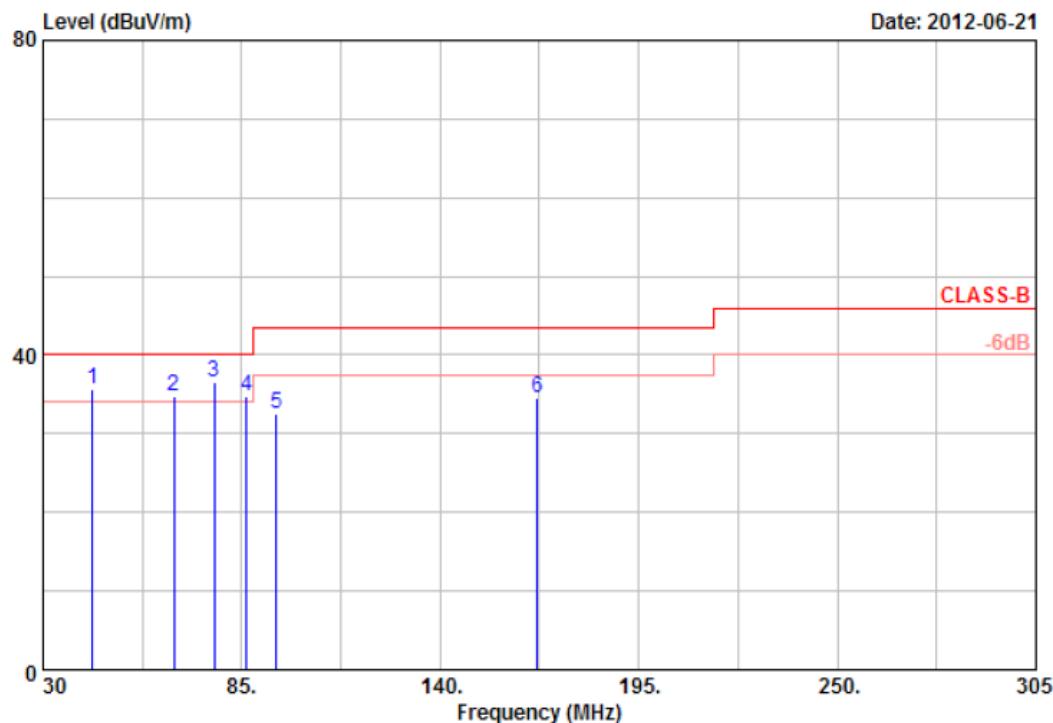




| | | | |
|-------------|------------------------|-------------|--------------|
| Power | : From System | Pol/Phase | : HORIZONTAL |
| Test Mode 6 | : 802.11an HT40, CH151 | Temperature | : 25 °C |
| Memo | : | Humidity | : 65 % |



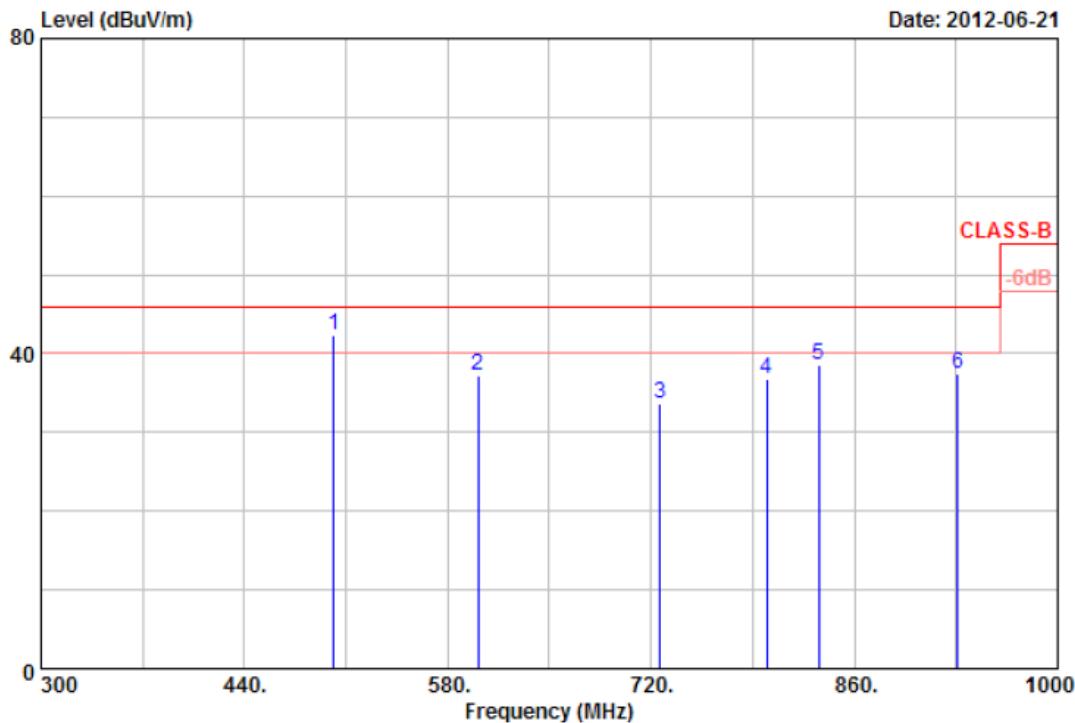
| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|------|--------|------------|--------|--------|--------|--------|--------|---------|---------|
| | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 43.75 | 43.69 | -8.03 | 35.66 | 40.00 | -4.34 | QP | 100 | 0 |
| 2 | 66.30 | 54.62 | -19.96 | 34.66 | 40.00 | -5.34 | QP | 100 | 0 |
| 3 | 77.30 | 56.42 | -19.83 | 36.59 | 40.00 | -3.41 | QP | 100 | 0 |
| 4 | 86.38 | 53.11 | -18.33 | 34.78 | 40.00 | -5.22 | QP | 100 | 0 |
| 5 | 94.63 | 51.04 | -18.54 | 32.50 | 43.50 | -11.00 | Peak | 100 | 0 |
| 6 | 166.95 | 48.88 | -14.28 | 34.60 | 43.50 | -8.90 | Peak | 100 | 0 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences, all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz, so that the channel 36 or 38(for HT40), channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.



| | | | |
|-------------|------------------------|-------------|--------------|
| Power | : From System | Pol/Phase | : HORIZONTAL |
| Test Mode 6 | : 802.11an HT40, CH151 | Temperature | : 25 °C |
| Memo | : | Humidity | : 65 % |



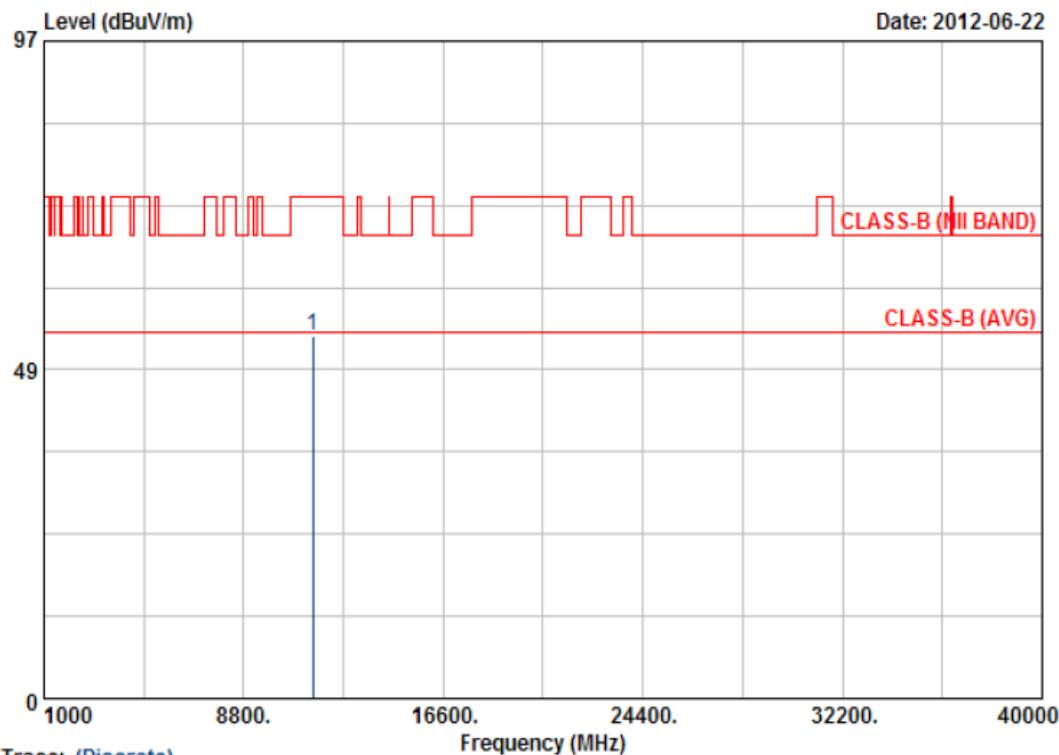
| Item | Freq | Read | | Result | Limit | Margin | Remark | Ant | Tab |
|------|--------|-------|--------|--------|--------|--------|--------|-----|-----|
| | | Value | Factor | | | | | Pos | Pos |
| | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 501.60 | 42.22 | 0.10 | 42.32 | 46.00 | -3.68 | QP | 100 | 0 |
| 2 | 601.00 | 35.21 | 2.12 | 37.33 | 46.00 | -8.67 | Peak | 100 | 0 |
| 3 | 726.30 | 30.05 | 3.68 | 33.73 | 46.00 | -12.27 | Peak | 100 | 0 |
| 4 | 799.80 | 30.66 | 6.17 | 36.83 | 46.00 | -9.17 | Peak | 100 | 0 |
| 5 | 835.50 | 29.56 | 8.89 | 38.45 | 46.00 | -7.55 | Peak | 100 | 0 |
| 6 | 931.40 | 30.76 | 6.64 | 37.40 | 46.00 | -8.60 | Peak | 100 | 0 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences, all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz, so that the channel 36 or 38(for HT40), channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.



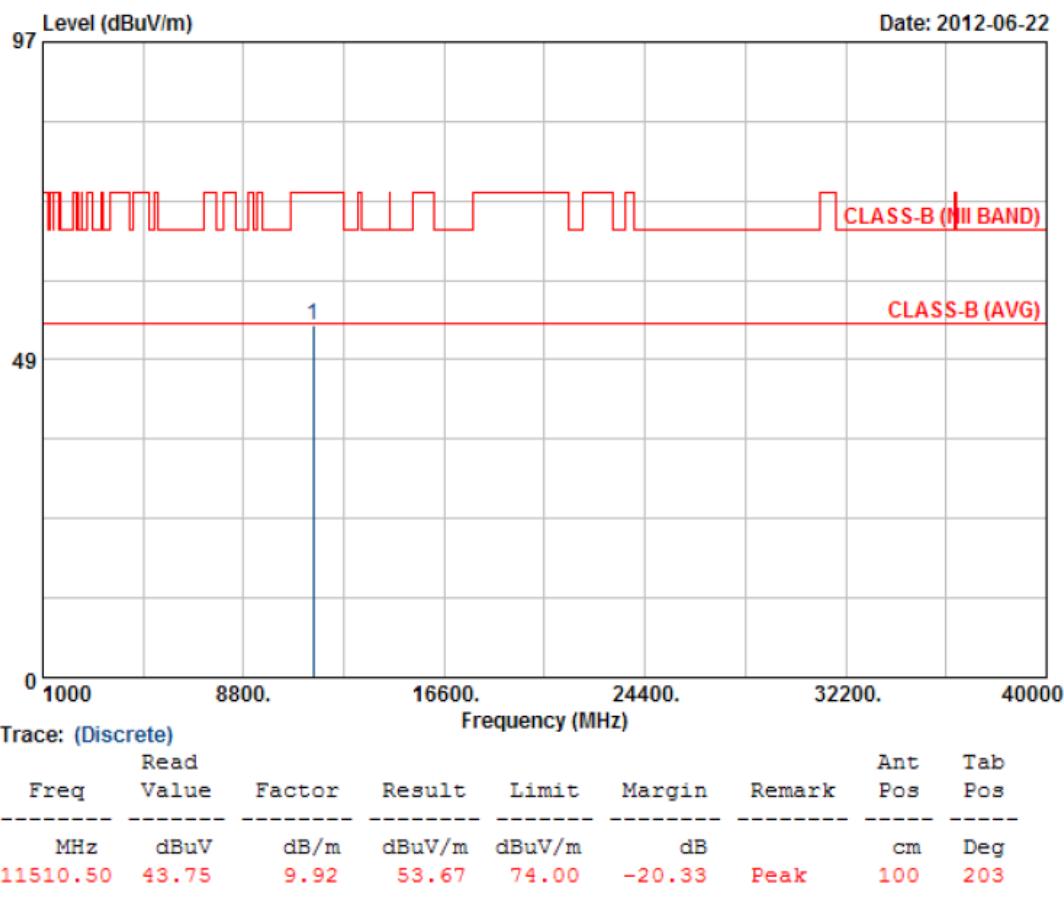
| | | | |
|-------------|------------------------|-------------|------------|
| Power | : From System | Pol/Phase | : VERTICAL |
| Test Mode 6 | : 802.11an HT40, CH151 | Temperature | : 22 °C |
| Memo | : | Humidity | : 65 % |

**Notes:**

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



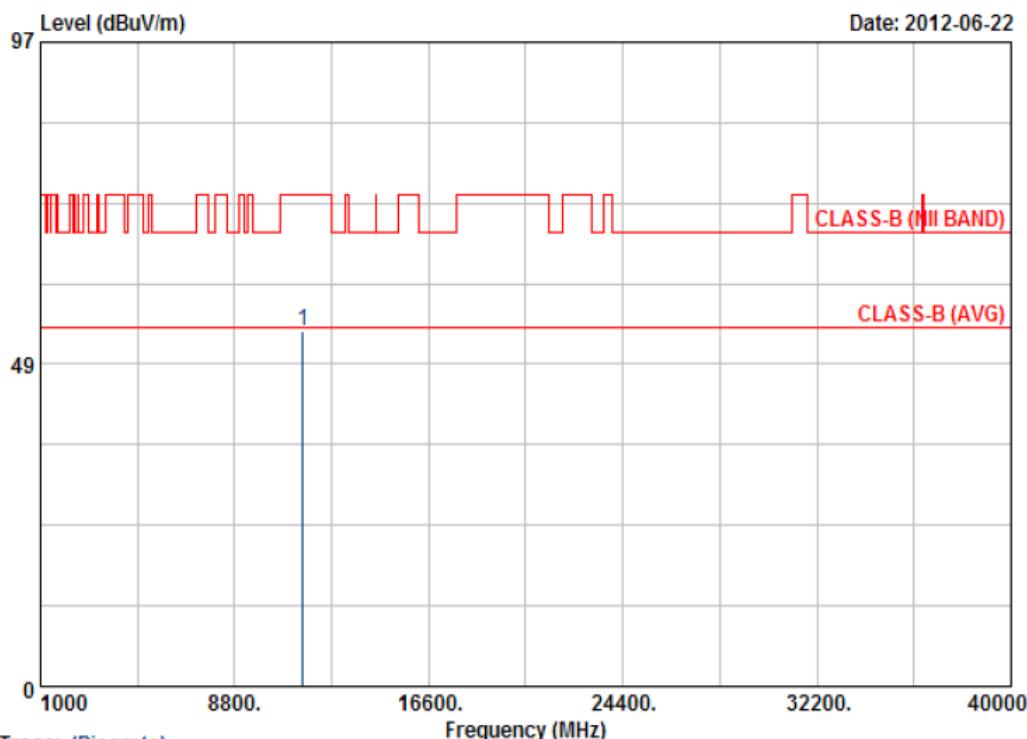
| | | | | | |
|-------------|---|----------------------|-------------|---|------------|
| Power | : | From System | Pol/Phase | : | HORIZONTAL |
| Test Mode 6 | : | 802.11an HT40, CH151 | Temperature | : | 22 °C |
| Memo | : | | Humidity | : | 65 % |

**Notes:**

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



| | | | | | |
|-------------|---|----------------------|-------------|---|----------|
| Power | : | From System | Pol/Phase | : | VERTICAL |
| Test Mode 6 | : | 802.11an HT40, CH155 | Temperature | : | 22 °C |
| Memo | : | | Humidity | : | 65 % |

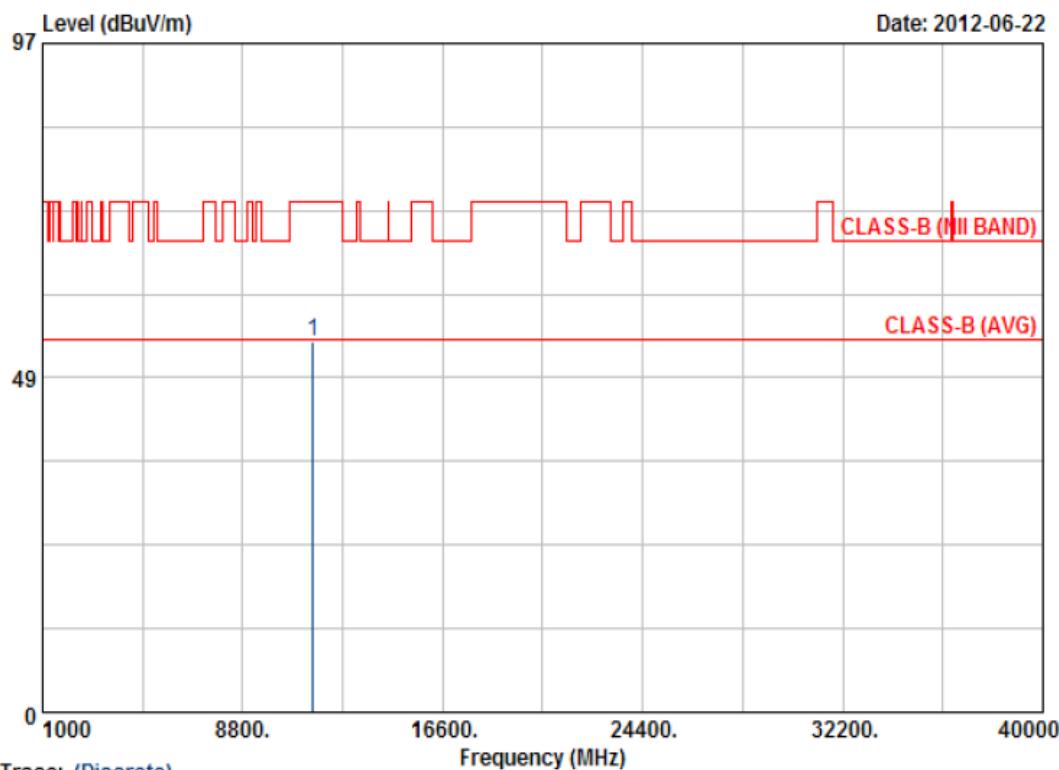


Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



| | | | | | |
|-------------|---|----------------------|-------------|---|------------|
| Power | : | From System | Pol/Phase | : | HORIZONTAL |
| Test Mode 6 | : | 802.11an HT40, CH155 | Temperature | : | 22 °C |
| Memo | : | | Humidity | : | 65 % |

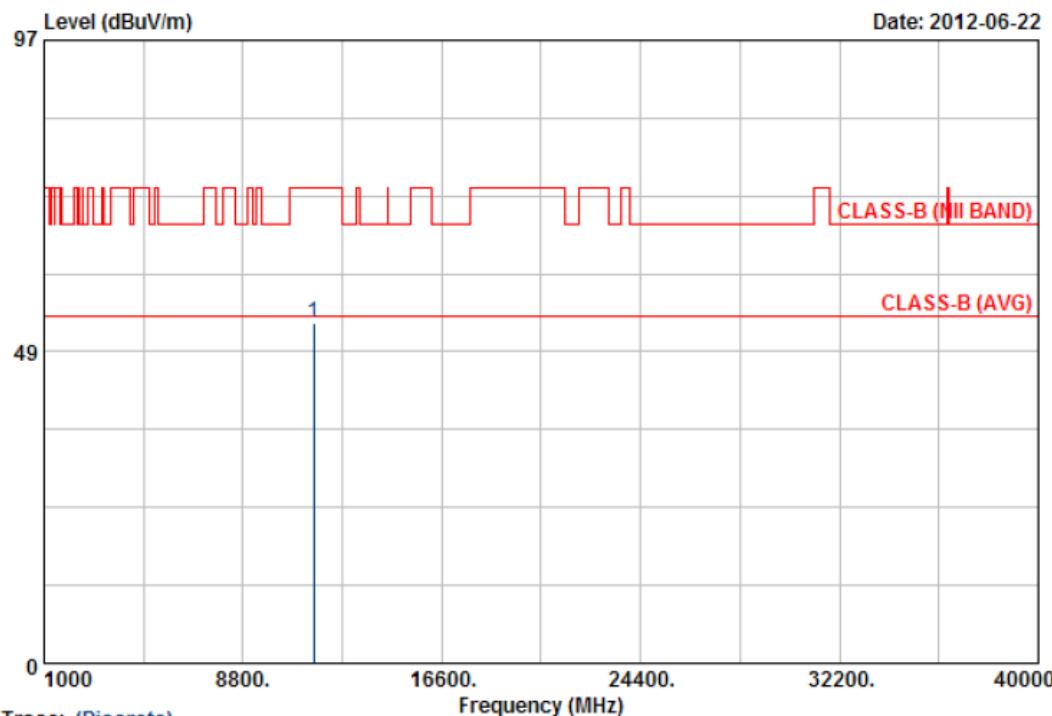


Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



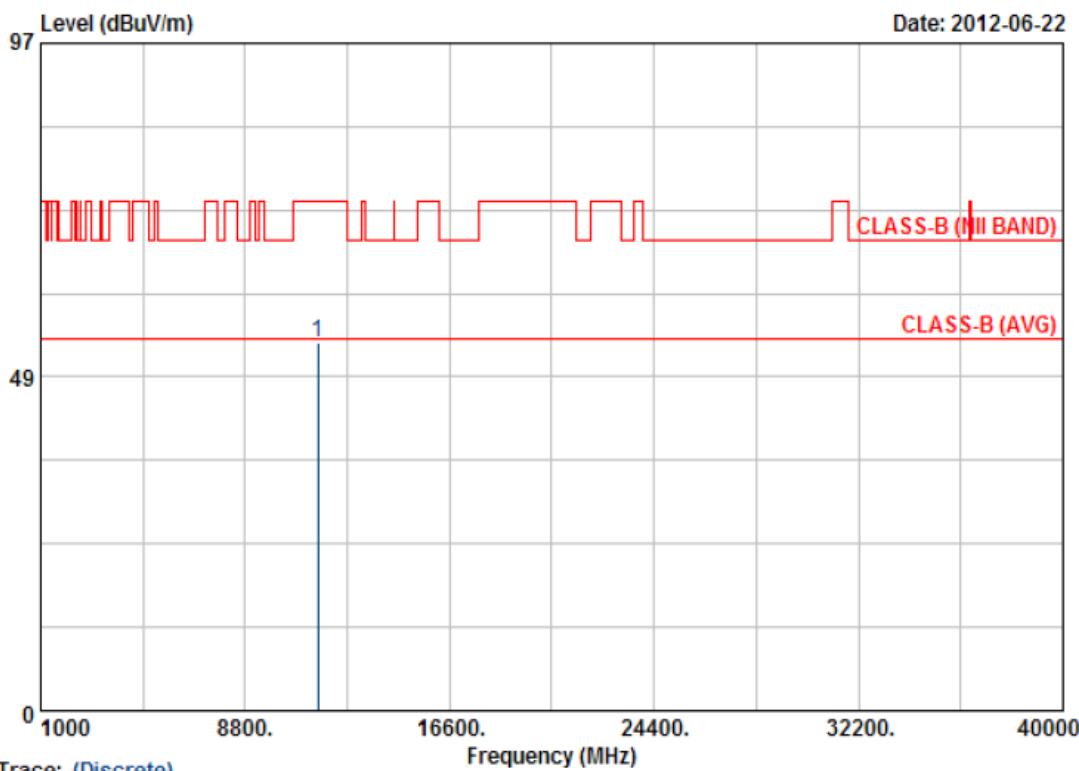
| | | | | | |
|-------------|---|----------------------|-------------|---|----------|
| Power | : | From System | Pol/Phase | : | VERTICAL |
| Test Mode 6 | : | 802.11an HT40, CH159 | Temperature | : | 22 °C |
| Memo | : | | Humidity | : | 65 % |

**Notes:**

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



| | | | |
|-------------|------------------------|-------------|--------------|
| Power | : From System | Pol/Phase | : HORIZONTAL |
| Test Mode 6 | : 802.11an HT40, CH159 | Temperature | : 22 °C |
| Memo | : | Humidity | : 65 % |

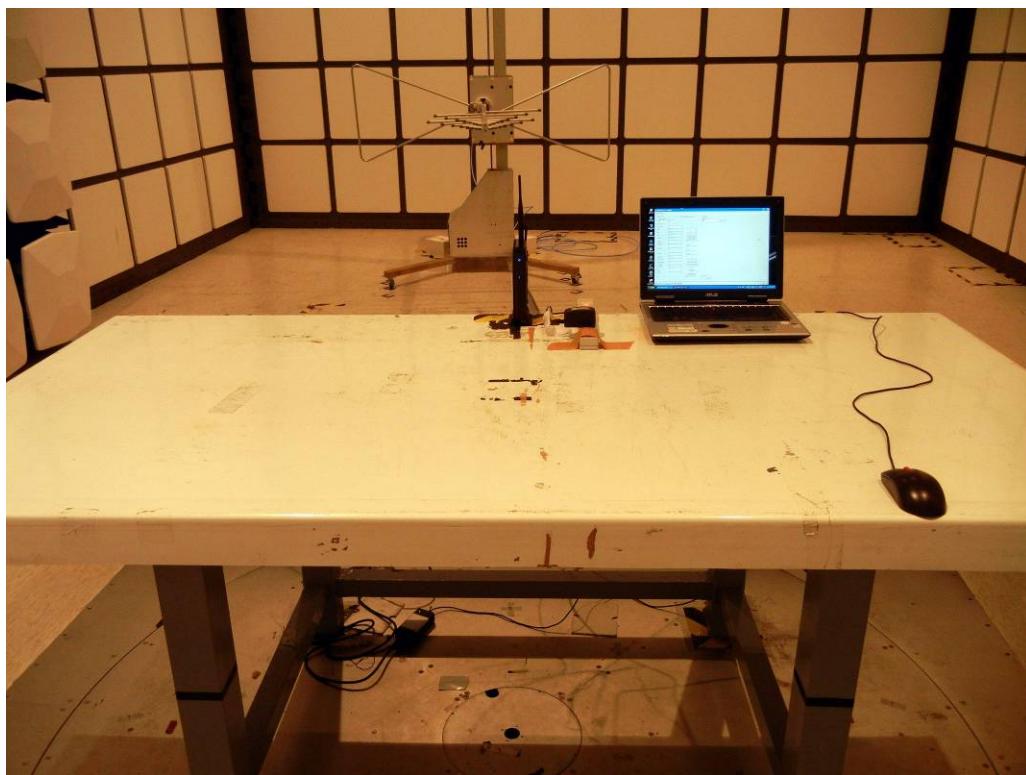
**Notes:**

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

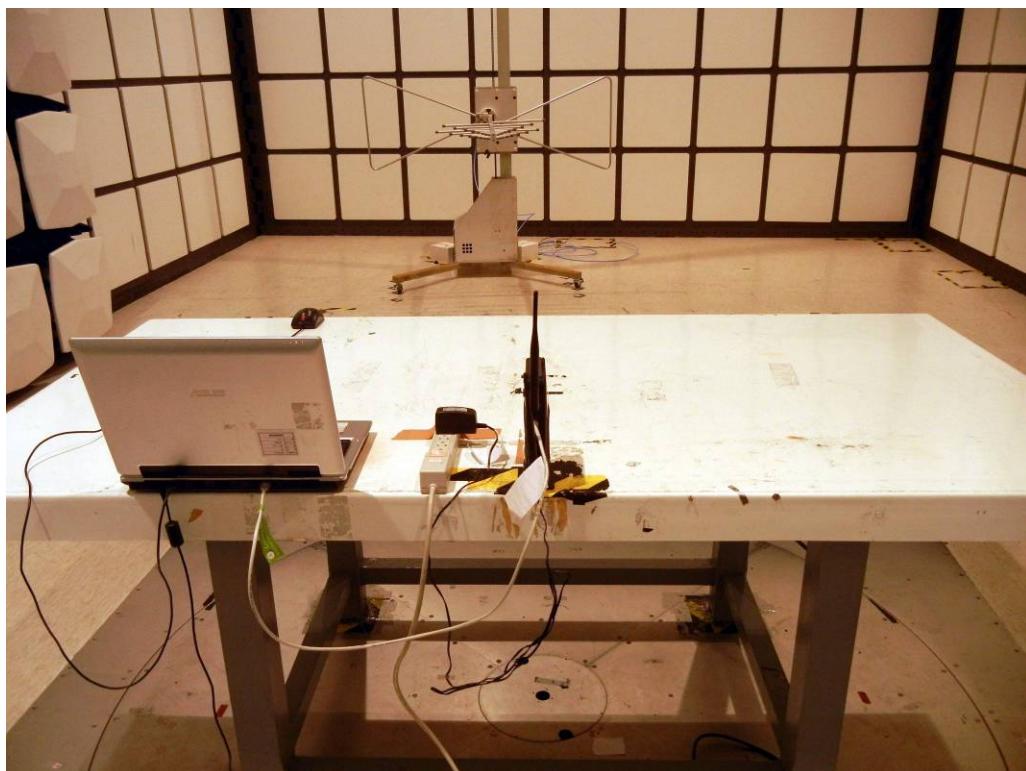


5.7 Test Photographs (30MHz~1000MHz)

Front View

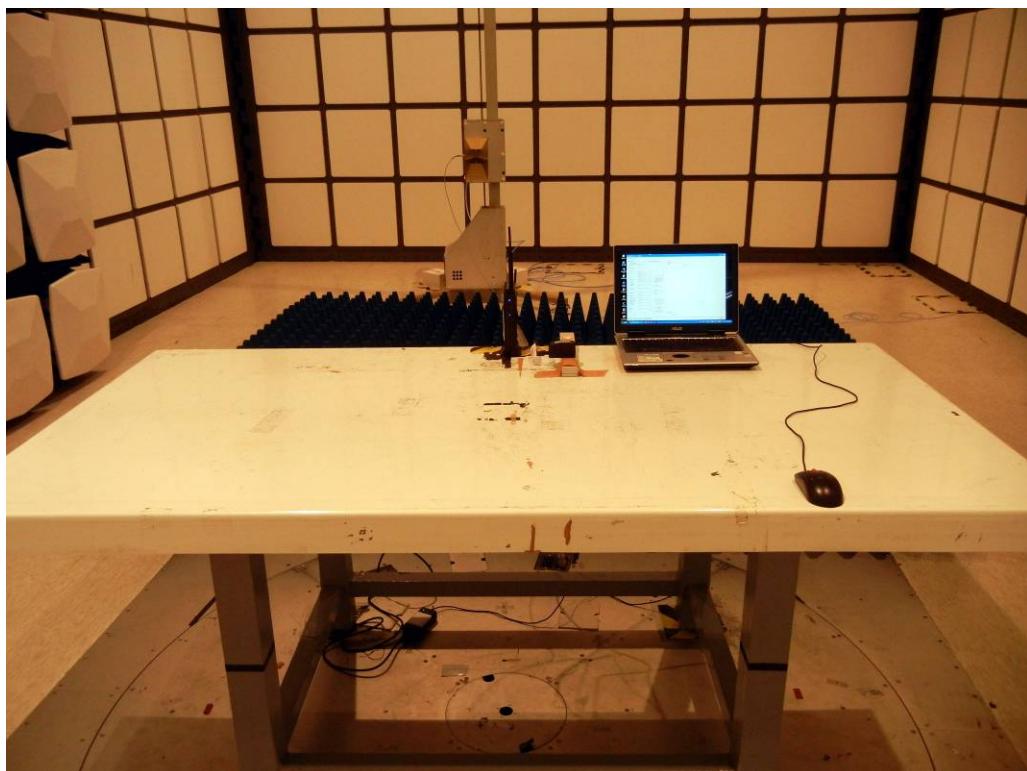


Rear View

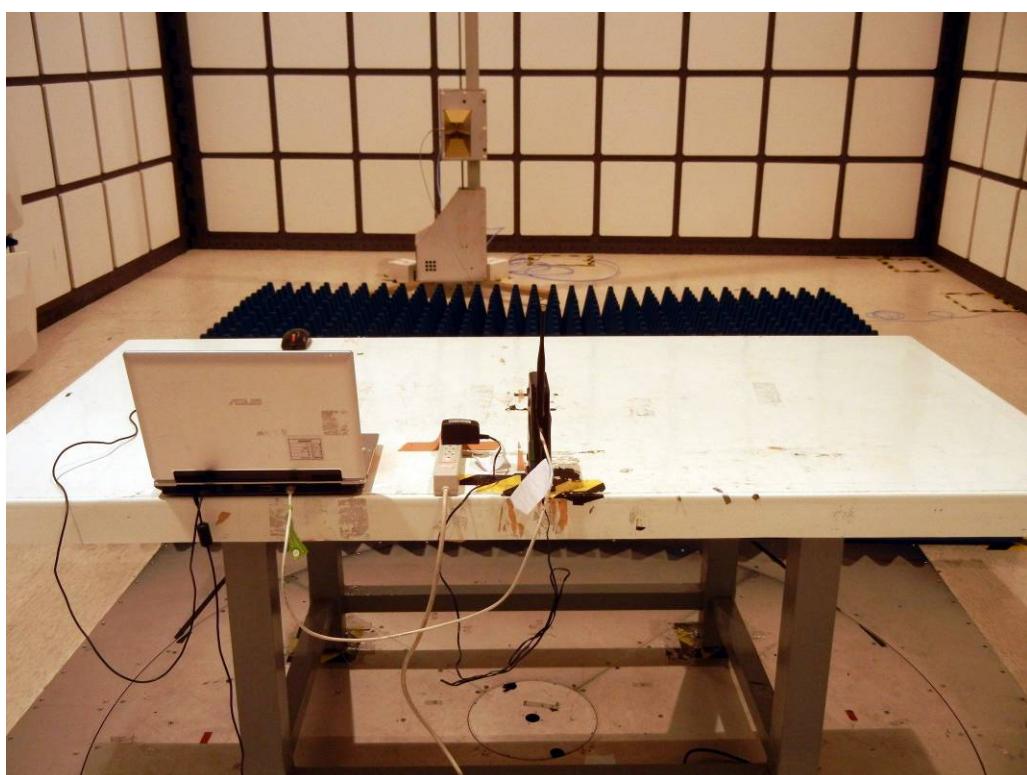




5.8 Test Photographs (1000MHz~40000MHz)



Front View



Rear View



6. 6dB Bandwidth Measurement Data

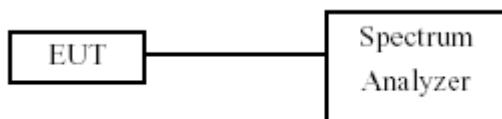
6.1 Test Limit

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

6.2 Test Procedures

- a. The transmitter output was connected to the spectrum analyzer.
- b. Set RBW of spectrum analyzer to 1~5% of the emission bandwidth and VBW \geq 3x RBW.
- c. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.
- d. The 6dB Bandwidth was measured and recorded.

6.3 Test Setup Layout



6.4 Measurement Equipment

| Instrument/Ancillary | Manufacturer | Model No. | Serial No. | Calibration Date | Valid Date |
|----------------------|--------------|-----------|------------|------------------|------------|
| Spectrum Analyzer | R&S | FSP40 | 100219 | 2011/11/24 | 2012/11/23 |



6.5 Test Result and Data

Test Date: Jun. 07, 2012

Temperature: 25°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

| Modulation Standard | Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | |
|---------------------------|---------|--------------------|------------------------|-------|
| | | | ANT R | ANT L |
| 802.11b (11Mbps) | 01 | 2412 | 10.2 | 10.8 |
| | 06 | 2437 | 11.0 | 10.8 |
| | 11 | 2462 | 9.8 | 10.9 |
| 802.11g (54Mbps) | 01 | 2412 | 16.7 | 16.8 |
| | 06 | 2437 | 16.7 | 16.8 |
| | 11 | 2462 | 16.9 | 16.8 |
| 802.11n HT20 (130Mbps) | 01 | 2412 | 17.9 | 17.8 |
| | 06 | 2437 | 18.0 | 18.0 |
| | 11 | 2462 | 18.0 | 17.9 |
| 802.11n HT40 (270Mbps) | 03 | 2422 | 36.2 | 36.6 |
| | 06 | 2437 | 36.6 | 36.6 |
| | 09 | 2452 | 36.6 | 36.4 |

Test Date: Jun. 15, 2012

Temperature: 25°C

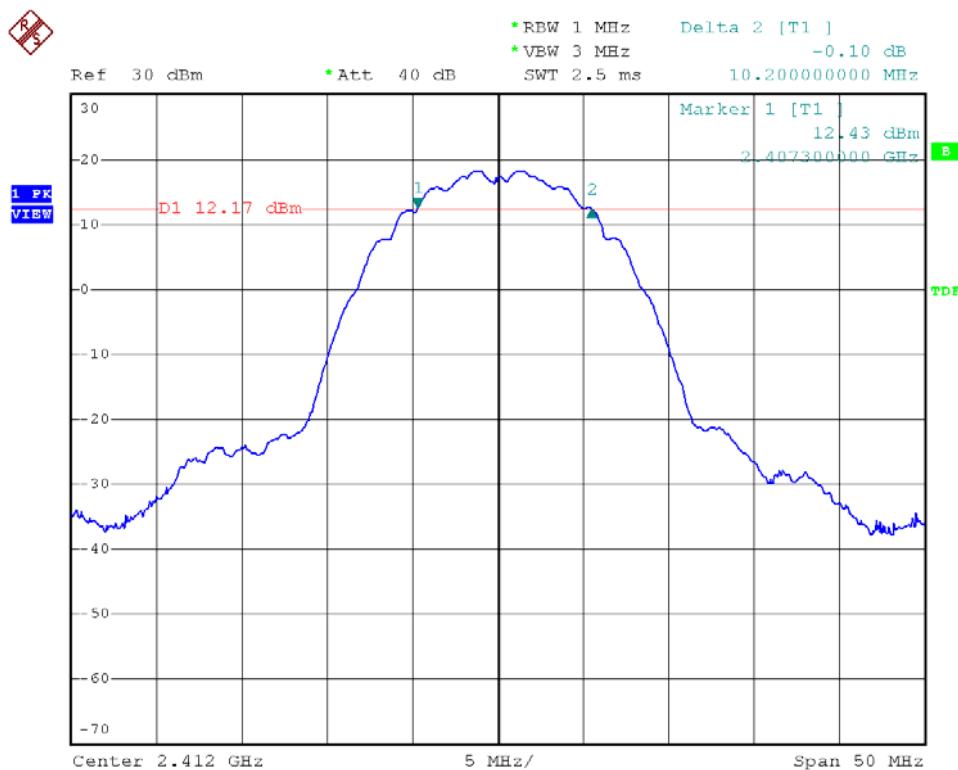
Atmospheric pressure: 1020 hPa

Humidity: 65%

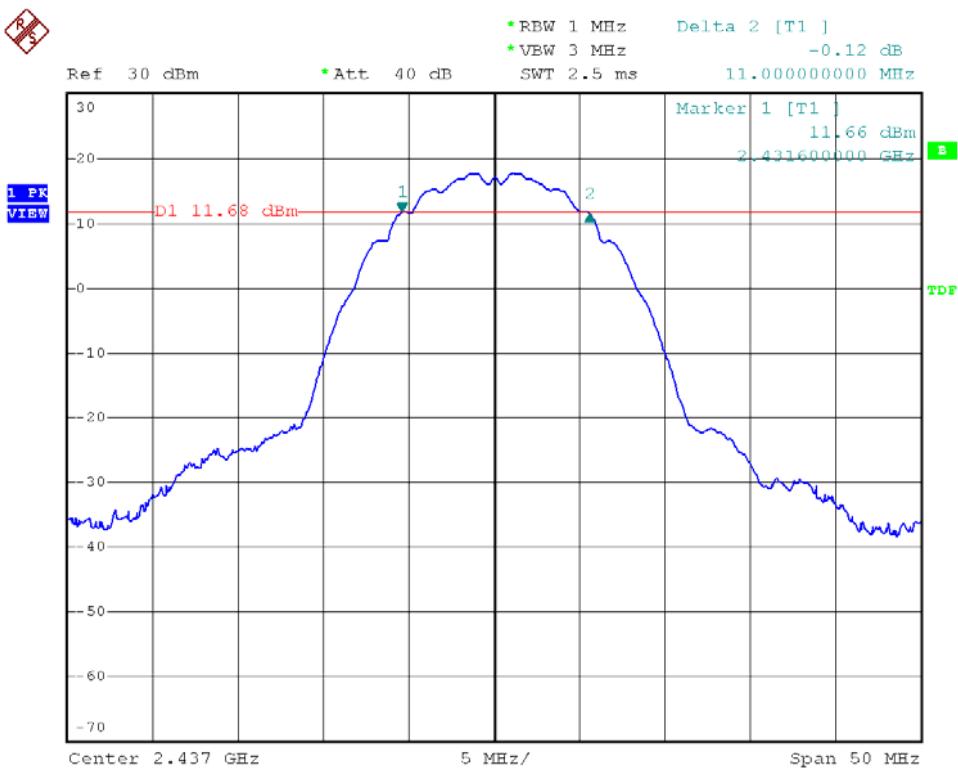
| Modulation Standard | Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | |
|----------------------------|---------|--------------------|------------------------|-------|
| | | | ANT R | ANT L |
| 802.11a (54Mbps) | 149 | 5745 | 16.6 | 16.7 |
| | 157 | 5785 | 16.6 | 16.9 |
| | 165 | 5825 | 16.6 | 16.8 |
| 802.11an HT20 (130Mbps) | 149 | 5745 | 17.8 | 18.0 |
| | 157 | 5785 | 17.7 | 17.8 |
| | 165 | 5825 | 17.8 | 17.8 |
| 802.11an HT40 (270Mbps) | 151 | 5755 | 36.4 | 36.4 |
| | 155 | 5775 | 36.2 | 36.6 |
| | 159 | 5795 | 36.2 | 36.6 |



