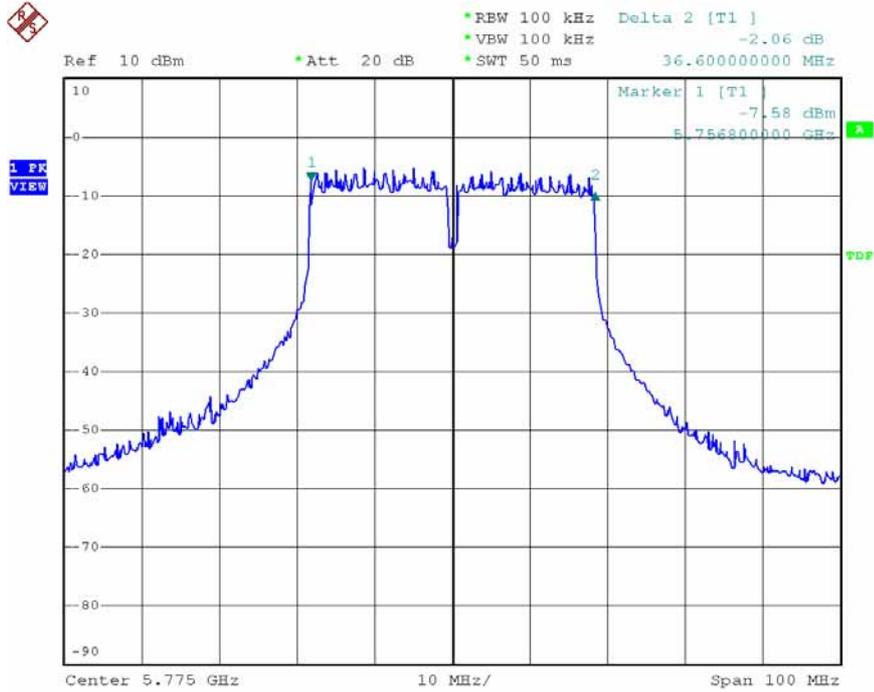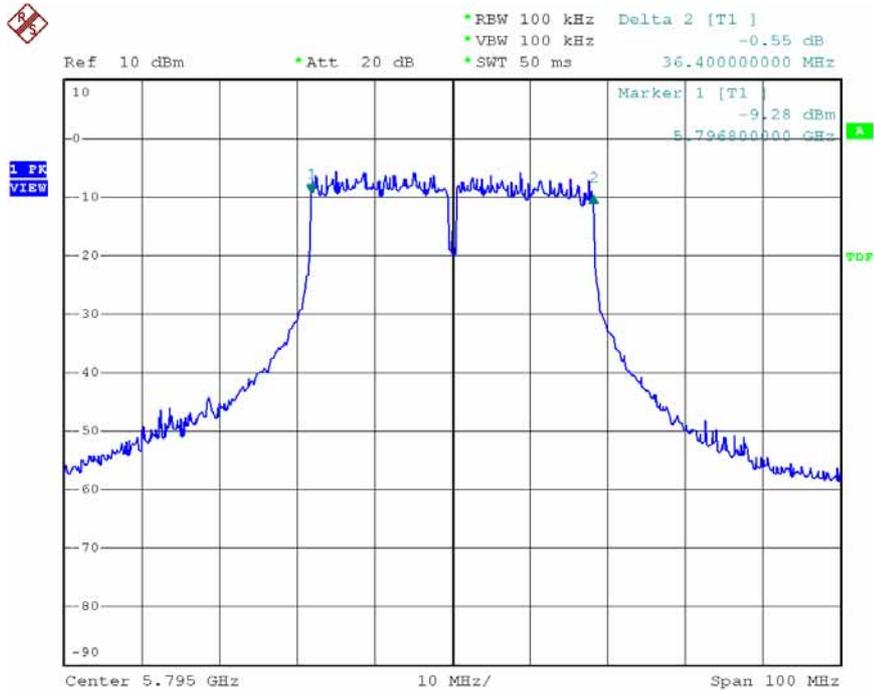Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-R3 (ANT-R3)
Channel: 155



Date: 11.DEC.2007  20:28:18

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-R3 (ANT-R3)
Channel: 159



Date: 11.DEC.2007  20:22:34

## 7. Maximum Peak Output Power

### 7.1 Test Limit

The Maximum Peak Output Power Measurement is 30dBm.

### 7.2 Test Procedures

The antenna port  RF output  of the EUT was connected to the input  RF input  of a power meter. Power was read directly from the meter and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

### 7.3 Test Setup Layout
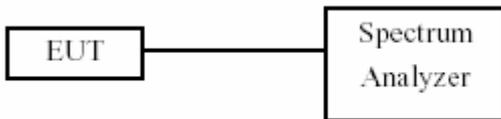


### 7.4 Measurement equipment

| Instrument/Ancillary | Model No. | Manufacturer | Serial No. | Calibration Date | Valid Date |
|---|---|---|---|---|---|
| Spectrum Analyzer | FSP40 | R&S | 10047 | 2007/01/23 | 2008/01/22 |

### 7.5 Test Result and Data

(1) Modulation Standard: IEEE 802.11a (6Mbps), ANT-L1

Test Date: Dec. 10, 2007 Temperature: 23    Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency (MHz) | Peak Power Output (dBm) | Peak Power Output (mW) |
|---|---|---|---|
| 149 | 5745 | 21.22 | 132.40 |
| 157 | 5785 | 21.31 | 135.20 |
| 165 | 5825 | 21.10 | 128.80 |

(2) Modulation Standard: IEEE 802.11a (6Mbps), ANT-L3

Test Date: Dec. 10, 2007 Temperature: 23    Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency (MHz) | Peak Power Output (dBm) | Peak Power Output (mW) |
|---|---|---|---|
| 149 | 5745 | 20.93 | 123.90 |
| 157 | 5785 | 21.38 | 137.40 |
| 165 | 5825 | 21.19 | 131.50 |

(3) Modulation Standard: IEEE 802.11a (6Mbps), ANT-R1

Test Date: Dec. 10, 2007 Temperature: 23    Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency (MHz) | Peak Power Output (dBm) | Peak Power Output (mW) |
|---|---|---|---|
| 149 | 5745 | 21.05 | 127.40 |
| 157 | 5785 | 21.05 | 127.40 |
| 165 | 5825 | 21.43 | 139.40 |

(4) Modulation Standard: IEEE 802.11a (6Mbps), ANT-R3

Test Date: Dec. 10, 2007 Temperature: 23    Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency (MHz) | Peak Power Output (dBm) | Peak Power Output (mW) |
|---|---|---|---|
| 149 | 5745 | 21.01 | 126.20 |
| 157 | 5785 | 21.13 | 129.70 |
| 165 | 5825 | 21.22 | 132.40 |

(5) Modulation Standard: IEEE 802.11Draft n, 20MHz (130Mbps), ANT-L1+ANT-L3
Test Date: Dec. 10, 2007 Temperature: 23    Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency (MHz) | Peak Power Output of ANT-L1 (dBm) | Peak Power Output of ANT-L3 (dBm) | Peak Power Output of Total (dBm) | Peak Power Output of Total (mW) |
|---|---|---|---|---|---|
| 149 | 5745 | 18.83 | 18.04 | 21.46 | 140.06 |
| 157 | 5785 | 18.89 | 17.75 | 21.37 | 137.01 |
| 165 | 5825 | 18.46 | 17.44 | 20.99 | 125.61 |

(6) Modulation Standard: IEEE 802.11Draft n, 20MHz (130Mbps), ANT-L1+ANT-R3
Test Date: Dec. 10, 2007 Temperature: 23    Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency (MHz) | Peak Power Output of ANT-L1 (dBm) | Peak Power Output of ANT-R3 (dBm) | Peak Power Output of Total (dBm) | Peak Power Output of Total (mW) |
|---|---|---|---|---|---|
| 149 | 5745 | 18.38 | 17.53 | 20.99 | 125.49 |
| 157 | 5785 | 18.30 | 17.21 | 20.80 | 120.01 |
| 165 | 5825 | 18.80 | 17.41 | 21.17 | 130.94 |

(7) Modulation Standard: IEEE 802.11Draft n, 20MHz (130Mbps), ANT-R1+ANT-L3
Test Date: Dec. 10, 2007 Temperature: 23    Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency (MHz) | Peak Power Output of ANT-R1 (dBm) | Peak Power Output of ANT-L3 (dBm) | Peak Power Output of Total (dBm) | Peak Power Output of Total (mW) |
|---|---|---|---|---|---|
| 149 | 5745 | 18.34 | 17.30 | 20.86 | 121.94 |
| 157 | 5785 | 18.22 | 17.35 | 20.82 | 120.70 |
| 165 | 5825 | 18.21 | 16.91 | 20.62 | 115.31 |

(8) Modulation Standard: IEEE 802.11Draft n, 20MHz (130Mbps), ANT-R1+ANT-R3
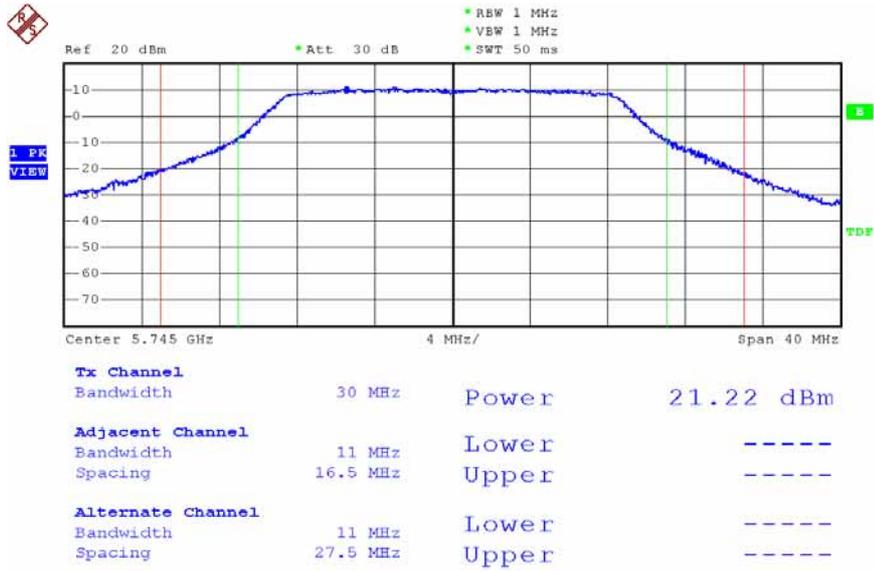Test Date: Dec. 10, 2007 Temperature: 23    Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency (MHz) | Peak Power Output of ANT-R1 (dBm) | Peak Power Output of ANT-R3 (dBm) | Peak Power Output of Total (dBm) | Peak Power Output of Total (mW) |
|---|---|---|---|---|---|
| 149 | 5745 | 18.17 | 17.43 | 20.83 | 120.95 |
| 157 | 5785 | 18.16 | 17.02 | 20.64 | 115.81 |
| 165 | 5825 | 18.13 | 17.76 | 20.96 | 124.72 |

(9) Modulation Standard: IEEE 802.11Draft n, 40MHz (270Mbps), ANT-L1+ANT-L3
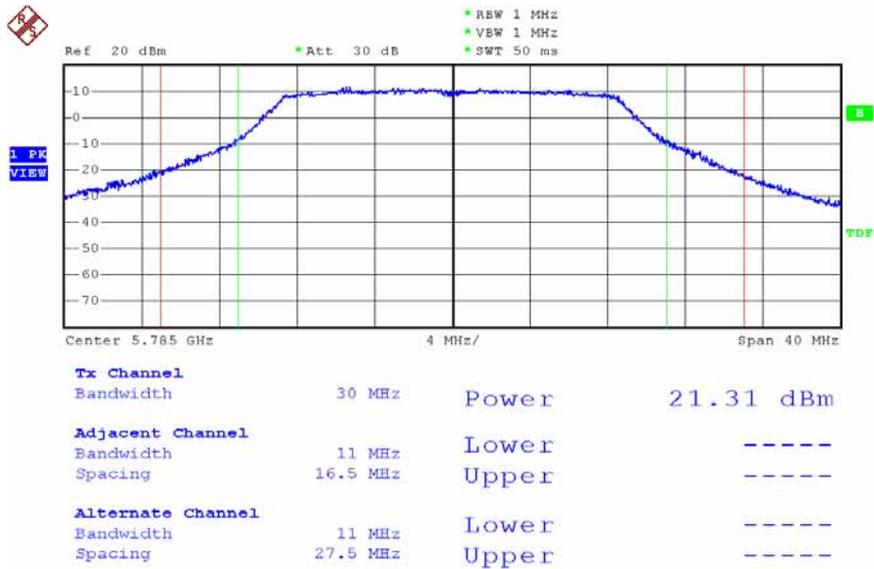Test Date: Dec. 10, 2007 Temperature: 23    Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency (MHz) | Peak Power Output of ANT-L1 (dBm) | Peak Power Output of ANT-L3 (dBm) | Peak Power Output of Total (dBm) | Peak Power Output of Total (mW) |
|---|---|---|---|---|---|
| 149 | 5745 | 18.23 | 17.16 | 20.74 | 118.53 |
| 157 | 5785 | 18.21 | 17.36 | 20.82 | 120.67 |
| 165 | 5825 | 18.75 | 17.77 | 21.30 | 134.83 |

(10)   Modulation Standard: IEEE 802.11Draft n, 40MHz (270Mbps), ANT-L1+ANT-R3
Test Date: Dec. 10, 2007 Temperature: 23    Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency (MHz) | Peak Power Output of ANT-L1 (dBm) | Peak Power Output of ANT-R3 (dBm) | Peak Power Output of Total (dBm) | Peak Power Output of Total (mW) |
|---|---|---|---|---|---|
| 149 | 5745 | 18.50 | 17.60 | 21.08 | 128.34 |
| 157 | 5785 | 18.52 | 17.35 | 20.98 | 125.45 |
| 165 | 5825 | 18.68 | 17.55 | 21.16 | 130.68 |

(11)   Modulation Standard: IEEE 802.11Draft n, 40MHz (270Mbps), ANT-R1+ANT-L3
Test Date: Dec. 10, 2007 Temperature: 23    Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency (MHz) | Peak Power Output of ANT-R1 (dBm) | Peak Power Output of ANT-L3 (dBm) | Peak Power Output of Total (dBm) | Peak Power Output of Total (mW) |
|---|---|---|---|---|---|
| 149 | 5745 | 18.30 | 17.05 | 20.73 | 118.31 |
| 157 | 5785 | 18.55 | 17.44 | 21.04 | 127.08 |
| 165 | 5825 | 18.62 | 17.00 | 20.90 | 122.90 |

(12)   Modulation Standard: IEEE 802.11Draft n, 40MHz (270Mbps), ANT-R1+ANT-R3
Test Date: Dec. 10, 2007 Temperature: 23    Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency (MHz) | Peak Power Output of ANT-R1 (dBm) | Peak Power Output of ANT-R3 (dBm) | Peak Power Output of Total (dBm) | Peak Power Output of Total (mW) |
|---|---|---|---|---|---|
| 149 | 5745 | 18.33 | 17.45 | 20.92 | 123.67 |
| 157 | 5785 | 18.70 | 17.55 | 21.17 | 131.02 |
| 165 | 5825 | 18.67 | 17.37 | 21.08 | 128.20 |

Modulation Standard: 802.11a (6Mbps) – ANT-L1
Channel: 149



```
* RBW 1 MHz
* VBW 1 MHz
Ref  20 dBm    * Att  30 dB    * SWT 50 ms
```

Center 5.745 GHz          4 MHz/          Span 40 MHz

| Tx Channel | | | |
|---|---|---|---|
| Bandwidth | 30 MHz | Power | 21.22 dBm |
| Adjacent Channel | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 16.5 MHz | Upper | ----- |
| Alternate Channel | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

Date: 10.DEC.2007  17:30:05

Modulation Standard: 802.11a (6Mbps) – ANT-L1
Channel: 157



```
* RBW 1 MHz
* VBW 1 MHz
Ref  20 dBm    * Att  30 dB    * SWT 50 ms
```

Center 5.785 GHz          4 MHz/          Span 40 MHz

| Tx Channel | | | |
|---|---|---|---|
| Bandwidth | 30 MHz | Power | 21.31 dBm |
| Adjacent Channel | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 16.5 MHz | Upper | ----- |
| Alternate Channel | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

Date: 10.DEC.2007  17:28:54

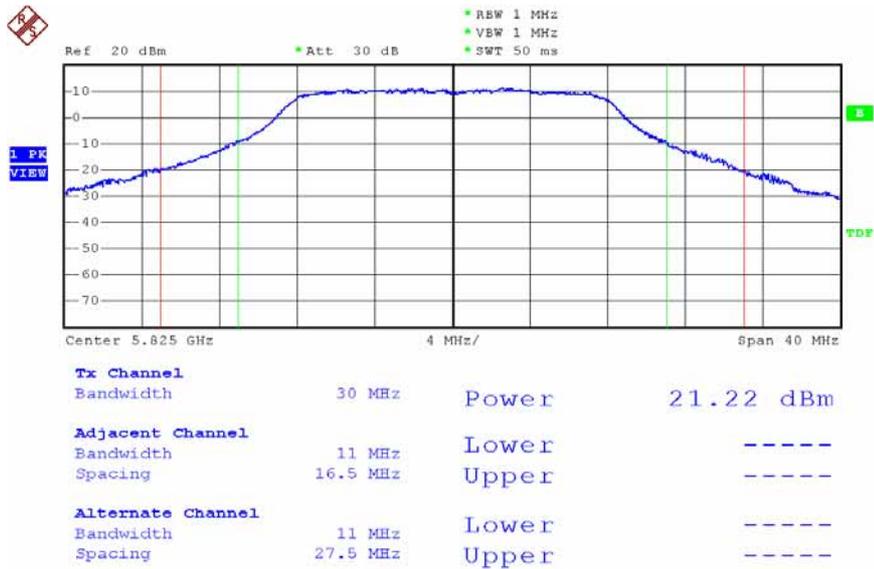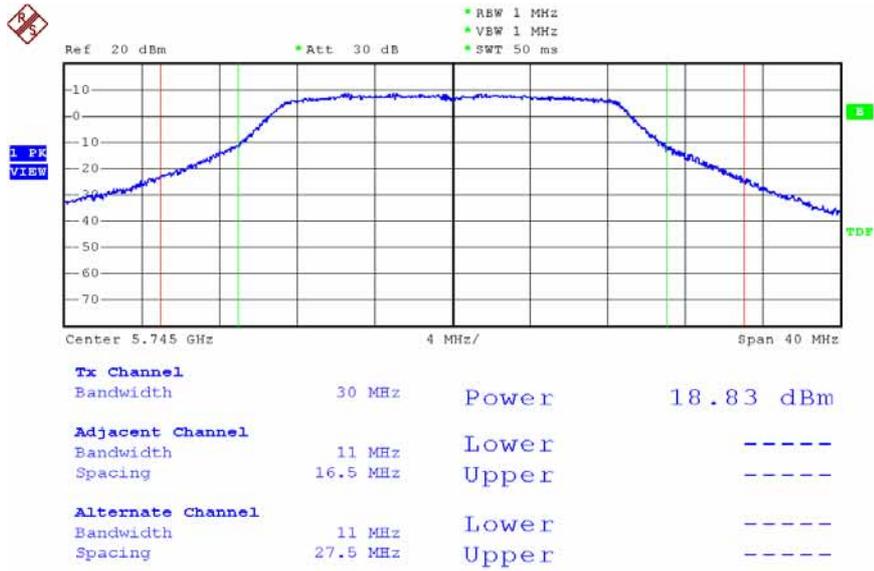Modulation Standard: 802.11a (6Mbps) – ANT-L1
Channel: 165
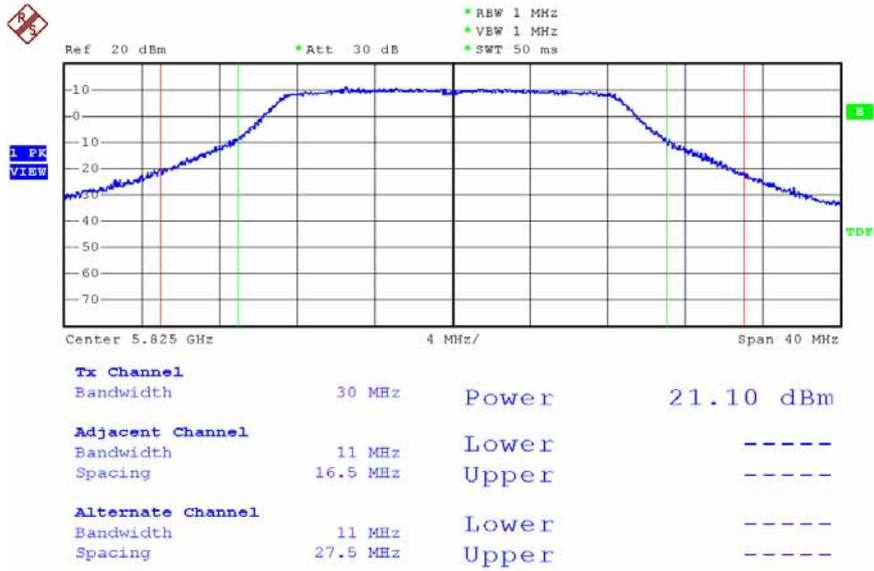


Date: 10.DEC.2007  17:28:22

Modulation Standard: 802.11a (6Mbps) – ANT-L3
Channel: 149
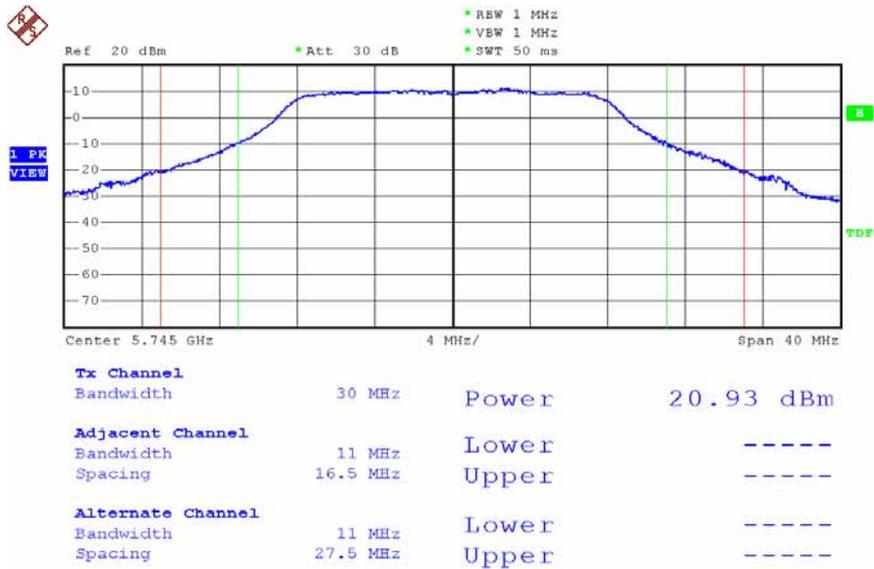


