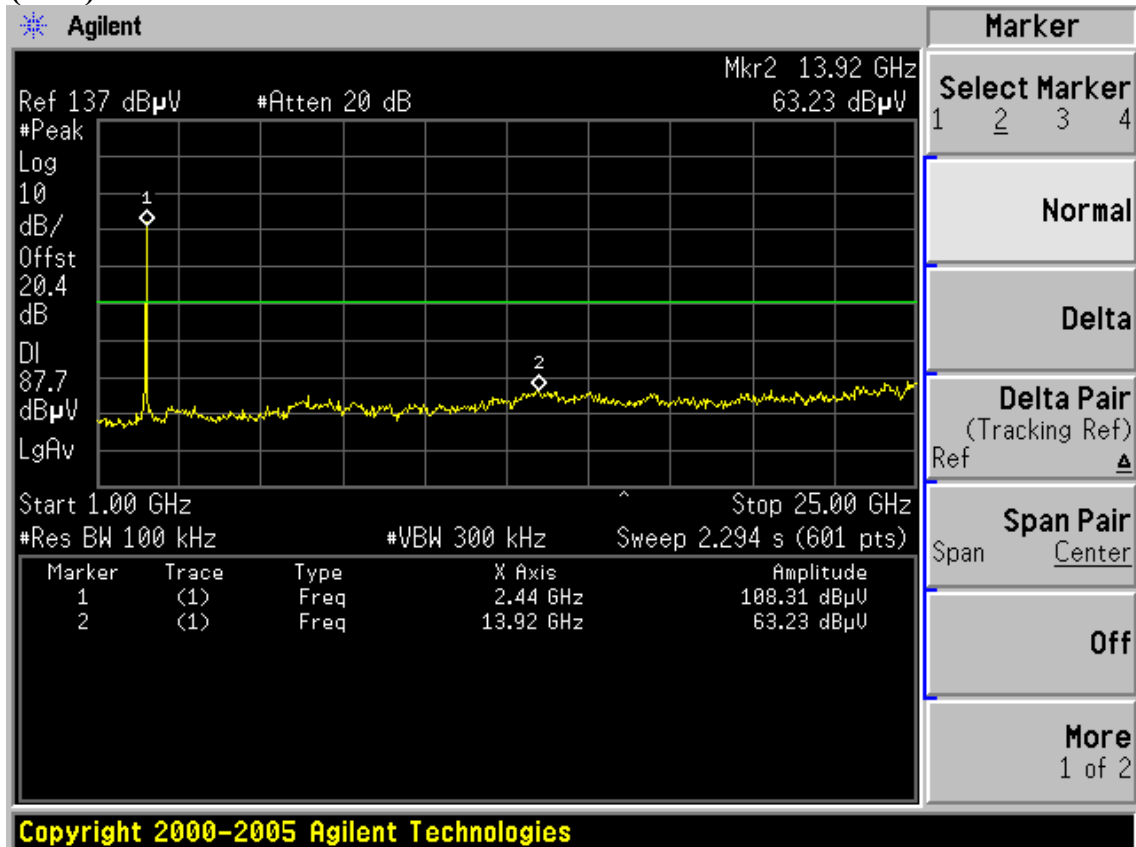
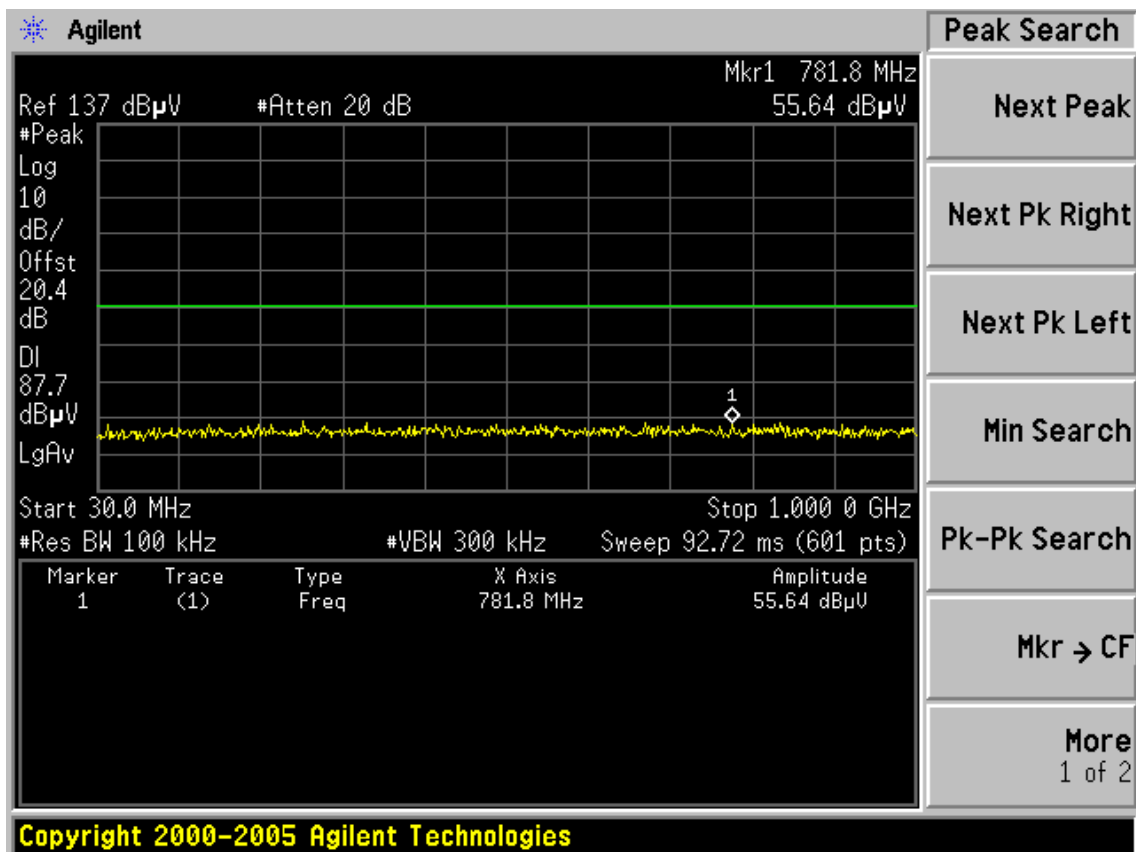
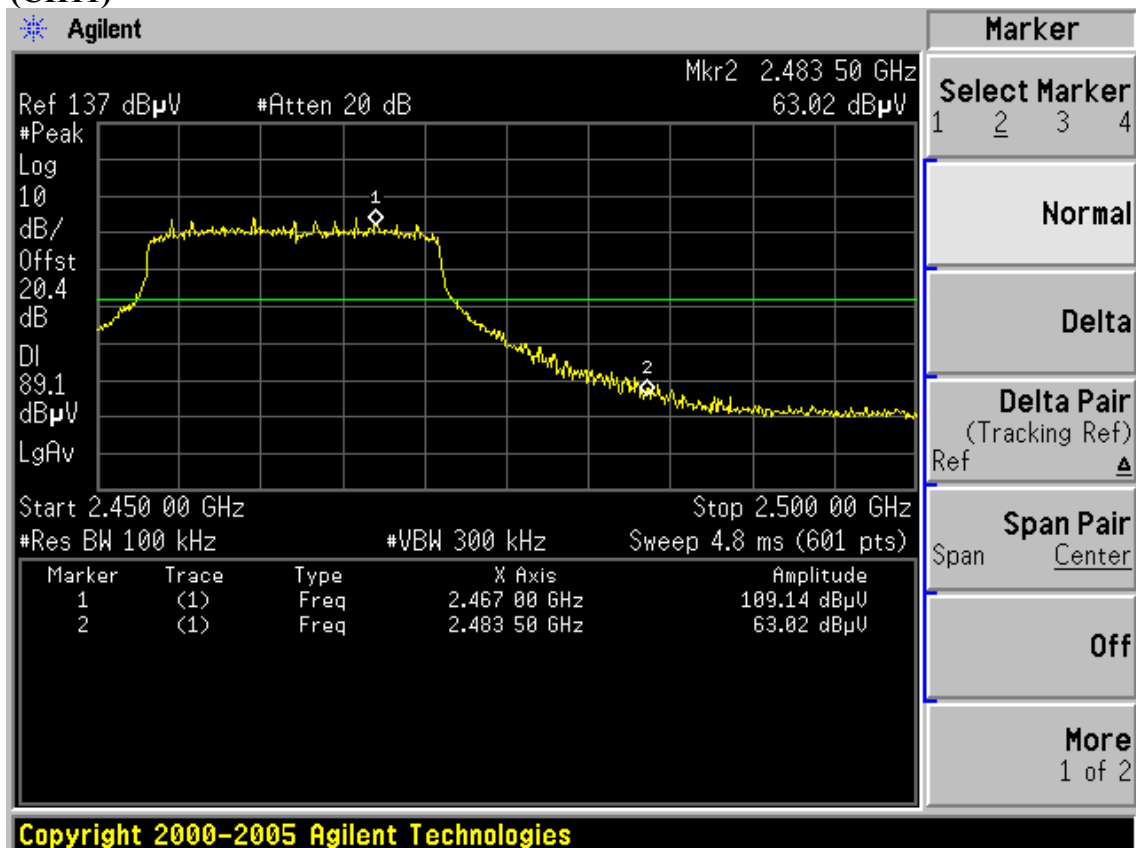


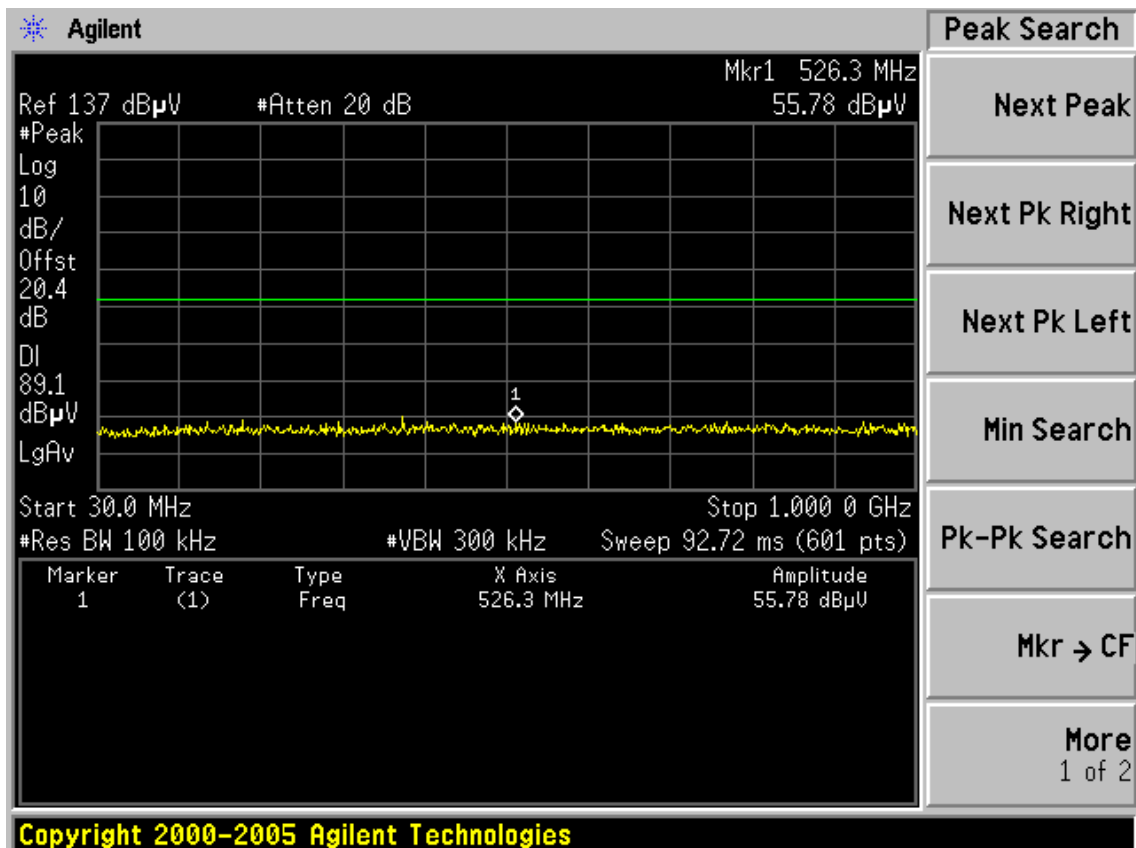
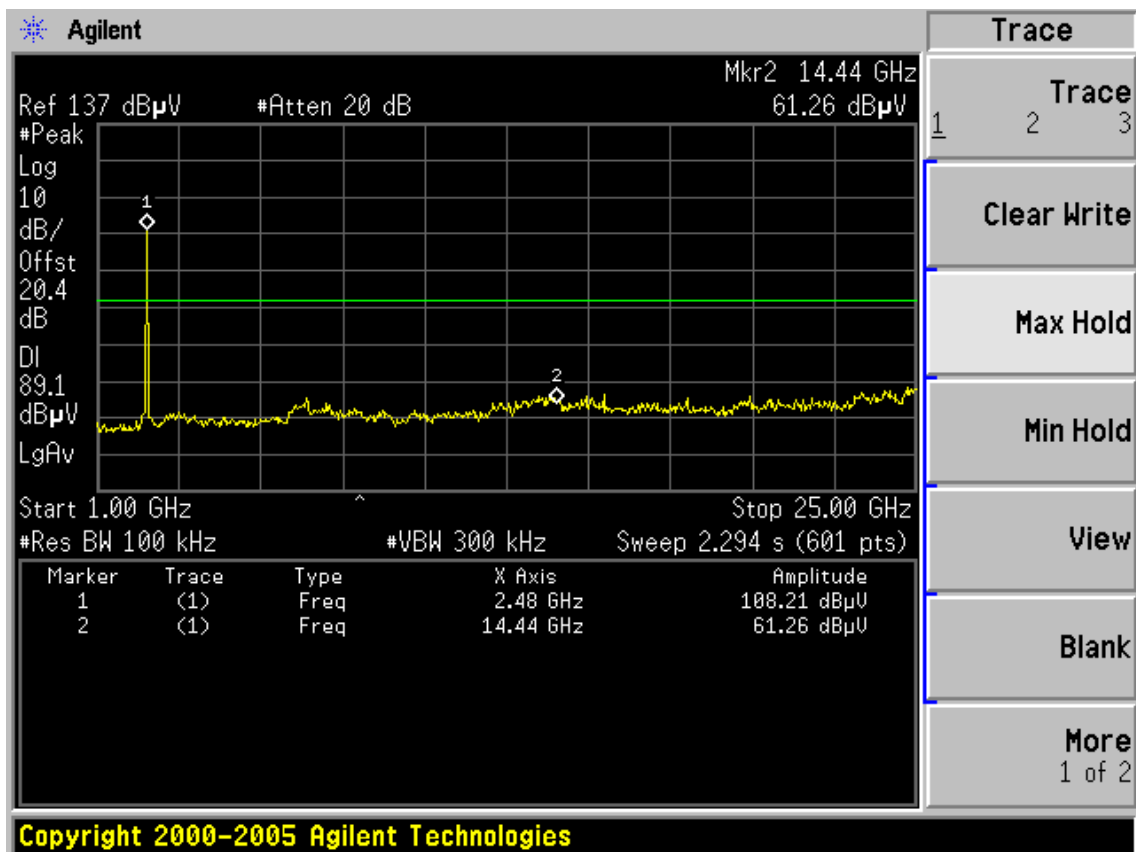
(CH6)



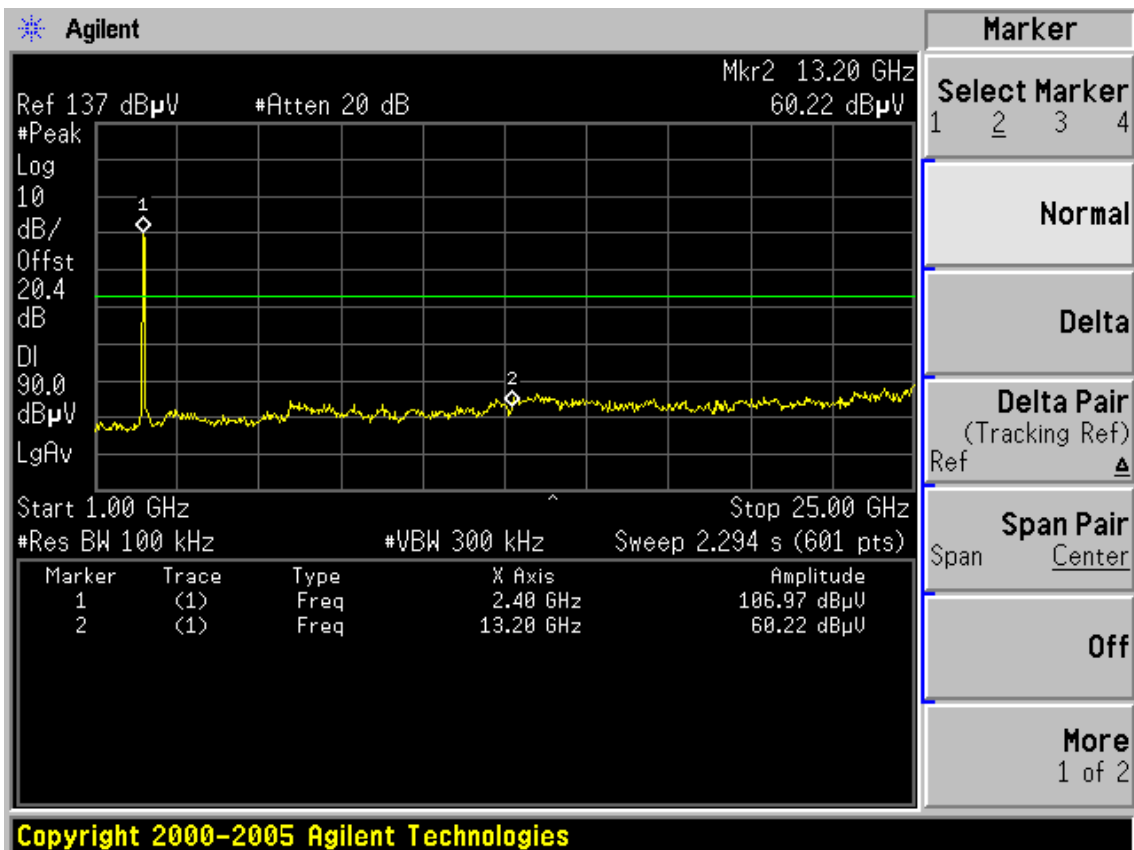
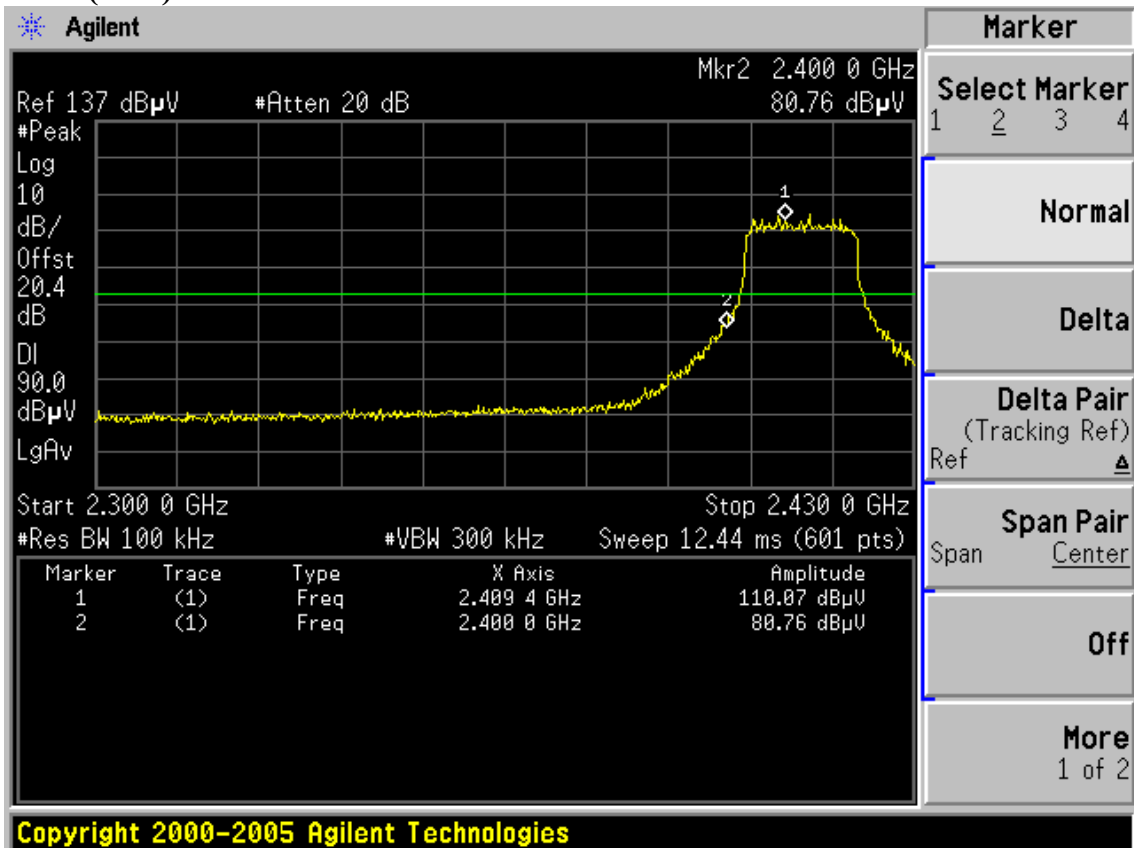


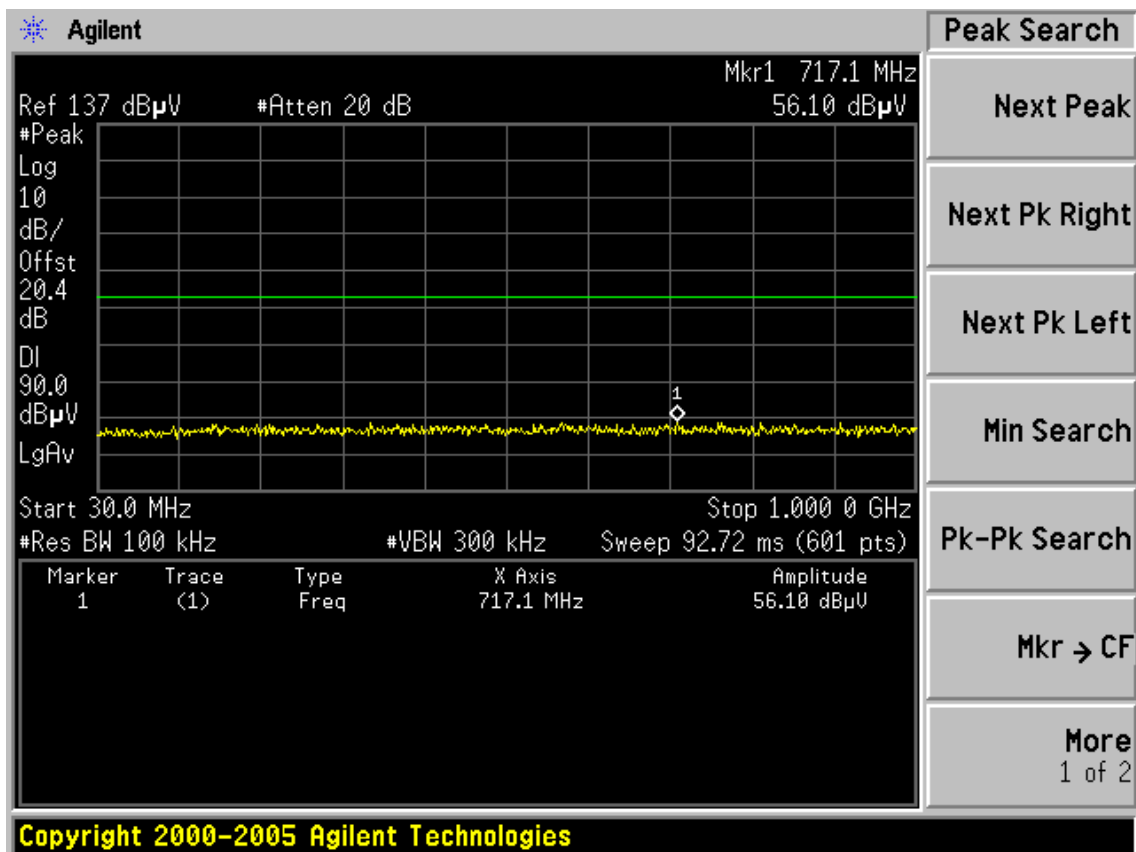
(CH11)



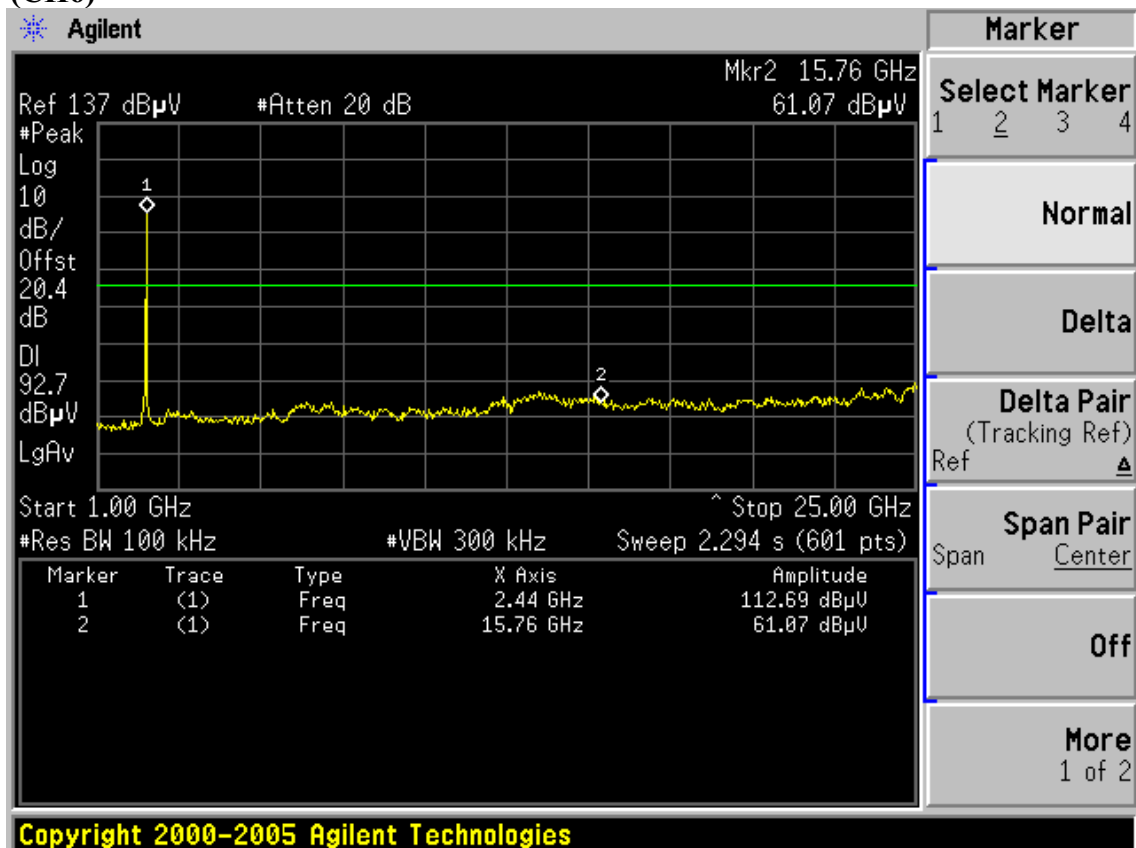


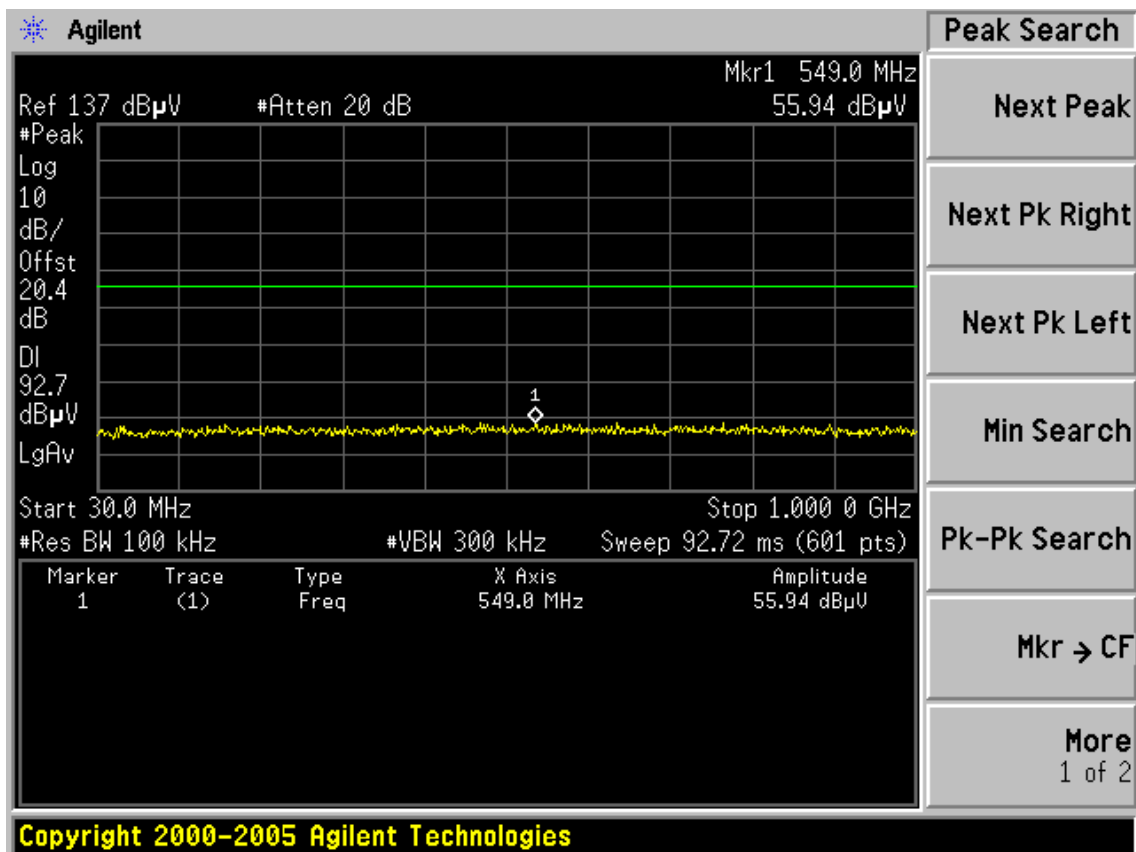
AT3: (CH1)



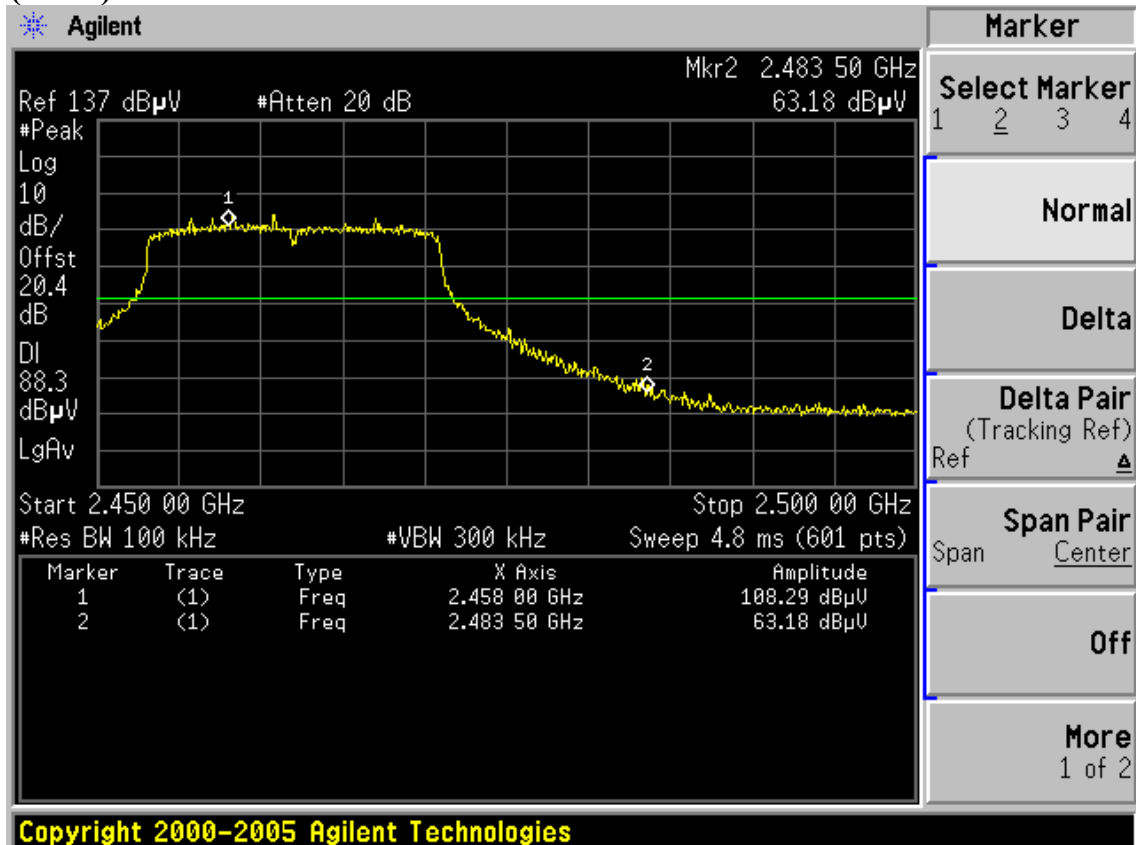


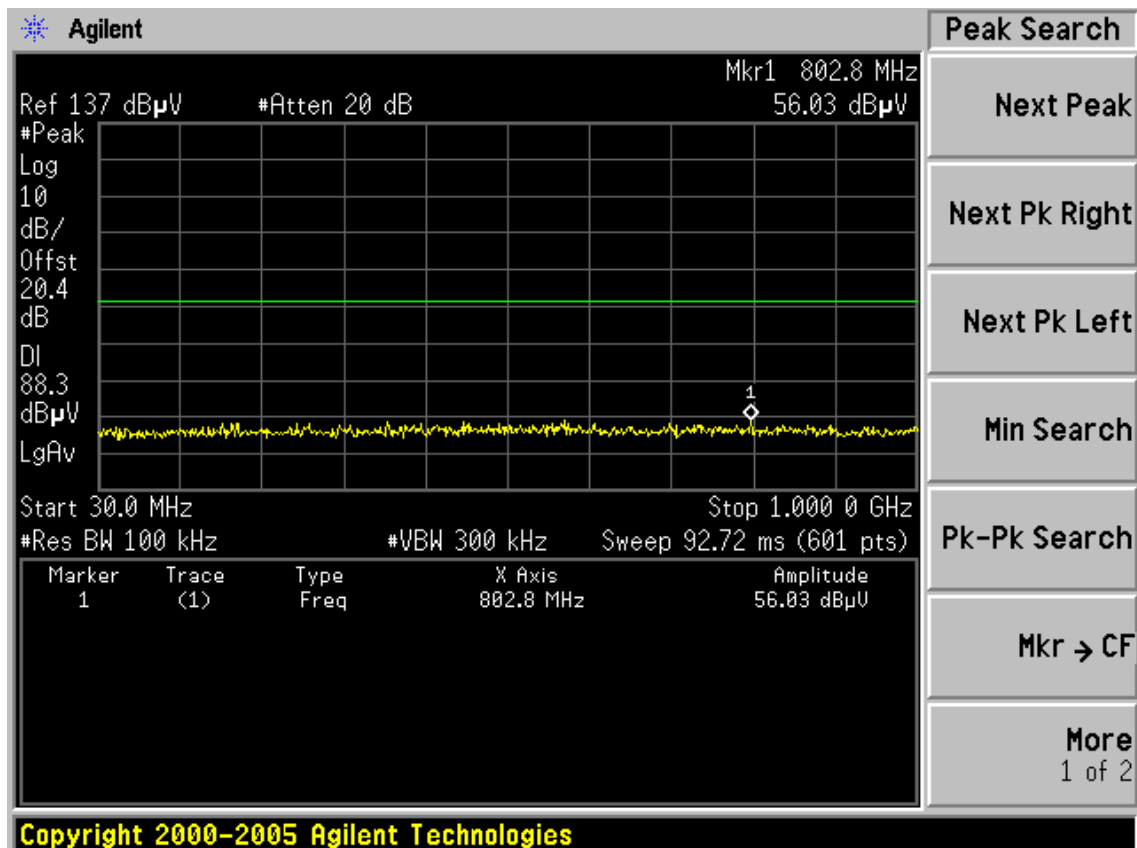
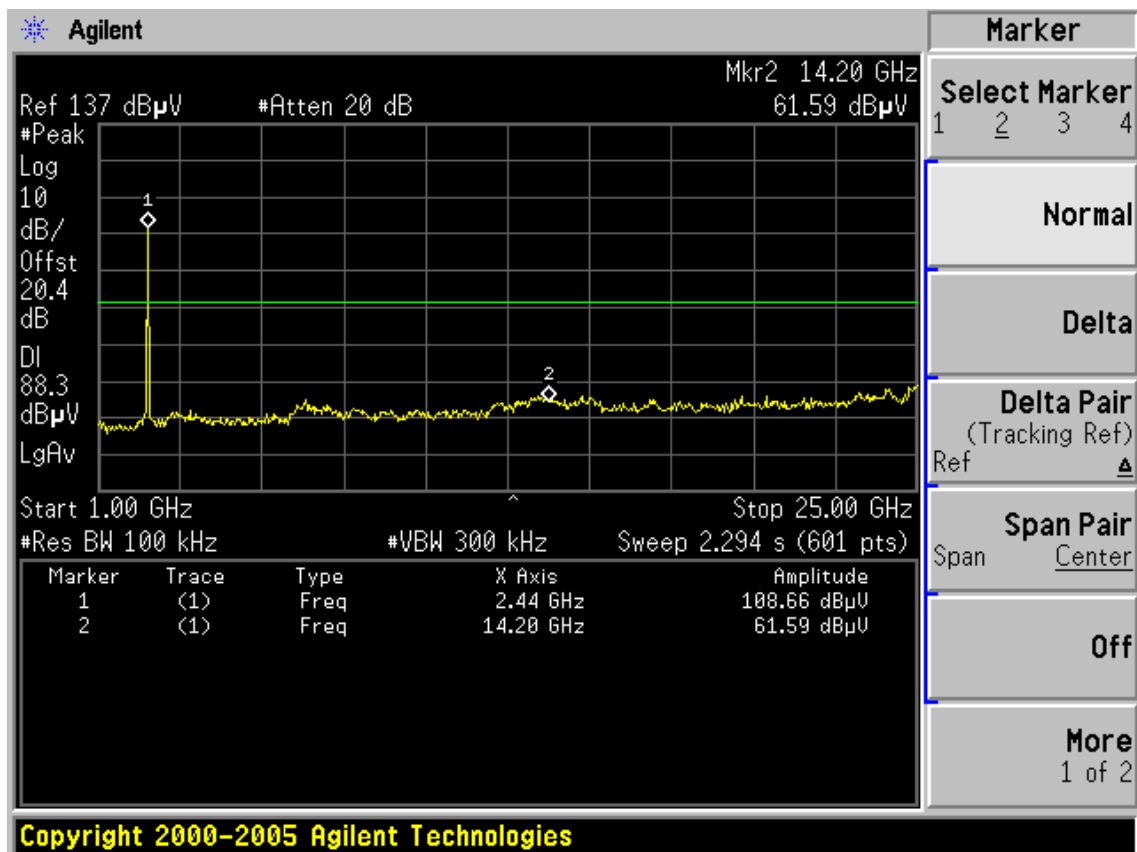
(CH6)





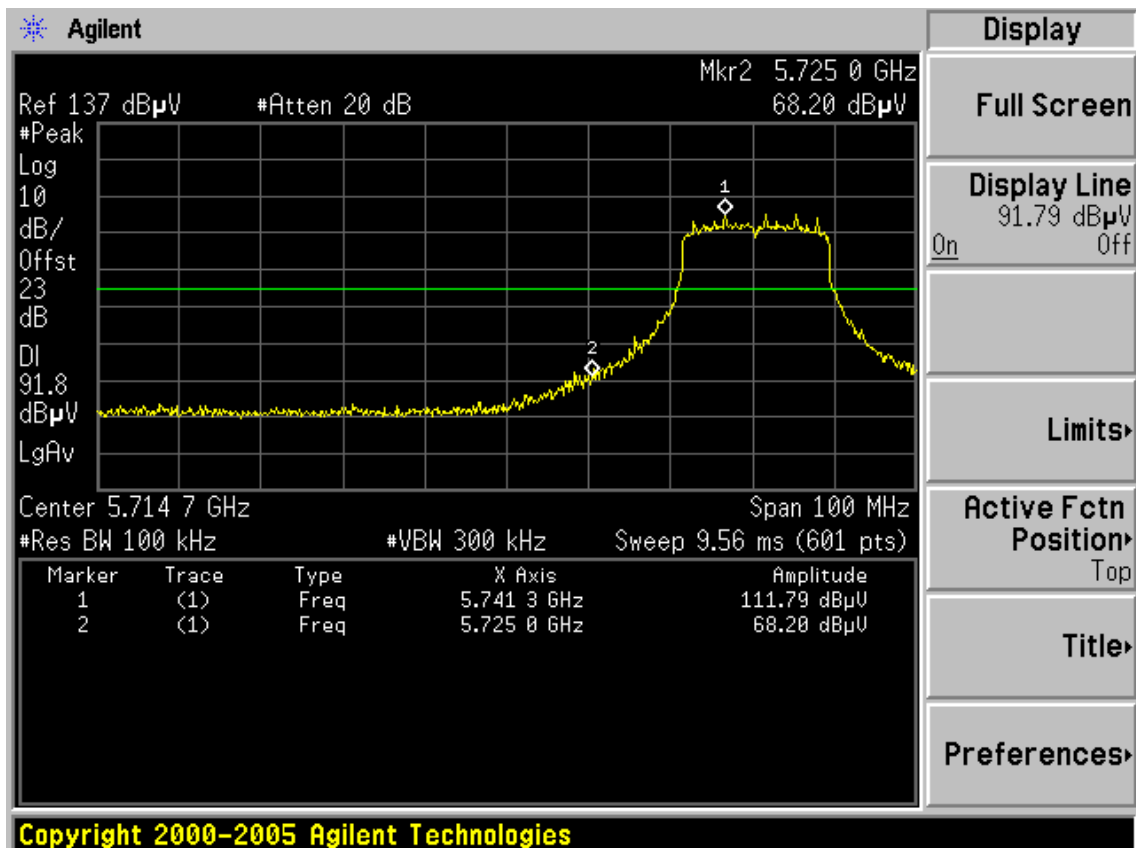
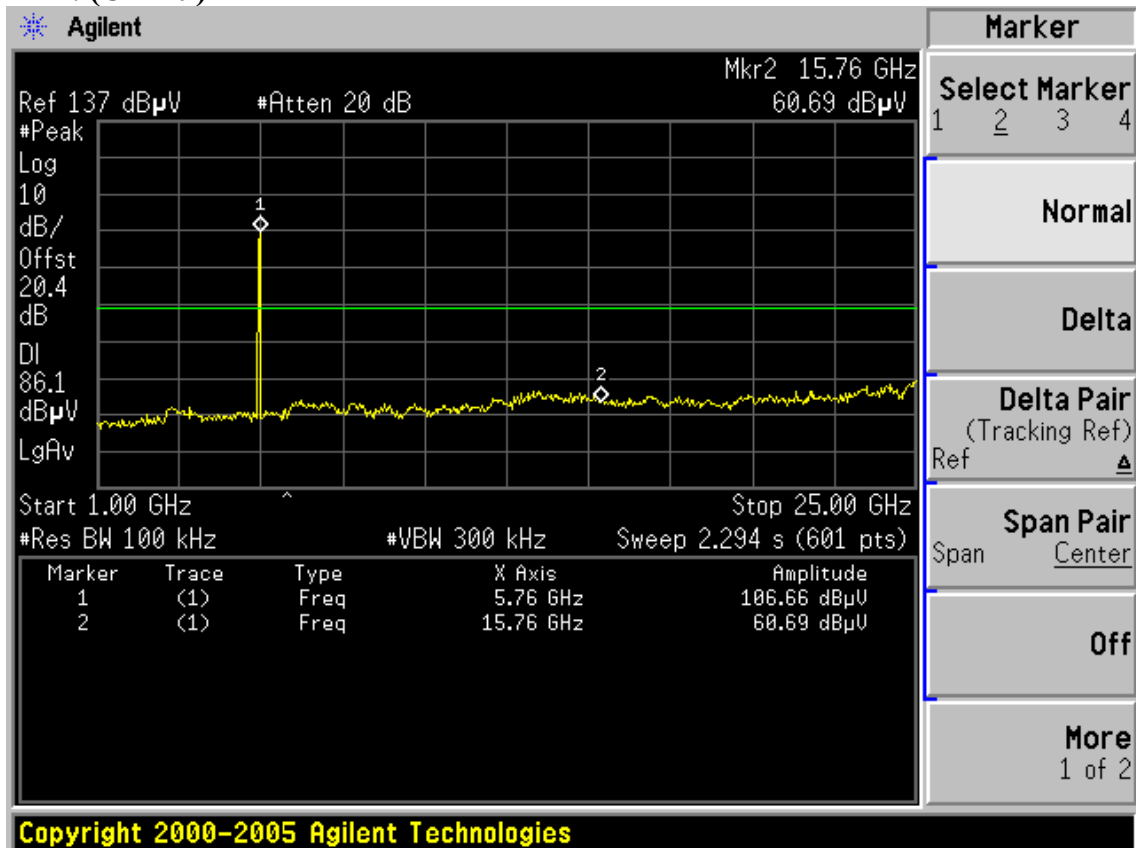
(CH11)

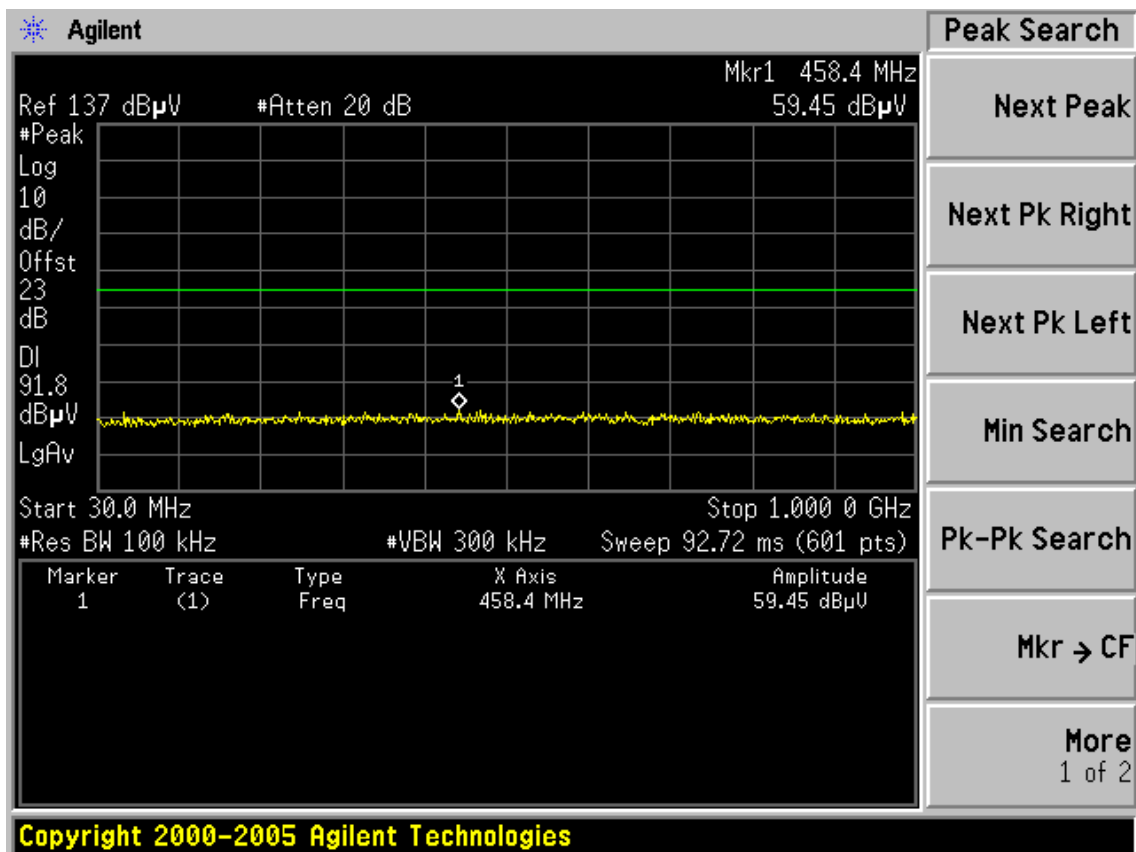




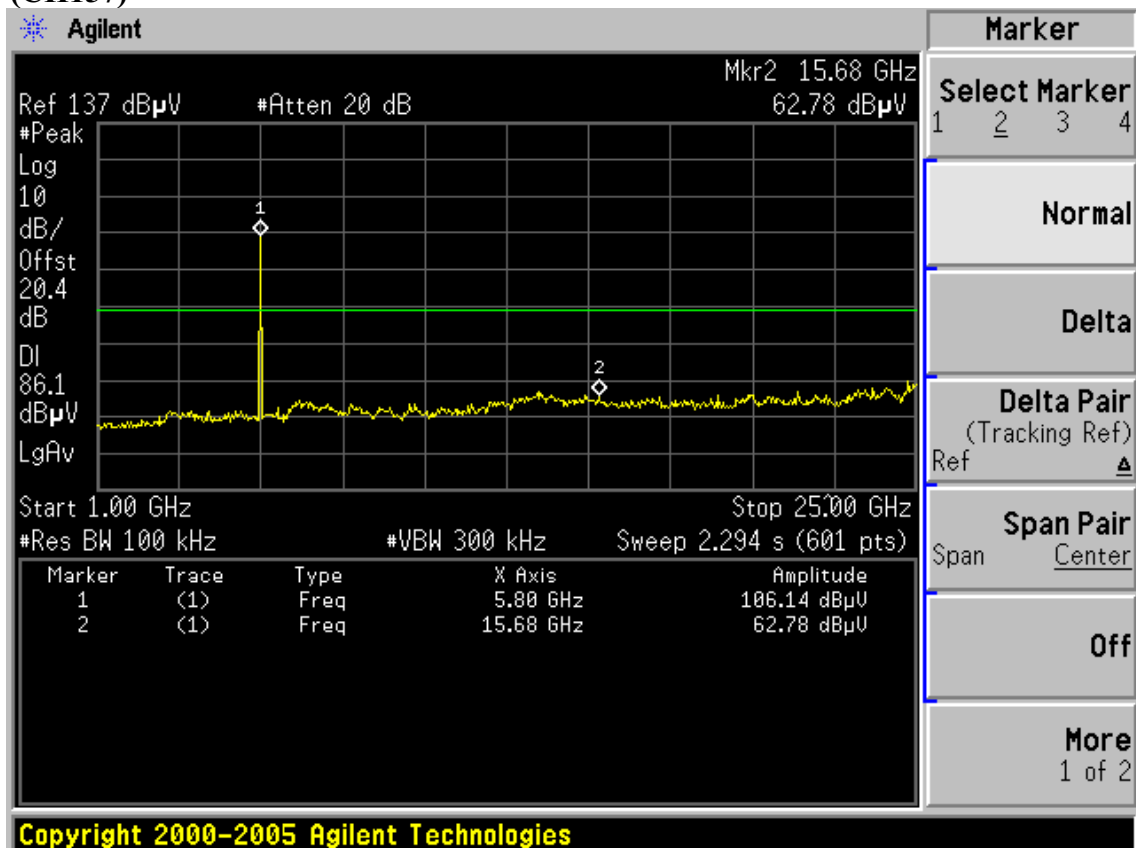
Test Mode: IEEE 802.11n HT20 TX (5.7G)

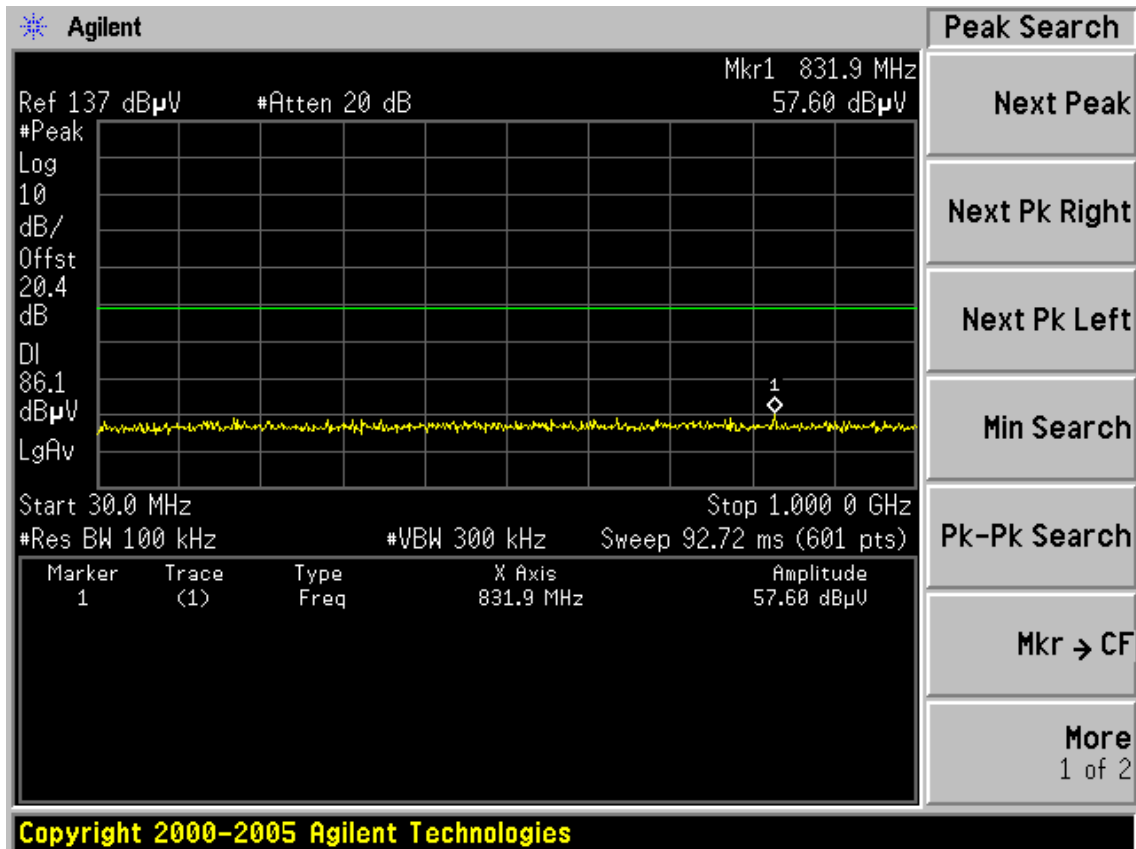
AT1: (CH149)



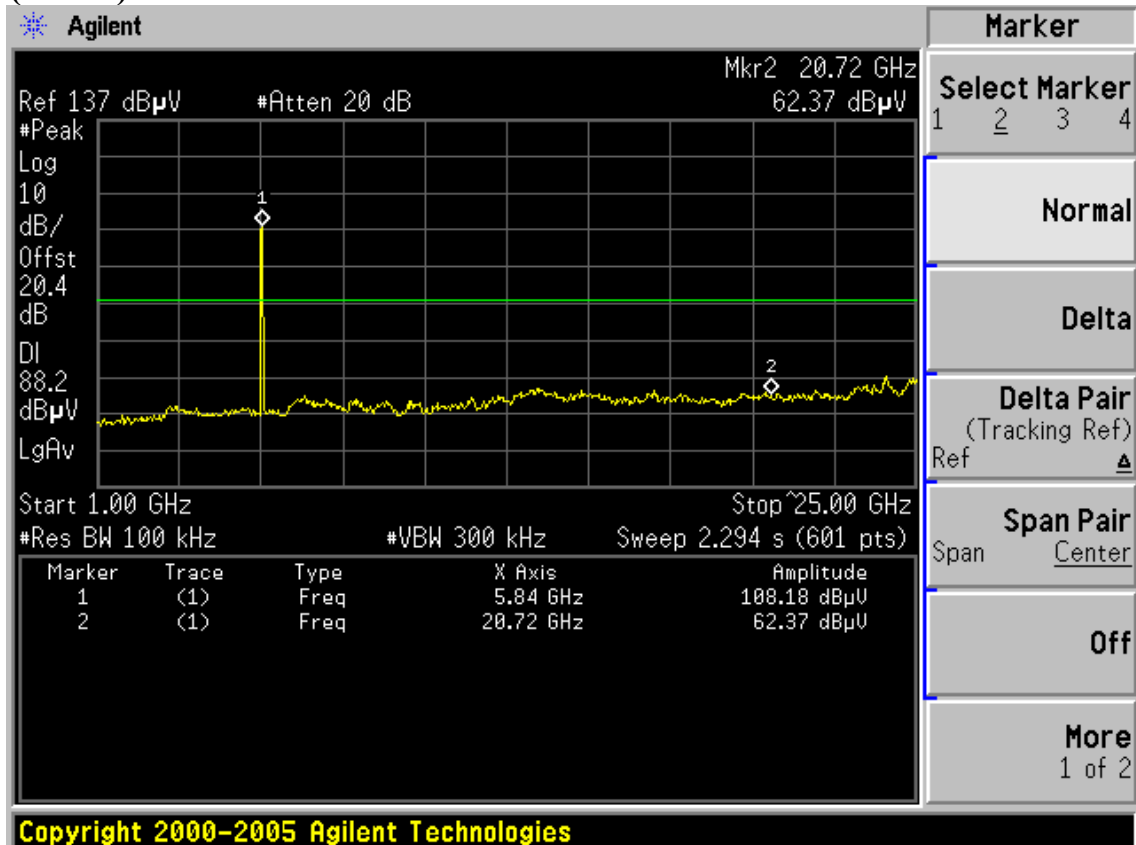


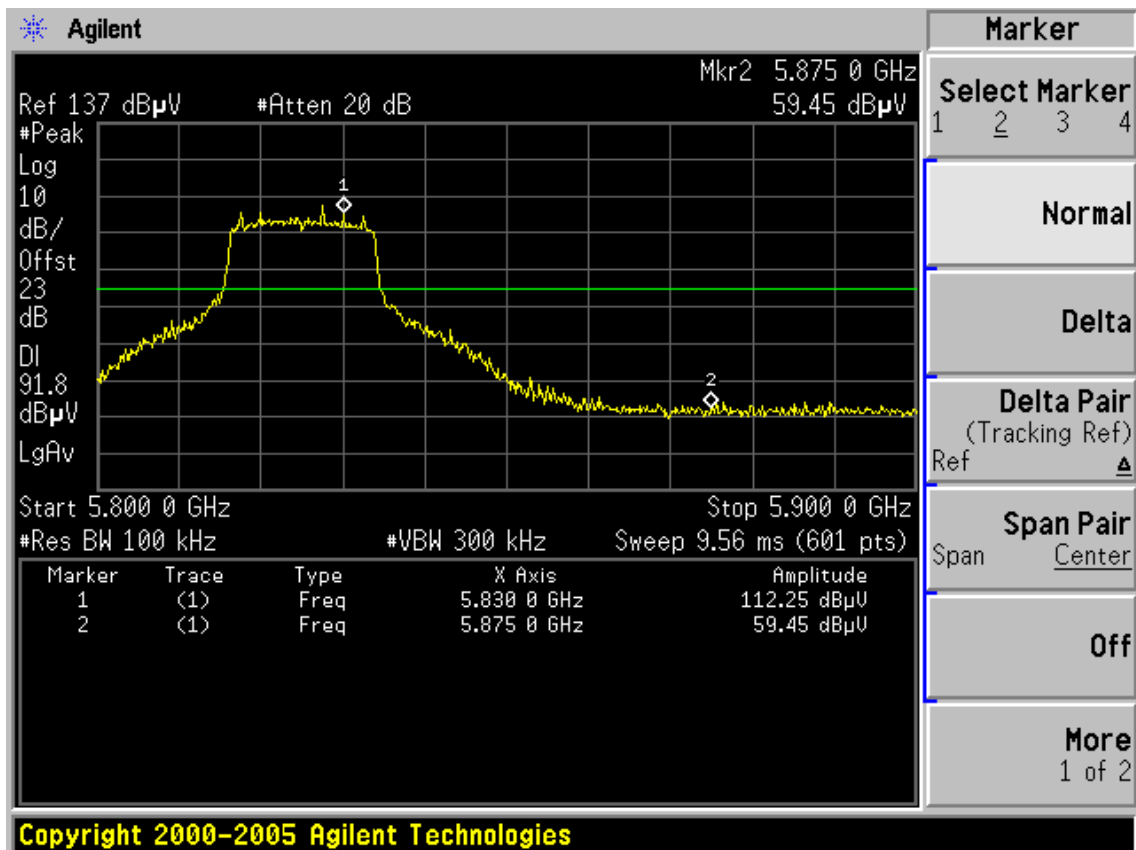
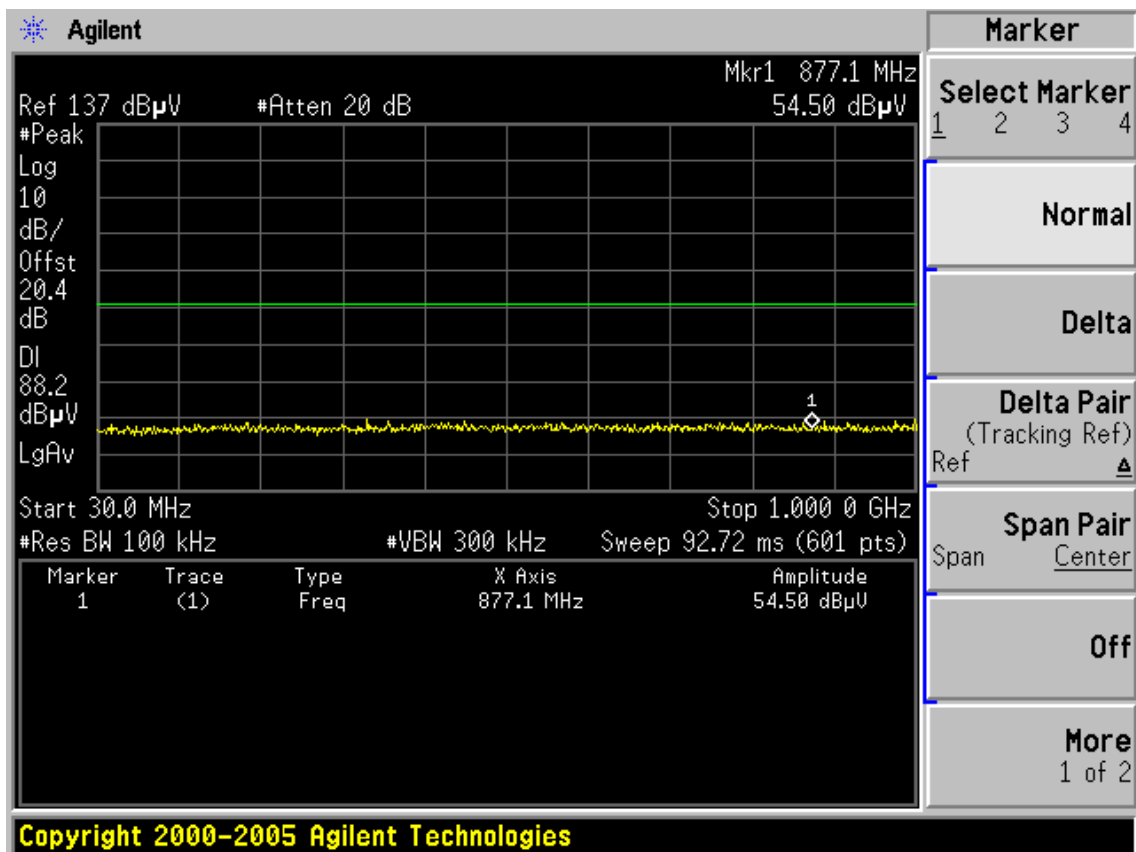
(CH157)



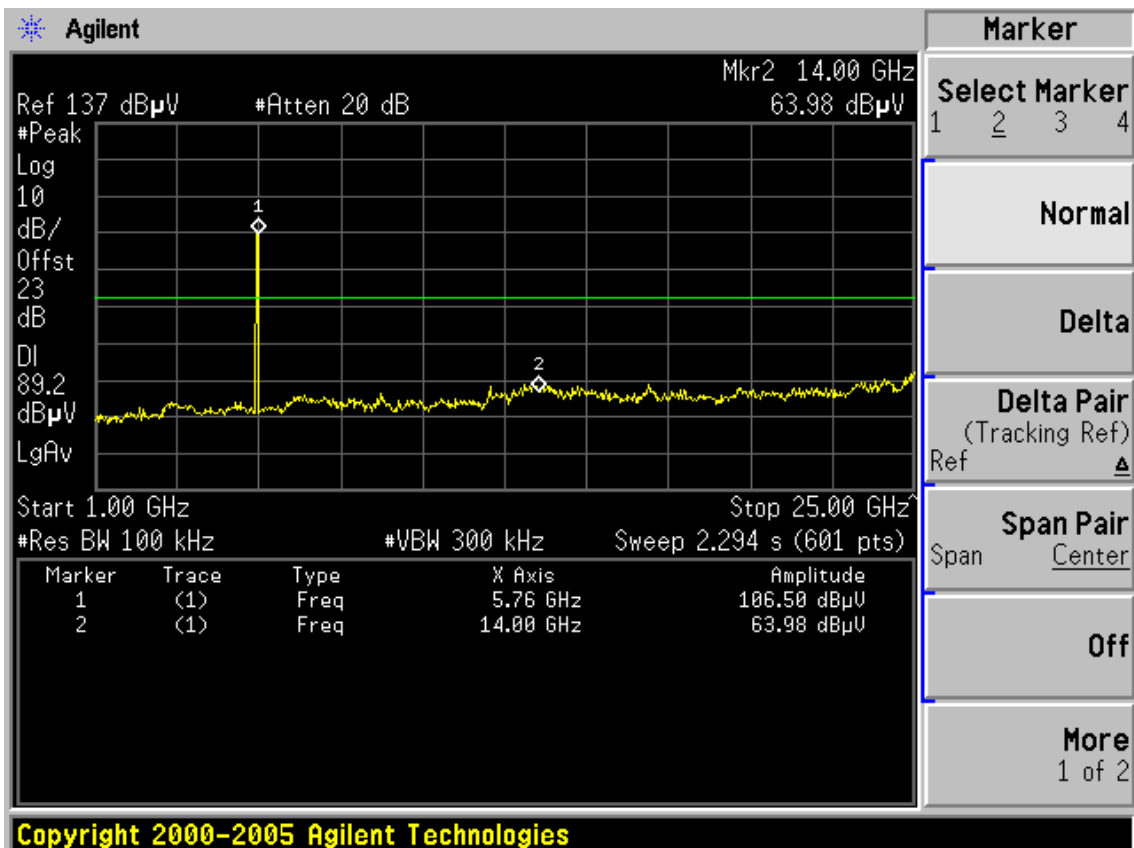
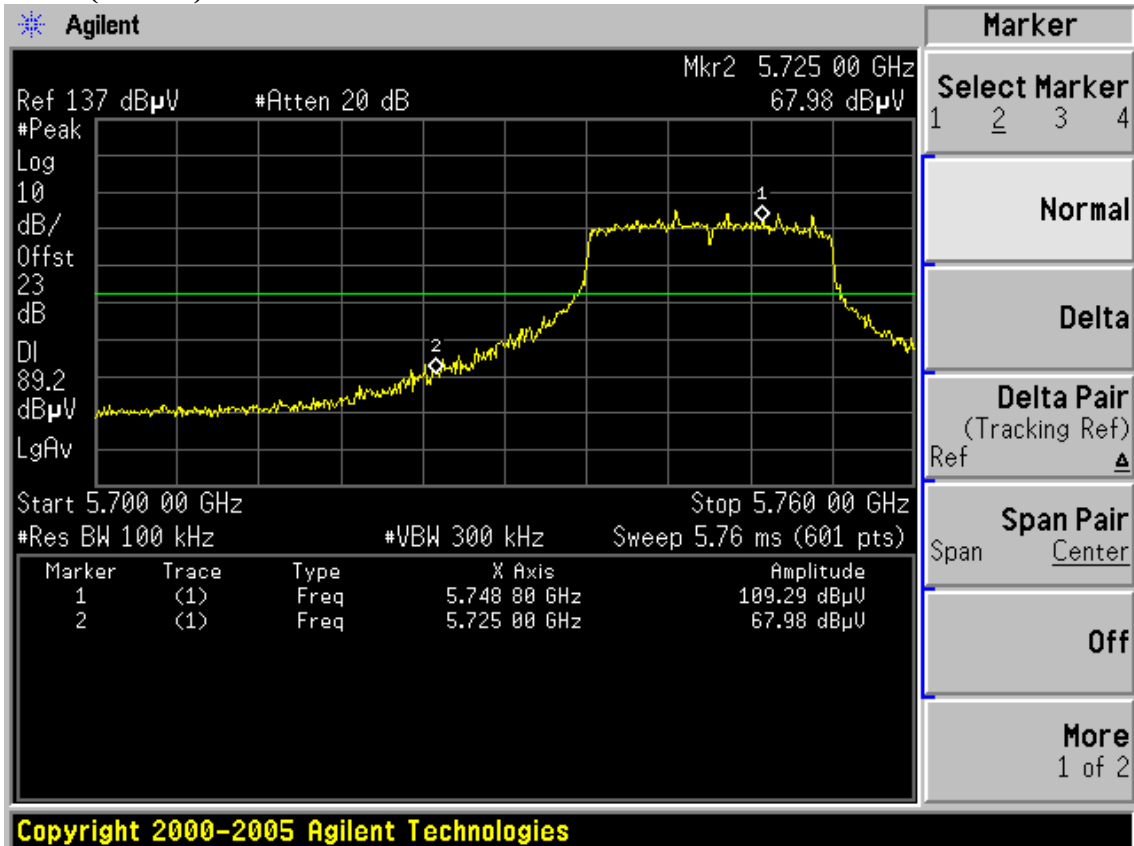


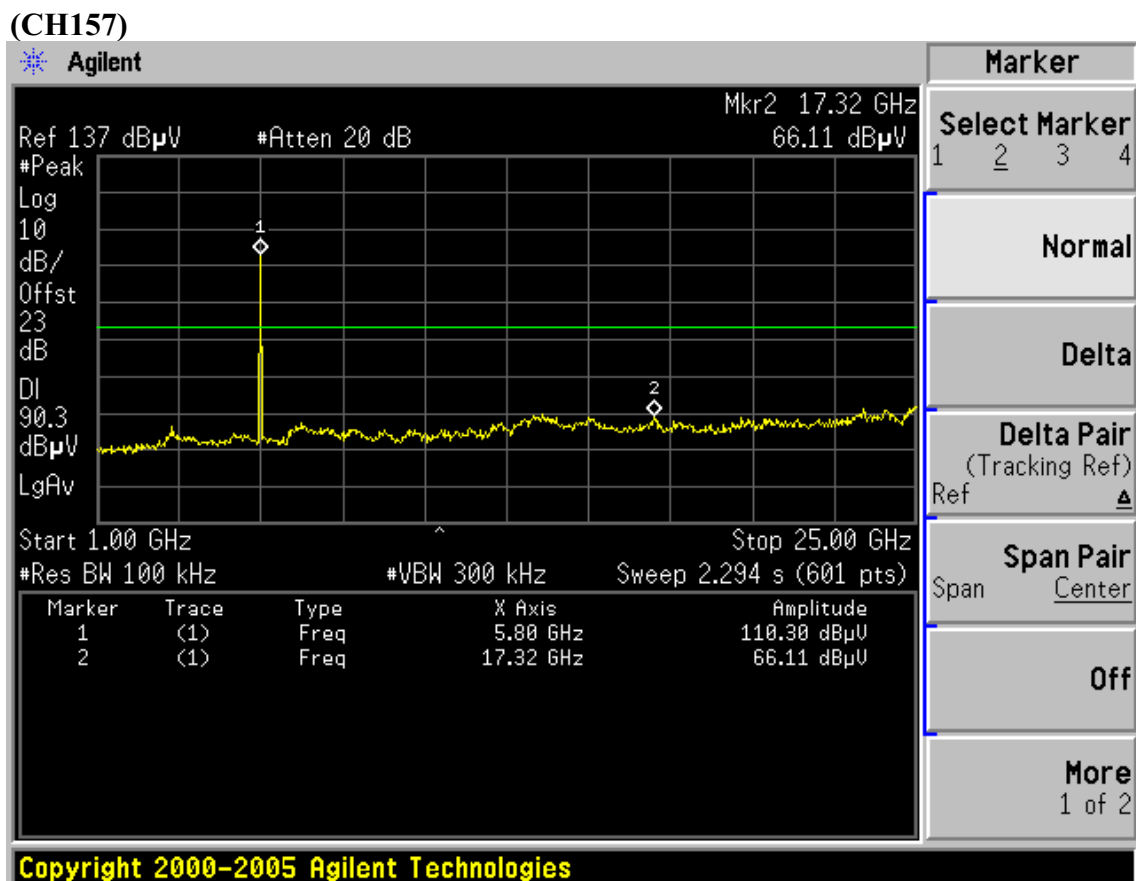
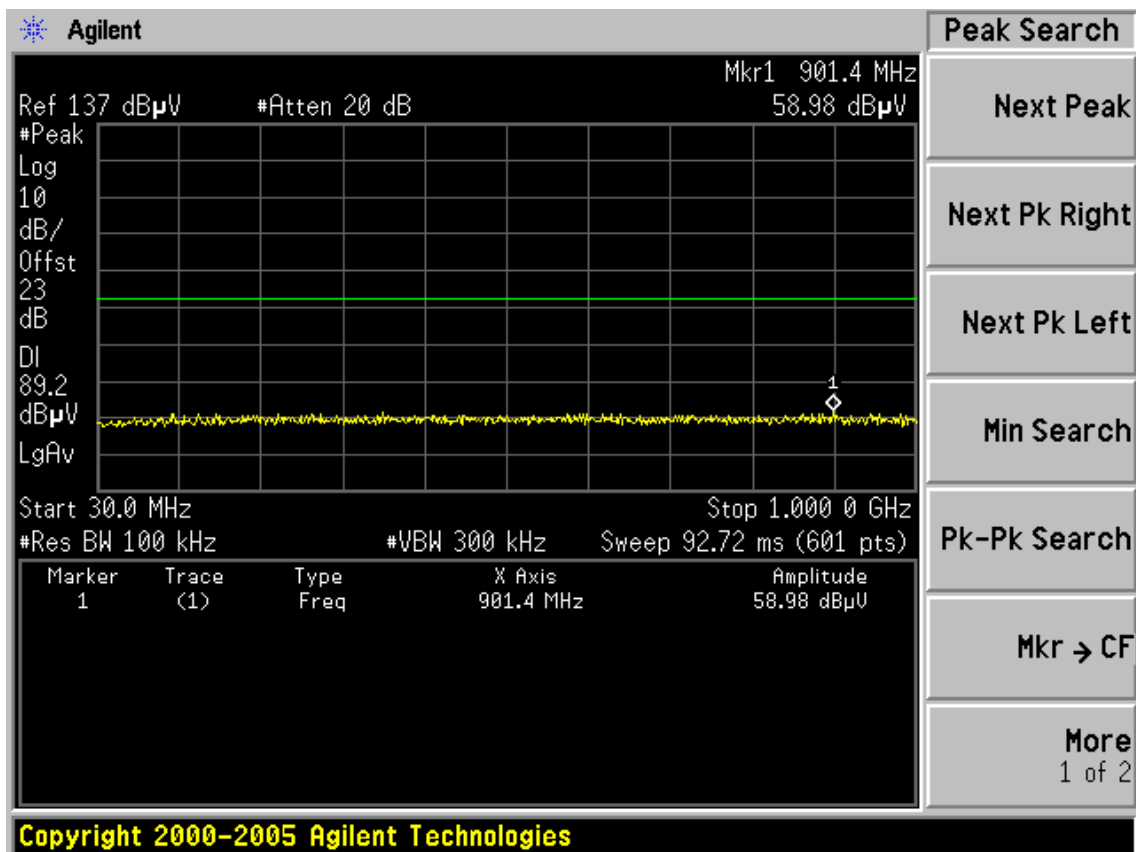
(CH165)

