
2670	2690	0.1	RMS	2673.14 M	20.43	45.2	Pass	1001



2.2 Peak-to-Average Ratio

2.2.1 Uplink Test Plots

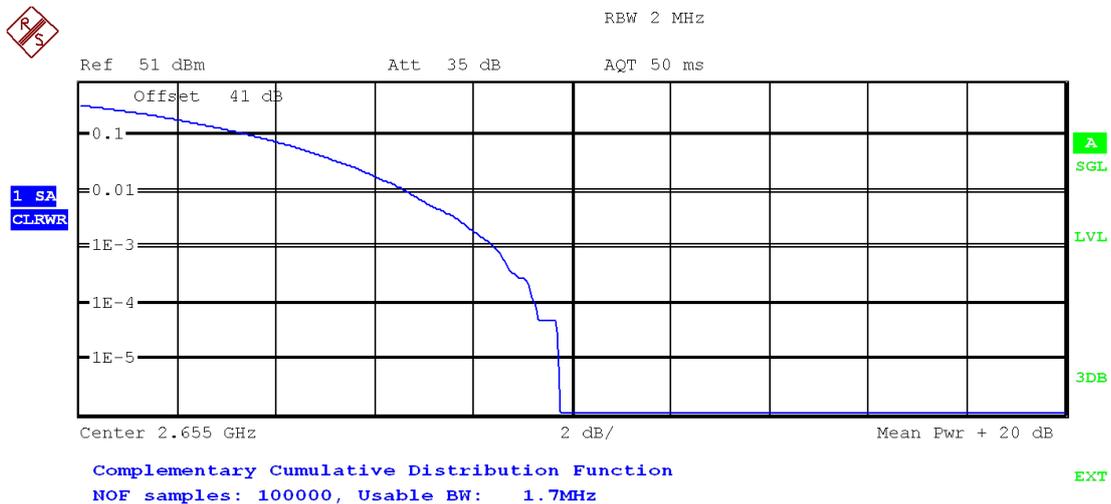
Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

2.2.2 Downlink Test Plots

2.2.2.1 LTE system

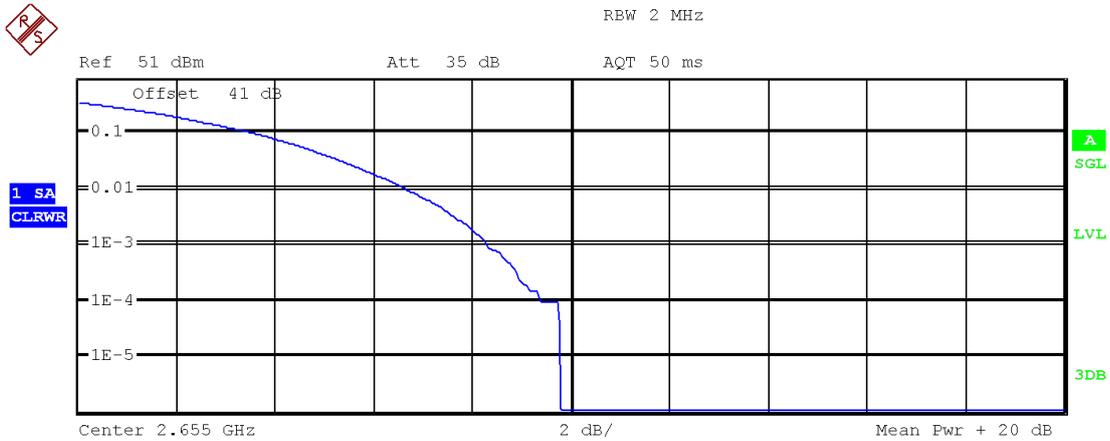
2.2.2.1.1 DL_1L_1.4M_M_ANTA



Trace 1	
Mean	42.22 dBm
Peak	51.96 dBm
Crest	9.74 dB
10 %	3.62 dB
1 %	6.67 dB
.1 %	8.43 dB
.01 %	9.26 dB

Date: 19.NOV.2013 16:18:23

2.2.2.1.2 DL_1L_1.4M_M_ANTB



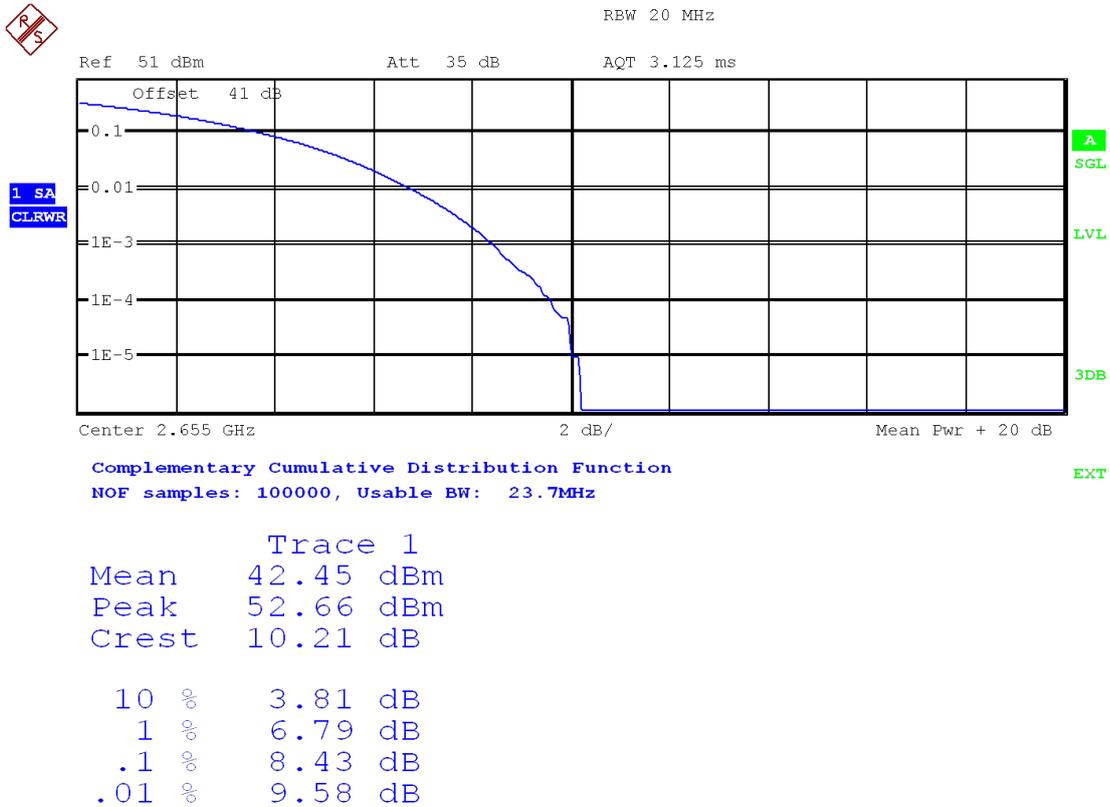
Complementary Cumulative Distribution Function
 NOF samples: 100000, Usable BW: 1.7MHz

EXT

Trace 1	
Mean	42.24 dBm
Peak	52.03 dBm
Crest	9.79 dB
10 %	3.65 dB
1 %	6.67 dB
.1 %	8.30 dB
.01 %	9.71 dB

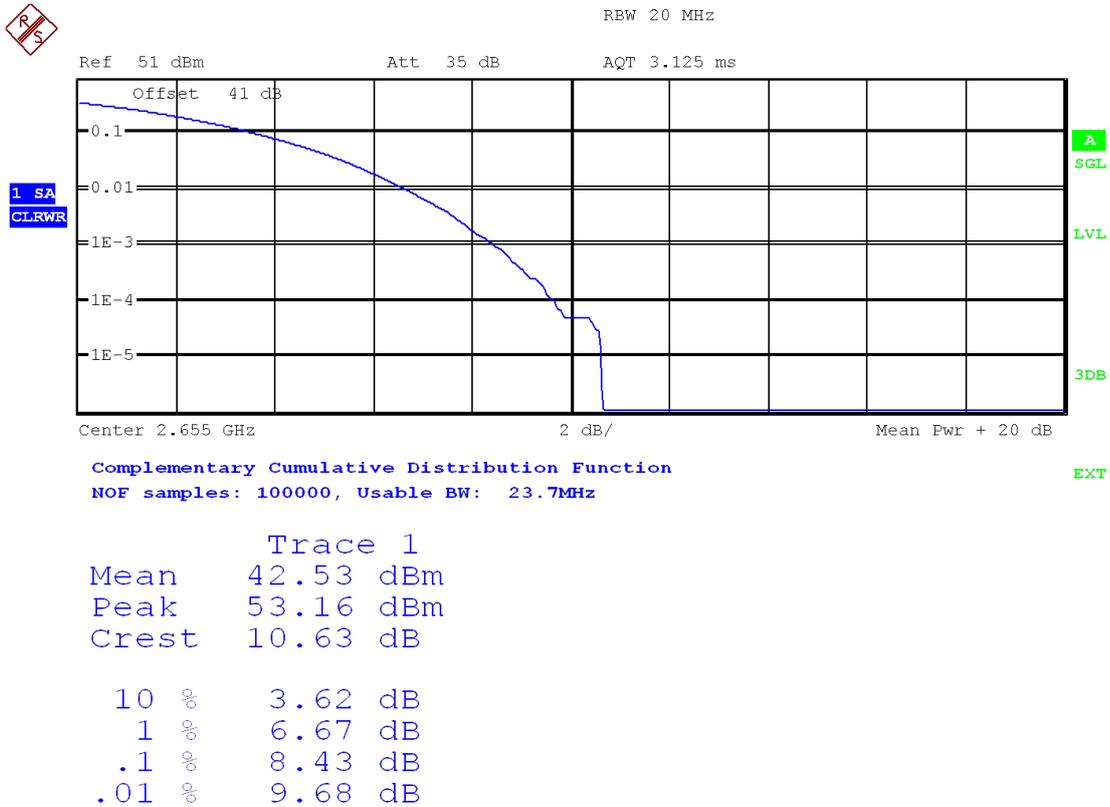
Date: 19.NOV.2013 16:14:45

2.2.2.1.3 DL_1L_20M_M_ANTA



Date: 19.NOV.2013 16:17:45

2.2.2.1.4 DL_1L_20M_M_ANTB



Date: 19.NOV.2013 16:16:04



Appendix B: Bandwidth

1 Result Table

1.1 Occupied Bandwidth

1.1.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.1.2 Downlink Test Results (without AGC activated)

1.1.2.1 LTE system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1L_1.4M_M_ANTA	1.076923	Pass
DL_1L_1.4M_M_ANTB	1.071314	Pass
DL_1L_20M_M_ANTA	17.888889	Pass
DL_1L_20M_M_ANTB	17.888889	Pass

1.1.3 Downlink Test Results (input signal +10dB with AGC activated)

1.1.3.1 LTE system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1L_1.4M_M_ANTA	1.099359	Pass
DL_1L_1.4M_M_ANTB	1.099359	Pass
DL_1L_20M_M_ANTA	17.944444	Pass
DL_1L_20M_M_ANTB	17.944444	Pass

1.2 20dB Bandwidth

1.2.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.2.2 Downlink Test Results

1.2.2.1 LTE system



EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1L_1.4M_M_ANTA	1.28	Pass
DL_1L_1.4M_M_ANTB	1.305088	Pass
DL_1L_20M_M_ANTA	18.852864	Pass
DL_1L_20M_M_ANTB	18.852864	Pass

1.3 26dB Bandwidth

1.3.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.3.2 Downlink Test Results

1.3.2.1 LTE system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1L_1.4M_M_ANTA	1.323776	Pass
DL_1L_1.4M_M_ANTB	1.318144	Pass
DL_1L_20M_M_ANTA	18.589952	Pass
DL_1L_20M_M_ANTB	18.589952	Pass

2 Test Plot

2.1 Occupied Bandwidth

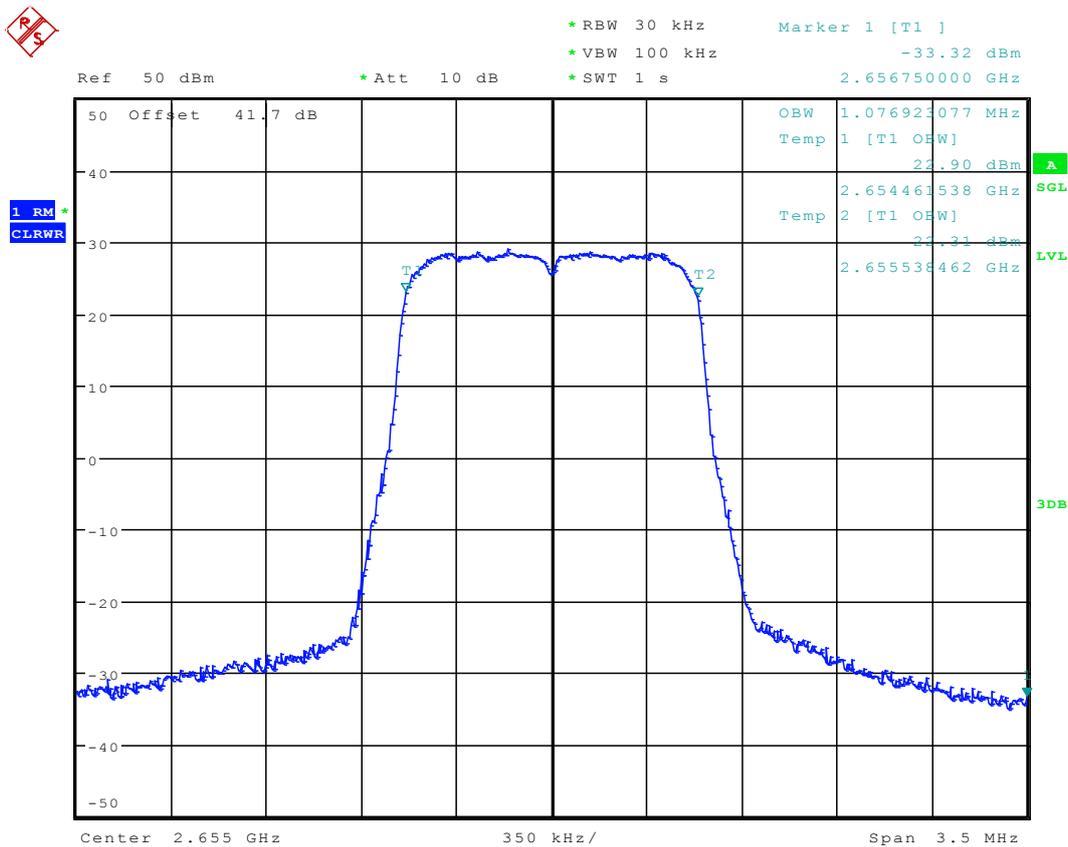
2.1.1 Uplink Test Plots

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

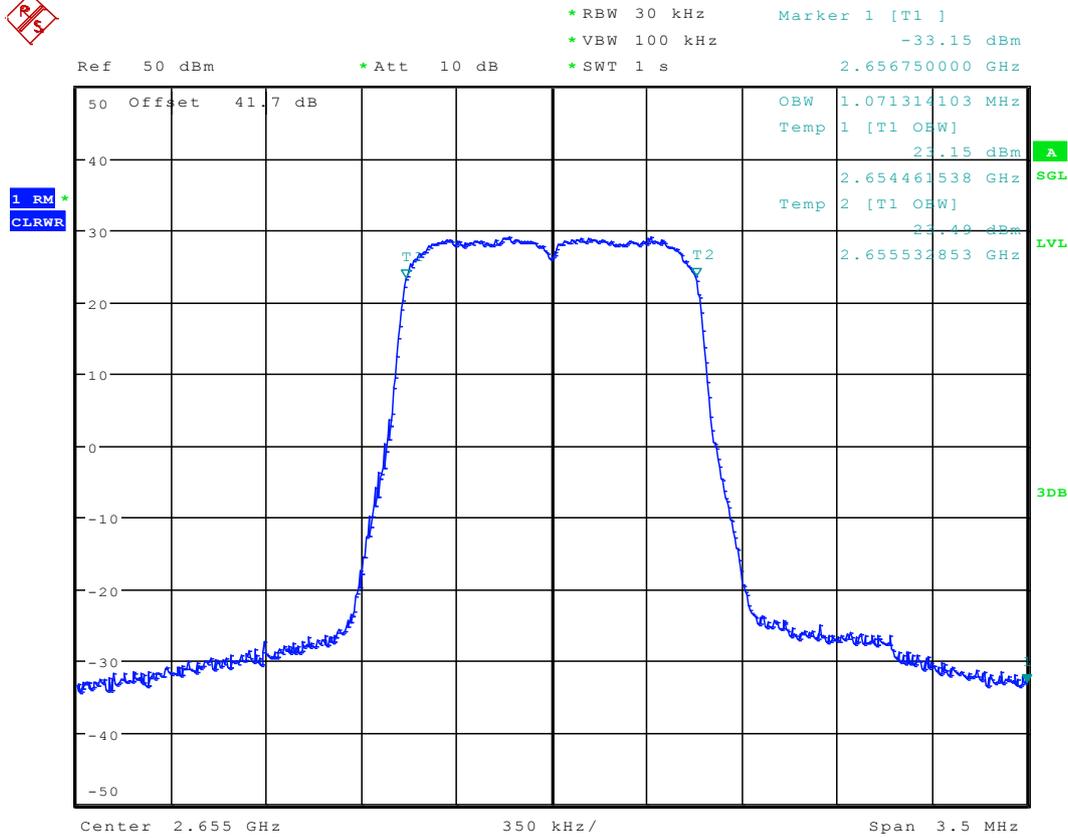
2.1.2 Downlink Test Plots (without AGC activated)

