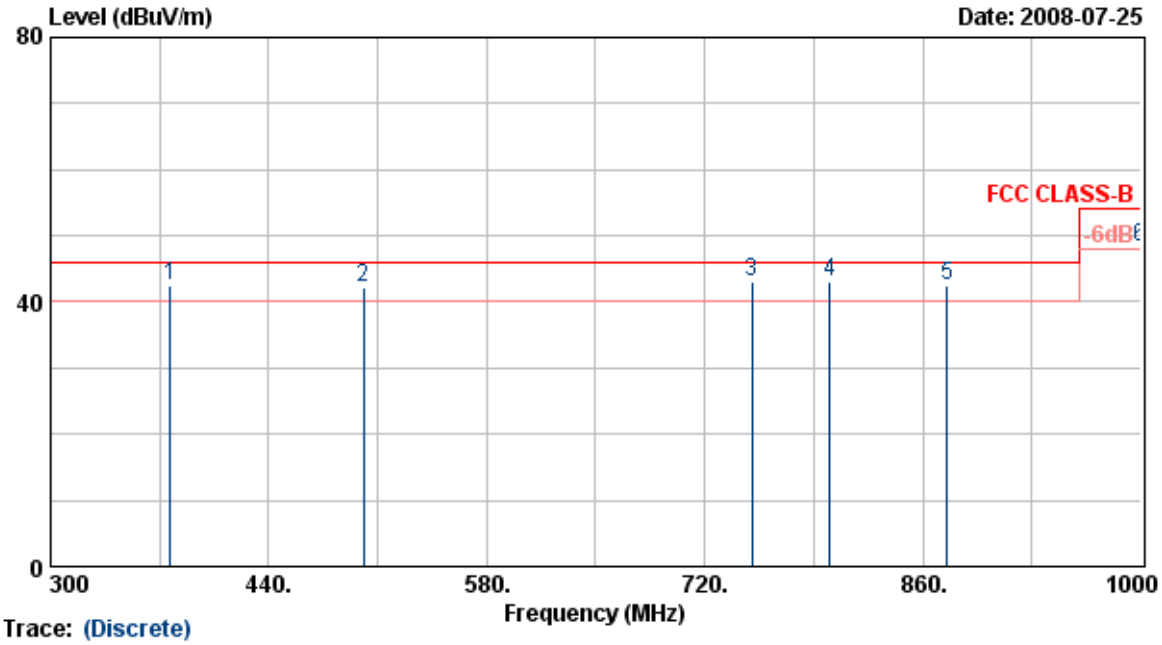
Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit/Receive	Temperature	: 30 ℃
Operation Channel	: 38	Humidity	: 65 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1020 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1		



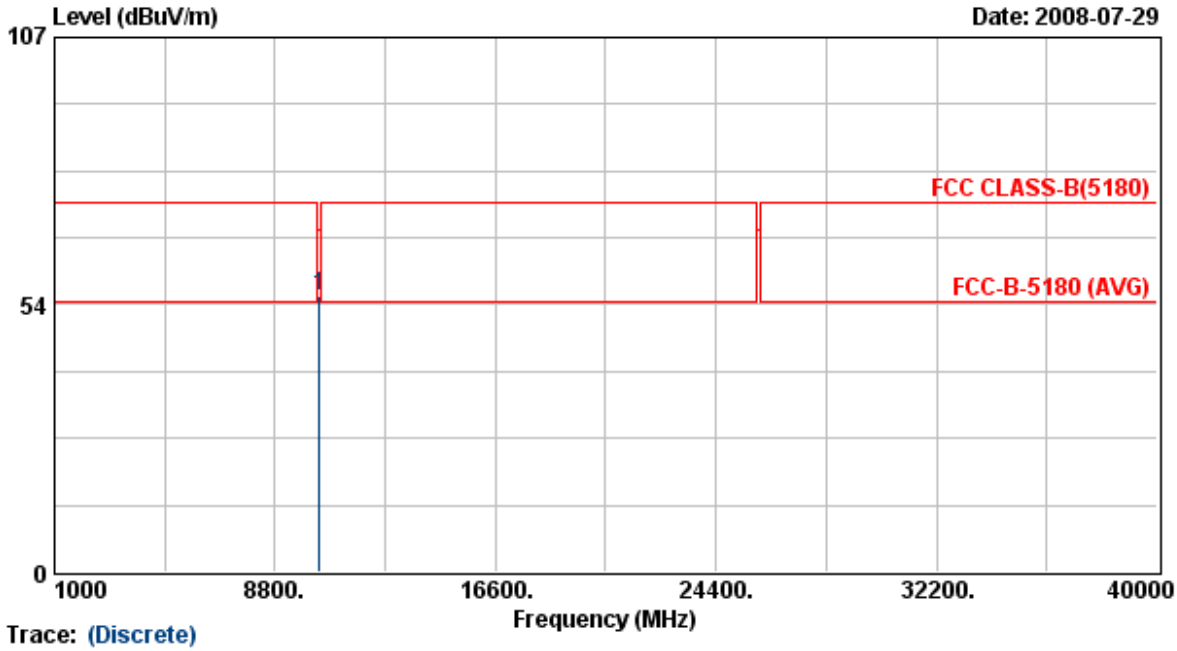
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	377.00	53.85	-11.25	42.60	46.00	-3.40	QP	100	88
2	500.90	46.68	-4.52	42.16	46.00	-3.84	QP	100	111
3	750.10	42.63	0.31	42.94	46.00	-3.06	QP	100	111
4	800.50	43.48	-0.50	42.98	46.00	-3.02	QP	100	111
5	875.40	38.50	3.99	42.49	46.00	-3.51	QP	100	111
6	999.90	44.90	3.34	48.24	54.00	-5.76	QP	100	82

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 802.11an HT40 mode at channel 38,42,46 are almost the same below 1GHz,so that the channel 38 was chosen as representative in final test.
5. The data is worse case.

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Transmit/Receive	Temperature	: 27 ℃
Operation Channel	: 38	Humidity	: 70 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1000 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1		



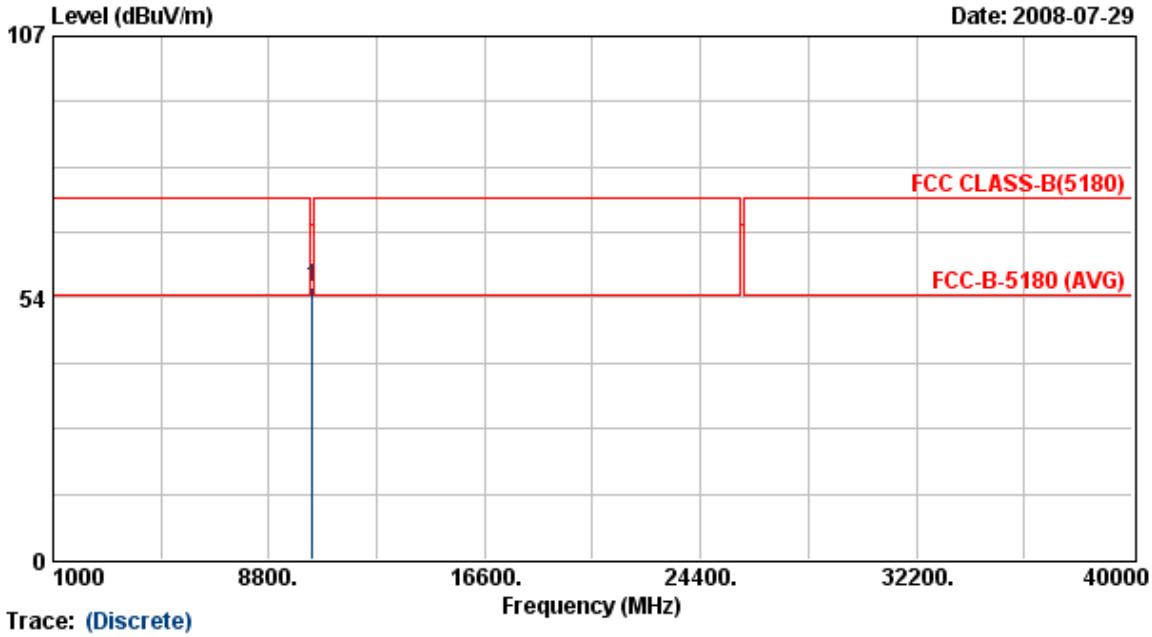
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	10379.85	42.61	12.81	55.42	68.30	-12.88	Peak	100	257

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 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit/Receive	Temperature	: 27 ℃
Operation Channel	: 38	Humidity	: 70 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1000 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1		



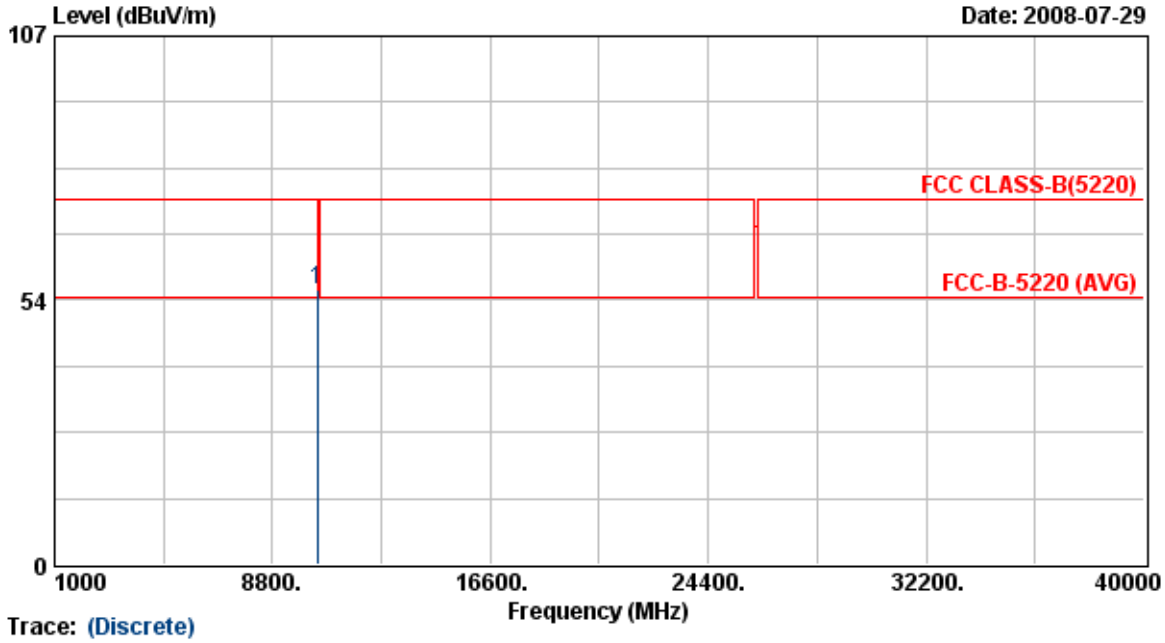
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	10380.00	42.98	12.81	55.79	68.30	-12.51	Peak	100	150

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 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Transmit/Receive	Temperature	: 27 ℃
Operation Channel	: 42	Humidity	: 70 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1000 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1		



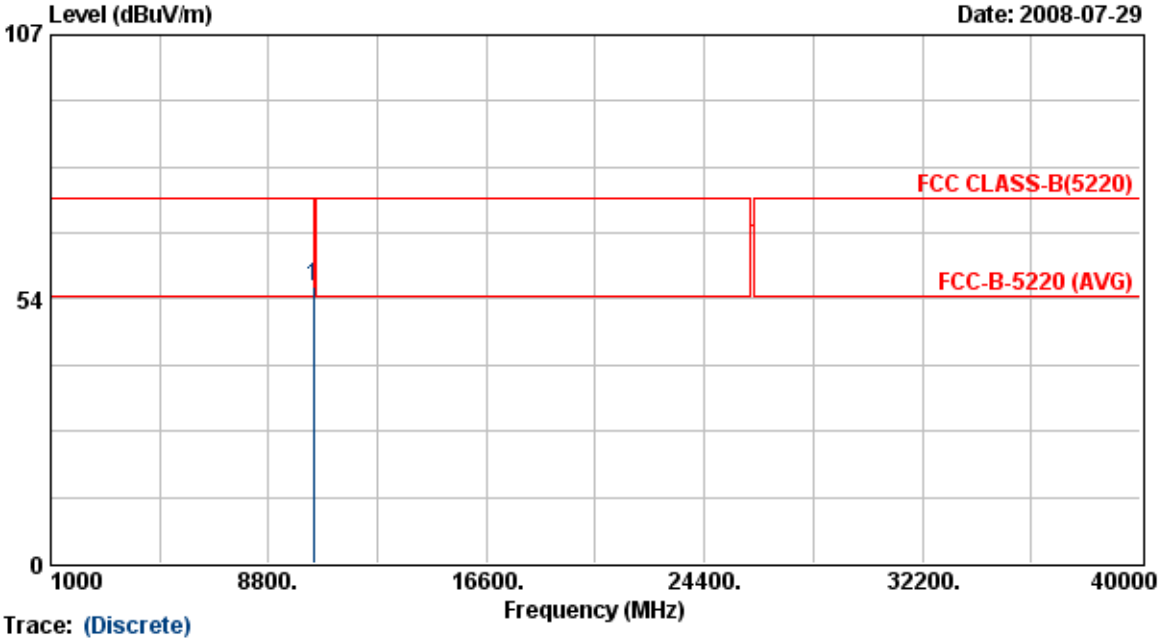
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	10420.00	42.81	12.87	55.68	68.30	-12.62	Peak	100	257

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 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit/Receive	Temperature	: 27 ℃
Operation Channel	: 42	Humidity	: 70 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1000 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1		



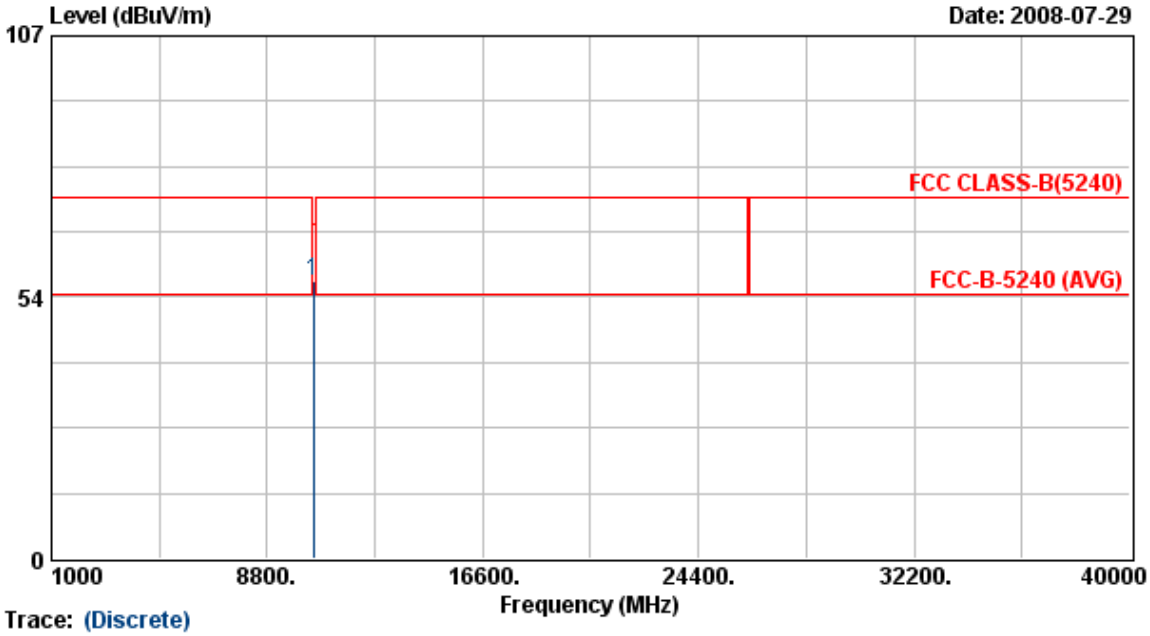
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	10420.00	43.19	12.87	56.06	68.30	-12.24	Peak	100	150

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 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Transmit/Receive	Temperature	: 27 ℃
Operation Channel	: 46	Humidity	: 70 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1000 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1		



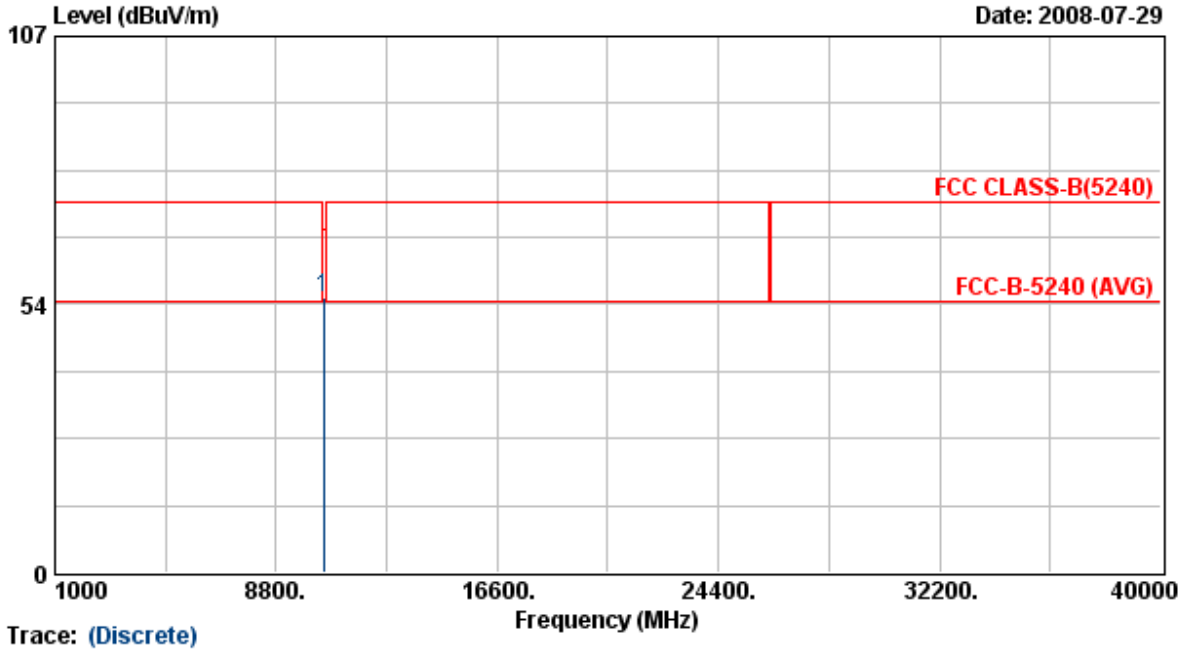
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	10460.55	43.76	12.94	56.69	68.30	-11.61	Peak	100	257

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 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit/Receive	Temperature	: 27 ℃
Operation Channel	: 46	Humidity	: 70 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1000 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1		



Trace: (Discrete)

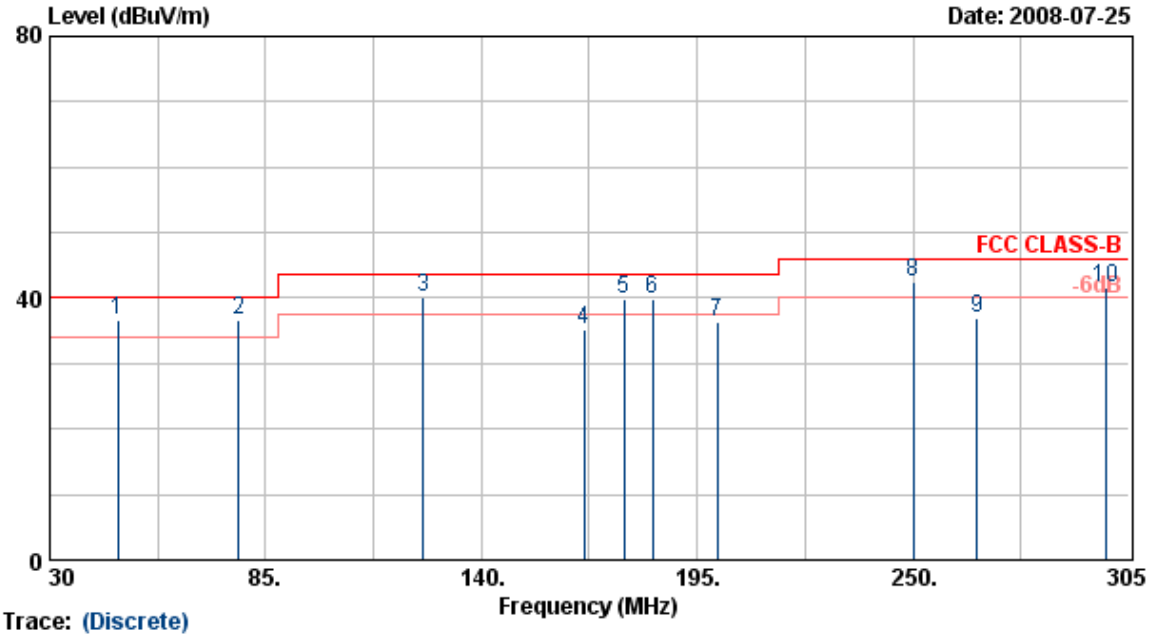
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	10459.92	42.11	12.94	55.04	68.30	-13.26	Peak	100	150

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 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Test Mode 14

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Transmit/Receive	Temperature	: 30 ℃
Operation Channel	: 38	Humidity	: 65 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1020 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1 3TX		



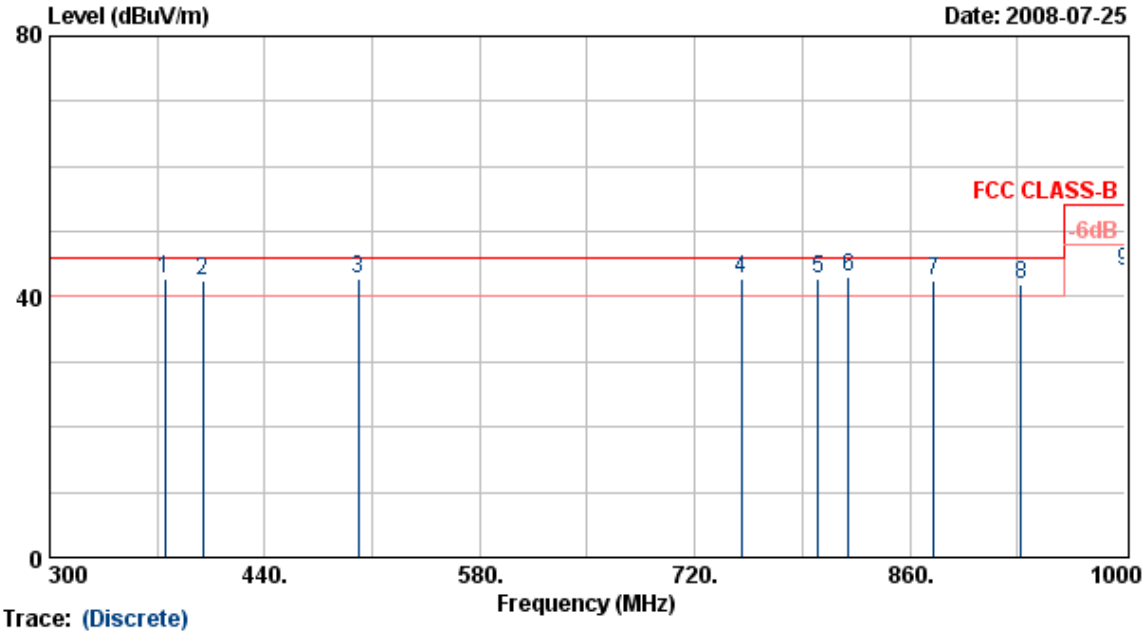
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	47.33	51.62	-14.87	36.75	40.00	-3.25	QP	100	74
2	78.13	53.28	-16.54	36.74	40.00	-3.26	QP	100	99
3	125.15	53.39	-13.34	40.05	43.50	-3.45	QP	100	77
4	166.13	48.20	-12.99	35.21	43.50	-8.29	Peak	100	77
5	176.30	49.60	-9.64	39.96	43.50	-3.54	QP	100	77
6	183.73	49.22	-9.47	39.75	43.50	-3.75	QP	100	85
7	200.23	47.98	-11.71	36.27	43.50	-7.23	Peak	100	50
8	250.00	55.57	-13.04	42.53	46.00	-3.47	QP	100	50
9	266.23	45.27	-8.37	36.90	46.00	-9.10	Peak	100	84
10	299.23	50.87	-9.25	41.62	46.00	-4.38	QP	100	84

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 802.11an HT40 mode at channel 38,42,46 are almost the same below 1GHz,so that the channel 38 was chosen as representative in final test.
5. The data is worse case.

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Transmit/Receive	Temperature	: 30 ℃
Operation Channel	: 38	Humidity	: 65 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1020 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1 3TX		



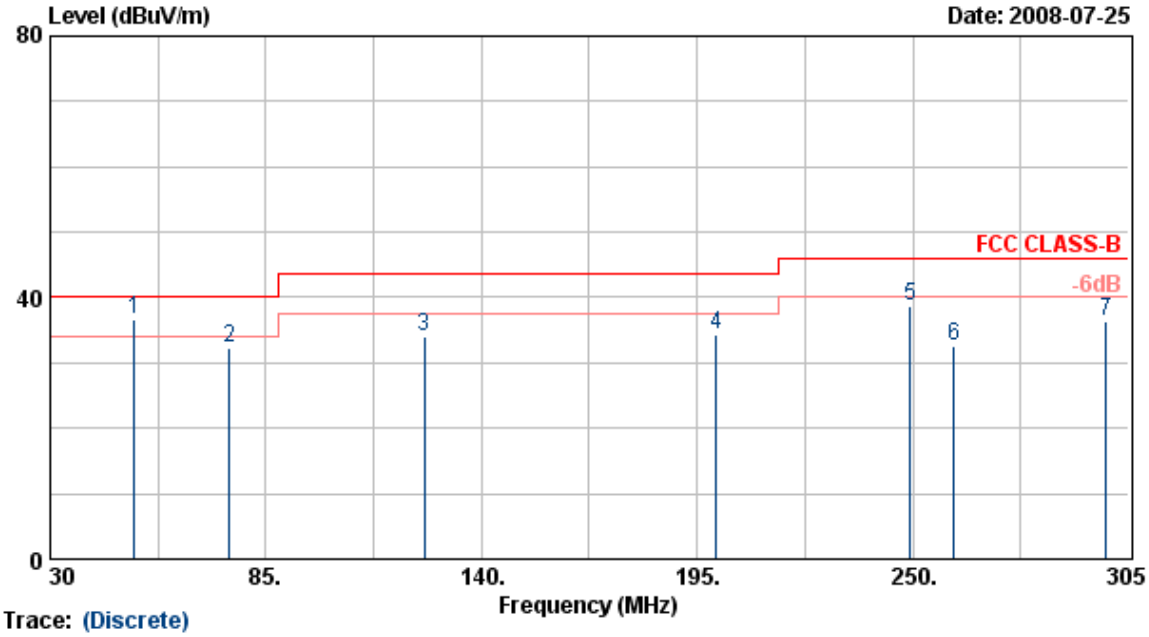
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	375.01	51.55	-8.84	42.71	46.00	-3.29	QP	100	95
2	399.40	50.95	-8.62	42.33	46.00	-3.67	QP	100	85
3	500.90	47.69	-4.89	42.80	46.00	-3.20	QP	100	85
4	750.10	41.49	1.26	42.75	46.00	-3.25	QP	100	85
5	800.50	45.62	-2.80	42.82	46.00	-3.18	QP	100	99
6	820.10	45.66	-2.67	42.99	46.00	-3.01	QP	100	48
7	875.40	40.80	1.75	42.55	46.00	-3.45	QP	100	48
8	932.10	42.88	-1.12	41.76	46.00	-4.24	QP	100	48
9	999.90	42.55	1.49	44.04	54.00	-9.96	Peak	100	48

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 802.11an HT40 mode at channel 38,42,46 are almost the same below 1GHz,so that the channel 38 was chosen as representative in final test.
5. The data is worse case.

Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit/Receive	Temperature	: 30 ℃
Operation Channel	: 38	Humidity	: 65 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1020 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1 3TX		



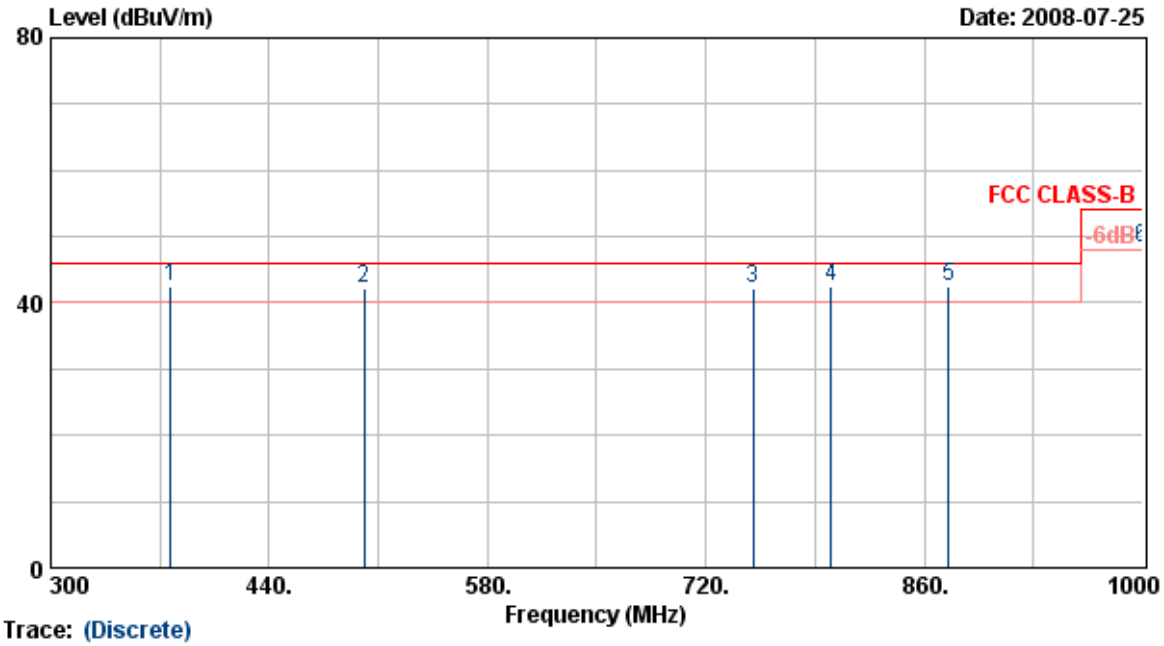
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	51.45	57.88	-21.31	36.57	40.00	-3.43	QP	100	99
2	75.65	54.29	-21.94	32.35	40.00	-7.65	Peak	100	188
3	125.43	53.65	-19.57	34.08	43.50	-9.42	Peak	100	188
4	199.95	48.80	-14.51	34.29	43.50	-9.21	Peak	100	95
5	249.45	56.58	-17.75	38.83	46.00	-7.17	Peak	100	95
6	260.45	47.58	-15.01	32.57	46.00	-13.43	Peak	100	95
7	299.23	50.70	-14.39	36.31	46.00	-9.69	Peak	100	95

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 802.11an HT40 mode at channel 38,42,46 are almost the same below 1GHz,so that the channel 38 was chosen as representative in final test.
5. The data is worse case.

Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit/Receive	Temperature	: 30 ℃
Operation Channel	: 38	Humidity	: 65 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1020 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1 3TX		



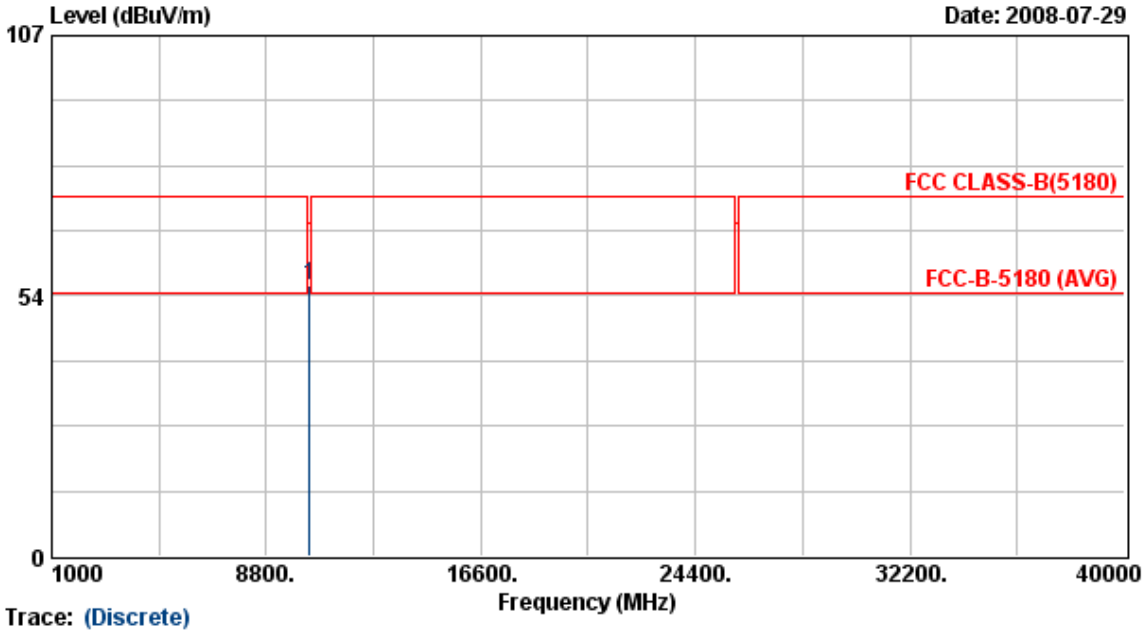
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	377.00	53.75	-11.25	42.49	46.00	-3.51	QP	100	88
2	500.90	46.74	-4.52	42.22	46.00	-3.78	QP	100	111
3	750.10	41.87	0.31	42.18	46.00	-3.82	QP	100	111
4	800.50	42.88	-0.50	42.38	46.00	-3.62	QP	100	111
5	875.40	38.50	3.99	42.49	46.00	-3.51	QP	100	111
6	999.90	44.90	3.34	48.24	54.00	-5.76	QP	100	82

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 802.11an HT40 mode at channel 38,42,46 are almost the same below 1GHz,so that the channel 38 was chosen as representative in final test.
5. The data is worse case.

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Transmit/Receive	Temperature	: 27 ℃
Operation Channel	: 38	Humidity	: 70 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1000 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1 3TX		



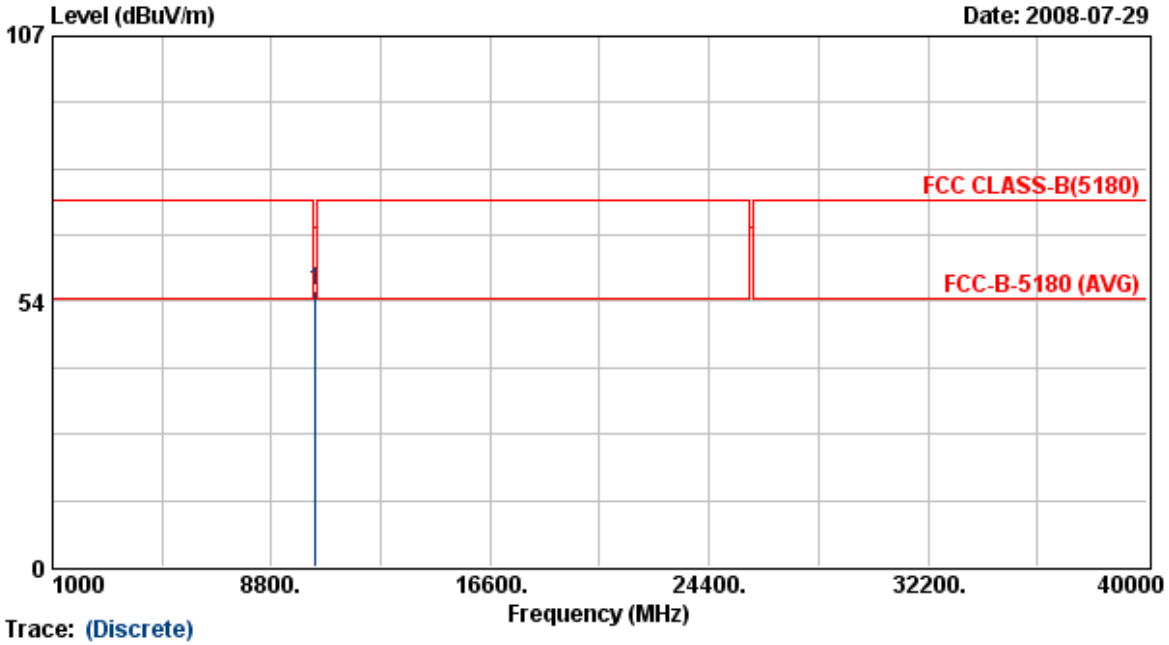
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	10379.85	42.68	12.81	55.48	68.30	-12.82	Peak	100	257

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 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit/Receive	Temperature	: 27 ℃
Operation Channel	: 38	Humidity	: 70 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1000 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1 3TX		



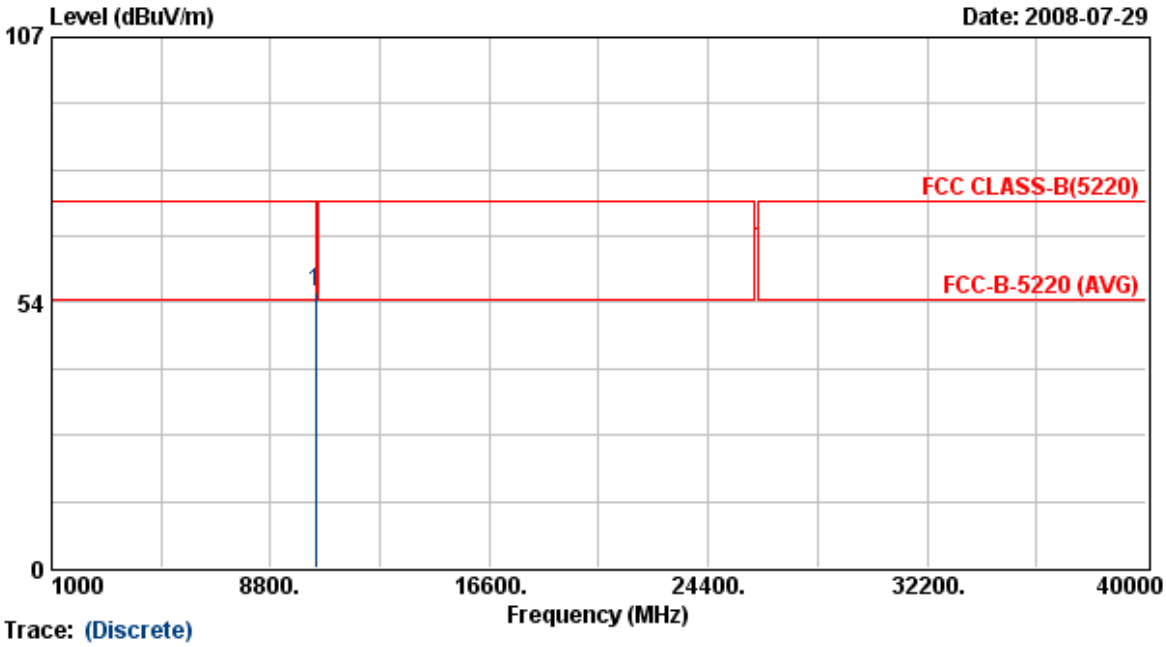
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	10380.00	43.00	12.81	55.81	68.30	-12.50	Peak	100	150

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 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Transmit/Receive	Temperature	: 27 ℃
Operation Channel	: 42	Humidity	: 70 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1000 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1 3TX		



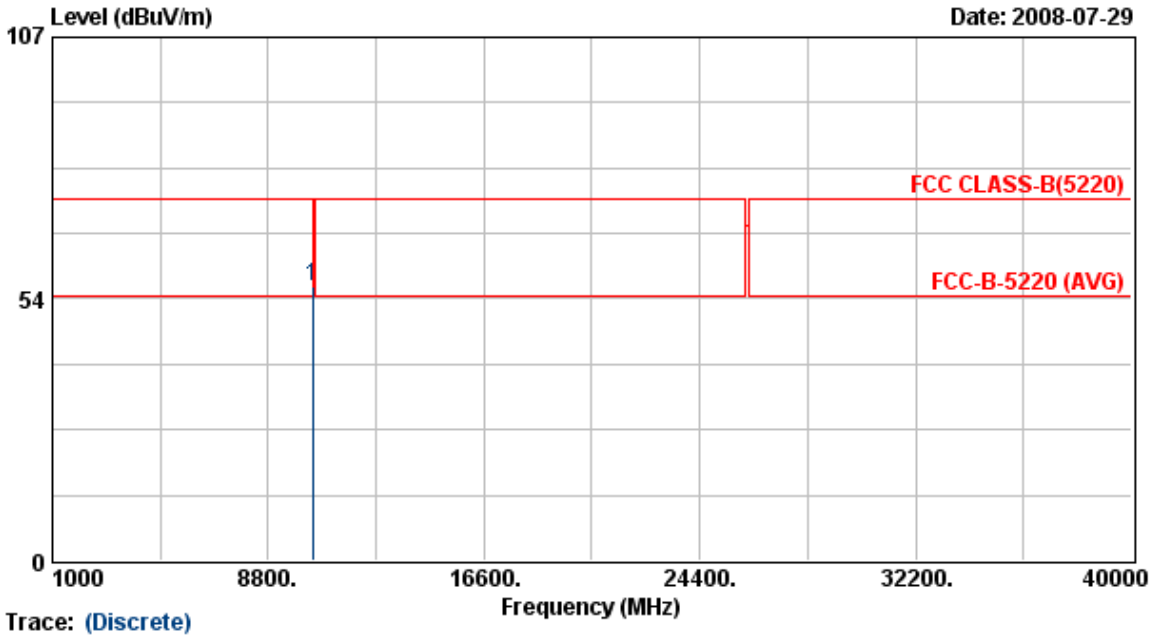
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	10420.00	42.86	12.87	55.73	68.30	-12.57	Peak	100	257

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 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit/Receive	Temperature	: 27 ℃
Operation Channel	: 42	Humidity	: 70 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1000 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1 3TX		



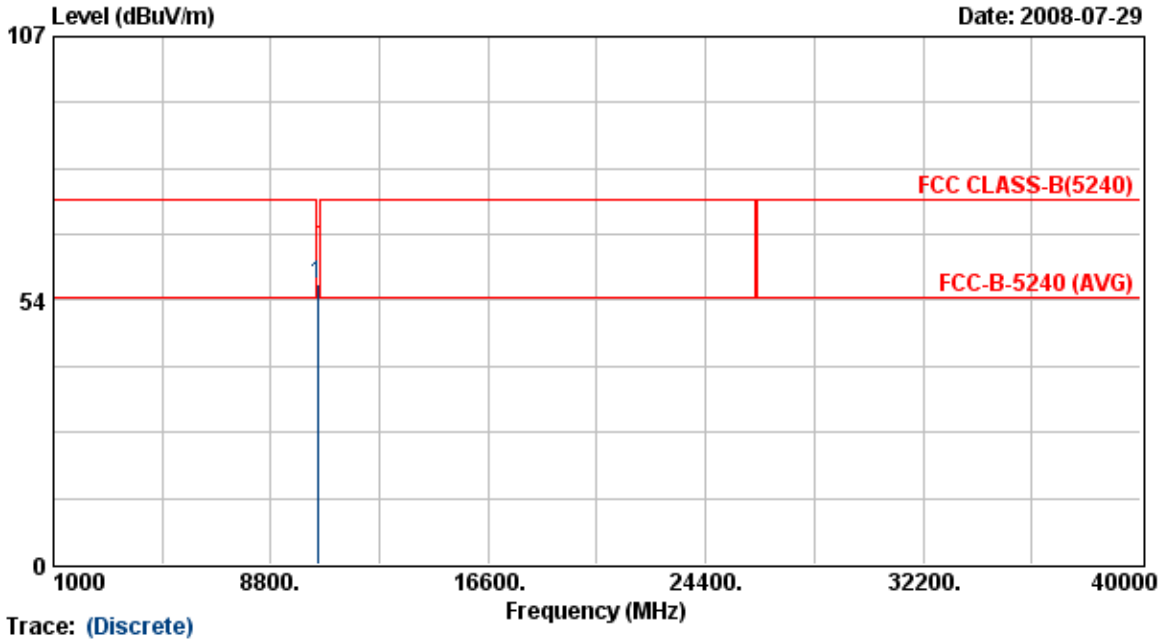
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	10420.00	43.17	12.87	56.04	68.30	-12.26	Peak	100	150

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 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Transmit/Receive	Temperature	: 27 ℃
Operation Channel	: 46	Humidity	: 70 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1000 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1 3TX		



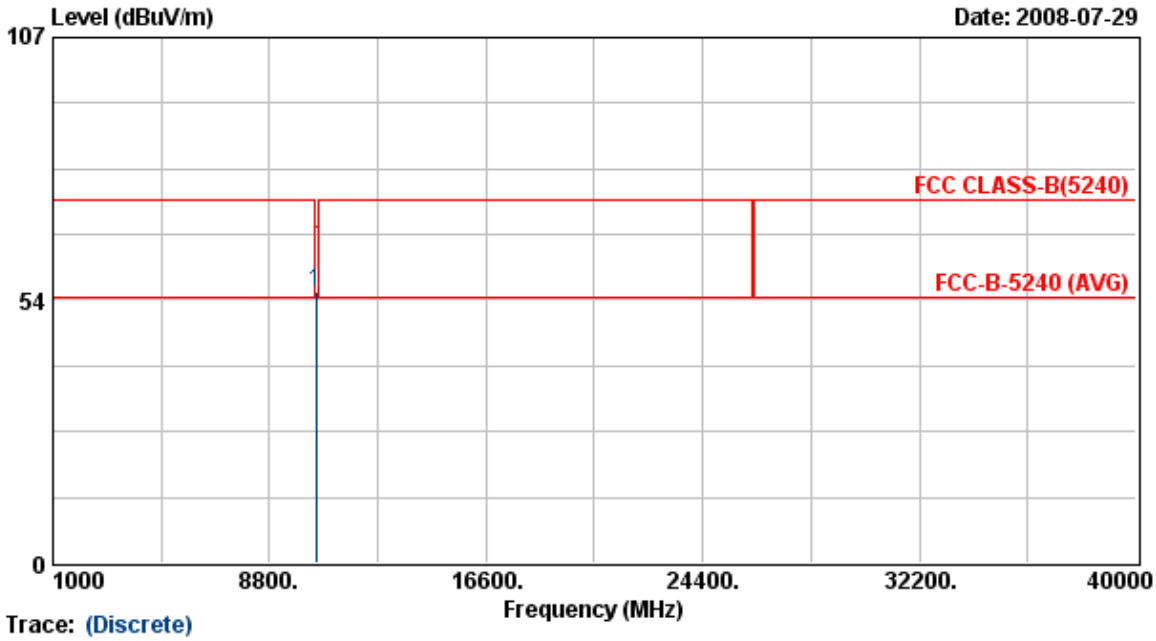
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	10460.55	43.78	12.94	56.71	68.30	-11.59	Peak	100	257

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 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit/Receive	Temperature	: 27 ℃
Operation Channel	: 46	Humidity	: 70 %
Modulation Type	: 802.11an HT40	Atmospheric Pressure	: 1000 hPa
Rate	: 270 Mbps		
Memo	: MU18-2120150-A1 3TX		



Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		cm	Deg
1	10459.92	42.17	12.94	55.10	68.30	-13.20	Peak	100	150

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 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

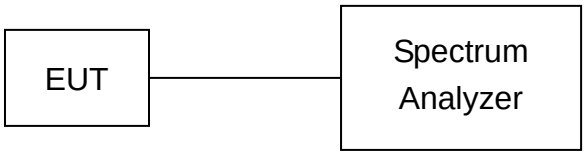
Test engineer: Ben

6. Peak Transmit Power

6.1. Test Procedure

The antenna port (RF output) of the EUT was connected to the input (RF input) of a spectrum analyzer. Power was read directly from the spectrum analyzer 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.