Modulation Standard: 802.11b (11Mbps), ANT R
Channel: 01

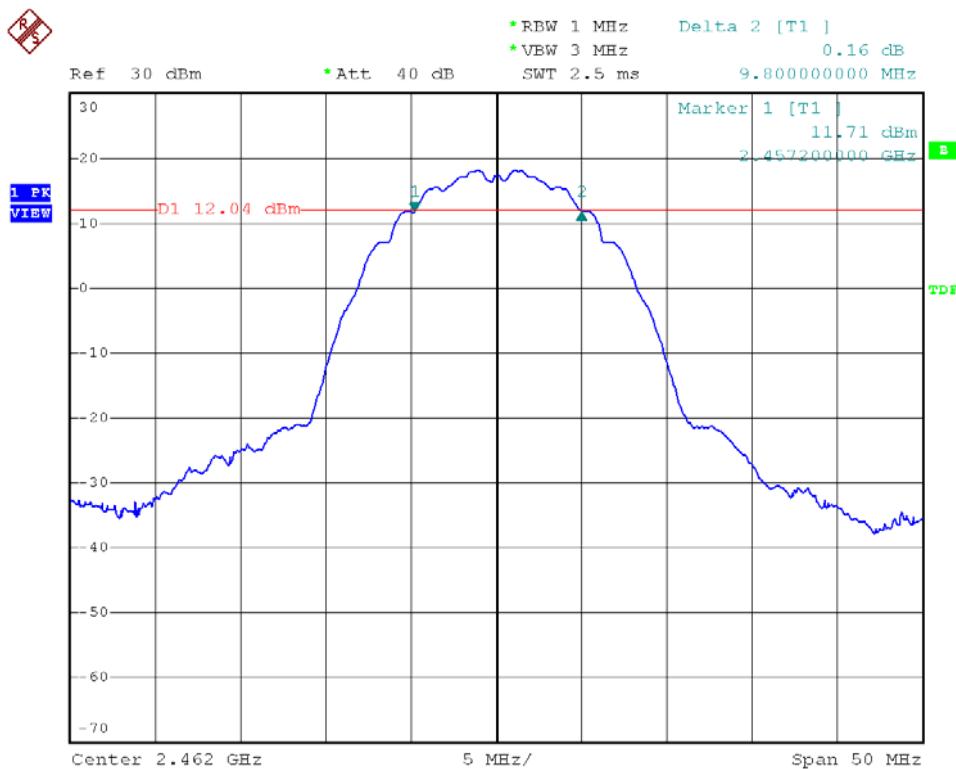


Modulation Standard: 802.11b (11Mbps), ANT R
Channel: 06

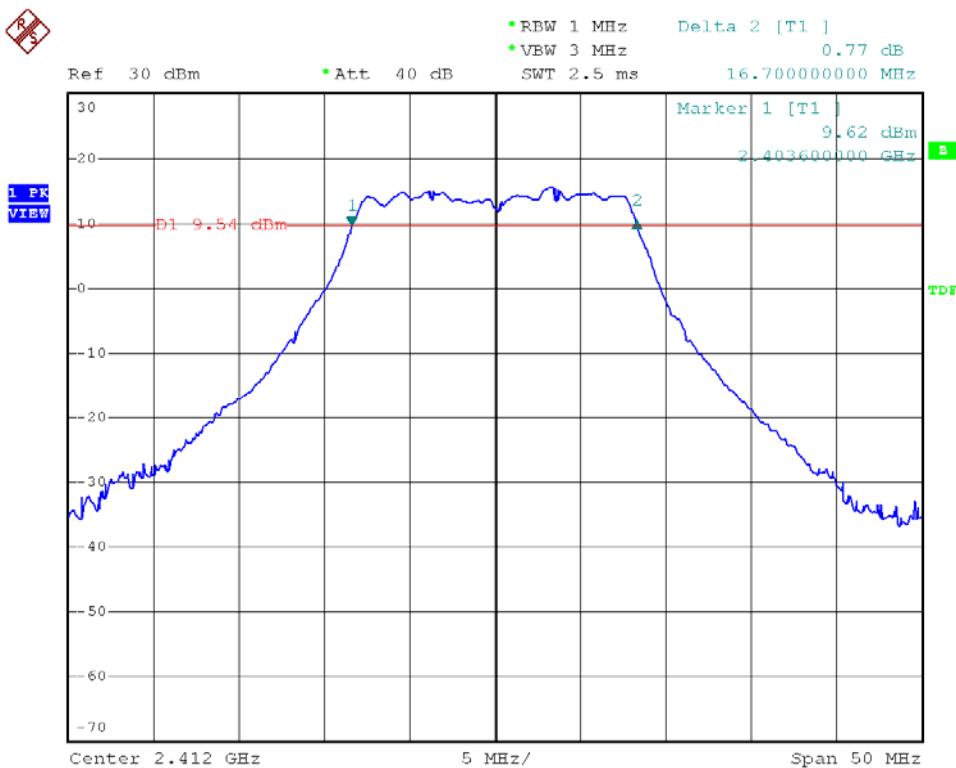




Modulation Standard: 802.11b (11Mbps), ANT R
Channel: 11

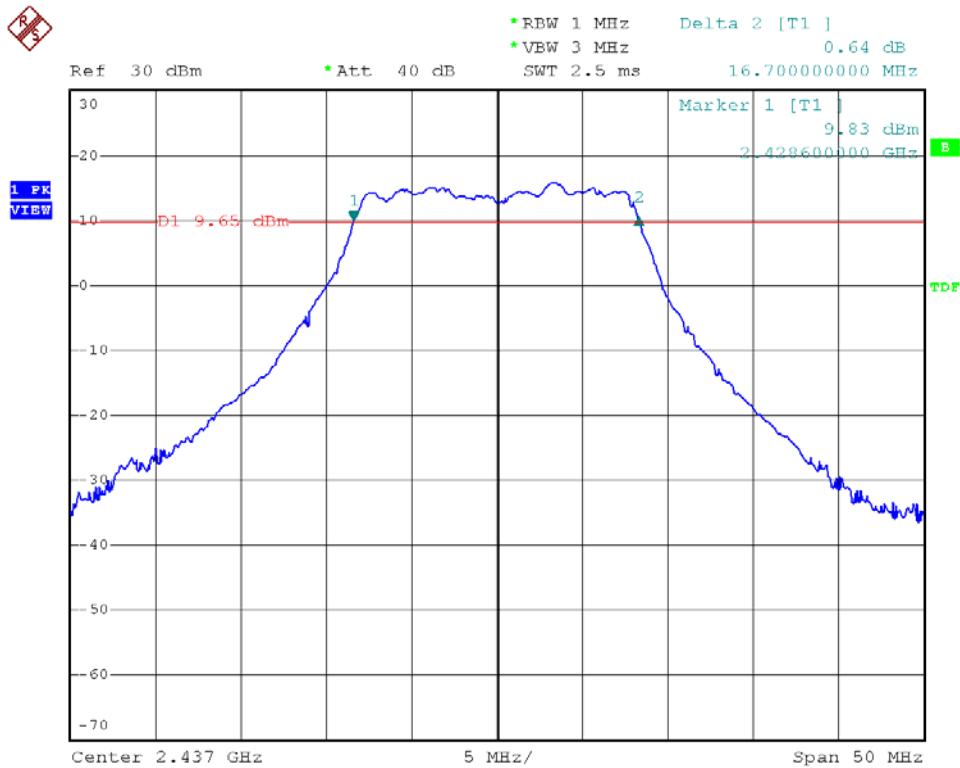


Modulation Standard: 802.11g (54Mbps), ANT R
Channel: 01

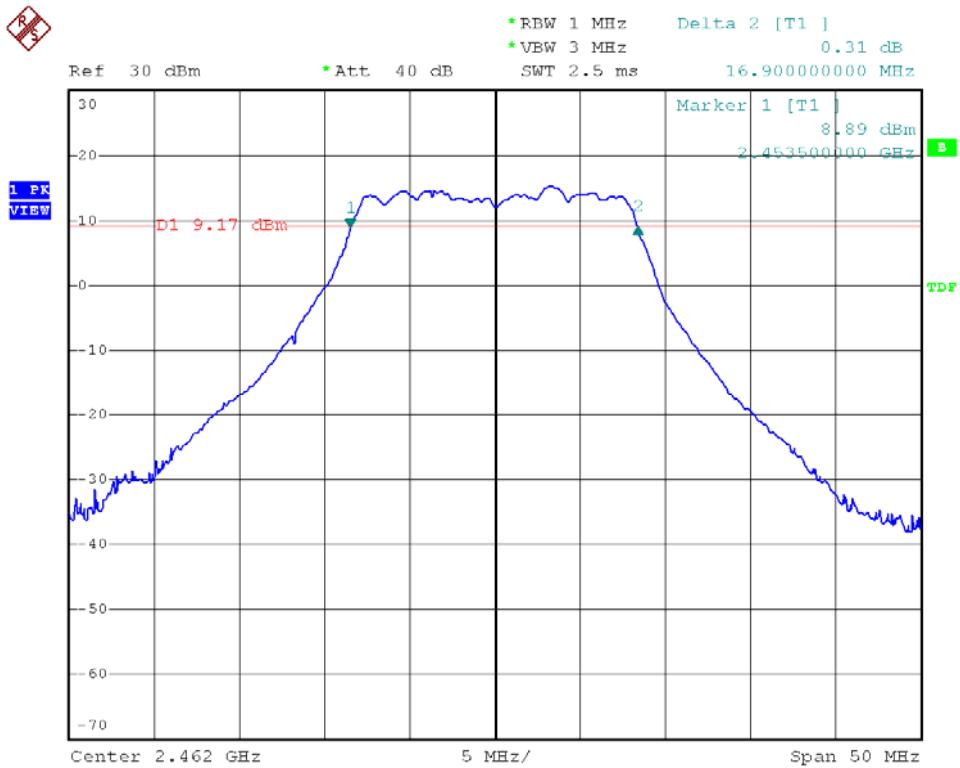




Modulation Standard: 802.11g (54Mbps), ANT R
Channel: 06

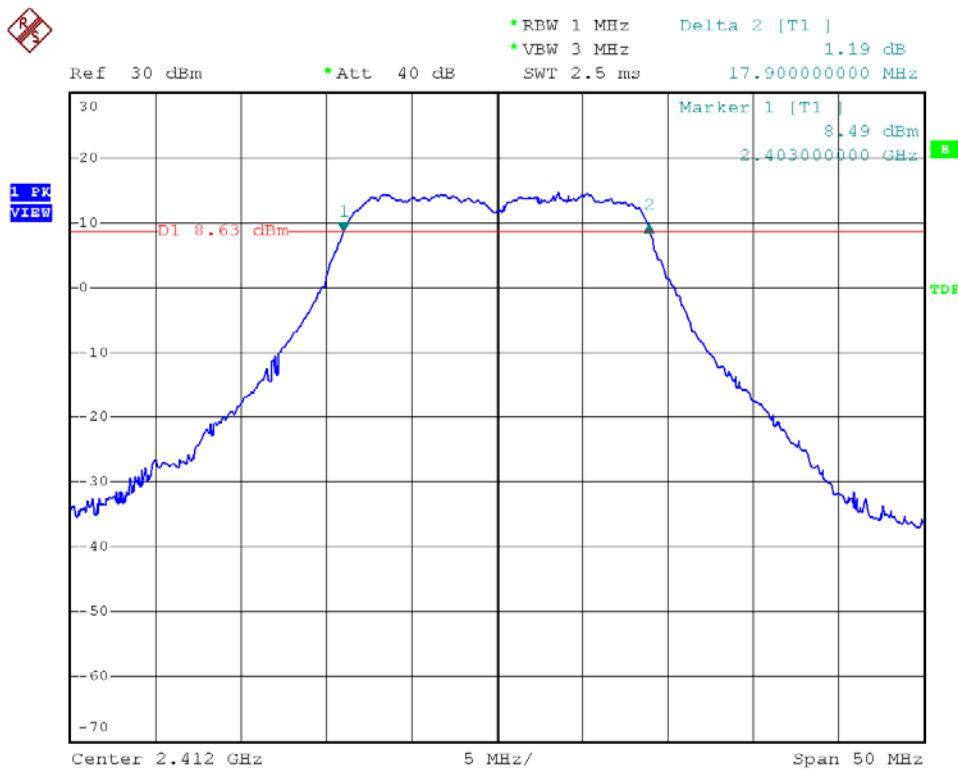


Modulation Standard: 802.11g (54Mbps), ANT R
Channel: 11

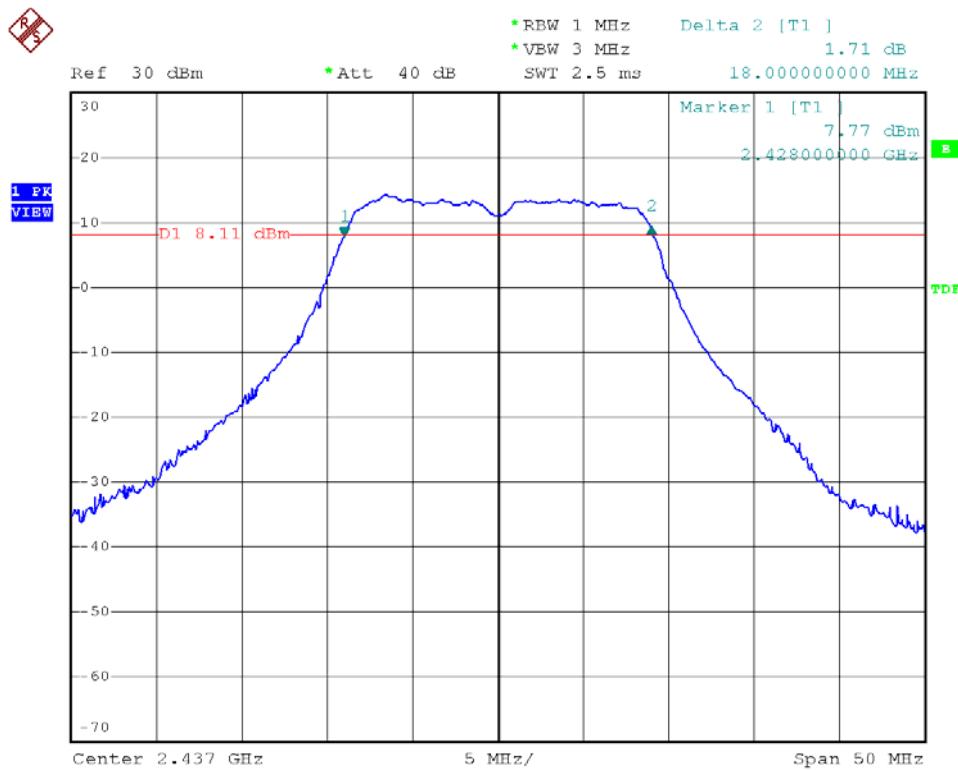




Modulation Standard: 802.11n HT20 (130Mbps), ANT R
Channel: 01

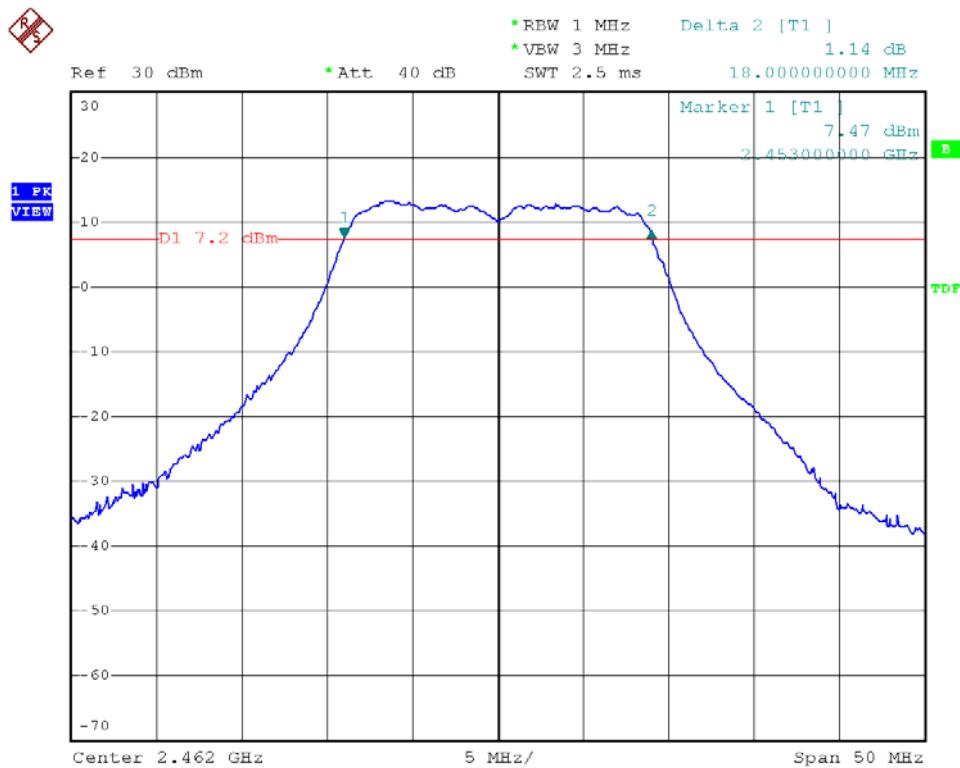


Modulation Standard: 802.11n HT20 (130Mbps), ANT R
Channel: 06

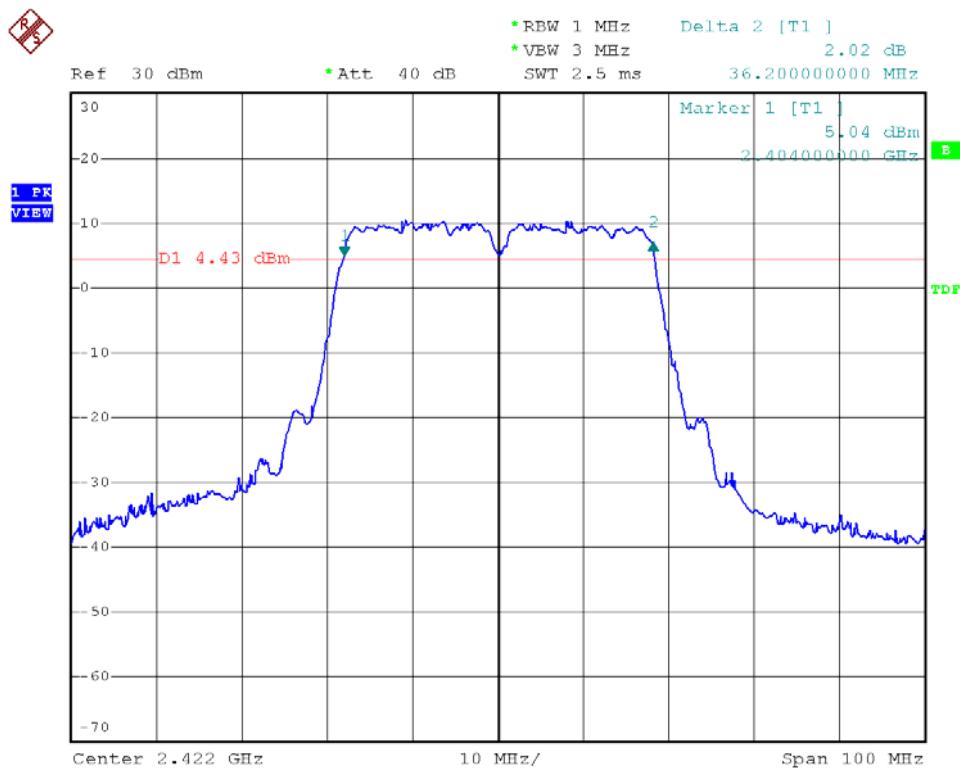




Modulation Standard: 802.11n HT20 (130Mbps), ANT R
Channel: 11

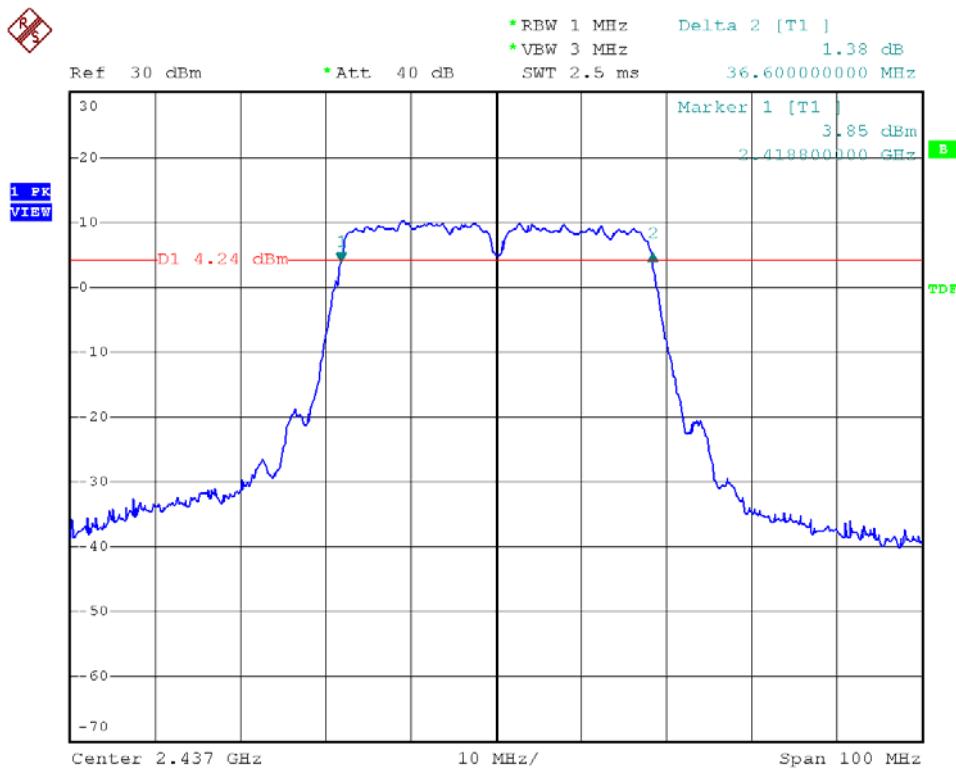


Modulation Standard: 802.11n HT40 (270Mbps), ANT R
Channel: 03

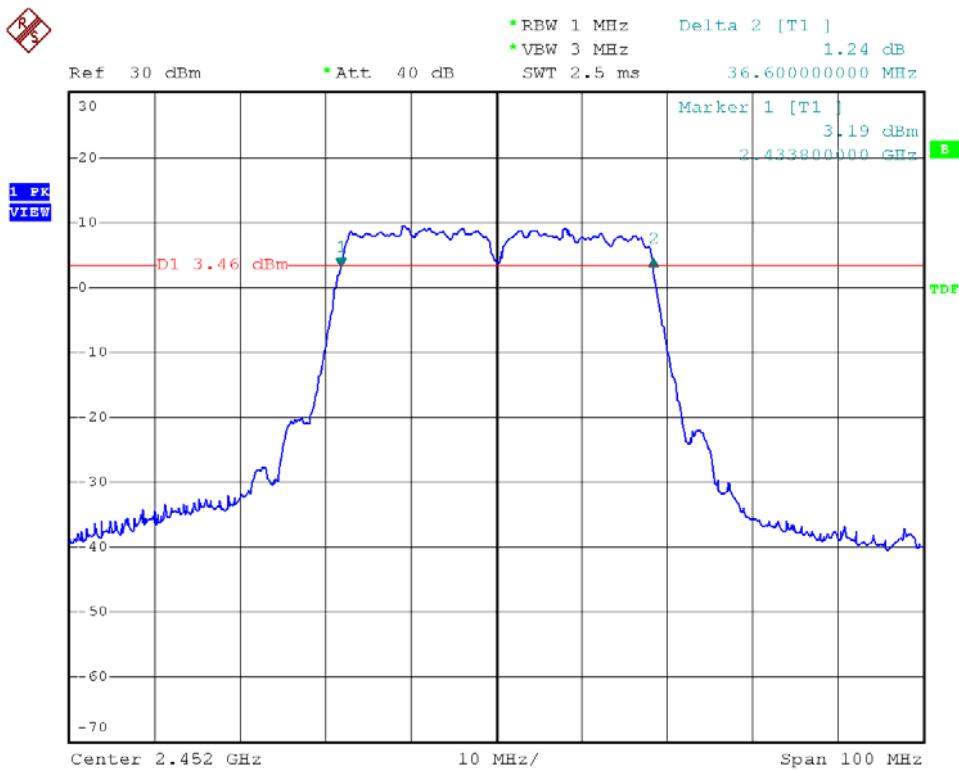




Modulation Standard: 802.11n HT40 (270Mbps), ANT R
Channel: 06

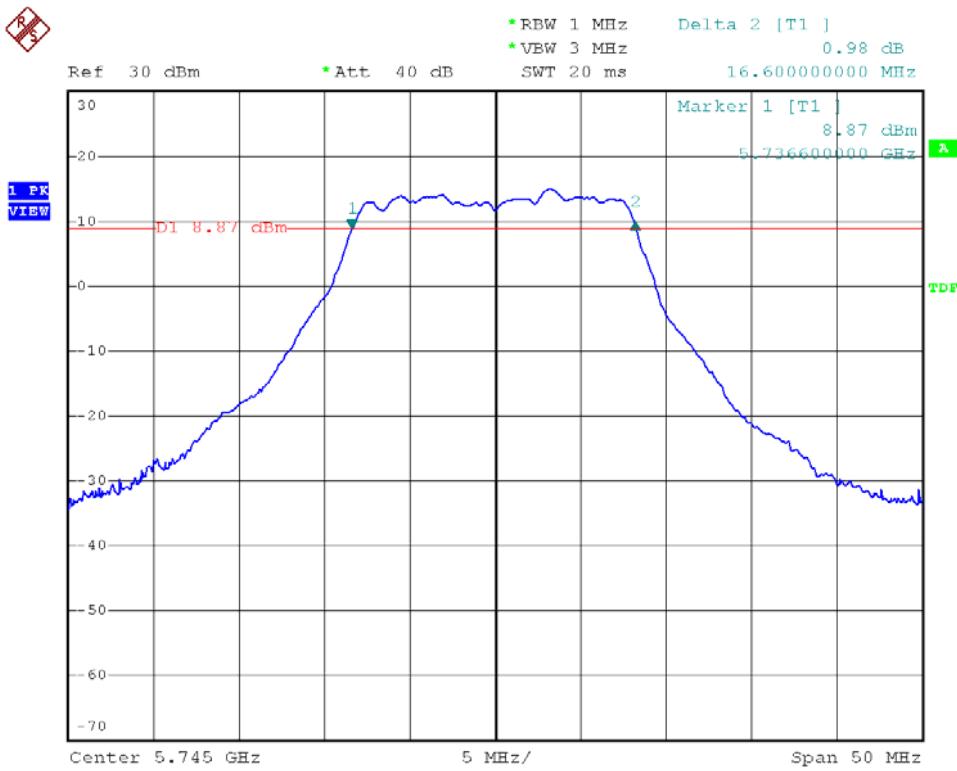


Modulation Standard: 802.11n HT40 (270Mbps), ANT R
Channel: 09

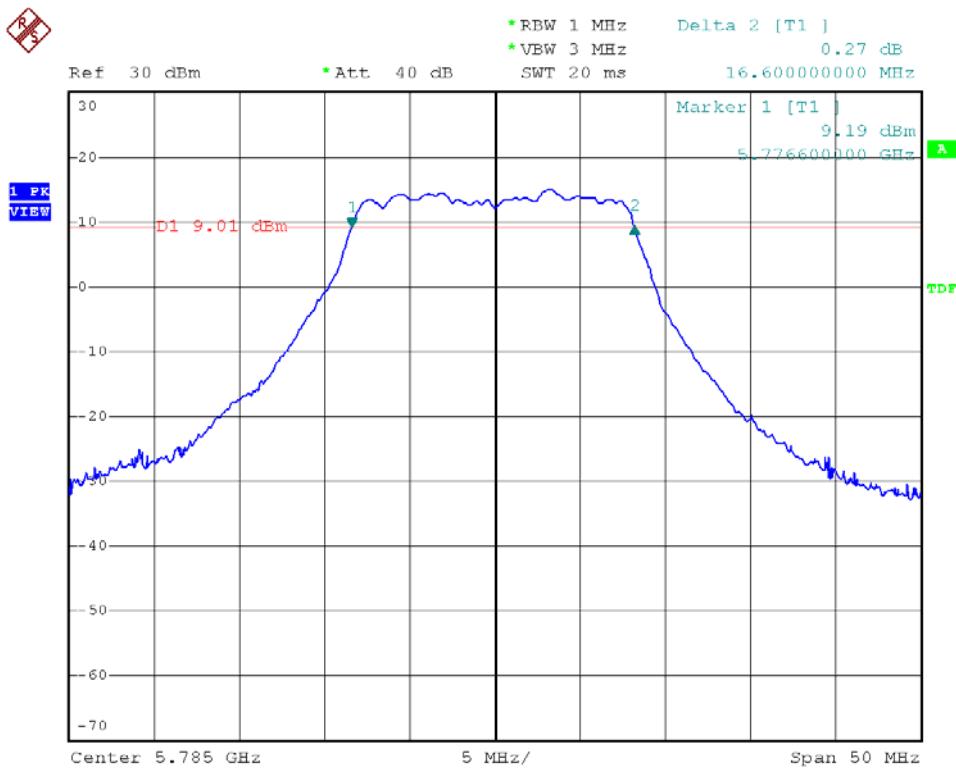




Modulation Standard: 802.11a (54Mbps), ANT R
Channel: 149

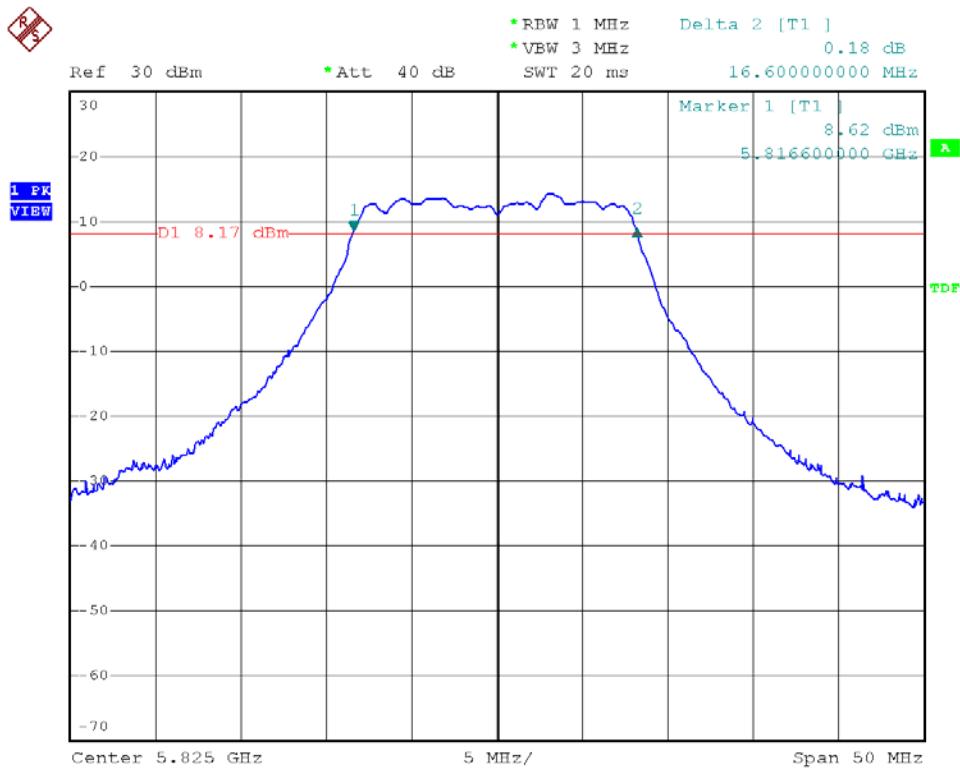


Modulation Standard: 802.11a (54Mbps), ANT R
Channel: 157

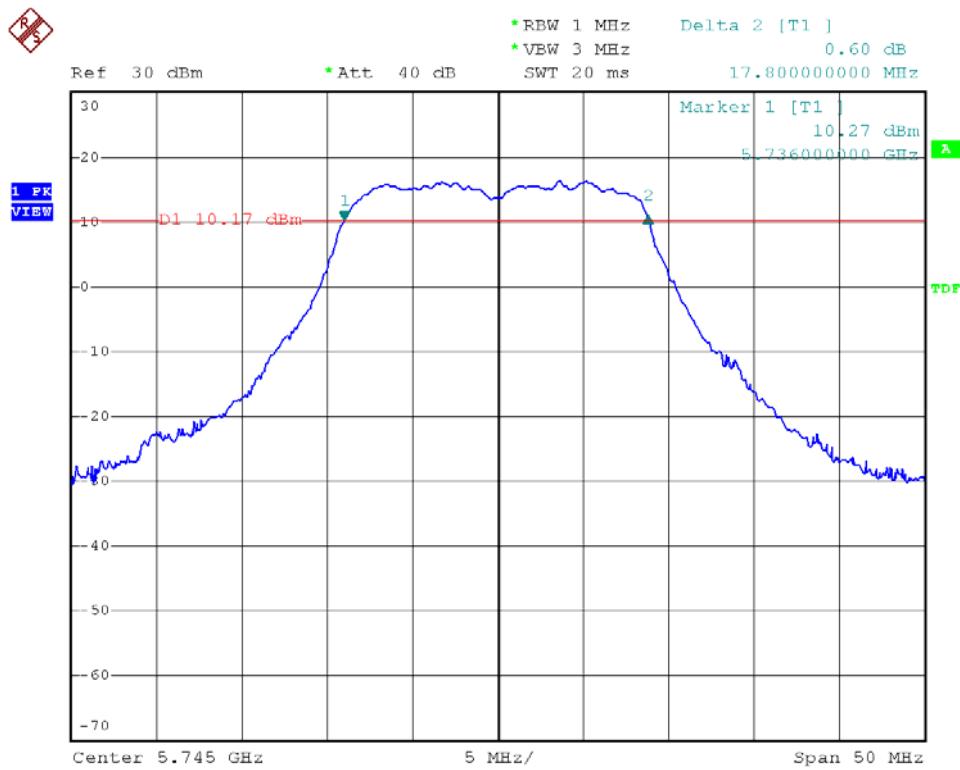




Modulation Standard: 802.11a (54Mbps), ANT R
Channel: 165

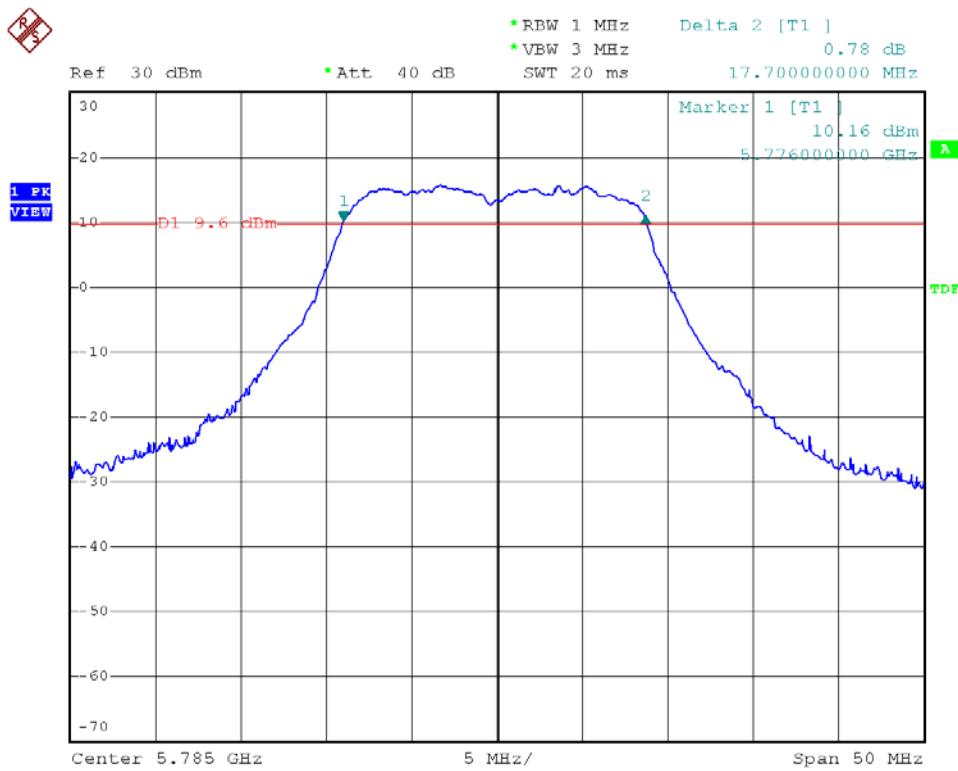


Modulation Standard: 802.11an HT20 (130Mbps), ANT R
Channel: 149

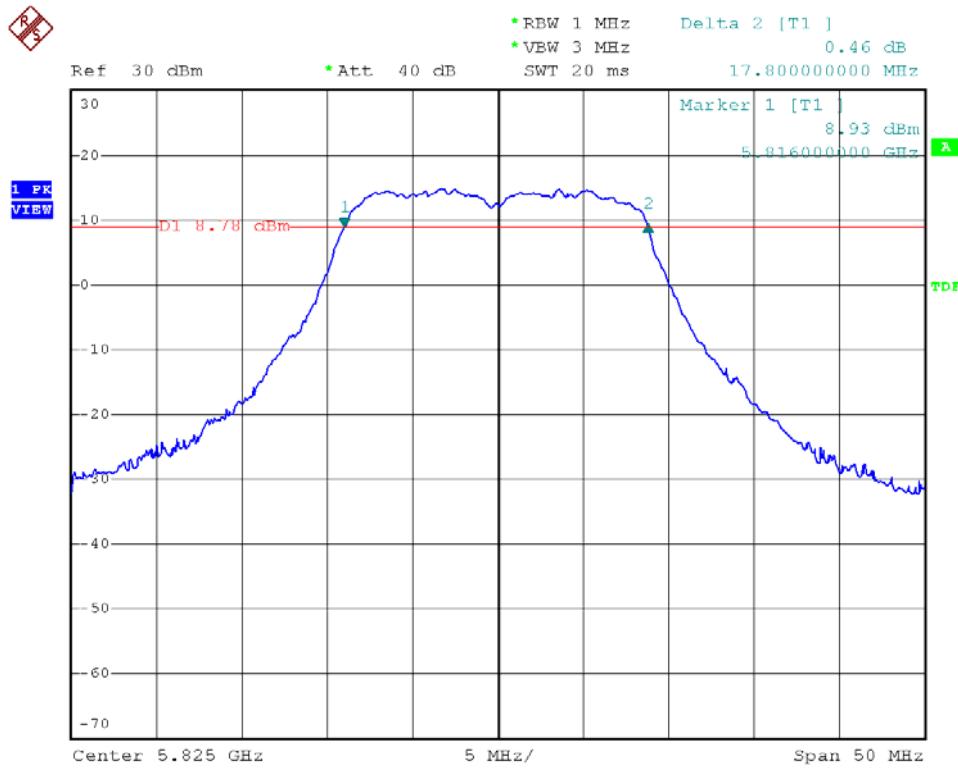




Modulation Standard: 802.11an HT20 (130Mbps), ANT R
Channel: 157

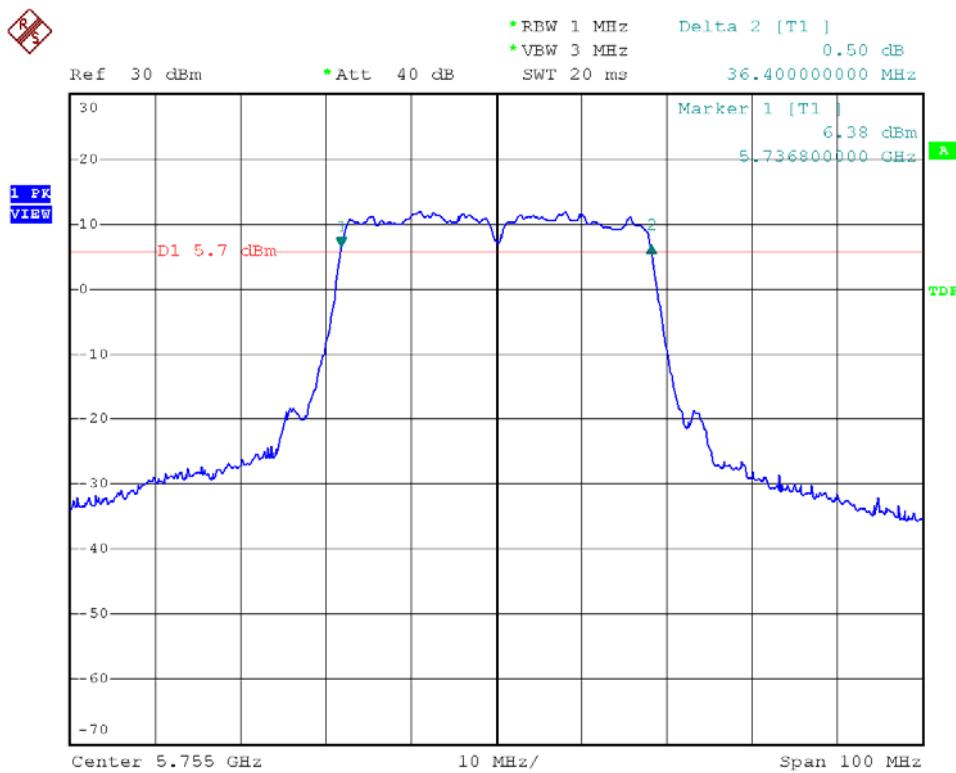


Modulation Standard: 802.11an HT20 (130Mbps), ANT R
Channel: 165

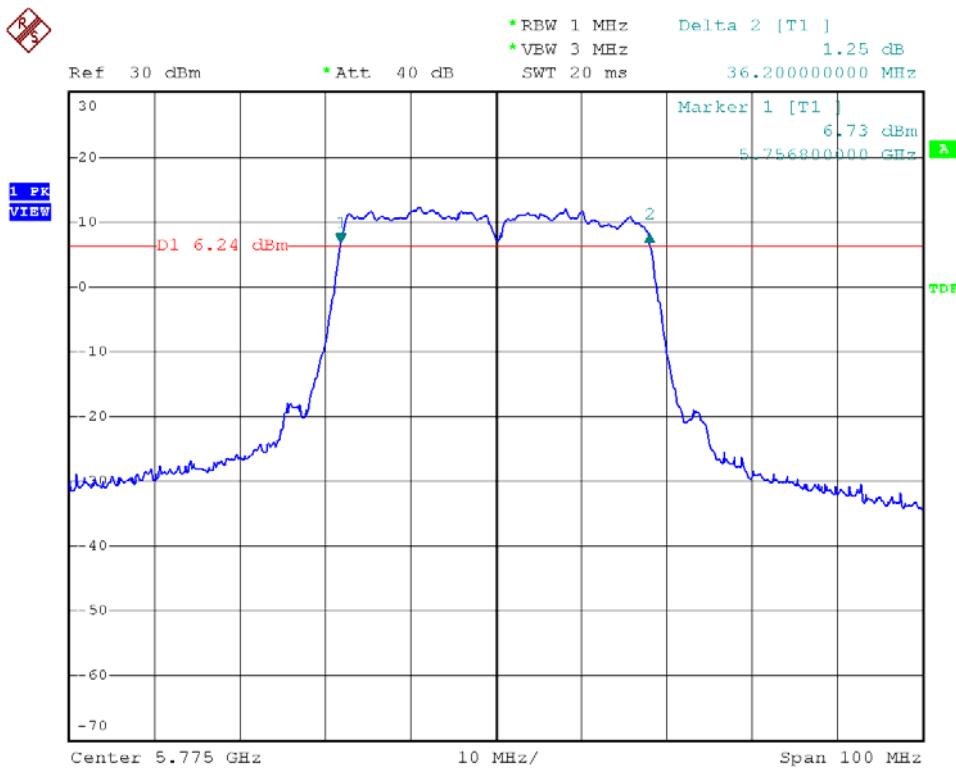




Modulation Standard: 802.11an HT40 (270Mbps), ANT R
Channel: 151

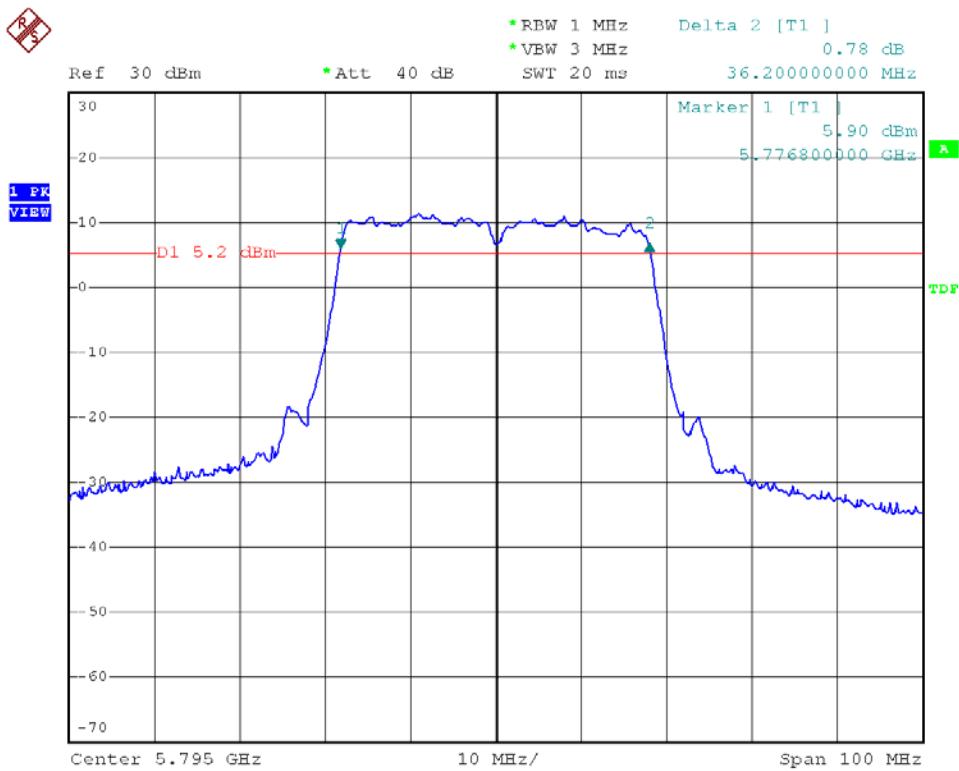


Modulation Standard: 802.11an HT40 (270Mbps), ANT R
Channel: 155

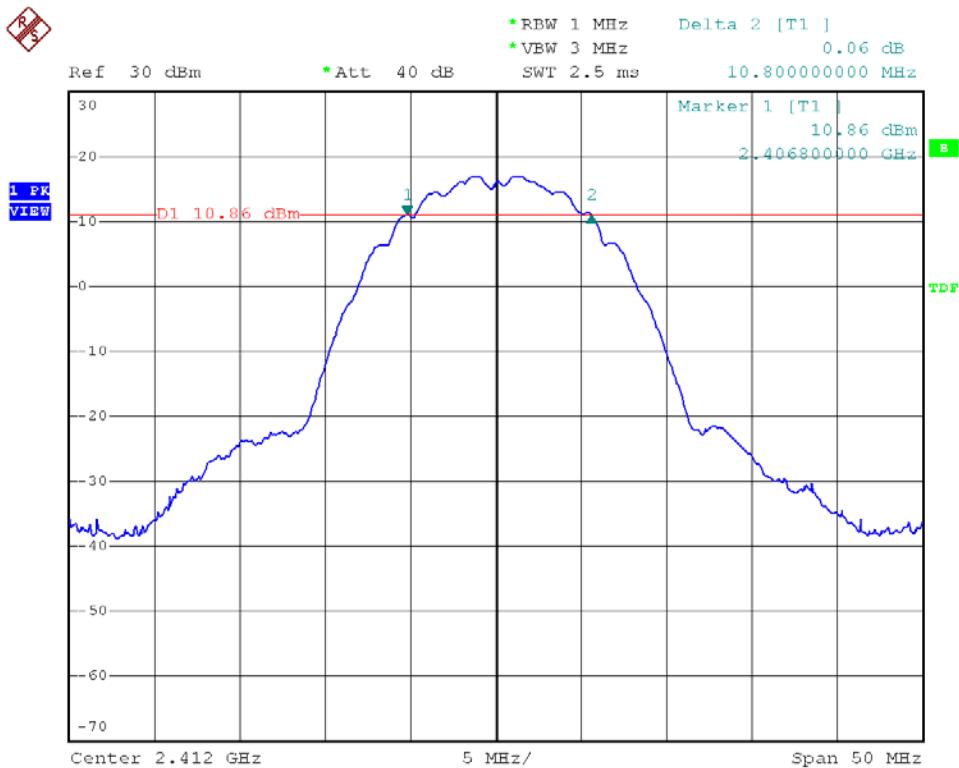




Modulation Standard: 802.11an HT40 (270Mbps), ANT R
Channel: 159

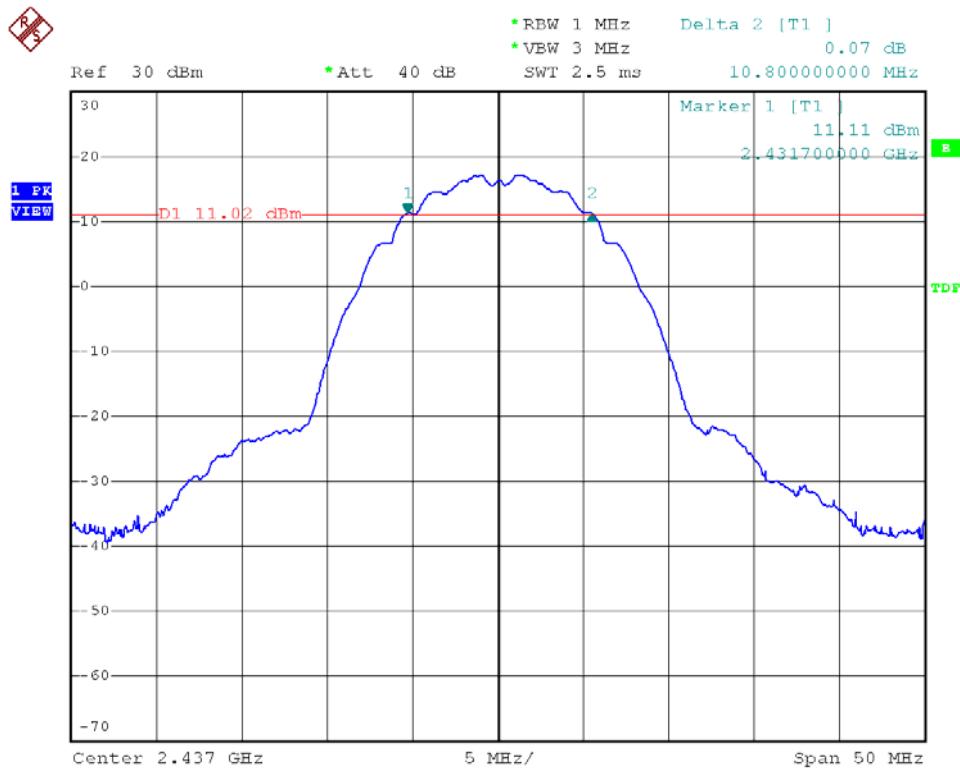


Modulation Standard: 802.11b (11Mbps), ANT L
Channel: 01

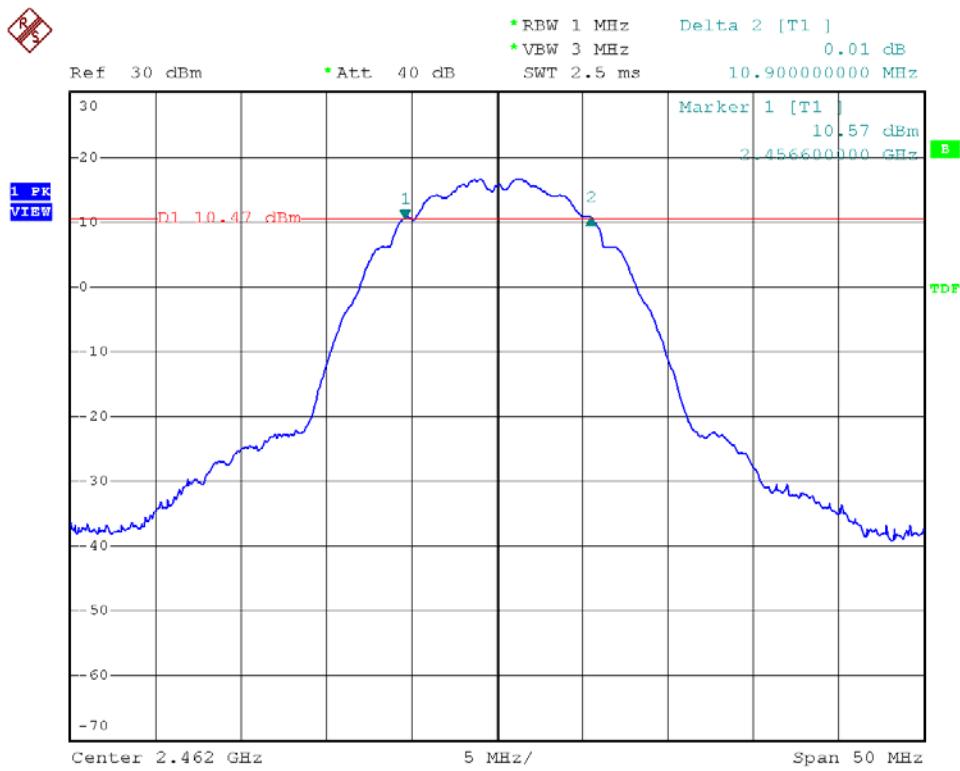




Modulation Standard: 802.11b (11Mbps), ANT L
Channel: 06

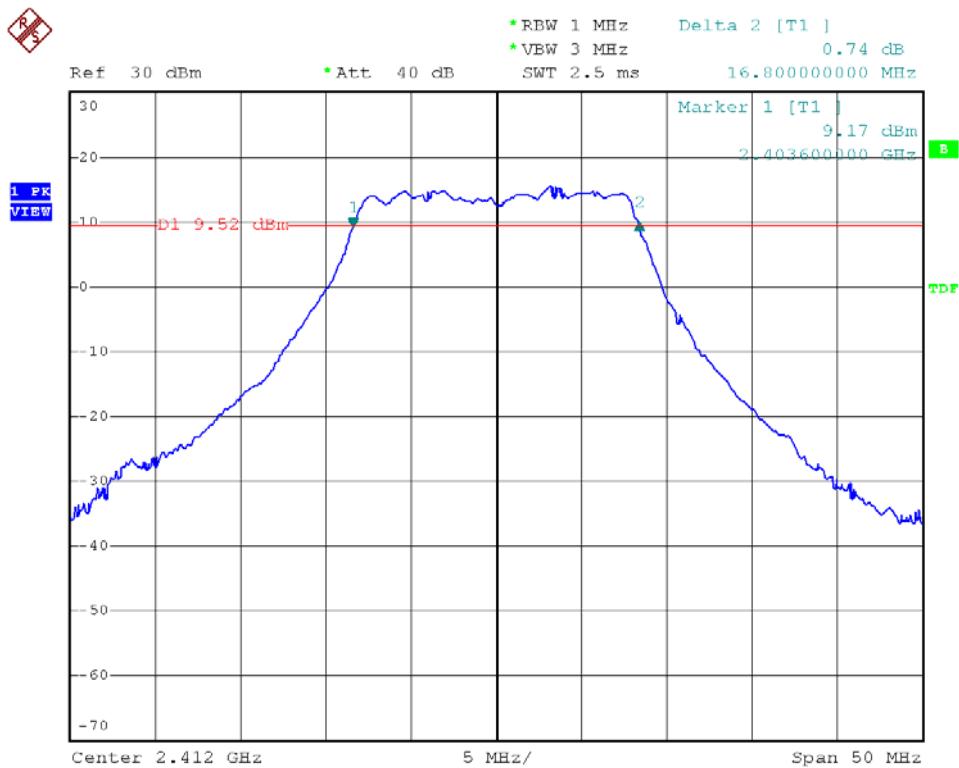


Modulation Standard: 802.11b (11Mbps), ANT L
Channel: 11

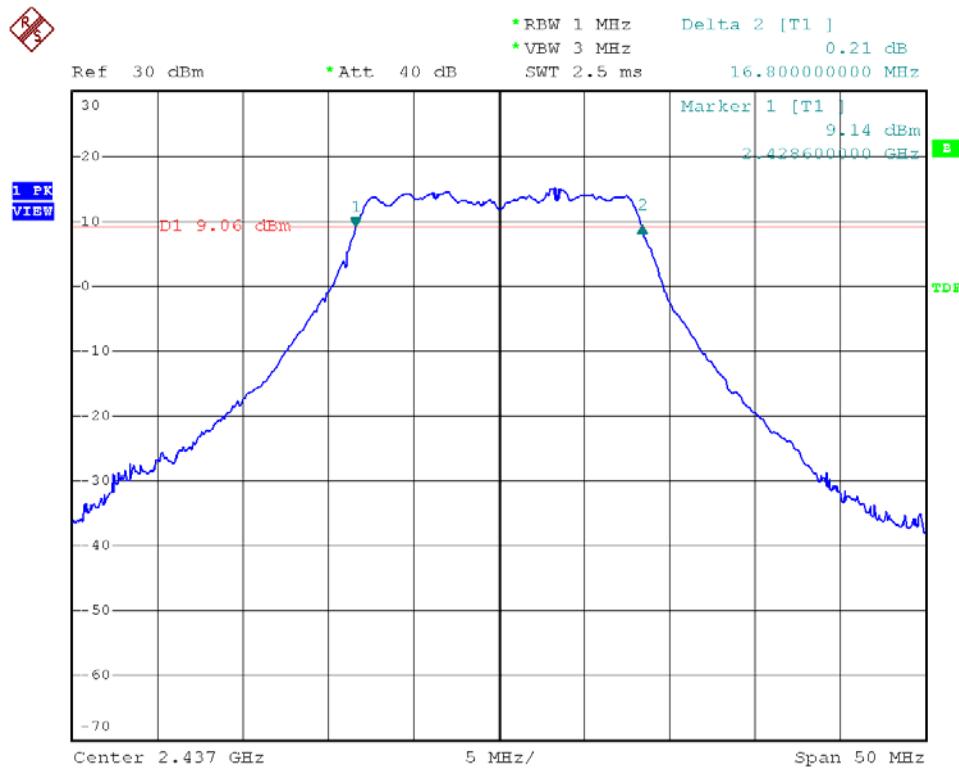




Modulation Standard: 802.11g (54Mbps), ANT L
Channel: 01

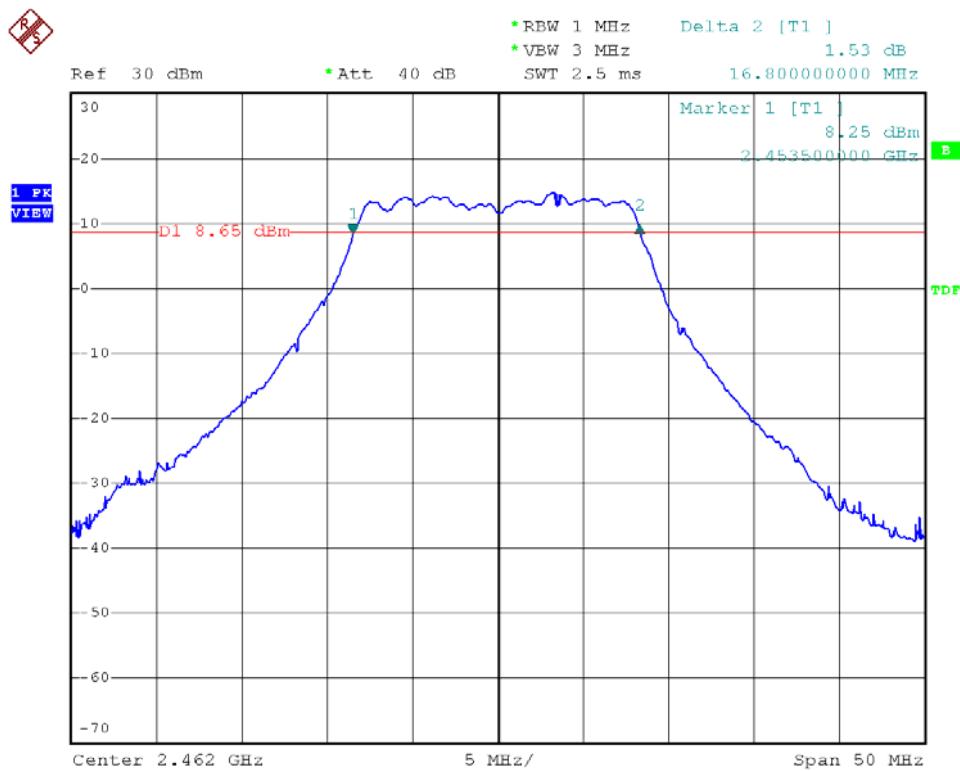


Modulation Standard: 802.11g (54Mbps), ANT L
Channel: 06

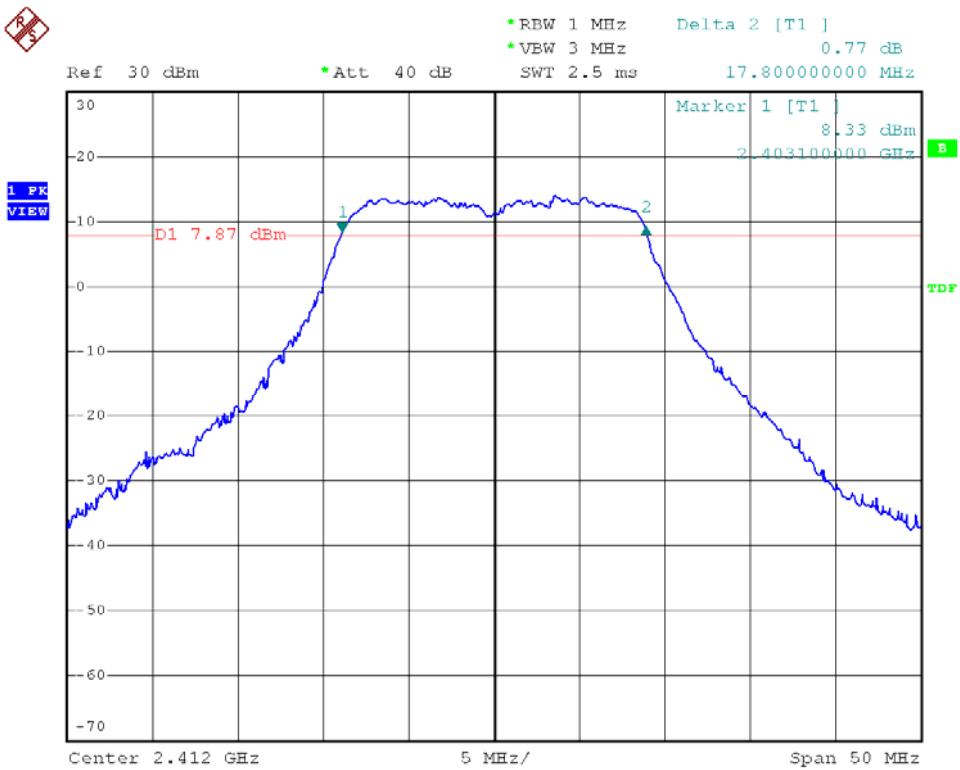




Modulation Standard: 802.11g (54Mbps), ANT L
Channel: 11

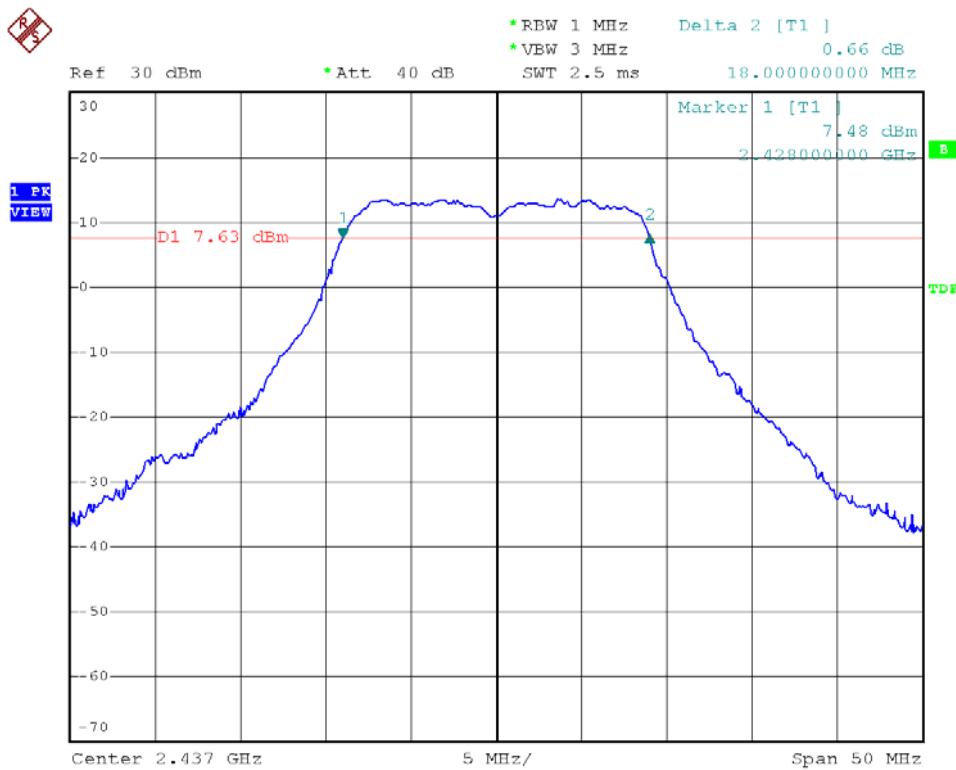


Modulation Standard: 802.11n HT20 (130Mbps), ANT L
Channel: 01

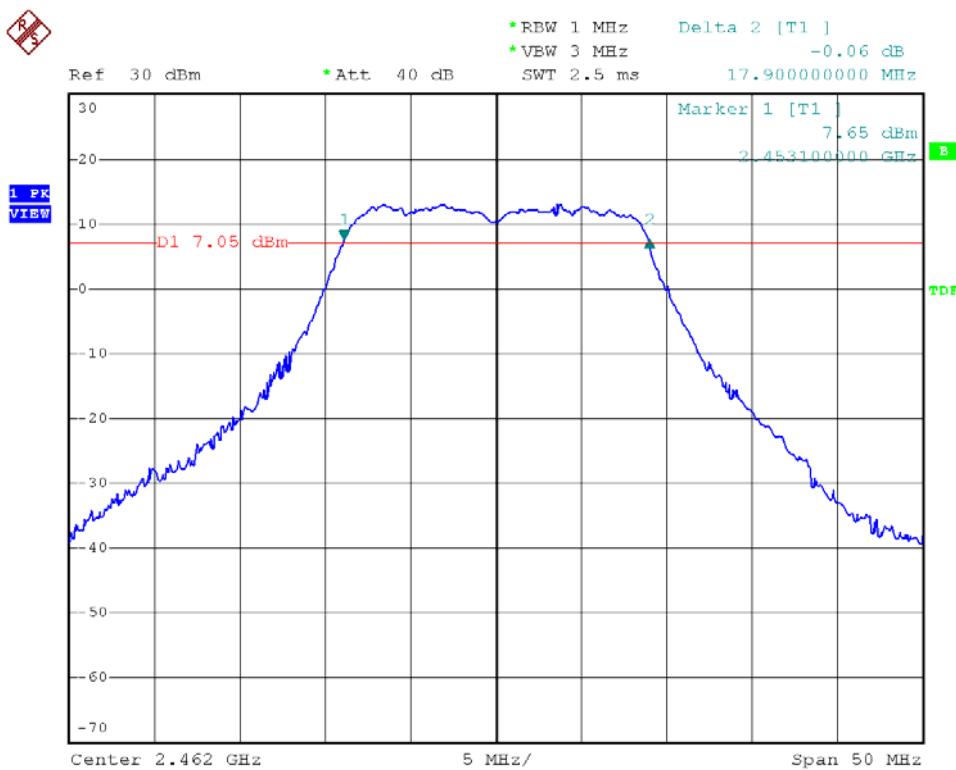




Modulation Standard: 802.11n HT20 (130Mbps), ANT L
Channel: 06

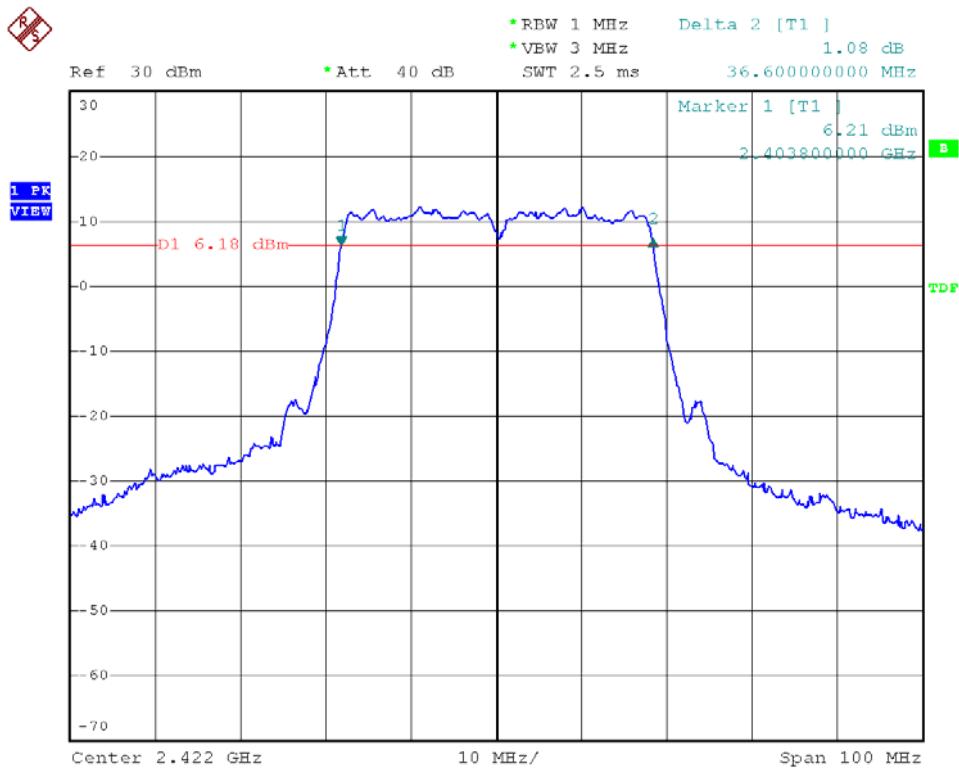


Modulation Standard: 802.11n HT20 (130Mbps), ANT L
Channel: 11

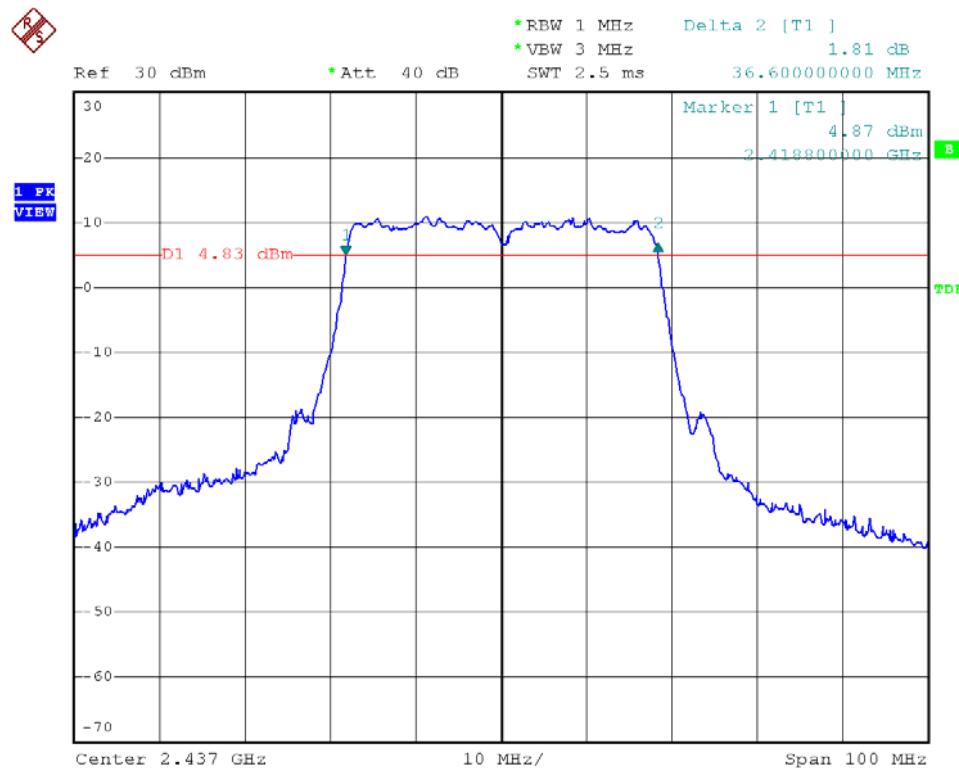




Modulation Standard: 802.11n HT40 (270Mbps), ANT L
Channel: 03

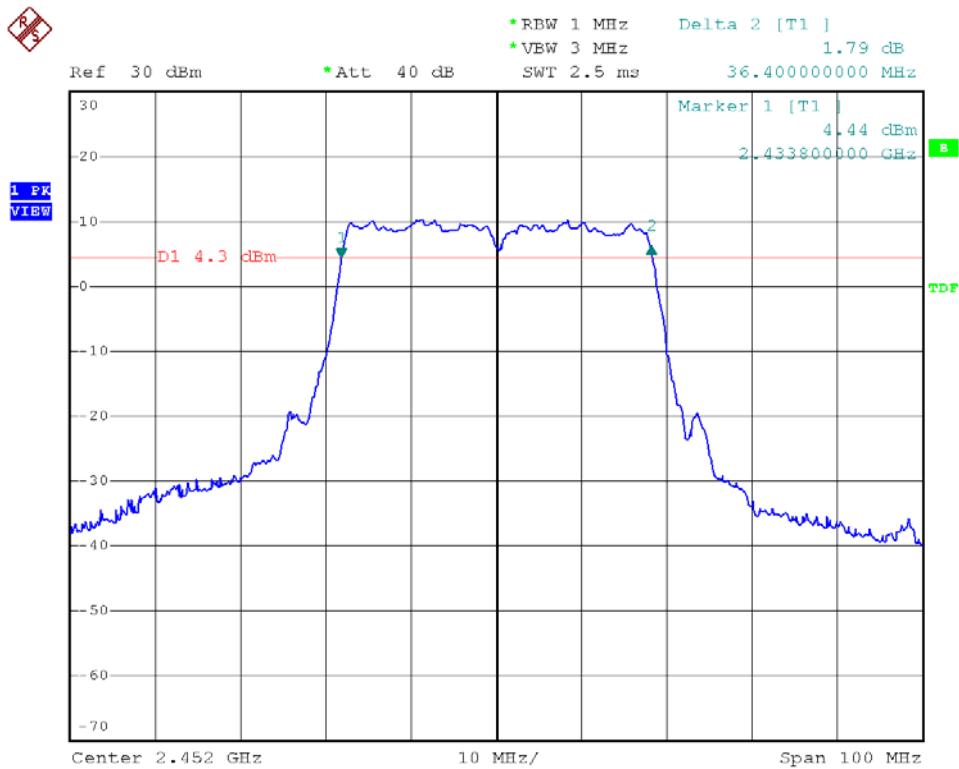


Modulation Standard: 802.11n HT40 (270Mbps), ANT L
Channel: 06

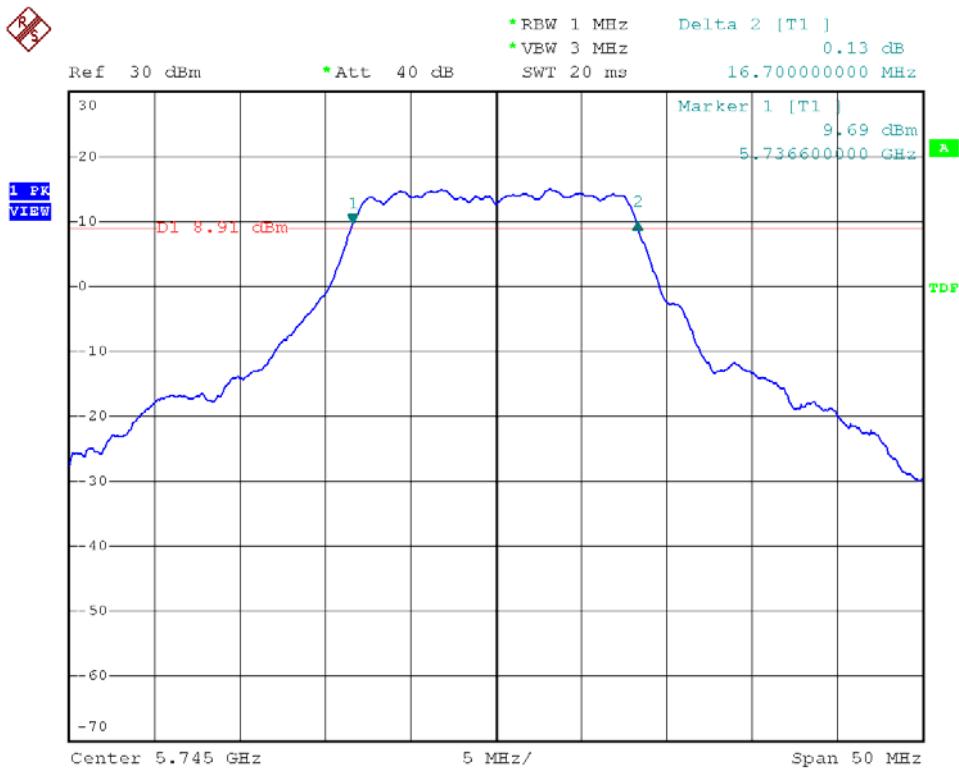




Modulation Standard: 802.11n HT40 (270Mbps), ANT L
Channel: 09

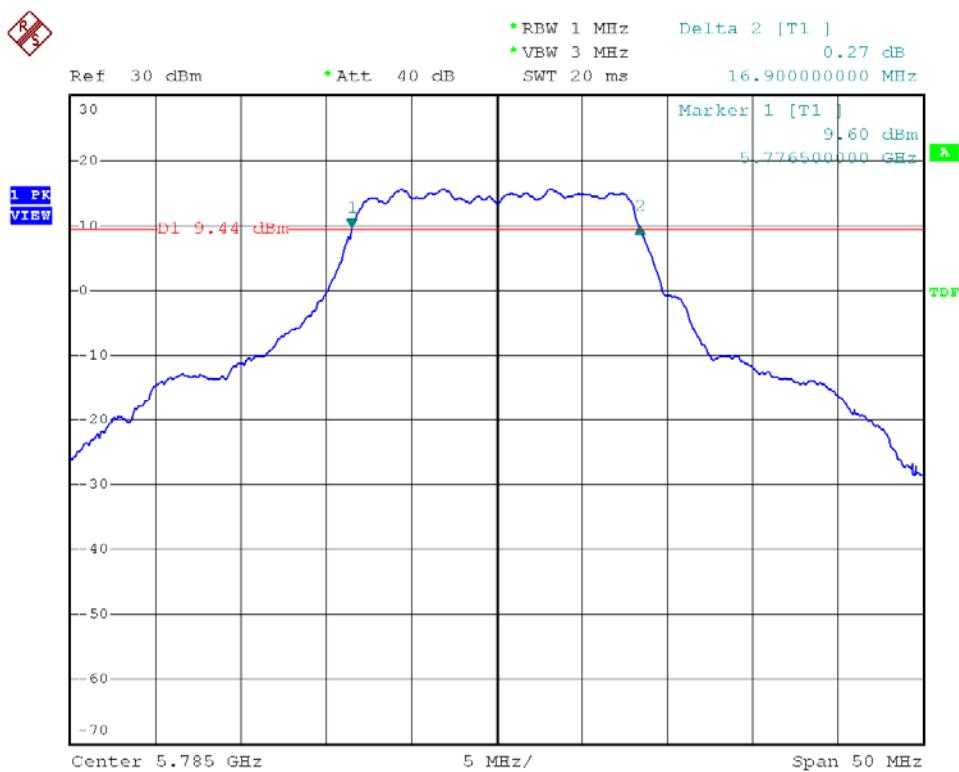


Modulation Standard: 802.11a (54Mbps), ANT L
Channel: 149

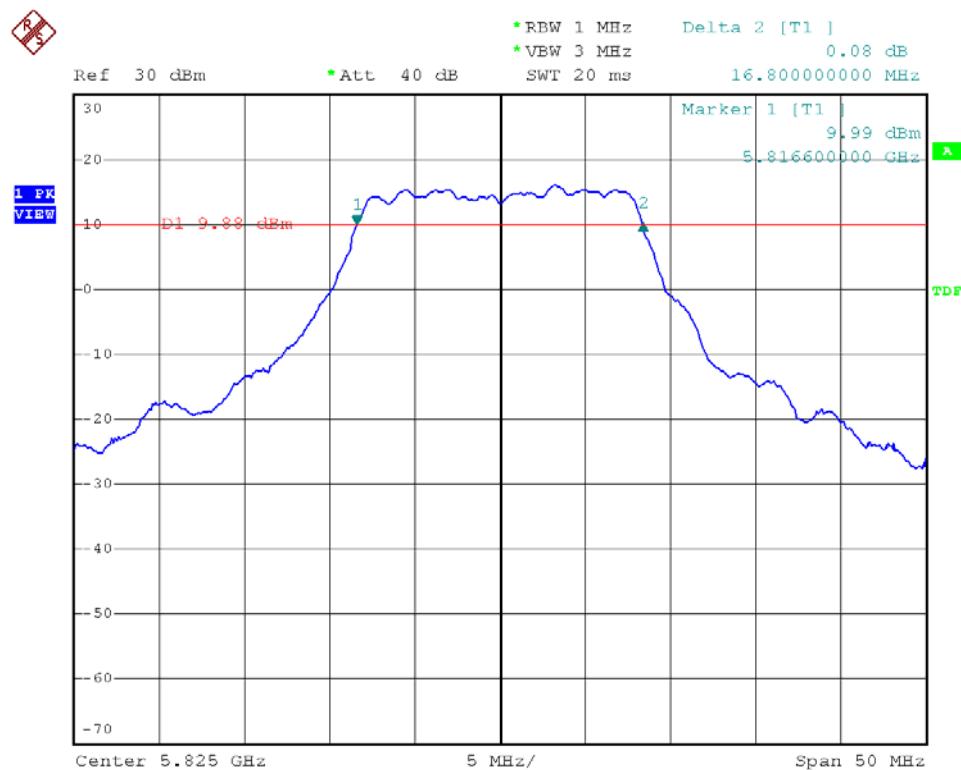




Modulation Standard: 802.11a (54Mbps), ANT L
Channel: 157

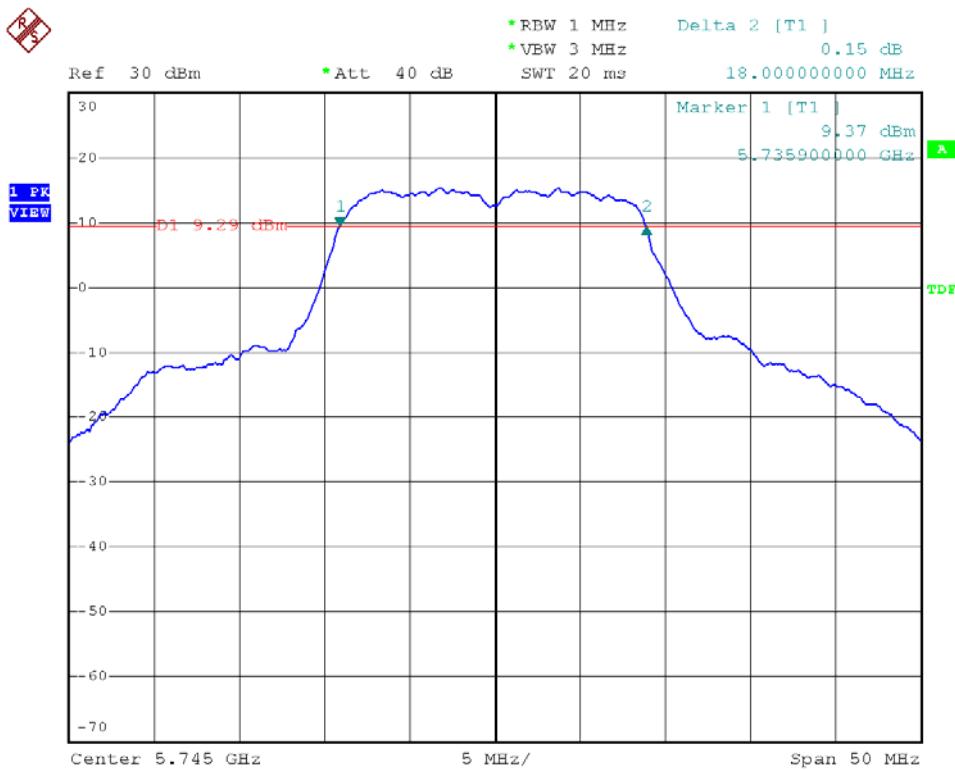


Modulation Standard: 802.11a (54Mbps), ANT L
Channel: 165

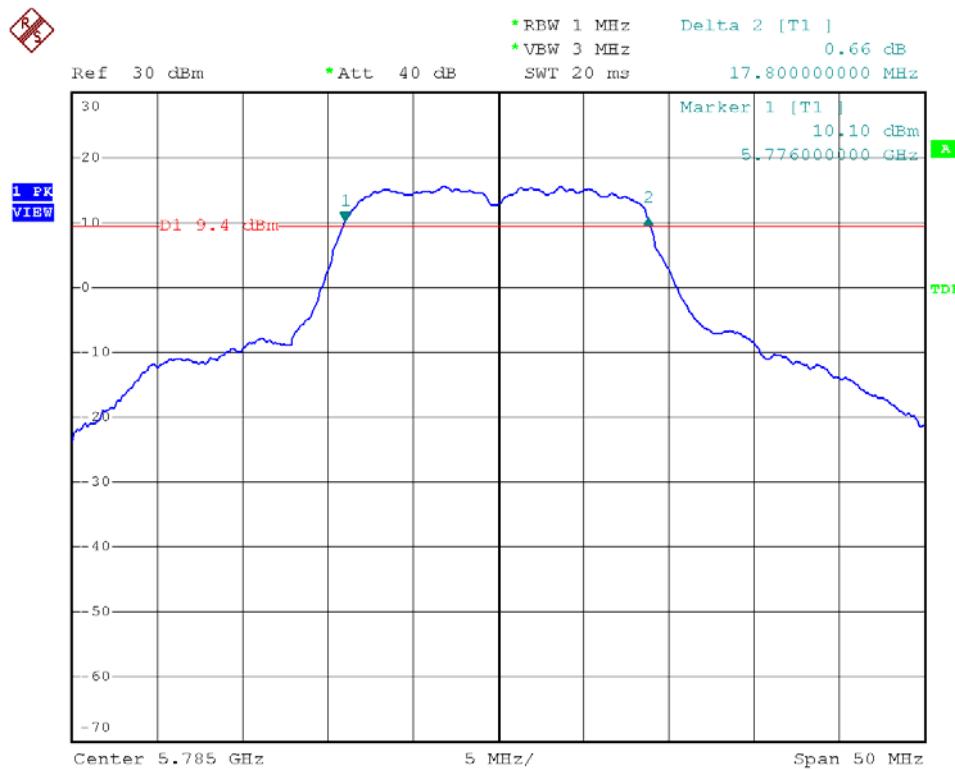




Modulation Standard: 802.11an HT20 (130Mbps), ANT L
Channel: 149

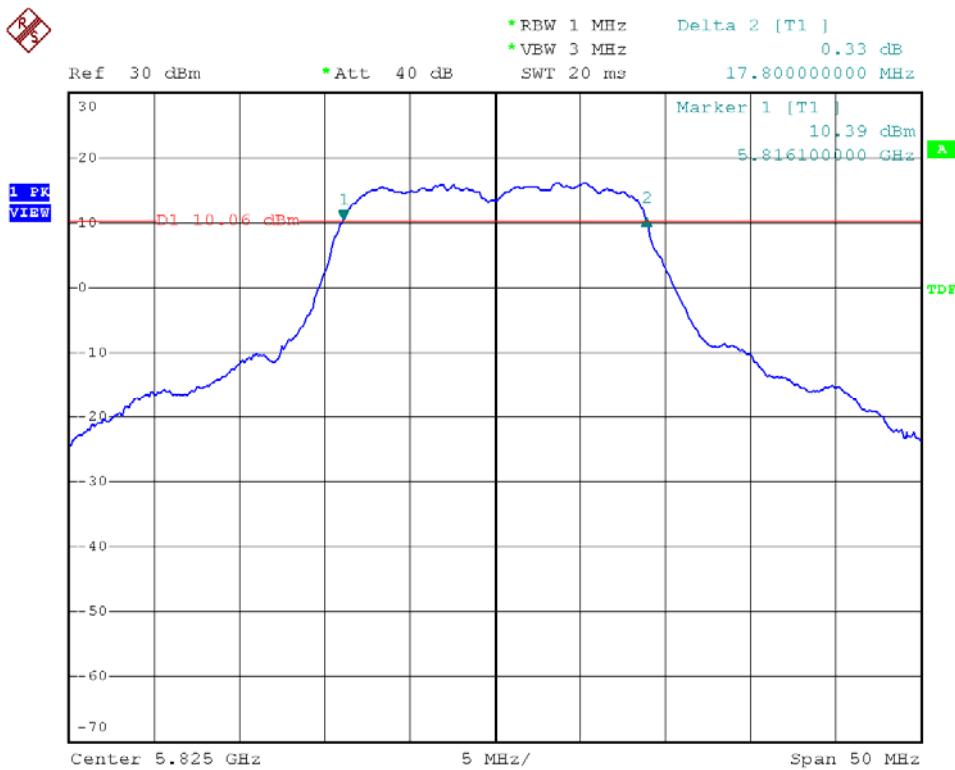


Modulation Standard: 802.11an HT20 (130Mbps), ANT L
Channel: 157

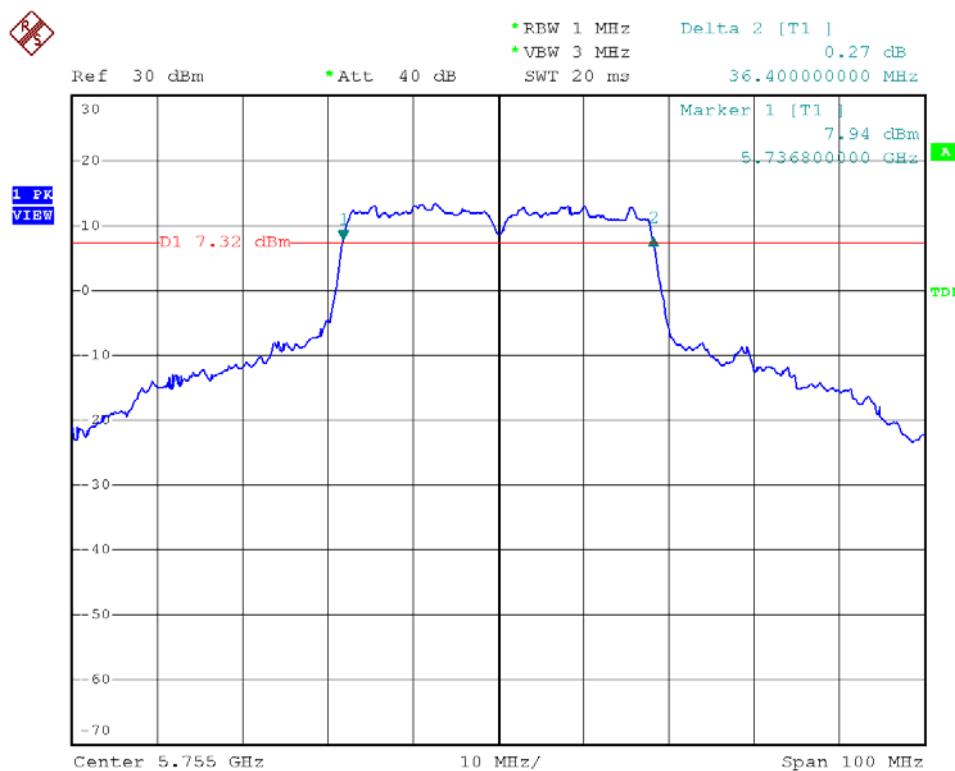




Modulation Standard: 802.11an HT20 (130Mbps), ANT L
Channel: 165

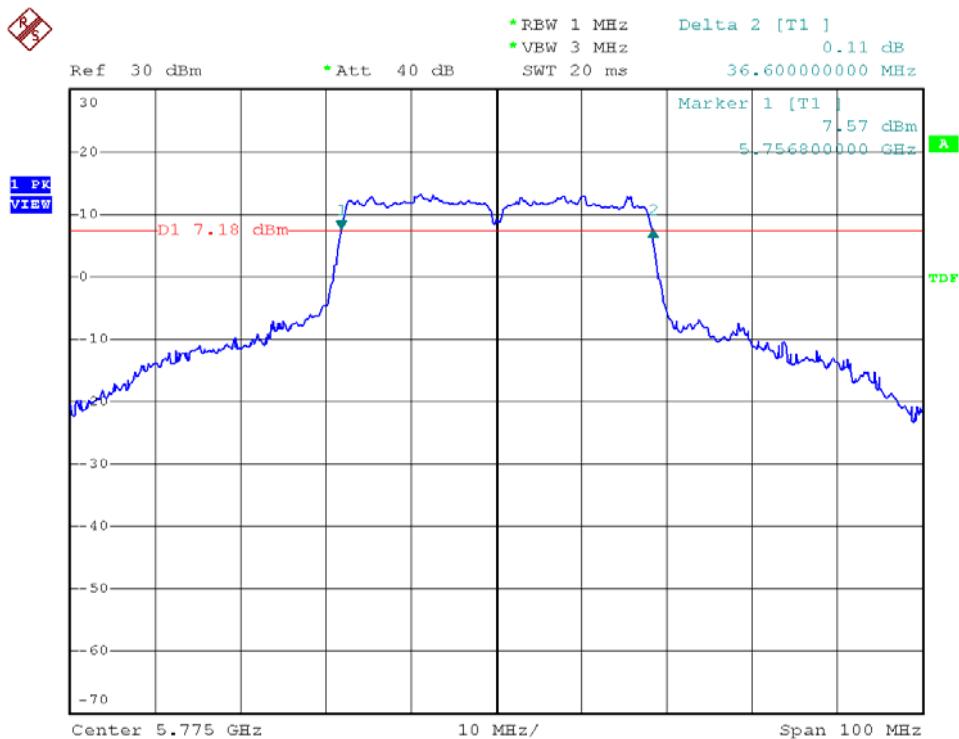


Modulation Standard: 802.11an HT40 (270Mbps), ANT L
Channel: 151

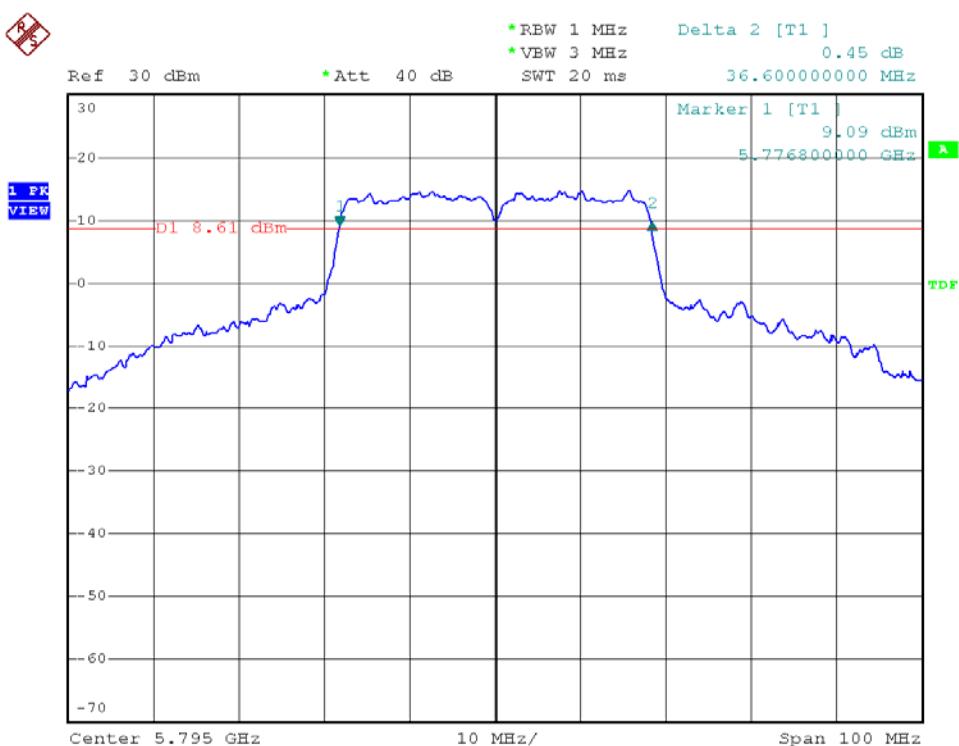




Modulation Standard: 802.11an HT40 (270Mbps), ANT L
Channel: 155



Modulation Standard: 802.11an HT40 (270Mbps), ANT L
Channel: 159





7. Maximum Peak and Average Output Power

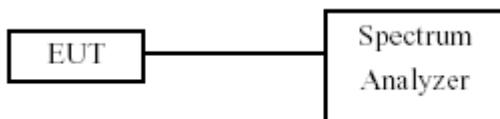
7.1 Test Limit

The Maximum Peak Output Power Measurement is 30dBm (2.4GHz) and 28.99dBm (5GHz).

7.2 Test Procedures

- a. The transmitter output was connected to the spectrum analyzer.
- b. Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz.
- c. Set detector mode to peak (for peak output power) or set detector mode to RMS (for average output power).
- d. Use the spectrum analyzer's integrated band power measurement function with band limits set equal to the EBW band edges.
- e. The maximum peak and average output power was measured and recorded.

