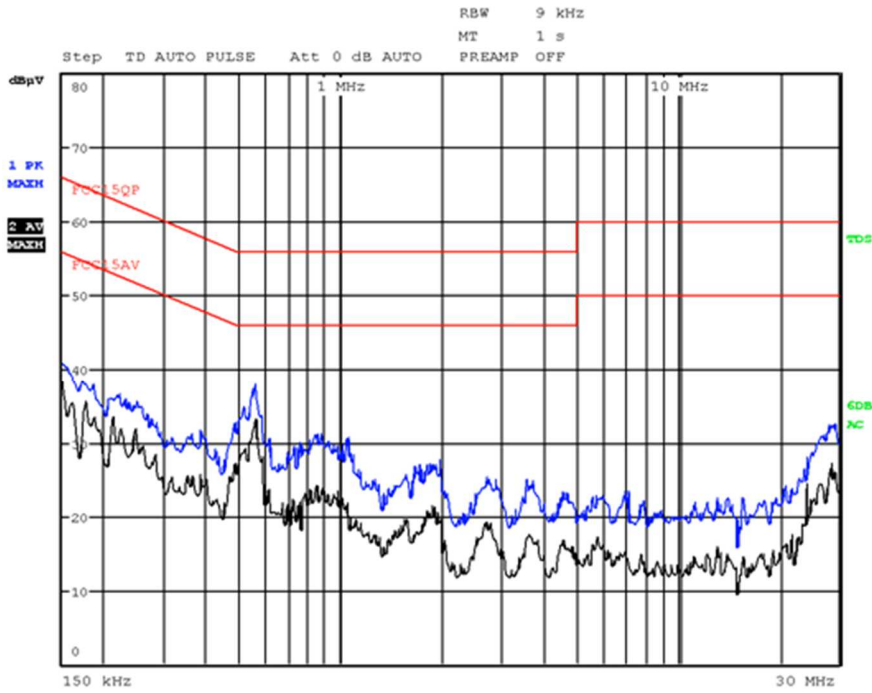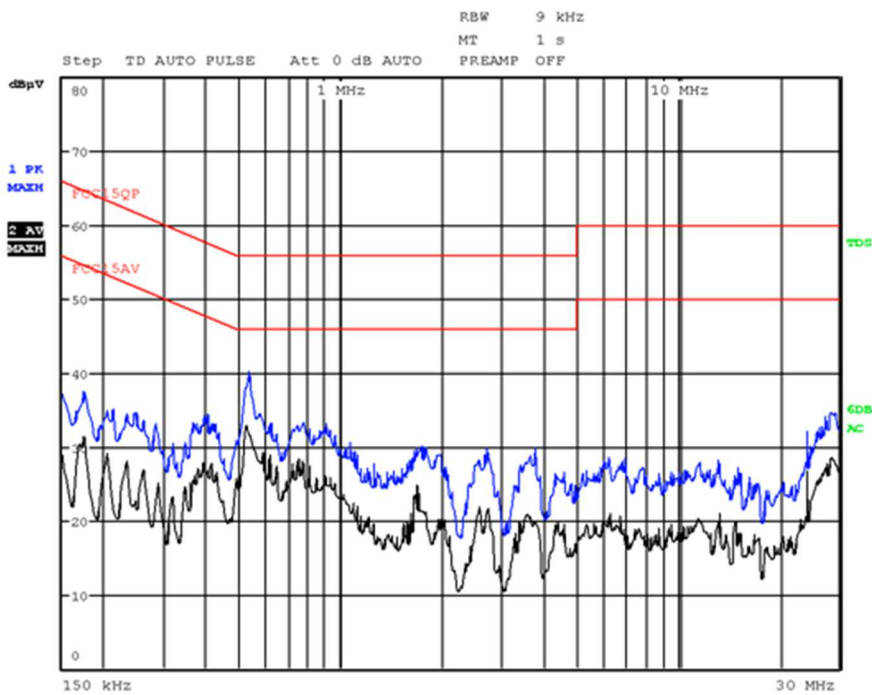# Appendix 1
Test Results

AC Mains Conducted Emission

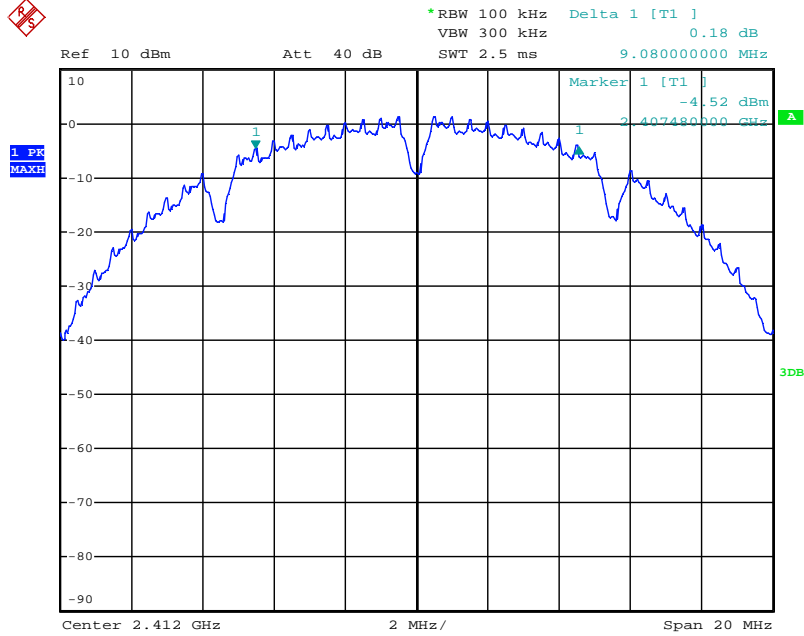Mode: WIFI ON; Line: L1
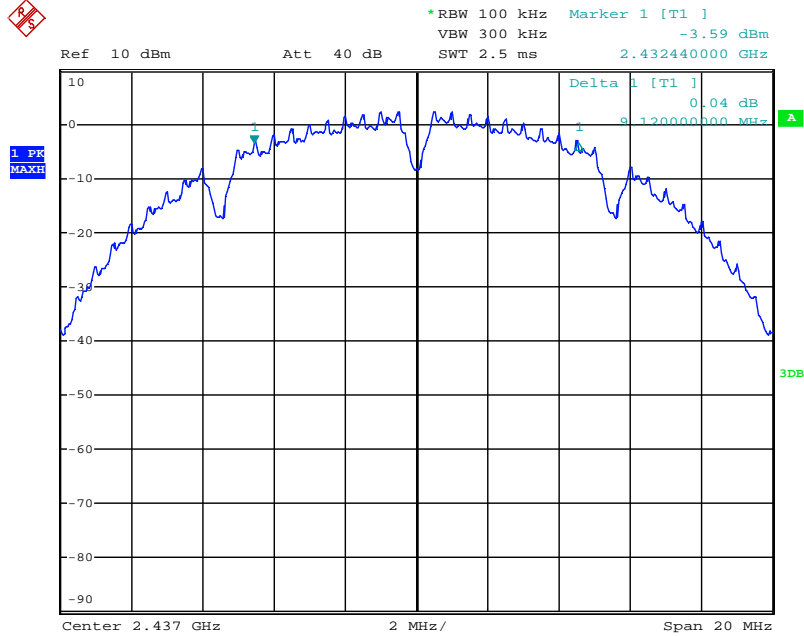

Mode: WIFI ON; Line: N

6 dB Bandwidth Measurement

Mode: 802.11b, TX frequency: 2412MHz

Date: 23.JUL.2019 11:11:39

Mode: 802.11b, TX frequency: 2437MHz

Date: 23.JUL.2019 11:13:35

Mode: 802.11b, TX frequency: 2462MHz

Date: 23.JUL.2019 11:14:56

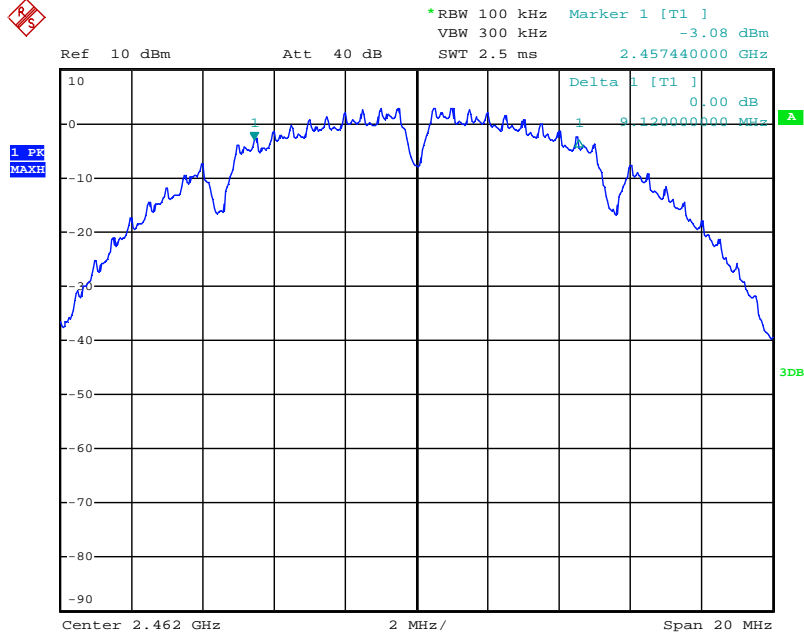Mode: 802.11g, TX frequency: 2412MHz

Date: 23.JUL.2019 11:23:55

Mode: 802.11g, TX frequency: 2437MHz
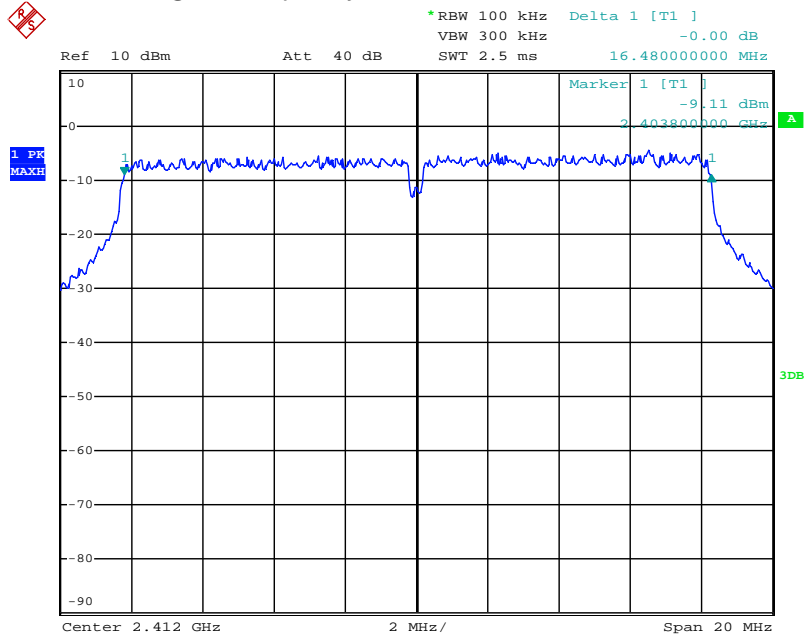

Date: 23.JUL.2019 11:22:55

Mode: 802.11g, TX frequency: 2462MHz

Date: 23.JUL.2019 11:16:47

Mode: 802.11n-HT20, TX frequency: 2412MHz
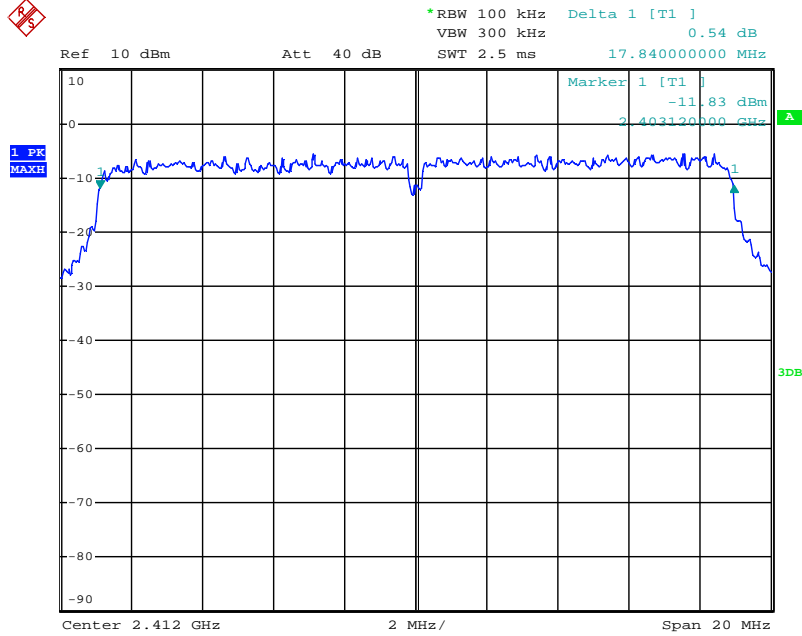
Date: 23.JUL.2019 11:26:22

Mode: 802.11n-HT20, TX frequency: 2437MHz
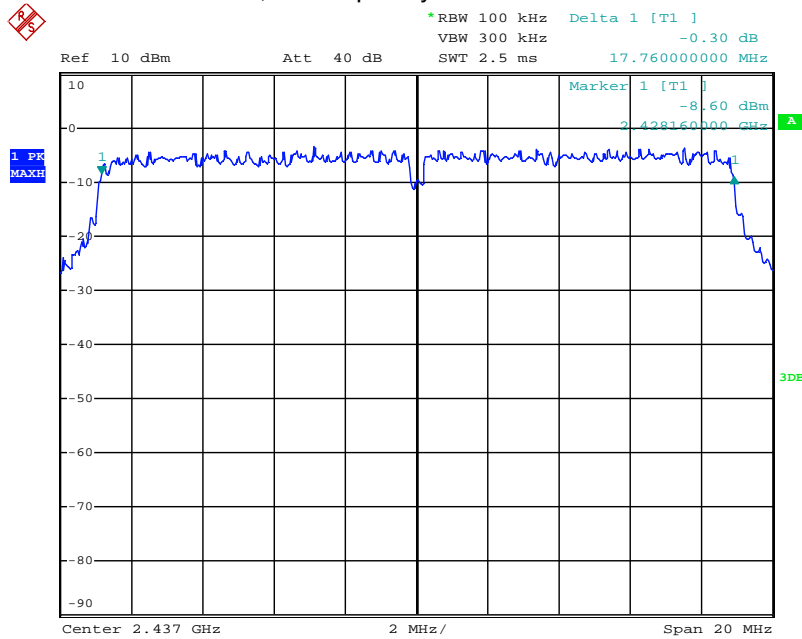
Date: 23.JUL.2019 11:27:44
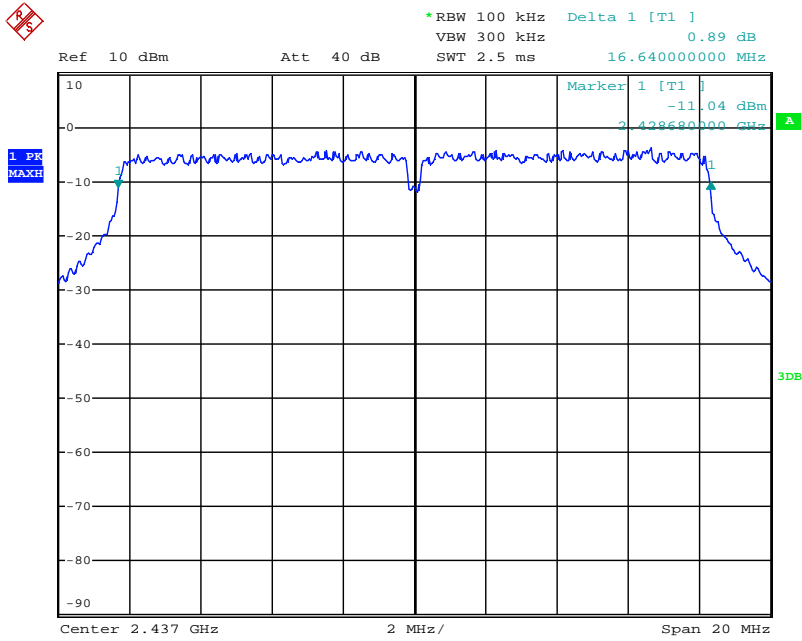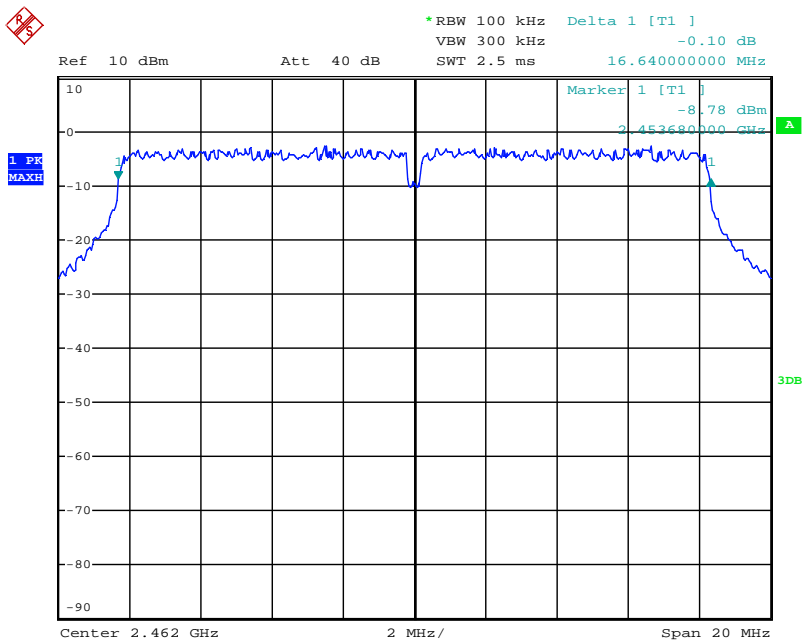
Mode: 802.11n-HT20, TX frequency: 2462MHz
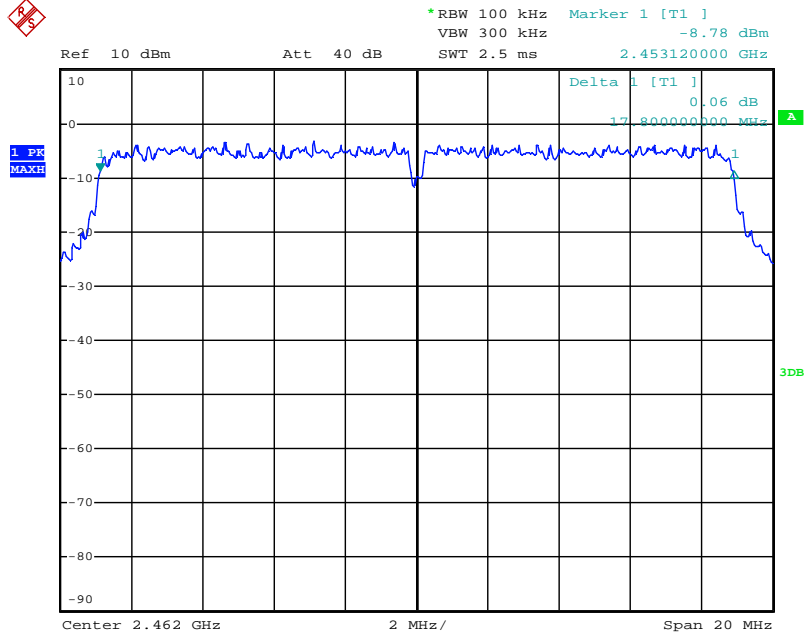
Date: 23.JUL.2019 11:28:48

