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   GSM system

EUT Conf.	Channel Power [dBm]	total[W]	Verdict
DL_1G_TM1_B_ANTA& DL_1G_TM1_B_ANTB	43.37&43.14	42.33	Pass
DL_1G_TM1_M_ANTA& DL_1G_TM1_M_ANTB	43.61&43.44	45.04	Pass
DL_1G_TM1_T_ANTA& DL_1G_TM1_T_ANTB	43.20&43.06	41.12	Pass
DL_1G_TM2_B_ANTA& DL_1G_TM2_B_ANTB	43.26&43.00	41.14	Pass
DL_1G_TM2_M_ANTA& DL_1G_TM2_M_ANTB	43.58&43.40	44.68	Pass
DL_1G_TM2_T_ANTA& DL_1G_TM2_T_ANTB	43.40&42.93	41.51	Pass

1.1.2.2   UMTS system

EUT Conf.	Channel Power [dBm]	total[W]	Verdict
DL_1U_TM1_B_ANTA& DL_1U_TM1_B_ANTB	43.94&43.12	45.29	Pass
DL_1U_TM1_M_ANTA& DL_1U_TM1_M_ANTB	43.58&43.37	44.53	Pass
DL_1U_TM1_T_ANTA&	43.04&42.93	39.77	Pass

EUT Conf.	Channel Power [dBm]	total[W]	Verdict
DL_1U_TM1_T_ANTB			

1.1.2.3 LTE system

EUT Conf.	Channel Power [dBm]	total[W]	Verdict
DL_1L_1.4M_B_ANTA& DL_1L_1.4M_B_ANTB	42.97&42.90	39.31	Pass
DL_1L_1.4M_M_ANTA& DL_1L_1.4M_M_ANTB	43.40&43.23	42.92	Pass
DL_1L_1.4M_T_ANTA& DL_1L_1.4M_T_ANTB	42.82&42.75	37.98	Pass
DL_1L_20M_B_ANTA& DL_1L_20M_B_ANTB	43.61&43.61	45.92	Pass
DL_1L_20M_M_ANTA& DL_1L_20M_M_ANTB	43.65&43.57	45.92	Pass
DL_1L_20M_T_ANTA& DL_1L_20M_T_ANTB	43.72&43.55	46.20	Pass

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

1.1.3.1 GSM system

EUT Conf.	Channel Power [dBm]	total[W]	Verdict
DL_1G_TM1_B_ANTA& DL_1G_TM1_B_ANTB	43.42&43.23	43.01	Pass
DL_1G_TM1_M_ANTA& DL_1G_TM1_M_ANTB	43.71&43.45	45.60	Pass
DL_1G_TM1_T_ANTA& DL_1G_TM1_T_ANTB	43.21&43.11	41.40	Pass
DL_1G_TM2_B_ANTA& DL_1G_TM2_B_ANTB	43.26&43.03	41.29	Pass
DL_1G_TM2_M_ANTA& DL_1G_TM2_M_ANTB	43.65&43.41	45.10	Pass
DL_1G_TM2_T_ANTA& DL_1G_TM2_T_ANTB	43.44&43.03	42.17	Pass

1.1.3.2 UMTS system

EUT Conf.	Channel Power [dBm]	total[W]	Verdict
DL_1U_TM1_B_ANTA& DL_1U_TM1_B_ANTB	44.03&43.16	46.02	Pass
DL_1U_TM1_M_ANTA&	43.64&43.37	44.85	Pass

EUT Conf.	Channel Power [dBm]	total[W]	Verdict
DL_1U_TM1_M_ANTB			
DL_1U_TM1_T_ANTA& DL_1U_TM1_T_ANTB	43.14&42.94	40.27	Pass

1.1.3.3 LTE system

EUT Conf.	Channel Power [dBm]	total[W]	Verdict
DL_1L_1.4M_B_ANTA& DL_1L_1.4M_B_ANTB	42.99&42.96	39.67	Pass
DL_1L_1.4M_M_ANTA& DL_1L_1.4M_M_ANTB	43.49&43.32	43.80	Pass
DL_1L_1.4M_T_ANTA& DL_1L_1.4M_T_ANTB	42.9&42.8	38.55	Pass
DL_1L_20M_B_ANTA& DL_1L_20M_B_ANTB	43.68&43.62	46.35	Pass
DL_1L_20M_M_ANTA& DL_1L_20M_M_ANTB	43.71&43.62	46.52	Pass
DL_1L_20M_T_ANTA& DL_1L_20M_T_ANTB	43.8&43.59	46.85	Pass

1.2 Peak-to-Average Ratio

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

1.2.2.1.1 GSM system

EUT Conf.	Peak-to-Average Ratio [dB]	Verdict
DL_1G_TM1_M_ANTA	2.08	Pass
DL_1G_TM1_M_ANTB	2.06	Pass
DL_1G_TM2_M_ANTA	4.58	Pass
DL_1G_TM2_M_ANTB	4.61	Pass

1.2.2.1.2 UMTS system

EUT Conf.	Peak-to-Average Ratio [dB]	Verdict
DL_1U_TM1_M_ANTA	10.53	Pass
DL_1U_TM1_M_ANTB	9.95	Pass

1.2.2.1.3 LTE system

EUT Conf.	Peak-to-Average Ratio [dB]	Verdict
DL_1L_1.4M_M_ANTA	9.77	Pass
DL_1L_1.4M_M_ANTB	9.61	Pass
DL_1L_20M_M_ANTA	10.78	Pass
DL_1L_20M_M_ANTB	10.62	Pass

2 Test Plot

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

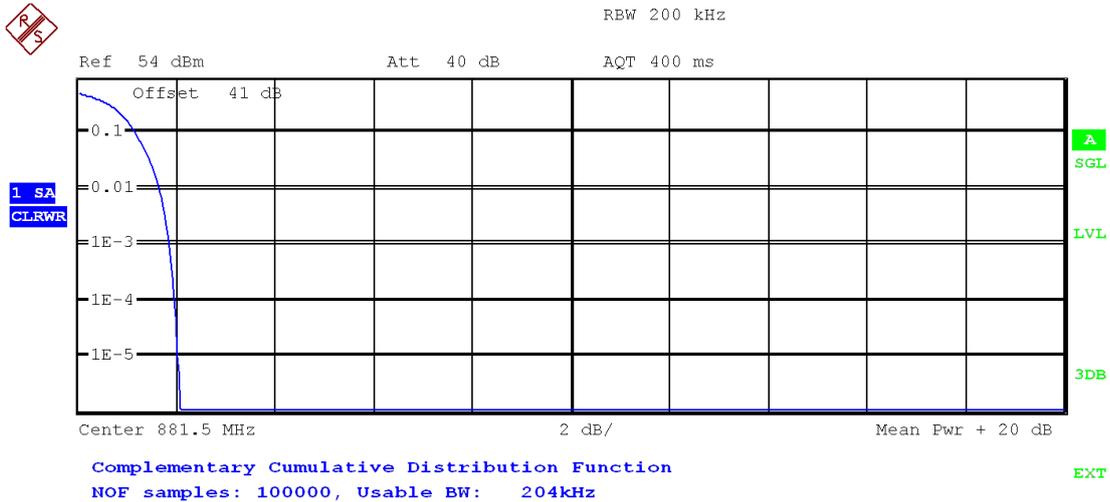## 2.1 Peak-to-Average Ratio

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
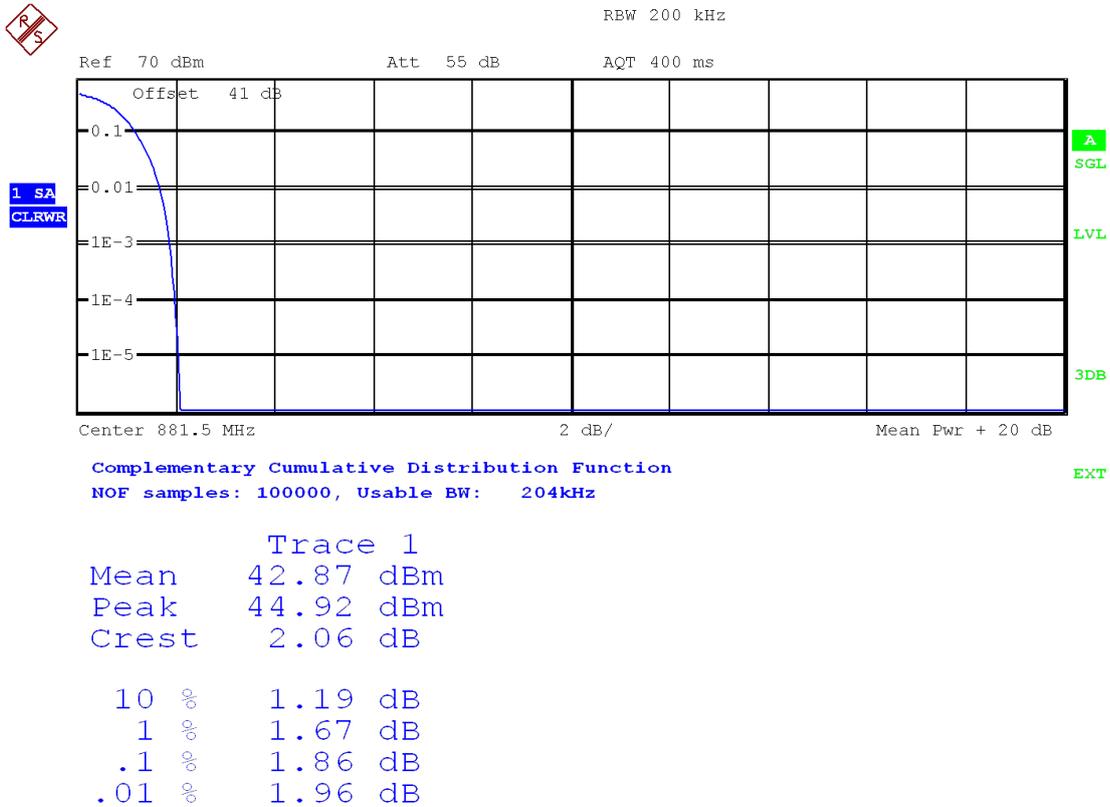
2.1.2.1 GSM system

2.1.2.1.1 DL_1G_TM1_M_ANTA


```
                                                    RBW 200 kHz
Ref  54 dBm              Att  40 dB      AQT 400 ms
    Offset   41 dB
  0.1
  0.01
  1E-3
  1E-4
  1E-5

Center 881.5 MHz                   2 dB/            Mean Pwr + 20 dB

Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW:   204kHz

           Trace 1
Mean    43.00 dBm
Peak    45.08 dBm
Crest    2.08 dB

  10 %    1.15 dB
   1 %    1.67 dB
  .1 %    1.86 dB
 .01 %    1.96 dB
```

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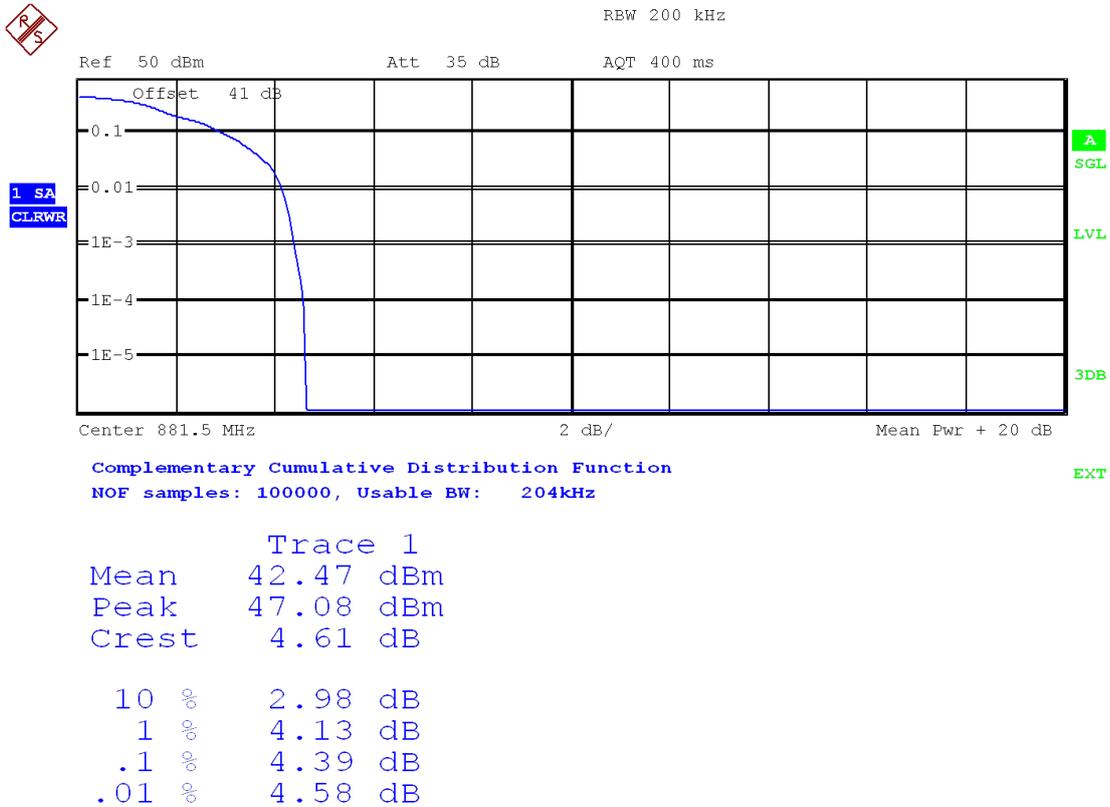
2.1.2.1.2 DL_1G_TM1_M_ANTB

```
                                        RBW  200 kHz
Ref   70 dBm              Att   55 dB       AQT  400 ms
     Offset   41 dB
                                                              A
  0.1                                                        SGL

1 SA
CLRWR 0.01
                                                             LVL
  1E-3

  1E-4

  1E-5
                                                             3DB

Center 881.5 MHz              2 dB/         Mean Pwr + 20 dB

Complementary Cumulative Distribution Function               EXT
NOF samples: 100000, Usable BW:   204kHz

          Trace 1
Mean    42.87 dBm
Peak    44.92 dBm
Crest    2.06 dB

  10 %    1.19 dB
   1 %    1.67 dB
  .1 %    1.86 dB
 .01 %    1.96 dB
```

Date: 19.NOV.2013 10:05:18

2.1.2.1.3 DL_1G_TM2_M_ANTA

```
                                          RBW  200 kHz
R S
    Ref   51 dBm              Att   35 dB      AQT 400 ms
          Offset   41 dB
      0.1                                                    A
                                                            SGL
1 SA  0.01
CLRWR
      1E-3                                                   LVL

      1E-4

      1E-5
                                                            3DB

    Center 881.5 MHz               2 dB/        Mean Pwr + 20 dB

    Complementary Cumulative Distribution Function           EXT
    NOF samples: 100000, Usable BW:    204kHz

              Trace 1
    Mean     42.51 dBm
    Peak     47.09 dBm
    Crest     4.58 dB

     10 %     2.95 dB
      1 %     4.13 dB
     .1 %     4.39 dB
     .01 %    4.55 dB
```
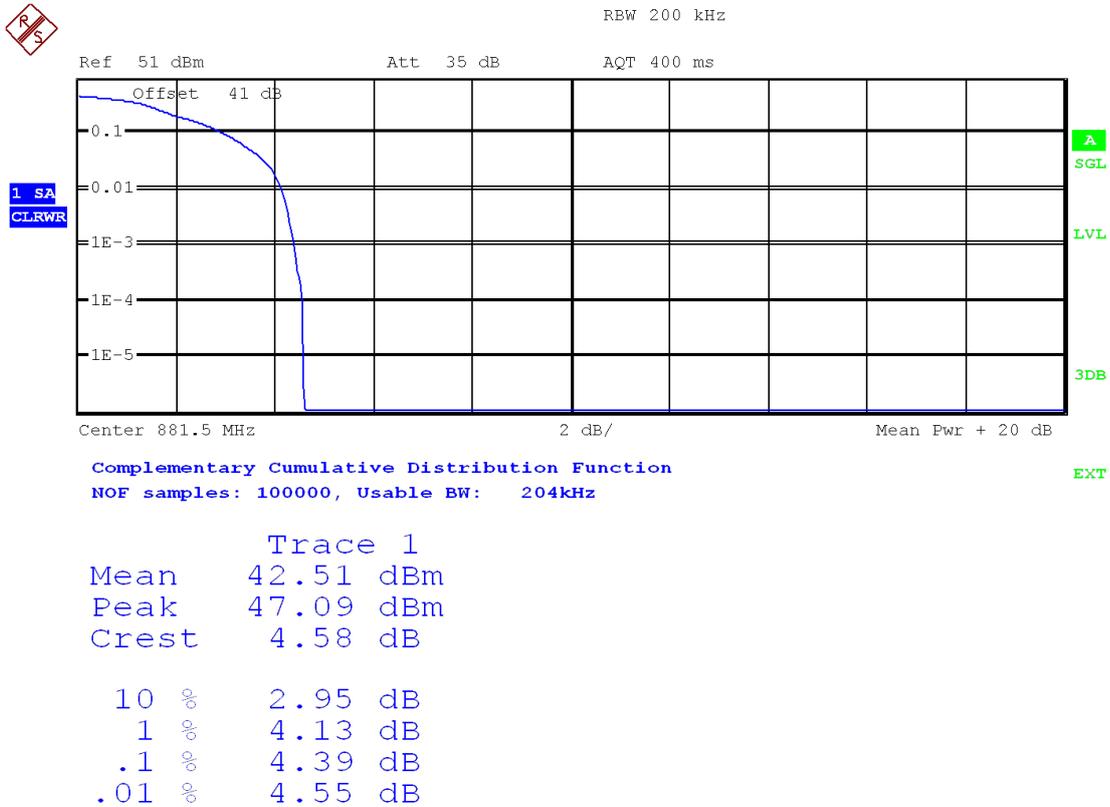
Date: 19.NOV.2013 11:17:59

2.1.2.1.4   DL_1G_TM2_M_ANTB


```
                                              RBW 200 kHz

 Ref  50 dBm              Att  35 dB       AQT 400 ms
       Offset  41 dB
   0.1

   0.01                                                              A
                                                                    SGL
 1 SA
 CLRWR                                                              LVL
   1E-3

   1E-4

   1E-5                                                             3DB

 Center 881.5 MHz                2 dB/            Mean Pwr + 20 dB

 Complementary Cumulative Distribution Function                    EXT
 NOF samples: 100000, Usable BW:    204kHz

              Trace 1
 Mean    42.47 dBm
 Peak    47.08 dBm
 Crest    4.61 dB

   10 %    2.98 dB
    1 %    4.13 dB
   .1 %    4.39 dB
  .01 %    4.58 dB
```

Date: 19.NOV.2013 10:01:11

2.1.2.2 UMTS system

2.1.2.2.1 DL_1U_TM1_M_ANTA
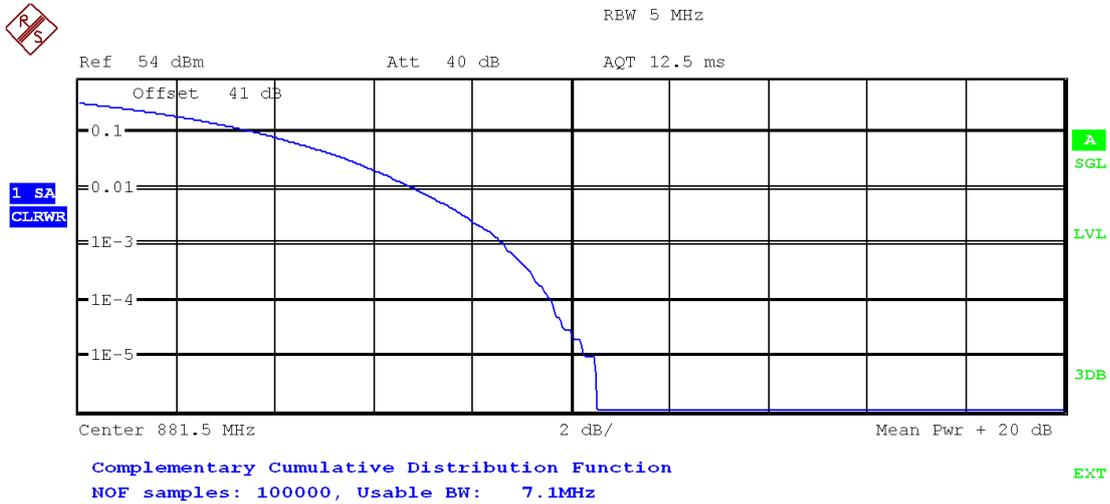
```
                                              RBW  5 MHz
Ref   54 dBm                    Att   40 dB       AQT 12.5 ms
    Offset   41 dB

  0.1                                                                        A
                                                                            SGL
1 SA
CLRWR 0.01
                                                                            LVL
   1E-3

   1E-4

   1E-5
                                                                            3DB

Center 881.5 MHz                        2 dB/          Mean Pwr + 20 dB

Complementary Cumulative Distribution Function                              EXT
NOF samples: 100000, Usable BW:   7.1MHz

          Trace 1
Mean    43.86 dBm
Peak    54.39 dBm
Crest   10.53 dB

  10 %    3.72 dB
   1 %    6.86 dB
  .1 %    8.65 dB
 .01 %    9.58 dB
```

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

2.1.2.2.2 DL_1U_TM1_M_ANTB
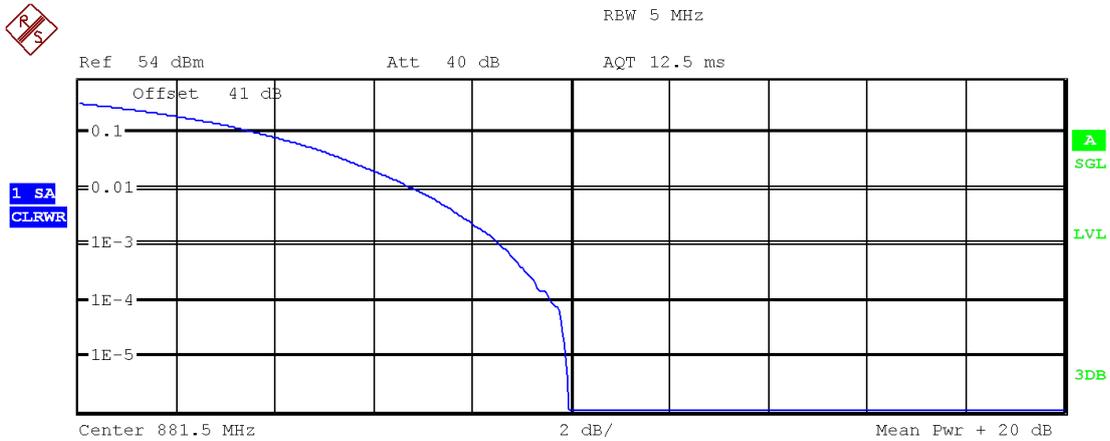

```
                                              RBW 5 MHz
     Ref  54 dBm              Att  40 dB        AQT 12.5 ms
          Offset   41 dB
   0.1
   0.01
   1E-3
   1E-4
   1E-5

     Center 881.5 MHz              2 dB/          Mean Pwr + 20 dB
```

Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 7.1MHz

Trace 1
Mean   43.95 dBm
Peak   53.90 dBm
Crest   9.95 dB

 10 %   3.75 dB
  1 %   6.83 dB
 .1 %   8.56 dB
 .01 %   9.58 dB

Date: 19.NOV.2013 10:12:07

2.1.2.3 LTE system

2.1.2.3.1 DL_1L_1.4M_M_ANTA
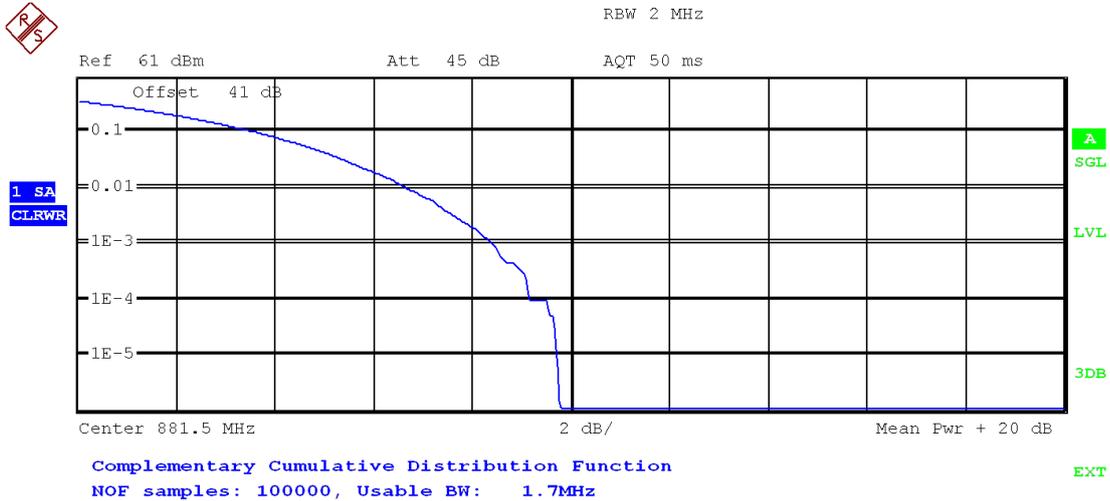
```
                                          RBW  2 MHz
Ref  61 dBm              Att  45 dB      AQT 50 ms
   Offset  41 dB

  0.1

  0.01                                                    A
                                                         SGL

  1E-3                                                   LVL

  1E-4

  1E-5                                                   3DB

Center 881.5 MHz              2 dB/        Mean Pwr + 20 dB

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

               Trace 1
   Mean    43.58 dBm
   Peak    53.35 dBm
   Crest    9.77 dB

    10 %    3.65 dB
     1 %    6.67 dB
    .1 %    8.40 dB
   .01 %    9.49 dB
```

Date: 19.NOV.2013 11:11:05

2.1.2.3.2 DL_1L_1.4M_M_ANTB

```
                                          RBW  2 MHz
Ref  54 dBm               Att  40 dB      AQT 50 ms
    Offset   41 dB

  0.1

  0.01

  1E-3

  1E-4

  1E-5

Center 881.5 MHz              2 dB/            Mean Pwr + 20 dB

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

```
          Trace 1
Mean    43.58 dBm
Peak    53.19 dBm
Crest    9.61 dB

 10 %    3.72 dB
  1 %    6.63 dB
 .1 %    8.33 dB
 .01 %   9.20 dB
```
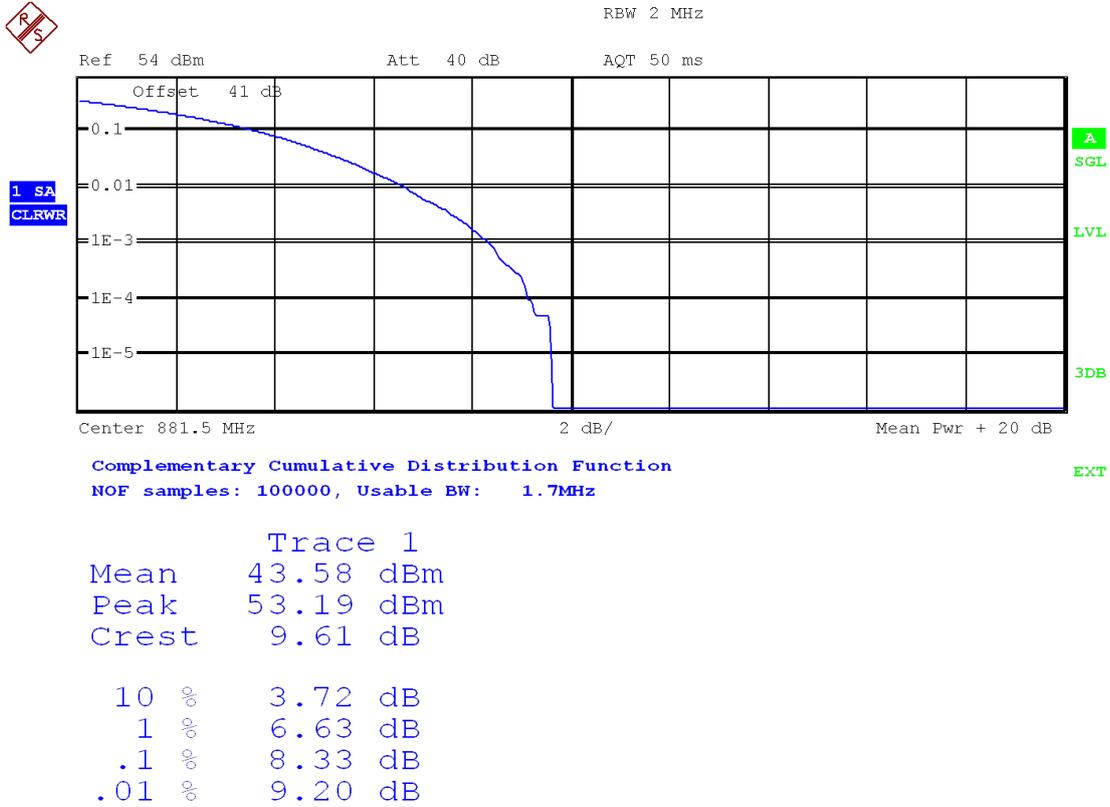
Date: 19.NOV.2013 10:14:16

2.1.2.3.3 DL_1L_20M_M_ANTA


```
                                          RBW  20 MHz

Ref   51 dBm              Att   35 dB      AQT 3.125 ms
     Offset   41 dB

 0.1

 0.01

 1E-3

 1E-4

 1E-5

Center 881.5 MHz                2 dB/          Mean Pwr + 20 dB

Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW:  23.7MHz

            Trace 1
Mean     43.97 dBm
Peak     54.74 dBm
Crest    10.78 dB

 10 %     3.65 dB
  1 %     6.67 dB
 .1 %     8.40 dB
.01 %     9.81 dB
```
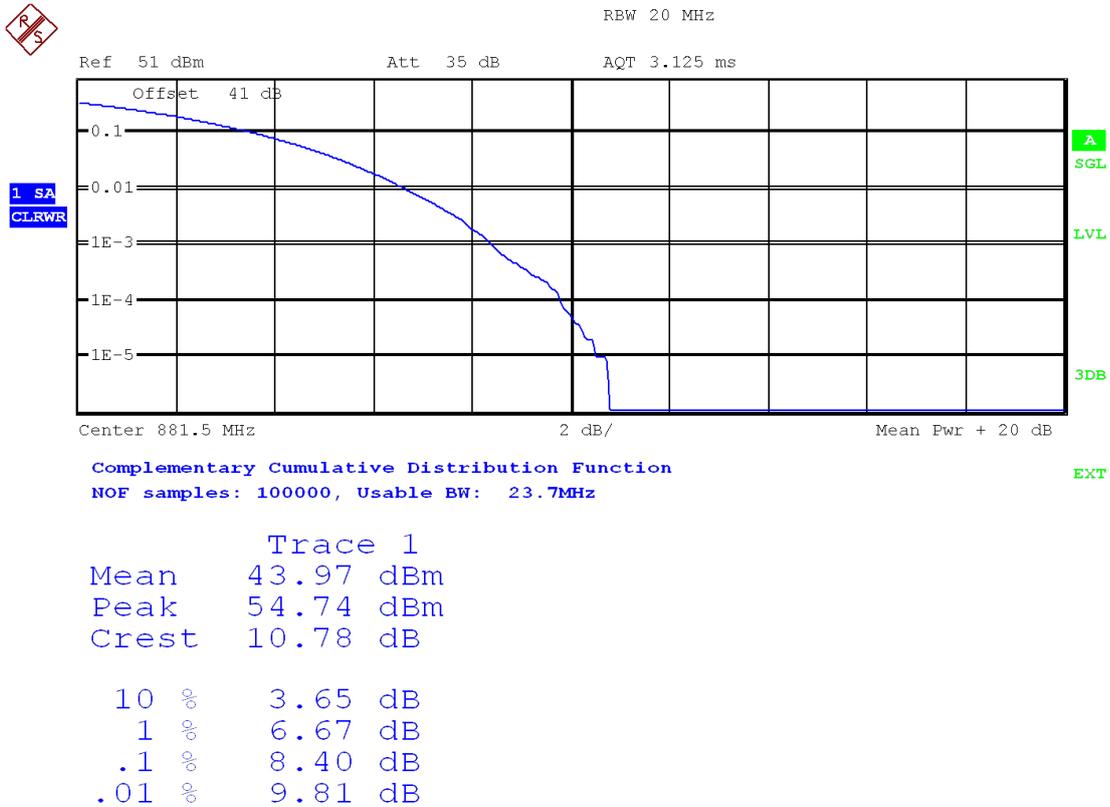
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2.1.2.3.4 DL_1L_20M_M_ANTB
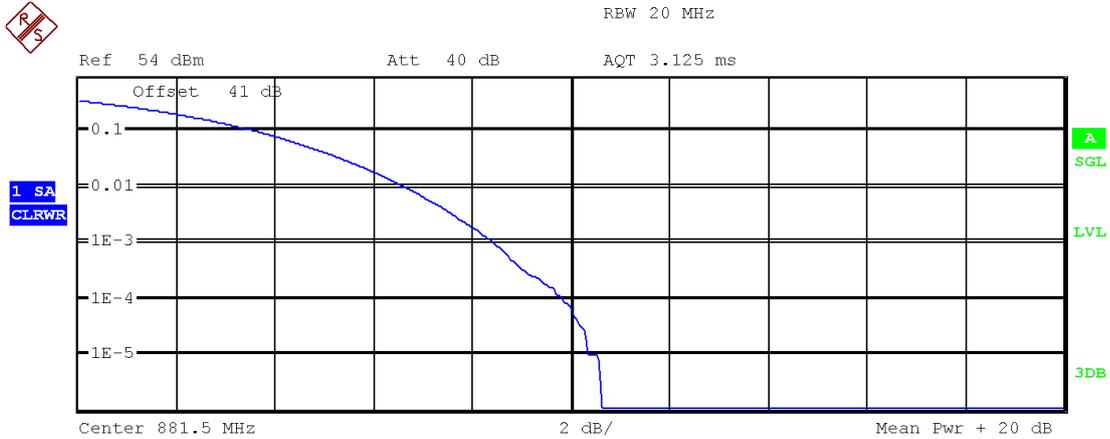
```
                                              RBW 20 MHz
     Ref  54 dBm              Att  40 dB      AQT 3.125 ms
         Offset  41 dB

       0.1

1 SA
CLRWR  0.01

       1E-3

       1E-4

       1E-5

     Center 881.5 MHz                2 dB/        Mean Pwr + 20 dB

     Complementary Cumulative Distribution Function
     NOF samples: 100000, Usable BW:  23.7MHz
```

```
            Trace 1
   Mean    44.02 dBm
   Peak    54.63 dBm
   Crest   10.62 dB

   10 %     3.69 dB
    1 %     6.63 dB
   .1 %     8.43 dB
   .01 %    9.81 dB
```

Date: 19.NOV.2013 10:13:11

Appendix B: Bandwidth

1   Result Table

1.1   Occupied Bandwidth

1.1.1   Uplink Test Plots

Not applicable.

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

1.1.2   Downlink Test Plots (without AGC activated)

1.1.2.1   GSM system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1G_TM1_M_ANTA	0.2452	Pass
DL_1G_TM1_M_ANTB	0.2452	Pass
DL_1G_TM2_M_ANTA	0.2332	Pass
DL_1G_TM2_M_ANTB	0.2332	Pass

1.1.2.2   UMTS system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1U_TM1_M_ANTA	4.1667	Pass
DL_1U_TM1_M_ANTB	4.1667	Pass

1.1.2.3   LTE system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1L_1.4M_M_ANTA	1.0769	Pass
DL_1L_1.4M_M_ANTB	1.0769	Pass
DL_1L_20M_M_ANTA	17.8888	Pass
DL_1L_20M_M_ANTB	17.8888	Pass

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

1.1.3.1   GSM system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1G_TM1_M_ANTA	0.2460	Pass
DL_1G_TM1_M_ANTB	0.2460	Pass
DL_1G_TM2_M_ANTA	0.2411	Pass

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1G_TM2_M_ANTB	0.2396	Pass

1.1.3.2 UMTS system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1U_TM1_M_ANTA	4.1667	Pass
DL_1U_TM1_M_ANTB	4.1667	Pass

1.1.3.3 LTE system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1L_1.4M_M_ANTA	1.1274	Pass
DL_1L_1.4M_M_ANTB	1.1274	Pass
DL_1L_20M_M_ANTA	17.9444	Pass
DL_1L_20M_M_ANTB	17.9444	Pass

1.2 20dB Bandwidth

1.2.1 Uplink Test Plots

1.2.2 Downlink Test Plots

1.2.2.1 GSM system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1G_TM1_M_ANTA	0.279104	Pass
DL_1G_TM1_M_ANTB	0.271168	Pass
DL_1G_TM2_M_ANTA	0.279648	Pass
DL_1G_TM2_M_ANTB	0.281792	Pass

1.2.2.2 UMTS system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1U_TM1_M_ANTA	4.600064	Pass
DL_1U_TM1_M_ANTB	4.610048	Pass

1.2.2.3 LTE system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1L_1.4M_M_ANTA	1.357376	Pass
DL_1L_1.4M_M_ANTB	1.346176	Pass

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1L_20M_M_ANTA	18.882368	Pass
DL_1L_20M_M_ANTB	18.852928	Pass

1.3 26dB Bandwidth

Not applicable.

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

1.3.1 Downlink Test Plots

1.3.1.1 GSM system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1G_TM1_M_ANTA	0.308544	Pass
DL_1G_TM1_M_ANTB	0.31328	Pass
DL_1G_TM2_M_ANTA	0.30496	Pass
DL_1G_TM2_M_ANTB	0.300288	Pass

1.3.1.2 UMTS system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1U_TM1_M_ANTA	4.620032	Pass
DL_1U_TM1_M_ANTB	4.620032	Pass

1.3.1.3 LTE system

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
DL_1L_1.4M_M_ANTA	1.31808	Pass
DL_1L_1.4M_M_ANTB	1.323712	Pass
DL_1L_20M_M_ANTA	18.649984	Pass
DL_1L_20M_M_ANTB	18.56	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

2.1.2.1 GSM system

2.1.2.1.1 DL_1G_TM1_M_ANTA
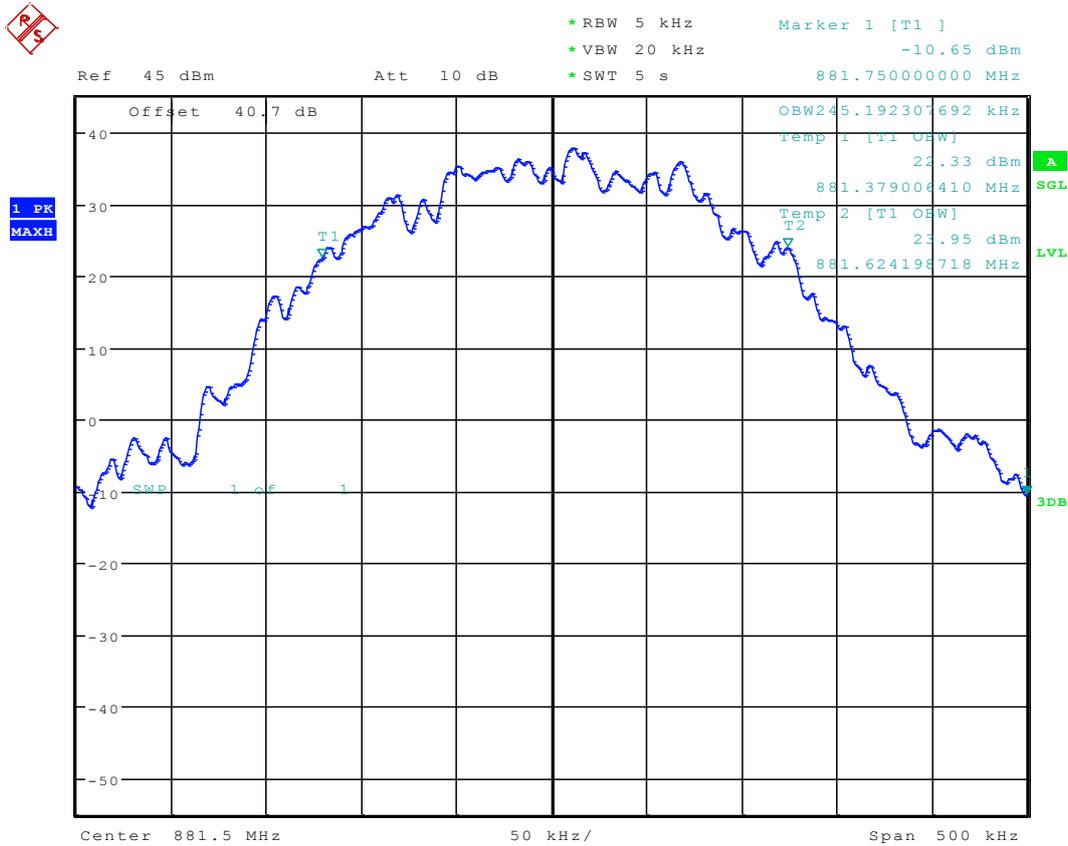
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2.1.2.1.2 DL_1G_TM1_M_ANTB
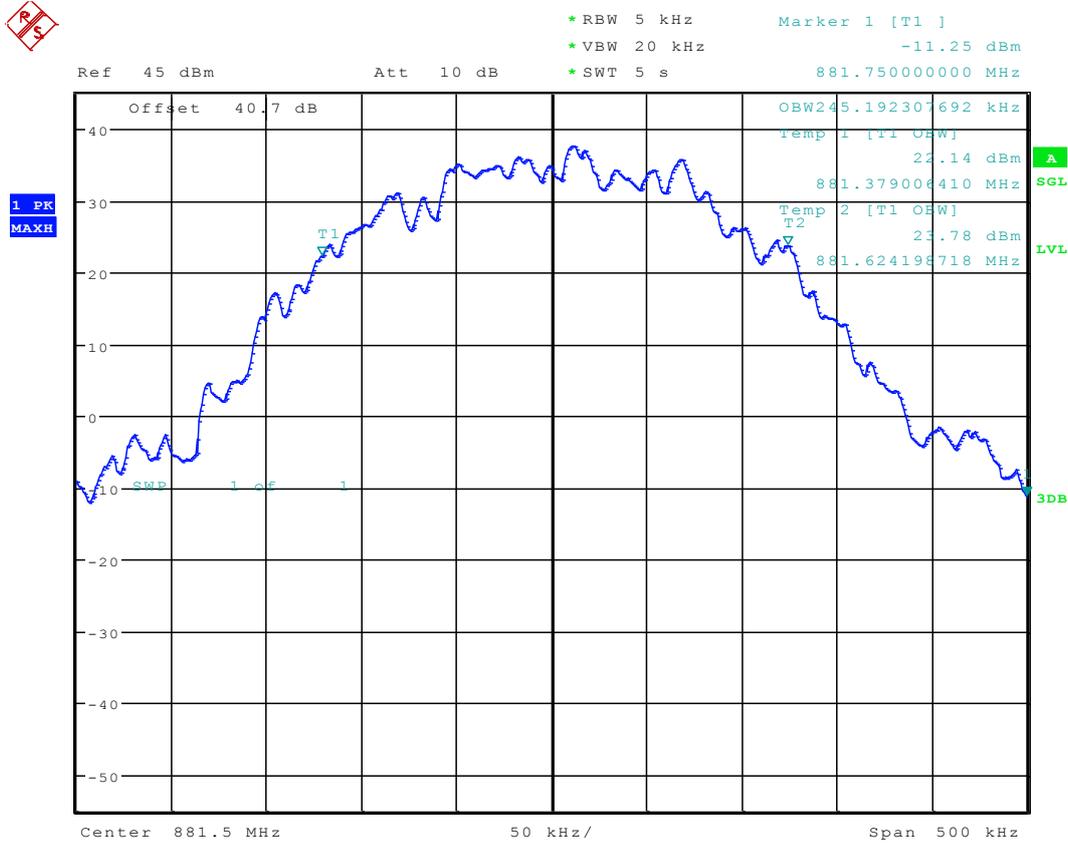
Date: 20.SEP.2013 10:09:29

2.1.2.1.3 DL_1G_TM2_M_ANTA

Date: 18.SEP.2013 16:50:17

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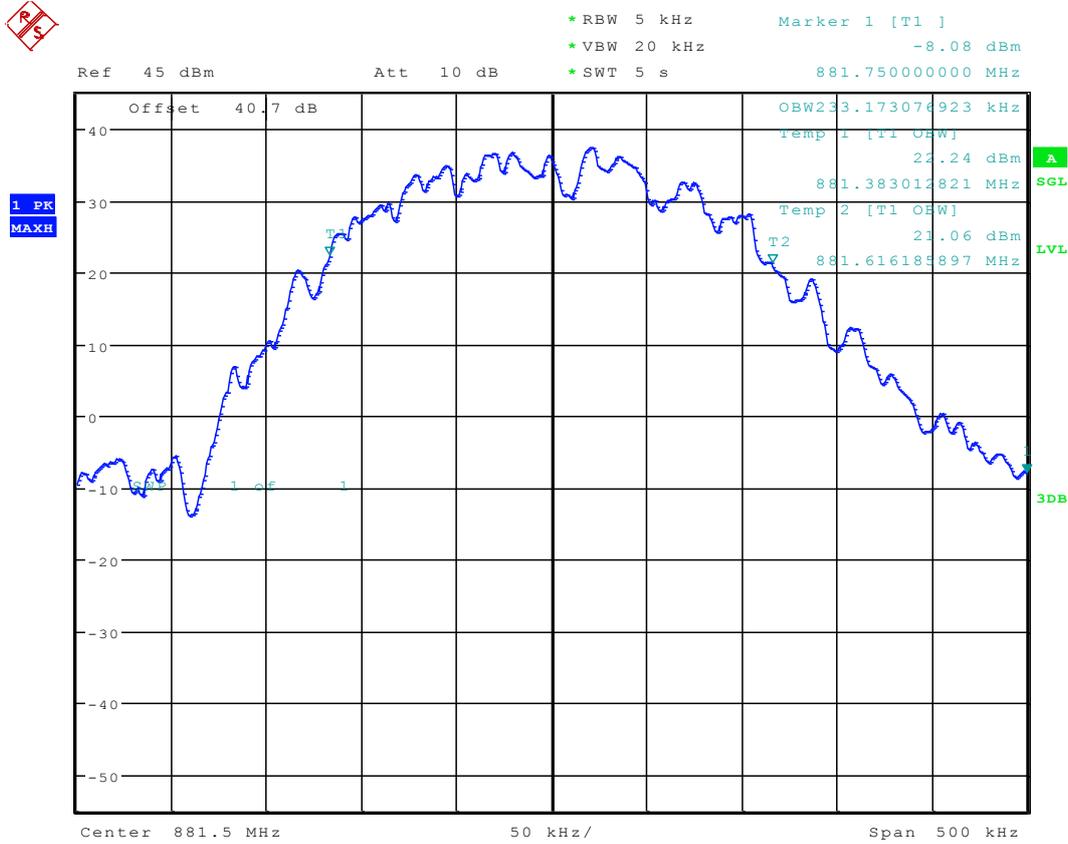
2.1.2.1.4 DL_1G_TM2_M_ANTB
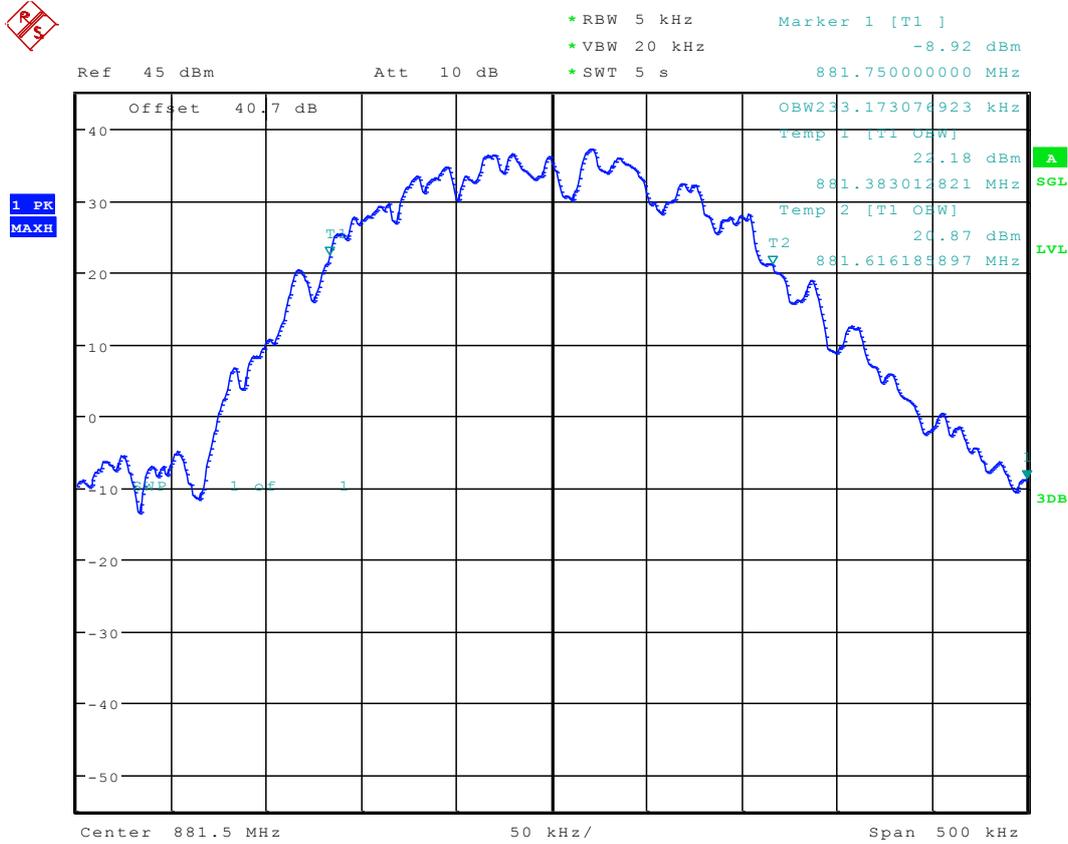
Date: 20.SEP.2013 10:13:48

2.1.2.2 UMTS system

2.1.2.2.1 DL_1U_TM1_M_ANTA
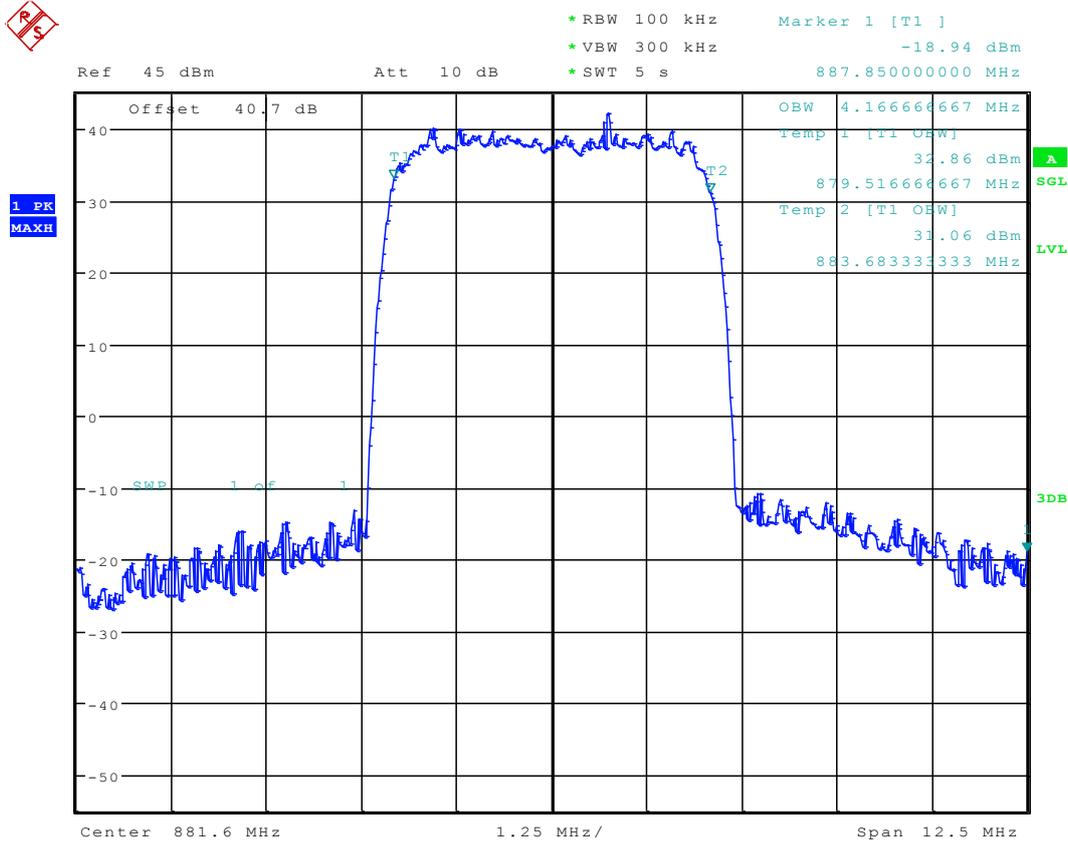
Date: 20.SEP.2013 12:02:04

2.1.2.2.2 DL_1U_TM1_M_ANTB


```
                                          * RBW  100 kHz     Marker 1 [T1 ]
                                          * VBW  300 kHz              -29.22 dBm
    Ref  45 dBm              Att  10 dB   * SWT  5 s          887.850000000 MHz

      Offset   40.7 dB                                 OBW  4.166666667 MHz
    40                                                 Temp 1 [T1 OBW]
                                                                32.44 dBm
                                                       879.516666667 MHz
    30                                                 Temp 2 [T1 OBW]
                                                                30.57 dBm
                                                       883.683333333 MHz
    20

    10

     0

   -10   SWP   1 of  1

   -20

   -30

   -40

   -50

    Center  881.6 MHz          1.25 MHz/              Span  12.5 MHz
```
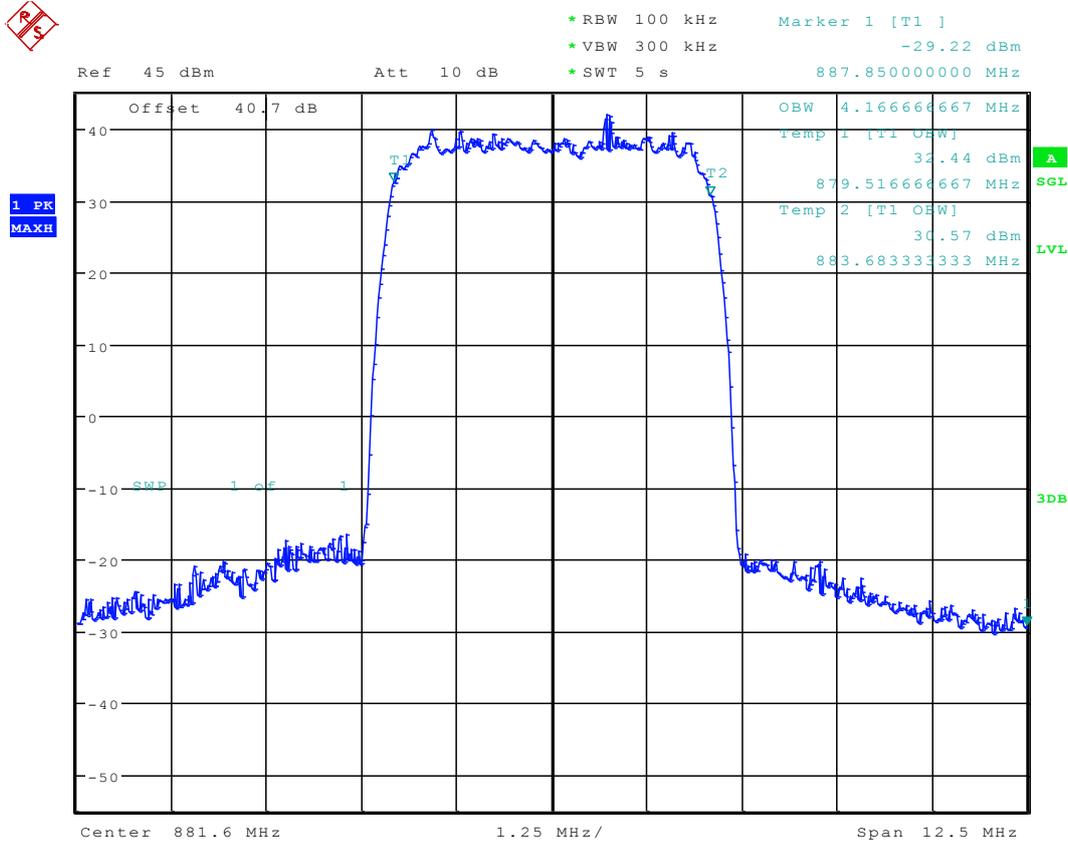
Date: 20.SEP.2013 14:55:19

2.1.2.3 LTE system

2.1.2.3.1 DL_1L_1.4M_M_ANTA
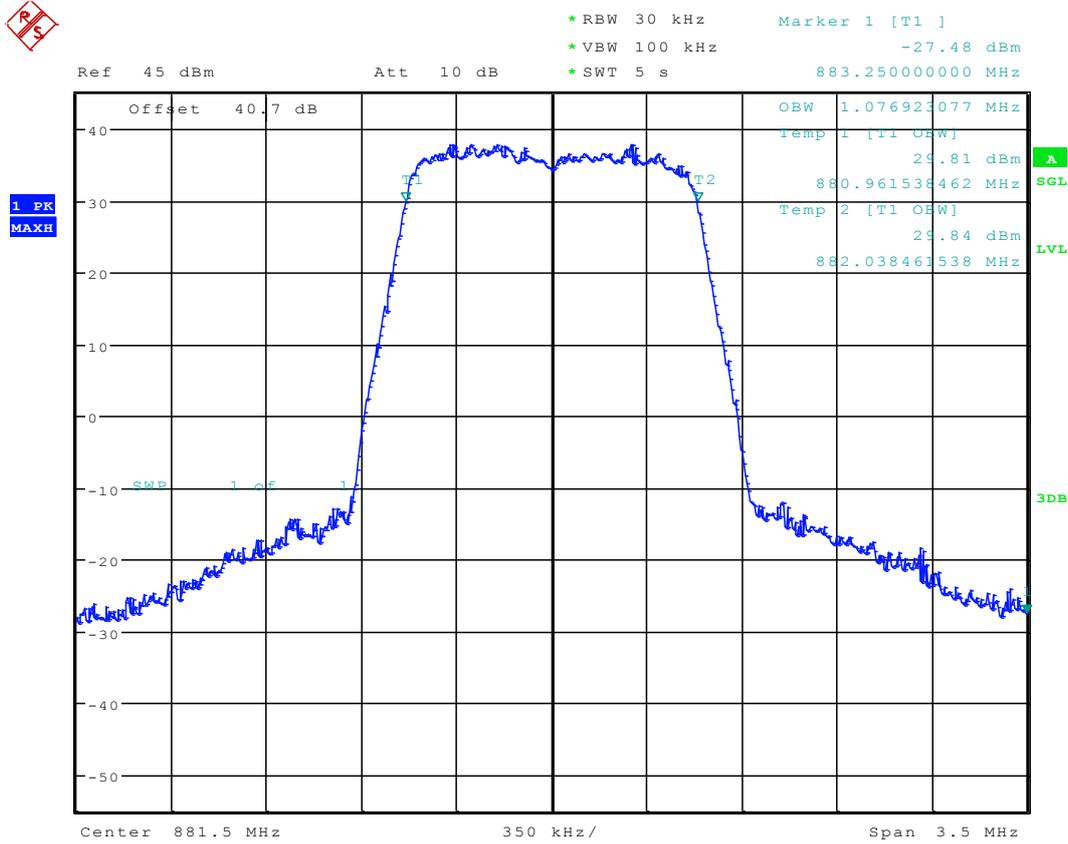
Date: 20.SEP.2013 15:48:27

2.1.2.3.2 DL_1L_1.4M_M_ANTB


