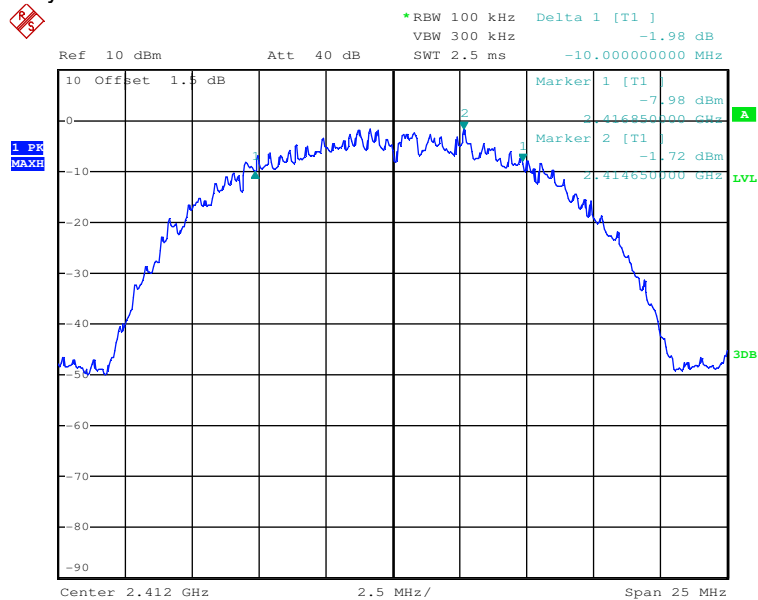TÜVRheinland®

Appendix 1

Test Results

TÜVRheinland®

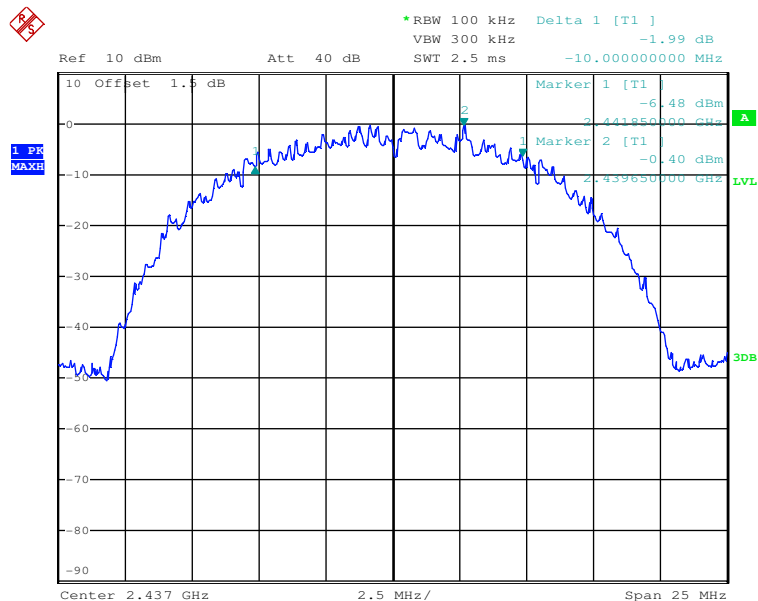# 6 dB Bandwidth Measurement

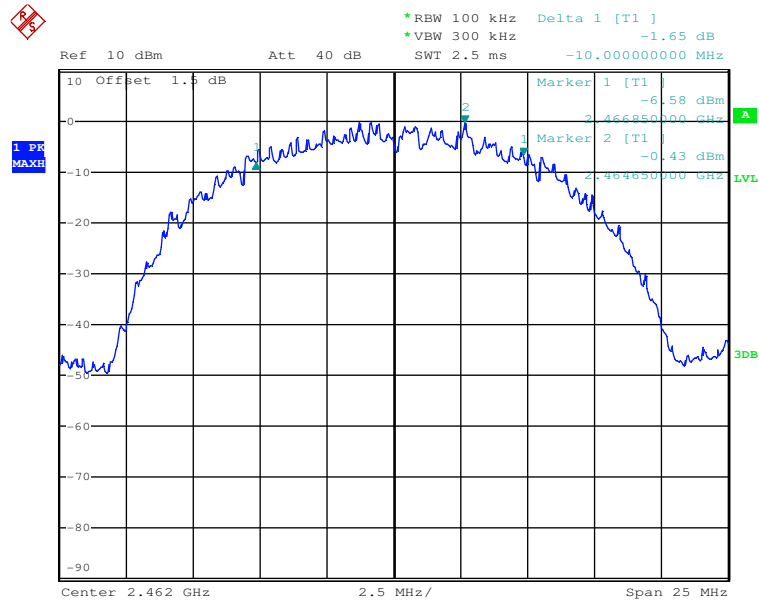802.11B TX frequency: 2412MHz

Date: 29.SEP.2016 15:40:47

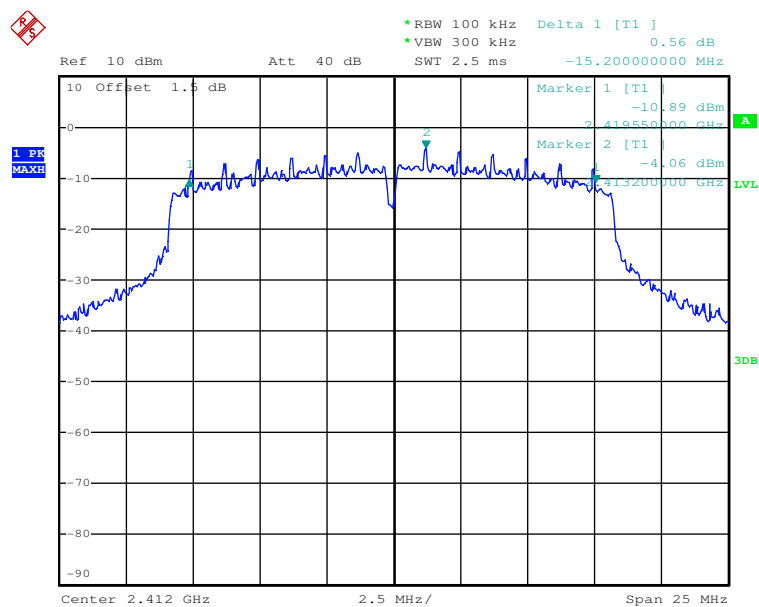802.11B TX frequency: 2437MHz

Date: 29.SEP.2016 15:43:24

TÜVRheinland®

802.11B TX frequency: 2462MHz

Date: 30.SEP.2016 10:14:32

802.11G TX frequency: 2412MHz

Date: 29.SEP.2016 19:00:45

802.11G TX frequency: 2437MHz

802.11G TX frequency: 2462MHz

TÜVRheinland®

802.11N TX frequency: 2412MHz

Date: 30.SEP.2016 10:01:52

802.11N TX frequency: 2437MHz

Date: 30.SEP.2016 10:20:11

802.11N TX frequency: 2462MHz
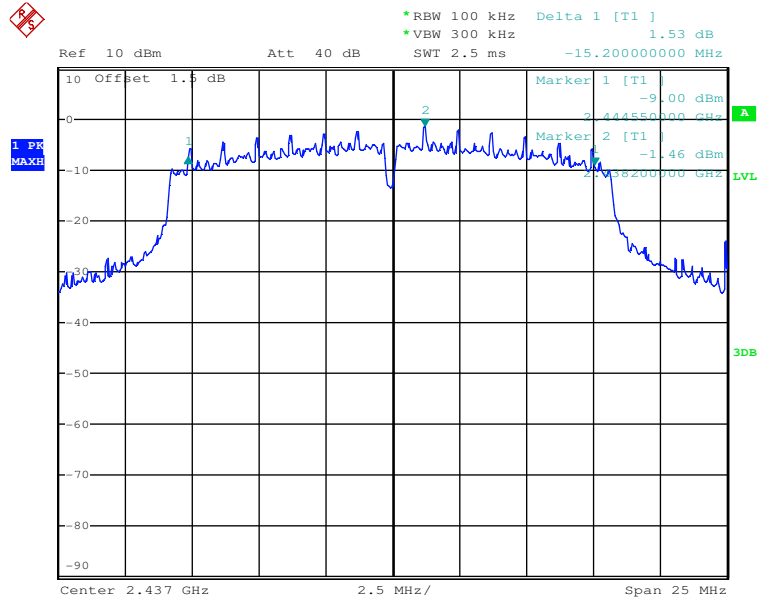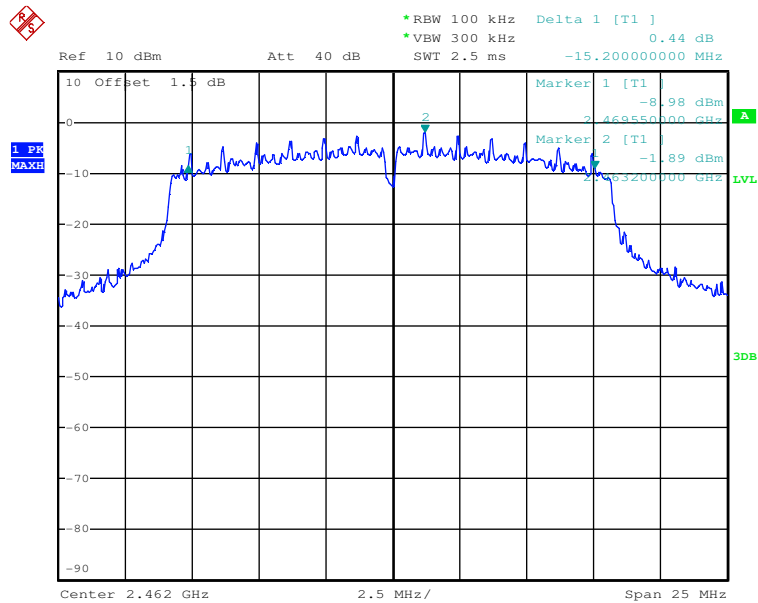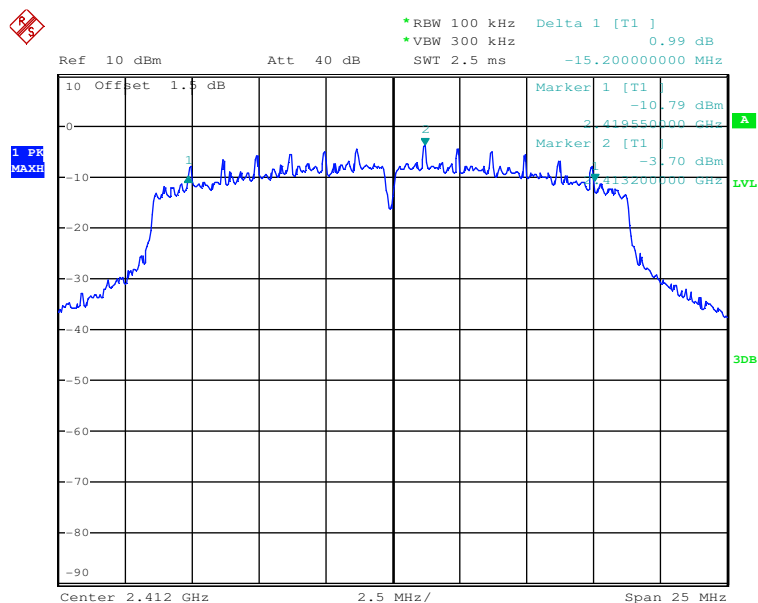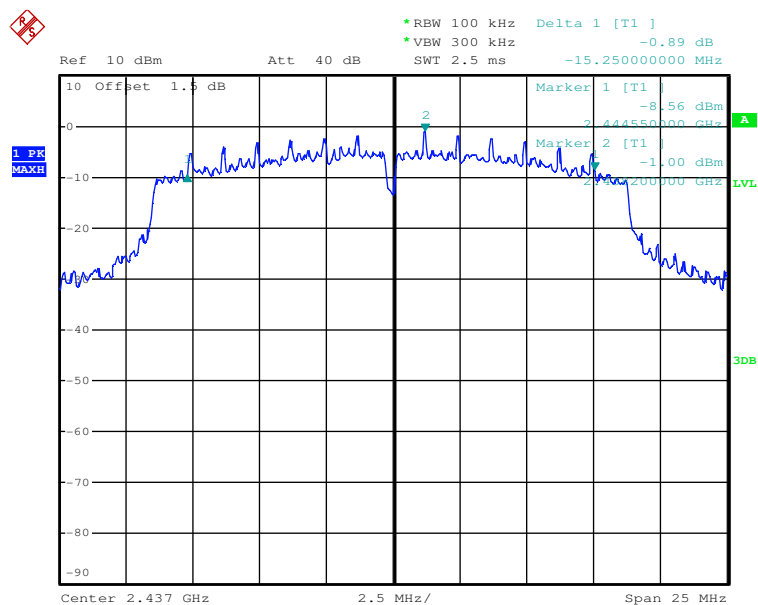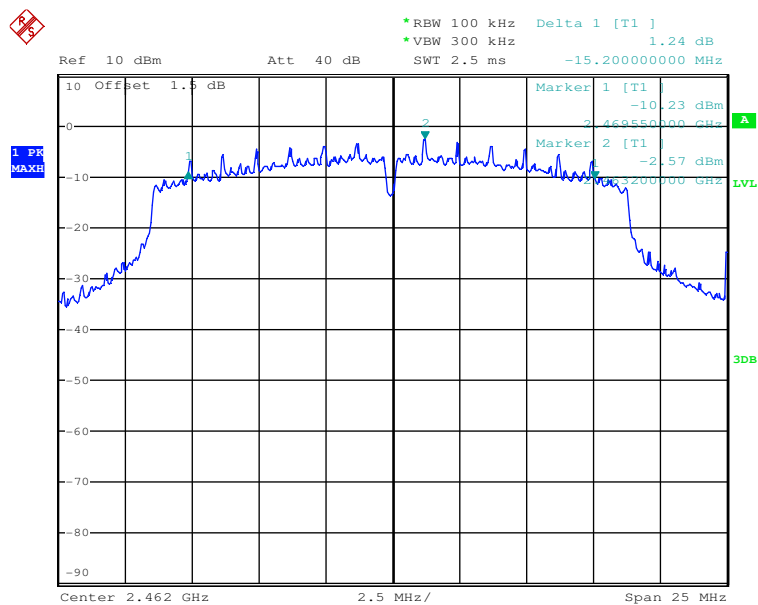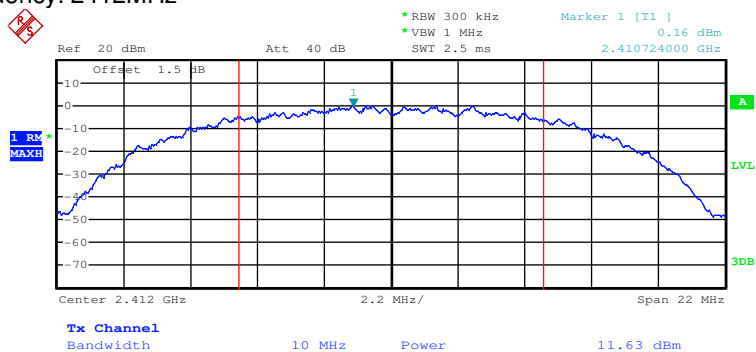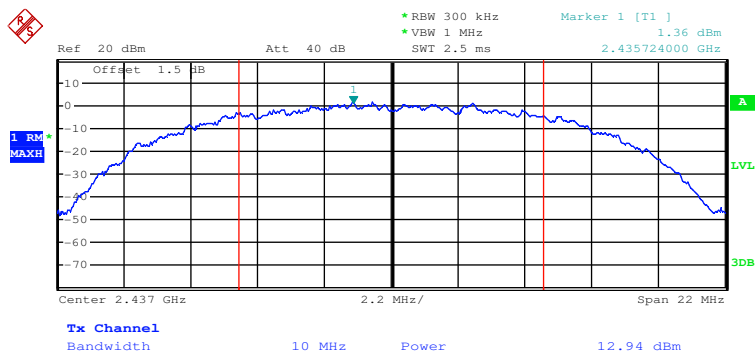

