

**Human RF Exposure****5150 – 5250 MHz**

Maximum Output Power = 11.04 dBm  
Maximum antenna gain = 4 dBi  
EIRP = 11.04 dBm + 4dBi = 15.04 dBm  
Output Power in mW = 0.031 W  
 $S = \text{EIRP} / 4\pi D^2 = 0.031 / 4\pi(0.2)^2$   
 $S = 0.061 \text{ W/m}^2$

**5250 – 5350 MHz**

Maximum Output Power = 13.79 dBm  
Maximum antenna gain = 4 dBi  
EIRP = 13.79 dBm + 4dBi = 17.79 dBm  
Output Power in mW = 0.060 W  
 $S = \text{EIRP} / 4\pi D^2 = (0.060) / (4\pi(0.2)^2)$   
 $S = 0.1193 \text{ W/m}^2$

**5470 – 5725 MHz**

Maximum Output Power = 9.52 dBm  
Maximum antenna gain = 4 dBi  
EIRP = 9.52 dBm + 4dBi = 13.52 dBm  
Output Power in mW = 0.0224 W  
 $S = \text{EIRP} / 4\pi D^2 = (0.0224) / (4\pi(0.2)^2)$   
 $S = 0.044 \text{ W/m}^2$

**5725 – 5850 MHz**

Maximum Output Power = 10.71 dBm  
Maximum antenna gain = 4 dBi  
EIRP = 10.71 dBm + 4dBi = 14.71 dBm  
Output Power in mW = 0.0295 W  
 $S = \text{EIRP} / 4\pi D^2 = (0.0295) / (4\pi(0.2)^2)$   
 $S = 0.0586 \text{ W/m}^2$

FCC Limit for MPE @ 5 GHz is  $10 \text{ W/m}^2$

RSS 102 Limit for MPE @ 5 GHz is  $8.83 \text{ W/m}^2$

Power density calculated in the all 4 bands above is below the limits.

## 7 Power Spectral Density

### 7.1 Method

Tests are performed in accordance with FCC Part 15 Subpart E, FCC Part 15 Subpart C (15.247) and RSS 247.

**TEST SITE:** EMC Lab

**The EMC Lab** has one Semi-anechoic Chamber and one Shielded Chamber. AC Mains Power is available at 120, 230, and 277 Single Phase; 208, 400, and 480 3-Phase. Large reference ground-planes are installed in the general lab area to facilitate EMC work not requiring a shielded environment.

### 7.2 Test Equipment Used:

| Asset           | Description                        | Manufacturer      | Model    | Serial     | Cal Date   | Cal Due    |
|-----------------|------------------------------------|-------------------|----------|------------|------------|------------|
| DAV002'         | Weather Station                    | Davis Instruments | 7400     | PE80519A93 | 06/01/2016 | 06/01/2017 |
| ROS005'         | ETSI Test System                   | Rhode & Schwartz  | TS8997   | N/A        | 09/15/2016 | 09/15/2017 |
| WEI8'           | Attenuator                         | Weinschel Corp    | 47-10-34 | BD8309     | 04/08/2017 | 04/08/2018 |
| CBLHF2012-2M-1' | 2m 9kHz-40GHz Coaxial Cable - SET1 | Huber & Suhner    | SF102    | 252675001  | 02/08/2017 | 02/08/2018 |

#### Software Utilized:

| Name | Manufacturer | Version |
|------|--------------|---------|
| None |              |         |

### 7.3 Results:

The sample tested was found to Comply.

For client devices in the 5.15-5.25 GHz band the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

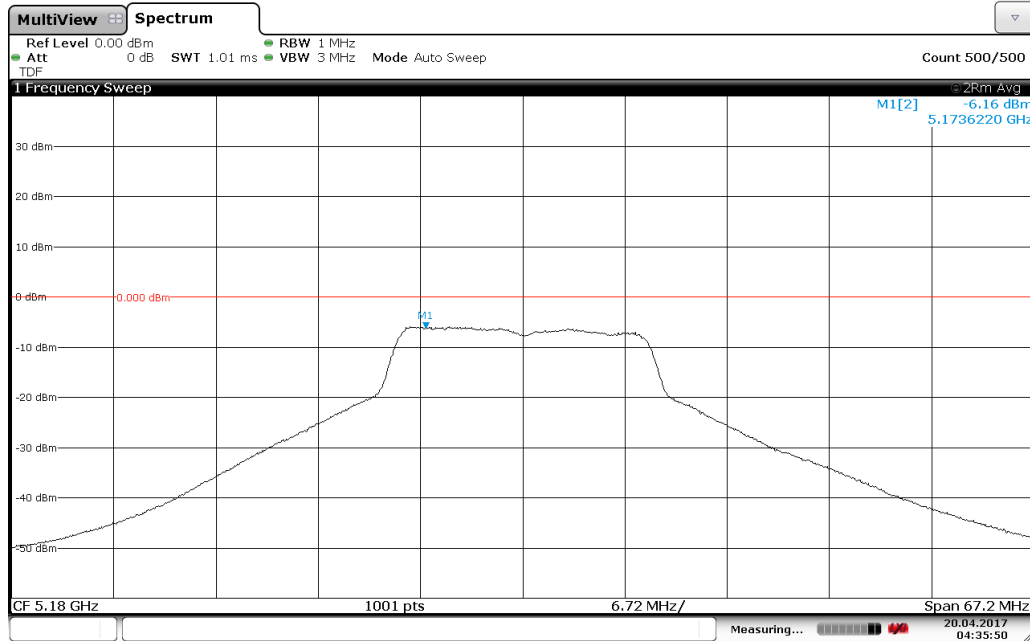
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

## 7.4 Plots/Data:

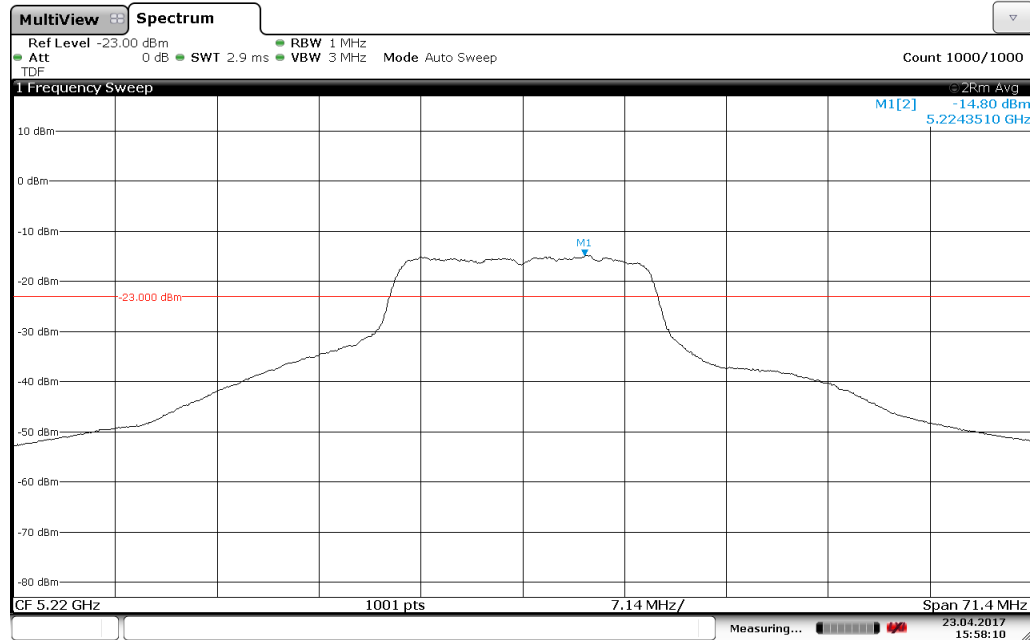
### Band 1 (20 MHz Bandwidth)

#### Low Channel – 5180 MHz, 802 11g 6 Mbps, Spectral Density: -6.16 dBm



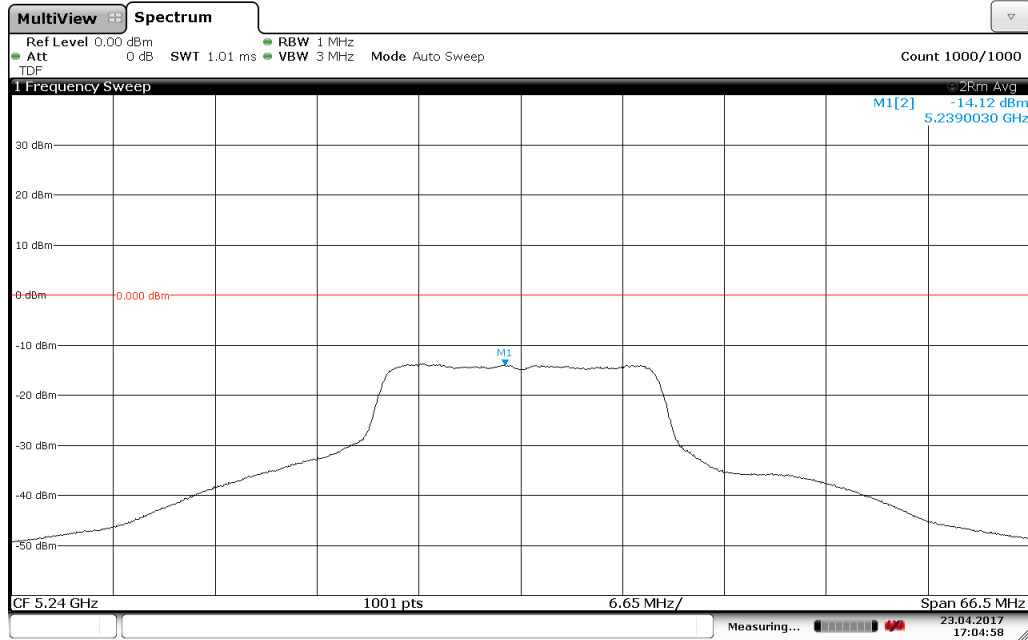
Date: 20.APR.2017 04:35:50

#### Mid Channel – 5220 MHz, 802 11g 6 Mbps, Spectral Density: -14.80 dBm



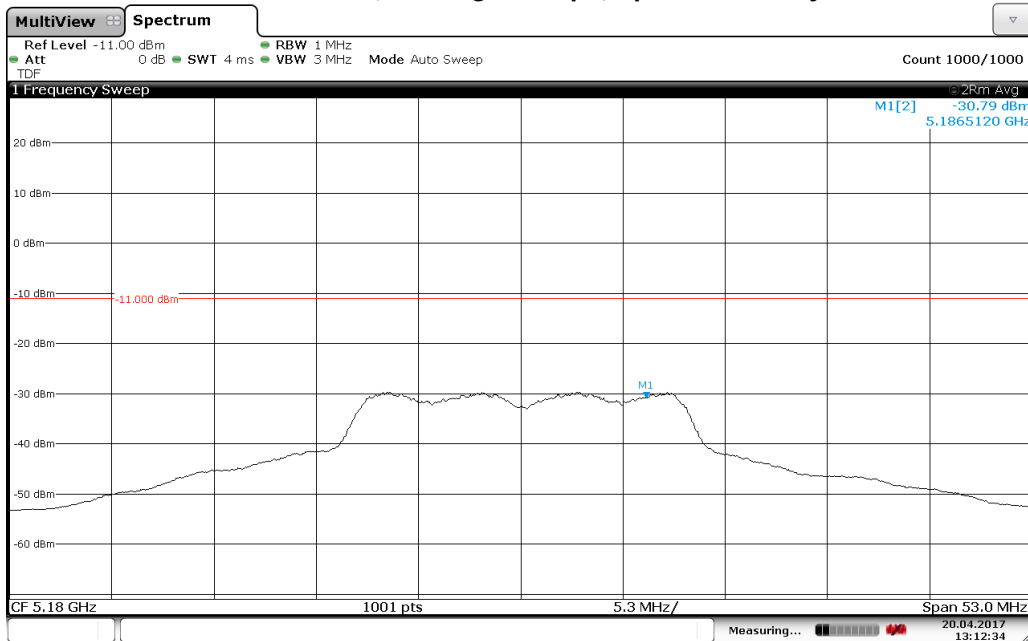
Date: 23.APR.2017 15:58:10

### High Channel – 5220 MHz, 802 11g 6 Mbps, Spectral Density: -14.12 dBm



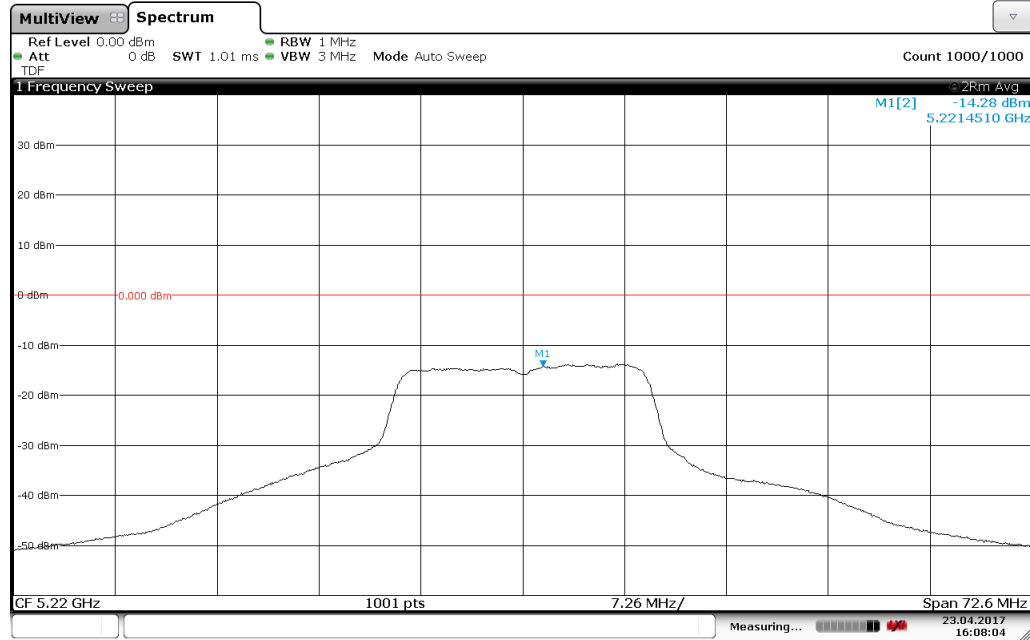
Date: 23.APR.2017 17:04:57

### Low Channel – 5180 MHz, 802 11g 54 Mbps, Spectral Density: -30.79 dBm



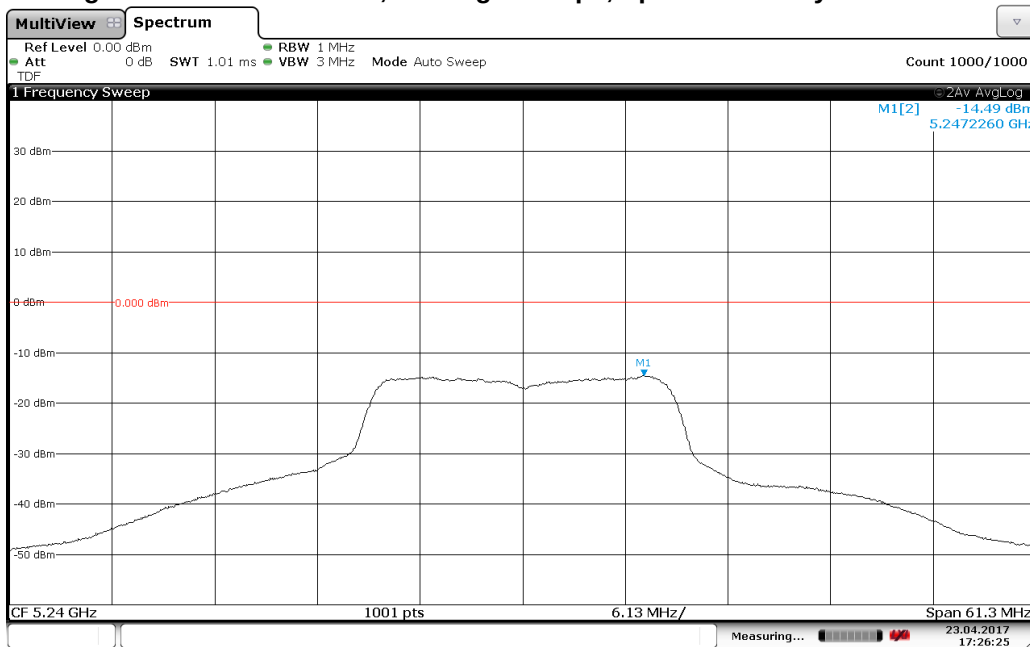
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### Mid Channel – 5220 MHz, 802 11g 54 Mbps, Spectral Density: -14.80 dBm



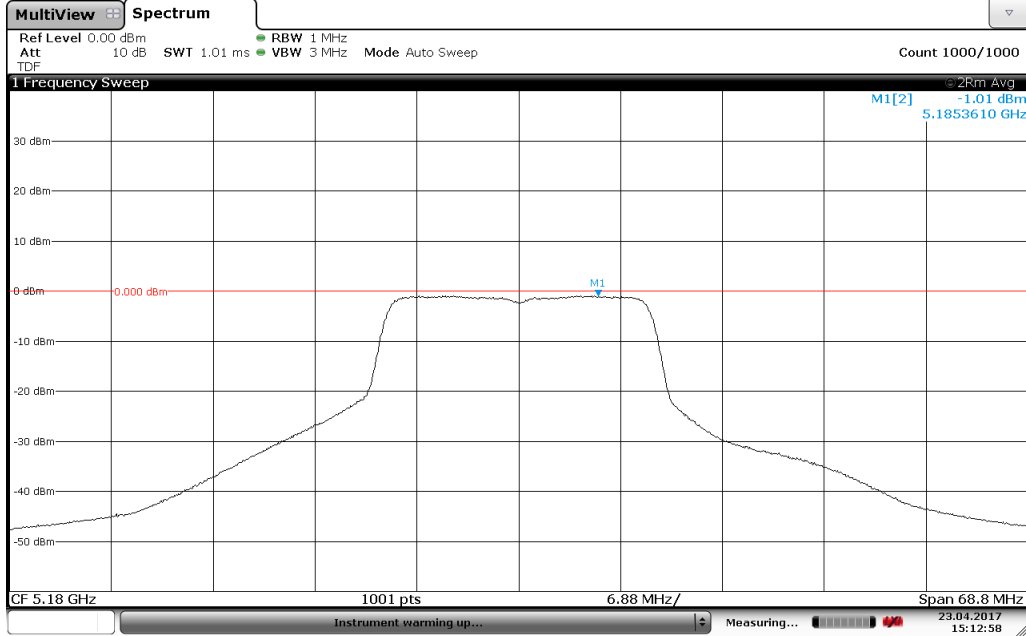
Date: 23.APR.2017 16:08:04

### High Channel – 5220 MHz, 802 11g 54 Mbps, Spectral Density: -14.49 dBm



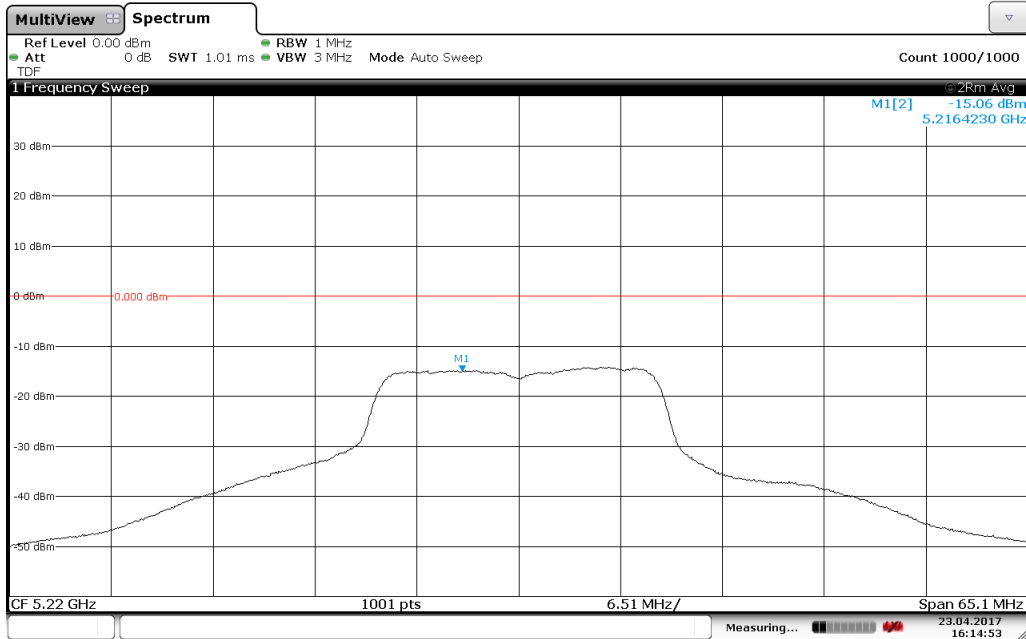
Date: 23.APR.2017 17:26:25

### Low Channel – 5180 MHz, 802 11n MCS0 6.5 Mbps, Spectral Density: -1.01 dBm



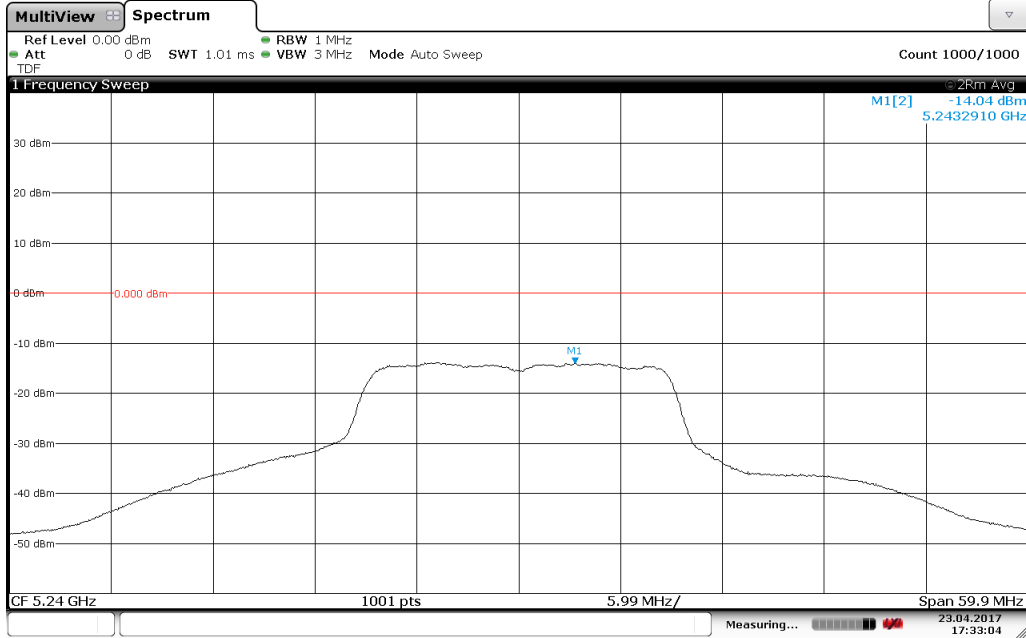
Date: 23.APR.2017 15:12:57

### Mid Channel – 5220 MHz, 802 11n MCS0 6.5 Mbps, Spectral Density: -15.06 dBm



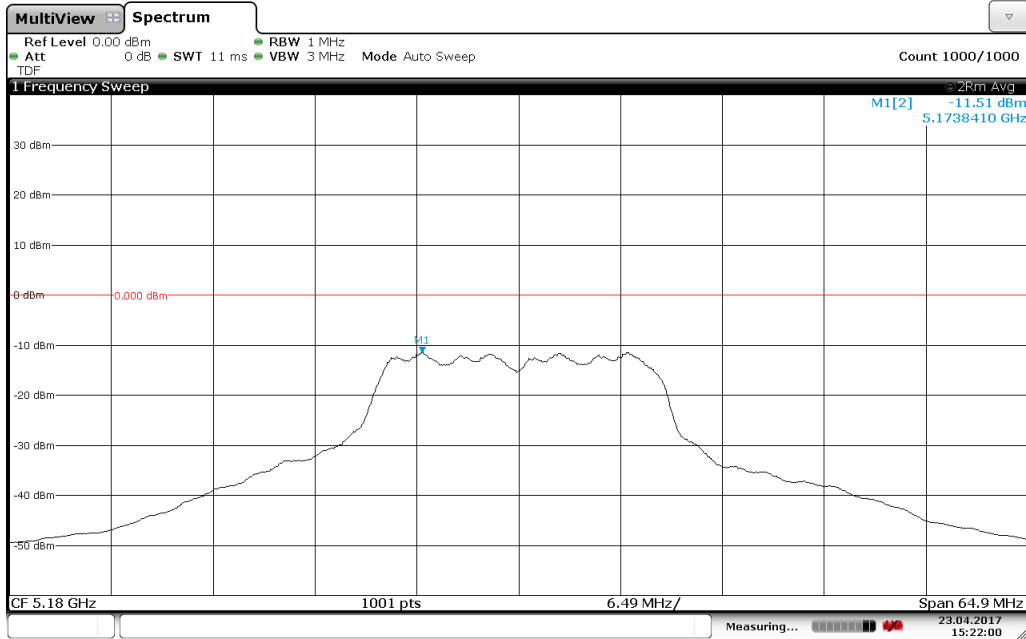
Date: 23.APR.2017 16:14:52

### High Channel – 5240 MHz, 802 11n MCS0 6.5 Mbps, Spectral Density: -14.04 dBm



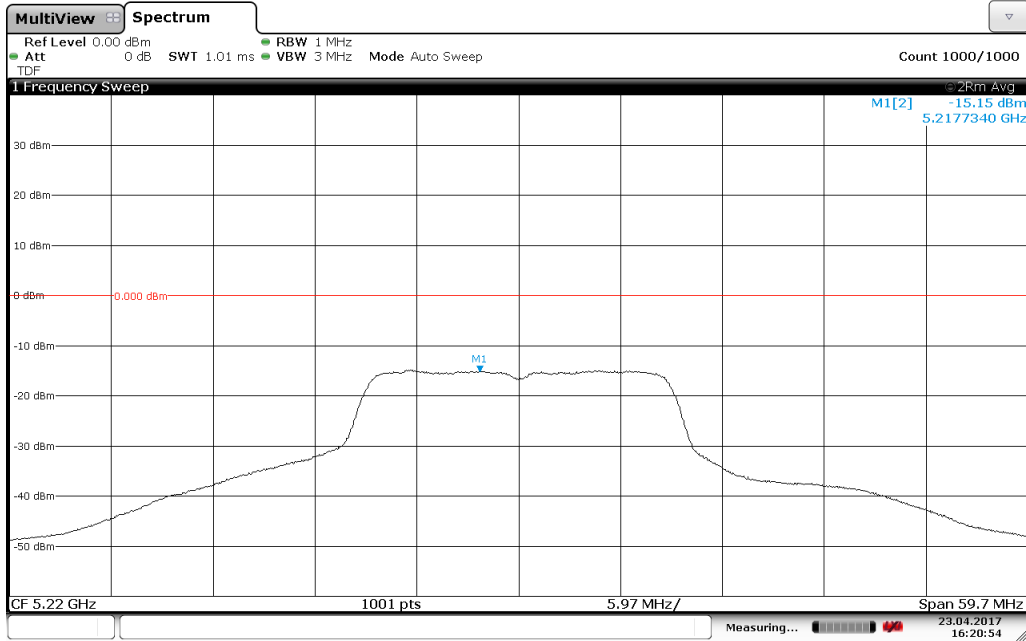
Date: 23.APR.2017 17:33:03

### Low Channel – 5180 MHz, 802 11n MCS7 65 Mbps, Spectral Density: -11.51 dBm



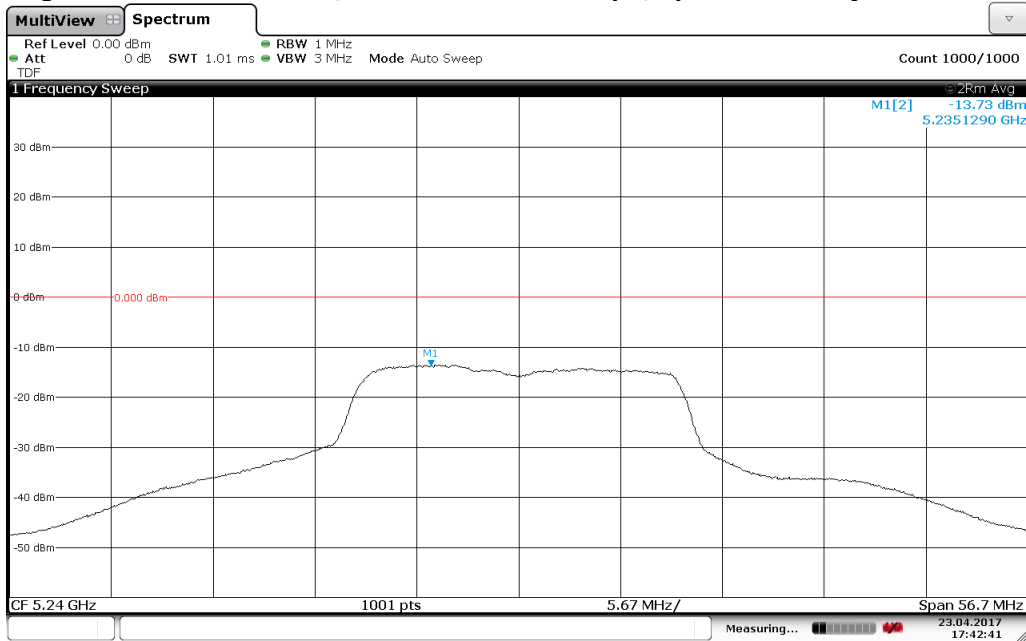
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### Mid Channel – 5220 MHz, 802 11n MCS7 65 Mbps, Spectral Density: -15.15 dBm



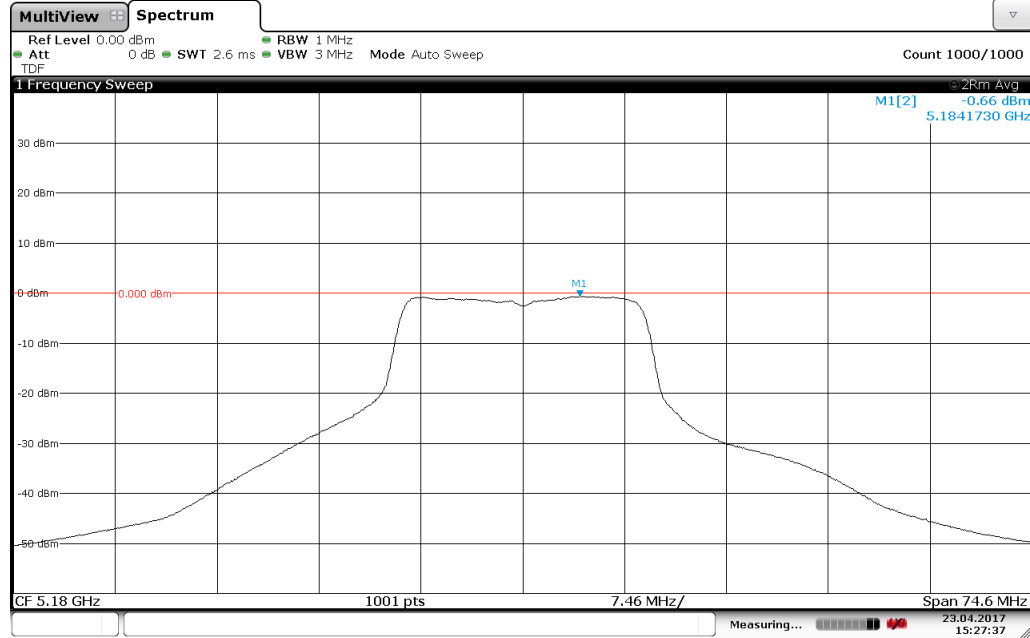
Date: 23. APR. 2017 16:20:54

### High Channel – 5240 MHz, 802 11n MCS7 65 Mbps, Spectral Density: -13.73 dBm



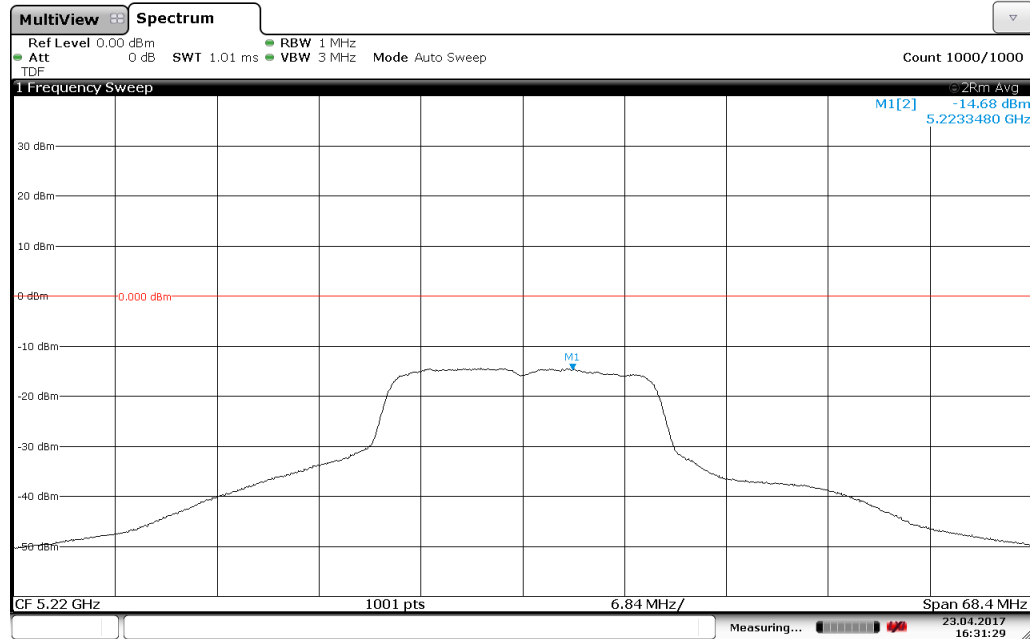
Date: 23. APR. 2017 17:42:41

**Low Channel – 5180 MHz, 802 11n MCS0MM 7.2 Mbps, Spectral Density: -0.66 dBm**



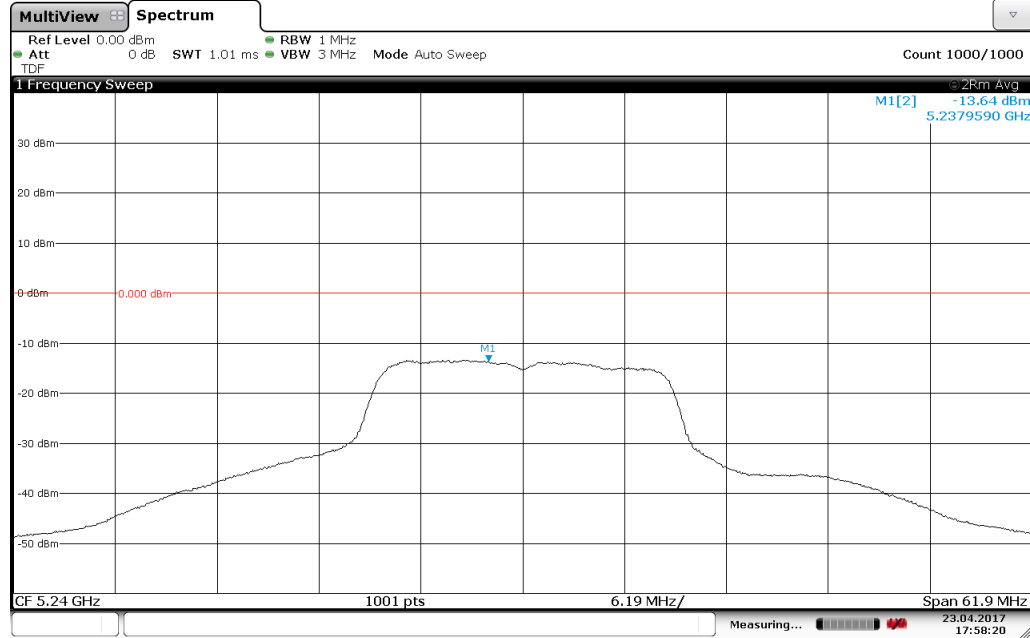
Date: 23.APR.2017 15:27:36

**Mid Channel – 5220 MHz, 802 11n MCS0MM 7.2 Mbps, Spectral Density: -14.68 dBm**



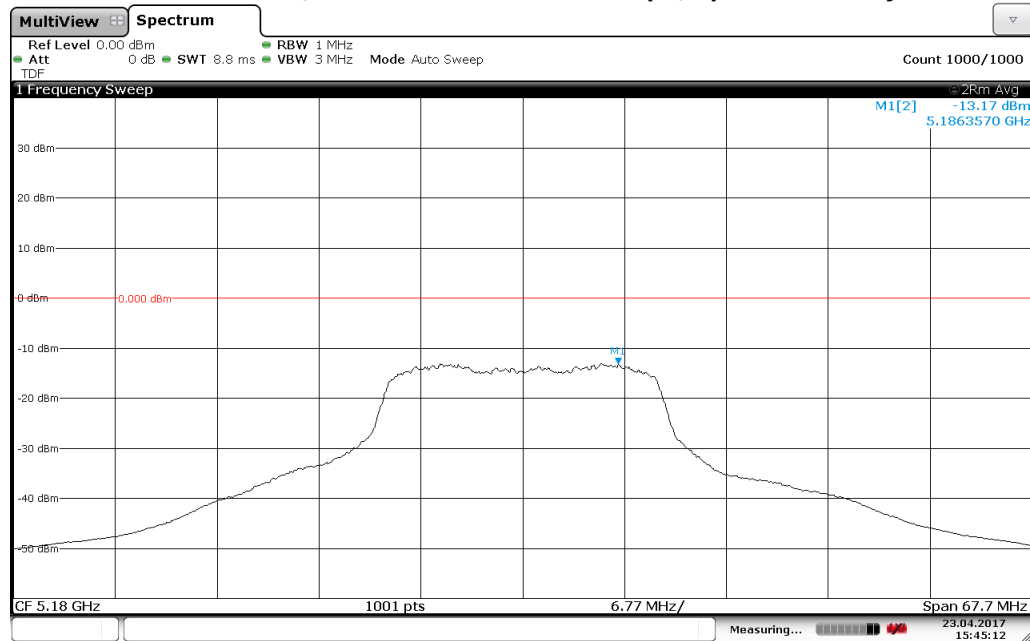
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# High Channel – 5240 MHz, 802 11n MCS0MM 7.2 Mbps, Spectral Density: -13.64 dBm