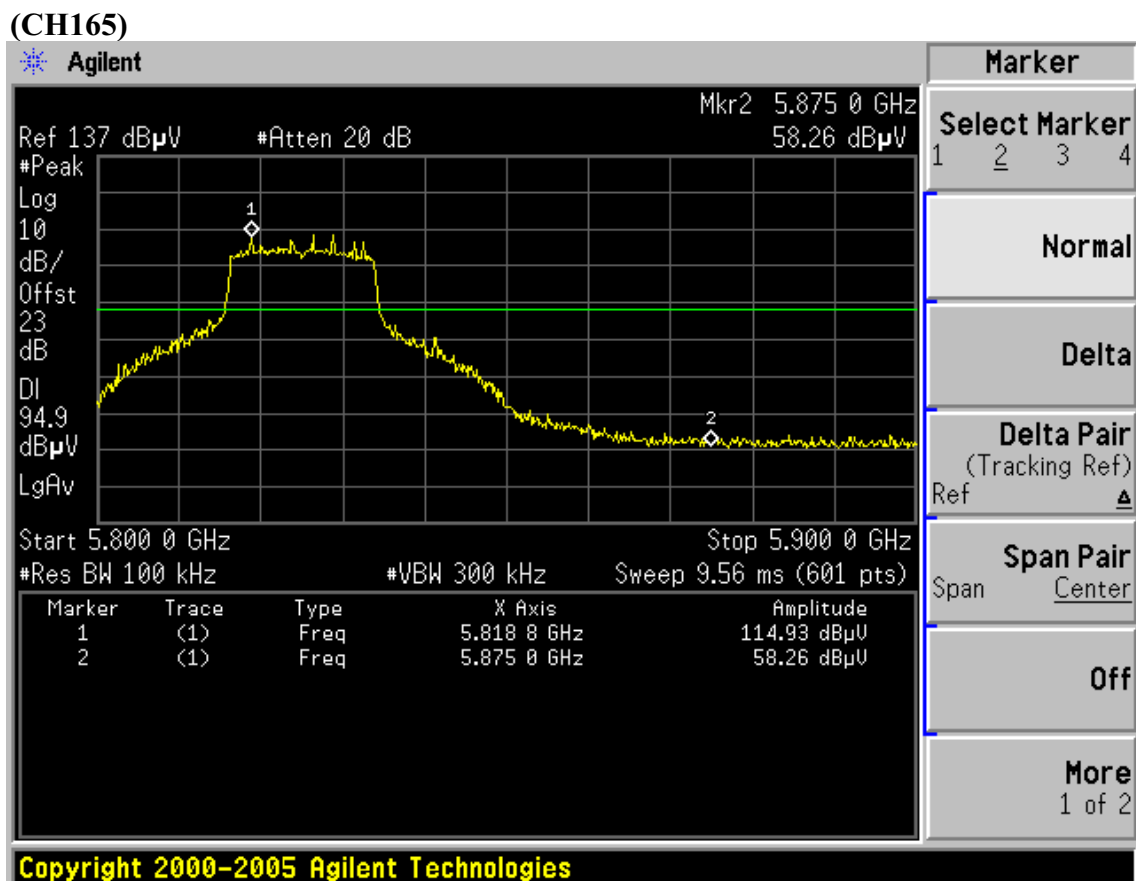
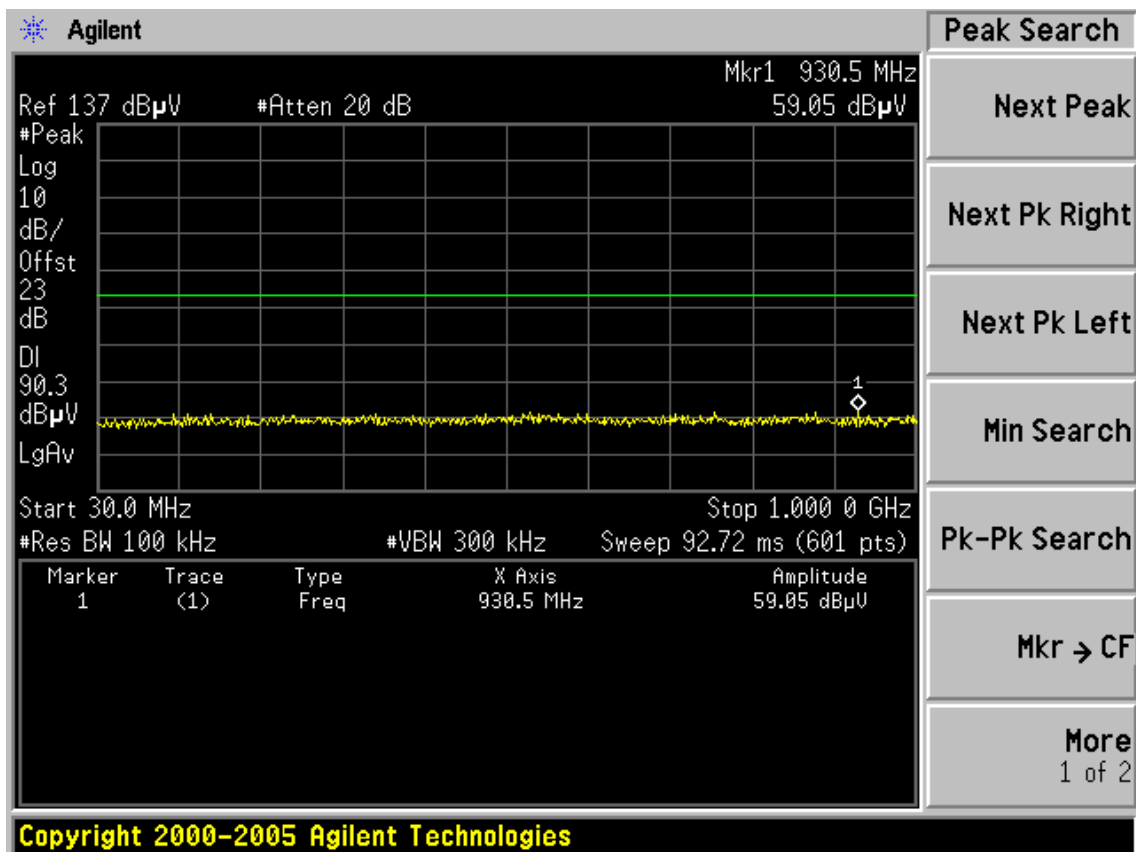


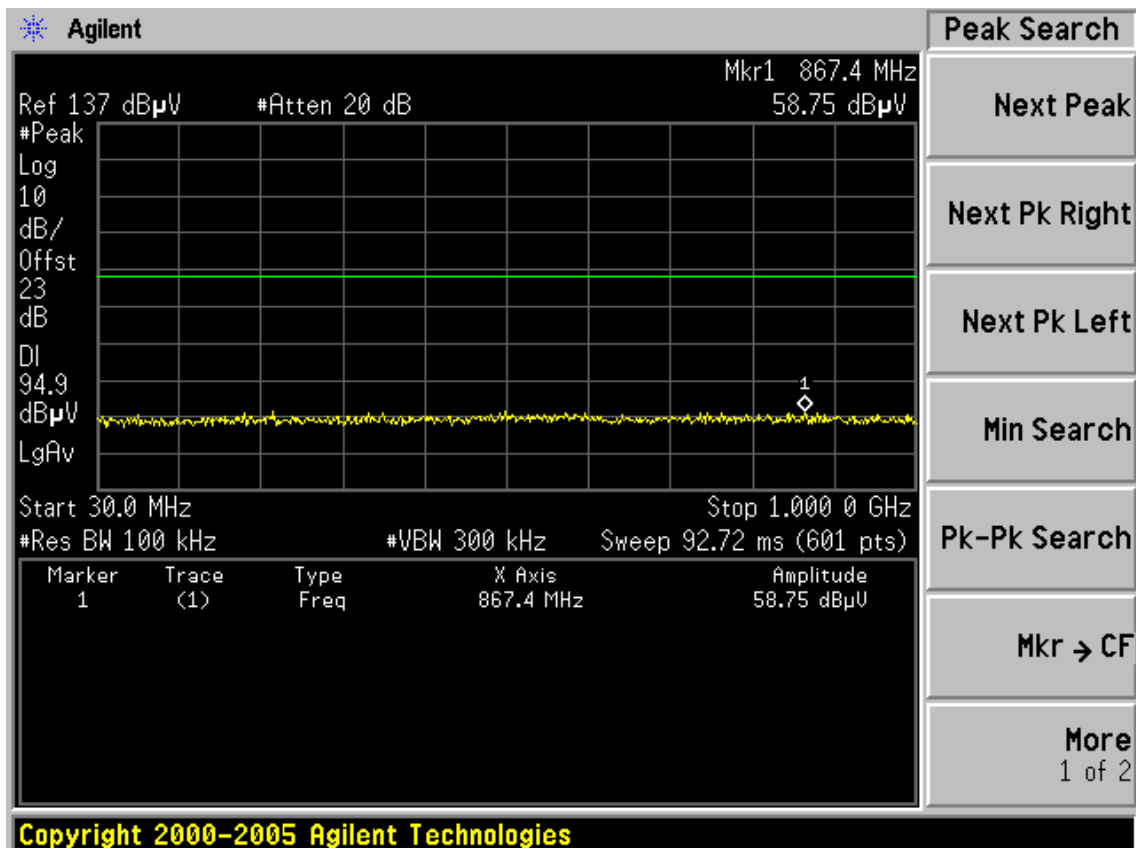
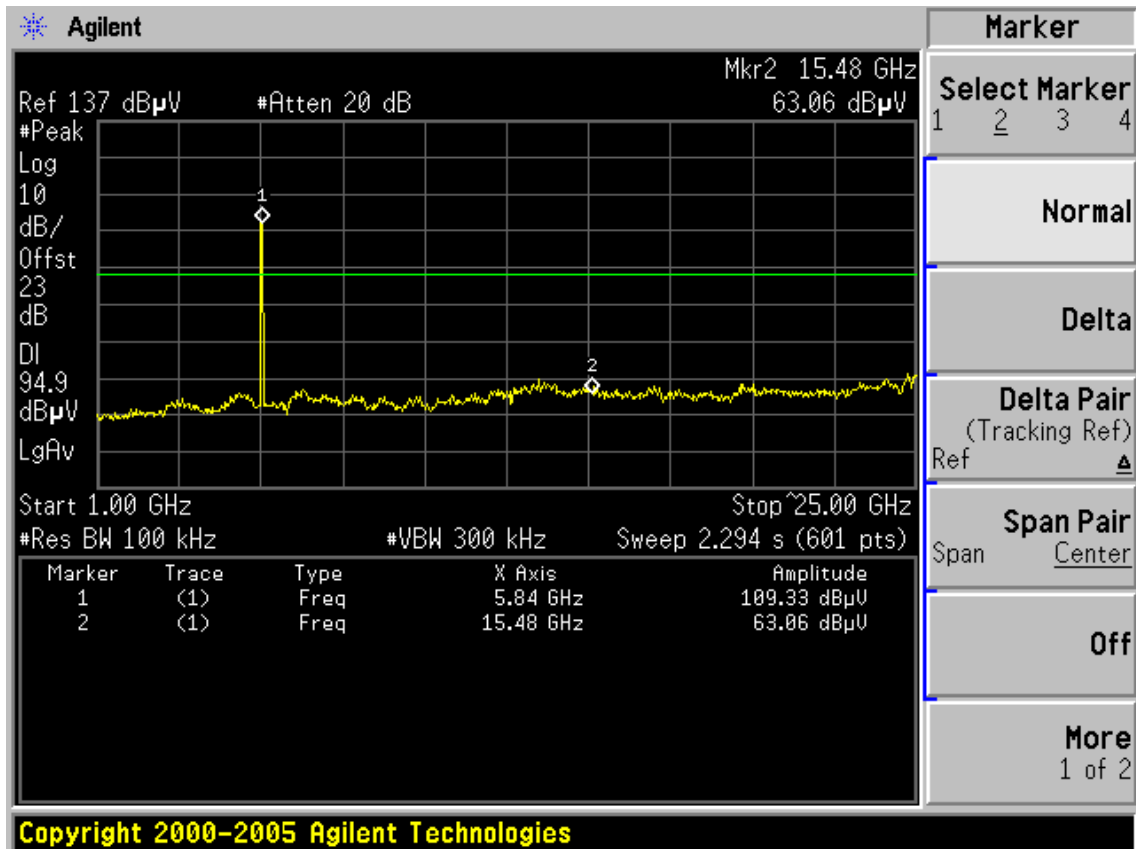


AT2: (CH149)

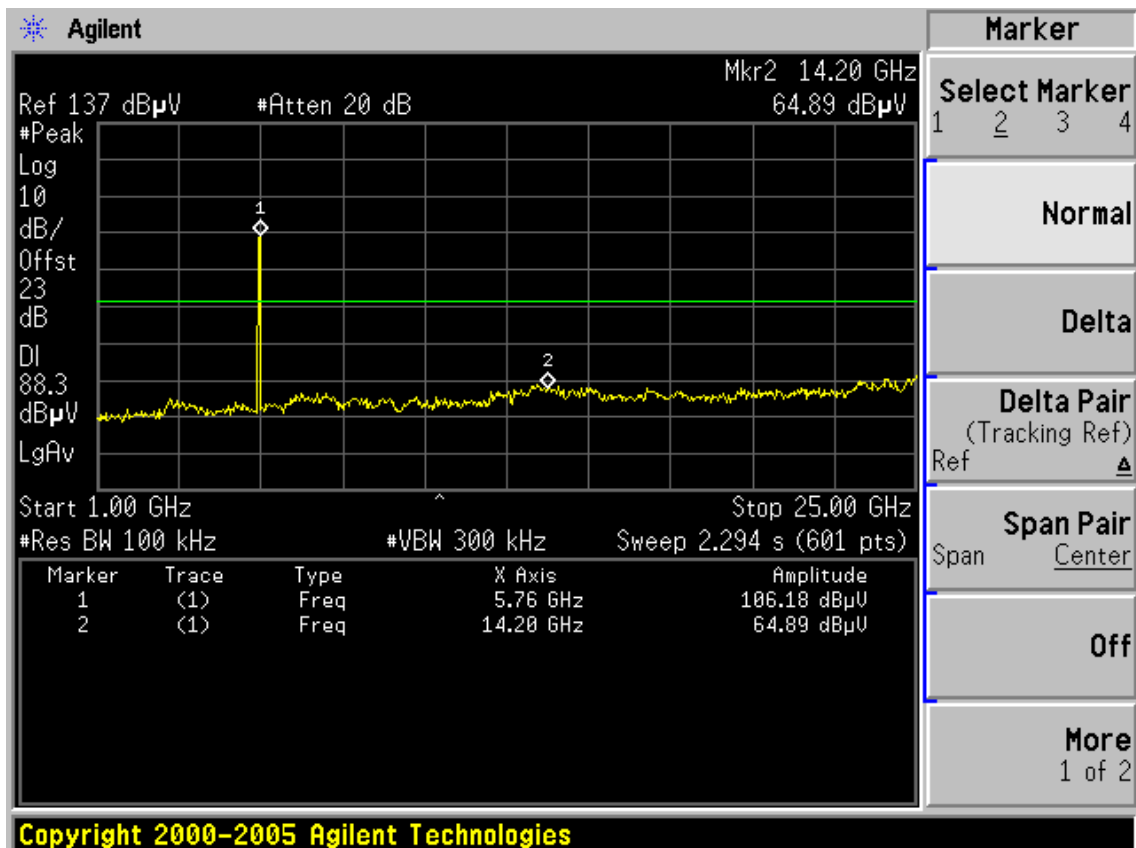
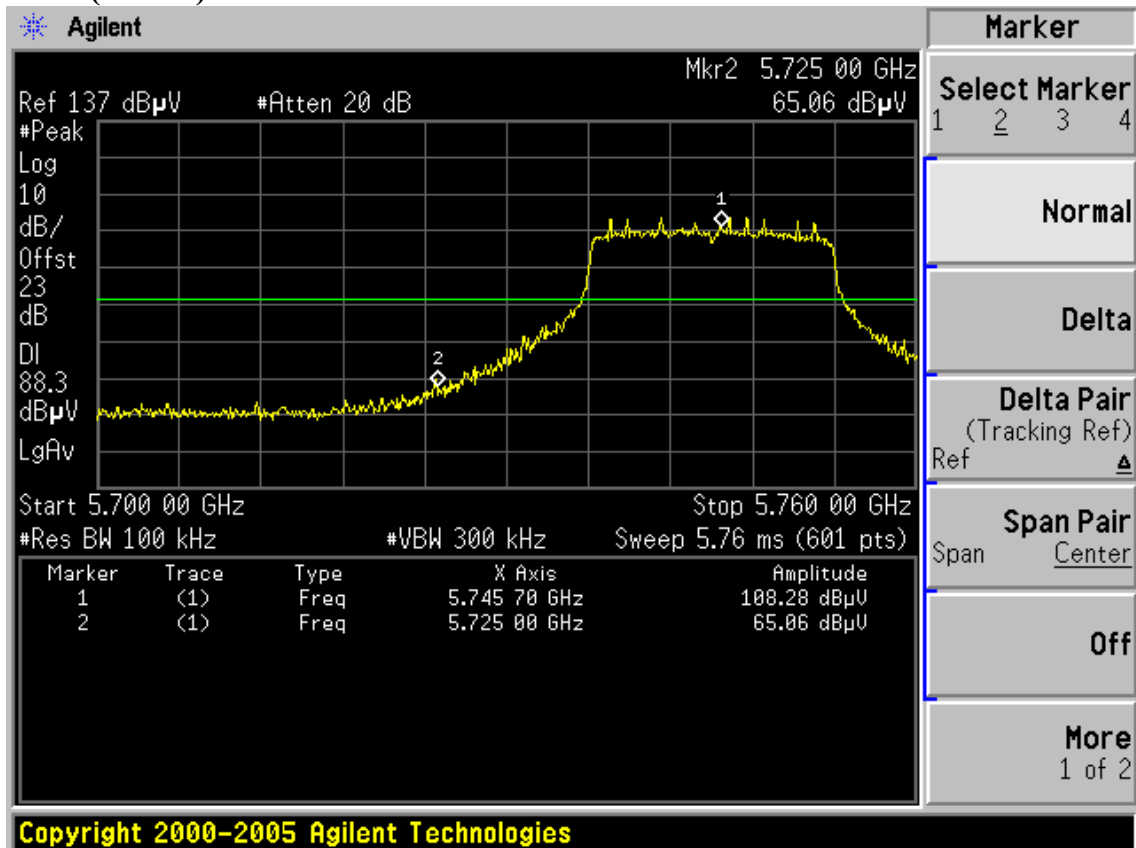


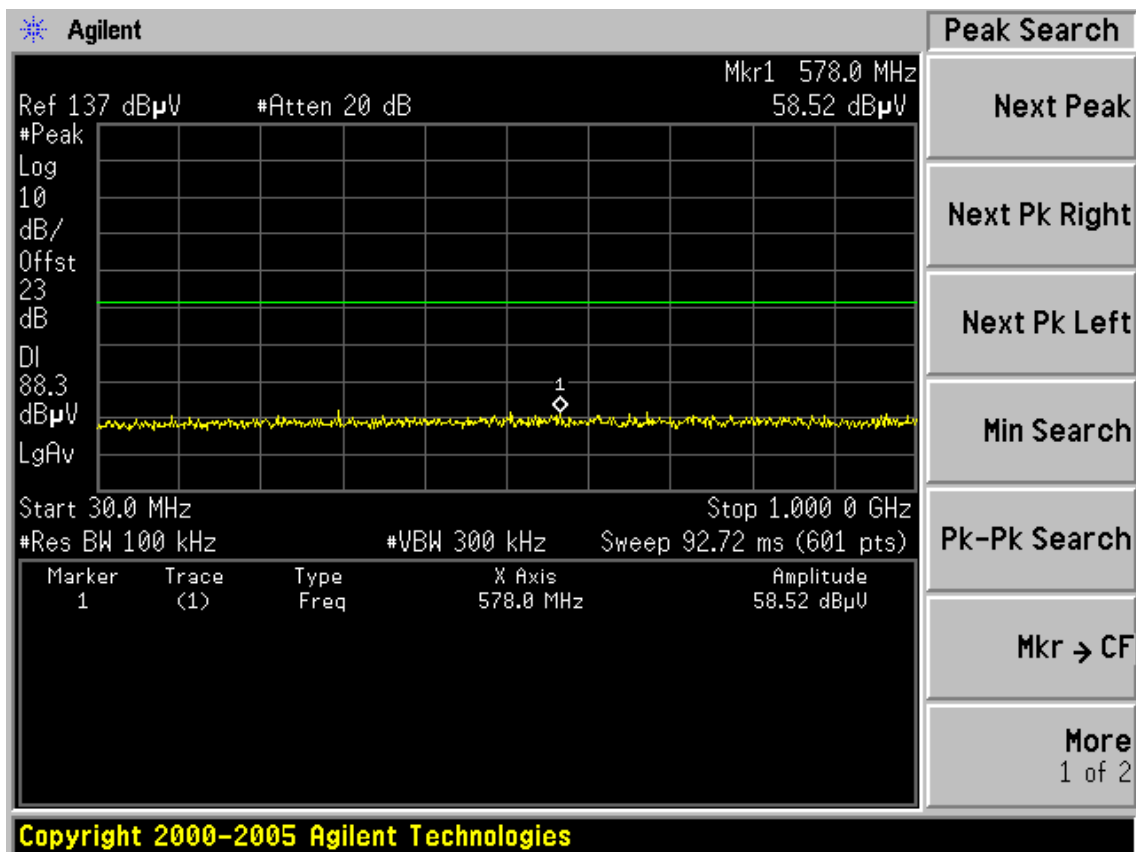




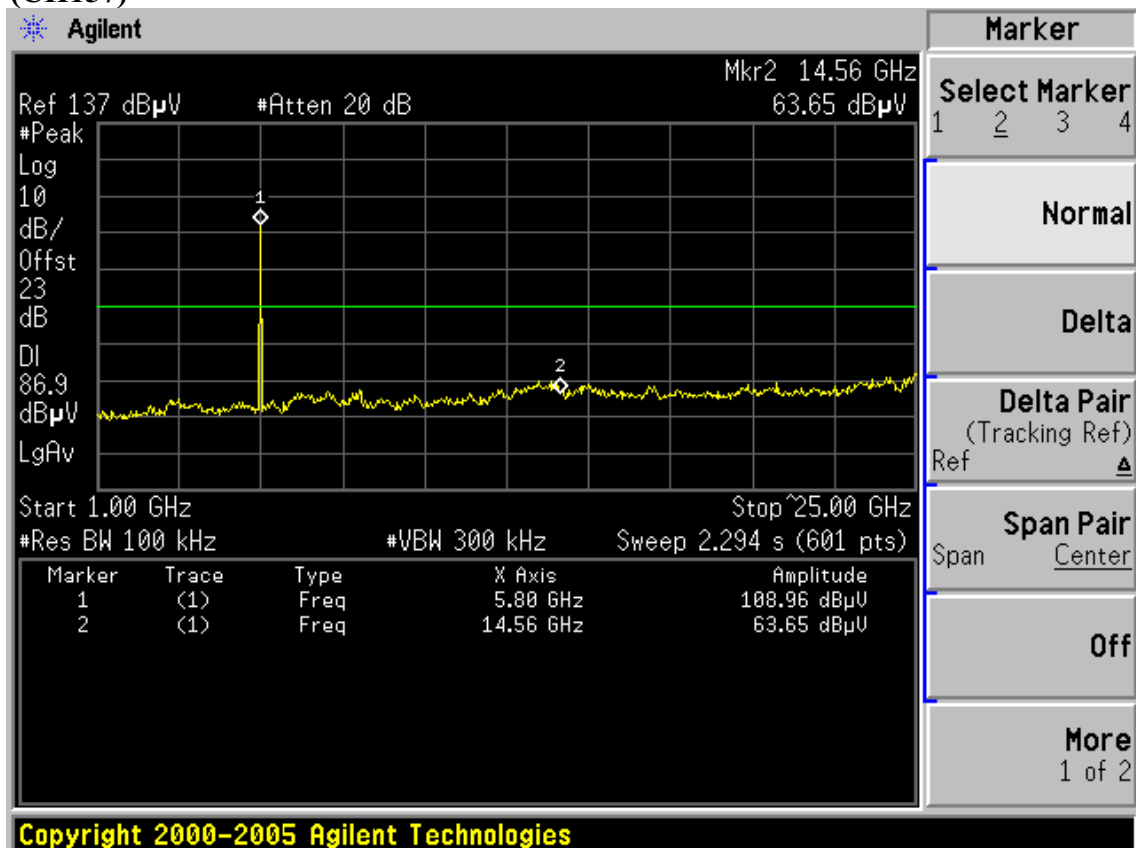


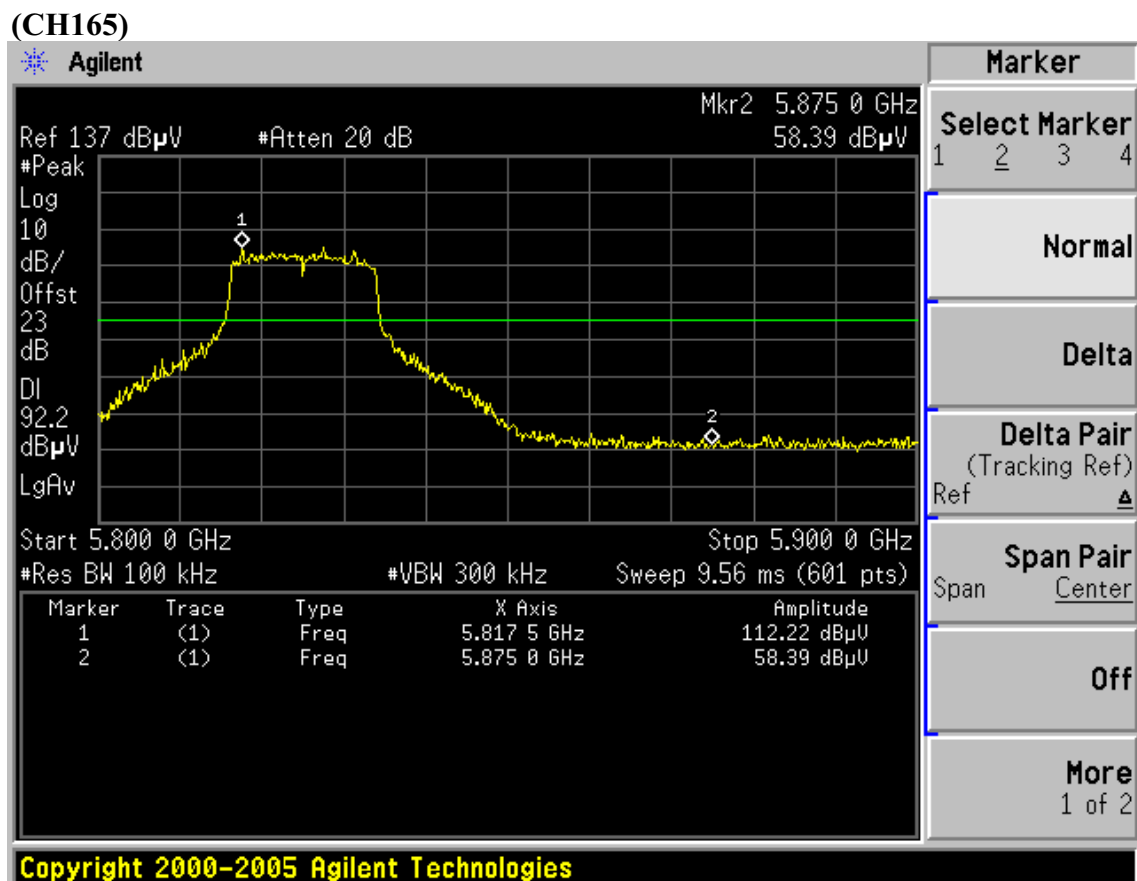
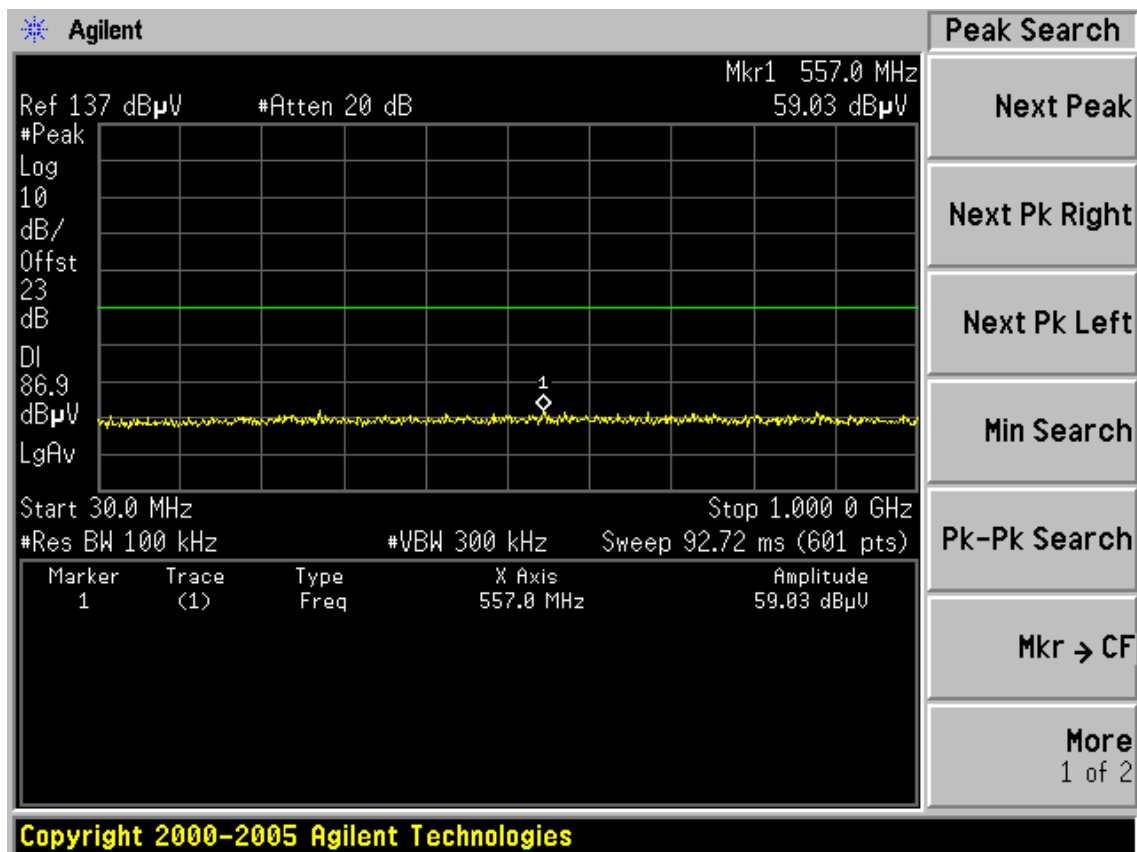
AT3: (CH149)

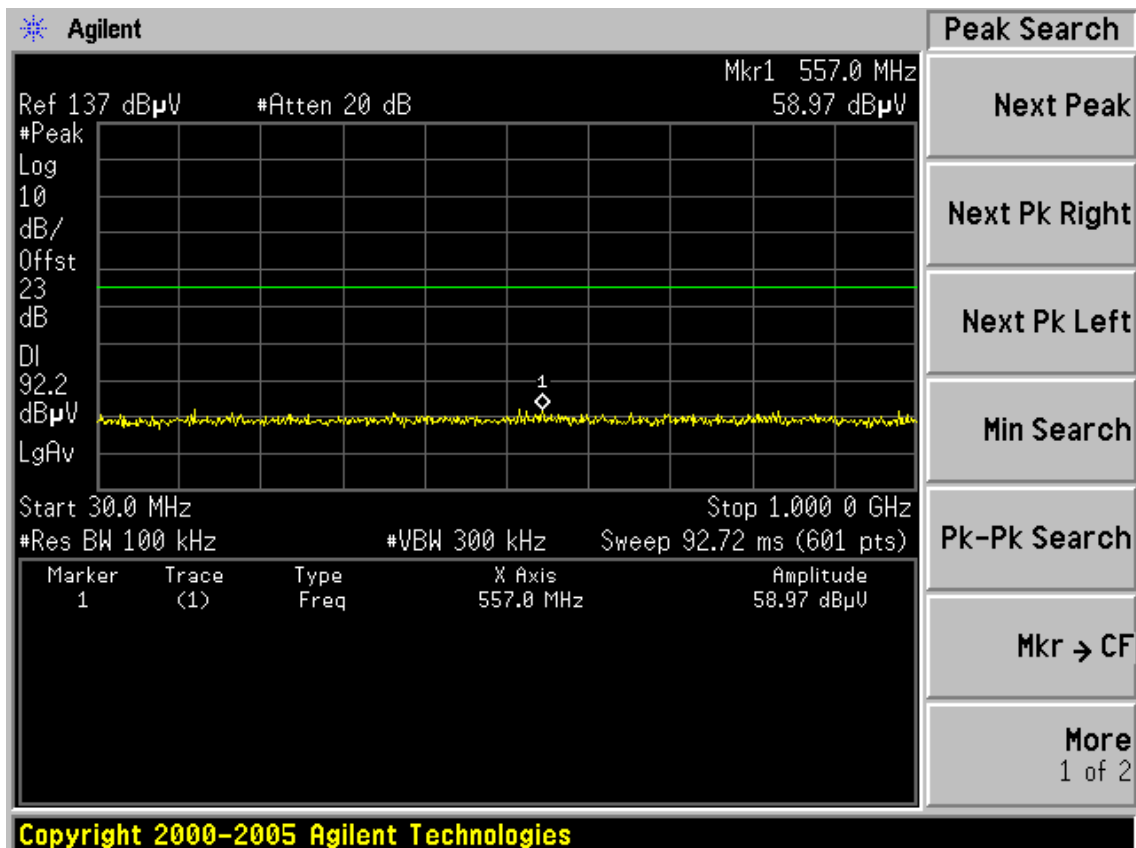
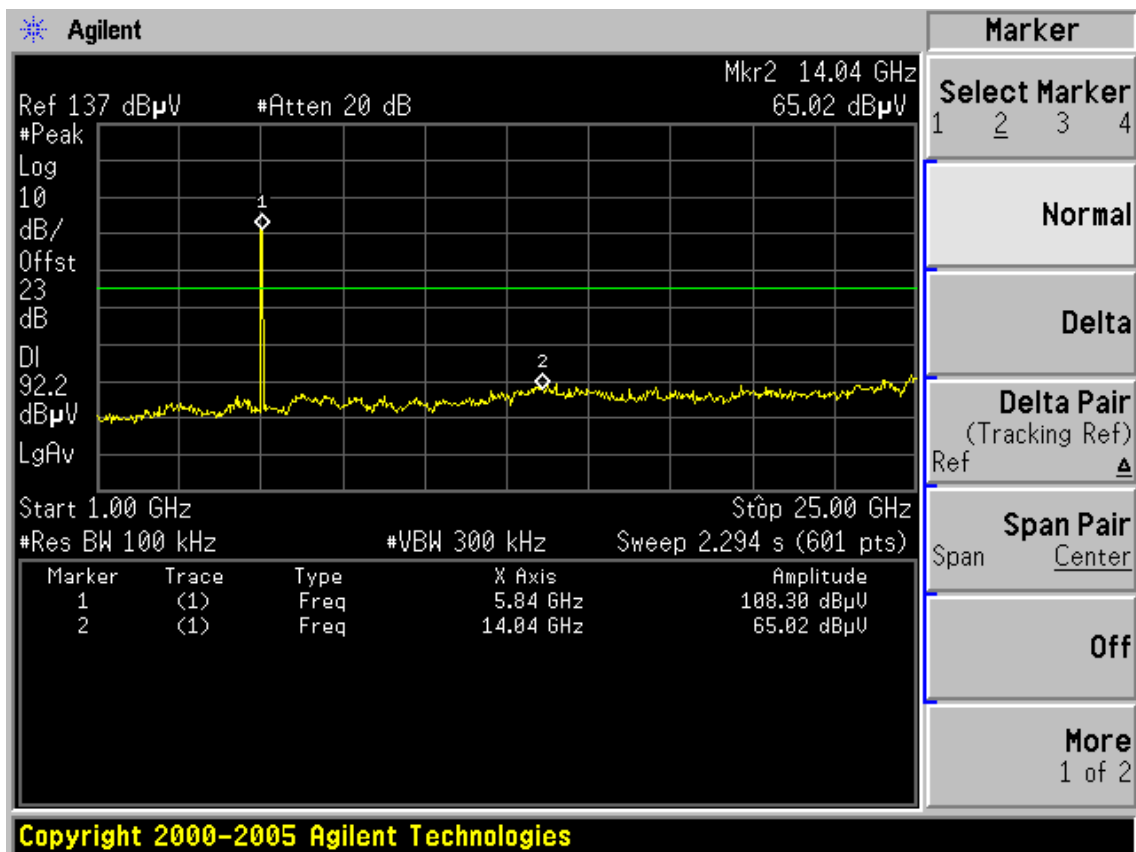




(CH157)

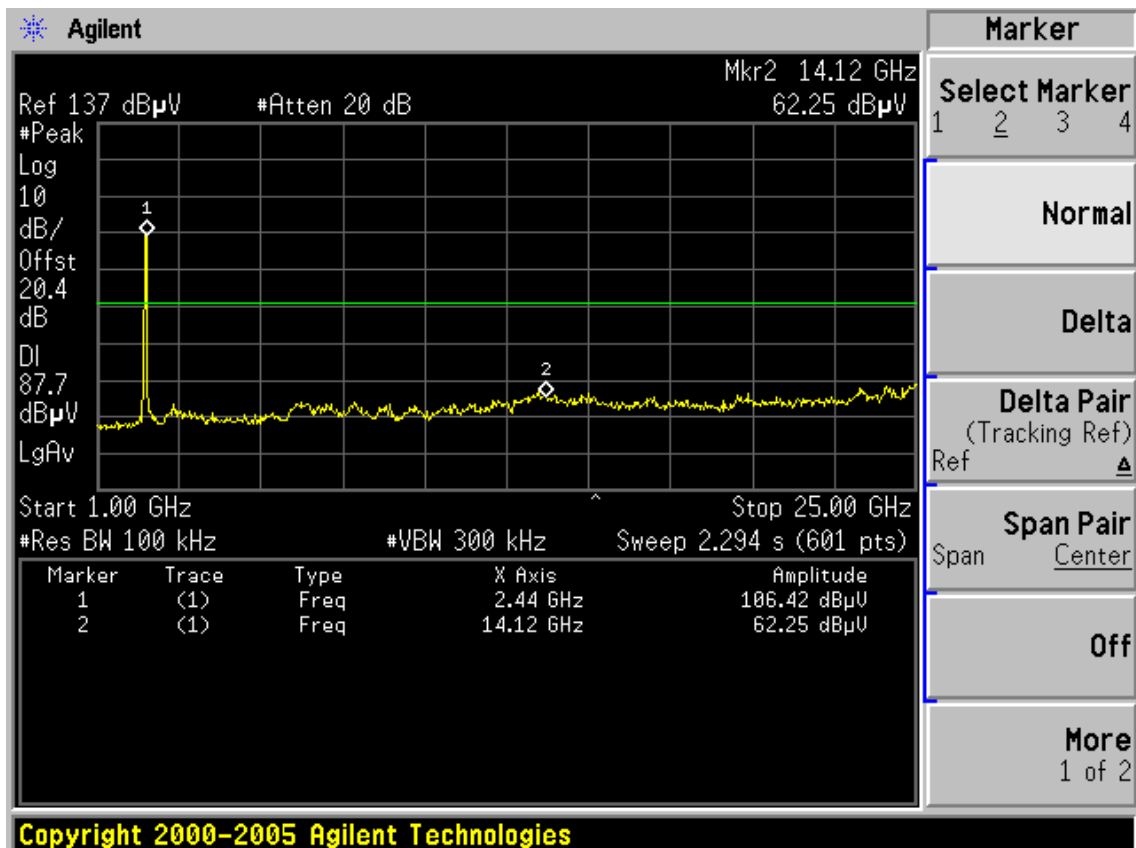


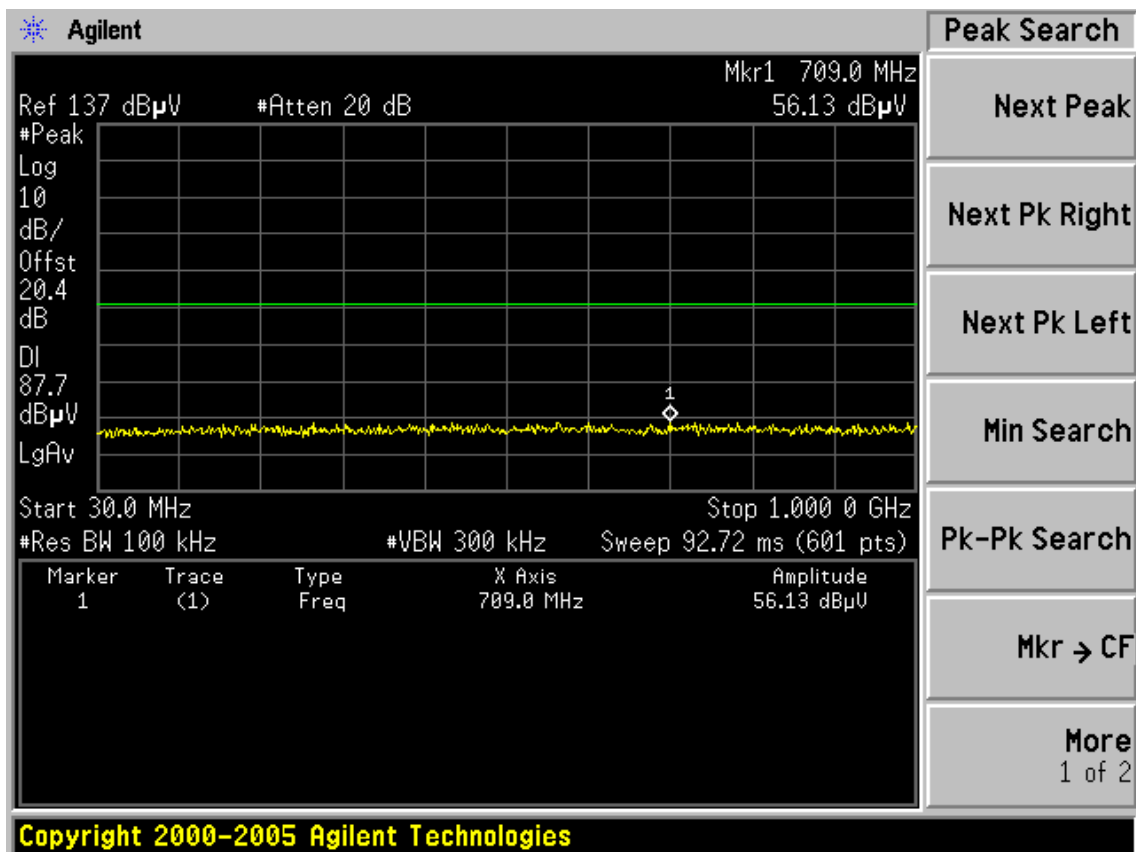




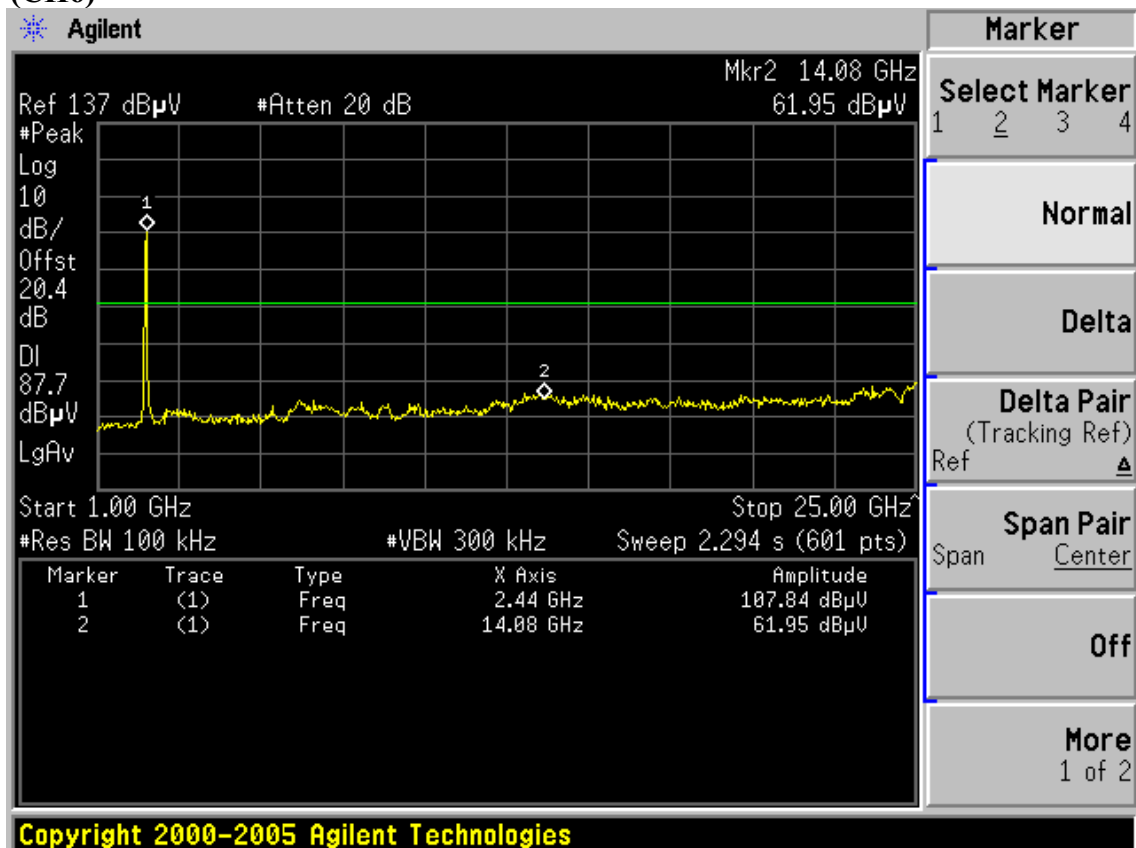
Test Mode: IEEE 802.11n HT40 TX (2.4G)

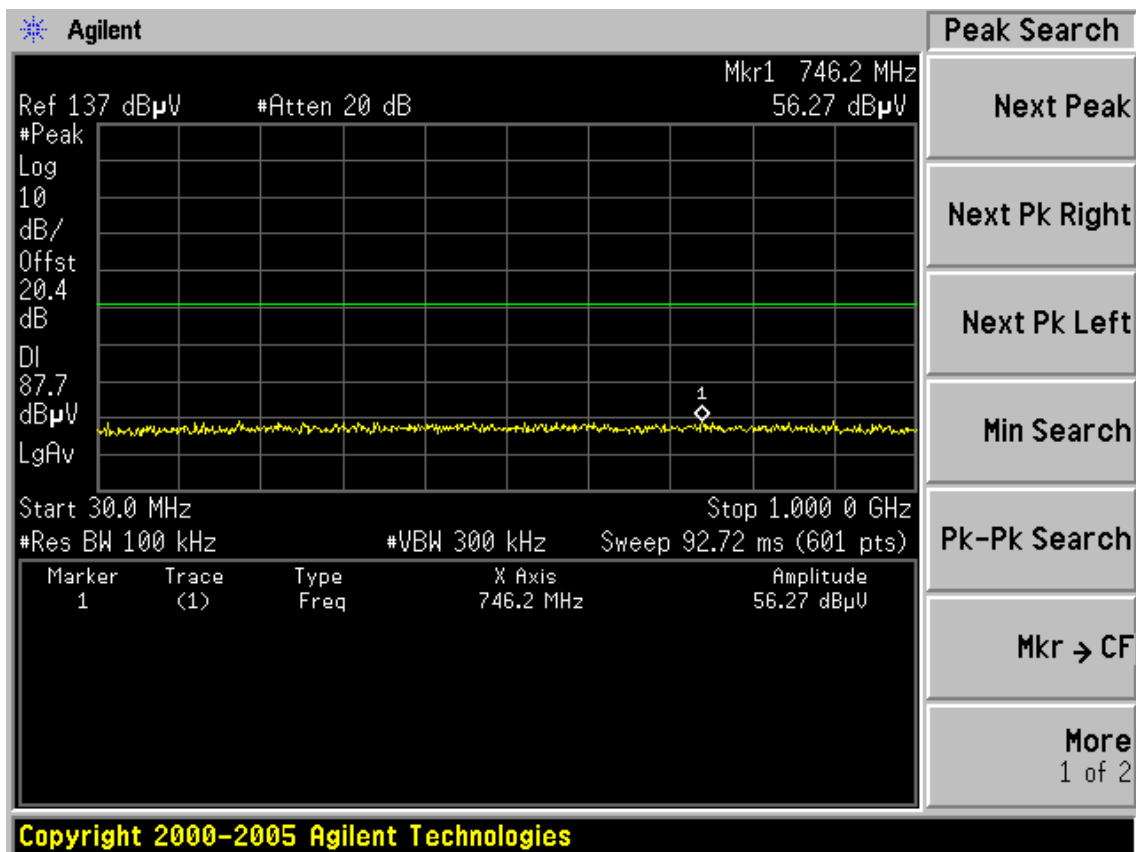
AT1: (CH3)



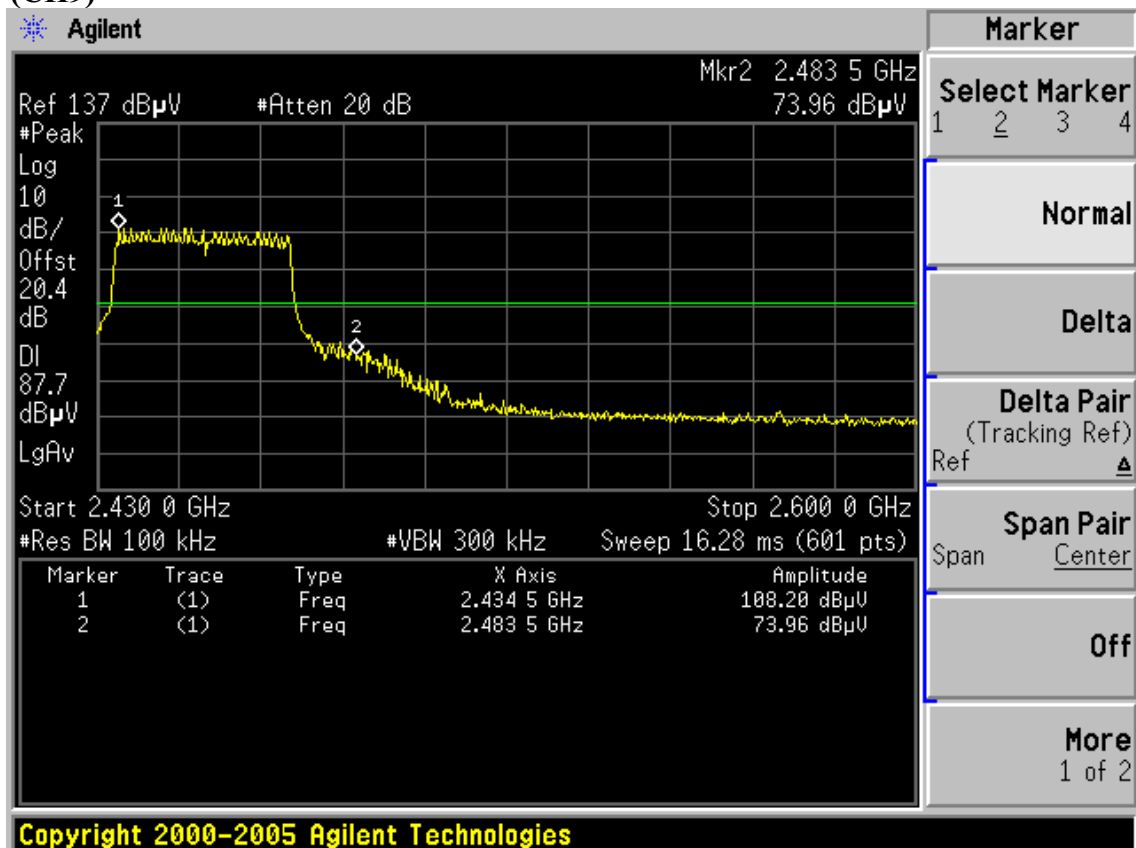


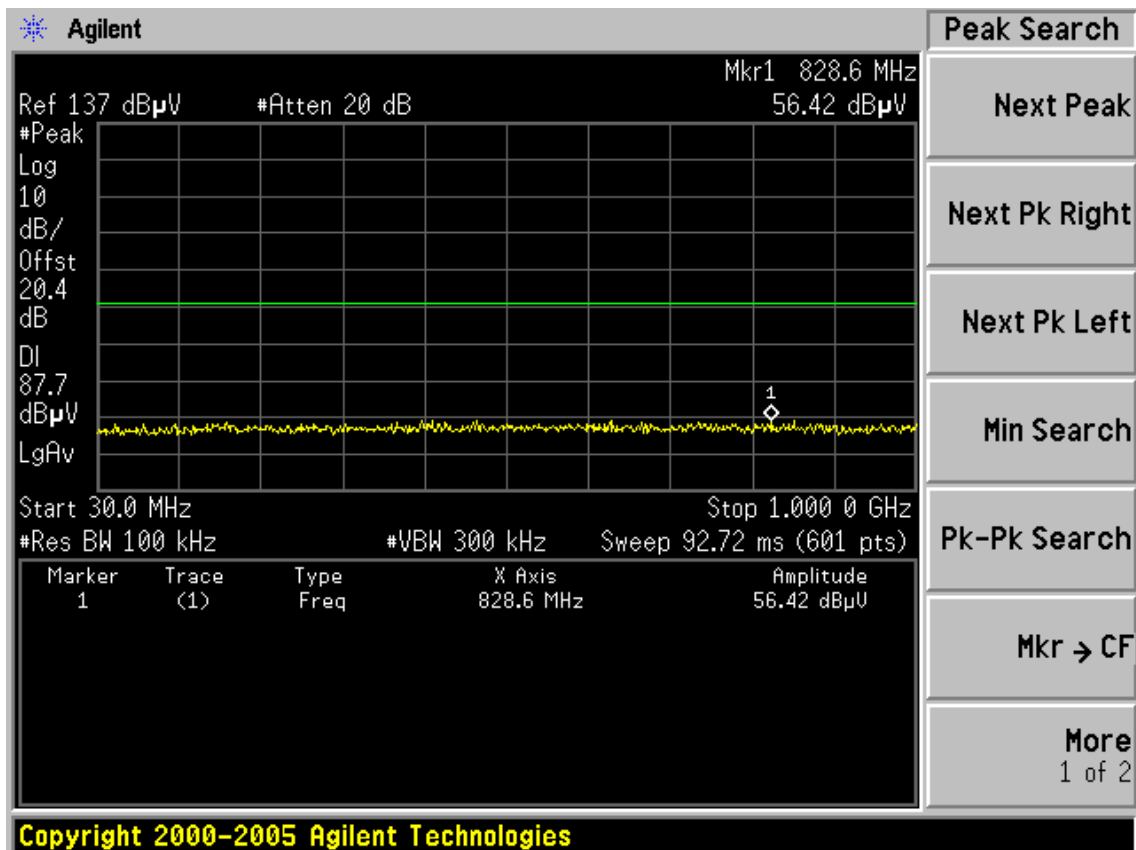
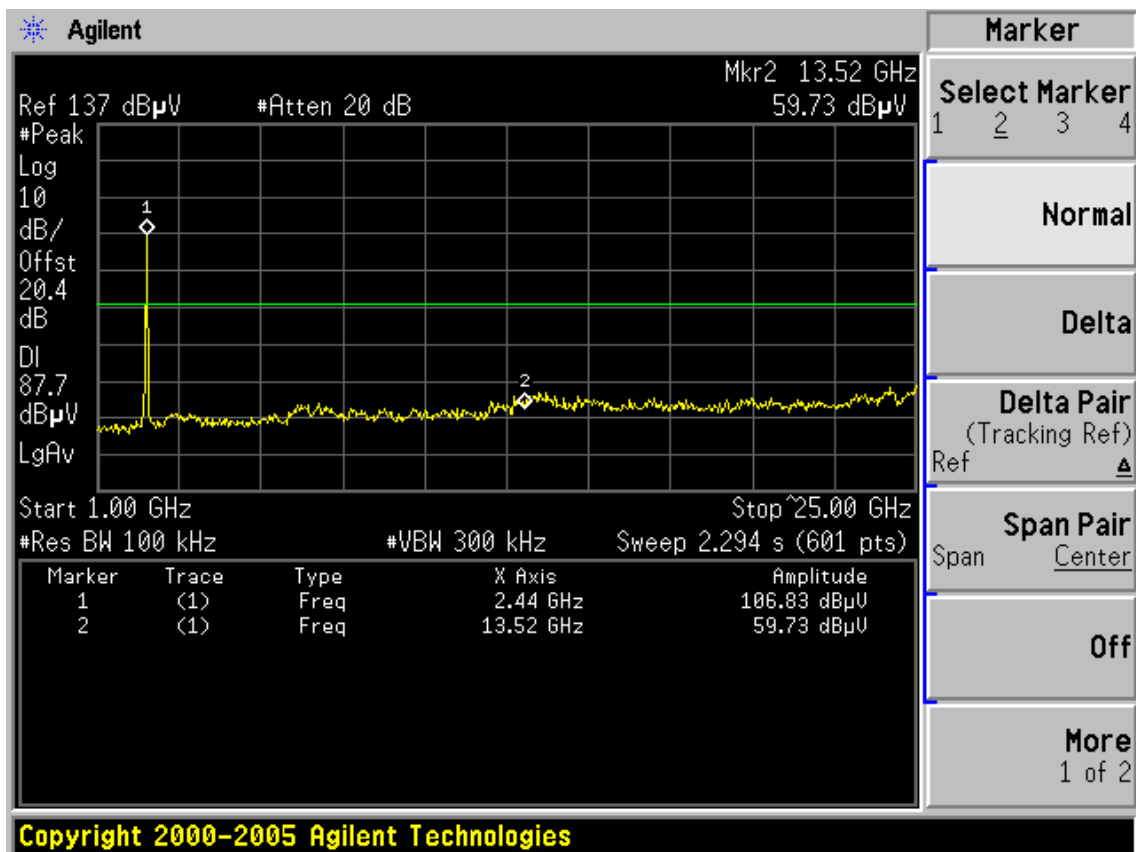
(CH6)



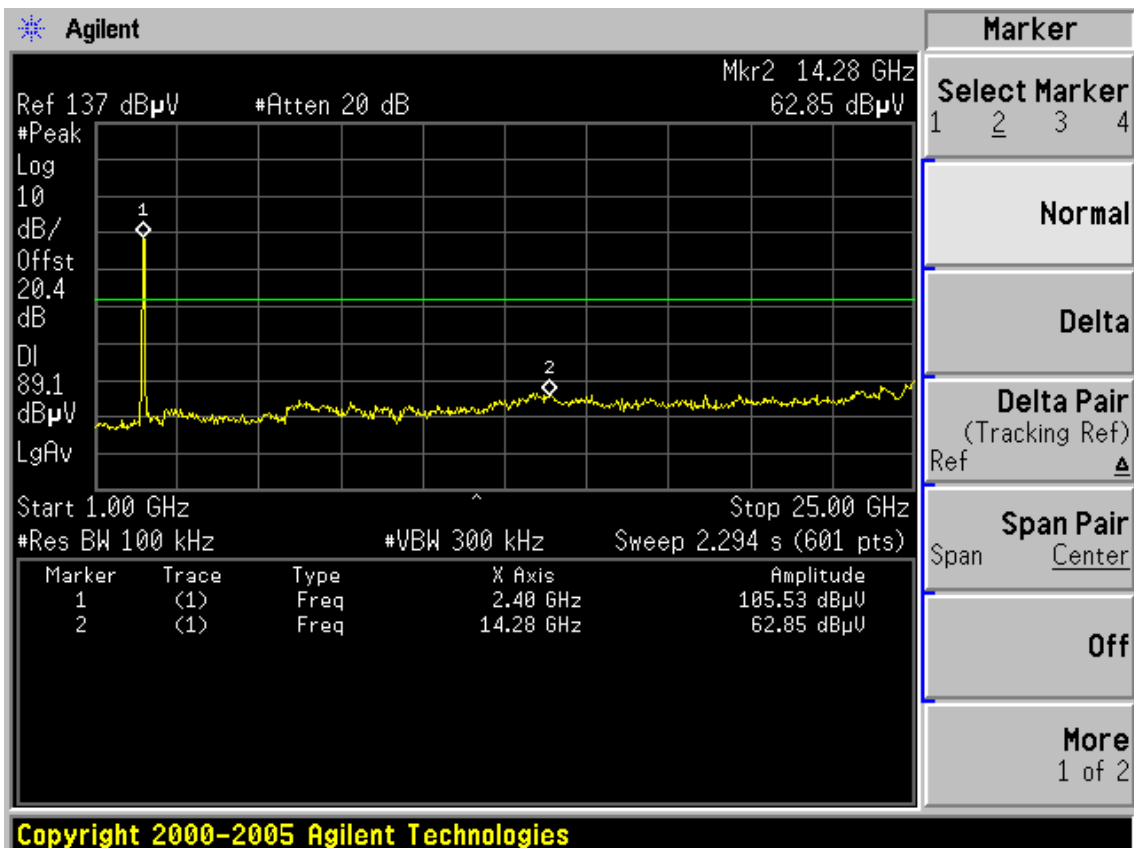
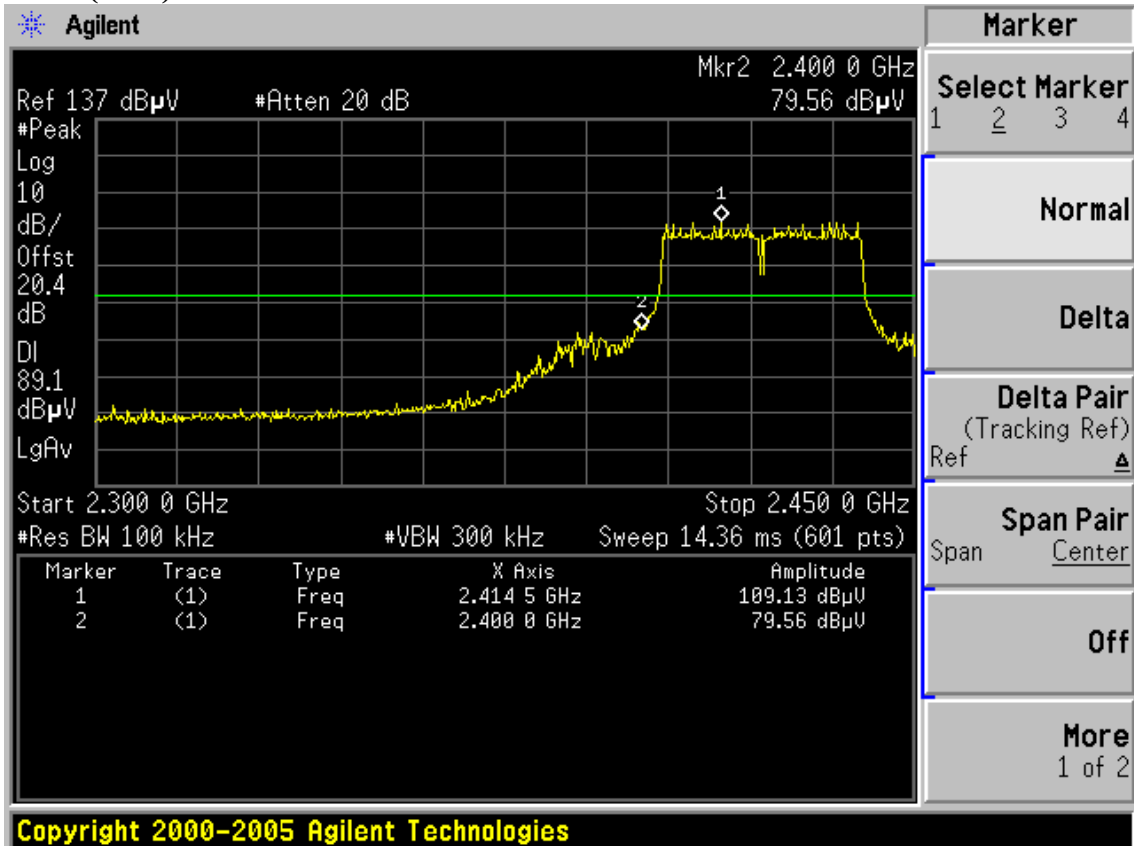


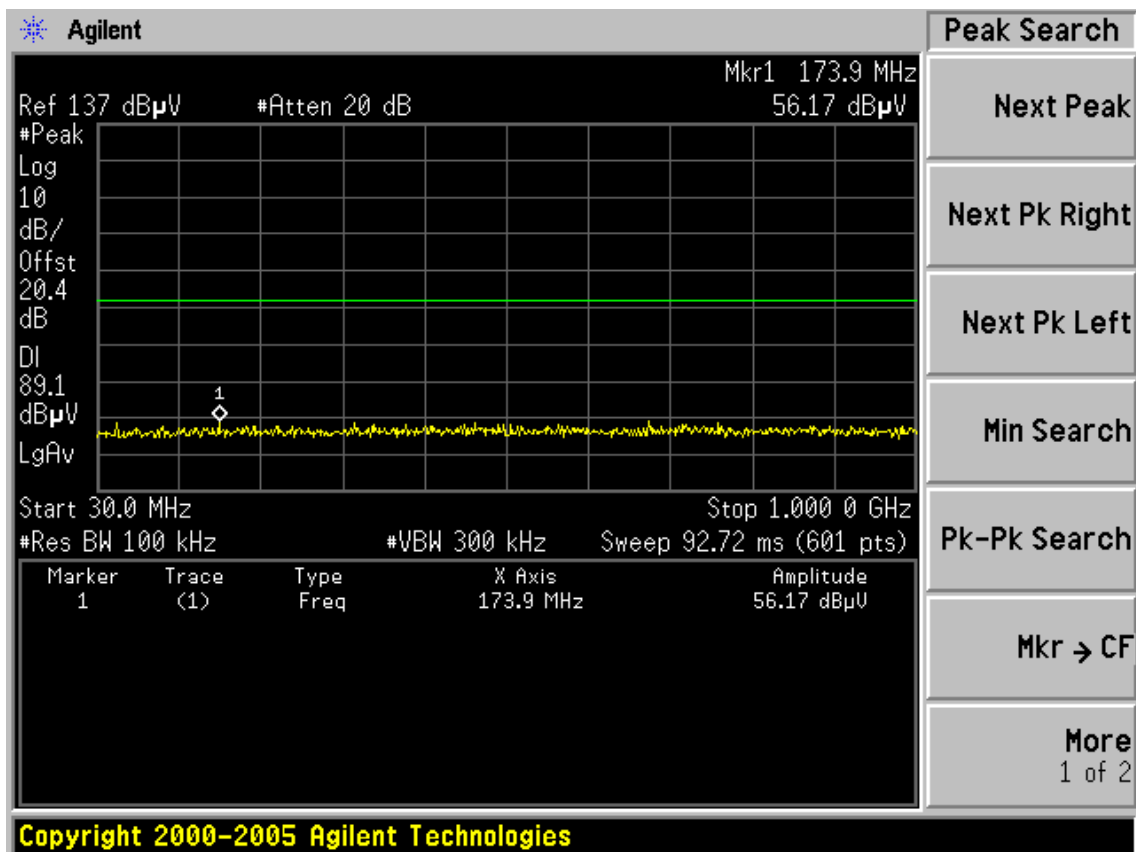
(CH9)



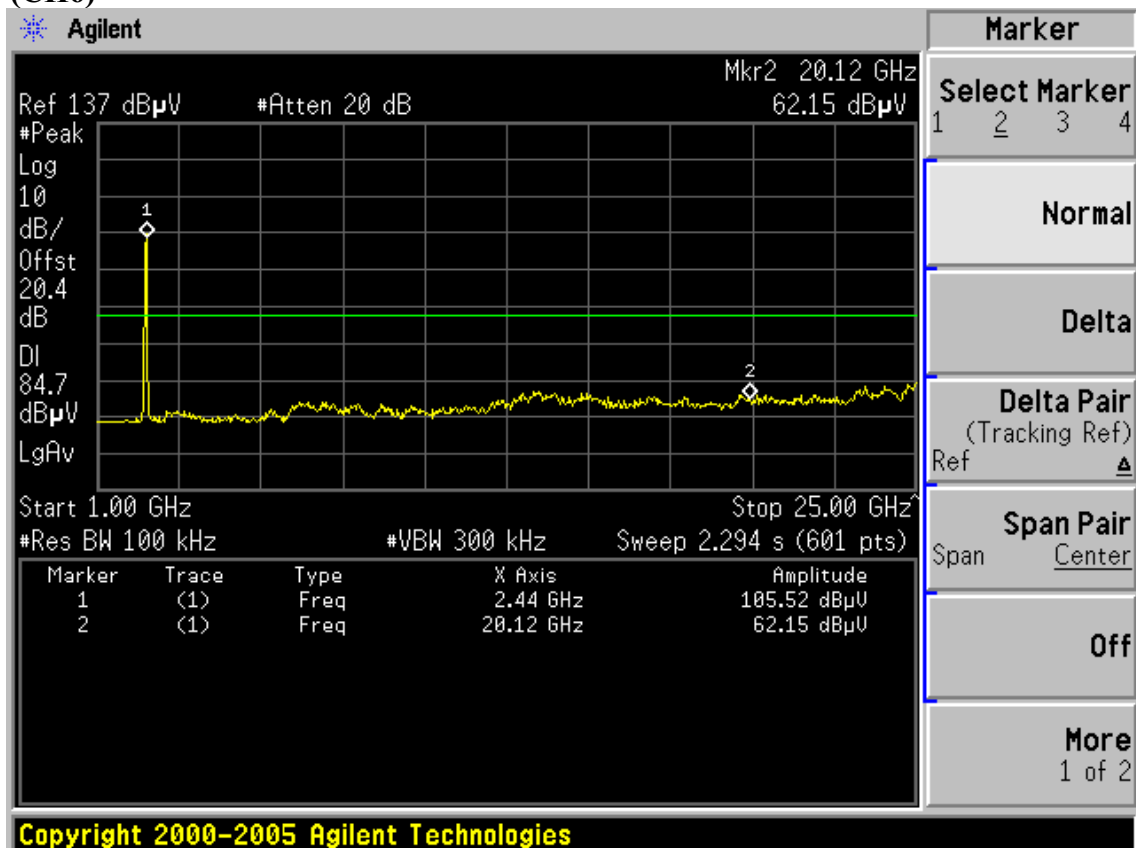


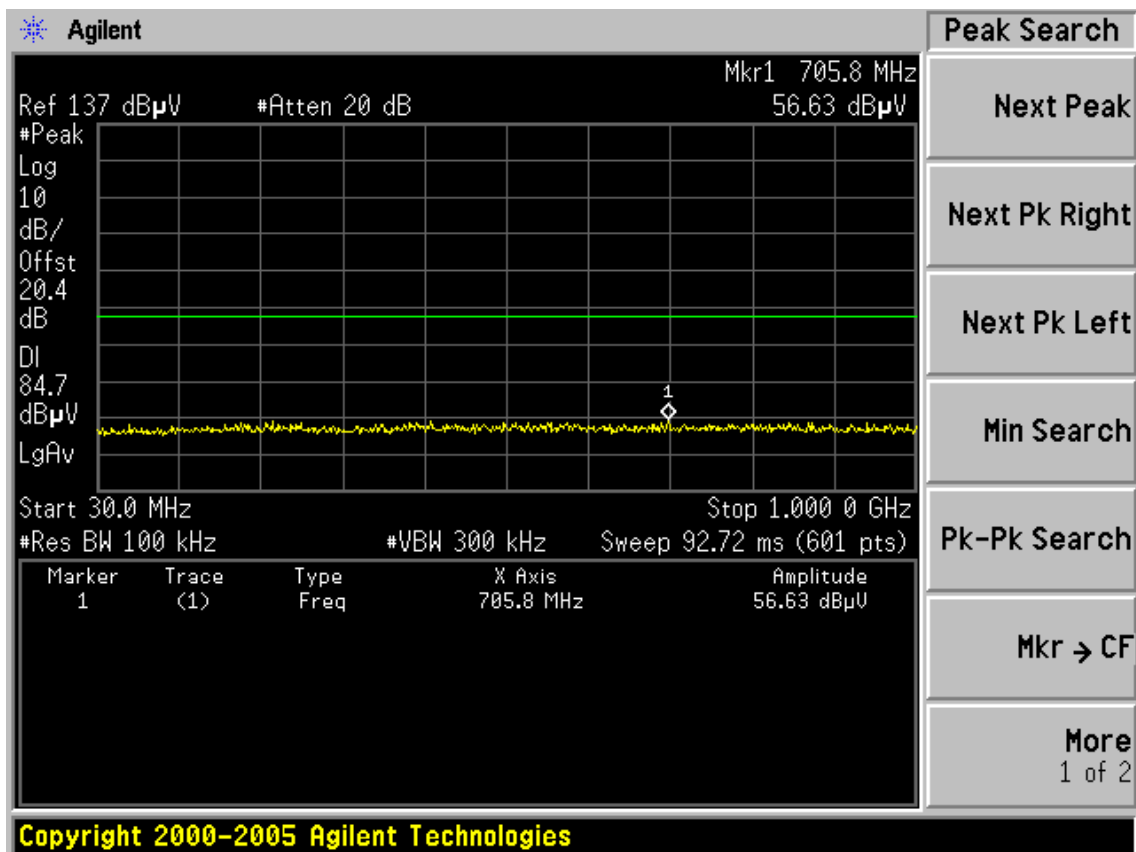
AT2: (CH3)