```
                                      * RBW  30 kHz      Marker 1 [T1 ]
                                      * VBW  100 kHz                  -28.11 dBm
 Ref  45 dBm              Att  10 dB  * SWT  5 s          883.250000000 MHz

     Offset   40.7 dB                                OBW  1.076923077 MHz
  40                                                Temp 1 [T1 OBW]
                                                                 29.14 dBm         A
  30                                                880.961538462 MHz              SGL

                                                   Temp 2 [T1 OBW]
                                                                 30.15 dBm
  20                                                882.038461538 MHz              LVL

  10

   0

 -10   SWP      1 of    1                                                          3DB

 -20

 -40

 -50

 Center  881.5 MHz                   350 kHz/                   Span  3.5 MHz
```
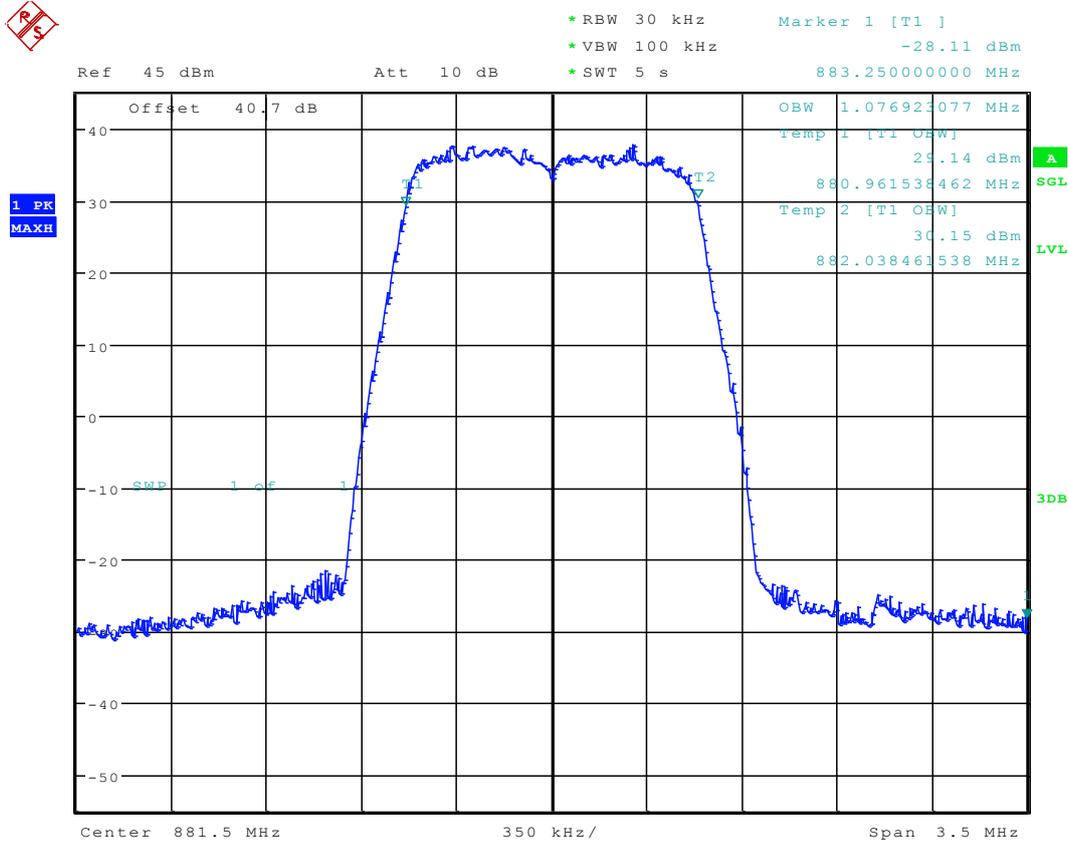
Date: 20.SEP.2013 16:06:39

2.1.2.3.3 DL_1L_20M_M_ANTA
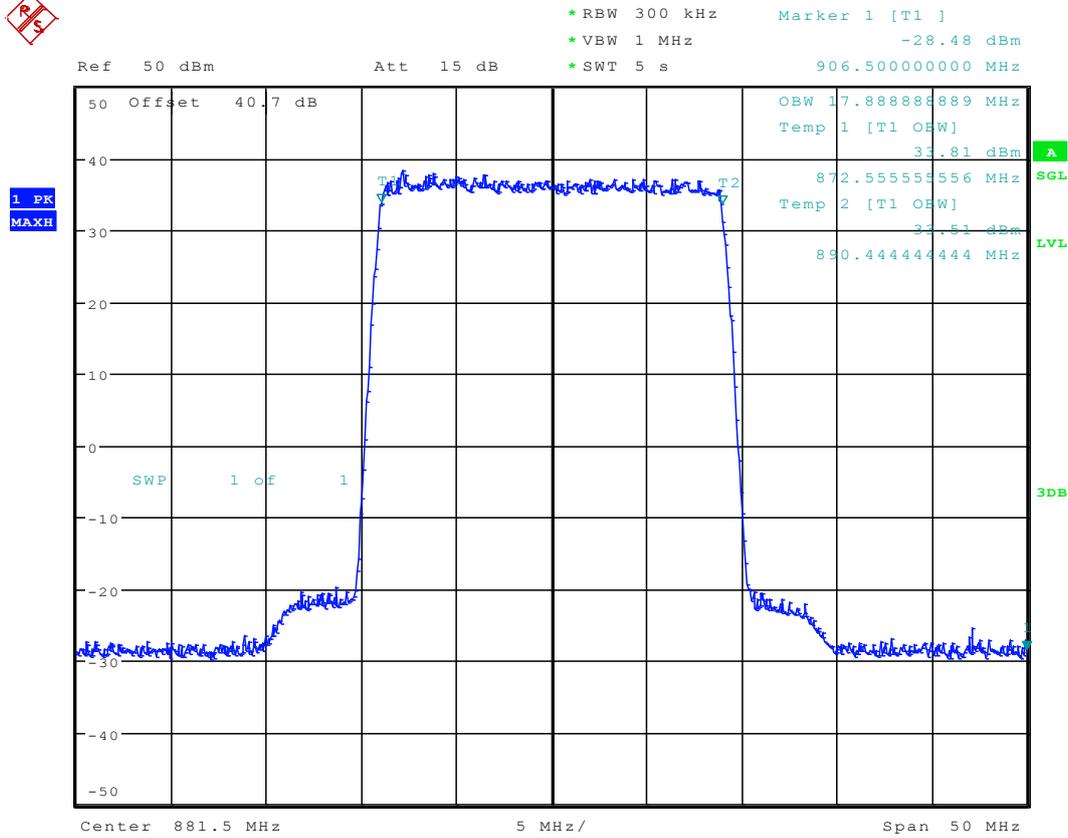
Date: 20.SEP.2013 17:33:03

2.1.2.3.4   DL_1L_20M_M_ANTB
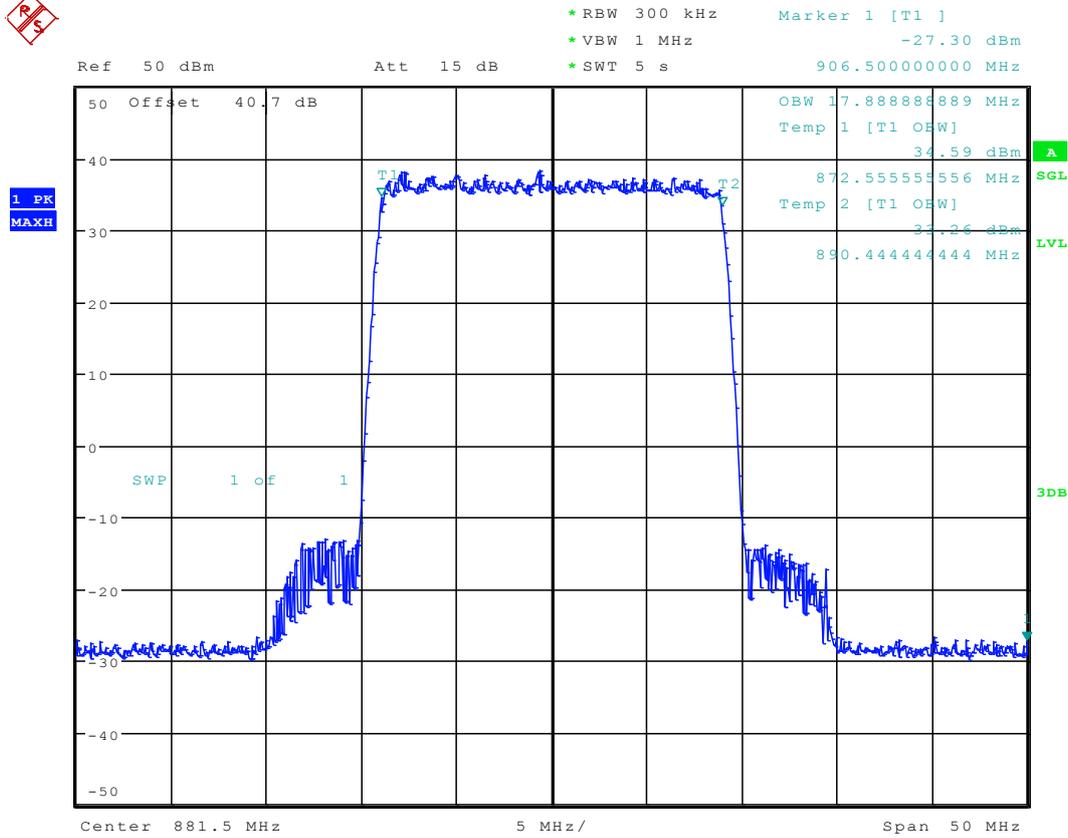
Date: 20.SEP.2013 17:24:58

2.1.3 Downlink Test Plots (input signal +10dB with AGC activated)

2.1.3.1 GSM system

2.1.3.1.1 DL_1G_TM1_M_ANTA
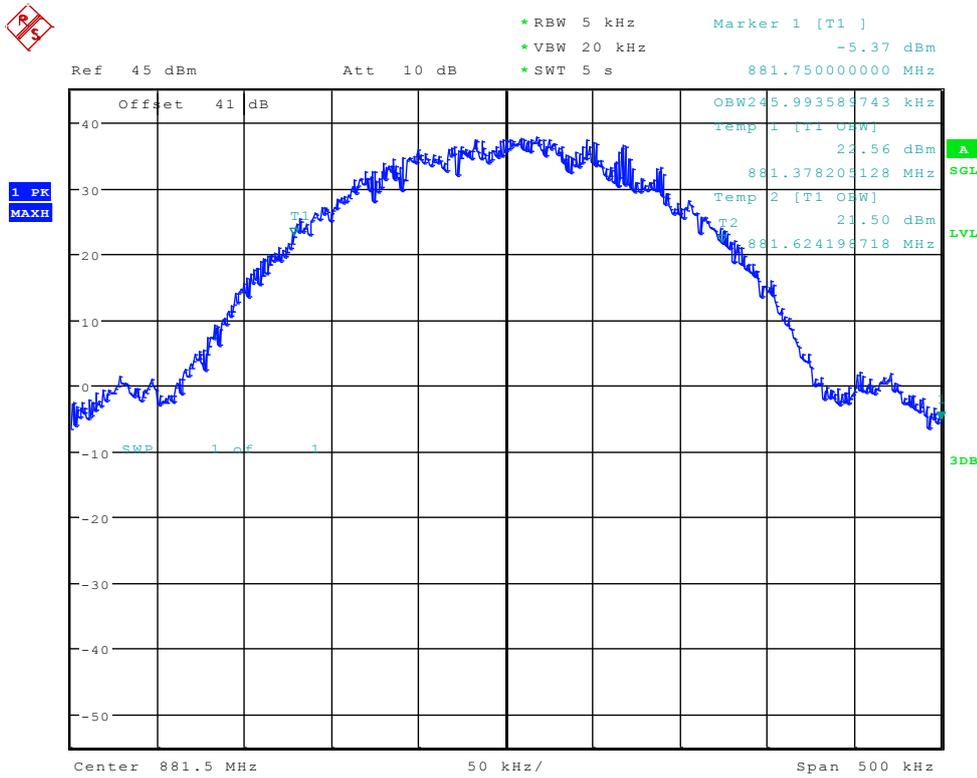
Date: 6.DEC.2013 10:05:45

2.1.3.1.2 DL_1G_TM1_M_ANTB
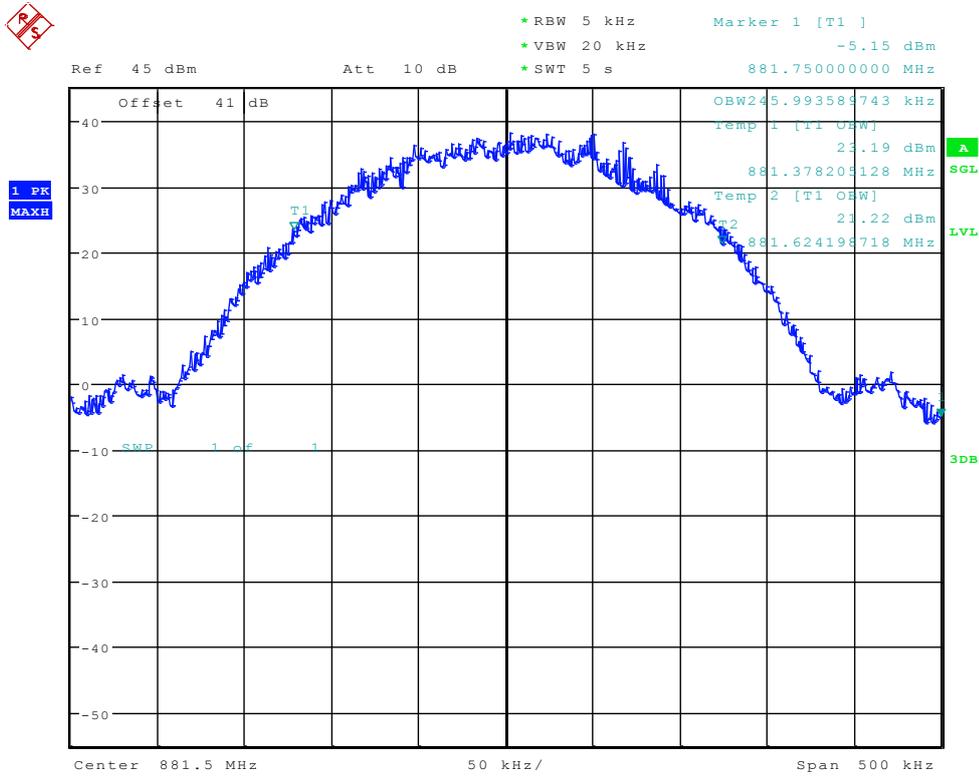
Date: 6.DEC.2013 10:07:07

2.1.3.1.3 DL_1G_TM2_M_ANTA
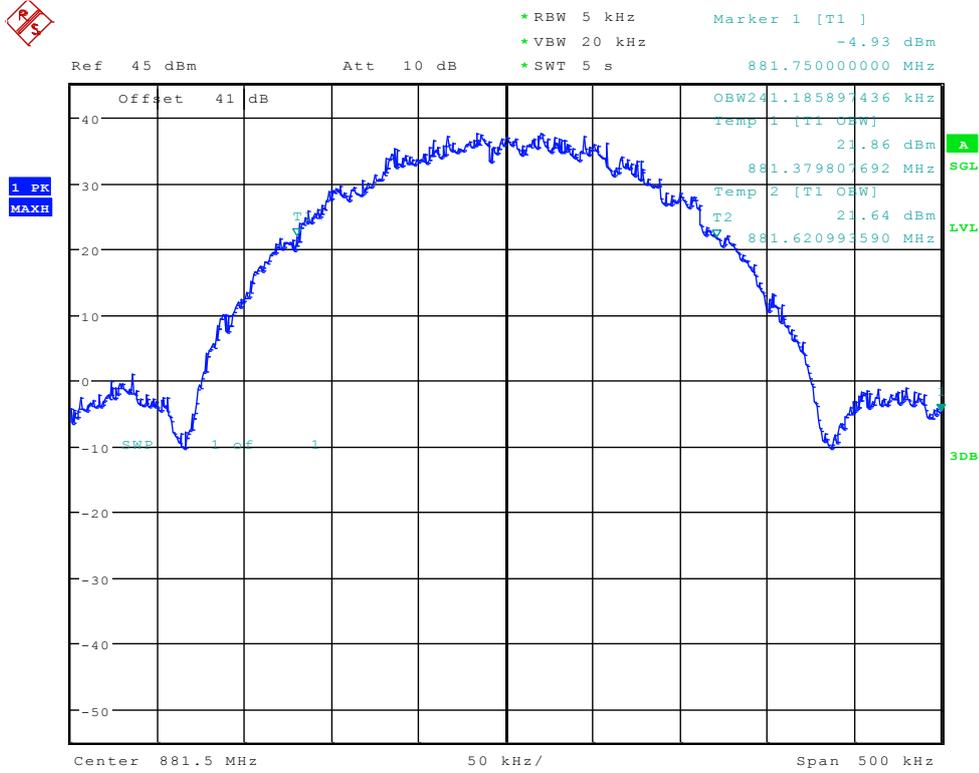
Date: 6.DEC.2013 10:08:22

2.1.3.1.4 DL_1G_TM2_M_ANTB
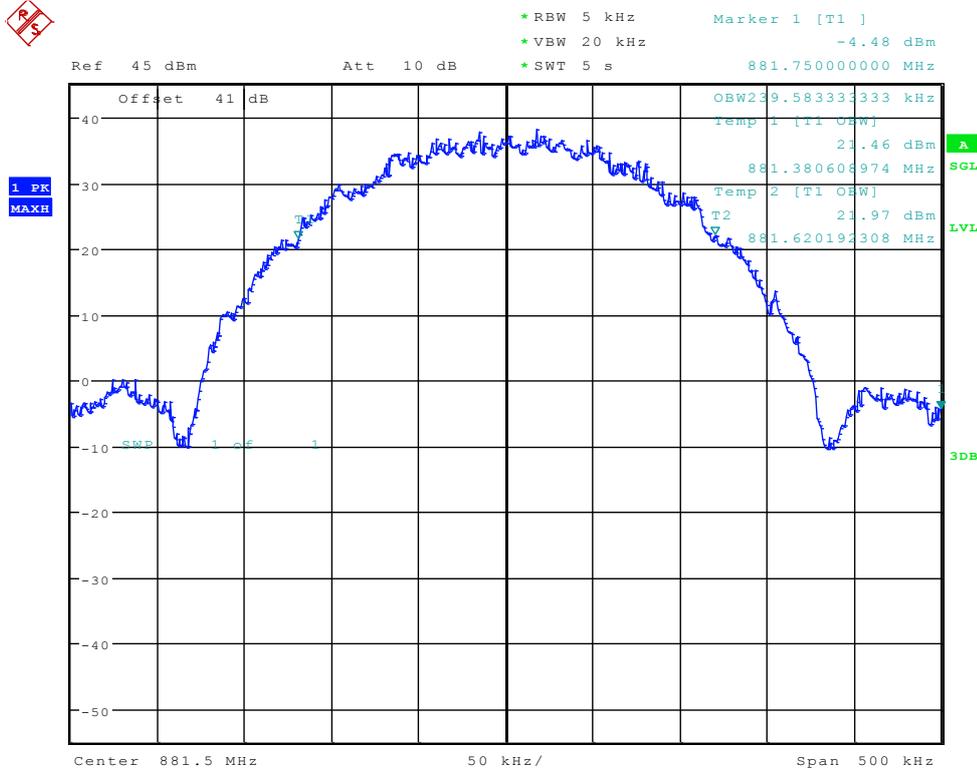
Date: 6.DEC.2013 10:09:19

2.1.3.2 UMTS system

2.1.3.2.1 DL_1U_TM1_M_ANTA
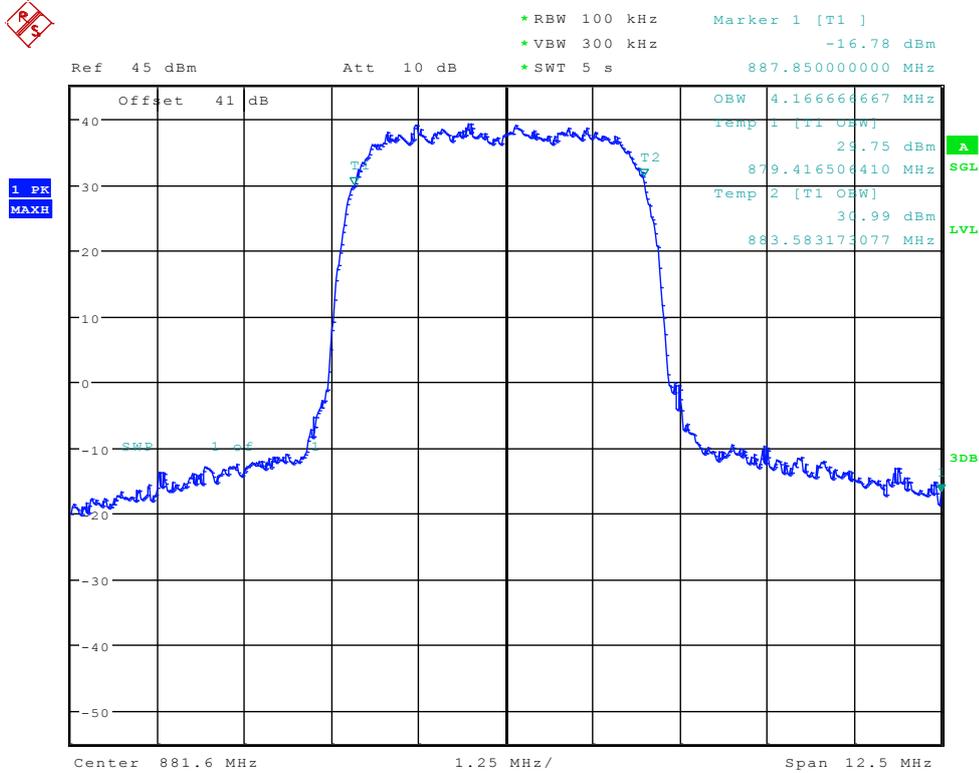
Date: 6.DEC.2013 10:11:10

2.1.3.2.2 DL_1U_TM1_M_ANTB
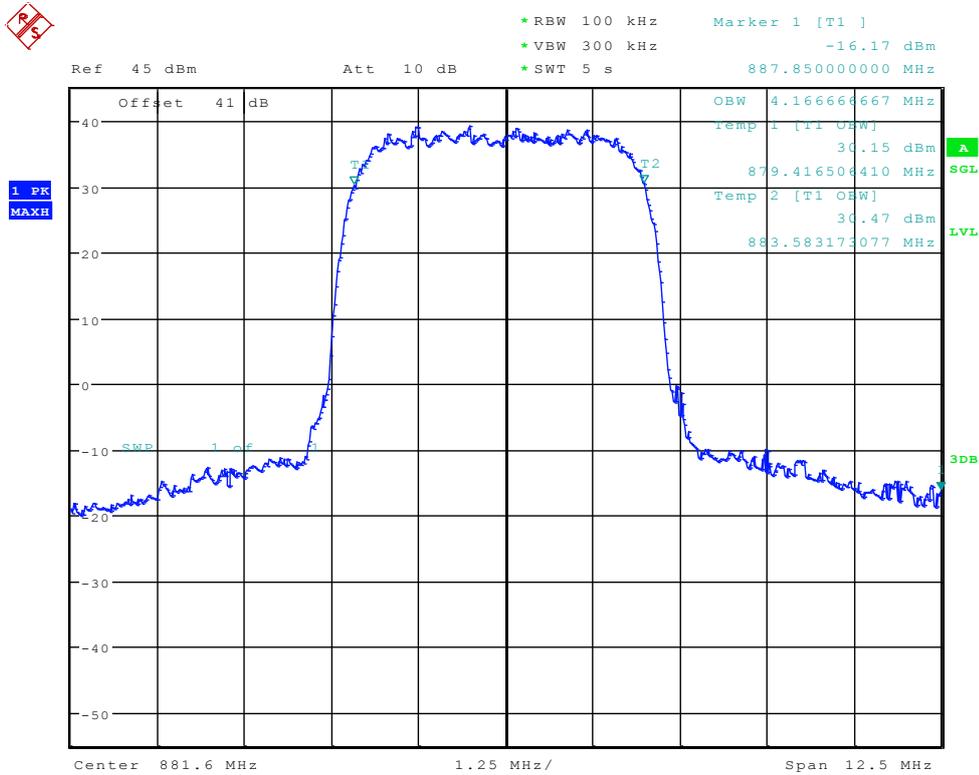
Date: 6.DEC.2013 10:13:06

2.1.3.3 LTE system

2.1.3.3.1 DL_1L_1.4M_M_ANTA
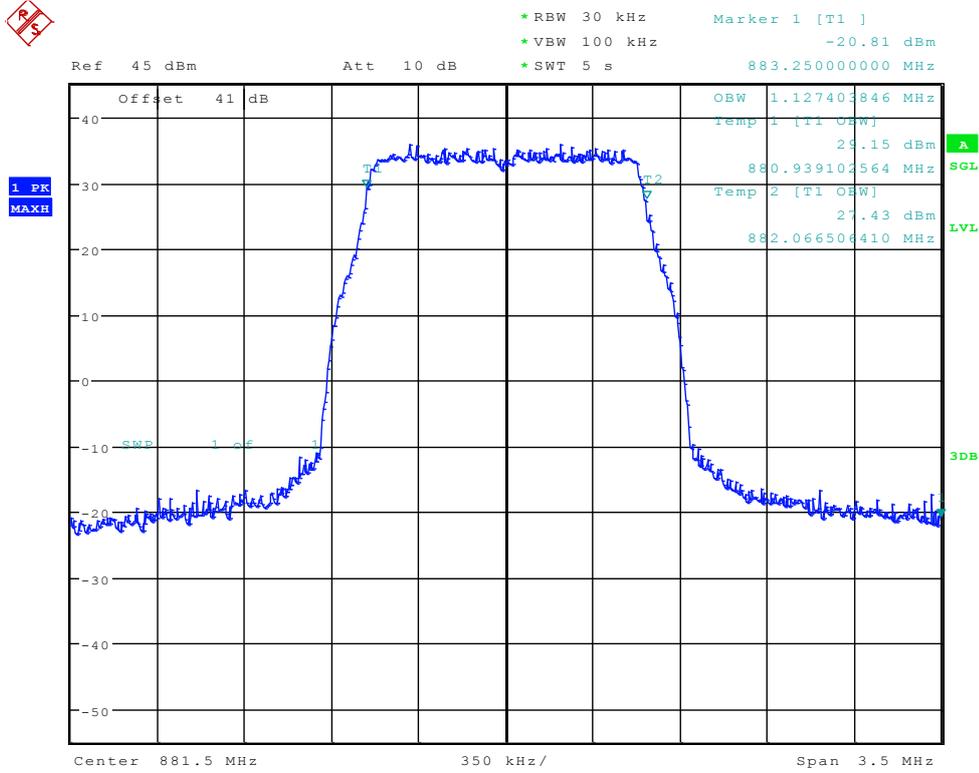
Date: 6.DEC.2013 11:37:34

2.1.3.3.2 DL_1L_1.4M_M_ANTB

Date: 6.DEC.2013 11:41:52

2.1.3.3.3 DL_1L_20M_M_ANTA
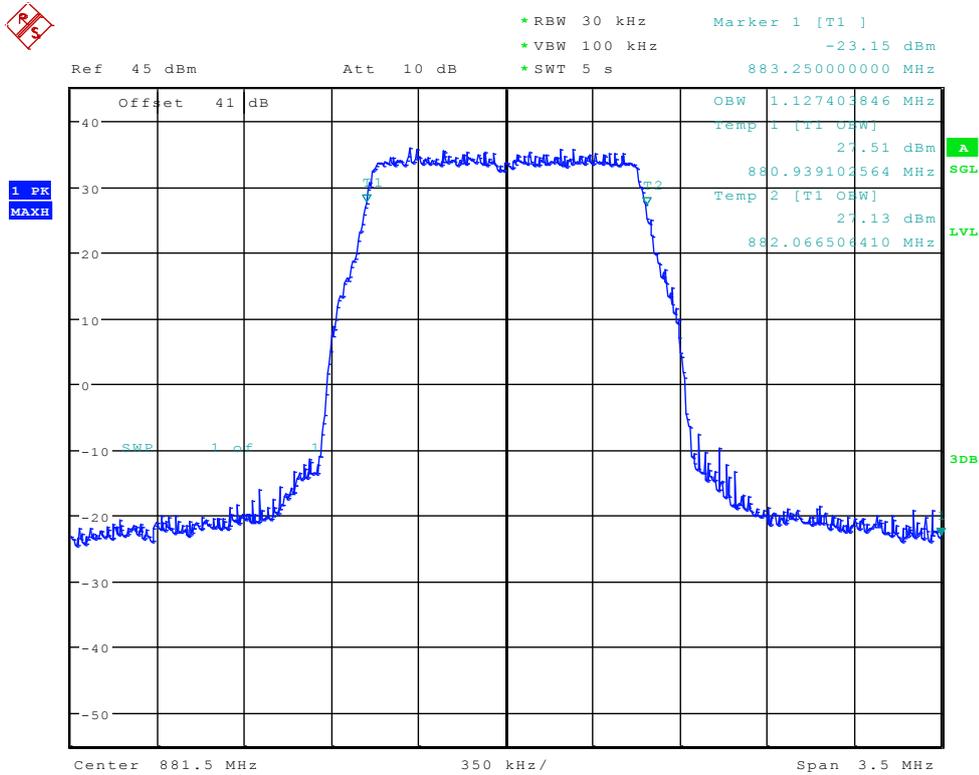
Date: 6.DEC.2013 11:48:12

2.1.3.3.4 DL_1L_20M_M_ANTB
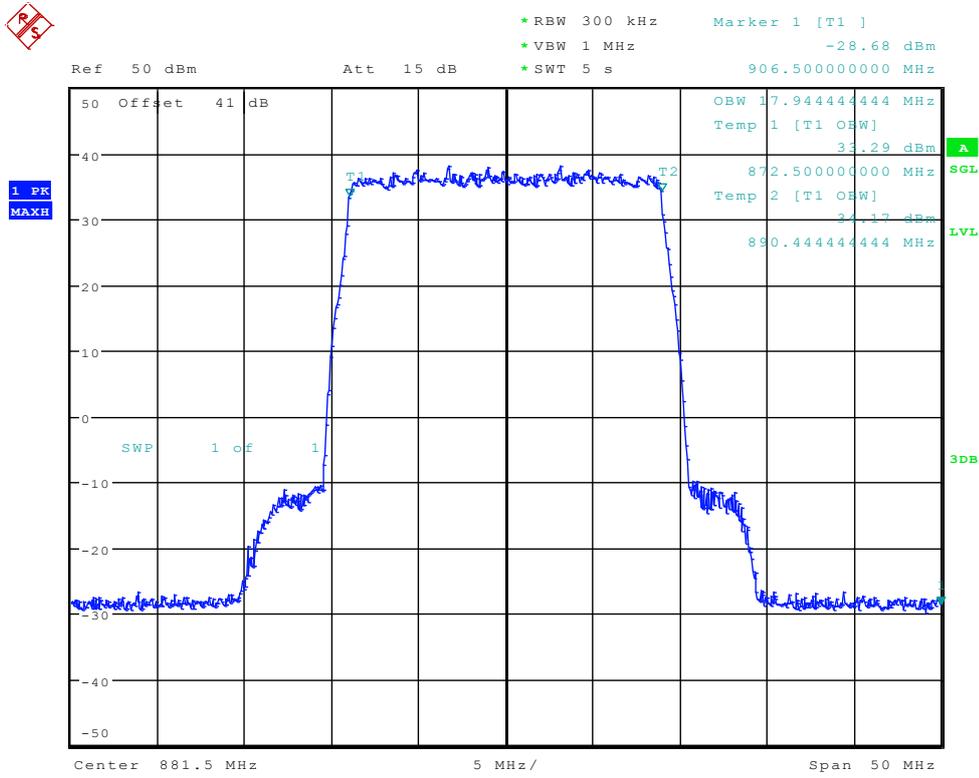
Date: 6.DEC.2013 11:49:46

2.1.4 Downlink input signal Plots

2.1.4.1 DL_1G_TM1_M

Date: 7.DEC.2013 11:20:33

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2.1.4.2 DL_1G_TM2_M
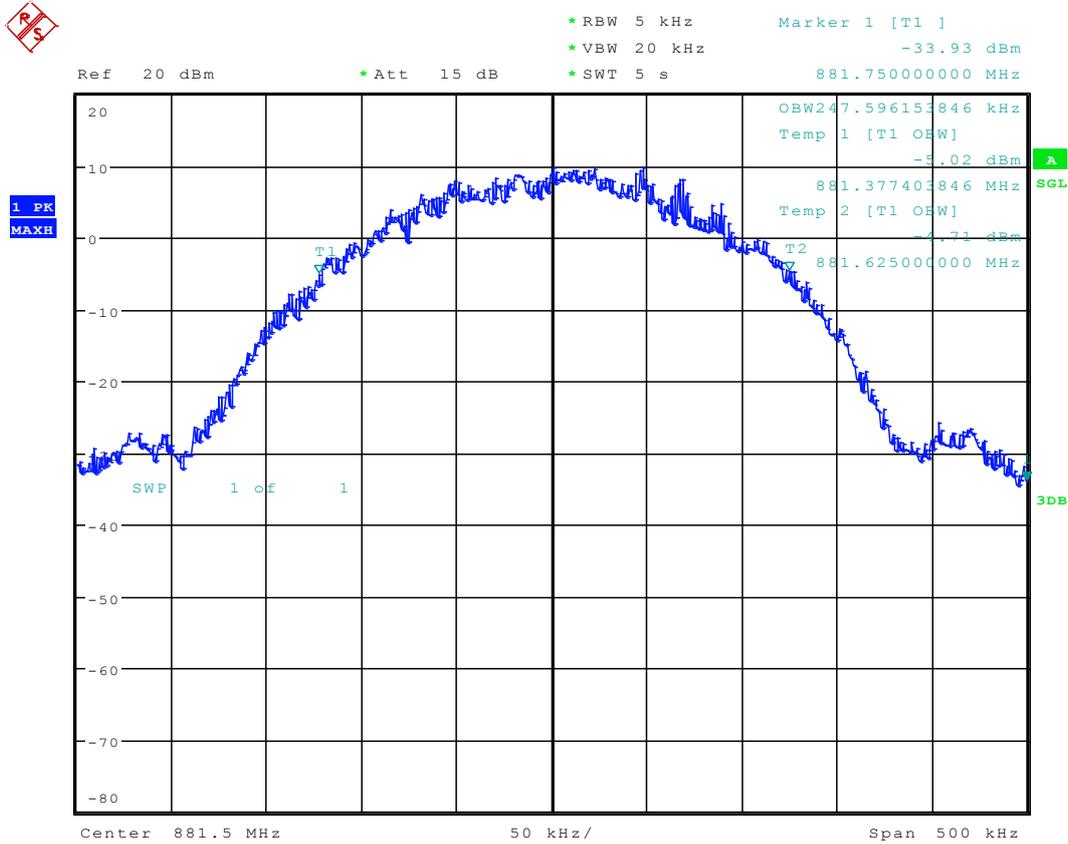
Date: 7.DEC.2013 11:24:26

2.1.4.3 DL_1U_TM1_M
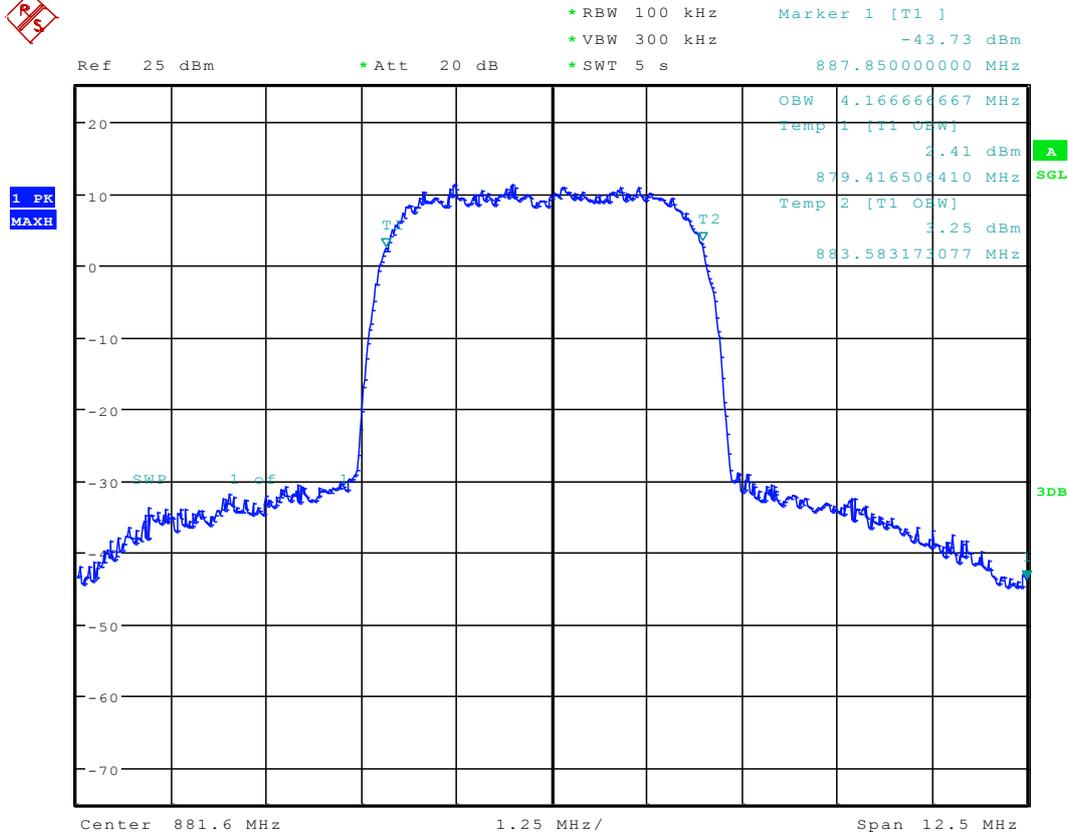
Date: 7.DEC.2013 11:38:30

2.1.4.4 DL_1L_1.4M_M

Date: 7.DEC.2013 11:43:13

2.1.4.5 DL_1L_20M_M
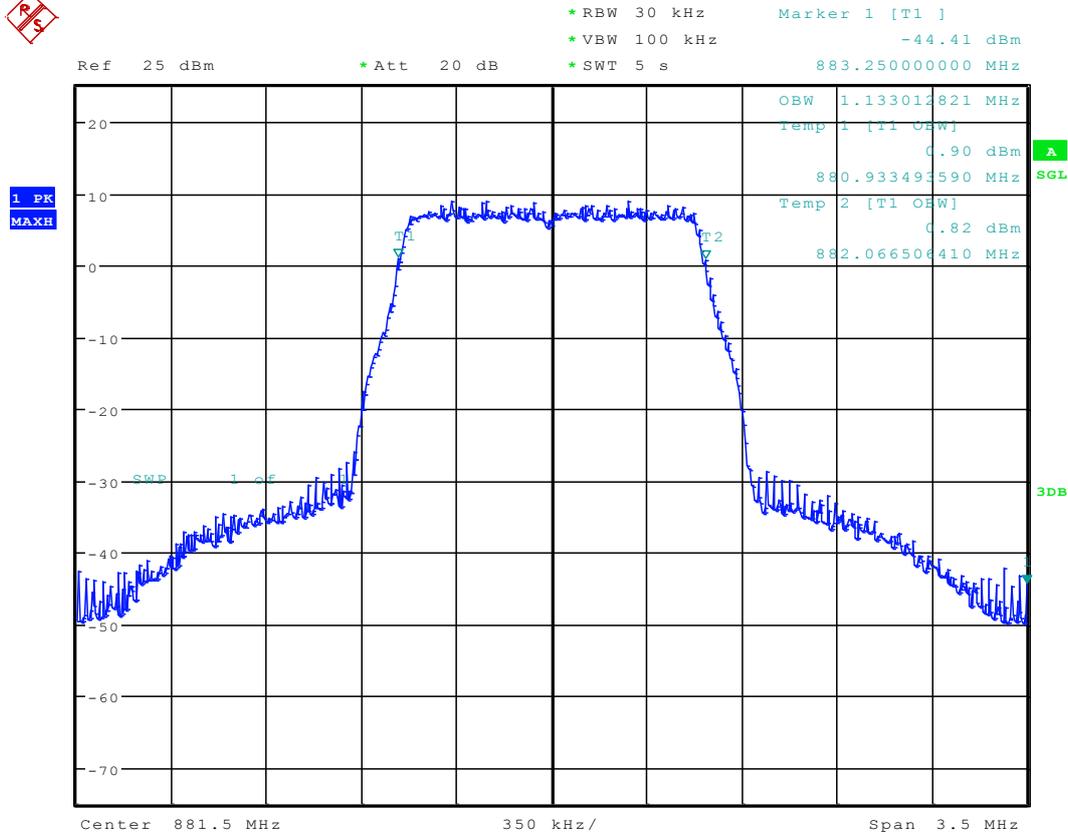
Date: 7.DEC.2013 11:46:19

2.1　20dB Bandwidth

2.1.1　Downlink Test Plots

2.1.1.1　GSM system

2.1.1.1.1　DL_1G_TM1_M_ANTA
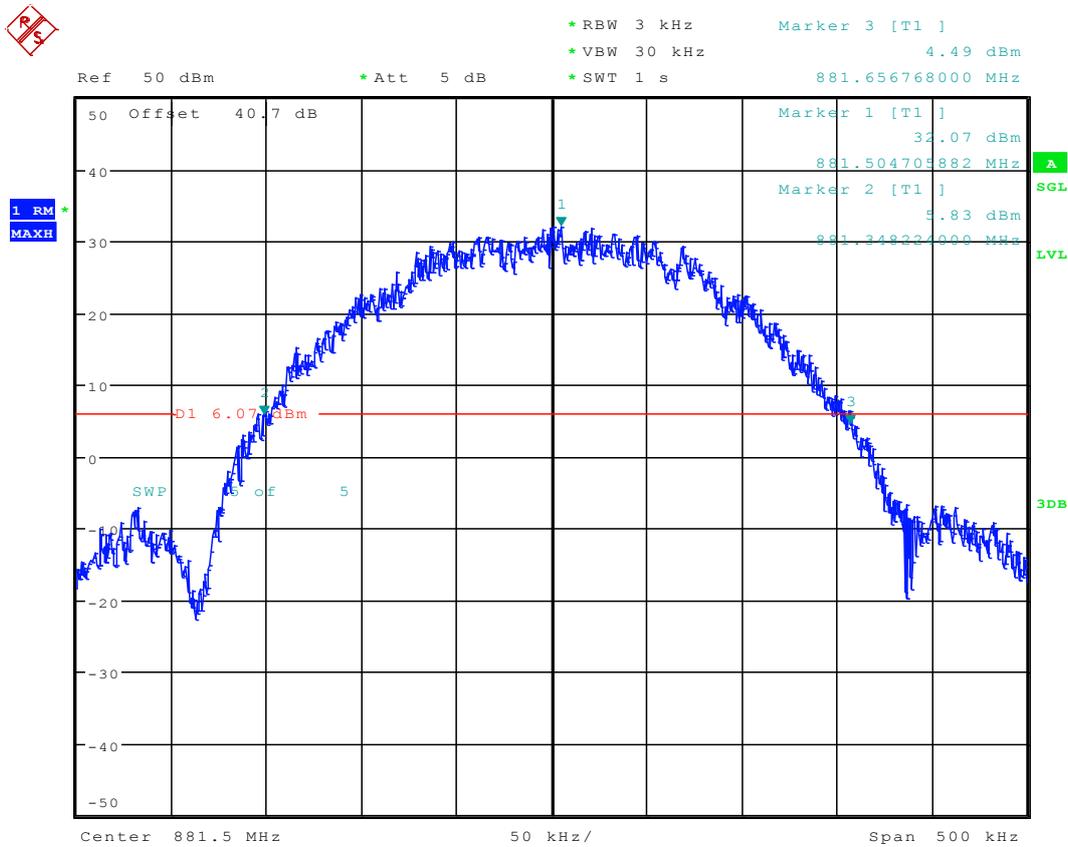
Date: 7.NOV.2013　16:58:10

2.1.1.1.2 DL_1G_TM1_M_ANTB


```
                                          * RBW  3 kHz         Marker 3 [T1 ]
                                          * VBW  30 kHz                    5.99 dBm
   Ref  50 dBm              * Att  5 dB   * SWT  1 s           881.654720000 MHz

   50  Offset   40.7 dB                                        Marker 1 [T1 ]          A
                                                                        33.07 dBm     SGL
    40                                                         881.515882353 MHz
                                                              Marker 2 [T1 ]
                                                                         5.62 dBm     LVL
    30                                                        881.341440000 MHz

    20

    10
        D1 7.0    dBm
     0

        SWP    5 of    5                                                              3DB
   -10

   -20

   -30

   -40

   -50
   Center  881.5 MHz              50 kHz/                     Span  500 kHz
```
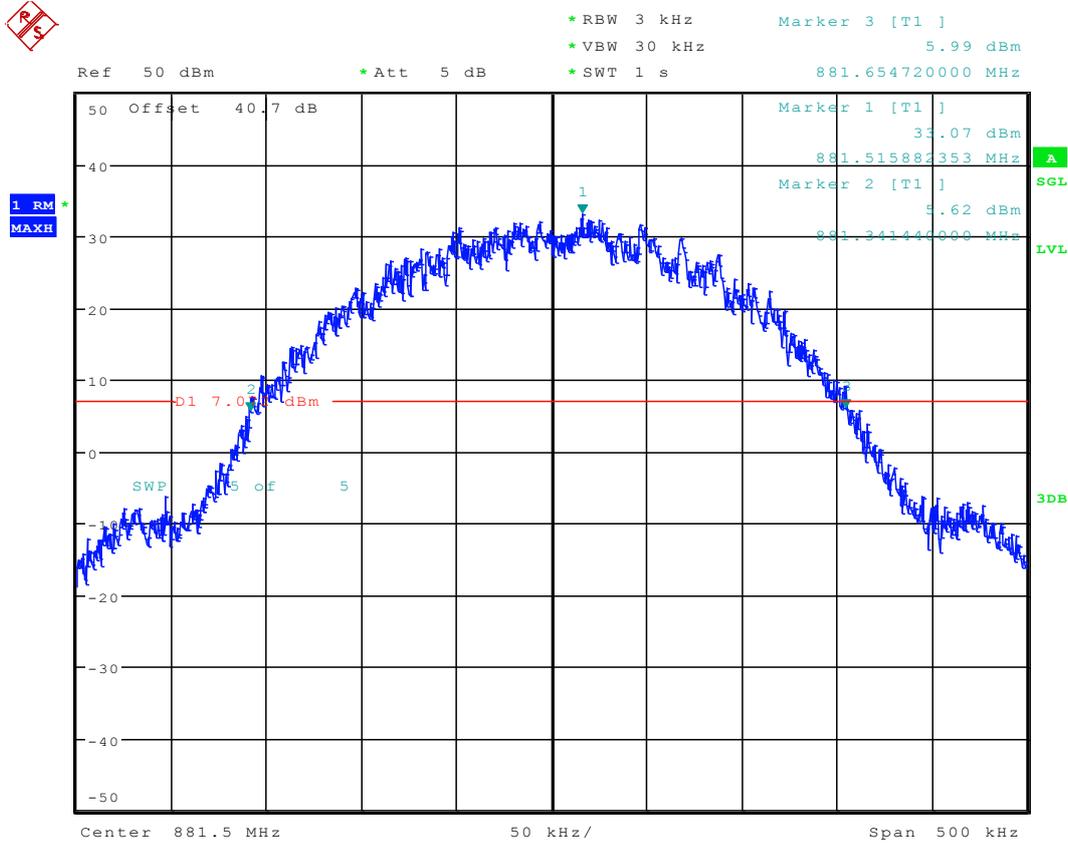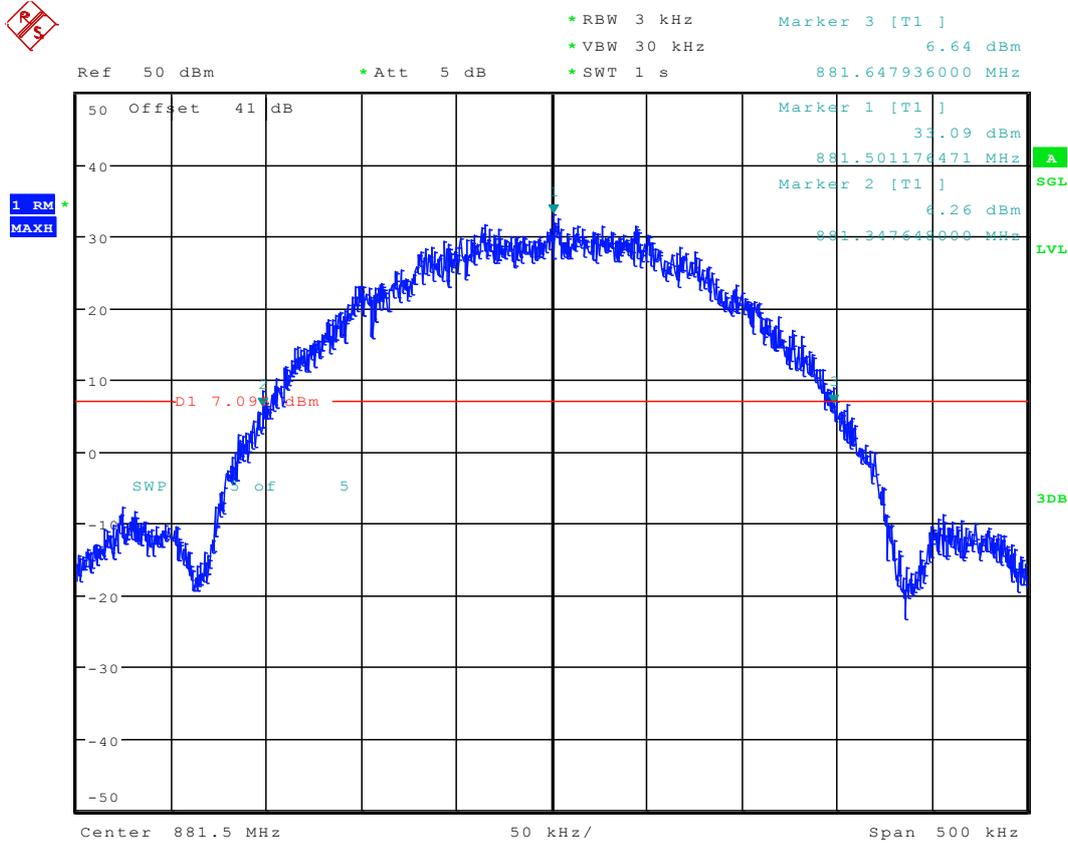
Date: 7.NOV.2013 17:13:59

2.1.1.1.3 DL_1G_TM2_M_ANTA
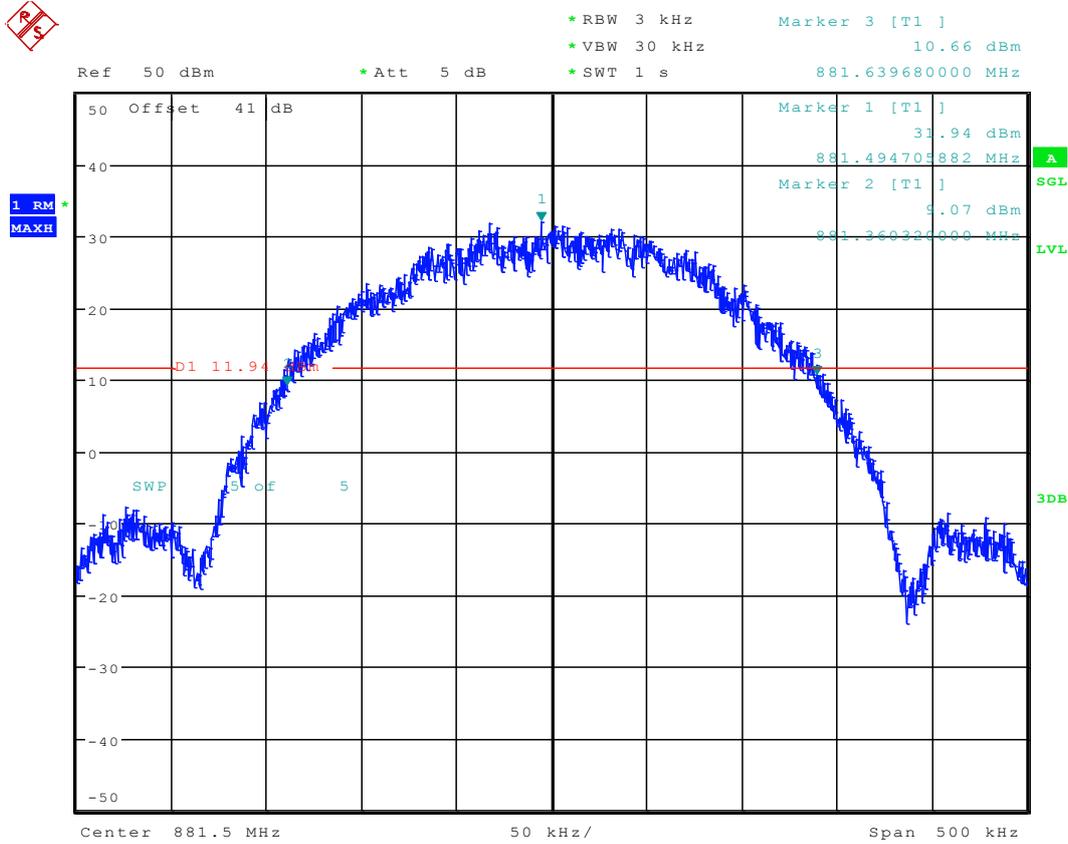
Date: 3.DEC.2013 16:19:48
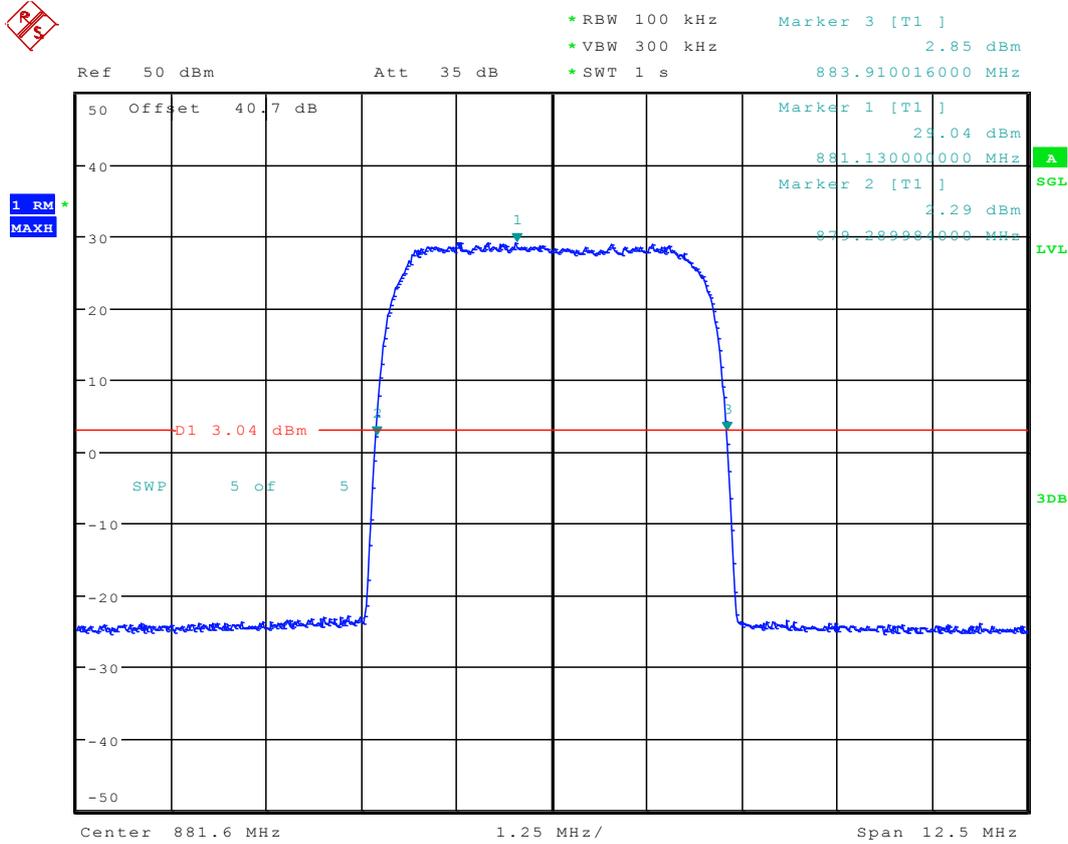
2.1.1.1.4 DL_1G_TM2_M_ANTB
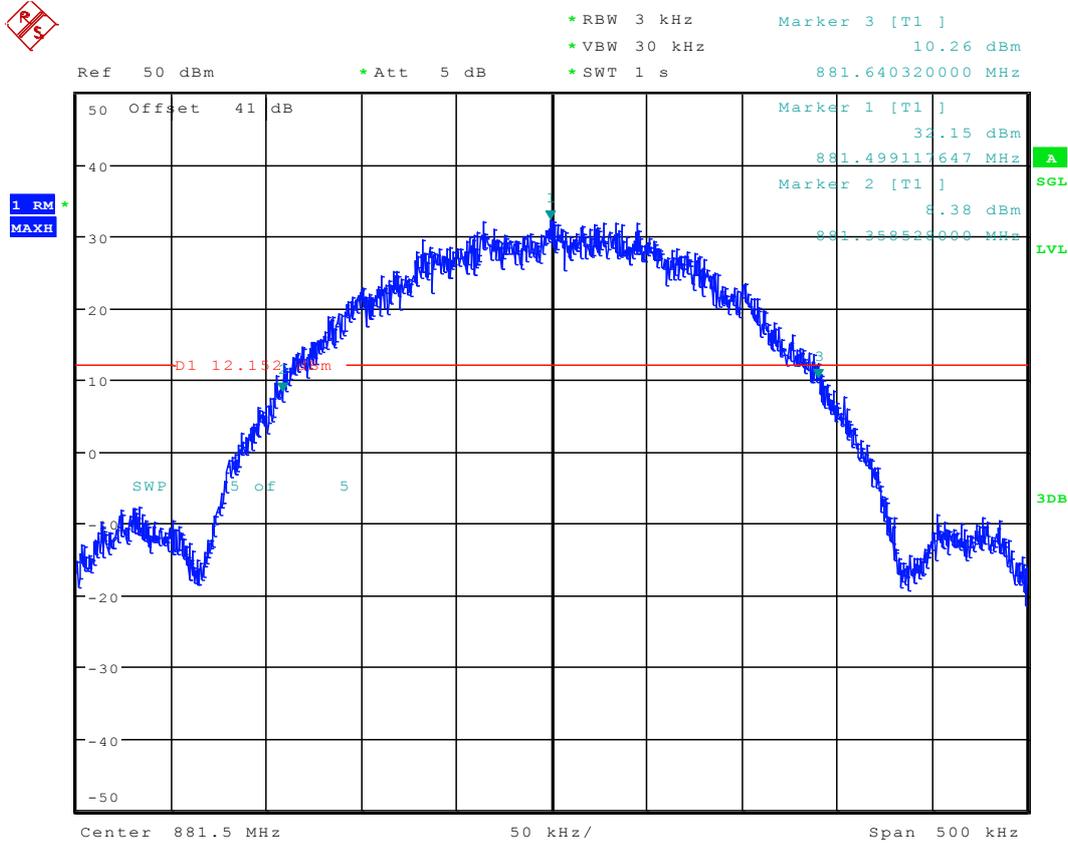
Date: 3.DEC.2013 16:22:00

2.1.1.2 UMTS system

2.1.1.2.1 DL_1U_TM1_M_ANTA
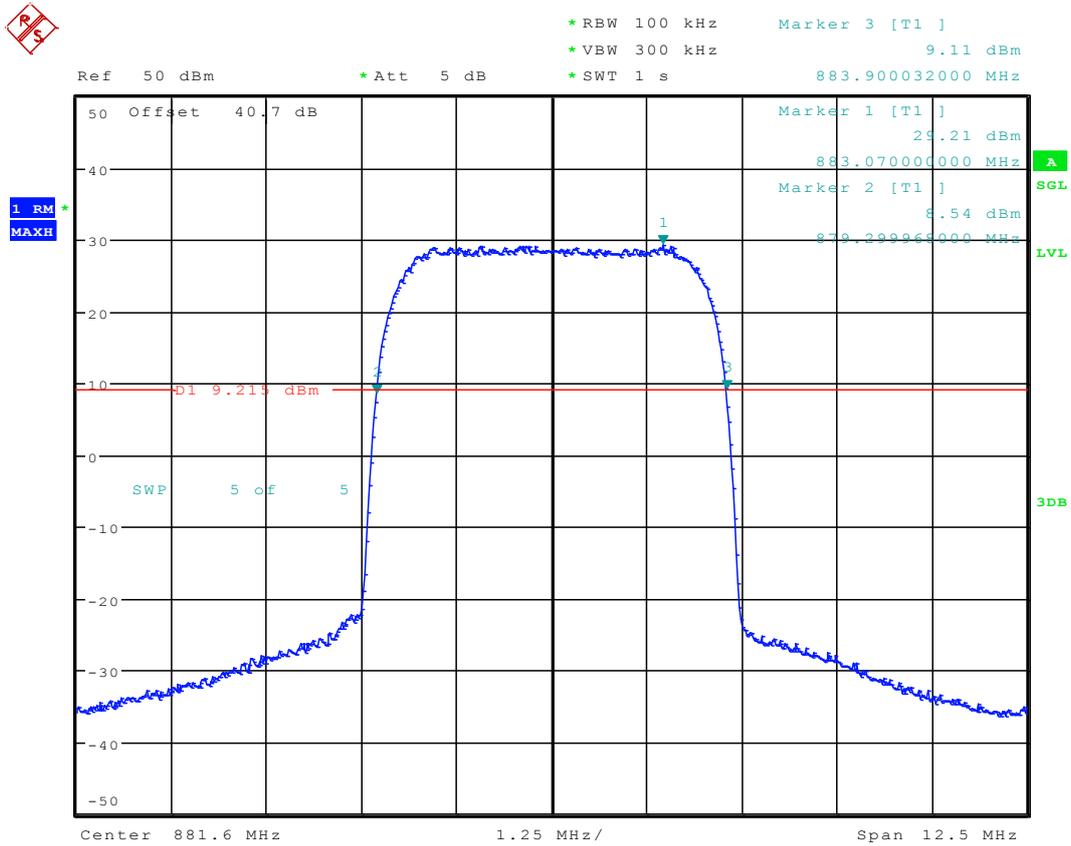
Date: 8.NOV.2013 15:48:40

2.1.1.2.2 DL_1U_TM1_M_ANTB
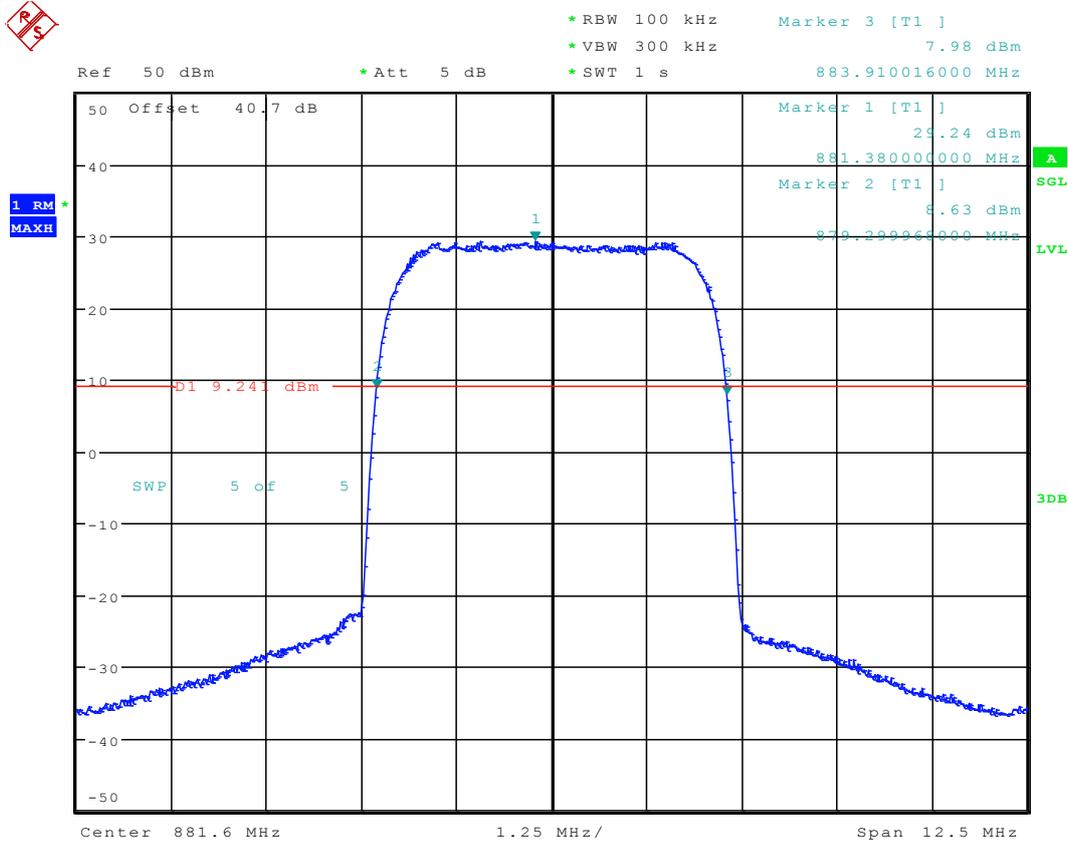
Date: 8.NOV.2013 10:39:03

2.1.1.3　LTE system

2.1.1.3.1　DL_1L_1.4M_M_ANTA
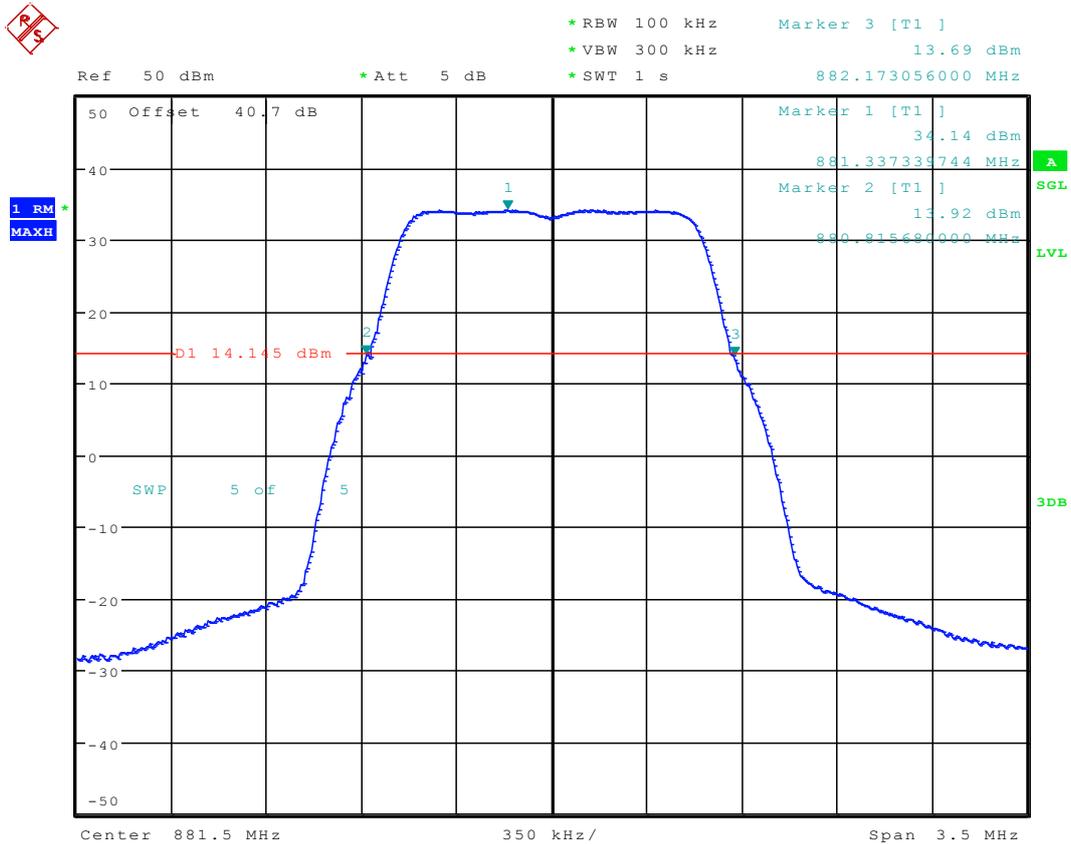
Date: 8.NOV.2013 17:04:59

2.1.1.3.2 DL_1L_1.4M_M_ANTB