Date: 10.DEC.2007  17:23:17
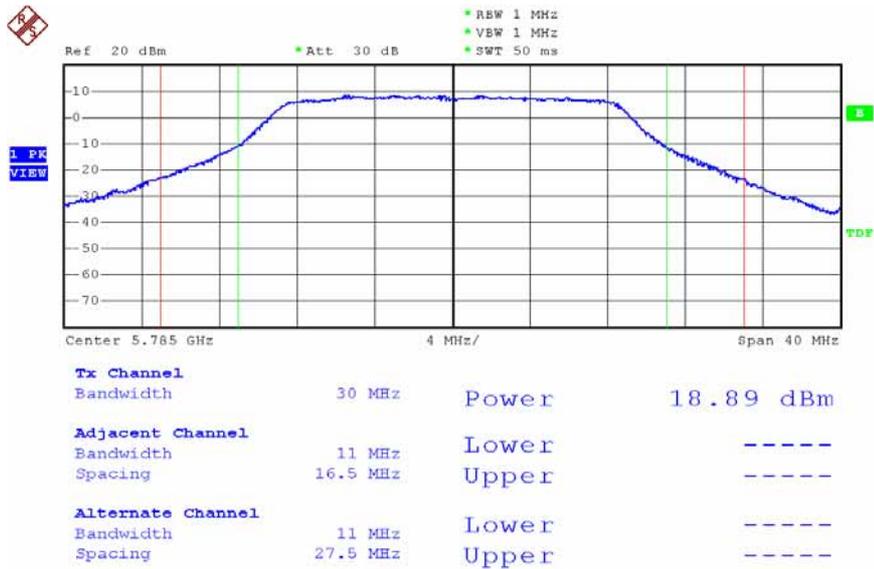
Modulation Standard: 802.11a (6Mbps) – ANT-L3
Channel: 157



```
                                              * RBW 1 MHz
                                              * VBW 1 MHz
      Ref  20 dBm         * Att  30 dB        * SWT 50 ms
```
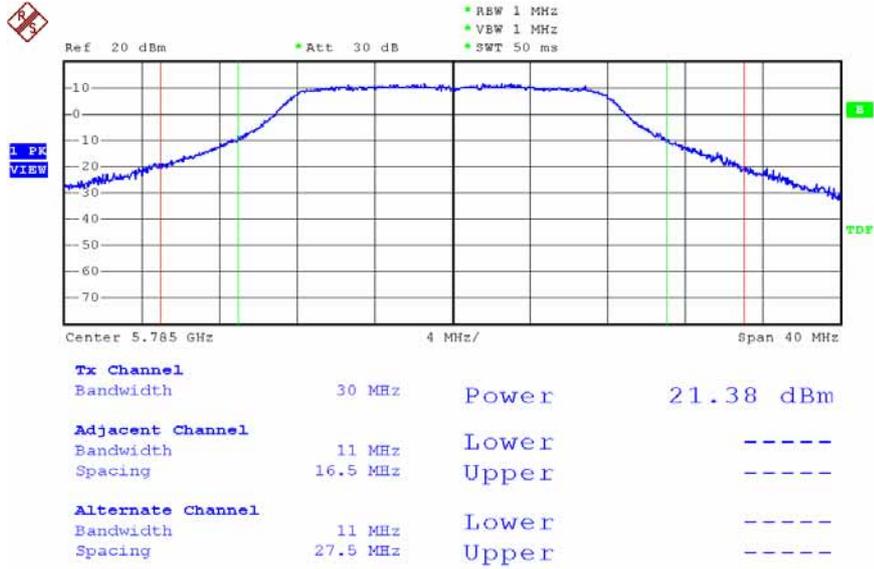
Date: 10.DEC.2007  17:25:41

Modulation Standard: 802.11a (6Mbps) – ANT-L3
Channel: 165



```
                                              * RBW 1 MHz
                                              * VBW 1 MHz
      Ref  20 dBm         * Att  30 dB        * SWT 50 ms
```
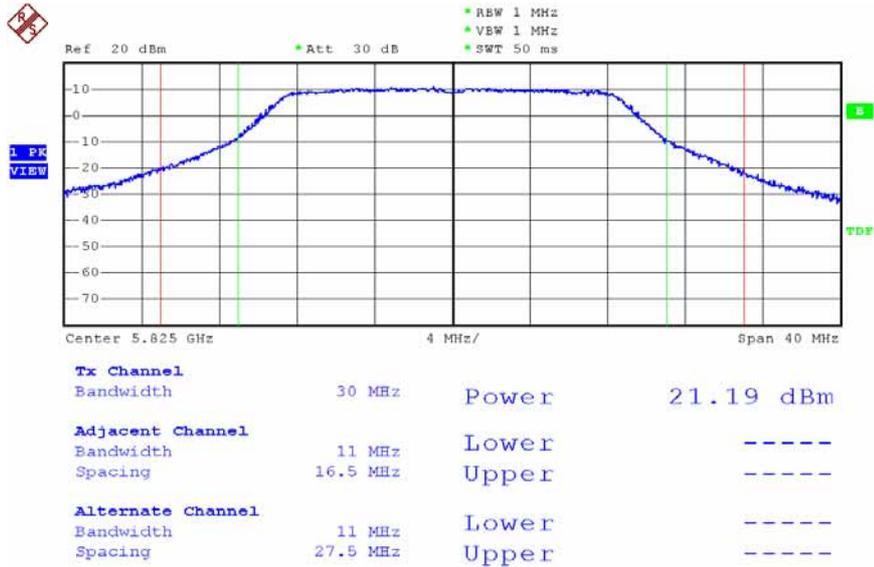
Date: 10.DEC.2007  17:26:30

Modulation Standard: 802.11a (6Mbps) – ANT-R1
Channel: 149
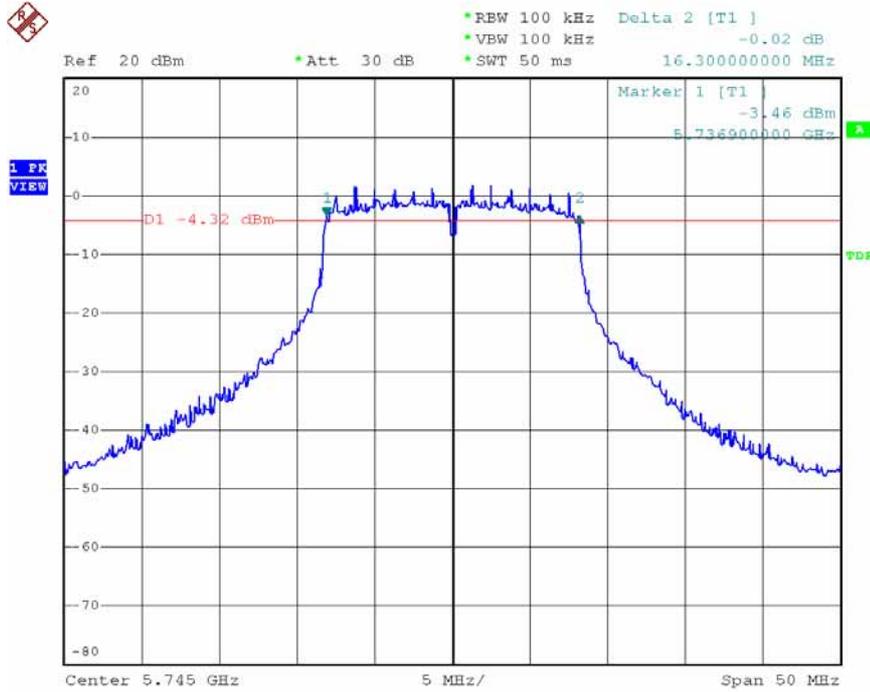


Date: 10.DEC.2007  16:08:24

Modulation Standard: 802.11a (6Mbps) – ANT-R1
Channel: 157
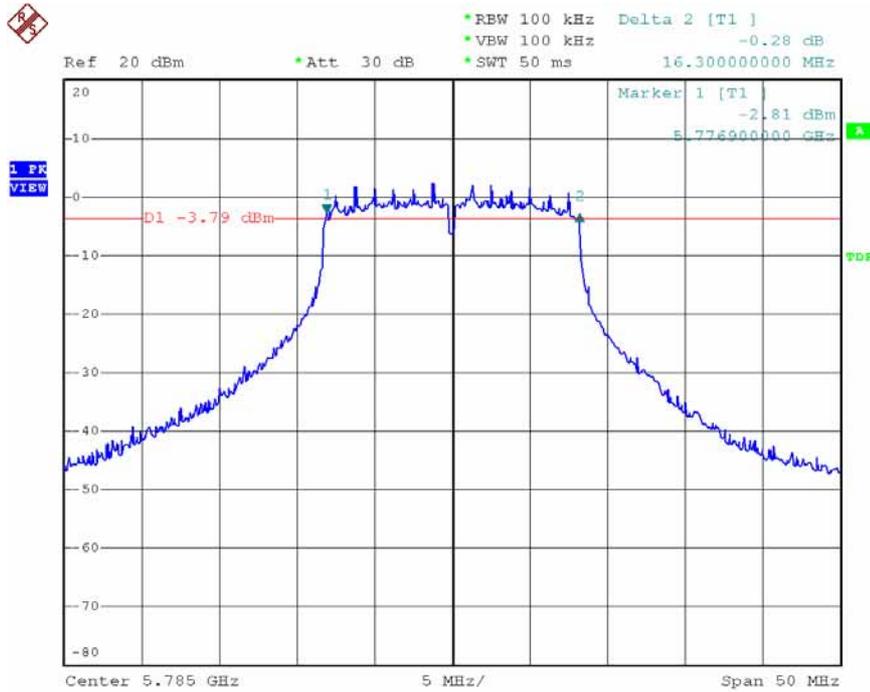


Date: 10.DEC.2007  16:06:29

Modulation Standard: 802.11a (6Mbps) – ANT-R1
Channel: 165
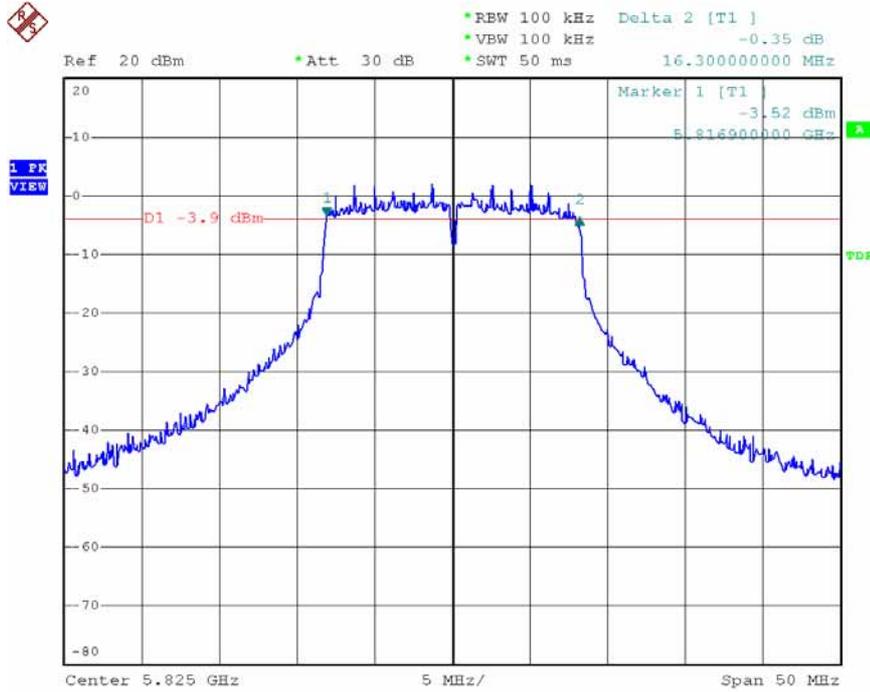


Date: 10.DEC.2007  16:04:40

Modulation Standard: 802.11a (6Mbps) – ANT-R3
Channel: 149
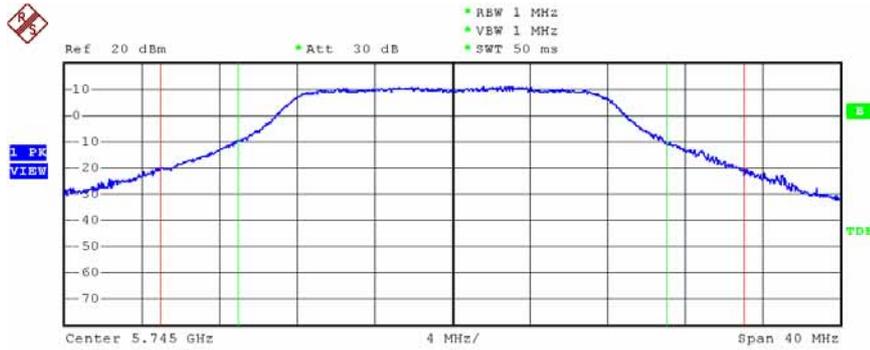


Date: 10.DEC.2007  16:56:12

Modulation Standard: 802.11a (6Mbps) – ANT-R3
Channel: 157
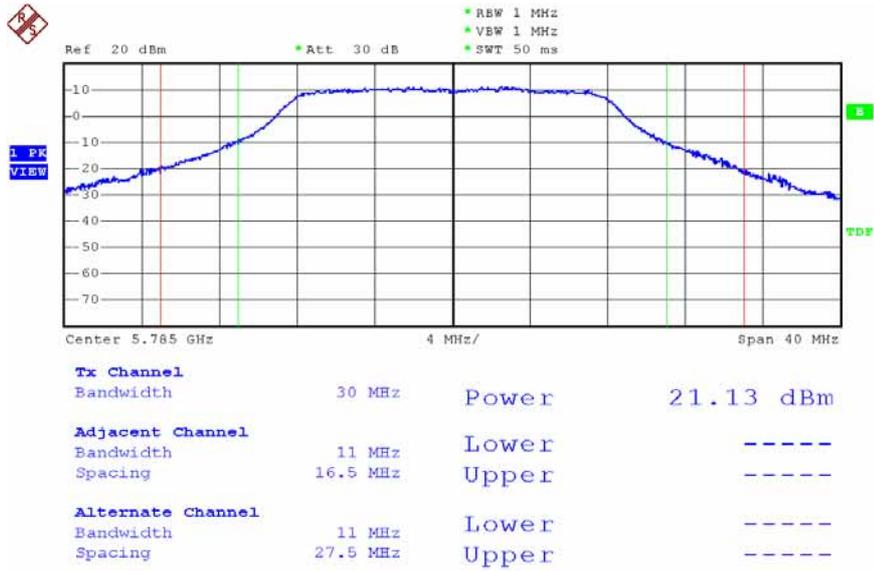


Date: 10.DEC.2007  16:57:50

Modulation Standard: 802.11a (6Mbps) – ANT-R3
Channel: 165



Date: 10.DEC.2007  16:59:41

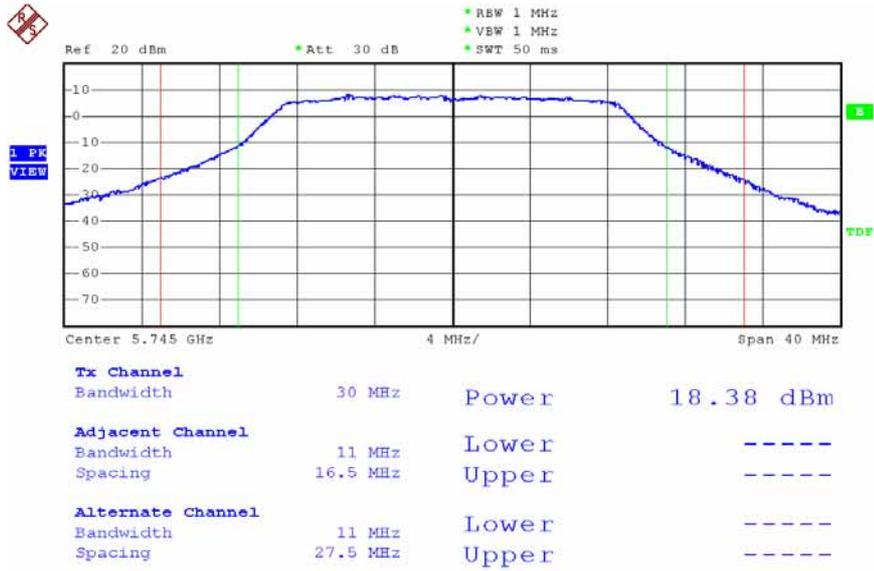Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1 + ANT-L3 (ANT-L1)
Channel: 149



Date: 10.DEC.2007  19:04:01

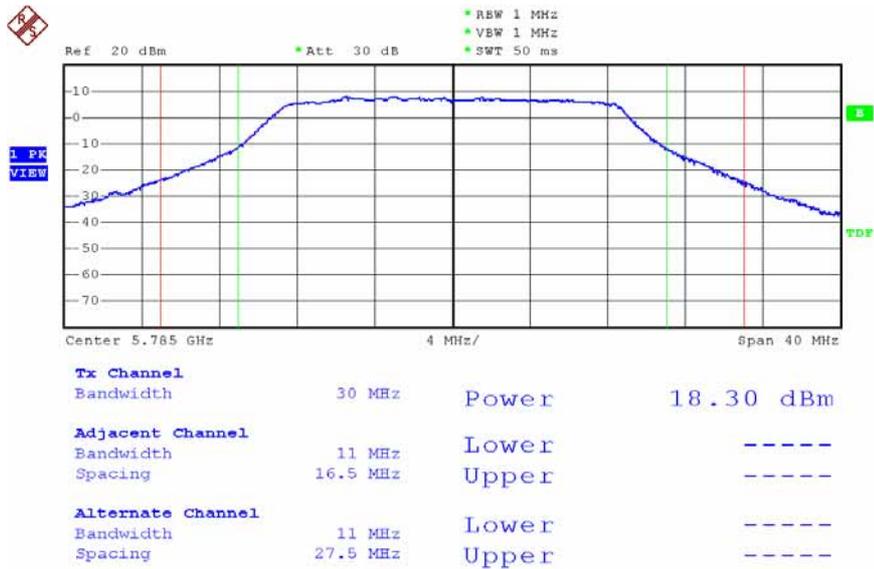Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1 + ANT-L3 (ANT-L1)
Channel: 157



Date: 10.DEC.2007  19:16:39

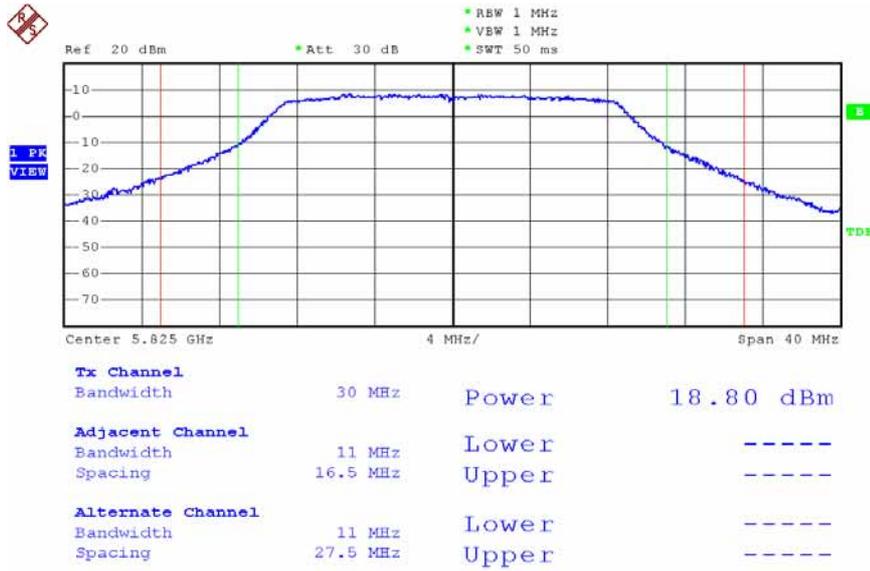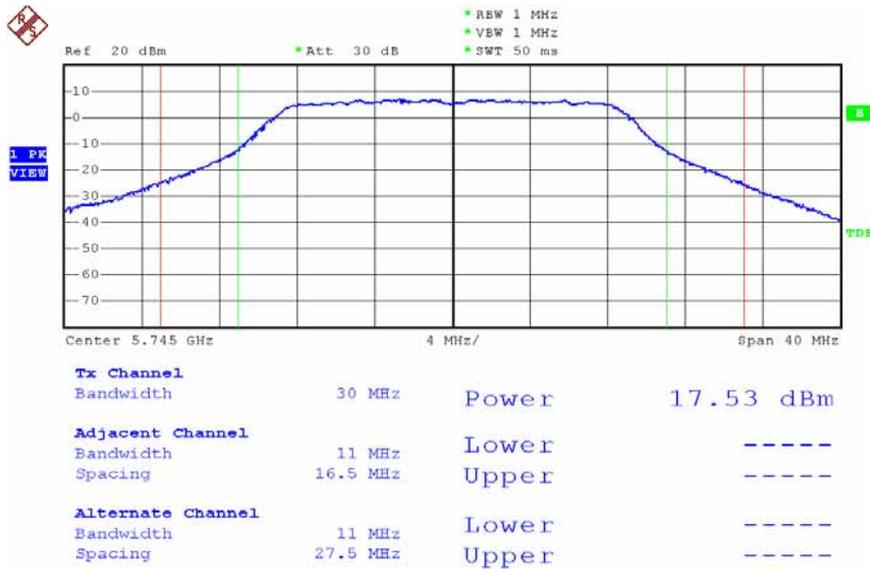Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1 + ANT-L3 (ANT-L1)
Channel: 165
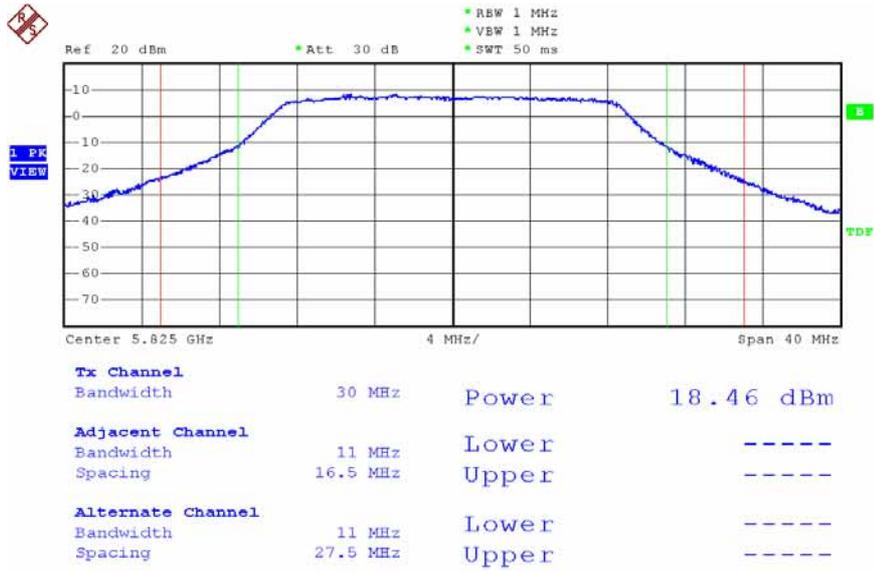