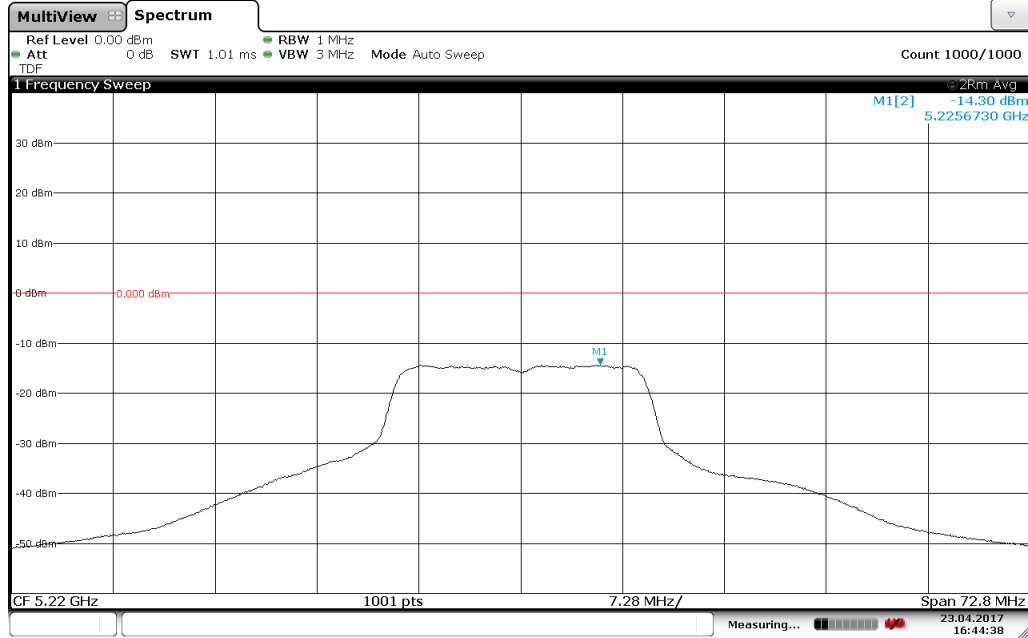


Date: 23.APR.2017 17:58:19

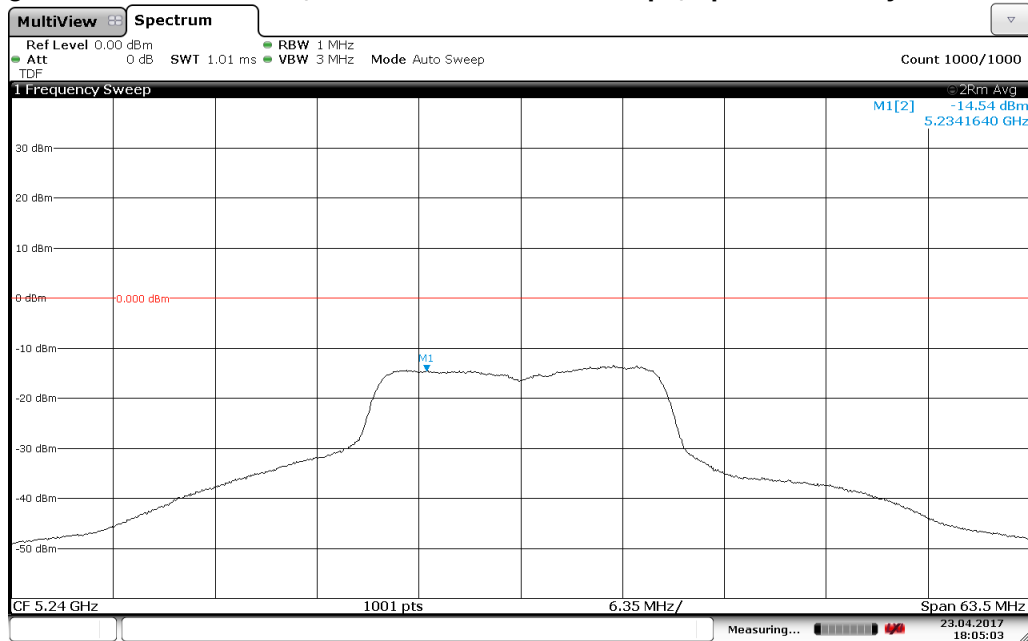
# Low Channel – 5180 MHz, 802 11n MCS7MM 72.2 Mbps, Spectral Density: -13.17 dBm



Date: 23.APR.2017 15:45:12

**Mid Channel – 5220 MHz, 802 11n MCS7MM 72.2 Mbps, Spectral Density: -14.30 dBm**

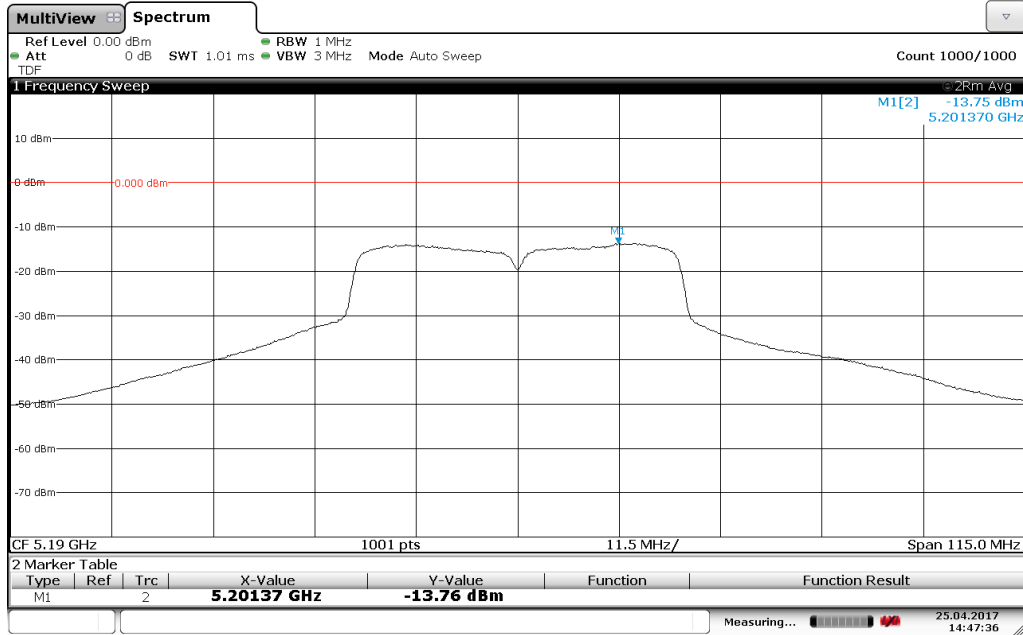
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**High Channel – 5220 MHz, 802 11n MCS7MM 72.2 Mbps, Spectral Density: -14.30 dBm**

Date: 23.APR.2017 18:05:03

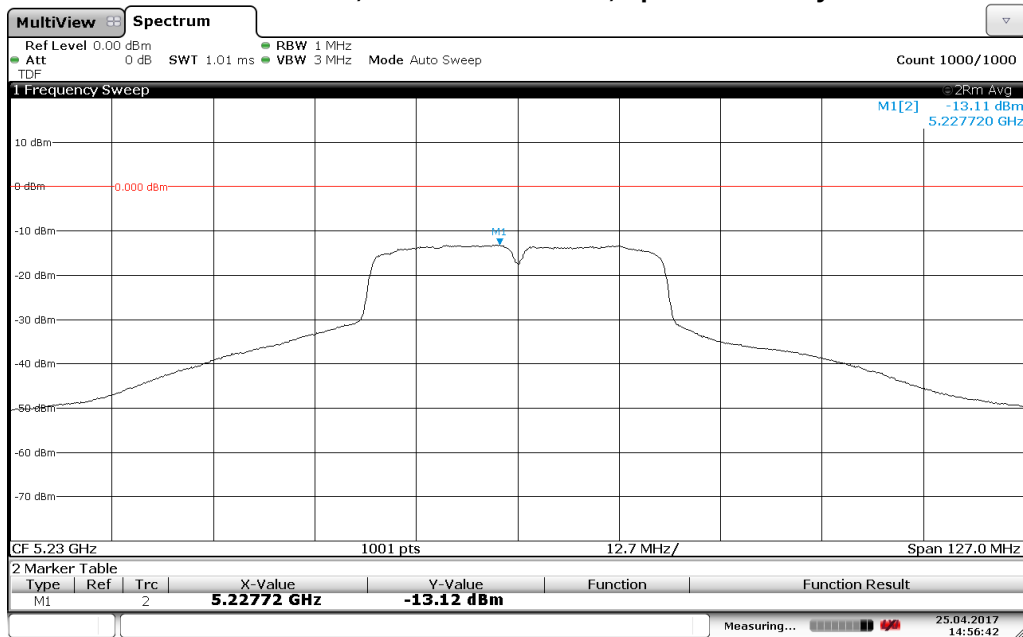
Band 1 (40 MHz Bandwidth)

Low Channel – 5190 MHz, 802 11n MCS0 13.5, Spectral Density: -13.76 dBm



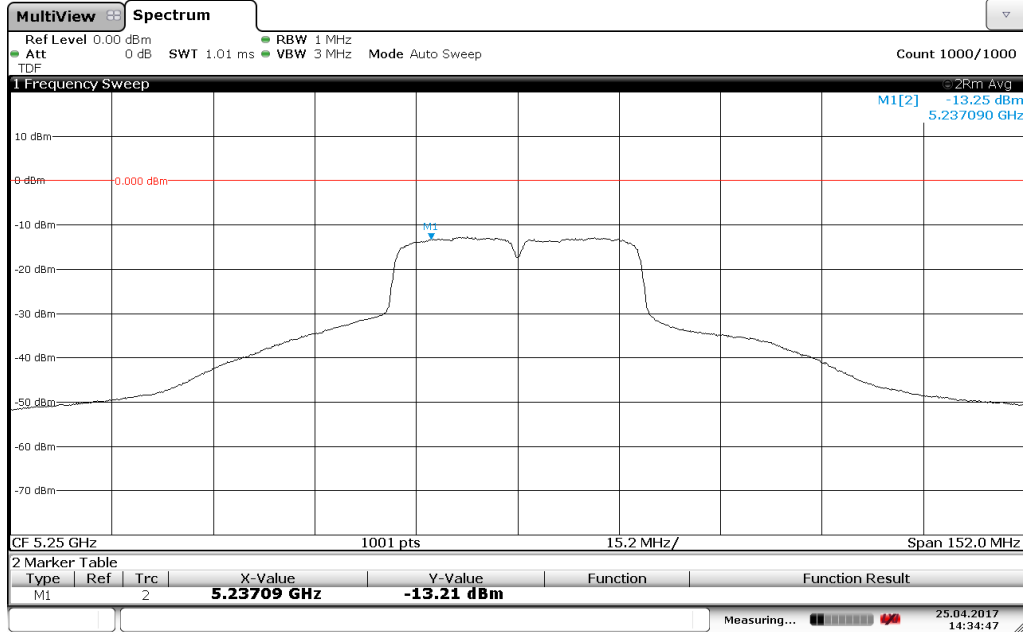
Date: 25 APR. 2017 14:47:35

Mid Channel – 5230 MHz, 802 11n MCS0 13.5, Spectral Density: -13.12 dBm



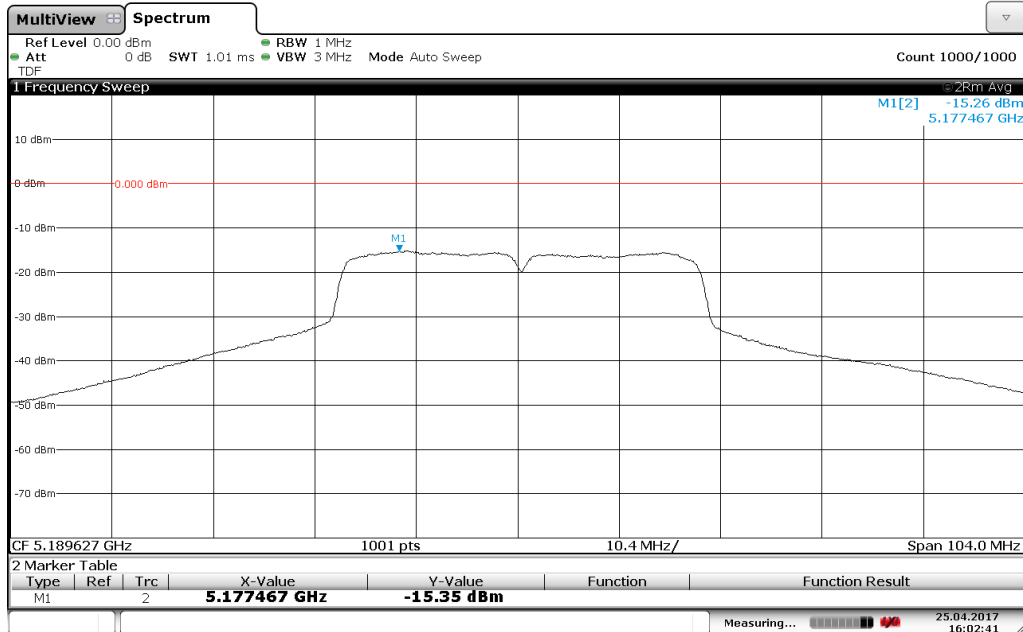
Date: 25 APR. 2017 14:56:42

### High Channel – 5250 MHz, 802 11n MCS0 13.5, Spectral Density: -13.21 dBm



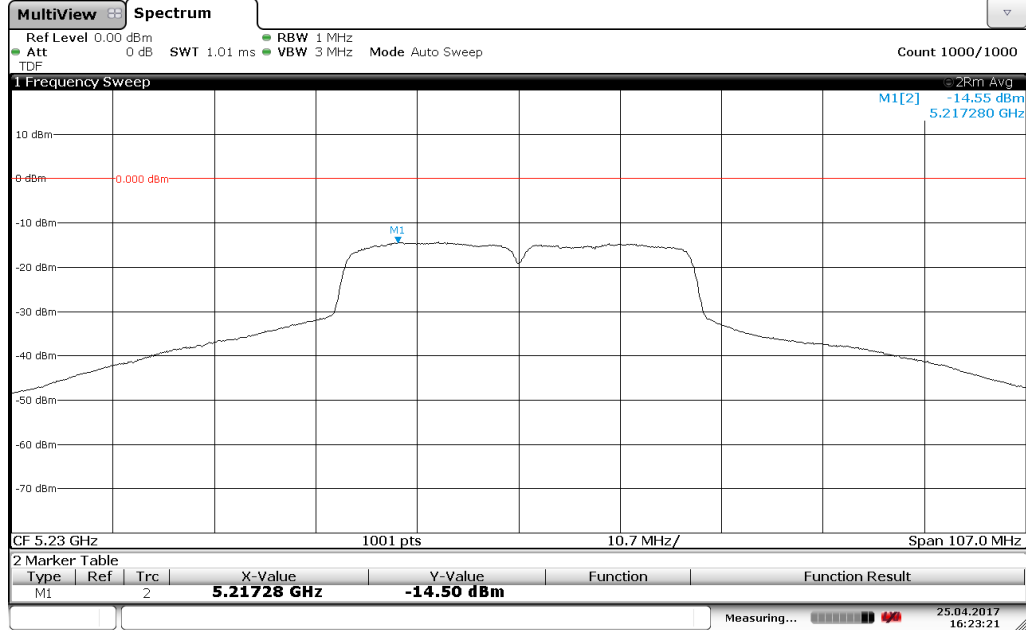
Date: 25 APR.2017 14:34:47

### Low Channel – 5190 MHz, 802 11n MCS0 MM SG 15, Spectral Density: -15.35 dBm



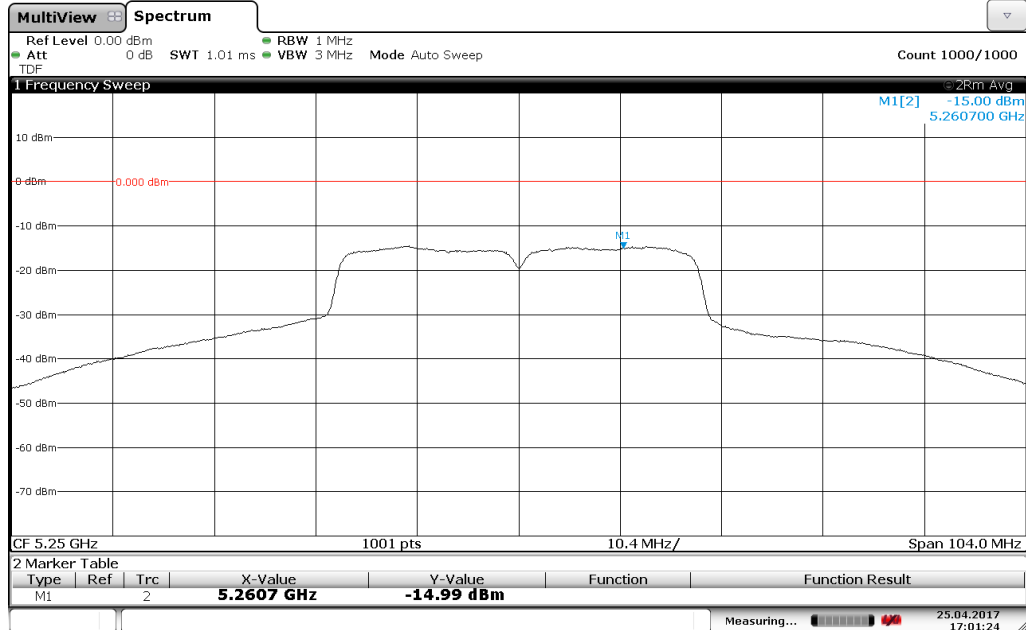
Date: 25 APR.2017 16:02:40

**Mid Channel – 5230 MHz, 802 11n MCS0 MM SG 15, Spectral Density: -14.50 dBm**



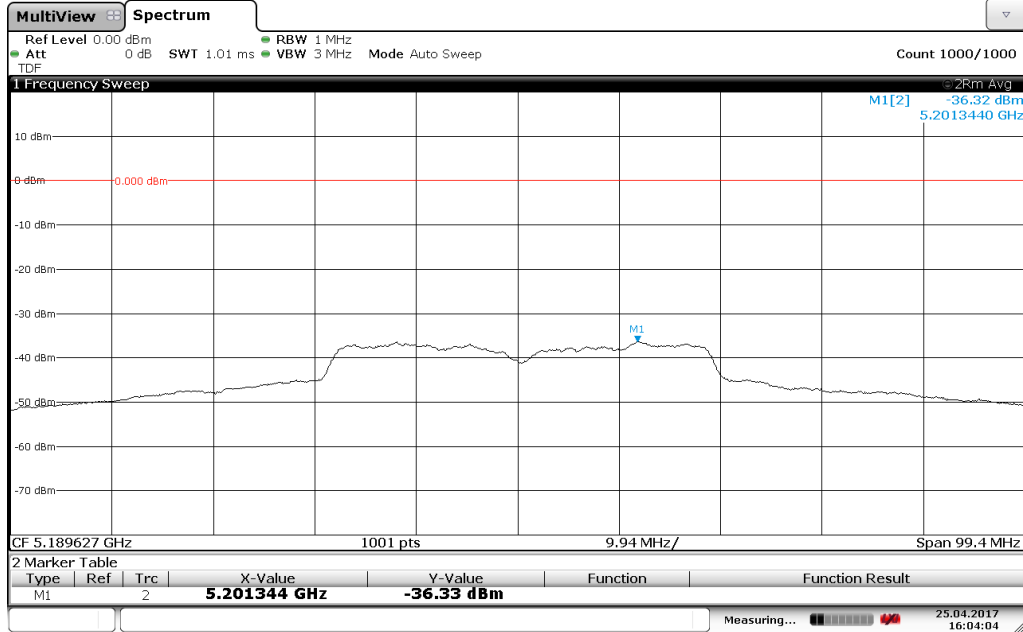
Date: 25.APR.2017 16:23:21

**High Channel – 5250 MHz, 802 11n MCS0 MM SG 15, Spectral Density: -14.99 dBm**



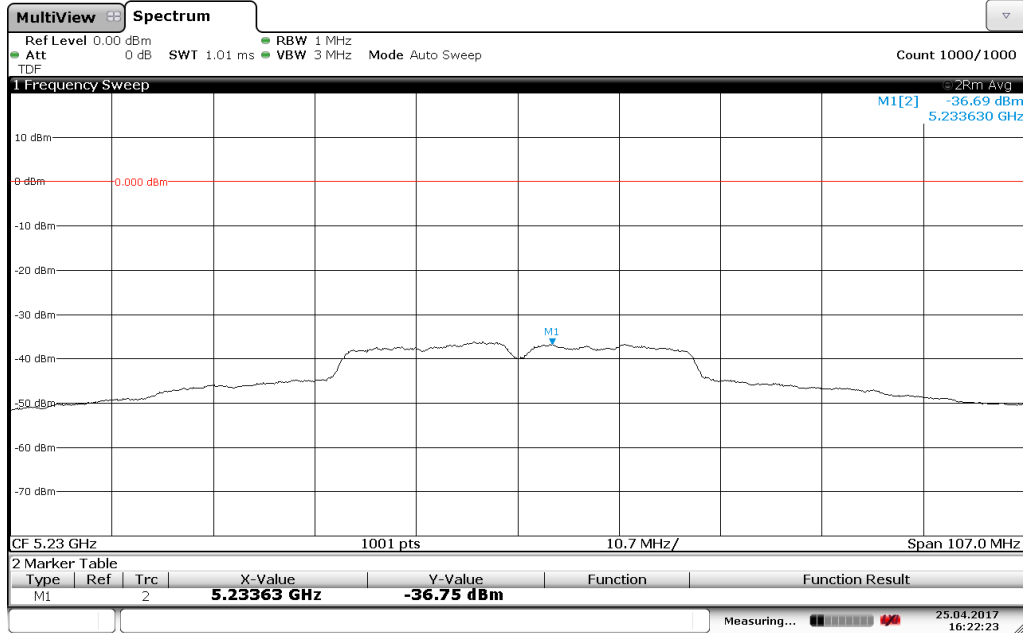
Date: 25.APR.2017 17:01:24

**Low Channel – 5190 MHz, 802 11n MCS0 MM SG 150 Mbps, Out Spectral Density: -36.33 dBm**



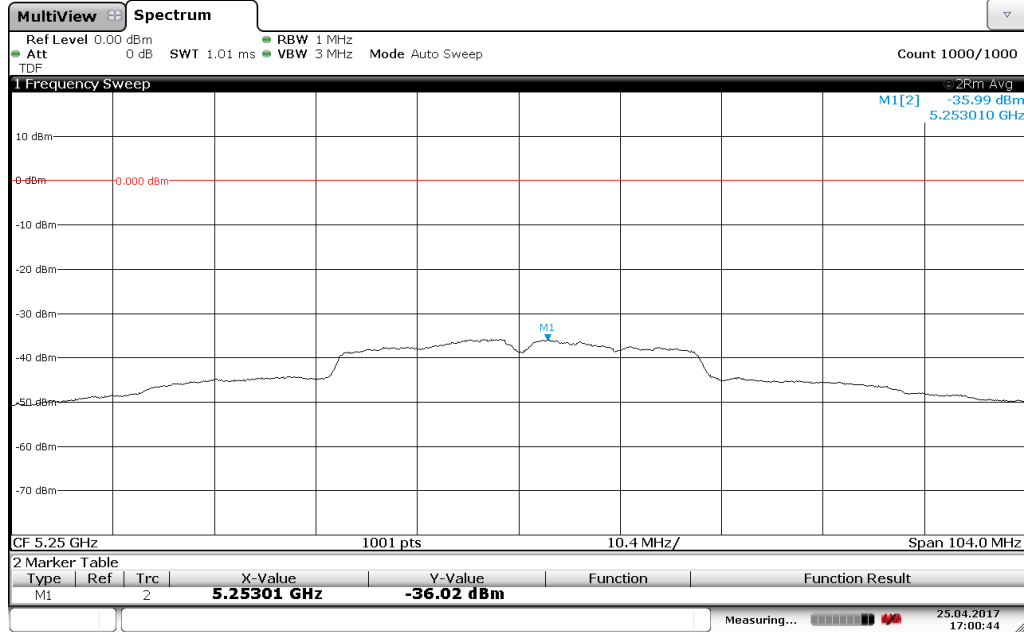
Date: 25 APR.2017 16:04:04

**Mid Channel – 5230 MHz, 802 11n MCS0 MM SG 150 Mbps, Spectral Density: -36.75 dBm**



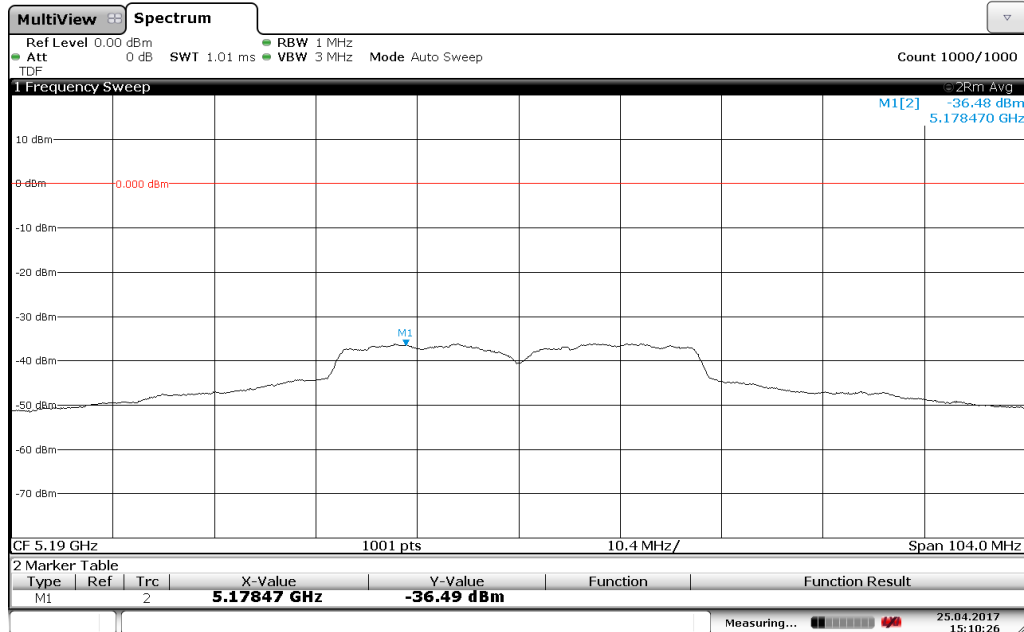
Date: 25 APR.2017 16:22:23

### High Channel – 5250 MHz, 802 11n MCS0 MM SG 150 Mbps, Spectral Density:-36.02 dBm



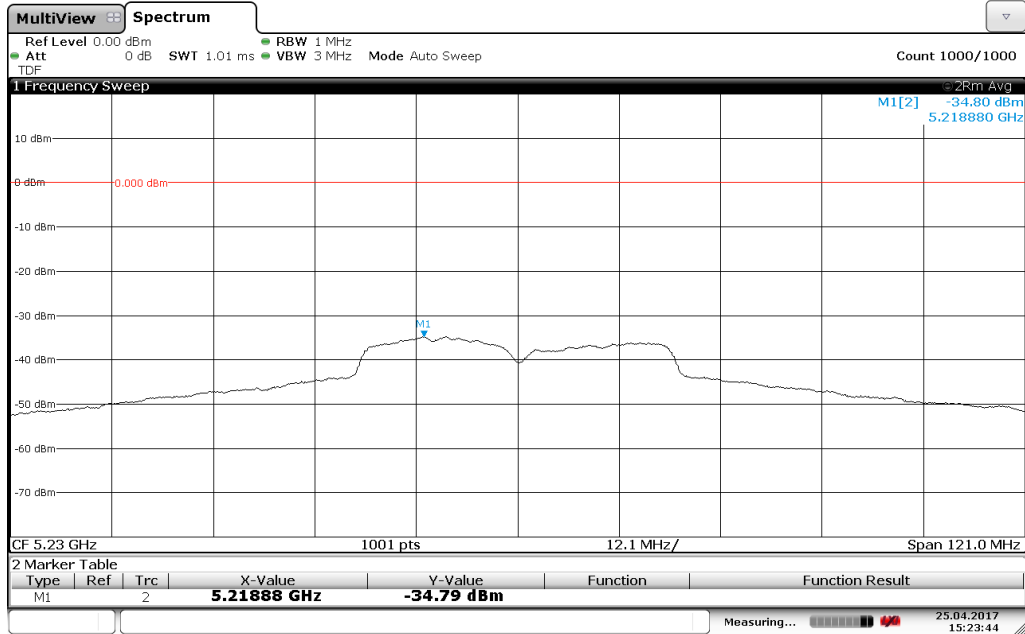
Date: 25 APR.2017 17:00:44

### Low Channel – 5190 MHz, 802 11n MCS7 135, Spectral Density: -36.49 dBm



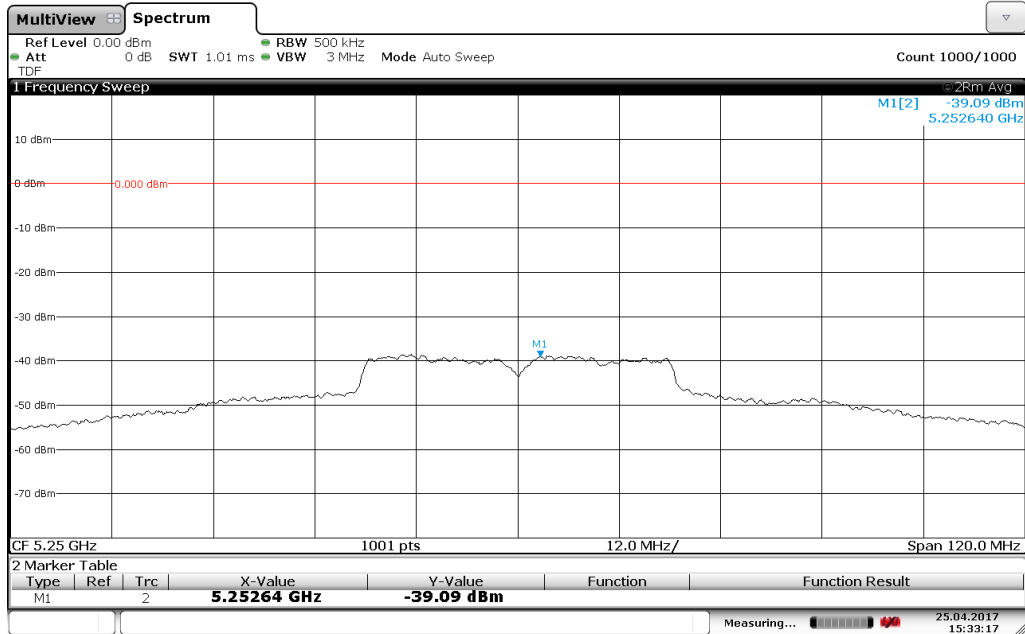
Date: 25 APR.2017 15:10:26

## Mid Channel – 5230 MHz, 802 11n MCS7 135, Spectral Density: -34.79dBm



Date: 25 APR.2017 15:23:44

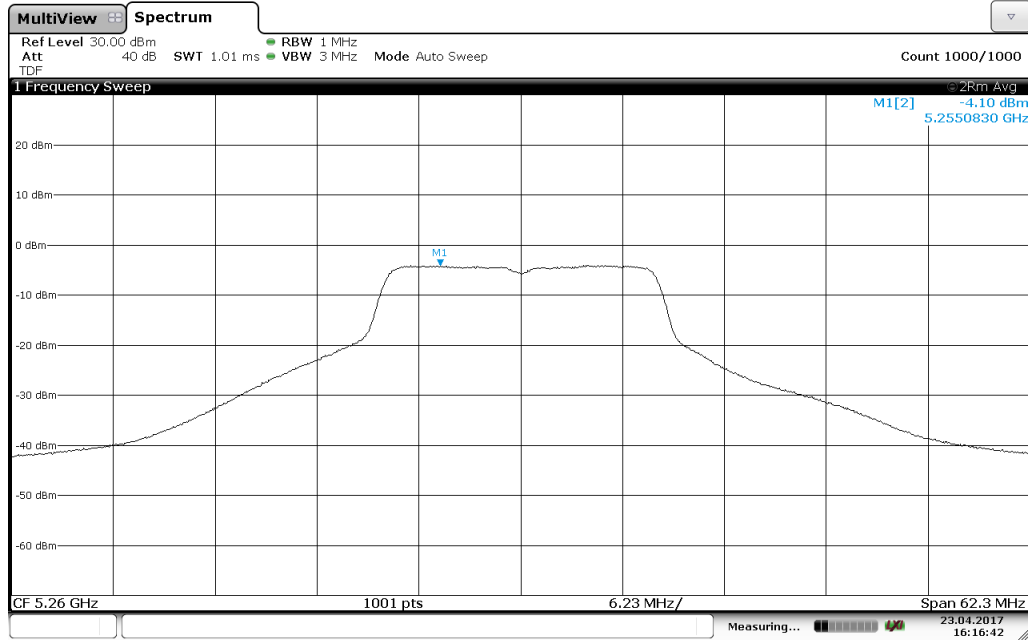
## High Channel – 5250 MHz, 802 11n MCS7 135, Spectral Density: -39.09dBm