```
                              * RBW  100 kHz      Marker 3 [T1 ]
                              * VBW  300 kHz                13.79 dBm
   Ref  50 dBm    * Att  5 dB  * SWT  1 s          882.167488000 MHz

   50  Offset   40.7 dB                            Marker 1 [T1 ]
                                                           34.02 dBm
    40                                             881.073717949 MHz      A
                                                                          SGL
                          1
    30                                             Marker 2 [T1 ]
                                                           12.94 dBm      LVL
                                                   880.821312000 MHz
    20
   D1 14.024 dBm      2                    3
    10
                                                                          3DB
     0
        SWP     5 of      5
   -10
   -20
   -30
   -40
   -50
   Center  881.5 MHz          350 kHz/            Span  3.5 MHz
```
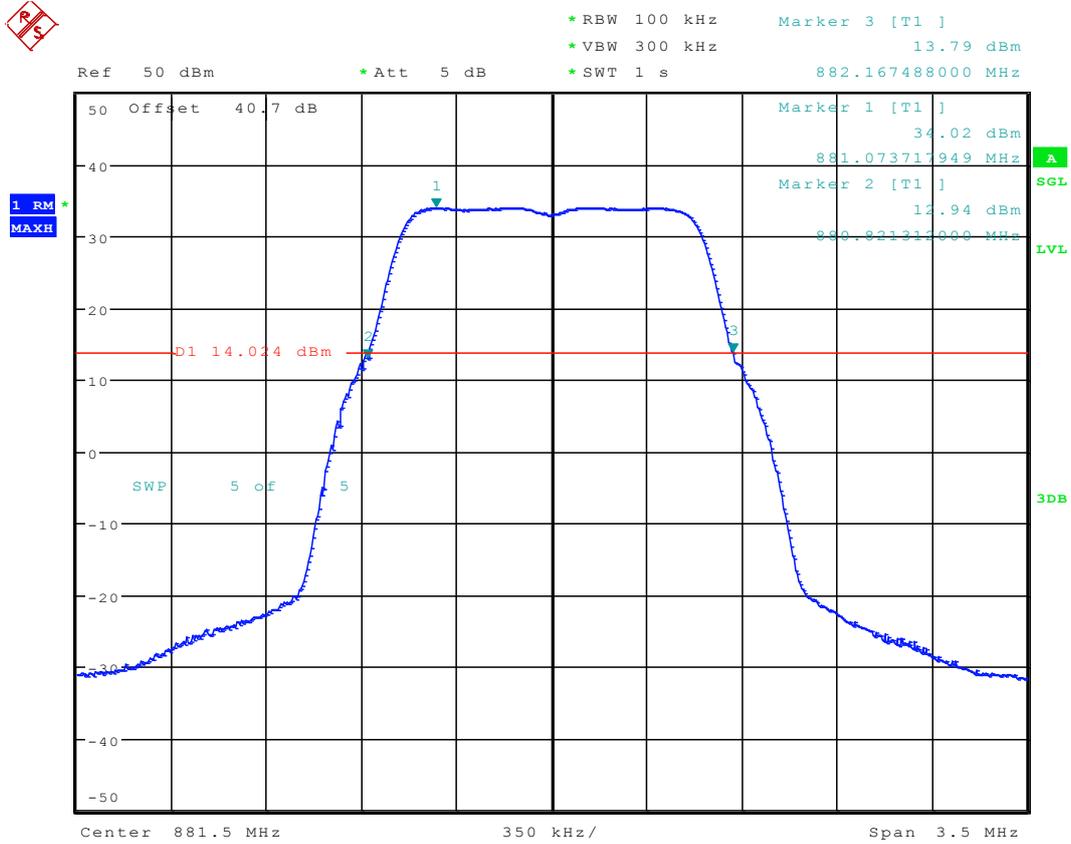
Date: 8.NOV.2013 17:17:45

2.1.1.3.3 DL_1L_20M_M_ANTA
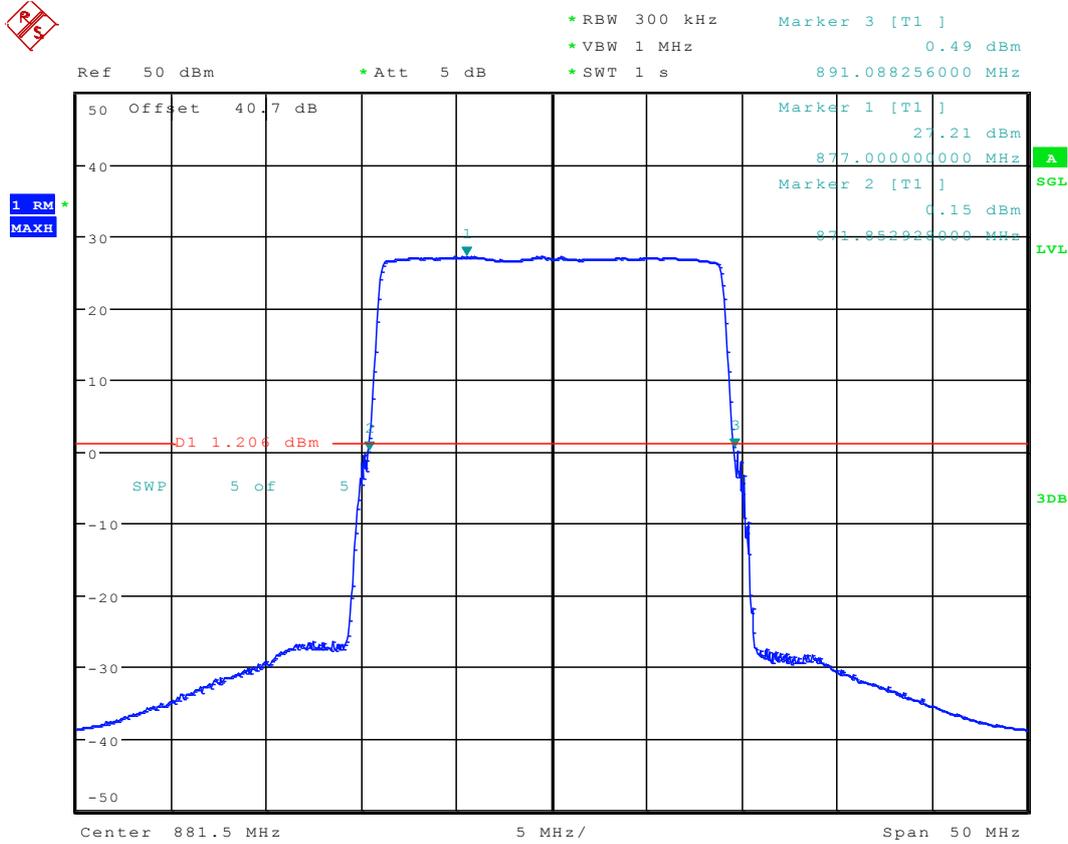
Date: 14.NOV.2013 21:59:35

2.1.1.3.4 DL_1L_20M_M_ANTB
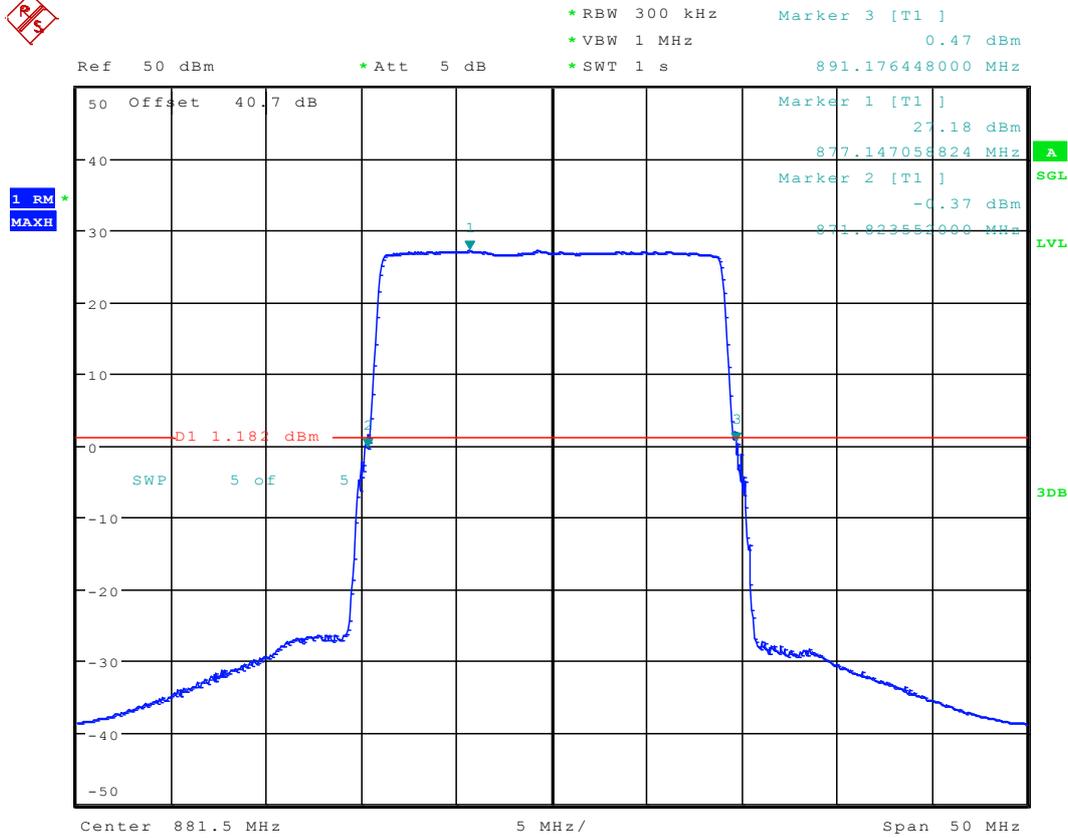
Date: 14.NOV.2013 21:58:54

2.2 26dB Bandwidth

2.2.1 Uplink Test Plots

2.2.2 Downlink Test Plots

2.2.2.1.1 DL_1G_TM1_M_ANTA
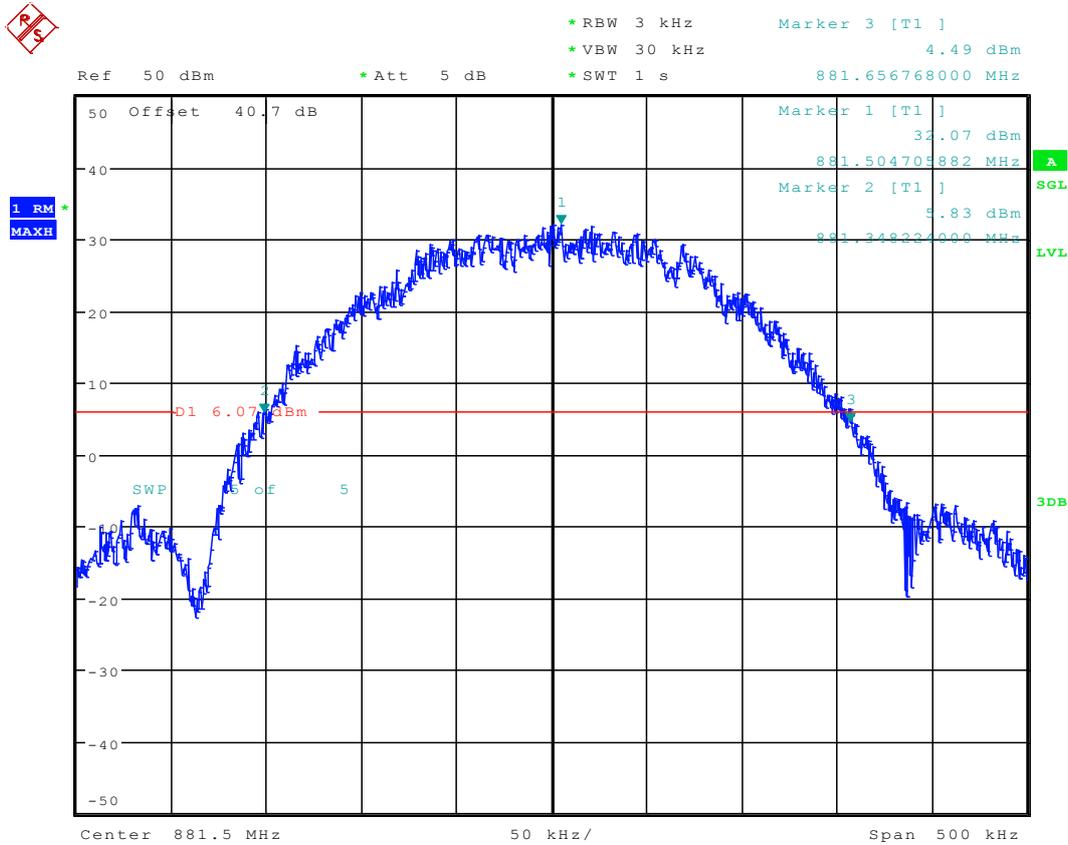
Date: 7.NOV.2013 16:58:10

2.2.2.1.2 DL_1G_TM1_M_ANTB
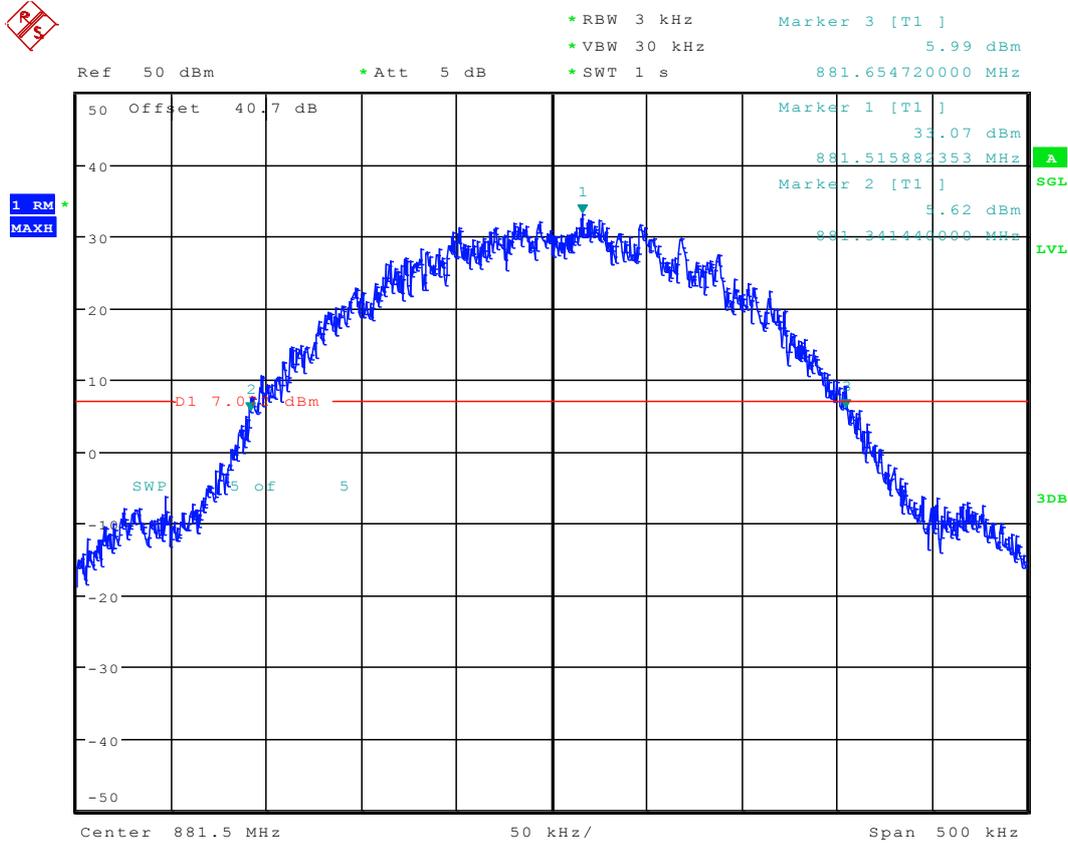
Date: 7.NOV.2013 17:13:59

2.2.2.1.3 DL_1G_TM2_M_ANTA
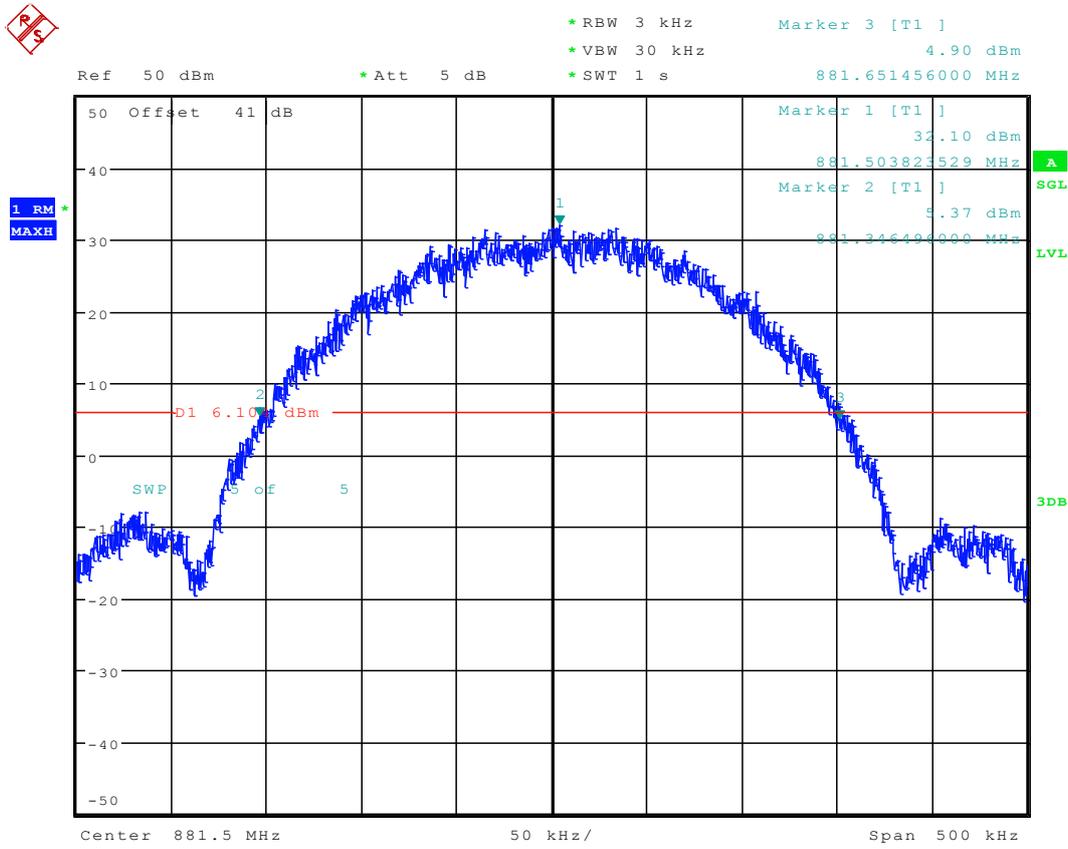
Date: 3.DEC.2013 16:34:11

2.2.2.1.4 DL_1G_TM2_M_ANTB


```
                                      * RBW  3 kHz      Marker 3 [T1 ]
                                      * VBW  30 kHz              6.64 dBm
        Ref  50 dBm        * Att  5 dB   * SWT  1 s    881.647936000 MHz

        50  Offset   41 dB                             Marker 1 [T1 ]
                                                               33.09 dBm
        40                                             881.501176471 MHz    A

                                                       Marker 2 [T1 ]        SGL
        30                                                      6.26 dBm
                                                       881.347640000 MHz    LVL
        20

        10
        D1 7.09 dBm
         0
              SWP   5 of   5                                                 3DB
       -10

       -20

       -30

       -40

       -50

        Center  881.5 MHz           50 kHz/              Span  500 kHz
```

Date: 3.DEC.2013 16:36:05

2.2.2.2 UMTS system

2.2.2.2.1 DL_1U_TM1_M_ANTA

Date: 20.SEP.2013 12:01:53

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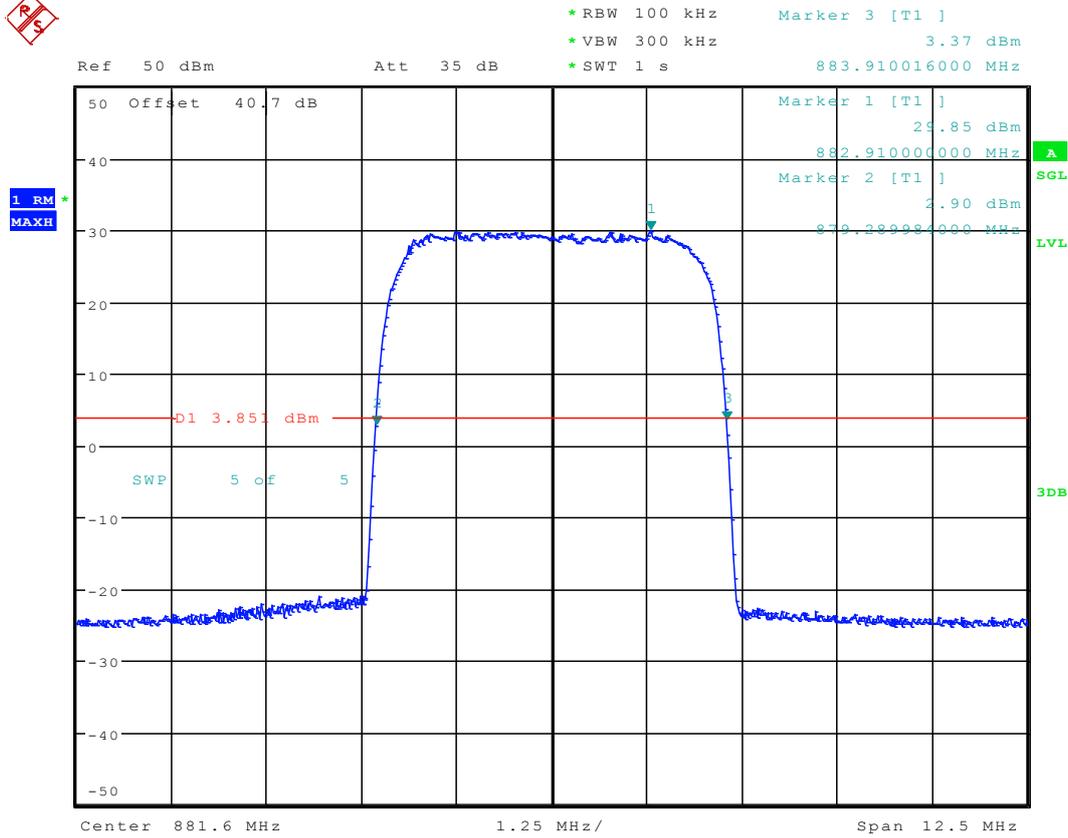
2.2.2.2.2 DL_1U_TM1_M_ANTB

Date: 20.SEP.2013 14:55:09

2.2.2.3　LTE system

2.2.2.3.1　DL_1L_1.4M_M_ANTA
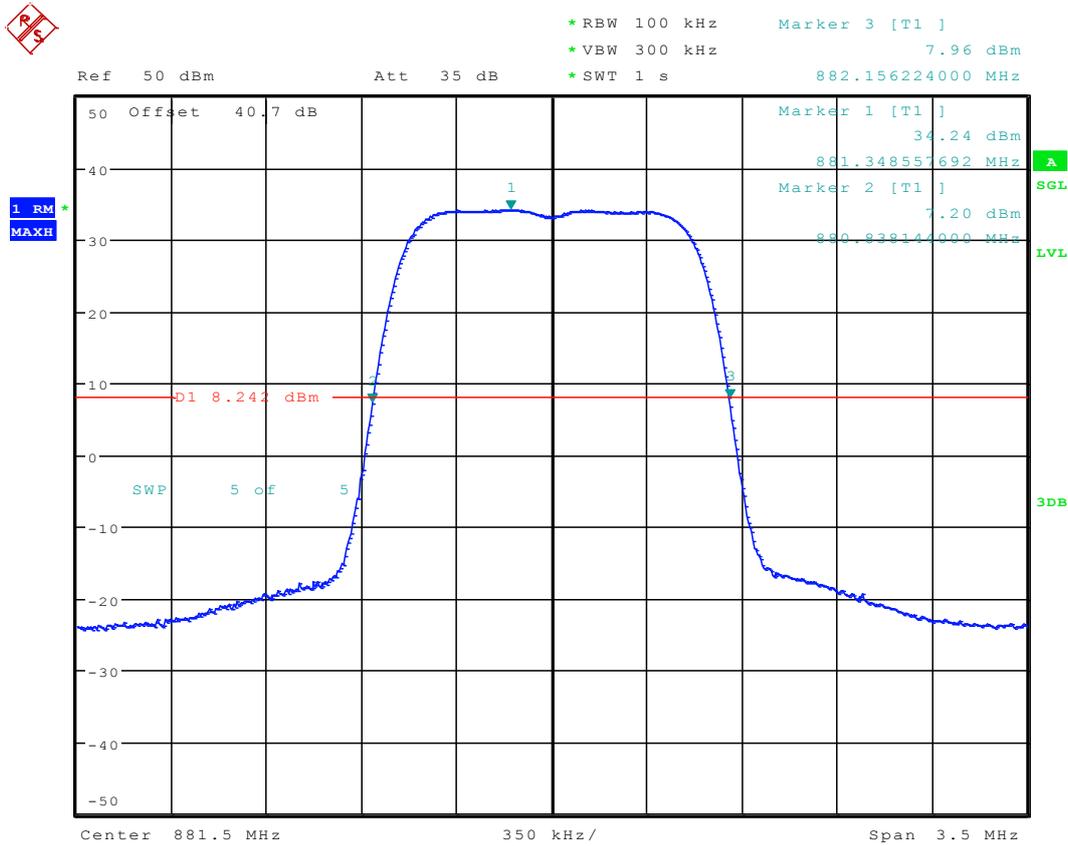
Date: 20.SEP.2013　15:48:15

2.2.2.3.2 DL_1L_1.4M_M_ANTB
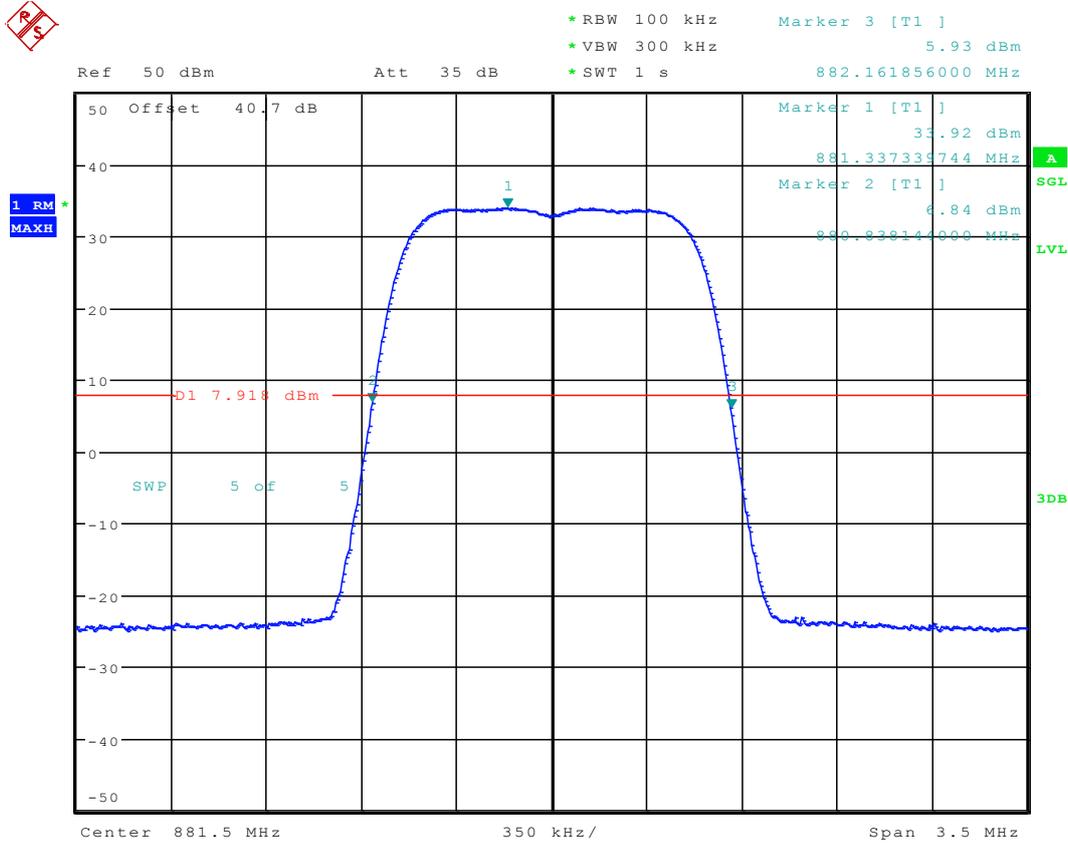
Date: 20.SEP.2013 16:06:27

2.2.2.3.3 DL_1L_20M_M_ANTA
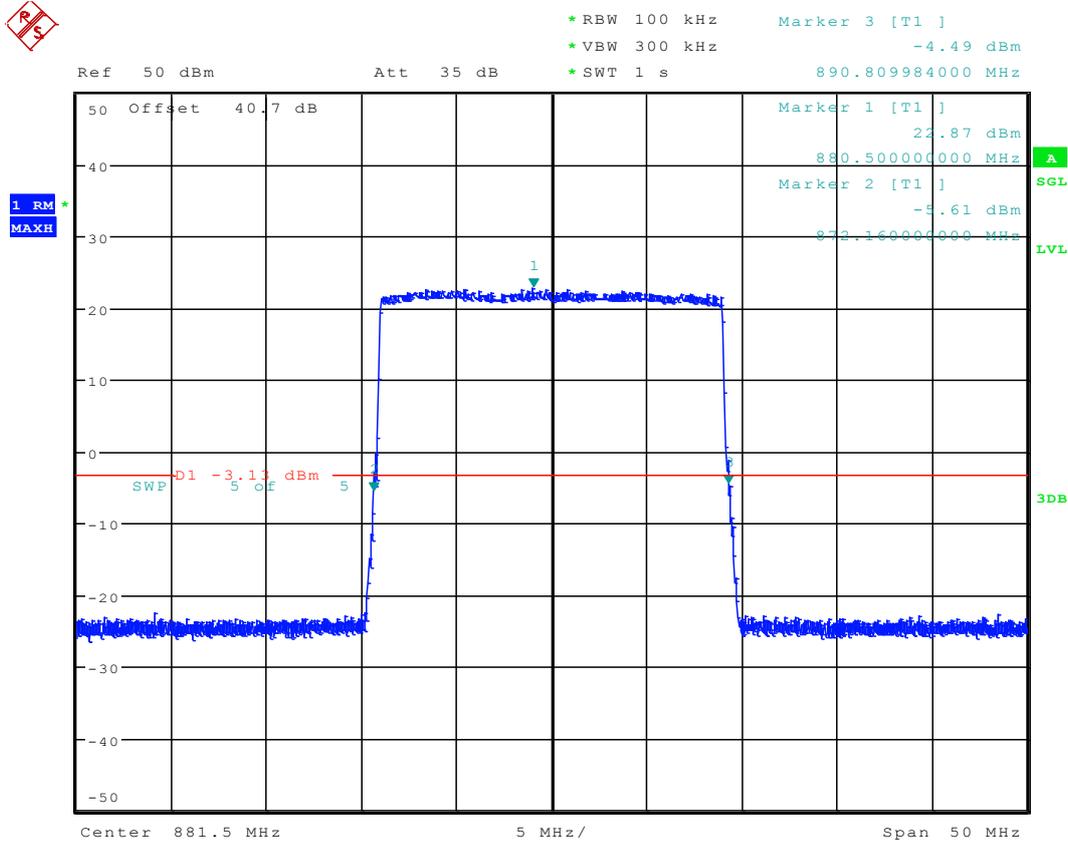
Date: 20.SEP.2013 17:33:14

2.2.2.3.4 DL_1L_20M_M_ANTB
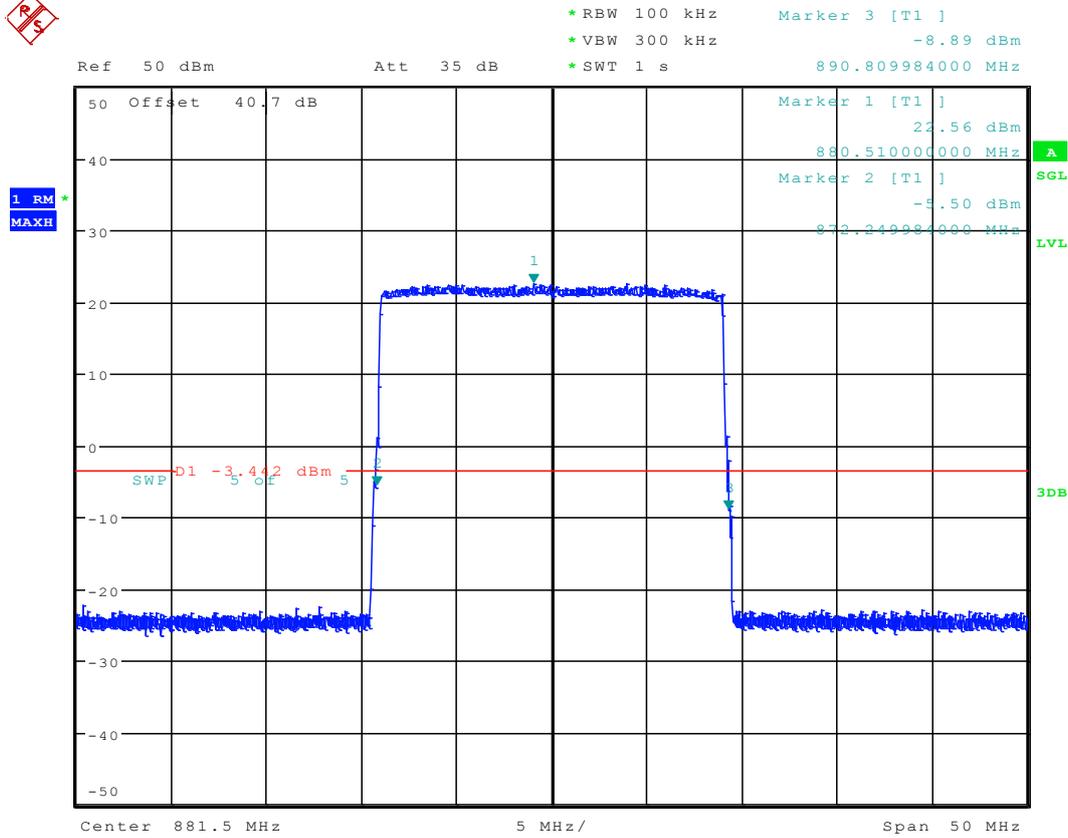
Date: 20.SEP.2013 17:25:09

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 10log(N) technique, so the limits for spurious emissions at antenna terminal should be
adjusted with a correction of 10log2.

## 1.1   Uplink Test Results

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.
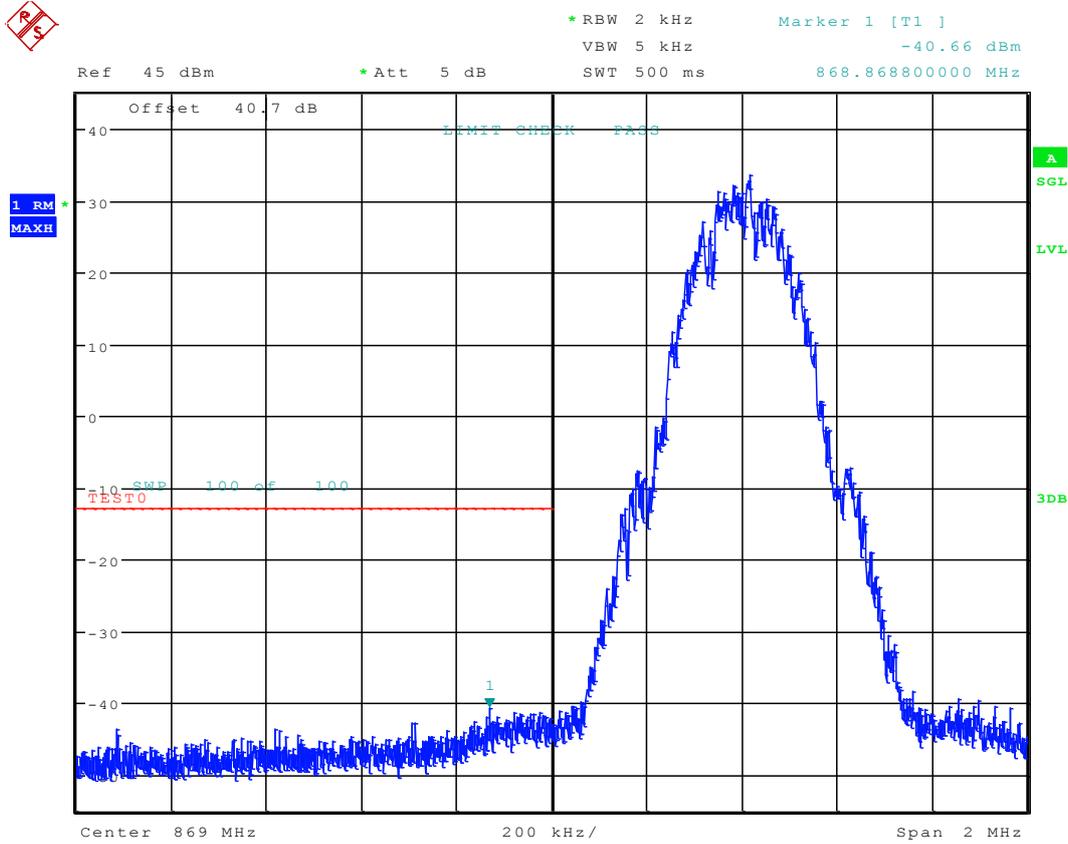
1.2   Downlink Test Results (without AGC activated)

1.2.1   GSM system

EUT Conf.	Maximum Emission [dBm]	Limit(dBm)	Verdict
DL_1G_TM1_B_ANTA	-39.62	-16	Pass
DL_1G_TM1_B_ANTB	-40.66	-16	Pass
DL_1G_TM1_T_ANTA	-40.96	-16	Pass
DL_1G_TM1_T_ANTB	-37.44	-16	Pass
DL_2G_TM1_B_ANTA	-28.55	-16	Pass
DL_2G_TM1_B_ANTB	-28.77	-16	Pass
DL_2G_TM1_T_ANTA	-28.37	-16	Pass
DL_2G_TM1_T_ANTB	-31.02	-16	Pass

1.2.2   UMTS system

EUT Conf.	Maximum Emission [dBm]	Limit(dBm)	Verdict
DL_1U_TM1_B_ANTA	-25.20	-16	Pass
DL_1U_TM1_B_ANTB	-24.91	-16	Pass
DL_1U_TM1_T_ANTA	-20.28	-16	Pass
DL_1U_TM1_T_ANTB	-23.91	-16	Pass
DL_2U_TM1_B_ANTA	-23.41	-16	Pass
DL_2U_TM1_B_ANTB	-23.98	-16	Pass
DL_2U_TM1_T_ANTA	-17.36	-16	Pass
DL_2U_TM1_T_ANTB	-23.30	-16	Pass

1.2.3   LTE system

EUT Conf.	Maximum Emission [dBm]	Limit(dBm)	Verdict
DL_1L_1.4M_B_ANTA	-16.37	-16	Pass
DL_1L_1.4M_B_ANTB	-19.01	-16	Pass
DL_1L_1.4M_T_ANTA	-16.53	-16	Pass
DL_1L_1.4M_T_ANTB	-16.55	-16	Pass
DL_2L_1.4M_B_ANTA	-28.30	-16	Pass
DL_2L_1.4M_B_ANTB	-23.65	-16	Pass
DL_2L_1.4M_T_ANTA	-20.01	-16	Pass
DL_2L_1.4M_T_ANTB	-27.19	-16	Pass

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

1.3.1 GSM system

EUT Conf.	Maximum Emission [dBm]	Limit(dBm)	Verdict
DL_2G_TM1_B_ANTA	-23.47	-16	Pass
DL_2G_TM1_B_ANTB	-27.90	-16	Pass
DL_2G_TM1_T_ANTA	-33.77	-16	Pass
DL_2G_TM1_T_ANTB	-34.22	-16	Pass

1.3.2 UMTS system

EUT Conf.	Maximum Emission [dBm]	Limit(dBm)	Verdict
DL_2U_TM1_B_ANTA	-25.80	-16	Pass
DL_2U_TM1_B_ANTB	-25.62	-16	Pass
DL_2U_TM1_T_ANTA	-25.45	-16	Pass
DL_2U_TM1_T_ANTB	-25.84	-16	Pass

1.3.3 LTE system

EUT Conf.	Maximum Emission [dBm]	Limit(dBm)	Verdict
DL_2L_1.4M_B_ANTA	-26.98	-16	Pass
DL_2L_1.4M_B_ANTB	-24.35	-16	Pass
DL_2L_1.4M_T_ANTA	-23.48	-16	Pass
DL_2L_1.4M_T_ANTB	-25.05	-16	Pass

2 Test Plot

2.1 Uplink Test Plots

Not applicable.

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

2.2 Downlink Test Plots (without AGC activated)

2.2.1 GSM system
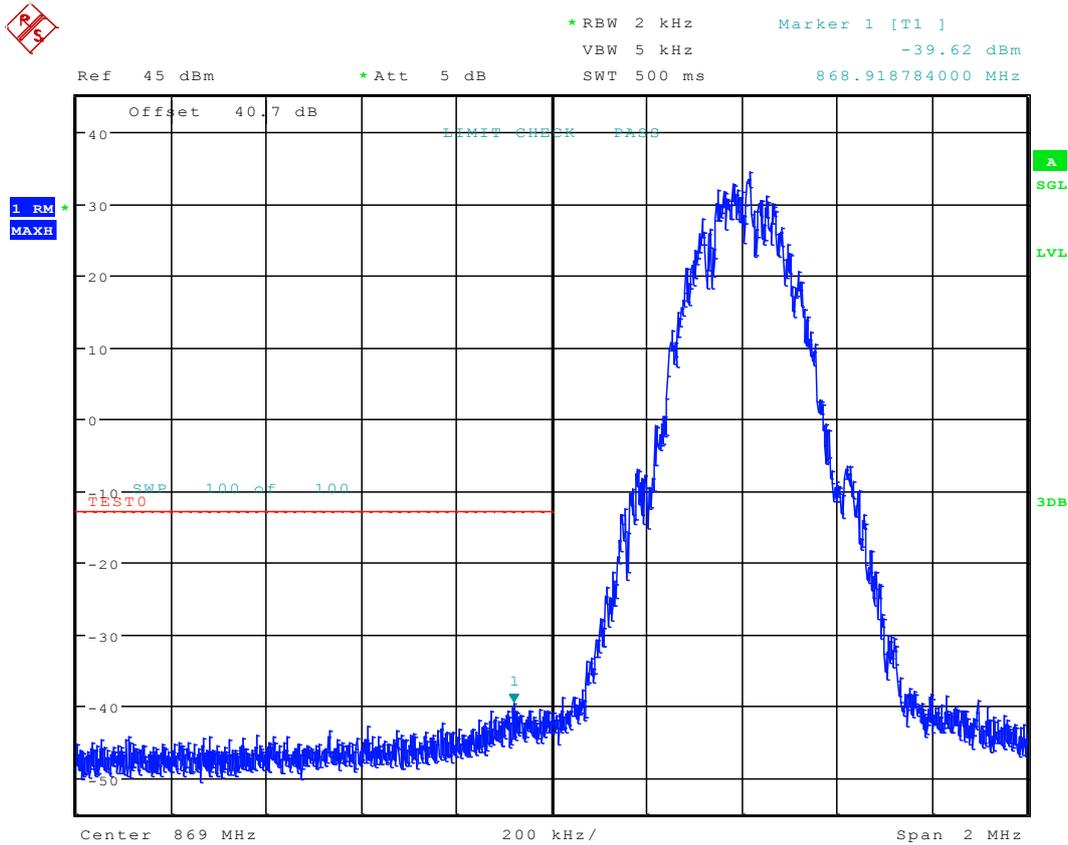
2.2.1.1 DL_1G_TM1_B_ANTA
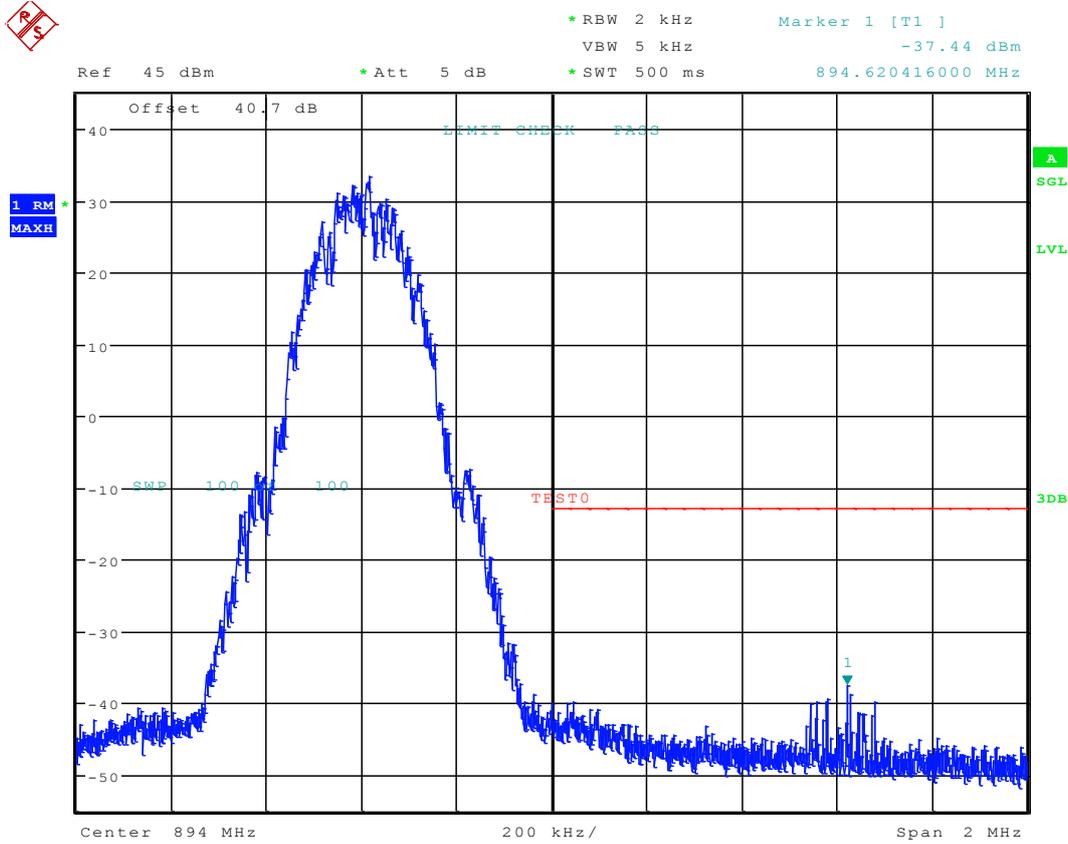

Date: 18.SEP.2013 17:17:22

2.2.1.2 DL_1G_TM1_B_ANTB
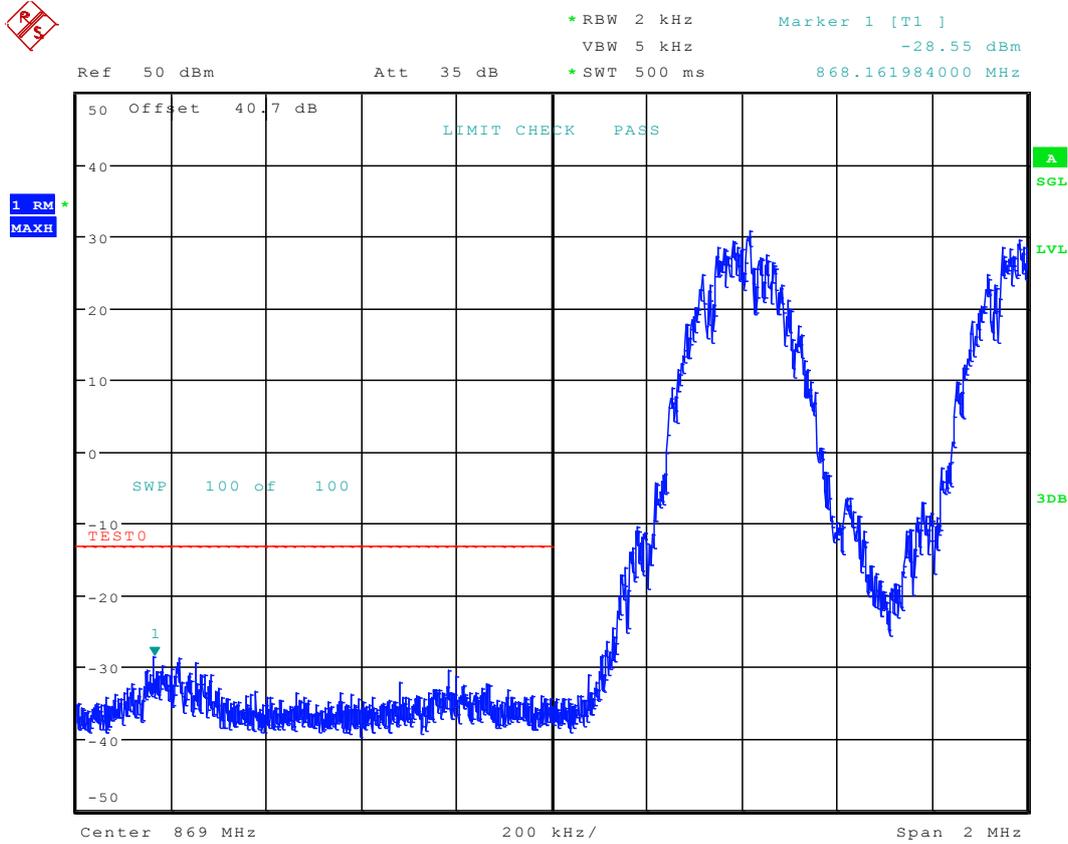

Date: 20.SEP.2013 11:05:38

2.2.1.3 DL_1G_TM1_T_ANTA

Date: 20.SEP.2013 11:14:18

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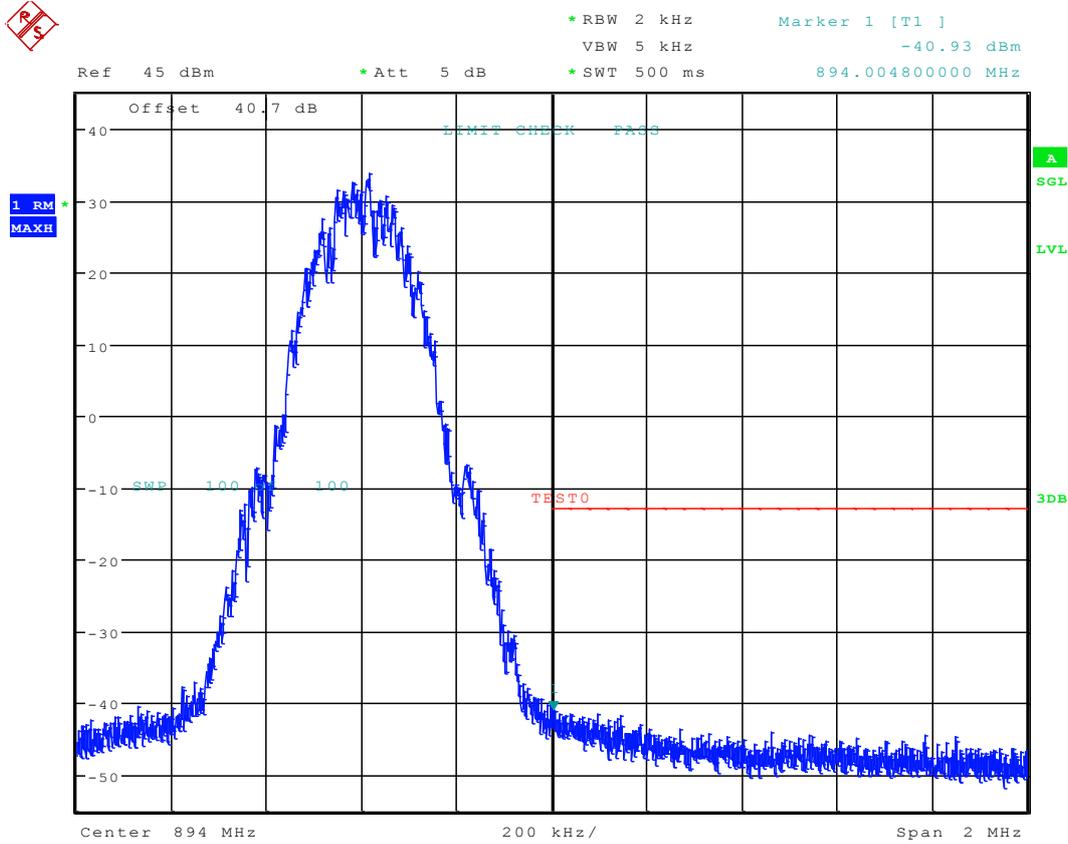
2.2.1.4　DL_1G_TM1_T_ANTB

Date: 20.SEP.2013 10:46:42

2.2.1.5 DL_2G_TM1_B_ANTA

Date: 23.SEP.2013 11:11:55

2.2.1.6   DL_2G_TM1_B_ANTB
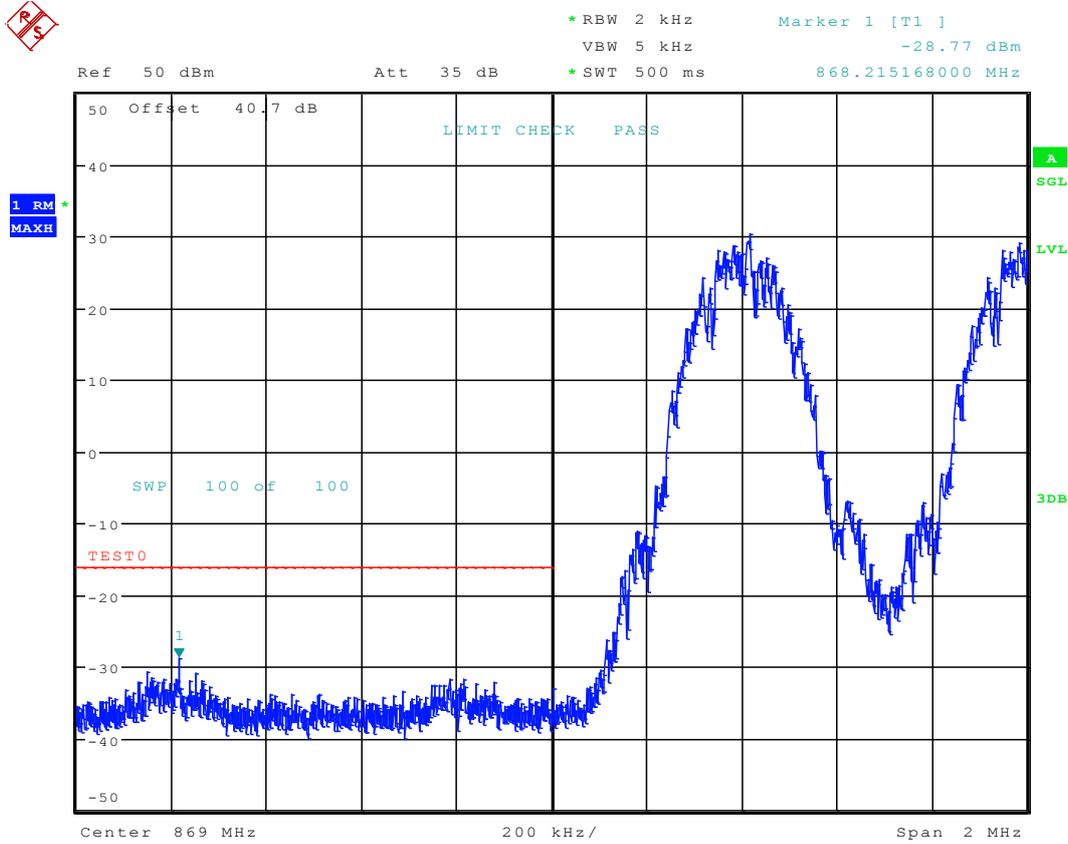
Date: 23.SEP.2013 12:28:43

2.2.1.7 DL_2G_TM1_T_ANTA
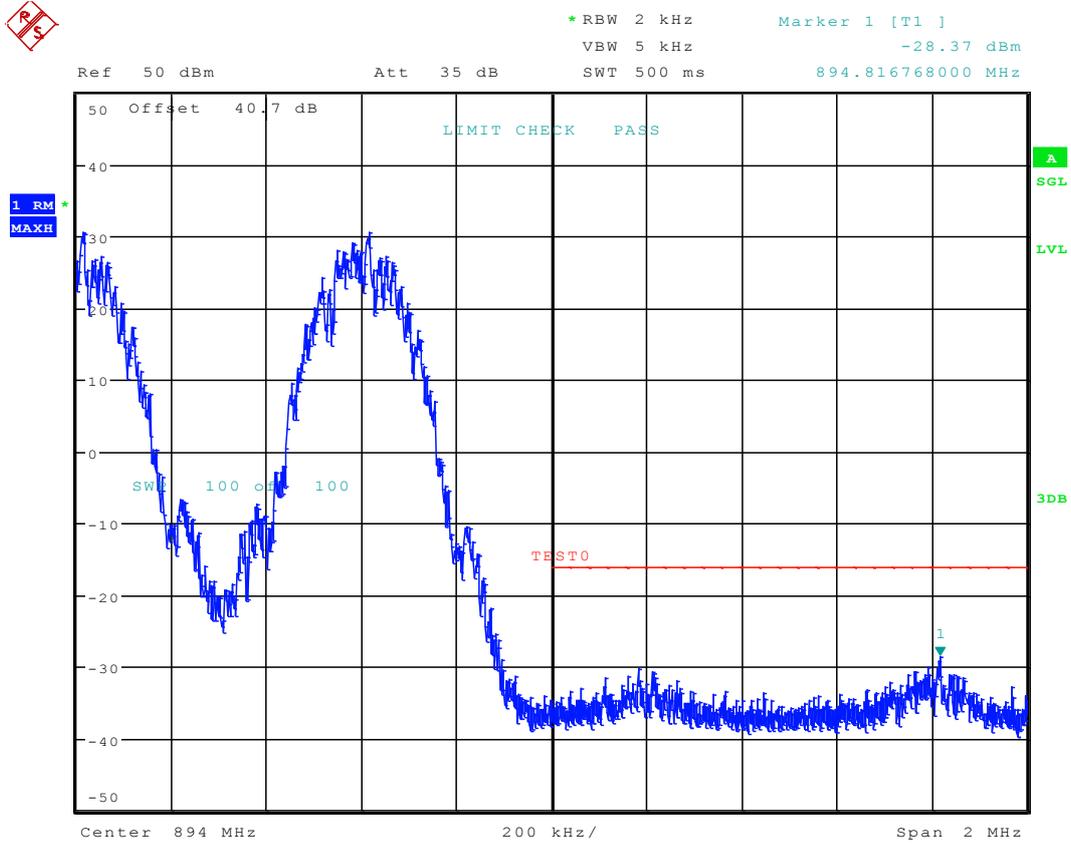
Date: 23.SEP.2013 12:12:32
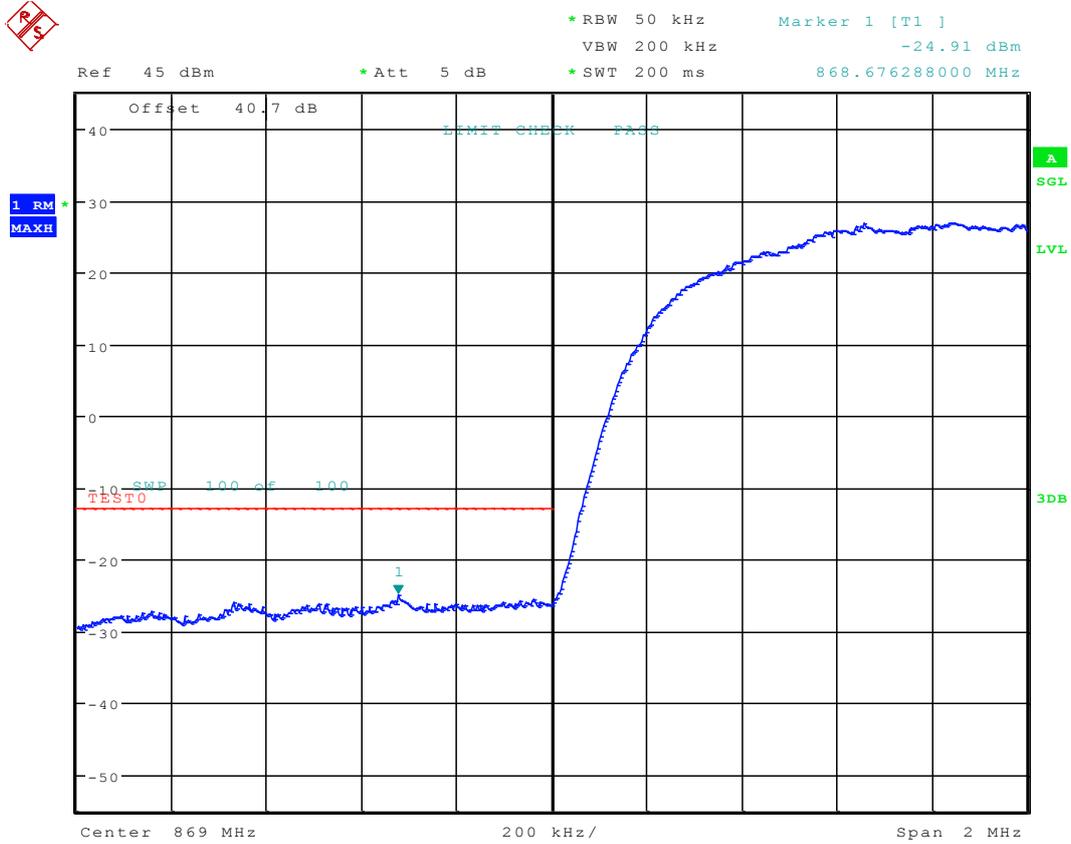
2.2.1.8 DL_2G_TM1_T_ANTB
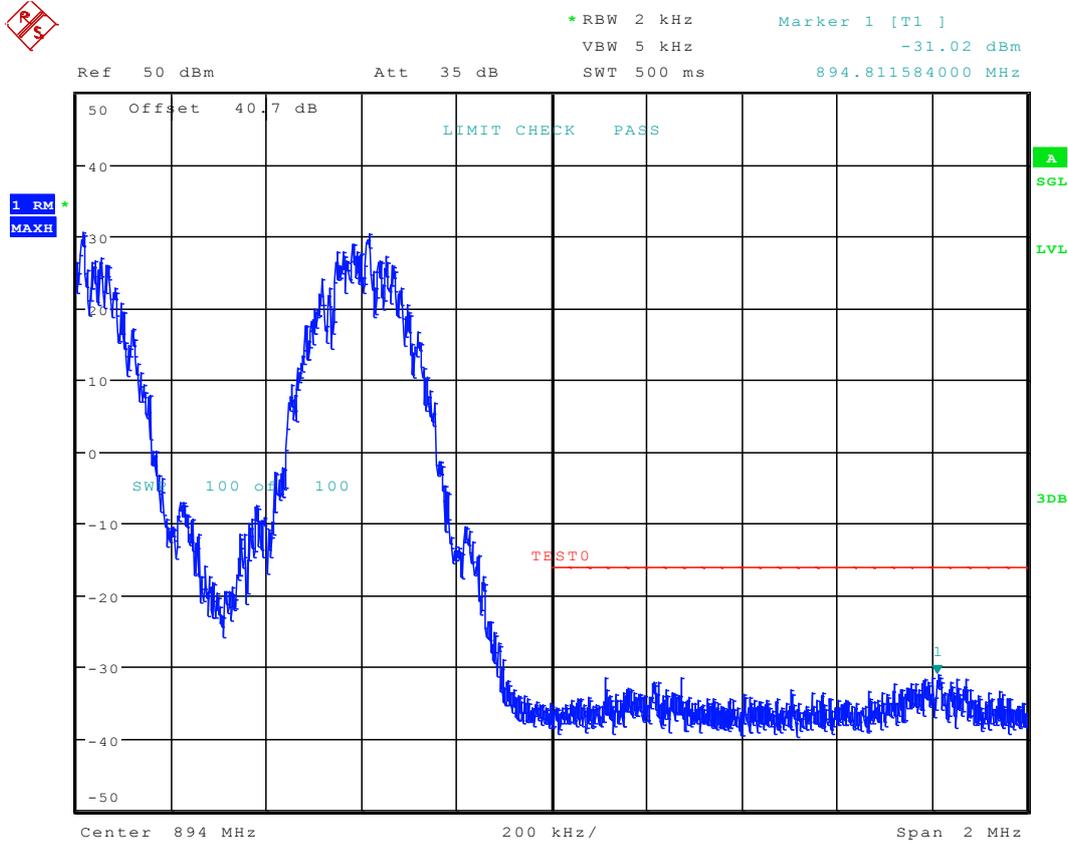
Date: 23.SEP.2013 12:34:00

2.2.2 UMTS system

2.2.2.1 DL_1U_TM1_B_ANTA
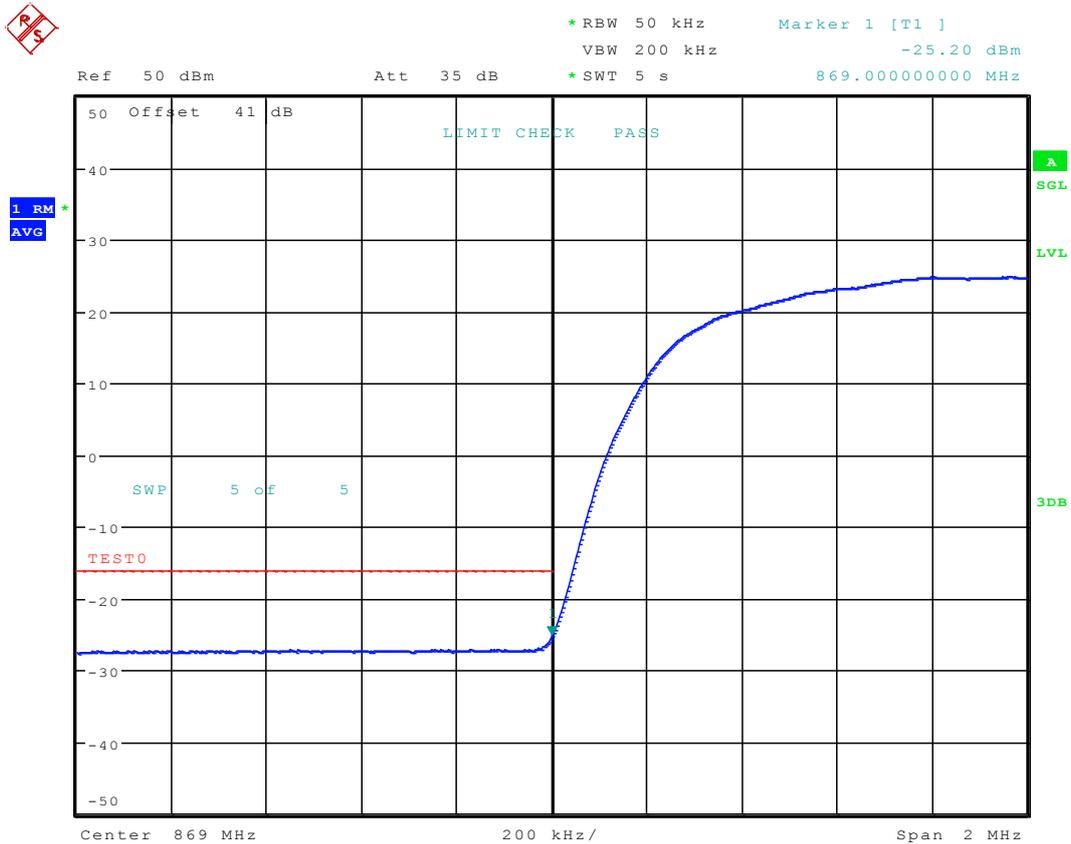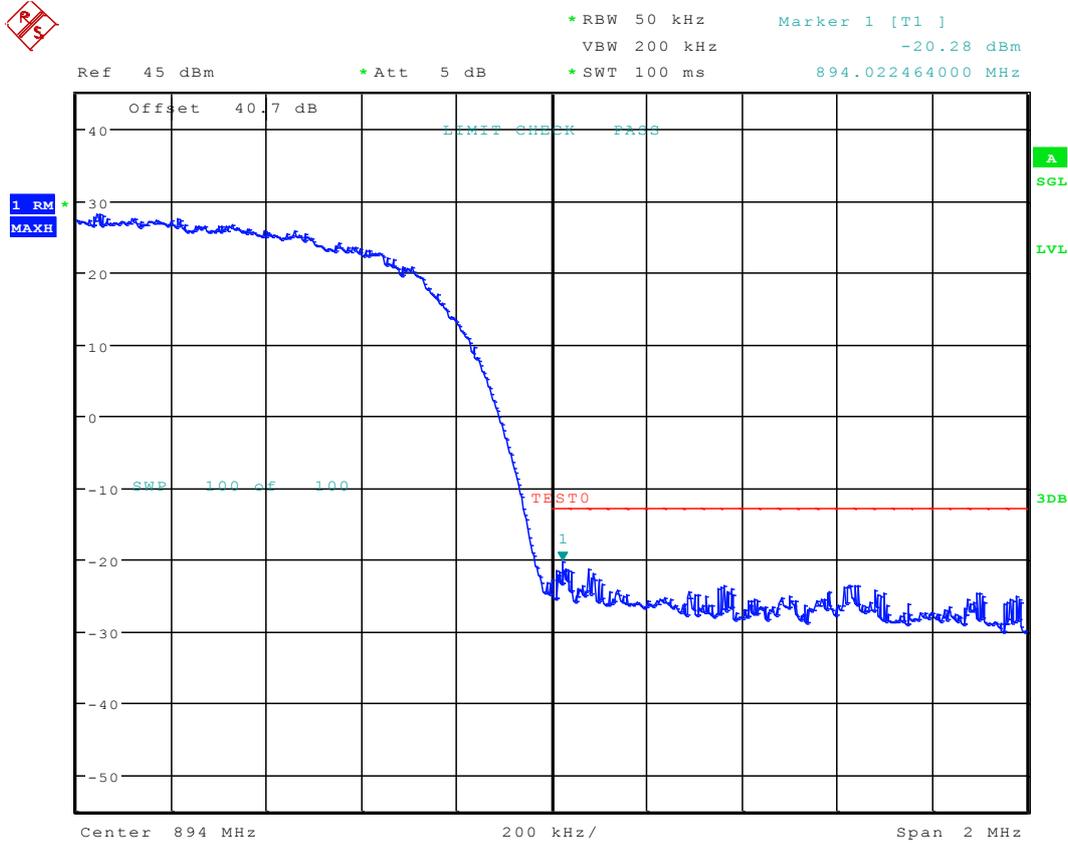

Date: 3.DEC.2013 16:47:46

2.2.2.2 DL_1U_TM1_B_ANTB

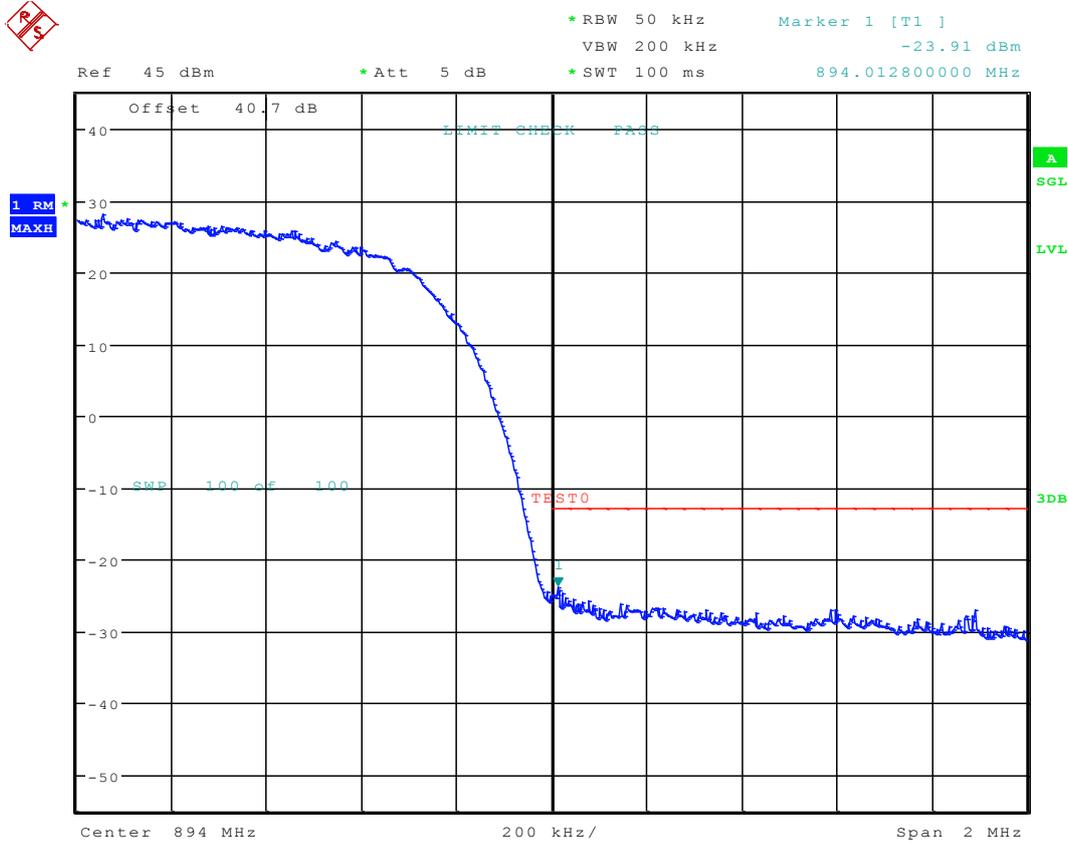

Date: 20.SEP.2013 15:10:23

2.2.2.3 DL_1U_TM1_T_ANTA
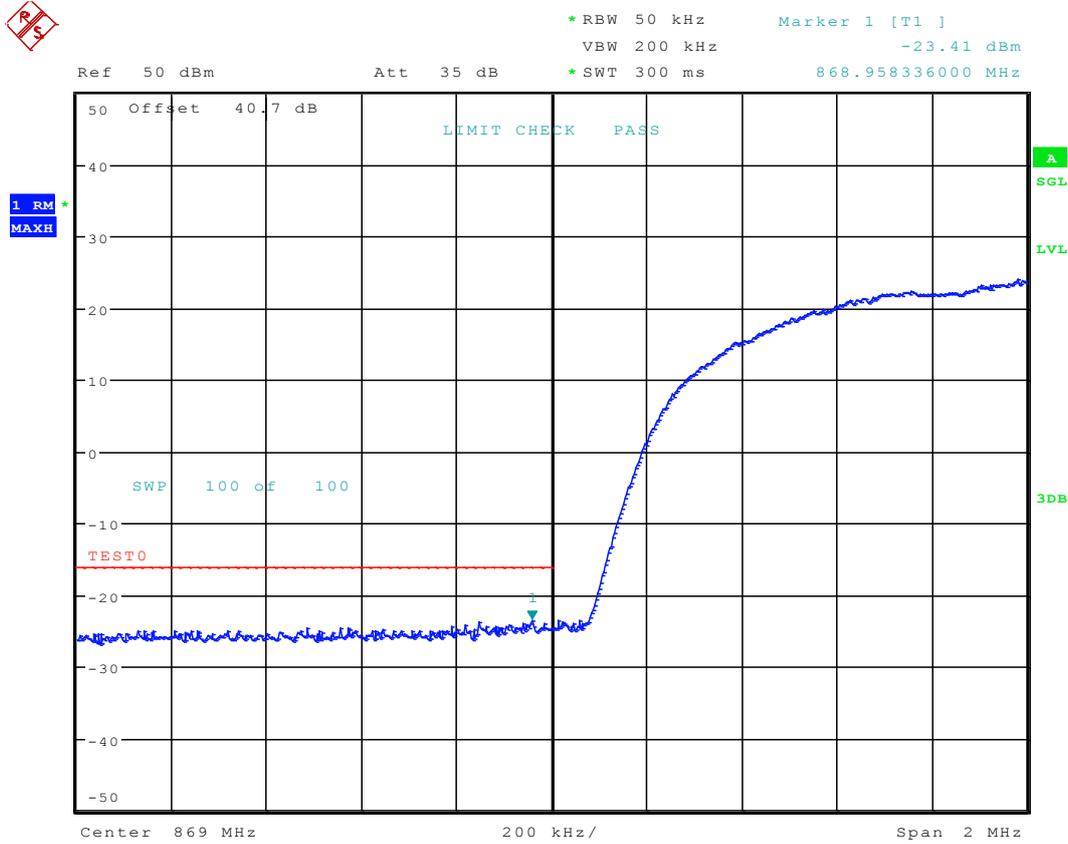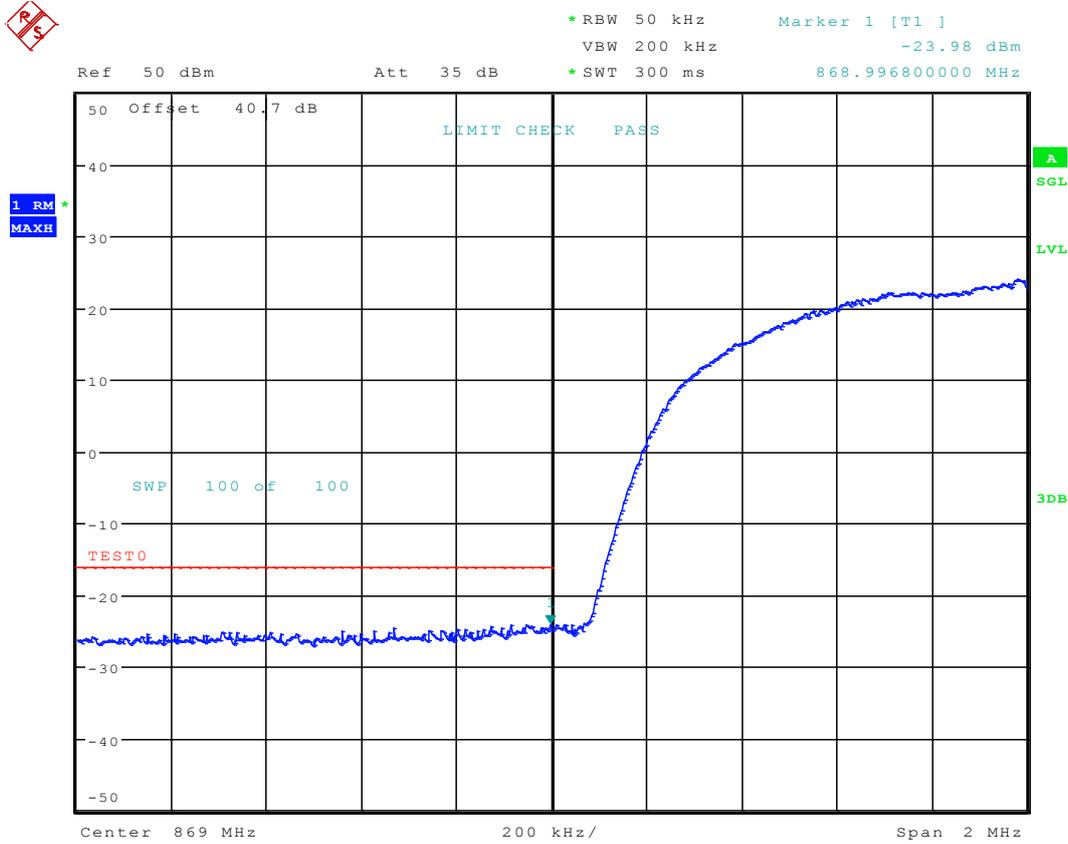

Date: 20.SEP.2013 12:04:46

2.2.2.4 DL_1U_TM1_T_ANTB

Date: 20.SEP.2013 15:00:11

2.2.2.5 DL_2U_TM1_B_ANTA

Date: 23.SEP.2013 14:56:55

2.2.2.6 DL_2U_TM1_B_ANTB