7.3 Test Setup Layout



7.4 Measurement Equipment

| Instrument/Ancillary | Manufacturer | Model No. | Serial No. | Calibration Date | Valid Date |
|----------------------|--------------|-----------|------------|------------------|------------|
| Spectrum Analyzer | R&S | FSP40 | 100219 | 2011/11/24 | 2012/11/23 |



7.5 Test Result and Data

Test Date: Jun. 07, 2012

Temperature: 25°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

| Modulation Standard | Channel | Frequency (MHz) | Peak Power Output (dBm) | | Peak Power Output (mW) | |
|---------------------|---------|-----------------|-------------------------|-------|------------------------|-------|
| | | | ANT R | ANT L | ANT R | ANT L |
| 802.11b (11Mbps) | 01 | 2412 | 20.42 | 20.12 | 110.2 | 102.8 |
| | 06 | 2437 | 20.40 | 20.49 | 109.6 | 111.9 |
| | 11 | 2462 | 19.20 | 19.35 | 83.2 | 86.1 |
| 802.11g (54Mbps) | 01 | 2412 | 21.53 | 21.70 | 142.2 | 147.9 |
| | 06 | 2437 | 21.85 | 21.75 | 153.1 | 149.6 |
| | 11 | 2462 | 21.55 | 21.53 | 82.2 | 142.2 |

| Modulation Standard | Channel | Frequency (MHz) | Peak Power Output (dBm) | | | Peak Power Output (mW) |
|------------------------|---------|-----------------|-------------------------|-------|-------|------------------------|
| | | | ANT R | ANT L | R+L | |
| 802.11n HT20 (130Mbps) | 01 | 2412 | 20.45 | 22.84 | 24.82 | 303.43 |
| | 06 | 2437 | 21.72 | 21.82 | 24.78 | 300.65 |
| | 11 | 2462 | 21.69 | 21.53 | 24.62 | 289.80 |
| 802.11n HT40 (270Mbps) | 03 | 2422 | 18.15 | 20.42 | 22.44 | 175.47 |
| | 06 | 2437 | 21.54 | 21.71 | 24.64 | 290.81 |
| | 09 | 2452 | 21.76 | 21.86 | 24.82 | 303.43 |

Test Date: Jun. 15, 2012

Temperature: 25°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

| Modulation Standard | Channel | Frequency (MHz) | Peak Power Output (dBm) | | Peak Power Output (mW) | |
|---------------------|---------|-----------------|-------------------------|-------|------------------------|-------|
| | | | ANT R | ANT L | ANT R | ANT L |
| 802.11a (54Mbps) | 149 | 5745 | 23.43 | 23.58 | 220.3 | 228.0 |
| | 157 | 5785 | 23.87 | 23.89 | 243.8 | 244.9 |
| | 165 | 5825 | 23.32 | 23.74 | 214.8 | 236.6 |

| Modulation Standard | Channel | Frequency (MHz) | Peak Power Output (dBm) | | | Peak Power Output (mW) |
|-------------------------|---------|-----------------|-------------------------|-------|-------|------------------------|
| | | | ANT R | ANT L | R+L | |
| 802.11an HT20 (130Mbps) | 149 | 5745 | 23.53 | 23.61 | 26.58 | 455.04 |
| | 157 | 5785 | 23.70 | 23.82 | 26.77 | 475.41 |
| | 165 | 5825 | 23.25 | 23.78 | 26.53 | 450.13 |
| 802.11an HT40 (270Mbps) | 151 | 5755 | 23.29 | 23.36 | 26.34 | 430.07 |
| | 155 | 5775 | 23.65 | 23.71 | 26.69 | 466.70 |
| | 159 | 5795 | 23.32 | 23.50 | 26.42 | 438.66 |



Test Date: Jun. 07, 2012

Temperature: 25°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

| Modulation Standard | Channel | Frequency (MHz) | Average Power Output (dBm) | | Average Power Output (mW) | |
|---------------------|---------|-----------------|----------------------------|-------|---------------------------|-------|
| | | | ANT R | ANT L | ANT R | ANT L |
| 802.11b (11Mbps) | 01 | 2412 | 16.22 | 16.23 | 41.9 | 42.0 |
| | 06 | 2437 | 16.55 | 15.83 | 45.2 | 38.3 |
| | 11 | 2462 | 15.43 | 15.27 | 34.9 | 33.7 |
| 802.11g (54Mbps) | 01 | 2412 | 15.38 | 13.80 | 34.5 | 24.0 |
| | 06 | 2437 | 15.80 | 14.13 | 38.0 | 25.9 |
| | 11 | 2462 | 15.77 | 14.08 | 37.8 | 25.6 |

| Modulation Standard | Channel | Frequency (MHz) | Average Power Output (dBm) | | | Average Power Output (mW) |
|------------------------|---------|-----------------|----------------------------|-------|-------|---------------------------|
| | | | ANT R | ANT L | R+L | R+L |
| 802.11n HT20 (130Mbps) | 01 | 2412 | 13.19 | 16.21 | 17.97 | 62.63 |
| | 06 | 2437 | 15.46 | 15.50 | 18.49 | 70.64 |
| | 11 | 2462 | 15.62 | 16.07 | 18.86 | 76.93 |
| 802.11n HT40 (270Mbps) | 03 | 2422 | 11.55 | 12.07 | 14.83 | 30.40 |
| | 06 | 2437 | 14.88 | 15.12 | 18.01 | 63.27 |
| | 09 | 2452 | 15.38 | 15.71 | 18.56 | 71.75 |

Test Date: Jun. 15, 2012

Temperature: 25°C

Atmospheric pressure: 1020 hPa

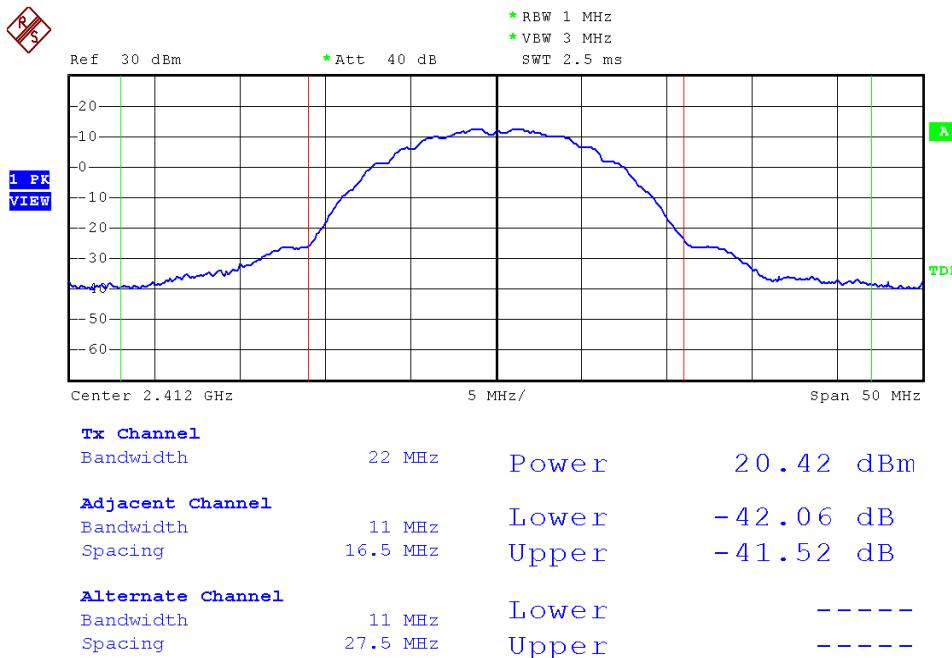
Humidity: 65%

| Modulation Standard | Channel | Frequency (MHz) | Peak Power Output (dBm) | | Peak Power Output (mW) | |
|---------------------|---------|-----------------|-------------------------|-------|------------------------|-------|
| | | | ANT R | ANT L | ANT R | ANT L |
| 802.11a (54Mbps) | 149 | 5745 | 16.39 | 14.60 | 43.6 | 28.8 |
| | 157 | 5785 | 17.91 | 15.35 | 61.8 | 34.3 |
| | 165 | 5825 | 16.95 | 14.96 | 49.5 | 31.3 |

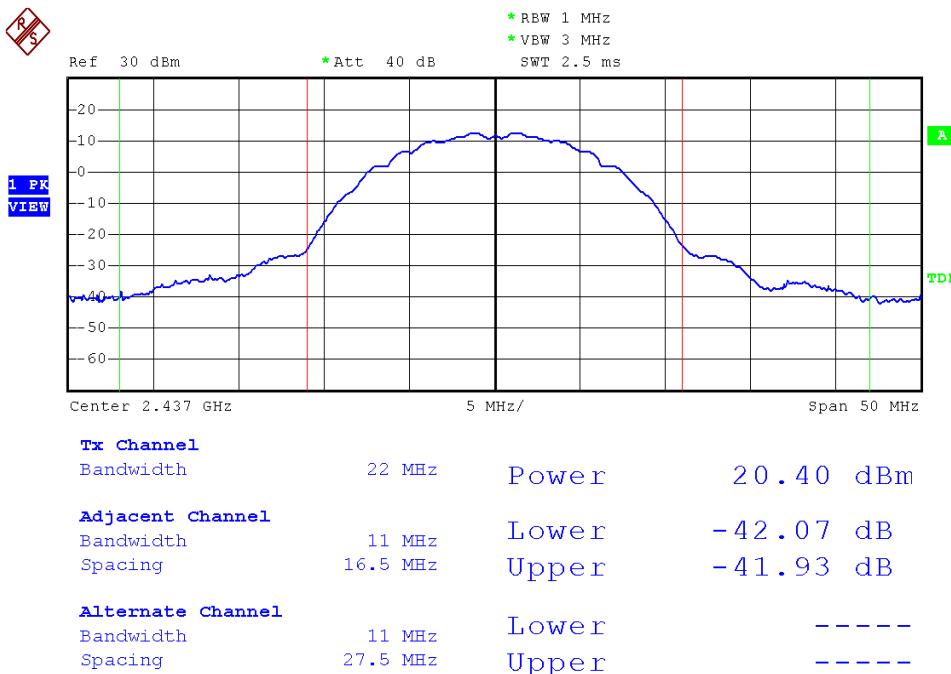
| Modulation Standard | Channel | Frequency (MHz) | Average Power Output (dBm) | | | Average Power Output (mW) |
|-------------------------|---------|-----------------|----------------------------|-------|-------|---------------------------|
| | | | ANT R | ANT L | R+L | R+L |
| 802.11an HT20 (130Mbps) | 149 | 5745 | 16.94 | 15.26 | 19.19 | 83.00 |
| | 157 | 5785 | 17.27 | 15.82 | 19.62 | 91.53 |
| | 165 | 5825 | 16.64 | 15.70 | 19.21 | 83.29 |
| 802.11an HT40 (270Mbps) | 151 | 5755 | 17.06 | 15.41 | 19.32 | 85.57 |
| | 155 | 5775 | 18.00 | 15.52 | 19.94 | 98.74 |
| | 159 | 5795 | 17.40 | 15.74 | 19.66 | 92.45 |



Modulation Standard: 802.11b (11Mbps), ANT R, Peak Power Output
Channel: 01

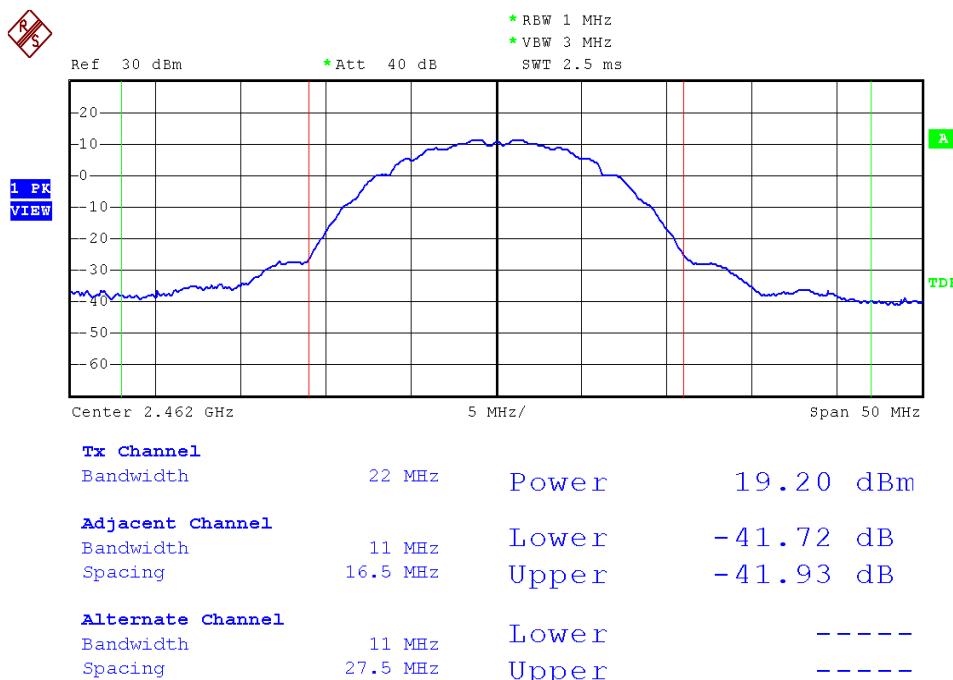


Modulation Standard: 802.11b (11Mbps), ANT R, Peak Power Output
Channel: 06

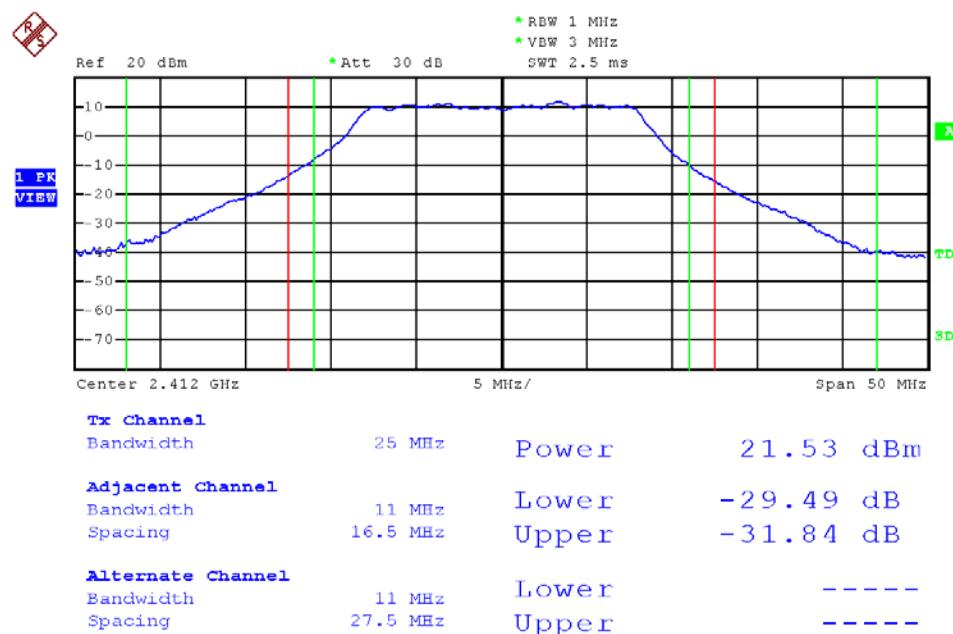




Modulation Standard: 802.11b (11Mbps), ANT R, Peak Power Output
Channel: 11

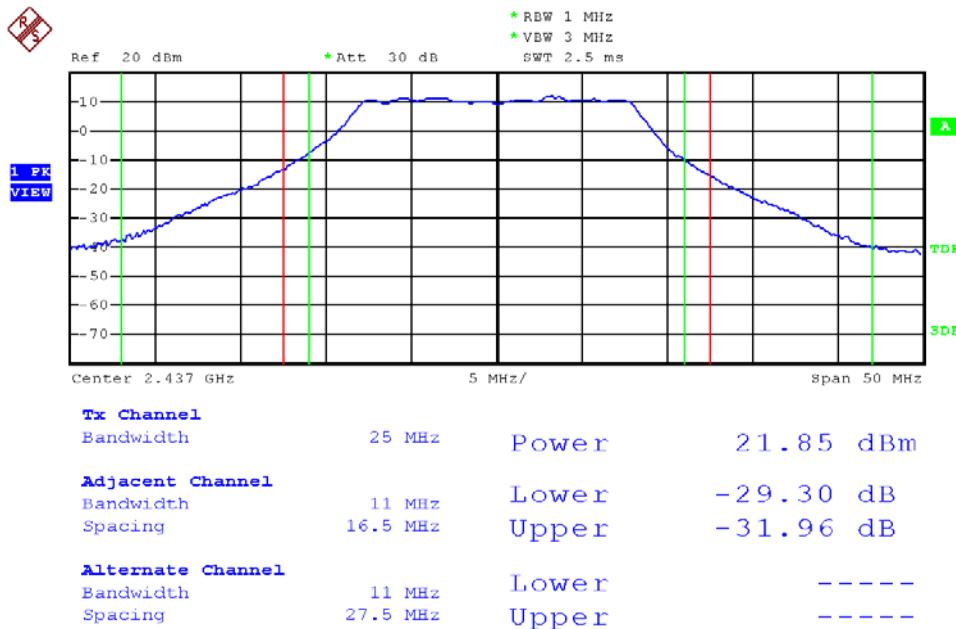


Modulation Standard: 802.11g (54Mbps), ANT R, Peak Power Output
Channel: 01

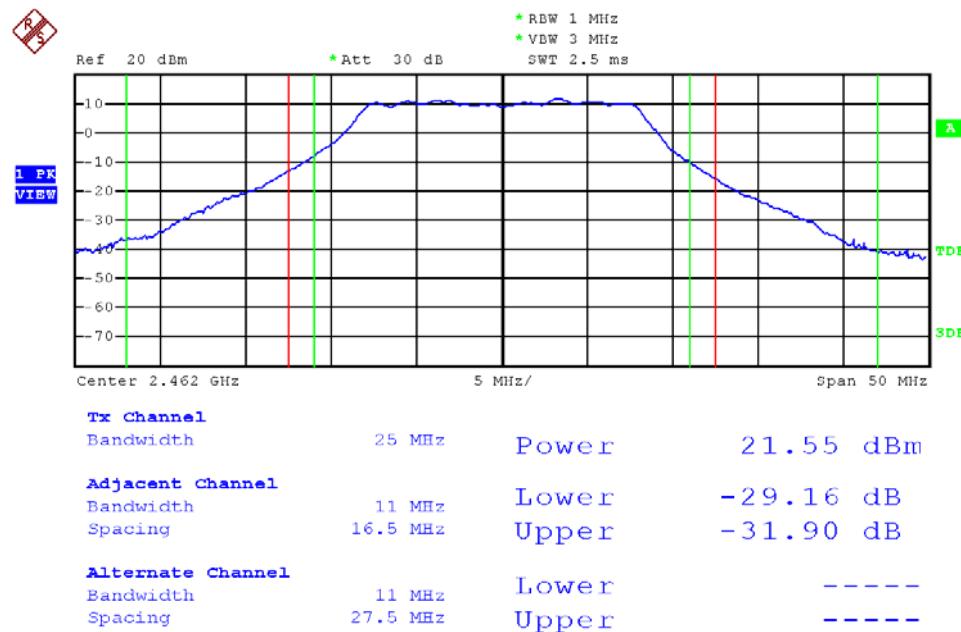




Modulation Standard: 802.11g (54Mbps), ANT R, Peak Power Output
Channel: 06

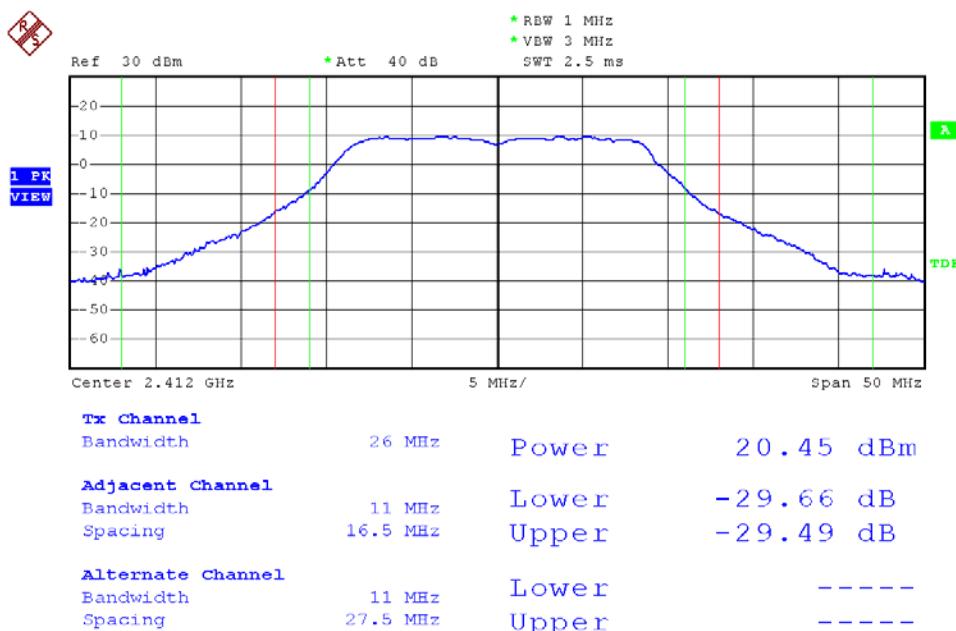


Modulation Standard: 802.11g (54Mbps), ANT R, Peak Power Output
Channel: 11

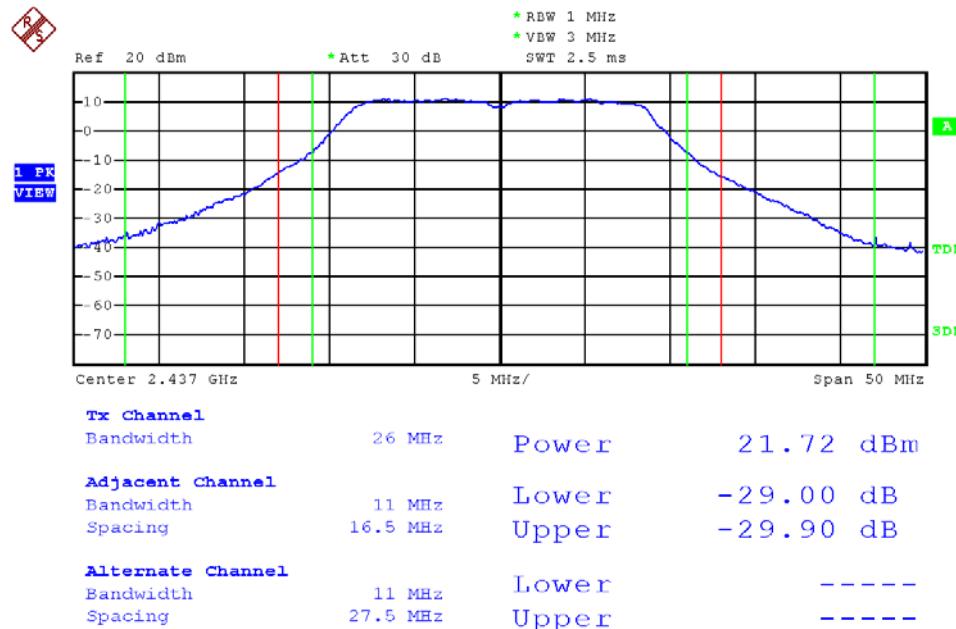




Modulation Standard: 802.11n HT20 (130Mbps), ANT R, Peak Power Output
Channel: 01

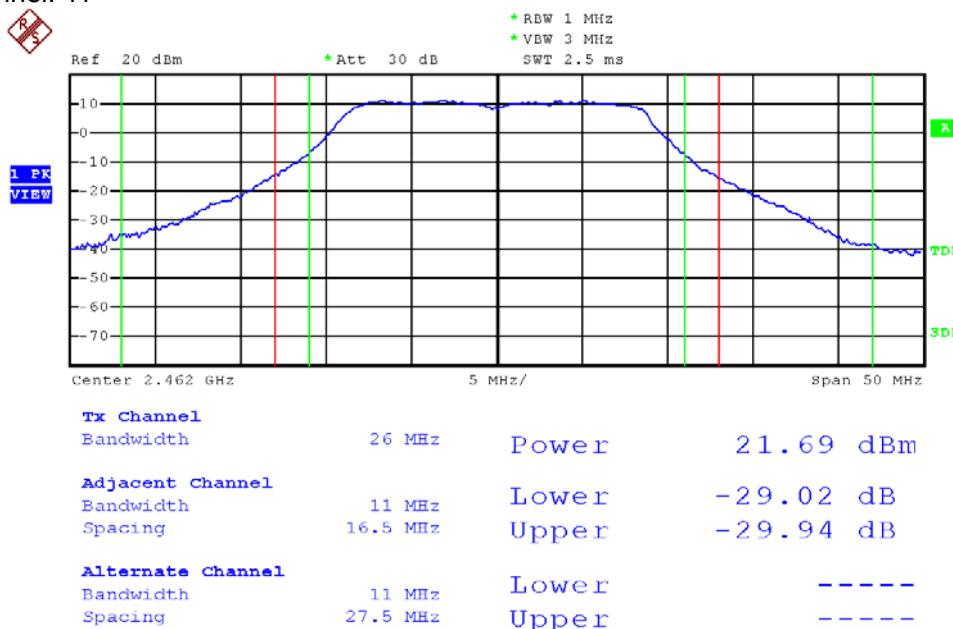


Modulation Standard: 802.11n HT20 (130Mbps), ANT R, Peak Power Output
Channel: 06

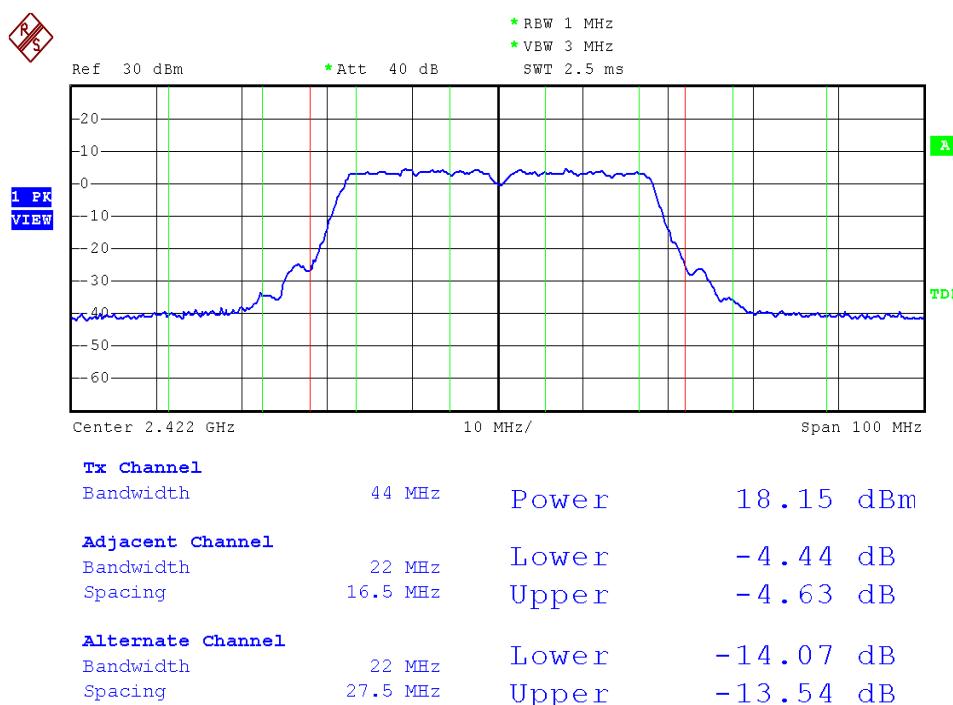




Modulation Standard: 802.11n HT20 (130Mbps), ANT R, Peak Power Output
Channel: 11

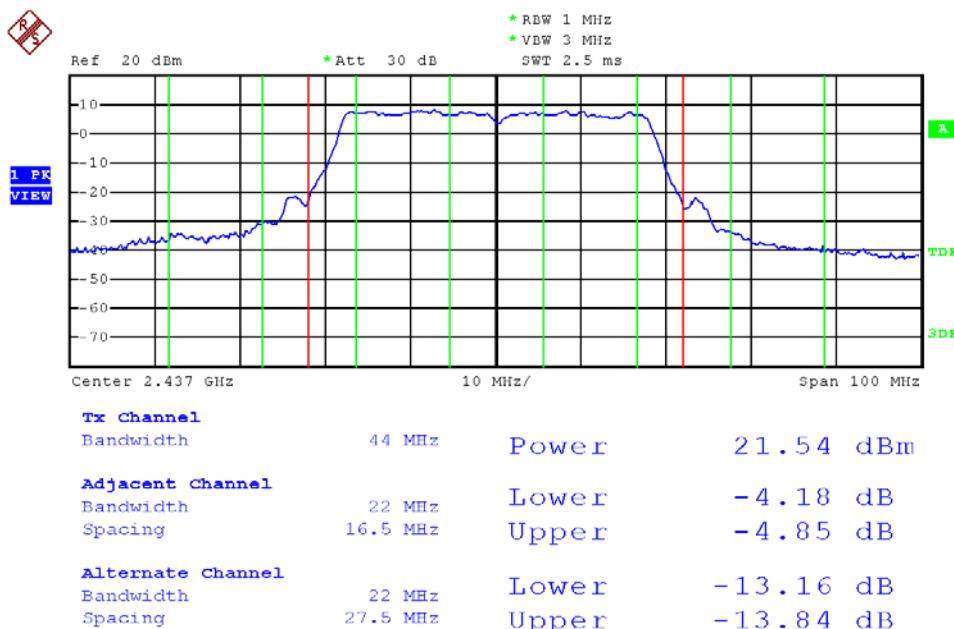


Modulation Standard: 802.11n HT40 (270Mbps), ANT R, Peak Power Output
Channel: 03

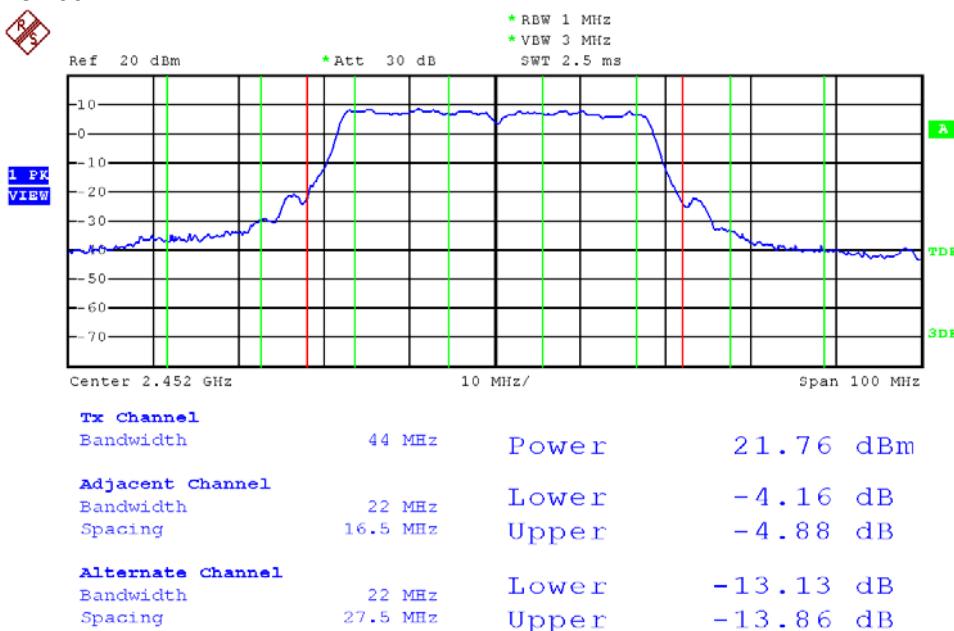




Modulation Standard: 802.11n HT40 (270Mbps), ANT R, Peak Power Output
Channel: 06

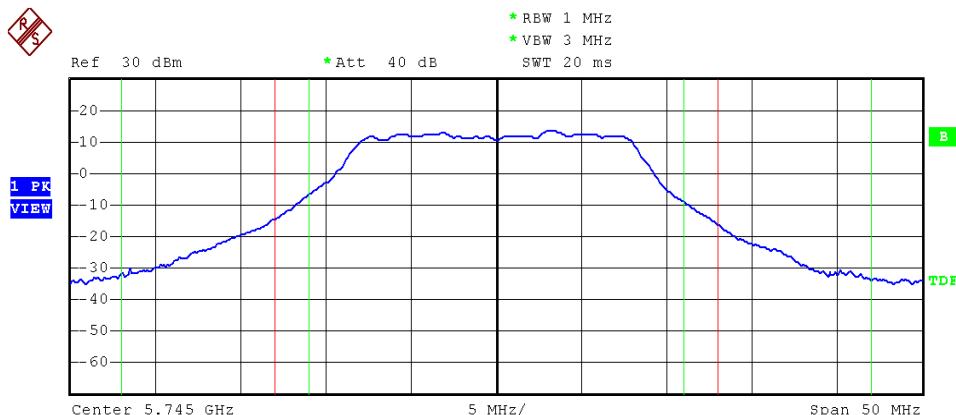


Modulation Standard: 802.11n HT40 (270Mbps), ANT R, Peak Power Output
Channel: 09

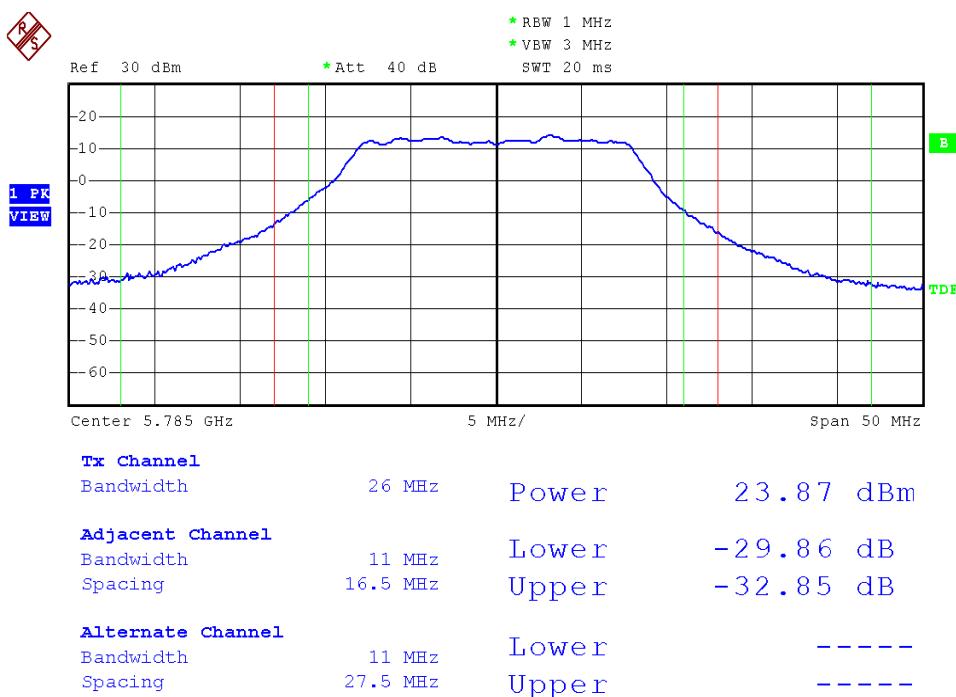




Modulation Standard: 802.11a (54Mbps), ANT R, Peak Power Output
Channel: 149

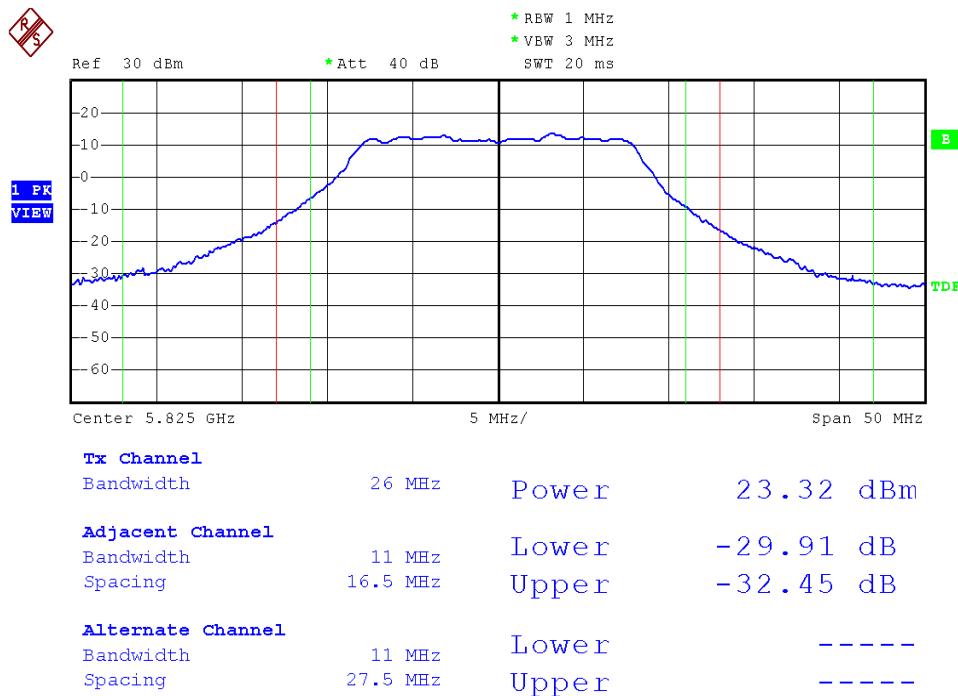


Modulation Standard: 802.11a (54Mbps), ANT R, Peak Power Output
Channel: 157

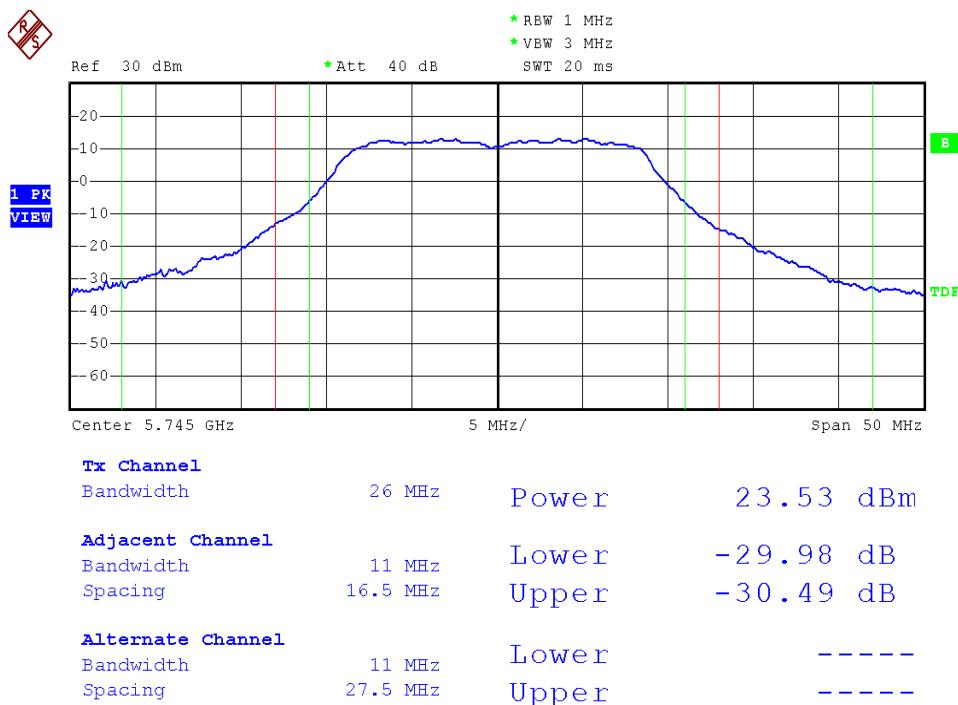




Modulation Standard: 802.11a (54Mbps), ANT R, Peak Power Output
Channel: 165

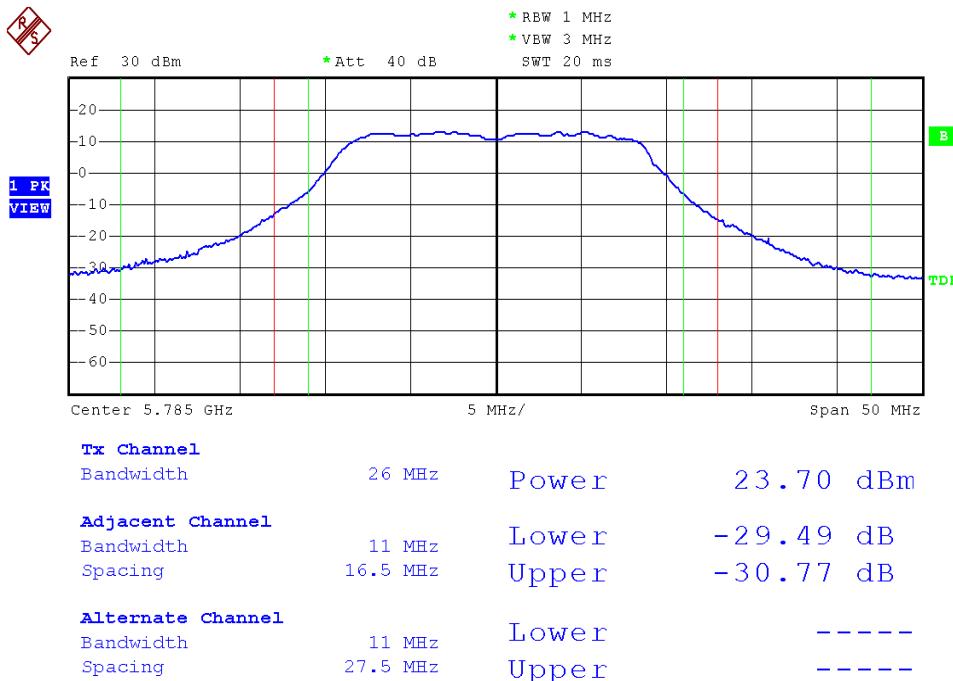


Modulation Standard: 802.11an HT20 (130Mbps), ANT R, Peak Power Output
Channel: 149

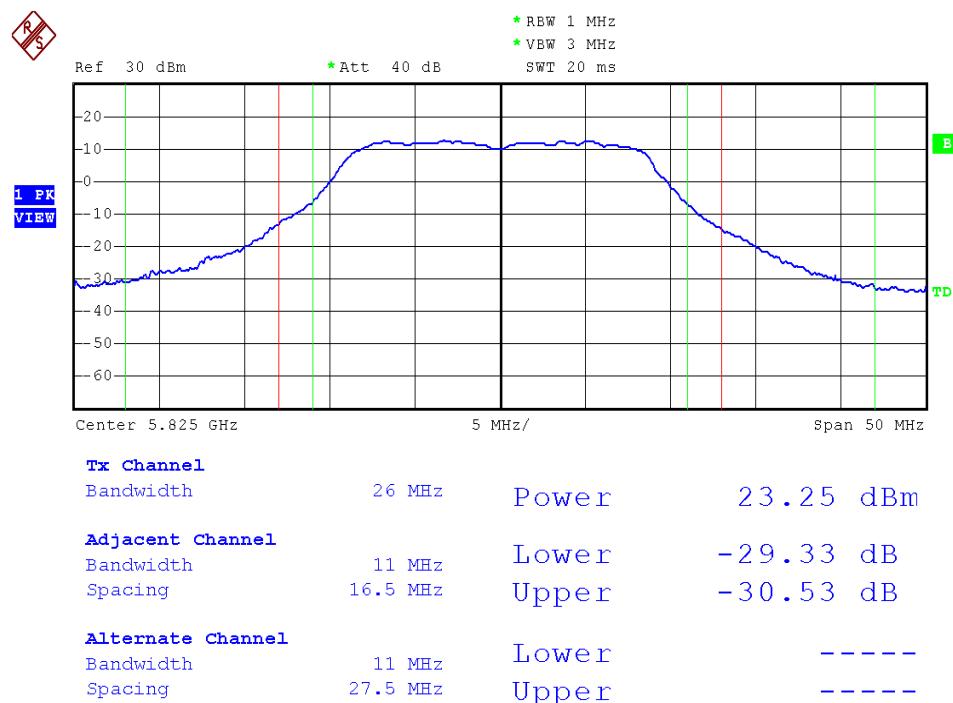




Modulation Standard: 802.11an HT20 (130Mbps), ANT R, Peak Power Output
Channel: 157

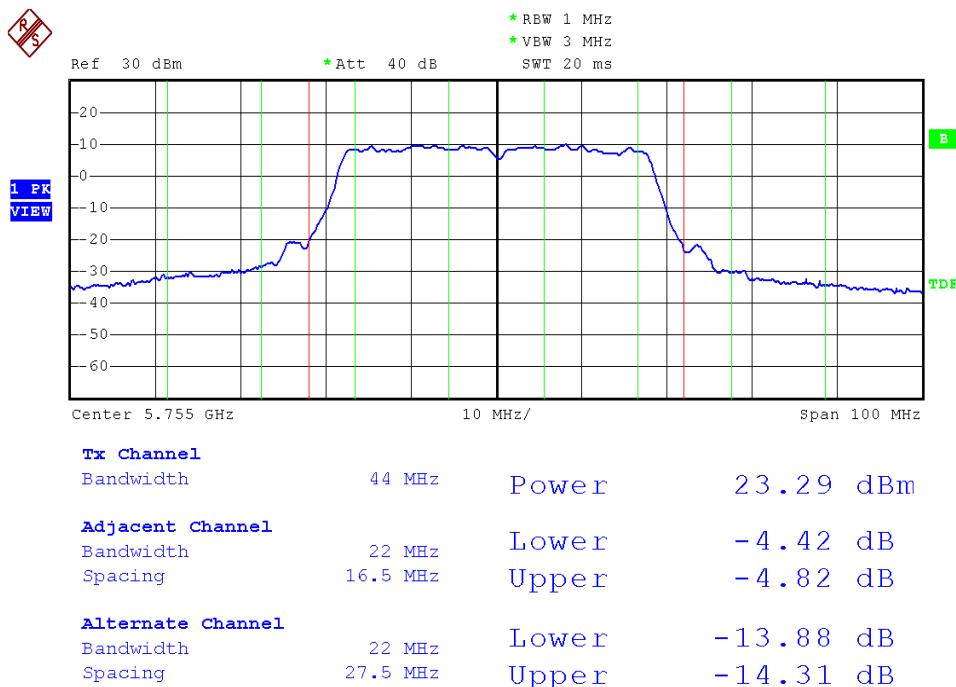


Modulation Standard: 802.11an HT20 (130Mbps), ANT R, Peak Power Output
Channel: 165

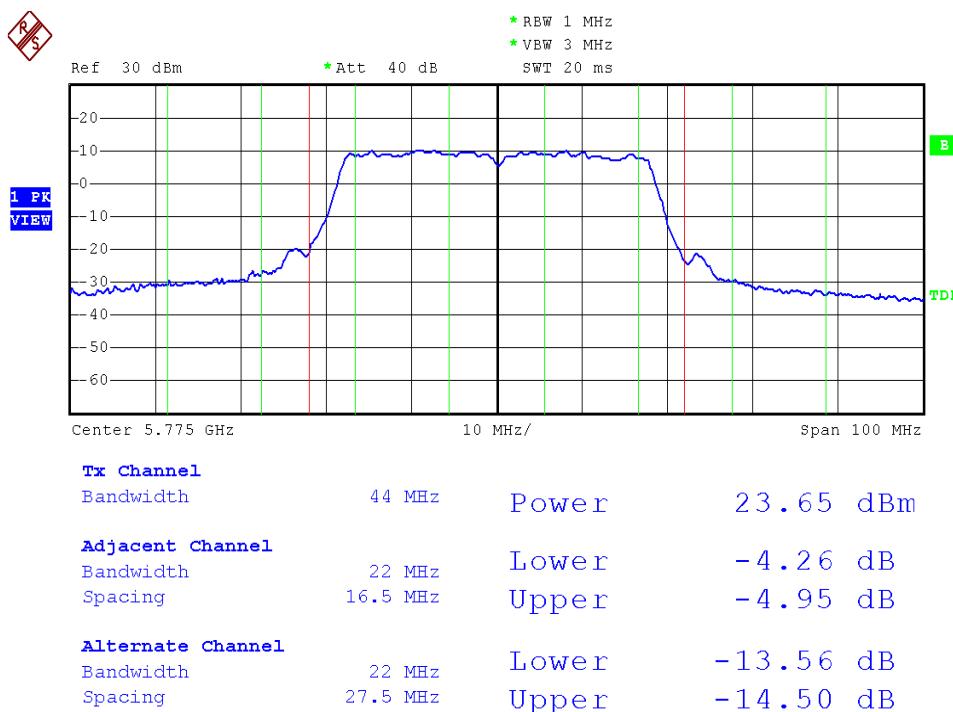




Modulation Standard: 802.11an HT40 (270Mbps), ANT R, Peak Power Output
Channel: 151

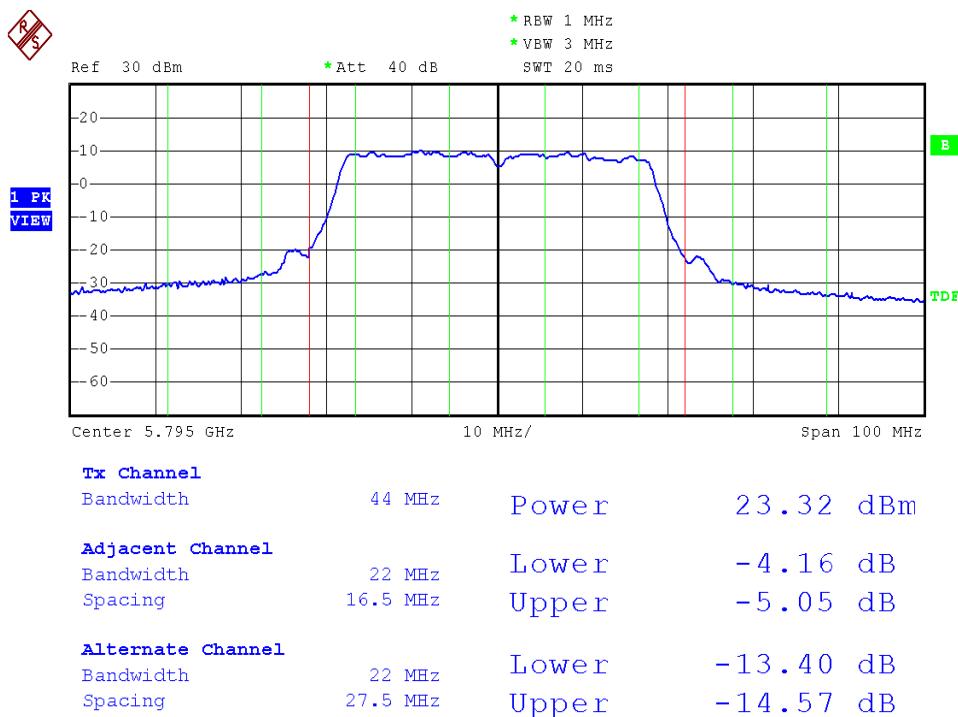


Modulation Standard: 802.11an HT40 (270Mbps), ANT R, Peak Power Output
Channel: 155

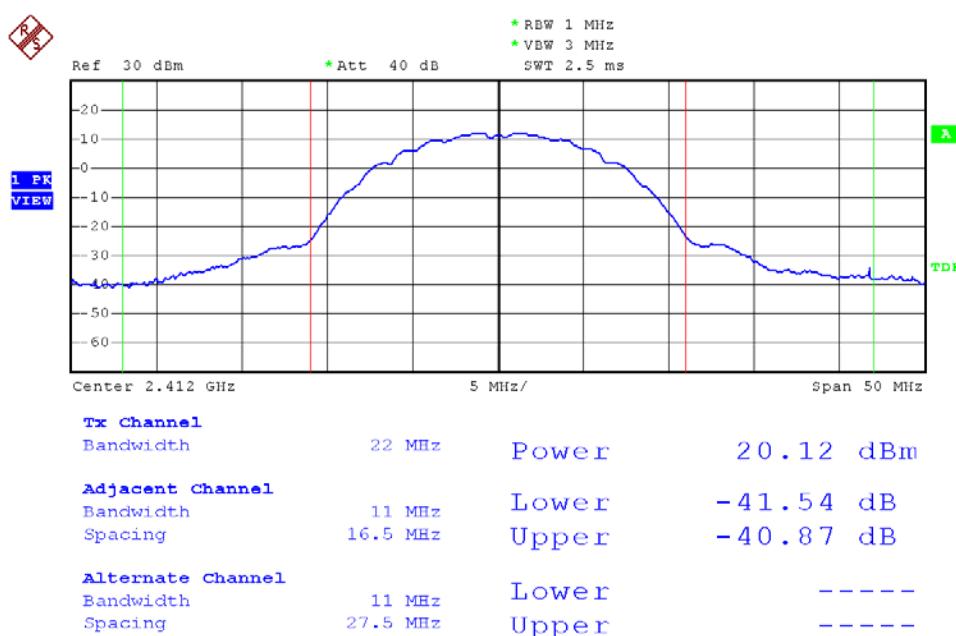




Modulation Standard: 802.11an HT40 (270Mbps), ANT R, Peak Power Output
Channel: 159

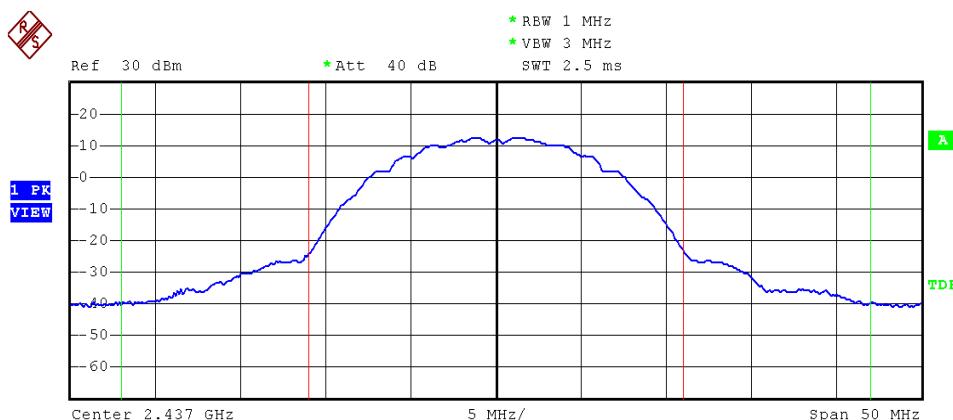


Modulation Standard: 802.11b (11Mbps), ANT L, Peak Power Output
Channel: 01



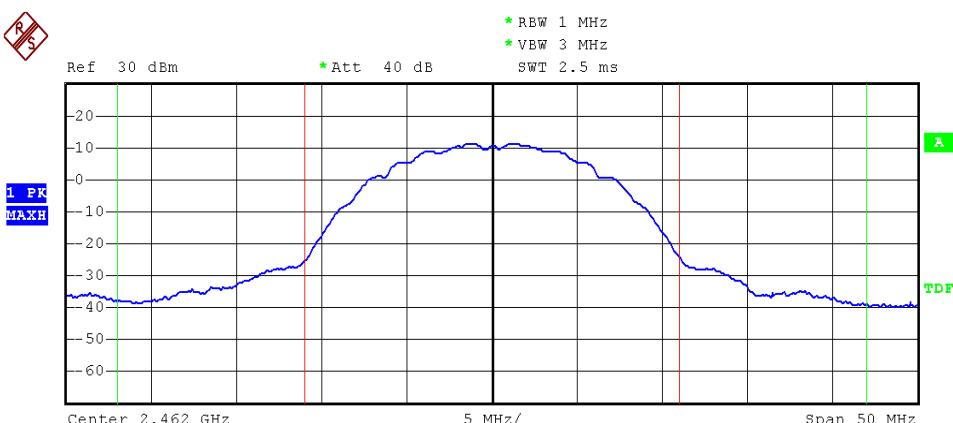


Modulation Standard: 802.11b (11Mbps), ANT L, Peak Power Output
Channel: 06



| Tx Channel | | Power | 20.49 dBm |
|-------------------|----------|-------|-----------|
| Bandwidth | 22 MHz | | |
| Adjacent Channel | | | |
| Bandwidth | 11 MHz | Lower | -41.67 dB |
| Spacing | 16.5 MHz | Upper | -41.44 dB |
| Alternate Channel | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

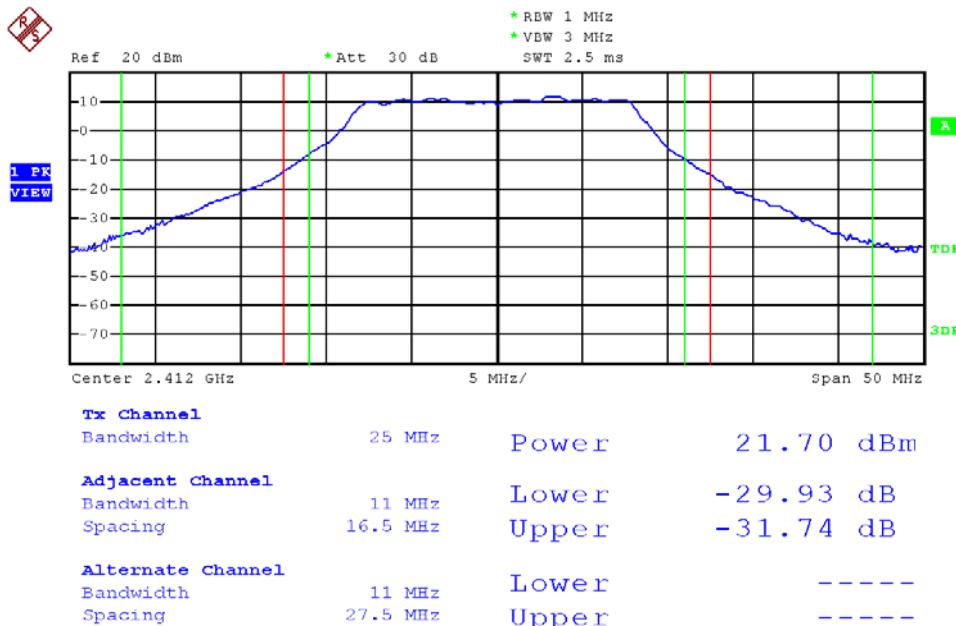
Modulation Standard: 802.11b (11Mbps), ANT L, Peak Power Output
Channel: 11



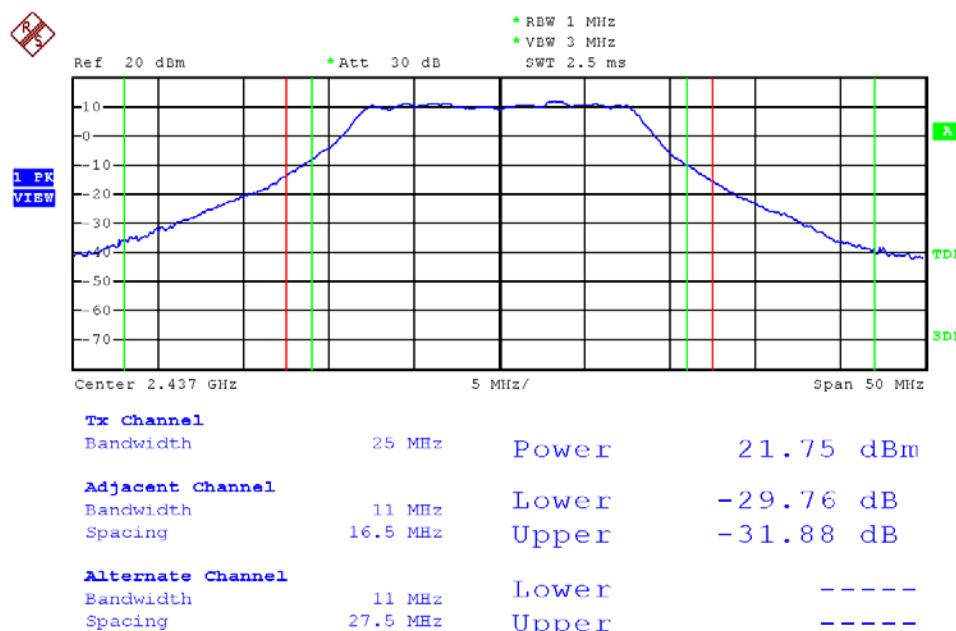
| Tx Channel | | Power | 19.35 dBm |
|-------------------|----------|-------|-----------|
| Bandwidth | 22 MHz | | |
| Adjacent Channel | | | |
| Bandwidth | 11 MHz | Lower | -41.37 dB |
| Spacing | 16.5 MHz | Upper | -41.40 dB |
| Alternate Channel | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |



Modulation Standard: 802.11g (54Mbps), ANT L, Peak Power Output
Channel: 01

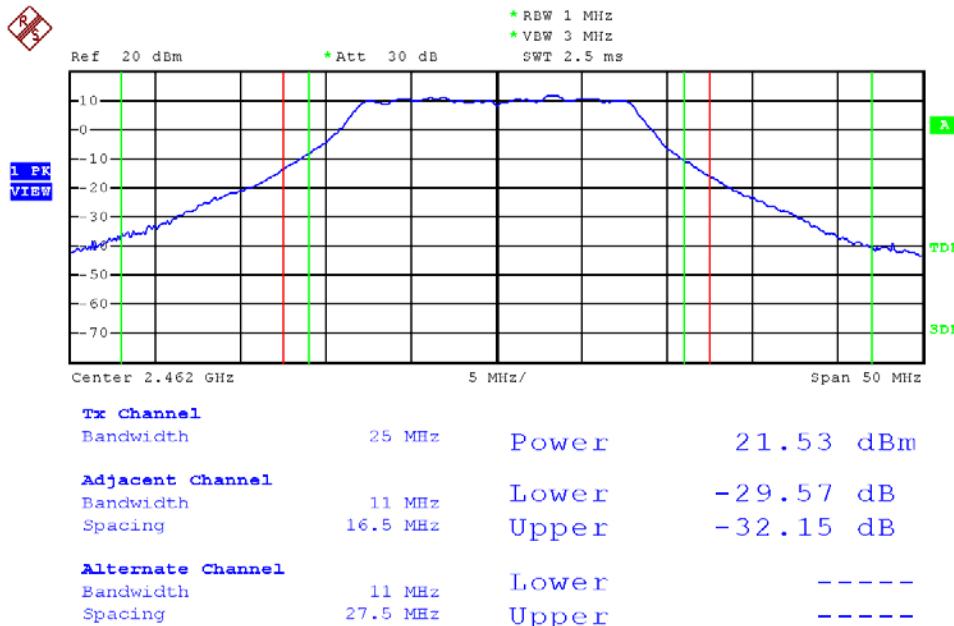


Modulation Standard: 802.11g (54Mbps), ANT L, Peak Power Output
Channel: 06

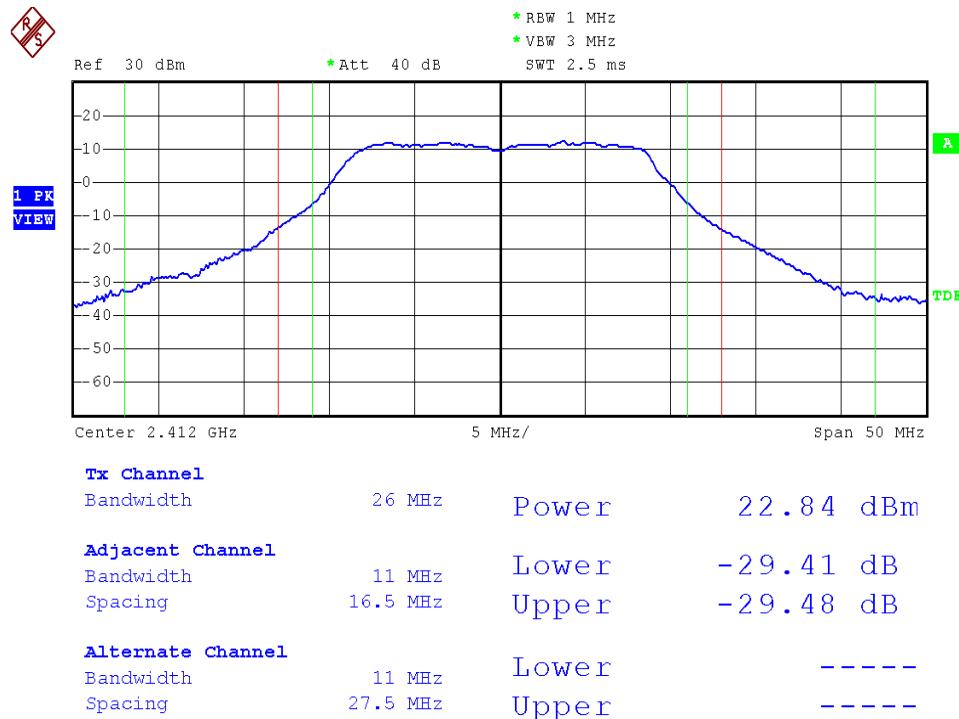




Modulation Standard: 802.11g (54Mbps), ANT L, Peak Power Output
Channel: 11

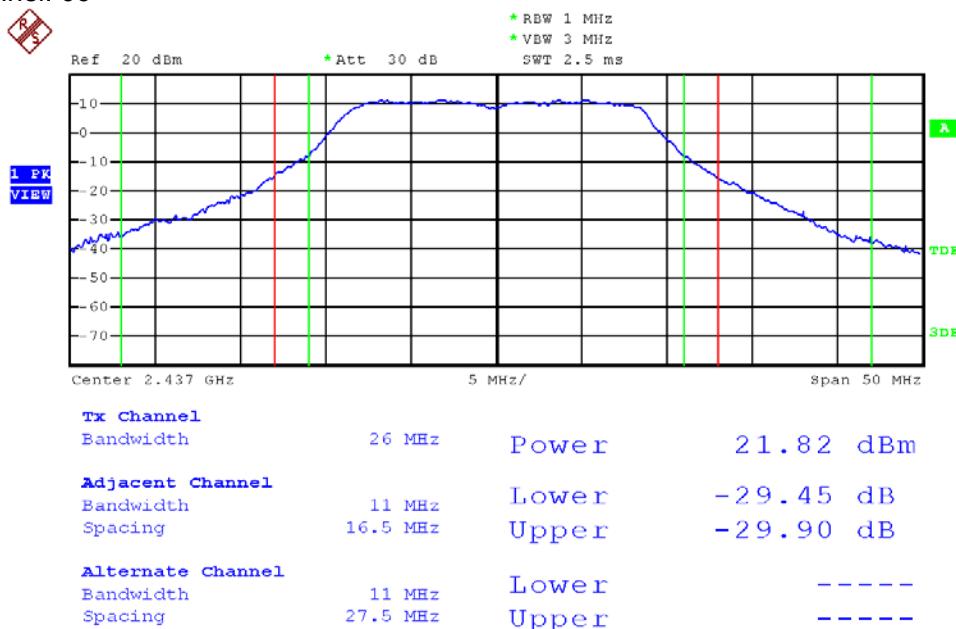


Modulation Standard: 802.11n HT20 (130Mbps), ANT L, Peak Power Output
Channel: 01

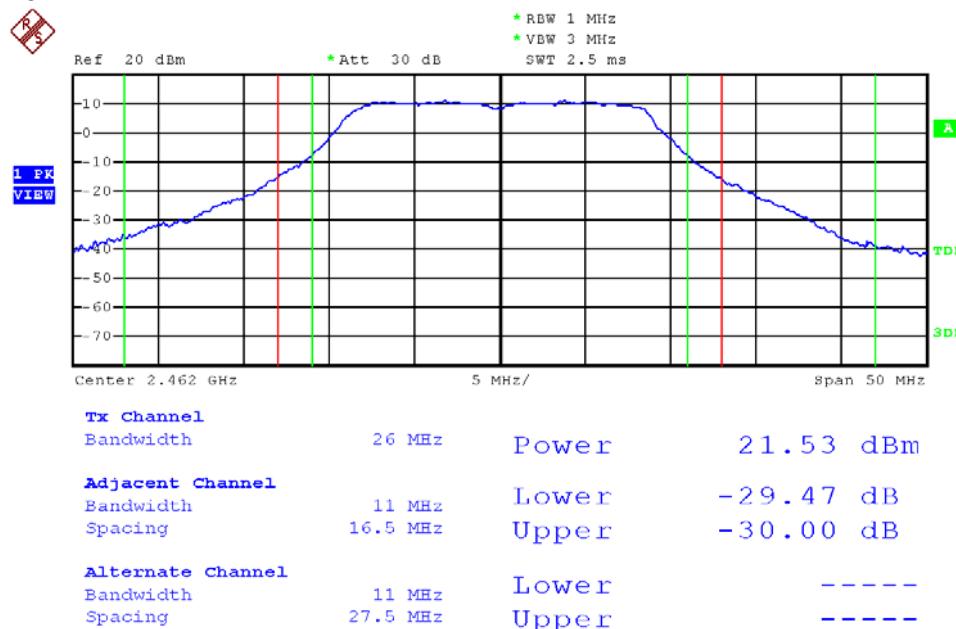




Modulation Standard: 802.11n HT20 (130Mbps), ANT L, Peak Power Output
Channel: 06

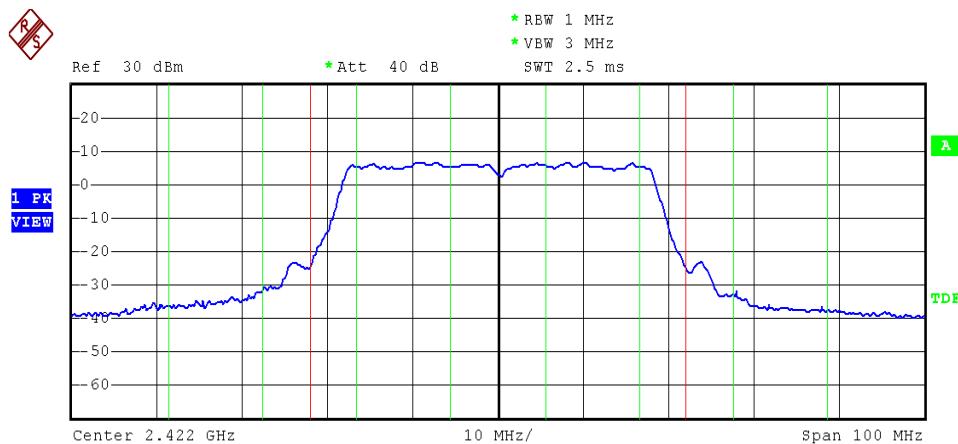


Modulation Standard: 802.11n HT20 (130Mbps), ANT L, Peak Power Output
Channel: 11



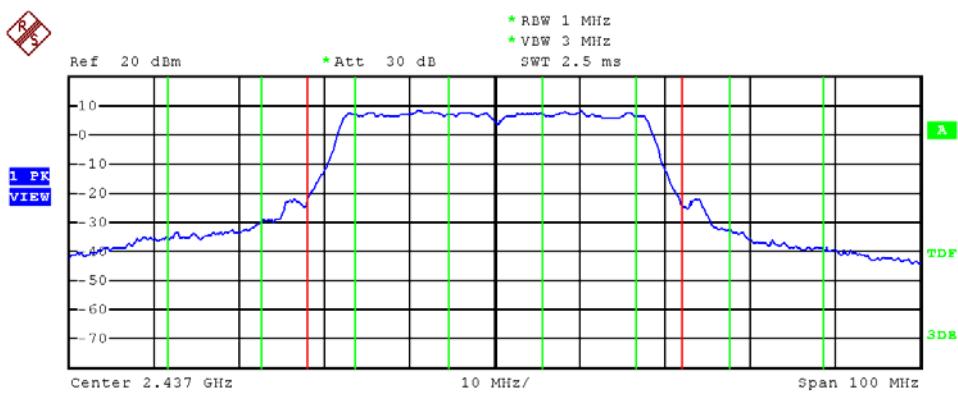


Modulation Standard: 802.11n HT40 (270Mbps), ANT L, Peak Power Output
Channel: 03



| | | | |
|--------------------------|----------|-------|-----------|
| Tx Channel | | | |
| Bandwidth | 44 MHz | Power | 20.42 dBm |
| Adjacent Channel | | | |
| Bandwidth | 22 MHz | Lower | -4.56 dB |
| Spacing | 16.5 MHz | Upper | -4.58 dB |
| Alternate Channel | | | |
| Bandwidth | 22 MHz | Lower | -13.92 dB |
| Spacing | 27.5 MHz | Upper | -13.34 dB |

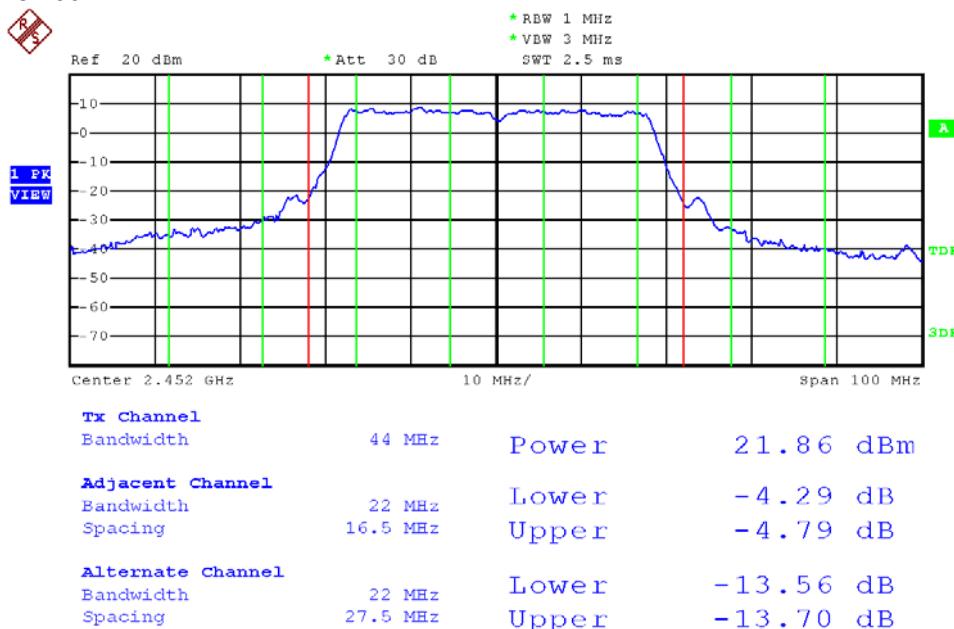
Modulation Standard: 802.11n HT40 (270Mbps), ANT L, Peak Power Output
Channel: 06