Date: 25 APR.2017 15:33:18

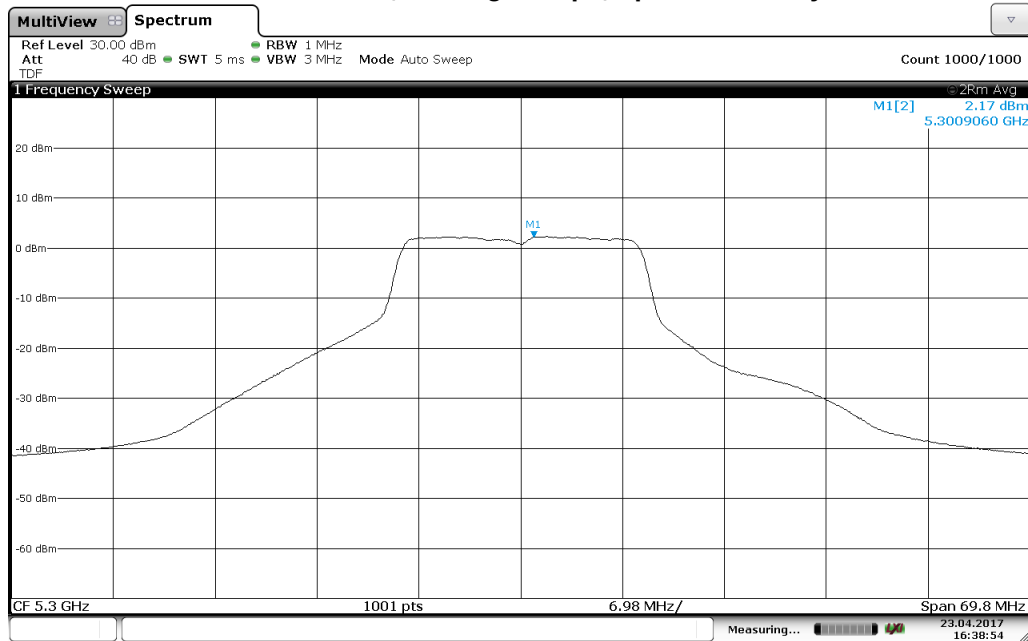
Band 2 (20 MHz Bandwidth)

Low Channel – 5260 MHz, 802 11g 6 Mbps, Spectral Density: -4.10 dBm



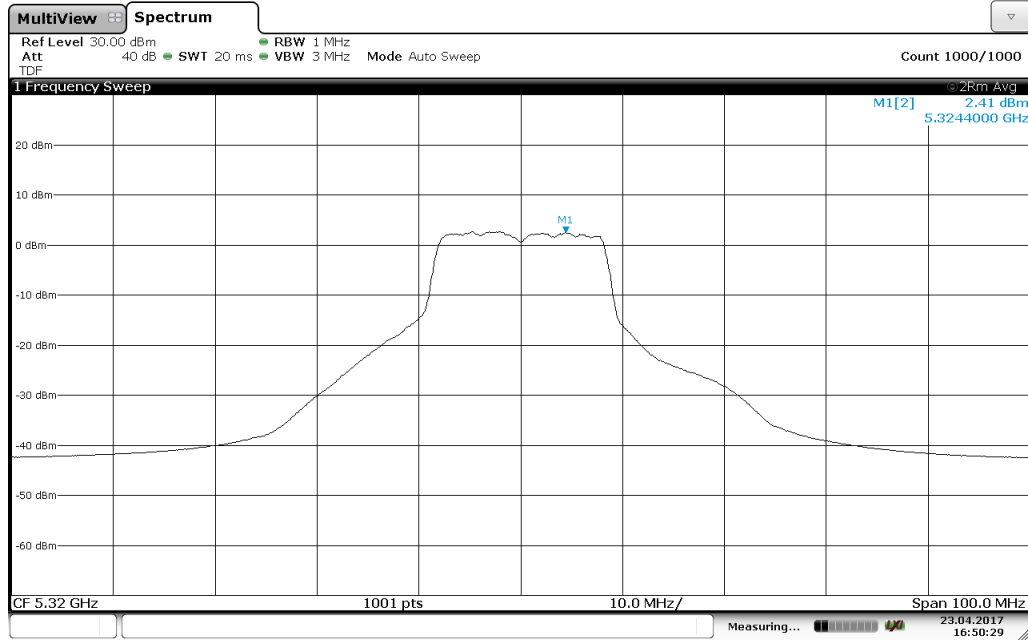
Date: 23. APR. 2017 16:16:43

Mid Channel – 5300 MHz, 802 11g 6 Mbps, Spectral Density: 2.17 dBm



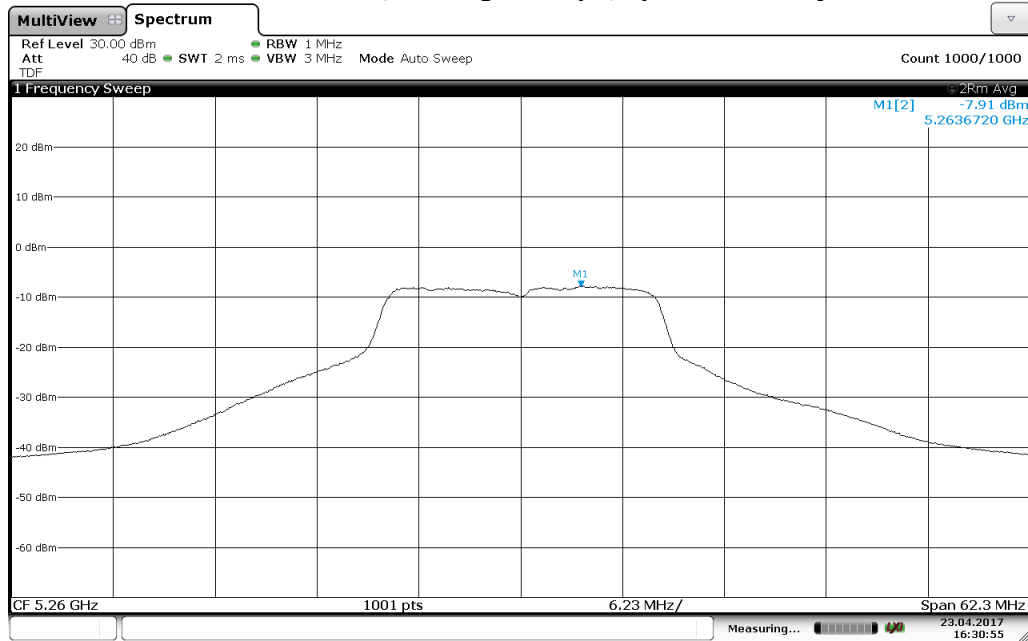
Date: 23. APR. 2017 16:38:54

### High Channel – 5320 MHz, 802 11g 6 Mbps, Spectral Density: 2.41 dBm



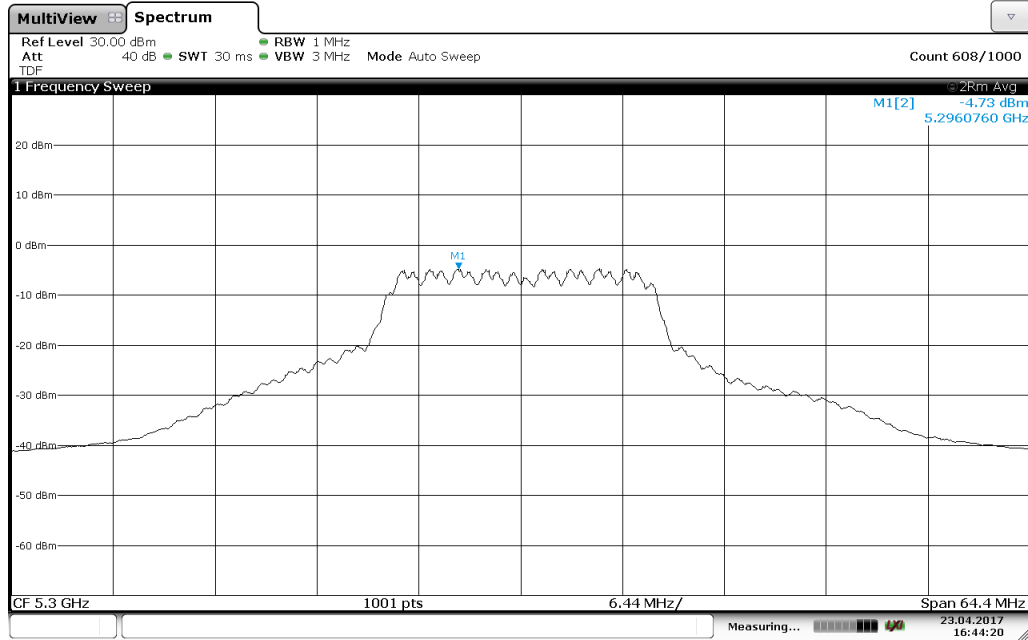
Date: 23. APR. 2017 16:50:28

### Low Channel – 5260 MHz, 802 11g 54 Mbps, Spectral Density: -7.91 dBm



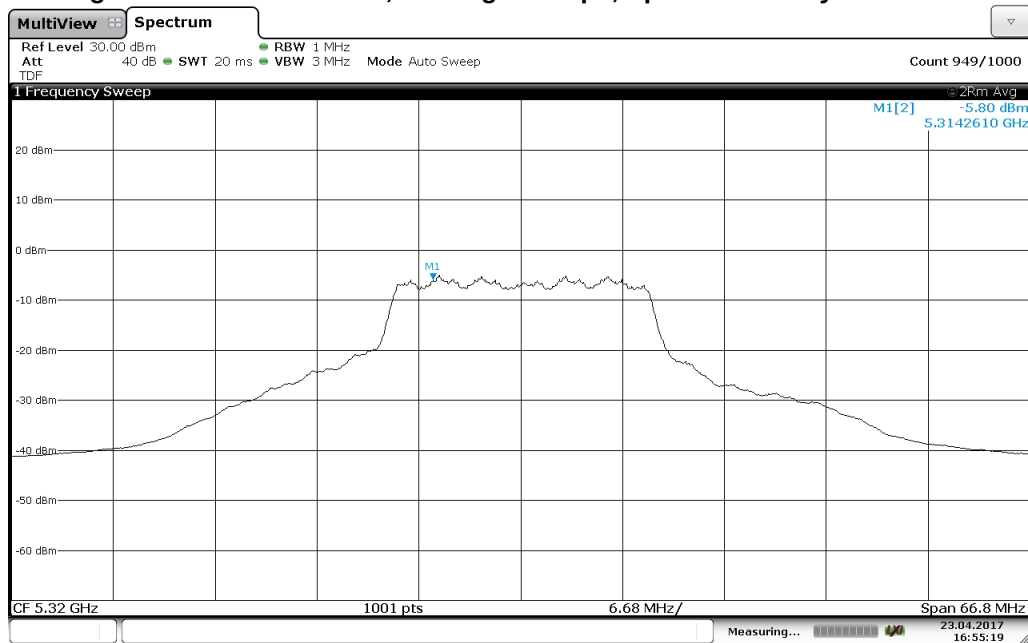
Date: 23. APR. 2017 16:30:55

### Mid Channel – 5300 MHz, 802 11g 54 Mbps, Spectral Density: -4.73 dBm



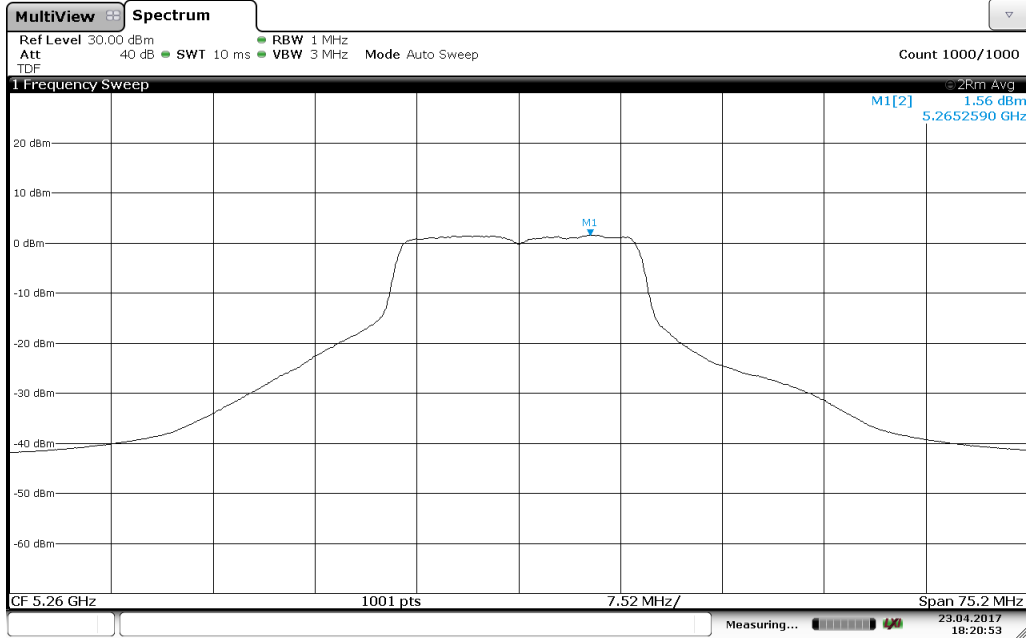
Date: 23.APR.2017 16:44:20

### High Channel – 5320 MHz, 802 11g 54 Mbps, Spectral Density: -5.80 dBm



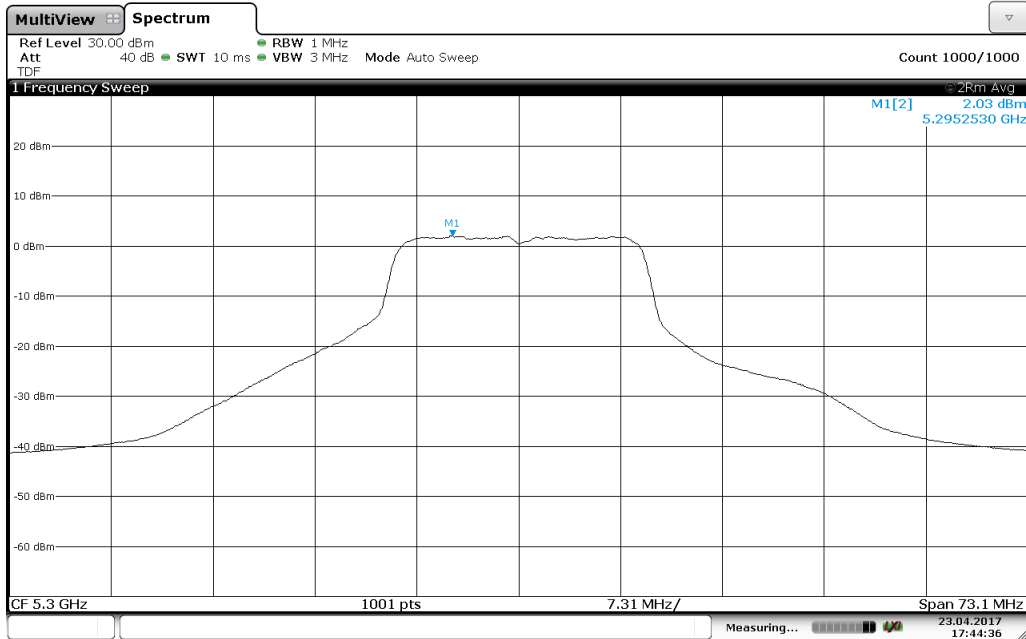
Date: 23.APR.2017 16:55:18

**Low Channel – 5260 MHz, 802 11n MCS0 6.5 Mbps, Spectral Density: 1.56 dBm**



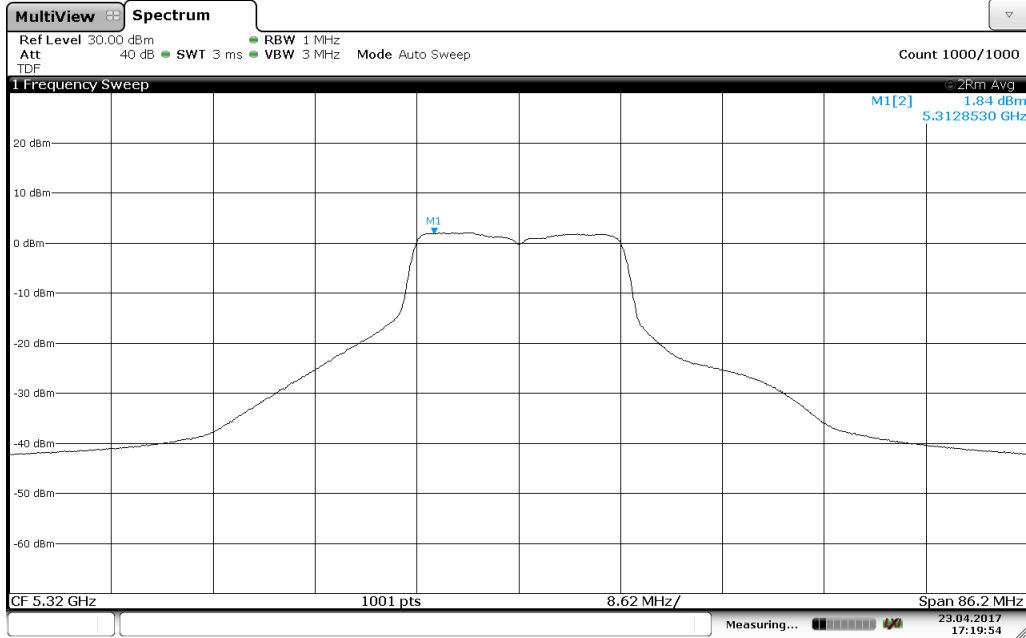
Date: 23.APR.2017 18:20:53

**Mid Channel – 5300 MHz, 802 11n MCS0 6.5 Mbps, Spectral Density: 2.03 dBm**



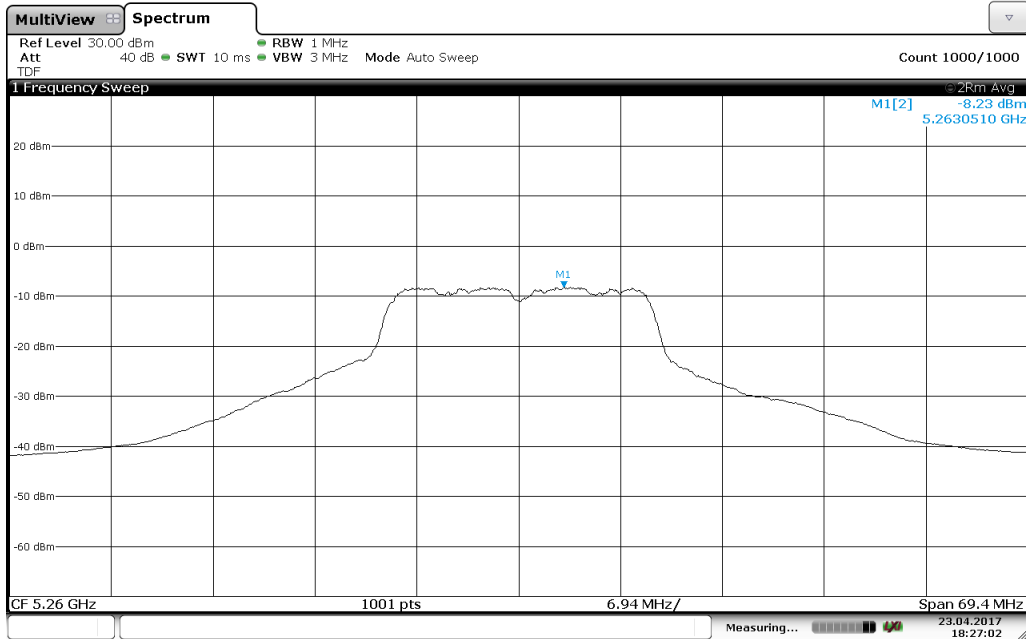
Date: 23.APR.2017 17:44:36

### High Channel – 5320 MHz, 802 11n MCS0 6.5 Mbps, Spectral Density: 1.84 dBm



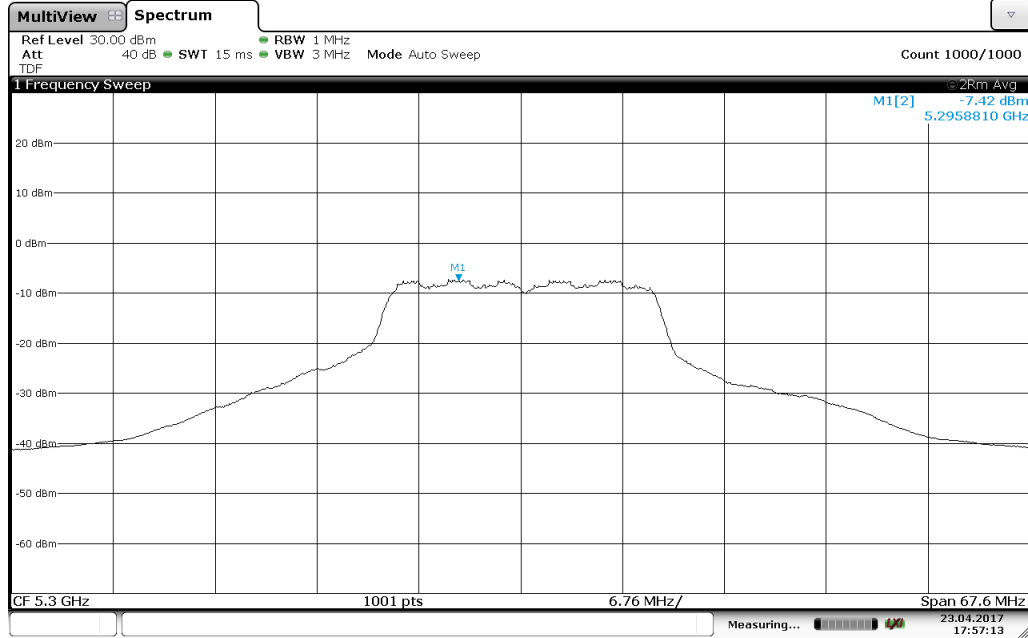
Date: 23.APR.2017 17:19:53

### Low Channel – 5260 MHz, 802 11n MCS7 65 Mbps, Spectral Density: -8.23 dBm



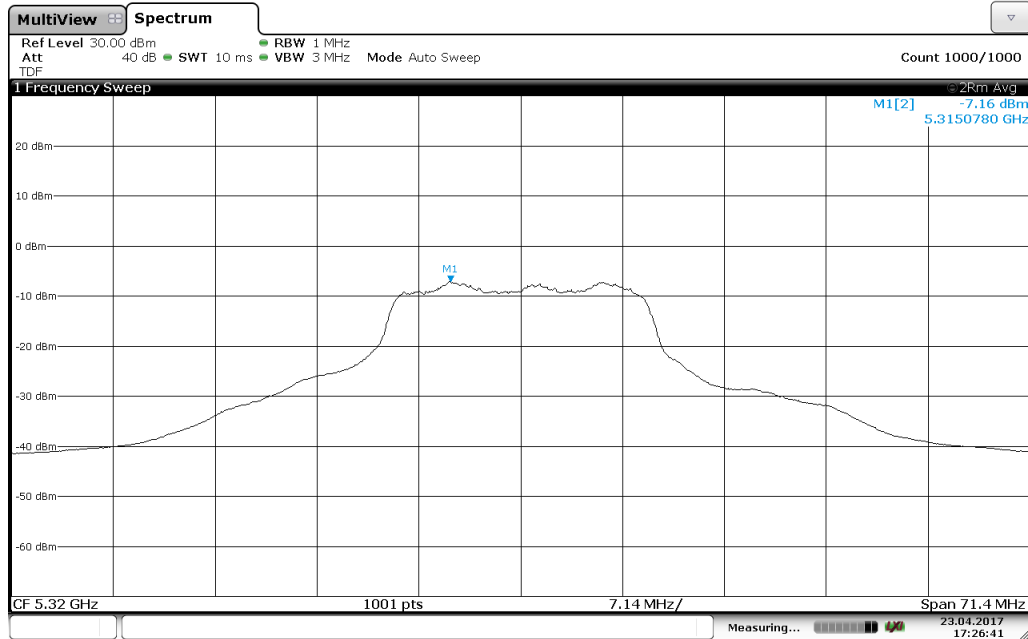
Date: 23.APR.2017 18:27:02

**Mid Channel – 5300 MHz, 802 11n MCS7 65 Mbps, Spectral Density: -7.42 dBm**

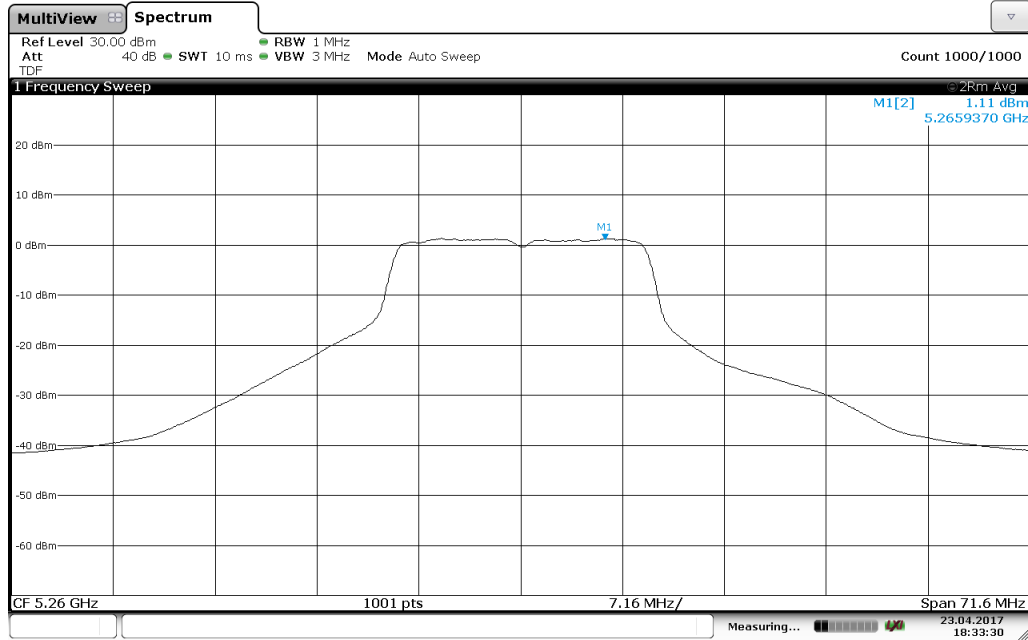


Date: 23.APR.2017 17:57:13

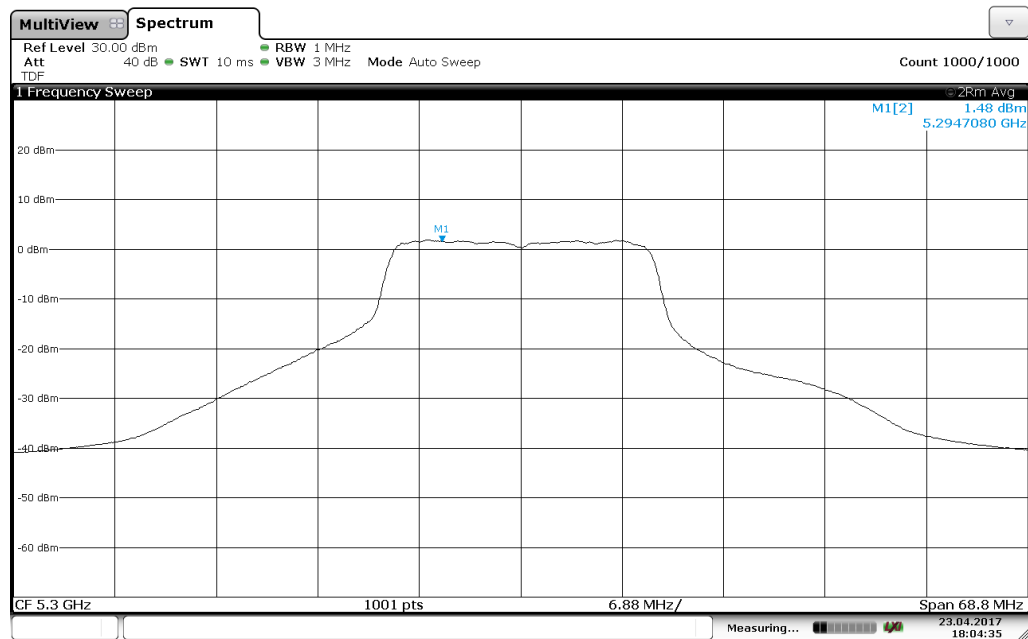
**High Channel – 5320 MHz, 802 11n MCS7 65 Mbps, Spectral Density: -8.23 dBm**



Date: 23.APR.2017 17:26:40

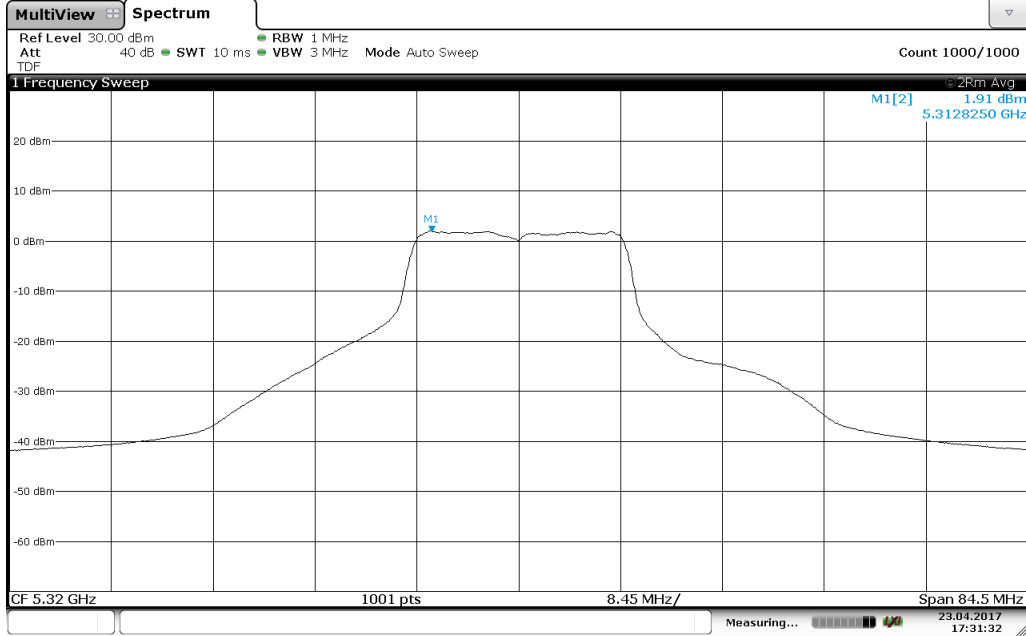
**Low Channel – 5260 MHz, 802 11n MCS0MM 7.2 Mbps, Spectral Density: 1.11 dBm**