Mode: 802.11n-HT40, TX frequency: 2422MHz
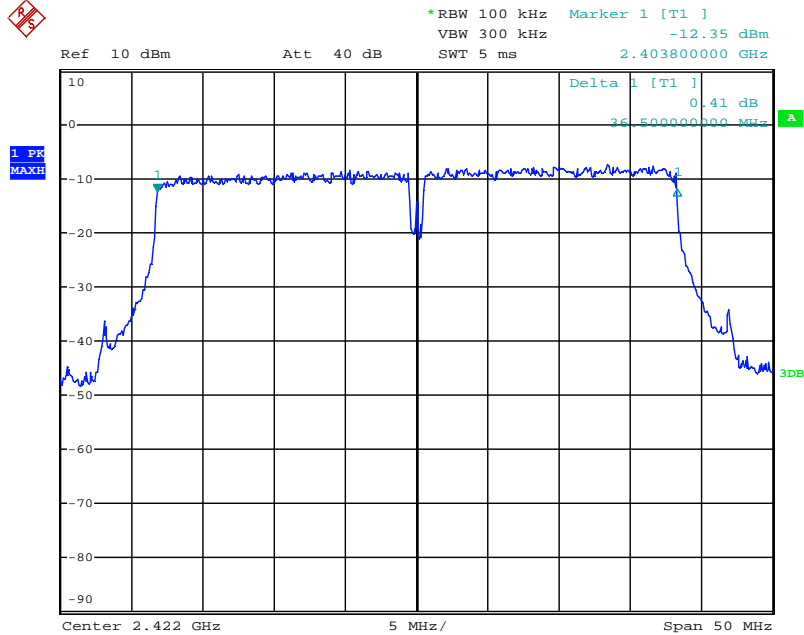
Date: 23.JUL.2019 11:30:19

Mode: 802.11n-HT40, TX frequency: 2437MHz

*RBW 100 kHz	Marker 1 [T1]
VBW 300 kHz	-14.02 dBm
Ref 10 dBm	Att 40 dB	SWT 5 ms	2.418700000 GHz

Delta 1 [T1]
2.53 dB
36.600000000 MHz

Center 2.437 GHz   5 MHz/   Span 50 MHz
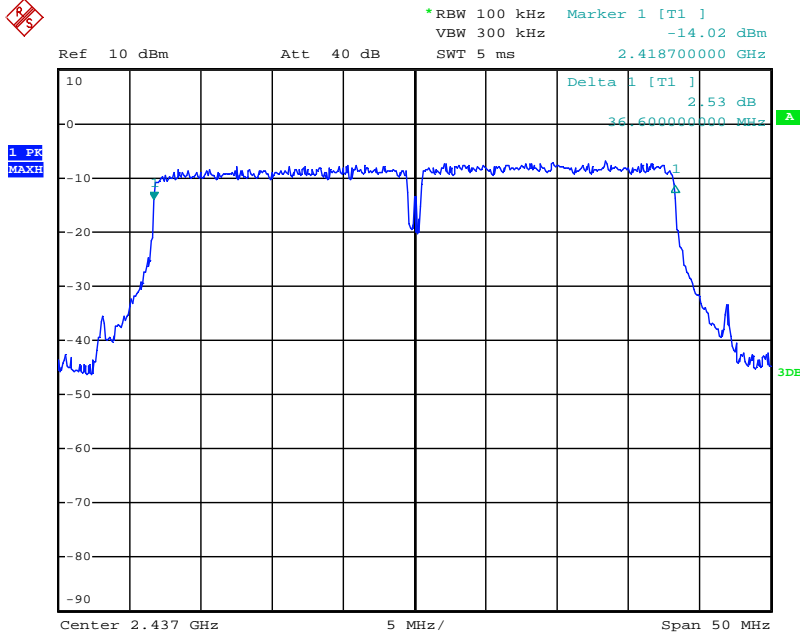
Date: 23.JUL.2019 11:31:15

Mode: 802.11n-HT40, TX frequency: 2452MHz

*RBW 100 kHz	Delta 1 [T1]
VBW 300 kHz	-1.05 dB
Ref 10 dBm	Att 40 dB	SWT 5 ms	36.700000000 MHz

Marker 1 [T1]
-13.05 dBm
2.433700000 GHz

Center 2.452 GHz   5 MHz/   Span 50 MHz
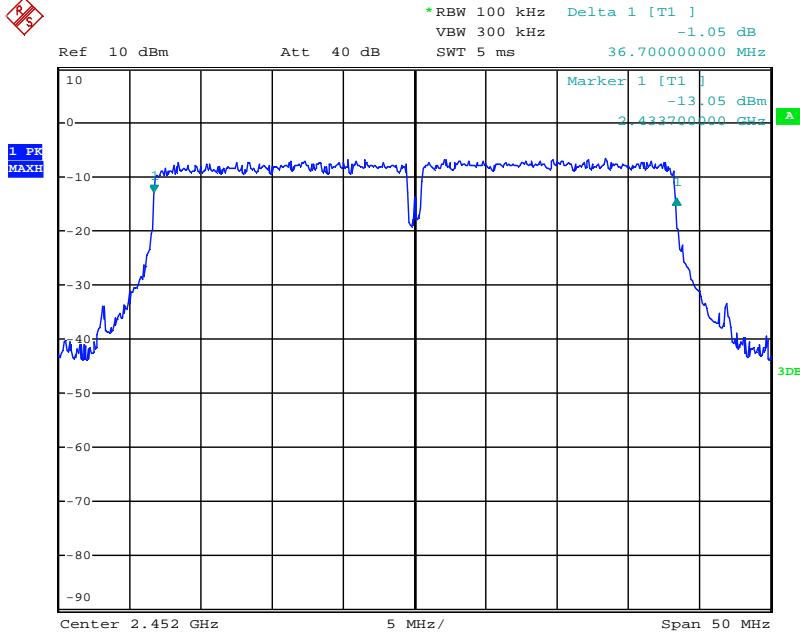
Date: 23.JUL.2019 11:32:23

Maximum Peak Conducted Output power

Mode: 802.11b, TX frequency: 2412MHz

Tx Channel			
Bandwidth	14 MHz	Power	8.40 dBm
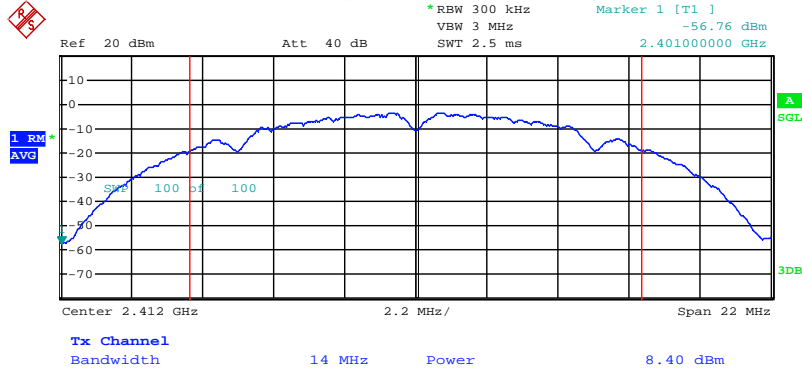
Date: 23.JUL.2019 15:46:24

Mode: 802.11b, TX frequency: 2437MHz

Tx Channel			
Bandwidth	14 MHz	Power	9.32 dBm
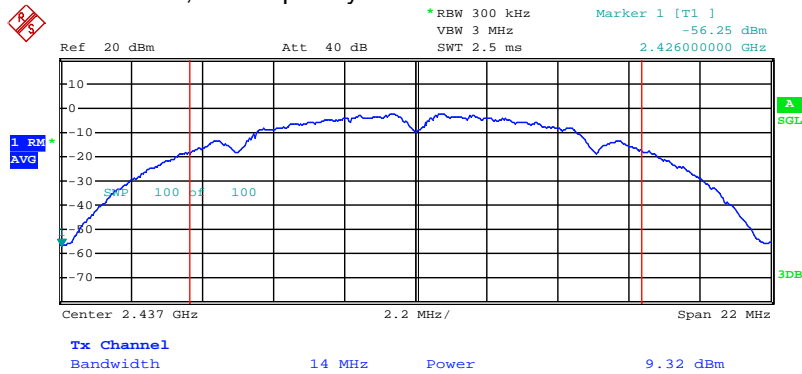
Date: 23.JUL.2019 15:47:26

Mode: 802.11b, TX frequency: 2462MHz

```
                                    *RBW  300 kHz       Marker 1 [T1 ]
                                     VBW  3 MHz                  -56.40 dBm
      Ref  20 dBm           Att  40 dB    SWT  2.5 ms     2.451000000 GHz

       -10                                                              A
        -0                                                             SGL
       -10
1 RM*  -20
AVG    -30
      SWP   100 of   100
      -40
      -50
      -60
      -70                                                             3DB

      Center 2.462 GHz            2.2 MHz/              Span 22 MHz
```

Tx Channel
Bandwidth   14 MHz   Power   9.97 dBm
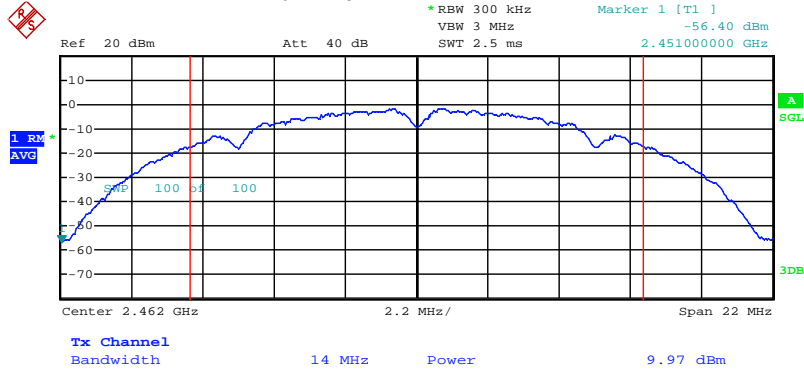
Date: 23.JUL.2019 15:48:06

Mode: 802.11g, TX frequency: 2412MHz

```
                                    *RBW  300 kHz       Marker 1 [T1 ]
                                     VBW  3 MHz                  -51.59 dBm
      Ref  20 dBm           Att  40 dB    SWT  2.5 ms     2.399000000 GHz

       -10                                                              A
        -0                                                             SGL
       -10
1 RM*  -20
AVG    -30
      SWP   100 of   100
      -40
      -50
      -60
      -70                                                             3DB

      Center 2.412 GHz            2.6 MHz/              Span 26 MHz
```

Tx Channel
Bandwidth   18 MHz   Power   8.03 dBm
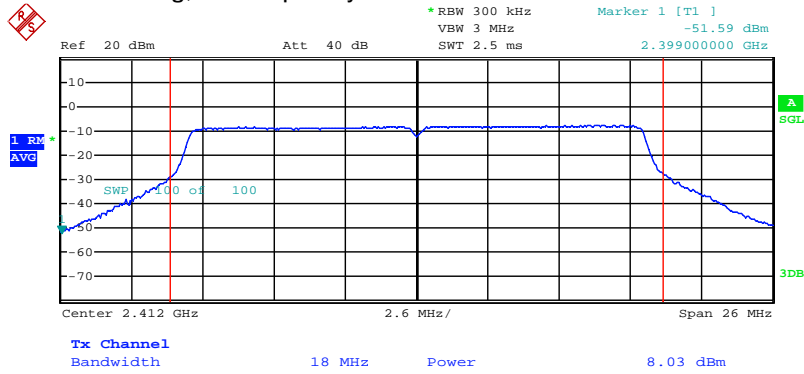
Date: 23.JUL.2019 15:50:15

Mode: 802.11g, TX frequency: 2437MHz

```
                                      * RBW  300 kHz        Marker 1 [T1 ]
                                        VBW  3 MHz              -49.27 dBm
     Ref  20 dBm          Att  40 dB    SWT  2.5 ms        2.424000000 GHz

      -10                                                              A
       -0                                                              SGL
1 RM* -10
AVG   -20
      -30                                                              
SWP  100 of   100
      -40
      -50
      -60
      -70                                                              3DB

     Center 2.437 GHz            2.6 MHz/              Span 26 MHz

     Tx Channel
     Bandwidth            18 MHz       Power              8.99 dBm
```
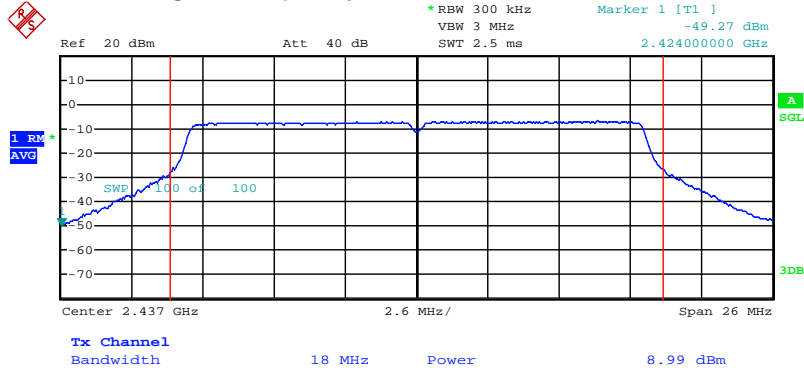
Date: 23.JUL.2019 15:50:54

Mode: 802.11g, TX frequency: 2462MHz

```
                                      * RBW  300 kHz        Marker 1 [T1 ]
                                        VBW  3 MHz              -45.94 dBm
     Ref  20 dBm          Att  40 dB    SWT  2.5 ms        2.449000000 GHz

      -10                                                              A
       -0                                                              SGL
1 RM* -10
AVG   -20
      -30                                                              
SWP  100 of   100
      -40
      -50
      -60
      -70                                                              3DB

     Center 2.462 GHz            2.6 MHz/              Span 26 MHz

     Tx Channel
     Bandwidth            18 MHz       Power              9.87 dBm
```
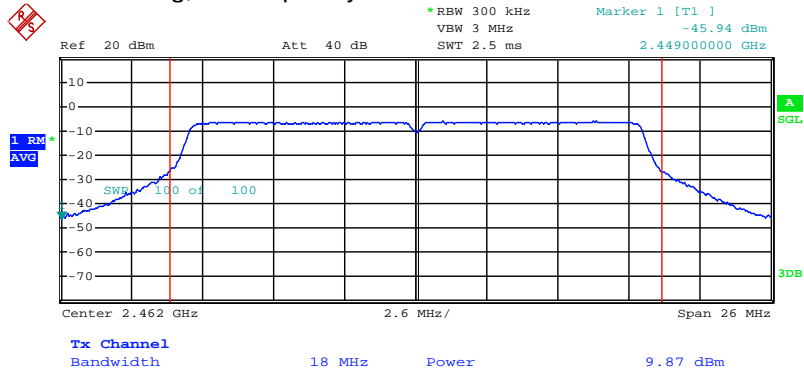
Date: 23.JUL.2019 15:51:42

Mode: 802.11n-HT20, TX frequency: 2412MHz


```
                                          * RBW 300 kHz
                                            VBW 3 MHz
     Ref  20 dBm            Att  40 dB       SWT 2.5 ms

     -10                                                      A
      0                                                       SGL
     -10
1 RM -20
AVG  -30
     SWP  100 of   100
     -40
     -50
     -60
                                                             3DB
     -70

     Center 2.412 GHz         2.6 MHz/          Span 26 MHz
```

Tx Channel
Bandwidth   19 MHz   Power   7.52 dBm
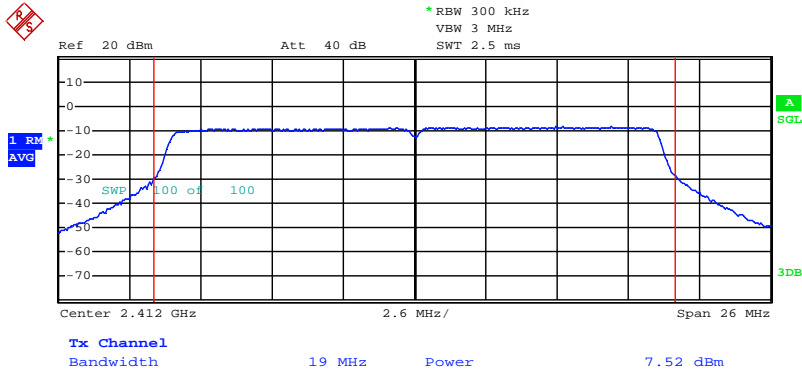
Date: 23.JUL.2019 15:55:17

Mode: 802.11n-HT20, TX frequency: 2437MHz


```
                                          * RBW 300 kHz
                                            VBW 3 MHz
     Ref  20 dBm            Att  40 dB       SWT 2.5 ms

     -10                                                      A
      0                                                       SGL
     -10
1 RM -20
AVG  -30
     SWP  100 of   100
     -40
     -50
     -60
                                                             3DB
     -70

     Center 2.437 GHz         2.6 MHz/          Span 26 MHz
```

Tx Channel
Bandwidth   19 MHz   Power   8.81 dBm
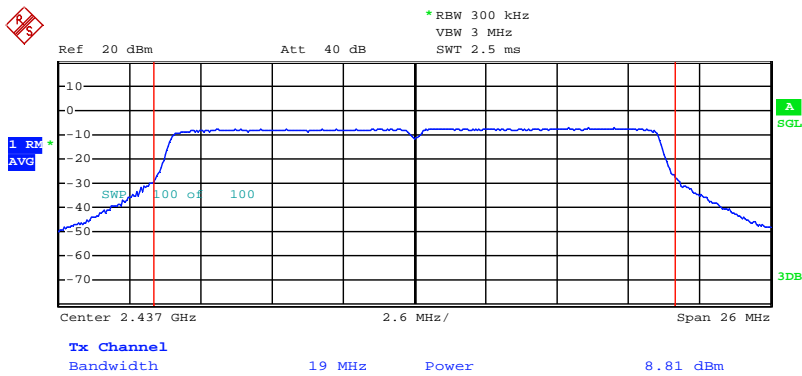
Date: 23.JUL.2019 15:54:18

Mode: 802.11n-HT20, TX frequency: 2462MHz

```
                                    *RBW 300 kHz
                                     VBW 3 MHz
  Ref  20 dBm            Att  40 dB   SWT 2.5 ms
   -10
   -0                                                          A
   -10                                                        SGL
1 RM*
AVG -20
   -30
   SWP  100 of   100
   -40
   -50
   -60
   -70                                                        3DB
  Center 2.462 GHz        2.6 MHz/           Span 26 MHz
  Tx Channel
  Bandwidth           19 MHz    Power            9.66 dBm
```
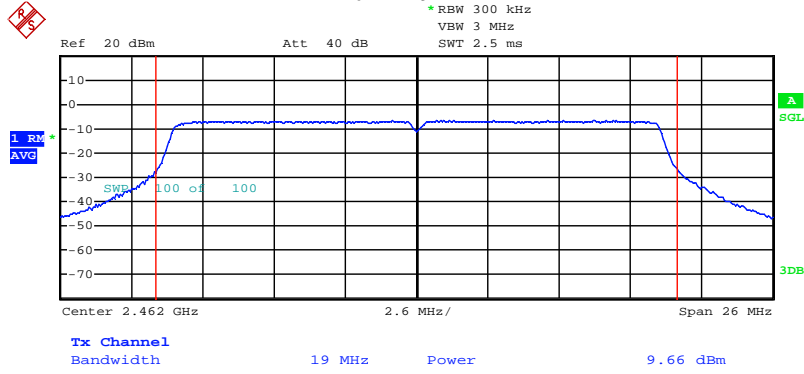
Date: 23.JUL.2019 15:54:51