6.2. Test Setup Layout



6.3. Measurement equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date.
Spectrum Analyzer	FSP40	R&S	10047	2008/02/22	2009/02/21

6.4. Test Result and Data

Modulation Standard: IEEE 802.11a (54Mbps)
Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa

Channel	Frequency (MHz)	Peak Power Output (dBm)			Peak Power Output (mW)			26dB Occupied Bandwidth (MHz)		
		R-ANT	M-ANT	L-ANT	R-ANT	M-ANT	L-ANT	R-ANT	M-ANT	L-ANT
36	5180	16.48	16.85	16.58	44.50	48.40	45.50	23.80	22.70	23.10
44	5220	16.33	16.83	16.56	43.00	48.20	45.30	23.60	22.50	23.10
48	5240	16.22	16.73	16.75	41.90	47.10	47.30	22.80	22.50	23.20

Modulation Standard: IEEE 802.11an, HT20 (130Mbps)
Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa
R+L ANT

Channel	Frequency (MHz)	Peak Power Output (dBm)		Peak Power Output (dBm)	Peak Power Output (mW)	26dB Occupied Bandwidth (MHz)	
		R-ANT	L-ANT	R+L	R+L	R-ANT	L-ANT
36	5180	12.66	13.20	15.95	39.34	18.90	18.60
44	5220	13.09	12.88	16.00	39.78	18.90	19.10
48	5240	13.03	12.16	15.63	36.53	18.70	18.70

Modulation Standard: IEEE 802.11an, HT20 (130Mbps)
Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa
All ANT

Channel	Frequency (MHz)	Peak Power Output (dBm)			26dB Occupied Bandwidth (MHz)		
		R-ANT	M-ANT	L-ANT	R-ANT	M-ANT	L-ANT
36	5180	12.20	11.93	12.23	23.70	23.30	23.10
44	5220	11.88	12.48	11.54	23.70	22.90	23.10
48	5240	11.71	12.73	11.02	23.30	22.40	23.10

Channel	Frequency (MHz)	Peak Power Output (dBm)	Peak Power Output (mW)
		R+M+L	
36	5180	16.89	48.90
44	5220	16.74	47.20
48	5240	16.65	46.22

Modulation Standard: IEEE 802.11an, HT40 (270Mbps)
Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa
R+L ANT

Channel	Frequency (MHz)	Peak Power Output (dBm)		Peak Power Output (dBm)	Peak Power Output (mW)	26dB Occupied Bandwidth (MHz)	
		R-ANT	L-ANT	R+L	R+L	R-ANT	L-ANT
38	5190	12.44	12.60	15.53	35.74	44.40	43.40
42	5210	12.59	12.23	15.42	34.87	43.80	43.00
46	5230	12.32	11.71	15.04	31.89	43.20	43.20

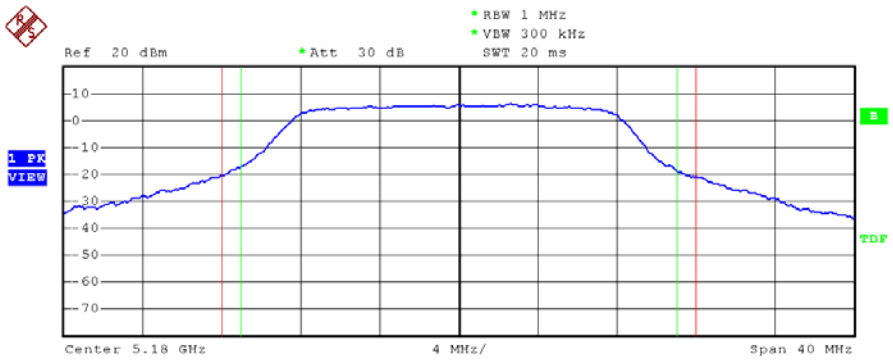
Modulation Standard: IEEE 802.11an, HT40 (270Mbps)
Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa
All ANT

Channel	Frequency (MHz)	Peak Power Output (dBm)			26dB Occupied Bandwidth (MHz)		
		R-ANT	M-ANT	L-ANT	R-ANT	M-ANT	L-ANT
38	5190	11.96	12.18	11.48	43.80	43.00	42.80
42	5210	12.27	12.01	11.17	43.20	42.80	42.60
46	5230	12.04	12.30	11.79	42.80	42.40	43.20

Channel	Frequency (MHz)	Peak Power Output (dBm)	Peak Power Output (mW)
		R+M+L	
38	5190	16.65	46.28
42	5210	16.61	45.84
46	5230	16.82	48.08

Peak Transmit Power

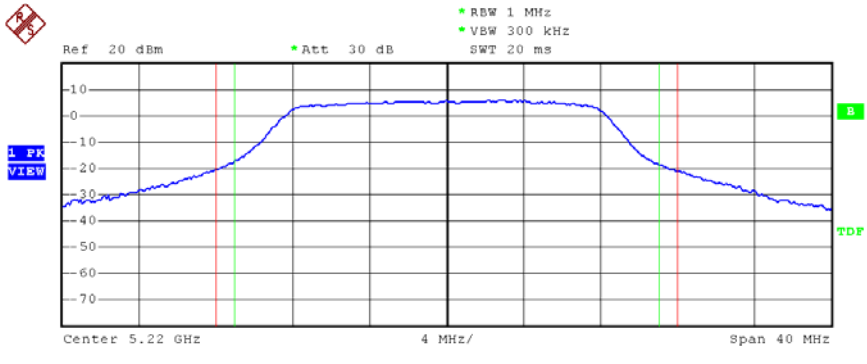
Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 36



Tx Channel			
Bandwidth	23.8 MHz	Power	16.48 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	16.5 MHz	Upper	-----
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 23.JUL.2008 13:52:48

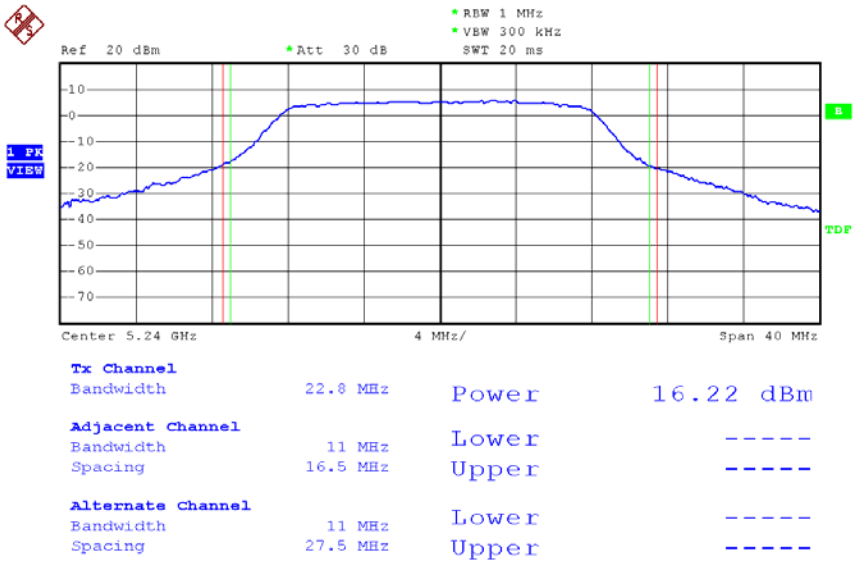
Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 44



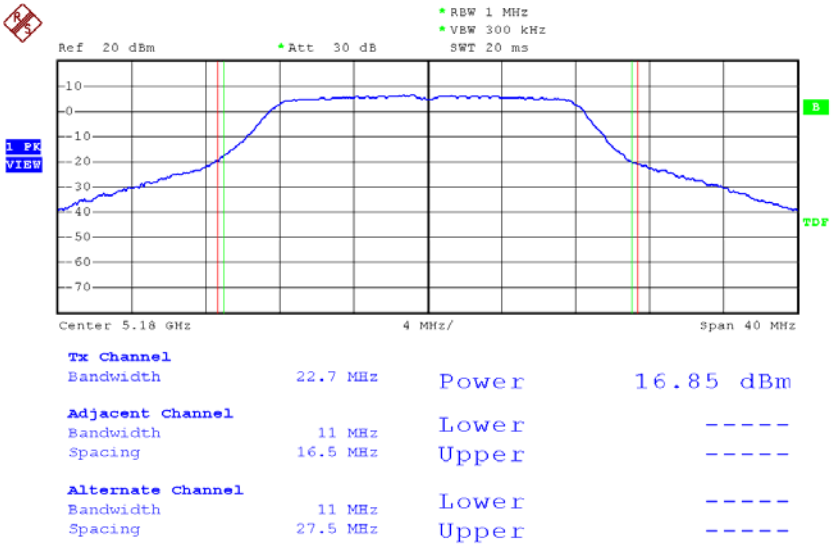
Tx Channel			
Bandwidth	23.6 MHz	Power	16.33 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	16.5 MHz	Upper	-----
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 23.JUL.2008 13:54:18

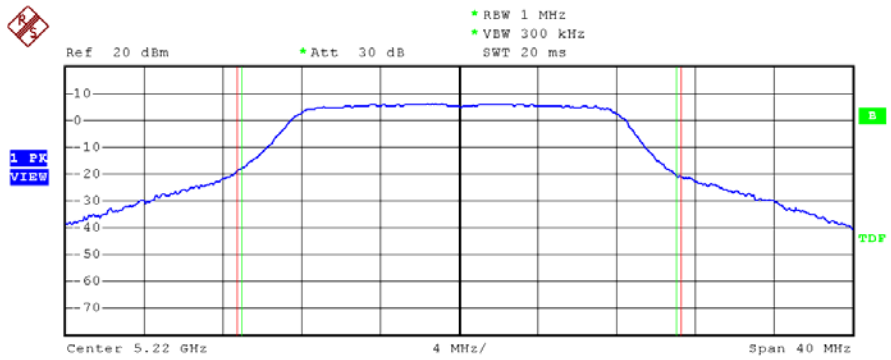
Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 48



Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 36



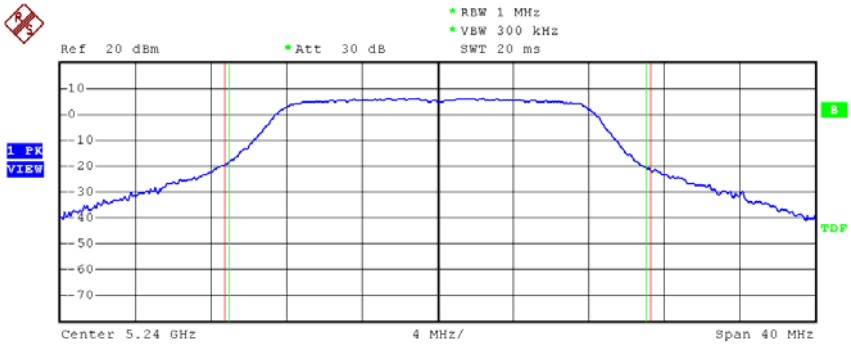
Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 44



Tx Channel			
Bandwidth	22.5 MHz	Power	16.83 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	16.5 MHz	Upper	-----
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 23.JUL.2008 13:41:16

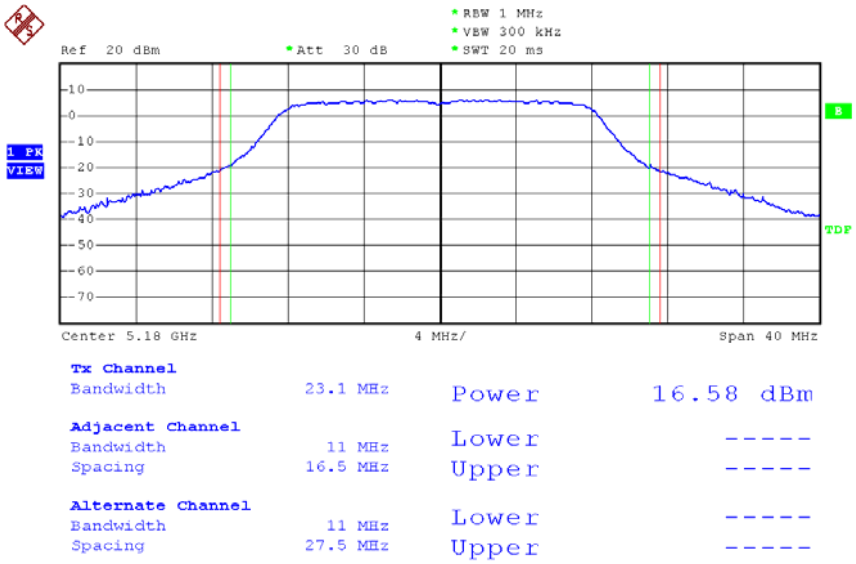
Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 48



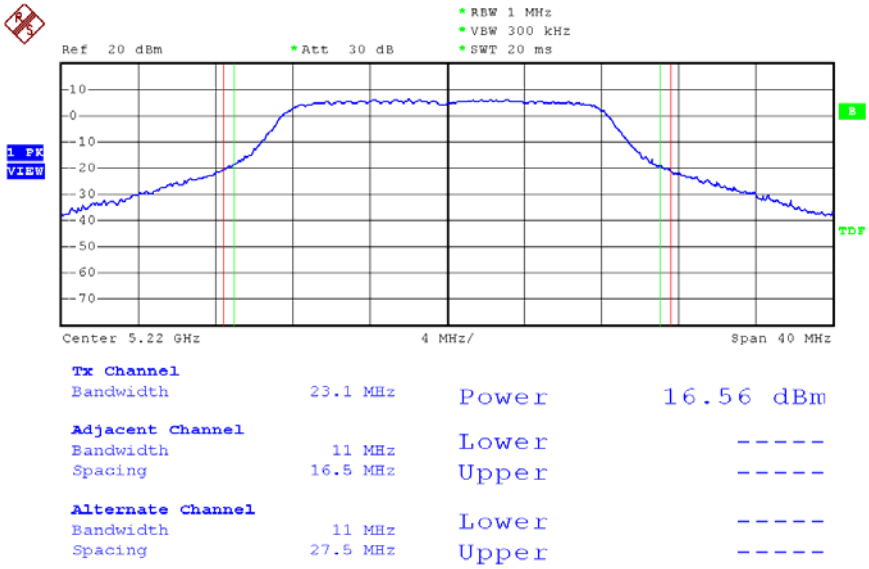
Tx Channel			
Bandwidth	22.5 MHz	Power	16.73 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	16.5 MHz	Upper	-----
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 23.JUL.2008 13:39:13

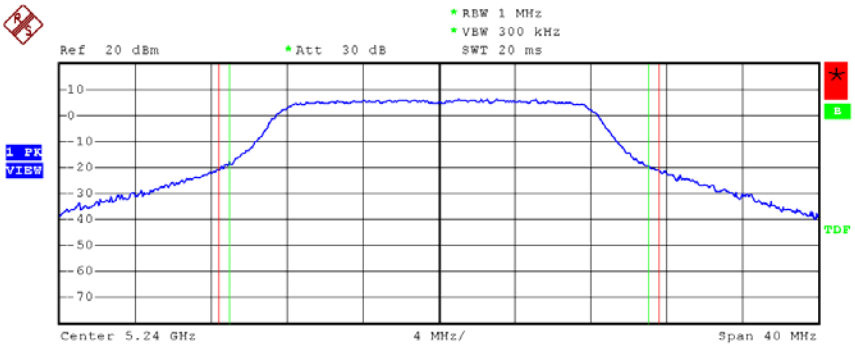
Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 36



Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 44



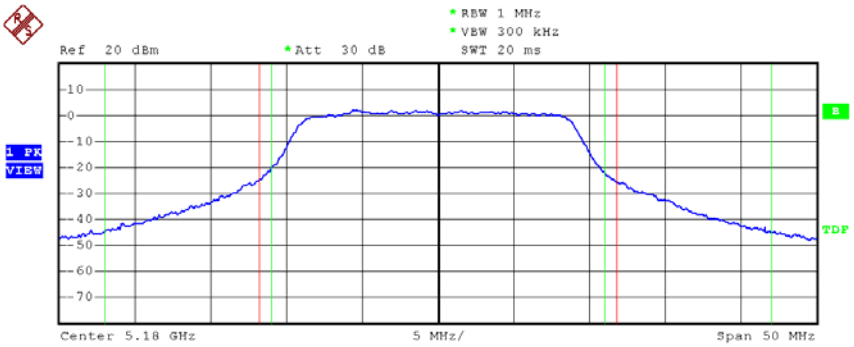
Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 48



Tx Channel			
Bandwidth	23.2 MHz	Power	16.75 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	16.5 MHz	Upper	-----
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 23.JUL.2008 13:36:34

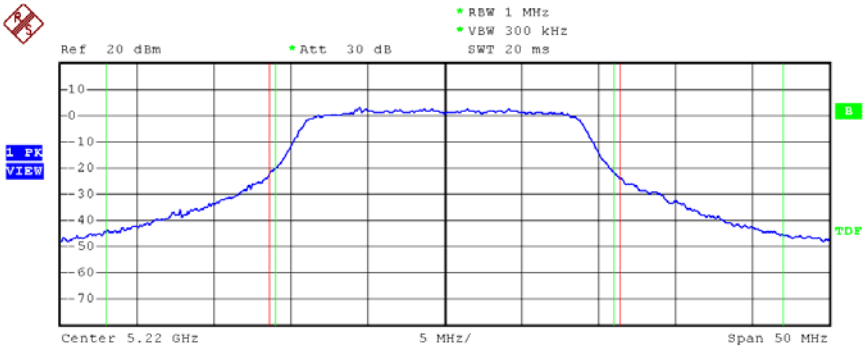
Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 36



Tx Channel			
Bandwidth	23.5 MHz	Power	12.66 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-33.54 dB
Spacing	16.5 MHz	Upper	-34.11 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 23.JUL.2008 14:08:07

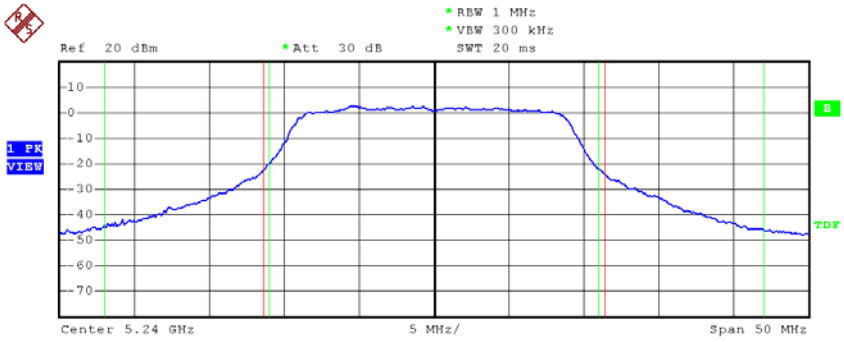
Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 44



Tx Channel			
Bandwidth	22.8 MHz	Power	13.09 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-33.88 dB
Spacing	16.5 MHz	Upper	-34.50 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 23.JUL.2008 14:16:38

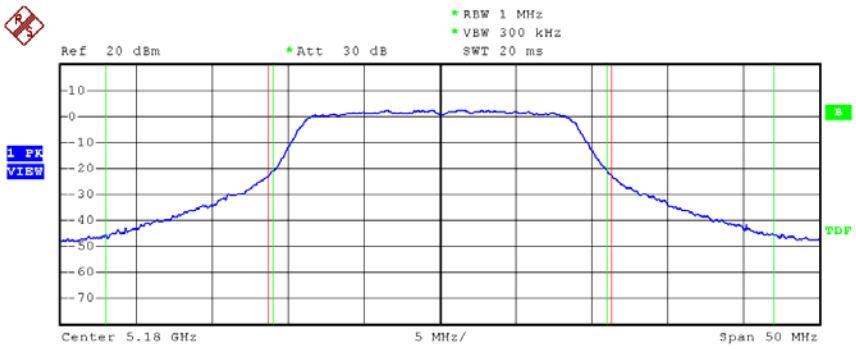
Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 48



Tx Channel			
Bandwidth	22.8 MHz	Power	13.03 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-33.78 dB
Spacing	16.5 MHz	Upper	-34.90 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

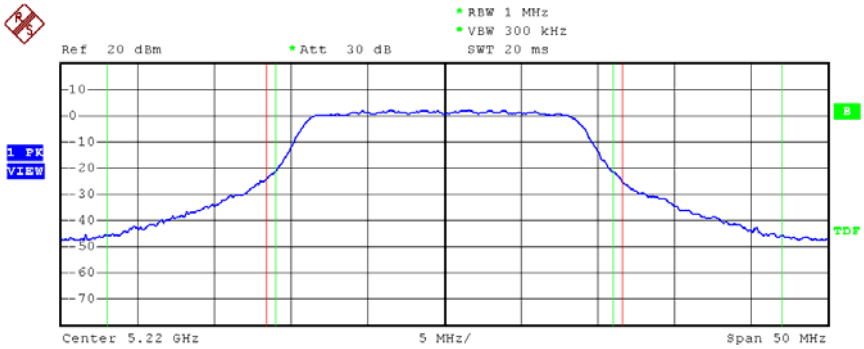
Date: 23.JUL.2008 14:20:37

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 36



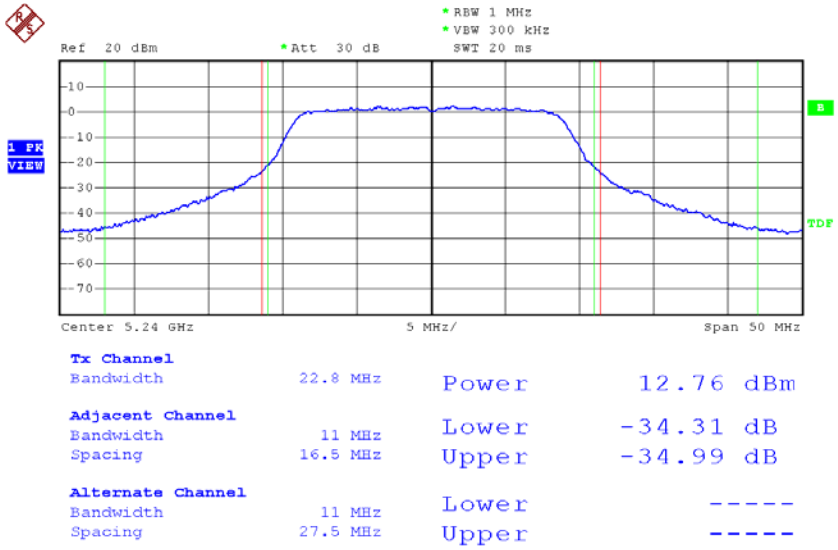
Date: 23.JUL.2008 14:05:37

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 44

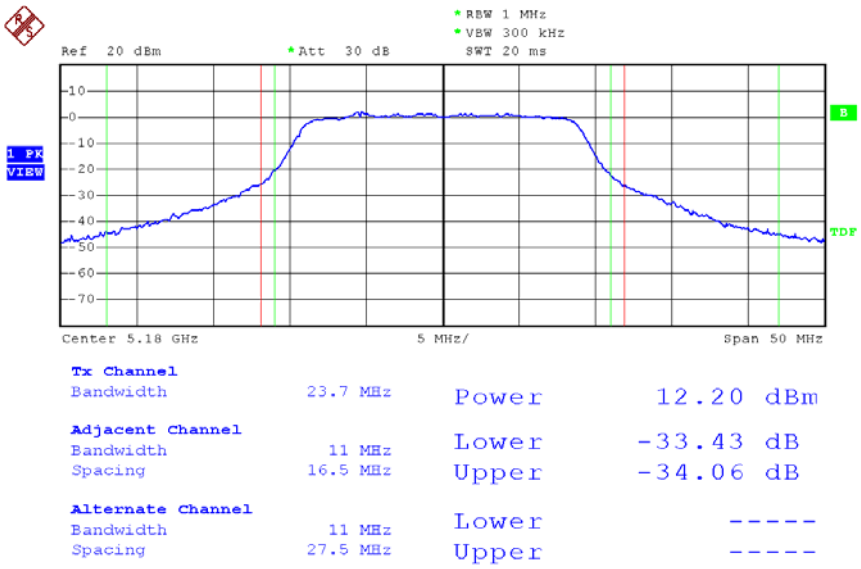


Date: 23.JUL.2008 14:14:49

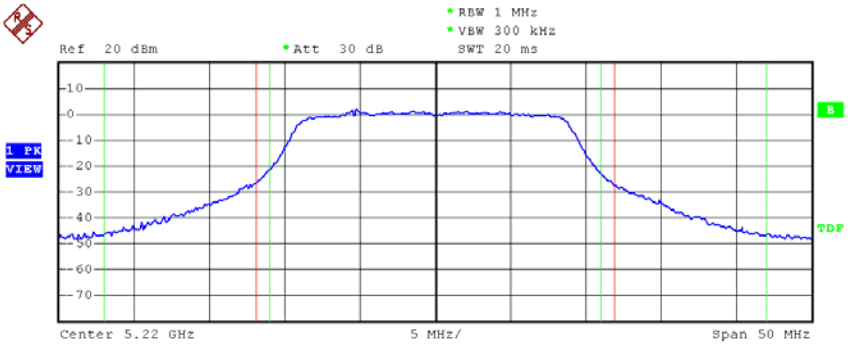
Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 48



Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 36



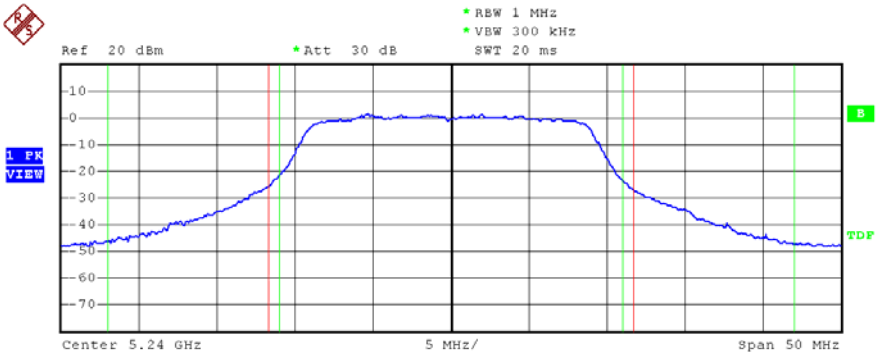
Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 44



Tx Channel			
Bandwidth	23.7 MHz	Power	11.88 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-33.95 dB
Spacing	16.5 MHz	Upper	-34.75 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 24.JUL.2008 13:57:38

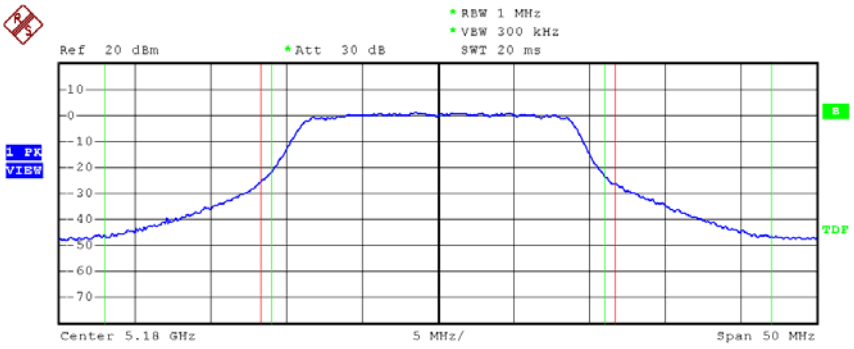
Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 48



Tx Channel			
Bandwidth	23.3 MHz	Power	11.71 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-33.95 dB
Spacing	16.5 MHz	Upper	-35.05 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 24.JUL.2008 13:59:40

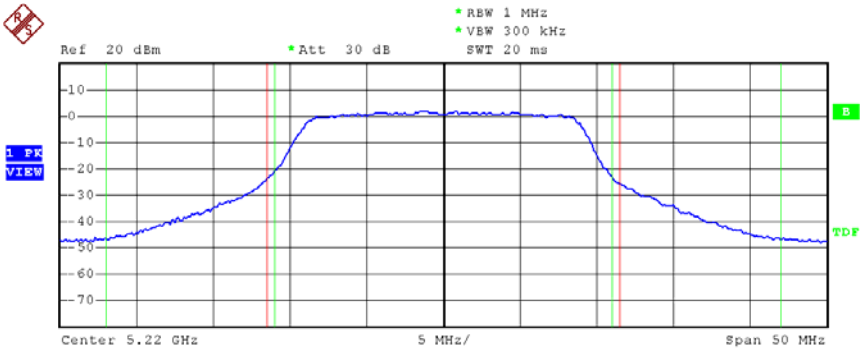
Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 36



Tx Channel			
Bandwidth	23.3 MHz	Power	11.93 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-34.55 dB
Spacing	16.5 MHz	Upper	-34.93 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 24.JUL.2008 13:38:54

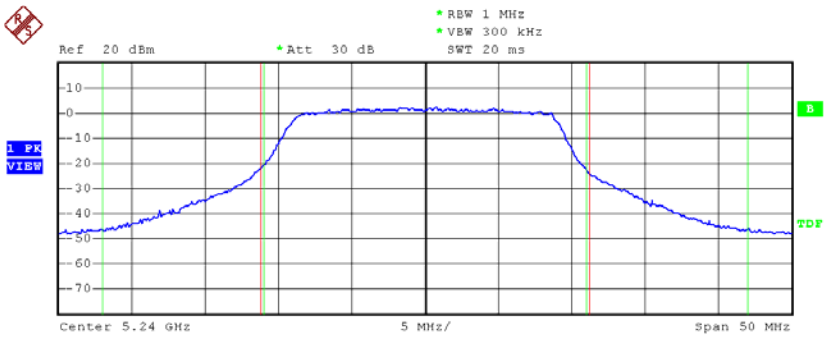
Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 44



Tx Channel			
Bandwidth	22.9 MHz	Power	12.48 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-34.50 dB
Spacing	16.5 MHz	Upper	-35.31 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 24.JUL.2008 13:55:38

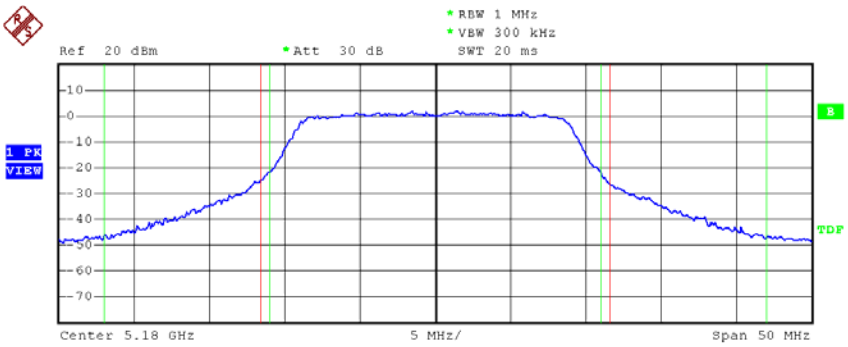
Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 48



Tx Channel			
Bandwidth	22.4 MHz	Power	12.73 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-34.36 dB
Spacing	16.5 MHz	Upper	-35.27 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 24.JUL.2008 14:01:44

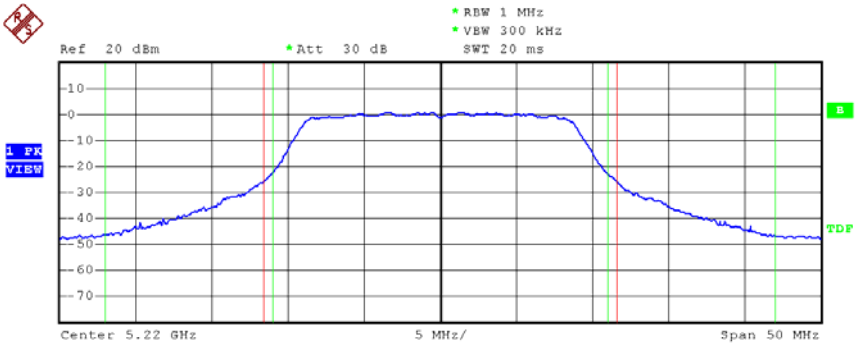
Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 36



Tx Channel			
Bandwidth	23.1 MHz	Power	12.23 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-34.43 dB
Spacing	16.5 MHz	Upper	-34.91 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 24.JUL.2008 13:43:56

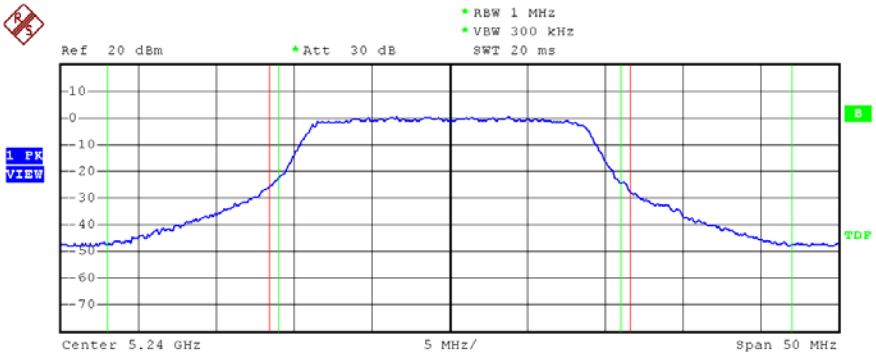
Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 44



Tx Channel			
Bandwidth	23.1 MHz	Power	11.54 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-34.41 dB
Spacing	16.5 MHz	Upper	-34.76 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 24.JUL.2008 13:53:57

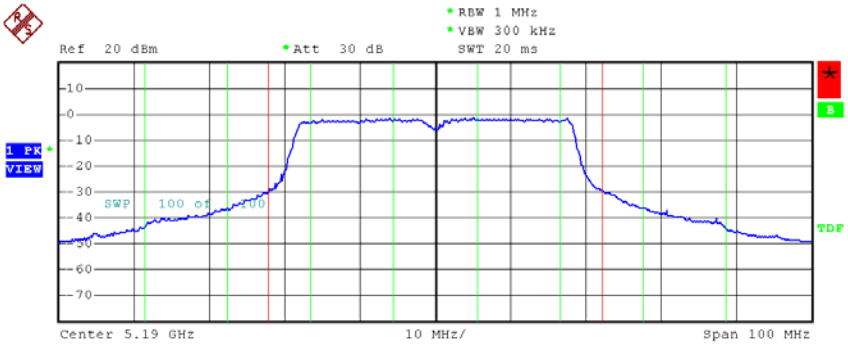
Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 48



Tx Channel			
Bandwidth	23.1 MHz	Power	11.02 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-34.23 dB
Spacing	16.5 MHz	Upper	-34.81 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 24.JUL.2008 14:03:00

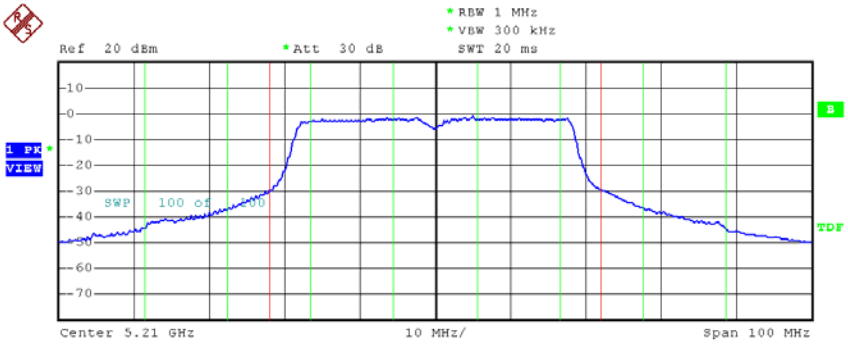
Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 38



Tx Channel			
Bandwidth	44.4 MHz	Power	12.44 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.77 dB
Spacing	16.5 MHz	Upper	-4.26 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.64 dB
Spacing	27.5 MHz	Upper	-12.71 dB

Date: 23.JUL.2008 17:35:53

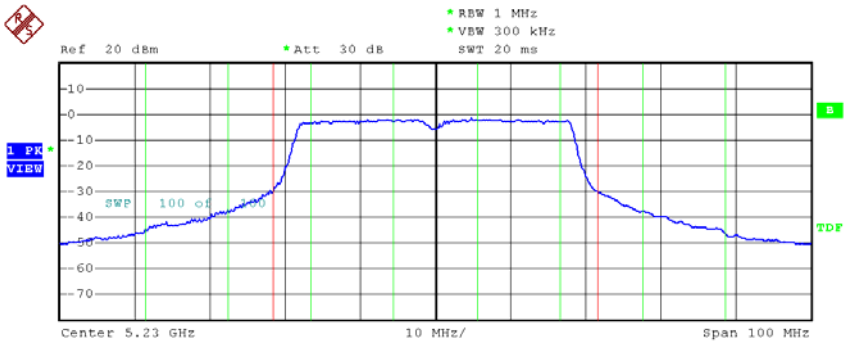
Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 42



Tx Channel			
Bandwidth	43.8 MHz	Power	12.59 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.82 dB
Spacing	16.5 MHz	Upper	-4.24 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.85 dB
Spacing	27.5 MHz	Upper	-12.80 dB

Date: 23.JUL.2008 17:34:14

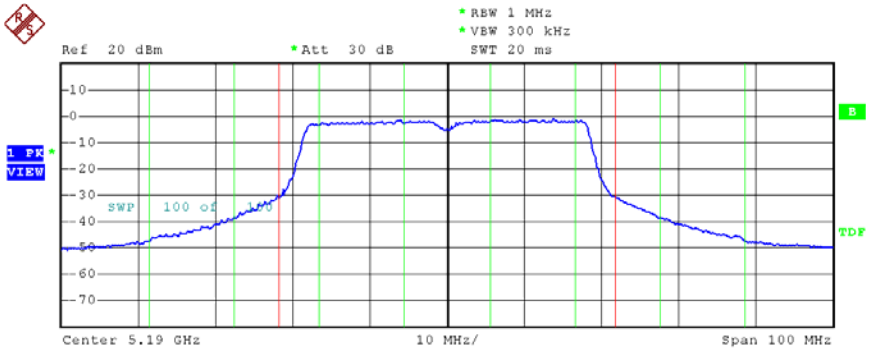
Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 46



Tx Channel			
Bandwidth	43.2 MHz	Power	12.32 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.70 dB
Spacing	16.5 MHz	Upper	-4.39 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.68 dB
Spacing	27.5 MHz	Upper	-13.05 dB

Date: 23.JUL.2008 17:33:37

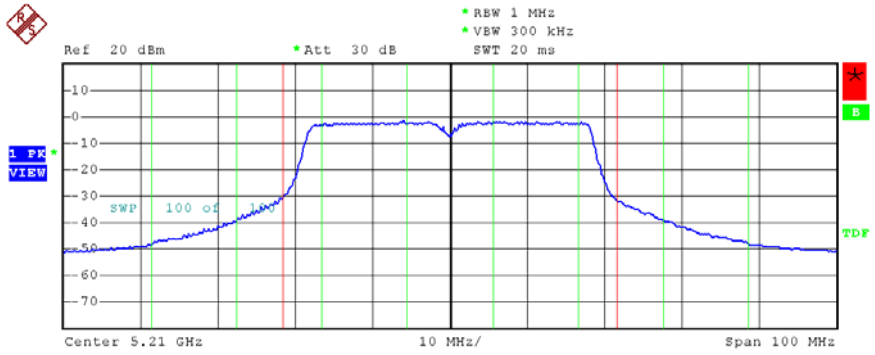
Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 38



Tx Channel			
Bandwidth	43.4 MHz	Power	12.60 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.83 dB
Spacing	16.5 MHz	Upper	-4.12 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.82 dB
Spacing	27.5 MHz	Upper	-12.59 dB

Date: 23.JUL.2008 17:36:31

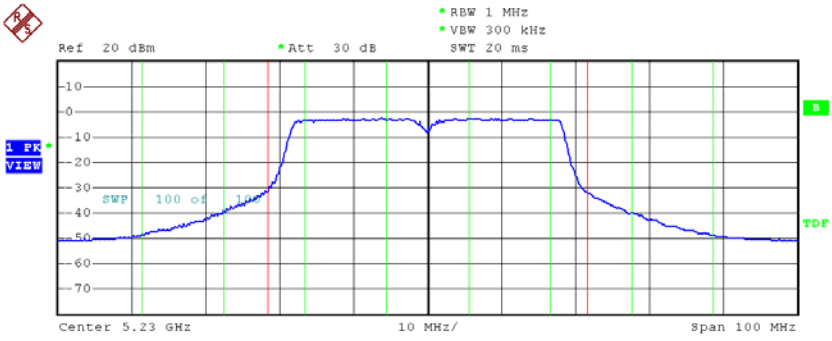
Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 42



Tx Channel			
Bandwidth	43 MHz	Power	12.23 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.61 dB
Spacing	16.5 MHz	Upper	-4.29 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.70 dB
Spacing	27.5 MHz	Upper	-12.87 dB

Date: 23.JUL.2008 17:37:33

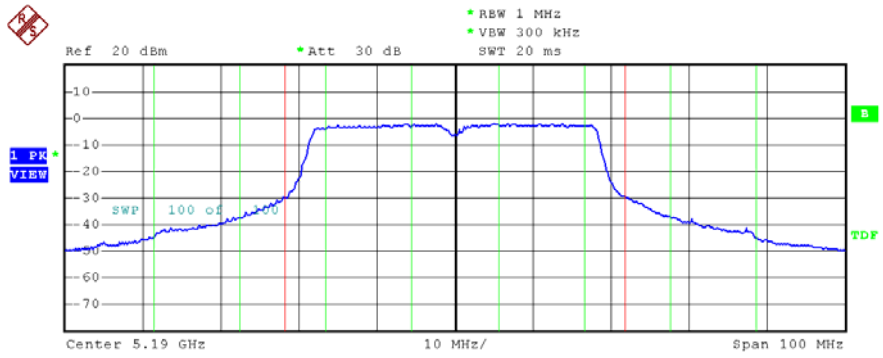
Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 46



Tx Channel			
Bandwidth	43.2 MHz	Power	11.71 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.49 dB
Spacing	16.5 MHz	Upper	-4.39 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.40 dB
Spacing	27.5 MHz	Upper	-12.95 dB

Date: 23.JUL.2008 17:38:16

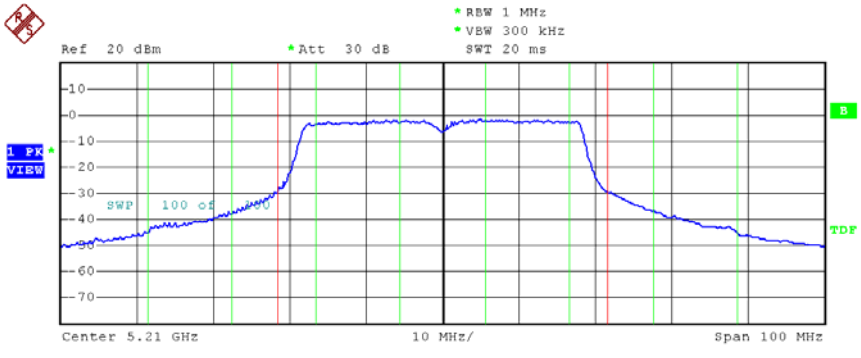
Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 38



Tx Channel			
Bandwidth	43.4 MHz	Power	11.96 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.80 dB
Spacing	16.5 MHz	Upper	-4.24 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.78 dB
Spacing	27.5 MHz	Upper	-12.78 dB

Date: 24.JUL.2008 17:48:43

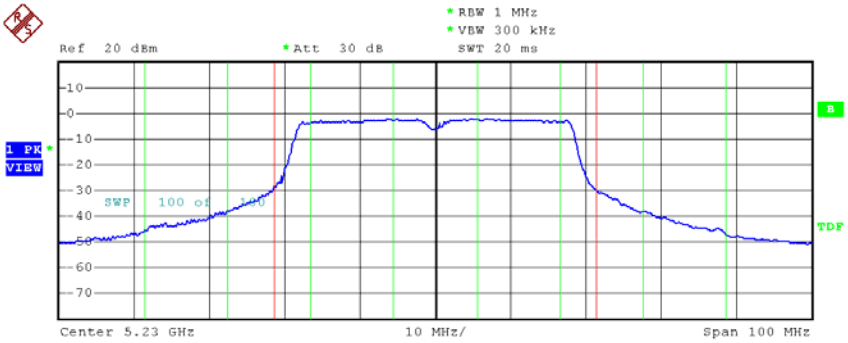
Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 42



Tx Channel			
Bandwidth	43.2 MHz	Power	12.27 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.84 dB
Spacing	16.5 MHz	Upper	-4.23 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.92 dB
Spacing	27.5 MHz	Upper	-12.84 dB

