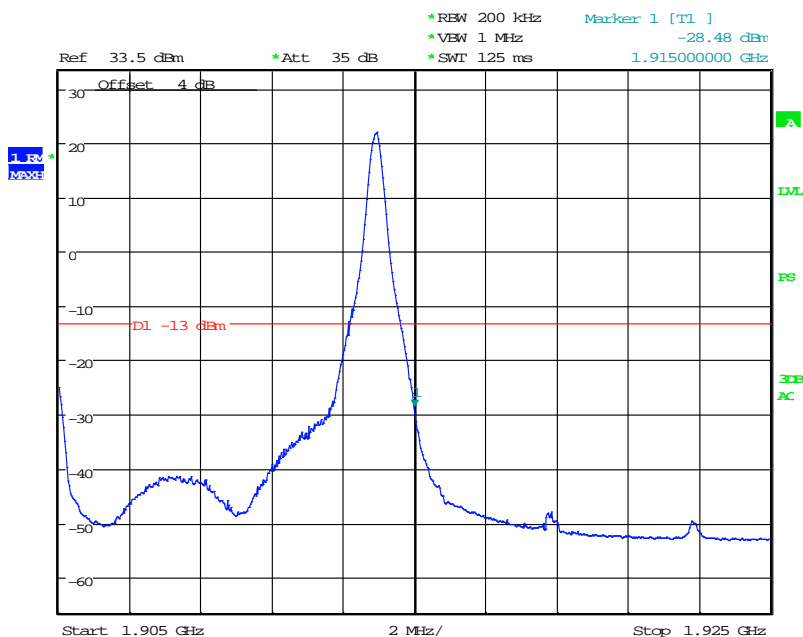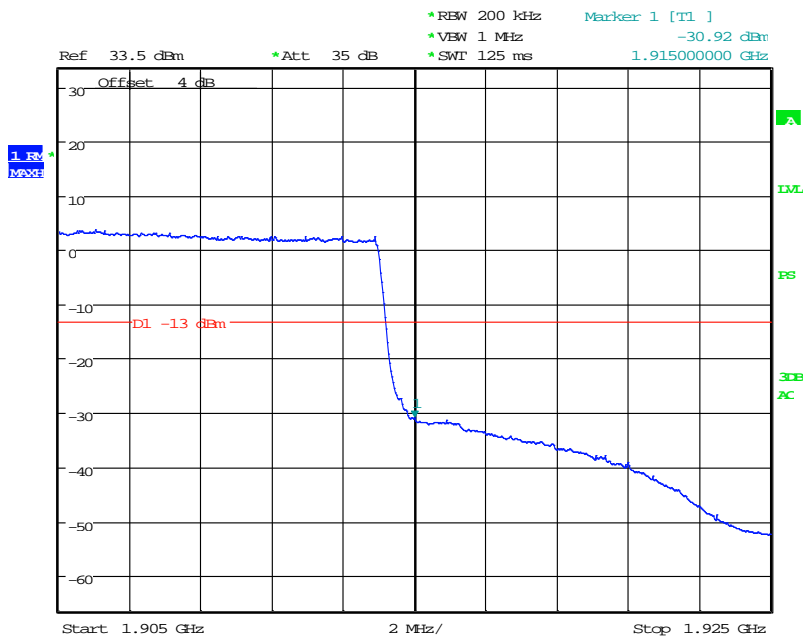## 20MHz bandwidth, 16QAM,(1,100) Mode, Above 1915MHz

Date: 25.JUN.2015 11:11:04

20MHz bandwidth, 16QAM,100,0) Mode, Above 1915MHz
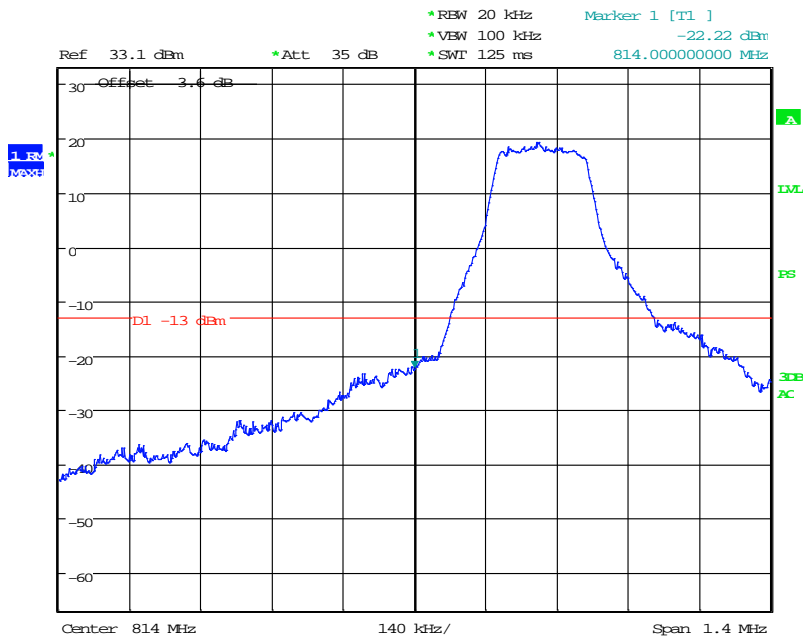

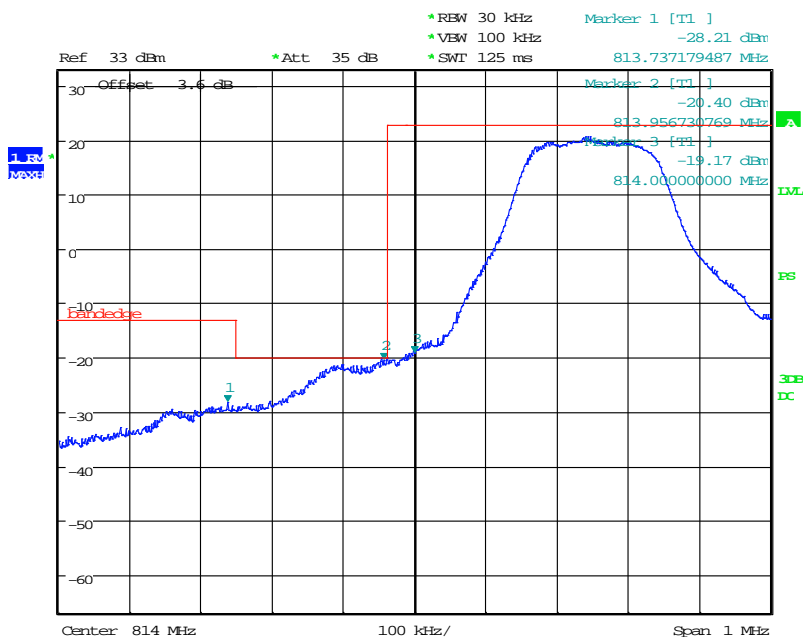Date: 25.JUN.2015 11:10:35

4.5.6 LTE B26 Band Edge Results

Graphical results：
1.4MHz bandwidth,QPSK,(1,0) Mode , below 814MHz

Date: 25.JUN.2015 11:53:20

Date: 9.JUL.2015 15:57:21

China Telecommunication Technology Labs.

FCC Parts 2, 22, 24,27,90 RSS-Gen, 130, 132,133,139, 199
Equipment: EM7455   **REPORT NO.: B15W50341-FCC-RF_Rev2**

1.4MHz bandwidth,QPSK,(6,0) Mode , below 814MHz

Date: 25.JUN.2015 11:54:16

Date: 9.JUL.2015 15:58:19

1.4MHz bandwidth, QPSK,(1,6) Mode, Above 849MHz

★RBW 20 kHz	Marker 1 [T1]
★VBW 100 kHz	-25.22 dBm
Ref 33.1 dBm ★Att 35 dB ★SWT 125 ms	849.006730769 MHz

Date: 25.JUN.2015 11:57:09

1.4MHz bandwidth, QPSK,(6,0) Mode, Above 849MHz

★RBW 20 kHz	Marker 1 [T1]
★VBW 100 kHz	-35.83 dBm
Ref 33.1 dBm ★Att 35 dB ★SWT 125 ms	849.031410256 MHz

Date: 25.JUN.2015 11:57:54

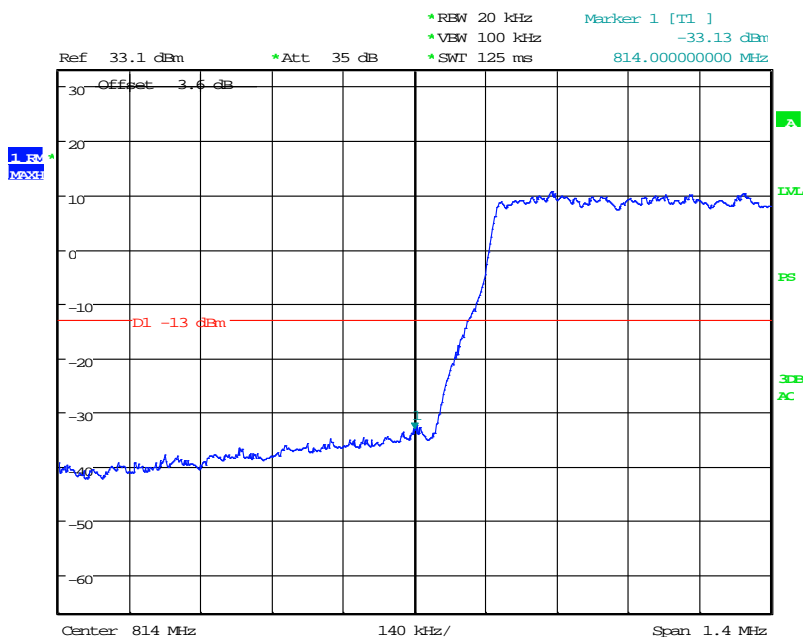## 1.4MHz bandwidth, 16QAM,(1,0) Mode , below 814MHz
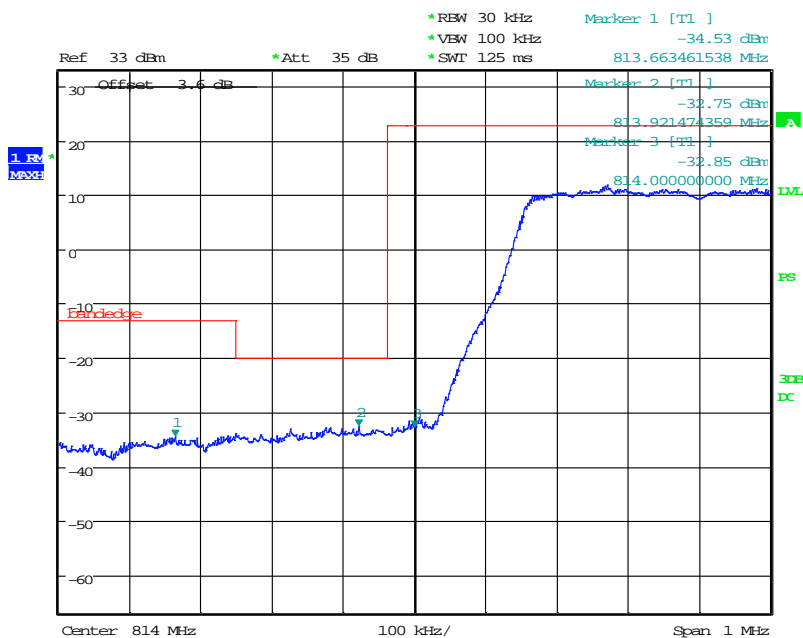

Date: 25.JUN.2015 11:55:44

Date: 9.JUL.2015 16:00:02

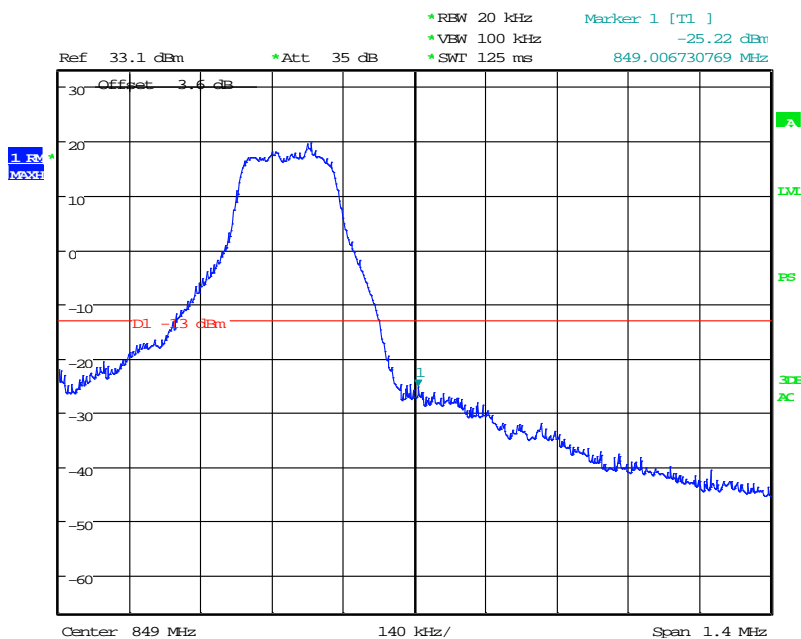## 1.4MHz bandwidth, 16QAM,(6,0) Mode , below 814MHz

Date: 25.JUN.2015 11:54:57

Date: 9.JUL.2015 15:59:16

1.4MHz bandwidth, 16QAM,(1,6) Mode, Above 849MHz

Date: 25.JUN.2015 11:59:01

1.4MHz bandwidth, 16QAM,(6,0) Mode, Above 849MHz

Date: 25.JUN.2015 11:58:28

3MHz bandwidth,QPSK,(1,0) Mode , below 814MHz

Date: 25.JUN.2015 11:45:44

Date: 9.JUL.2015 16:11:34

3MHz bandwidth,QPSK,(15,0) Mode , below 814MHz
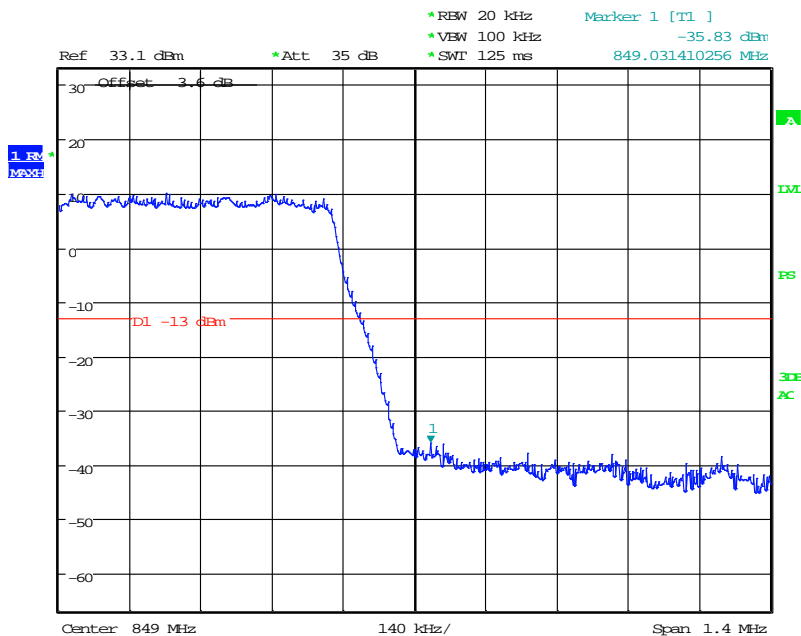

Date: 25.JUN.2015 11:46:10

Date: 9.JUL.2015 16:02:19
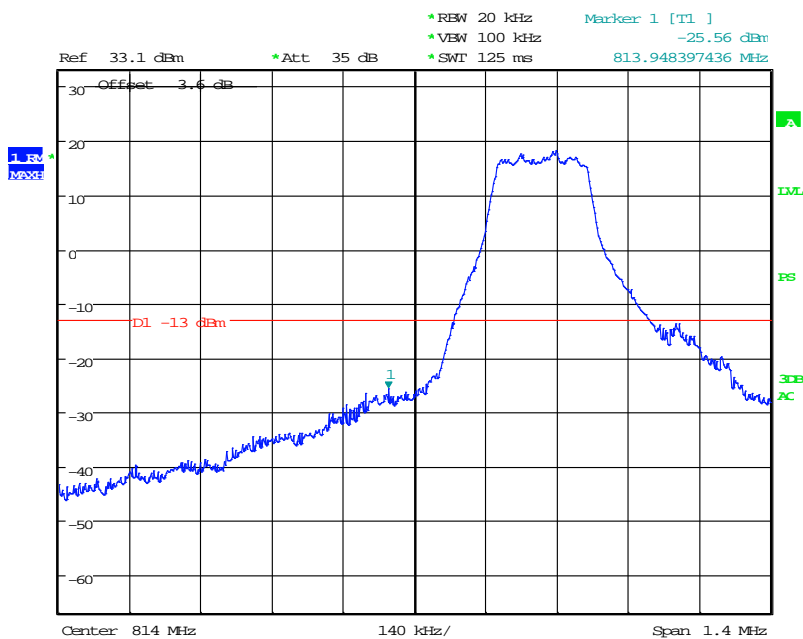
3MHz bandwidth, QPSK,(1,15) Mode, Above 849MHz

Date: 25.JUN.2015 11:48:15

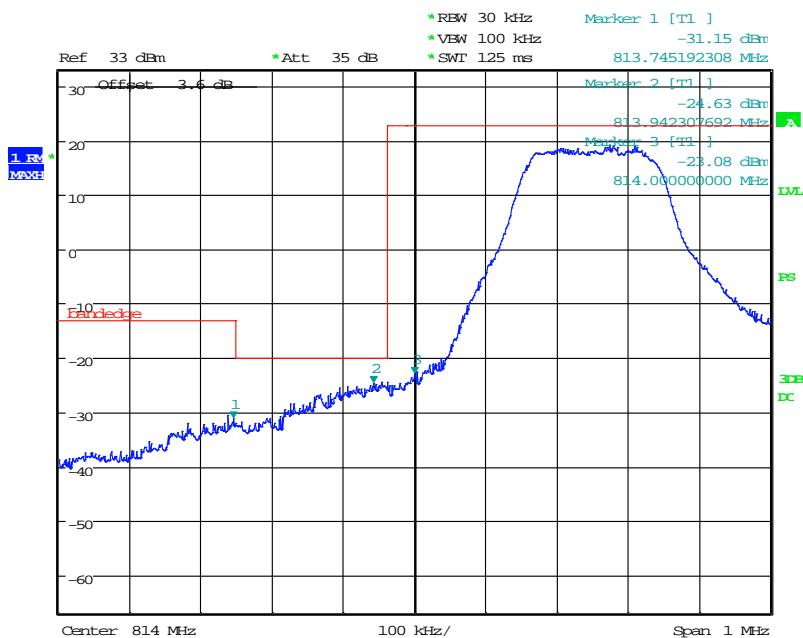### 3MHz bandwidth, QPSK,(15,0) Mode, Above 849MHz

Date: 25.JUN.2015 11:48:42
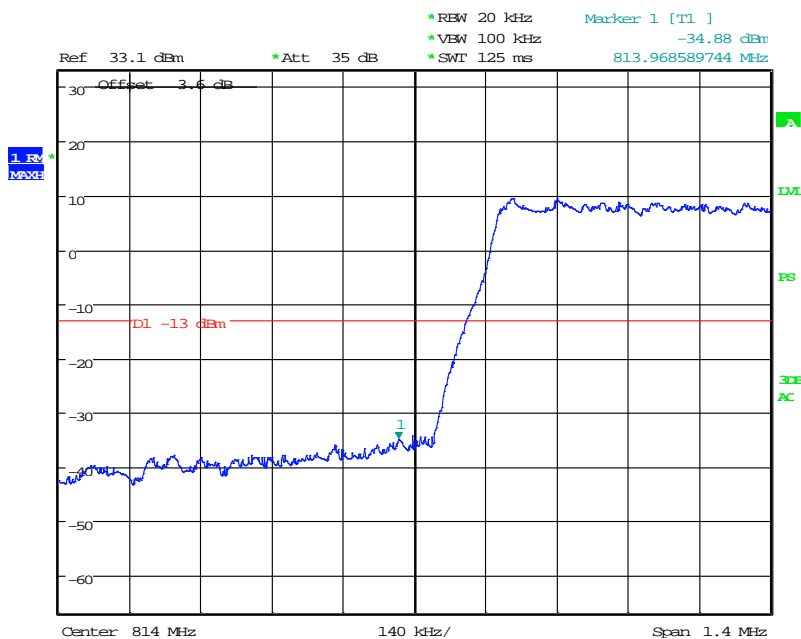
3MHz bandwidth, 16QAM,(1,0) Mode , below 814MHz

Date: 25.JUN.2015 11:44:59

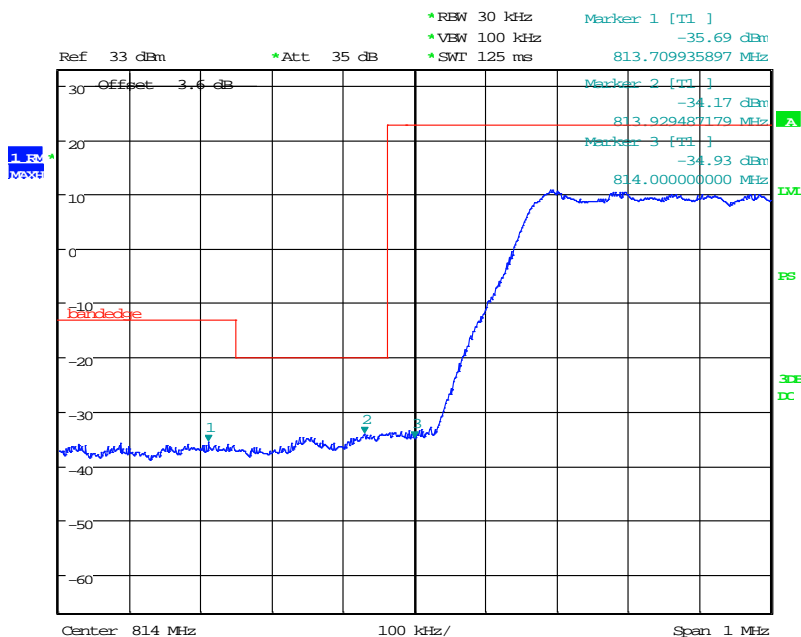
Date: 9.JUL.2015 16:12:41
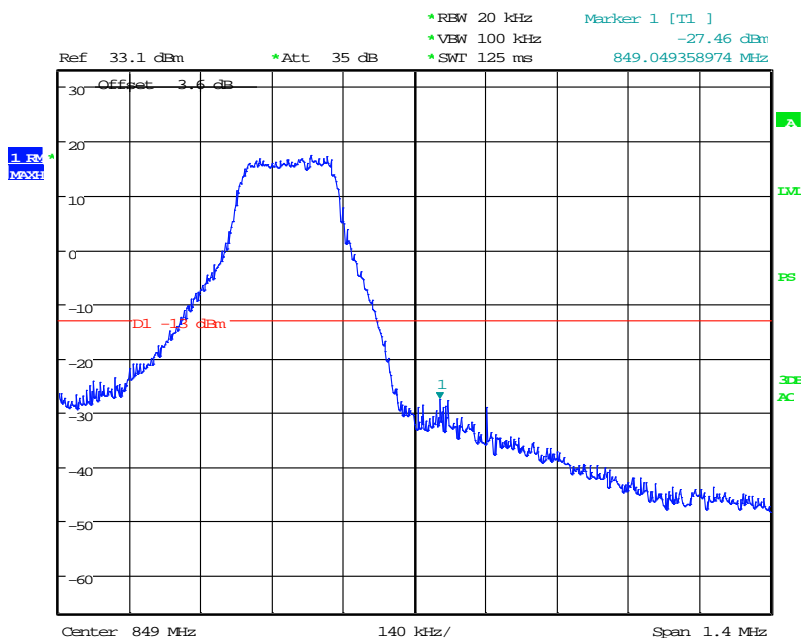
3MHz bandwidth, 16QAM,(15,0) Mode , below 814MHz
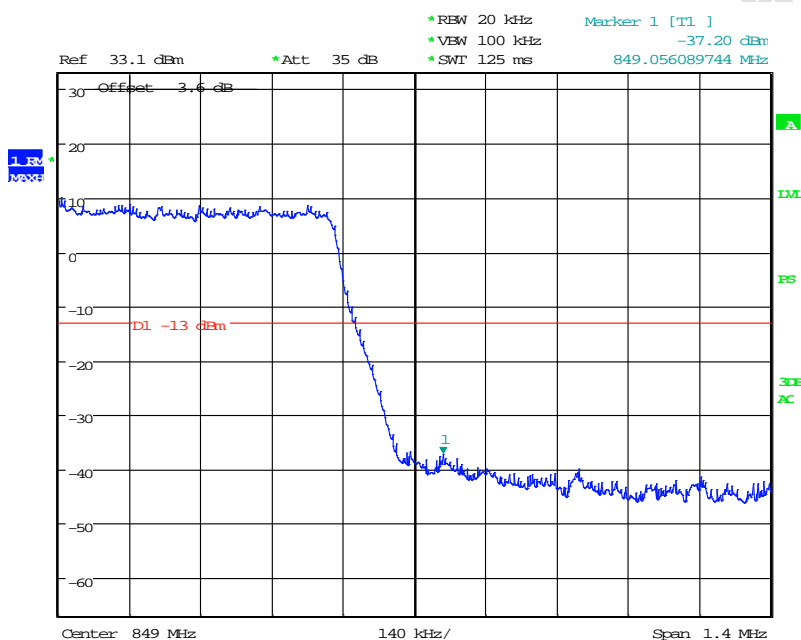

Date: 25.JUN.2015 11:44:01

Date: 9.JUL.2015 16:13:11

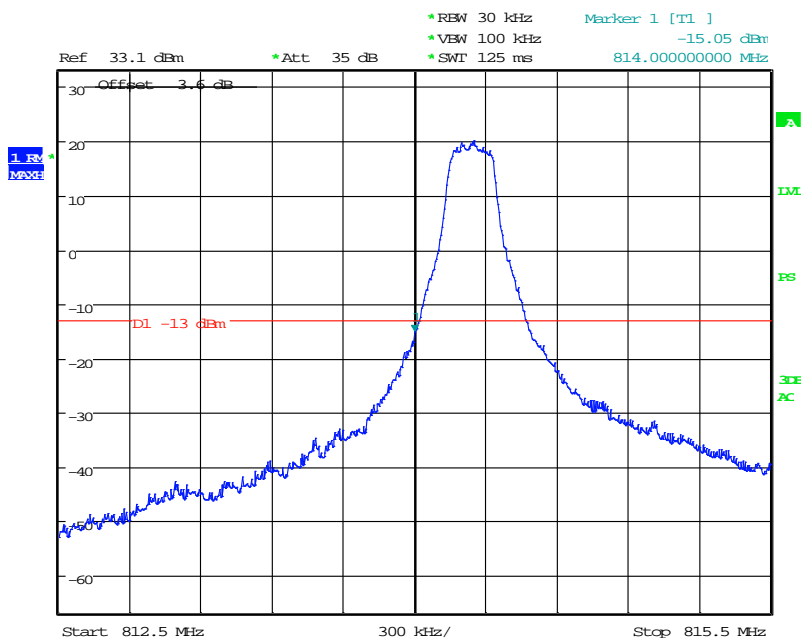## 3MHz bandwidth, 16QAM,(1,15) Mode, Above 849MHz

Date: 25.JUN.2015 11:49:39

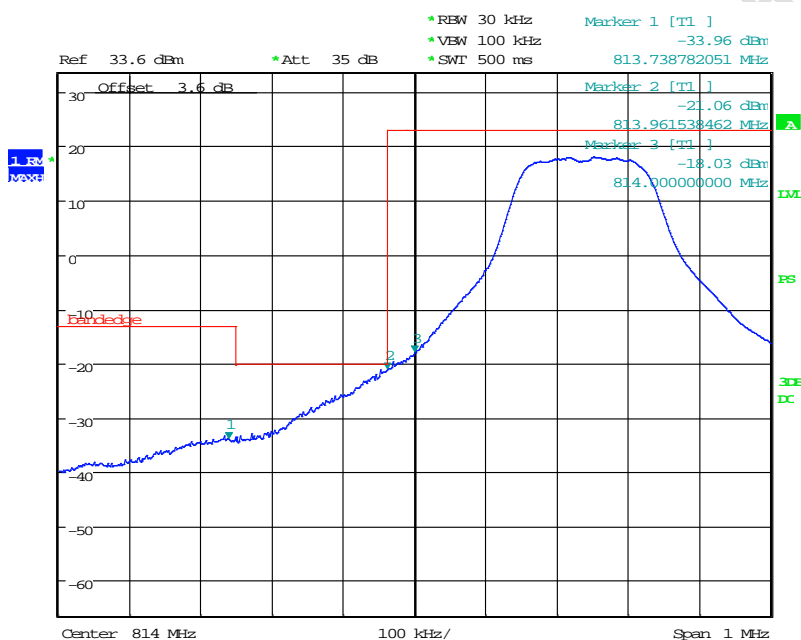## 3MHz bandwidth, 16QAM,(15,0) Mode, Above 849MHz

Date: 25.JUN.2015 11:49:14
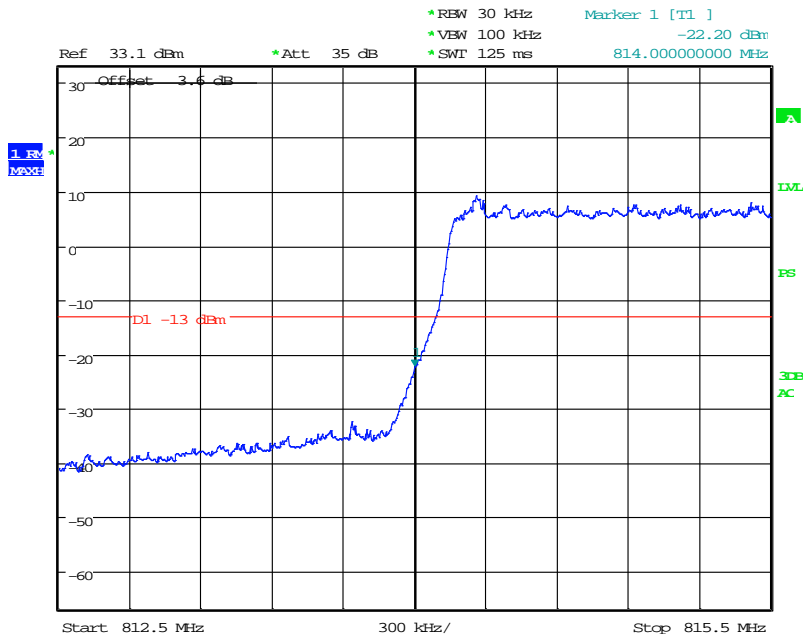
5MHz bandwidth,QPSK,(1,0) Mode , below 814MHz

Date: 25.JUN.2015 13:42:19

Date: 9.JUL.2015 16:15:05

5MHz bandwidth,QPSK,(25,0) Mode , below 814MHz


```
                                    *RBW 50 kHz      Marker 1 [T1 ]
                                    *VBW 200 kHz              -26.32 dBm
Ref  33.1 dBm        *Att  35 dB    *SWT 125 ms       814.000000000 MHz
  Offset  3.6 dB
```

Start 811.5 MHz   500 kHz/   Stop 816.5 MHz

Date: 25.JUN.2015 13:43:02


```
                                    *RBW 30 kHz      Marker 1 [T1 ]
                                    *VBW 100 kHz              -32.86 dBm
Ref  33.6 dBm        *Att  35 dB    *SWT 125 ms       813.745192308 MHz
  Offset  3.6 dB                                     Marker 2 [T1 ]
                                                             -32.36 dBm
                                                      813.945512821 MHz
                                                     Marker 3 [T1 ]
                                                             -28.76 dBm
                                                      814.000000000 MHz
Bandedge
```

Center 814 MHz   100 kHz/   Span 1 MHz
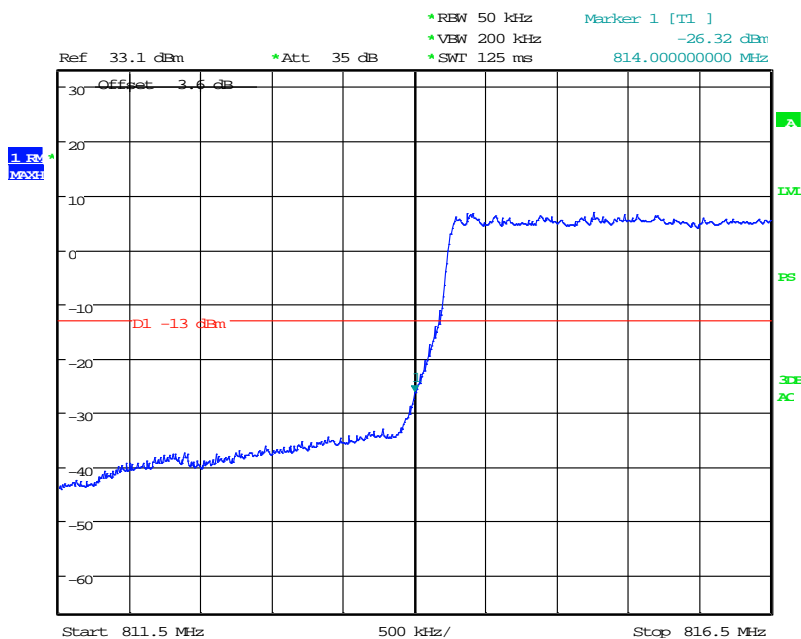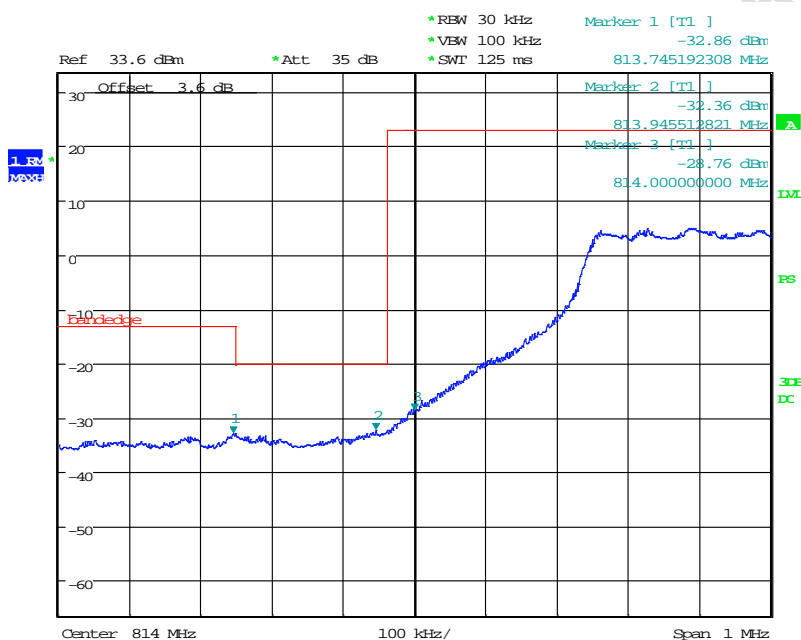
Date: 9.JUL.2015 16:14:24

5MHz bandwidth, QPSK,(1,25) Mode, Above 849MHz
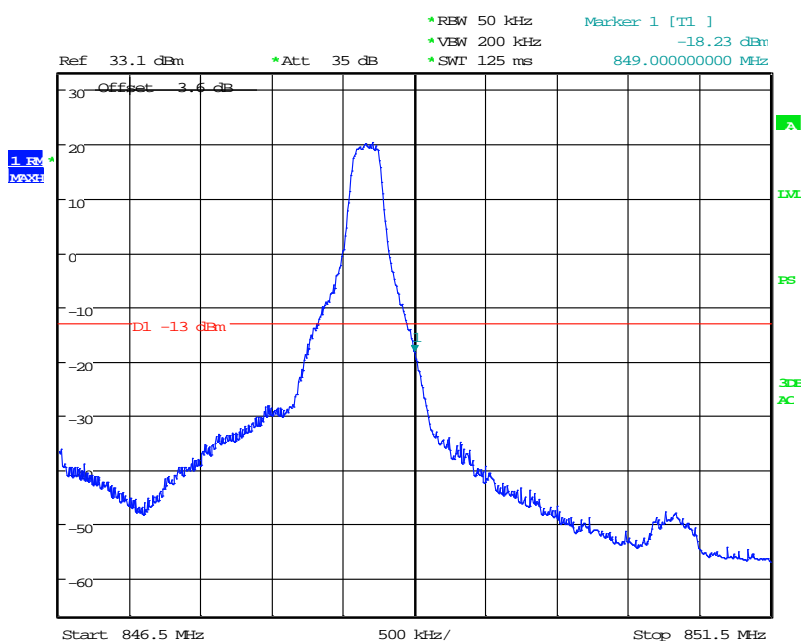
Date: 25.JUN.2015 13:47:17

5MHz bandwidth, QPSK,(25,0) Mode, Above 849MHz

Date: 25.JUN.2015 13:47:47

5MHz bandwidth, 16QAM,(1,0) Mode , below 814MHz
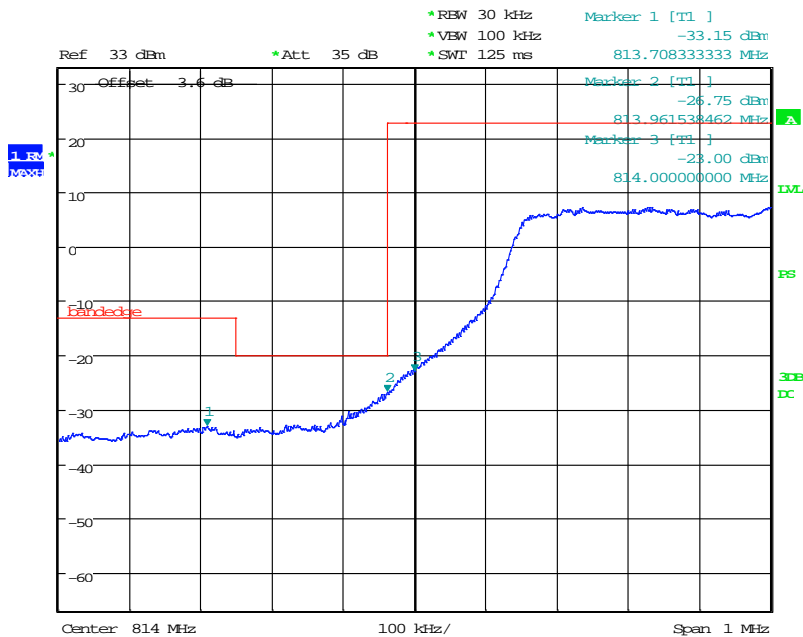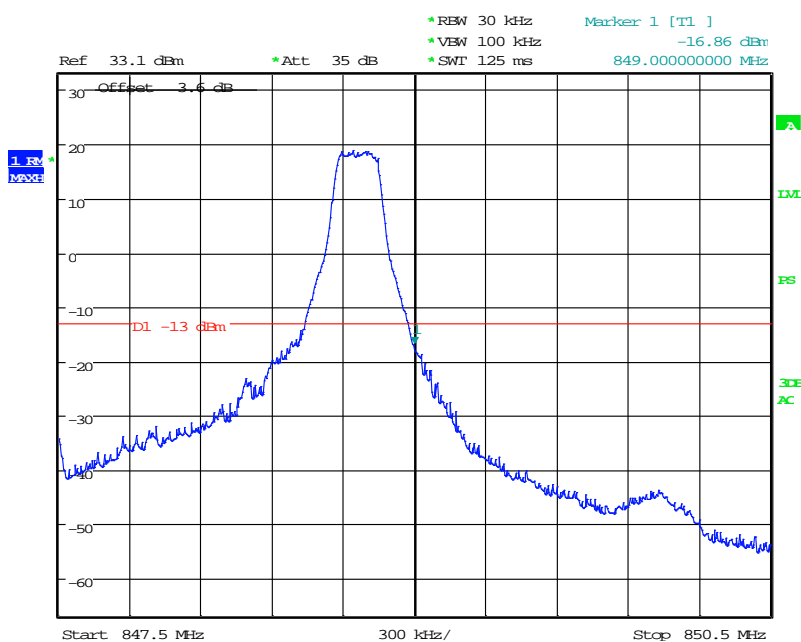

Date: 25.JUN.2015 13:44:24

Date: 9.JUL.2015 16:15:48

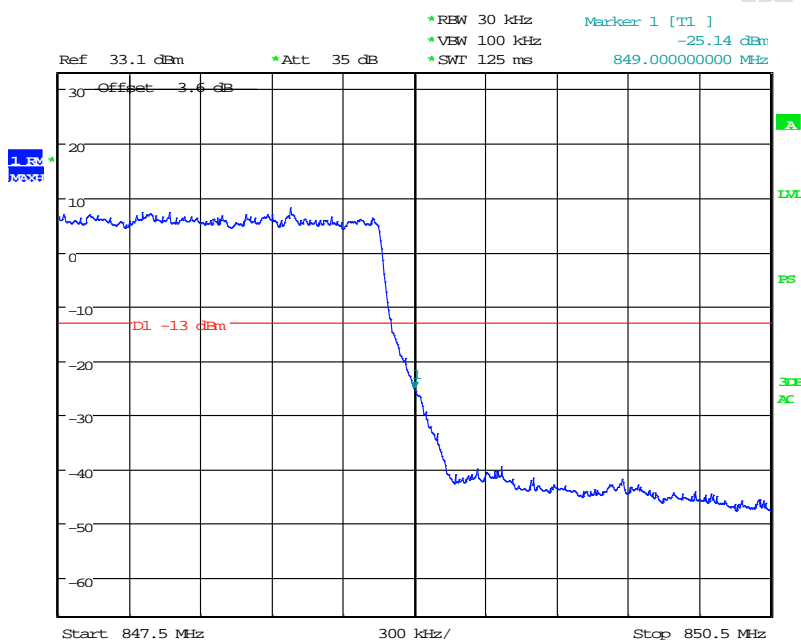## 5MHz bandwidth, 16QAM,(25,0) Mode , below 814MHz