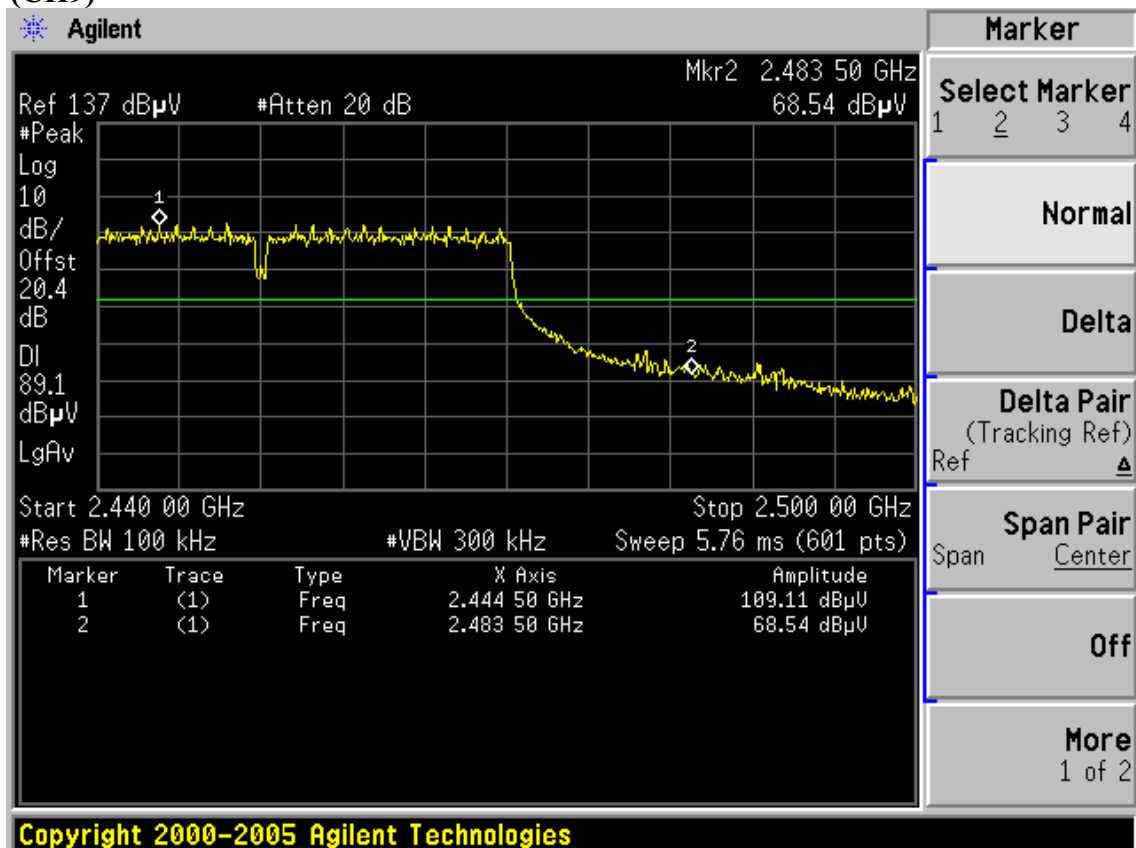


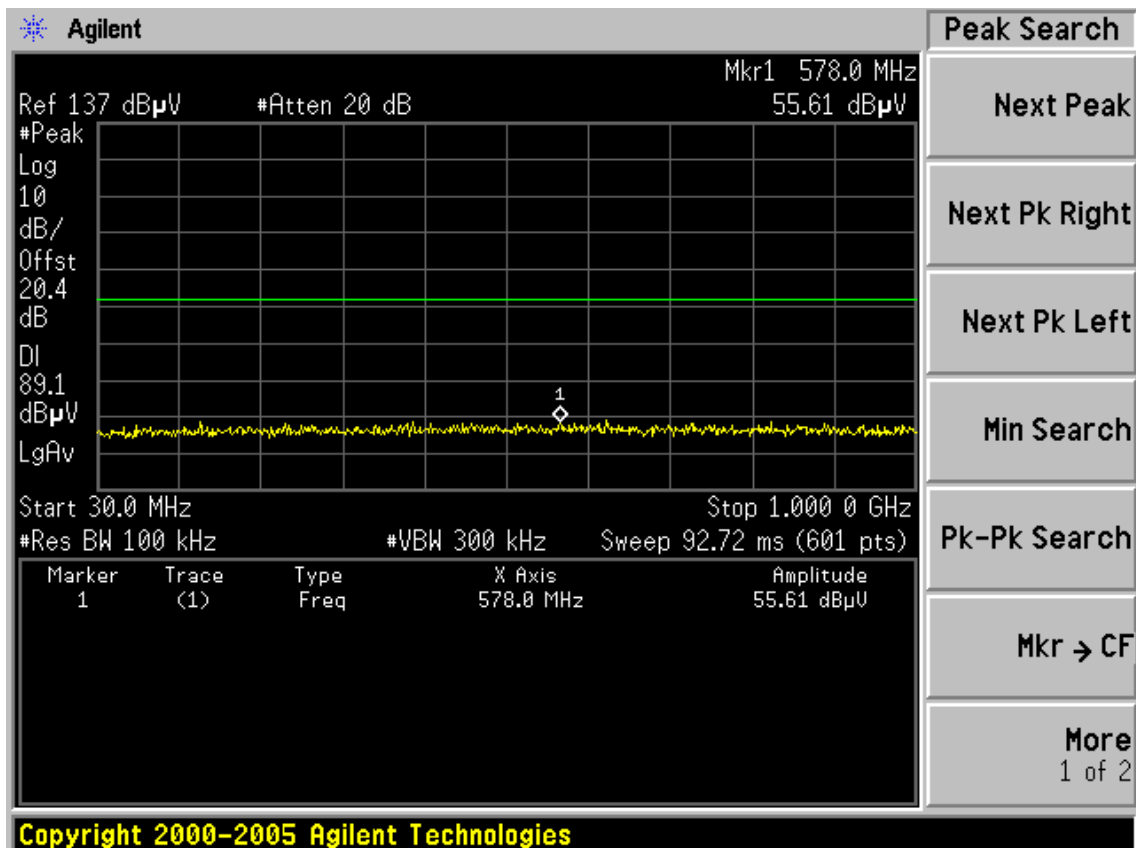
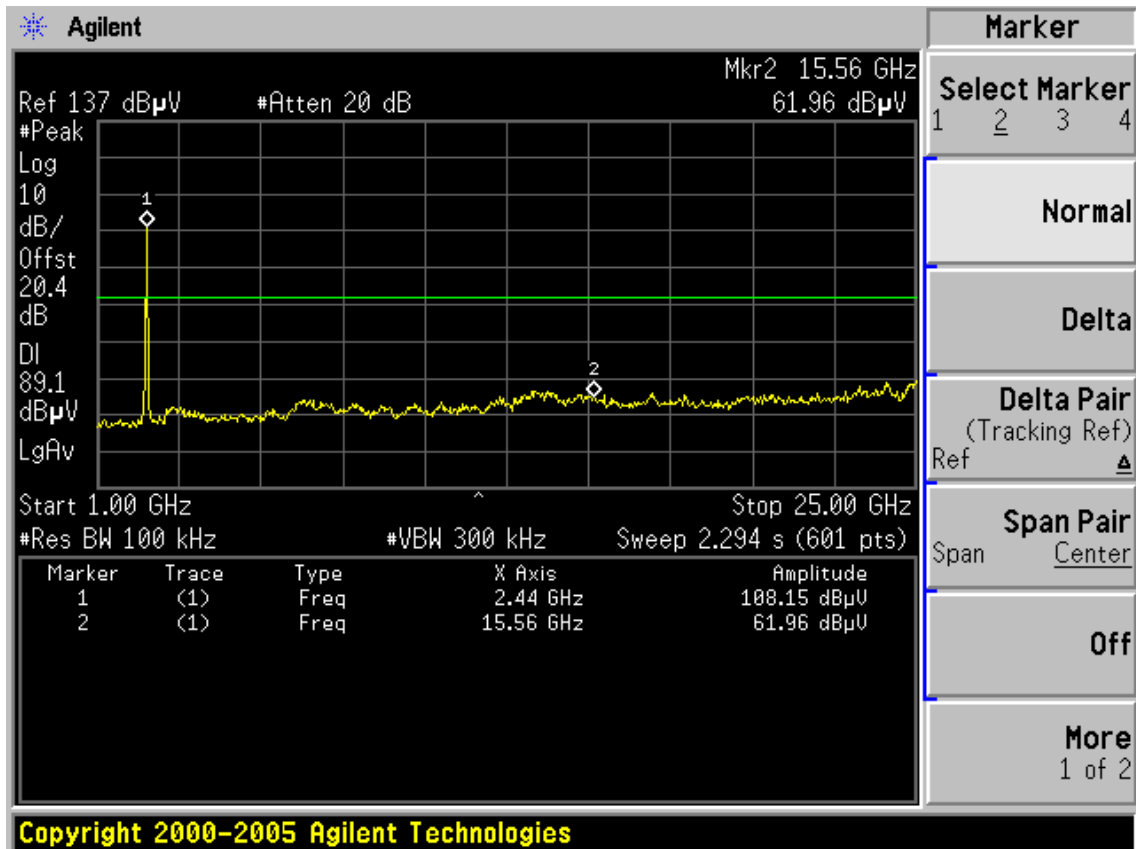
(CH6)



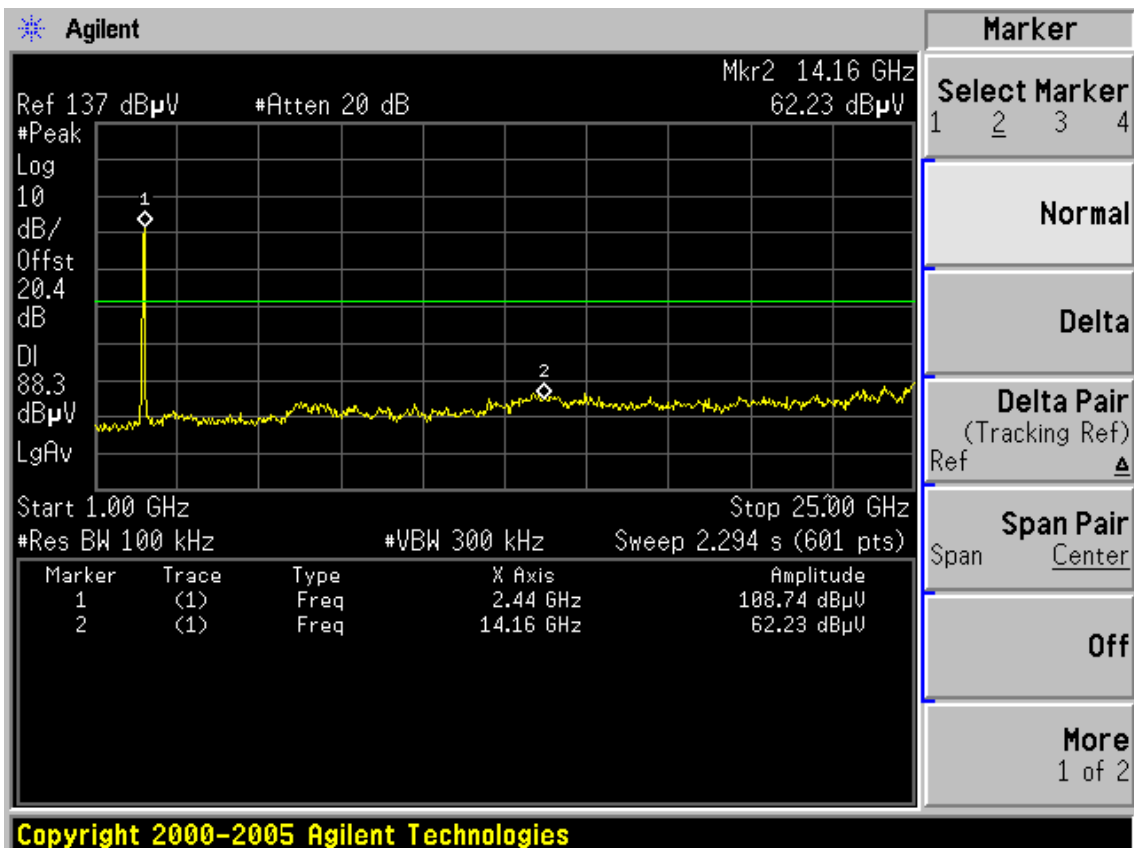
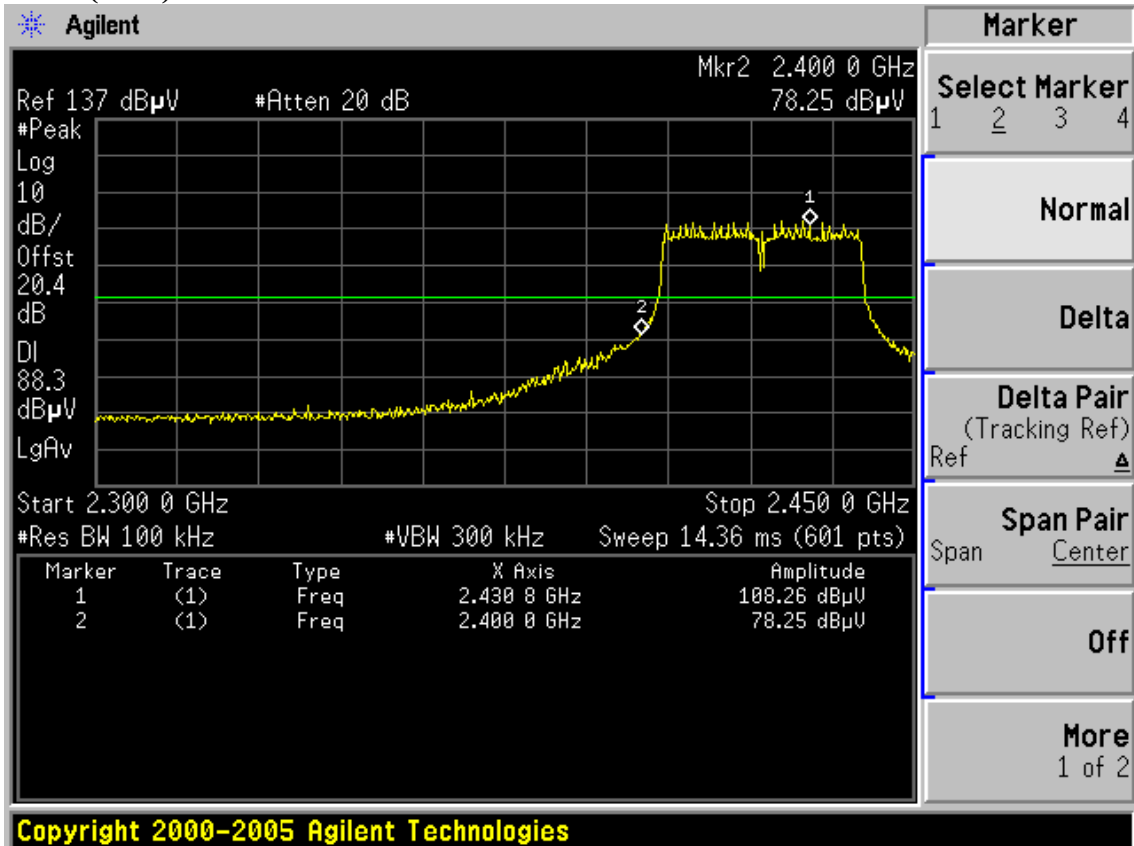


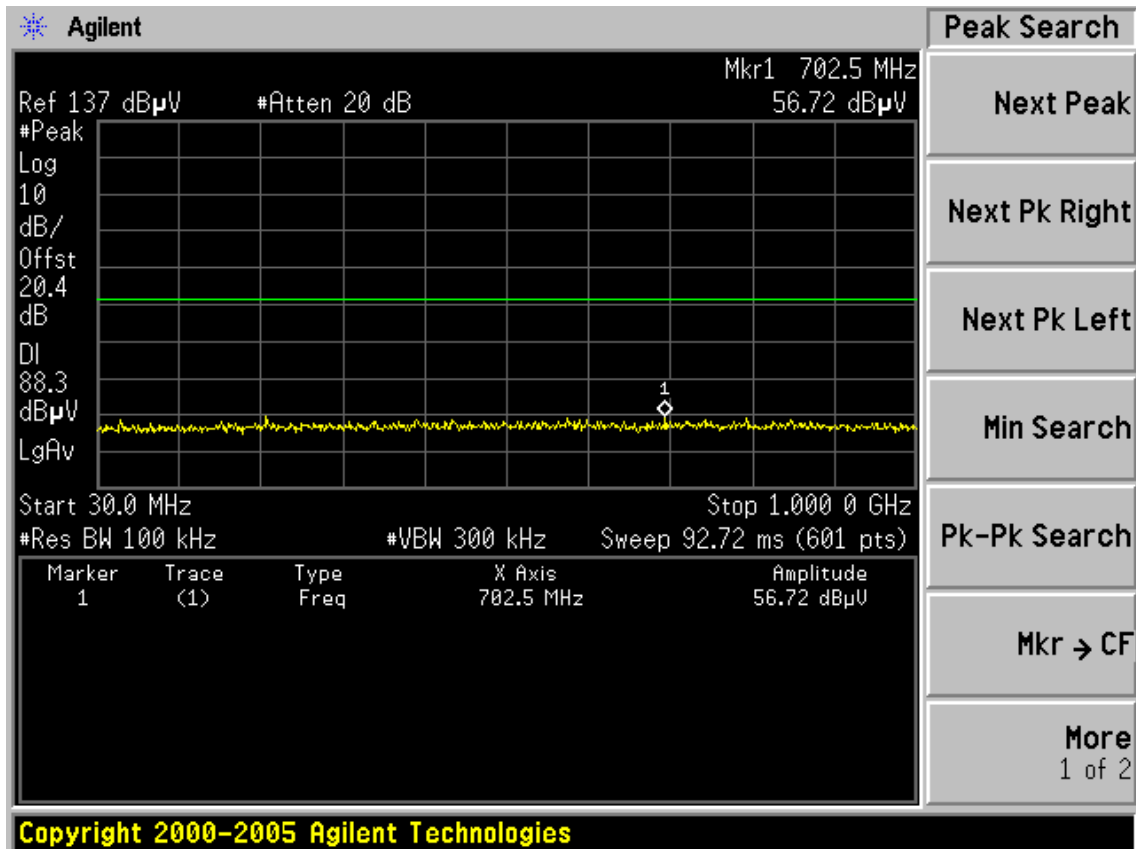
(CH9)



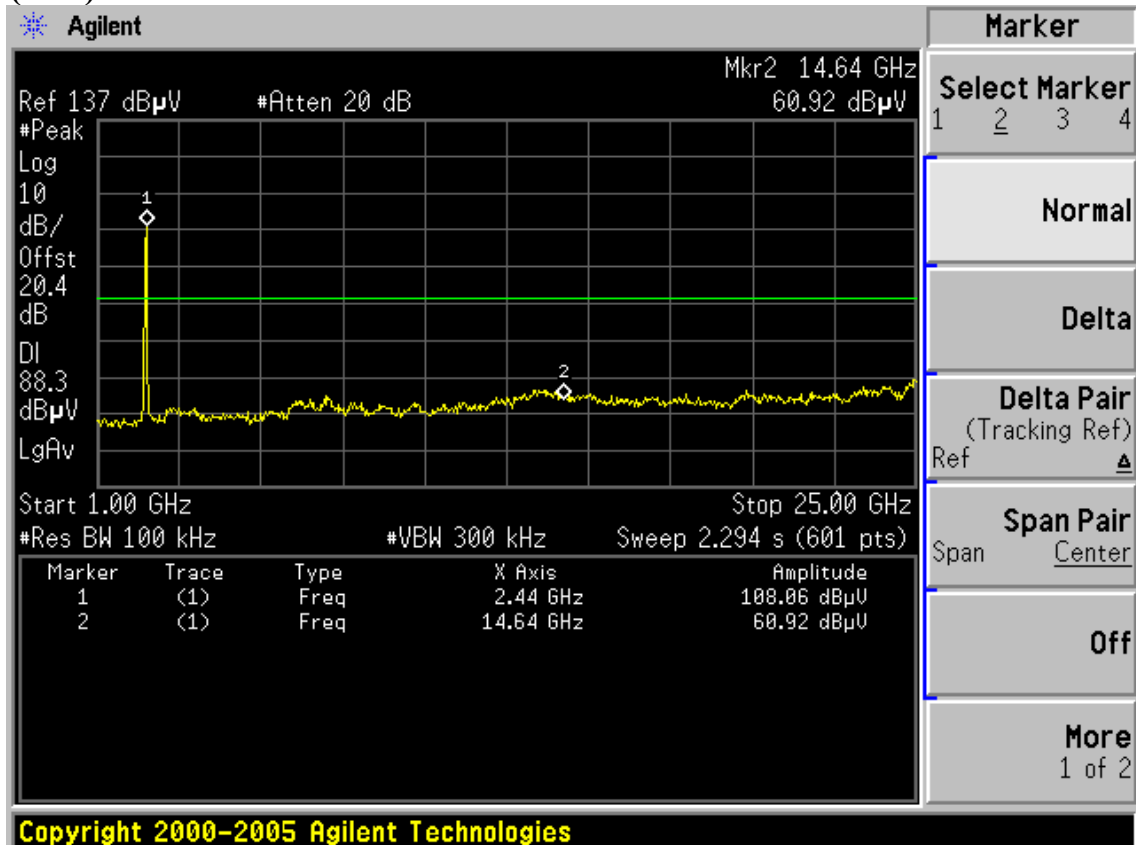


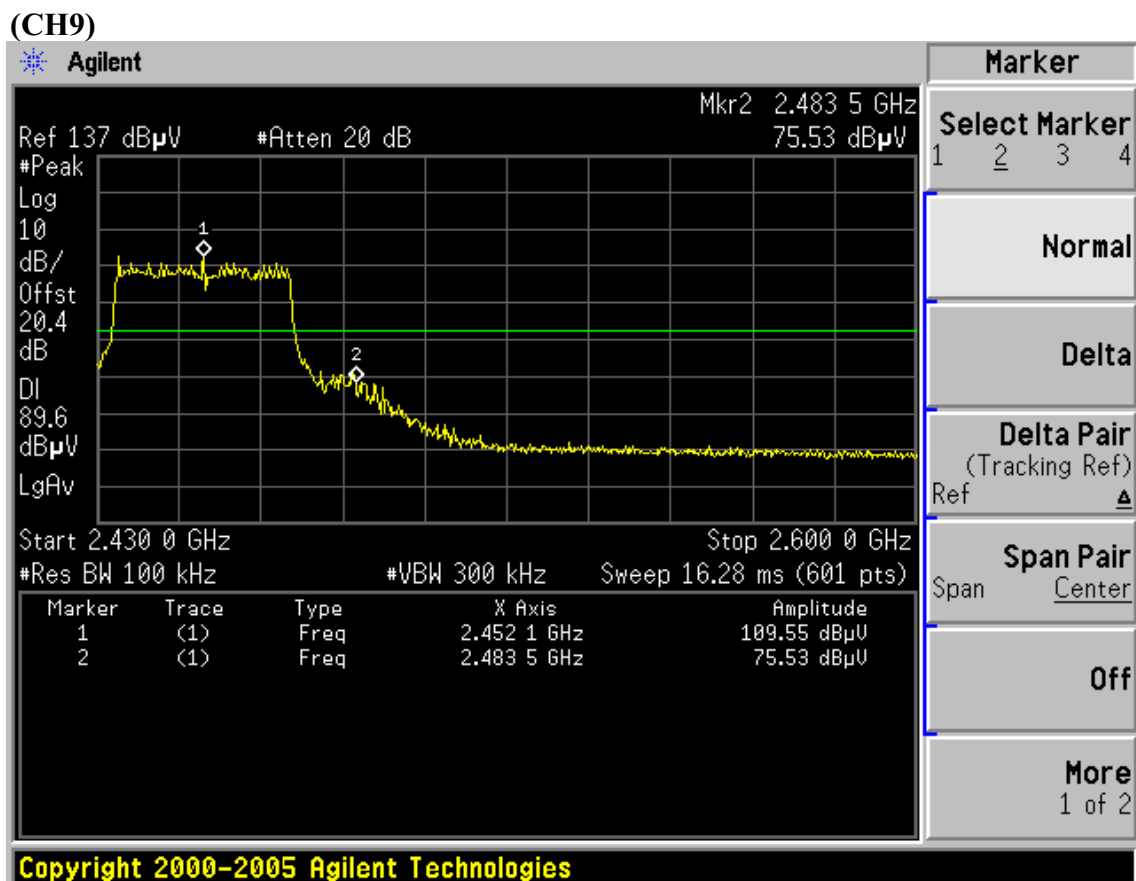
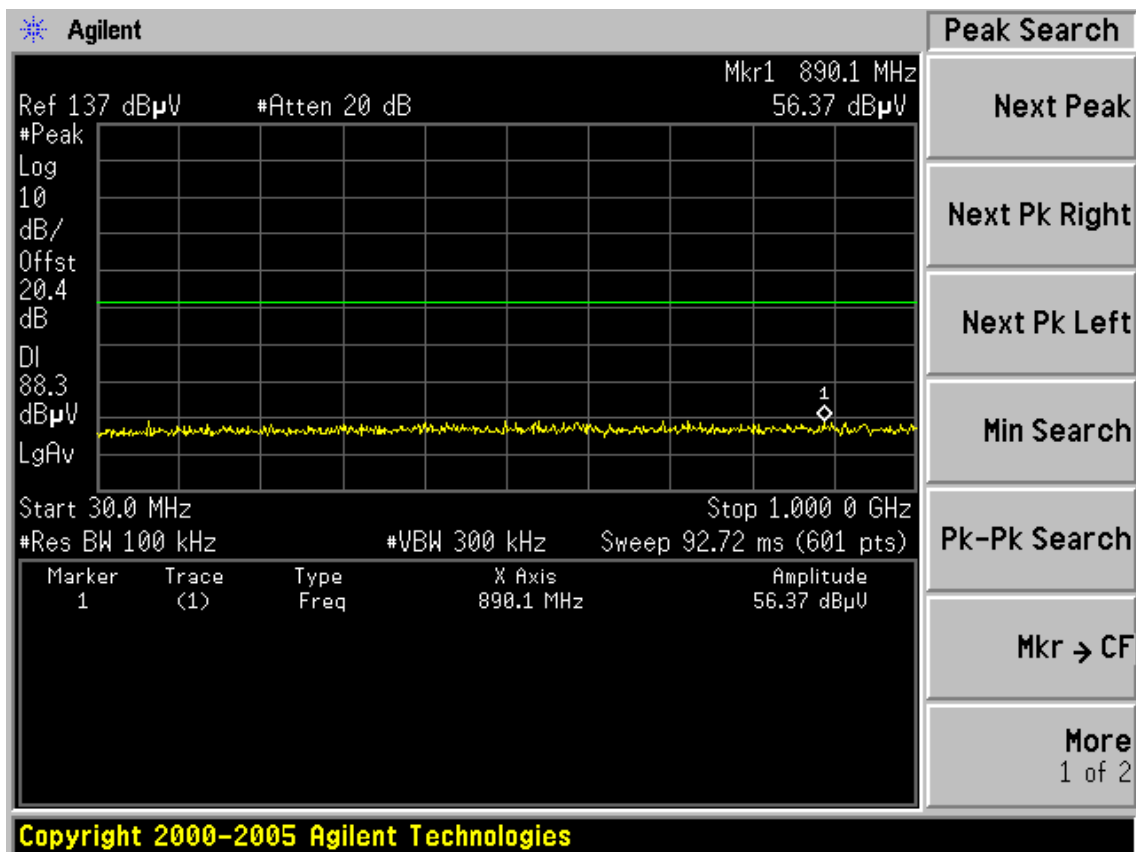
AT3: (CH3)

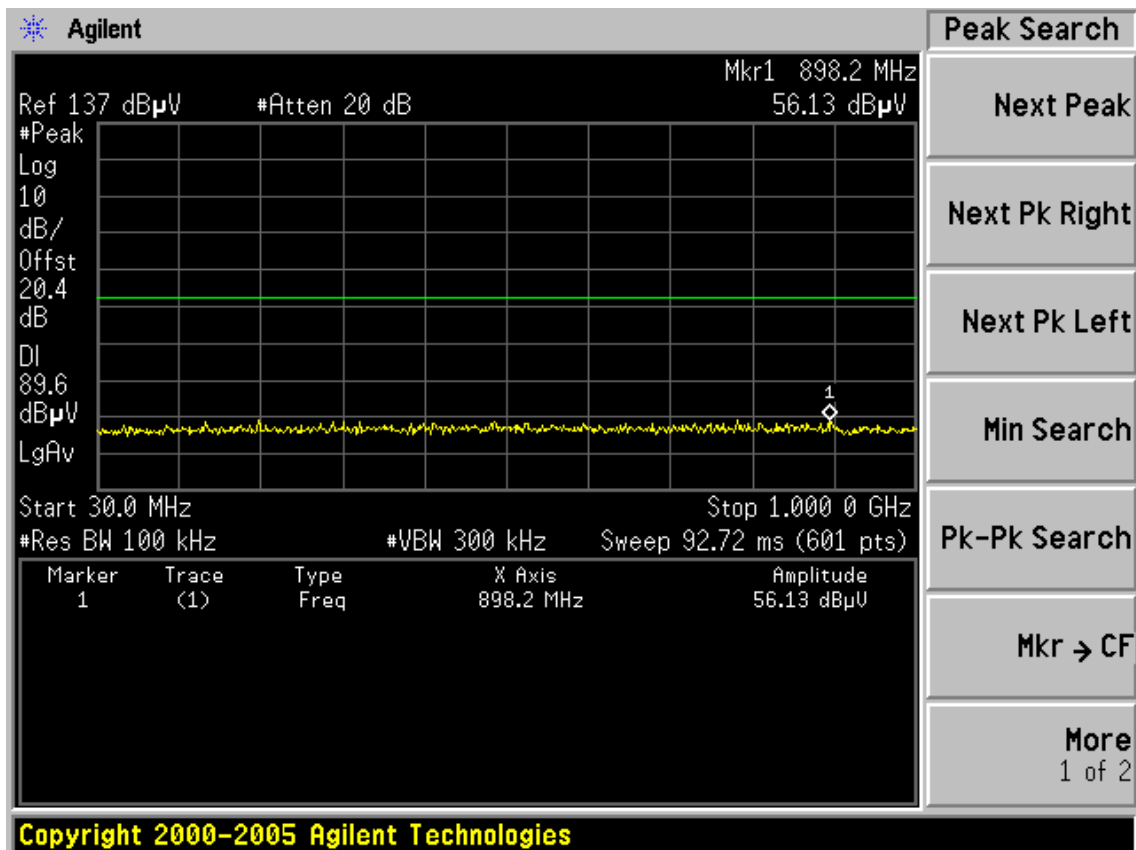
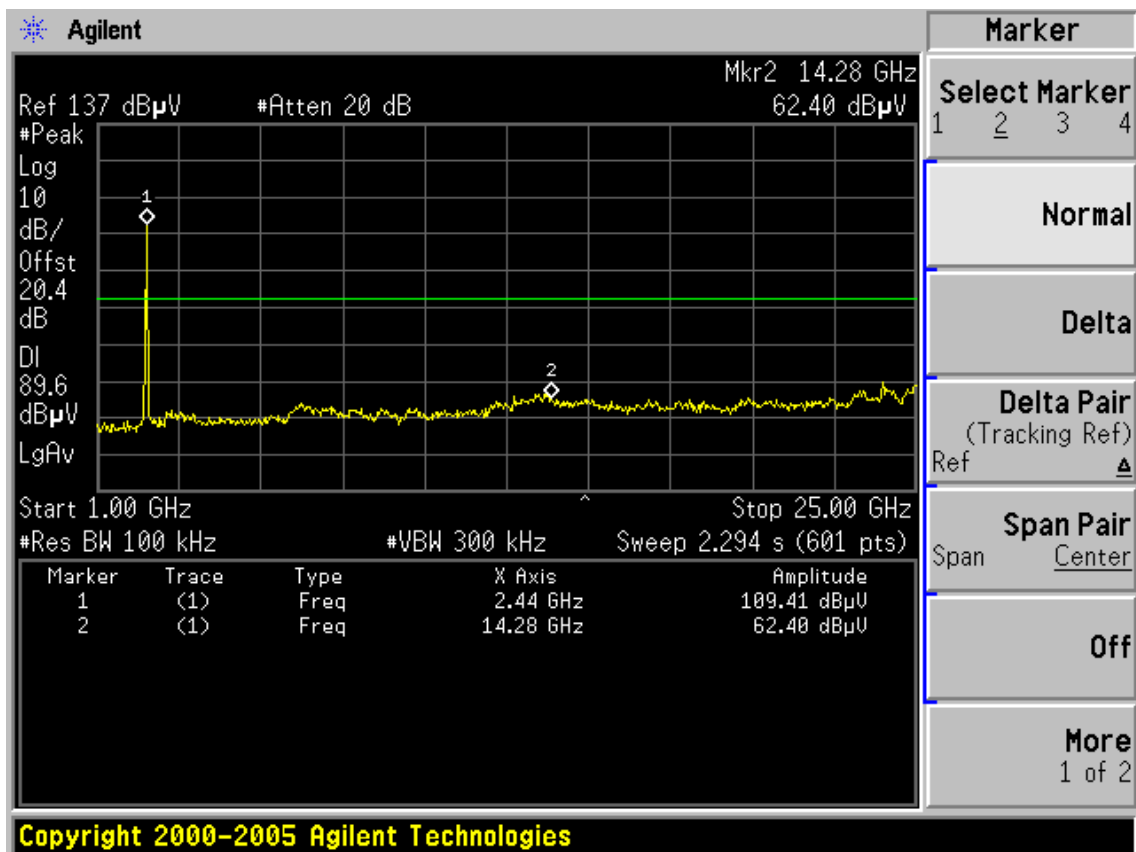




(CH6)

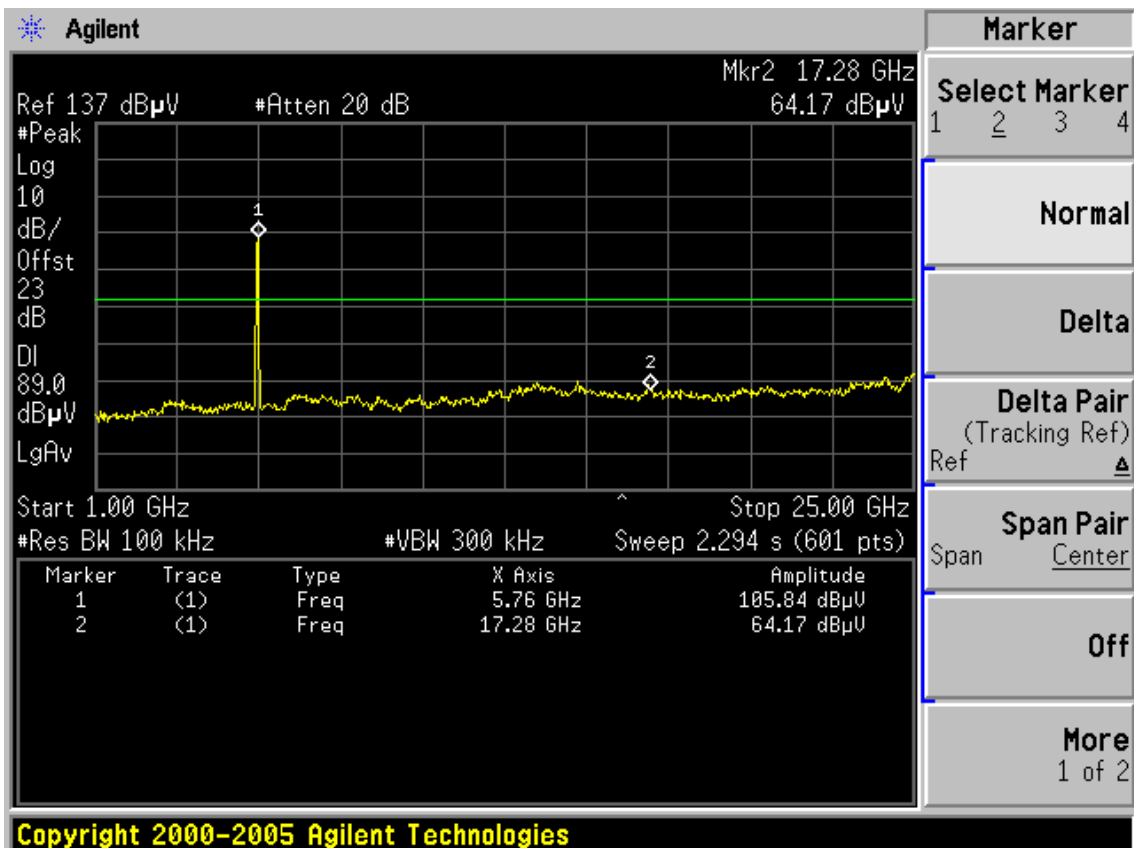
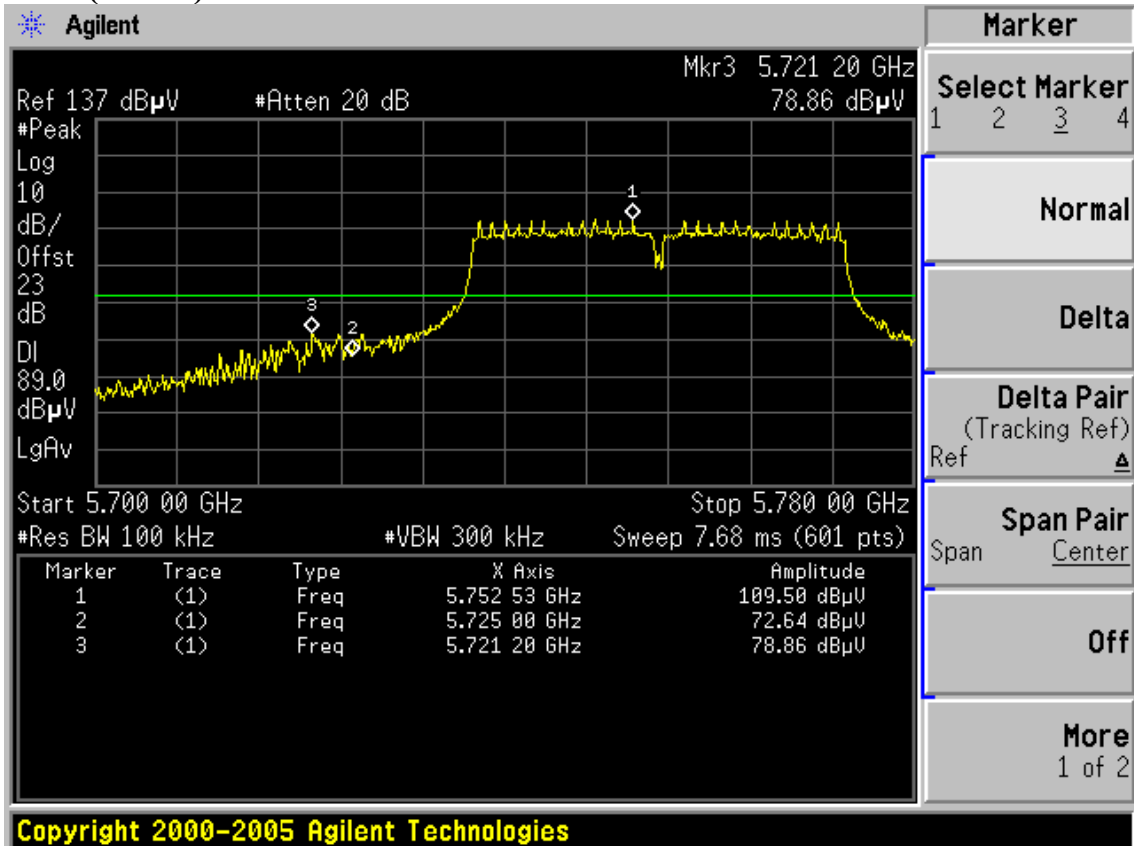


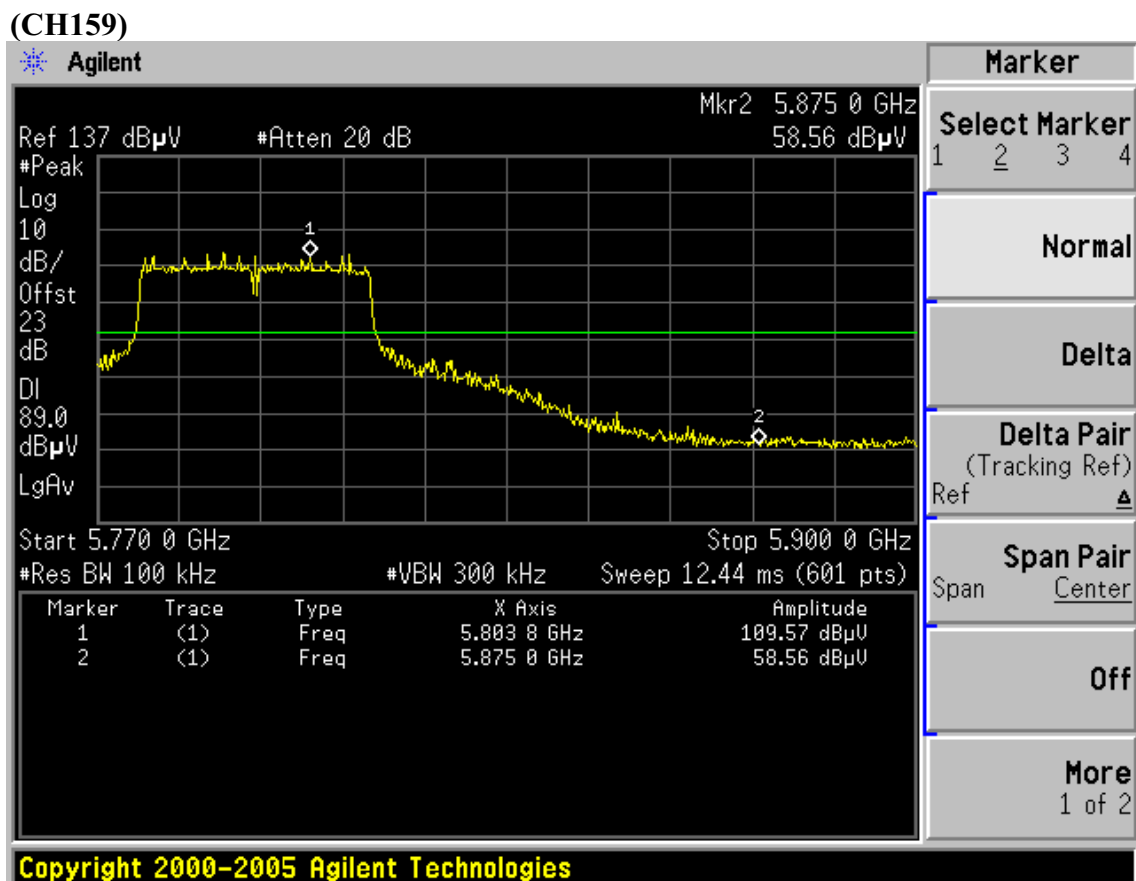
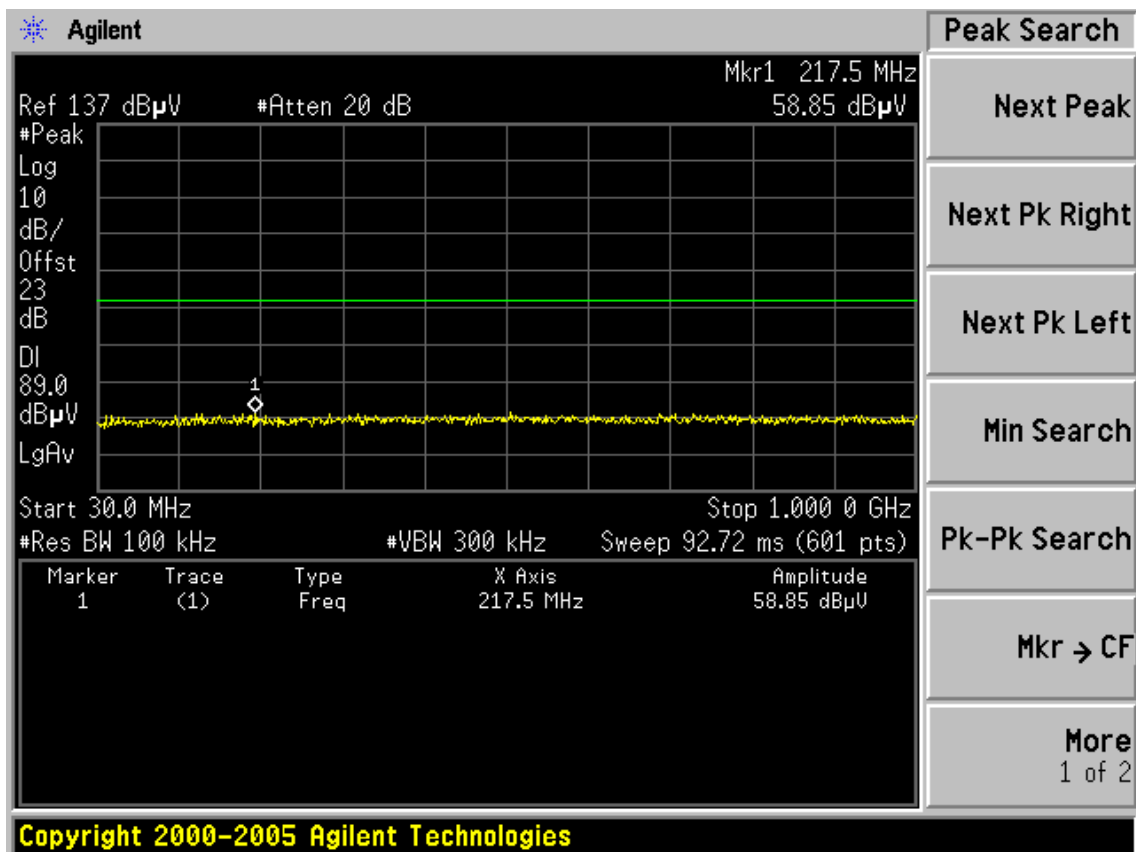


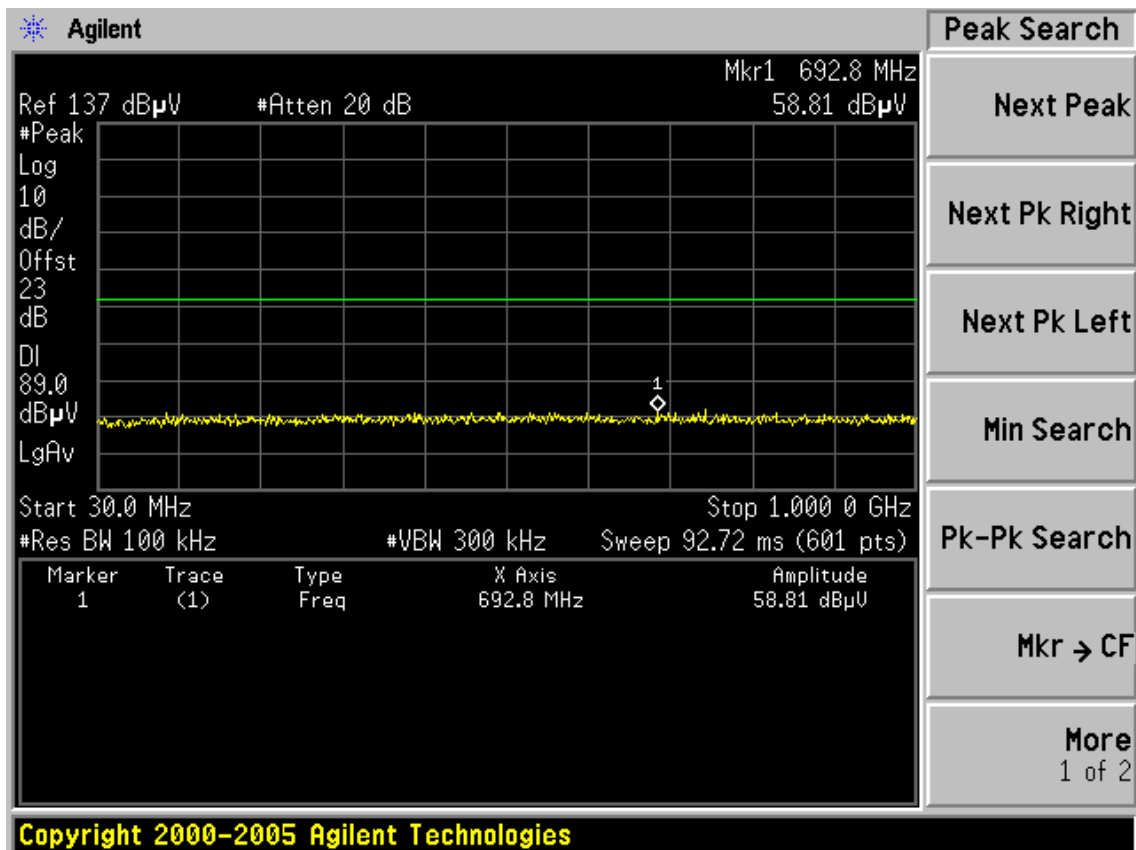
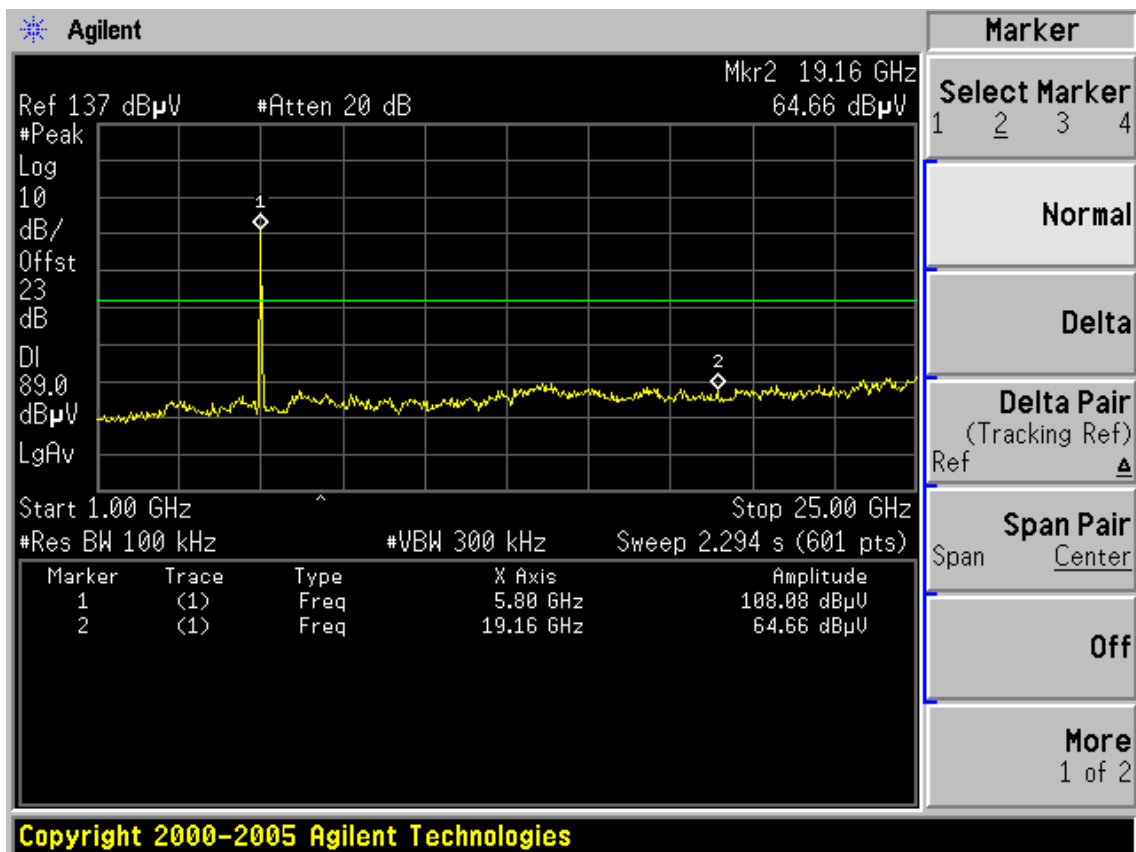


Test Mode: IEEE 802.11n HT40 TX (5.7G)

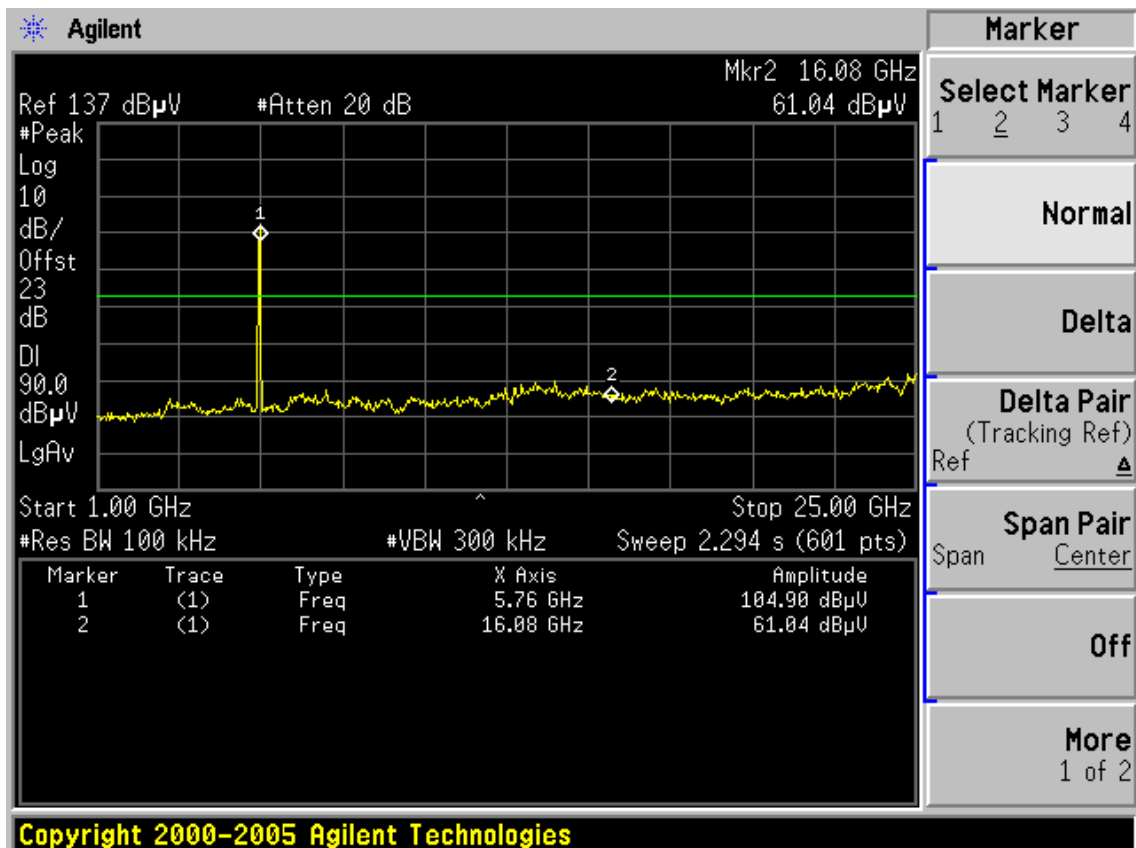
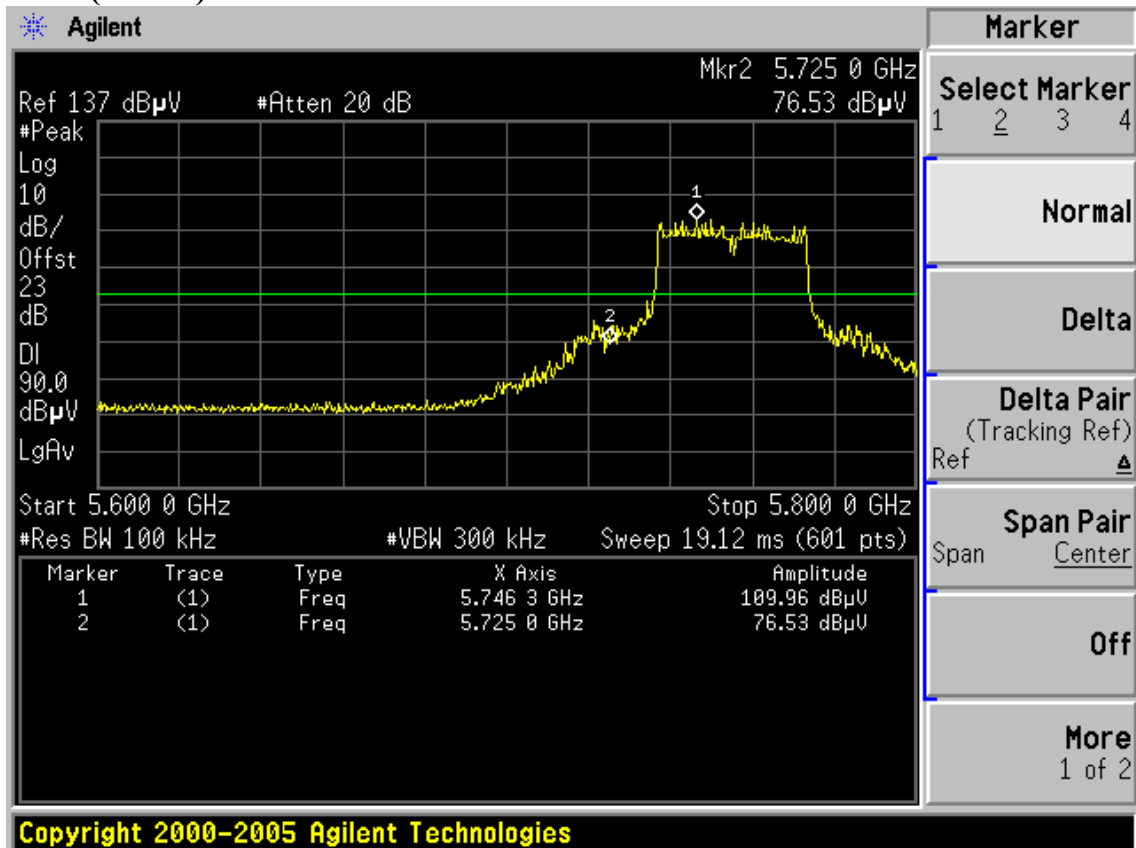
AT1: (CH151)

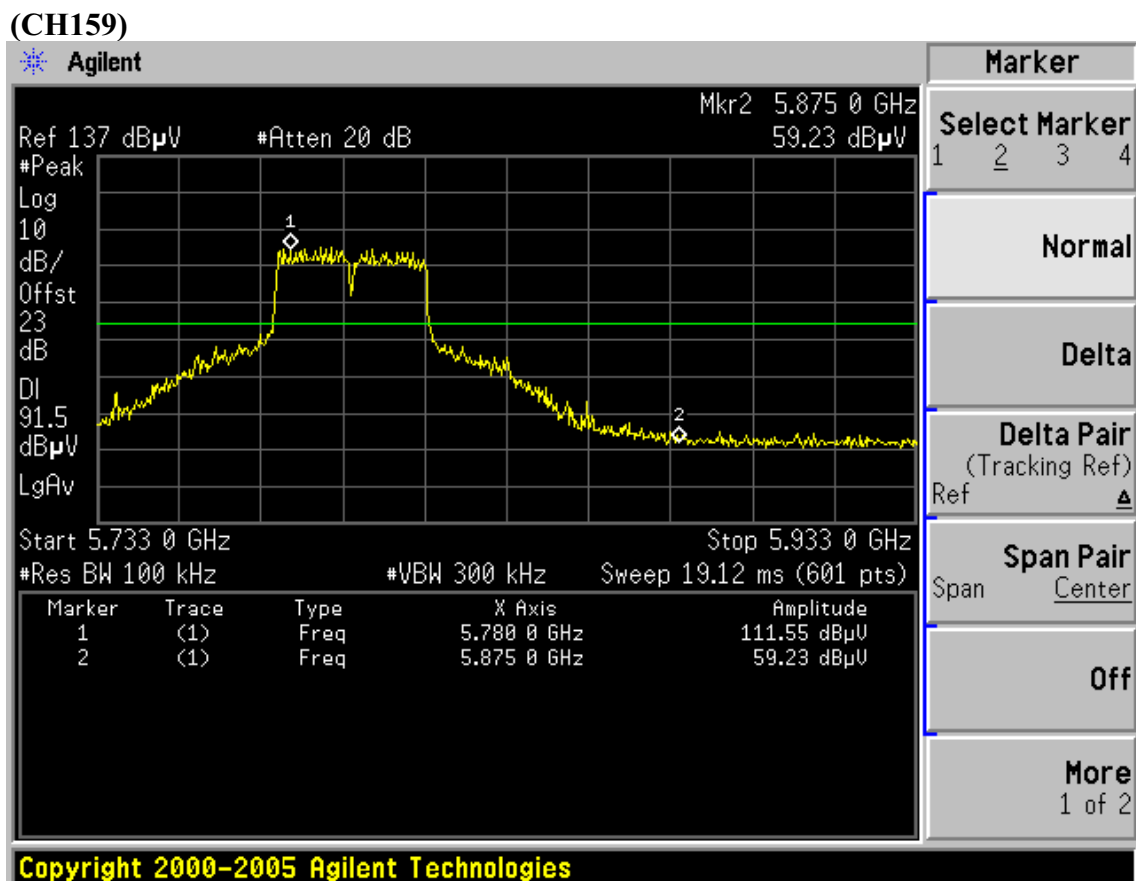
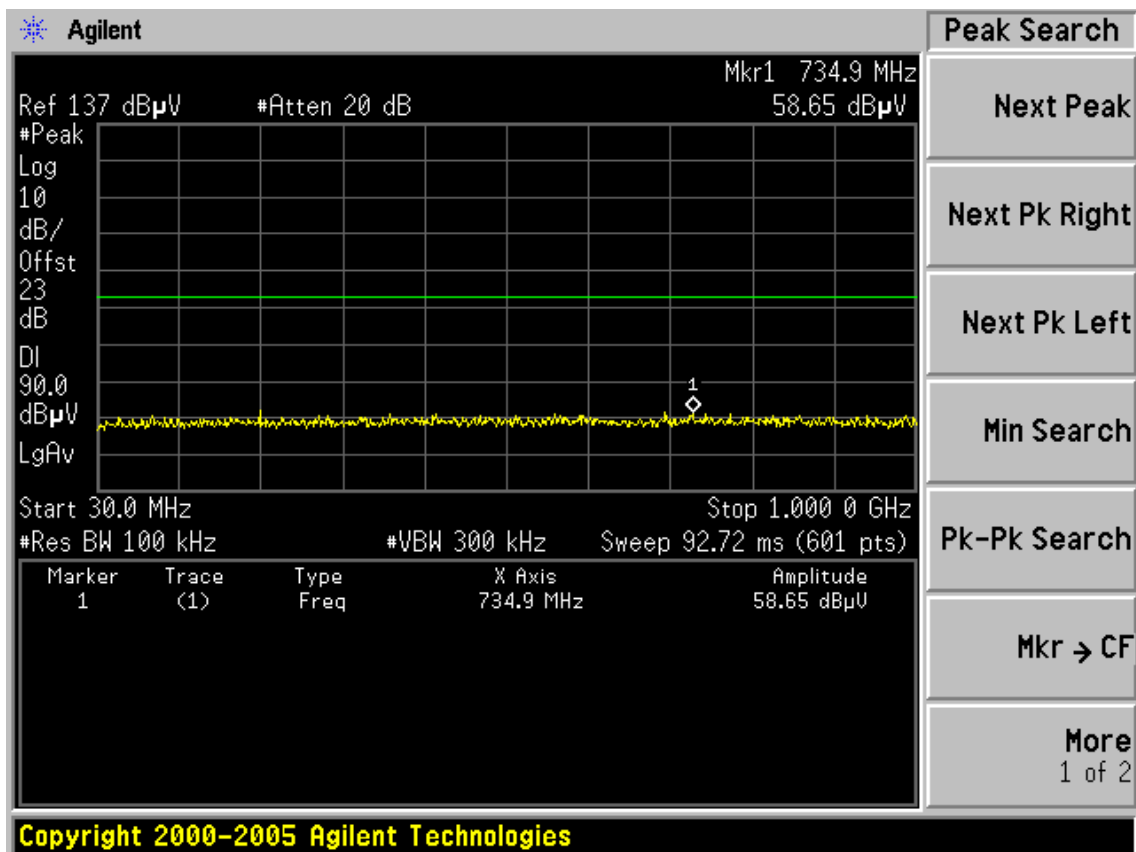


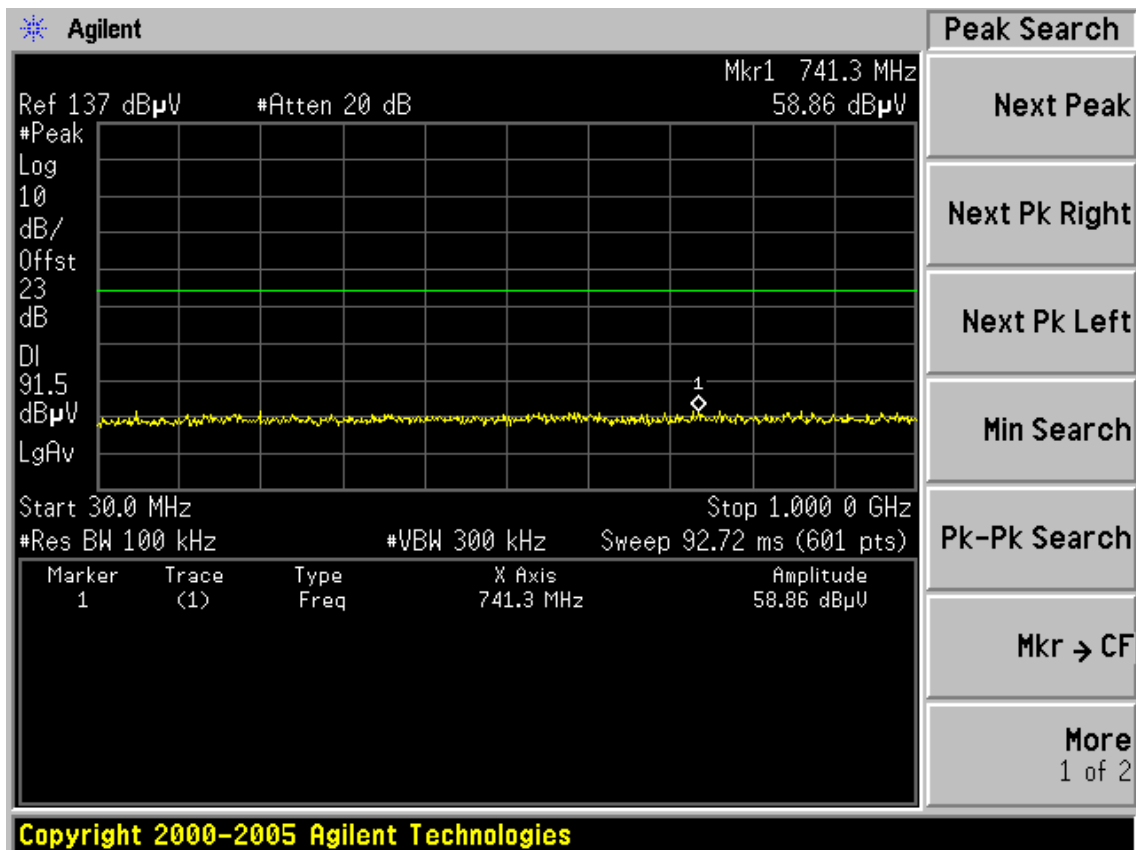
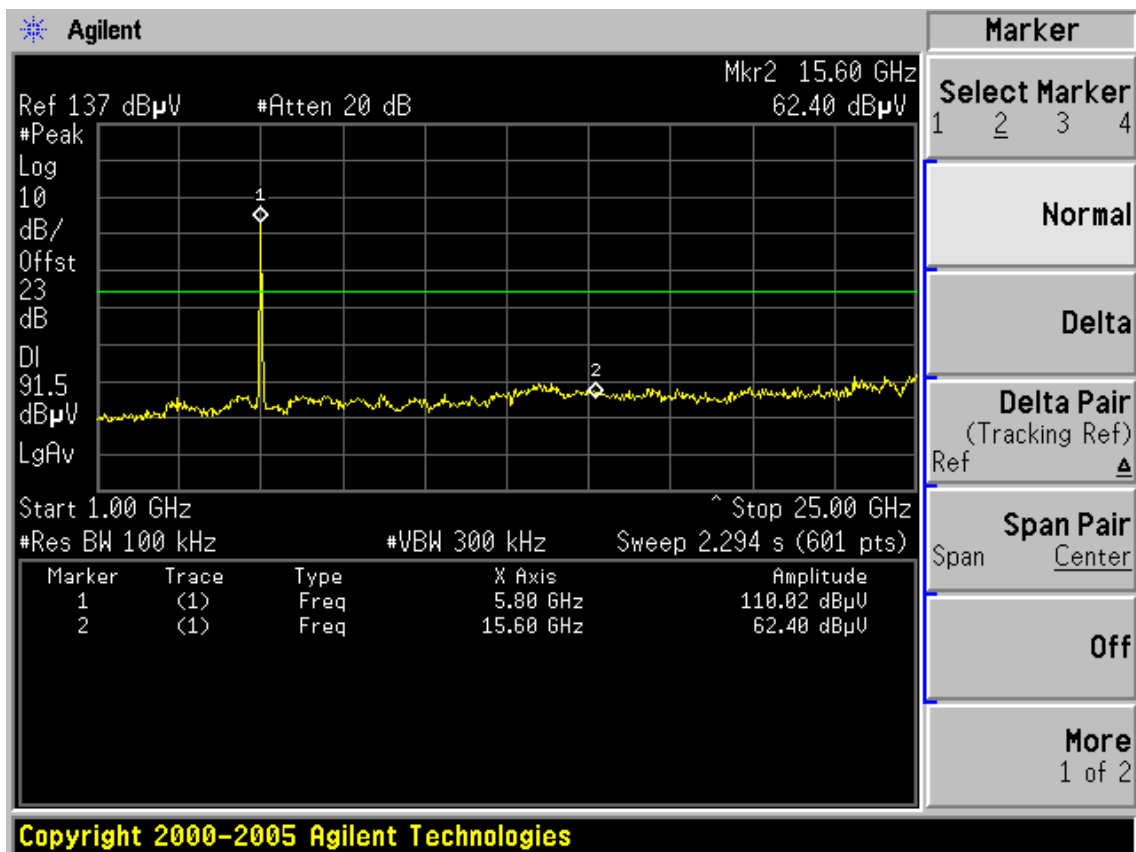




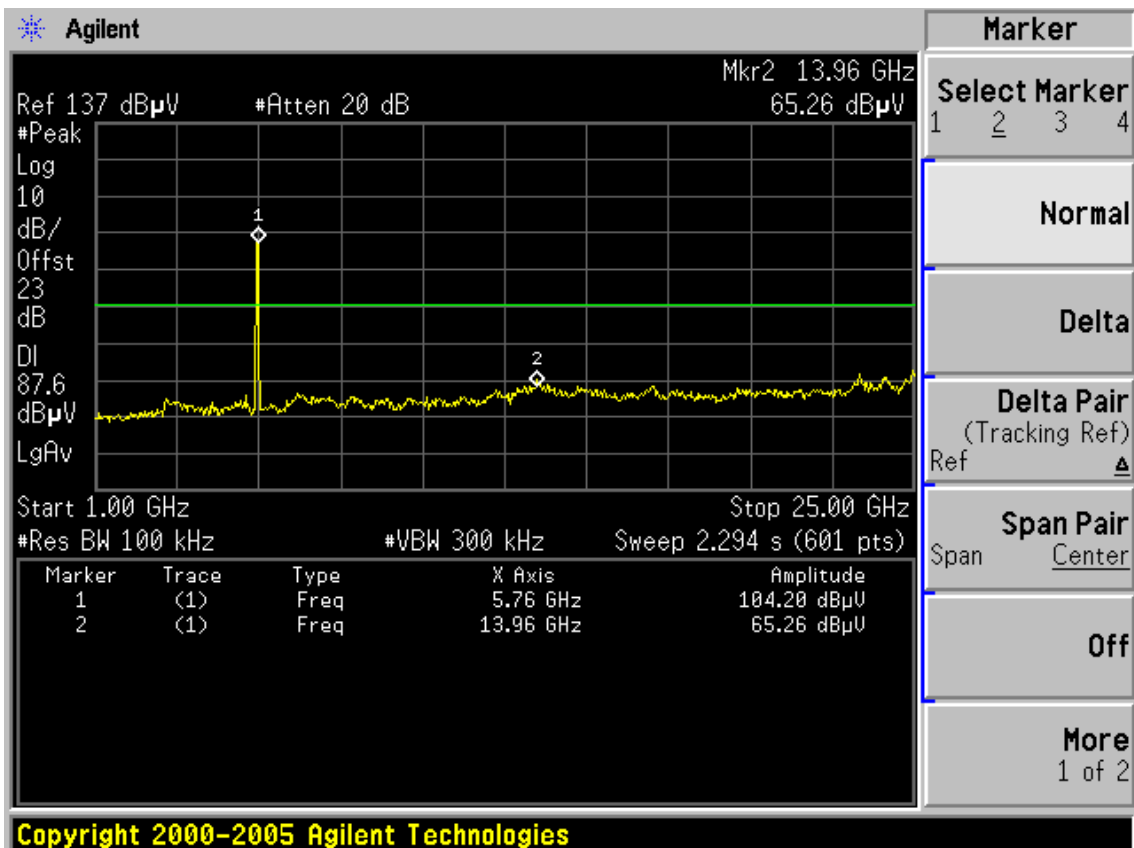
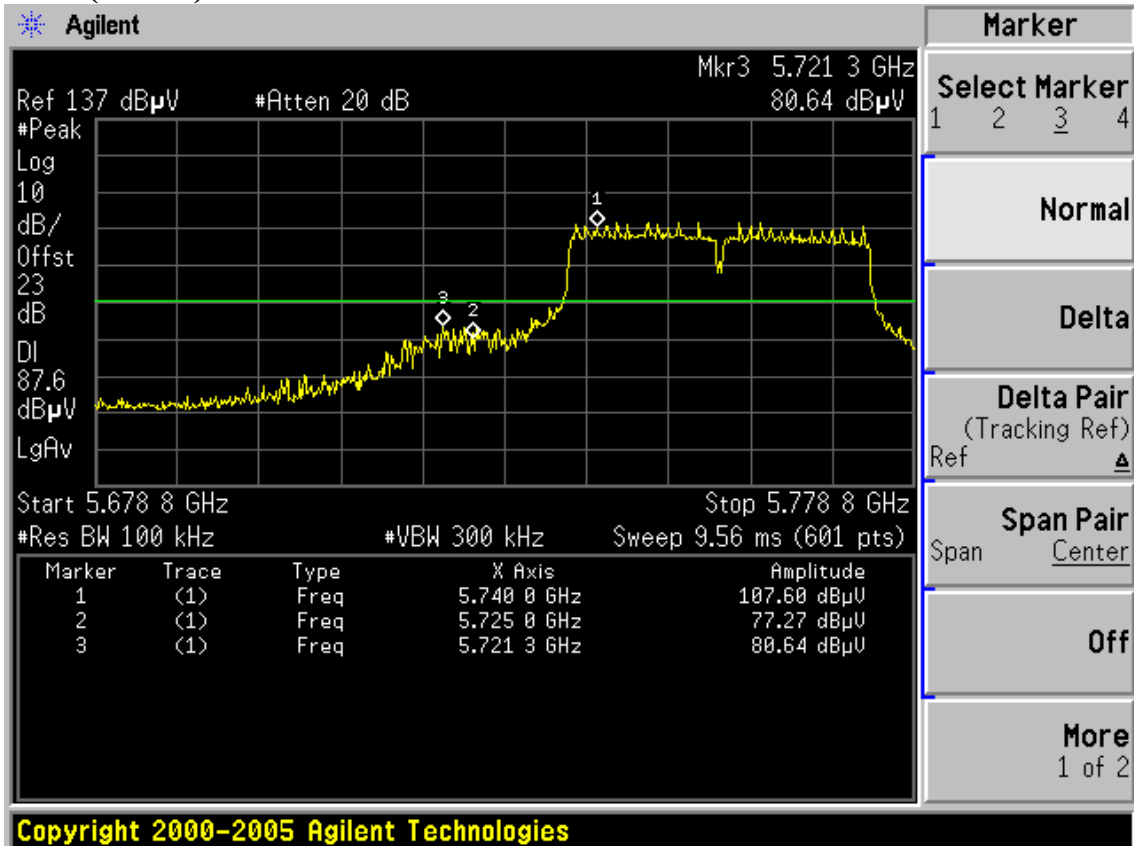
AT2: (CH151)