Date: 24.JUL.2008 17:49:36

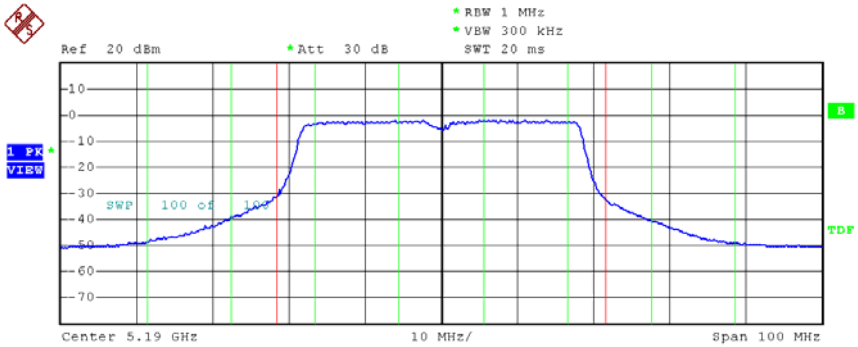
Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 46



Tx Channel			
Bandwidth	42.8 MHz	Power	12.04 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.73 dB
Spacing	16.5 MHz	Upper	-4.39 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.80 dB
Spacing	27.5 MHz	Upper	-13.09 dB

Date: 24.JUL.2008 17:57:33

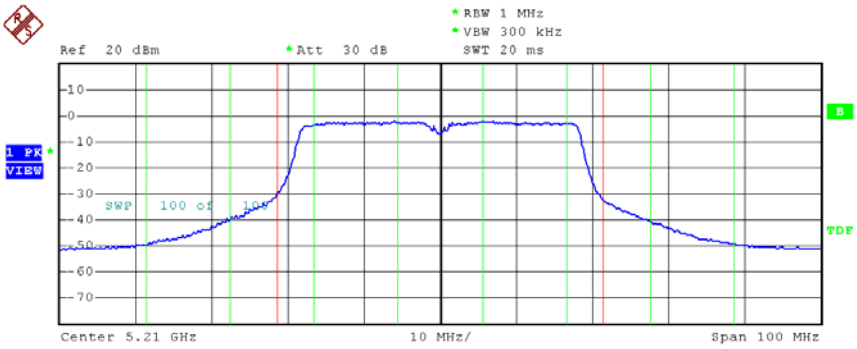
Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 38



Tx Channel			
Bandwidth	43 MHz	Power	12.18 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.69 dB
Spacing	16.5 MHz	Upper	-4.31 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.85 dB
Spacing	27.5 MHz	Upper	-12.96 dB

Date: 24.JUL.2008 17:38:14

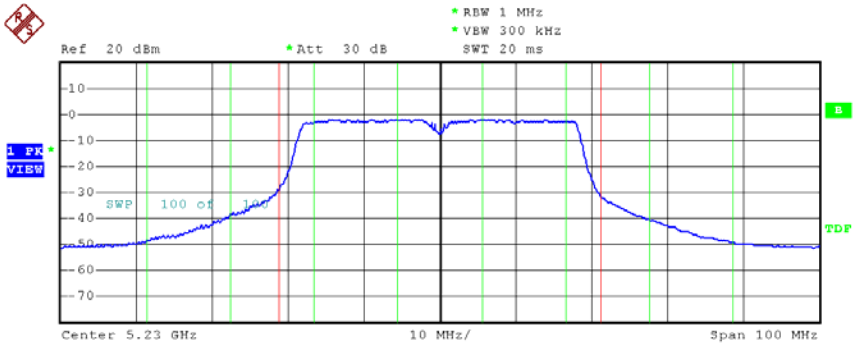
Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 42



Tx Channel			
Bandwidth	42.8 MHz	Power	12.01 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.57 dB
Spacing	16.5 MHz	Upper	-4.40 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.70 dB
Spacing	27.5 MHz	Upper	-13.16 dB

Date: 24.JUL.2008 17:50:26

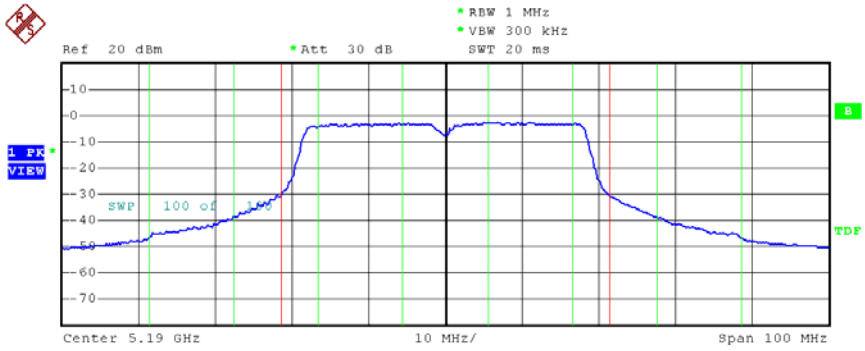
Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 46



Tx Channel			
Bandwidth	42.4 MHz	Power	12.32 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.46 dB
Spacing	16.5 MHz	Upper	-4.48 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.49 dB
Spacing	27.5 MHz	Upper	-13.23 dB

Date: 24.JUL.2008 17:56:36

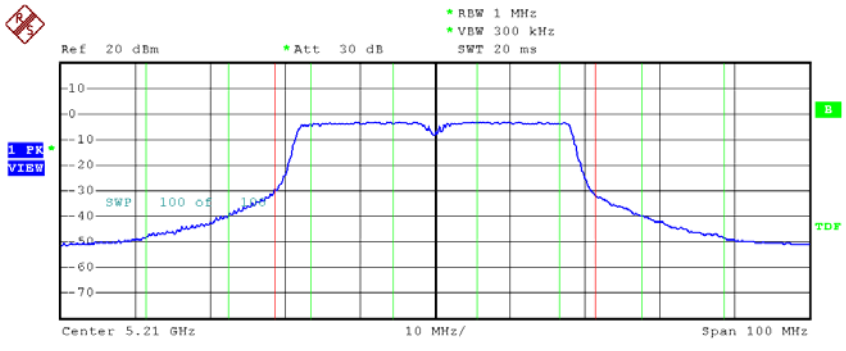
Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 38



Tx Channel			
Bandwidth	42.8 MHz	Power	11.48 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.69 dB
Spacing	16.5 MHz	Upper	-4.26 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.67 dB
Spacing	27.5 MHz	Upper	-12.81 dB

Date: 24.JUL.2008 17:33:01

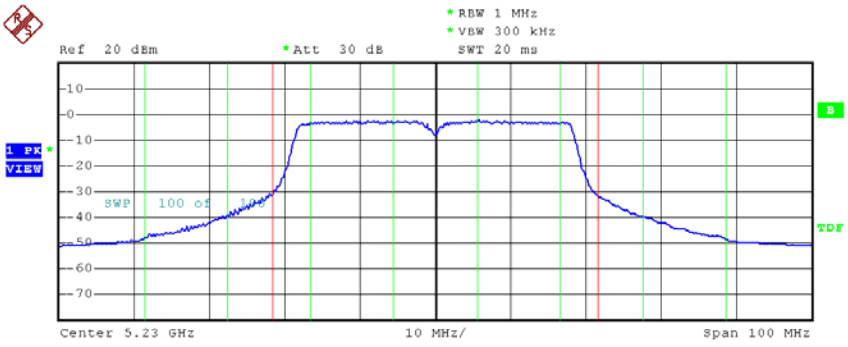
Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 42



Tx Channel			
Bandwidth	42.6 MHz	Power	11.17 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.53 dB
Spacing	16.5 MHz	Upper	-4.38 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.52 dB
Spacing	27.5 MHz	Upper	-13.04 dB

Date: 24.JUL.2008 17:52:13

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 46

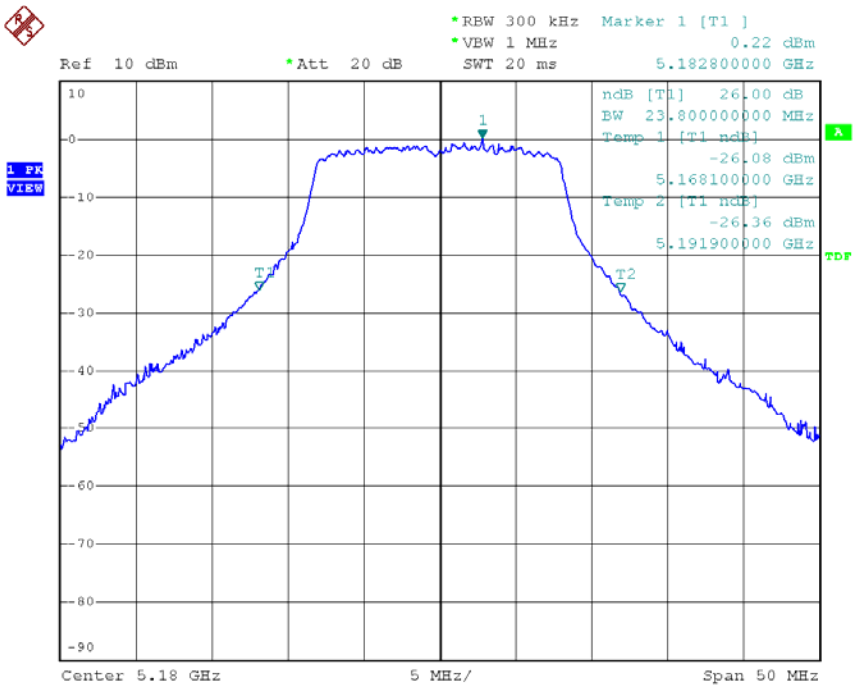


Tx Channel			
Bandwidth	43.2 MHz	Power	11.79 dBm
Adjacent Channel			
Bandwidth	22 MHz	Lower	-4.50 dB
Spacing	16.5 MHz	Upper	-4.42 dB
Alternate Channel			
Bandwidth	22 MHz	Lower	-13.44 dB
Spacing	27.5 MHz	Upper	-13.03 dB

Date: 24.JUL.2008 17:54:43

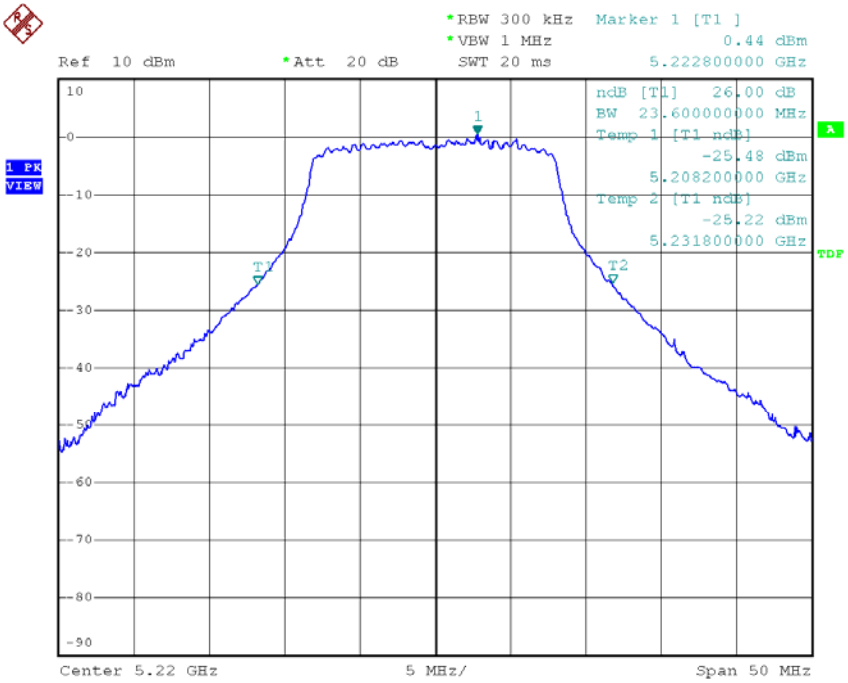
26dB Occupied Bandwidth

Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 36



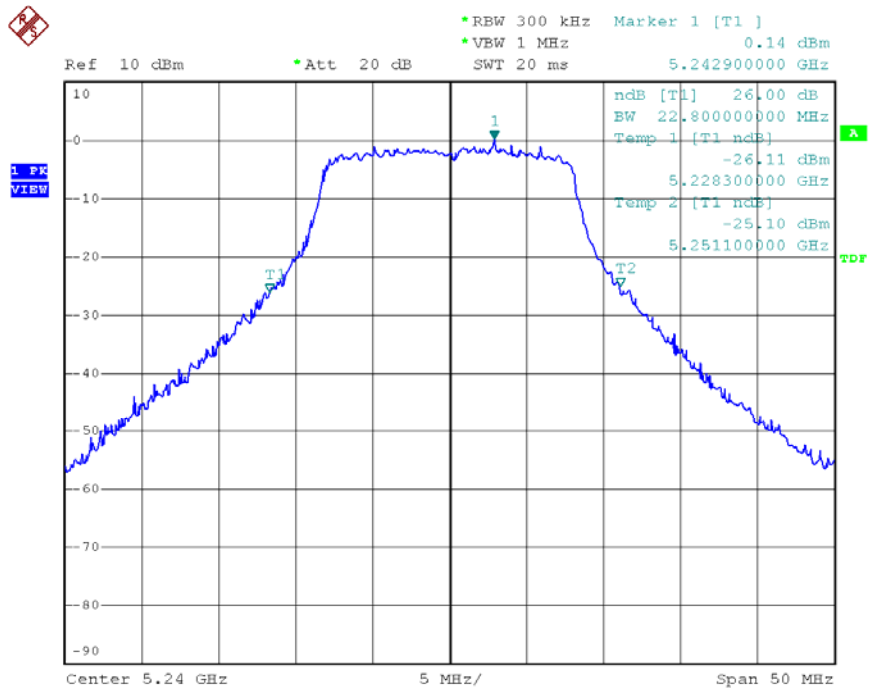
Date: 22.JUL.2008 15:25:00

Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 44



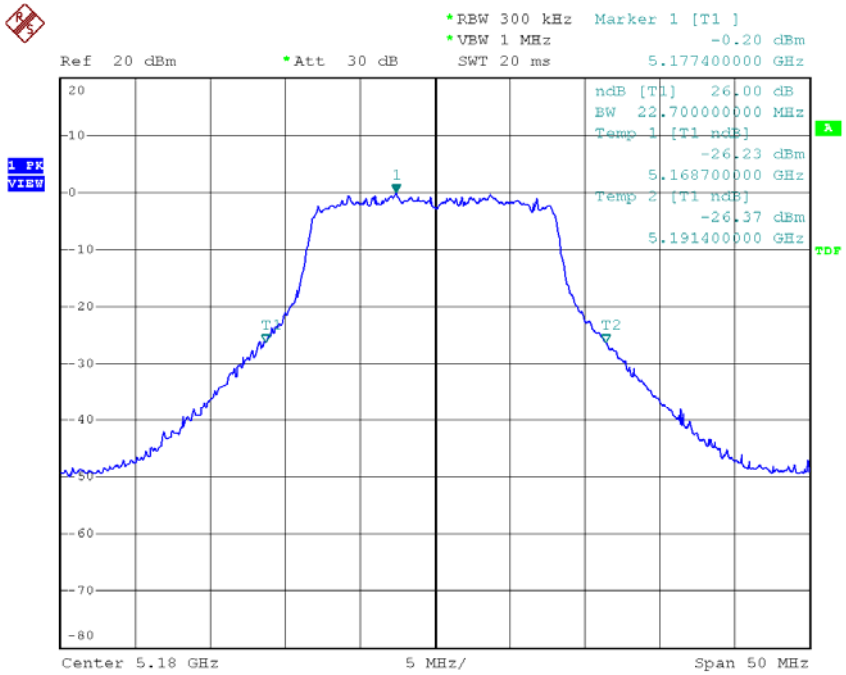
Date: 22.JUL.2008 15:30:10

Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 48



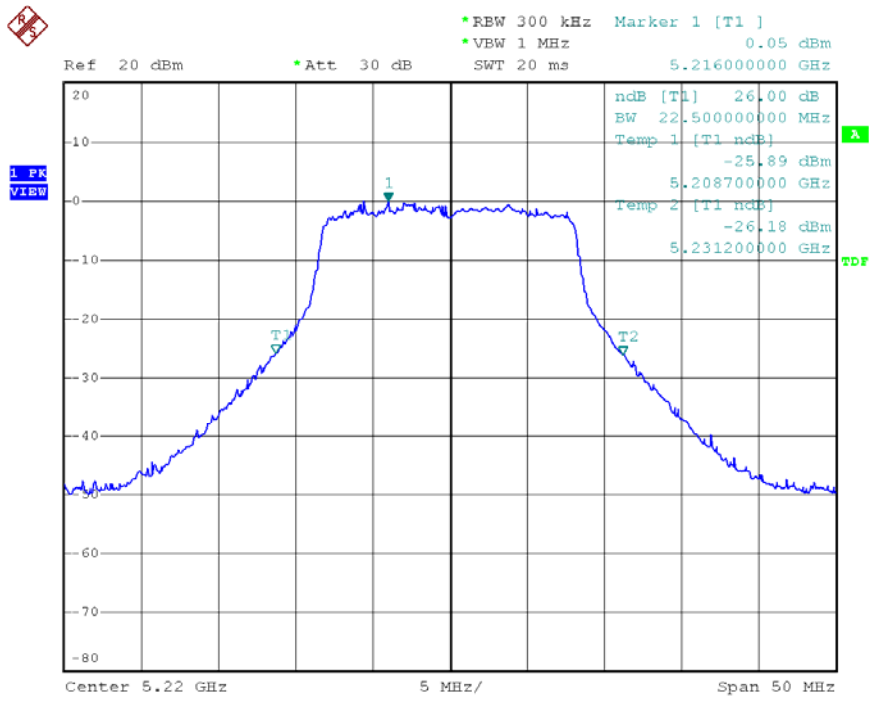
Date: 22.JUL.2008 15:32:42

Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 36



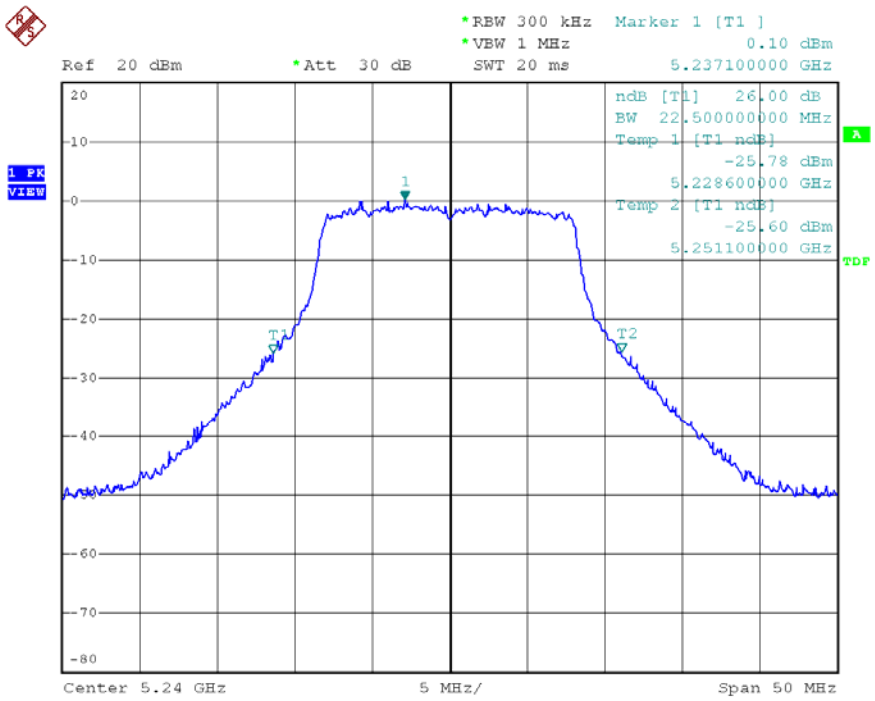
Date: 22.JUL.2008 17:34:09

Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 44



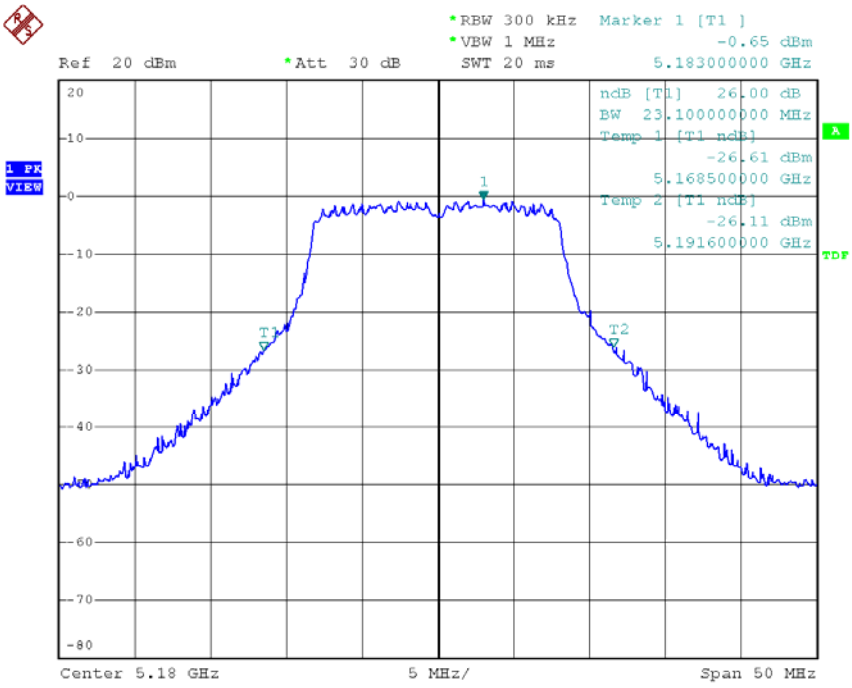
Date: 22.JUL.2008 17:37:21

Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 48



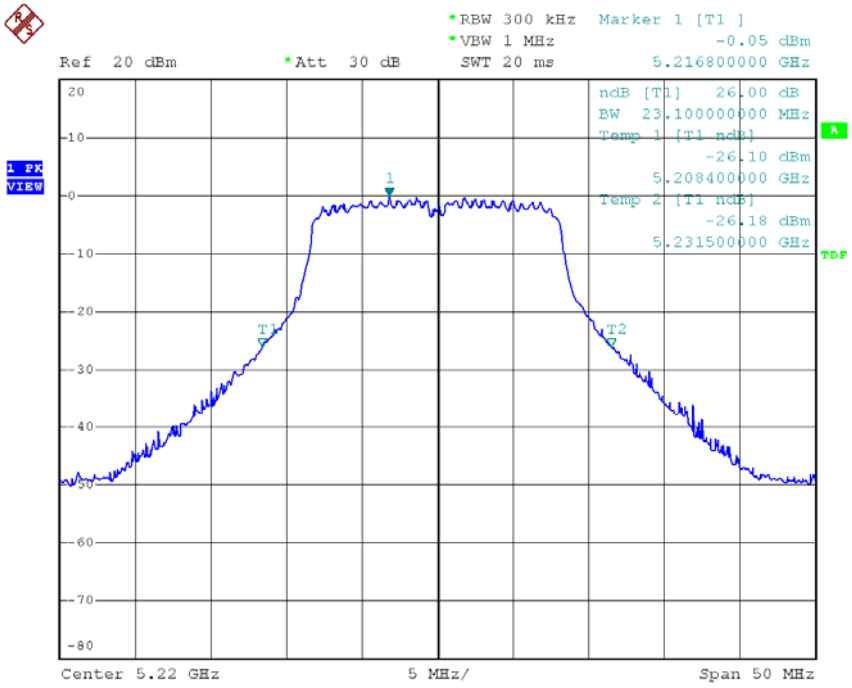
Date: 22.JUL.2008 17:39:00

Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 36



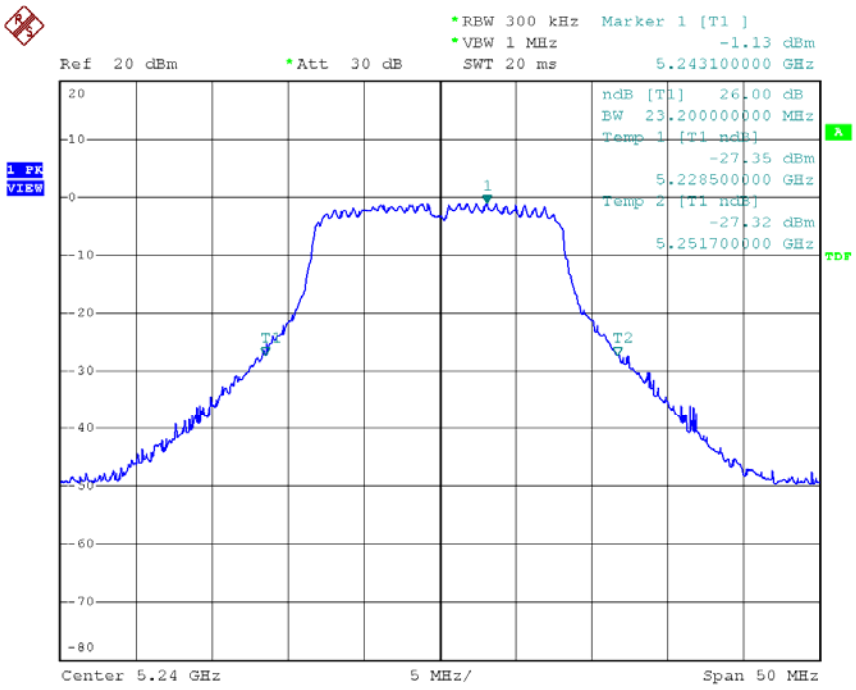
Date: 23.JUL.2008 10:23:40

Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 44



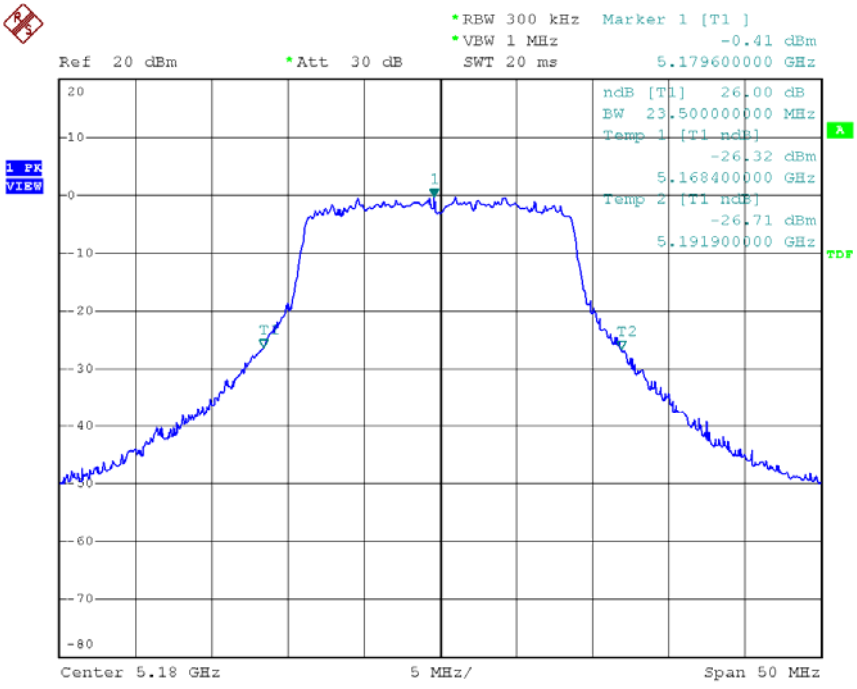
Date: 23.JUL.2008 10:26:39

Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 48



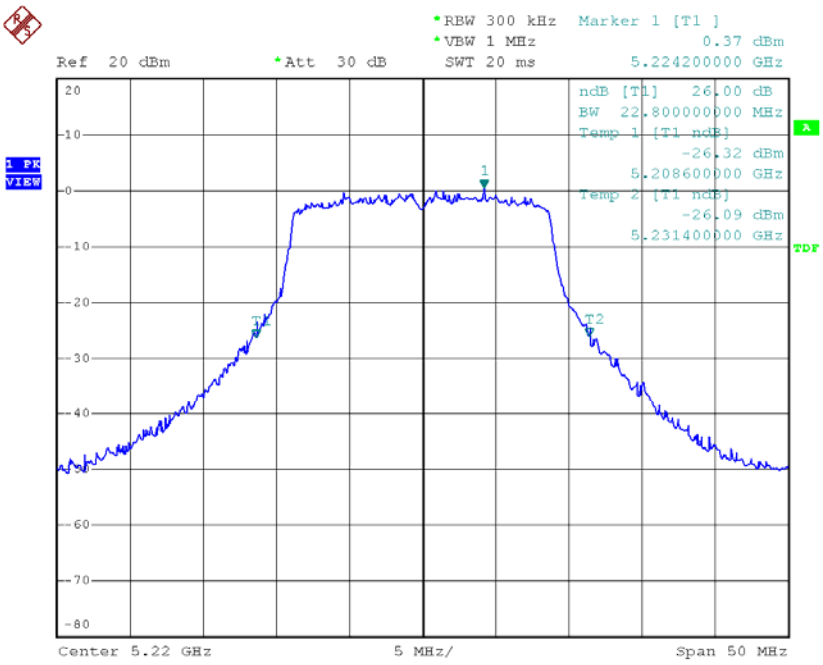
Date: 23.JUL.2008 10:30:02

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 36



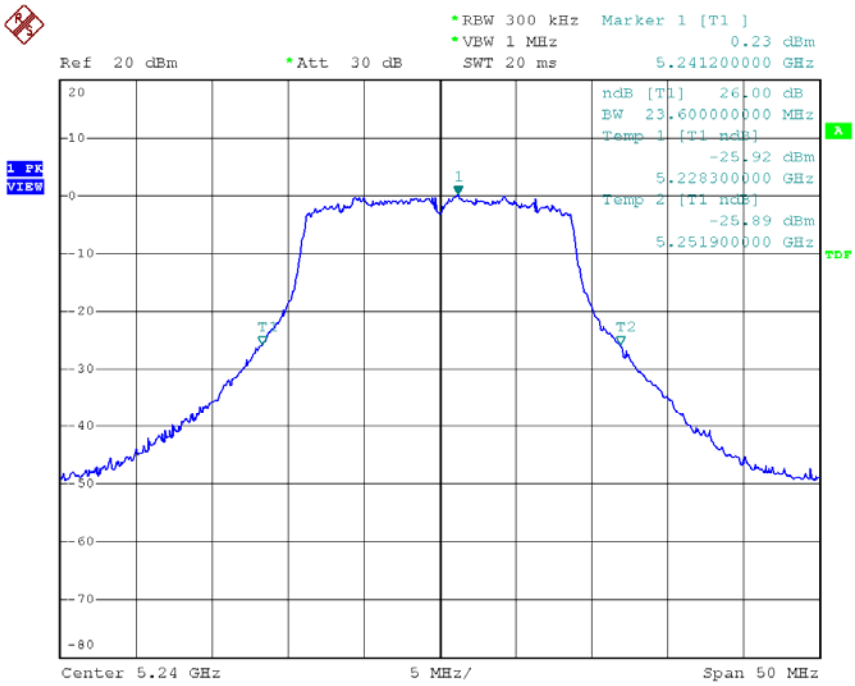
Date: 23.JUL.2008 14:08:16

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 44



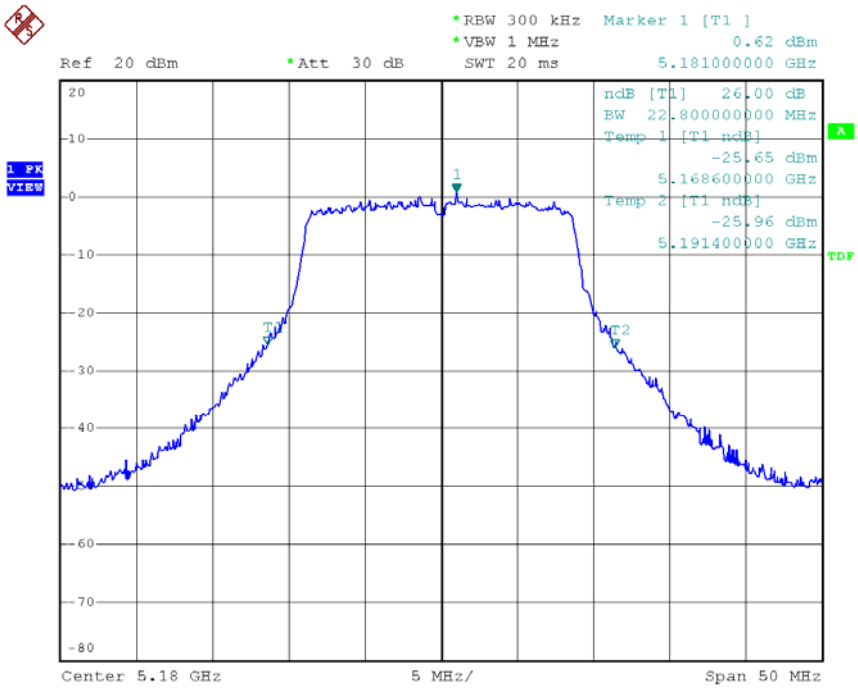
Date: 23.JUL.2008 14:16:47

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 48



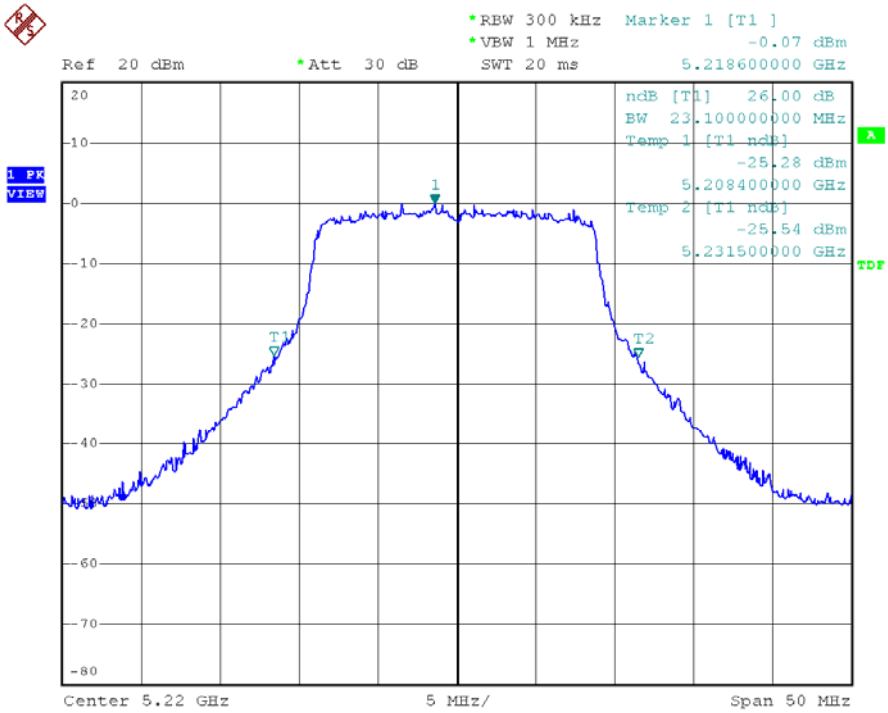
Date: 23.JUL.2008 14:20:46

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 36



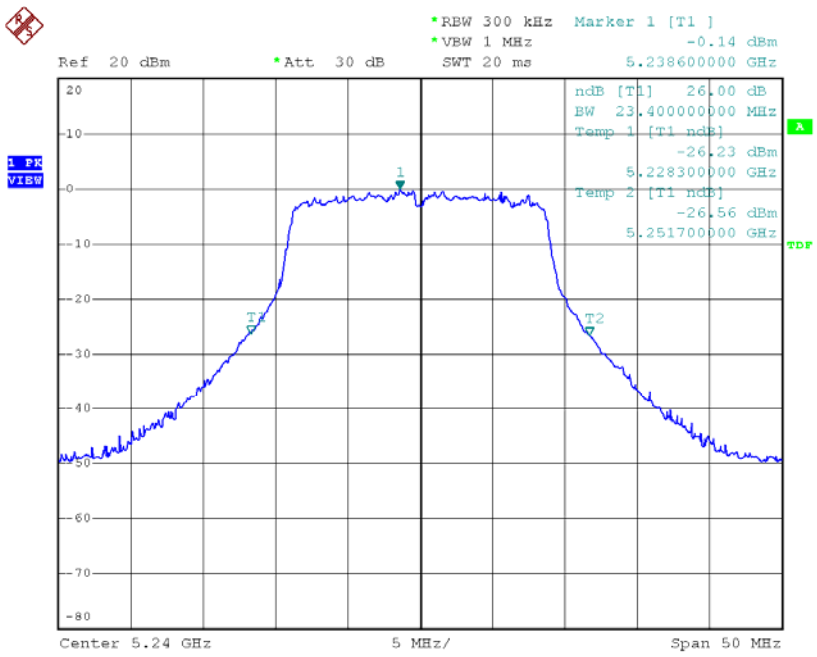
Date: 23.JUL.2008 14:05:59

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 44



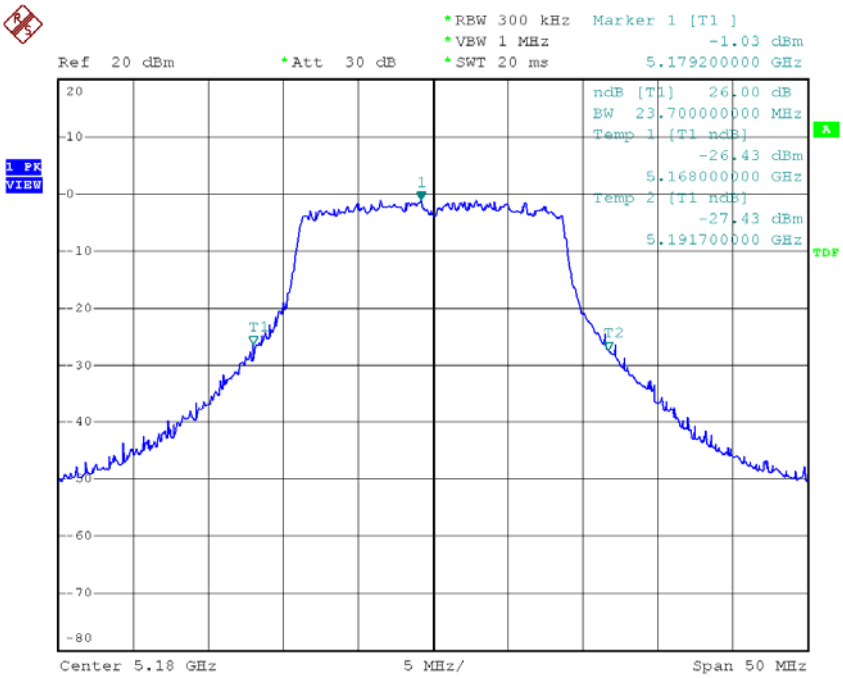
Date: 23.JUL.2008 14:15:00

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 48



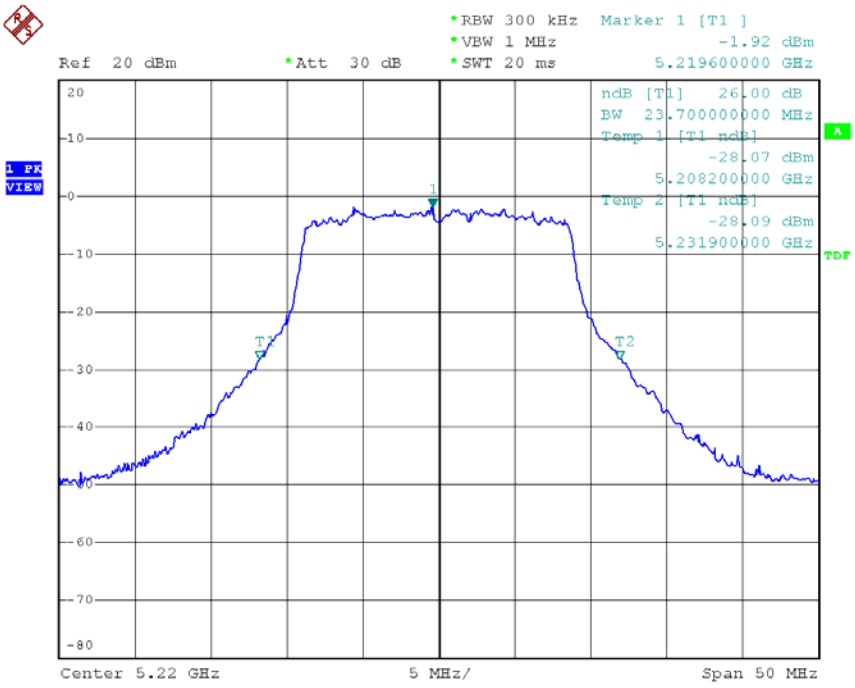
Date: 23.JUL.2008 14:21:44

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 36



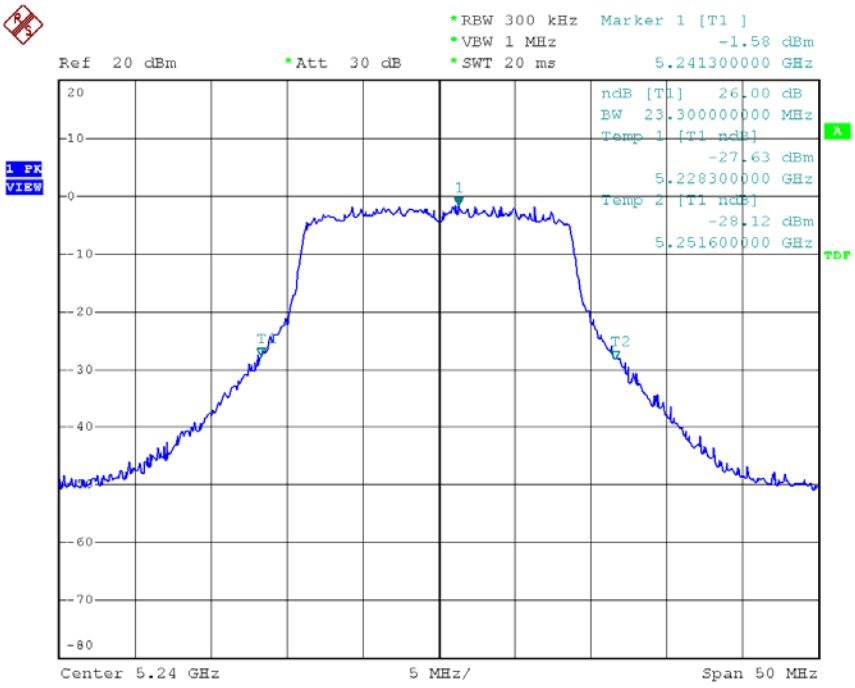
Date: 24.JUL.2008 13:36:22

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 44



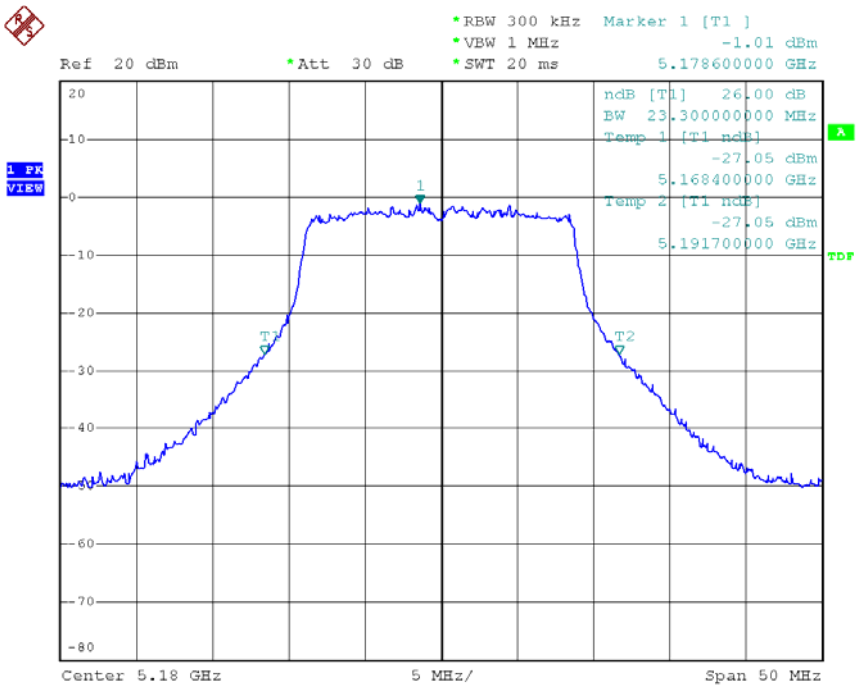
Date: 24.JUL.2008 13:57:55

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 48



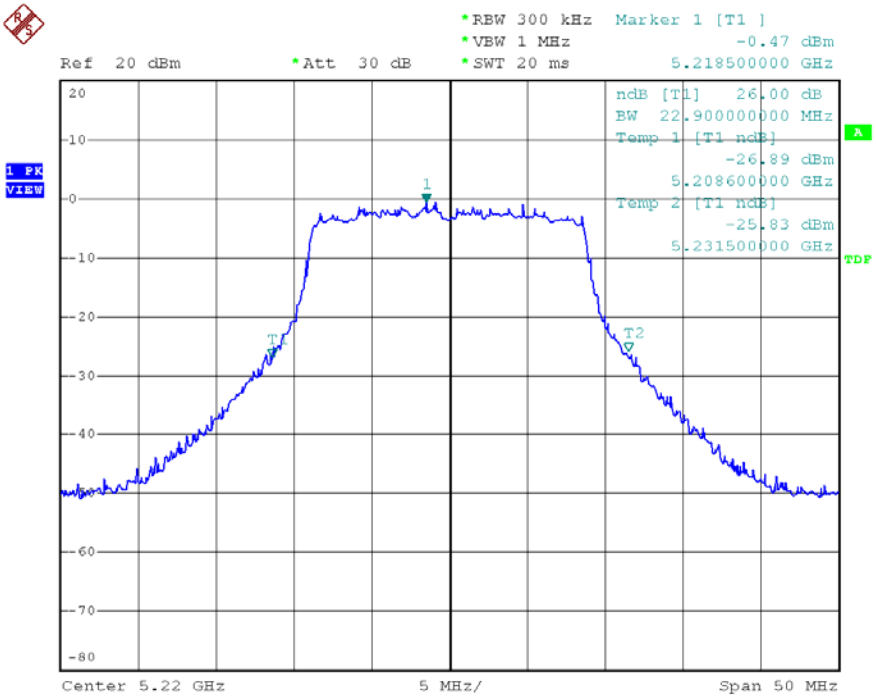
Date: 24.JUL.2008 13:59:51

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 36



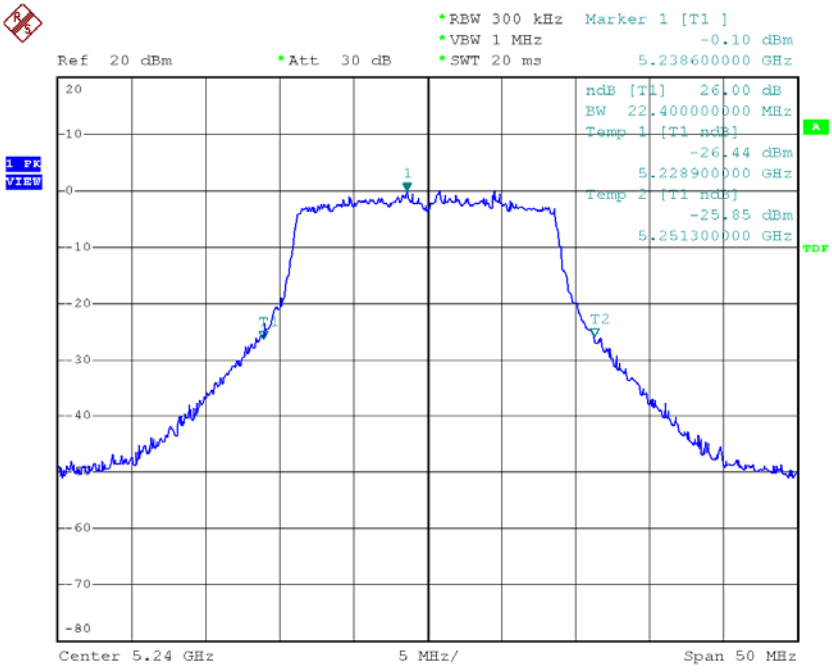
Date: 24.JUL.2008 13:42:34

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 44

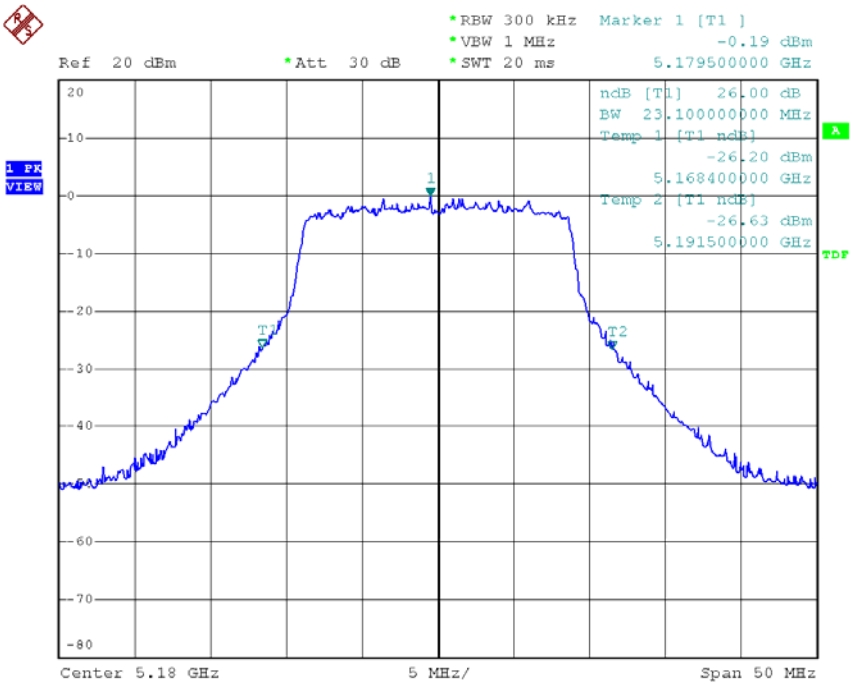


Date: 24.JUL.2008 13:55:48

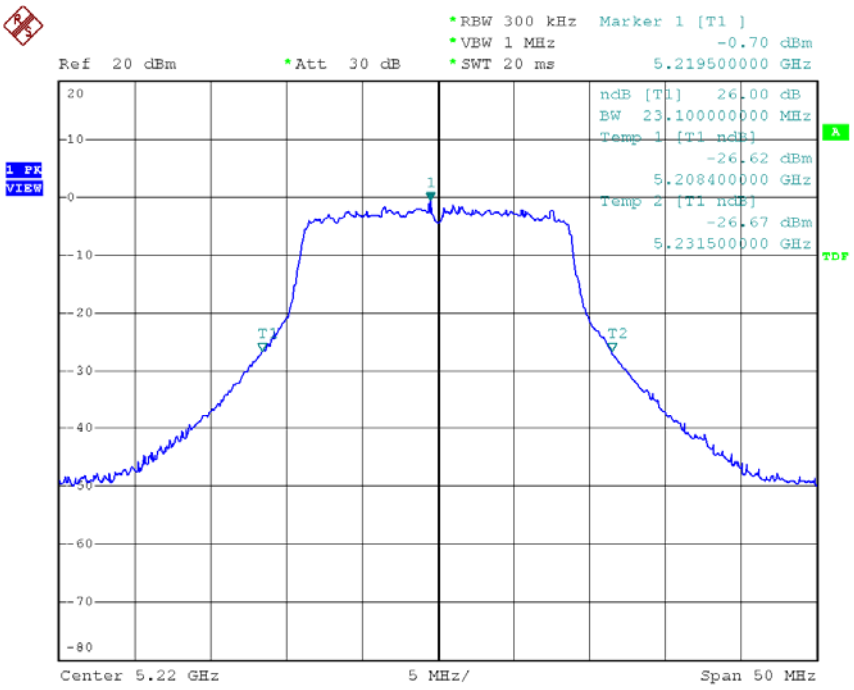
Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 48



Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 36

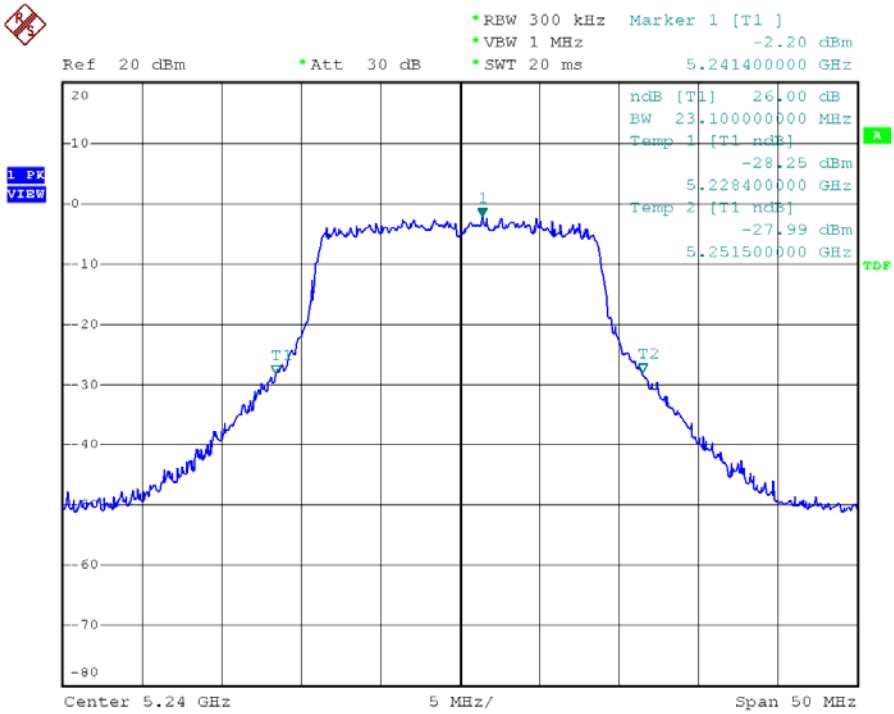


Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 44



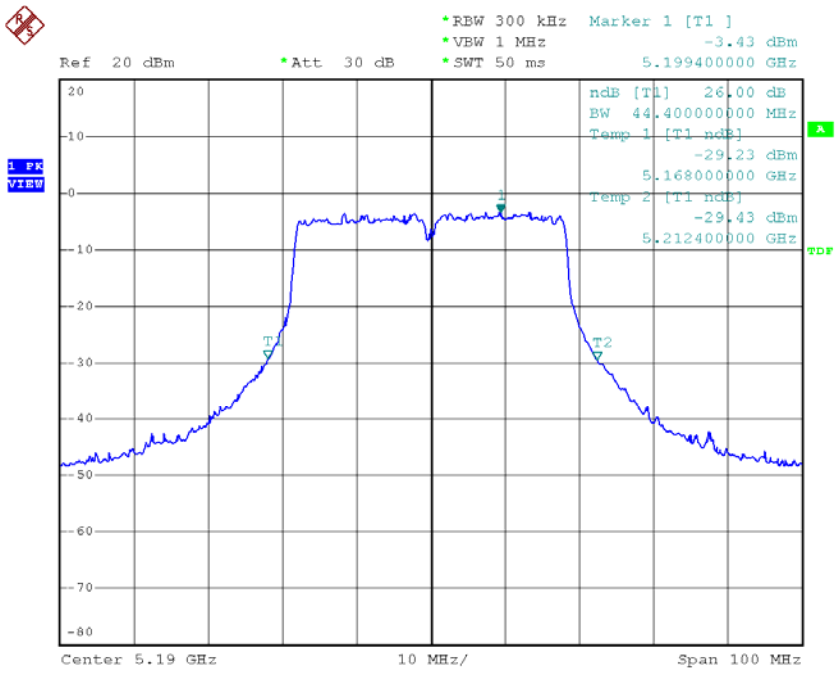
Date: 24.JUL.2008 13:54:04

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 48



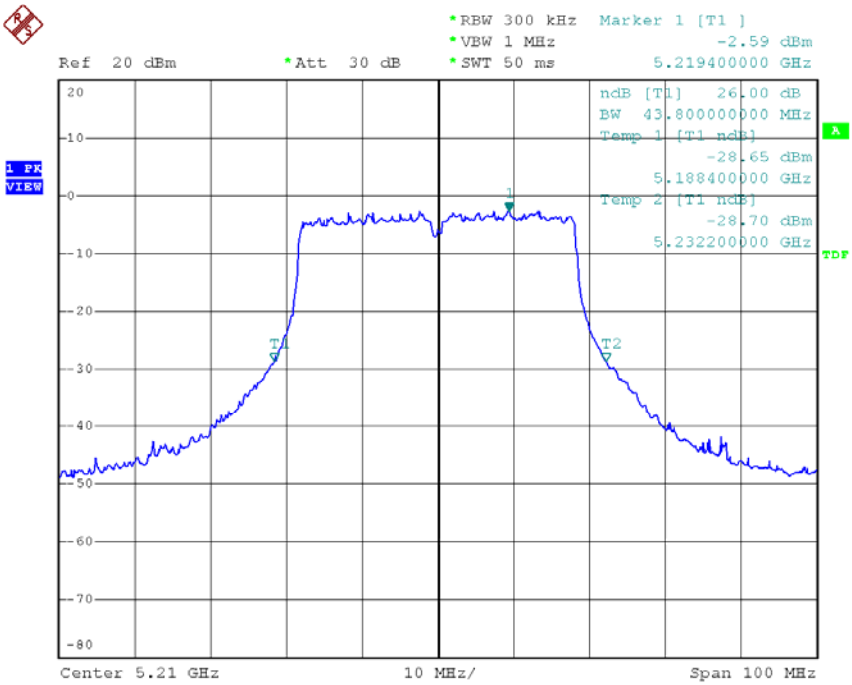
Date: 24.JUL.2008 14:03:10

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 38



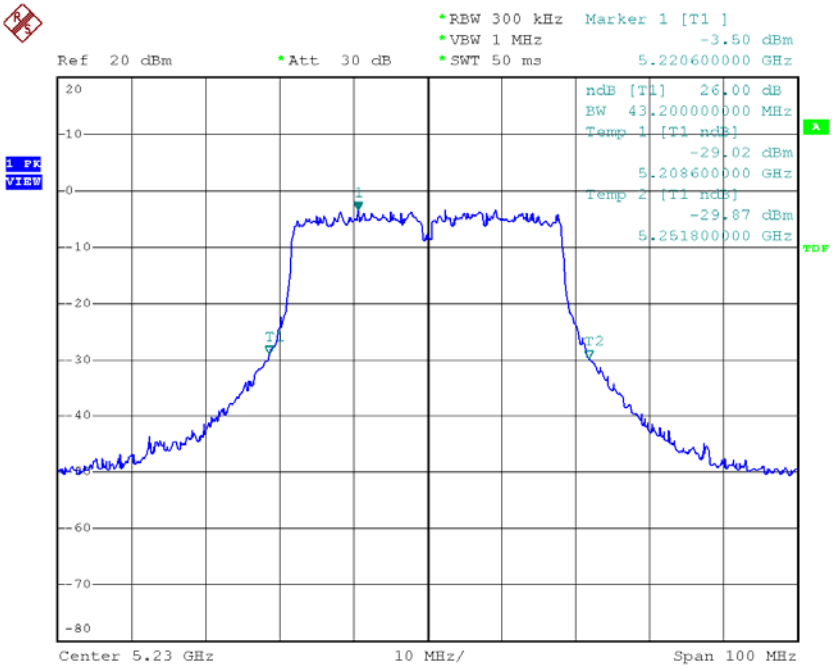
Date: 23.JUL.2008 16:59:10

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 42



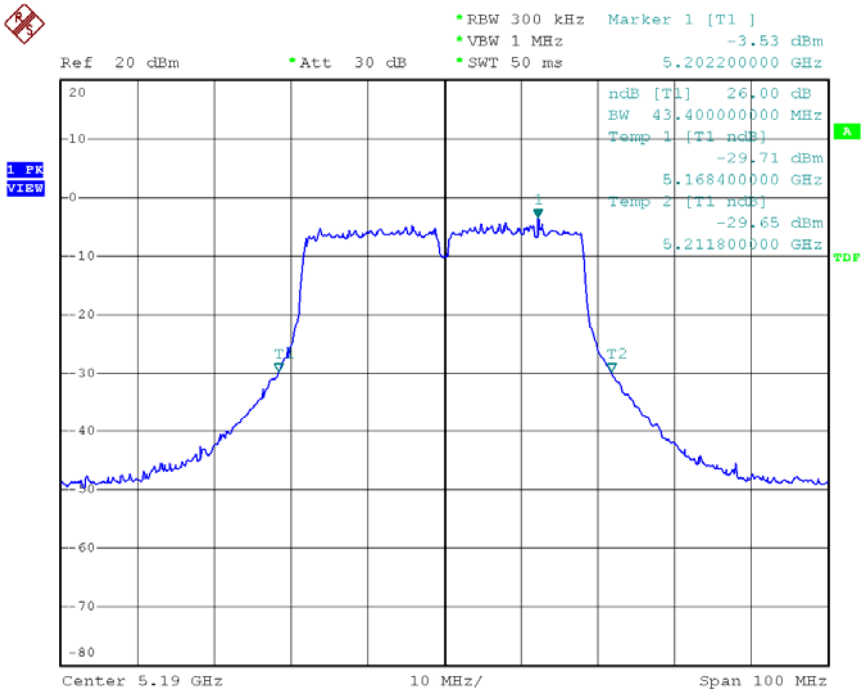
Date: 23.JUL.2008 17:16:13

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 46



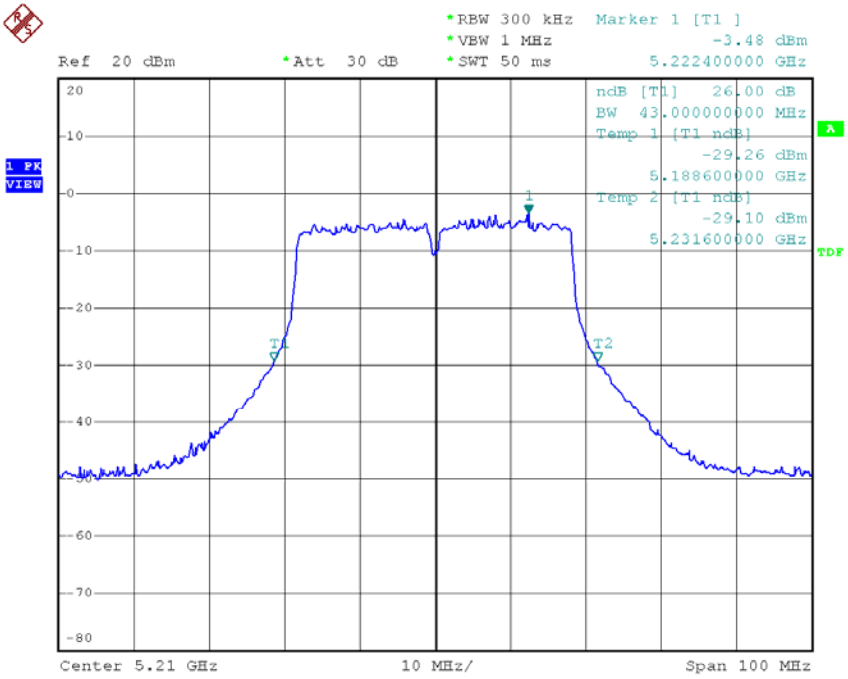
Date: 23.JUL.2008 17:18:23

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 38



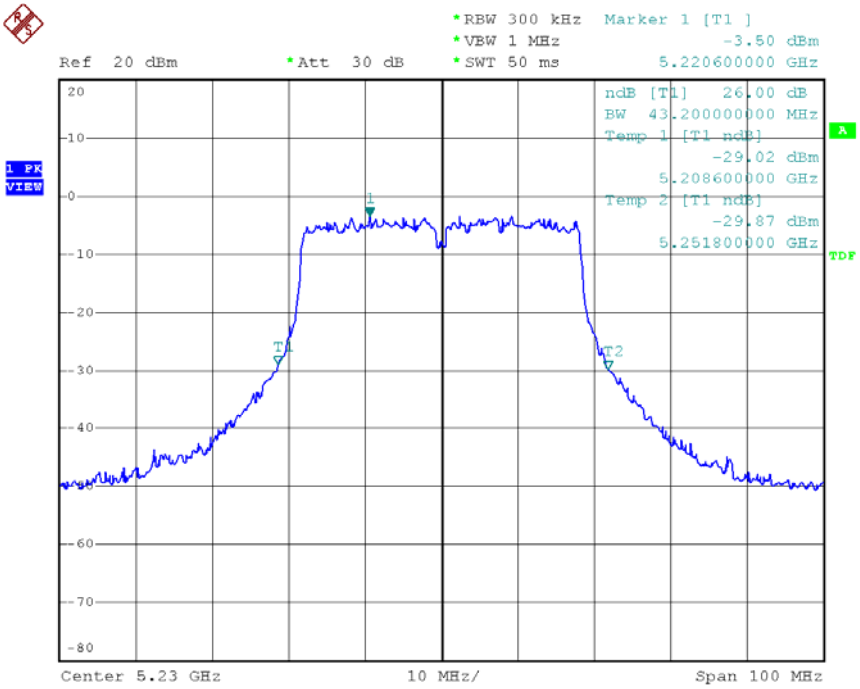
Date: 23.JUL.2008 17:05:47

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 42



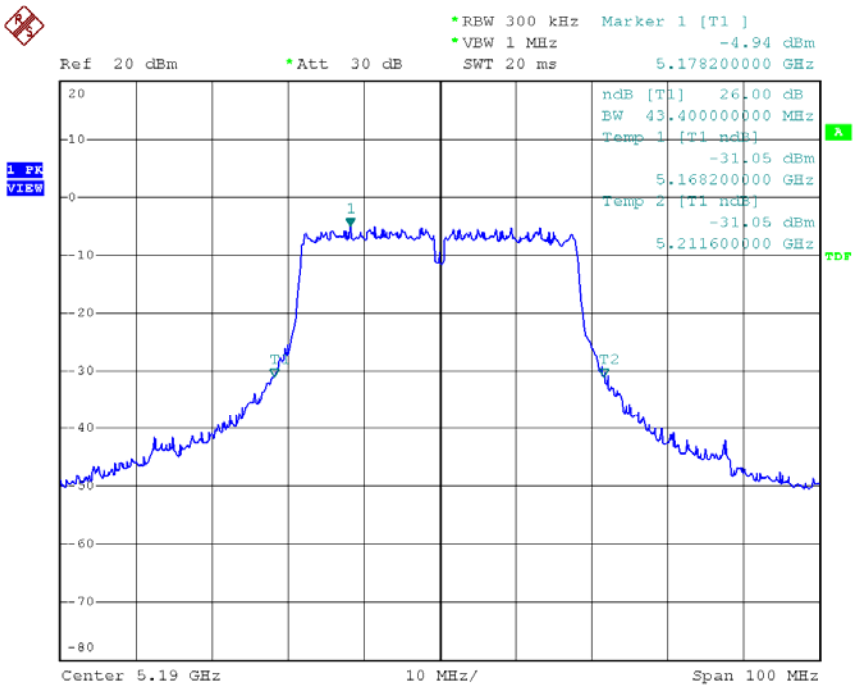
Date: 23.JUL.2008 17:10:54

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 46



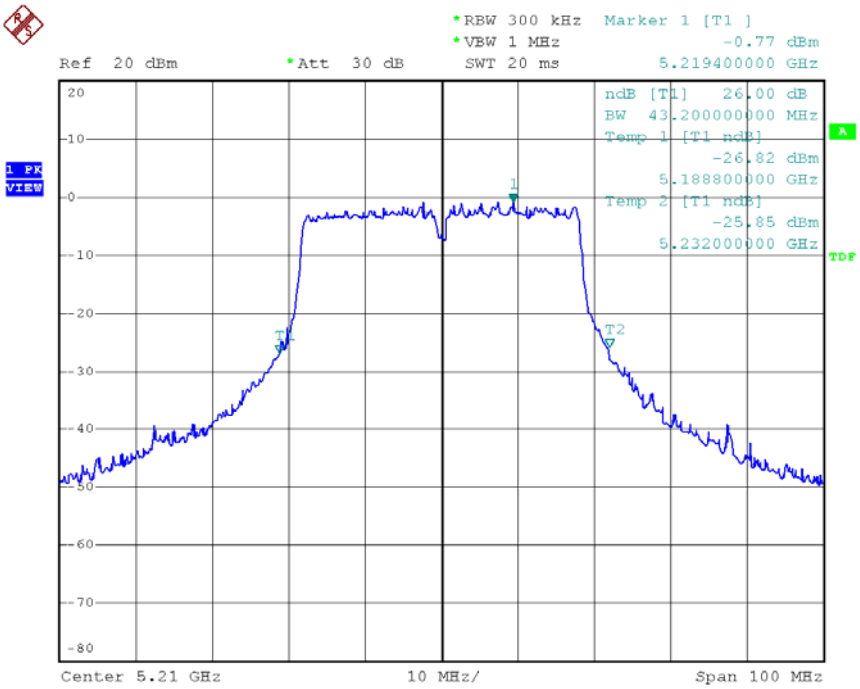
Date: 23.JUL.2008 17:18:23

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 38



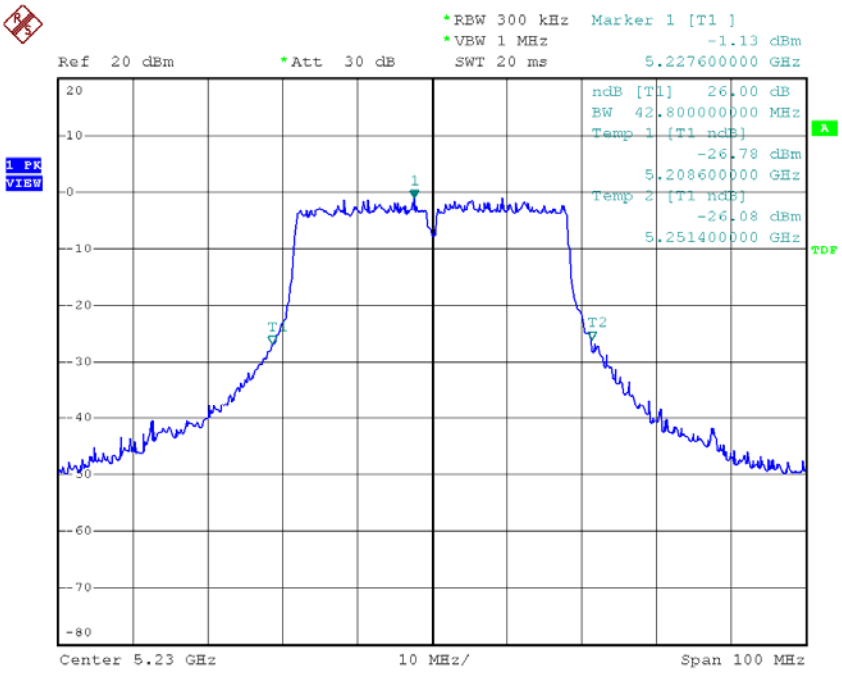
Date: 24.JUL.2008 17:48:49

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 42



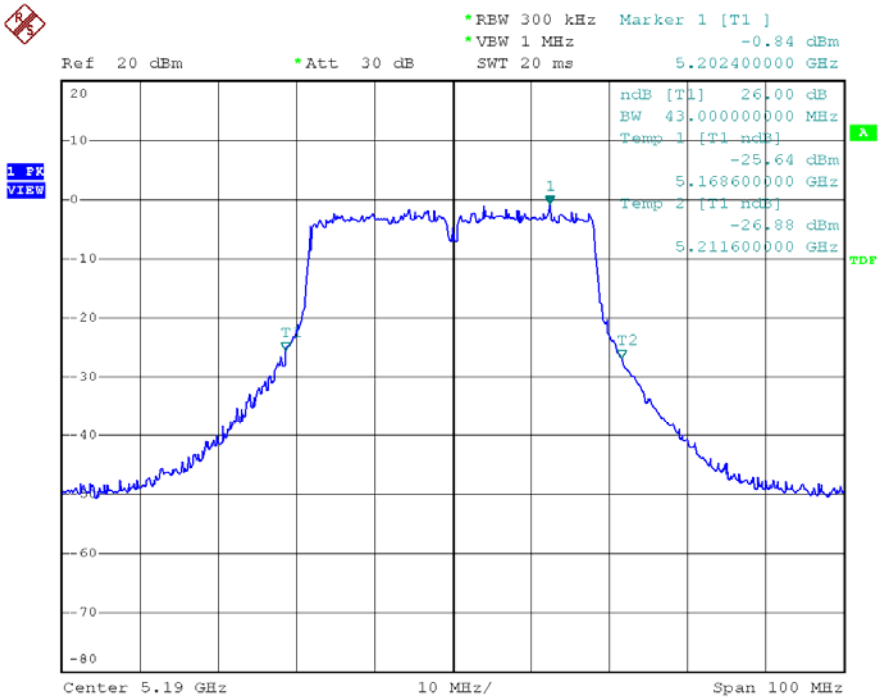
Date: 24.JUL.2008 17:49:43

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 46



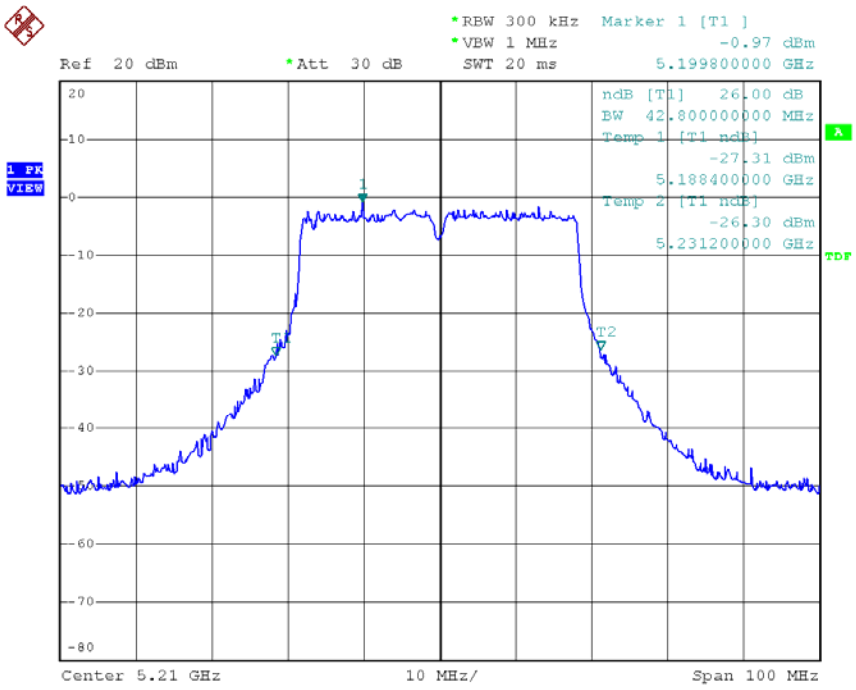
Date: 24.JUL.2008 17:57:43

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 38



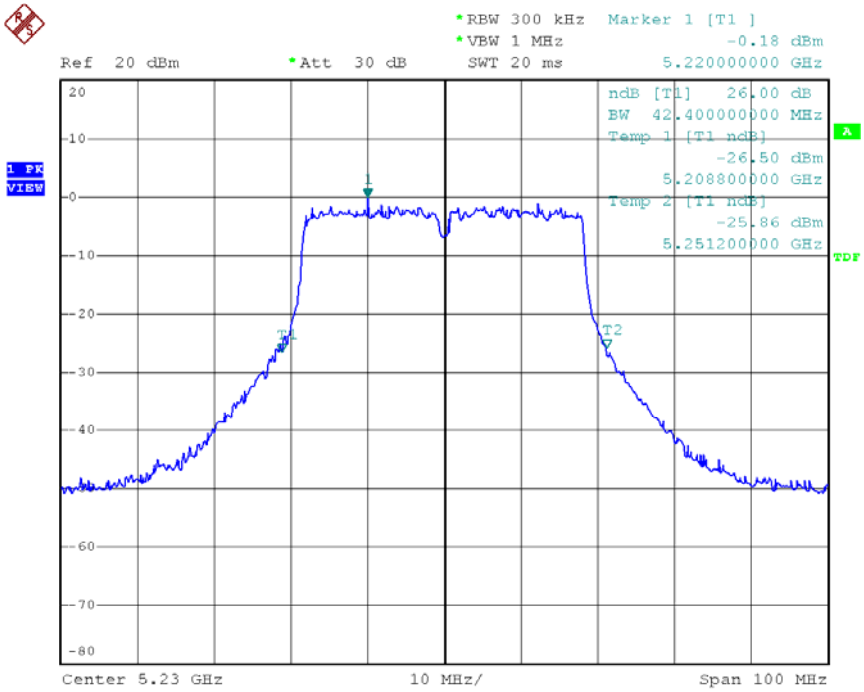
Date: 24.JUL.2008 17:38:27

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 42



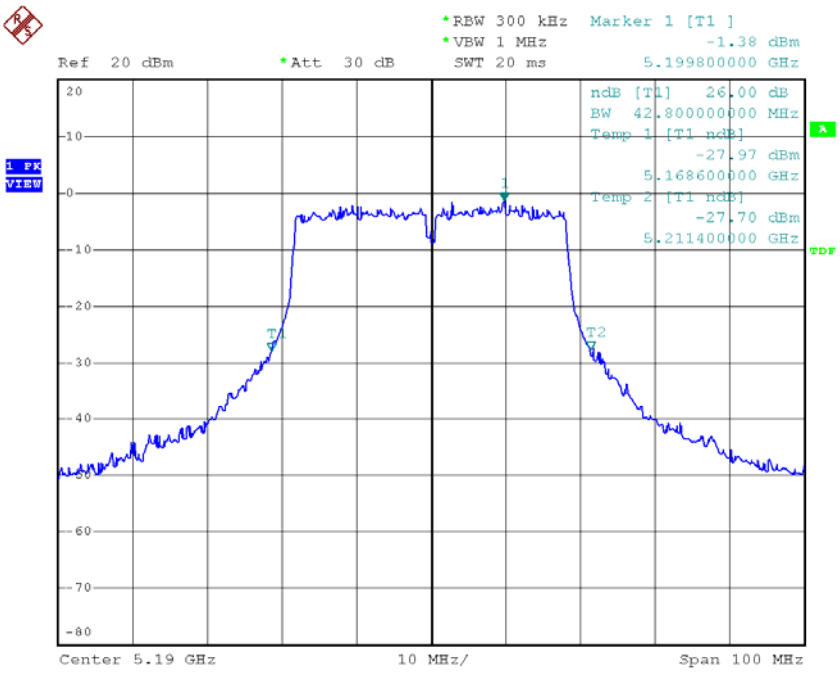
Date: 24.JUL.2008 17:50:35

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 46



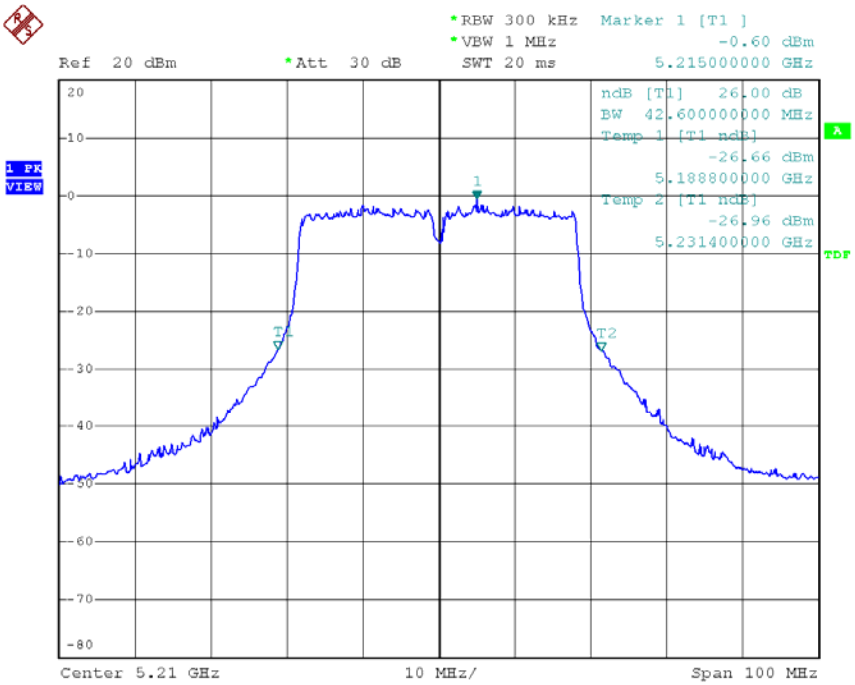
Date: 24.JUL.2008 17:56:49

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 38



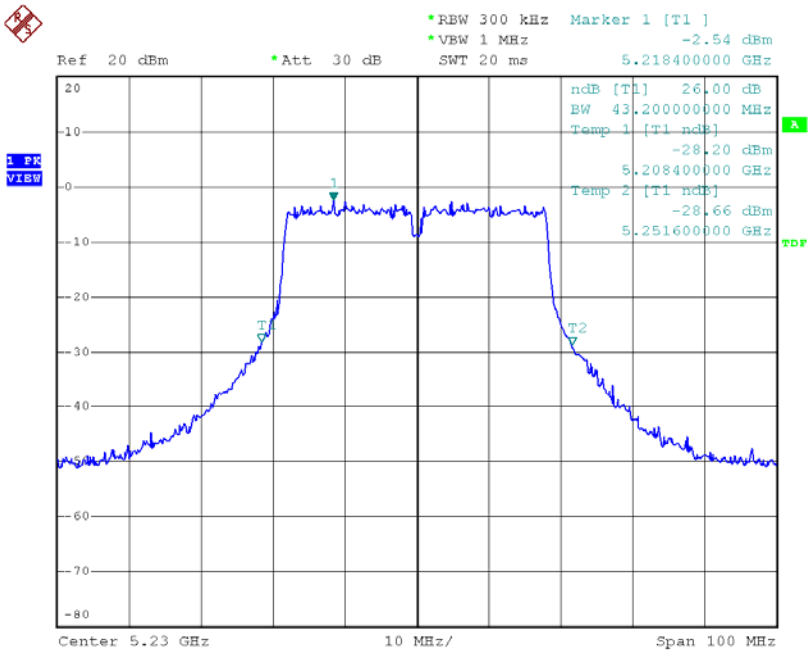
Date: 24.JUL.2008 17:33:07

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 42



Date: 24.JUL.2008 17:52:22

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 46



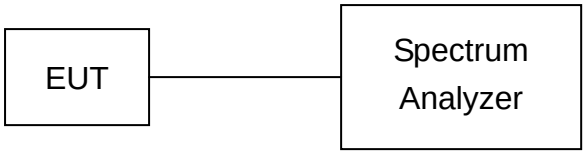
Date: 24.JUL.2008 17:54:50

7. Peak Power Excursion

7.1. Test Procedure

1. The transmitter output was connected to the spectrum analyzer
2. Using Peak detector and max-hold function for Trace 1 MHz and VBW to 3 MHz for Trace 1. Using average detector for Trace 2.
3. Set RBW of spectrum analyzer to 1 MHz and VBW to 3 MHz for Trace 1. Set RBW of spectrum analyzer to 1 MHz and VBW to 300 kHz for Trace 2.
4. The largest difference between Trace 1 and Trace 2 in any 1 MHz band on any frequency was recorded.

7.2. Test Setup Layout



7.3. Measurement equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date.
Spectrum Analyzer	FSP40	R&S	10047	2008/02/22	2009/02/21

7.4. Test Result and Data

Modulation Standard: IEEE 802.11a (54Mbps)

Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa

Channel	Frequency (MHz)	Peak Power Excursion (dB)		
		R-ANT	M-ANT	L-ANT
36	5180	10.61	11.28	11.47
44	5220	11.75	11.36	12.06
48	5240	11.45	11.05	11.17

Modulation Standard: IEEE 802.11an, HT20 (130Mbps)

Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa

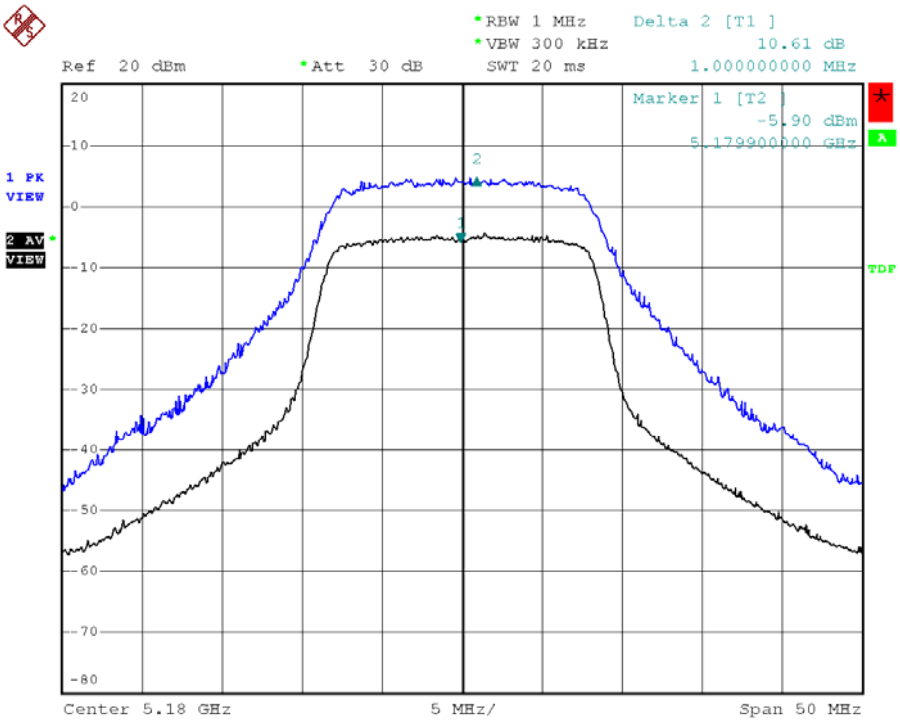
Channel	Frequency (MHz)	Peak Power Excursion (dB)				
		R+L-ANT		All ANT		
		R-ANT	L-ANT	R-ANT	M-ANT	L-ANT
36	5180	11.29	11.60	11.09	11.17	11.65
44	5220	11.49	10.61	11.21	11.13	11.95
48	5240	11.43	11.74	11.43	12.71	11.89

Modulation Standard: IEEE 802.11an, HT40 (270Mbps)

Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa

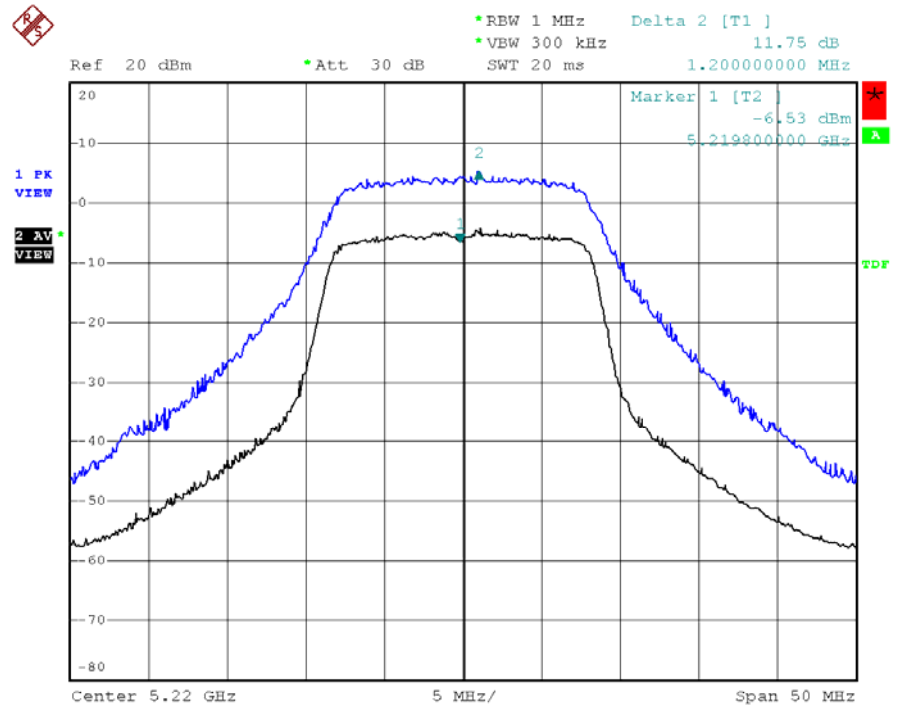
Channel	Frequency (MHz)	Peak Power Excursion (dB)				
		R+L-ANT		All ANT		
		R-ANT	L-ANT	R-ANT	M-ANT	L-ANT
38	5190	6.21	6.01	6.89	8.26	8.02
42	5210	6.11	6.94	7.72	9.20	8.88
46	5230	6.22	6.66	7.69	9.10	9.03

Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 36



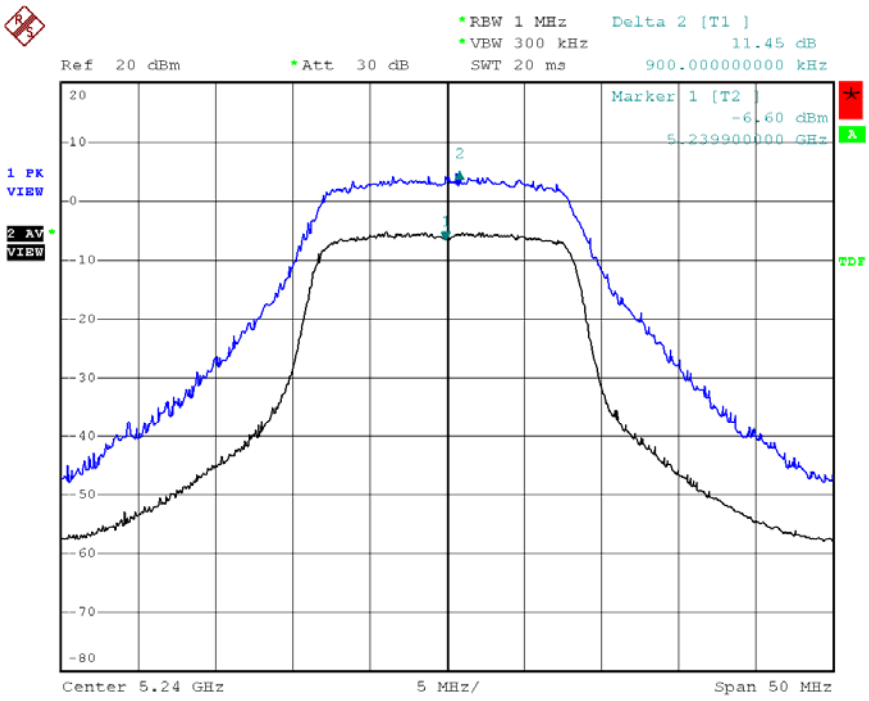
Date: 22.JUL.2008 15:59:08

Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 44



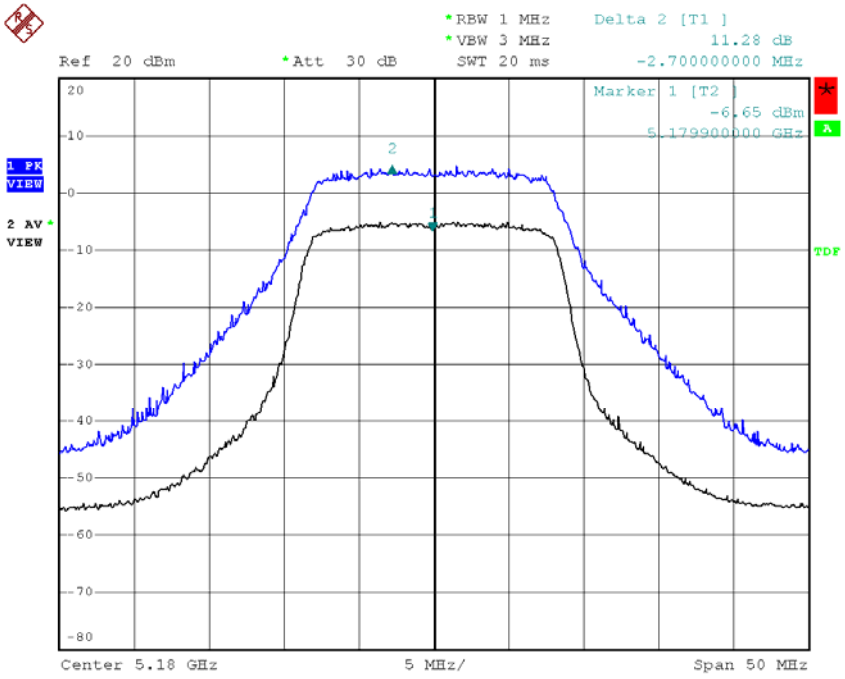
Date: 22.JUL.2008 16:00:10

Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 48



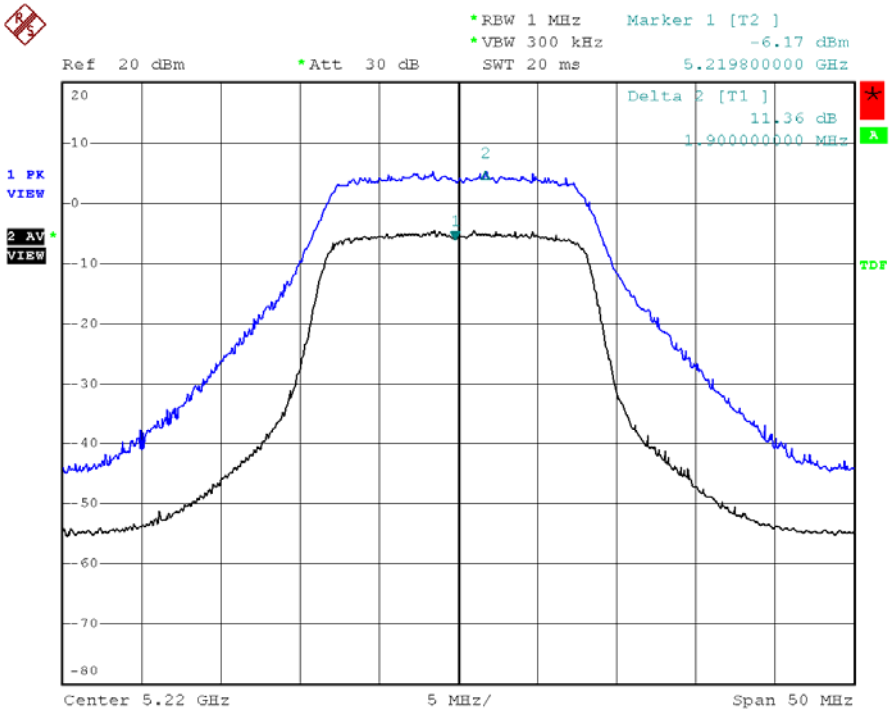
Date: 22.JUL.2008 16:00:57

Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 36



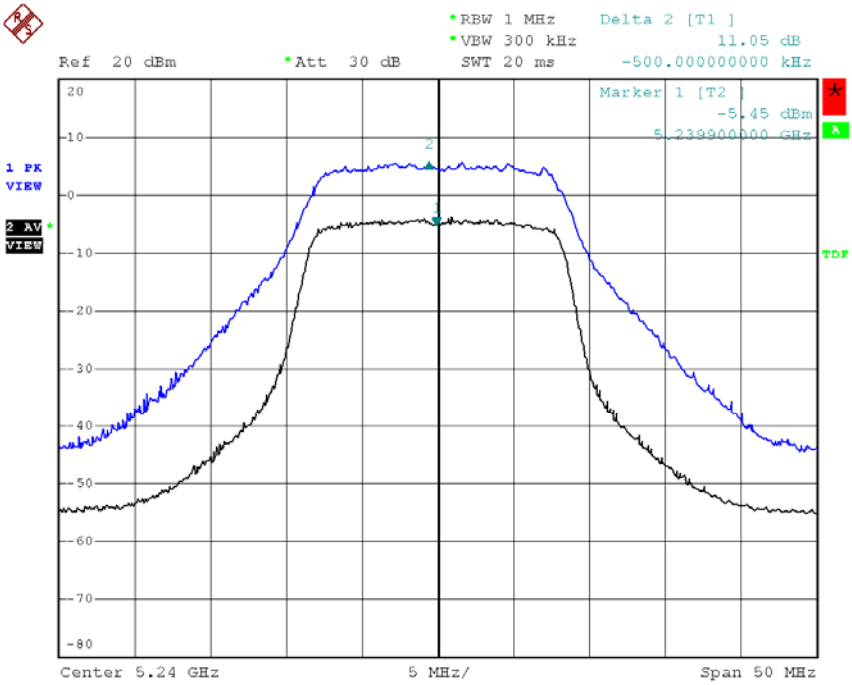
Date: 22.JUL.2008 17:44:11

Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 44



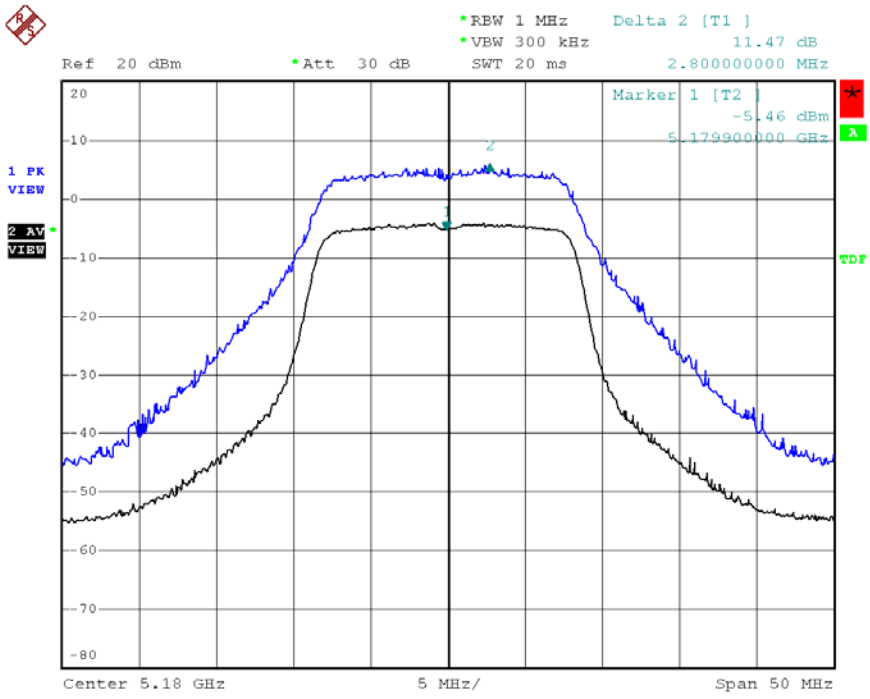
Date: 22.JUL.2008 17:43:05

Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 48



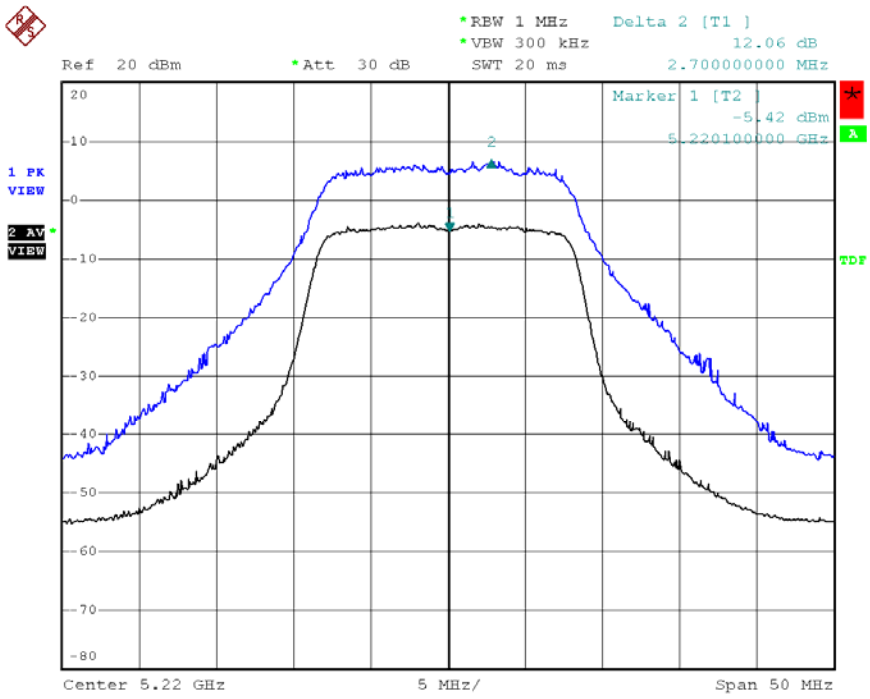
Date: 22.JUL.2008 17:41:01

Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 36



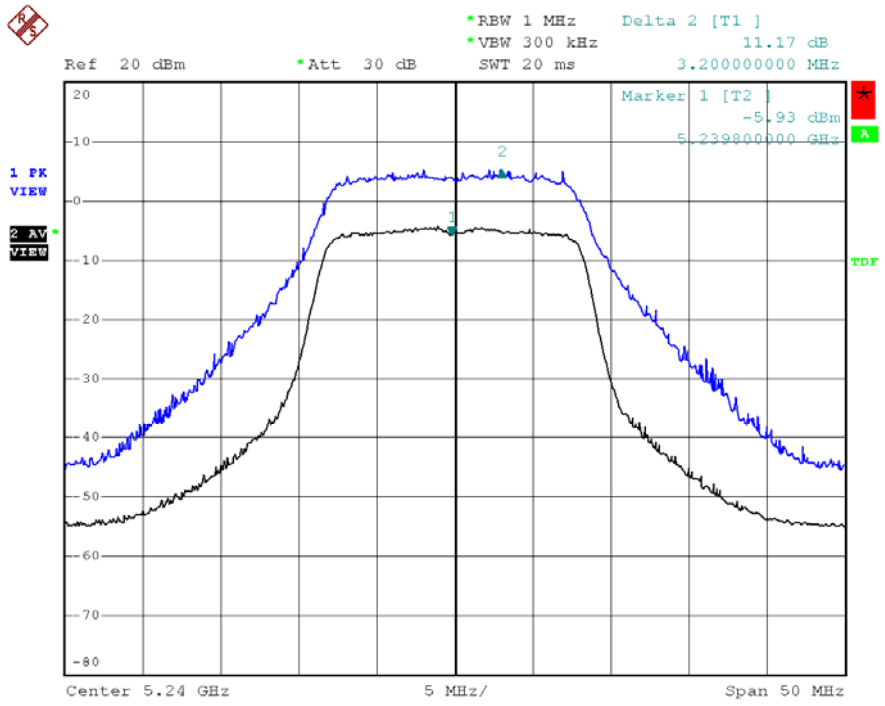
Date: 23.JUL.2008 10:34:40

Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 44



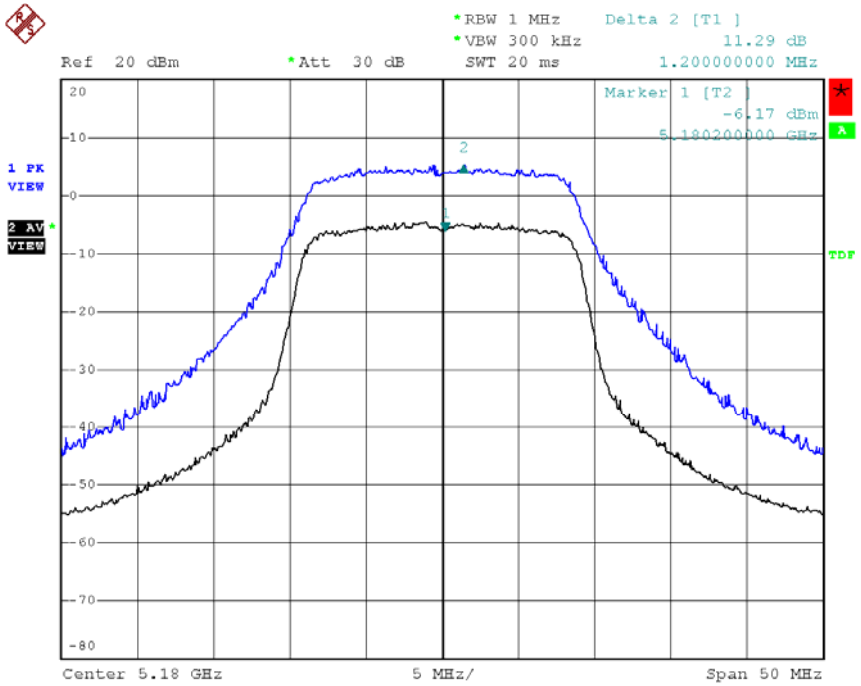
Date: 23.JUL.2008 10:33:11

Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 48



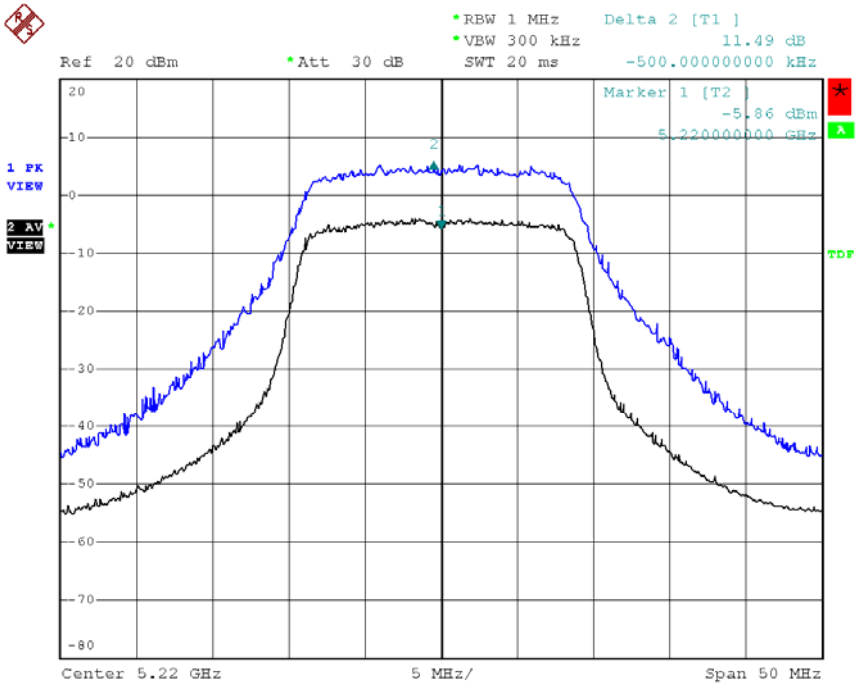
Date: 23.JUL.2008 10:31:23

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 36



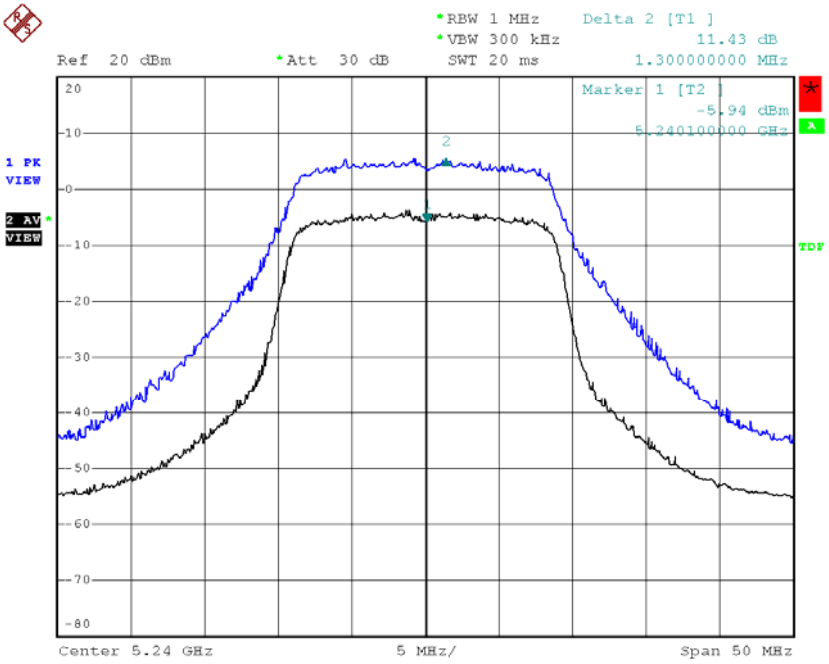
Date: 23.JUL.2008 14:26:46

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 44



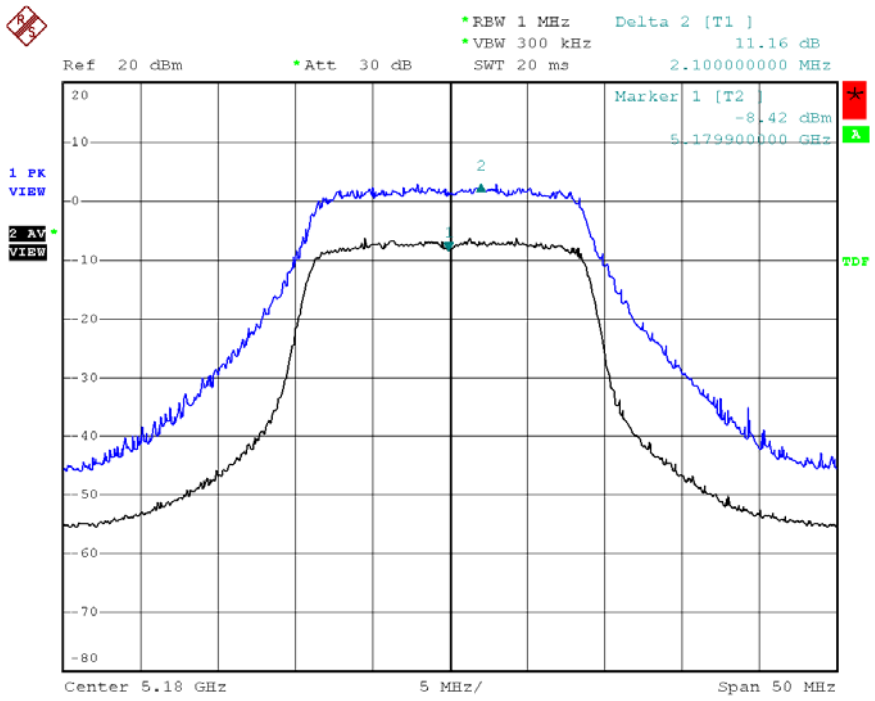
Date: 23.JUL.2008 14:27:38

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 48



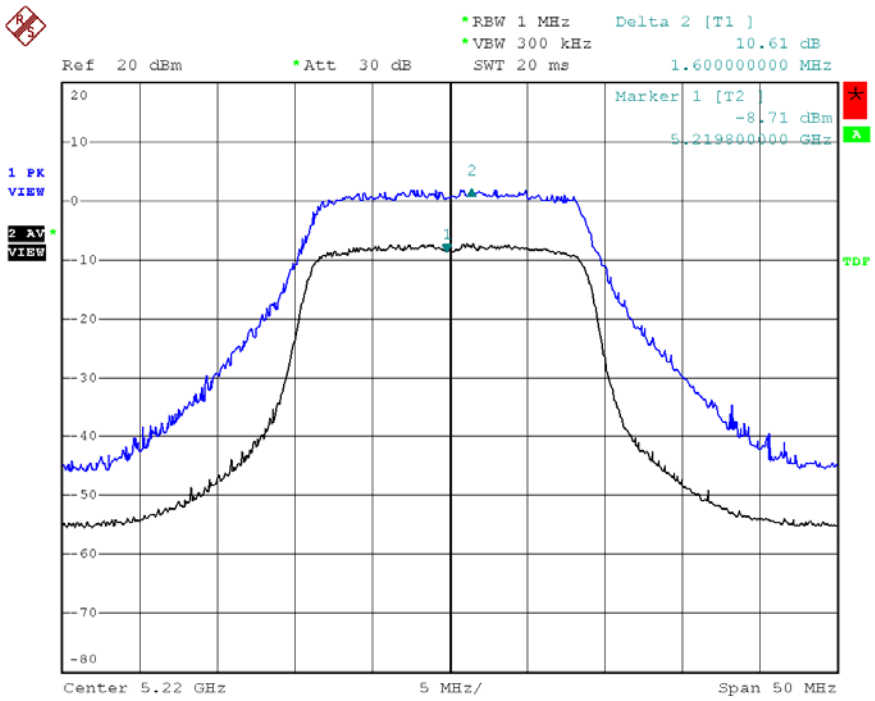
Date: 23.JUL.2008 14:28:26

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 36



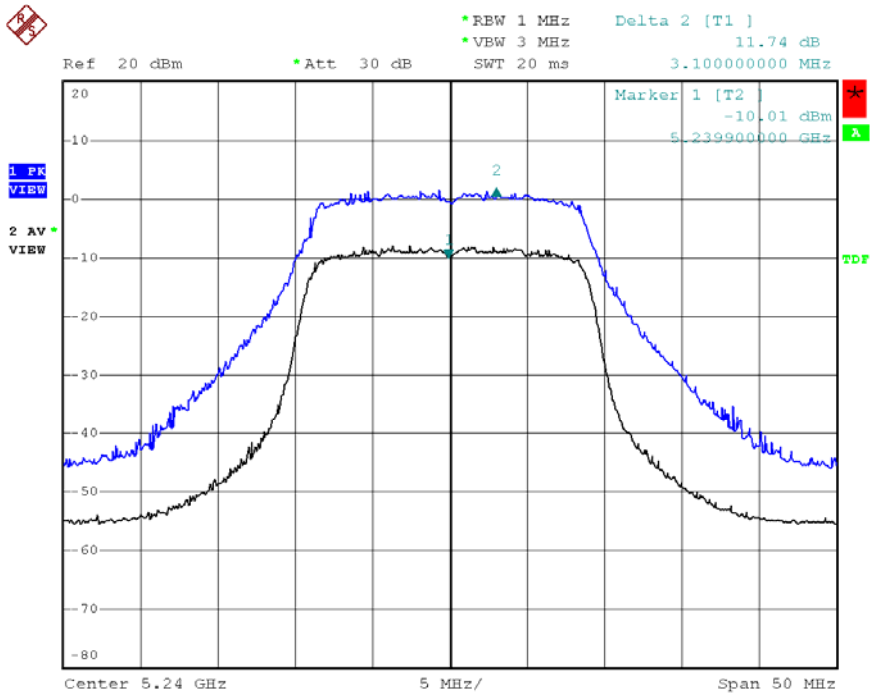
Date: 23.JUL.2008 14:31:03

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 44



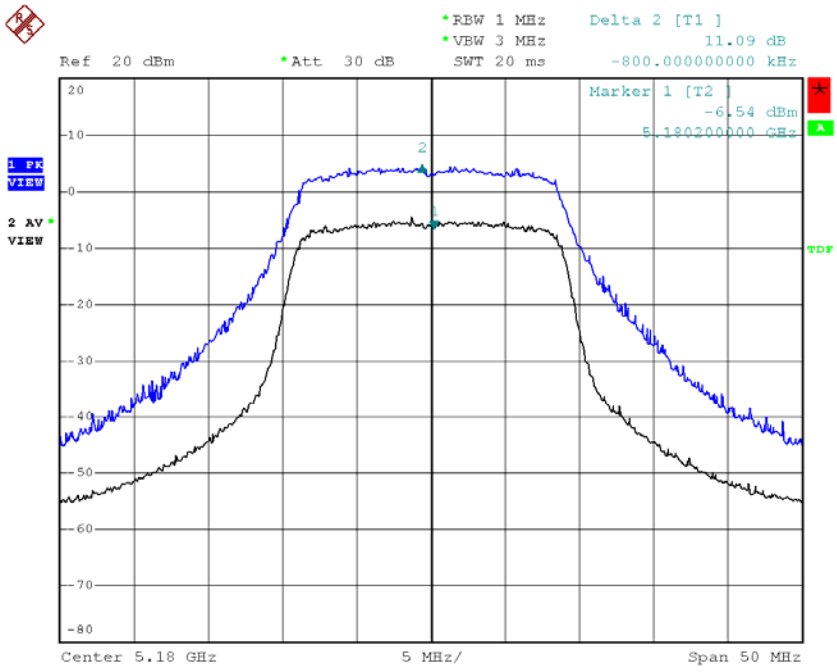
Date: 23.JUL.2008 14:30:25

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 48



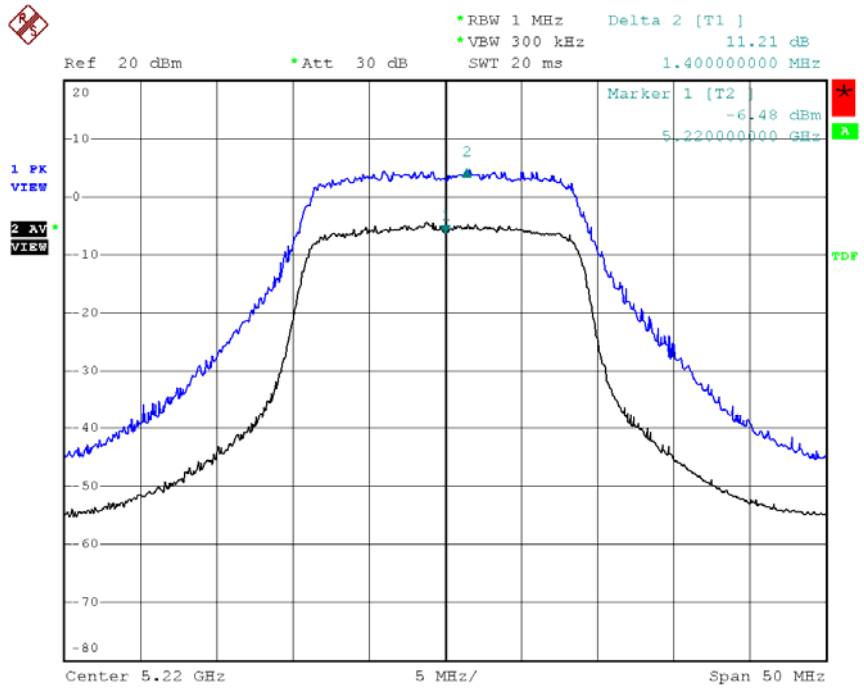
Date: 23.JUL.2008 14:29:29

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 36



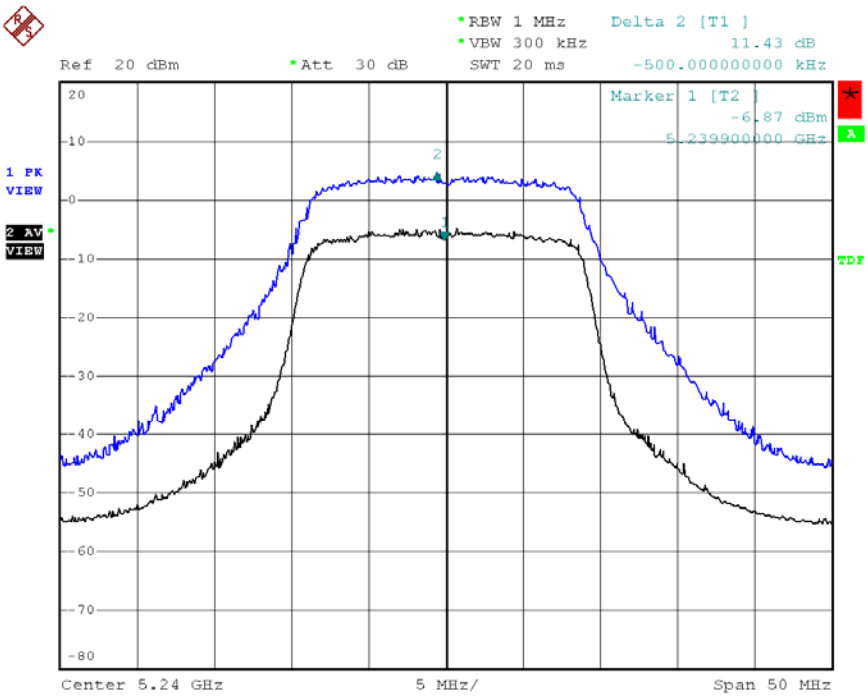
Date: 24.JUL.2008 14:17:13

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 44



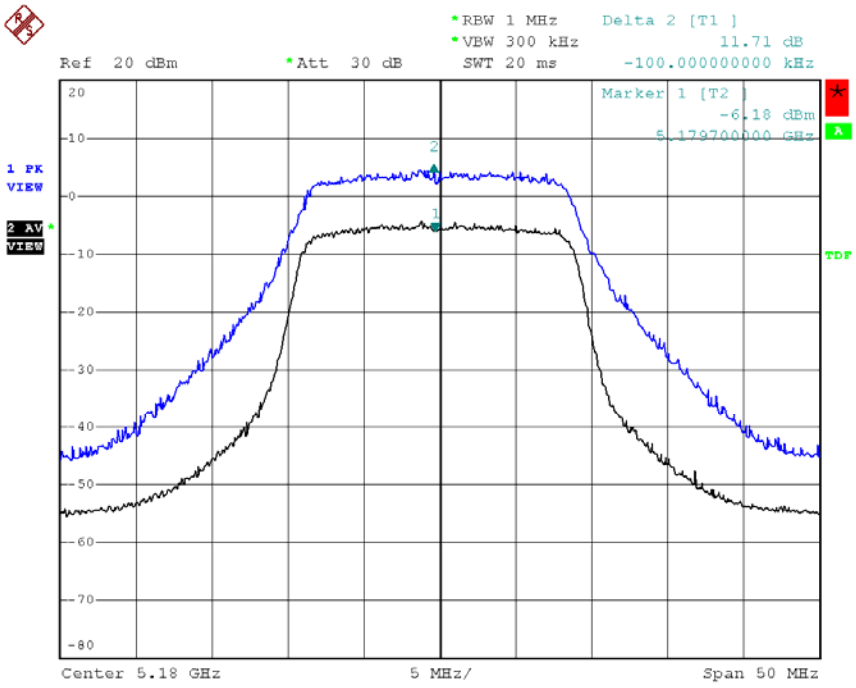
Date: 24.JUL.2008 14:18:16

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 48



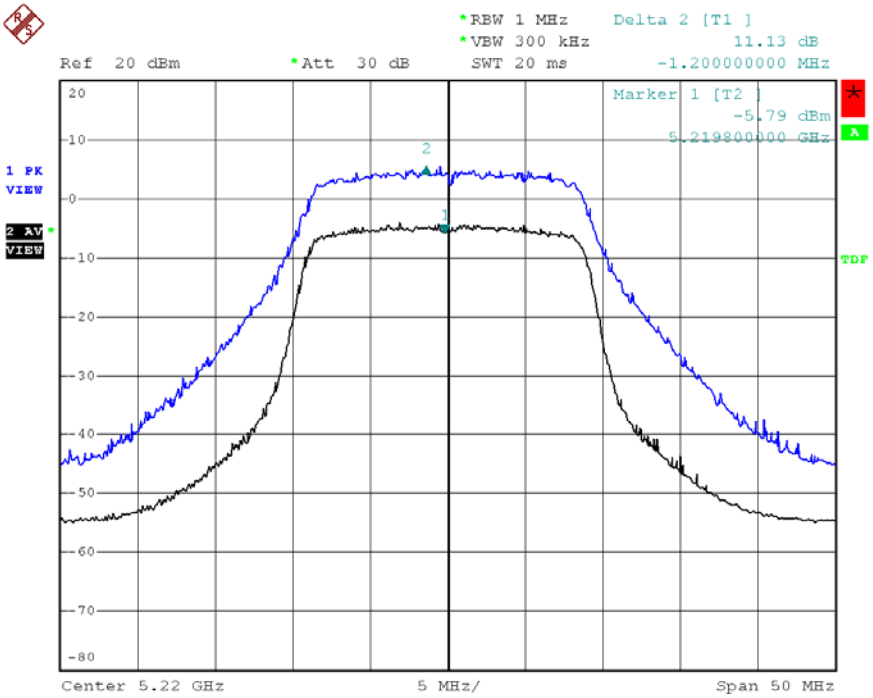
Date: 24.JUL.2008 14:19:00

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 36



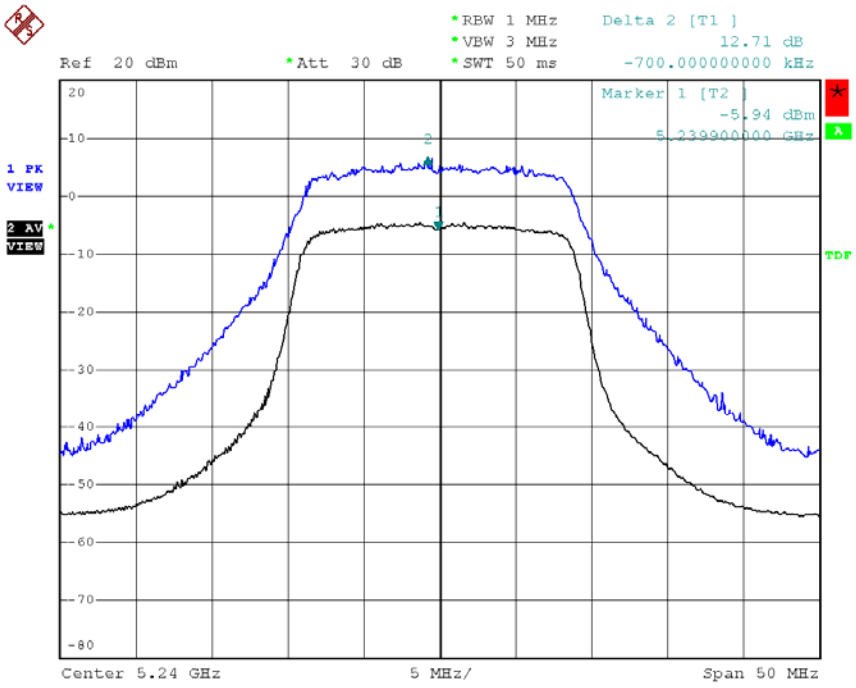
Date: 24.JUL.2008 14:16:00

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 44



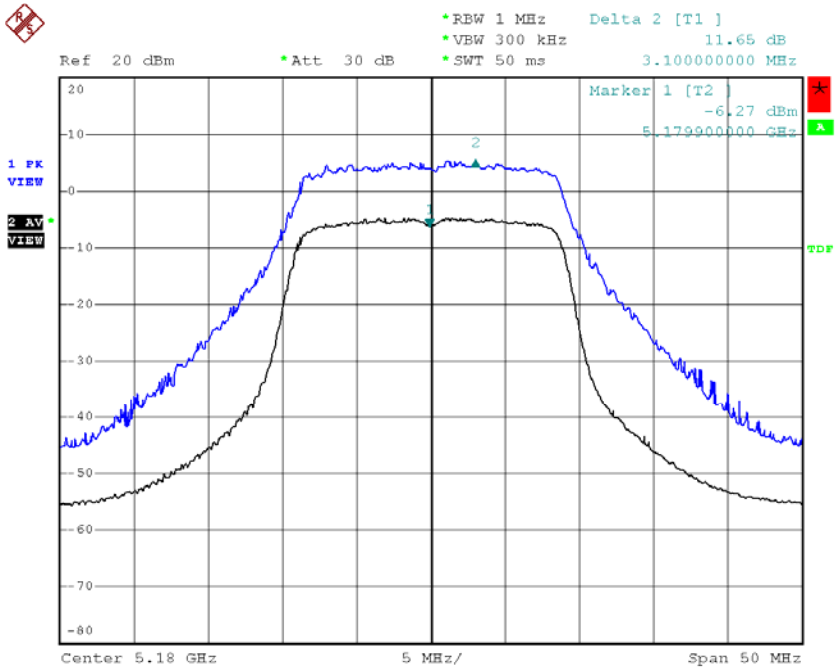
Date: 24.JUL.2008 14:14:30

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 48



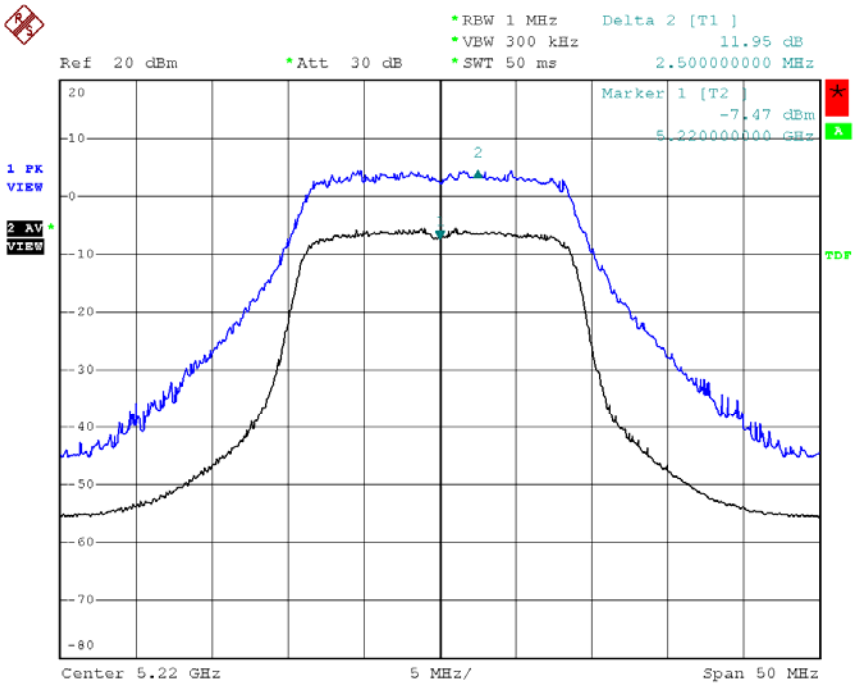
Date: 24.JUL.2008 14:13:28

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 36



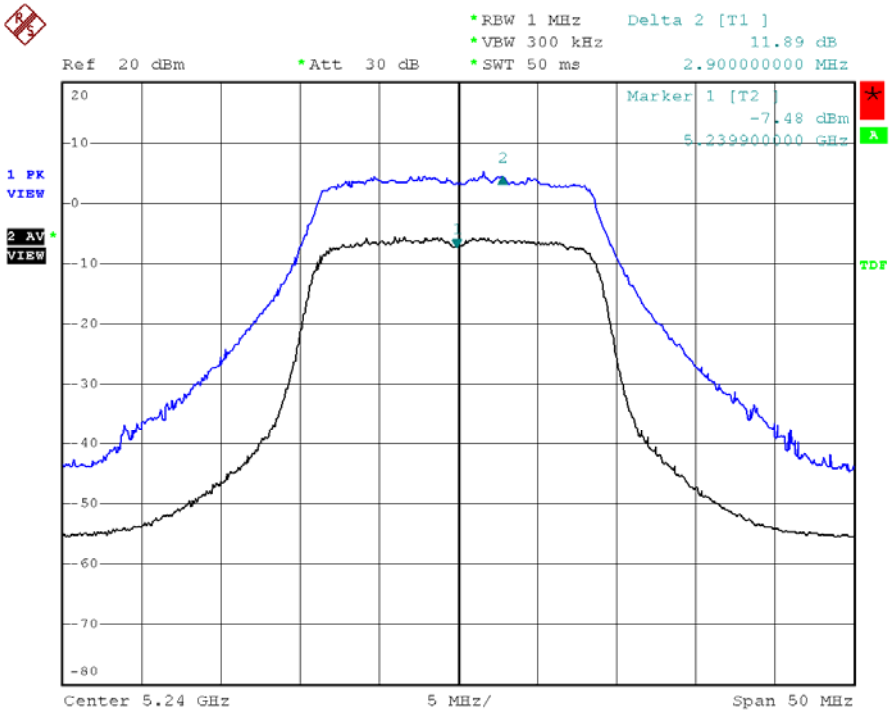
Date: 24.JUL.2008 14:09:37

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 44



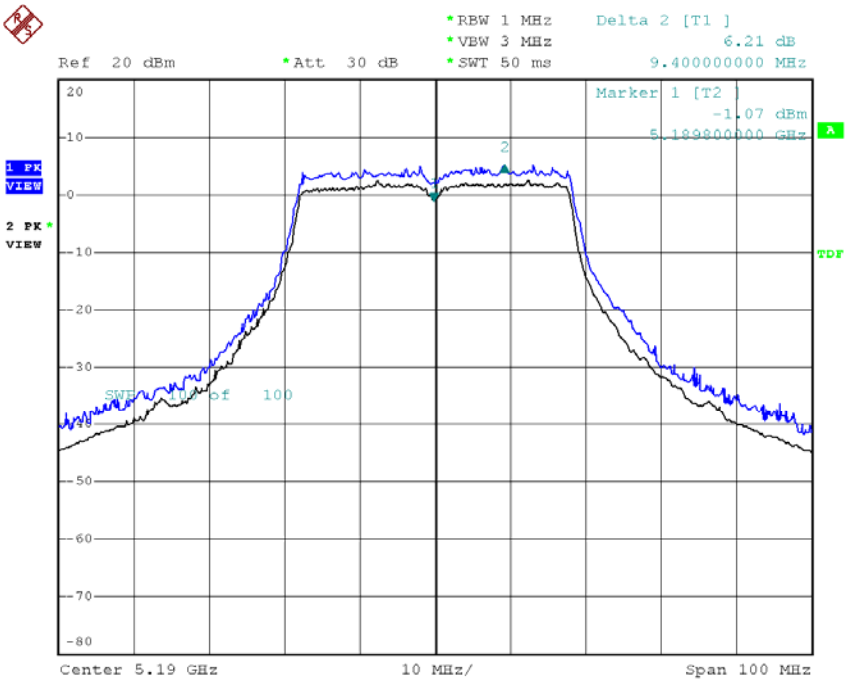
Date: 24.JUL.2008 14:10:31

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 48



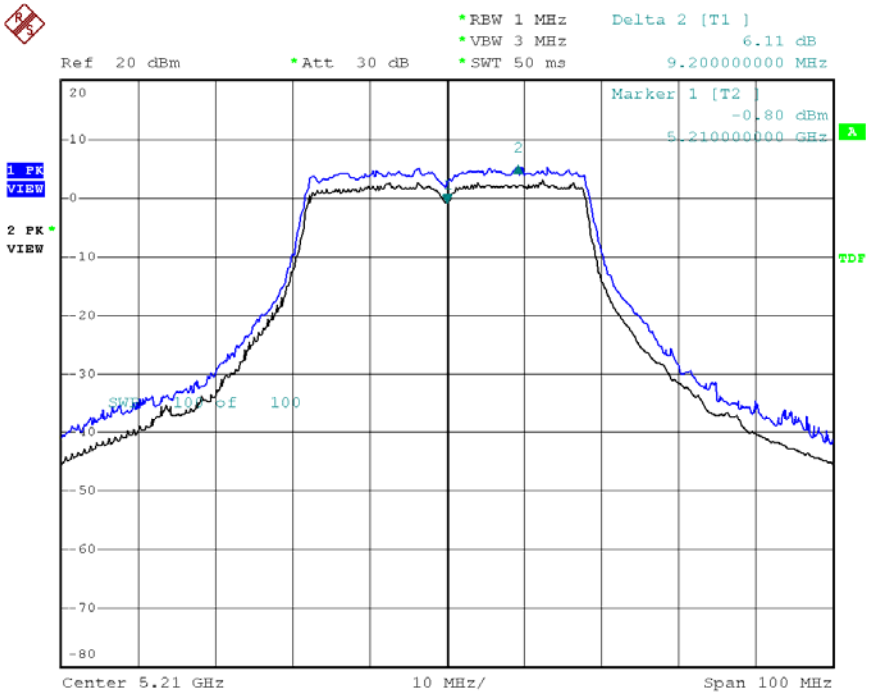
Date: 24.JUL.2008 14:11:54

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 38



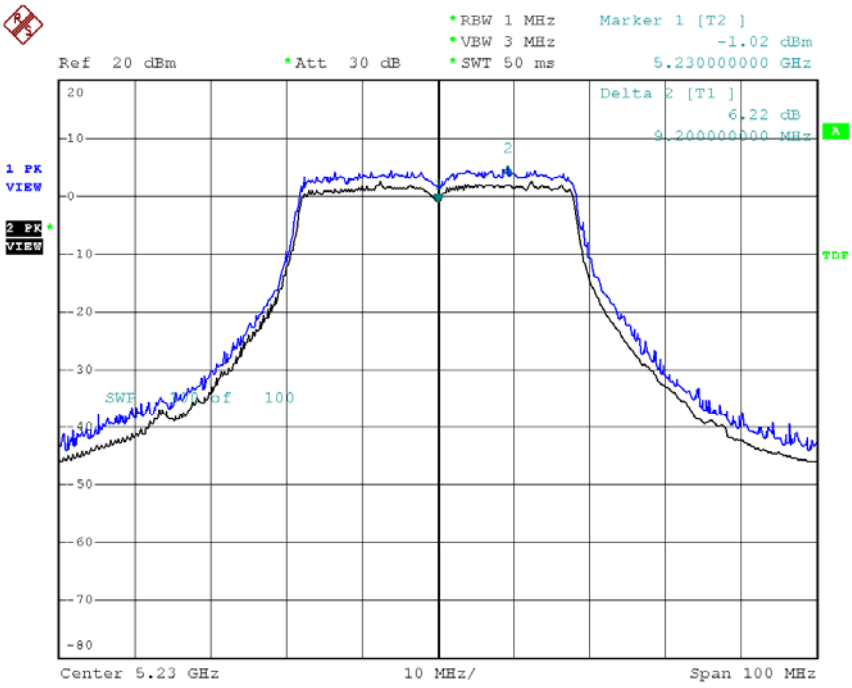
Date: 23.JUL.2008 17:43:41

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 42



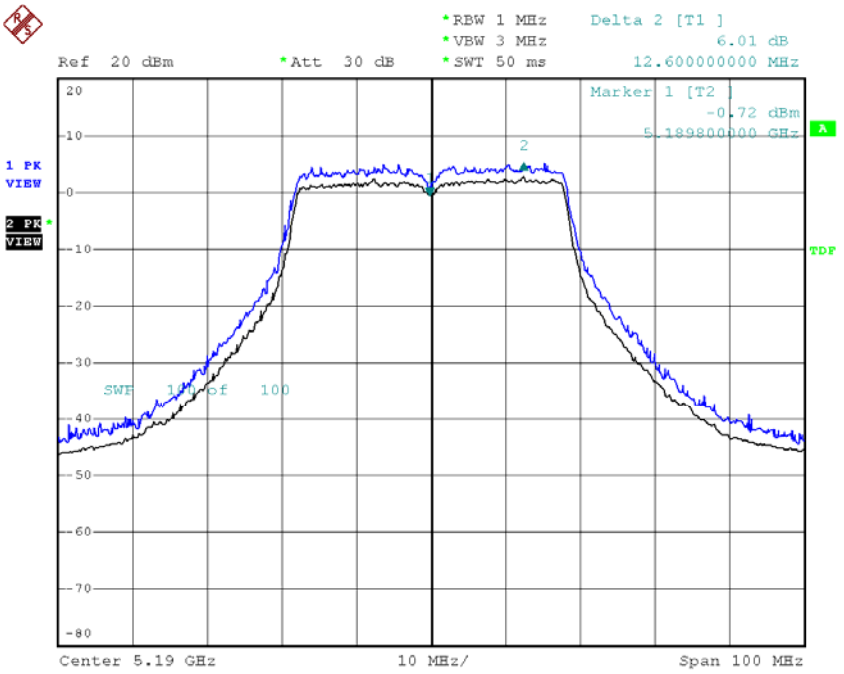
Date: 23.JUL.2008 17:45:03

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 46