Date: 10.DEC.2007  19:27:36

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1 + ANT-L3 (ANT-L3)
Channel: 149
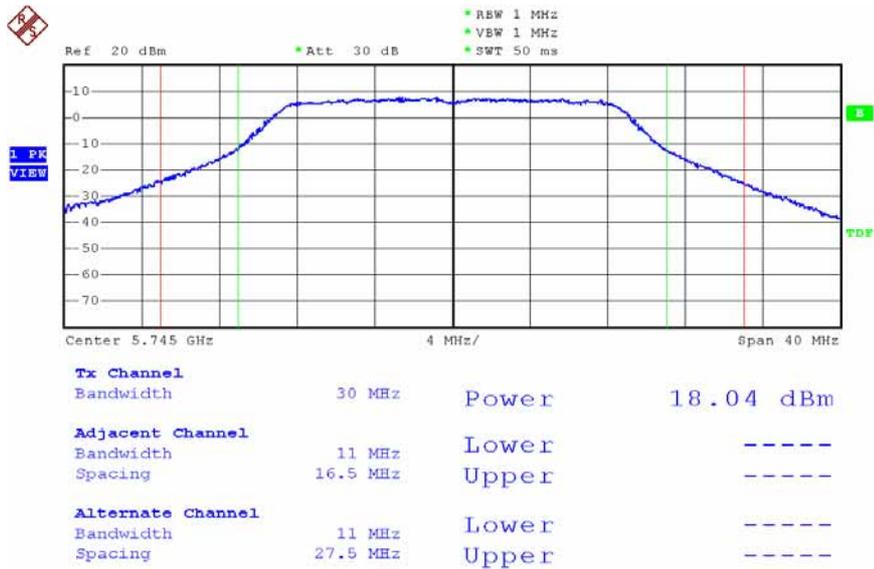


Date: 10.DEC.2007  19:01:49

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1 + ANT-L3 (ANT-L3)
Channel: 157
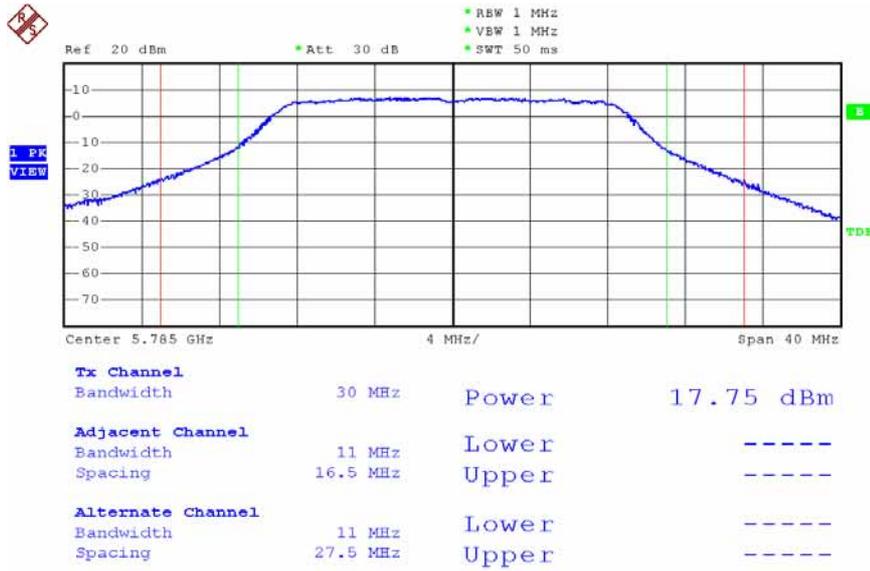


Date: 10.DEC.2007  19:17:44

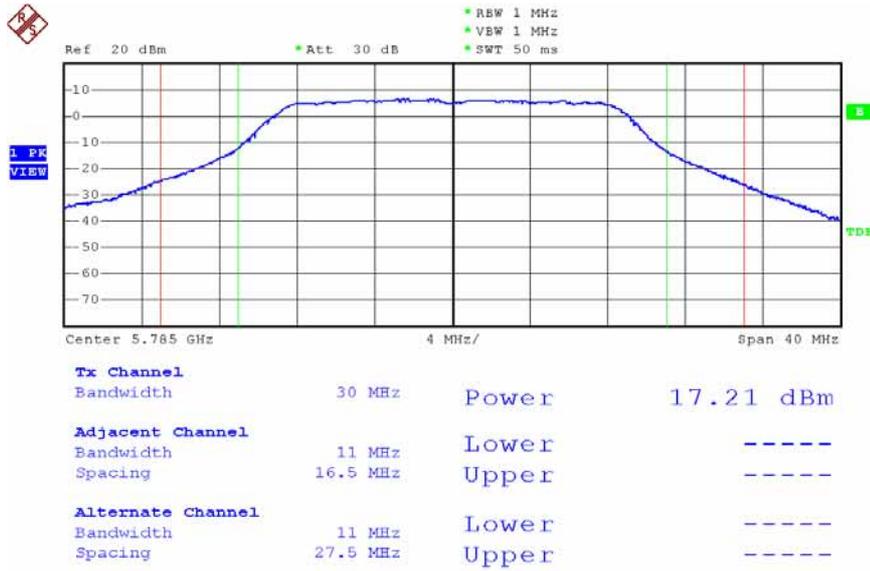Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1 + ANT-L3 (ANT-L3)
Channel: 165
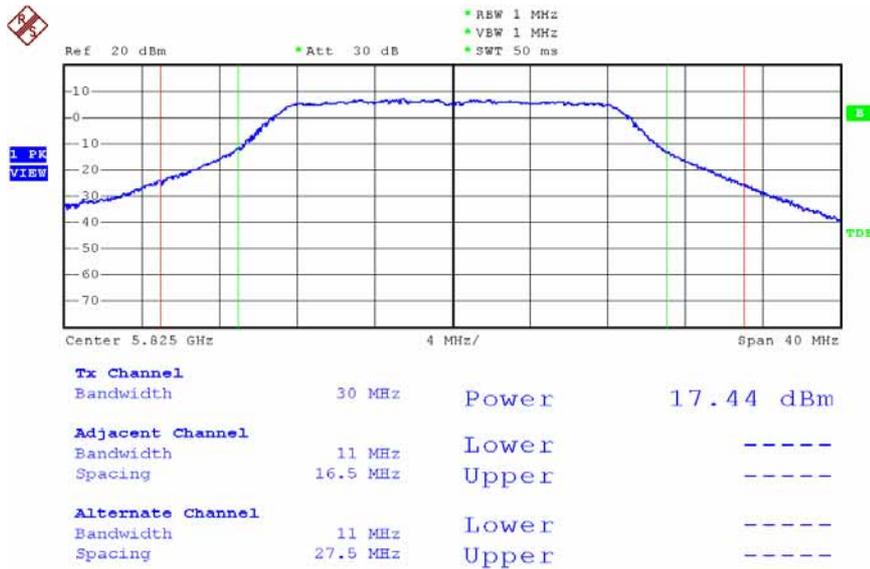


Date: 10.DEC.2007  19:19:04

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1 + ANT-R3 (ANT-L1)
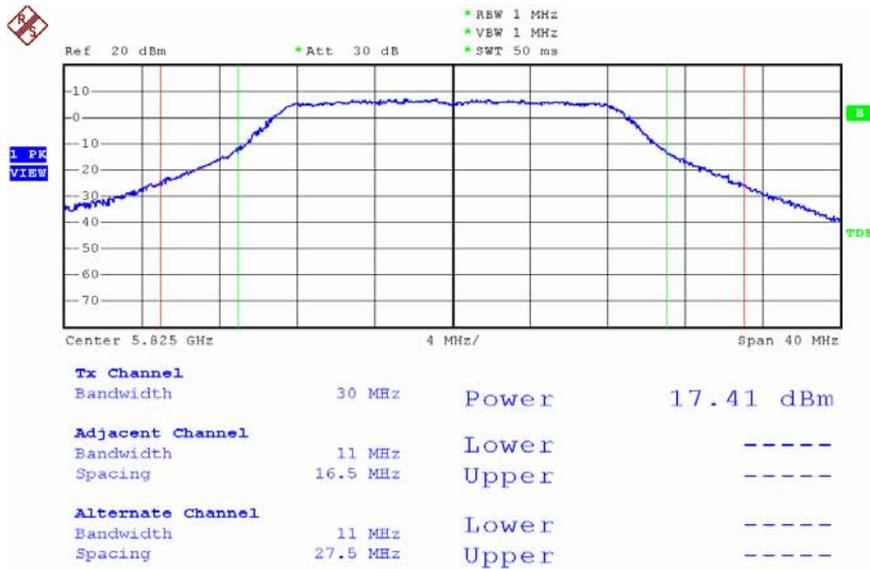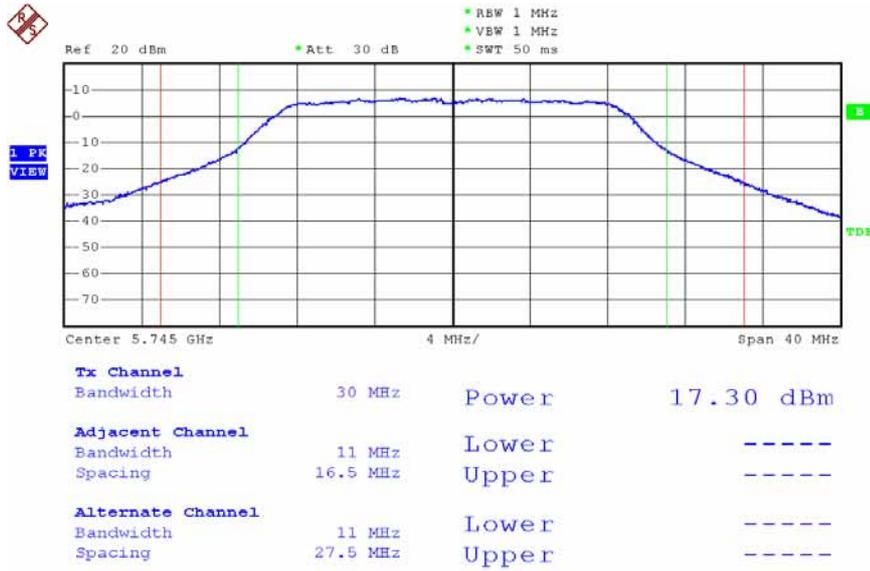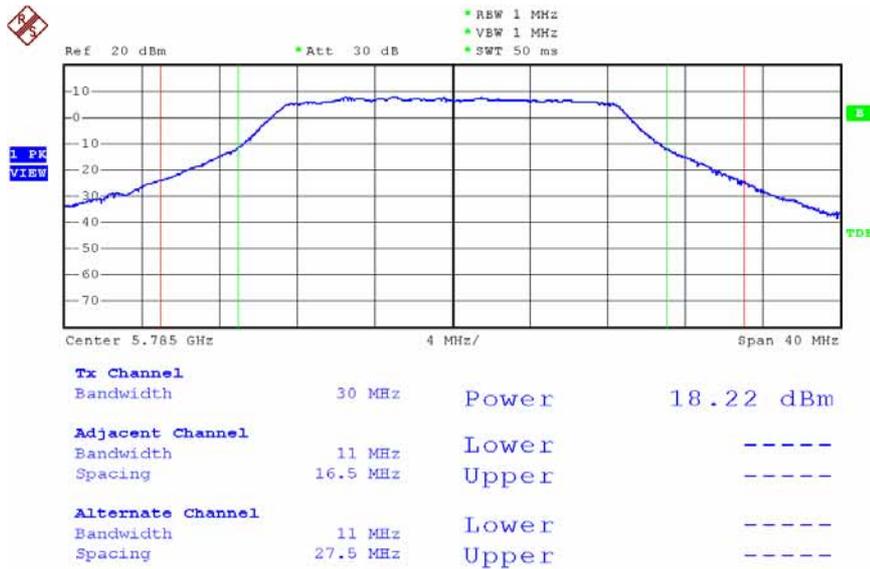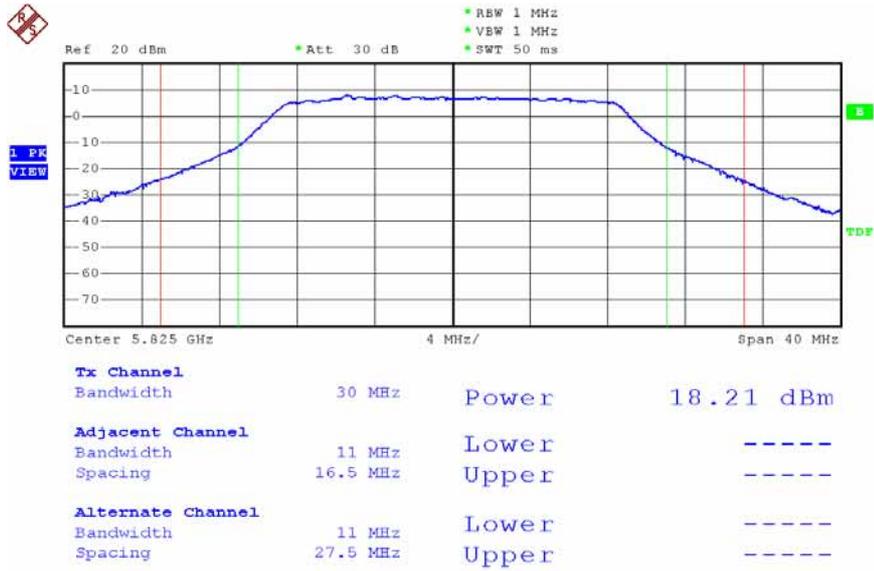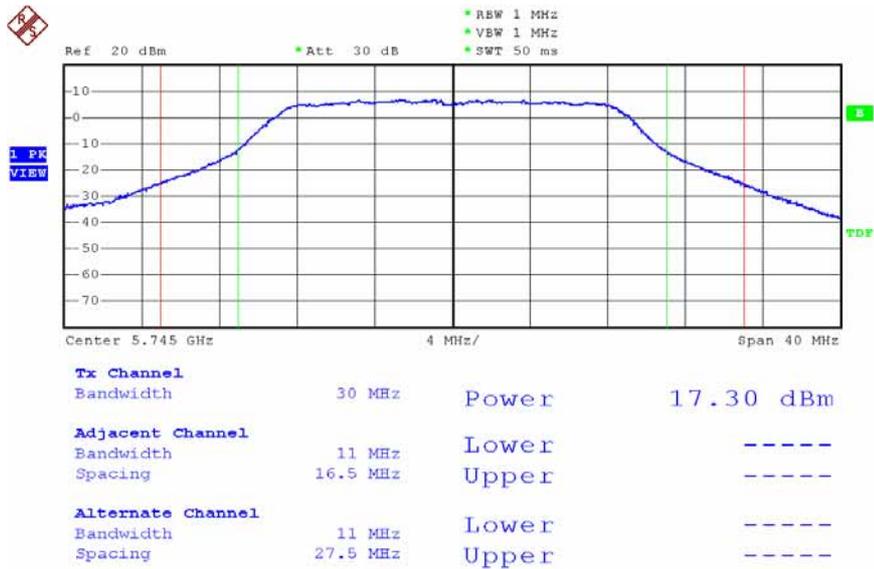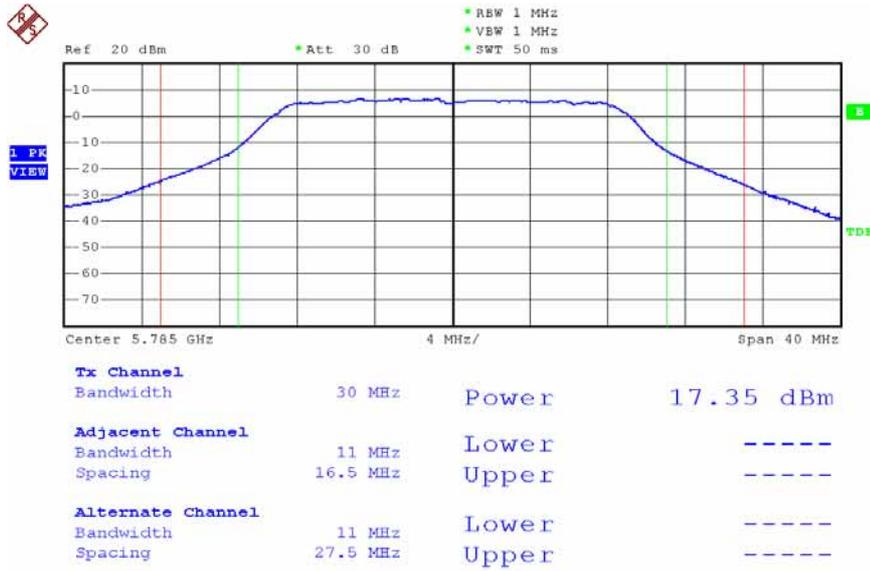Channel: 149



```
* RBW 1 MHz
* VBW 1 MHz
Ref  20 dBm        * Att  30 dB    * SWT 50 ms

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

Center 5.745 GHz          4 MHz/          Span 40 MHz
```

| Tx Channel | | | |
|---|---|---|---|
| Bandwidth | 30 MHz | Power | 18.38 dBm |
| **Adjacent Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 16.5 MHz | Upper | ----- |
| **Alternate Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

Date: 10.DEC.2007  22:41:43

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1 + ANT-R3 (ANT-L1)
Channel: 157



```
* RBW 1 MHz
* VBW 1 MHz
Ref  20 dBm        * Att  30 dB    * SWT 50 ms

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

Center 5.785 GHz          4 MHz/          Span 40 MHz
```

| Tx Channel | | | |
|---|---|---|---|
| Bandwidth | 30 MHz | Power | 18.30 dBm |
| **Adjacent Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 16.5 MHz | Upper | ----- |
| **Alternate Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

Date: 10.DEC.2007  22:43:51

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1 + ANT-R3 (ANT-L1)
Channel: 165



```
                                        * RBW 1 MHz
                                        * VBW 1 MHz
Ref  20 dBm         * Att  30 dB        * SWT 50 ms
```

| Tx Channel | | | |
|---|---|---|---|
| Bandwidth | 30 MHz | Power | 18.80 dBm |
| **Adjacent Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 16.5 MHz | Upper | ----- |
| **Alternate Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

Date: 10.DEC.2007  22:48:53

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1 + ANT-R3 (ANT-R3)
Channel: 149



```
                                        * RBW 1 MHz
                                        * VBW 1 MHz
Ref  20 dBm         * Att  30 dB        * SWT 50 ms
```

| Tx Channel | | | |
|---|---|---|---|
| Bandwidth | 30 MHz | Power | 17.53 dBm |
| **Adjacent Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 16.5 MHz | Upper | ----- |
| **Alternate Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

Date: 10.DEC.2007  22:40:33

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1 + ANT-R3 (ANT-R3)
Channel: 157



Date: 10.DEC.2007  22:45:21

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1 + ANT-R3 (ANT-R3)
Channel: 165



Date: 10.DEC.2007  22:49:28

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-R1 + ANT-L3 (ANT-R1)
Channel: 149



