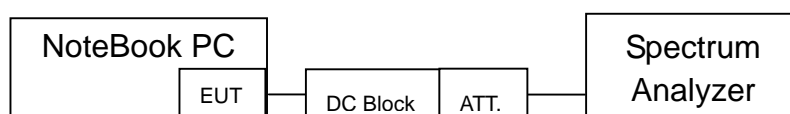


4 Power Spectrum Density test

4.1 Limits

Operating Frequency (MHz)	Power density limit
5150~5250	< 4dBm/MHz
5250~5350, 5470~5725	< 11dBm/MHz
5725~5825	< 17dBm/MHz

4.2 Configuration of Measurement



4.3 Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to UNII test procedure of Oct 2002 DA 02-2138 for compliance to FCC 47CFR 15.407 requirements.

4.4 Test Result

PASS.

The final test data is shown on as following pages.

Power spectral density

Single Tx

802.11a Chain A					
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)	Limit (dBm)	Margin (dB)
36	5180	27	1.78	4	-2.22
44	5220	27	2.50	4	-1.50
48	5240	27	2.13	4	-1.87
52	5260	27	2.94	11	-8.06
60	5300	27	2.47	11	-8.53
64	5320	27	2.00	11	-9.00
100	5500	27	1.88	11	-9.12
120	5600	27	2.78	11	-8.22
140	5700	27	1.76	11	-9.24

802.11a Chain B					
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)	Limit (dBm)	Margin (dB)
36	5180	27	2.81	4	-1.19
44	5220	27	3.20	4	-0.80
48	5240	27	3.23	4	-0.77
52	5260	27	2.69	11	-8.31
60	5300	27	2.93	11	-8.07
64	5320	27	2.05	11	-8.95
100	5500	27	2.21	11	-8.79
120	5600	27	3.50	11	-7.50
140	5700	27	2.46	11	-8.54

802.11a Chain C					
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)	Limit (dBm)	Margin (dB)
36	5180	27	0.67	4	-3.33
44	5220	27	3.02	4	-0.98
48	5240	27	1.44	4	-2.56
52	5260	27	0.83	11	-10.17
60	5300	27	1.21	11	-9.79
64	5320	27	2.30	11	-8.70
100	5500	27	1.20	11	-9.80
120	5600	27	1.54	11	-9.46
140	5700	27	1.81	11	-9.19

802.11n (HT20) Chain A					
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)	Limit (dBm)	Margin (dB)
36	5180	27	2.12	4	-1.88
44	5220	27	2.21	4	-1.79
48	5240	27	2.23	4	-1.77
52	5260	27	1.96	11	-9.04
60	5300	27	2.29	11	-8.71
64	5320	27	1.58	11	-9.42
100	5500	27	1.96	11	-9.04
120	5600	27	2.77	11	-8.23
140	5700	27	1.17	11	-9.83

802.11n (HT20) Chain B					
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)	Limit (dBm)	Margin (dB)
36	5180	27	2.02	4	-1.98
44	5220	27	1.29	4	-2.71
48	5240	27	1.86	4	-2.14
52	5260	27	1.22	11	-9.78
60	5300	27	0.63	11	-10.37
64	5320	27	1.25	11	-9.75
100	5500	27	0.72	11	-10.28
120	5600	27	1.15	11	-9.85
140	5700	27	0.64	11	-10.36

802.11n (HT20) Chain C					
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)	Limit (dBm)	Margin (dB)
36	5180	27	0.53	4	-3.47
44	5220	27	2.15	4	-1.85
48	5240	27	1.00	4	-3.00
52	5260	27	0.03	11	-10.97
60	5300	27	0.64	11	-10.36
64	5320	27	1.38	11	-9.62
100	5500	27	0.48	11	-10.52
120	5600	27	1.48	11	-9.52
140	5700	27	2.39	11	-8.61

802.11n (HT40) Chain A					
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)	Limit (dBm)	Margin (dB)
38	5190	27	-4.23	4	-8.23
46	5230	27	-4.01	4	-8.01
54	5270	27	-4.27	11	-15.27
62	5310	27	-4.72	11	-15.72
102	5510	27	-3.53	11	-14.53
118	5590	27	-3.39	11	-14.39
134	5670	27	-4.71	11	-15.71

802.11n (HT40) Chain B					
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)	Limit (dBm)	Margin (dB)
38	5190	27	-4.66	4	-8.66
46	5230	27	-4.58	4	-8.58
54	5270	27	-4.48	11	-15.48
62	5310	27	-5.06	11	-16.06
102	5510	27	-4.96	11	-15.96
118	5590	27	-4.54	11	-15.54
134	5670	27	-3.98	11	-14.98

802.11n (HT40) Chain C					
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)	Limit (dBm)	Margin (dB)
38	5190	27	-4.15	4	-8.15
46	5230	27	-4.44	4	-8.44
54	5270	27	-5.09	11	-16.09
62	5310	27	-4.52	11	-15.52
102	5510	27	-5.00	11	-16.00
118	5590	27	-4.64	11	-15.64
134	5670	27	-4.31	11	-15.31

Dual Tx

802.11n (HT20) Chain A+B							
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)		Total Spectral Density (dBm)	Limit (dBm)	Margin (dB)
			Chain A	Chain B			
36	5180	22	-4.24	-3.45	-0.82	4	-4.82
44	5220	22	-3.00	-2.52	0.26	4	-3.74
48	5240	22	-3.11	-3.13	-0.11	4	-4.11
52	5260	22	-3.27	-2.53	0.13	11	-10.87
60	5300	22	-2.77	-3.31	-0.02	11	-11.02
64	5320	22	-3.81	-3.12	-0.44	11	-11.44
100	5500	22	-2.69	-2.80	0.27	11	-10.73
120	5600	22	-1.85	-2.89	0.67	11	-10.33
140	5700	22	-2.96	-2.31	0.39	11	-10.61

802.11n (HT20) Chain B+C							
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)		Total Spectral Density (dBm)	Limit (dBm)	Margin (dB)
			Chain B	Chain C			
36	5180	22	-2.16	-3.75	0.13	4	-3.87
44	5220	22	-1.61	-2.04	1.19	4	-2.81
48	5240	22	-1.89	-2.33	0.91	4	-3.09
52	5260	22	-1.54	-3.58	0.57	11	-10.43
60	5300	22	-2.66	-4.05	-0.29	11	-11.29
64	5320	22	-2.34	-2.69	0.50	11	-10.50
100	5500	22	-2.51	-3.18	0.18	11	-10.82
120	5600	22	-1.86	-3.21	0.53	11	-10.47
140	5700	22	-1.93	-1.96	1.07	11	-9.93

802.11n (HT20) Chain A+C							
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)		Total Spectral Density (dBm)	Limit (dBm)	Margin (dB)
			Chain A	Chain C			
36	5180	22	-2.87	-2.27	0.45	4	-3.55
44	5220	22	-1.80	-1.83	1.20	4	-2.80
48	5240	22	-2.33	-1.86	0.92	4	-3.08
52	5260	22	-1.80	-3.37	0.50	11	-10.50
60	5300	22	-2.60	-3.59	-0.06	11	-11.06
64	5320	22	-2.16	-2.34	0.76	11	-10.24
100	5500	22	-1.20	-2.27	1.31	11	-9.69
120	5600	22	-0.73	-2.16	1.62	11	-9.38
140	5700	22	-2.74	-0.64	1.45	11	-9.55

802.11n (HT40) Chain A+B							
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)		Total Spectral Density (dBm)	Limit (dBm)	Margin (dB)
			Chain A	Chain B			
38	5190	22	-6.77	-5.62	-3.15	4	-7.15
46	5230	22	-5.68	-5.70	-2.68	4	-6.68
54	5270	22	-5.43	-5.47	-2.44	11	-13.44
62	5310	22	-5.79	-5.88	-2.82	11	-13.82
102	5510	22	-5.08	-5.42	-2.24	11	-13.24
118	5590	22	-5.61	-5.96	-2.77	11	-13.77
134	5670	22	-5.62	-5.79	-2.69	11	-13.69

802.11n (HT40) Chain B+C							
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)		Total Spectral Density (dBm)	Limit (dBm)	Margin (dB)
			Chain B	Chain C			
38	5190	22	-4.68	-6.77	-2.59	4	-6.59
46	5230	22	-5.23	-4.79	-1.99	4	-5.99
54	5270	22	-5.35	-7.17	-3.16	11	-14.16
62	5310	22	-5.68	-5.98	-2.82	11	-13.82
102	5510	22	-4.37	-6.70	-2.37	11	-13.37
118	5590	22	-5.38	-5.30	-2.33	11	-13.33
134	5670	22	-4.66	-4.95	-1.79	11	-12.79

802.11n (HT40) Chain A+C							
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)		Total Spectral Density (dBm)	Limit (dBm)	Margin (dB)
			Chain A	Chain C			
38	5190	22	-5.46	-4.94	-2.18	4	-6.18
46	5230	22	-5.63	-4.62	-2.09	4	-6.09
54	5270	22	-5.26	-6.03	-2.62	11	-13.62
62	5310	22	-4.85	-5.21	-2.02	11	-13.02
102	5510	22	-4.90	-6.23	-2.50	11	-13.50
118	5590	22	-4.84	-4.83	-1.82	11	-12.82
134	5670	22	-5.50	-4.72	-2.08	11	-13.08

Triple Tx

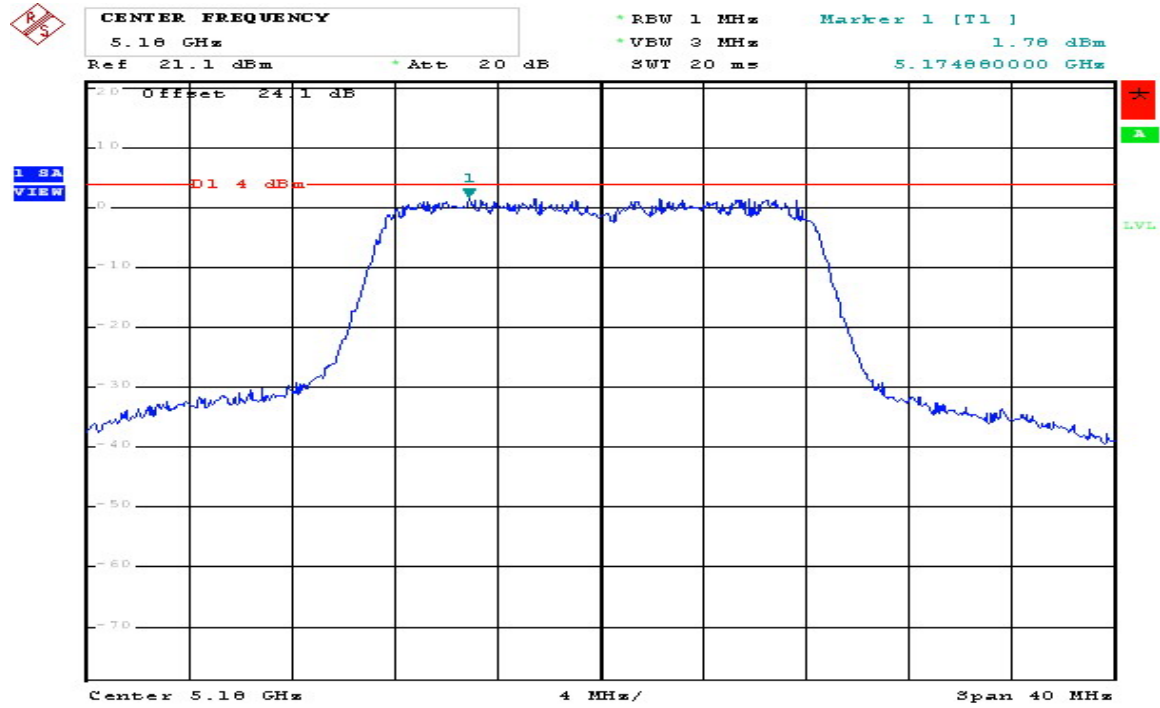
802.11n (HT20) Chain A+B+C								
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)			Power Spectral Density (dBm)	Limit (dBm)	Margin (dB)
			Chain A	Chain B	Chain C			
36	5180	22	-5.00	-3.60	-6.13	-0.02	4	-4.02
44	5220	22	-4.39	-3.96	-3.29	0.91	4	-3.09
48	5240	22	-3.54	-3.40	-4.43	1.00	4	-3.00
52	5260	22	-2.93	-4.27	-4.79	0.85	11	-10.15
60	5300	22	-2.98	-4.31	-5.08	0.74	11	-10.26
64	5320	22	-4.69	-3.45	-4.50	0.59	11	-10.41
100	5500	22	-4.09	-4.23	-4.90	0.38	11	-10.62
120	5600	22	-3.28	-3.38	-4.18	1.18	11	-9.82
140	5700	22	-4.83	-3.85	-4.24	0.48	11	-10.52

802.11n (HT40) Chain A+B+C								
CH	Freq.	Temp. (°C)	Power Spectral Density (dBm)			Power Spectral Density (dBm)	Limit (dBm)	Margin (dB)
			Chain A	Chain B	Chain C			
38	5190	22	-7.59	-5.68	-6.76	-1.83	4	-5.83
46	5230	22	-7.55	-6.36	-7.27	-2.26	4	-6.26
54	5270	22	-6.65	-7.71	-7.86	-2.60	11	-13.60
62	5310	22	-8.01	-7.00	-8.06	-2.89	11	-13.89
102	5510	22	-7.14	-6.64	-8.19	-2.51	11	-13.51
118	5590	22	-7.36	-7.20	-7.63	-2.62	11	-13.62
134	5670	22	-7.96	-7.69	-6.94	-2.74	11	-13.74

Power spectral density

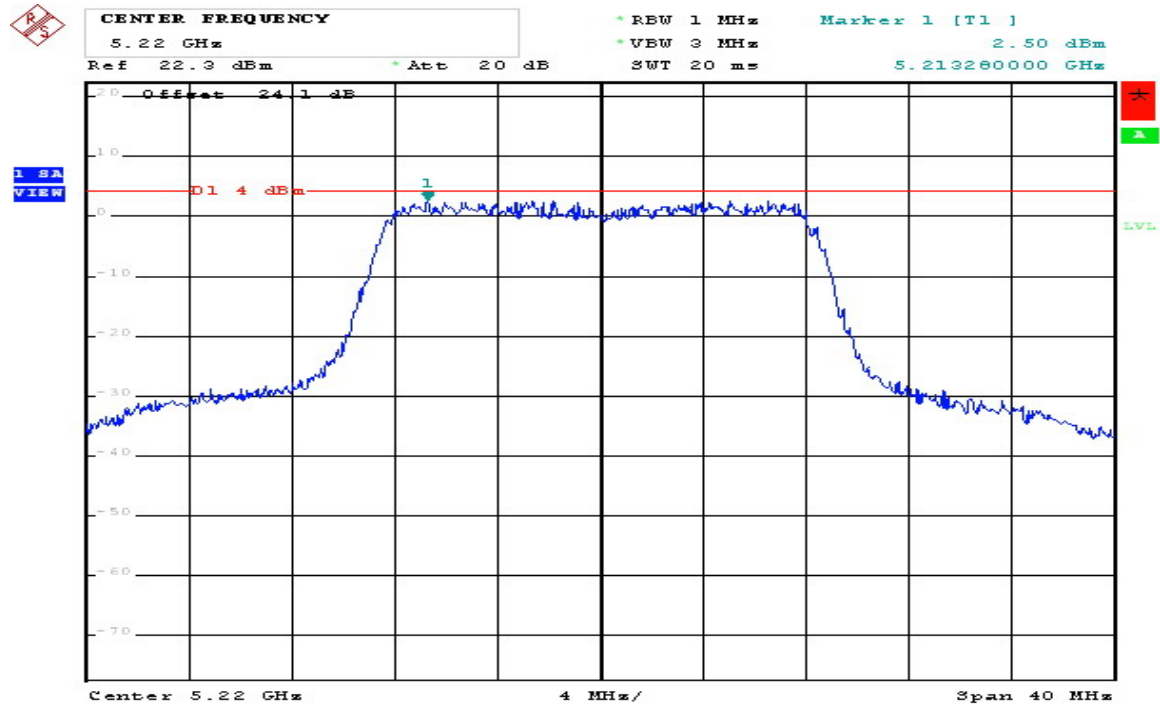
Single Tx

802.11 a Chain A CH36 5180MHz



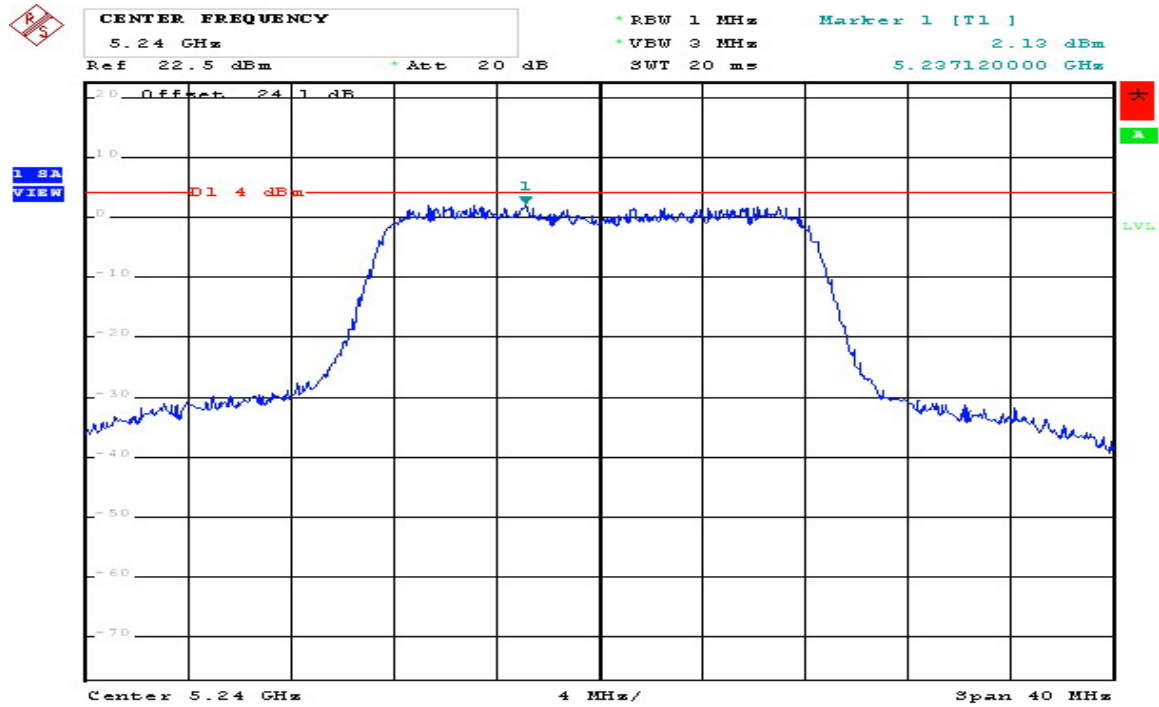
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Date: 7.NOV.2008 13:01:20

802.11 a Chain A CH44 5220MHz



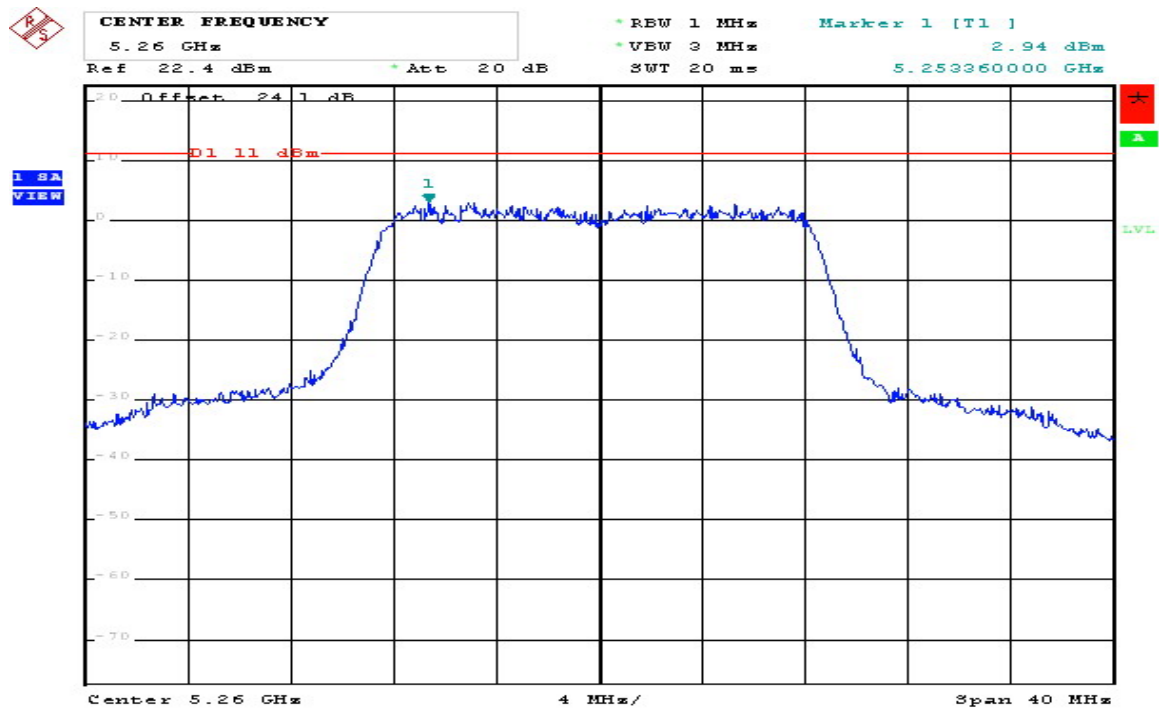
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802.11 a Chain A CH48 5240MHz



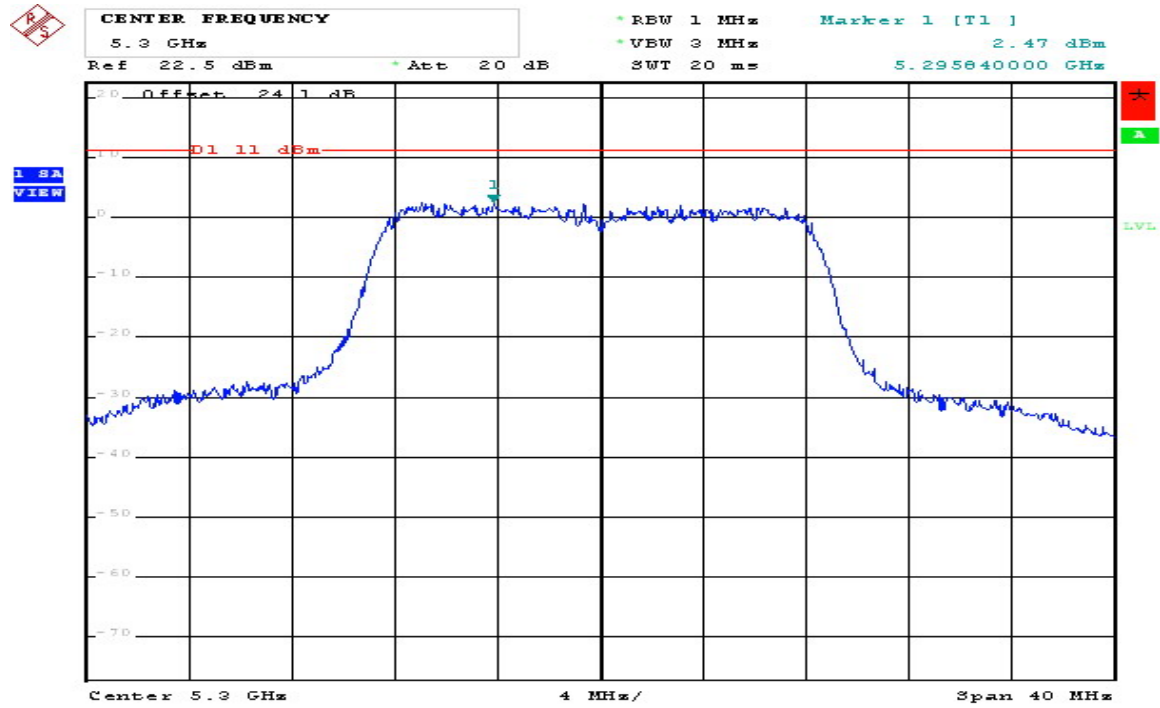
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Date: 11.NOV.2008 13:17:22