Date: 30.SEP.2016 10:22:24

Maximum Conducted (Average) Output power

802.11B TX frequency: 2412MHz


```
                                          *RBW 300 kHz      Marker 1 [T1 ]
                                          *VBW 1 MHz                0.16 dBm
  Ref 20 dBm              Att 40 dB        SWT 2.5 ms         2.410724000 GHz
       Offset 1.5 dB
    10                                                                    A
     0
   -10                                                                  LVL
   -20
   -30
   -40
   -50
   -60
   -70                                                                  3DB
  Center 2.412 GHz              2.2 MHz/              Span 22 MHz
  Tx Channel
  Bandwidth          10 MHz      Power           11.63 dBm
```

Date: 29.SEP.2016 16:17:19

802.11B TX frequency: 2437MHz


```
                                          *RBW 300 kHz      Marker 1 [T1 ]
                                          *VBW 1 MHz                1.36 dBm
  Ref 20 dBm              Att 40 dB        SWT 2.5 ms         2.435724000 GHz
       Offset 1.5 dB
    10                                                                    A
     0
   -10                                                                  LVL
   -20
   -30
   -40
   -50
   -60
   -70                                                                  3DB
  Center 2.437 GHz              2.2 MHz/              Span 22 MHz
  Tx Channel
  Bandwidth          10 MHz      Power           12.94 dBm
```
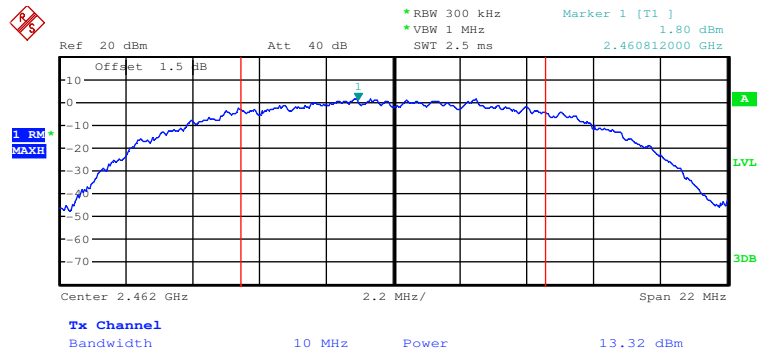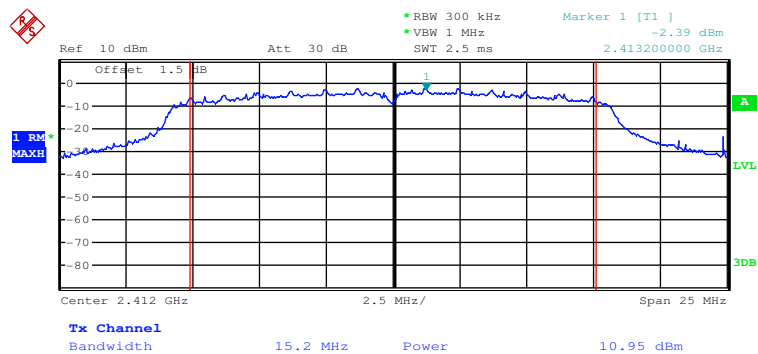
Date: 29.SEP.2016 16:13:56

802.11B TX frequency: 2462MHz

Date: 29.SEP.2016 16:15:20

802.11G TX frequency: 2412MHz

Date: 29.SEP.2016 19:33:03
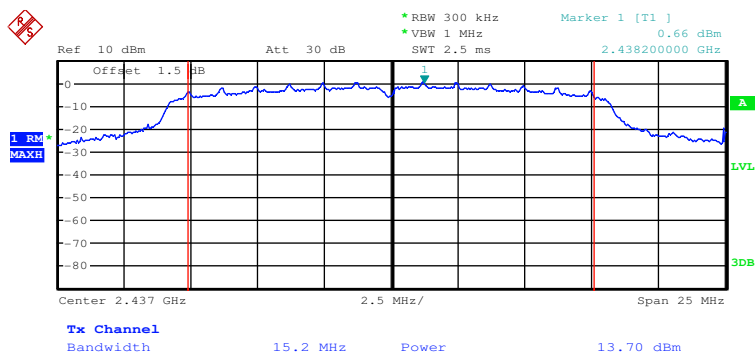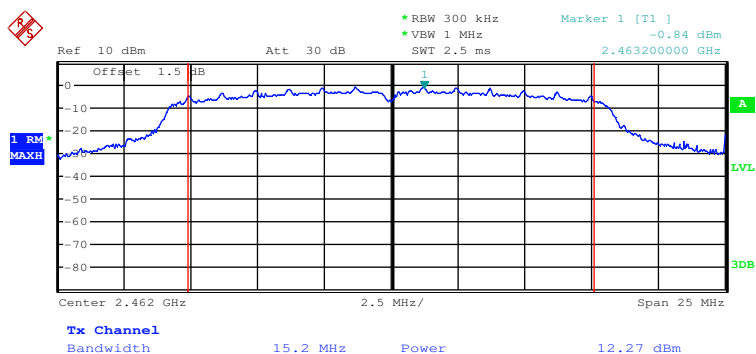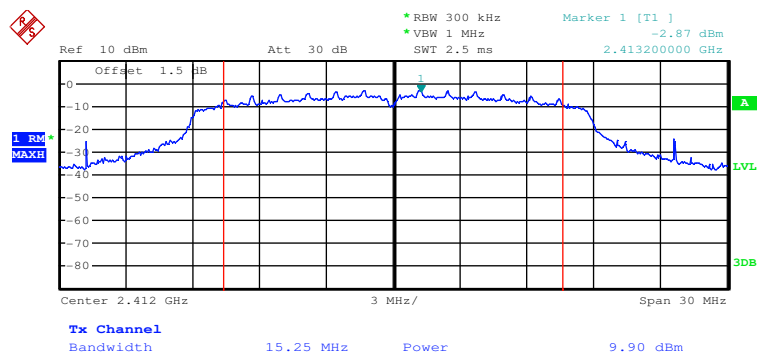
TÜVRheinland®

802.11G TX frequency: 2437MHz


```
                                              *RBW 300 kHz      Marker 1 [T1 ]
                                              *VBW 1 MHz              0.66 dBm
Ref  10 dBm              Att  30 dB     SWT 2.5 ms          2.438200000 GHz
   Offset  1.5 dB
  0                                                                        A
 -10
 -20
 -30                                                                     LVL
 -40
 -50
 -60
 -70
 -80                                                                     3DB
Center 2.437 GHz            2.5 MHz/              Span 25 MHz
```

Tx Channel
Bandwidth   15.2 MHz   Power   13.70 dBm

Date: 29.SEP.2016 19:24:08

802.11G TX frequency: 2462MHz


```
                                              *RBW 300 kHz      Marker 1 [T1 ]
                                              *VBW 1 MHz             -0.84 dBm
Ref  10 dBm              Att  30 dB     SWT 2.5 ms          2.463200000 GHz
   Offset  1.5 dB
  0
 -10
 -20
                                                                         A
 -40
 -50
 -60
 -70                                                                     LVL
 -80                                                                     3DB
Center 2.462 GHz            2.5 MHz/              Span 25 MHz
```

Tx Channel
Bandwidth   15.2 MHz   Power   12.27 dBm

Date: 29.SEP.2016 19:25:47

802.11N TX frequency: 2412MHz


```
                                    *RBW 300 kHz    Marker 1 [T1 ]
                                    *VBW 1 MHz                -2.87 dBm
Ref  10 dBm              Att  30 dB  SWT 2.5 ms      2.413200000 GHz
    Offset  1.5 dB
```

Date: 30.SEP.2016 10:32:34

Tx Channel
Bandwidth   15.25 MHz   Power   9.90 dBm

802.11N TX frequency: 2437MHz


```
                                    *RBW 300 kHz    Marker 1 [T1 ]
                                    *VBW 1 MHz                 0.10 dBm
Ref  10 dBm              Att  30 dB  SWT 2.5 ms      2.438200000 GHz
    Offset  1.5 dB
```

Date: 30.SEP.2016 10:38:50

Tx Channel
Bandwidth   15.25 MHz   Power   12.74 dBm

802.11N TX frequency: 2462MHz


```
                                            * RBW 300 kHz      Marker 1 [T1 ]
                                            * VBW 1 MHz                -1.54 dBm
  Ref  10 dBm            Att  30 dB         SWT 2.5 ms         2.463200000 GHz
    Offset  1.5 dB
    0
  -10                                                                        A
  -20
1 RM *
MAXH  -30                                                                    LVL
  -40
  -50
  -60
  -70
  -80                                                                        3DB

  Center 2.462 GHz              3 MHz/              Span 30 MHz

  Tx Channel
  Bandwidth         15.25 MHz      Power          11.28 dBm
```
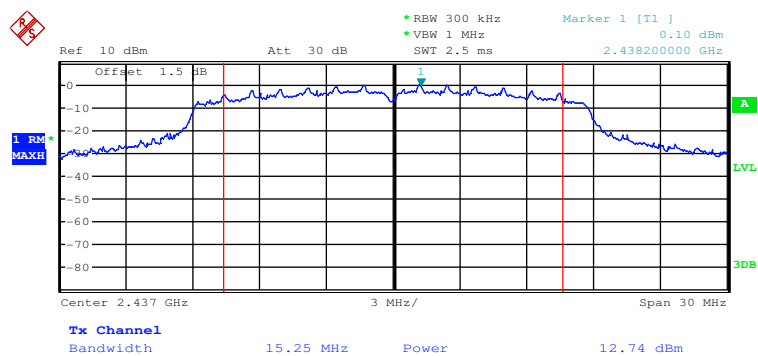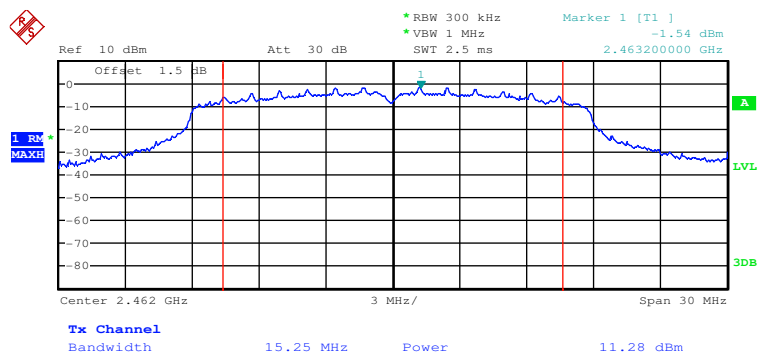
Date: 30.SEP.2016 10:29:41