Mode: 802.11n-HT40, TX frequency: 2422MHz

```
                                    *RBW 1 MHz
                                     VBW 10 MHz
  Ref  20 dBm            Att  40 dB   SWT 2.5 ms
   -10
   -0                                                          A
   -10                                                        SGL
1 RM*
AVG -20
   -30
   -40
   SWP  100 of   100
   -50
   -60
   -70                                                        3DB
  Center 2.422 GHz        5.6 MHz/           Span 56 MHz
  Tx Channel
  Bandwidth           38 MHz    Power            8.16 dBm
```
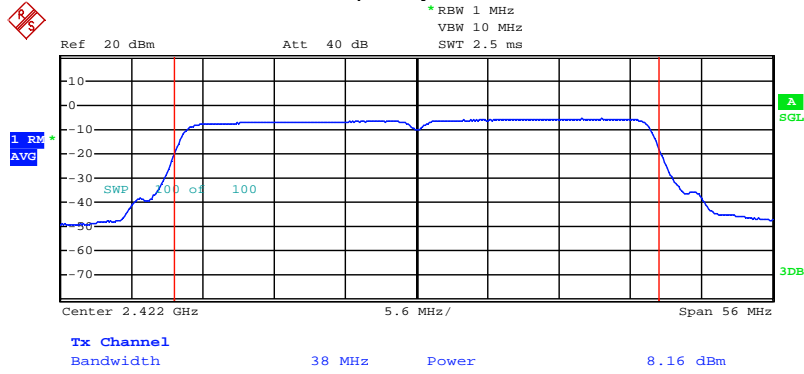
Date: 23.JUL.2019 15:56:36

Mode: 802.11n-HT40, TX frequency: 2437MHz

Ref 20 dBm   Att 40 dB   * RBW 1 MHz
                           VBW 10 MHz
                           SWT 2.5 ms

```
   10
    0
  -10
  -20
  -30
  -40
  -50
  -60
  -70
```

1 RM *
AVG

A
SGL

SWP 100 of 100

3DB

Center 2.437 GHz   5.6 MHz/   Span 56 MHz

Tx Channel
Bandwidth   38 MHz   Power   9.08 dBm
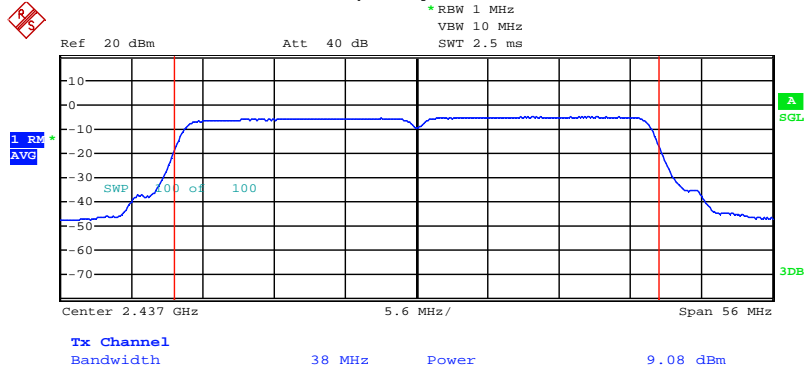
Date: 23.JUL.2019 15:57:14

Mode: 802.11n-HT40, TX frequency: 2452MHz

Ref 20 dBm   Att 40 dB   * RBW 1 MHz
                           VBW 10 MHz
                           SWT 2.5 ms

```
   10
    0
  -10
  -20
  -30
  -40
  -50
  -60
  -70
```

1 RM *
AVG

A
SGL

SWP 100 of 100

3DB

Center 2.452 GHz   5.6 MHz/   Span 56 MHz

Tx Channel
Bandwidth   38 MHz   Power   9.50 dBm
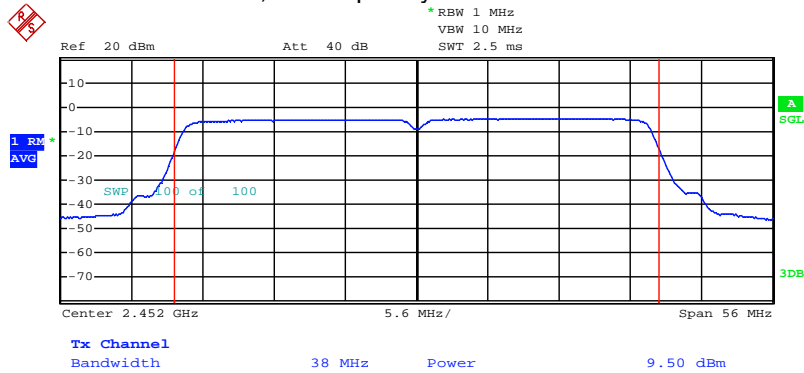
Date: 23.JUL.2019 15:58:18

Power Spectral Density

Mode: 802.11b, TX frequency: 2412MHz


```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                     VBW 300 kHz            5.74 dBm
        Ref  20 dBm        Att  50 dB   SWT 2.5 ms     2.411490000 GHz
```
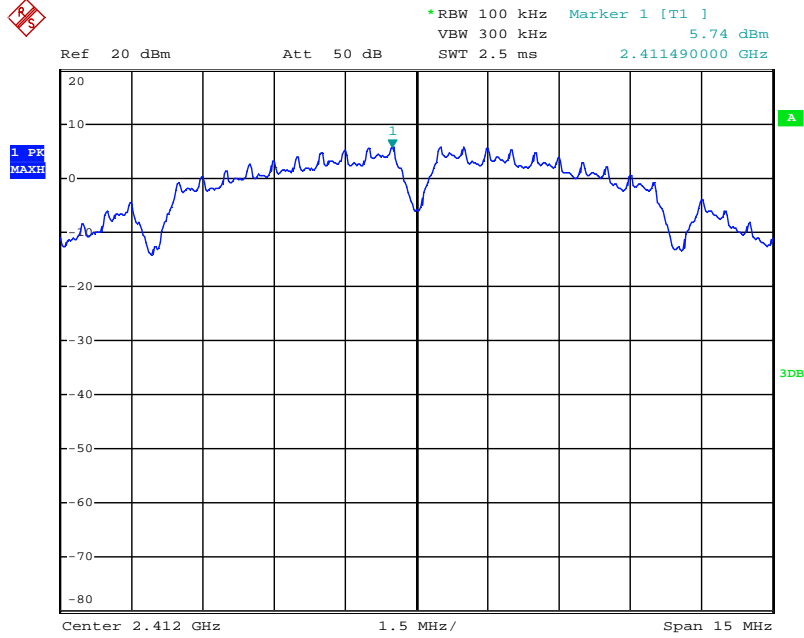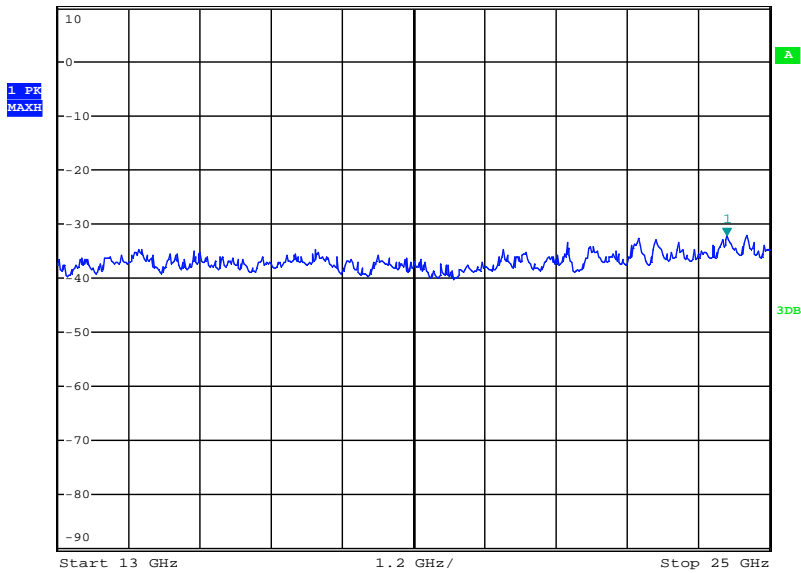
Date: 23.JUL.2019 13:23:32

Mode: 802.11b, TX frequency: 2437MHz


```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                     VBW 300 kHz            7.12 dBm
        Ref  20 dBm        Att  50 dB   SWT 2.5 ms     2.437510000 GHz
```
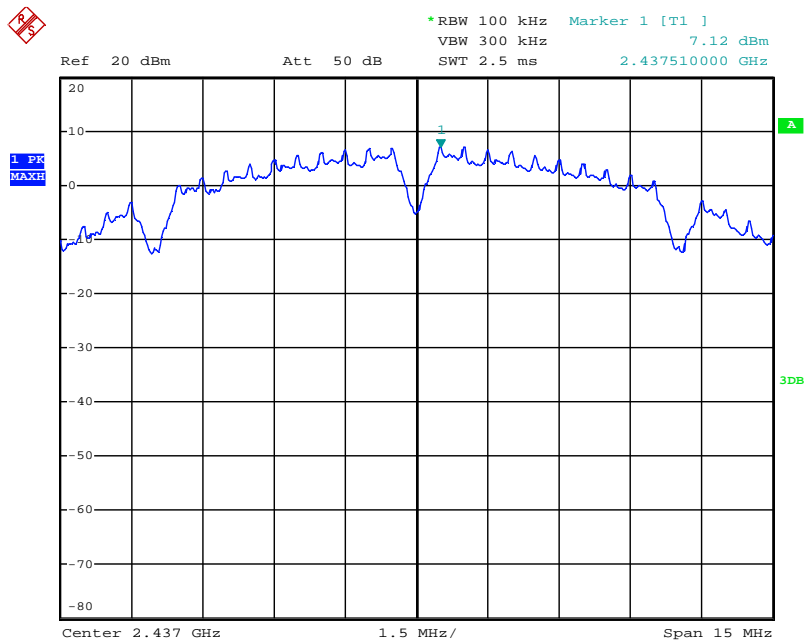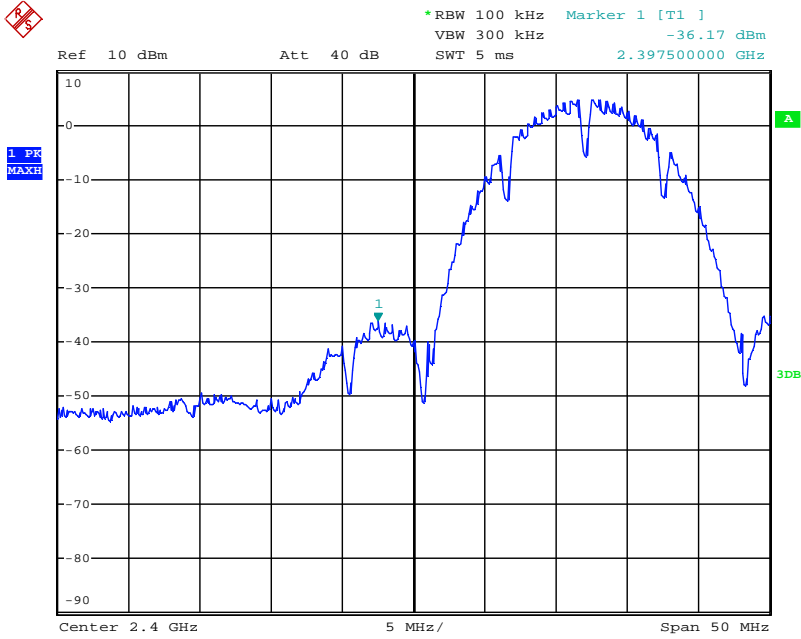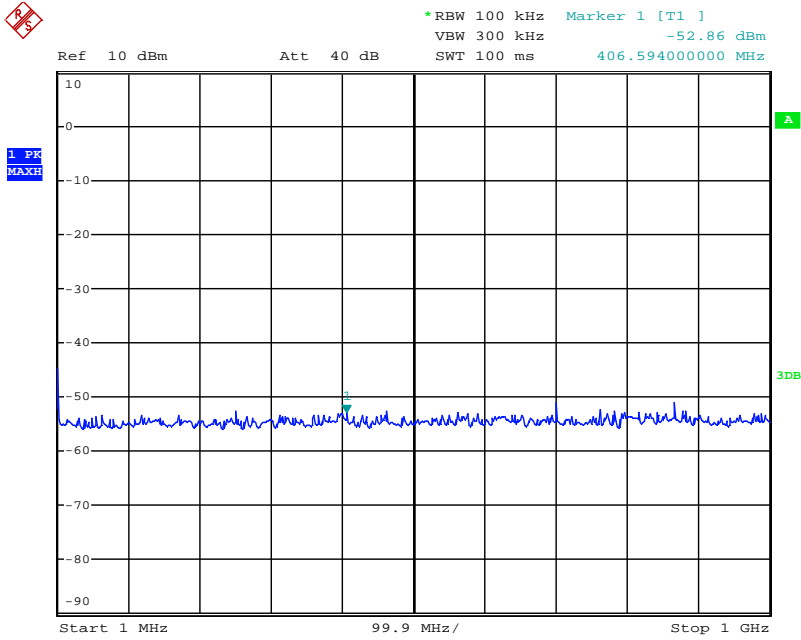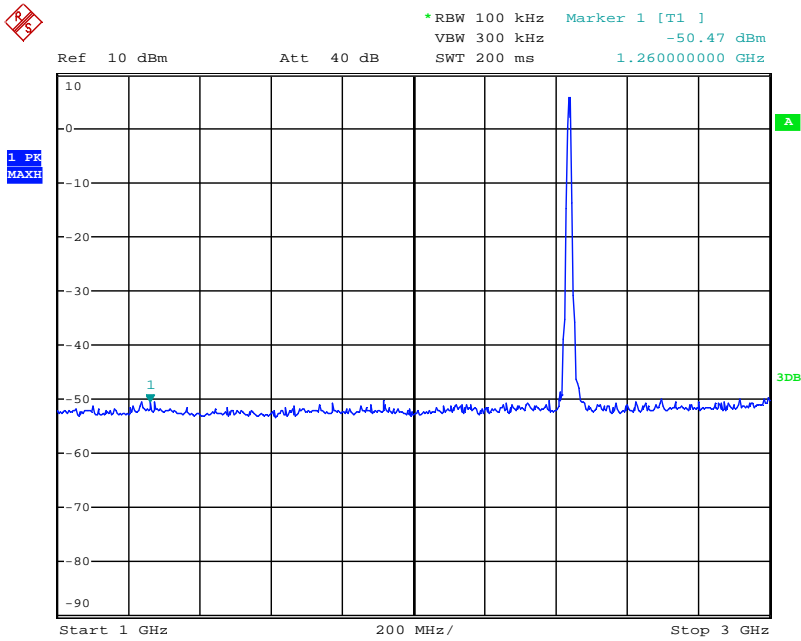
Date: 23.JUL.2019 13:25:16

Mode: 802.11b, TX frequency: 2462MHz
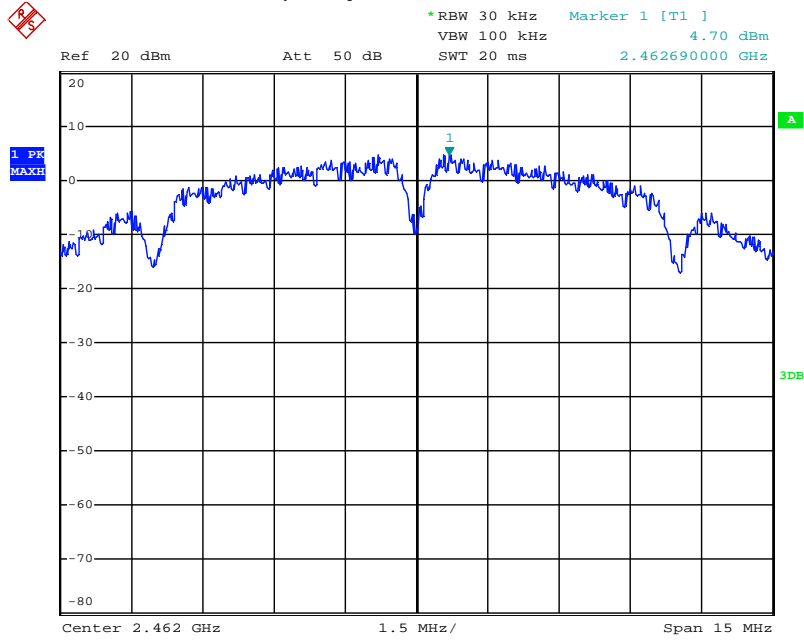
Date: 2.AUG.2019 19:30:56

Mode: 802.11g, TX frequency: 2412MHz
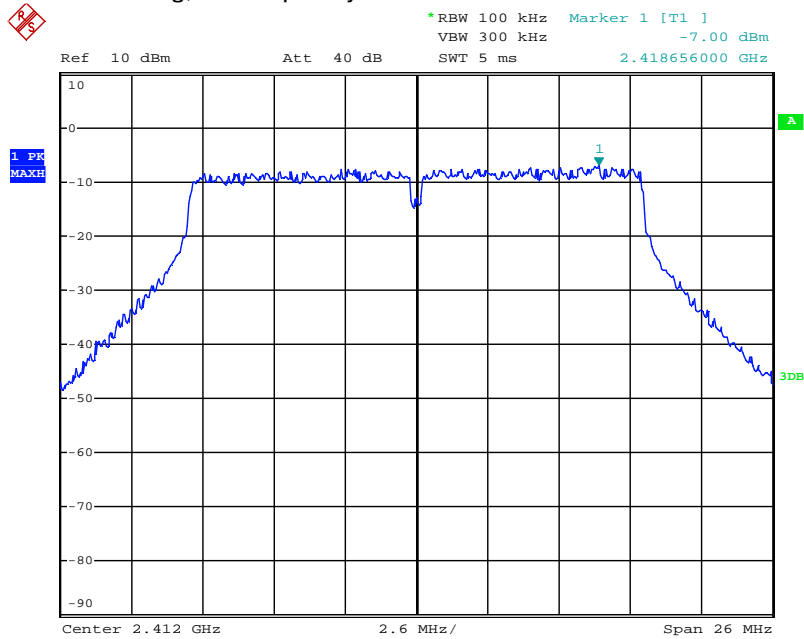
Date: 23.JUL.2019 13:32:12

Mode: 802.11g, TX frequency: 2437MHz

*RBW 100 kHz   Marker 1 [T1]
VBW 300 kHz   -5.30 dBm
Ref 10 dBm   Att 40 dB   SWT 5 ms   2.443656000 GHz

Center 2.437 GHz   2.6 MHz/   Span 26 MHz
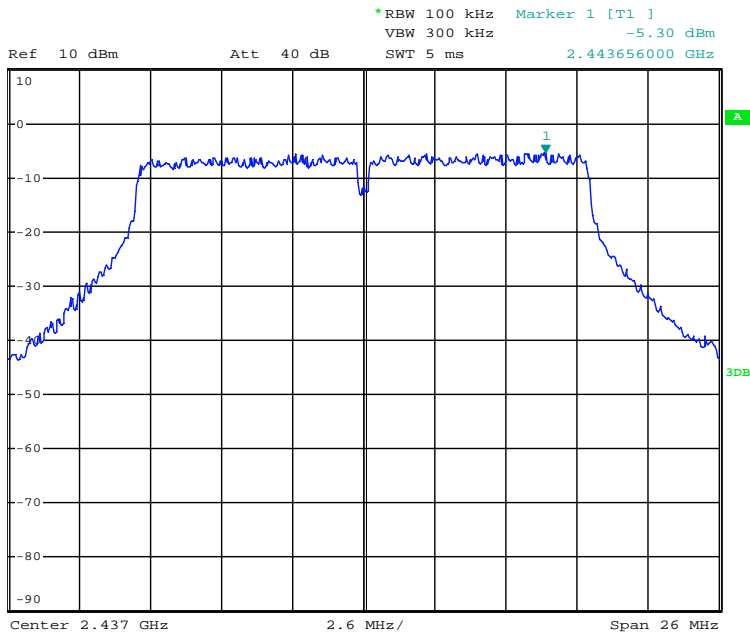
Date: 23.JUL.2019 13:29:16

Mode: 802.11g, TX frequency: 2462MHz

*RBW 100 kHz   Marker 1 [T1]
VBW 300 kHz   -4.60 dBm
Ref 10 dBm   Att 40 dB   SWT 5 ms   2.468656000 GHz