2.1.2.1.1 DL_1L_1.4M_M_ANTA



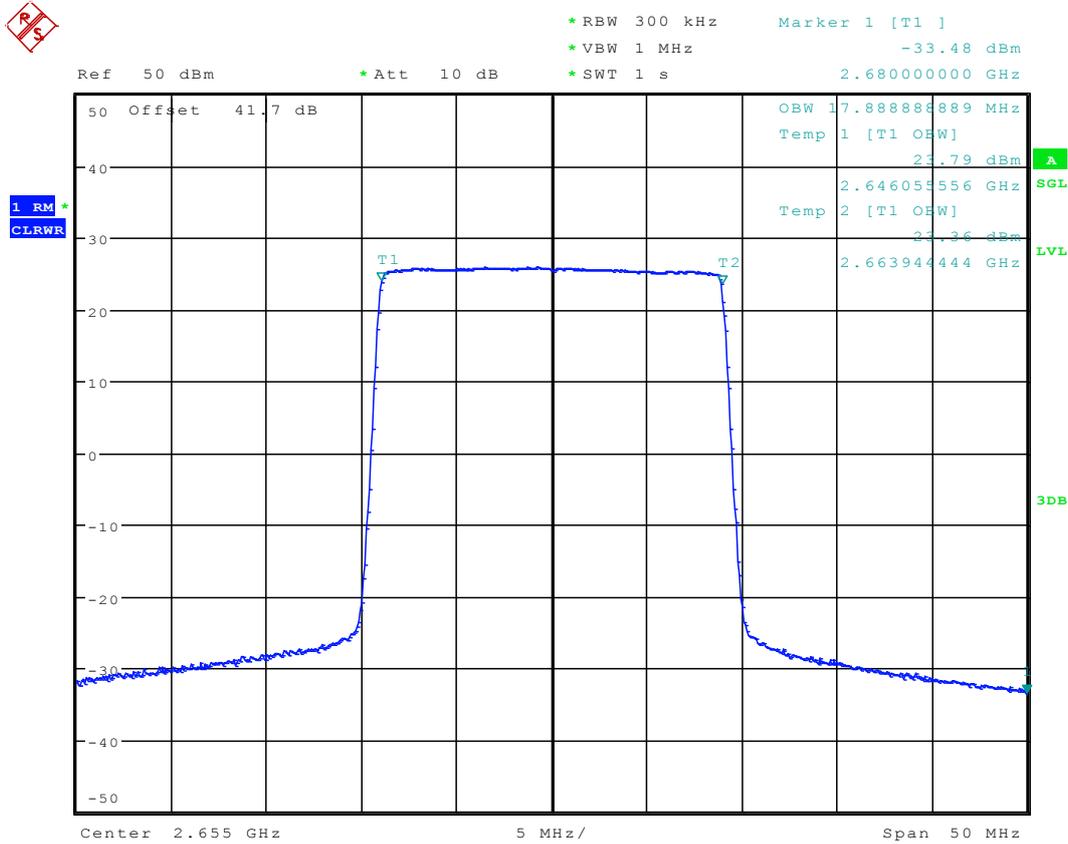
Date: 28.SEP.2013 17:11:30

2.1.2.1.2 DL_1L_1.4M_M_ANTB



Date: 28.SEP.2013 16:32:10

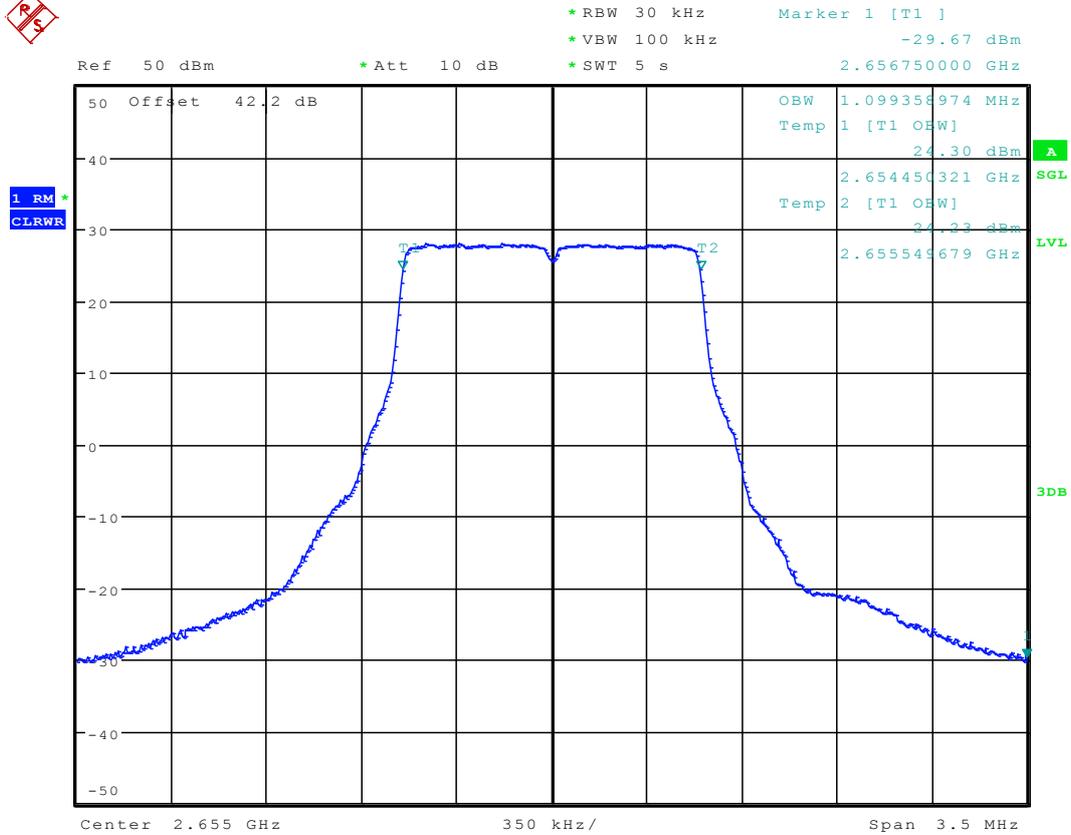
2.1.2.1.3 DL_1L_20M_M_ANTA



Date: 28.SEP.2013 19:09:19

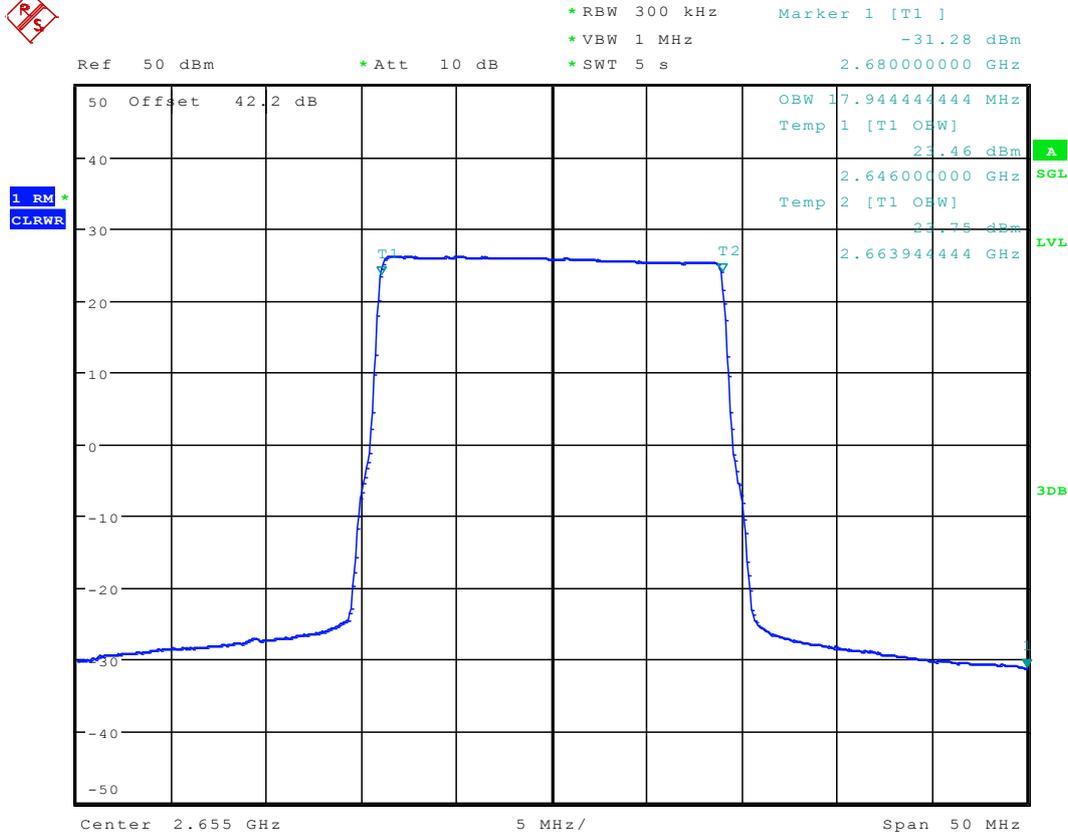


2.1.3.1.2 DL_1L_1.4M_M_ANTB



Date: 10.DEC.2013 12:24:09

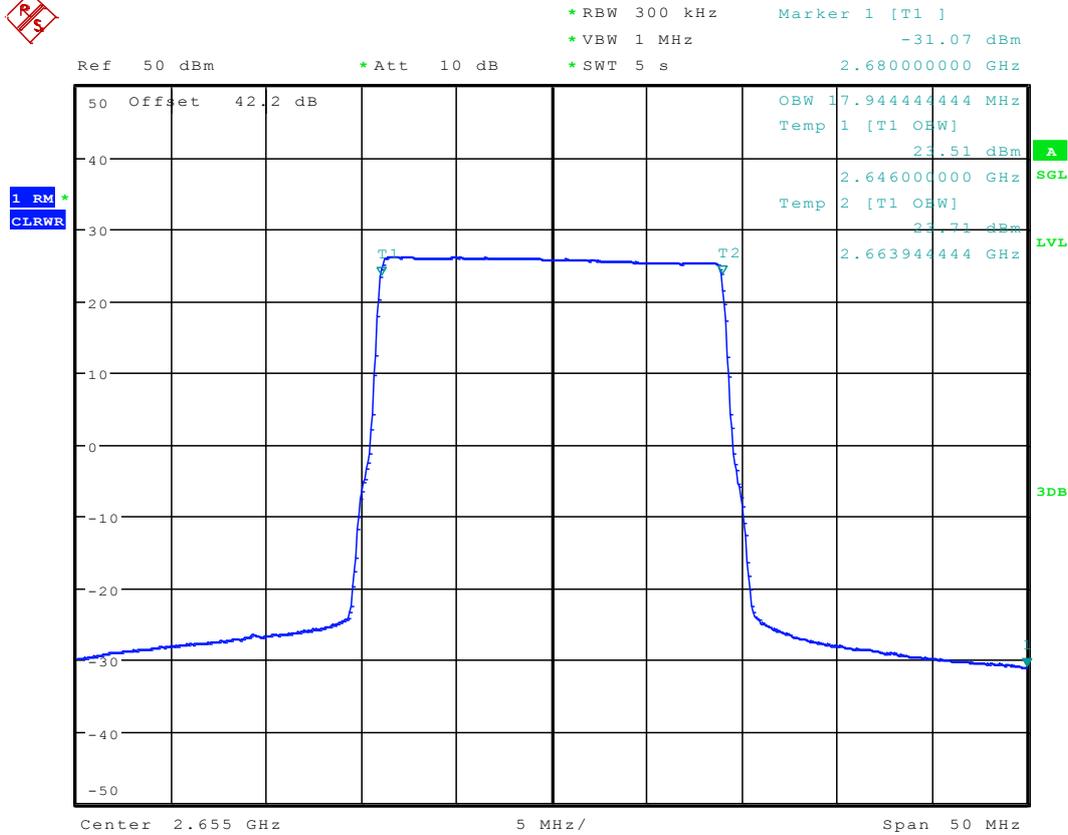
2.1.3.1.3 DL_1L_20M_M_ANTA



Date: 10.DEC.2013 12:05:28



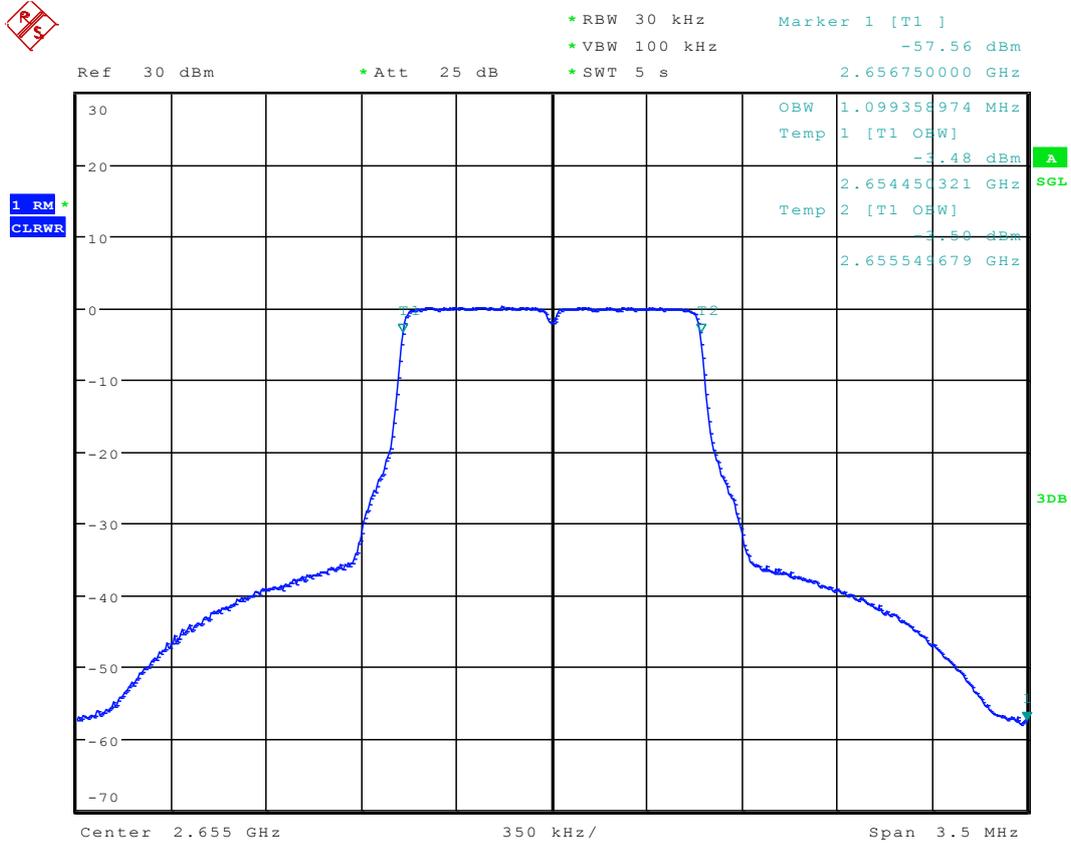
2.1.3.1.4 DL_1L_20M_M_ANTB



Date: 10.DEC.2013 12:06:53

2.1.4 Downlink input signal Plots

2.1.4.1 DL_1L_1.4M_M



Date: 9.DEC.2013 18:20:11

2.2 20dB Bandwidth

2.2.1 Uplink Test Plots

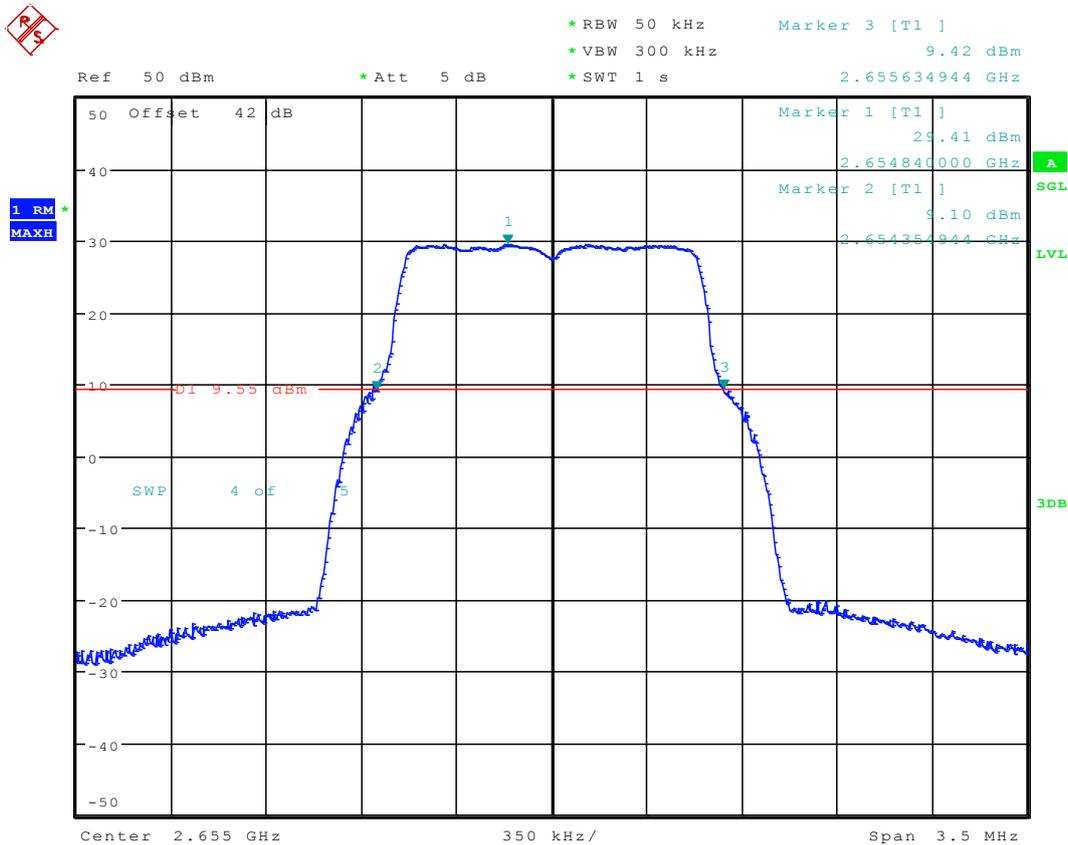
Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

2.2.2 Downlink Test Plots

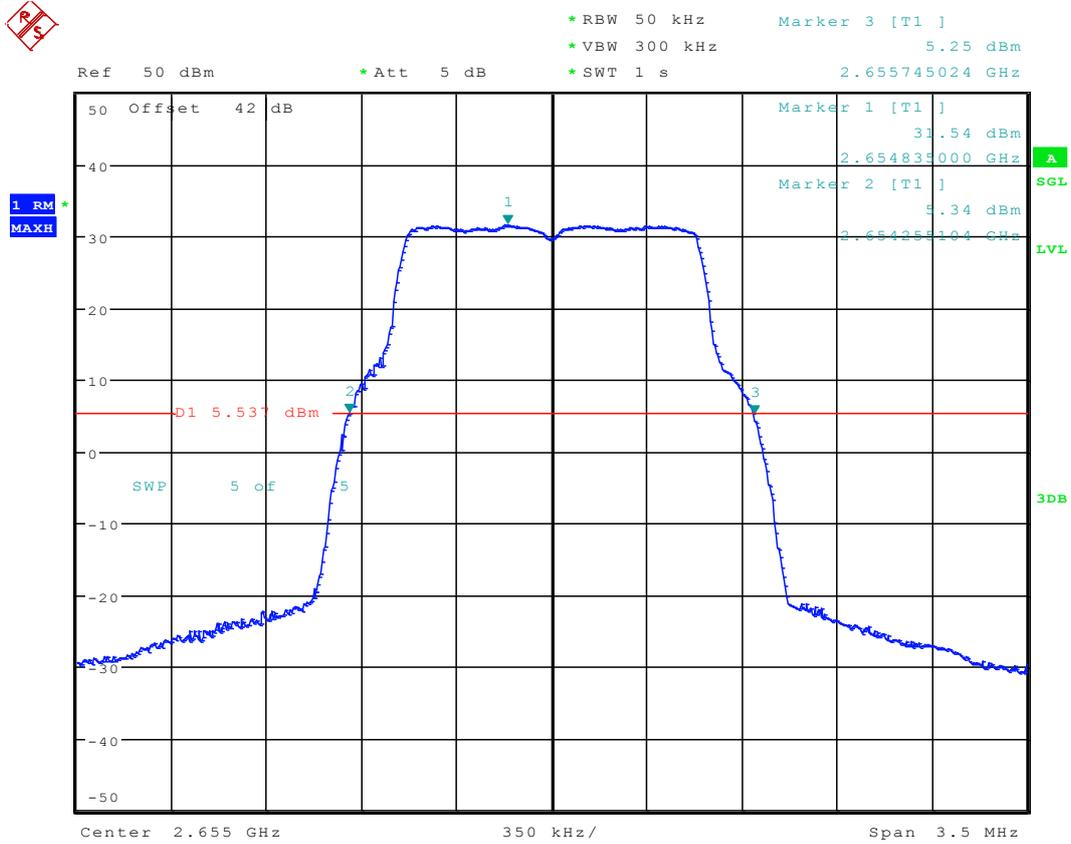
2.2.2.1 LTE system

2.2.2.1.1 DL_1L_1.4M_M_ANTA



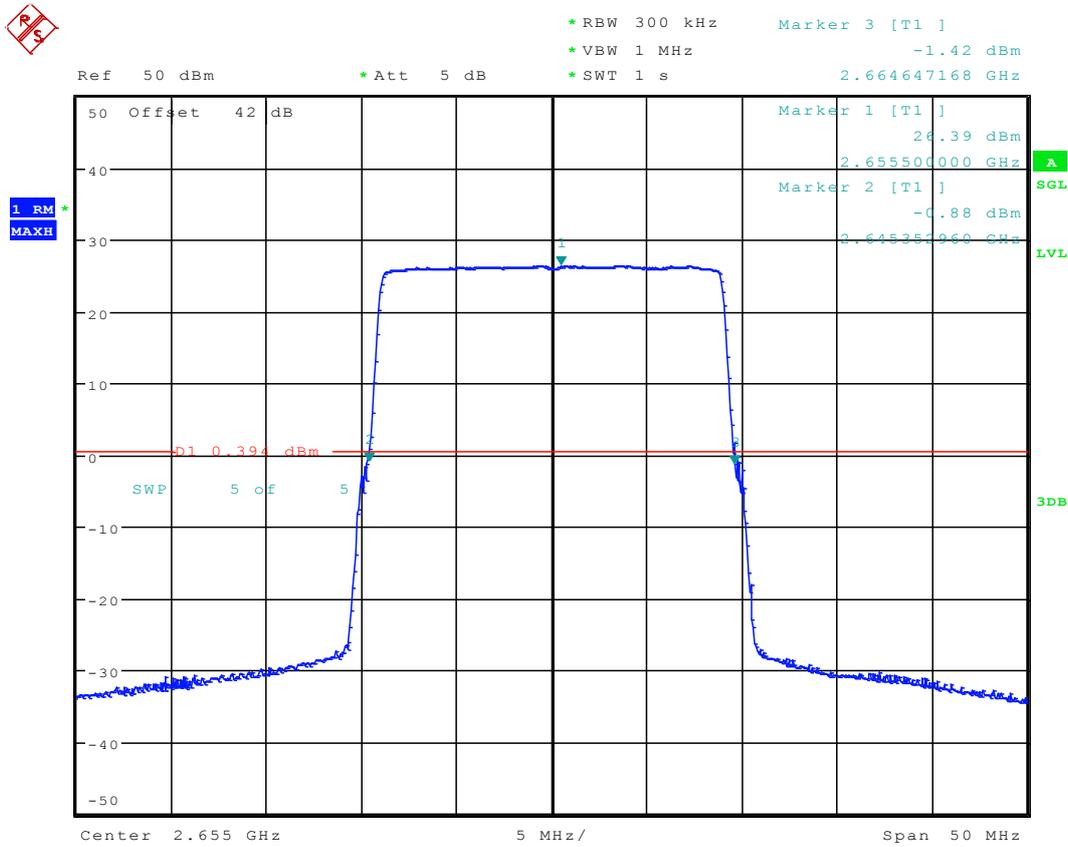
Date: 14.NOV.2013 12:22:45

2.2.2.1.2 DL_1L_1.4M_M_ANTB



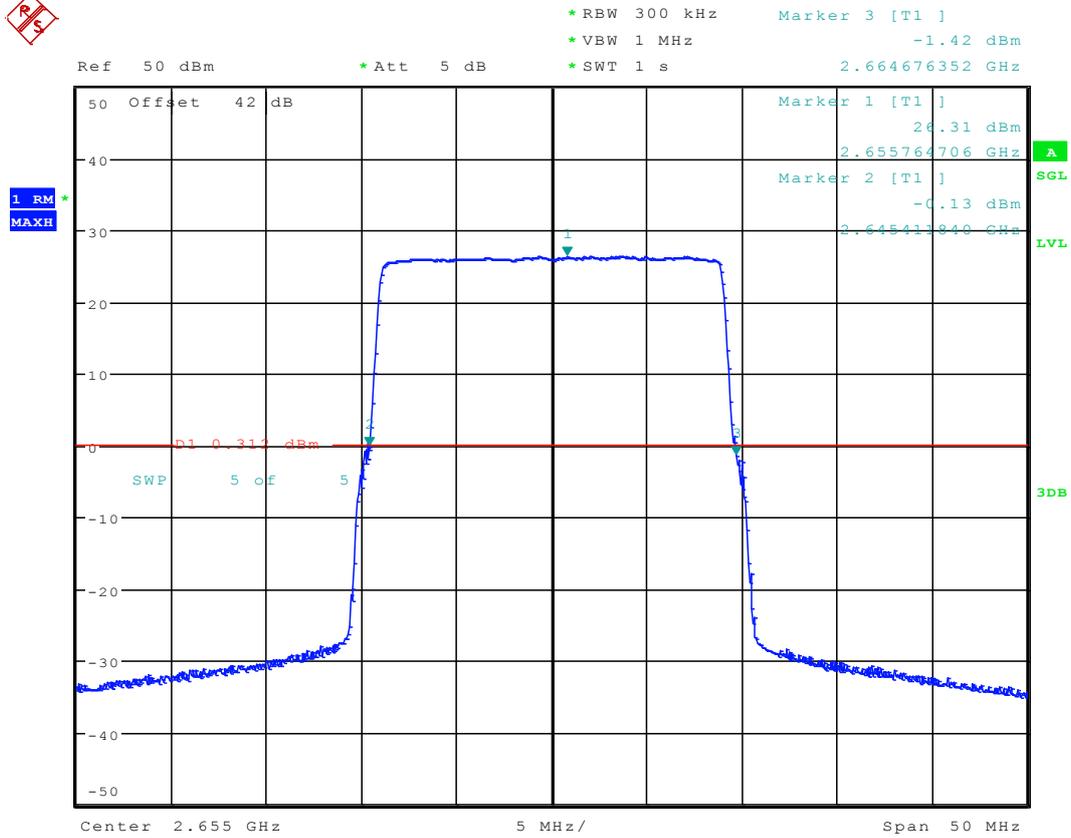
Date: 14.NOV.2013 14:49:24

2.2.2.1.3 DL_1L_20M_M_ANTA



Date: 14.NOV.2013 15:39:27

2.2.2.1.4 DL_1L_20M_M_ANTB



Date: 14.NOV.2013 15:31:07



2.3 26dB Bandwidth

2.3.1 Uplink Test Plots

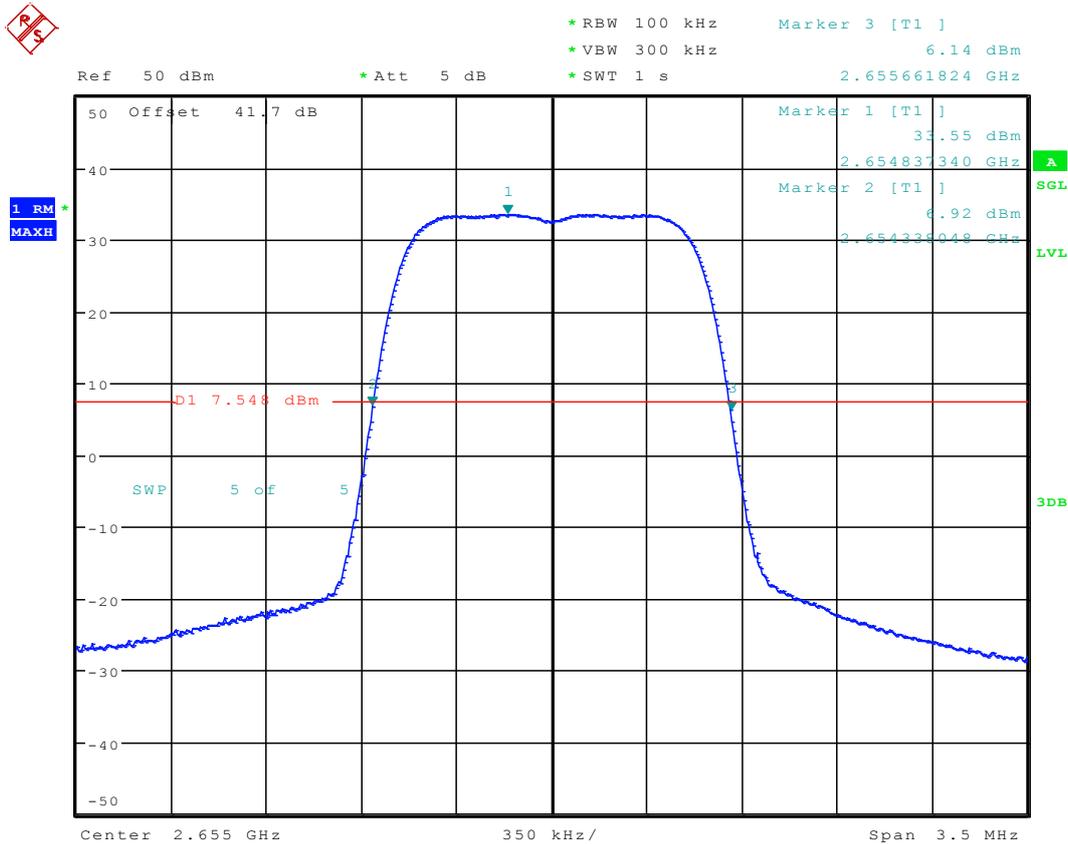
Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