Date: 25.JUN.2015 13:43:50

Date: 9.JUL.2015 16:16:21

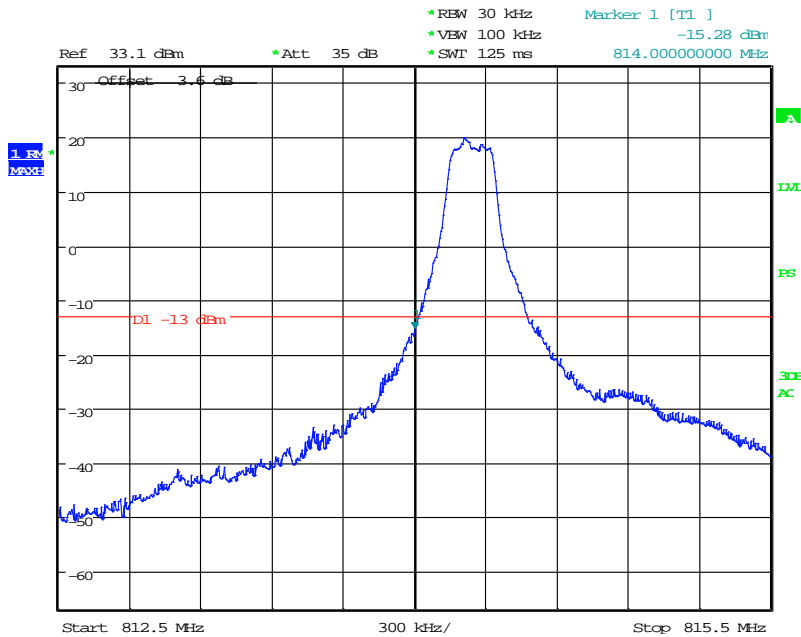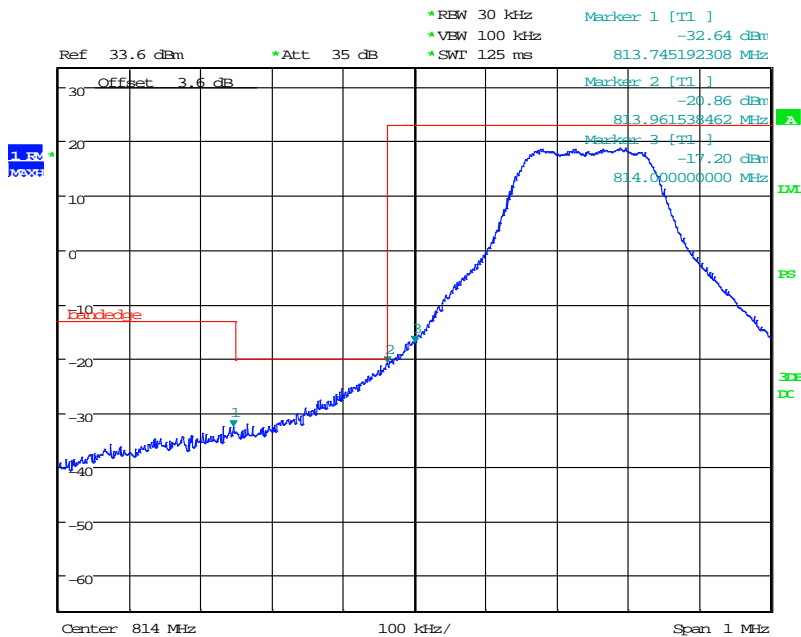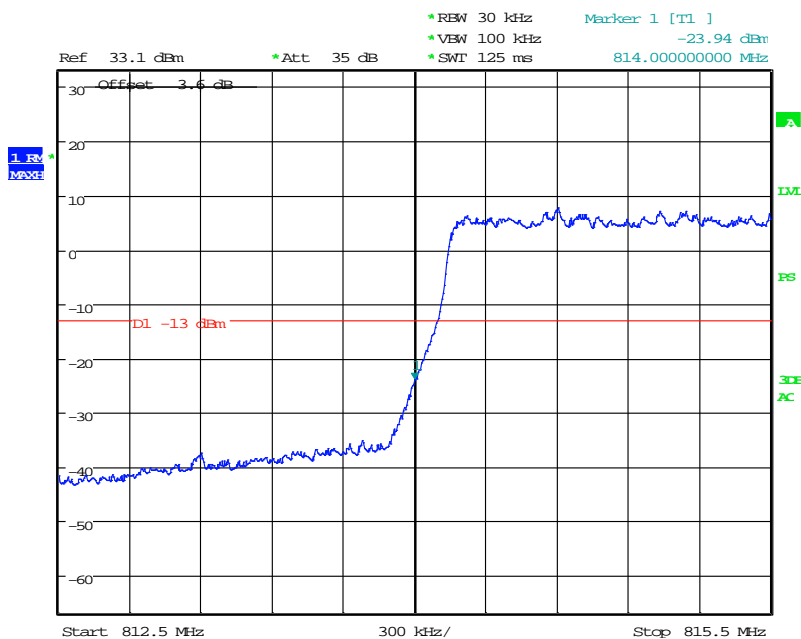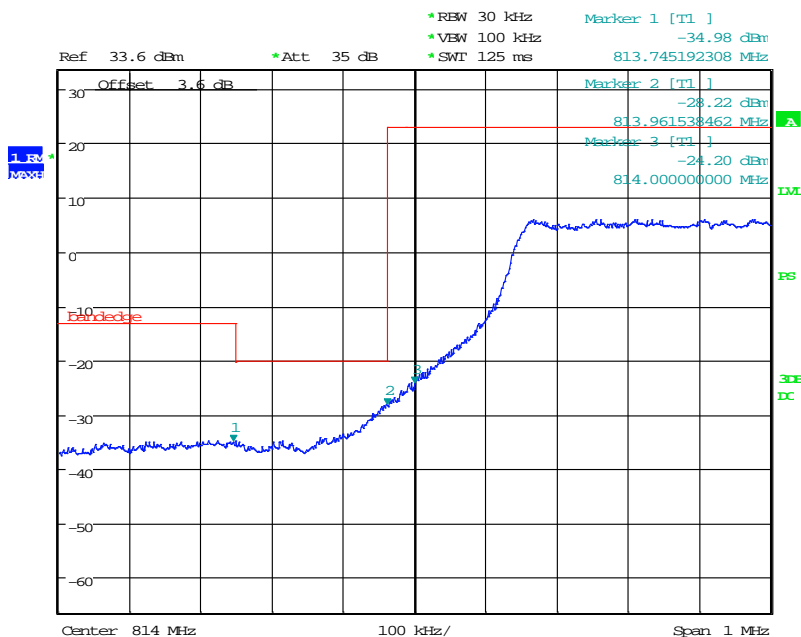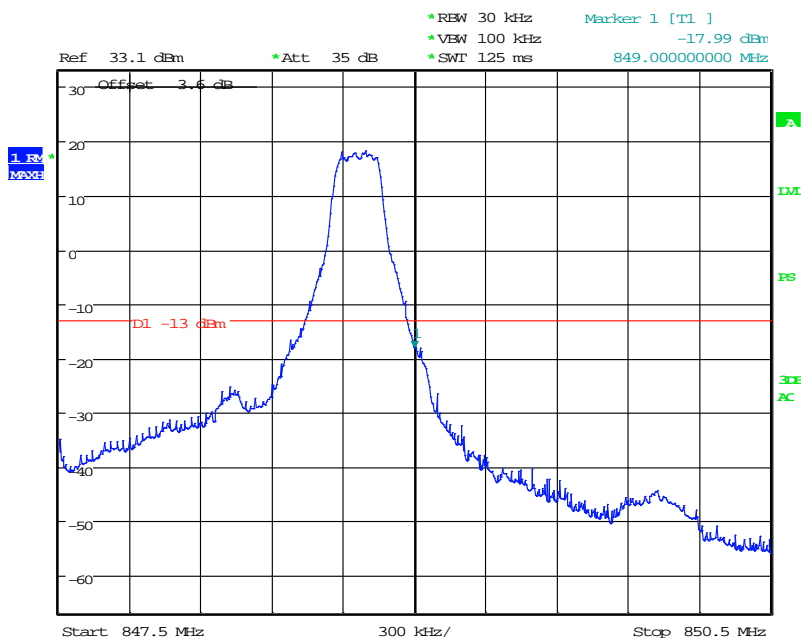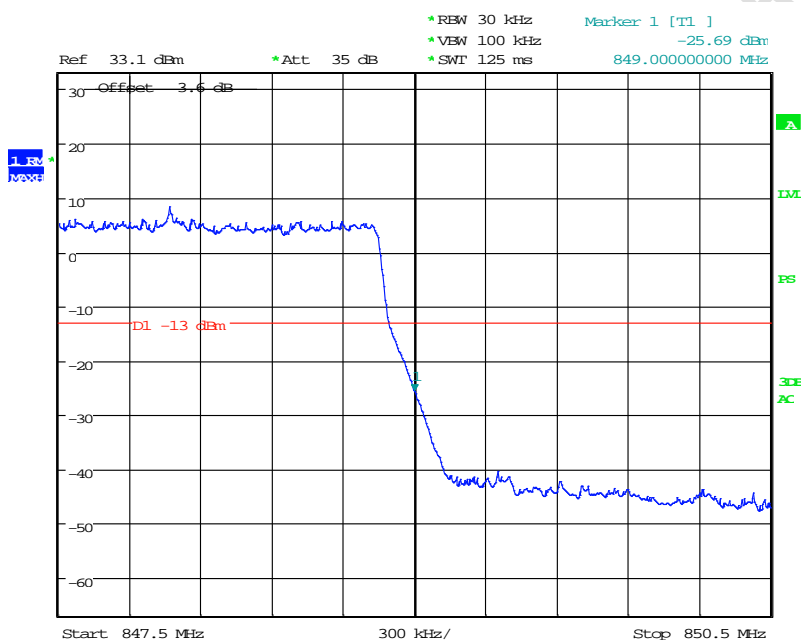## 5MHz bandwidth, 16QAM,(1,25) Mode, Above 849MHz
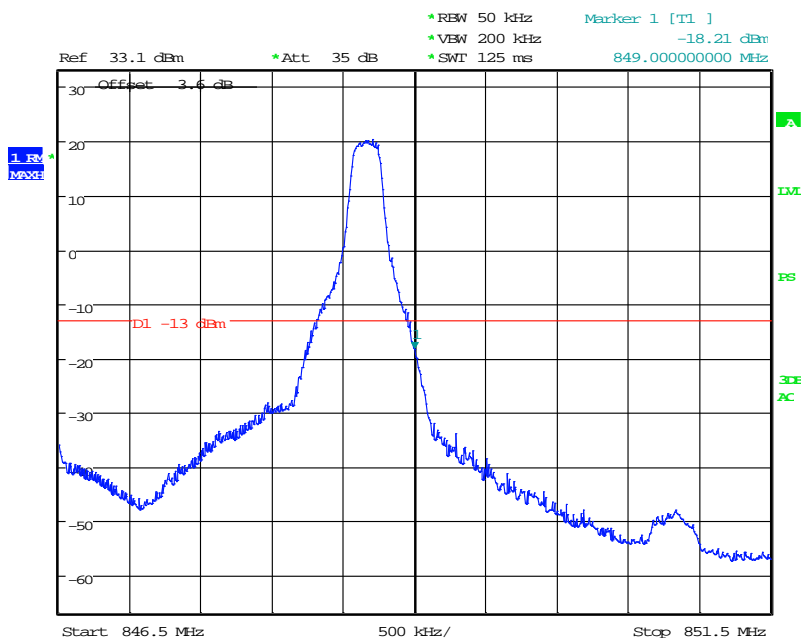
Date: 25.JUN.2015 13:48:44

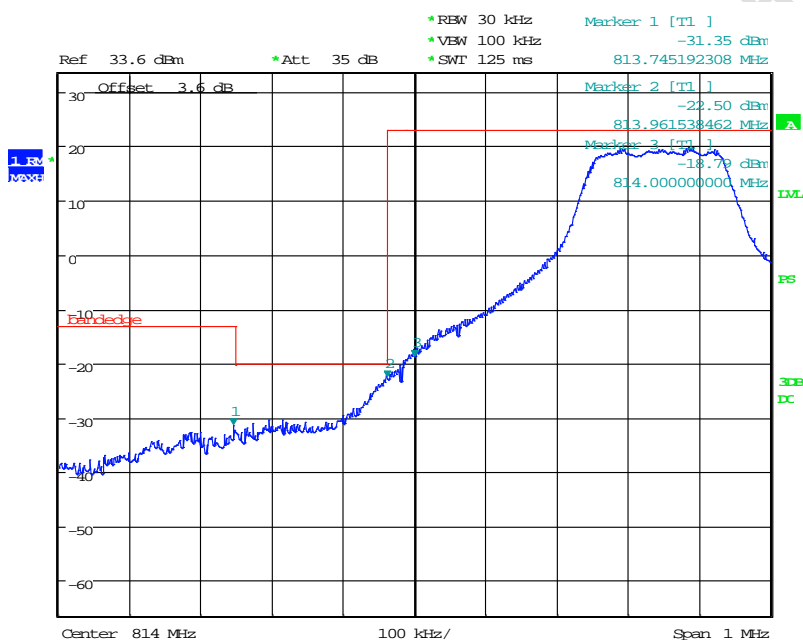## 5MHz bandwidth, 16QAM,(25,0) Mode, Above 849MHz

Date: 25.JUN.2015 13:48:10

10MHz bandwidth,QPSK,(1,0) Mode , below 814MHz

```
                                    *RBW 100 kHz      Marker 1 [T1 ]
                                    *VBW 300 kHz            -28.13 dBm
       Ref  33.1 dBm    *Att  35 dB *SWT 125 ms      814.000000000 MHz
        -30                                                              A
          Offset  3.6 dB
        20
1 RM                                                                    LVL
MAXH
        10

         0                                                             PS

        -10
          D1 -13 dBm
        -20                                                            3DB
                                                                       AC
        -30

        -40

        -50

        -60

       Start  809 MHz          1 MHz/              Stop  819 MHz
```

Date: 25.JUN.2015 13:50:52

```
                                    *RBW 30 kHz       Marker 1 [T1 ]
                                    *VBW 100 kHz            -39.44 dBm
       Ref  33.6 dBm    *Att  35 dB *SWT 125 ms      813.711538462 MHz
        -30                                           Marker 2 [T1 ]
          Offset  3.6 dB                                   -34.10 dBm
        20                                           813.926282051 MHz  A
1 RM                                                 Marker 3 [T1 ]
MAXH                                                       -32.23 dBm
        10                                           814.000000000 MHz
                                                                       LVL
         0

        -10                                                           PS
          Bandedge
        -20
                                                                      3DB
        -30           2   3                                           DC
                    1
        -40

        -50

        -60

       Center  814 MHz         100 kHz/             Span 1 MHz
```

Date: 9.JUL.2015 16:18:41

10MHz bandwidth,QPSK,(50,0) Mode , below 814MHz


```
                              *RBW 100 kHz      Marker 1 [T1 ]
                              *VBW 300 kHz              -31.59 dBm
   Ref   33.1 dBm    *Att  35 dB   *SWT  125 ms    814.000000000 MHz
    30  Offset   3.6 dB                                          A
    20
 1 RM                                                           LVL
 MAXH
    10
     0                                                          PS
   -10
          D1 -13 dBm
   -20                                                          3DB
                                                                AC
   -30
   -40
   -50
   -60
   Start  809 MHz          1 MHz/              Stop  819 MHz
```

Date: 25.JUN.2015 13:51:20


```
                              *RBW 30 kHz       Marker 1 [T1 ]
                              *VBW 100 kHz              -38.63 dBm
   Ref   33.6 dBm    *Att  35 dB   *SWT  125 ms    813.706730769 MHz
    30  Offset   3.6 dB              Marker 2 [T1 ]
                                                       -36.31 dBm
                                                813.921474359 MHz  A
    20                              Marker 3 [T1 ]
 1 RM                                                  -35.77 dBm
 MAXH                                            814.000000000 MHz
    10                                                          LVL
     0                                                          PS
   -10
       Bandedge
   -20                                                          3DB
                                                                DC
   -30
              1          2  3
   -40
   -50
   -60
   Center  814 MHz        100 kHz/            Span  1 MHz
```

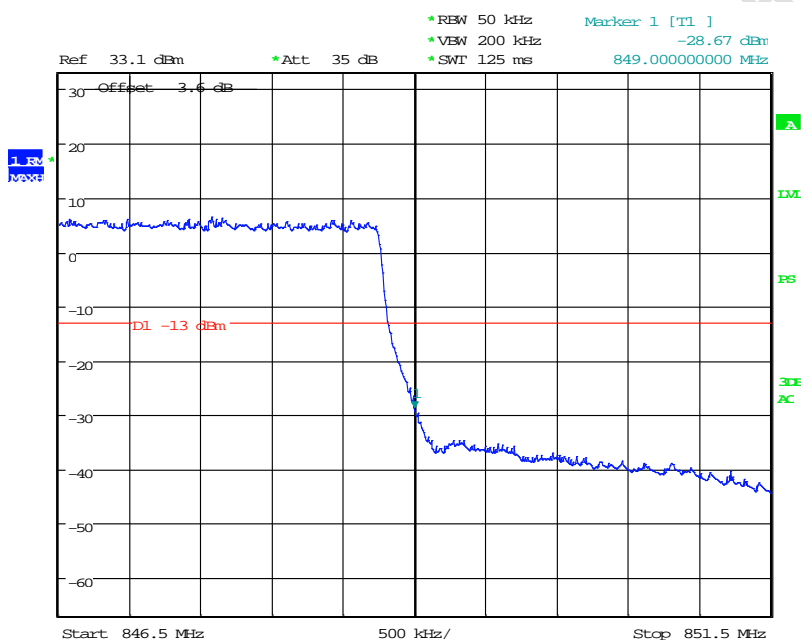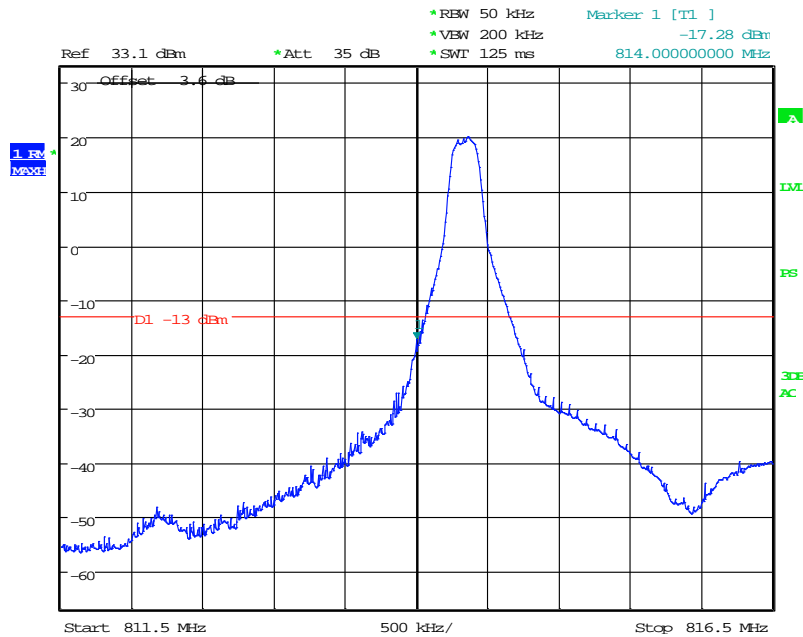Date: 9.JUL.2015 16:19:15

10MHz bandwidth, QPSK,(1,50) Mode, Above 849MHz
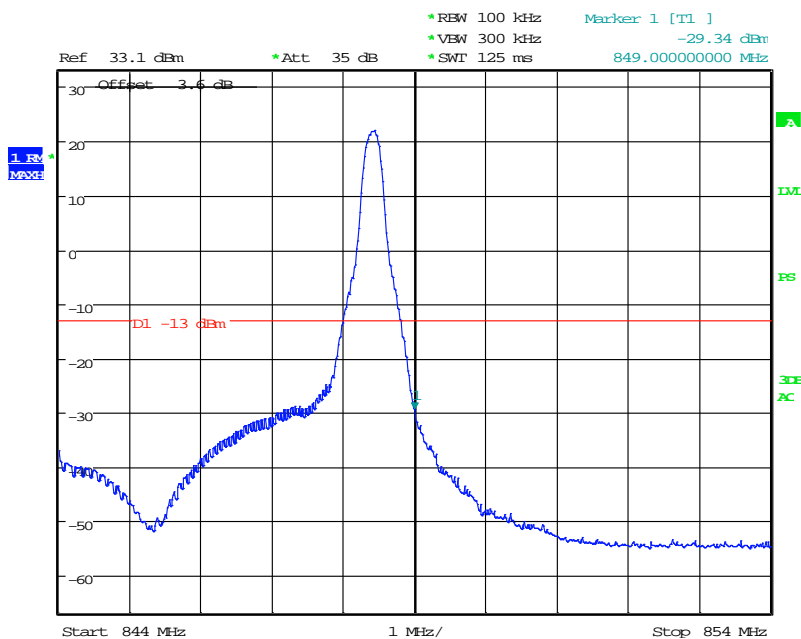
Date: 25.JUN.2015 13:54:22

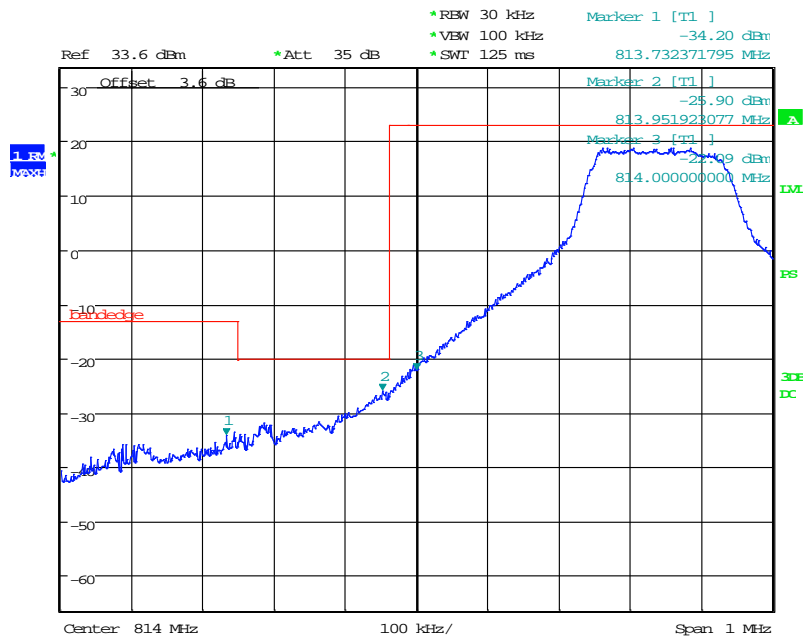## 10MHz bandwidth, QPSK,(50,0) Mode, Above 849MHz
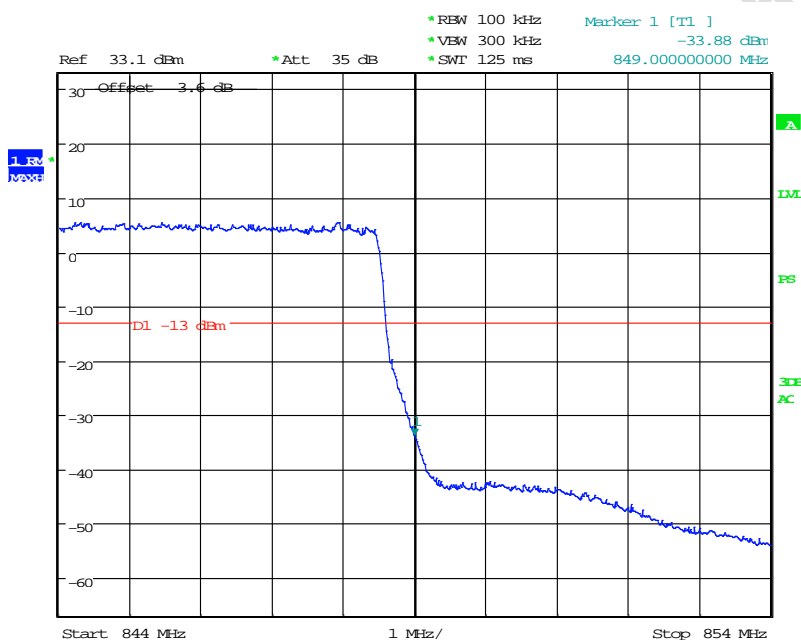
Date: 25.JUN.2015 13:54:43
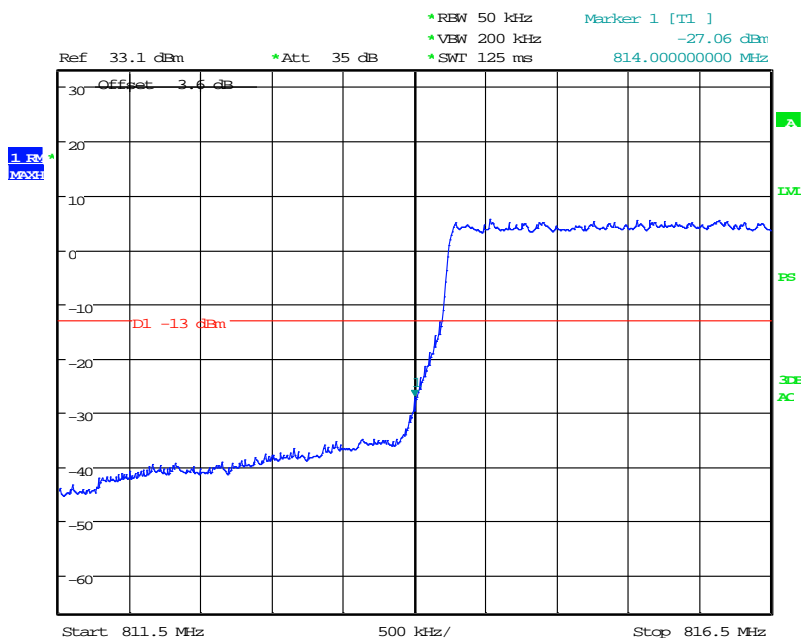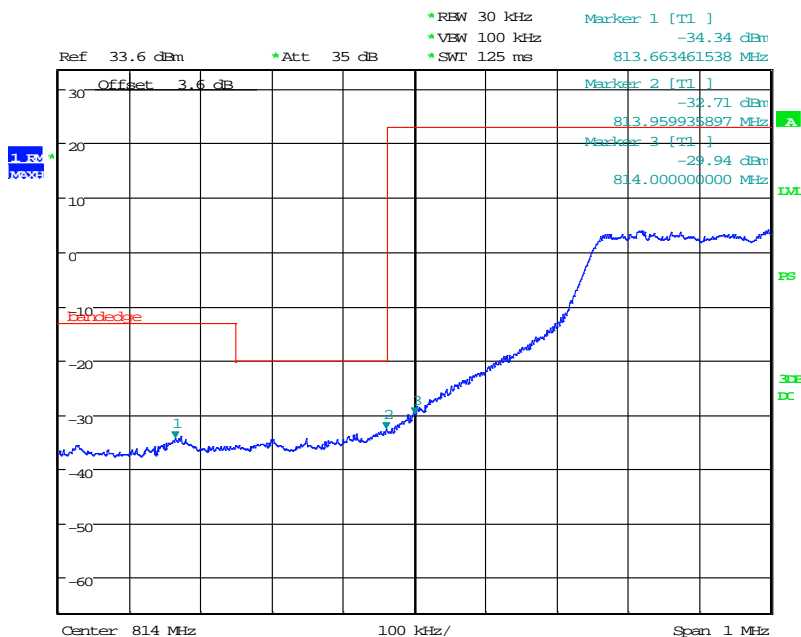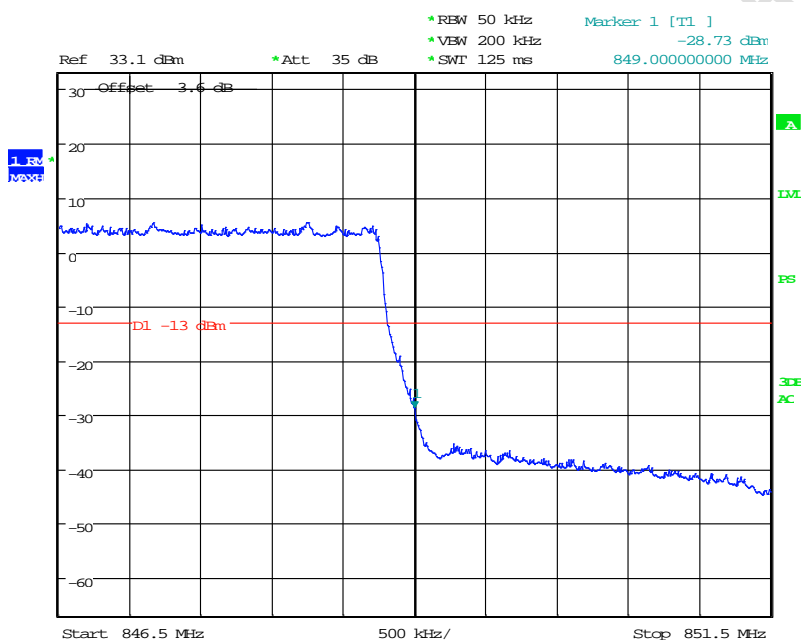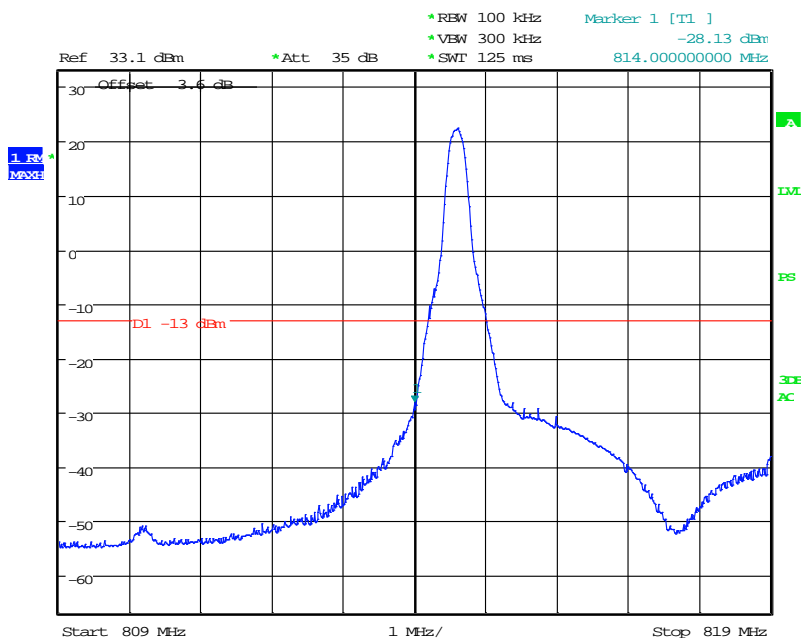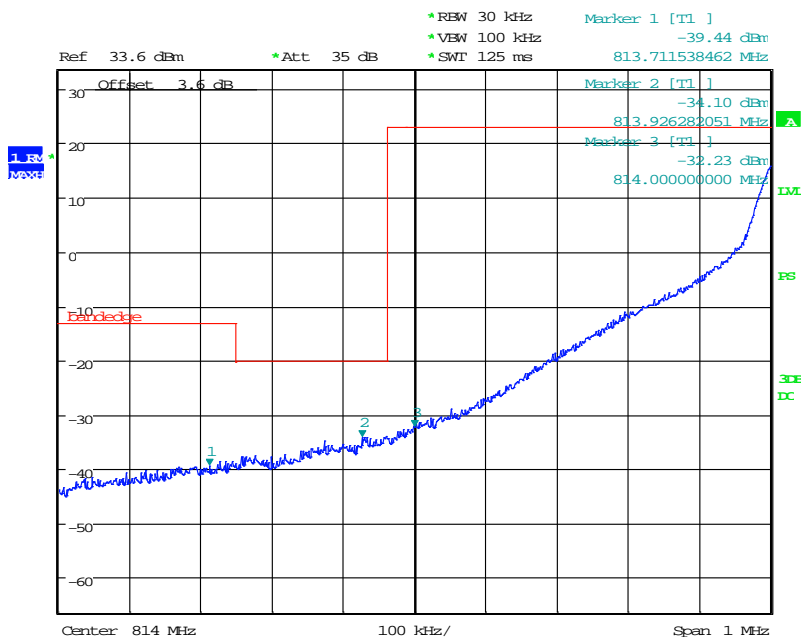
10MHz bandwidth, 16QAM,(1,0) Mode , below 814MHz

```
*RBW 100 kHz        Marker 1 [T1 ]
*VBW 300 kHz              -25.36 dBm
Ref  33.1 dBm      *Att  35 dB   *SWT 125 ms       814.000000000 MHz
  Offset  3.6 dB
```

Start 809 MHz   1 MHz/   Stop 819 MHz

Date: 25.JUN.2015 13:52:33

```
*RBW 30 kHz         Marker 1 [T1 ]
*VBW 100 kHz             -40.54 dBm
Ref  33.6 dBm      *Att  35 dB   *SWT 125 ms       813.677884615 MHz
  Offset  3.6 dB                 Marker 2 [T1 ]
                                      -34.85 dBm
                                 813.956730769 MHz
                                 Marker 3 [T1 ]
                                      -34.81 dBm
                                 814.000000000 MHz
```

Center 814 MHz   100 kHz/   Span 1 MHz
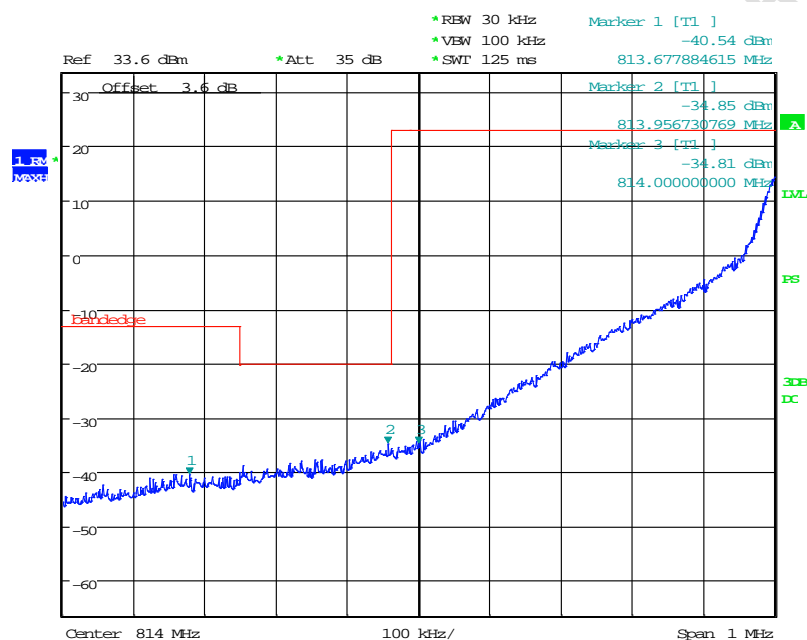
Date: 9.JUL.2015 16:18:04

10MHz bandwidth, 16QAM,(50,0) Mode , below 814MHz

RBW 100 kHz   Marker 1 [T1]
Ref 33.1 dBm   Att 35 dB   VBW 300 kHz   -33.05 dBm
Offset 3.6 dB   SWT 125 ms   814.000000000 MHz

D1 -13 dBm

Start 809 MHz   1 MHz/   Stop 819 MHz

Date: 25.JUN.2015 13:51:52

RBW 30 kHz   Marker 1 [T1]
Ref 33.6 dBm   Att 35 dB   VBW 100 kHz   -37.64 dBm
Offset 3.6 dB   SWT 125 ms   813.716346154 MHz
                                       Marker 2 [T1]
                                                            -37.19 dBm
                                                            813.961538462 MHz
                                       Marker 3 [T1]
                                                            -37.52 dBm
                                                            814.000000000 MHz

Bandedge

Center 814 MHz   100 kHz/   Span 1 MHz
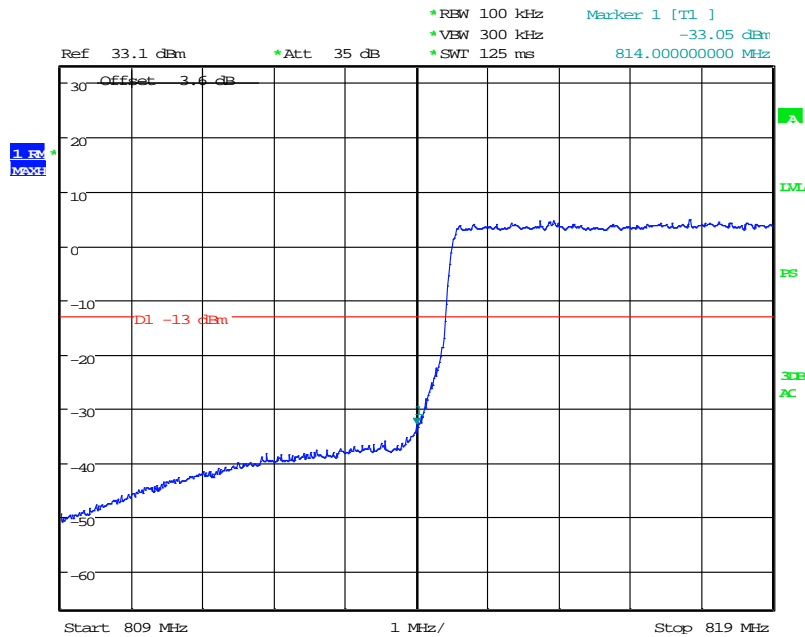
Date: 9.JUL.2015 16:17:27

10MHz bandwidth, 16QAM,(1,50) Mode, Above 849MHz

```
                                    *RBW 100 kHz      Marker 1 [T1 ]
                                    *VBW 300 kHz            -30.66 dBm
    Ref   33.1 dBm    *Att   35 dB  *SWT 125 ms      849.000000000 MHz
 -30  Offset  3.6 dB
                                                                          A
  20
1 RM
MAXH                                                                      LVL
  10

   0                                                                      PS

 -10
     D1 -13 dBm
 -20                                                                      3DB
                                                                          AC
 -30

 -40

 -50

 -60

 Start  844 MHz              1 MHz/                      Stop  854 MHz
```
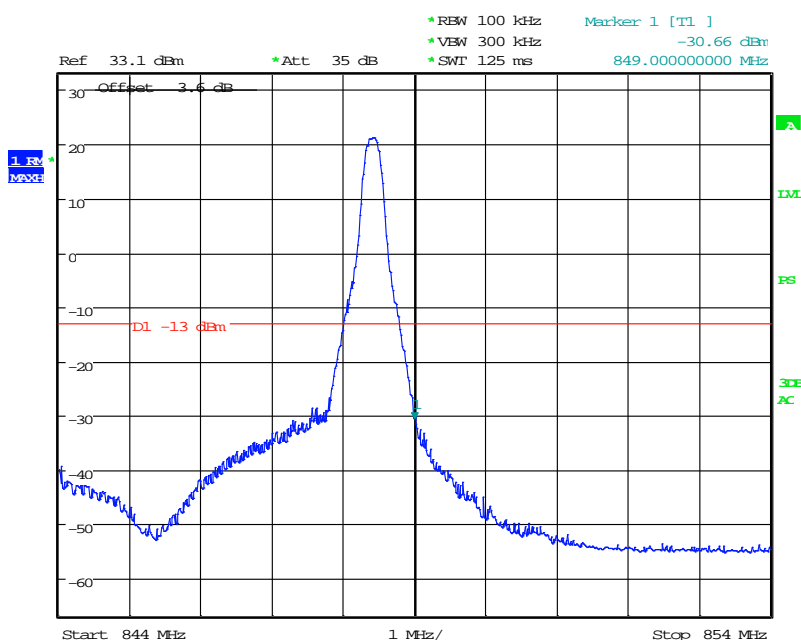
Date: 25.JUN.2015 13:55:59

10MHz bandwidth, 16QAM,(50,0) Mode, Above 849MHz

```
                                    *RBW 100 kHz      Marker 1 [T1 ]
                                    *VBW 300 kHz            -33.08 dBm
    Ref   33.1 dBm    *Att   35 dB  *SWT 125 ms      849.000000000 MHz
 -30  Offset  3.6 dB
                                                                          A
  20
1 RM
MAXH                                                                      LVL
  10

   0                                                                      PS

 -10
     D1 -13 dBm
 -20                                                                      3DB
                                                                          AC
 -30

 -40

 -50

 -60

 Start  844 MHz              1 MHz/                      Stop  854 MHz
```

Date: 25.JUN.2015 13:55:23

中国泰尔实验室 China Telecommunication Technology Labs.

FCC Parts 2, 22, 24,27,90 RSS-Gen, 130, 132,133,139, 199
Equipment: EM7455　　　　　　　　　　**REPORT NO.: B15W50341-FCC-RF_Rev2**

15MHz bandwidth,QPSK,(1,0) Mode , below 814MHz
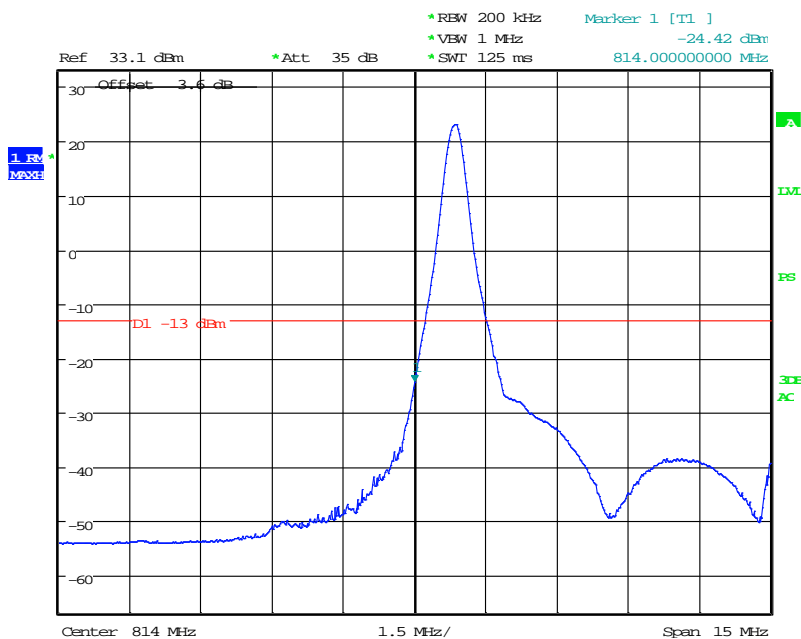
Date: 25.JUN.2015　13:57:47
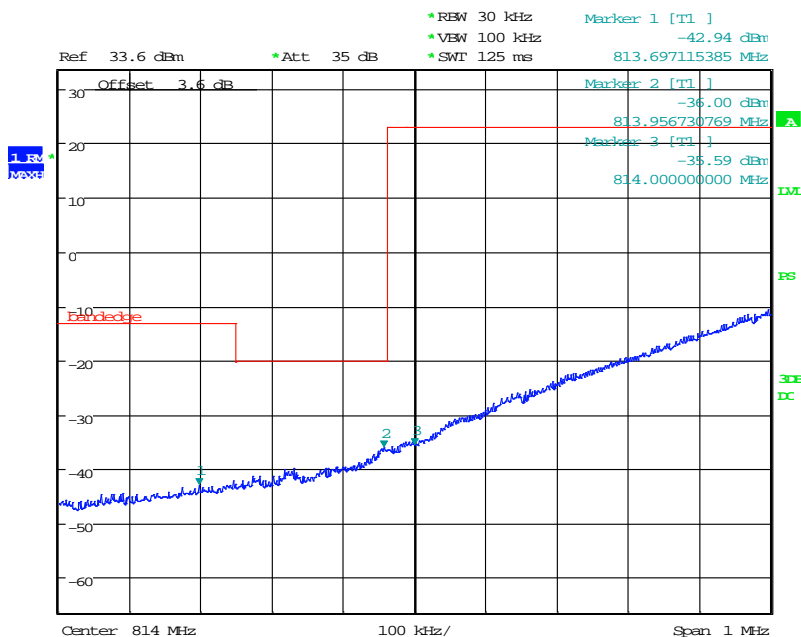
Date: 9.JUL.2015　16:20:40

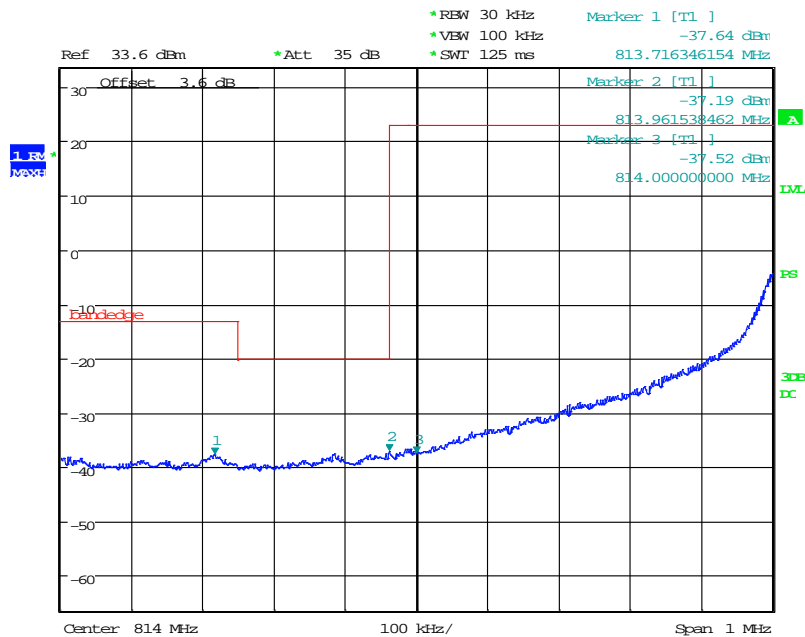## 15MHz bandwidth,QPSK,(75,0) Mode , below 814MHz

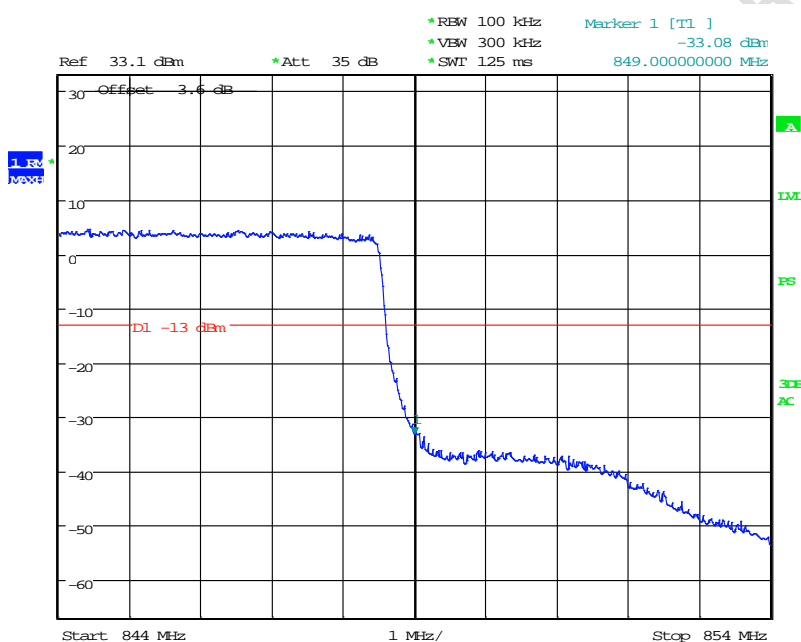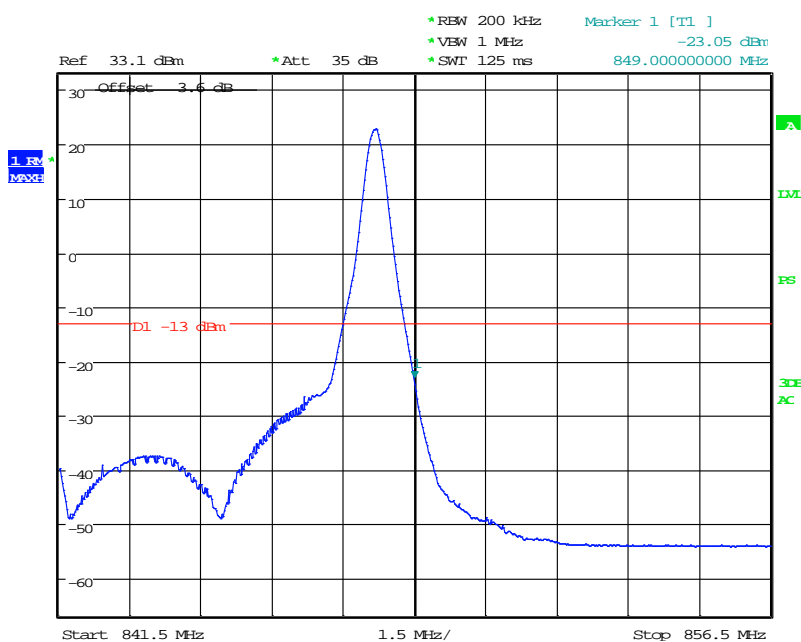Date: 25.JUN.2015 13:58:12

Date: 9.JUL.2015 16:21:24

15MHz bandwidth, QPSK,(1,75) Mode, Above 849MHz


```
RBW 200 kHz        Marker 1 [T1 ]
VBW 1 MHz              -23.05 dBm
Ref  33.1 dBm      Att  35 dB    SWT 125 ms      849.000000000 MHz
```