Center 2.462 GHz   2.6 MHz/   Span 26 MHz
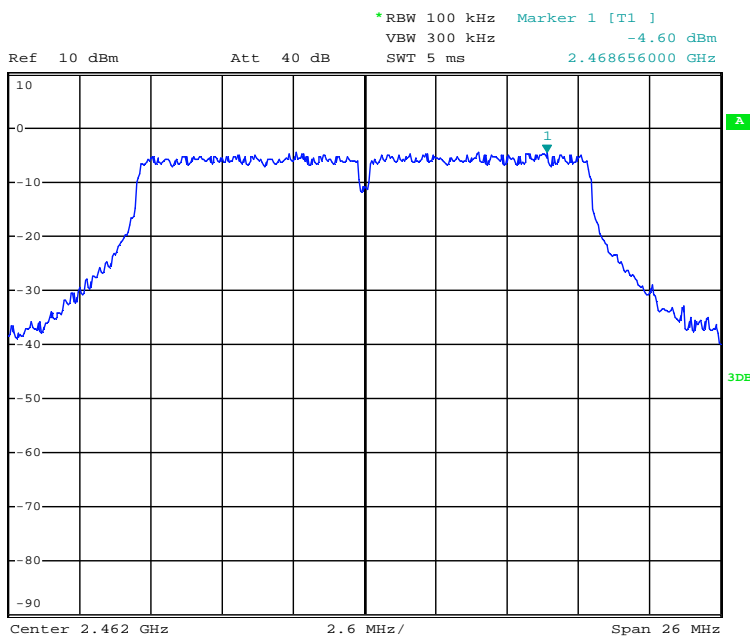
Date: 23.JUL.2019 13:28:30

Mode: 802.11n-HT20, TX frequency: 2412MHz
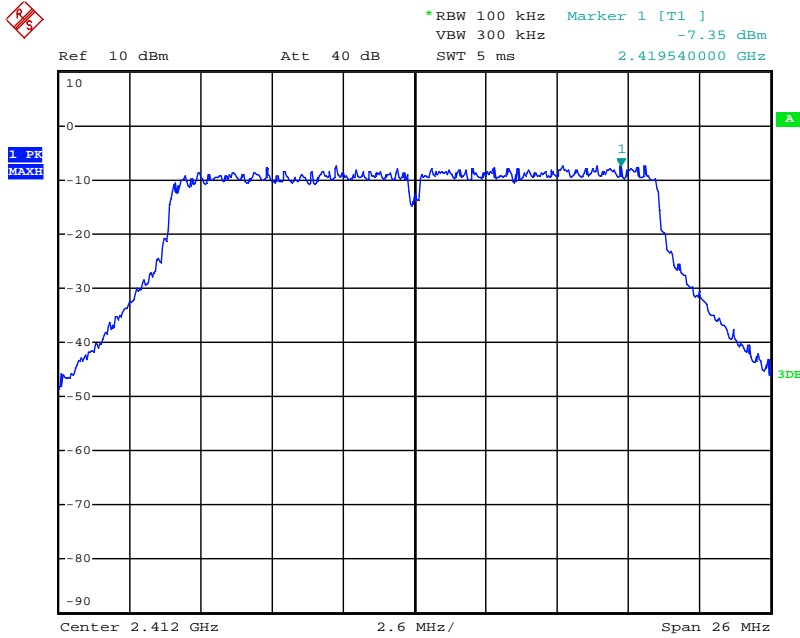
Date: 23.JUL.2019 13:34:29

Mode: 802.11n-HT20, TX frequency: 2437MHz
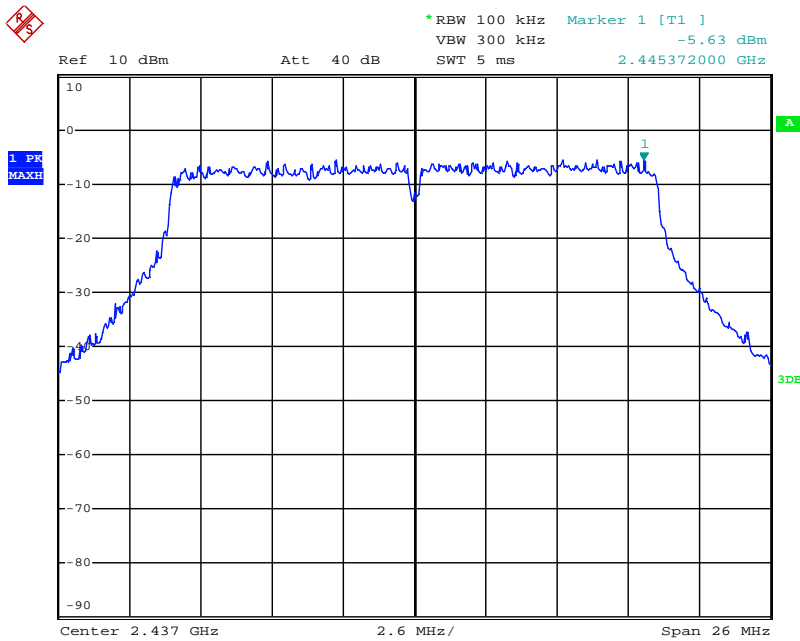
Date: 23.JUL.2019 13:35:17

Mode: 802.11n-HT20, TX frequency: 2462MHz
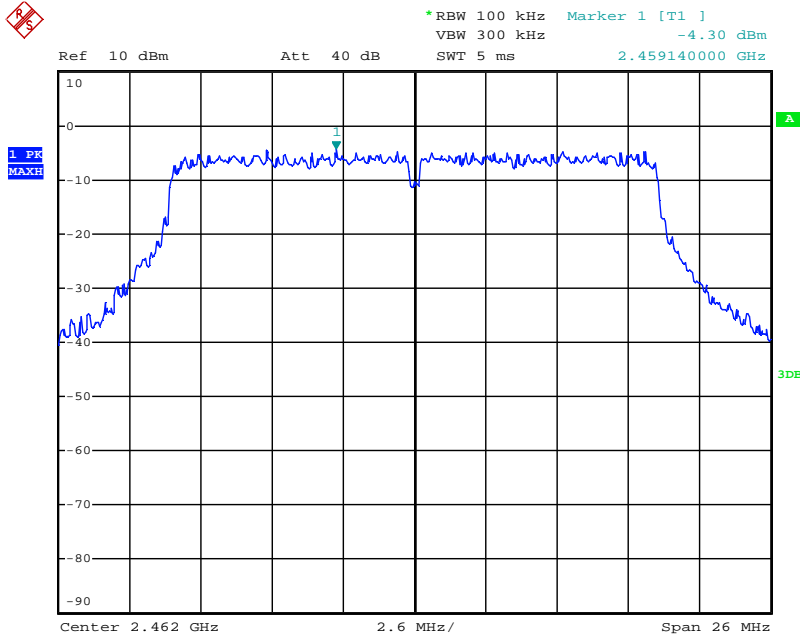
Date: 23.JUL.2019 13:36:07

Mode: 802.11n-HT40, TX frequency: 2422MHz
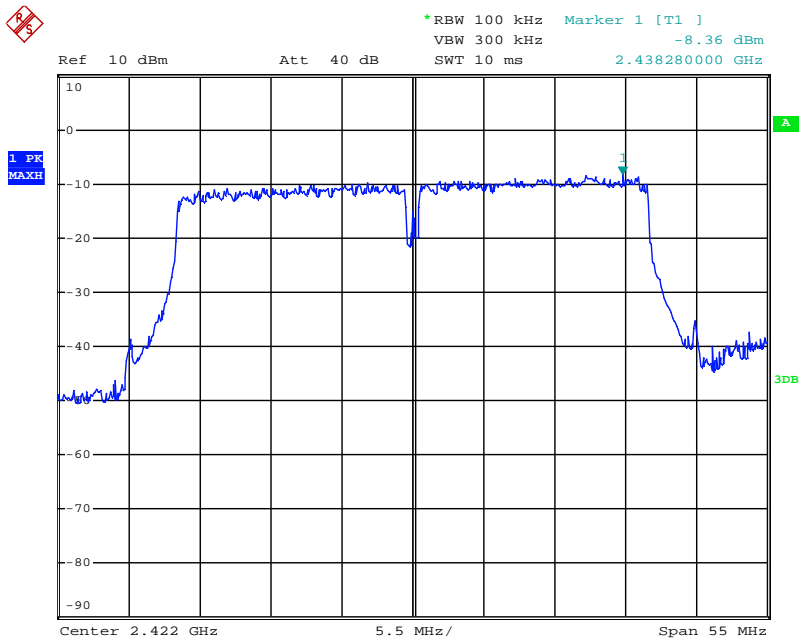
Date: 23.JUL.2019 13:37:36

Mode: 802.11n-HT40, TX frequency: 2437MHz
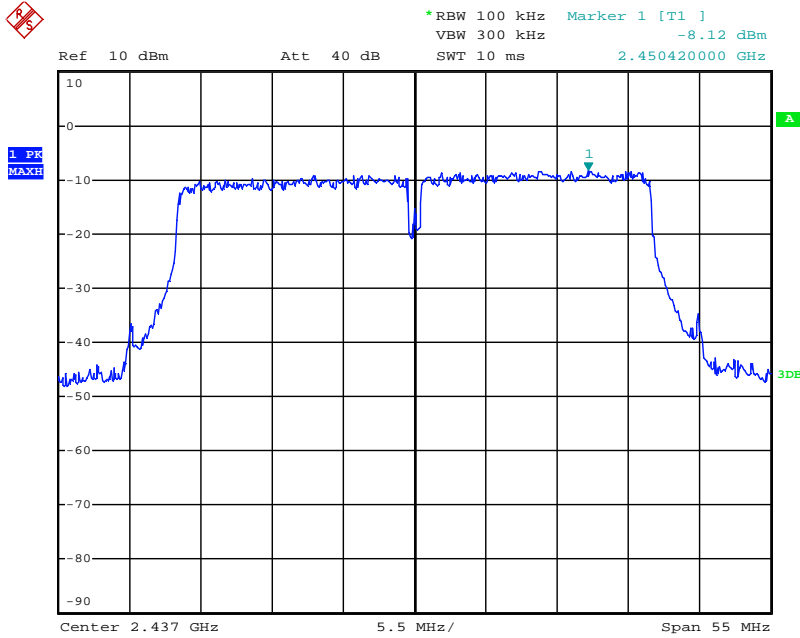
Date: 23.JUL.2019 13:38:58

Mode: 802.11n-HT40, TX frequency: 2452MHz
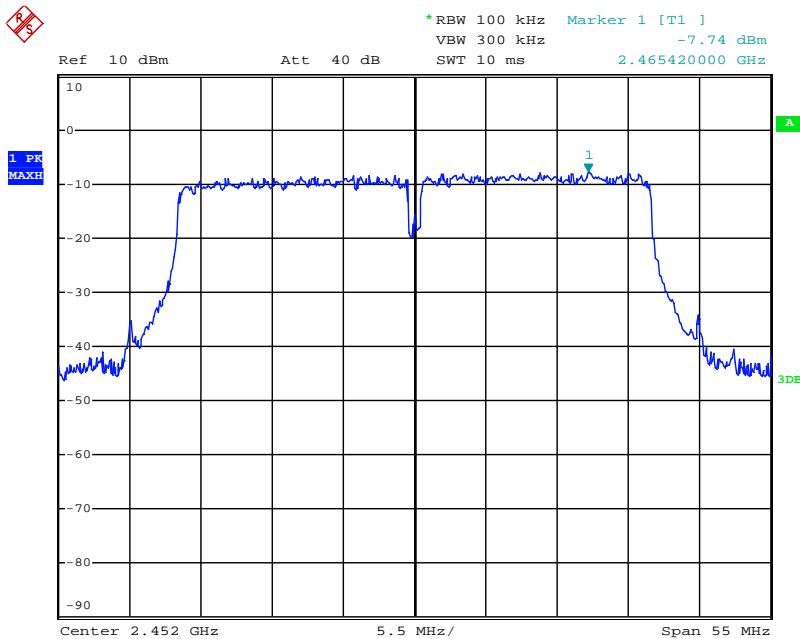
Date: 23.JUL.2019 13:39:34

Spurious Conducted Emissions

Mode: 802.11b, TX frequency: 2412MHz


```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                     VBW 300 kHz              -52.34 dBm
    Ref   10 dBm         Att  40 dB  SWT 100 ms        136.864000000 MHz
```
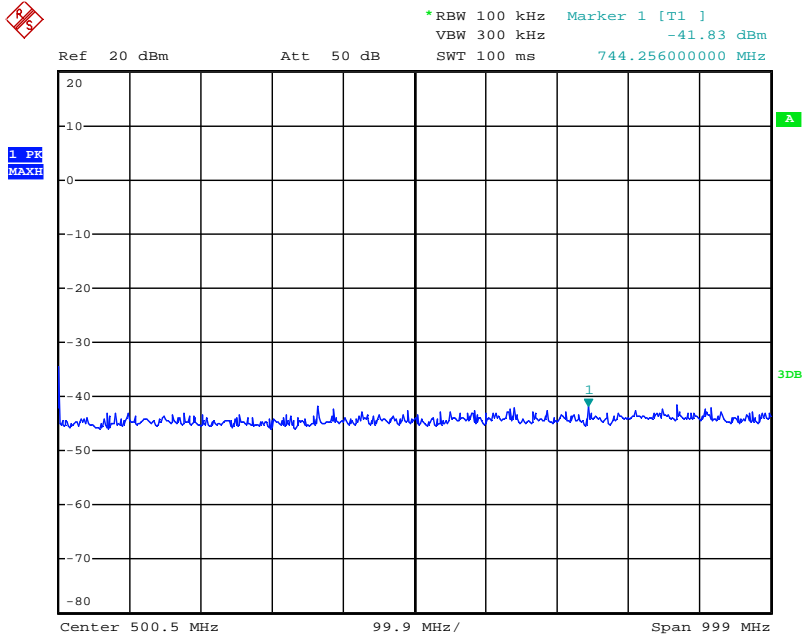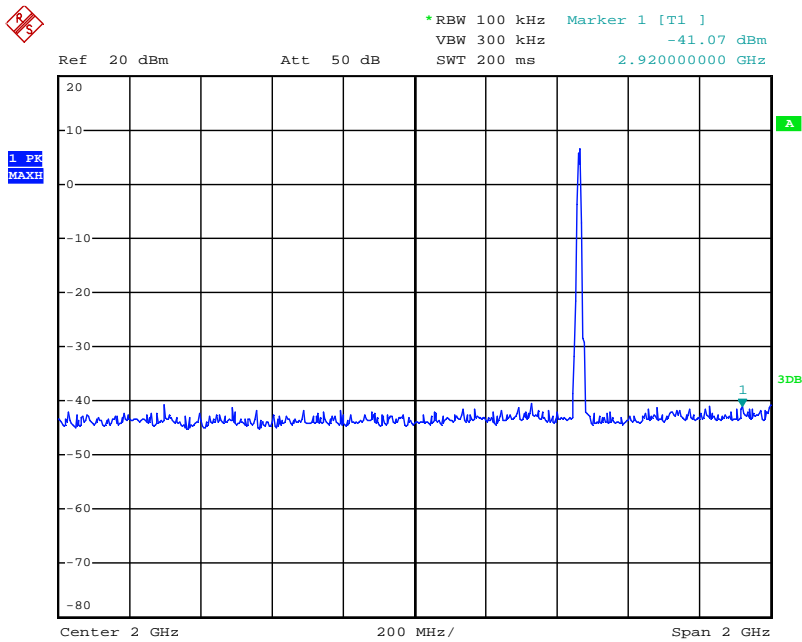
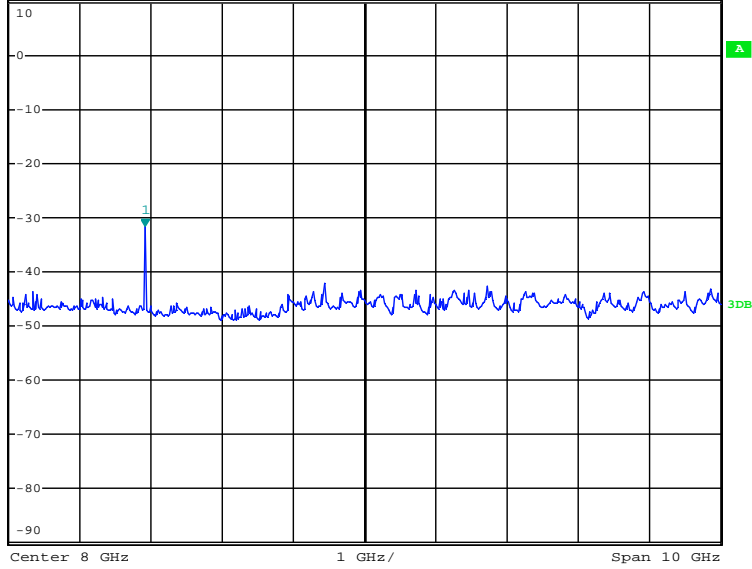Date: 23.JUL.2019 13:42:28


```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                     VBW 300 kHz              -50.99 dBm
    Ref   10 dBm         Att  40 dB  SWT 200 ms         1.964000000 GHz
```
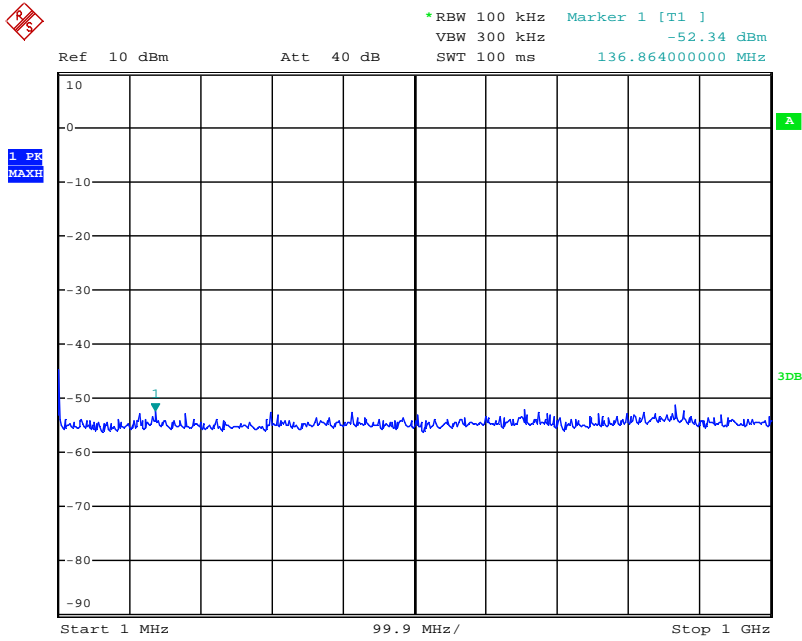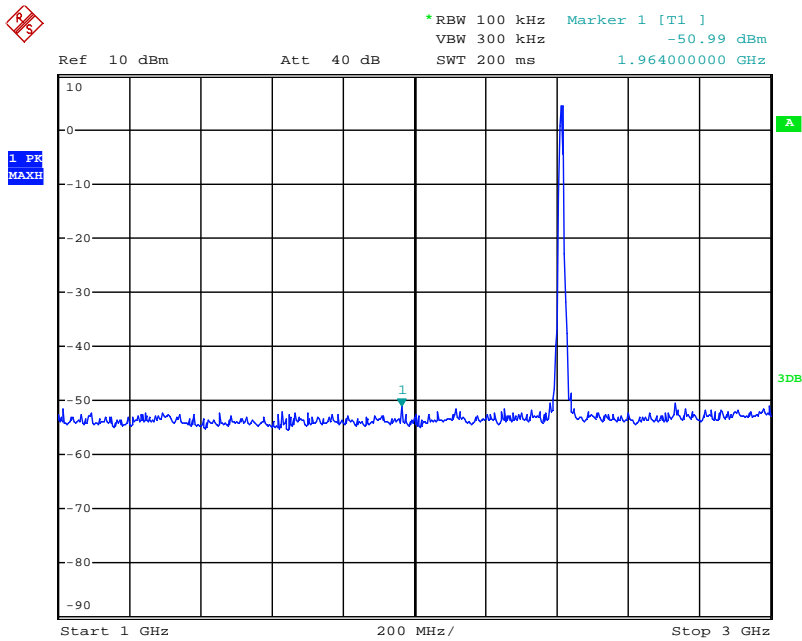
Date: 23.JUL.2019 13:43:15