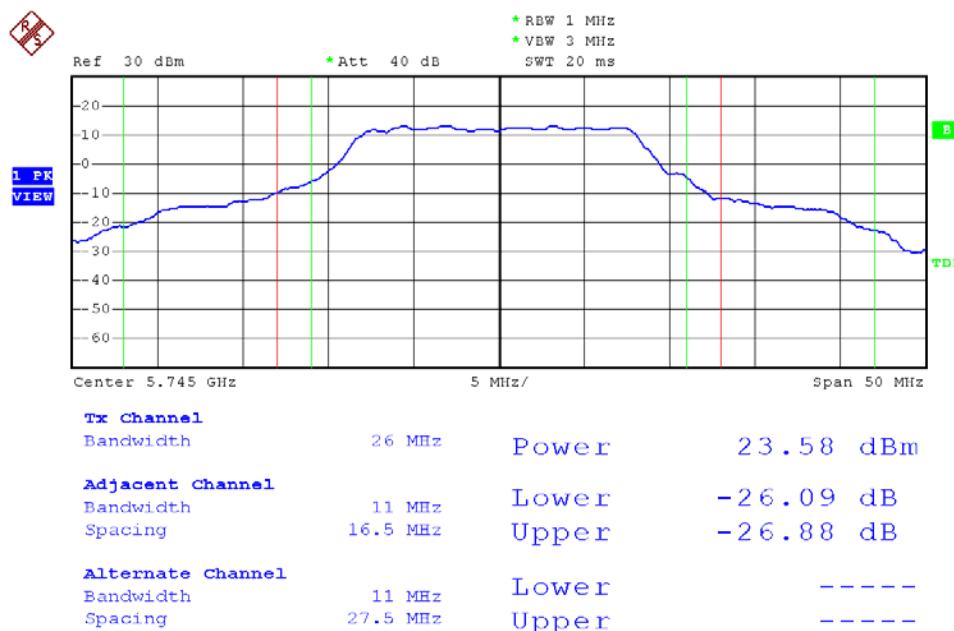
| | | | |
|--------------------------|----------|-------|-----------|
| Tx Channel | | | |
| Bandwidth | 44 MHz | Power | 21.71 dBm |
| Adjacent Channel | | | |
| Bandwidth | 22 MHz | Lower | -4.40 dB |
| Spacing | 16.5 MHz | Upper | -4.73 dB |
| Alternate Channel | | | |
| Bandwidth | 22 MHz | Lower | -13.58 dB |
| Spacing | 27.5 MHz | Upper | -13.76 dB |



Modulation Standard: 802.11n HT40 (270Mbps), ANT L, Peak Power Output
Channel: 09

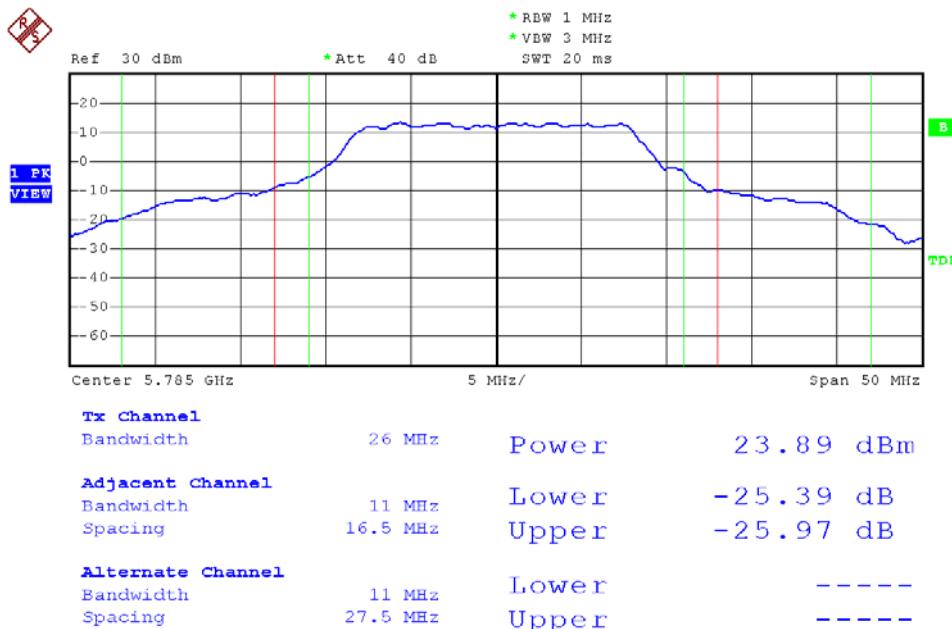


Modulation Standard: 802.11a (54Mbps), ANT L, Peak Power Output
Channel: 149

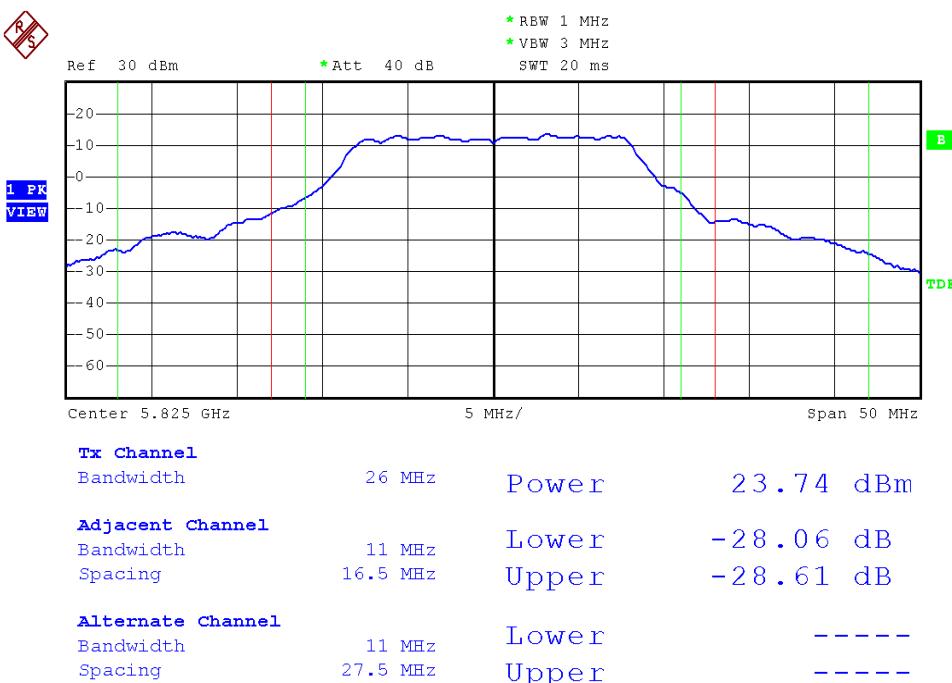




Modulation Standard: 802.11a (54Mbps), ANT L, Peak Power Output
Channel: 157

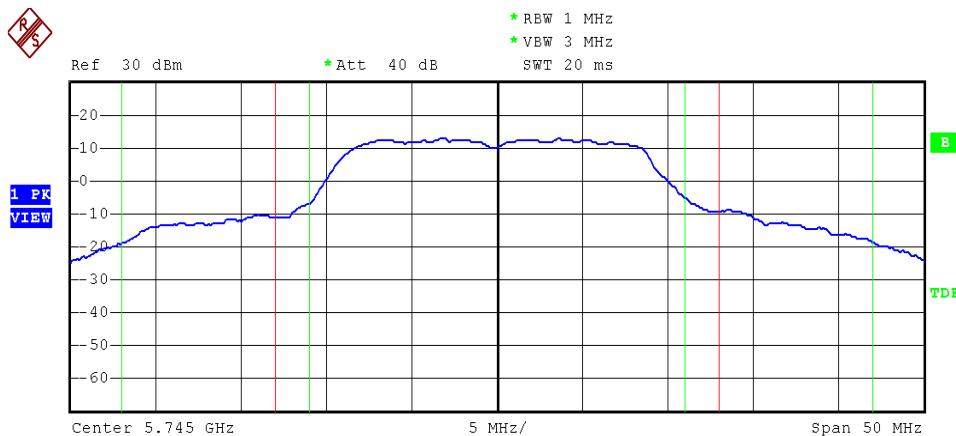


Modulation Standard: 802.11a (54Mbps), ANT L, Peak Power Output
Channel: 165

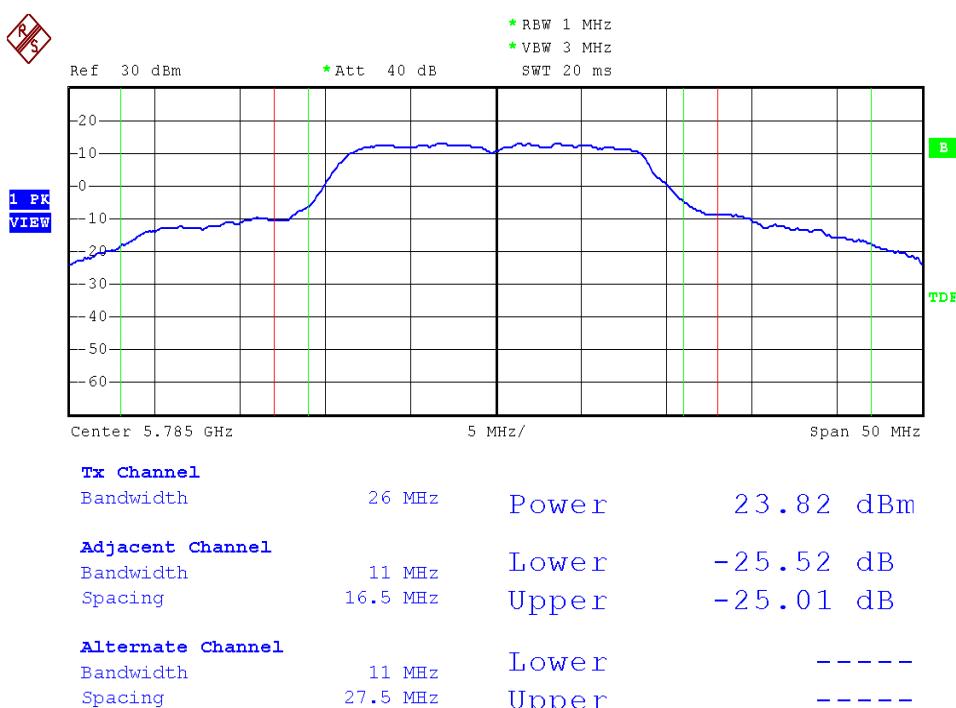




Modulation Standard: 802.11an HT20 (130Mbps), ANT L, Peak Power Output
Channel: 149

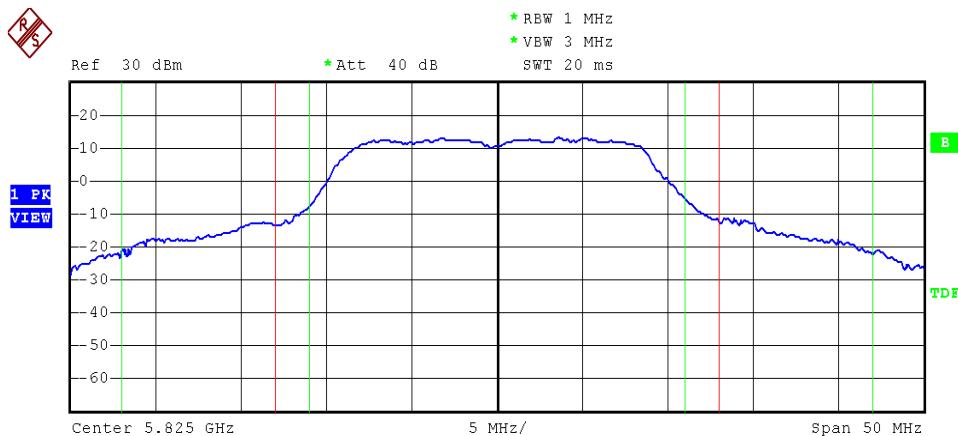


Modulation Standard: 802.11an HT20 (130Mbps), ANT L, Peak Power Output
Channel: 157



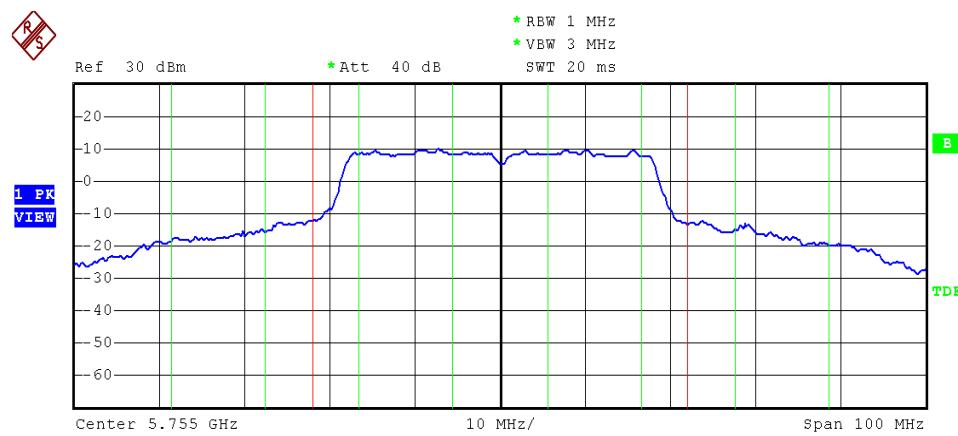


Modulation Standard: 802.11an HT20 (130Mbps), ANT L, Peak Power Output
Channel: 165



| Tx Channel | | | |
|--------------------------|----------|-------|-----------|
| Bandwidth | 26 MHz | Power | 23.78 dBm |
| Adjacent Channel | | | |
| Bandwidth | 11 MHz | Lower | -28.63 dB |
| Spacing | 16.5 MHz | Upper | -27.40 dB |
| Alternate Channel | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

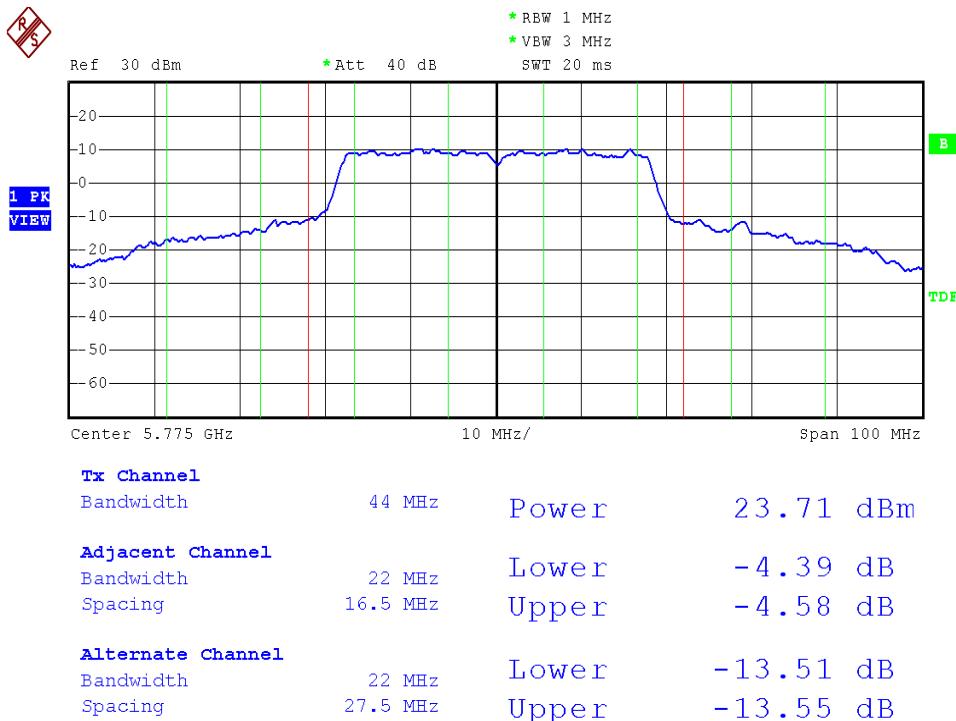
Modulation Standard: 802.11an HT40 (270Mbps), ANT L, Peak Power Output
Channel: 151



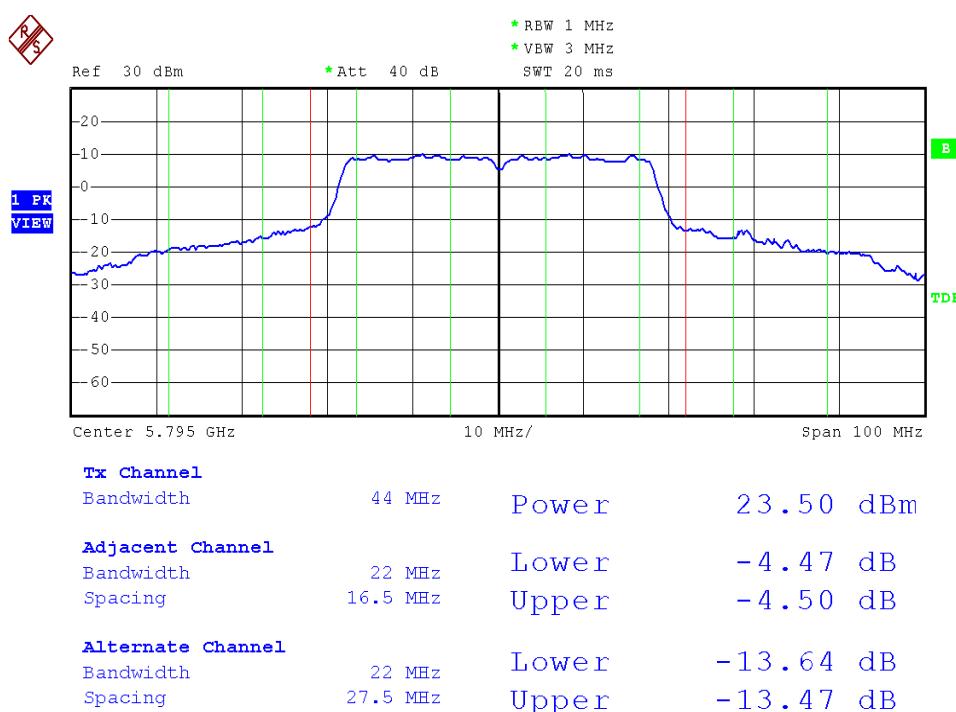
| Tx Channel | | | |
|--------------------------|----------|-------|-----------|
| Bandwidth | 44 MHz | Power | 23.36 dBm |
| Adjacent Channel | | | |
| Bandwidth | 22 MHz | Lower | -4.35 dB |
| Spacing | 16.5 MHz | Upper | -4.63 dB |
| Alternate Channel | | | |
| Bandwidth | 22 MHz | Lower | -13.48 dB |
| Spacing | 27.5 MHz | Upper | -13.72 dB |



Modulation Standard: 802.11an HT40 (270Mbps), ANT L, Peak Power Output
Channel: 155

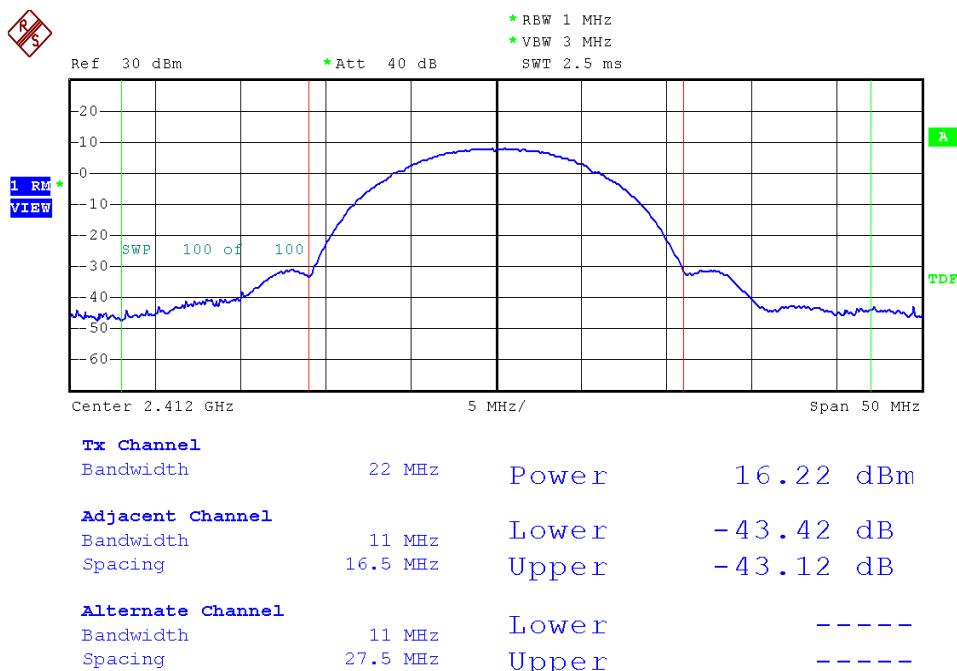


Modulation Standard: 802.11an HT40 (270Mbps), ANT L, Peak Power Output
Channel: 159

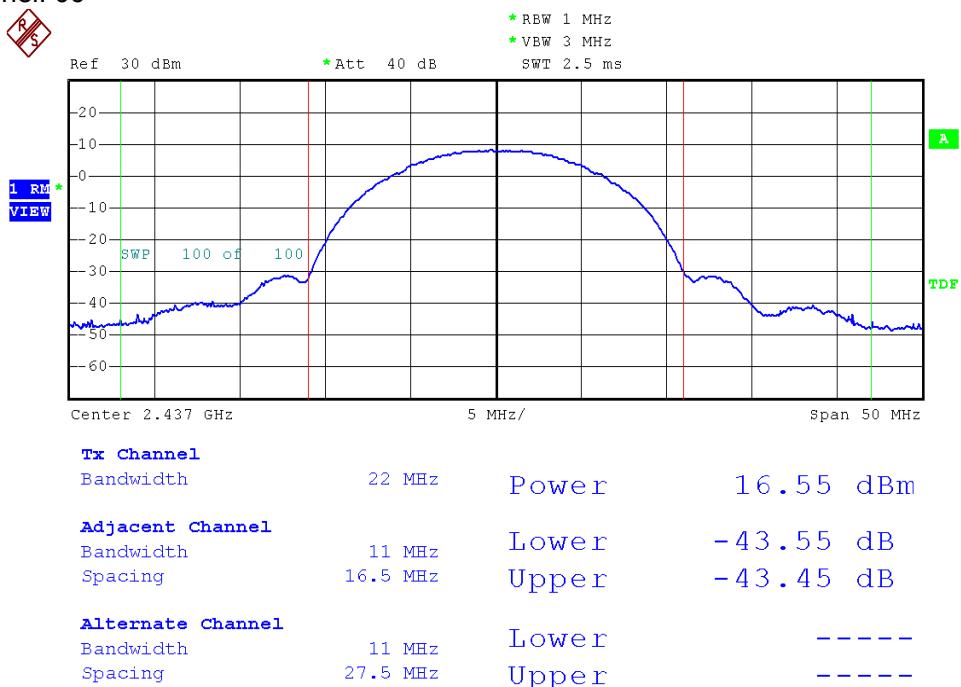




Modulation Standard: 802.11b (11Mbps), ANT R, Average Power Output
Channel: 01

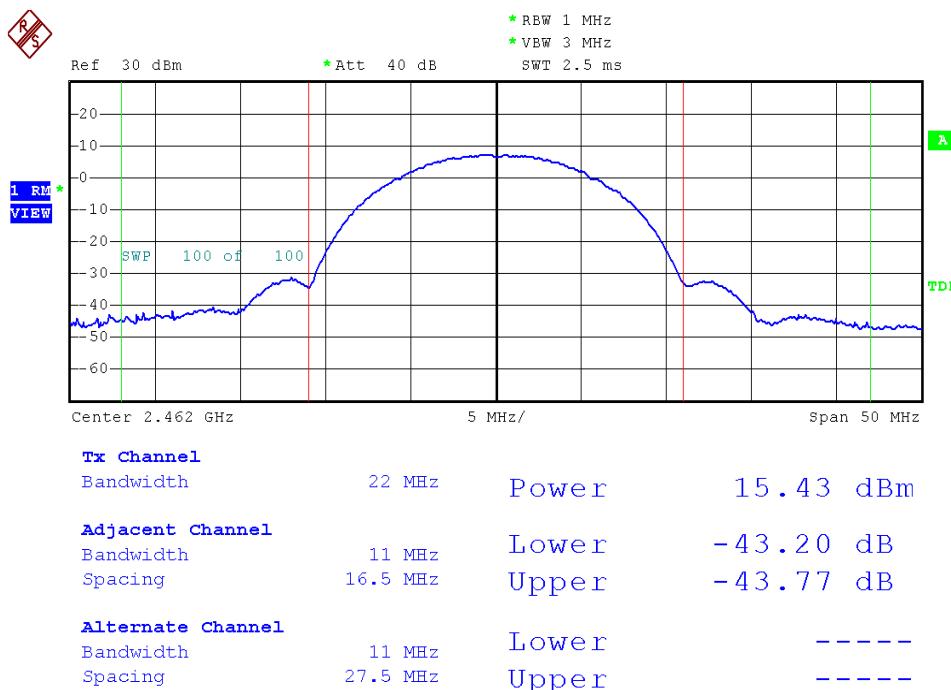


Modulation Standard: 802.11b (11Mbps), ANT R, Average Power Output
Channel: 06

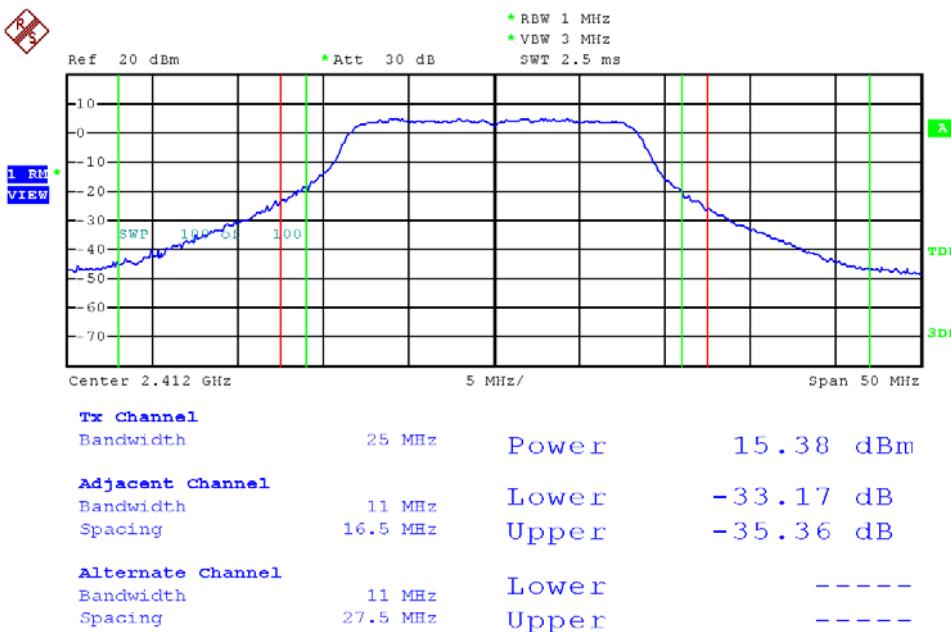




Modulation Standard: 802.11b (11Mbps), ANT R, Average Power Output
Channel: 11

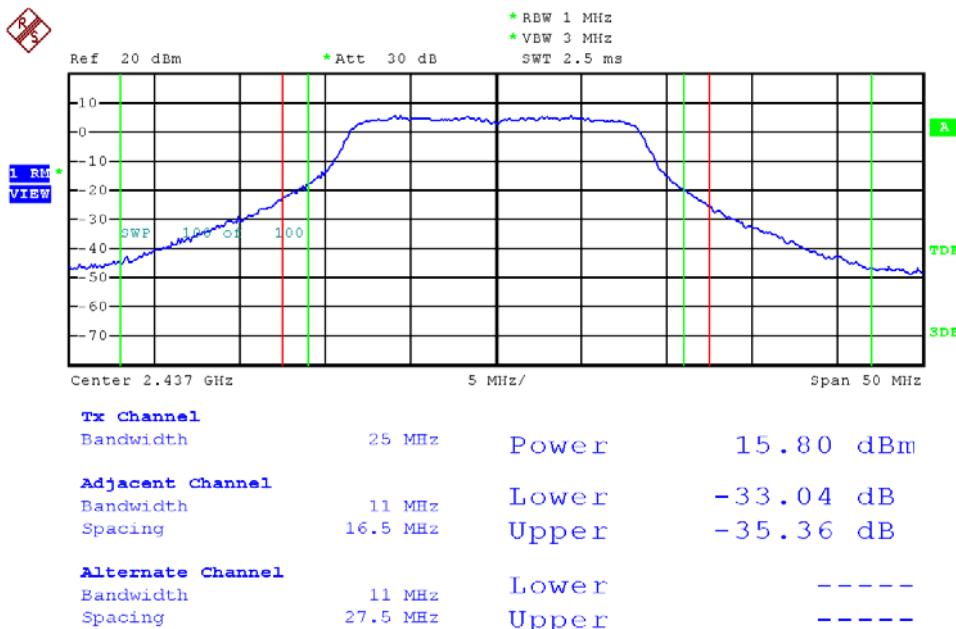


Modulation Standard: 802.11g (54Mbps), ANT R, Average Power Output
Channel: 01

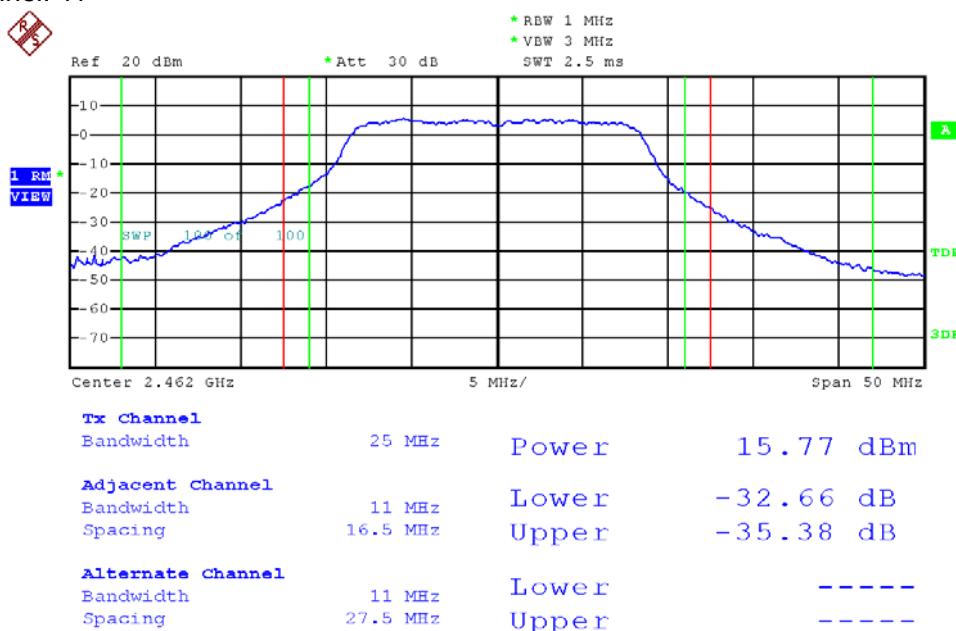




Modulation Standard: 802.11g (54Mbps), ANT R, Average Power Output
Channel: 06

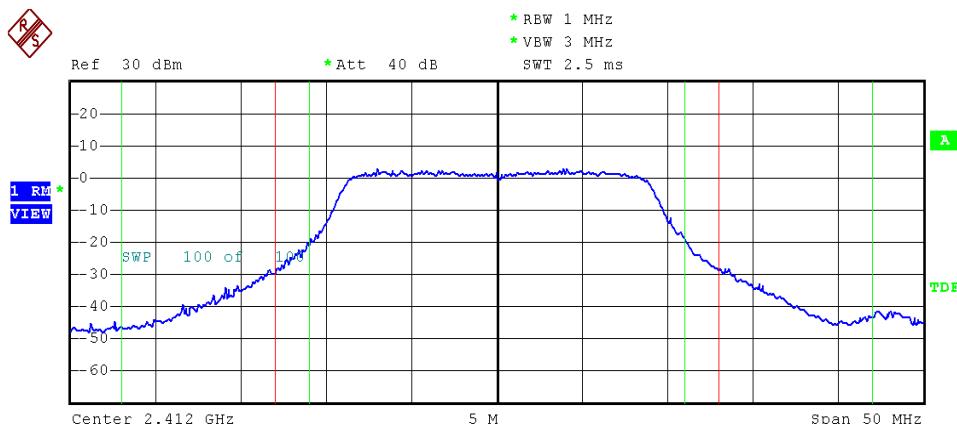


Modulation Standard: 802.11g (6Mbps), ANT R, Average Power Output
Channel: 11



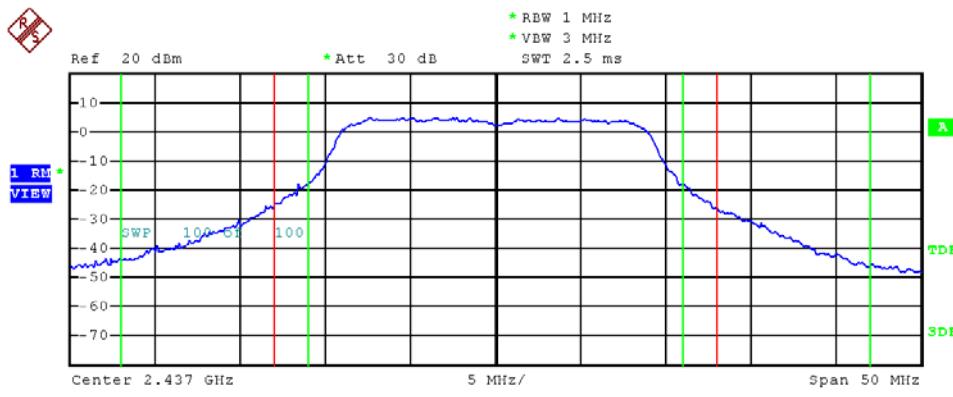


Modulation Standard: 802.11n HT20 (130Mbps), ANT R, Average Power Output
Channel: 01



| | | | | |
|--------------------------|-----------|----------|-------|-----------|
| Tx Channel | Bandwidth | 26 MHz | Power | 13.19 dBm |
| Adjacent Channel | Bandwidth | 11 MHz | Lower | -34.11 dB |
| | Spacing | 16.5 MHz | Upper | -33.07 dB |
| Alternate Channel | Bandwidth | 11 MHz | Lower | ----- |
| | Spacing | 27.5 MHz | Upper | ----- |

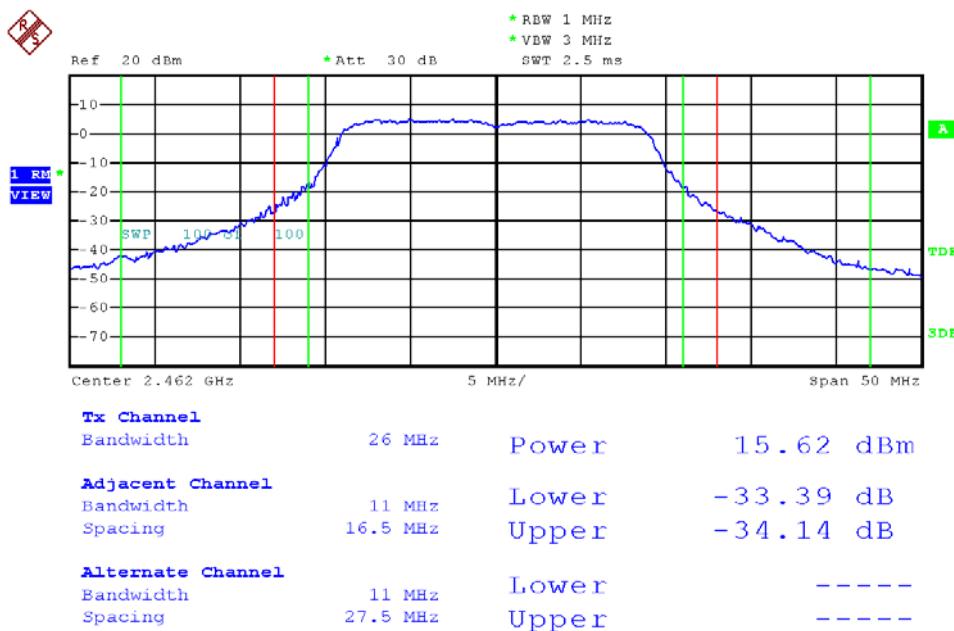
Modulation Standard: 802.11n HT20 (130Mbps), ANT R, Average Power Output
Channel: 06



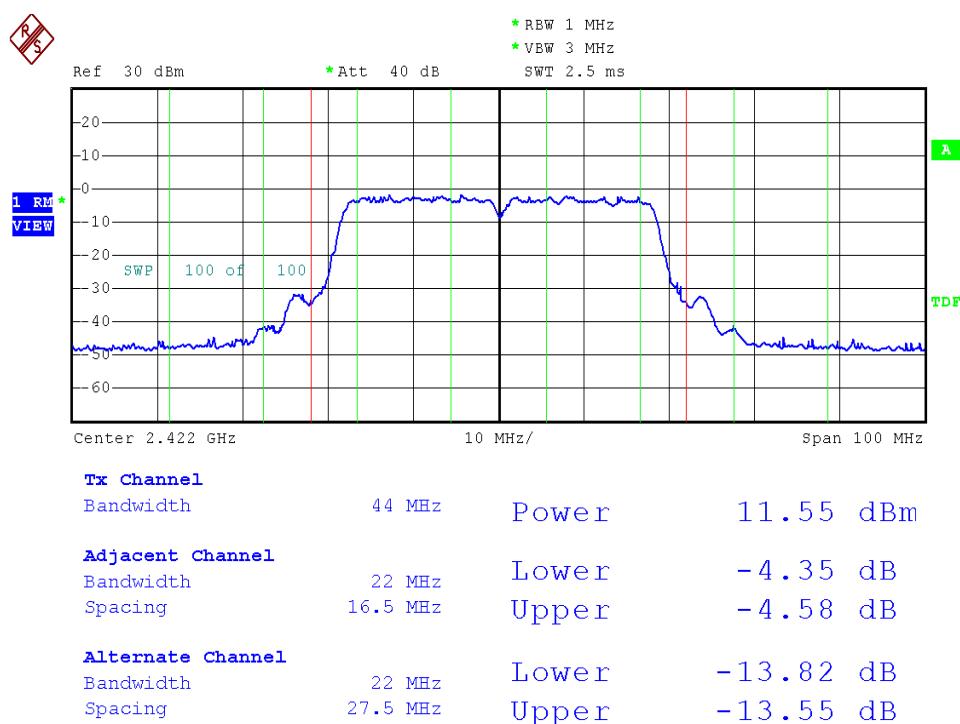
| | | | | |
|--------------------------|-----------|----------|-------|-----------|
| Tx Channel | Bandwidth | 26 MHz | Power | 15.46 dBm |
| Adjacent Channel | Bandwidth | 11 MHz | Lower | -32.97 dB |
| | Spacing | 16.5 MHz | Upper | -33.75 dB |
| Alternate Channel | Bandwidth | 11 MHz | Lower | ----- |
| | Spacing | 27.5 MHz | Upper | ----- |



Modulation Standard: 802.11n HT20 (130Mbps), ANT R, Average Power Output
Channel: 11

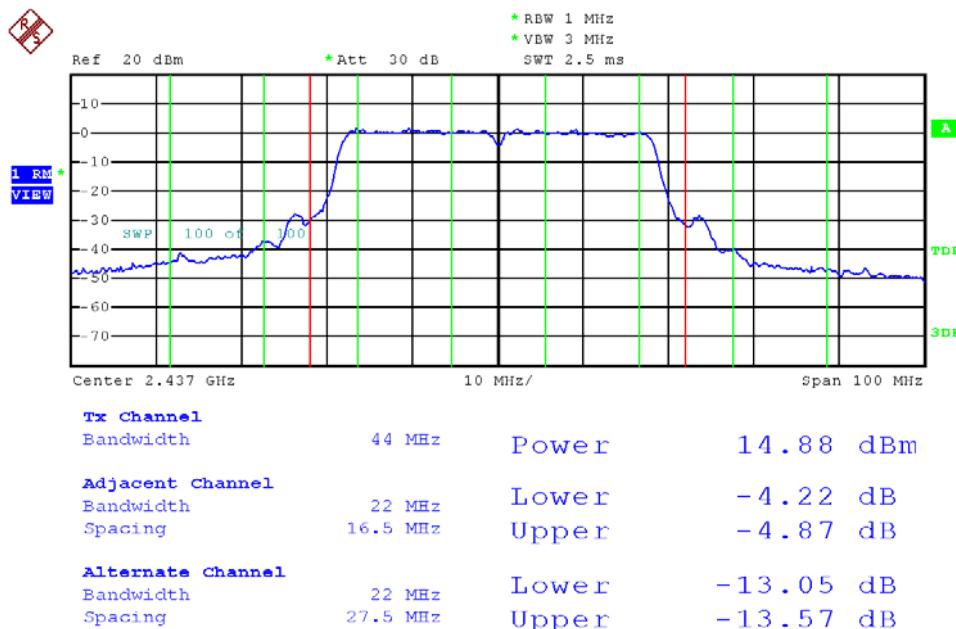


Modulation Standard: 802.11n HT40 (270Mbps), ANT R, Average Power Output
Channel: 03

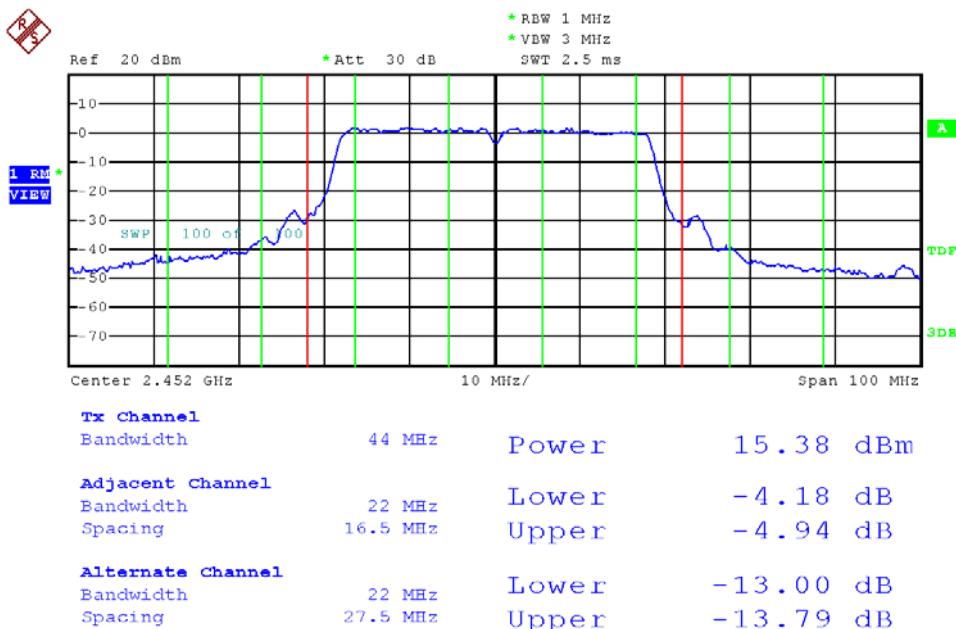




Modulation Standard: 802.11n HT40 (270Mbps), ANT R, Average Power Output
Channel: 06

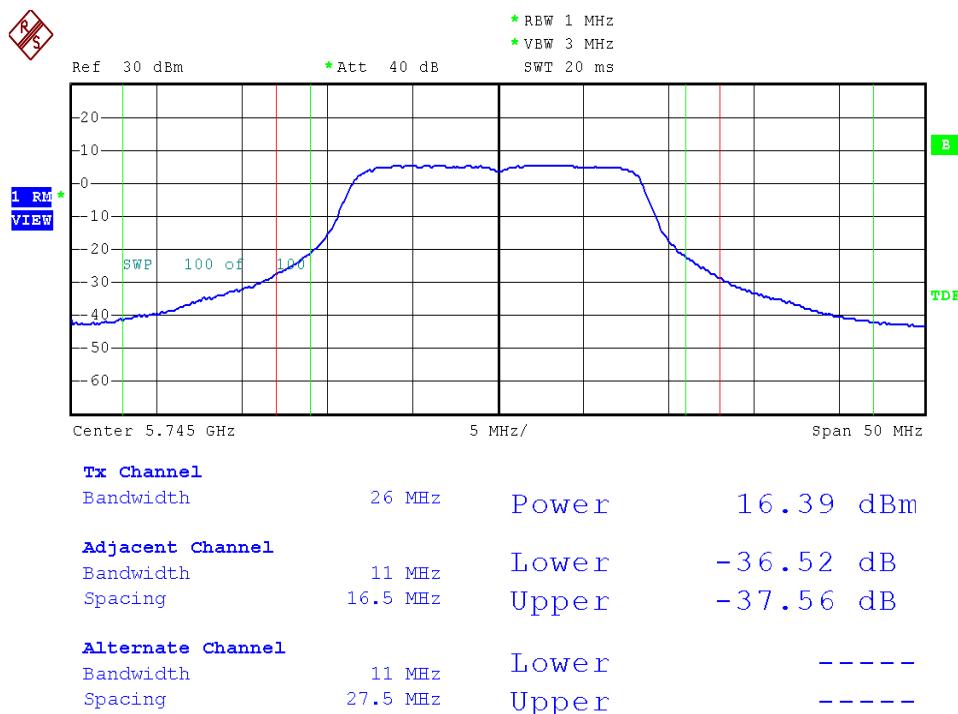


Modulation Standard: 802.11n HT40 (270Mbps), ANT R, Average Power Output
Channel: 09

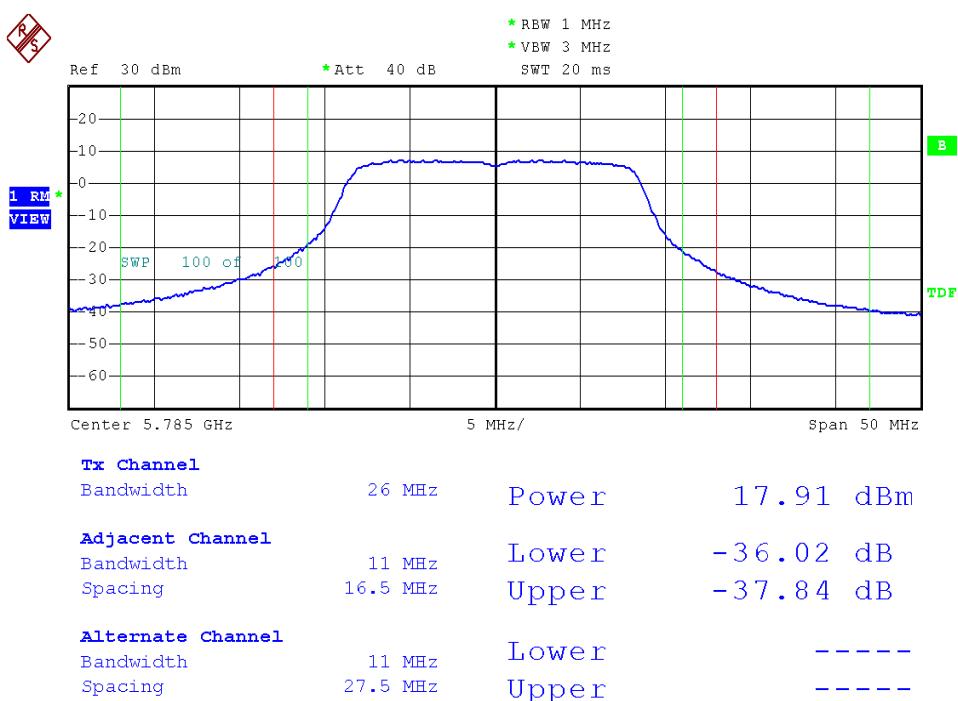




Modulation Standard: 802.11a (54Mbps), ANT R, Average Power Output
Channel: 149

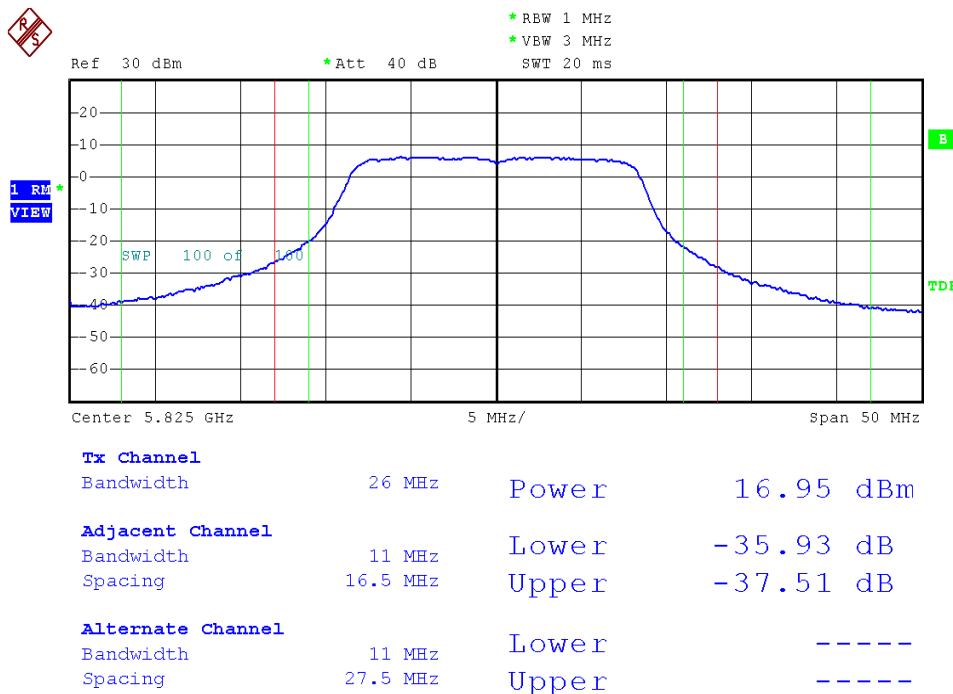


Modulation Standard: 802.11a (54Mbps), ANT R, Average Power Output
Channel: 157

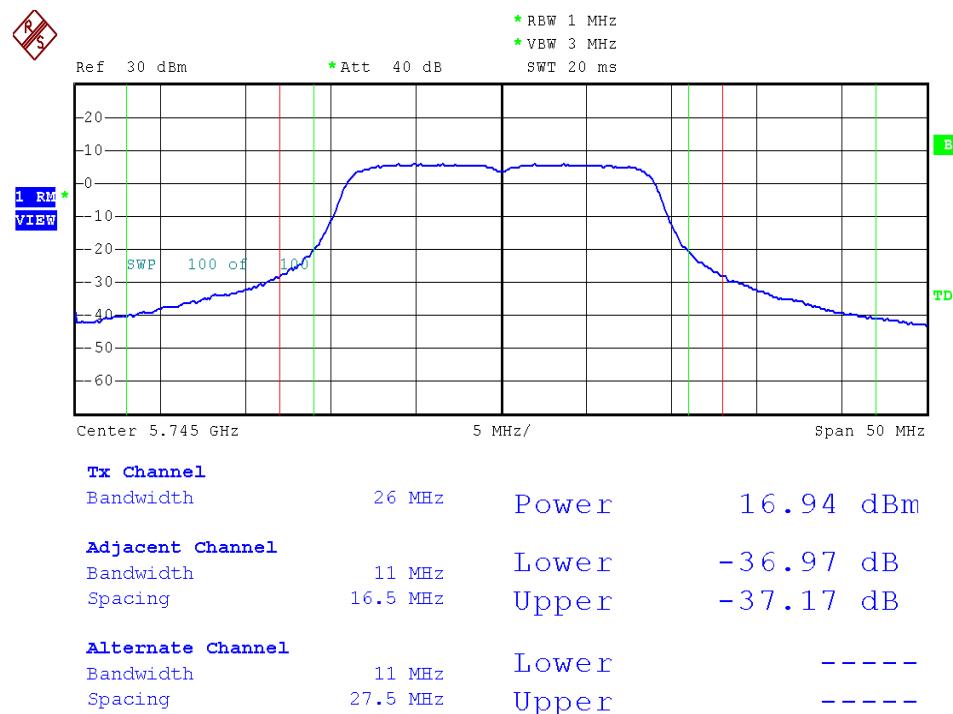




Modulation Standard: 802.11a (54Mbps), ANT R, Average Power Output
Channel: 165

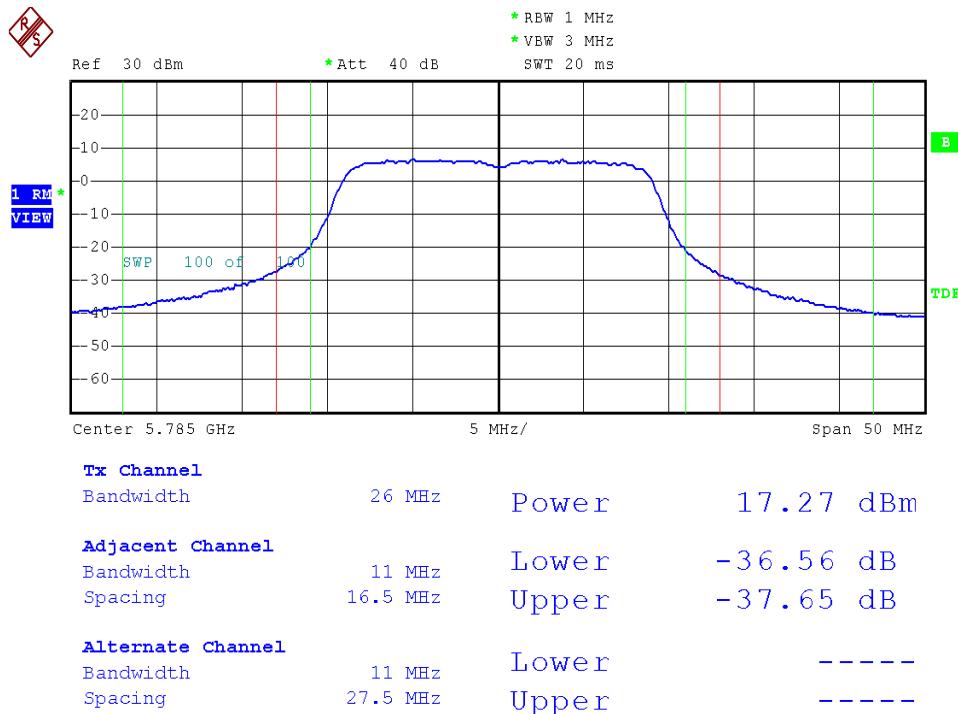


Modulation Standard: 802.11an HT20 (130Mbps), ANT R, Average Power Output
Channel: 149

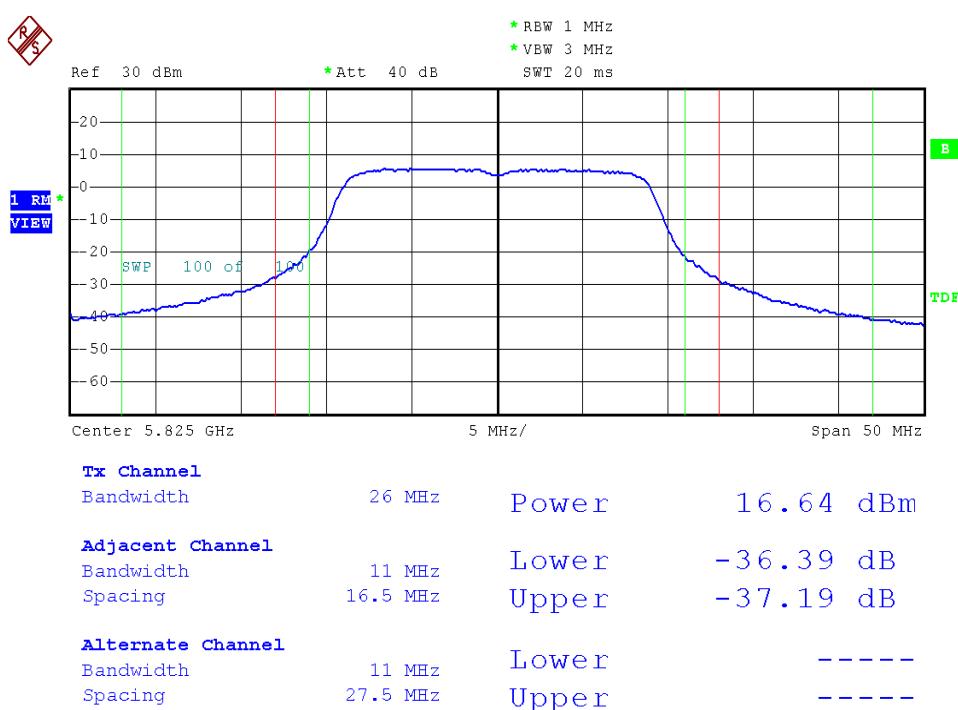




Modulation Standard: 802.11an HT20 (130Mbps), ANT R, Average Power Output
Channel: 157

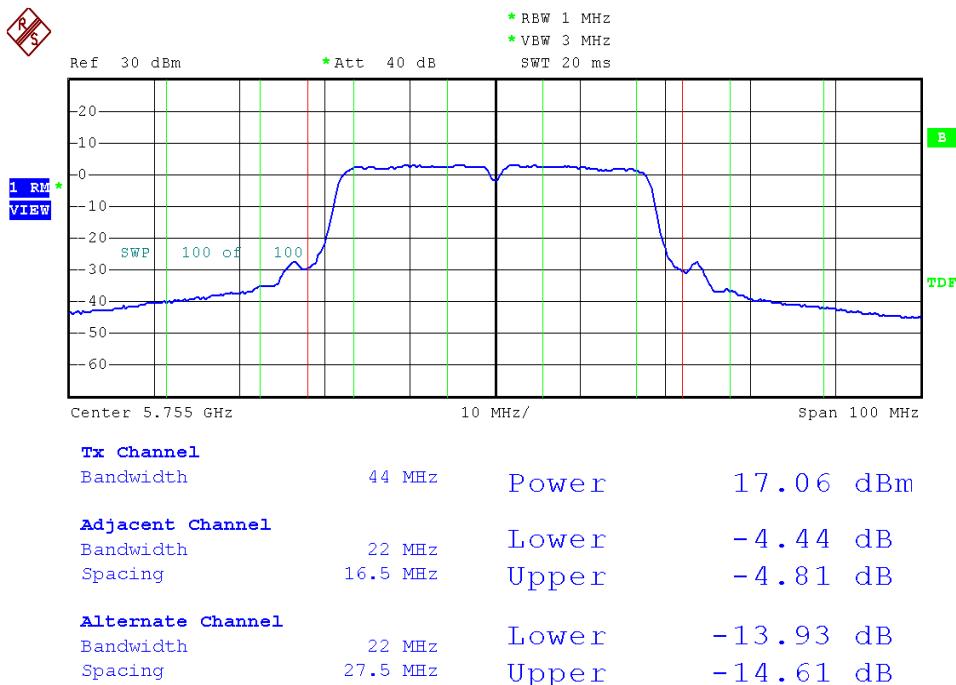


Modulation Standard: 802.11an HT20 (130Mbps), ANT R, Average Power Output
Channel: 165

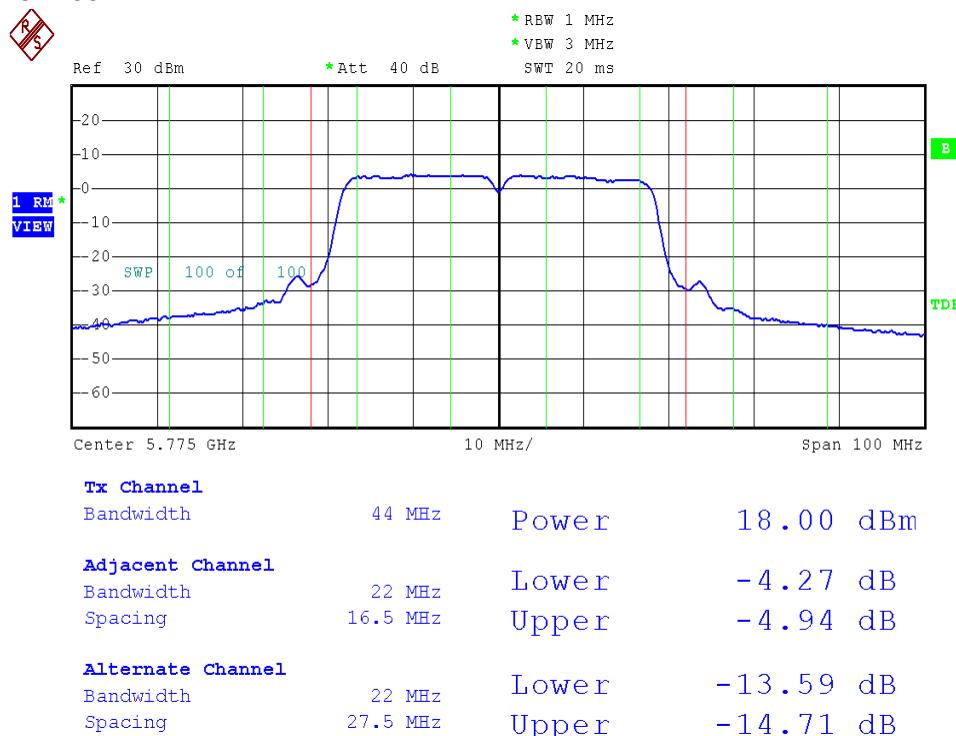




Modulation Standard: 802.11an HT40 (270Mbps), ANT R, Average Power Output
Channel: 151

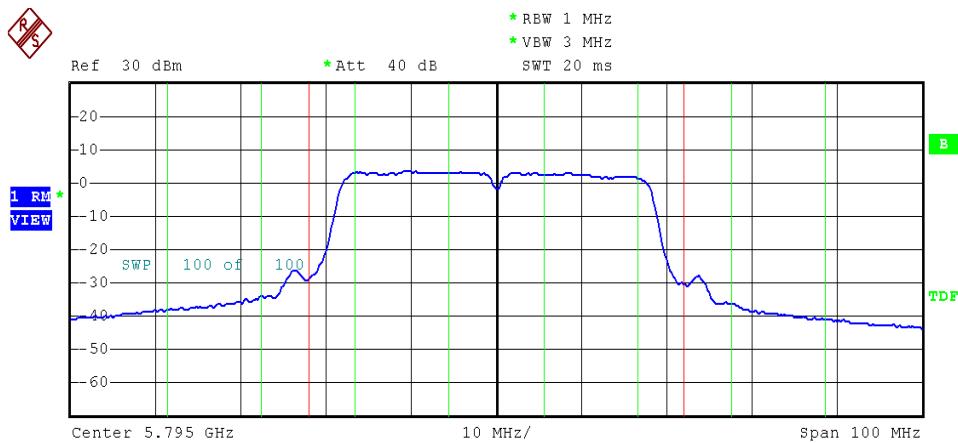


Modulation Standard: 802.11an HT40 (270Mbps), ANT R, Average Power Output
Channel: 155

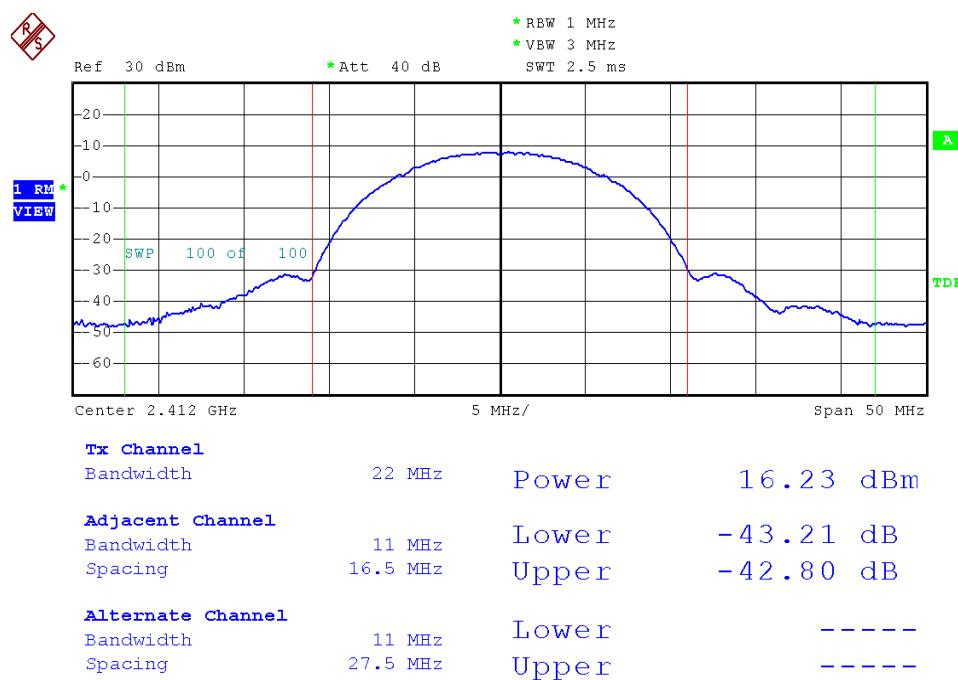




Modulation Standard: 802.11an HT40 (270Mbps), ANT R, Average Power Output
Channel: 159

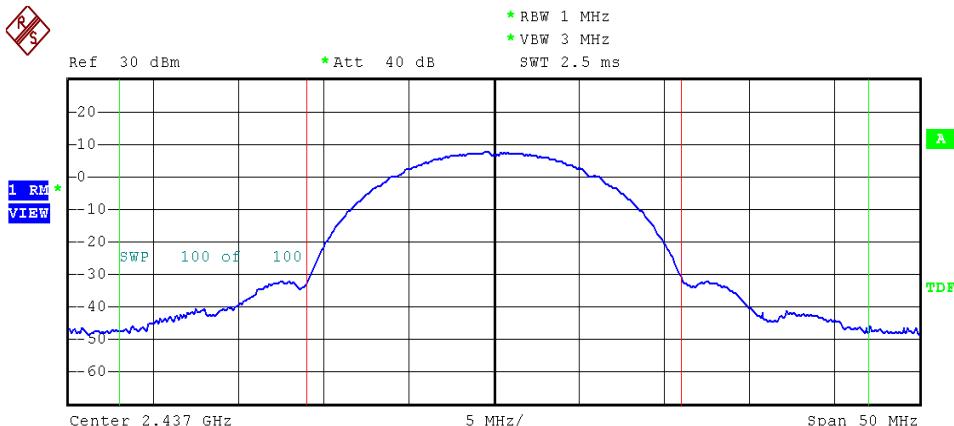


Modulation Standard: 802.11b (11Mbps), ANT L, Average Power Output
Channel: 01

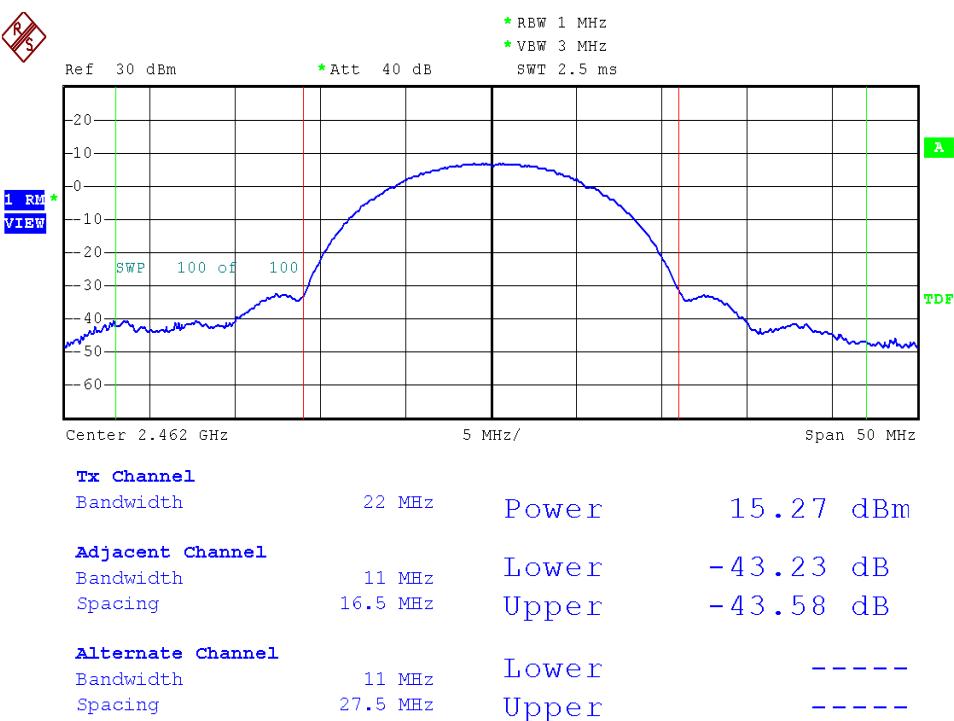




Modulation Standard: 802.11b (11Mbps), ANT L, Average Power Output
Channel: 06

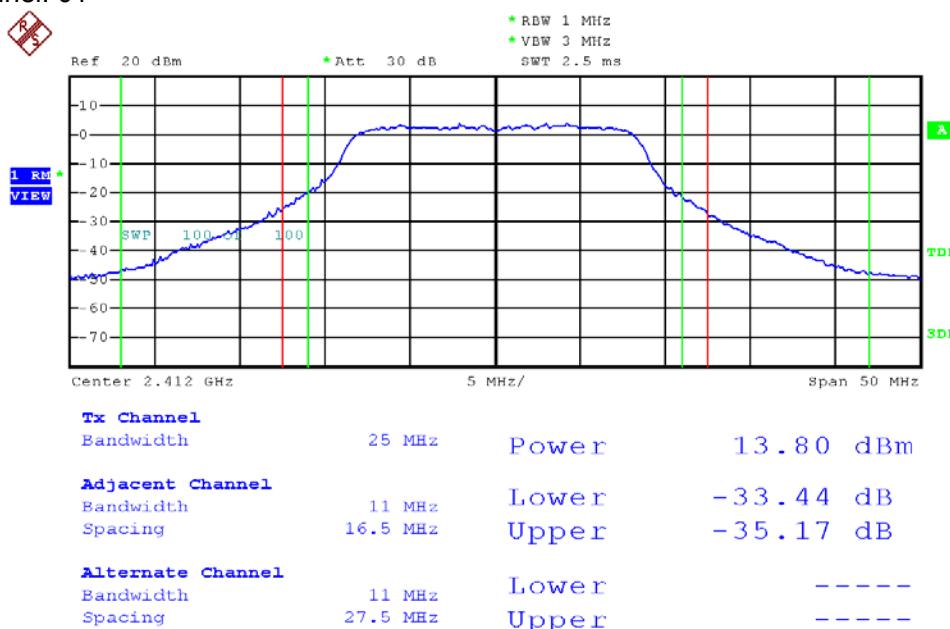


Modulation Standard: 802.11b (11Mbps), ANT L, Average Power Output
Channel: 11

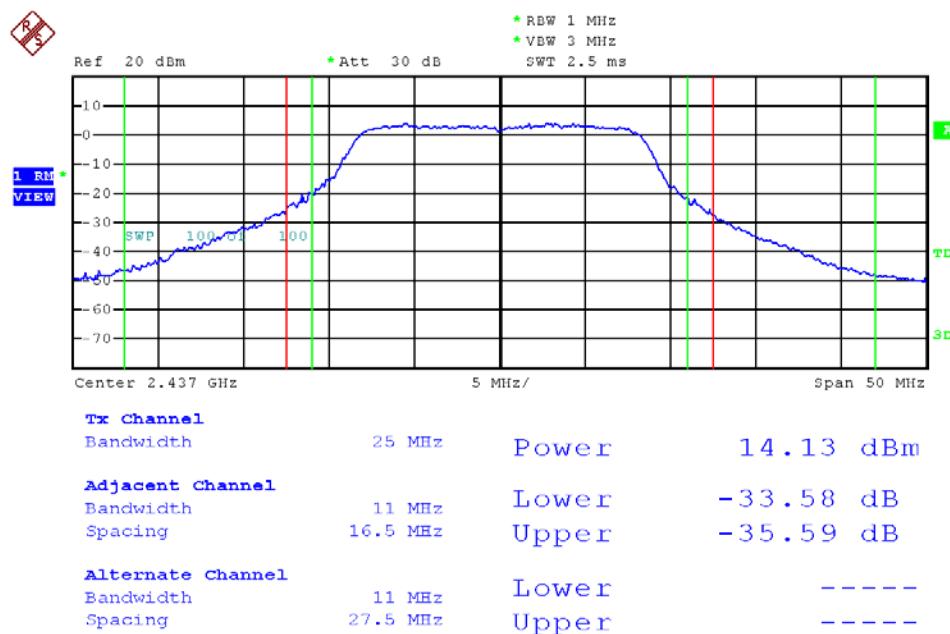




Modulation Standard: 802.11g (54Mbps), ANT L, Average Power Output
Channel: 01

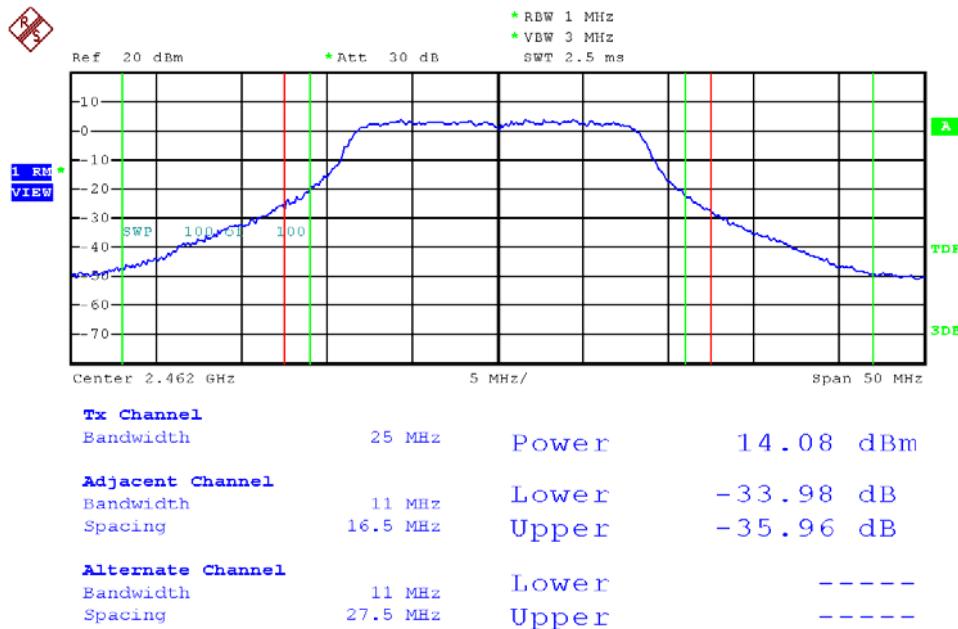


Modulation Standard: 802.11g (54Mbps), ANT L, Average Power Output
Channel: 06

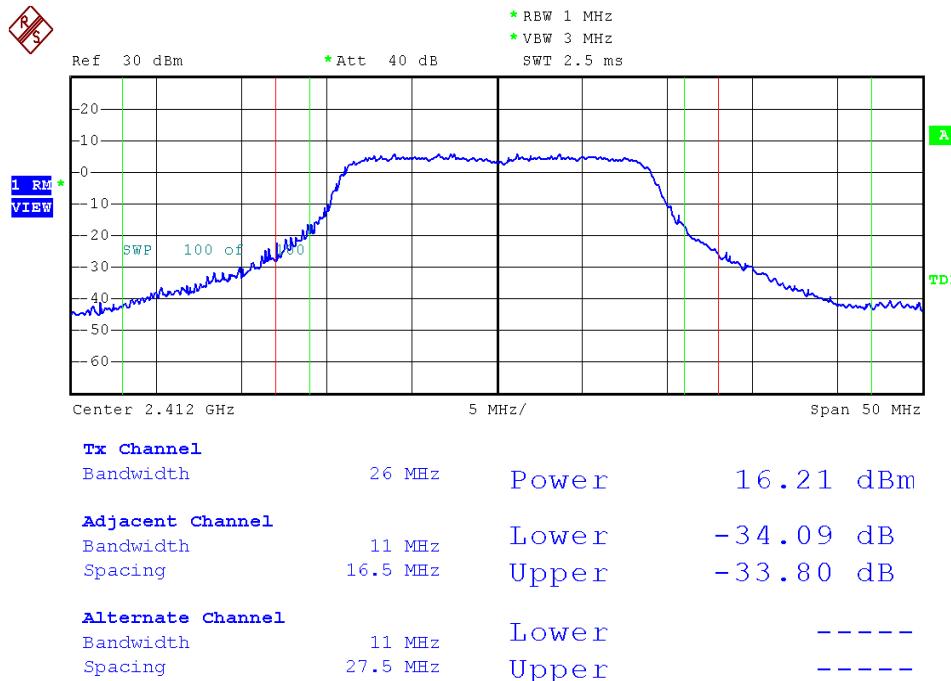




Modulation Standard: 802.11g (54Mbps), ANT L, Average Power Output
Channel: 11

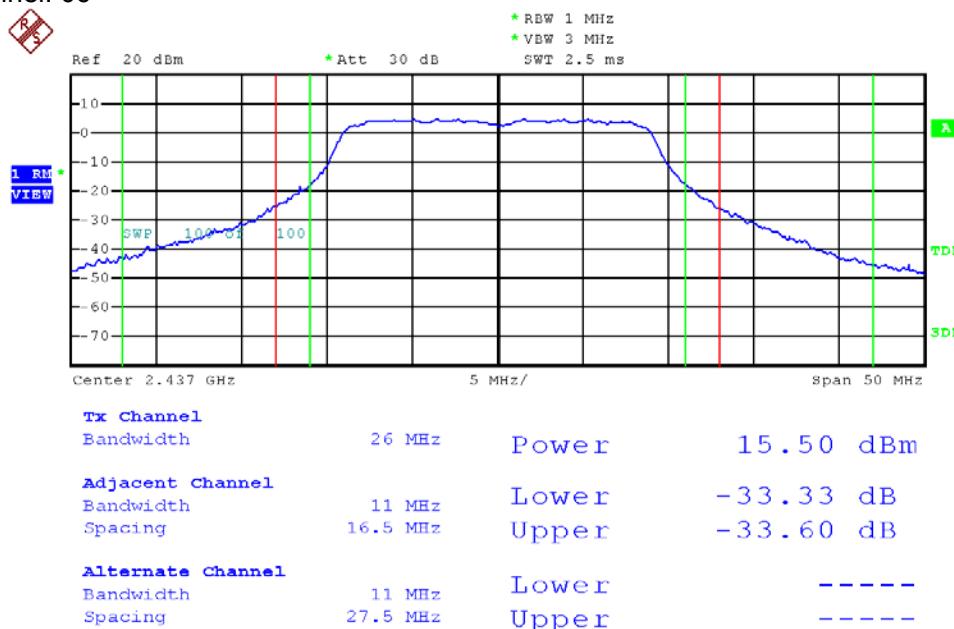


Modulation Standard: 802.11n HT20 (130Mbps), ANT L, Average Power Output
Channel: 01