Date: 25.JUN.2015 14:04:06

15MHz bandwidth, QPSK,(75,0) Mode, Above 849MHz


```
RBW 200 kHz        Marker 1 [T1 ]
VBW 1 MHz              -28.69 dBm
Ref  33.1 dBm      Att  35 dB    SWT 125 ms      849.000000000 MHz
```
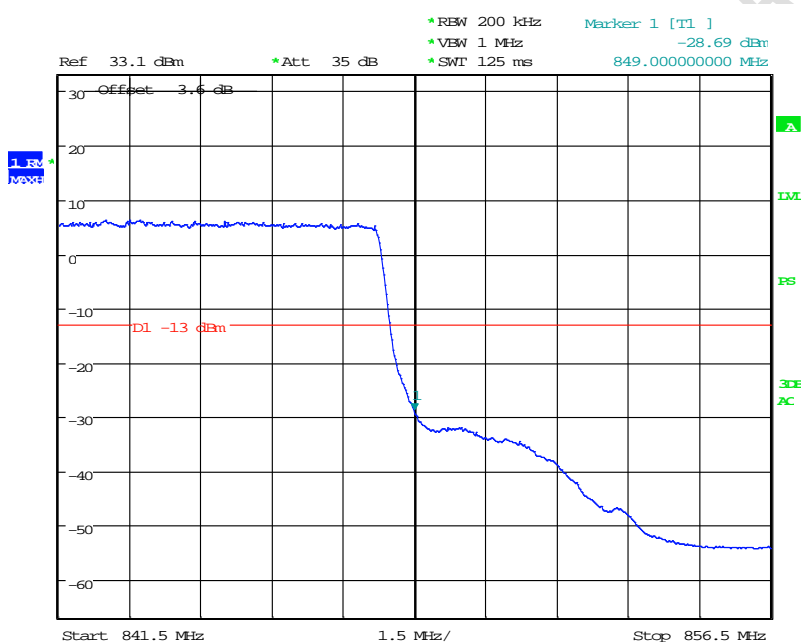
Date: 25.JUN.2015 14:04:23

15MHz bandwidth, 16QAM,(1,0) Mode , below 814MHz


```
                                    ★RBW  200 kHz      Marker 1 [T1 ]
                                    ★VBW  1 MHz               -24.10 dBm
Ref   33.1 dBm        ★Att  35 dB   ★SWT  125 ms      814.000000000 MHz
     Offset  3.6 dB
 -30                                                                    A
 -20
 -10                                                                    LVL
   0
 -10                                                                    PS
      D1 -13 dBm
 -20                                                                    3DB
 -30                                                                    AC
 -40
 -50
 -60
Center  814 MHz            1.5 MHz/              Span  15 MHz
```
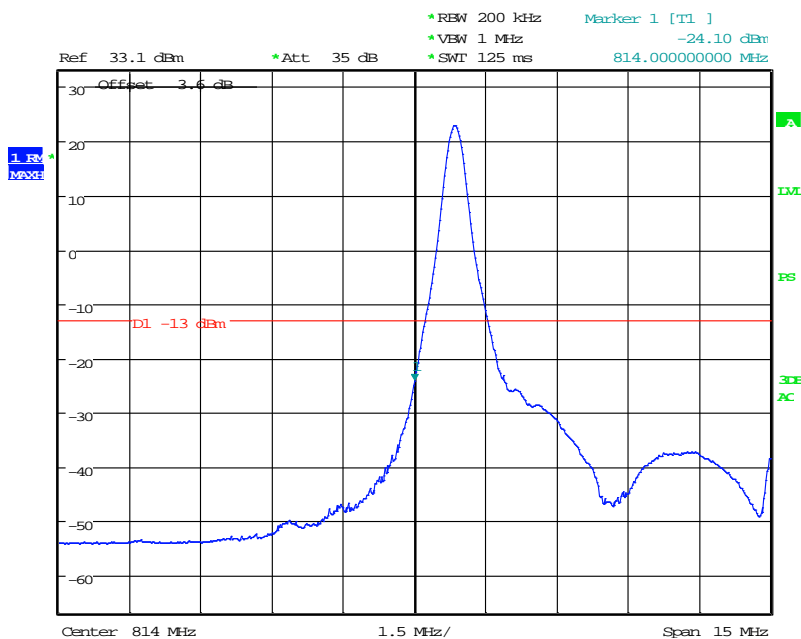
Date: 25.JUN.2015 13:59:15


```
                                    ★RBW  30 kHz       Marker 1 [T1 ]
                                    ★VBW  100 kHz             -44.17 dBm
Ref   33.6 dBm        ★Att  35 dB   ★SWT  125 ms      813.576923077 MHz
     Offset  3.6 dB                                    Marker 2 [T1 ]
 -30                                                         -37.84 dBm
 -20                                                   813.932692308 MHz  A
 -10                                                   Marker 3 [T1 ]
   0                                                         -35.07 dBm
 -10                                                   814.000000000 MHz  LVL
      Band edge
 -20                                                                    PS
 -30
 -40                                                                    3DB
 -50                                                                    DC
 -60
Center  814 MHz            100 kHz/              Span  1 MHz
```

Date: 9.JUL.2015 16:23:07

15MHz bandwidth, 16QAM,(75,0) Mode , below 814MHz

```
                                    *RBW 200 kHz      Marker 1 [T1 ]
                                    *VBW 1 MHz              -32.88 dBm
      Ref  33.1 dBm    *Att  35 dB  *SWT 125 ms       814.000000000 MHz
```

(Spectrum plot: Center 814 MHz, 1.5 MHz/, Span 15 MHz; Offset 3.6 dB; D1 -13 dBm)

Date: 25.JUN.2015 13:58:32

```
                                    *RBW 30 kHz       Marker 1 [T1 ]
                                    *VBW 100 kHz            -42.56 dBm
      Ref  33.6 dBm    *Att  35 dB  *SWT 125 ms       813.615384615 MHz
                                                      Marker 2 [T1 ]
                                                            -40.71 dBm
                                                      813.889423077 MHz
                                                      Marker 3 [T1 ]
                                                            -40.31 dBm
                                                      814.000000000 MHz
```

(Spectrum plot: Center 814 MHz, 100 kHz/, Span 1 MHz; Offset 3.6 dB; Bandedge)
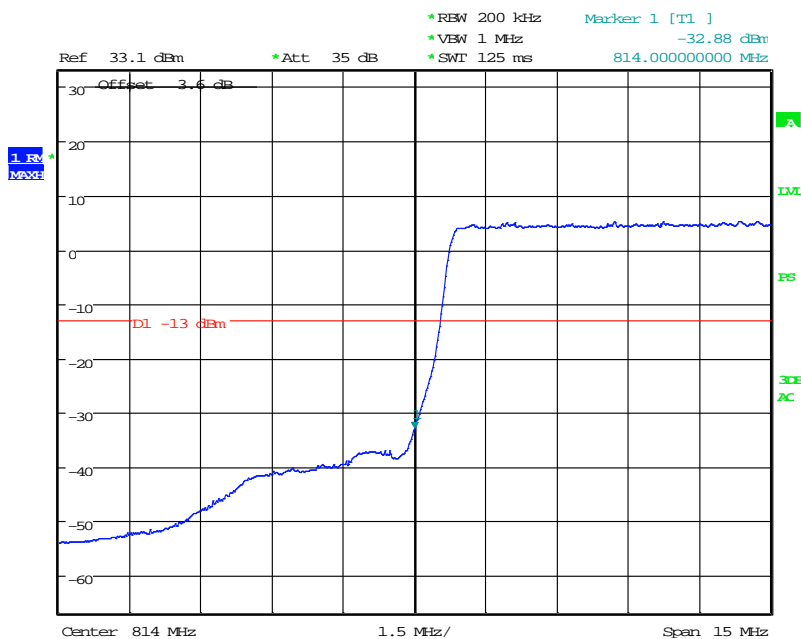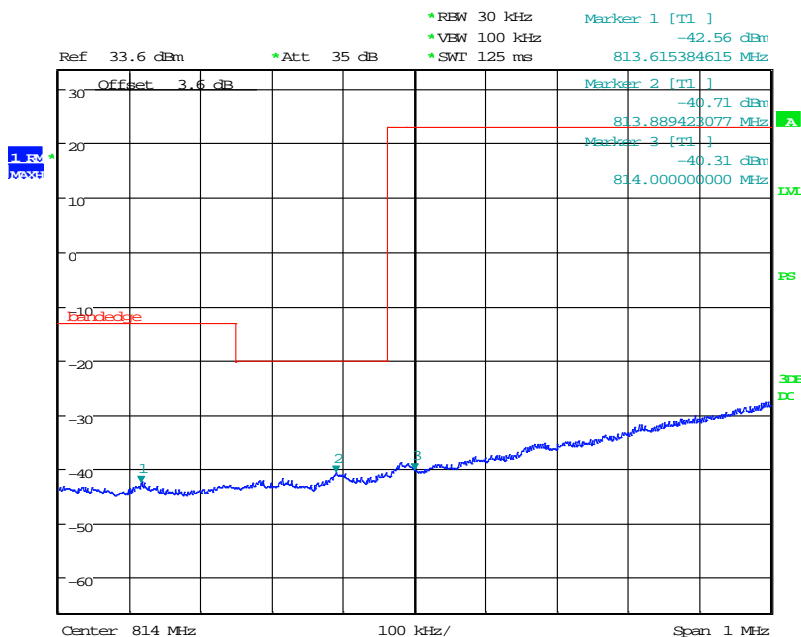
Date: 9.JUL.2015 16:22:24

15MHz bandwidth, 16QAM,(1,75) Mode, Above 849MHz
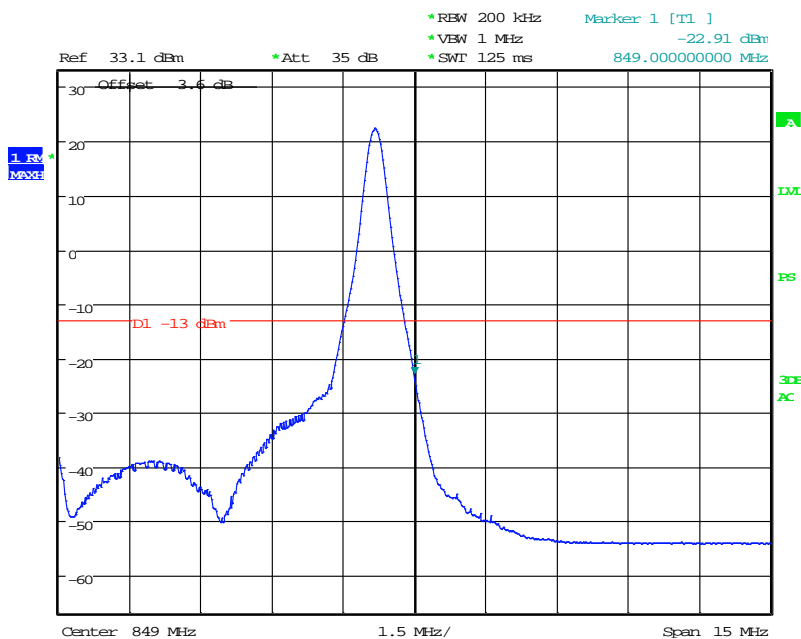
Date: 25.JUN.2015 14:00:29

15MHz bandwidth, 16QAM,(75,0) Mode, Above 849MHz
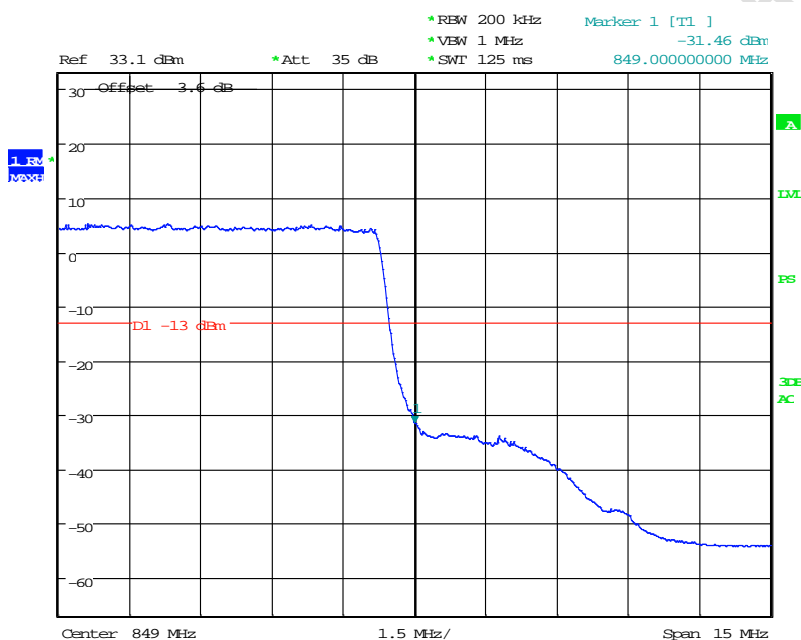
Date: 25.JUN.2015 14:00:49

4.5.7 LTE B30 Band Edge Results

Graphical results：
5MHz bandwidth, QPSK,(1,0) Mode , below 2305MHz
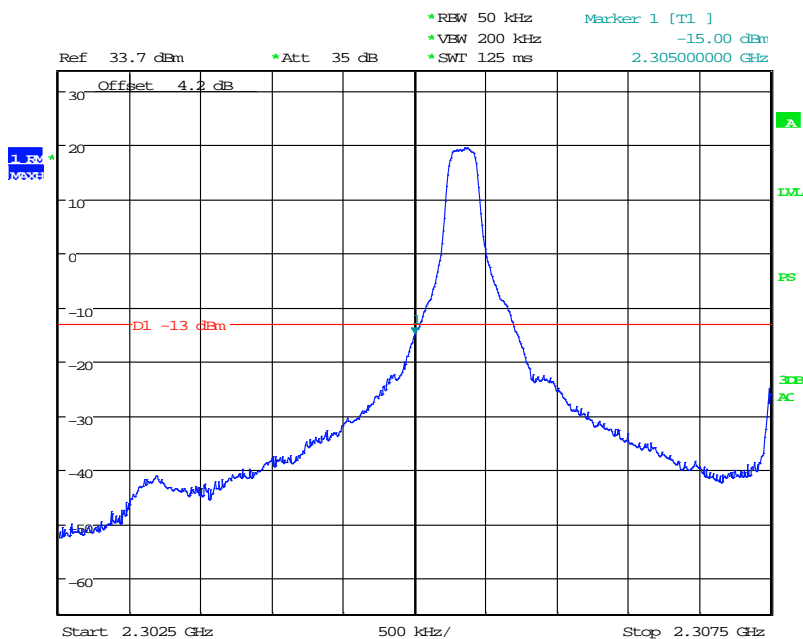
Date: 25.JUN.2015 14:08:58

5MHz bandwidth, QPSK,(25,0) Mode , below 2305MHz
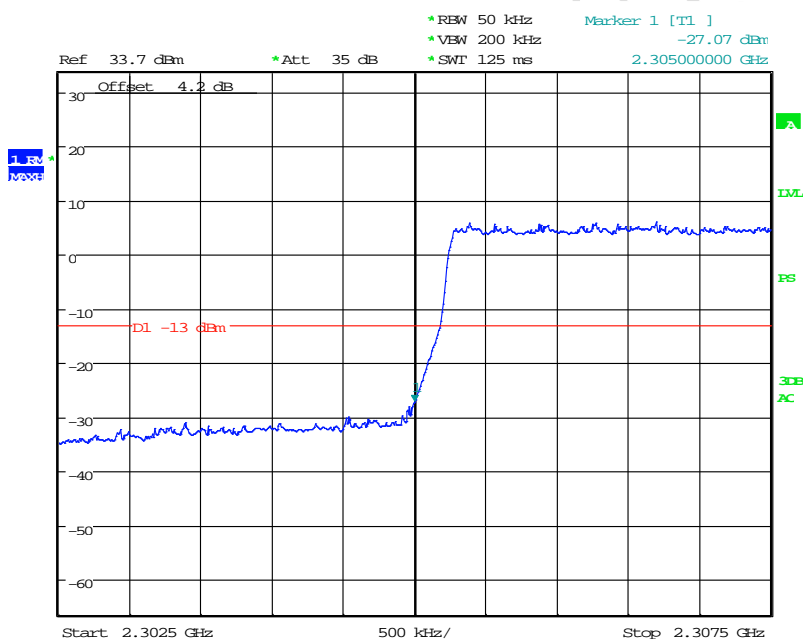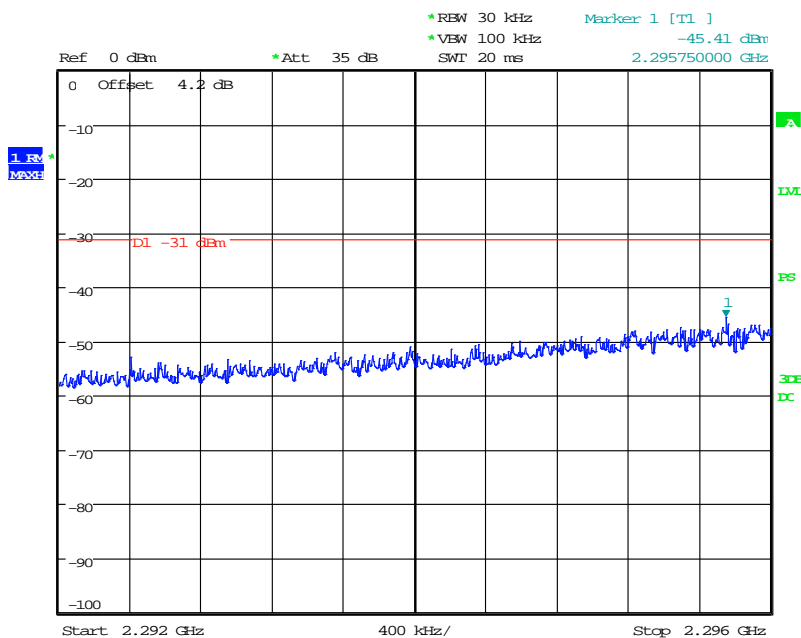

Date: 25.JUN.2015 14:09:26
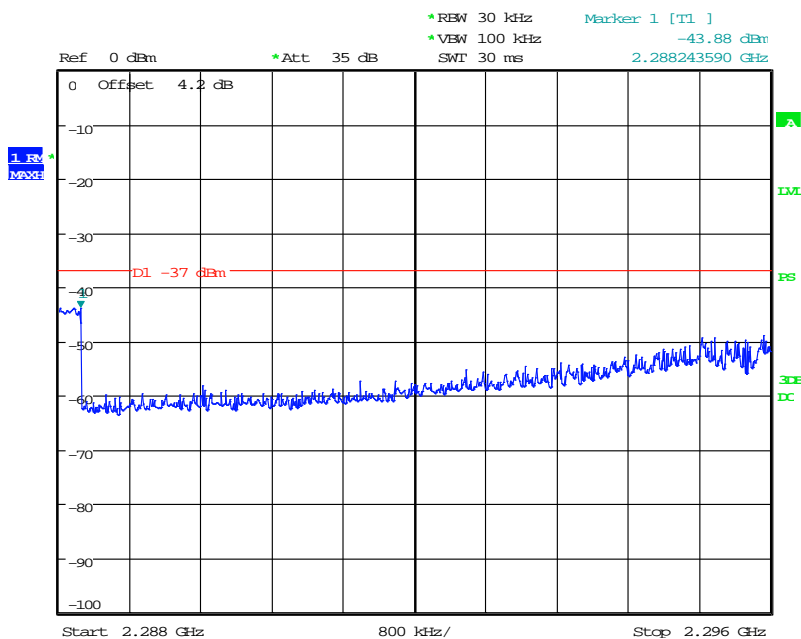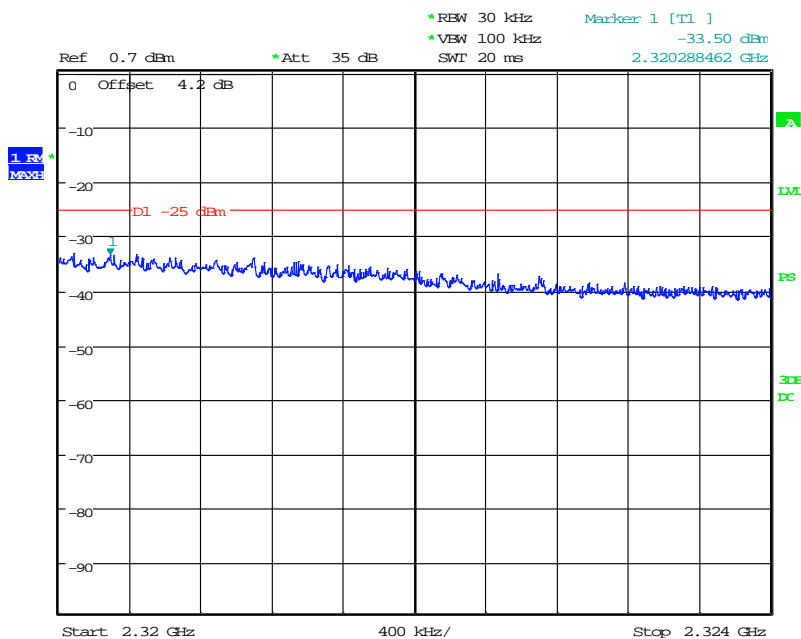
5MHz bandwidth, QPSK, 2296MHz-2300MHz, below 2305MHz
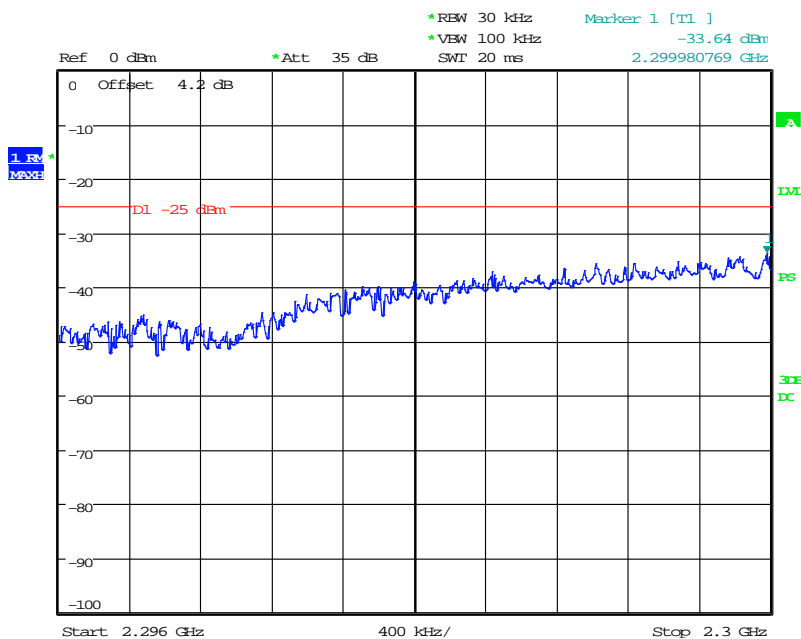
Date: 1.JUL.2015 15:35:47

5MHz bandwidth, QPSK, 2292MHz-2296MHz, below 2305MHz

Date: 1.JUL.2015 15:39:07

5MHz bandwidth, QPSK, 2288MHz-2292MHz, below 2305MHz

Date: 1.JUL.2015 15:41:03

5MHz bandwidth, QPSK, 30MHz-2288MHz, below 2305MHz
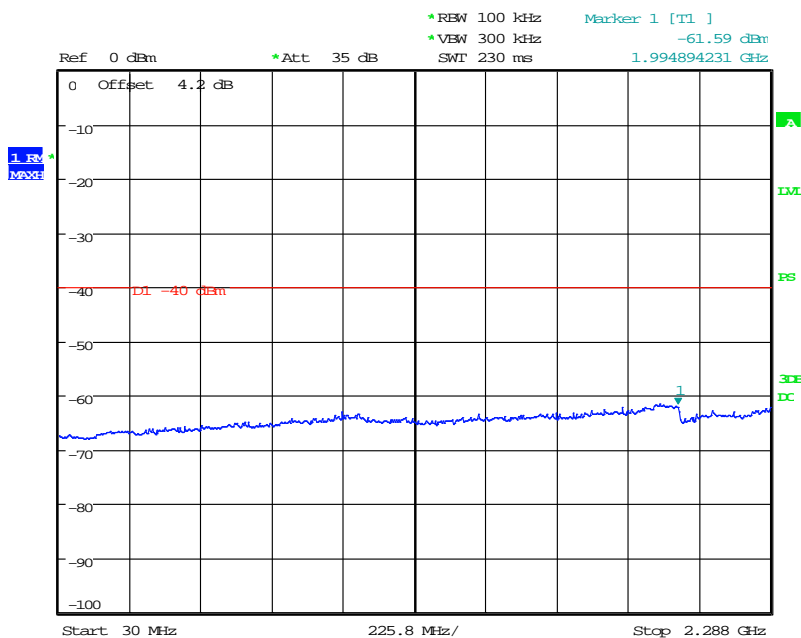
Date: 1.JUL.2015 15:46:54

5MHz bandwidth, QPSK,(1,25) Mode, Above 2315MHz
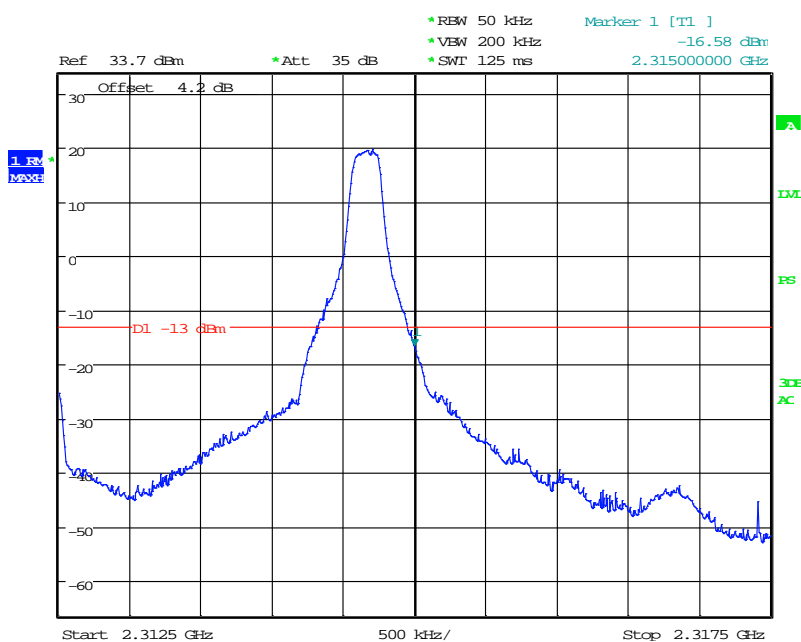
Date: 25.JUN.2015 14:11:32
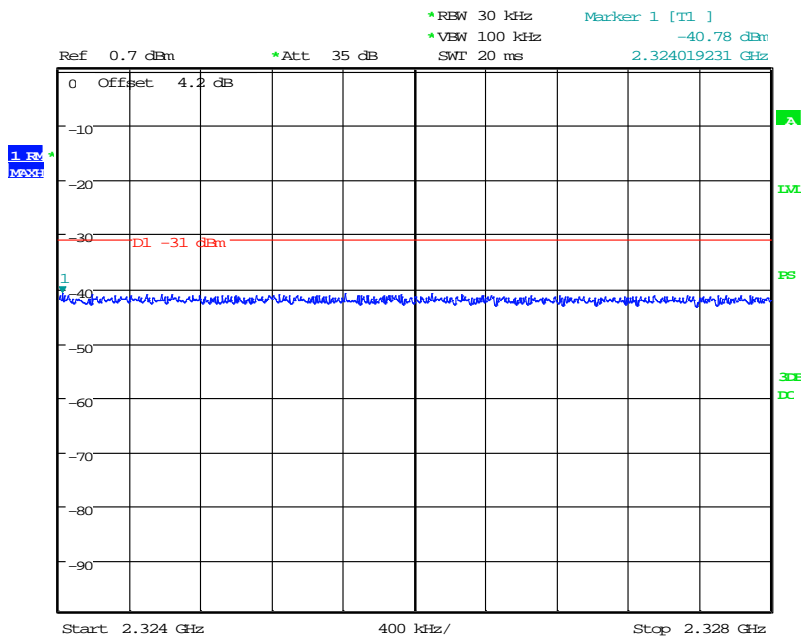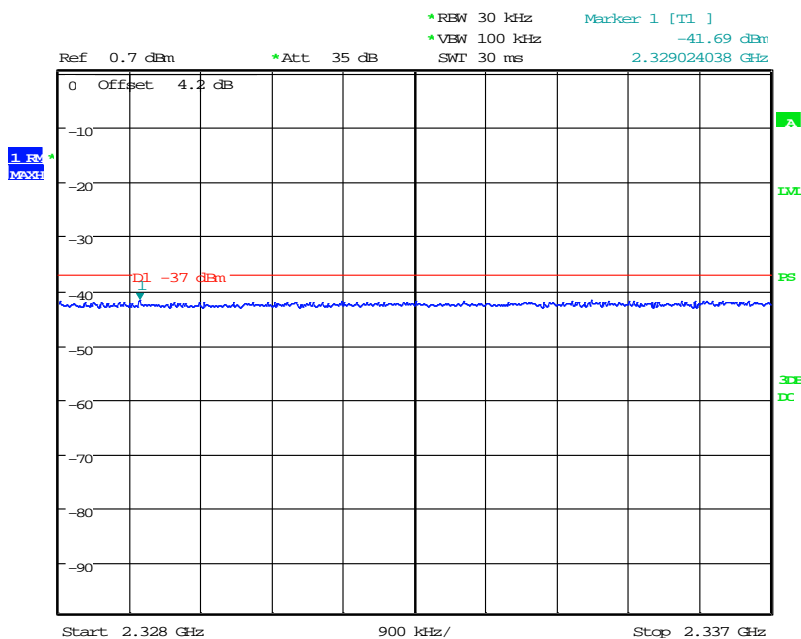
5MHz bandwidth, QPSK,(25,0) Mode, Above 2315MHz
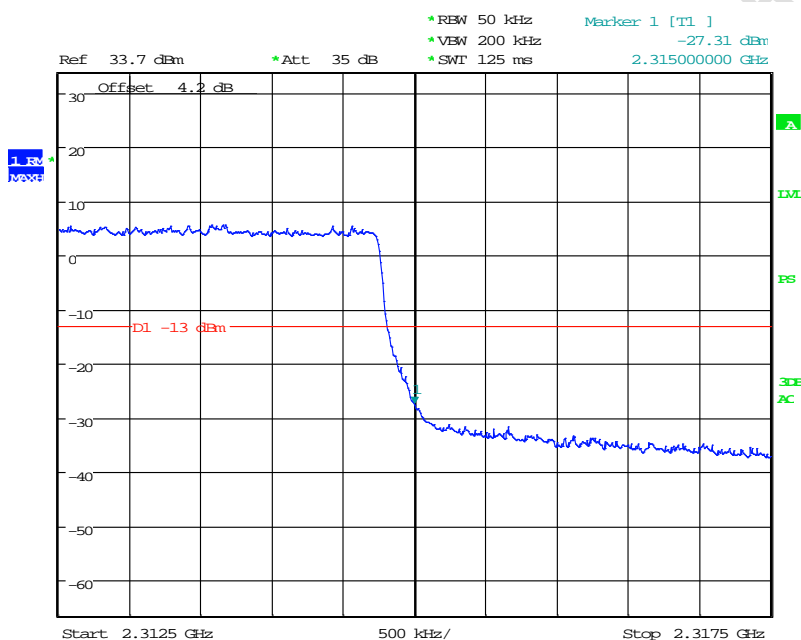
Date: 25.JUN.2015 14:12:02

中国泰尔实验室 China Telecommunication Technology Labs.

FCC Parts 2, 22, 24,27,90 RSS-Gen, 130, 132,133,139, 199
Equipment: EM7455   **REPORT NO.: B15W50341-FCC-RF_Rev2**

5MHz bandwidth, QPSK, 2320MHz-2324MHz, Above 2315MHz


```
                                    *RBW 30 kHz       Marker 1 [T1 ]
                                    *VBW 100 kHz              -33.50 dBm
  Ref  0.7 dBm        *Att  35 dB   SWT  20 ms        2.320288462 GHz
  0  Offset  4.2 dB                                                        A
 -10
 -20                                                                      LVL
      D1 -25 dBm
 -30
 -40                                                                      PS
 -50
 -60                                                                      3DB
 -70                                                                      DC
 -80
 -90
  Start 2.32 GHz          400 kHz/              Stop 2.324 GHz
```

Date: 1.JUL.2015 15:18:07

5MHz bandwidth, QPSK, 2324MHz-2328MHz, Above 2315MHz


```
                                    *RBW 30 kHz       Marker 1 [T1 ]
                                    *VBW 100 kHz              -40.78 dBm
  Ref  0.7 dBm        *Att  35 dB   SWT  20 ms        2.324019231 GHz
  0  Offset  4.2 dB                                                        A
 -10
 -20                                                                      LVL
 -30
      D1 -31 dBm
 -40                                                                      PS
 -50
 -60                                                                      3DB
 -70                                                                      DC
 -80
 -90
  Start 2.324 GHz         400 kHz/              Stop 2.328 GHz
```

Date: 1.JUL.2015 15:24:05

中国泰爾實驗室 China Telecommunication Technology Labs.

FCC Parts 2, 22, 24,27,90 RSS-Gen, 130, 132,133,139, 199
Equipment: EM7455   **REPORT NO.: B15W50341-FCC-RF_Rev2**

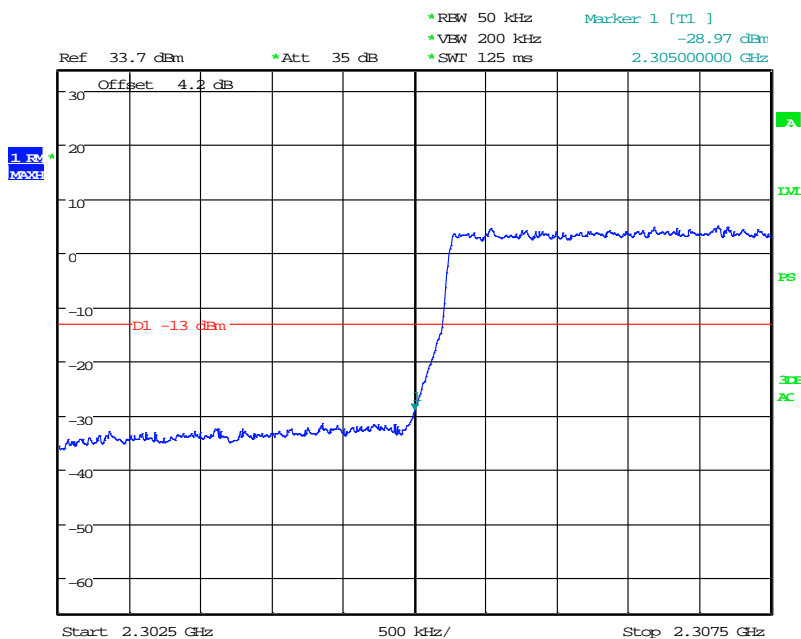## 5MHz bandwidth, QPSK, 2328MHz-2337MHz, Above 2315MHz

Date: 1.JUL.2015 15:25:45
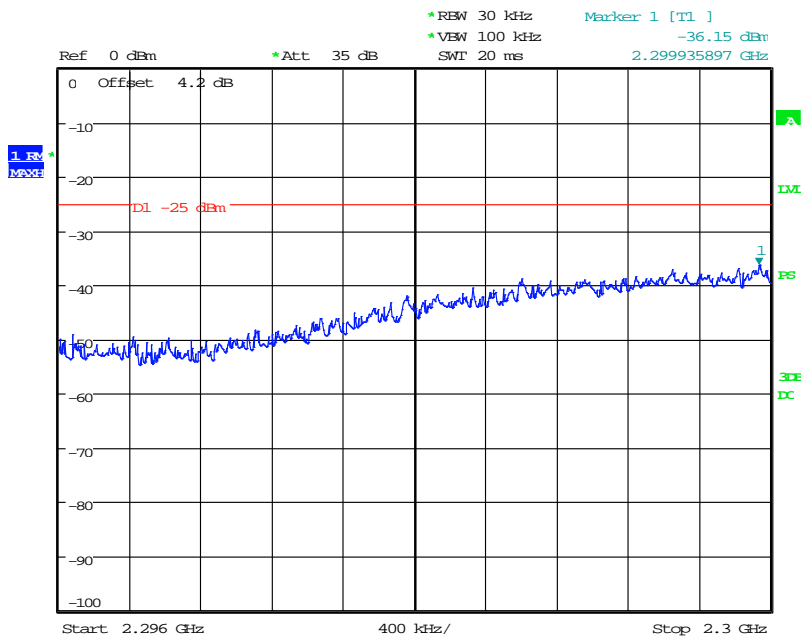
5MHz bandwidth, 16QAM,(1,0) Mode , below 2305MHz
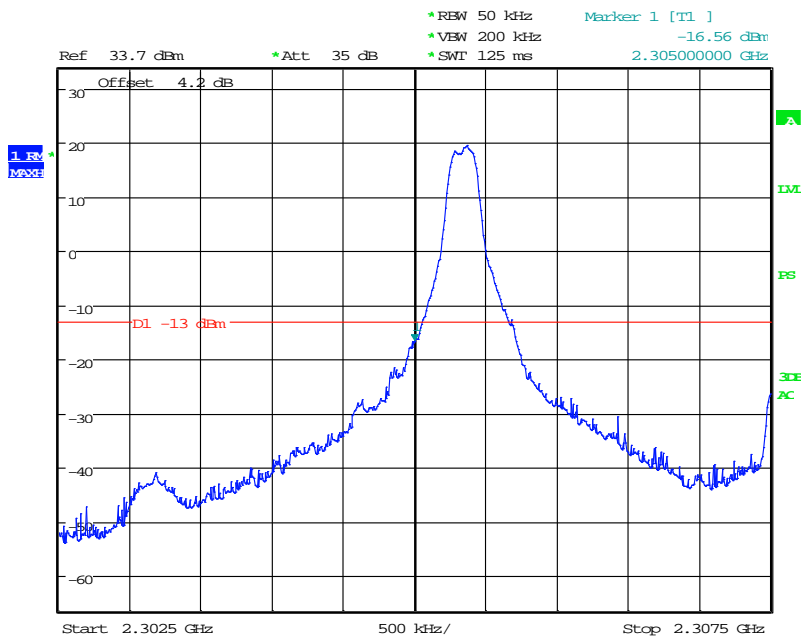
Date: 25.JUN.2015 14:10:22

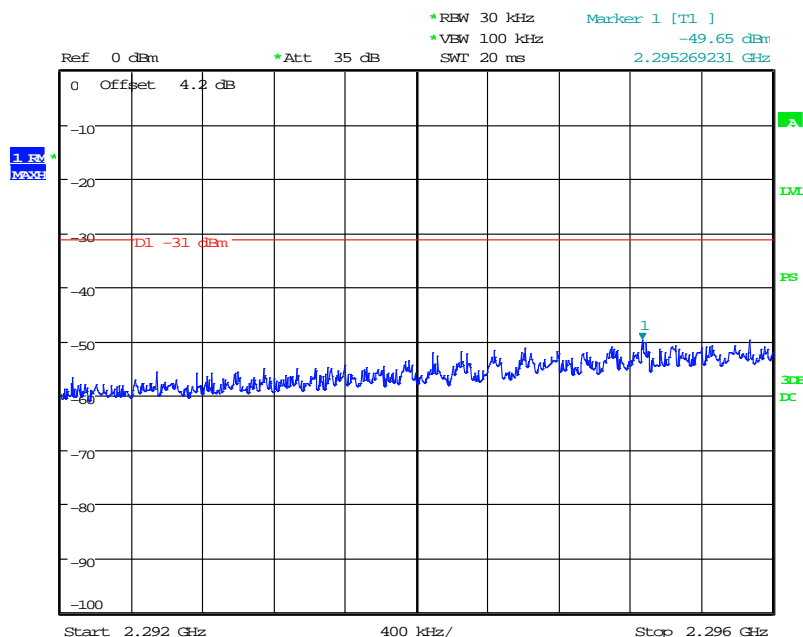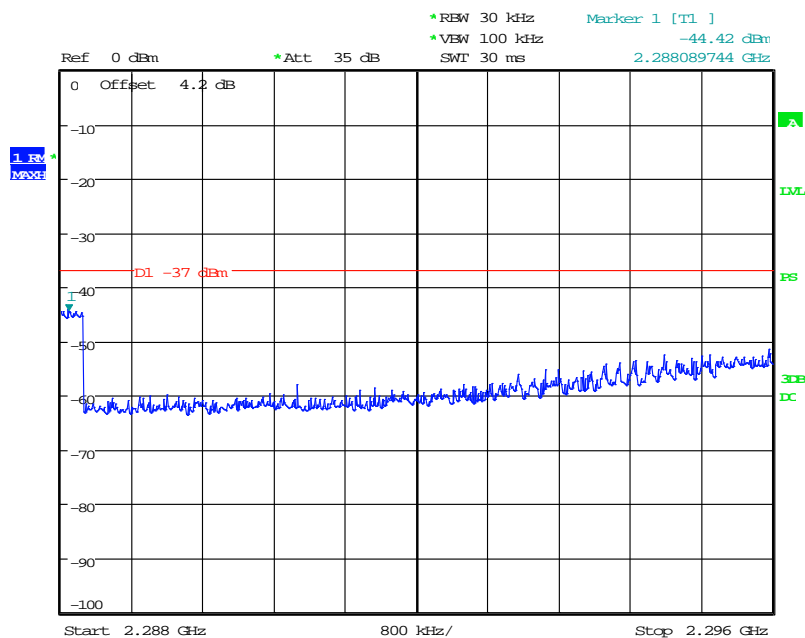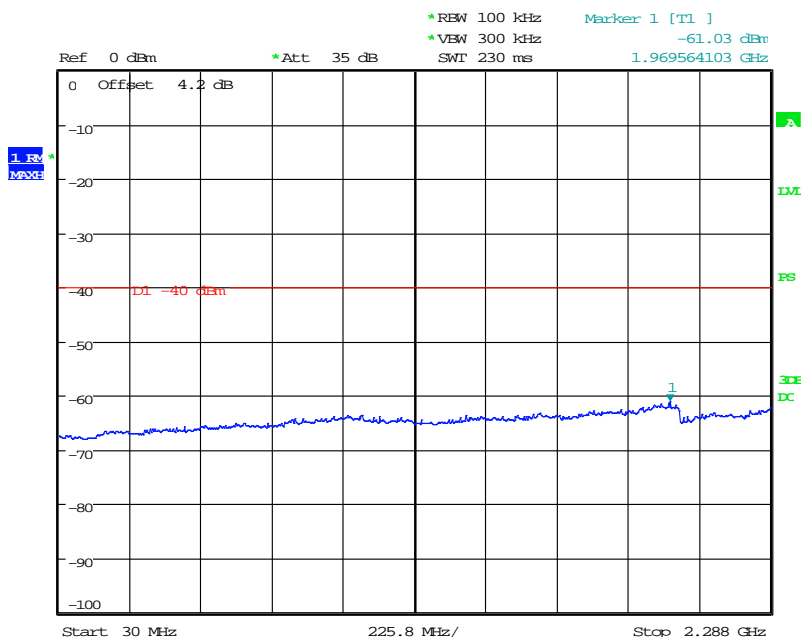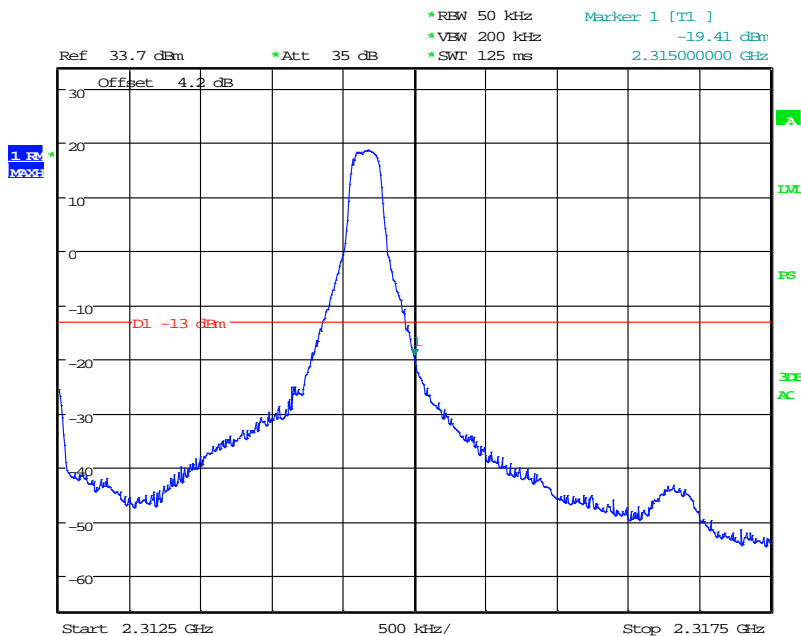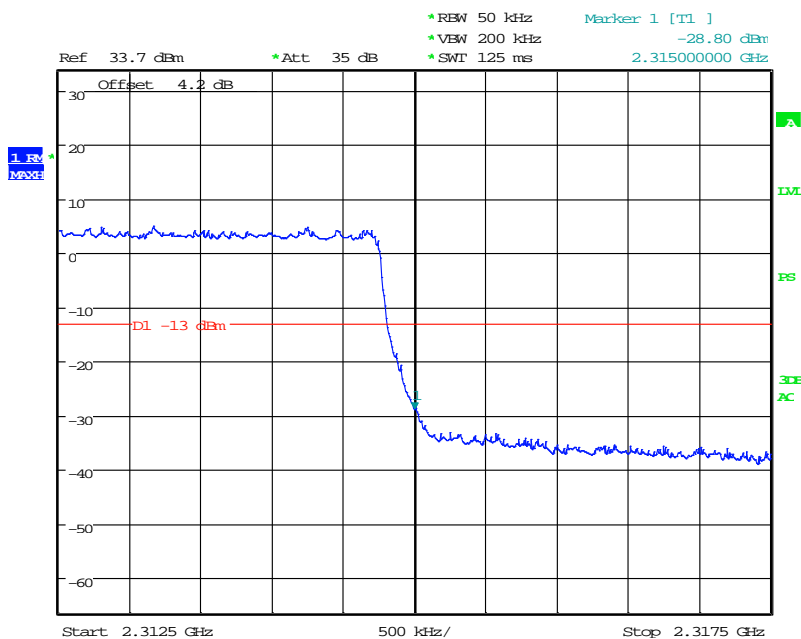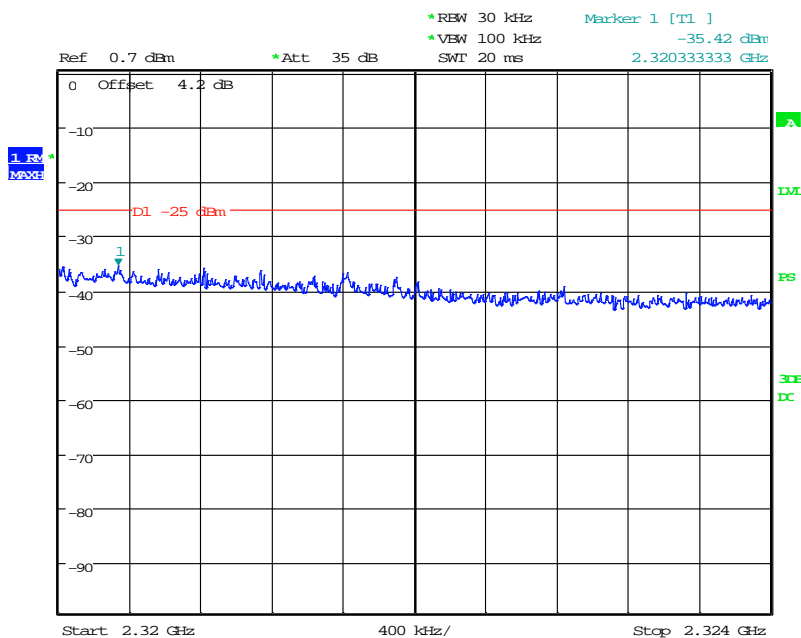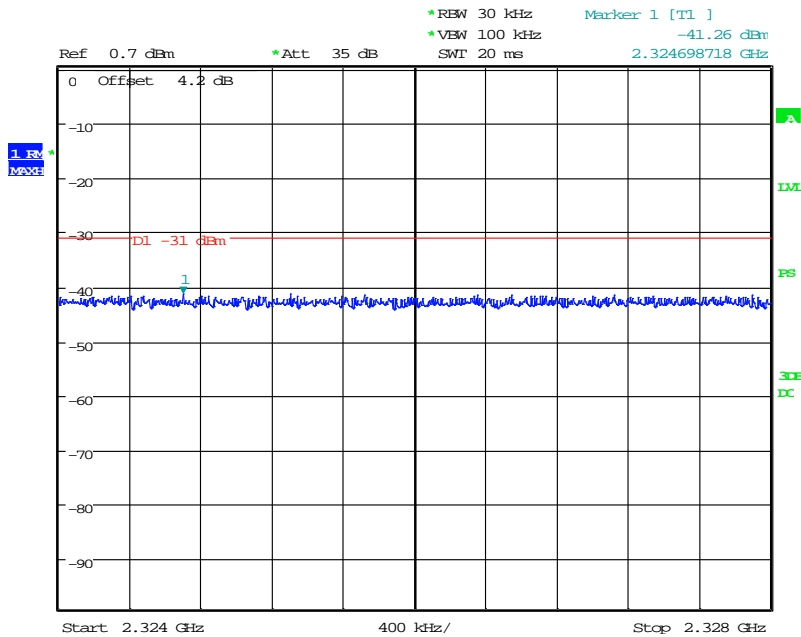## 5MHz bandwidth, 16QAM,(25,0) Mode , below 2305MHz