2.3.2 Downlink Test Plots

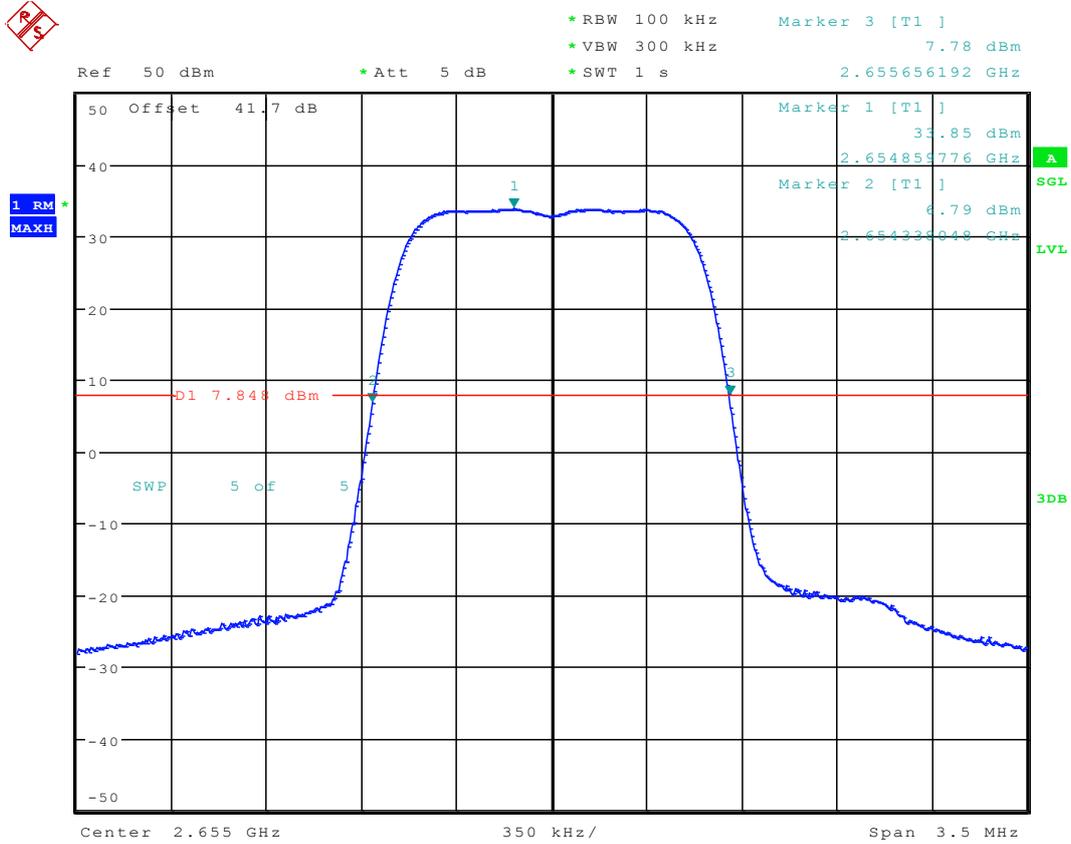
2.3.2.1 LTE system

2.3.2.1.1 DL_1L_1.4M_M_ANTA



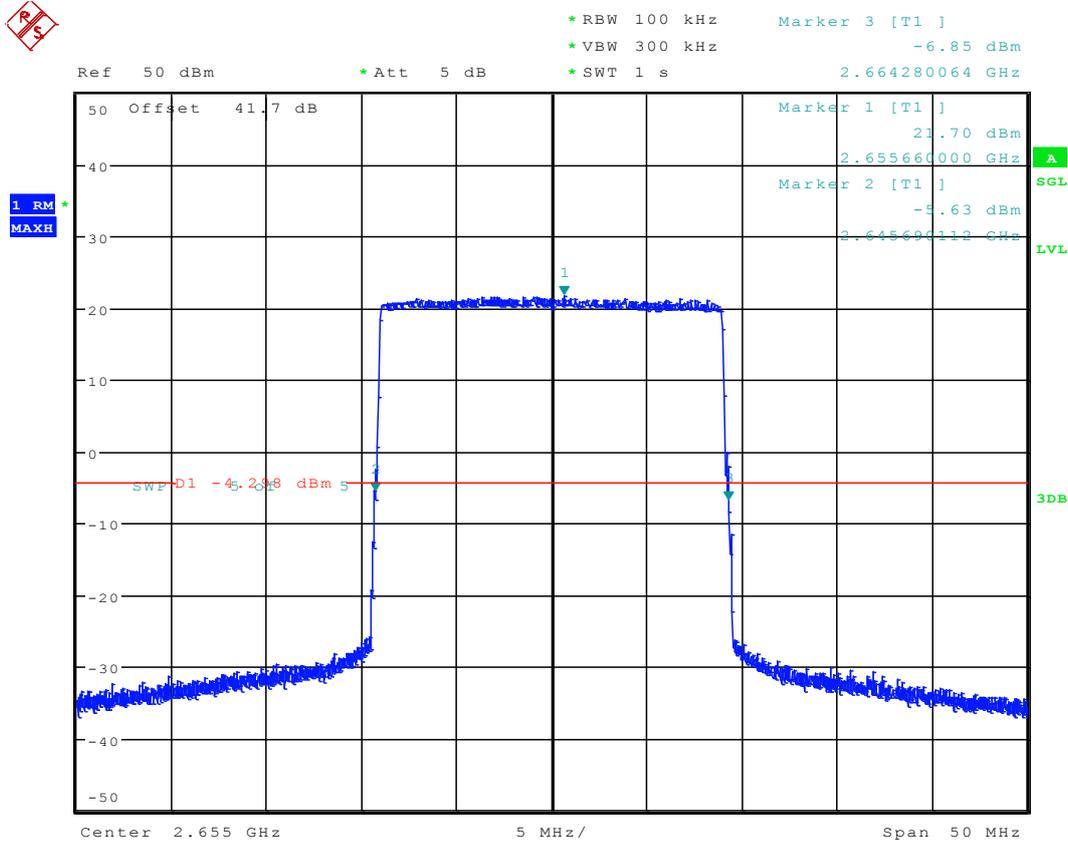
Date: 28.SEP.2013 17:11:22

2.3.2.1.2 DL_1L_1.4M_M_ANTB



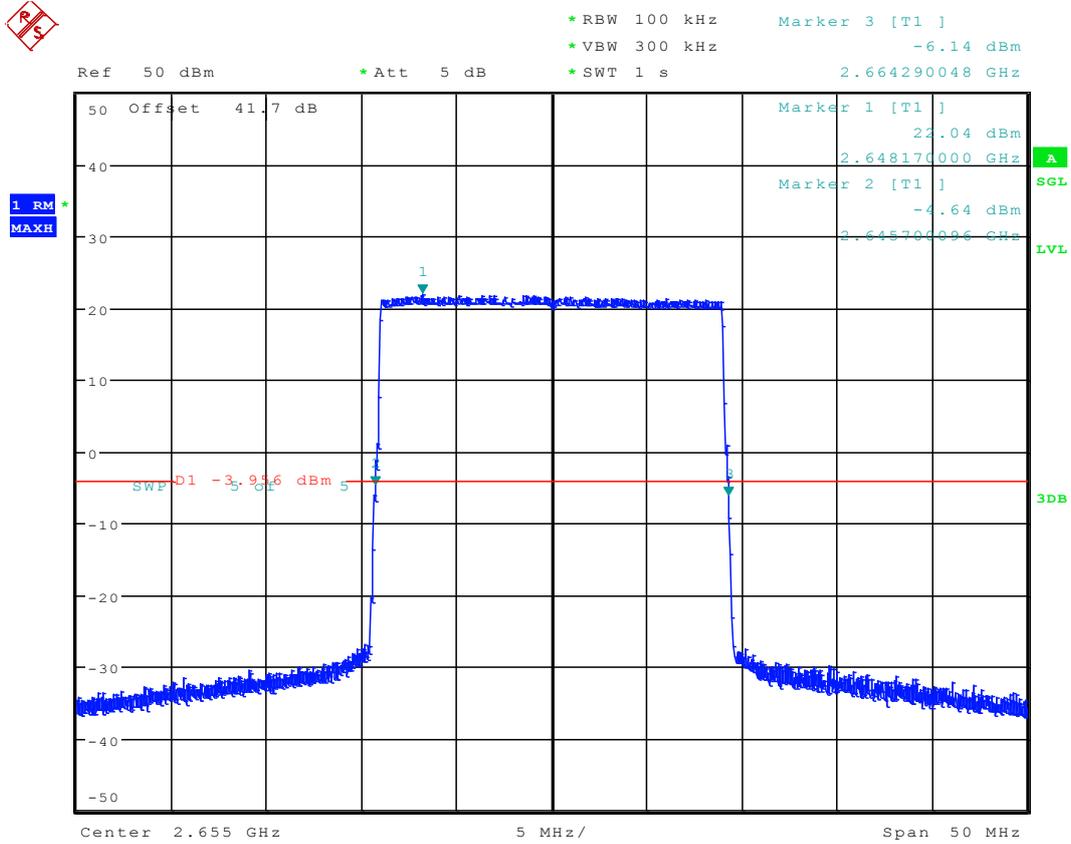
Date: 28.SEP.2013 16:32:01

2.3.2.1.3 DL_1L_20M_M_ANTA



Date: 28.SEP.2013 19:09:12

2.3.2.1.4 DL_1L_20M_M_ANTB



Date: 28.SEP.2013 19:16:15



Appendix C: Band Edges Compliance

1 Result Table

NOTE 1: The offset of measurement filter -3dB point may be considered when identifying the maximum emission for e.g. the CDMA, WCDMA, WiMAX, LTE systems.

NOTE 2: Since the EUT transmits on two antennas simultaneously in the same frequency with MIMO mode, using the measure and minus $10\log(N)$ technique, so the limits for spurious emissions at antenna terminal should be adjusted with a correction of $10\log 2$.

1.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.2 Downlink Test Results

1.2.1 LTE system

EUT Conf.	Maximum Emission [dBm]	Limit(dBm)	Verdict
DL_1L_1.4M_B_ANTA	-20.70	-16	Pass
DL_1L_1.4M_B_ANTB	-19.99	-16	Pass
DL_1L_1.4M_T_ANTA	-22.38	-16	Pass
DL_1L_1.4M_T_ANTB	-21.29	-16	Pass
DL_2L_1.4M_B_ANTA	-19.90	-16	Pass
DL_2L_1.4M_B_ANTB	-18.40	-16	Pass
DL_2L_1.4M_T_ANTA	-21.29	-16	Pass
DL_2L_1.4M_T_ANTB	-22.24	-16	Pass

1.3 Downlink Test Results(input signal +10dB with AGC activated)

1.3.1 LTE system

EUT Conf.	Maximum Emission [dBm]	Limit(dBm)	Verdict
DL_2L_1.4M_B_ANTA	-19.18	-16	Pass
DL_2L_1.4M_B_ANTB	-19.32	-16	Pass
DL_2L_1.4M_T_ANTA	-21.20	-16	Pass
DL_2L_1.4M_T_ANTB	-22.66	-16	Pass

2 Test Plot

2.1 Uplink Test Results

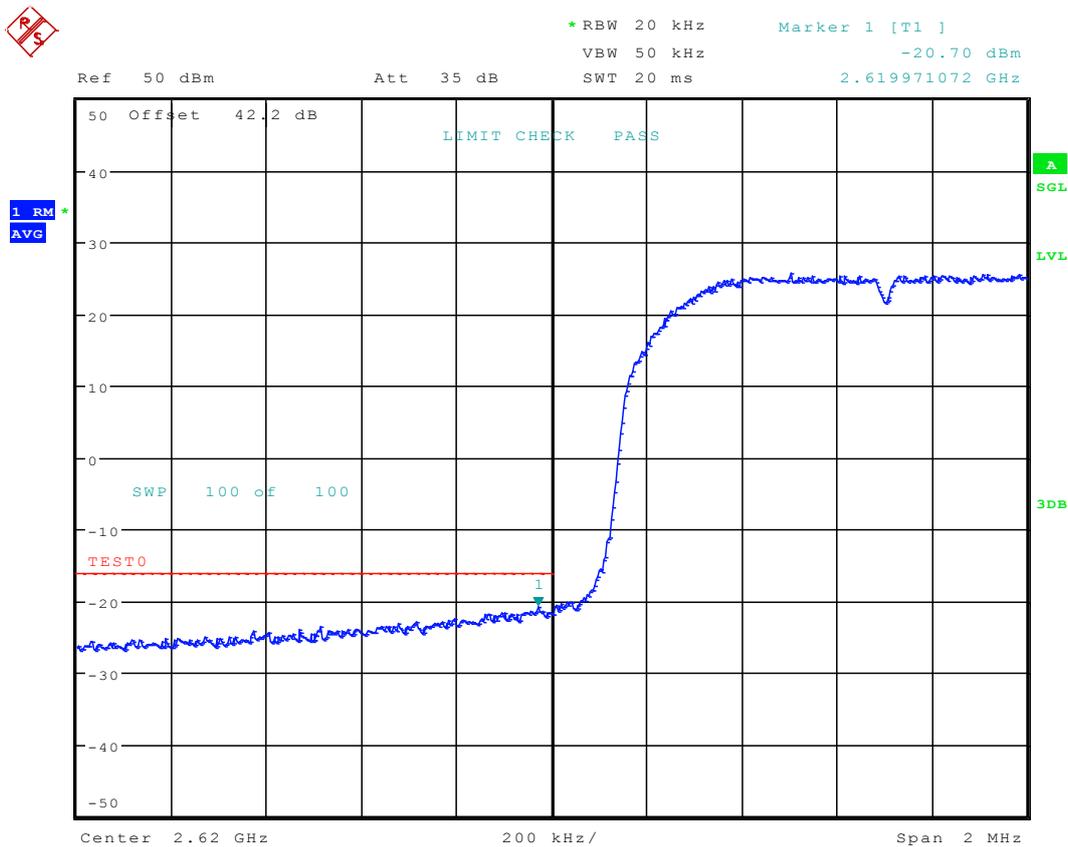
Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

2.2 Downlink Test Results

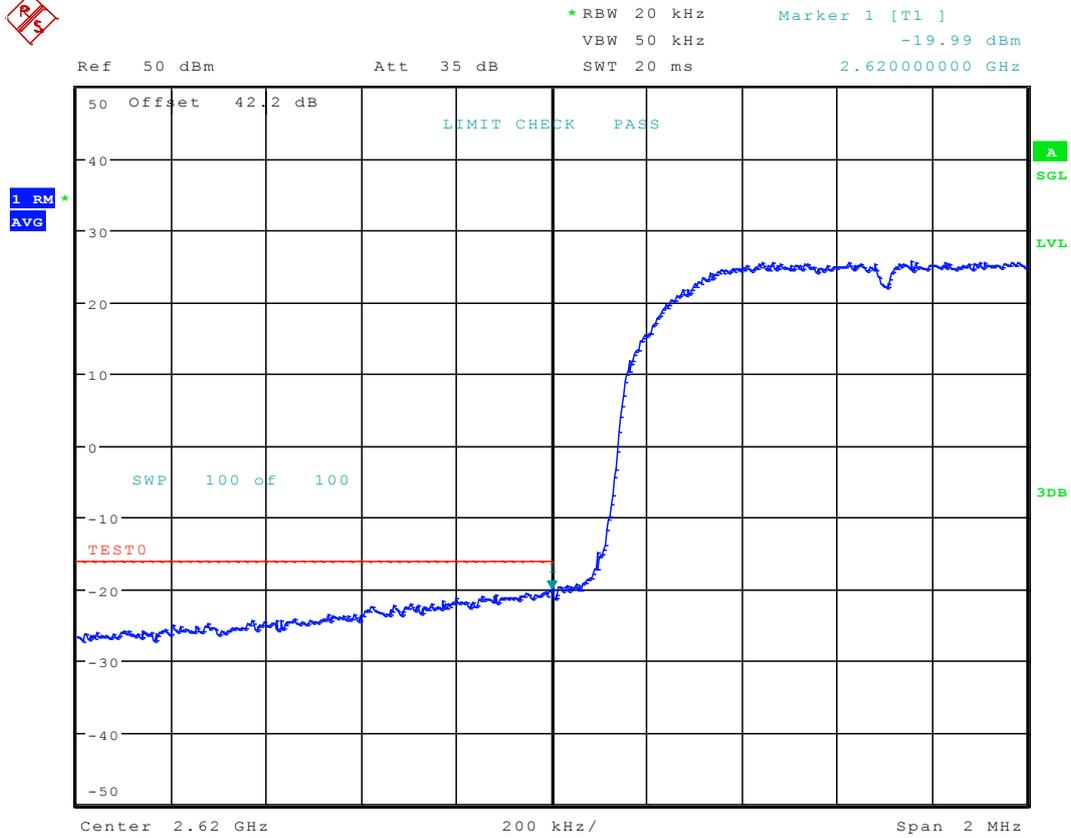
2.2.1 LTE system

2.2.1.1.1 DL_1L_1.4M_B_ANT A



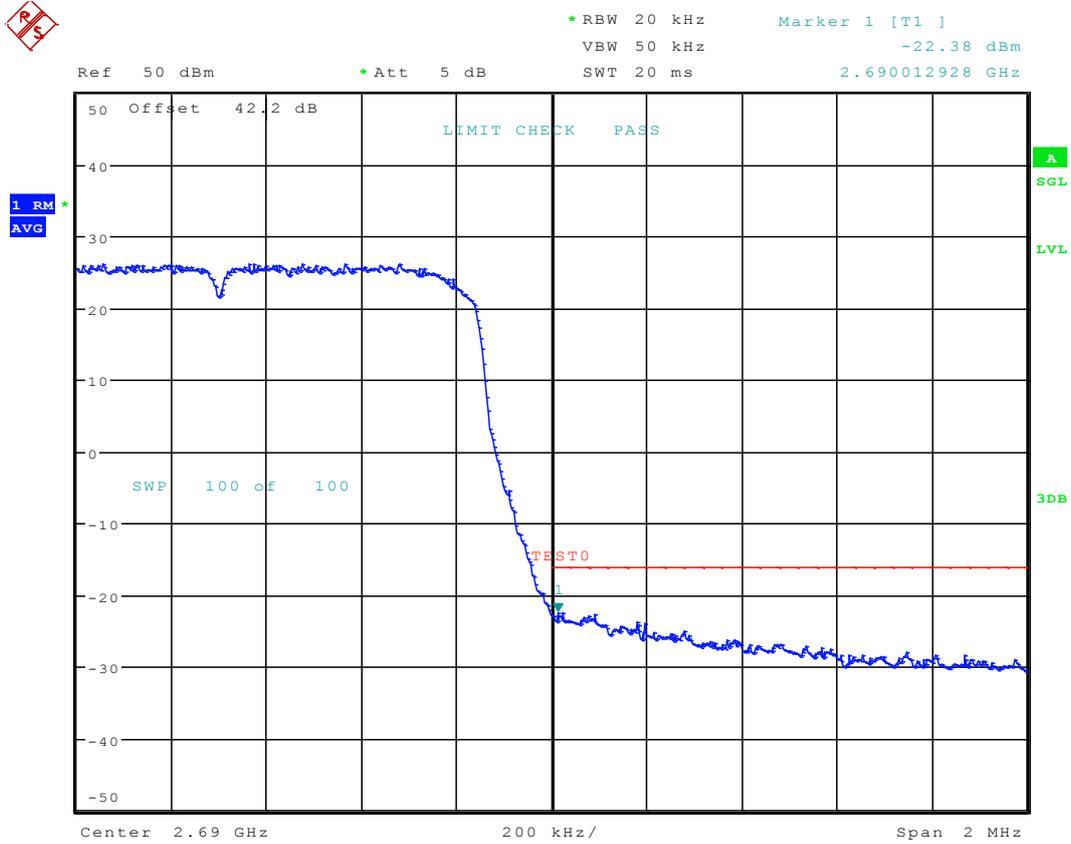
Date: 10.DEC.2013 17:04:17

2.2.1.1.2 DL_1L_1.4M_B_ANTB



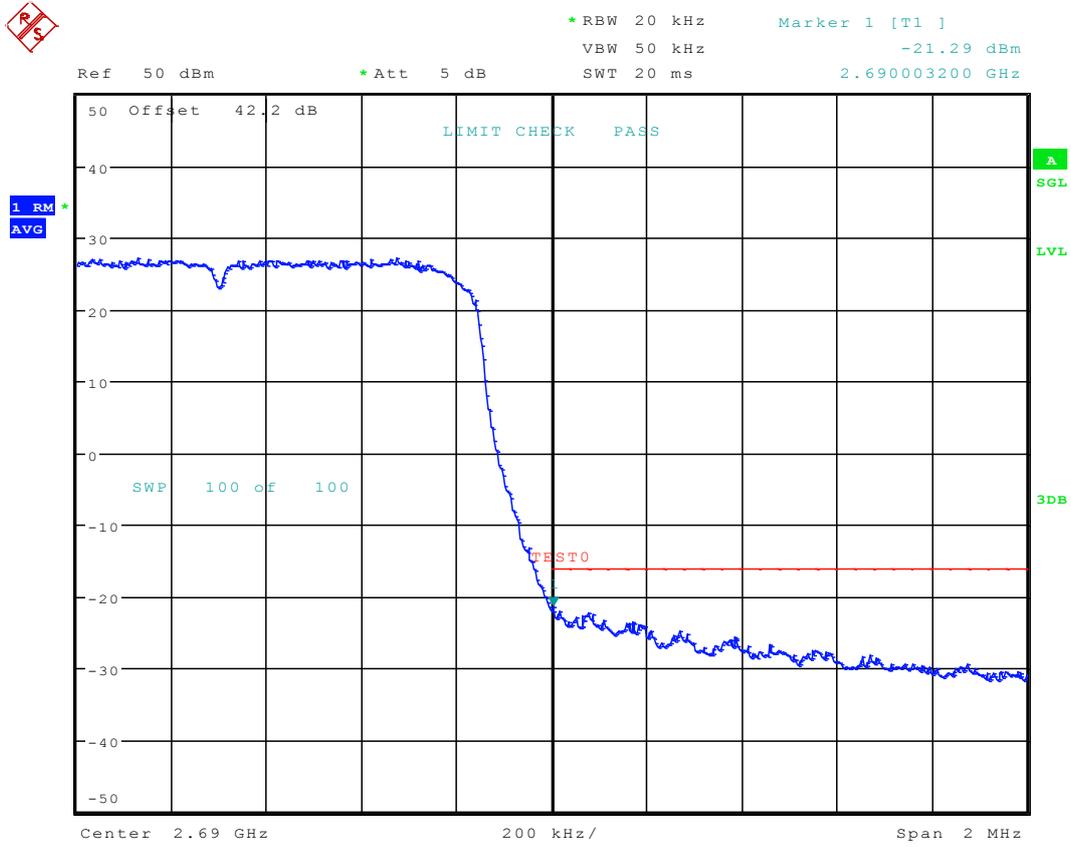
Date: 10.DEC.2013 17:08:37

2.2.1.1.3 DL_1L_1.4M_T_ANTA



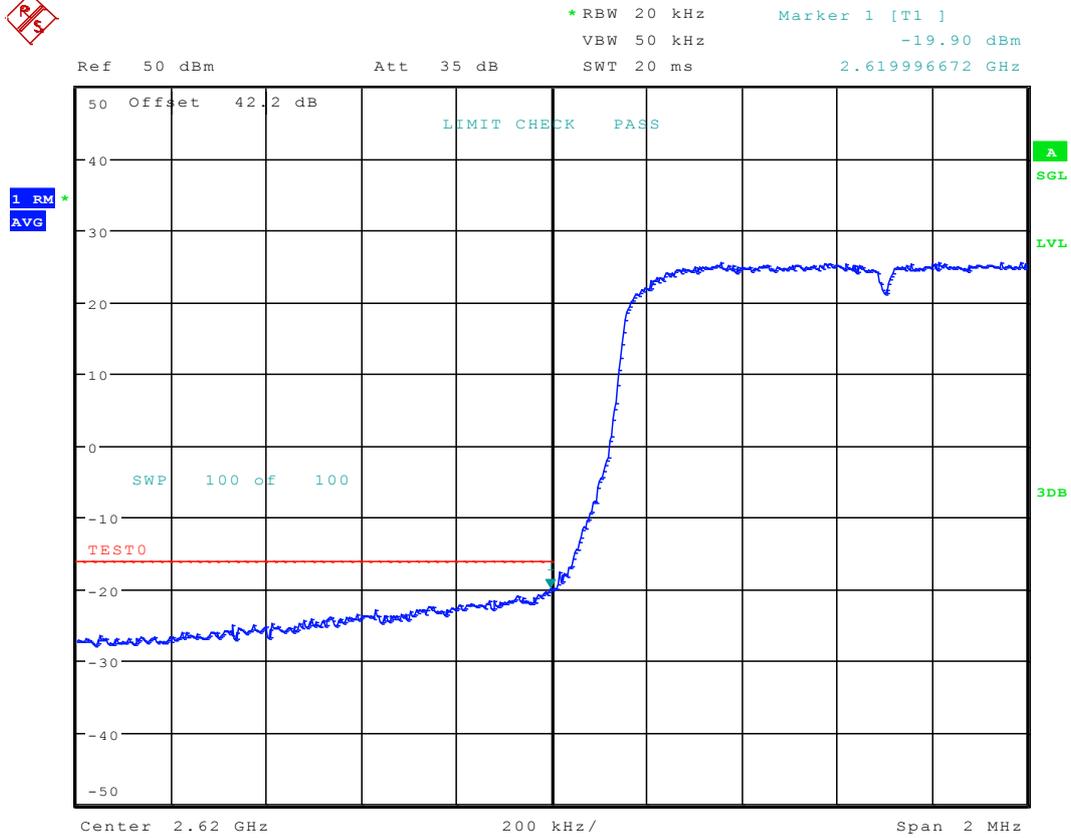
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2.2.1.1.4 DL_1L_1.4M_T_ANTB