Top chart labels:

```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                     VBW 300 kHz              -36.32 dBm
     Ref  10 dBm        Att  40 dB   SWT 1 s          4.820000000 GHz
```
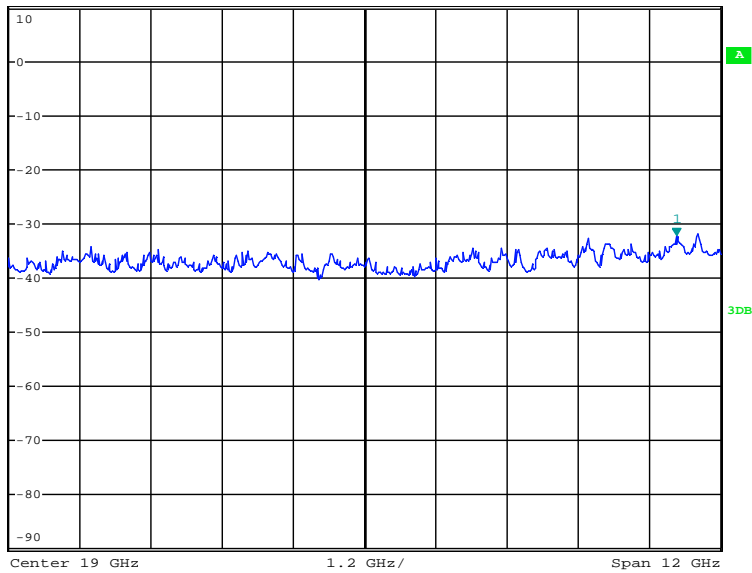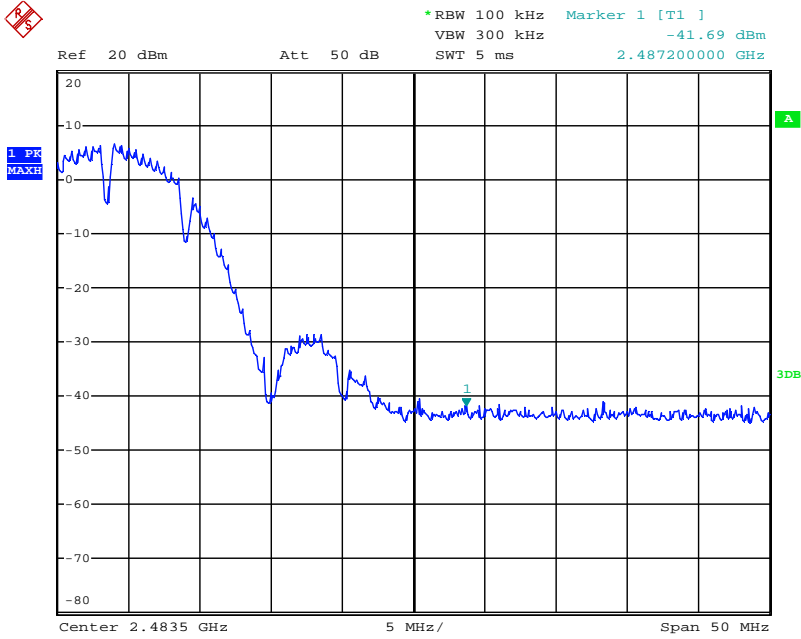
1 PK
MAXH

Start 3 GHz   1 GHz/   Stop 13 GHz
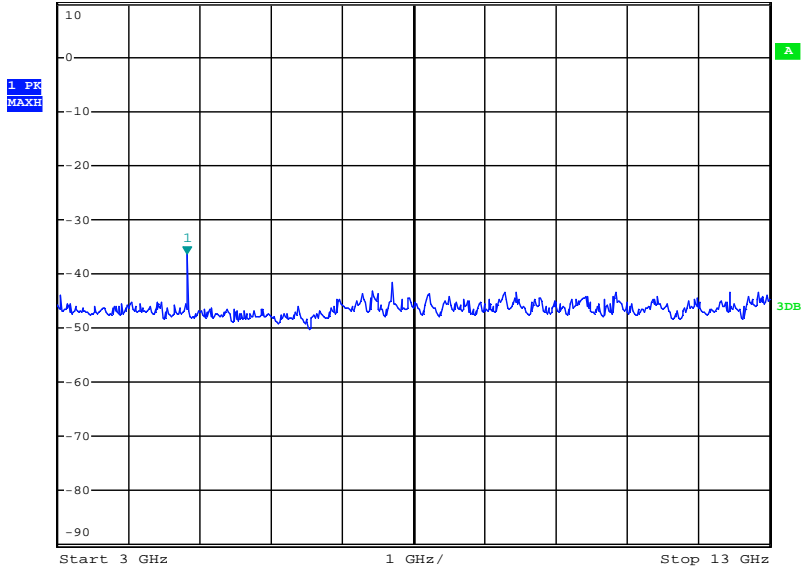
Date: 23.JUL.2019 13:43:38

```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                     VBW 300 kHz              -32.15 dBm
     Ref  10 dBm        Att  40 dB   SWT 1.2 s       24.280000000 GHz
```
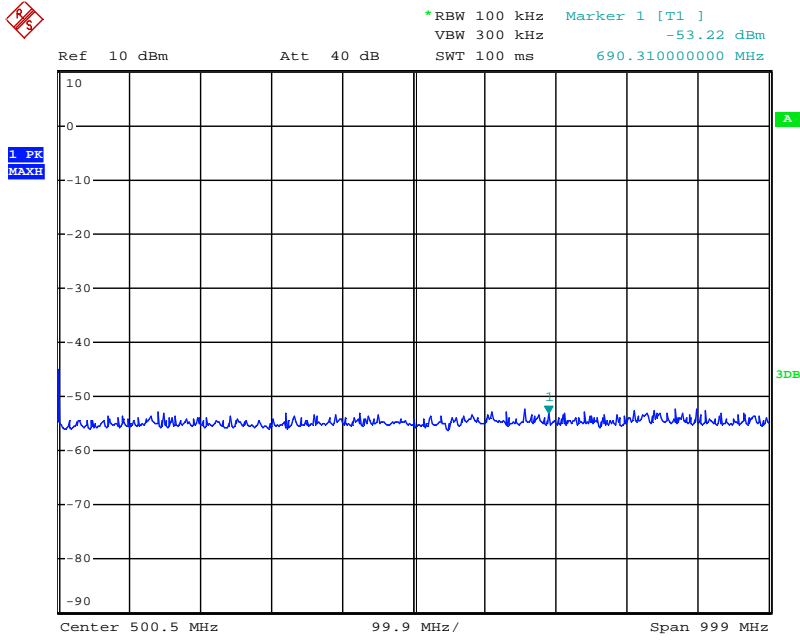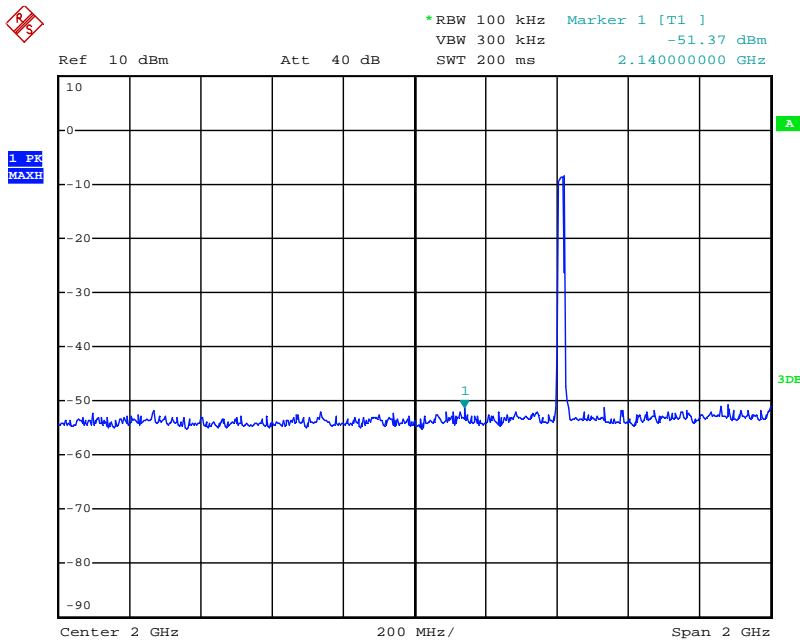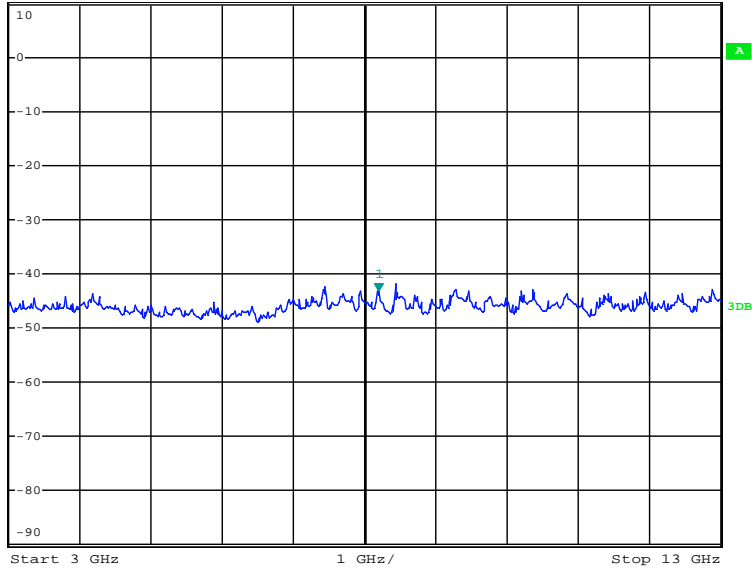
1 PK
MAXH

Start 13 GHz   1.2 GHz/   Stop 25 GHz

Date: 23.JUL.2019 13:44:13

Spectrum analyzer plot. RBW 100 kHz, VBW 300 kHz, SWT 5 ms, *Marker 1 [T1] -36.17 dBm, 2.397500000 GHz. Ref 10 dBm, Att 40 dB. Center 2.4 GHz, 5 MHz/, Span 50 MHz.

Date: 23.JUL.2019 13:45:09

Mode: 802.11b, TX frequency: 2437MHz


```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                     VBW 300 kHz              -52.86 dBm
     Ref  10 dBm         Att  40 dB  SWT 100 ms      406.594000000 MHz
```

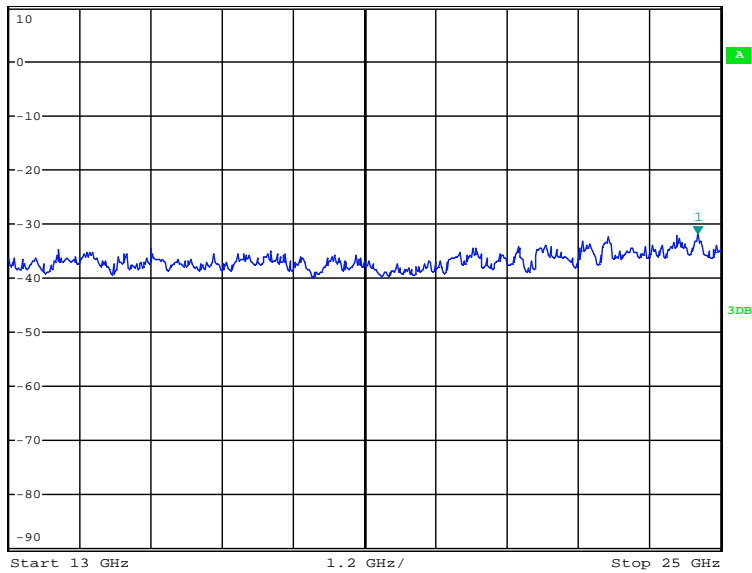Date: 23.JUL.2019 13:46:38


```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                     VBW 300 kHz              -50.47 dBm
     Ref  10 dBm         Att  40 dB  SWT 200 ms       1.260000000 GHz
```
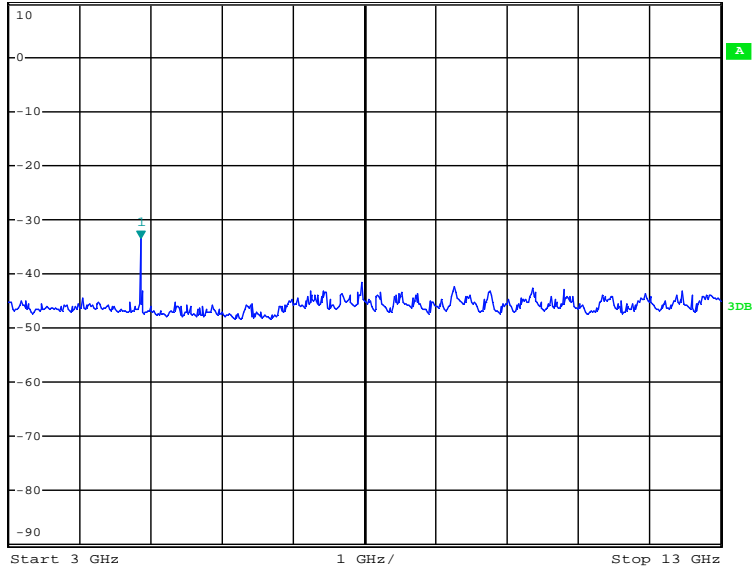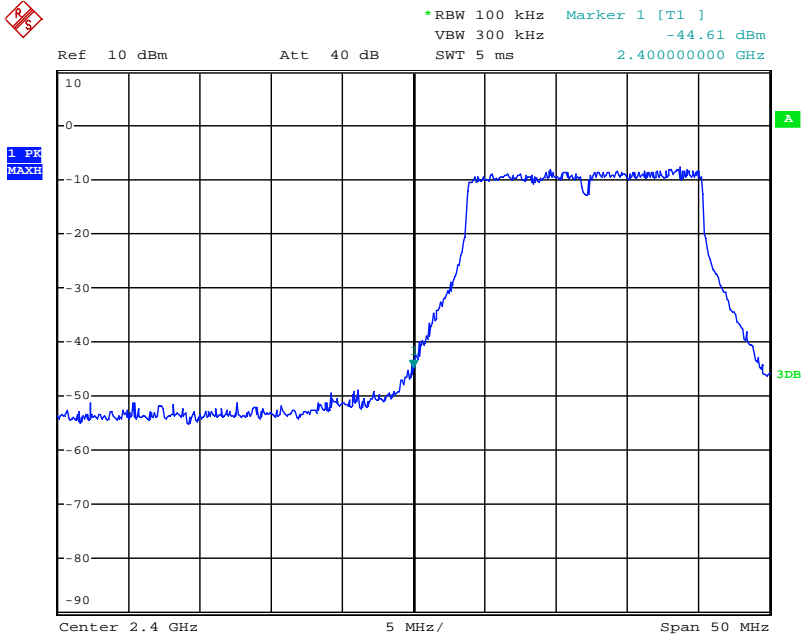
Date: 23.JUL.2019 13:55:55

Date: 23.JUL.2019 13:57:19
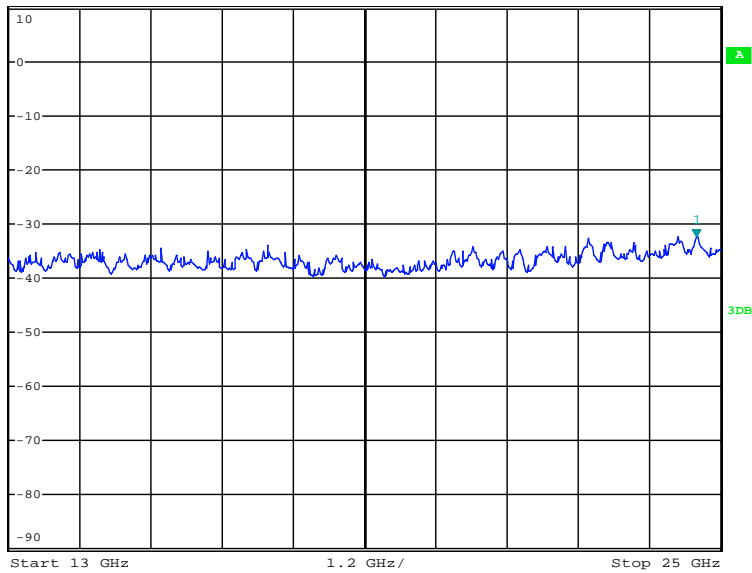
Date: 23.JUL.2019 13:57:54

Mode: 802.11b, TX frequency: 2462MHz

Date: 23.JUL.2019 14:05:27

Date: 23.JUL.2019 14:06:48

*RBW 100 kHz   Marker 1 [T1]
VBW 300 kHz   -31.49 dBm
Ref 10 dBm   Att 40 dB   SWT 1 s   4.920000000 GHz

```
  10
   0                                                              A
 1 PK
 MAXH
 -10

 -20

 -30        1

 -40

 -50                                                          3DB

 -60

 -70

 -80

 -90
 Center 8 GHz              1 GHz/              Span 10 GHz
```
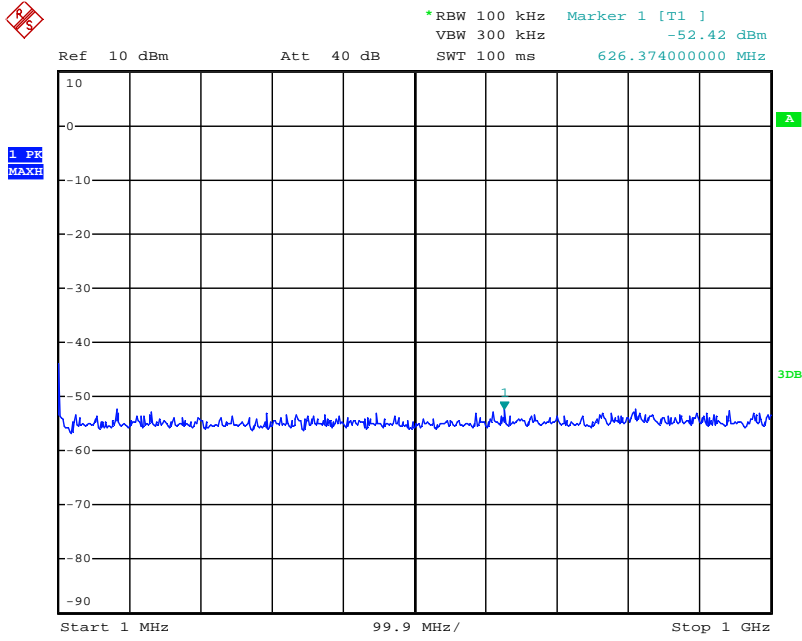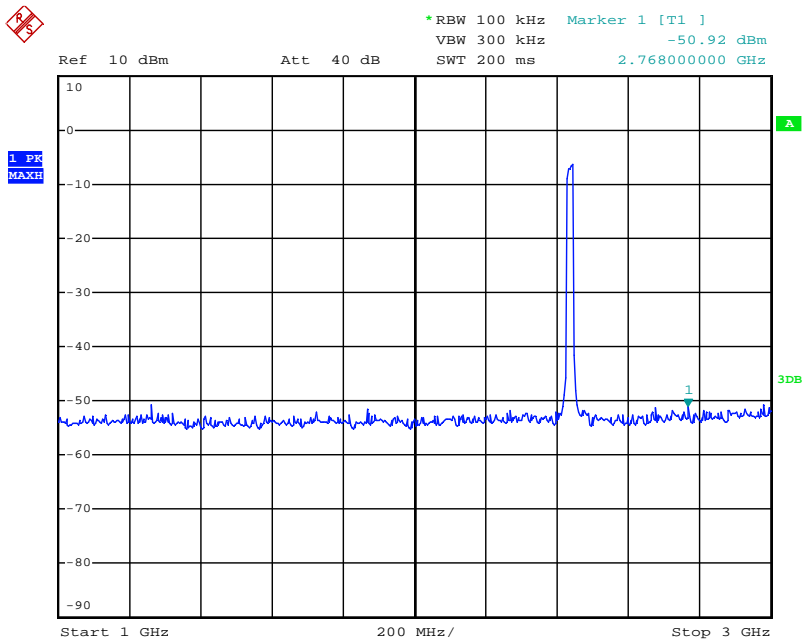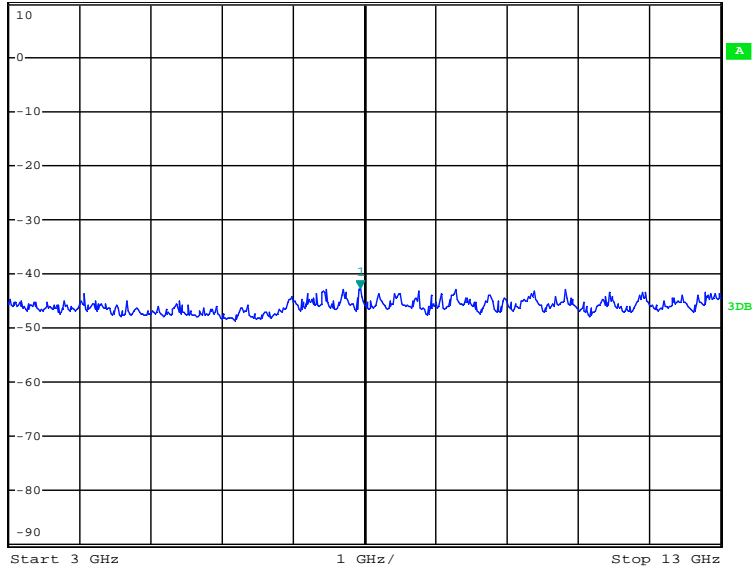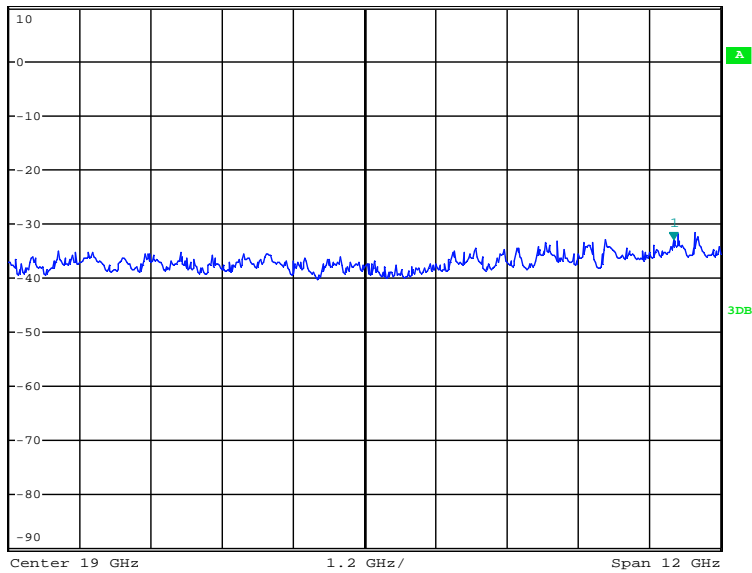
Date: 23.JUL.2019 14:07:37