802.11 a Chain A CH52 5260MHz



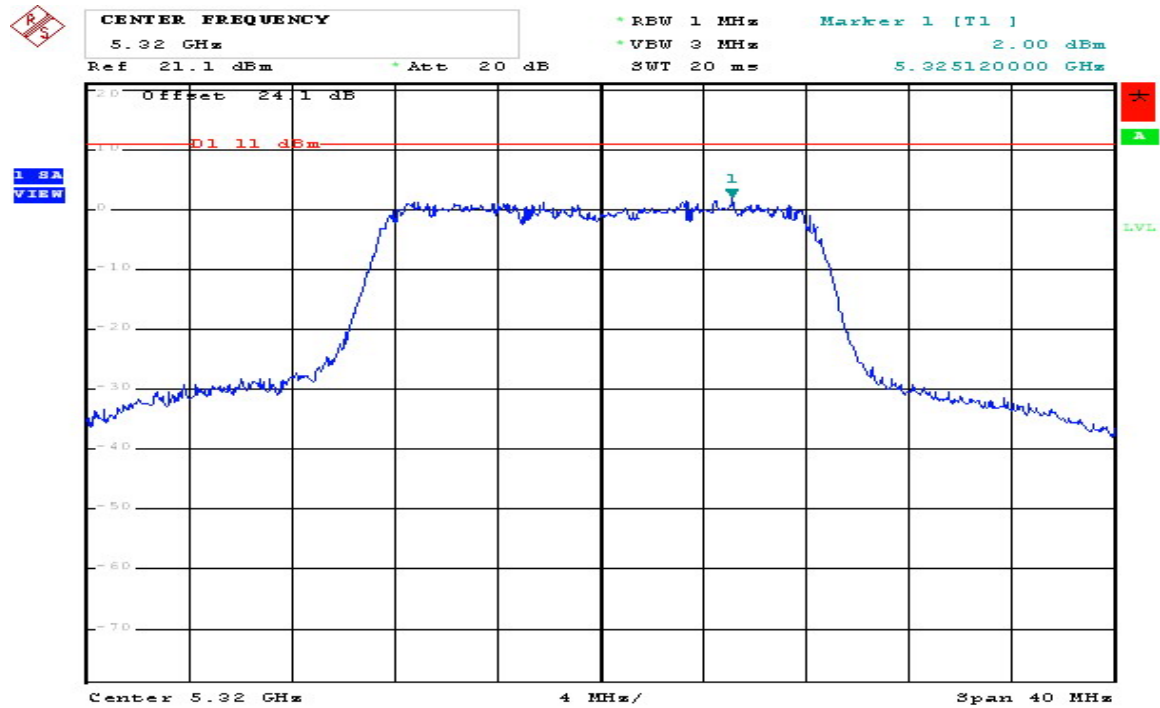
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802.11 a Chain A CH60 5300MHz



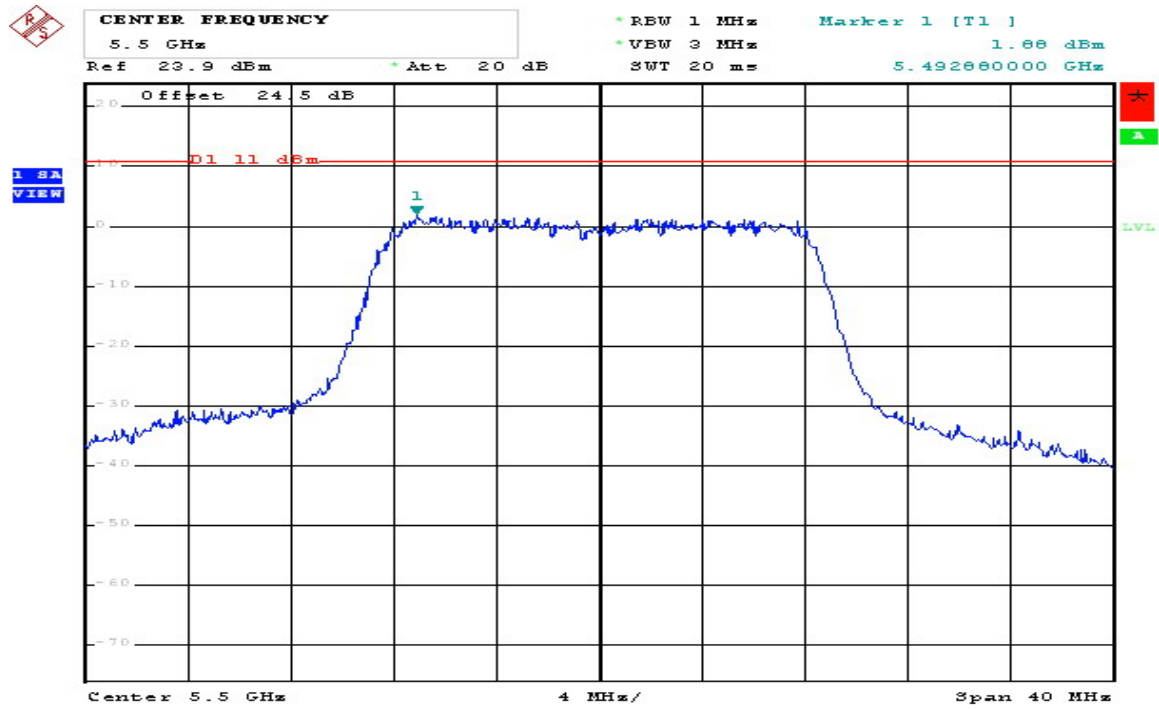
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Date: 7.NOV.2008 13:18:43

802.11 a Chain A CH64 5320MHz



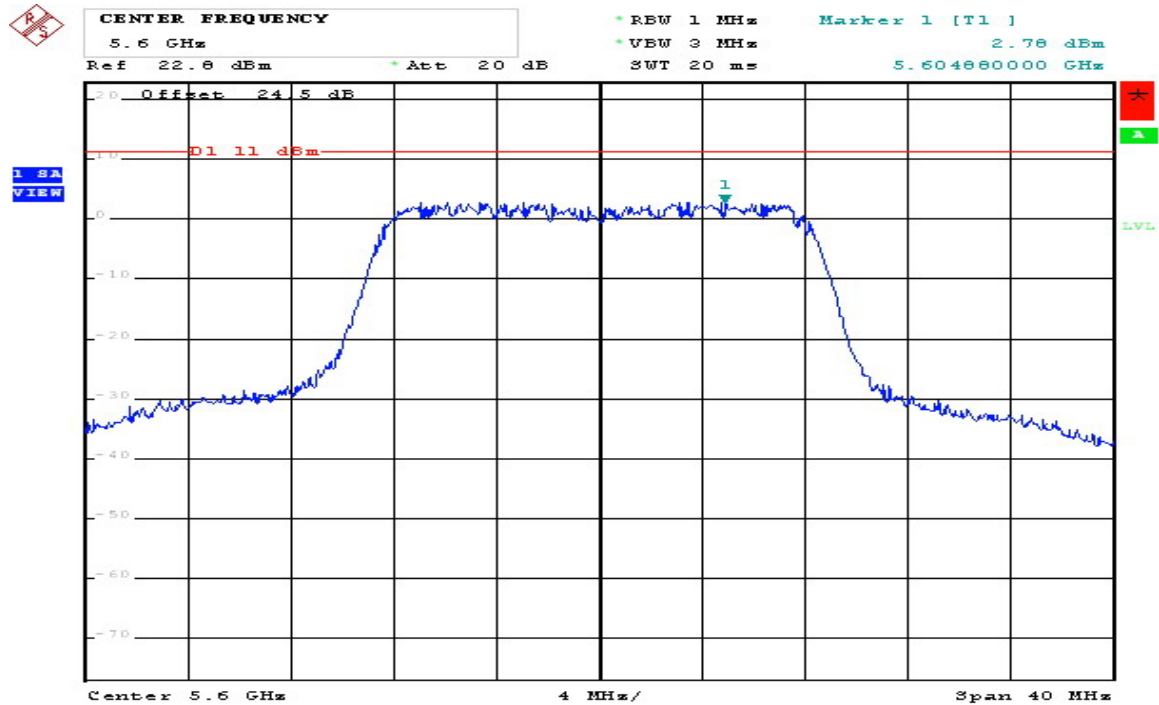
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Date: 7.NOV.2008 13:21:52

802.11 a Chain A CH100 5500MHz



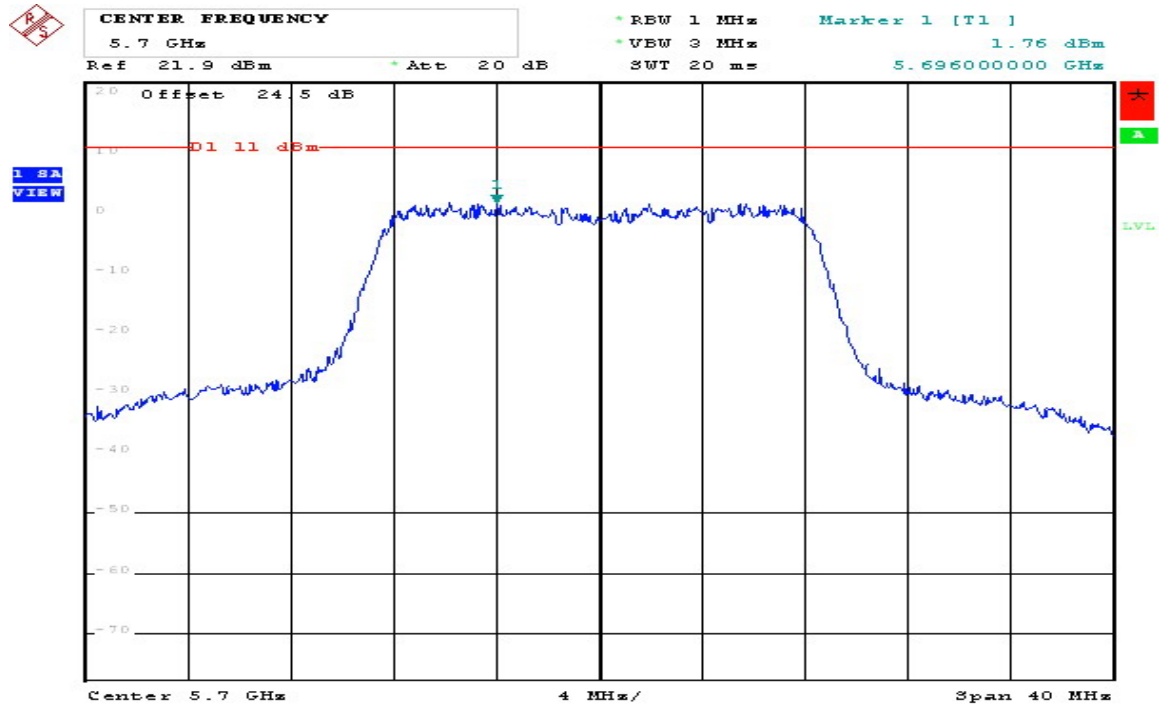
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802.11 a Chain A CH120 5600MHz



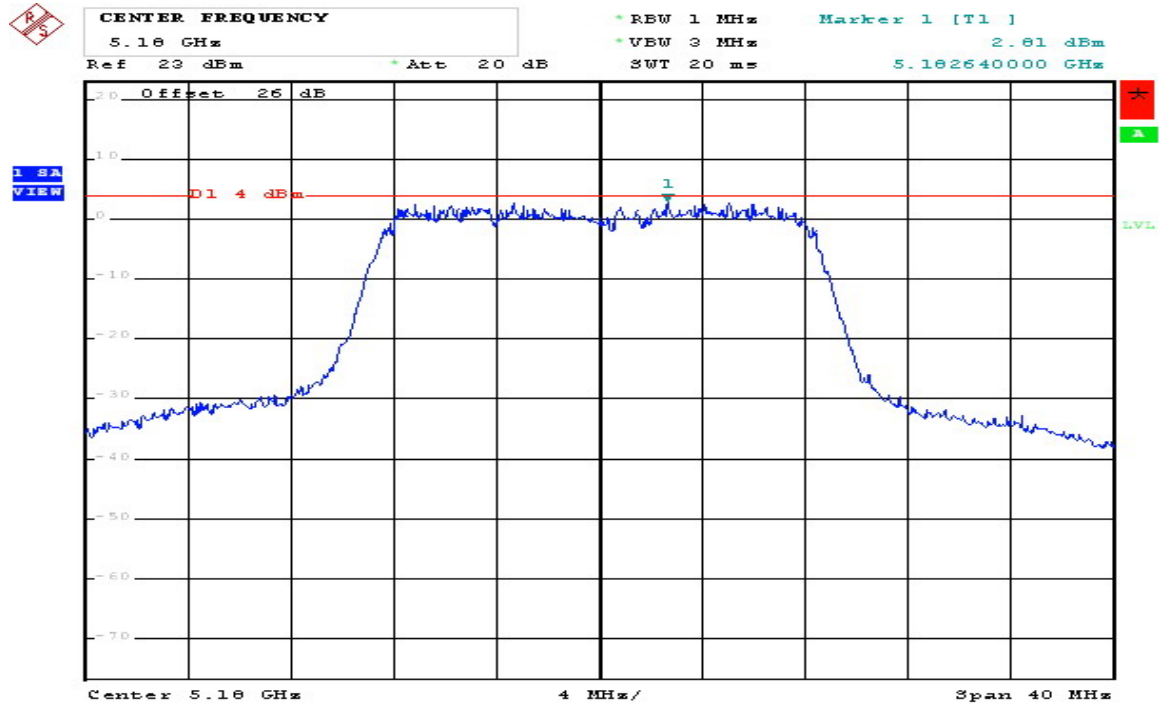
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802.11 a Chain A CH140 5700MHz



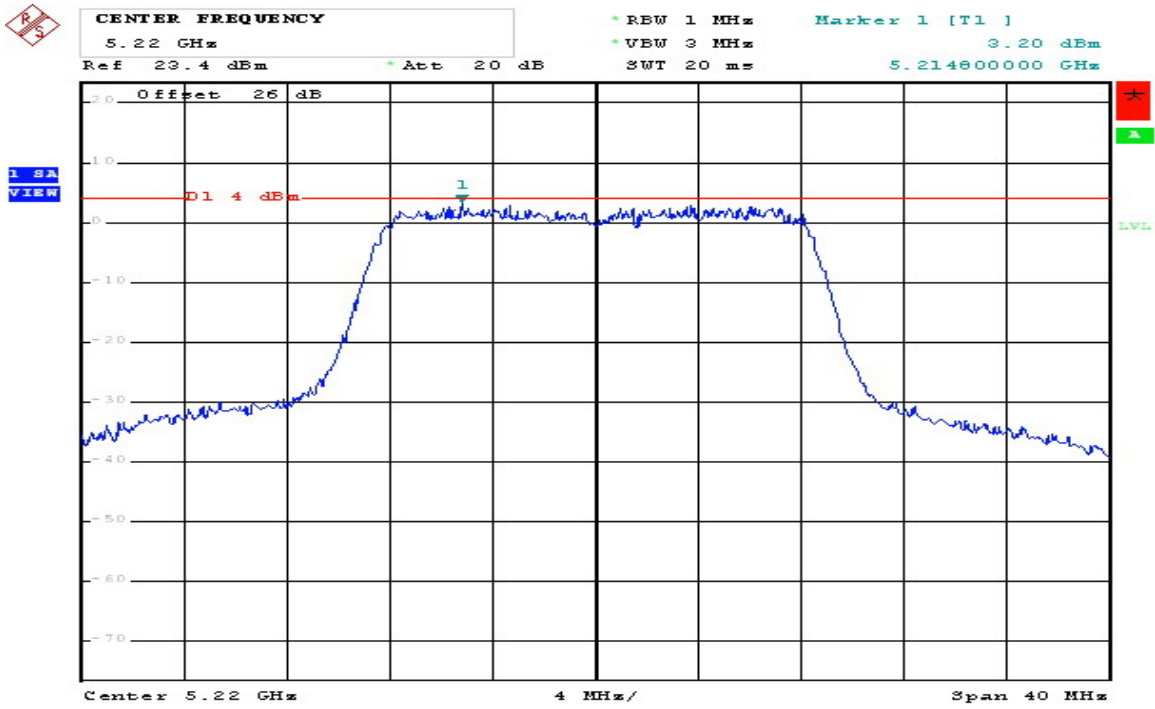
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802.11 a Chain B CH36 5180MHz



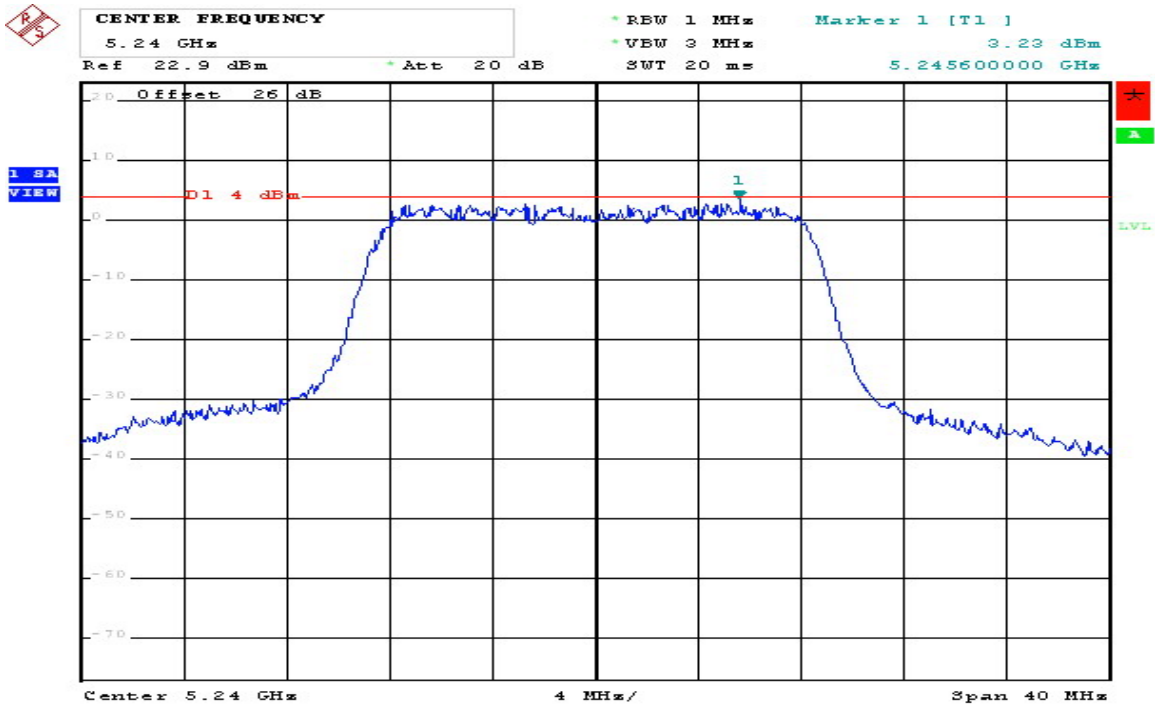
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802.11 a Chain B CH44 5220MHz



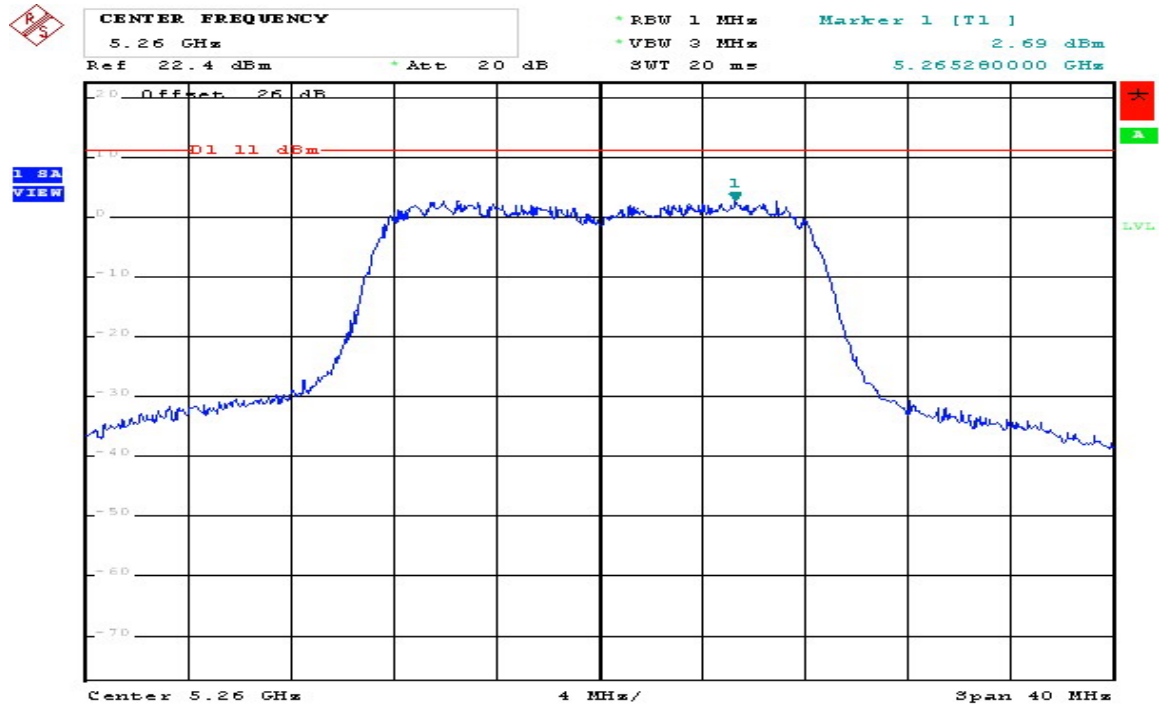
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802.11 a Chain B CH48 5240MHz



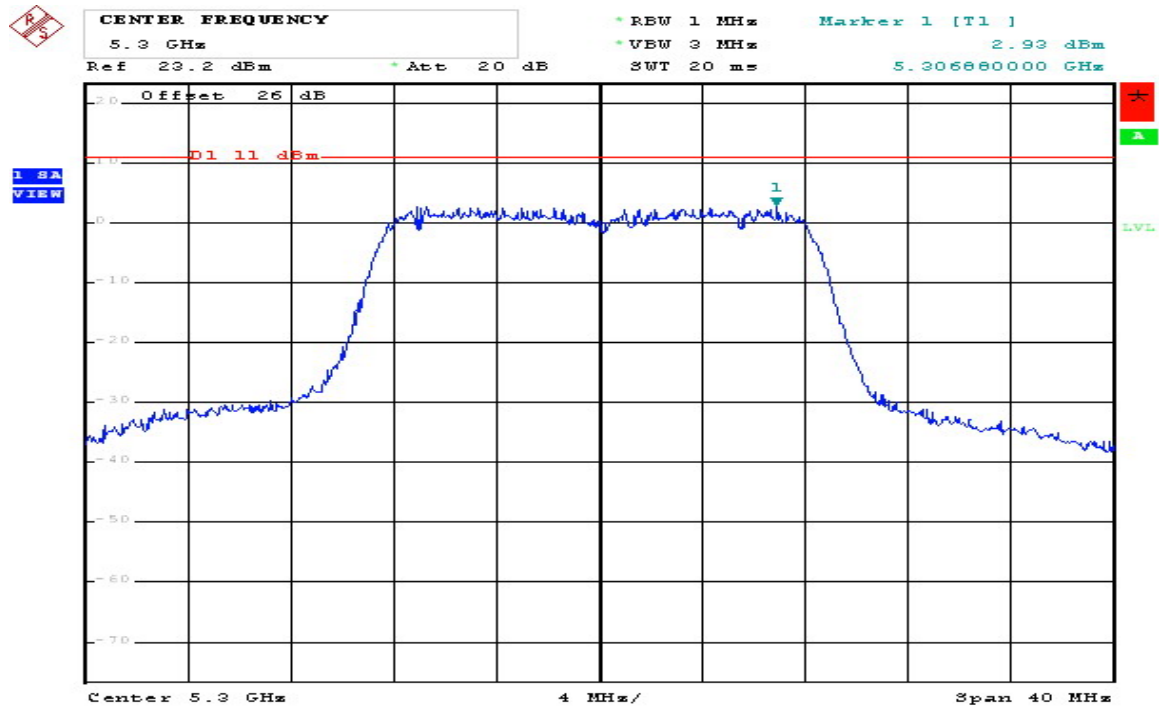
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802.11 a Chain B CH52 5260MHz