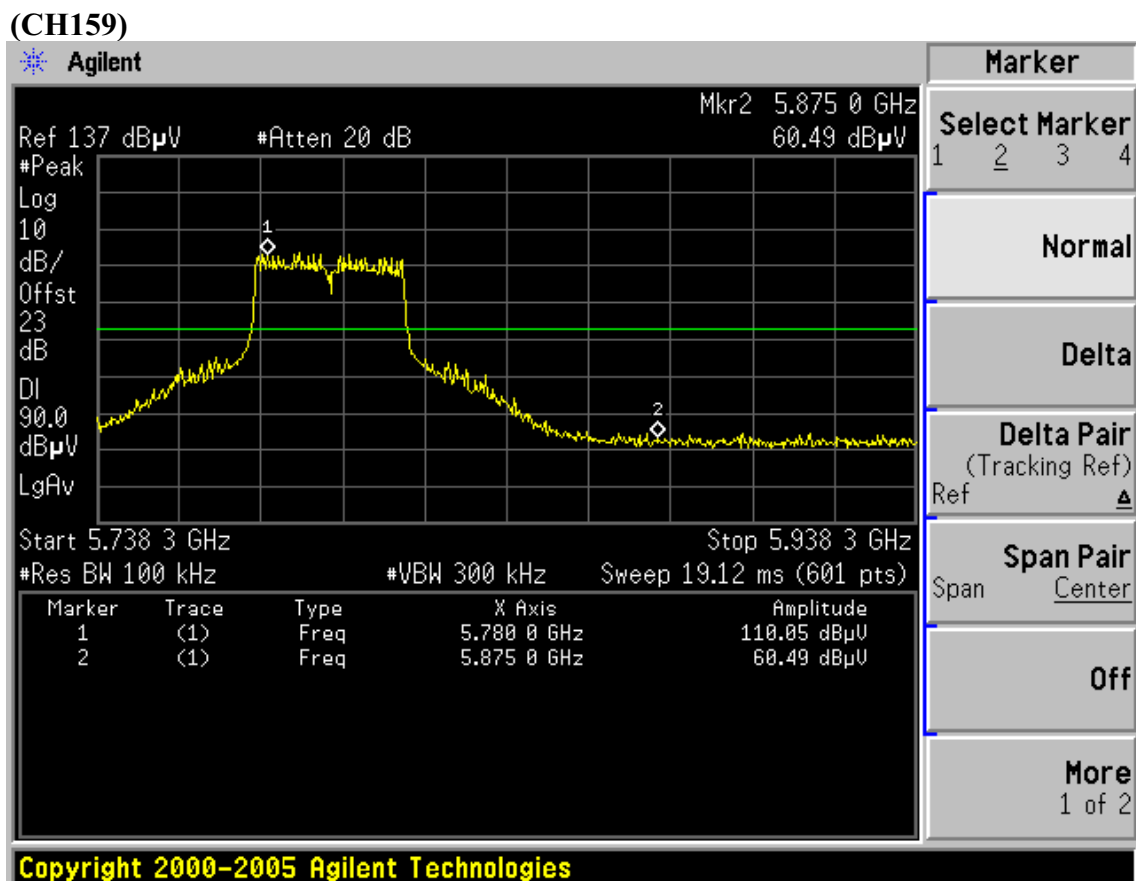
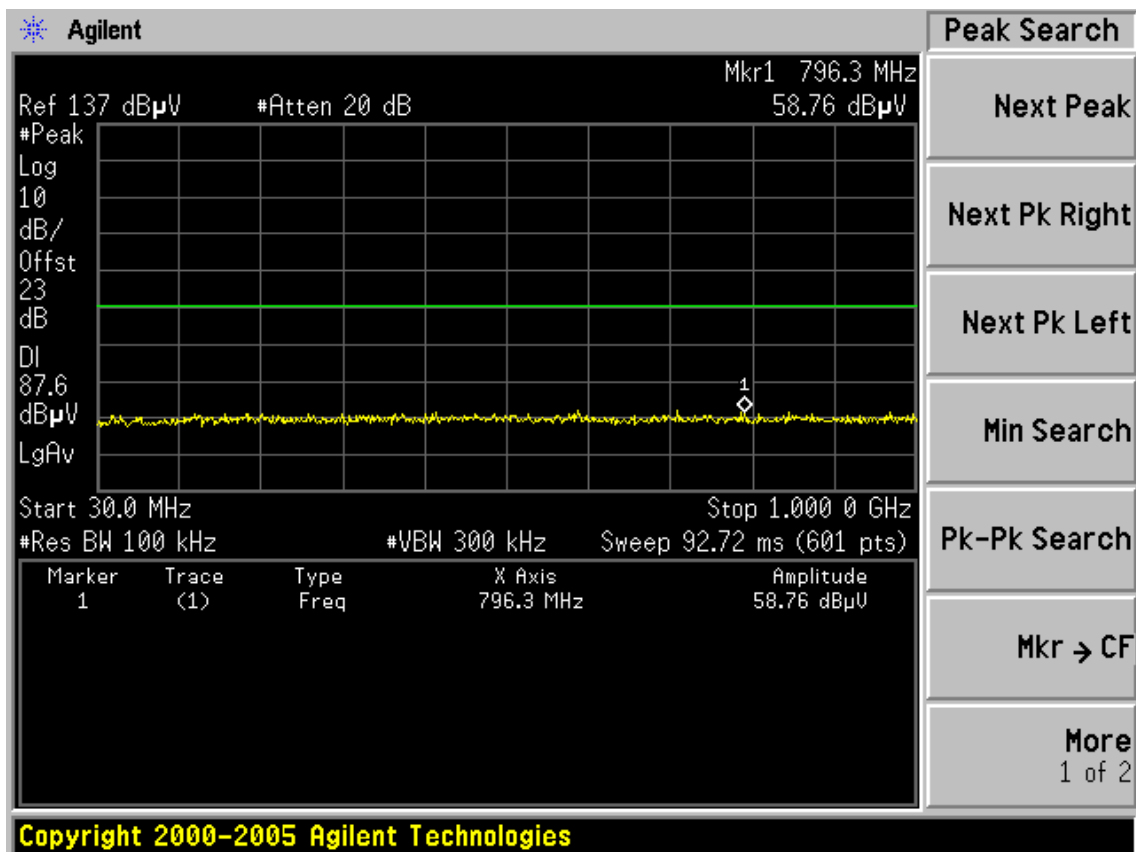


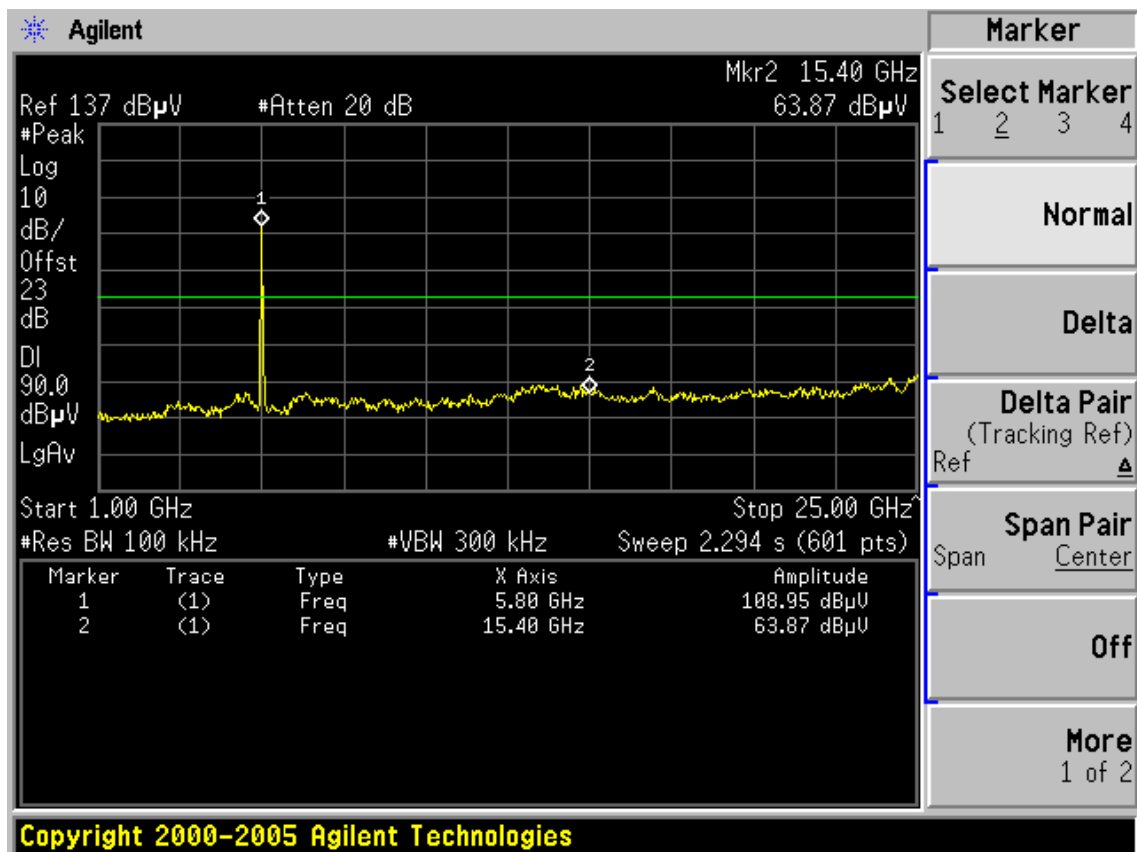




AT3: (CH151)







Marker

Select Marker
1 2 3 4

Normal

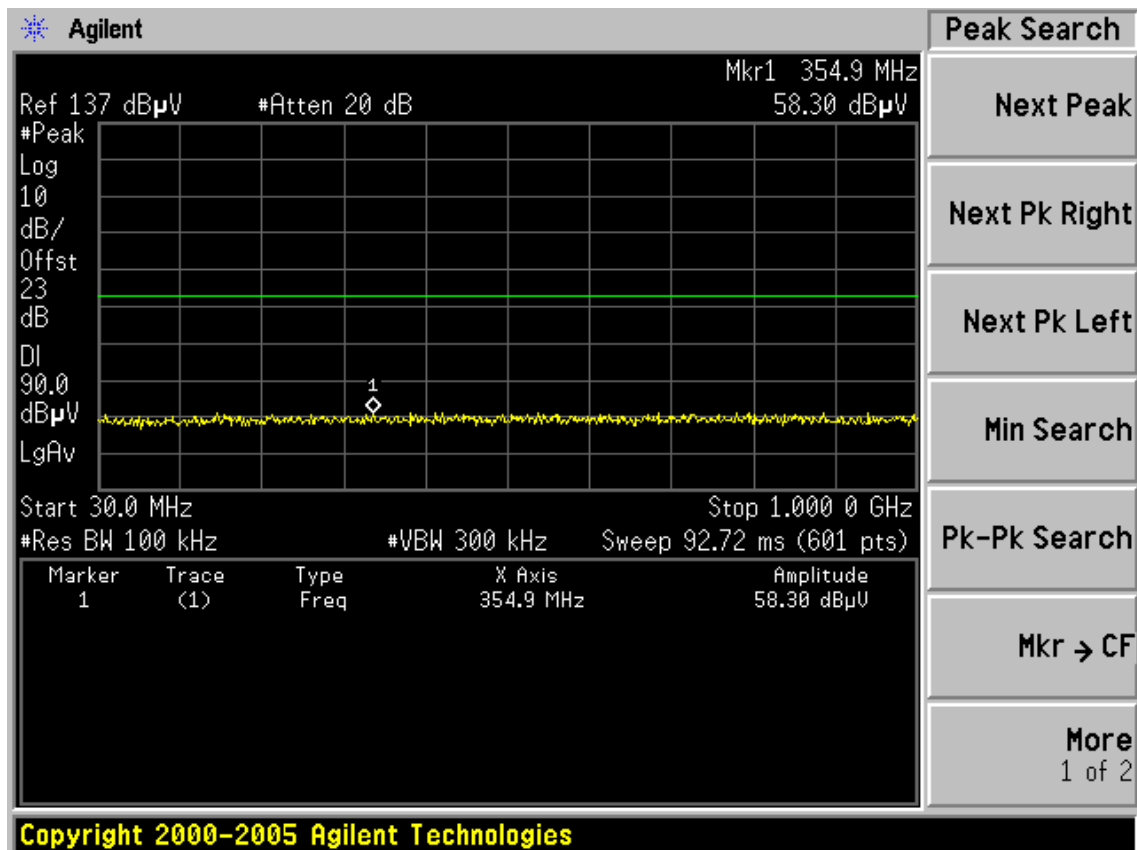
Delta

Delta Pair
(Tracking Ref)
Ref ▲

Span Pair
Span Center

Off

More
1 of 2



Peak Search

Next Peak

Next Pk Right

Next Pk Left

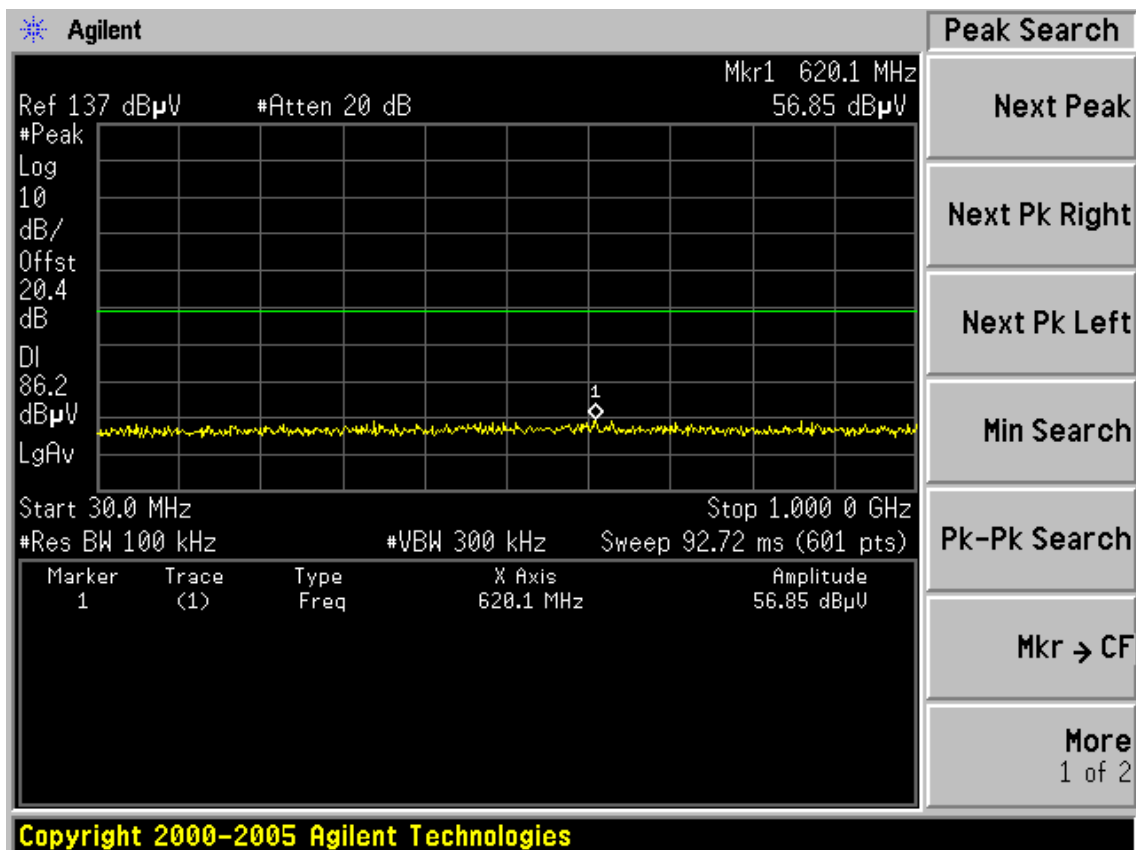
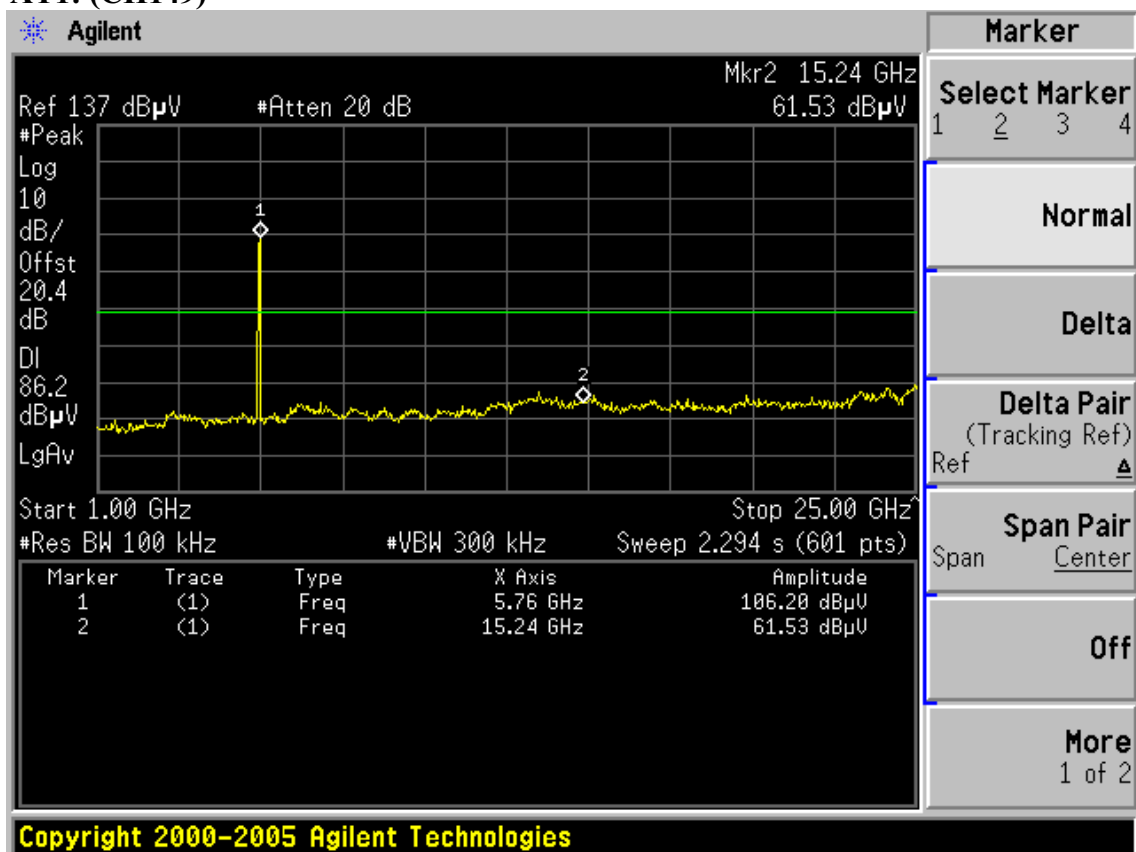
Min Search

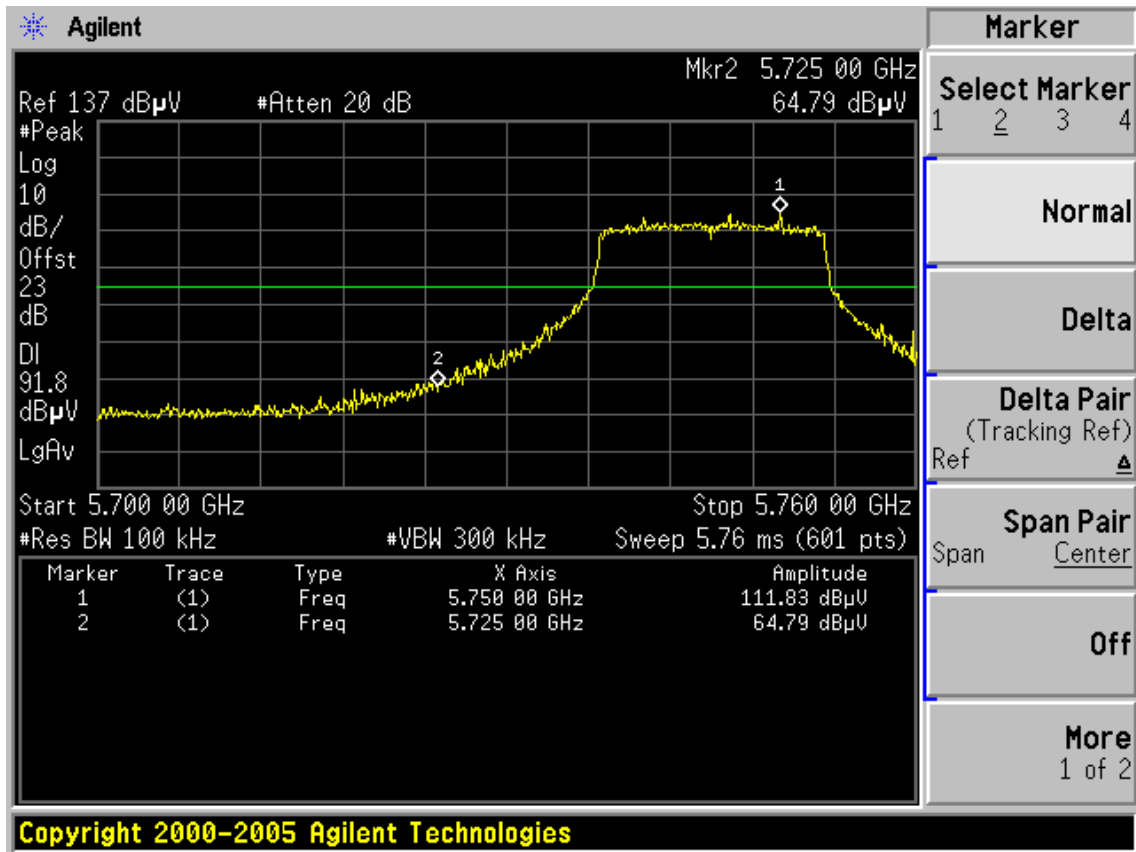
Pk-Pk Search

Mkr → CF

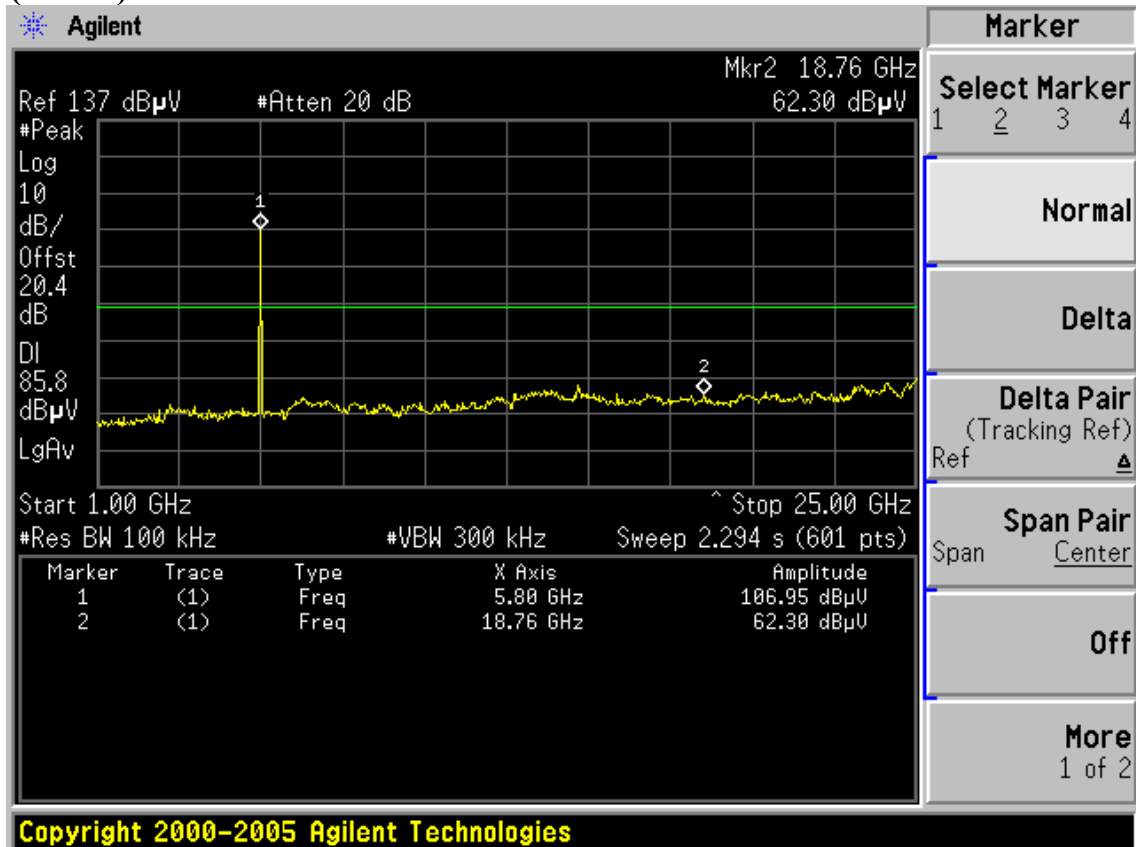
More
1 of 2

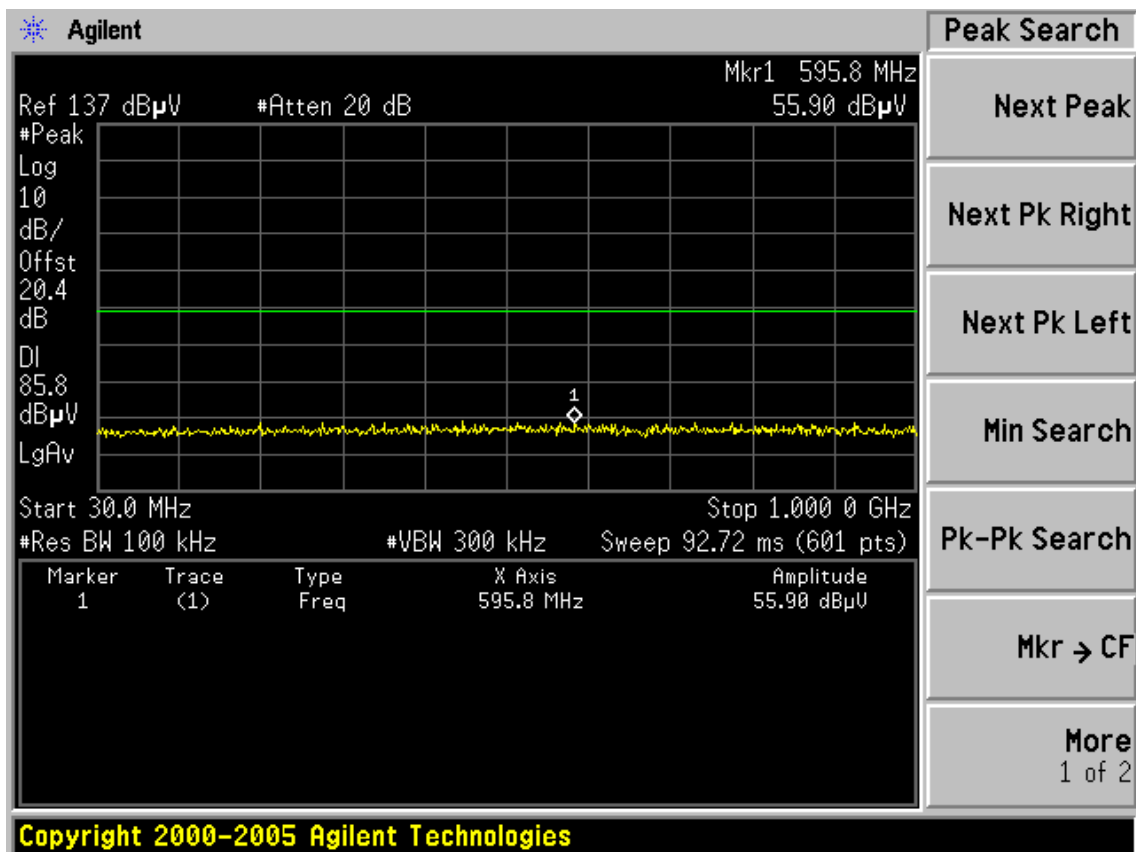
Test Mode: IEEE 802.11a TX
AT1: (CH149)



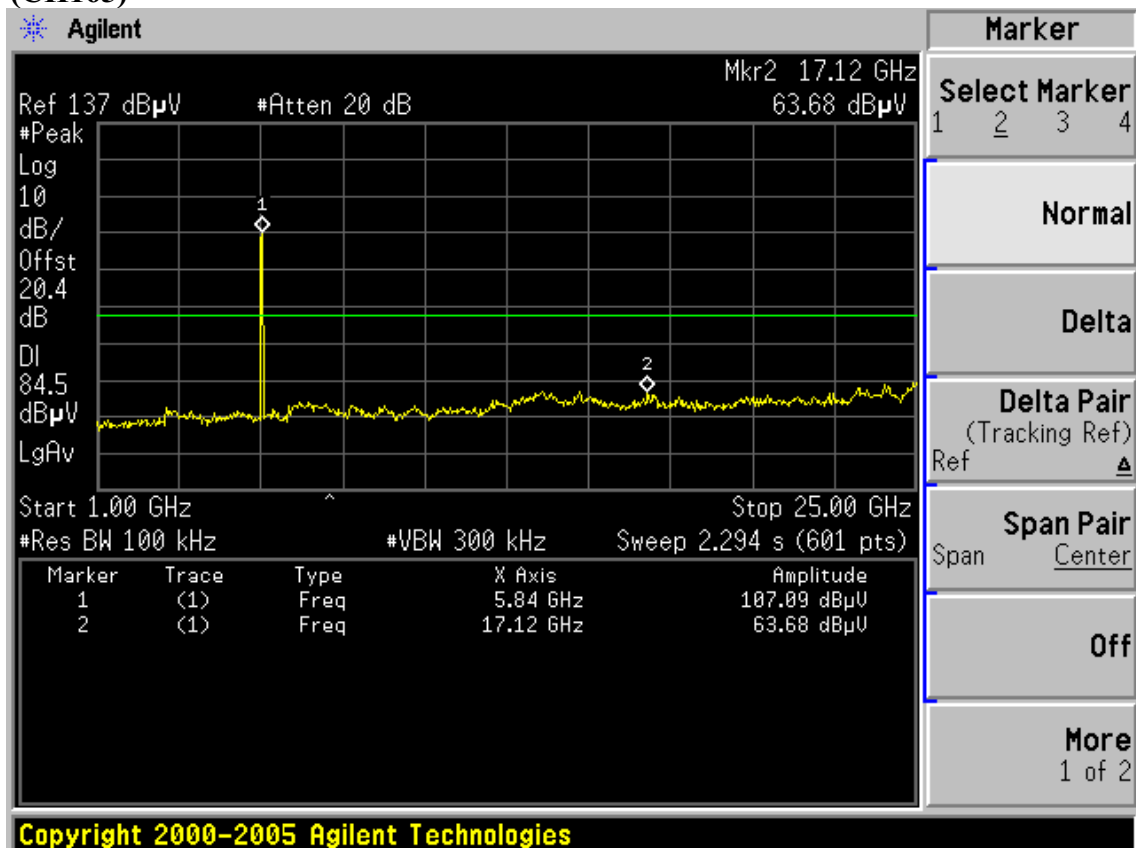


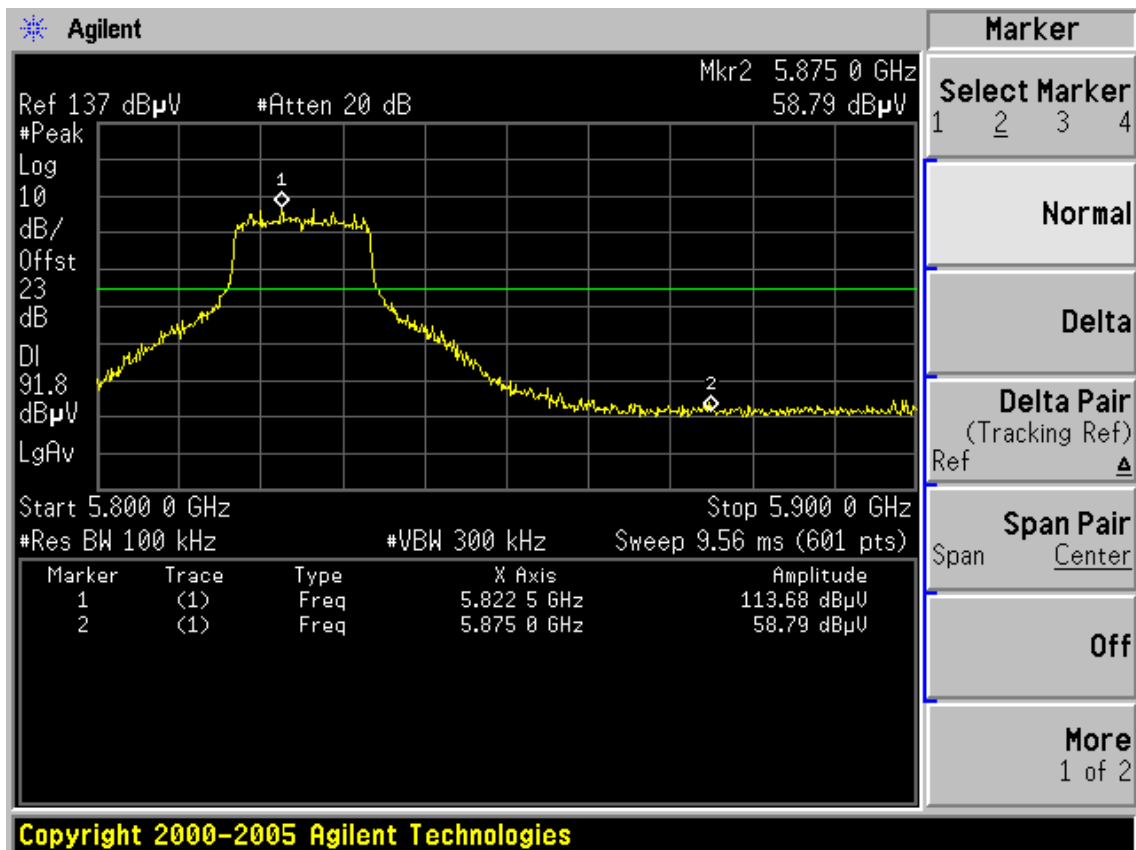
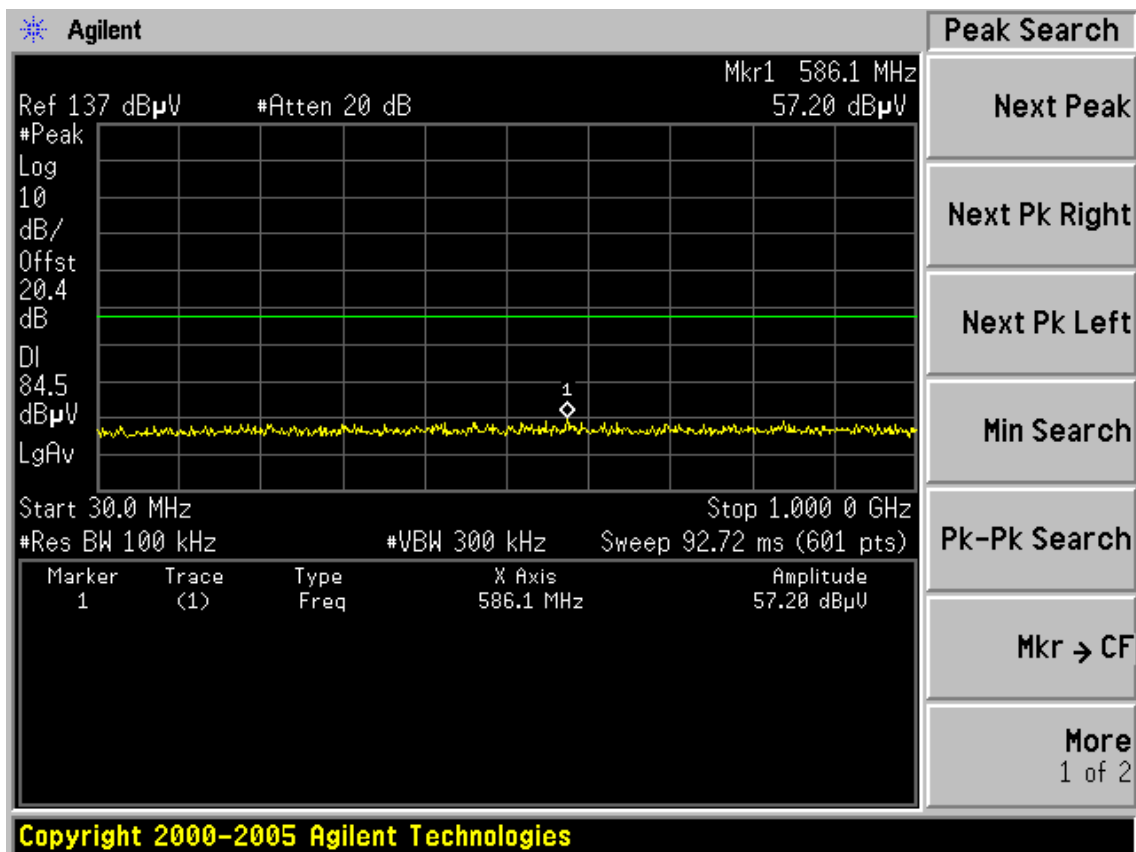
(CH157)



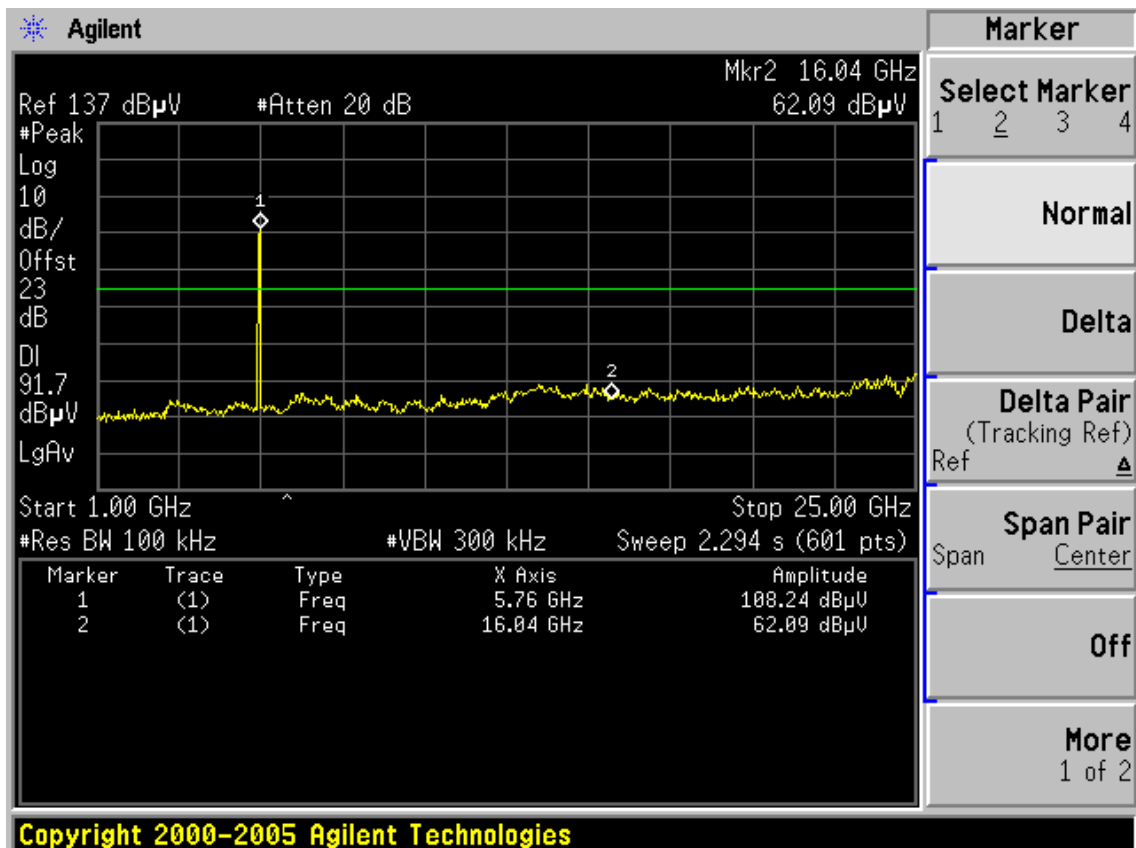
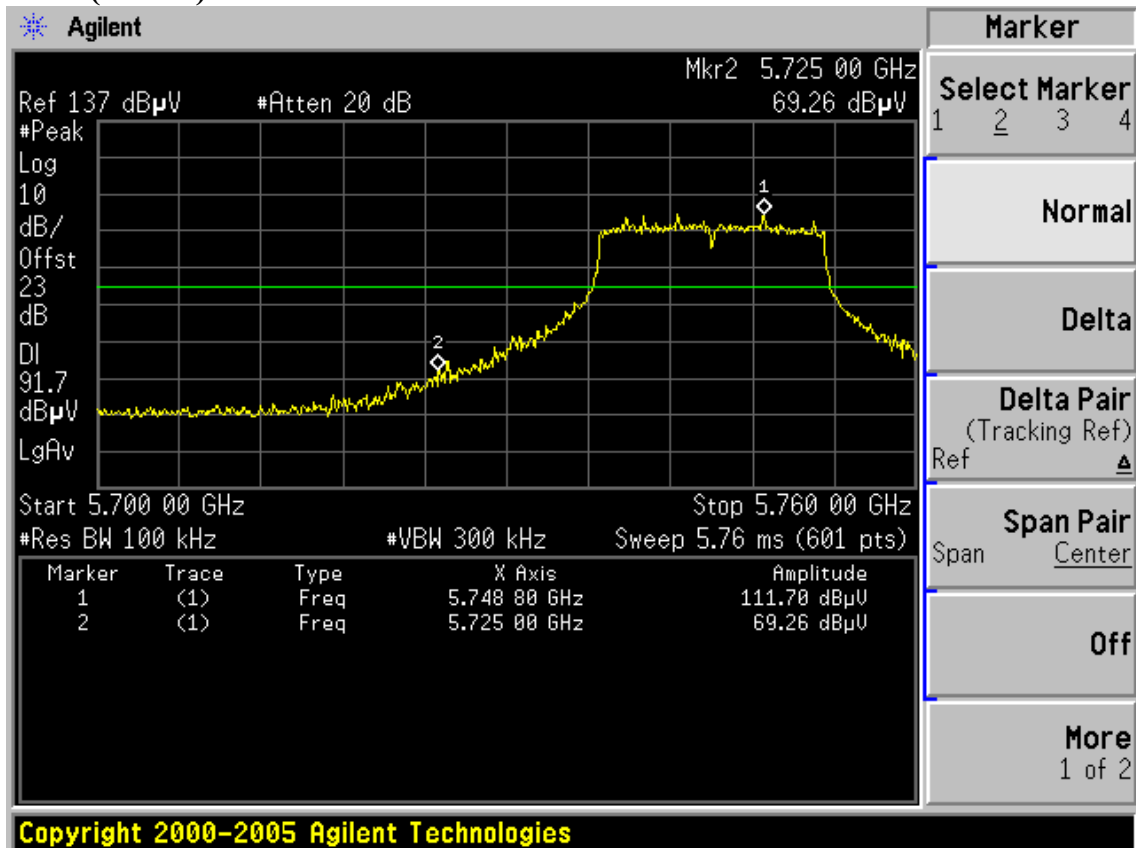


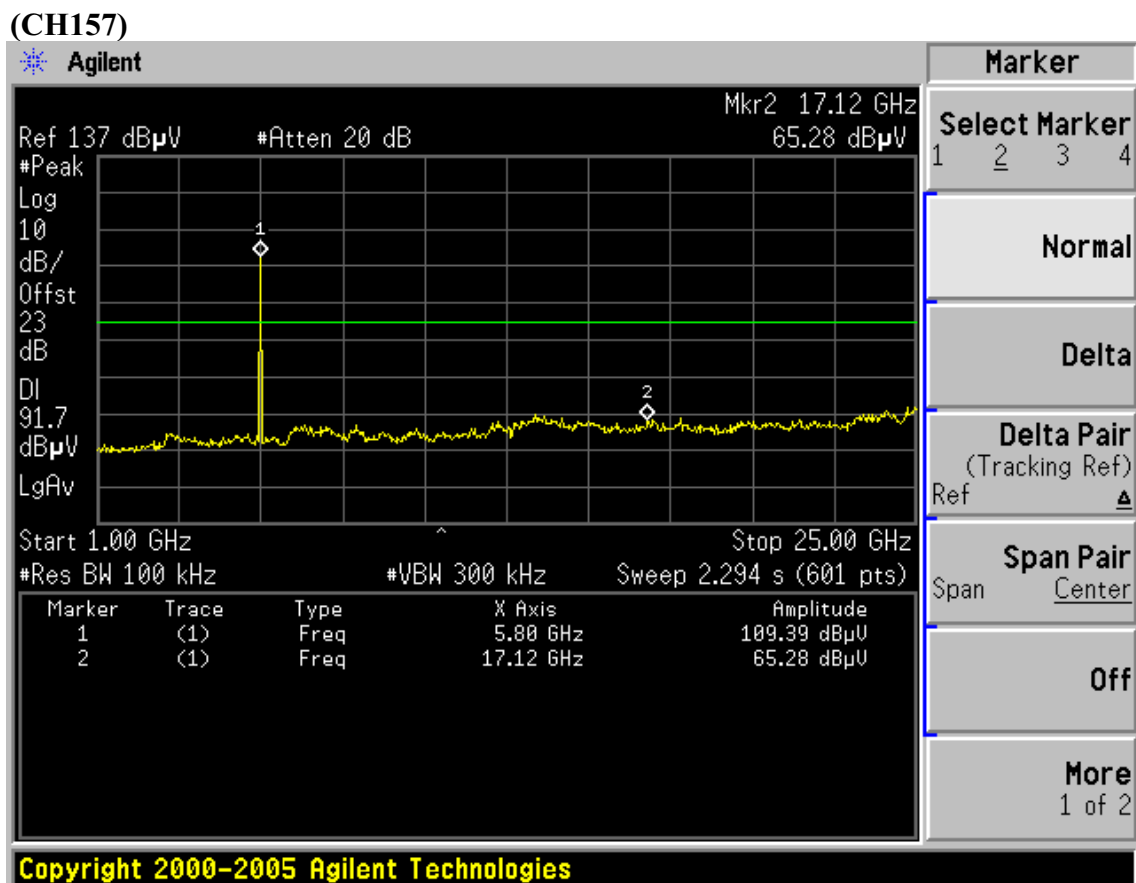
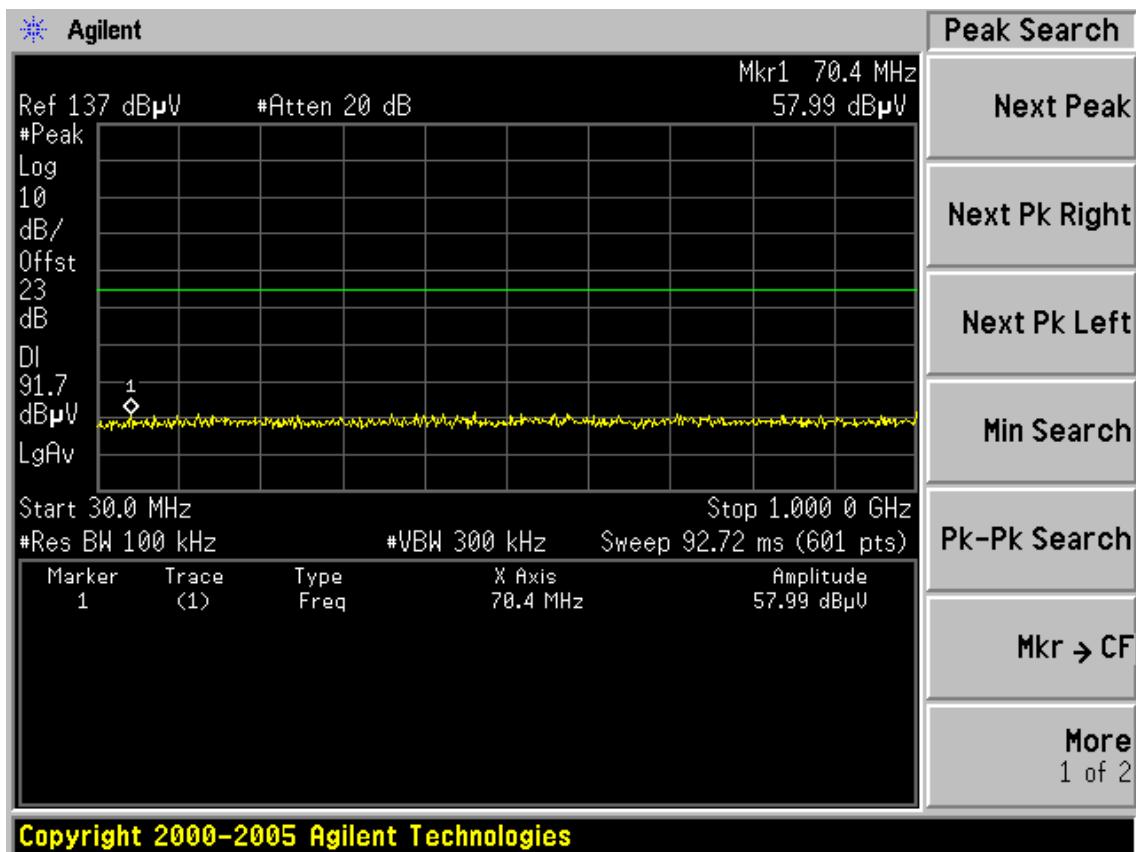
(CH165)

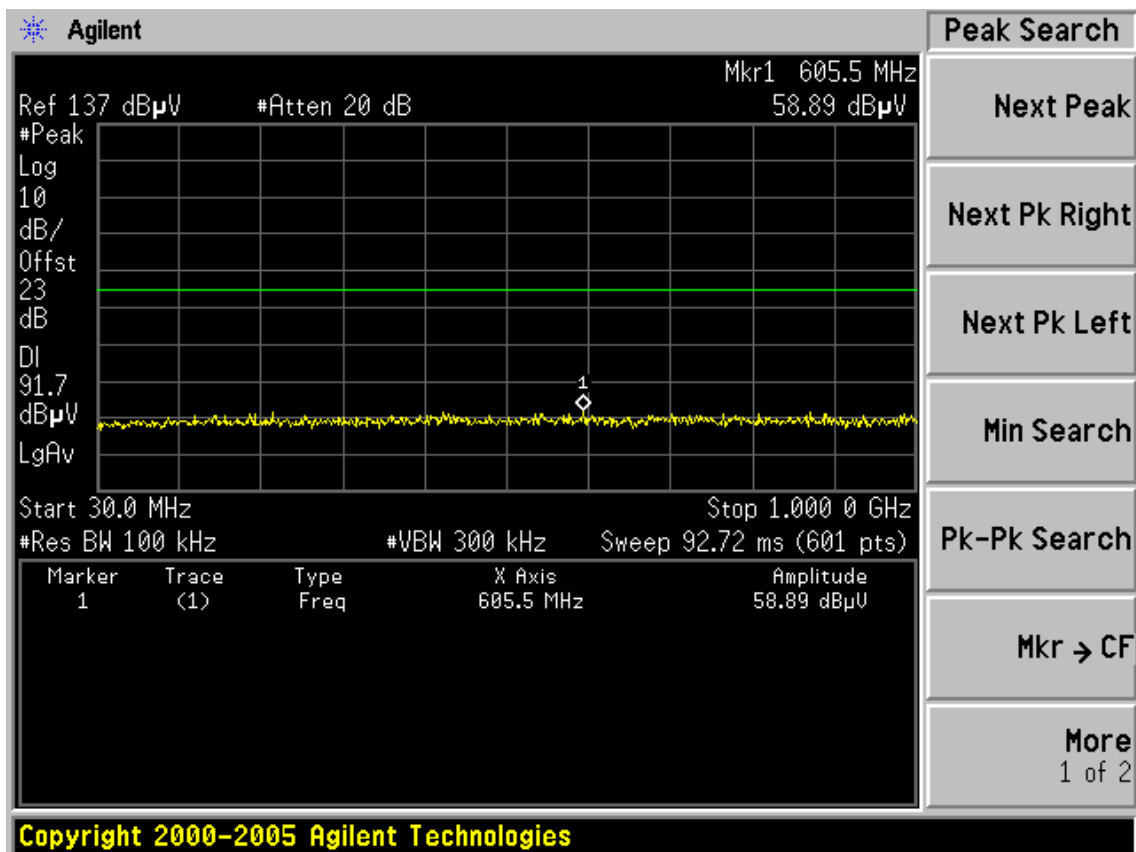




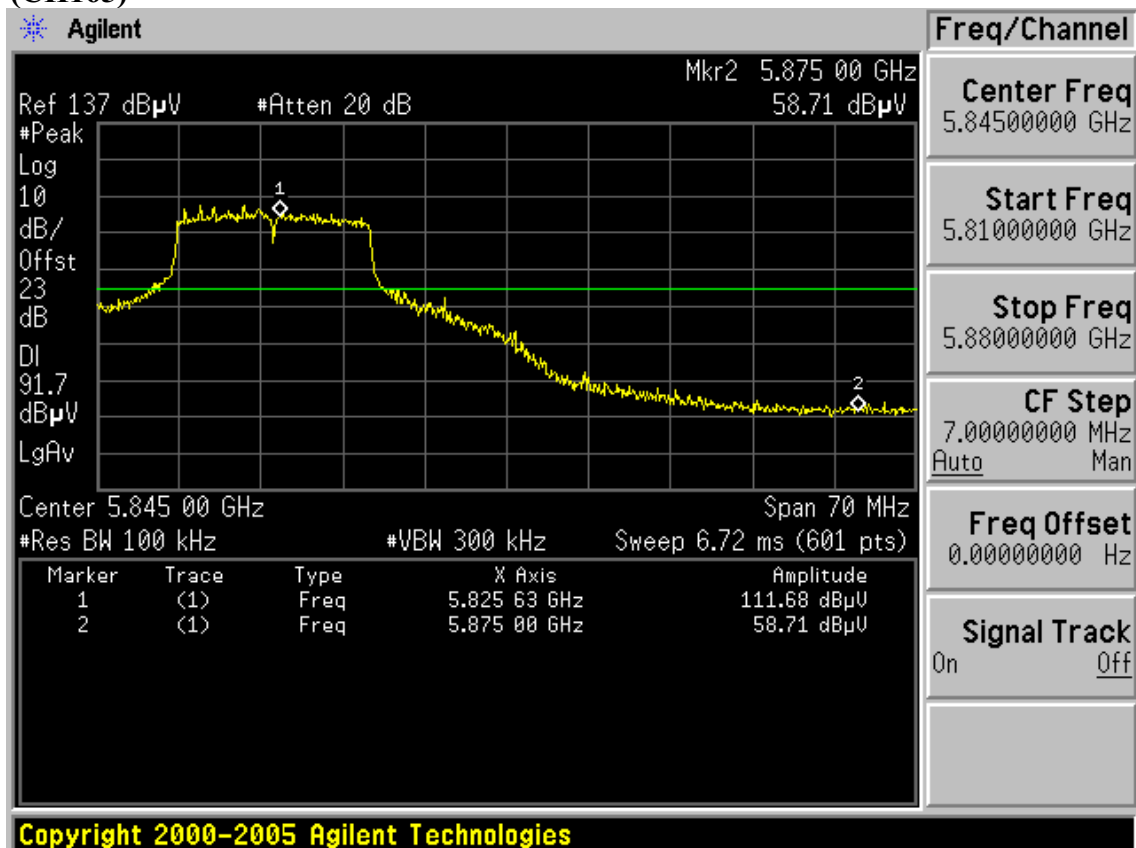
AT2: (CH149)

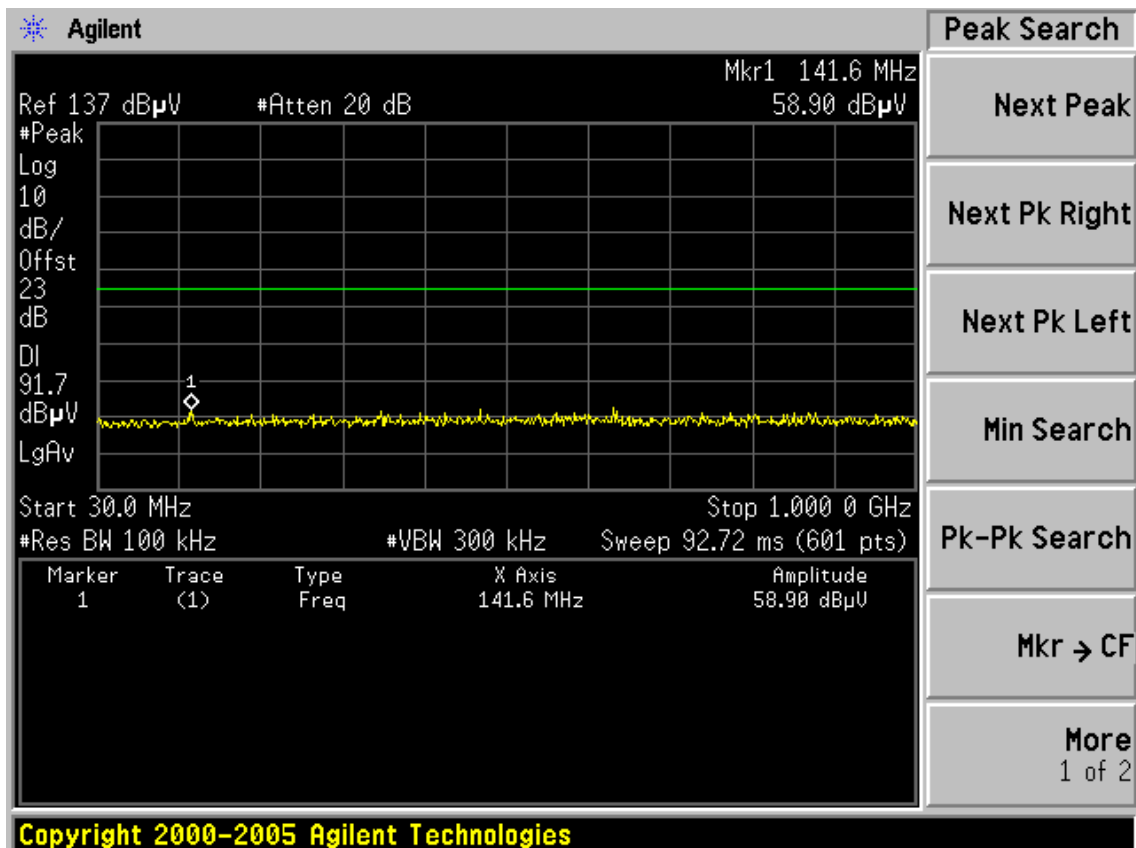
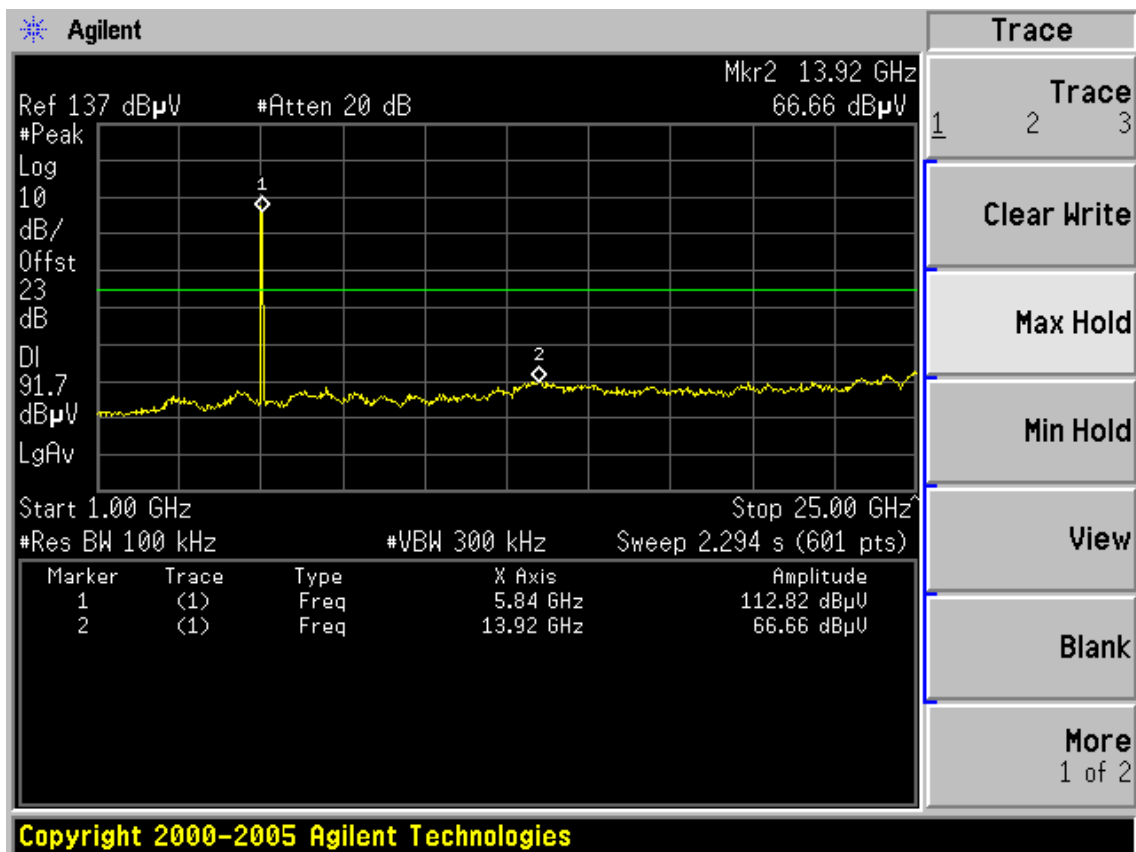




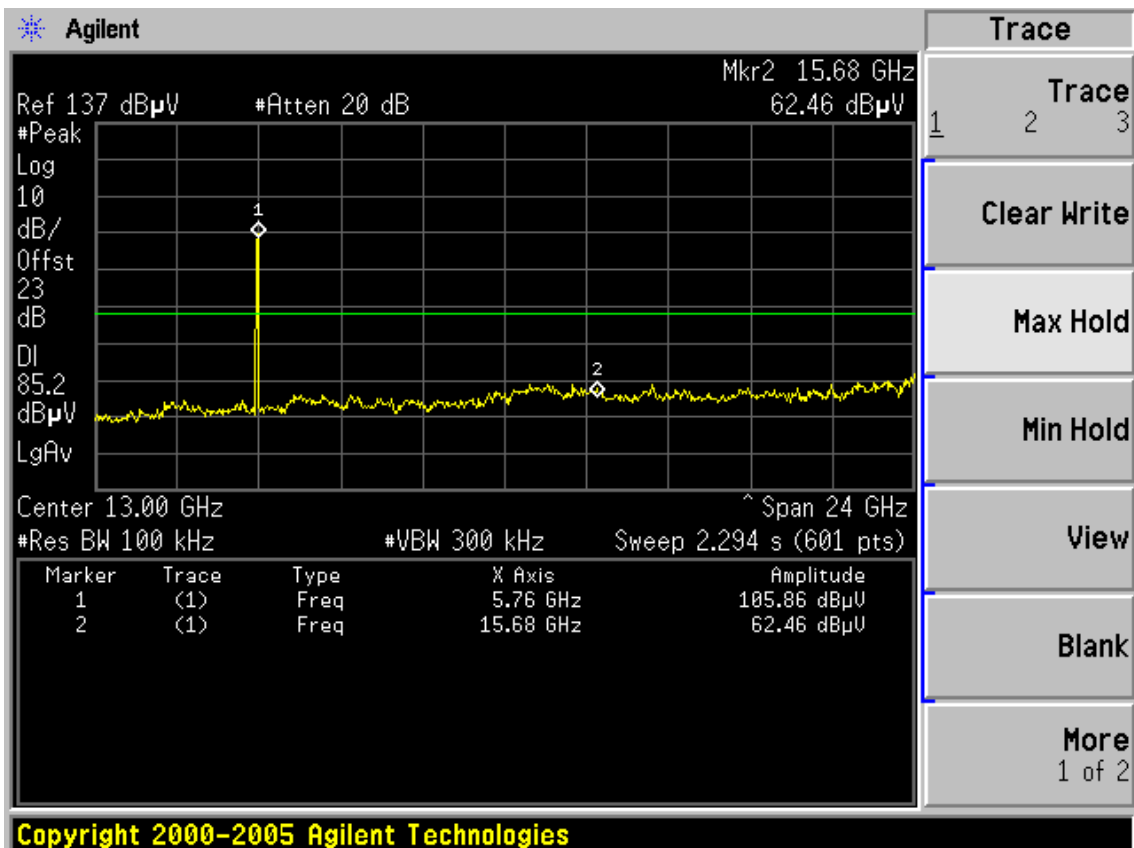
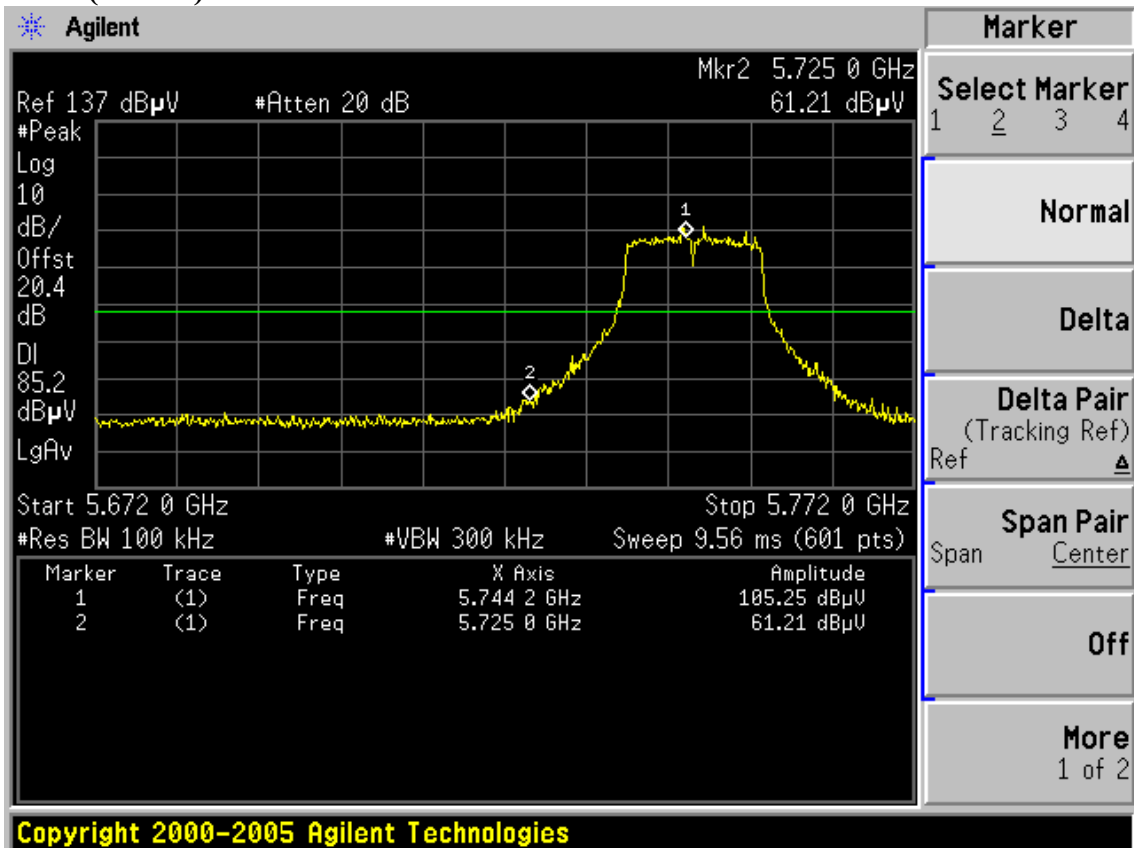


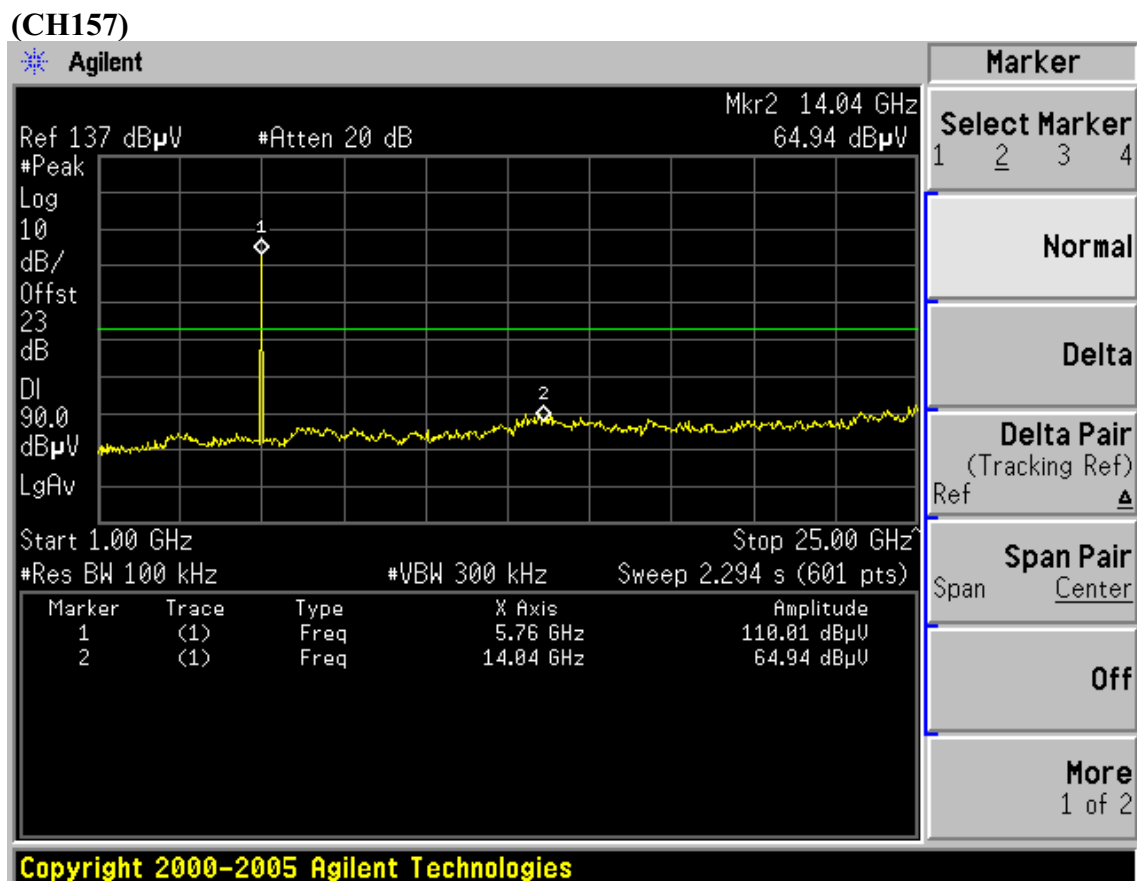
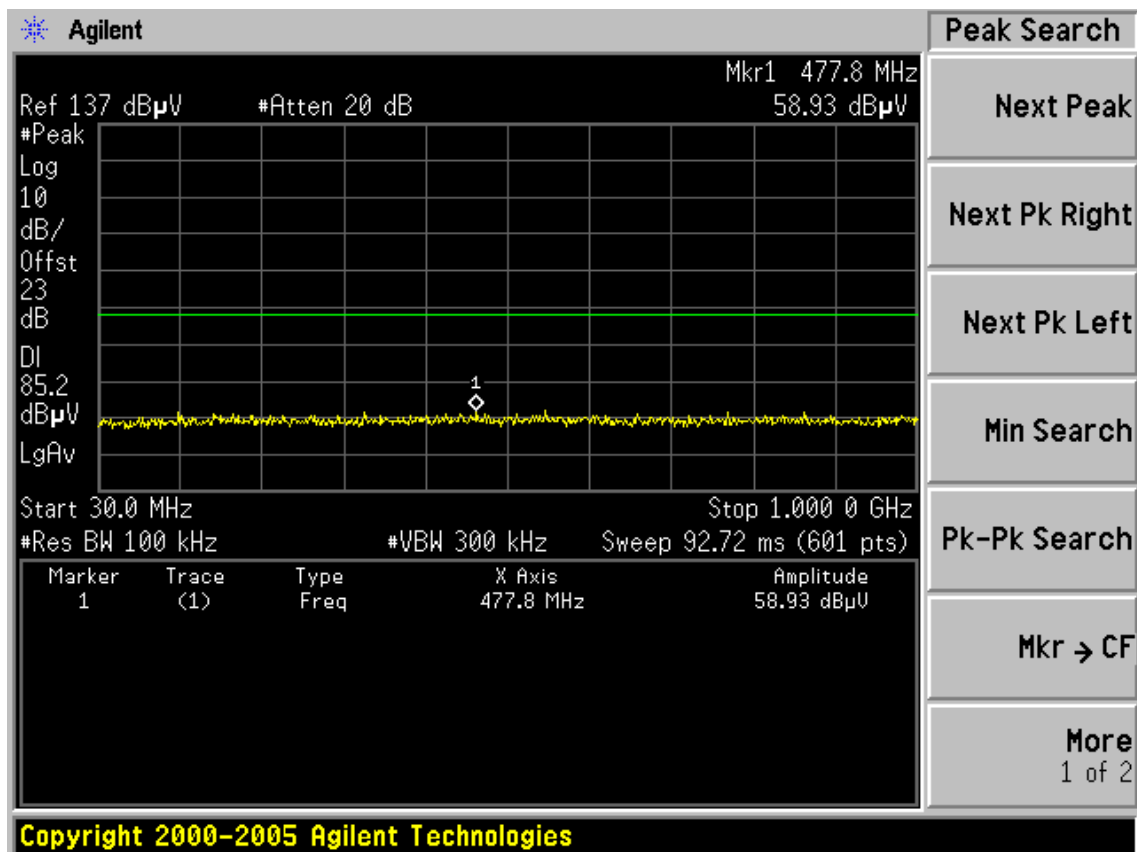
(CH165)

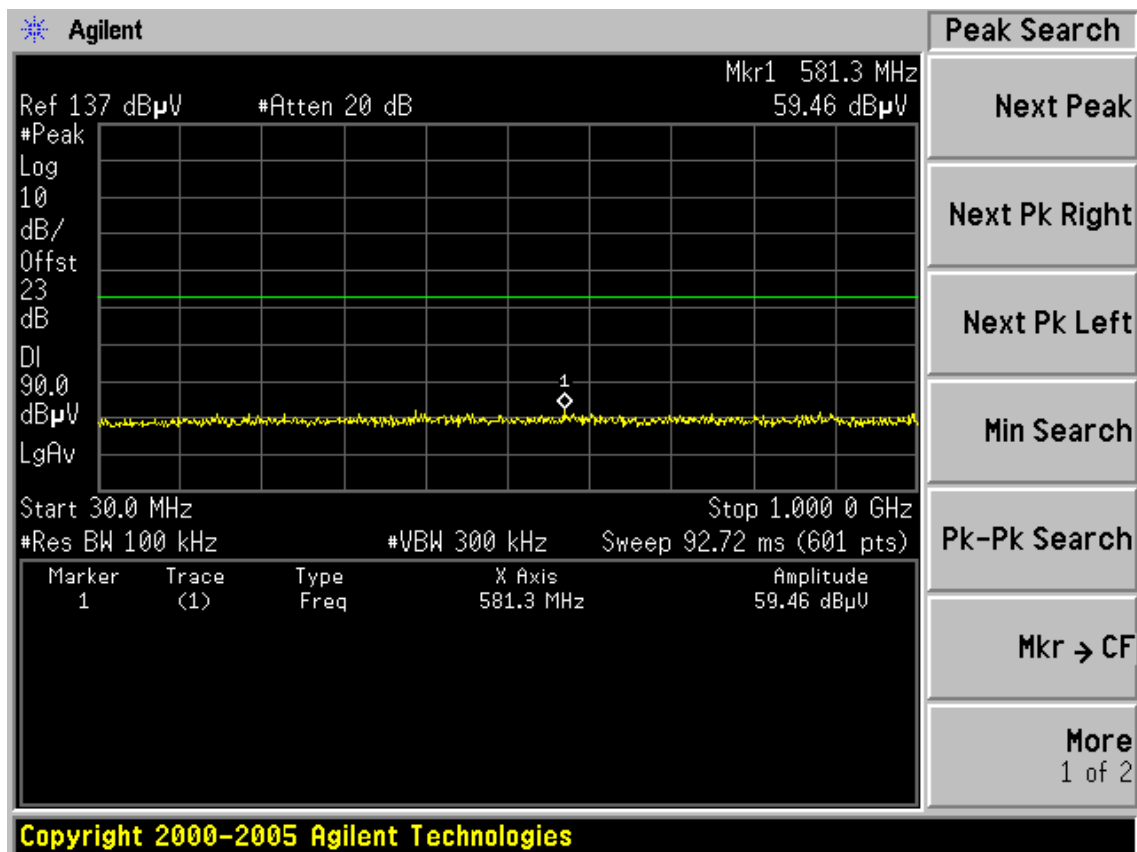




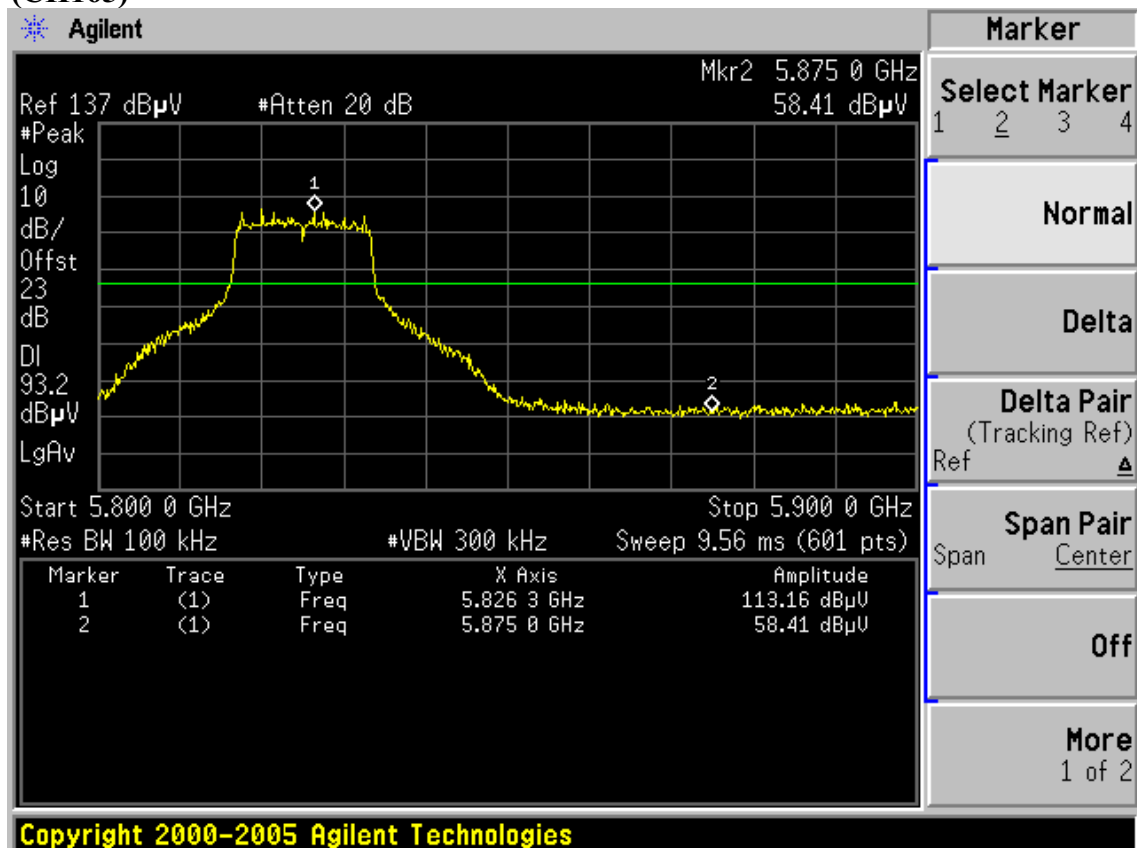
AT3: (CH149)

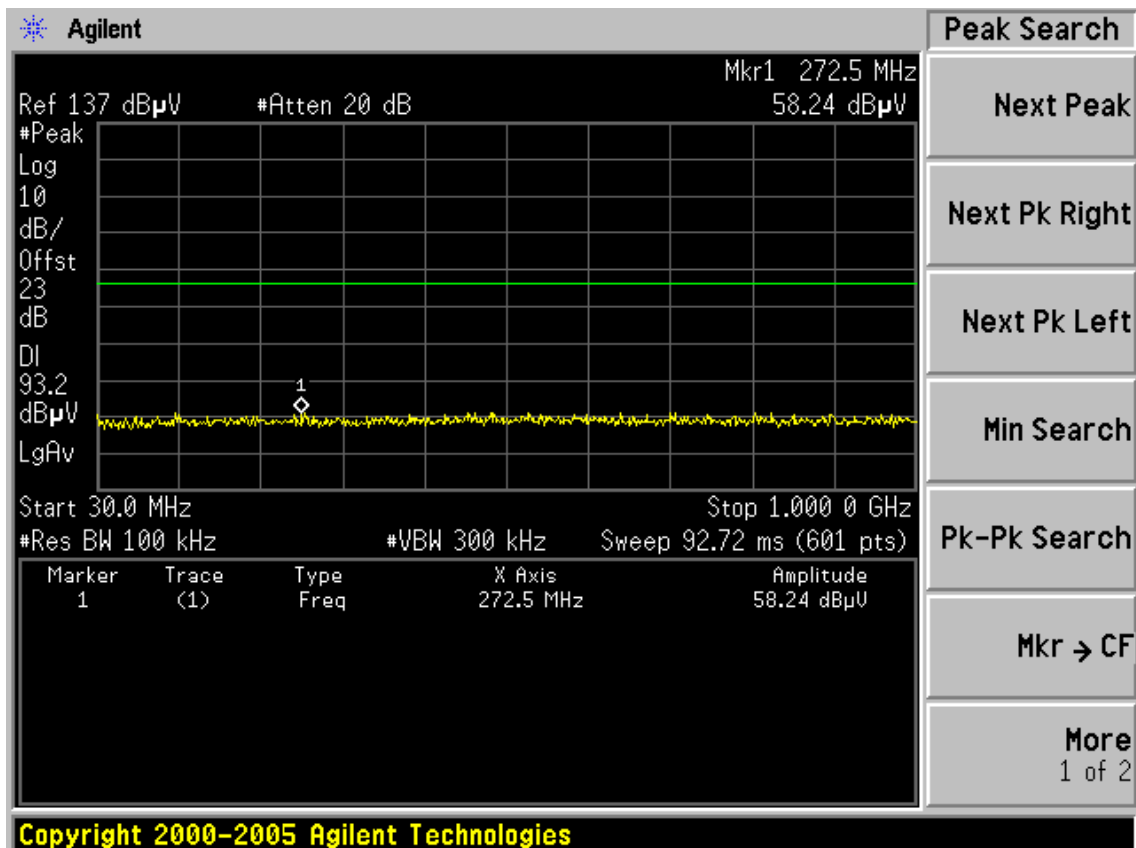
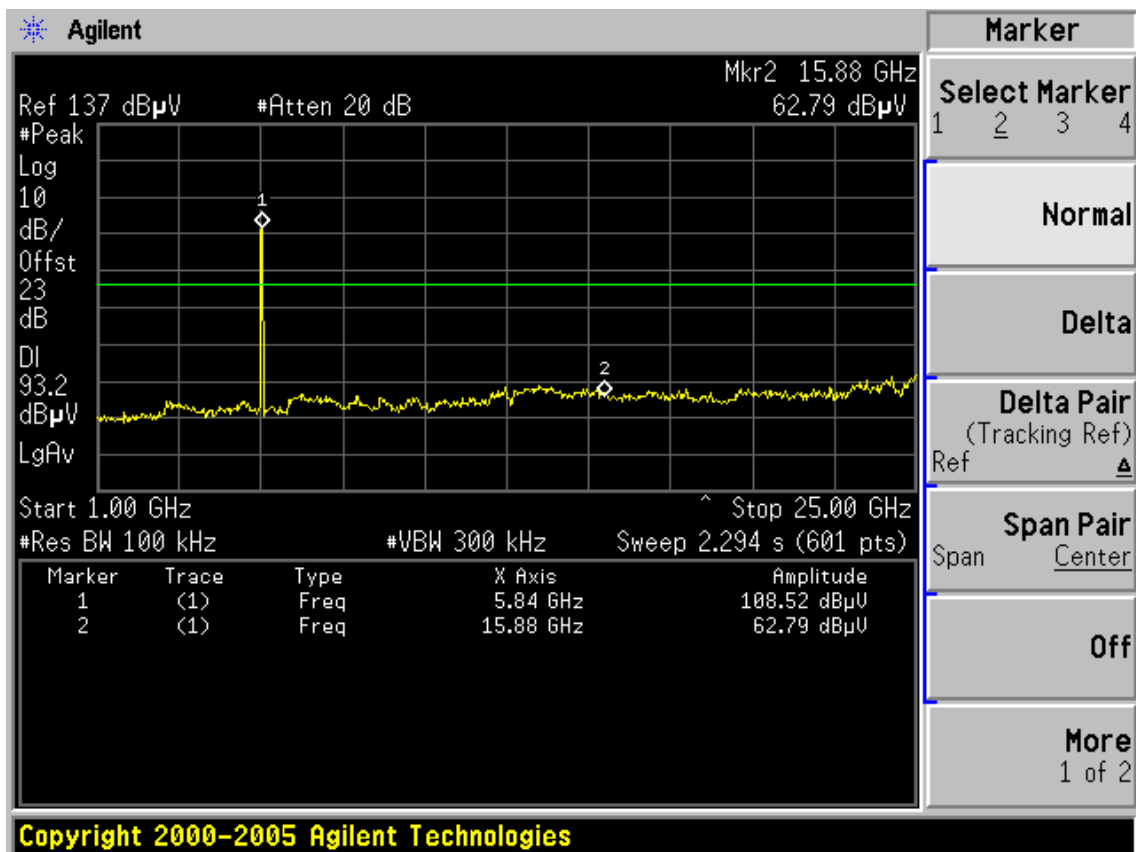






(CH165)





6. BAND EDGE COMPLIANCE TEST

6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4446A	US44300459	May,08, 09	1 Year
2	Horn Antenna	EMCO	3115	9607-4877	May, 27, 08	1.5 Year
3	Amplifier	Agilent	8449B	3008A02495	Nov.24.08	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX 102	28620/2	May,08, 09	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX 102	271471/4	May,08, 09	1 Year
6	RF Cable	Hubersuhner	SUCOFLEX 102	29086/2	May,08, 09	1 Year

6.2. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz and 5725MHz to 5850MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

6.3. Test Produce

1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upperband-edges of the emission:
 - (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO

6.4. Test Results

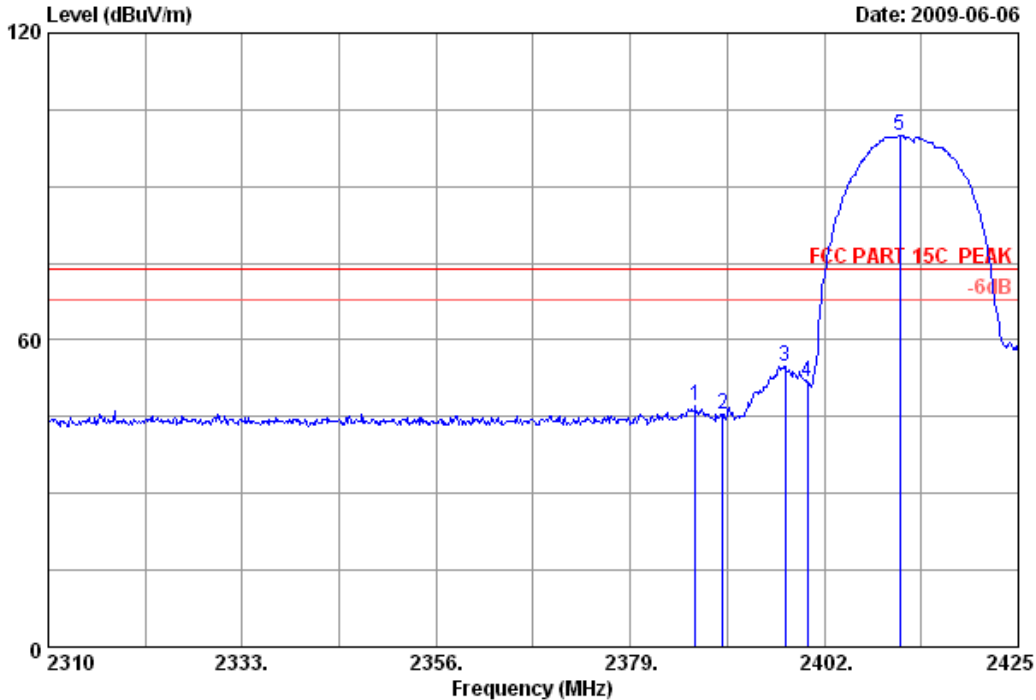
Pass (The testing data was attached in the next pages.)