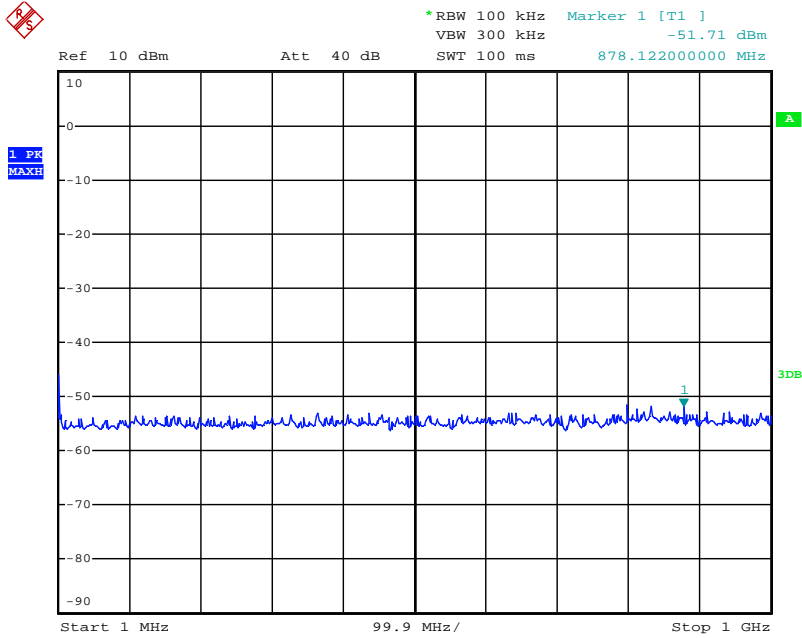*RBW 100 kHz   Marker 1 [T1]
VBW 300 kHz   -32.14 dBm
Ref 10 dBm   Att 40 dB   SWT 1.2 s   24.256000000 GHz

```
  10
   0                                                              A
 1 PK
 MAXH
 -10

 -20

 -30                                                   1

 -40

 -50                                                          3DB

 -60

 -70

 -80

 -90
 Center 19 GHz             1.2 GHz/             Span 12 GHz
```

Date: 23.JUL.2019 14:08:00

Date: 23.JUL.2019 14:08:36

Mode: 802.11g, TX frequency: 2412MHz

Date: 23.JUL.2019 14:10:13

Date: 23.JUL.2019 14:10:41

Chart 1 settings:
- *RBW 100 kHz
- VBW 300 kHz
- SWT 1 s
- Ref 10 dBm
- Att 40 dB
- Marker 1 [T1]: -43.21 dBm at 8.200000000 GHz
- Start 3 GHz, 1 GHz/, Stop 13 GHz

Date: 23.JUL.2019 14:11:18

Chart 2 settings:
- *RBW 100 kHz
- VBW 300 kHz
- SWT 1.2 s
- Ref 10 dBm
- Att 40 dB
- Marker 1 [T1]: -31.89 dBm at 24.616000000 GHz
- Start 13 GHz, 1.2 GHz/, Stop 25 GHz

Date: 23.JUL.2019 14:11:50

Date: 23.JUL.2019 14:12:24

Mode: 802.11g, TX frequency: 2437MHz

Date: 23.JUL.2019 14:13:10
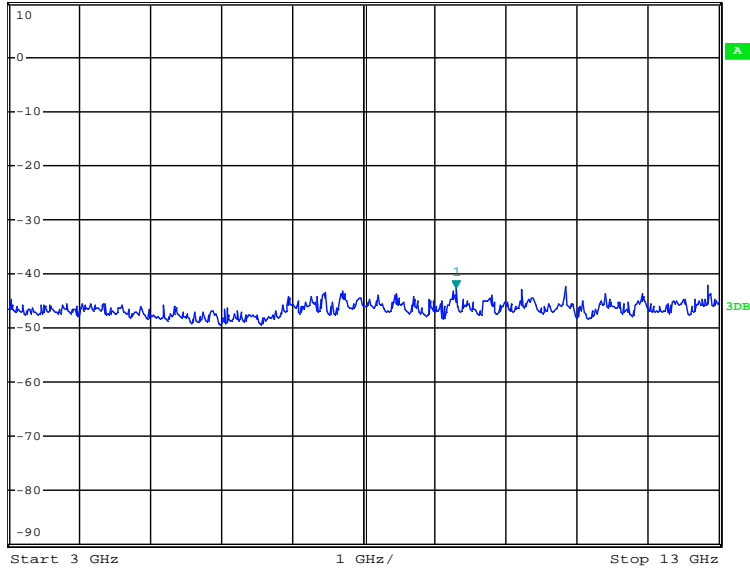

Date: 23.JUL.2019 14:13:50

*RBW 100 kHz   Marker 1 [T1]
VBW 300 kHz   -42.64 dBm
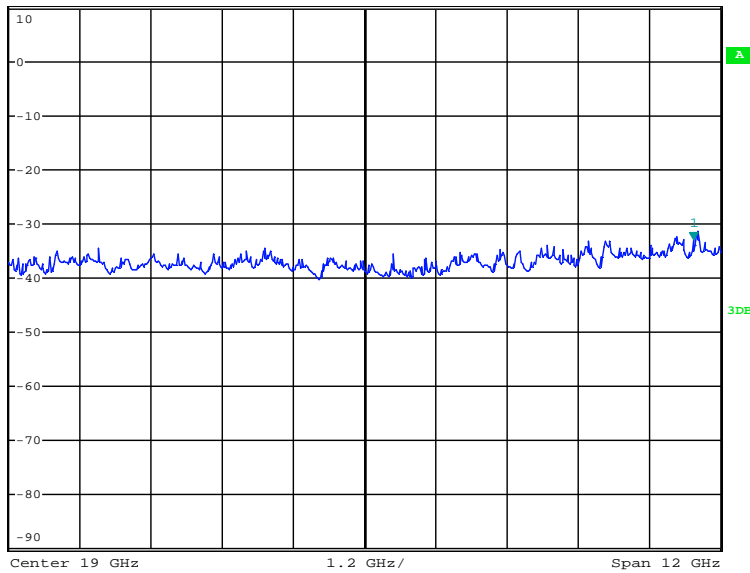Ref 10 dBm   Att 40 dB   SWT 1 s   7.940000000 GHz

```
  10
                                                                    A
   0
1 PK
MAXH
 -10

 -20

 -30

 -40
                                                                    3DB
 -50

 -60

 -70

 -80

 -90
Start 3 GHz              1 GHz/              Stop 13 GHz
```

Date: 23.JUL.2019 14:14:28

*RBW 100 kHz   Marker 1 [T1]
VBW 300 kHz   -32.84 dBm
Ref 10 dBm   Att 40 dB   SWT 1.2 s   24.208000000 GHz

```
  10
                                                                    A
   0
1 PK
MAXH
 -10

 -20

 -30

 -40
                                                                    3DB
 -50

 -60

 -70

 -80

 -90
Center 19 GHz            1.2 GHz/            Span 12 GHz
```

Date: 23.JUL.2019 14:14:48

Mode: 802.11g, TX frequency: 2462MHz

Date: 23.JUL.2019 14:16:21
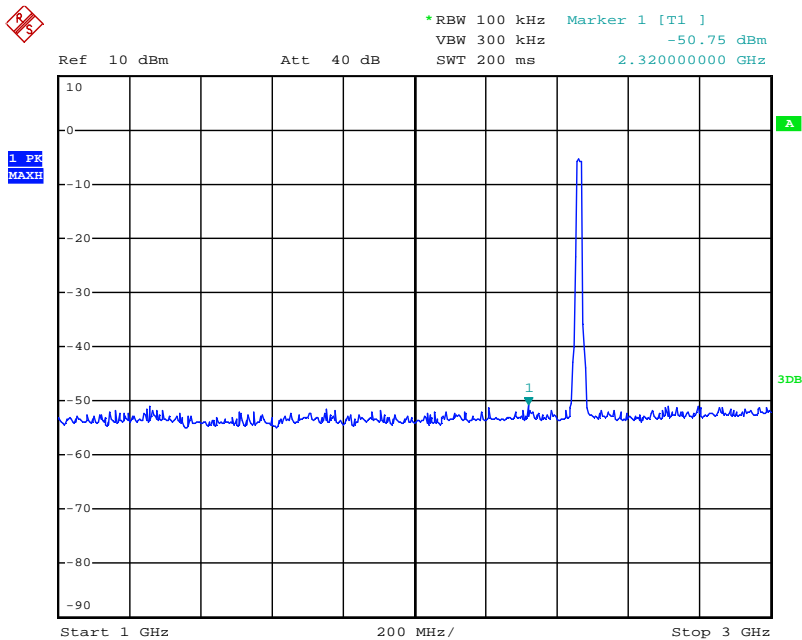
Date: 23.JUL.2019 14:17:38

First plot header:
```
                              *RBW 100 kHz    Marker 1 [T1 ]
                               VBW 300 kHz             -42.75 dBm
    Ref  10 dBm       Att  40 dB   SWT 1 s        9.300000000 GHz
```
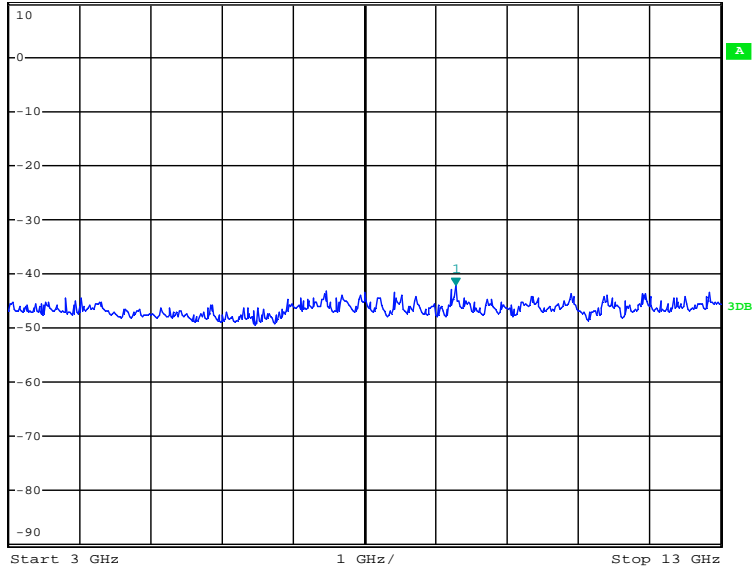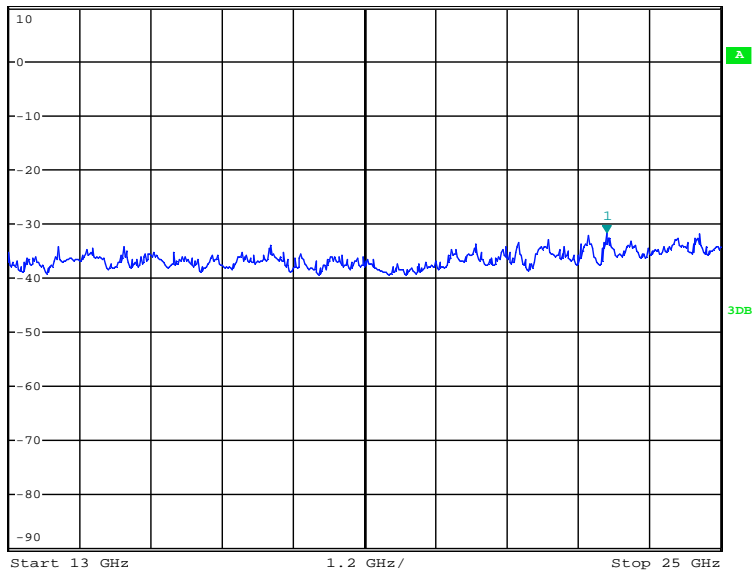
A
3DB
1 PK
MAXH

Start 3 GHz   1 GHz/   Stop 13 GHz

Date: 23.JUL.2019 14:18:09

Second plot header:
```
                              *RBW 100 kHz    Marker 1 [T1 ]
                               VBW 300 kHz             -32.84 dBm
    Ref  10 dBm       Att  40 dB   SWT 1.2 s      24.544000000 GHz
```
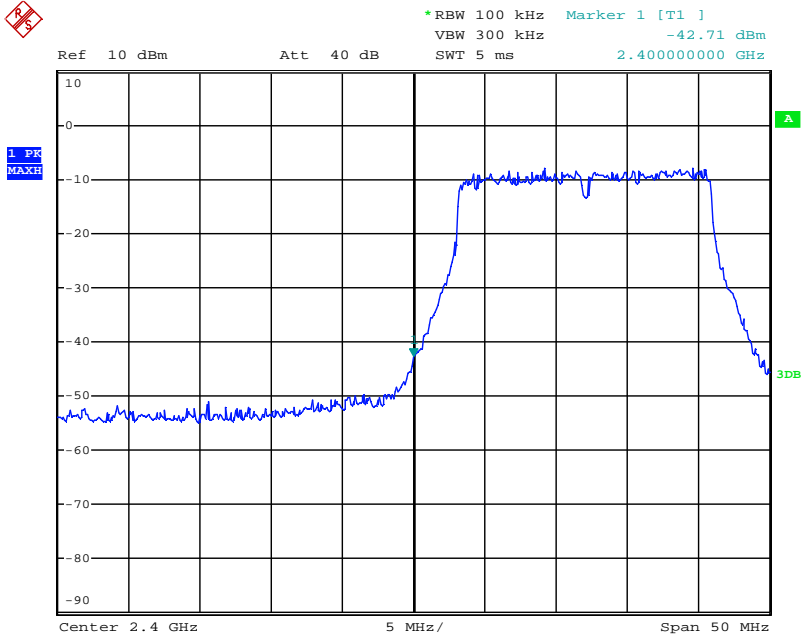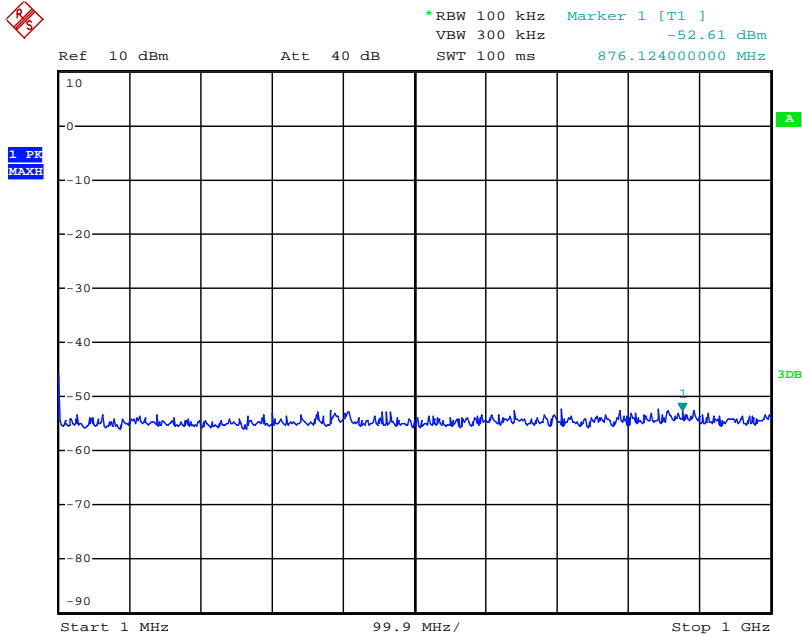
A
3DB
1 PK
MAXH

Center 19 GHz   1.2 GHz/   Span 12 GHz

Date: 23.JUL.2019 14:18:28
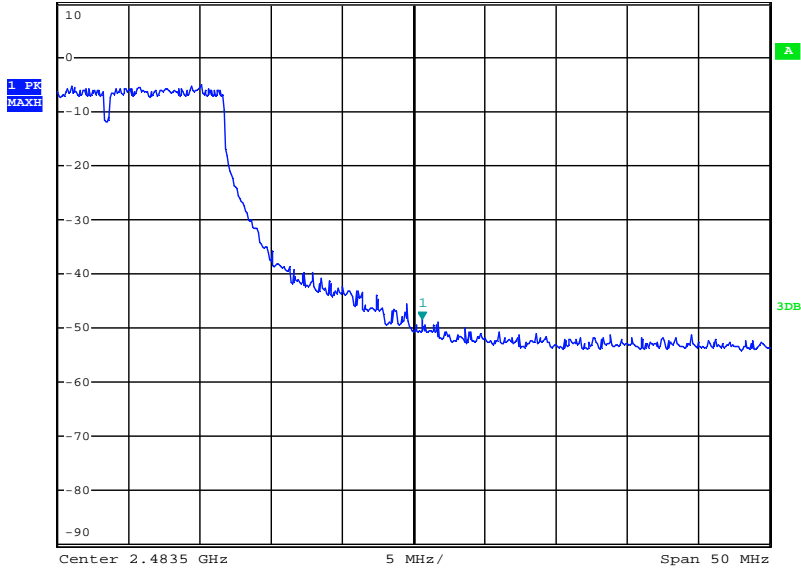
Date: 23.JUL.2019 14:19:07