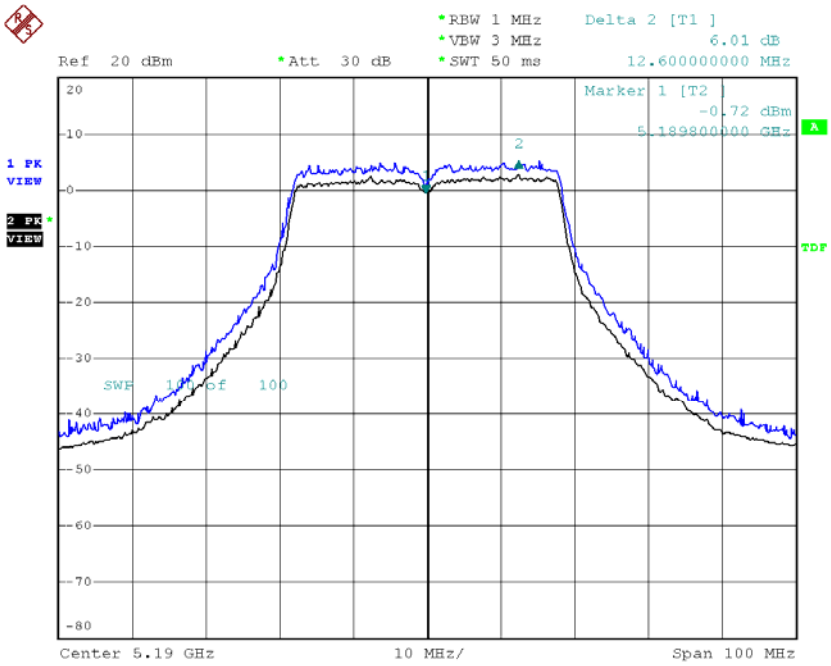
Date: 23.JUL.2008 17:45:47

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 38



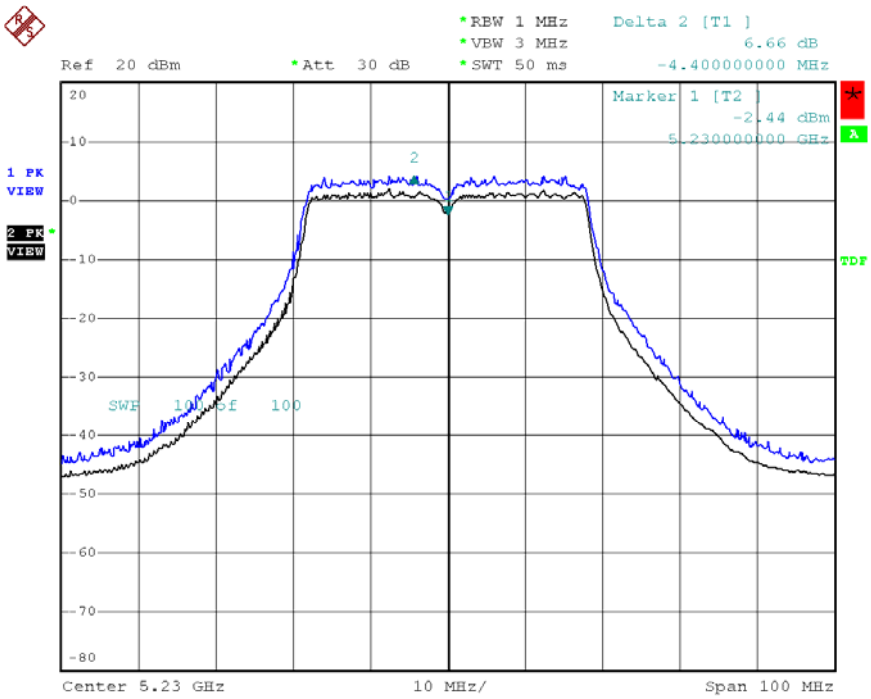
Date: 23.JUL.2008 17:42:49

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 42



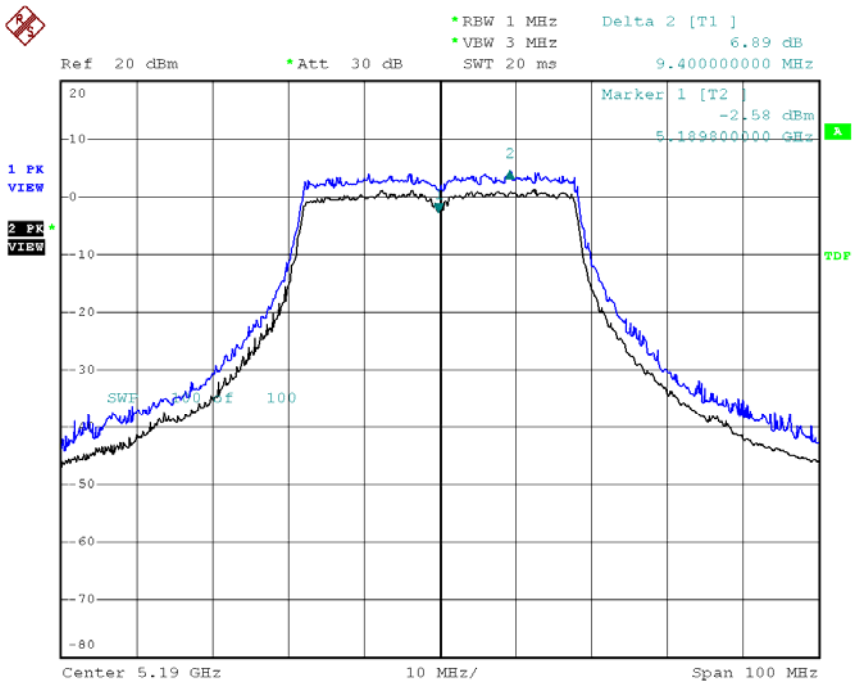
Date: 23.JUL.2008 17:42:49

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 46



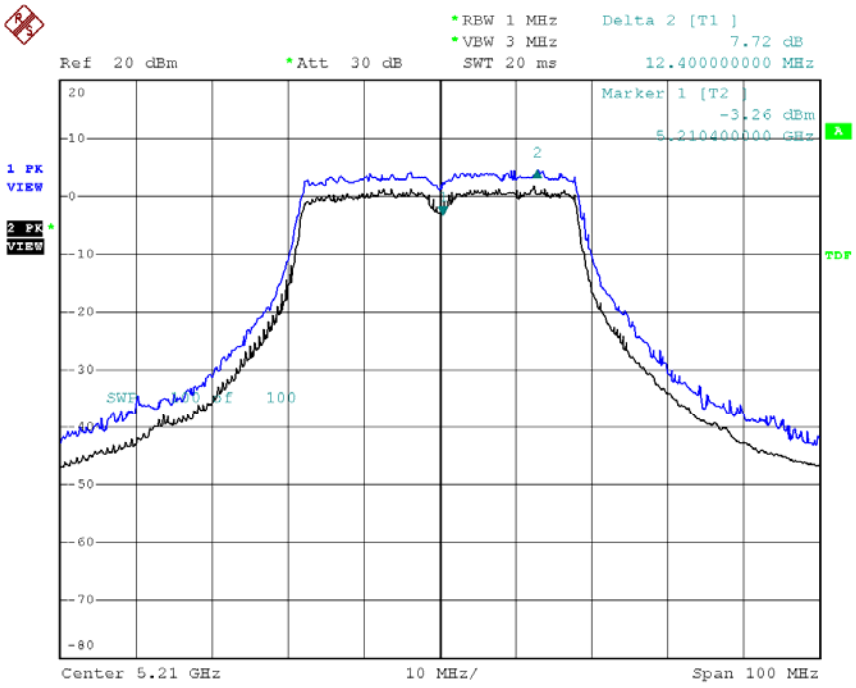
Date: 23.JUL.2008 17:40:24

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 38



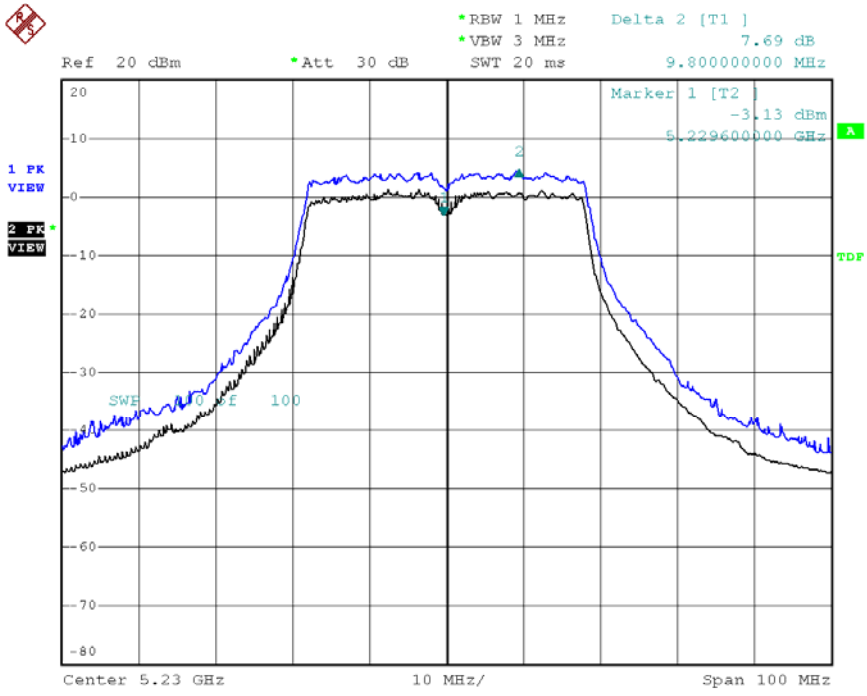
Date: 24.JUL.2008 18:15:55

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 42



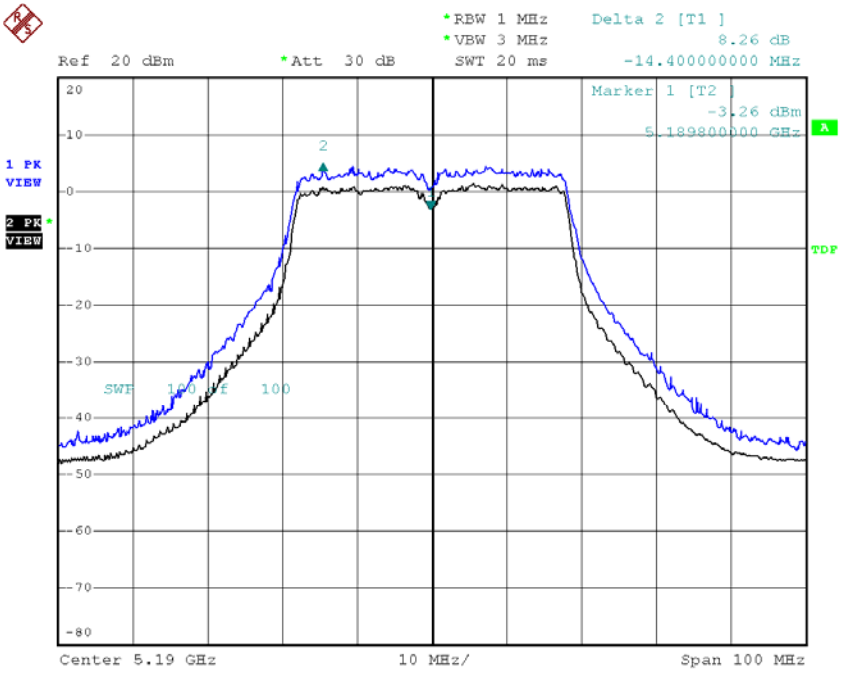
Date: 24.JUL.2008 18:16:42

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 46



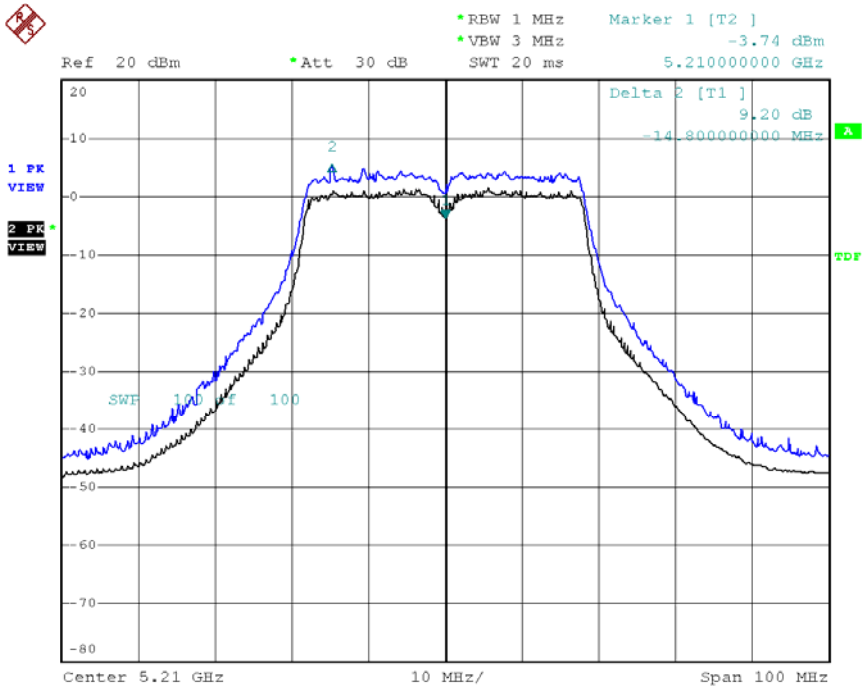
Date: 24.JUL.2008 18:18:15

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 38



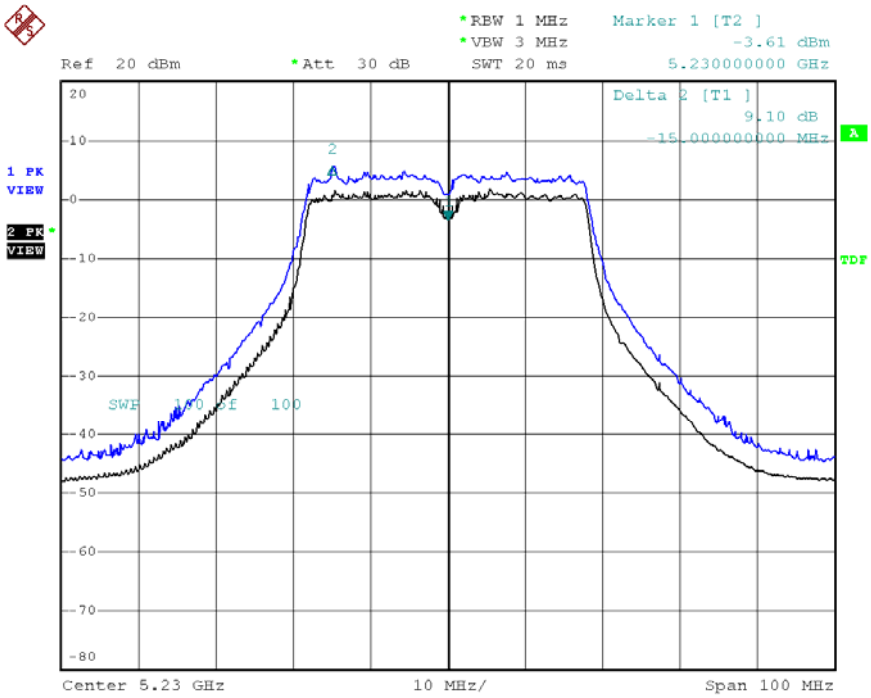
Date: 24.JUL.2008 18:15:07

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 42



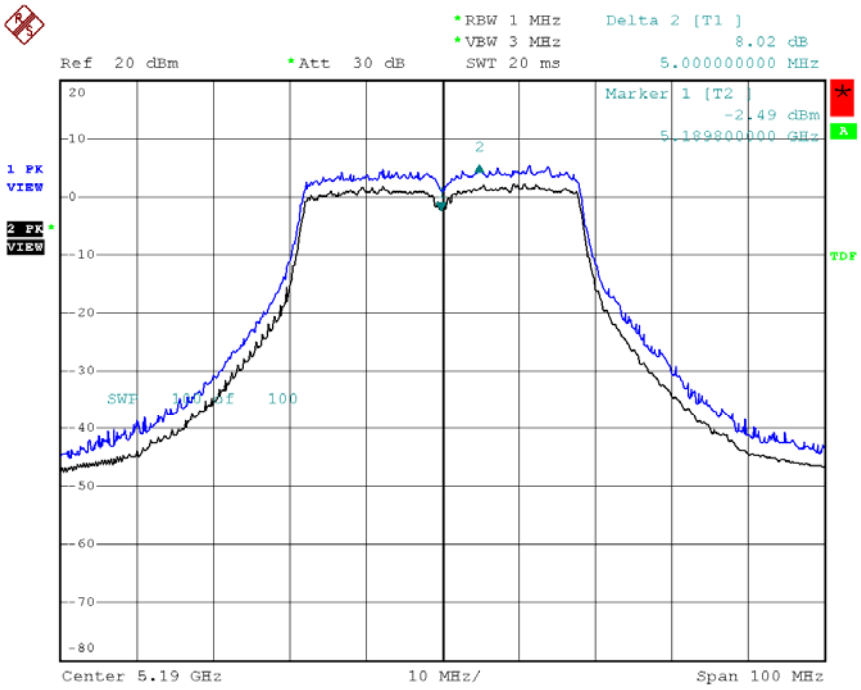
Date: 24.JUL.2008 18:11:35

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 46



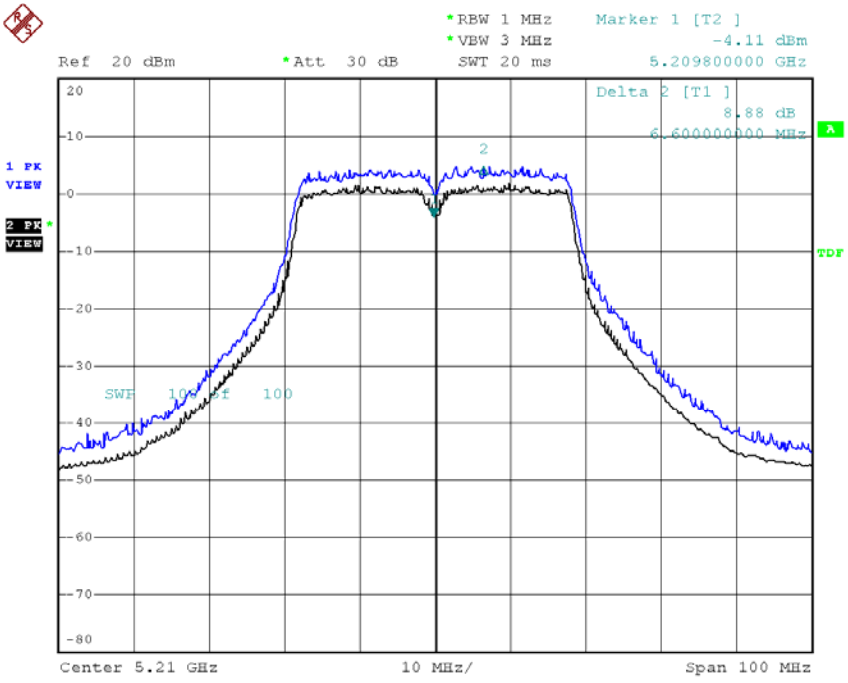
Date: 24.JUL.2008 18:12:55

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 38



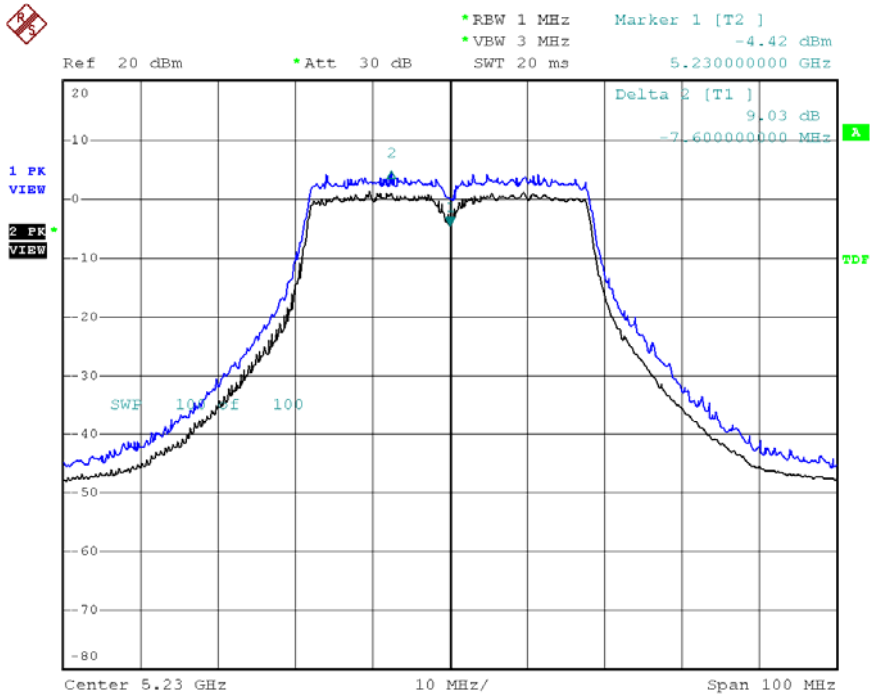
Date: 24.JUL.2008 18:06:25

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 42



Date: 24.JUL.2008 18:07:12

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 46



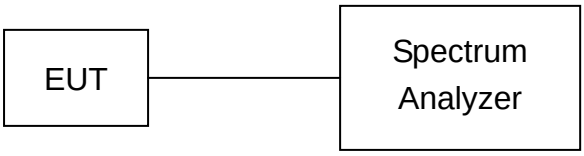
Date: 24.JUL.2008 18:07:56

8. Peak Power Spectral Density

8.1. Test Procedure

1. The transmitter output was connected to spectrum analyzer.
2. Set RBW of spectrum analyzer to 1 MHz and VBW to 3 MHz
3. The Peak Power Spectral Density is the highest level found across the emission in any 1MHz Band

8.2. Test Setup Layout



8.3. Measurement equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date.
Spectrum Analyzer	FSP40	R&S	10047	2008/02/22	2009/02/21

8.4. Test Result and Data

Modulation Standard: IEEE 802.11a (54Mbps)
Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa

Channel	Frequency (MHz)	RF Power Level In 1MHz BW (dBm)		
		R-ANT	M-ANT	L-ANT
36	5180	-7.15	-7.86	-5.70
44	5220	-7.58	-7.03	-6.33
48	5240	-8.07	-6.52	-6.47

Modulation Standard: IEEE 802.11an, HT20 (130Mbps)
Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa
R+L-ANT

Channel	Frequency (MHz)	RF Power Level In 1MHz BW (dBm)		
		R-ANT	L-ANT	R+L
36	5180	-8.22	-7.74	-4.96
44	5220	-6.96	-7.96	-4.42
48	5240	-8.34	-8.43	-5.37

All-ANT

Channel	Frequency (MHz)	RF Power Level In 1MHz BW (dBm)			
		R-ANT	M-ANT	L-ANT	R+M+L
36	5180	-7.99	-8.32	-9.72	-3.84
44	5220	-8.46	-8.37	-11.80	-4.51
48	5240	-8.67	-8.16	-13.27	-4.74

Modulation Standard: IEEE 802.11an, HT40 (270Mbps)

Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa

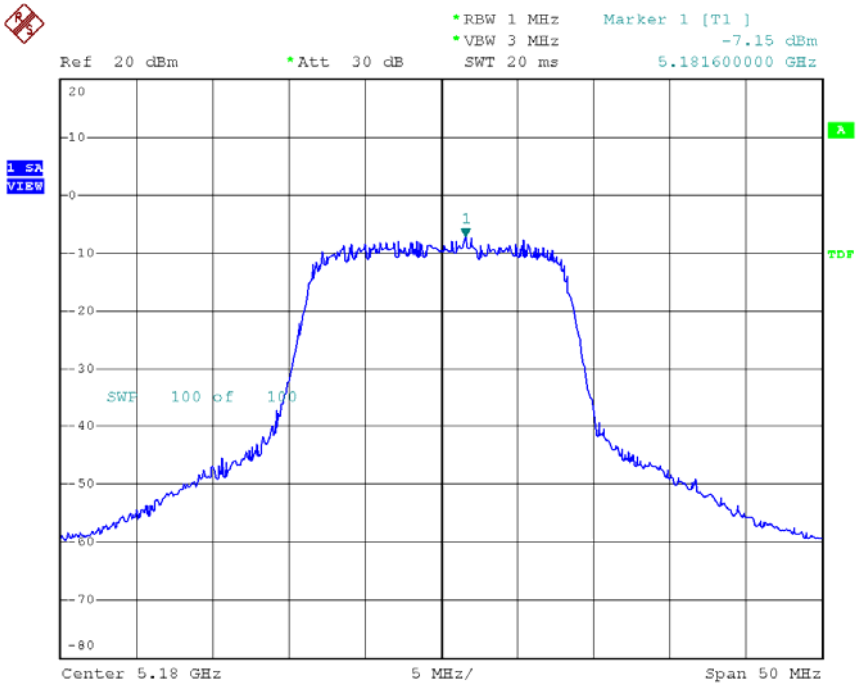
R+L-ANT

Channel	Frequency (MHz)	RF Power Level In 1MHz BW (dBm)		
		R-ANT	L-ANT	R+L
38	5190	-9.45	-9.37	-6.40
42	5210	-9.63	-9.23	-6.42
46	5230	-8.43	-11.17	-6.58

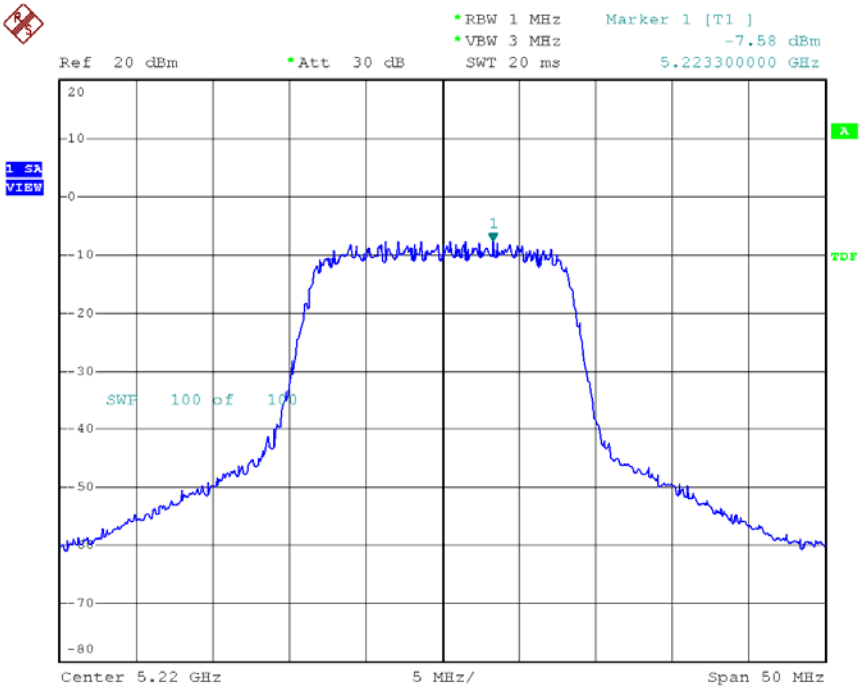
All-ANT

Channel	Frequency (MHz)	RF Power Level In 1MHz BW (dBm)			
		R-ANT	M-ANT	L-ANT	R+M+L
38	5190	-9.09	-9.95	-8.05	-4.19
42	5210	-9.01	-9.11	-8.31	-4.02
46	5230	-8.97	-9.61	-9.29	-4.51

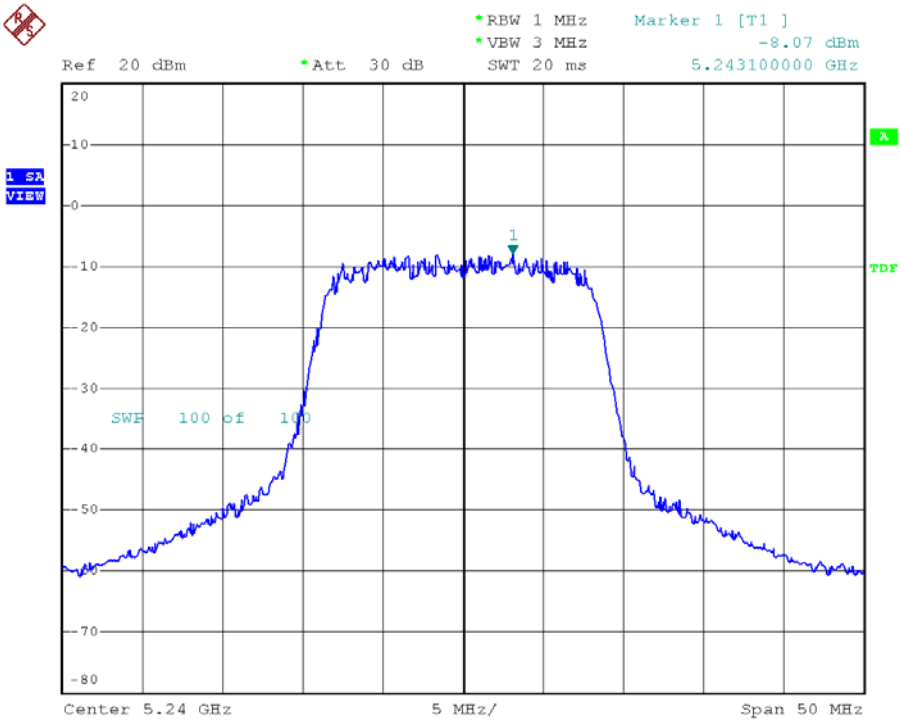
Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 36



Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 44

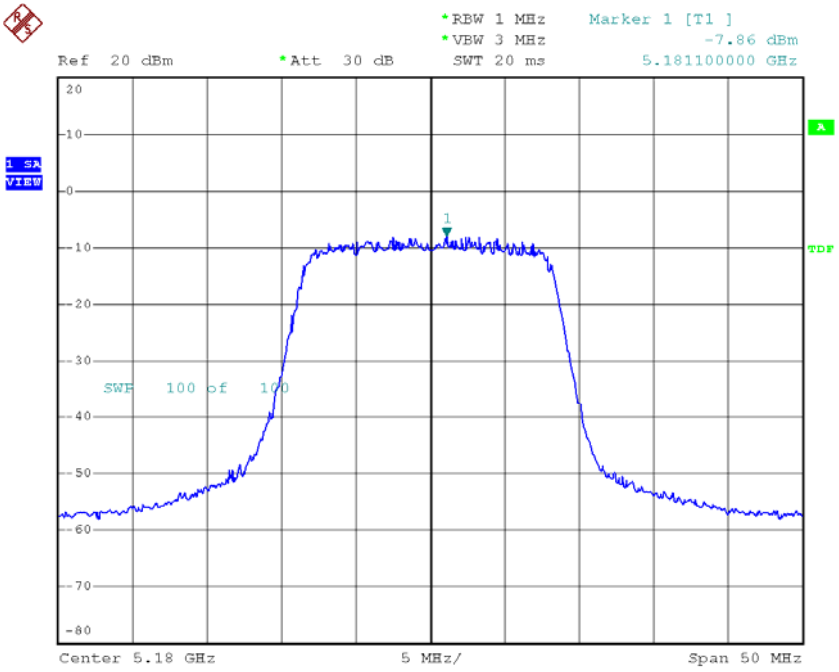


Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 48



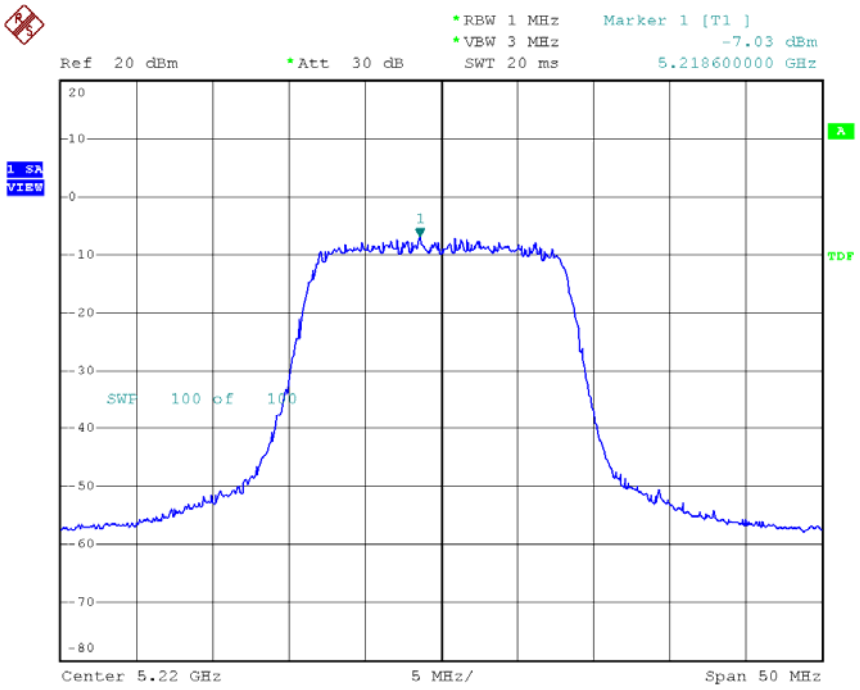
Date: 22.JUL.2008 16:01:33

Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 36



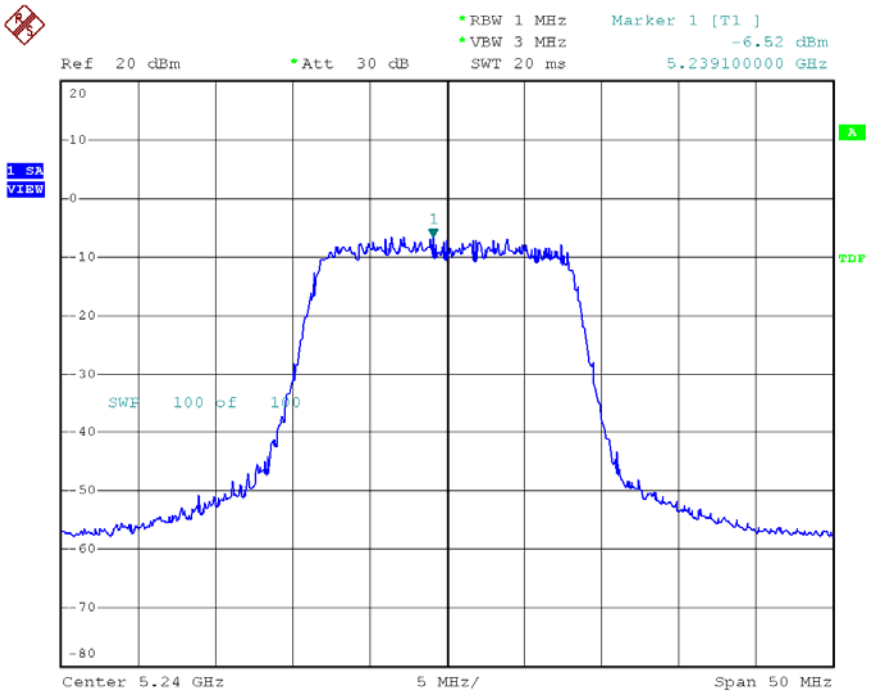
Date: 22.JUL.2008 17:44:50

Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 44



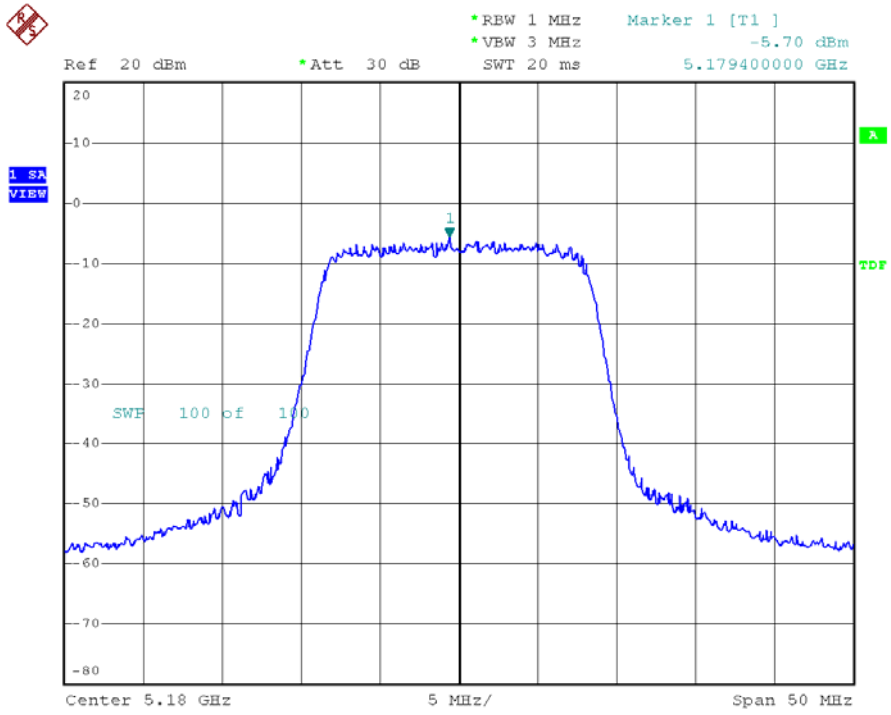
Date: 22.JUL.2008 17:46:39

Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 48



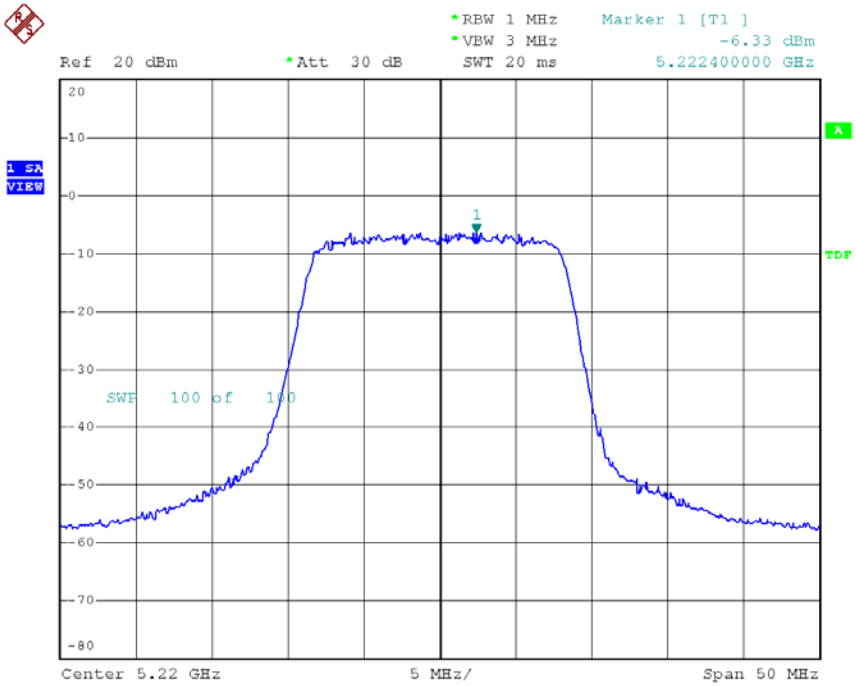
Date: 22.JUL.2008 17:46:58

Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 36



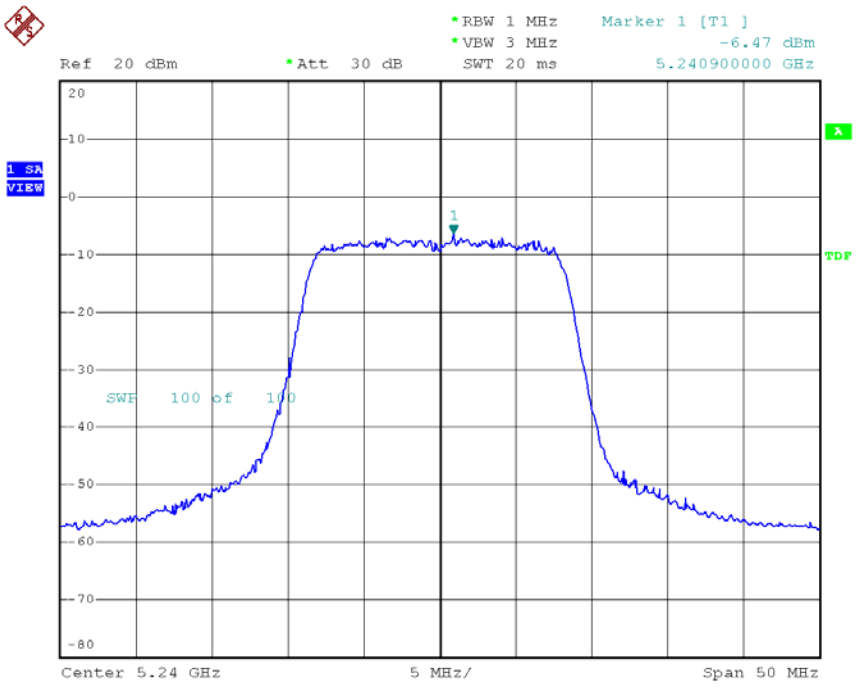
Date: 23.JUL.2008 10:35:22

Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 44



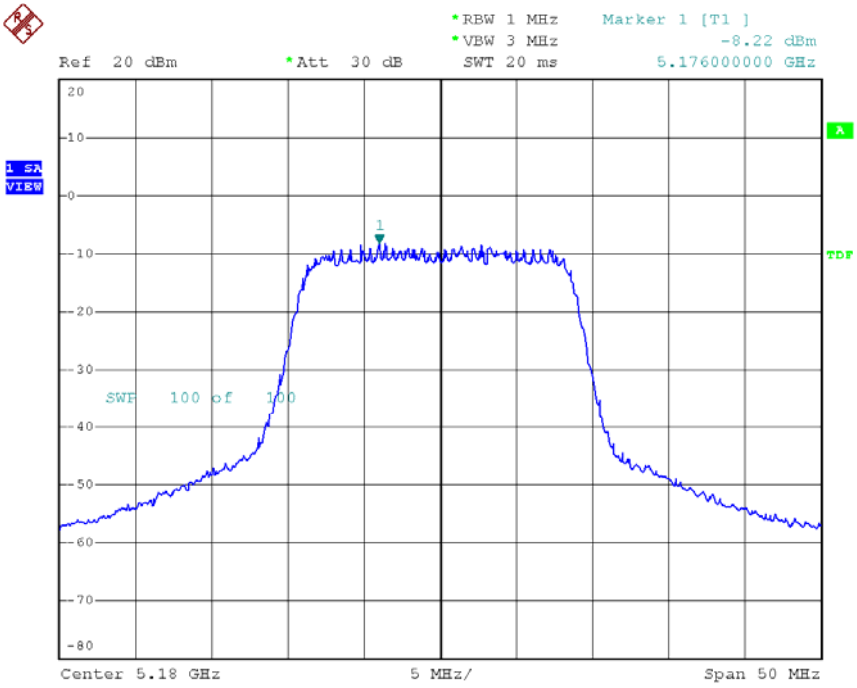
Date: 23.JUL.2008 10:38:31

Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 48



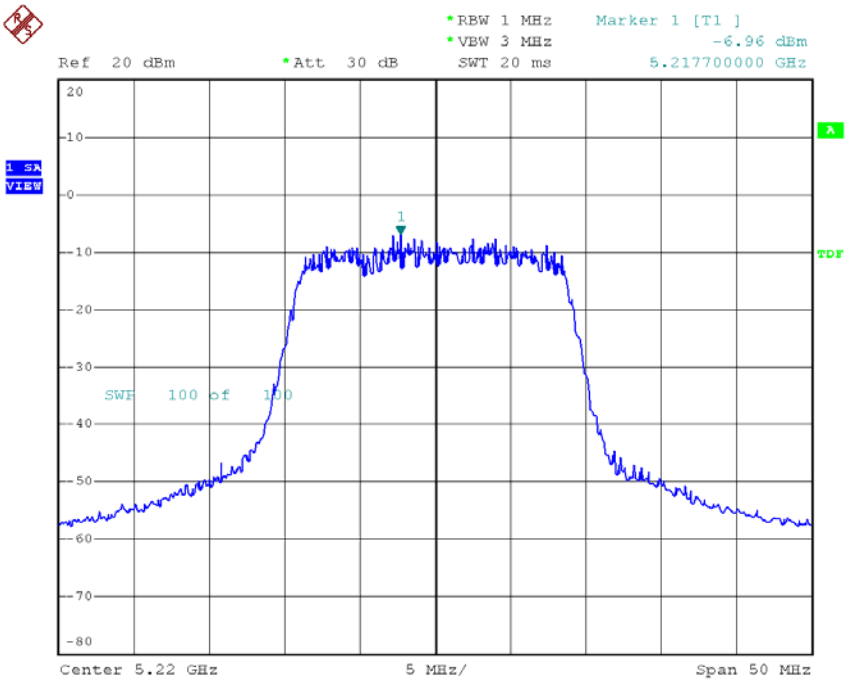
Date: 23.JUL.2008 10:39:25

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 36



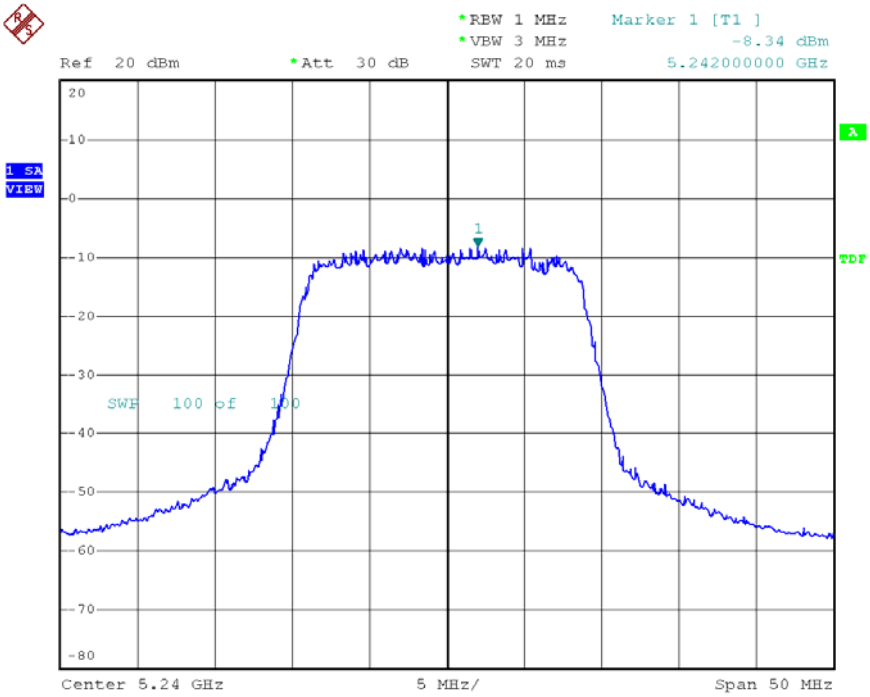
Date: 23.JUL.2008 14:39:58

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 44



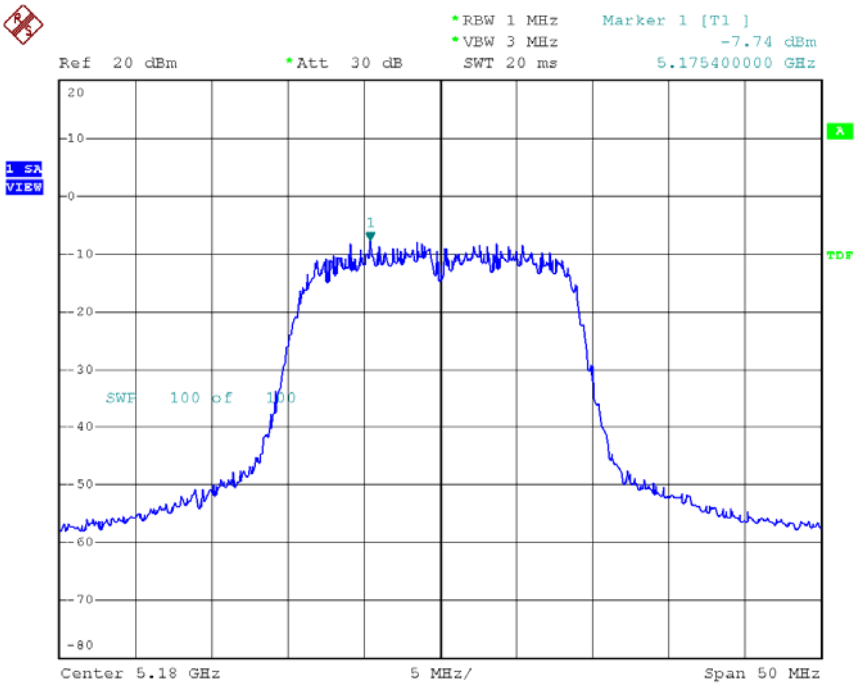
Date: 23.JUL.2008 14:40:24

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 48



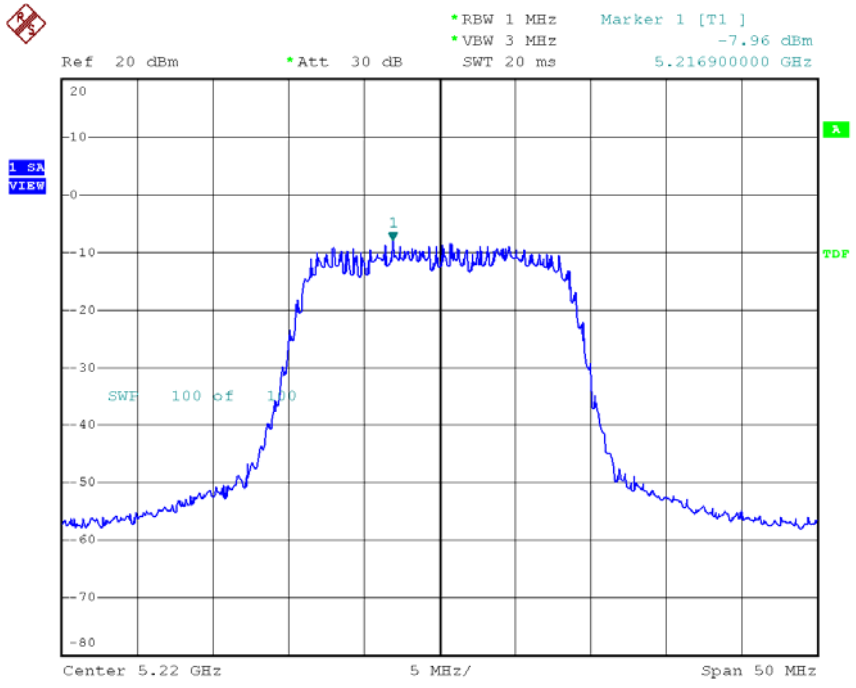
Date: 23.JUL.2008 14:40:56

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 36



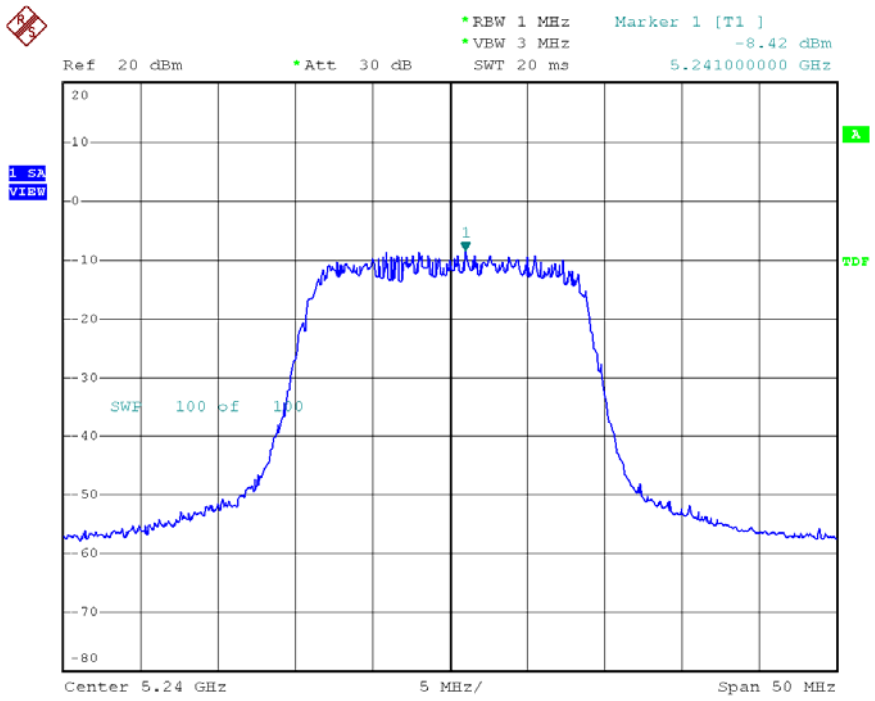
Date: 23.JUL.2008 14:42:28

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 44



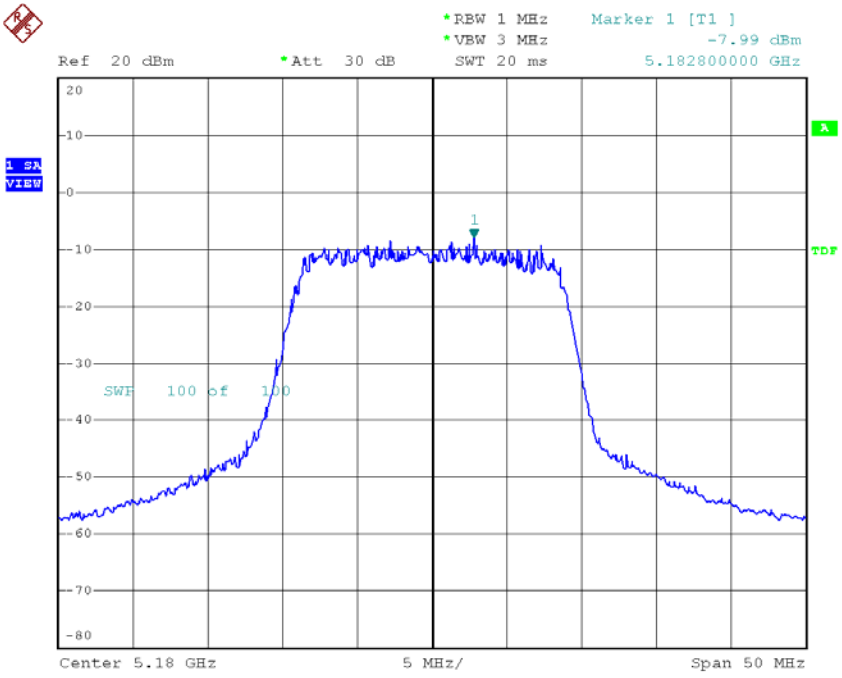
Date: 23.JUL.2008 14:42:07

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 48



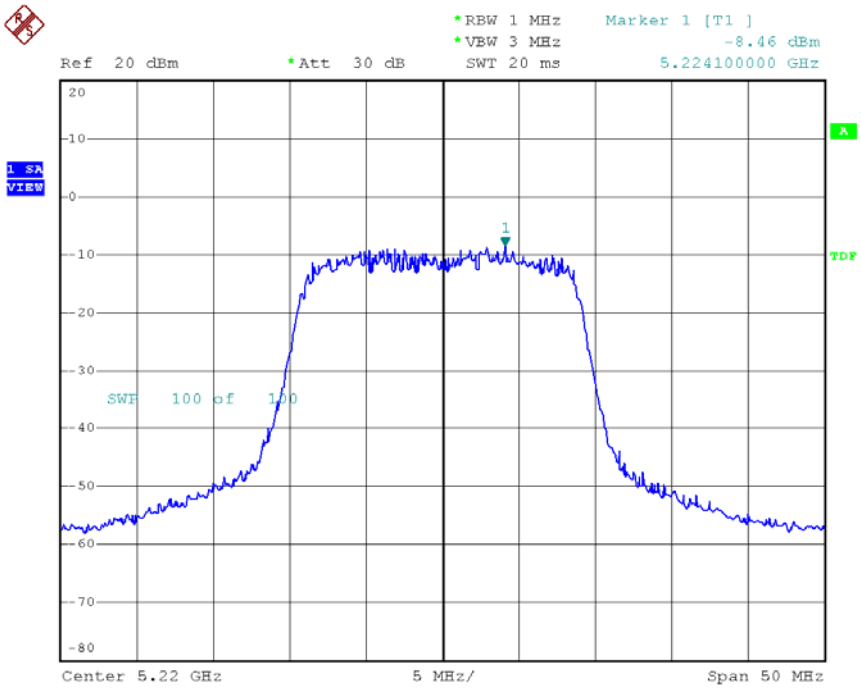
Date: 23.JUL.2008 14:41:41

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 36



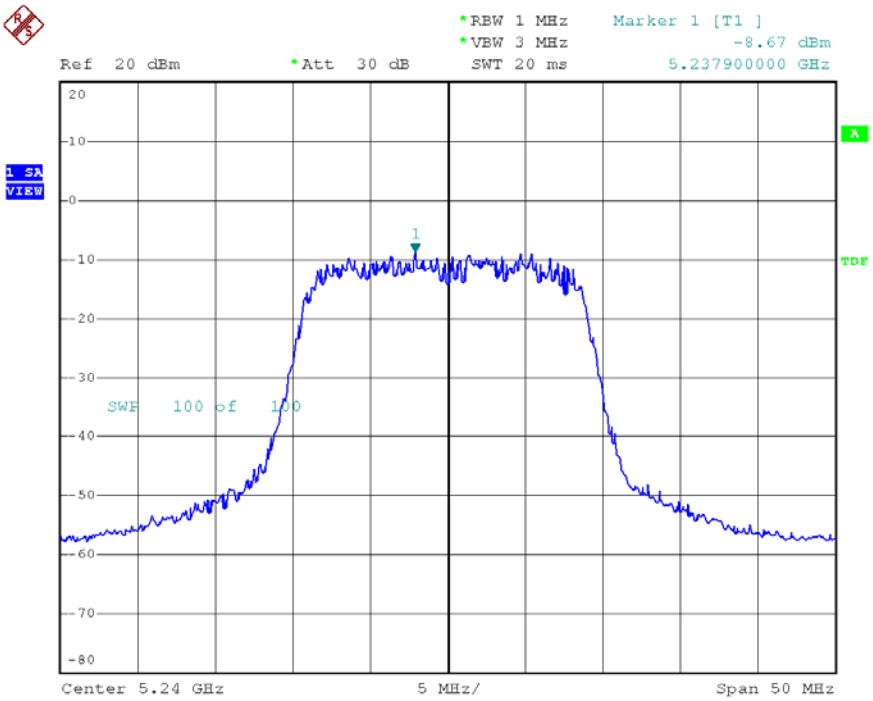
Date: 24.JUL.2008 14:25:26

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 44



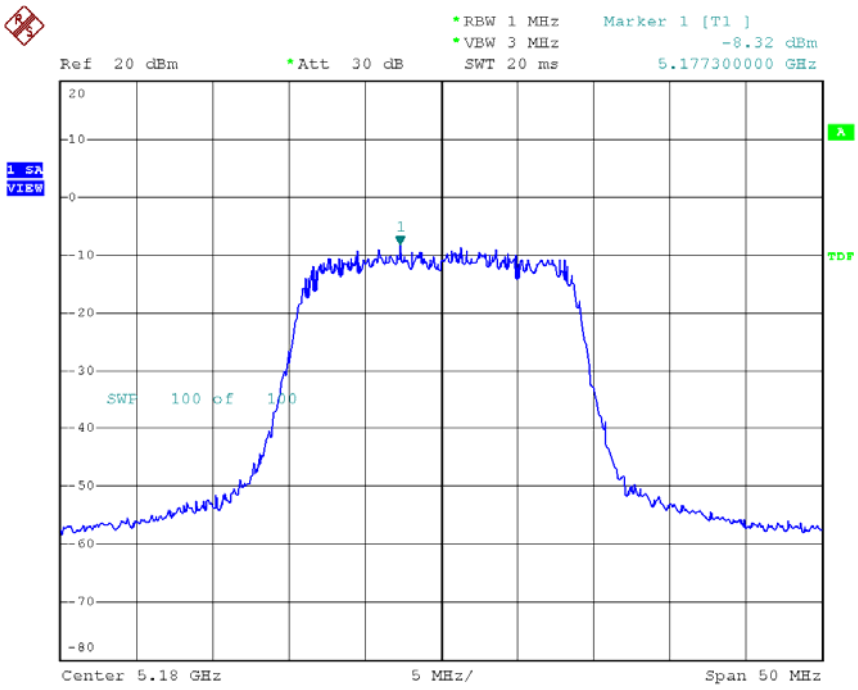
Date: 24.JUL.2008 14:24:50

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 48



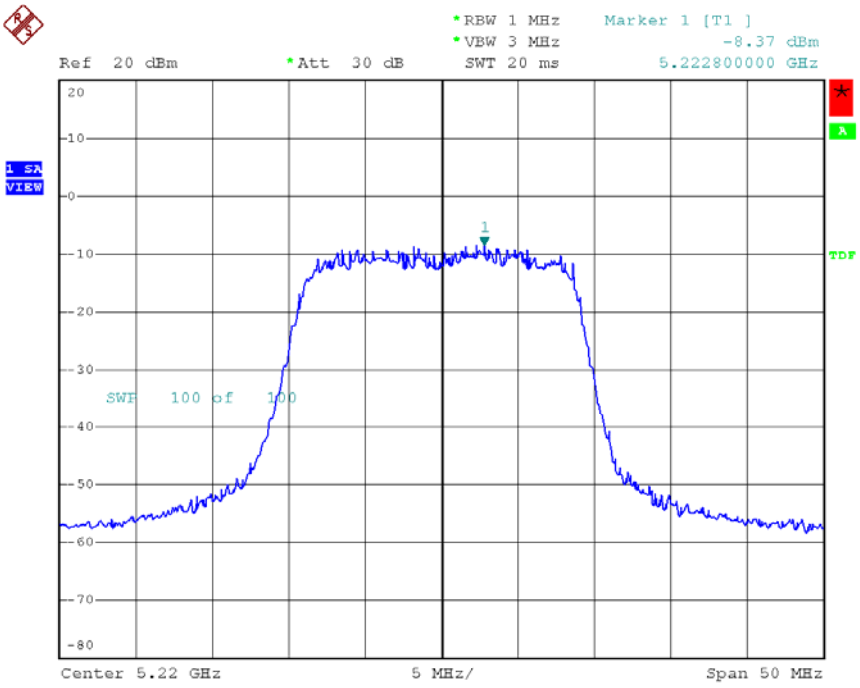
Date: 24.JUL.2008 14:24:30

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 36



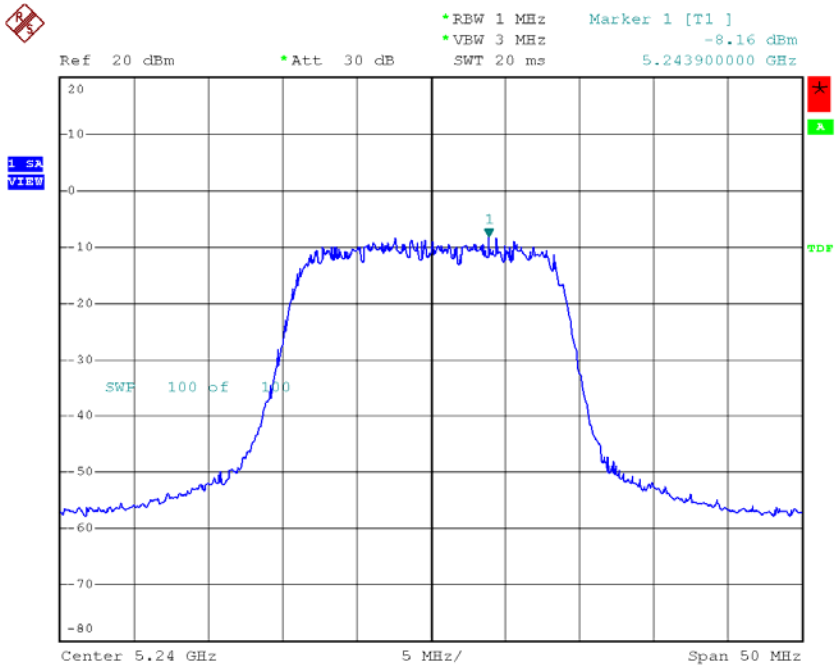
Date: 24.JUL.2008 14:26:48

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 44

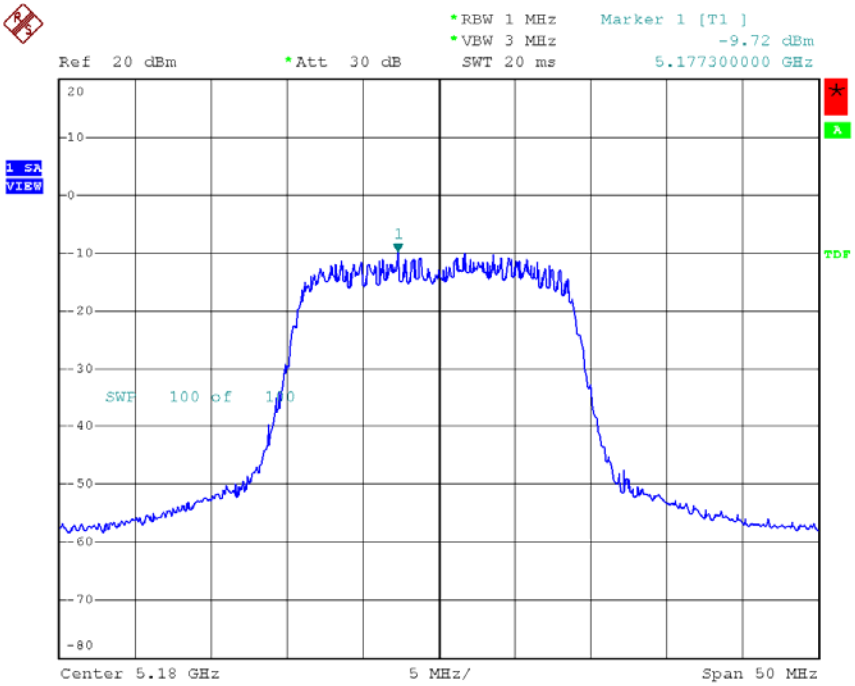


Date: 24.JUL.2008 14:27:16

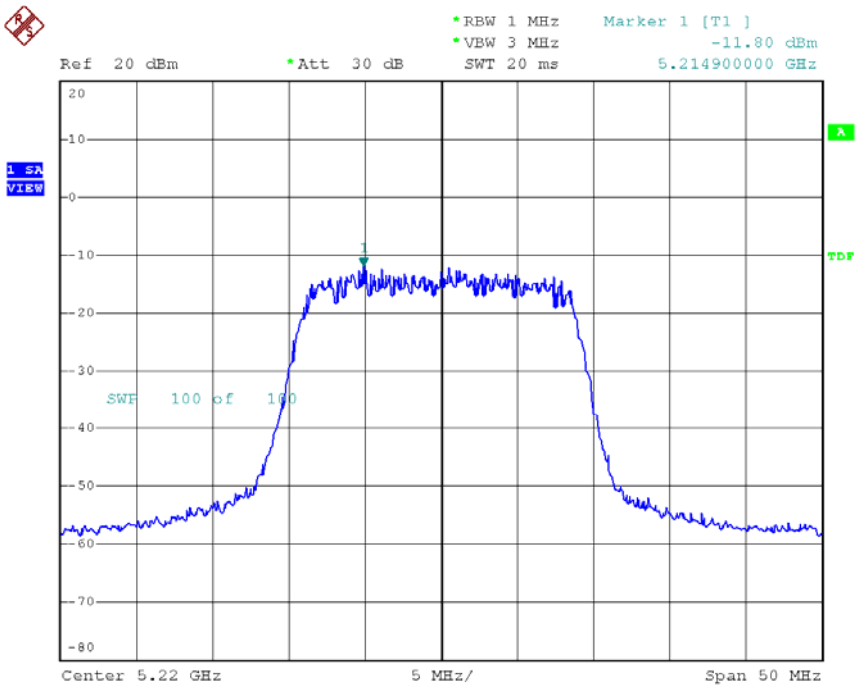
Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 48



Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 36

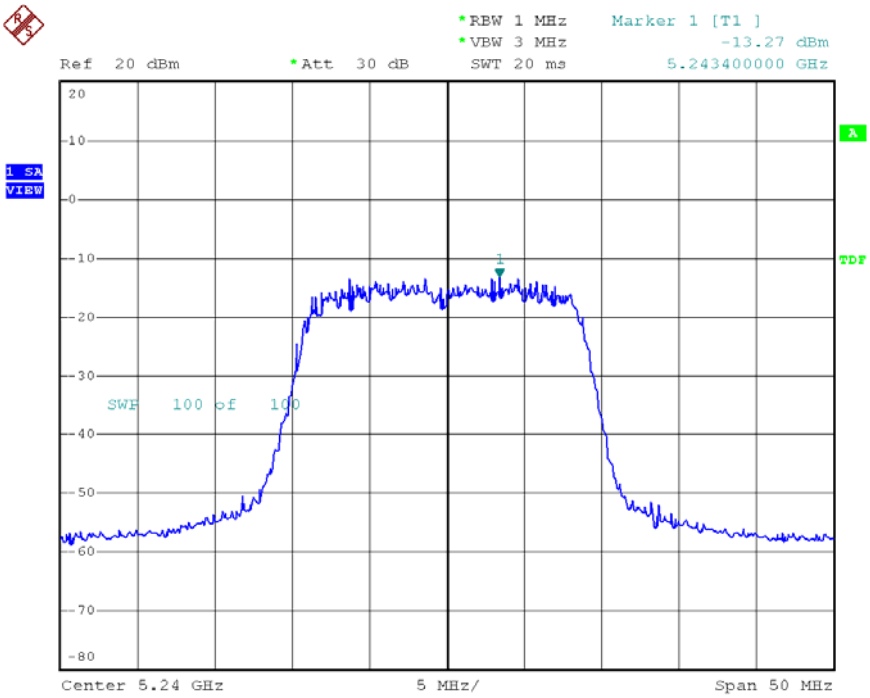


Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 44



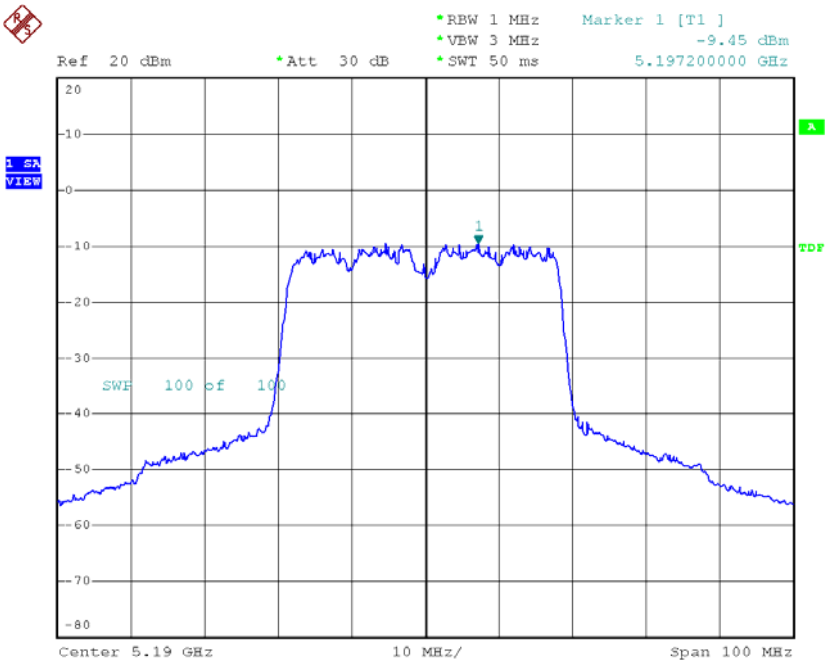
Date: 24.JUL.2008 14:29:03

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 48

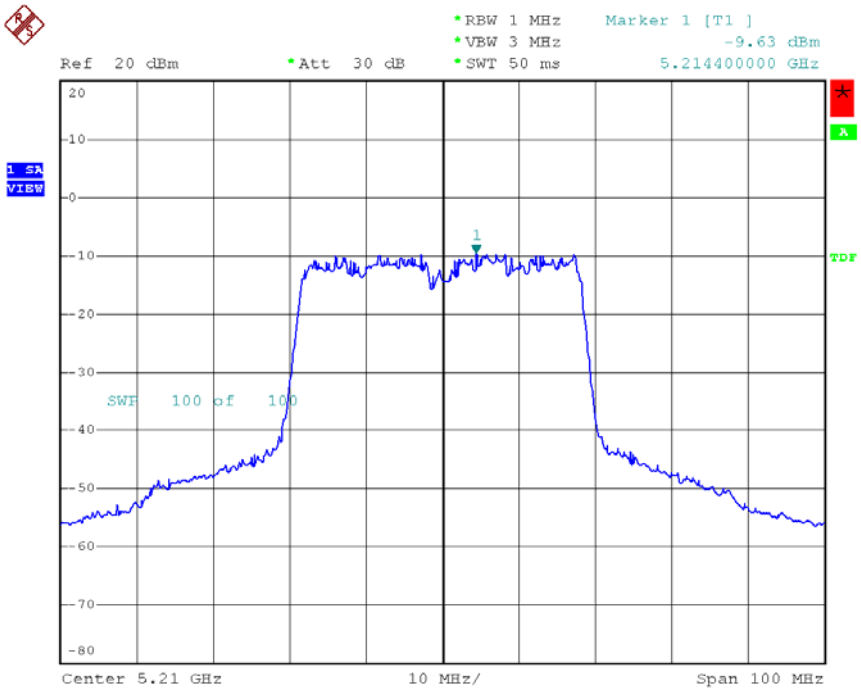


Date: 24.JUL.2008 14:28:31

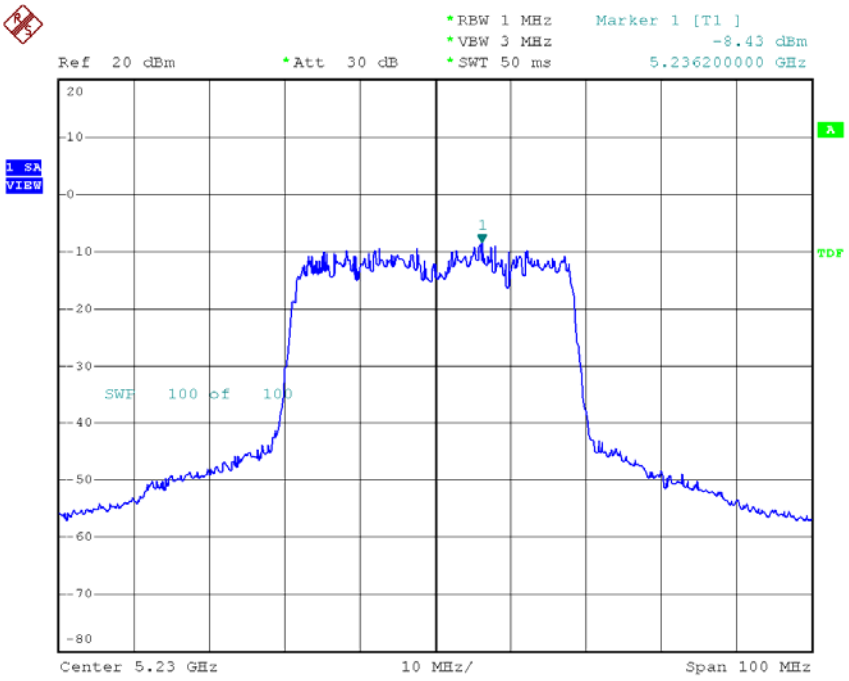
Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 38



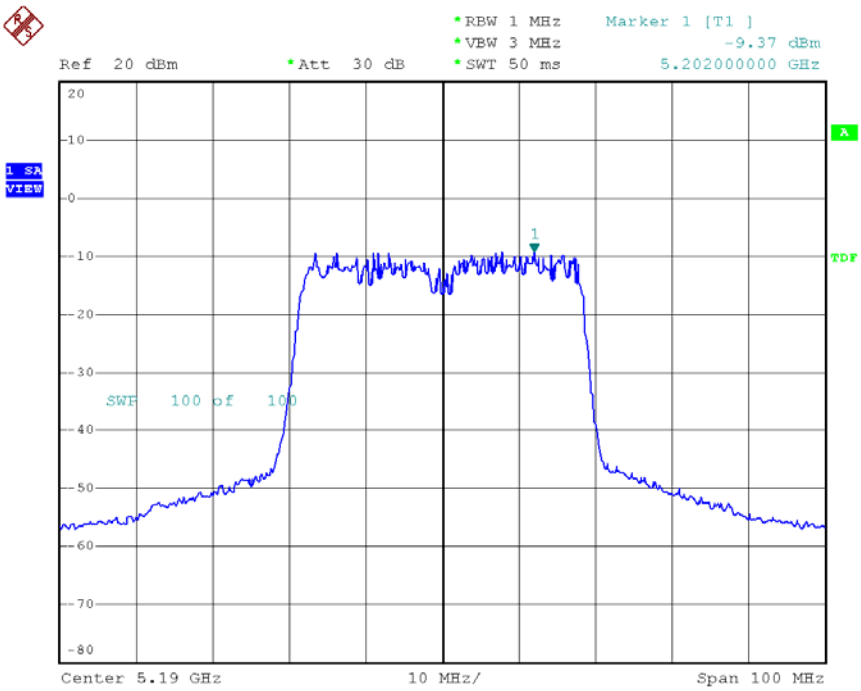
Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 42



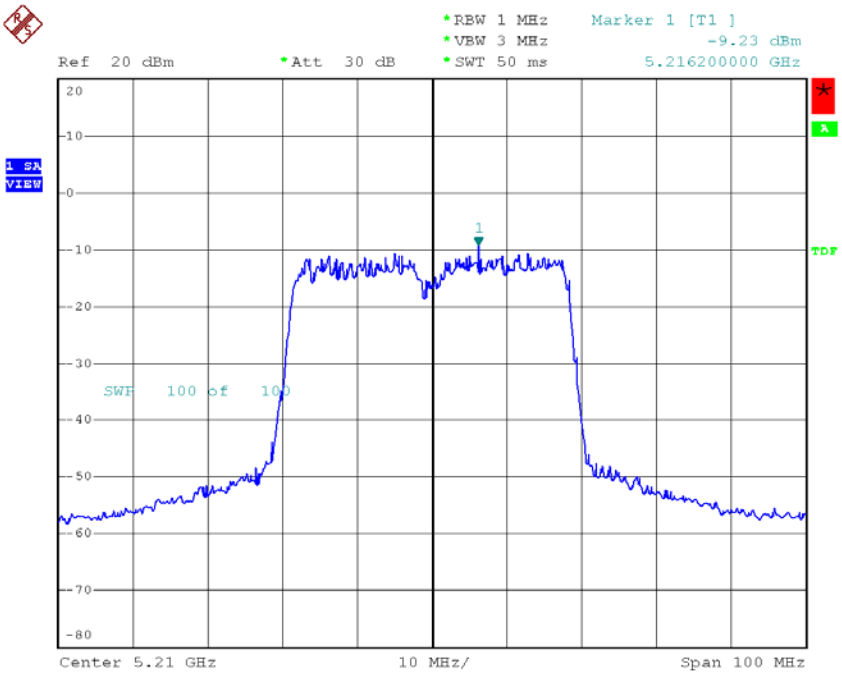
Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 46



Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 38

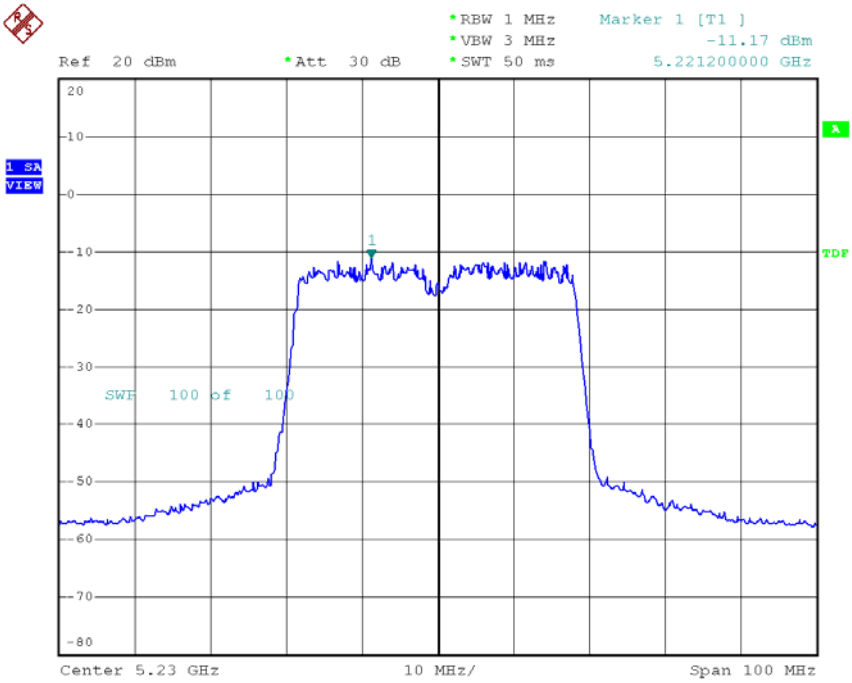


Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 42



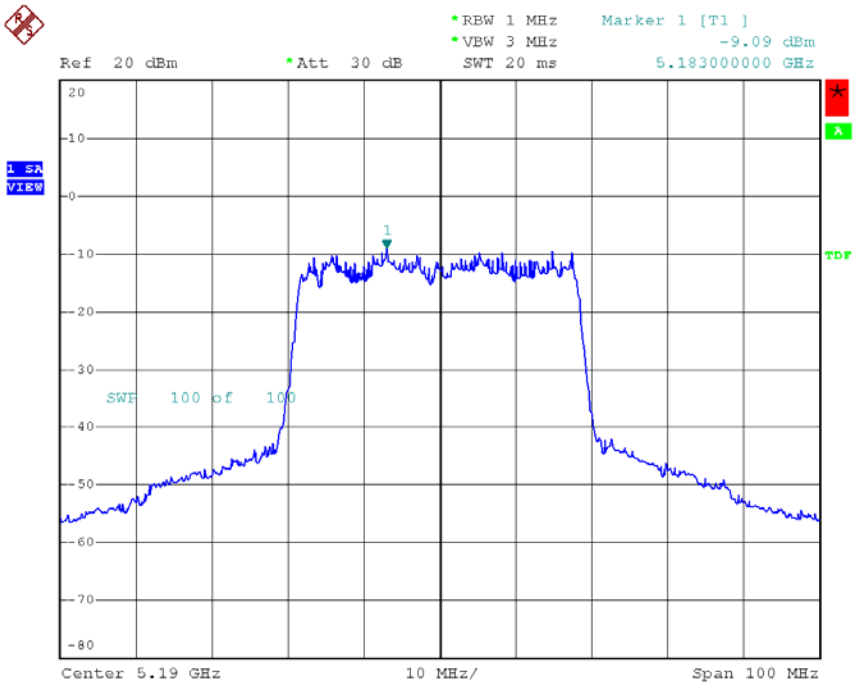
Date: 23.JUL.2008 17:53:05

Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 46



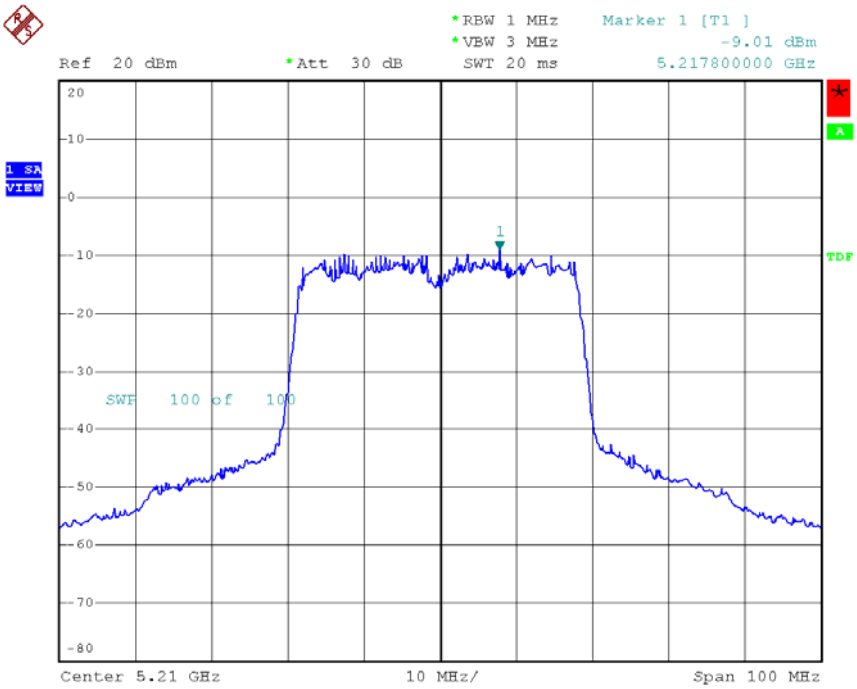
Date: 23.JUL.2008 17:56:06

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 38



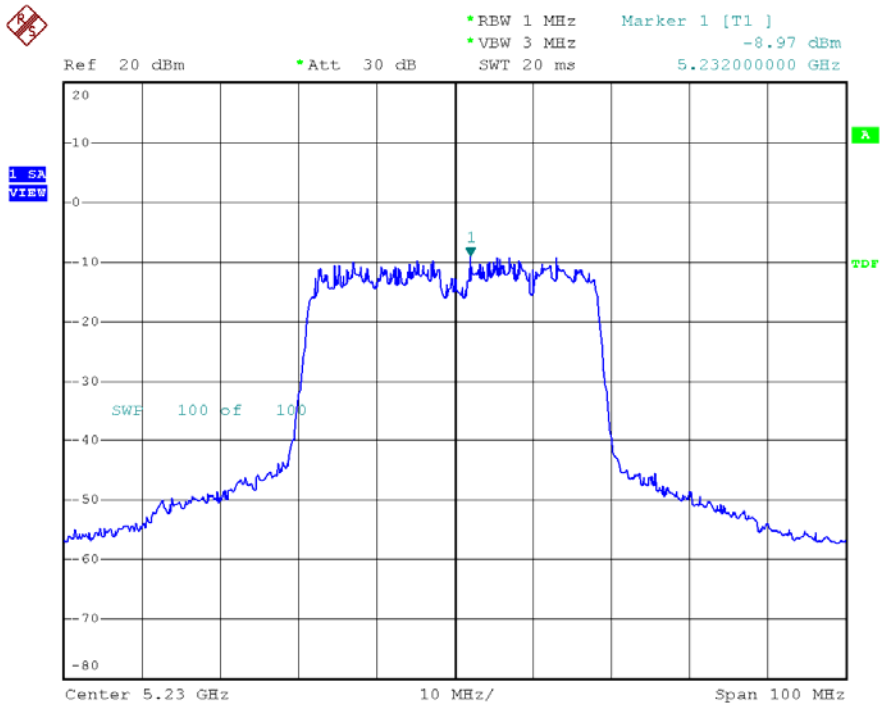
Date: 24.JUL.2008 18:21:40

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 42

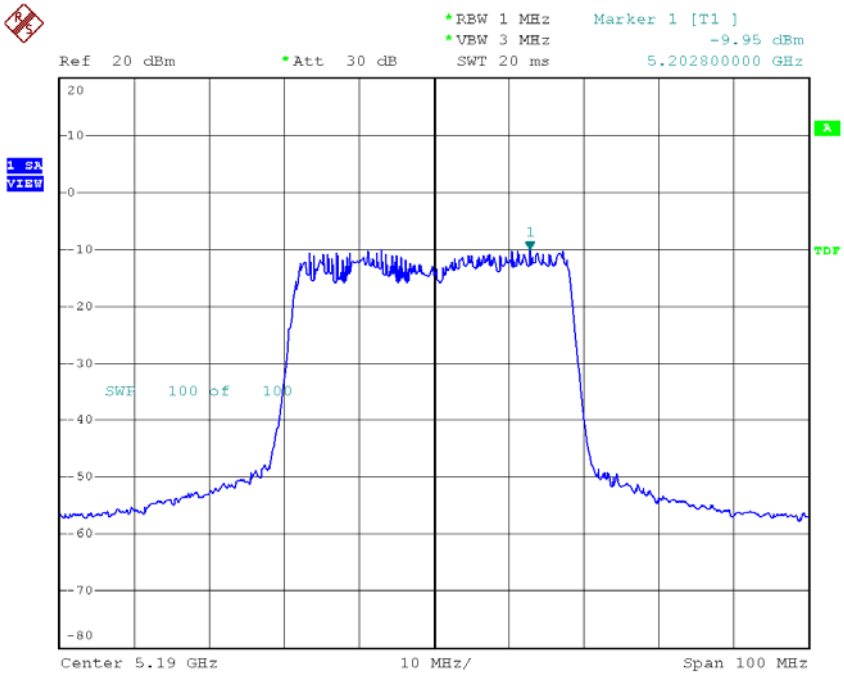


Date: 24.JUL.2008 18:20:26

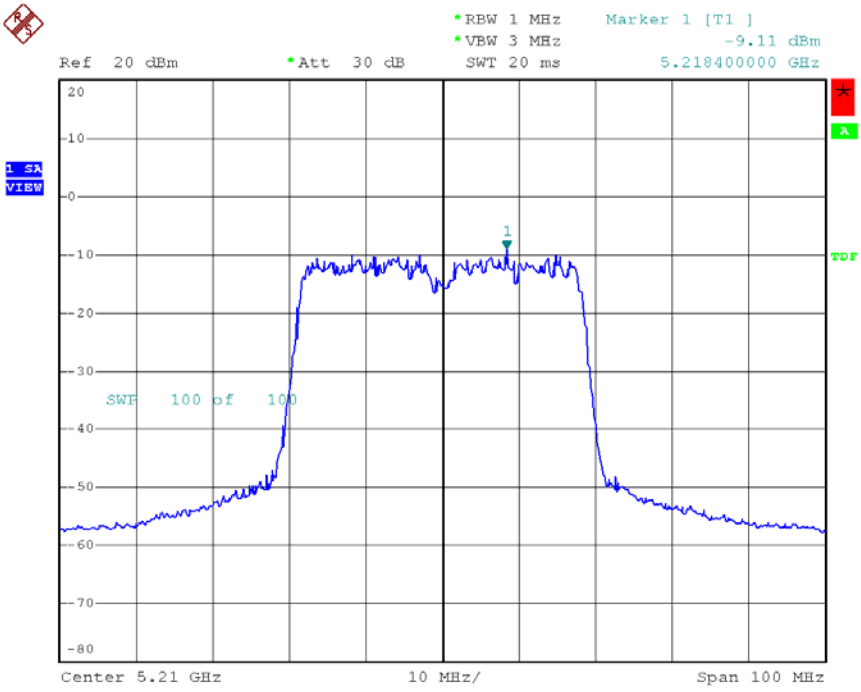
Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 46



Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 38

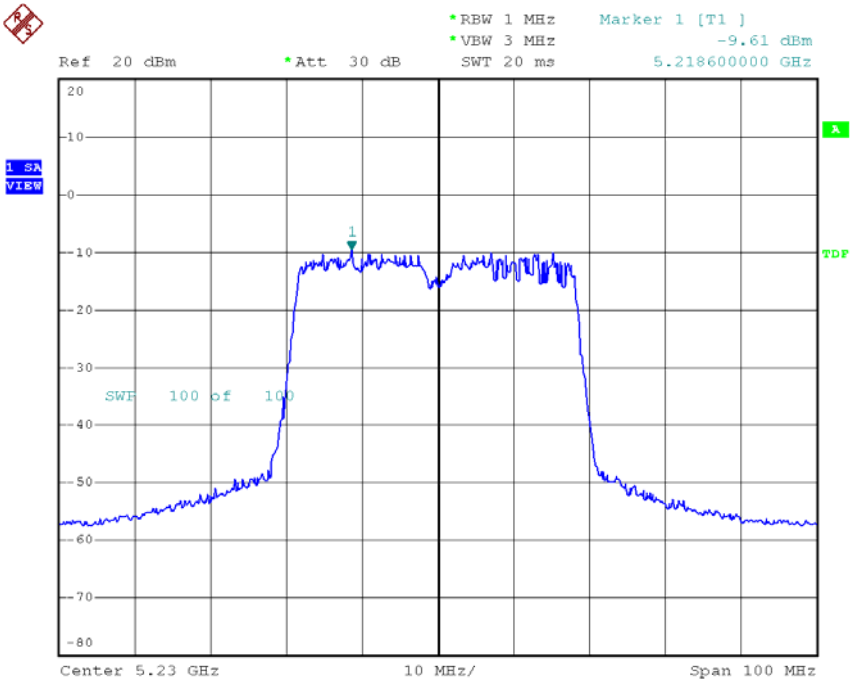


Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 42



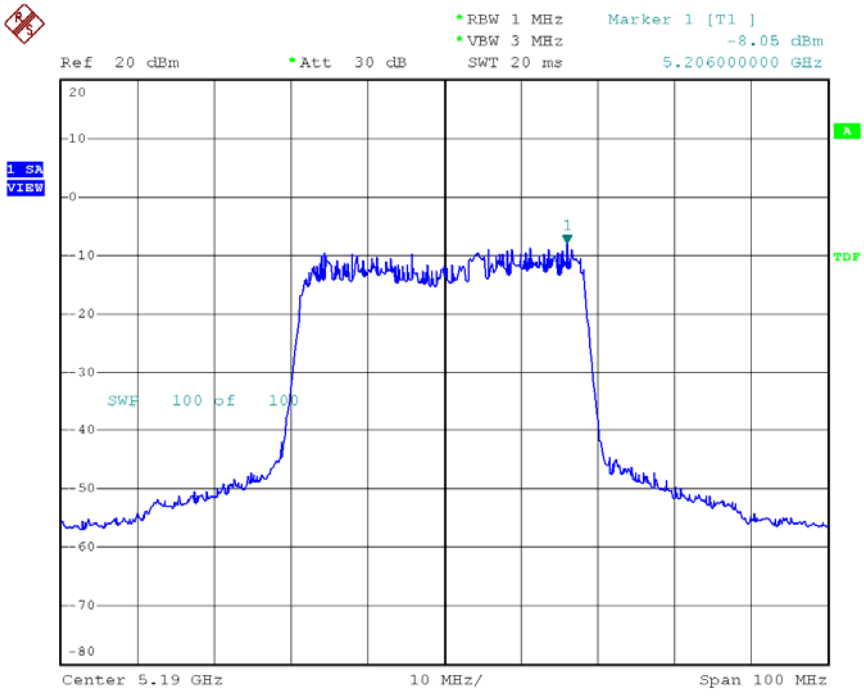
Date: 24.JUL.2008 18:23:51

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 46



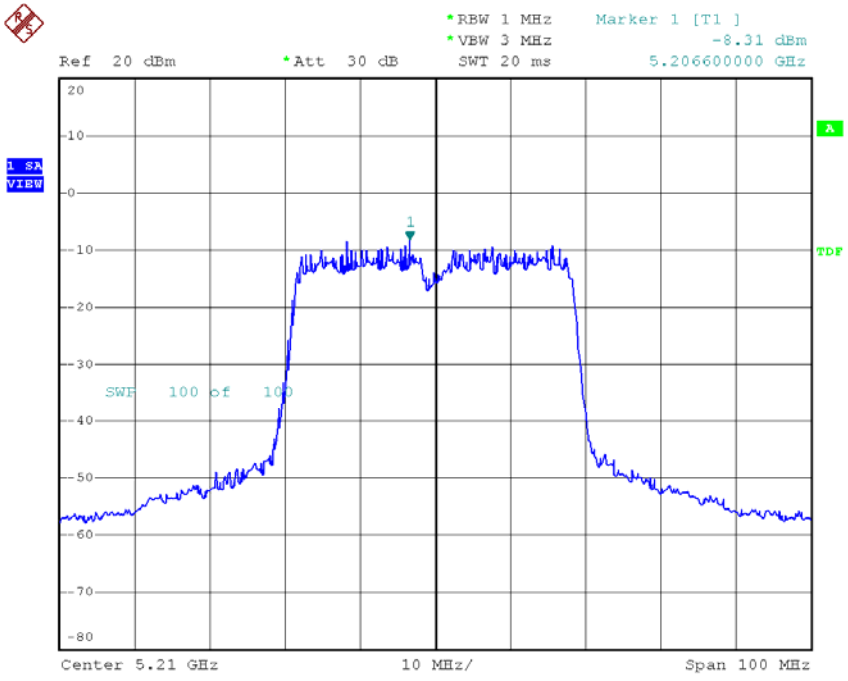
Date: 24.JUL.2008 18:24:20

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 38



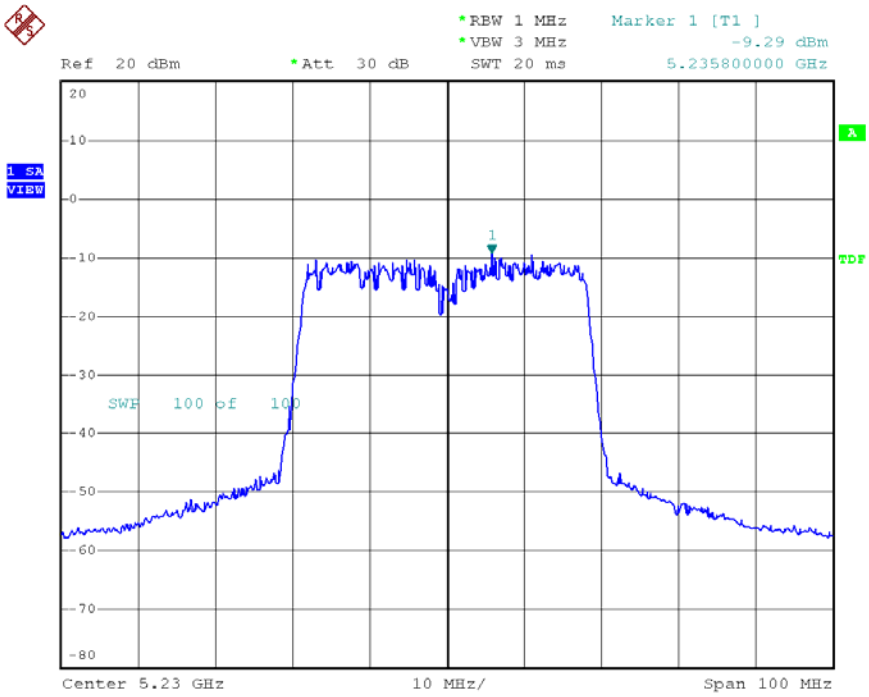
Date: 24.JUL.2008 18:28:28

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 42



Date: 24.JUL.2008 18:26:36

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 46

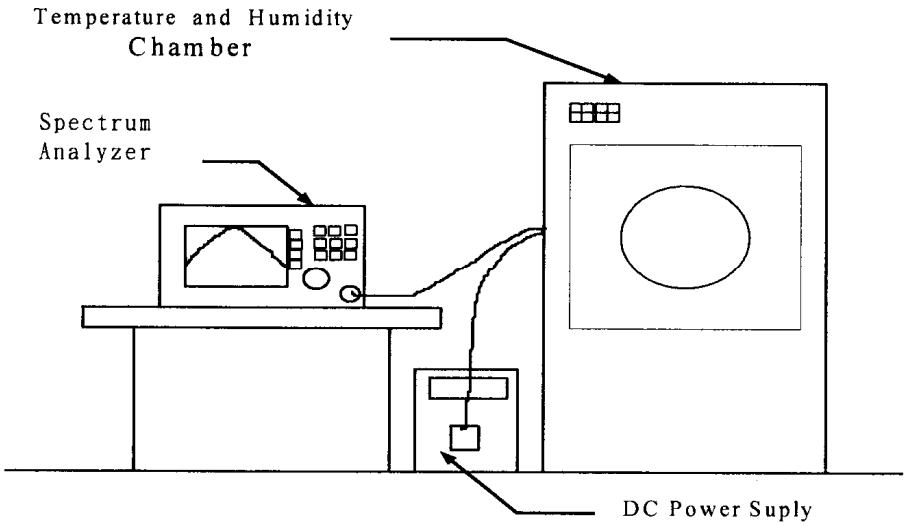


9. Frequency Stability

9.1. Test Procedure

1. The EUT was placed inside the Temperature and Humidity chamber.
2. The transmitter output was connected to spectrum analyzer.
3. Turn the EUT on and couple its output to a spectrum analyzer.
4. Turn the EUT off and set the chamber to the highest temperature specified.
5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
6. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
7. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

9.2. Test Setup Layout



9.3. Measurement equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date.
Spectrum Analyzer	FSP40	R&S	10047	2008/02/22	2009/02/21
Temperature Chamber	TMJ-9712	T MACHINE	T-12-040111	2008/01/15	2009/01/14
DC Power Supply	GPD-3030	GM	7020936	N/A	N/A
AC POWER CONVERTER	AFC-11005	APC	F103120008	N/A	N/A

9.4. Test Result and Data

Operating frequency: 5230 MHz							
Temp (°C)	Power supply (V)	2 minute		5 minute		10 minute	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
50	93.5	5229.9154	-0.001618	5229.9222	-0.001488	5229.9137	-0.001650
	110.0	5229.9314	-0.001312	5229.9041	-0.001834	5229.9242	-0.001449
	126.5	5229.9251	-0.001432	5229.9398	-0.001151	5229.9011	-0.001891
40	93.5	5229.9031	-0.001853	5229.9274	-0.001388	5229.9106	-0.001709
	110.0	5229.9044	-0.001828	5229.9225	-0.001482	5229.9271	-0.001394
	126.5	5229.9136	-0.001652	5229.9098	-0.001725	5229.9141	-0.001642
30	93.5	5229.9014	-0.001885	5229.9112	-0.001698	5229.9331	-0.001279
	110.0	5229.9044	-0.001828	5229.9201	-0.001528	5229.9159	-0.001608
	126.5	5229.9087	-0.001746	5229.9031	-0.001853	5229.98069	-0.000369
20	93.5	5229.9034	-0.001847	5229.9301	-0.001337	5229.9321	-0.001298
	110.0	5229.9041	-0.001834	5229.9467	-0.001019	5229.9129	-0.001665
	126.5	5229.90714	-0.001776	5229.9184	-0.001560	5229.9389	-0.001168
10	93.5	5229.9047	-0.001822	5229.9317	-0.001306	5229.9259	-0.001417
	110.0	5229.9045	-0.001826	5229.9047	-0.001822	5229.9123	-0.001677
	126.5	5229.9478	-0.000998	5229.9102	-0.001717	5229.9112	-0.001698
0	93.5	5229.9189	-0.001551	5229.9384	-0.001178	5229.9397	-0.001153
	110.0	5229.9382	-0.001182	5229.9198	-0.001533	5229.9194	-0.001541
	126.5	5229.9246	-0.001442	5229.9384	-0.001178	5229.9003	-0.001906
-10	93.5	5229.9311	-0.001317	5229.9167	-0.001593	5229.9212	-0.001507
	110.0	5229.9146	-0.001633	5229.9038	-0.001839	5229.9413	-0.001122
	126.5	5229.9155	-0.001616	5229.9344	-0.001254	5229.9047	-0.001822
-20	93.5	5229.9132	-0.001660	5229.9129	-0.001665	5229.9328	-0.001285
	110.0	5229.9317	-0.001306	5229.9023	-0.001868	5229.9103	-0.001715
	126.5	5229.9404	-0.001140	5229.9122	-0.001679	5229.9032	-0.001851
-30	93.5	5229.9192	-0.001545	5229.9073	-0.001772	5229.9122	-0.001679
	110.0	5229.9015	-0.001883	5229.9012	-0.001889	5229.9108	-0.001706
	126.5	5229.9141	-0.001642	5229.9044	-0.001828	5229.9272	-0.001392

Limit :

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

10. Band Edges Measurement

10.1. Test Procedure

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

10.2. Measurement equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	FSP40	R&S	10047	2008/02/22	2009/02/21

10.3. Test Result and Data

Modulation Standard: IEEE 802.11a (54Mbps)

Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa

Channel	Frequency	maximum value in frequency (MHz)			maximum value is (dBm)		
		R-ANT	M-ANT	L-ANT	R-ANT	M-ANT	L-ANT
36	5180	5134.40	5149.60	5146.40	-46.79	-45.65	-52.09

Modulation Standard: IEEE 802.11an, HT20 (130Mbps)

Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa

R+L ANT

Channel	Frequency (MHz)	maximum value in frequency (MHz)		maximum value is (dBm)	
		R-ANT	L-ANT	R-ANT	L-ANT
36	5180	5123.80	5122.40	-50.61	-52.00

All ANT

Channel	Frequency (MHz)	maximum value in frequency (MHz)			maximum value is (dBm)		
		R-ANT	M-ANT	L-ANT	R-ANT	M-ANT	L-ANT
36	5180	5140.40	5129.80	5147.60	-52.15	-51.16	-52.89

Modulation Standard: IEEE 802.11an, HT40 (270Mbps)

Test Date: Jul. 23, 2008 Temperature: 20℃ Humidity: 60% Atmospheric pressure: 1008 hPa

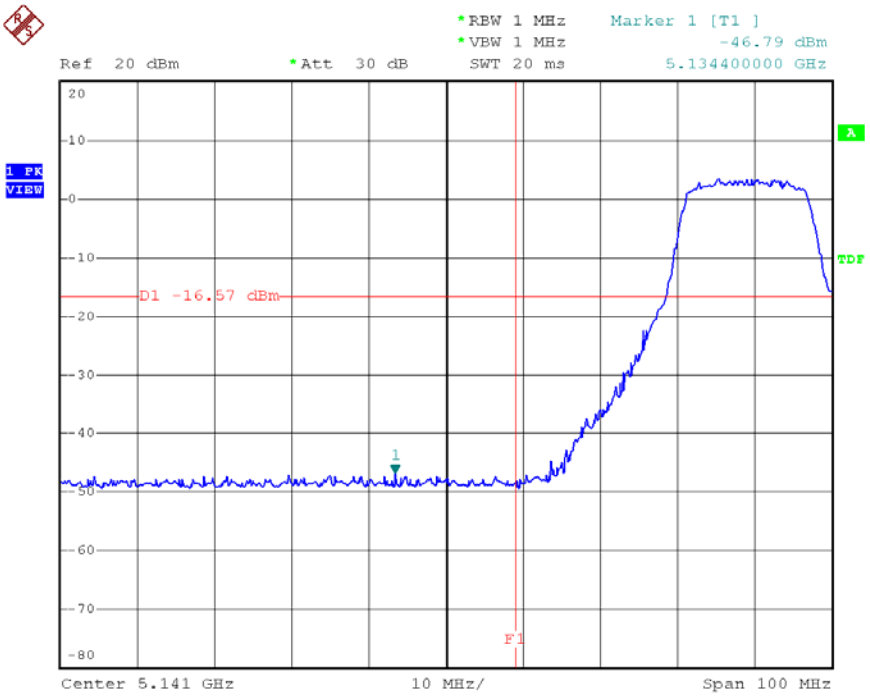
R+L ANT

Channel	Frequency (MHz)	maximum value in frequency (MHz)		maximum value is (dBm)	
		R-ANT	L-ANT	R-ANT	L-ANT
38	5190	5149.40	5148.60	-37.33	-44.69

All ANT

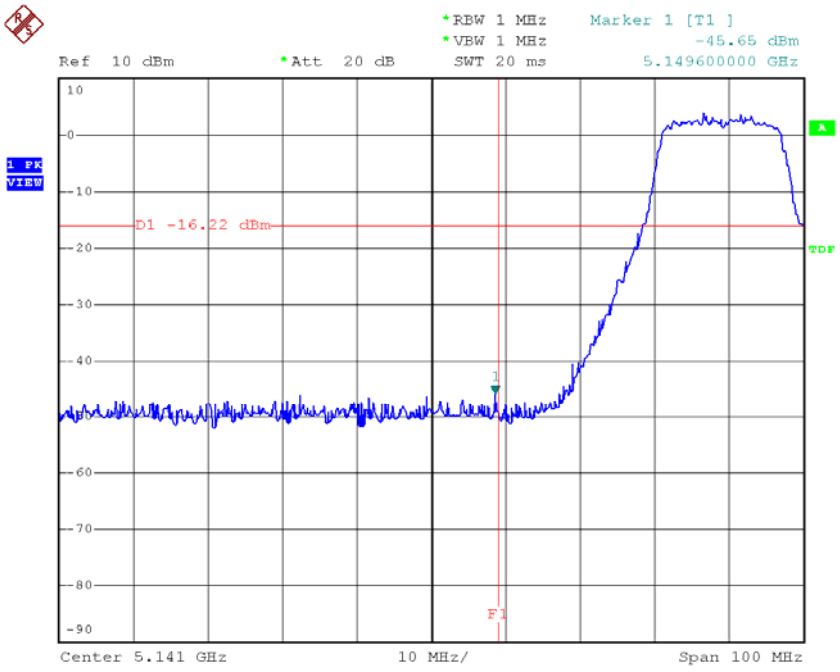
Channel	Frequency (MHz)	maximum value in frequency (MHz)			maximum value is (dBm)		
		R-ANT	M-ANT	L-ANT	R-ANT	M-ANT	L-ANT
38	5190	5149.80	5149.80	5149.40	-38.09	-44.65	-42.19

Modulation Standard: 802.11a (54Mbps)-R-ANT
Channel: 36



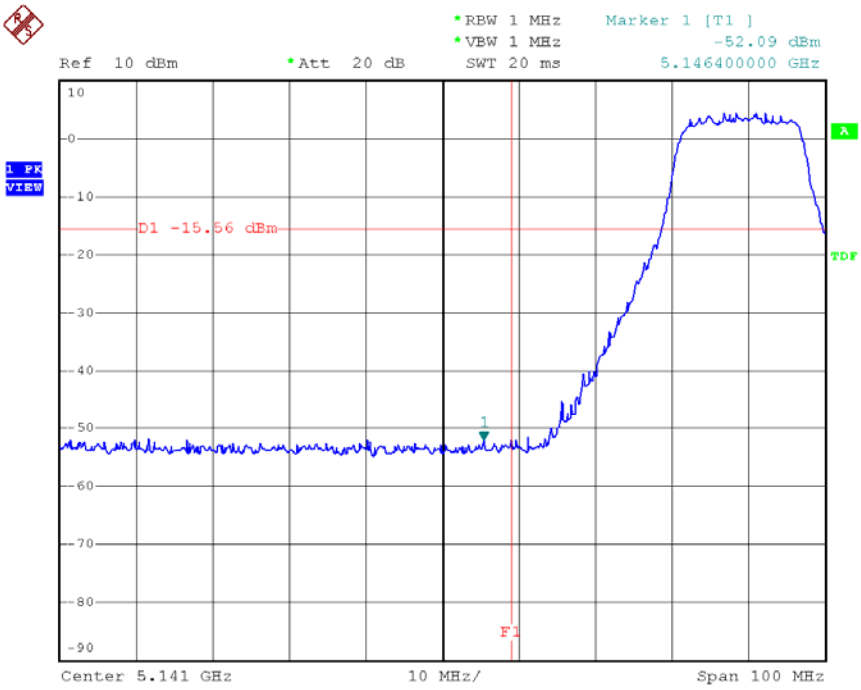
Date: 22.JUL.2008 16:03:41

Modulation Standard: 802.11a (54Mbps)-M-ANT
Channel: 36



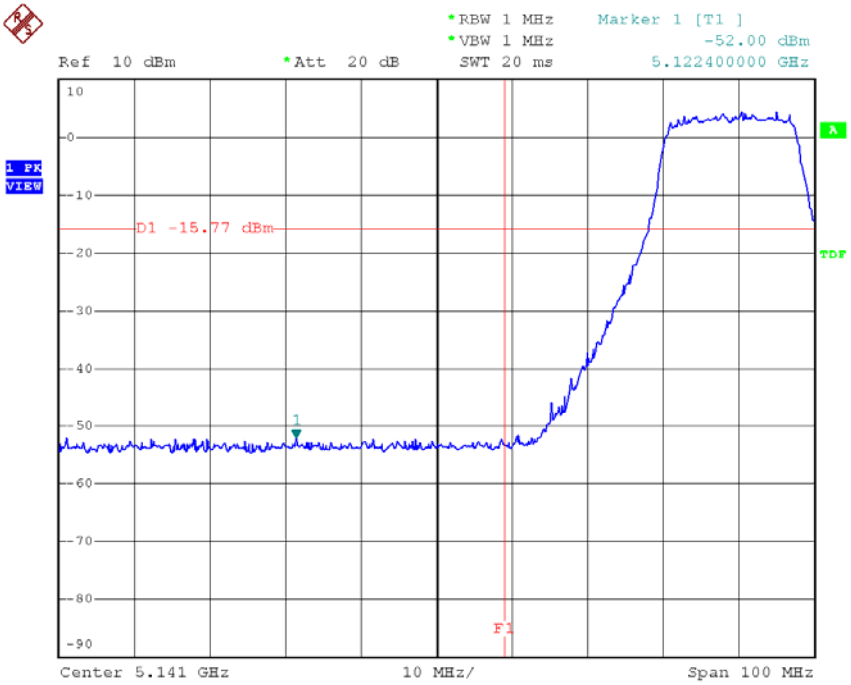
Date: 22.JUL.2008 17:48:08

Modulation Standard: 802.11a (54Mbps)-L-ANT
Channel: 36



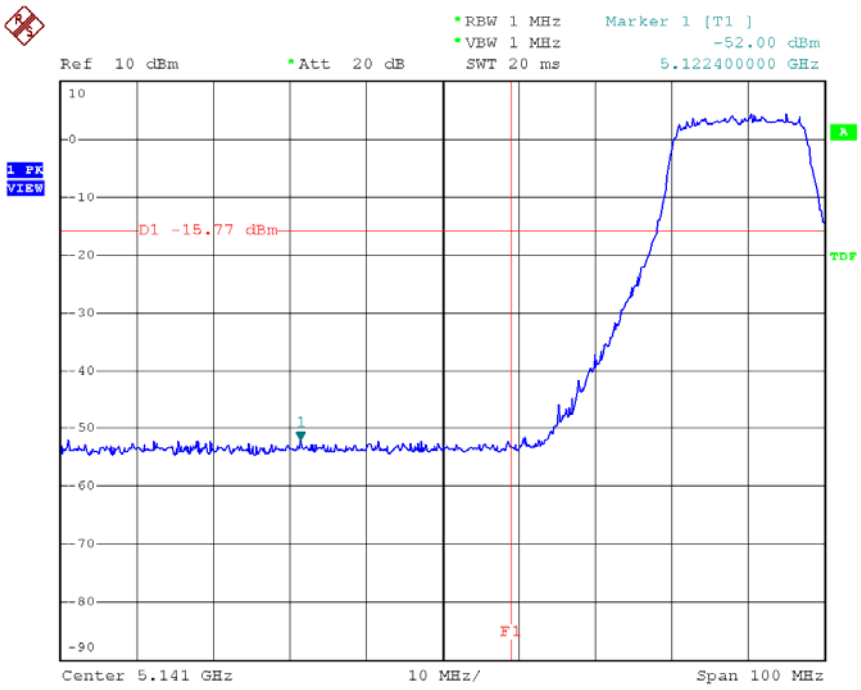
Date: 23.JUL.2008 10:41:29

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-R-ANT
Channel: 36



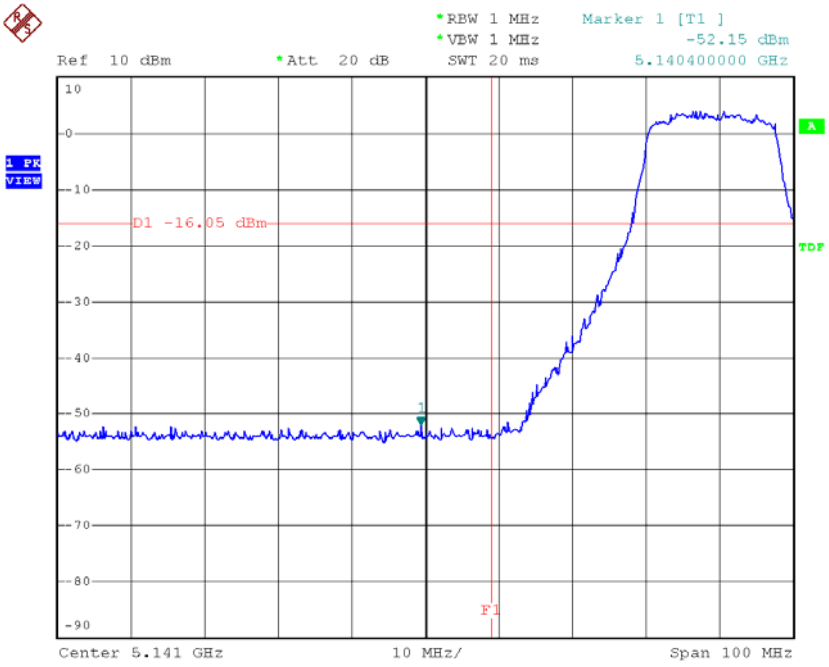
Date: 23.JUL.2008 14:43:44

Modulation Standard: 802.11an, HT20 (130Mbps), R+L ANT-L-ANT
Channel: 36



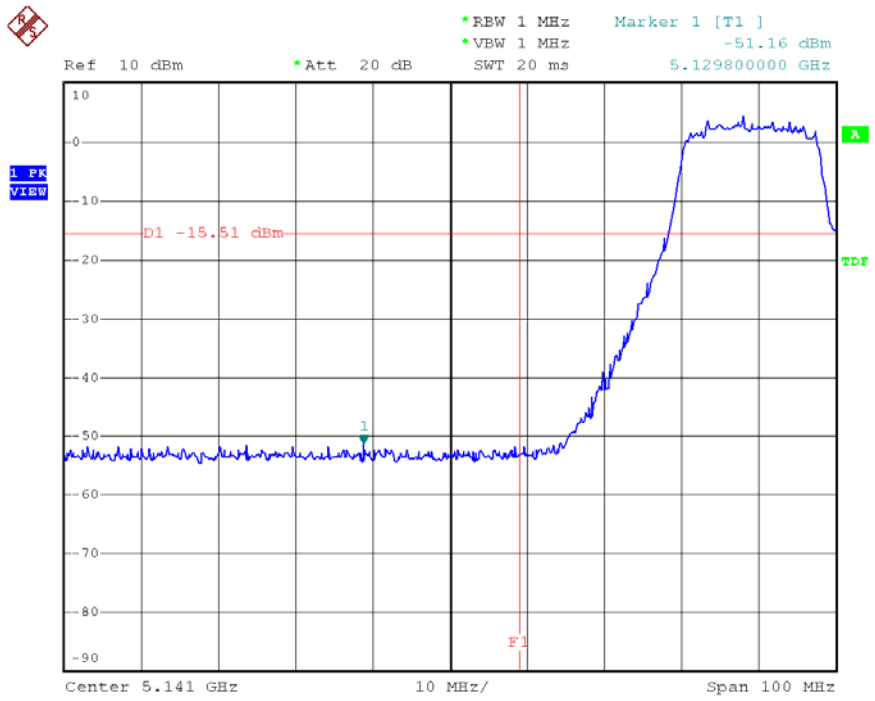
Date: 23.JUL.2008 14:43:44

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-R-ANT
Channel: 36



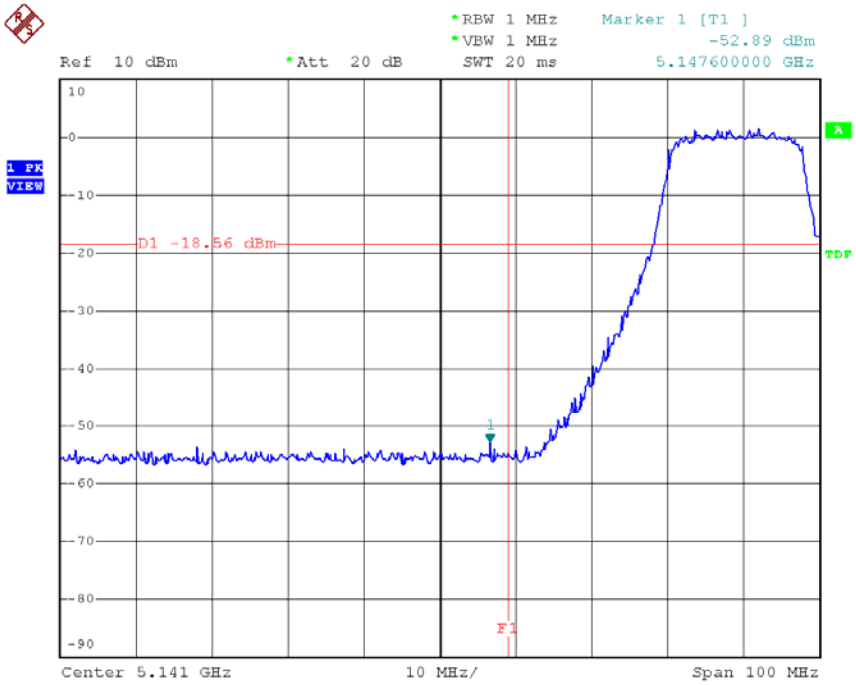
Date: 24.JUL.2008 14:33:04

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-M-ANT
Channel: 36



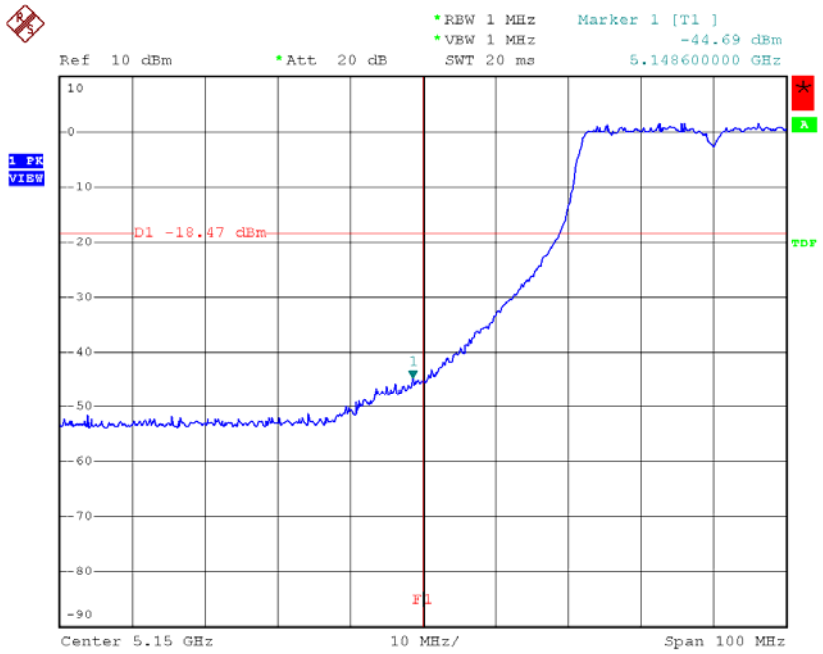
Date: 24.JUL.2008 14:32:05

Modulation Standard: 802.11an, HT20 (130Mbps), All ANT-L-ANT
Channel: 36

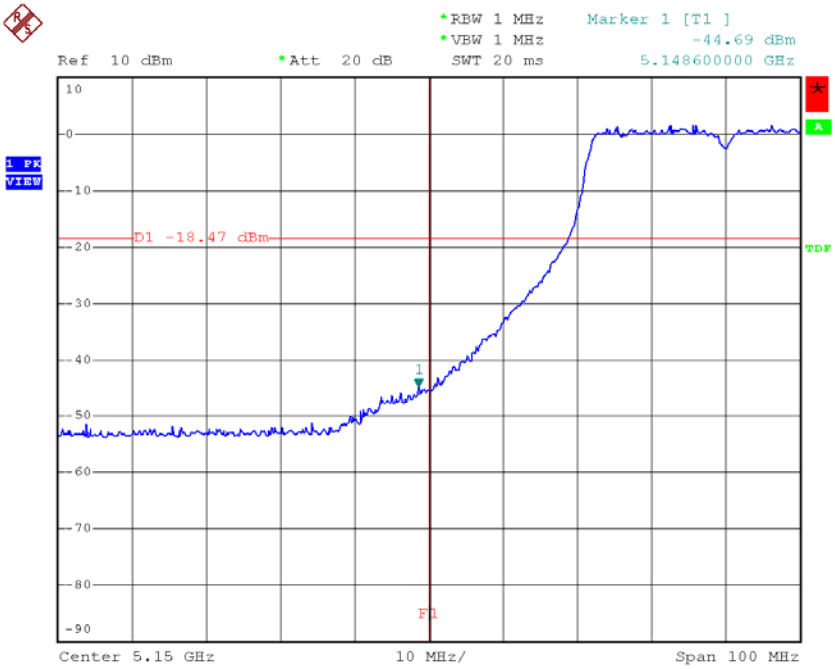


Date: 24.JUL.2008 14:31:11

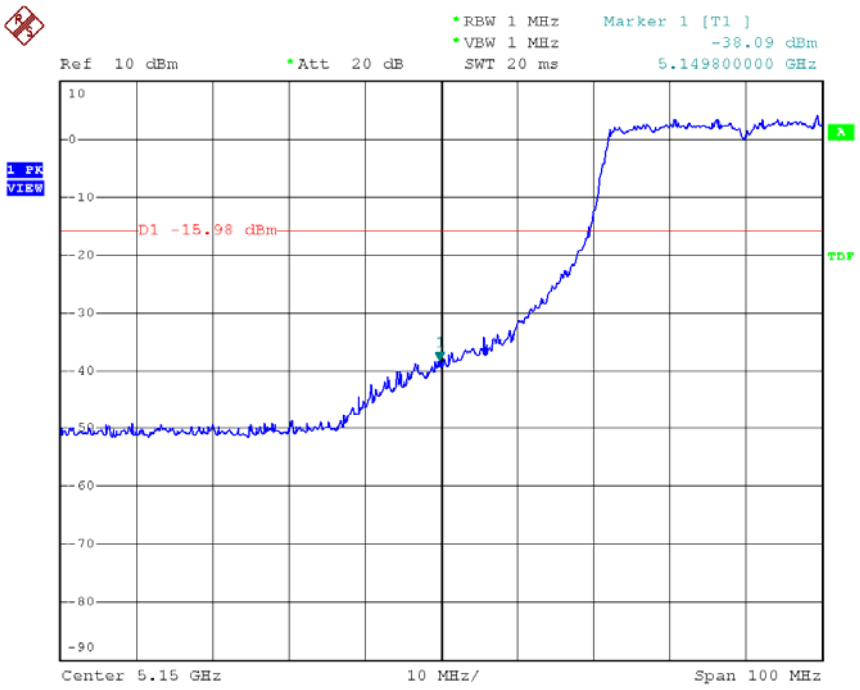
Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-R-ANT
Channel: 38



Modulation Standard: 802.11an, HT40 (270Mbps), R+L ANT-L-ANT
Channel: 38

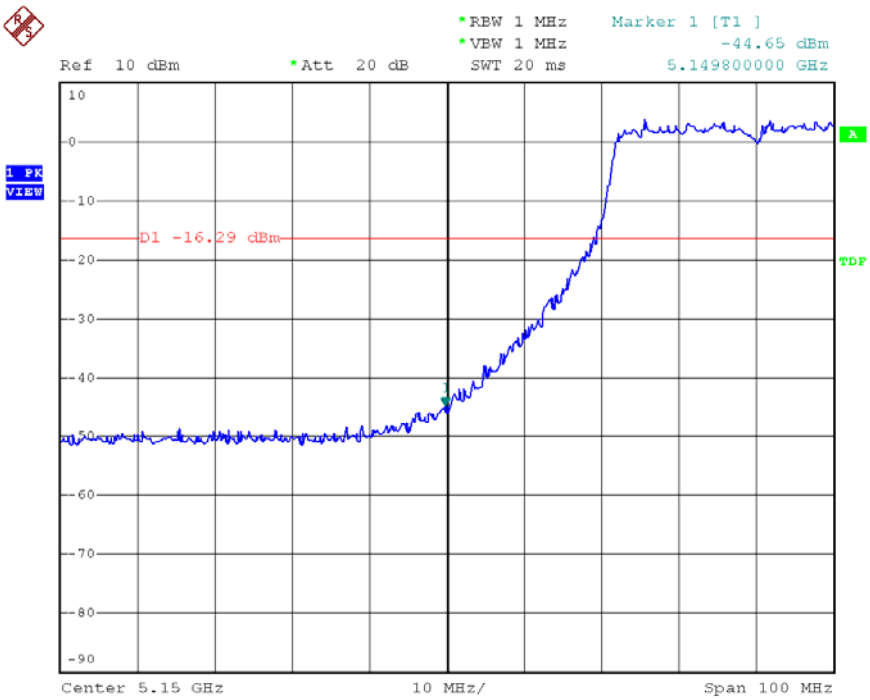


Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-R-ANT
Channel: 38



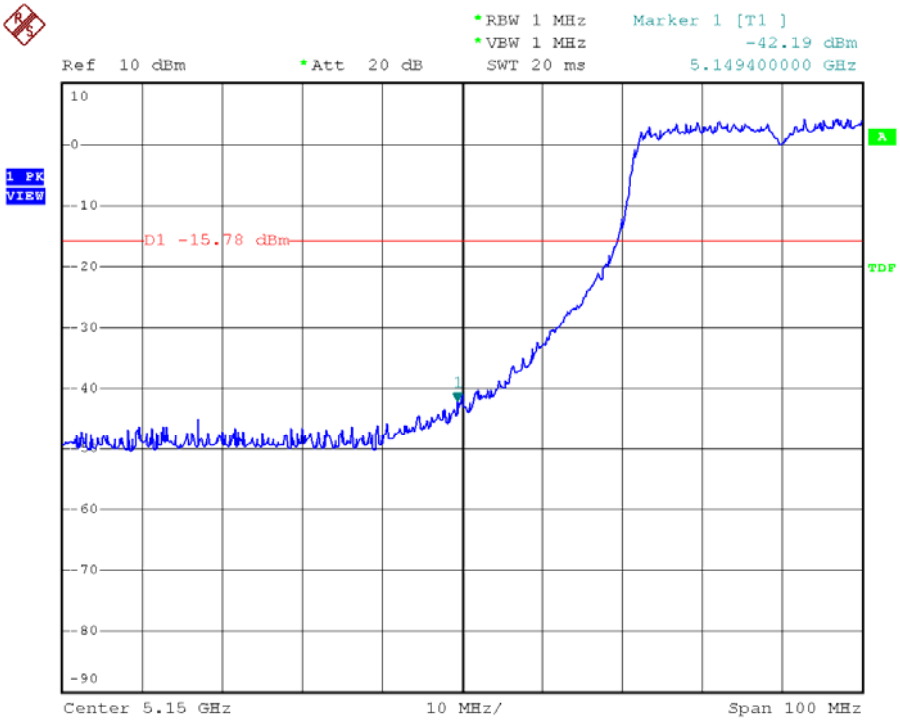
Date: 24.JUL.2008 18:31:50

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-M-ANT
Channel: 38



Date: 24.JUL.2008 18:30:57

Modulation Standard: 802.11an, HT40 (270Mbps), All ANT-L-ANT
Channel: 38



Date: 24.JUL.2008 18:30:07

10.4. Restrict Band Emission Measurement Data

Test Date	:	Jul. 25, 2008	Temperature	:	30℃
Atmospheric pressure	:	1020 hPa	Humidity	:	65%

Modulation Standard: IEEE 802.11a (54Mbps), R-ANT, Adapter: DSA-20P-10 US 120180

Channel 36						Fundamental Frequency: 5180 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			
5137.90	H	48.43	5.08	53.51	Peak	74	54	-20.49	140	1.51
5148.40	H	37.38	5.10	42.48	Ave	74	54	-11.52	140	1.51
5148.90	V	55.37	5.10	60.47	Peak	74	54	-13.53	257	1.00
5149.70	V	38.52	5.10	43.62	Ave	74	54	-10.38	257	1.00

Modulation Standard: IEEE 802.11an, HT20(130Mbps), R+L ANT, Adapter: DSA-20P-10 US 120180

Channel 36						Fundamental Frequency: 5180 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			
5115.90	H	49.01	5.03	54.04	Peak	74	54	-19.96	151	1.40
5149.40	H	37.39	5.10	42.49	Ave	74	54	-11.51	151	1.40
5120.70	V	49.85	5.04	54.89	Peak	74	54	-19.11	257	1.00
5146.70	V	37.71	5.09	42.81	Ave	74	54	-11.19	257	1.00

Modulation Standard: IEEE 802.11an, HT20(130Mbps), All ANT, Adapter: DSA-20P-10 US 120180

Channel 36						Fundamental Frequency: 5180 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			
5115.90	H	48.77	5.03	53.80	Peak	74	54	-20.20	151	1.40
5149.40	H	37.06	5.10	42.16	Ave	74	54	-11.84	151	1.40
5120.70	V	49.61	5.04	54.65	Peak	74	54	-19.35	257	1.00
5146.70	V	37.25	5.09	42.34	Ave	74	54	-11.66	257	1.00

Modulation Standard: IEEE 802.11an, HT40(270Mbps), R+L ANT, Adapter: DSA-20P-10 US 120180

Channel 38										Fundamental Frequency: 5190 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			
5141.40	H	48.93	5.08	54.02	Peak	74	54	-19.98	151	1.40
5149.70	H	37.45	5.10	42.55	Ave	74	54	-11.45	151	1.40
5149.90	V	51.35	5.10	56.45	Peak	74	54	-17.55	257	1.00
5149.90	V	38.99	5.10	44.09	Ave	74	54	-9.91	257	1.00

Modulation Standard: IEEE 802.11an, HT40(270Mbps), All ANT, Adapter: DSA-20P-10 US 120180

Channel 38										Fundamental Frequency: 5190 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			
5141.40	H	48.69	5.08	53.77	Peak	74	54	-20.23	151	1.40
5149.70	H	37.26	5.10	42.36	Ave	74	54	-11.64	151	1.40
5149.90	V	51.66	5.10	56.76	Peak	74	54	-17.24	257	1.00
5149.90	V	38.42	5.10	43.52	Ave	74	54	-10.48	257	1.00

Modulation Standard: IEEE 802.11a (54Mbps), R-ANT, Adapter: MU18-2120150-A1

Channel 36										Fundamental Frequency: 5180 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			
5137.90	H	48.92	5.08	54.00	Peak	74	54	-20.00	140	1.51
5148.40	H	37.59	5.10	42.69	Ave	74	54	-11.31	140	1.51
5148.90	V	55.55	5.10	60.65	Peak	74	54	-13.35	257	1.00
5149.70	V	38.36	5.10	43.46	Ave	74	54	-10.54	257	1.00

Modulation Standard: IEEE 802.11an, HT20(130Mbps), R+L ANT, Adapter: MU18-2120150-A1

Channel 36										Fundamental Frequency: 5180 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			
5115.90	H	49.52	5.03	54.55	Peak	74	54	-19.45	151	1.40
5149.40	H	37.44	5.10	42.54	Ave	74	54	-11.46	151	1.40
5120.70	V	49.63	5.04	54.67	Peak	74	54	-19.33	257	1.00
5146.70	V	37.28	5.09	42.37	Ave	74	54	-11.63	257	1.00

Modulation Standard: IEEE 802.11an, HT20(130Mbps), All ANT, Adapter: MU18-2120150-A1

Channel 36										Fundamental Frequency: 5180 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			
5115.90	H	49.41	5.03	54.44	Peak	74	54	-19.56	151	1.40
5149.40	H	37.66	5.10	42.76	Ave	74	54	-11.24	151	1.40
5120.70	V	49.59	5.04	54.63	Peak	74	54	-19.37	257	1.00
5146.70	V	37.88	5.09	42.97	Ave	74	54	-11.03	257	1.00

Modulation Standard: IEEE 802.11an, HT40(270Mbps), R+L ANT, Adapter: MU18-2120150-A1

Channel 38										Fundamental Frequency: 5190 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			
5141.40	H	48.55	5.08	53.63	Peak	74	54	-20.37	151	1.40
5149.70	H	37.95	5.10	43.05	Ave	74	54	-10.95	151	1.40
5149.90	V	51.47	5.10	56.57	Peak	74	54	-17.43	257	1.00
5149.90	V	38.52	5.10	43.62	Ave	74	54	-10.38	257	1.00

Modulation Standard: IEEE 802.11an, HT40(270Mbps), All ANT, Adapter: MU18-2120150-A1

Channel 38										Fundamental Frequency: 5190 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			
5141.40	H	49.22	5.08	54.30	Peak	74	54	-19.70	151	1.40
5149.70	H	37.68	5.10	42.78	Ave	74	54	-11.22	151	1.40
5149.90	V	51.57	5.10	56.67	Peak	74	54	-17.33	257	1.00
5149.90	V	38.76	5.10	43.86	Ave	74	54	-10.14	257	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 for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 MHz for Average detection at frequency above 1GHz.

11. 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

11.1. 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.

12. RF Exposure

FCC Rules and Regulations Part 1.1307, 1.1310, 2.1091, 2.1093:
RF Exposure Compliance

12.1. Limit for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time |E|²,|H|² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm²)	Averaging Time |E|²,|H|² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

F=frequency in MHz *Plane-wave equivalent power density

12.2. MPE Calculations

E (V/m) $= \frac{\sqrt{30 \times P \times G}}{d}$ Power Density: Pd (mW/cm²) $= \frac{E^2}{3770}$

E＝Electric field (V/m)

P＝Peak output power (W)

G＝Antenna numeric gain (numeric)

d＝Separation distance (m)

Because the EUT is belong to General Population/ Uncontrolled Exposure. So the Limit of Power Density is 10 W/m². We can change the formula to:

d＝ $\sqrt{\frac{30 \times P \times G}{3770}}$

12.3. FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation. Proposed RF exposure safety information to include in User's Manual.