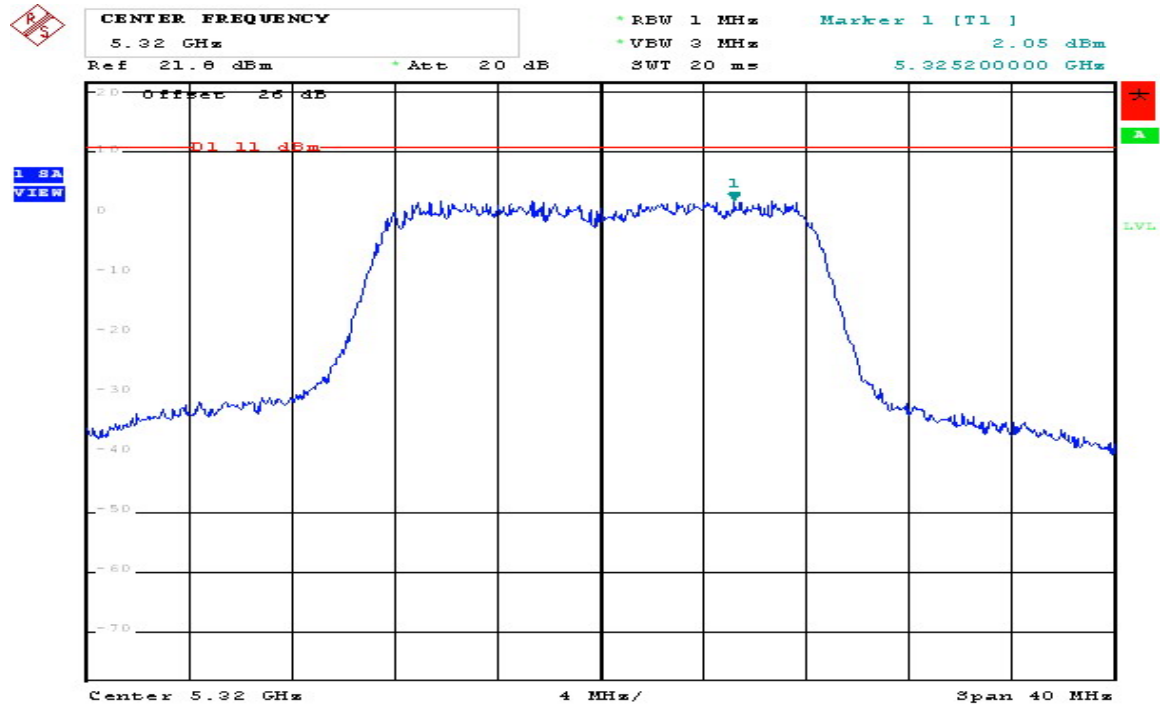
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802.11 a Chain B CH60 5300MHz



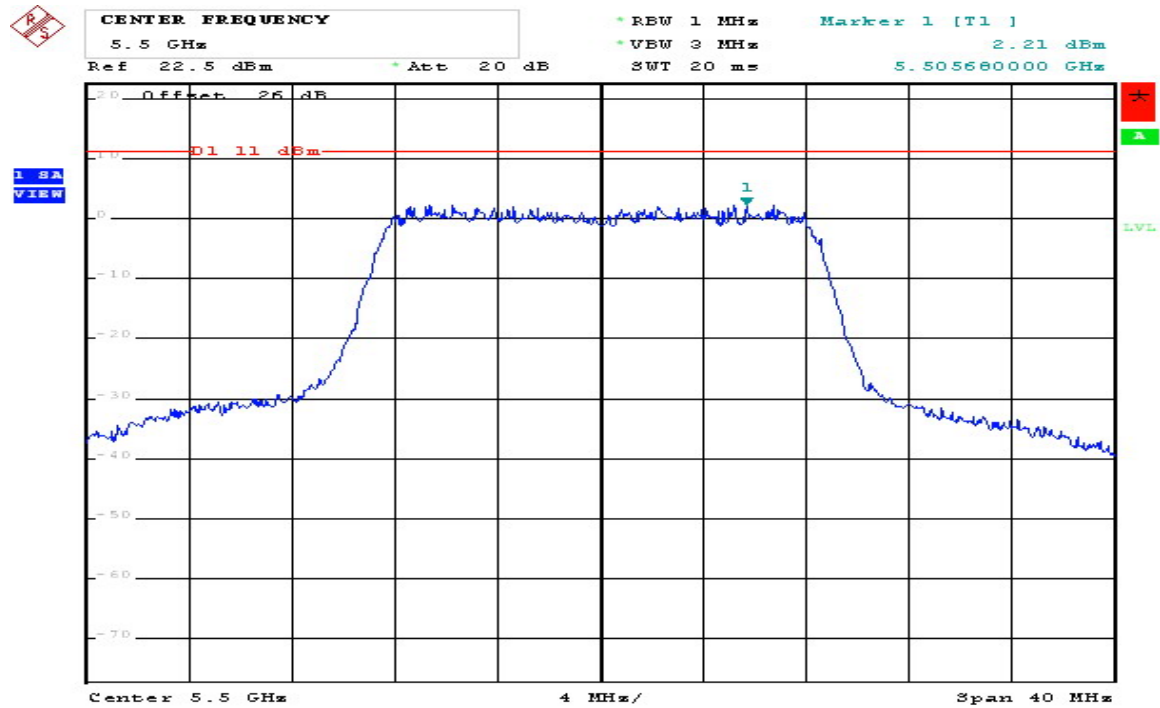
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802.11 a Chain B CH64 5320MHz



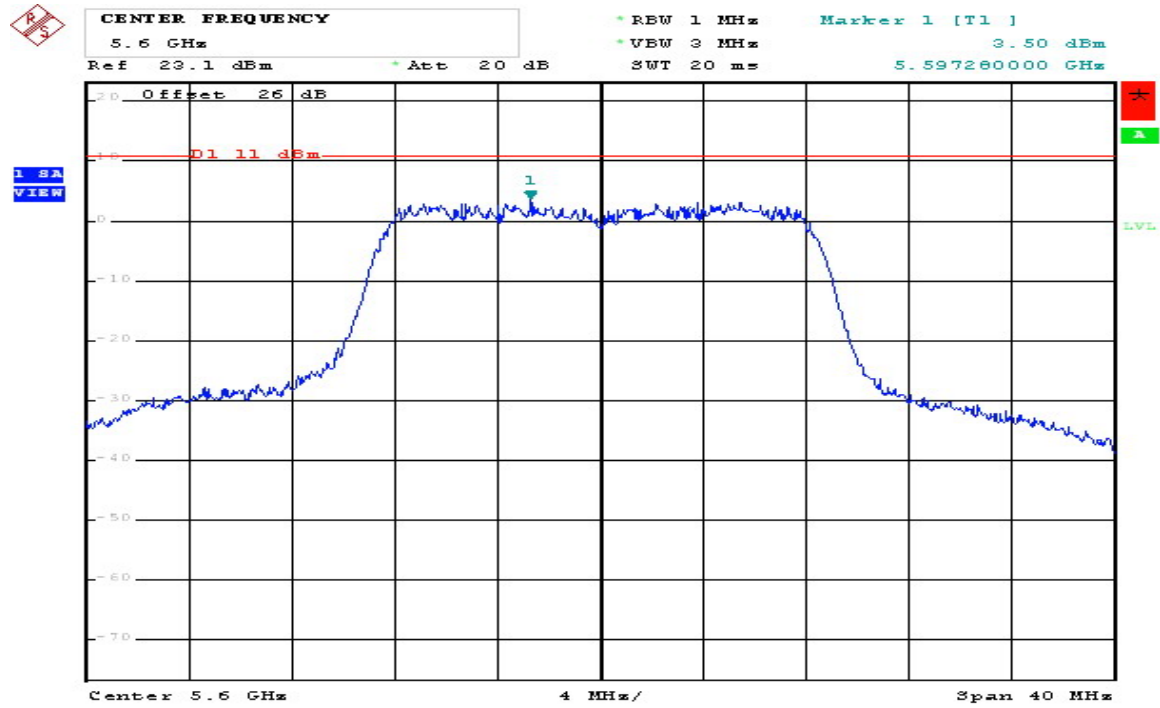
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802.11 a Chain B CH100 5500MHz



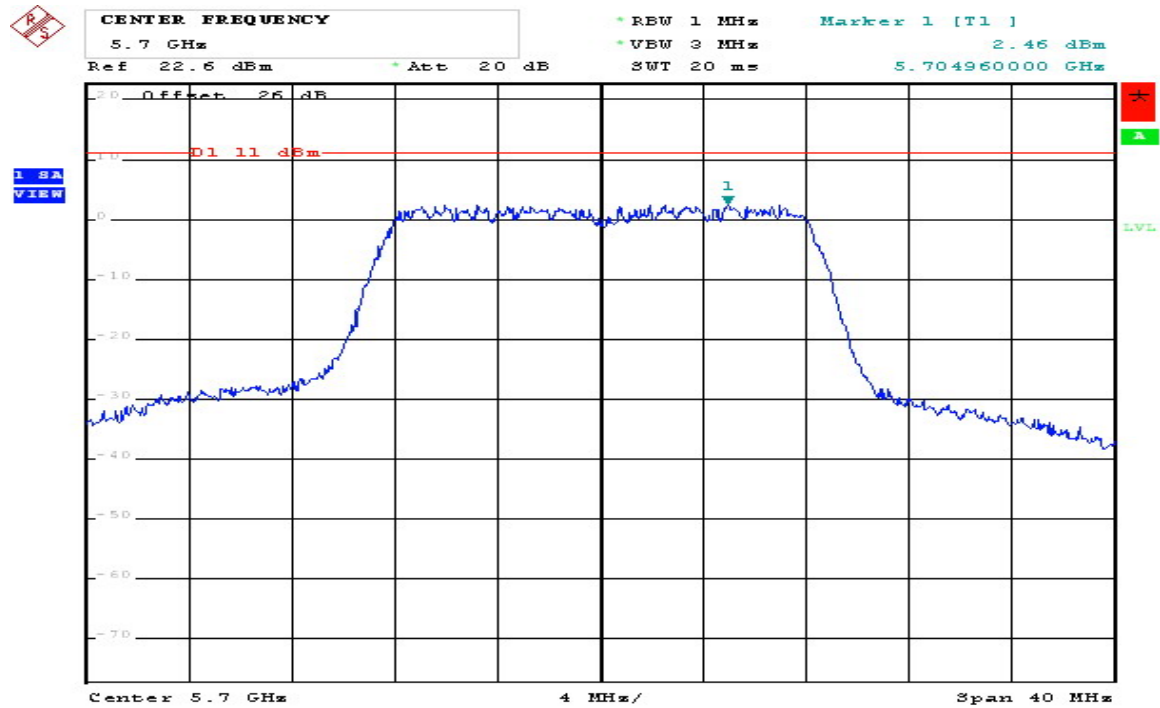
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802.11 a Chain B CH120 5600MHz



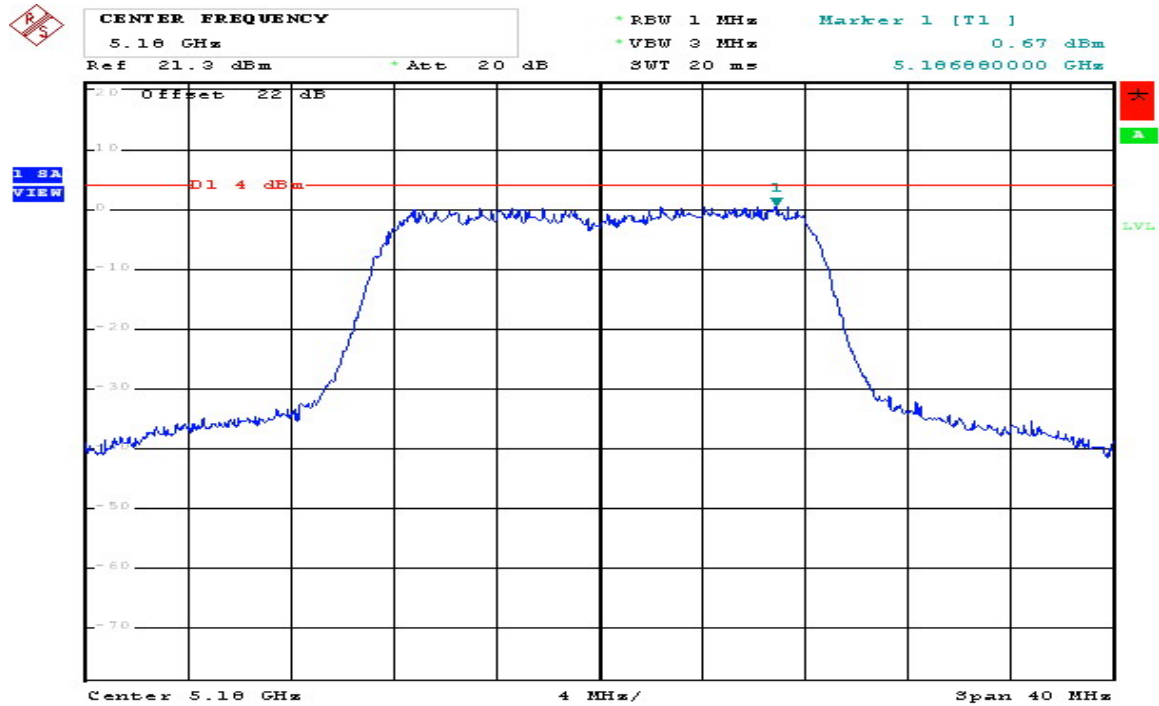
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802.11 a Chain B CH140 5700MHz



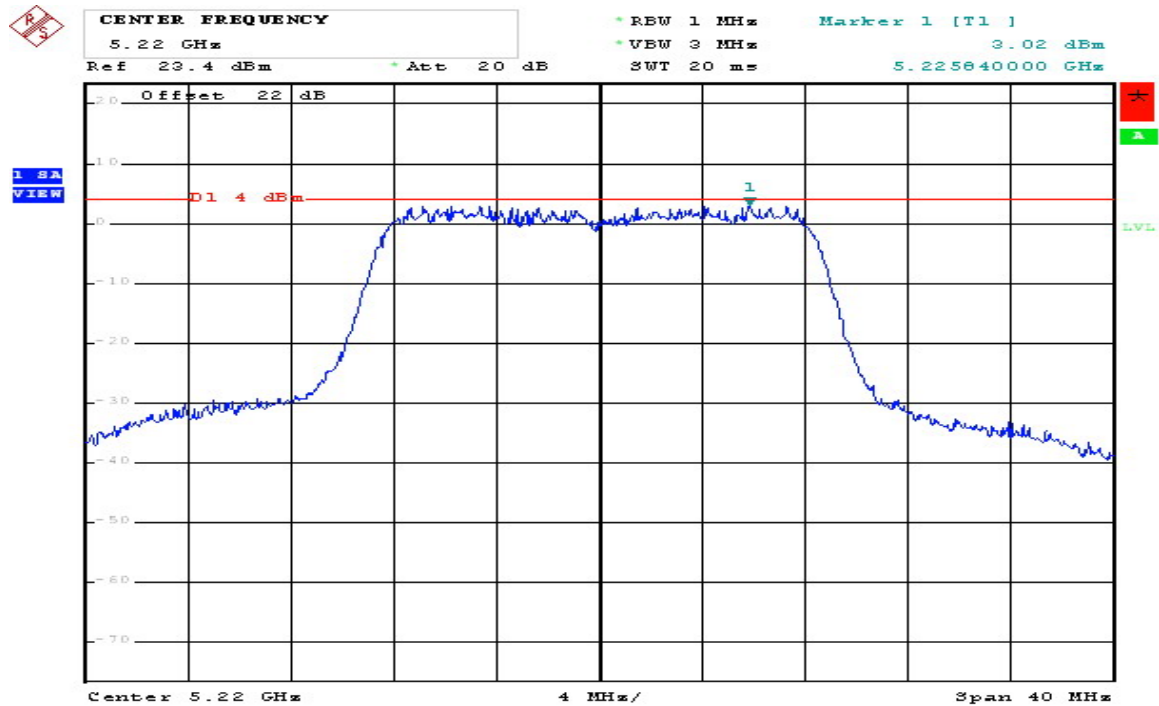
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802.11 a Chain C CH36 5180MHz



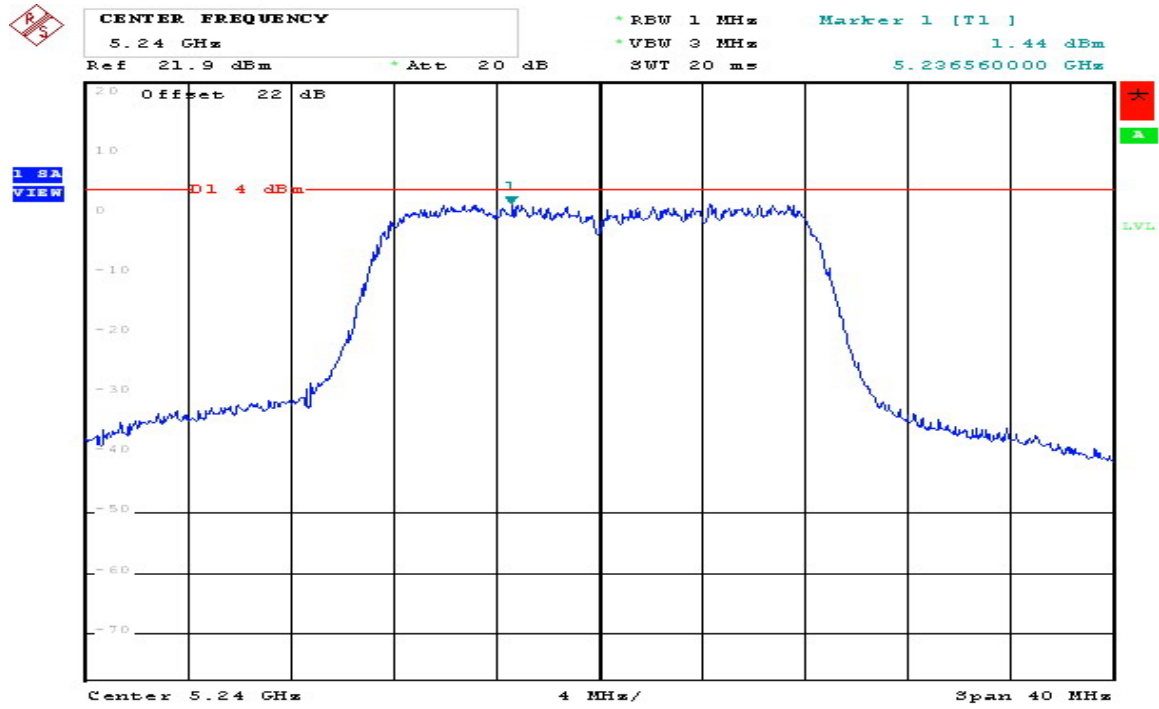
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802.11 a Chain C CH44 5220MHz



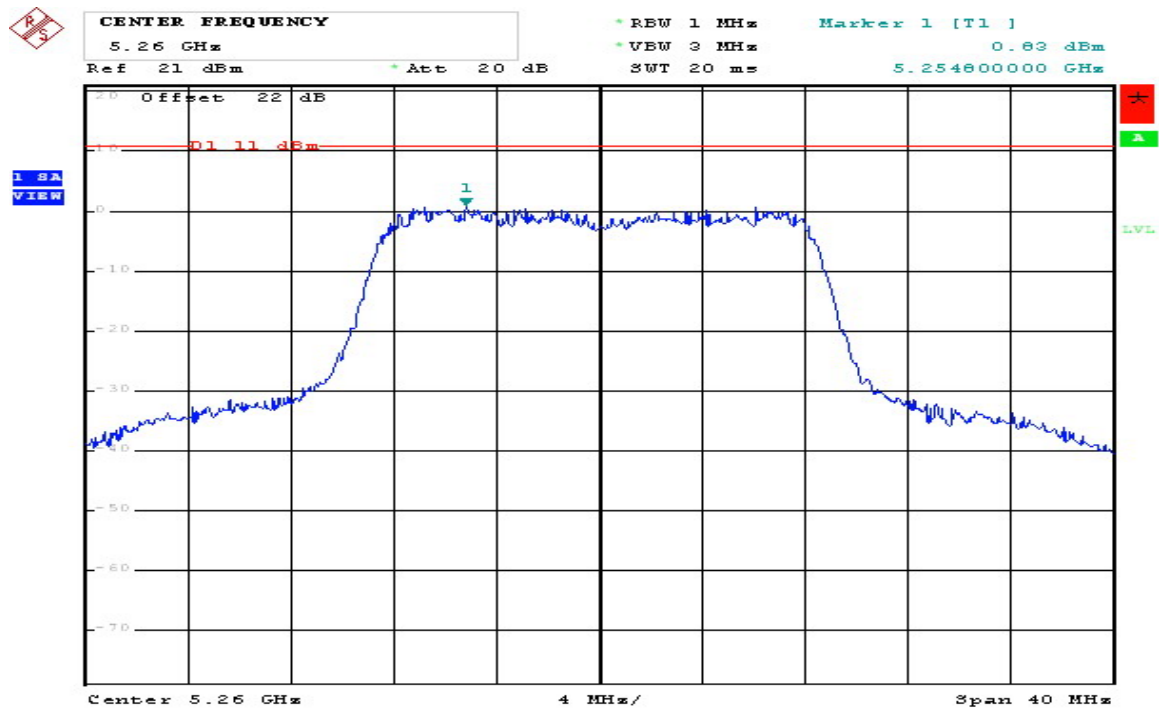
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802.11 a Chain C CH48 5240MHz



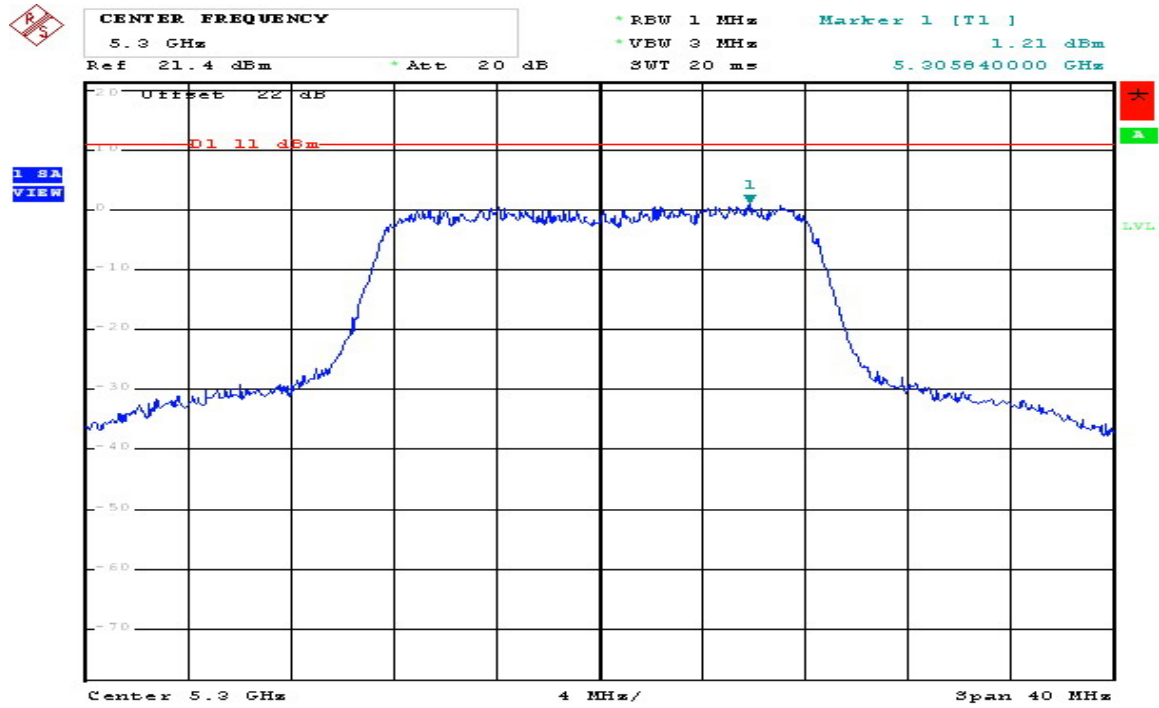
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802.11 a Chain C CH52 5260MHz



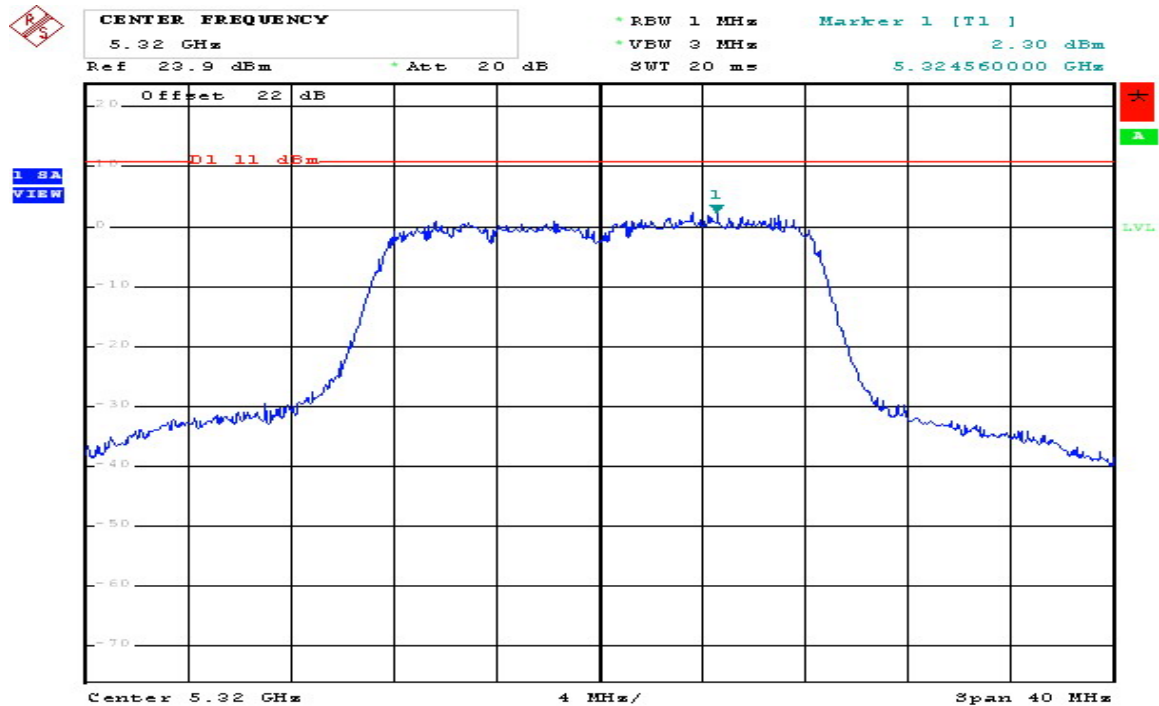
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802.11 a Chain C CH60 5300MHz