Date: 11.DEC.2007  13:33:40

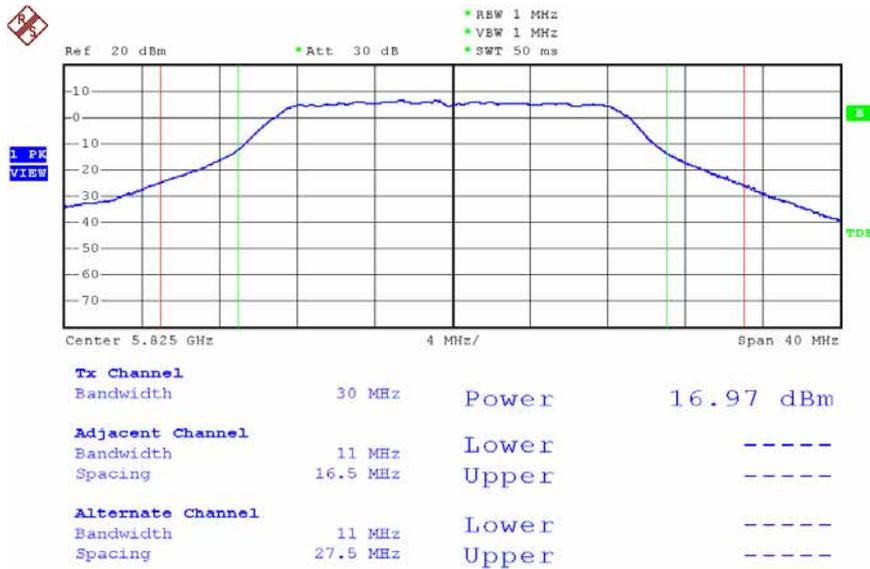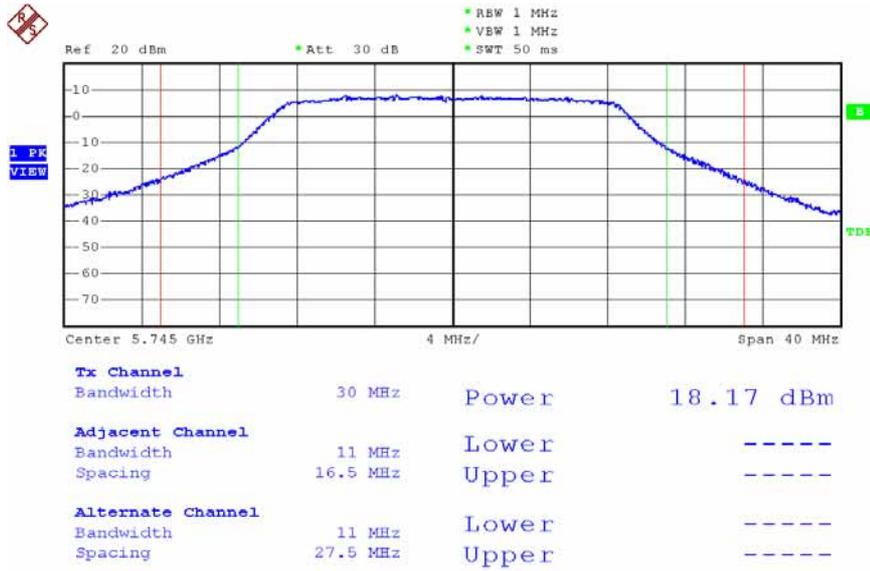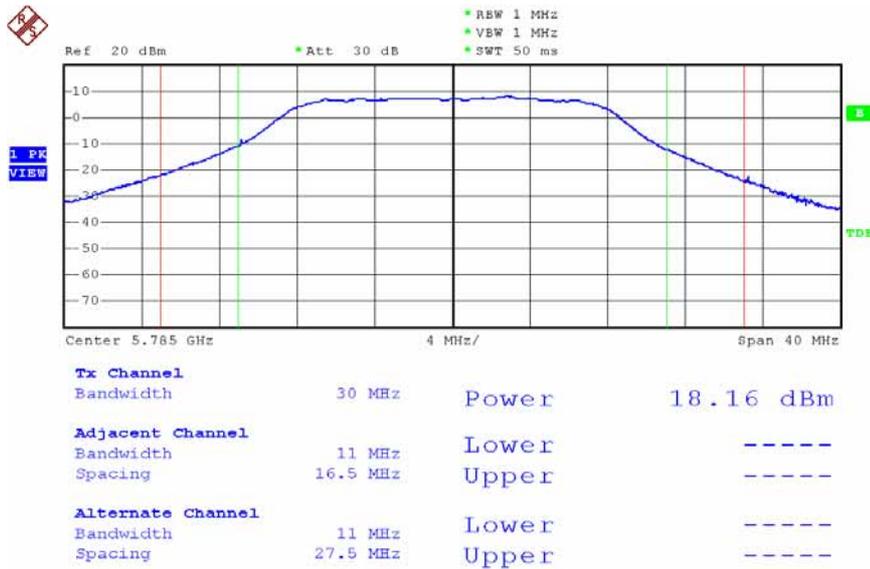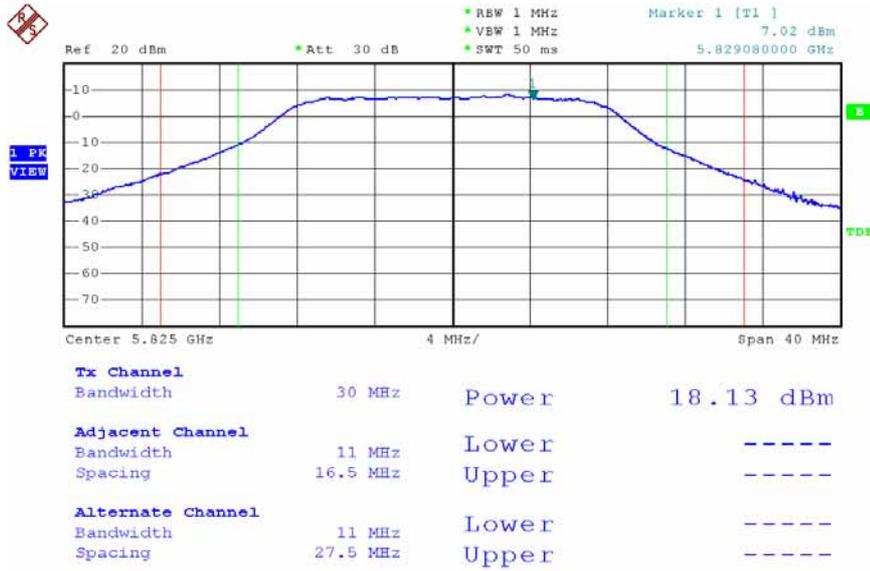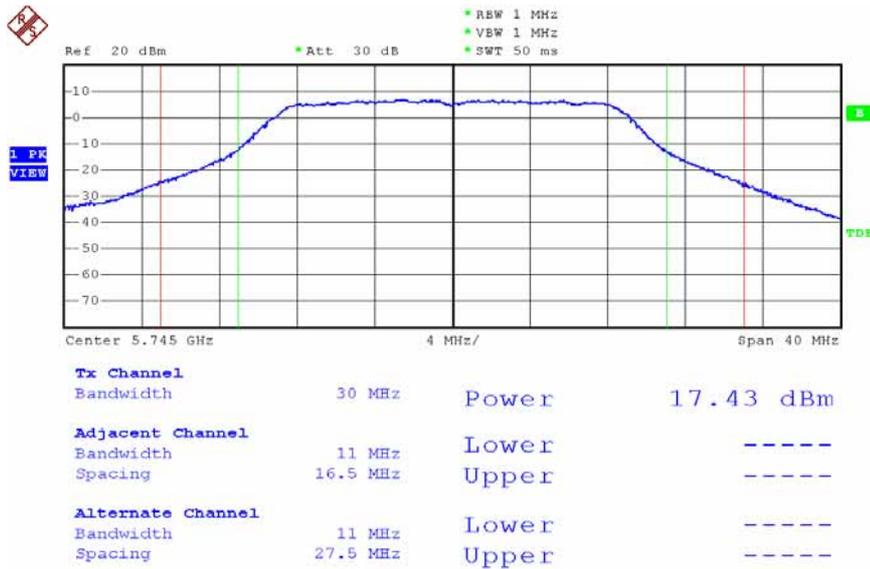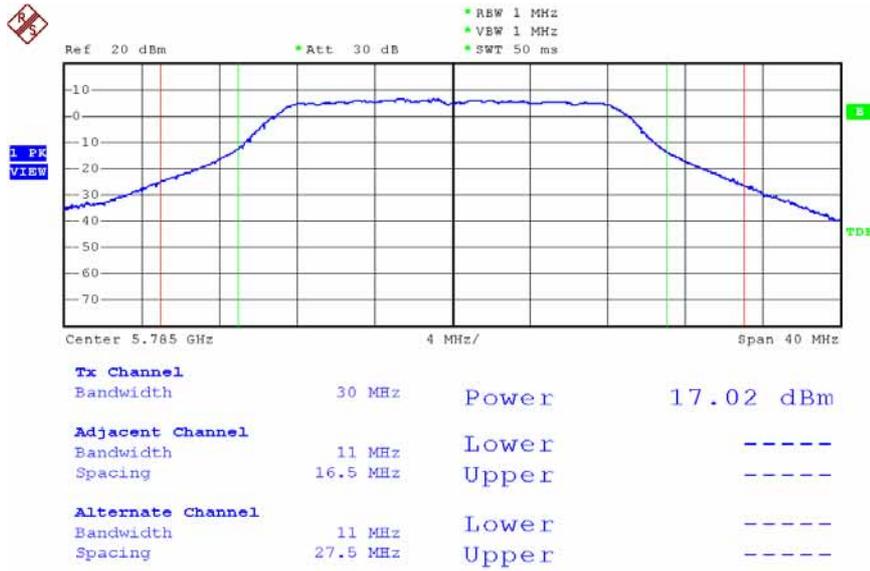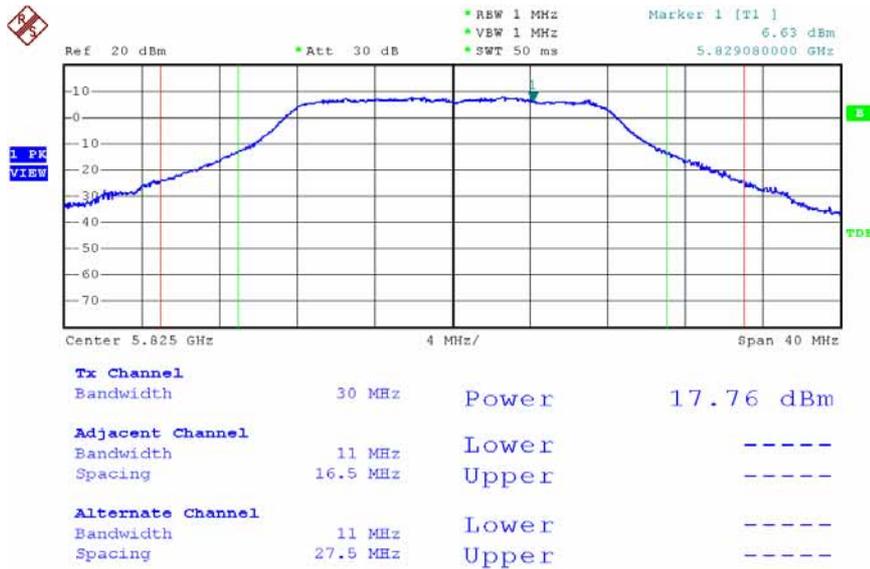Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-R1 + ANT-L3 (ANT-R1)
Channel: 157



Date: 11.DEC.2007  13:40:08

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-R1 + ANT-L3 (ANT-R1)
Channel: 165



Date: 11.DEC.2007  13:45:14

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-R1 + ANT-L3 (ANT-L3)
Channel: 149



Date: 11.DEC.2007  13:33:40

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-R1 + ANT-L3 (ANT-L3)
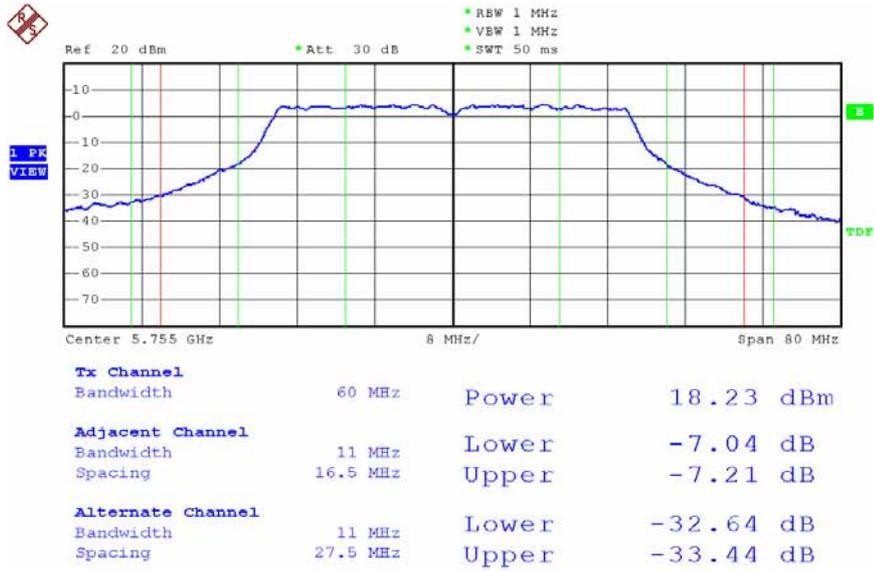Channel: 157



Date: 11.DEC.2007  13:38:23

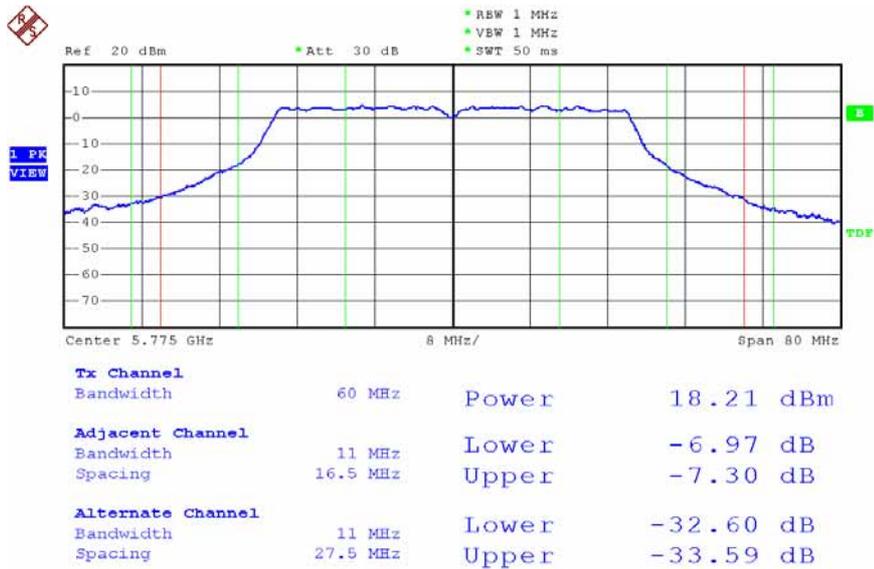Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-R1 + ANT-L3 (ANT-L3)
Channel: 165



Date: 11.DEC.2007  13:50:19

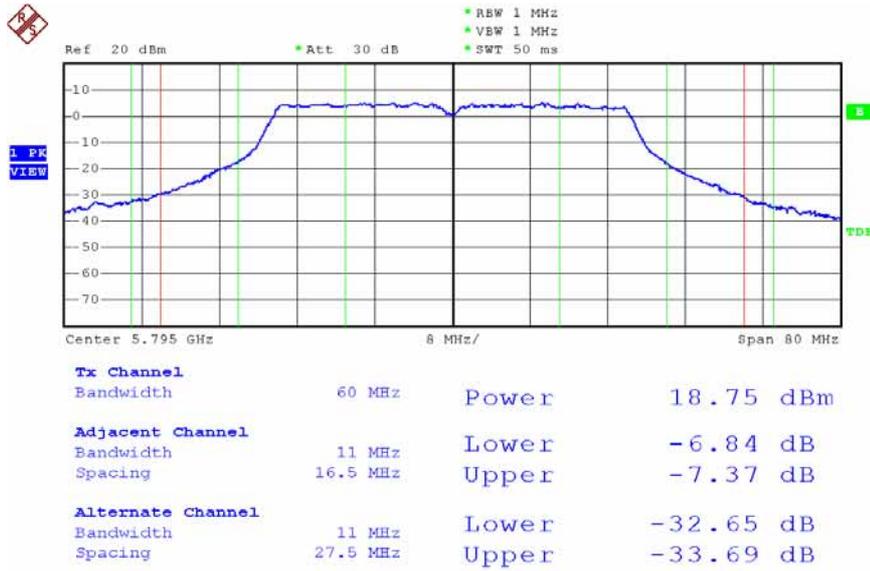Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-R1 + ANT-R3 (ANT-R1)
Channel: 149



Date: 10.DEC.2007  23:39:12

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-R1 + ANT-R3 (ANT-R1)
Channel: 157



Date: 11.DEC.2007  00:04:55

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-R1 + ANT-R3 (ANT-R1)
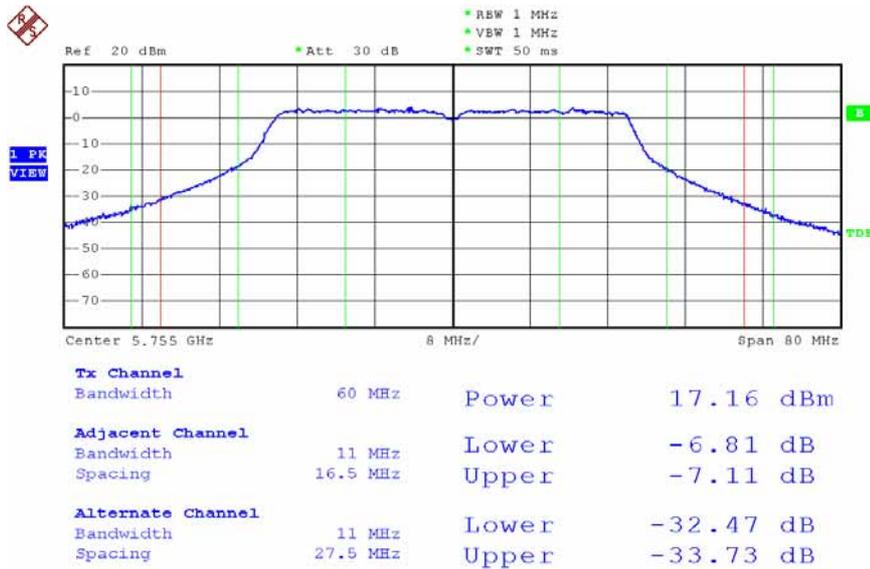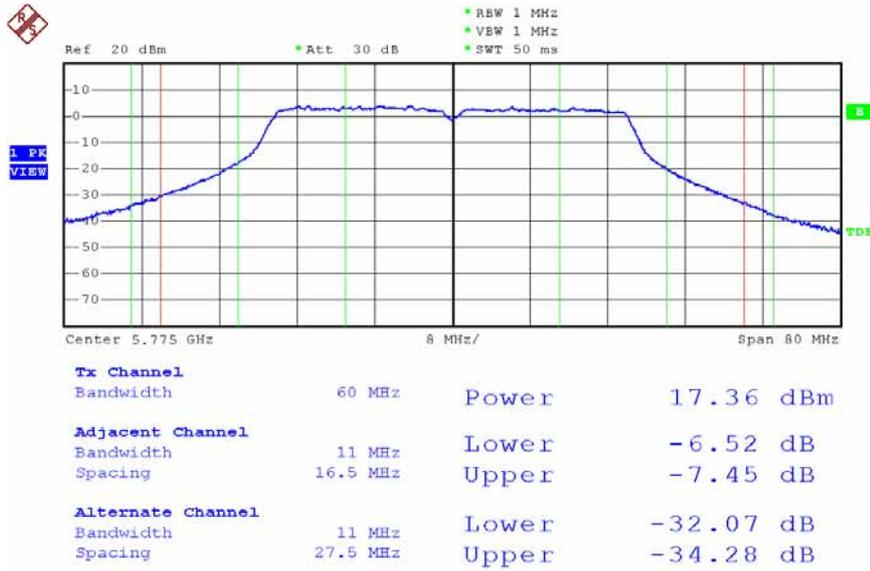Channel: 165



Date: 11.DEC.2007  00:13:49

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-R1 + ANT-R3 (ANT-R3)
Channel: 149



Date: 10.DEC.2007  23:40:36

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-R1 + ANT-R3 (ANT-R3)
Channel: 157



```
* RBW 1 MHz
* VBW 1 MHz
Ref  20 dBm      * Att  30 dB    * SWT 50 ms
```

Center 5.785 GHz          4 MHz/          Span 40 MHz

| Tx Channel | | | |
|---|---|---|---|
| Bandwidth | 30 MHz | Power | 17.02 dBm |
| **Adjacent Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 16.5 MHz | Upper | ----- |
| **Alternate Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

Date: 10.DEC.2007  23:43:56

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-R1 + ANT-R3 (ANT-R3)
Channel: 165



```
* RBW 1 MHz     Marker 1 [T1 ]
* VBW 1 MHz              6.63 dBm
Ref  20 dBm      * Att  30 dB    * SWT 50 ms    5.829080000 GHz
```

Center 5.825 GHz          4 MHz/          Span 40 MHz

| Tx Channel | | | |
|---|---|---|---|
| Bandwidth | 30 MHz | Power | 17.76 dBm |
| **Adjacent Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 16.5 MHz | Upper | ----- |
| **Alternate Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

Date: 11.DEC.2007  00:16:01

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-L1 + ANT-L3 (ANT-L1)
Channel: 151



Date: 11.DEC.2007  14:51:58

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-L1 + ANT-L3 (ANT-L1)
Channel: 155



Date: 11.DEC.2007  15:01:34

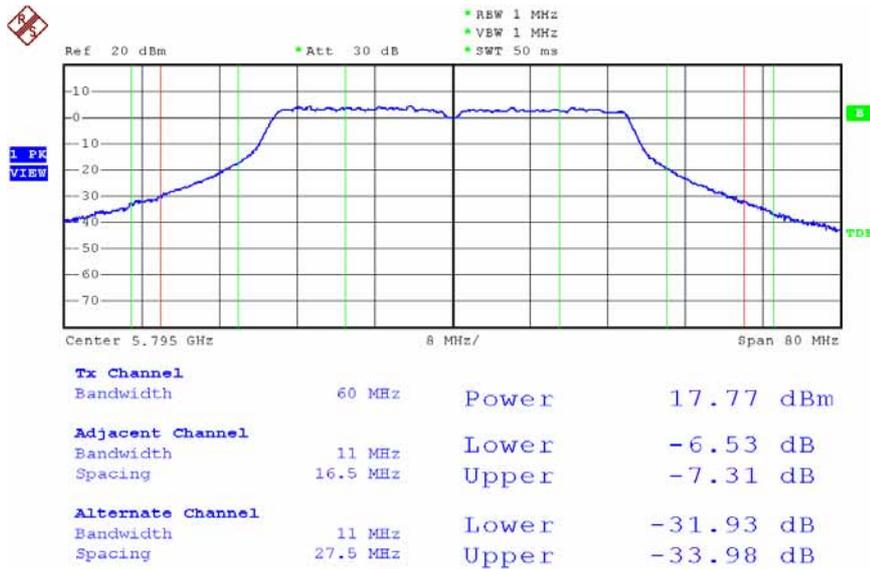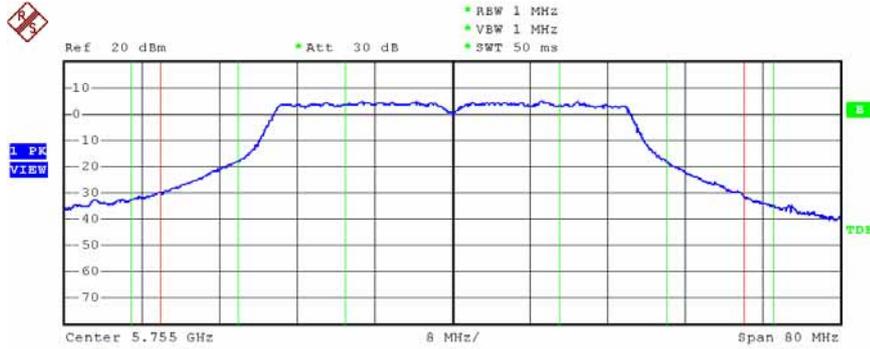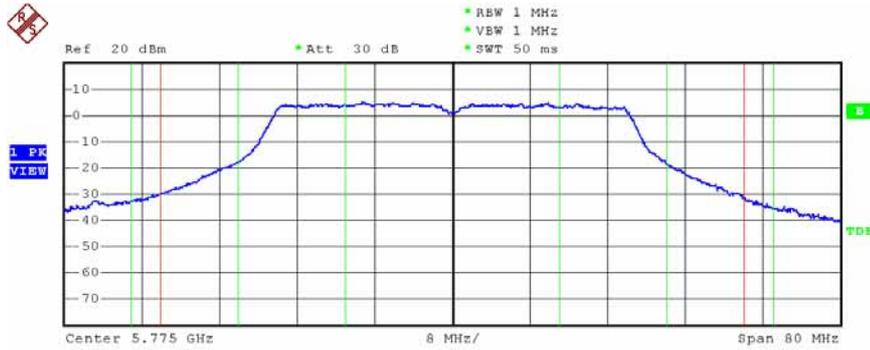Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-L1 + ANT-L3 (ANT-L1)
Channel: 159



```
                              * RBW  1 MHz
                              * VBW  1 MHz
Ref  20 dBm    * Att  30 dB   * SWT 50 ms
```

Center 5.795 GHz          8 MHz/          Span 80 MHz

| Tx Channel | | | | |
|---|---|---|---|---|
| Bandwidth | 60 MHz | Power | 18.75 | dBm |
| **Adjacent Channel** | | | | |
| Bandwidth | 11 MHz | Lower | -6.84 | dB |
| Spacing | 16.5 MHz | Upper | -7.37 | dB |
| **Alternate Channel** | | | | |
| Bandwidth | 11 MHz | Lower | -32.65 | dB |
| Spacing | 27.5 MHz | Upper | -33.69 | dB |