All the emissions outside operation frequency band were comply with 15.209 limit



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 Postcode:518057

Data: 73 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 73
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH1 2412MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2386.705	28.46	6.71	35.12	46.96	47.01	74.00	26.99	Peak
2	2390.000	28.46	6.71	35.12	45.25	45.30	74.00	28.70	Peak
3	2397.400	28.46	6.73	35.12	54.91	54.98	74.00	19.02	Peak
4	2400.000	28.46	6.73	35.12	51.73	51.80	74.00	22.20	Peak
5	2410.970	28.48	6.73	35.12	99.93	100.02	74.00	-26.02	Peak

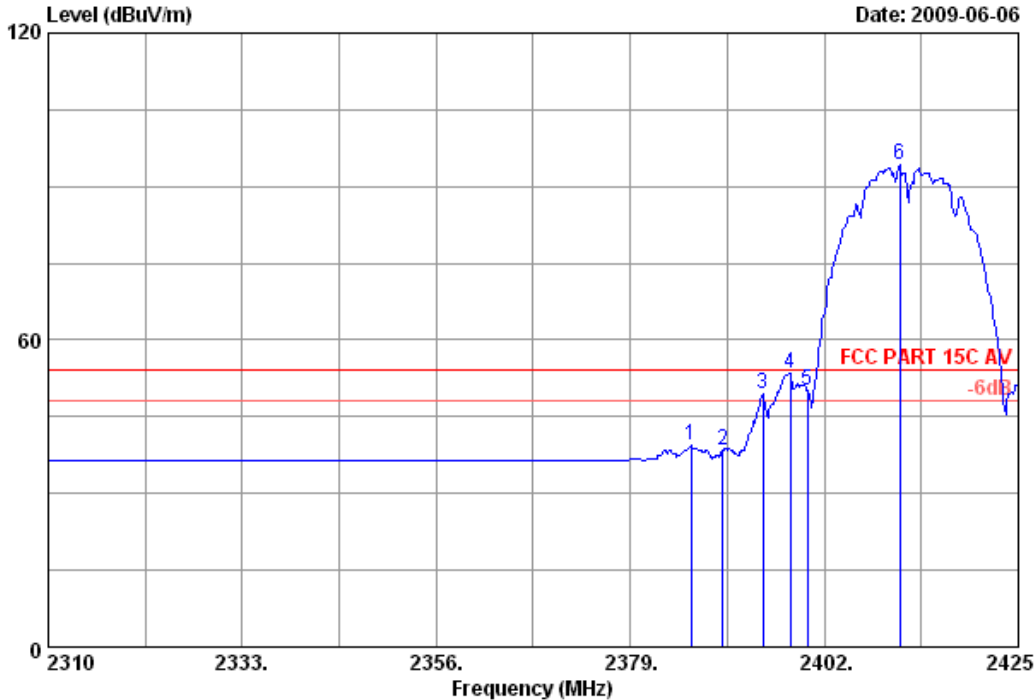
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 74 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 74
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH1 2412MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2386.245	28.46	6.71	35.12	39.27	39.32	54.00	14.68	Average
2	2390.000	28.46	6.71	35.12	38.52	38.57	54.00	15.43	Average
3	2394.755	28.46	6.73	35.12	49.30	49.37	54.00	4.63	Average
4	2397.975	28.46	6.73	35.12	53.45	53.52	54.00	0.48	Average
5	2400.000	28.46	6.73	35.12	49.90	49.97	54.00	4.03	Average
6	2410.970	28.48	6.73	35.12	94.02	94.11	54.00	-40.11	Average

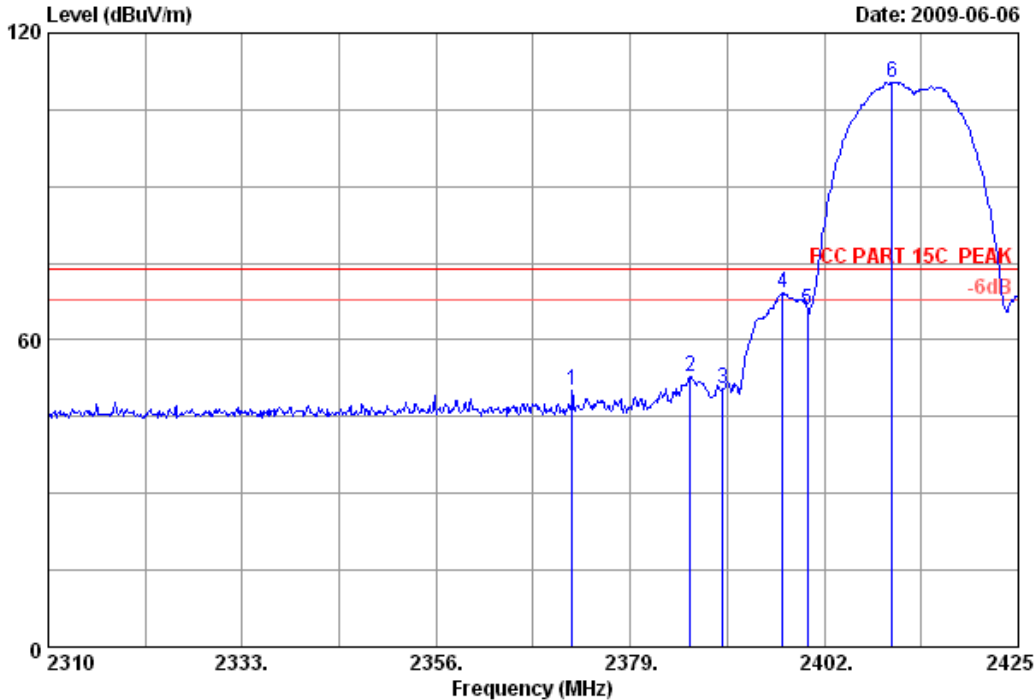
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 75 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 75
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH1 2412MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2372.100	28.43	6.69	35.12	50.16	50.16	74.00	23.84	Peak
2	2386.130	28.46	6.71	35.12	52.63	52.68	74.00	21.32	Peak
3	2390.000	28.46	6.71	35.12	50.43	50.48	74.00	23.52	Peak
4	2397.055	28.46	6.73	35.12	69.19	69.26	74.00	4.74	Peak
5	2400.000	28.46	6.73	35.12	65.72	65.79	74.00	8.21	Peak
6	2410.050	28.48	6.73	35.12	110.20	110.29	74.00	-36.29	Peak

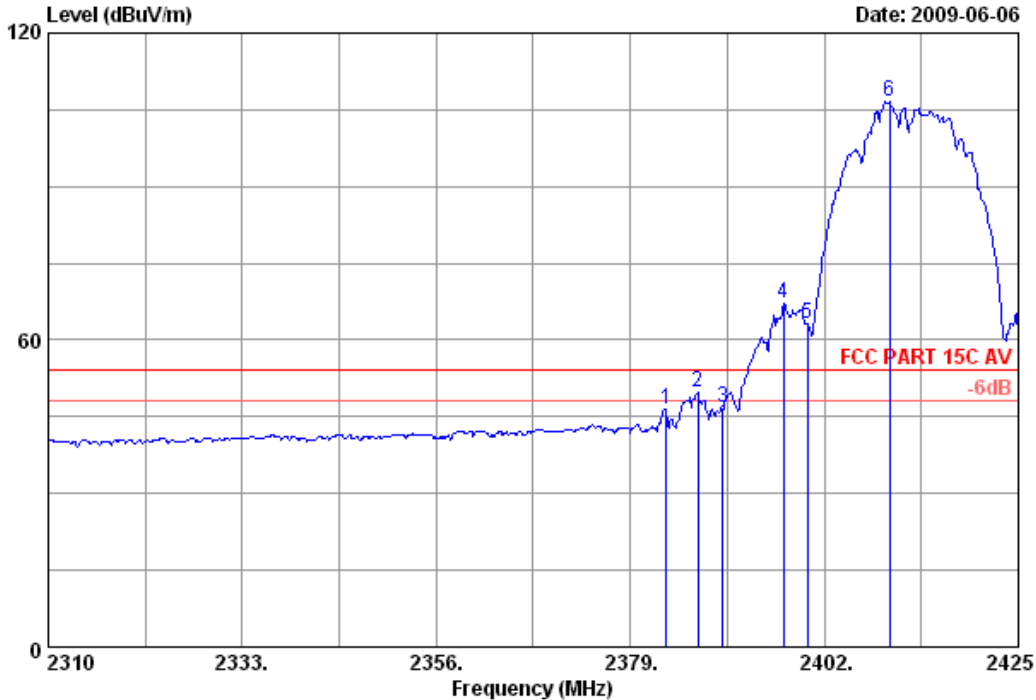
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 76 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 76
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH1 2412MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2383.255	28.43	6.71	35.12	46.42	46.44	54.00	7.56	Average
2	2387.050	28.46	6.71	35.12	49.64	49.69	54.00	4.31	Average
3	2390.000	28.46	6.71	35.12	46.83	46.88	54.00	7.12	Average
4	2397.170	28.46	6.73	35.12	67.20	67.27	54.00	-13.27	Average
5	2400.000	28.46	6.73	35.12	63.11	63.18	54.00	-9.18	Average
6	2409.705	28.48	6.73	35.12	106.56	106.65	54.00	-52.65	Average

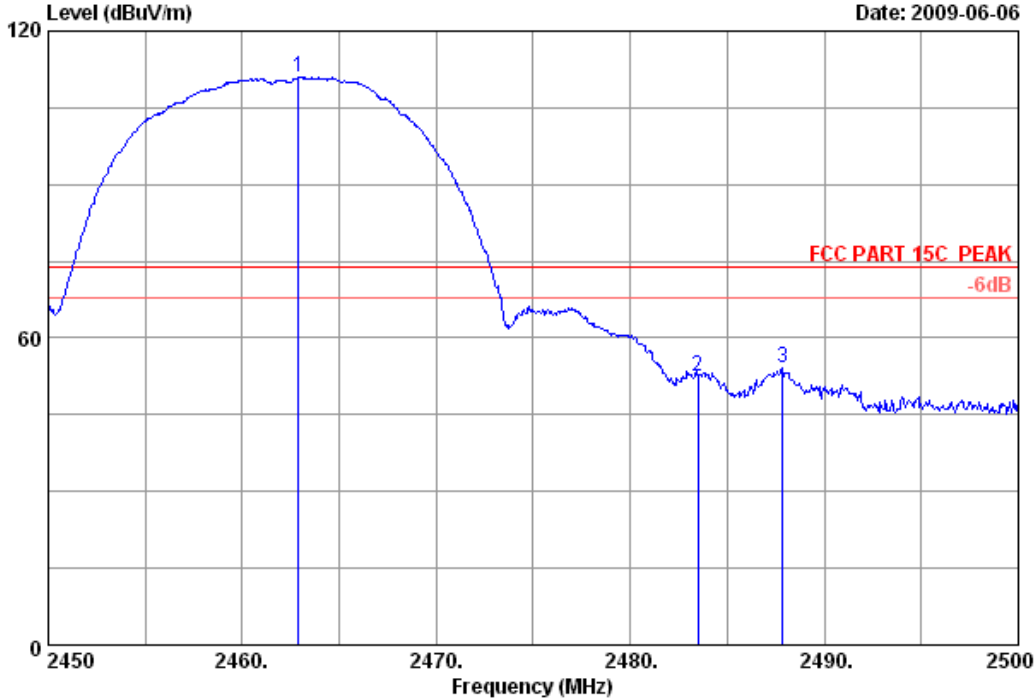
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 77 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 77
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH11 2462MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.900	28.55	6.84	35.11	110.63	110.91	74.00	-36.91	Peak
2	2483.500	28.58	6.87	35.10	52.14	52.49	74.00	21.51	Peak
3	2487.850	28.60	6.87	35.10	53.70	54.07	74.00	19.93	Peak

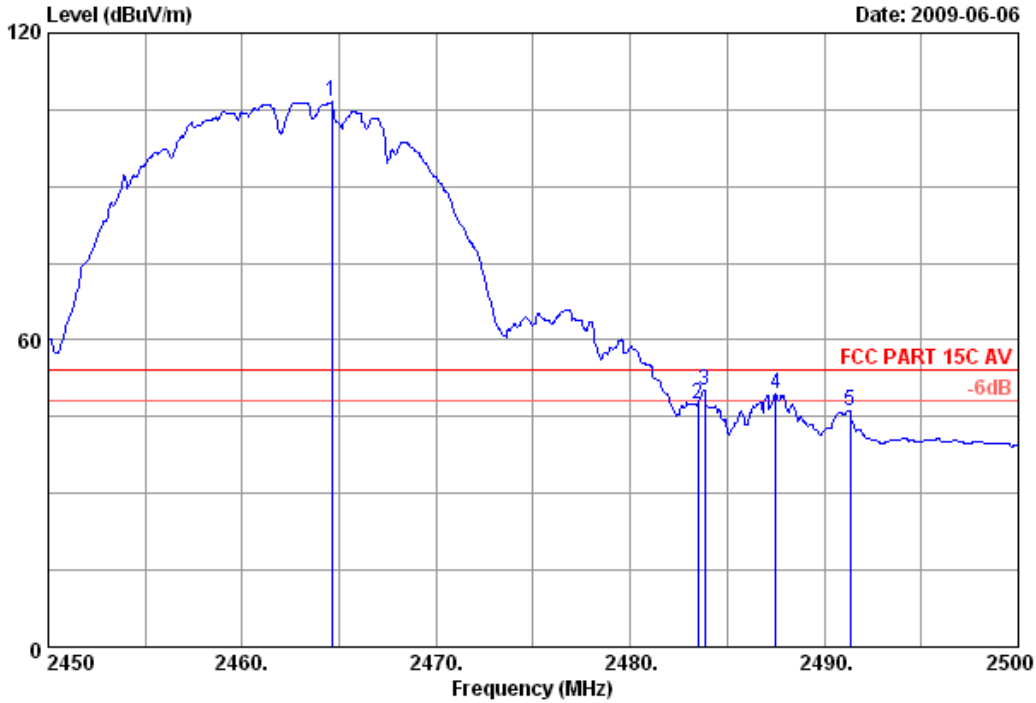
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 78 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 78
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH11 2462MHz
 M/N :

	Freq.	Ant.	Cable	Amp.	Reading	Emission	Limits	Margin	Remark
	(MHz)	Factor	loss	Factor	(dbuv)	Level	(dBuV/m)	(dB)	
		(dB/m)	(dB)	(dB)		(dBuV/m)	(dBuV/m)		
1	2464.600	28.55	6.84	35.11	106.25	106.53	54.00	-52.53	Average
2	2483.500	28.58	6.87	35.10	47.11	47.46	54.00	6.54	Average
3	2483.850	28.58	6.87	35.10	49.80	50.15	54.00	3.85	Average
4	2487.500	28.60	6.87	35.10	49.16	49.53	54.00	4.47	Average
5	2491.350	28.60	6.91	35.10	45.84	46.25	54.00	7.75	Average

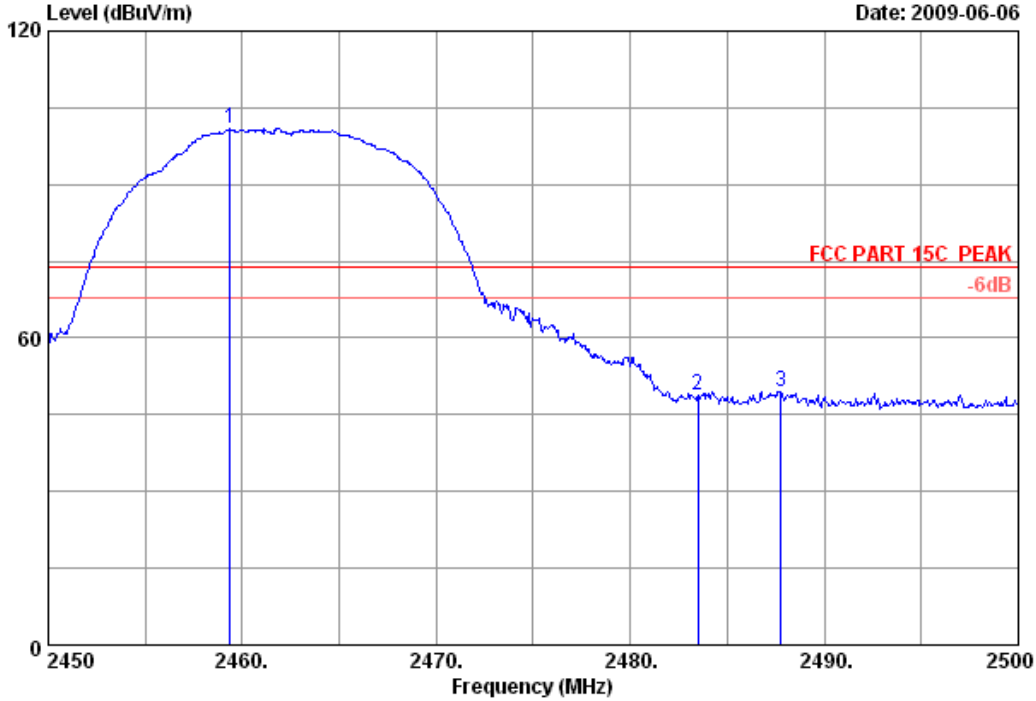
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 79 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 79
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH11 2462MHz
 M/N :

	Ant. Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.350	28.55	6.84	35.11	100.59	100.87	74.00	-26.87	Peak
2	2483.500	28.58	6.87	35.10	48.30	48.65	74.00	25.35	Peak
3	2487.750	28.60	6.87	35.10	49.24	49.61	74.00	24.39	Peak

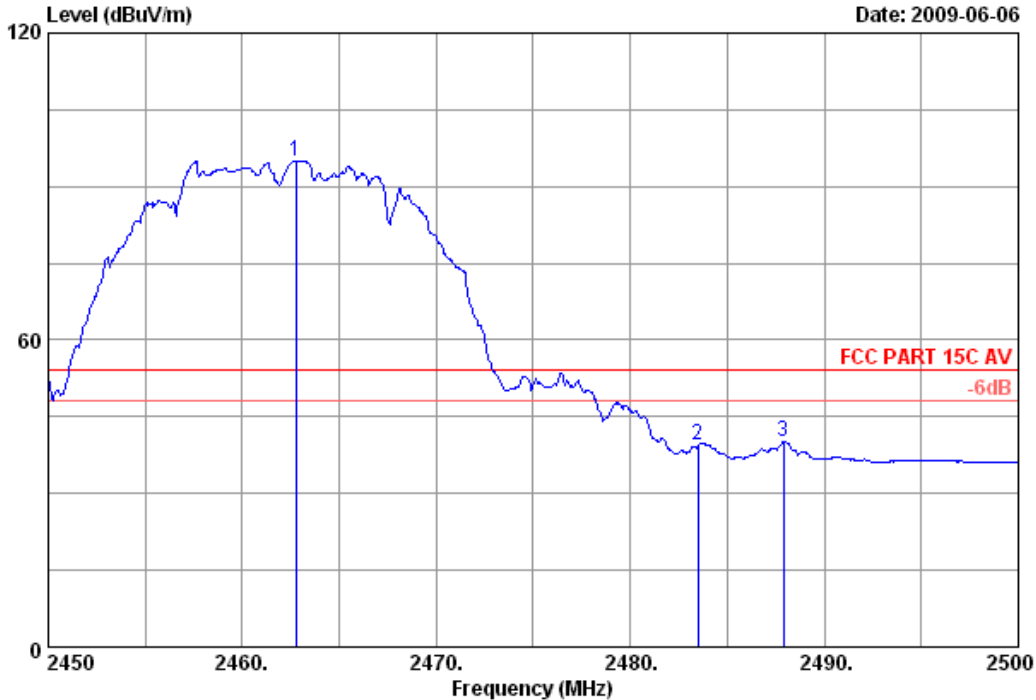
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 80 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 80
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH11 2462MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.750	28.55	6.84	35.11	94.78	95.06	54.00	-41.06	Average
2	2483.500	28.58	6.87	35.10	39.00	39.35	54.00	14.65	Average
3	2487.900	28.60	6.87	35.10	39.78	40.15	54.00	13.85	Average

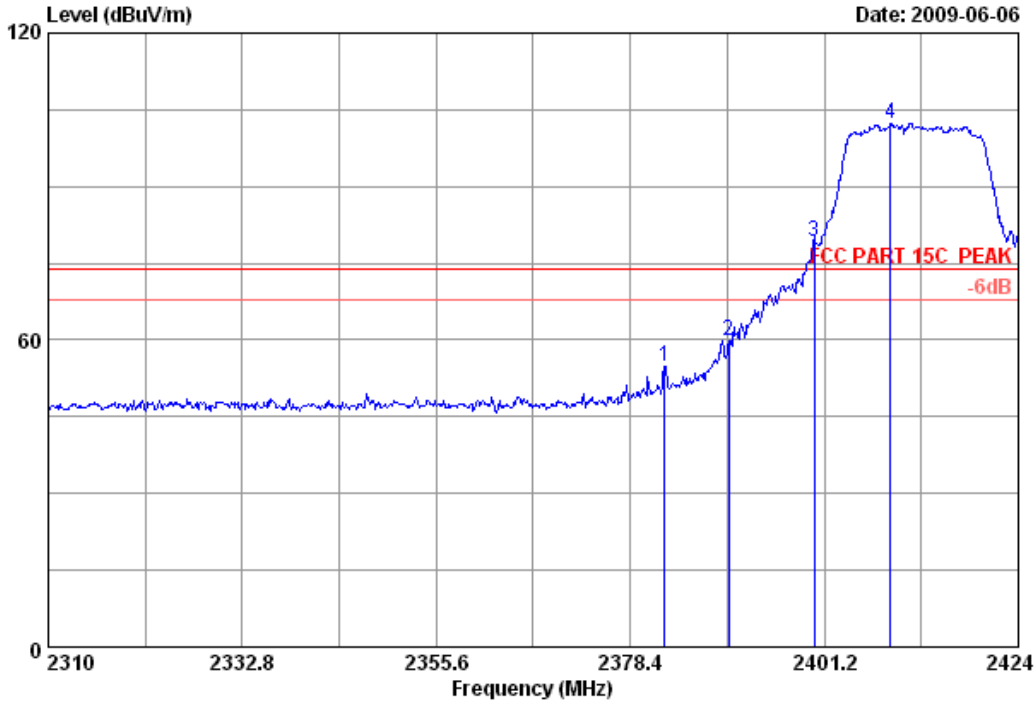
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 81 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 81
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH1 2412MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2382.390	28.43	6.71	35.12	54.76	54.78	74.00	19.22	Peak
2	2390.000	28.46	6.71	35.12	59.68	59.73	74.00	14.27	Peak
3	2400.000	28.46	6.73	35.12	79.15	79.22	74.00	-5.22	Peak
4	2408.952	28.48	6.73	35.12	102.36	102.45	74.00	-28.45	Peak

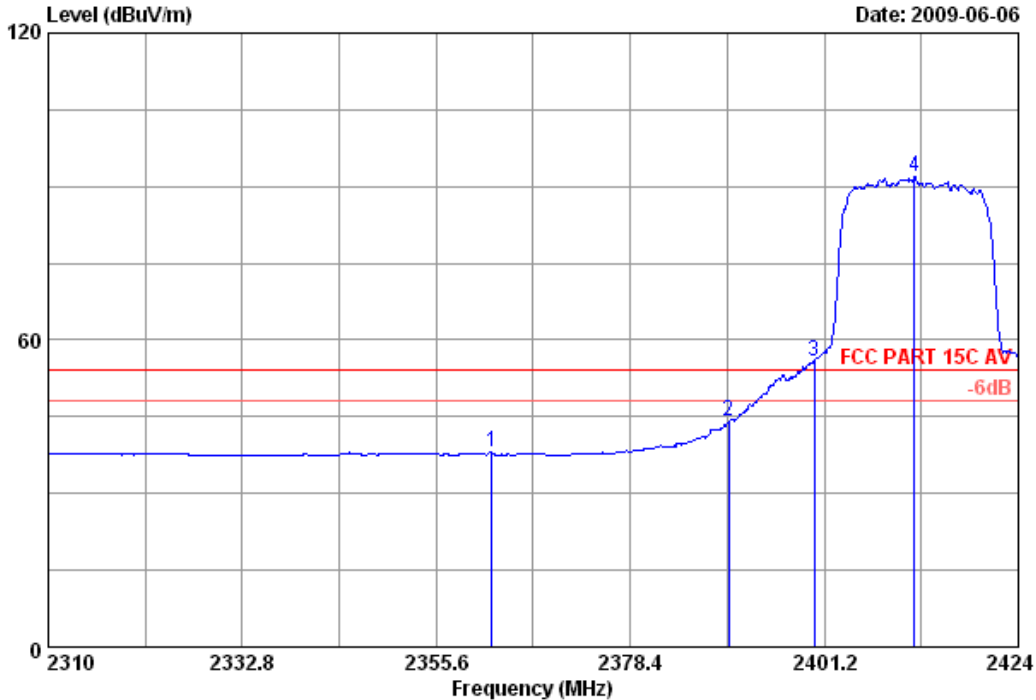
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 82 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 82
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH1 2412MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2362.098	28.41	6.69	35.13	38.08	38.05	54.00	15.95	Average
2	2390.000	28.46	6.71	35.12	44.06	44.11	54.00	9.89	Average
3	2400.000	28.46	6.73	35.12	55.65	55.72	54.00	-1.72	Average
4	2411.802	28.48	6.73	35.12	91.78	91.87	54.00	-37.87	Average

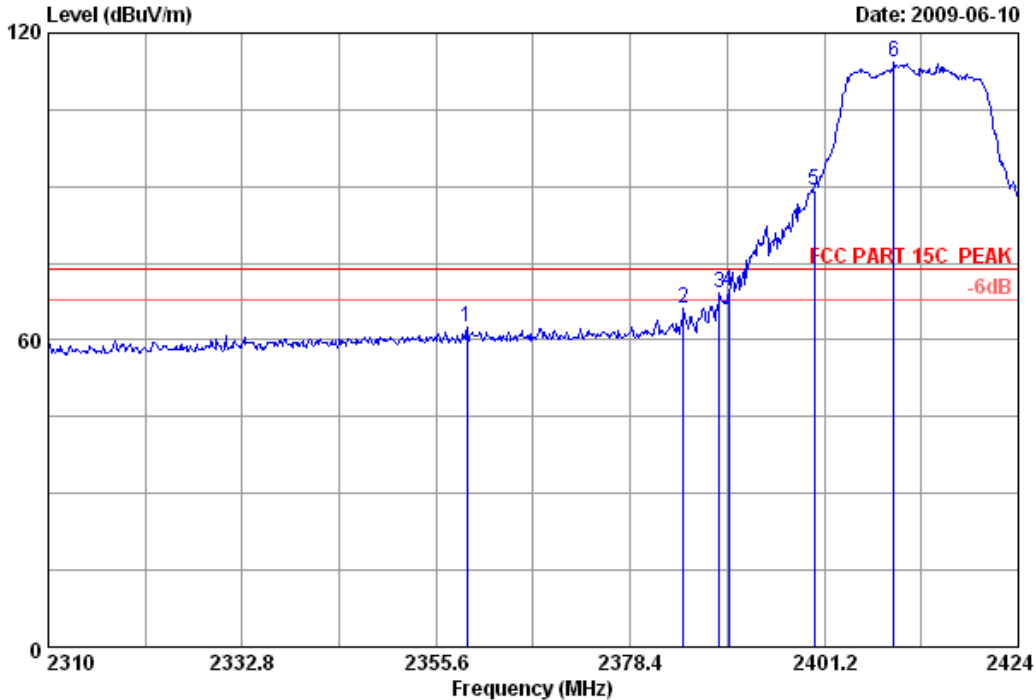
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Postcode:518057

Data: 83 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 83
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH1 2412MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2359.248	28.41	6.69	35.13	62.52	62.49	74.00	11.51	Peak
2	2384.670	28.43	6.71	35.12	66.18	66.20	74.00	7.80	Peak
3	2388.888	28.46	6.71	35.12	69.15	69.20	74.00	4.80	Peak
4	2390.000	28.46	6.71	35.12	69.35	69.40	74.00	4.60	Peak
5	2400.000	28.46	6.73	35.12	89.24	89.31	74.00	-15.31	Peak
6	2409.408	28.48	6.73	35.12	114.09	114.18	74.00	-40.18	Peak

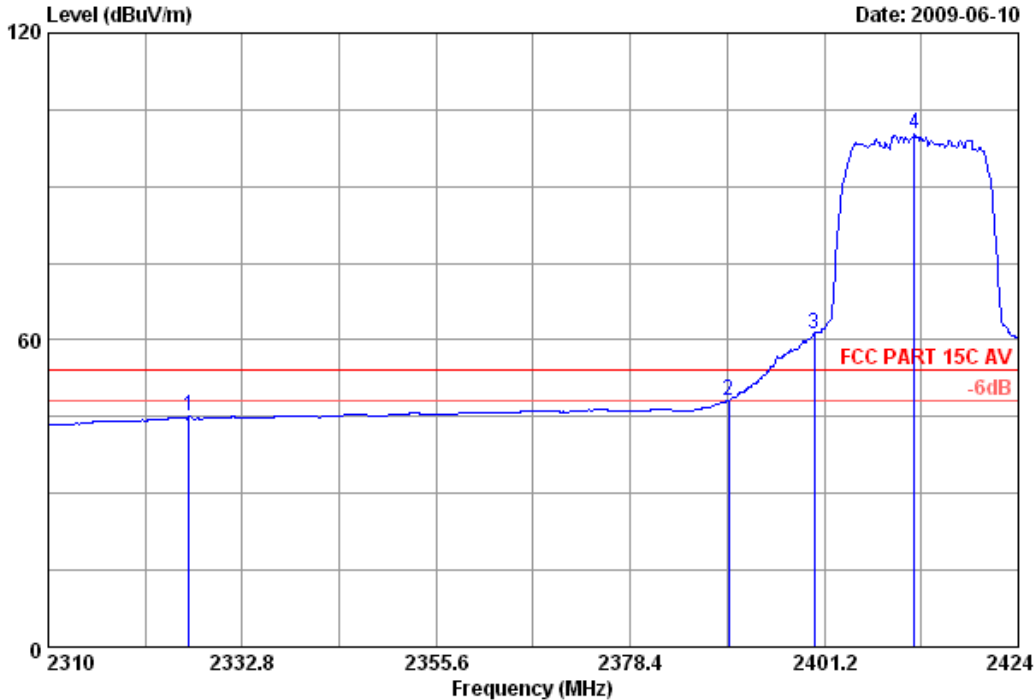
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 84 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 84
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH1 2412MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2326.530	28.36	6.65	35.13	45.19	45.07	54.00	8.93	Average
2	2390.000	28.46	6.71	35.12	48.24	48.29	54.00	5.71	Average
3	2400.000	28.46	6.73	35.12	60.94	61.01	54.00	-7.01	Average
4	2411.802	28.48	6.73	35.12	100.09	100.18	54.00	-46.18	Average

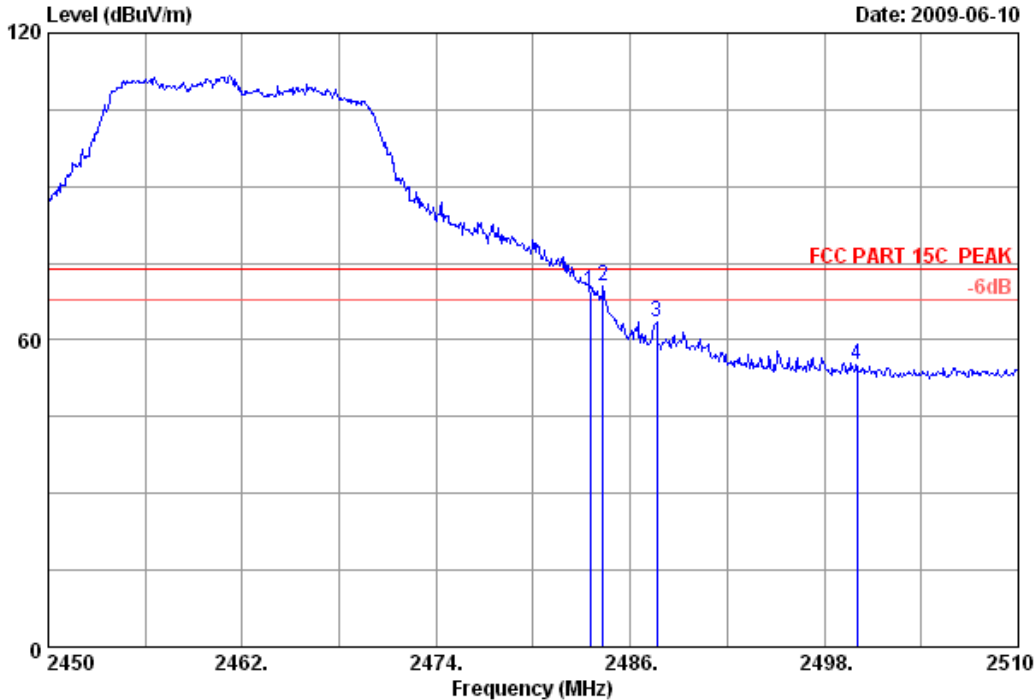
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 85 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 85
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH11 2462MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.500	28.58	6.87	35.10	69.34	69.69	74.00	4.31	Peak
2	2484.320	28.58	6.87	35.10	70.07	70.42	74.00	3.58	Peak
3	2487.620	28.60	6.87	35.10	63.23	63.60	74.00	10.40	Peak
4	2500.000	28.60	6.91	35.10	54.67	55.08	74.00	18.92	Peak

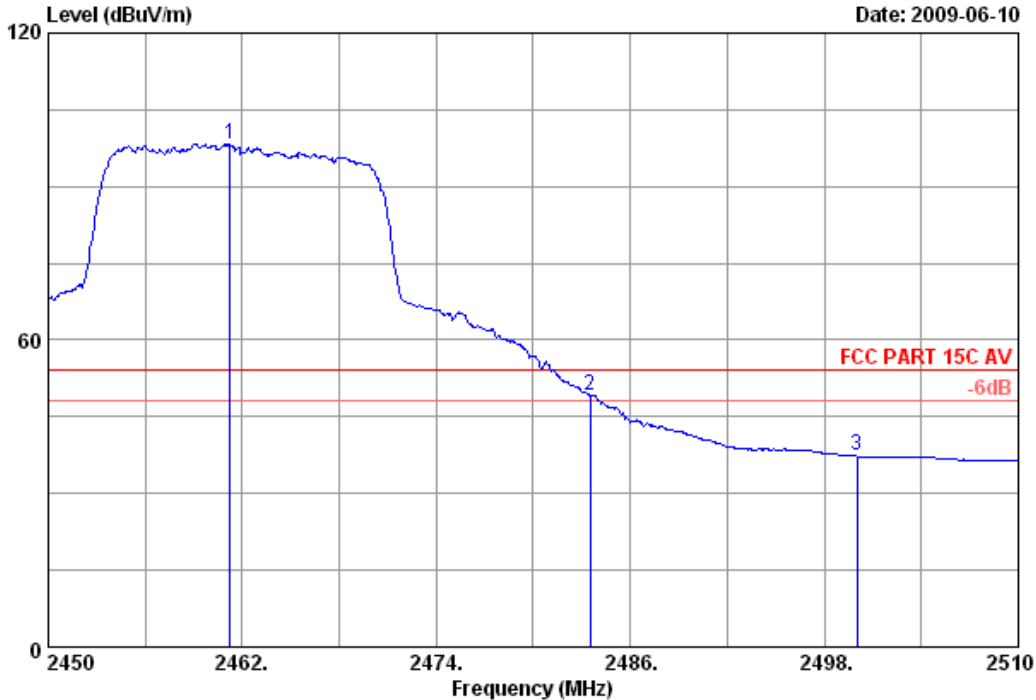
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 86 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 86
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH11 2462MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.220	28.55	6.84	35.11	98.15	98.43	54.00	-44.43	Average
2	2483.500	28.58	6.87	35.10	48.94	49.29	54.00	4.71	Average
3	2500.000	28.60	6.91	35.10	36.88	37.29	54.00	16.71	Average

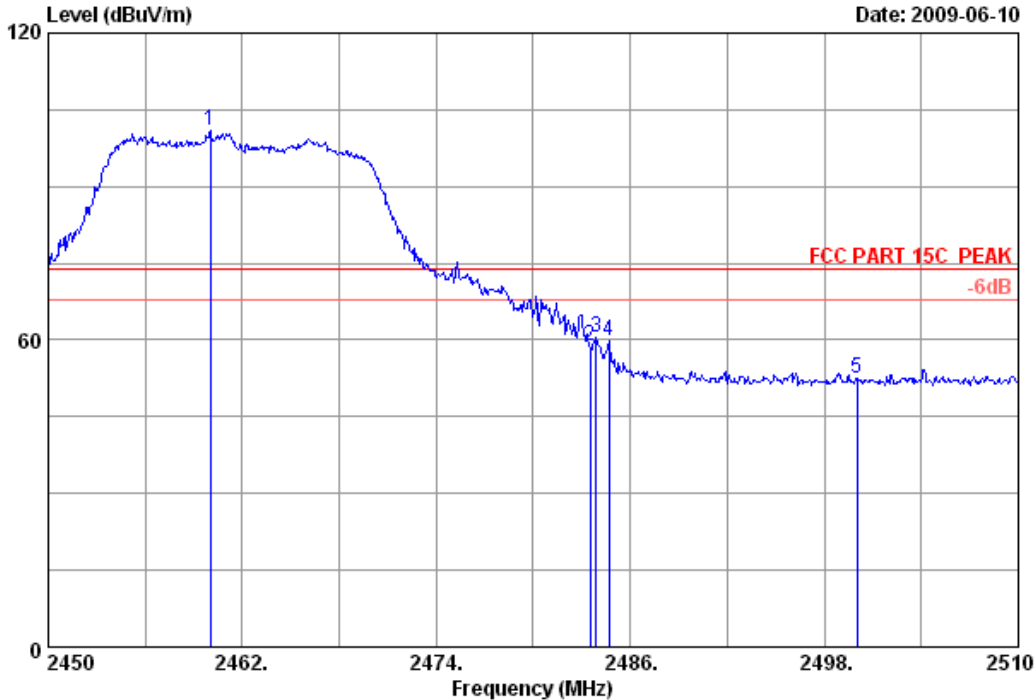
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 87 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 87
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH11 2462MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.020	28.55	6.84	35.11	100.73	101.01	74.00	-27.01	Peak
2	2483.500	28.58	6.87	35.10	58.65	59.00	74.00	15.00	Peak
3	2483.900	28.58	6.87	35.10	60.22	60.57	74.00	13.43	Peak
4	2484.680	28.58	6.87	35.10	59.51	59.86	74.00	14.14	Peak
5	2500.000	28.60	6.91	35.10	52.11	52.52	74.00	21.48	Peak

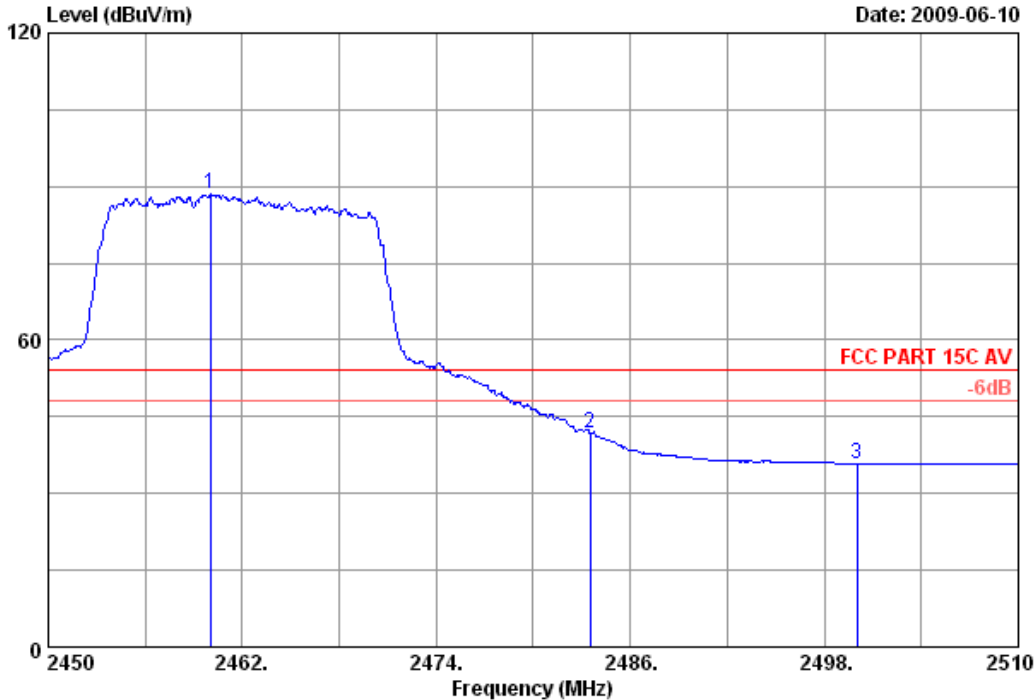
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 88 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 88
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH11 2462MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.020	28.55	6.84	35.11	88.42	88.70	54.00	-34.70	Average
2	2483.500	28.58	6.87	35.10	41.44	41.79	54.00	12.21	Average
3	2500.000	28.60	6.91	35.10	35.48	35.89	54.00	18.11	Average

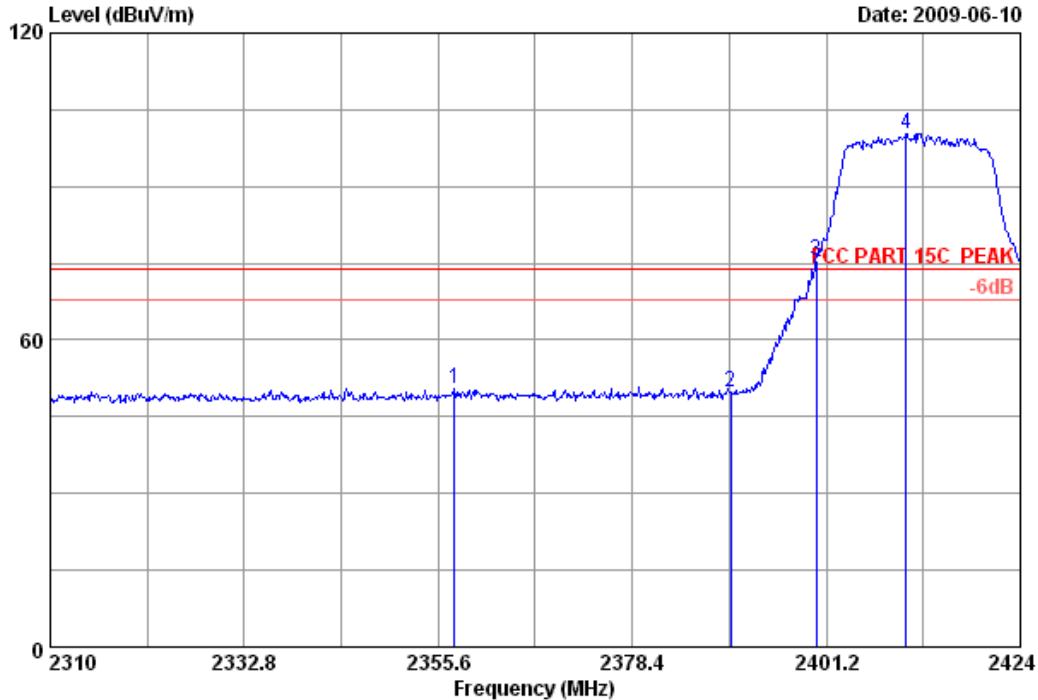
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 89 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 89
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH1 2412MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2357.538	28.41	6.69	35.13	50.63	50.60	74.00	23.40	Peak
2	2390.000	28.46	6.71	35.12	49.78	49.83	74.00	24.17	Peak
3	2400.000	28.46	6.73	35.12	75.35	75.42	74.00	-1.42	Peak
4	2410.548	28.48	6.73	35.12	100.33	100.42	74.00	-26.42	Peak

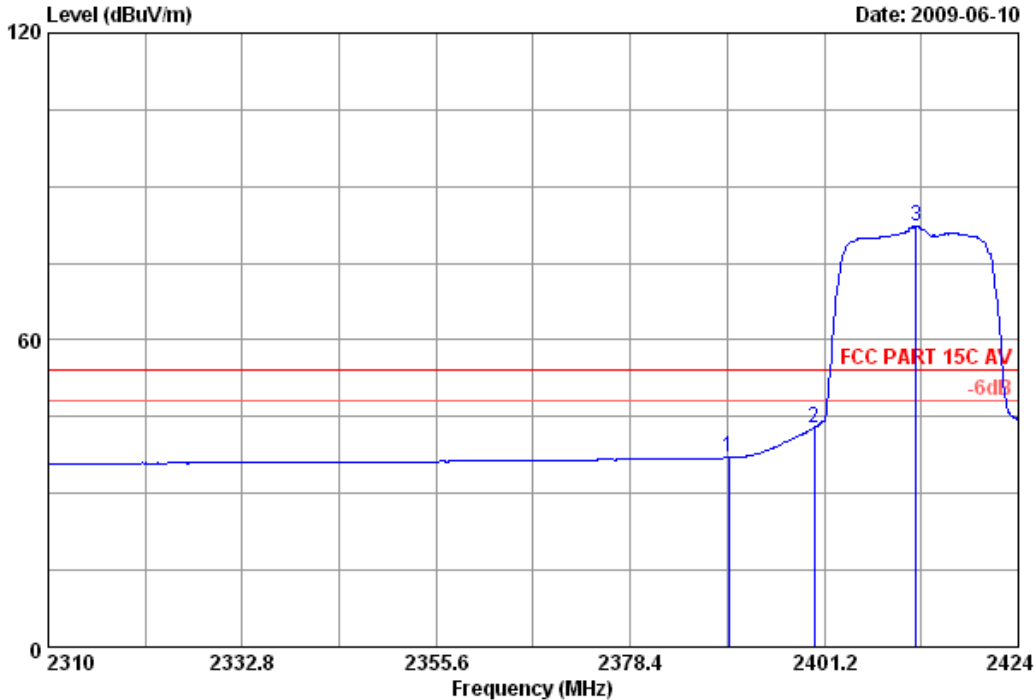
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 90 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 90
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH1 2412MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.46	6.71	35.12	36.95	37.00	54.00	17.00	Average
2	2400.000	28.46	6.73	35.12	42.72	42.79	54.00	11.21	Average
3	2412.030	28.48	6.73	35.12	82.22	82.31	54.00	-28.31	Average

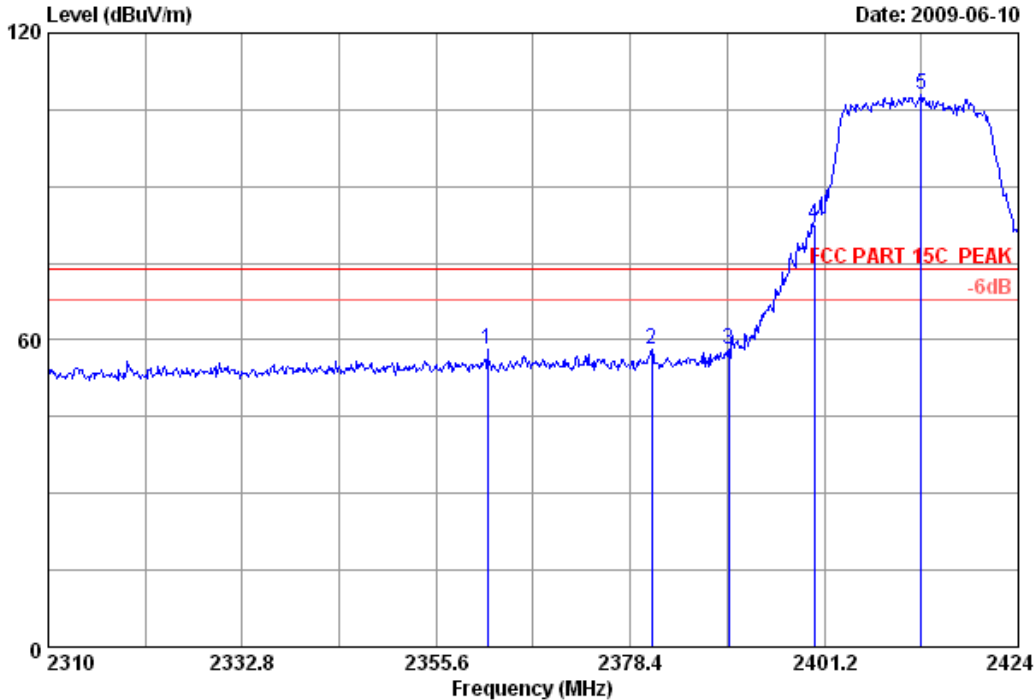
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 91 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 91
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH1 2412MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2361.642	28.41	6.69	35.13	58.34	58.31	74.00	15.69	Peak
2	2380.908	28.43	6.71	35.12	58.09	58.11	74.00	15.89	Peak
3	2390.000	28.46	6.71	35.12	58.18	58.23	74.00	15.77	Peak
4	2400.000	28.46	6.73	35.12	82.66	82.73	74.00	-8.73	Peak
5	2412.600	28.48	6.77	35.12	107.69	107.82	74.00	-33.82	Peak

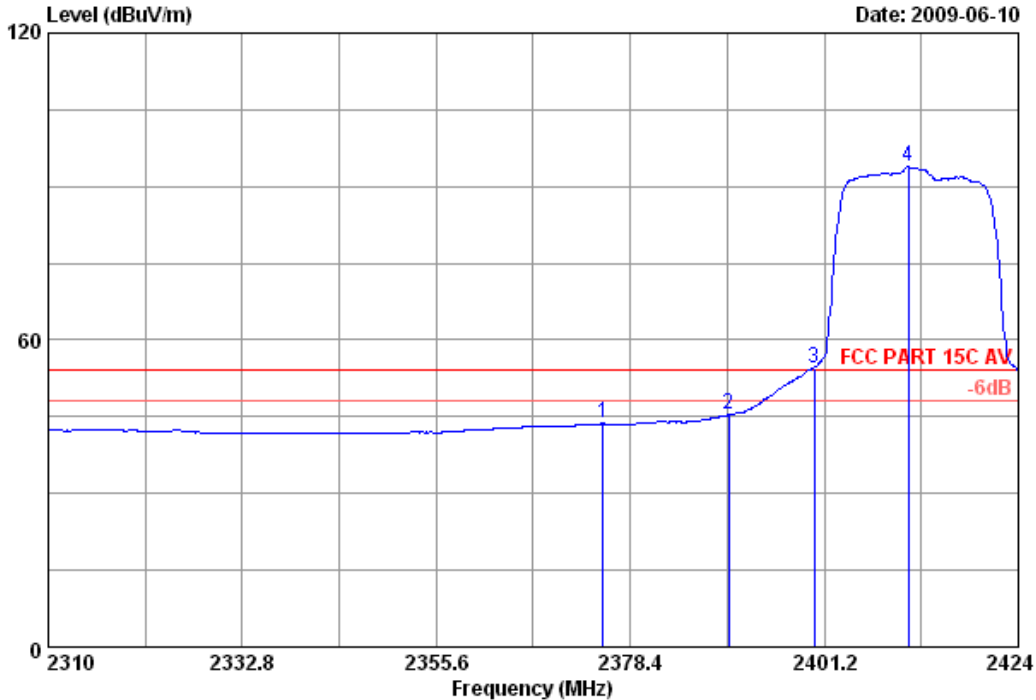
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 92 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 92
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH1 2412MHz
 M/N :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dbuv)	(dBuV/m)	(dBuV/m)	(dB)		
1 2375.208	28.43	6.71	35.12	43.62	43.64	54.00	10.36	Average	
2 2390.000	28.46	6.71	35.12	45.32	45.37	54.00	8.63	Average	
3 2400.000	28.46	6.73	35.12	54.57	54.64	54.00	-0.64	Average	
4 2411.118	28.48	6.73	35.12	93.88	93.97	54.00	-39.97	Average	

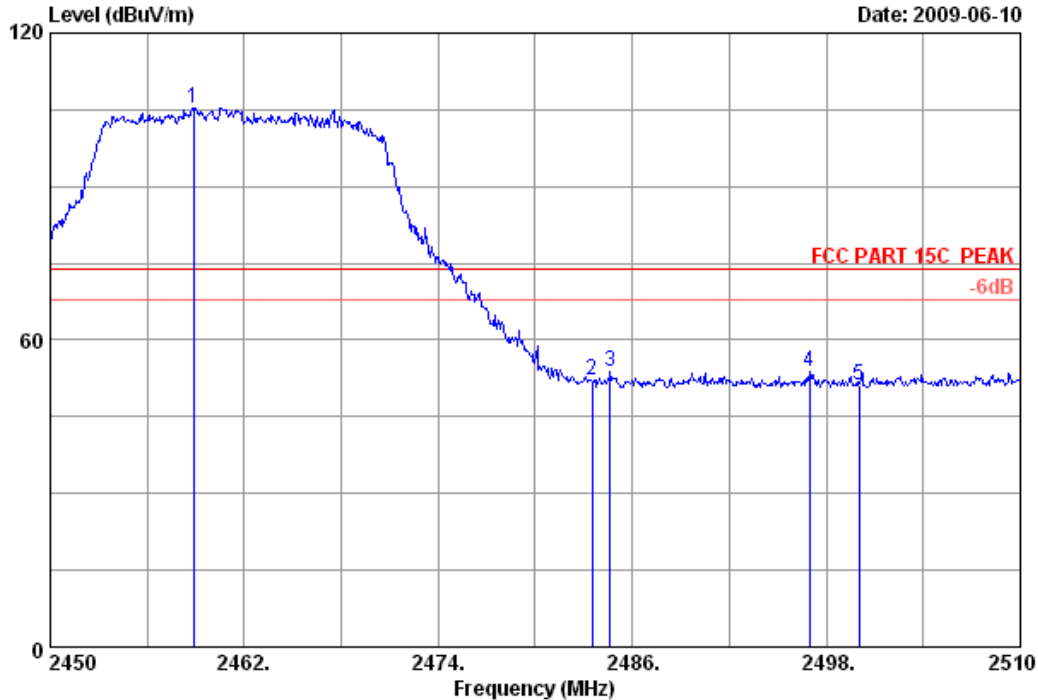
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 93 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 93
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH11 2462MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2458.880	28.55	6.84	35.11	104.99	105.27	74.00	-31.27	Peak
2	2483.500	28.58	6.87	35.10	51.70	52.05	74.00	21.95	Peak
3	2484.620	28.58	6.87	35.10	53.40	53.75	74.00	20.25	Peak
4	2496.980	28.60	6.91	35.10	53.40	53.81	74.00	20.19	Peak
5	2500.000	28.60	6.91	35.10	50.67	51.08	74.00	22.92	Peak

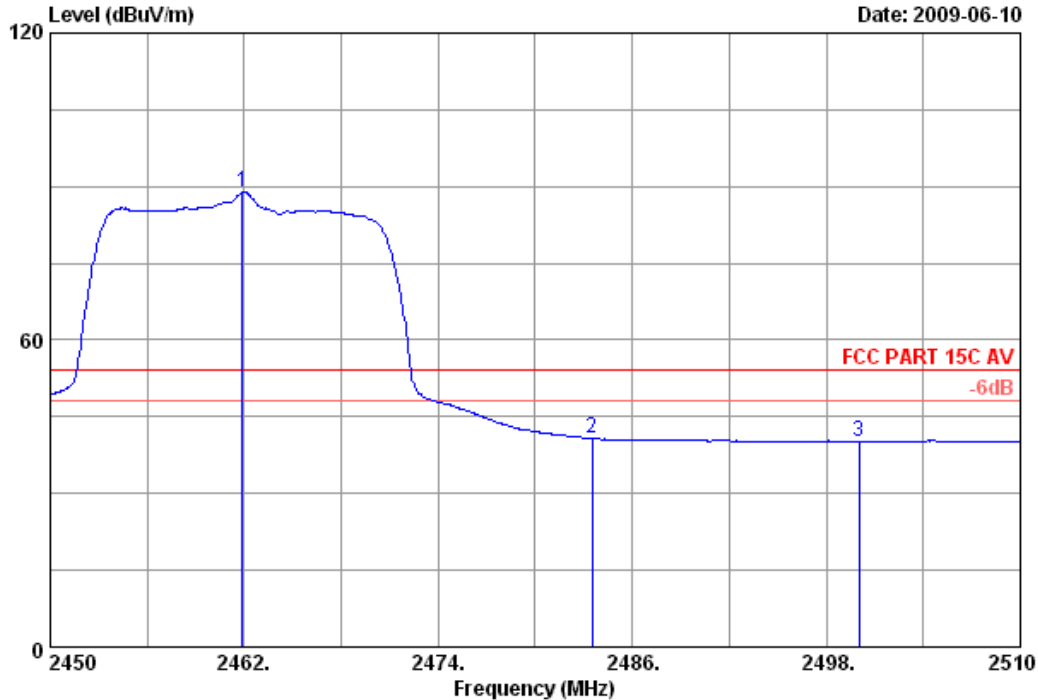
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 94 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 94
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH11 2462MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.880	28.55	6.84	35.11	88.54	88.82	54.00	-34.82	Average
2	2483.500	28.58	6.87	35.10	40.44	40.79	54.00	13.21	Average
3	2500.000	28.60	6.91	35.10	39.78	40.19	54.00	13.81	Average

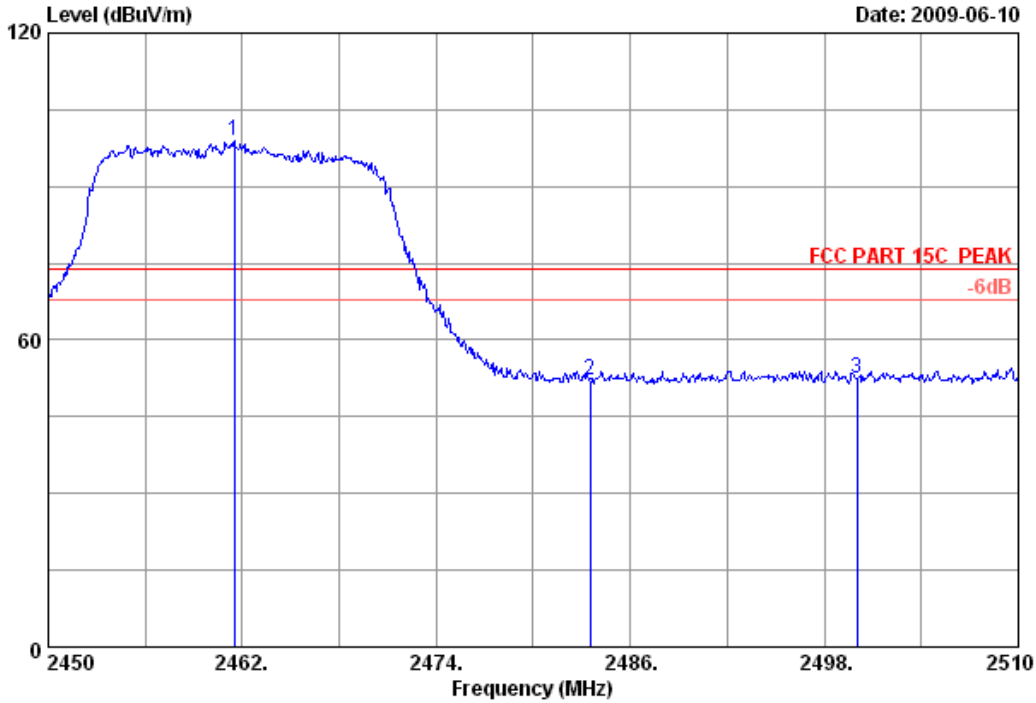
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 95 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 95
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH11 2462MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.520	28.55	6.84	35.11	98.61	98.89	74.00	-24.89	Peak
2	2483.500	28.58	6.87	35.10	51.96	52.31	74.00	21.69	Peak
3	2500.000	28.60	6.91	35.10	52.04	52.45	74.00	21.55	Peak

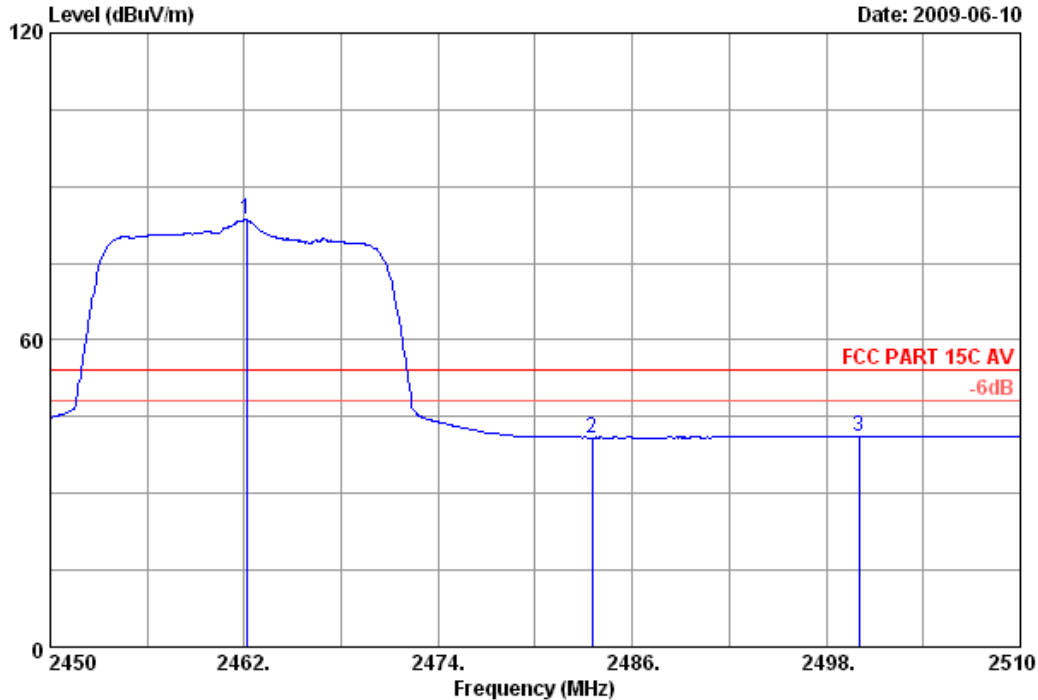
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 96 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 96
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH11 2462MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.120	28.55	6.84	35.11	83.33	83.61	54.00	-29.61	Average
2	2483.500	28.58	6.87	35.10	40.58	40.93	54.00	13.07	Average
3	2500.000	28.60	6.91	35.10	40.61	41.02	54.00	12.98	Average

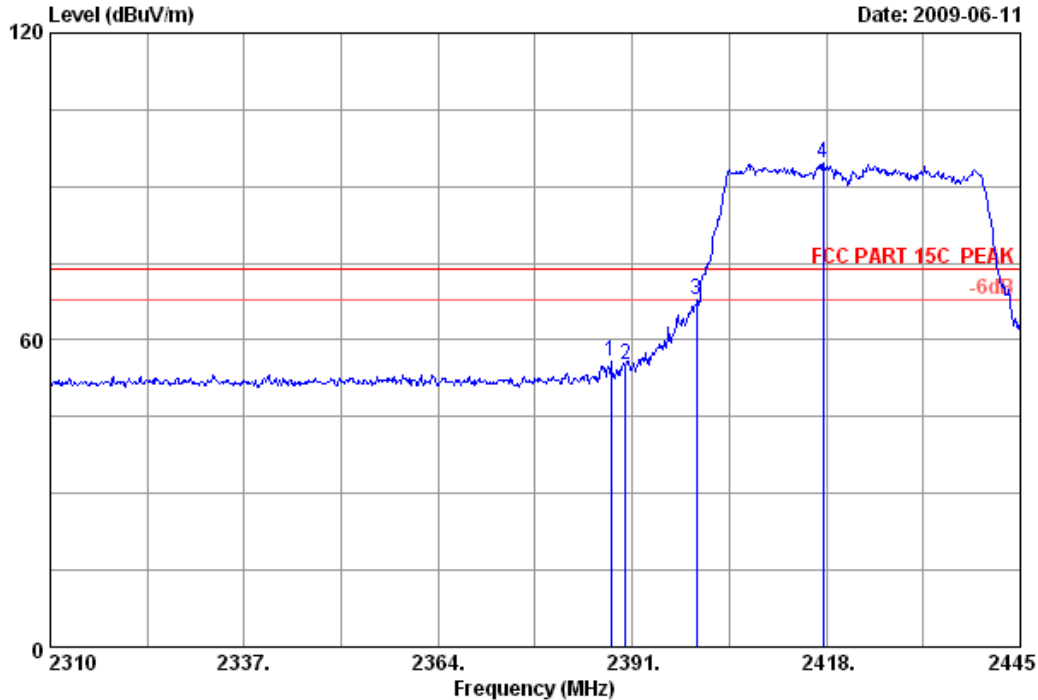
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 97 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 97
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH1 2422MHz
 M/N :

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2388.030	28.46	6.71	35.12	55.89	55.94	74.00	18.06	Peak
2	2390.000	28.46	6.71	35.12	55.12	55.17	74.00	18.83	Peak
3	2400.000	28.46	6.73	35.12	67.79	67.86	74.00	6.14	Peak
4	2417.595	28.48	6.77	35.11	94.35	94.49	74.00	-20.49	Peak