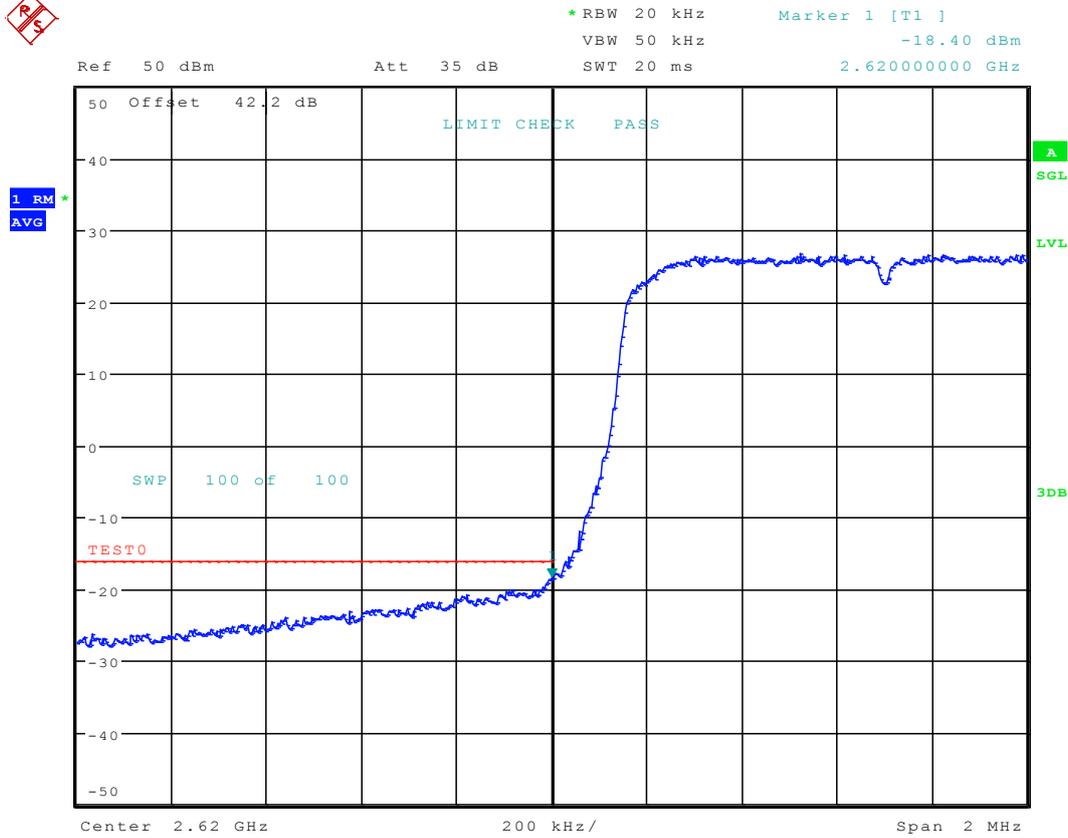
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2.2.1.1.5 DL_2L_1.4M_B_ANTA



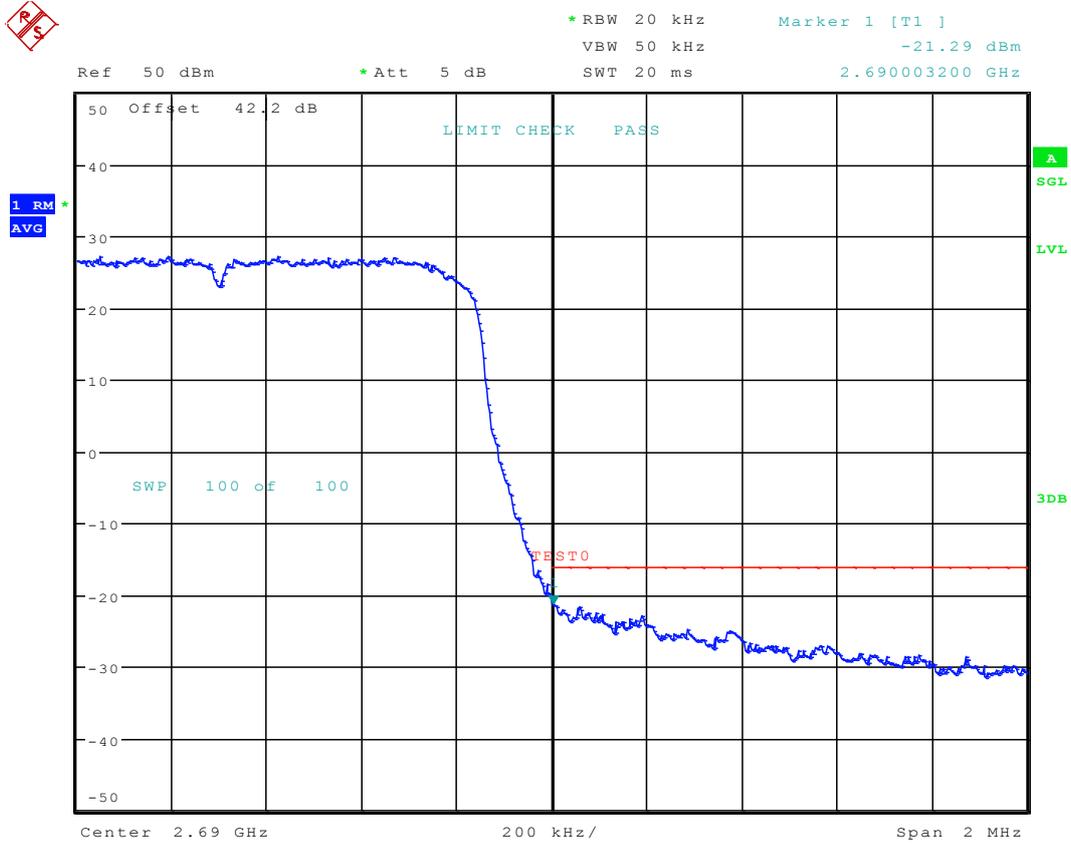
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2.2.1.1.6 DL_2L_1.4M_B_ANTB



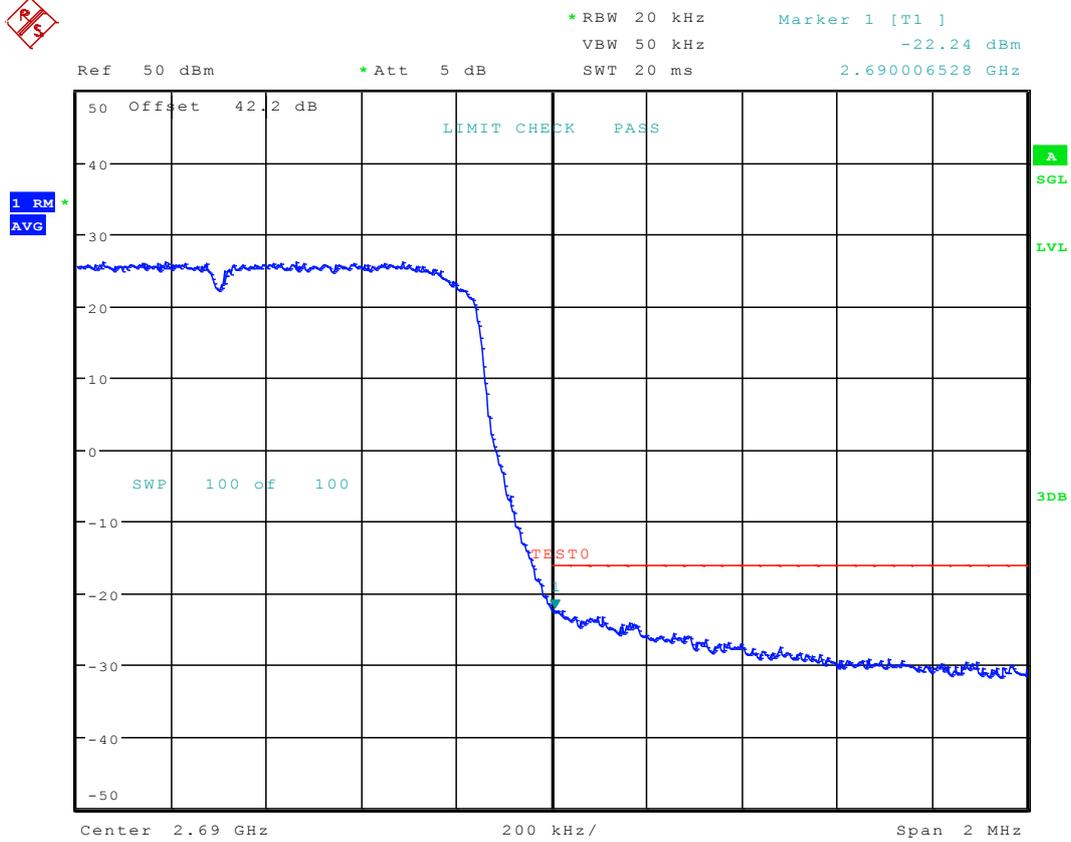
Date: 10.DEC.2013 21:27:07

2.2.1.1.7 DL_2L_1.4M_T_ANTA



Date: 10.DEC.2013 21:08:14

2.2.1.1.8 DL_2L_1.4M_T_ANTB

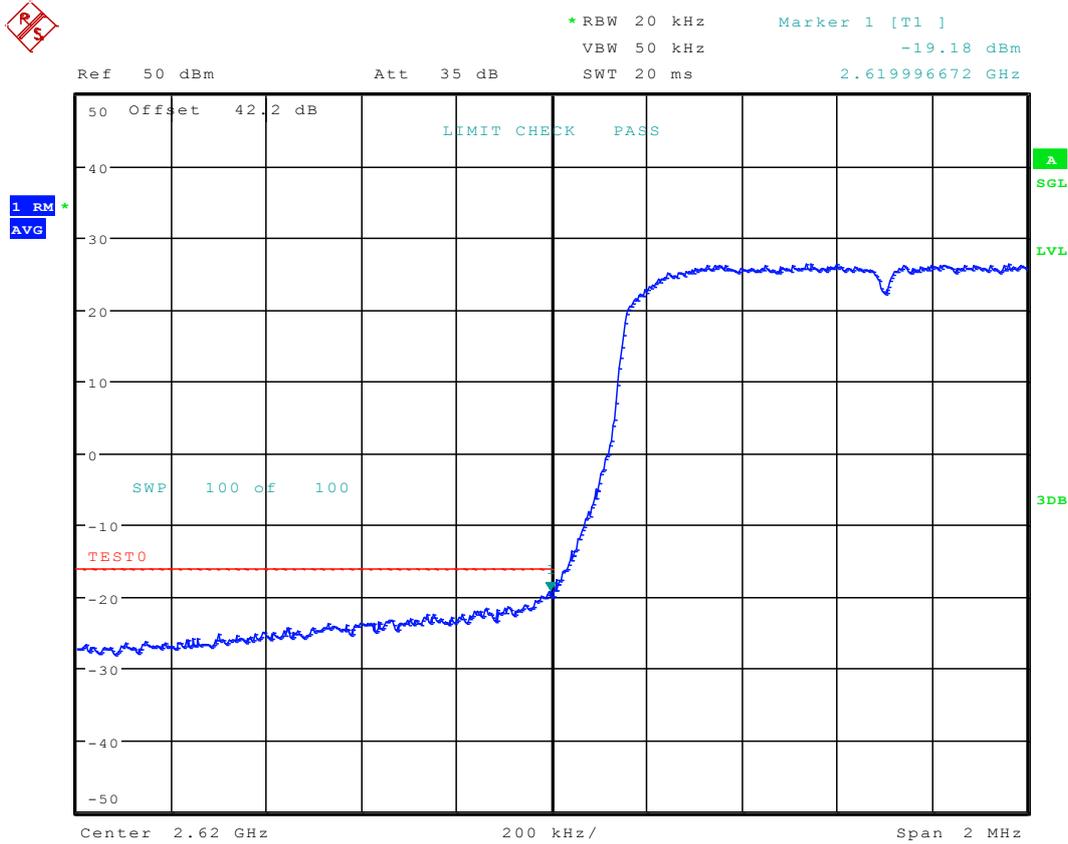


Date: 10.DEC.2013 21:17:25

2.3 Downlink Test Results (input signal +10dB with AGC activated)

2.3.1 LTE system

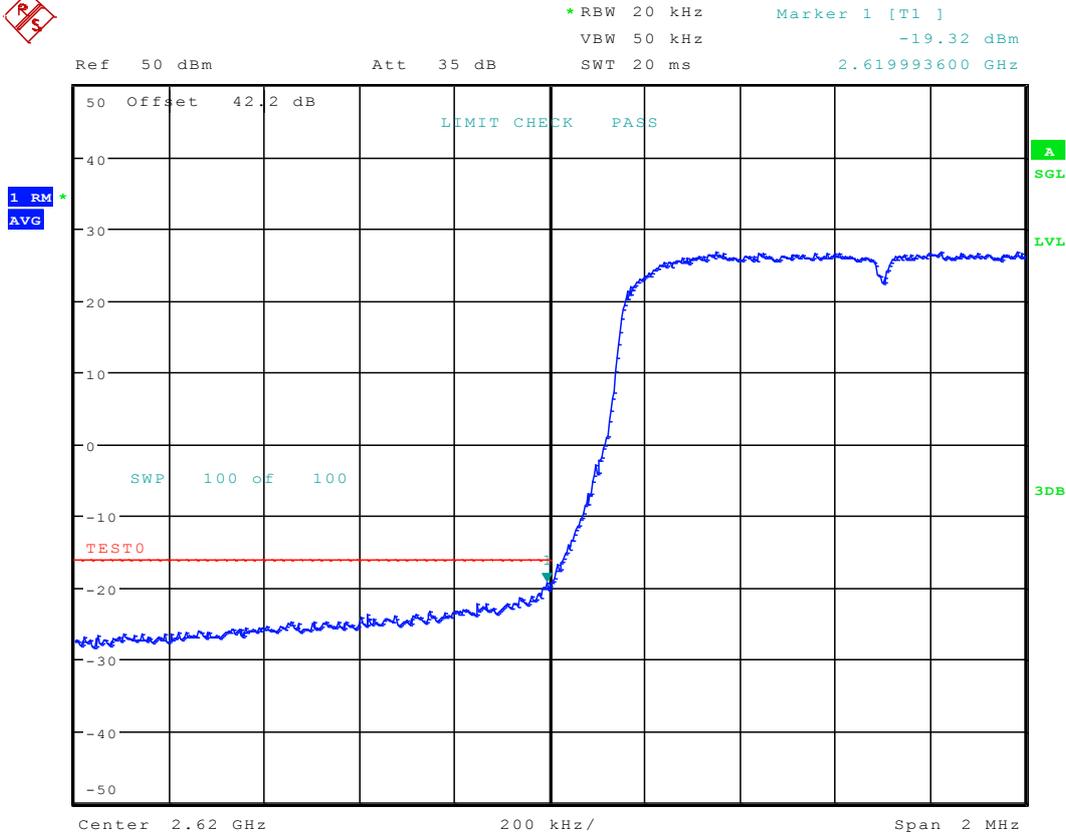
2.3.1.1 DL_2L_1.4M_B_ANT4



Date: 10.DEC.2013 21:52:09

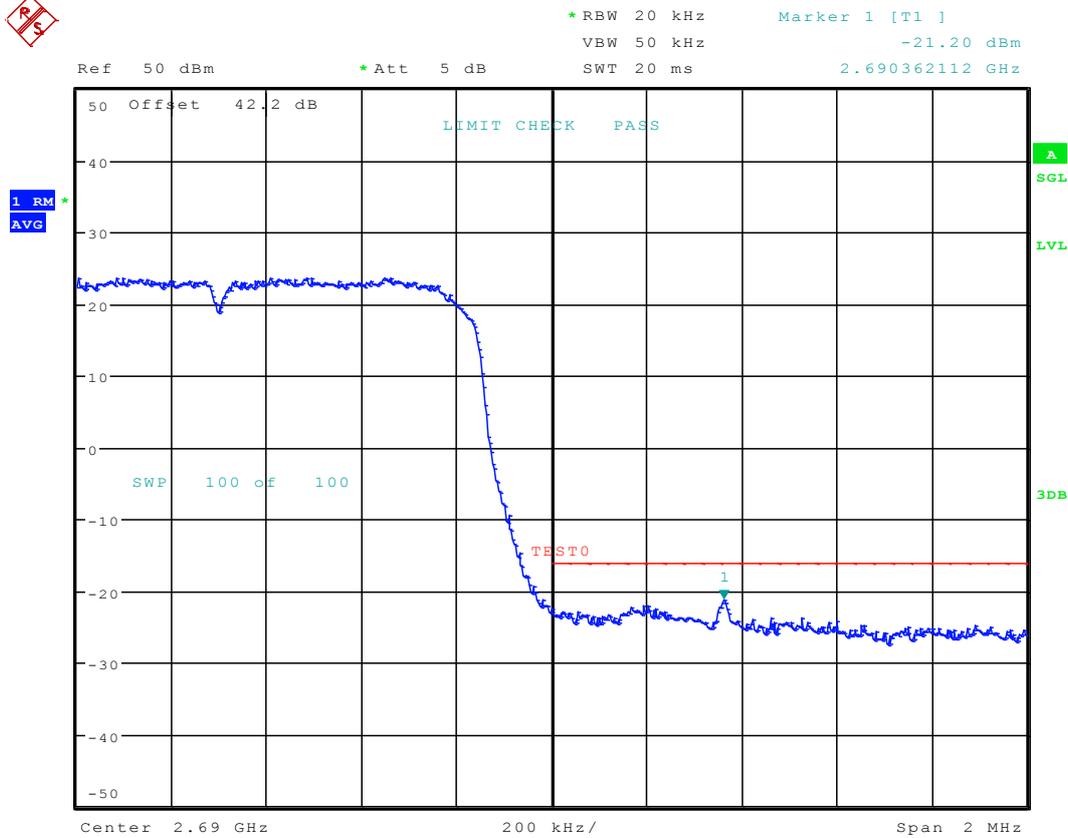


2.3.1.2 DL_2L_1.4M_B_ANTB



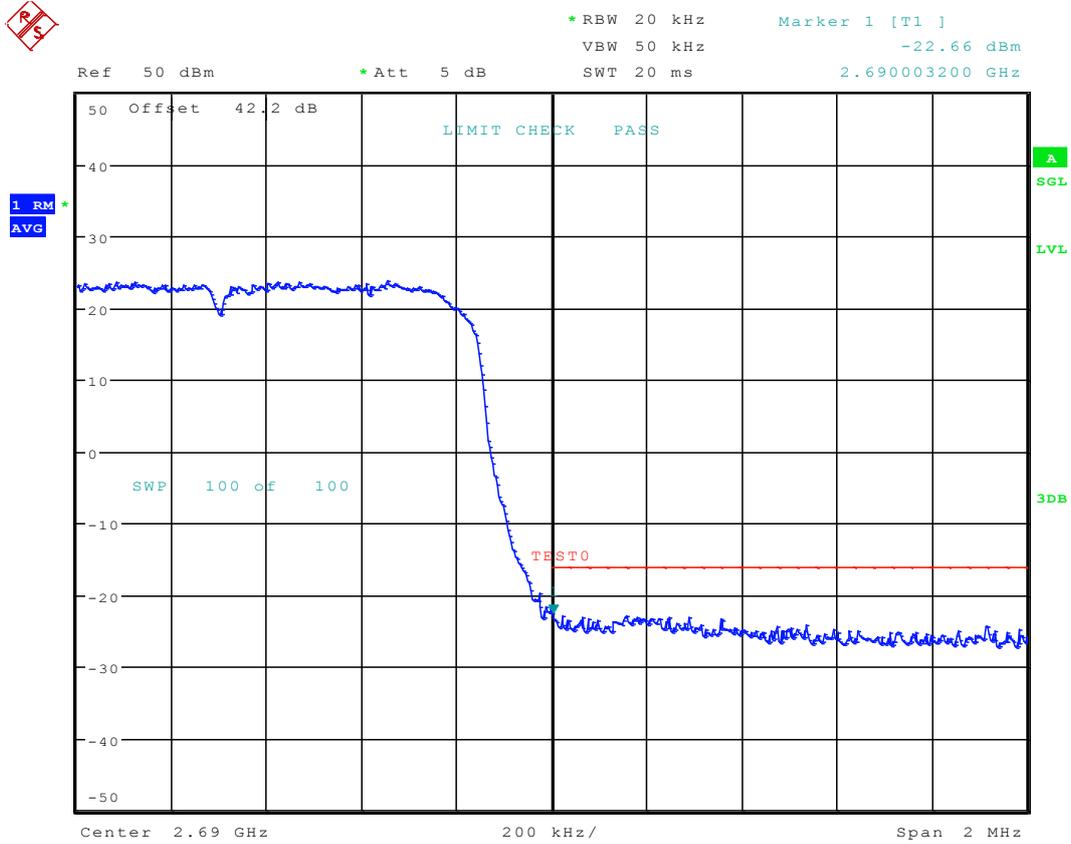
Date: 10.DEC.2013 21:54:10

2.3.1.3 DL_2L_1.4M_T_ANTA



Date: 11.DEC.2013 10:31:08

2.3.1.4 DL_2L_1.4M_T_ANTB



Date: 11.DEC.2013 10:27:45



Appendix D: Spurious Emission at Antenna Terminals

1 Result Table

NOTE1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

NOTE 2: Since the EUT transmits on two antennas simultaneously in the same frequency with MIMO mode, using the measure and minus $10\log(N)$ technique, so the limits for spurious emissions at antenna terminal should be adjusted with a correction of $10\log 2$.

1.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.2 Downlink Test Results (without AGC activated)

1.2.1 LTE system

EUT Conf.	Limit(dBm)	Verdict
DL_1L_1.4M_B_ANTA	-16	Pass
DL_1L_1.4M_B_ANTB	-16	Pass
DL_1L_1.4M_M_ANTA	-16	Pass
DL_1L_1.4M_M_ANTB	-16	Pass
DL_1L_1.4M_T_ANTA	-16	Pass
DL_1L_1.4M_T_ANTB	-16	Pass
DL_2L_1.4M_B_ANTA	-16	Pass
DL_2L_1.4M_B_ANTB	-16	Pass
DL_2L_1.4M_M_ANTA	-16	Pass
DL_2L_1.4M_M_ANTB	-16	Pass
DL_2L_1.4M_T_ANTA	-16	Pass
DL_2L_1.4M_T_ANTB	-16	Pass

1.3 Downlink Test Results (input signal +10dB with AGC activated)

1.3.1 LTE system

EUT Conf.	Limit(dBm)	Verdict
DL_2L_1.4M_B_ANTA	-16	Pass
DL_2L_1.4M_B_ANTB	-16	Pass
DL_2L_1.4M_T_ANTA	-16	Pass



EUT Conf.	Limit(dBm)	Verdict
DL_2L_1.4M_T_ANTB	-16	Pass

2 Test Plot

2.1 Uplink Test Results

Not applicable.

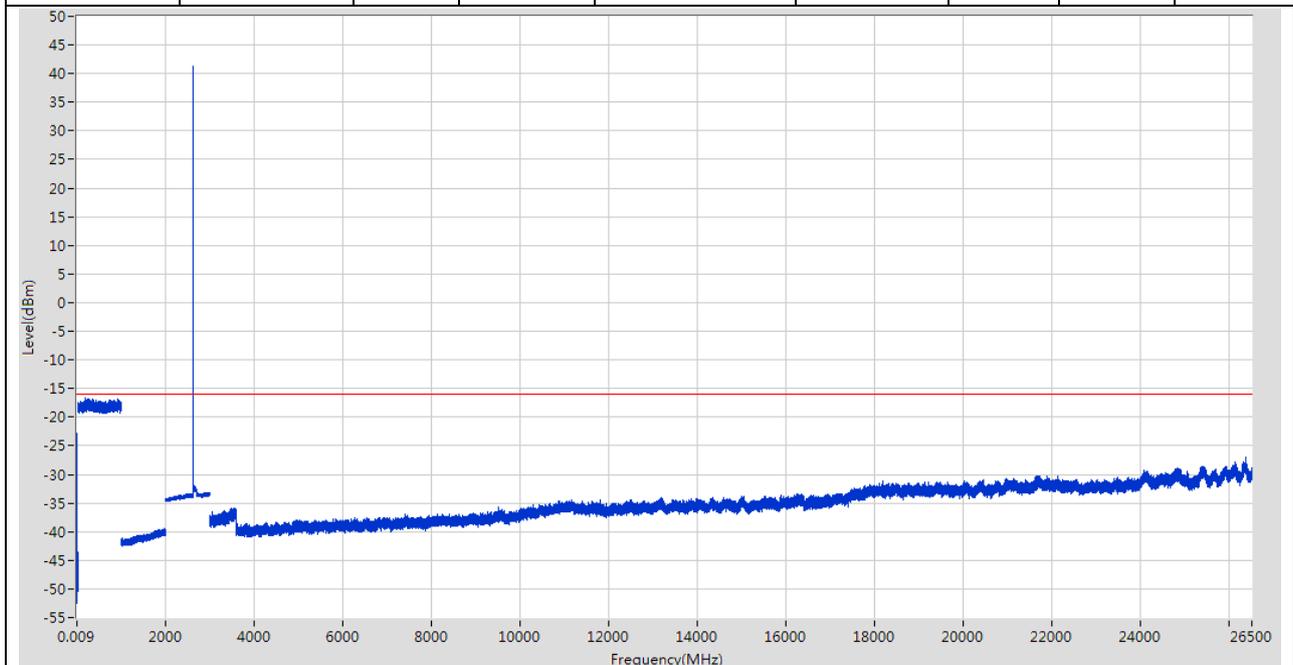
Notes: The EUT does not transmit over the air in the uplink direction.