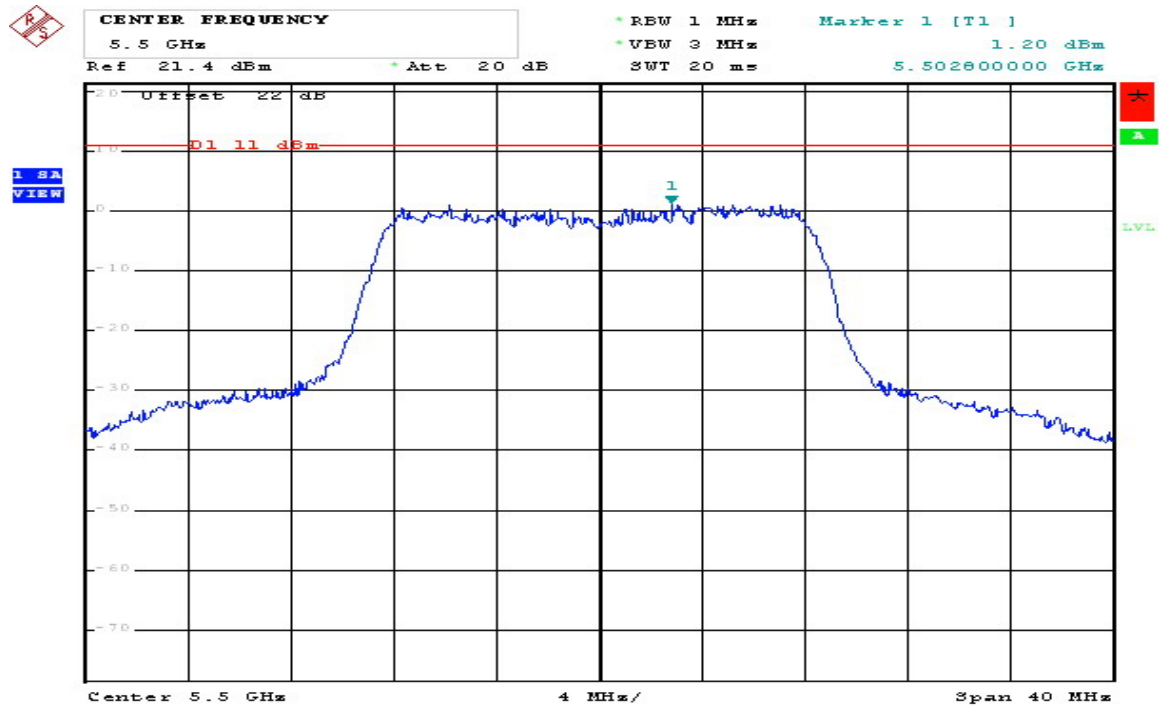
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802.11 a Chain C CH64 5320MHz



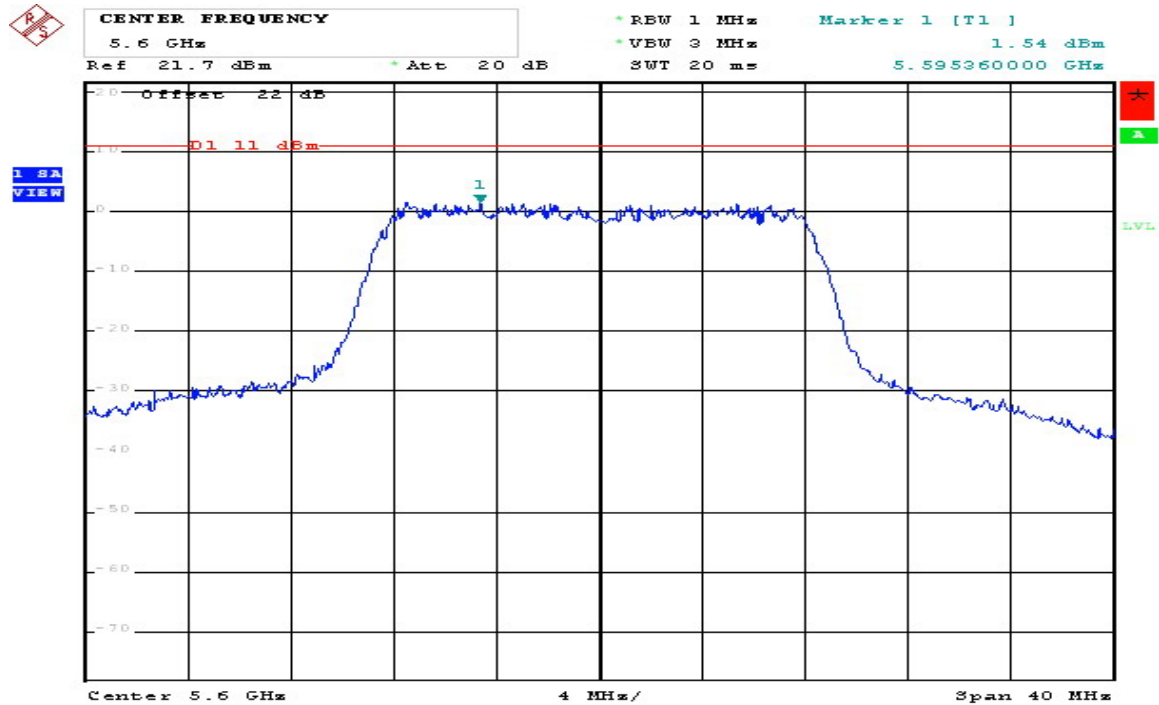
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802.11 a Chain C CH100 5500MHz



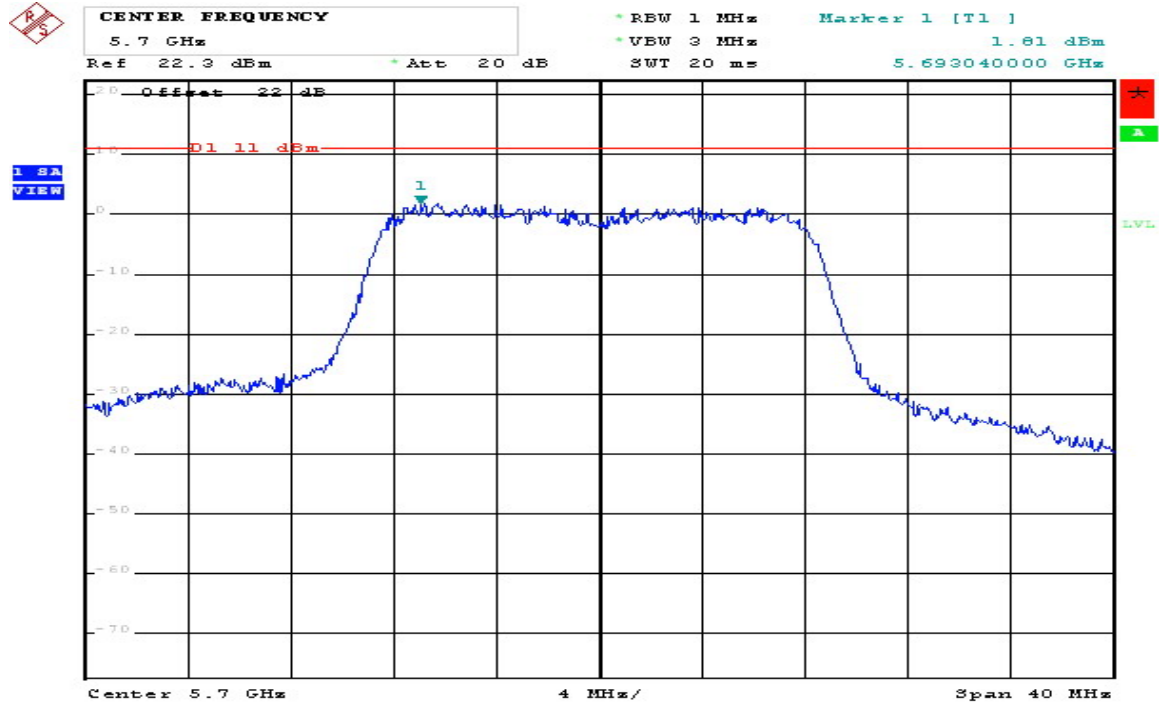
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802.11 a Chain C CH120 5600MHz



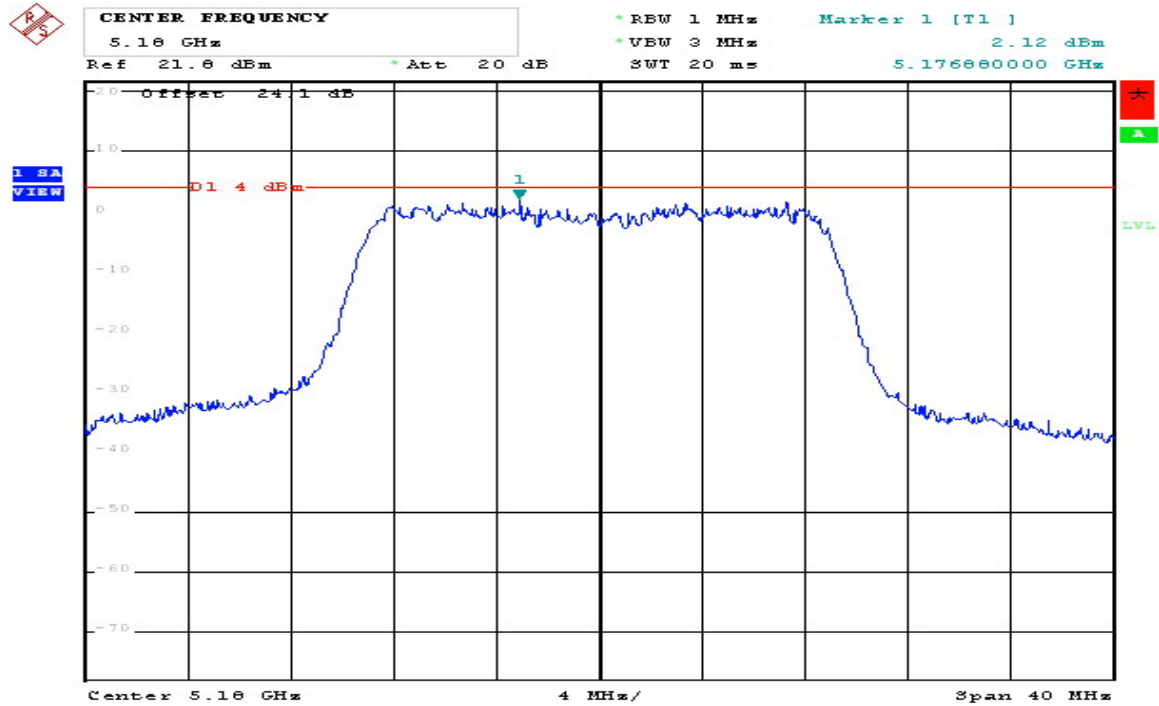
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Date: 7.NOV.2008 15:00:33

802.11 a Chain C CH140 5700MHz



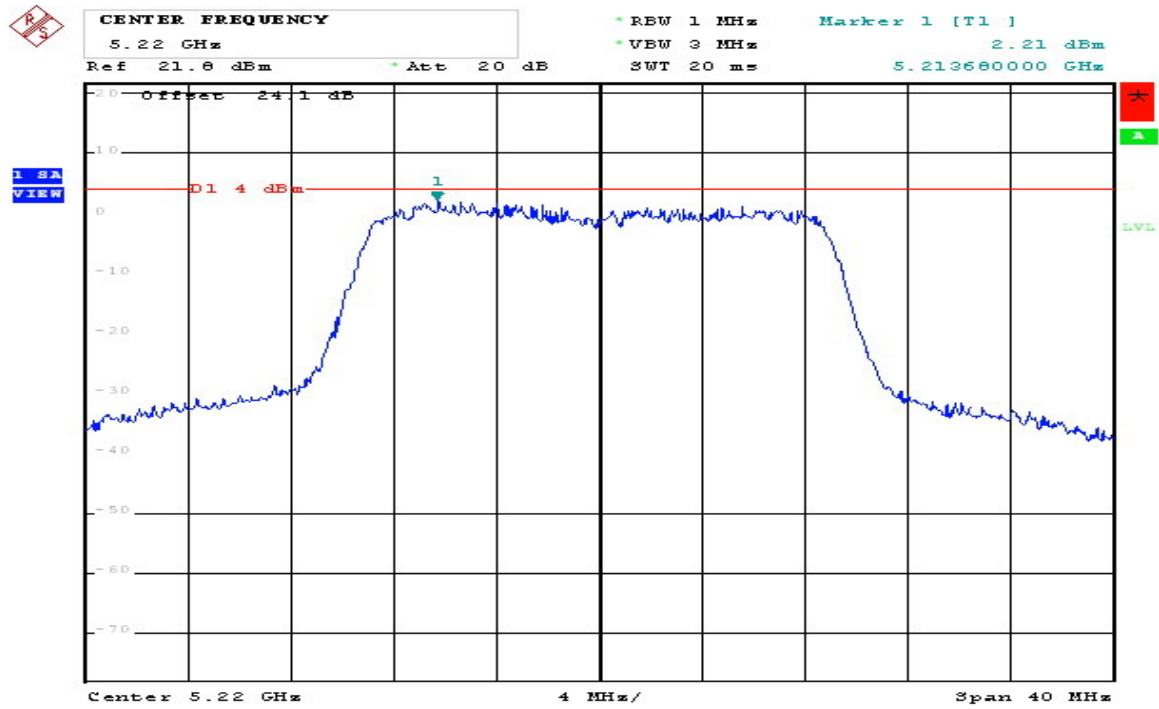
Comment: 802.11a 5700MHz
Date: 7.NOV.2008 15:03:37

802.11 n (HT20) Chain A CH36 5180MHz



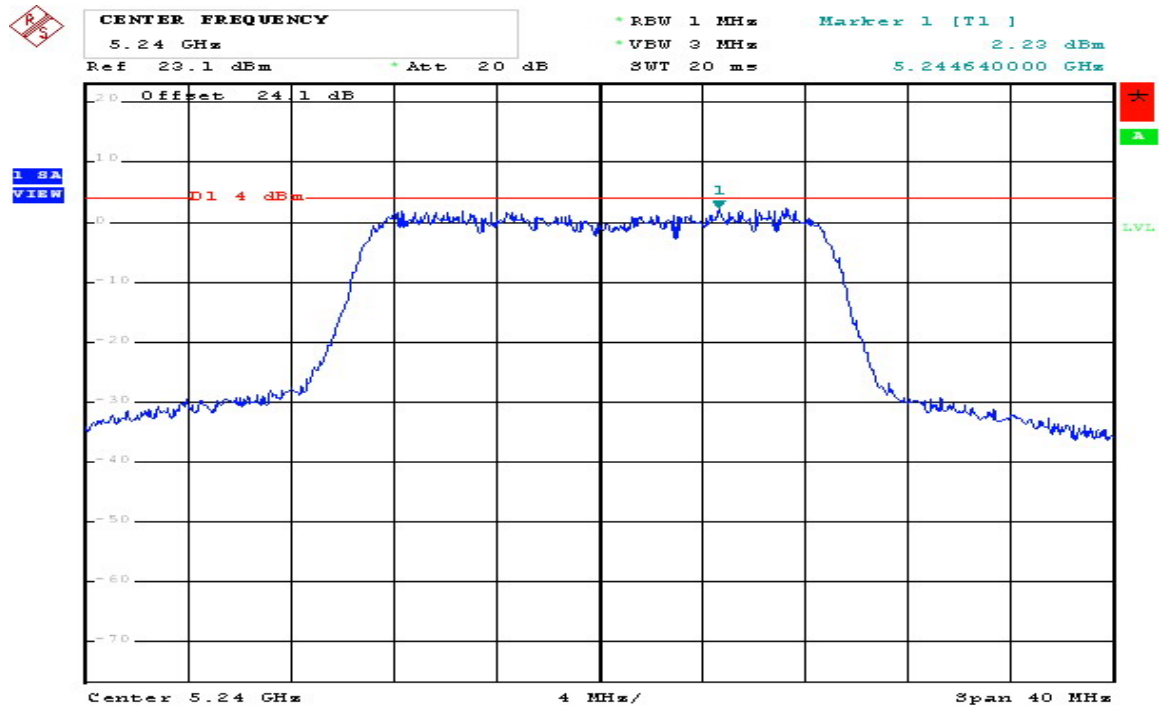
Comment: 802.11n(20) 5180MHz
Date: 7.NOV.2008 15:18:34

802.11 n (HT20) Chain A CH44 5220MHz



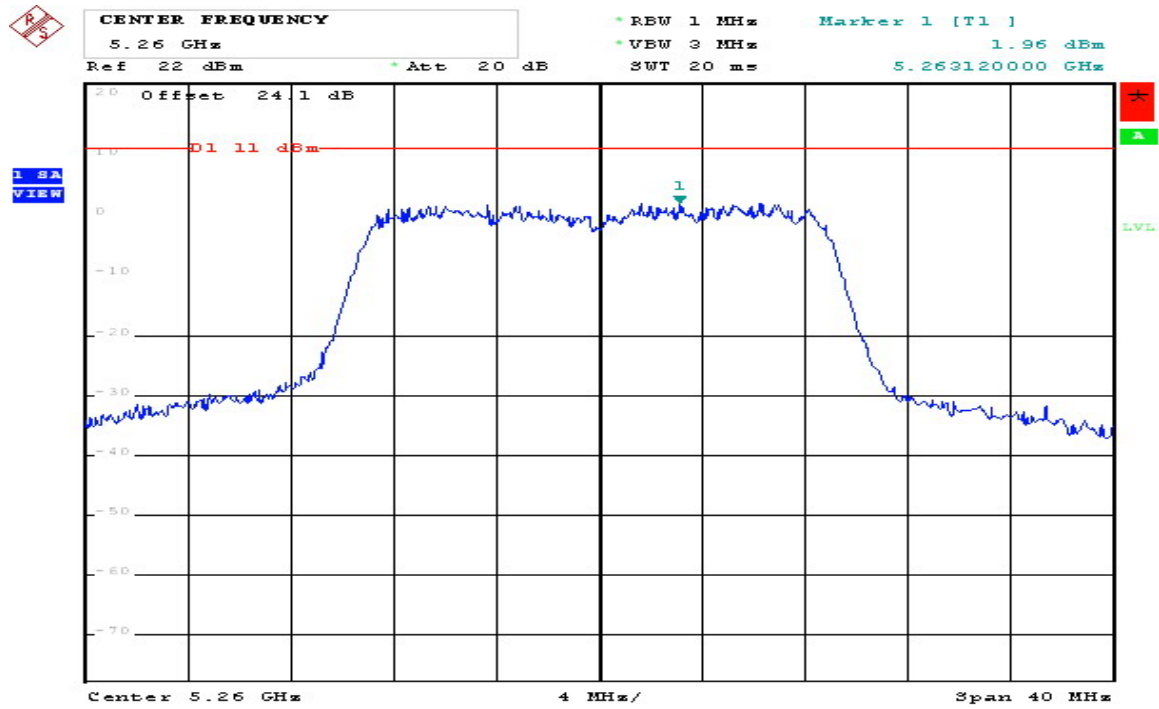
Comment: 802.11n(20) 5220MHz
Date: 7.NOV.2008 15:23:25

802.11 n (HT20) Chain A CH48 5240MHz



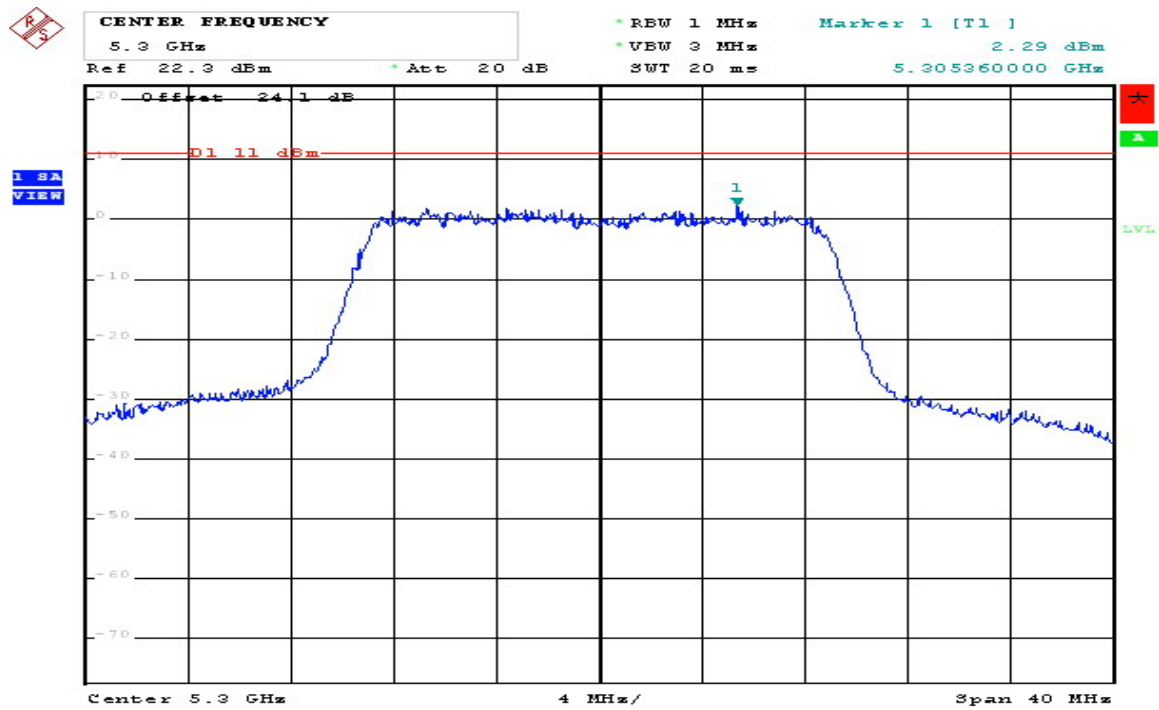
Comment: 802.11n(20) 5240MHz
Date: 7.NOV.2008 15:28:42

802.11 n (HT20) Chain A CH52 5260MHz



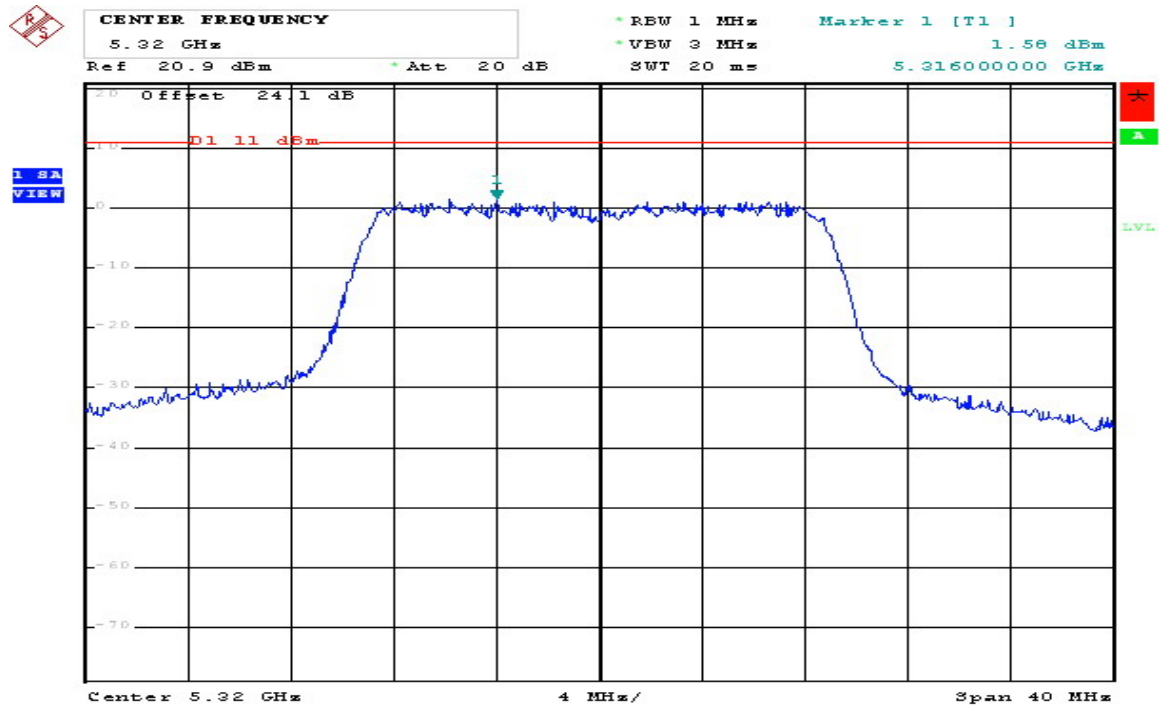
Comment: 802.11n(20) 5260MHz
Date: 7.NOV.2008 15:35:33