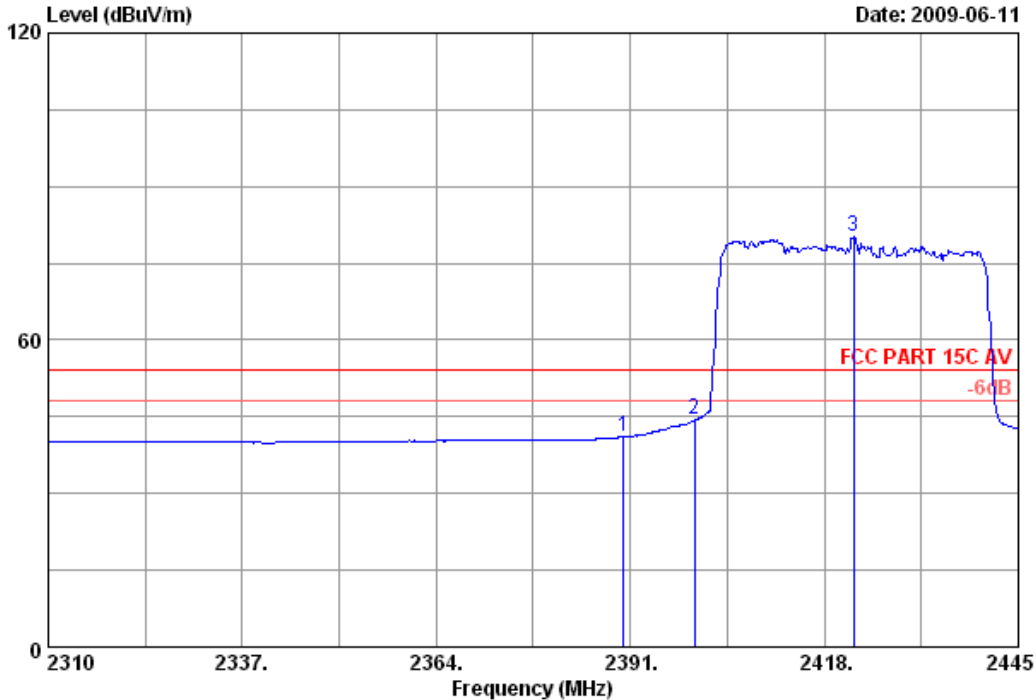
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 98 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 98
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH1 2422MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission			Remark
						Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	
1	2390.000	28.46	6.71	35.12	41.02	41.07	54.00	12.93	Average
2	2400.000	28.46	6.73	35.12	44.23	44.30	54.00	9.70	Average
3	2422.050	28.50	6.77	35.11	80.15	80.31	54.00	-26.31	Average

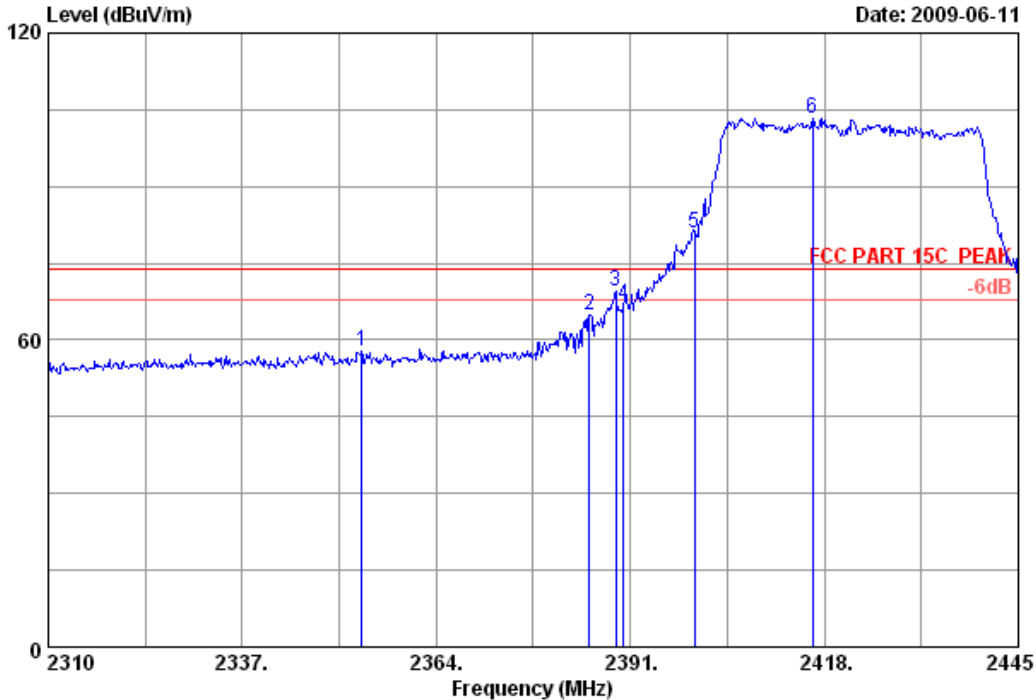
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 99 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 99
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH1 2422MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2353.605	28.41	6.67	35.13	58.04	57.99	74.00	16.01	Peak
2	2385.330	28.43	6.71	35.12	64.87	64.89	74.00	9.11	Peak
3	2388.975	28.46	6.71	35.12	69.41	69.46	74.00	4.54	Peak
4	2390.000	28.46	6.71	35.12	66.64	66.69	74.00	7.31	Peak
5	2400.000	28.46	6.73	35.12	80.84	80.91	74.00	-6.91	Peak
6	2416.380	28.48	6.77	35.11	103.26	103.40	74.00	-29.40	Peak

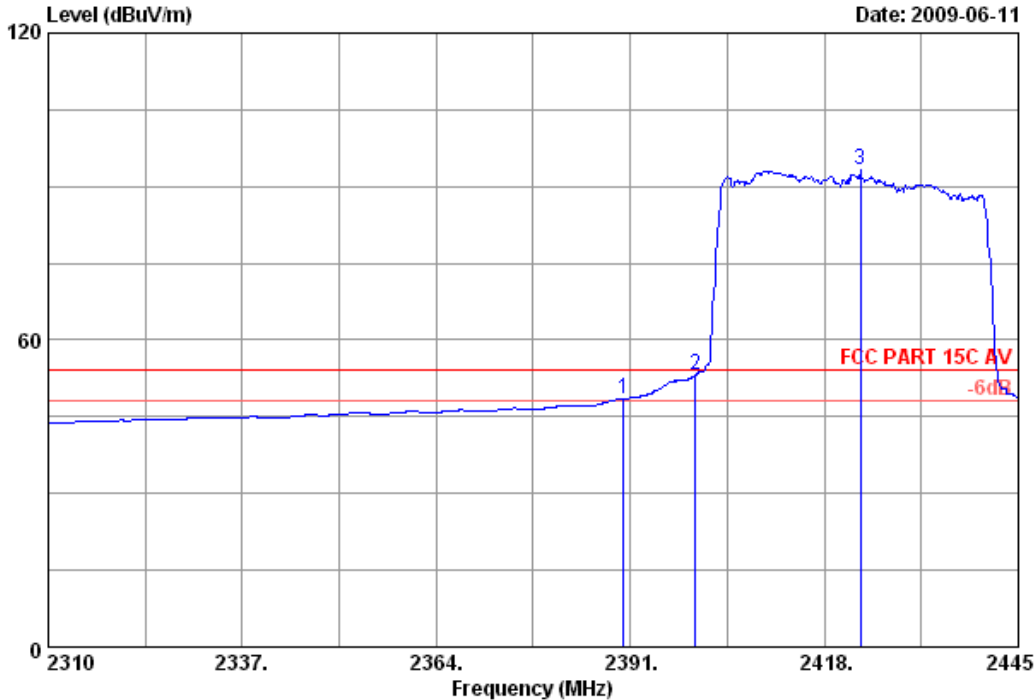
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 100 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 100
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH1 2422MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.46	6.71	35.12	48.48	48.53	54.00	5.47	Average
2	2400.045	28.46	6.73	35.12	53.10	53.17	54.00	0.83	Average
3	2422.995	28.50	6.77	35.11	93.17	93.33	54.00	-39.33	Average

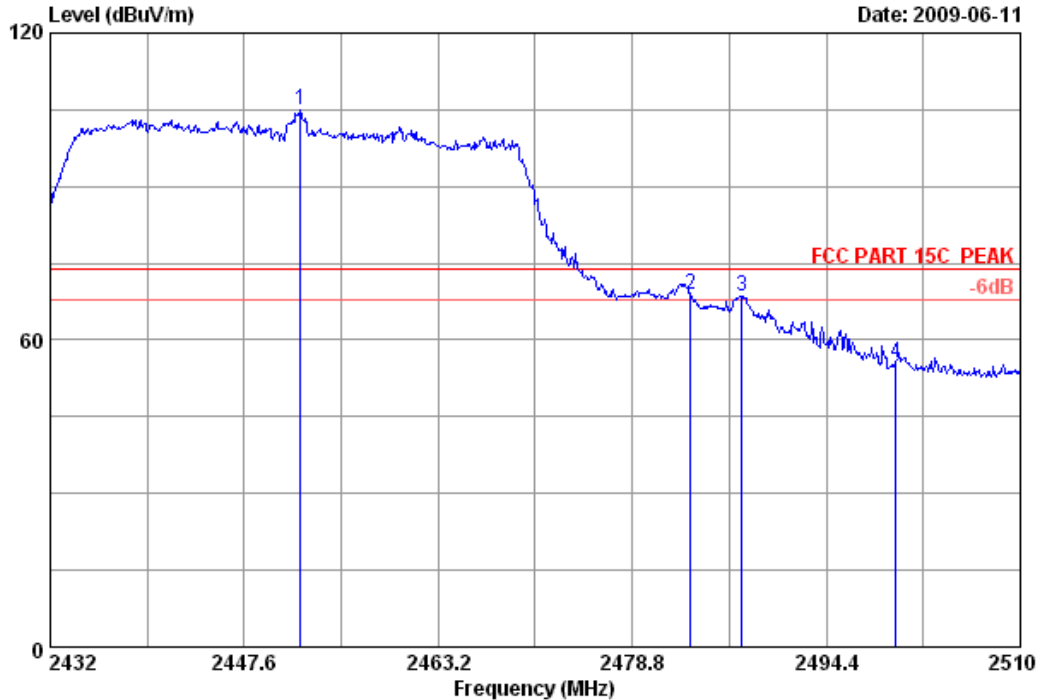
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 101 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 101
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH7 2452MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2452.124	28.53	6.84	35.11	104.68	104.94	74.00	-30.94	Peak
2	2483.500	28.58	6.87	35.10	68.58	68.93	74.00	5.07	Peak
3	2487.614	28.60	6.87	35.10	68.31	68.68	74.00	5.32	Peak
4	2500.000	28.60	6.91	35.10	55.23	55.64	74.00	18.36	Peak

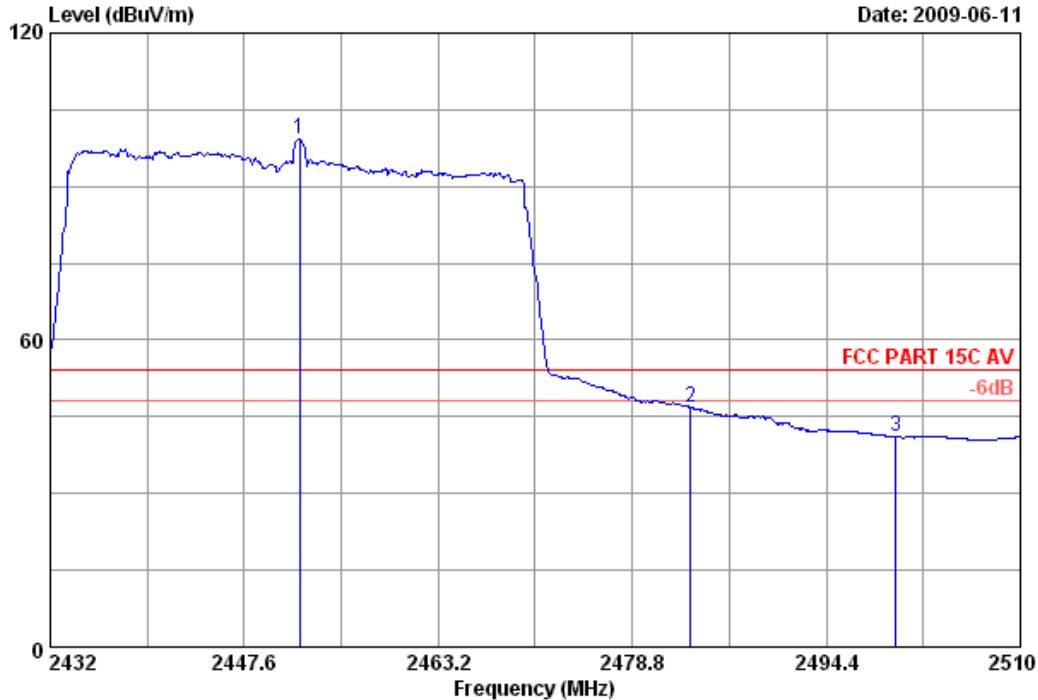
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 102 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 102
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH7 2452MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2452.046	28.53	6.84	35.11	99.04	99.30	54.00	-45.30	Average
2	2483.500	28.58	6.87	35.10	46.43	46.78	54.00	7.22	Average
3	2500.000	28.60	6.91	35.10	40.56	40.97	54.00	13.03	Average

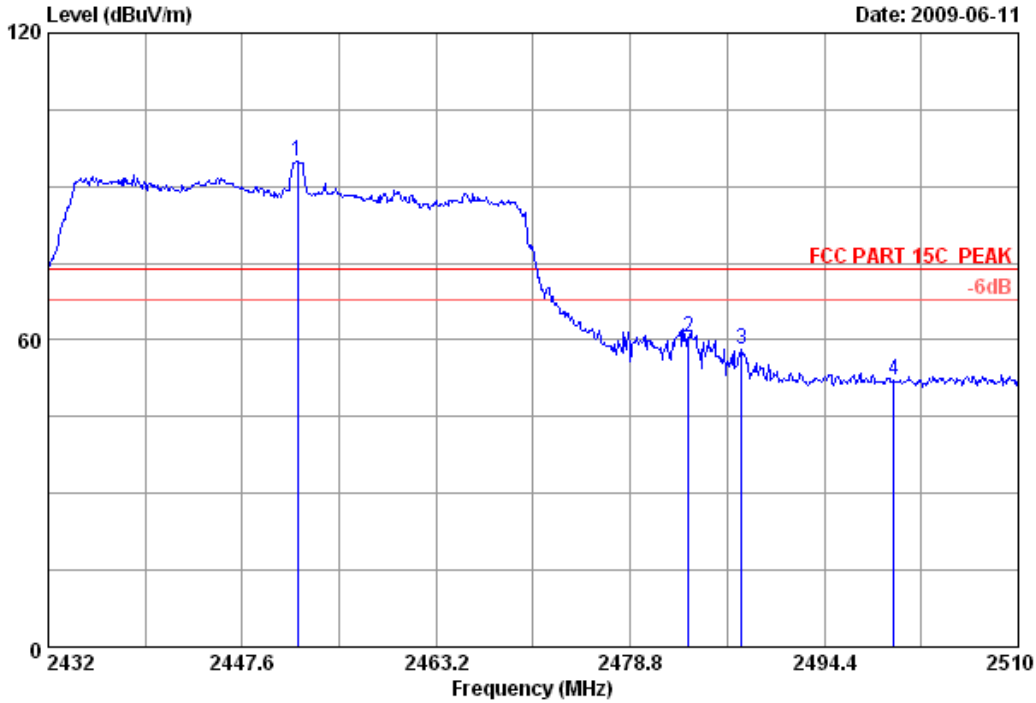
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 103 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 103
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH7 2452MHz
 M/N :

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2452.046	28.53	6.84	35.11	94.72	94.98	74.00	-20.98	Peak
2	2483.500	28.58	6.87	35.10	60.01	60.36	74.00	13.64	Peak
3	2487.770	28.60	6.87	35.10	57.66	58.03	74.00	15.97	Peak
4	2500.000	28.60	6.91	35.10	51.63	52.04	74.00	21.96	Peak

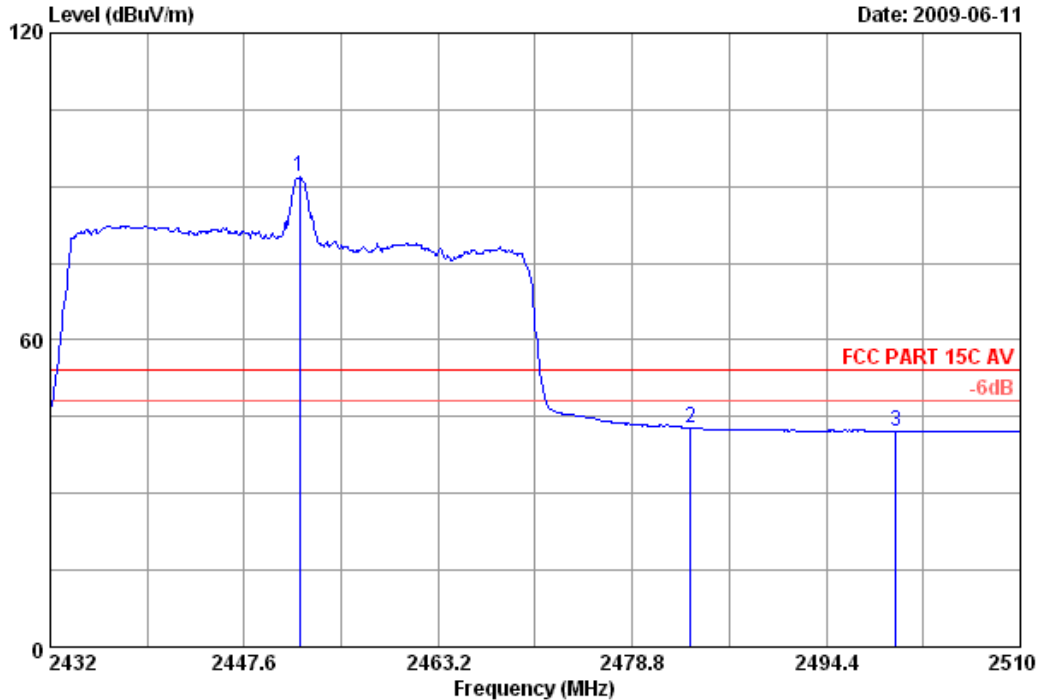
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 104 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 104
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH7 2452MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2452.046	28.53	6.84	35.11	91.54	91.80	54.00	-37.80	Average
2	2483.500	28.58	6.87	35.10	42.34	42.69	54.00	11.31	Average
3	2500.000	28.60	6.91	35.10	41.79	42.20	54.00	11.80	Average

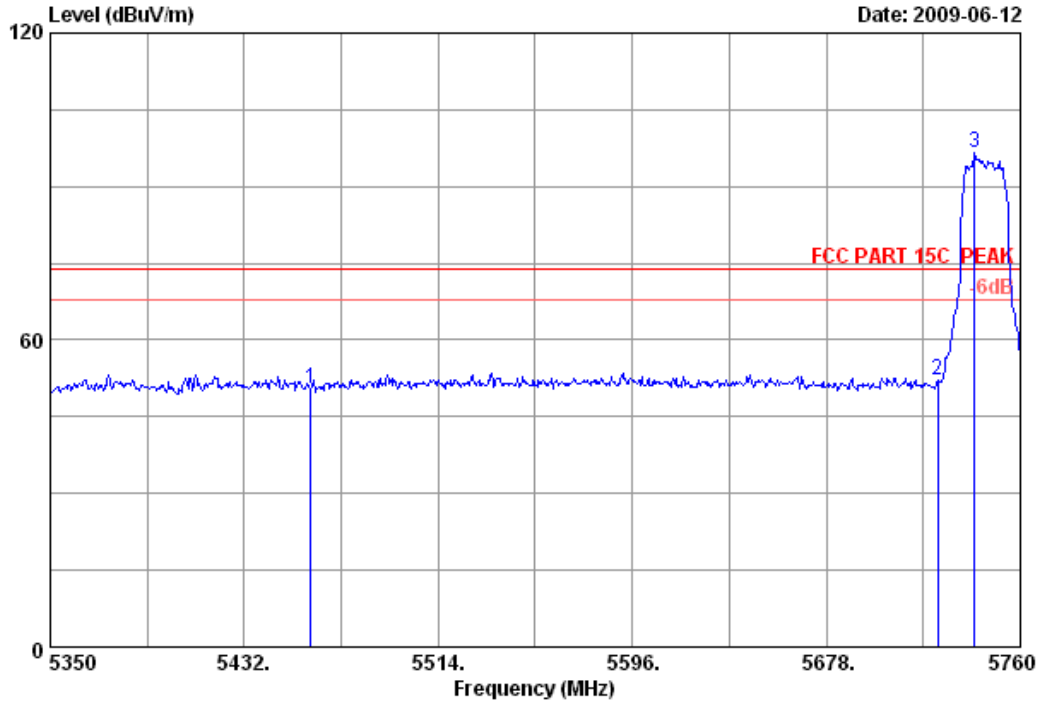
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 149 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 149
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH149 5745MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	35.86	10.68	34.43	38.30	50.41	74.00	23.59	Peak
2	5725.000	35.45	10.97	34.37	40.06	52.11	74.00	21.89	Peak
3	5740.730	35.42	10.96	34.36	84.66	96.68	74.00	-22.68	Peak

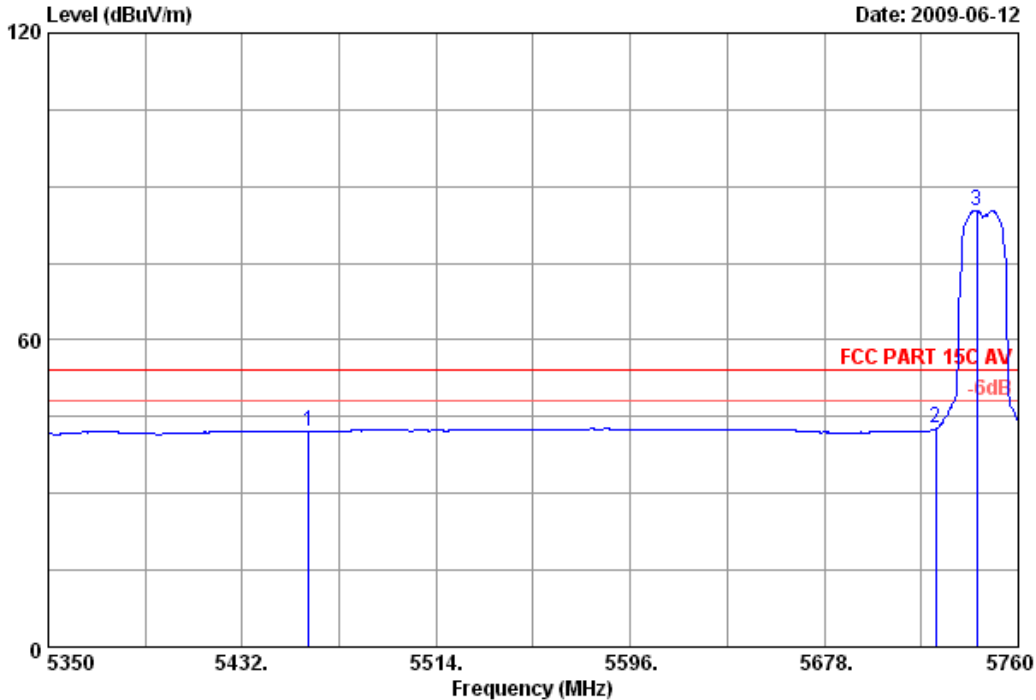
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 150 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 150
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH149 5745MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	35.86	10.68	34.43	29.86	41.97	54.00	12.03	Average
2	5725.000	35.45	10.97	34.37	30.59	42.64	54.00	11.36	Average
3	5742.370	35.42	10.96	34.36	73.30	85.32	54.00	-31.32	Average

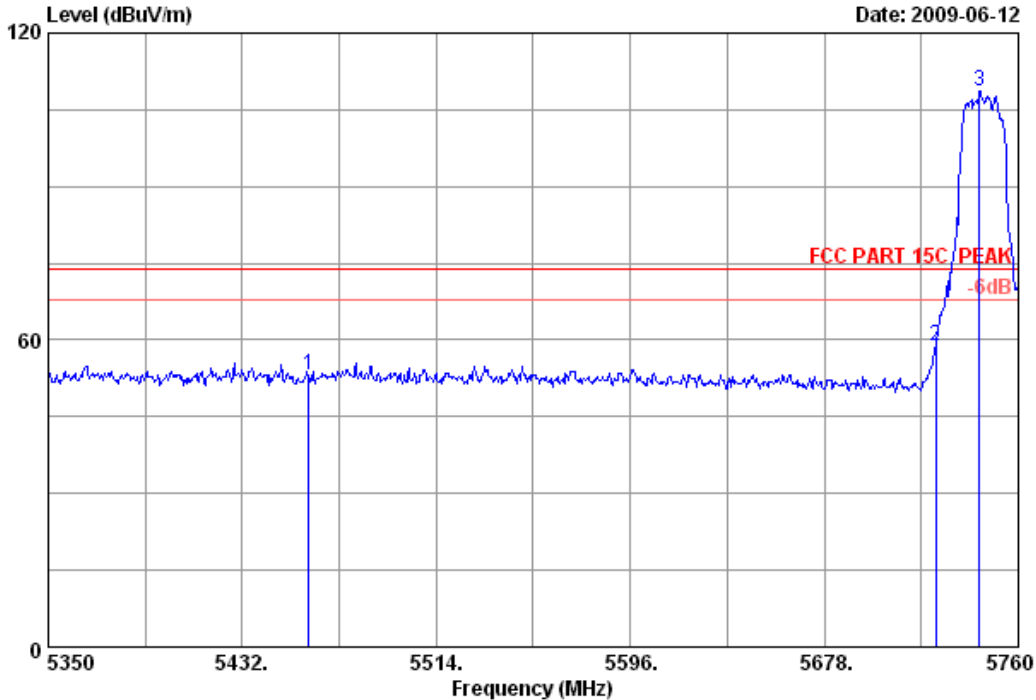
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 151 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 151
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH149 5745MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	35.86	10.68	34.43	41.11	53.22	74.00	20.78	Peak
2	5725.000	35.45	10.97	34.37	46.89	58.94	74.00	15.06	Peak
3	5743.600	35.42	10.96	34.36	96.70	108.72	74.00	-34.72	Peak

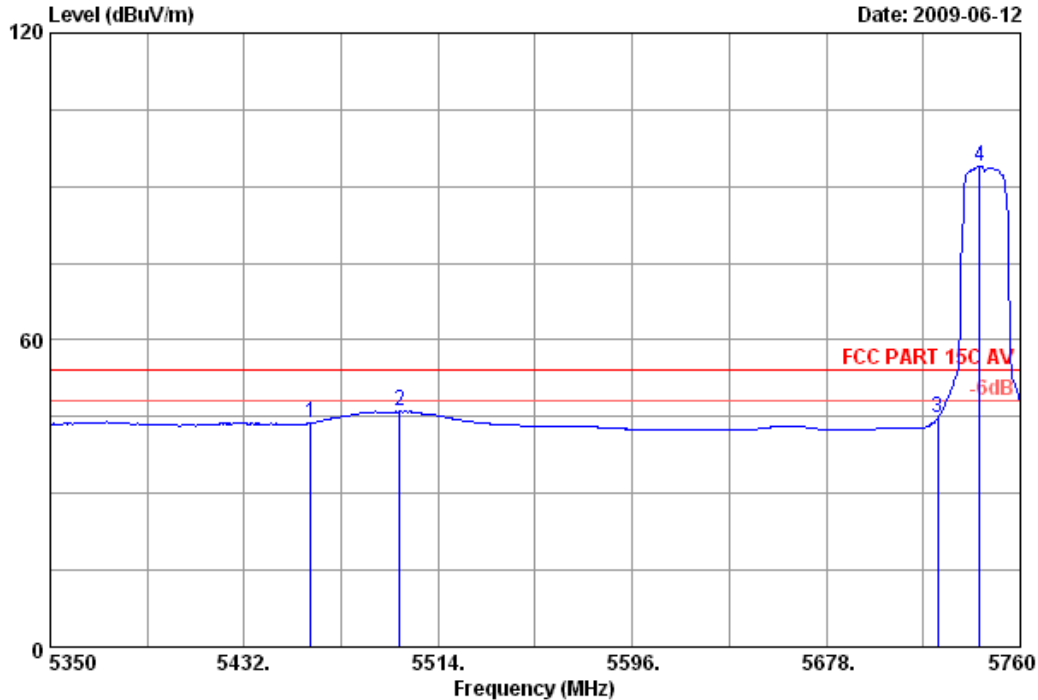
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 152 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 152
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH149 5745MHz
 M/N :

	Ant.		Cable		Amp.		Emission		
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	loss (dB)	Reading (dbuv)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 5460.000	35.86	10.68	34.43	31.66	43.77	54.00	10.23	Average	
2 5497.600	35.90	10.70	34.43	33.82	45.99	54.00	8.01	Average	
3 5725.000	35.45	10.97	34.37	32.77	44.82	54.00	9.18	Average	
4 5742.780	35.42	10.96	34.36	81.94	93.96	54.00	-39.96	Average	

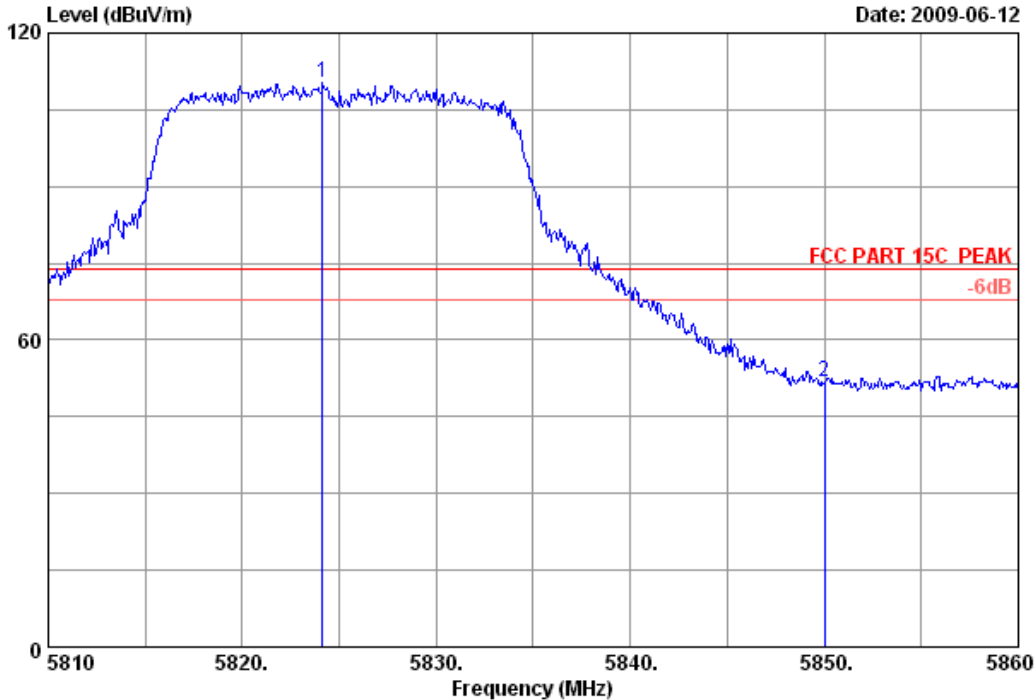
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 153 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 153
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH165 5825MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5824.150	35.24	10.93	34.34	98.46	110.29	74.00	-36.29	Peak
2	5850.000	35.21	10.97	34.34	39.94	51.78	74.00	22.22	Peak

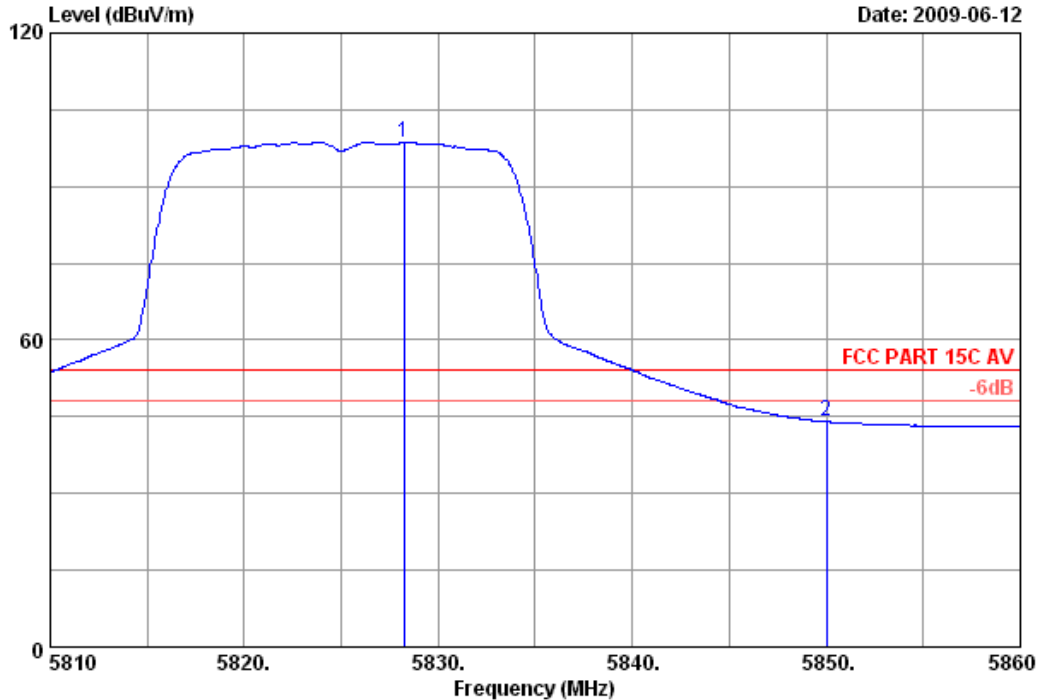
Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 154 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 154
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH165 5825MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5828.250	35.24	10.93	34.34	86.82	98.65	54.00	-44.65	Average
2	5850.000	35.21	10.97	34.34	32.19	44.03	54.00	9.97	Average

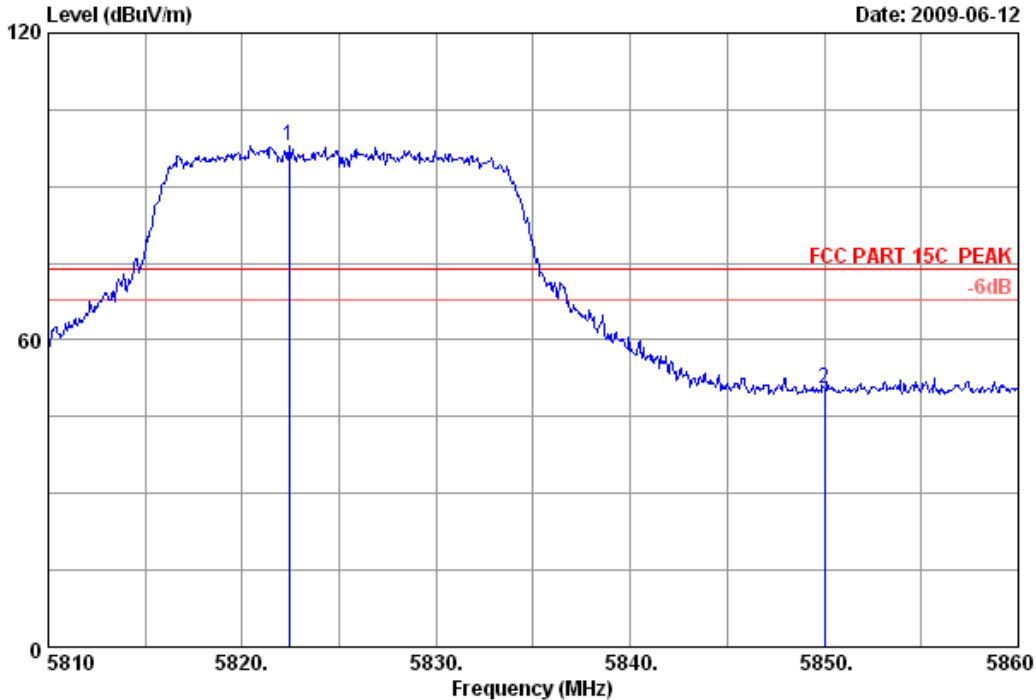
Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 155 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 155
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH165 5825MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5822.400	35.24	10.93	34.34	86.16	97.99	74.00	-23.99	Peak
2	5850.000	35.21	10.97	34.34	38.75	50.59	74.00	23.41	Peak

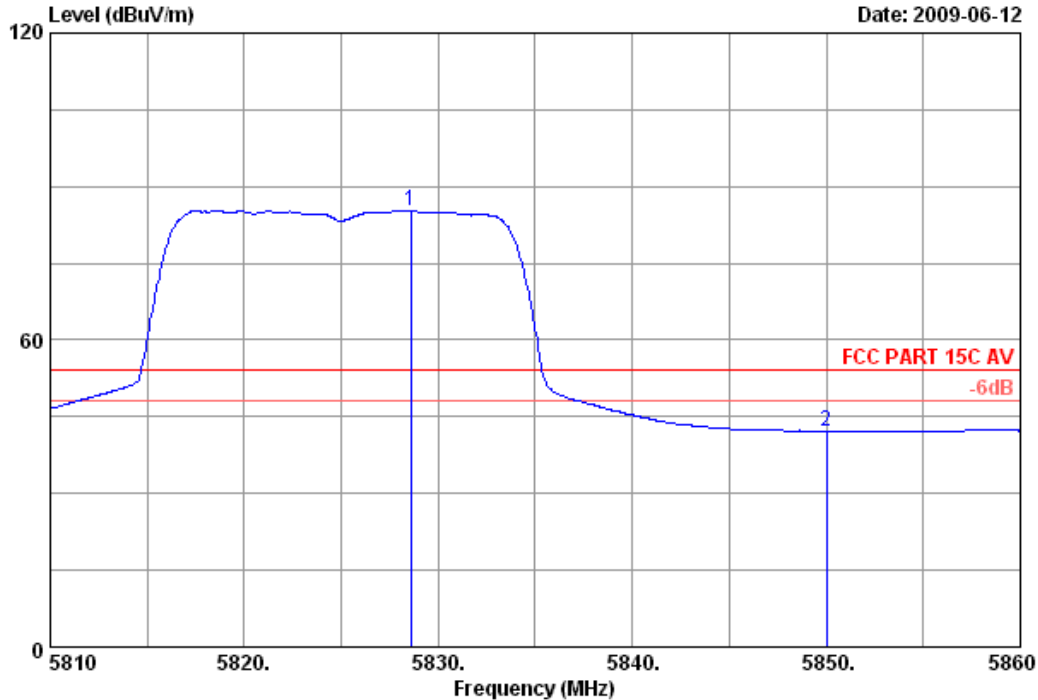
Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 156 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 156
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT20 CH165 5825MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5828.600	35.24	10.93	34.34	73.56	85.39	54.00	-31.39	Average
2	5850.000	35.21	10.97	34.34	30.39	42.23	54.00	11.77	Average

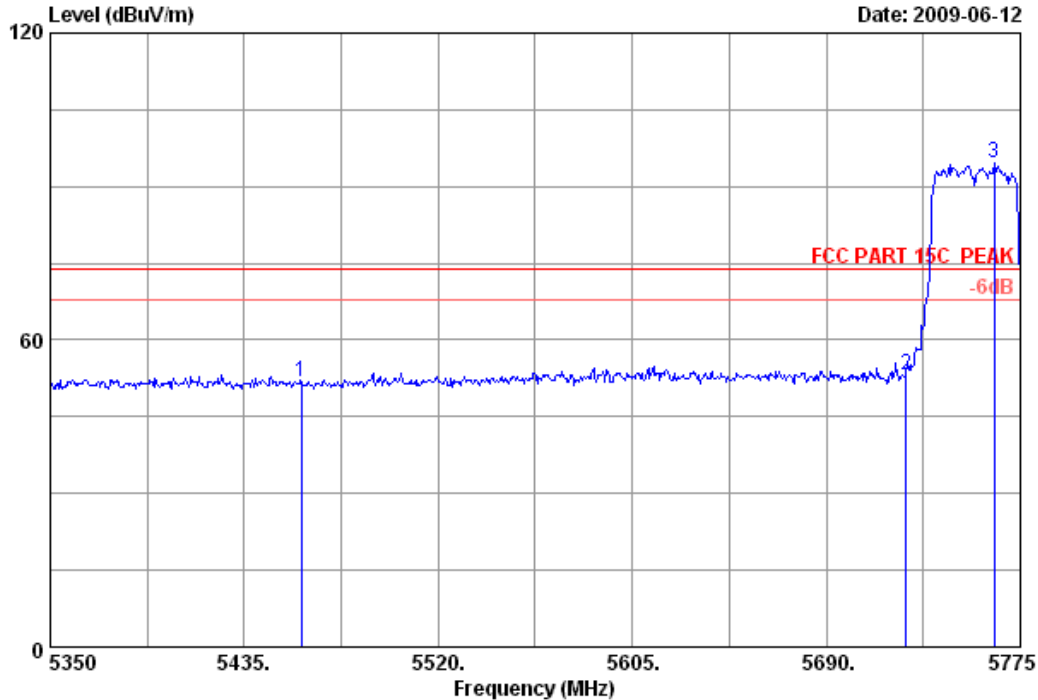
Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 169 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 169
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH151 5755MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	35.86	10.68	34.43	39.66	51.77	74.00	22.23	Peak
2	5725.000	35.45	10.97	34.37	40.97	53.02	74.00	20.98	Peak
3	5763.525	35.38	10.94	34.36	82.72	94.68	74.00	-20.68	Peak

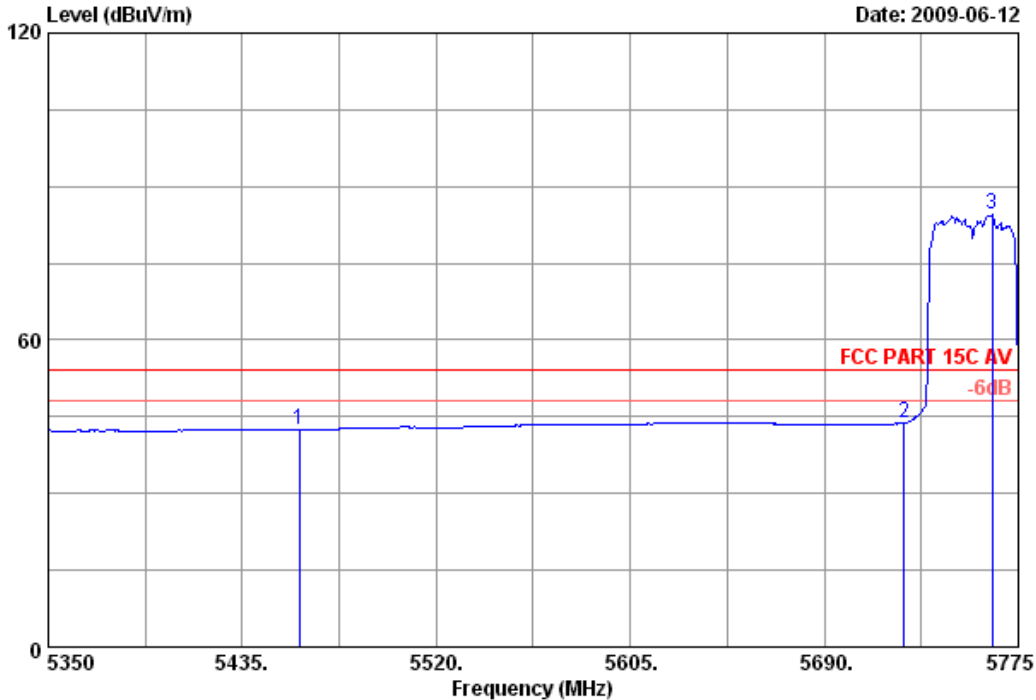
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 170 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 170
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH151 5755MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	35.86	10.68	34.43	30.39	42.50	54.00	11.50	Average
2	5725.000	35.45	10.97	34.37	31.66	43.71	54.00	10.29	Average
3	5763.525	35.38	10.94	34.36	72.66	84.62	54.00	-30.62	Average

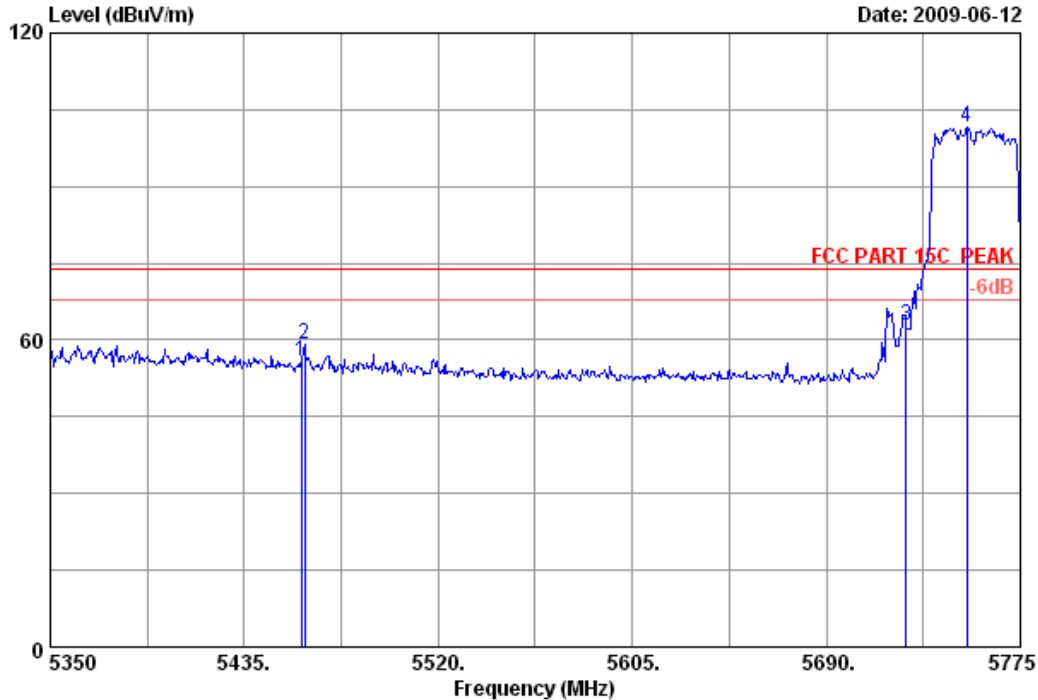
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 171 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 171
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH151 5755MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	35.86	10.68	34.43	43.78	55.89	74.00	18.11	Peak
2	5461.350	35.86	10.68	34.43	47.09	59.20	74.00	14.80	Peak
3	5725.000	35.45	10.97	34.37	50.68	62.73	74.00	11.27	Peak
4	5751.625	35.38	10.96	34.36	89.77	101.75	74.00	-27.75	Peak

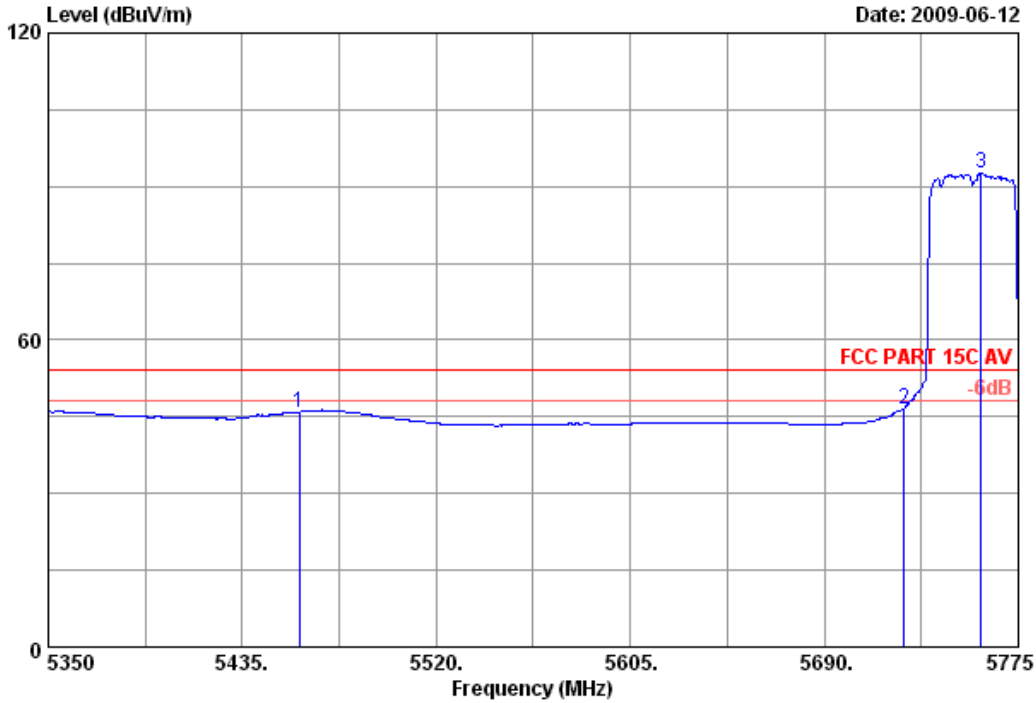
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 172 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 172
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH151 5755MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	35.86	10.68	34.43	33.83	45.94	54.00	8.06	Peak
2	5725.000	35.45	10.97	34.37	34.50	46.55	54.00	7.45	Peak
3	5758.850	35.38	10.94	34.36	80.53	92.49	54.00	-38.49	Peak

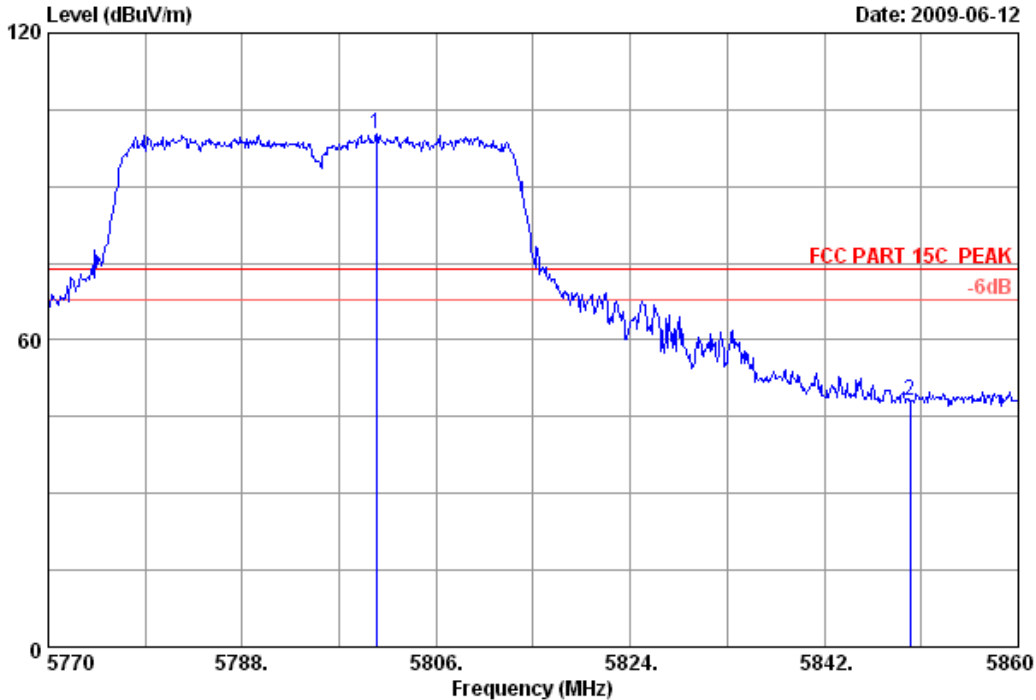
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 173 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 173
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH159 5795MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5800.420	35.31	10.91	34.35	88.28	100.15	74.00	-26.15	Peak
2	5850.000	35.21	10.97	34.34	36.24	48.08	74.00	25.92	Peak

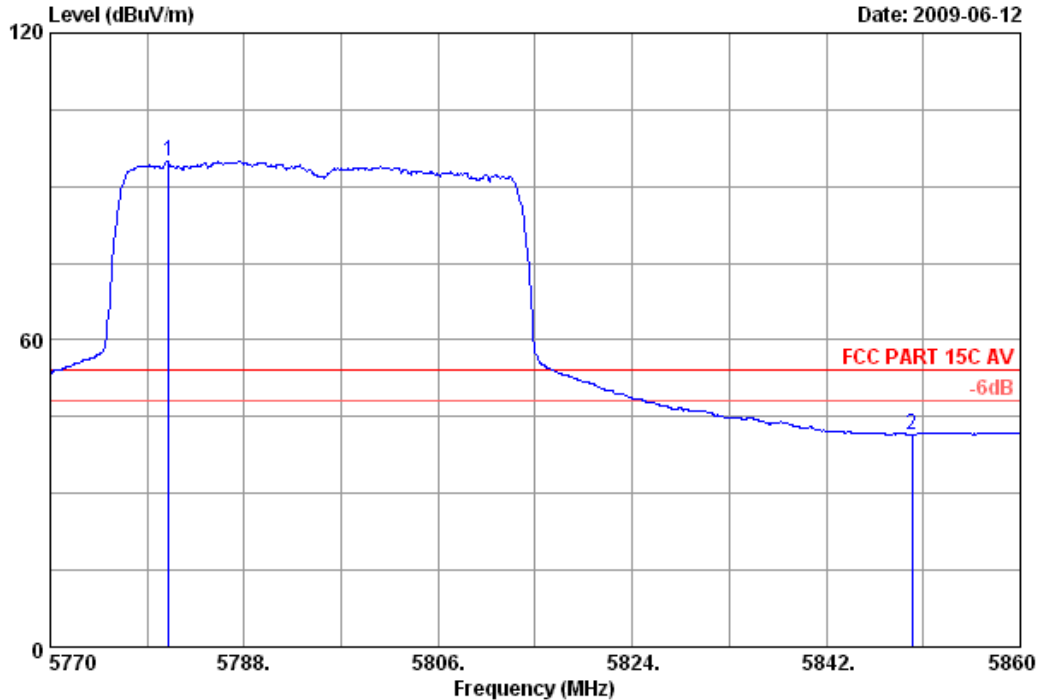
Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 174 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 174
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH159 5795MHz
 M/N :

	Freq. (MHz)	Ant. Cable Amp.			Emission				
		Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dbuv)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5780.980	35.35	10.93	34.36	83.14	95.06	54.00	-41.06	Average
2	5850.000	35.21	10.97	34.34	29.76	41.60	54.00	12.40	Average

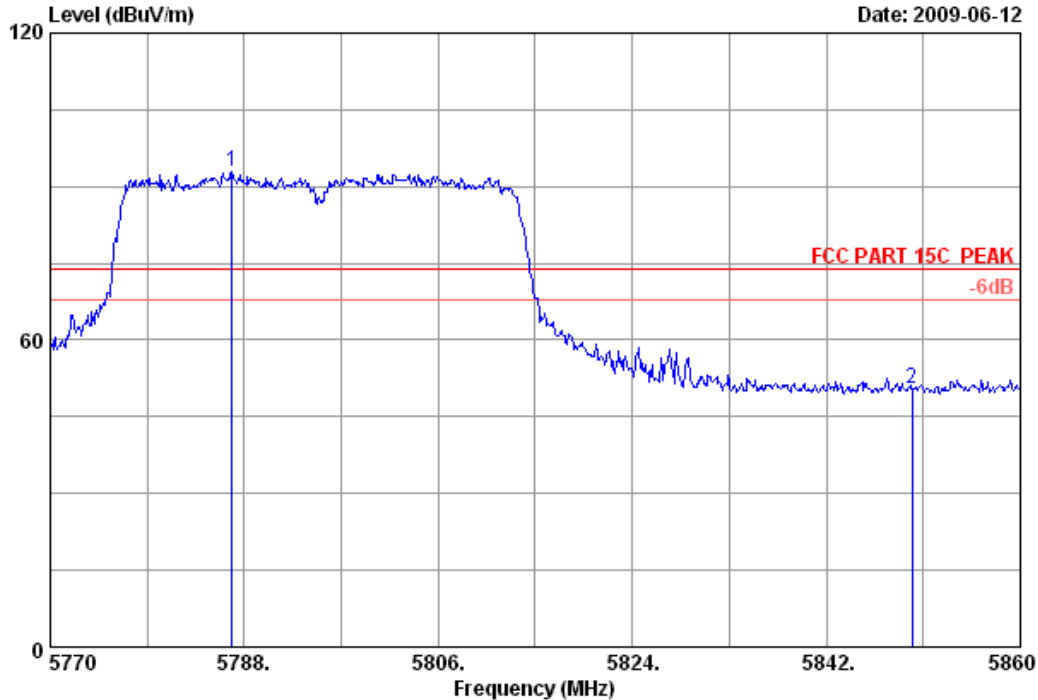
Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 175 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 175
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH159 5795MHz
 M/N :

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5786.830	35.31	10.93	34.35	81.12	93.01	74.00	-19.01	Peak
2	5850.000	35.21	10.97	34.34	38.67	50.51	74.00	23.49	Peak

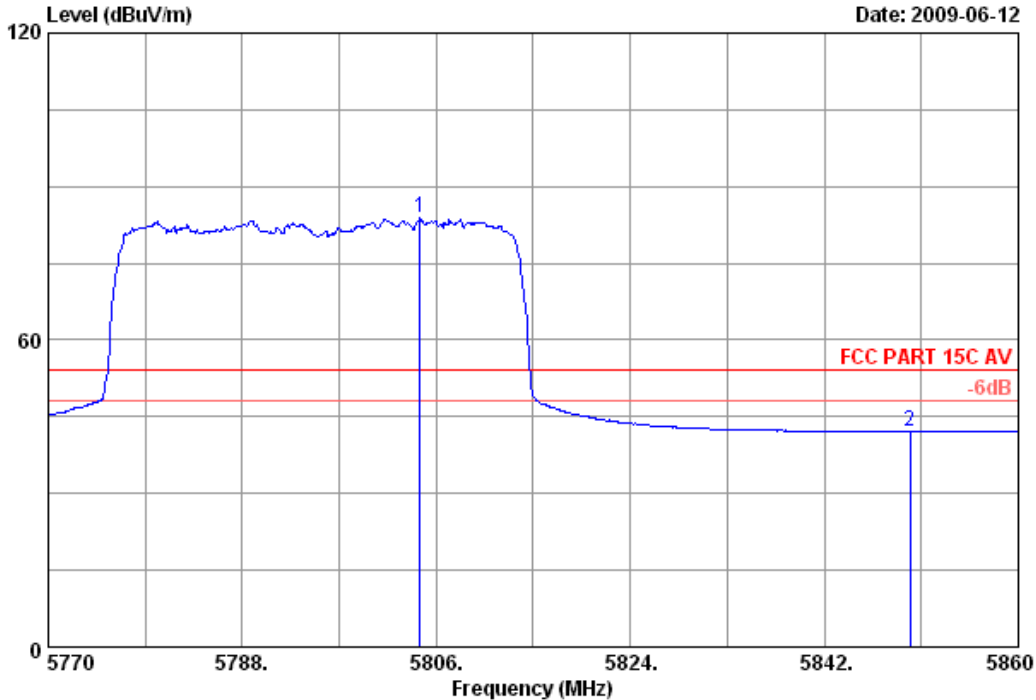
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 176 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 176
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11n HT40 CH159 5795MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5804.470	35.28	10.91	34.35	71.98	83.82	54.00	-29.82	Average
2	5850.000	35.21	10.97	34.34	30.31	42.15	54.00	11.85	Average

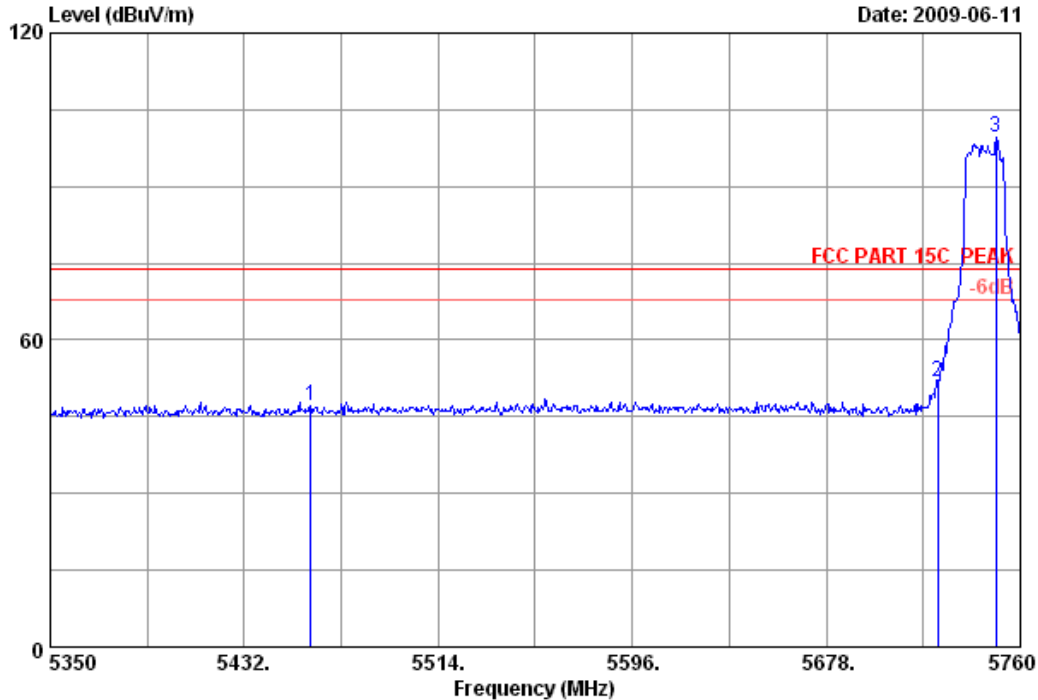
Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 123 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 123
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11a CH149 5745MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	35.86	10.68	34.43	35.05	47.16	74.00	26.84	Peak
2	5725.000	35.45	10.97	34.37	39.90	51.95	74.00	22.05	Peak
3	5749.750	35.42	10.96	34.36	87.65	99.67	74.00	-25.67	Peak

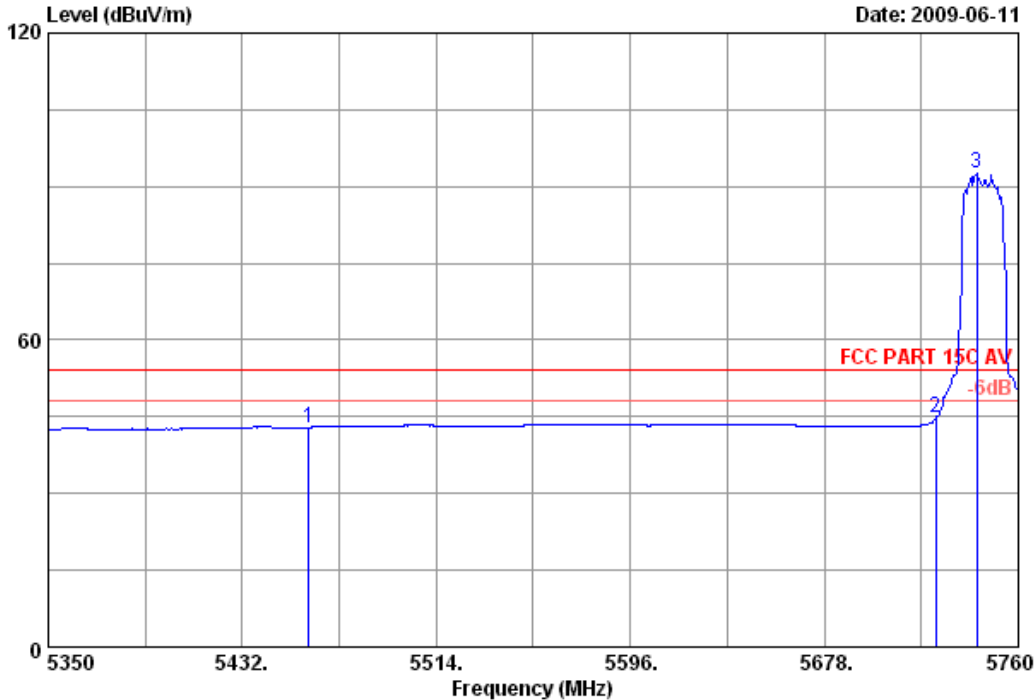
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 124 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 124
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11a CH149 5745MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	35.86	10.68	34.43	30.81	42.92	54.00	11.08	Average
2	5725.000	35.45	10.97	34.37	32.67	44.72	54.00	9.28	Average
3	5742.370	35.42	10.96	34.36	80.51	92.53	54.00	-38.53	Average

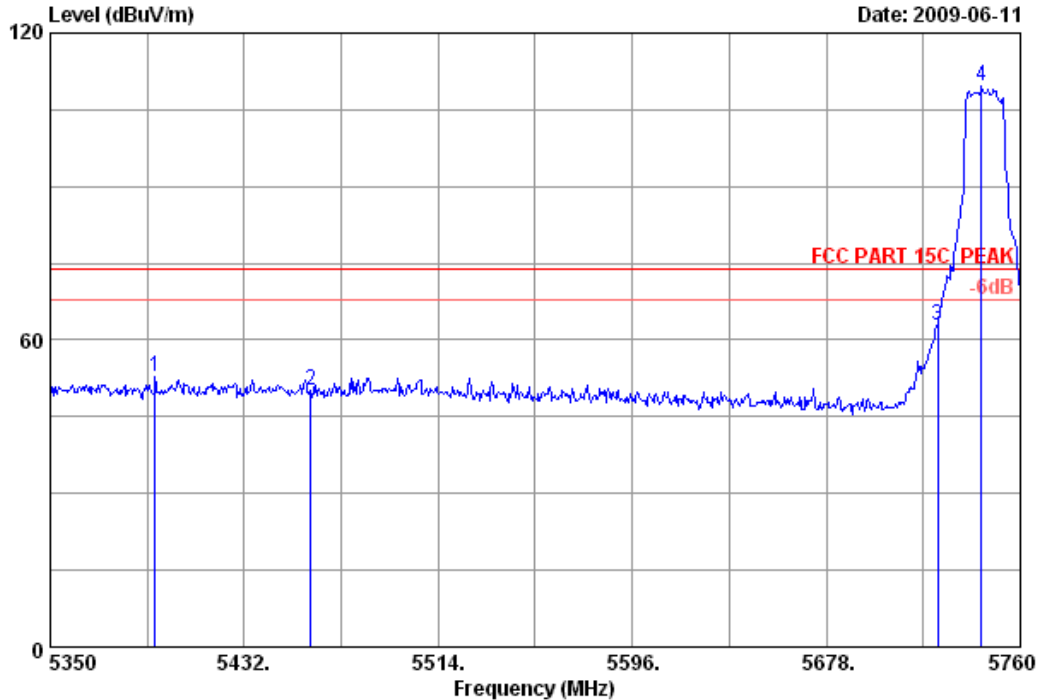
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 125 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 125
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11a CH149 5745MHz
 M/N :

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5394.280	35.81	10.66	34.45	40.89	52.91	74.00	21.09	Peak
2	5460.000	35.86	10.68	34.43	38.07	50.18	74.00	23.82	Peak
3	5725.000	35.45	10.97	34.37	50.93	62.98	74.00	11.02	Peak
4	5743.600	35.42	10.96	34.36	97.55	109.57	74.00	-35.57	Peak

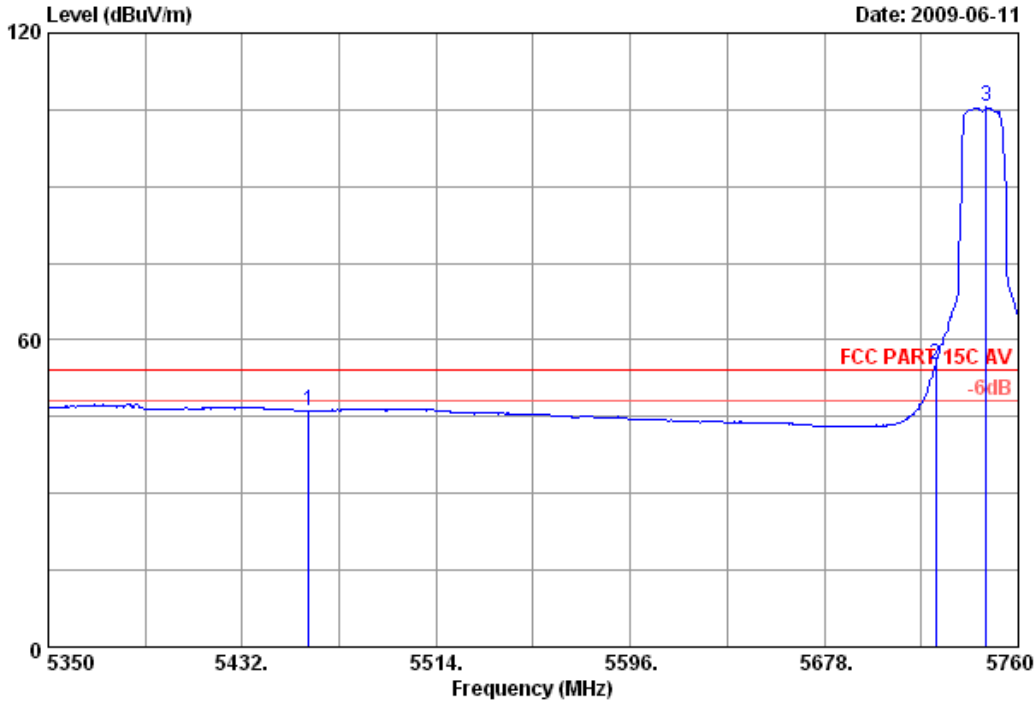
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 126 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 126
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11a CH149 5745MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	35.86	10.68	34.43	34.04	46.15	54.00	7.85	Average
2	5725.000	35.45	10.97	34.37	43.21	55.26	54.00	-1.26	Average
3	5746.470	35.42	10.96	34.36	93.62	105.64	54.00	-51.64	Average

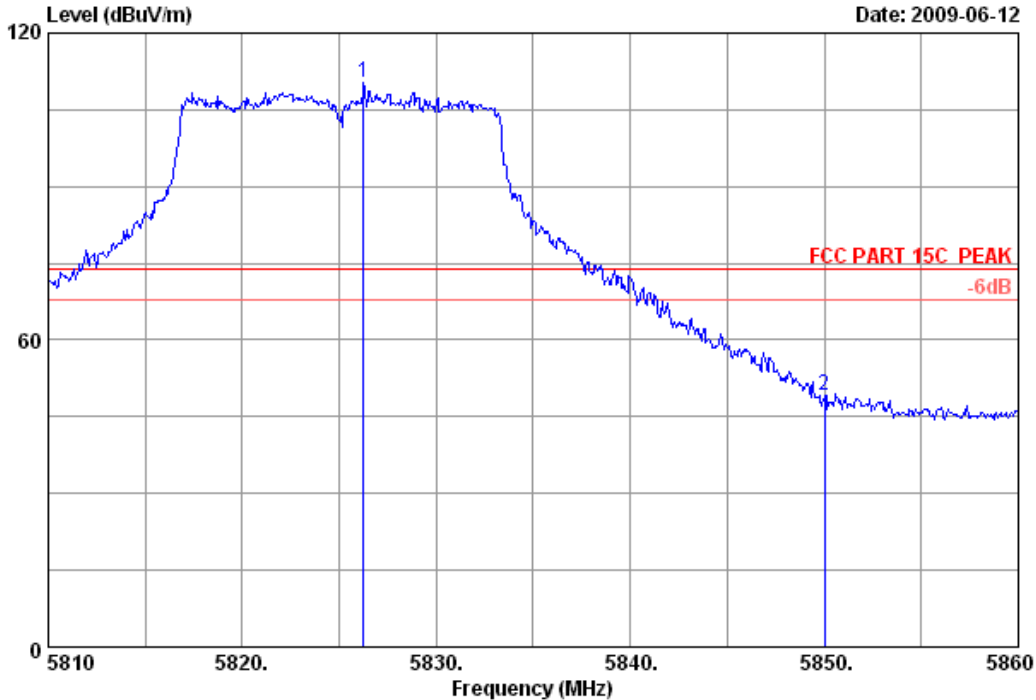
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 127 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 127
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11a CH165 5825MHz
 M/N :

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5826.250	35.24	10.93	34.34	98.51	110.34	74.00	-36.34	Peak
2	5850.000	35.21	10.97	34.34	37.39	49.23	74.00	24.77	Peak

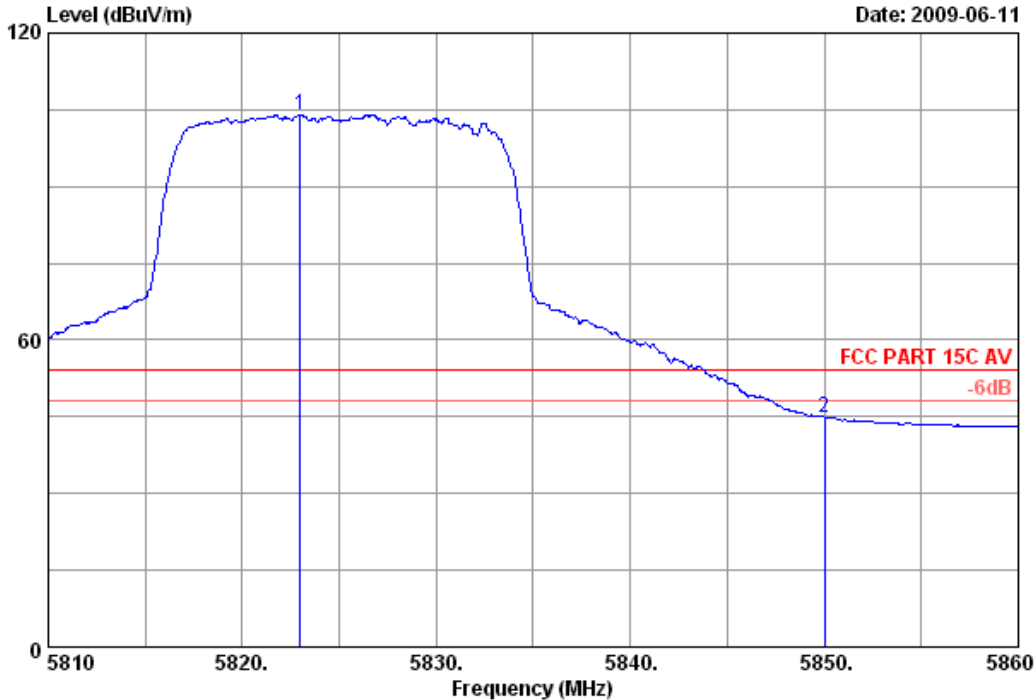
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 128 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 128
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11a CH165 5825MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5823.000	35.24	10.93	34.34	92.24	104.07	54.00	-50.07	Average
2	5850.000	35.21	10.97	34.34	33.06	44.90	54.00	9.10	Average

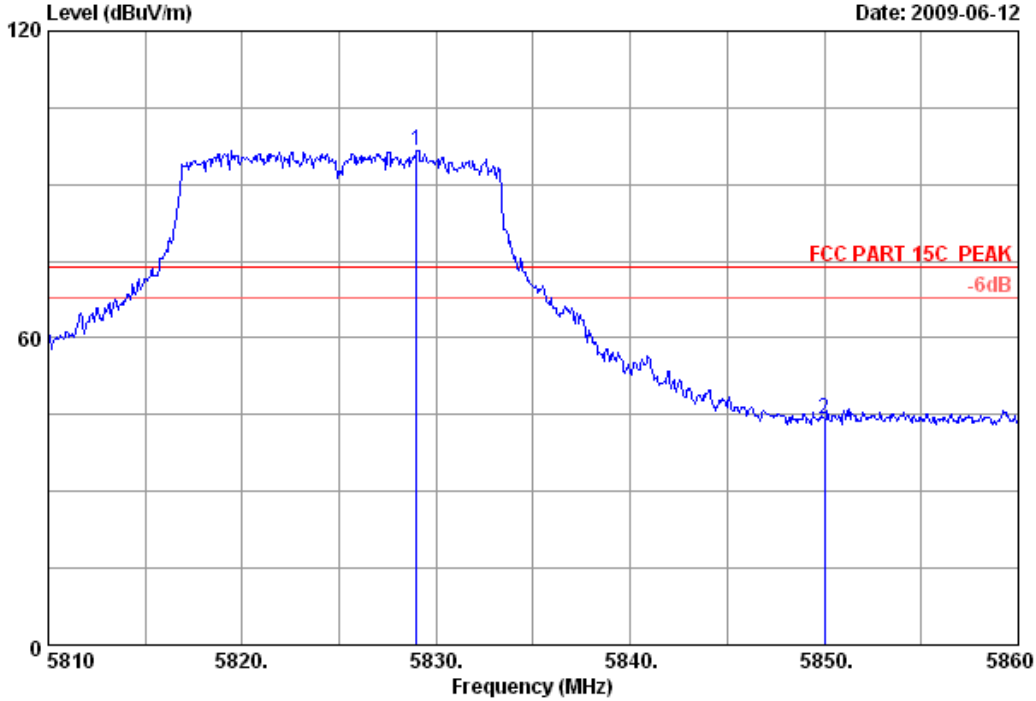
Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 129 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 129
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11a CH165 5825MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5829.000	35.24	10.93	34.34	84.79	96.62	74.00	-22.62	Peak
2	5850.000	35.21	10.97	34.34	32.23	44.07	74.00	29.93	Peak

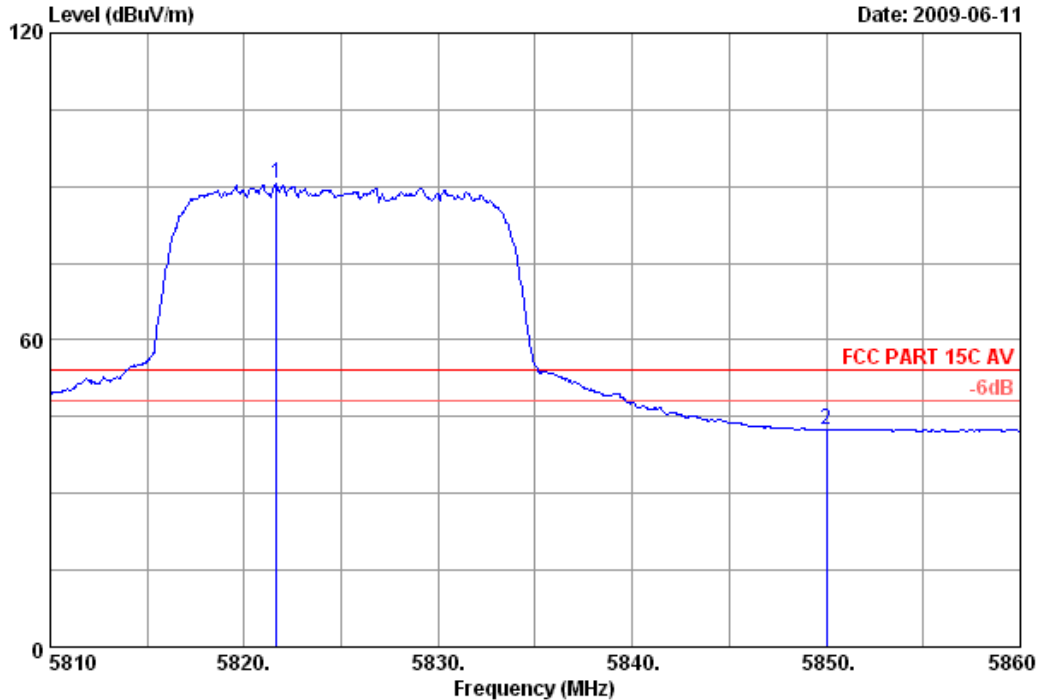
Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 130 File: E:\2009 report data\A\ALTAI\ACS9QH149.EM6 (248)



Site no. : 3m Chamber Data no. : 130
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : Altai A3 Smart WiFi M/N:WA3011N
 Power : DC 56V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11a CH165 5825MHz
 M/N :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5821.650	35.24	10.93	34.34	78.91	90.74	54.00	-36.74	Average
2	5850.000	35.21	10.97	34.34	30.61	42.45	54.00	11.55	Average

Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.