2.2 Downlink Test Results (without AGC activated)

2.2.1 LTE system

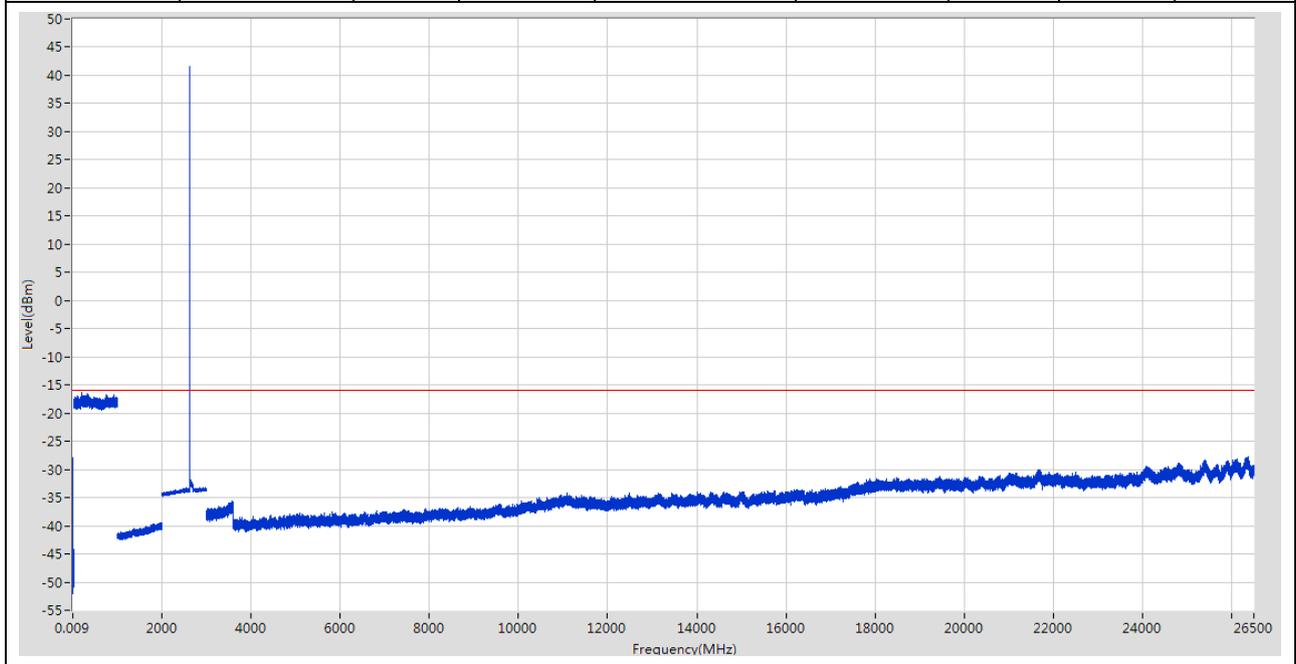
2.2.1.1.1 DL_1L_1.4M_B_ANT A

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.176 k	-38.47	-16	Pass	801
0.15	30	0.01	RMS	157.96 k	-22.86	-16	Pass	15001
30	1000	1	RMS	190.346939 M	-16.51	-16	Pass	4901
1000	2000	1	RMS	1959.6 M	-39.53	-16	Pass	5001
2000	3000	1	RMS	2620.8 M	41.23	-16	Fail	5001
3000	26500	1	RMS	26357.615535 M	-26.99	-16	Pass	117504



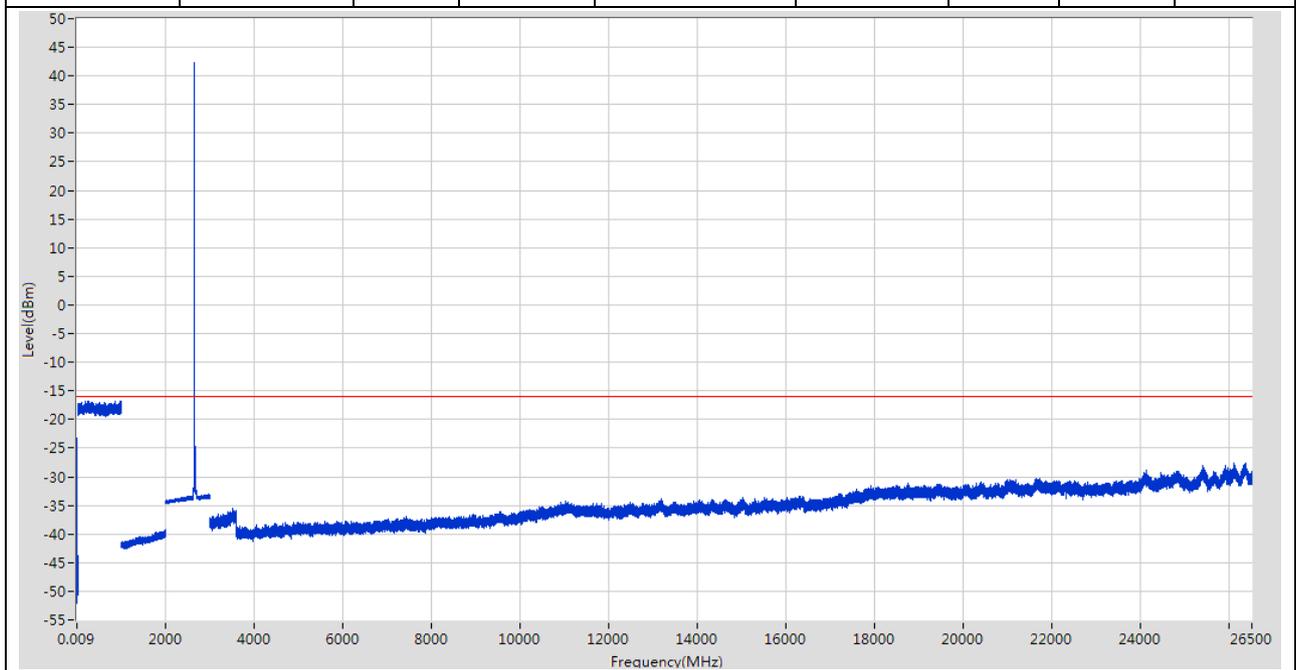
2.2.1.1.2 DL_1L_1.4M_B_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.234 k	-38.09	-16	Pass	801
0.15	30	0.01	RMS	157.96 k	-28.01	-16	Pass	15001
30	1000	1	RMS	192.326531 M	-16.39	-16	Pass	4901
1000	2000	1	RMS	1997 M	-39.48	-16	Pass	5001
2000	3000	1	RMS	2620.8 M	41.48	-16	Fail	5001
3000	26500	1	RMS	26372.613898 M	-27.74	-16	Pass	117504



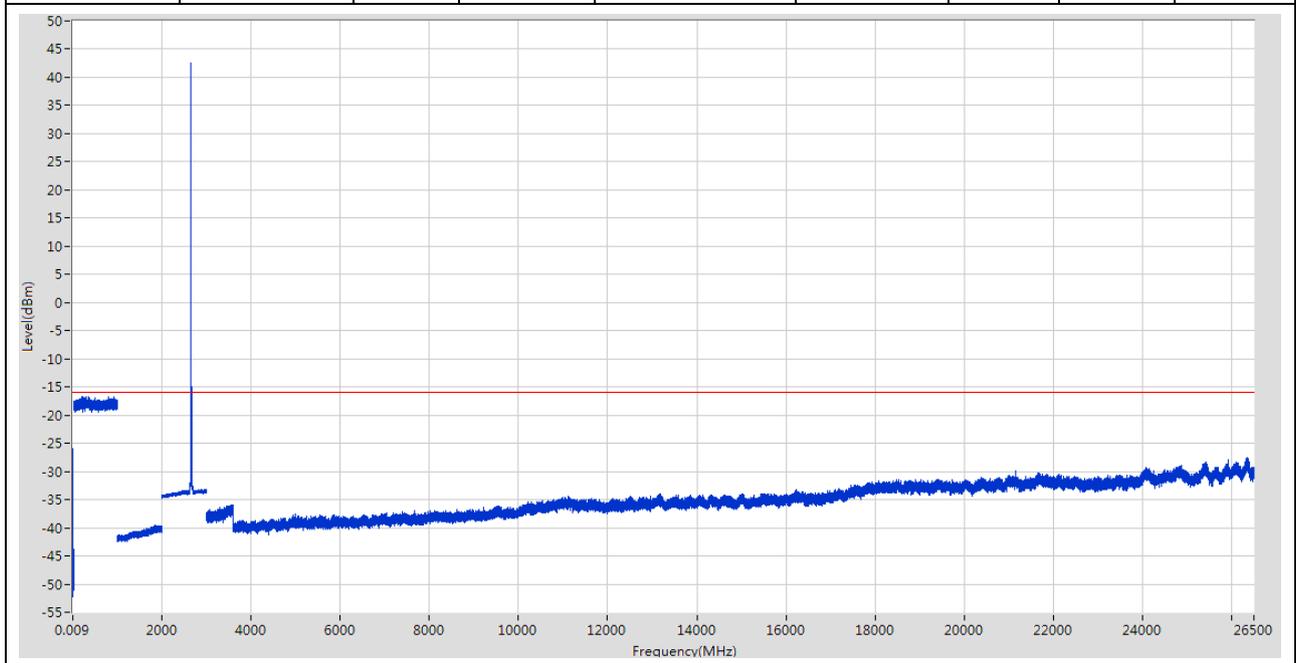
2.2.1.1.3 DL_1L_1.4M_M_ANTA

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.705 k	-38	-16	Pass	801
0.15	30	0.01	RMS	155.97 k	-23.23	-16	Pass	15001
30	1000	1	RMS	193.712245 M	-16.77	-16	Pass	4901
1000	2000	1	RMS	1990.4 M	-39.29	-16	Pass	5001
2000	3000	1	RMS	2655 M	42.32	-16	Fail	5001
3000	26500	1	RMS	26374.213724 M	-27.57	-16	Pass	117504



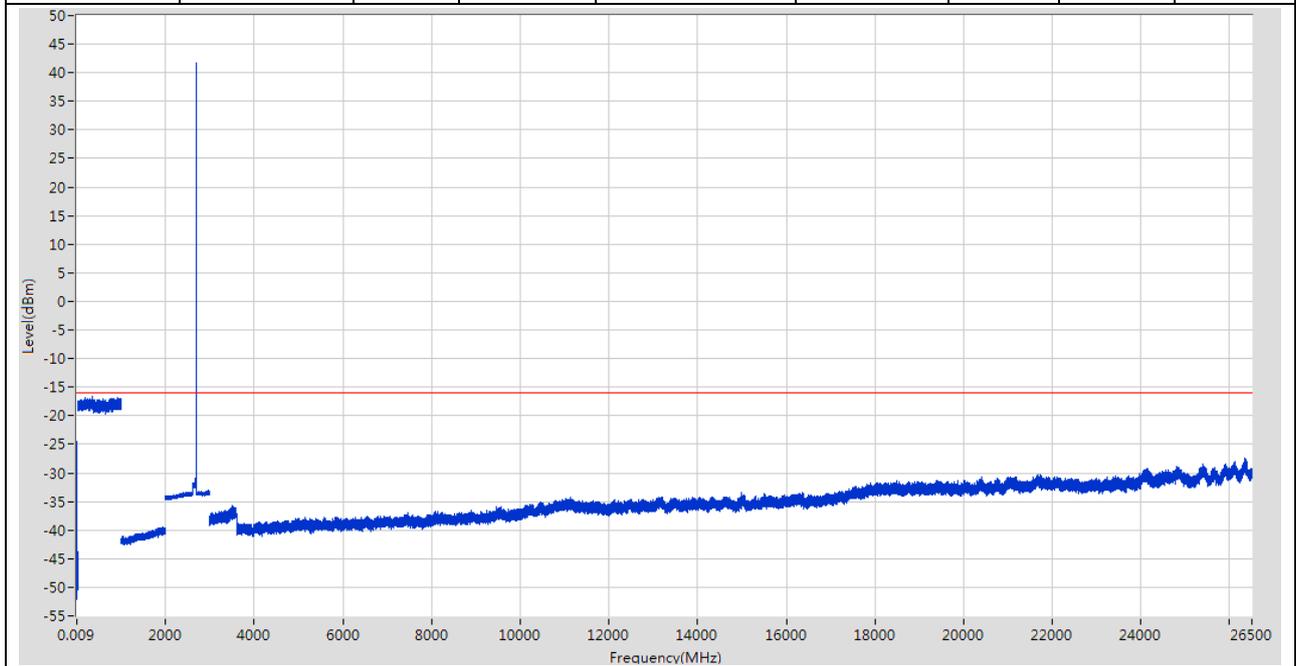
2.2.1.1.4 DL_1L_1.4M_M_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.939 k	-38.13	-16	Pass	801
0.15	30	0.01	RMS	155.97 k	-25.86	-16	Pass	15001
30	1000	1	RMS	292.097959 M	-16.67	-16	Pass	4901
1000	2000	1	RMS	1854.8 M	-39.4	-16	Pass	5001
2000	3000	1	RMS	2655 M	42.45	-16	Fail	5001
3000	26500	1	RMS	26351.016255 M	-27.49	-16	Pass	117504



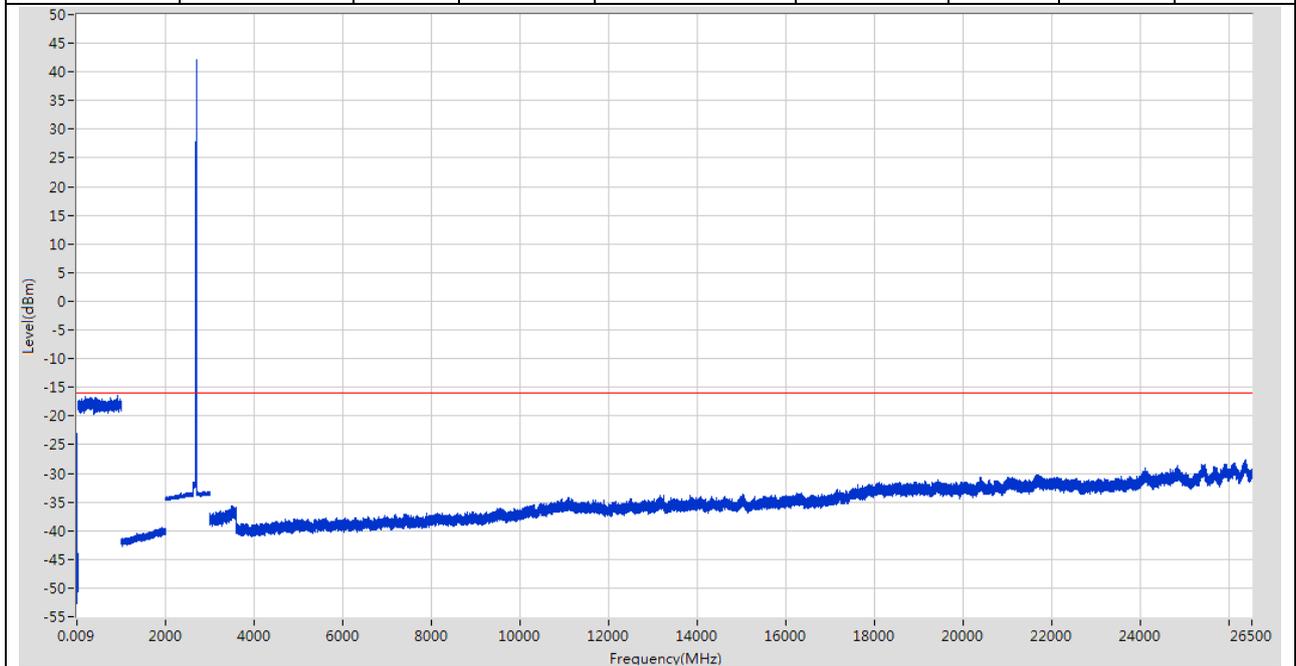
2.2.1.1.5 DL_1L_1.4M_T_ANTA

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.41 k	-38.2	-16	Pass	801
0.15	30	0.01	RMS	155.97 k	-24.47	-16	Pass	15001
30	1000	1	RMS	339.608163 M	-16.67	-16	Pass	4901
1000	2000	1	RMS	1941 M	-39.47	-16	Pass	5001
2000	3000	1	RMS	2689.2 M	41.73	-16	Fail	5001
3000	26500	1	RMS	26338.417629 M	-27.33	-16	Pass	117504



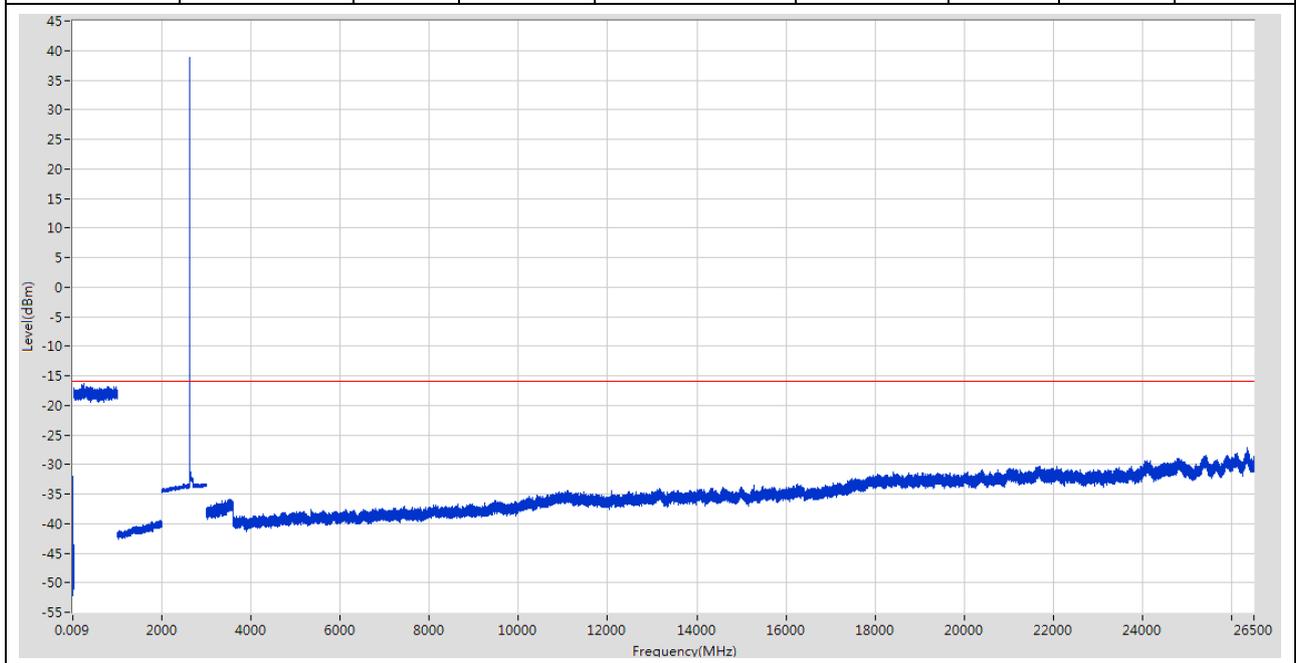
2.2.1.1.6 DL_1L_1.4M_T_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.529 k	-39.09	-16	Pass	801
0.15	30	0.01	RMS	155.97 k	-22.97	-16	Pass	15001
30	1000	1	RMS	930.516327 M	-16.5	-16	Pass	4901
1000	2000	1	RMS	1917 M	-39.43	-16	Pass	5001
2000	3000	1	RMS	2689.4 M	42.08	-16	Fail	5001
3000	26500	1	RMS	26356.215687 M	-27.7	-16	Pass	117504



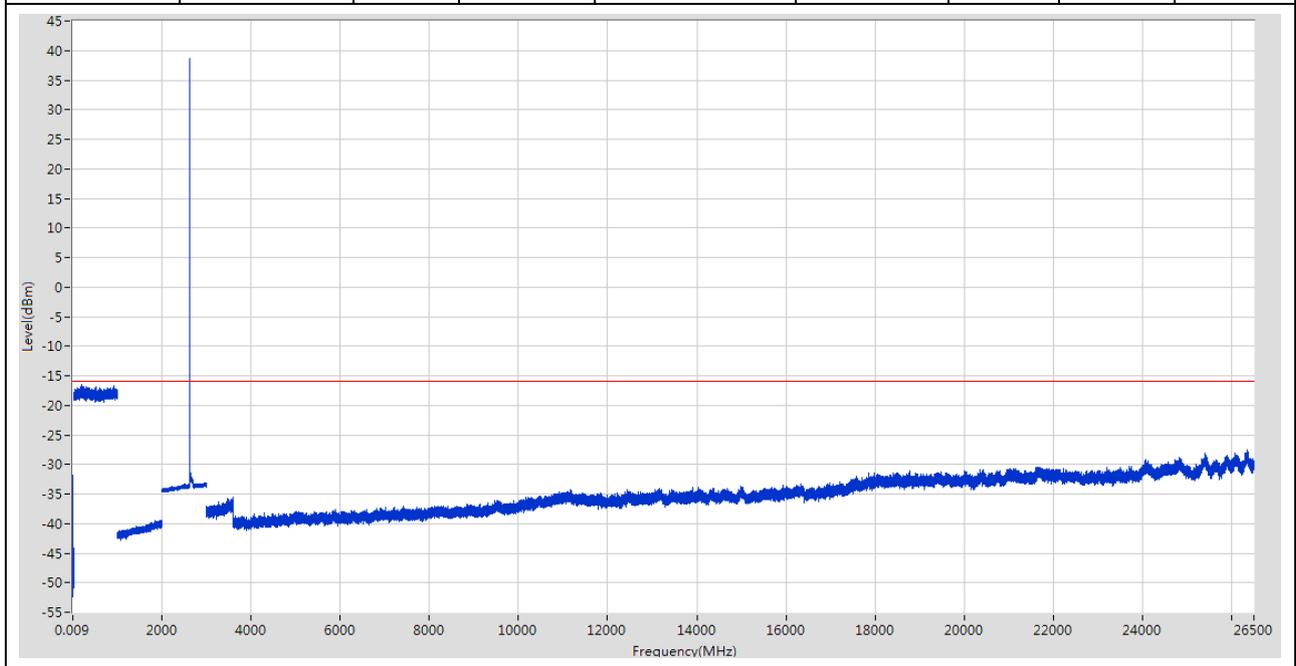
2.2.1.1.7 DL_2L_1.4M_B_ANTA

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.939 k	-37.85	-16	Pass	801
0.15	30	0.01	RMS	153.98 k	-32.07	-16	Pass	15001
30	1000	1	RMS	251.516327 M	-16.34	-16	Pass	4901
1000	2000	1	RMS	1985.4 M	-39.51	-16	Pass	5001
2000	3000	1	RMS	2621.8 M	38.74	-16	Fail	5001
3000	26500	1	RMS	26345.816822 M	-27.17	-16	Pass	117504



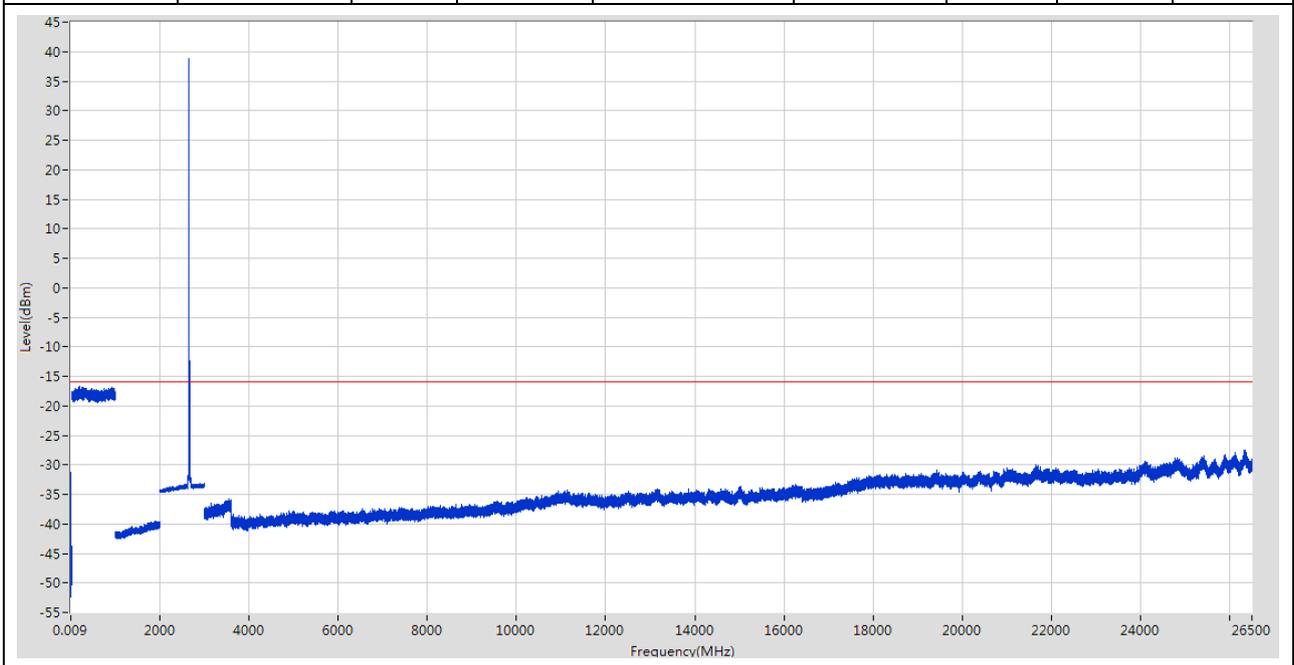
2.2.1.1.8 DL_2L_1.4M_B_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.176 k	-37.6	-16	Pass	801
0.15	30	0.01	RMS	159.95 k	-31.74	-16	Pass	15001
30	1000	1	RMS	193.910204 M	-16.59	-16	Pass	4901
1000	2000	1	RMS	1994 M	-39.42	-16	Pass	5001
2000	3000	1	RMS	2621.8 M	38.65	-16	Fail	5001
3000	26500	1	RMS	26354.615862 M	-27.55	-16	Pass	117504