Power Spectral Density

802.11B TX frequency: 2412MHz
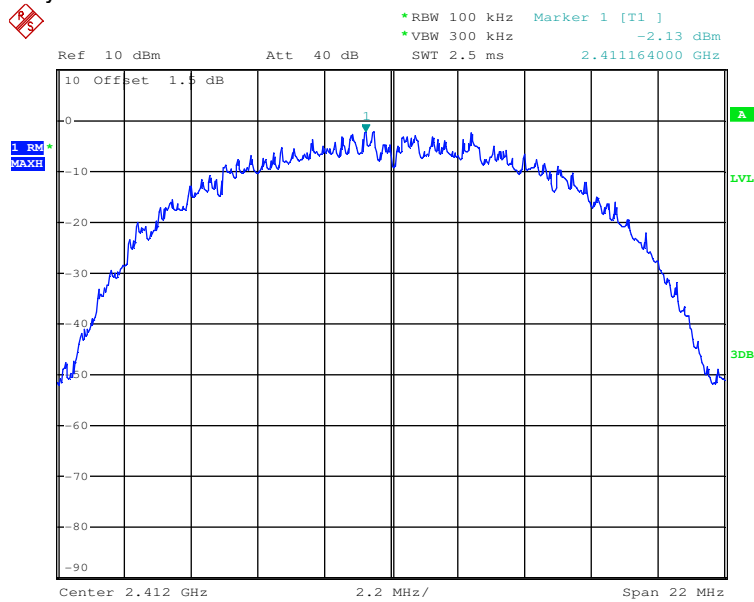
Date: 29.SEP.2016 16:19:01

802.11B TX frequency: 2437MHz
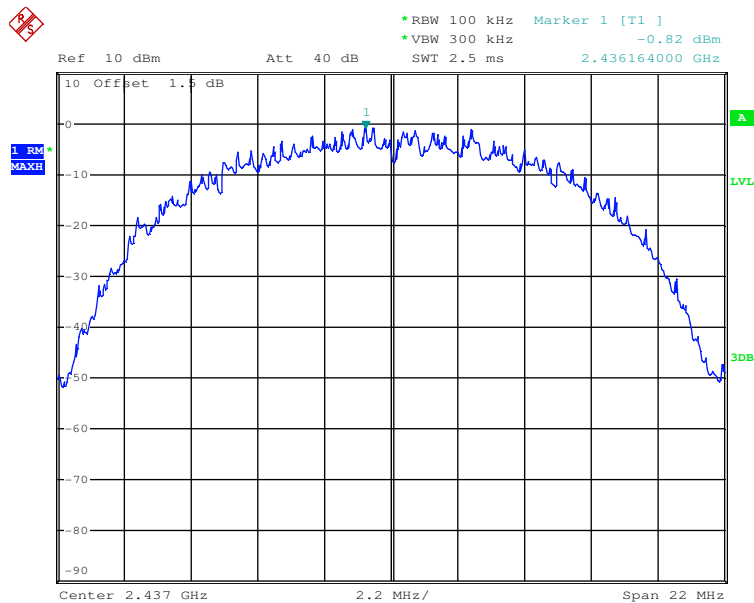
Date: 29.SEP.2016 16:20:59
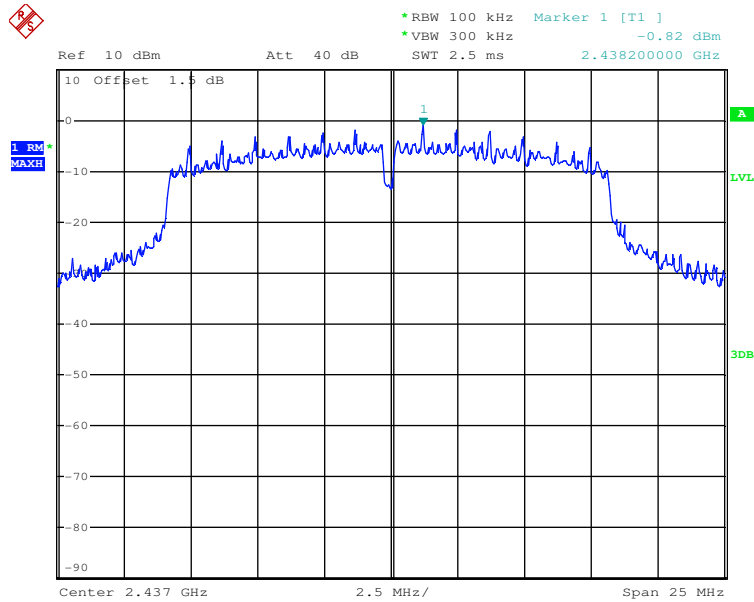
802.11B TX frequency: 2462MHz
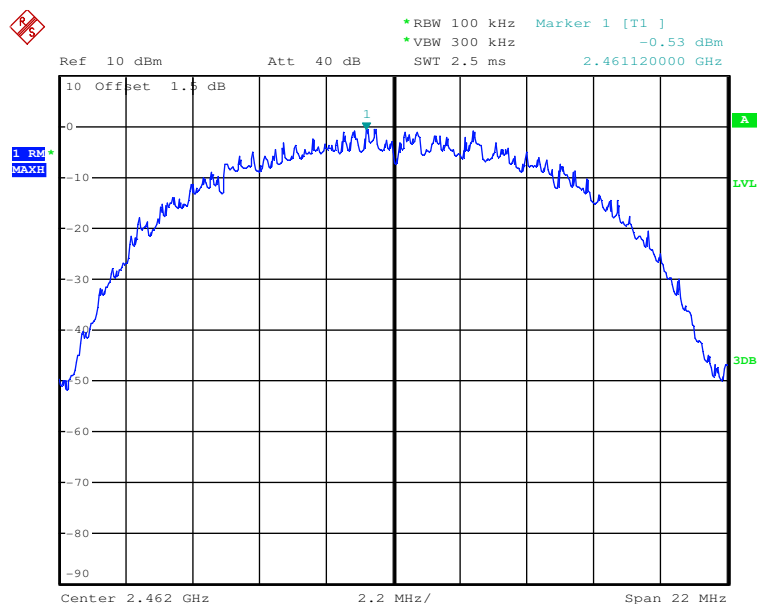
Date: 29.SEP.2016 16:21:42
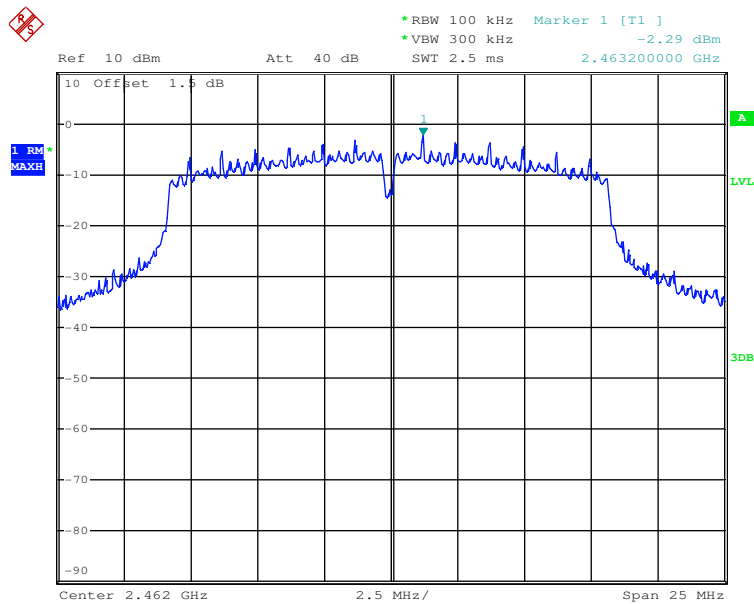
802.11G TX frequency: 2412MHz
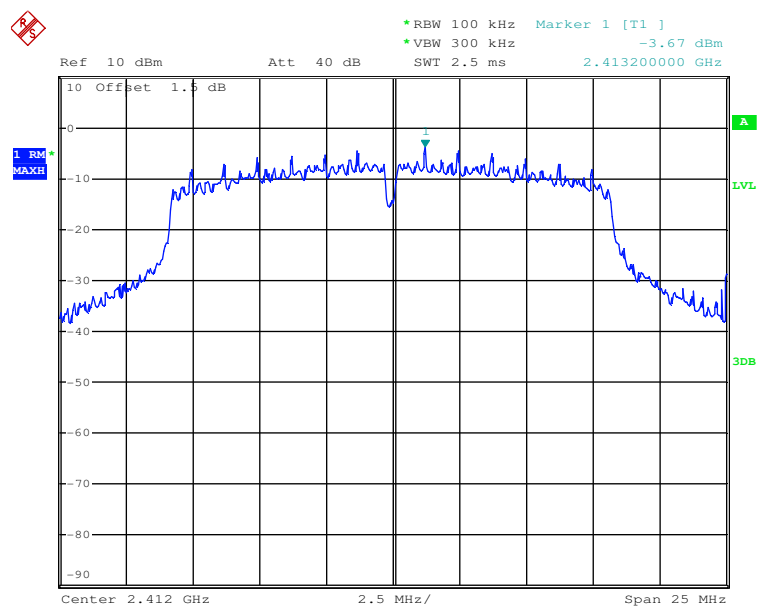
Date: 30.SEP.2016 09:13:52
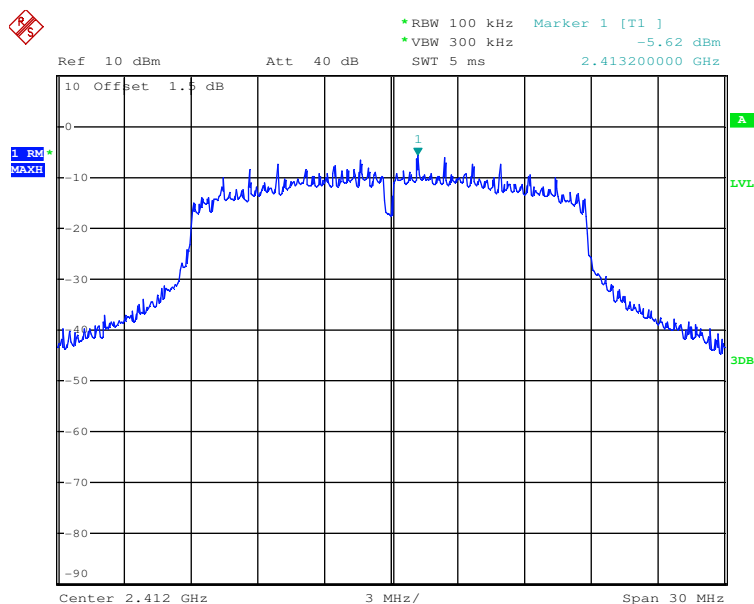
802.11G TX frequency: 2437MHz