```
*RBW  50 kHz        Marker 1 [T1 ]
 VBW 200 kHz                  -23.98 dBm
Ref  50 dBm          Att  35 dB    *SWT 300 ms        868.996800000 MHz
```

Graph with:
- 50 Offset   40.7 dB
- LIMIT CHECK   PASS
- A / SGL / LVL / 3DB
- 1 RM* / MAXH
- SWP   100 of   100
- TEST0
- Center 869 MHz   200 kHz/   Span 2 MHz
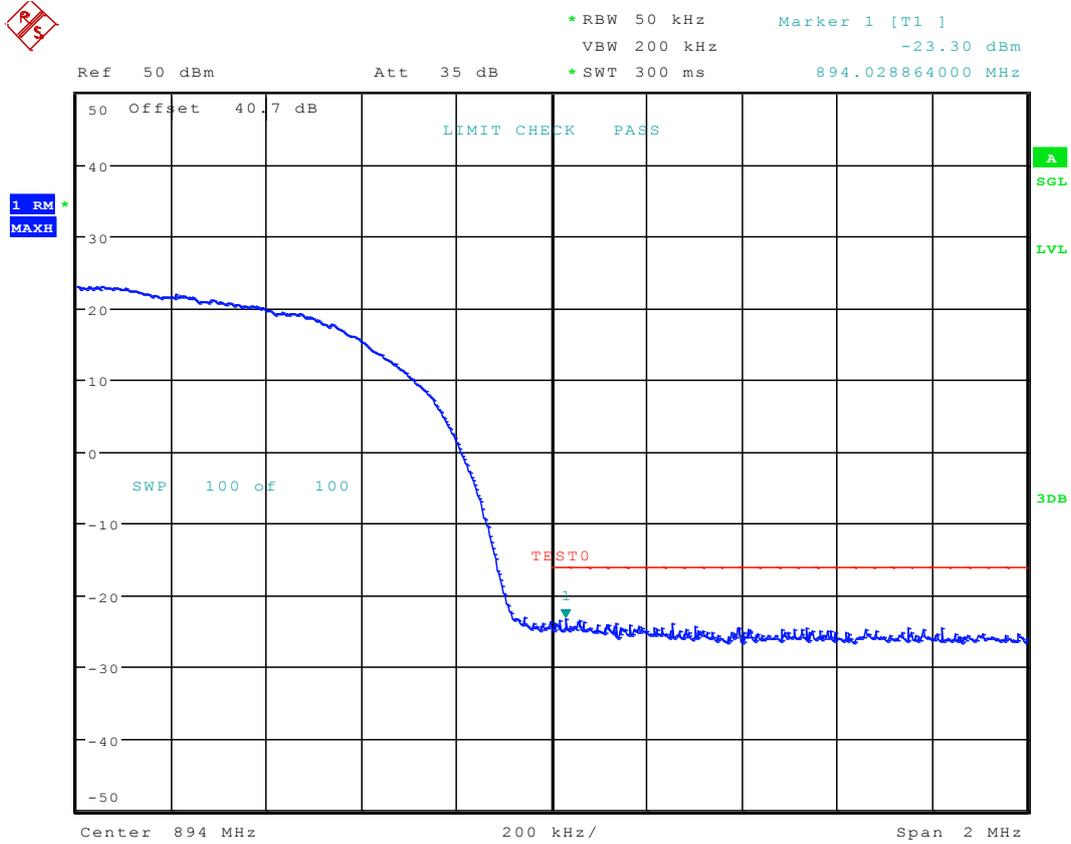
Date: 23.SEP.2013 14:44:10

2.2.2.7 DL_2U_TM1_T_ANTA
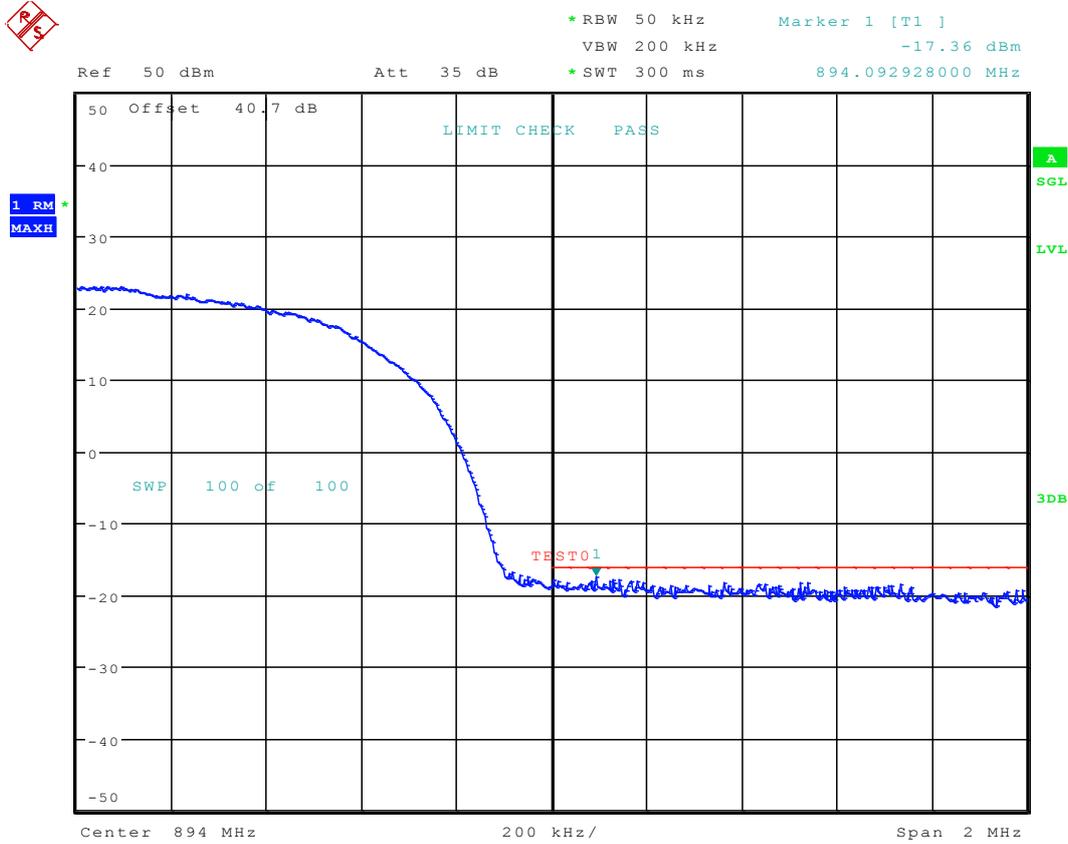
Date: 23.SEP.2013 15:02:56
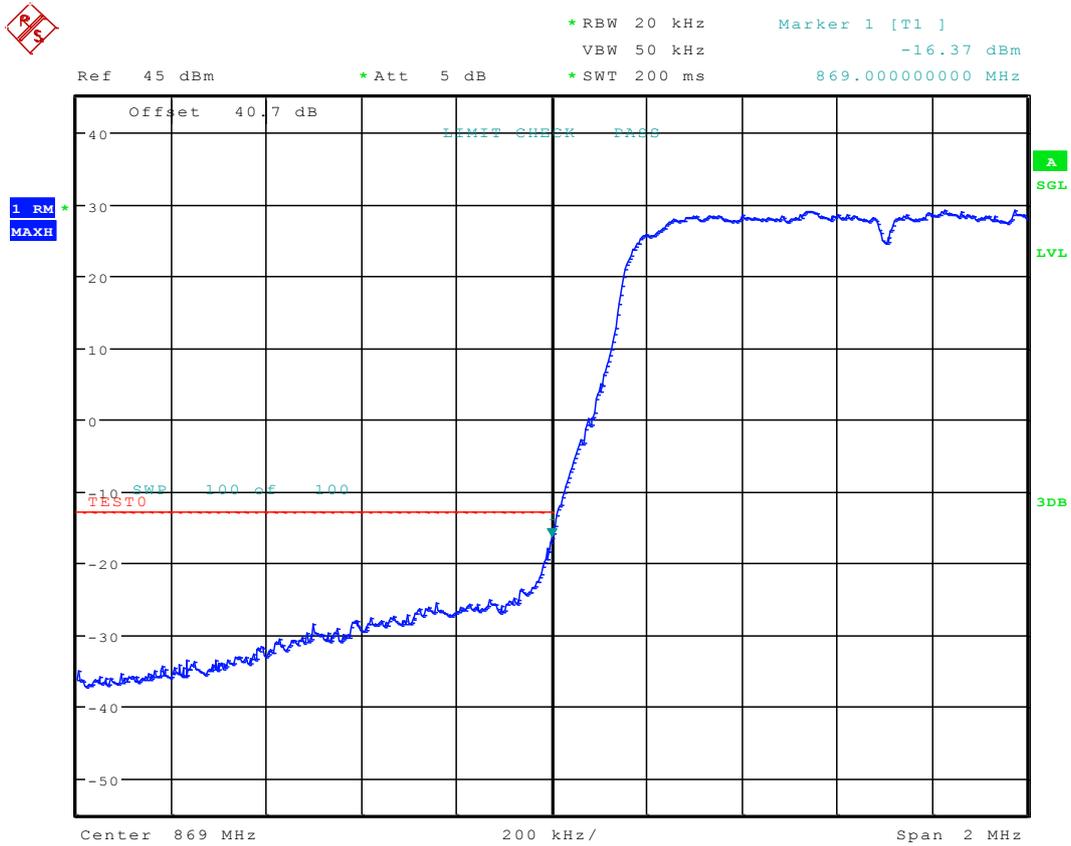
2.2.2.8   DL_2U_TM1_T_ANTB

Date: 23.SEP.2013 14:51:33
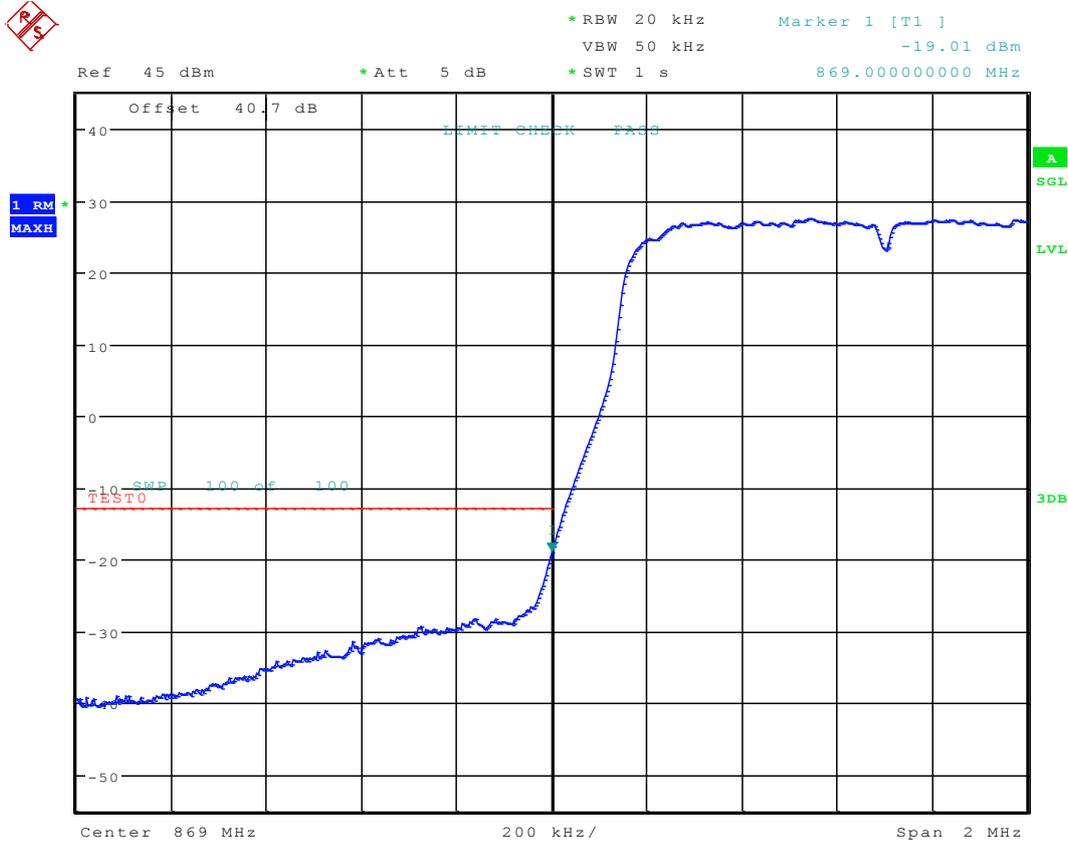
2.2.3   LTE system

2.2.3.1.1   DL_1L_1.4M_B_ANTA

Date: 20.SEP.2013 15:47:11

2.2.3.1.2　DL_1L_1.4M_B_ANTB


```
                                    * RBW  20 kHz        Marker 1 [T1 ]
                                      VBW  50 kHz                -19.01 dBm
Ref  45 dBm          * Att  5 dB    * SWT  1 s         869.000000000 MHz

     Offset  40.7 dB
   40                               LIMIT CHECK  PASS                         A
                                                                            SGL
   30
                                                                            LVL
   20

   10

    0

  -10  SWP  100 of  100
      TEST0                                                                 3DB
  -20

  -30

       ... 0

  -50

Center  869 MHz              200 kHz/                        Span  2 MHz
```

Date: 20.SEP.2013 16:18:36

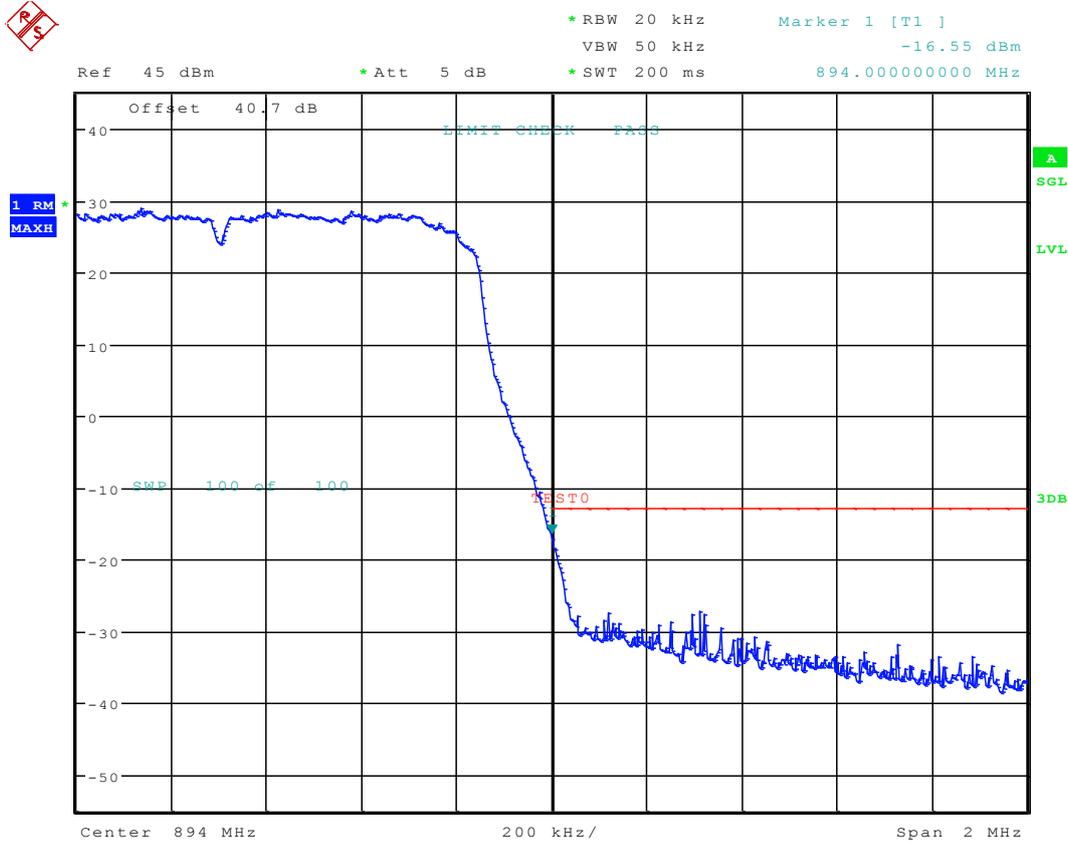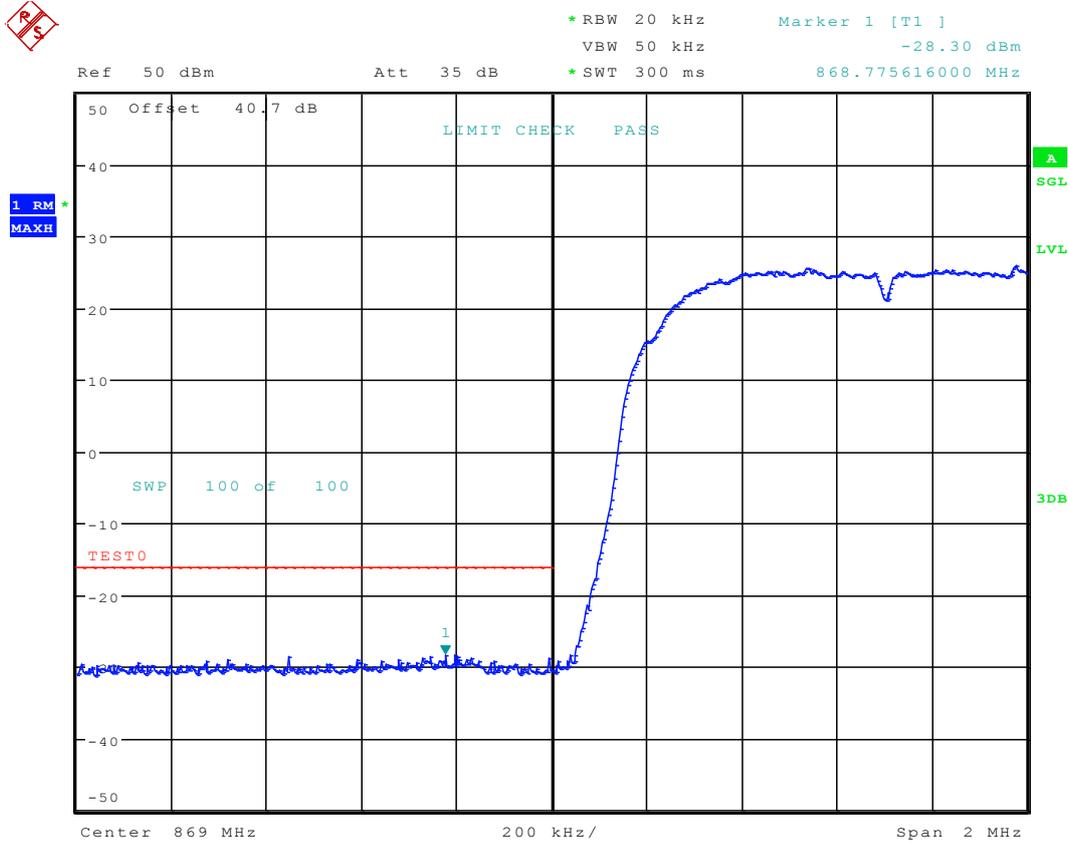## 2.2.3.1.3 DL_1L_1.4M_T_ANTA

Date: 20.SEP.2013 15:55:32

2.2.3.1.4 DL_1L_1.4M_T_ANTB

Date: 20.SEP.2013 16:11:47

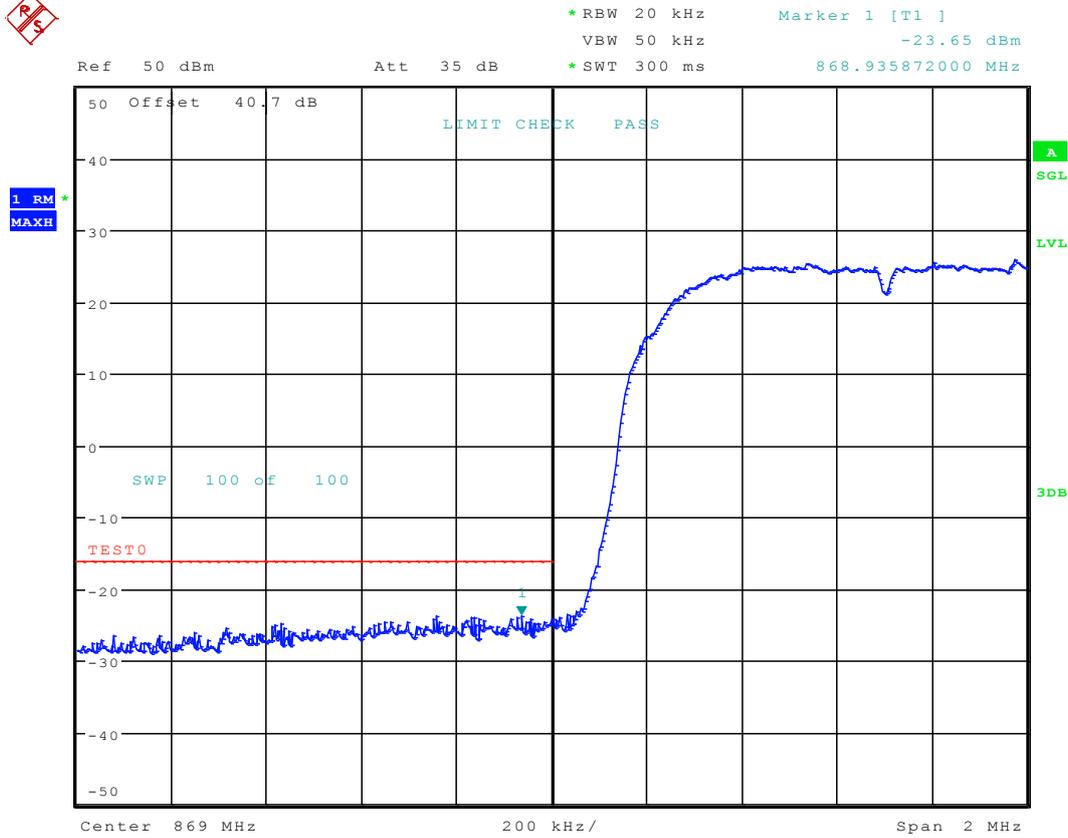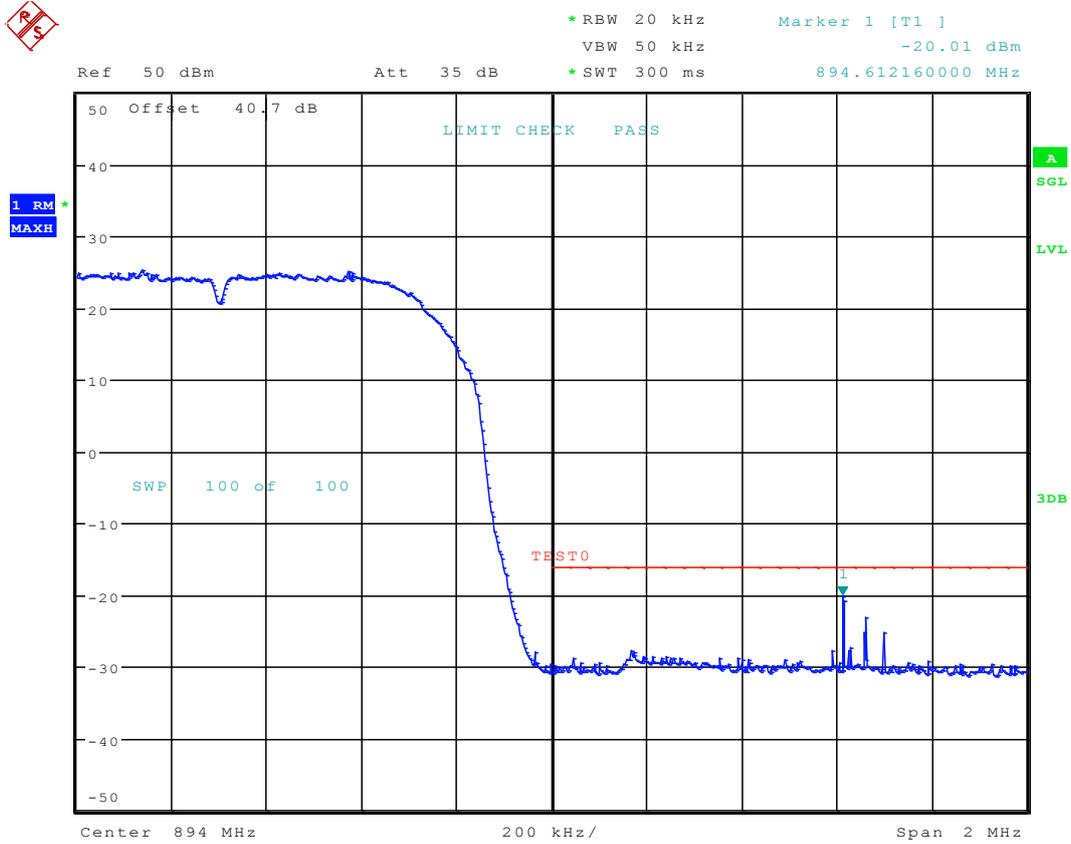## 2.2.3.1.5 DL_2L_1.4M_B_ANTA

Date: 23.SEP.2013 15:14:34

2.2.3.1.6 DL_2L_1.4M_B_ANTB
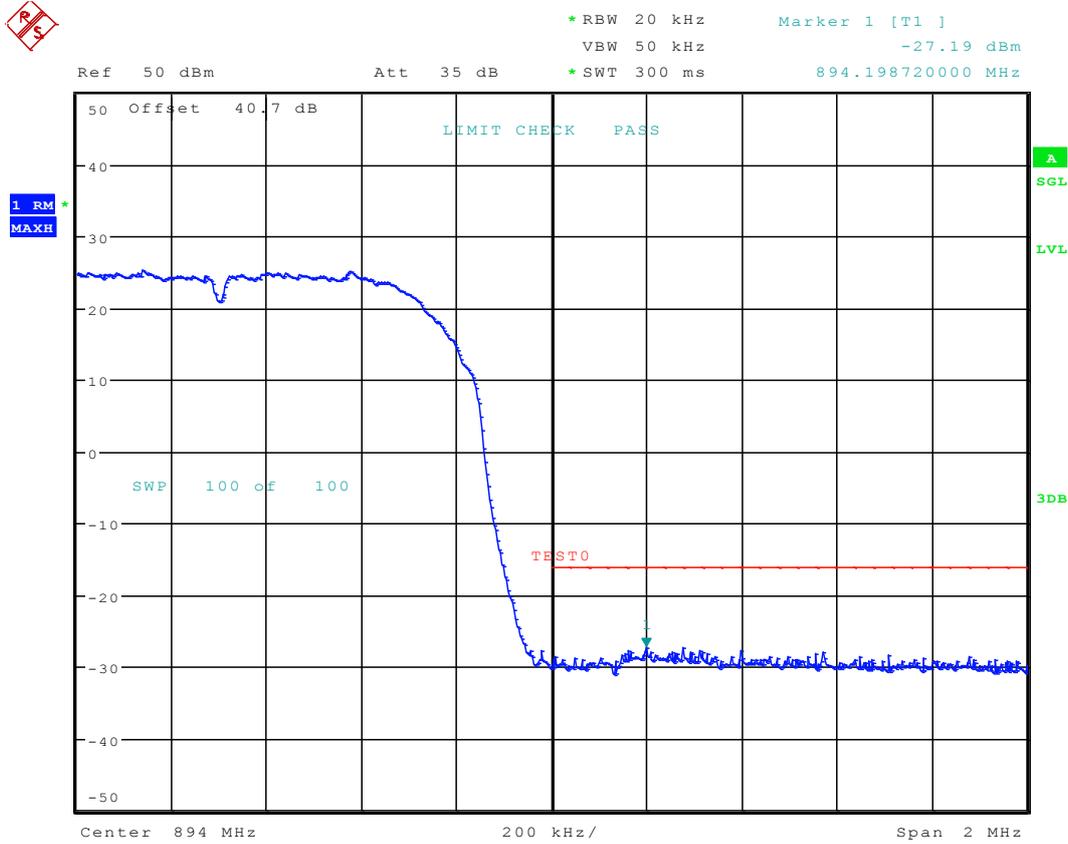

Date: 23.SEP.2013 15:27:59

2.2.3.1.7 DL_2L_1.4M_T_ANTA

Date: 23.SEP.2013 15:21:25

2.2.3.1.8 DL_2L_1.4M_T_ANTB


```
                                          * RBW  20 kHz      Marker 1 [T1 ]
                                            VBW  50 kHz                -27.19 dBm
     Ref  50 dBm              Att  35 dB   * SWT 300 ms       894.198720000 MHz

      50  Offset   40.7 dB
                                          LIMIT CHECK   PASS                          A
       40                                                                            SGL

1 RM                                                                                 LVL
MAXH
       30

       20

       10

        0
            SWP   100 of   100                                                       3DB
      -10
                                          TEST0
      -20