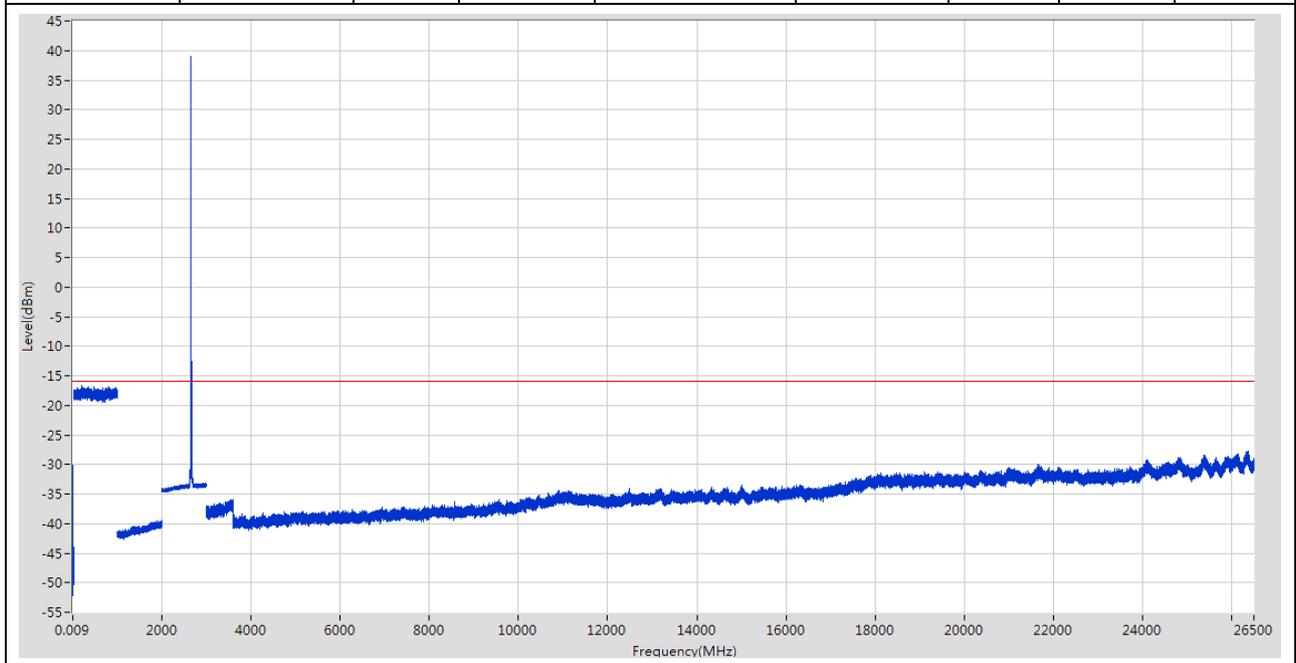
2.2.1.1.9 DL_2L_1.4M_M_ANTA

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9 k	-38.27	-16	Pass	801
0.15	30	0.01	RMS	155.97 k	-31.21	-16	Pass	15001
30	1000	1	RMS	190.14898 M	-16.72	-16	Pass	4901
1000	2000	1	RMS	1891.4 M	-39.54	-16	Pass	5001
2000	3000	1	RMS	2655.6 M	38.79	-16	Fail	5001
3000	26500	1	RMS	26356.815622 M	-27.54	-16	Pass	117504



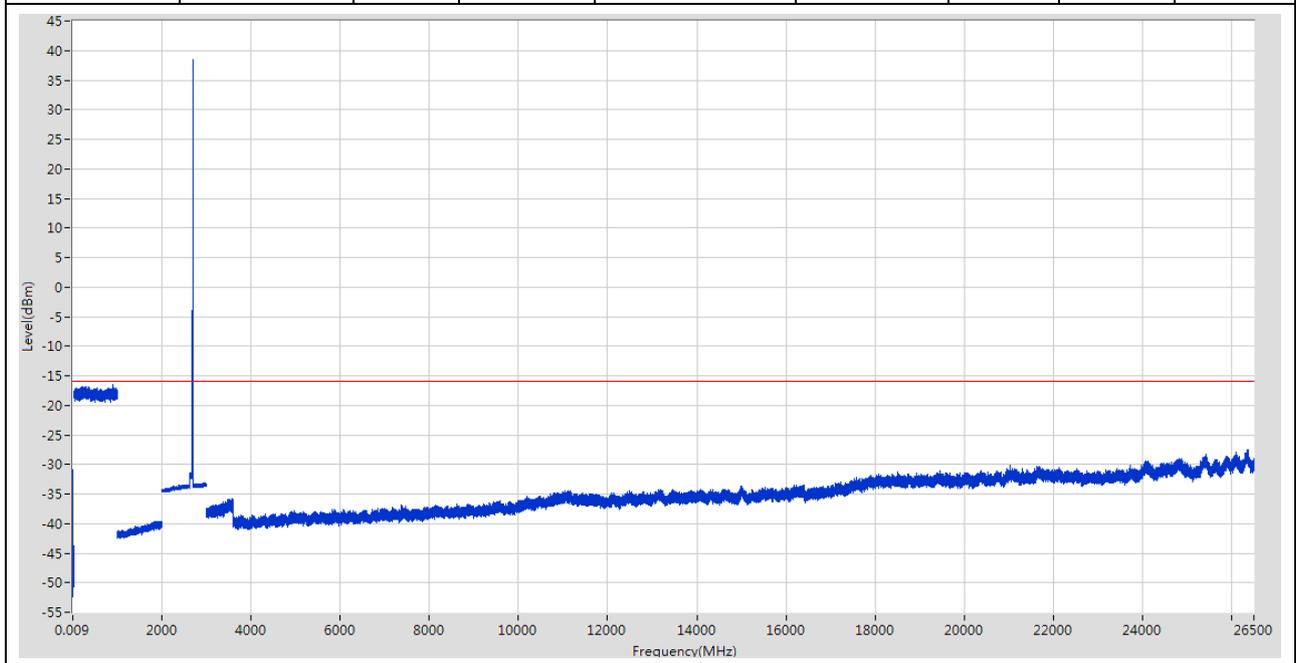
2.2.1.1.10 DL_2L_1.4M_M_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.529 k	-37.12	-16	Pass	801
0.15	30	0.01	RMS	157.96 k	-30.18	-16	Pass	15001
30	1000	1	RMS	191.930612 M	-16.61	-16	Pass	4901
1000	2000	1	RMS	1998.6 M	-39.41	-16	Pass	5001
2000	3000	1	RMS	2654.6 M	38.96	-16	Fail	5001
3000	26500	1	RMS	26373.213833 M	-27.79	-16	Pass	117504



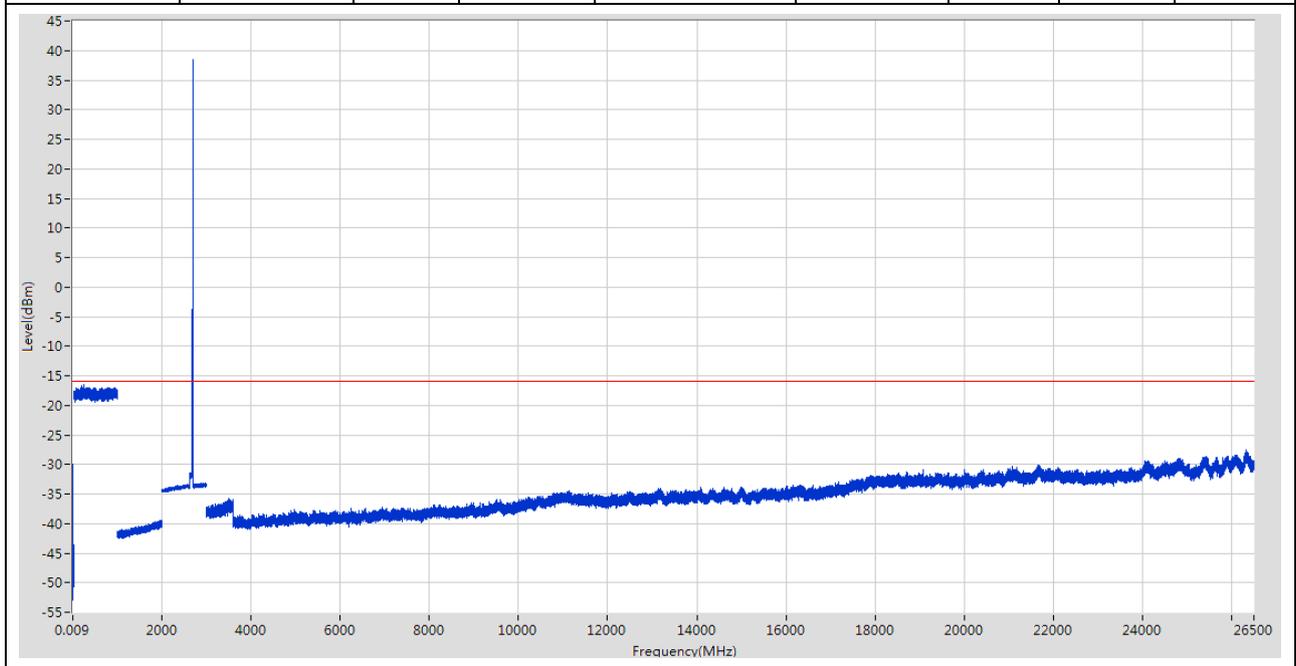
2.2.1.1.11 DL_2L_1.4M_T_ANTA

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.176 k	-37.51	-16	Pass	801
0.15	30	0.01	RMS	153.98 k	-30.91	-16	Pass	15001
30	1000	1	RMS	887.757143 M	-16.47	-16	Pass	4901
1000	2000	1	RMS	1849.2 M	-39.6	-16	Pass	5001
2000	3000	1	RMS	2688.4 M	38.54	-16	Fail	5001
3000	26500	1	RMS	26363.814858 M	-27.53	-16	Pass	117504



2.2.1.1.12 DL_2L_1.4M_T_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.705 k	-38.06	-16	Pass	801
0.15	30	0.01	RMS	155.97 k	-29.89	-16	Pass	15001
30	1000	1	RMS	247.755102 M	-16.57	-16	Pass	4901
1000	2000	1	RMS	1958 M	-39.39	-16	Pass	5001
2000	3000	1	RMS	2688 M	38.45	-16	Fail	5001
3000	26500	1	RMS	26320.619571 M	-27.43	-16	Pass	117504

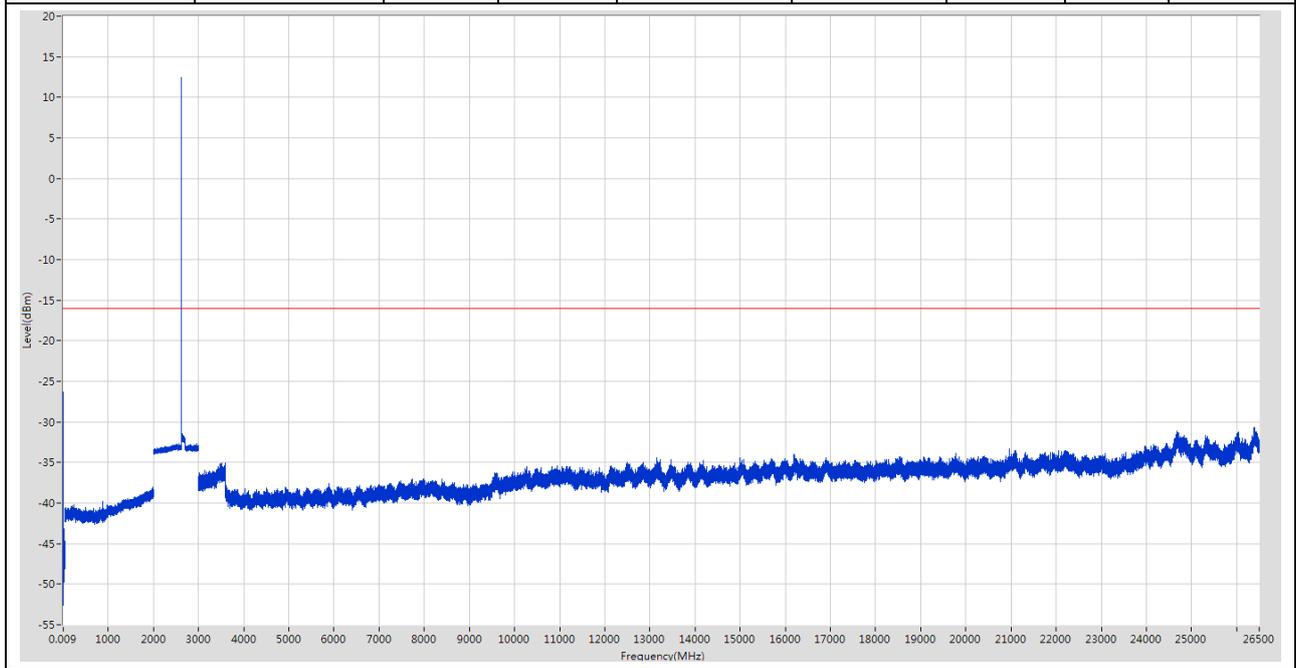


2.3 Downlink Test Results (input signal +10dB with AGC activated)

2.3.1 LTE system

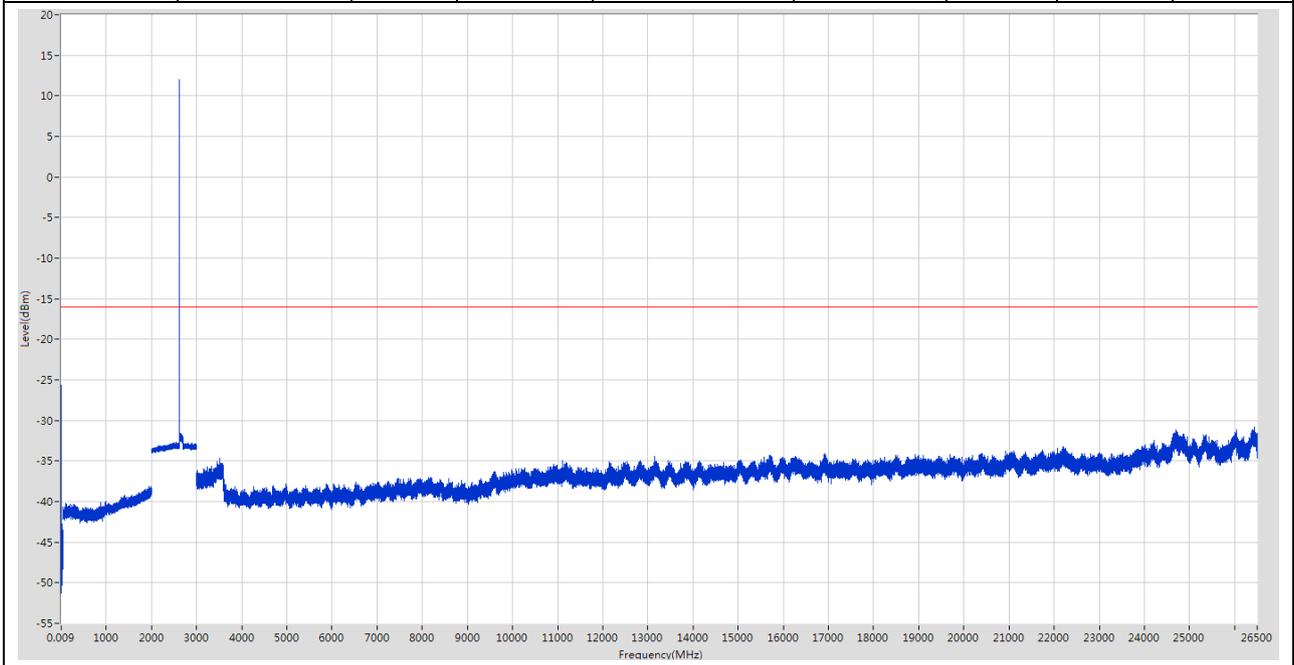
2.3.1.1 DL_2L_1.4M_B_ANT A

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	11.82 k	-26.33	-16	Pass	801
0.15	30	0.01	RMS	157.96 k	-35.26	-16	Pass	15001
30	1000	1	RMS	878.255102 M	-39.82	-16	Pass	4901
1000	2000	1	RMS	1991.4 M	-37.99	-16	Pass	5001
2000	3000	1	RMS	2621.8 M	12.39	-16	Fail	5001
3000	26500	1	RMS	26388.61215 3 M	-30.72	-16	Pass	117504



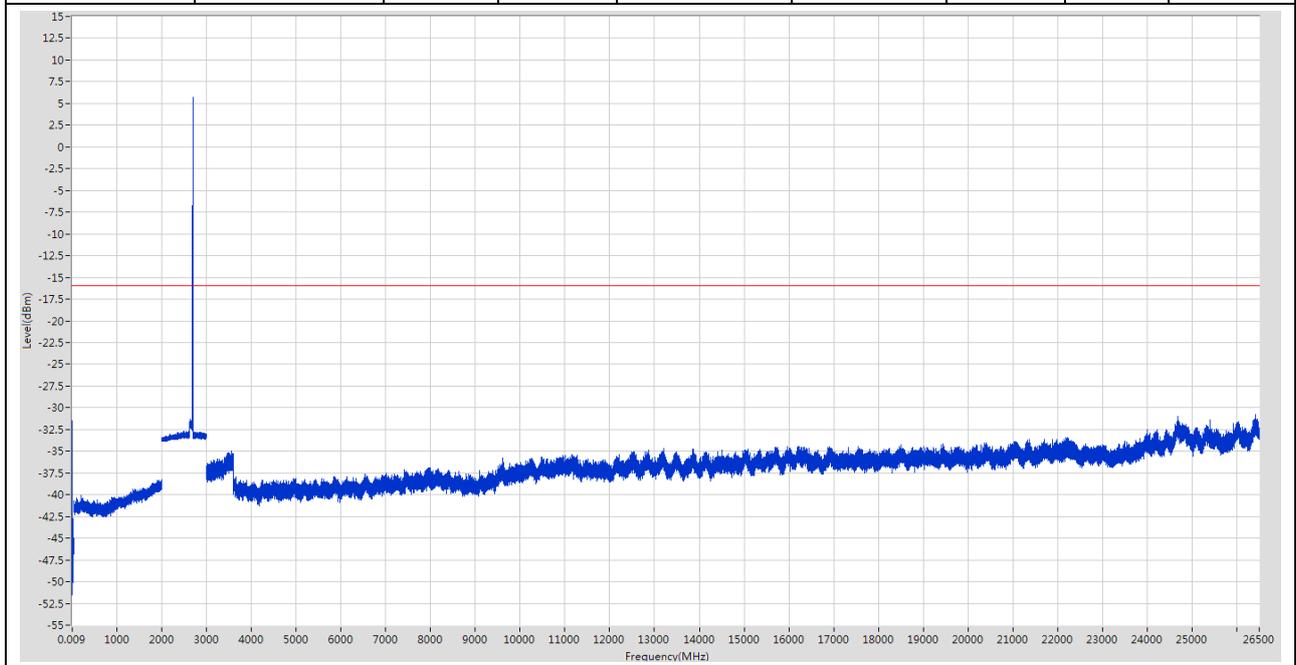
2.3.1.2 DL_2L_1.4M_B_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.41 k	-25.63	-16	Pass	801
0.15	30	0.01	RMS	151.99 k	-36.1	-16	Pass	15001
30	1000	1	RMS	999.802041 M	-40.03	-16	Pass	4901
1000	2000	1	RMS	1953.2 M	-38.12	-16	Pass	5001
2000	3000	1	RMS	2621.8 M	11.97	-16	Fail	5001
3000	26500	1	RMS	26441.806349 M	-30.82	-16	Pass	117504



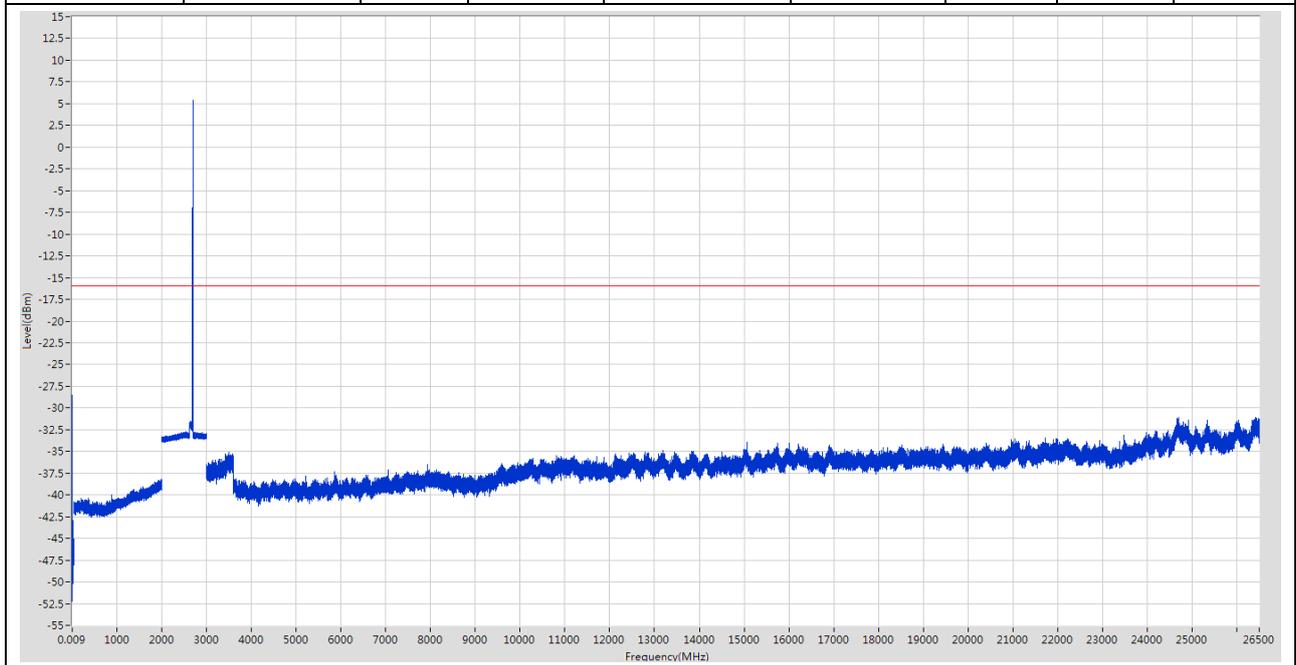
2.3.1.3 DL_2L_1.4M_T_ANTA

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.234 k	-31.47	-16	Pass	801
0.15	30	0.01	RMS	163.93 k	-33.65	-16	Pass	15001
30	1000	1	RMS	203.214286 M	-40.12	-16	Pass	4901
1000	2000	1	RMS	1995.6 M	-38.27	-16	Pass	5001
2000	3000	1	RMS	2689 M	5.7	-16	Fail	5001
3000	26500	1	RMS	26413.00949 1 M	-30.81	-16	Pass	117504



2.3.1.4 DL_2L_1.4M_T_ANTB

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	11.291 k	-28.52	-16	Pass	801
0.15	30	0.01	RMS	150 k	-35.26	-16	Pass	15001
30	1000	1	RMS	878.255102 M	-40.01	-16	Pass	4901
1000	2000	1	RMS	1976 M	-38.25	-16	Pass	5001
2000	3000	1	RMS	2689 M	5.43	-16	Fail	5001
3000	26500	1	RMS	26416.40912 M	-31.12	-16	Pass	117504