Date: 25.JUN.2015 14:09:47

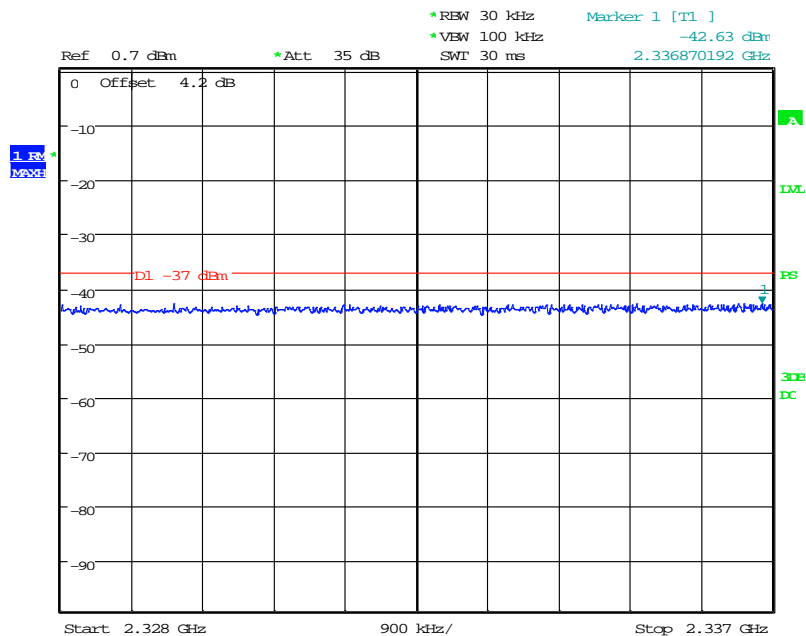## 5MHz bandwidth, 16QAM, 2296MHz-2300MHz, below 2305MHz

Date: 1.JUL.2015 15:35:22

5MHz bandwidth, 16QAM, 2292MHz-2296MHz, below 2305MHz

Date: 1.JUL.2015 15:39:31
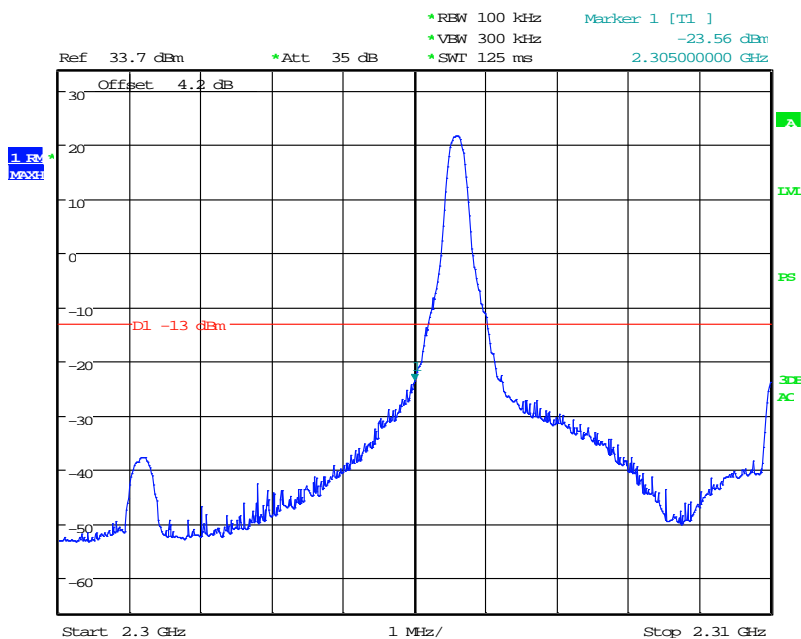
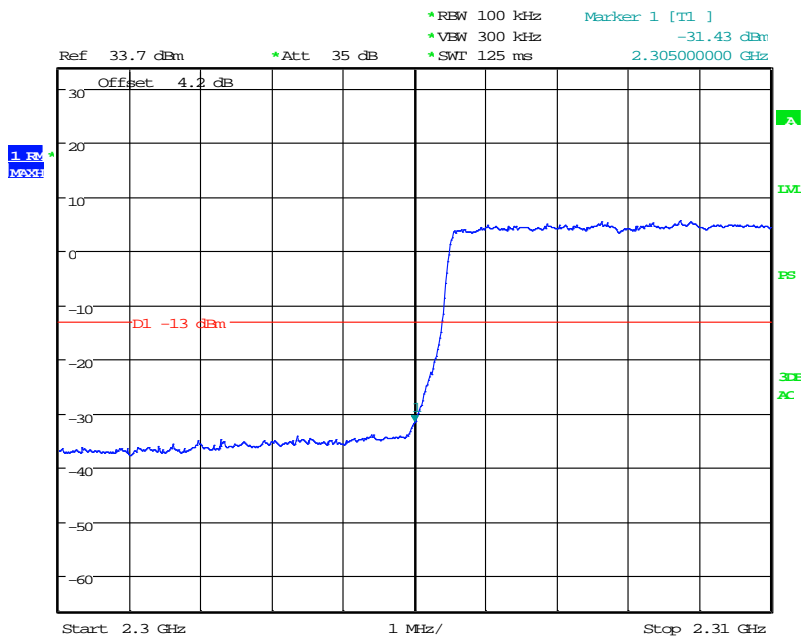## 5MHz bandwidth, 16QAM, 2288MHz-2292MHz, below 2305MHz

Date: 1.JUL.2015 15:40:40

5MHz bandwidth, 16QAM, 30MHz-2288MHz, below 2305MHz

Date: 1.JUL.2015 15:47:21
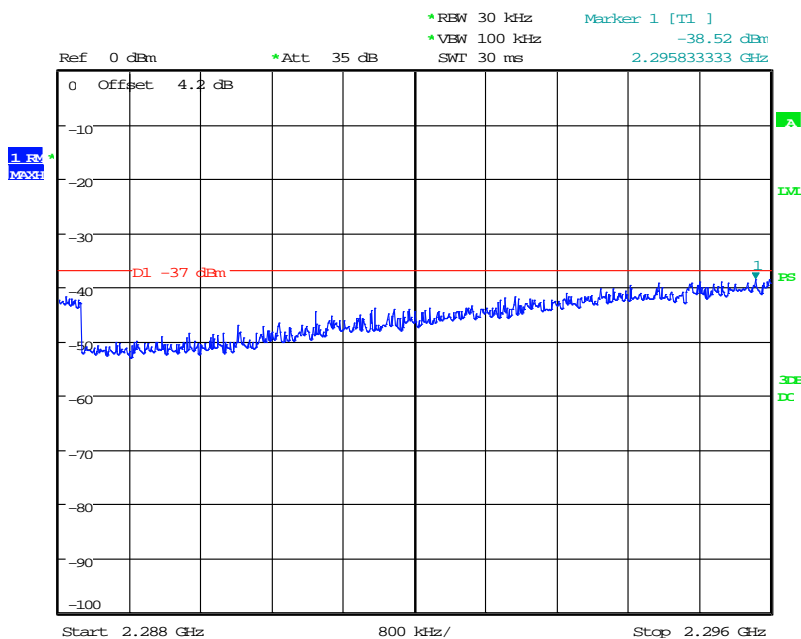
5MHz bandwidth, 16QAM,(1,25) Mode, Above 2315MHz

Date: 25.JUN.2015 14:12:57

5MHz bandwidth, 16QAM,(25,0) Mode, Above 2315MHz


```
                                        *RBW  50 kHz      Marker 1 [T1 ]
                                        *VBW 200 kHz              -28.80 dBm
Ref   33.7 dBm        *Att   35 dB      *SWT 125 ms       2.315000000 GHz
      Offset   4.2 dB
 30
 20
 10
  0
-10    D1 -13 dBm
-20
-30
-40
-50
-60
Start 2.3125 GHz          500 kHz/            Stop  2.3175 GHz
```

Date: 25.JUN.2015 14:12:28

5MHz bandwidth, 16QAM, 2320MHz-2324MHz, Above 2315MHz


```
                                        *RBW  30 kHz      Marker 1 [T1 ]
                                        *VBW 100 kHz              -35.42 dBm
Ref    0.7 dBm        *Att   35 dB       SWT  20 ms       2.320333333 GHz
  0   Offset   4.2 dB
-10
-20
-30    D1 -25 dBm
-40
-50
-60
-70
-80
-90
Start  2.32 GHz           400 kHz/            Stop  2.324 GHz
```

Date: 1.JUL.2015 15:18:33

5MHz bandwidth, 16QAM, 2324MHz-2328MHz, Above 2315MHz

```
                                    *RBW  30 kHz      Marker 1 [T1 ]
                                    *VBW  100 kHz           -41.26 dBm
    Ref   0.7 dBm      *Att  35 dB   SWT  20 ms       2.324698718 GHz

    0   Offset   4.2 dB                                             A

   -10

1 RM
MAXH
   -20                                                             LVL

   -30
        D1 -31 dBm                                                 PS
              1
   -40

   -50

                                                                  3DB
   -60                                                             DC

   -70

   -80

   -90

    Start  2.324 GHz        400 kHz/           Stop  2.328 GHz
```

Date: 1.JUL.2015 15:23:36

5MHz bandwidth, 16QAM, 2328MHz-2337MHz, Above 2315MHz

```
                                    *RBW  30 kHz      Marker 1 [T1 ]
                                    *VBW  100 kHz           -42.63 dBm
    Ref   0.7 dBm      *Att  35 dB   SWT  30 ms       2.336870192 GHz

    0   Offset   4.2 dB                                             A

   -10

1 RM
MAXH
   -20                                                             LVL

   -30
        D1 -37 dBm                                                 PS
   -40

   -50

                                                                  3DB
   -60                                                             DC

   -70

   -80

   -90

    Start  2.328 GHz        900 kHz/           Stop  2.337 GHz
```

Date: 1.JUL.2015 15:26:14

中国泰尔实验室 China Telecommunication Technology Labs.

FCC Parts 2, 22, 24,27,90 RSS-Gen, 130, 132,133,139, 199
Equipment: EM7455   **REPORT NO.: B15W50341-FCC-RF_Rev2**

10MHz bandwidth, QPSK,(1,0) Mode , below 2305MHz

Date: 25.JUN.2015 14:21:34

10MHz bandwidth, QPSK,(50,0) Mode , below 2305MHz

Date: 25.JUN.2015 14:20:46

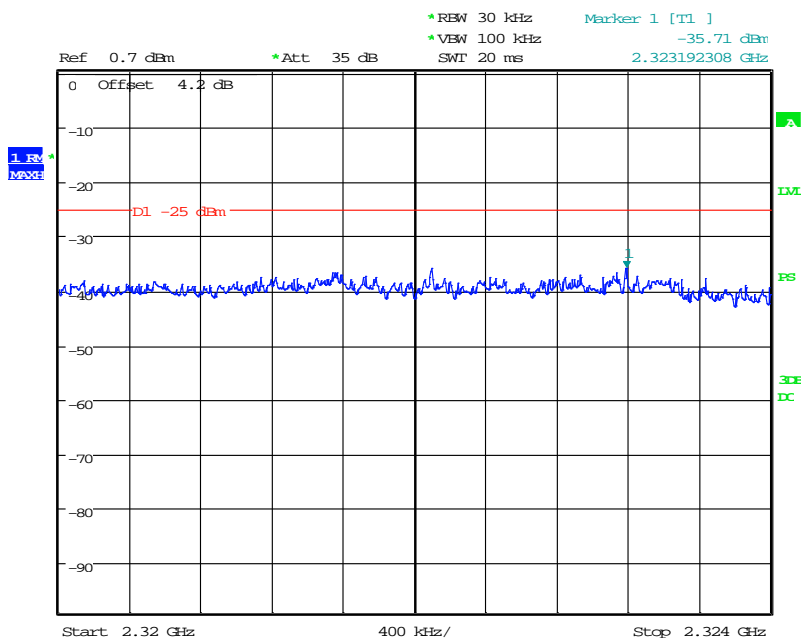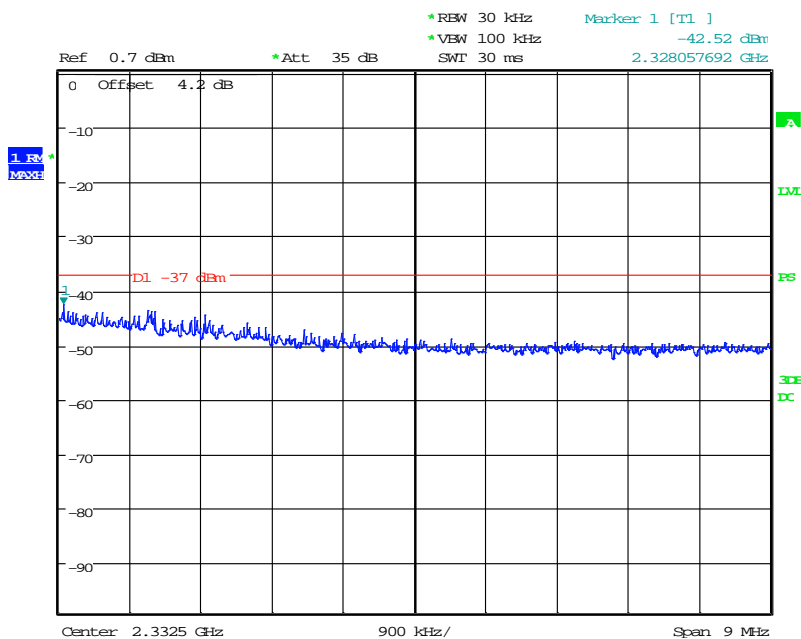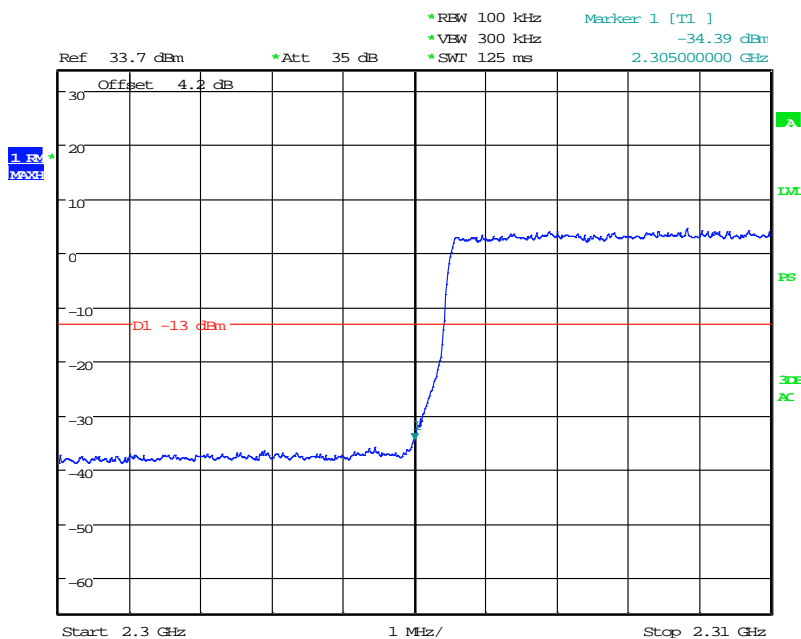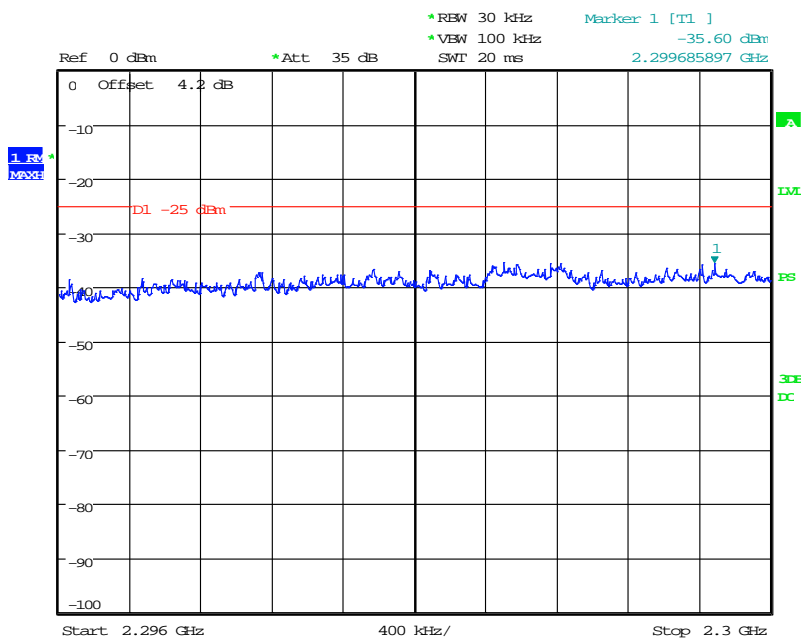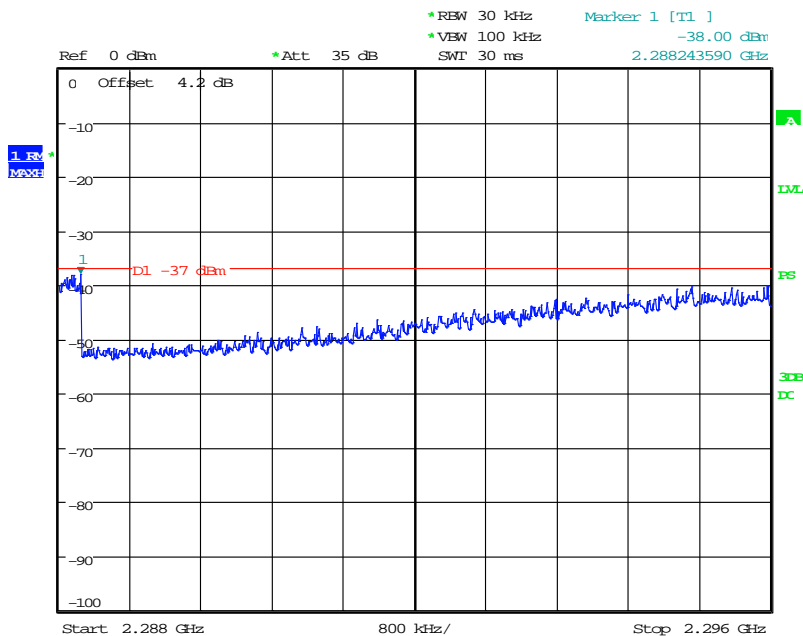## 10MHz bandwidth, QPSK, 2296MHz-2300MHz, below 2305MHz
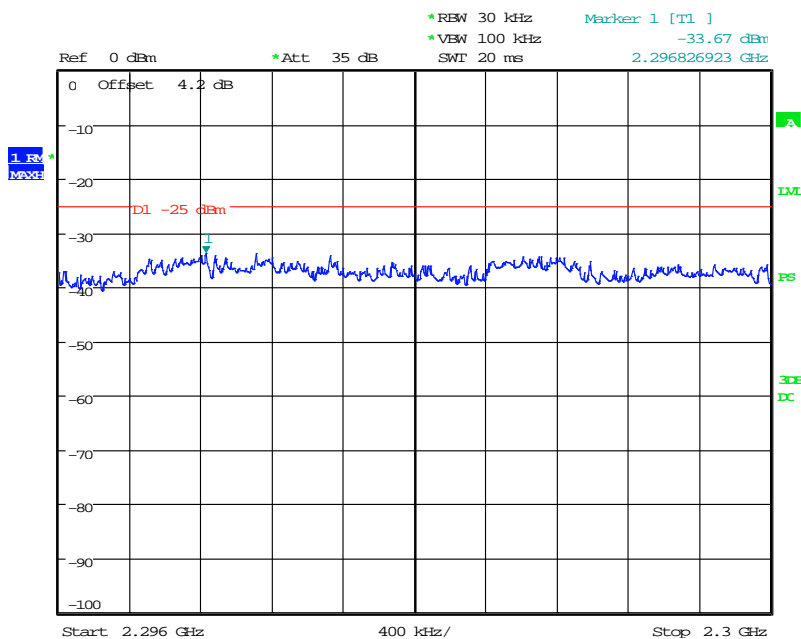
Date: 1.JUL.2015 15:36:53

10MHz bandwidth, QPSK, 2292MHz-2296MHz, below 2305MHz
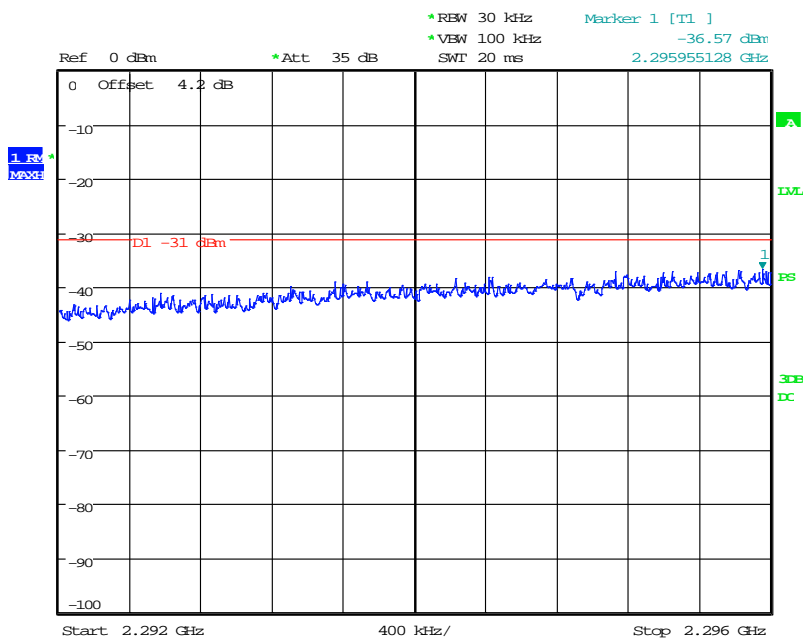
Date: 1.JUL.2015 15:37:37

10MHz bandwidth, QPSK, 2288MHz-2292MHz, below 2305MHz

Date: 1.JUL.2015 15:43:10

10MHz bandwidth, QPSK, 30MHz-2288MHz, below 2305MHz
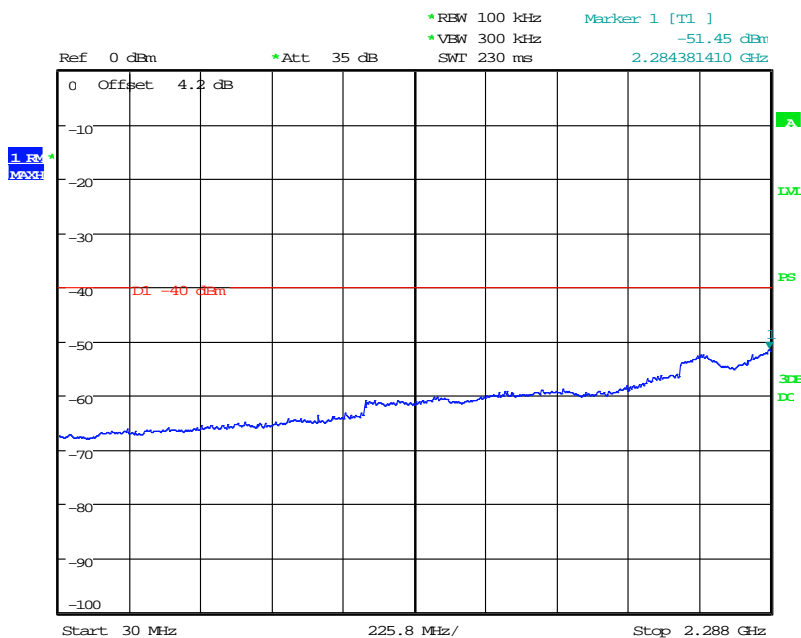
Date: 1.JUL.2015 15:44:37

10MHz bandwidth, QPSK,(1,50) Mode, Above 2315MHz
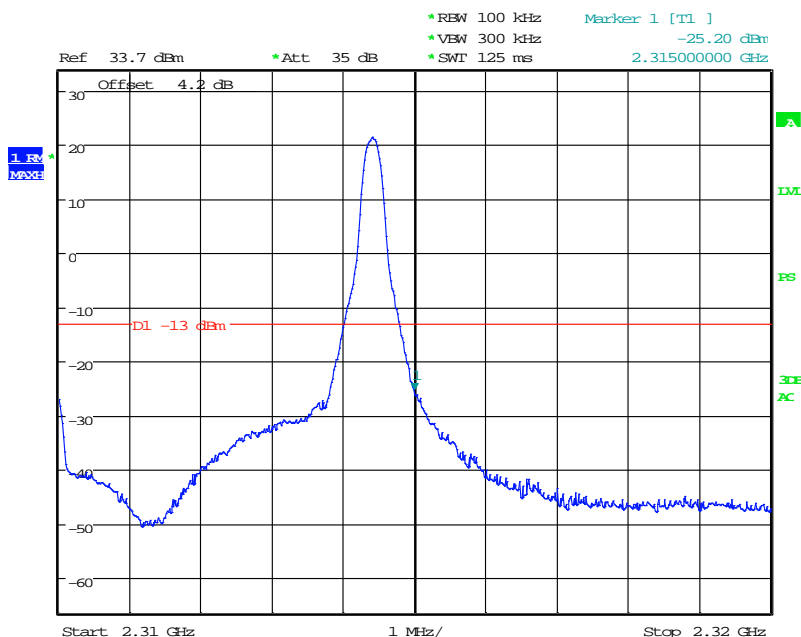
Date: 25.JUN.2015 14:19:23

10MHz bandwidth, QPSK,(50,0) Mode, Above 2315MHz
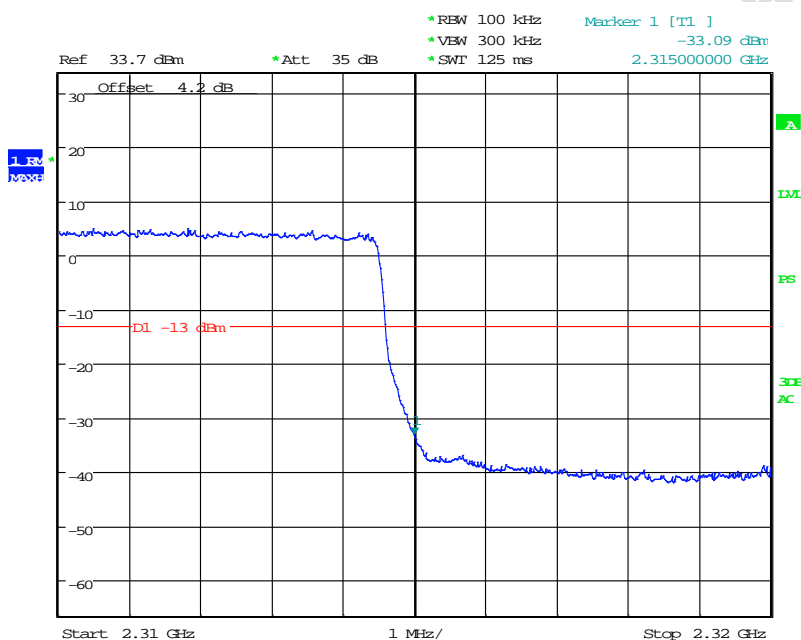
Date: 25.JUN.2015 14:19:40

10MHz bandwidth, QPSK, 2320MHz-2324MHz, Above 2315MHz

```
                                    *RBW  30 kHz        Marker 1 [T1 ]
                                    *VBW  100 kHz               -35.71 dBm
Ref   0.7 dBm        *Att  35 dB    SWT  20 ms           2.323192308 GHz

0  Offset  4.2 dB                                                         A

-10

1 RM                                                                     LVL
MAXH
-20

     D1 -25 dBm

-30
                                                                         PS
-40

-50
                                                                         3DB
-60                                                                      DC

-70

-80

-90

Start  2.32 GHz            400 kHz/           Stop  2.324 GHz
```

Date: 1.JUL.2015 15:20:18

10MHz bandwidth, QPSK, 2324MHz-2328MHz, Above 2315MHz

```
                                    *RBW  30 kHz        Marker 1 [T1 ]
                                    *VBW  100 kHz               -36.00 dBm
Ref   0.7 dBm        *Att  35 dB    SWT  20 ms           2.324173077 GHz

0  Offset  4.2 dB                                                         A

-10

1 RM                                                                     LVL
MAXH
-20

-30      D1 -31 dBm
1                                                                        PS
-40

-50
                                                                         3DB
-60                                                                      DC

-70

-80

-90

Start  2.324 GHz           400 kHz/           Stop  2.328 GHz
```
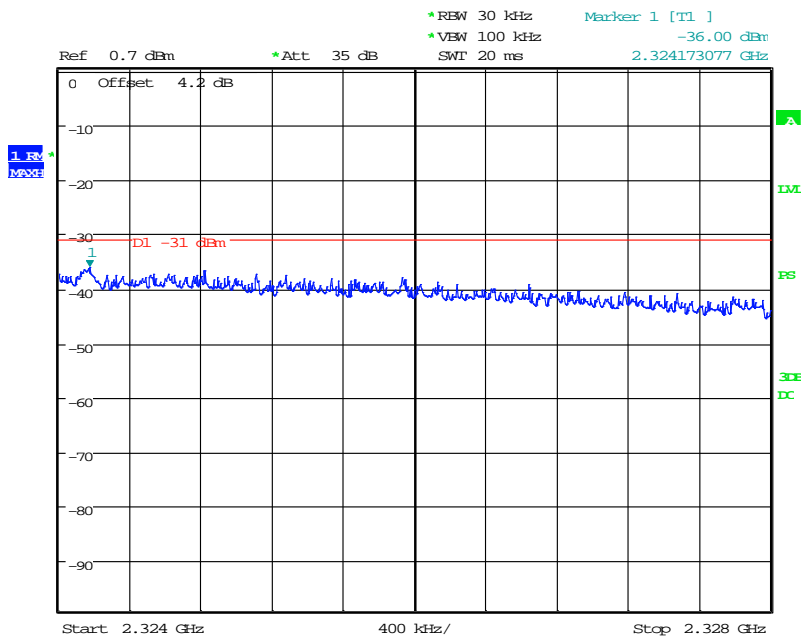
Date: 1.JUL.2015 15:22:10

10MHz bandwidth, QPSK, 2328MHz-2337MHz, Above 2315MHz

Date: 1.JUL.2015 15:27:20

10MHz bandwidth, 16QAM,(1,0) Mode , below 2305MHz
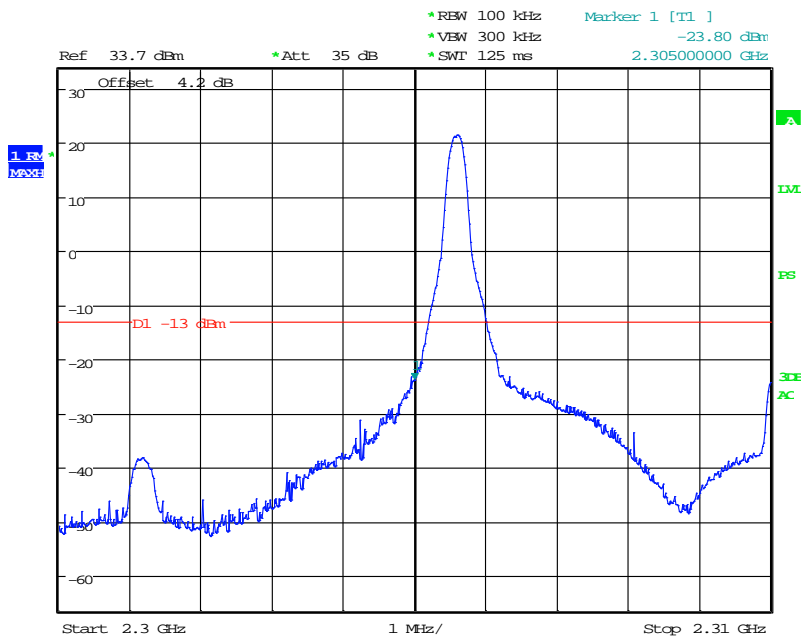
Date: 25.JUN.2015 14:22:30

10MHz bandwidth, 16QAM,(50,0) Mode , below 2305MHz

Date: 25.JUN.2015 14:22:48

10MHz bandwidth, 16QAM, 2296MHz-2300MHz, below 2305MHz

Date: 1.JUL.2015 15:36:26
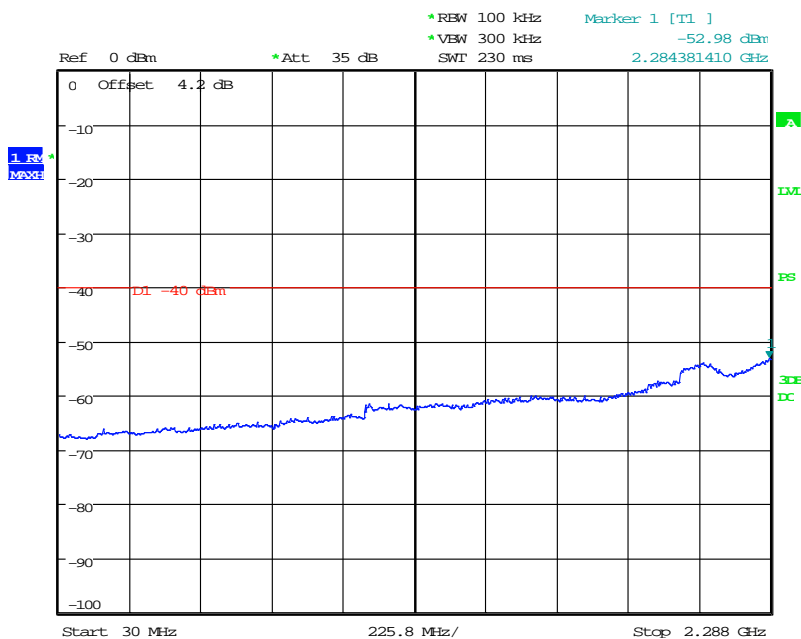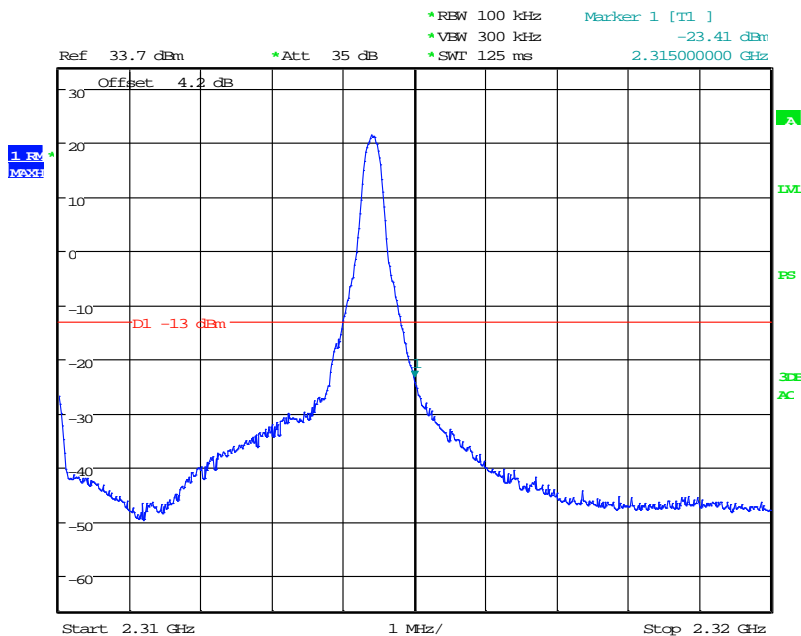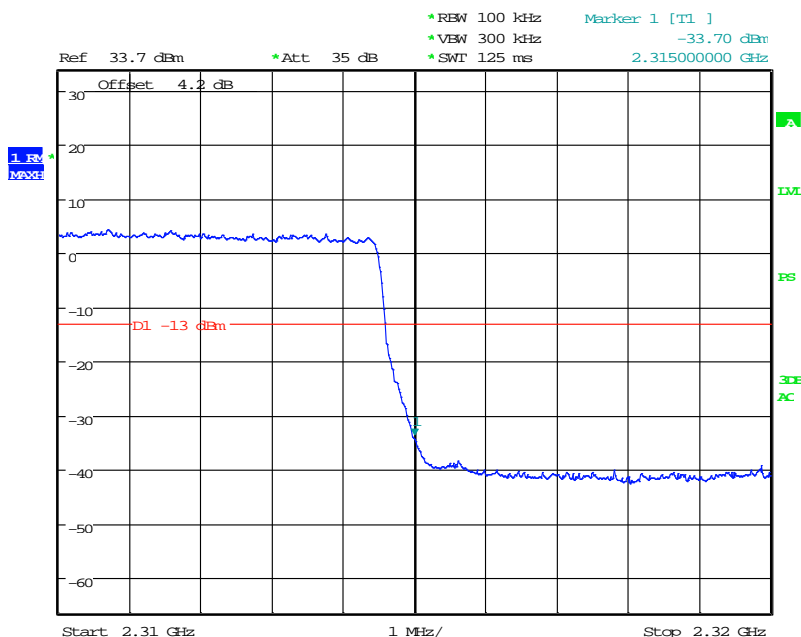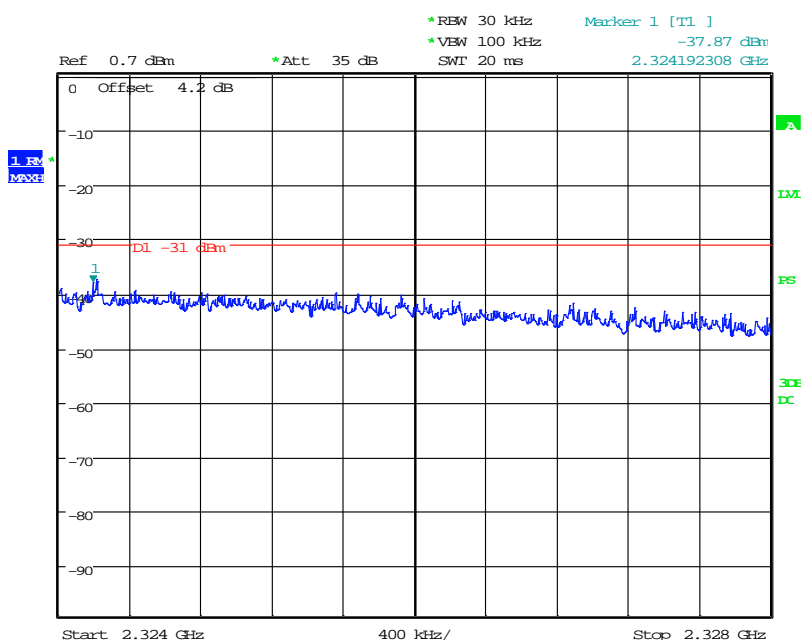
10MHz bandwidth, 16QAM, 2292MHz-2296MHz, below 2305MHz
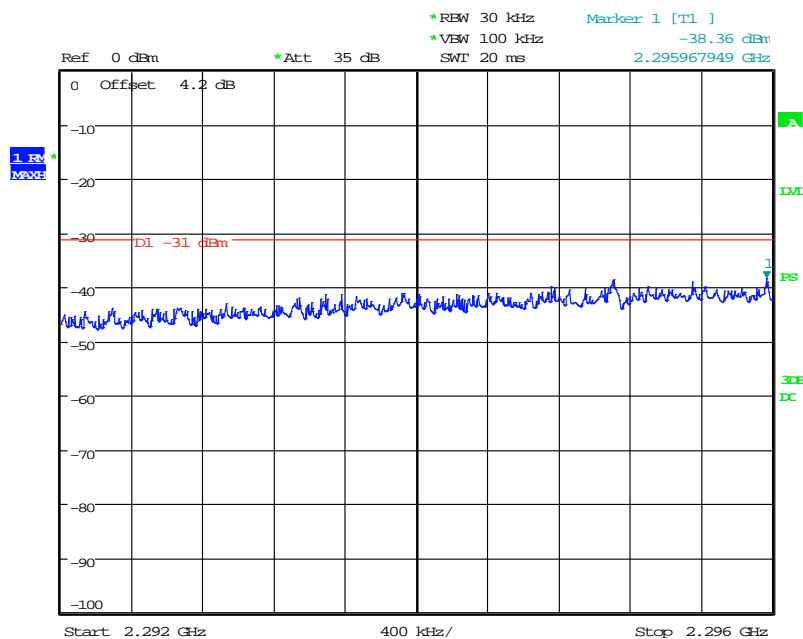
Date: 1.JUL.2015 15:38:17

10MHz bandwidth, 16QAM, 2288MHz-2292MHz, below 2305MHz

Date: 1.JUL.2015 15:42:43

10MHz bandwidth, 16QAM, 30MHz-2288MHz, below 2305MHz

Date: 1.JUL.2015 15:45:16

10MHz bandwidth, 16QAM,(1,50) Mode, Above 2315MHz

Date: 25.JUN.2015 14:24:14

10MHz bandwidth, 16QAM,(50,0) Mode, Above 2315MHz

Date: 25.JUN.2015 14:23:23

10MHz bandwidth, 16QAM, 2320MHz-2324MHz, Above 2315MHz
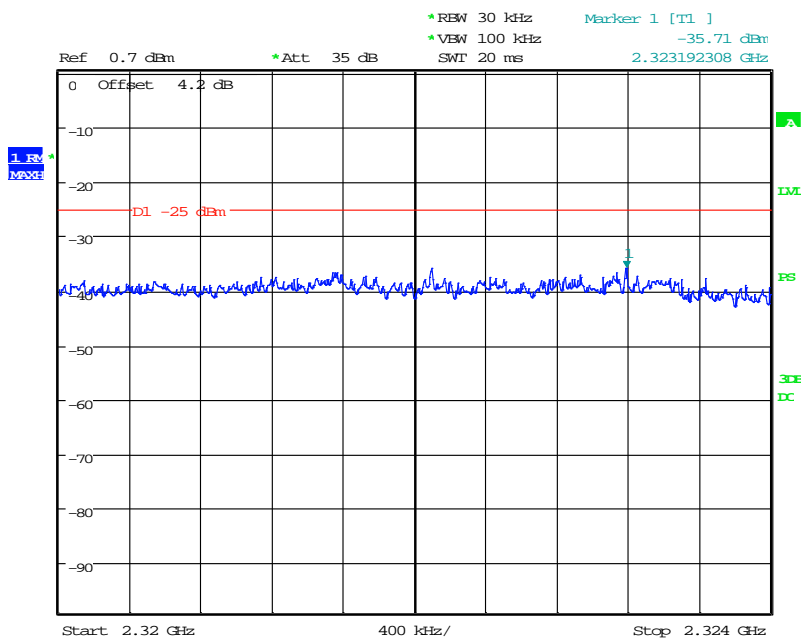
Date: 1.JUL.2015 15:20:18