Date: 23.APR.2017 18:33:30

**Mid Channel – 5300 MHz, 802 11n MCS0MM 7.2 Mbps, Spectral Density: 1.12 dBm**

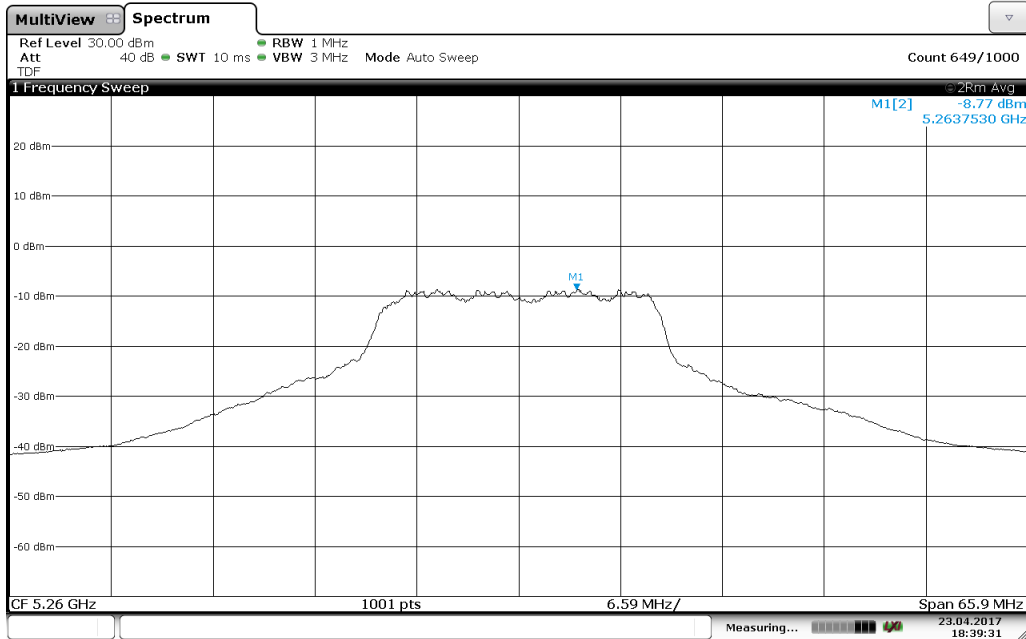
Date: 23.APR.2017 18:04:35

### High Channel – 5300 MHz, 802 11n MCS0MM 7.2 Mbps, Spectral Density: 1.91 dBm



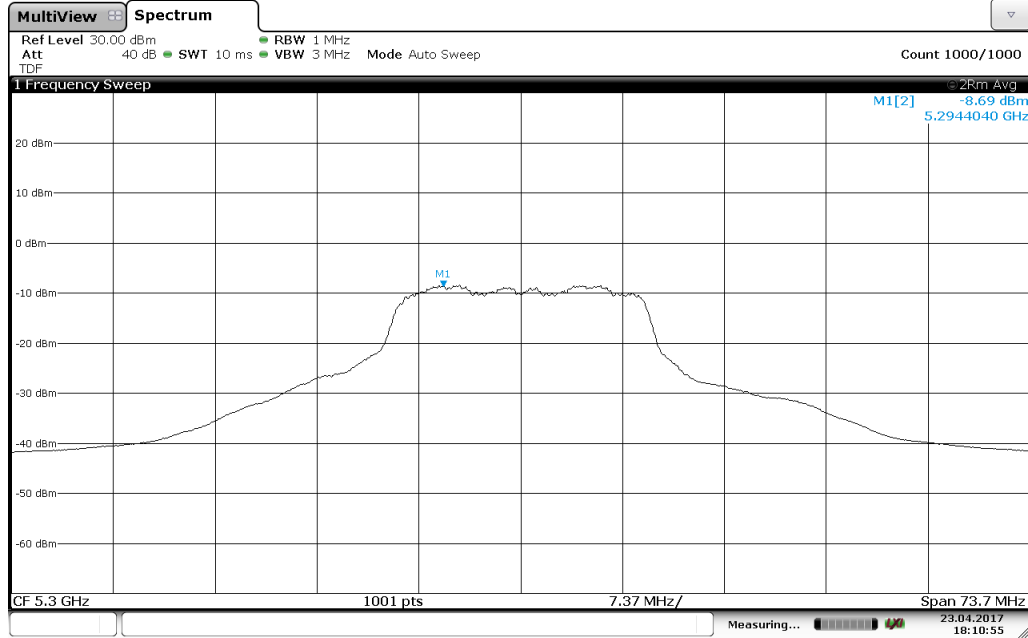
Date: 23.APR.2017 17:31:32

### Low Channel – 5260 MHz, 802 11n MCS7MM 72.2 Mbps, Spectral Density: -8.77 dBm



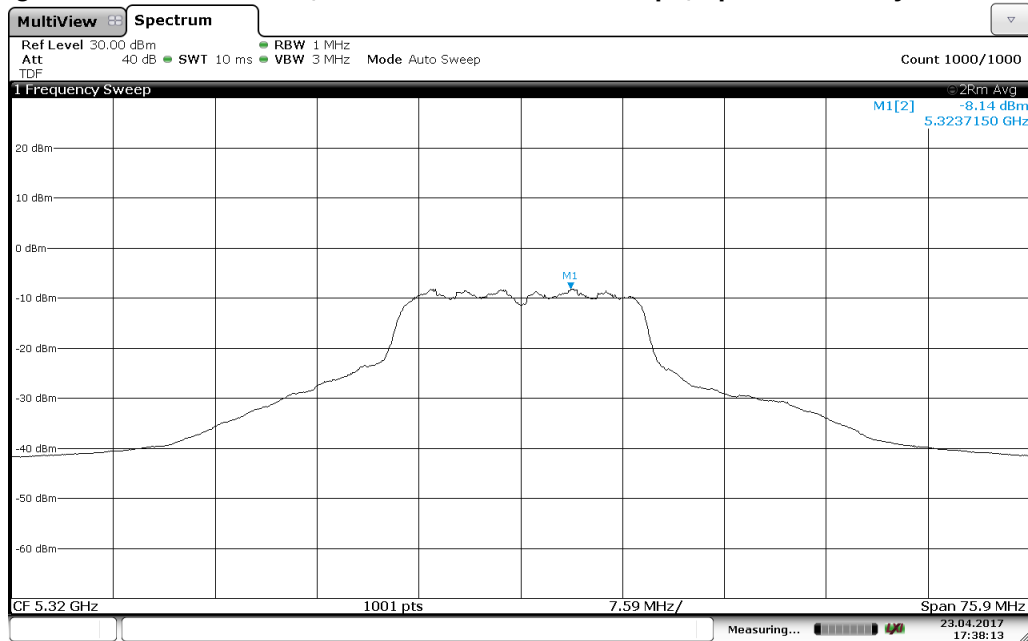
Date: 23.APR.2017 18:39:30

**Mid Channel – 5200 MHz, 802 11n MCS7MM 72.2 Mbps, Spectral Density: -8.69 dBm**



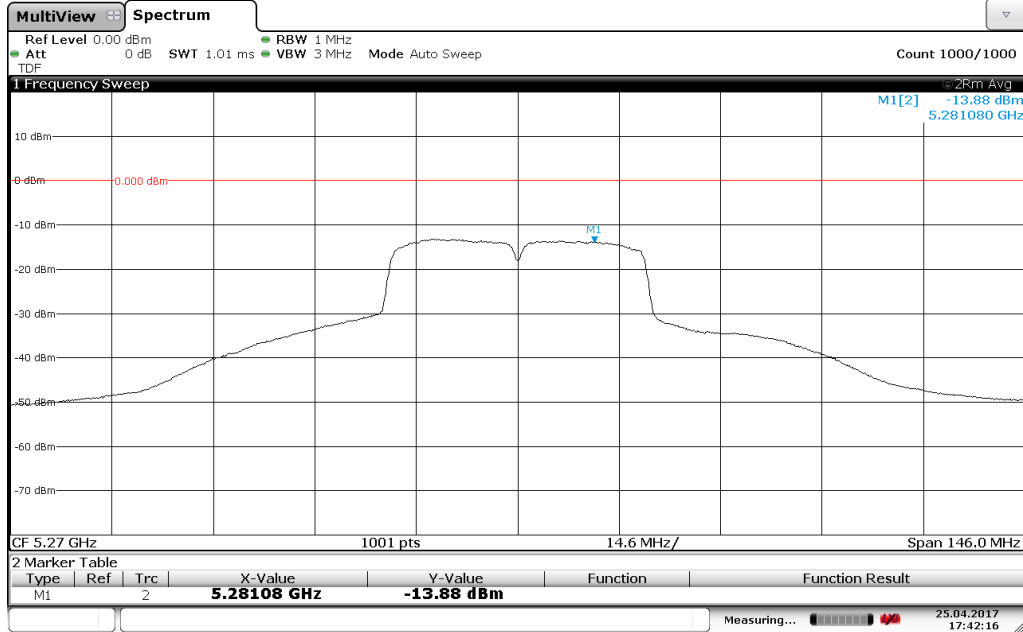
Date: 23.APR.2017 18:10:55

**High Channel – 5200 MHz, 802 11n MCS7MM 72.2 Mbps, Spectral Density: -8.14 dBm**



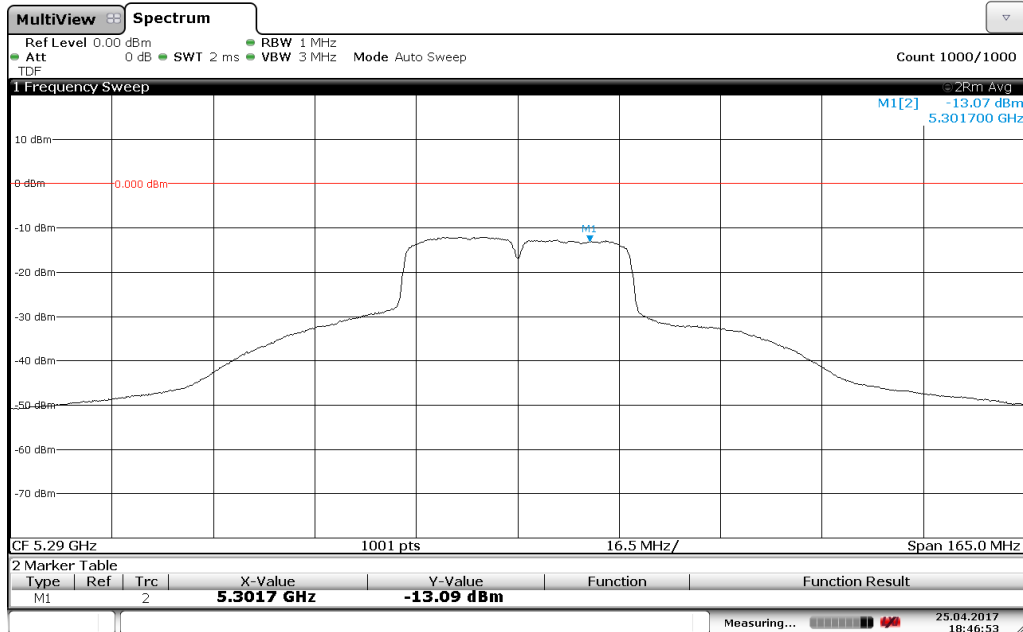
Date: 23.APR.2017 17:38:13

Low Channel – 5270 MHz, 802 11n MCS0 13.5, Spectral Density: -13.88 dBm



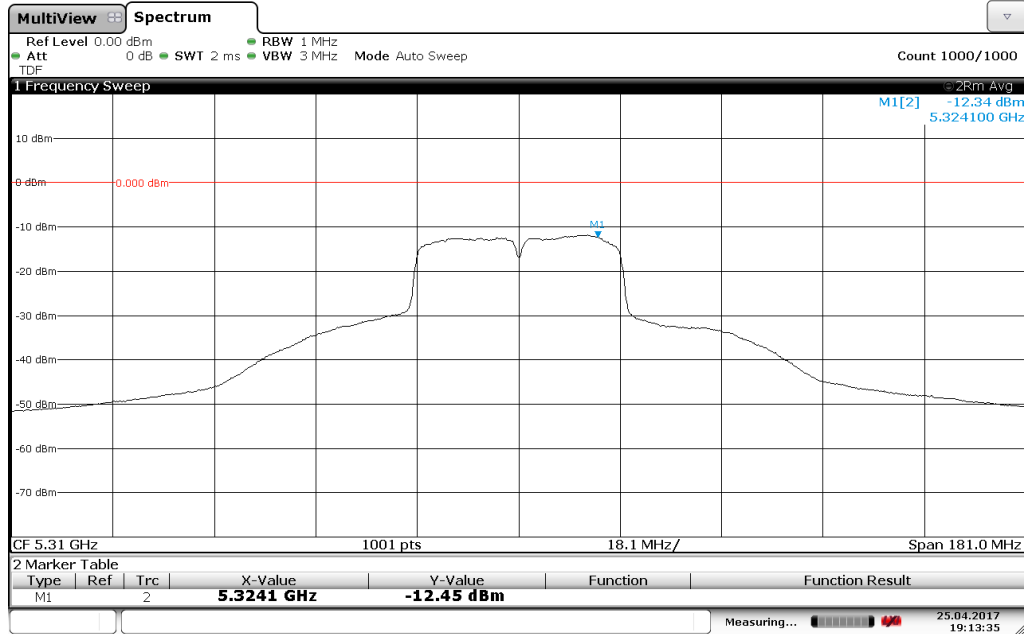
Date: 25.APR.2017 17:42:16

Mid Channel – 5290 MHz, 802 11n MCS0 13.5, Spectral Density: -13.09 dBm



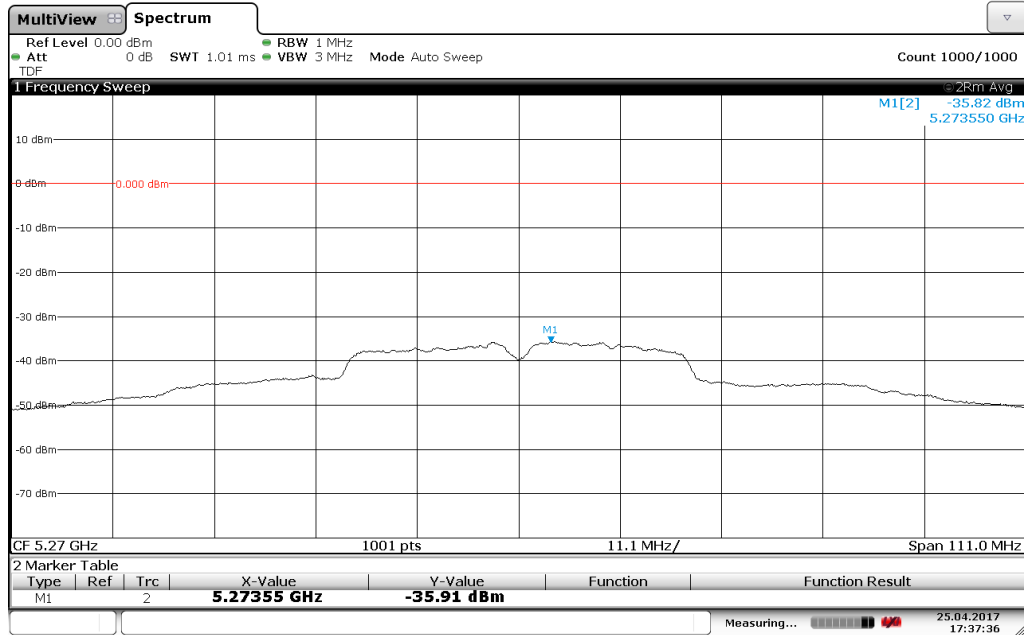
Date: 25.APR.2017 18:46:52

### High Channel – 5310 MHz, 802 11n MCS0 13.5, Spectral Density: -12.45 dBm

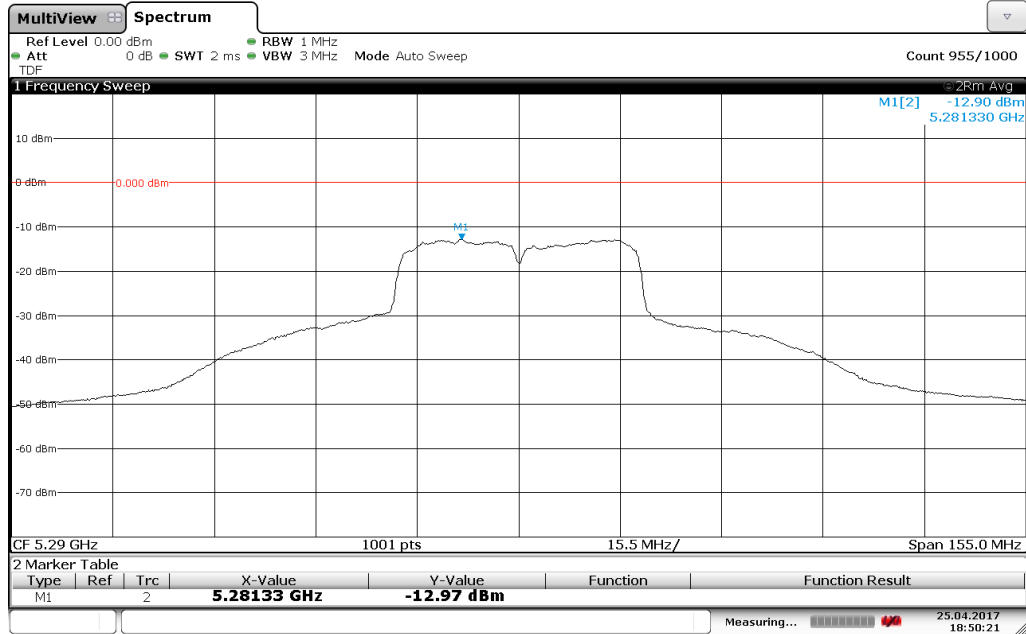


Date: 25.APR.2017 19:13:35

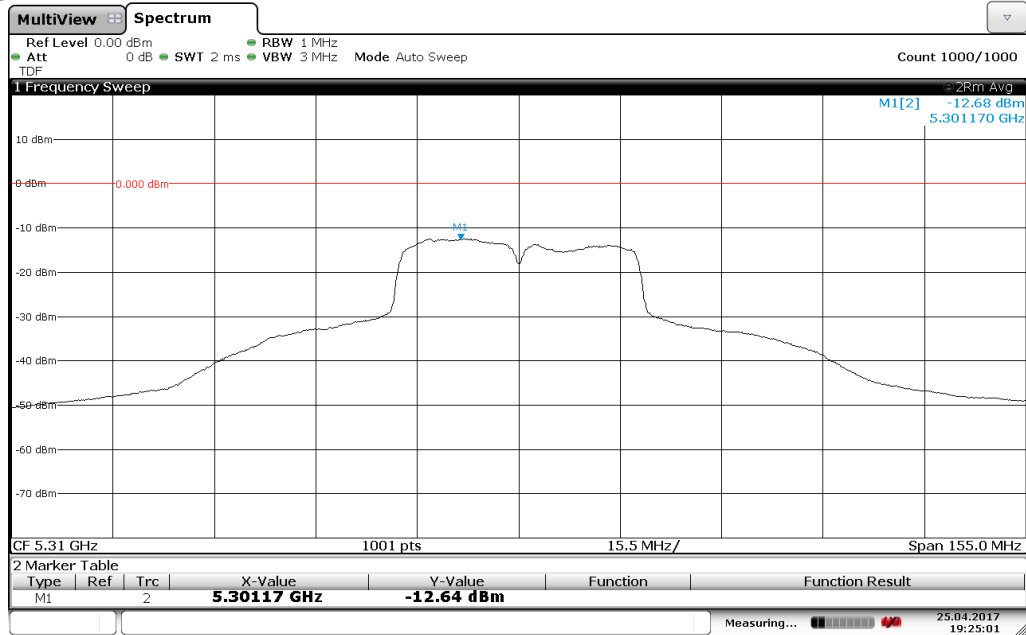
### Low Channel – 5270 MHz, 802 11n MCS0 MM SG 15 Mbps, Spectral Density: -35.91dBm



Date: 25.APR.2017 17:37:36

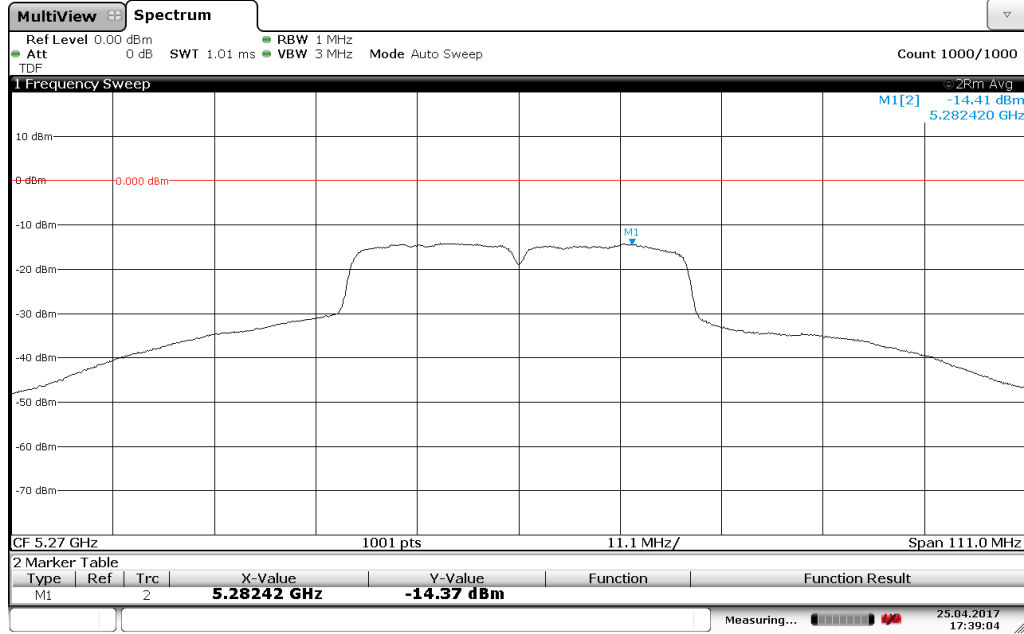
**Mid Channel – 5290 MHz, 802 11n MCS0 MM SG 15 Mbps, Spectral Density: -12.97 dBm**

Date: 25 APR.2017 18:50:21

**High Channel – 5310 MHz, 802 11n MCS0 MM SG 15 Mbps, Spectral Density: -12.64dBm**

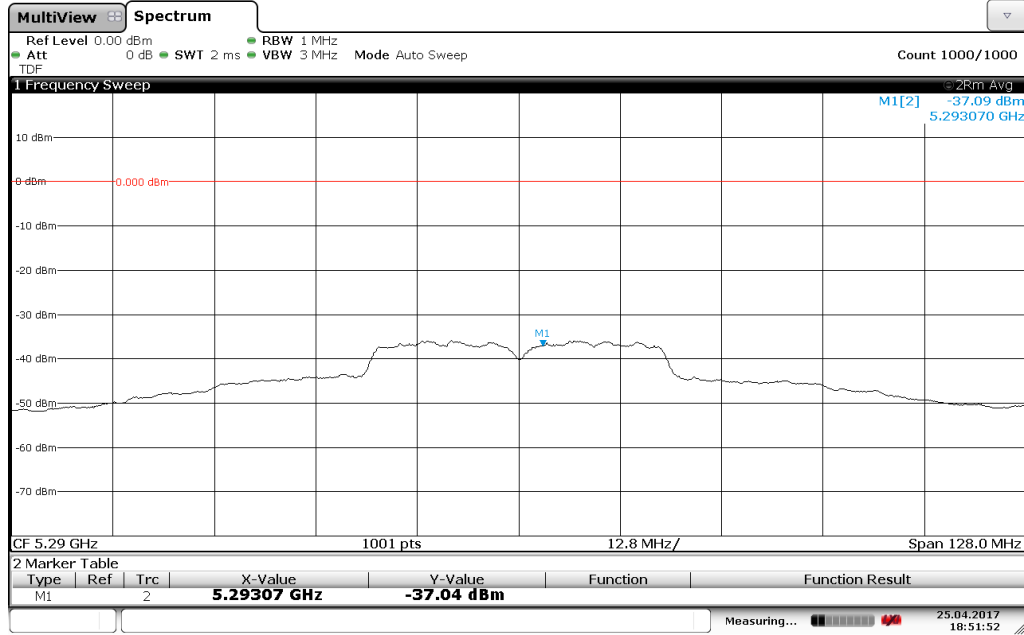
Date: 25 APR.2017 19:25:00

### Low Channel – 5270 MHz, 802 MCS0 MM SG 150 Mbps, Spectral Density: -14.37 dBm



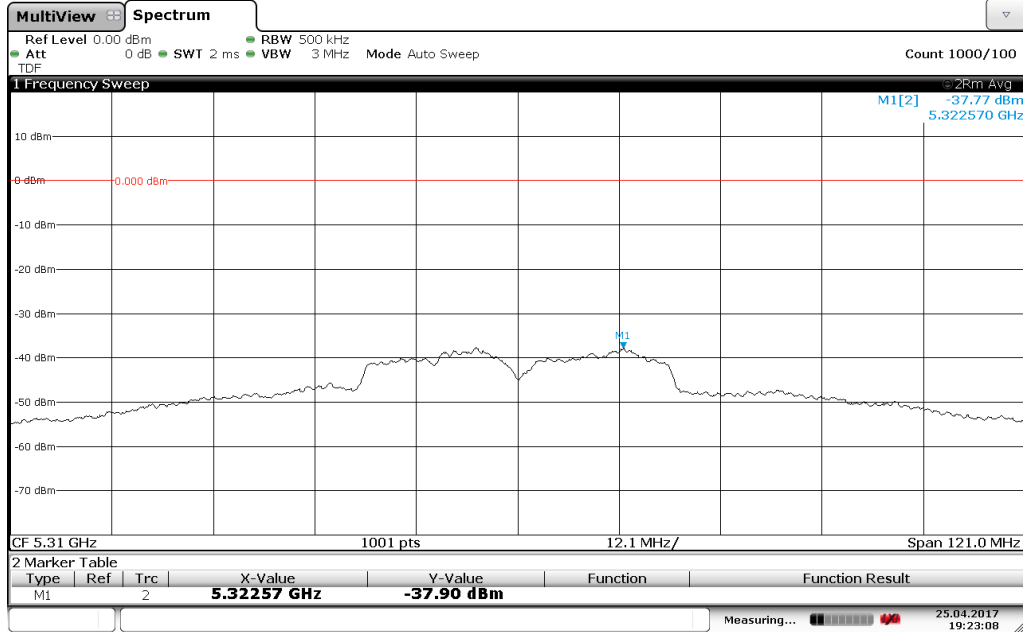
Date: 25 APR.2017 17:39:04

### Mid Channel – 5290 MHz, 802 MCS0 MM SG 150 Mbps, Spectral Density: -37.04 dBm



Date: 25 APR.2017 18:51:51

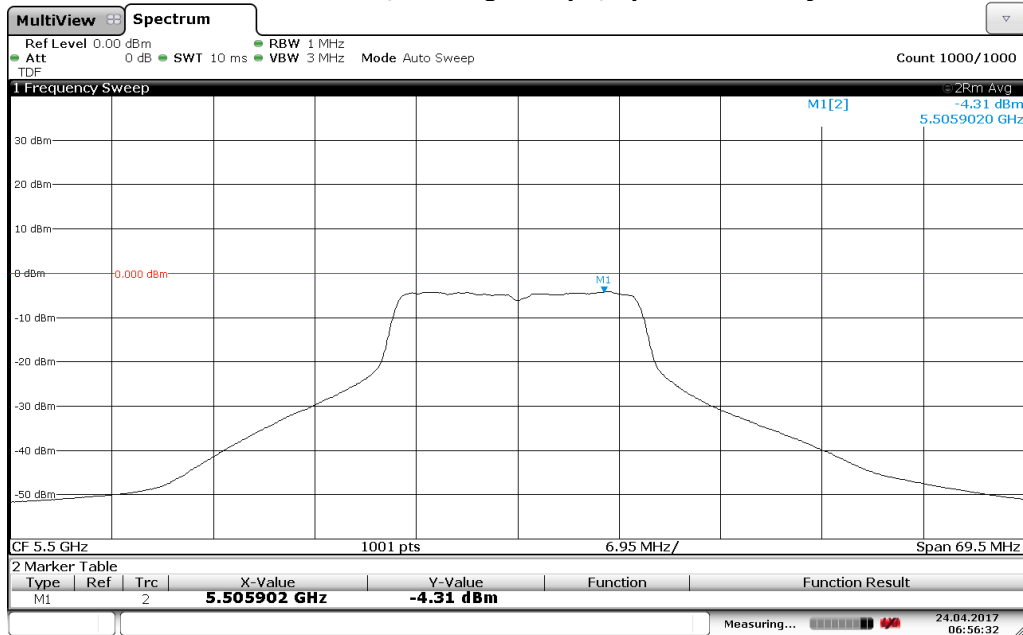
# High Channel – 5310 MHz, 802 MCS0 MM SG 150 Mbps, Spectral Density: -37.90 dBm



Date: 25 APR.2017 19:23:08

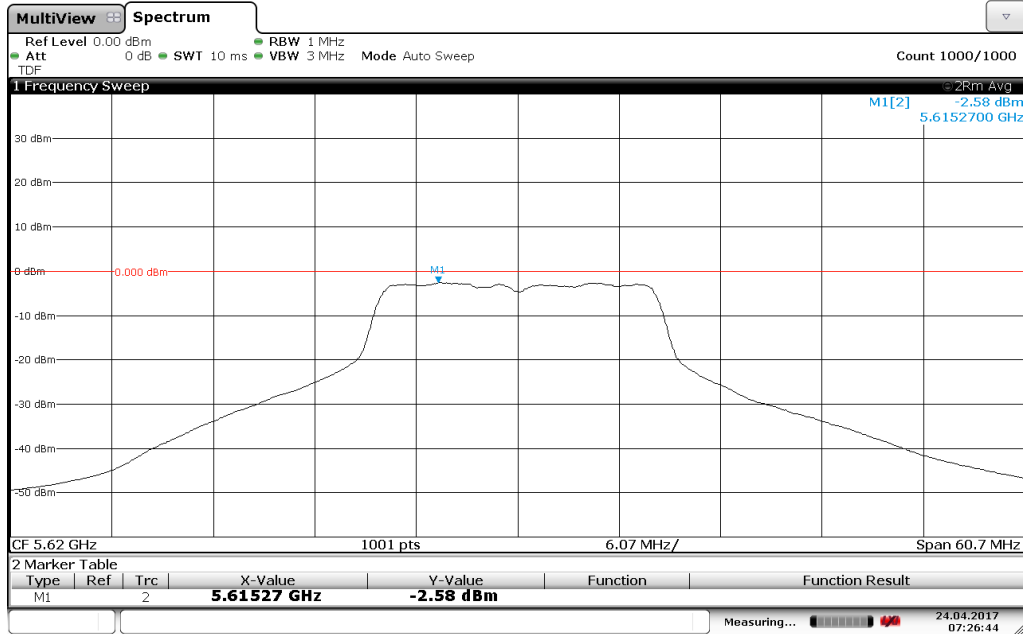
## Band 3 (20 MHz Bandwidth)