      -30

      -40

      -50
     Center  894 MHz                200 kHz/              Span  2 MHz
```
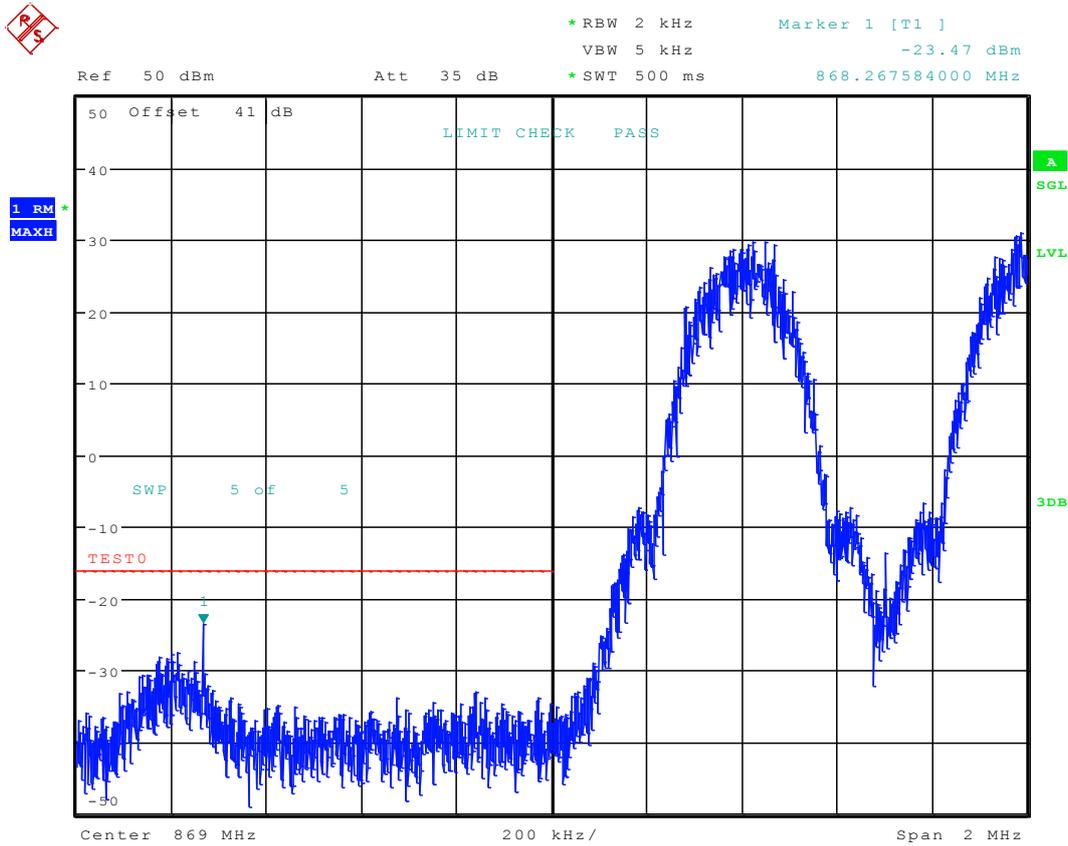
Date: 23.SEP.2013 15:33:01

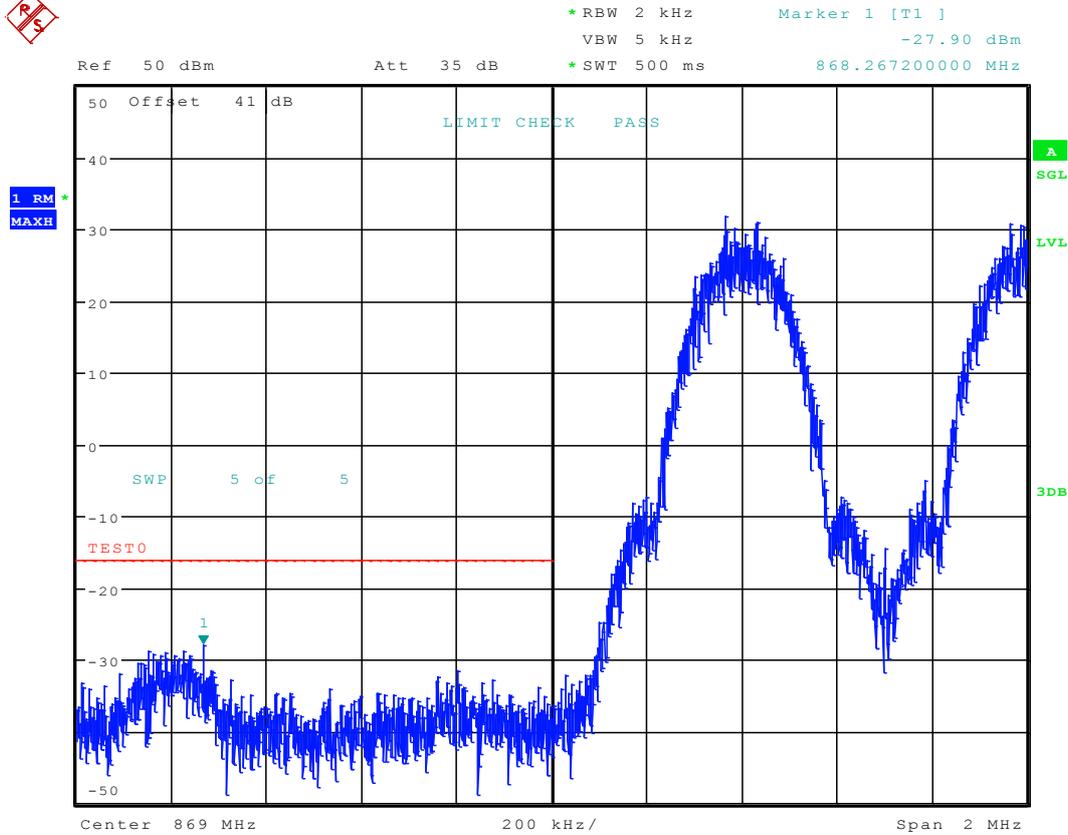## 2.3 Downlink Test Plots (input signal +10dB with AGC activated)

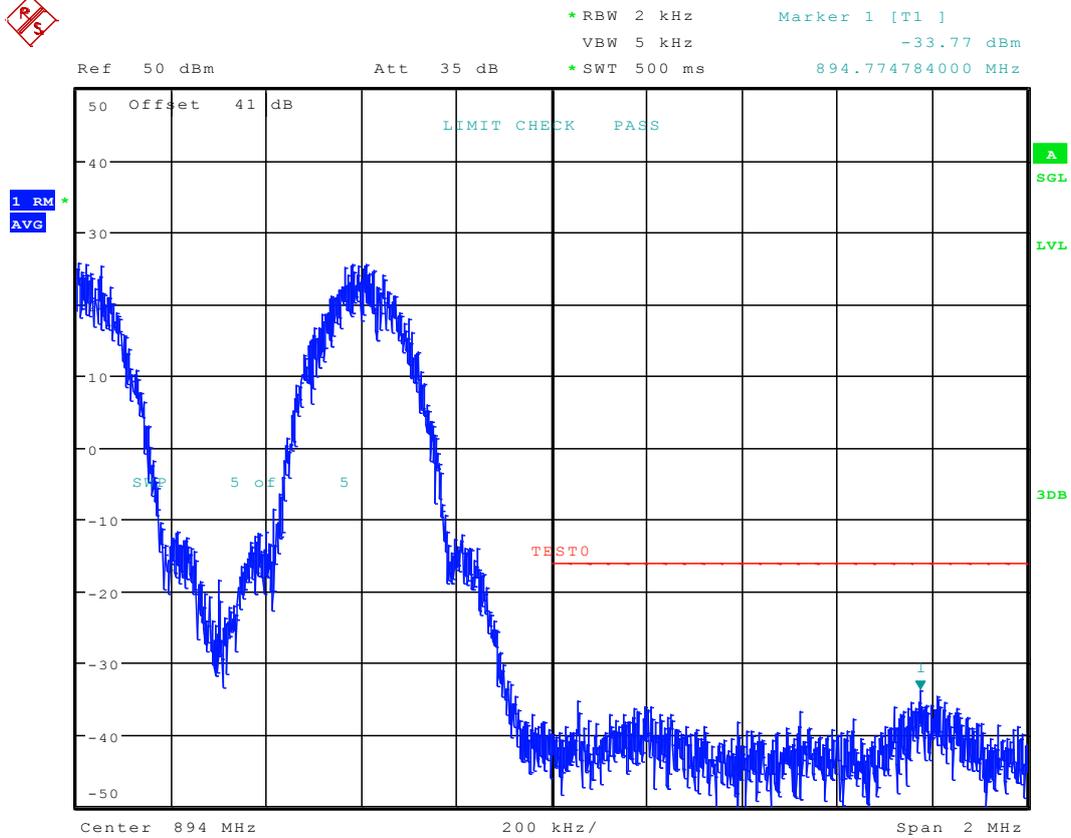### 2.3.1 GSM system

2.3.1.1 DL_2G_TM1_B_ANTA

Date: 5.DEC.2013 16:14:51

2.3.1.2   DL_2G_TM1_B_ANTB
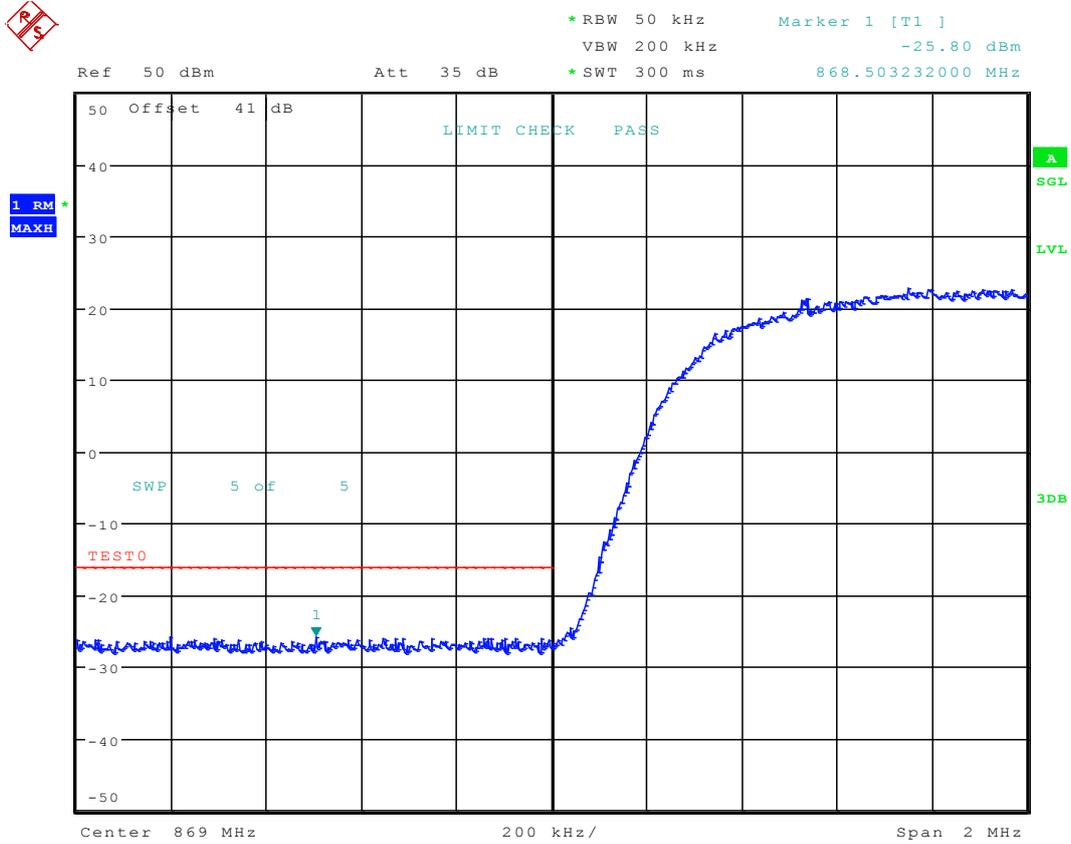

Date: 5.DEC.2013 16:26:42

2.3.1.3 DL_2G_TM1_T_ANTA

Date: 5.DEC.2013 16:34:37

2.3.1.4 DL_2G_TM1_T_ANTB

Date: 5.DEC.2013 16:36:21

2.3.2 UMTS system

2.3.2.1 DL_2U_TM1_B_ANTA

Date: 5.DEC.2013 18:52:26

2.3.2.2 DL_2U_TM1_B_ANTB

```
                                    * RBW  50 kHz      Marker 1 [T1 ]
                                      VBW 200 kHz                -25.62 dBm
     Ref  50 dBm          Att  35 dB  * SWT 300 ms      868.086528000 MHz

     50  Offset   41 dB
       40                              LIMIT CHECK   PASS
                                                                          A
                                                                          SGL
       30
                                                                          LVL
       20
       10
        0
     SWP     5 of    5
      -10
     TEST0                                                                3DB
      -20
        1
      -30
      -40
      -50
     Center  869 MHz           200 kHz/              Span  2 MHz
```

Date: 5.DEC.2013 18:56:42
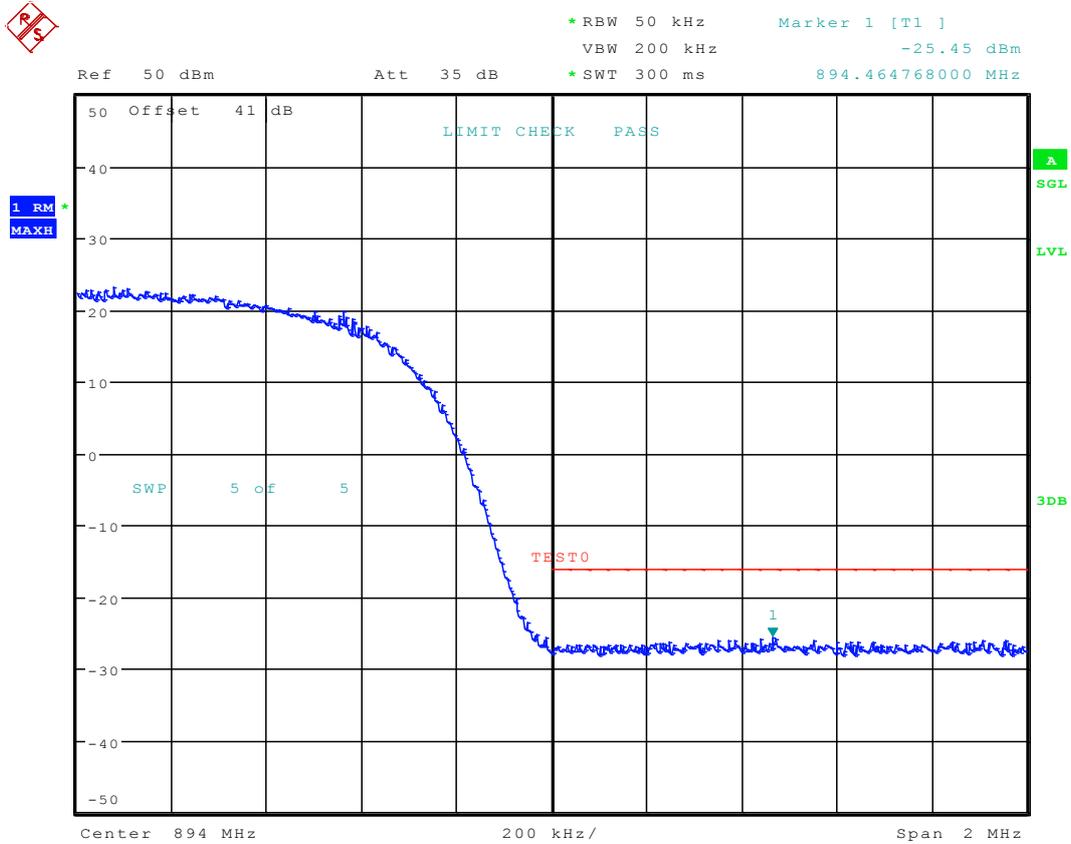
2.3.2.3 DL_2U_TM1_T_ANTA

Date: 5.DEC.2013 19:17:39

2.3.2.4 DL_2U_TM1_T_ANTB

```
                                    * RBW  50 kHz      Marker 1 [T1 ]
                                      VBW 200 kHz              -25.84 dBm
      Ref  50 dBm          Att  35 dB  * SWT 300 ms      894.641024000 MHz

      50  Offset   41 dB                                              A
        40                          LIMIT CHECK   PASS                SGL
   1 RM
   MAXH  30                                                          LVL
        20
        10                                                           3DB
         0
       SWP    5 of   5
       -10
                                  TEST0
       -20                                           1
       -30
       -40
       -50
      Center  894 MHz         200 kHz/              Span  2 MHz
```
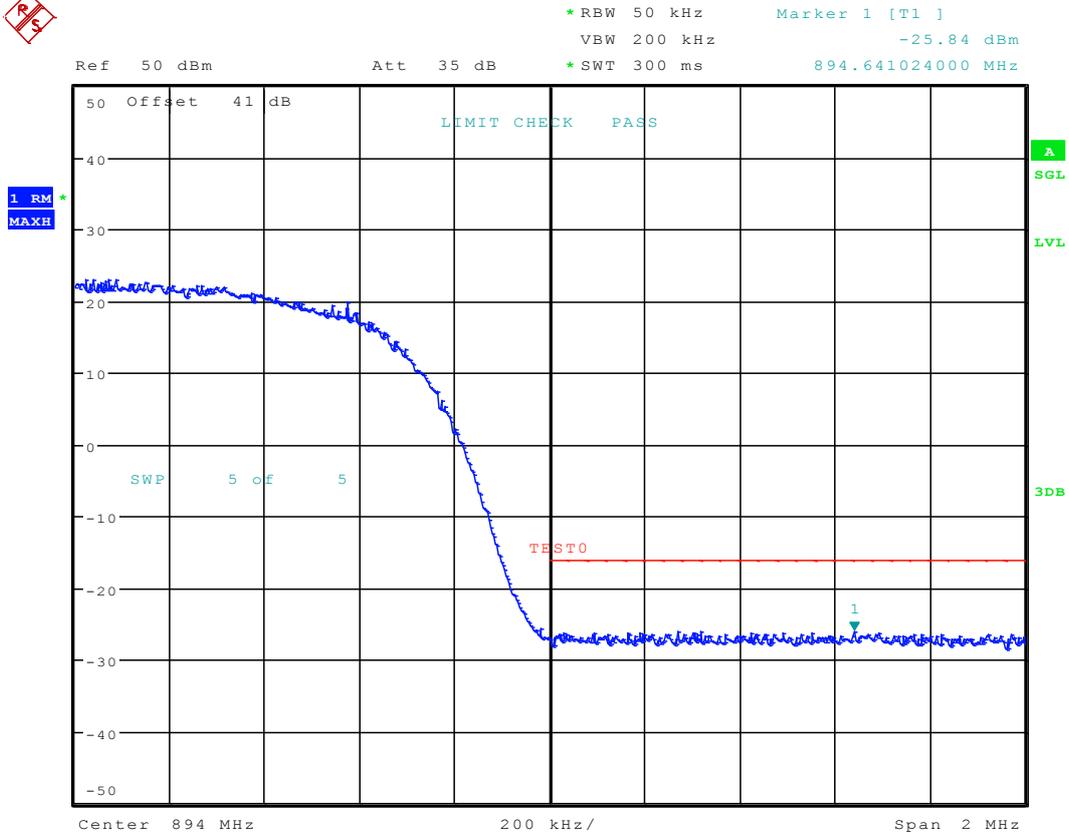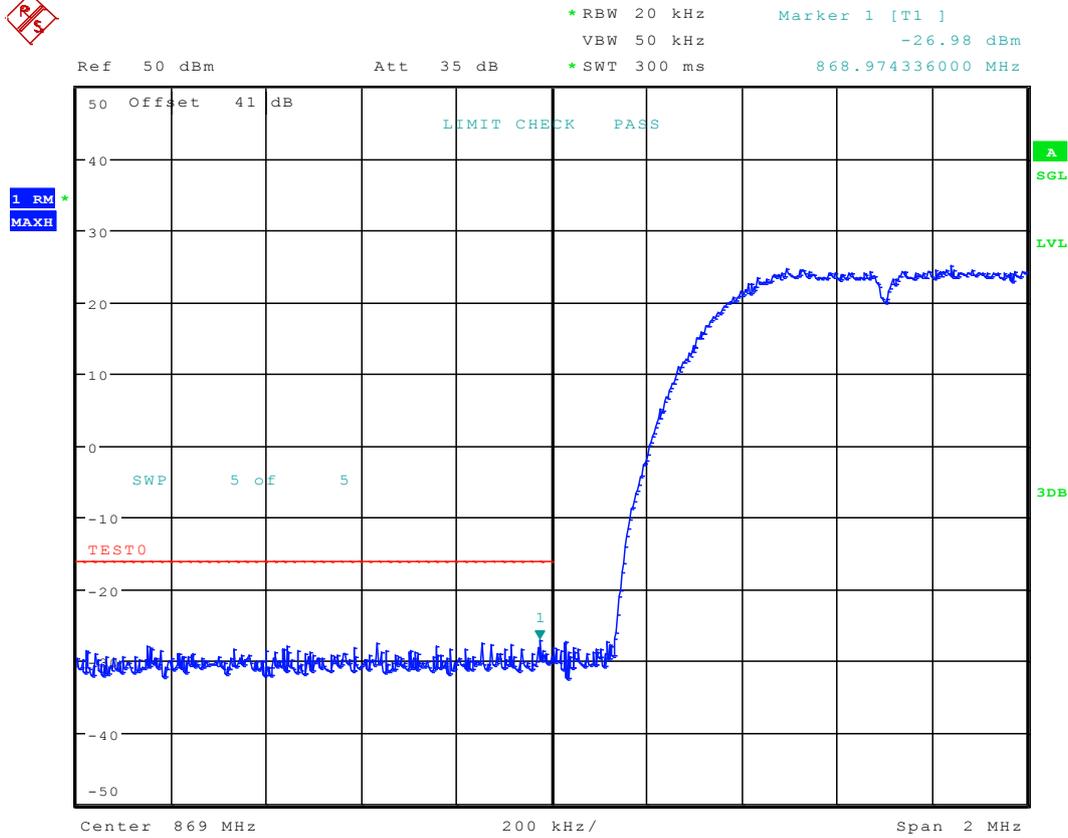
Date: 5.DEC.2013 19:20:44

2.3.3 LTE system

2.3.3.1 DL_2L_1.4M_B_ANTA

Date: 5.DEC.2013 20:37:43

2.3.3.2 DL_2L_1.4M_B_ANTB

```
                                    *RBW  20 kHz      Marker 1 [T1 ]
                                     VBW  50 kHz              -24.35 dBm
       Ref  50 dBm          Att  35 dB   *SWT 300 ms      868.657024000 MHz

       50  Offset   41 dB
                                    LIMIT CHECK   PASS                          A
        40                                                                     SGL

        30                                                                     LVL

        20

        10

         0
               SWP     5 of    5
       -10                                                                     3DB
            TEST0
       -20         1

       -40

       -50
       Center  869 MHz              200 kHz/              Span  2 MHz
```
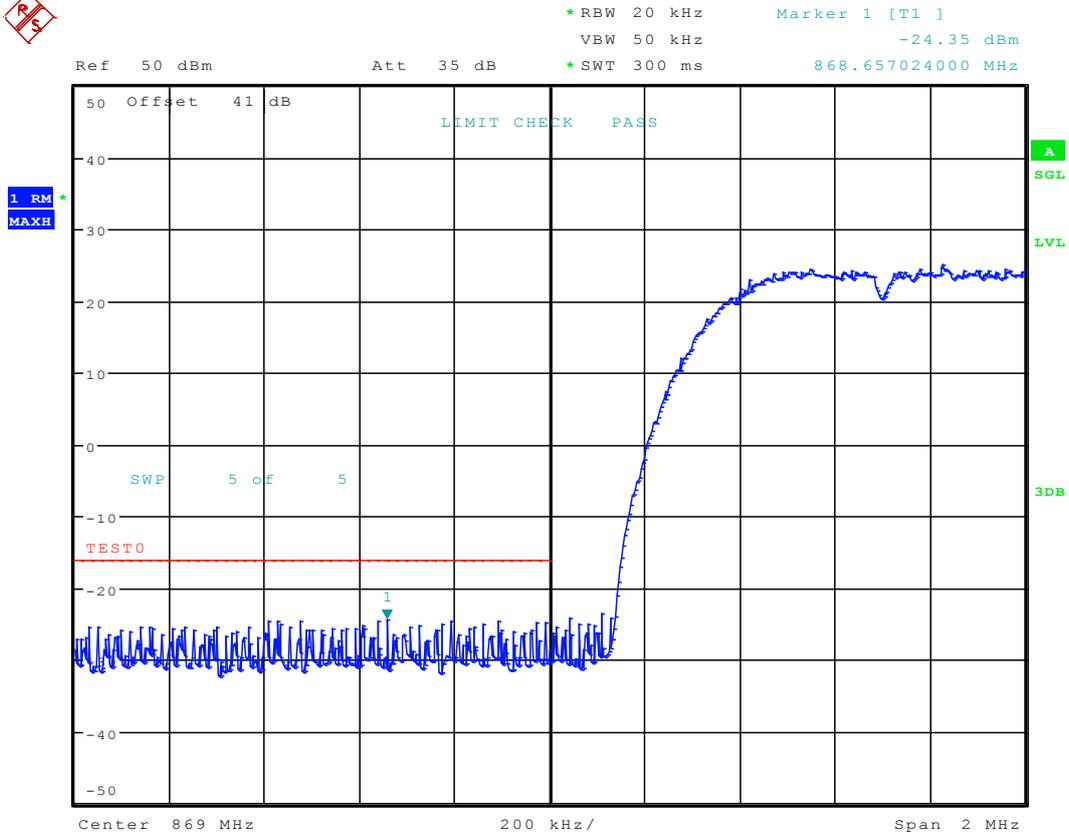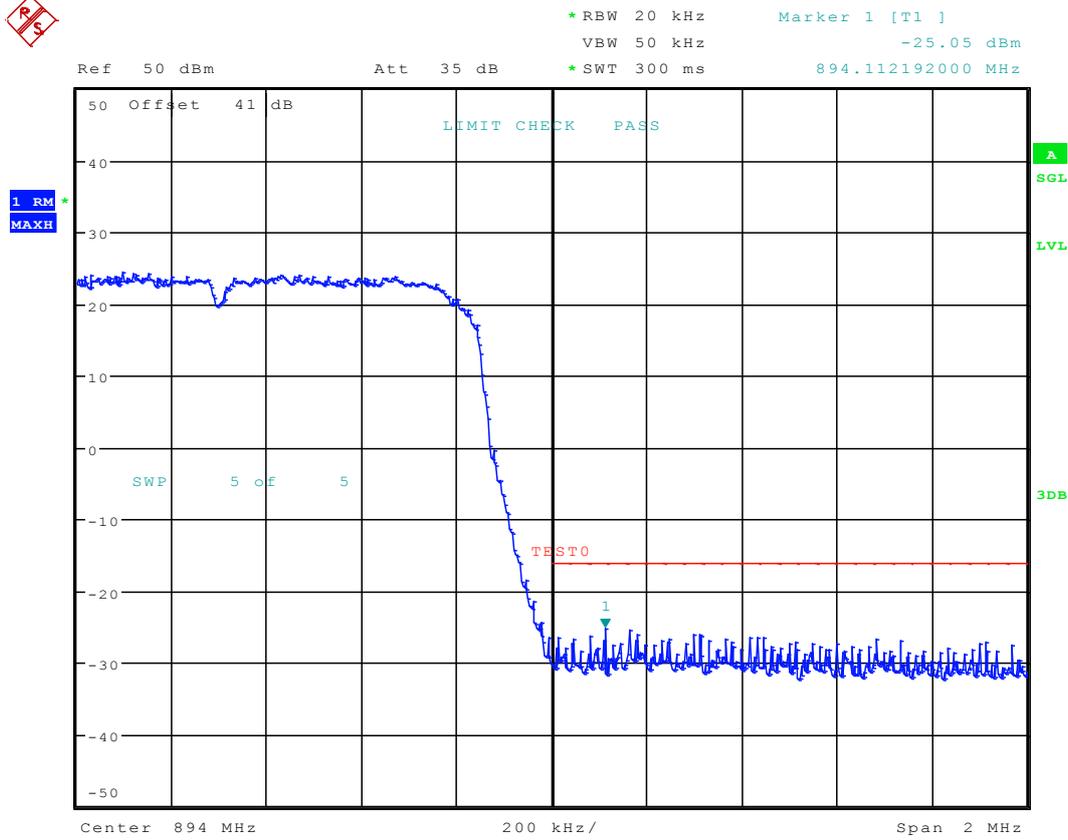
Date: 5.DEC.2013 20:42:28

2.3.3.3 DL_2L_1.4M_T_ANTA
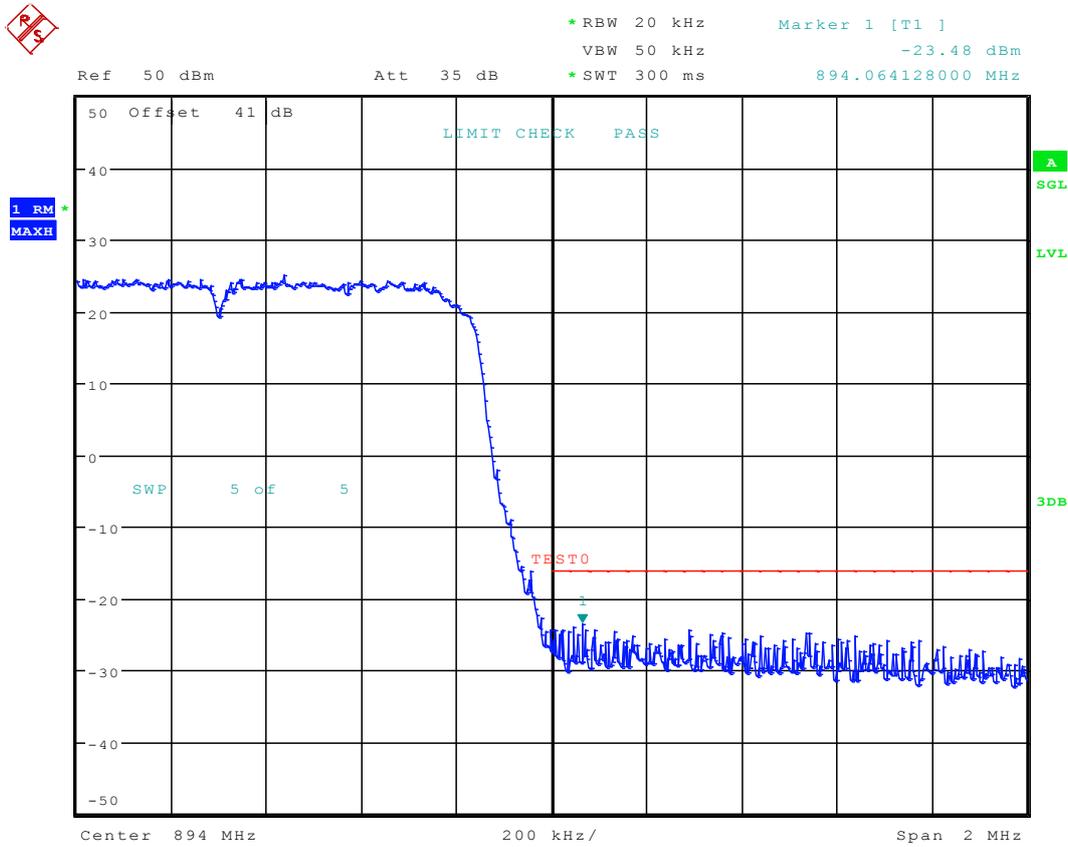
Date: 5.DEC.2013 20:46:21

2.3.3.4 DL_2L_1.4M_T_ANTB

```
                                    * RBW  20 kHz        Marker 1 [T1 ]
                                      VBW  50 kHz                    -25.05 dBm
      Ref   50 dBm          Att   35 dB    * SWT 300 ms       894.112192000 MHz

      50  Offset   41 dB
        40                          LIMIT CHECK    PASS                              A
                                                                                    SGL
   1 RM
   MAXH  30                                                                         LVL

        20

        10

         0
        SWP      5 of    5                                                          3DB
       -10
                                    TEST0
       -20
                                      1
       -30