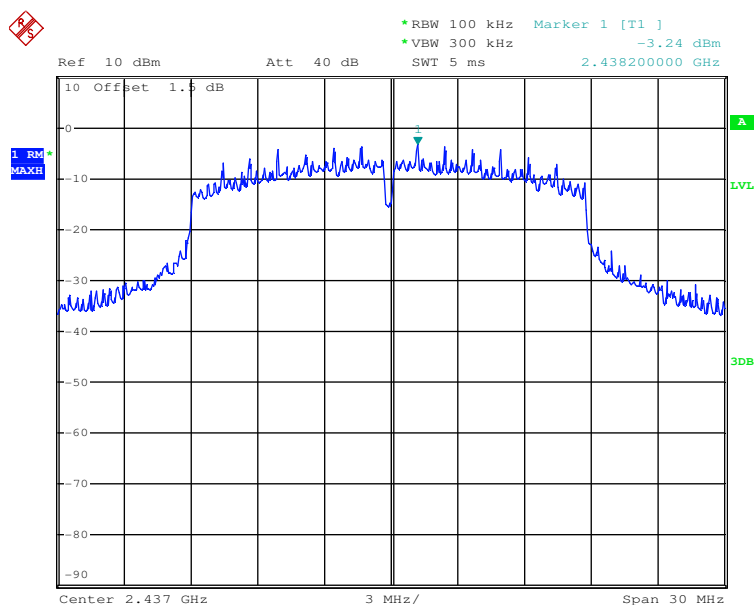Date: 30.SEP.2016 09:14:55

802.11G TX frequency: 2462MHz

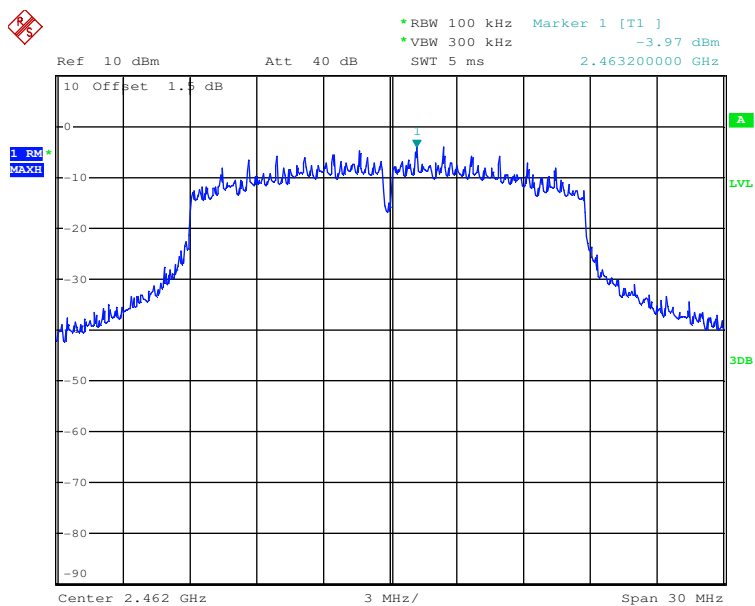Date: 30.SEP.2016 09:16:17

802.11N TX frequency: 2412MHz

Date: 30.SEP.2016 10:34:04

802.11N TX frequency: 2437MHz

Date: 30.SEP.2016 10:35:08

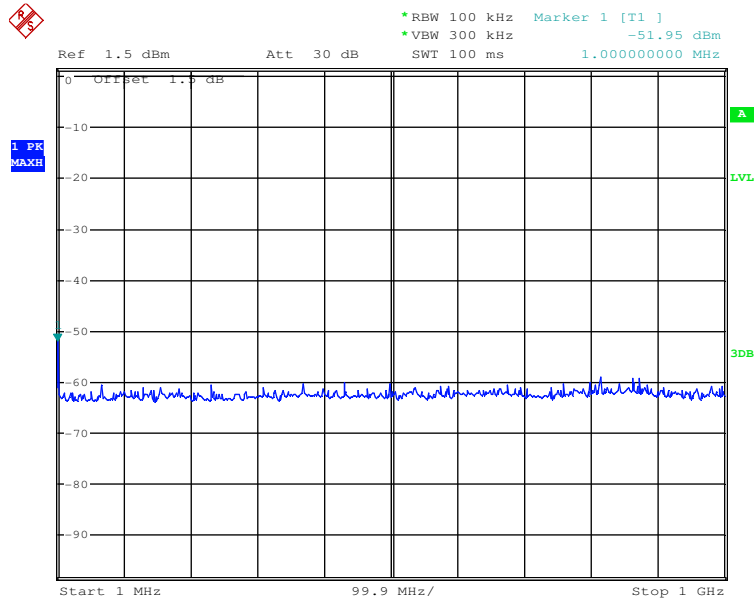**Test Report No.: 14045200 001**   **Appendix 1**   **Page 15 of 38**

802.11N TX frequency: 2462MHz


```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                    *VBW 300 kHz          -3.97 dBm
     Ref  10 dBm         Att  40 dB  SWT 5 ms      2.463200000 GHz
    10 Offset  1.5 dB
```
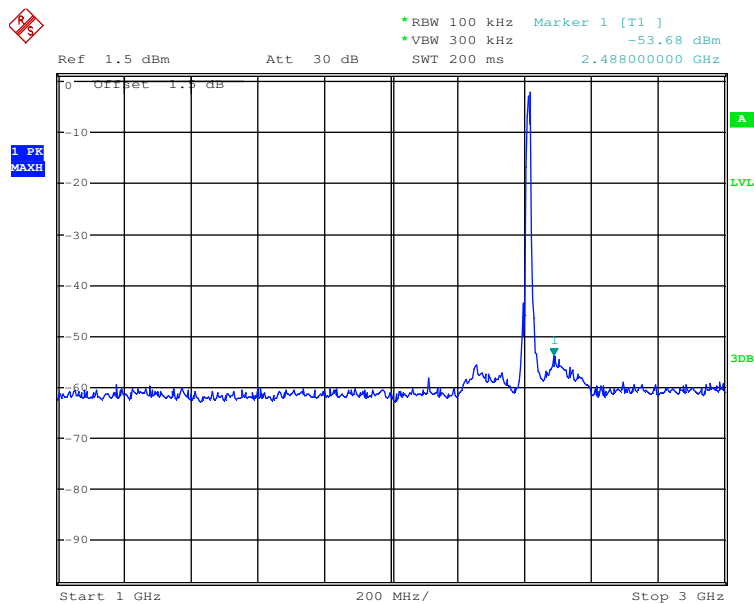
Date: 30.SEP.2016 10:39:58
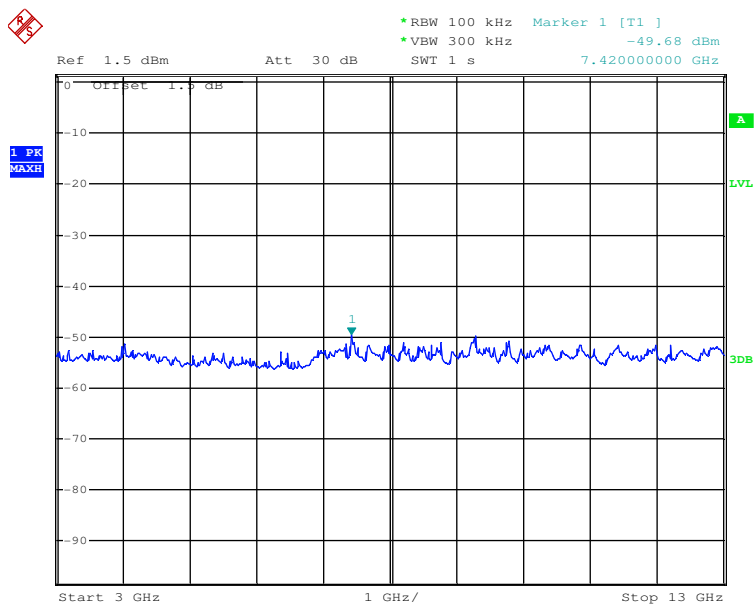
Spurious Conducted Emissions
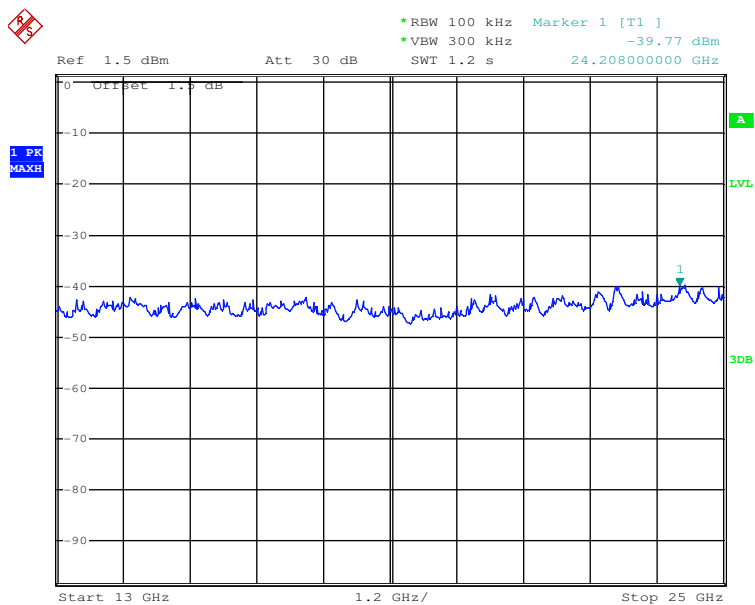
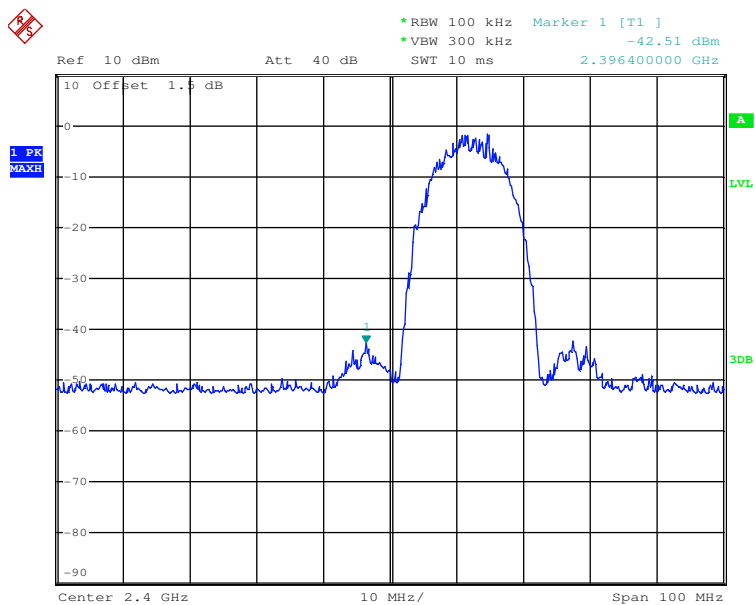802.11B TX frequency: 2412MHz

Date: 29.SEP.2016 18:16:56

Date: 29.SEP.2016 18:16:11

Date: 29.SEP.2016 18:17:50

Date: 29.SEP.2016 18:18:37
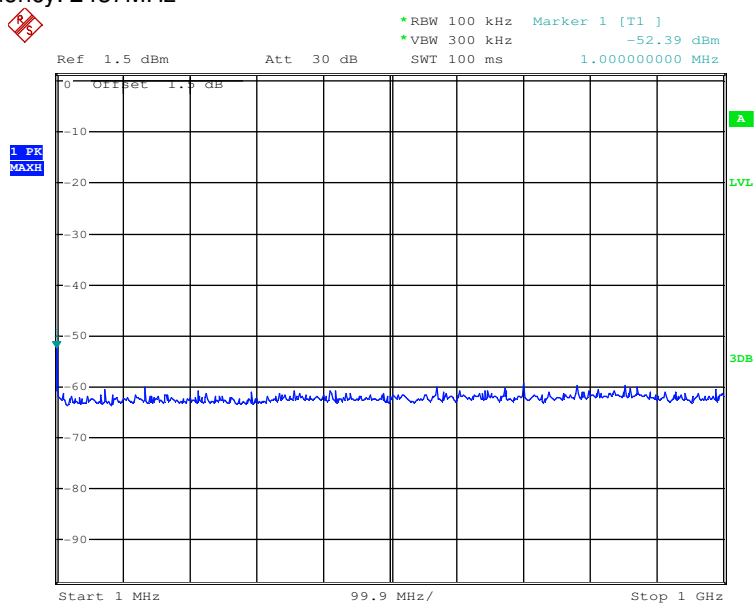
TÜVRheinland®

```
                                        *RBW 100 kHz   Marker 1 [T1 ]
                                        *VBW 300 kHz          -42.51 dBm
     Ref  10 dBm          Att  40 dB    SWT 10 ms       2.396400000 GHz
```



```
     Date: 29.SEP.2016  17:36:10
```

802.11B TX frequency: 2437MHz

```
                                        *RBW 100 kHz   Marker 1 [T1 ]
                                        *VBW 300 kHz          -52.39 dBm
     Ref  1.5 dBm         Att  30 dB    SWT 100 ms     1.000000000 MHz
```



```
     Date: 29.SEP.2016  17:56:14
```

TÜVRheinland®

*RBW 100 kHz Marker 1 [T1]
*VBW 300 kHz   -54.61 dBm
Ref 1.5 dBm   Att 30 dB   SWT 200 ms   2.504000000 GHz

Start 1 GHz   200 MHz/   Stop 3 GHz

Date: 29.SEP.2016 17:50:13

*RBW 100 kHz Marker 1 [T1]
*VBW 300 kHz   -49.06 dBm
Ref 1.5 dBm   Att 30 dB   SWT 1 s   9.280000000 GHz

Start 3 GHz   1 GHz/   Stop 13 GHz
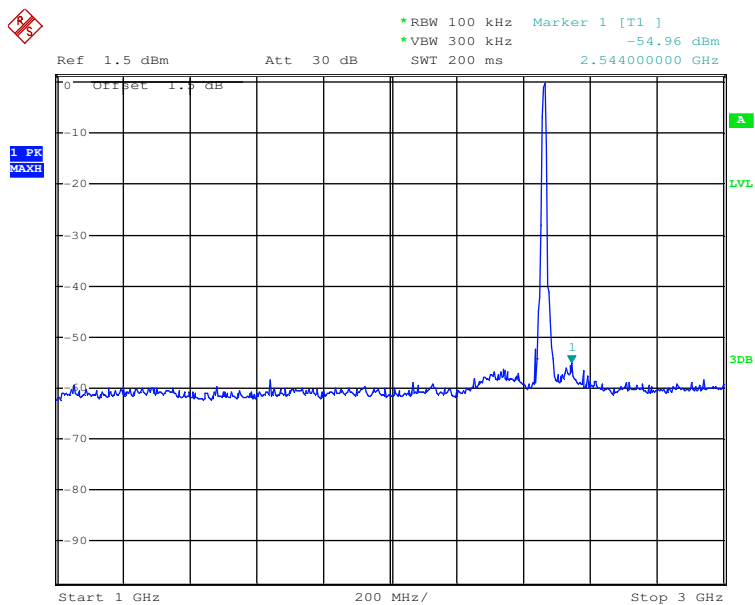
Date: 29.SEP.2016 17:54:20