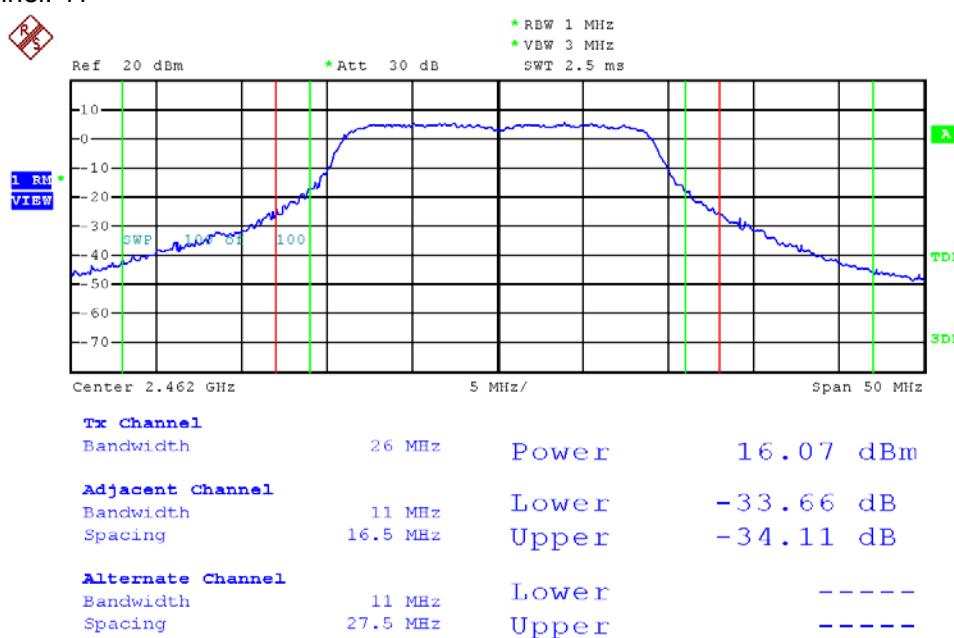




Modulation Standard: 802.11n HT20 (130Mbps), ANT L, Average Power Output
Channel: 06

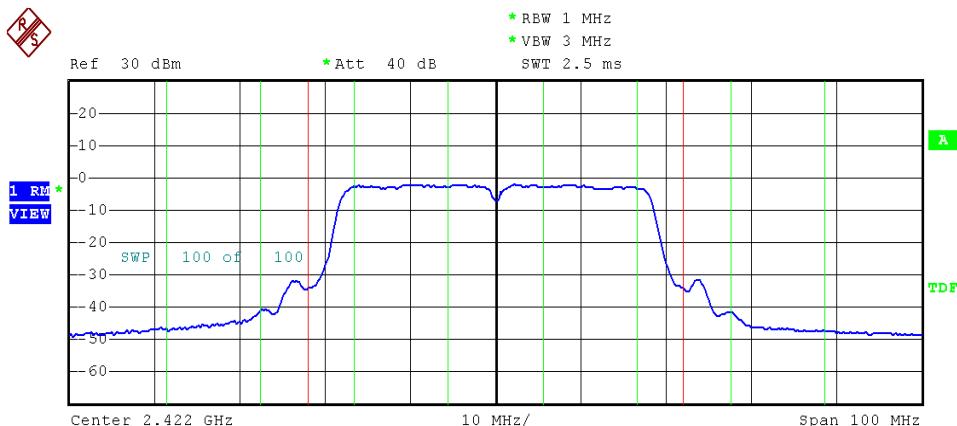


Modulation Standard: 802.11n HT20 (130Mbps), ANT L, Average Power Output
Channel: 11



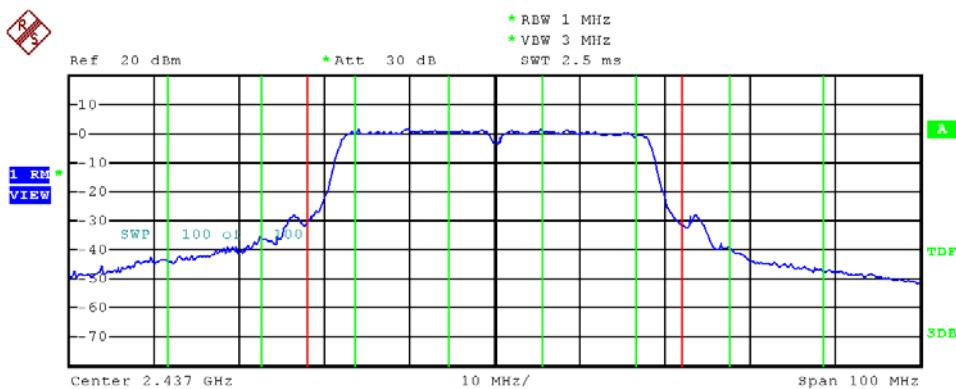


Modulation Standard: 802.11n HT40 (270Mbps), ANT L, Average Power Output
Channel: 03



| | | | |
|--------------------------|----------|-------|-----------|
| Tx Channel | | | |
| Bandwidth | 44 MHz | Power | 12.07 dBm |
| Adjacent Channel | | | |
| Bandwidth | 22 MHz | Lower | -4.53 dB |
| Spacing | 16.5 MHz | Upper | -4.57 dB |
| Alternate Channel | | | |
| Bandwidth | 22 MHz | Lower | -13.92 dB |
| Spacing | 27.5 MHz | Upper | -13.75 dB |

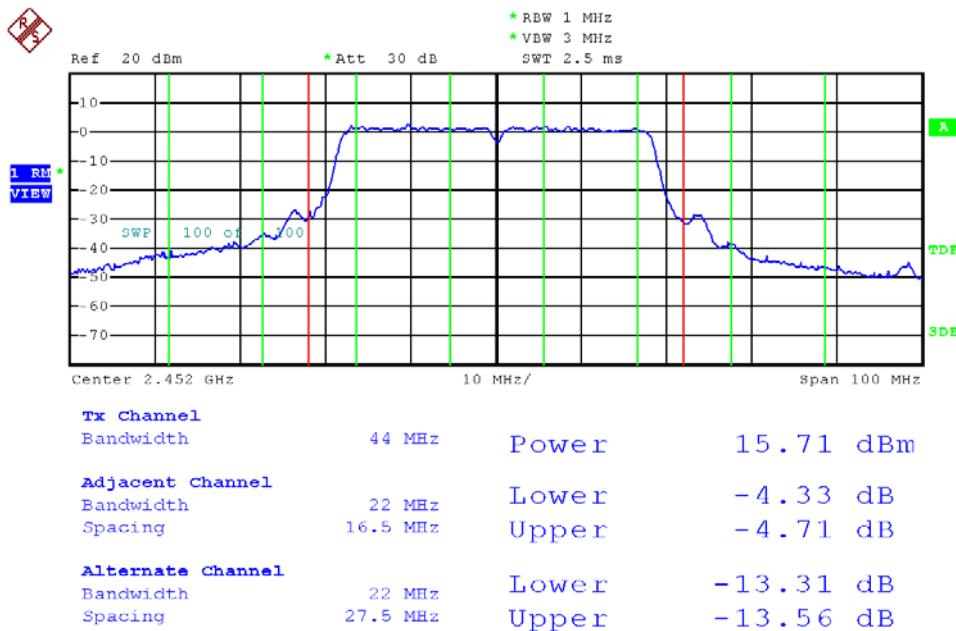
Modulation Standard: 802.11n HT40 (270Mbps), ANT L, Average Power Output
Channel: 06



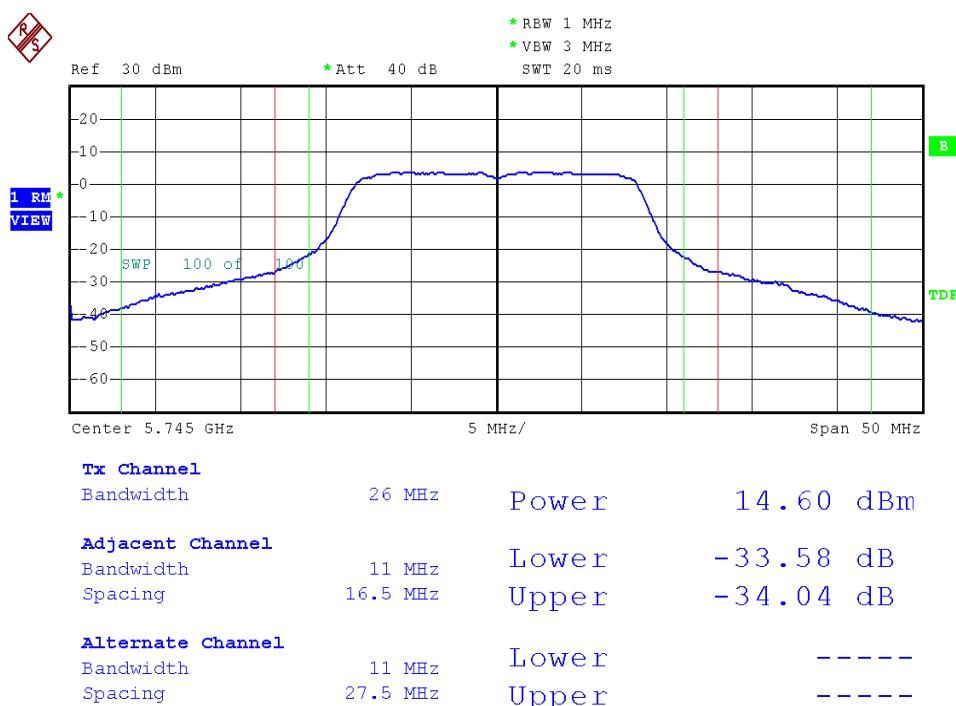
| | | | |
|--------------------------|----------|-------|-----------|
| Tx Channel | | | |
| Bandwidth | 44 MHz | Power | 15.12 dBm |
| Adjacent Channel | | | |
| Bandwidth | 22 MHz | Lower | -4.43 dB |
| Spacing | 16.5 MHz | Upper | -4.76 dB |
| Alternate Channel | | | |
| Bandwidth | 22 MHz | Lower | -13.73 dB |
| Spacing | 27.5 MHz | Upper | -13.81 dB |



Modulation Standard: 802.11n HT40 (270Mbps), ANT L, Average Power Output
Channel: 09

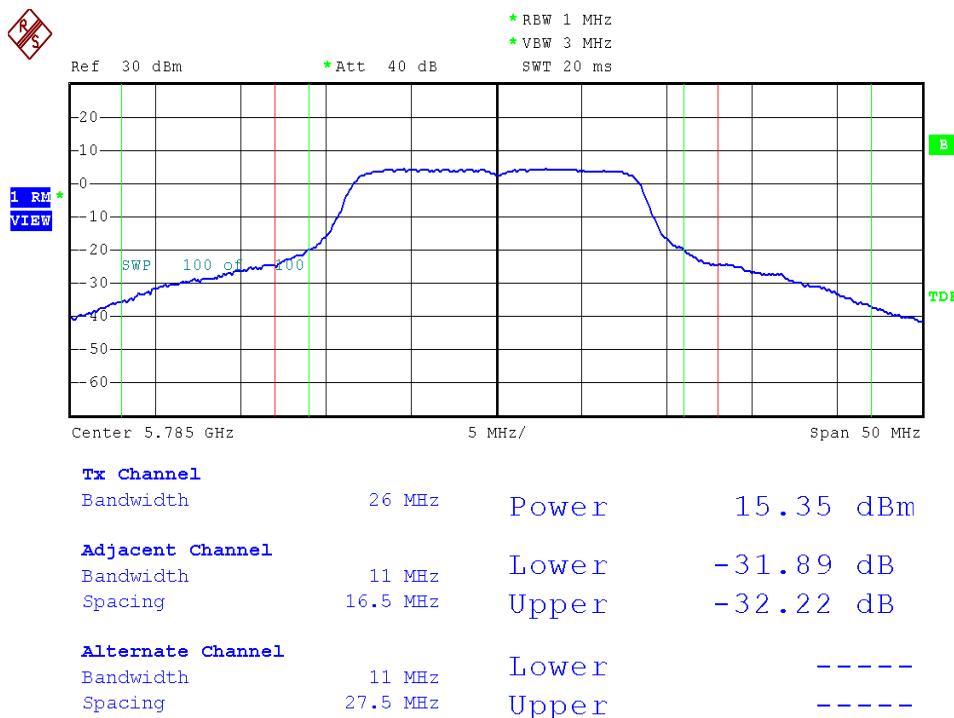


Modulation Standard: 802.11a (54Mbps), ANT L, Average Power Output
Channel: 149

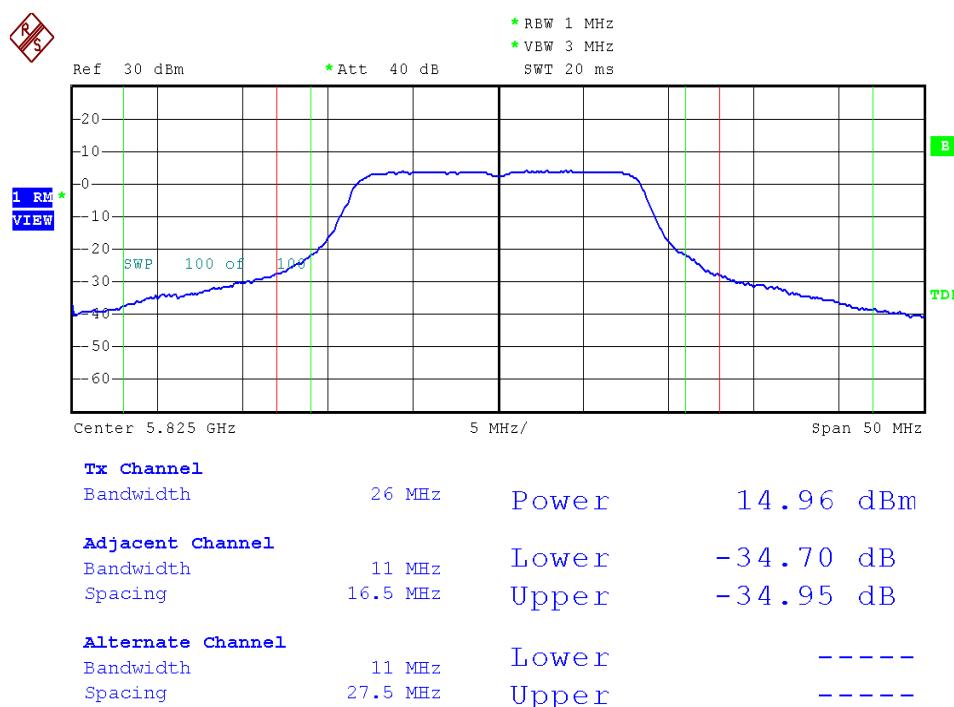




Modulation Standard: 802.11a (54Mbps), ANT L, Average Power Output
Channel: 157

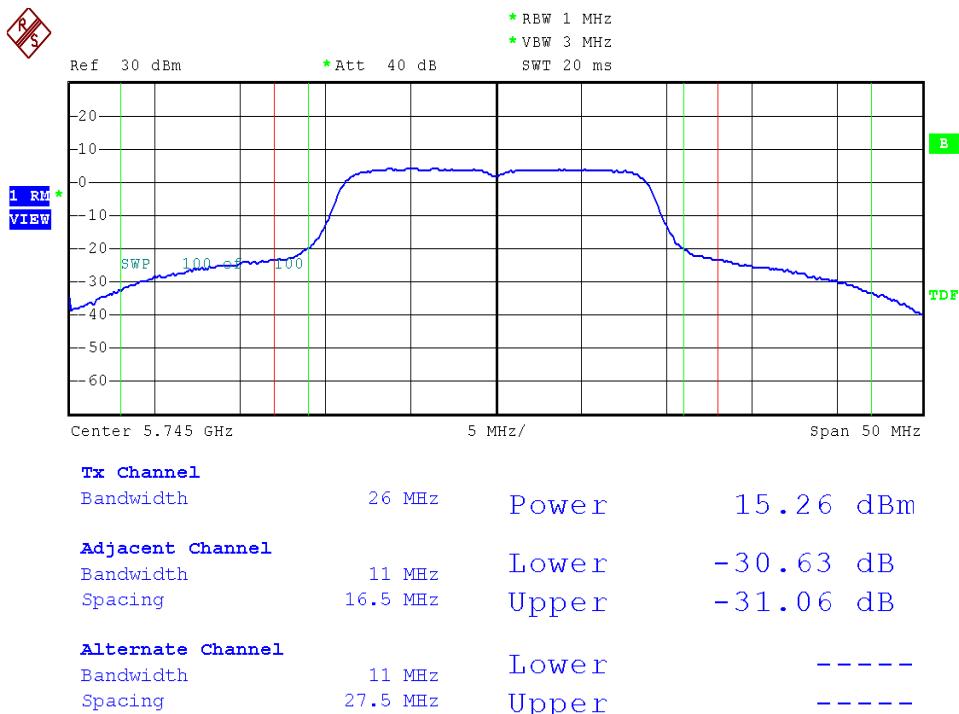


Modulation Standard: 802.11a (54Mbps), ANT L, Average Power Output
Channel: 165

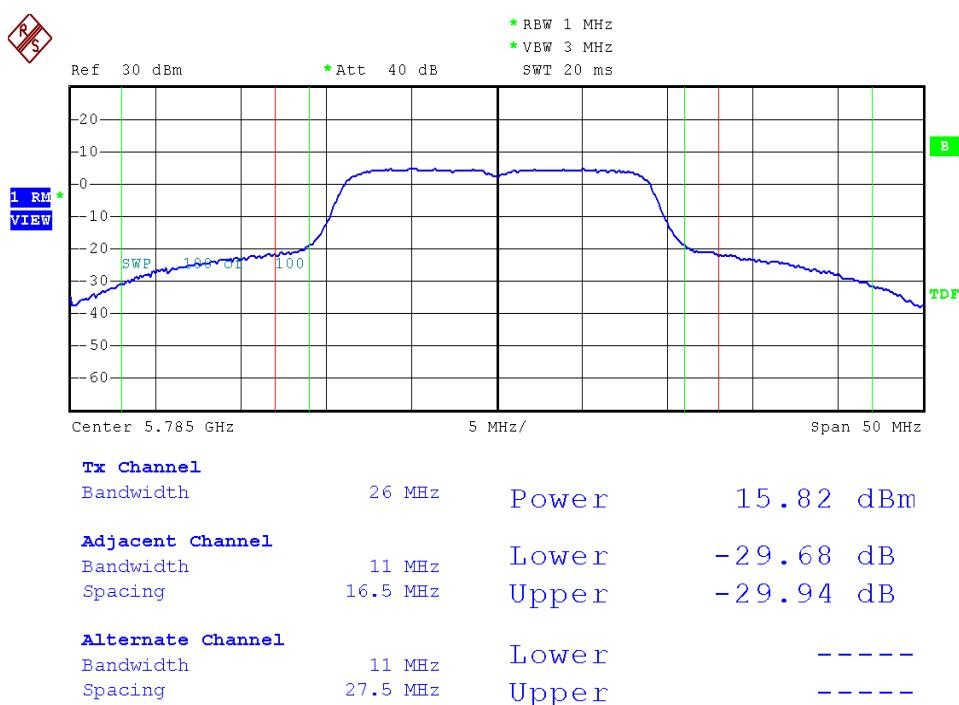




Modulation Standard: 802.11an HT20 (130Mbps), ANT L, Average Power Output
Channel: 149

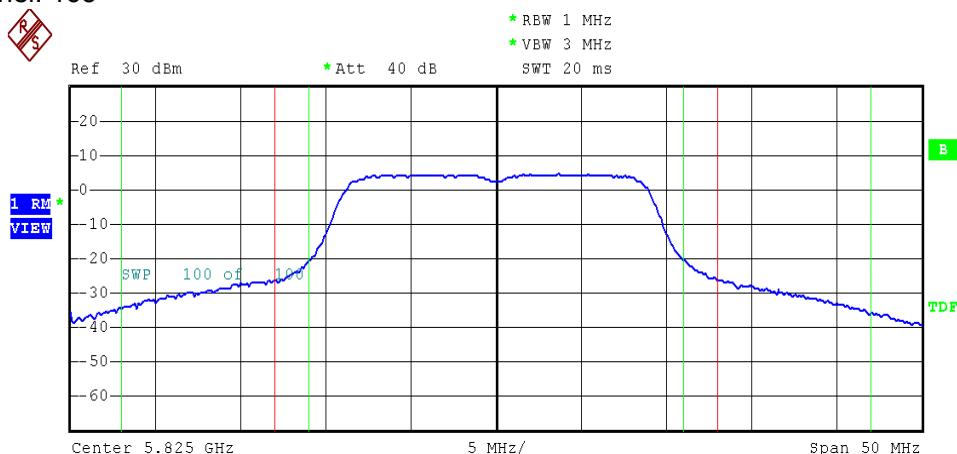


Modulation Standard: 802.11an HT20 (130Mbps), ANT L, Average Power Output
Channel: 157



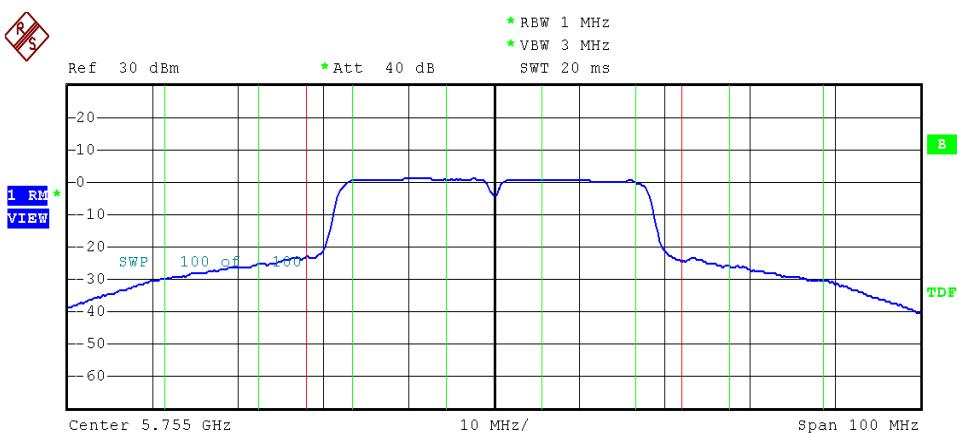


Modulation Standard: 802.11an HT20 (130Mbps), ANT L, Average Power Output
Channel: 165



| Tx Channel | | Power | |
|-------------------|----------|--------|-----------|
| Bandwidth | 26 MHz | 15.70 | dBm |
| Adjacent Channel | | -33.71 | dB |
| Bandwidth | 11 MHz | Lower | |
| Spacing | 16.5 MHz | Upper | -33.72 dB |
| Alternate Channel | | ----- | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

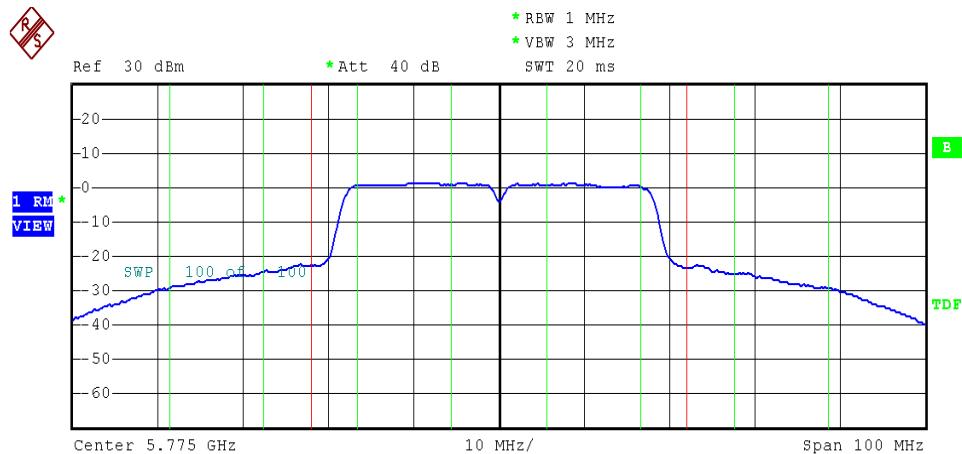
Modulation Standard: 802.11an HT40 (270Mbps), ANT L, Average Power Output
Channel: 151



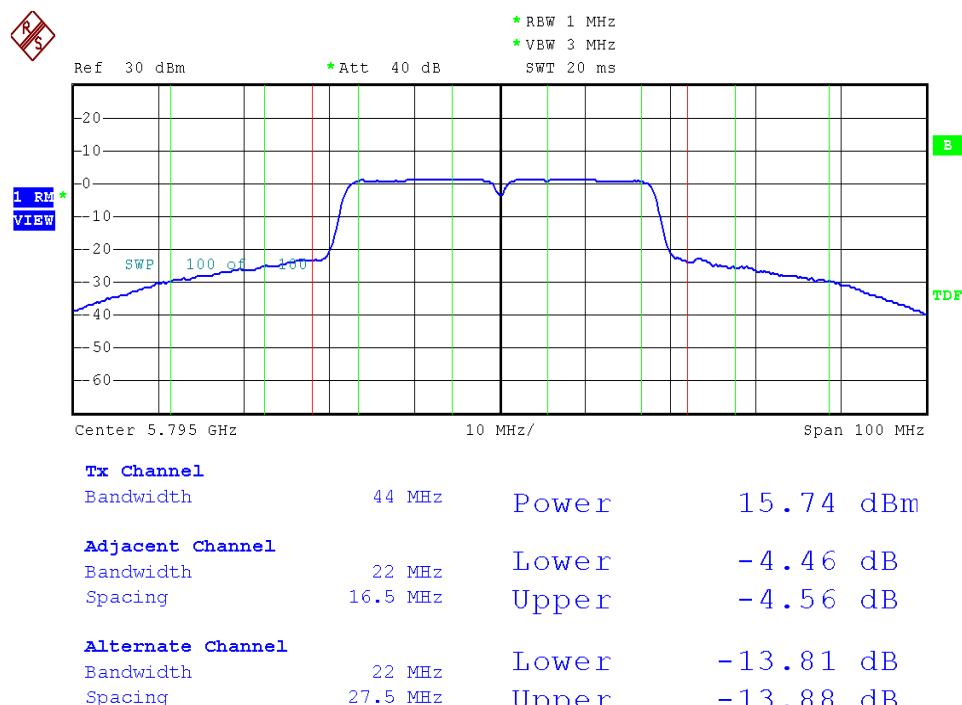
| Tx Channel | | Power | |
|-------------------|----------|--------|-----------|
| Bandwidth | 44 MHz | 15.41 | dBm |
| Adjacent Channel | | -4.33 | dB |
| Bandwidth | 22 MHz | Lower | |
| Spacing | 16.5 MHz | Upper | -4.71 dB |
| Alternate Channel | | -13.70 | dB |
| Bandwidth | 22 MHz | Lower | |
| Spacing | 27.5 MHz | Upper | -14.15 dB |



Modulation Standard: 802.11an HT40 (270Mbps), ANT L, Average Power Output
Channel: 155



Modulation Standard: 802.11an HT40 (270Mbps), ANT L, Average Power Output
Channel: 159





8. Power Spectral Density

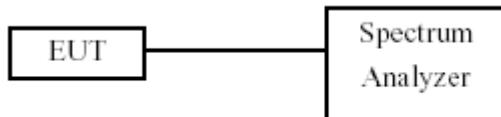
8.1 Test Limit

The Maximum of Power Spectral Density Measurement is 8dBm (2.4GHz), 6.99dBm (5GHz).

8.2 Test Procedures

- a. The transmitter output was connected to spectrum analyzer.
- b. The spectrum analyzer's resolution bandwidth were set at 100KHz RBW and 300KHz VBW as that of the fundamental frequency. Set the sweep time=auto couple.
- c. Scale the observed power level to an equivalent value in 3 kHz by adjusting the measured power by a bandwidth correction factor (BWCF) where BWCF= $10\log(3 \text{ kHz}/100) = -15.2 \text{ dB}$.
- d. The power spectral density was measured and recorded.

8.3 Test Setup Layout



8.4 Measurement Equipment

| Instrument/Ancillary | Manufacturer | Model No. | Serial No. | Calibration Date | Valid Date |
|----------------------|--------------|-----------|------------|------------------|------------|
| Spectrum Analyzer | R&S | FSP40 | 100219 | 2011/11/24 | 2012/11/23 |



8.5 Test Result and Data

Test Date: Jun. 07, 2012

Temperature: 25°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

| Modulation Standard | Channel | Frequency (MHz) | Maximum Power Density of 3 kHz Bandwidth (dBm) | |
|---------------------|---------|-----------------|--|--------|
| | | | ANT R | ANT L |
| 802.11b (11Mbps) | 01 | 2412 | -3.38 | -2.74 |
| | 06 | 2437 | -3.14 | -2.14 |
| | 11 | 2462 | -3.61 | -2.89 |
| 802.11g (54Mbps) | 01 | 2412 | -11.59 | -10.11 |
| | 06 | 2437 | -11.26 | -10.36 |
| | 11 | 2462 | -11.59 | -10.81 |

| Modulation Standard | Channel | Frequency (MHz) | Maximum Power Density of 3 kHz Bandwidth (dBm) | | |
|------------------------|---------|-----------------|--|--------|--------|
| | | | ANT R | ANT L | R+L |
| 802.11n HT20 (130Mbps) | 01 | 2412 | -12.73 | -10.02 | -8.16 |
| | 06 | 2437 | -13.31 | -10.18 | -8.46 |
| | 11 | 2462 | -14.02 | -10.21 | -8.70 |
| 802.11n HT40 (270Mbps) | 03 | 2422 | -15.9 | -12.68 | -10.99 |
| | 06 | 2437 | -16.58 | -14.74 | -12.55 |
| | 09 | 2452 | -17.2 | -15.23 | -13.09 |

Test Date: Jun. 15, 2012

Temperature: 25°C

Atmospheric pressure: 1020 hPa

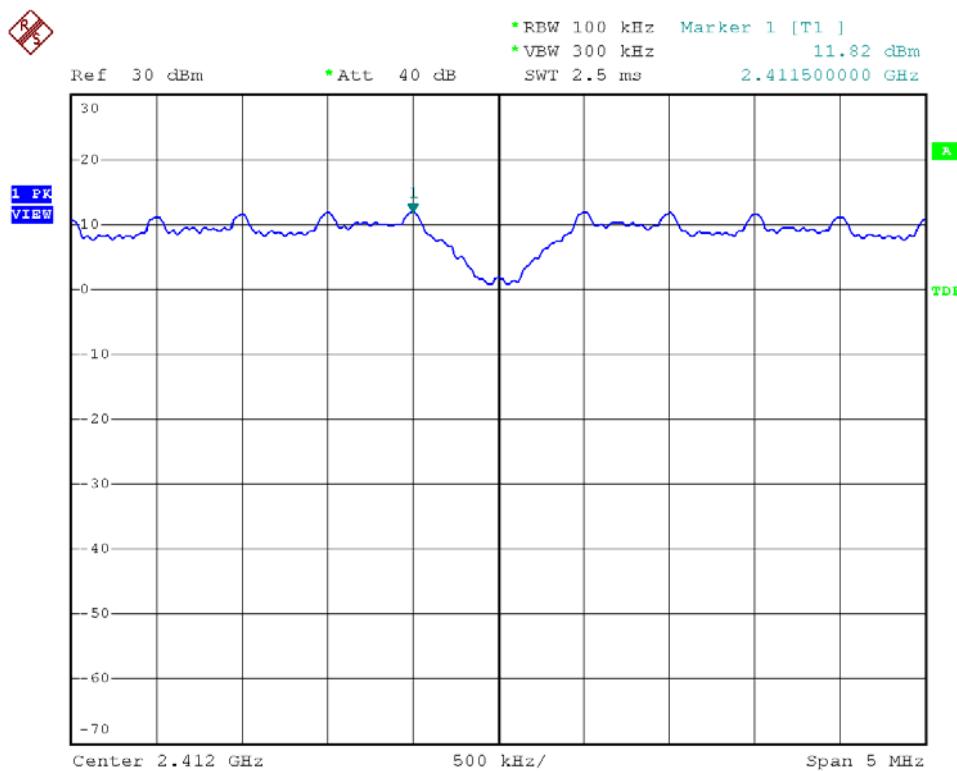
Humidity: 65%

| Modulation Standard | Channel | Frequency (MHz) | Maximum Power Density of 3 kHz Bandwidth (dBm) | |
|---------------------|---------|-----------------|--|--------|
| | | | ANT R | ANT L |
| 802.11a (54Mbps) | 149 | 5745 | -10.56 | -8.31 |
| | 157 | 5785 | -12.27 | -9.43 |
| | 165 | 5825 | -13.33 | -10.33 |

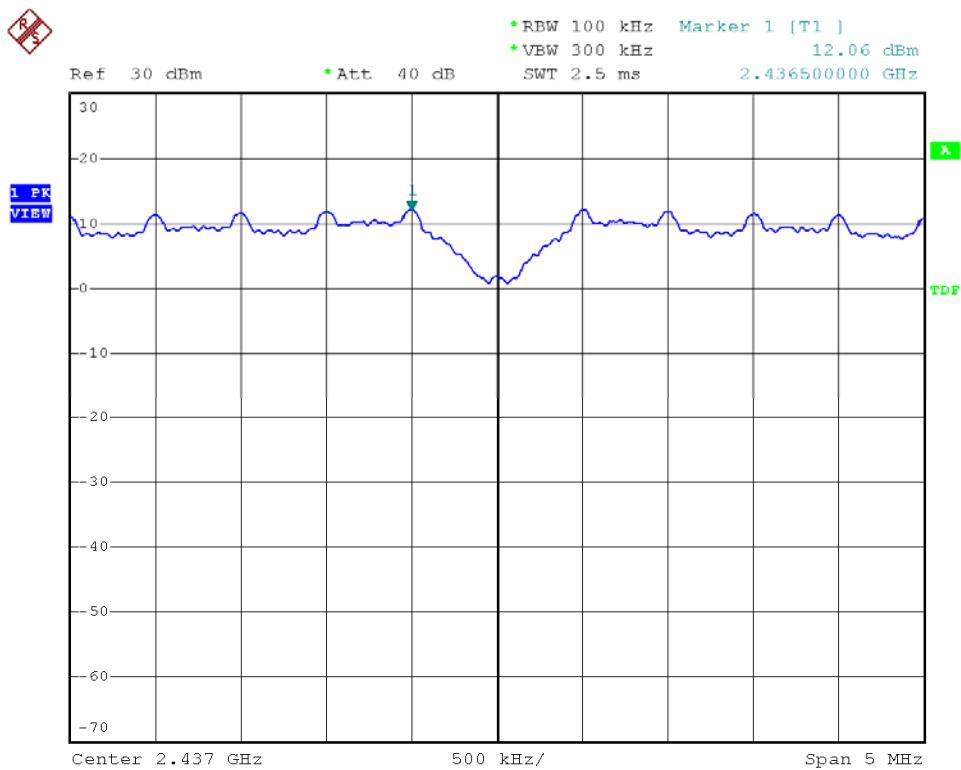
| Modulation Standard | Channel | Frequency (MHz) | Maximum Power Density of 3 kHz Bandwidth (dBm) | | |
|-------------------------|---------|-----------------|--|--------|--------|
| | | | ANT R | ANT L | R+L |
| 802.11an HT20 (130Mbps) | 149 | 5745 | -10.93 | -9.72 | -7.27 |
| | 157 | 5785 | -12.22 | -9.52 | -7.65 |
| | 165 | 5825 | -13.89 | -9.59 | -8.22 |
| 802.11an HT40 (270Mbps) | 151 | 5755 | -14.15 | -12.26 | -10.09 |
| | 155 | 5775 | -14.63 | -12.10 | -10.17 |
| | 159 | 5795 | -14.35 | -12.55 | -10.35 |