802.11 n (HT20) Chain A CH60 5300MHz



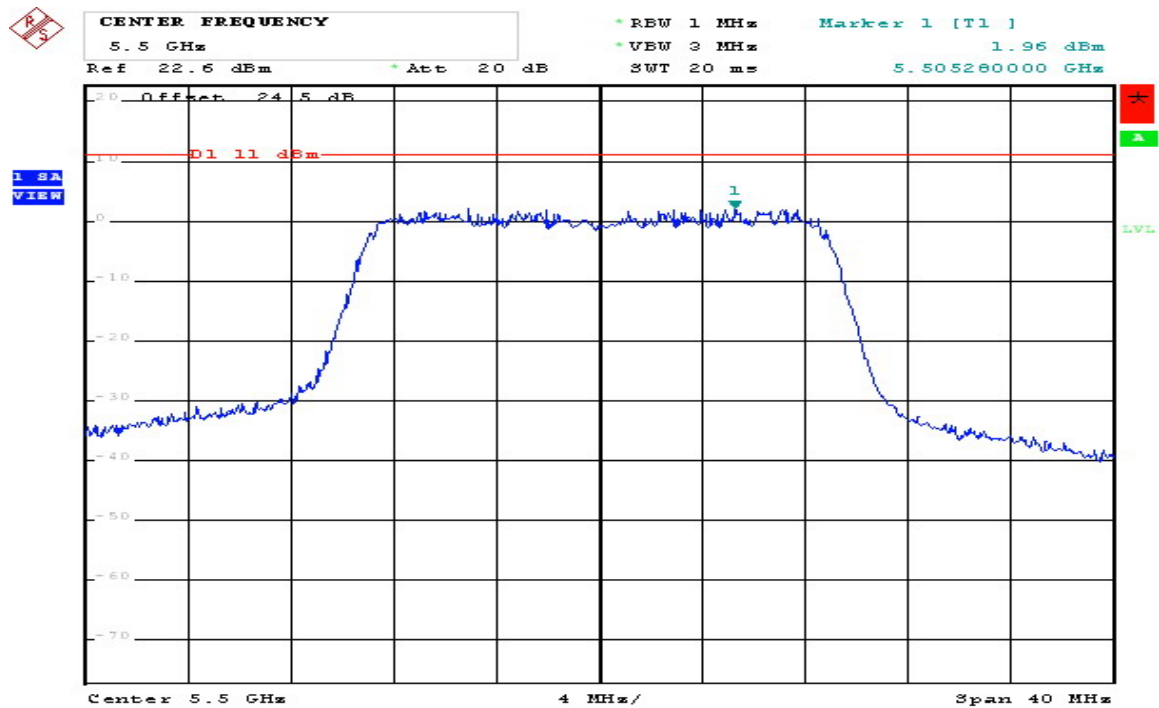
Comment: 802.11n(20) 5300MHz
Date: 7.NOV.2008 15:38:51

802.11 n (HT20) Chain A CH64 5320MHz



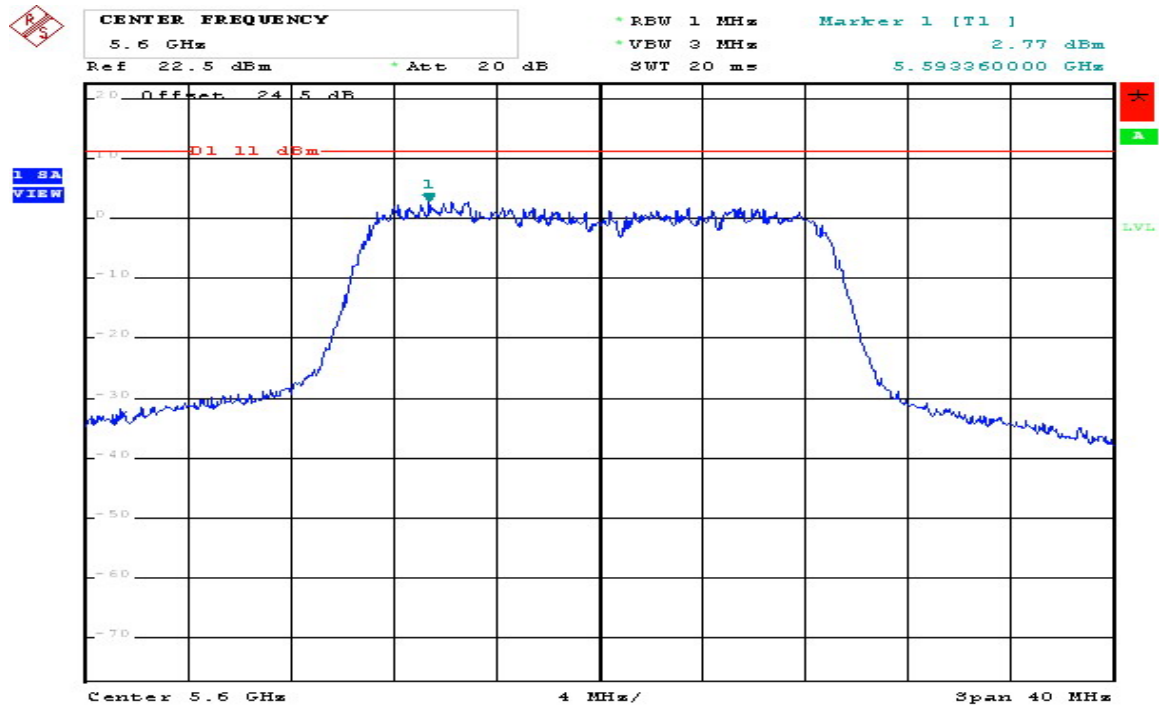
Comment: 802.11n(20) 5320MHz
Date: 7.NOV.2008 15:42:42

802.11 n (HT20) Chain A CH100 5500MHz



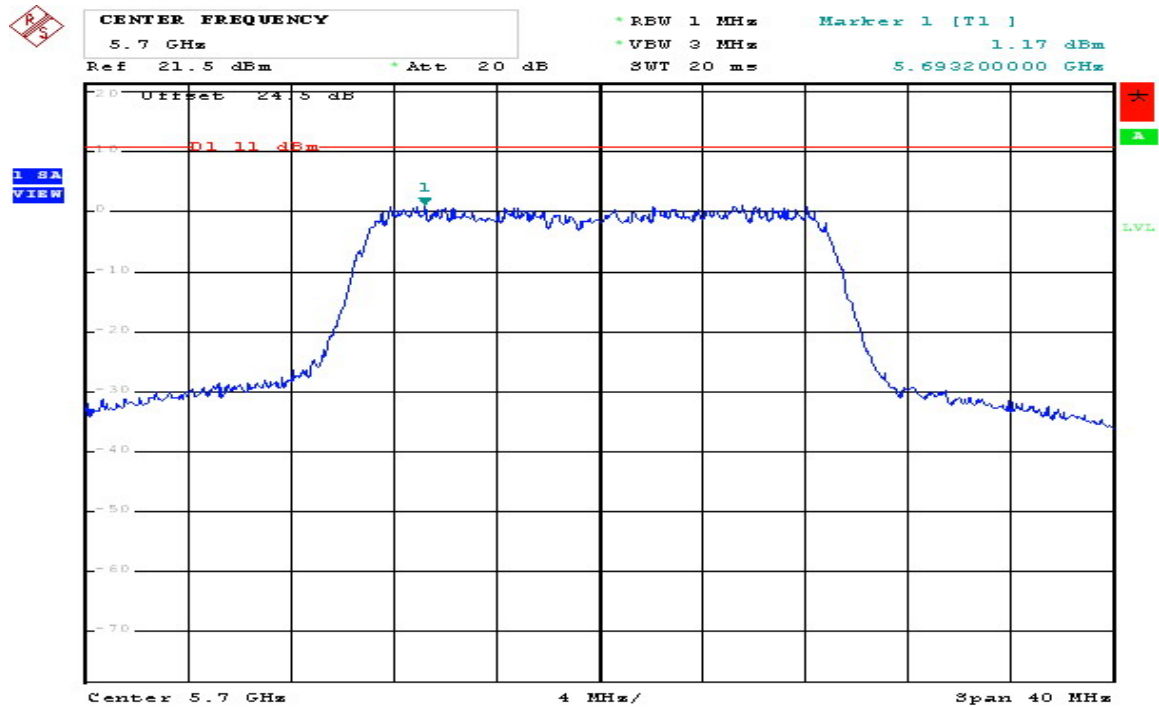
Comment: 802.11n(20) 5500MHz
Date: 7.NOV.2008 15:47:19

802.11 n (HT20) Chain A CH120 5600MHz



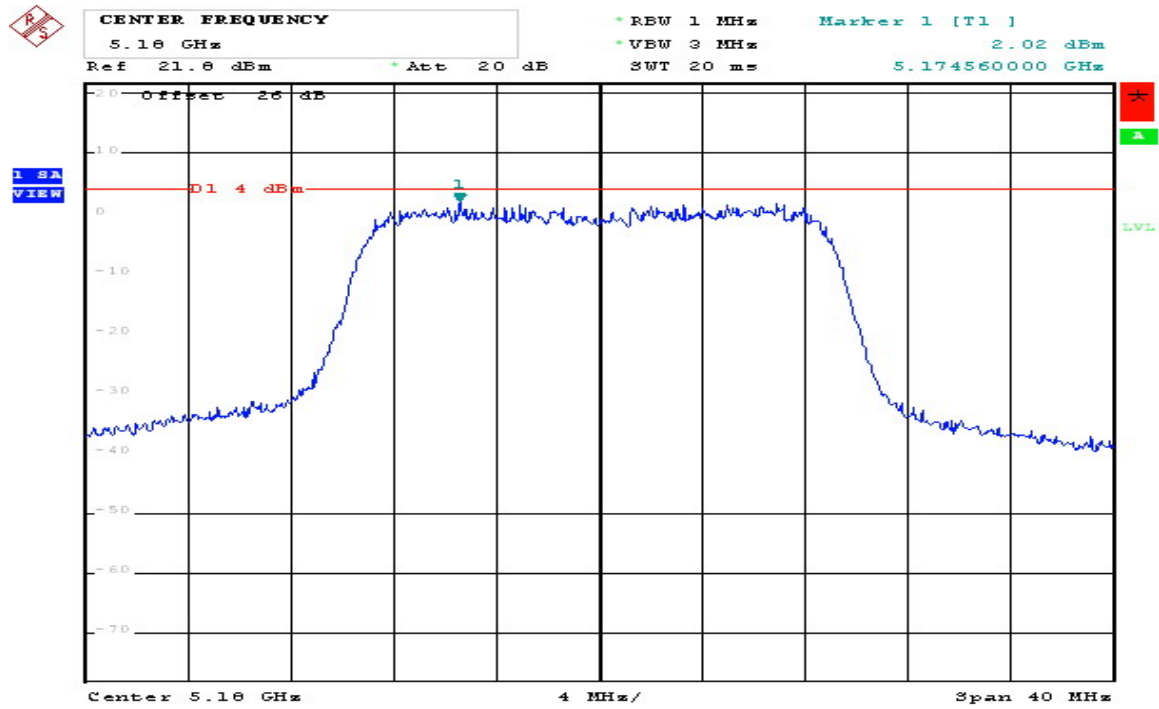
Comment: 802.11n(20) 5600MHz
Date: 7.NOV.2008 15:50:53

802.11 n (HT20) Chain A CH140 5700MHz



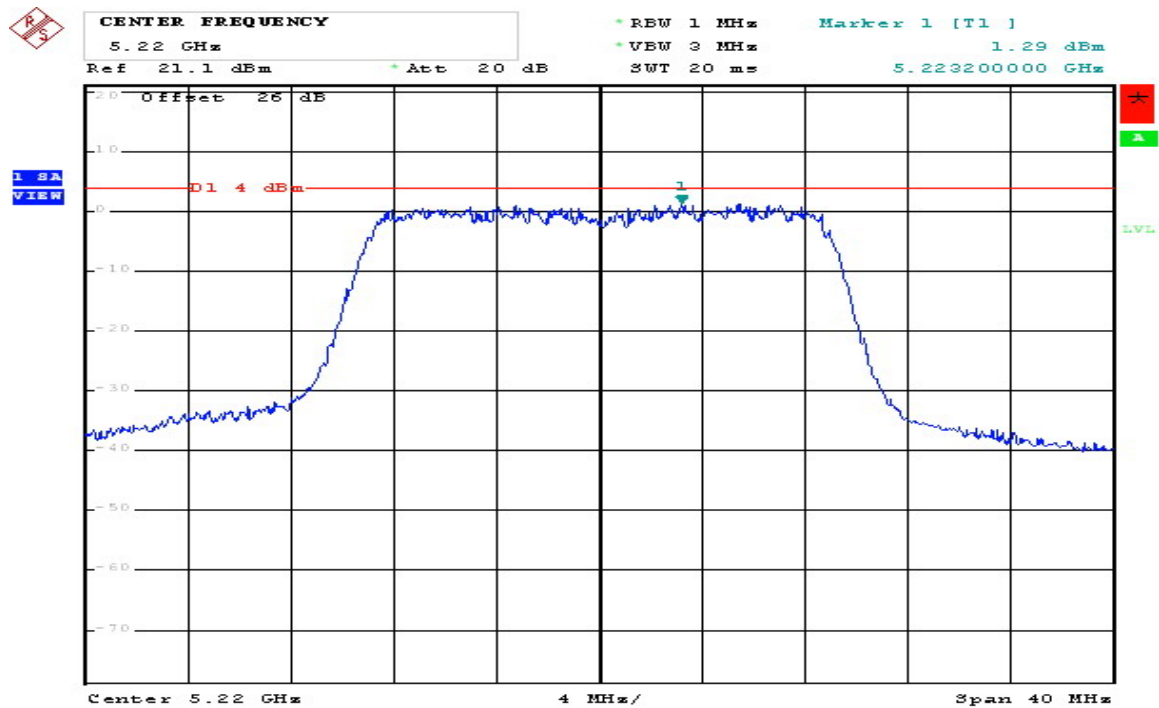
Comment: 802.11n(20) 5700MHz
Date: 7.NOV.2008 15:54:36

802.11 n (HT20) Chain B CH36 5180MHz



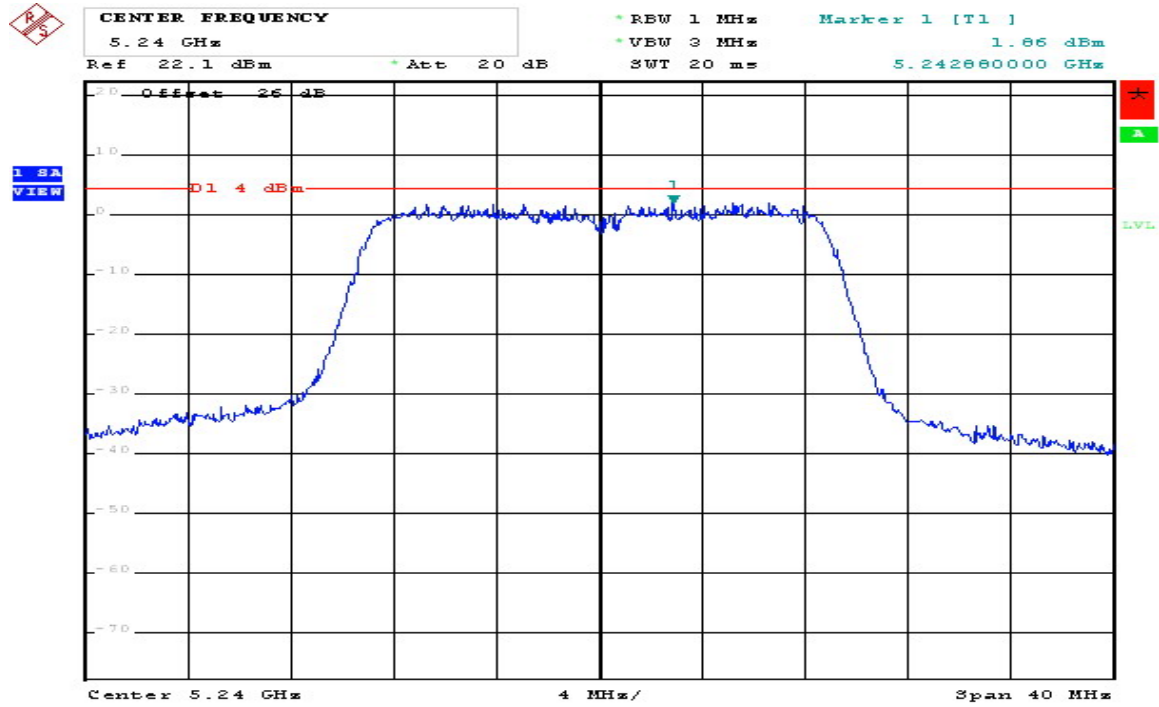
Comment: 802.11n(20) 5180MHz
Date: 7.NOV.2008 16:08:24

802.11 n (HT20) Chain B CH44 5220MHz



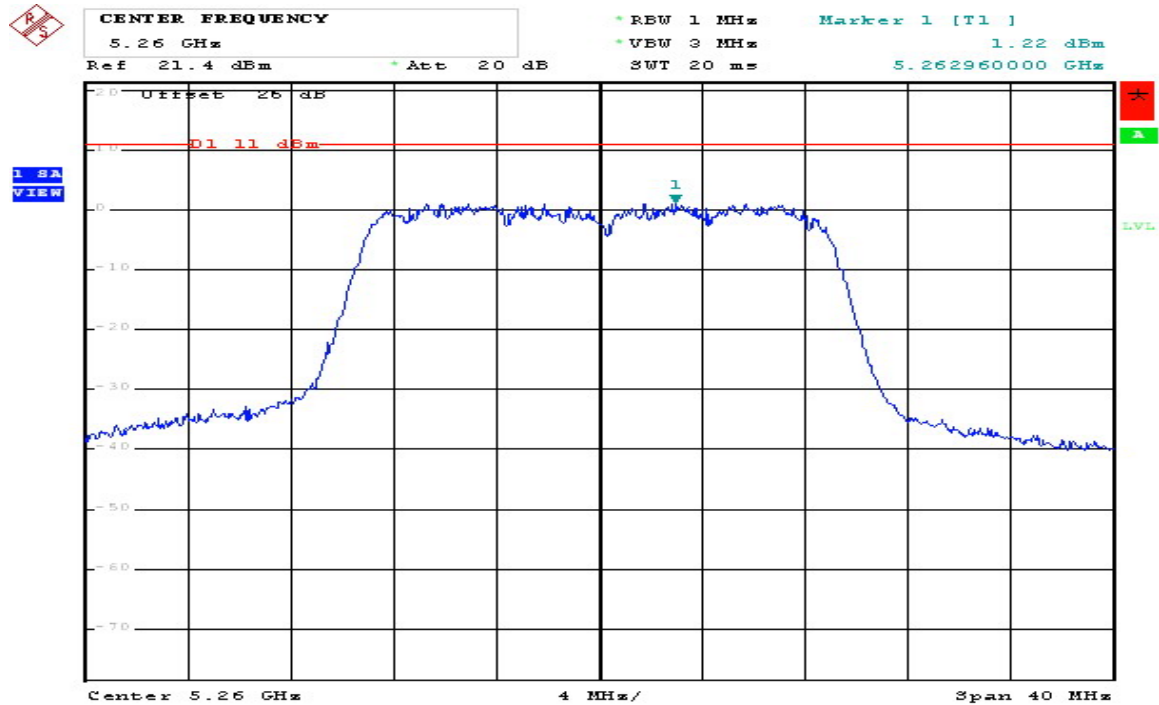
Comment: 802.11n(20) 5220MHz
Date: 7.NOV.2008 16:11:39

802.11 n (HT20) Chain B CH48 5240MHz



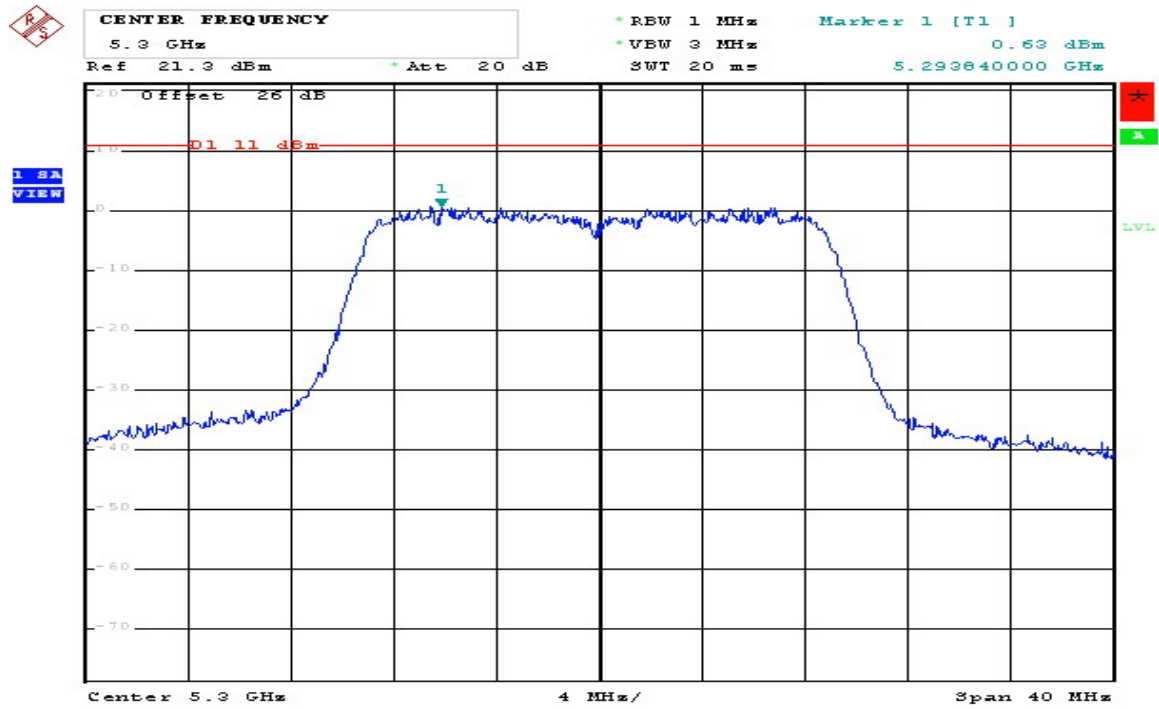
Comment: 802.11n(20) 5240MHz
Date: 7.NOV.2008 16:15:03