7. 6dB Bandwidth Test

7.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4446A	US44300459	May,08, 09	1 Year
2	Attenuator	Agilent	8491B	MY39262165	May,08, 09	1 Year
3	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May,08, 09	1 Year

7.2. Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.3. Test Procedure

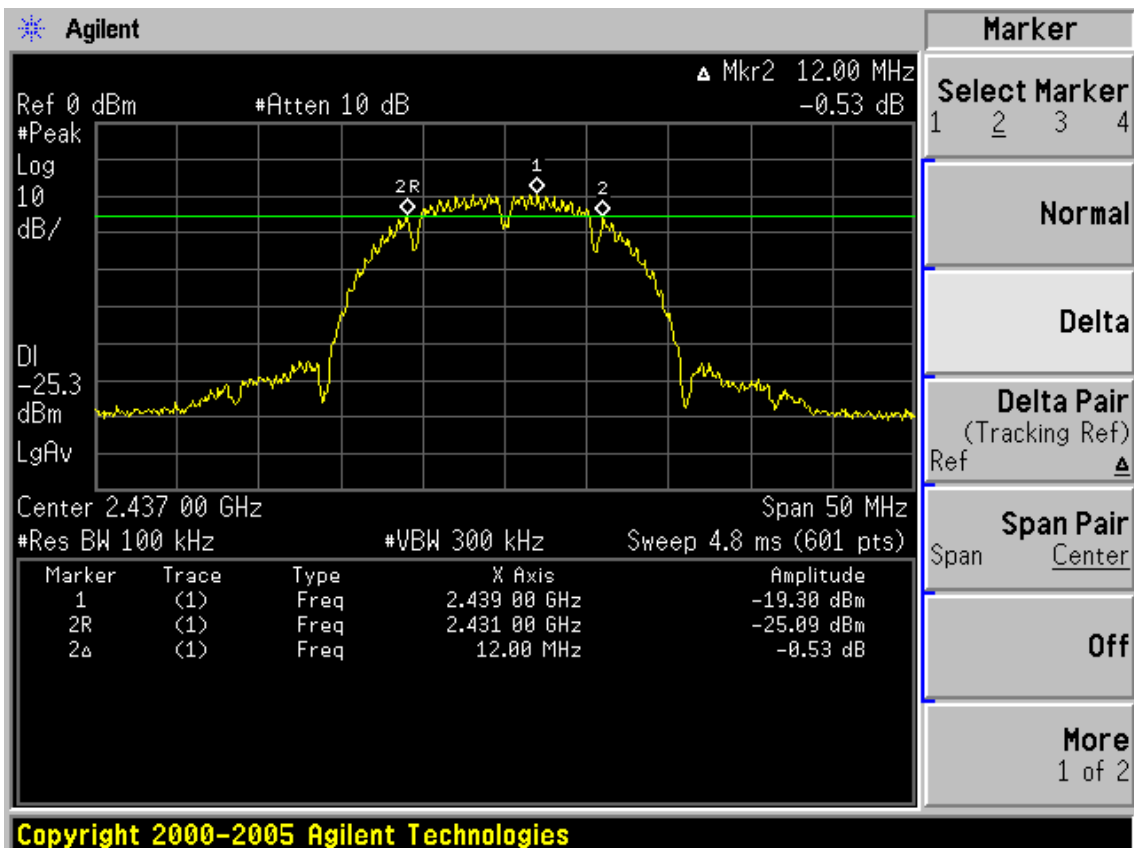
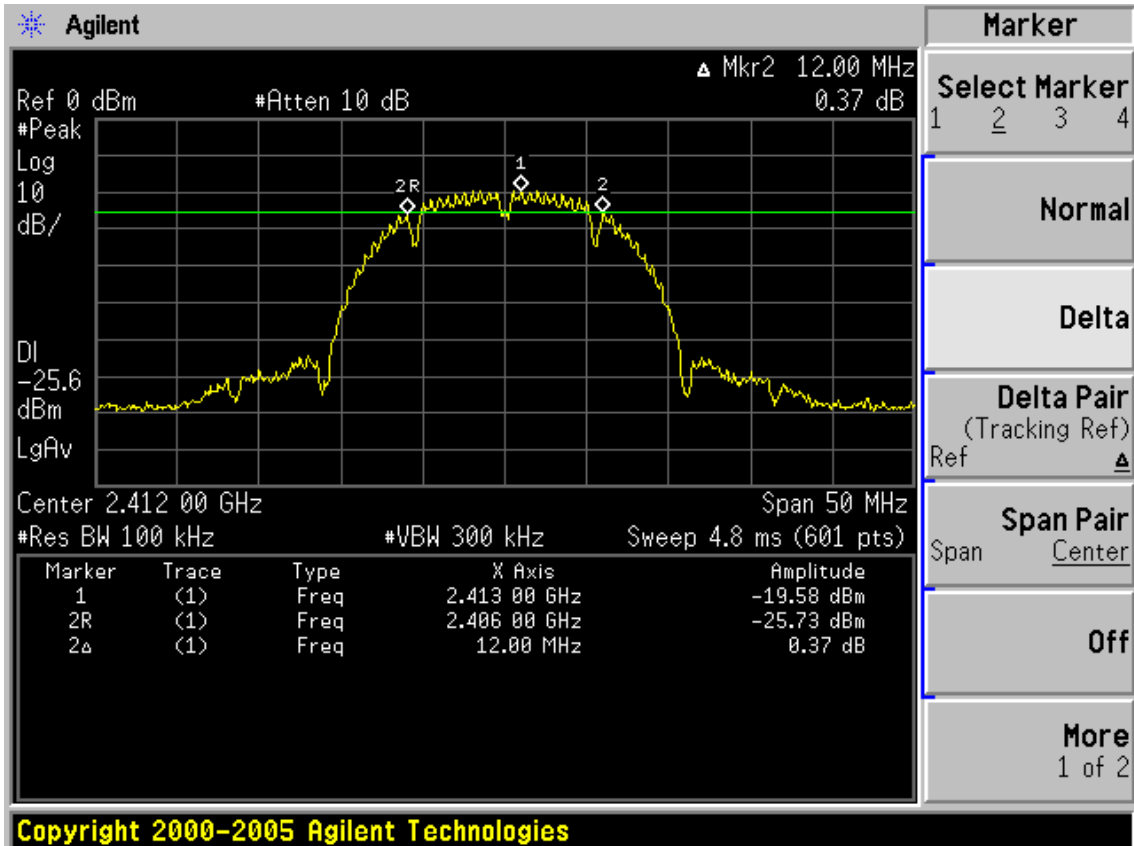
The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 100 kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

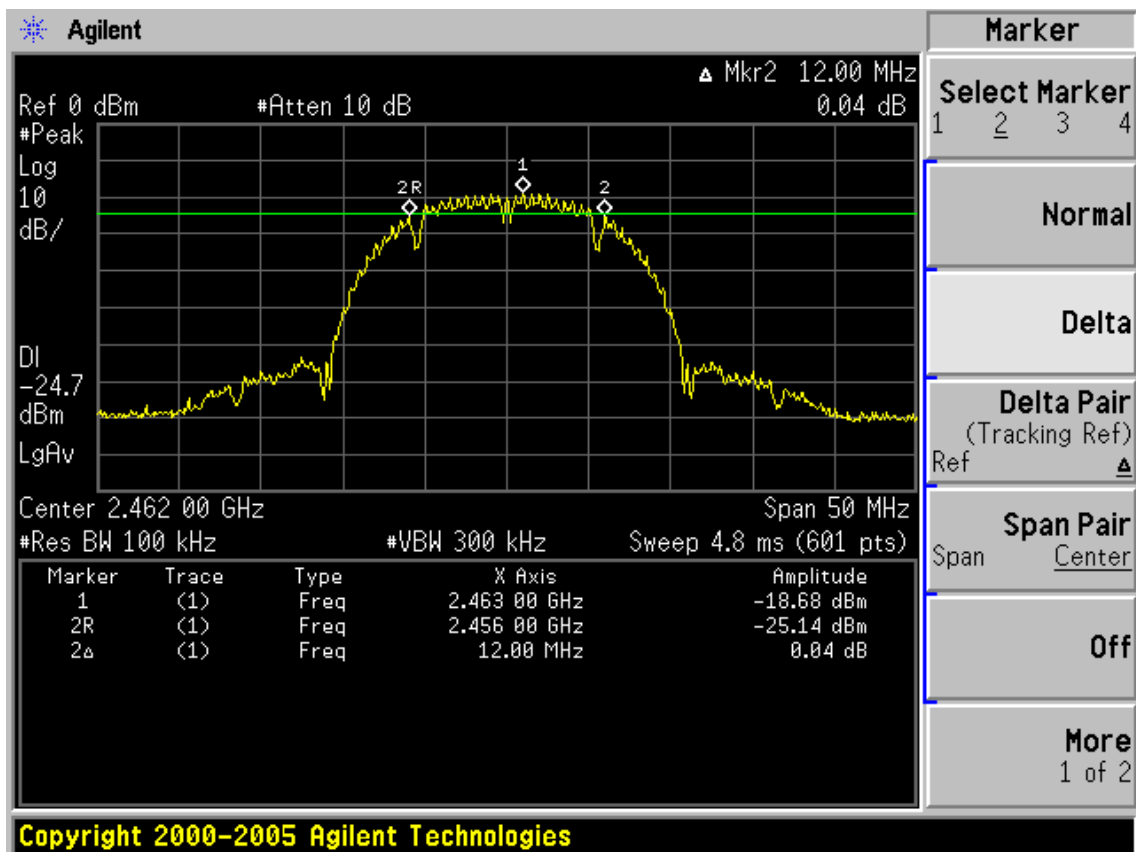
7.4. Test Results

Mode	CH	Antenna 1	Antenna 2	Antenna 3	Limit	Conclusion
		Result(MHz)	Result(MHz)	Result(MHz)		
11b	CH1	12.00	12.00	12.00	>500KHz	PASS
	CH6	12.00	12.00	12.00	>500KHz	PASS
	CH11	12.00	12.00	12.08	>500KHz	PASS
11g	CH1	16.50	16.33	16.33	>500KHz	PASS
	CH6	16.50	16.50	16.25	>500KHz	PASS
	CH11	16.50	16.50	16.50	>500KHz	PASS
11n HT20	CH1	17.67	17.67	17.75	>500KHz	PASS
	CH6	17.67	17.67	17.83	>500KHz	PASS
	CH11	17.83	17.67	17.67	>500KHz	PASS
	CH149	17.70	17.80	17.80	>500KHz	PASS
	CH157	17.60	17.80	17.70	>500KHz	PASS
	CH165	17.70	17.80	17.70	>500KHz	PASS
11n HT40	CH3	36.40	36.30	36.40	>500KHz	PASS
	CH6	36.40	35.60	36.40	>500KHz	PASS
	CH9	35.90	35.50	36.40	>500KHz	PASS
	CH151	36.40	36.10	36.50	>500KHz	PASS
	CH159	36.00	36.40	36.30	>500KHz	PASS
11a	CH149	16.40	16.40	16.40	>500KHz	PASS
	CH157	16.50	16.50	16.40	>500KHz	PASS
	CH165	16.10	16.60	16.30	>500KHz	PASS

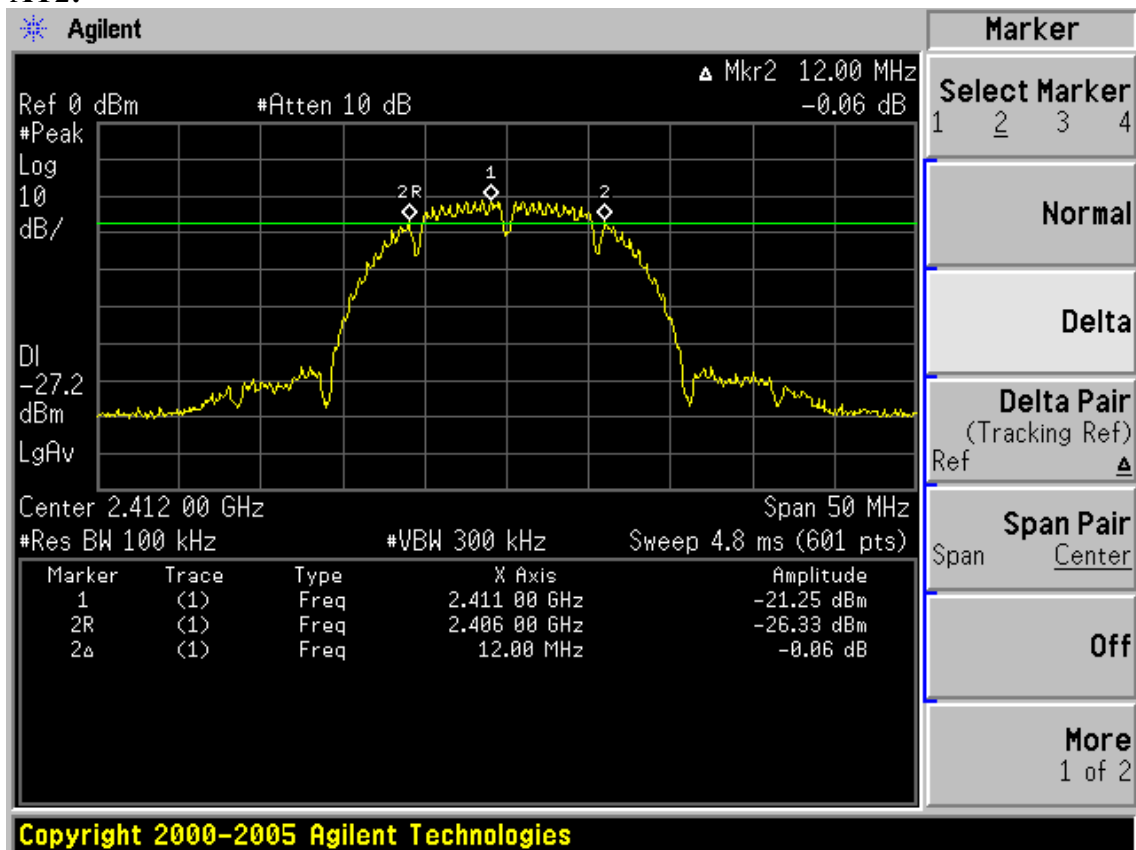
Test Mode: IEEE 802.11b TX

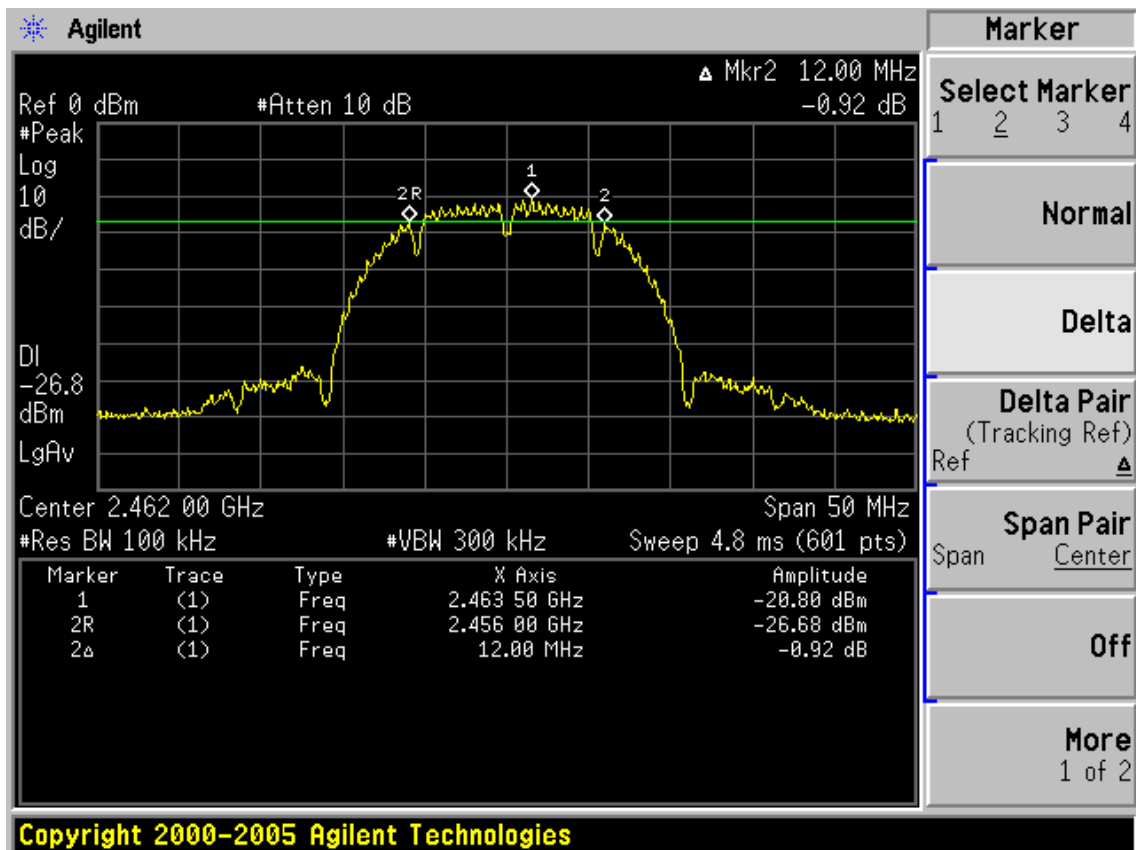
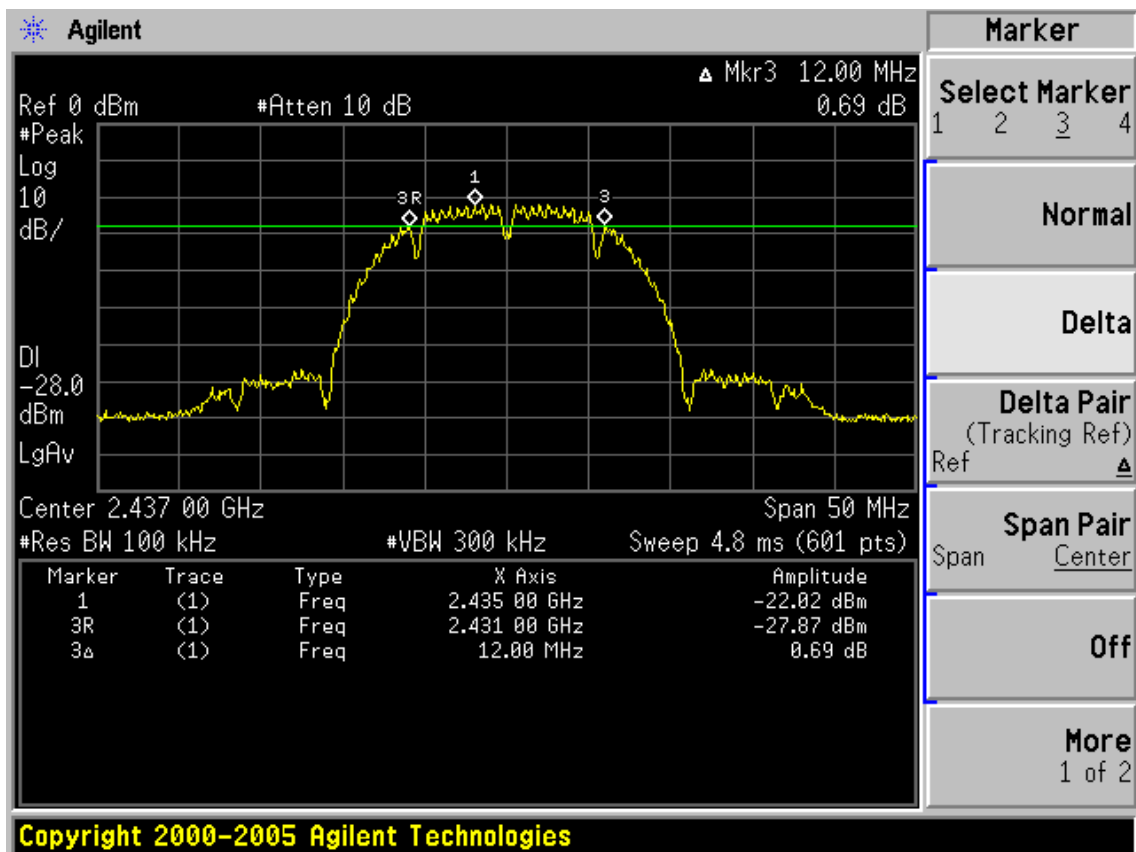
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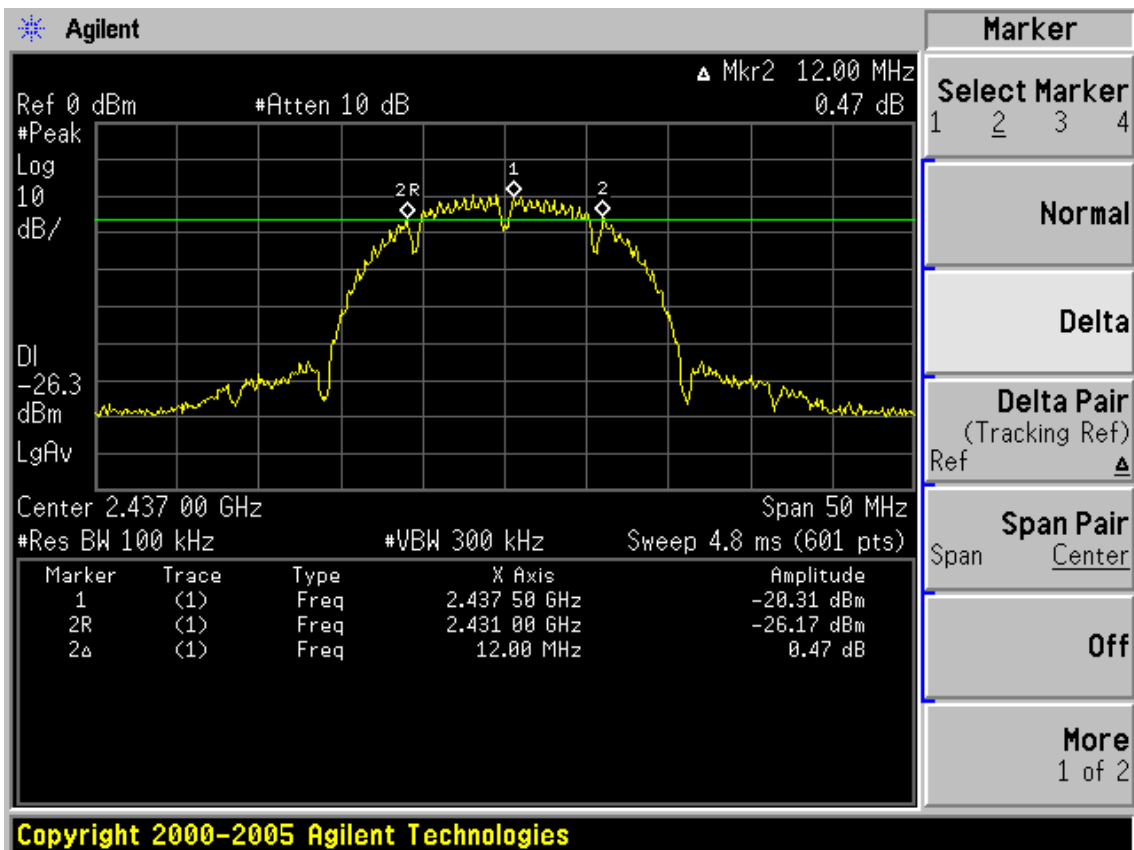
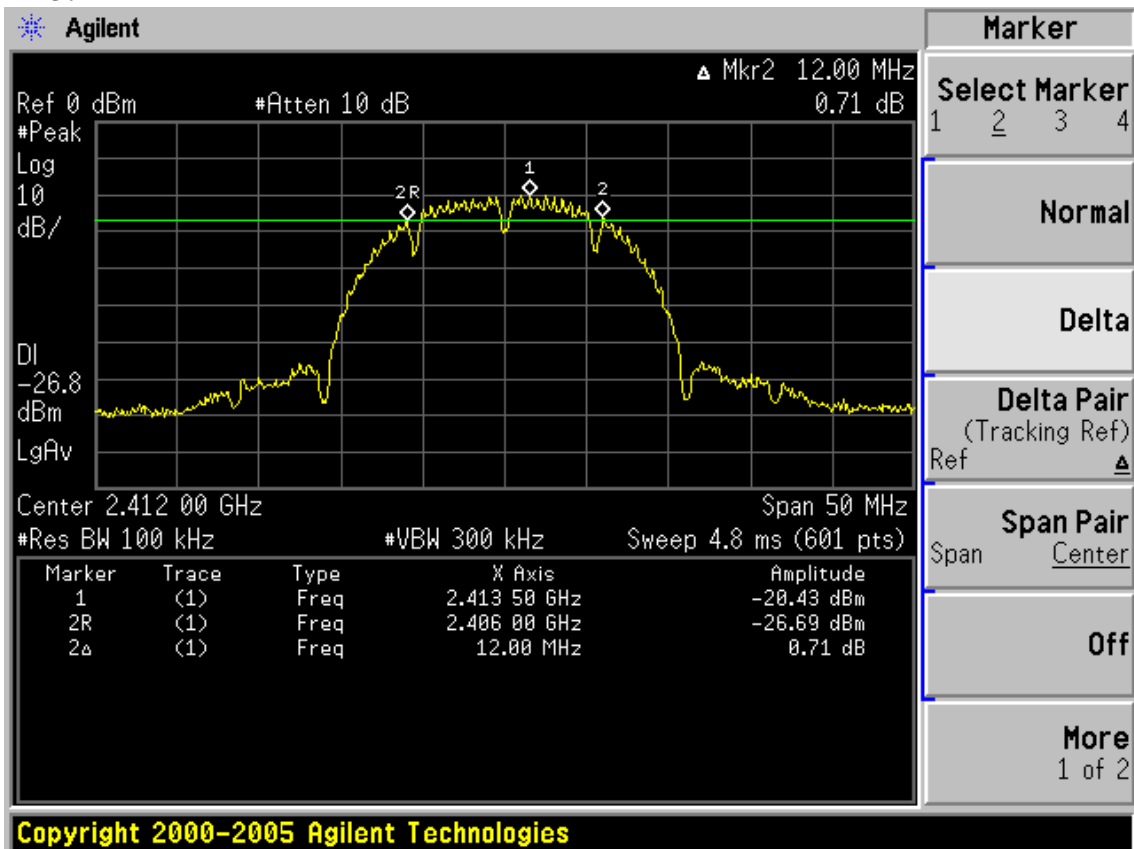


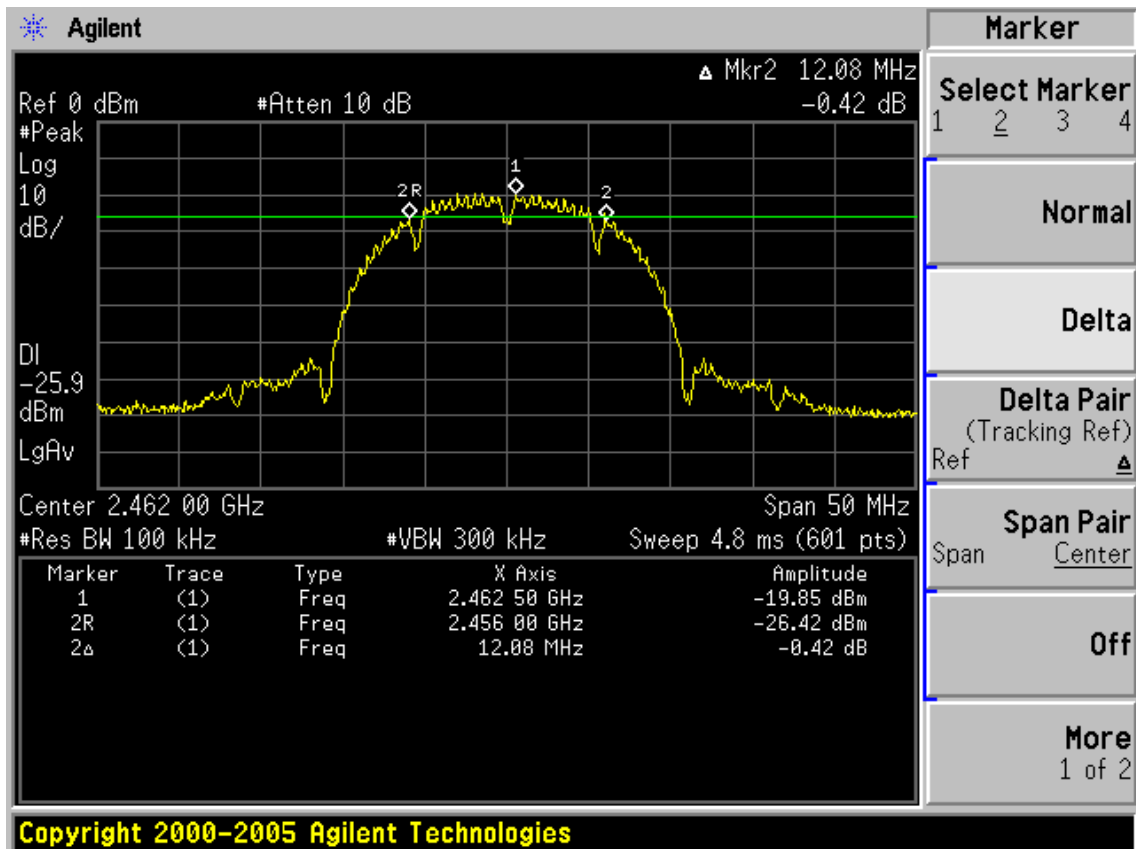
AT2:





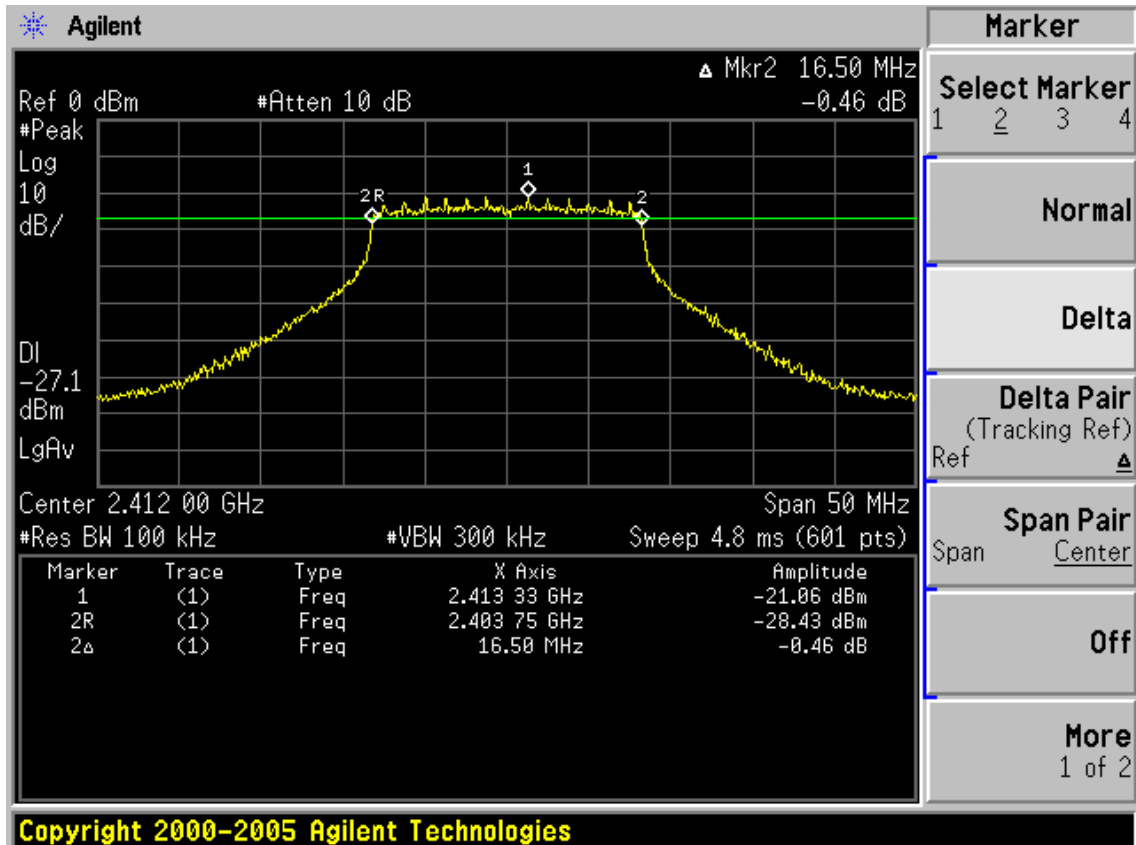
AT3:

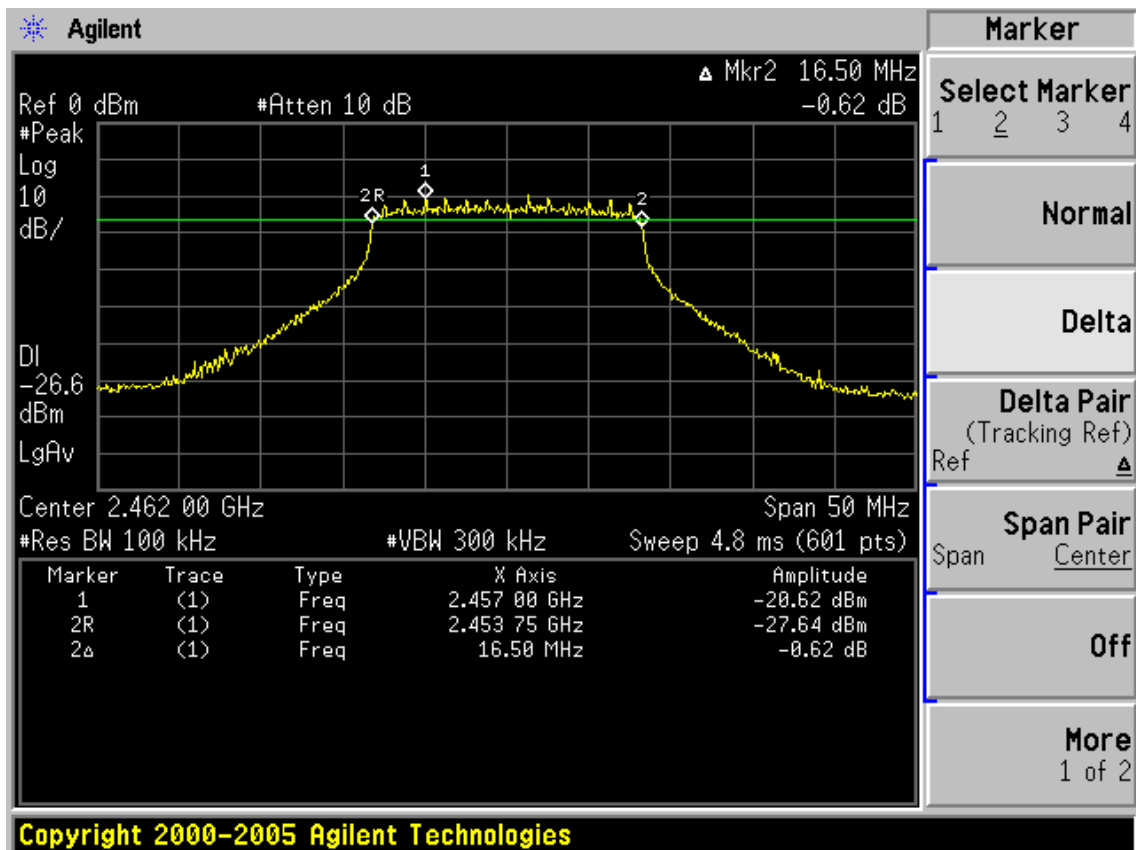
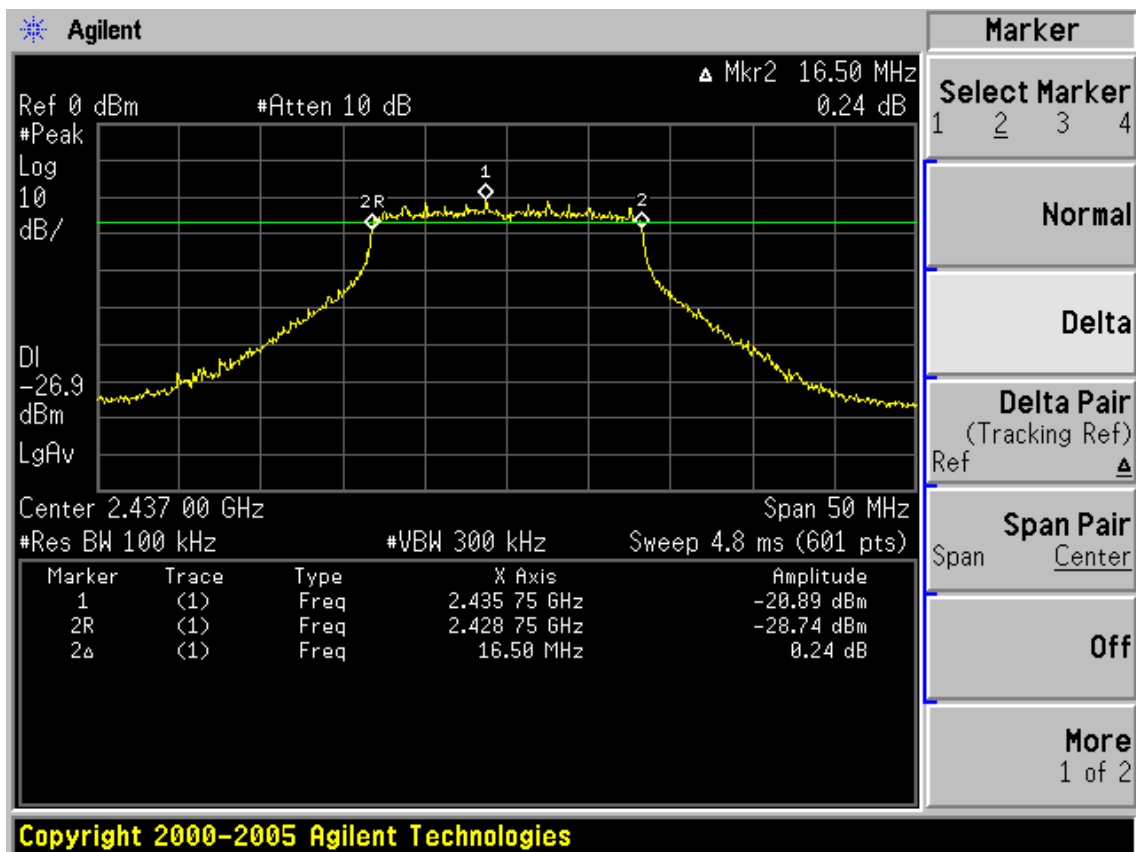




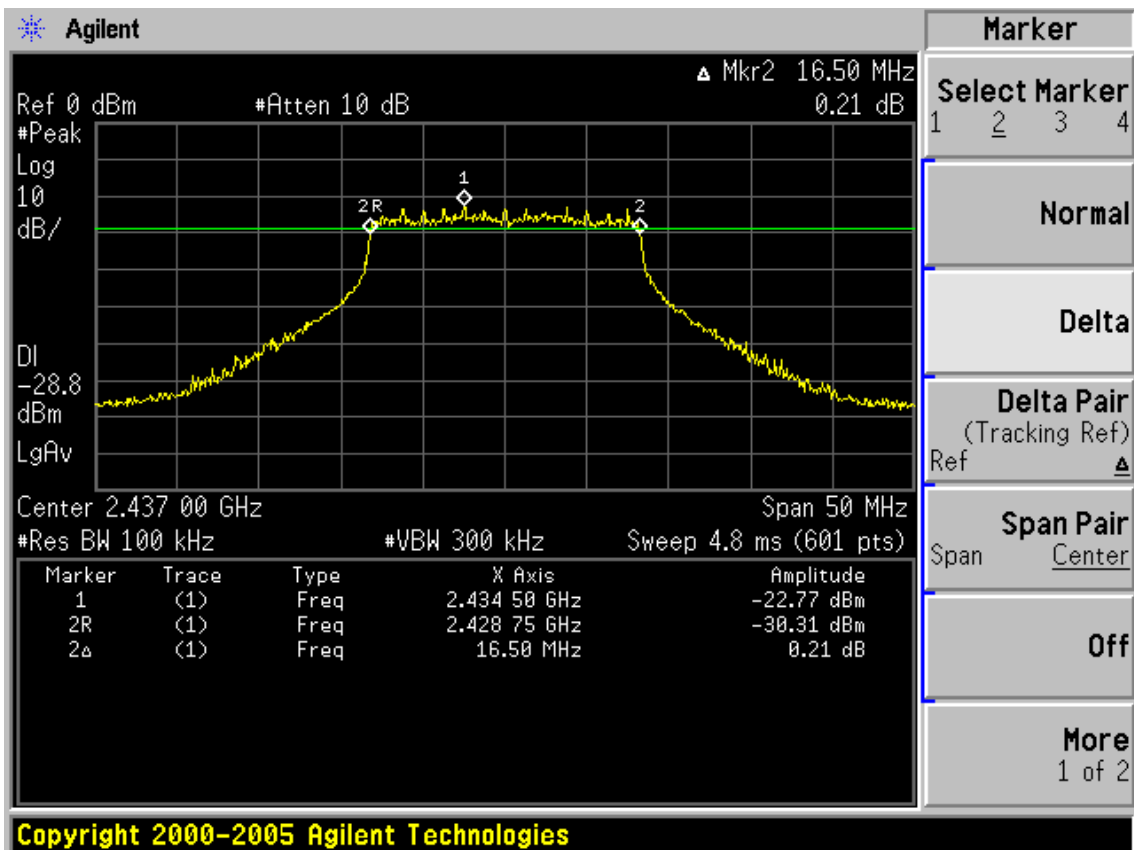
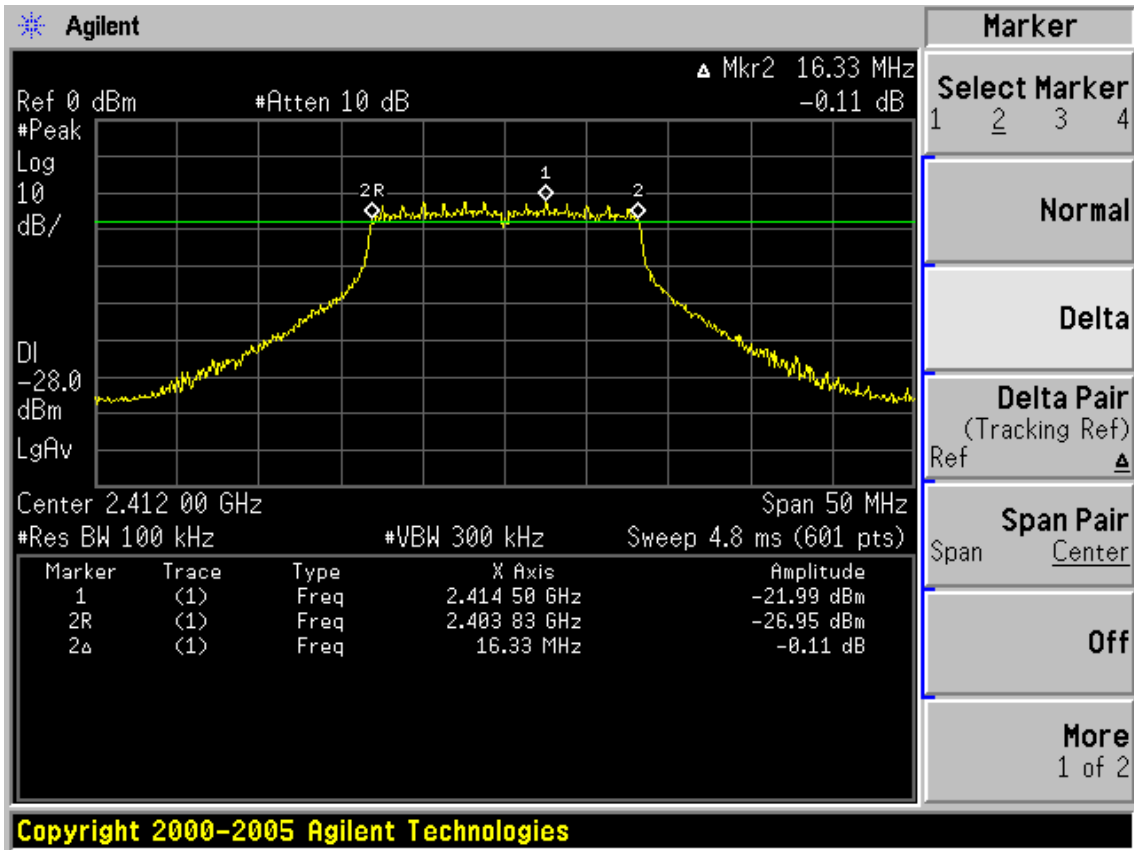
Test Mode: IEEE 802.11g TX

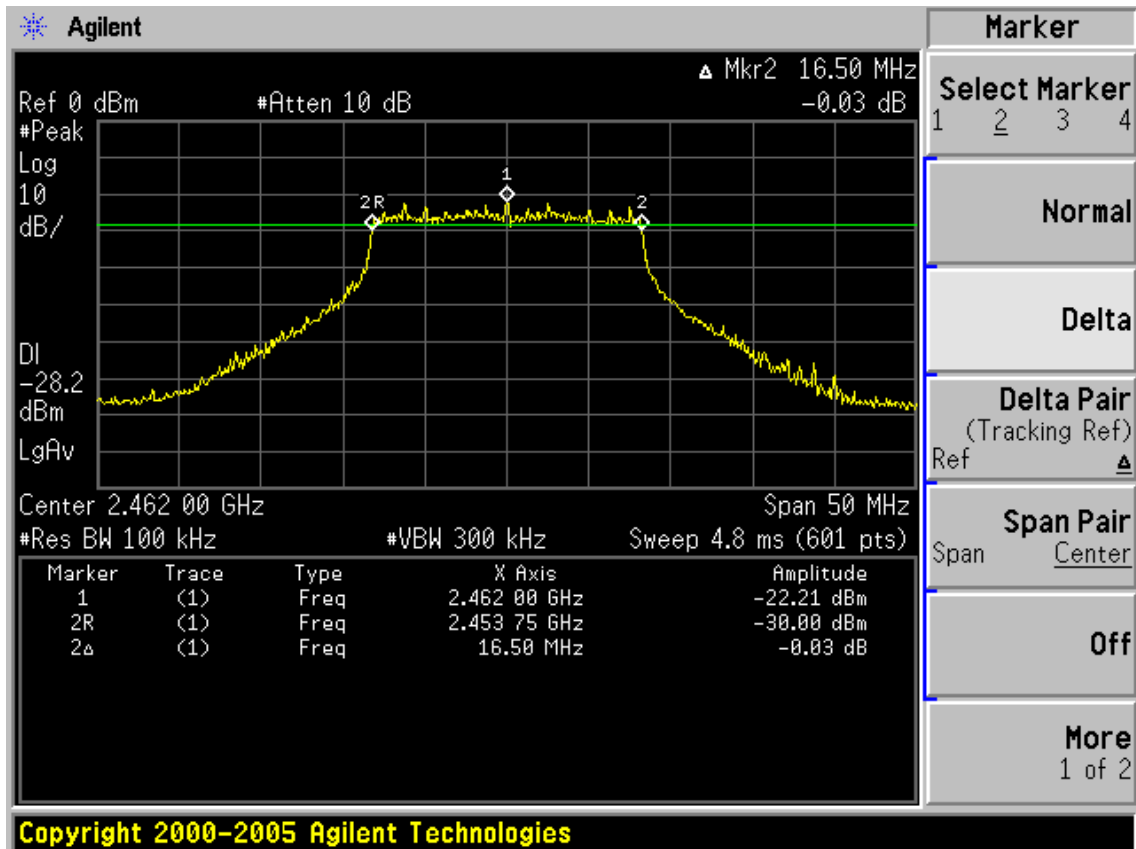
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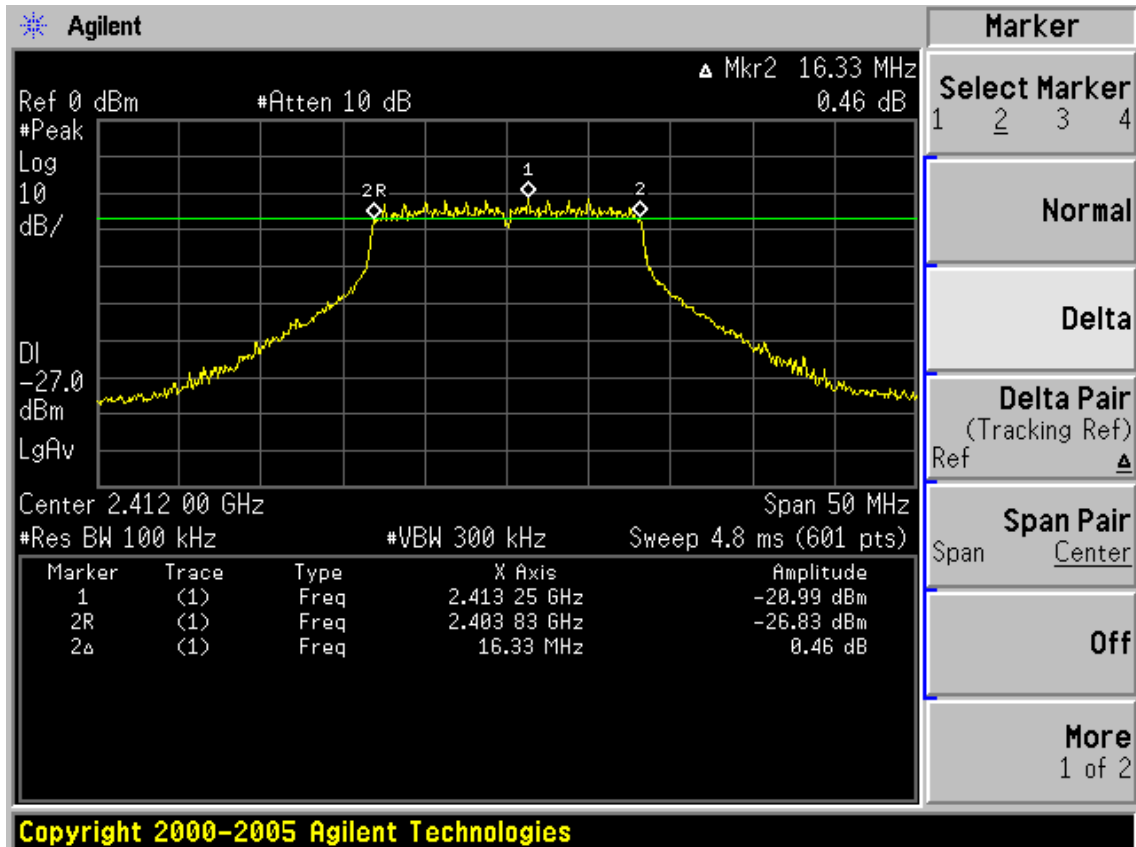


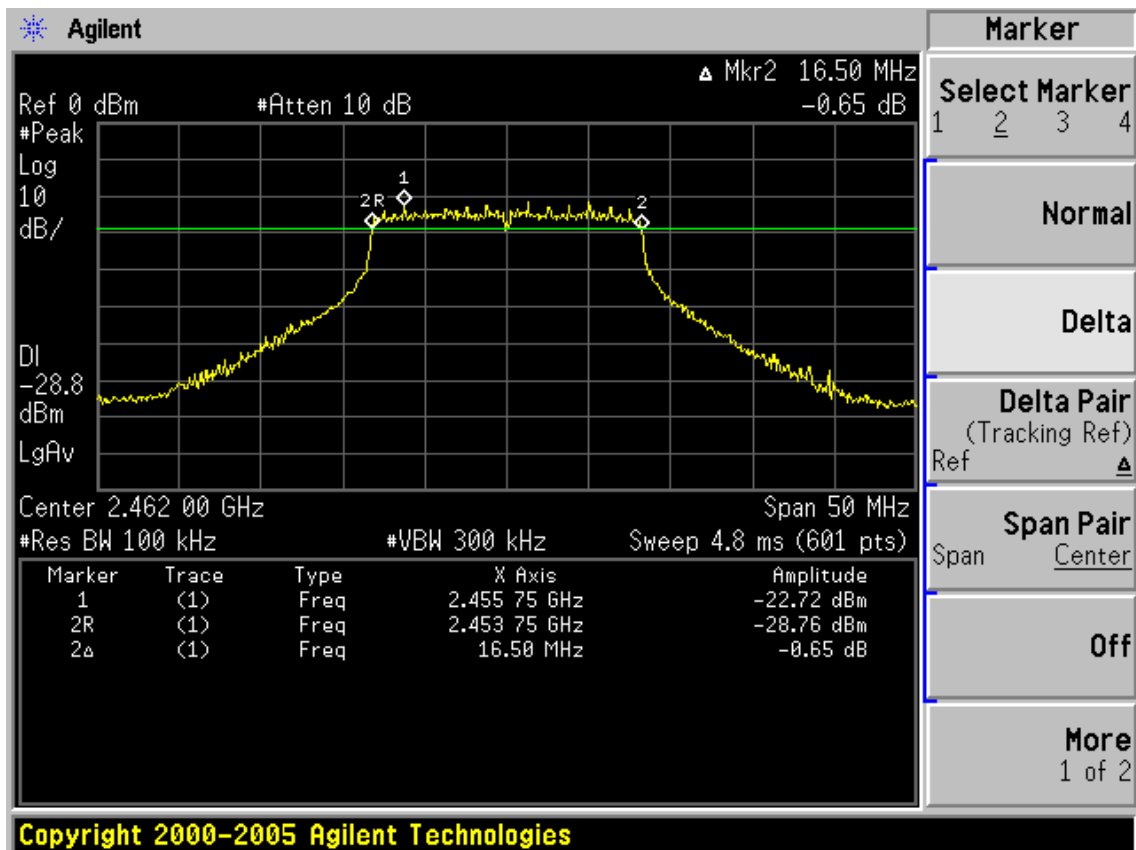
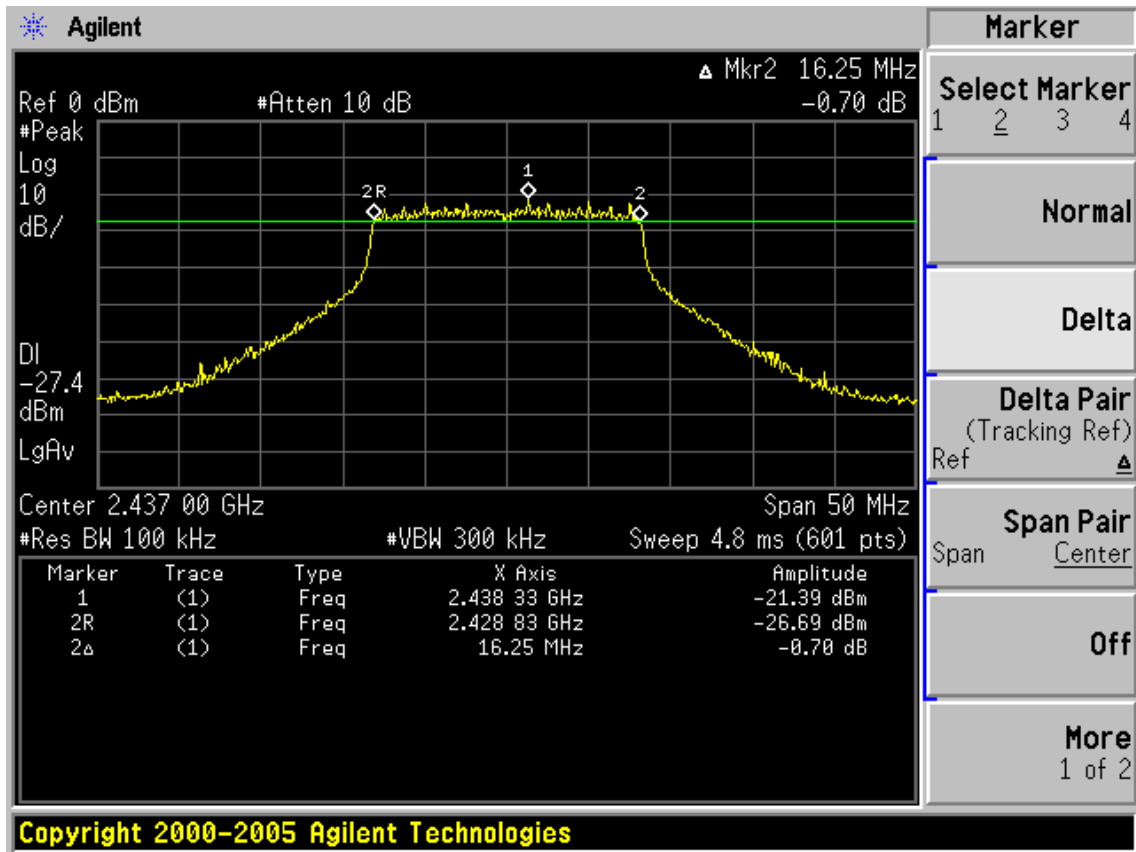
AT2:





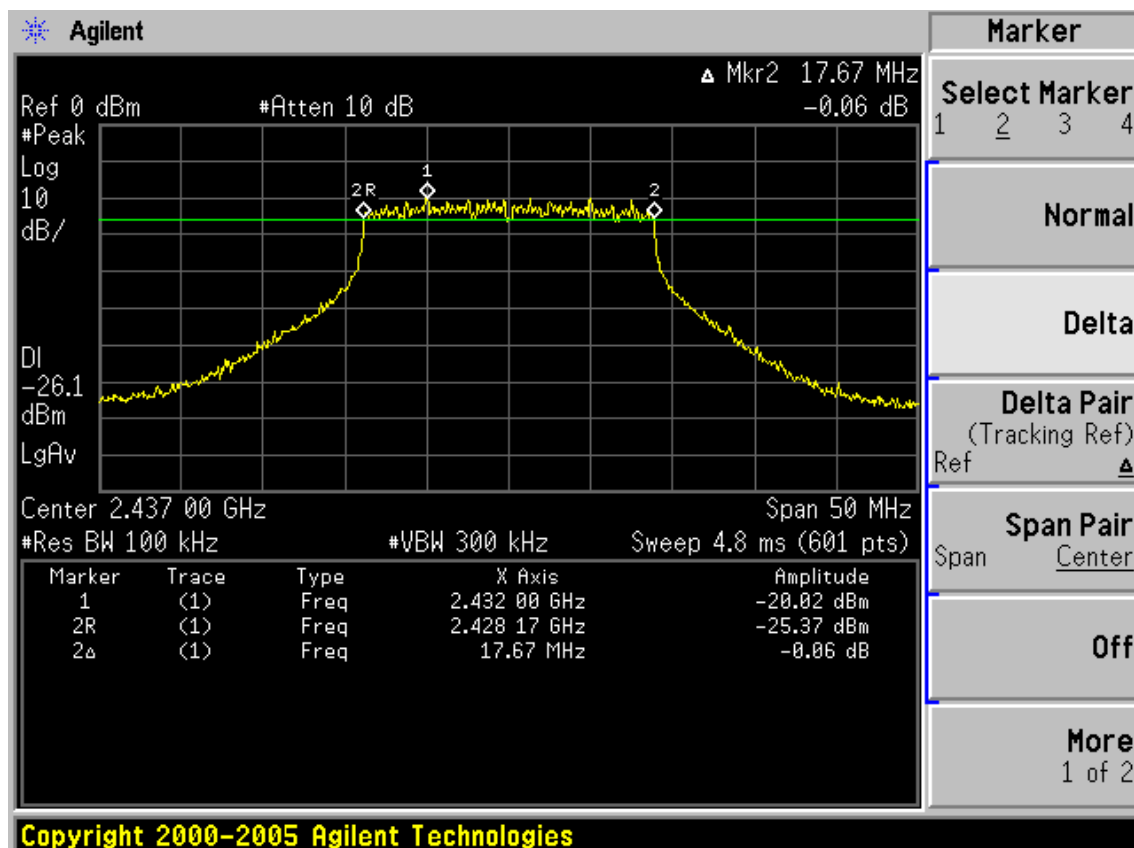
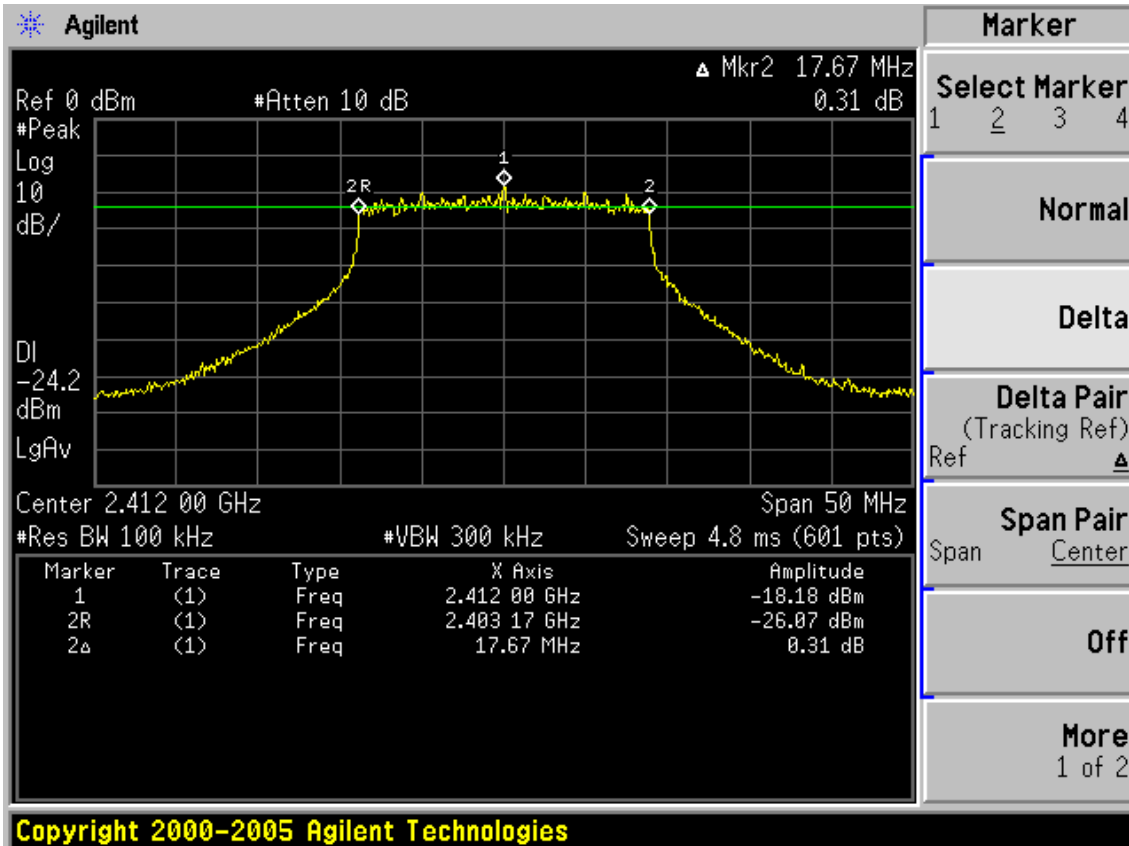
AT3:

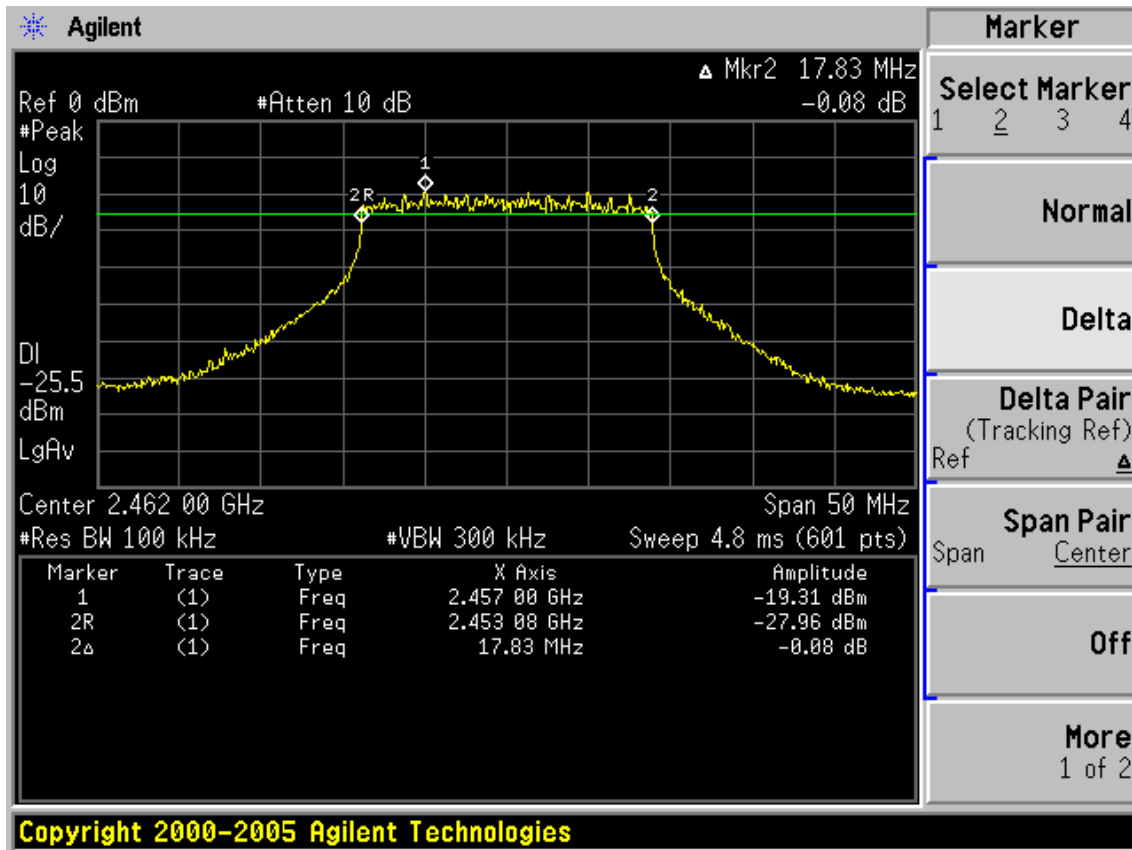




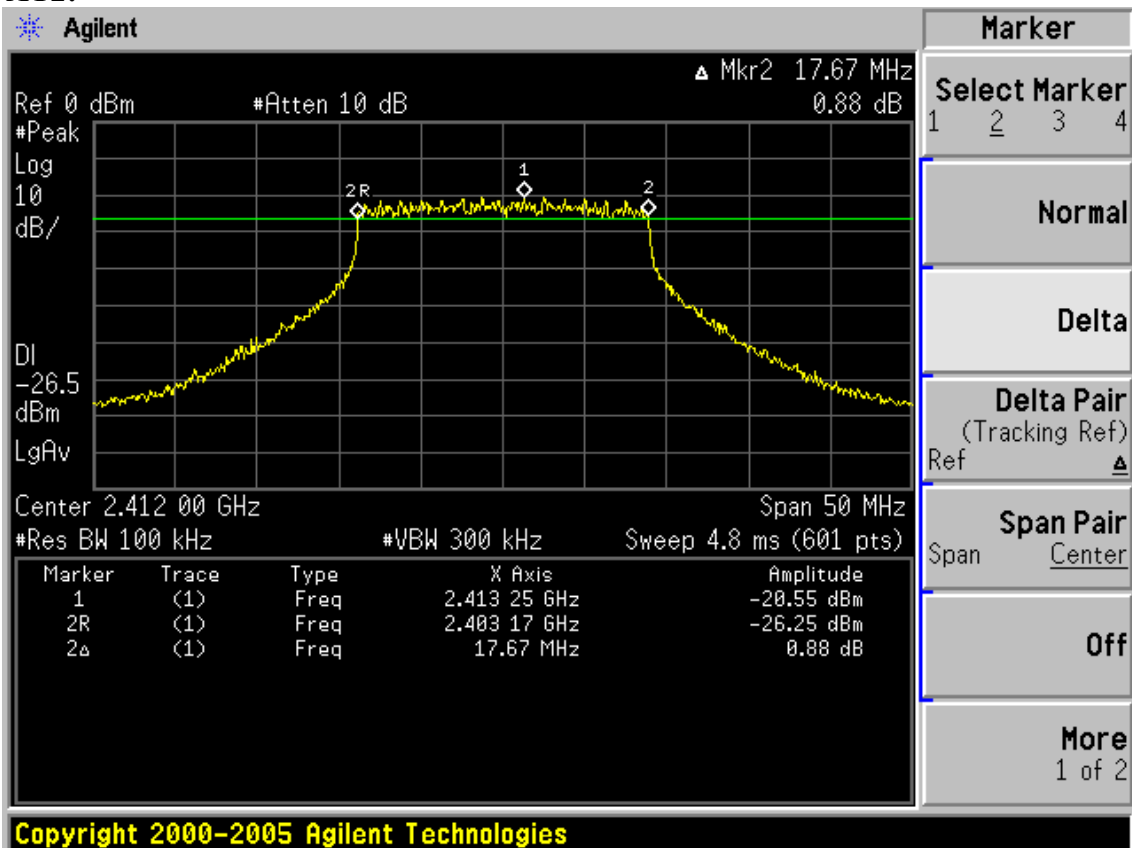
Test Mode: IEEE 802.11n HT20 TX (2.4G)