10MHz bandwidth, 16QAM, 2324MHz-2328MHz, Above 2315MHz

Date: 1.JUL.2015 15:22:40

10MHz bandwidth, 16QAM, 2328MHz-2337MHz, Above 2315MHz
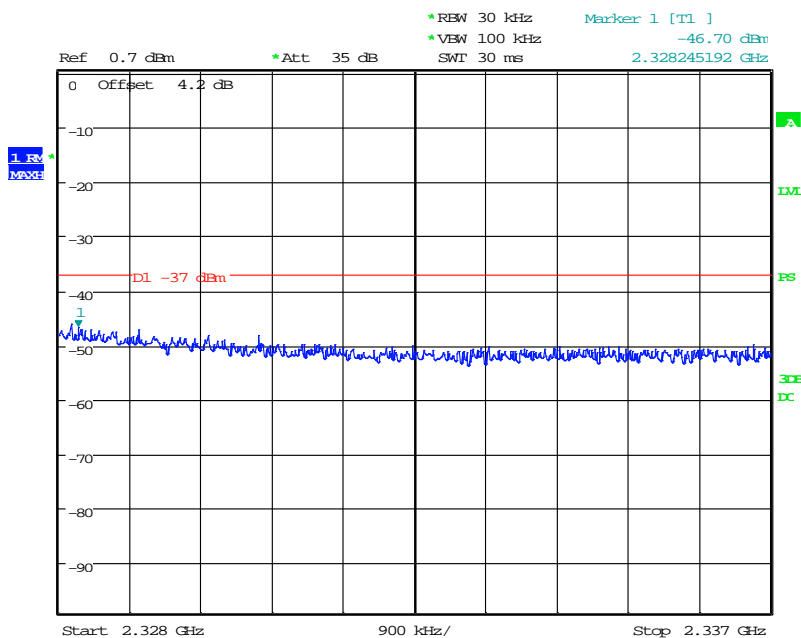
Date: 1.JUL.2015 15:26:53

4.5.8 LTE B41 Band Edge Results

Graphical results：

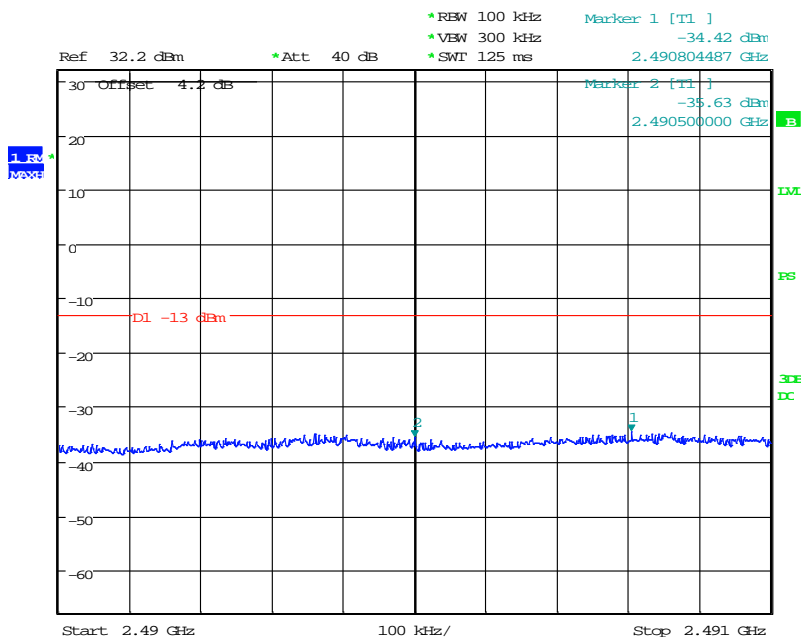**5MHz bandwidth,QPSK,(1,0) Mode , below 2496MHz**
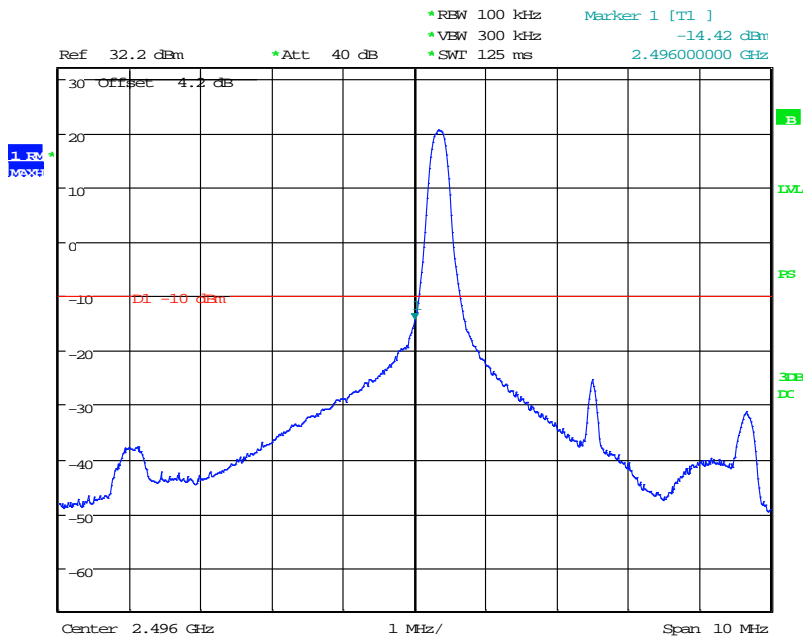
Date: 3.JUL.2015 19:07:24
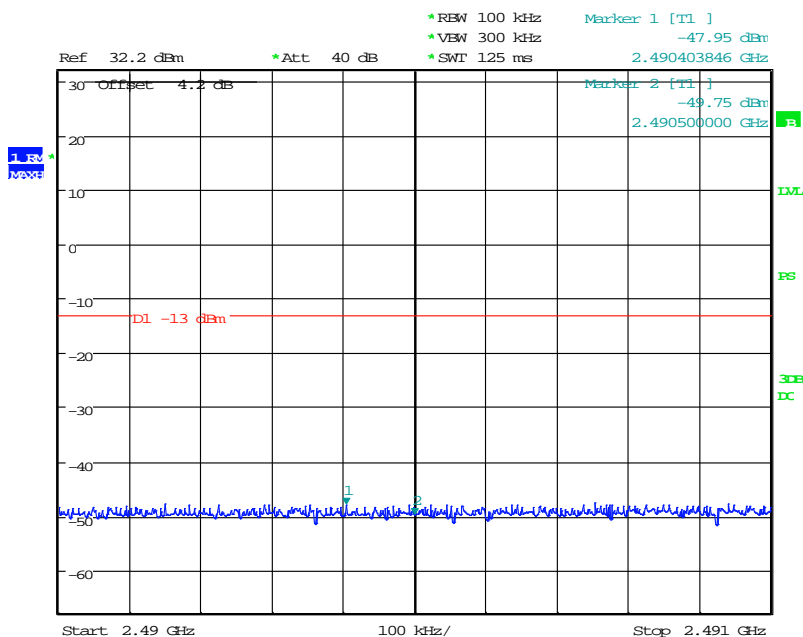
Date: 3.JUL.2015 19:10:14
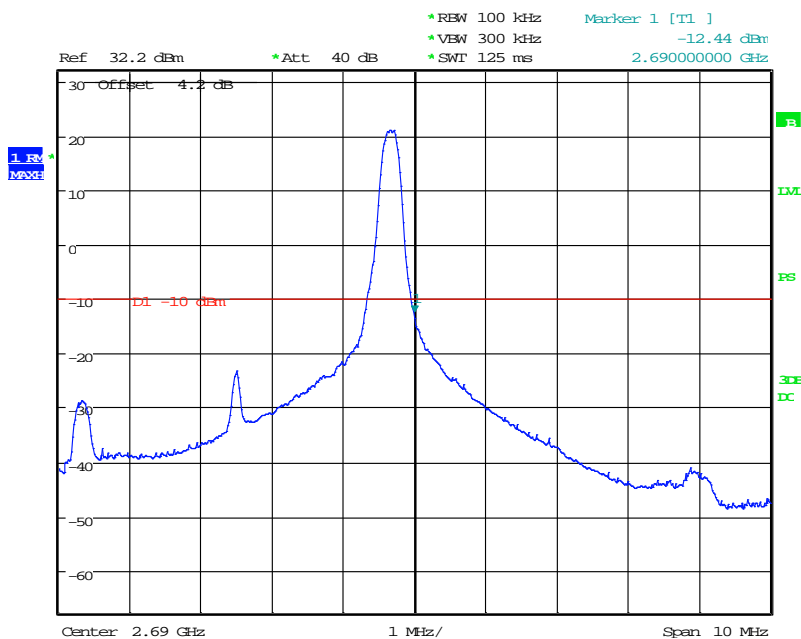
5MHz bandwidth,QPSK,(25,0) Mode , below 2496MHz
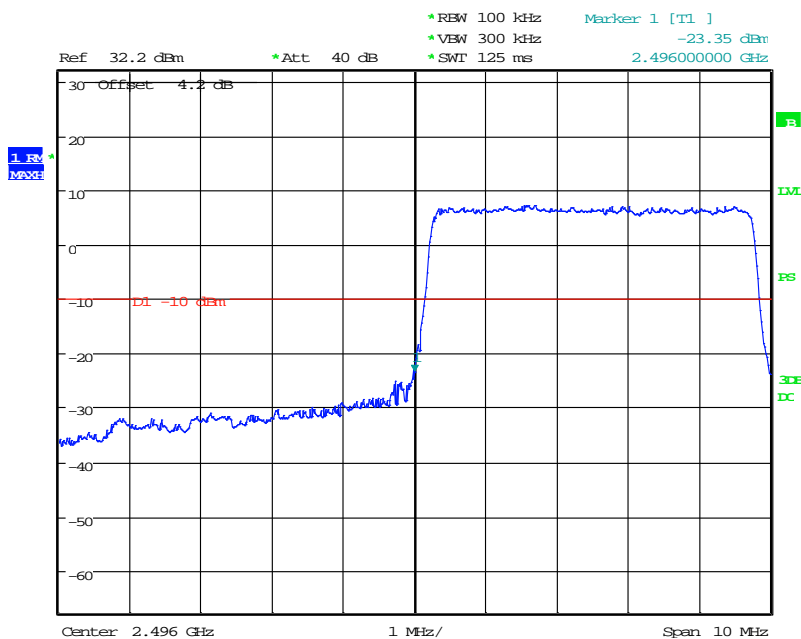
Date: 3.JUL.2015 19:07:45

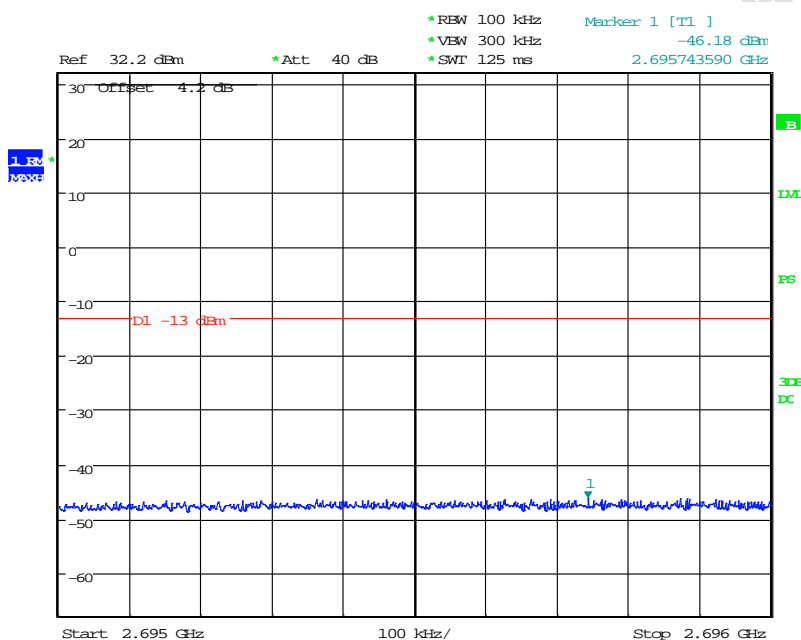Date: 3.JUL.2015 19:09:59
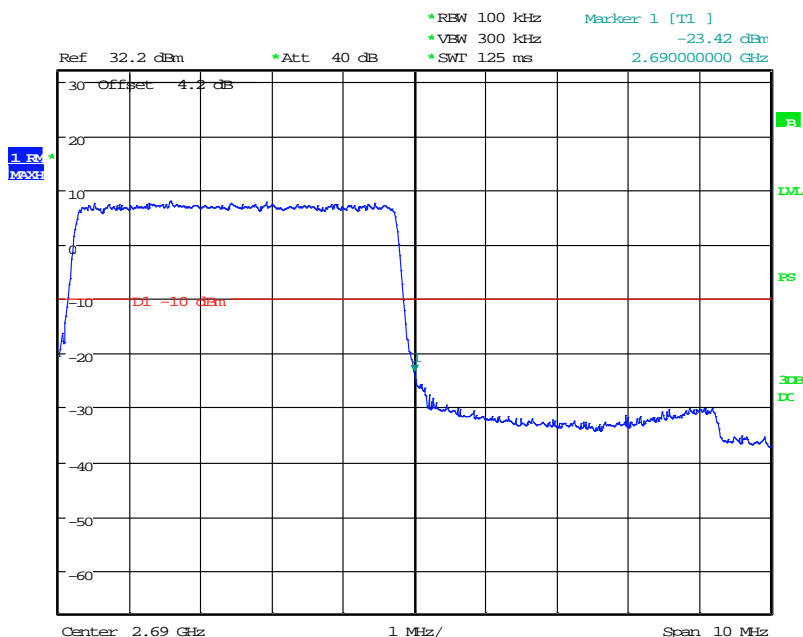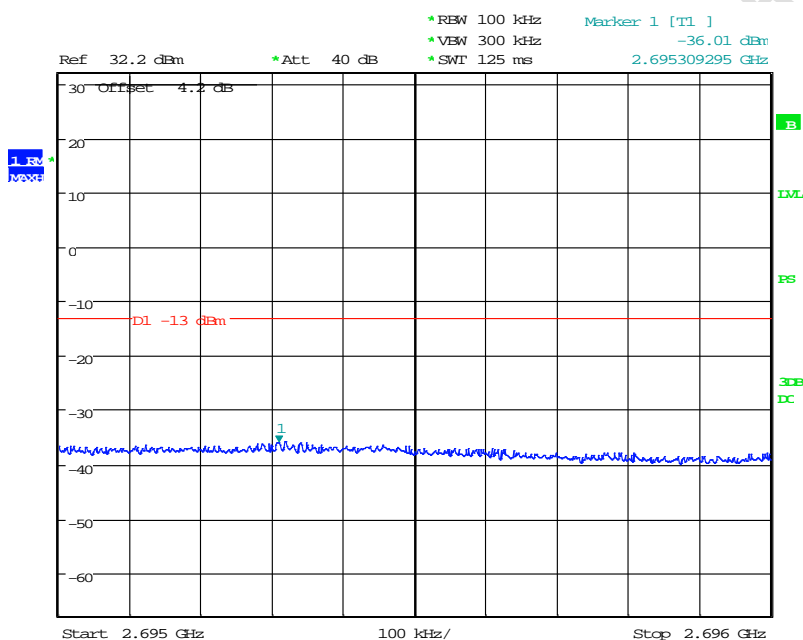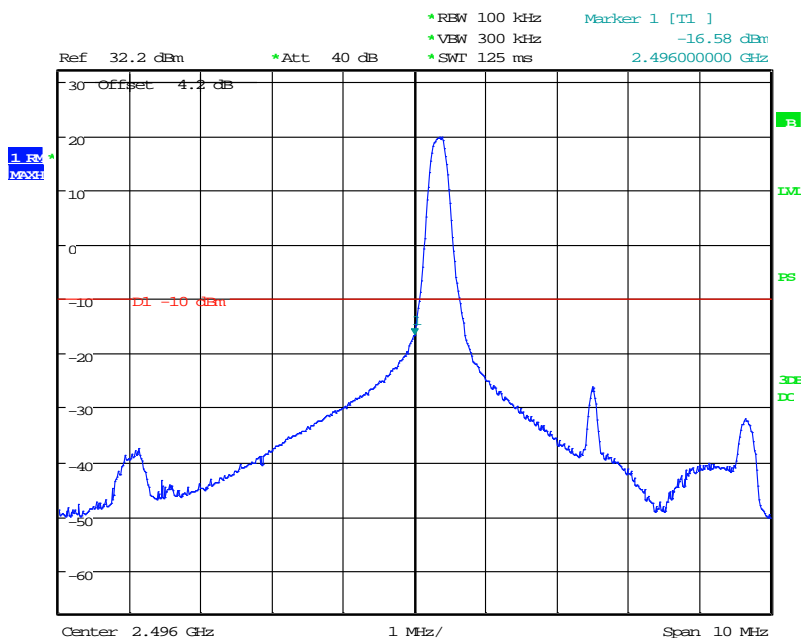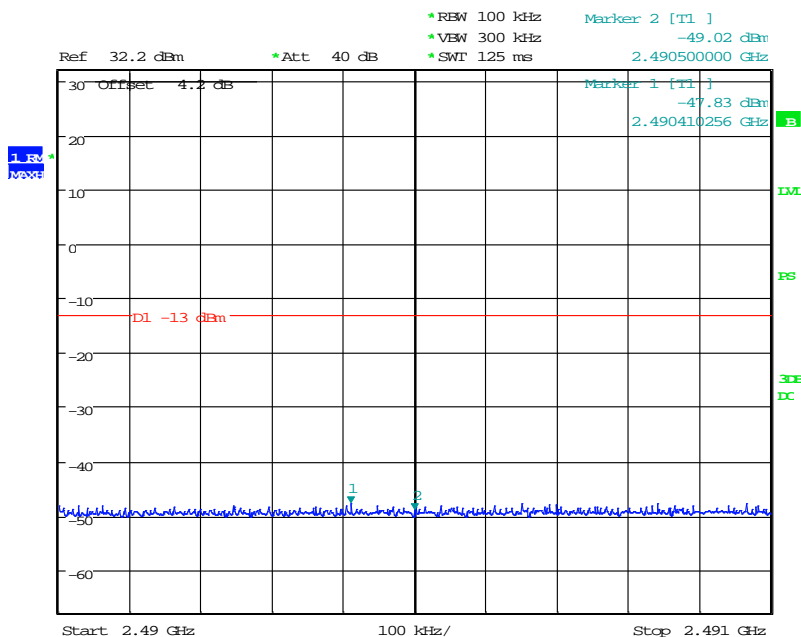
5MHz bandwidth, QPSK,(1,25) Mode, Above 2690MHz

```
            *RBW 100 kHz      Marker 1 [T1 ]
            *VBW 300 kHz              -12.44 dBm
Ref  32.2 dBm   *Att  40 dB   *SWT 125 ms        2.690000000 GHz
```

Offset   4.2 dB

1 RM
MAXH

D1 -10 dBm

Center 2.69 GHz   1 MHz/   Span 10 MHz

Date: 3.JUL.2015 19:13:34

```
            *RBW 100 kHz      Marker 1 [T1 ]
            *VBW 300 kHz              -46.18 dBm
Ref  32.2 dBm   *Att  40 dB   *SWT 125 ms        2.695743590 GHz
```

Offset   4.2 dB

1 RM
MAXH

D1 -13 dBm

Start 2.695 GHz   100 kHz/   Stop 2.696 GHz

Date: 3.JUL.2015 19:15:47

5MHz bandwidth, QPSK,(25,0) Mode, Above 2690MHz

```
                                          *RBW  100 kHz     Marker 1 [T1 ]
                                          *VBW  300 kHz            -23.42 dBm
  Ref   32.2 dBm        *Att   40 dB      *SWT  125 ms       2.690000000 GHz
```



```
  Center  2.69 GHz              1 MHz/                    Span  10 MHz
```

Date: 3.JUL.2015 19:13:48

```
                                          *RBW  100 kHz     Marker 1 [T1 ]
                                          *VBW  300 kHz            -36.01 dBm
  Ref   32.2 dBm        *Att   40 dB      *SWT  125 ms       2.695309295 GHz
```



```
  Start  2.695 GHz             100 kHz/                   Stop  2.696 GHz
```

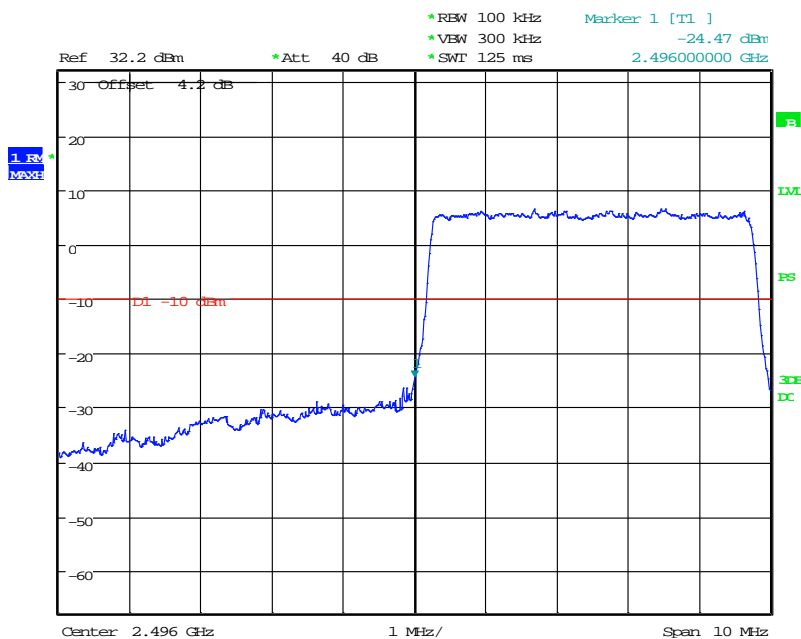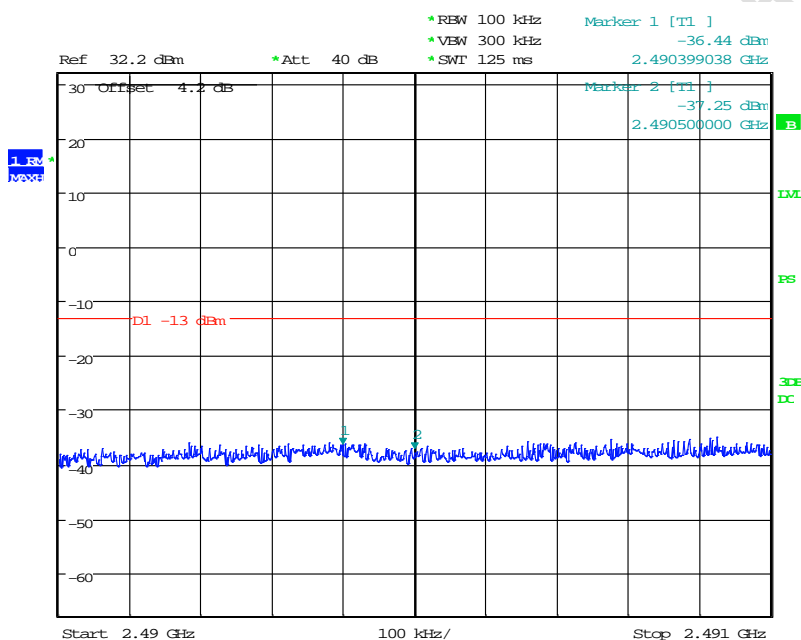Date: 3.JUL.2015 19:15:19

5MHz bandwidth, 16QAM,(1,0) Mode , below 2496MHz

Date: 3.JUL.2015 19:08:26

Date: 3.JUL.2015 19:09:26
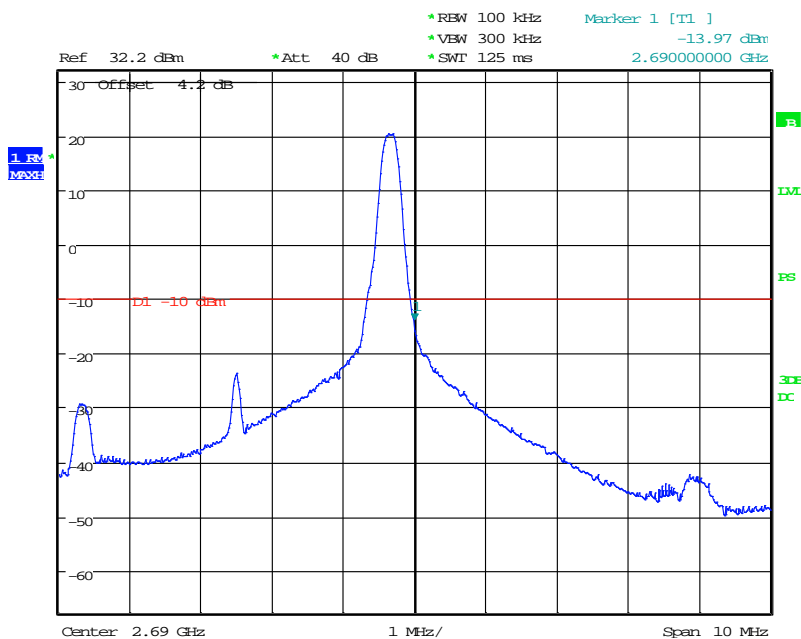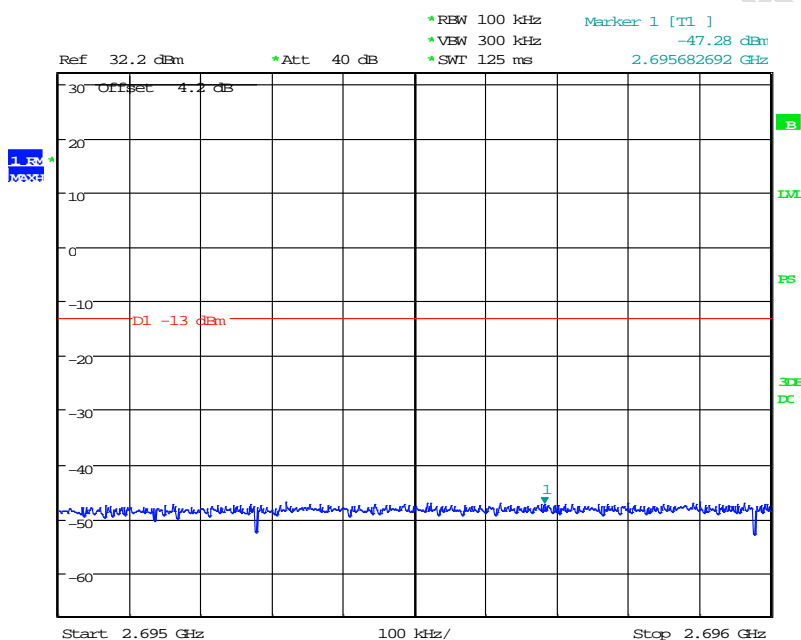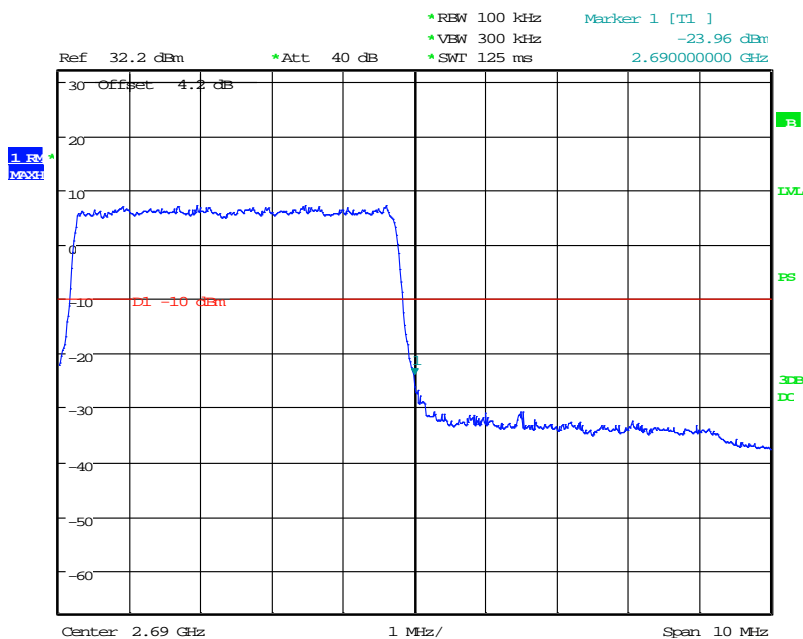
5MHz bandwidth, 16QAM,(25,0) Mode , below 2496MHz

```
                              *RBW  100 kHz      Marker 1 [T1 ]
                              *VBW  300 kHz              -24.47 dBm
        Ref   32.2 dBm    *Att   40 dB   *SWT  125 ms    2.496000000 GHz
```


Date: 3.JUL.2015 19:08:00

```
                              *RBW  100 kHz      Marker 1 [T1 ]
                              *VBW  300 kHz              -36.44 dBm
        Ref   32.2 dBm    *Att   40 dB   *SWT  125 ms    2.490399038 GHz
                                             Marker 2 [T1 ]
                                                    -37.25 dBm
                                             2.490500000 GHz
```


Date: 3.JUL.2015 19:09:45

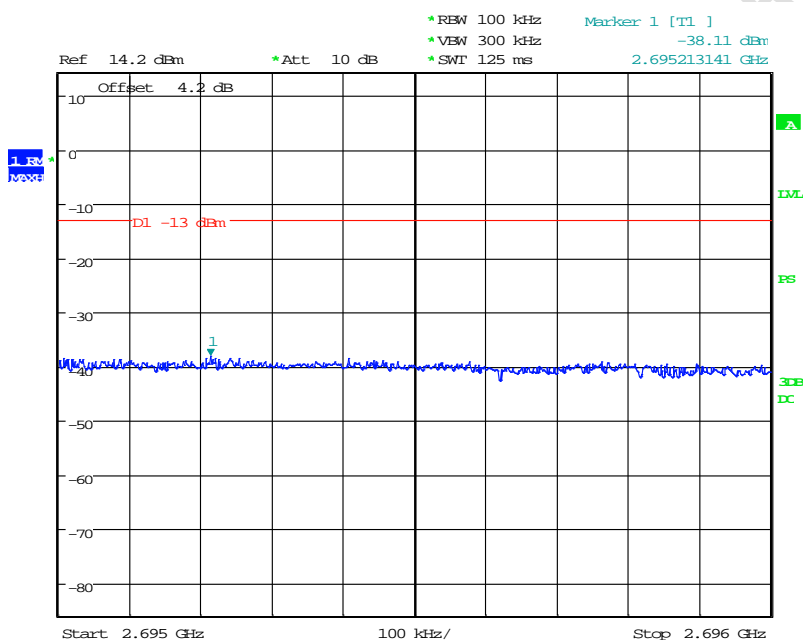## 5MHz bandwidth, 16QAM,(1,25) Mode, Above 2690MHz

Date: 3.JUL.2015 19:14:21

Date: 3.JUL.2015 19:14:53
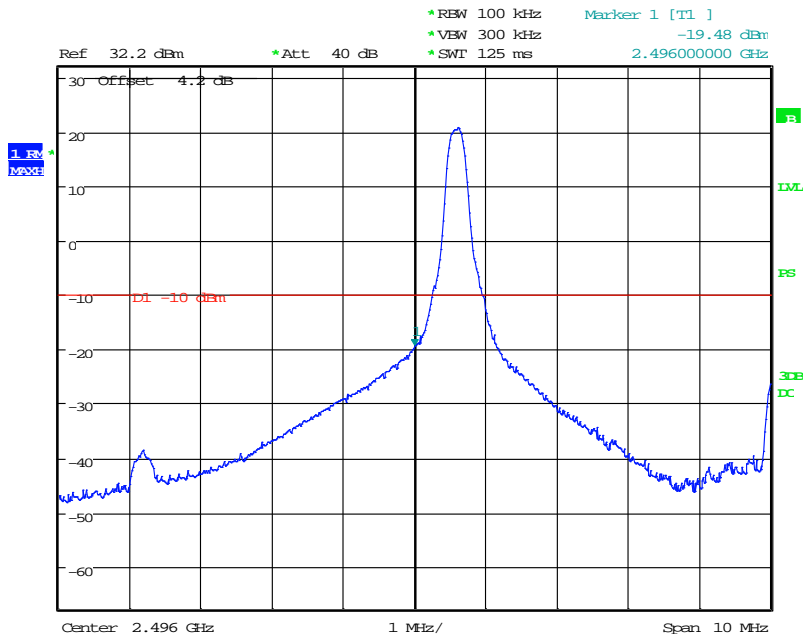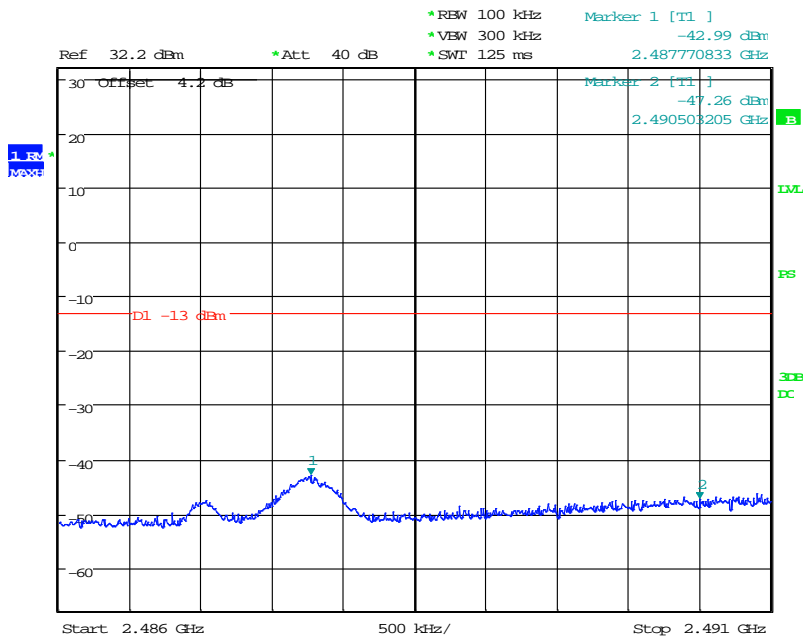
5MHz bandwidth, 16QAM,(25,0) Mode, Above 2690MHz


```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                    *VBW 300 kHz         -23.96 dBm
Ref  32.2 dBm      *Att  40 dB      *SWT 125 ms     2.690000000 GHz
    30  Offset   4.2 dB
    20
1 RM
MAXH
    10
     0
   -10  D1 -10 dBm
   -20
   -30
   -40
   -50
   -60
Center 2.69 GHz           1 MHz/              Span 10 MHz
```

Date: 3.JUL.2015 19:13:59


```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                    *VBW 300 kHz         -38.11 dBm
Ref  14.2 dBm      *Att  10 dB      *SWT 125 ms     2.695213141 GHz
    10  Offset   4.2 dB
     0
1 RM
MAXH
   -10  D1 -13 dBm
   -20
   -30
   -40
   -50
   -60
   -70
   -80
Start 2.695 GHz          100 kHz/            Stop 2.696 GHz
```

Date: 3.JUL.2015 19:57:36

10MHz bandwidth,QPSK,(1,0) Mode , below 2496MHz
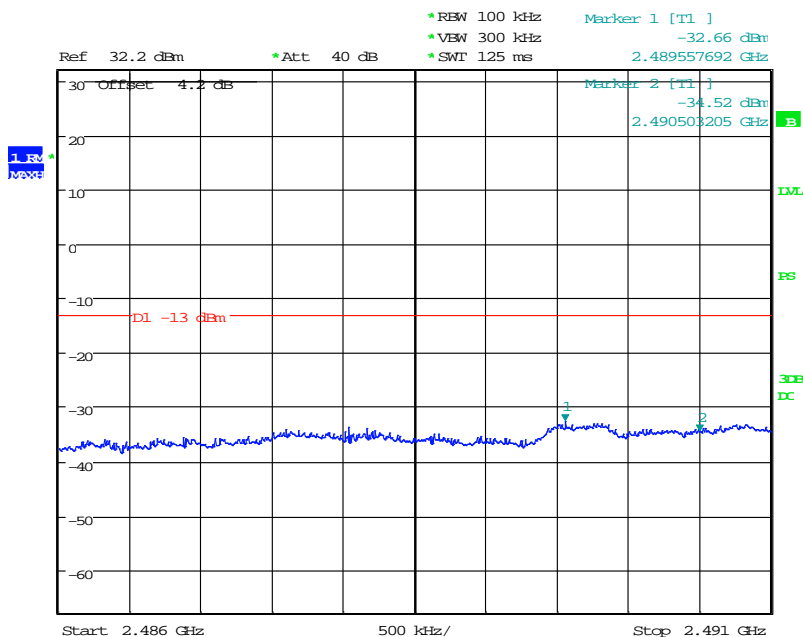

Date: 3.JUL.2015 19:18:45

Date: 3.JUL.2015 19:19:51

10MHz bandwidth,QPSK,(50,0) Mode , below 2496MHz
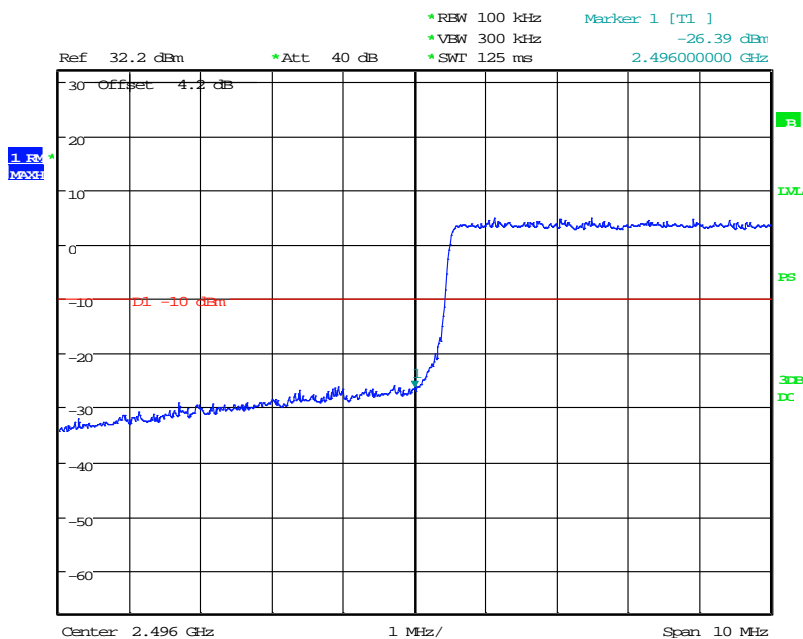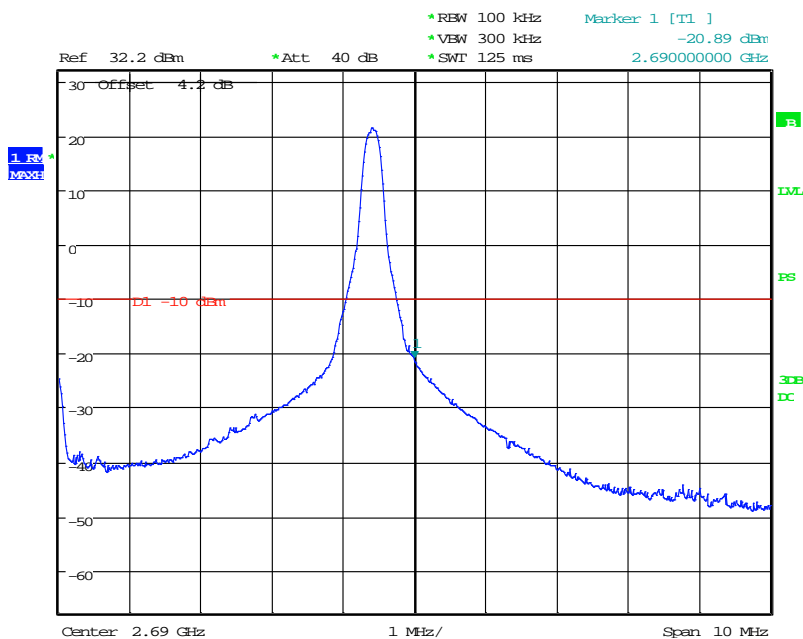

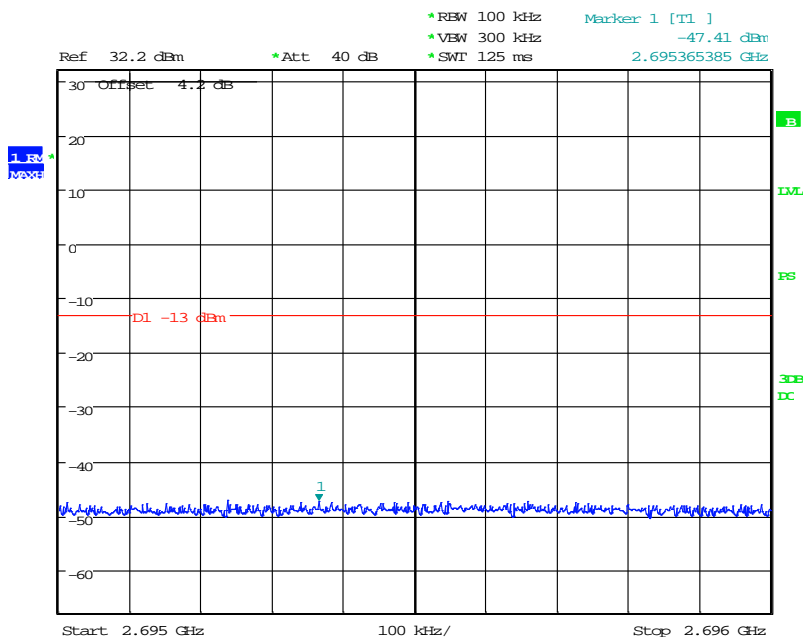Date: 3.JUL.2015 19:18:15

Date: 3.JUL.2015 19:20:03

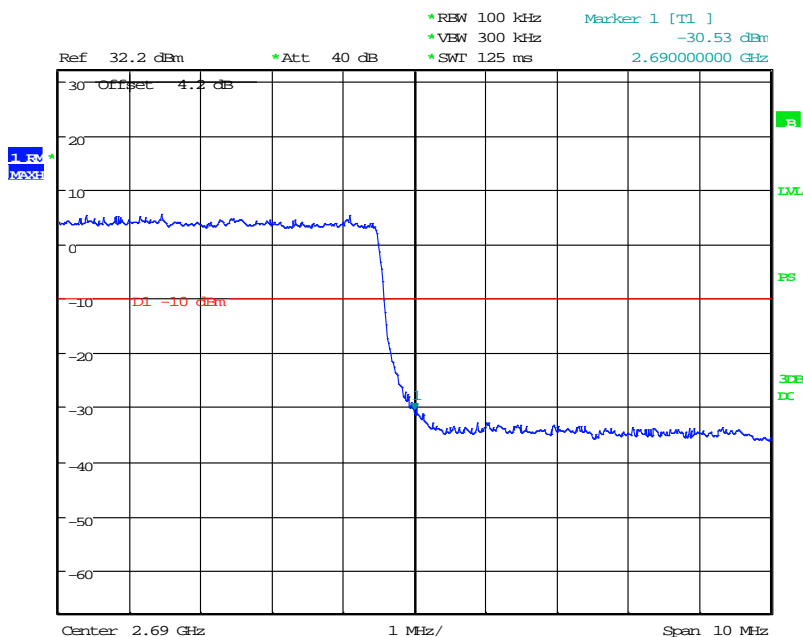## 10MHz bandwidth, QPSK,(1,50) Mode, Above 2690MHz

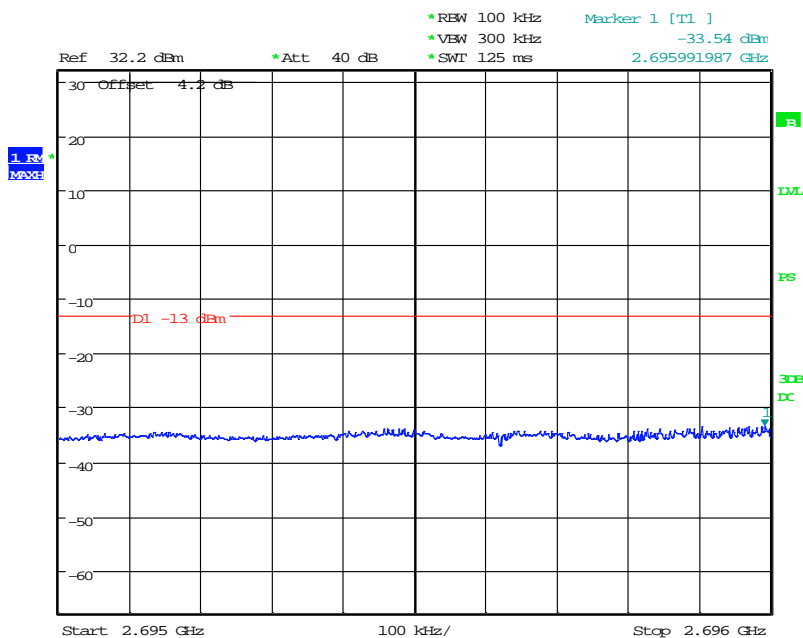Date: 3.JUL.2015 19:21:56

Date: 3.JUL.2015 19:24:10
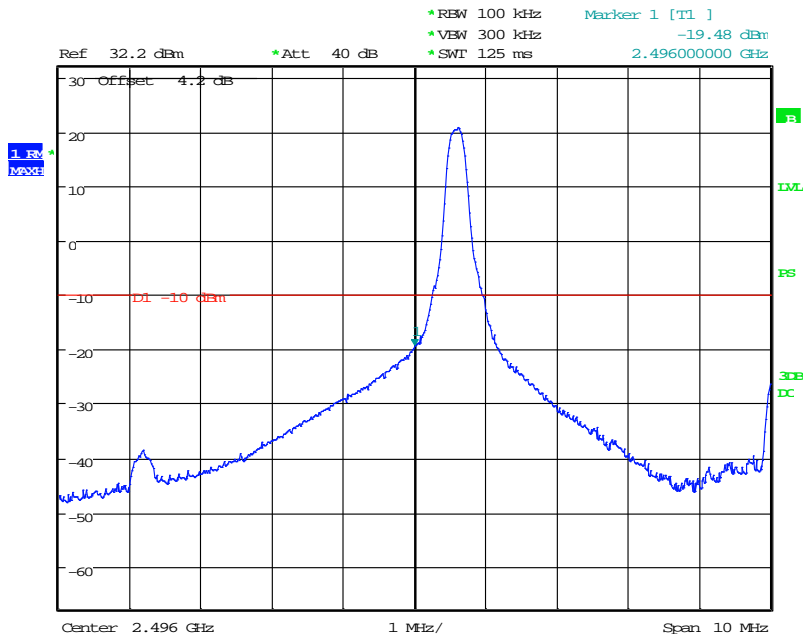
10MHz bandwidth, QPSK,(50,0) Mode, Above 2690MHz

Date: 3.JUL.2015 19:22:08

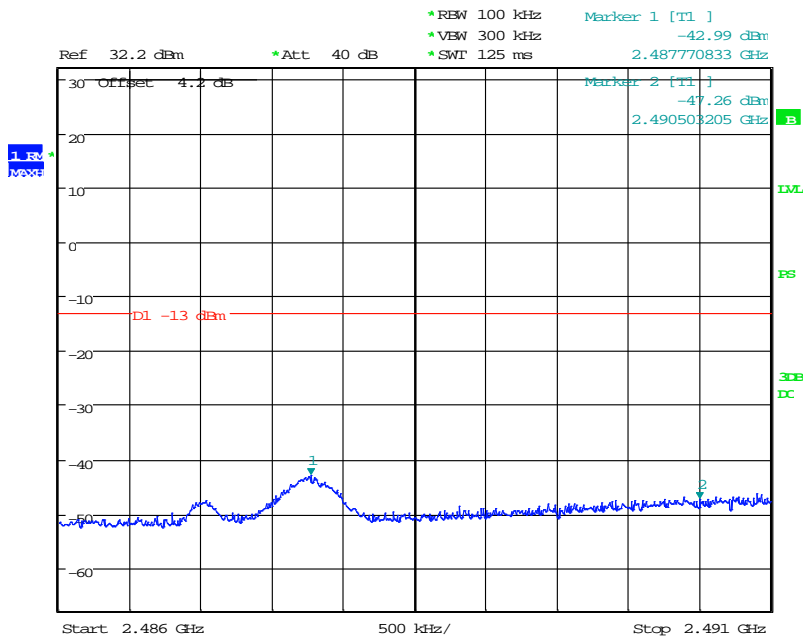Date: 3.JUL.2015 19:23:57

10MHz bandwidth, 16QAM,(1,0) Mode , below 2496MHz

Date: 3.JUL.2015 19:18:45

Date: 3.JUL.2015 19:19:51

中国泰尔实验室 China Telecommunication Technology Labs.