Modulation Standard: 802.11b (11Mbps), ANT R
Channel: 01

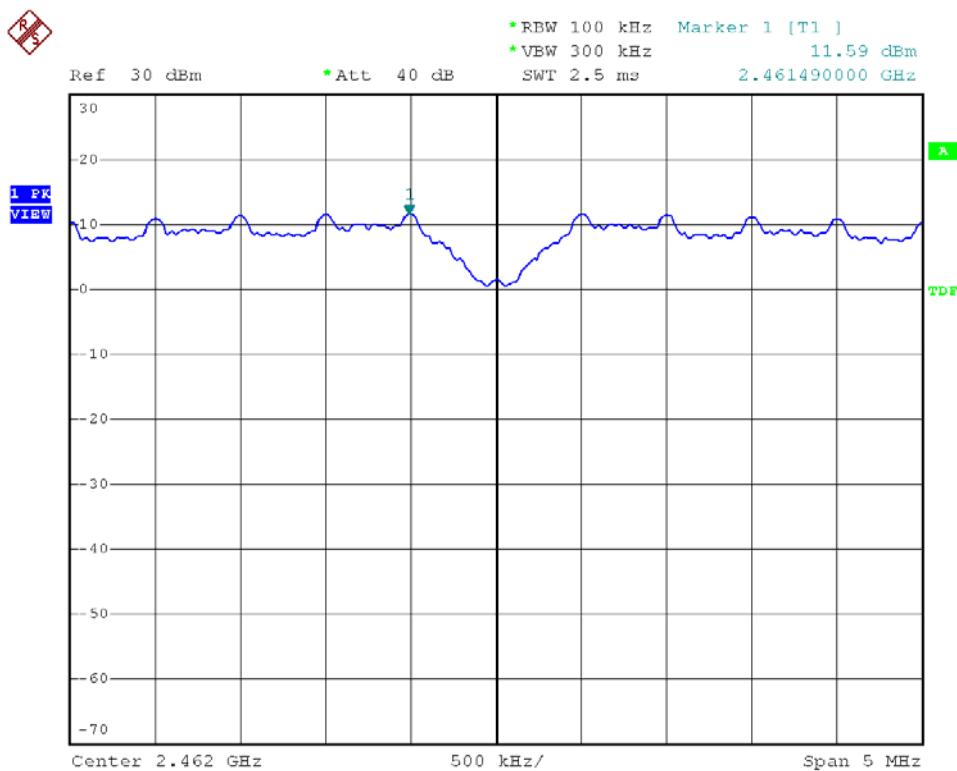


Modulation Standard: 802.11b (11Mbps), ANT R
Channel: 06

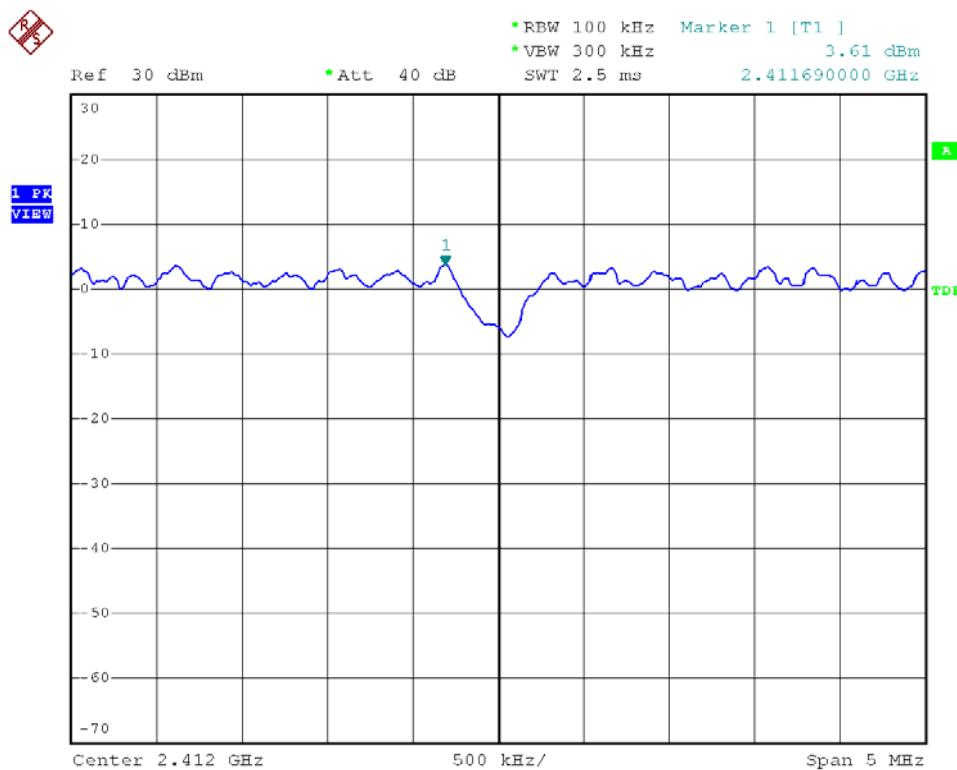




Modulation Standard: 802.11b (11Mbps), ANT R
Channel: 11

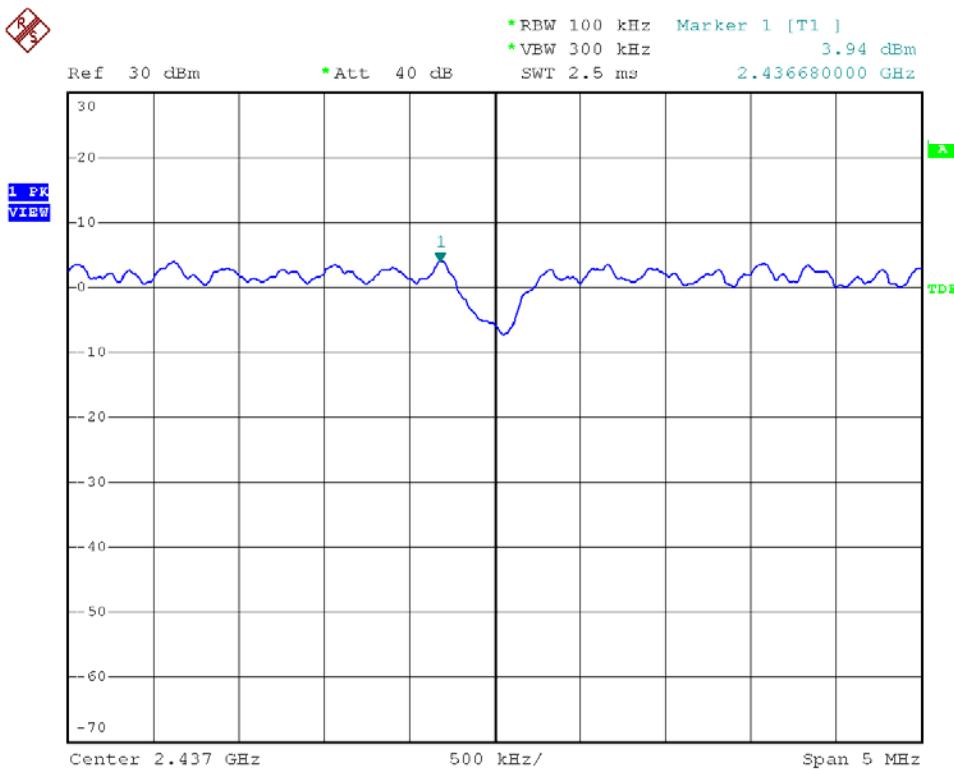


Modulation Standard: 802.11g (54Mbps), ANT R
Channel: 01

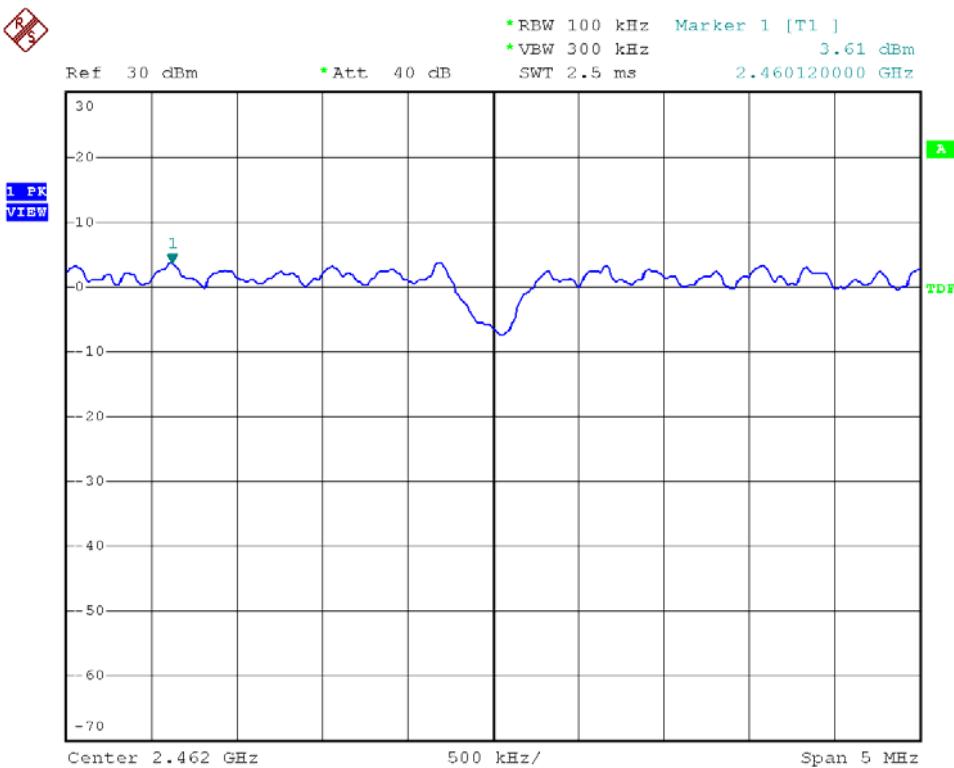




Modulation Standard: 802.11g (54Mbps), ANT R
Channel: 06

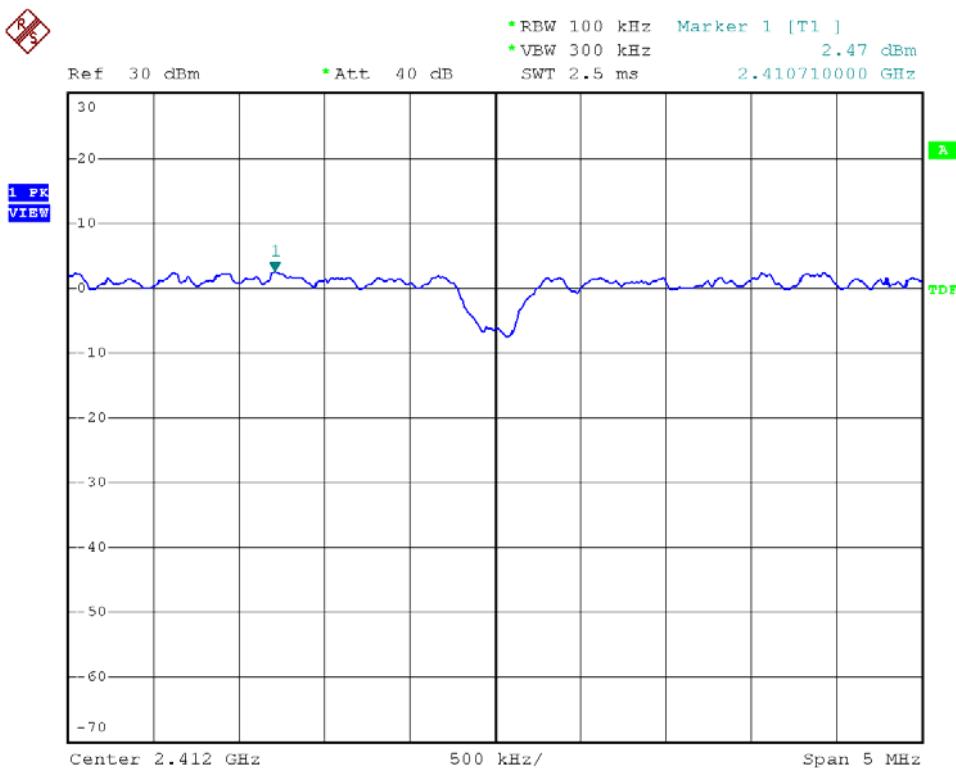


Modulation Standard: 802.11g (54Mbps), ANT R
Channel: 11

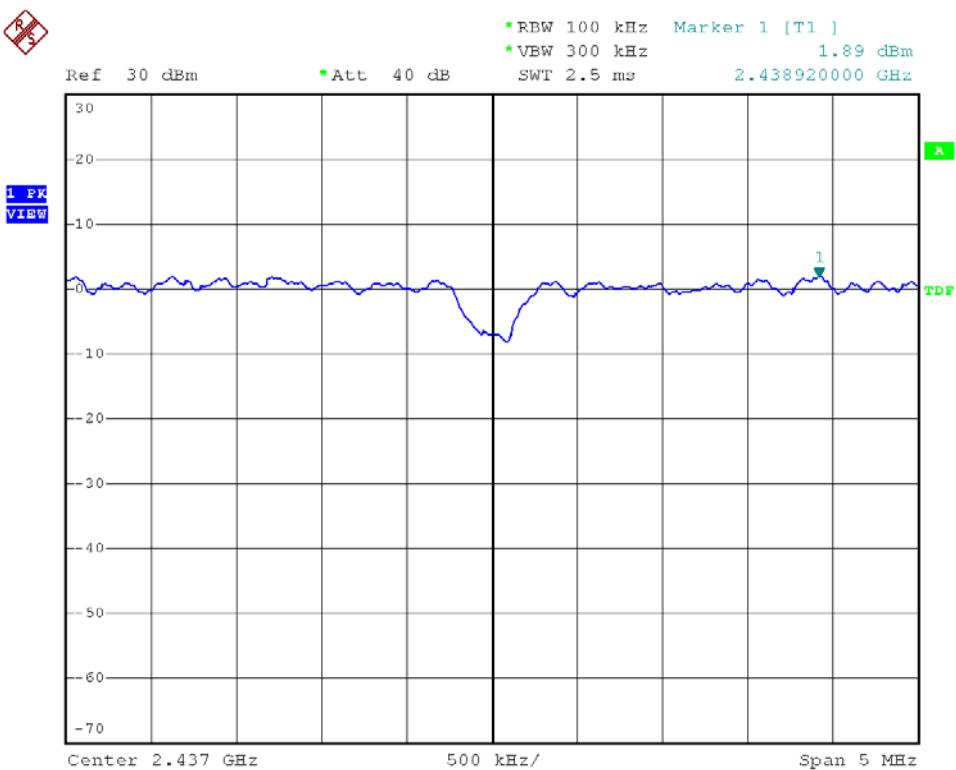




Modulation Standard: 802.11n HT20 (130Mbps), ANT R
Channel: 01

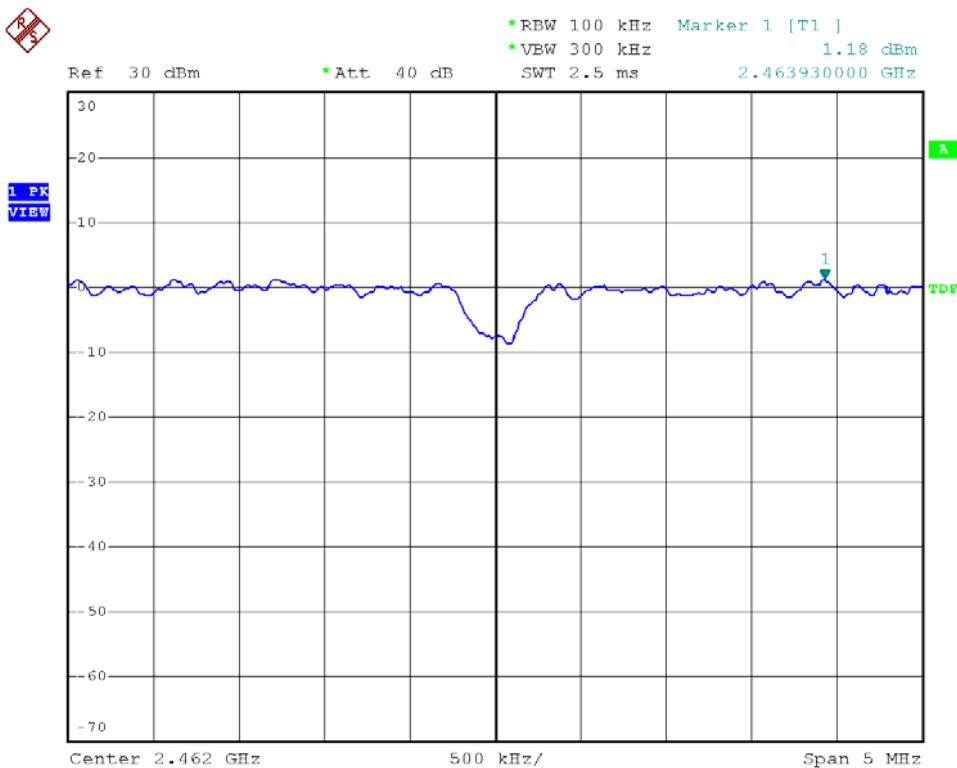


Modulation Standard: 802.11n HT20 (130Mbps), ANT R
Channel: 06

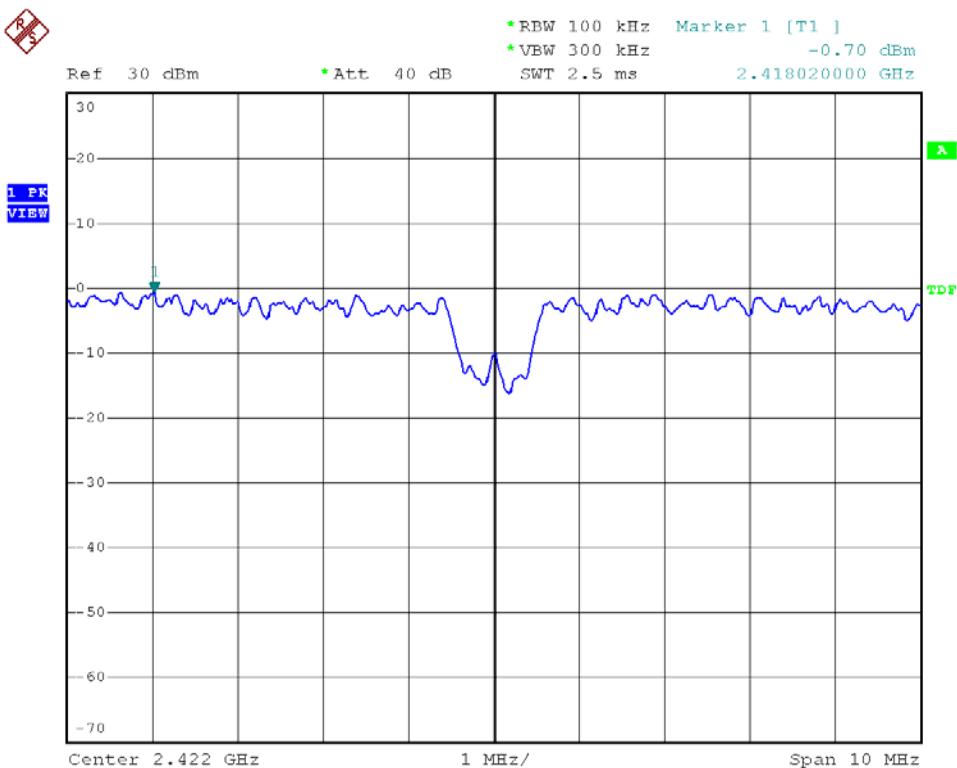




Modulation Standard: 802.11n HT20 (130Mbps), ANT R
Channel: 11

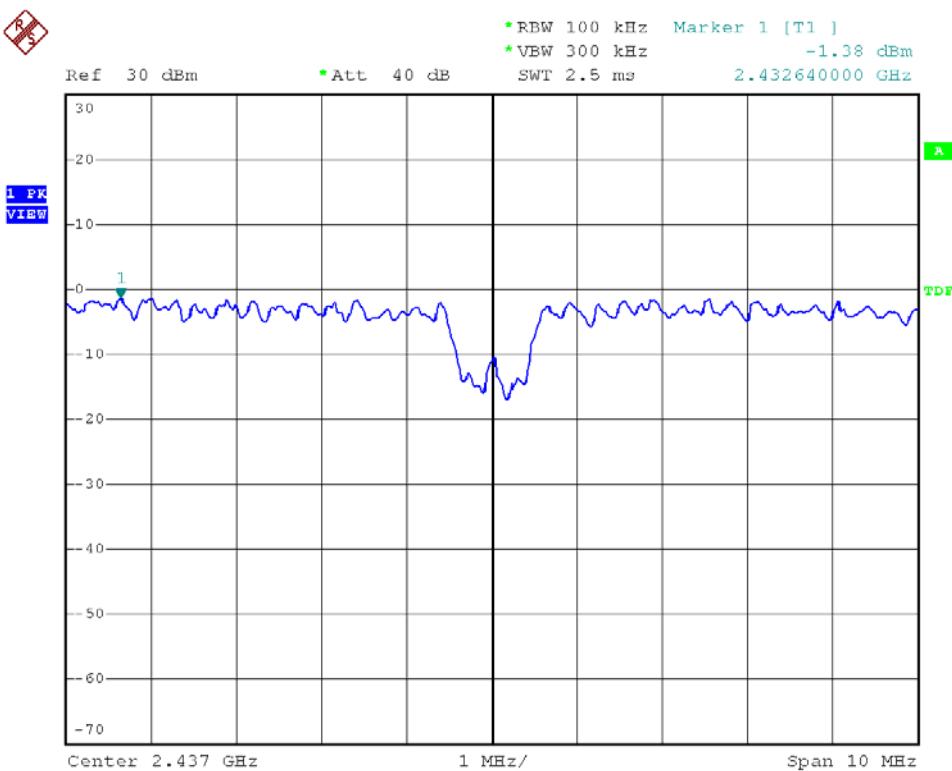


Modulation Standard: 802.11n HT40 (270Mbps), ANT R
Channel: 03

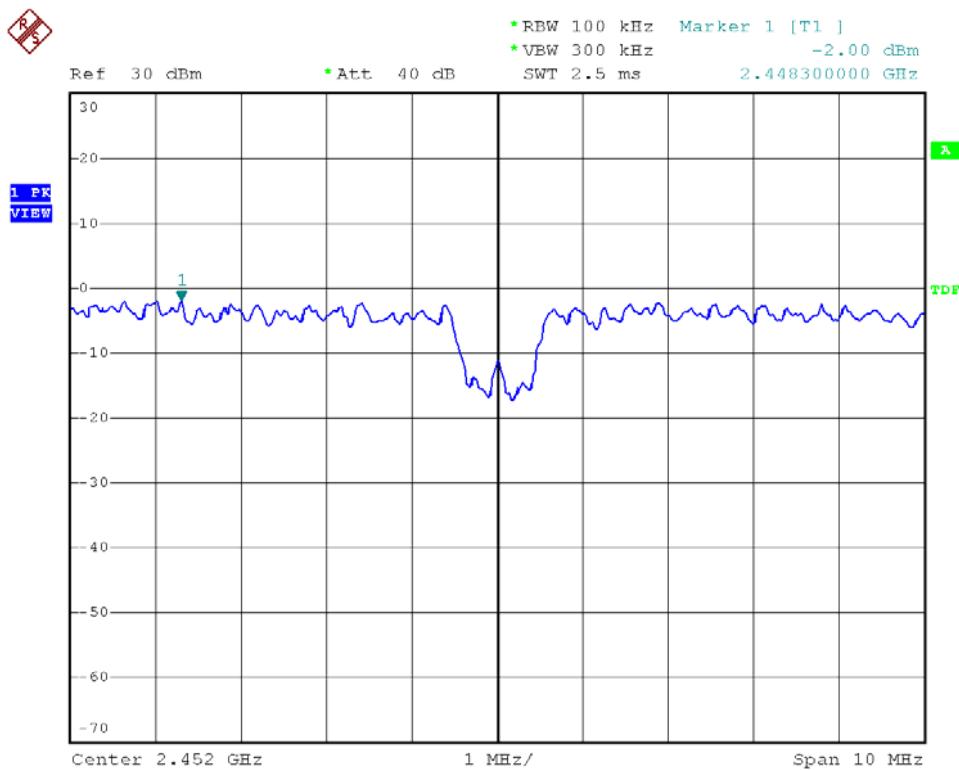




Modulation Standard: 802.11n HT40 (270Mbps), ANT R
Channel: 06

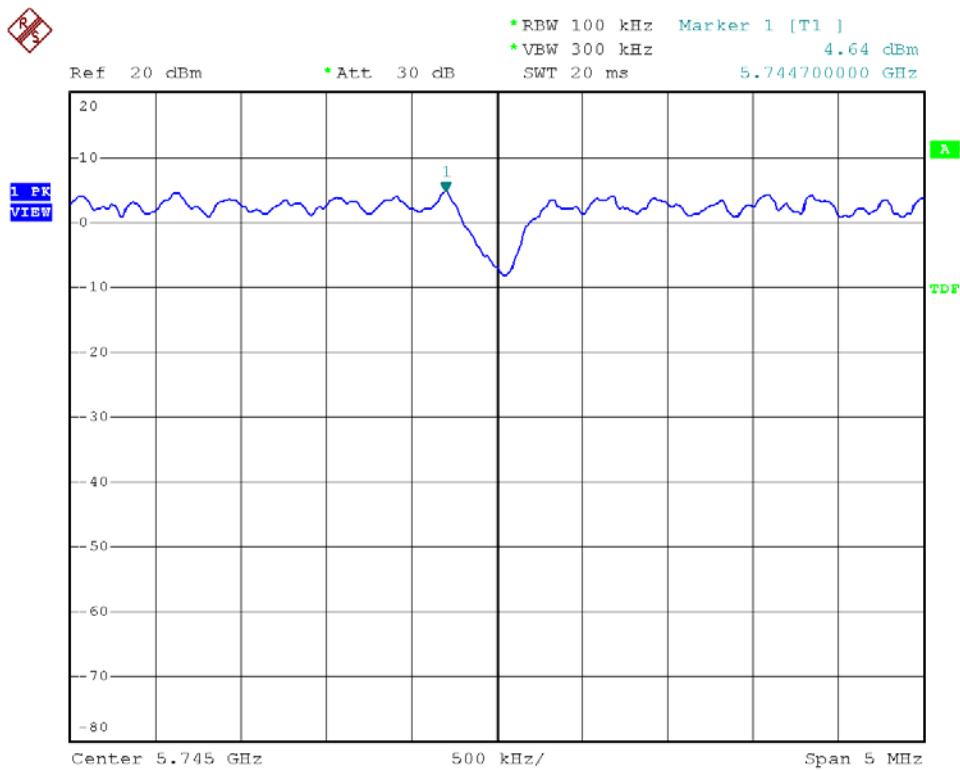


Modulation Standard: 802.11n HT40 (270Mbps), ANT R
Channel: 09

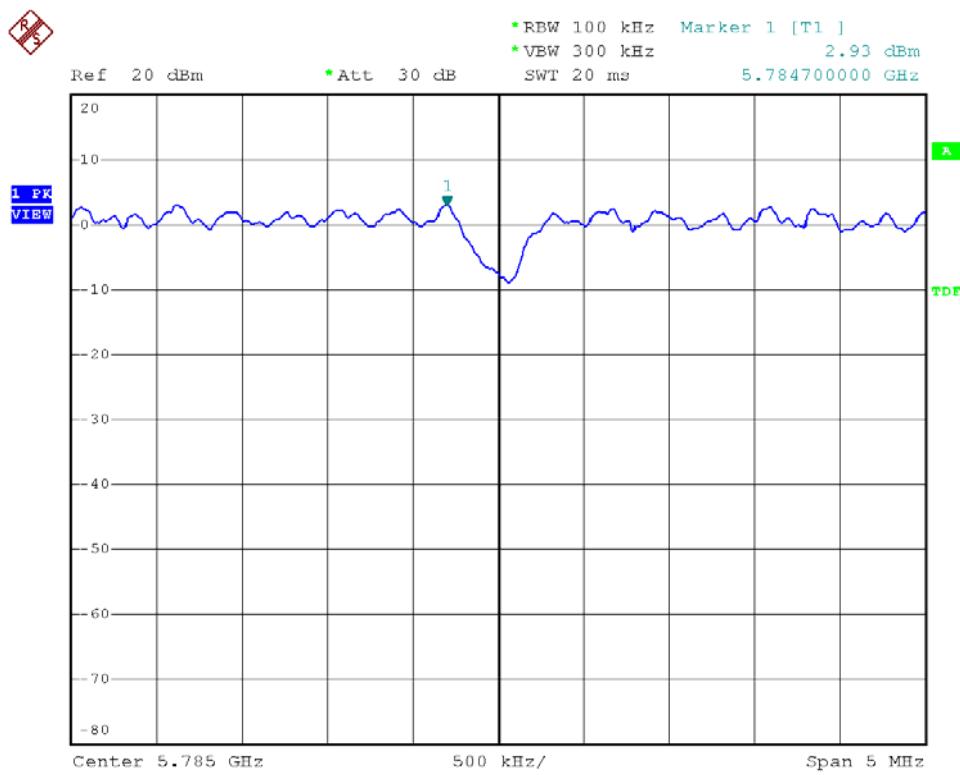




Modulation Standard: 802.11a (54Mbps), ANT R
Channel: 149

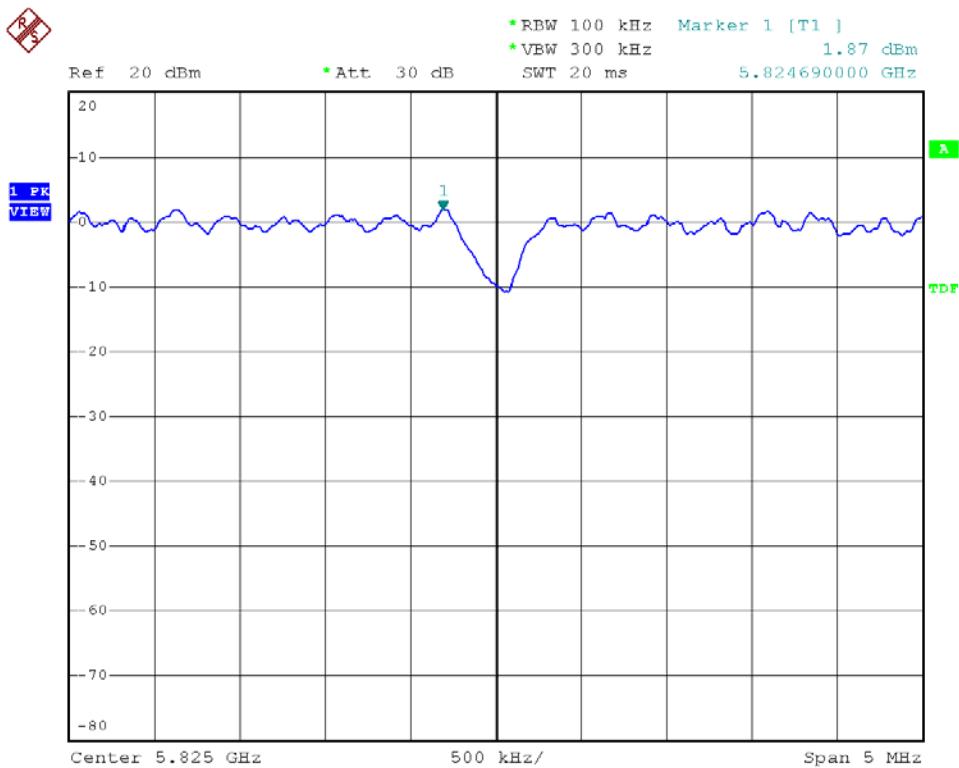


Modulation Standard: 802.11a (54Mbps), ANT R
Channel: 157

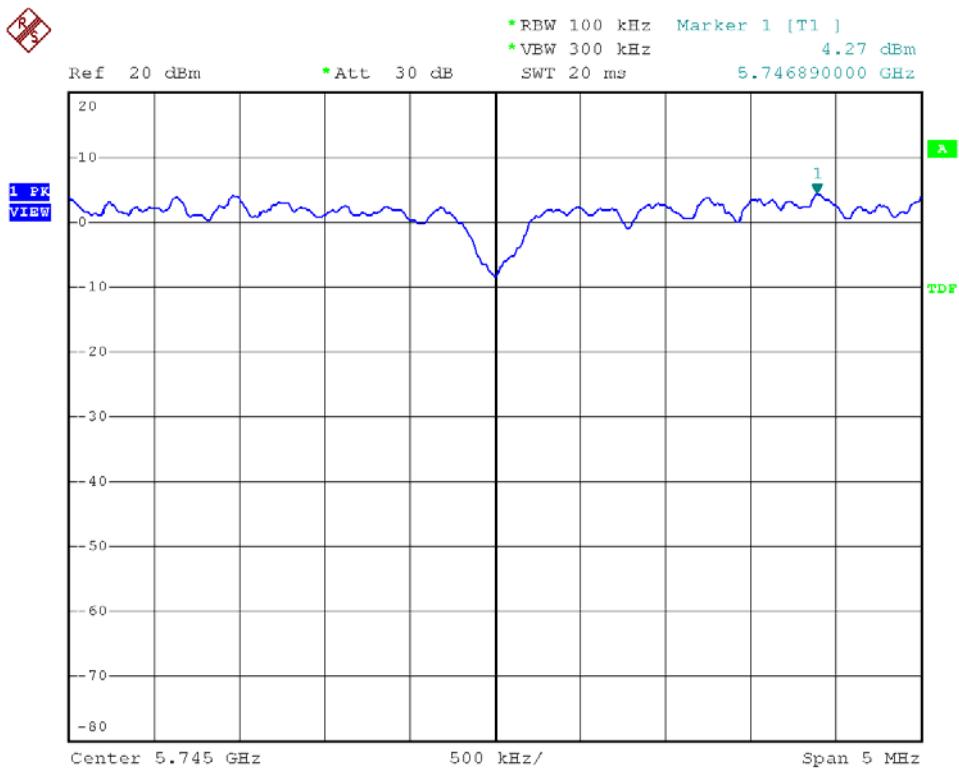




Modulation Standard: 802.11a (54Mbps), ANT R
Channel: 165

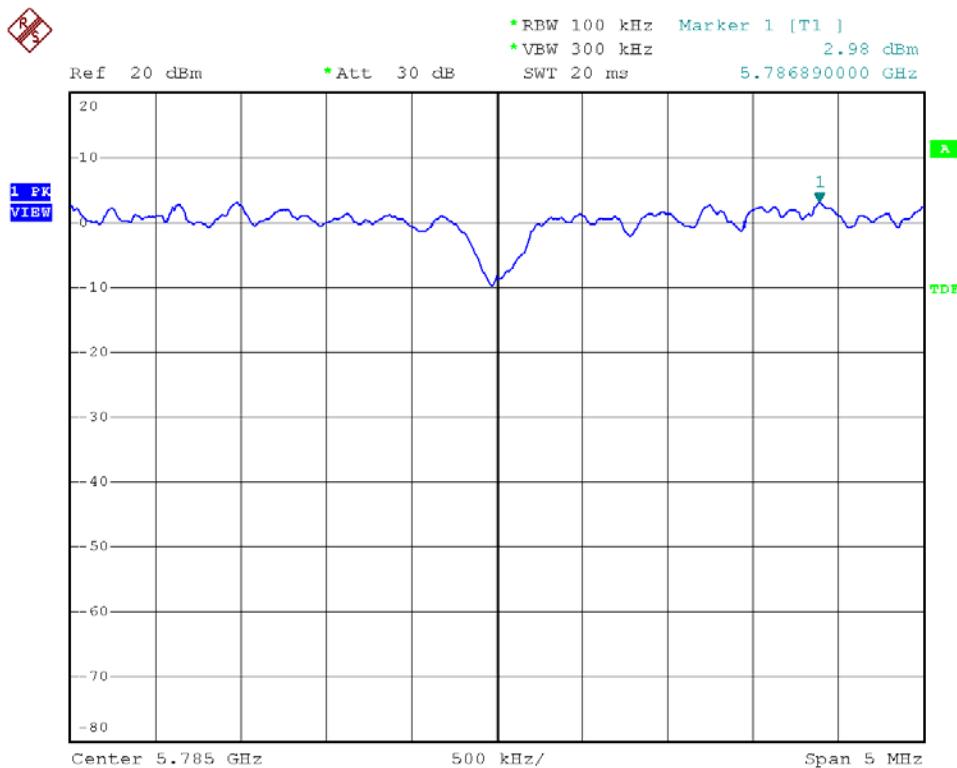


Modulation Standard: 802.11an HT20 (130Mbps), ANT R
Channel: 149

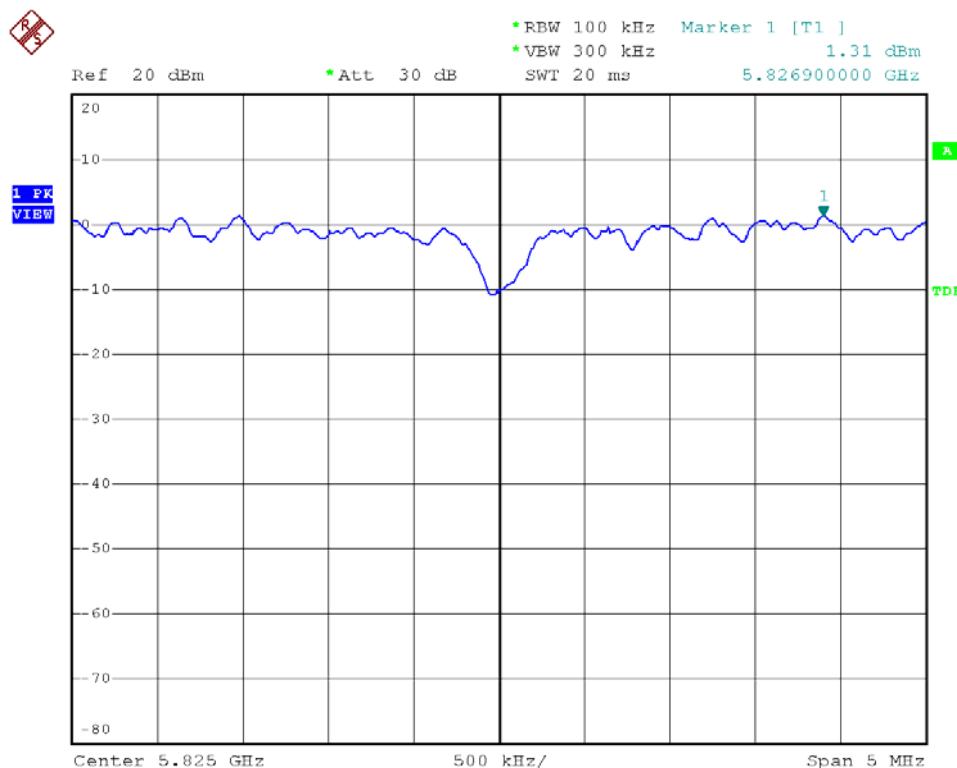




Modulation Standard: 802.11an HT20 (130Mbps), ANT R
Channel: 157

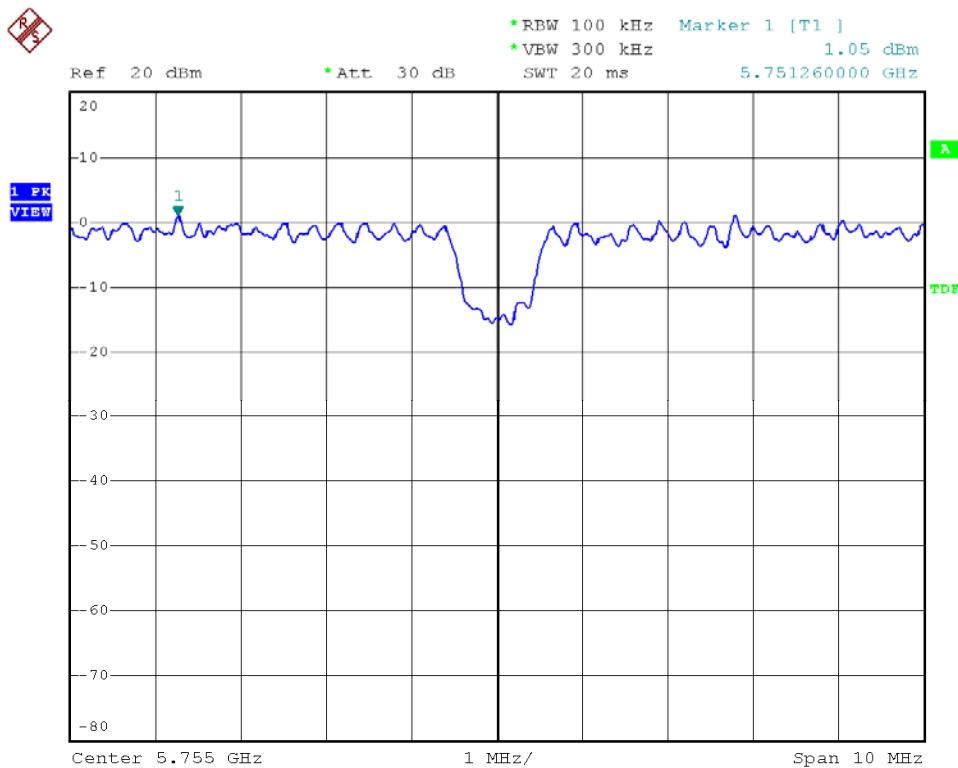


Modulation Standard: 802.11an HT20 (130Mbps), ANT R
Channel: 165

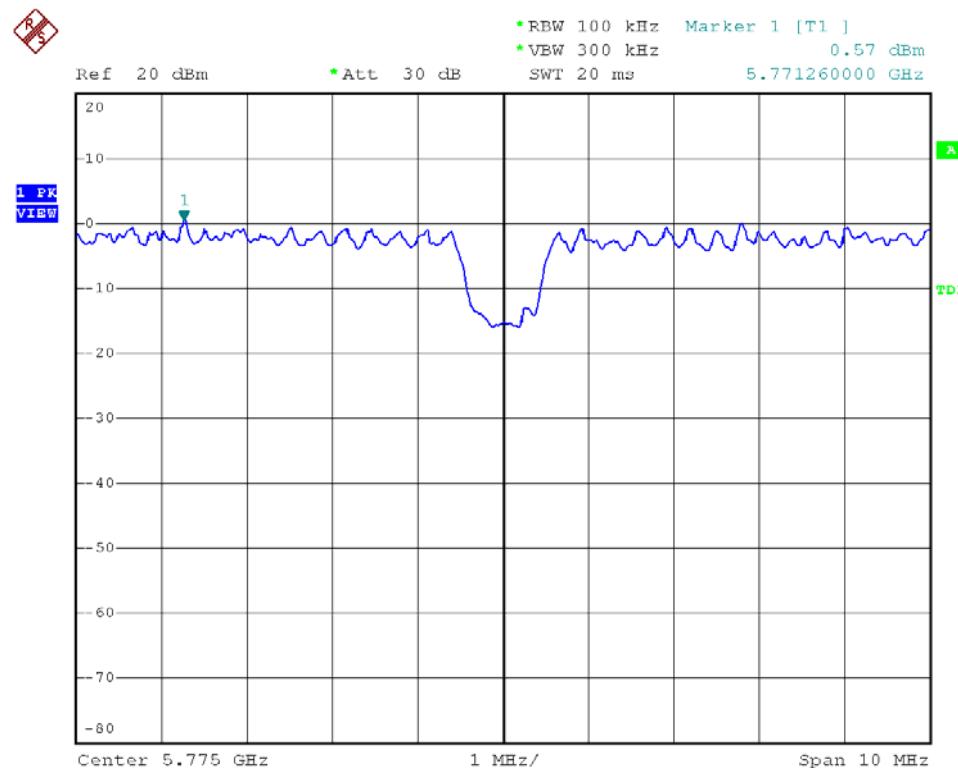




Modulation Standard: 802.11an HT40 (270Mbps), ANT R
Channel: 151

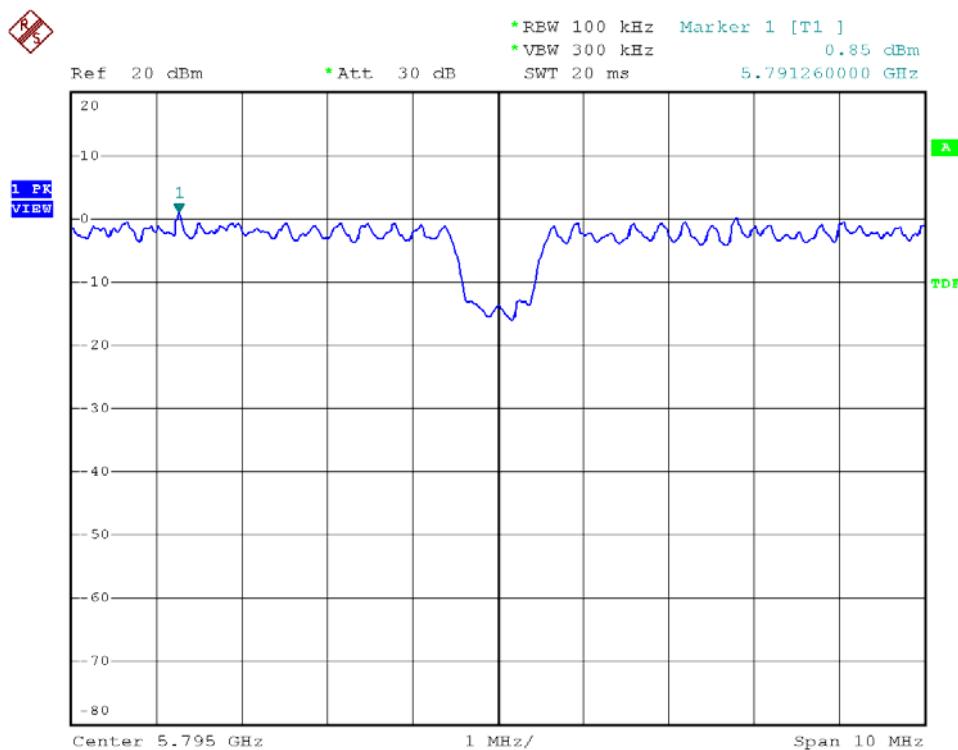


Modulation Standard: 802.11an HT40 (270Mbps), ANT R
Channel: 155

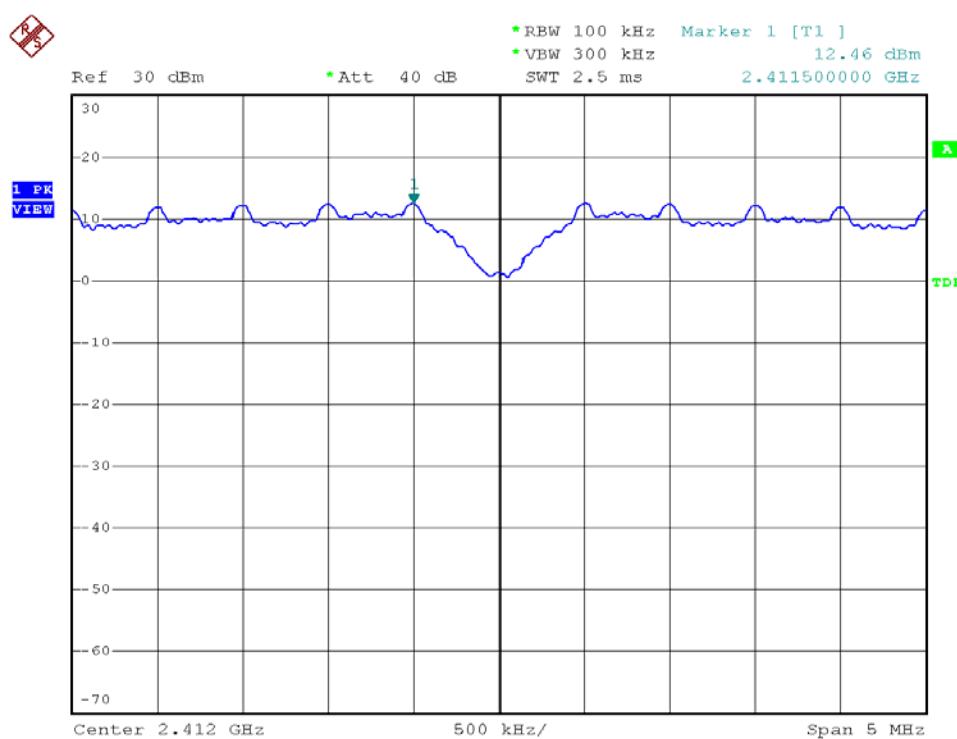




Modulation Standard: 802.11an HT40 (270Mbps), ANT R
Channel: 159

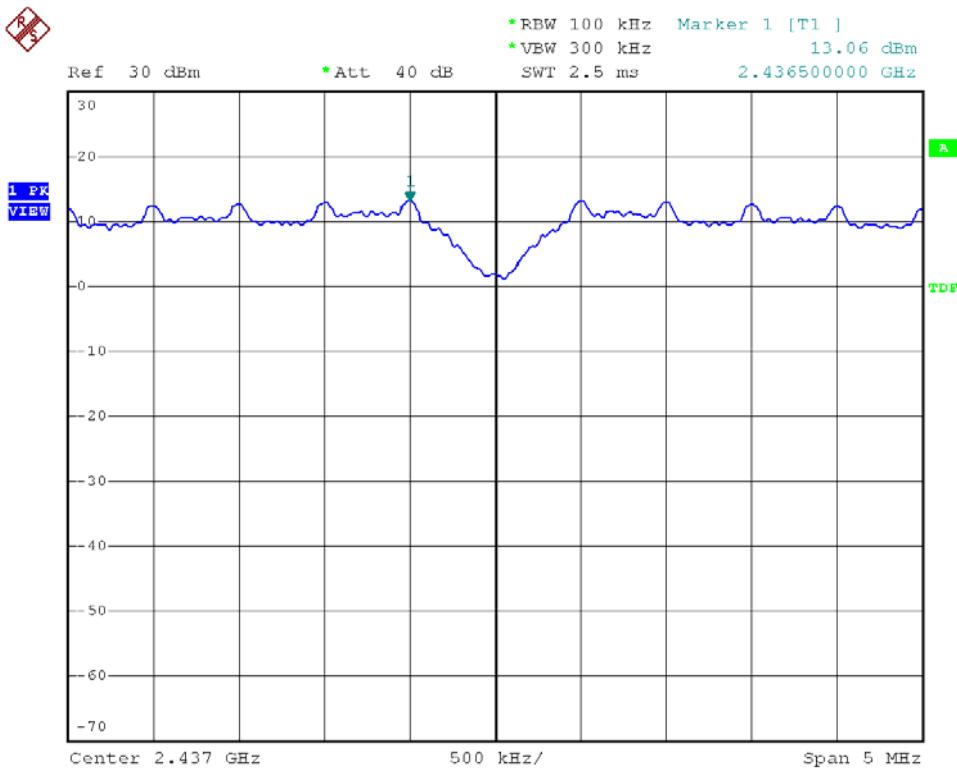


Modulation Standard: 802.11b (11Mbps), ANT L
Channel: 01

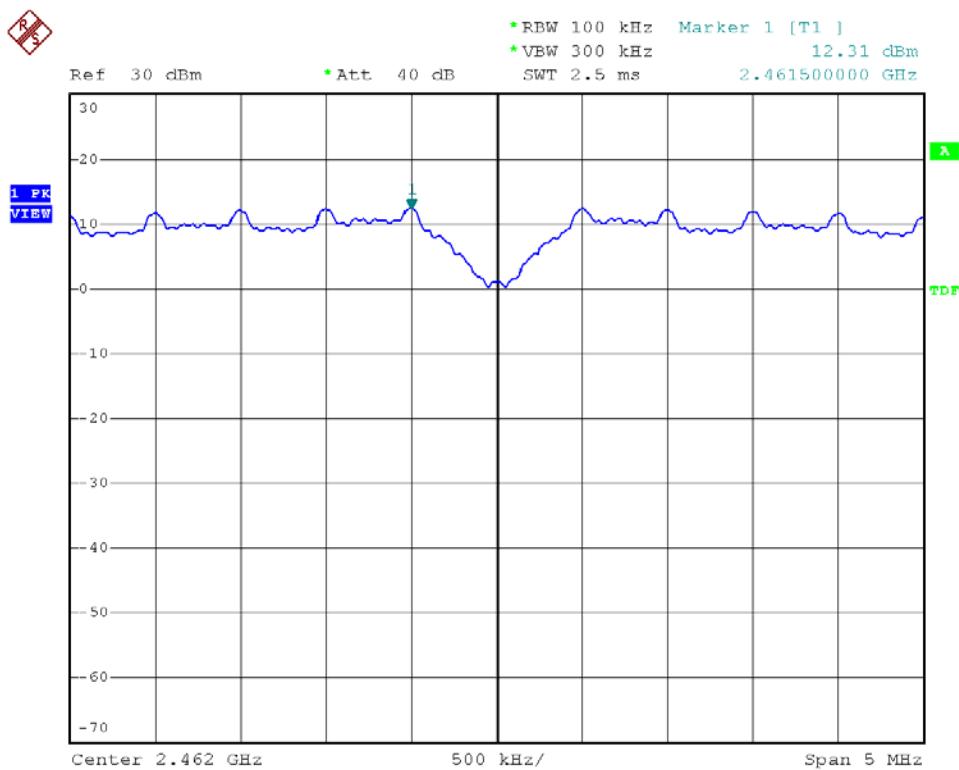




Modulation Standard: 802.11b (11Mbps), ANT L
Channel: 06

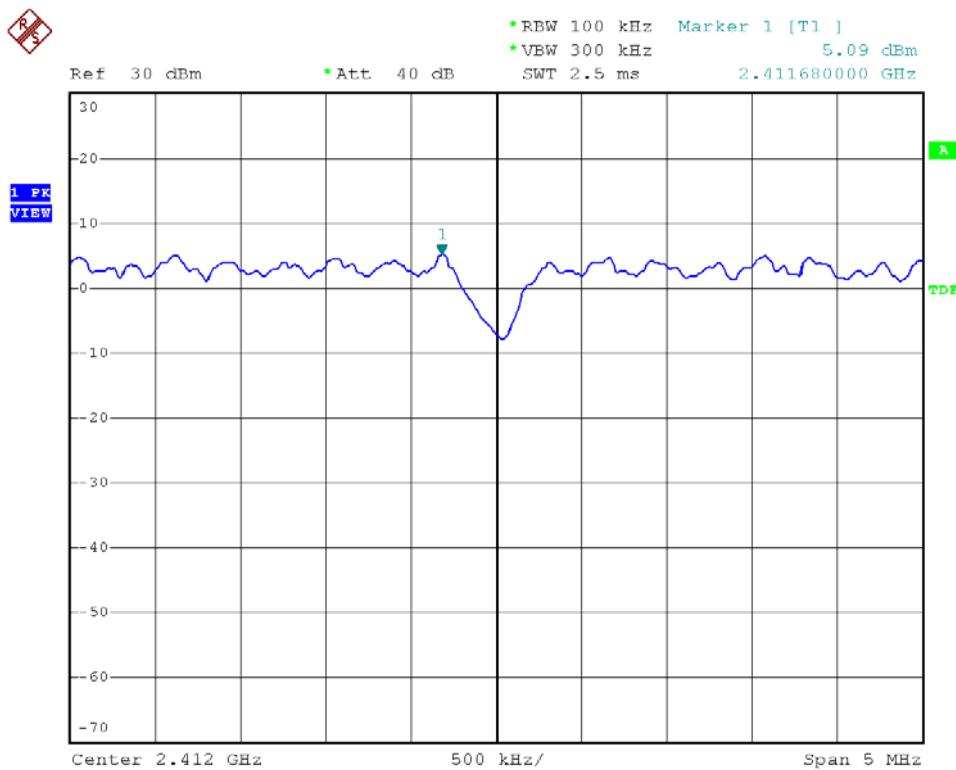


Modulation Standard: 802.11b (11Mbps), ANT L
Channel: 11

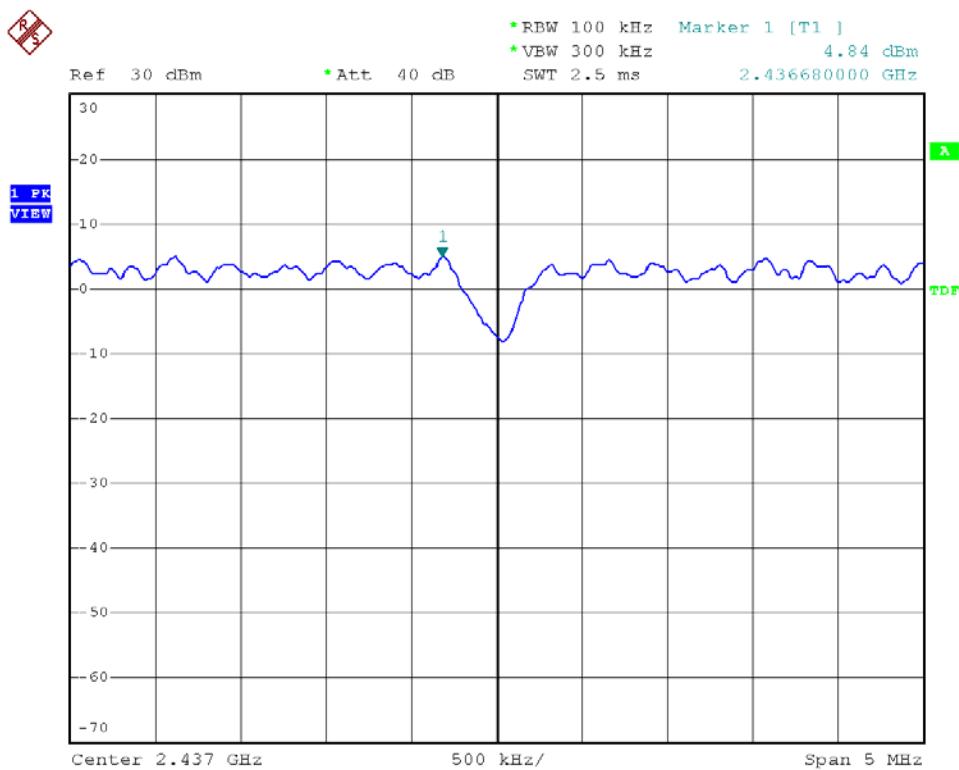




Modulation Standard: 802.11g (54Mbps), ANT L
Channel: 01

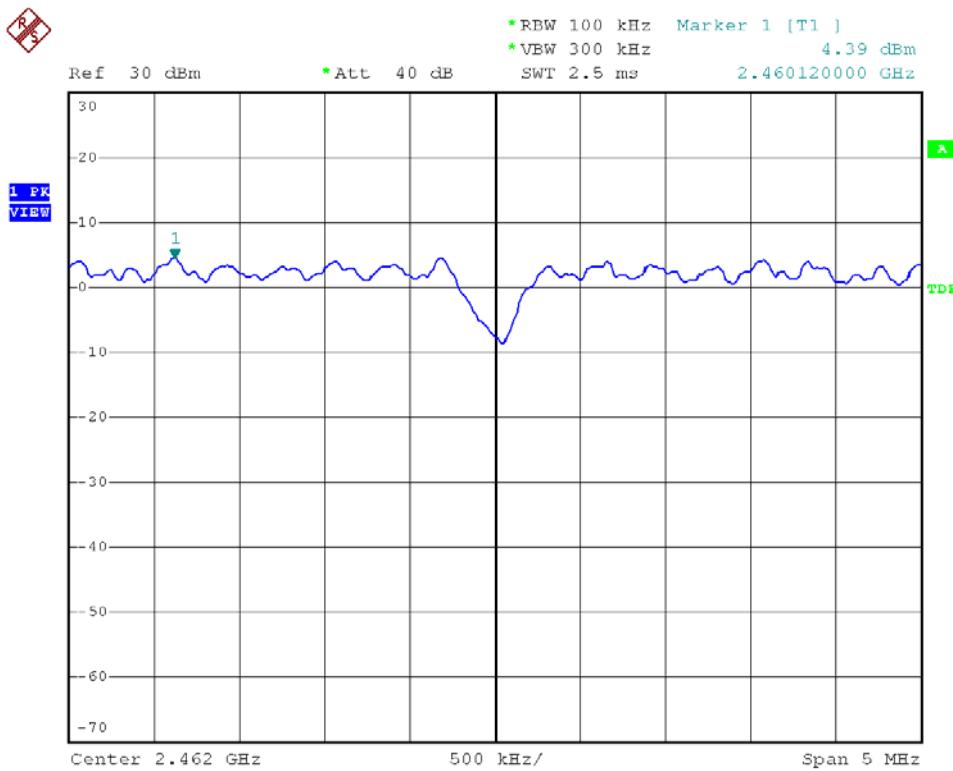


Modulation Standard: 802.11g (54Mbps), ANT L
Channel: 06

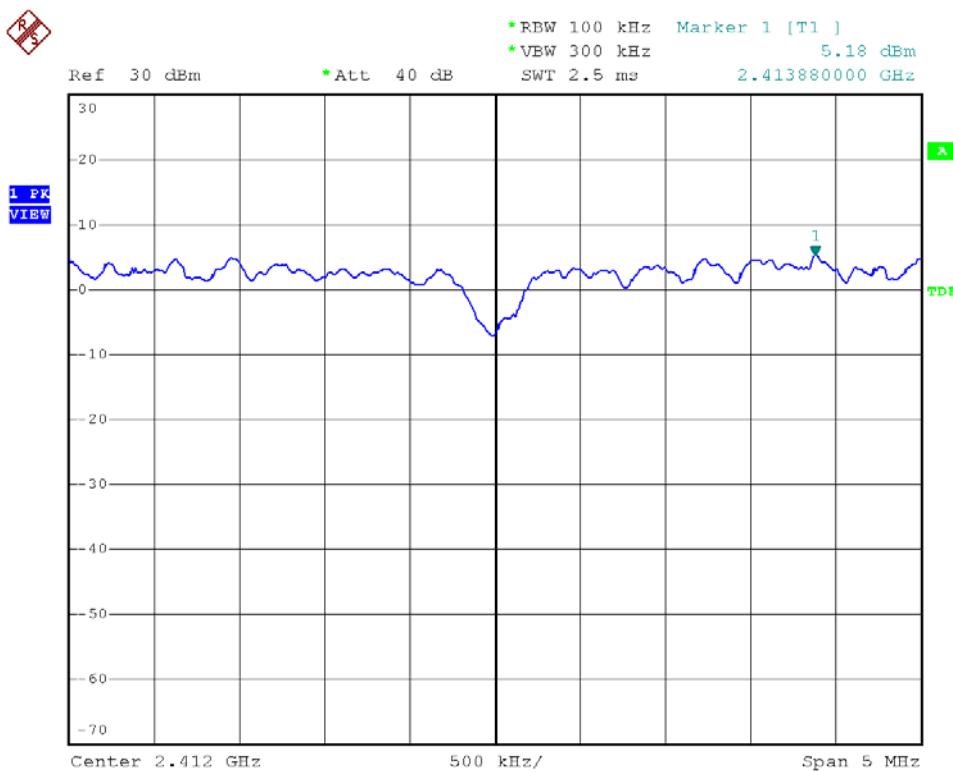




Modulation Standard: 802.11g (54Mbps), ANT L
Channel: 11

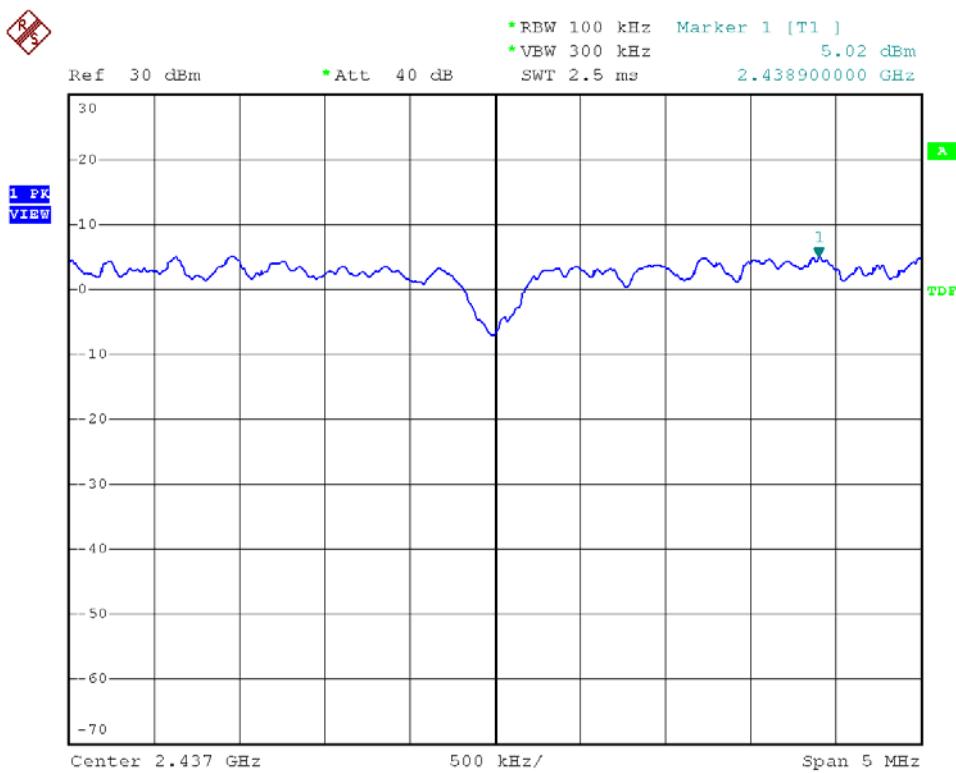


Modulation Standard: 802.11n HT20 (130Mbps), ANT L
Channel: 01

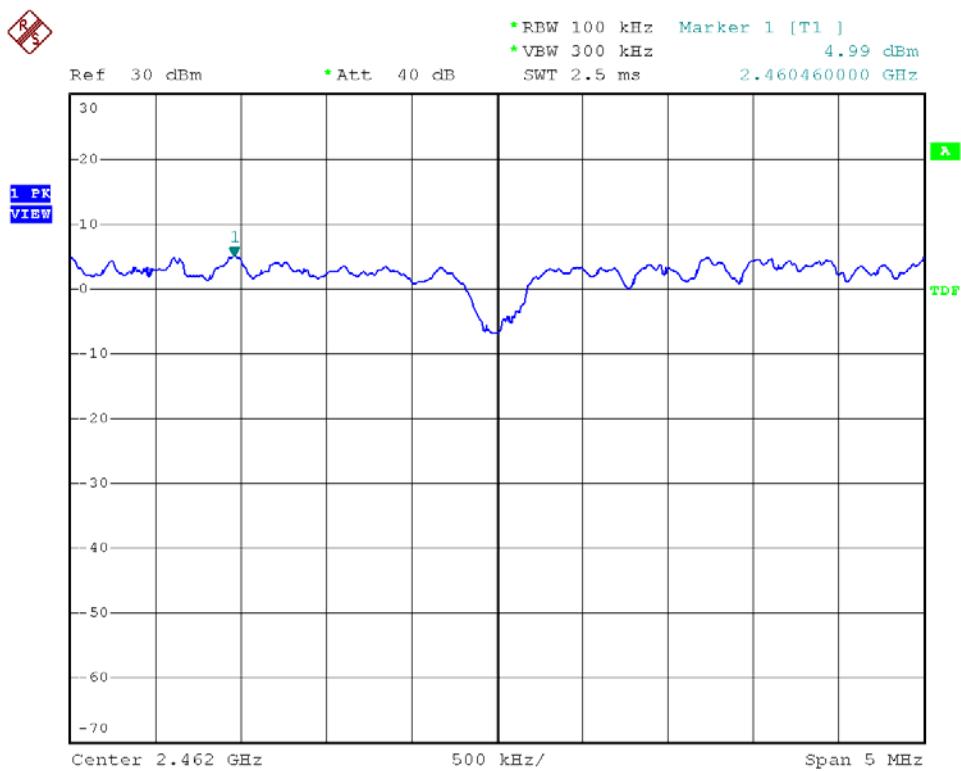




Modulation Standard: 802.11n HT20 (130Mbps), ANT L
Channel: 06

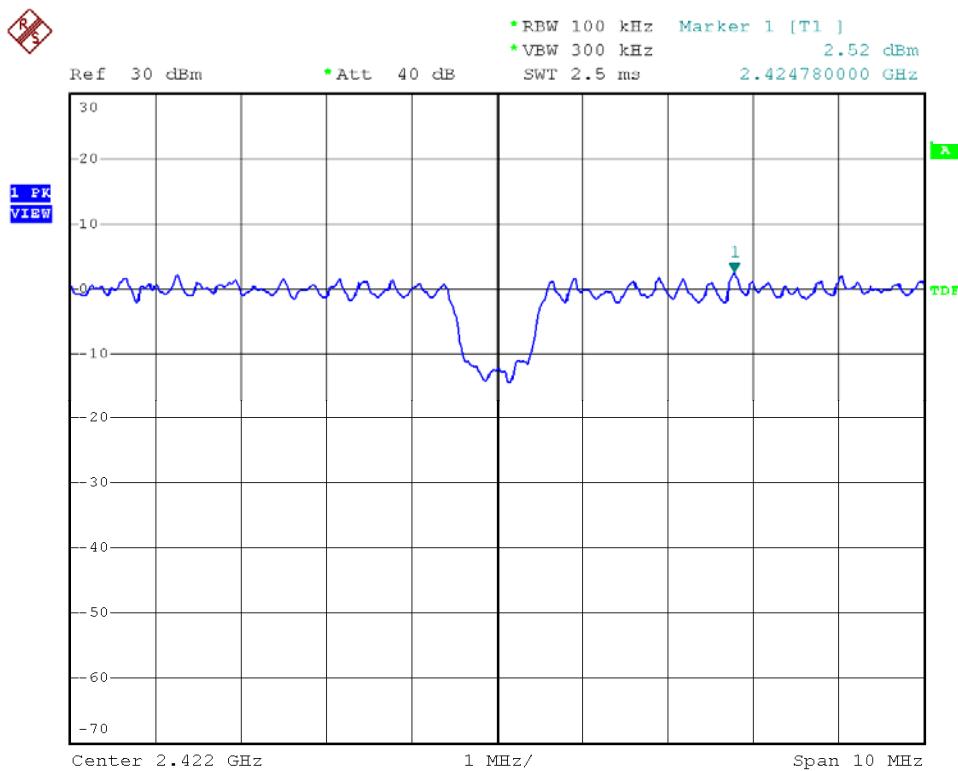


Modulation Standard: 802.11n HT20 (130Mbps), ANT L
Channel: 11

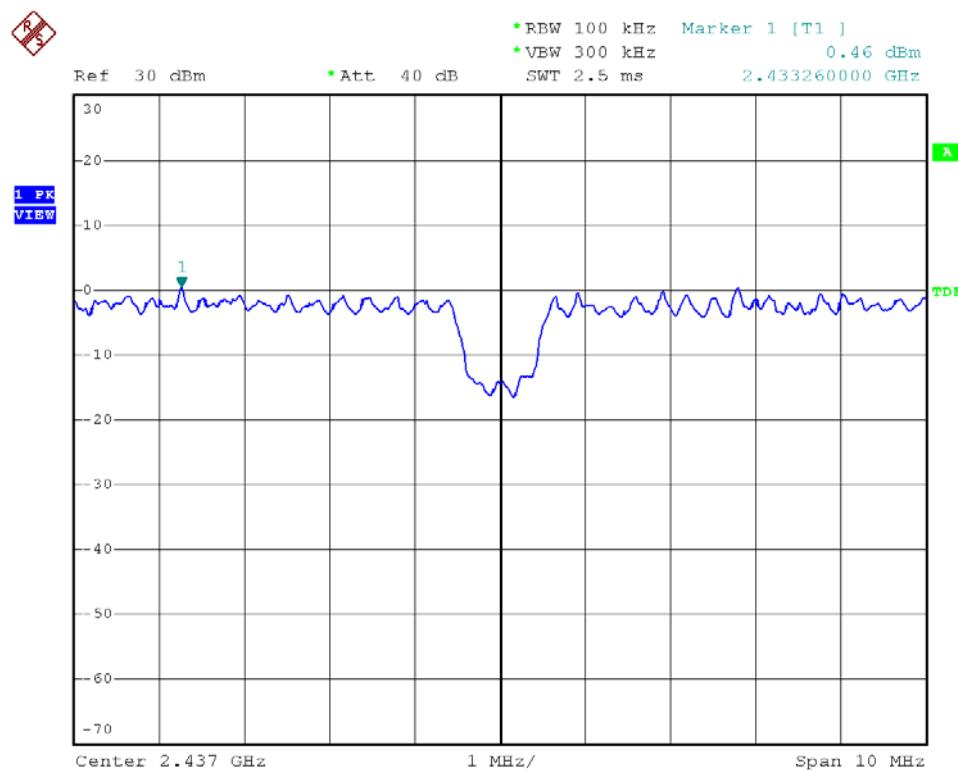




Modulation Standard: 802.11n HT40 (270Mbps), ANT L
Channel: 03

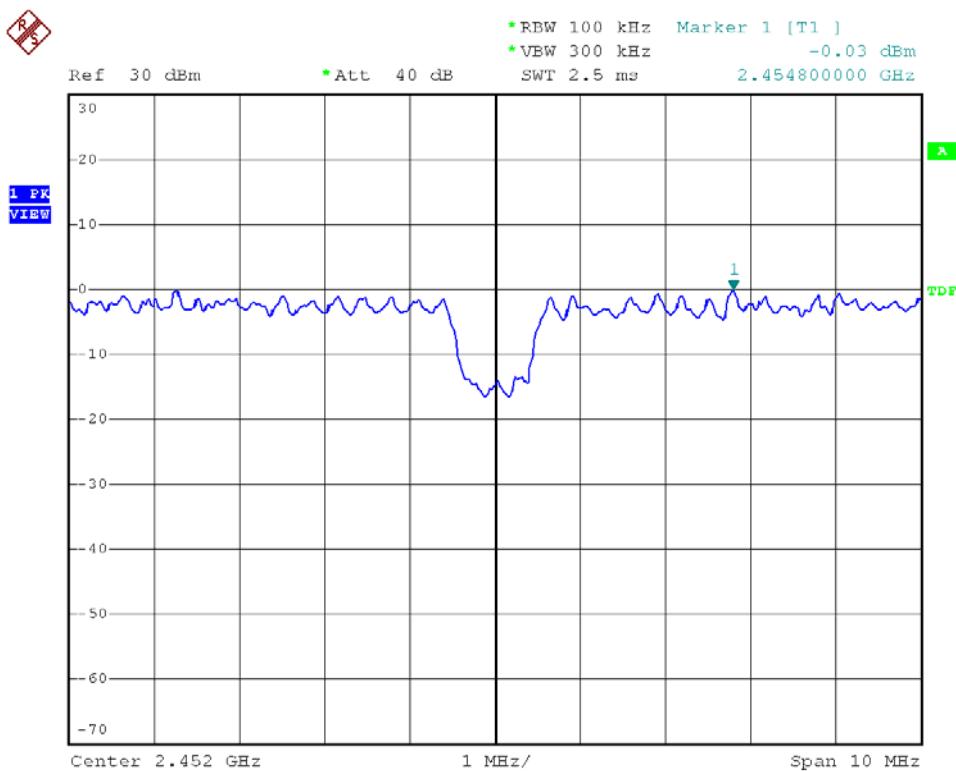


Modulation Standard: 802.11n HT40 (270Mbps), ANT L
Channel: 06

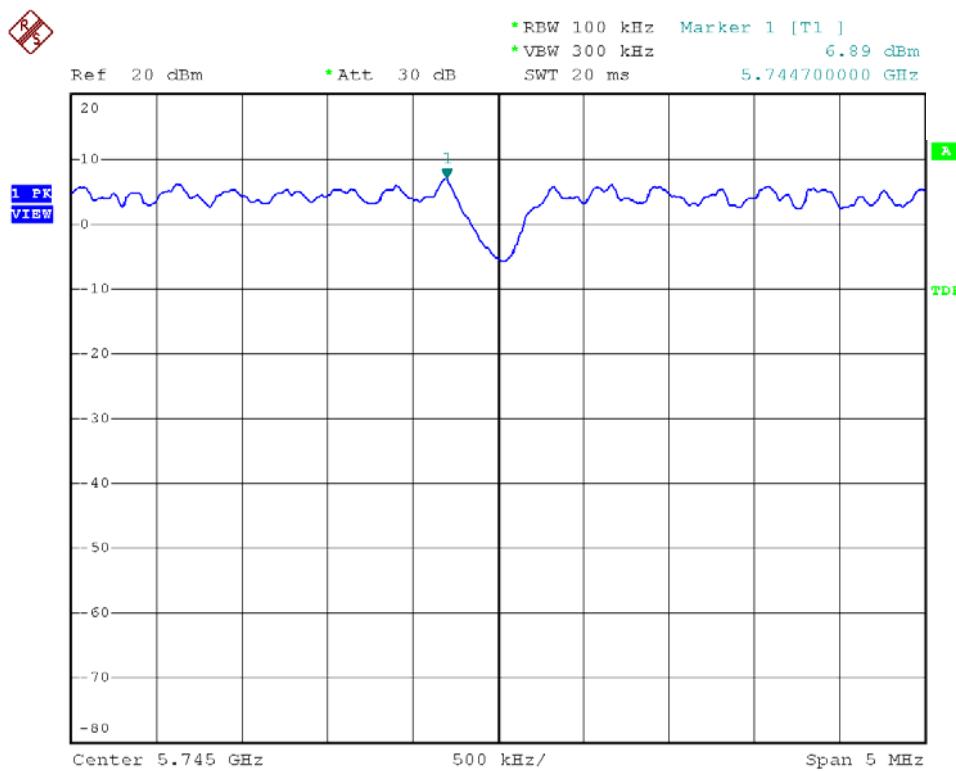




Modulation Standard: 802.11n HT40 (270Mbps), ANT L
Channel: 09

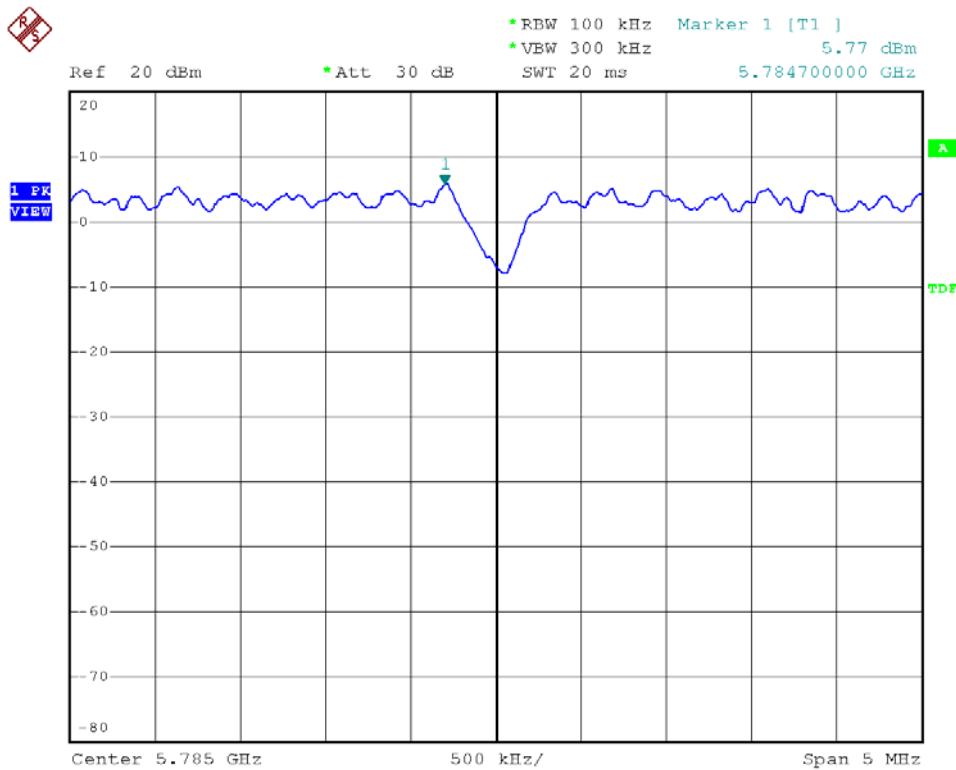


Modulation Standard: 802.11a (54Mbps), ANT L
Channel: 149

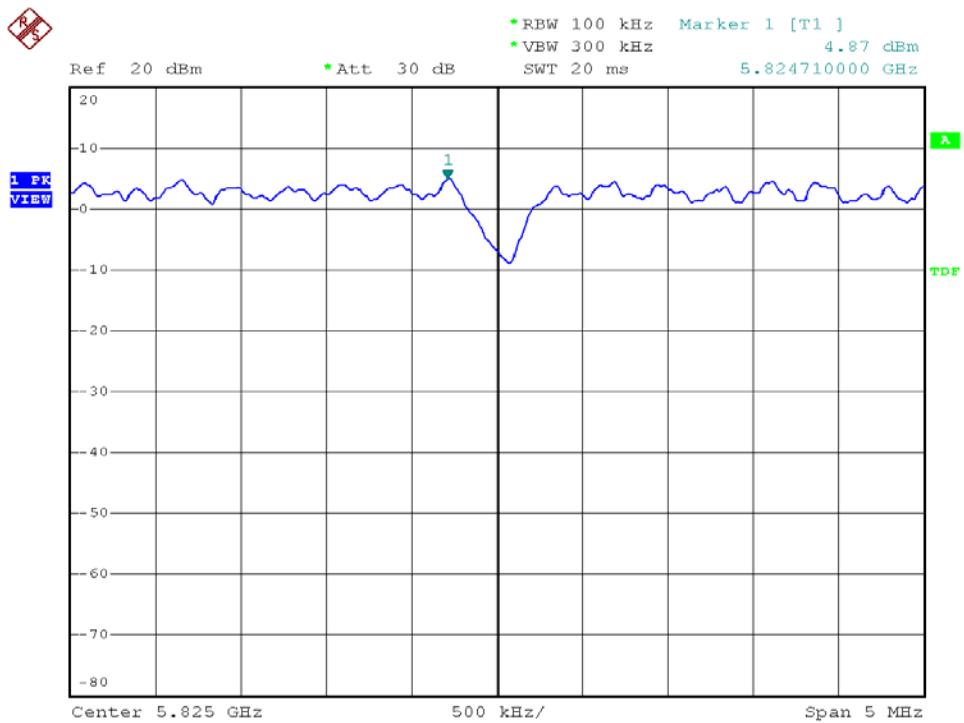




Modulation Standard: 802.11a (54Mbps), ANT L
Channel: 157

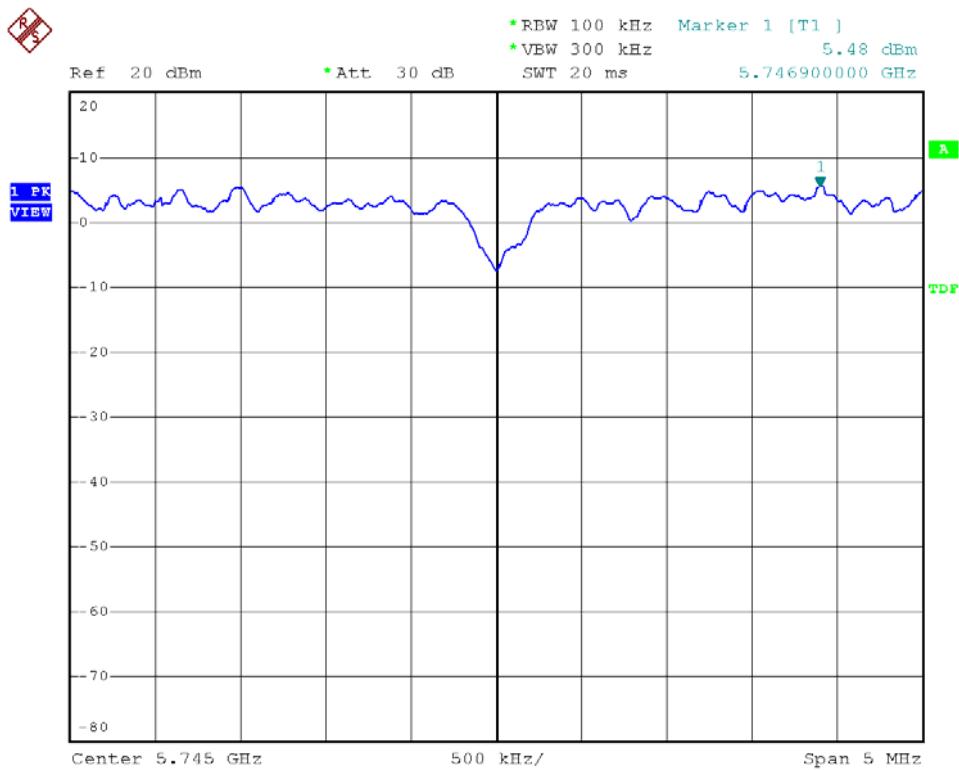


Modulation Standard: 802.11a (54Mbps), ANT L
Channel: 165

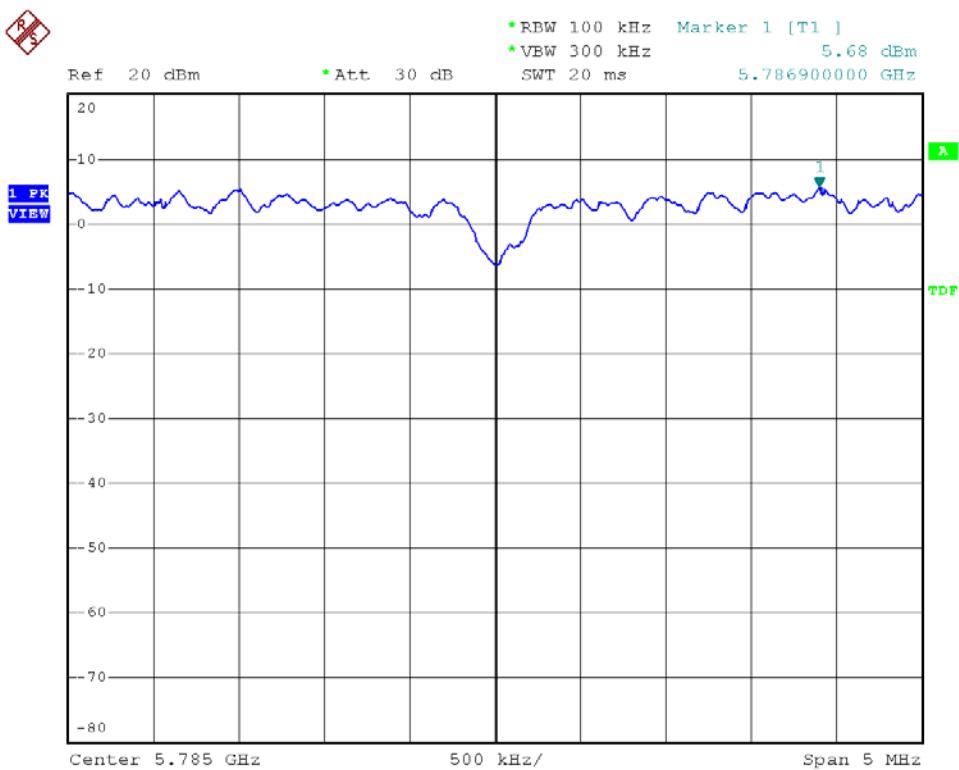




Modulation Standard: 802.11an HT20 (130Mbps), ANT L
Channel: 149

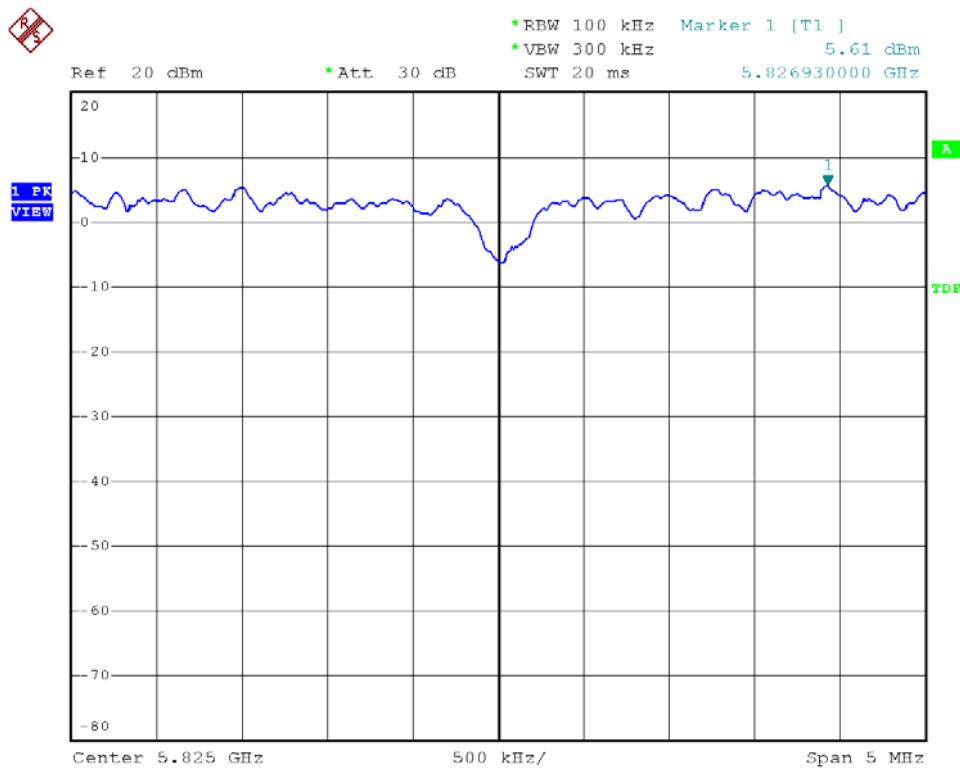


Modulation Standard: 802.11an HT20 (130Mbps), ANT L
Channel: 157

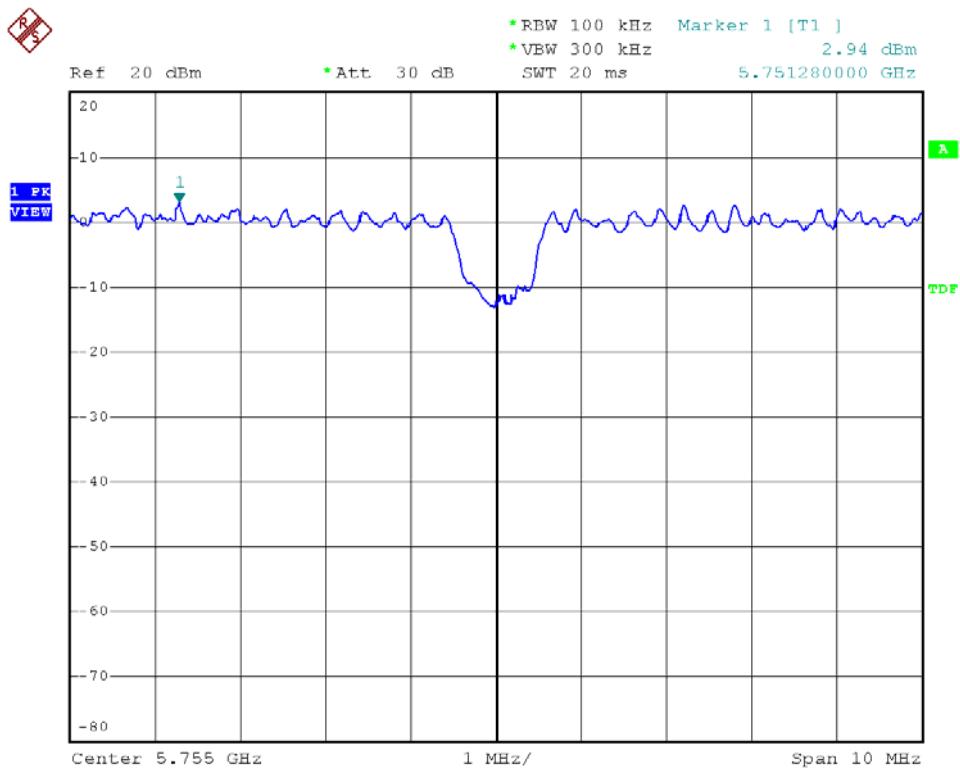




Modulation Standard: 802.11an HT20 (130Mbps), ANT L
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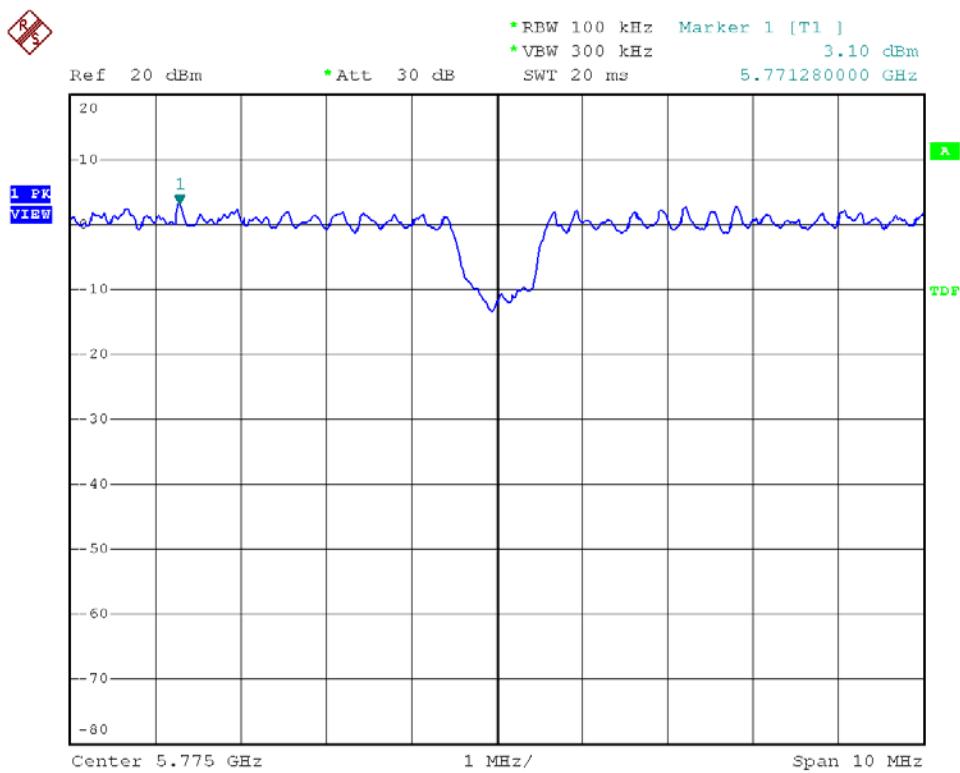


Modulation Standard: 802.11an HT40 (270Mbps), ANT L
Channel: 151

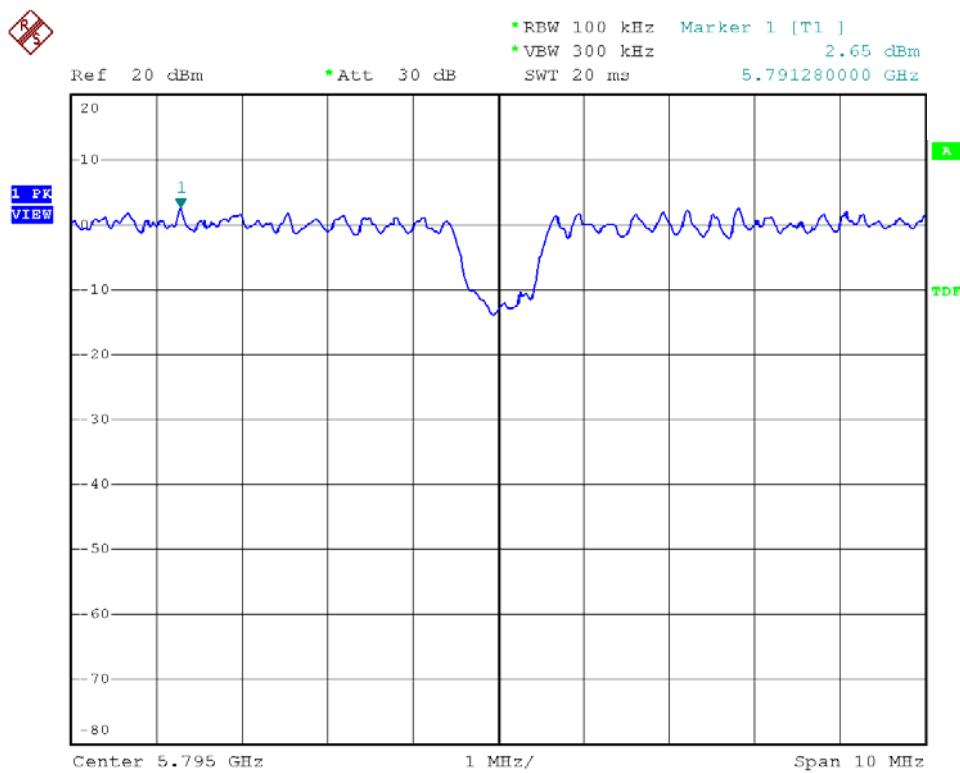




Modulation Standard: 802.11an HT40 (270Mbps), ANT L
Channel: 155



Modulation Standard: 802.11an HT40 (270Mbps), ANT L
Channel: 159





9. Band Edges Measurement

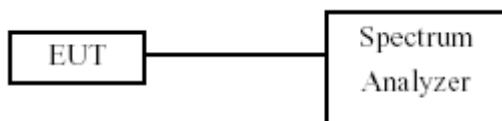
9.1 Test Limit

Below –20dB of the highest emission level of operating band (In 100 KHz Resolution Bandwidth)

9.2 Test Procedure

- a. The transmitter output was connected to the spectrum analyzer via a low loss cable.
- b. Set RBW of spectrum analyzer to 100 KHz and VBW of spectrum analyzer to 300 KHz with convenient frequency span including 100 KHz bandwidth from band edge.
- c. The band edges was measured and recorded.