Appendix E: Field Strength of Spurious Radiation



1 Result Table

1.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.2 Downlink Test Results

EUT Conf.	Maximum Emission [dBm]	Verdict
DL_1CW_M_ANTA DL_1CW_M_ANTB	<-16	Pass

2 Test Plot

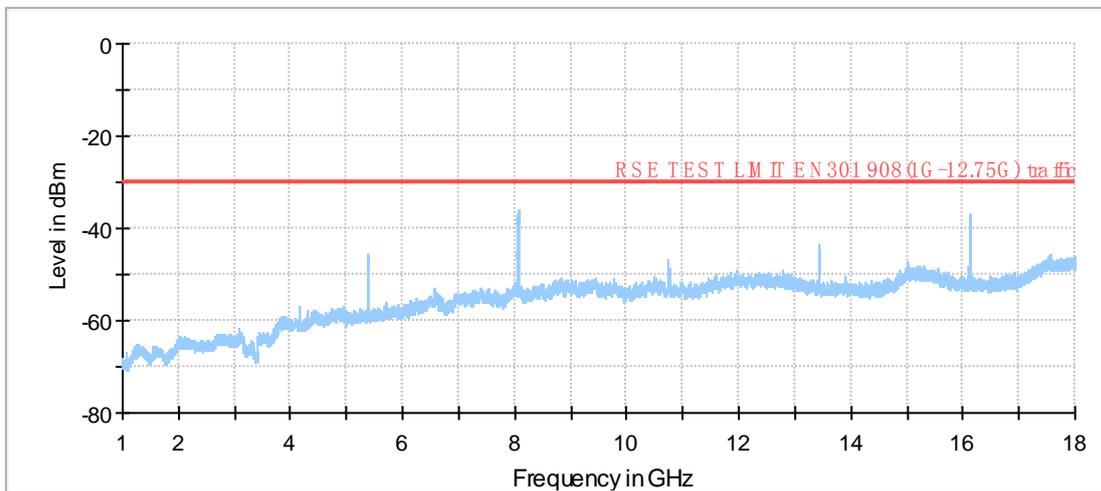
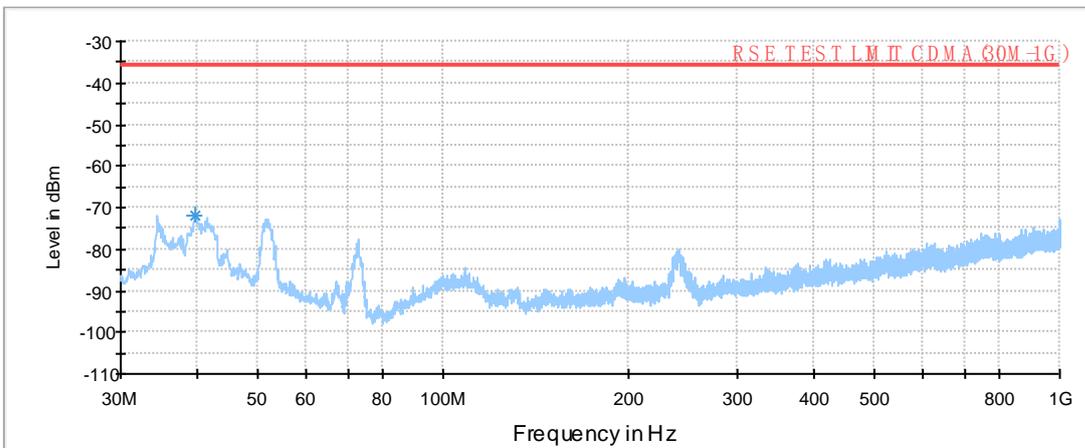
2.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

2.2 Downlink Test Results

RSE TEST CDMA(30M-1G)





Appendix F: Frequency Stability



1 Result Table

1.1 Frequency Error

1.1.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.1.2 Downlink Test Results

1.1.2.1 LTE system

1.1.2.1.1 Frequency Error vs. Temperature

EUT Conf.	Voltage	Temperature	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Verdict
DL_1L_1.4M_M_ANTA	100%	-30 °C	15.6	0.005876	0.005876	Pass
	100%	-20 °C	18.7	0.007043	0.007043	Pass
	100%	-10 °C	14.5	0.005461	0.005461	Pass
	100%	0 °C	16.8	0.006328	0.006328	Pass
	100%	+10 °C	14.2	0.005348	0.005348	Pass
	100%	+20 °C	17.6	0.006629	0.006629	Pass
	100%	+30 °C	14.5	0.005461	0.005461	Pass
	100%	+40 °C	16.7	0.006290	0.006290	Pass
	100%	+50 °C	13.4	0.005047	0.005047	Pass
DL_1L_1.4M_M_ANTB	100%	-30 °C	20.4	0.007684	0.007684	Pass
	100%	-20 °C	19.5	0.007345	0.007345	Pass
	100%	-10 °C	17.8	0.006704	0.006704	Pass
	100%	0 °C	16.8	0.006328	0.006328	Pass
	100%	+10 °C	19.8	0.007458	0.007458	Pass
	100%	+20 °C	21.3	0.008023	0.008023	Pass
	100%	+30 °C	11.5	0.004331	0.004331	Pass
	100%	+40 °C	15.4	0.005800	0.005800	Pass
	100%	+50 °C	18.4	0.006930	0.006930	Pass

1.1.2.1.2 Frequency Error vs. Voltage

EUT Conf.	Temperature	Voltage	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Verdict
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EUT Conf.	Temperature	Voltage	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Verdict
DL_1L_1.4M_M_ANTA	+20 °C	85 %	14.7	0.005537	0.005537	Pass
	+20 °C	100 %	12.7	0.004783	0.004783	Pass
	+20 °C	115 %	14.1	0.005311	0.005311	Pass
DL_1L_1.4M_M_ANTB	+20 °C	85 %	14.7	0.005537	0.005537	Pass
	+20 °C	100 %	12.4	0.004670	0.004670	Pass
	+20 °C	115 %	16.2	0.006102	0.006102	Pass



Appendix G: Mean Output Power



1 Result Table

1.1.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.1.2 Downlink Test Results

EUT Conf.	Pmean [dBm]	Verdict
DL_2CW_M_ANTA	43.32	Pass
DL_2CW_M_ANTB	43.81	Pass

2 Test Plot

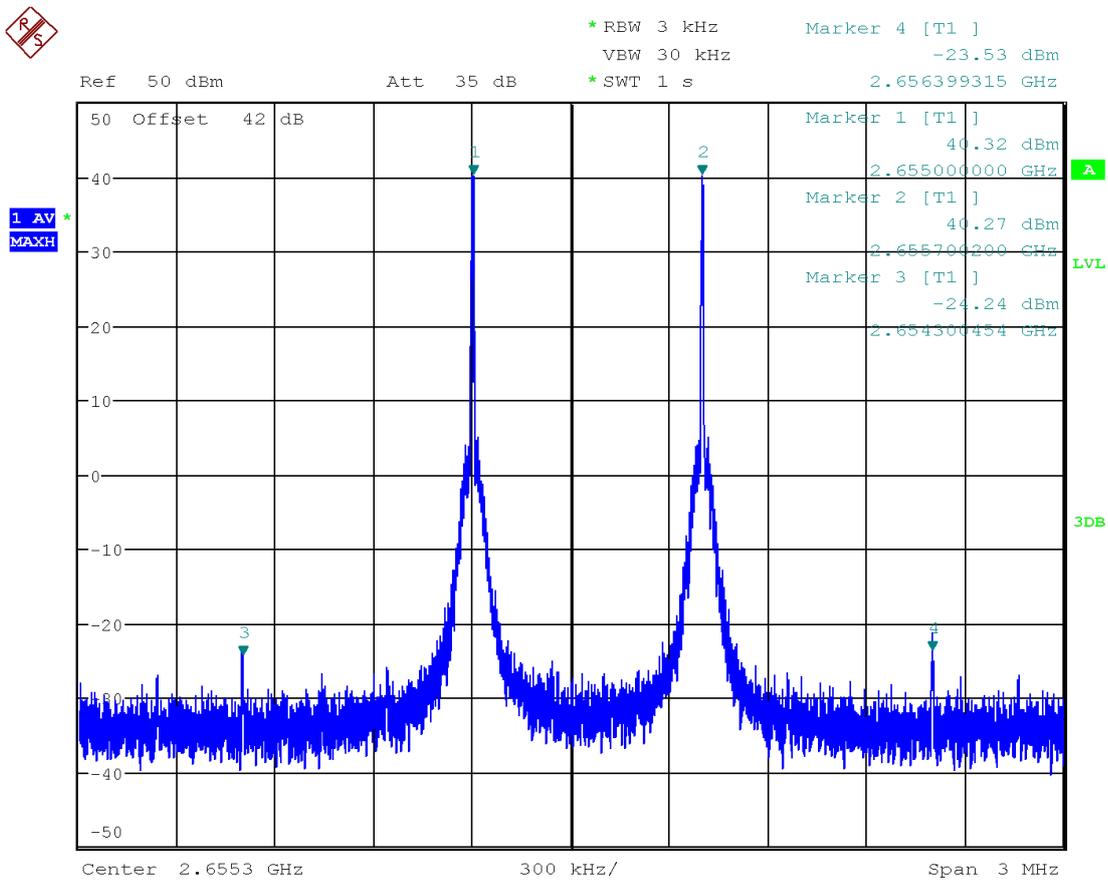
2.1.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

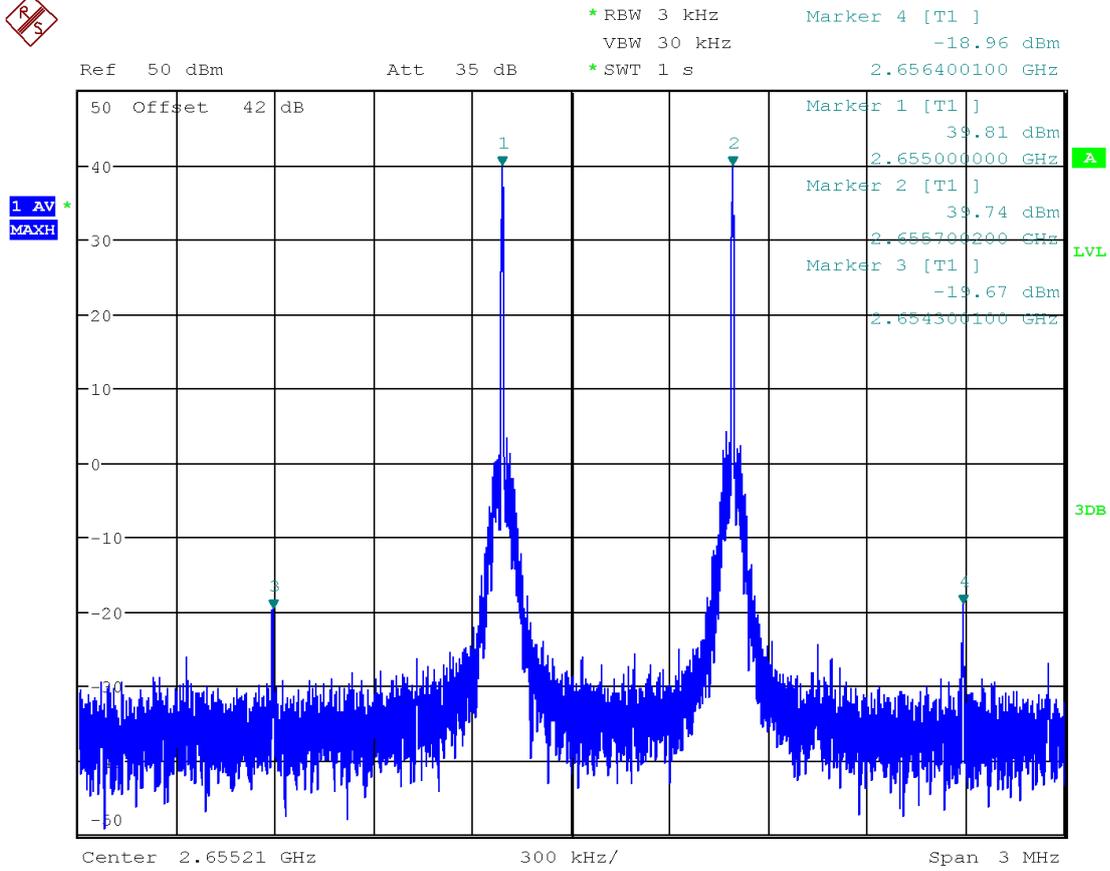
2.1.2 Downlink Test Results

2.1.2.1 DL_2CW_M_ANTA



Date: 14.NOV.2013 19:32:11

2.1.2.2 DL_2CW_M_ANTB



Date: 14.NOV.2013 19:41:23



Appendix H: Non-Linearity



1 Result Table

1.1.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.1.2 Downlink Test Results

EUT Conf.	Intermodulation		Verdict
	Left	Right	
DL_2CW_B_ANTA	-22.24	-20.69	Pass
DL_2CW_B_ANTB	-27.91	-26.78	Pass
DL_2CW_M_ANTA	-24.24	-23.53	Pass
DL_2CW_M_ANTB	-19.67	-18.96	Pass
DL_2CW_T_ANTA	-21.11	-22.50	Pass
DL_2CW_T_ANTB	-24.63	-25.18	Pass

2 Test Plot

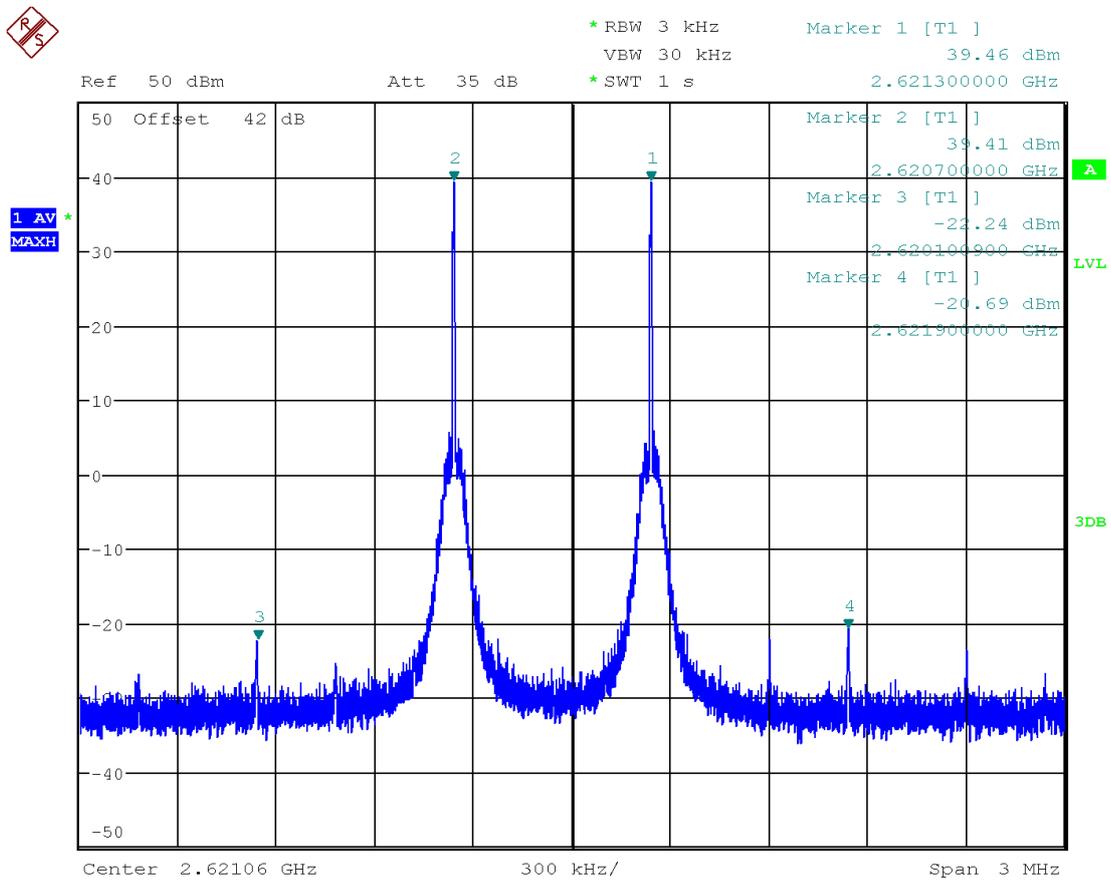
2.1.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