FCC Parts 2, 22, 24,27,90 RSS-Gen, 130, 132,133,139, 199
Equipment: EM7455　　　　　　　　　　　　　**REPORT NO.: B15W50341-FCC-RF_Rev2**

10MHz bandwidth, 16QAM,(50,0) Mode , below 2496 MHz

Date: 3.JUL.2015 19:18:03
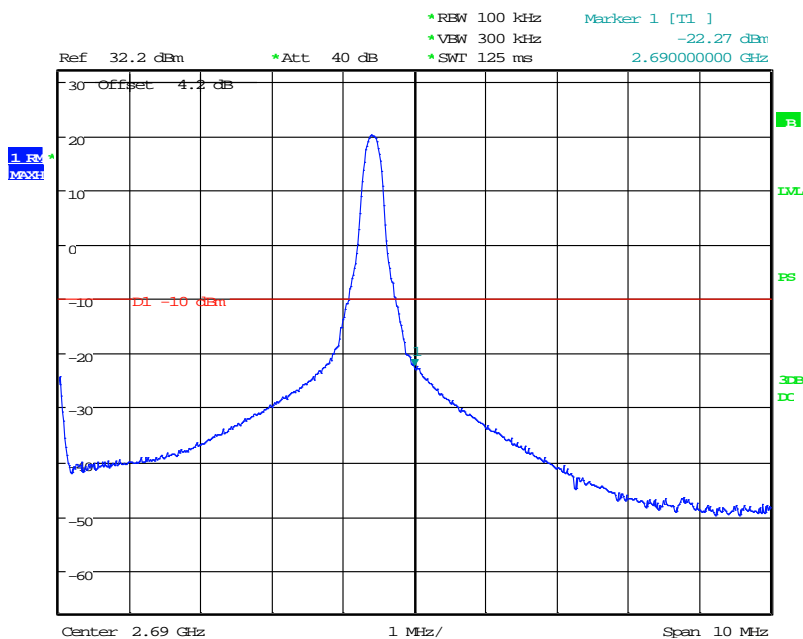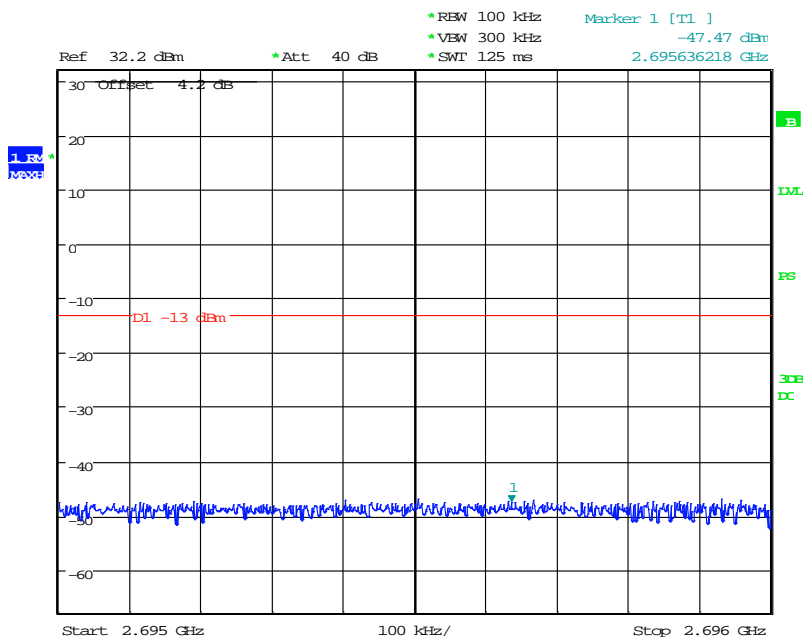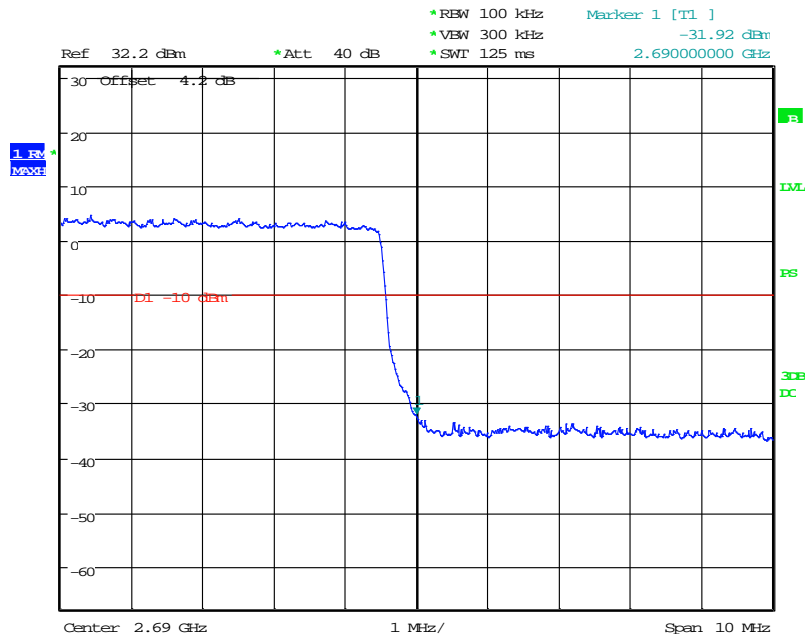

Date: 3.JUL.2015 19:20:19

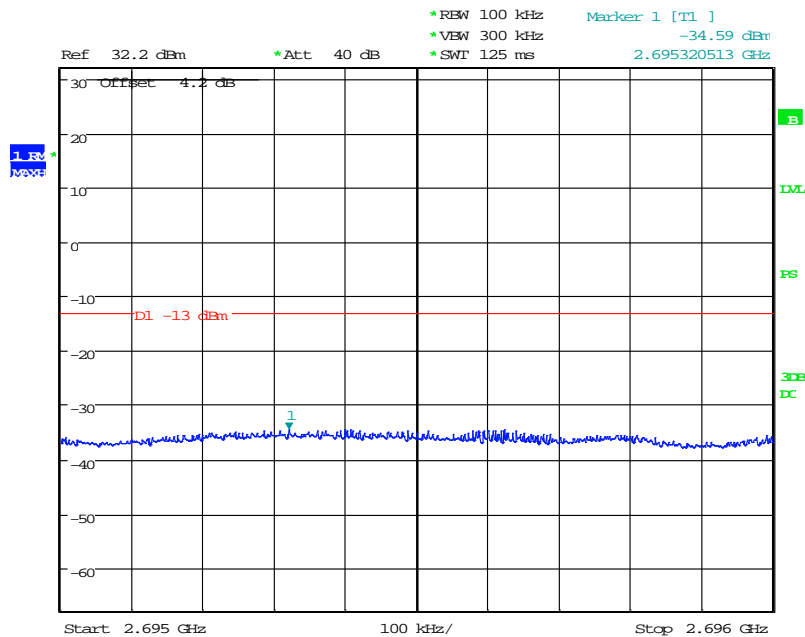## 10MHz bandwidth, 16QAM,(1,50) Mode, Above 2690MHz

Date: 3.JUL.2015 19:22:58

Date: 3.JUL.2015 19:23:26

China Telecommunication Technology Labs.

FCC Parts 2, 22, 24,27,90 RSS-Gen, 130, 132,133,139, 199
Equipment: EM7455　　　　　　　　　　　　**REPORT NO.: B15W50341-FCC-RF_Rev2**

10MHz bandwidth, 16QAM,(50,0) Mode, Above 2690MHz


```
                                    *RBW  100 kHz      Marker 1 [T1 ]
                                    *VBW  300 kHz             -31.92 dBm
Ref   32.2 dBm      *Att   40 dB    *SWT  125 ms        2.690000000 GHz
```

Date: 3.JUL.2015 19:22:35


```
                                    *RBW  100 kHz      Marker 1 [T1 ]
                                    *VBW  300 kHz             -34.59 dBm
Ref   32.2 dBm      *Att   40 dB    *SWT  125 ms        2.695320513 GHz
```

Date: 3.JUL.2015 19:23:39

15MHz bandwidth,QPSK,(1,0) Mode , below 2496MHz

```
*RBW 200 kHz        Marker 1 [T1 ]
*VBW 1 MHz               -21.28 dBm
Ref  32.2 dBm     *Att  40 dB   *SWT 125 ms        2.496000000 GHz
```

Date: 3.JUL.2015 19:25:42

```
*RBW 200 kHz        Marker 1 [T1 ]
*VBW 1 MHz               -36.68 dBm
Ref  32.2 dBm     *Att  40 dB   *SWT 125 ms        2.490278846 GHz
                                           Marker 2 [T1 ]
                                                    -39.75 dBm
                                           2.490503205 GHz
```

Date: 3.JUL.2015 19:28:07

中国泰尔实验室 China Telecommunication Technology Labs.

FCC Parts 2, 22, 24,27,90 RSS-Gen, 130, 132,133,139, 199
Equipment: EM7455　　　　　　　　**REPORT NO.: B15W50341-FCC-RF_Rev2**

15MHz bandwidth,QPSK,(75,0) Mode , below 2496MHz

*RBW 200 kHz　　Marker 1 [T1]
*VBW 1 MHz　　　　　　-26.76 dBm
Ref 32.2 dBm　　*Att 40 dB　*SWT 125 ms　　2.496000000 GHz

Offset 4.2 dB
30
20
1 RM
MAXH
10
0
-10　　D1 -10 dBm
-20
-40
-50
-60

Center 2.496 GHz　　　1 MHz/　　　Span 10 MHz

Date: 3.JUL.2015 19:25:54

*RBW 200 kHz　　Marker 1 [T1]
*VBW 1 MHz　　　　　　-28.64 dBm
Ref 32.2 dBm　　*Att 40 dB　*SWT 125 ms　　2.490871795 GHz
Marker 2 [T1]
-29.58 dBm
2.490503205 GHz

Offset 4.2 dB
30
20
1 RM
MAXH
10
0
-10　　D1 -13 dBm
-20
-30
-40
-50
-60

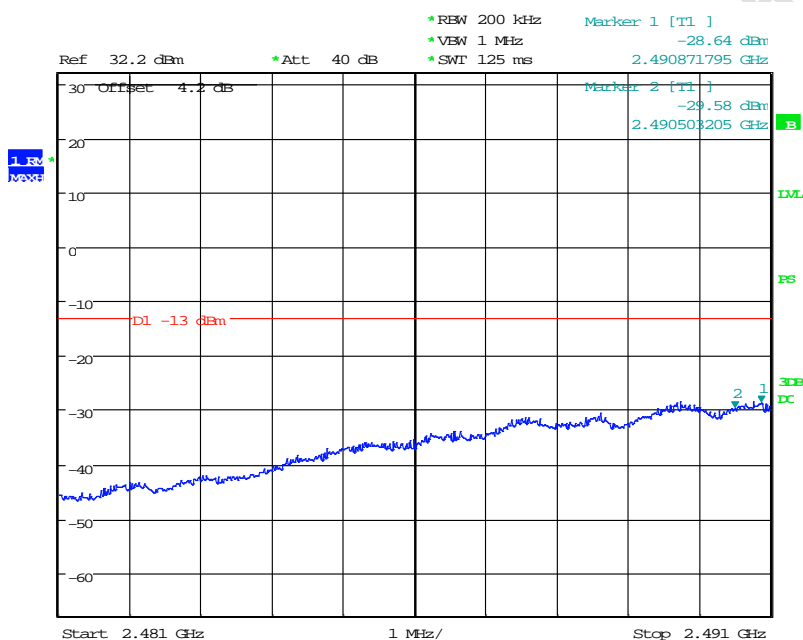Start 2.481 GHz　　　1 MHz/　　　Stop 2.491 GHz
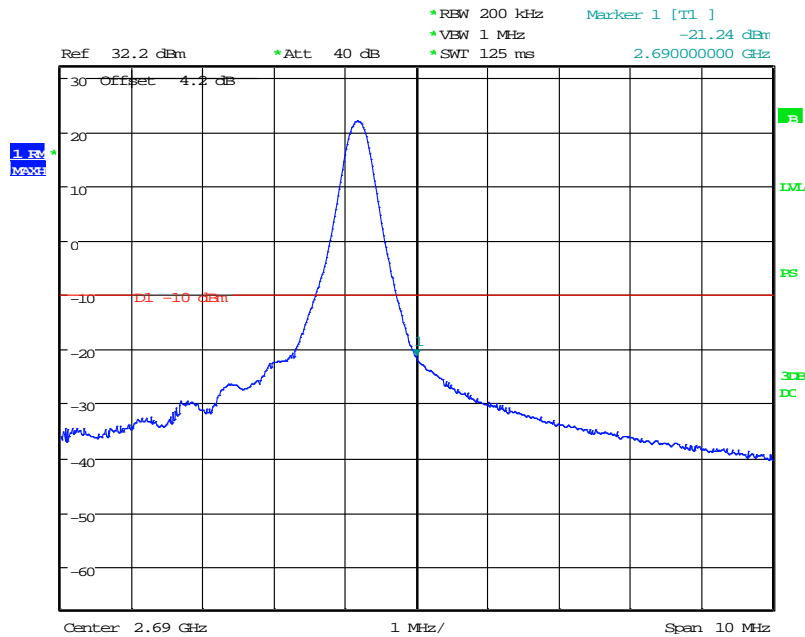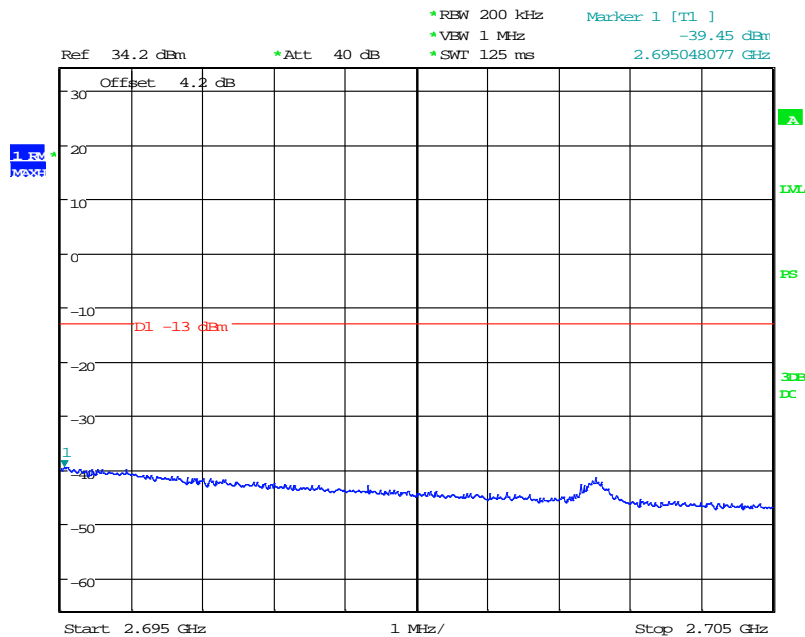
Date: 3.JUL.2015 19:27:40

15MHz bandwidth, QPSK,(1,75) Mode, Above 2690MHz

Date: 3.JUL.2015 19:29:24

Date: 3.JUL.2015 19:35:15
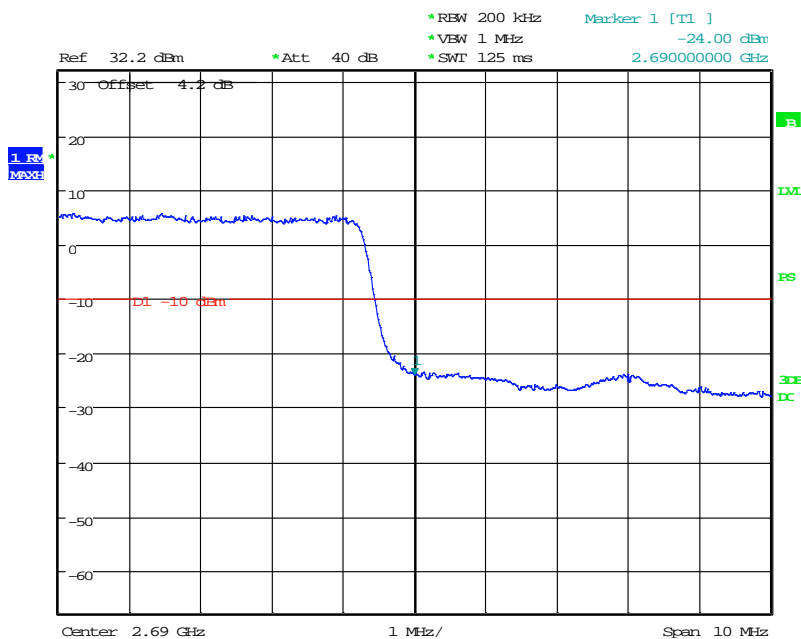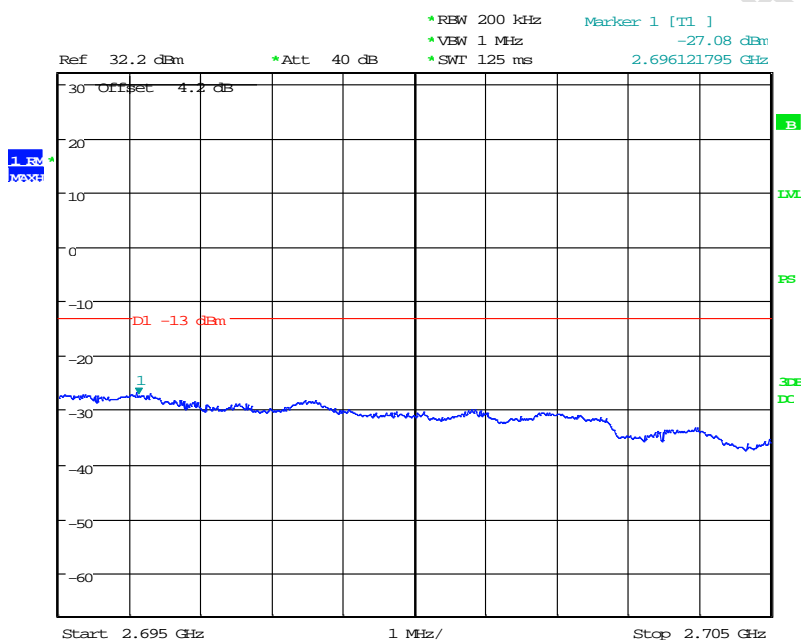
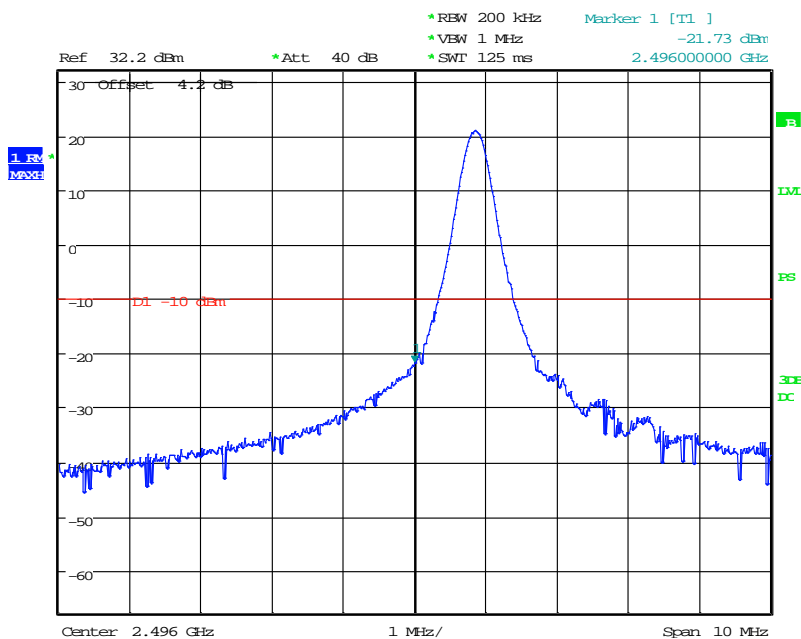## 15MHz bandwidth, QPSK,(75,0) Mode, Above 2690MHz


```
                                    *RBW 200 kHz      Marker 1 [T1 ]
                                    *VBW 1 MHz                -24.00 dBm
Ref   32.2 dBm      *Att   40 dB    *SWT 125 ms        2.690000000 GHz
```

Date: 3.JUL.2015 19:29:39


```
                                    *RBW 200 kHz      Marker 1 [T1 ]
                                    *VBW 1 MHz                -27.08 dBm
Ref   32.2 dBm      *Att   40 dB    *SWT 125 ms        2.696121795 GHz
```
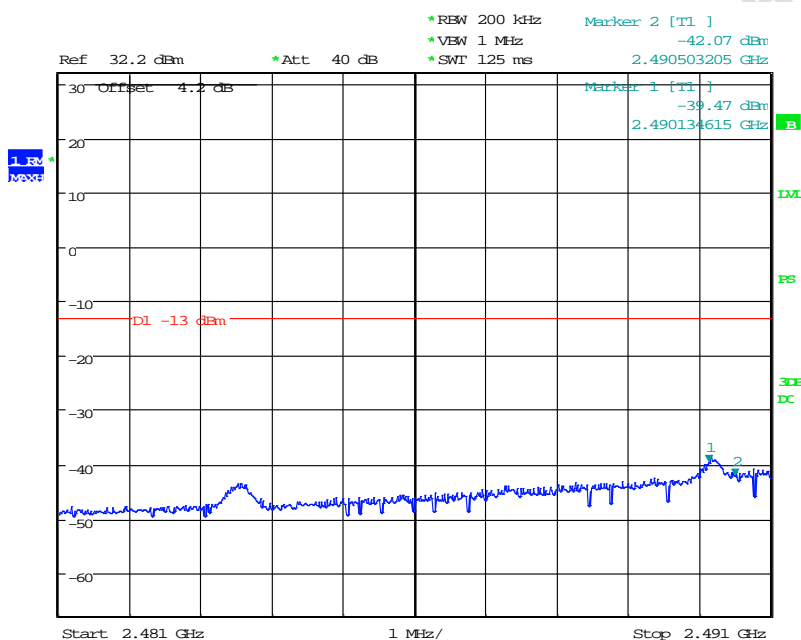
Date: 3.JUL.2015 19:31:46

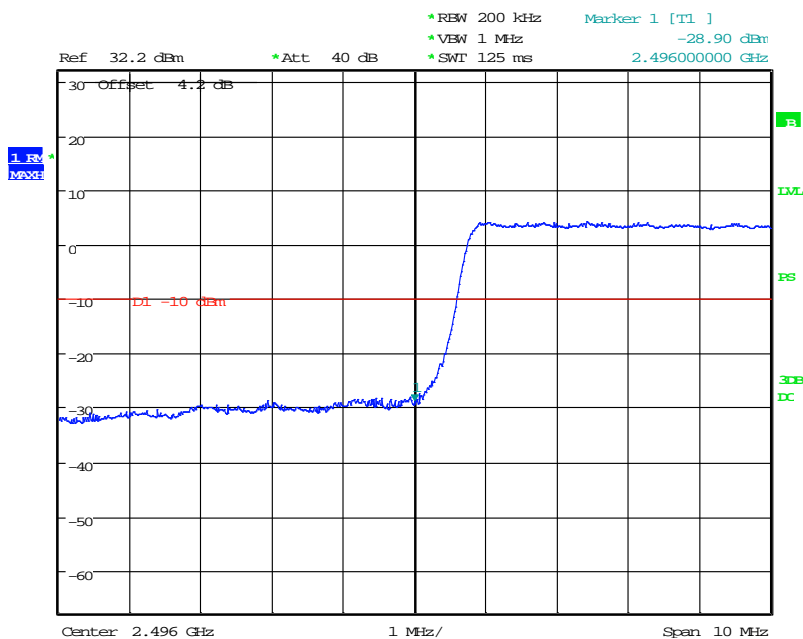## 15MHz bandwidth, 16QAM,(1,0) Mode , below 2496MHz

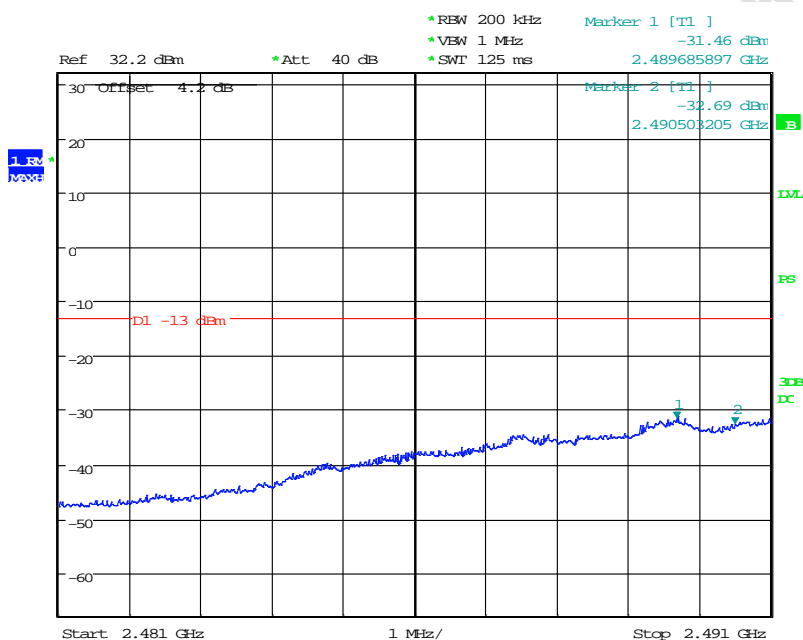Date: 3.JUL.2015 19:26:34

Date: 3.JUL.2015 19:27:14

15MHz bandwidth, 16QAM,(75,0) Mode , below 2496MHz

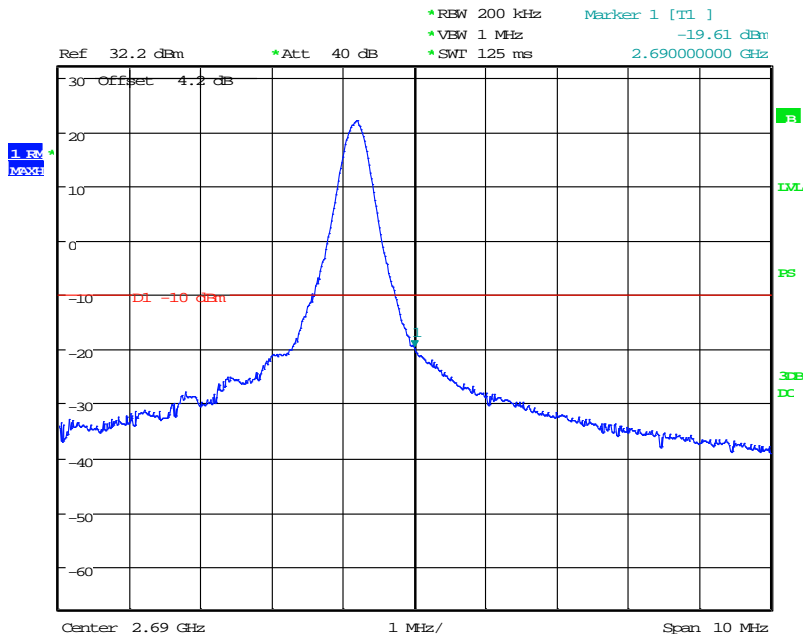
Date: 3.JUL.2015 19:26:10

Date: 3.JUL.2015 19:27:26

15MHz bandwidth, 16QAM,(1,75) Mode, Above 2690MHz

Date: 3.JUL.2015 19:30:16

Date: 3.JUL.2015 19:31:18

15MHz bandwidth, 16QAM,(75,0) Mode, Above 2690MHz

Date: 3.JUL.2015 19:29:52

Date: 3.JUL.2015 19:31:30

20MHz bandwidth,QPSK,(1,0) Mode , below 2496MHz

Date: 3.JUL.2015 19:36:37
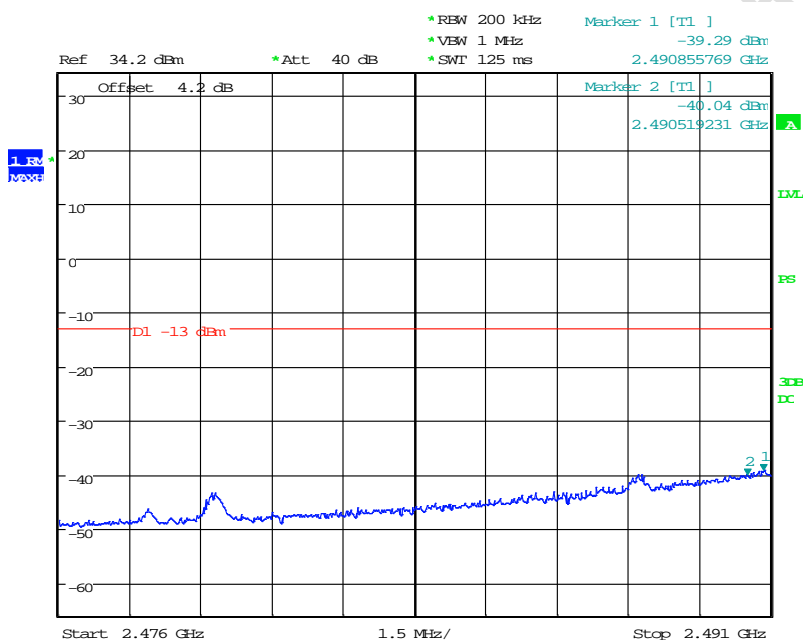
Date: 3.JUL.2015 19:39:34

20MHz bandwidth,QPSK,(100,0) Mode , below 2496MHz
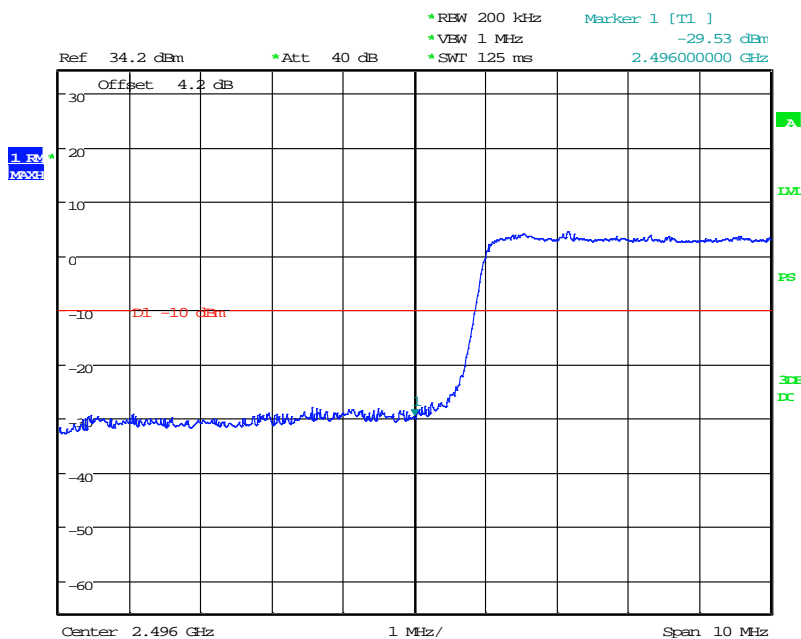
Date: 3.JUL.2015 19:36:53
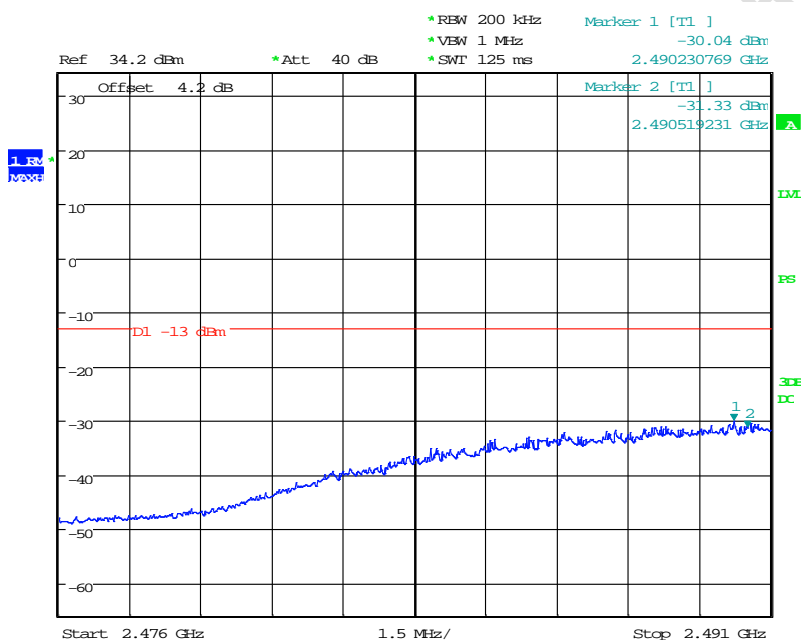
Date: 3.JUL.2015 19:39:02

20MHz bandwidth, QPSK,(1,100) Mode, Above 2690MHz
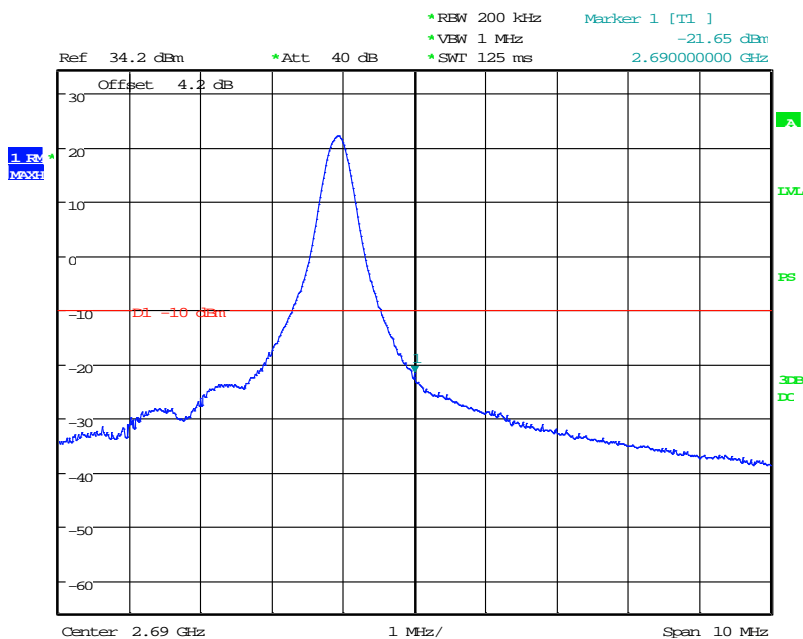
Date: 3.JUL.2015 19:41:10
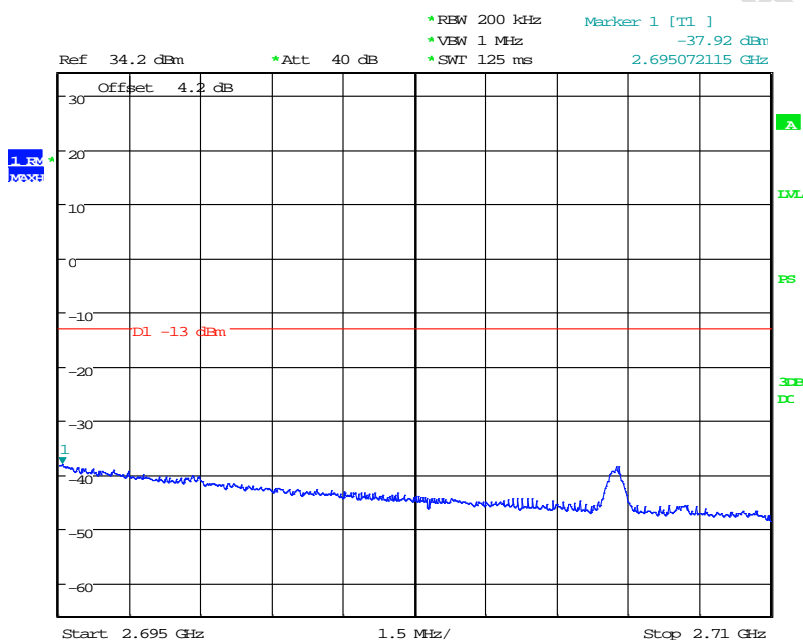
Date: 3.JUL.2015 19:43:53

20MHz bandwidth, QPSK,(100,0) Mode, Above 2690MHz
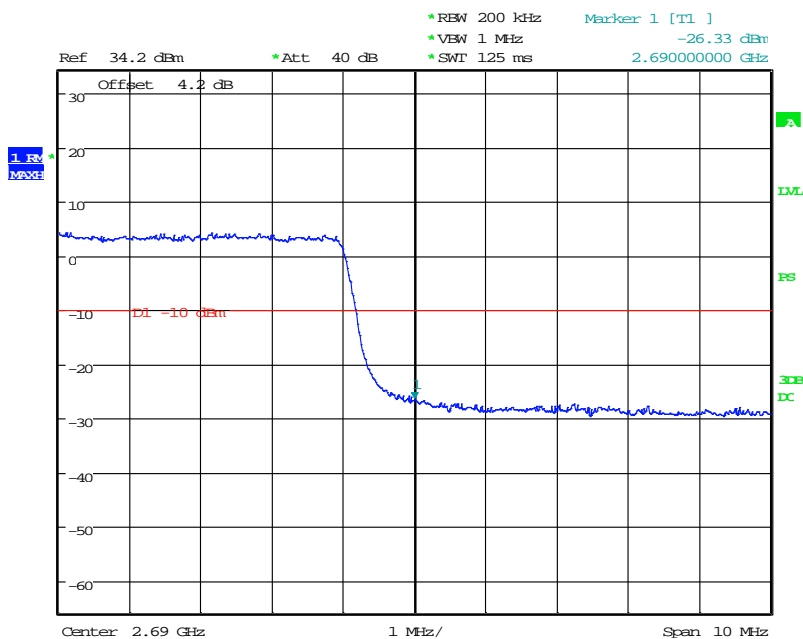
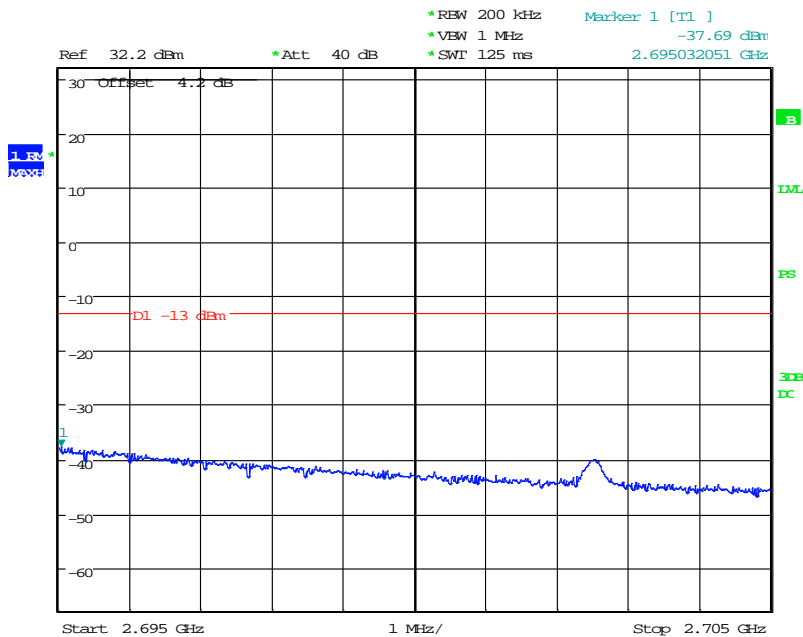Date: 3.JUL.2015 19:41:25
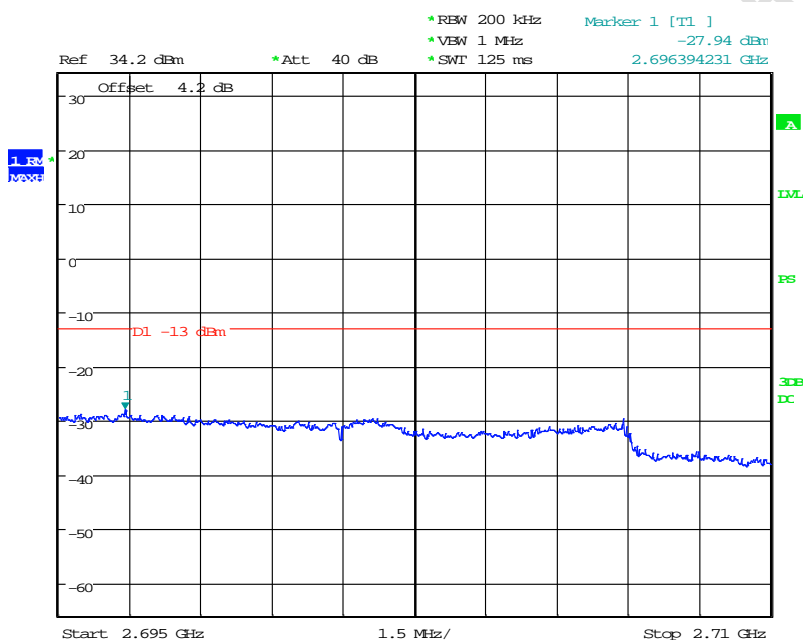
Date: 3.JUL.2015 19:43:14