9.3 Test Setup Layout



9.4 Measurement Equipment

| Instrument/Ancillary | Manufacturer | Model No. | Serial No. | Calibration Date | Valid Date |
|----------------------|--------------|-----------|------------|------------------|------------|
| Spectrum Analyzer | R&S | FSP40 | 100219 | 2011/11/24 | 2012/11/23 |



9.5 Test Result and Data

Test Date: Jun. 07, 2012

Temperature: 25°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

| Modulation Standard | Channel | Frequency (MHz) | maximum value in frequency (MHz) | | maximum value (dBm) | |
|---------------------------|---------|-----------------|----------------------------------|---------|---------------------|--------|
| | | | ANT R | ANT L | ANT R | ANT L |
| 802.11b (11Mbps) | 01 | 2412 | 2680.00 | 2680.00 | -25.85 | -22.55 |
| | 11 | 2462 | 2860.00 | 2860.00 | -21.36 | -24.30 |
| 802.11g (54Mbps) | 01 | 2412 | 2400.00 | 2399.80 | -25.90 | -25.08 |
| | 11 | 2462 | 2500.10 | 2500.10 | -40.55 | -39.41 |
| 802.11n HT20 (130Mbps) | 01 | 2412 | 2400.00 | 2399.60 | -27.31 | -27.33 |
| | 11 | 2462 | 2500.10 | 2500.10 | -40.69 | -39.19 |
| 802.11n HT40 (270Mbps) | 03 | 2422 | 2398.40 | 2398.00 | -26.08 | -25.69 |
| | 09 | 2452 | 2500.00 | 2500.00 | -35.44 | -35.40 |

Test Date: Jun. 15, 2012

Temperature: 25°C

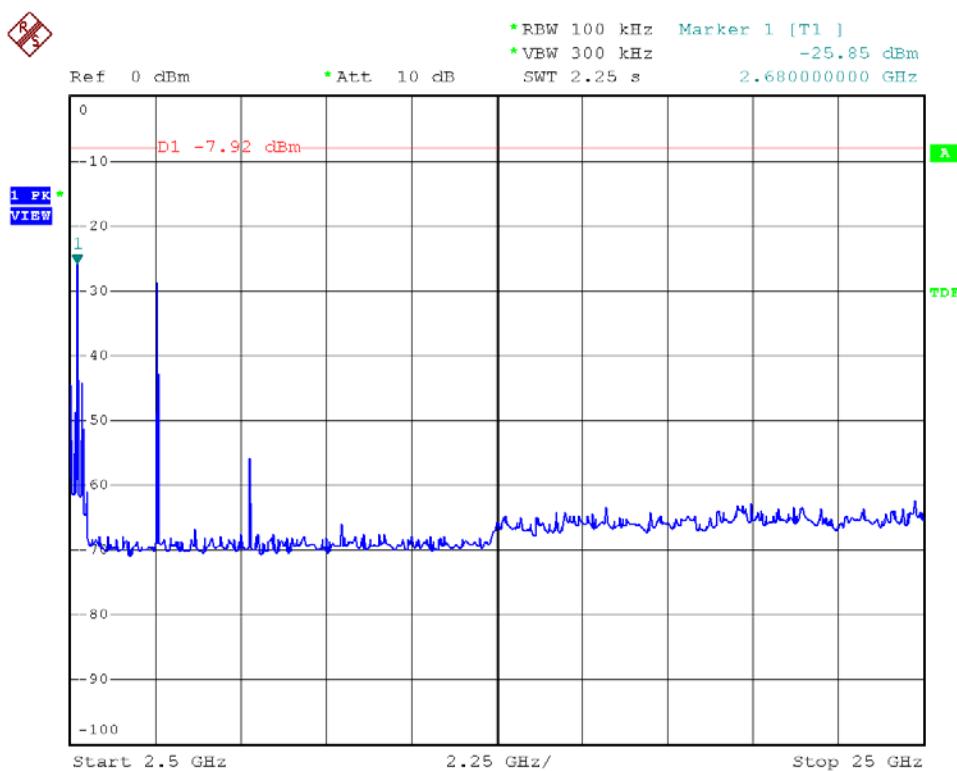
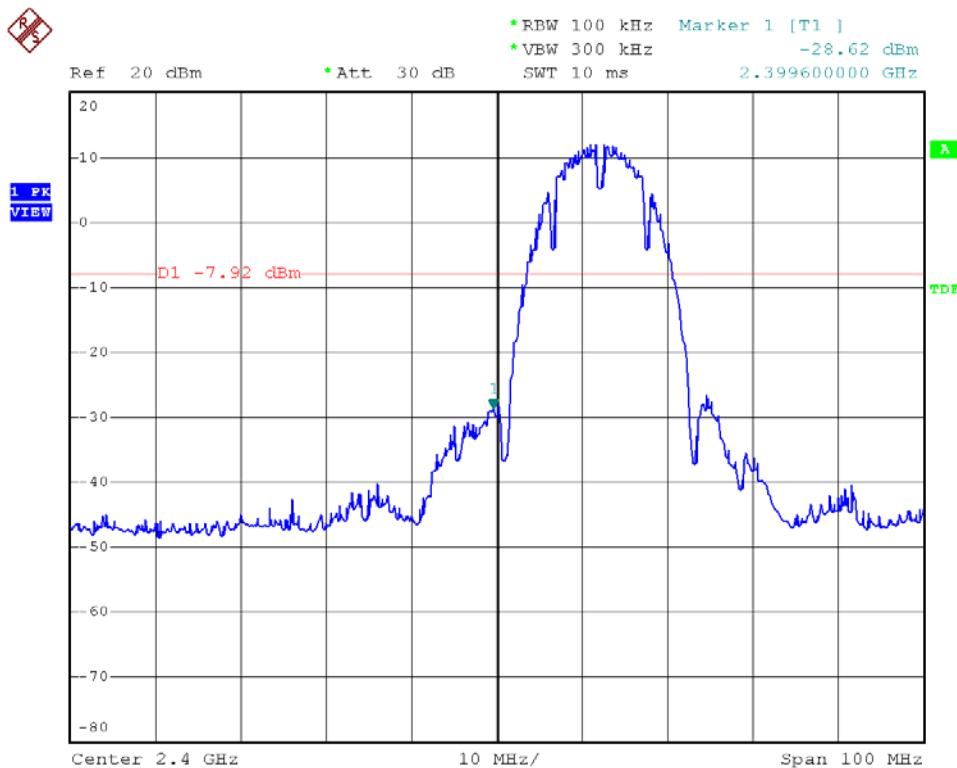
Atmospheric pressure: 1020 hPa

Humidity: 65%

| Modulation Standard | Channel | Frequency (MHz) | maximum value in frequency (MHz) | | maximum value (dBm) | |
|-------------------------------|---------|-----------------|----------------------------------|---------|---------------------|--------|
| | | | ANT R | ANT L | ANT R | ANT L |
| 802.11a (54Mbps) | 149 | 5745 | 5724.20 | 5725.00 | -41.19 | -32.22 |
| | 165 | 5825 | 5850.00 | 5850.00 | -43.10 | -41.10 |
| 802.11an HT20 (130Mbps) | 149 | 5745 | 5725.00 | 5724.80 | -40.72 | -27.45 |
| | 165 | 5825 | 5850.00 | 5850.00 | -43.53 | -36.44 |
| 802.11an HT40 (270Mbps) | 151 | 5755 | 5723.80 | 5723.00 | -40.98 | -22.50 |
| | 159 | 5795 | 5864.40 | 5850.40 | -45.05 | -40.95 |

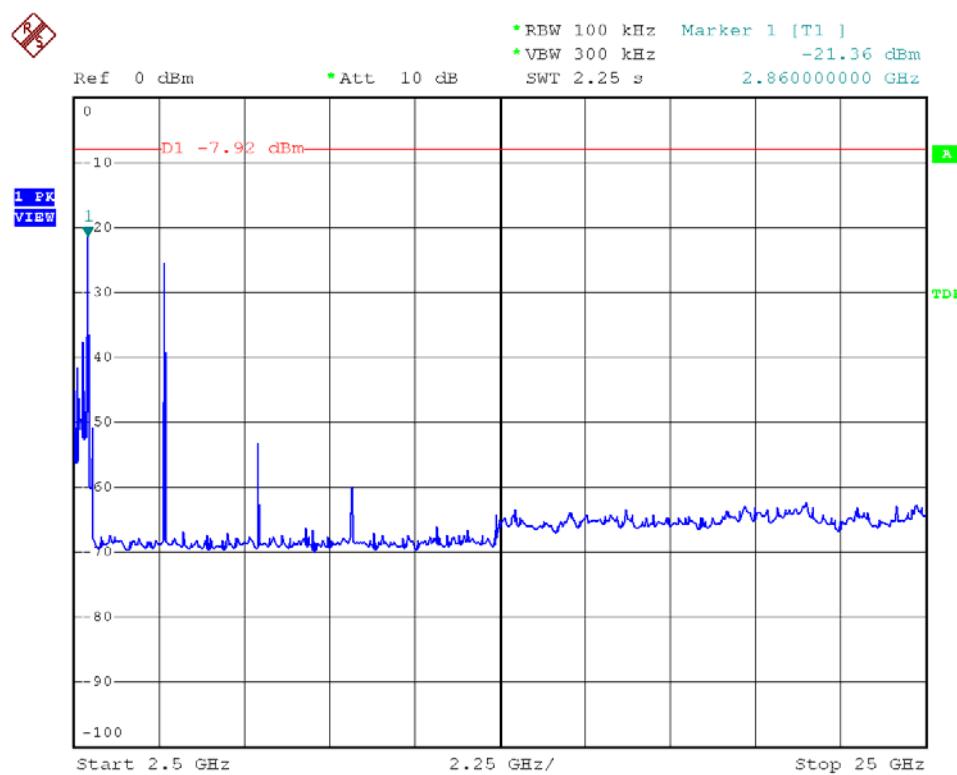
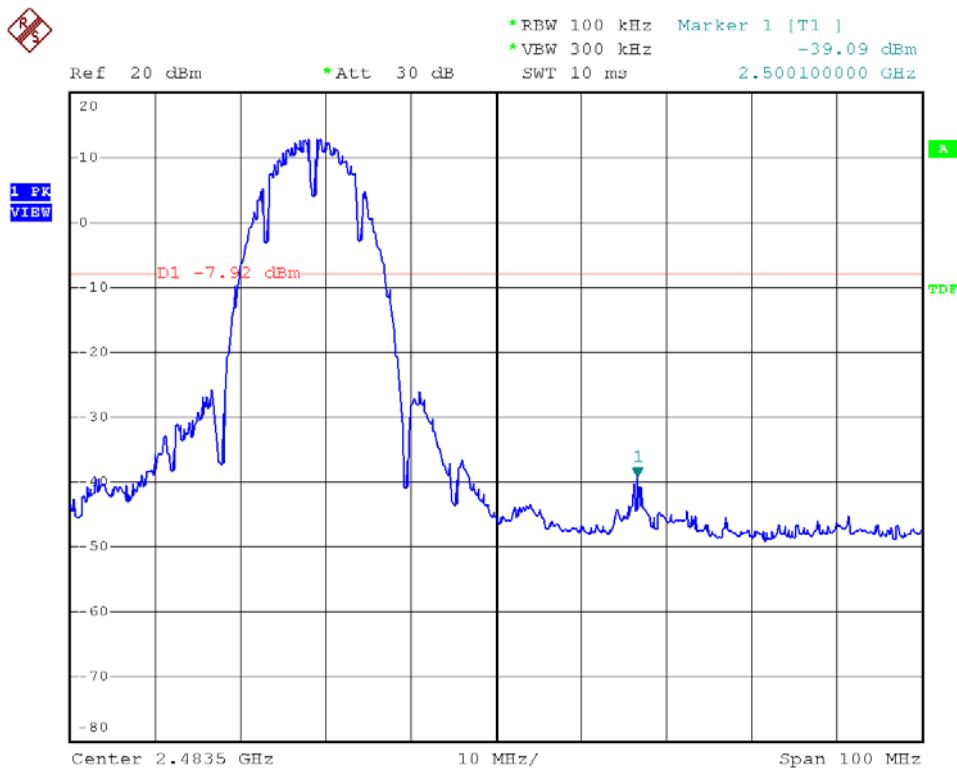


Modulation Standard: 802.11b (11Mbps), ANT R
Channel: 01



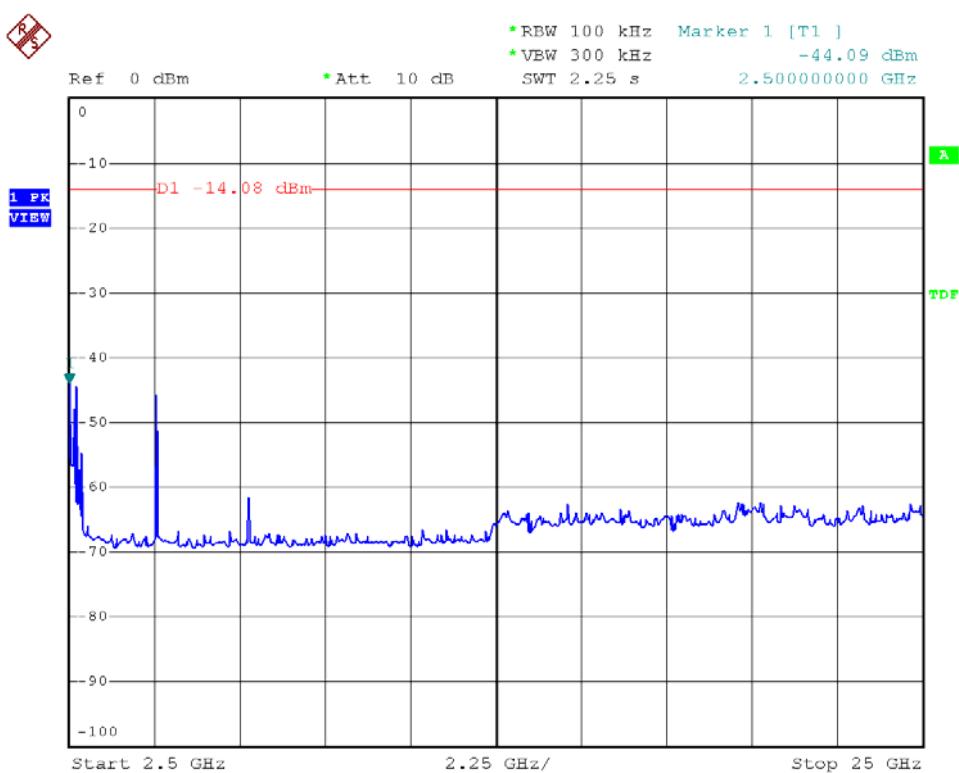
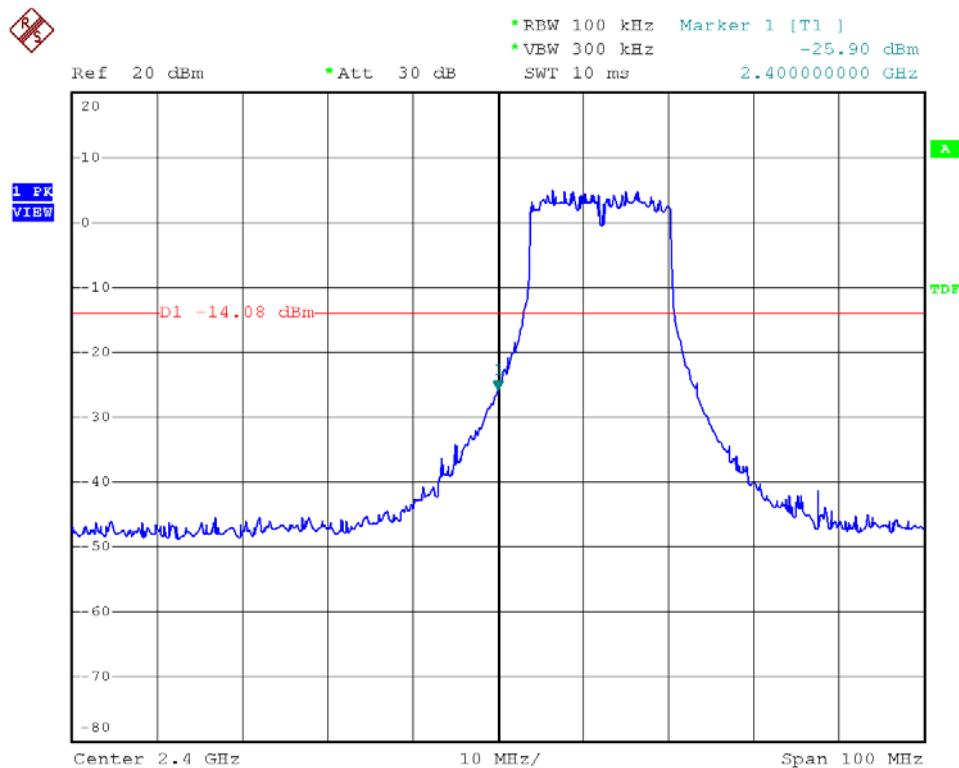


Modulation Standard: 802.11b (11Mbps), ANT R
Channel: 11



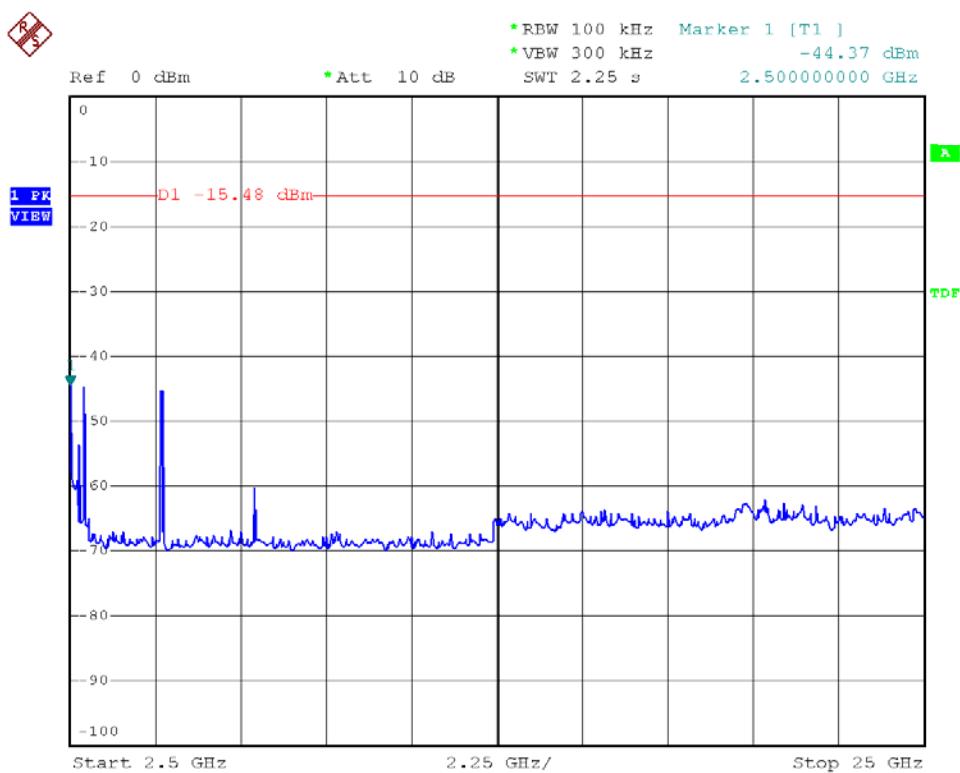
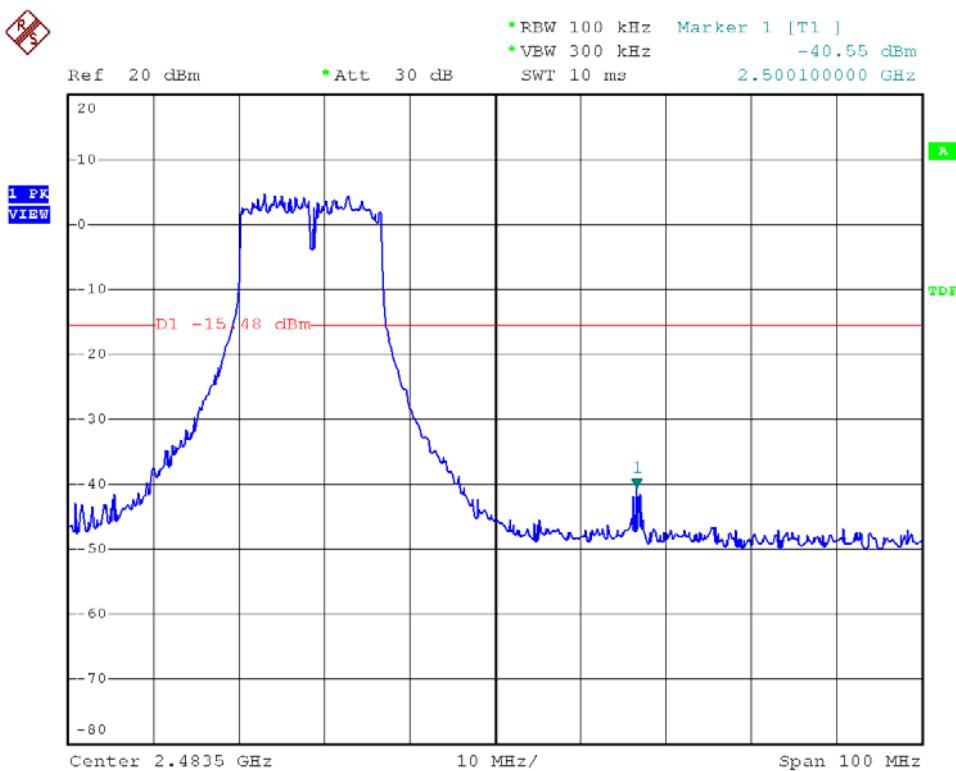


Modulation Standard: 802.11g (54Mbps), ANT R
Channel: 01



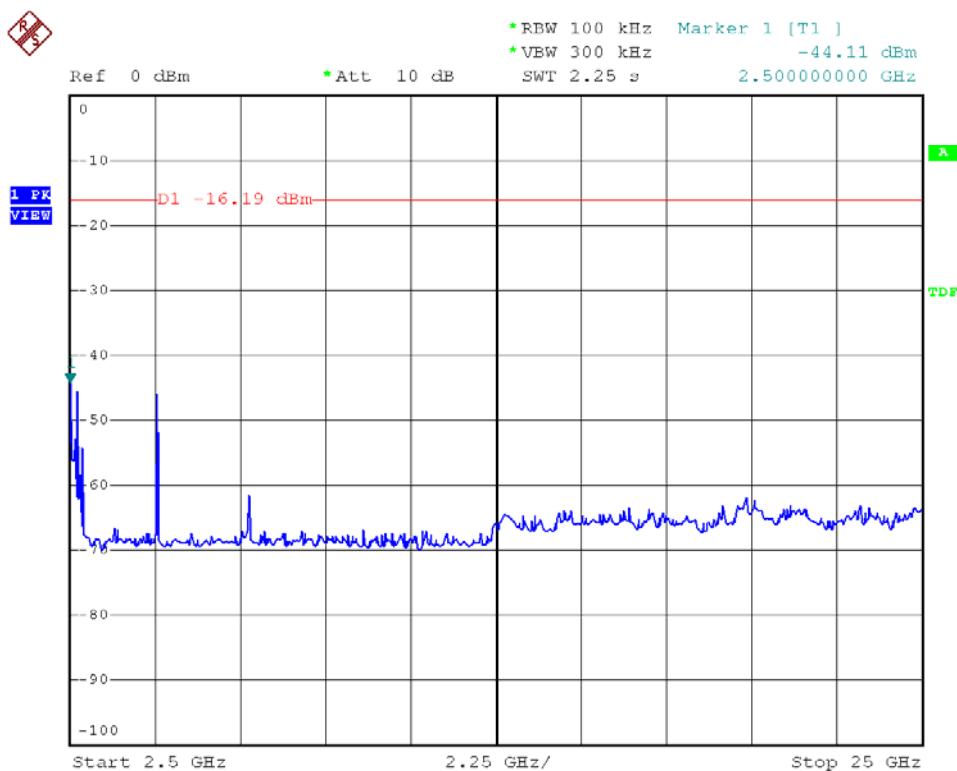
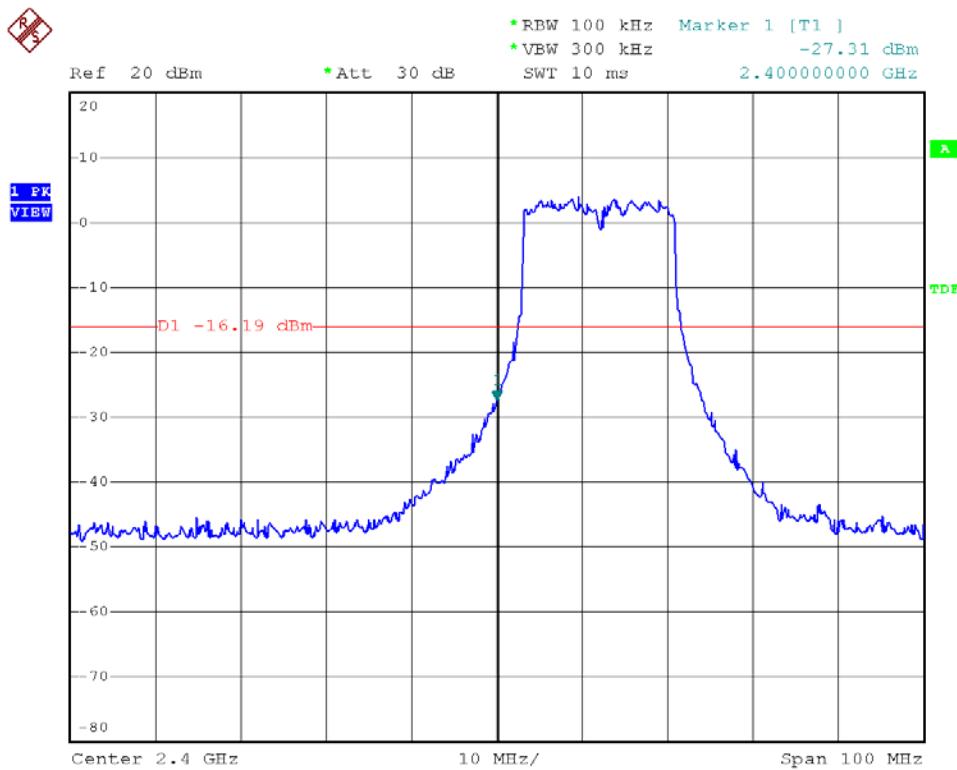


Modulation Standard: 802.11g (54Mbps), ANT R
Channel: 11



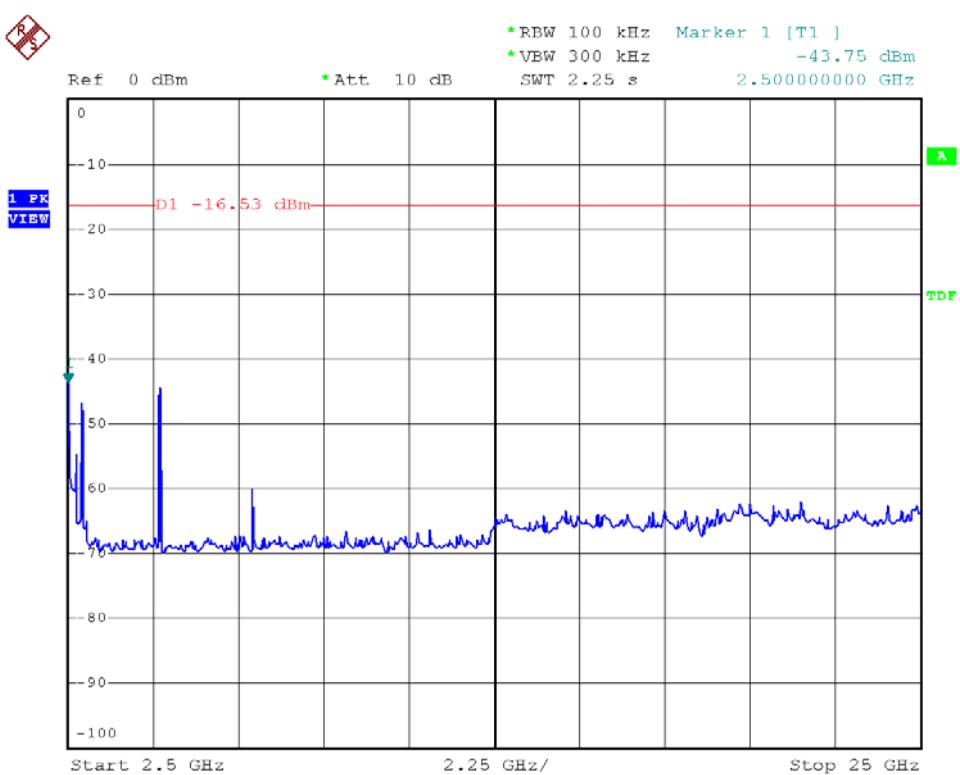
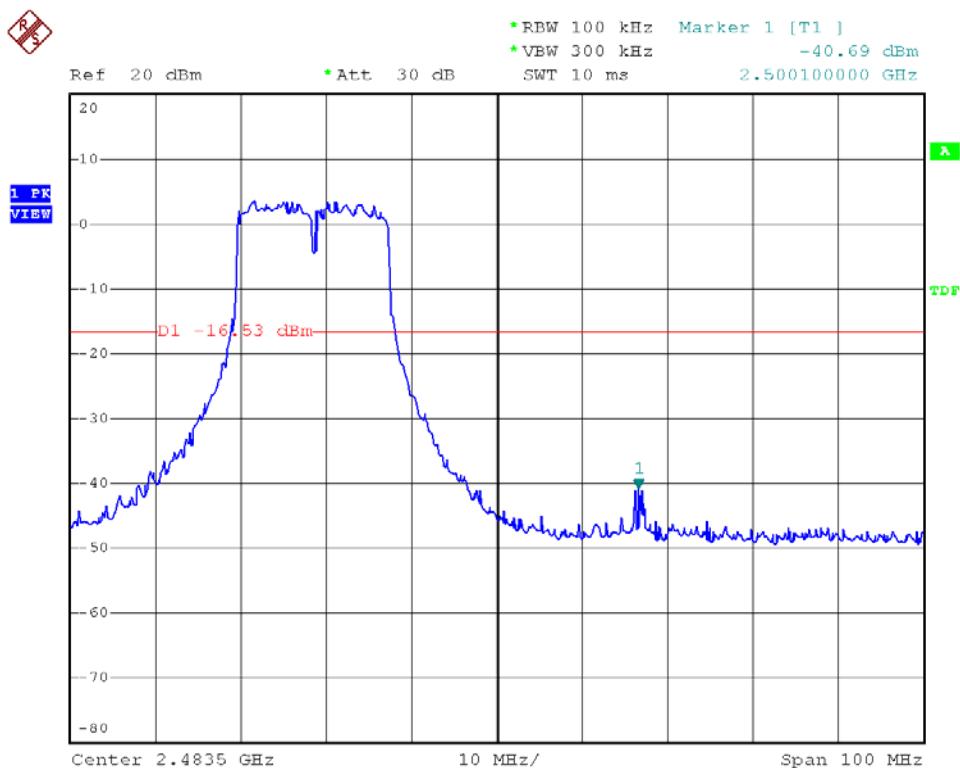


Modulation Standard: 802.11n HT20 (130Mbps), ANT R
Channel: 01



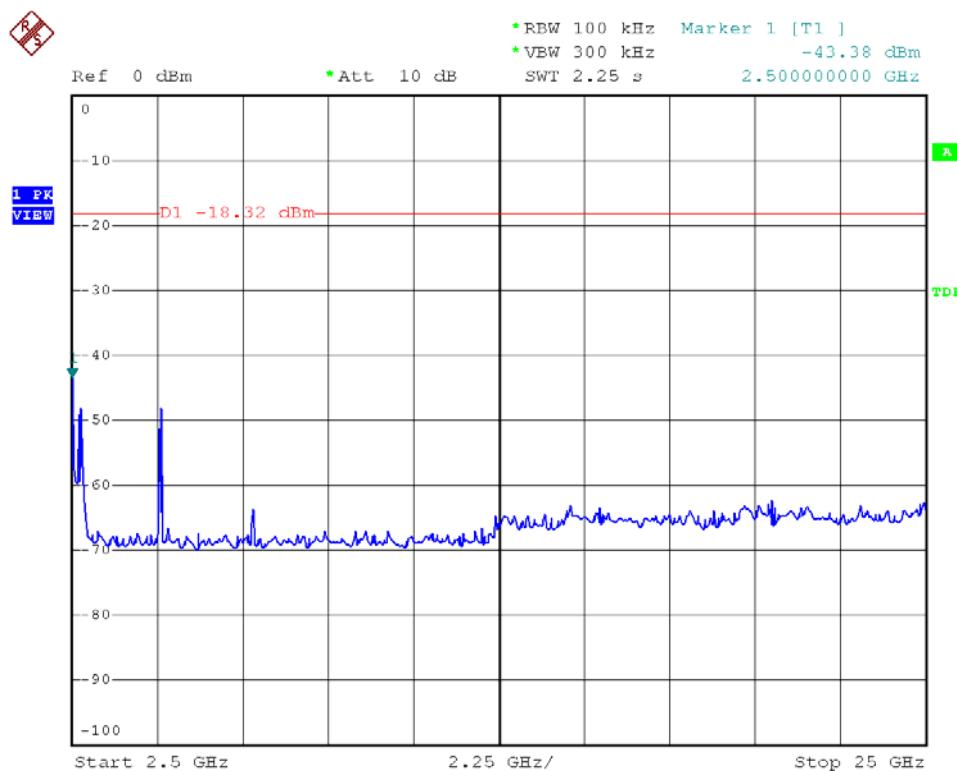
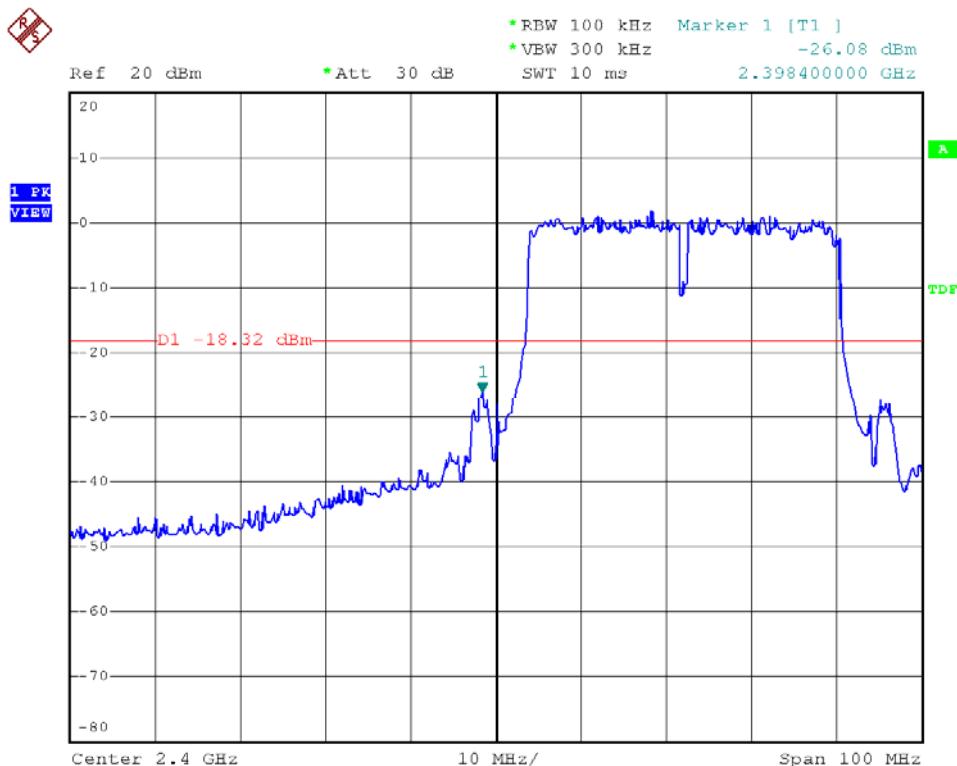


Modulation Standard: 802.11n HT20 (130Mbps), ANT R
Channel: 11



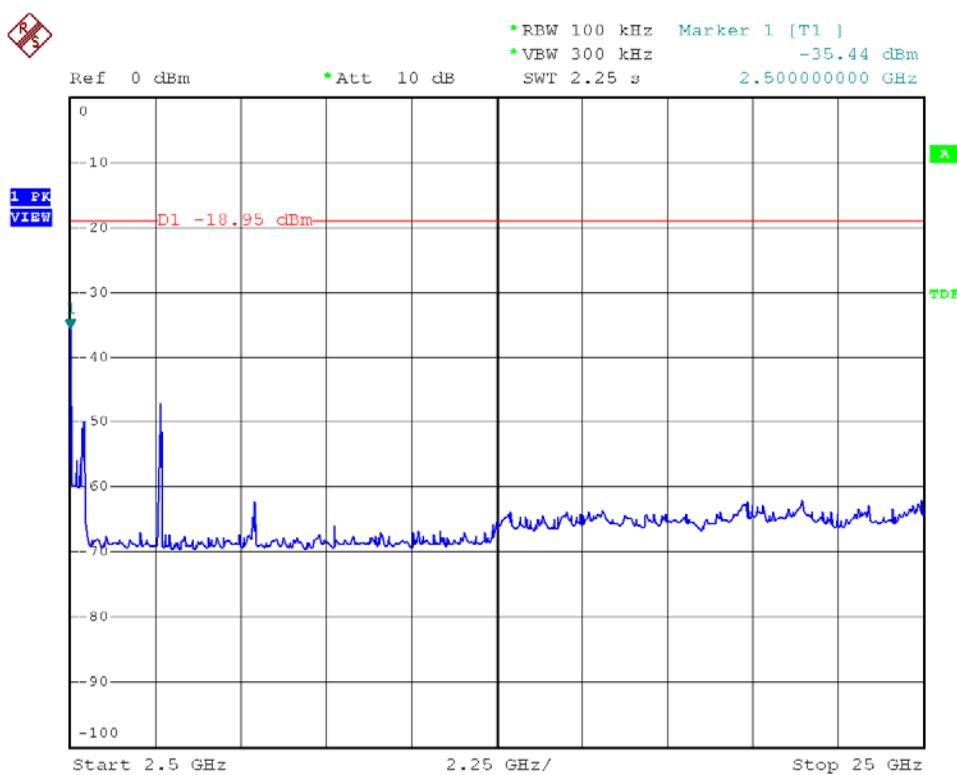
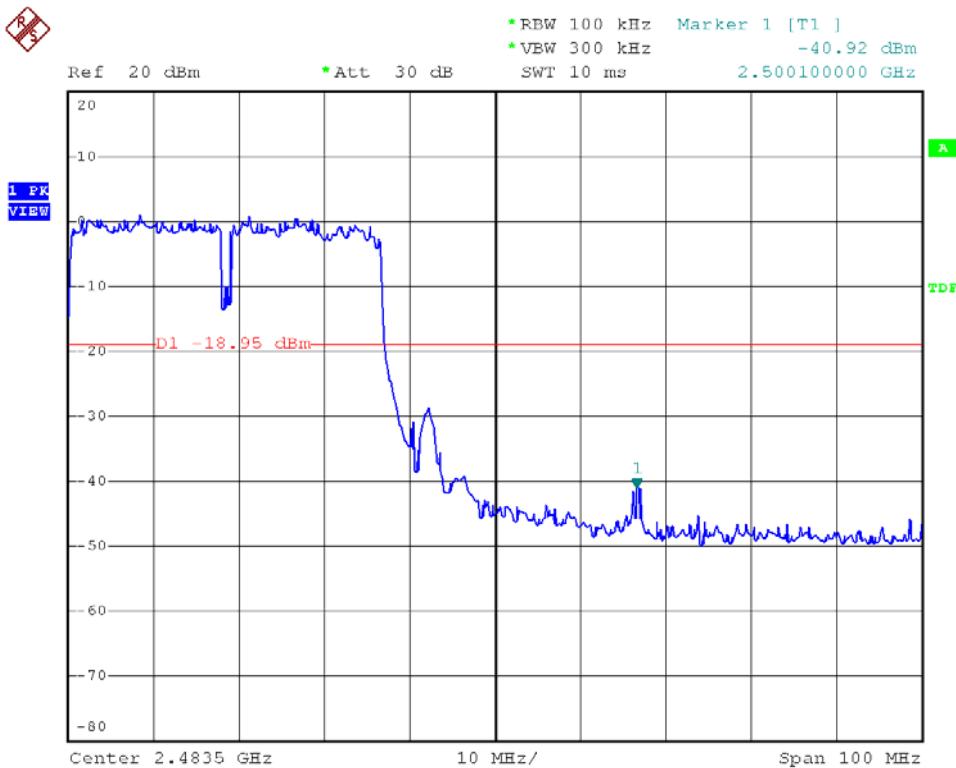


Modulation Standard: 802.11n HT40 (270Mbps), ANT R
Channel: 03



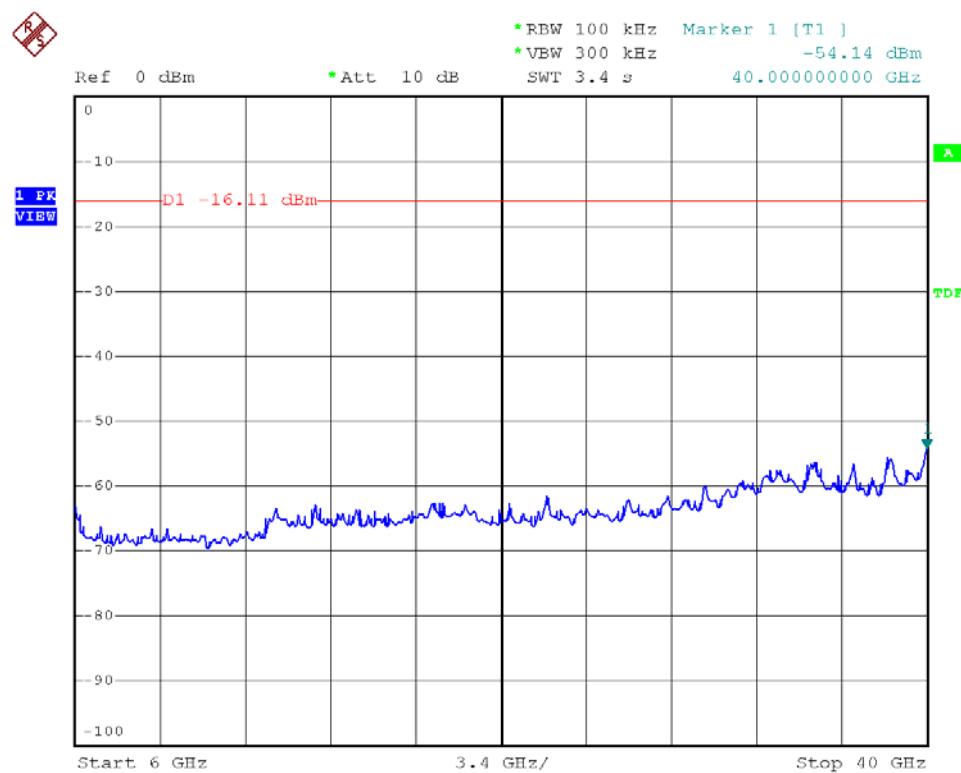
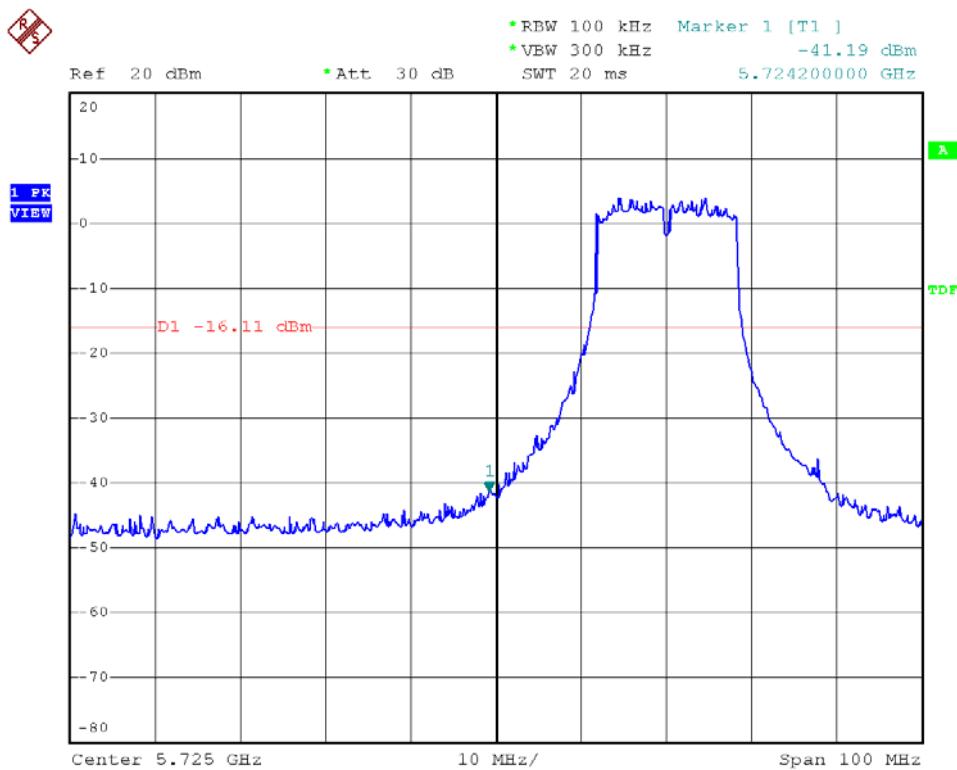


Modulation Standard: 802.11n HT40 (270Mbps), ANT R
Channel: 09



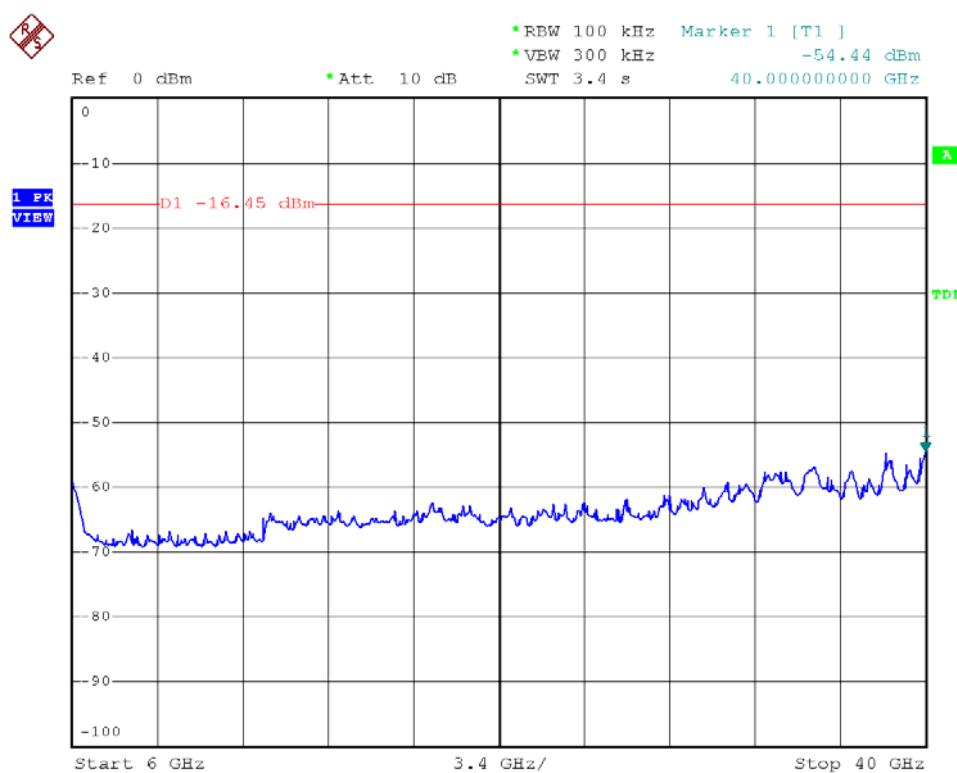
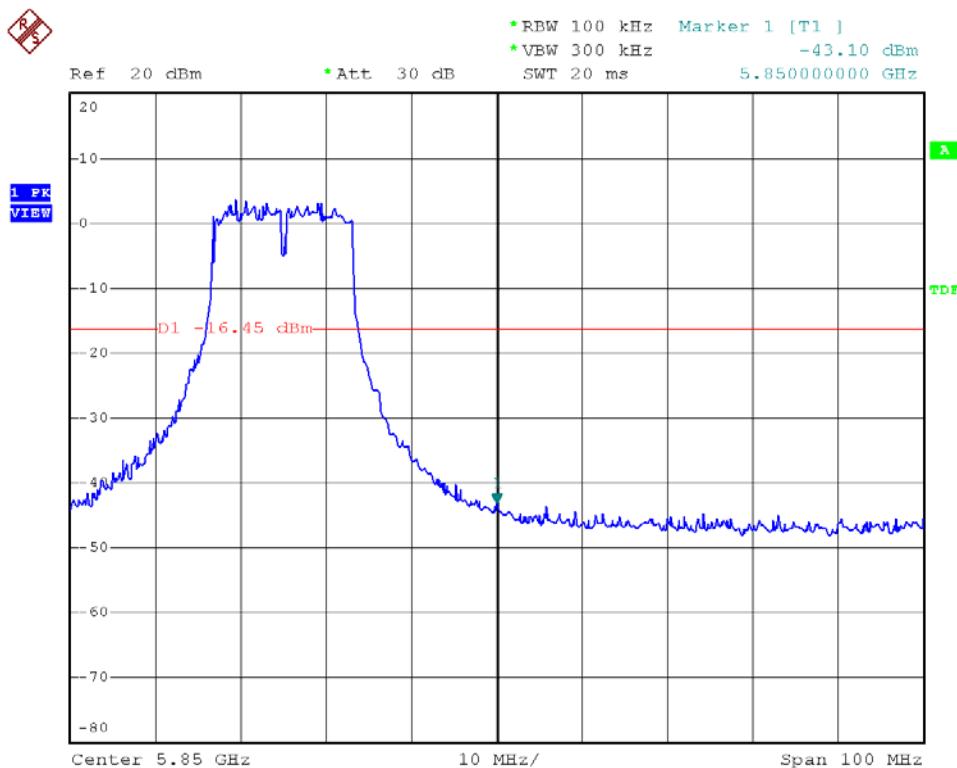


Modulation Standard: 802.11a (54Mbps), ANT R
Channel: 149



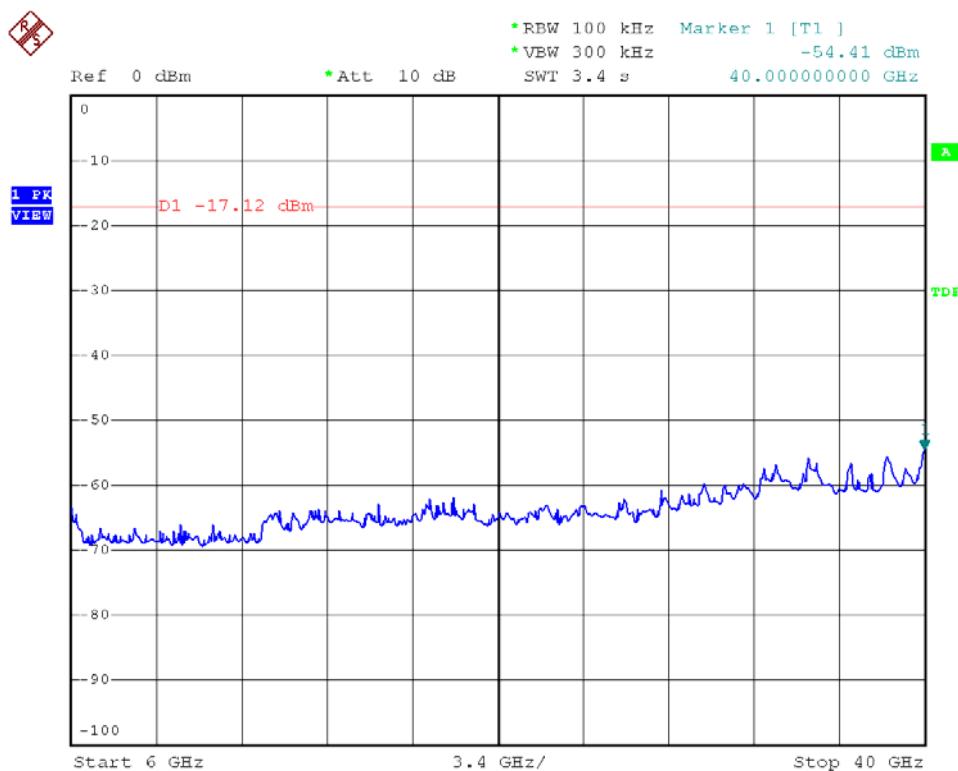
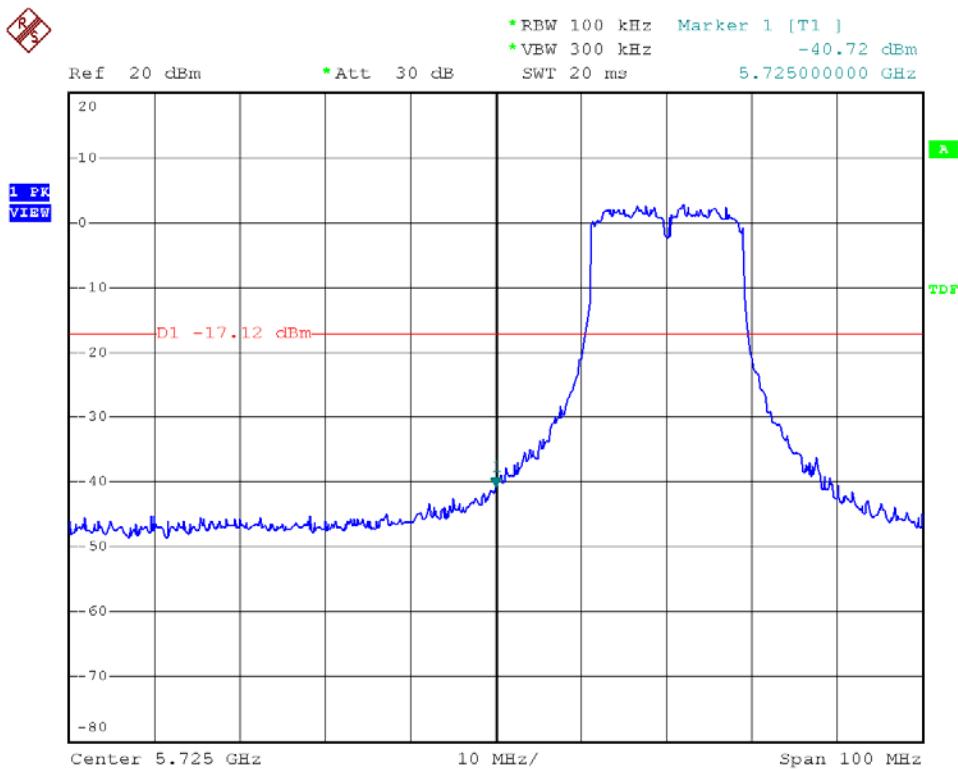


Modulation Standard: 802.11a (54Mbps), ANT R
Channel: 165



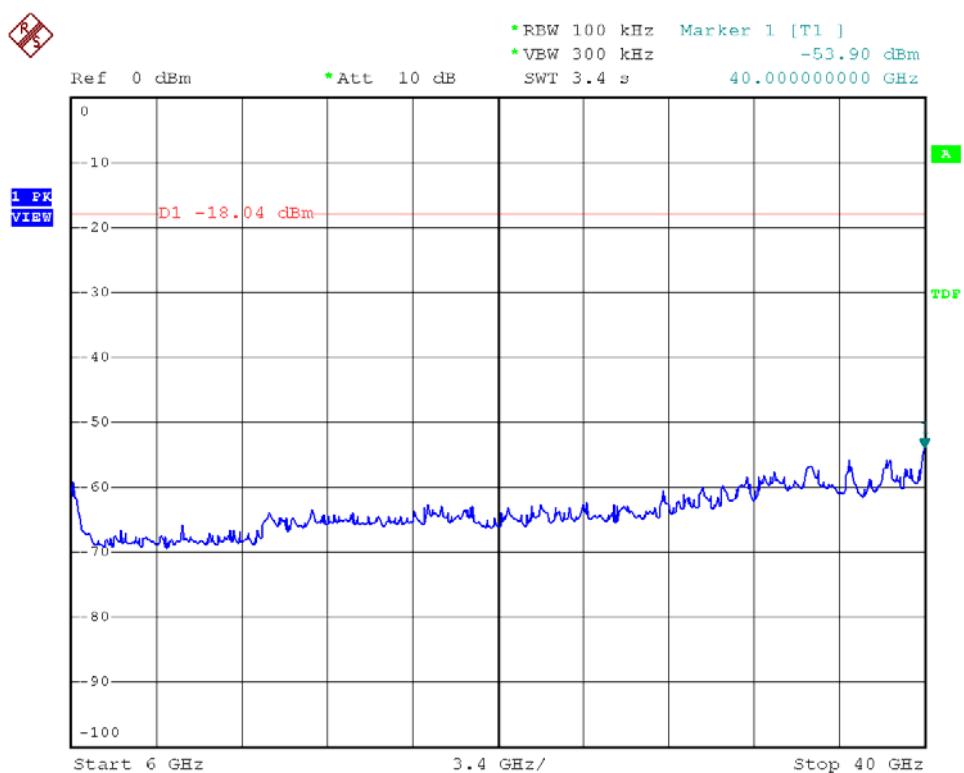
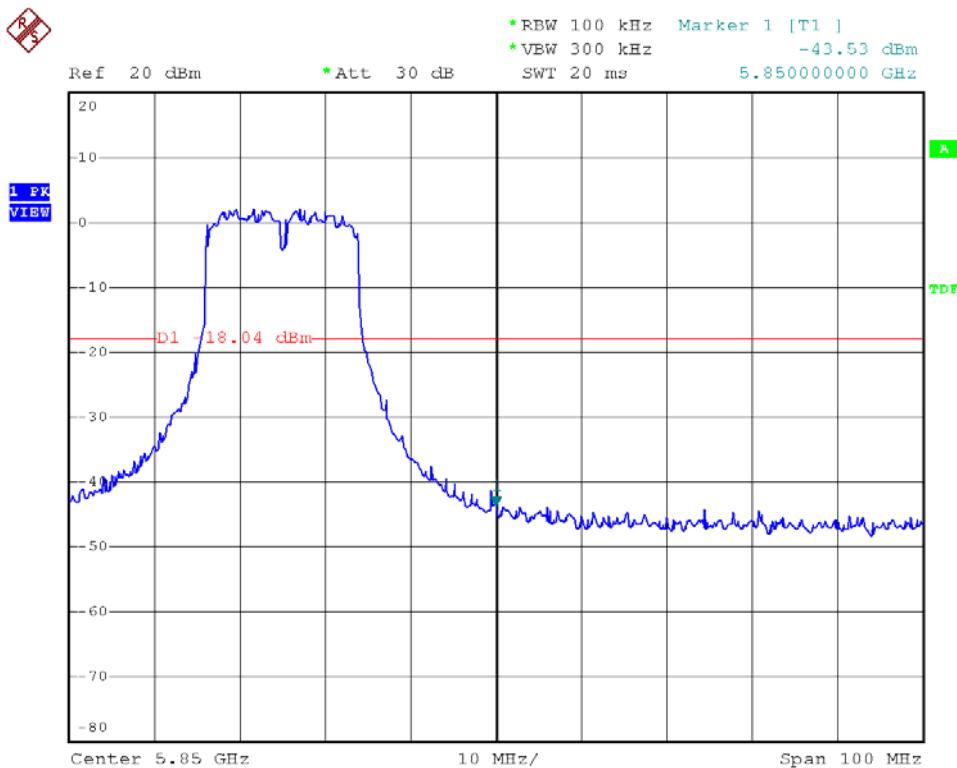


Modulation Standard: 802.11an HT20 (130Mbps), ANT R
Channel: 149



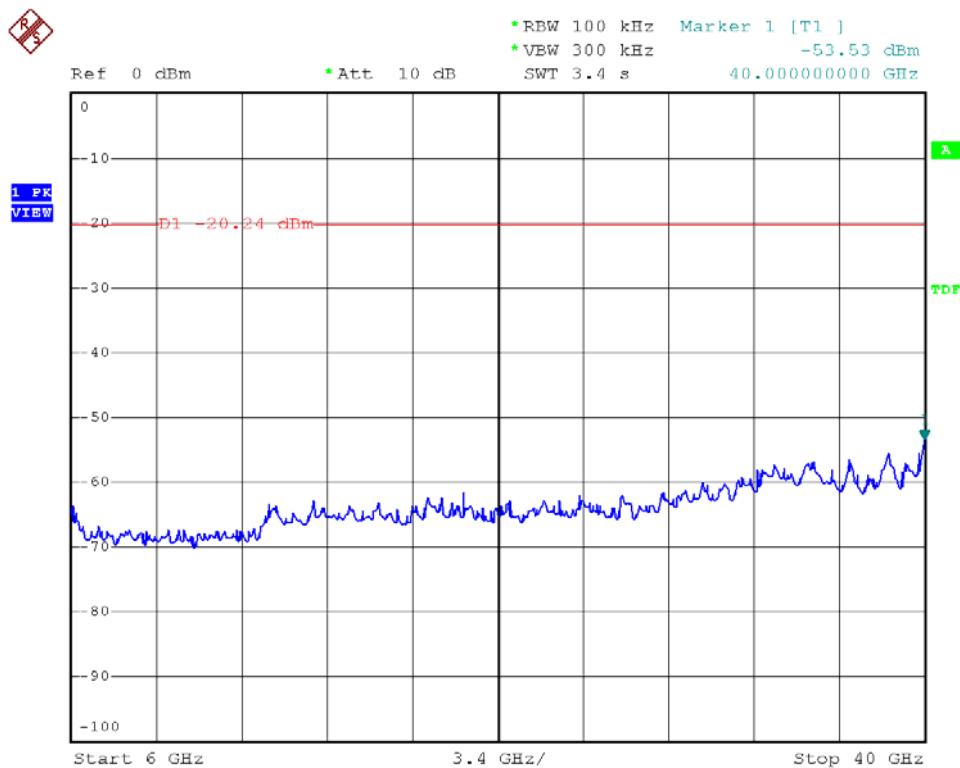
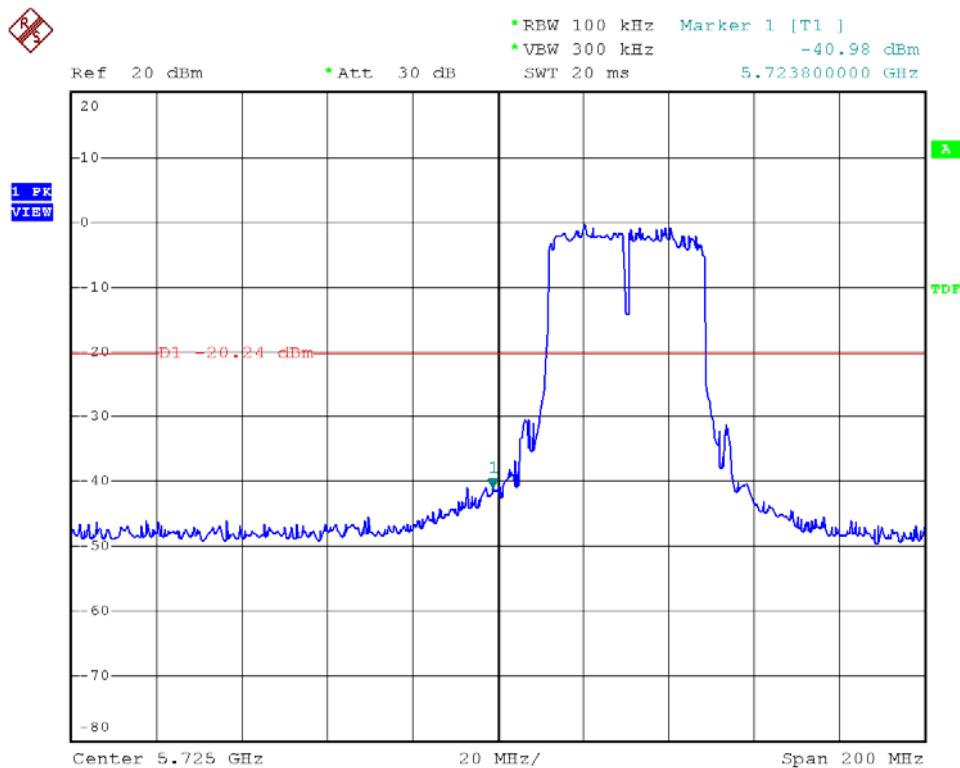


Modulation Standard: 802.11an HT20 (130Mbps), ANT R
Channel: 165



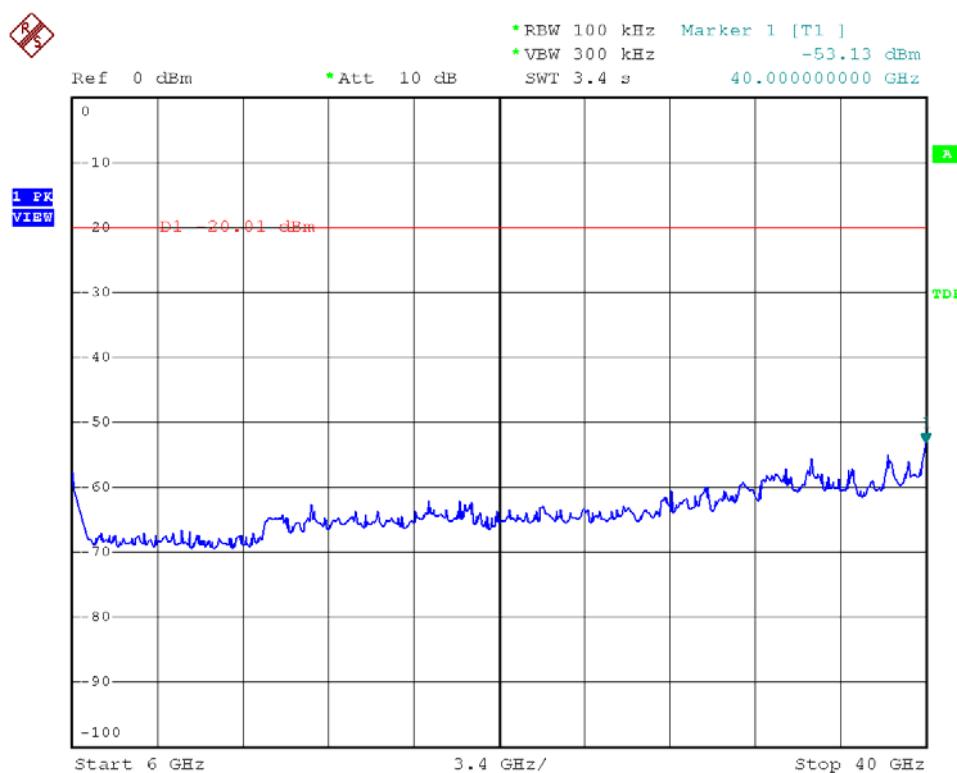
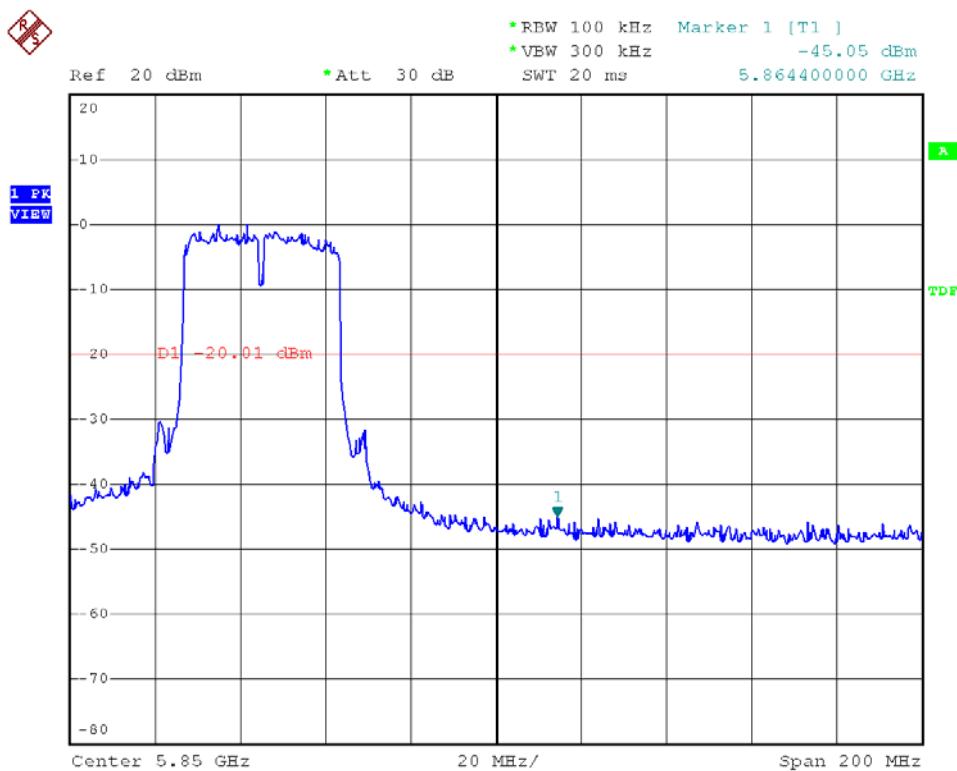


Modulation Standard: 802.11an HT40 (270Mbps), ANT R
Channel: 151



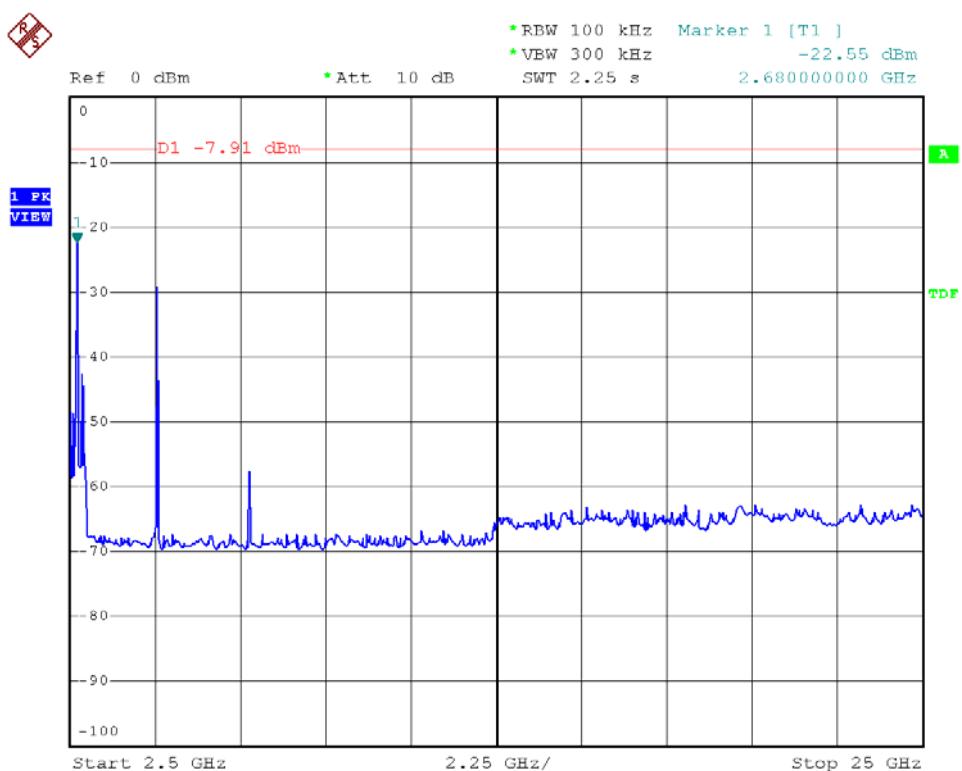
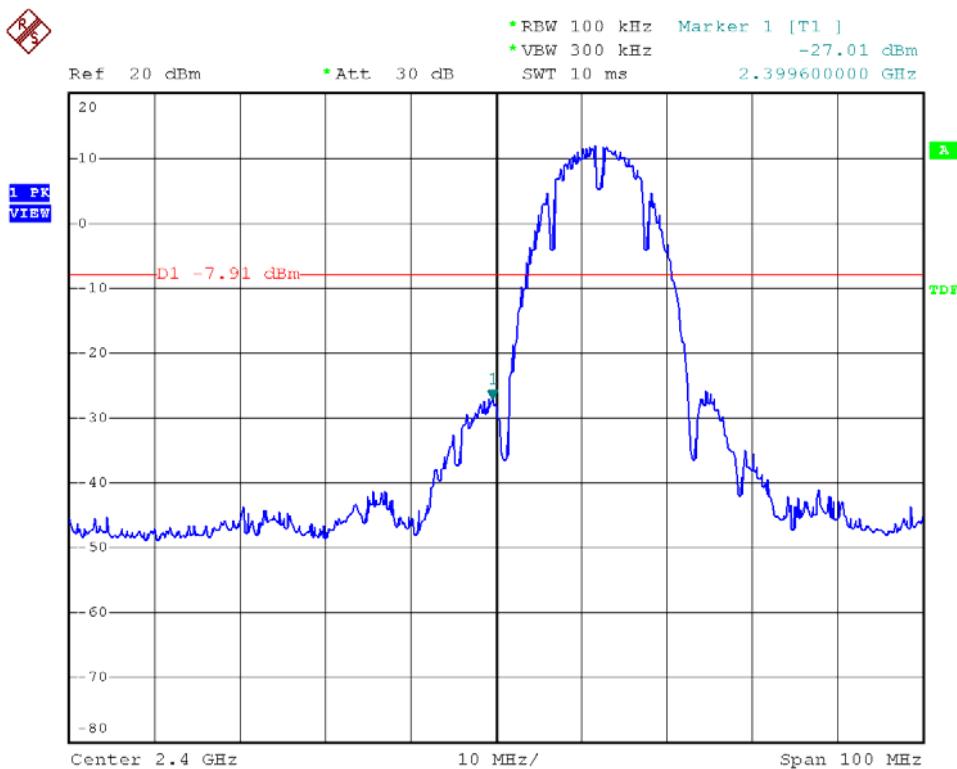