802.11 n (HT20) Chain B CH52 5260MHz



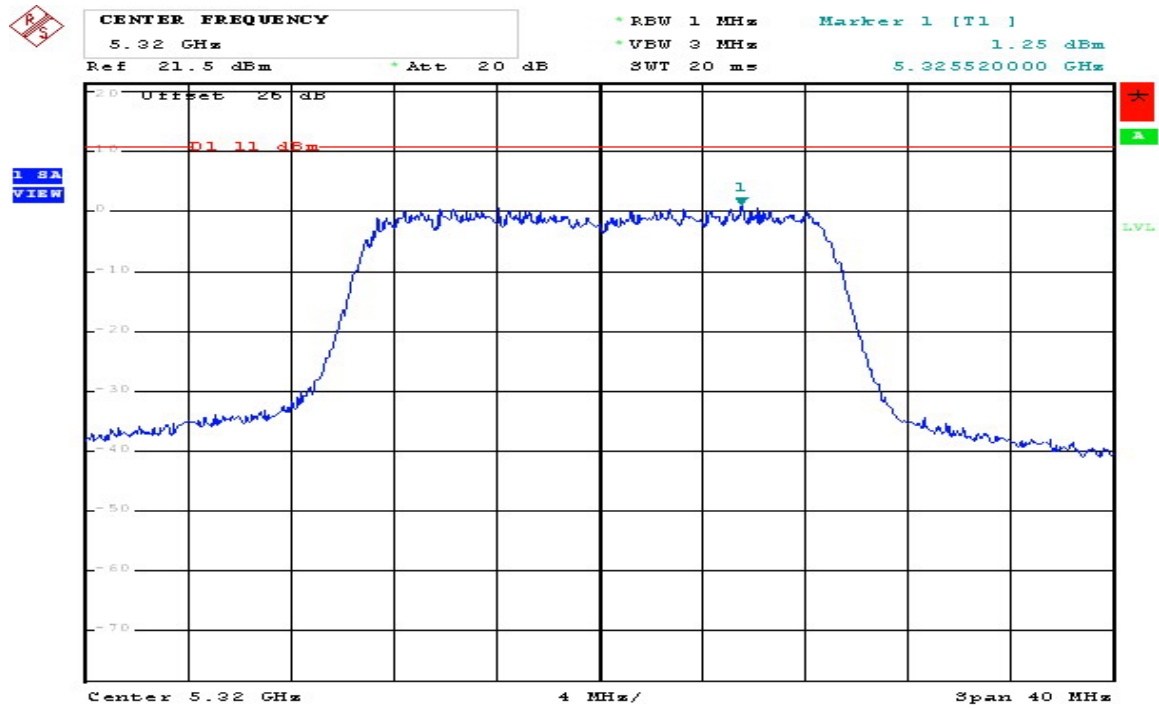
Comment: 802.11n(20) 5260MHz
Date: 7.NOV.2008 16:22:19

802.11 n (HT20) Chain B CH60 5300MHz



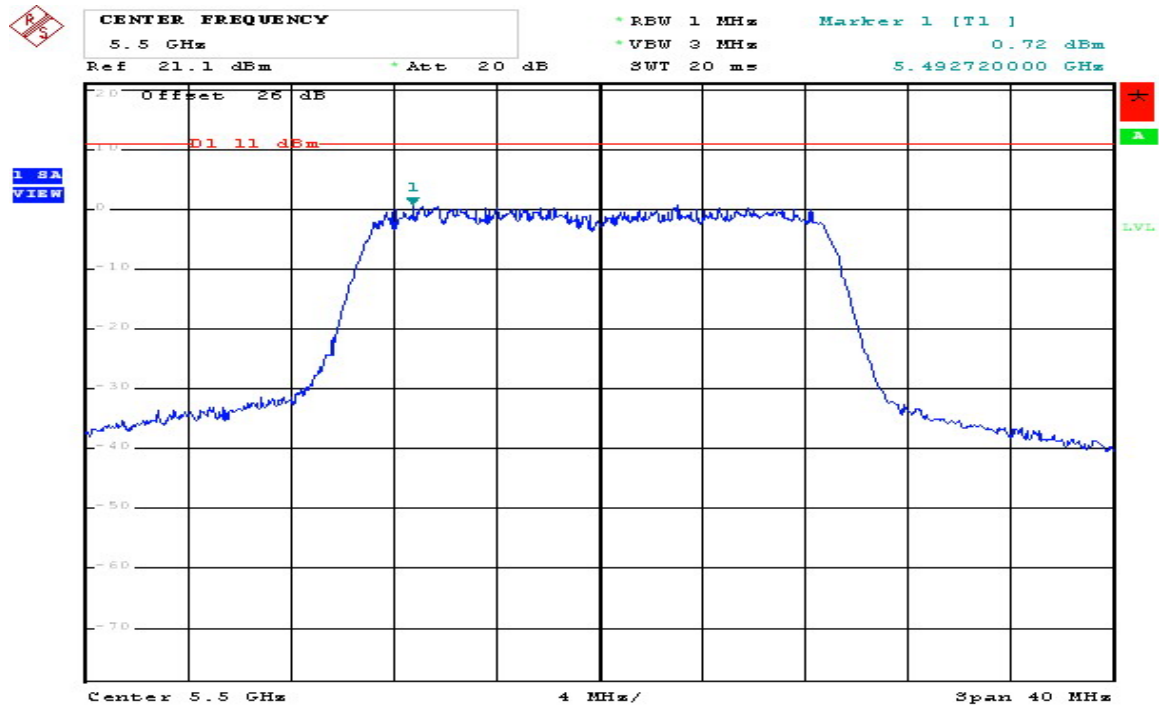
Comment: 802.11n(20) 5300MHz
Date: 7.NOV.2008 16:25:40

802.11 n (HT20) Chain B CH64 5320MHz



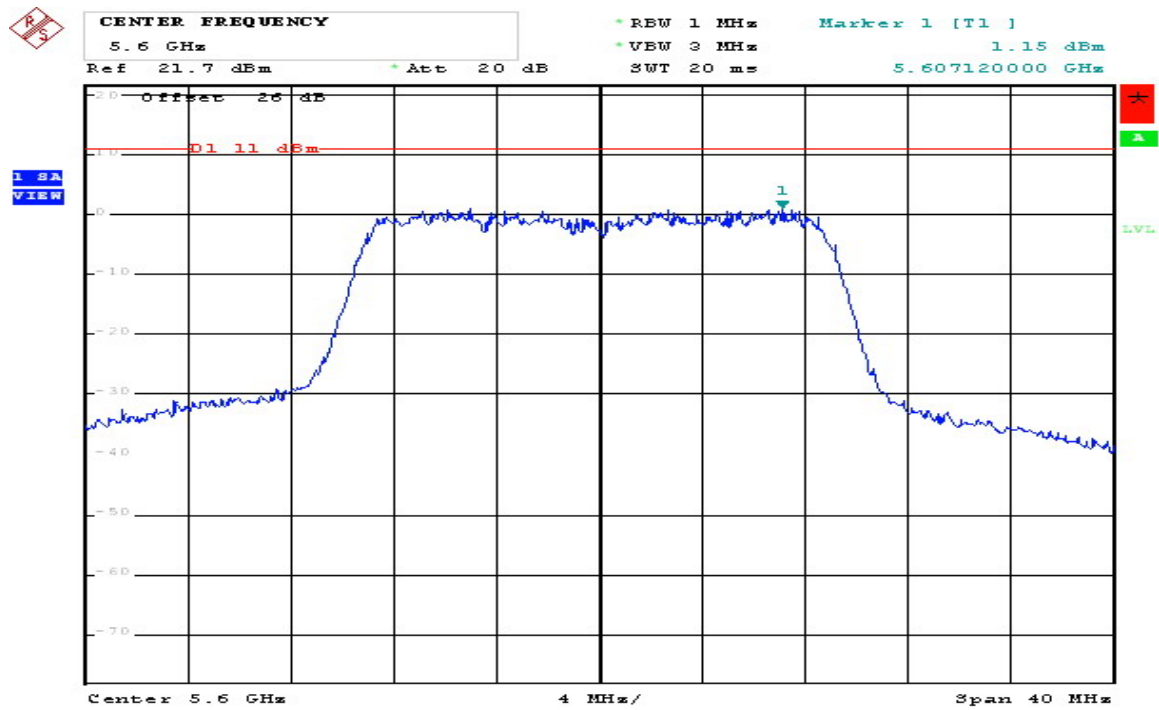
Comment: 802.11n(20) 5320MHz
Date: 7.NOV.2008 16:28:58

802.11 n (HT20) Chain B CH100 5500MHz



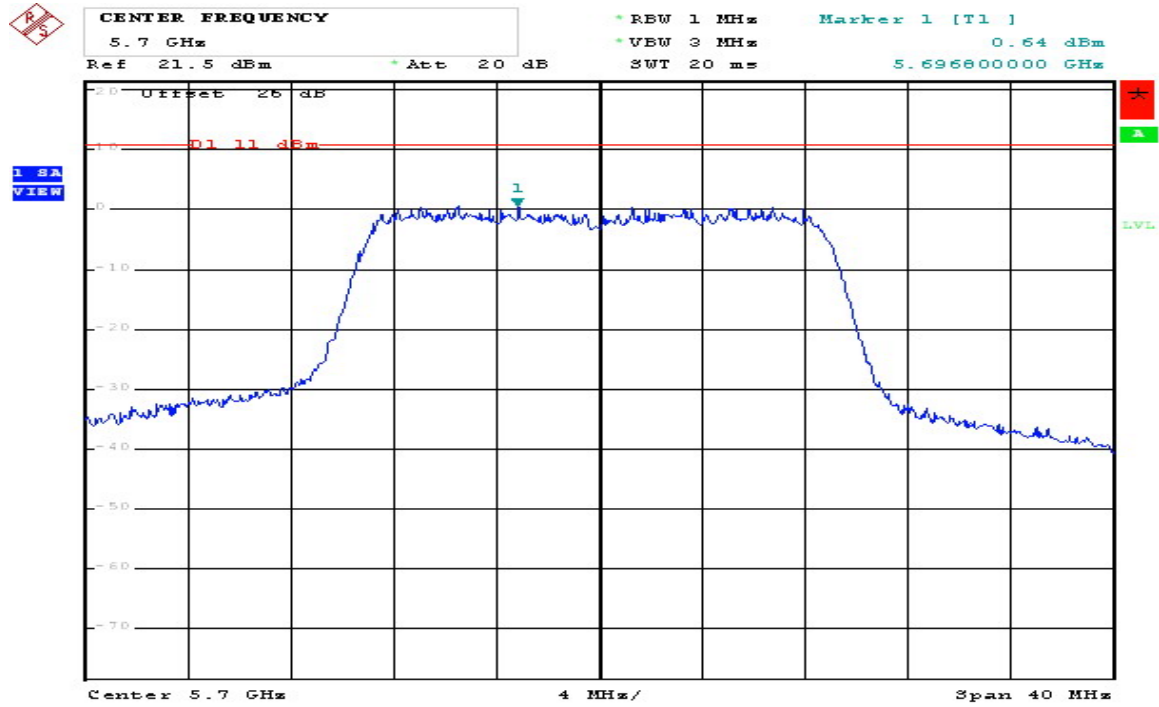
Comment: 802.11n(20) 5500MHz
Date: 7.NOV.2008 16:33:49

802.11 n (HT20) Chain B CH120 5600MHz



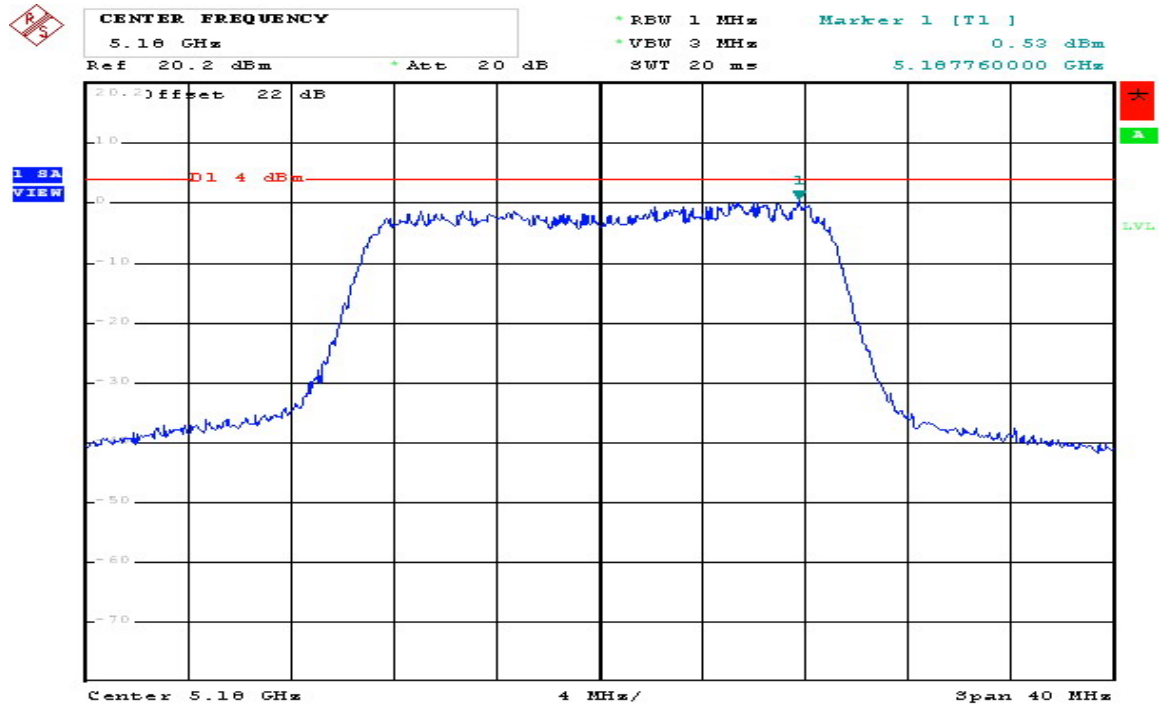
Comment: 802.11n(20) 5600MHz
Date: 7.NOV.2008 16:36:53

802.11 n (HT20) Chain B CH140 5700MHz



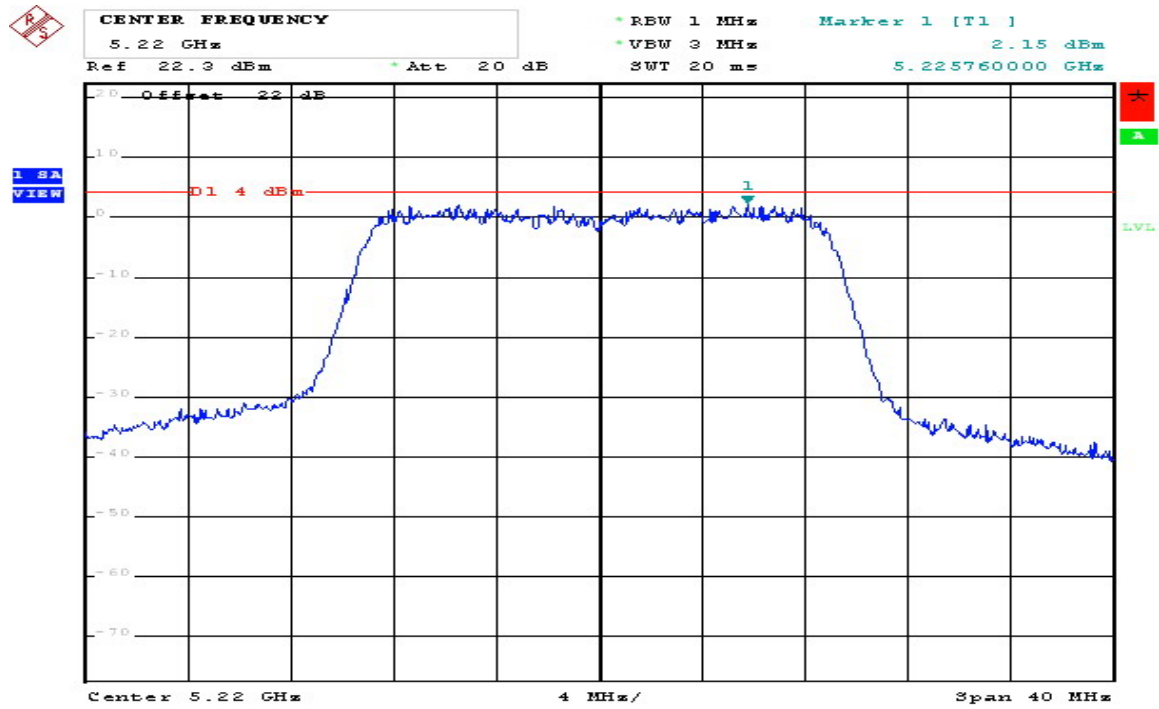
Comment: 802.11n(20) 5700MHz
Date: 7.NOV.2008 16:39:58

802.11 n (HT20) Chain C CH36 5180MHz



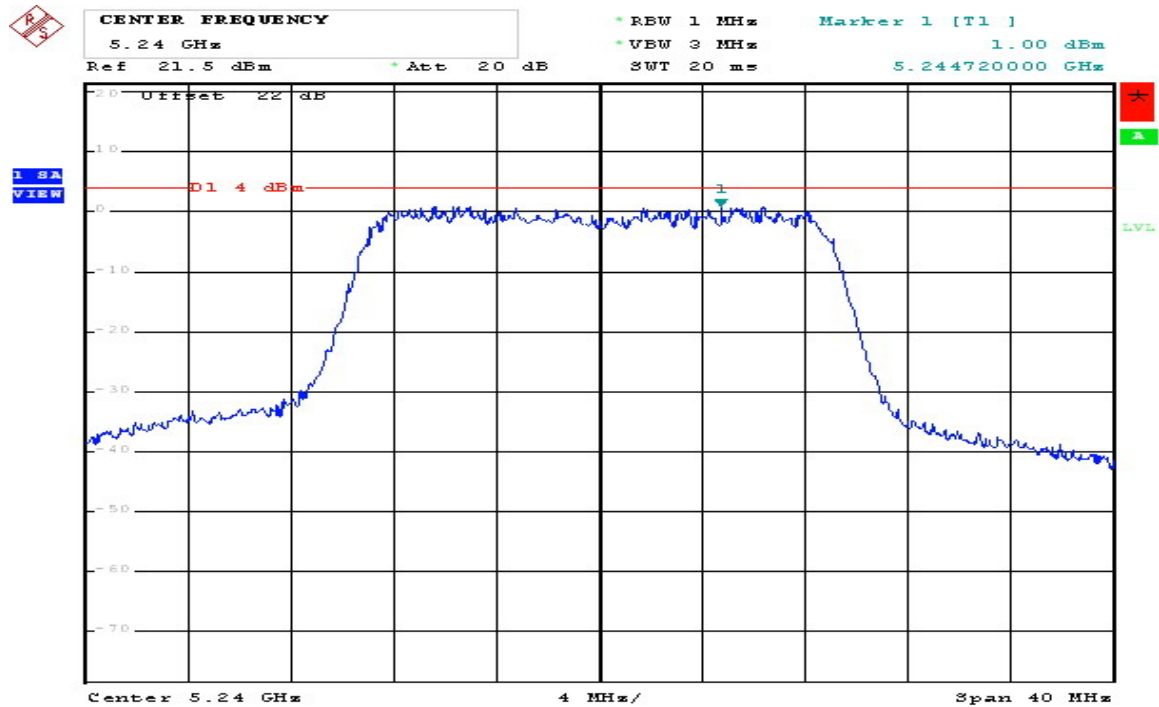
Comment: 802.11n(20) 5180MHz
Date: 10.NOV.2008 08:29:13

802.11 n (HT20) Chain C CH44 5220MHz



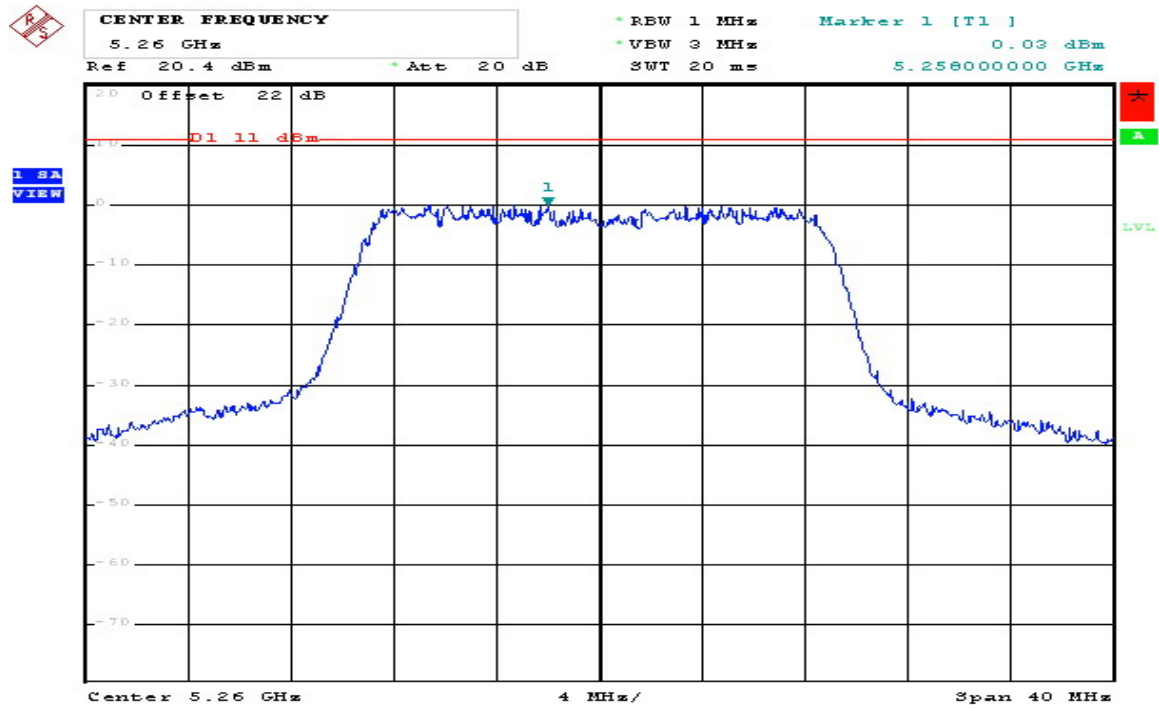
Comment: 802.11n(20) 5220MHz
Date: 10.NOV.2008 08:36:40

802.11 n (HT20) Chain C CH48 5240MHz



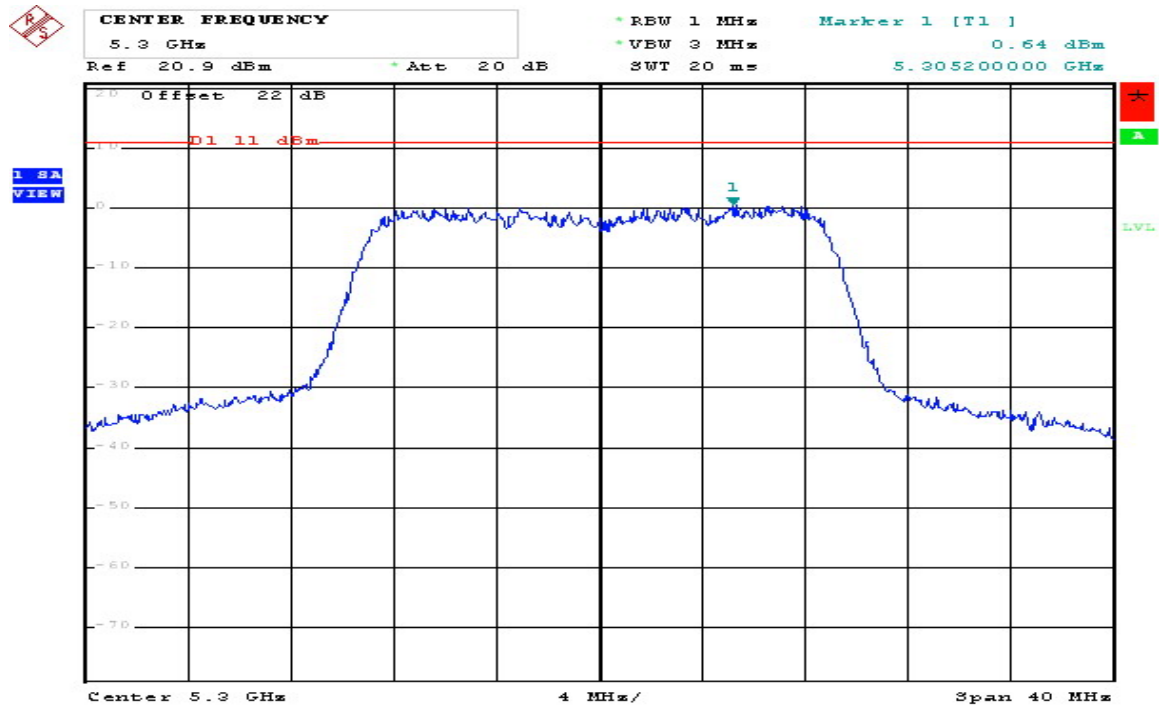
Comment: 802.11n(20) 5240MHz
Date: 10.NOV.2008 08:39:59