TÜVRheinland®
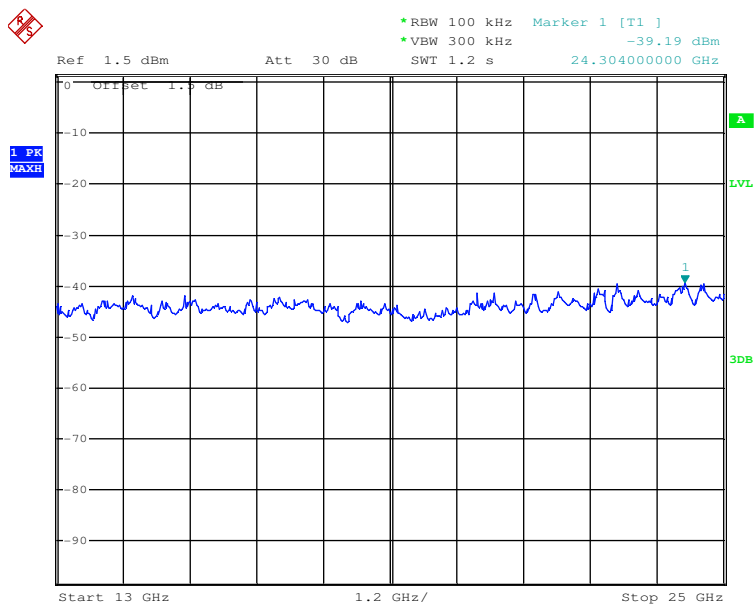
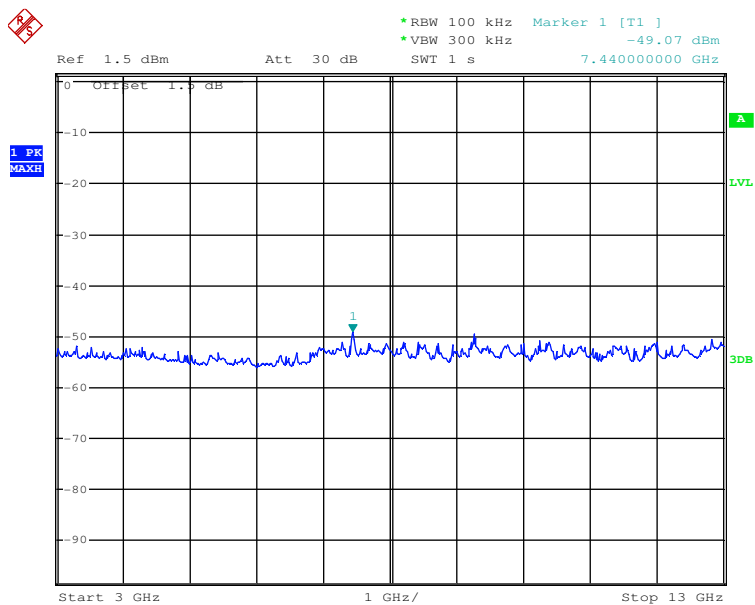Date: 29.SEP.2016 17:57:23

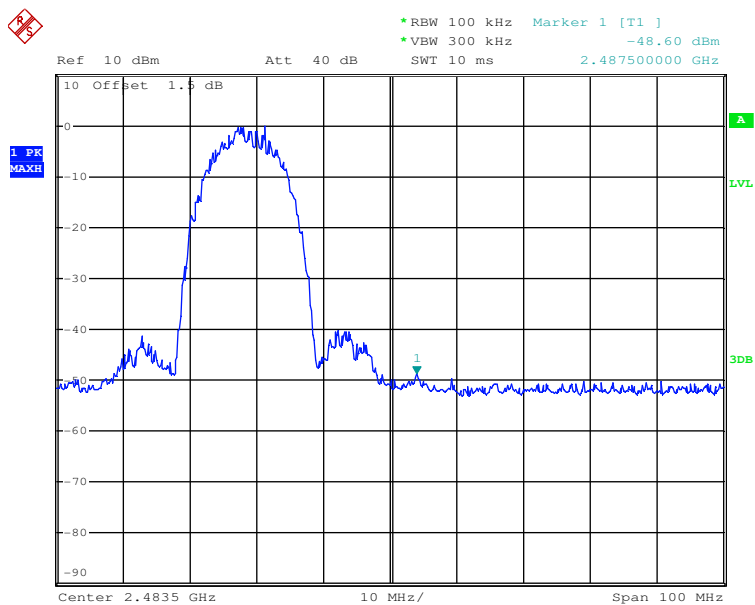802.11B TX frequency: 2462MHz
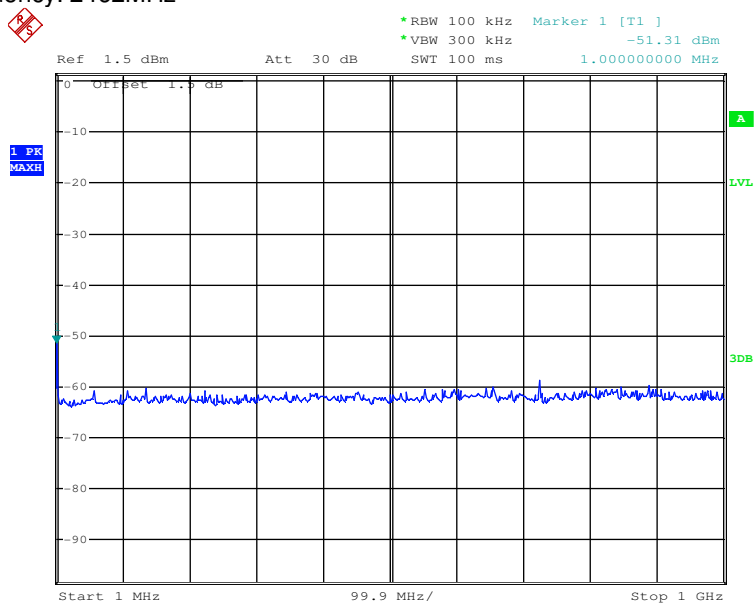
Date: 29.SEP.2016 18:05:44

TÜVRheinland®

Date: 29.SEP.2016 18:04:26

Date: 29.SEP.2016 18:07:19

*RBW 100 kHz   Marker 1 [T1]
*VBW 300 kHz   -38.95 dBm
Ref 1.5 dBm   Att 30 dB   SWT 1.2 s   23.104000000 GHz

Start 13 GHz   1.2 GHz/   Stop 25 GHz

Date: 29.SEP.2016 18:08:42

*RBW 100 kHz   Marker 1 [T1]
*VBW 300 kHz   -48.60 dBm
Ref 10 dBm   Att 40 dB   SWT 10 ms   2.487500000 GHz

Center 2.4835 GHz   10 MHz/   Span 100 MHz
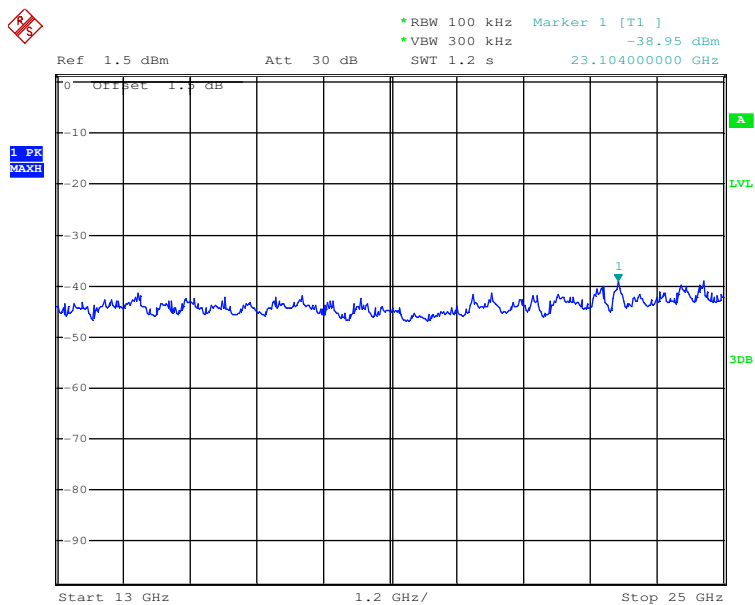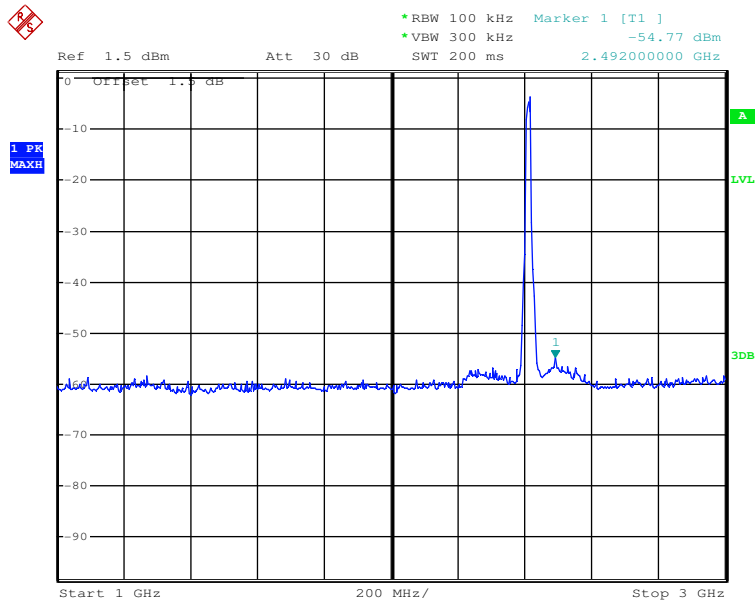
Date: 29.SEP.2016 18:12:59

TÜVRheinland®

802.11G TX frequency: 2412MHz
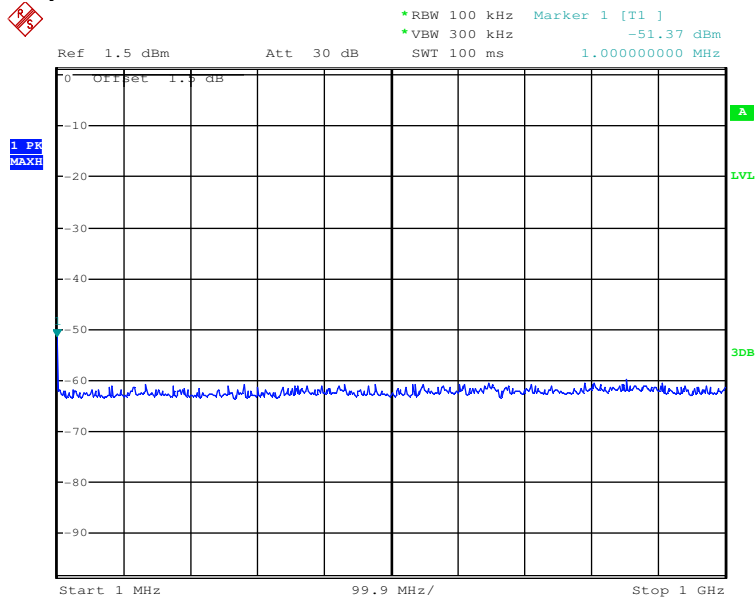
Date: 30.SEP.2016 09:43:40

Date: 30.SEP.2016 09:46:12

```
                              *RBW 100 kHz   Marker 1 [T1 ]
                              *VBW 300 kHz              -48.24 dBm
   Ref  1.5 dBm        Att  30 dB    SWT 1 s       12.860000000 GHz
  0   Offset  1.5 dB                                                  A
  -10
  -20                                                               LVL
  -30
  -40
  -50                                                              1
                                                                   3DB
  -60
  -70
  -80
  -90

  Start 3 GHz              1 GHz/              Stop 13 GHz
```

Date: 30.SEP.2016 09:47:28


```
                              *RBW 100 kHz   Marker 1 [T1 ]
                              *VBW 300 kHz              -39.02 dBm
   Ref  1.5 dBm        Att  30 dB    SWT 1.2 s     24.592000000 GHz
  0   Offset  1.5 dB                                                  A
  -10
  -20                                                               LVL
  -30
  -40                                                              1
  -50
                                                                   3DB
  -60
  -70
  -80
  -90

  Start 13 GHz             1.2 GHz/            Stop 25 GHz
```
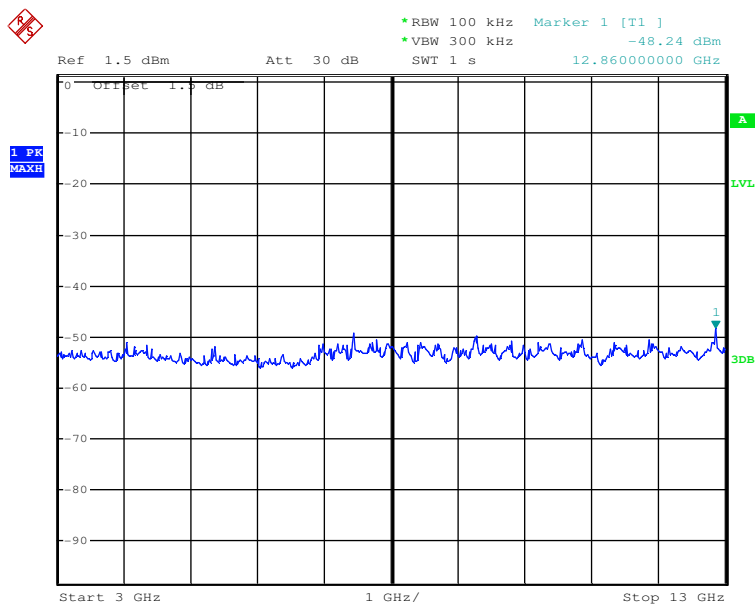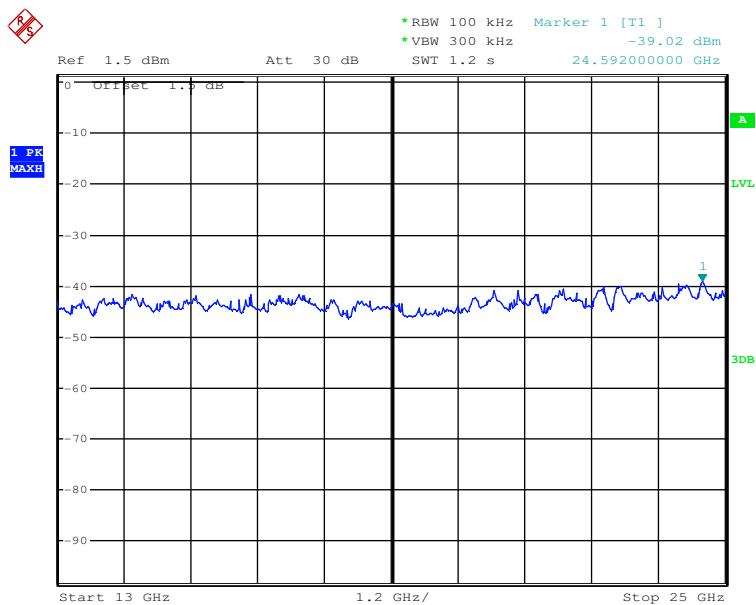
Date: 30.SEP.2016 09:50:41