Date: 11.DEC.2007  15:07:45

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-L1 + ANT-L3 (ANT-L3)
Channel: 151



```
                              * RBW  1 MHz
                              * VBW  1 MHz
Ref  20 dBm    * Att  30 dB   * SWT 50 ms
```

Center 5.755 GHz          8 MHz/          Span 80 MHz

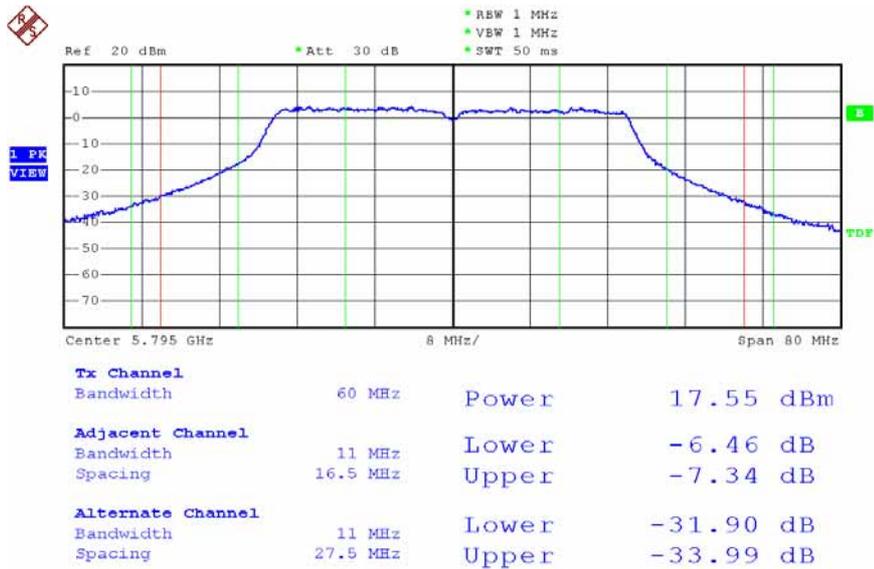| Tx Channel | | | | |
|---|---|---|---|---|
| Bandwidth | 60 MHz | Power | 17.16 | dBm |
| **Adjacent Channel** | | | | |
| Bandwidth | 11 MHz | Lower | -6.81 | dB |
| Spacing | 16.5 MHz | Upper | -7.11 | dB |
| **Alternate Channel** | | | | |
| Bandwidth | 11 MHz | Lower | -32.47 | dB |
| Spacing | 27.5 MHz | Upper | -33.73 | dB |

Date: 11.DEC.2007  14:50:30

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-L1 + ANT-L3 (ANT-L3)
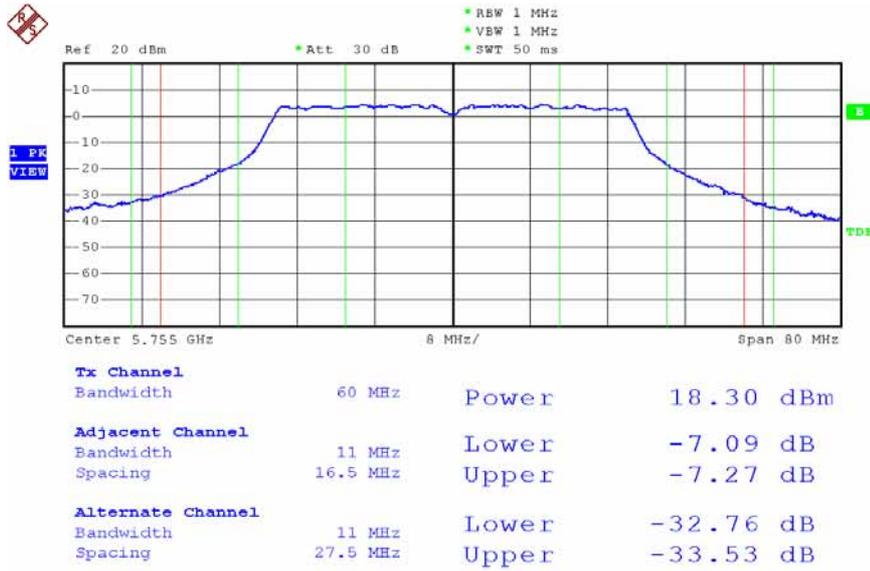Channel: 155



Date: 11.DEC.2007  14:59:43

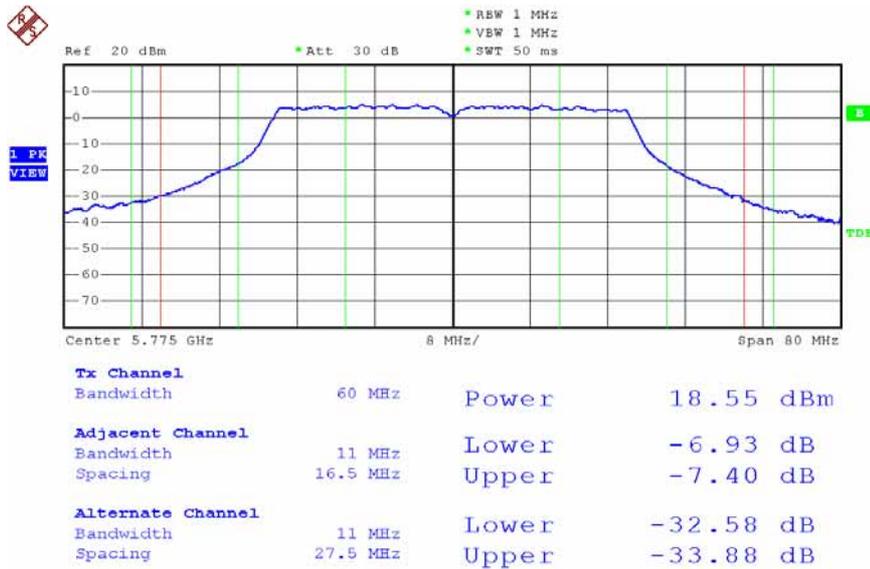Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-L1 + ANT-L3 (ANT-L3)
Channel: 159



Date: 11.DEC.2007  15:06:28

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-L1 + ANT-R3 (ANT-L1)
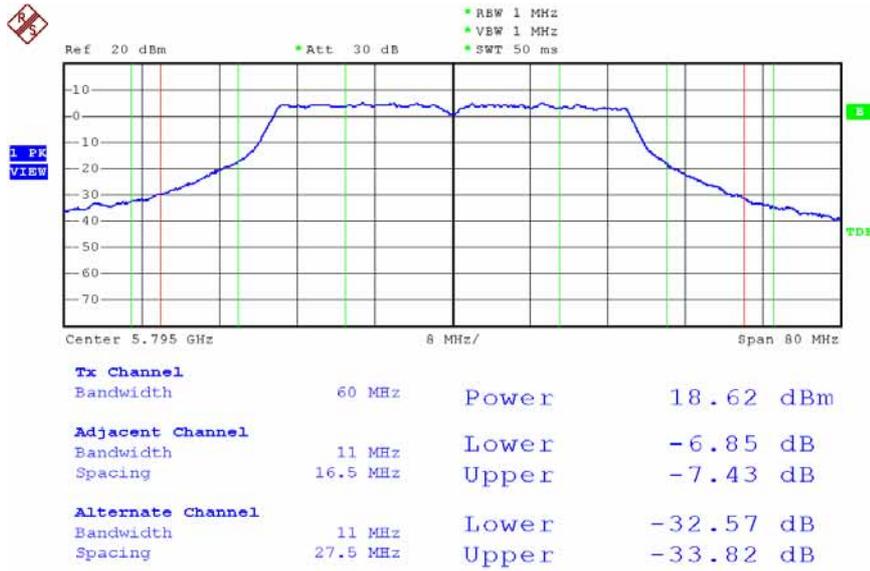Channel: 151



Date: 11.DEC.2007  18:26:40

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-L1 + ANT-R3 (ANT-L1)
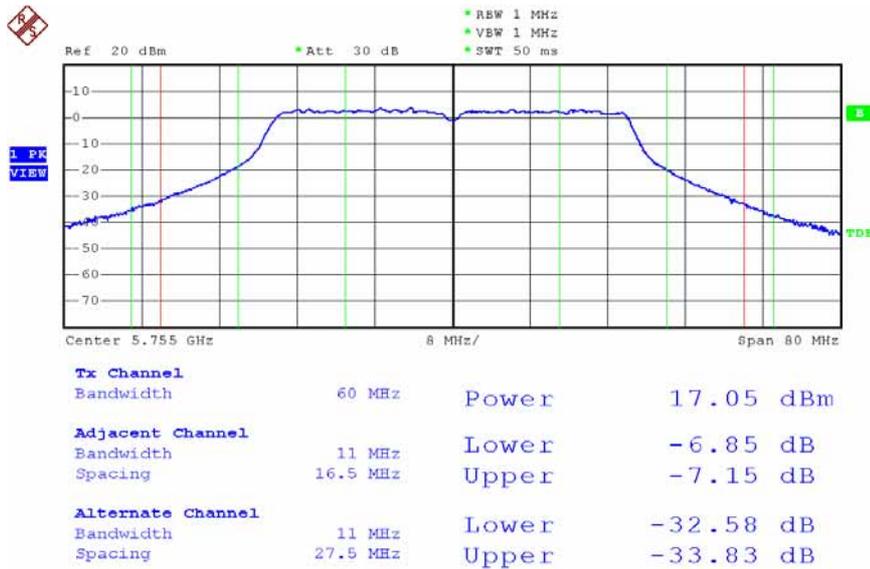Channel: 155



Date: 11.DEC.2007  18:30:31

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-L1 + ANT-R3 (ANT-L1)
Channel: 159
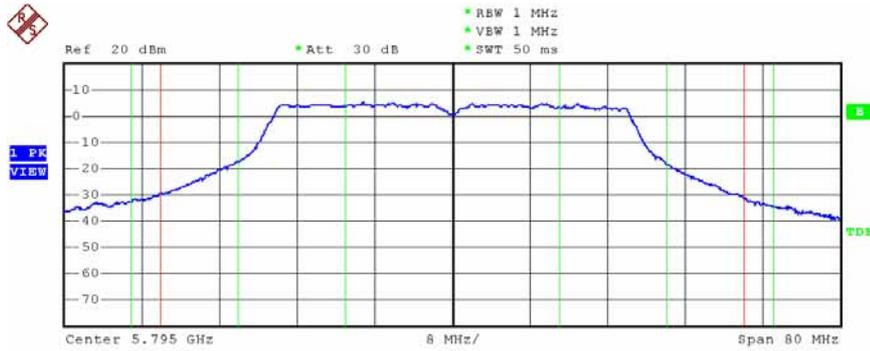


Date: 11.DEC.2007  18:34:27

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-L1 + ANT-R3 (ANT-R3)
Channel: 151



Date: 11.DEC.2007  18:25:31

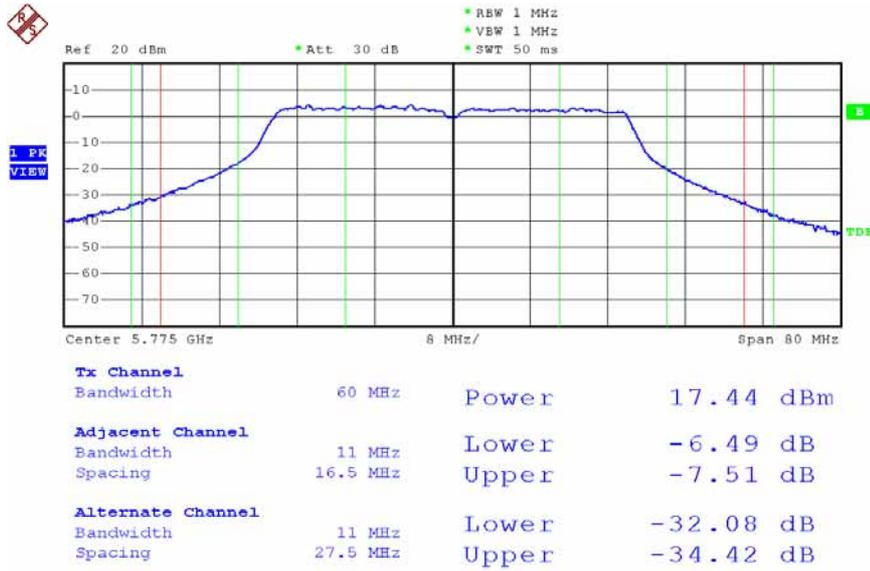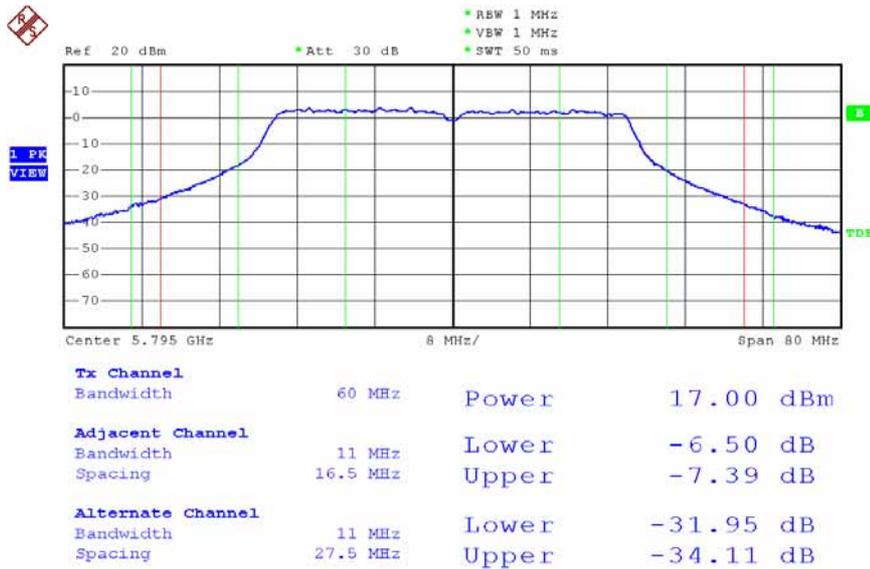Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-L1 + ANT-R3 (ANT-R3)
Channel: 155



| Tx Channel | | | | |
|---|---|---|---|---|
| Bandwidth | 60 MHz | Power | 17.35 | dBm |
| Adjacent Channel | | | | |
| Bandwidth | 11 MHz | Lower | -6.48 | dB |
| Spacing | 16.5 MHz | Upper | -7.48 | dB |
| Alternate Channel | | | | |
| Bandwidth | 11 MHz | Lower | -31.97 | dB |
| Spacing | 27.5 MHz | Upper | -34.28 | dB |
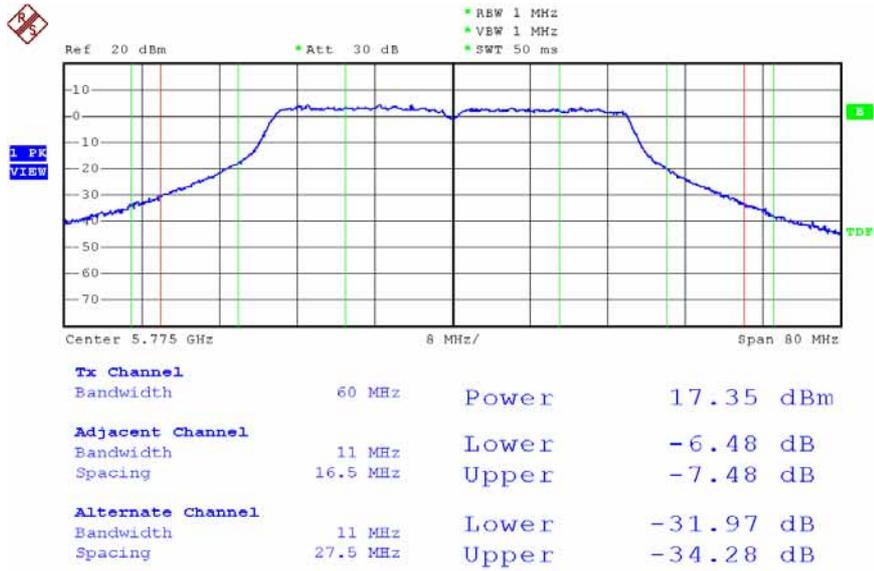
Date: 11.DEC.2007  18:29:16

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-L1 + ANT-R3 (ANT-R3)
Channel: 159



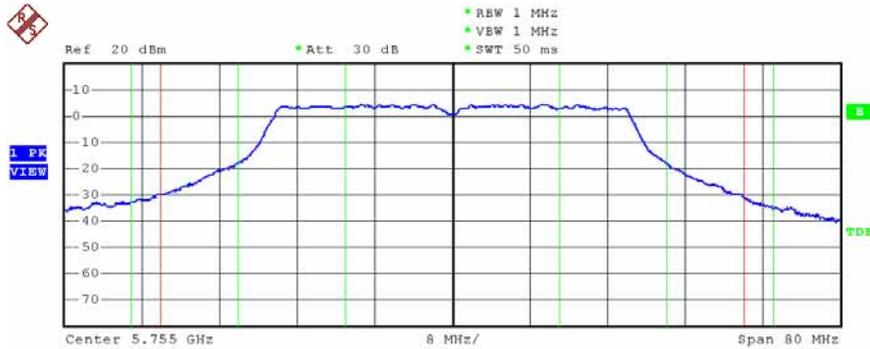| Tx Channel | | | | |
|---|---|---|---|---|
| Bandwidth | 60 MHz | Power | 17.55 | dBm |
| Adjacent Channel | | | | |
| Bandwidth | 11 MHz | Lower | -6.46 | dB |
| Spacing | 16.5 MHz | Upper | -7.34 | dB |
| Alternate Channel | | | | |
| Bandwidth | 11 MHz | Lower | -31.90 | dB |
| Spacing | 27.5 MHz | Upper | -33.99 | dB |

Date: 11.DEC.2007  18:33:16

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-L3 (ANT-R1)
Channel: 151



Date: 11.DEC.2007  23:07:32

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-L3 (ANT-R1)
Channel: 155



Date: 11.DEC.2007  23:11:49

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-L3 (ANT-R1)
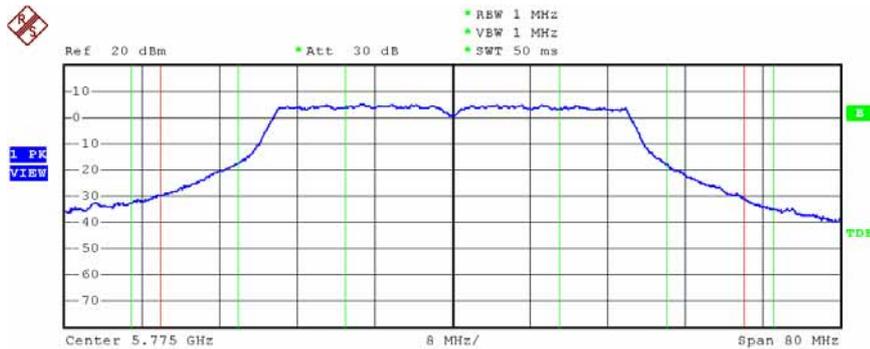Channel: 159



Date: 11.DEC.2007  23:24:34

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-L3 (ANT-L3)
Channel: 151



Date: 11.DEC.2007  23:04:16

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-L3 (ANT-L3)
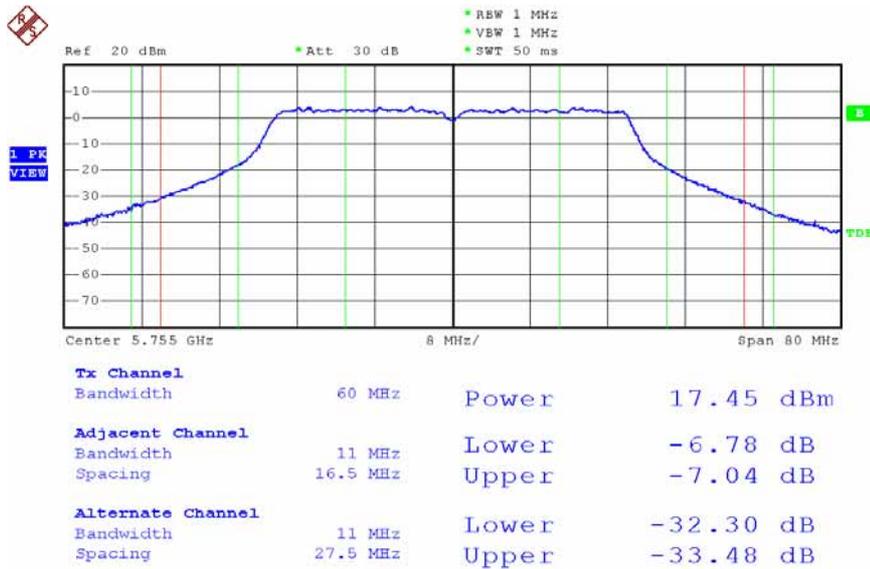Channel: 155



Date: 11.DEC.2007  23:16:16

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-L3 (ANT-L3)
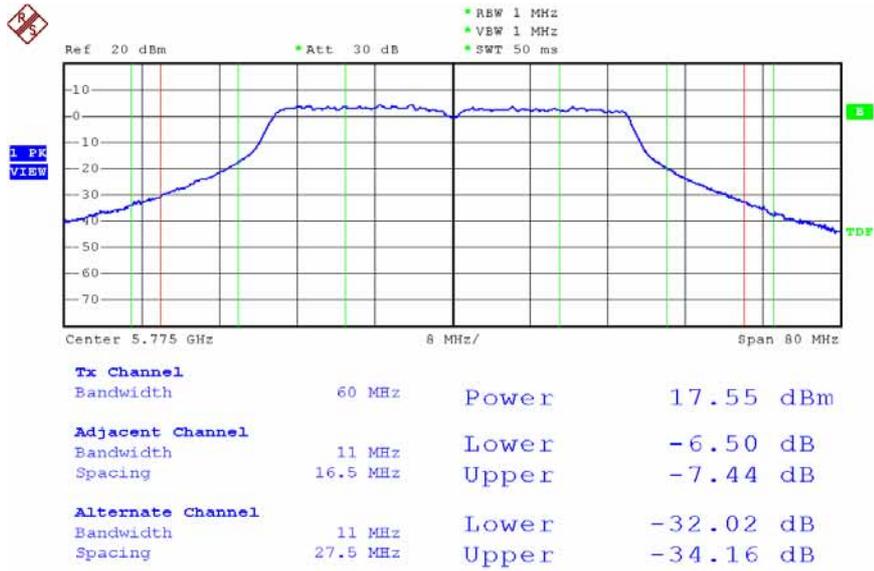Channel: 159