# Low Channel – 5500 MHz, 802 11g 6 Mbps, Spectral Density: -4.31 dBm



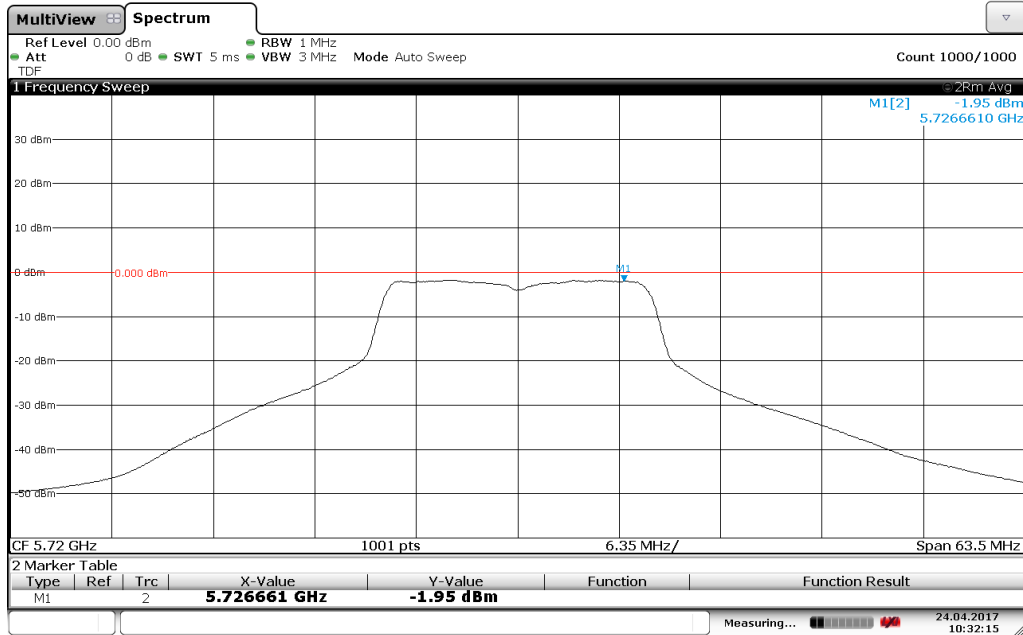
Date: 24 APR.2017 06:56:32

Mid Channel – 56200 MHz, 802 11g 6 Mbps, Spectral Density: -2.58 dBm



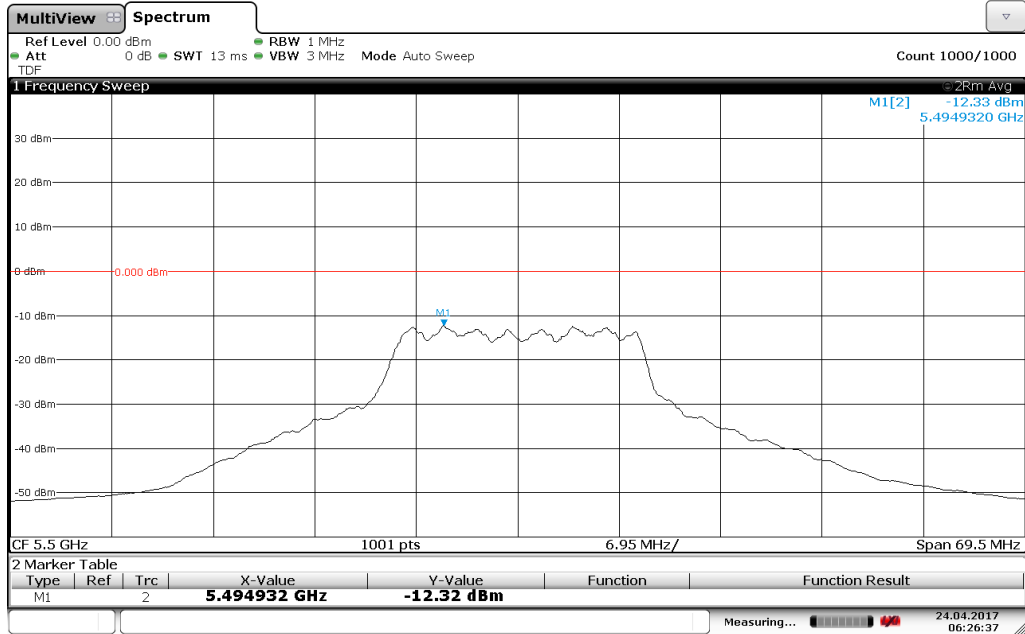
Date: 24 APR.2017 07:26:44

High Channel – 5720 MHz, 802 11g 6 Mbps, Spectral Density: -1.95 dBm



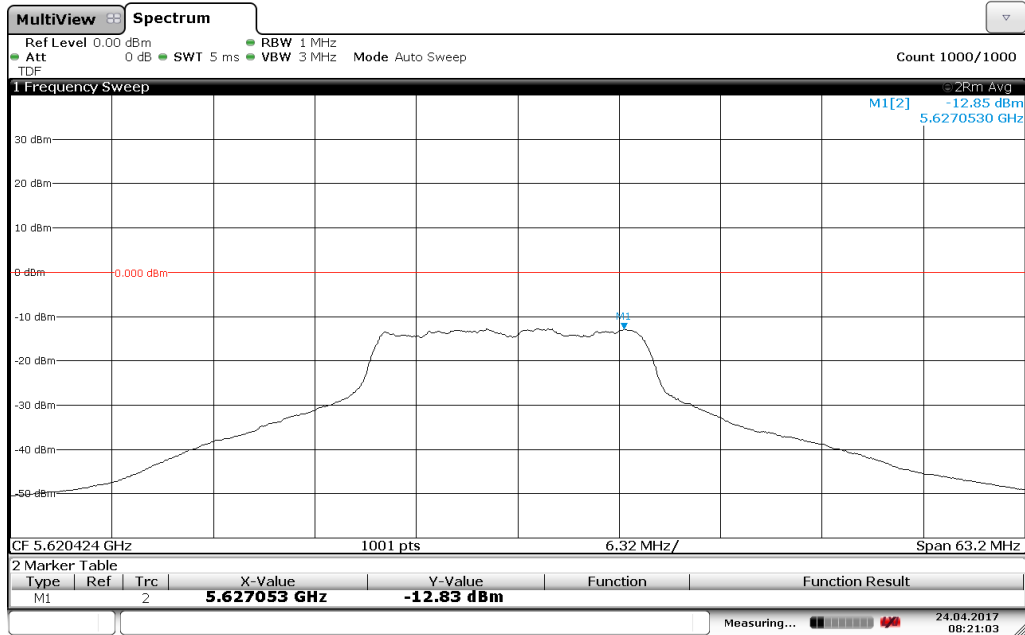
Date: 24 APR.2017 10:32:15

Low Channel – 5500MHz, 802 11g 54 Mbps, Spectral Density: -12.32 dBm



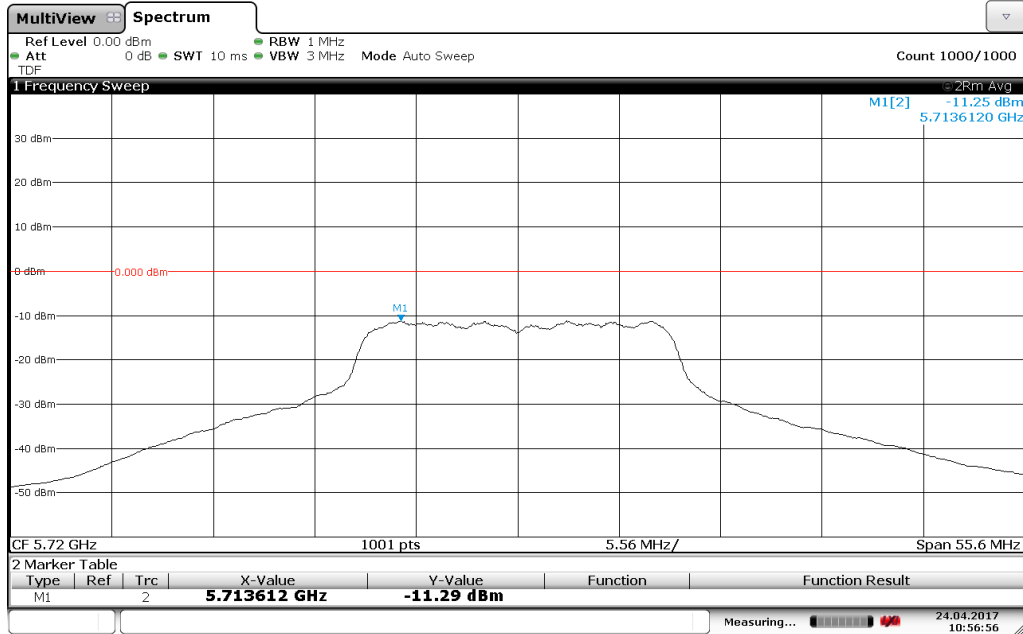
Date: 24 APR.2017 06:26:36

Mid Channel – 5620 MHz, 802 11g 54 Mbps, Spectral Density: -12.83 dBm



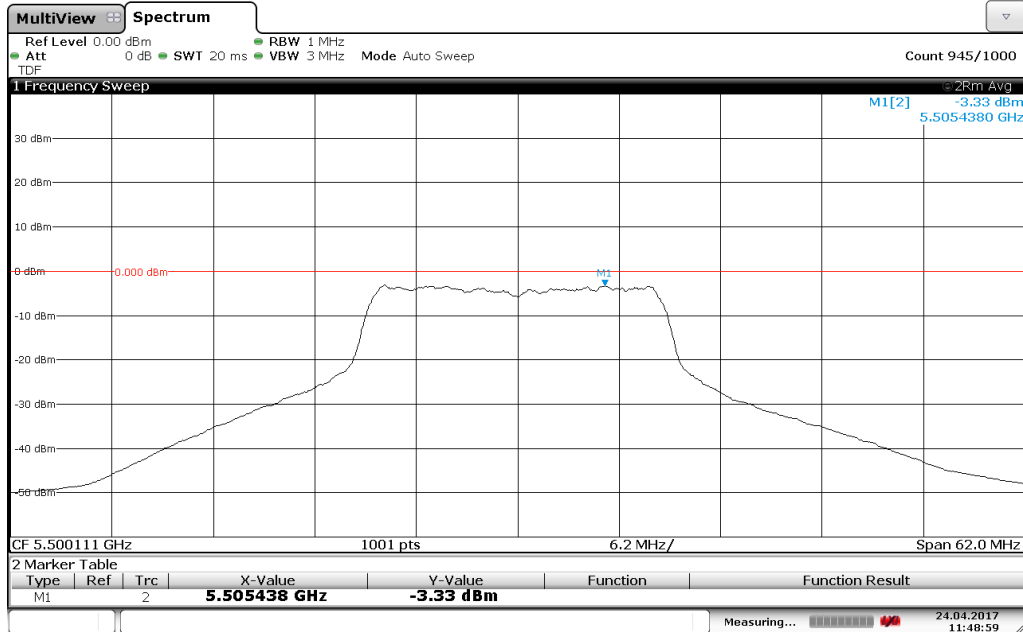
Date: 24 APR.2017 08:21:02

### High Channel – 5720 MHz, 802 11g 54 Mbps, Spectral Density: -11.29 dBm

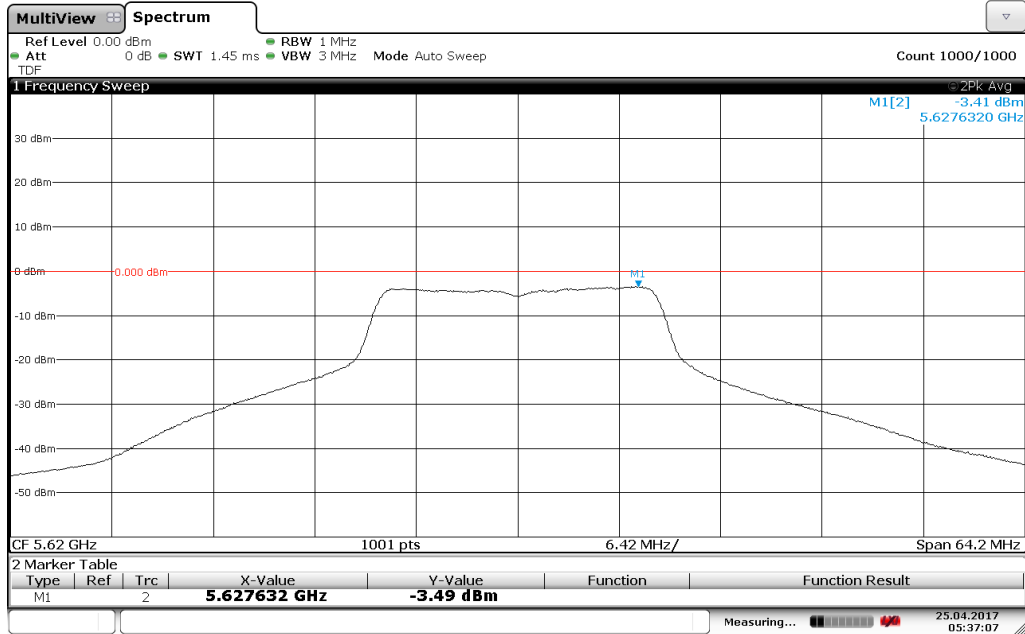


Date: 24 APR.2017 10:56:56

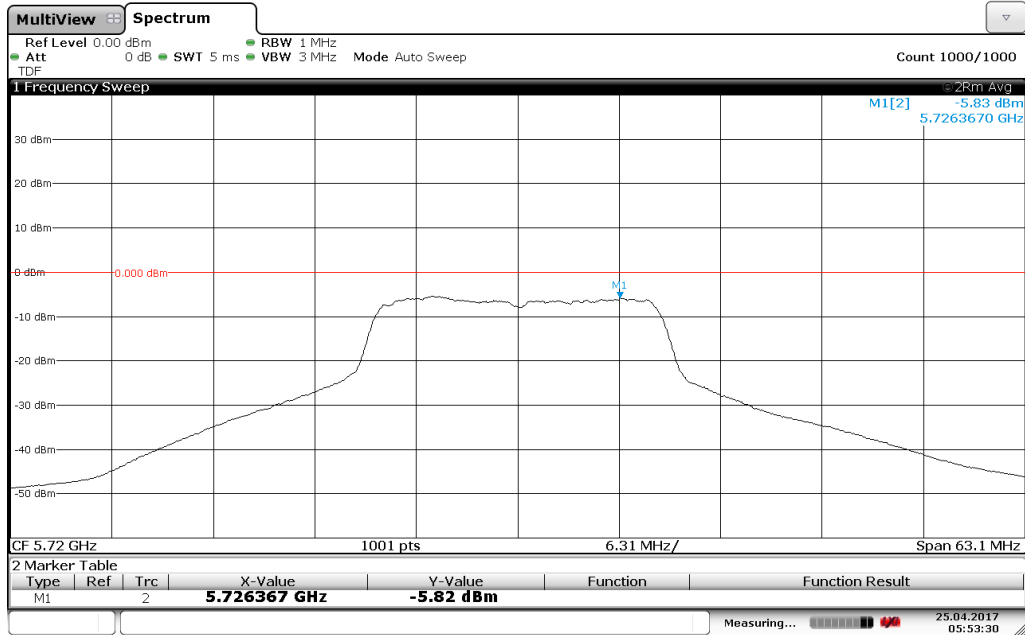
### Low Channel – 5500 MHz, 802 11n MCS0 6.5 Mbps, Spectral Density: -3.33 dBm



Date: 24 APR.2017 11:48:59

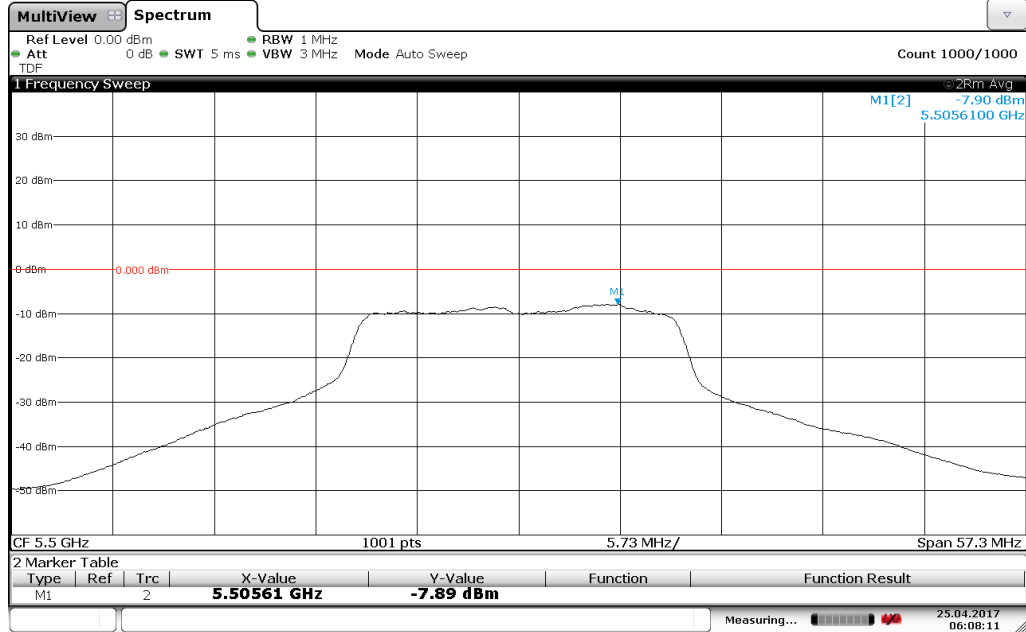
**Mid Channel – 5620 MHz, 802 11n MCS0 6.5 Mbps, Spectral Density: -3.49 dBm**

Date: 25 APR.2017 05:37:07

**High Channel – 5720 MHz, 802 11n MCS0 6.5 Mbps, Spectral Density: -5.82 dBm**

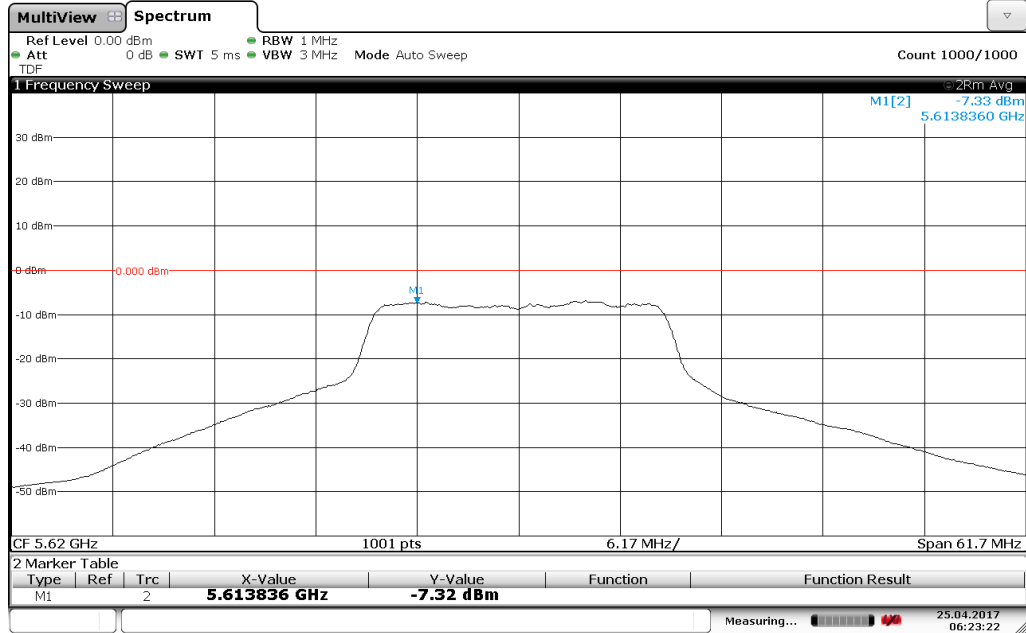
Date: 25 APR.2017 05:53:29

Low Channel – 5500 MHz, 802 11n MCS0 SG 7.2 Mbps, Spectral Density: -7.89 dBm



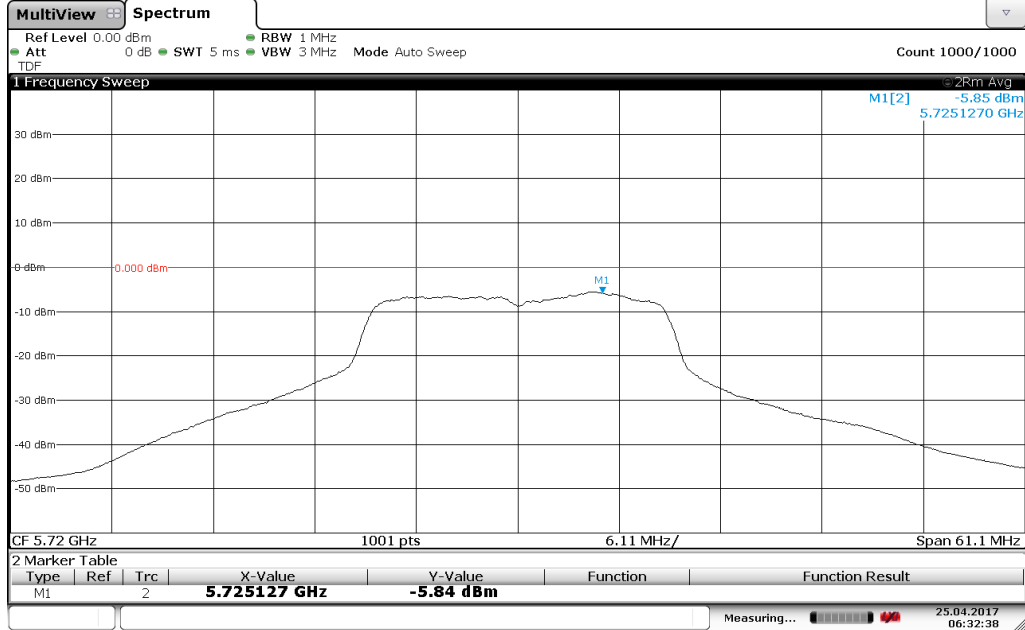
Date: 25 APR.2017 06:08:11

Mid Channel – 5620 MHz, 802 11n MCS0 SG 7.2 Mbps, Spectral Density: -7.32 dBm



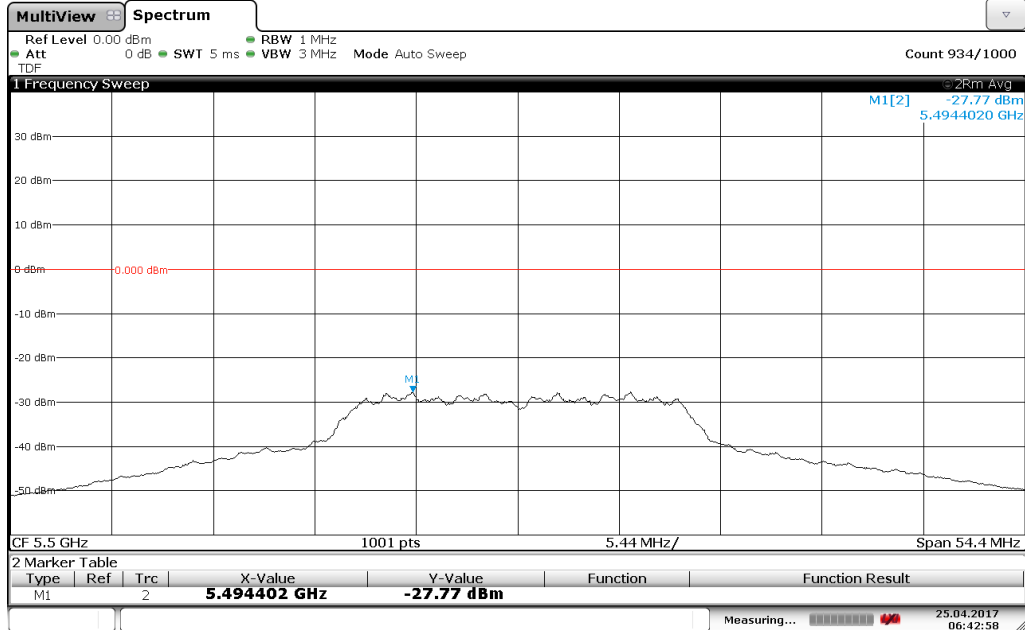
Date: 25 APR.2017 06:23:21

### High Channel – 5720 MHz, 802 11n MCS0 SG 7.2 Mbps, Spectral Density: -5.84 dBm

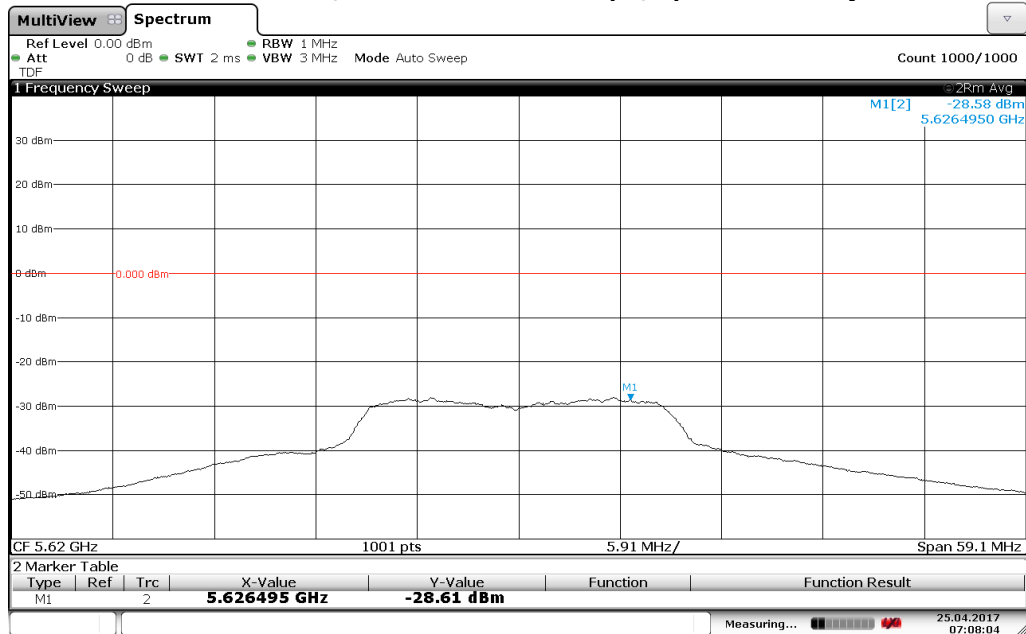


Date: 25.APR.2017 06:32:38

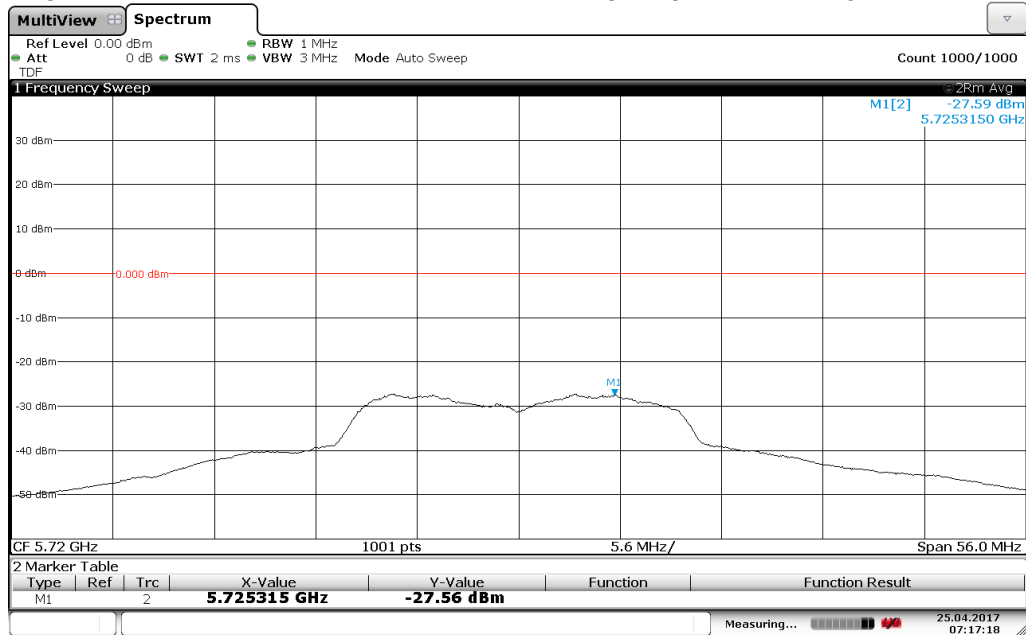
### Low Channel – 5500 MHz, 802 11n MCS7 65 Mbps, Spectral Density: -27.77 dBm



Date: 25.APR.2017 06:42:58

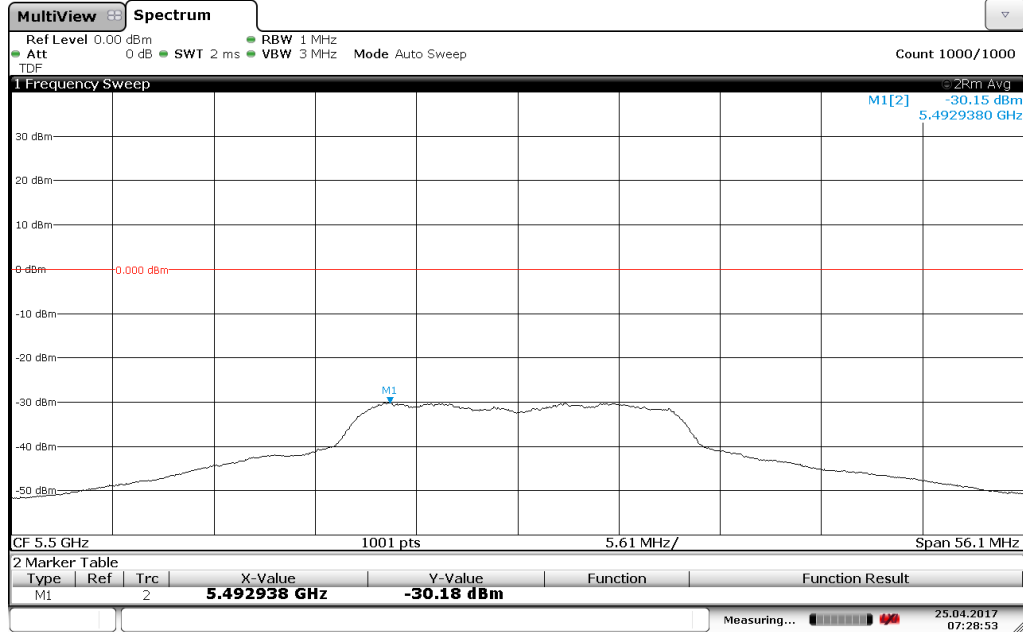
**Mid Channel – 5620 MHz, 802 11n MCS7 65 Mbps, Spectral Density: -28.61dBm**

Date: 25 APR. 2017 07:08:04

**High Channel – 5720 MHz, 80211n MCS7 65 Mbps, Spectral Density: -27.56 dBm**

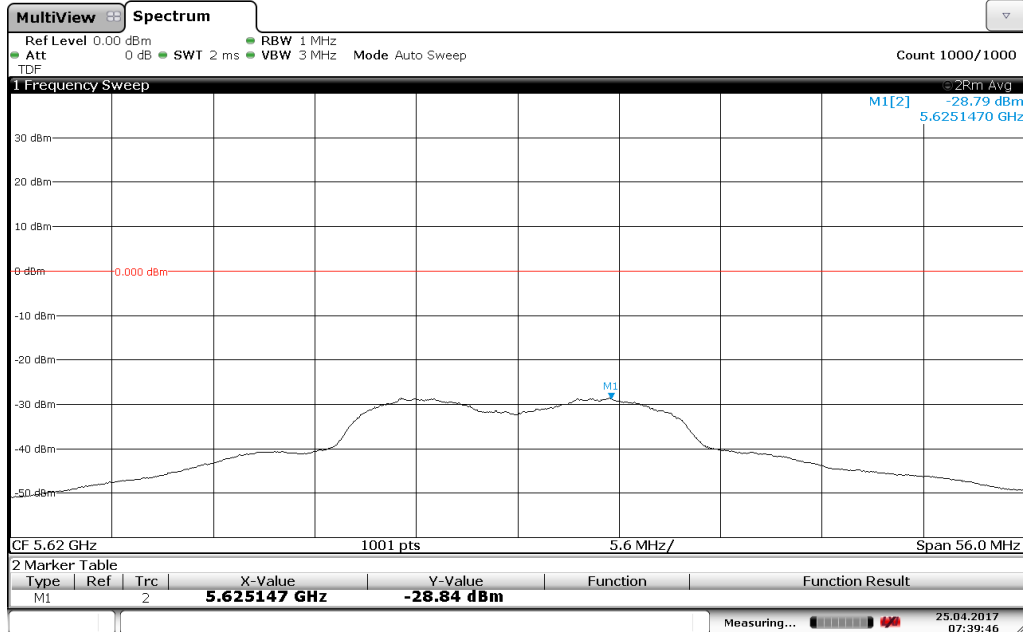
Date: 25 APR. 2017 07:17:18

**Low Channel – 5500 MHz, 802 11n MCS7 MM SG 72.2 Mbps, Spectral Density: -30.18 dBm**



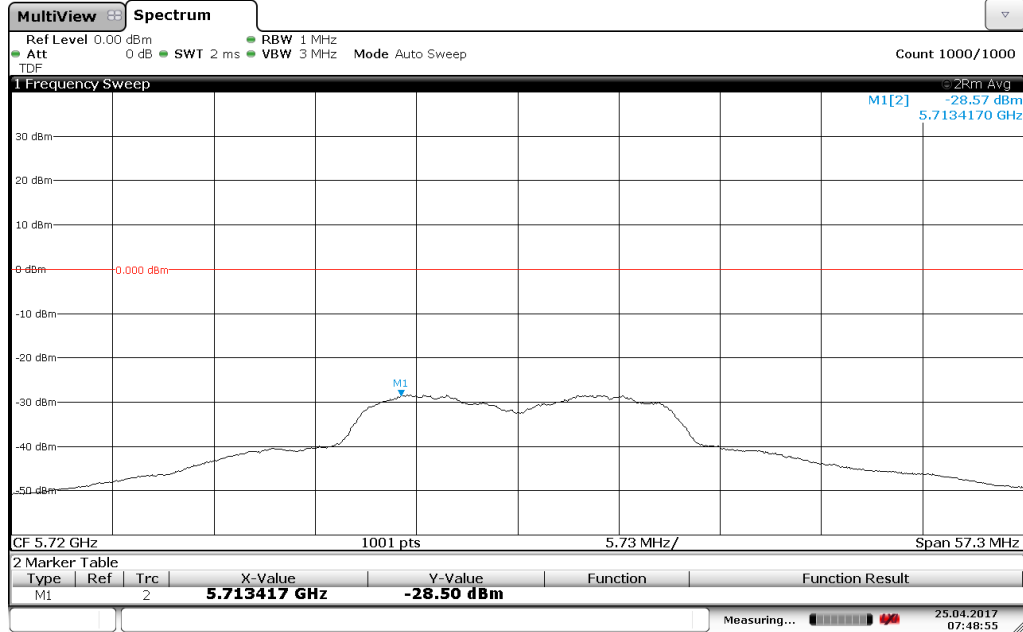
Date: 25.APR.2017 07:28:53

**Mid Channel – 5620 MHz, 802 11n MCS7 MM SG 72.2 Mbps, Spectral Density: -28.84 dBm**



Date: 25.APR.2017 07:39:46

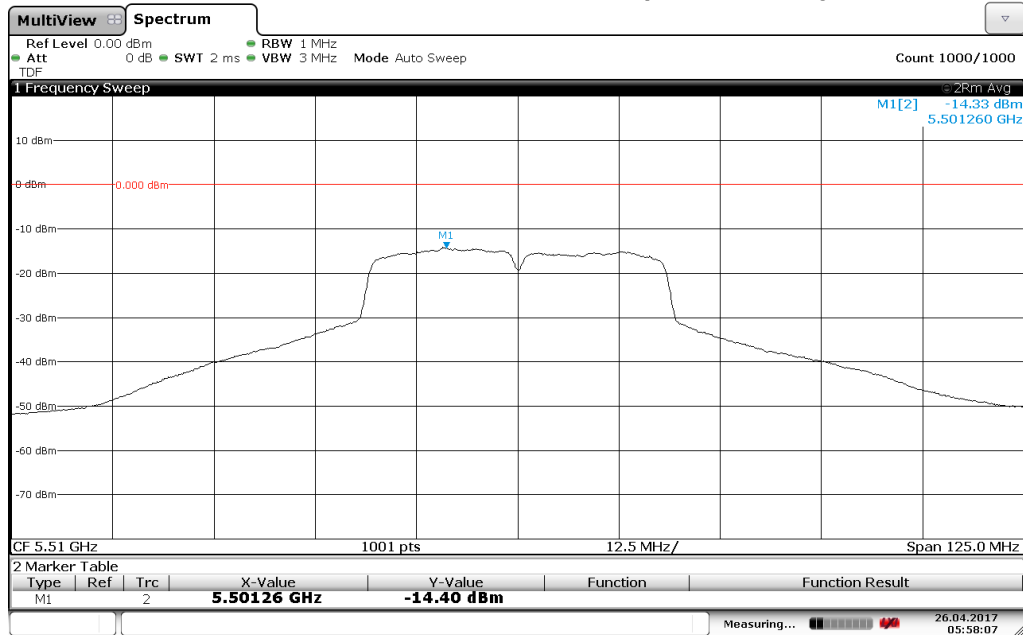
### High Channel – 5720 MHz, 802 11n MCS7 MM SG 72.2 Mbps, Spectral Density: -28.50 dBm



Date: 25.APR.2017 07:48:56

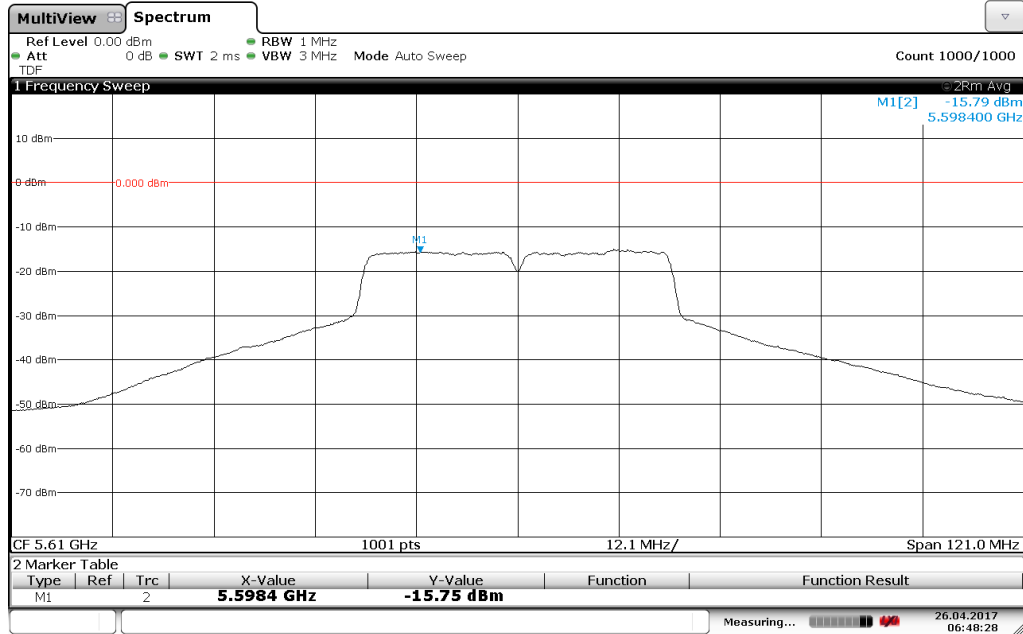
### Band 3 (40 MHz Bandwidth)

### Low Channel – 5510 MHz, 802 11n MCS0 13.5, Spectral Density: -14.40 dBm



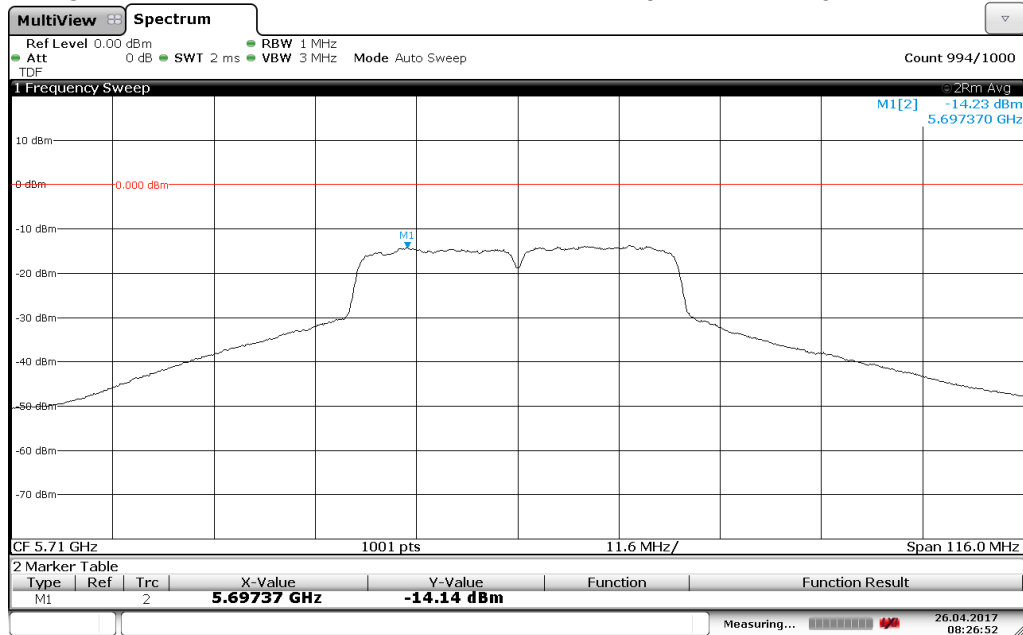
Date: 26.APR.2017 05:58:07

### Mid Channel – 5610 MHz, 802 11n MCS0 13.5, Spectral Density: -15.75 dBm



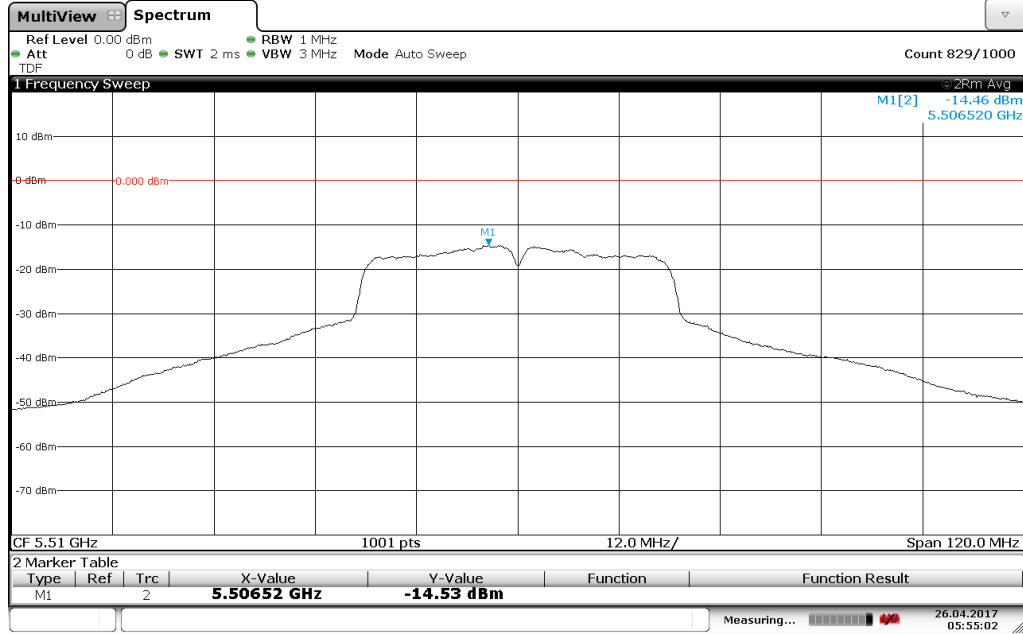
Date: 26.APR.2017 06:48:27

### High Channel – 5710 MHz, 802 11n MCS0 13.5, Spectral Density: -14.14 dBm



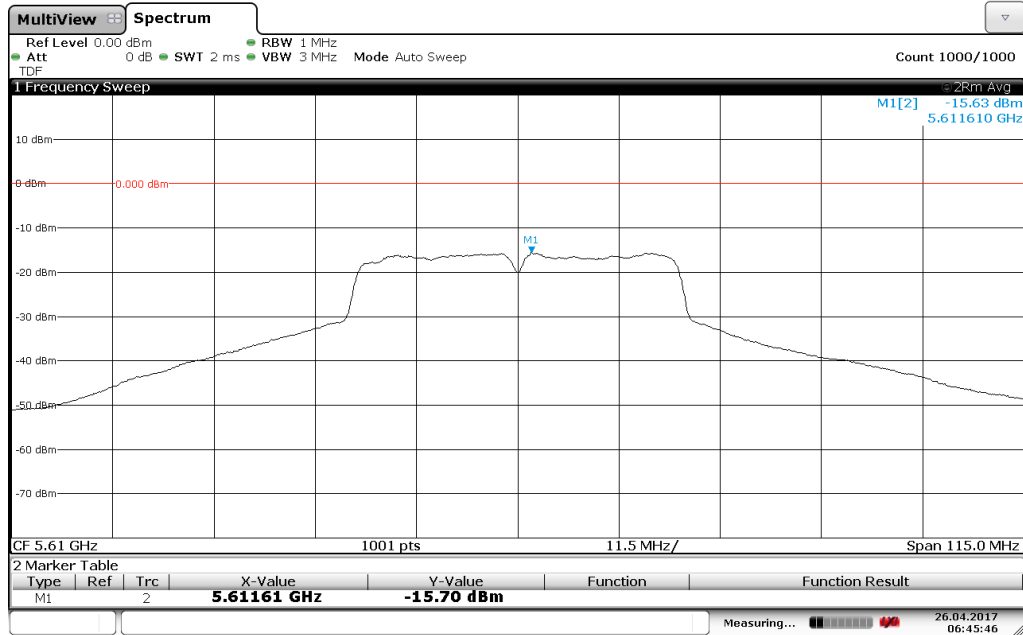
Date: 26.APR.2017 08:26:52

**Low Channel – 5510 MHz, 802 11n MCS0 MM SG 15 Mbps, Spectral Density: -14.53 dBm**

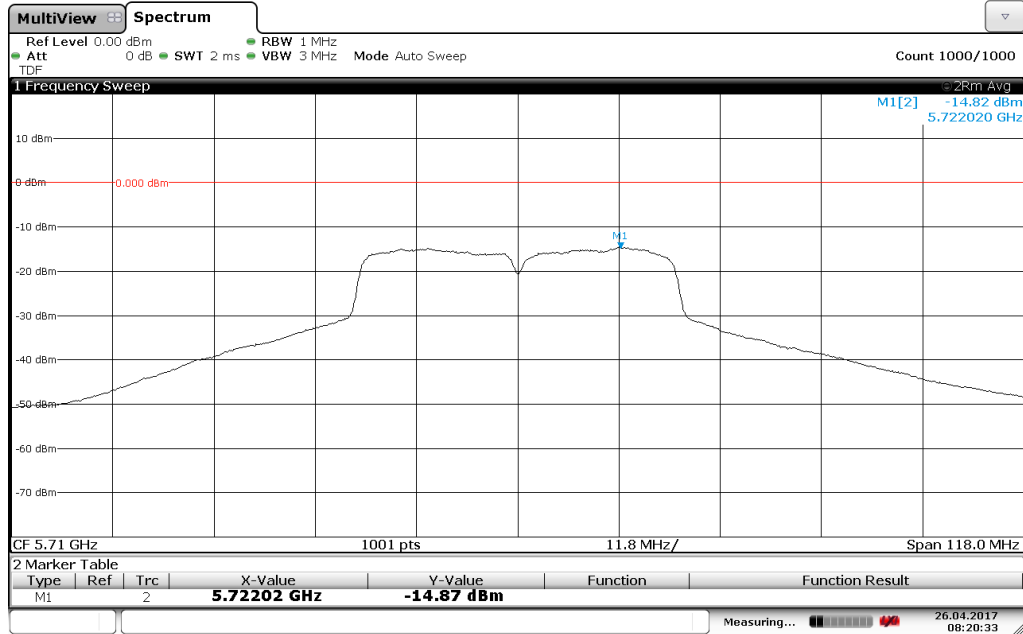


Date: 26.APR.2017 05:55:01

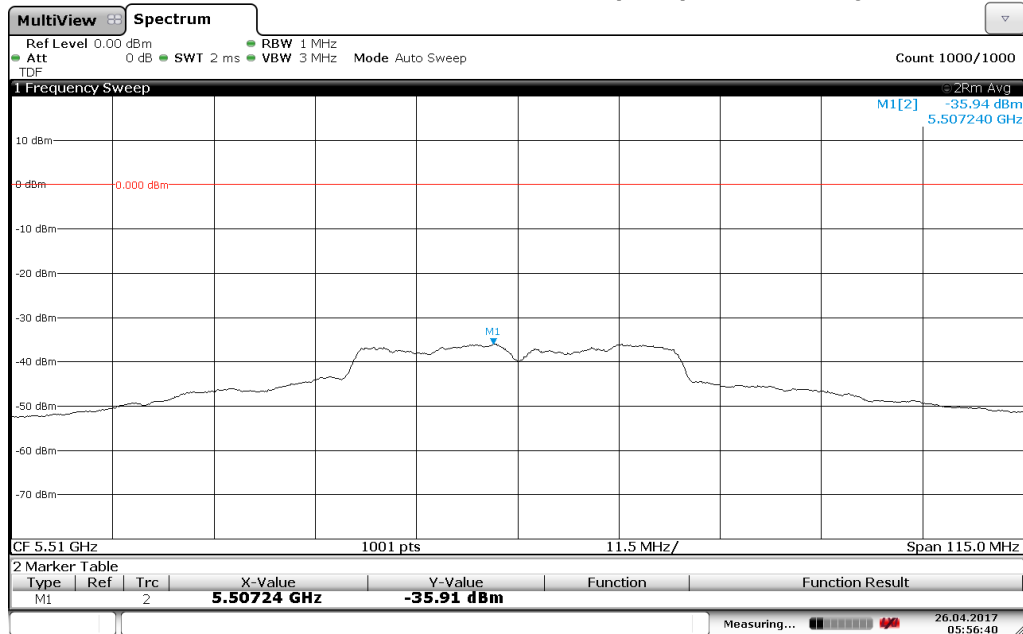
**Mid Channel – 5610 MHz, 802 11n MCS0 MM SG 15 Mbps, Spectral Density: -15.70 dBm**