802.11 n (HT20) Chain C CH52 5260MHz



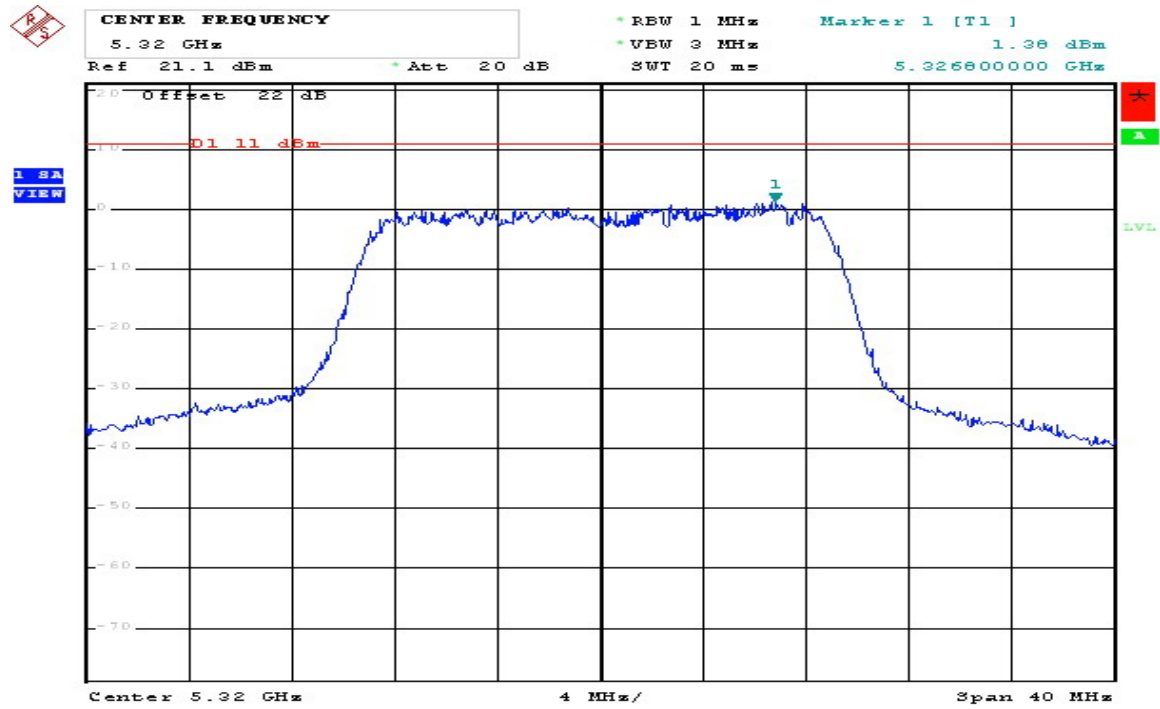
Comment: 802.11n(20) 5260MHz
Date: 10.NOV.2008 08:44:16

802.11 n (HT20) Chain C CH60 5300MHz



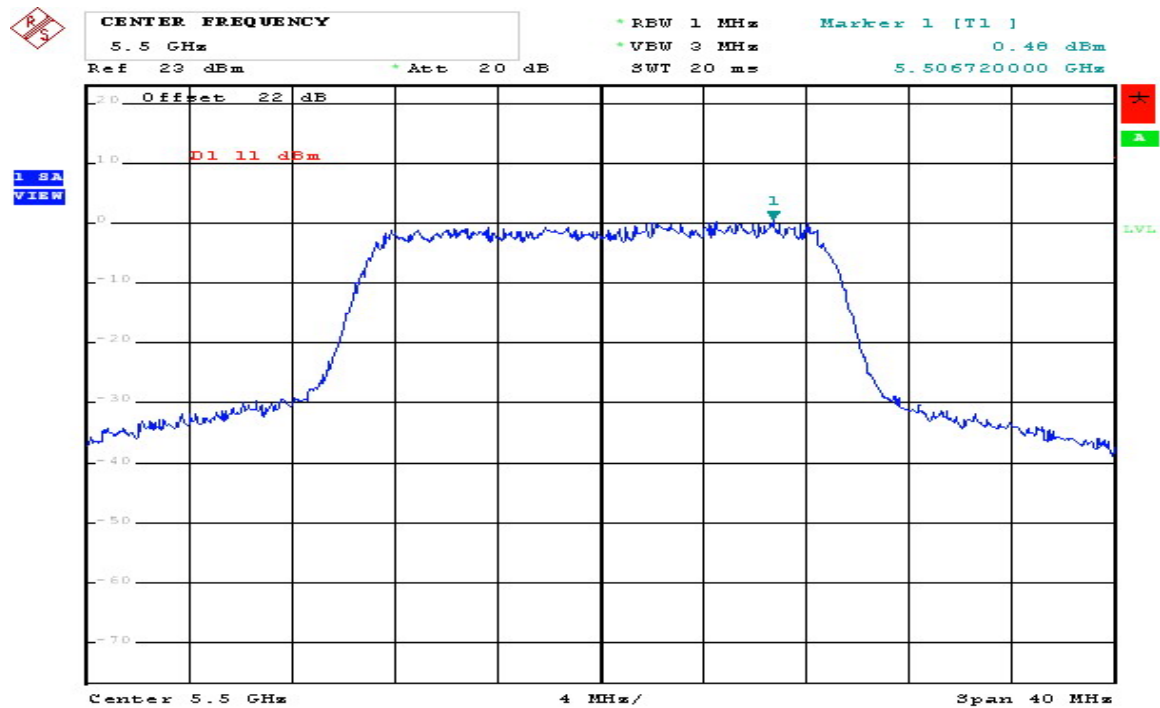
Comment: 802.11n(20) 5300MHz
Date: 10.NOV.2008 08:47:00

802.11 n (HT20) Chain C CH64 5320MHz



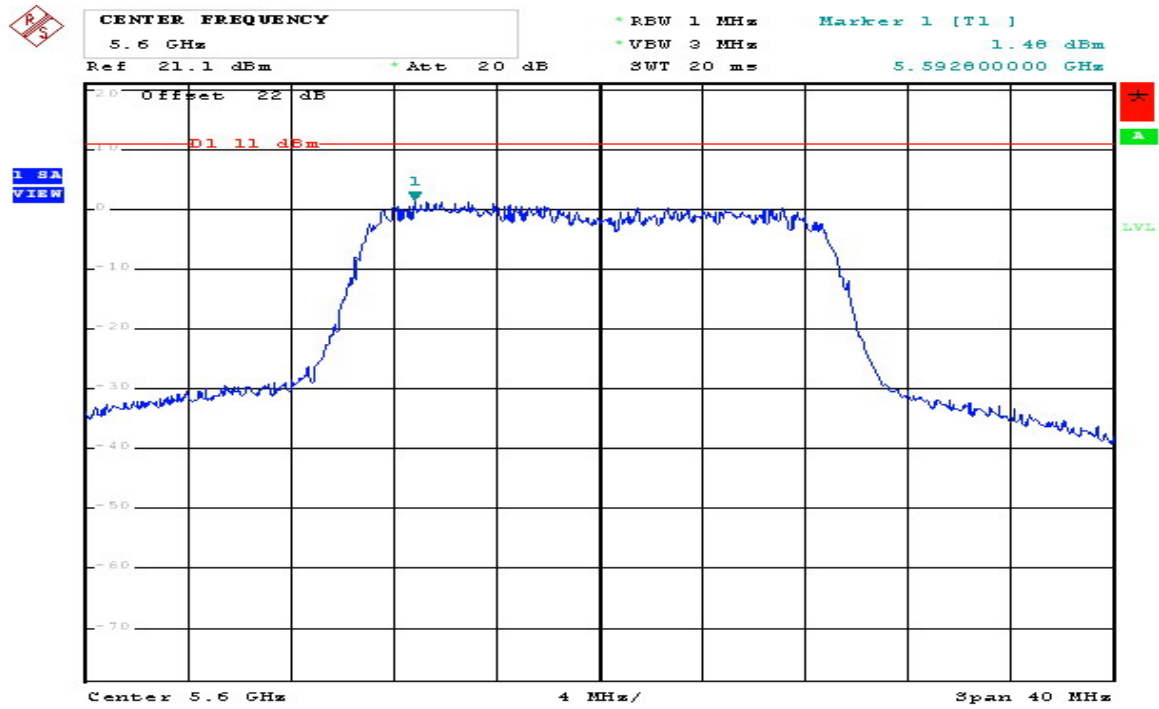
Comment: 802.11n(20) 5320MHz
Date: 10.NOV.2008 08:50:25

802.11 n (HT20) Chain C CH100 5500MHz



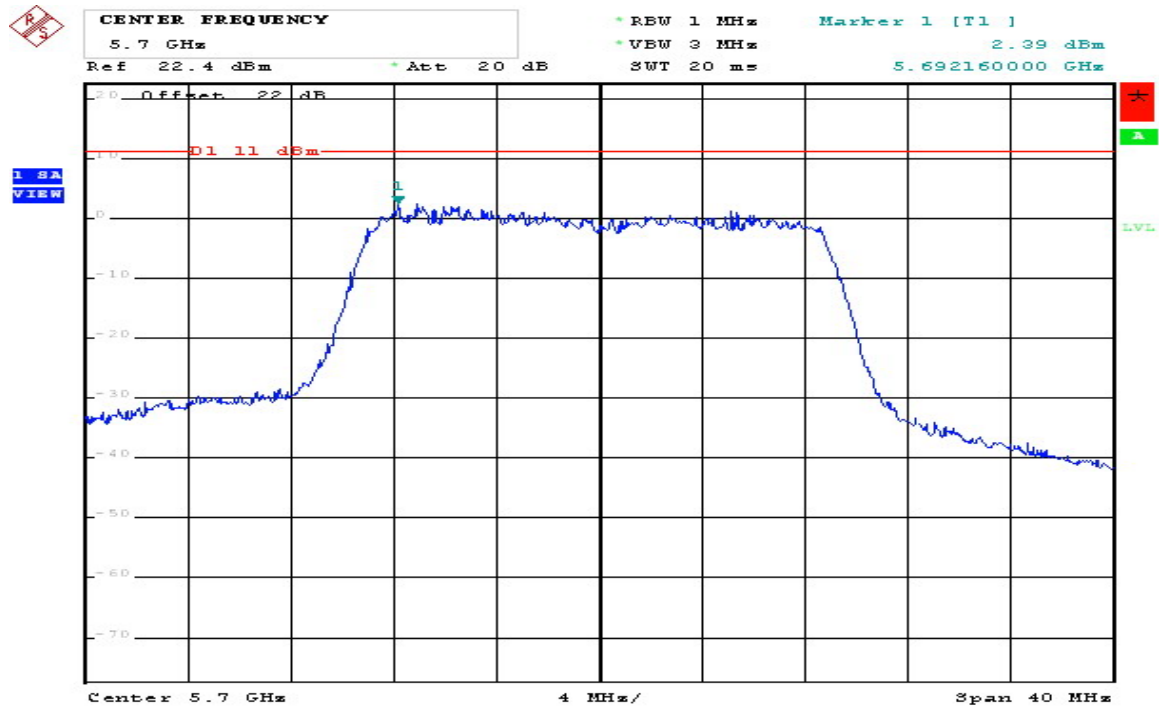
Comment: 802.11n(20) 5500MHz
Date: 10.NOV.2008 08:53:54

802.11 n (HT20) Chain C CH120 5600MHz



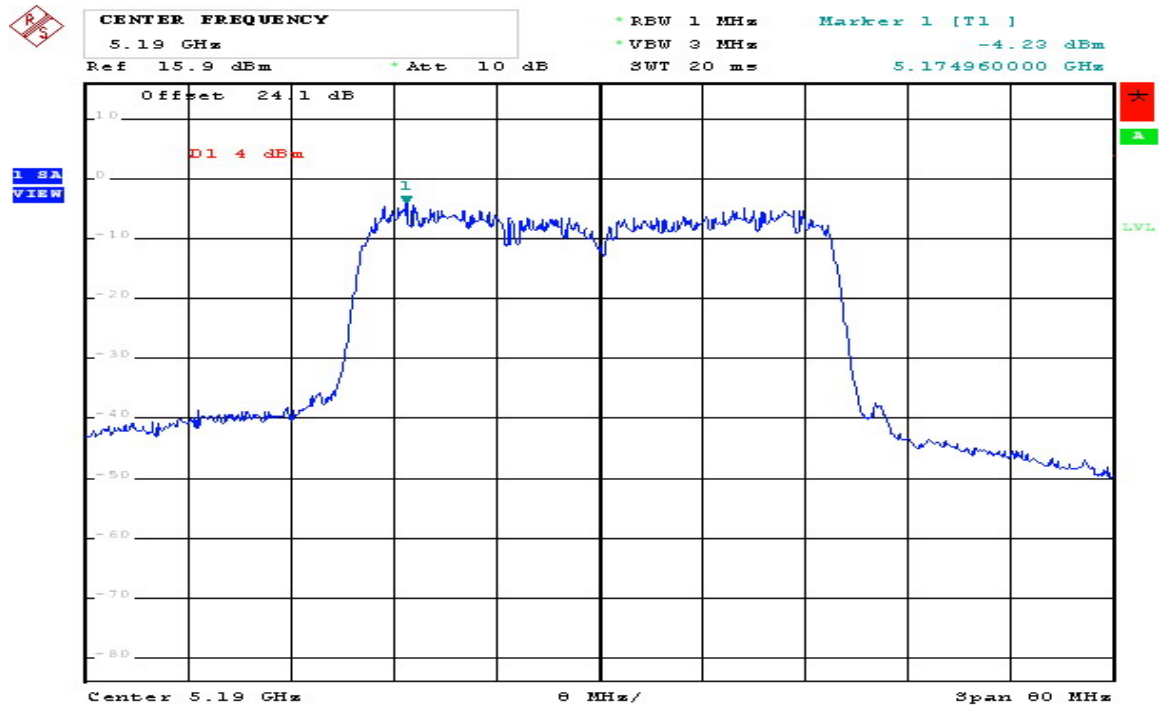
Comment: 802.11n(20) 5600MHz
Date: 10.NOV.2008 08:56:59

802.11 n (HT20) Chain C CH140 5700MHz



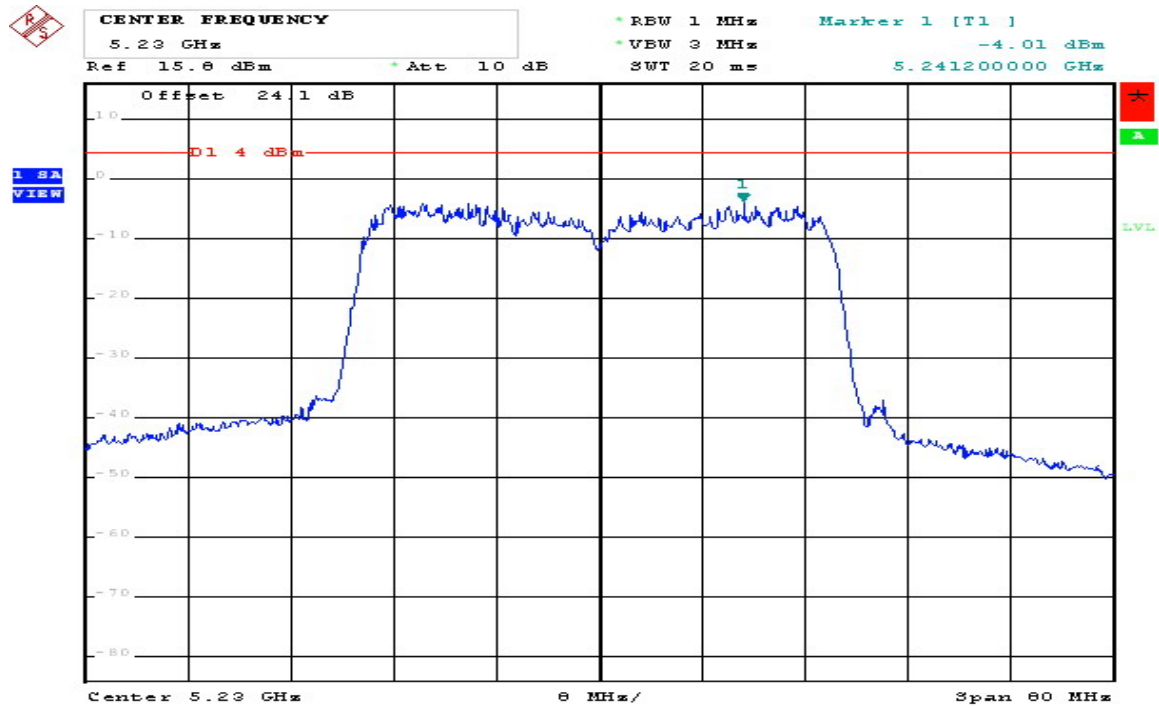
Comment: 802.11n(20) 5700MHz
Date: 10.NOV.2008 09:00:07

802.11 n (HT40) Chain A CH38 5190MHz



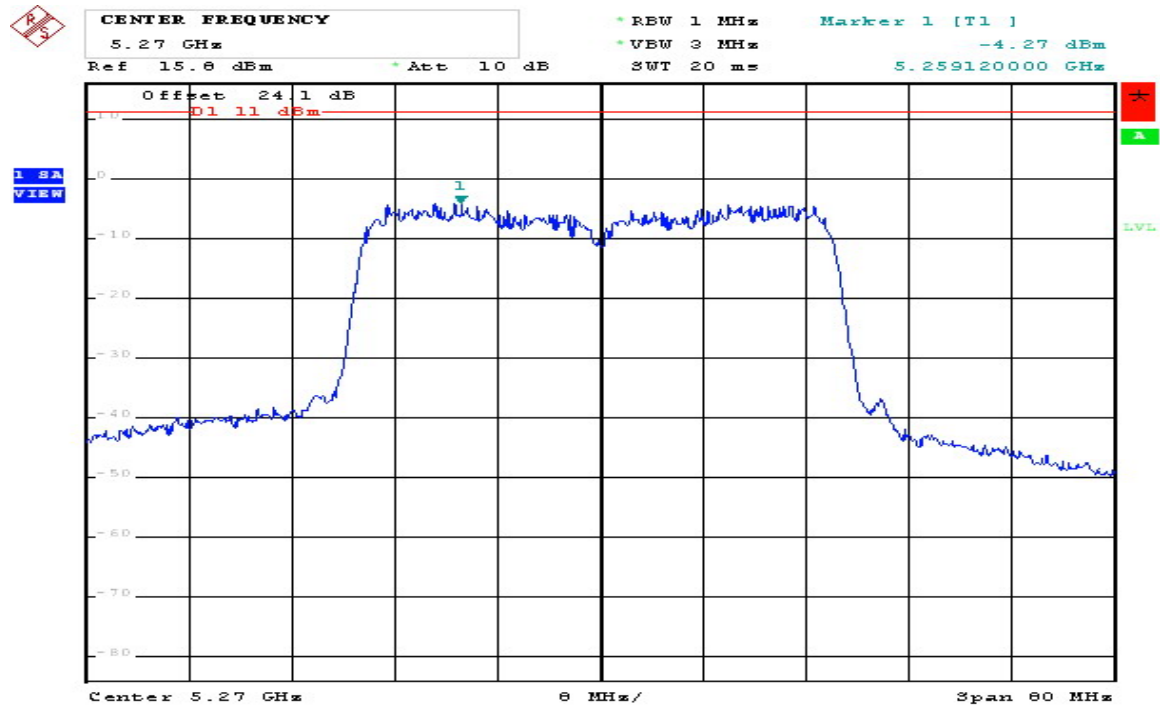
Comment: 802.11n(40) 5190MHz
Date: 10.NOV.2006 09:25:03

802.11 n (HT40) Chain A CH46 5230MHz



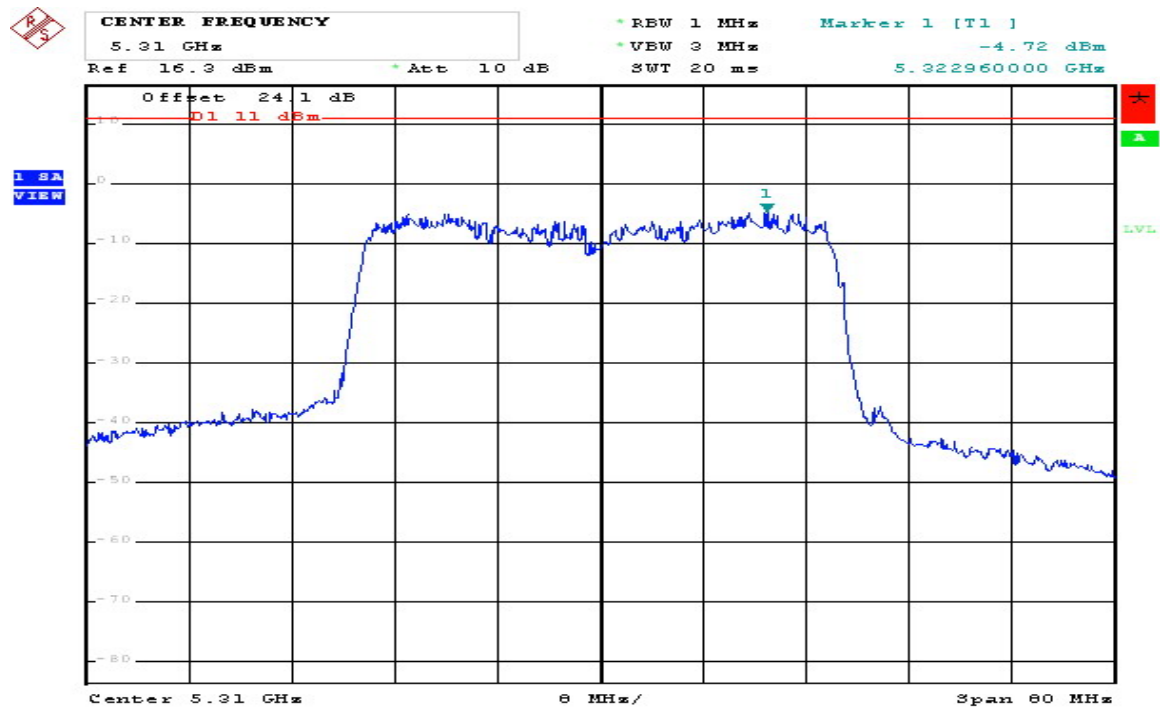
Comment: 802.11n(40) 5230MHz
Date: 10.NOV.2006 09:30:01

802.11 n (HT40) Chain A CH54 5270MHz



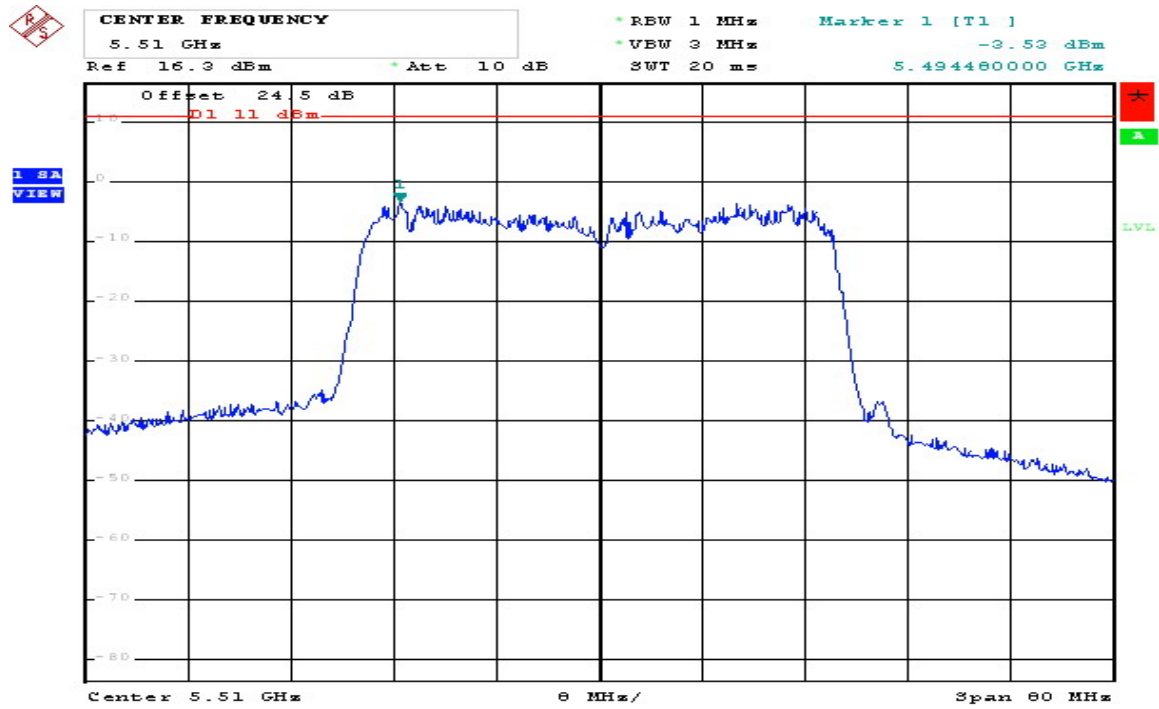
Comment: 802.11n(40) 5270MHz
Date: 10.NOV.2006 09:33:05