       -40

       -50

      Center  894 MHz           200 kHz/              Span  2 MHz
```

Date: 7.DEC.2013 11:06:04

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 10log(N) technique, so the limits for spurious emissions at antenna terminal should be adjusted with a correction of 10log2.

1.1   Uplink Test Results

Not applicable.

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

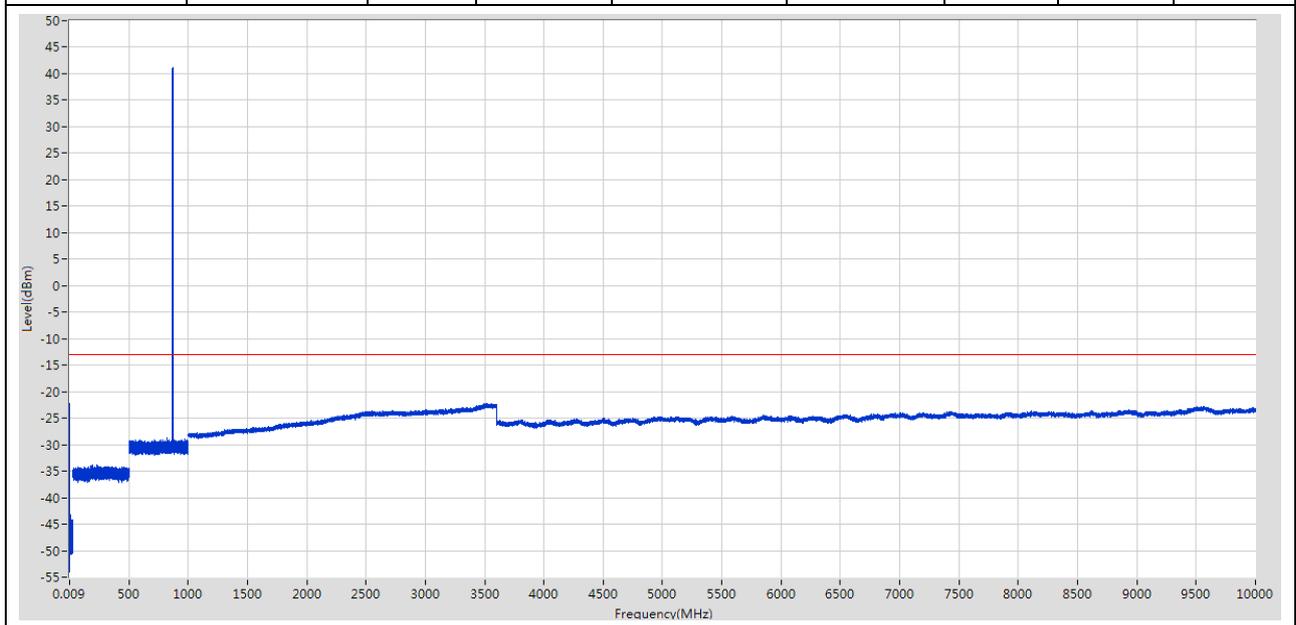## 1.2   Downlink Test Results (without AGC activated)

1.2.1   GSM system

EUT Conf.	Limit(dBm)	Verdict
DL_1G_TM1_B_ANTA	-16	Pass
DL_1G_TM1_B_ANTB	-16	Pass
DL_1G_TM1_M_ANTA	-16	Pass
DL_1G_TM1_M_ANTB	-16	Pass
DL_1G_TM1_T_ANTA	-16	Pass
DL_1G_TM1_T_ANTB	-16	Pass
DL_2G_TM1_B_ANTA	-16	Pass
DL_2G_TM1_B_ANTB	-16	Pass
DL_2G_TM1_M_ANTA	-16	Pass
DL_2G_TM1_M_ANTB	-16	Pass
DL_2G_TM1_T_ANTA	-16	Pass
DL_2G_TM1_T_ANTB	-16	Pass

1.2.2   UMTS system

EUT Conf.	Limit(dBm)	Verdict
DL_1U_TM1_B_ANTA	-16	Pass
DL_1U_TM1_B_ANTB	-16	Pass
DL_1U_TM1_M_ANTA	-16	Pass
DL_1U_TM1_M_ANTB	-16	Pass
DL_1U_TM1_T_ANTA	-16	Pass
DL_1U_TM1_T_ANTB	-16	Pass
DL_2U_TM1_B_ANTA	-16	Pass
DL_2U_TM1_B_ANTB	-16	Pass
DL_2U_TM1_M_ANTA	-16	Pass
DL_2U_TM1_M_ANTB	-16	Pass
DL_2U_TM1_T_ANTA	-16	Pass
DL_2U_TM1_T_ANTB	-16	Pass

1.2.3   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

EUT Conf.	Limit(dBm)	Verdict
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 GSM system

EUT Conf.	Limit(dBm)	Verdict
DL_2G_TM1_B_ANTA	-16	Pass
DL_2G_TM1_B_ANTB	-16	Pass
DL_2G_TM1_T_ANTA	-16	Pass
DL_2G_TM1_T_ANTB	-16	Pass

1.3.2 UMTS system

EUT Conf.	Limit(dBm)	Verdict
DL_2U_TM1_B_ANTA	-16	Pass
DL_2U_TM1_B_ANTB	-16	Pass
DL_2U_TM1_T_ANTA	-16	Pass
DL_2U_TM1_T_ANTB	-16	Pass

1.3.3 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
DL_2L_1.4M_T_ANTB	-16	Pass

2   Test Plot

2.1   Uplink Test Plots

Not applicable.

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

2.2   Downlink Test Plots (without AGC activated)
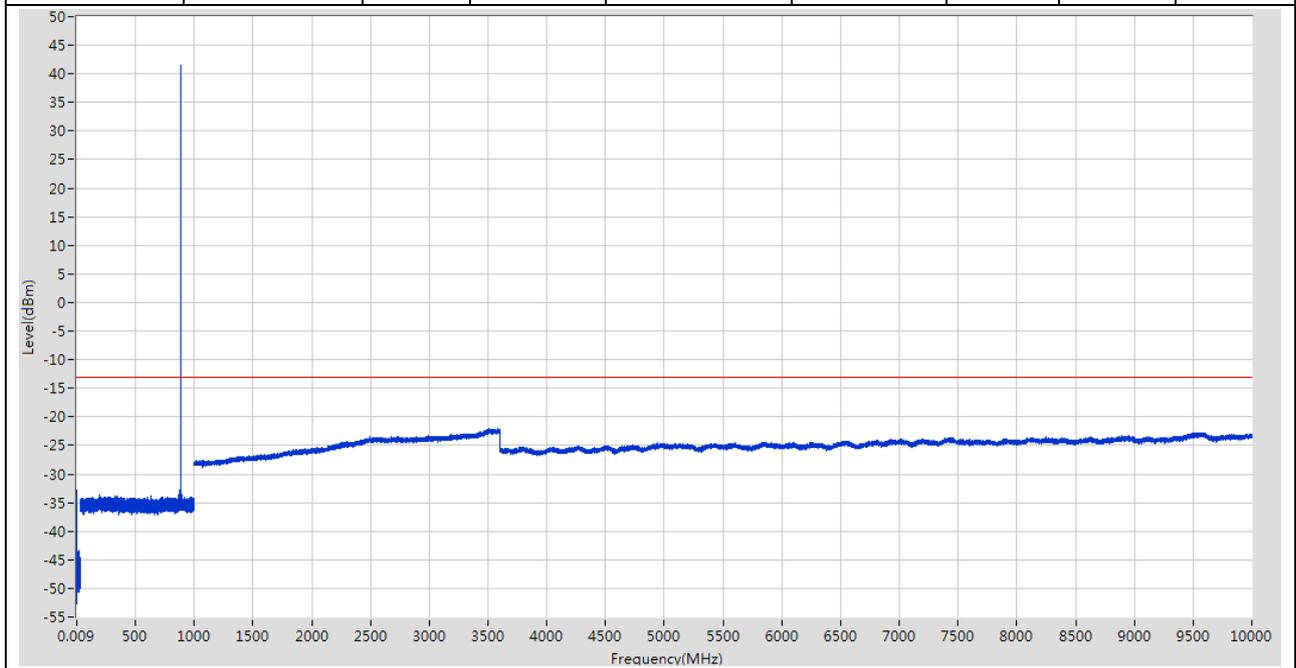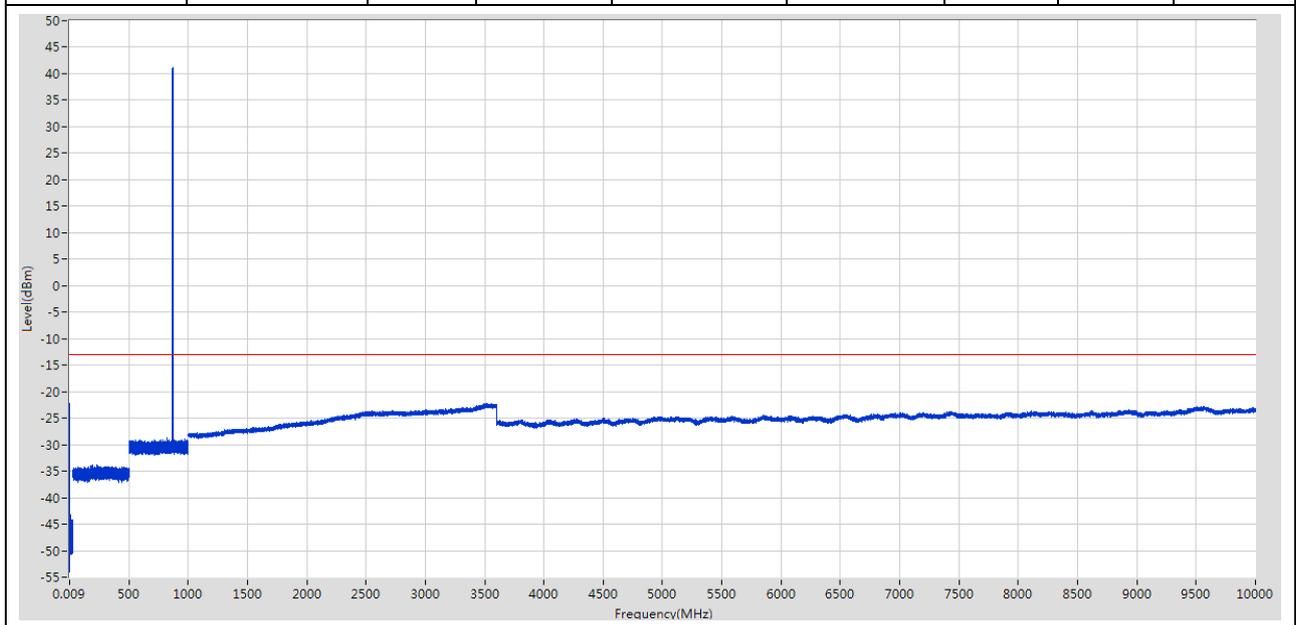
2.2.1   GSM system

2.2.1.1   DL_1G_TM1_B_ANTA

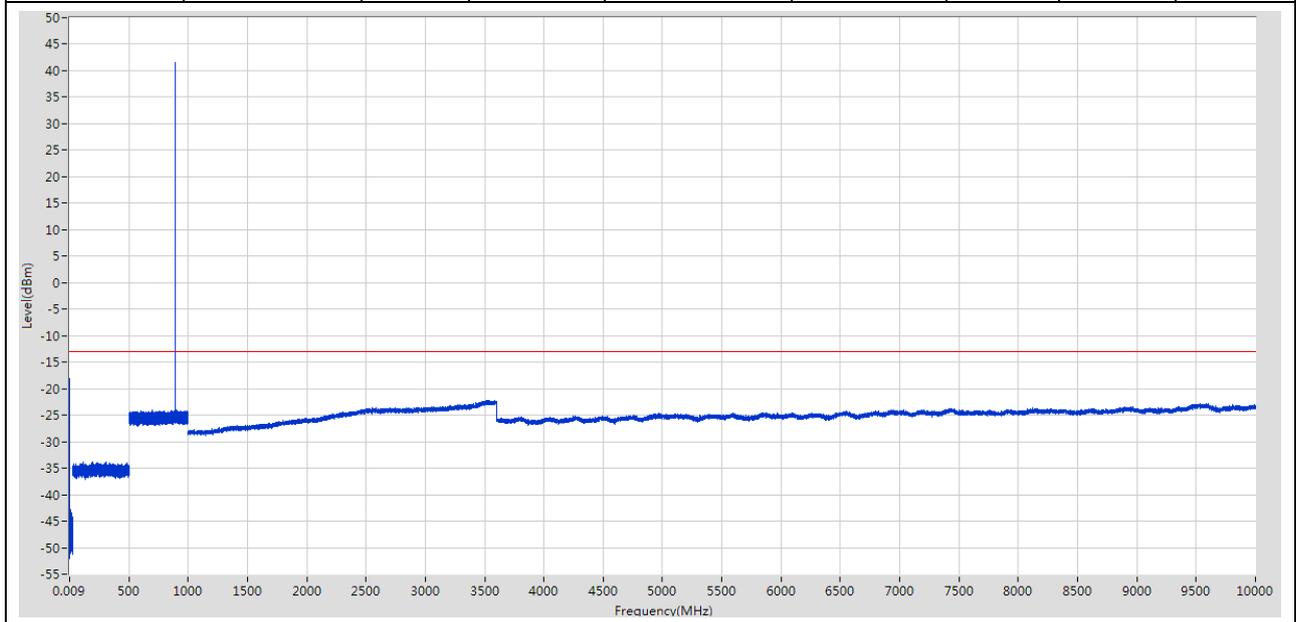| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9 k	-37.91	-13	Pass	801
0.15	30	0.01	RMS	317.16 k	-31.25	-13	Pass	15001
30	500	0.1	RMS	345.62 M	-33.67	-13	Pass	23501
500	1000	0.1	RMS	869.4 M	41.81	-13	Fail	25001
1000	10000	1	RMS	3567.48558 M	-22.15	-13	Pass	45002
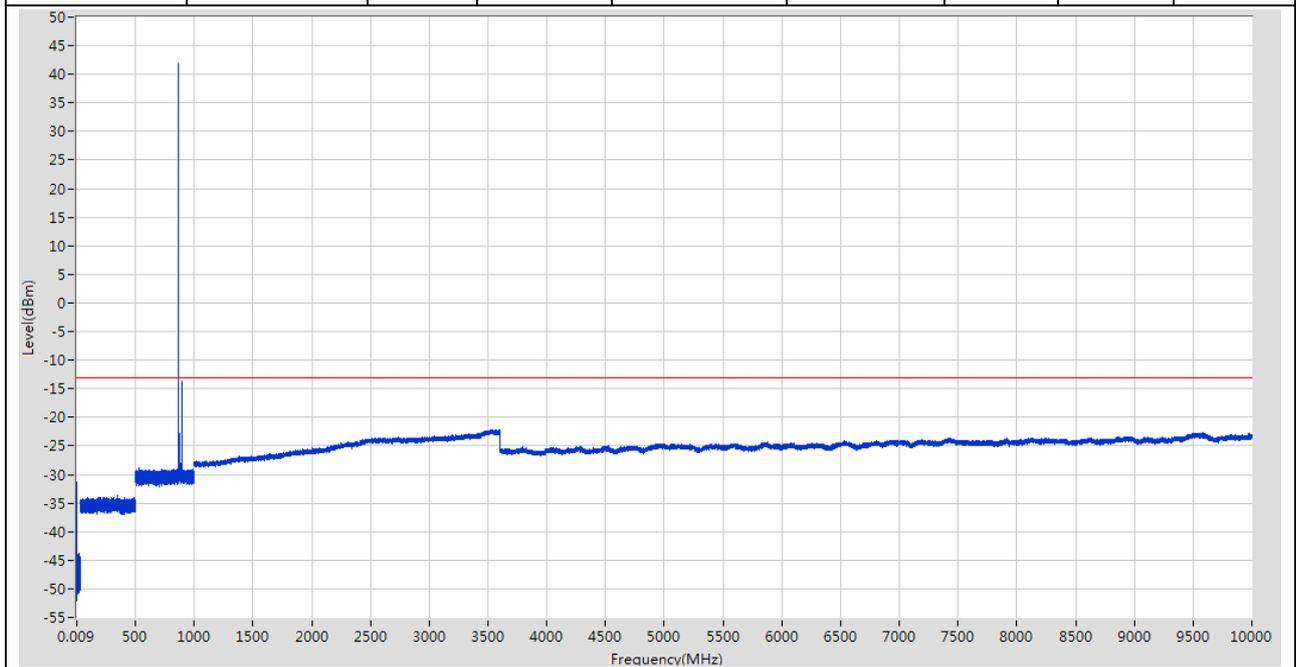
2.2.1.2 DL_1G_TM1_B_ANTB

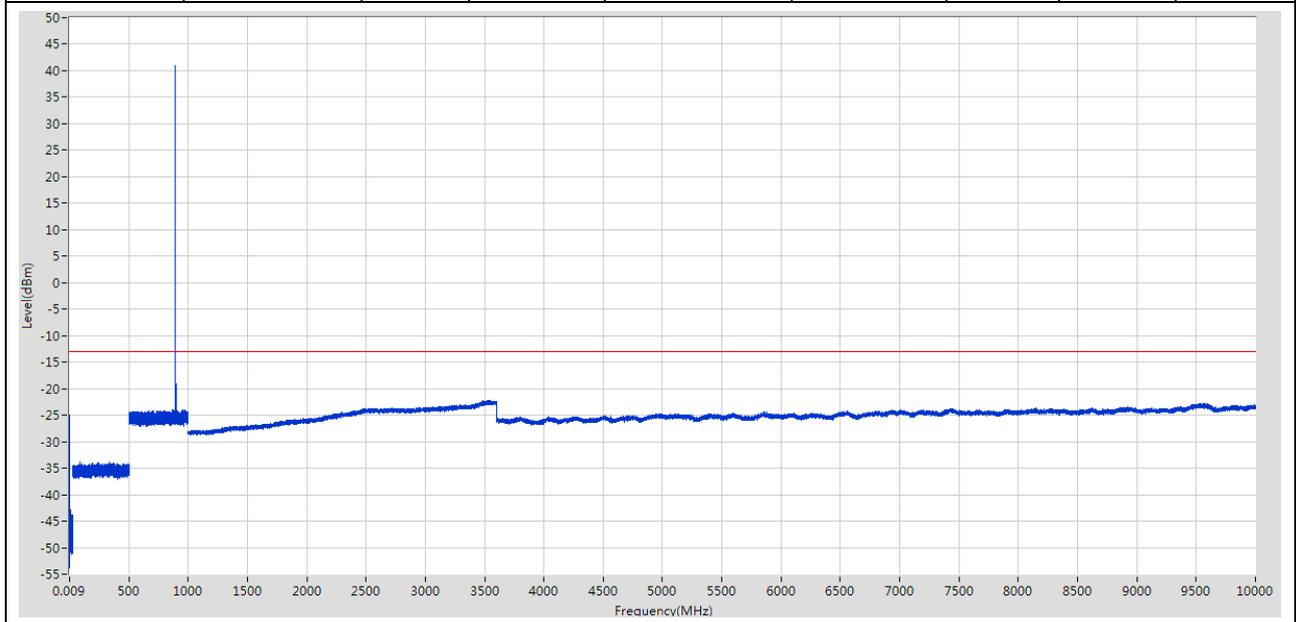| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9 k	-38.84	-13	Pass	801
0.15	30	0.01	RMS	315.17 k	-22.31	-13	Pass	15001
30	500	0.1	RMS	194.78 M	-33.72	-13	Pass	23501
500	1000	0.1	RMS	869.4 M	41.17	-13	Fail	25001
1000	10000	1	RMS	3521.88406 M	-22.2	-13	Pass	45002

2.2.1.3　DL_1G_TM1_M_ANTA

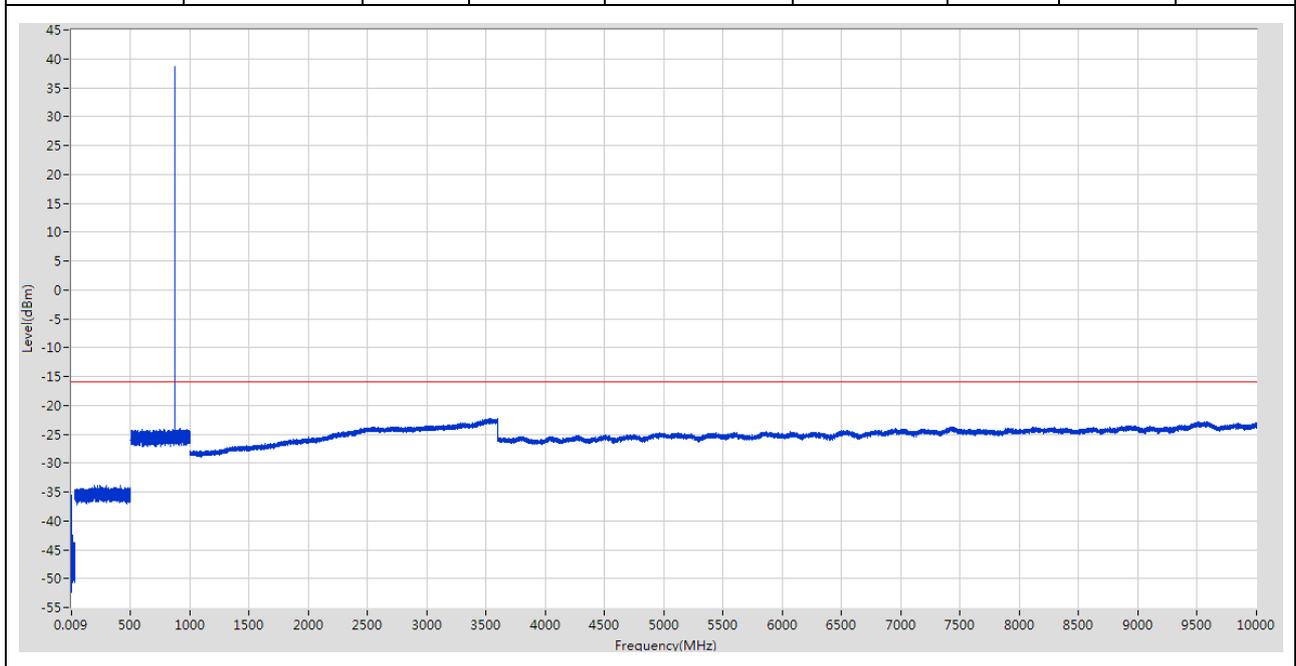| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.939 k	-38.01	-13	Pass	801
0.15	30	0.01	RMS	317.16 k	-32.82	-13	Pass	15001
30	500	0.1	RMS	192.08 M	-33.59	-13	Pass	23501
500	1000	0.1	RMS	881.5 M	41.47	-13	Fail	25001
1000	10000	1	RMS	3583.486113 M	-22.04	-13	Pass	45002

2.2.1.4 DL_1G_TM1_M_ANTB

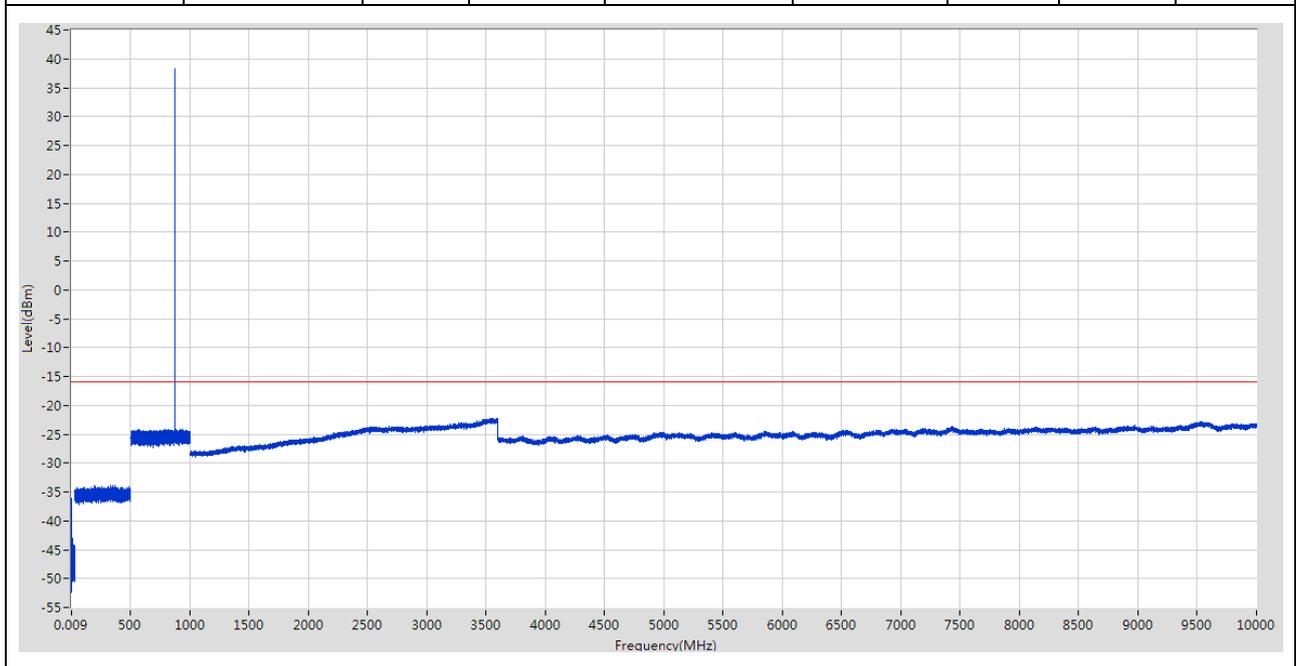| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9 k	-38.84	-13	Pass	801
0.15	30	0.01	RMS	315.17 k	-22.31	-13	Pass	15001
30	500	0.1	RMS	194.78 M	-33.72	-13	Pass	23501
500	1000	0.1	RMS	869.4 M	41.17	-13	Fail	25001
1000	10000	1	RMS	3521.88406 M	-22.2	-13	Pass	45002

2.2.1.5 DL_1G_TM1_T_ANTA

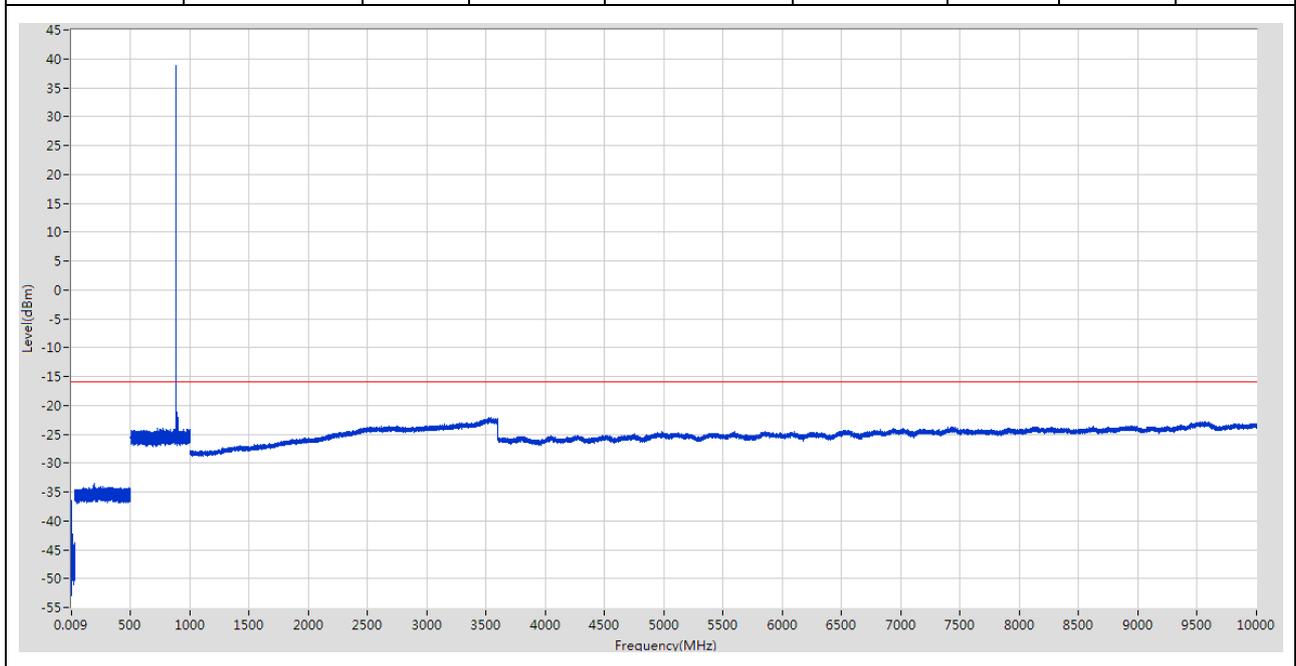| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.705 k	-38.5	-13	Pass	801
0.15	30	0.01	RMS	315.17 k	-18.12	-13	Pass	15001
30	500	0.1	RMS	117.16 M	-33.71	-13	Pass	23501
500	1000	0.1	RMS	893.6 M	41.5	-13	Fail	25001
1000	10000	1	RMS	3522.284073 M	-22.25	-13	Pass	45002

2.2.1.6   DL_1G_TM1_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	-37.93	-13	Pass	801
0.15	30	0.01	RMS	315.17 k	-24.97	-13	Pass	15001
30	500	0.1	RMS	92.26 M	-33.85	-13	Pass	23501
500	1000	0.1	RMS	893.6 M	40.97	-13	Fail	25001
1000	10000	1	RMS	3543.084767 M	-22.14	-13	Pass	45002

2.2.1.7 DL_2G_TM1_B_ANTA

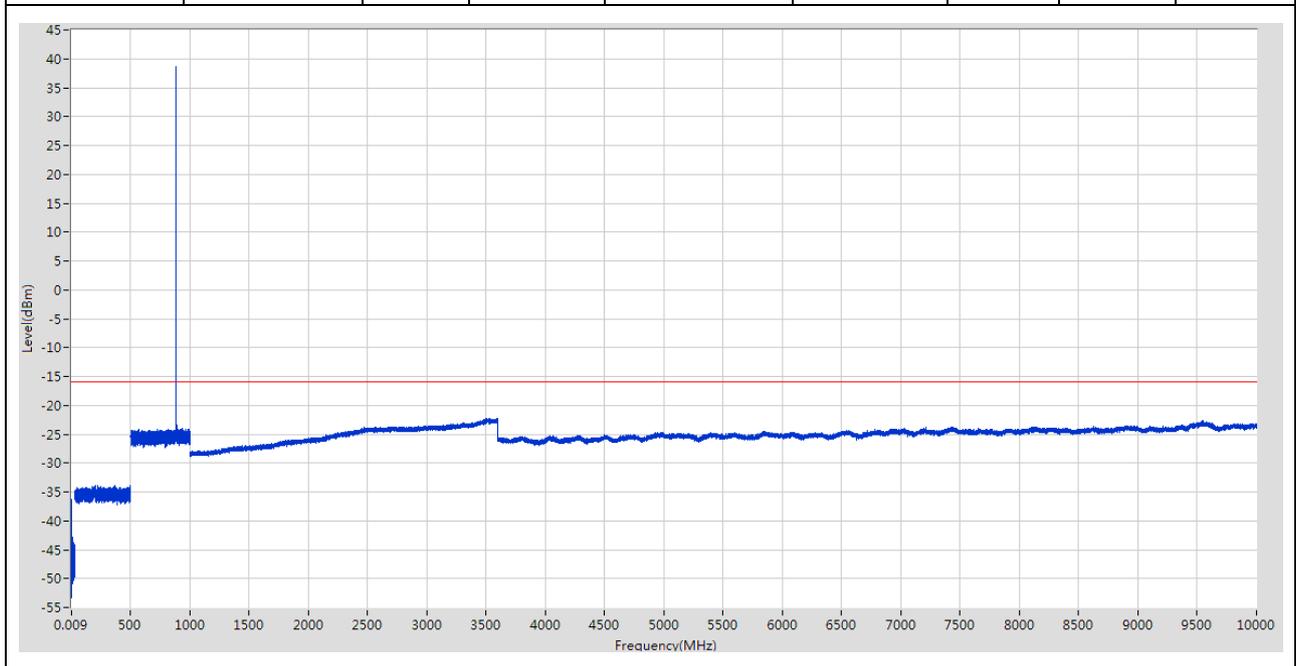| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	11.82 k	-40.01	-16	Pass	801
0.15	30	0.01	RMS	155.97 k	-35.63	-16	Pass	15001
30	500	0.1	RMS	190.3 M	-33.8	-16	Pass	23501
500	1000	0.1	RMS	870.02 M	38.6	-16	Fail	25001
1000	10000	1	RMS	3543.084767 M	-22.27	-16	Pass	45002

2.2.1.8   DL_2G_TM1_B_ANTB

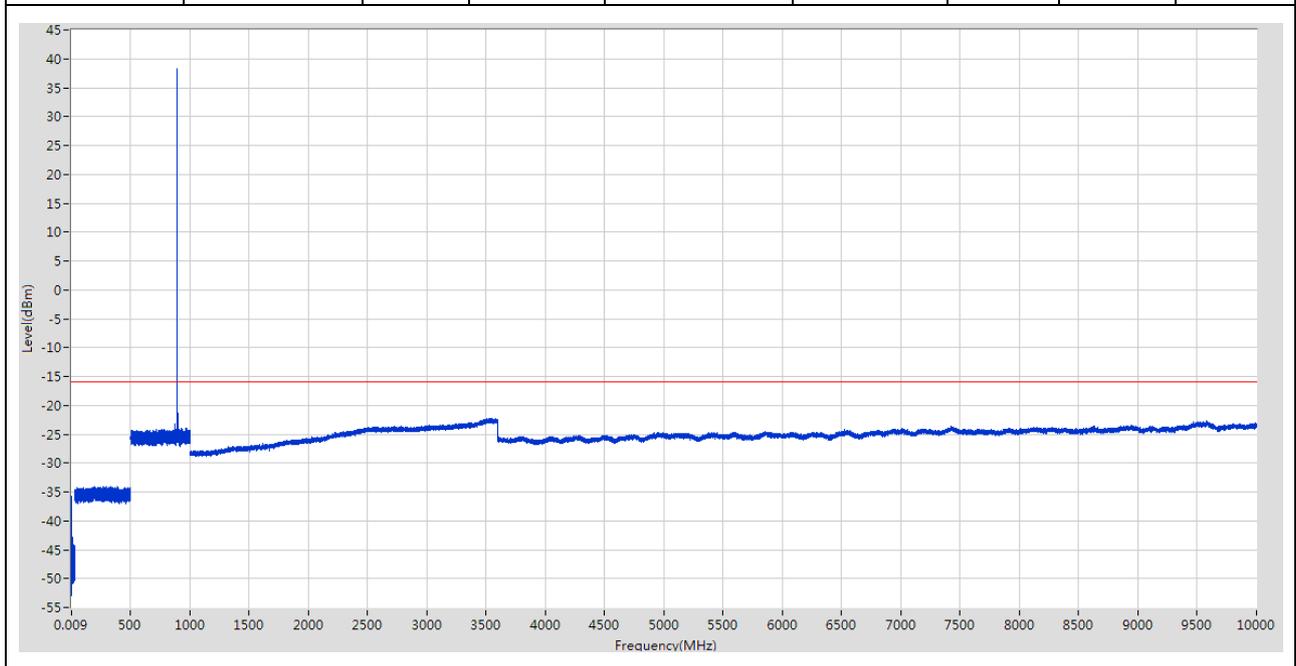| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.176 k	-39.46	-16	Pass	801
0.15	30	0.01	RMS	167.91 k	-36.18	-16	Pass	15001
30	500	0.1	RMS	331.56 M	-33.89	-16	Pass	23501
500	1000	0.1	RMS	870 M	38.21	-16	Fail	25001
1000	10000	1	RMS	3582.686087 M	-22.26	-16	Pass	45002

2.2.1.9   DL_2G_TM1_M_ANTA

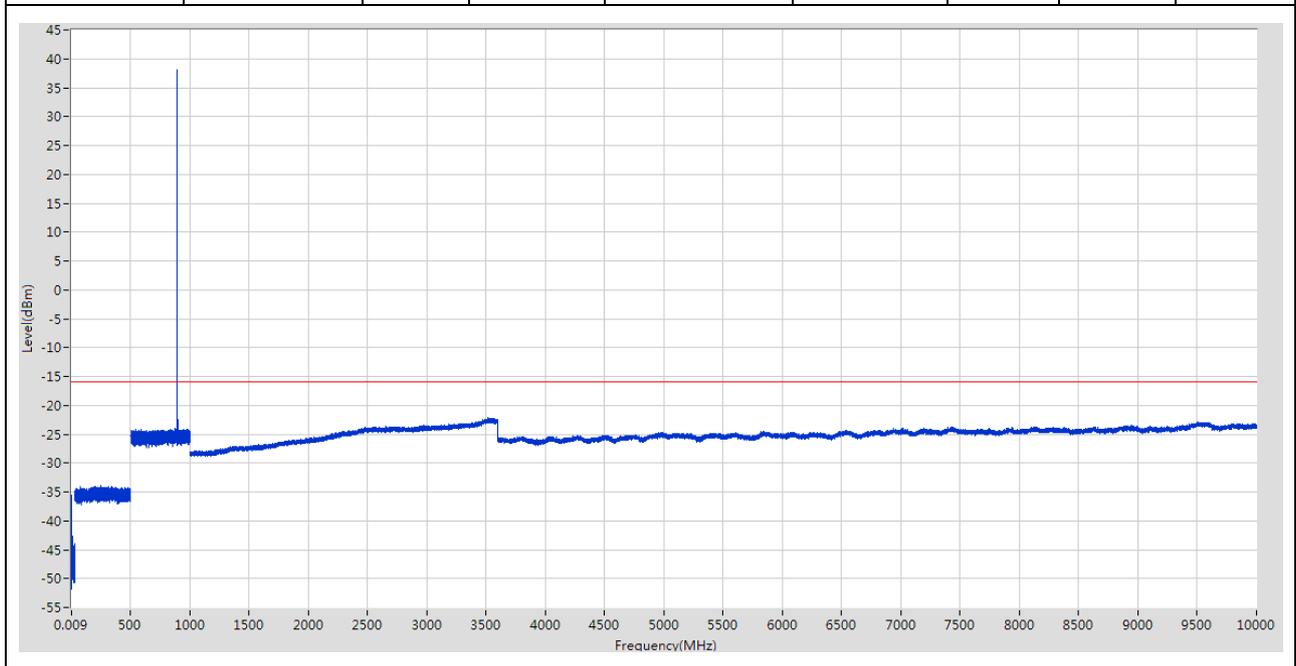| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.586 k	-39.83	-16	Pass	801
0.15	30	0.01	RMS	189.8 k	-36.52	-16	Pass	15001
30	500	0.1	RMS	194.16 M	-33.5	-16	Pass	23501
500	1000	0.1	RMS	881.2 M	38.85	-16	Fail	25001
1000	10000	1	RMS	3521.484047 M	-22.19	-16	Pass	45002

2.2.1.10 DL_2G_TM1_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	-39.77	-16	Pass	801
0.15	30	0.01	RMS	187.81 k	-36.28	-16	Pass	15001
30	500	0.1	RMS	218.76 M	-33.93	-16	Pass	23501
500	1000	0.1	RMS	881.2 M	38.67	-16	Fail	25001
1000	10000	1	RMS	3507.883593 M	-22.23	-16	Pass	45002

2.2.1.11 DL_2G_TM1_T_ANTA

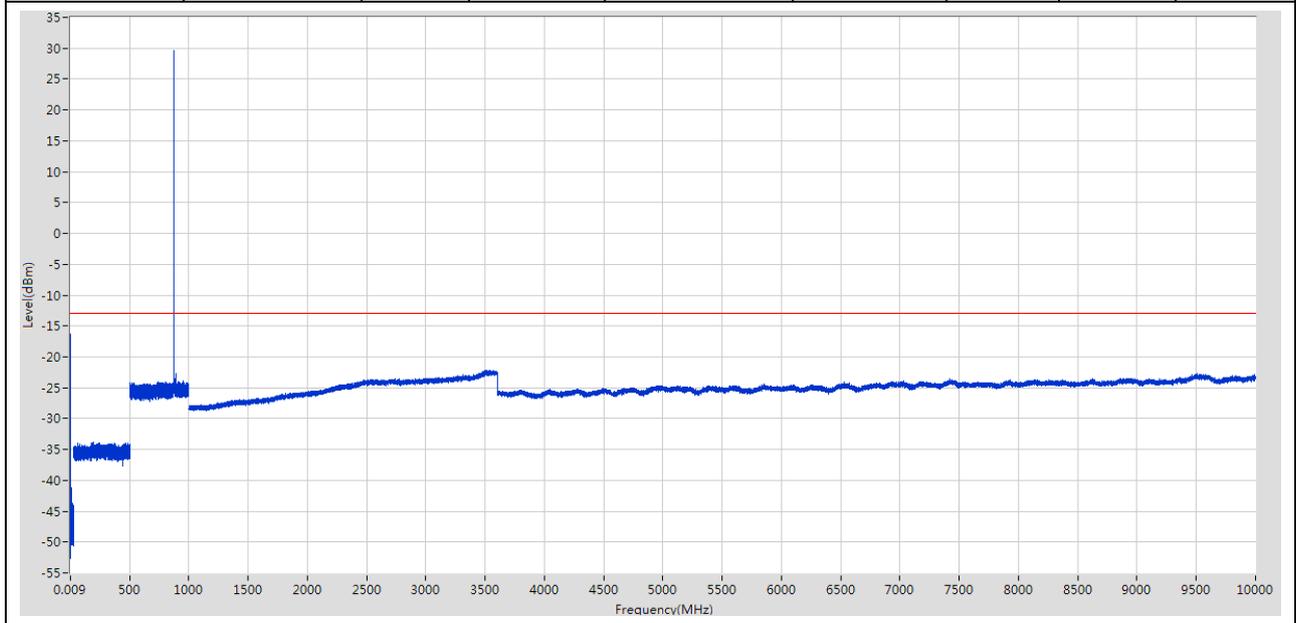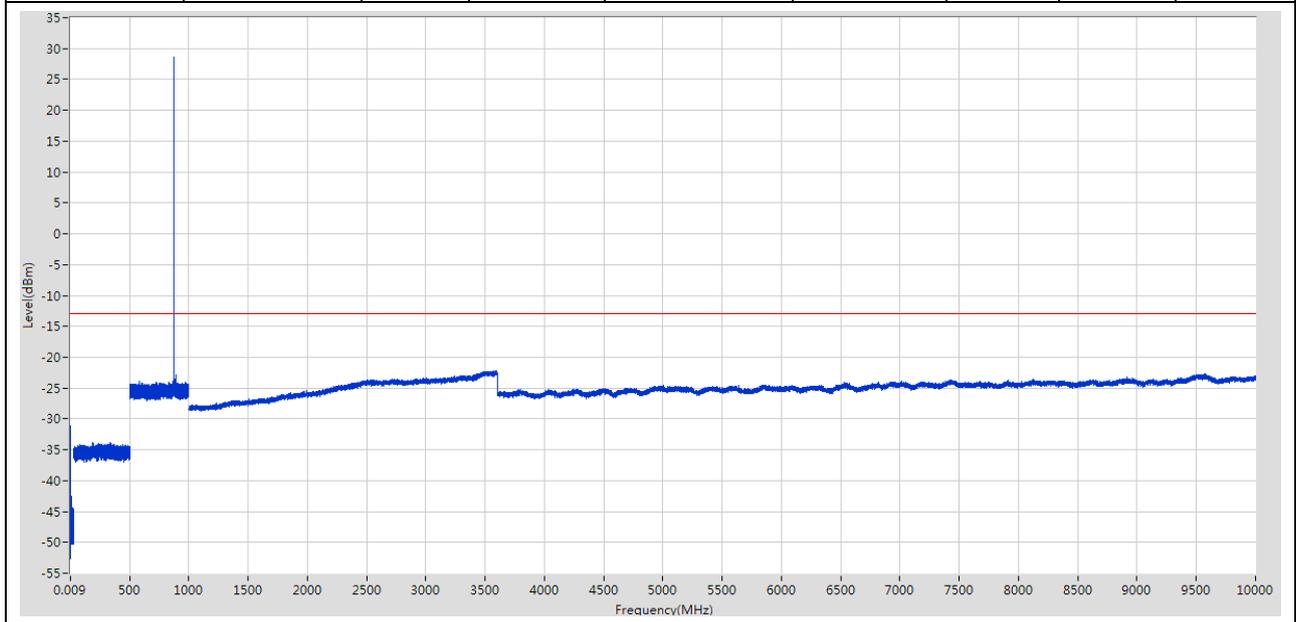| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.352 k	-38.75	-16	Pass	801
0.15	30	0.01	RMS	161.94 k	-35.84	-16	Pass	15001
30	500	0.1	RMS	188.72 M	-34.02	-16	Pass	23501
500	1000	0.1	RMS	893 M	38.26	-16	Fail	25001
1000	10000	1	RMS	3539.484647 M	-22.21	-16	Pass	45002

2.2.1.12 DL_2G_TM1_T_ANTB

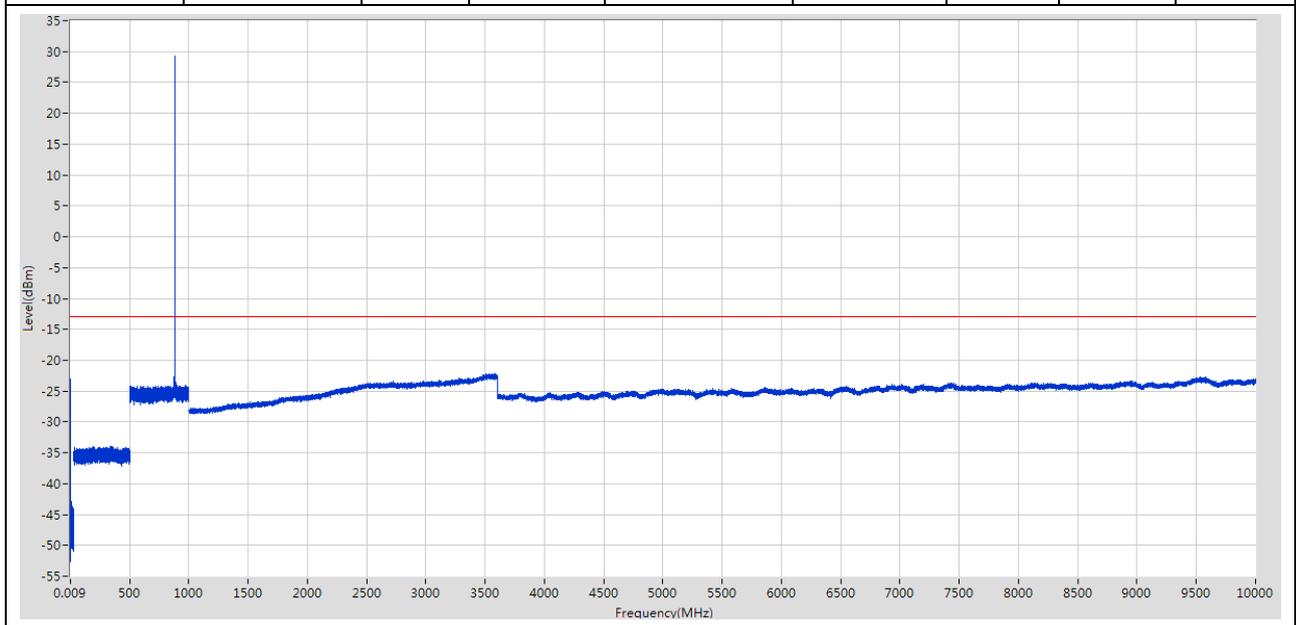| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.176 k	-38.28	-16	Pass	801
0.15	30	0.01	RMS	315.17 k	-35.55	-16	Pass	15001
30	500	0.1	RMS	247.28 M	-33.93	-16	Pass	23501
500	1000	0.1	RMS	893.6 M	38.12	-16	Fail	25001
1000	10000	1	RMS	3514.283807 M	-22.15	-16	Pass	45002

2.2.2   UMTS system

2.2.2.1   DL_1U_TM1_B_ANTA

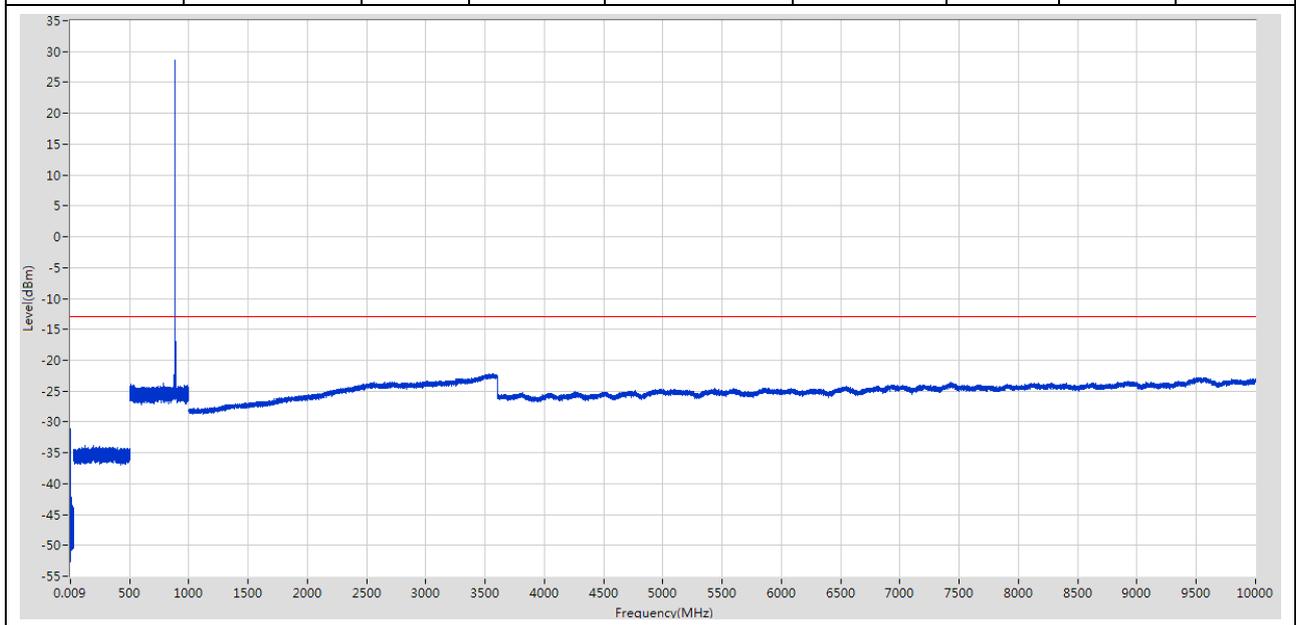| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	78.971 k	-38.9	-13	Pass	801
0.15	30	0.01	RMS	313.18 k	-16.36	-13	Pass	15001
30	500	0.1	RMS	194.98 M	-33.87	-13	Pass	23501
500	1000	0.1	RMS	870.16 M	29.61	-13	Fail	25001
1000	10000	1	RMS	3500.083333 M	-22.15	-13	Pass	45002

2.2.2.2   DL_1U_TM1_B_ANTB

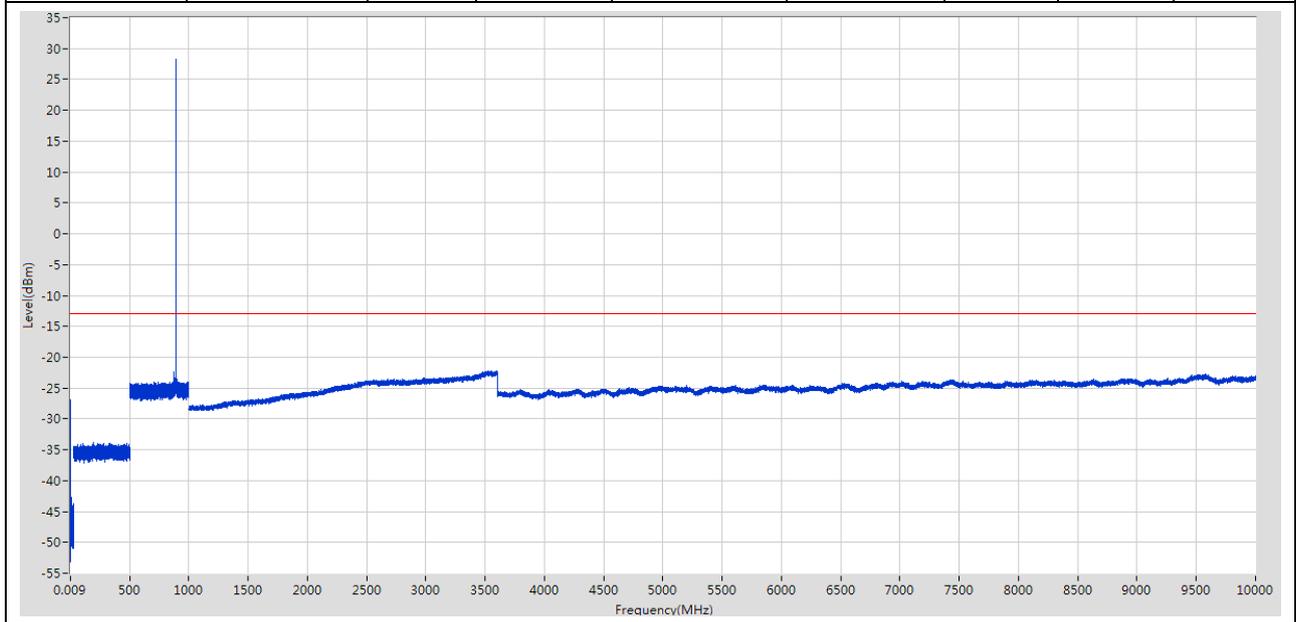| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.41 k	-37.8	-13	Pass	801
0.15	30	0.01	RMS	315.17 k	-31.18	-13	Pass	15001
30	500	0.1	RMS	188.44 M	-33.77	-13	Pass	23501
500	1000	0.1	RMS	870.18 M	28.59	-13	Fail	25001
1000	10000	1	RMS	3590.086333 M	-22.26	-13	Pass	45002

2.2.2.3 DL_1U_TM1_M_ANTA

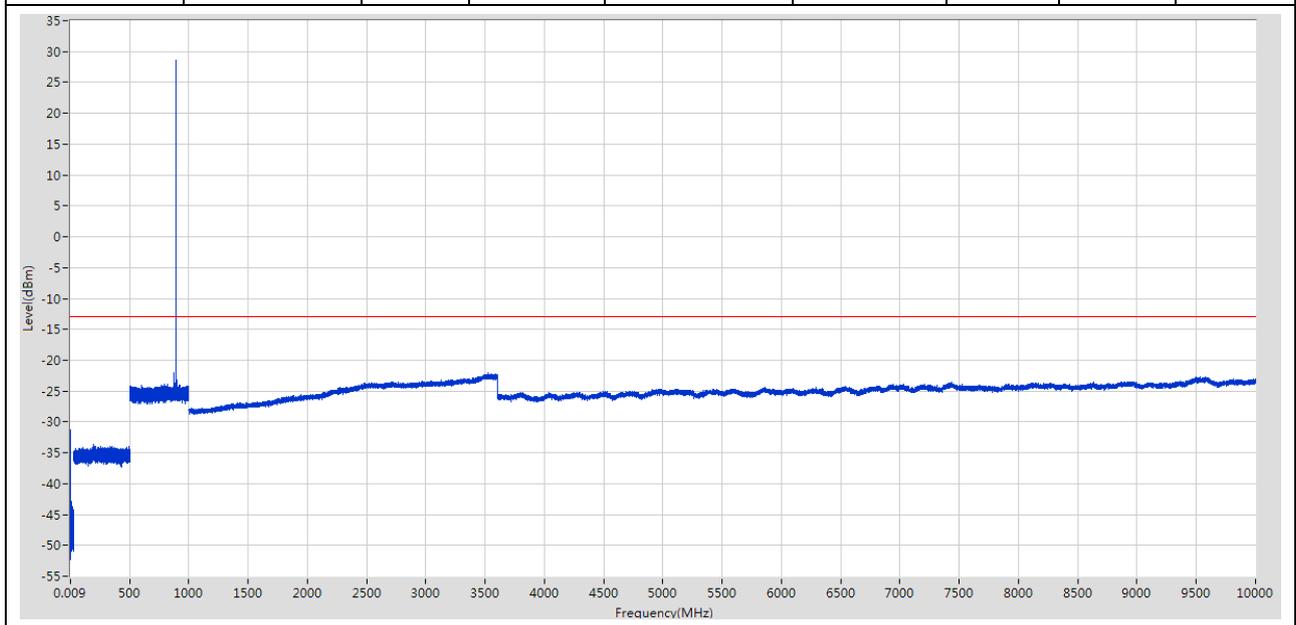| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.529 k	-38.82	-13	Pass	801
0.15	30	0.01	RMS	315.17 k	-23.05	-13	Pass	15001
30	500	0.1	RMS	193.26 M	-33.93	-13	Pass	23501
500	1000	0.1	RMS	880.38 M	29.24	-13	Fail	25001
1000	10000	1	RMS	3584.686153 M	-22.14	-13	Pass	45002

2.2.2.4   DL_1U_TM1_M_ANTB

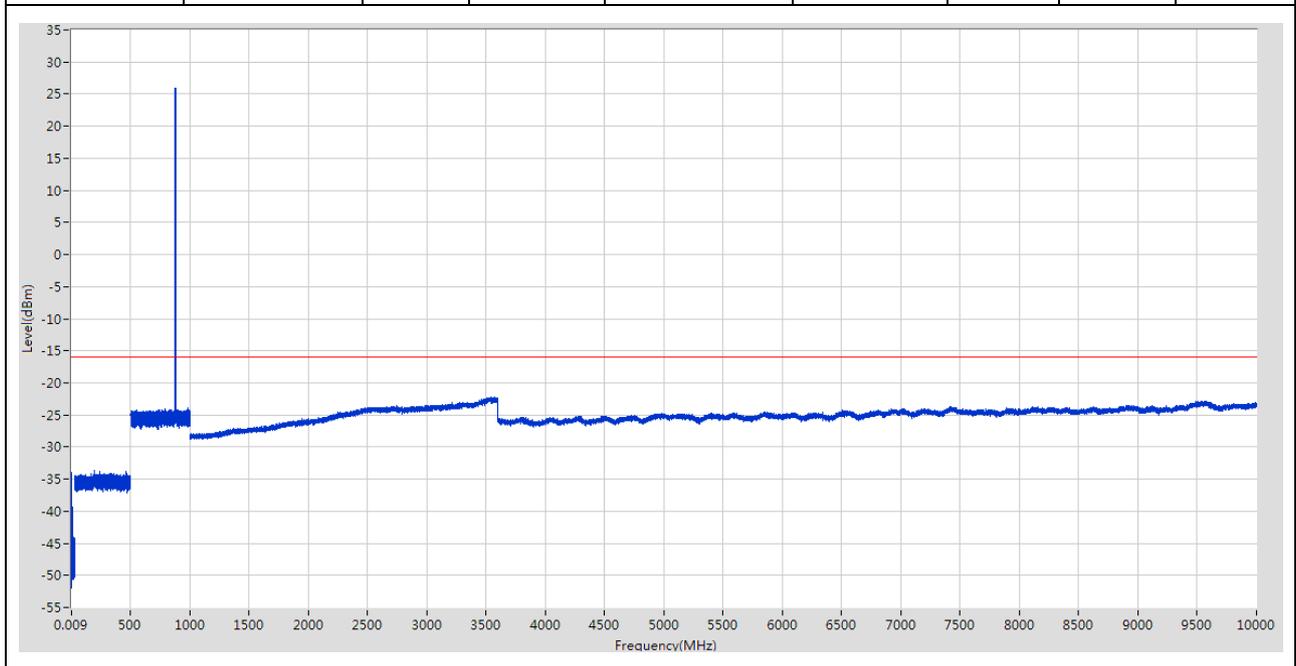| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.057 k	-38.76	-13	Pass	801
0.15	30	0.01	RMS	315.17 k	-31.06	-13	Pass	15001
30	500	0.1	RMS	192.74 M	-33.8	-13	Pass	23501
500	1000	0.1	RMS	880.8 M	28.57	-13	Fail	25001
1000	10000	1	RMS	3557.085233 M	-22.19	-13	Pass	45002

2.2.2.5 DL_1U_TM1_T_ANTA

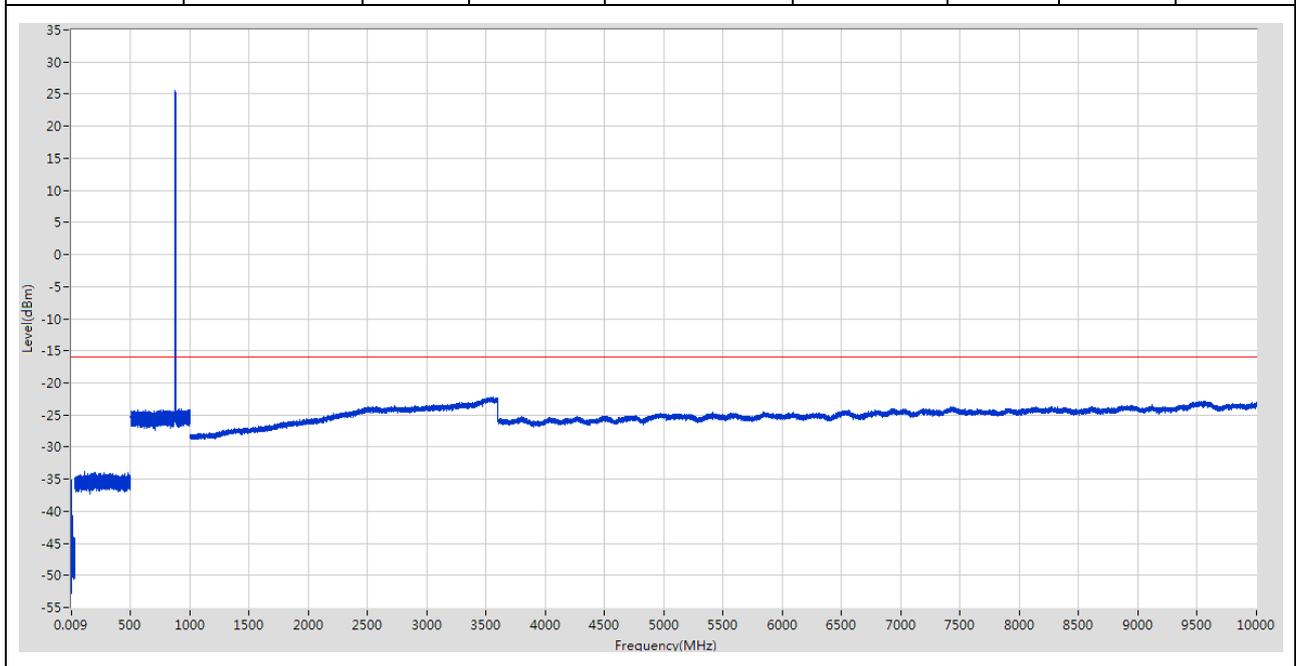| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9 k	-38.15	-13	Pass	801
0.15	30	0.01	RMS	315.17 k	-26.84	-13	Pass	15001
30	500	0.1	RMS	193.36 M	-33.82	-13	Pass	23501
500	1000	0.1	RMS	891.02 M	28.33	-13	Fail	25001
1000	10000	1	RMS	3554.28514 M	-22.19	-13	Pass	45002

2.2.2.6 DL_1U_TM1_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	9.176 k	-39.27	-13	Pass	801
0.15	30	0.01	RMS	315.17 k	-31.33	-13	Pass	15001
30	500	0.1	RMS	193.04 M	-33.66	-13	Pass	23501
500	1000	0.1	RMS	890.98 M	28.6	-13	Fail	25001
1000	10000	1	RMS	3521.684053 M	-22.08	-13	Pass	45002

2.2.2.7 DL_2U_TM1_B_ANTA

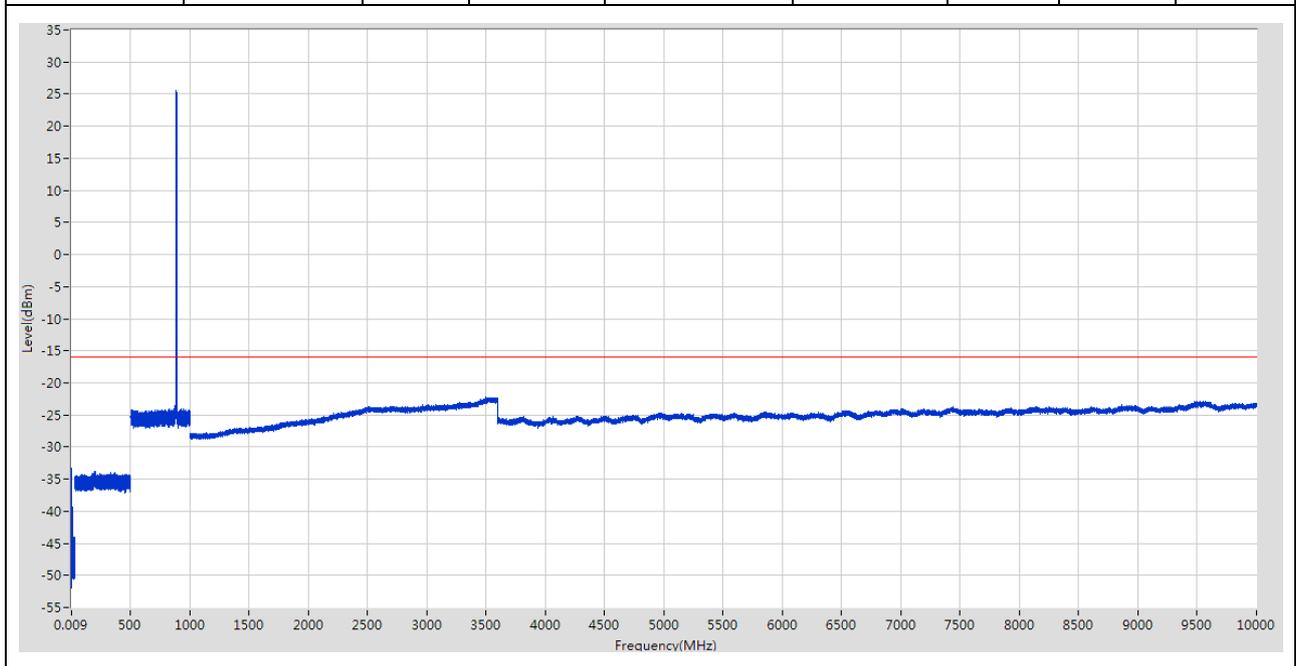| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.176 k	-38.31	-16	Pass	801
0.15	30	0.01	RMS	317.16 k	-33.95	-16	Pass	15001
30	500	0.1	RMS	190.02 M	-33.69	-16	Pass	23501
500	1000	0.1	RMS	876.28 M	25.97	-16	Fail	25001
1000	10000	1	RMS	3564.685487 M	-22.25	-16	Pass	45002

2.2.2.8 DL_2U_TM1_B_ANTB

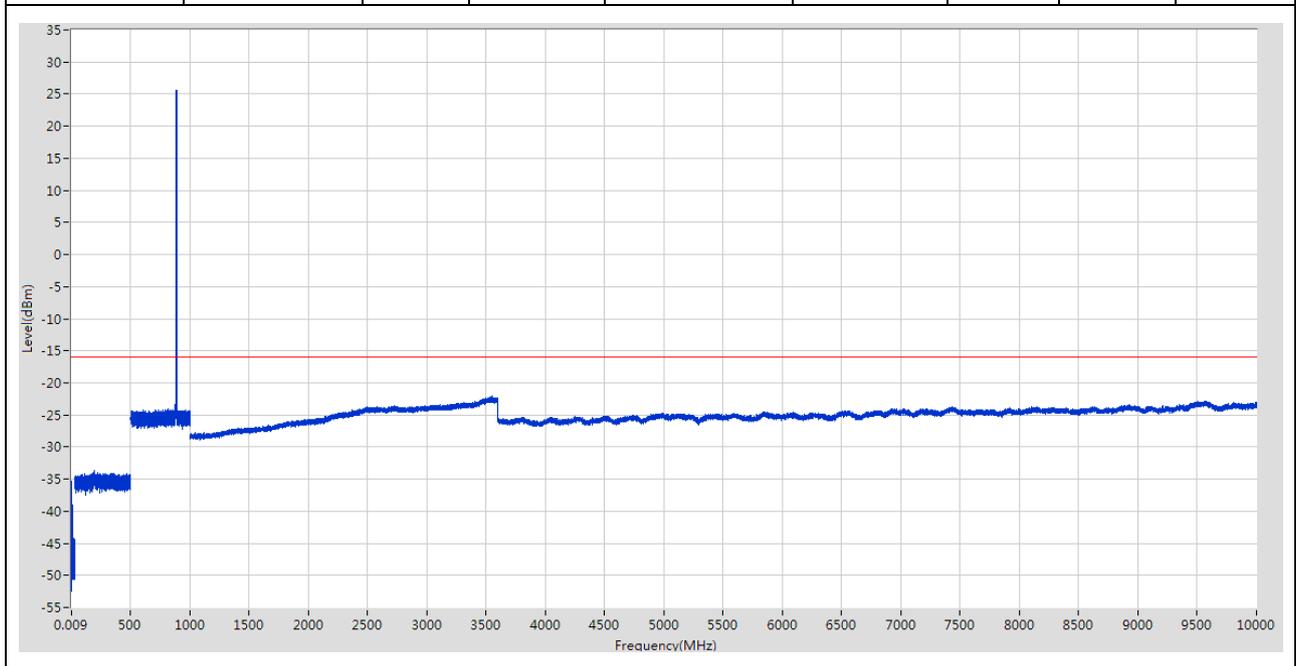| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.352 k	-38.77	-16	Pass	801
0.15	30	0.01	RMS	313.18 k	-35.07	-16	Pass	15001
30	500	0.1	RMS	105.94 M	-33.86	-16	Pass	23501
500	1000	0.1	RMS	875.78 M	25.53	-16	Fail	25001
1000	10000	1	RMS	3542.484747 M	-22.21	-16	Pass	45002

2.2.2.9 DL_2U_TM1_M_ANTA

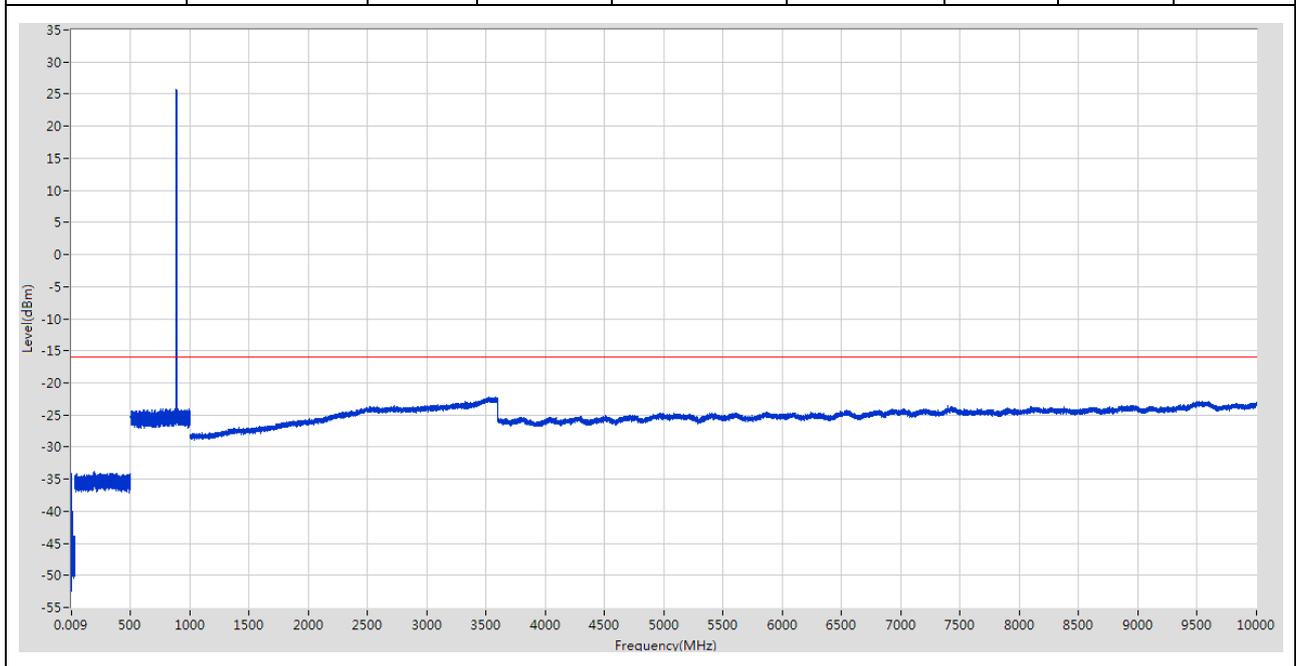| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.352 k	-38.89	-16	Pass	801
0.15	30	0.01	RMS	315.17 k	-33.26	-16	Pass	15001
30	500	0.1	RMS	200.12 M	-33.81	-16	Pass	23501
500	1000	0.1	RMS	883.8 M	25.57	-16	Fail	25001
1000	10000	1	RMS	3496.883227 M	-22.25	-16	Pass	45002

2.2.2.10 DL_2U_TM1_M_ANTB

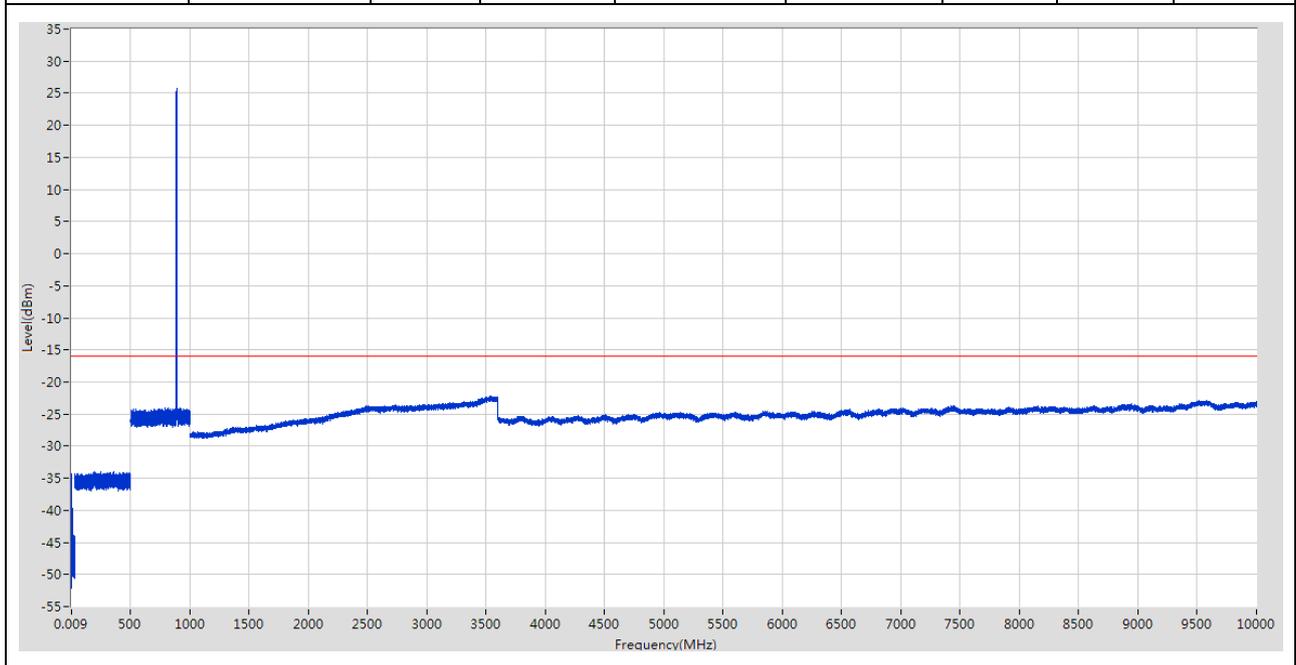| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.234 k	-38.97	-16	Pass	801
0.15	30	0.01	RMS	319.15 k	-35.24	-16	Pass	15001
30	500	0.1	RMS	192.24 M	-33.69	-16	Pass	23501
500	1000	0.1	RMS	880.5 M	25.65	-16	Fail	25001
1000	10000	1	RMS	3547.484913 M	-22.11	-16	Pass	45002

2.2.2.11 DL_2U_TM1_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	9.881 k	-39.1	-16	Pass	801
0.15	30	0.01	RMS	315.17 k	-34.06	-16	Pass	15001
30	500	0.1	RMS	190.28 M	-33.87	-16	Pass	23501
500	1000	0.1	RMS	885.02 M	25.71	-16	Fail	25001
1000	10000	1	RMS	3518.88396 M	-22.27	-16	Pass	45002

2.2.2.12 DL_2U_TM1_T_ANTB

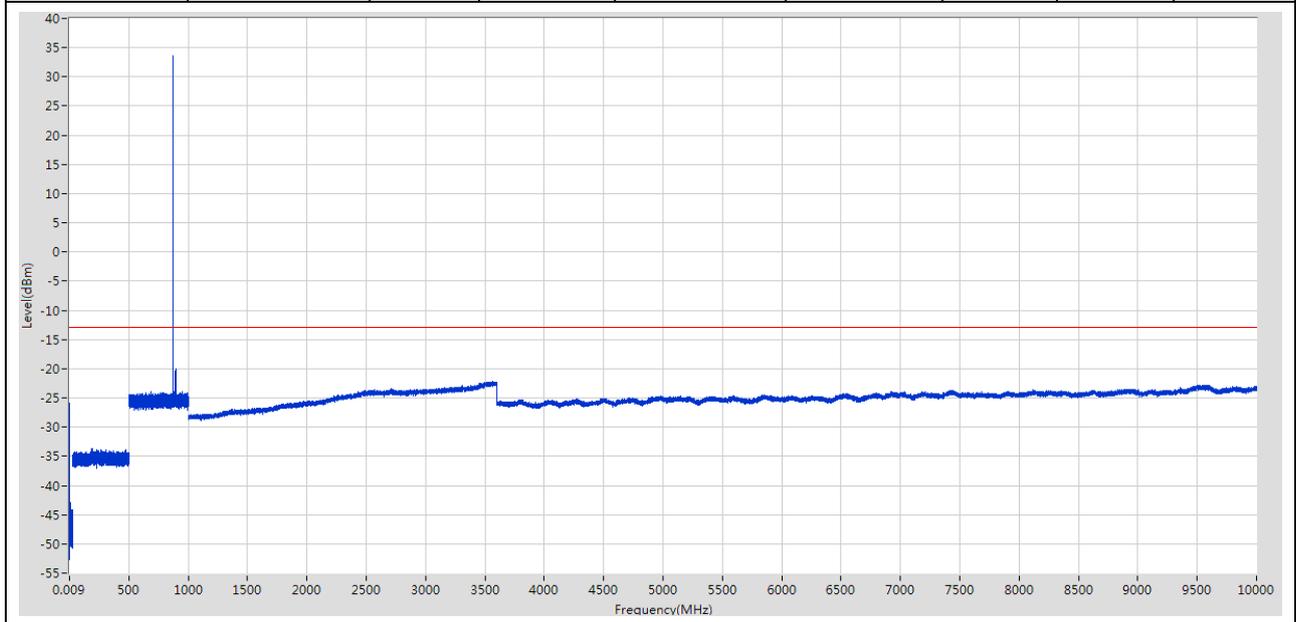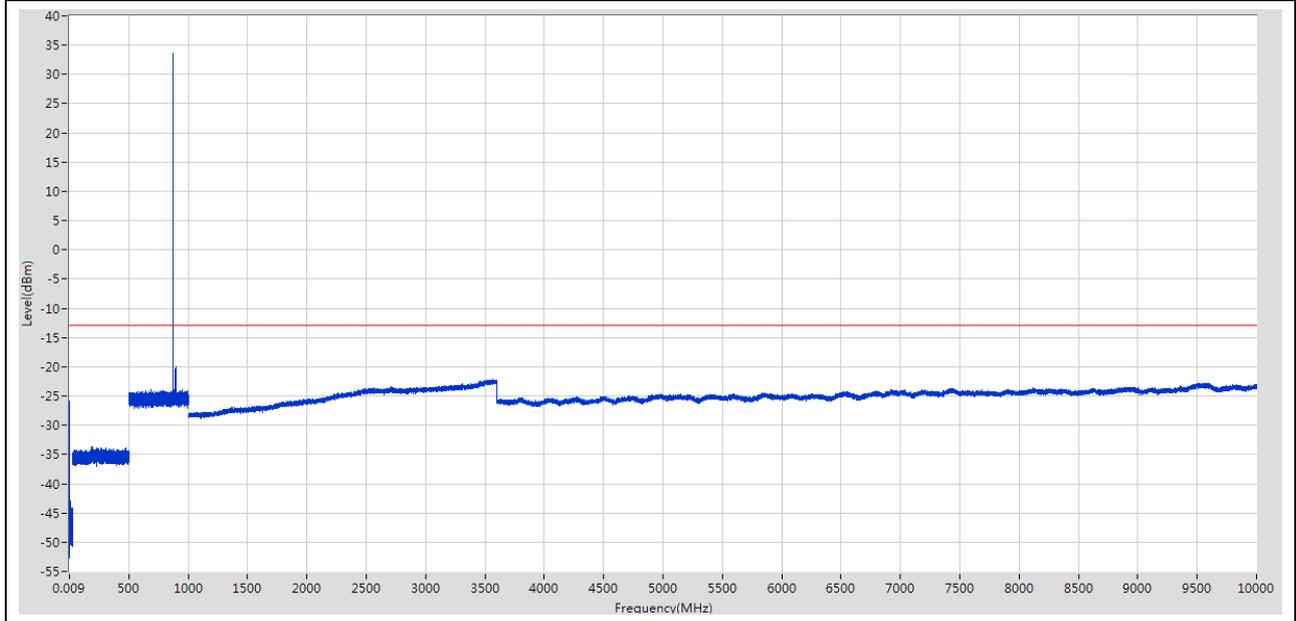| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.705 k	-38.65	-16	Pass	801
0.15	30	0.01	RMS	313.18 k	-34.26	-16	Pass	15001
30	500	0.1	RMS	192 M	-33.95	-16	Pass	23501
500	1000	0.1	RMS	886.28 M	25.76	-16	Fail	25001
1000	10000	1	RMS	3529.0843 M	-22.23	-16	Pass	45002

2.2.3 LTE system

2.2.3.1 DL_1L_1.4M_B_ANTA

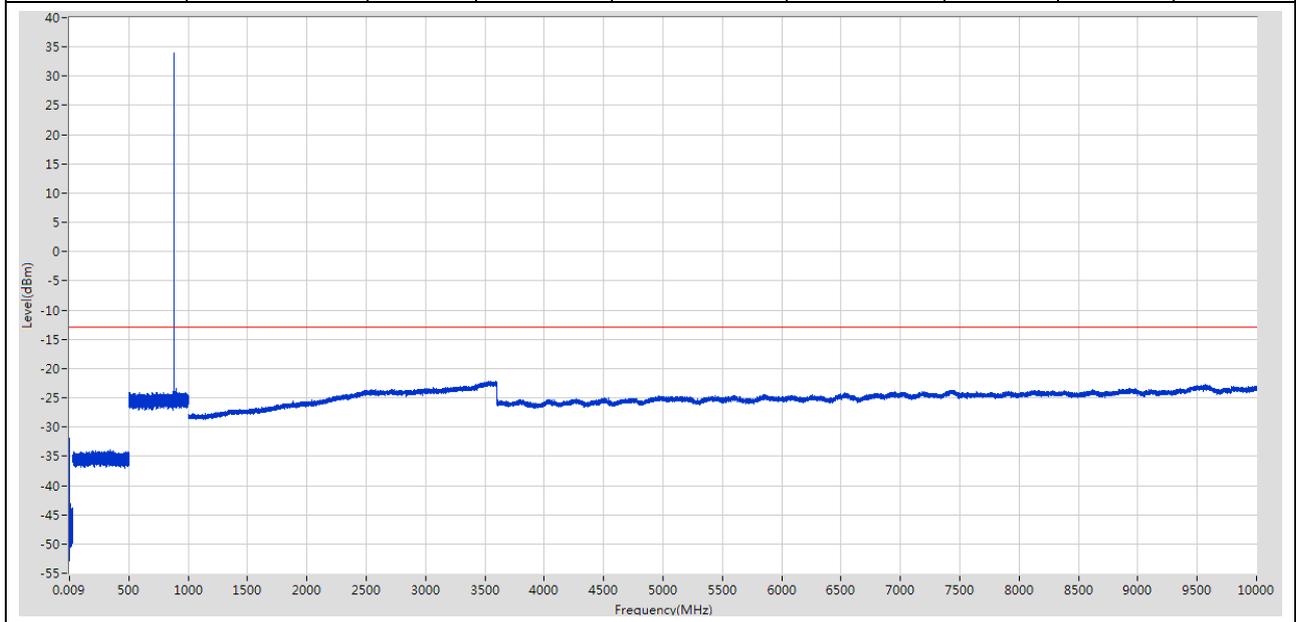| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.352 k	-38.48	-13	Pass	801
0.15	30	0.01	RMS	317.16 k	-25.82	-13	Pass	15001
30	500	0.1	RMS	188.58 M	-33.62	-13	Pass	23501
500	1000	0.1	RMS	870.02 M	33.52	-13	Fail	25001