Date: 26.APR.2017 06:45:45

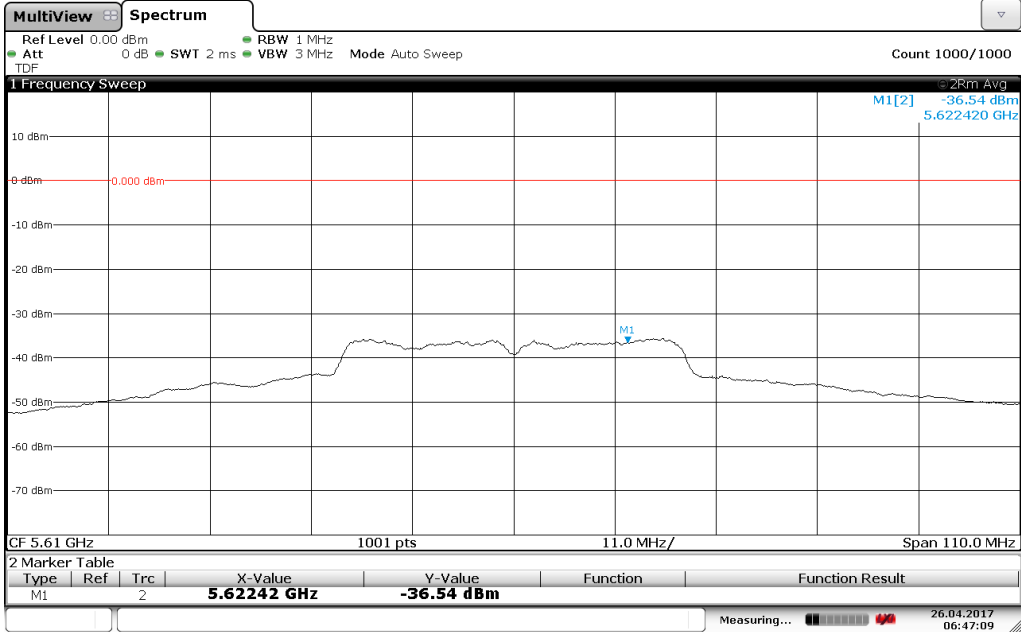
**High Channel – 5710 MHz, 802 11n MCS0 MM SG 15 Mbps, Spectral Density: -14.87 dBm**

Date: 26.APR.2017 08:20:33

**Low Channel – 5510 MHz, 802 11n MCS7 135 Mbps, Spectral Density: -35.91 dBm**

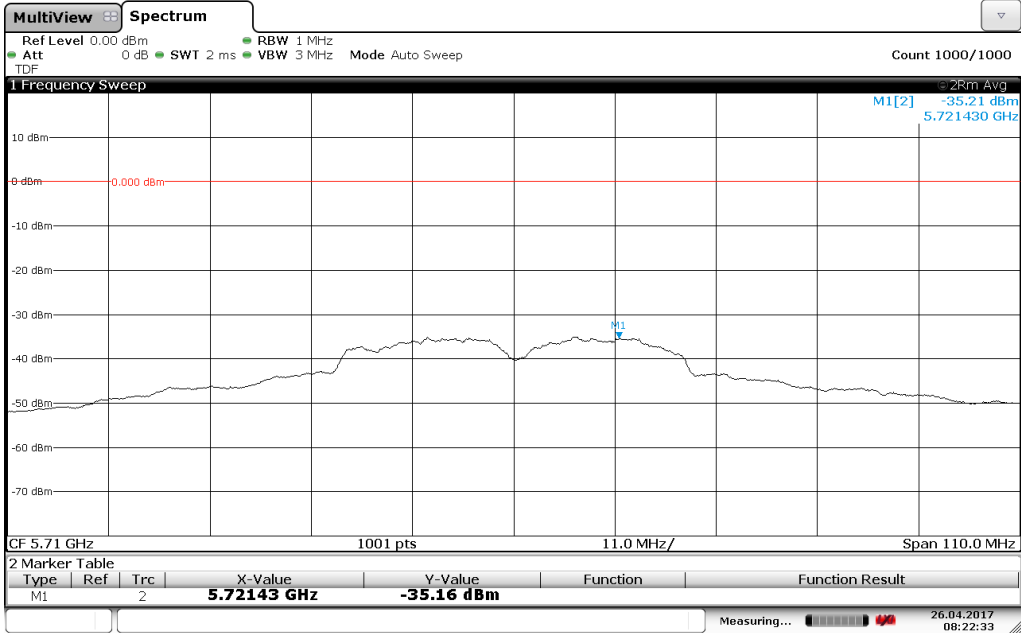
Date: 26.APR.2017 05:56:40

### Mid Channel – 5610MHz, 802 11n MCS7 135 Mbps, Spectral Density: -36.54 dBm



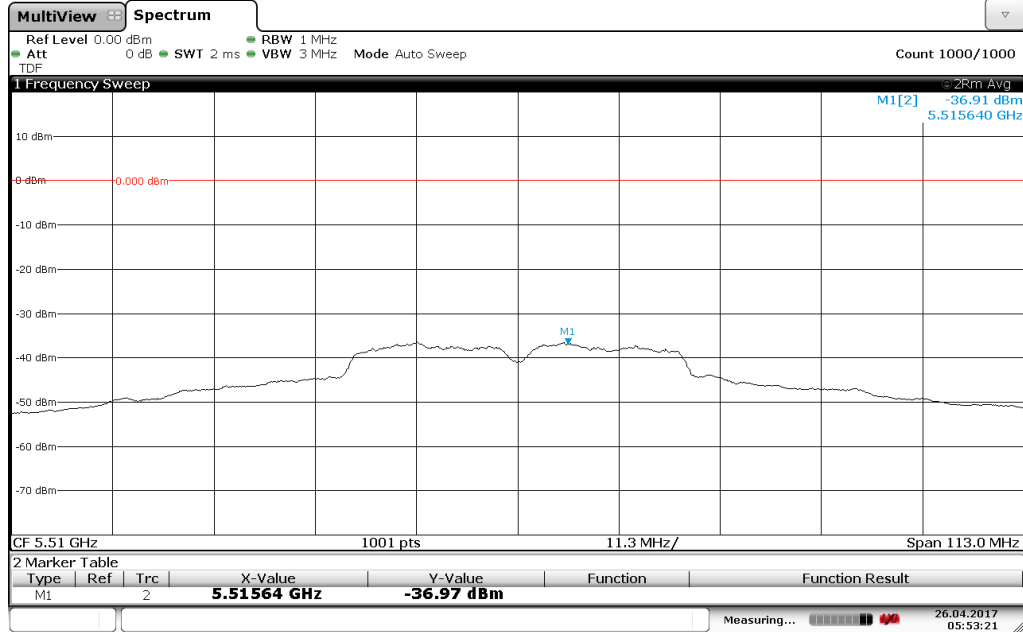
Date: 26.APR.2017 06:47:08

### High Channel – 5710 MHz, 802 11n MCS7 135 Mbps, Spectral Density: -35.16 dBm



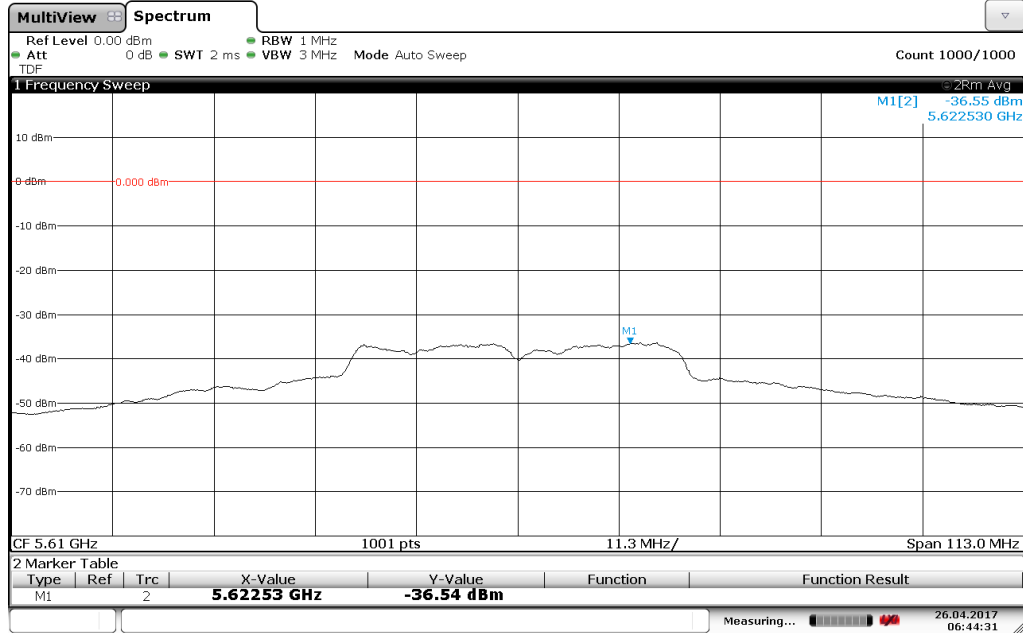
Date: 26.APR.2017 08:22:33

**Low Channel – 5510 MHz, 802 11n MCS7 MM SG 150 Mbps, Spectral Density: -36.97 dBm**



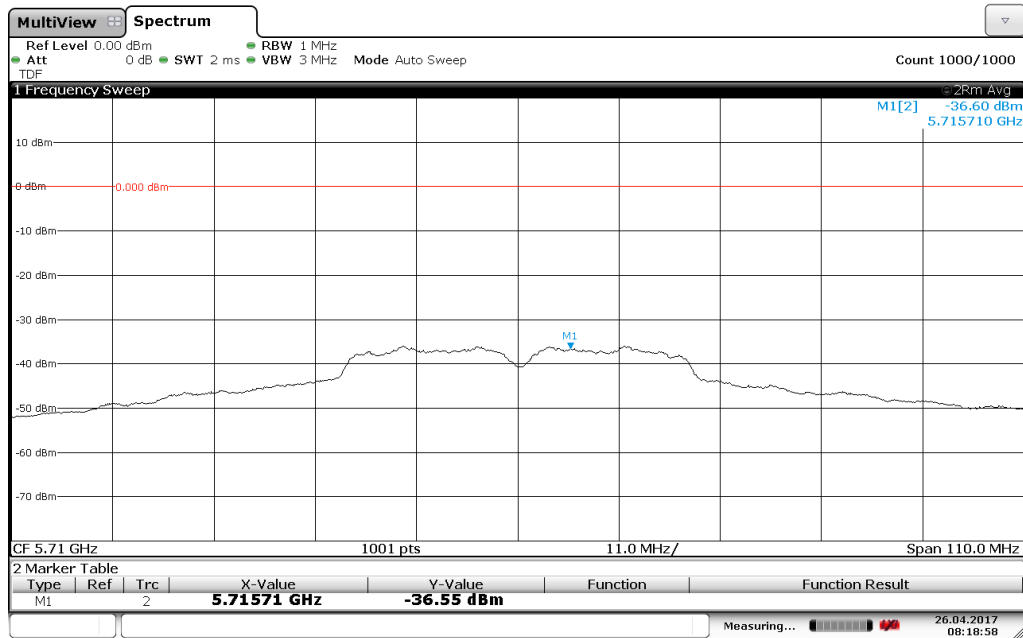
Date: 26.APR.2017 05:53:21

**Mid Channel – 5610 MHz, 802 11n MCS7 MM SG 150 Mbps, Spectral Density: -36.54 dBm**



Date: 26.APR.2017 06:44:30

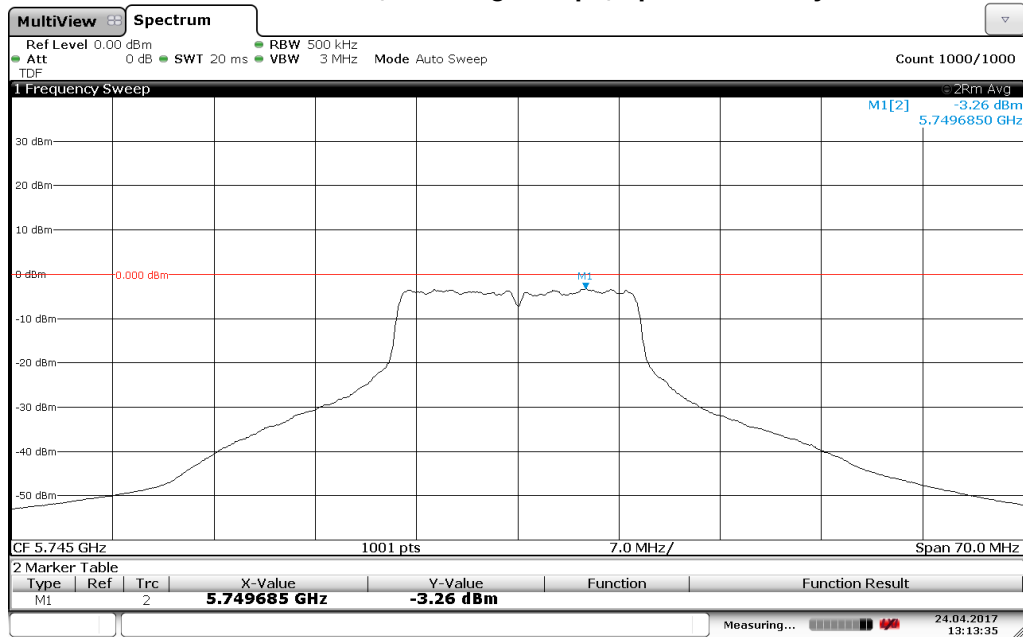
# High Channel – 5710 MHz, 802 11n MCS7 MM SG 150 Mbps, Spectral Density: -36.55 dBm



Date: 26.APR.2017 08:18:57

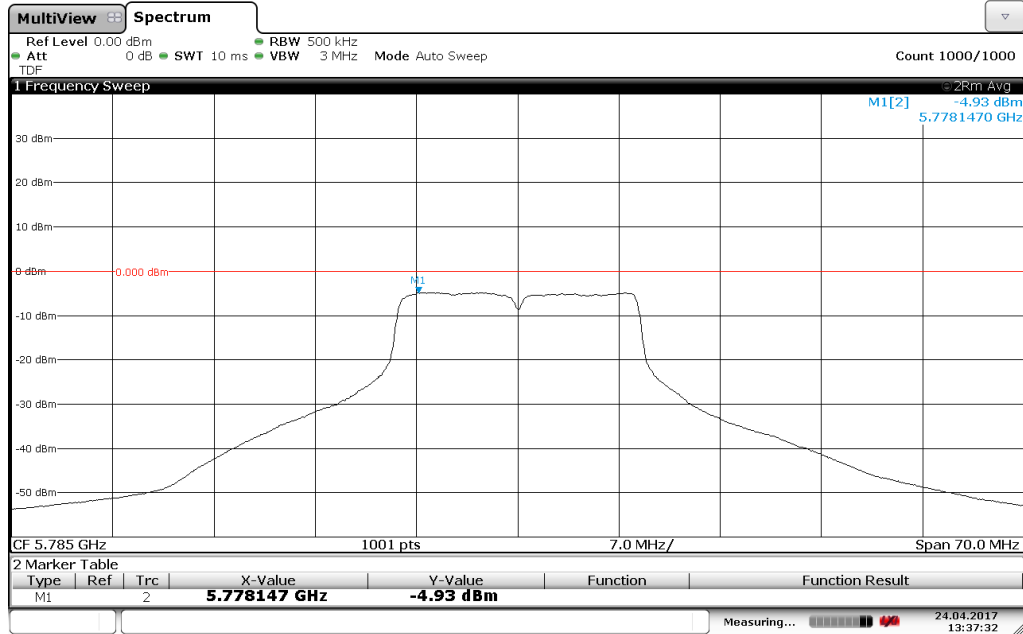
## Band 4 (20 MHz Bandwidth)

# Low Channel – 5745 MHz, 802 11ag 6 Mbps, Spectral Density: -3.26 dBm



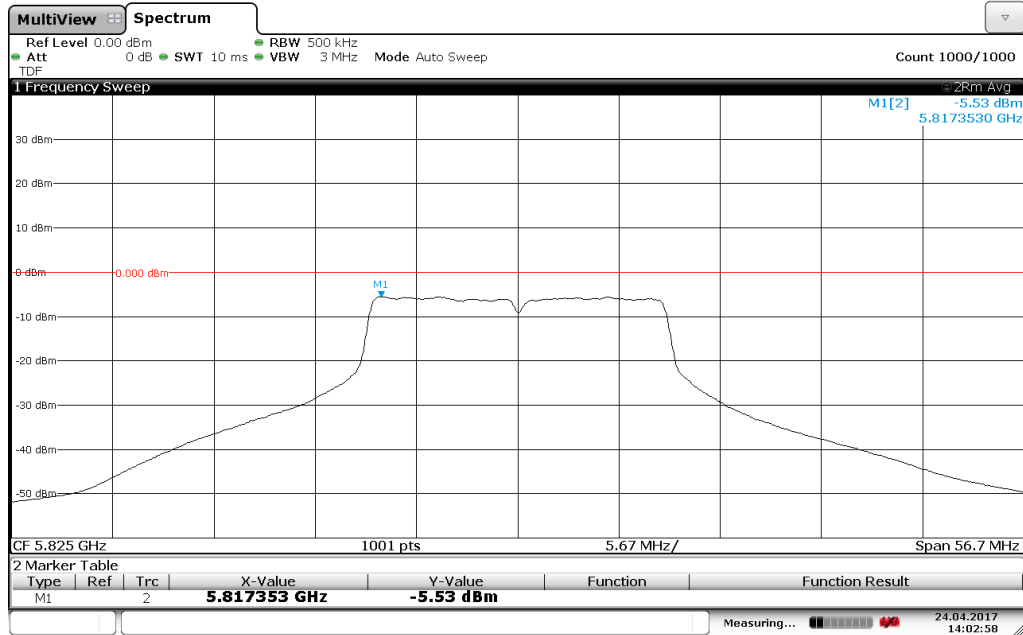
Date: 24.APR.2017 13:13:34

### Mid Channel – 5785 MHz, 802 11ag 6 Mbps, Spectral Density: -4.93 dBm



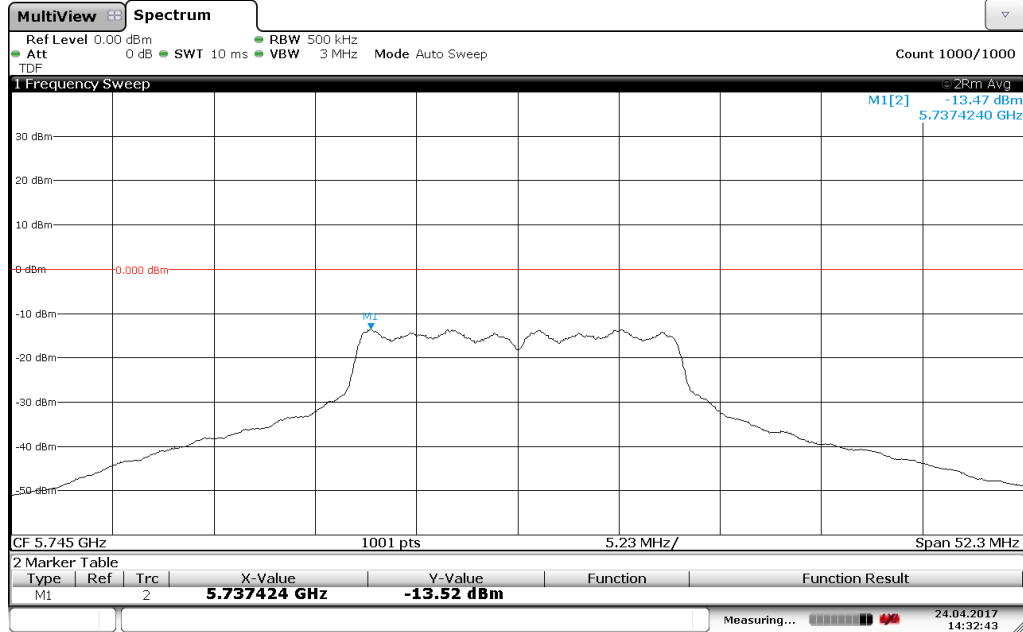
Date: 24 APR.2017 13:37:31

### High Channel – 5825 MHz, 802 11ag 6 Mbps, Spectral Density: -5.53 dBm



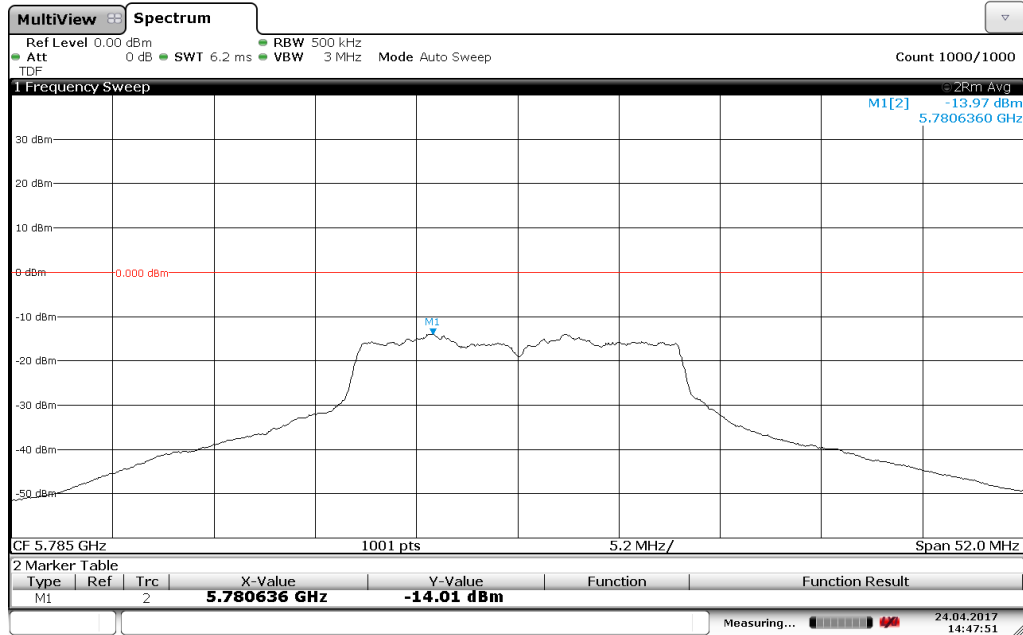
Date: 24 APR.2017 14:02:58

### Low Channel – 5745 MHz, 802 11ag 54 Mbps, Spectral Density: -13.52 dBm



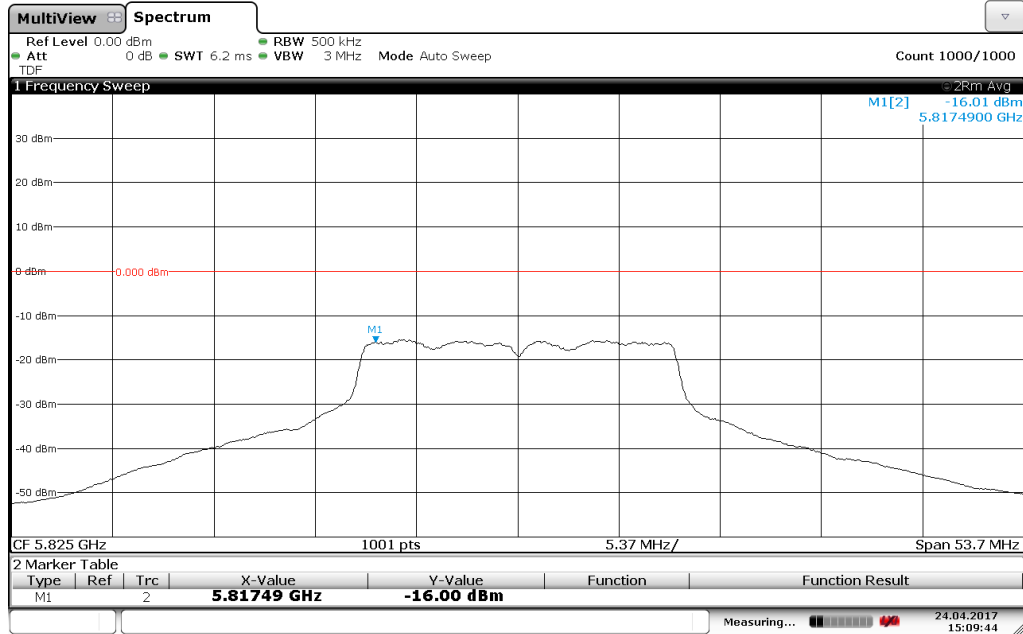
Date: 24 APR.2017 14:32:43

### Mid Channel – 5785 MHz, 802 11ag 54 Mbps, Spectral Density: -14.01 dBm



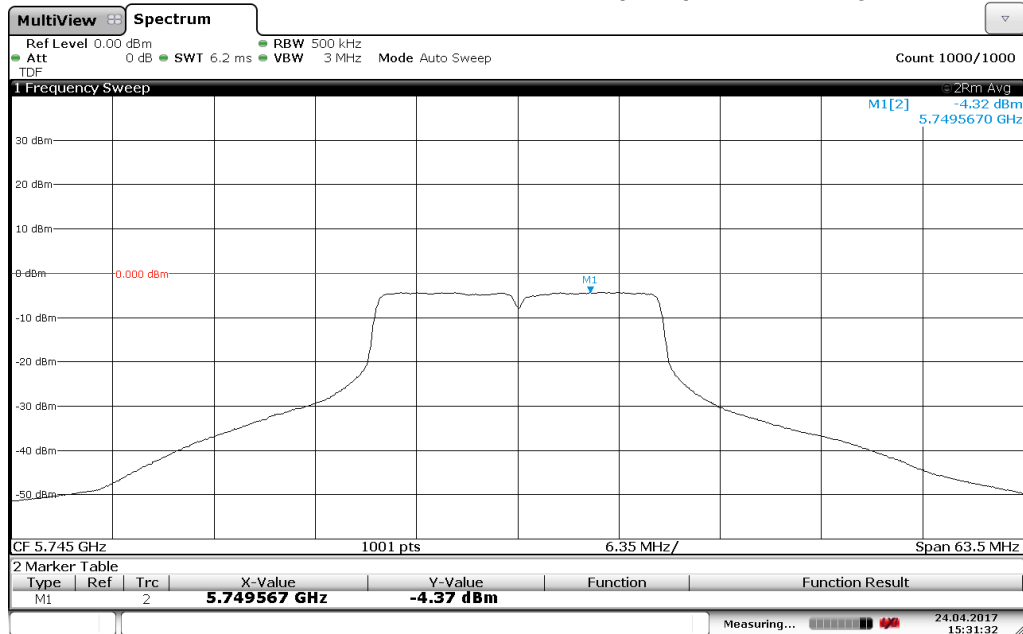
Date: 24 APR.2017 14:47:50

### High Channel – 5825 MHz, 802 11ag 54 Mbps, Spectral Density: -16.00 dBm

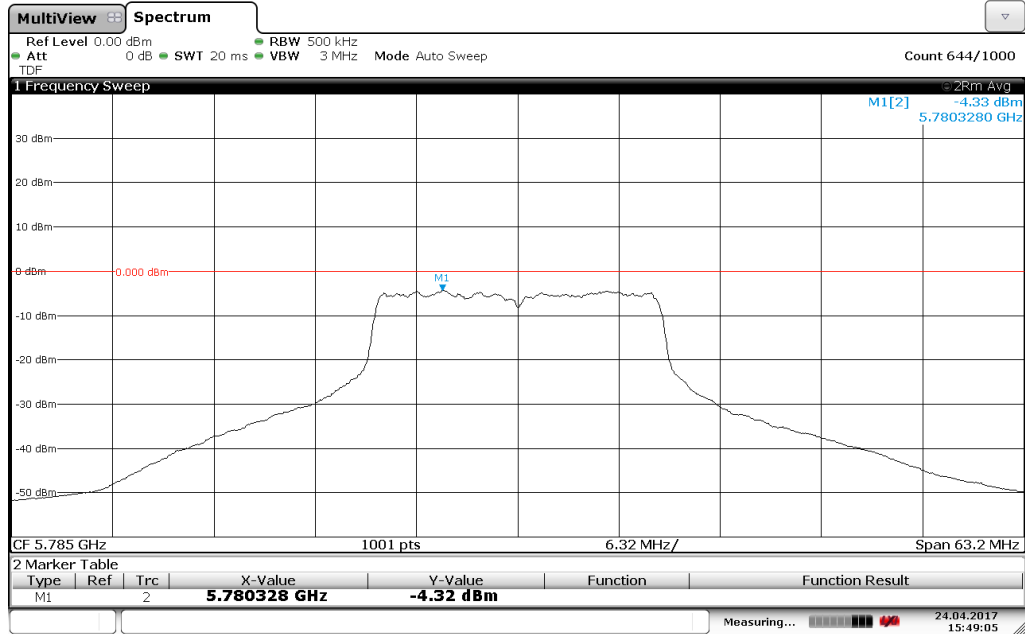


Date: 24 APR.2017 15:09:43

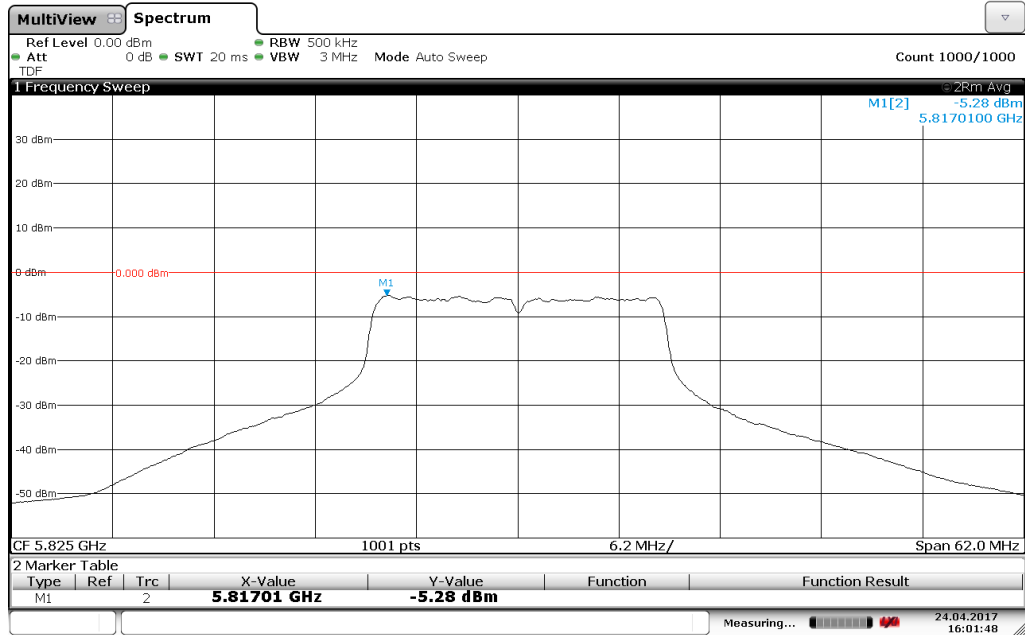
### Low Channel – 5745 MHz, 802 11n MCS0 6.5 Mbps, Spectral Density: -4.37 dBm