Date: 11.DEC.2007  23:19:20

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-R3 (ANT-R1)
Channel: 151



Date: 11.DEC.2007  20:04:25

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-R3 (ANT-R1)
Channel: 155



Date: 11.DEC.2007  20:09:16

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-R3 (ANT-R1)
Channel: 159



```
                                        * RBW 1 MHz
                                        * VBW 1 MHz
     Ref  20 dBm       * Att  30 dB     * SWT 50 ms
```
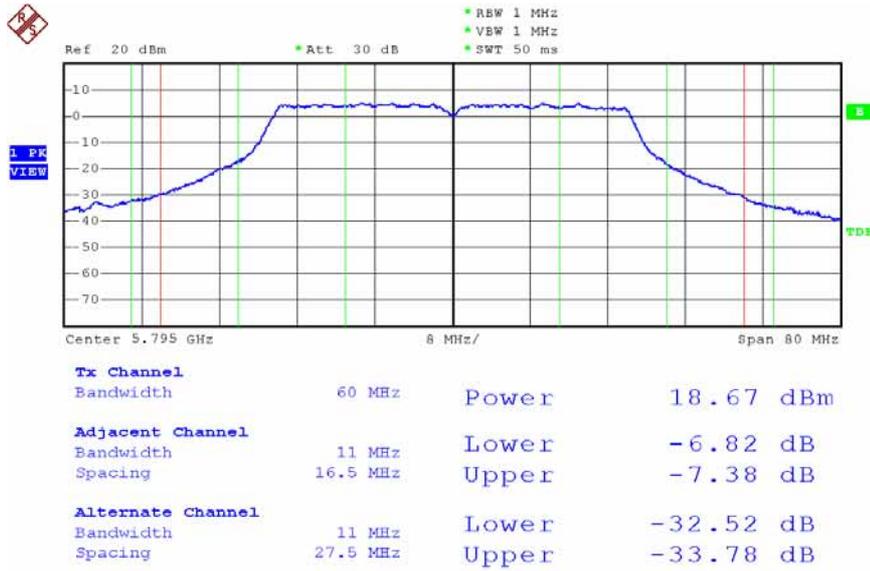
Date: 11.DEC.2007  20:19:10

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-R3 (ANT-R3)
Channel: 151



Date: 11.DEC.2007  20:02:02

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-R3 (ANT-R3)
Channel: 155



Date: 11.DEC.2007  20:12:12

Modulation Standard: 802.11Draft n, 40MHz (270Mbps) – ANT-R1 + ANT-R3 (ANT-R3)
Channel: 159
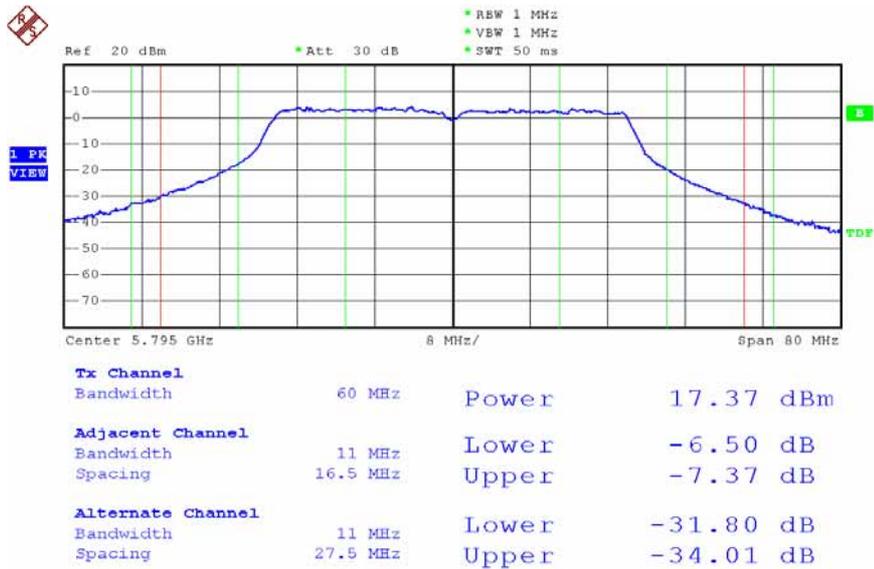


Date: 11.DEC.2007  20:21:17

# 8. Band Edges Measurement

## 8.1 Test Limit

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

## 8.2 Test Procedure

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

## 8.3 Test Setup Layout
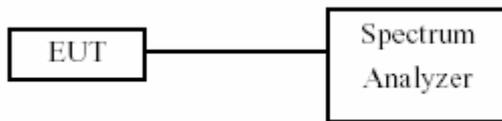


## 8.4 Measurement equipment

| Instrument/Ancillary | Model No. | Manufacturer | Serial No. | Calibration Date | Valid Date |
|---|---|---|---|---|---|
| Spectrum Analyzer | FSP40 | R&S | 10047 | 2007/01/23 | 2008/01/22 |

## 8.5 Test Result and Data

(1) Modulation Standard: IEEE 802.11a (6Mbps), ANT-L1
Test Date: Dec. 10, 2007 Temperature: 23   Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency | maximum value in frequency (MHz) | maximum value is (dBm) |
|---|---|---|---|
| 149 | 5745 | 5724.80 | -41.96 |
| 165 | 5825 | 40000.00 | -46.16 |

(2) Modulation Standard: IEEE 802.11a (6Mbps), ANT-L3
Test Date: Dec. 10, 2007 Temperature: 23   Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency | maximum value in frequency (MHz) | maximum value is (dBm) |
|---|---|---|---|
| 149 | 5745 | 5724.40 | -42.84 |
| 165 | 5825 | 40000.00 | -45.59 |

(3) Modulation Standard: IEEE 802.11a (6Mbps), ANT-R1
Test Date: Dec. 10, 2007 Temperature: 23   Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency | maximum value in frequency (MHz) | maximum value is (dBm) |
|---|---|---|---|
| 149 | 5745 | 5724.40 | -41.40 |
| 165 | 5825 | 5850.90 | -44.78 |

(4) Modulation Standard: IEEE 802.11a (6Mbps), ANT-R3
Test Date: Dec. 10, 2007 Temperature: 23   Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency | maximum value in frequency (MHz) | maximum value is (dBm) |
|---|---|---|---|
| 149 | 5745 | 5724.80 | -40.34 |
| 165 | 5825 | 5850.90 | -44.08 |

(5) Modulation Standard: IEEE 802.11Draft n, 20MHz (130Mbps), ANT-L1+ANT-L3
Test Date: Dec. 10, 2007 Temperature: 23   Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency | maximum value in frequency of ANT-L1 (MHz) | maximum value of ANT-L1 is (dBm) | maximum value in frequency of ANT-L3 (MHz) | maximum value of ANT-L3 is (dBm) |
|---|---|---|---|---|---|
| 149 | 5745 | 5724.20 | -43.48 | 5723.80 | -46.24 |
| 165 | 5825 | 40000.00 | -45.70 | 40000.00 | -46.50 |

(6) Modulation Standard: IEEE 802.11Draft n, 20MHz (130Mbps), ANT-L1+ANT-R3
Test Date: Dec. 10, 2007 Temperature: 23   Humidity: 60% Atmospheric pressure: 1008 hPa

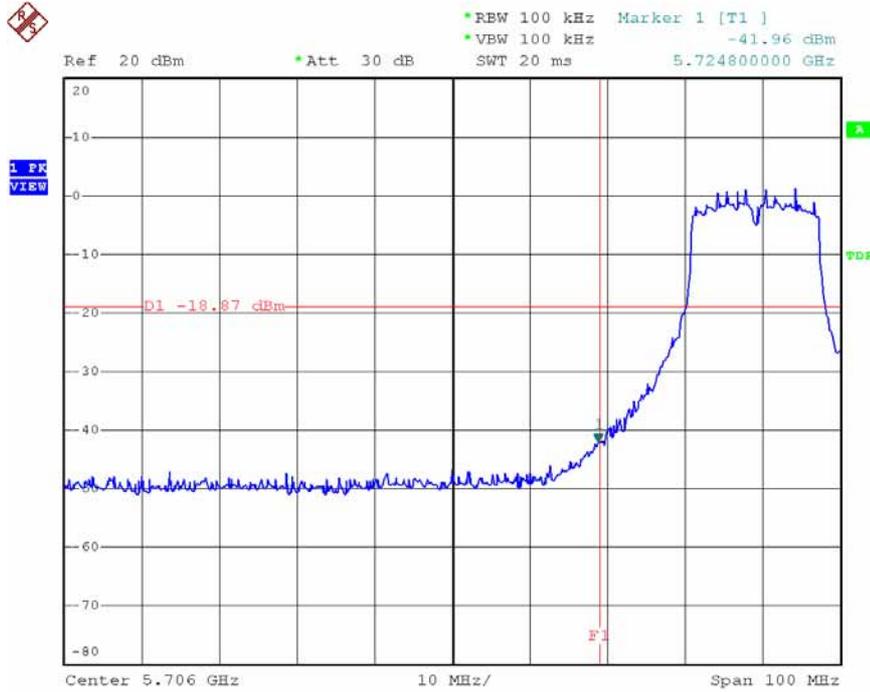| Channel | Frequency | maximum value in frequency of ANT-L1 (MHz) | maximum value of ANT-L1 is (dBm) | maximum value in frequency of ANT-R3 (MHz) | maximum value of ANT-R3 is (dBm) |
|---|---|---|---|---|---|
| 149 | 5745 | 5724.80 | -46.04 | 40000.00 | -45.33 |
| 165 | 5825 | 40000.00 | -46.16 | 40000.00 | -46.16 |

(7) Modulation Standard: IEEE 802.11Draft n, 20MHz (130Mbps), ANT-R1+ANT-L3
Test Date: Dec. 10, 2007 Temperature: 23   Humidity: 60% Atmospheric pressure: 1008 hPa

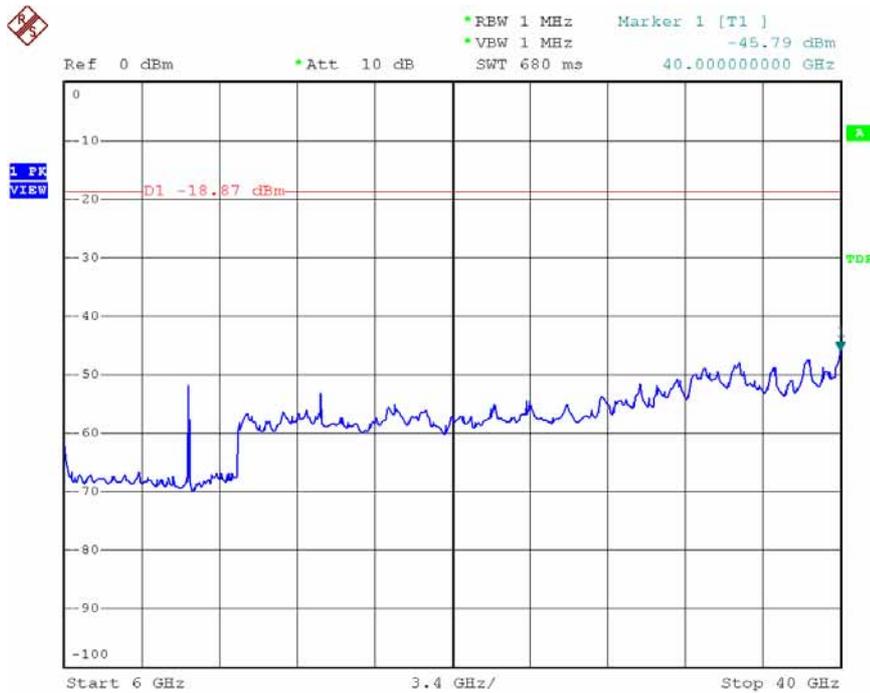| Channel | Frequency | maximum value in frequency of ANT-R1 (MHz) | maximum value of ANT-R1 is (dBm) | maximum value in frequency of ANT-L3 (MHz) | maximum value of ANT-L3 is (dBm) |
|---|---|---|---|---|---|
| 149 | 5745 | 40000.00 | -46.53 | 40000.00 | -47.18 |
| 165 | 5825 | 40000.00 | -46.79 | 40000.00 | -47.64 |

(8) Modulation Standard: IEEE 802.11Draft n, 20MHz (130Mbps), ANT-R1+ANT-R3
Test Date: Dec. 10, 2007 Temperature: 23   Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency | maximum value in frequency of ANT-R1 (MHz) | maximum value of ANT-R1 is (dBm) | maximum value in frequency of ANT-L3 (MHz) | maximum value of ANT-L3 is (dBm) |
|---|---|---|---|---|---|
| 149 | 5745 | 40000.00 | -45.58 | 40000.00 | -46.25 |
| 165 | 5825 | 40000.00 | -46.27 | 40000.00 | -46.14 |

(9) Modulation Standard: IEEE 802.11Draft n, 40MHz (270Mbps), ANT-L1+ANT-L3
Test Date: Dec. 10, 2007 Temperature: 23   Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency | maximum value in frequency of ANT-L1 (MHz) | maximum value of ANT-L1 is (dBm) | maximum value in frequency of ANT-L3 (MHz) | maximum value of ANT-L3 is (dBm) |
|---|---|---|---|---|---|
| 149 | 5745 | 5724.80 | -31.61 | 5724.80 | -33.17 |
| 165 | 5825 | 5850.20 | -41.01 | 5850.60 | -42.79 |

(10) Modulation Standard: IEEE 802.11Draft n, 40MHz (270Mbps), ANT-L1+ANT-R3
Test Date: Dec. 10, 2007 Temperature: 23   Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency | maximum value in frequency of ANT-L1 (MHz) | maximum value of ANT-L1 is (dBm) | maximum value in frequency of ANT-R3 (MHz) | maximum value of ANT-R3 is (dBm) |
|---|---|---|---|---|---|
| 149 | 5745 | 5724.60 | -33.01 | 5724.80 | -32.07 |
| 165 | 5825 | 5850.60 | -42.45 | 5850.40 | -44.37 |

(11) Modulation Standard: IEEE 802.11Draft n, 40MHz (270Mbps), ANT-R1+ANT-L3
Test Date: Dec. 10, 2007 Temperature: 23   Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency | maximum value in frequency of ANT-R1 (MHz) | maximum value of ANT-R1 is (dBm) | maximum value in frequency of ANT-L3 (MHz) | maximum value of ANT-L3 is (dBm) |
|---|---|---|---|---|---|
| 149 | 5745 | 5724.80 | -30.61 | 5724.80 | -31.44 |
| 165 | 5825 | 5850.20 | -42.15 | 5850.40 | -43.95 |

(12) Modulation Standard: IEEE 802.11Draft n, 40MHz (270Mbps), ANT-R1+ANT-R3
Test Date: Dec. 10, 2007 Temperature: 23   Humidity: 60% Atmospheric pressure: 1008 hPa

| Channel | Frequency | maximum value in frequency of ANT-L1 (MHz) | maximum value of ANT-L1 is (dBm) | maximum value in frequency of ANT-L3 (MHz) | maximum value of ANT-L3 is (dBm) |
|---|---|---|---|---|---|
| 151 | 5745 | 5724.80 | -31.70 | 5724.80 | -30.95 |
| 165 | 5825 | 5850.80 | -41.61 | 5850.20 | -43.57 |

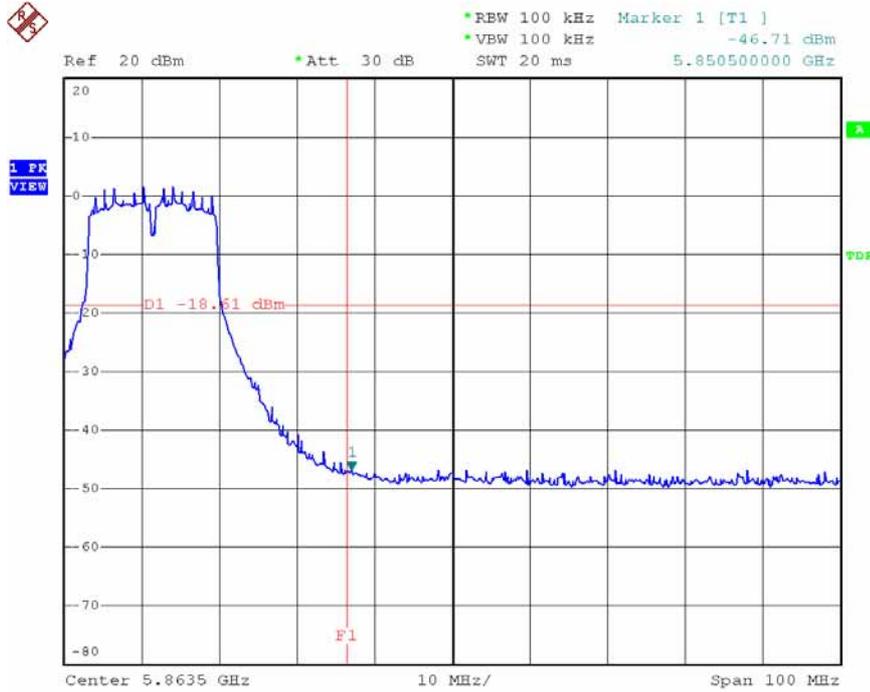Modulation Standard: 802.11a (6Mbps) – ANT-L1
Channel: 149



RBW 100 kHz    Marker 1 [T1 ]
VBW 100 kHz              -41.96 dBm
Ref 20 dBm      *Att 30 dB    SWT 20 ms       5.724800000 GHz

1 PK VIEW

D1 -18.87 dBm

Center 5.706 GHz          10 MHz/          Span 100 MHz

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RBW 1 MHz     Marker 1 [T1 ]
VBW 1 MHz               -45.79 dBm
Ref 0 dBm       *Att 10 dB    SWT 680 ms       40.000000000 GHz

1 PK VIEW

D1 -18.87 dBm

Start 6 GHz              3.4 GHz/           Stop 40 GHz

Date: 10.DEC.2007  14:32:52

Modulation Standard: 802.11a (6Mbps) – ANT-L1
Channel: 165



Date: 10.DEC.2007  14:35:21
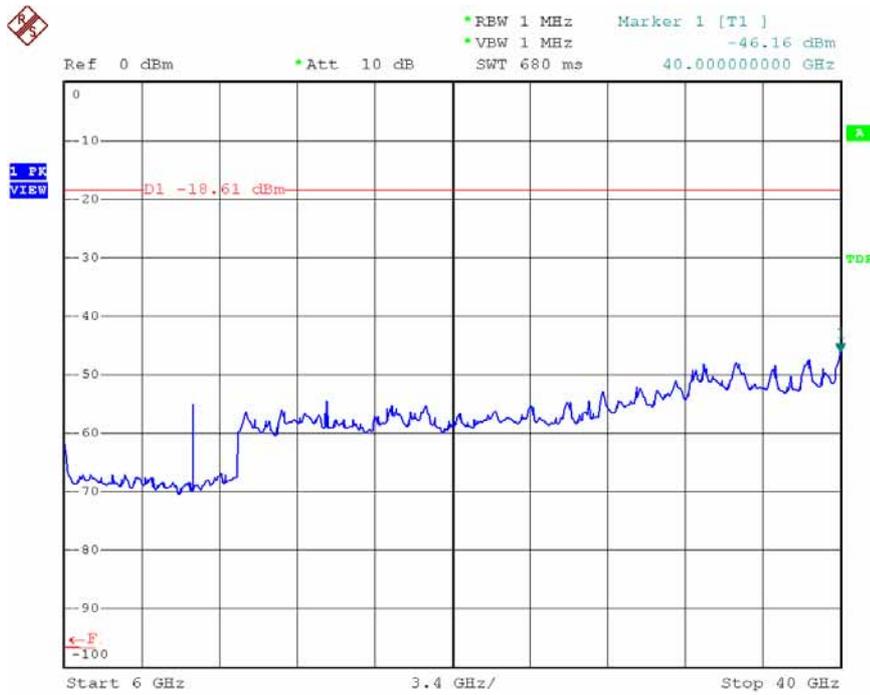


Date: 10.DEC.2007  14:36:32

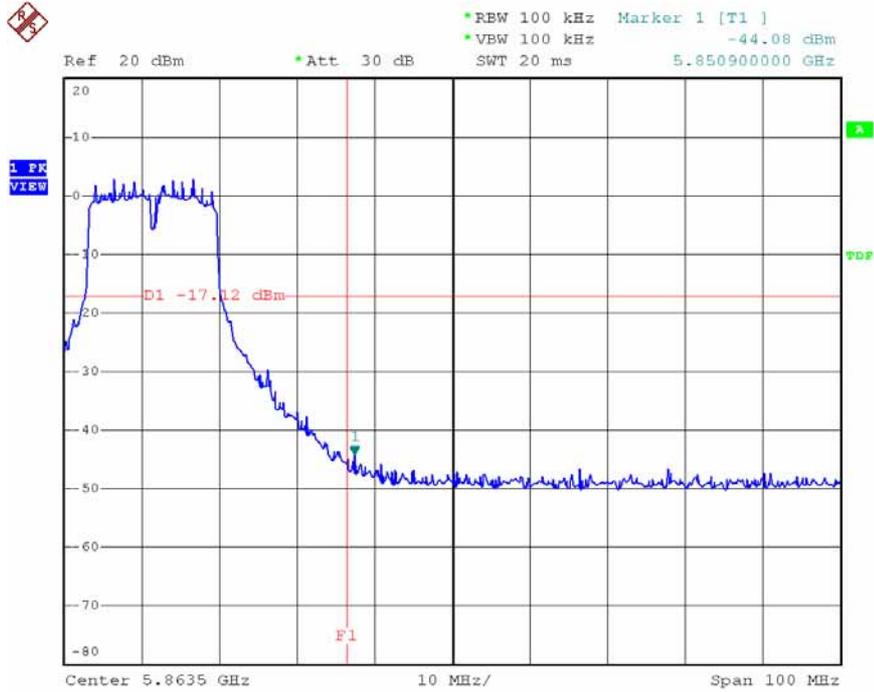Modulation Standard: 802.11a (6Mbps) – ANT-L3
Channel: 149
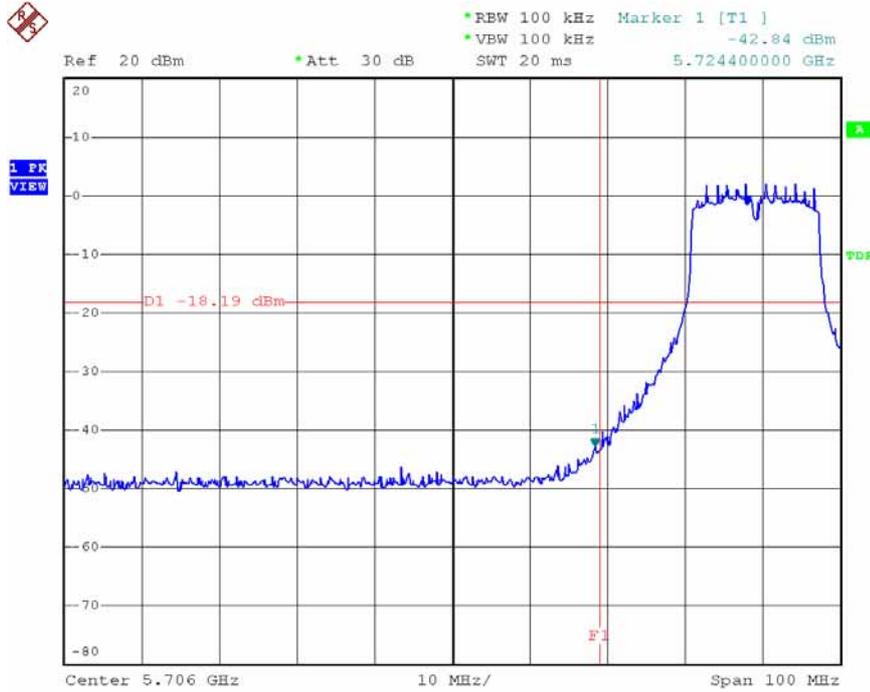