Modulation Standard: 802.11an HT40 (270Mbps), ANT R
Channel: 159



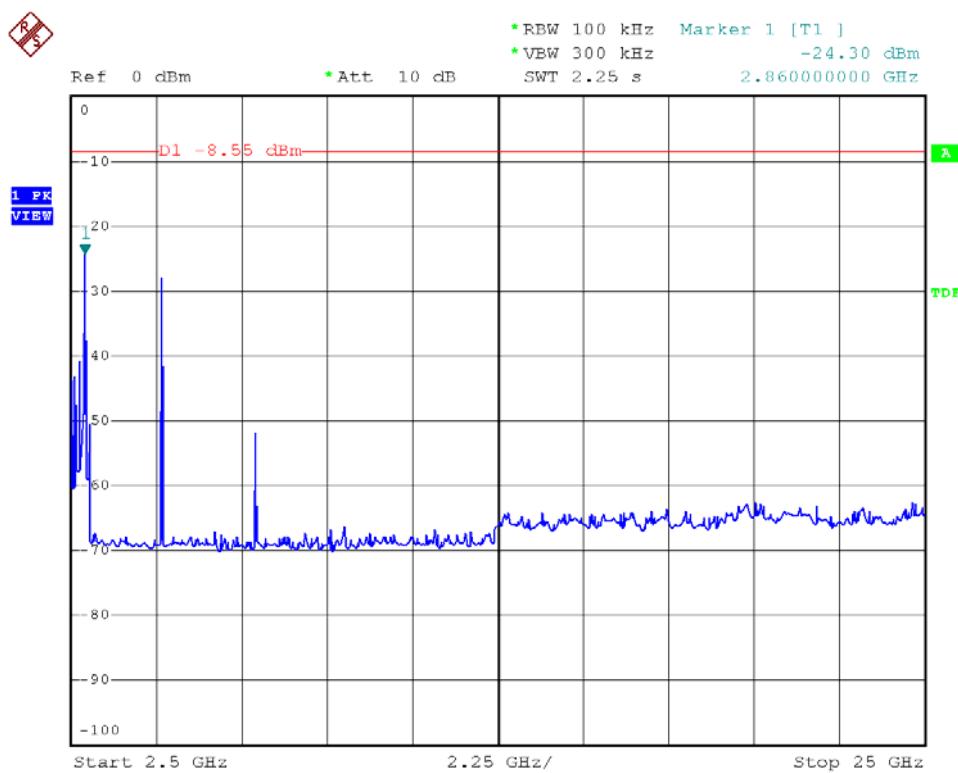
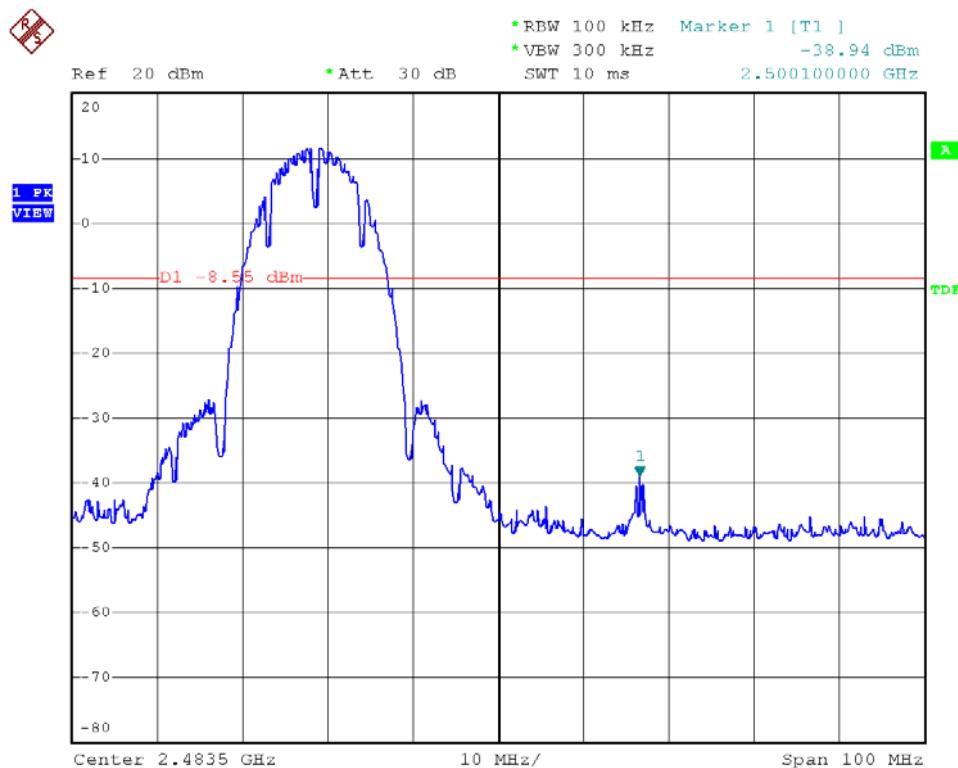


Modulation Standard: 802.11b (11Mbps), ANT L
Channel: 01



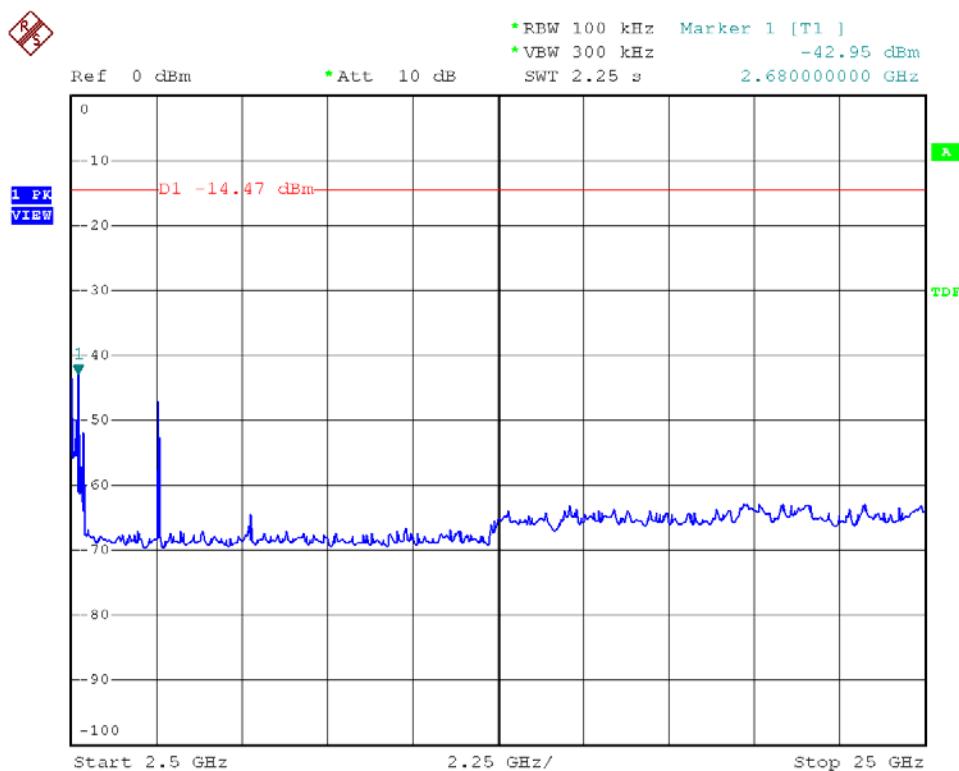
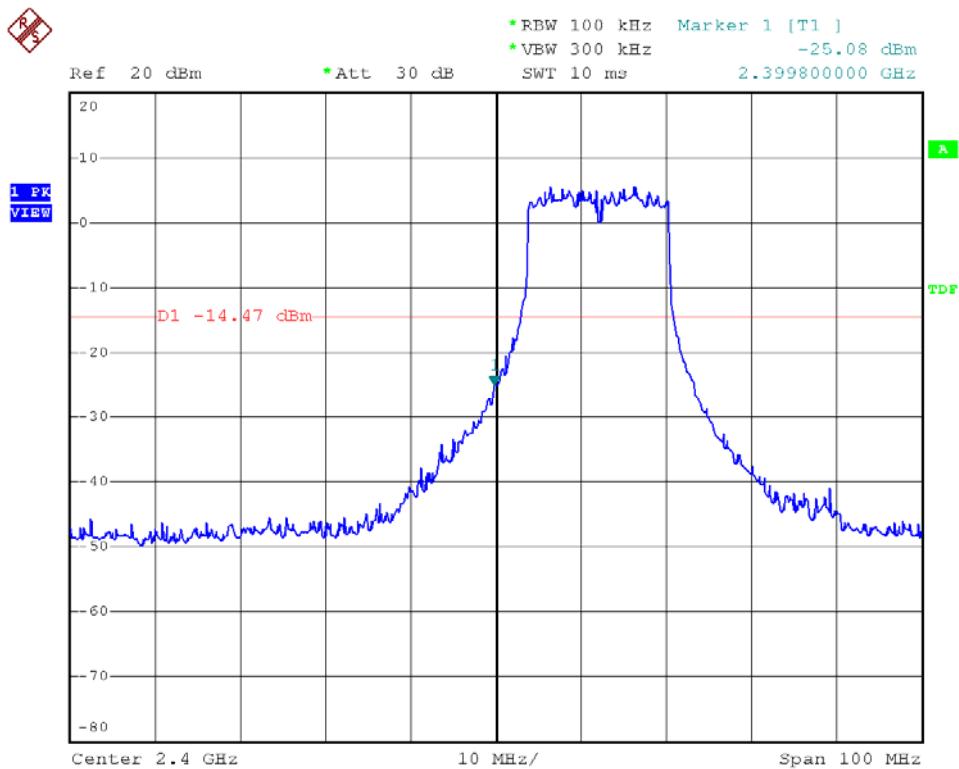


Modulation Standard: 802.11b (11Mbps), ANT L
Channel: 11



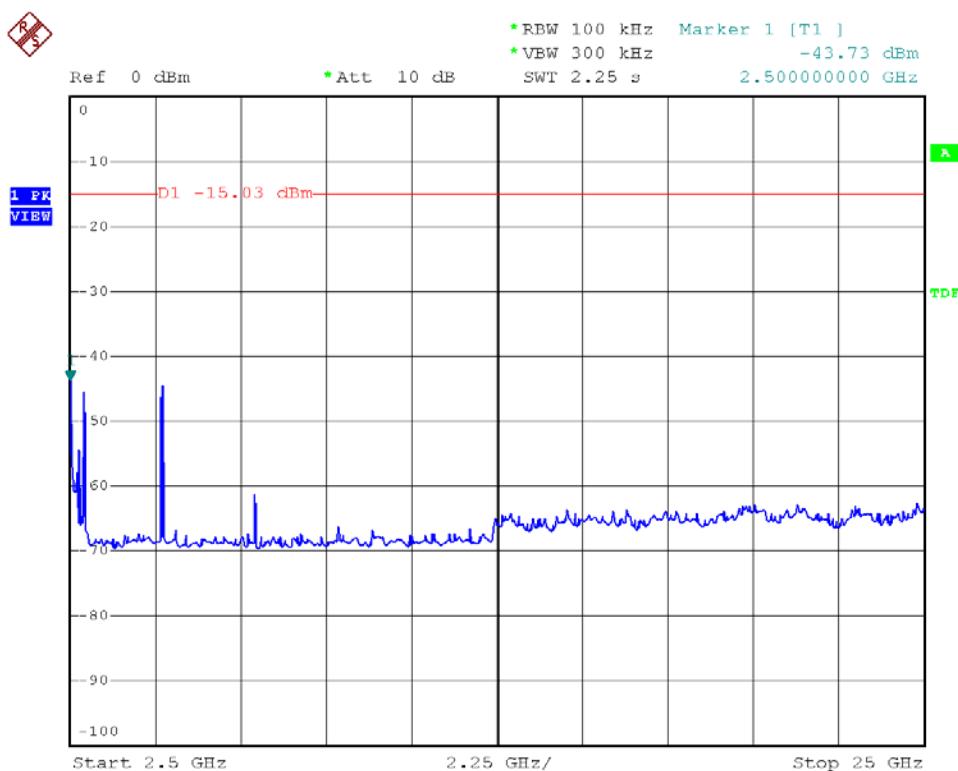
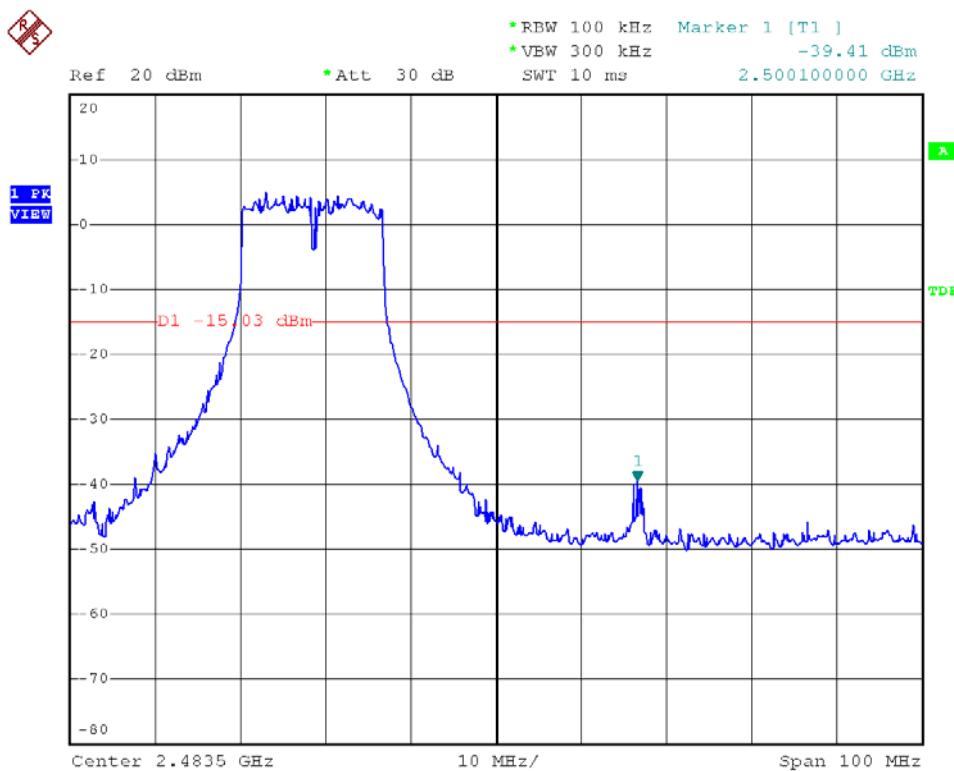


Modulation Standard: 802.11g (54Mbps), ANT L
Channel: 01



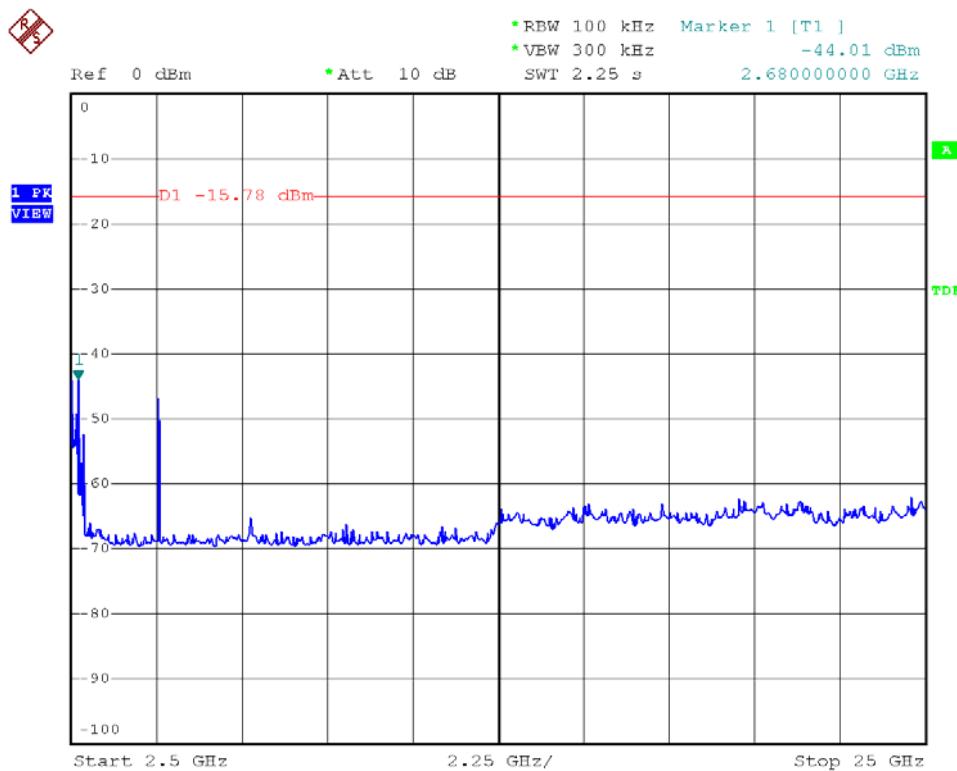
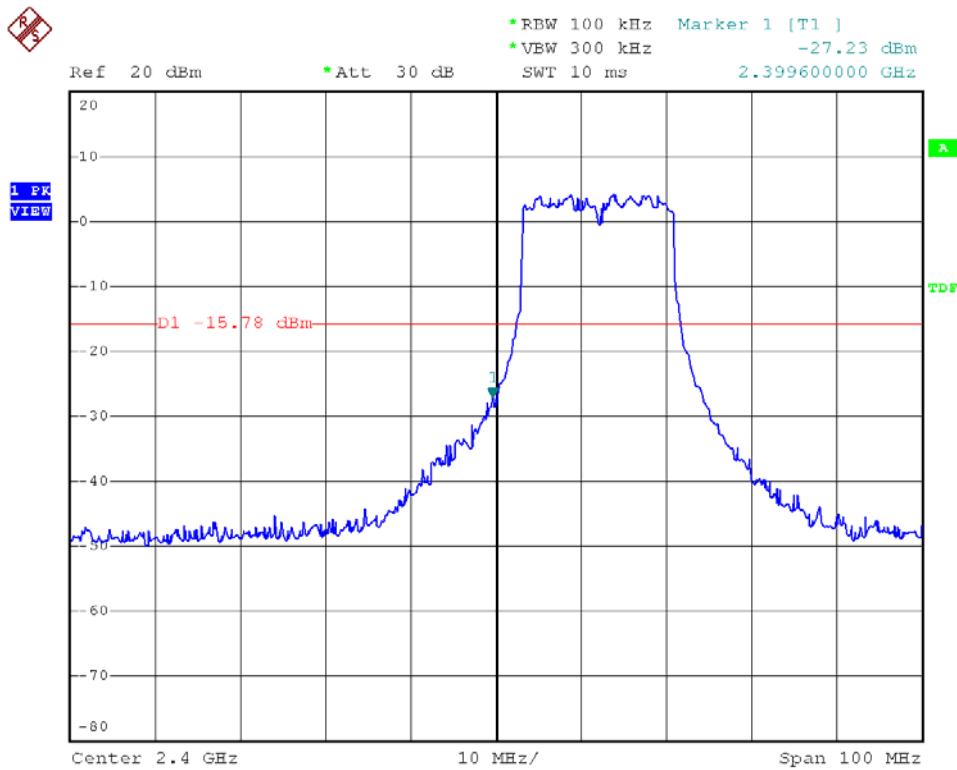


Modulation Standard: 802.11g (54Mbps), ANT L
Channel: 11



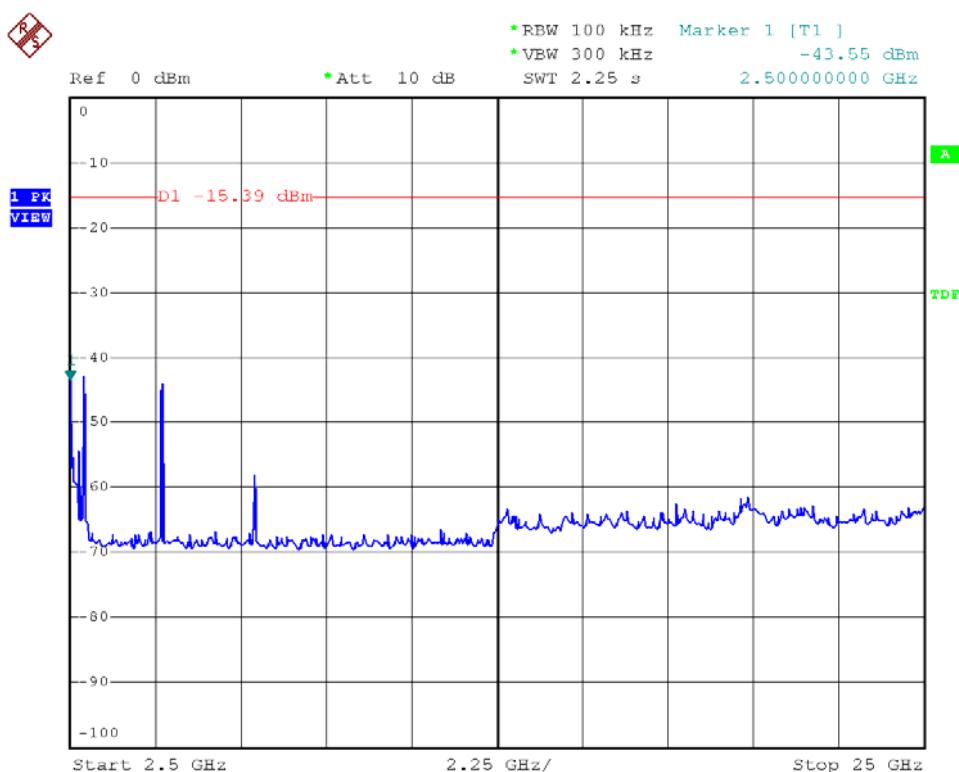
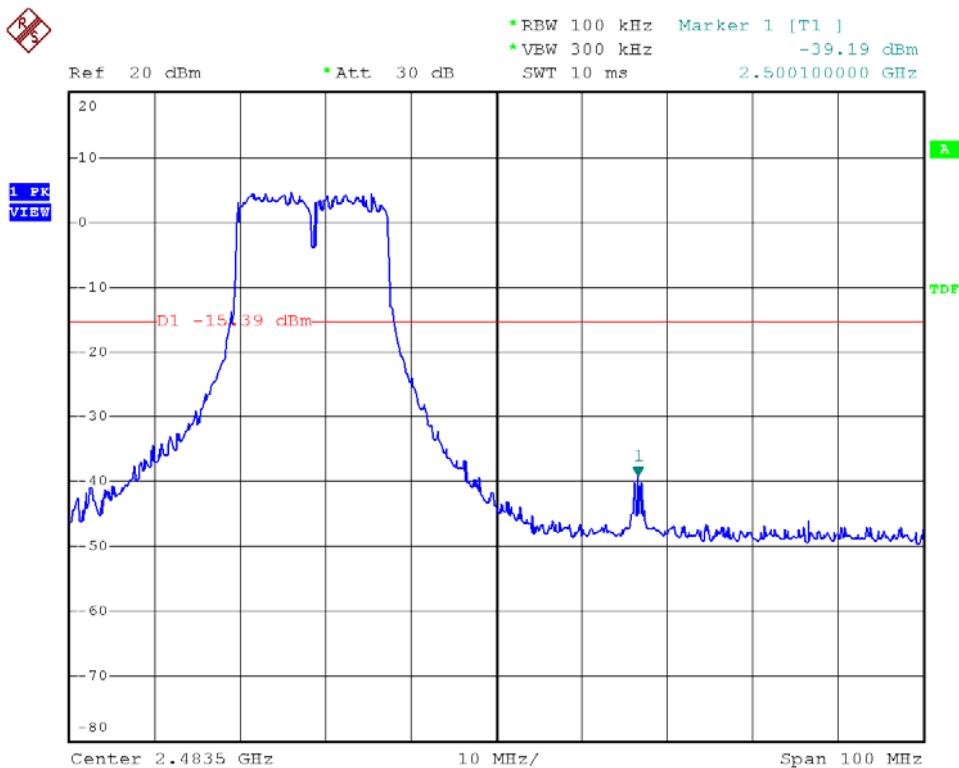


Modulation Standard: 802.11n HT20 (130Mbps), ANT L
Channel: 01



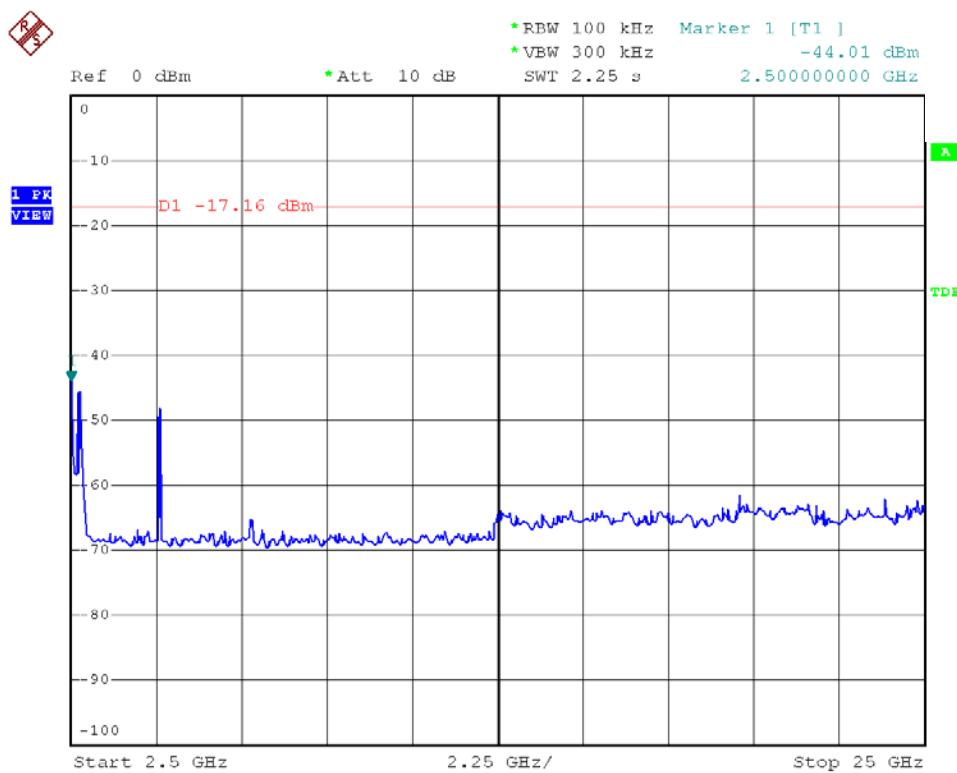
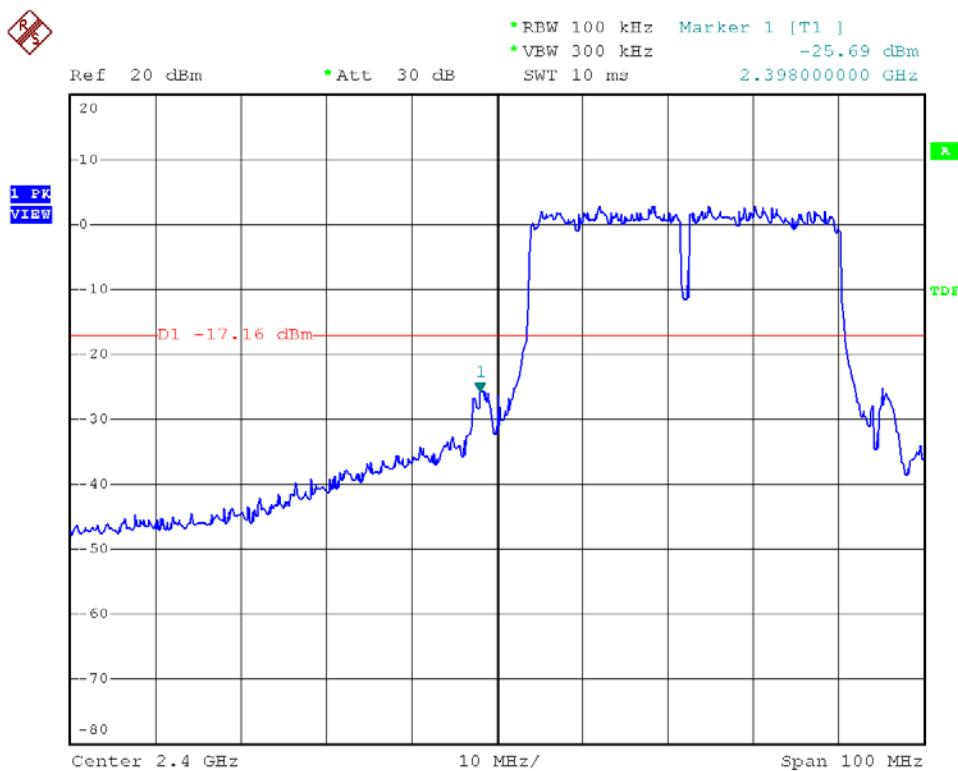


Modulation Standard: 802.11n HT20 (130Mbps), ANT L
Channel: 11



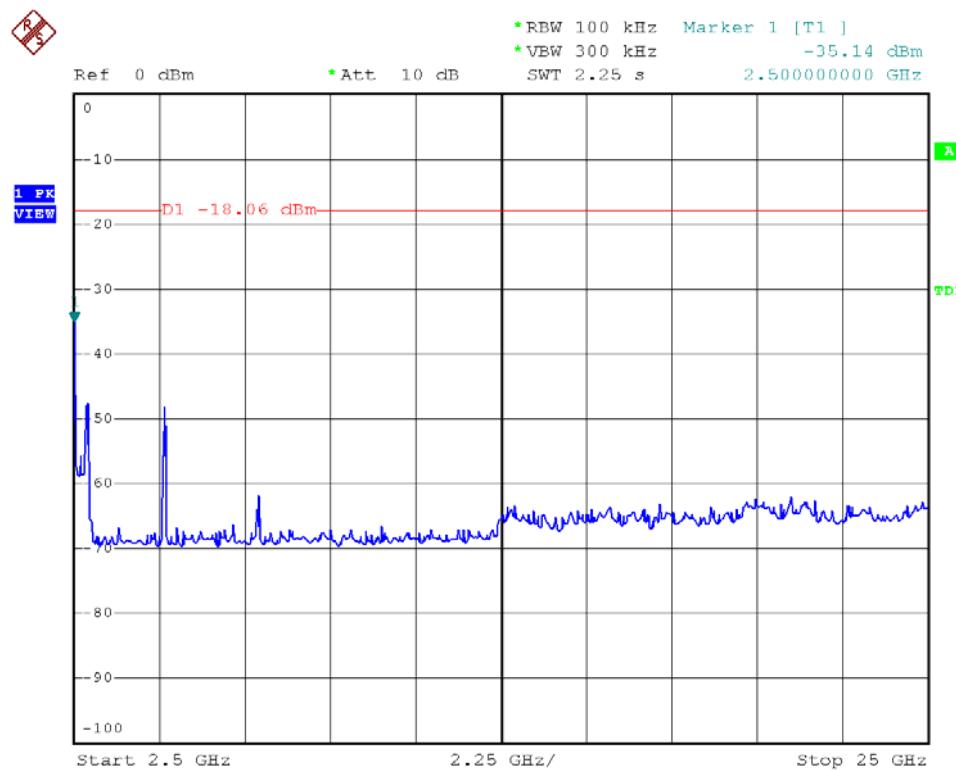
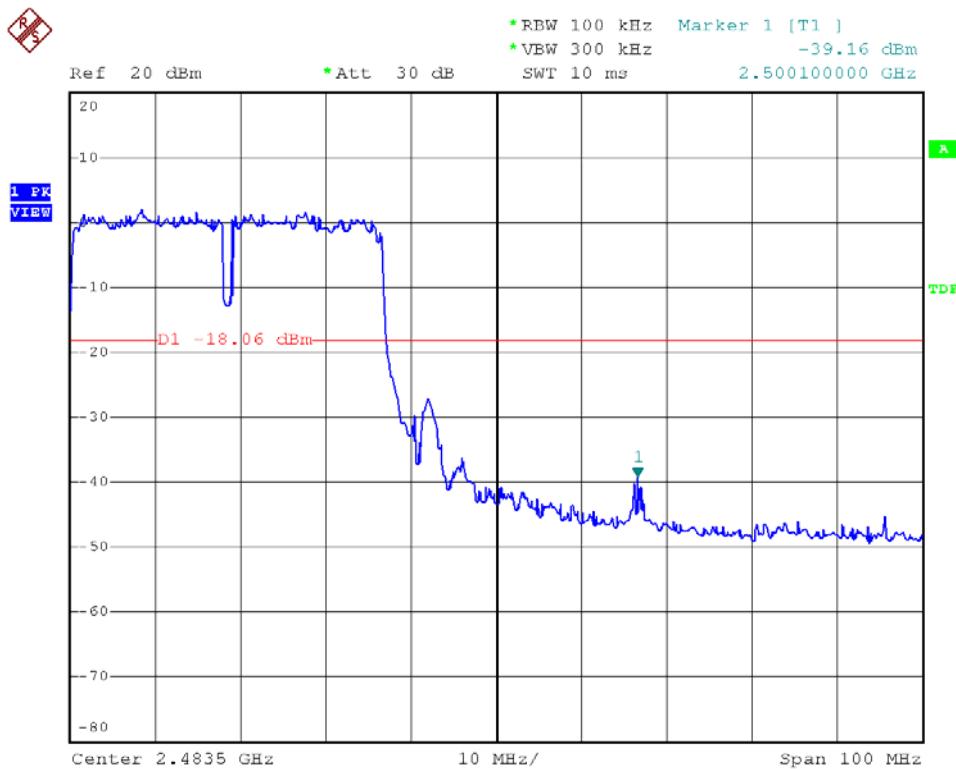


Modulation Standard: 802.11n HT40 (270Mbps), ANT L
Channel: 03



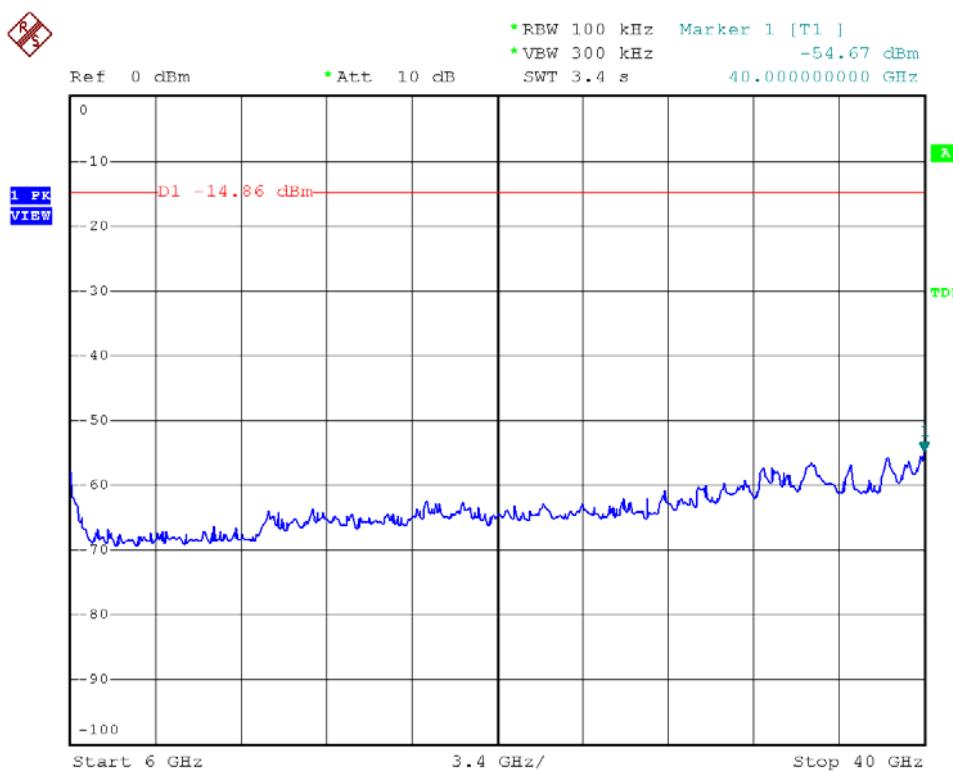
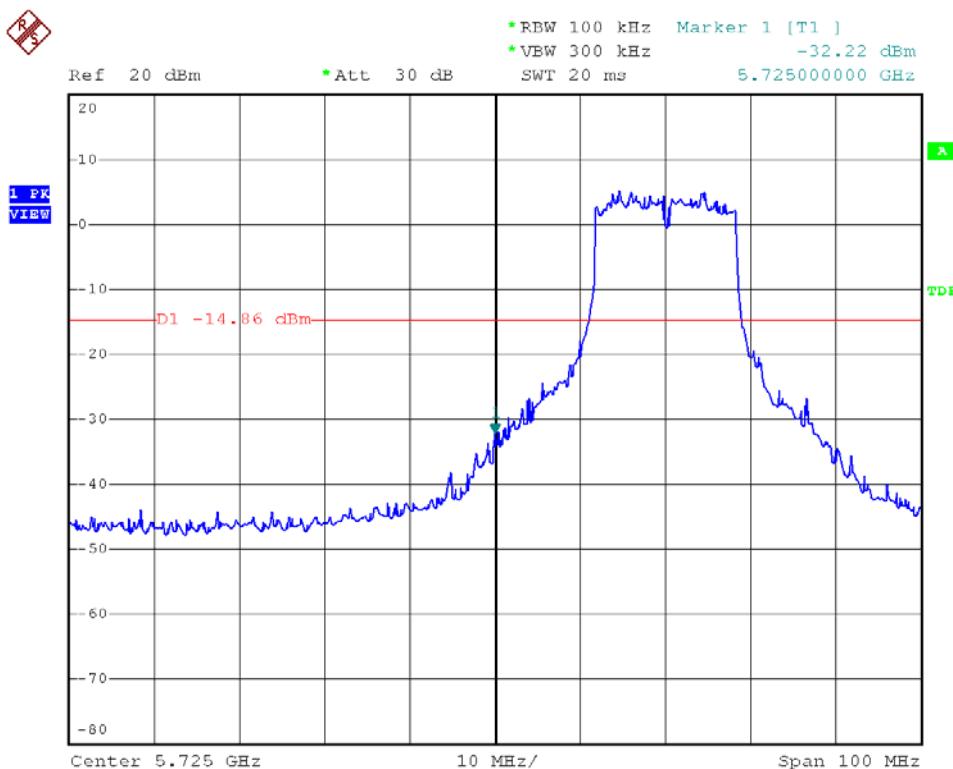


Modulation Standard: 802.11n HT40 (270Mbps), ANT L
Channel: 09



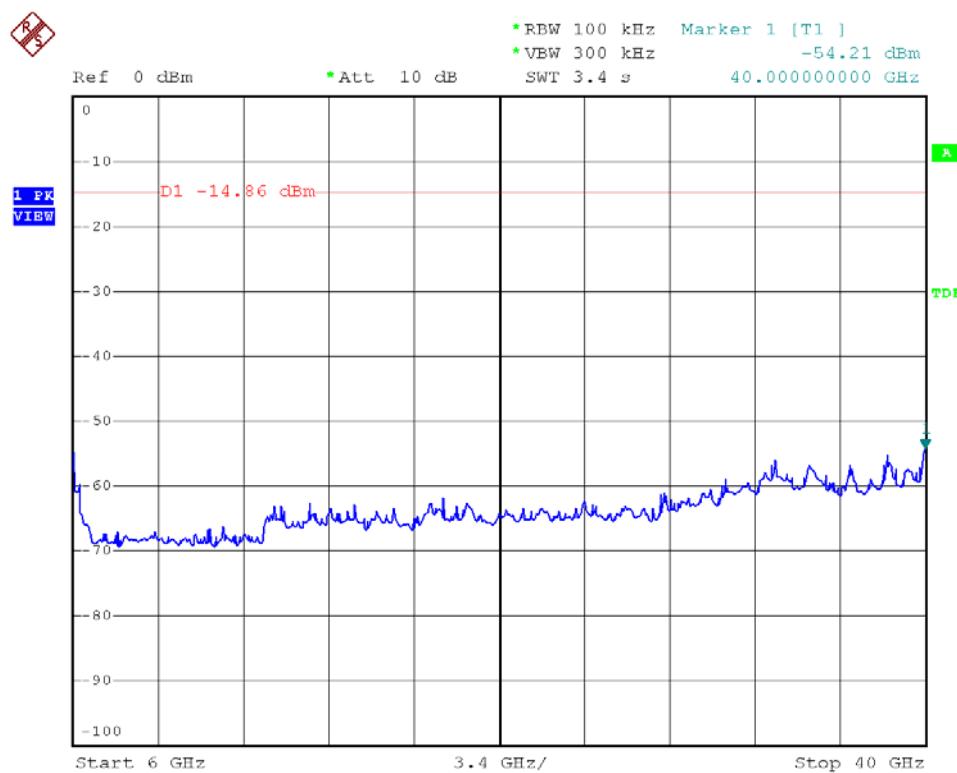
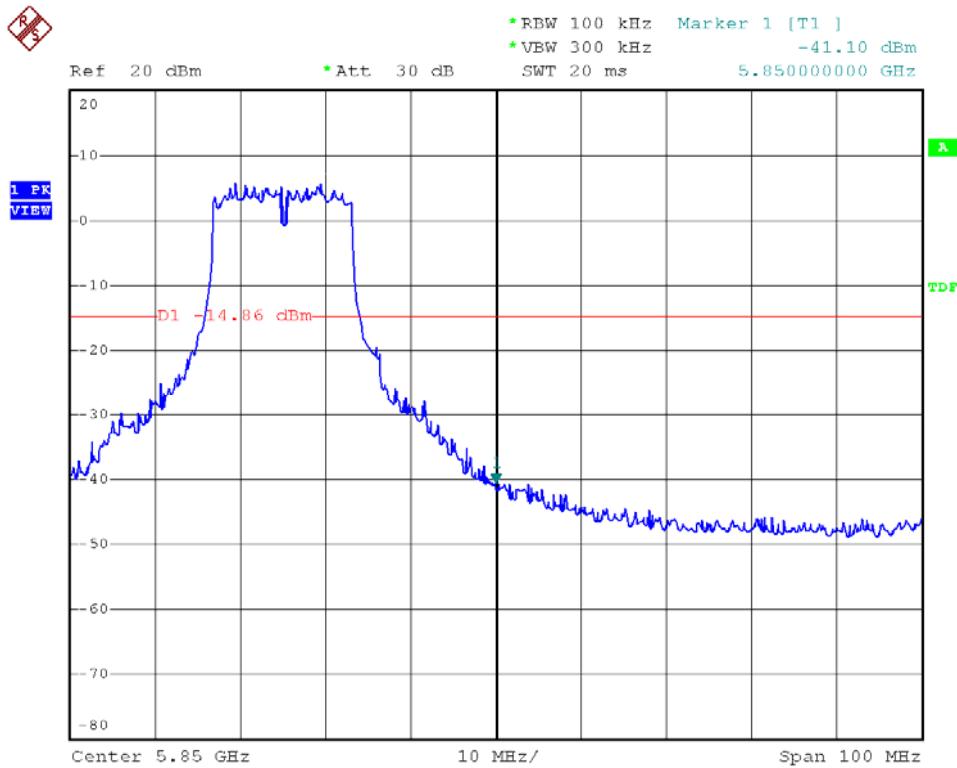


Modulation Standard: 802.11a (54Mbps), ANT L
Channel: 149



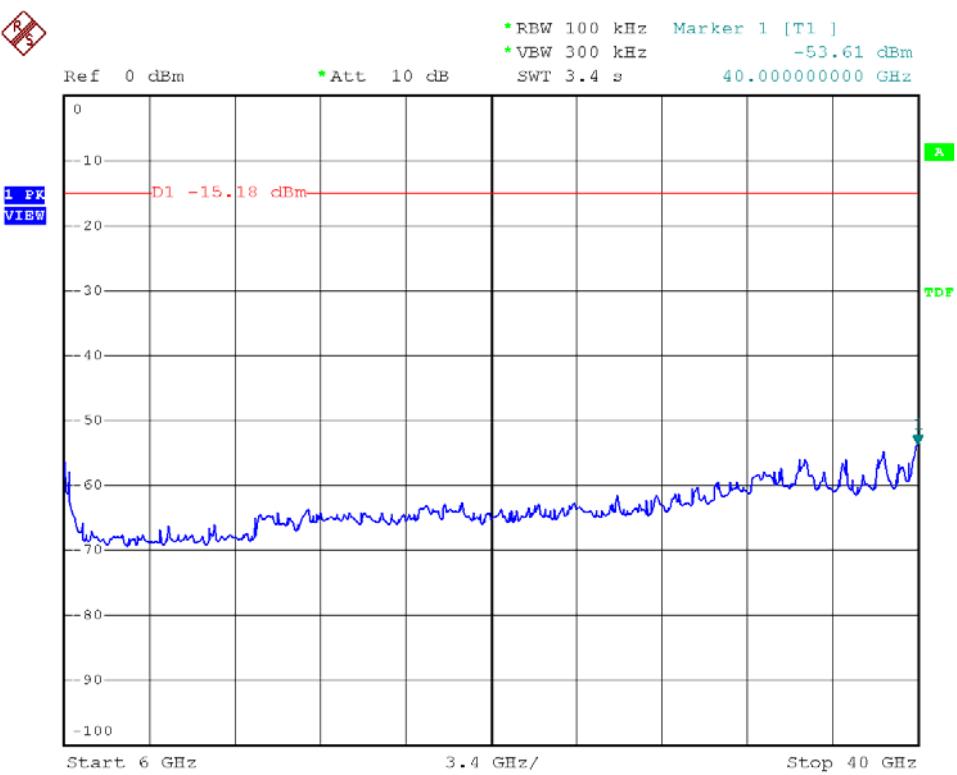
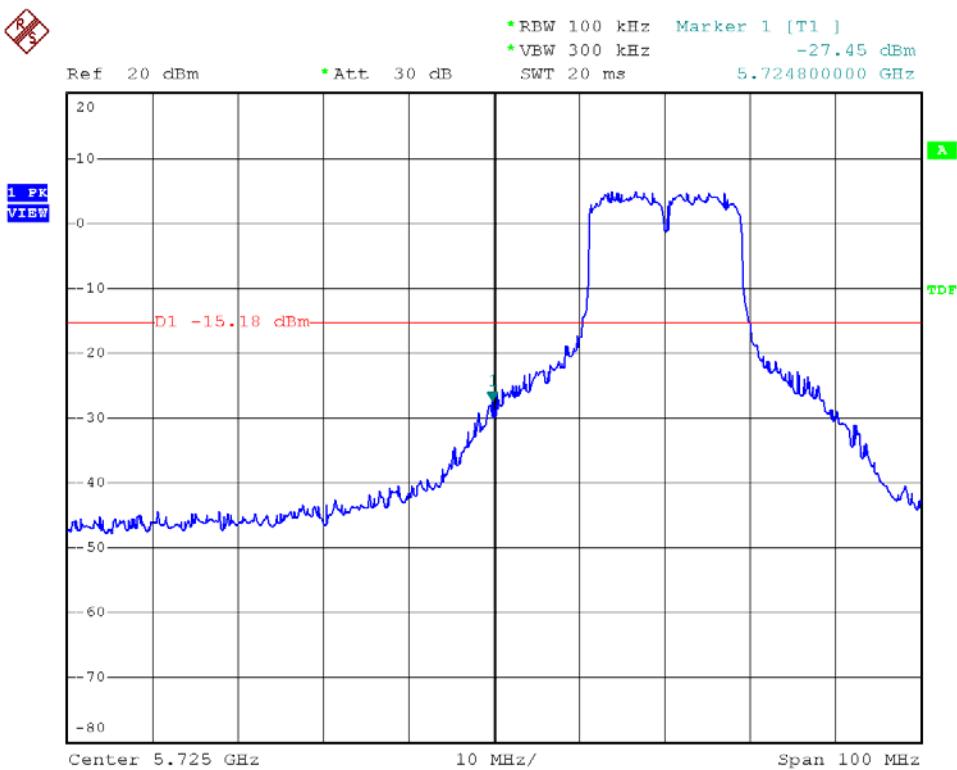


Modulation Standard: 802.11a (54Mbps), ANT L
Channel: 165



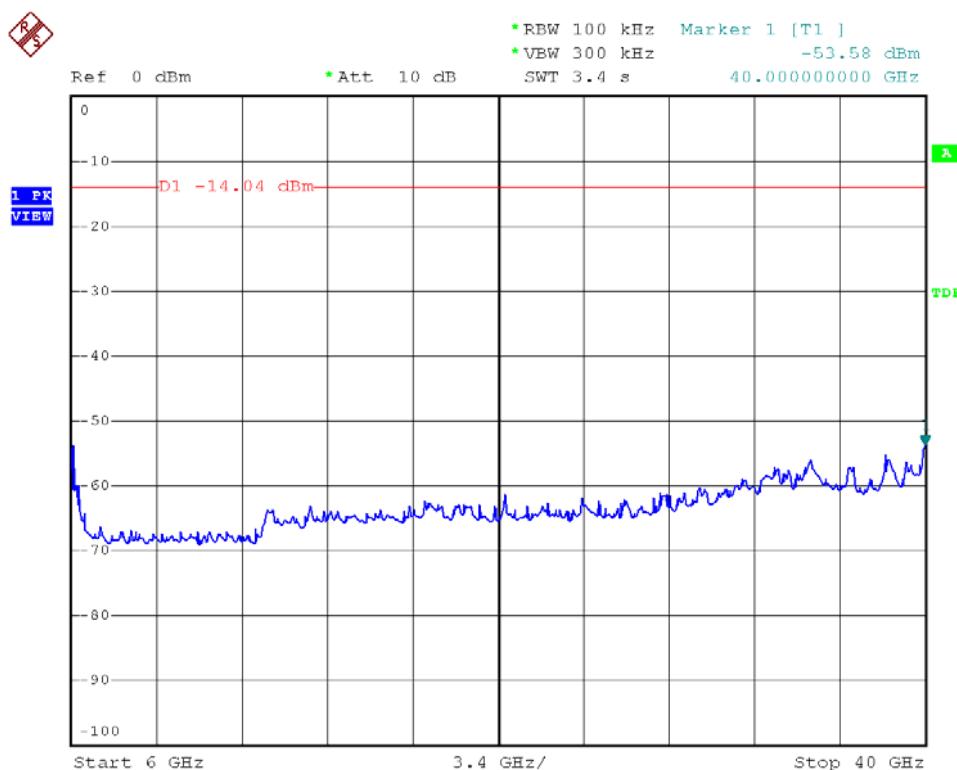
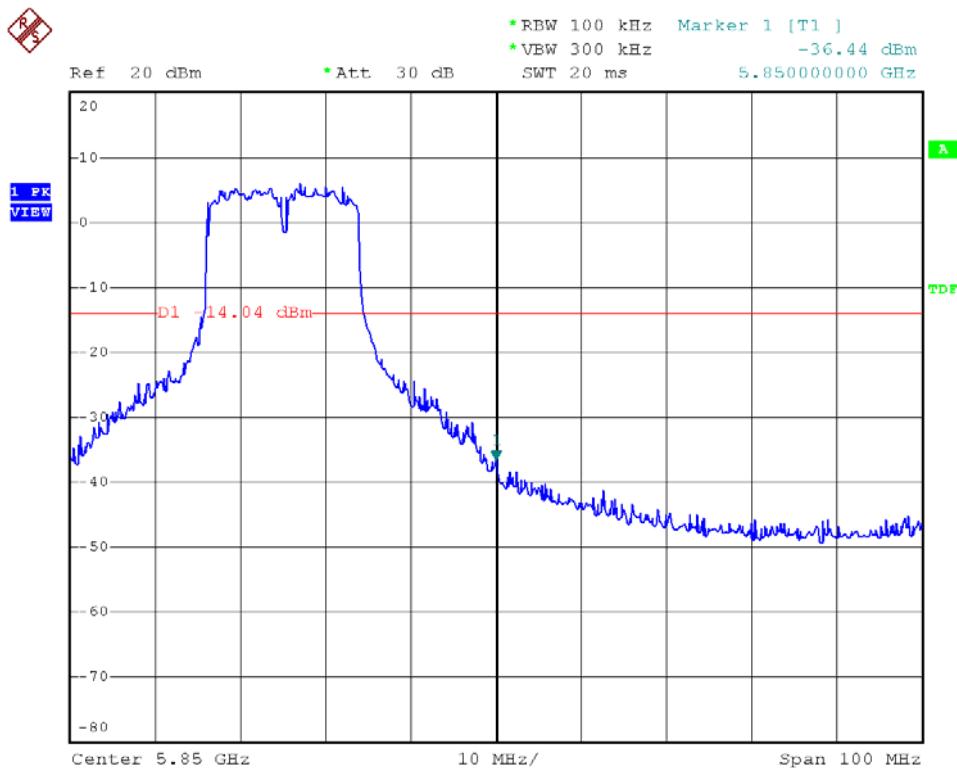


Modulation Standard: 802.11an HT20 (130Mbps), ANT L
Channel: 149



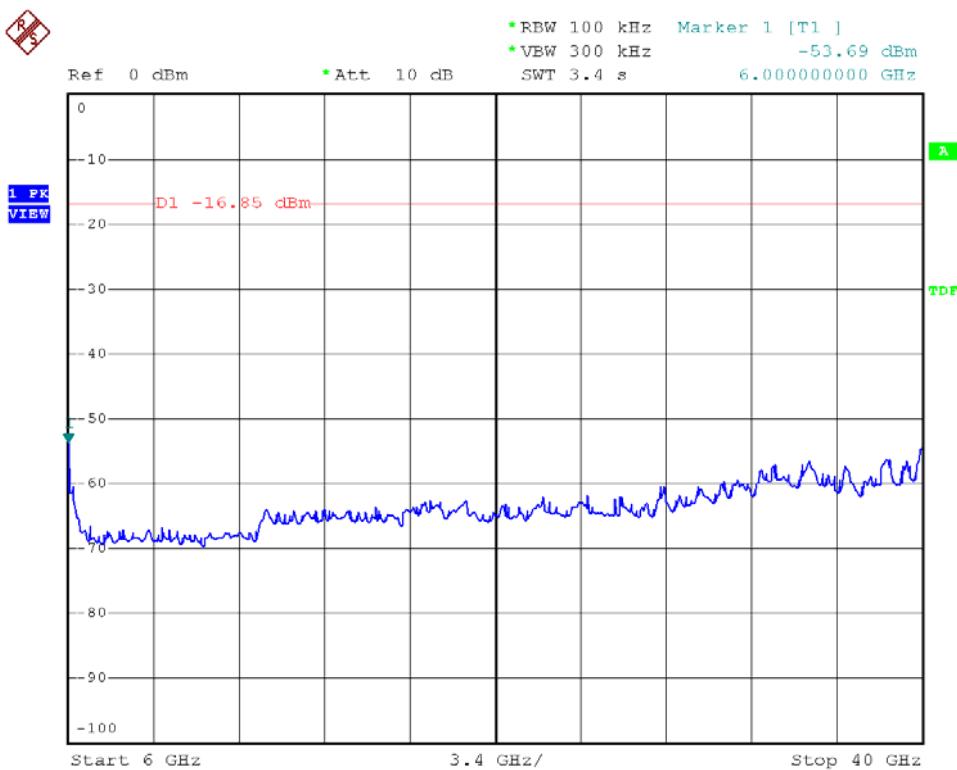
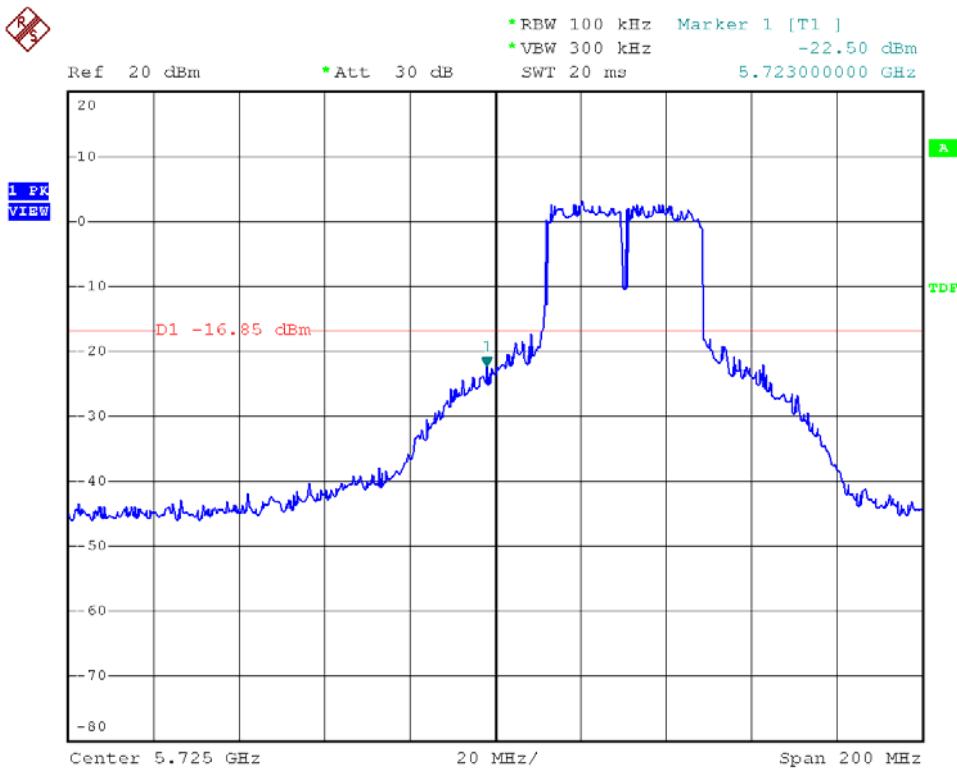


Modulation Standard: 802.11an HT20 (130Mbps), ANT L
Channel: 165



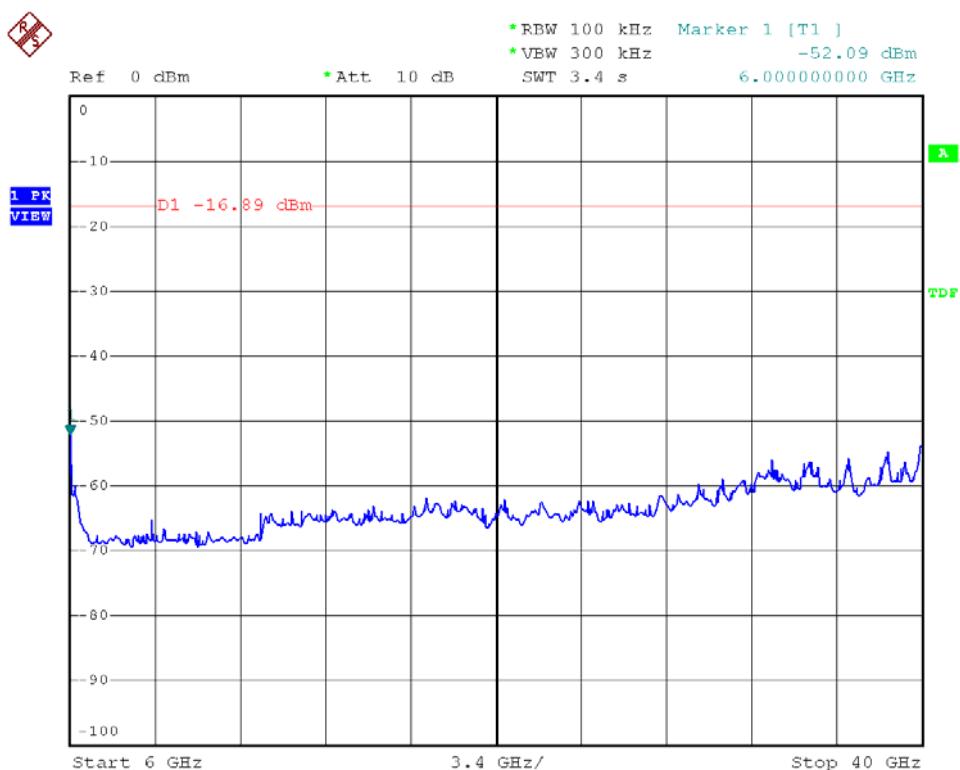
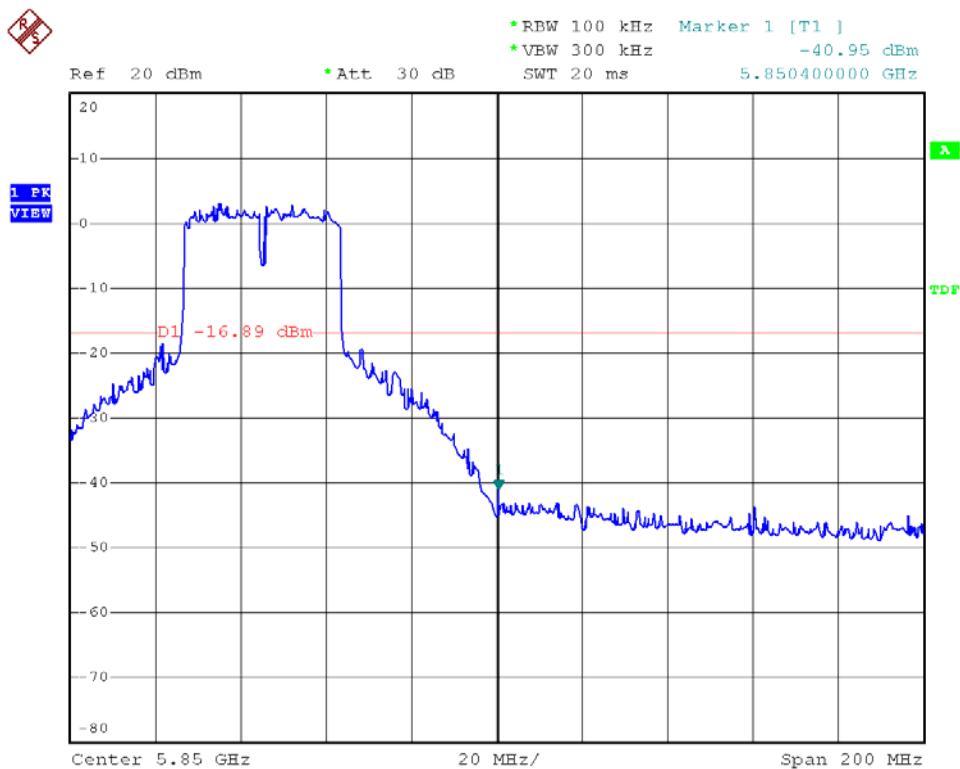


Modulation Standard: 802.11an HT40 (270Mbps), ANT L
Channel: 151





Modulation Standard: 802.11an HT40 (270Mbps), ANT L
Channel: 159





9.6 Restrict Band Emission Measurement Data

Test Date: Jun. 21, 2012

Temperature: 25 °C

Atmospheric pressure: 1020 hPa

Humidity: 65 %

Modulation Standard: IEEE 802.11b (11Mbps)

| Channel 1 | | | | | | | Fundamental Frequency: 2412 MHz | | | |
|--------------------|----------------|----------------------------|--------------------------|--------------------|--------|----------------|---------------------------------|----------------|---------------|-----------------|
| Frequency (MHz) | Ant-Pol H/V | Meter Reading (dBuV) | Corrected Factor (dB) | Result (dBuV/m) | Remark | Limit (dBuV/m) | | Margin (dB) | Table Deg. | Ant High (m) |
| | | | | | | Peak | Ave | | | |
| 2369.16 | H | 49.68 | 1.69 | 51.37 | Peak | 74 | 54 | -22.63 | 106 | 1.00 |
| --- | H | --- | --- | --- | Ave | 74 | 54 | --- | --- | --- |
| 2386.29 | V | 60.83 | 2.30 | 63.13 | Peak | 74 | 54 | -10.87 | 225 | 1.00 |
| 2376.04 | V | 47.83 | 2.48 | 50.31 | Ave | 74 | 54 | -3.69 | 225 | 1.00 |
| Channel 11 | | | | | | | Fundamental Frequency: 2462 MHz | | | |
| Frequency (MHz) | Ant-Pol H/V | Meter Reading (dBuV) | Corrected Factor (dB) | Result (dBuV/m) | Remark | Limit (dBuV/m) | | Margin (dB) | Table Deg. | Ant High (m) |
| | | | | | | Peak | Ave | | | |
| 2499.81 | H | 52.68 | 0.05 | 52.73 | Peak | 74 | 54 | -21.27 | 101 | 1.00 |
| --- | H | --- | --- | --- | Ave | 74 | 54 | --- | --- | --- |
| 2500.00 | V | 63.20 | -3.22 | 59.98 | Peak | 74 | 54 | -14.02 | 229 | 1.00 |
| 2500.00 | V | 50.65 | -3.22 | 47.43 | Ave | 74 | 54 | -6.57 | 229 | 1.00 |

Modulation Standard: IEEE 802.11g (54Mbps)

| Channel 1 | | | | | | | Fundamental Frequency: 2412 MHz | | | |
|--------------------|----------------|----------------------------|--------------------------|--------------------|--------|----------------|---------------------------------|----------------|---------------|-----------------|
| Frequency (MHz) | Ant-Pol H/V | Meter Reading (dBuV) | Corrected Factor (dB) | Result (dBuV/m) | Remark | Limit (dBuV/m) | | Margin (dB) | Table Deg. | Ant High (m) |
| | | | | | | Peak | Ave | | | |
| 2389.35 | H | 52.77 | 1.62 | 54.39 | Peak | 74 | 54 | -19.61 | 98 | 1.00 |
| 2389.81 | H | 39.85 | 1.62 | 41.47 | Ave | 74 | 54 | -12.53 | 98 | 1.00 |
| 2389.76 | V | 65.19 | 2.25 | 67.44 | Peak | 74 | 54 | -6.56 | 225 | 1.00 |
| 2389.81 | V | 48.50 | 2.25 | 50.75 | Ave | 74 | 54 | -3.25 | 225 | 1.00 |
| Channel 11 | | | | | | | Fundamental Frequency: 2462 MHz | | | |
| Frequency (MHz) | Ant-Pol H/V | Meter Reading (dBuV) | Corrected Factor (dB) | Result (dBuV/m) | Remark | Limit (dBuV/m) | | Margin (dB) | Table Deg. | Ant High (m) |
| | | | | | | Peak | Ave | | | |
| 2484.23 | H | 53.24 | 0.29 | 53.53 | Peak | 74 | 54 | -20.47 | 108 | 1.00 |
| --- | H | --- | --- | --- | Ave | 74 | 54 | --- | --- | --- |
| 2484.11 | V | 66.37 | -2.37 | 64.00 | Peak | 74 | 54 | -10.00 | 226 | 1.00 |
| 2483.56 | V | 51.33 | -2.35 | -48.98 | Ave | 74 | 54 | -5.02 | 226 | 1.00 |



Modulation Standard: IEEE 802.11n HT20 (130Mbps)

| Channel 1 | | | | | | Fundamental Frequency: 2412 MHz | | | | |
|-----------------|-------------|----------------------|-----------------------|-----------------|--------|---------------------------------|-----|-------------|------------|--------------|
| Frequency (MHz) | Ant-Pol H/V | Meter Reading (dBuV) | Corrected Factor (dB) | Result (dBuV/m) | Remark | Limit (dBuV/m) | | Margin (dB) | Table Deg. | Ant High (m) |
| | | | | | | Peak | Ave | | | |
| 2389.56 | H | 51.22 | 1.62 | 52.84 | Peak | 74 | 54 | -21.16 | 99 | 1.00 |
| --- | H | --- | --- | --- | Ave | 74 | 54 | --- | --- | --- |
| 2389.96 | V | 62.50 | 2.25 | 64.75 | Peak | 74 | 54 | -9.25 | 222 | 1.00 |
| 2389.56 | V | 48.46 | 2.26 | 50.72 | Ave | 74 | 54 | -3.28 | 222 | 1.00 |

| Channel 11 | | | | | | Fundamental Frequency: 2462 MHz | | | | |
|-----------------|-------------|----------------------|-----------------------|-----------------|--------|---------------------------------|-----|-------------|------------|--------------|
| Frequency (MHz) | Ant-Pol H/V | Meter Reading (dBuV) | Corrected Factor (dB) | Result (dBuV/m) | Remark | Limit (dBuV/m) | | Margin (dB) | Table Deg. | Ant High (m) |
| | | | | | | Peak | Ave | | | |
| 2483.73 | H | 52.57 | 0.29 | 52.86 | Peak | 74 | 54 | -21.14 | 94 | 1.00 |
| --- | H | --- | --- | --- | Ave | 74 | 54 | --- | --- | --- |
| 2483.66 | V | 67.07 | -2.36 | 64.71 | Peak | 74 | 54 | -9.29 | 228 | 1.00 |
| 2483.56 | V | 52.80 | -2.35 | 50.45 | Ave | 74 | 54 | -3.55 | 228 | 1.00 |

Modulation Standard: IEEE 802.11n HT40 (270Mbps)

| Channel 3 | | | | | | Fundamental Frequency: 2422 MHz | | | | |
|-----------------|-------------|----------------------|-----------------------|-----------------|--------|---------------------------------|-----|-------------|------------|--------------|
| Frequency (MHz) | Ant-Pol H/V | Meter Reading (dBuV) | Corrected Factor (dB) | Result (dBuV/m) | Remark | Limit (dBuV/m) | | Margin (dB) | Table Deg. | Ant High (m) |
| | | | | | | Peak | Ave | | | |
| 2386.70 | H | 50.86 | 1.62 | 52.48 | Peak | 74 | 54 | -21.52 | 106 | 1.00 |
| --- | H | --- | --- | --- | Ave | 74 | 54 | --- | --- | --- |
| 2387.52 | V | 61.48 | 2.29 | 63.77 | Peak | 74 | 54 | -10.23 | 224 | 1.00 |
| 2389.81 | V | 48.25 | 2.25 | 50.50 | Ave | 74 | 54 | -3.50 | 224 | 1.00 |

| Channel 9 | | | | | | Fundamental Frequency: 2452 MHz | | | | |
|-----------------|-------------|----------------------|-----------------------|-----------------|--------|---------------------------------|-----|-------------|------------|--------------|
| Frequency (MHz) | Ant-Pol H/V | Meter Reading (dBuV) | Corrected Factor (dB) | Result (dBuV/m) | Remark | Limit (dBuV/m) | | Margin (dB) | Table Deg. | Ant High (m) |
| | | | | | | Peak | Ave | | | |
| 2499.92 | H | 53.68 | 0.05 | 53.73 | Peak | 74 | 54 | -20.27 | 76 | 1.00 |
| --- | H | --- | --- | --- | Ave | 74 | 54 | --- | --- | --- |
| 2483.56 | V | 66.10 | -2.36 | 63.74 | Peak | 74 | 54 | -10.26 | 228 | 1.00 |
| 2483.73 | V | 53.01 | -2.35 | 50.66 | Ave | 74 | 54 | -3.34 | 228 | 1.00 |

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector sample mode) for Average detection at frequency above 1GHz.



10. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

| MHz | MHz | MHz | GHz |
|---------------------|-----------------------|-----------------|-----------------|
| 0.09000 – 0.11000 | 16.42000 – 16.42300 | 399.9 – 410.0 | 4.500 – 5.250 |
| 0.49500 – 0.505** | 16.69475 – 16.69525 | 608.0 – 614.0 | 5.350 – 5.460 |
| 2.17350 – 2.19050 | 16.80425 – 16.80475 | 960.0 – 1240.0 | 7.250 – 7.750 |
| 4.12500 – 4.12800 | 25.50000 – 25.67000 | 1300.0 – 1427.0 | 8.025 – 8.500 |
| 4.17725 – 4.17775 | 37.50000 – 38.25000 | 1435.0 – 1626.5 | 9.000 – 9.200 |
| 4.20725 – 4.20775 | 73.00000 – 74.60000 | 1645.5 – 1646.5 | 9.300 – 9.500 |
| 6.21500 – 6.21800 | 74.80000 – 75.20000 | 1660.0 – 1710.0 | 10.600 – 12.700 |
| 6.26775 – 6.26825 | 108.00000 – 121.94000 | 1718.8 – 1722.2 | 13.250 – 13.400 |
| 6.31175 – 6.31225 | 123.00000 – 138.00000 | 2200.0 – 2300.0 | 14.470 – 14.500 |
| 8.29100 – 8.29400 | 149.90000 – 150.05000 | 2310.0 – 2390.0 | 15.350 – 16.200 |
| 8.36200 – 8.36600 | 156.52475 – 156.52525 | 2483.5 – 2500.0 | 17.700 – 21.400 |
| 8.37625 – 8.38675 | 156.70000 – 156.90000 | 2655.0 – 2900.0 | 22.010 – 23.120 |
| 8.41425 – 8.41475 | 162.01250 – 167.17000 | 3260.0 – 3267.0 | 23.600 – 24.000 |
| 12.29000 – 12.29300 | 167.72000 – 173.20000 | 3332.0 – 3339.0 | 31.200 – 31.800 |
| 12.51975 – 12.52025 | 240.00000 – 285.00000 | 3345.8 – 3358.0 | 36.430 – 36.500 |
| 12.57675 – 12.57725 | 322.00000 – 335.40000 | 3600.0 – 4400.0 | Above 38.6 |
| 13.36000 – 13.41000 | | | |

**: Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

10.1 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.