20MHz bandwidth, 16QAM,(1,0) Mode , below 2496MHz
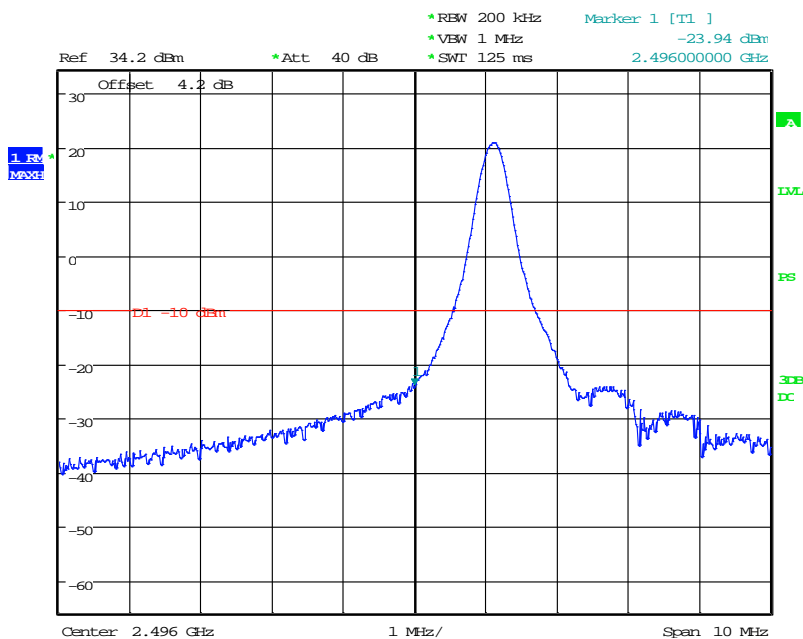
Date: 3.JUL.2015 19:37:26
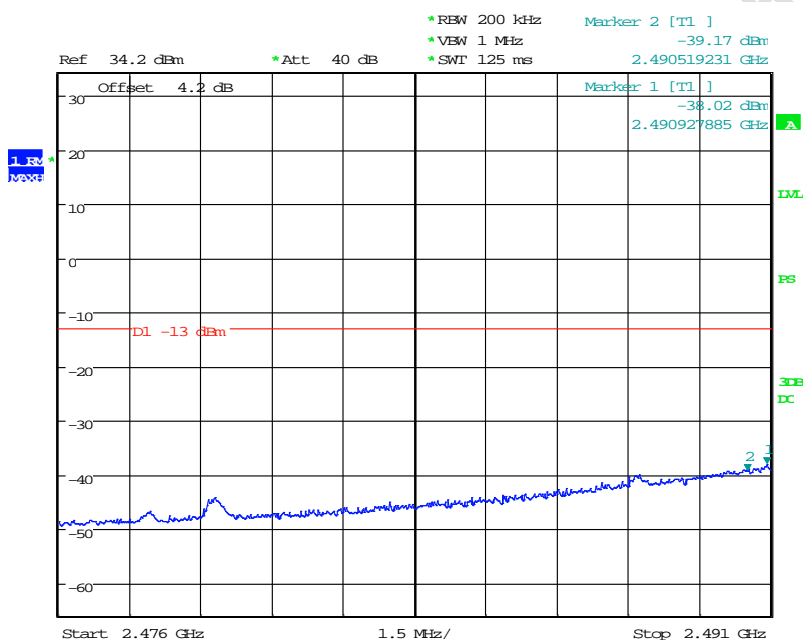
Date: 3.JUL.2015 19:38:22

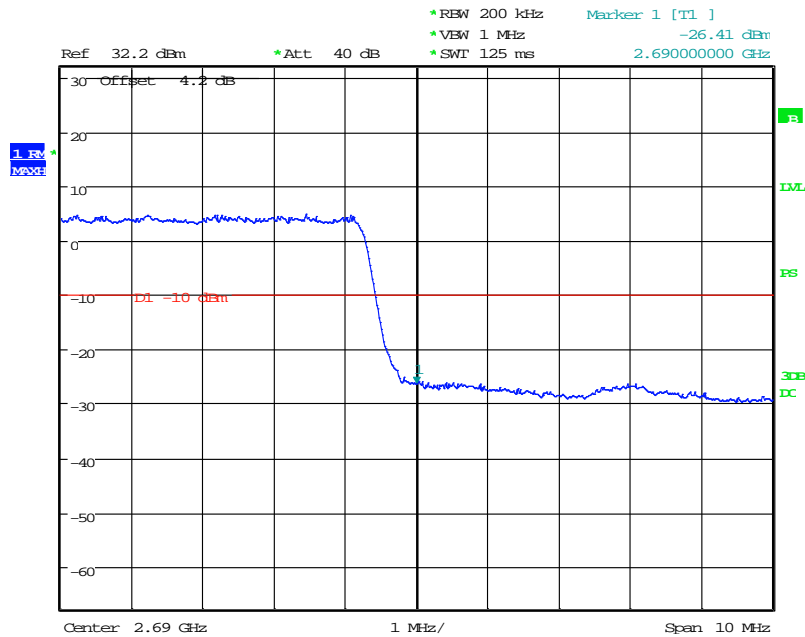## 20MHz bandwidth, 16QAM,(100,0) Mode , below 2496MHz
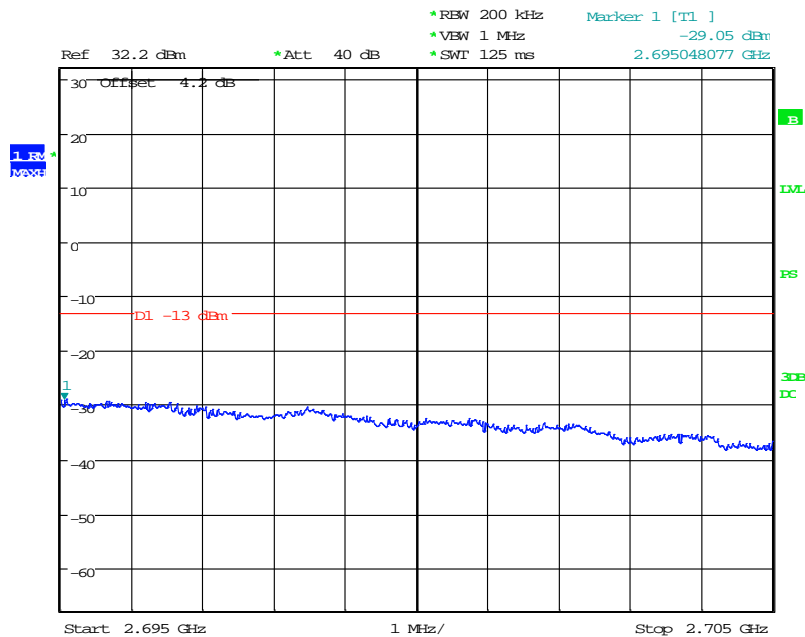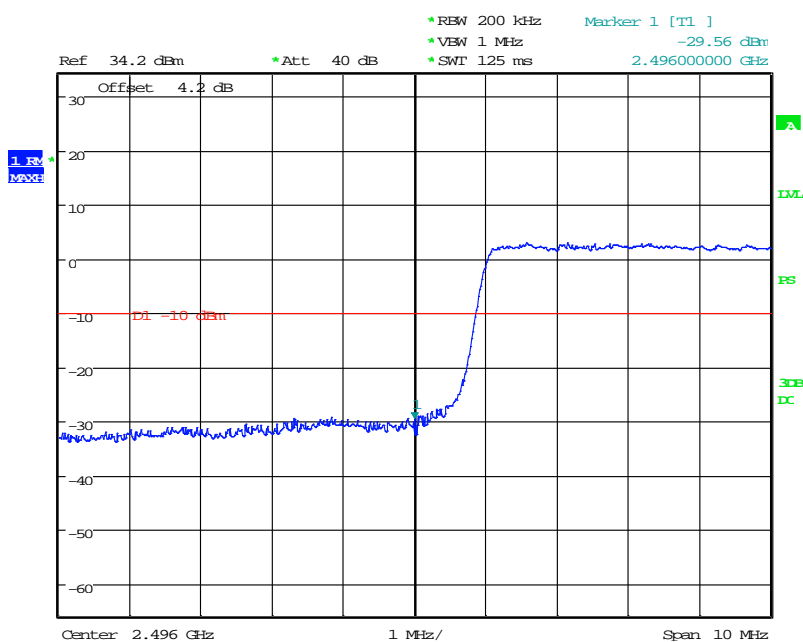

Date: 3.JUL.2015 19:37:11
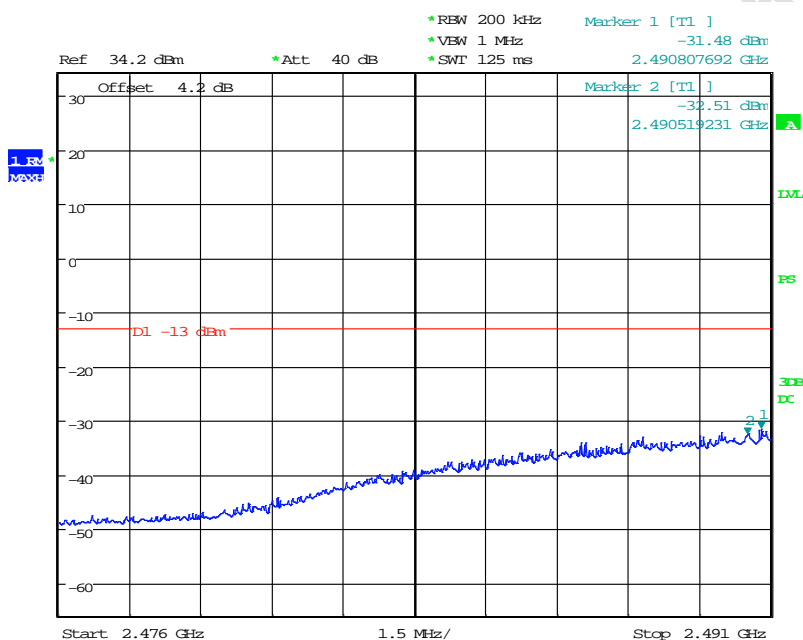
Date: 3.JUL.2015 19:38:38

20MHz bandwidth, 16QAM,(1,100) Mode, Above 2690MHz

Date: 3.JUL.2015 19:41:53
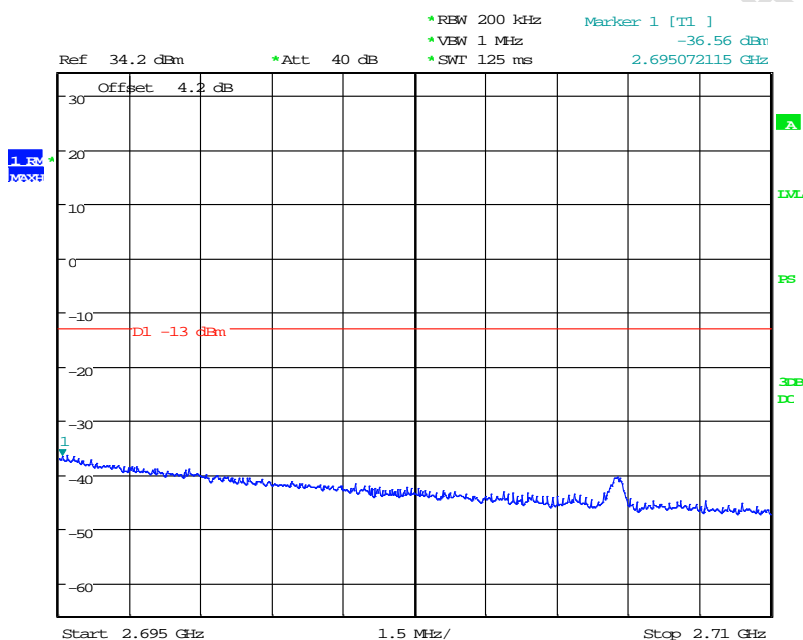
Date: 3.JUL.2015 19:42:44

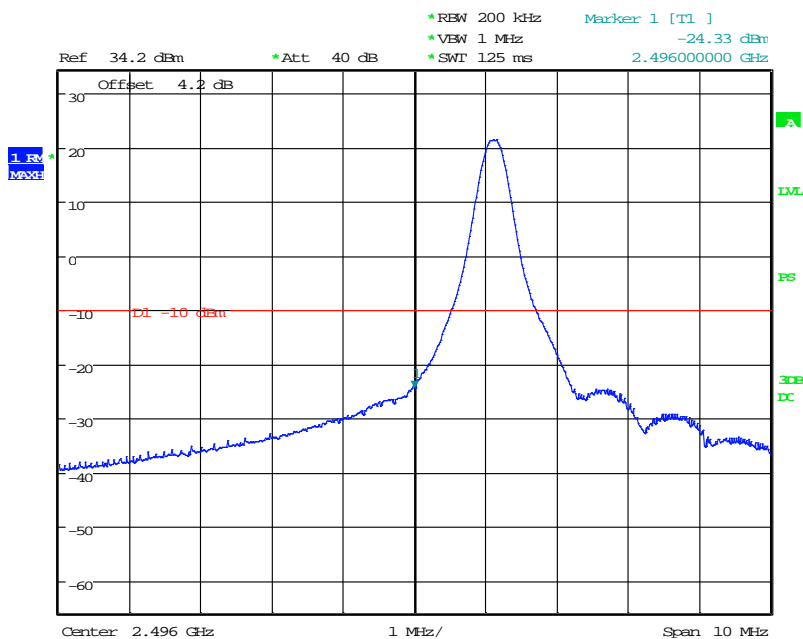## 20MHz bandwidth, 16QAM,(100,0) Mode, Above 2690MHz
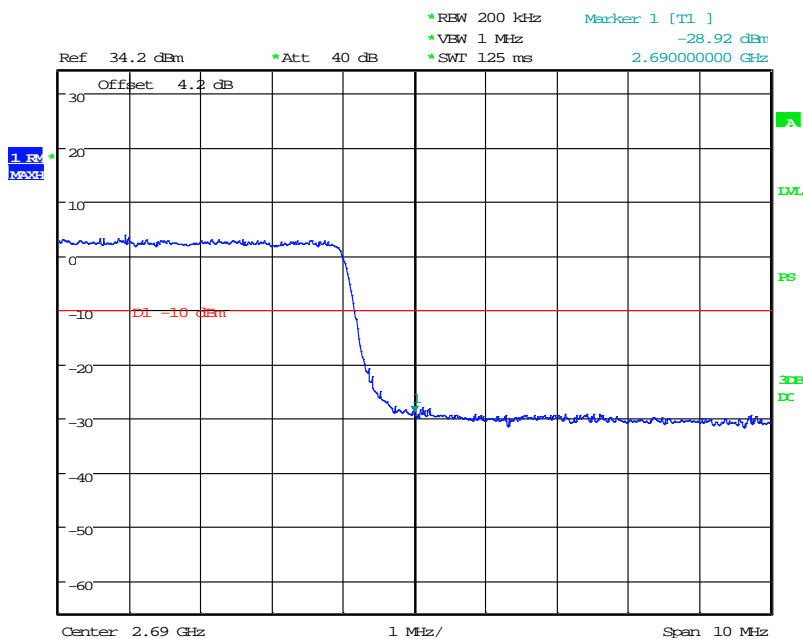
Date: 3.JUL.2015 19:41:38
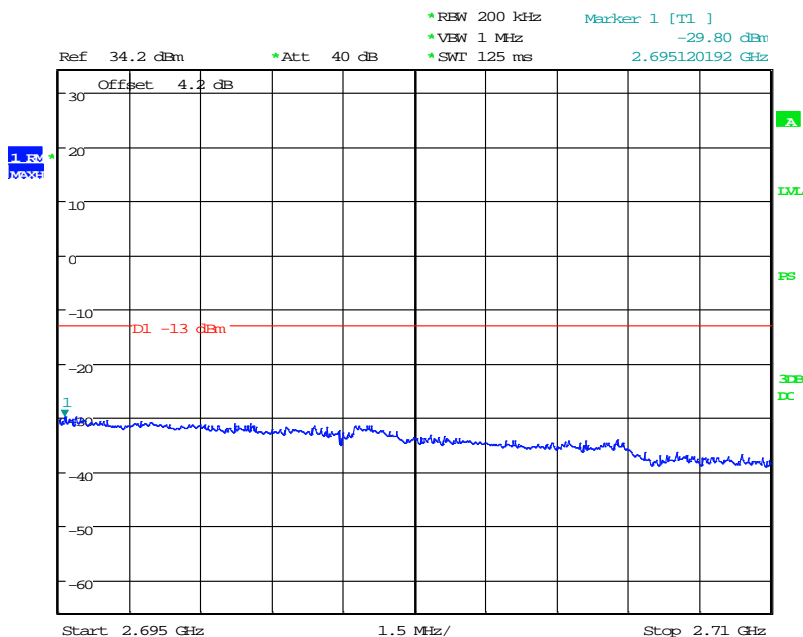
Date: 3.JUL.2015 19:42:56

4.5.9 WCDMA B2 Band Edge Results

Graphical results：
Low Channel , Below 1850MHz
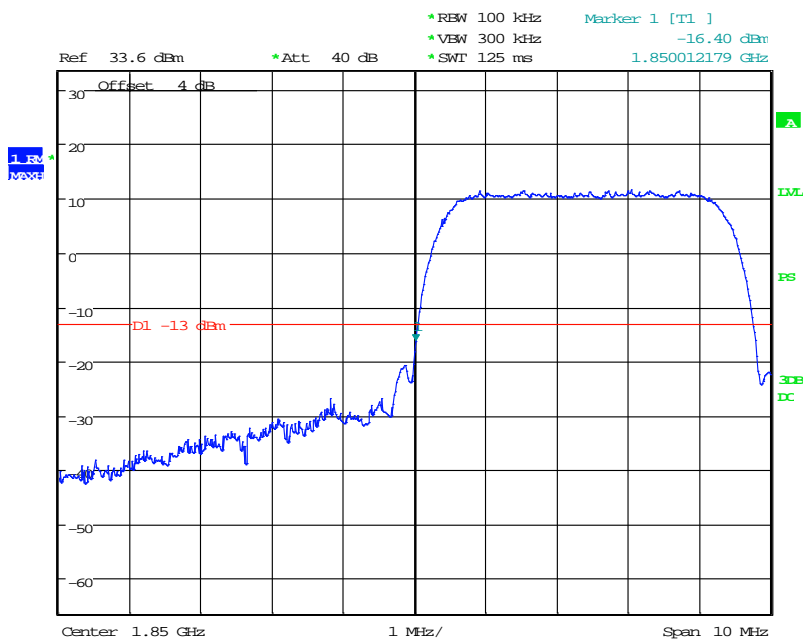
Date: 3.JUL.2015 13:18:16

High Channel , Above 1910MHz
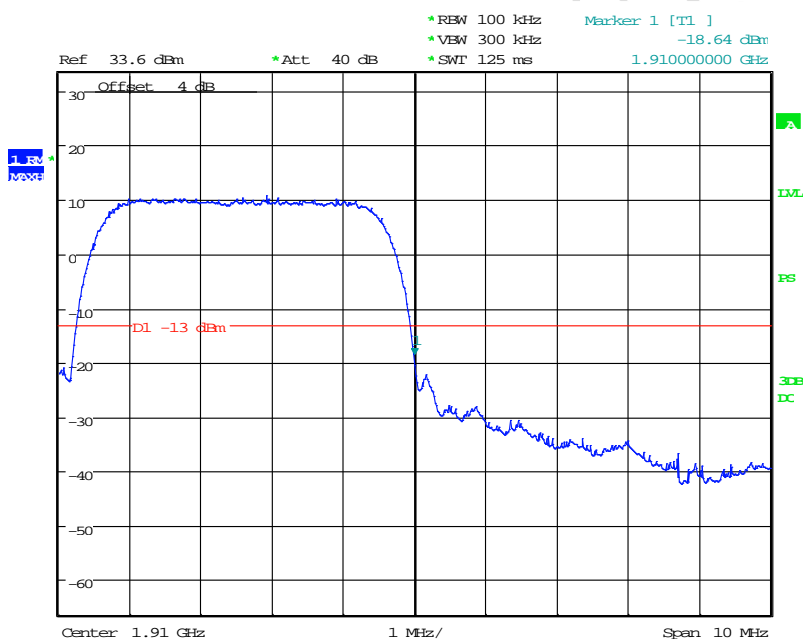
Date: 3.JUL.2015 13:19:00

4.5.10 WCDMA B4 Band Edge Results

Graphical results：
Low Channel , Below 1710MHz
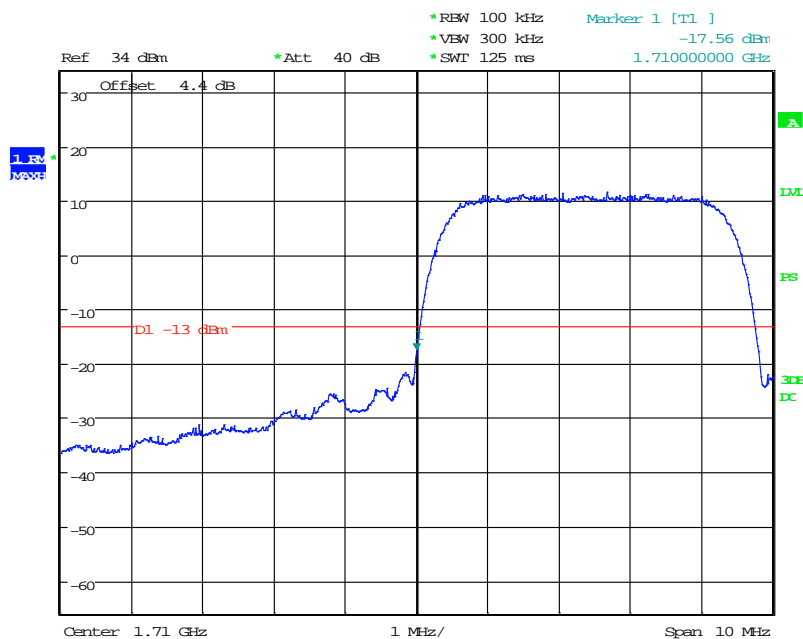
Date: 3.JUL.2015 13:20:34

High Channel , Above 1755MHz
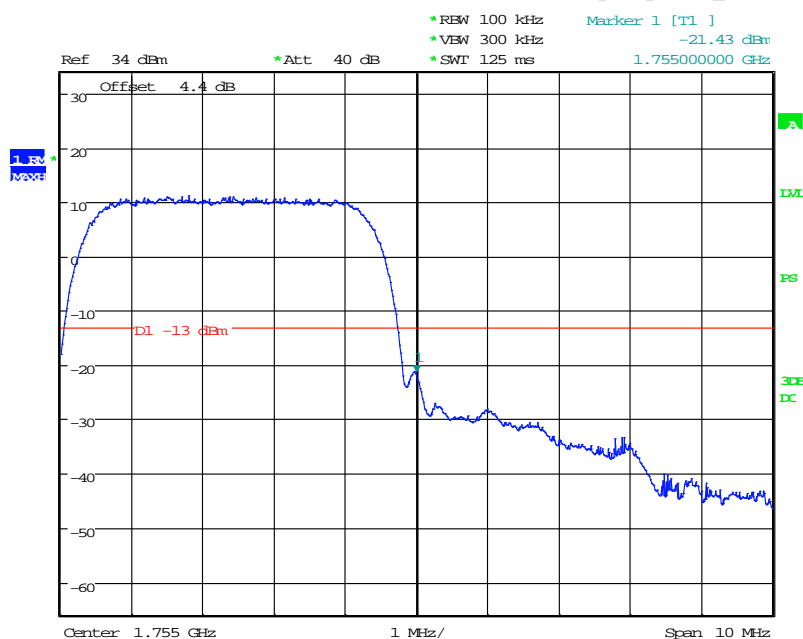
Date: 3.JUL.2015 13:21:13

4.5.11 WCDMA B5 Band Edge Results

Graphical results：
Low Channel , Below 824MHz
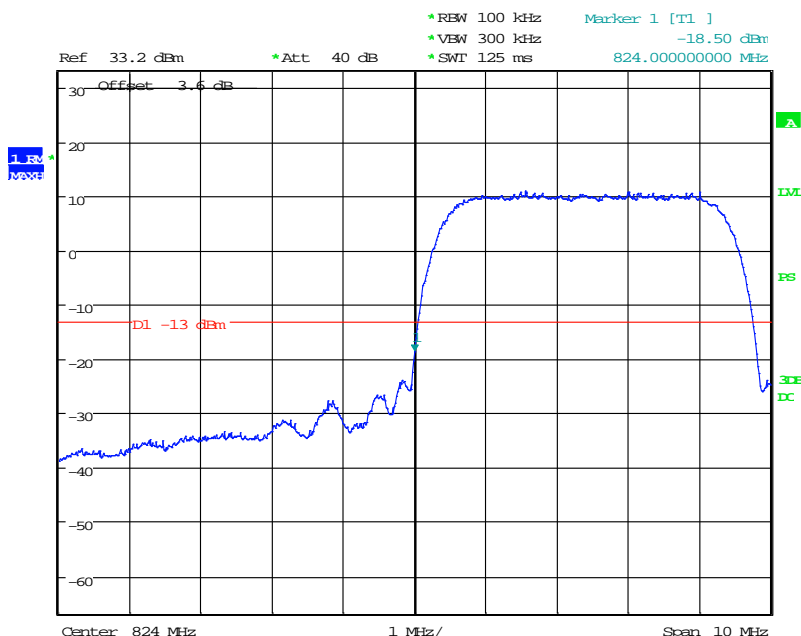
Date: 3.JUL.2015 13:23:52

High Channel , Above 849MHz
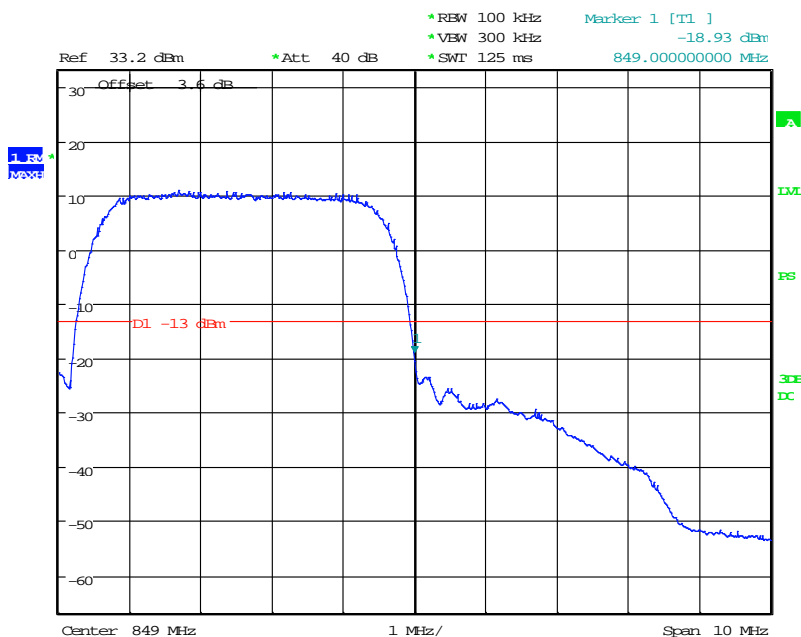
Date: 3.JUL.2015 13:24:23

4.6 Frequency Stability over Temperature Variation

Specifications:	FCC Part 2.1055, 22.355, 24.235, 27.54, 90.213 RSS-130 4.3, RSS-132 4.3, RSS-133 6.3, RSS-199 4.3
Date of Test	2015-06-24 to 2015-06-25
Test conditions:	Ambient Temperature:-30℃-50℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Limit	
Frequency deviation [ppm]	±2.5

Test Setup

The EUT was placed in a temperature chamber, demonstrated as figure T. The Wireless Telecommunications Test Set was used to set the Tx channel and power level, modulate the TX signal with different bit patterns and measure the frequency of Tx.
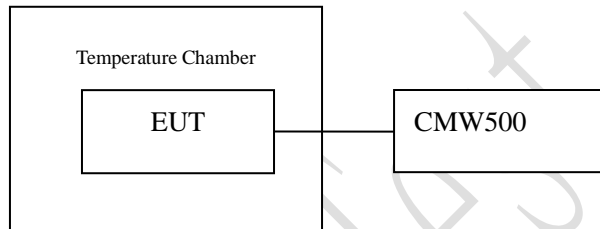
Figure T: setup for measurement of frequency stability over temperature variation

Test Method

1. The EUT was turned off and placed in the temperature chamber.
2. The temperature of the chamber was set to -30℃ and allowed to stabilize.
3. The EUT temperature was allowed to stabilize for 45 minutes.
4. The EUT was turned on and set to transmit with Wireless Telecommunications Test Set.
5. The maximum transmit frequency deviation during one minute period was measured by Wireless Communications Test Set.
6. The steps 3-5 were repeated for -30℃,-20℃, -10℃, 0℃, 10℃, 20℃, 30℃, 40℃ and 50℃.

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FCC Parts 2, 22, 24,27,90 RSS-Gen, 130, 132,133,139, 199
Equipment: EM7455   **REPORT NO.: B15W50341-FCC-RF_Rev2**

4.6.1 LTE Band Frequency Stability over Temperature Variation Results

Test data：

Frequency stability is not affected by transmission bandwidth or modulation mode (QPSK, 16-QAM).The measurements below were performed with a 10 MHz transmission bandwidth and QPSK modulation.

BAND	Offset	Temperature[℃]								
		-30	-20	-10	0	10	20	30	40	50
4	Hz	14.97	12.13	18.59	-22.34	21.50	7.88	13.87	10.57	-18.81
	ppm	0.0086	0.0070	0.0107	-0.0129	0.0124	0.0045	0.0080	0.0061	-0.0109
7	Hz	15.50	-18.61	14.40	21.60	-13.29	8.57	17.22	-13.69	5.25
	ppm	0.0061	-0.0073	0.0057	0.0085	-0.0052	0.0034	0.0068	-0.0054	0.0021
12	Hz	8.19	-12.81	15.72	-11.28	18.74	-14.13	-18.56	20.97	-14.40
	ppm	0.0116	-0.0181	0.0222	-0.0159	0.0265	-0.0200	-0.0262	0.0296	-0.0204
13	Hz	-19.76	18.64	-18.58	12.90	14.75	-10.89	17.69	11.15	14.51
	ppm	-0.0253	0.0238	-0.0238	0.0165	0.0189	-0.0139	0.0226	0.0143	0.0186
25	Hz	-20.14	19.91	10.88	11.15	-15.70	14.72	13.37	-18.94	10.10
	ppm	-0.0107	0.0106	0.0058	0.0059	-0.0083	0.0078	0.0071	-0.0101	0.0054
26	Hz	-14.50	-11.06	-10.52	22.78	15.36	-12.05	14.09	15.81	-8.33
	ppm	-0.0174	-0.0133	-0.0127	0.0274	0.0185	-0.0145	0.0169	0.0190	-0.0100
30	Hz	-22.20	11.85	16.98	16.68	-13.21	-14.80	15.55	-4.11	18.37
	ppm	-0.0096	0.0051	0.0074	0.0072	-0.0057	-0.0064	0.0067	-0.0018	0.0080
41	Hz	-12.04	10.31	-11.06	2.10	17.80	-11.31	-20.27	19.75	16.22
	ppm	-0.0046	0.0040	-0.0043	0.0008	0.0069	-0.0044	-0.0078	0.0076	0.0063

4.6.2 WCDMA Band Frequency Stability over Temperature Variation

Results

Test data：

Band	Offset	Temperature[℃]								
		-30	-20	-10	0	10	20	30	40	50
2	Hz	3.04	1.86	2.93	-0.86	2.53	3.52	2.57	-3.89	4.13
	ppm	0.0016	0.0010	0.0016	-0.0005	0.0013	0.0019	0.0014	-0.0021	0.0022
4	Hz	2.33	0.78	2.12	-2.13	4.80	2.37	4.70	-2.12	3.29
	ppm	0.0013	0.0005	0.0012	-0.0012	0.0028	0.0014	0.0027	-0.0012	0.0019
5	Hz	3.59	-2.63	-2.07	0.27	-0.66	-0.15	-3.05	4.71	0.73
	ppm	0.0043	-0.0031	-0.0025	0.0003	-0.0008	-0.0002	-0.0036	0.0056	0.0009

4.7 Frequency Stability over Voltage Variation

Specifications:	FCC Part 2.1055, 22.355, 24.235, 27.54, 90.213
	RSS-130 4.3, RSS-132 4.3, RSS-133 6.3, RSS-199 4.3
Date of Test	2015-06-24 to 2015-06-25
Test conditions:	Ambient Temperature:15℃-35℃
	Relative Humidity:30%-60%
	Air pressure: 86-106kPa
Test Results:	Pass

Limit	
Frequency deviation [ppm]	±2.5

Test Setup

The EUT was placed in a shielding chamber and powered by an adjustable power supply, demonstrated as figure V. A Wireless Telecommunications Test Set was used to set the TX channel and power level, modulate the TX signal with different bit patterns and measure the frequency of TX.

```
┌──────────┐      ┌──────┐      ┌──────────┐
│Adjustable│      │      │      │          │
│  Power   │──────│ EUT  │──────│ CMW500   │
│  Supply  │      │      │      │          │
└──────────┘      └──────┘      └──────────┘
```
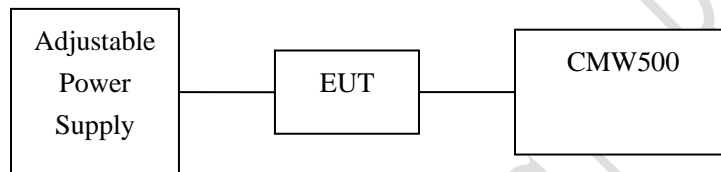
Figure V: test setup for measurement of frequency stability
over voltage variation

Test Method

The EUT was powered by the adjustable power supply. The frequency stability is measured by the Wireless Telecommunications Test Set.

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FCC Parts 2, 22, 24,27,90 RSS-Gen, 130, 132,133,139, 199
Equipment: EM7455   **REPORT NO.: B15W50341-FCC-RF_Rev2**

4.7.1 LTE Band Frequency Stability over Voltage Variation Results

Test data:

BAND	Offset	Voltage (V)		
		3.15	3.7	4.25
4	Hz	-10.77	5.69	-24.48
	ppm	-0.0062	0.0033	-0.0141
7	Hz	-16.28	5.06	29.17
	ppm	-0.0064	0.0020	0.0115
12	Hz	-7.08	-12.92	21.73
	ppm	-0.0100	-0.0183	0.0307
13	Hz	-17.67	-8.25	28.94
	ppm	-0.0226	-0.0105	0.0370
25	Hz	16.48	15.12	11.13
	ppm	0.0088	0.0080	0.0059
26	Hz	-21.29	-11.40	15.28
	ppm	-0.0256	-0.0137	0.0184
30	Hz	27.37	-17.85	8.48
	ppm	0.0118	-0.0077	0.0037
41	Hz	32.22	-12.56	-15.85
	ppm	0.0124	-0.0048	-0.0061

4.7.2 WCDMA Band Frequency Stability over Voltage Variation Results

Test data：

Band	Offset	Voltage (V)		
		3.15	3.7	4.25
2	Hz	0.40	3.68	-0.92
	ppm	0.0002	0.0020	-0.0005
4	Hz	2.37	-1.18	-2.98
	ppm	0.0014	-0.0007	-0.0017
5	Hz	-0.60	-0.64	0.14
	ppm	-0.0007	-0.0008	0.0002

中国泰尔实验室 China Telecommunication Technology Labs.

FCC Parts 2, 22, 24,27,90 RSS-Gen, 130, 132,133,139, 199
Equipment: EM7455　　　　　　　　　　　**REPORT NO.: B15W50341-FCC-RF_Rev2**

4.8 Peak to Average Ratio

Specifications:	FCC Part 24.232, 27.50, RSS-130 4.4
Date of Tests	2015-06-18-2015-07-03
Test conditions:	Ambient Temperature: 15℃-35℃
	Relative Humidity: 30%-60%
	Air pressure: 86-106kPa
Test Results:	Pass

Limit

The EUT meets the requirement of having a peak to average ratio of less than 13dB.

Test Setup:

During the test, the EUT was controlled via the Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by spectrum analyzer.
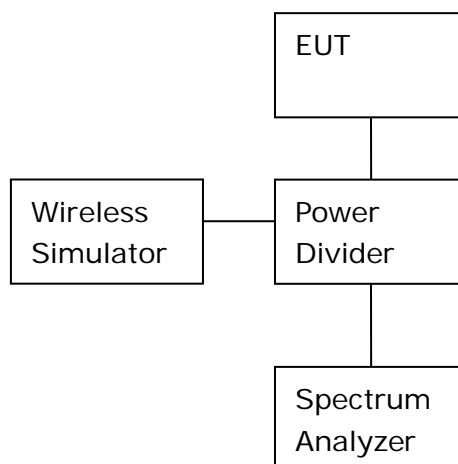
Test Method

The transmitter output was connected to a CMW500 through a coaxial RF cable and directional coupler, and configured to operate at maximum power. The peak to average ratio was measured at the required operating frequencies in each band on the Spectrum Analyzer.

4.8.1 LTE B4 Peak to Average Ratio Results

Test Data

	EUT channel No.	bandwidth	Peak to Average Ratio
QPSK	20175 (1732.5MHz)	10MHz	5.48
16QAM			6.39

4.8.2 LTE B7 Peak to Average Ratio Results

Test Data

	EUT channel No.	bandwidth	Peak to Average Ratio
QPSK	21100 (2535MHz)	10MHz	6.26
16QAM			7.13

4.8.3 LTE B12 Peak to Average Ratio Results

Test Data

	EUT channel No.	bandwidth	Peak to Average Ratio
QPSK	23095 (707.5MHz)	10MHz	6.60
16QAM			7.33

4.8.4 LTE B13 Peak to Average Ratio Results

Test Data

	EUT channel No.	bandwidth	Peak to Average Ratio
QPSK	23230 (782MHz)	10MHz	6.41
16QAM			7.58

4.8.5 LTE B25 Peak to Average Ratio Results

Test Data

	EUT channel No.	bandwidth	Peak to Average Ratio
QPSK	26365 (1882.5MHz)	10MHz	6.61
16QAM			7.34

4.8.6 LTE B26 Peak to Average Ratio Results

Test Data

	EUT channel No.	bandwidth	Peak to Average Ratio
QPSK	26865 (831.5MHz)	10MHz	6.74
16QAM			7.58

4.8.7 LTE B30 Peak to Average Ratio Results

Test Data

	EUT channel No.	bandwidth	Peak to Average Ratio
QPSK	27710 (2310MHz)	10MHz	6.23
16QAM			6.99

4.8.8 LTE B41 Peak to Average Ratio Results

Test Data

	EUT channel No.	bandwidth	Peak to Average Ratio
QPSK	40620 (2593MHz)	10MHz	11.14
16QAM			11.15

4.8.9 WCDMA B2 Peak to Average Ratio Results

Test Data

Frequency (MHz)	EUT channel No.	Modulation	Peak to Average Ratio
1880	9400	QPSK	3.61

4.8.10 WCDMA B4 Peak to Average Ratio Results

Test Data

Frequency (MHz)	EUT channel No.	Modulation	Peak to Average Ratio
1732.4	1412	QPSK	2.97

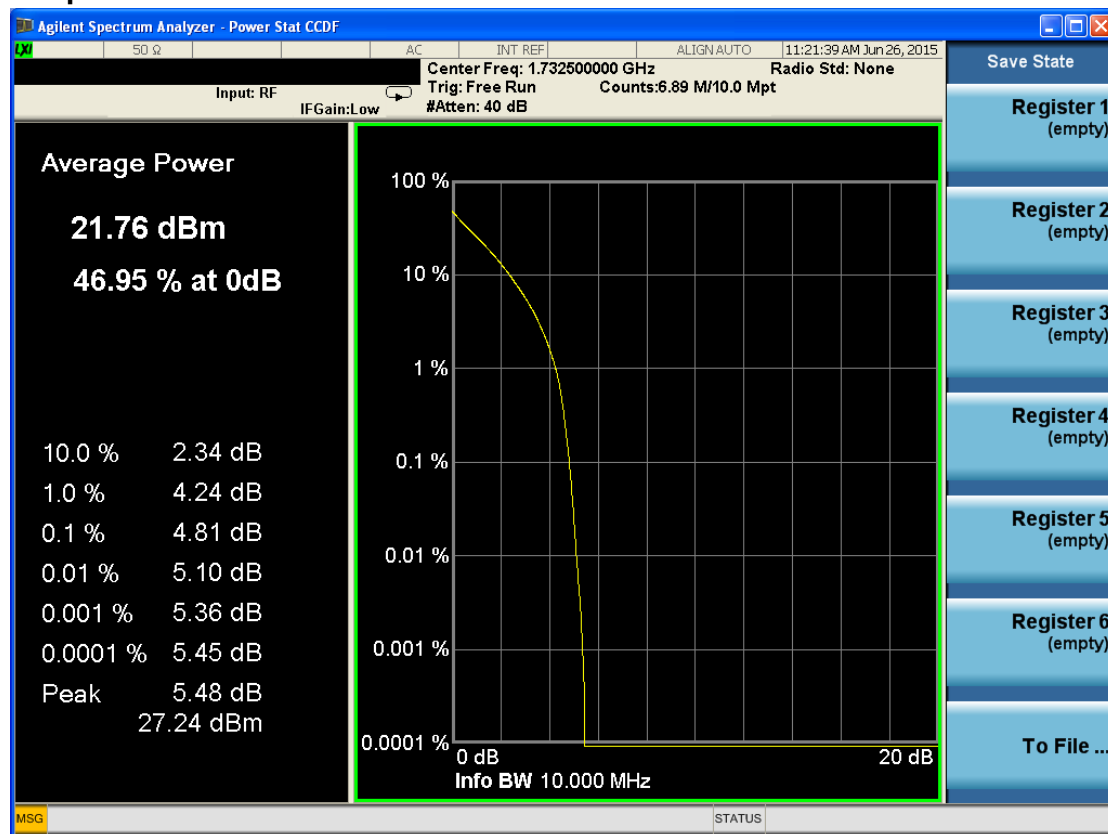### 4.8.11 WCDMA B5 Peak to Average Ratio Results

Test Data

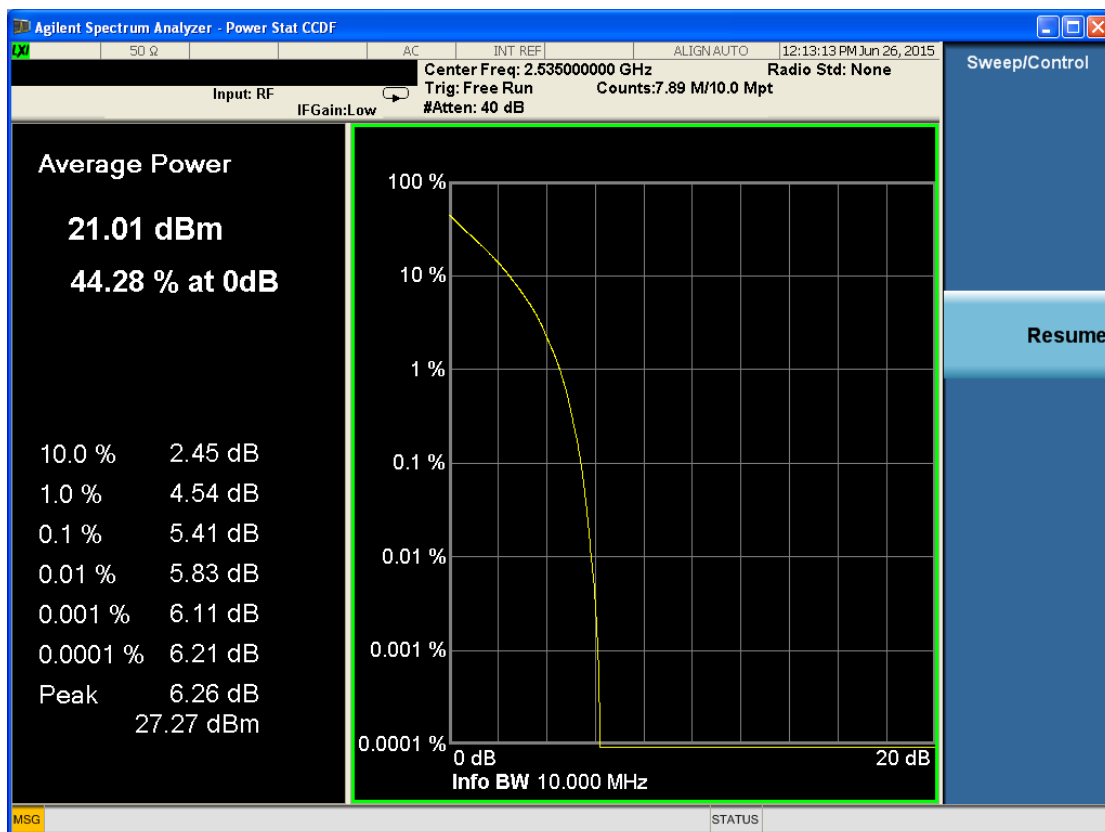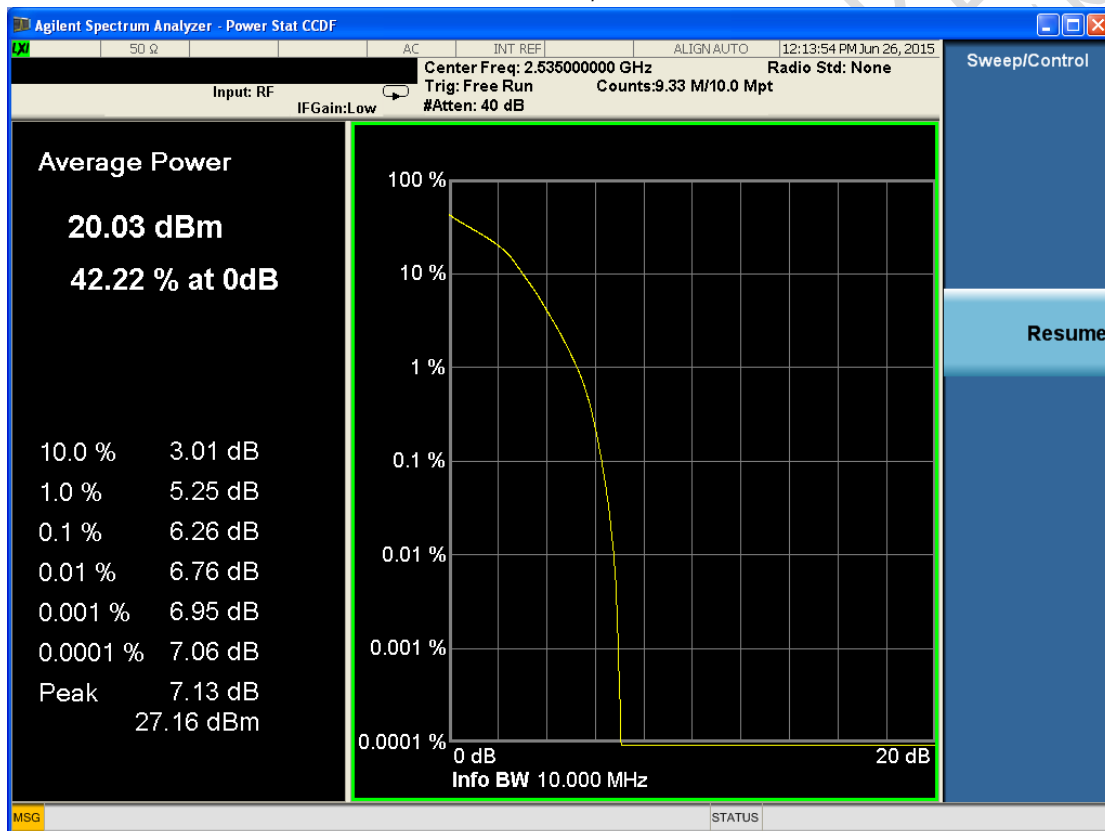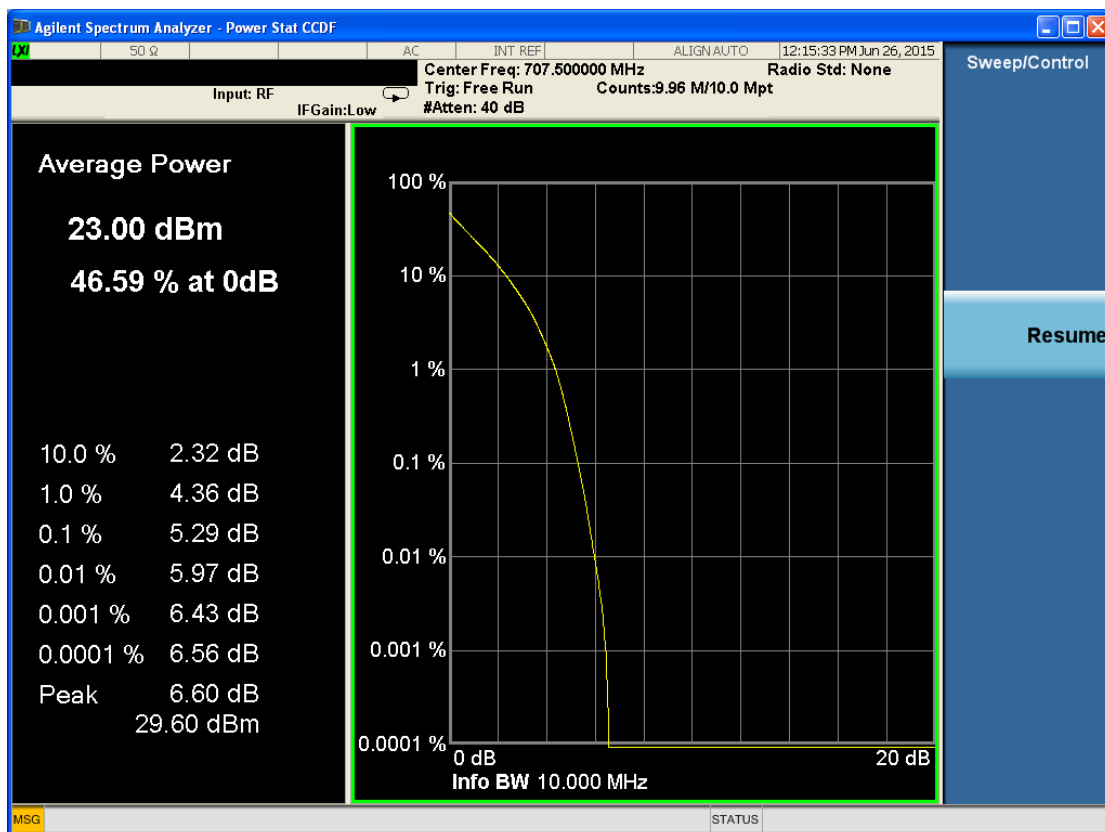| Frequency (MHz)	EUT channel No.	Modulation	Peak to Average Ratio
836.4	4182	QPSK	3.69