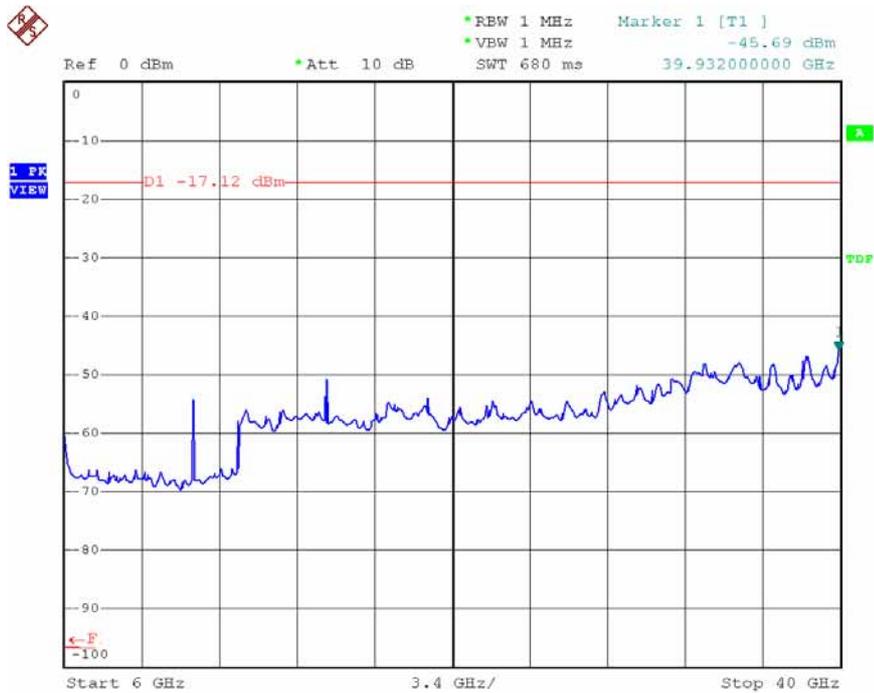Date: 8.DEC.2007  10:01:12
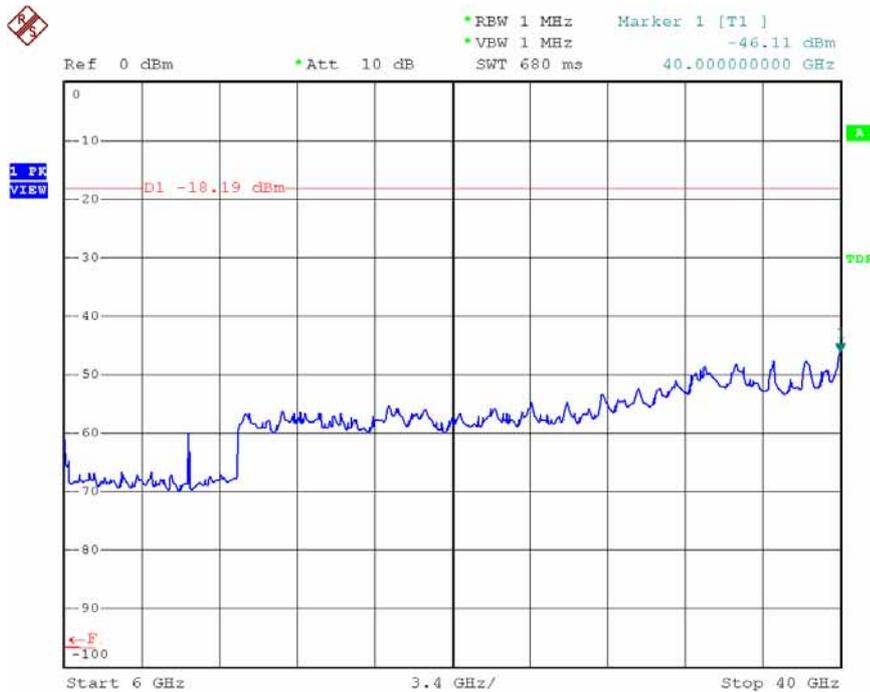


Date: 8.DEC.2007  10:02:45

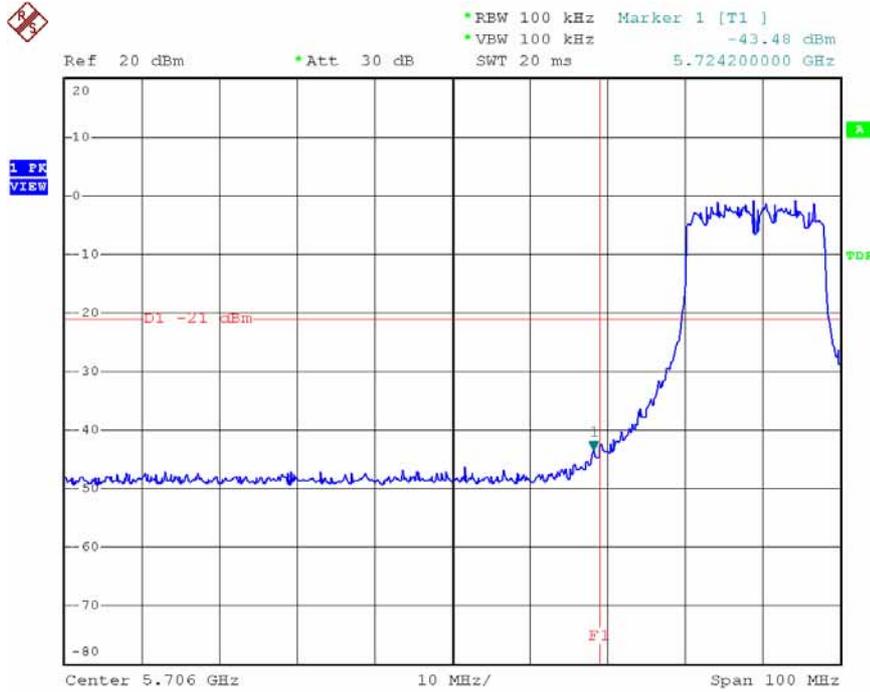Modulation Standard: 802.11a (6Mbps) – ANT-L3
Channel: 165
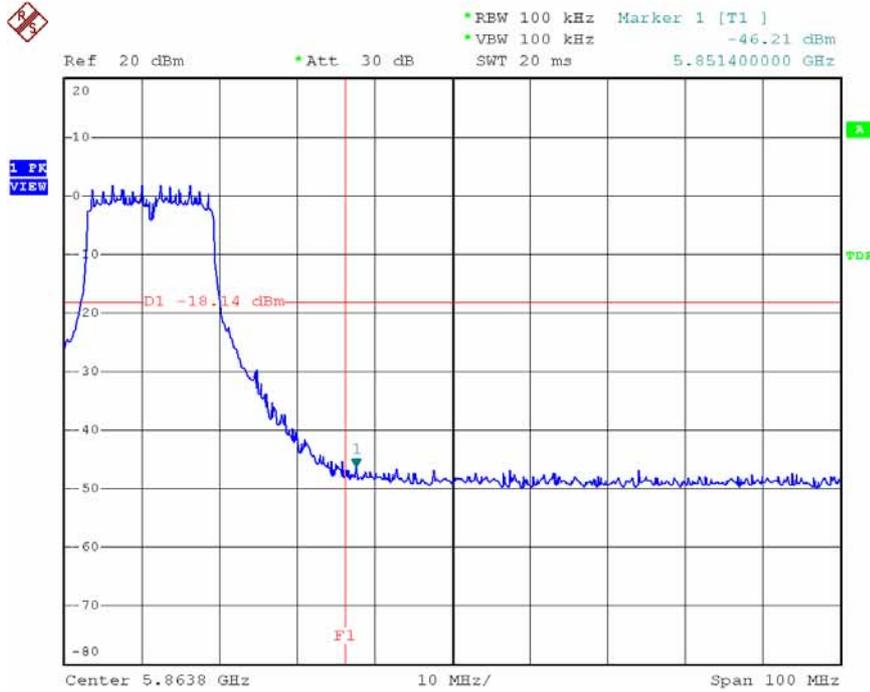


Date: 8.DEC.2007  09:56:00
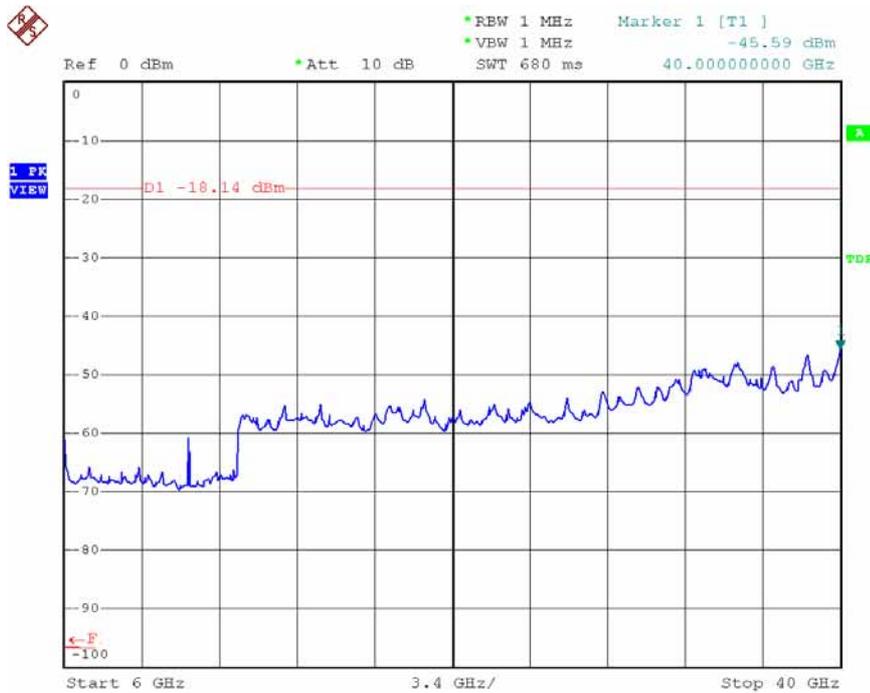


Date: 8.DEC.2007  09:58:36

Modulation Standard: 802.11a (6Mbps) – ANT-R1
Channel: 149
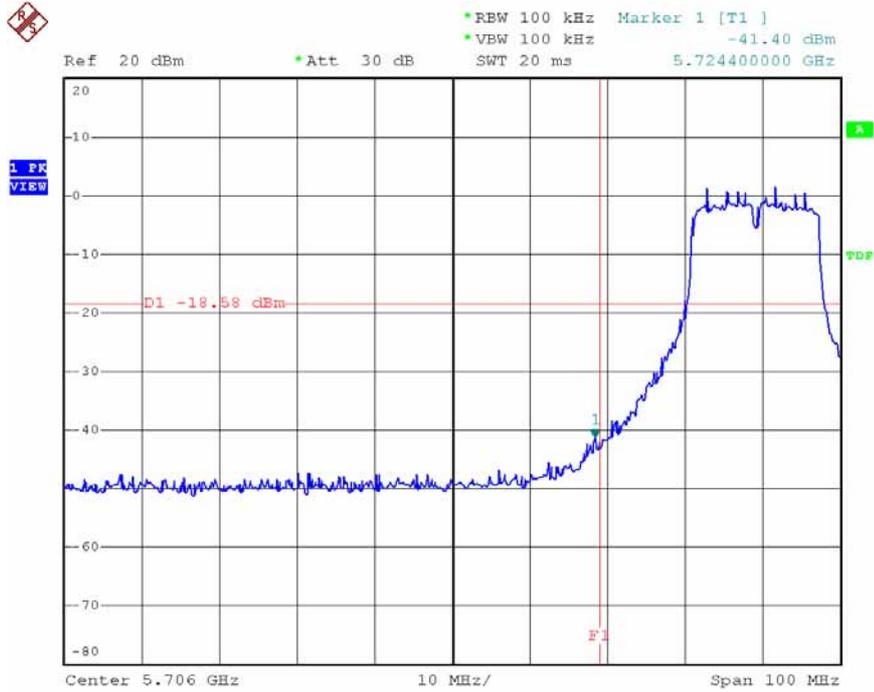


Date: 10.DEC.2007  16:11:18
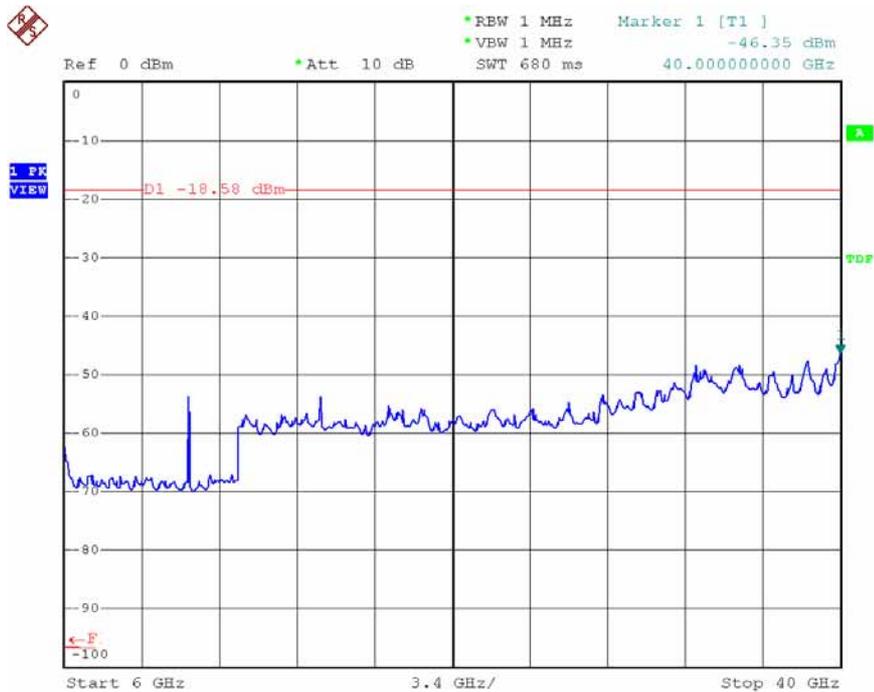


Date: 10.DEC.2007  16:12:07

Modulation Standard: 802.11a (6Mbps) – ANT-R1
Channel: 165
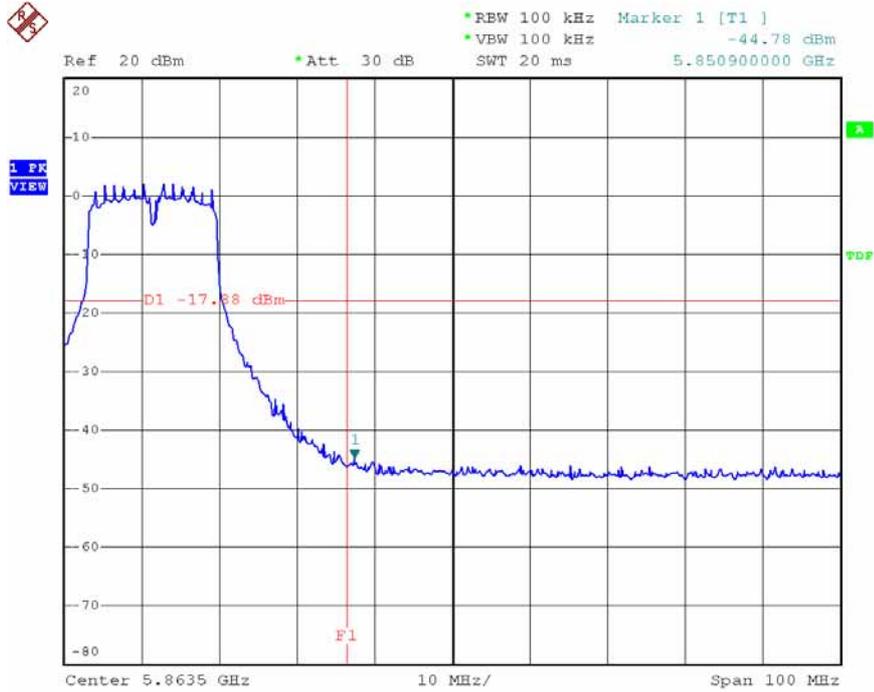


Date: 10.DEC.2007  16:23:10
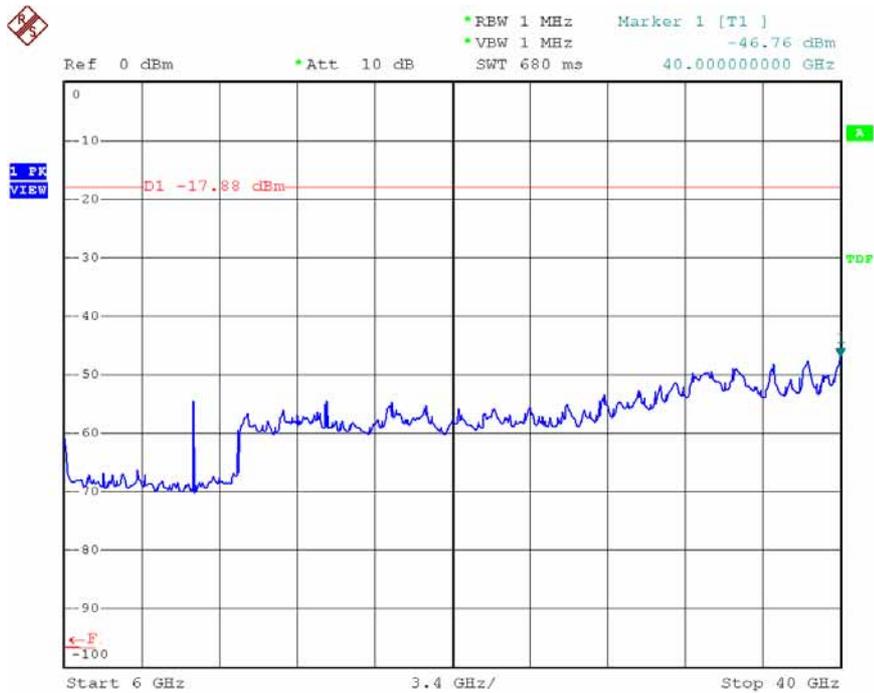


Date: 10.DEC.2007  16:23:49

Modulation Standard: 802.11a (6Mbps) – ANT-R3
Channel: 149
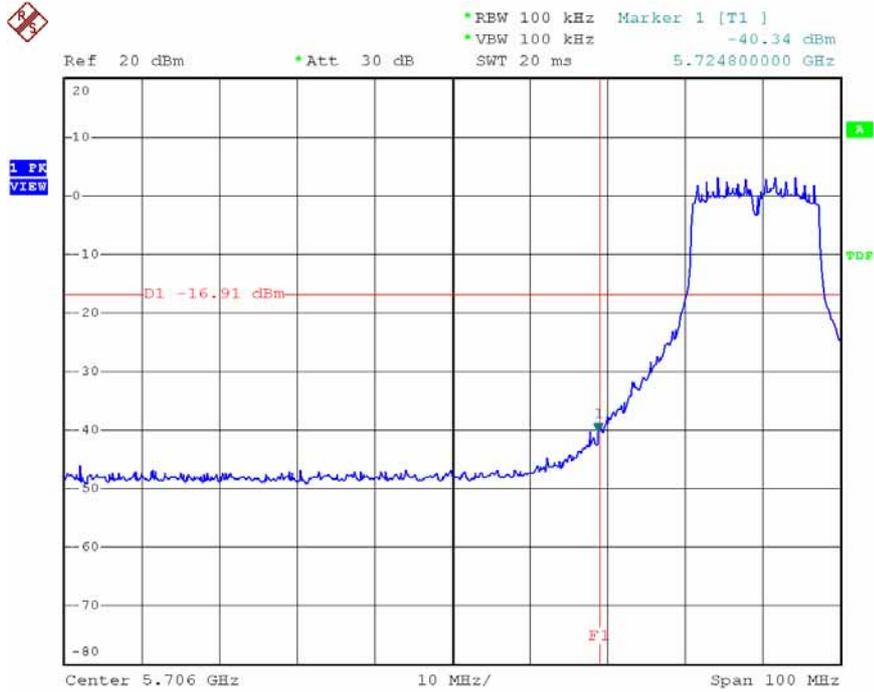