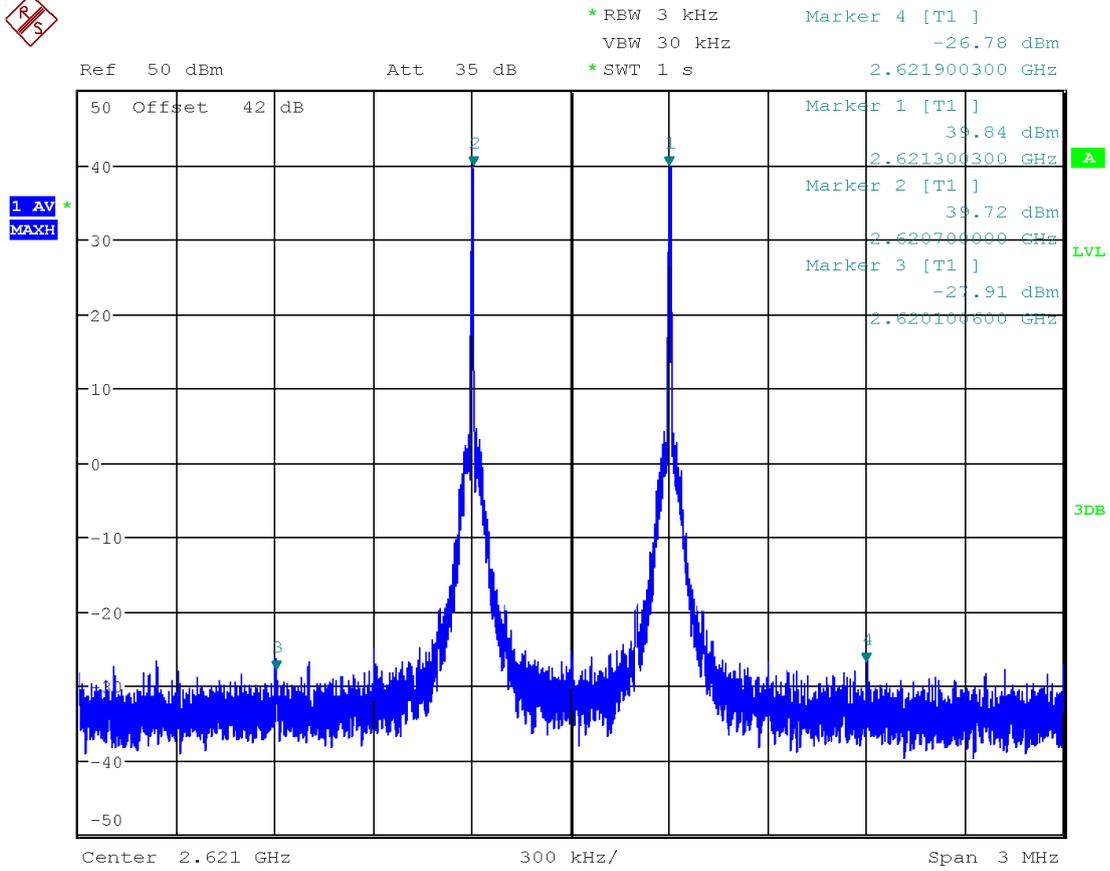
2.1.2 Downlink Test Results

2.1.2.1 DL_2CW_B_ANTA



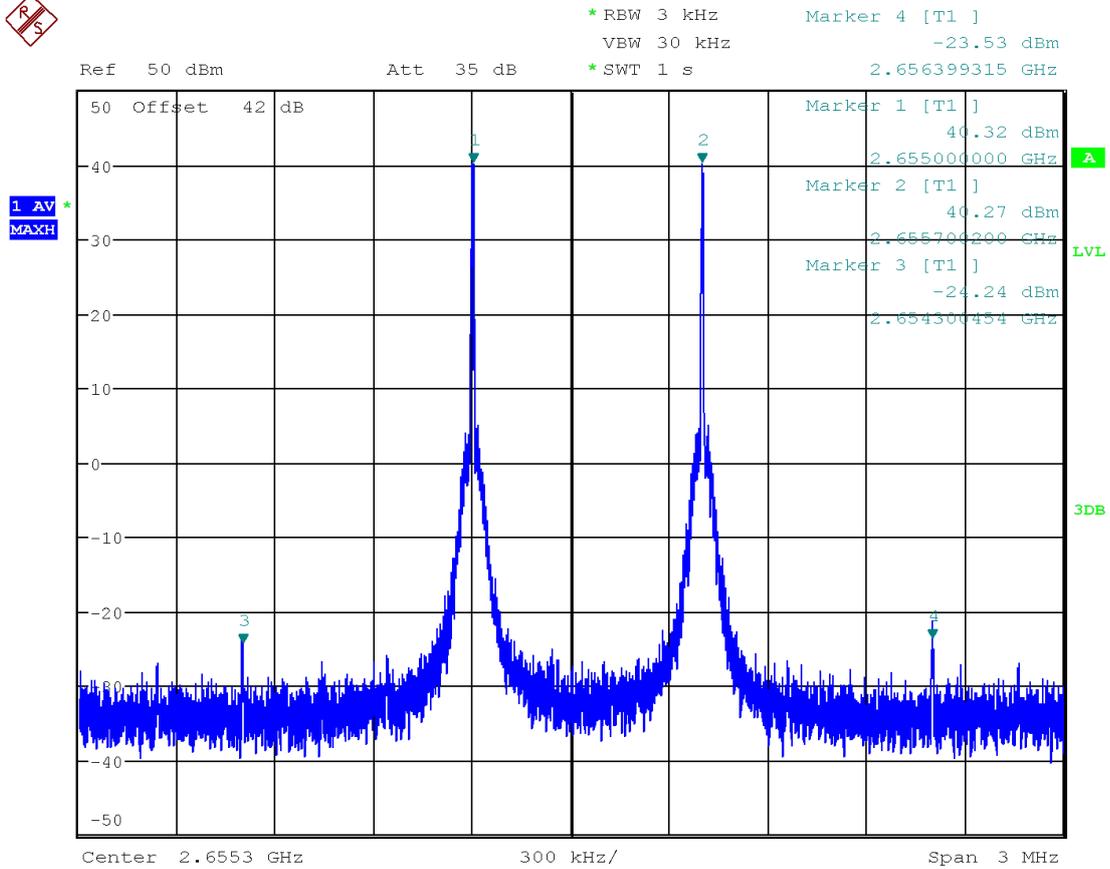
Date: 14.NOV.2013 19:30:44

2.1.2.2 DL_2CW_B_ANTB



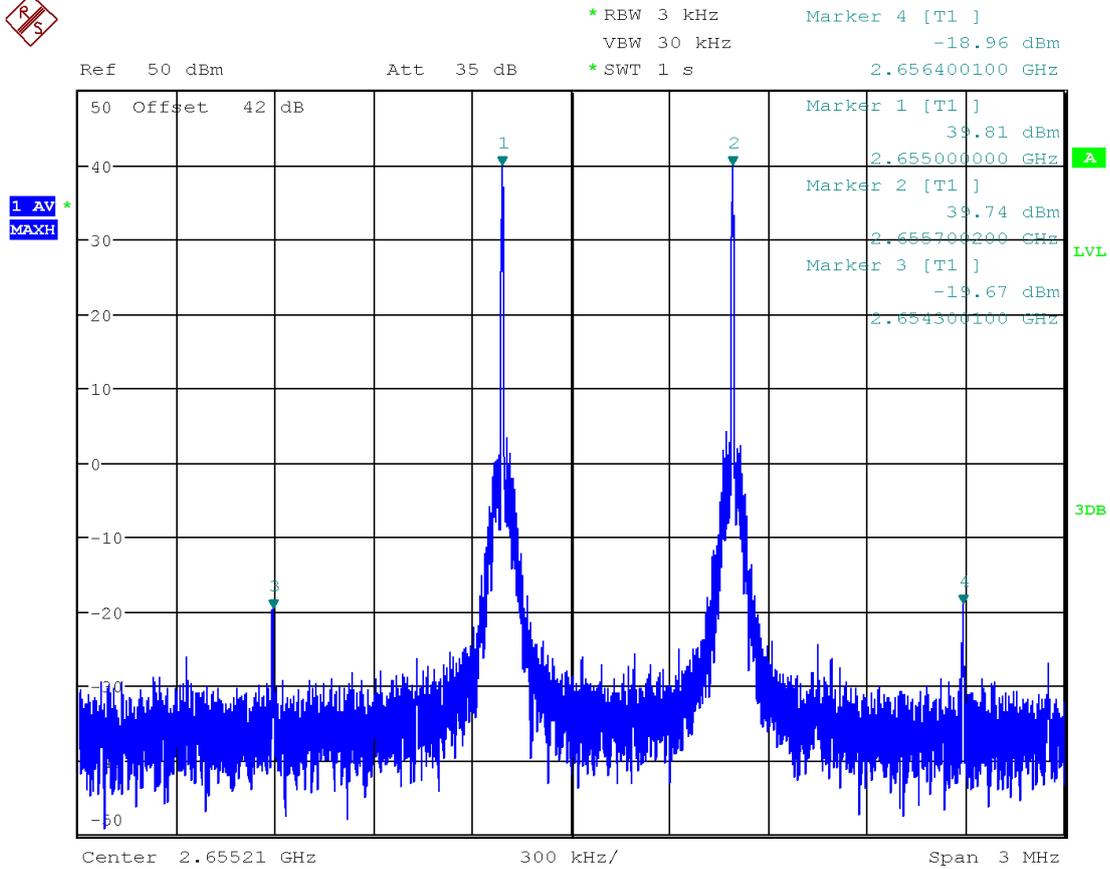
Date: 14.NOV.2013 19:51:41

2.1.2.3 DL_2CW_M_ANTA



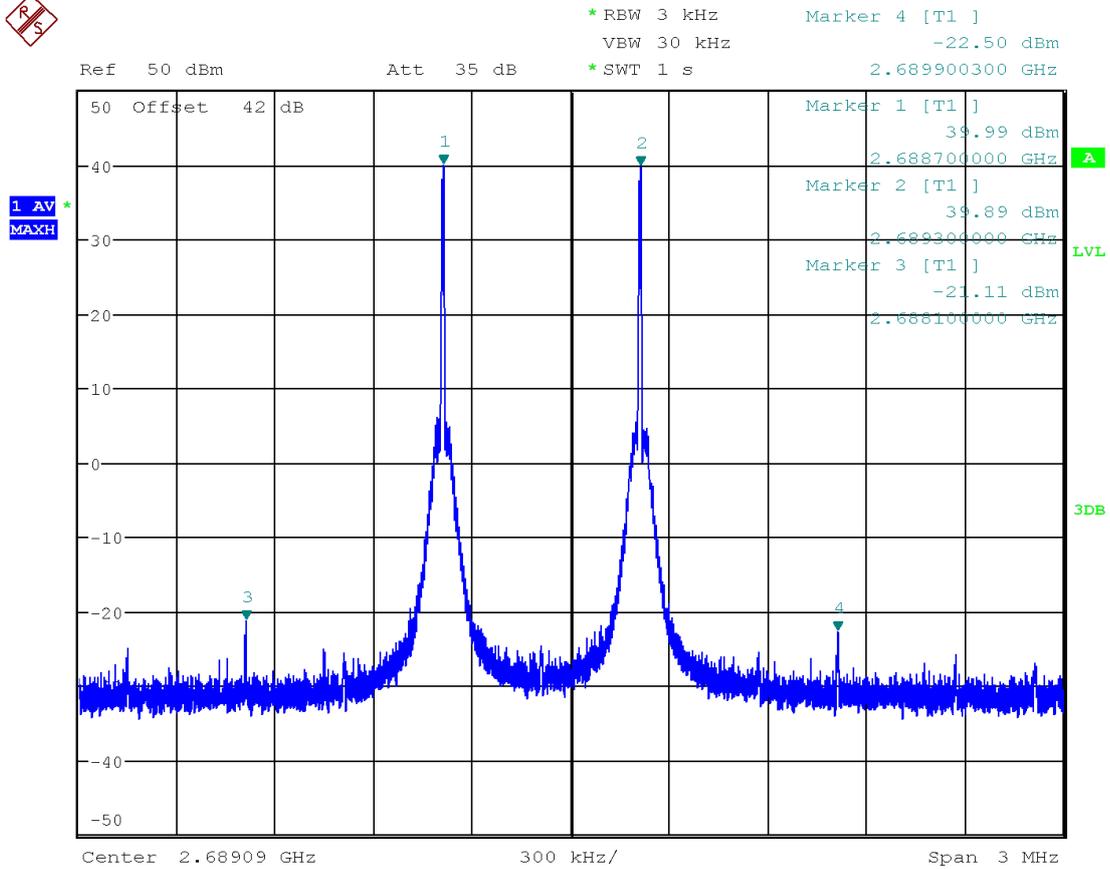
Date: 14.NOV.2013 19:32:11

2.1.2.4 DL_2CW_M_ANTB



Date: 14.NOV.2013 19:41:23

2.1.2.5 DL_2CW_T_ANTA



Date: 14.NOV.2013 19:34:55



Appendix I: Amplifier Gain and Bandwidth and Out of Band Rejection



1 Result Table

1.1.1 Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

1.1.2 Downlink Test Results

Test item	Test results		Verdict
	ANT Port A	ANT Port B	
Pass band Gain	36.80 dB	37.05 dB	Pass
Authorized Frequency Band	2620-2690 MHz	2620-2690 MHz	Pass
Lower edge of 20dB bandwidth	2618.66 MHz	2618.55 MHz	Pass
Upper edge of 20dB bandwidth	2691.45 MHz	2691.62 MHz	Pass
20 dB bandwidth	72.79 MHz	73.07 MHz	Pass

2 Test Plot

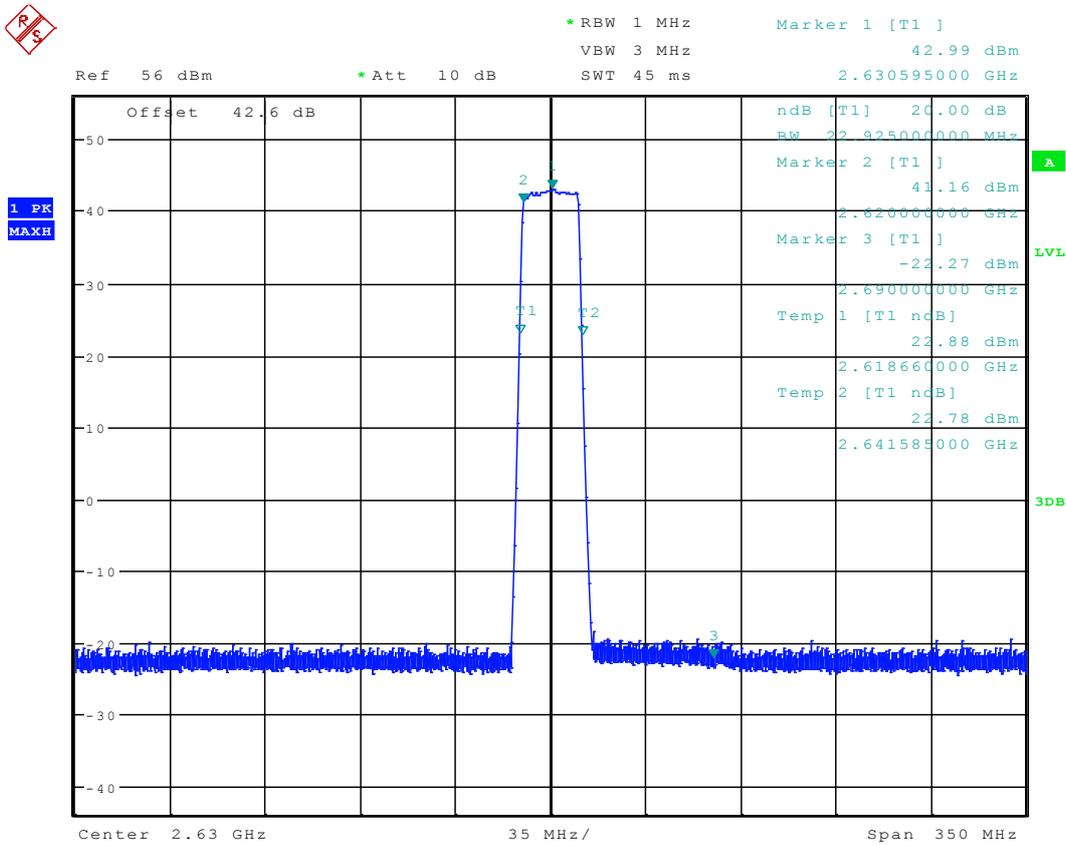
2.1.1 Uplink Test Plots

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.

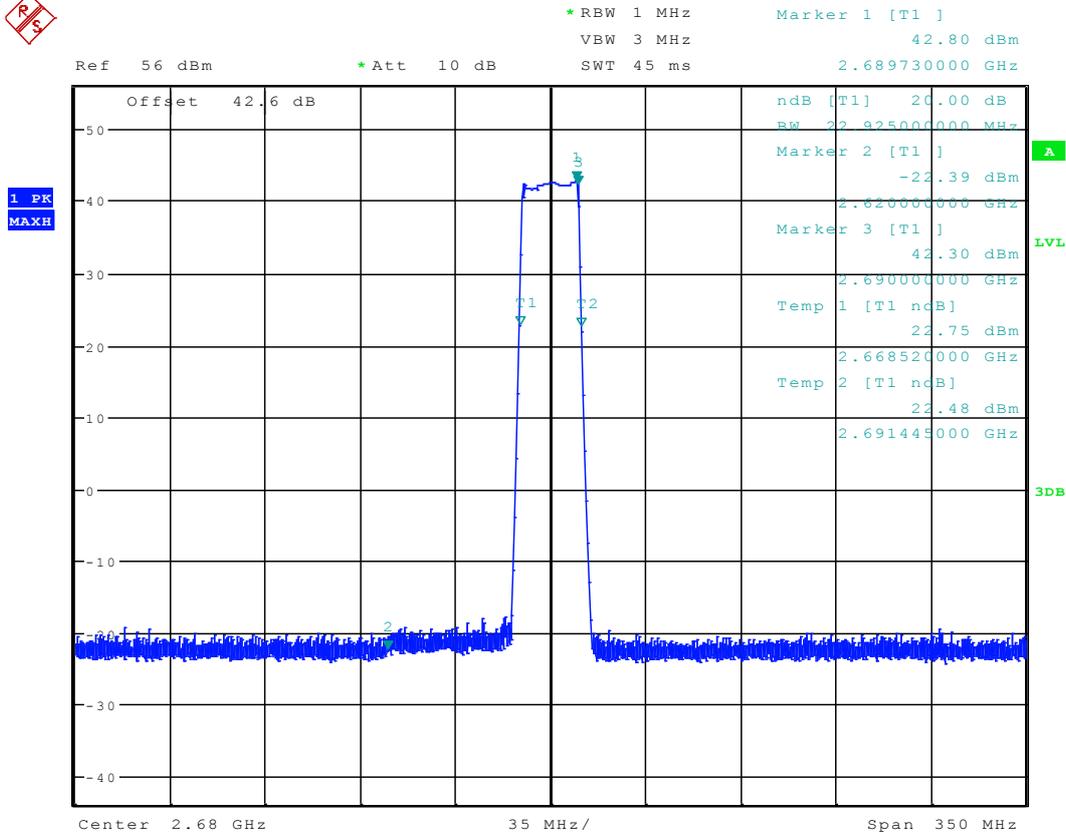
2.1.2 Downlink Test Plots

2.1.2.1 DL_20M_B_ANTA



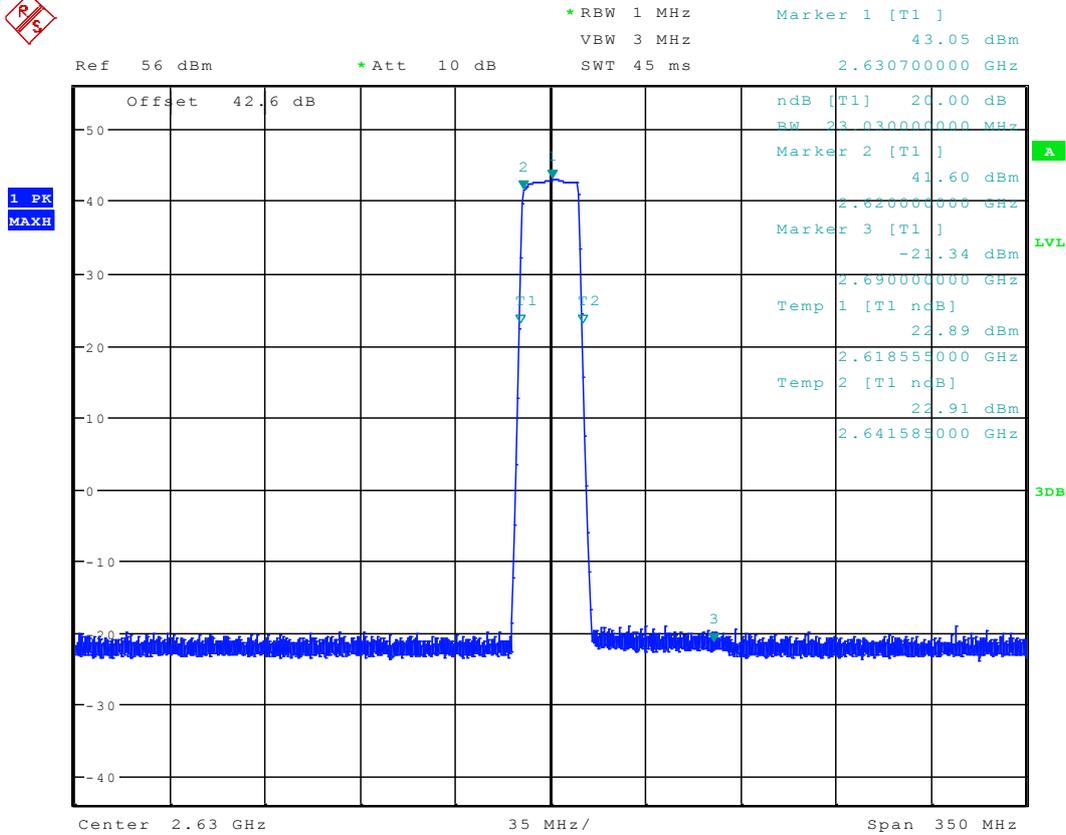
Date: 12.DEC.2013 17:11:54

2.1.2.2 DL_20M_T_ANTA



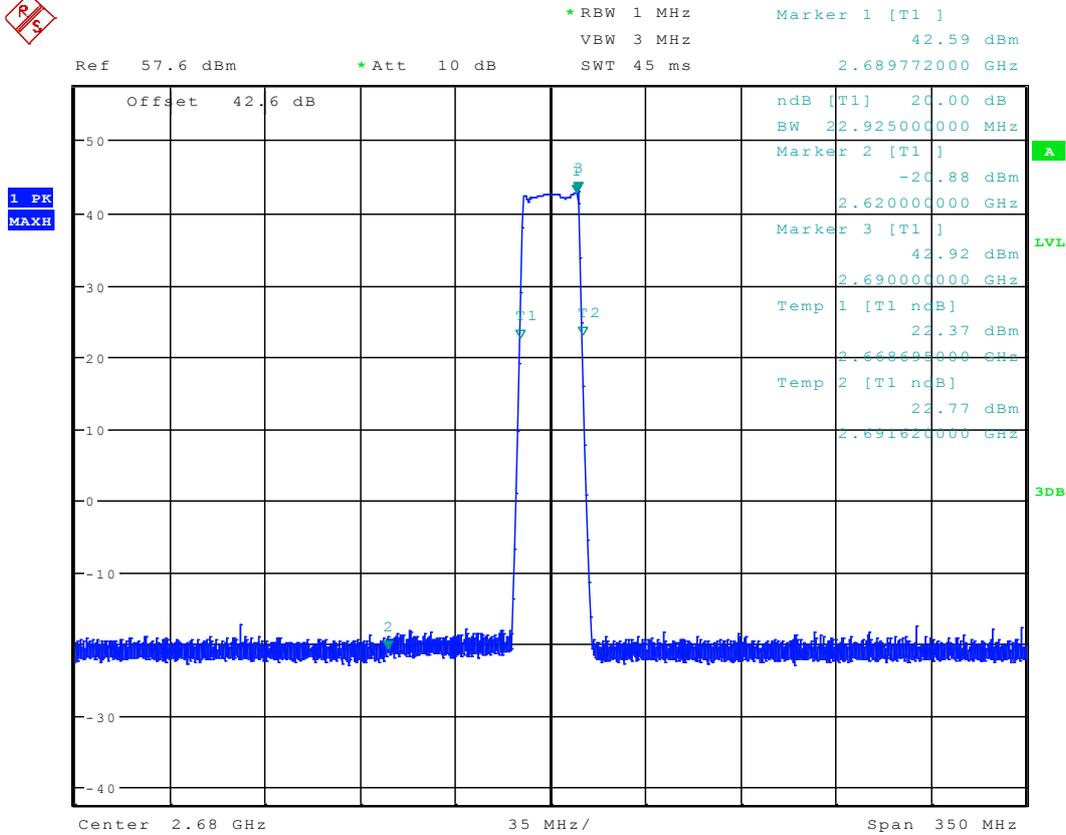
Date: 12.DEC.2013 17:10:13

2.1.2.3 DL_20M_B_ANTA



Date: 12.DEC.2013 17:14:11

2.1.2.4 DL_20M_T_ANTA



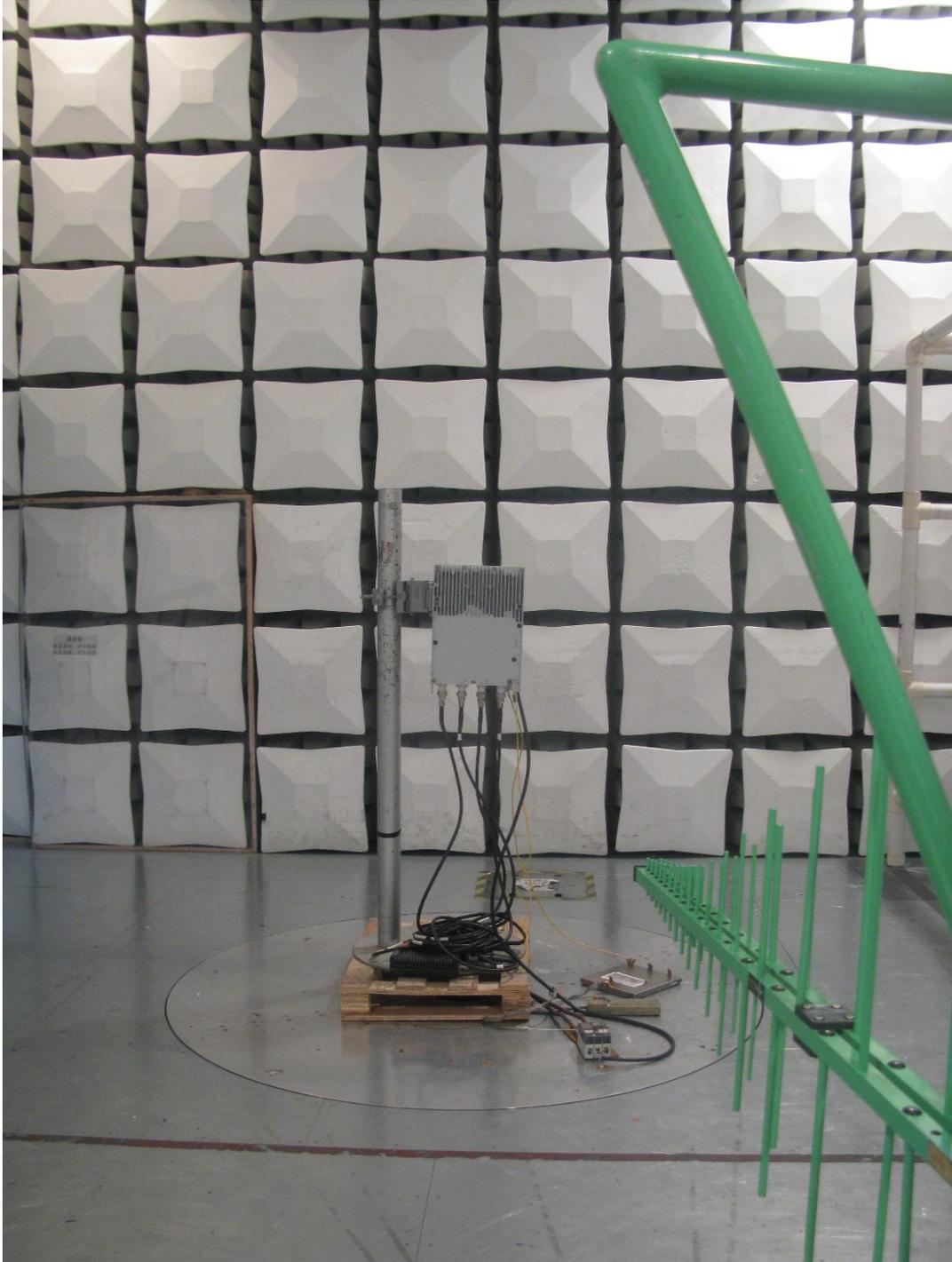
Date: 12.DEC.2013 17:06:05



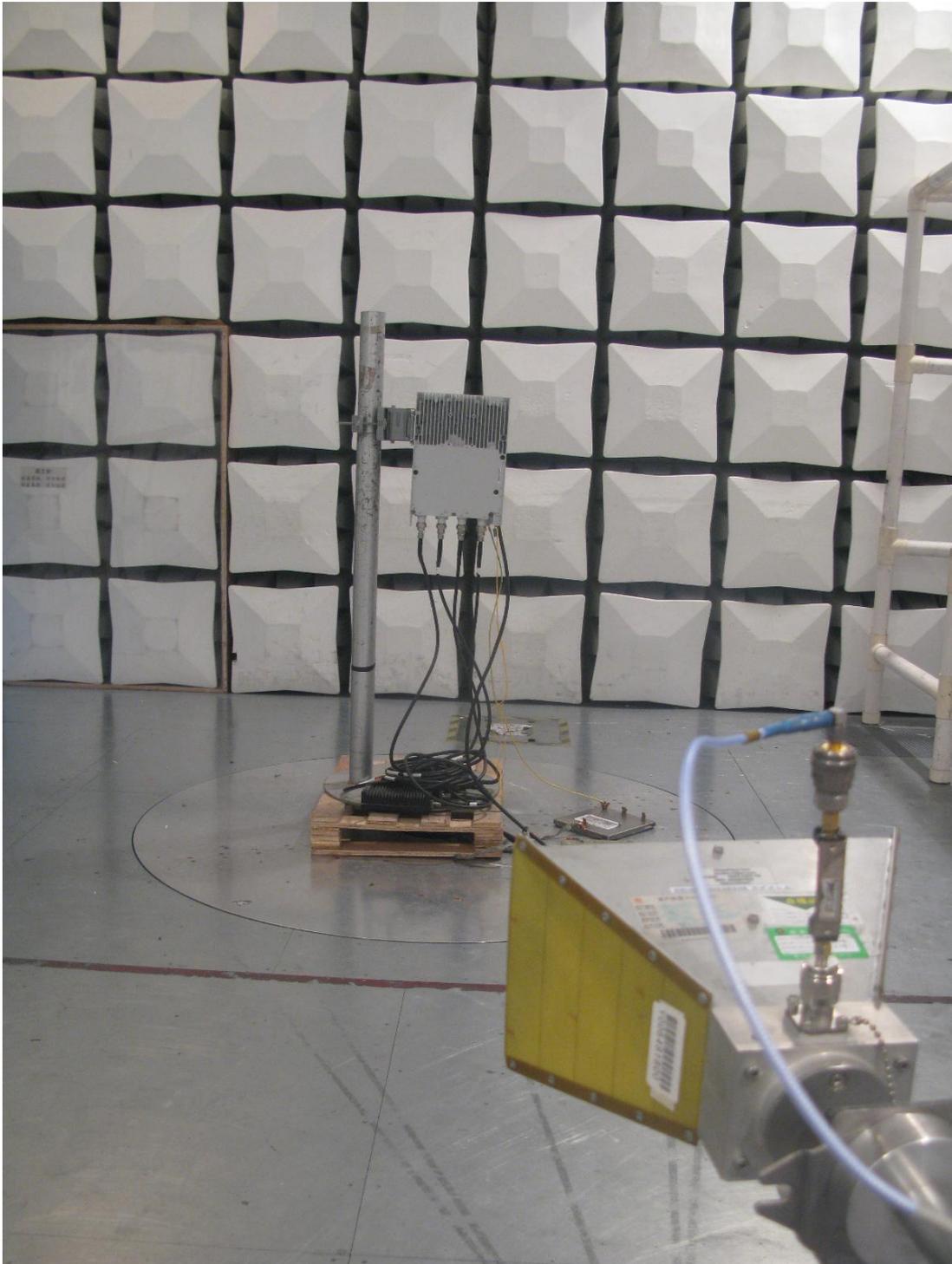
Appendix J: Photos of Test Setups

1 Test Setup 3

1.1 Frequency range below 1 GHz



1.2 Frequency range above 1 GHz



END