Date: 24 APR.2017 15:31:32

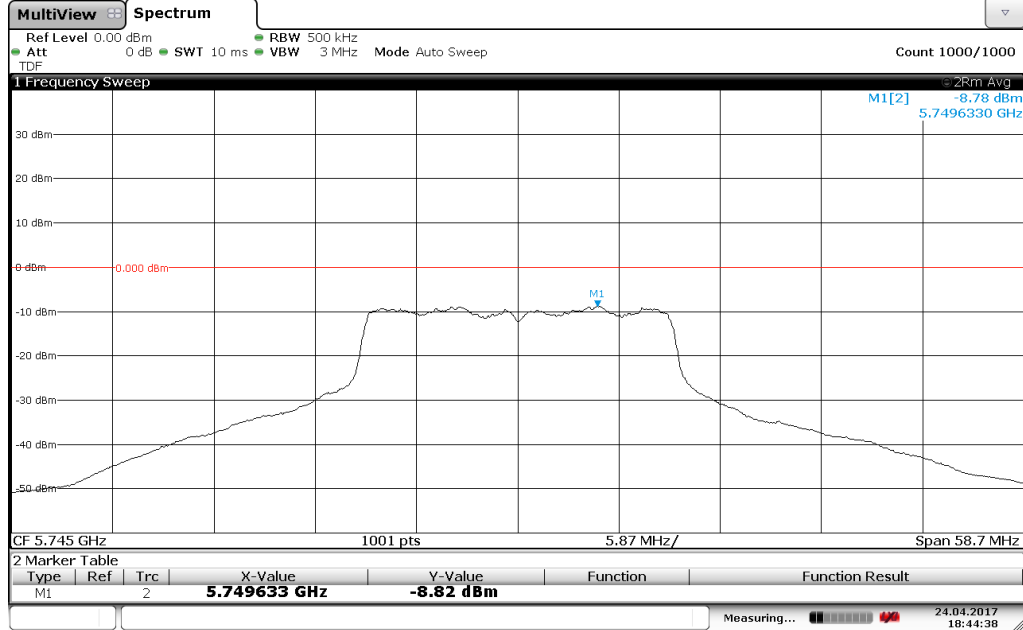
**Mid Channel – 5785 MHz, 802 11n MCS0 6.5 Mbps, Spectral Density: -4.32 dBm**

Date: 24 APR.2017 15:49:05

**High Channel – 5825 MHz, 802 11n MCS0 6.5 Mbps, Spectral Density: -5.28 dBm**

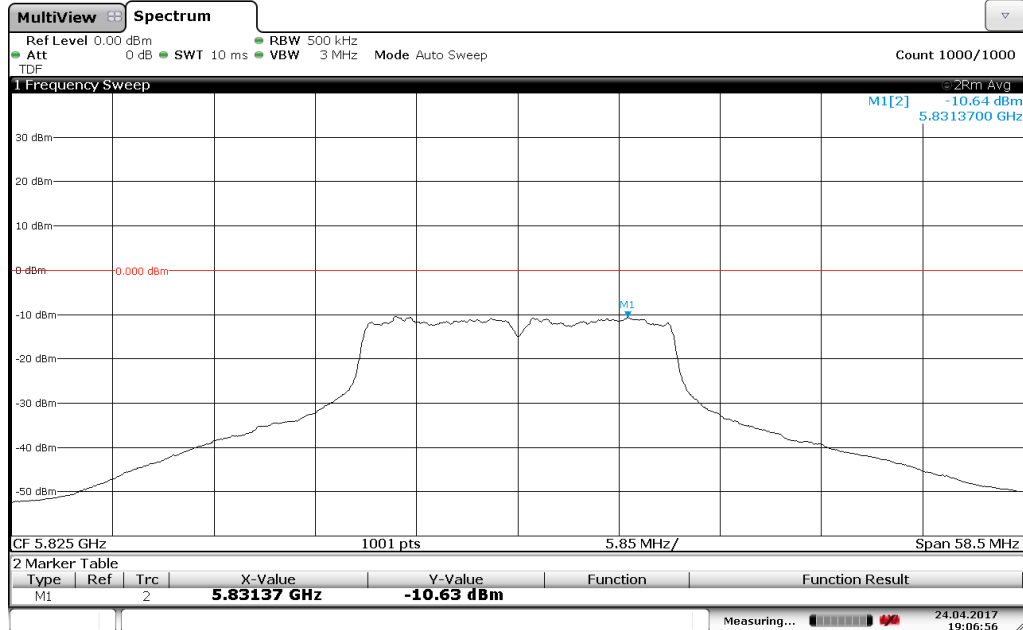
Date: 24 APR.2017 16:01:47

**Low Channel – 5745 MHz, 802 11n MCS0 MM SG 7.2 Mbps, Spectral Density: -8.82 dBm**



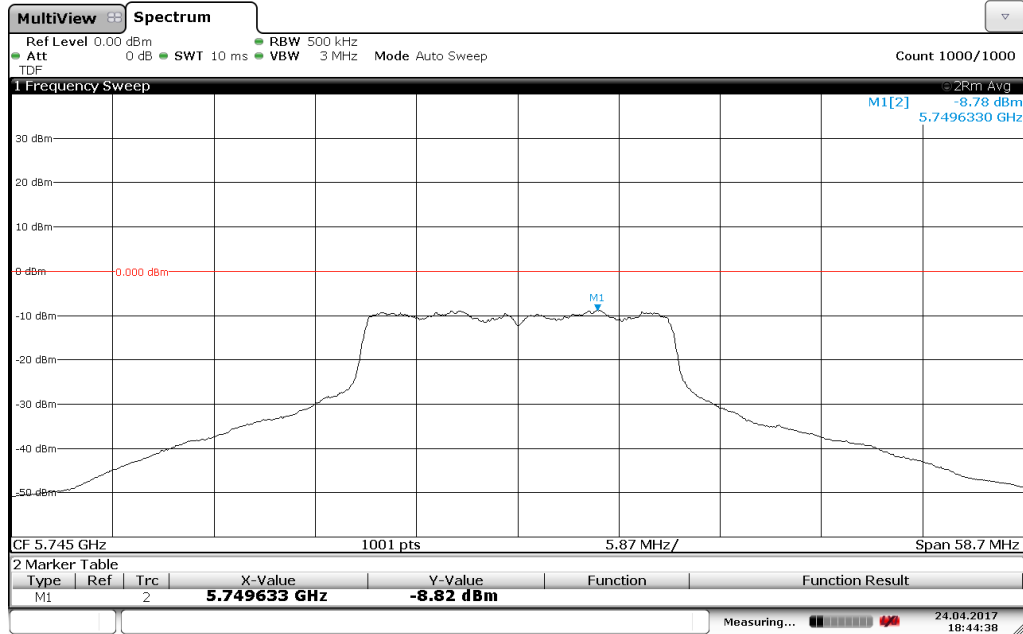
Date: 24 APR.2017 18:44:37

**Mid Channel – 5825 MHz, 802 11n MCS0 MM SG 7.2 Mbps, Spectral Density: -10.63 dBm**



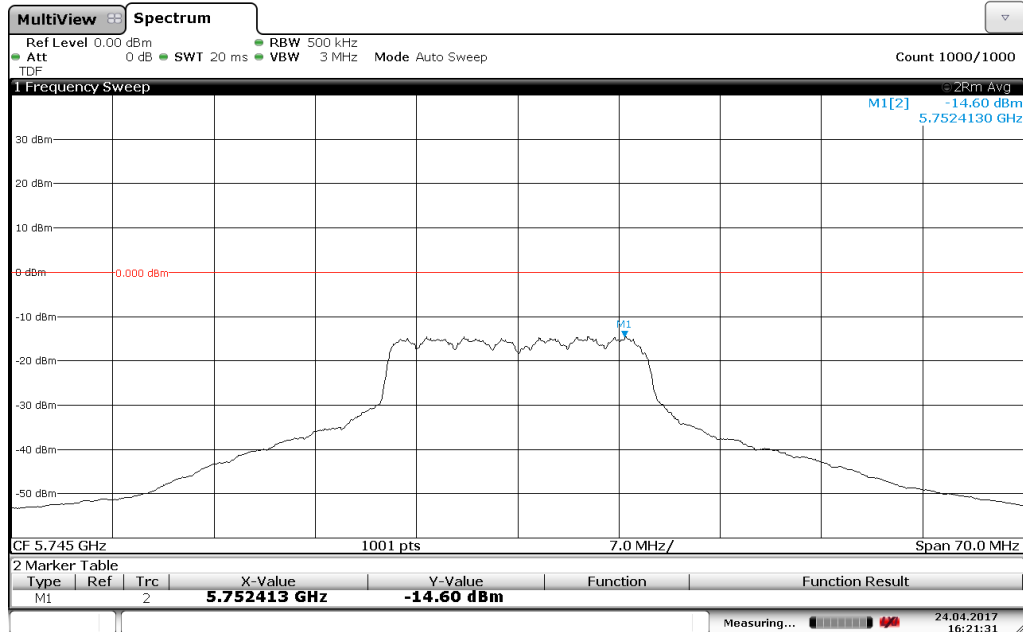
Date: 24 APR.2017 19:06:56

# High Channel – 5745 MHz, 802 11n MCS0 MM SG 7.2 Mbps, Spectral Density: -8.82 dBm



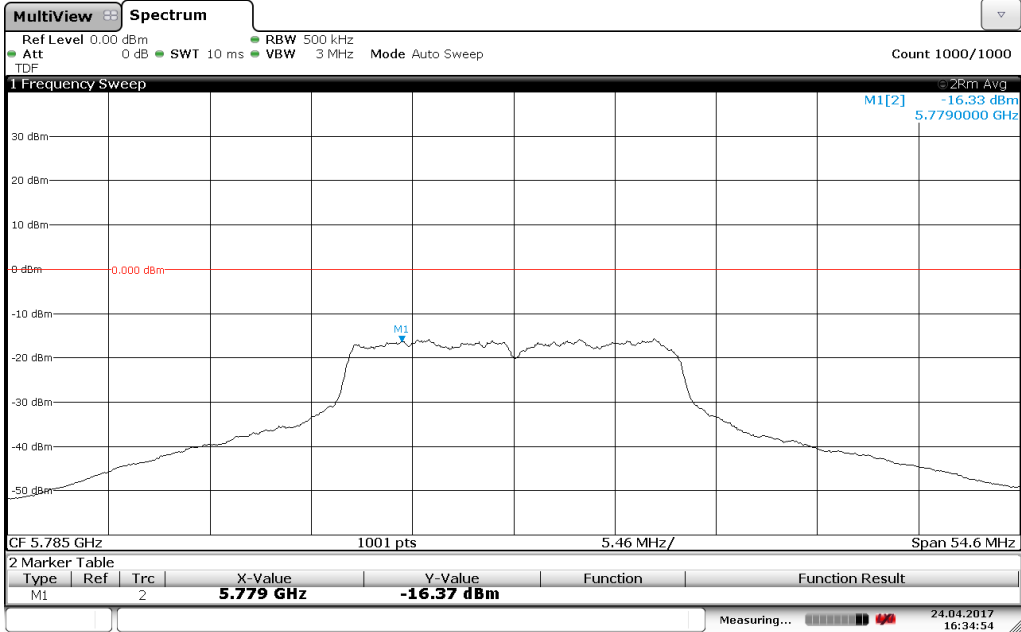
Date: 24 APR.2017 18:44:37

# Low Channel – 5745 MHz, 802 11n MCS7 65 Mbps, Spectral Density: -14.60 dBm



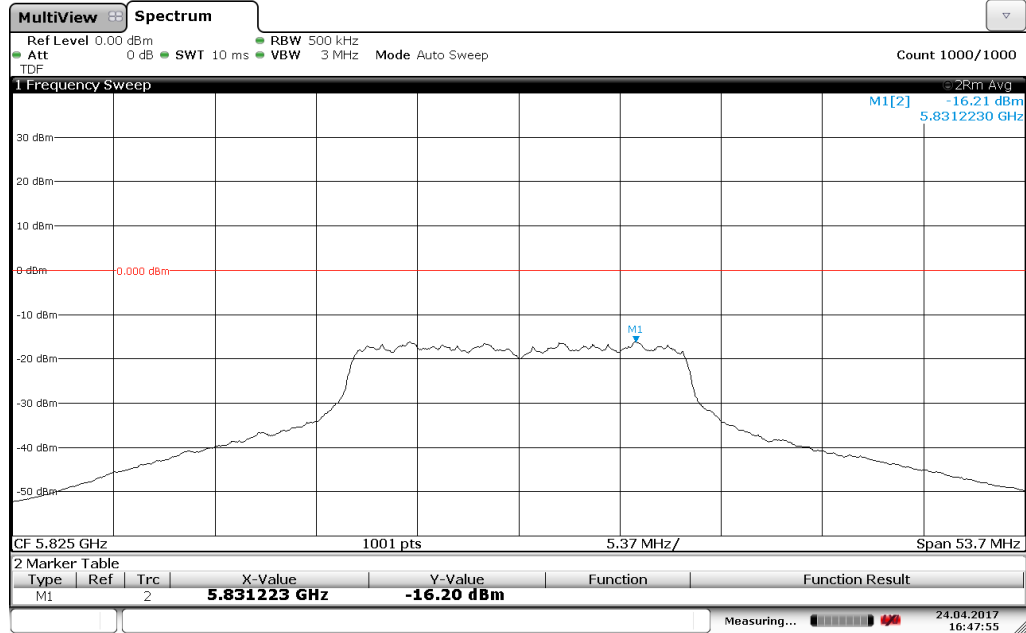
Date: 24 APR.2017 16:21:31

### Mid Channel – 5785 MHz, 802 11n MCS7 65 Mbps, Spectral Density: -16.37 dBm



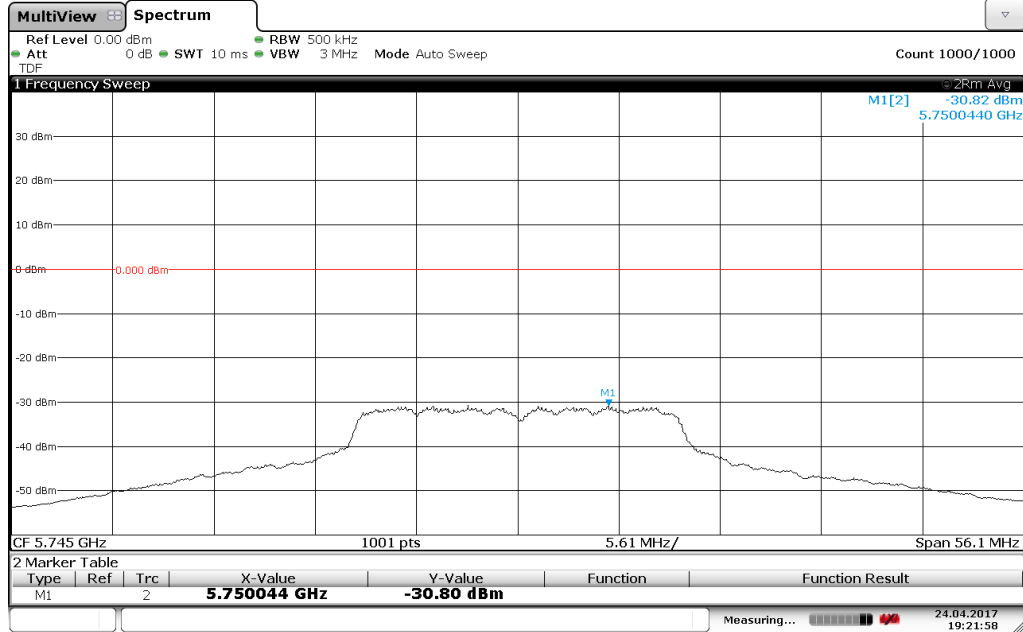
Date: 24 APR.2017 16:34:54

### High Channel – 5825 MHz, 802 11n MCS7 65 Mbps, Spectral Density: -16.20 dBm



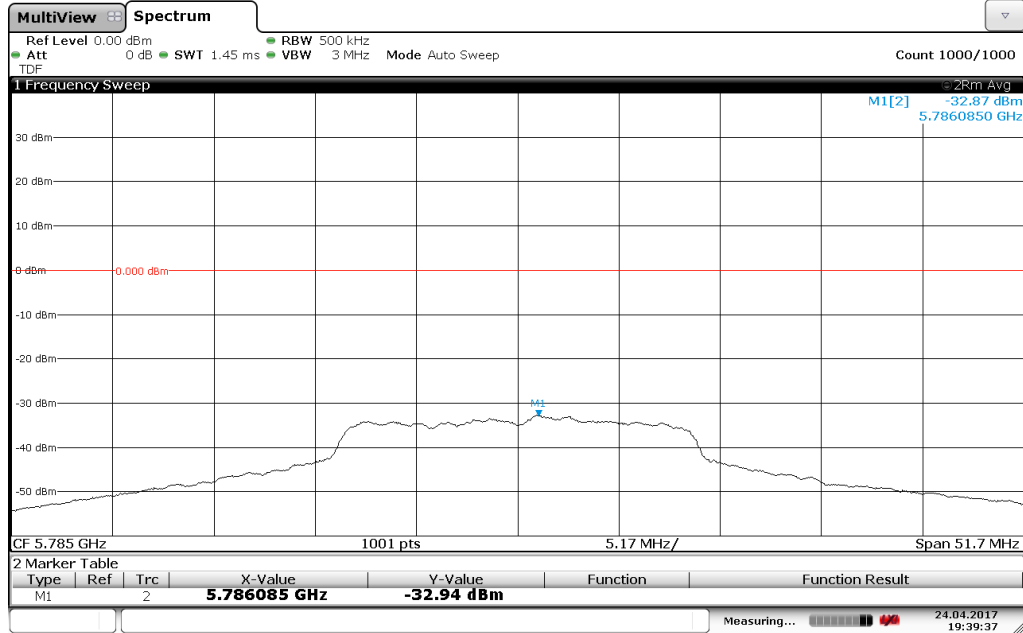
Date: 24 APR.2017 16:47:54

**Low Channel – 5745 MHz, 802 11n MCS7 MM SG 72.2 Mbps, Spectral Density:-30.80 dBm**



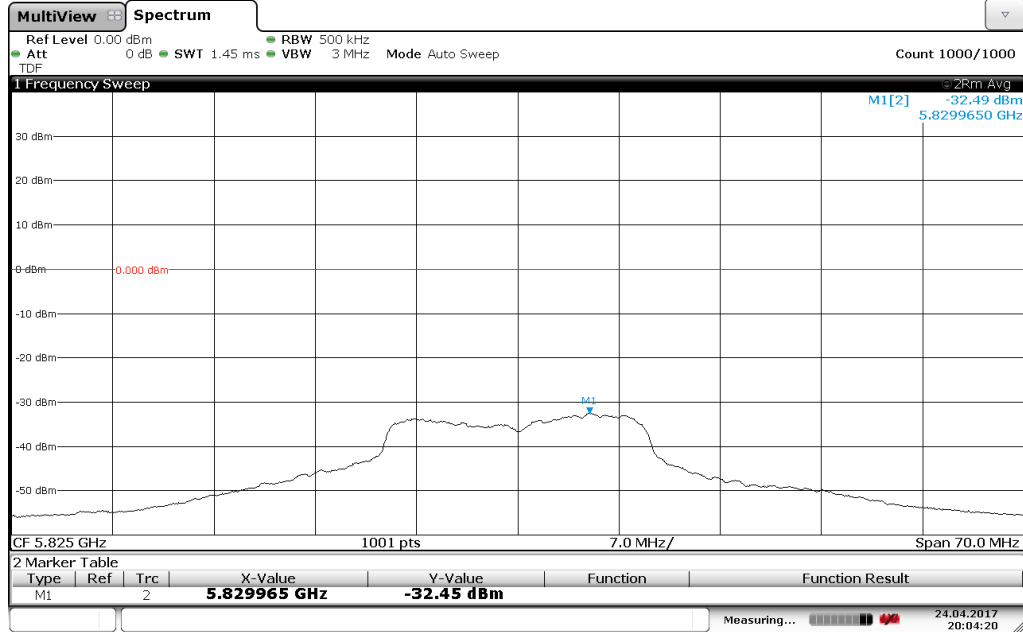
Date: 24 APR 2017 19:21:58

**Mid Channel – 5785 MHz, 802 11n MCS7 MM SG 72.2 Mbps, Spectral Density: -32.94 dBm**



Date: 24 APR 2017 19:39:37

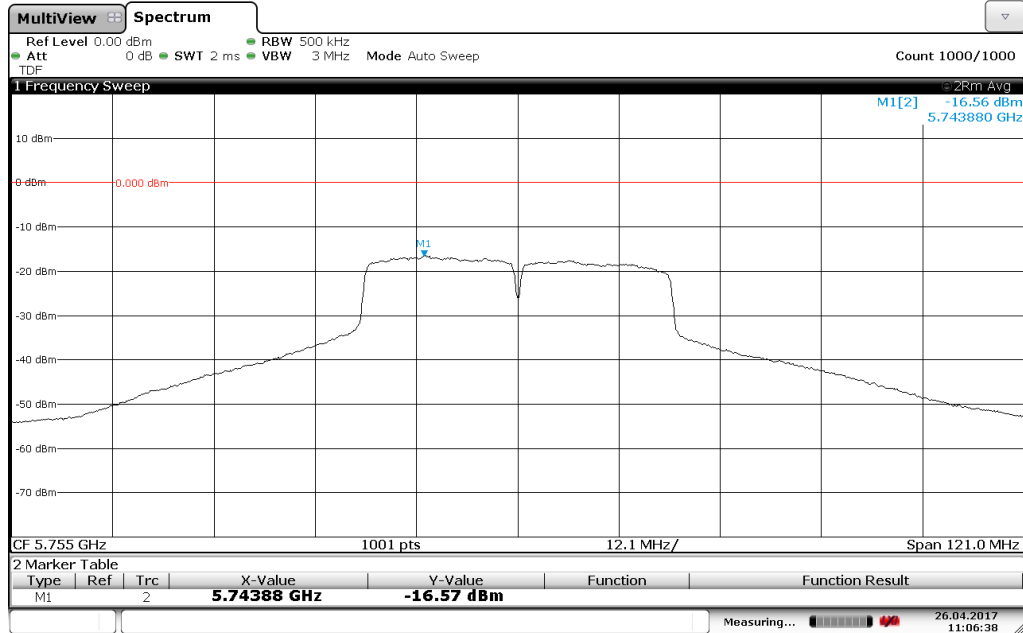
# High Channel – 5825 MHz, 802 11n MCS7 MM SG 72.2 Mbps, Spectral Density: -32.45 dBm



Date: 24 APR. 2017 20:04:20

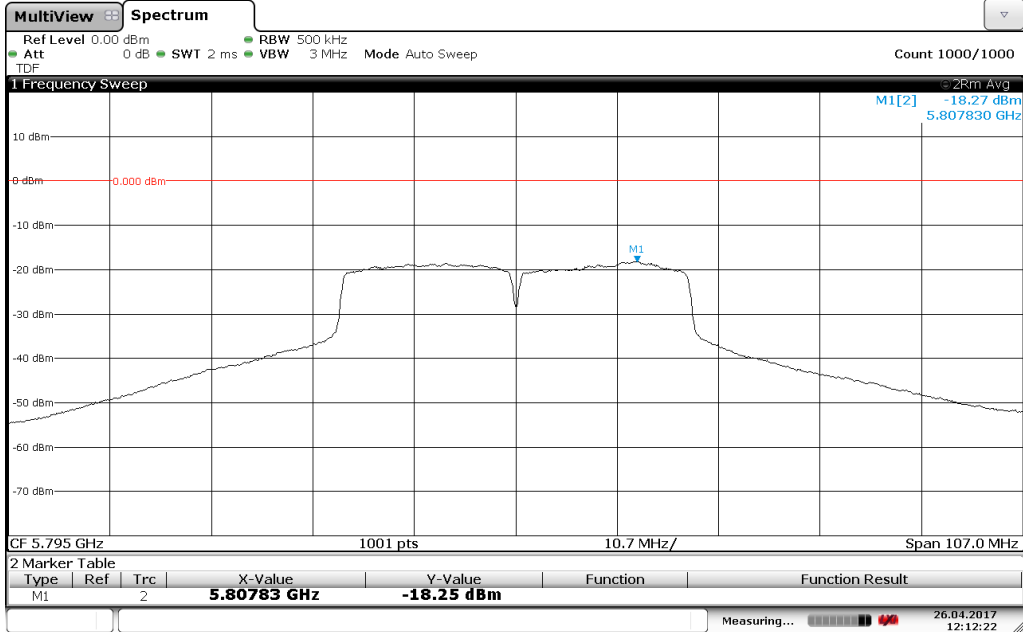
## Band 4 (40 MHz Bandwidth)