Date: 8.DEC.2007  11:34:03
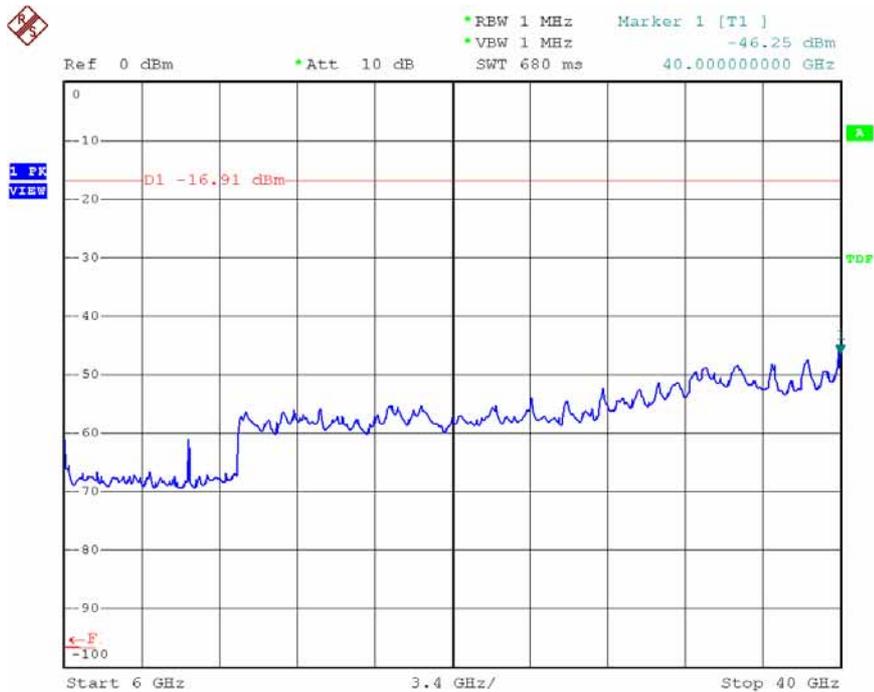


Date: 8.DEC.2007  11:35:16

Modulation Standard: 802.11a (6Mbps) – ANT-R3
Channel: 165



Date: 8.DEC.2007  11:37:38



Date: 8.DEC.2007  11:39:46

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1+ANT-L3 (ANT-L1)
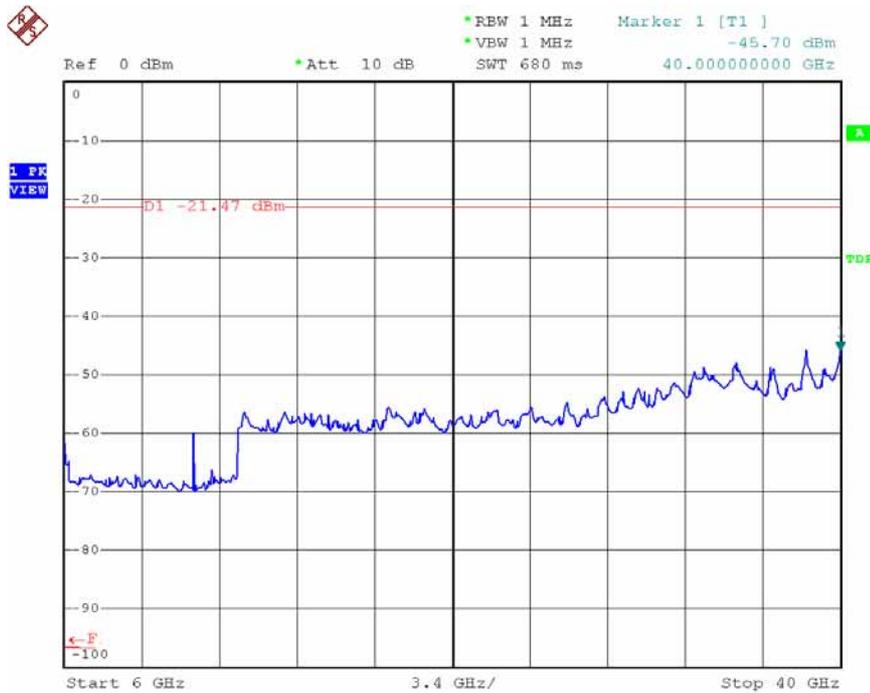Channel: 149



Date: 10.DEC.2007  19:42:48
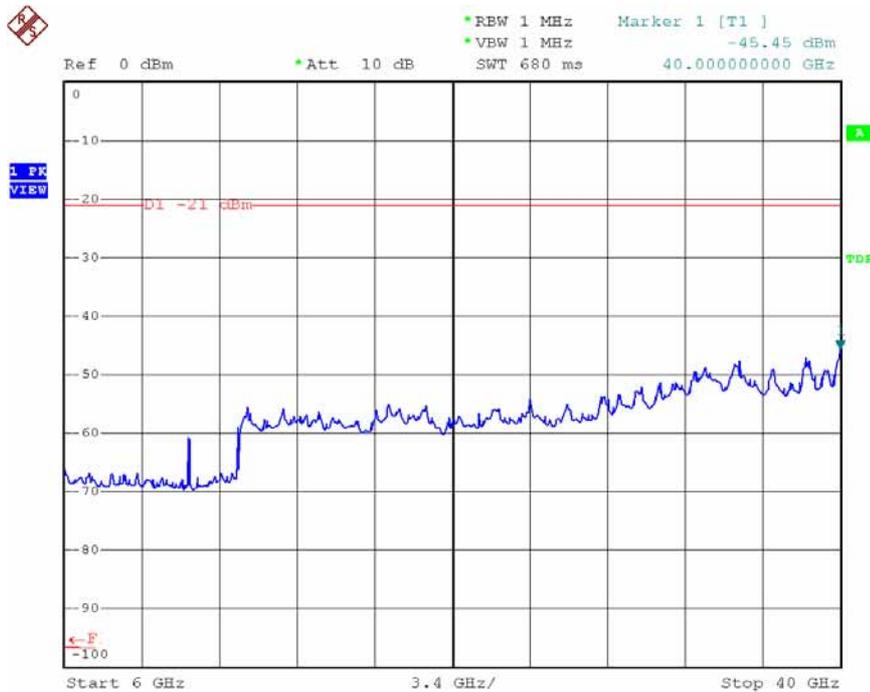


Date: 10.DEC.2007  19:43:26

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1+ANT-L3 (ANT-L1)
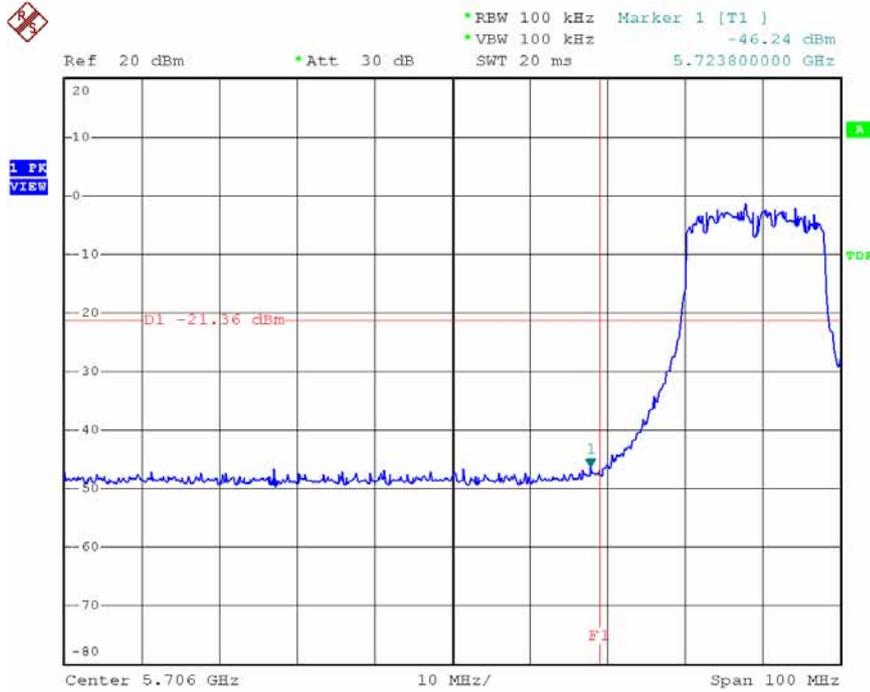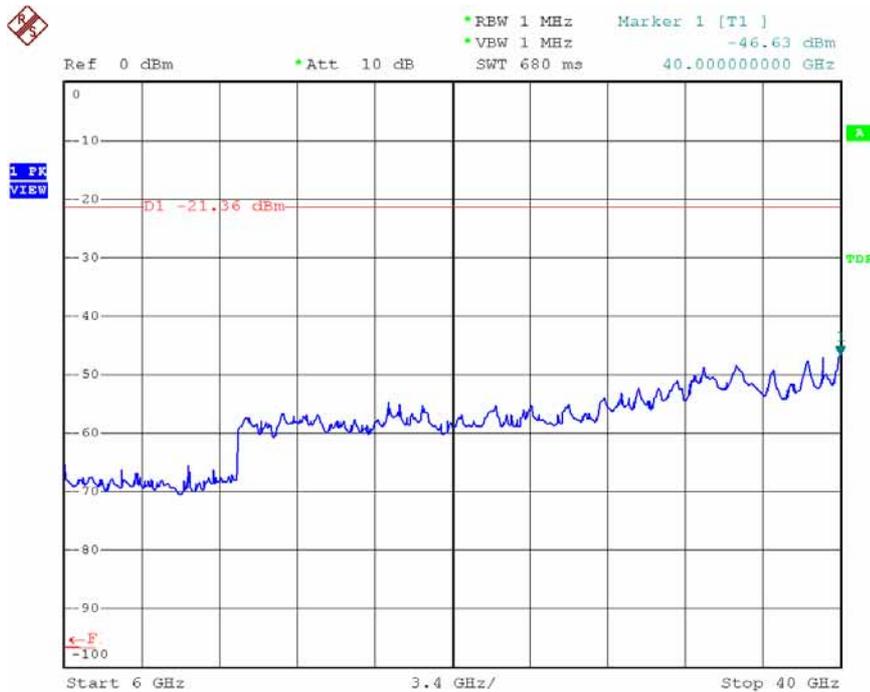Channel: 165
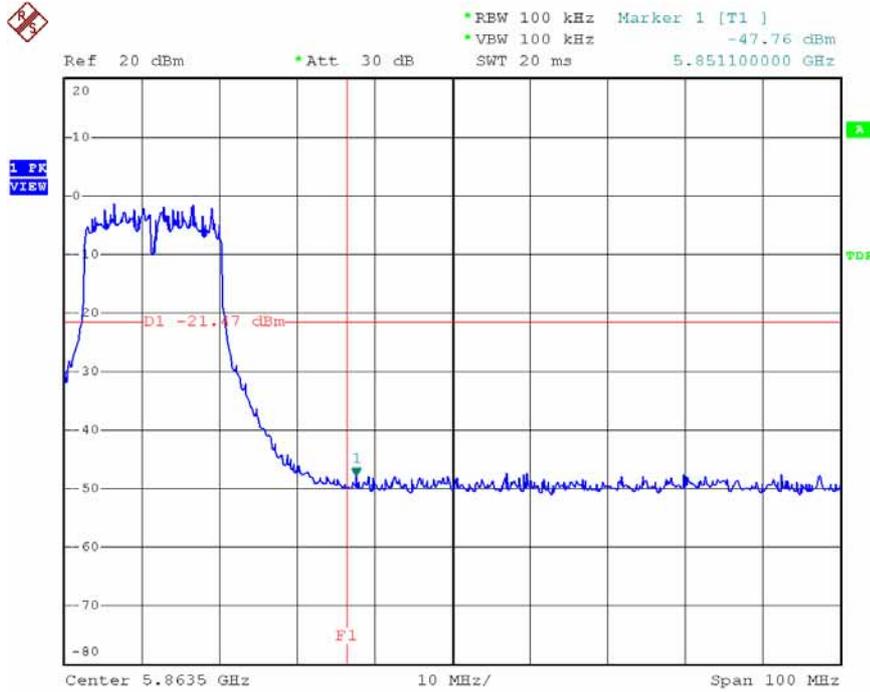


Date: 10.DEC.2007  19:39:13



Date: 10.DEC.2007  19:40:15

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1+ANT-L3 (ANT-L3)
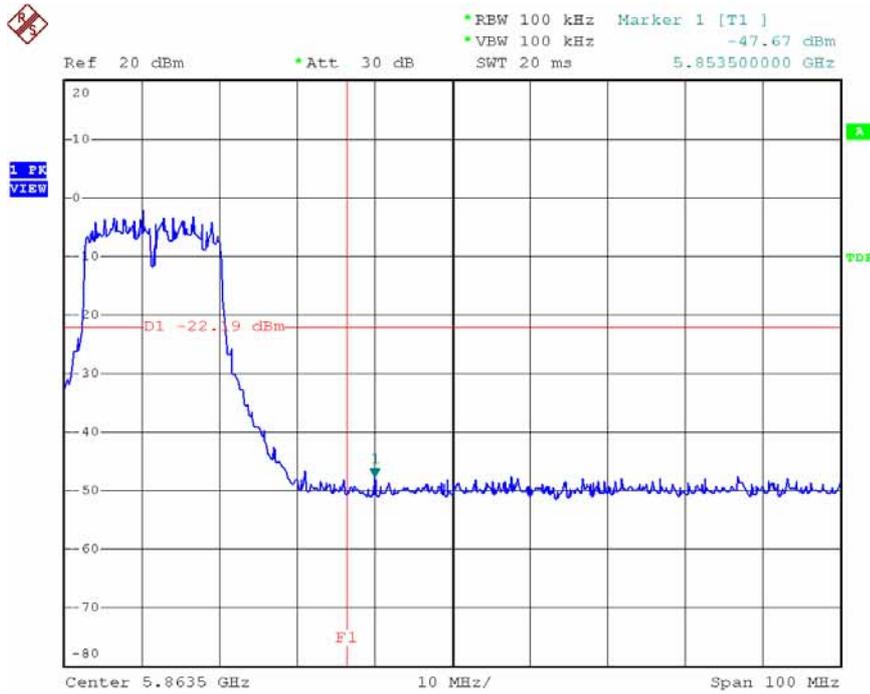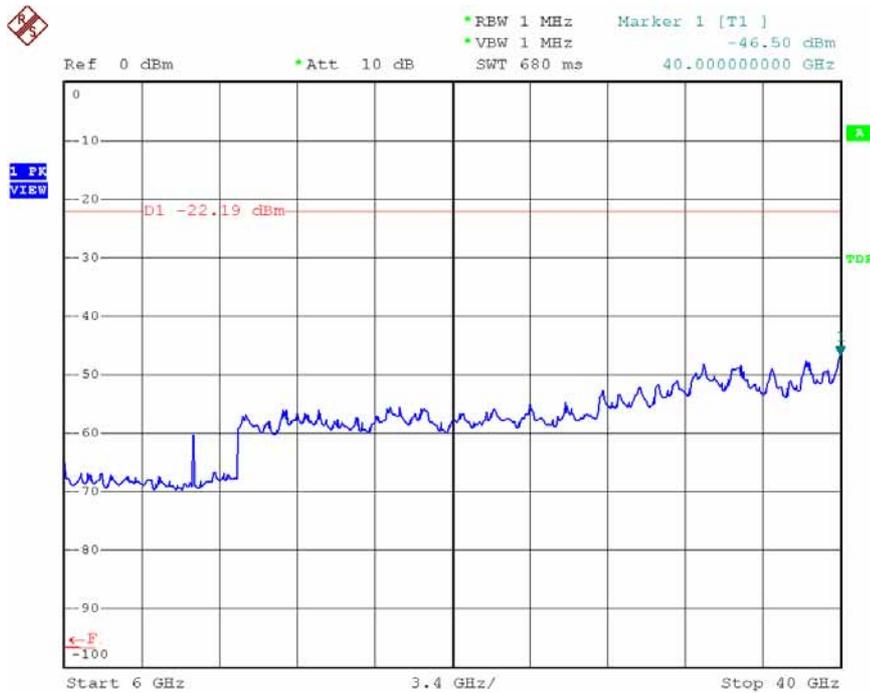Channel: 149



Date: 10.DEC.2007  19:50:46



Date: 10.DEC.2007  19:51:25

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1+ANT-L3 (ANT-L3)
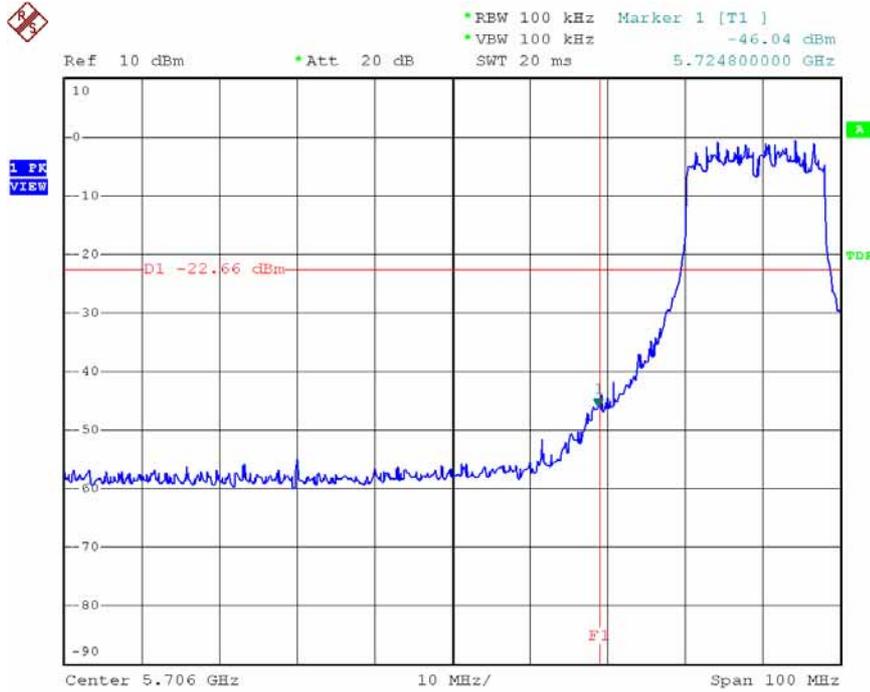Channel: 165



```
                                        *RBW 100 kHz   Marker 1 [T1 ]
                                        *VBW 100 kHz          -47.67 dBm
        Ref  20 dBm          *Att  30 dB  SWT 20 ms      5.853500000 GHz
```

Date: 10.DEC.2007  19:36:06



```
                                        *RBW 1 MHz    Marker 1 [T1 ]
                                        *VBW 1 MHz           -46.50 dBm
        Ref  0 dBm           *Att  10 dB  SWT 680 ms    40.000000000 GHz
```
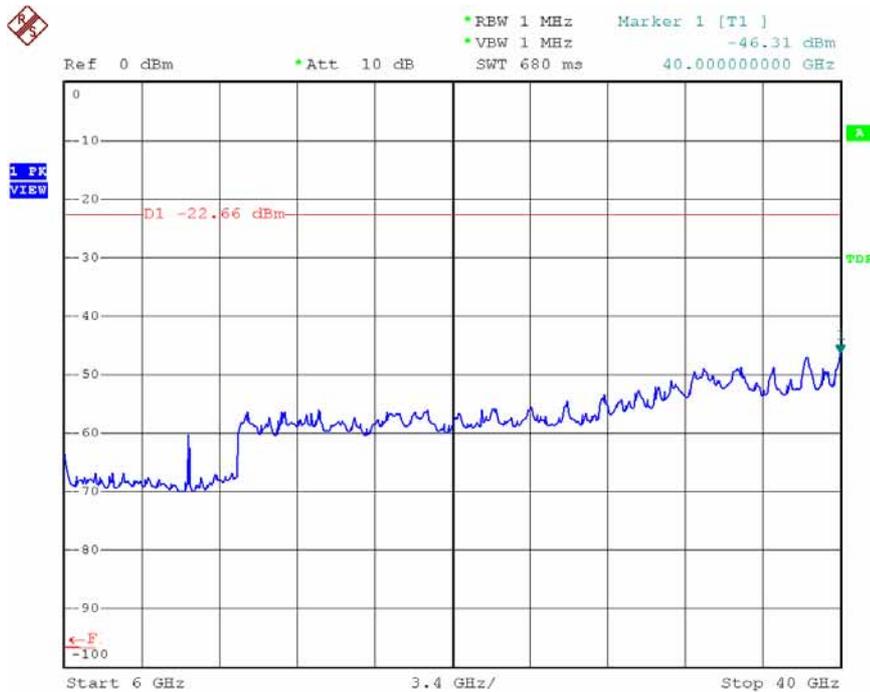
Date: 10.DEC.2007  19:37:06

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1+ANT-R3 (ANT-L1)
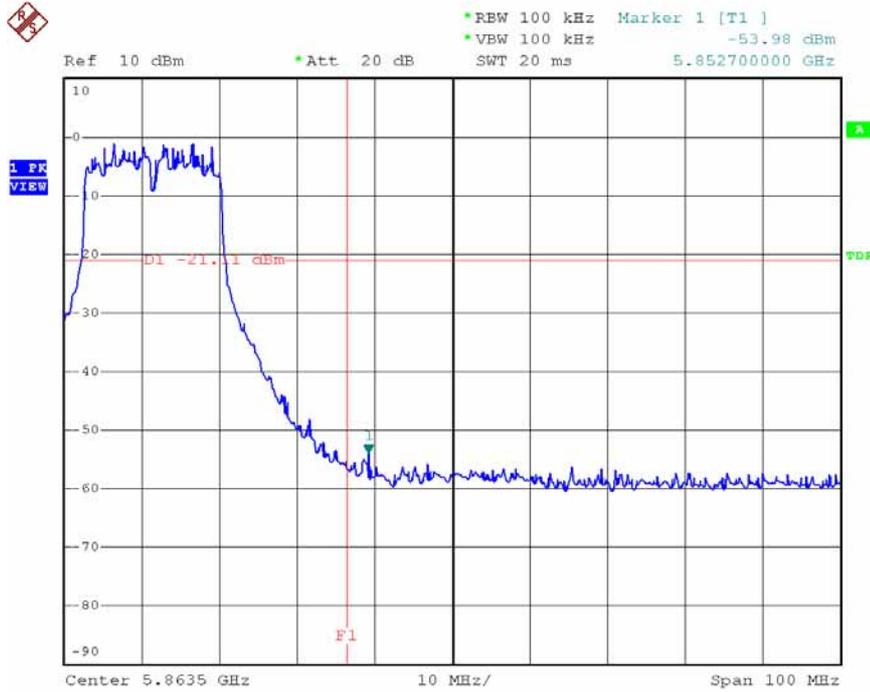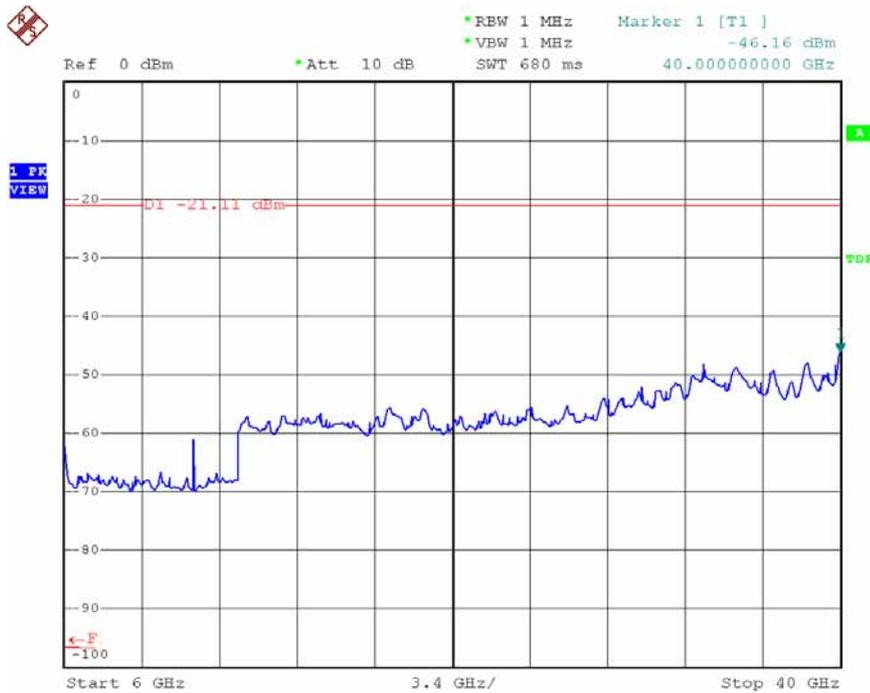Channel: 149



Date: 10.DEC.2007  22:59:29



Date: 10.DEC.2007  23:00:11

Modulation Standard: 802.11Draft n, 20MHz (130Mbps) – ANT-L1+ANT-R3 (ANT-L1)
Channel: 165



Date: 10.DEC.2007  23:07:03



Date: 10.DEC.2007  23:07:55