Date: 30.SEP.2016 09:41:29

802.11G TX frequency: 2437MHz

Date: 30.SEP.2016 09:58:11

TÜVRheinland®


```
                                              *RBW  100 kHz   Marker 1 [T1 ]
                                              *VBW  300 kHz           -52.94 dBm
      Ref  1.5 dBm          Att  30 dB        SWT  100 ms       1.000000000 MHz
```
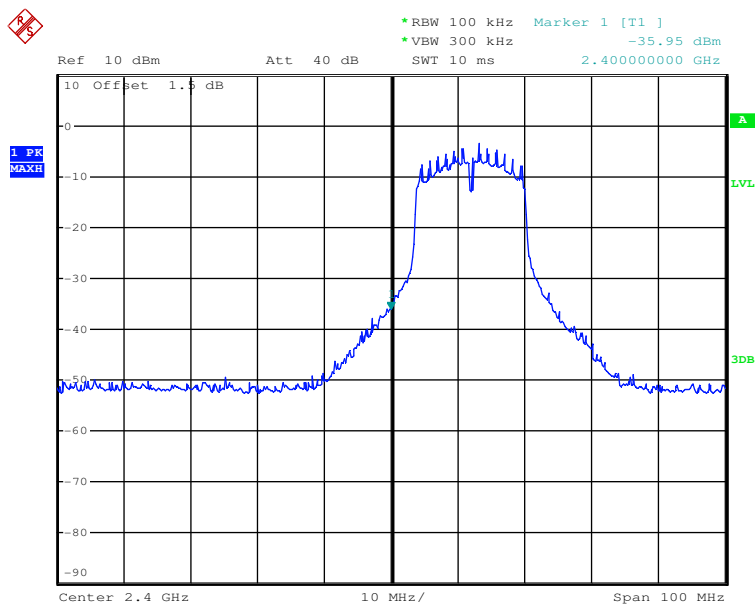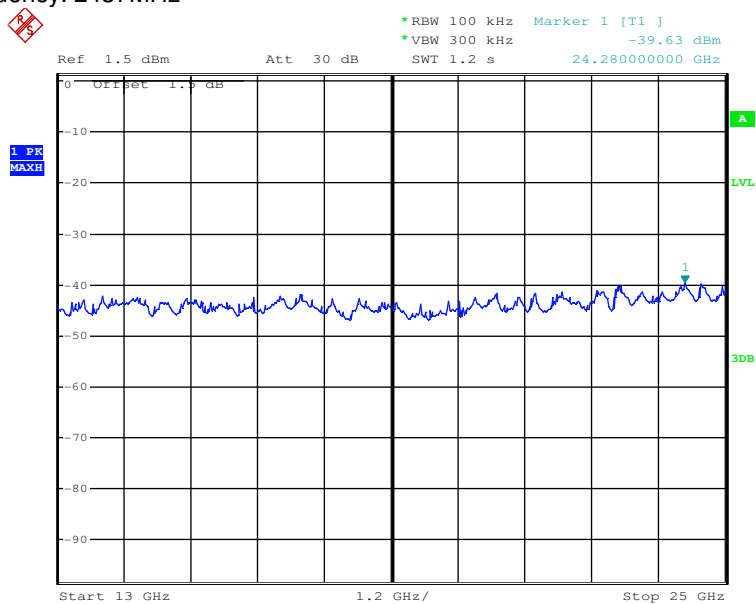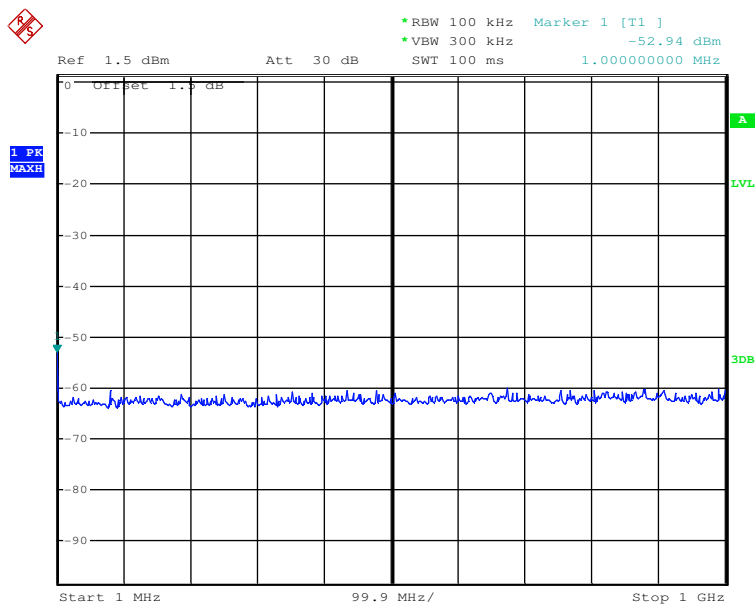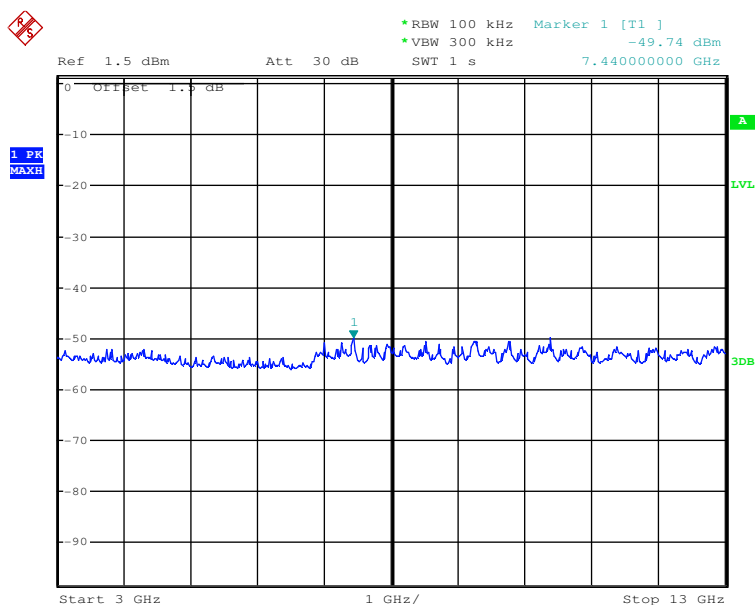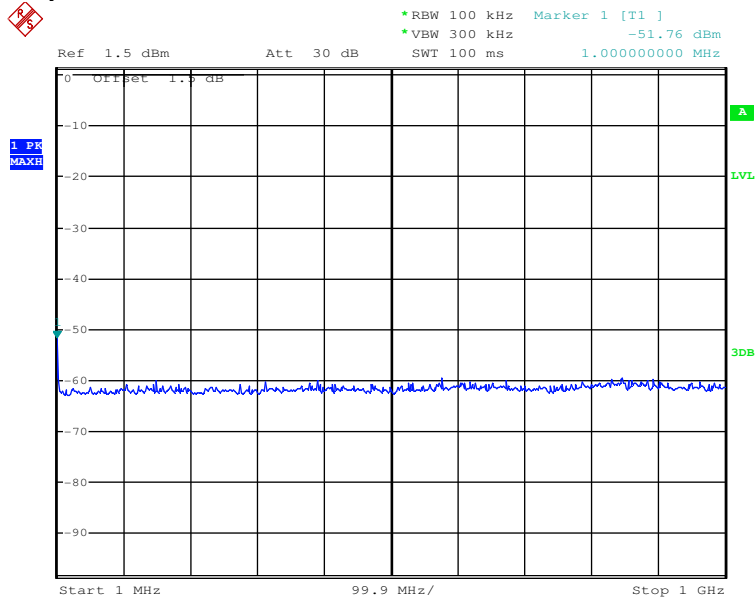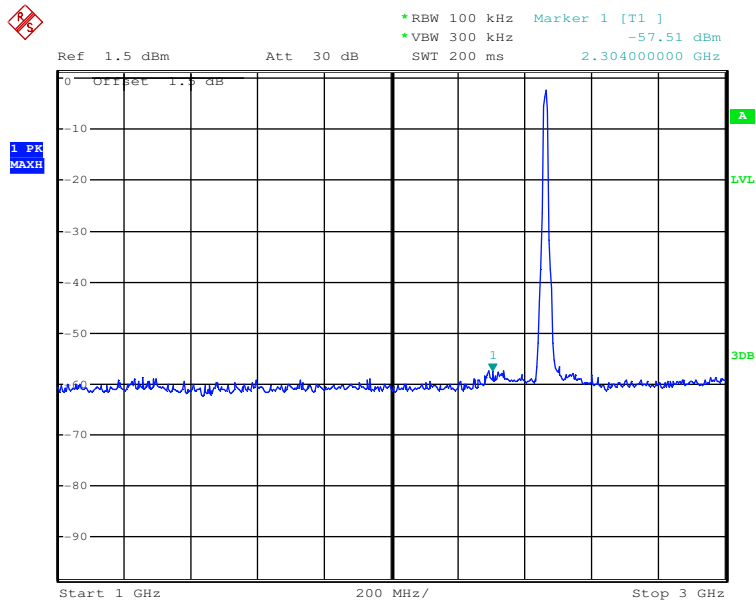
Date: 30.SEP.2016 09:53:51

TÜVRheinland®
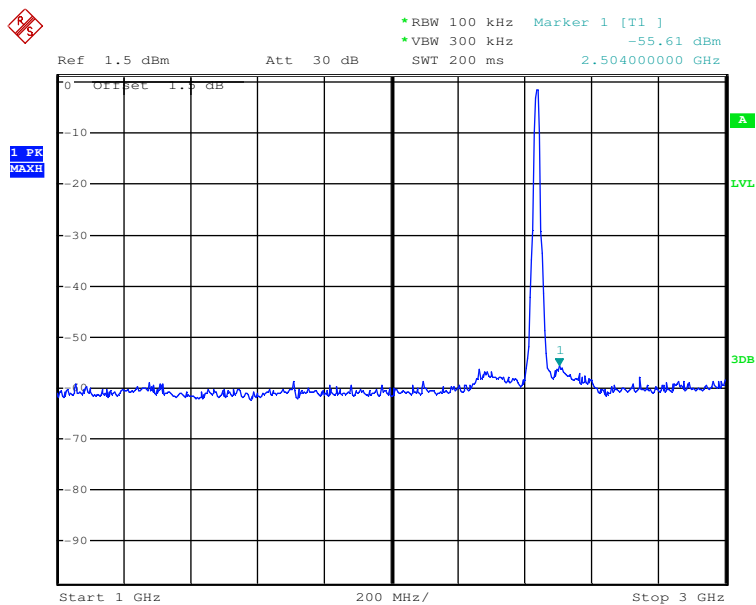
Date: 30.SEP.2016   09:56:15

Date: 30.SEP.2016   09:57:02

802.11G TX frequency: 2462MHz
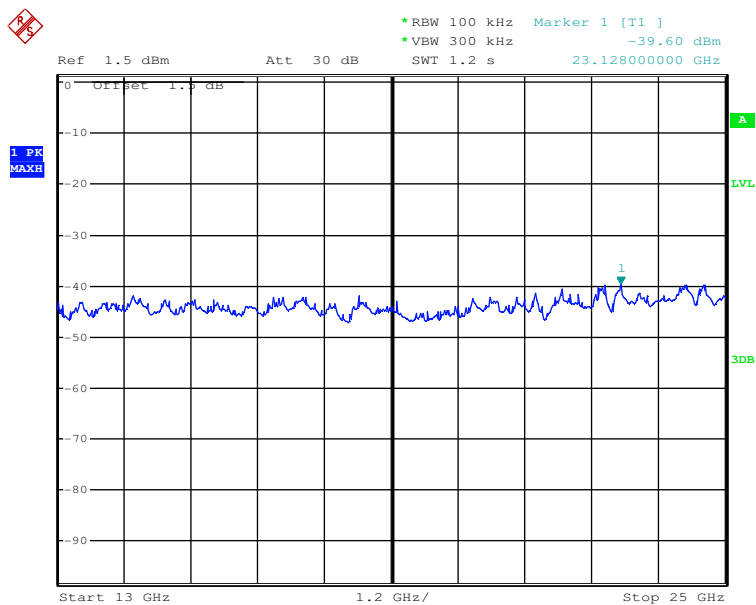
```
                                              *RBW 100 kHz   Marker 1 [T1 ]
                                              *VBW 300 kHz           -51.76 dBm
      Ref  1.5 dBm          Att  30 dB        SWT 100 ms        1.000000000 MHz
  0   Offset  1.5 dB
                                                                              A
  -10

1 PK
MAXH  -20                                                                    LVL

      -30

      -40

      -50                                                                    3DB

      -60

      -70

      -80

      -90

      Start 1 MHz              99.9 MHz/                    Stop 1 GHz
```