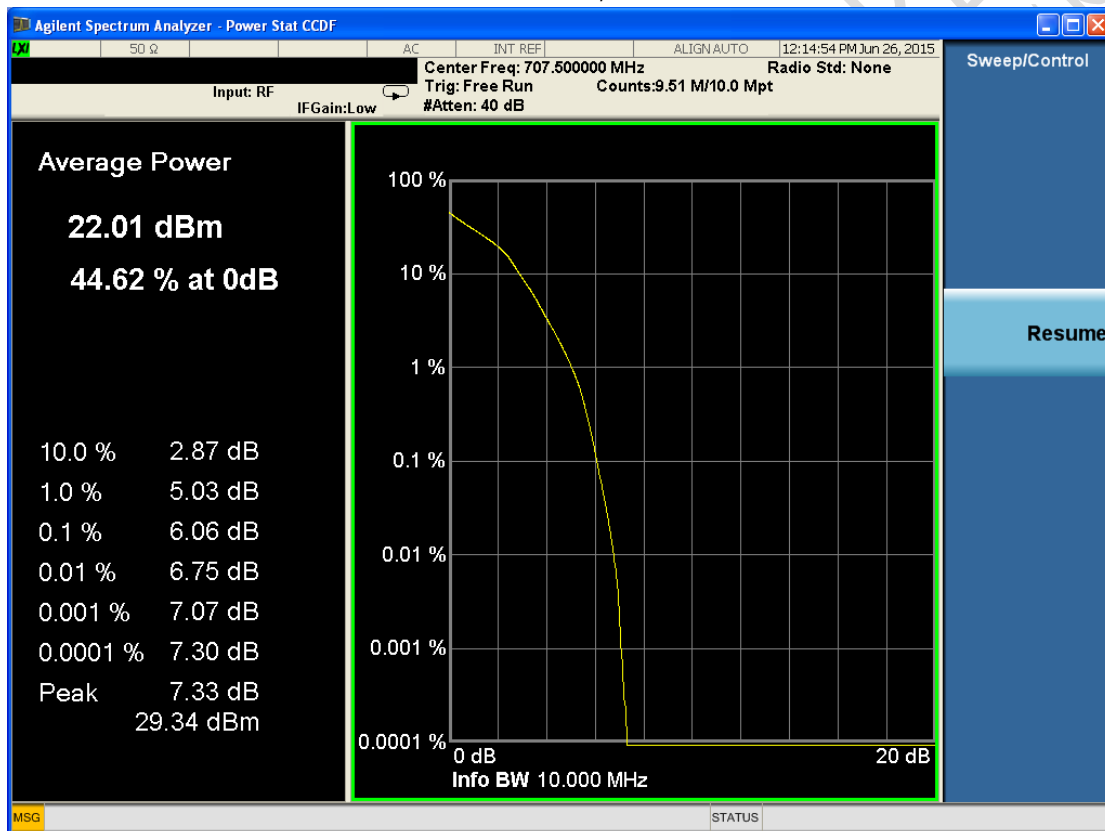## Graphical results for LTE B4:
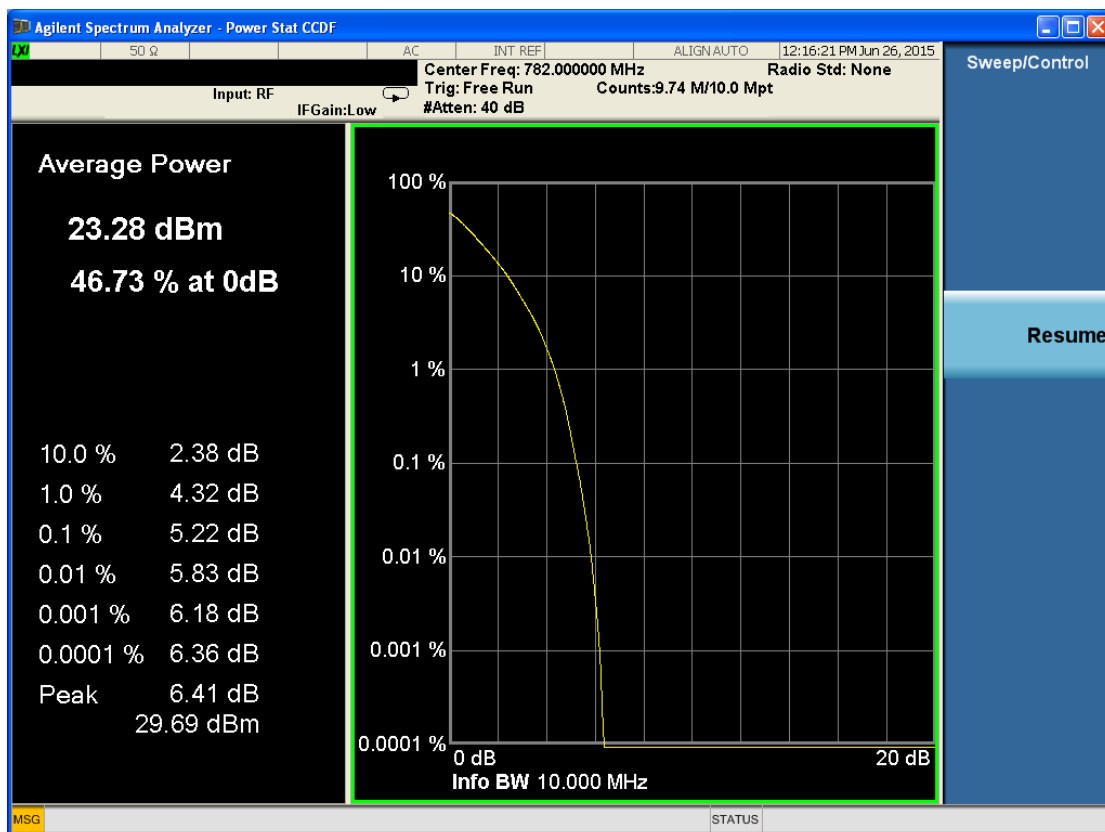

LTE Band4, QPSK

LTE Band4, 16QAM

LTE Band7, QPSK

LTE Band7, 16QAM

LTE Band12, QPSK

LTE Band12, 16QAM

Agilent Spectrum Analyzer - Power Stat CCDF

50 Ω   AC   INT REF   ALIGN AUTO   12:16:21 PM Jun 26, 2015
                                    Center Freq: 782.000000 MHz   Radio Std: None   Sweep/Control
            Input: RF   Trig: Free Run   Counts:9.74 M/10.0 Mpt
                     IFGain:Low   #Atten: 40 dB

Average Power

23.28 dBm

46.73 % at 0dB

10.0 %	2.38 dB
1.0 %	4.32 dB
0.1 %	5.22 dB
0.01 %	5.83 dB
0.001 %	6.18 dB
0.0001 %	6.36 dB
Peak	6.41 dB
	29.69 dBm

100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0 dB   20 dB
Info BW 10.000 MHz

MSG   STATUS

Resume

LTE Band13, QPSK

Agilent Spectrum Analyzer - Power Stat CCDF

50 Ω   AC   INT REF   ALIGN AUTO   12:16:53 PM Jun 26, 2015
                                    Center Freq: 782.000000 MHz   Radio Std: None   Sweep/Control
            Input: RF   Trig: Free Run   Counts:9.84 M/10.0 Mpt
                     IFGain:Low   #Atten: 40 dB

Average Power

22.23 dBm

44.55 % at 0dB

10.0 %	2.93 dB
1.0 %	5.03 dB
0.1 %	6.10 dB
0.01 %	6.75 dB
0.001 %	7.11 dB
0.0001 %	7.40 dB
Peak	7.58 dB
	29.81 dBm

100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0 dB   20 dB
Info BW 10.000 MHz

MSG   STATUS

Resume

LTE Band13, 16QAM

Agilent Spectrum Analyzer - Power Stat CCDF

Center Freq: 1.882500000 GHz　　Radio Std: None
Input: RF　　Trig: Free Run　　Counts:9.86 M/10.0 Mpt
IFGain:Low　　#Atten: 40 dB

Average Power

22.24 dBm

45.97 % at 0dB

10.0 %	2.34 dB
1.0 %	4.42 dB
0.1 %	5.39 dB
0.01 %	6.04 dB
0.001 %	6.43 dB
0.0001 %	6.54 dB
Peak	6.61 dB
	28.85 dBm

Info BW 10.000 MHz

LTE Band25, QPSK

Agilent Spectrum Analyzer - Power Stat CCDF

Center Freq: 1.882500000 GHz　　Radio Std: None
Input: RF　　Trig: Free Run　　Counts:9.80 M/10.0 Mpt
IFGain:Low　　#Atten: 40 dB

Average Power

21.22 dBm

44.45 % at 0dB

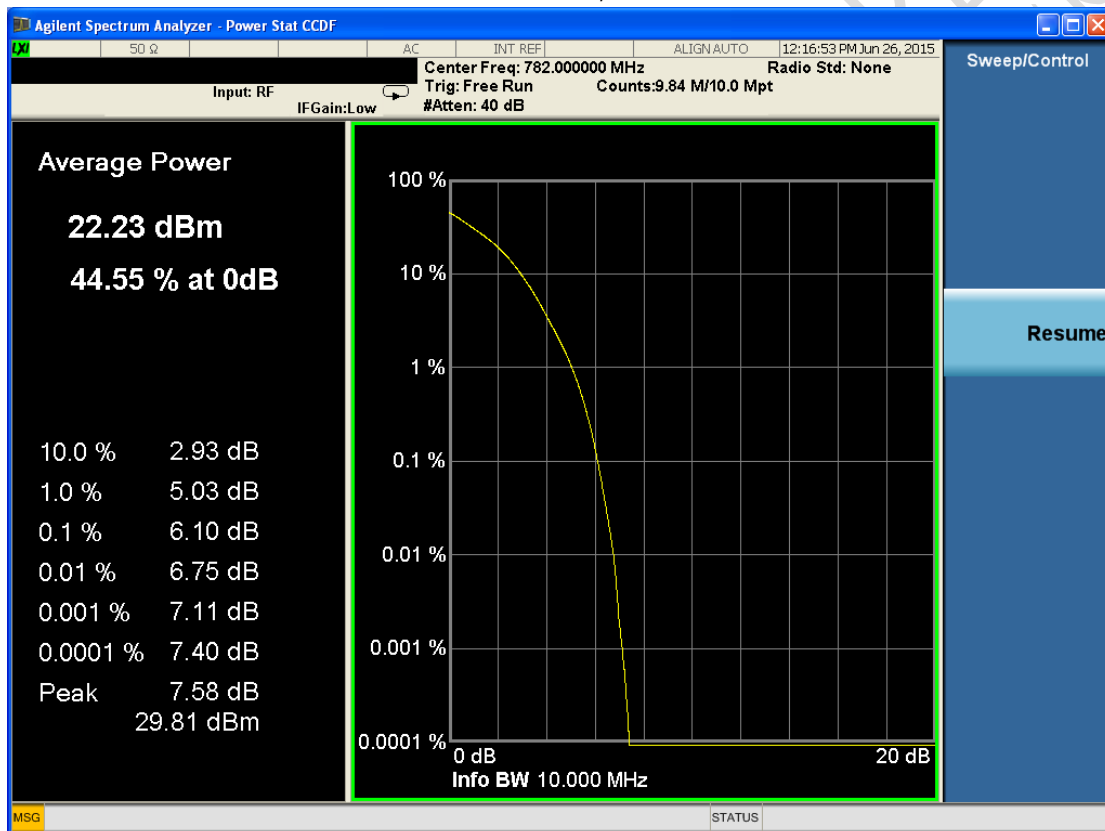|	
10.0 %	2.87 dB
1.0 %	5.05 dB
0.1 %	6.13 dB
0.01 %	6.83 dB
0.001 %	7.17 dB
0.0001 %	7.30 dB
Peak	7.34 dB
	28.56 dBm

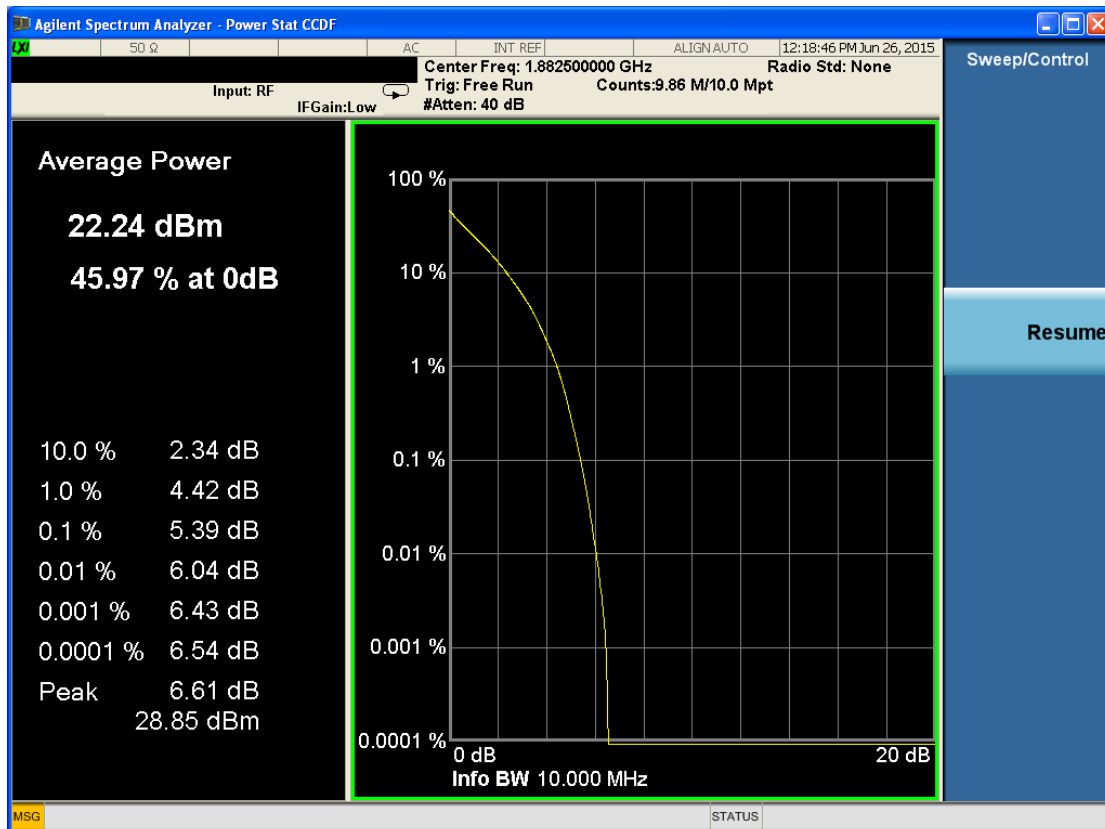Info BW 10.000 MHz

LTE Band25, 16QAM

LTE Band26, QPSK

LTE Band26, 16QAM

LTE Band30, QPSK
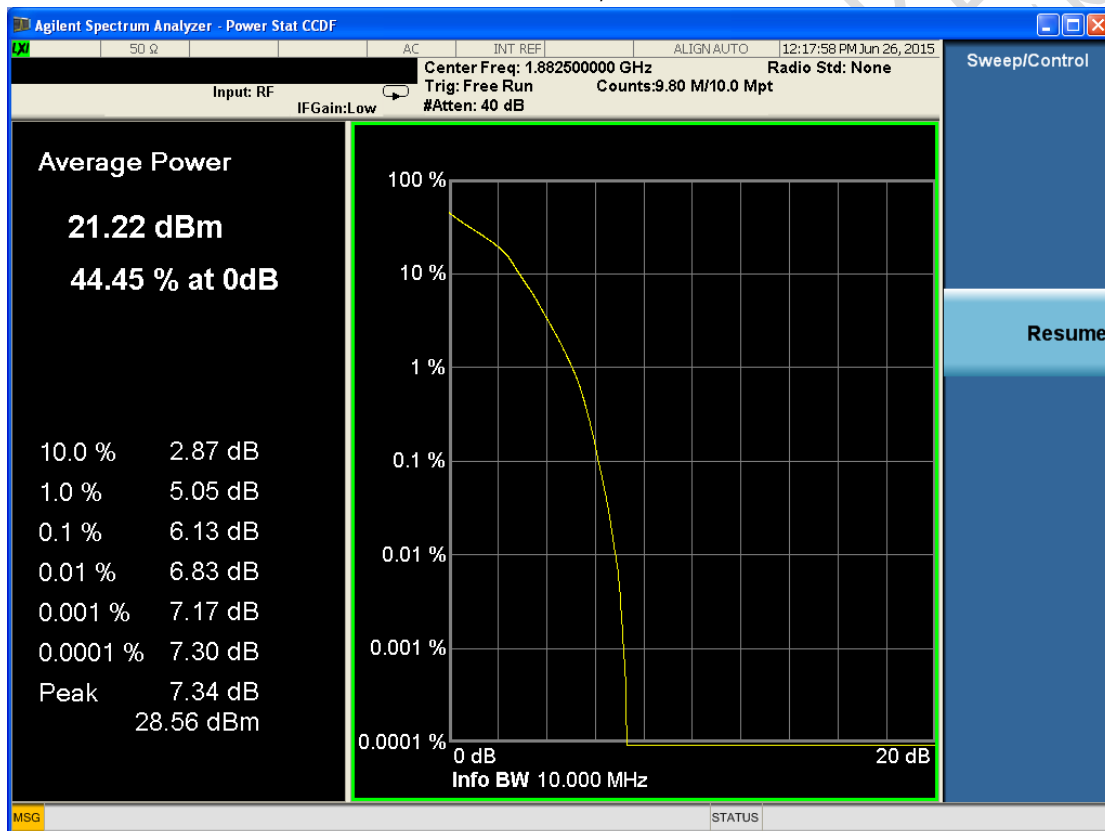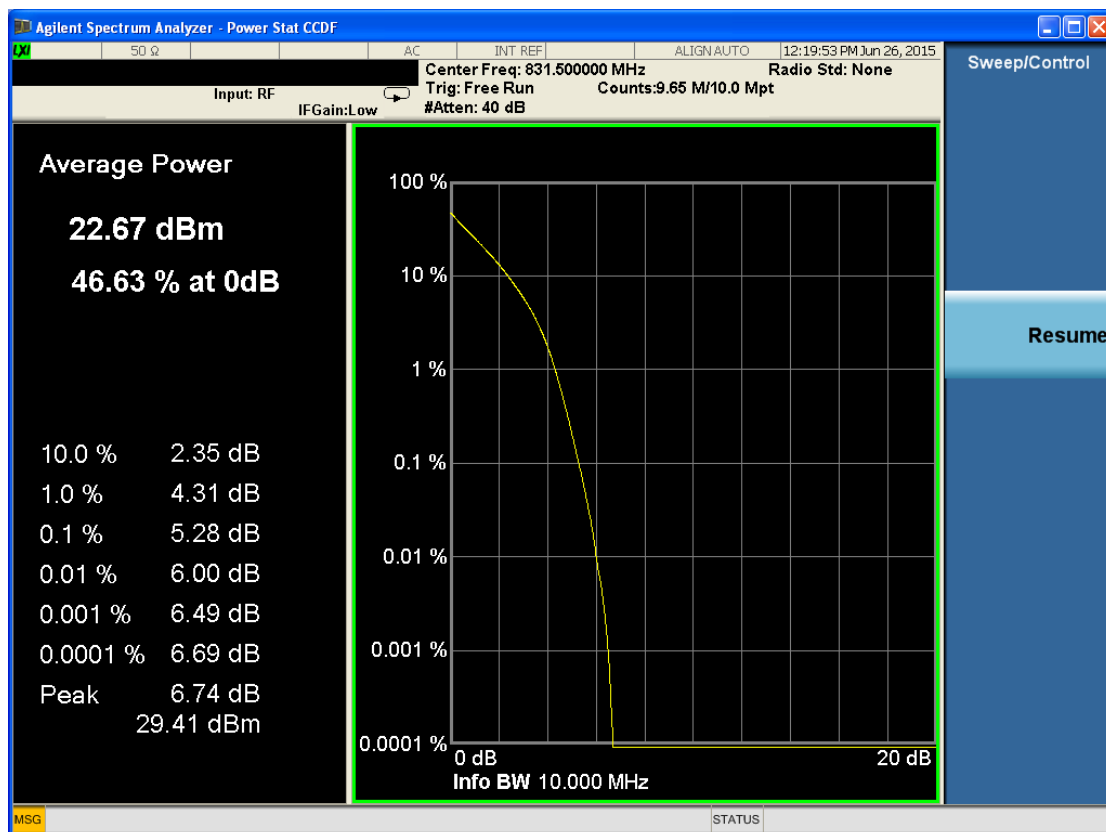

LTE Band30, 16QAM
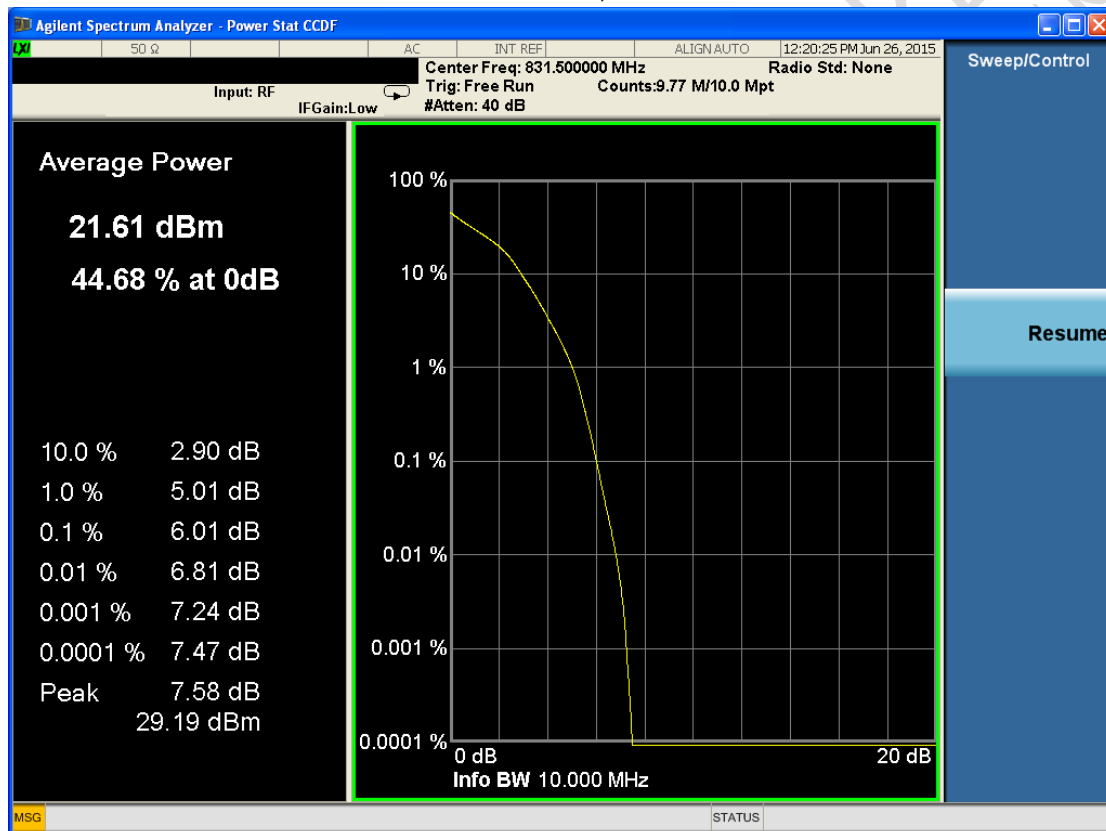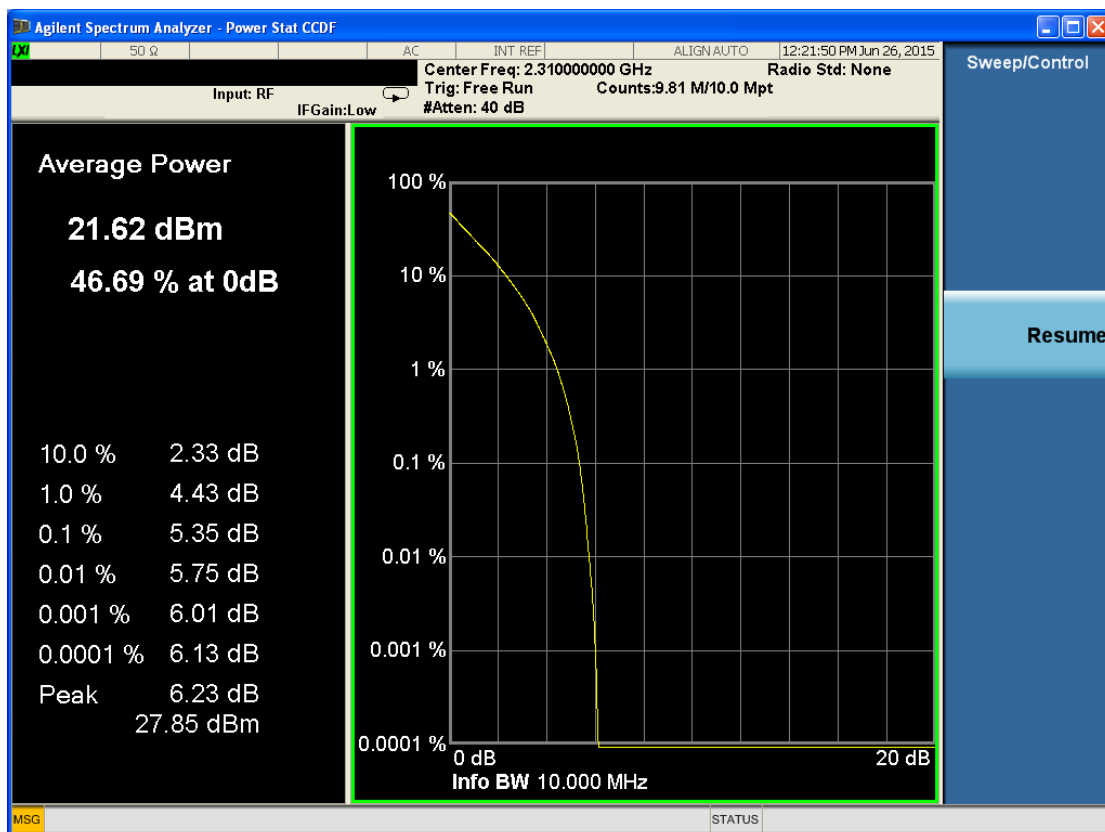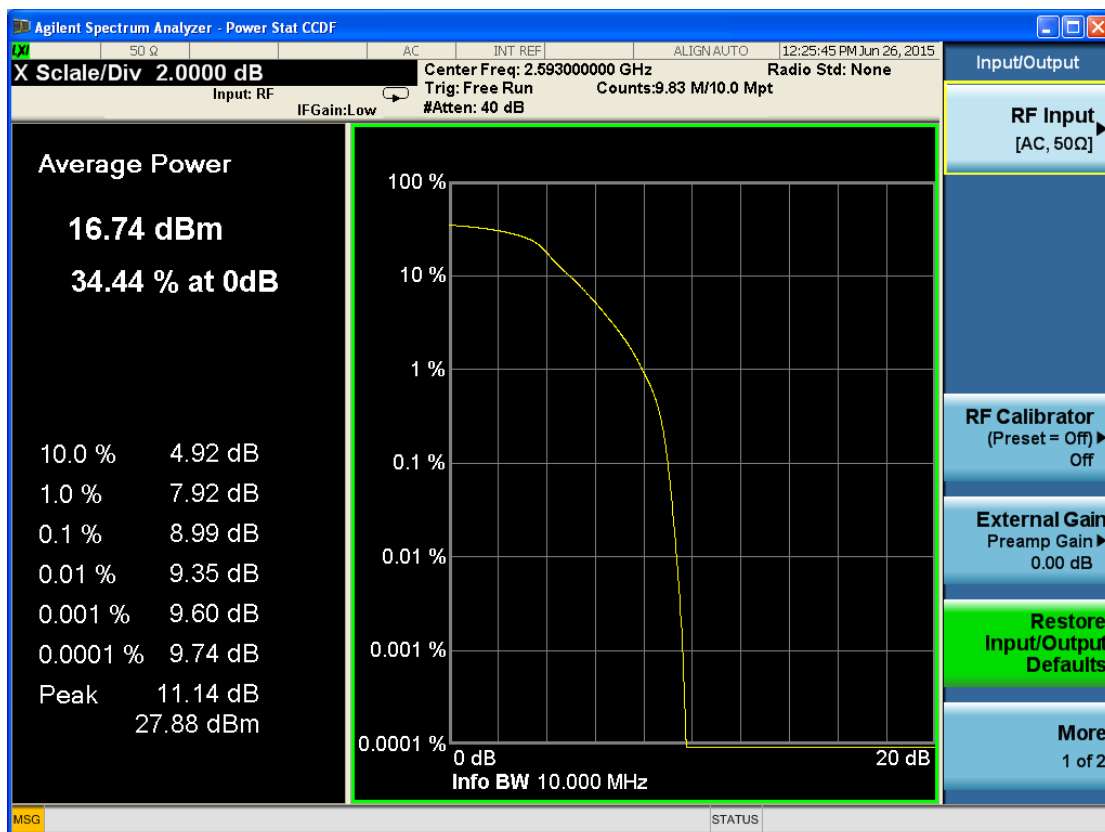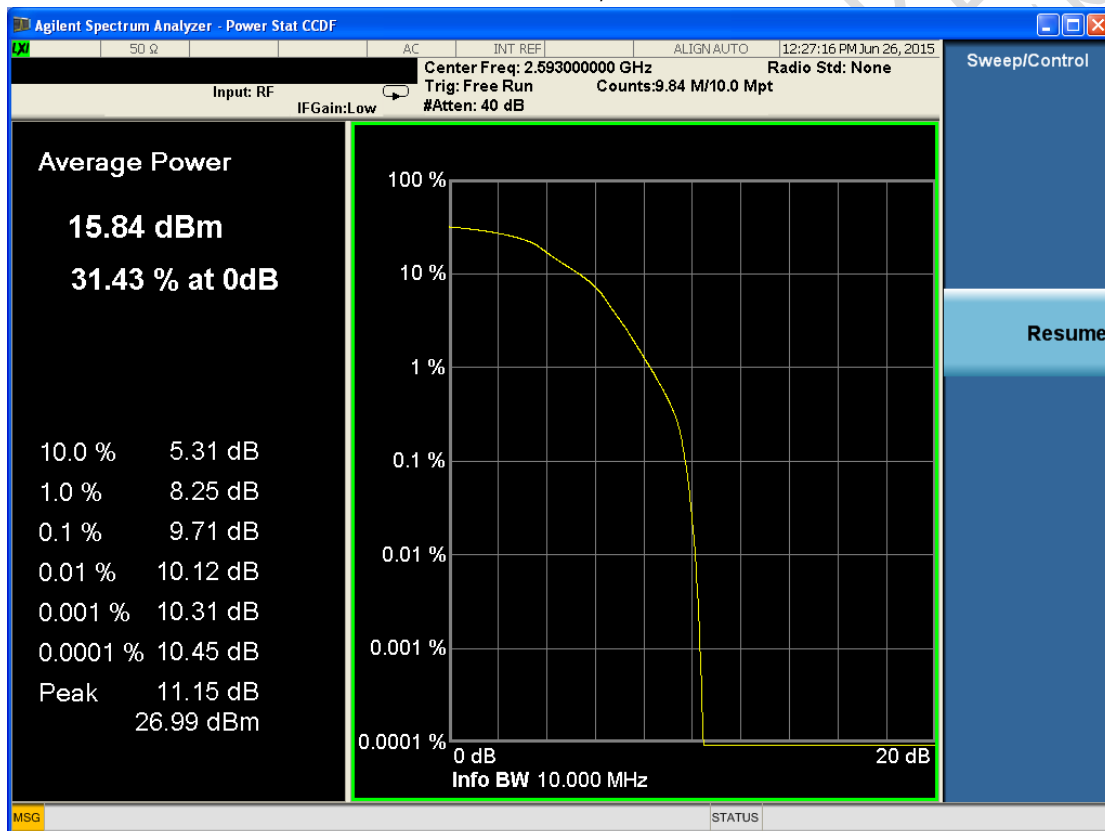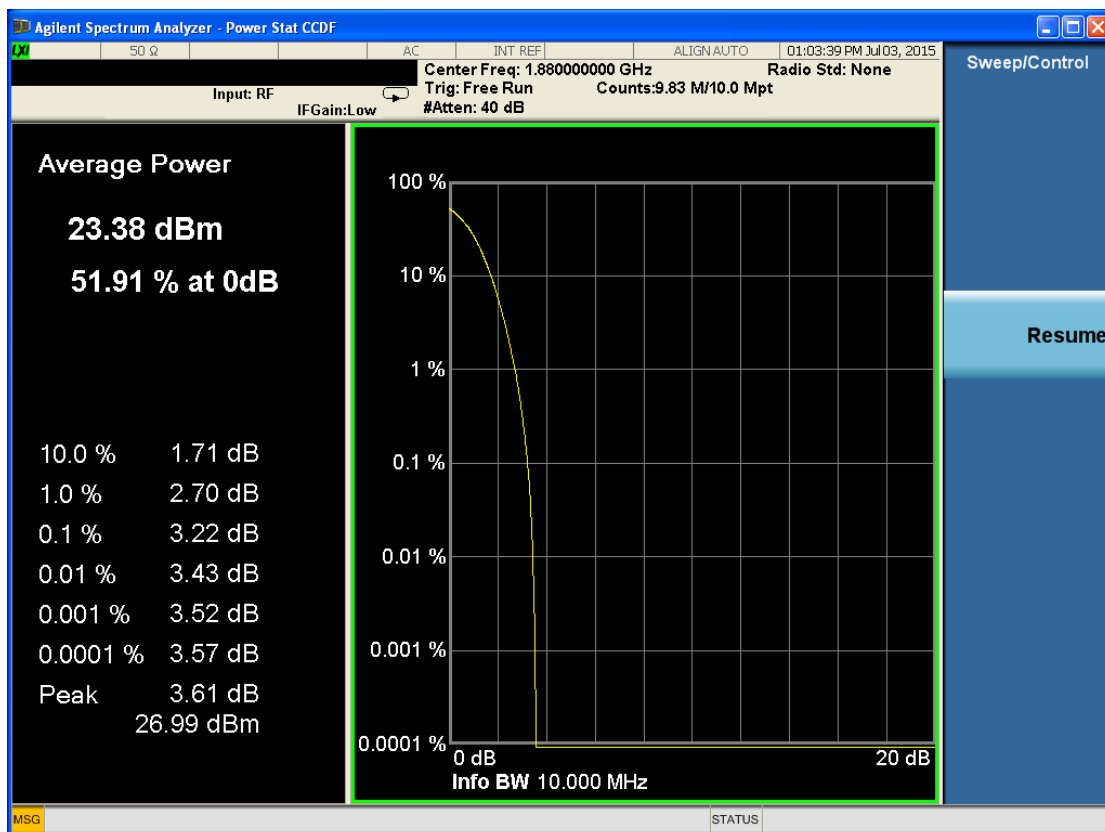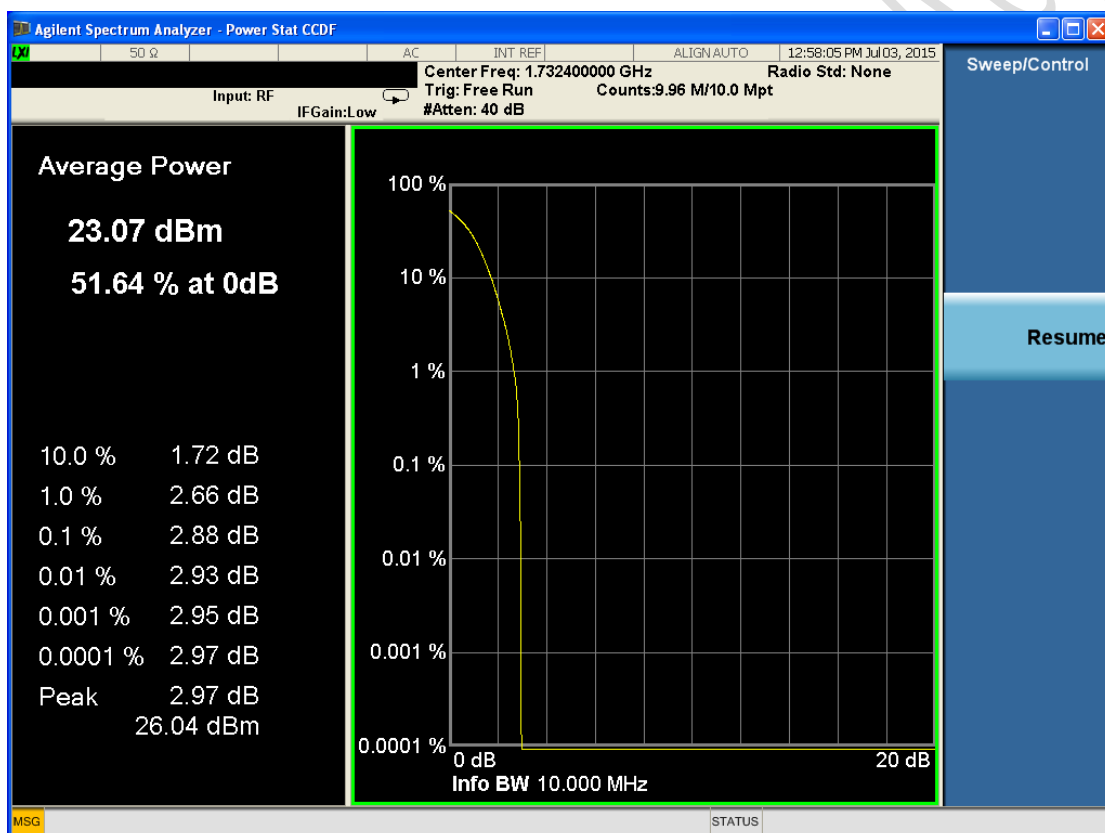
LTE Band41, QPSK

LTE Band41, 16QAM

WCDMA Band2, QPSK

WCDMA Band4, QPSK

Agilent Spectrum Analyzer - Power Stat CCDF				
	50 Ω		AC	INT REF

Input: RF
IFGain:Low

Center Freq: 836.400000 MHz   Radio Std: None
Trig: Free Run   Counts:9.95 M/10.0 Mpt
#Atten: 40 dB

ALIGN AUTO   01:01:40 PM Jul 03, 2015

Sweep/Control

Resume

Average Power

23.80 dBm

51.96 % at 0dB

10.0 %	1.68 dB
1.0 %	2.70 dB
0.1 %	3.25 dB
0.01 %	3.48 dB
0.001 %	3.57 dB
0.0001 %	3.63 dB
Peak	3.69 dB
	27.49 dBm

Info BW 10.000 MHz

0 dB   20 dB

MSG   STATUS
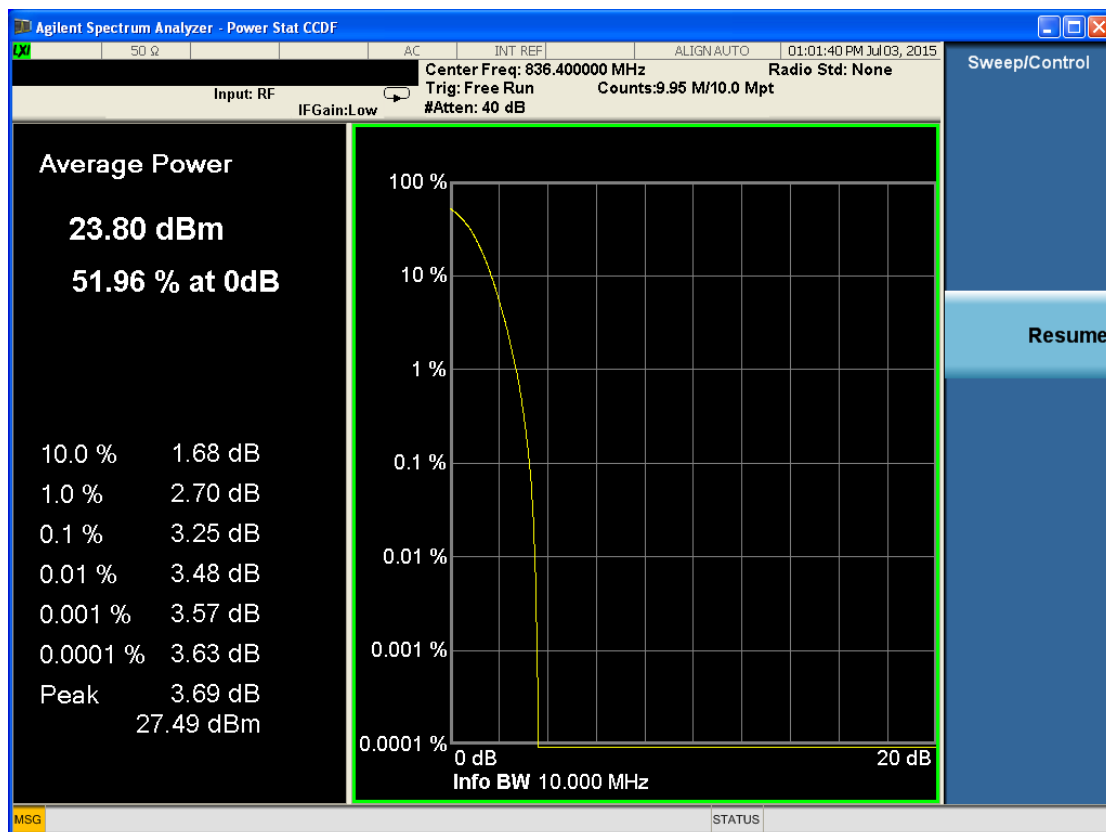
WCDMA Band5, QPSK

Annex A Photos of EM7455

See Attachment Annex A.

Annex B Photos of development board

See Attachment Annex B.

ANNEX C Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

——————— **The End of this Report** ———————

中国泰尔实验室 China Telecommunication Technology Labs.

FCC Parts 2, 22, 24,27,90 RSS-Gen, 130, 132,133,139, 199
Equipment: EM7455   REPORT NO.: B15W50341-FCC-RF_Rev2

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