802.11 n (HT40) Chain A CH62 5310MHz



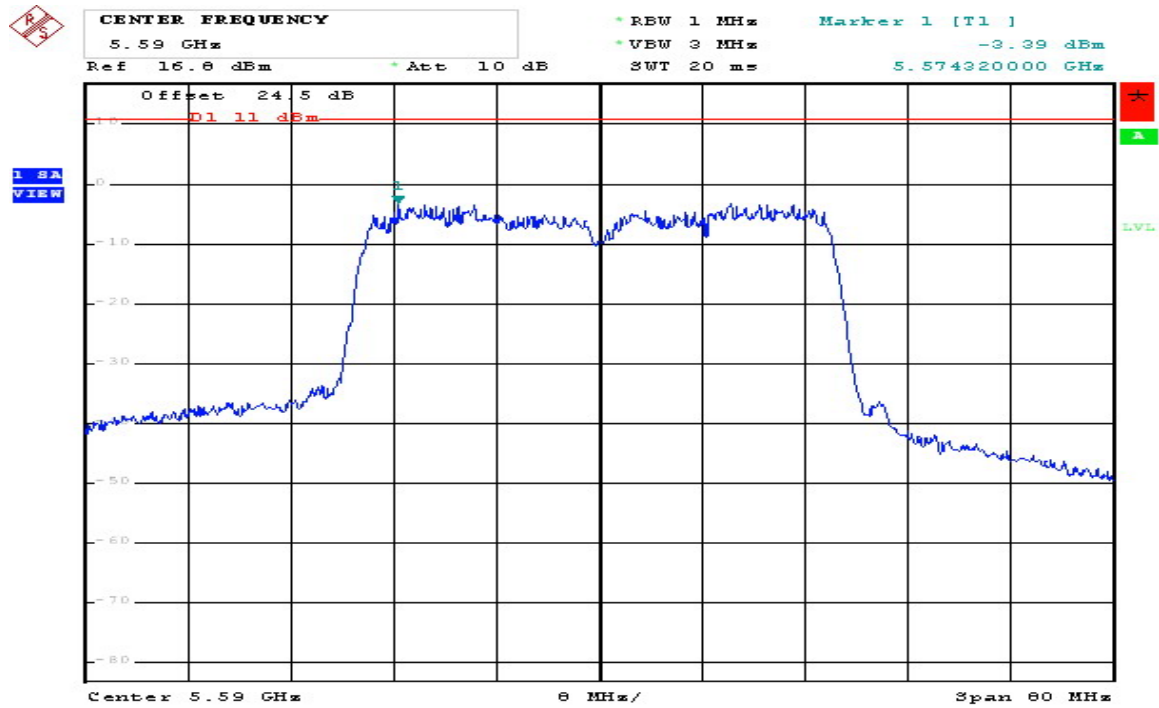
Comment: 802.11n(40) 5310MHz
Date: 10.NOV.2006 09:36:07

802.11 n (HT40) Chain A CH102 5510MHz



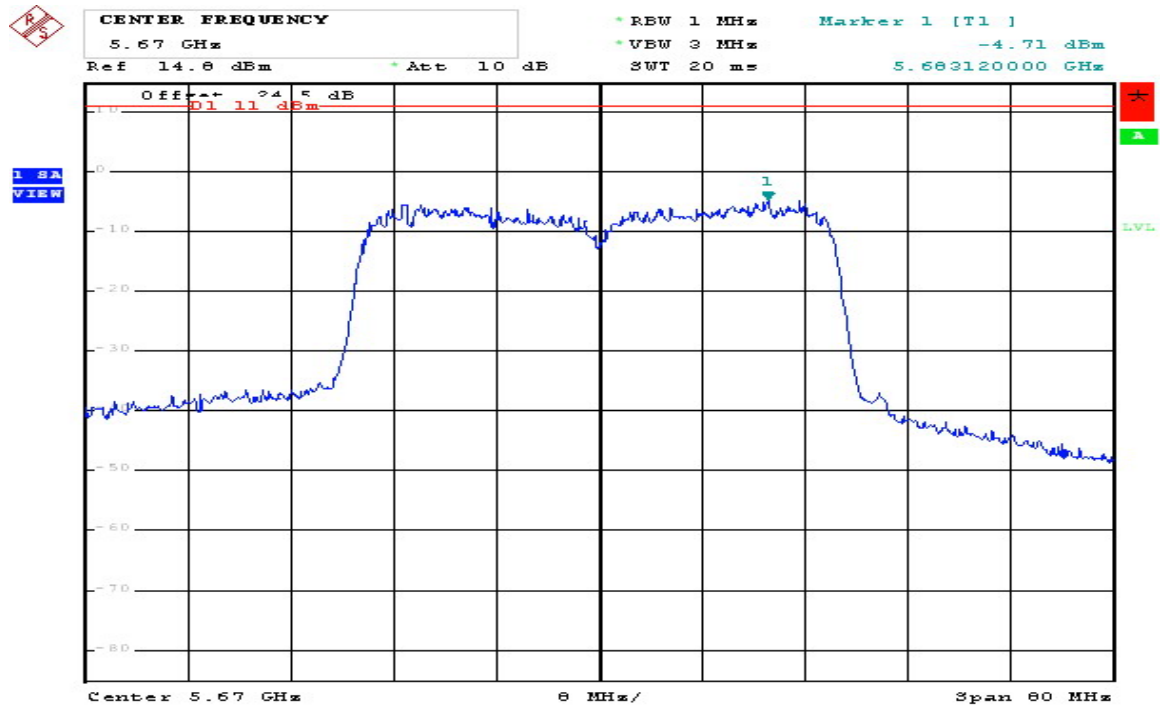
Comment: 802.11n(40) 5510MHz
Date: 10.NOV.2006 09:39:13

802.11 n (HT40) Chain A CH118 5590MHz



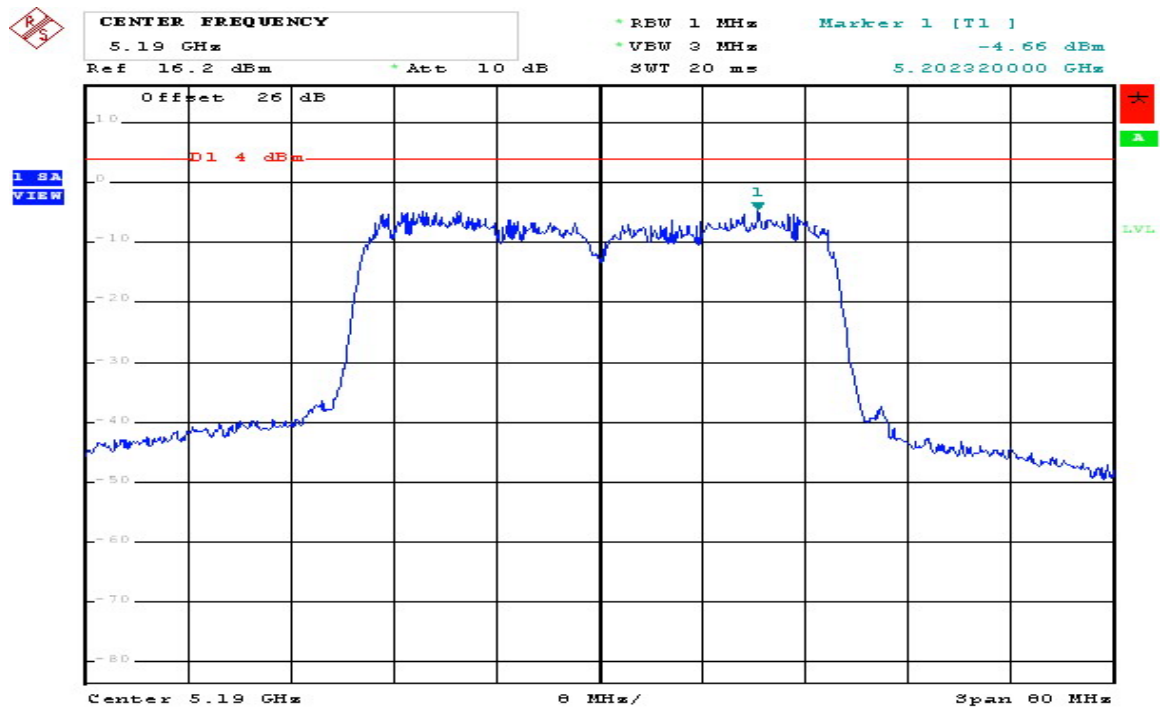
Comment: 802.11n(40) 5590MHz
Date: 10.NOV.2006 09:42:15

802.11 n (HT40) Chain A CH134 5670MHz



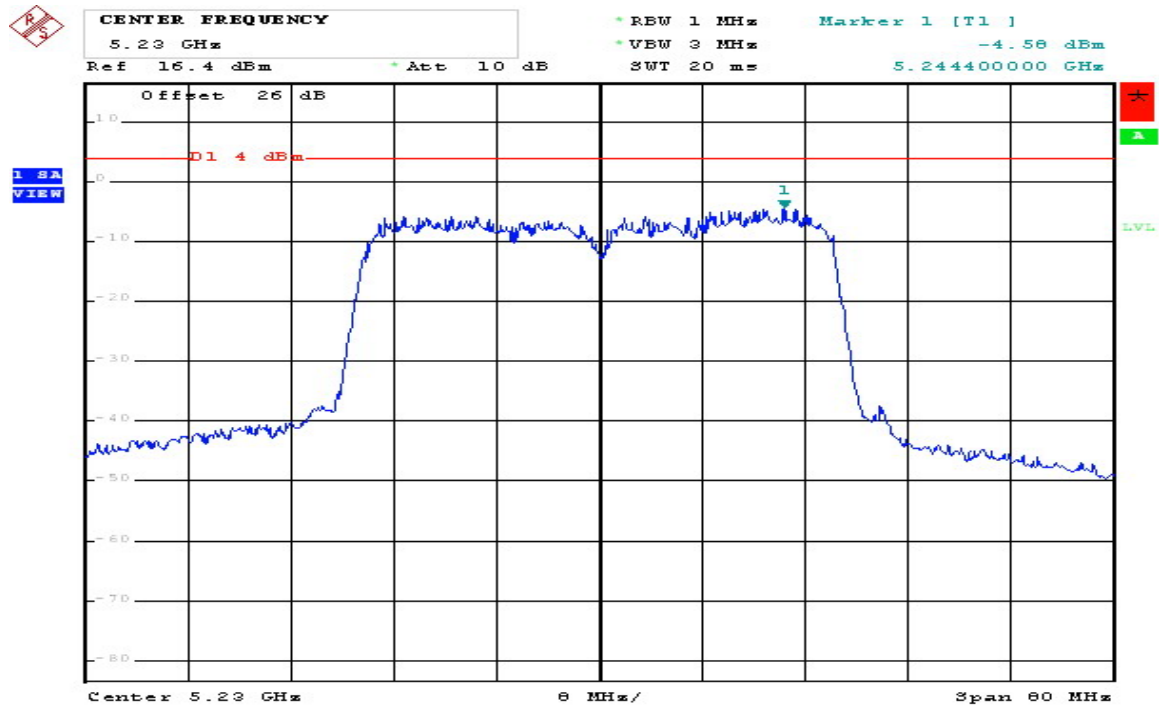
Comment: 802.11n(40) 5670MHz
Date: 10.NOV.2008 09:45:27

802.11 n (HT40) Chain B CH38 5190MHz



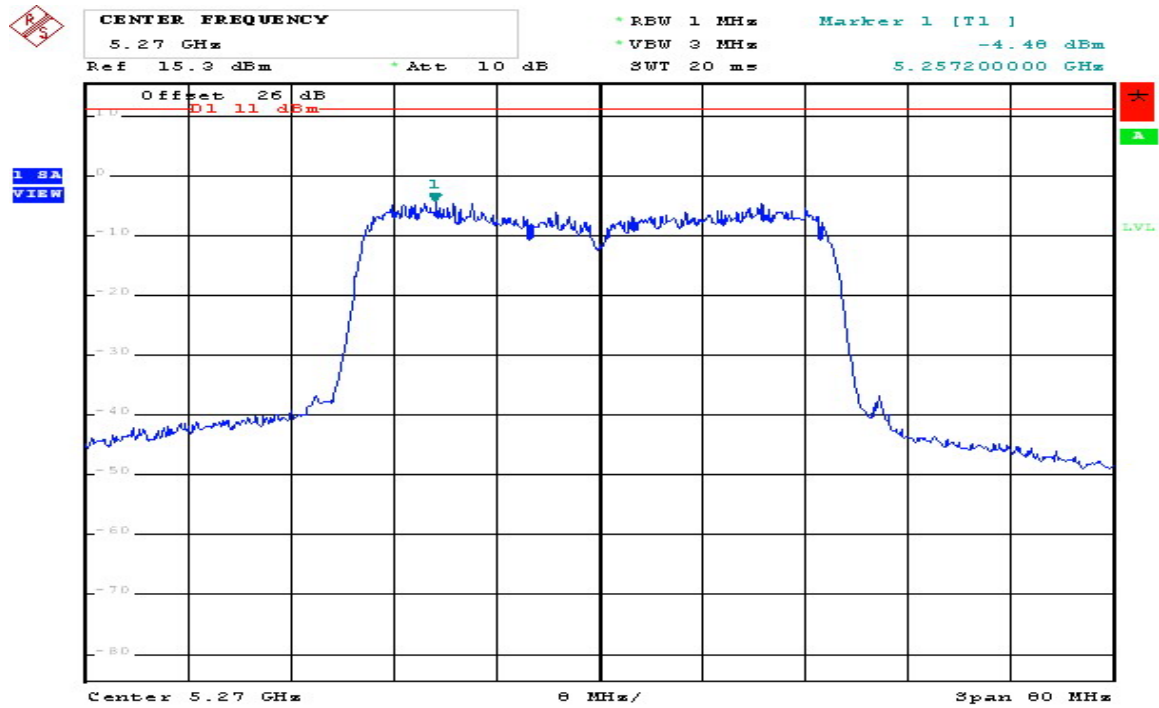
Comment: 802.11n(40) 5190MHz
Date: 10.NOV.2008 10:05:45

802.11 n (HT40) Chain B CH46 5230MHz



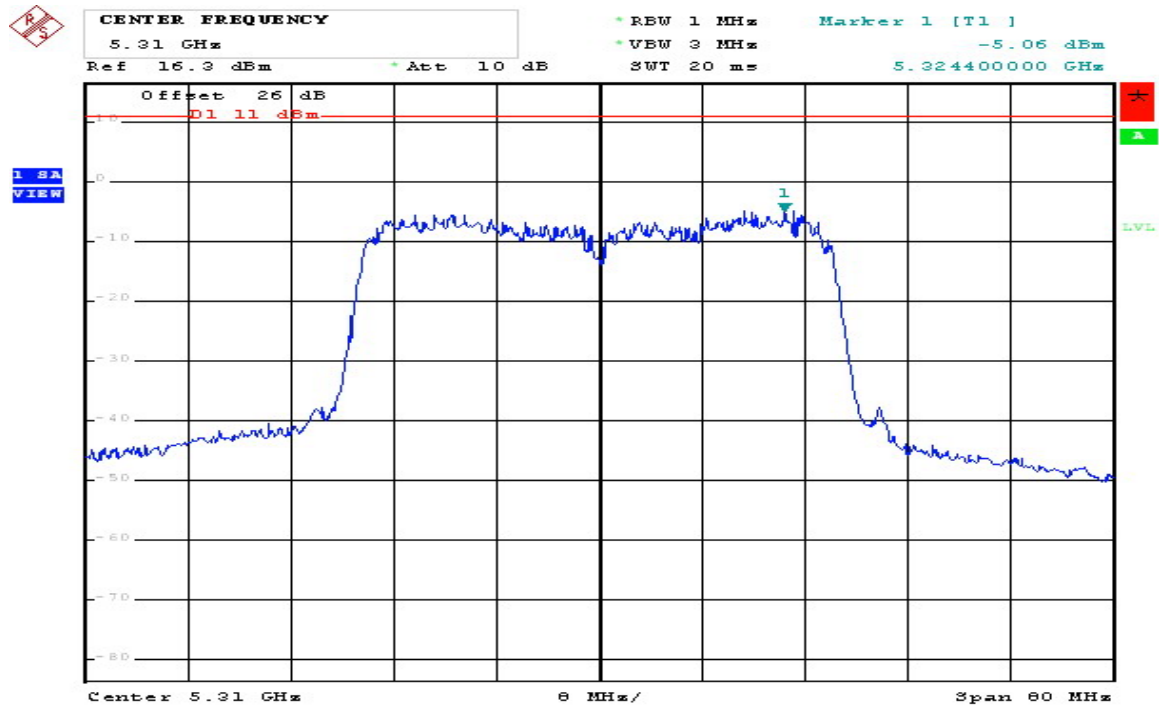
Comment: 802.11n(40) 5230MHz
Date: 10.NOV.2008 10:07:55

802.11 n (HT40) Chain B CH54 5270MHz



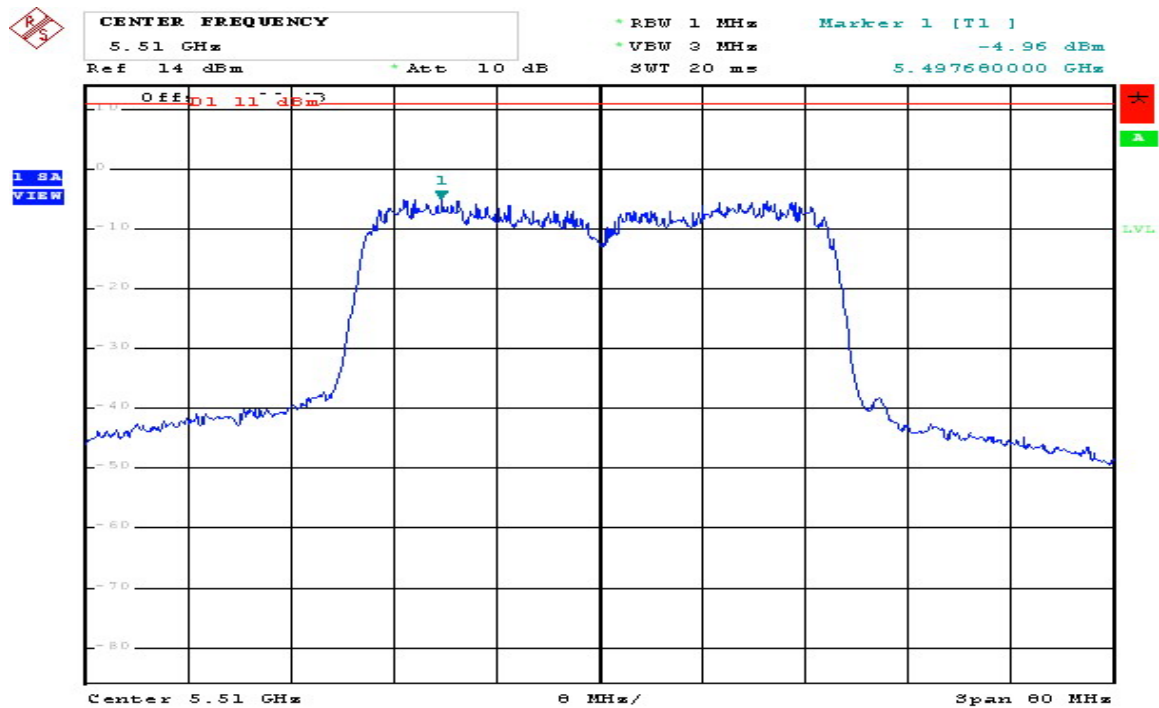
Comment: 802.11n(40) 5270MHz
Date: 10.NOV.2008 10:10:05

802.11 n (HT40) Chain B CH62 5310MHz



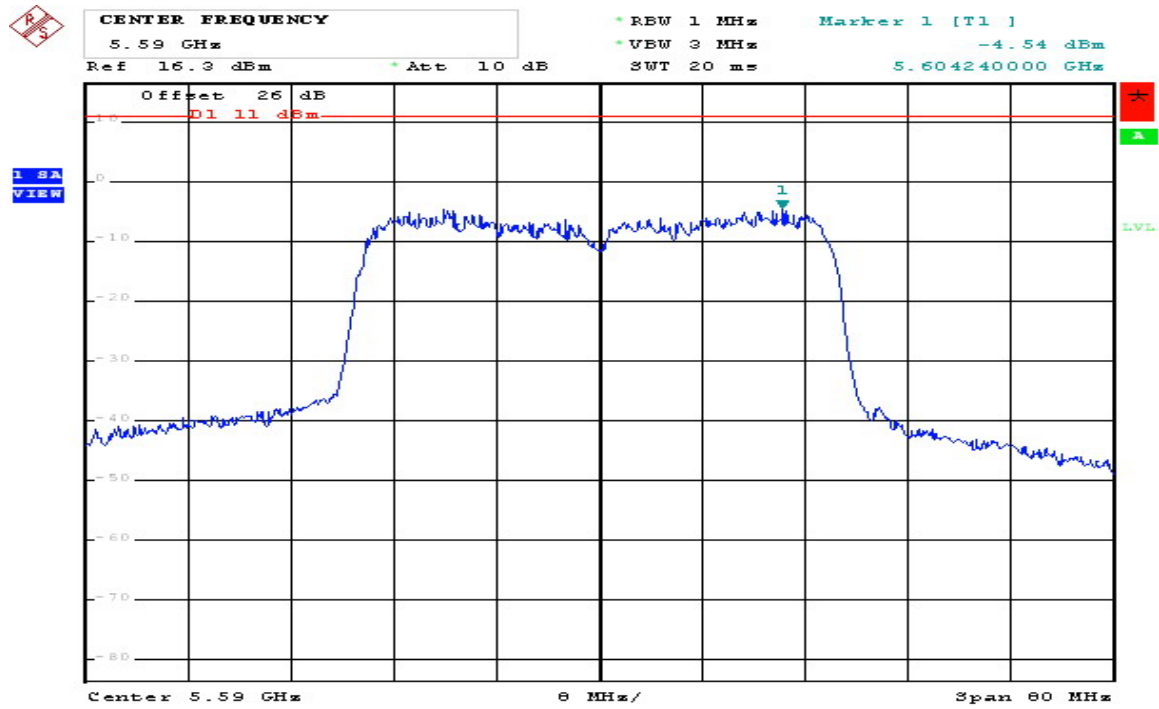
Comment: 802.11n(40) 5310MHz
Date: 10.NOV.2006 10:13:10

802.11 n (HT40) Chain B CH102 5510MHz



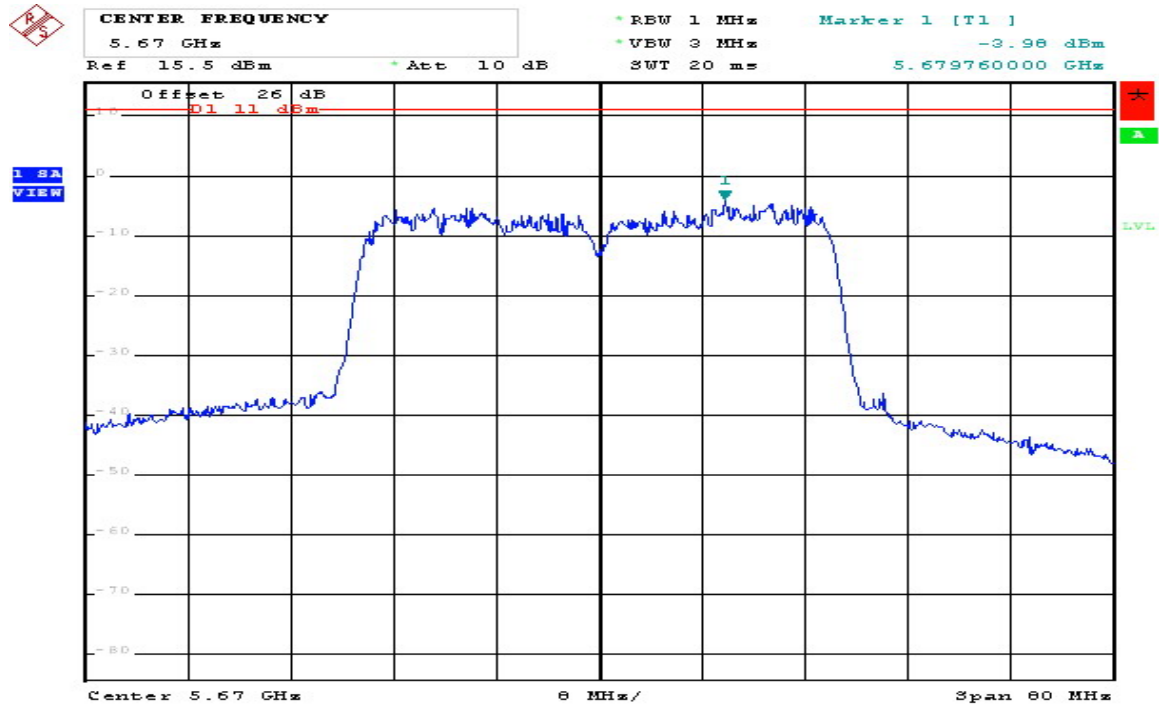
Comment: 802.11n(40) 5510MHz
Date: 10.NOV.2006 10:16:19

802.11 n (HT40) Chain B CH118 5590MHz



Comment: 802.11n(40) 5590MHz
Date: 10.NOV.2006 10:19:32

802.11 n (HT40) Chain B CH134 5670MHz



Comment: 802.11n(40) 5670MHz
Date: 10.NOV.2006 10:22:34