Date: 30.SEP.2016   09:23:04

```
                                              *RBW 100 kHz   Marker 1 [T1 ]
                                              *VBW 300 kHz           -57.51 dBm
      Ref  1.5 dBm          Att  30 dB        SWT 200 ms        2.304000000 GHz
  0   Offset  1.5 dB
                                                                              A
  -10

1 PK
MAXH  -20                                                                    LVL

      -30

      -40

      -50                                                                    3DB

      -60

      -70

      -80

      -90

      Start 1 GHz              200 MHz/                     Stop 3 GHz
```

Date: 30.SEP.2016   09:25:08

TÜVRheinland®
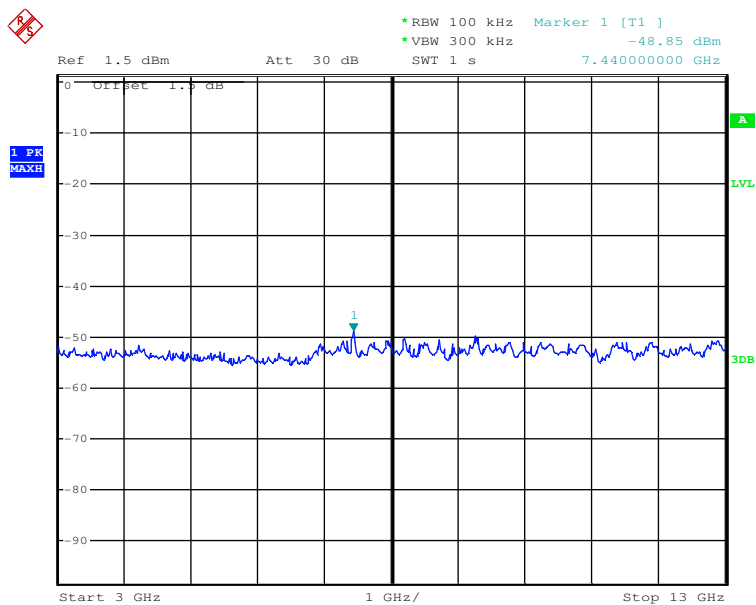
Date: 30.SEP.2016   09:30:07

Date: 30.SEP.2016   09:30:55

TÜVRheinland®

Date: 30.SEP.2016 09:18:39
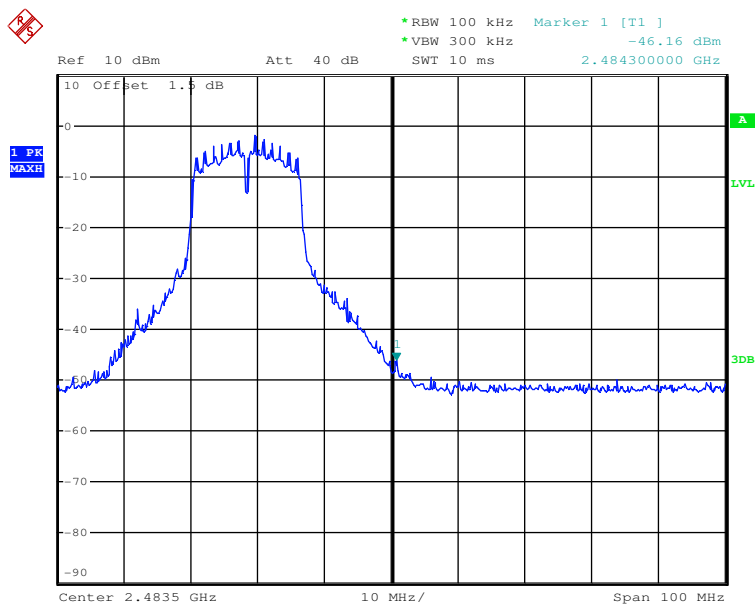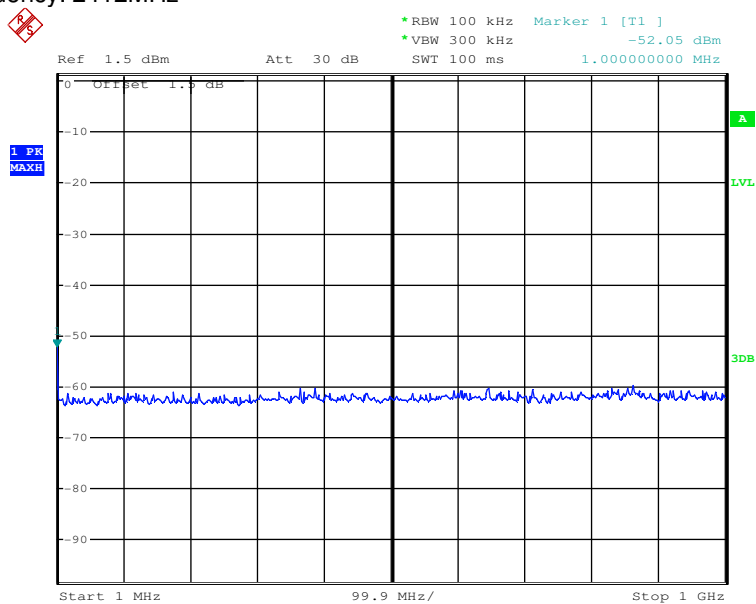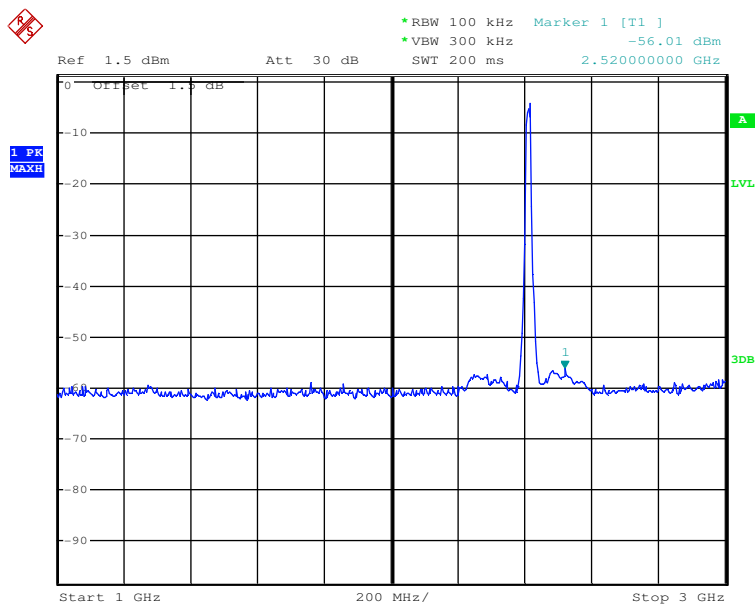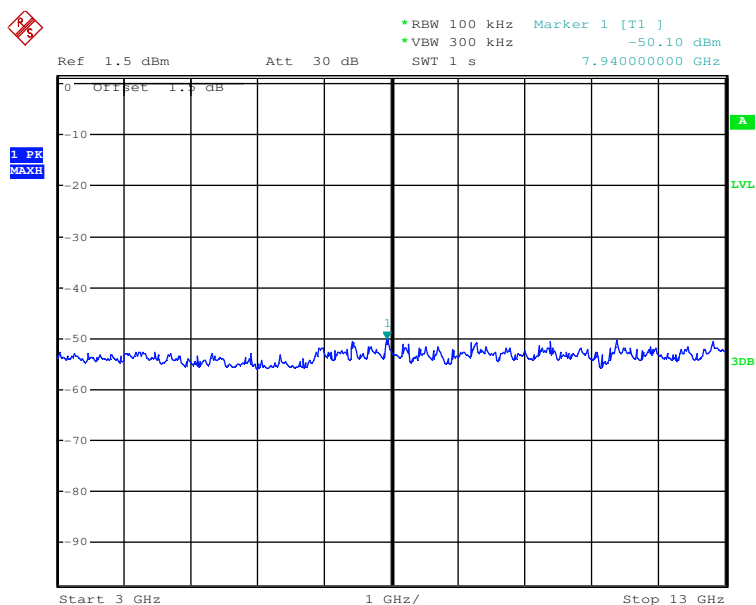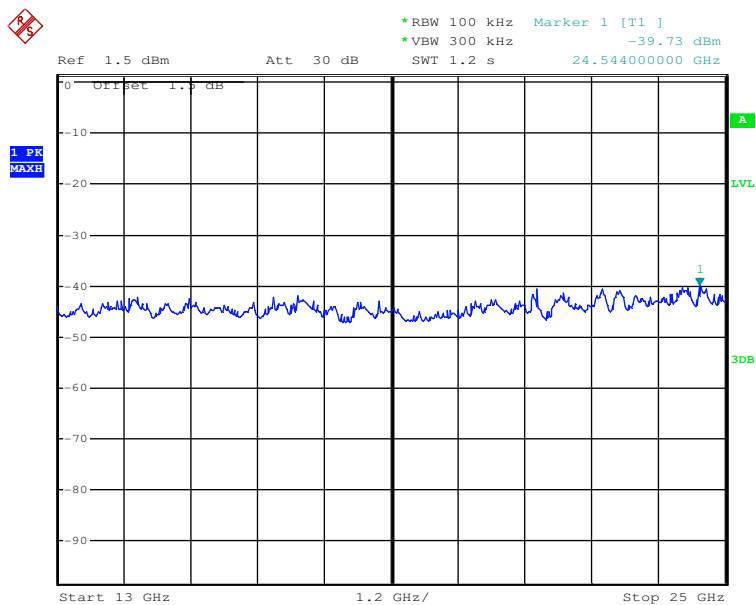
802.11N TX frequency: 2412MHz
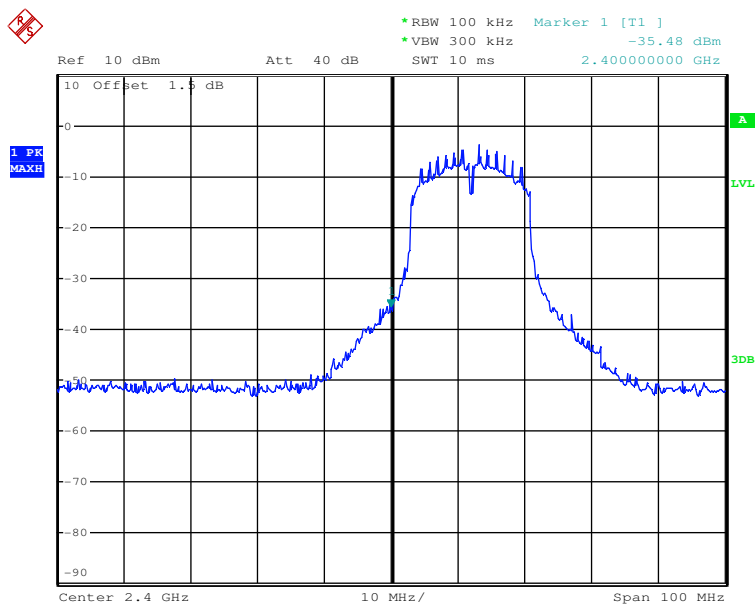