Mode: 802.11n-HT20, TX frequency: 2412MHz


```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                     VBW 300 kHz              -52.39 dBm
     Ref  10 dBm           Att  40 dB   SWT 100 ms      424.576000000 MHz
```
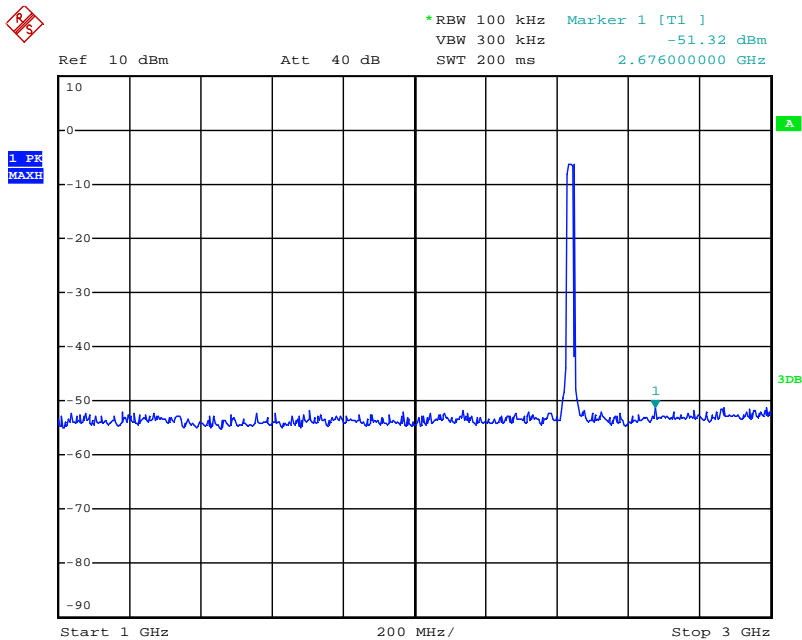
Date: 23.JUL.2019 14:22:13


```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                     VBW 300 kHz              -50.64 dBm
     Ref  10 dBm           Att  40 dB   SWT 200 ms      2.920000000 GHz
```
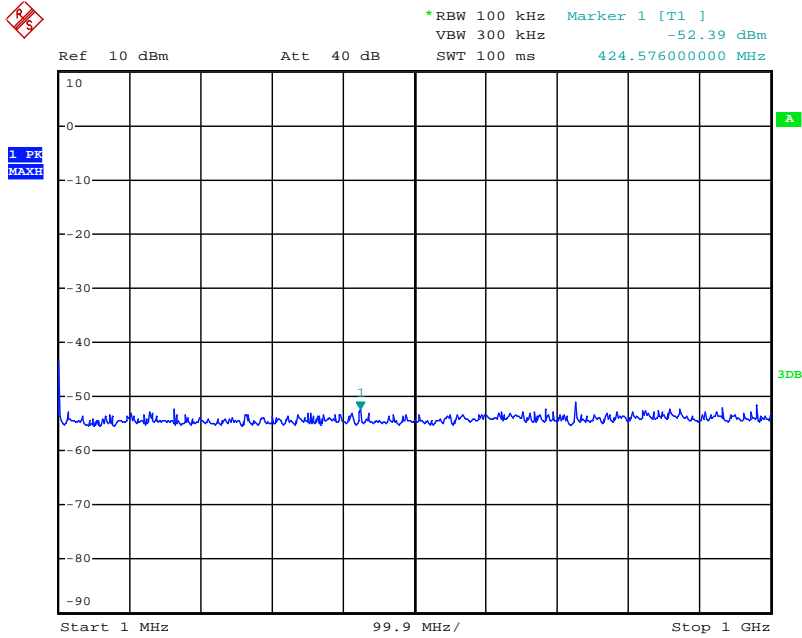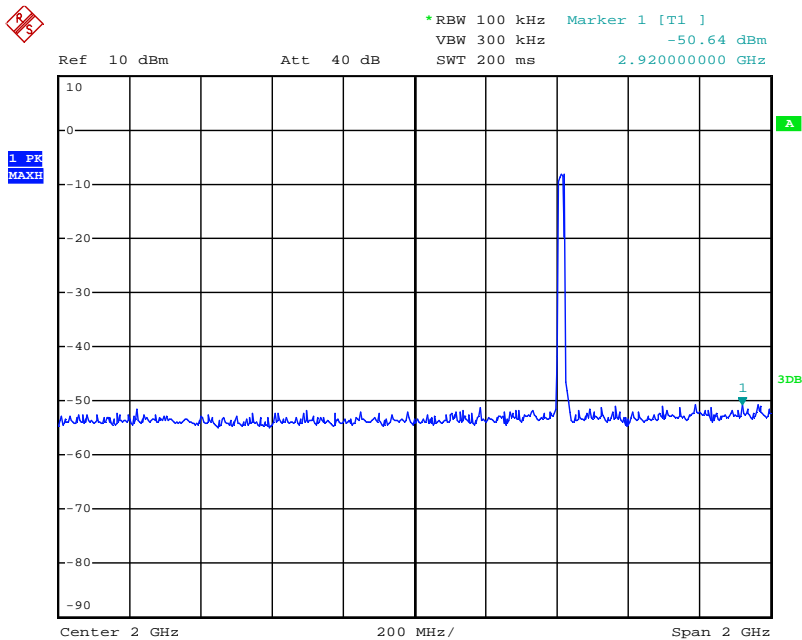
Date: 23.JUL.2019 14:22:45

Chart 1

```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                     VBW 300 kHz              -42.00 dBm
        Ref  10 dBm        Att  40 dB    SWT 1 s        9.280000000 GHz
```
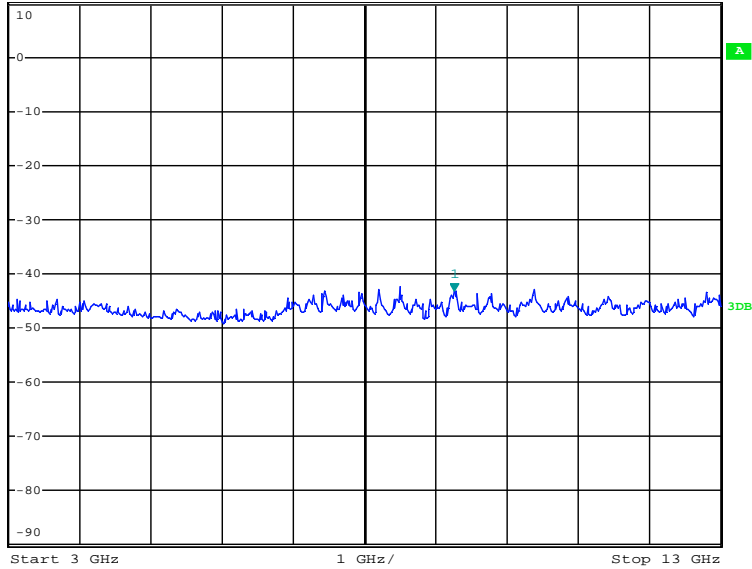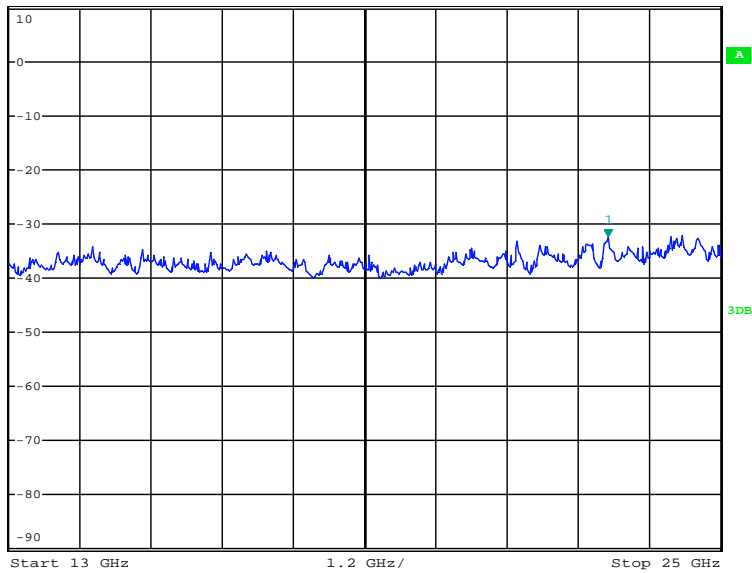
```
 10
                                                                          A
   0

-10

-20

-30

-40                                    1
                                       ▼
                                                                          3DB
-50

-60

-70

-80

-90
 Start 3 GHz              1 GHz/                    Stop 13 GHz
```

Date: 23.JUL.2019 14:24:14

Chart 2

```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                     VBW 300 kHz              -31.69 dBm
        Ref  10 dBm        Att  40 dB    SWT 1.2 s     23.080000000 GHz
```

```
 10
                                                                          A
   0

-10

-20

-30                                              1
                                                 ▼

-40
                                                                          3DB
-50

-60

-70

-80

-90
 Start 13 GHz             1.2 GHz/                  Stop 25 GHz
```

Date: 23.JUL.2019 14:23:47

```
                                        *RBW 100 kHz    Marker 1 [T1 ]
                                         VBW 300 kHz              -42.71 dBm
        Ref  10 dBm           Att  40 dB   SWT 5 ms         2.400000000 GHz
```

Spectrum analyzer plot. Center 2.4 GHz, 5 MHz/, Span 50 MHz.

Date: 23.JUL.2019 14:24:50

Mode: 802.11n-HT20, TX frequency: 2437MHz

Date: 23.JUL.2019 14:26:17

Date: 23.JUL.2019 14:26:59

Date: 23.JUL.2019 14:27:28

Date: 23.JUL.2019 14:27:53
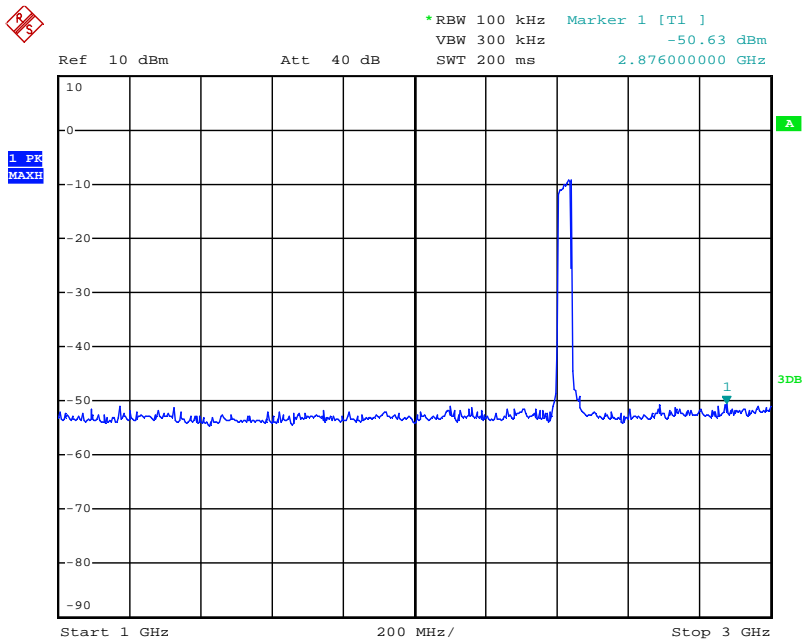
Mode: 802.11n-HT20, TX frequency: 2462MHz
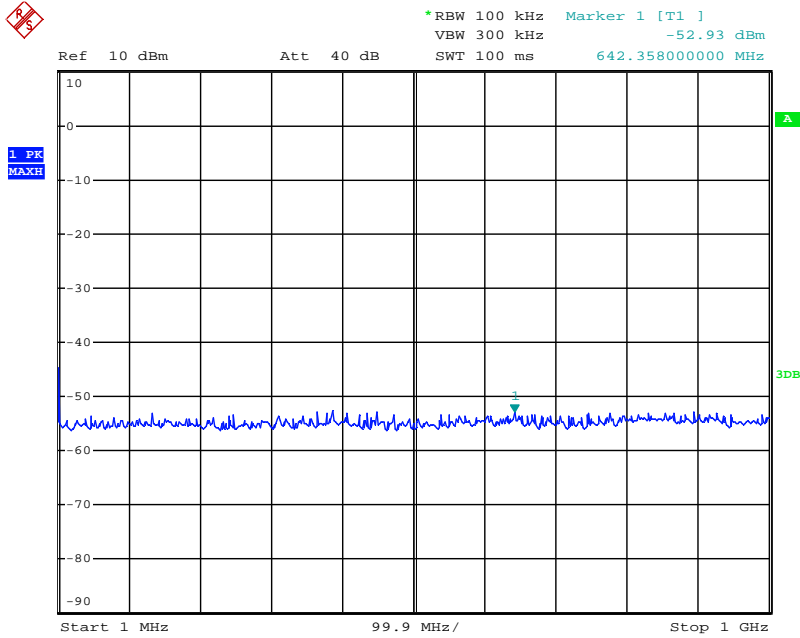
Date: 23.JUL.2019 14:29:30
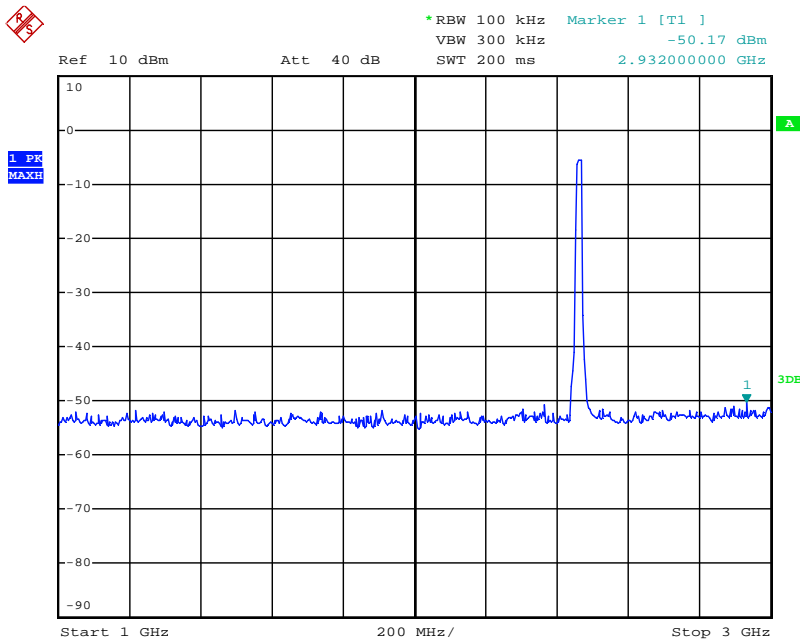
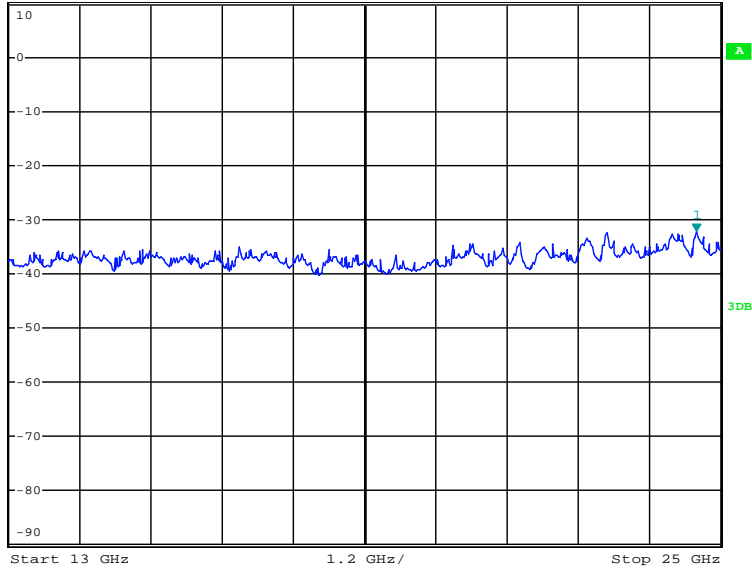
Date: 23.JUL.2019 14:30:29

```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                     VBW 300 kHz              -43.02 dBm
       Ref  10 dBm        Att  40 dB  SWT 1 s        9.260000000 GHz
```
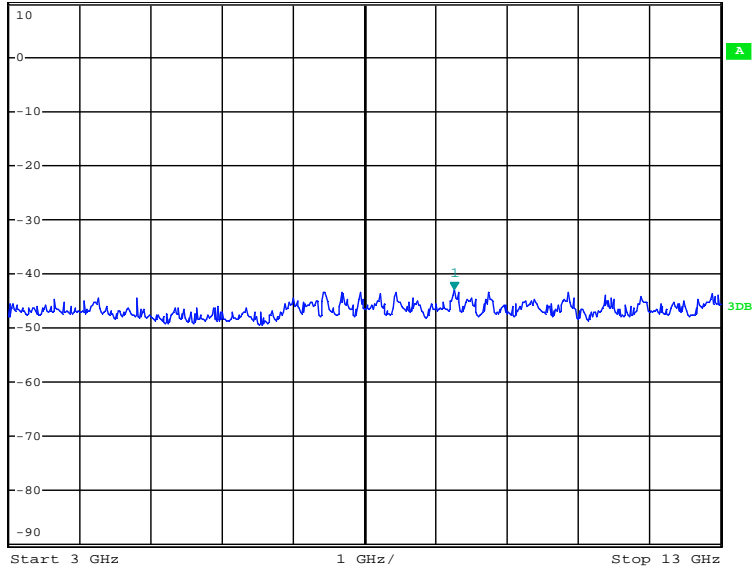

Date: 23.JUL.2019 14:30:49

```
                                    *RBW 100 kHz   Marker 1 [T1 ]
                                     VBW 300 kHz              -32.50 dBm
       Ref  10 dBm        Att  40 dB  SWT 1.2 s      24.352000000 GHz
```
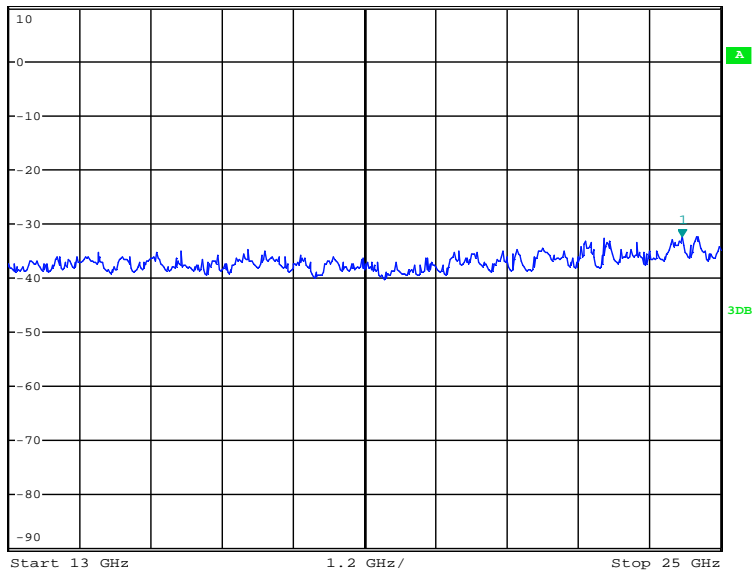