# Low Channel – 5755 MHz, 802 11n MSC0 13.5Mbps, Spectral Density: -16.57 dBm



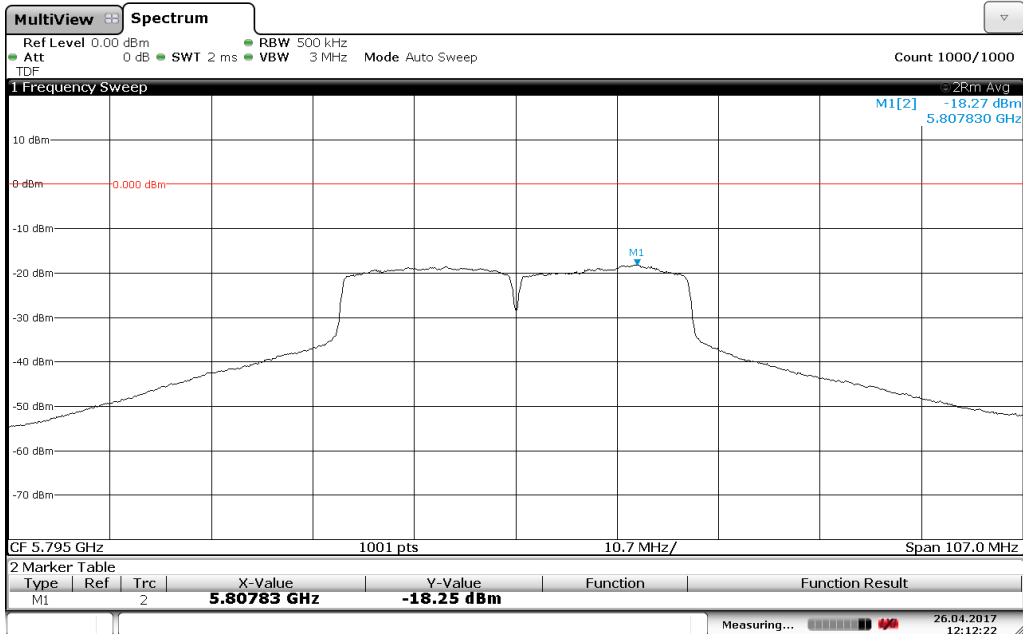
Date: 26 APR. 2017 11:06:38

Mid Channel – 5795 MHz, 802 11n MSC0 13.5Mbps, Spectral Density: -18.25 dBm



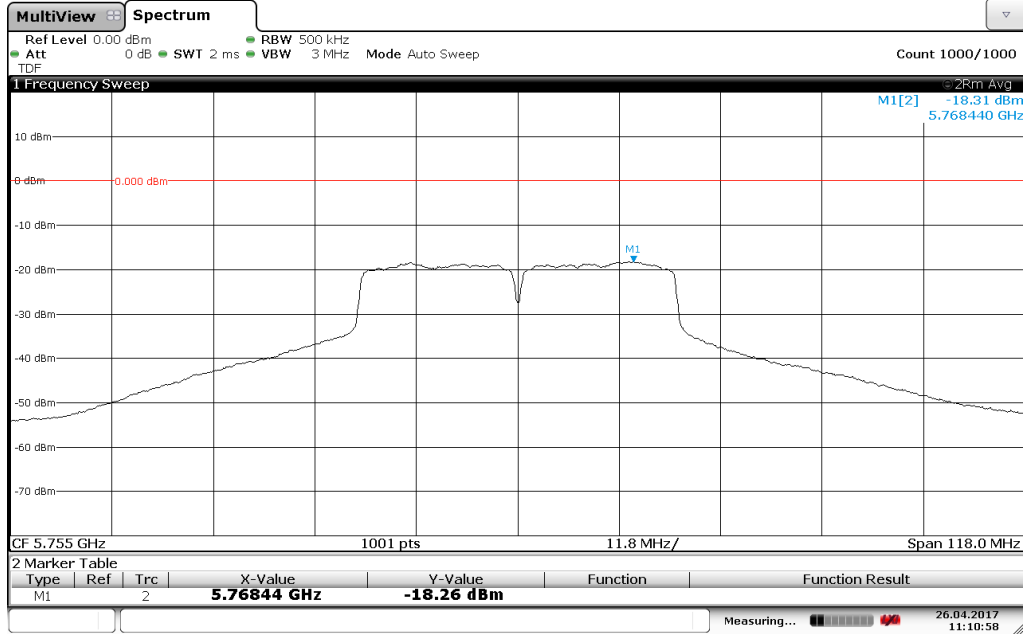
Date: 26 APR 2017 12:12:22

High Channel – 5795 MHz, 802 11n MSC0 13.5Mbps, Spectral Density: -18.25 dBm



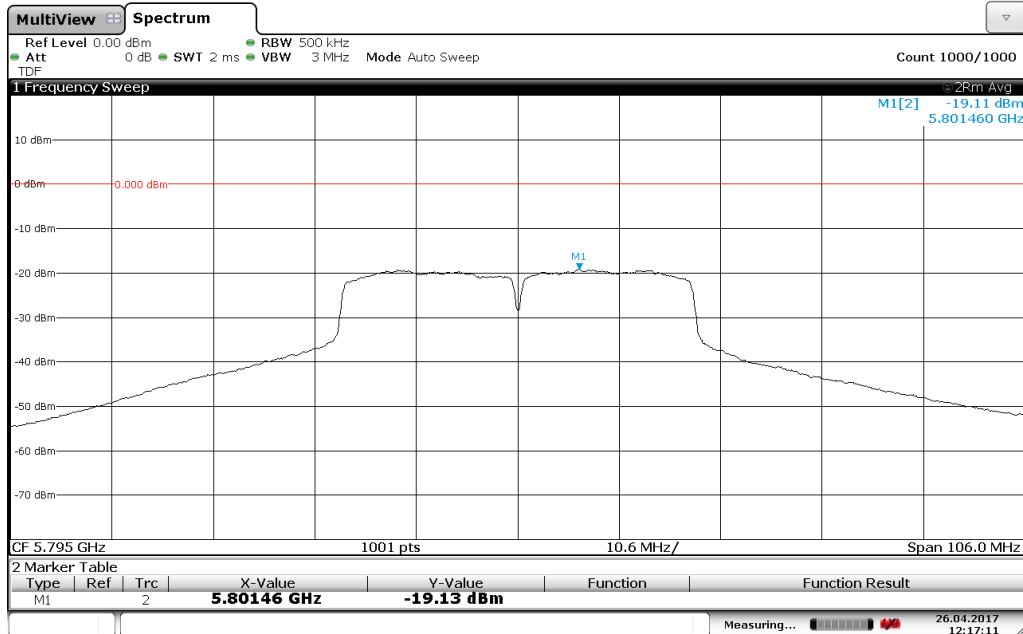
Date: 26 APR 2017 12:12:22

**Low Channel – 5755 MHz, 802 11n MSC0 MM SG 15Mbps, Spectral Density: -18.26 dBm**



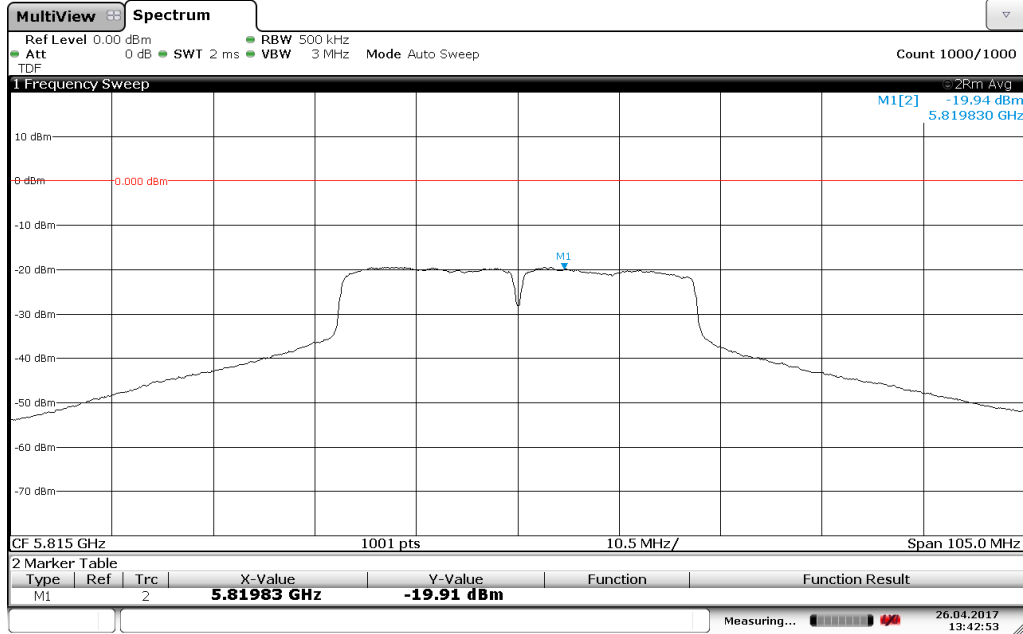
Date: 26.APR.2017 11:10:57

**Mid Channel – 5795 MHz, 802 11n MSC0 MM SG 15Mbps, Spectral Density: -19.13 dBm**



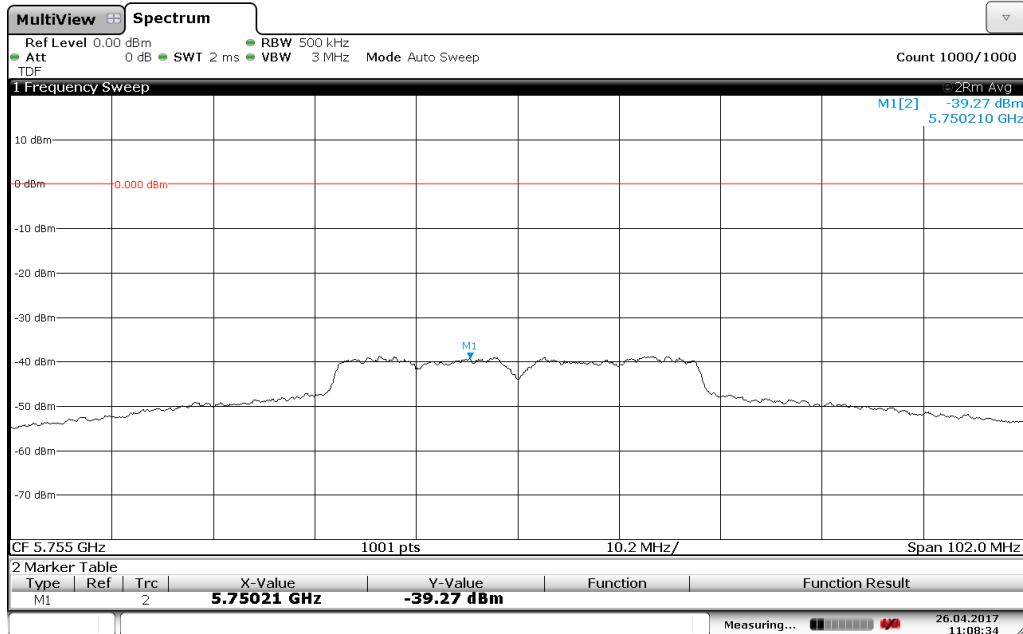
Date: 26.APR.2017 12:17:11

### High Channel – 5815 MHz, 802 11n MSC0 MM SG 15Mbps, Spectral Density: -19.91dBm



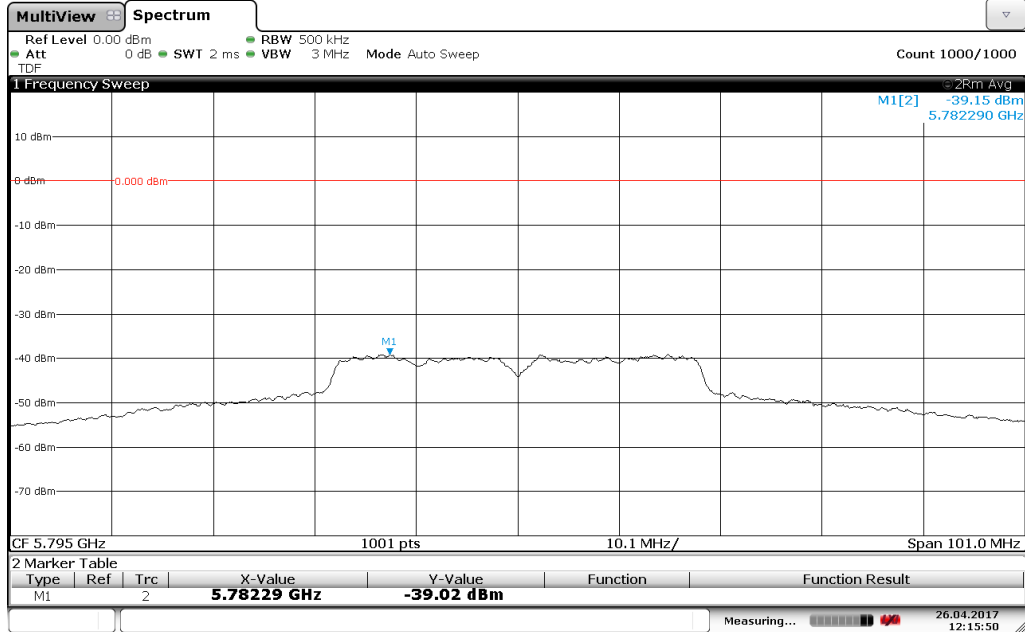
Date: 26 APR 2017 13:42:53

### Low Channel – 5755 MHz, 802 11n MSC7 135Mbps, Spectral Density: -39.27 dBm



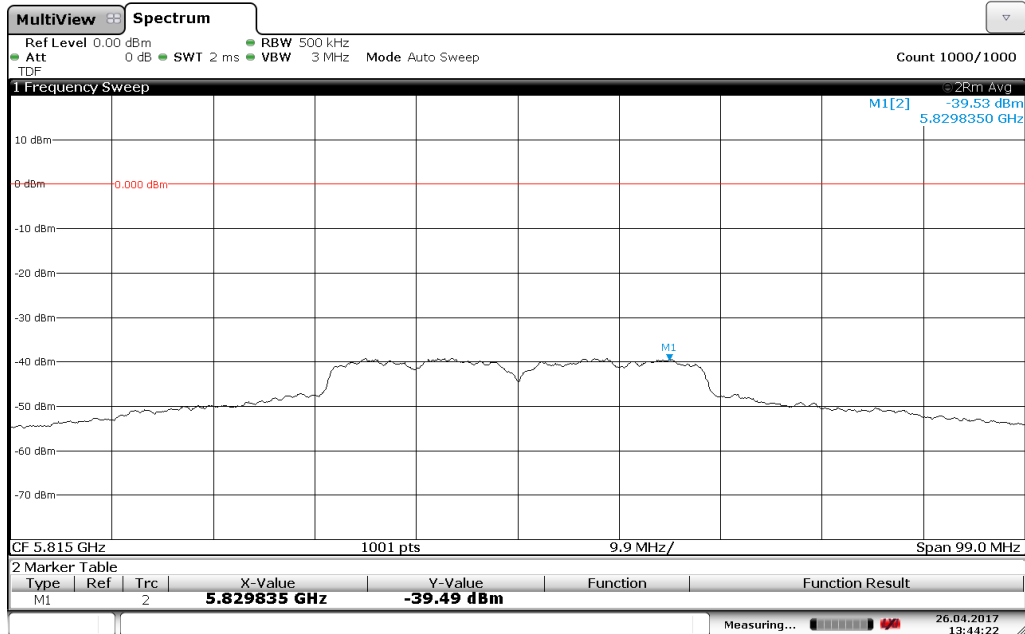
Date: 26 APR 2017 11:08:33

### Mid Channel – 5795MHz, 802 11n MSC7 135Mbps, Spectral Density: -39.02 dBm

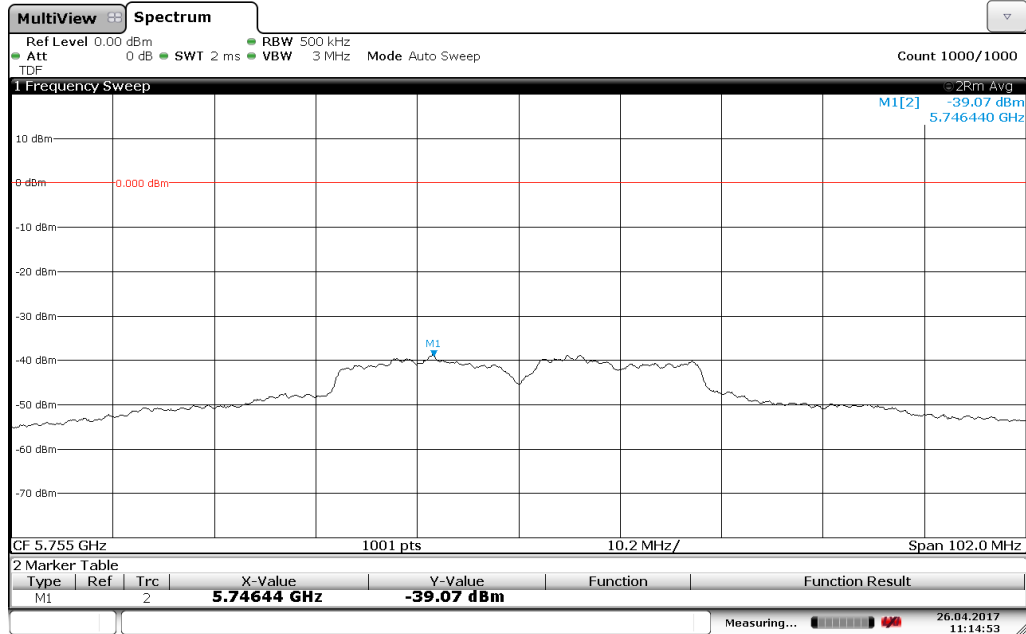


Date: 26.APR.2017 12:15:50

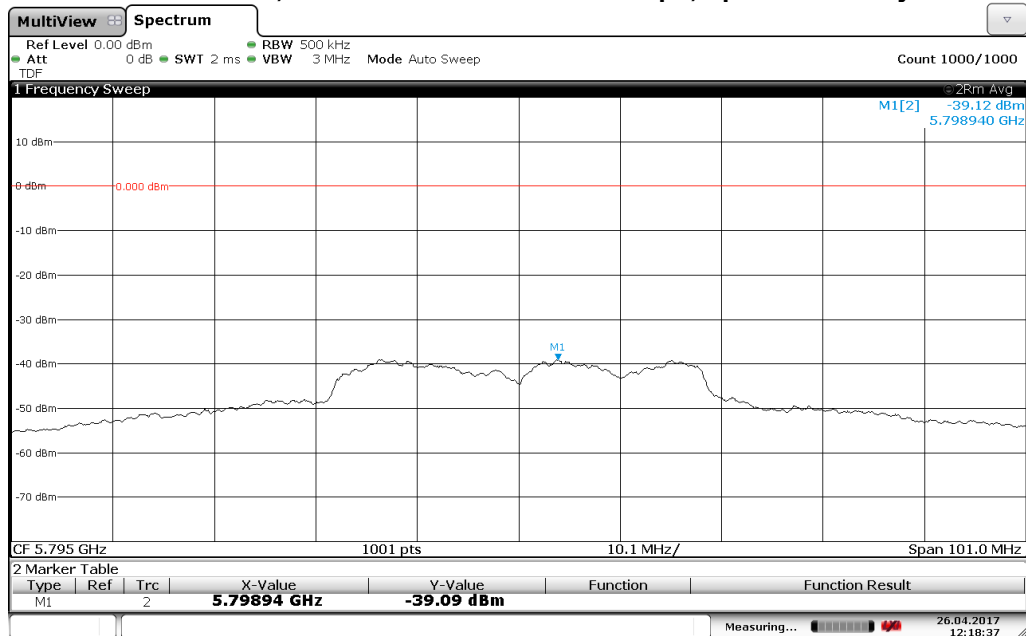
### High Channel – 5815 MHz, 802 11n MSC7 135Mbps, Spectral Density: -39.49 dBm



Date: 26.APR.2017 13:44:21

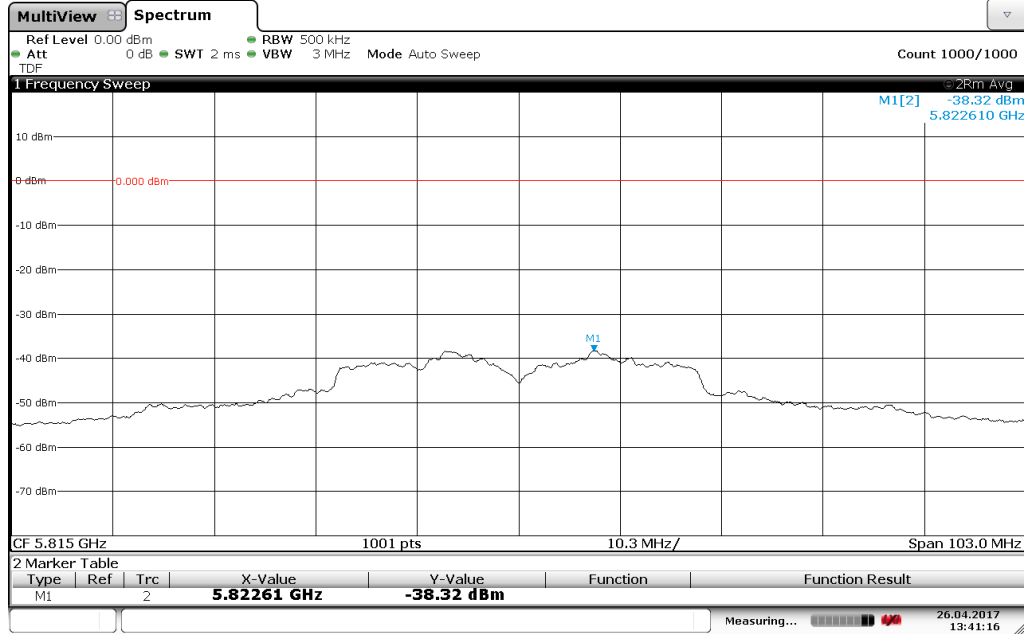
**Low Channel – 5755 MHz, 802 11n MSC7 MM SG 150Mbps, Spectral Density: -39.07 dBm**

Date: 26.APR.2017 11:14:52

**Mid Channel – 5795 MHz, 802 11n MSC7 MM SG 150Mbps, Spectral Density: -39.09 dBm**

Date: 26.APR.2017 12:18:37

High Channel – 5815 MHz, 802 11n MSC7 MM SG 150Mbps, Spectral Density: -38.32 dBm



Date: 26.APR.2017 13:41:15

Test Personnel: Naga Suryadevara NS  
Supervising/Reviewing: Kouma Sinn KPS  
Engineer: (Where Applicable) Vathana Ven VSV

Product Standard: FCC Part 15 Subpart C  
FCC Part 15 Subpart E  
RSS 247  
Input Voltage: 120VAC 60Hz

Pretest Verification w/  
Ambient Signals or  
BB Source: N/A

Test Date: 04/23/2017  
04/24/2017  
04/25/2017  
04/26/2017

Limit Applied: As specified in Section 7.3

Ambient Temperature: 22, 21, 23, 22 °C  
Relative Humidity: 34, 29, 34, 28 %  
Atmospheric Pressure: 1002, 1004, 1008, 1005 mbars

Deviations, Additions, or Exclusions: None

## 8 Bandwidth

### 8.1 Method

Tests are performed in accordance with FCC Part 15 Subpart E, FCC Part 15 Subpart C (15.247) and RSS 247.

**TEST SITE:** EMC Lab

**The EMC Lab** has one Semi-anechoic Chamber and one Shielded Chamber. AC Mains Power is available at 120, 230, and 277 Single Phase; 208, 400, and 480 3-Phase. Large reference ground-planes are installed in the general lab area to facilitate EMC work not requiring a shielded environment.

### 8.2 Test Equipment Used:

| Asset           | Description                        | Manufacturer      | Model    | Serial     | Cal Date   | Cal Due    |
|-----------------|------------------------------------|-------------------|----------|------------|------------|------------|
| DAV002'         | Weather Station                    | Davis Instruments | 7400     | PE80519A93 | 06/01/2016 | 06/01/2017 |
| ROS005'         | ETSI Test System                   | Rhode & Schwartz  | TS8997   | N/A        | 09/15/2016 | 09/15/2017 |
| WEI8'           | Attenuator                         | Weinschel Corp    | 47-10-34 | BD8309     | 04/08/2017 | 04/08/2018 |
| CBLHF2012-2M-1' | 2m 9kHz-40GHz Coaxial Cable - SET1 | Huber & Suhner    | SF102    | 252675001  | 02/08/2017 | 02/08/2018 |

#### Software Utilized:

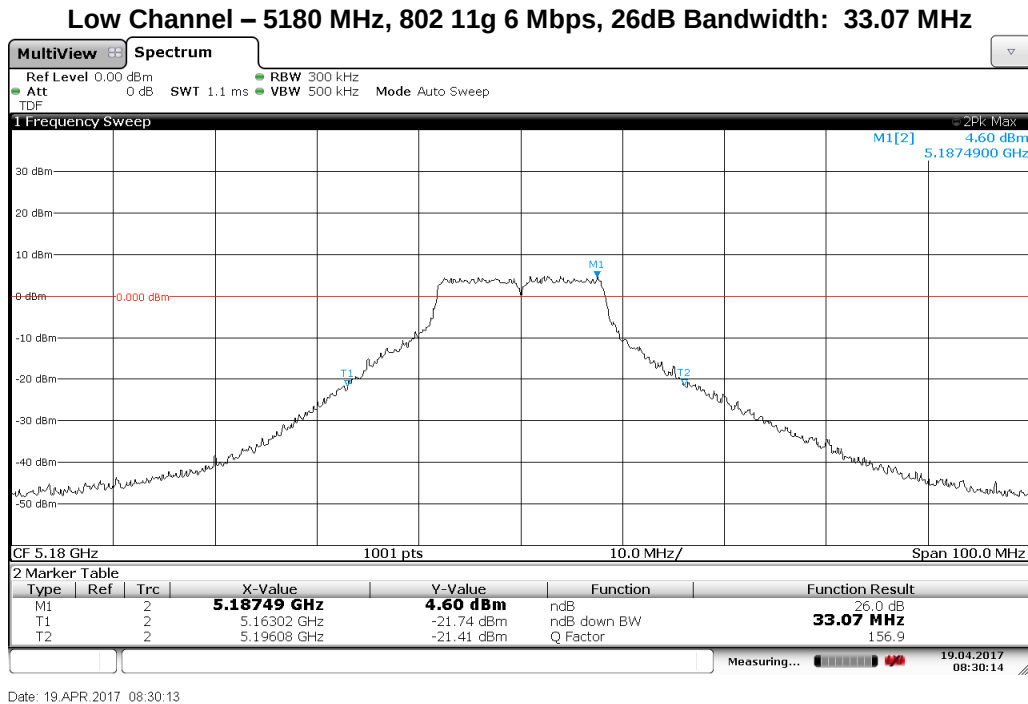
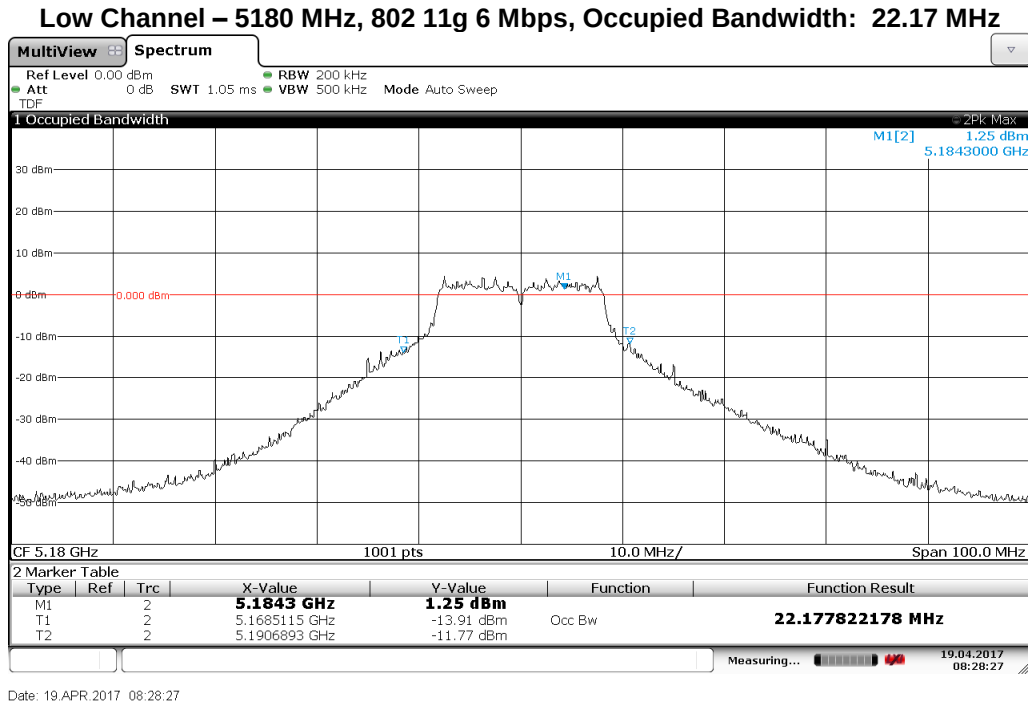
| Name | Manufacturer | Version |
|------|--------------|---------|
| None |              |         |

### 8.3 Results:

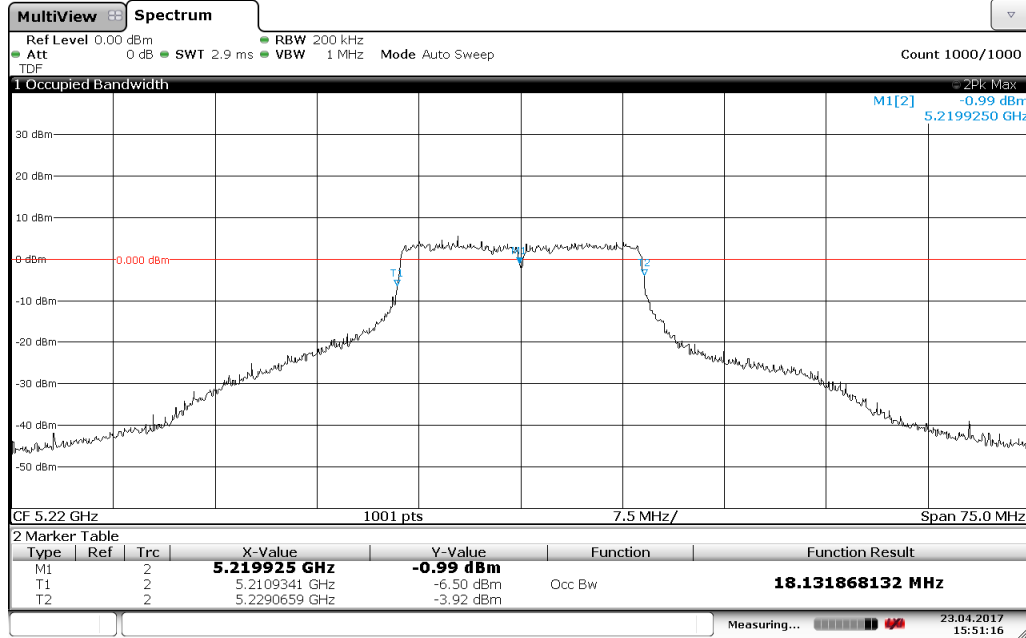
The sample tested was found to Comply.

## 8.4 Plots/Data:

### Band 1 (20 MHz Bandwidth)

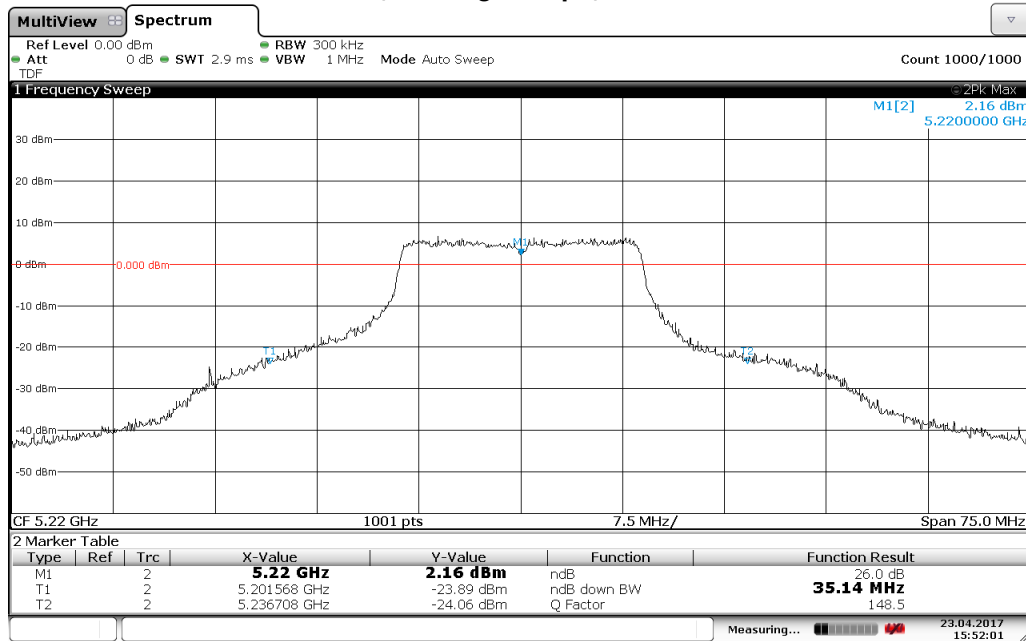


Mid Channel – 5220 MHz, 802 11g 6 Mbps, Occupied Bandwidth: 18.13 MHz



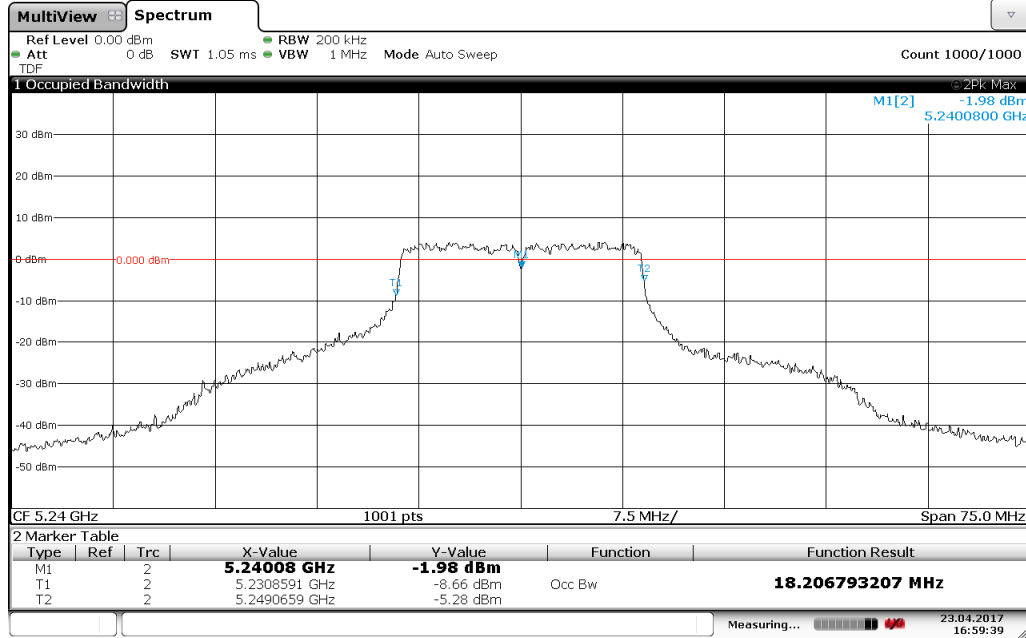
Date: 23.APR.2017 15:51:15

Mid Channel – 5220 MHz, 802 11g 6 Mbps, 26dB Bandwidth: 35.14 MHz



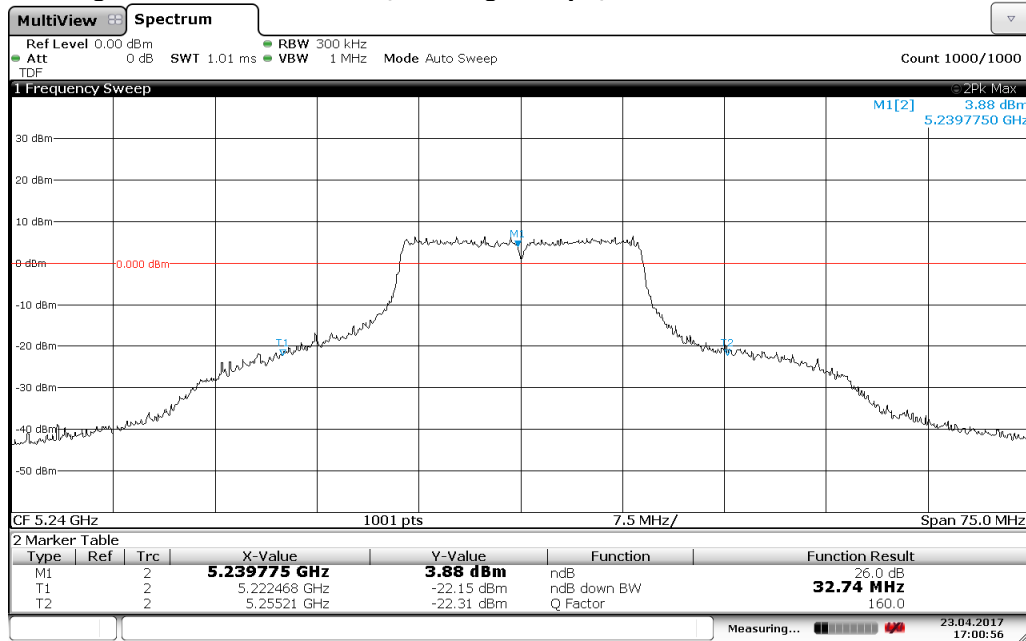
Date: 23.APR.2017 15:52:00

### High Channel – 5240 MHz, 802 11g 6 Mbps, Occupied Bandwidth: 18.20 MHz



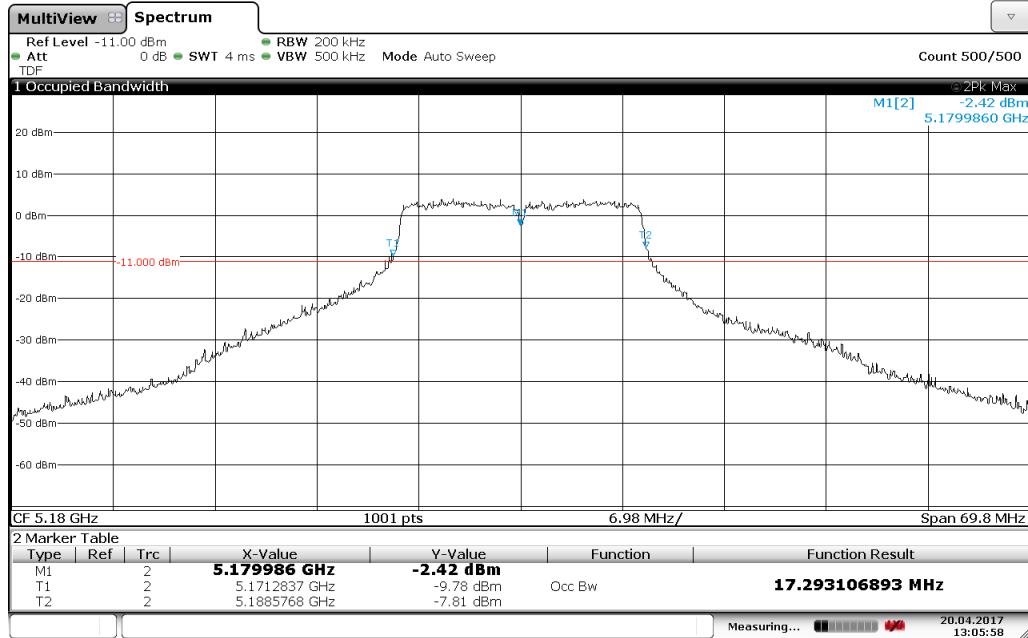
Date: 23.APR.2017 16:59:39

### High Channel – 5240 MHz, 802 11g 6 Mbps, 26dB Bandwidth: 32.74 MHz



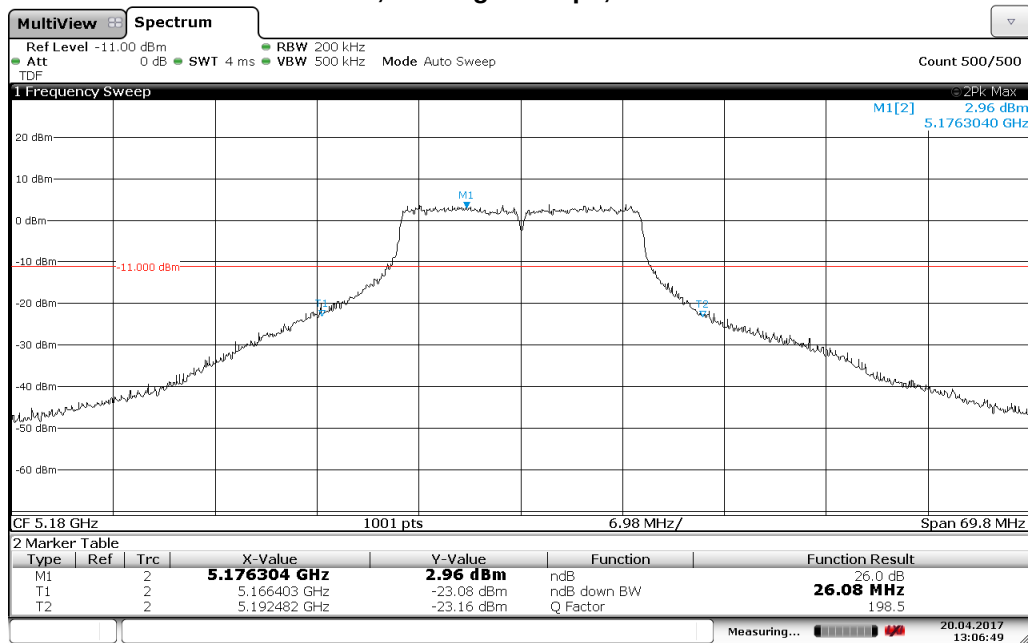
Date: 23.APR.2017 17:00:56

## Low Channel – 5180 MHz, 802 11g 54 Mbps, Occupied Bandwidth: 17.29 MHz



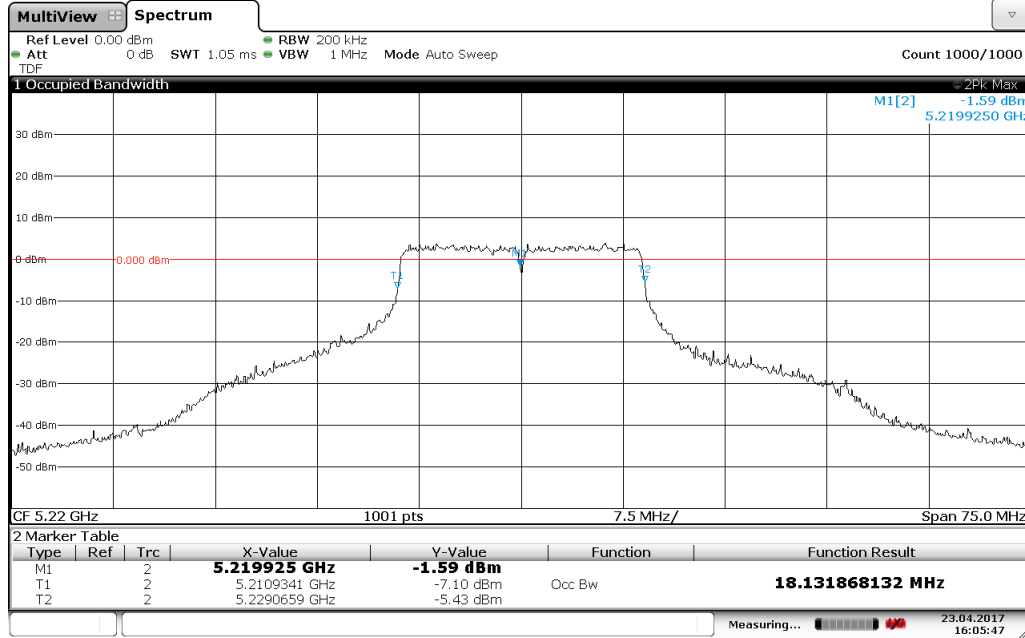
Date: 20. APR. 2017 13:05:58

## Low Channel – 5180 MHz, 802 11g 54 Mbps, 26dB Bandwidth: 26.08 MHz



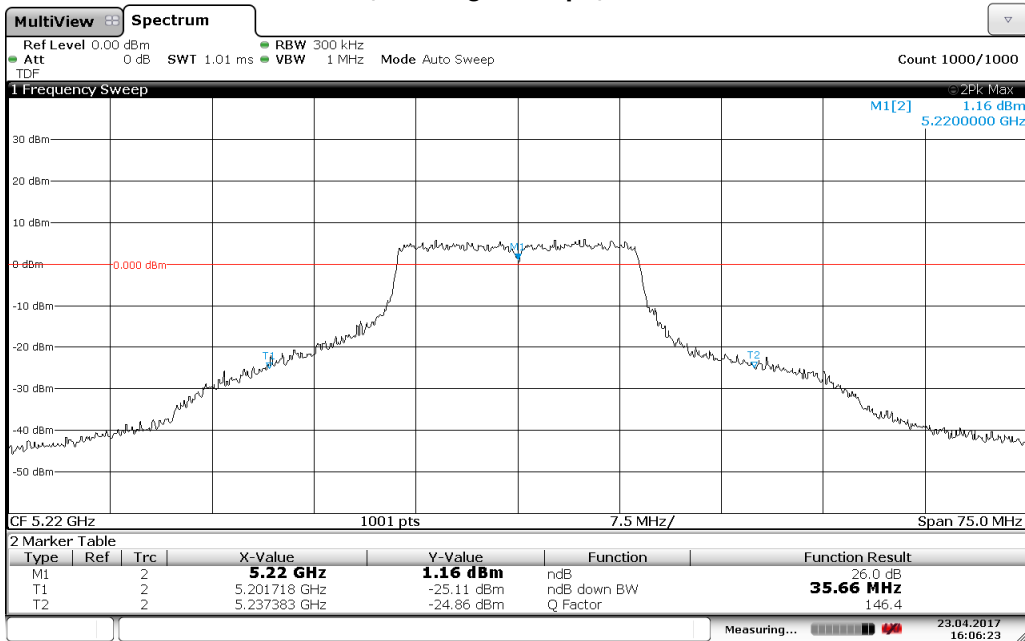
Date: 20. APR. 2017 13:06:49

Mid Channel – 5220 MHz, 802 11g 54 Mbps, Occupied Bandwidth: 18.13 MHz



Date: 23. APR. 2017 16:05:47

Mid Channel – 5220 MHz, 802 11g 54 Mbps, 26dB Bandwidth: 35.66 MHz



Date: 23. APR. 2017 16:06:22