Date: 30.SEP.2016 10:46:34

Date: 30.SEP.2016 10:48:04

Date: 30.SEP.2016 10:48:56

TÜVRheinland®


```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                    *VBW 300 kHz          -39.73 dBm
Ref  1.5 dBm          Att  30 dB    SWT 1.2 s      24.544000000 GHz
```
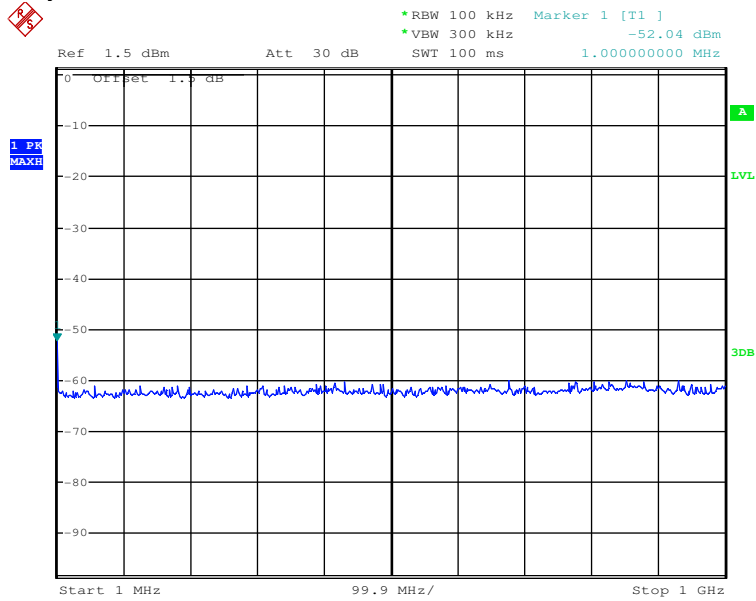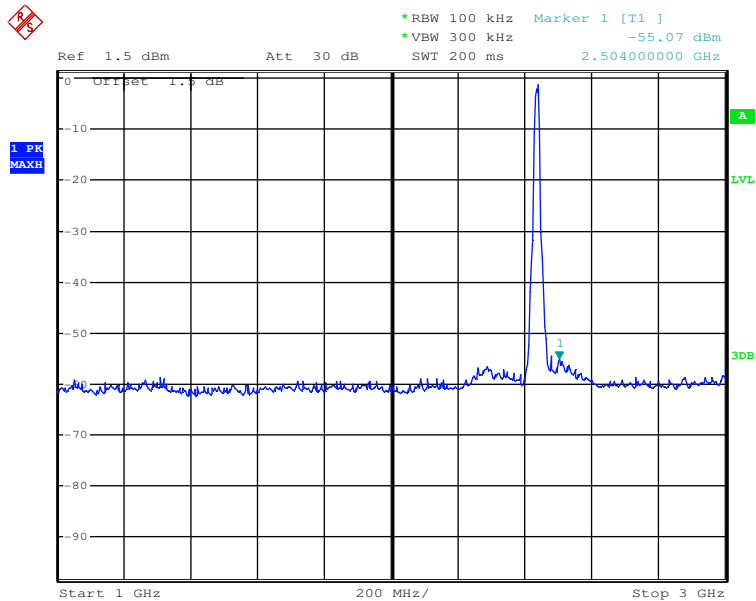
Offset 1.5 dB

1 PK
MAXH

Start 13 GHz   1.2 GHz/   Stop 25 GHz

Date: 30.SEP.2016 10:49:27


```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                    *VBW 300 kHz          -35.48 dBm
Ref  10 dBm          Att  40 dB     SWT 10 ms      2.400000000 GHz
```

Offset 1.5 dB

1 PK
MAXH

Center 2.4 GHz   10 MHz/   Span 100 MHz
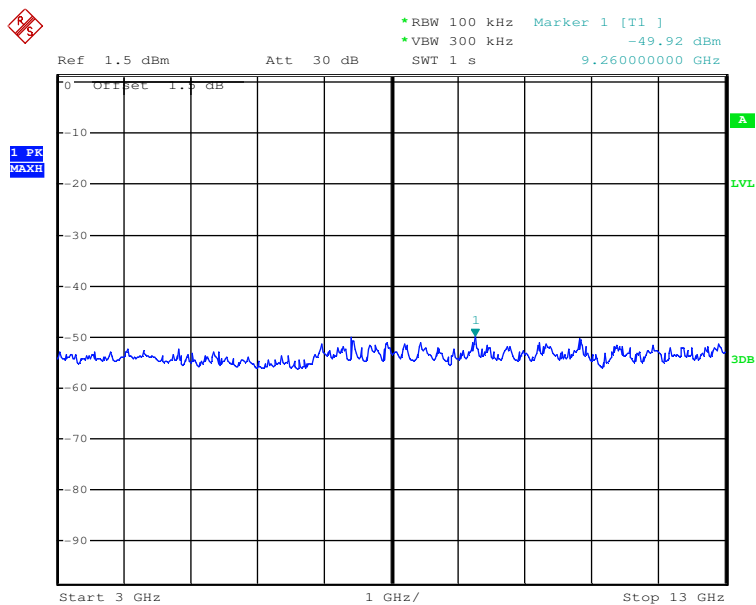
Date: 30.SEP.2016 10:44:10

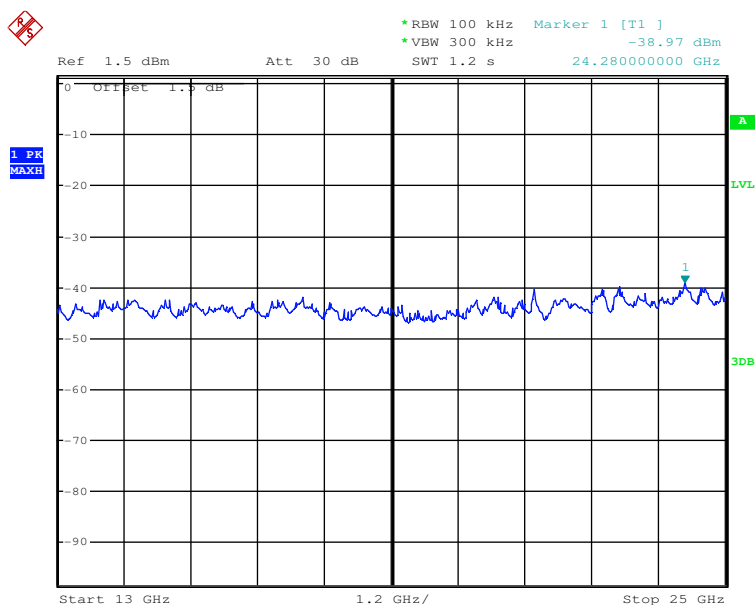802.11N TX frequency: 2437MHz

Date: 30.SEP.2016 10:52:05

Date: 30.SEP.2016 10:53:36

Date: 30.SEP.2016 10:54:23

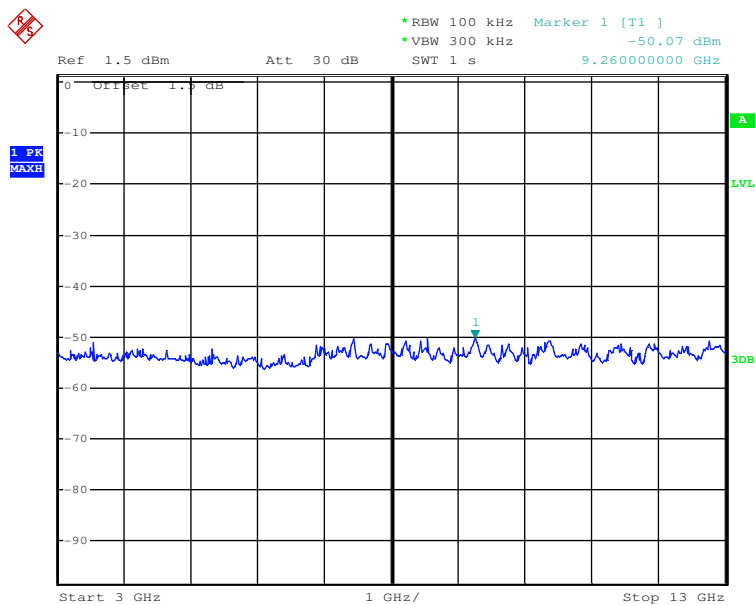Date: 30.SEP.2016 10:55:22

TÜVRheinland®

802.11N TX frequency: 2462MHz


```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                    *VBW 300 kHz          -51.72 dBm
Ref  1.5 dBm        Att  30 dB      SWT 100 ms      1.000000000 MHz
```

Date: 30.SEP.2016 11:03:05


```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                    *VBW 300 kHz          -56.57 dBm
Ref  1.5 dBm        Att  30 dB      SWT 200 ms      2.536000000 GHz
```
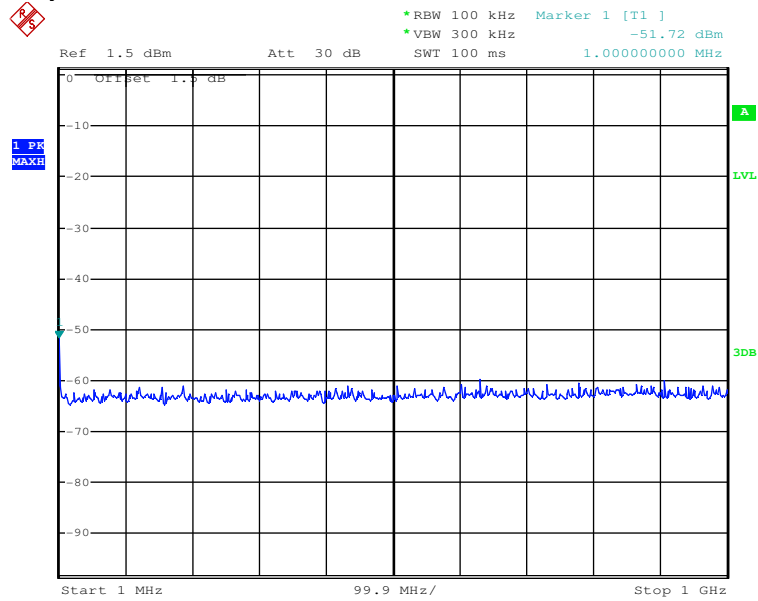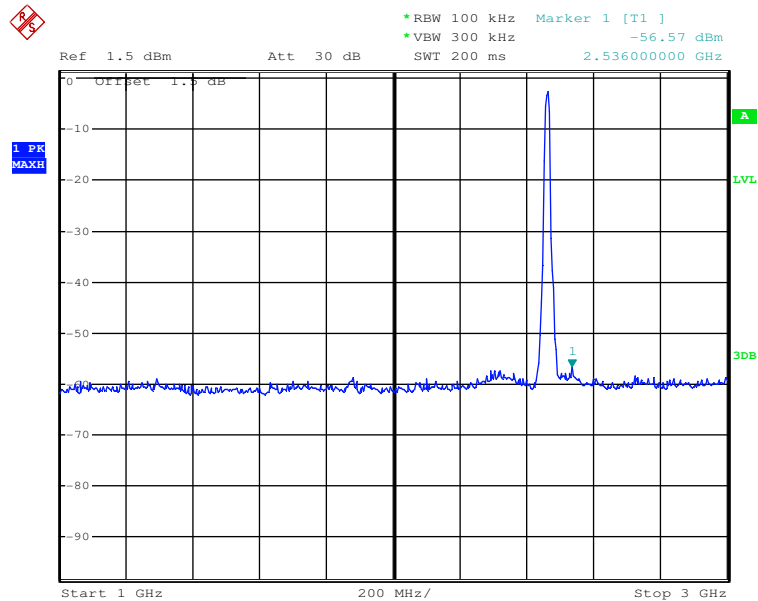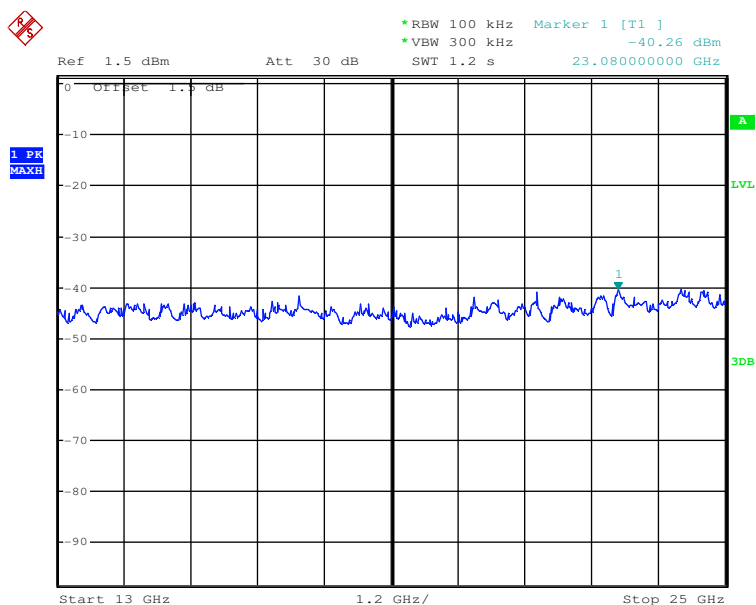
Date: 30.SEP.2016 11:04:32

TÜVRheinland®
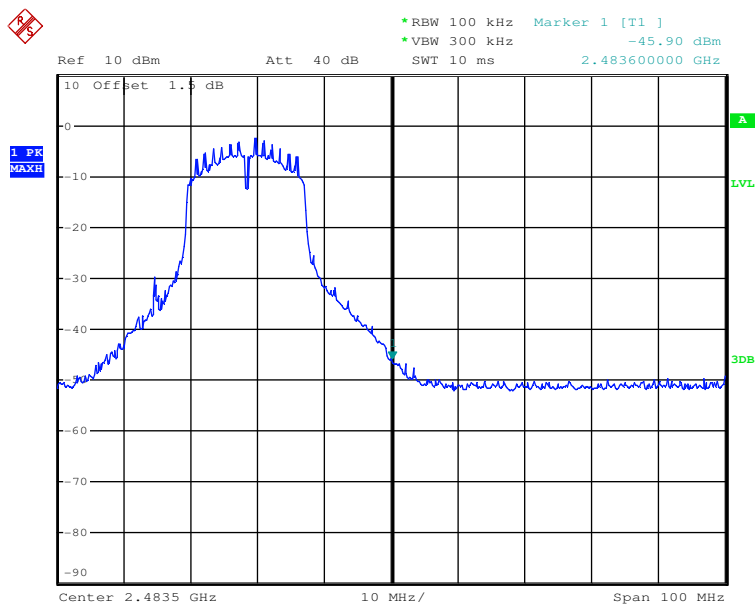

Date: 30.SEP.2016 11:05:27

Date: 30.SEP.2016 11:06:01

Date: 30.SEP.2016 11:02:34