Date: 23.JUL.2019 14:31:09
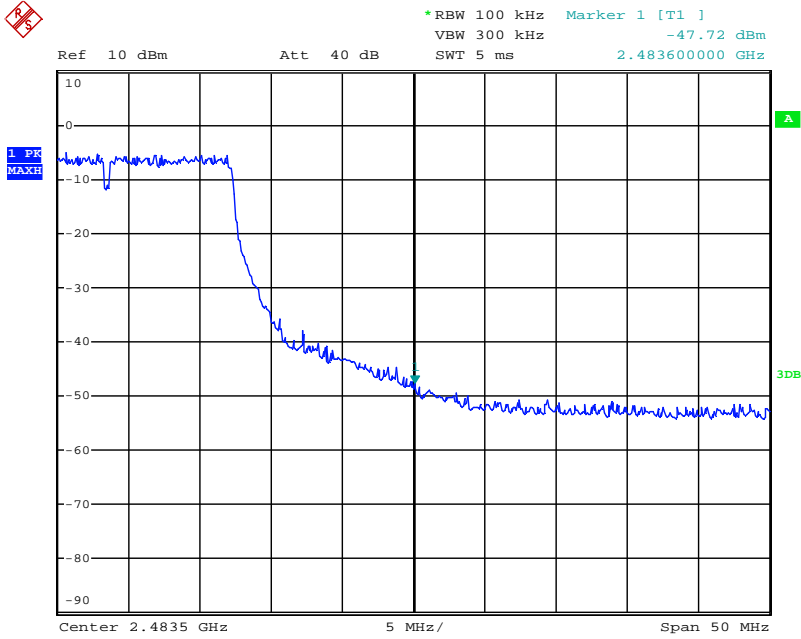
Date: 23.JUL.2019 14:31:44

Mode: 802.11n-HT40, TX frequency: 2422MHz
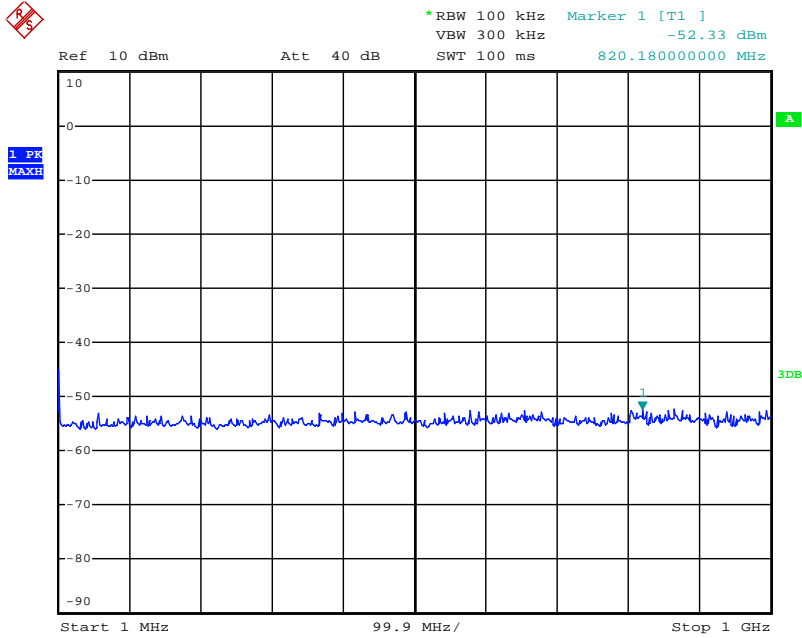
Date: 23.JUL.2019 14:32:50

Date: 23.JUL.2019 14:33:59

```
                                              *RBW 100 kHz    Marker 1 [T1 ]
                                               VBW 300 kHz              -32.20 dBm
        Ref  10 dBm          Att  40 dB        SWT 1.2 s       24.592000000 GHz
```
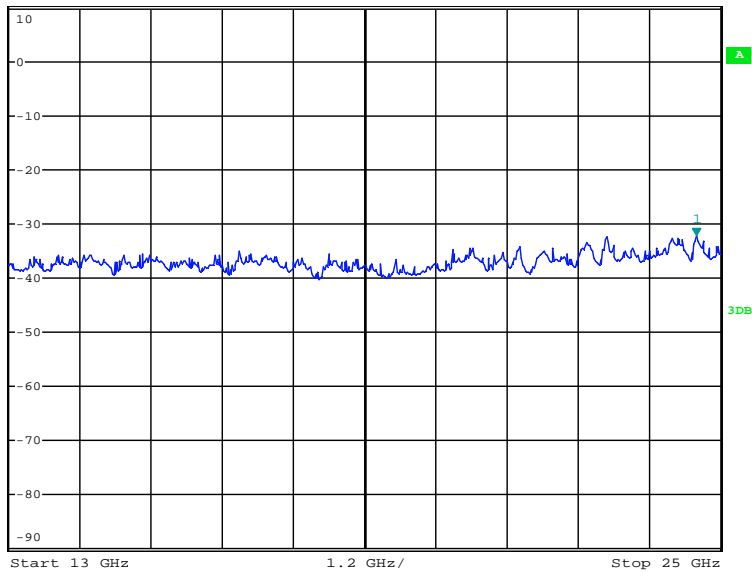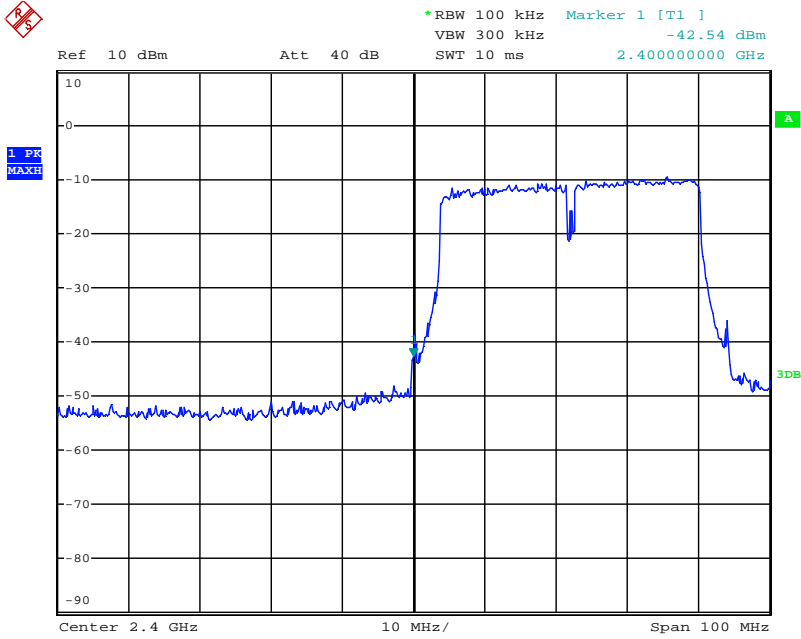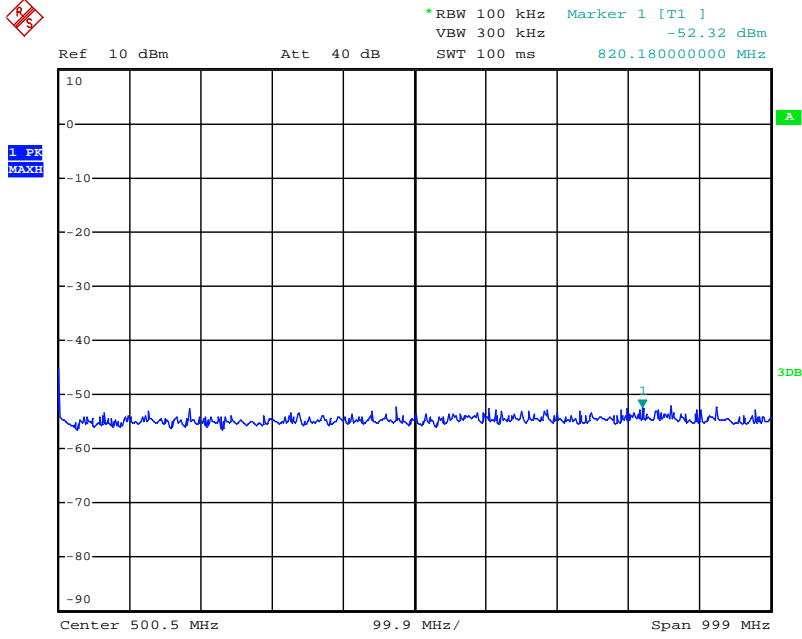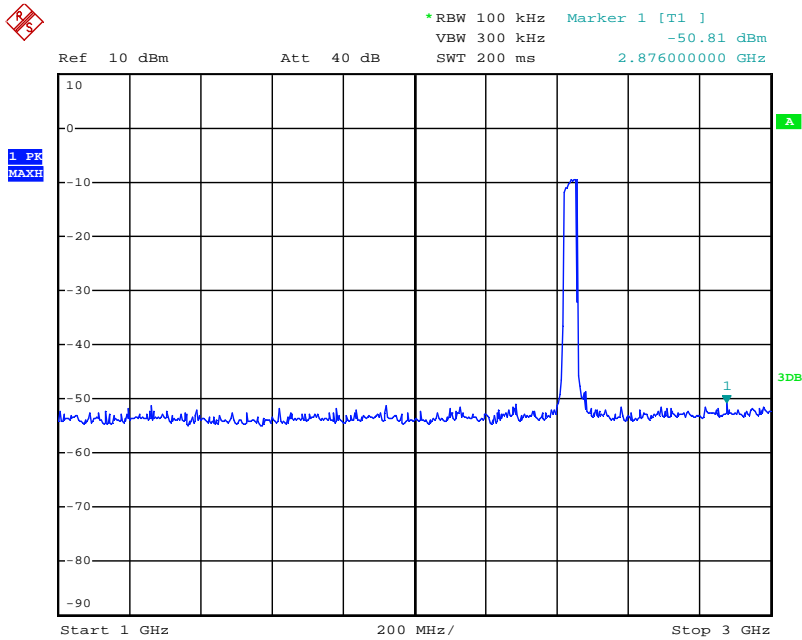
Date: 23.JUL.2019 14:34:52


```
                                              *RBW 100 kHz    Marker 1 [T1 ]
                                               VBW 300 kHz              -32.20 dBm
        Ref  10 dBm          Att  40 dB        SWT 1.2 s       24.592000000 GHz
```
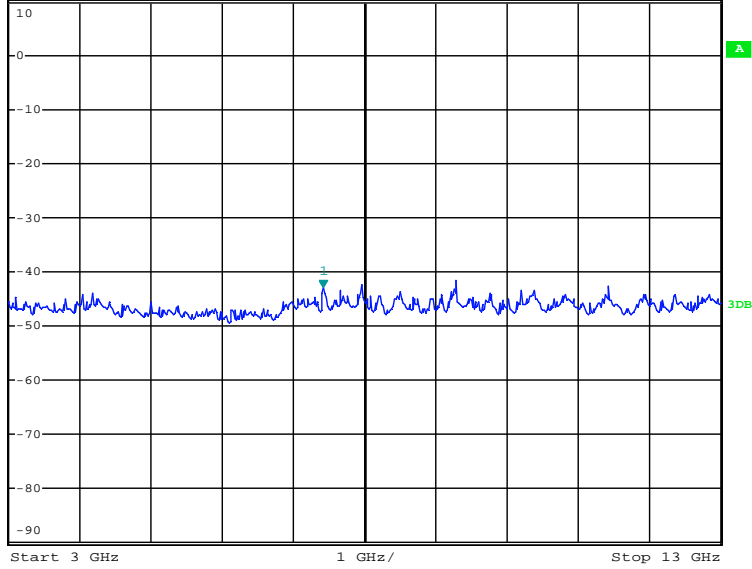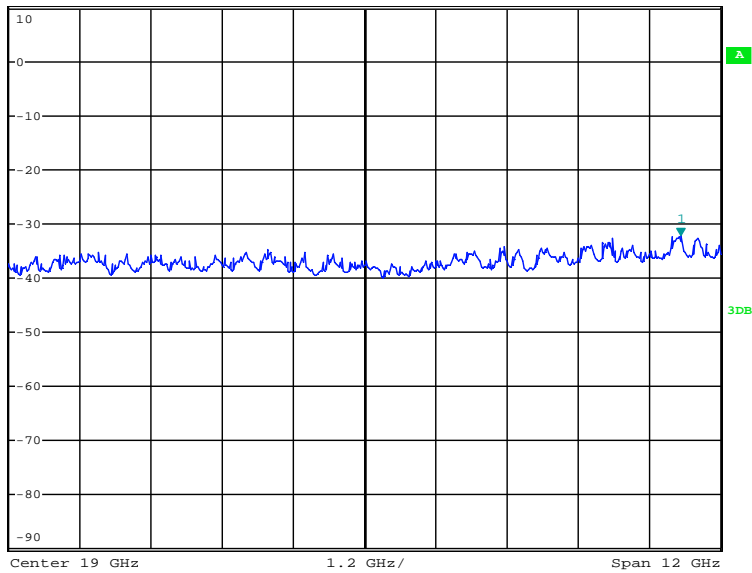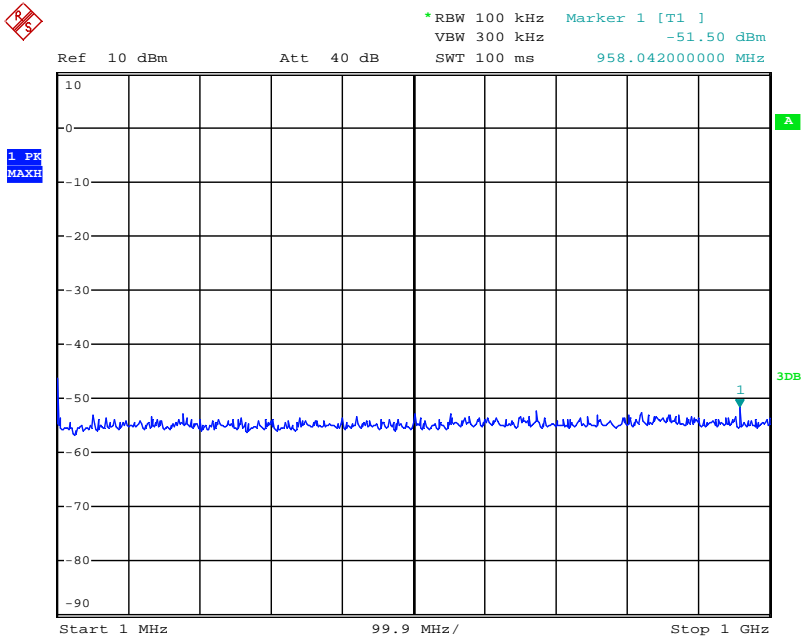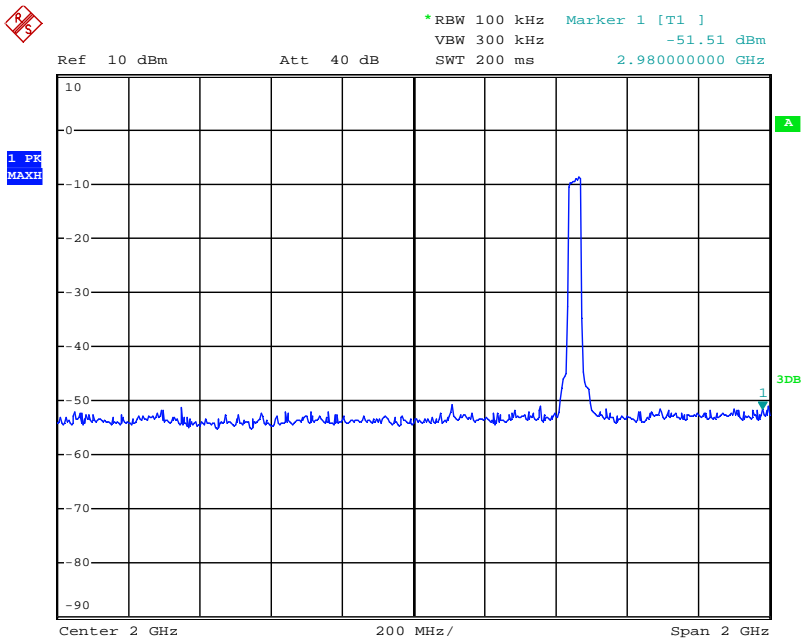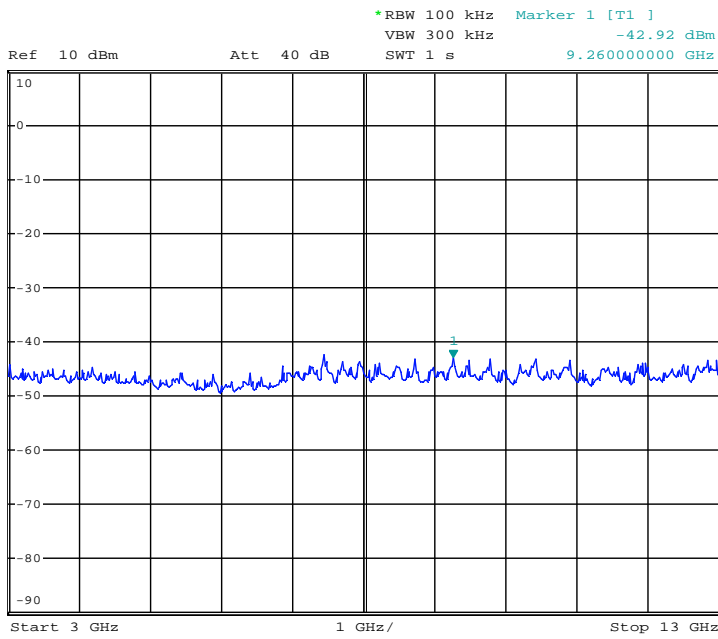
Date: 23.JUL.2019 14:34:52

Date: 23.JUL.2019 14:35:40

Mode: 802.11n-HT40, TX frequency: 2437MHz


```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                     VBW 300 kHz            -52.32 dBm
        Ref  10 dBm        Att  40 dB  SWT 100 ms     820.180000000 MHz
```

Date: 23.JUL.2019 14:36:22


```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                     VBW 300 kHz            -50.81 dBm
        Ref  10 dBm        Att  40 dB  SWT 200 ms     2.876000000 GHz
```

Date: 23.JUL.2019 14:37:06

Measurement plot 1:

*RBW 100 kHz   Marker 1 [T1]
VBW 300 kHz   -42.86 dBm
Ref 10 dBm   Att 40 dB   SWT 1 s   7.420000000 GHz

1 PK
MAXH

Start 3 GHz   1 GHz/   Stop 13 GHz

Date: 23.JUL.2019 14:37:32

Measurement plot 2:

*RBW 100 kHz   Marker 1 [T1]
VBW 300 kHz   -32.08 dBm
Ref 10 dBm   Att 40 dB   SWT 1.2 s   24.328000000 GHz

1 PK
MAXH

Center 19 GHz   1.2 GHz/   Span 12 GHz
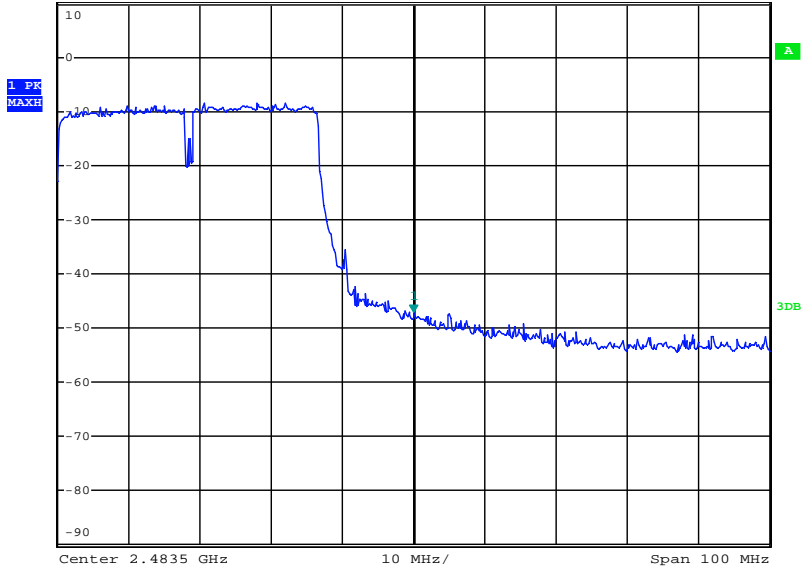
Date: 23.JUL.2019 14:37:52

Mode: 802.11n-HT40, TX frequency: 2452MHz

Date: 23.JUL.2019 14:39:00

Date: 23.JUL.2019 14:39:30

Date: 23.JUL.2019 14:39:54

Date: 23.JUL.2019 14:38:28

Date: 23.JUL.2019 14:40:24