1000	10000	1	RMS	3565.0855 M	-22.23	-13	Pass	45002

2.2.3.2 DL_1L_1.4M_B_ANTB

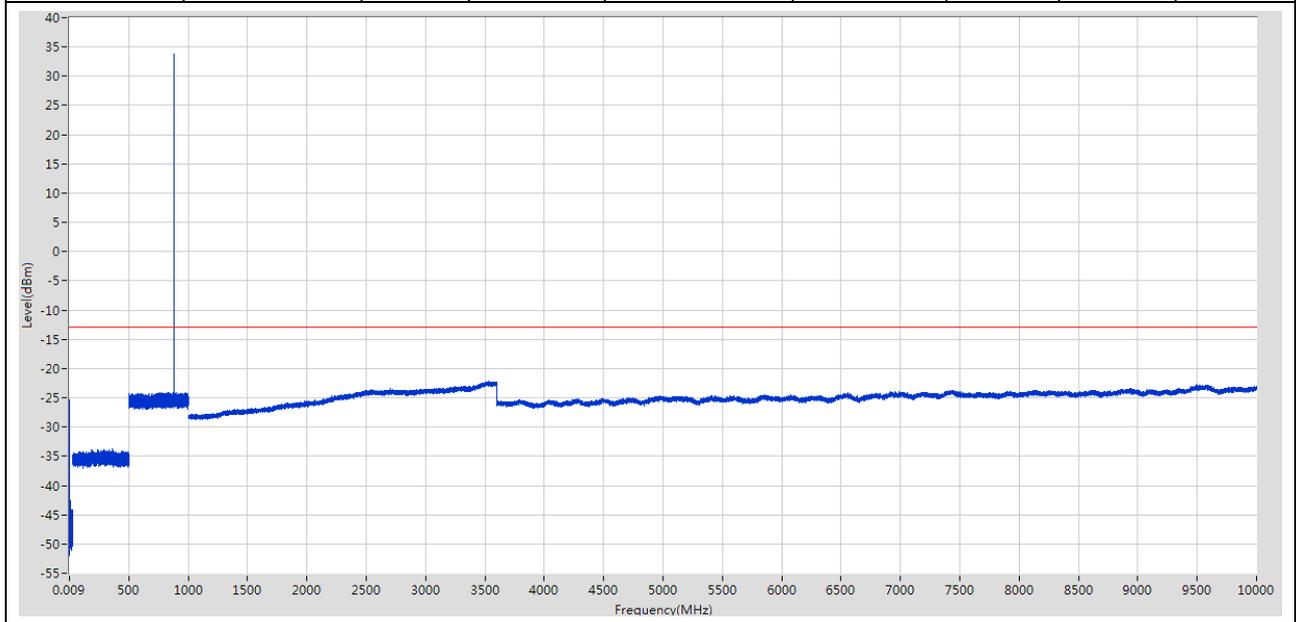| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.352 k	-38.48	-13	Pass	801
0.15	30	0.01	RMS	317.16 k	-25.82	-13	Pass	15001
30	500	0.1	RMS	188.58 M	-33.62	-13	Pass	23501
500	1000	0.1	RMS	870.02 M	33.52	-13	Fail	25001
1000	10000	1	RMS	3565.0855 M	-22.23	-13	Pass	45002

2.2.3.3 DL_1L_1.4M_M_ANTA

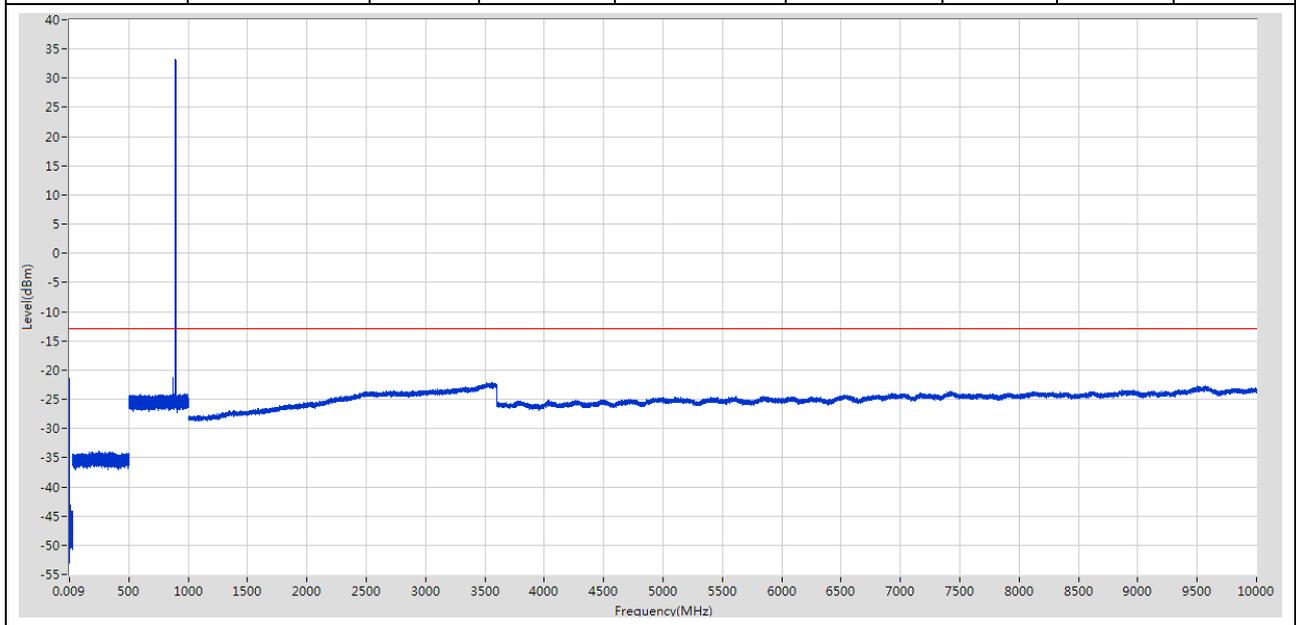| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.705 k	-38.47	-13	Pass	801
0.15	30	0.01	RMS	315.17 k	-31.93	-13	Pass	15001
30	500	0.1	RMS	345.04 M	-33.91	-13	Pass	23501
500	1000	0.1	RMS	881.66 M	33.9	-13	Fail	25001
1000	10000	1	RMS	3527.88426 M	-22.1	-13	Pass	45002

2.2.3.4   DL_1L_1.4M_M_ANTB

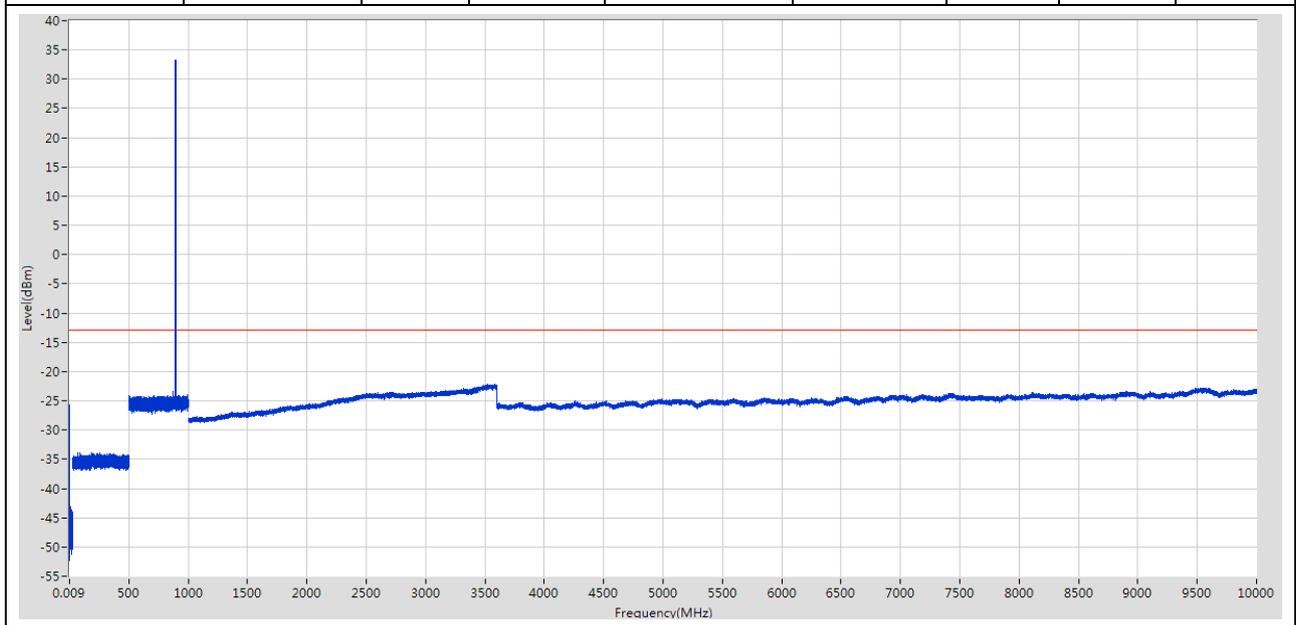| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.41 k	-39.05	-13	Pass	801
0.15	30	0.01	RMS	315.17 k	-25.35	-13	Pass	15001
30	500	0.1	RMS	357.04 M	-33.75	-13	Pass	23501
500	1000	0.1	RMS	881.66 M	33.86	-13	Fail	25001
1000	10000	1	RMS	3528.684287 M	-22.2	-13	Pass	45002

2.2.3.5 DL_1L_1.4M_T_ANTA

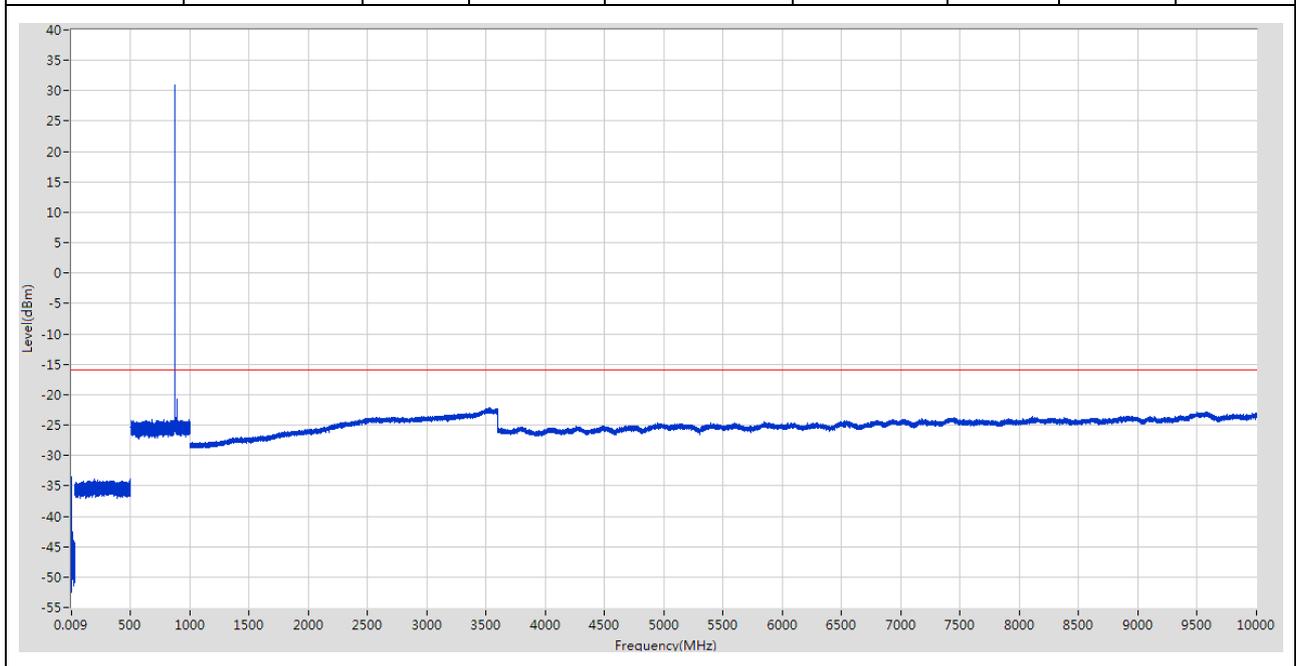| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9 k	-39.11	-13	Pass	801
0.15	30	0.01	RMS	317.16 k	-21.37	-13	Pass	15001
30	500	0.1	RMS	242.16 M	-33.9	-13	Pass	23501
500	1000	0.1	RMS	893.46 M	33.29	-13	Fail	25001
1000	10000	1	RMS	3562.0854 M	-22.16	-13	Pass	45002

2.2.3.6 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	9.705 k	-38.25	-13	Pass	801
0.15	30	0.01	RMS	315.17 k	-25.69	-13	Pass	15001
30	500	0.1	RMS	89.48 M	-33.88	-13	Pass	23501
500	1000	0.1	RMS	893.16 M	33.33	-13	Fail	25001
1000	10000	1	RMS	3517.283907 M	-22.15	-13	Pass	45002

2.2.3.7 DL_2L_1.4M_B_ANTA

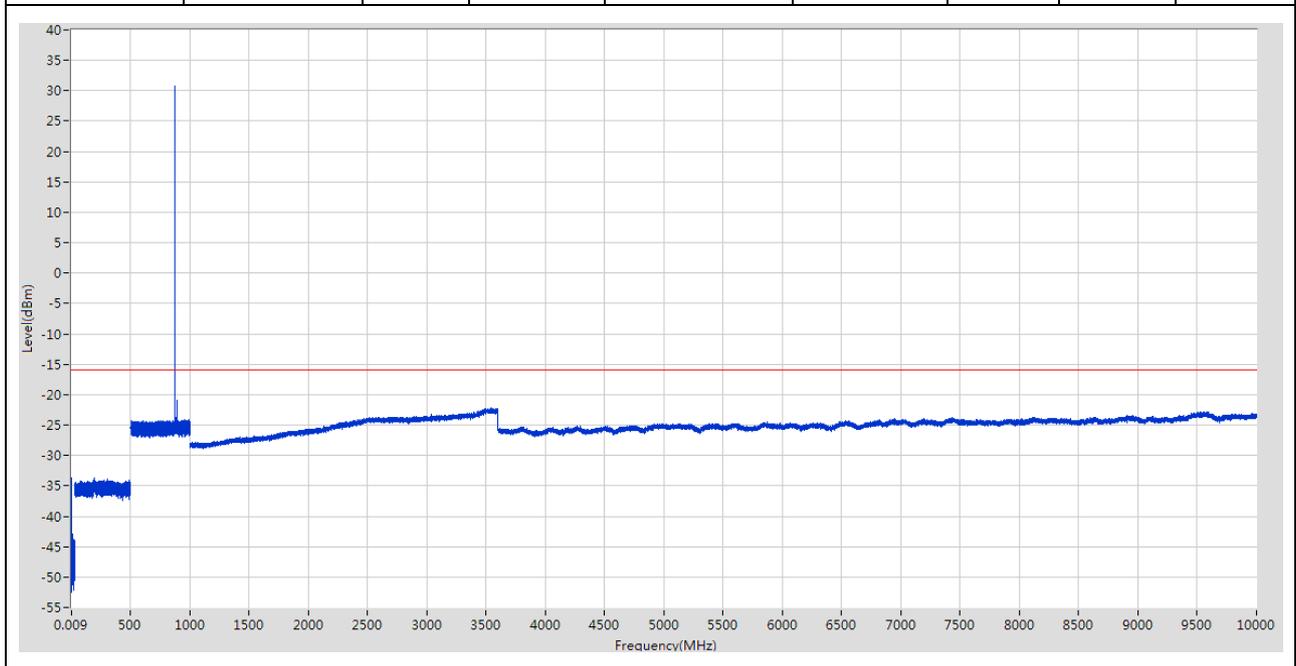| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.705 k	-38.22	-16	Pass	801
0.15	30	0.01	RMS	313.18 k	-33.51	-16	Pass	15001
30	500	0.1	RMS	491.28 M	-33.88	-16	Pass	23501
500	1000	0.1	RMS	871.24 M	31.02	-16	Fail	25001
1000	10000	1	RMS	3519.683987 M	-22.16	-16	Pass	45002

2.2.3.8 DL_2L_1.4M_B_ANTB

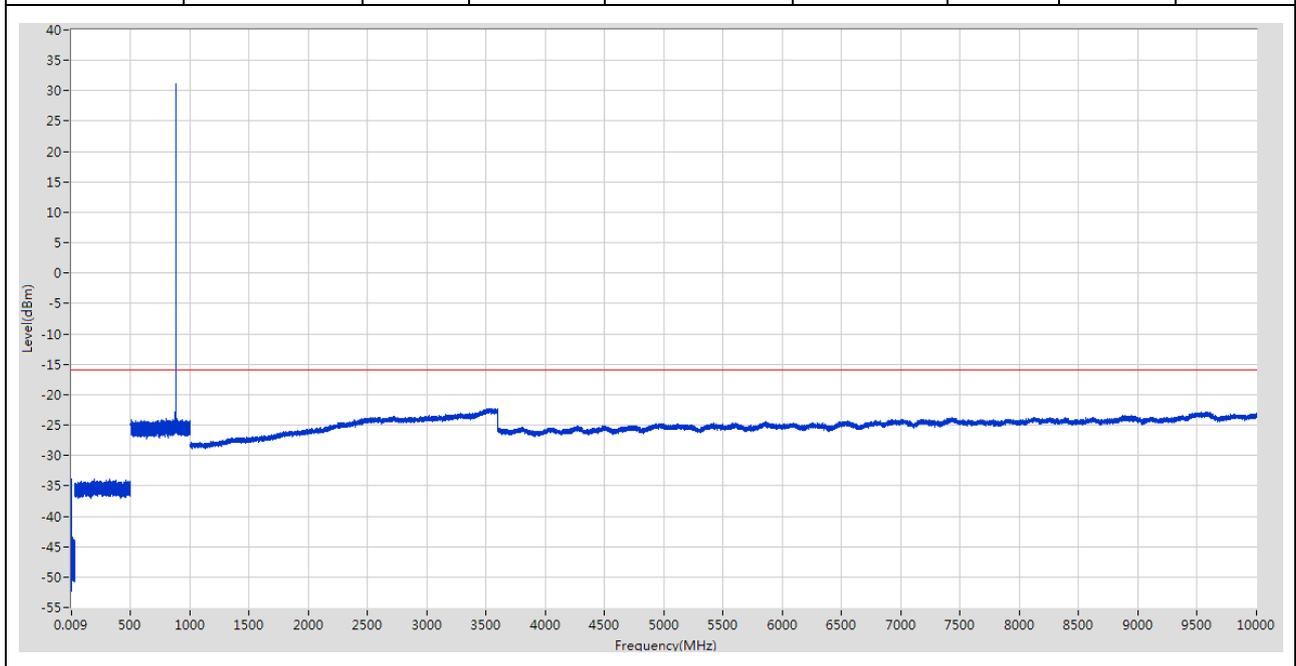| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.176 k	-39.25	-16	Pass	801
0.15	30	0.01	RMS	315.17 k	-33.77	-16	Pass	15001
30	500	0.1	RMS	192.54 M	-33.71	-16	Pass	23501
500	1000	0.1	RMS	870.88 M	30.7	-16	Fail	25001
1000	10000	1	RMS	3542.684753 M	-22.15	-16	Pass	45002

2.2.3.9   DL_2L_1.4M_M_ANTA

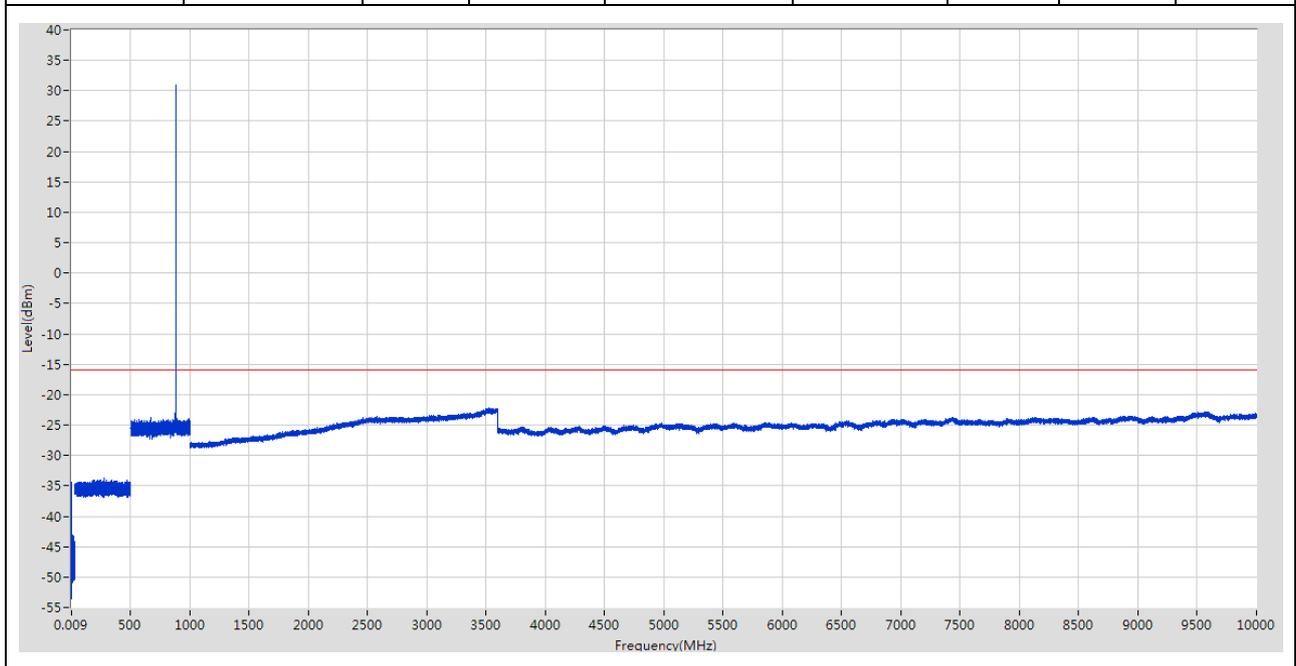| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	11.996 k	-39.12	-16	Pass	801
0.15	30	0.01	RMS	317.16 k	-33.89	-16	Pass	15001
30	500	0.1	RMS	194.68 M	-33.88	-16	Pass	23501
500	1000	0.1	RMS	881.14 M	31.07	-16	Fail	25001
1000	10000	1	RMS	3530.684353 M	-22.26	-16	Pass	45002

2.2.3.10 DL_2L_1.4M_M_ANTB

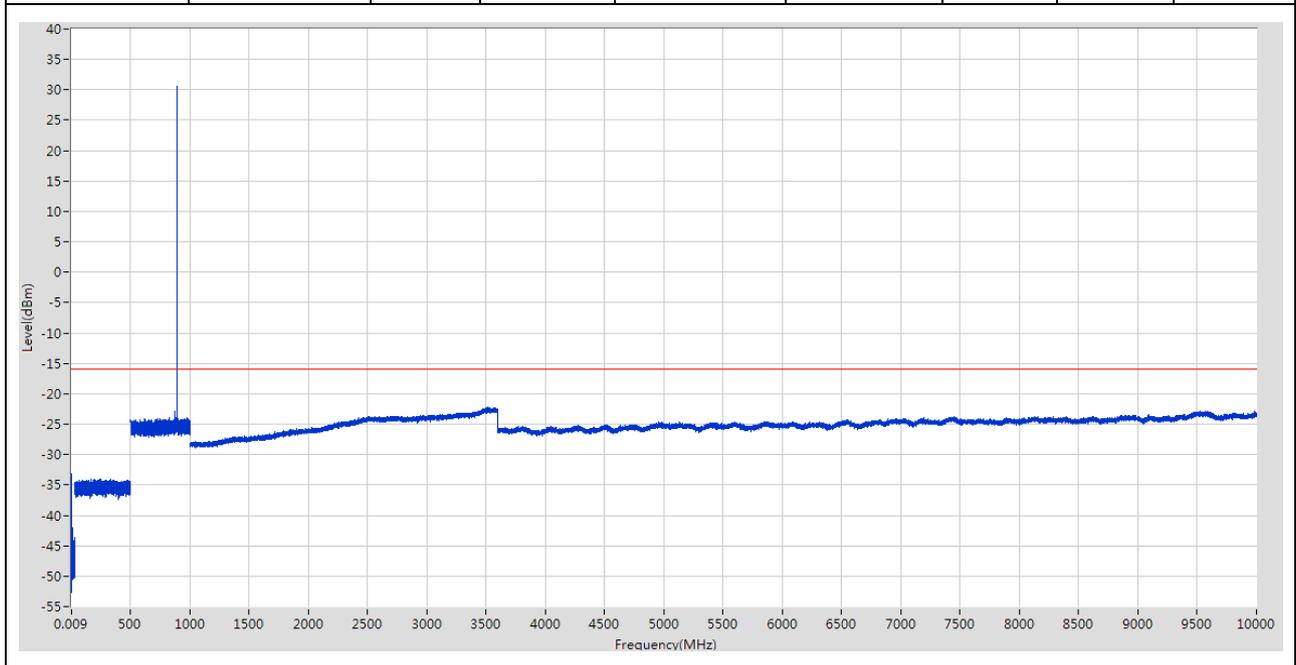| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9 k	-38.49	-16	Pass	801
0.15	30	0.01	RMS	317.16 k	-34.44	-16	Pass	15001
30	500	0.1	RMS	275.12 M	-33.66	-16	Pass	23501
500	1000	0.1	RMS	881.14 M	31.03	-16	Fail	25001
1000	10000	1	RMS	3525.884193 M	-22.24	-16	Pass	45002

2.2.3.11 DL_2L_1.4M_T_ANTA

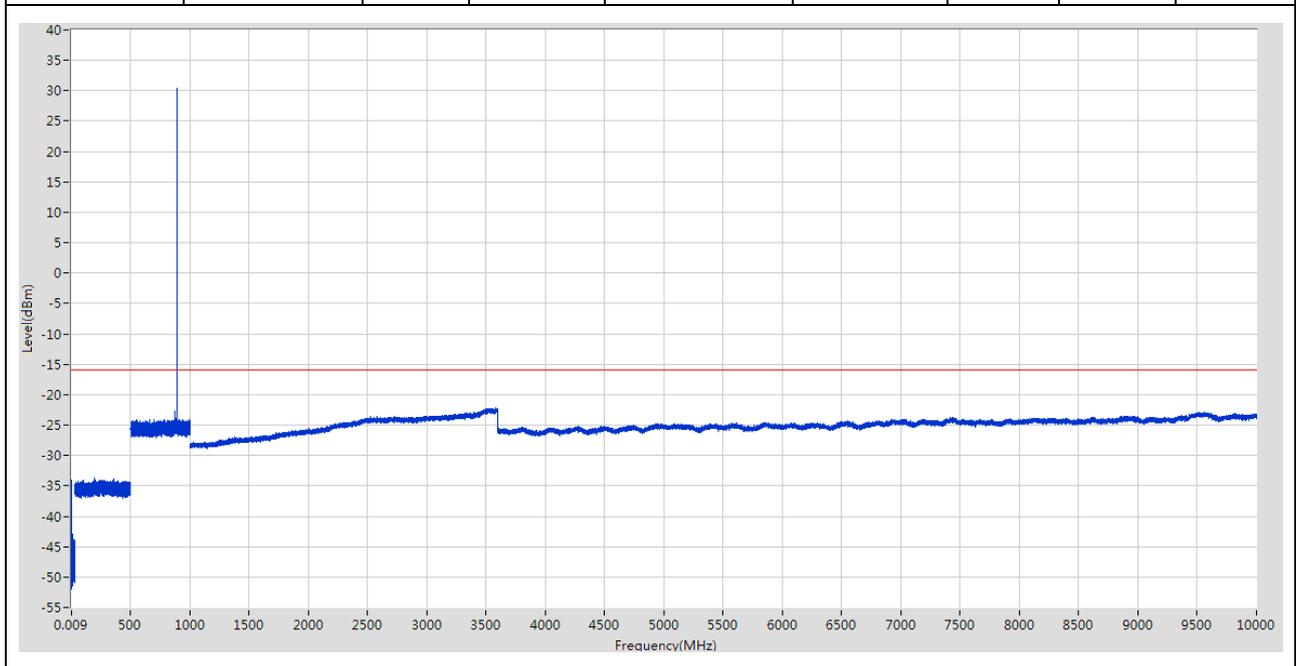| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.762 k	-37.62	-16	Pass	801
0.15	30	0.01	RMS	315.17 k	-33.15	-16	Pass	15001
30	500	0.1	RMS	333.66 M	-33.99	-16	Pass	23501
500	1000	0.1	RMS	892.06 M	30.52	-16	Fail	25001
1000	10000	1	RMS	3511.0837 M	-22.23	-16	Pass	45002

2.2.3.12 DL_2L_1.4M_T_ANTB

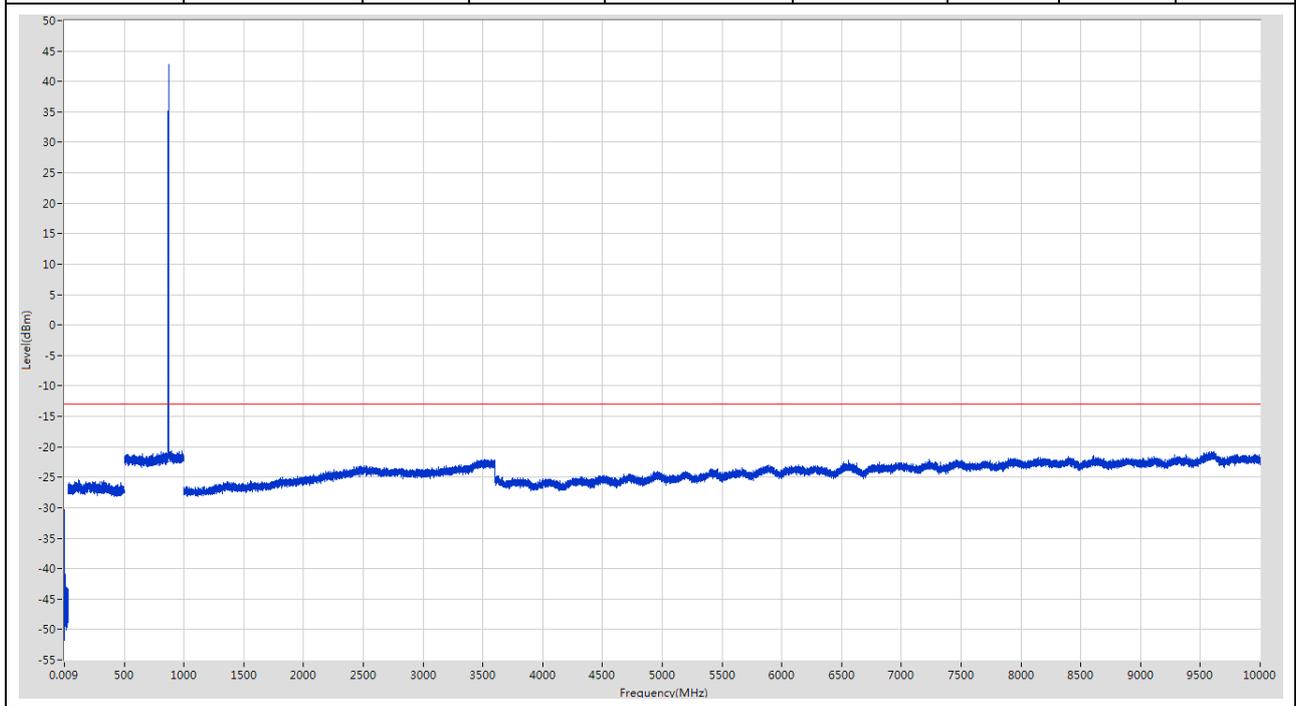| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	11.82 k	-39.56	-16	Pass	801
0.15	30	0.01	RMS	317.16 k	-33.98	-16	Pass	15001
30	500	0.1	RMS	188.88 M	-33.68	-16	Pass	23501
500	1000	0.1	RMS	892.18 M	30.48	-16	Fail	25001
1000	10000	1	RMS	3573.685787 M	-22.21	-16	Pass	45002

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

2.3.1 GSM system

2.3.1.1 DL_2G_TM1_B_ANTA

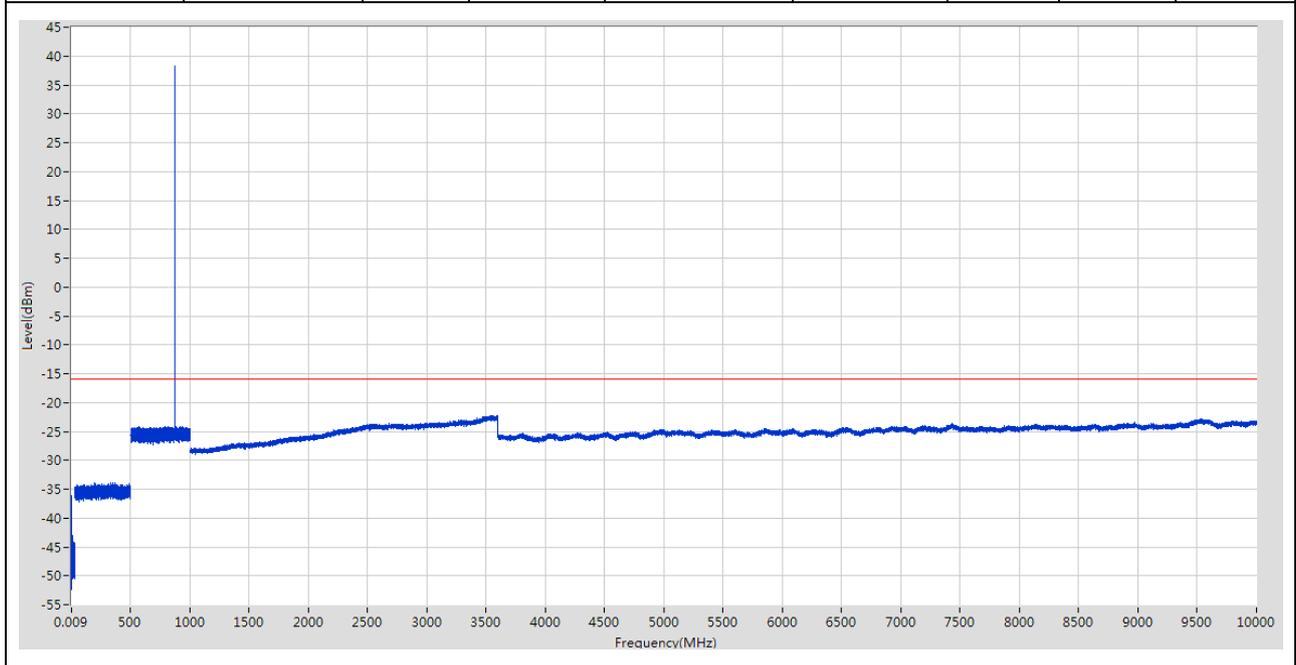| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	16.05 k	-30.27	-13	Pass	801
0.15	30	0.01	RMS	153.98 k	-30.55	-13	Pass	15001
30	500	1	RMS	114.0125 M	-25.46	-13	Pass	2401
500	1000	1	RMS	869.8 M	42.73	-13	Fail	2501
1000	10000	1	RMS	9572.428507 M	-20.78	-13	Pass	45002

2.3.1.2 DL_2G_TM1_B_ANTB

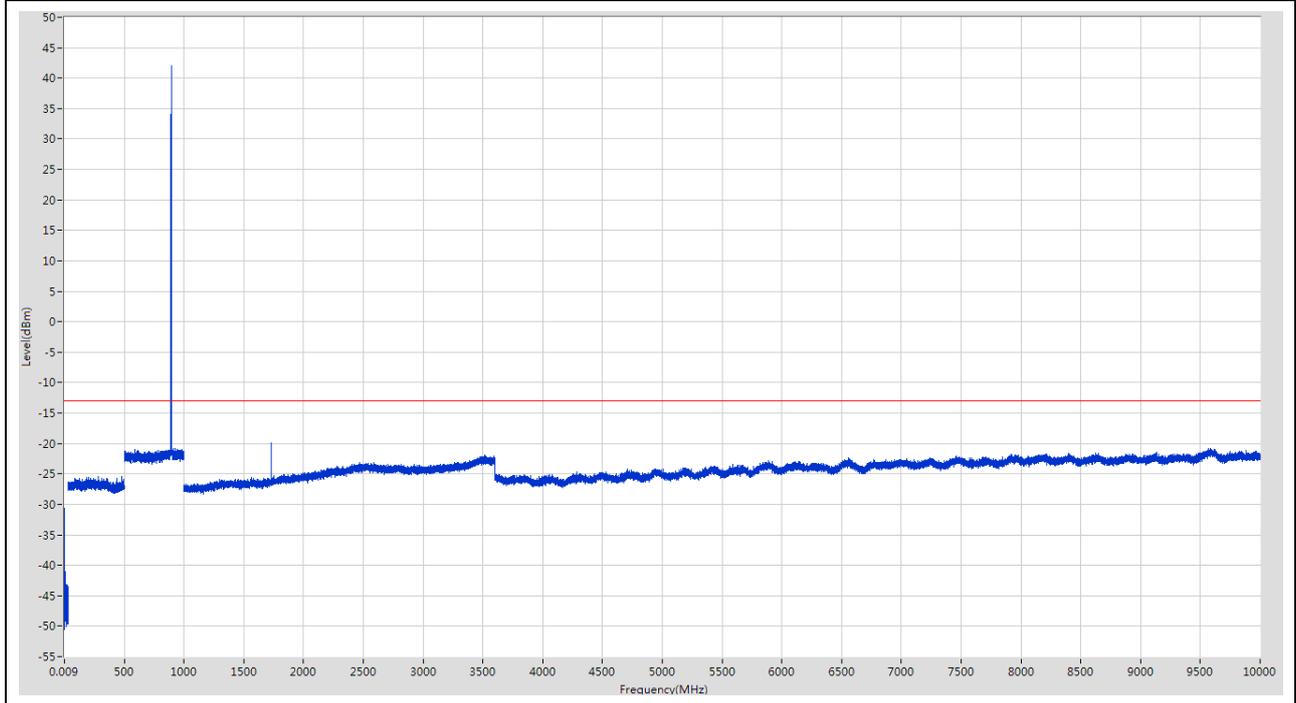| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.176 k	-39.46	-16	Pass	801
0.15	30	0.01	RMS	167.91 k	-36.18	-16	Pass	15001
30	500	0.1	RMS	331.56 M	-33.89	-16	Pass	23501
500	1000	0.1	RMS	870 M	38.21	-16	Fail	25001
1000	10000	1	RMS	3582.686087 M	-22.26	-16	Pass	45002

2.3.1.3 DL_2G_TM1_T_ANTA

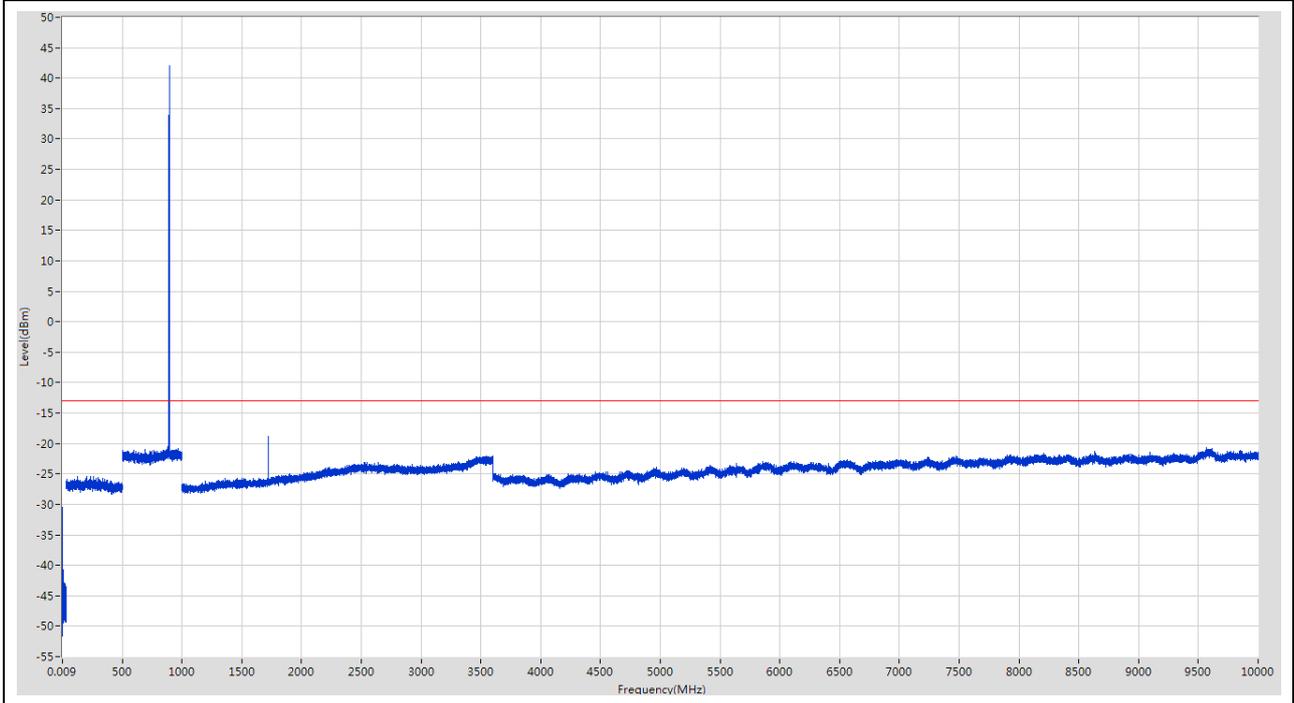| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	16.226 k	-31.84	-13	Pass	801
0.15	30	0.01	RMS	153.98 k	-30.7	-13	Pass	15001
30	500	1	RMS	286.7375 M	-25.45	-13	Pass	2401
500	1000	1	RMS	893.4 M	42.1	-13	Fail	2501
1000	10000	1	RMS	1726.62422 M	-19.94	-13	Pass	45002

2.3.1.4 DL_2G_TM1_T_ANTB

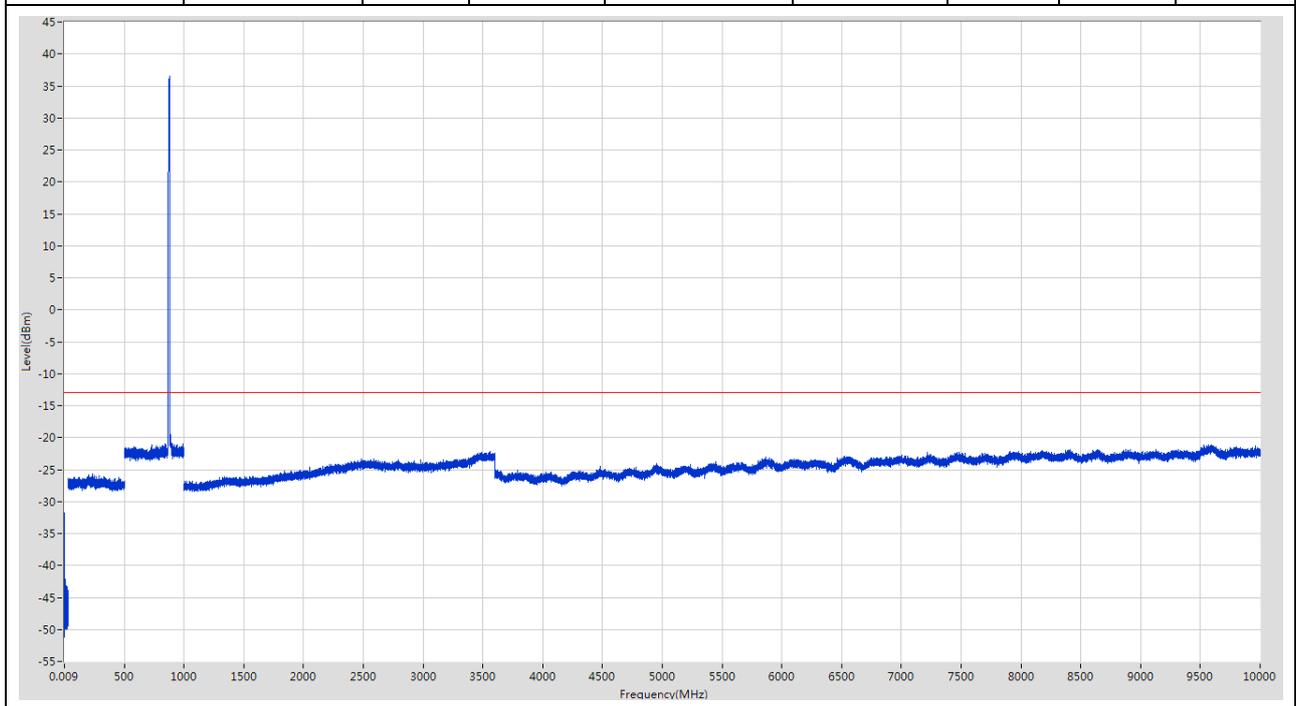| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	15.521 k	-33.95	-13	Pass	801
0.15	30	0.01	RMS	157.96 k	-30.41	-13	Pass	15001
30	500	1	RMS	256.1875 M	-25.44	-13	Pass	2401
500	1000	1	RMS	893.4 M	42.03	-13	Fail	2501
1000	10000	1	RMS	1724.624153 M	-18.84	-13	Pass	45002

2.3.2　UMTS system

2.3.2.1　DL_2U_TM1_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	14.111 k	-31.72	-13	Pass	801
0.15	30	0.01	RMS	155.97 k	-32.44	-13	Pass	15001
30	500	1	RMS	237.975 M	-25.65	-13	Pass	2401
500	1000	1	RMS	876.8 M	36.52	-13	Fail	2501
1000	10000	1	RMS	9529.231387 M	-21.12	-13	Pass	45002

2.3.2.2 DL_2U_TM1_B_ANTB

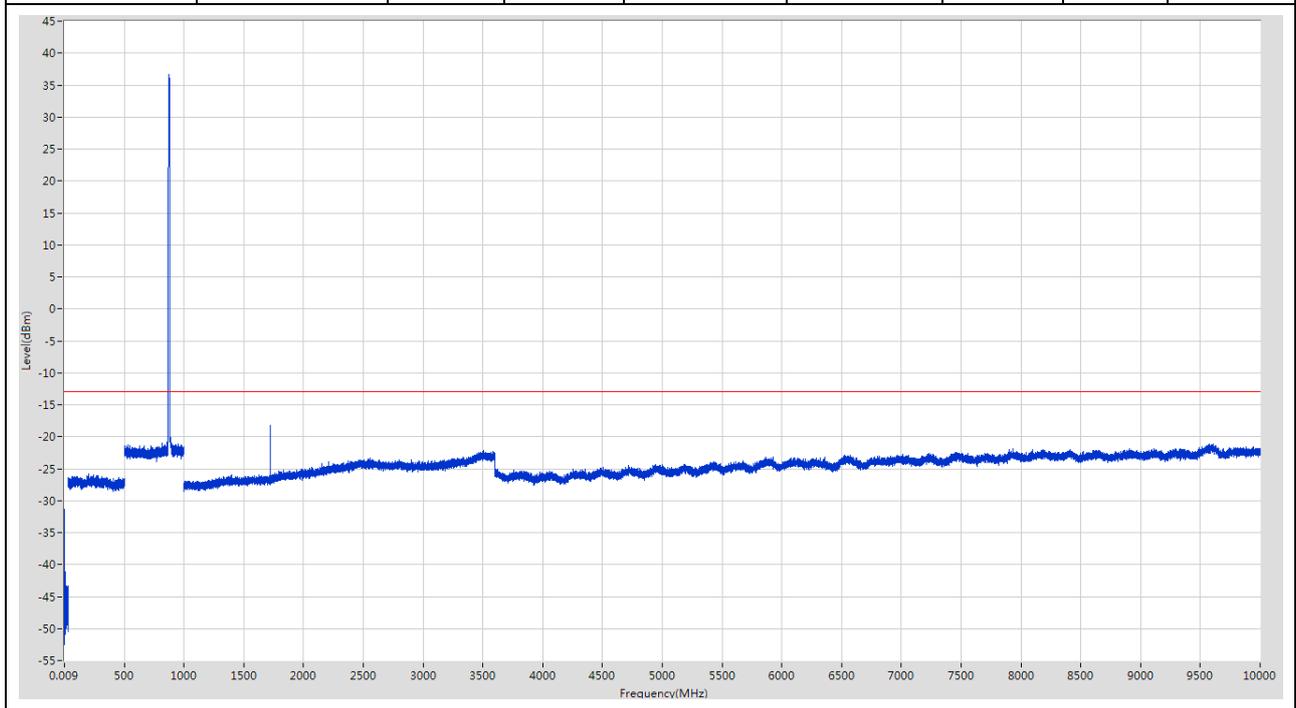| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	18.165 k	-31.37	-13	Pass	801
0.15	30	0.01	RMS	153.98 k	-32.01	-13	Pass	15001
30	500	1	RMS	201.158333 M	-25.85	-13	Pass	2401
500	1000	1	RMS	875.6 M	36.67	-13	Fail	2501
1000	10000	1	RMS	1720.62402 M	-18.18	-13	Pass	45002

2.3.2.3 DL_2U_TM1_T_ANTA

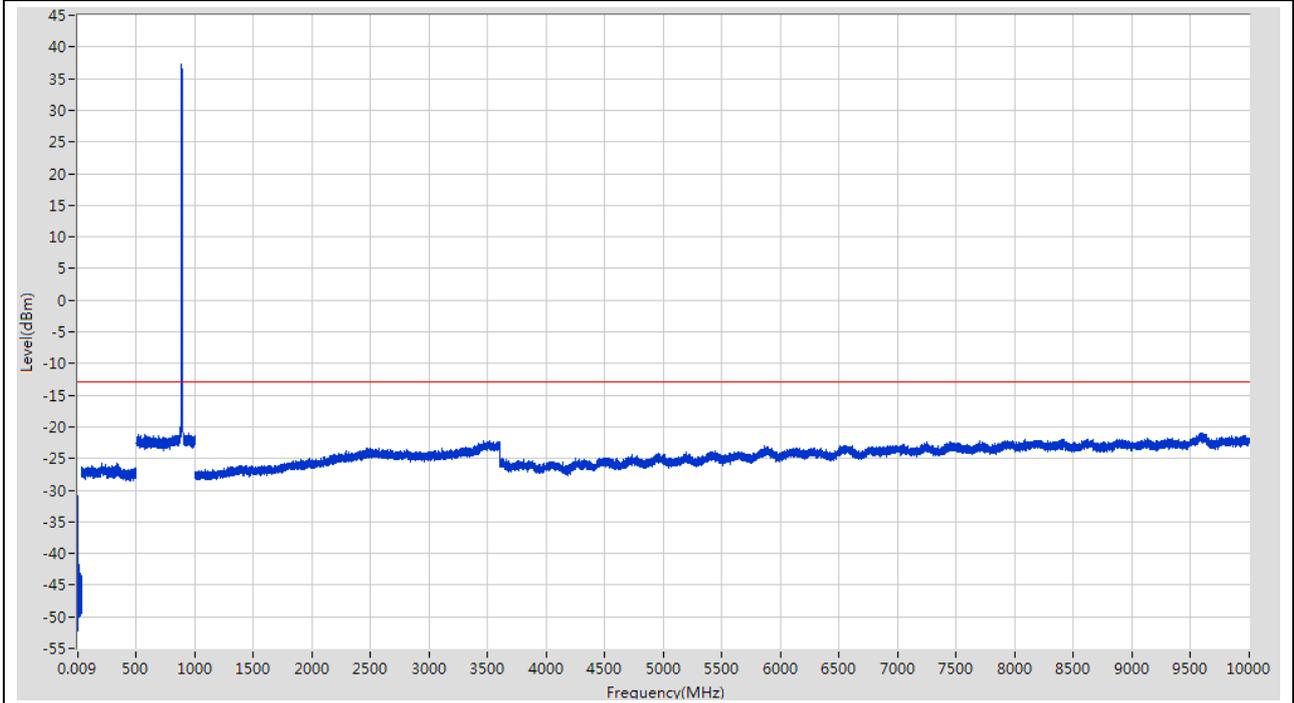| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	11.115 k	-30.82	-13	Pass	801
0.15	30	0.01	RMS	311.19 k	-32.88	-13	Pass	15001
30	500	1	RMS	207.425 M	-25.66	-13	Pass	2401
500	1000	1	RMS	886.6 M	37.24	-13	Fail	2501
1000	10000	1	RMS	9584.82768 M	-20.99	-13	Pass	45002

2.3.2.4 DL_2U_TM1_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	14.992 k	-31.39	-13	Pass	801
0.15	30	0.01	RMS	309.2 k	-32.59	-13	Pass	15001
30	500	1	RMS	240.716667 M	-25.4	-13	Pass	2401
500	1000	1	RMS	890.4 M	36.64	-13	Fail	2501
1000	10000	1	RMS	9598.62676 M	-21.07	-13	Pass	45002

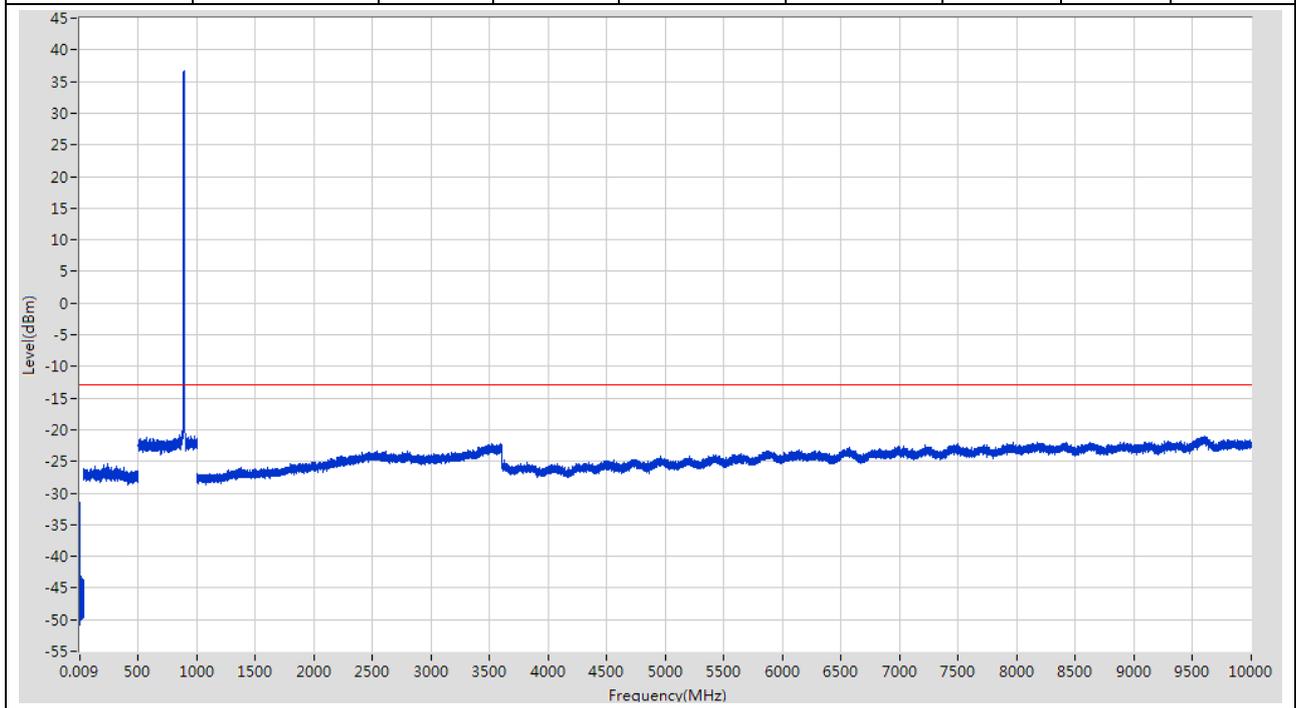### 2.3.3 LTE system

2.3.3.1 DL_2L_1.4M_B_ANTA

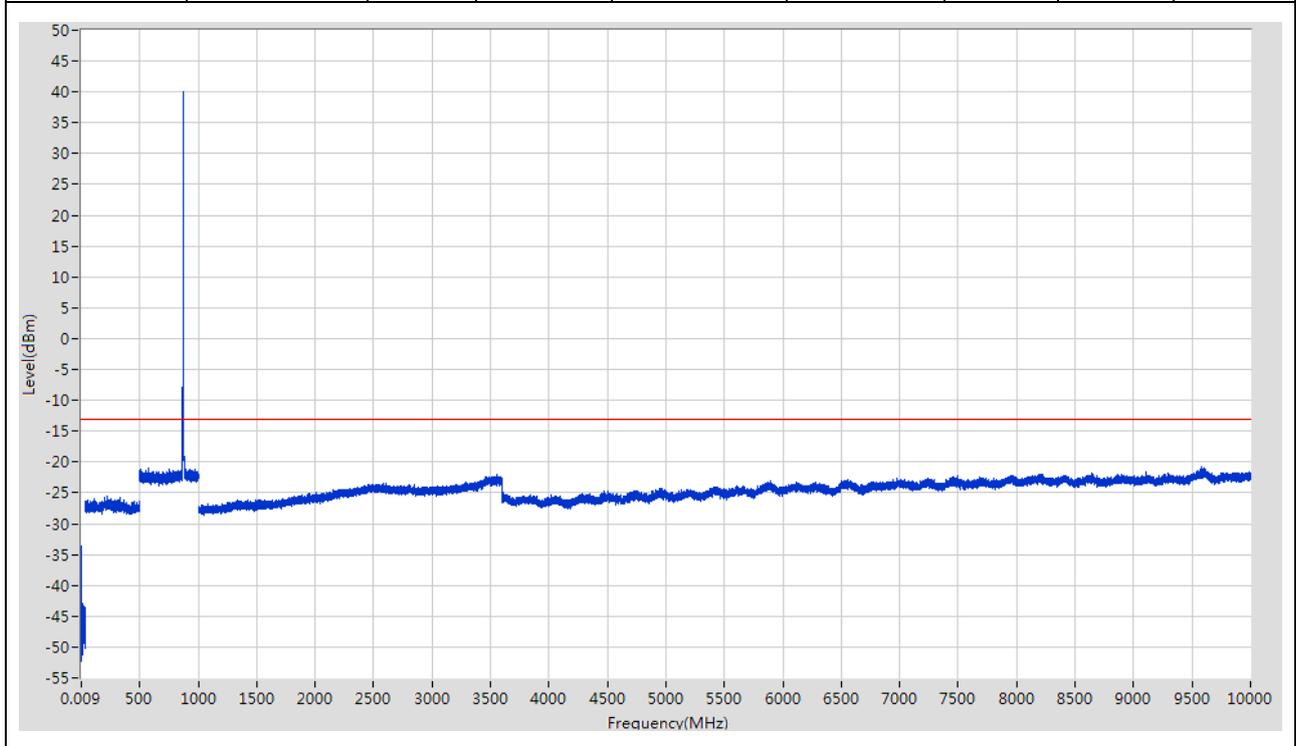| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.762 k	-35.57	-13	Pass	801
0.15	30	0.01	RMS	311.19 k	-33.68	-13	Pass	15001
30	500	1	RMS	216.041667 M	-25.57	-13	Pass	2401
500	1000	1	RMS	870.8 M	40.09	-13	Fail	2501
1000	10000	1	RMS	9583.0278 M	-20.8	-13	Pass	45002

2.3.3.2 DL_2L_1.4M_B_ANTB

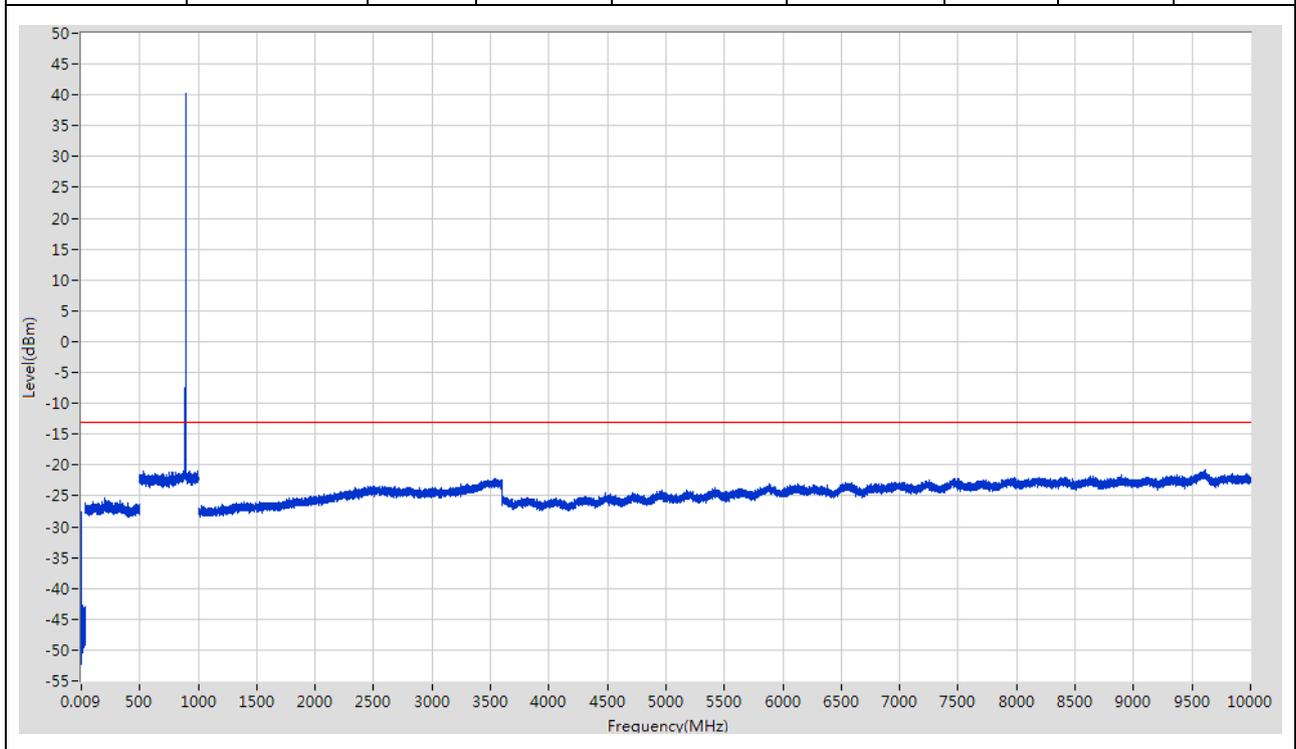| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.705 k	-27.63	-13	Pass	801
0.15	30	0.01	RMS	151.99 k	-32.53	-13	Pass	15001
30	500	1	RMS	200.766667 M	-25.39	-13	Pass	2401
500	1000	1	RMS	892 M	40.34	-13	Fail	2501
1000	10000	1	RMS	9608.82608 M	-20.79	-13	Pass	45002

2.3.3.3 DL_2L_1.4M_T_ANTA

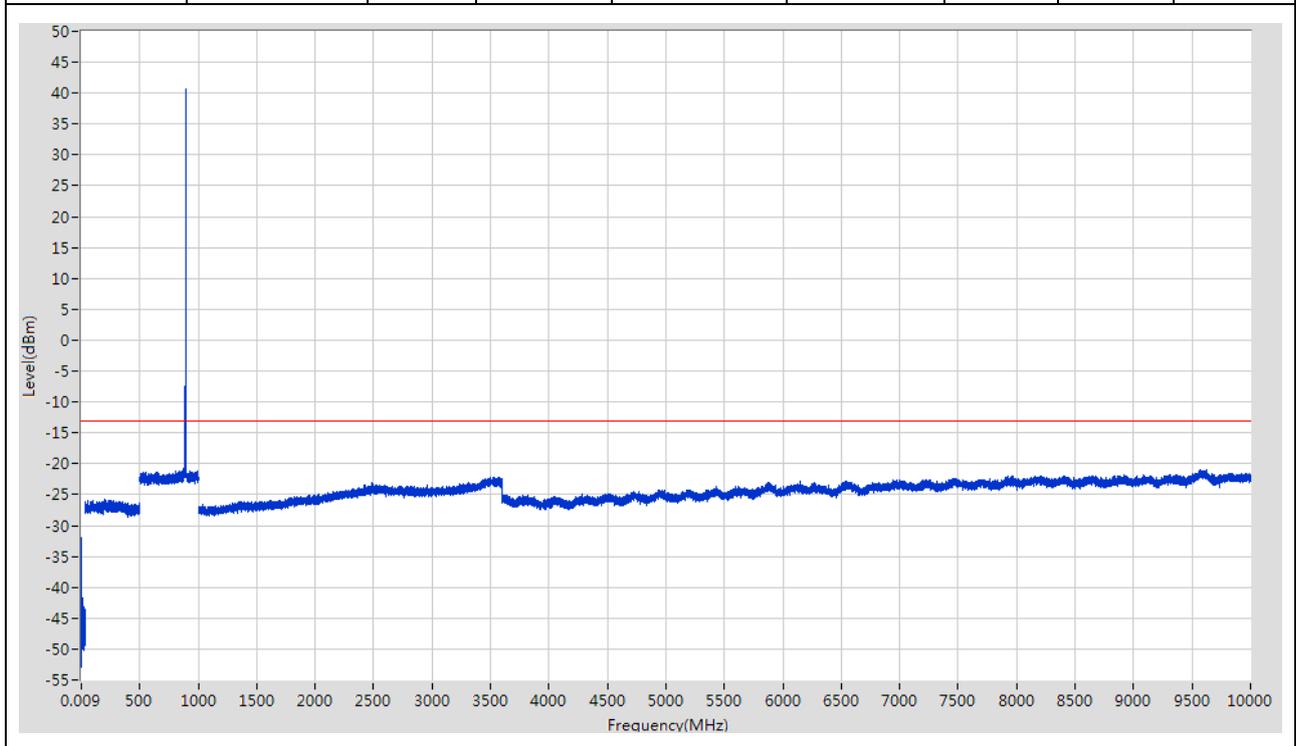| Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	22.219 k	-35.44	-13	Pass	801
0.15	30	0.01	RMS	151.99 k	-32.06	-13	Pass	15001
30	500	1	RMS	195.479167 M	-25.67	-13	Pass	2401
500	1000	1	RMS	892.8 M	40.75	-13	Fail	2501
1000	10000	1	RMS	9564.42904 M	-20.9	-13	Pass	45002

2.3.3.4 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	10.939 k	-35.61	-13	Pass	801
0.15	30	0.01	RMS	153.98 k	-32.26	-13	Pass	15001
30	500	1	RMS	249.725 M	-25.57	-13	Pass	2401
500	1000	1	RMS	892 M	39.93	-13	Fail	2501
1000	10000	1	RMS	9607.426173 M	-20.98	-13	Pass	45002
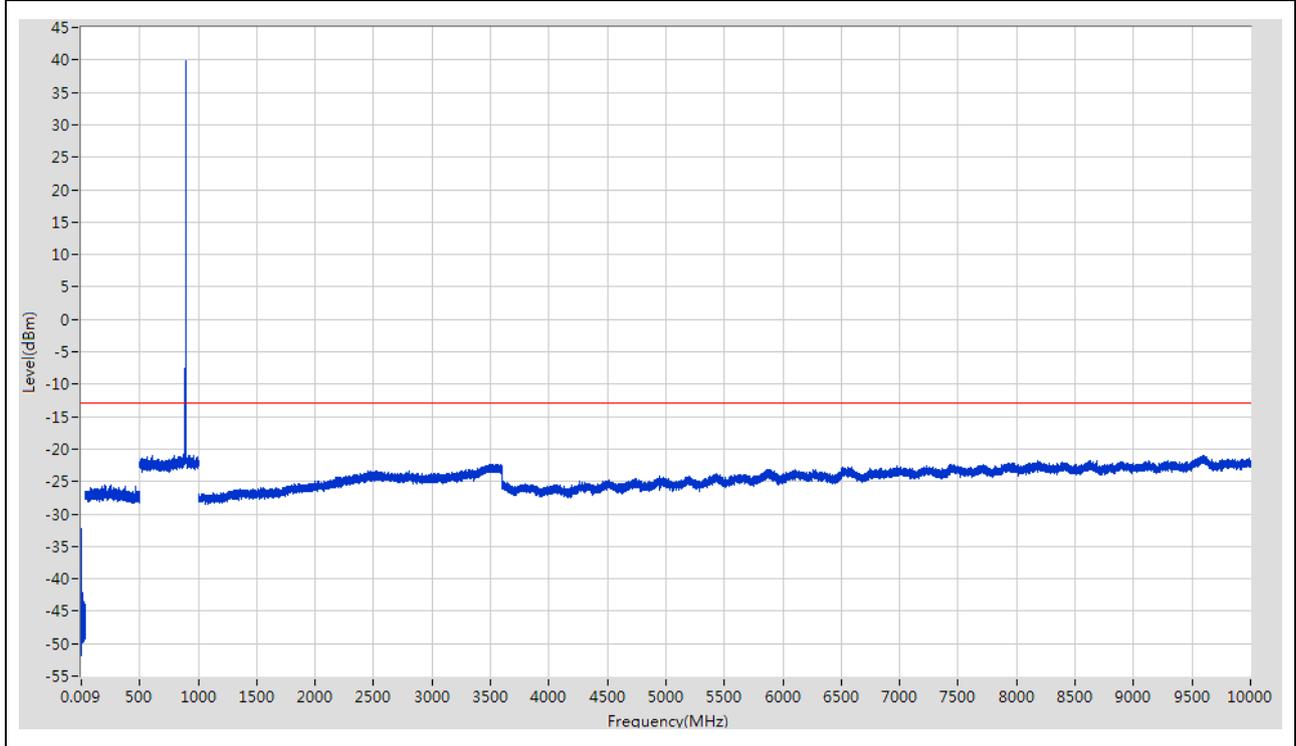
Appendix E: Field Strength of Spurious Radiation

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

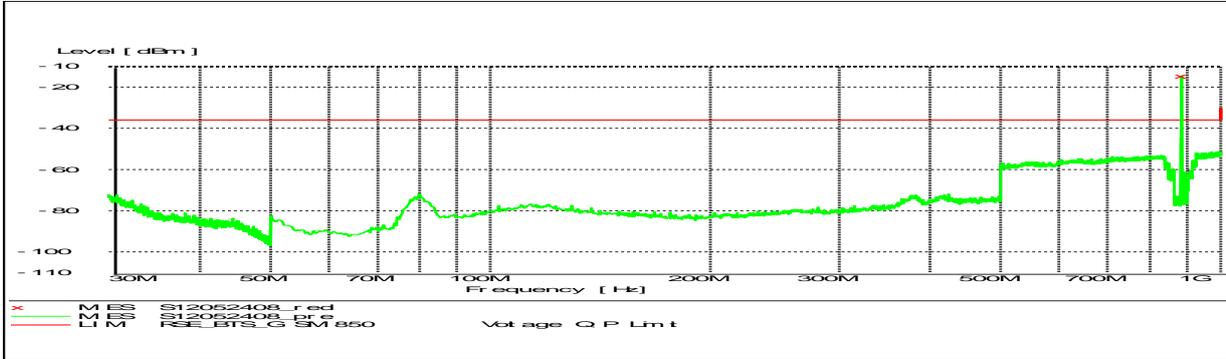| EUT Conf.	Maximum Emission [dBm]	Verdict
DL_1CW_M_ANTA DL_1CW_M_ANTB	<-16	Pass

2   Test Plot

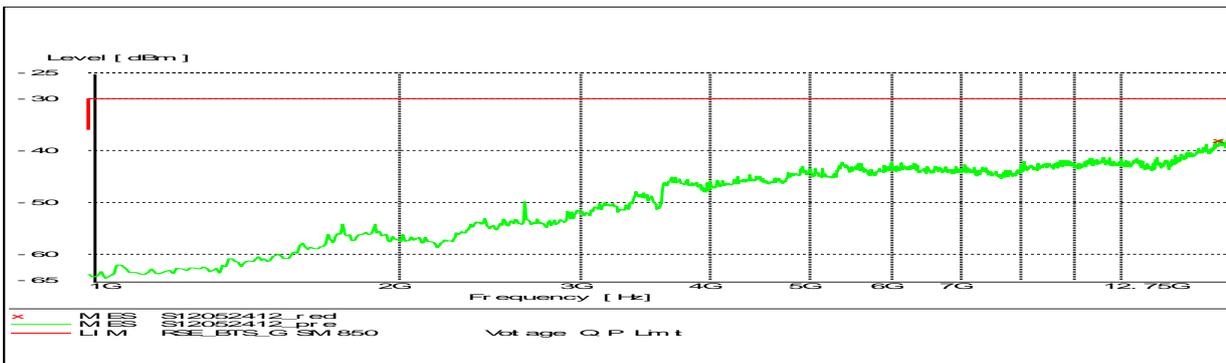## 2.1   Uplink Test Plots

Not applicable.

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

2.2 Downlink Test Plots

2.2.1 30MHz-1GHz

2.2.2 1GHz and above

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   Frequency Error vs. Temperature

EUT Conf.	Voltage	Temperature	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Verdict
DL_1G_TM1_M_ANTA	100%	-30 °C	9.7	0.011004	0.011004	Pass
	100%	-20 °C	10.4	0.011798	0.011798	Pass
	100%	-10 °C	10.1	0.011458	0.011458	Pass
	100%	0 °C	9.6	0.010891	0.010891	Pass
	100%	+10 °C	11	0.012479	0.012479	Pass
	100%	+20 °C	10.8	0.012252	0.012252	Pass
	100%	+30 °C	12.5	0.014180	0.014180	Pass
	100%	+40 °C	10.9	0.012365	0.012365	Pass
	100%	+50 °C	12.6	0.014294	0.014294	Pass
DL_1G_TM1_M_ANTB	100%	-30 °C	10.2	0.011571	0.011571	Pass
	100%	-20 °C	12.7	0.014407	0.014407	Pass
	100%	-10 °C	10.7	0.012138	0.012138	Pass
	100%	0 °C	13.2	0.014974	0.014974	Pass
	100%	+10 °C	13.4	0.015201	0.015201	Pass
	100%	+20 °C	15.1	0.017130	0.017130	Pass
	100%	+30 °C	13.8	0.015655	0.015655	Pass
	100%	+40 °C	16.4	0.018605	0.018605	Pass
	100%	+50 °C	15.4	0.017470	0.017470	Pass

1.1.2.2   Frequency Error vs. Voltage

EUT Conf.	Temperature	Voltage	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Verdict
DL_1G_TM1_M_ANTA	+20 °C	85 %	9.9	0.011231	0.011231	Pass
	+20 °C	100 %	11.4	0.012933	0.012933	Pass
	+20 °C	115 %	9.8	0.011117	0.011117	Pass

EUT Conf.	Temperature	Voltage	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Verdict
DL_1G_TM1_M_ANTB	+20 °C	85 %	13.7	0.015542	0.015542	Pass
	+20 °C	100 %	13.5	0.015315	0.015315	Pass
	+20 °C	115 %	16.2	0.018378	0.018378	Pass

Appendix G: Mean Output Power

1   Result Table

When the output power reach to rated maximum output power, AGC function will be active. Then output power and intermodulation product level cannot rise any more with input signal level increasing.

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

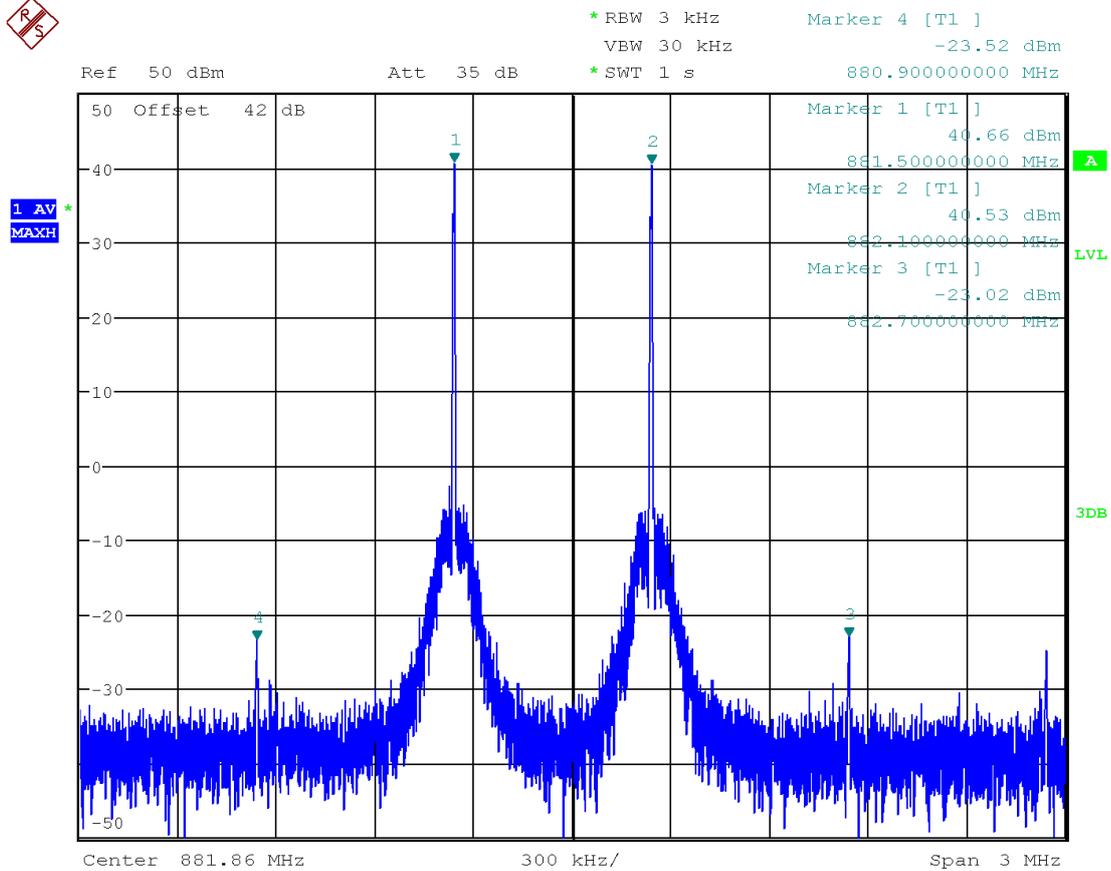| EUT Conf.	Pmean [dBm]	Verdict
DL_2CW_M_ANTA	43.66	Pass
DL_2CW_M_ANTB	43.65	Pass

2   Test Plot

2.1.1   Uplink Test Plots

Not applicable.

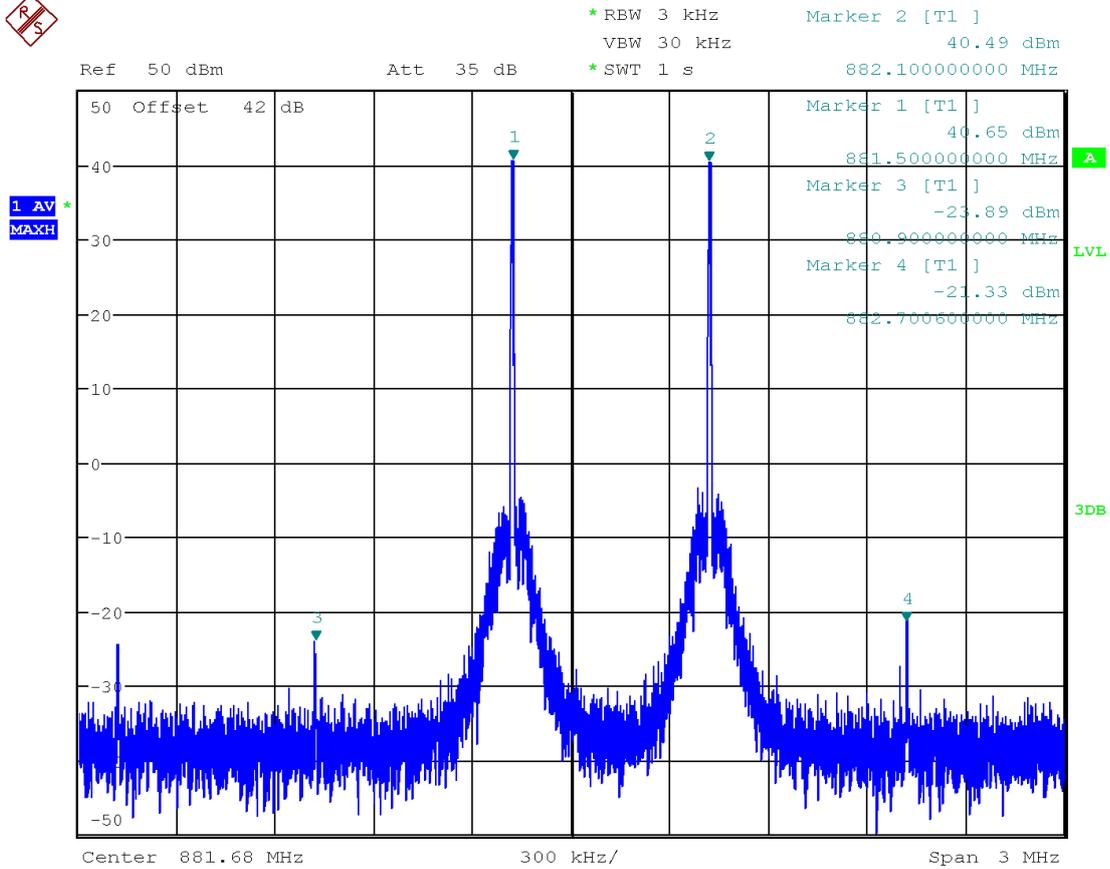Notes: The EUT does not transmit over the air in the uplink direction.

2.1.2   Downlink Test Plots

2.1.2.1   DL_2CW_M_ANTA

Date: 14.NOV.2013   20:21:51

2.1.2.2   DL_2CW _M_ANTB


```
                                          * RBW  3 kHz      Marker 2 [T1 ]
                                            VBW 30 kHz             40.49 dBm
         Ref  50 dBm            Att  35 dB  * SWT  1 s       882.100000000 MHz

          50  Offset  42 dB                         Marker 1 [T1 ]
                                     1           2         40.65 dBm
          40                                              881.500000000 MHz        A
    1 AV *
    MAXH  30                                        Marker 3 [T1 ]                 LVL
                                                          -23.89 dBm
          20                                        880.900000000 MHz
                                                   Marker 4 [T1 ]
          10                                              -21.33 dBm
                                                   882.700600000 MHz
           0
                                                                                  3DB
         -10

         -20                                          4
                          3
         -30

         -40

         -50
         Center  881.68 MHz           300 kHz/                  Span  3 MHz
```

Date: 14.NOV.2013   20:29:13

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

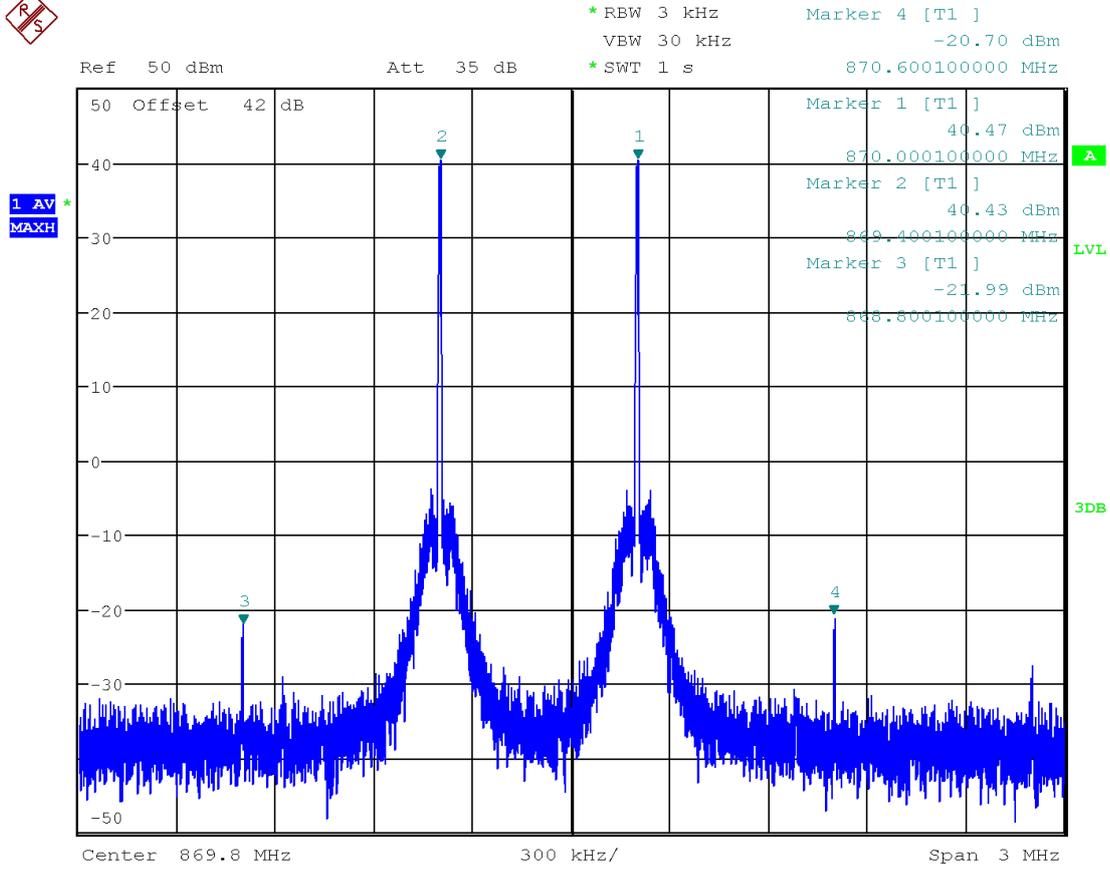| EUT Conf.	Intermodulation		Verdict
	Left	Right	
DL_2CW_B_ANTA	-21.99	-20.70	Pass
DL_2CW_B_ANTB	-27.23	-23.98	Pass
DL_2CW_M_ANTA	-23.02	-23.52	Pass
DL_2CW_M_ANTB	-23.89	-23.33	Pass
DL_2CW_T_ANTA	-22.24	-23.33	Pass
DL_2CW_T_ANTB	-22.72	-23.53	Pass

2   Test Plot

2.1.1   Uplink Test Plots

Not applicable.

Notes: The EUT does not transmit over the air in the uplink direction.
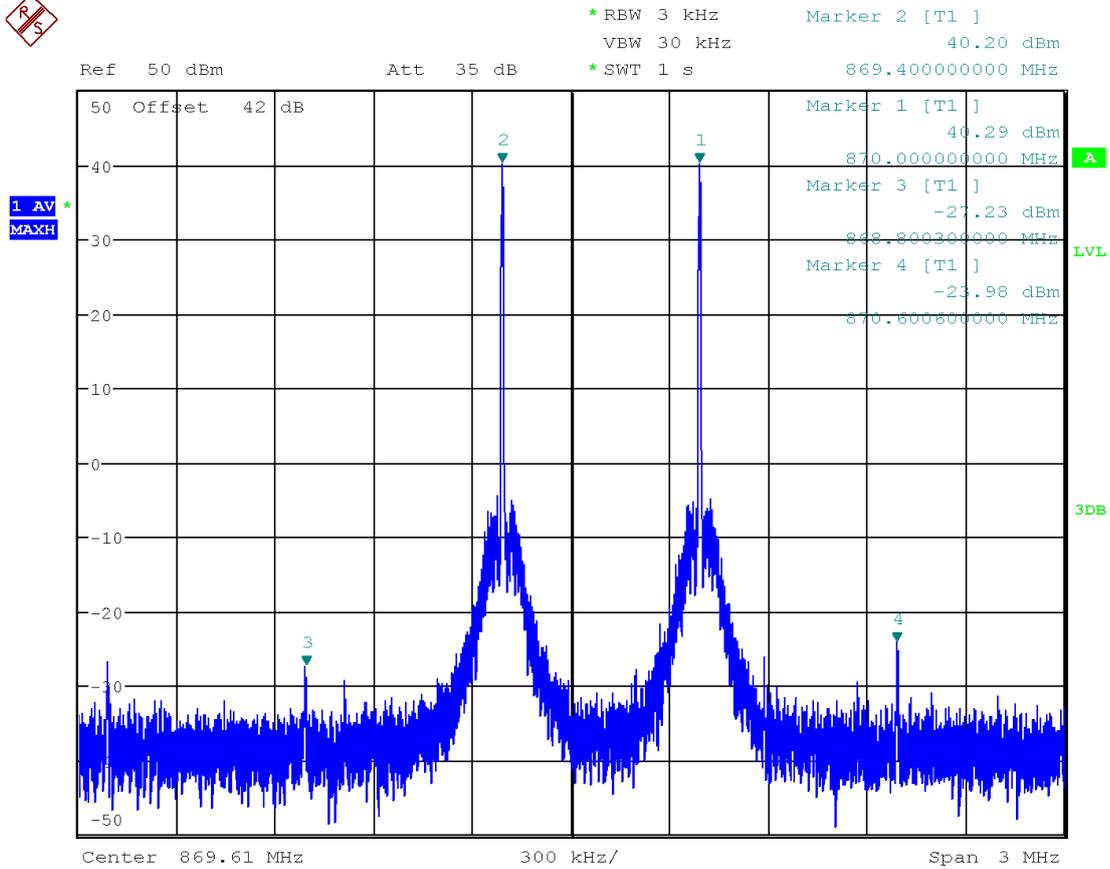
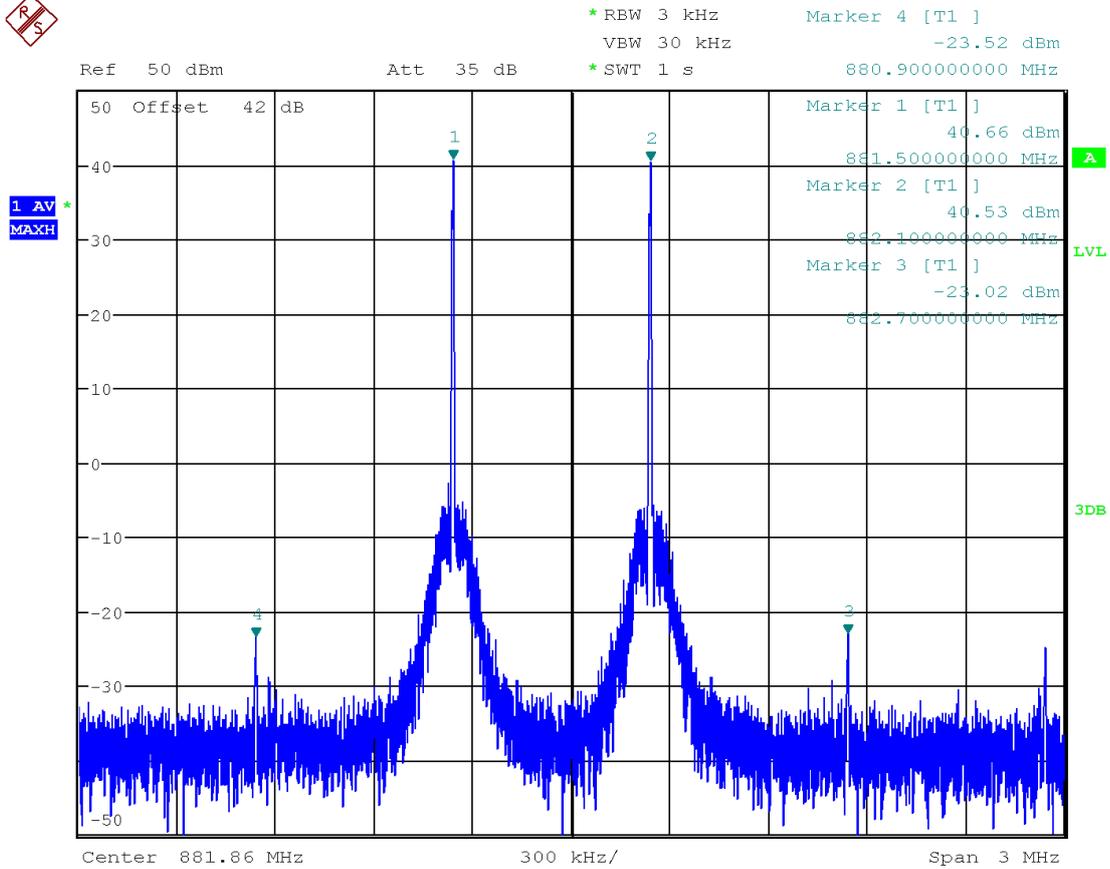## 2.1.2   Downlink Test Plots

2.1.2.1   DL_2CW_B_ANTA

Date: 14.NOV.2013 20:19:12

2.1.2.2 DL_2CW_B_ANTB
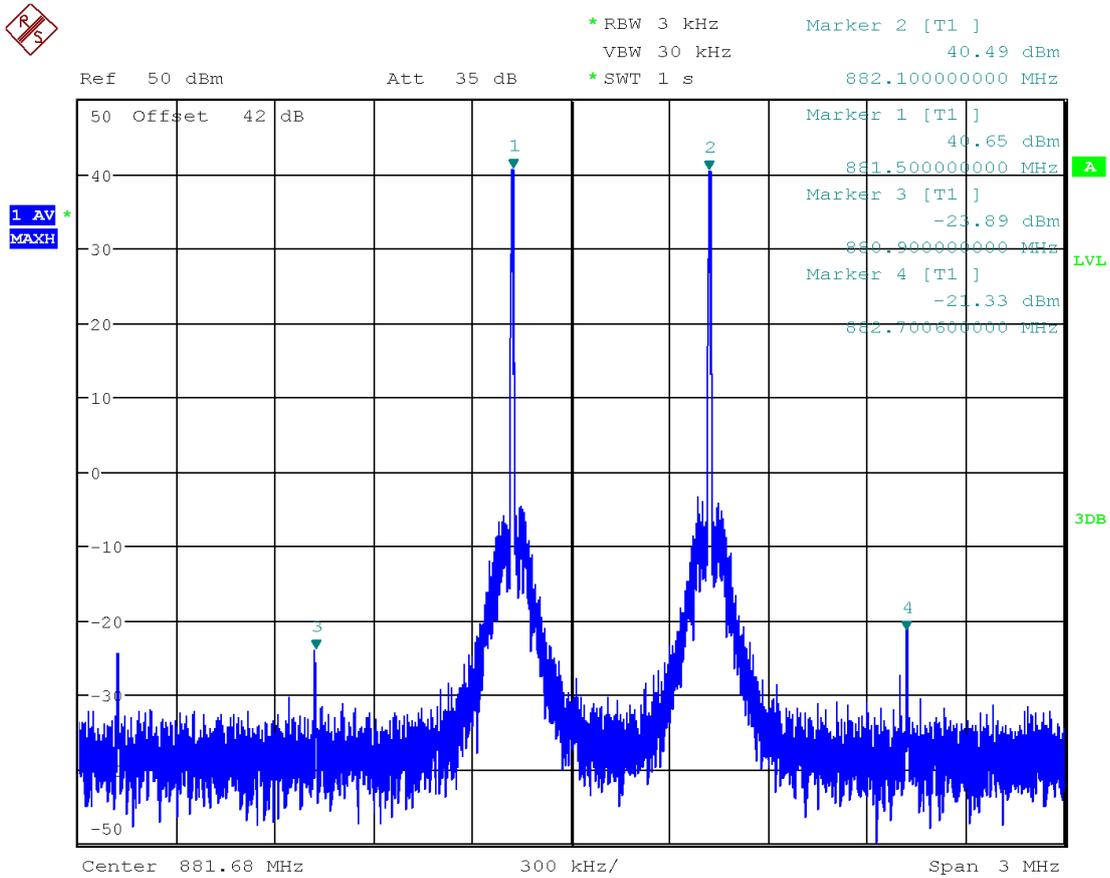

Date: 14.NOV.2013 20:31:13

2.1.2.3 DL_2CW_M_ANTA
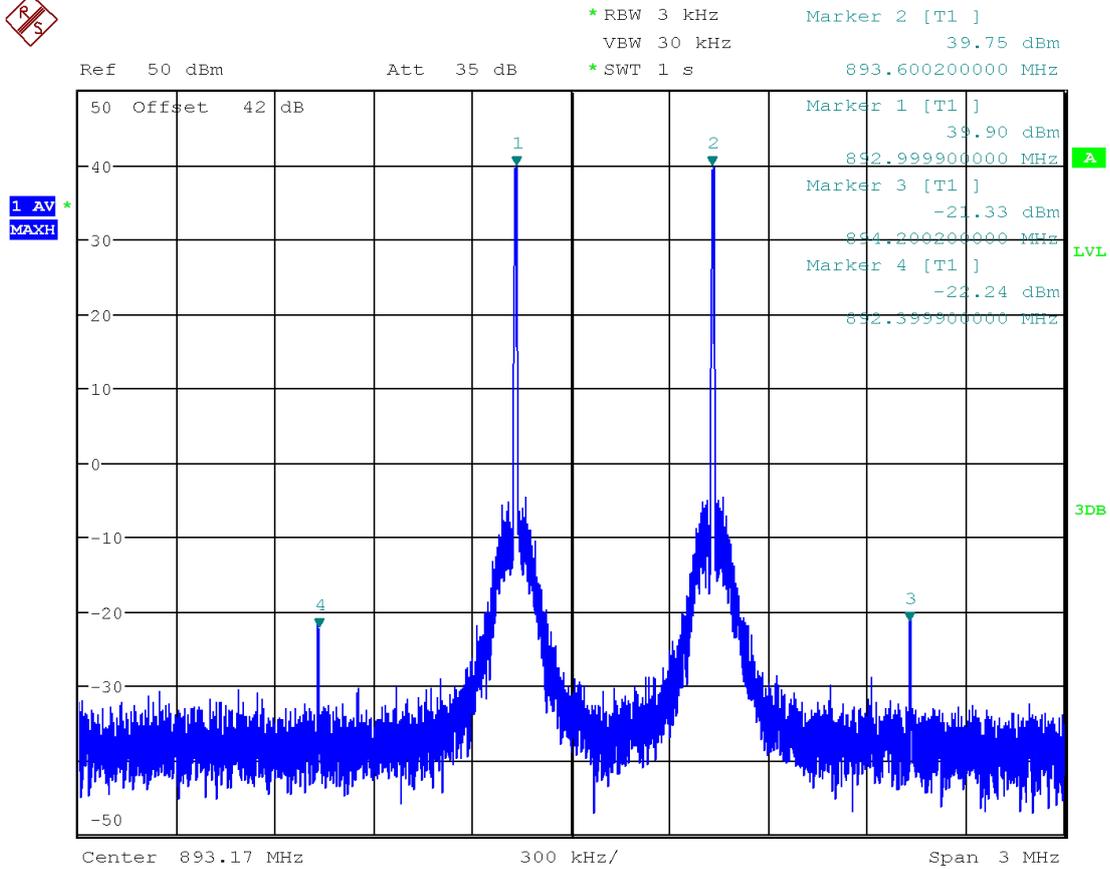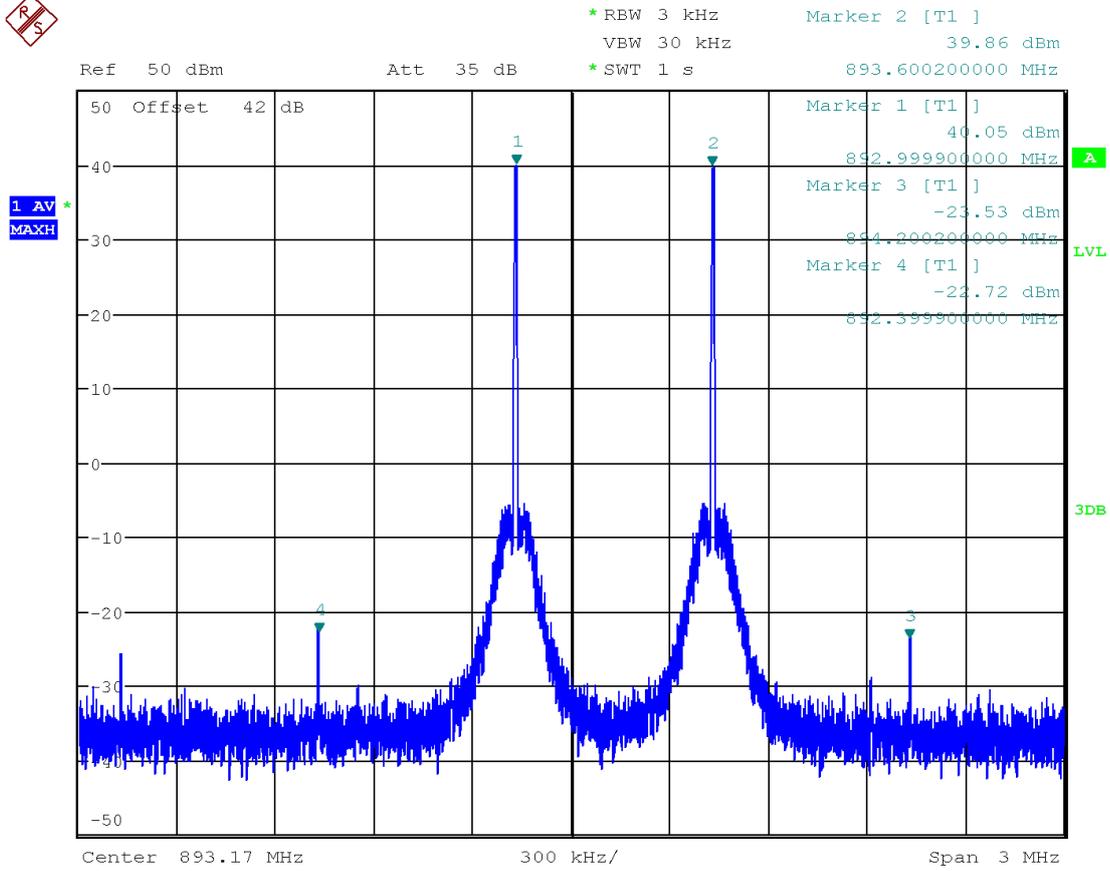

Date: 14.NOV.2013 20:21:51

2.1.2.4 DL_2CW_M_ANTB


```
                                    * RBW  3 kHz        Marker 2 [T1 ]
                                      VBW  30 kHz                 40.49 dBm
    Ref  50 dBm          Att  35 dB  * SWT  1 s          882.100000000 MHz

     50  Offset  42 dB                                Marker 1 [T1 ]
                                                                 40.65 dBm
    -40                        1              2          881.500000000 MHz    A
  1 AV  *
  MAXH  -30                                           Marker 3 [T1 ]
                                                                -23.89 dBm
                                                       880.900000000 MHz    LVL
    -20
                                                     Marker 4 [T1 ]
                                                                -21.33 dBm
    -10                                                882.700600000 MHz

      0                                                                     3DB

    -10

    -20            3                              4

    -30

    -40

    -50
    Center  881.68 MHz        300 kHz/              Span  3 MHz
```

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2.1.2.5 DL_2CW_T_ANTA

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2.1.2.6   DL_2CW_T_ANTB


```
                                    * RBW  3 kHz        Marker 2 [T1 ]
                                      VBW  30 kHz              39.86 dBm
      Ref   50 dBm          Att  35 dB  * SWT  1 s       893.600200000 MHz

       50  Offset   42 dB                          Marker 1 [T1 ]
                                                         40.05 dBm
       40                      1             2       892.999900000 MHz    A
                                                   Marker 3 [T1 ]
                                                        -23.53 dBm
       30                                           894.200200000 MHz    LVL
                                                   Marker 4 [T1 ]
                                                        -22.72 dBm
       20                                           892.399900000 MHz

       10

        0
                                                                          3DB
      -10

      -20          4                                      3

      -30

      -50

      Center  893.17 MHz         300 kHz/                Span  3 MHz
```

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# 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	37.63 dB	36.55 dB	Pass
Authorized Frequency Band	869-894 MHz	869-894 MHz	Pass
Lower edge of 20dB bandwidth	867.51 MHz	867.52 MHz	Pass
Upper edge of 20dB bandwidth	895.46 MHz	895.44 MHz	Pass
20 dB bandwidth	27.95 MHz	27.92 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
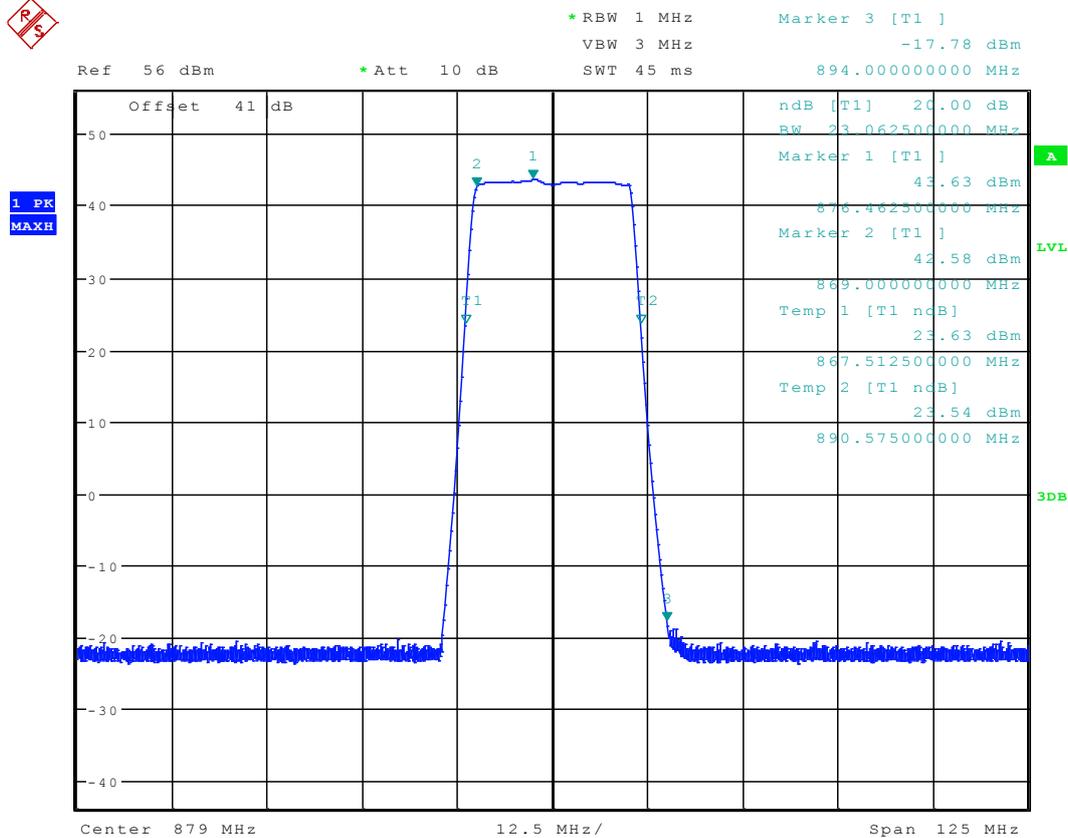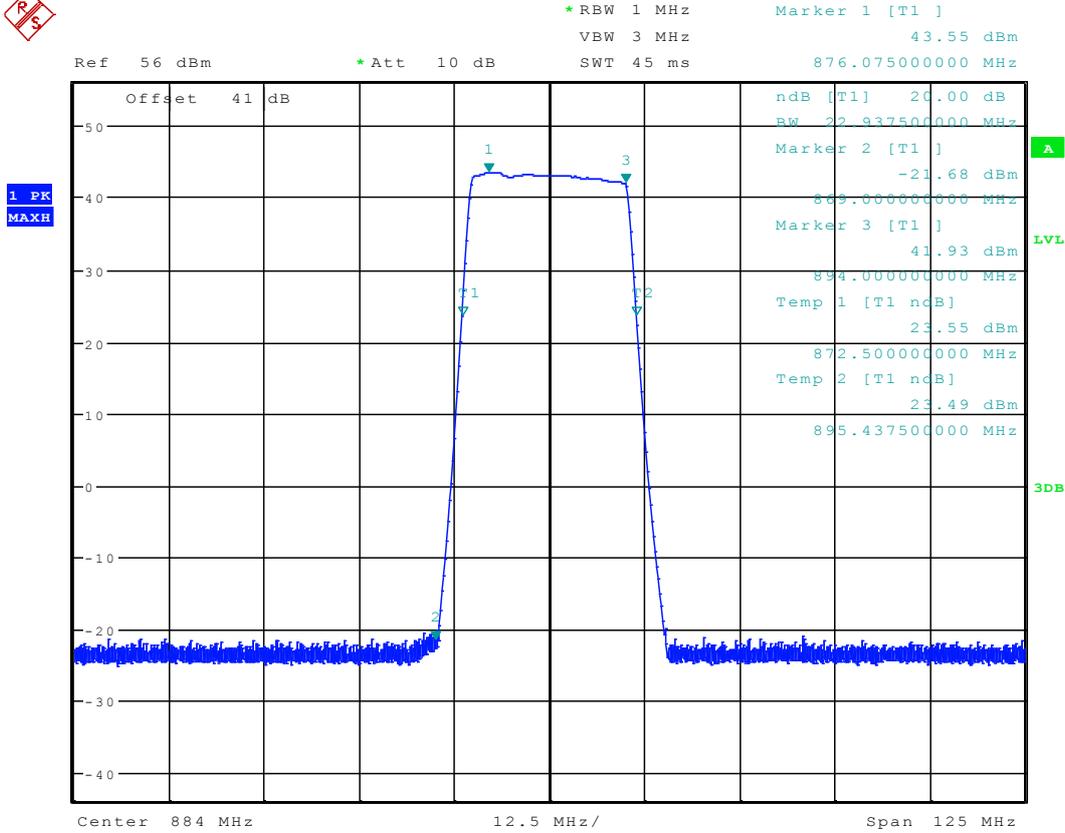

Date: 12.DEC.2013 15:16:03

2.1.2.2 DL_20M_T_ANTA,
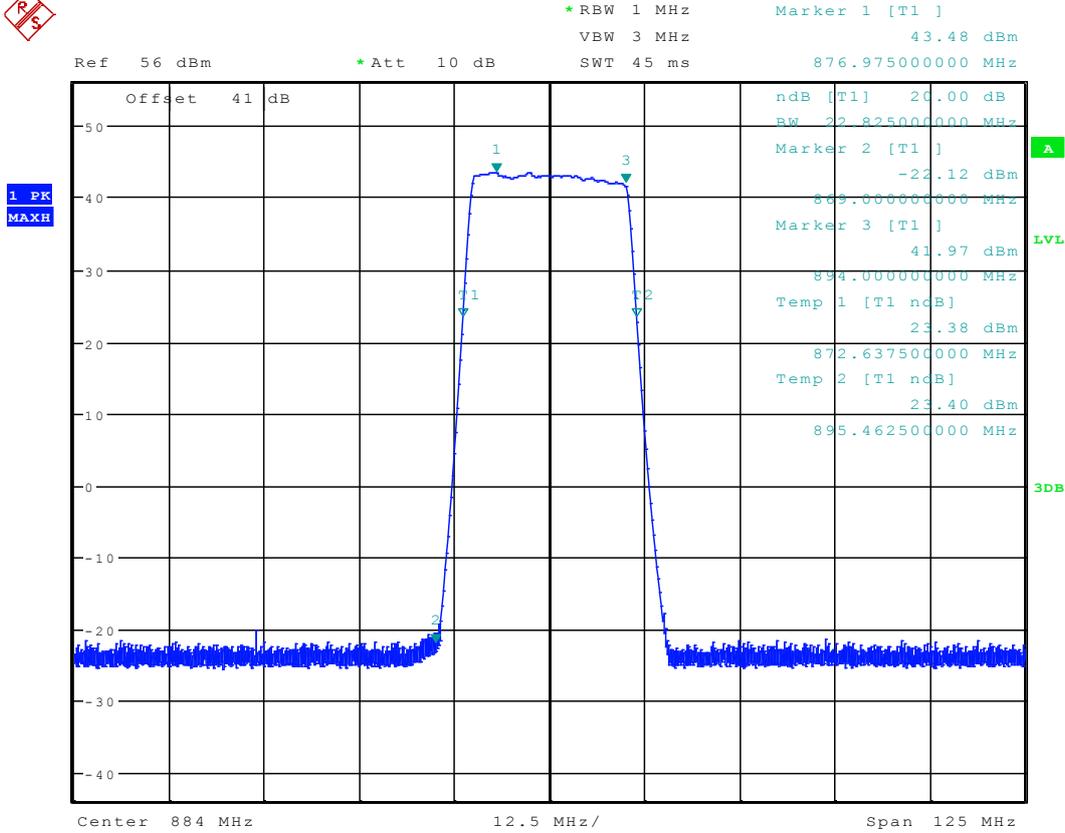
Date: 12.DEC.2013 15:40:26

2.1.2.3 DL_20M_B_ANTB
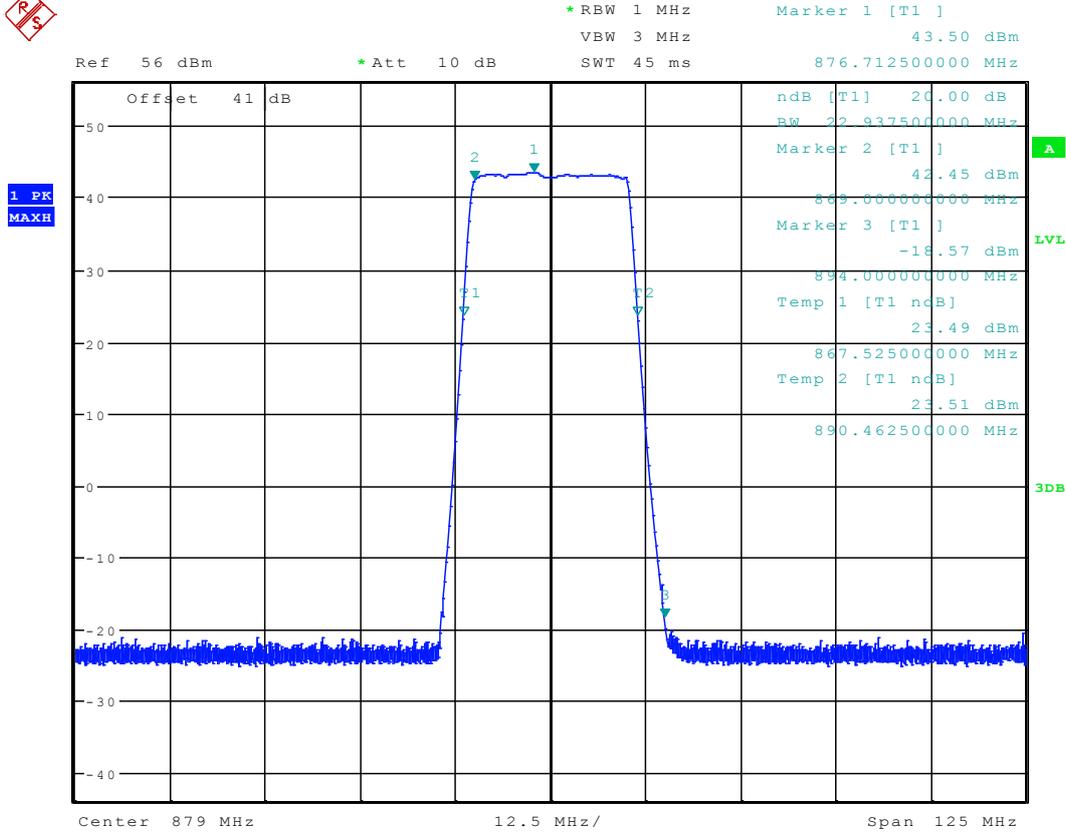
Date: 12.DEC.2013 15:34:24

2.1.2.4 DL_20M_T_ANTB,

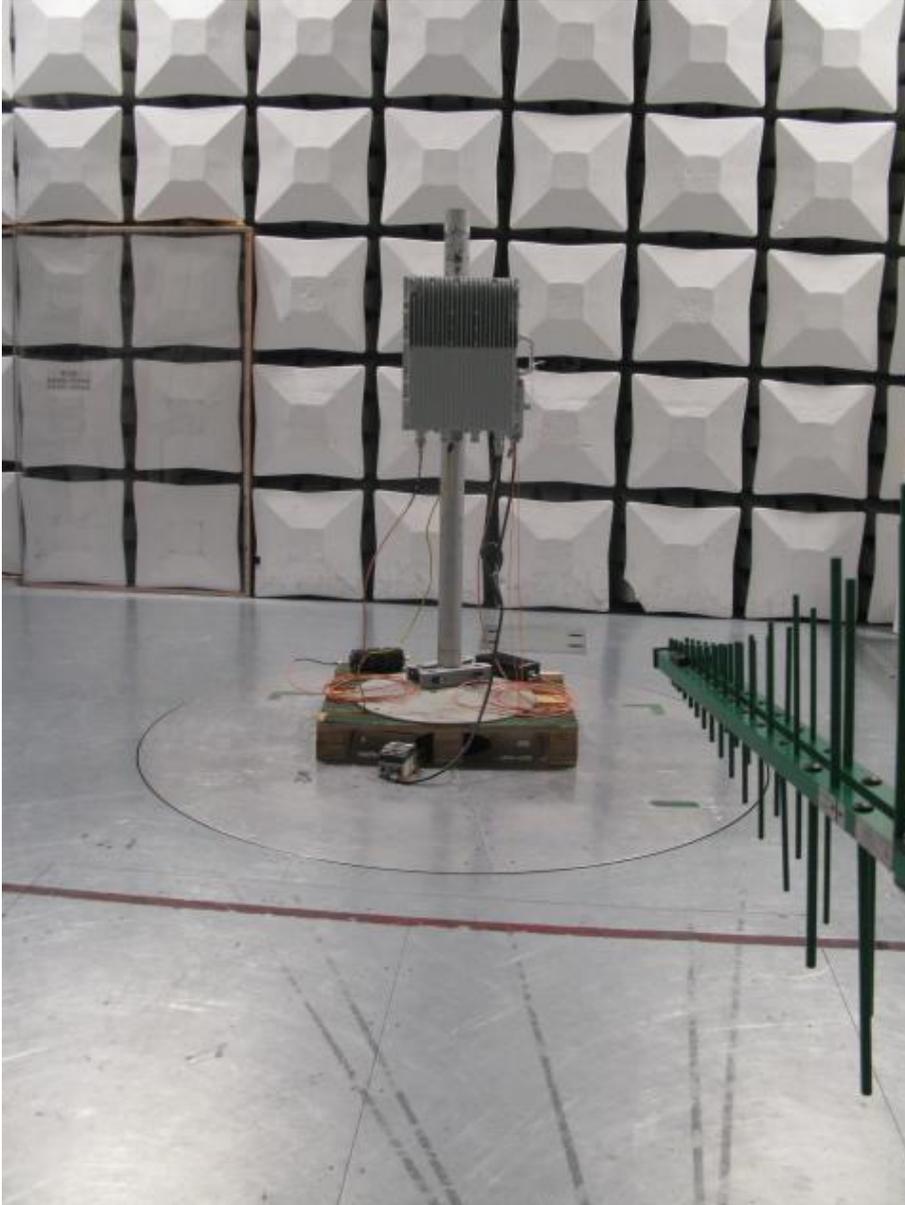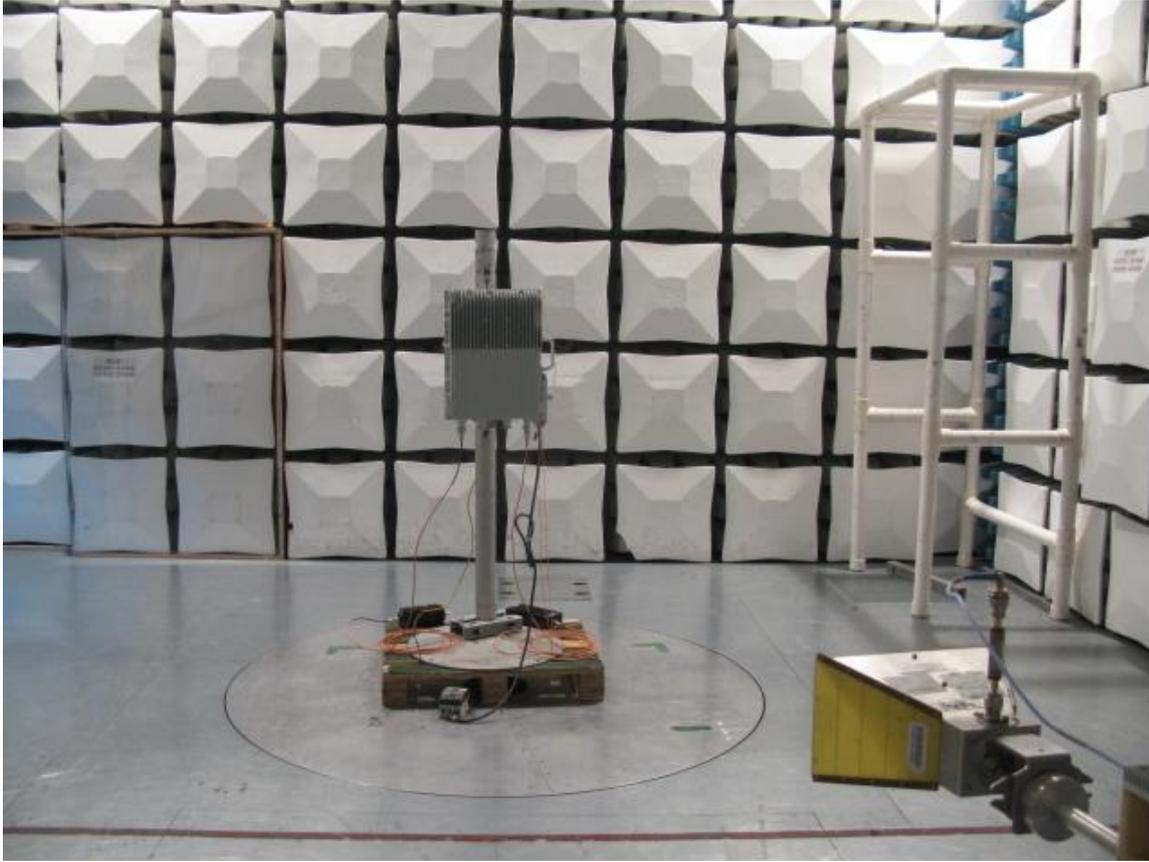

Date: 12.DEC.2013 15:43:52

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