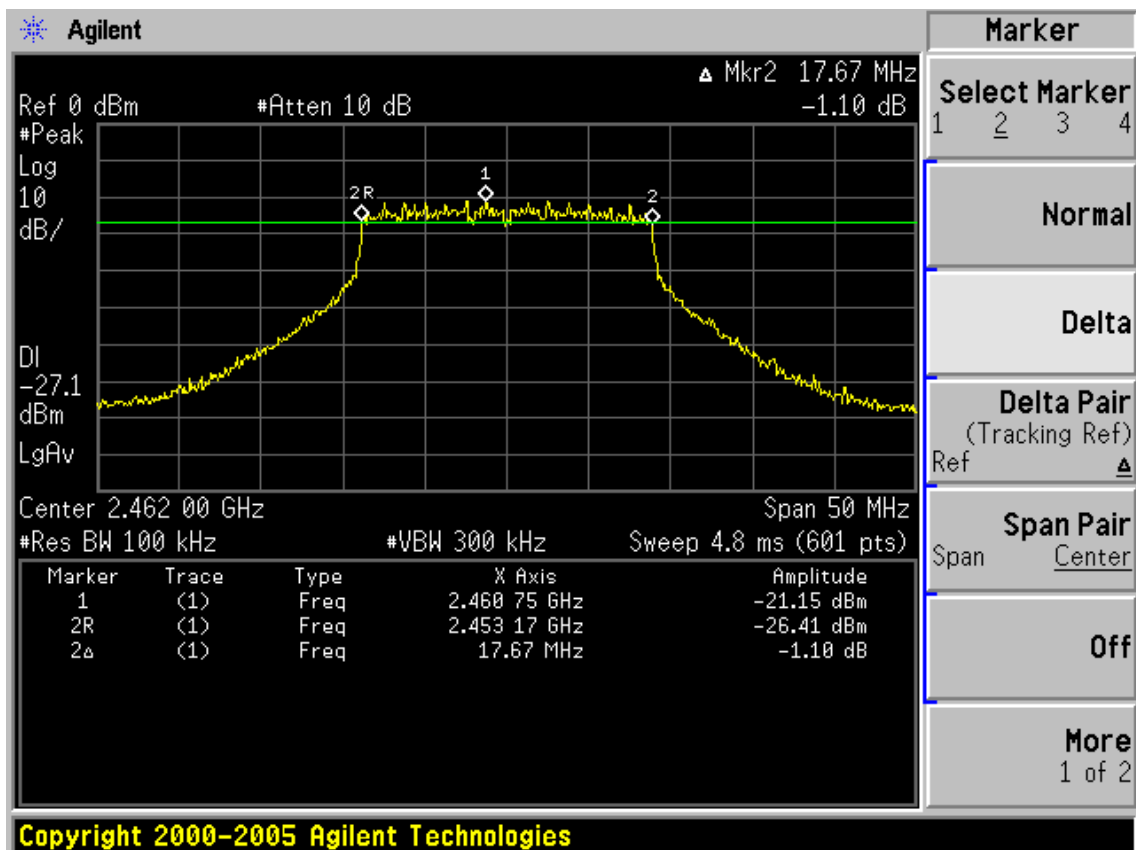
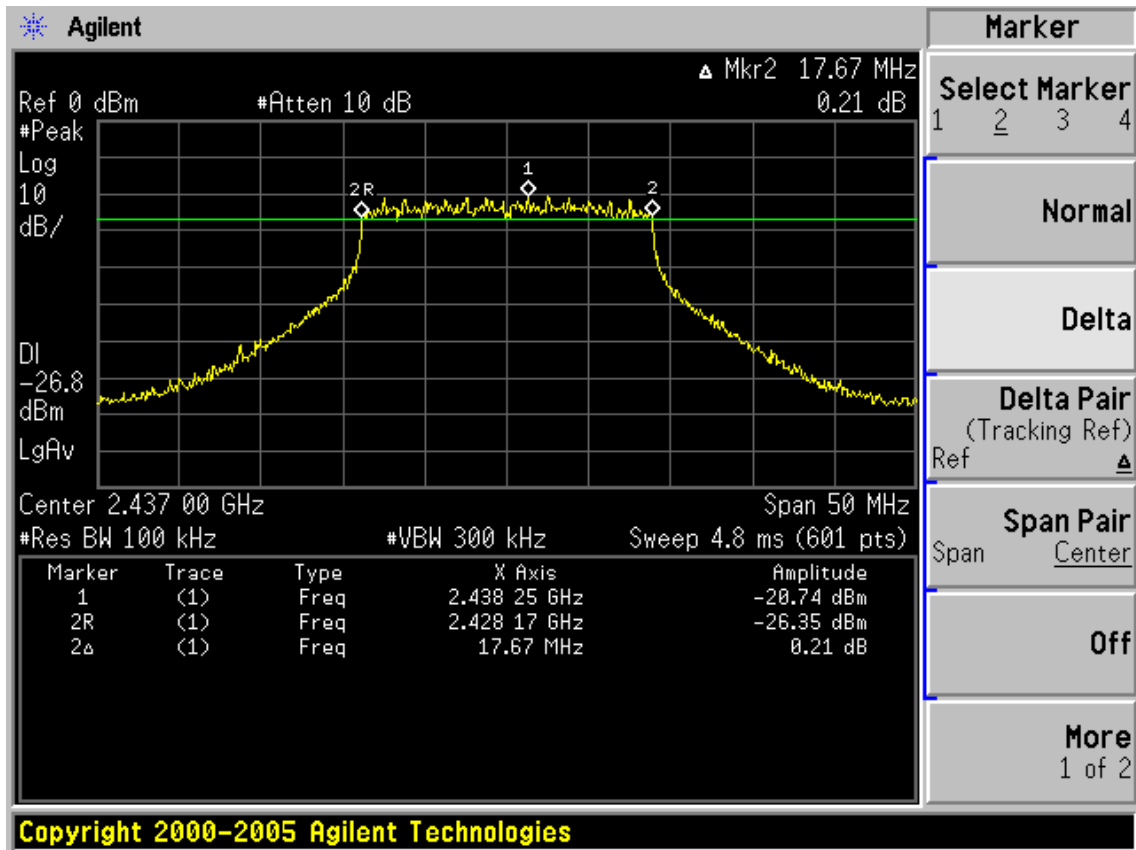
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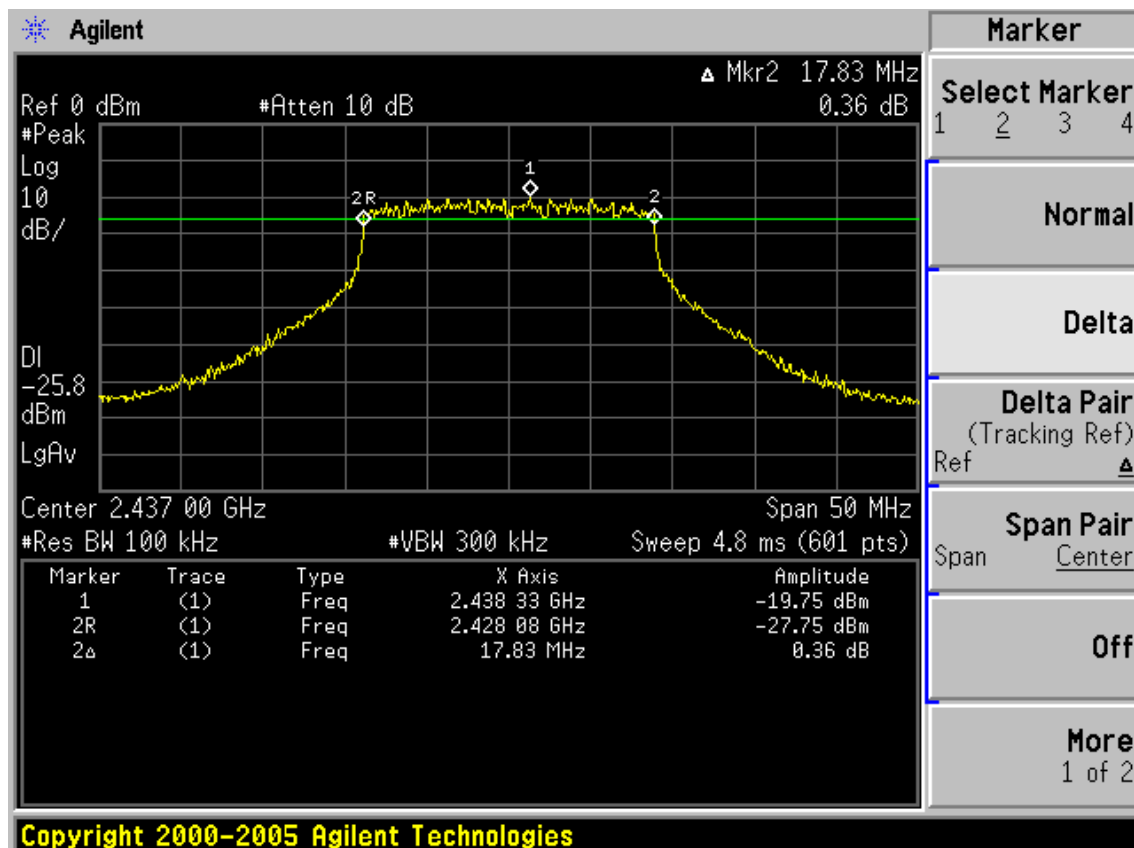
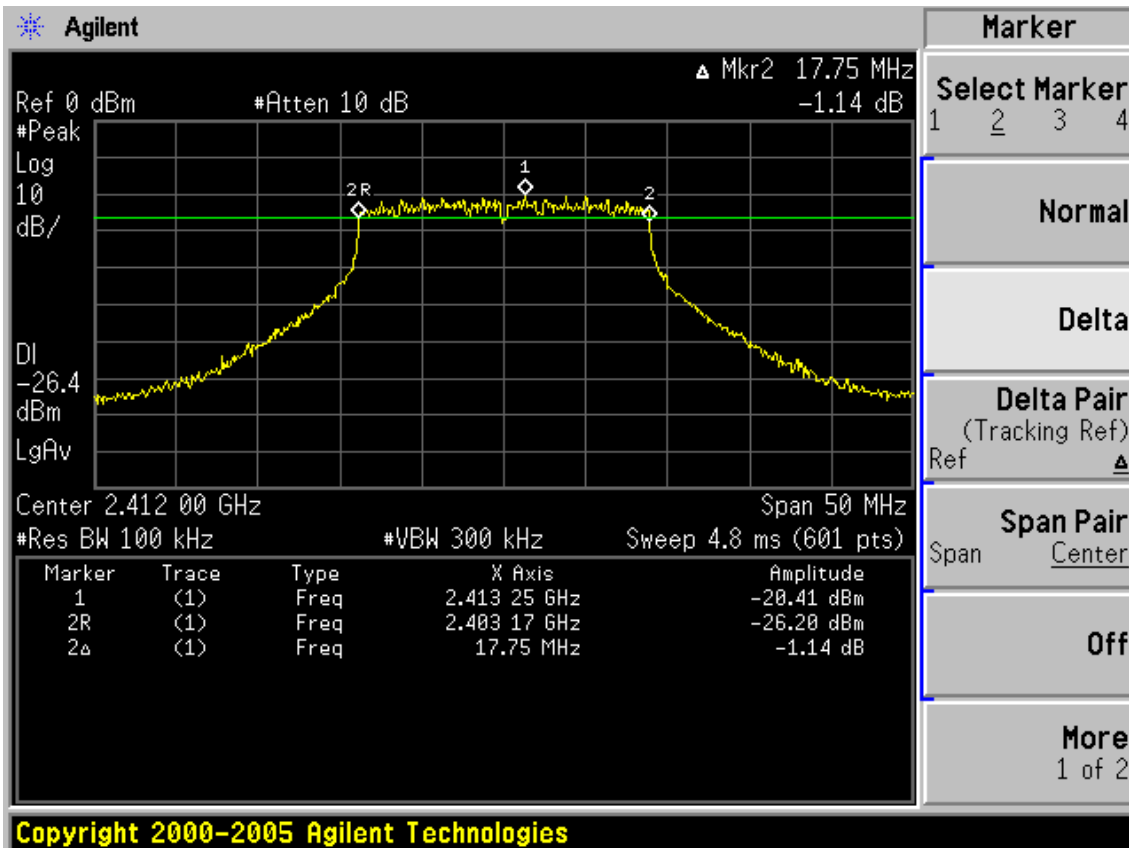


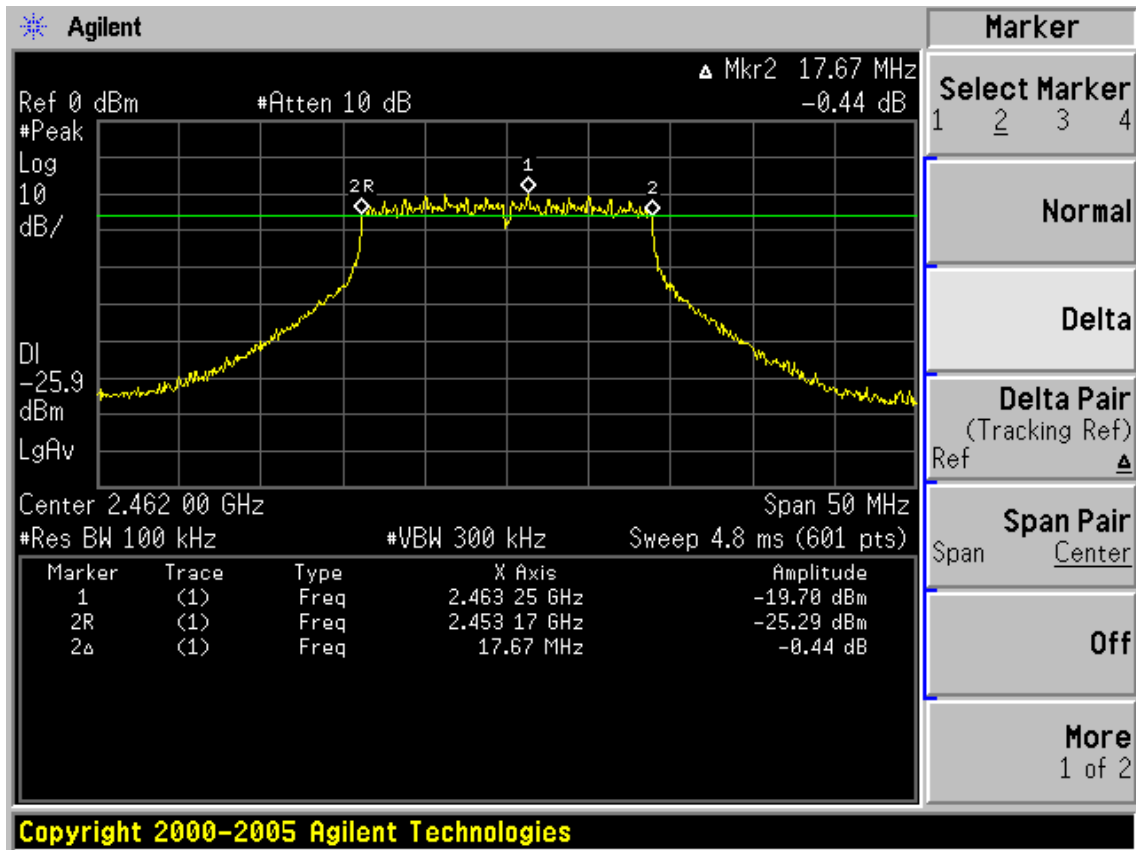
AT2:





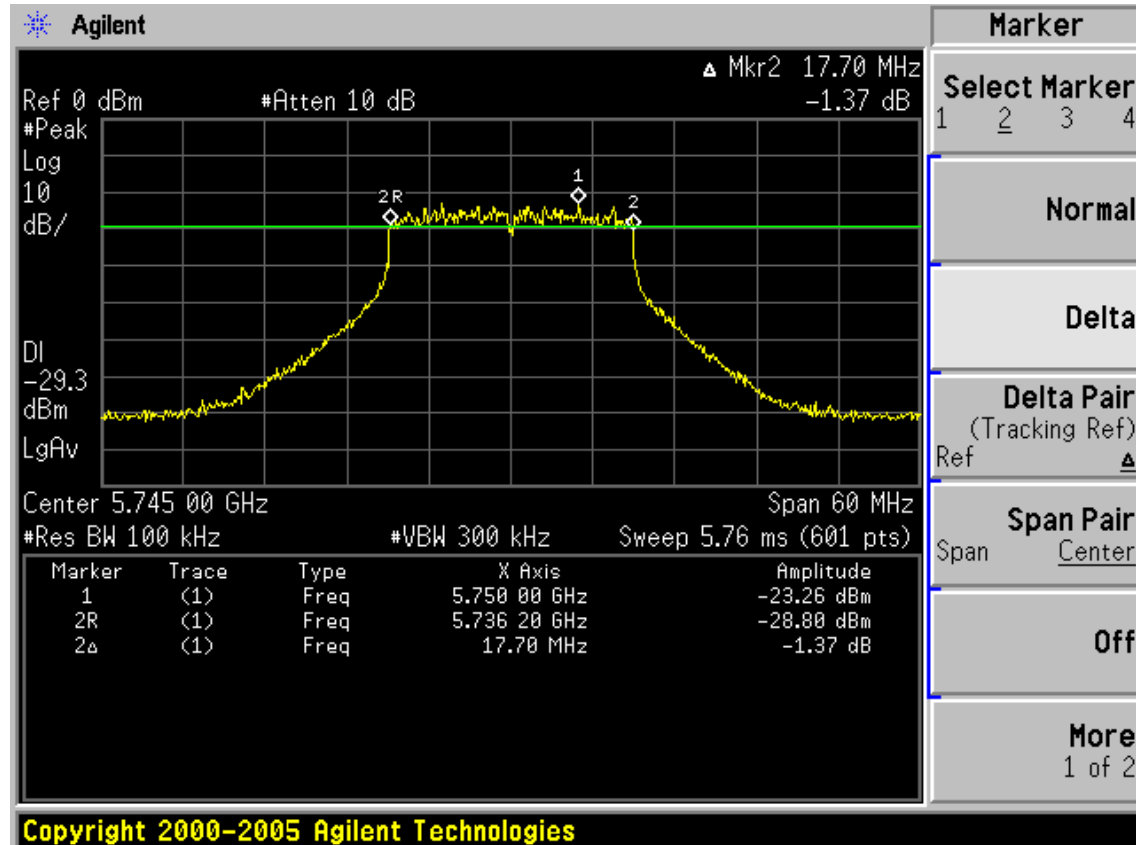
AT3:

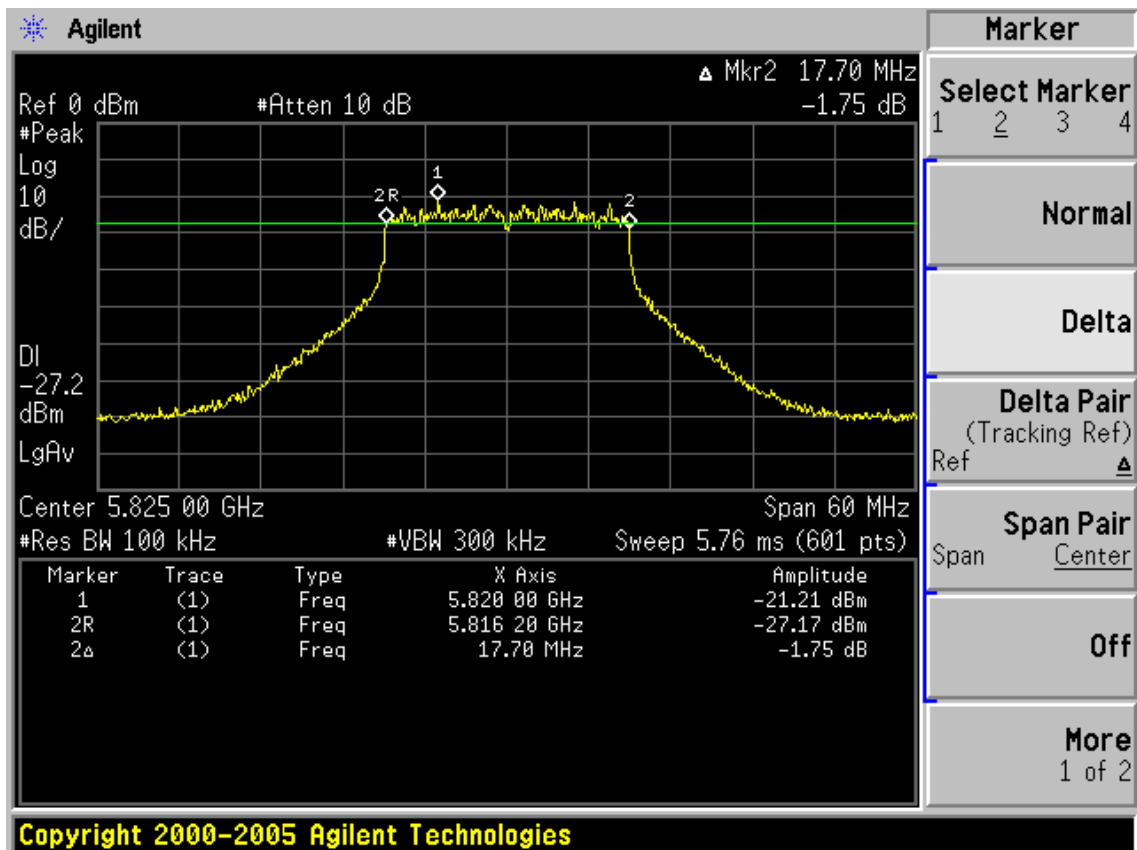
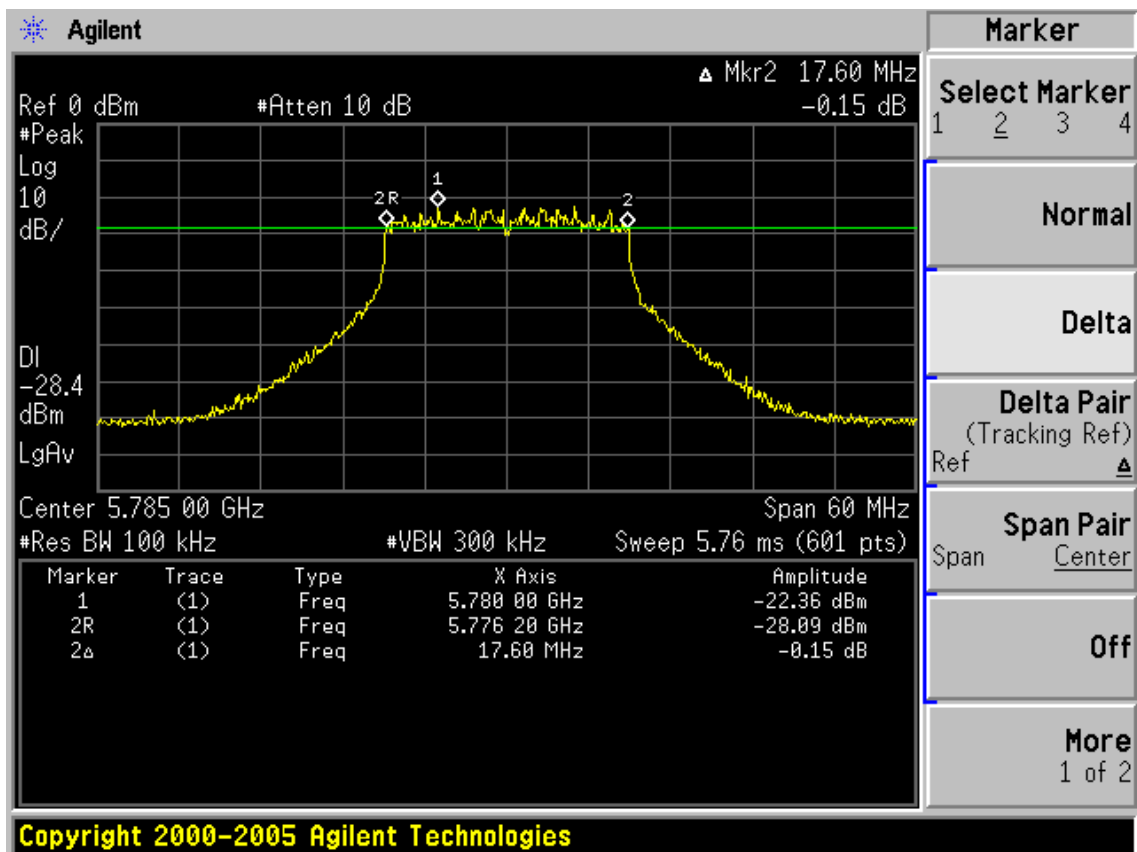




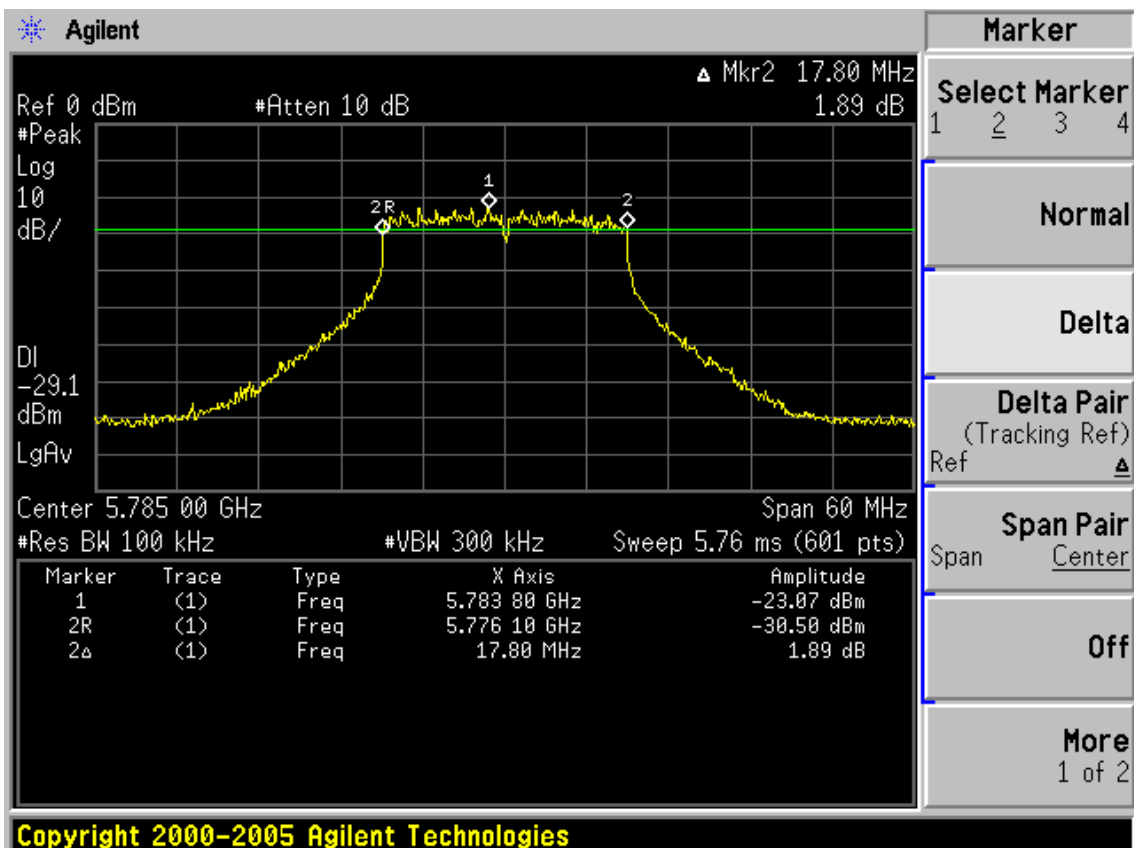
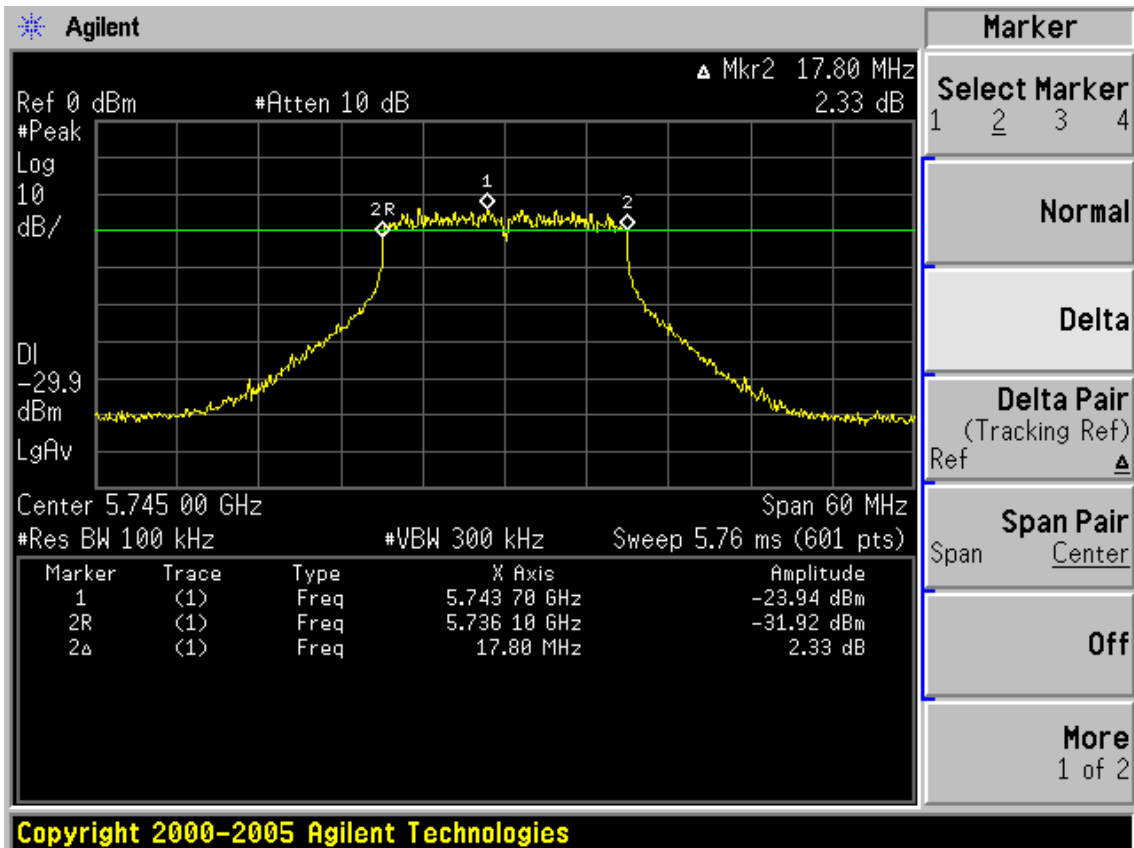
Test Mode: IEEE 802.11n HT20 TX (5.7G)

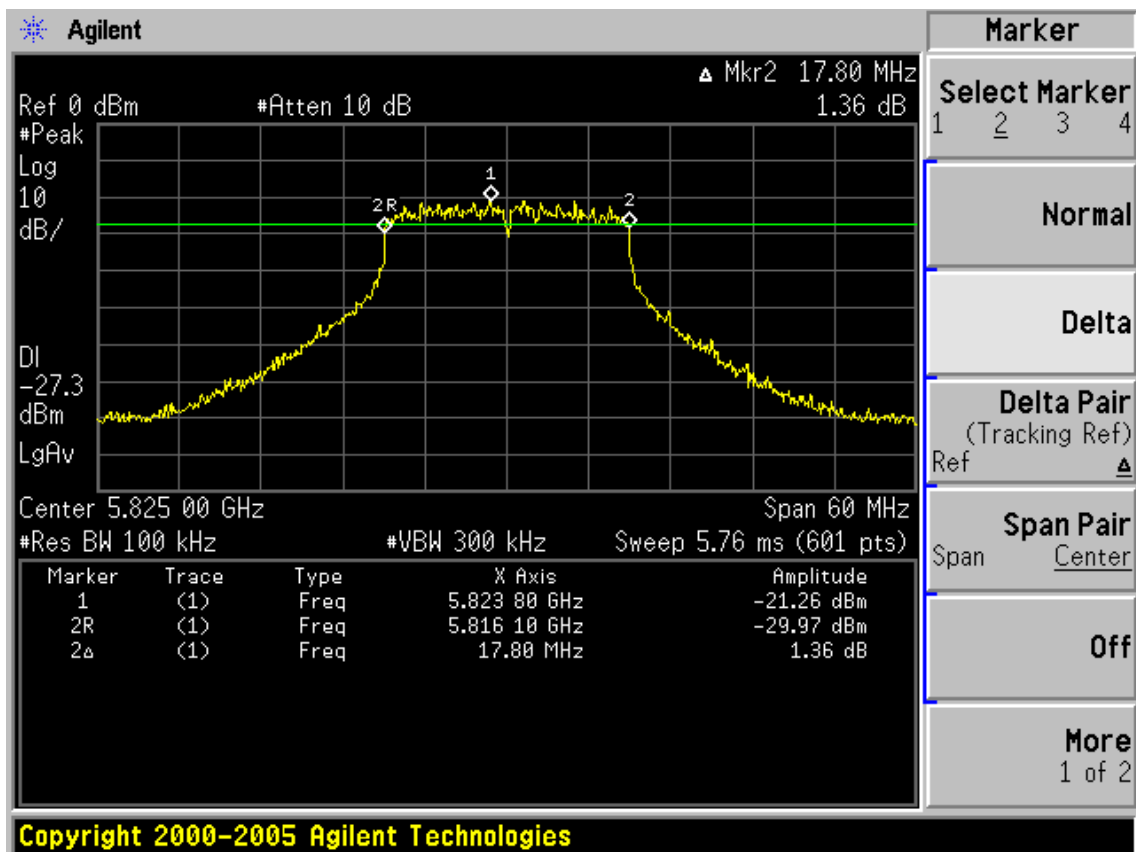
AT1:



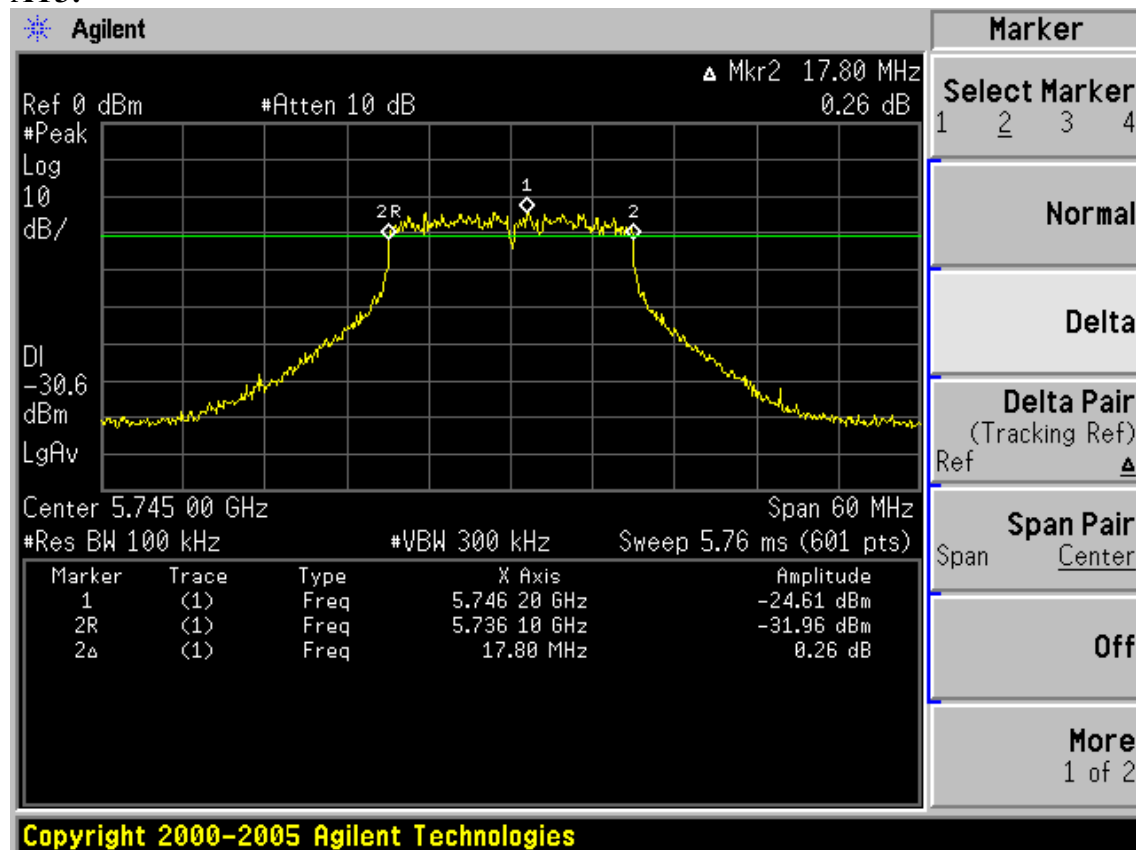


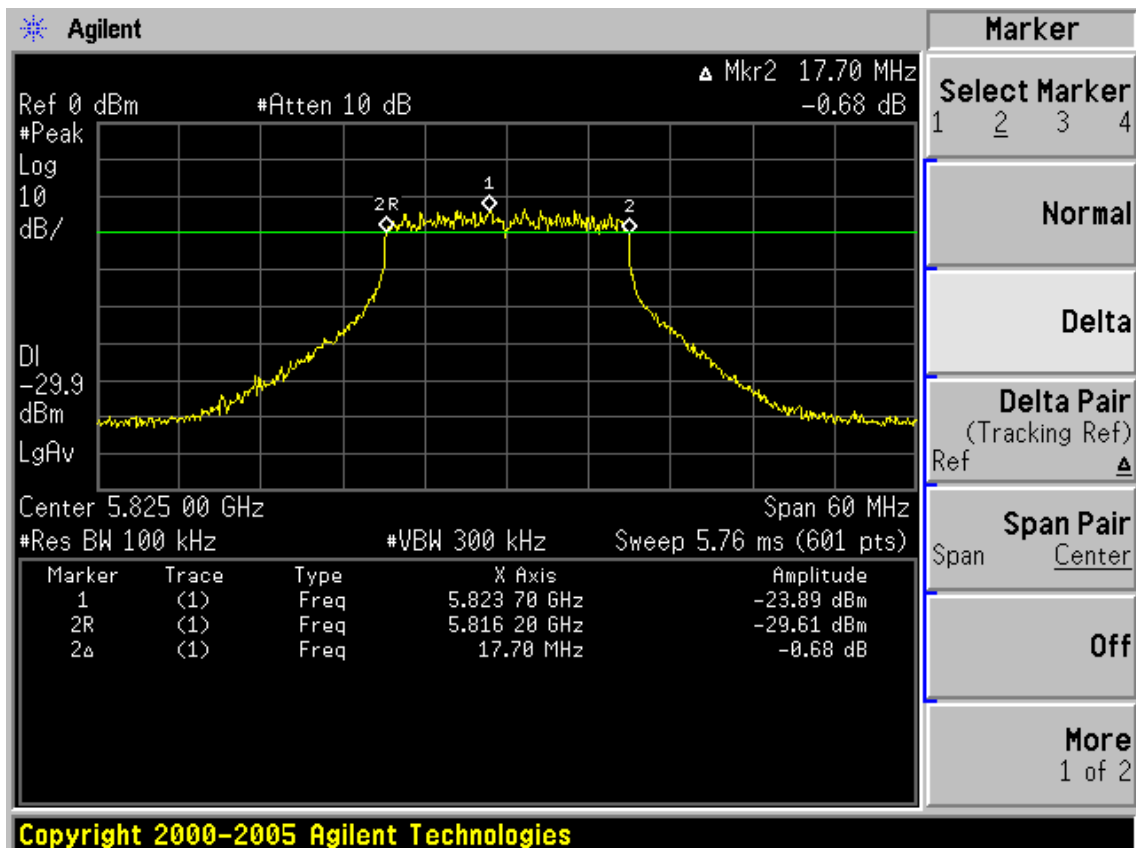
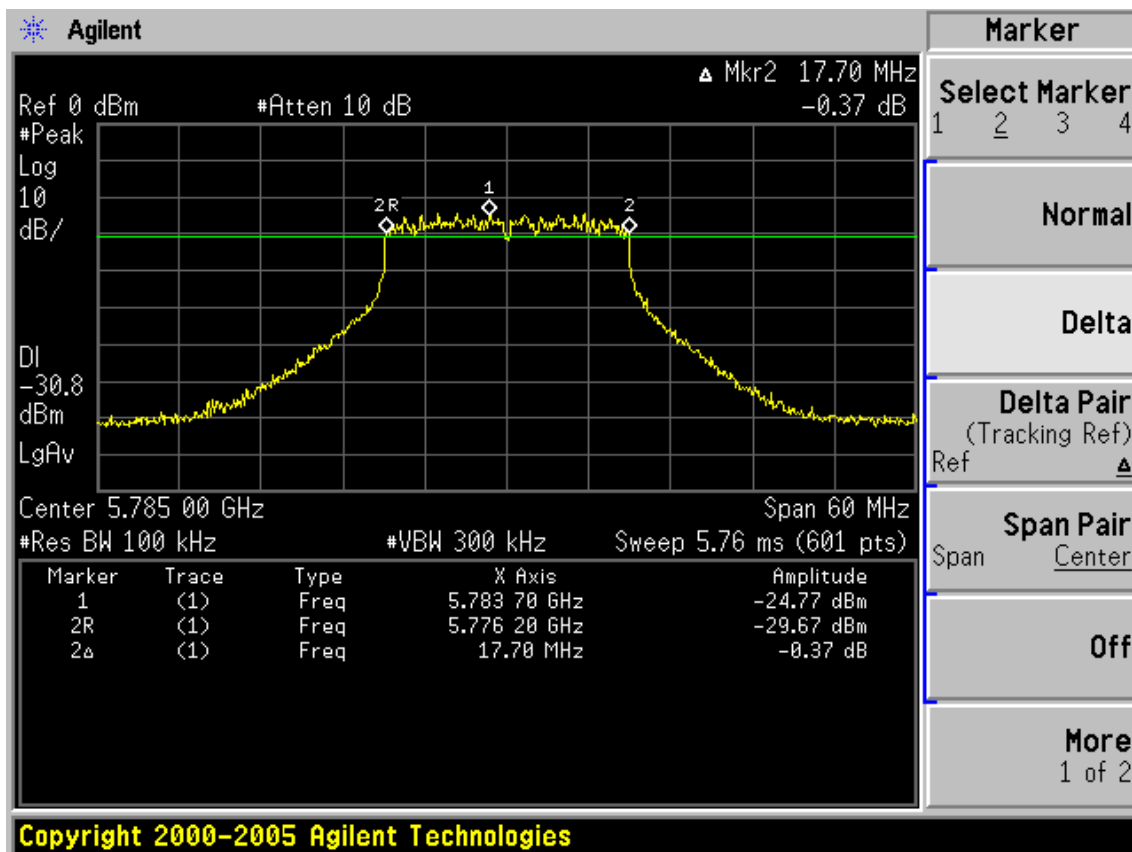
AT2:





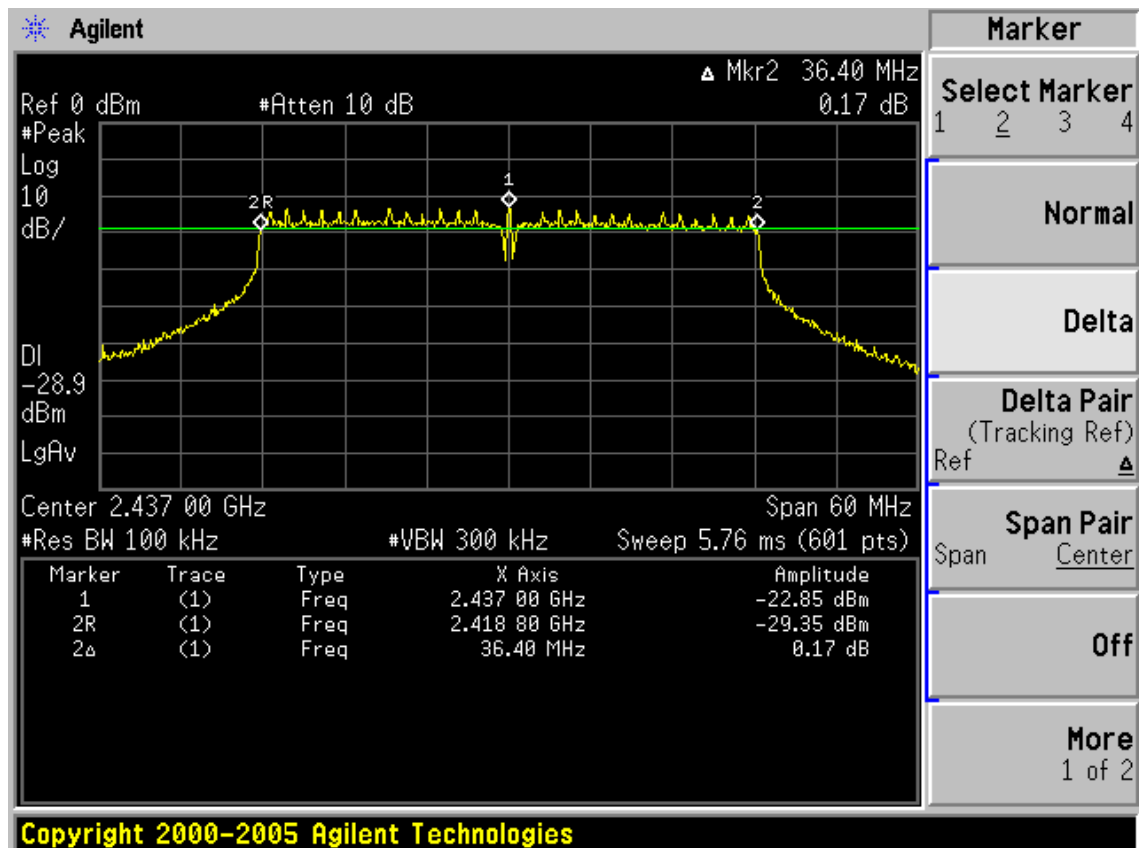
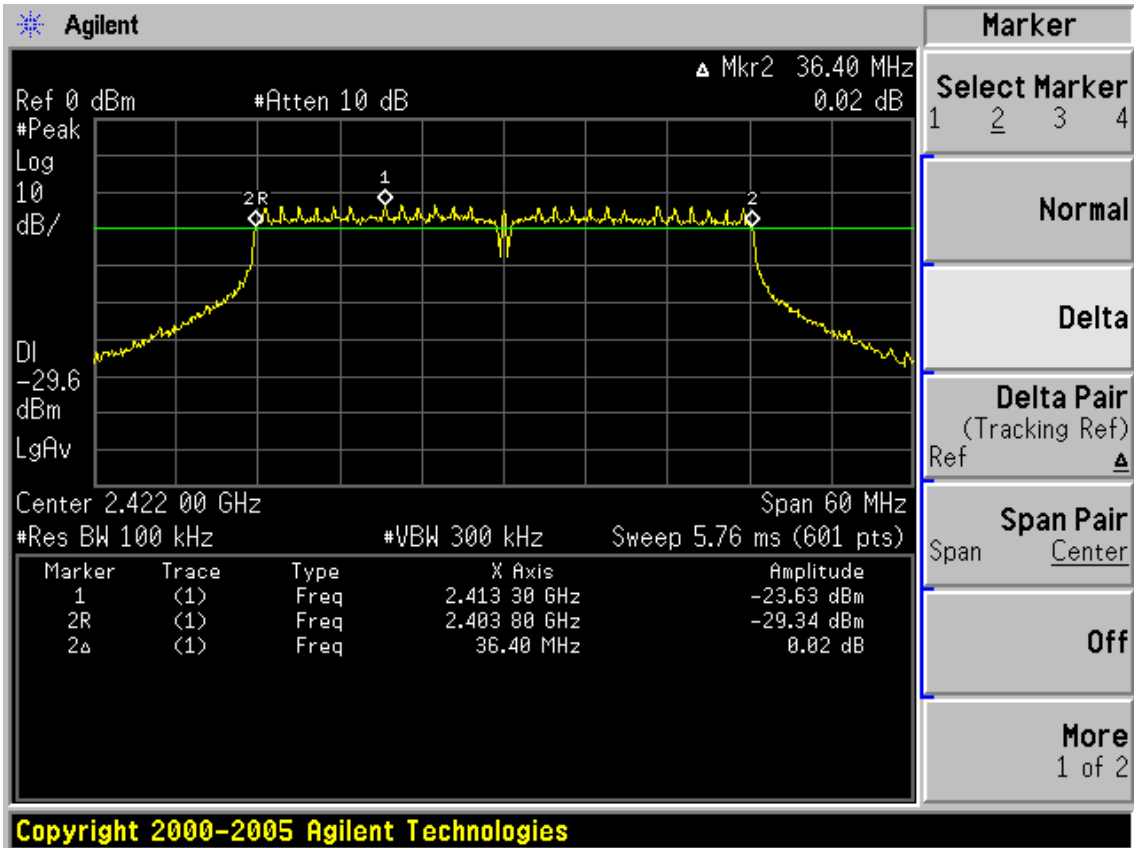
AT3:

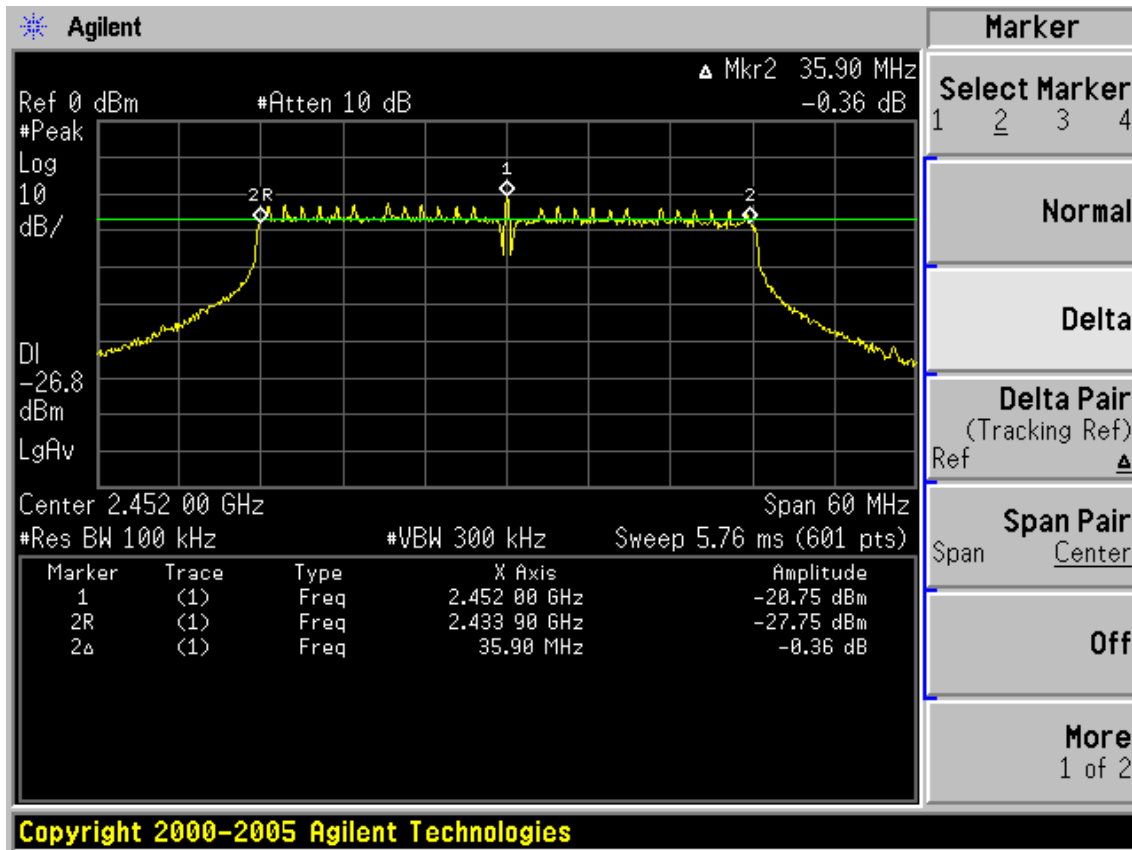




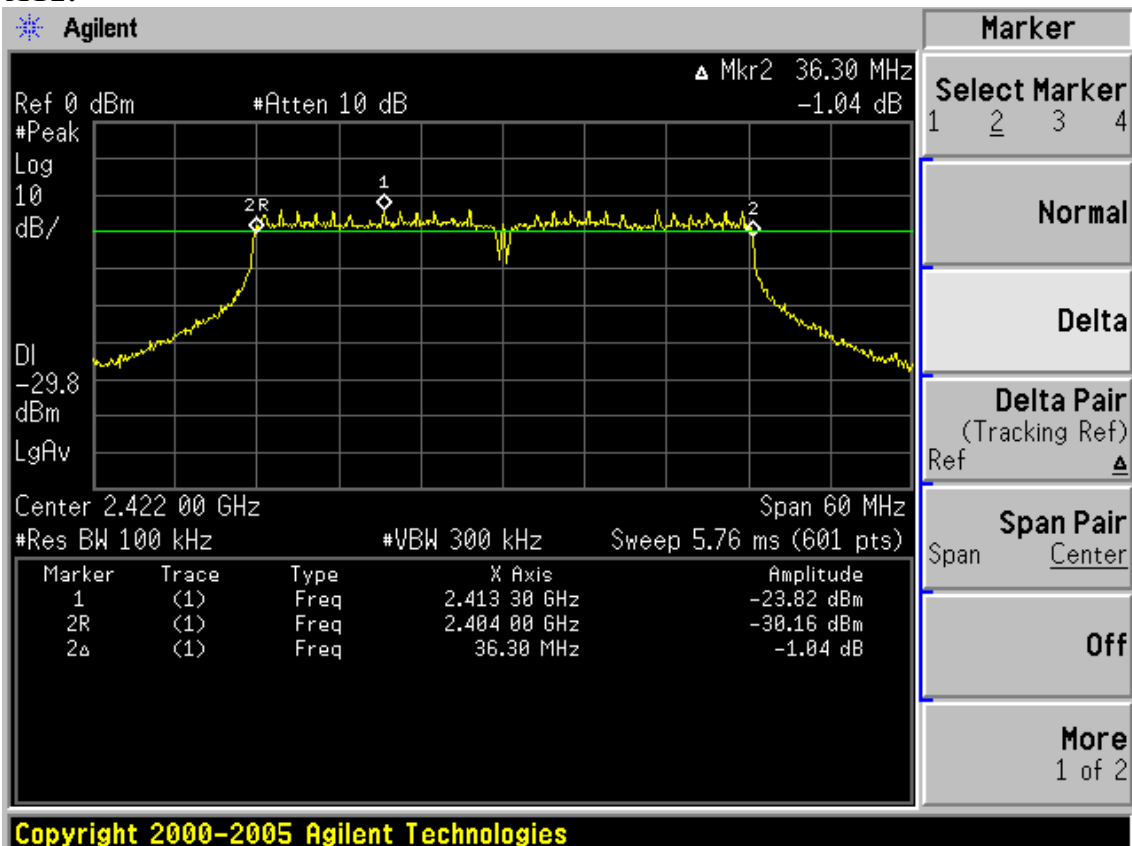
Test Mode: IEEE 802.11n HT40 TX (2.4G)

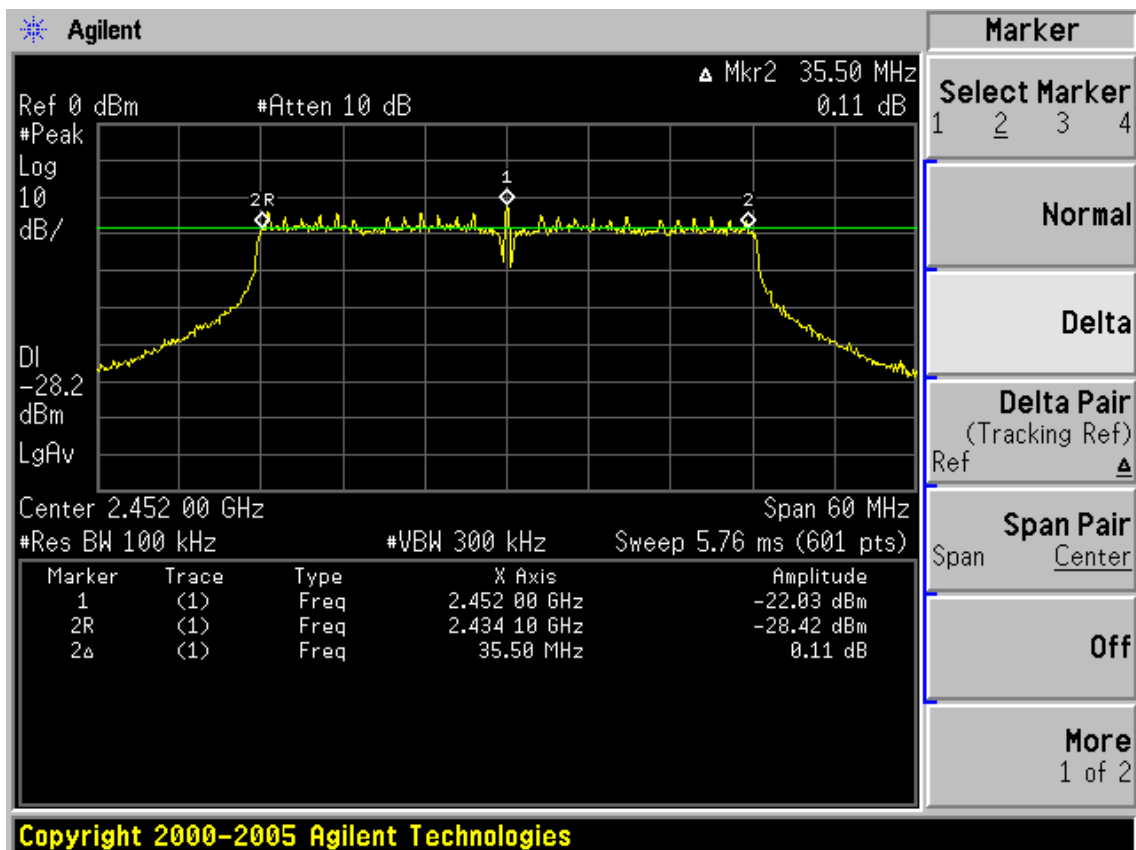
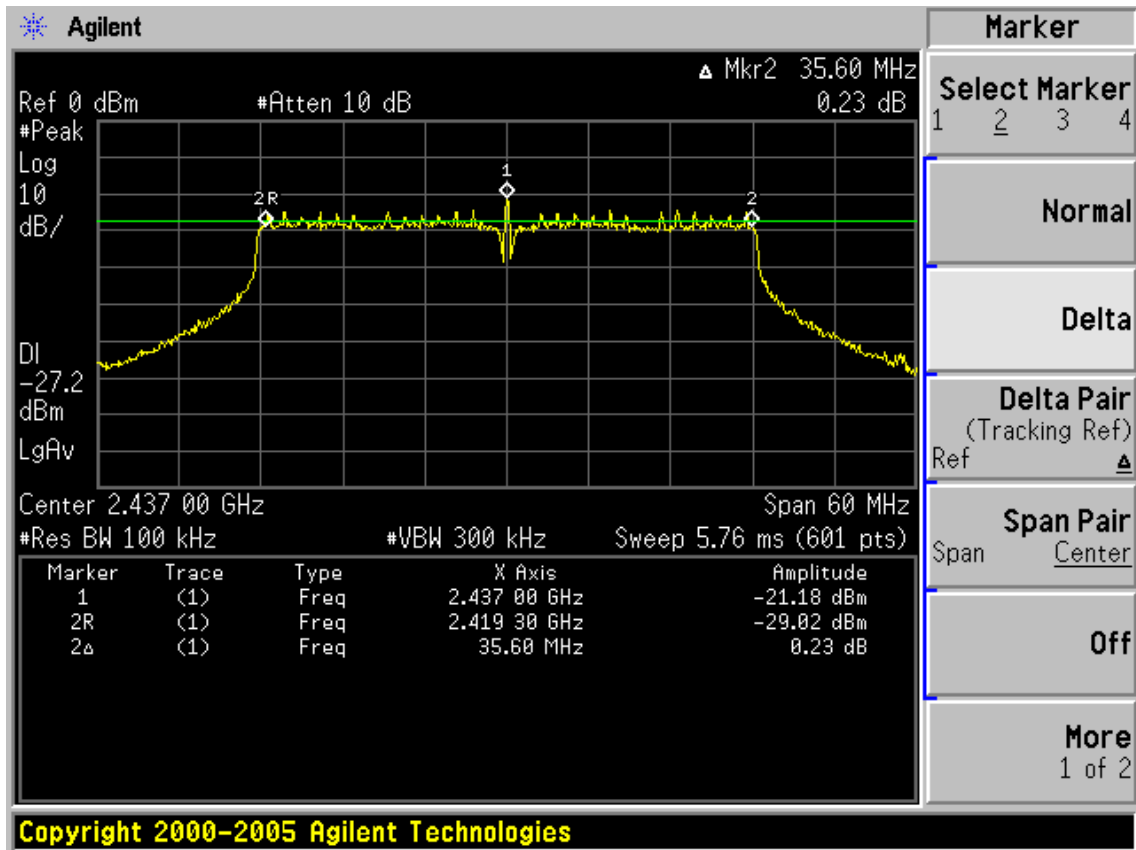
AT1:



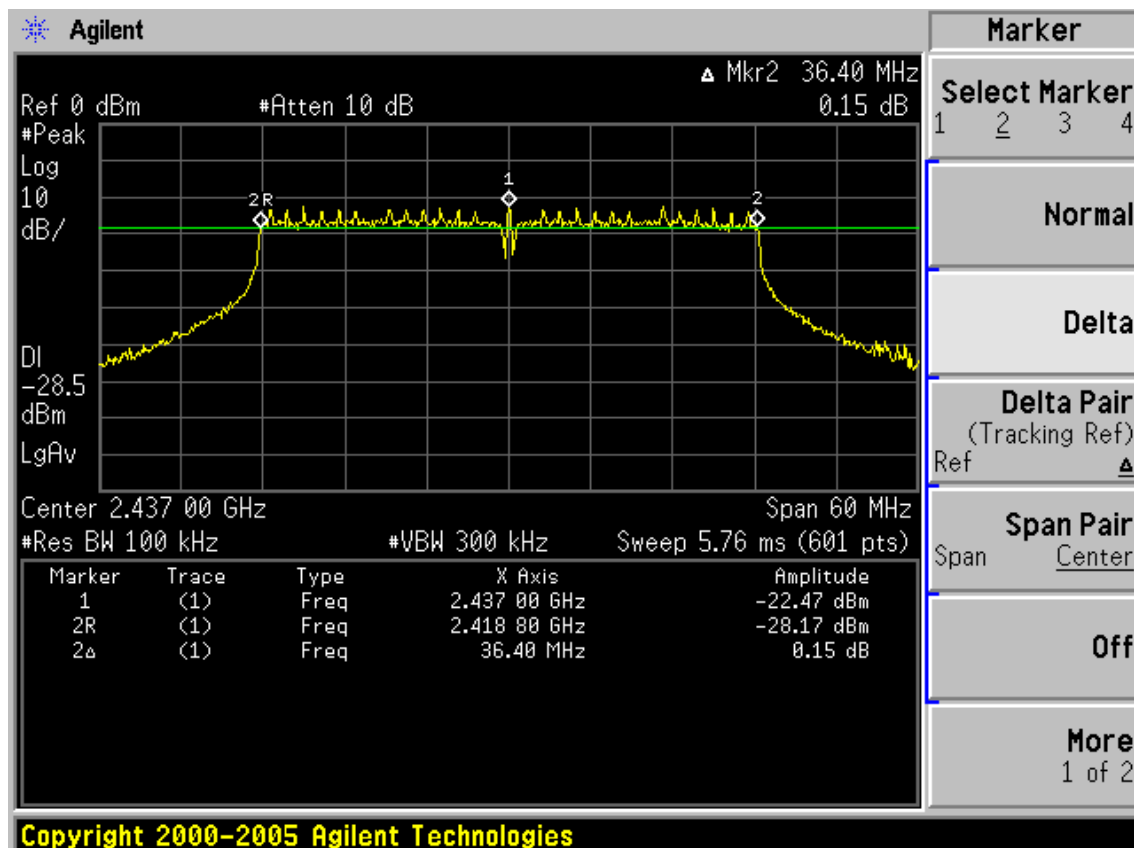
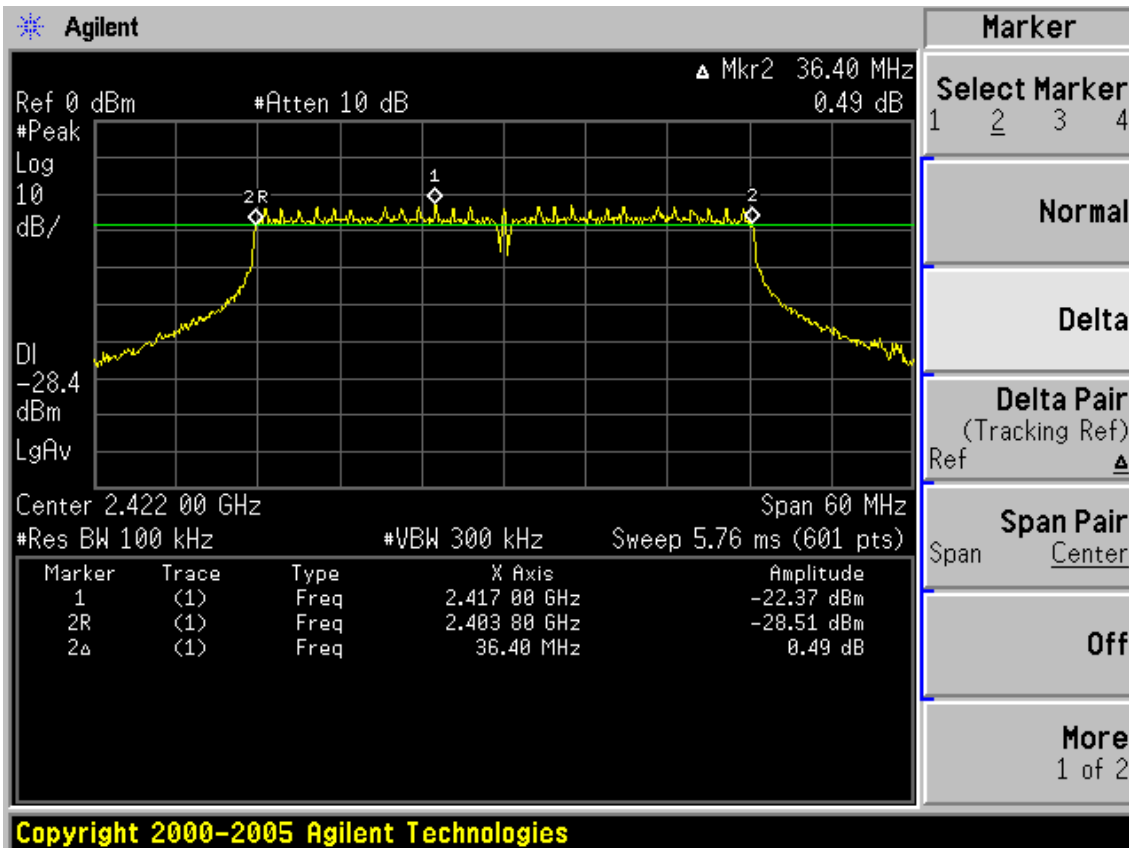


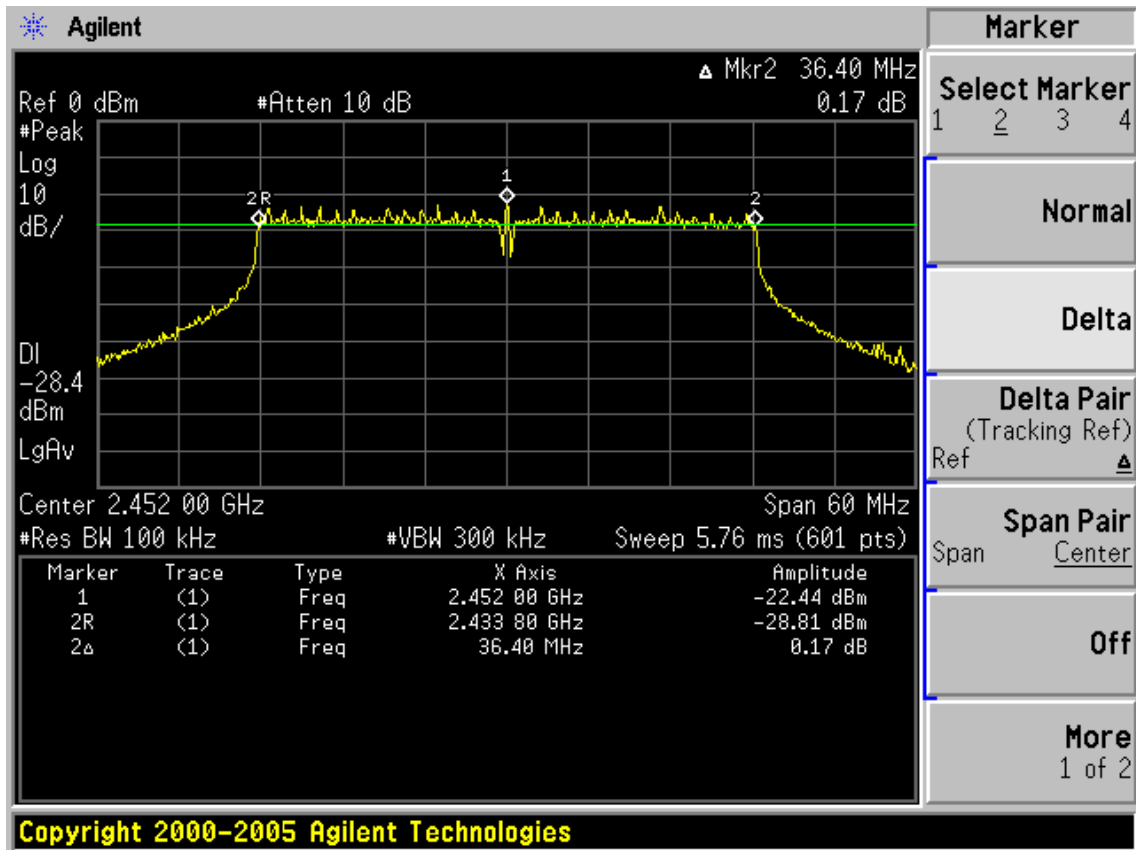
AT2:





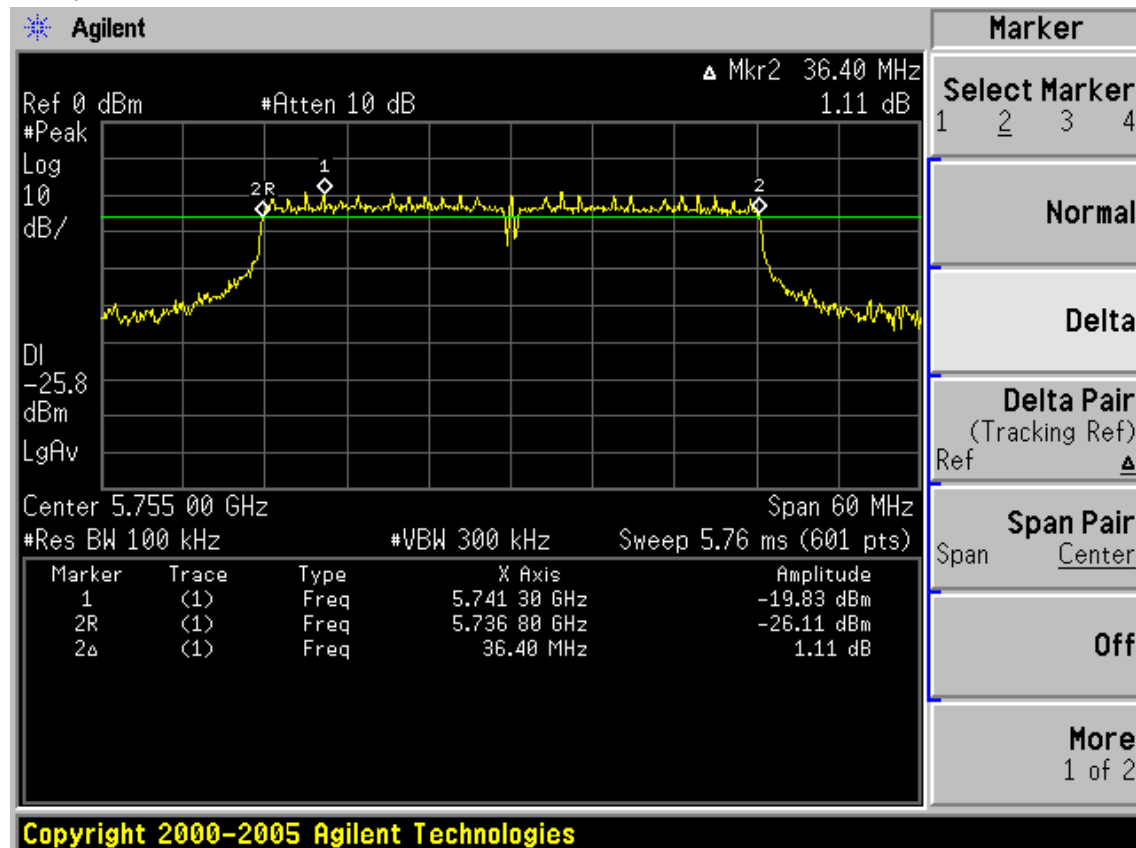
AT3:

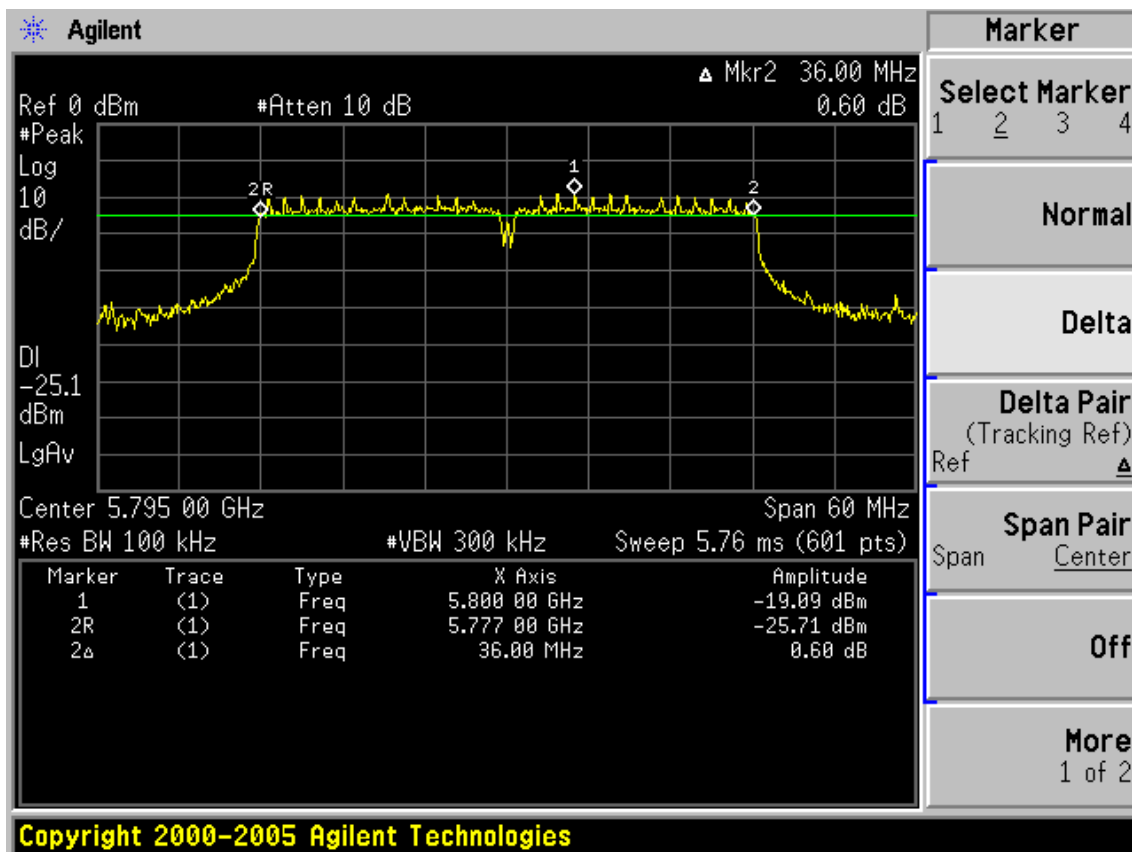




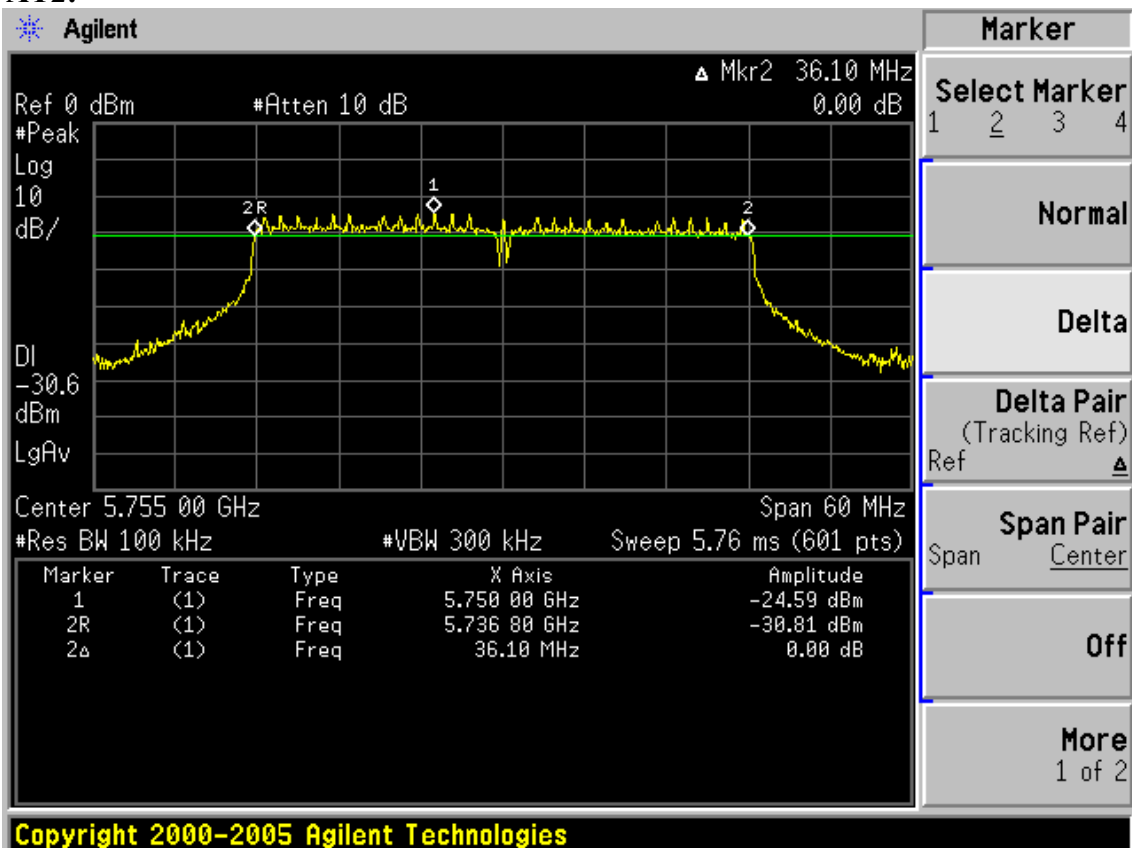
Test Mode: IEEE 802.11n HT40 TX (5.7G)

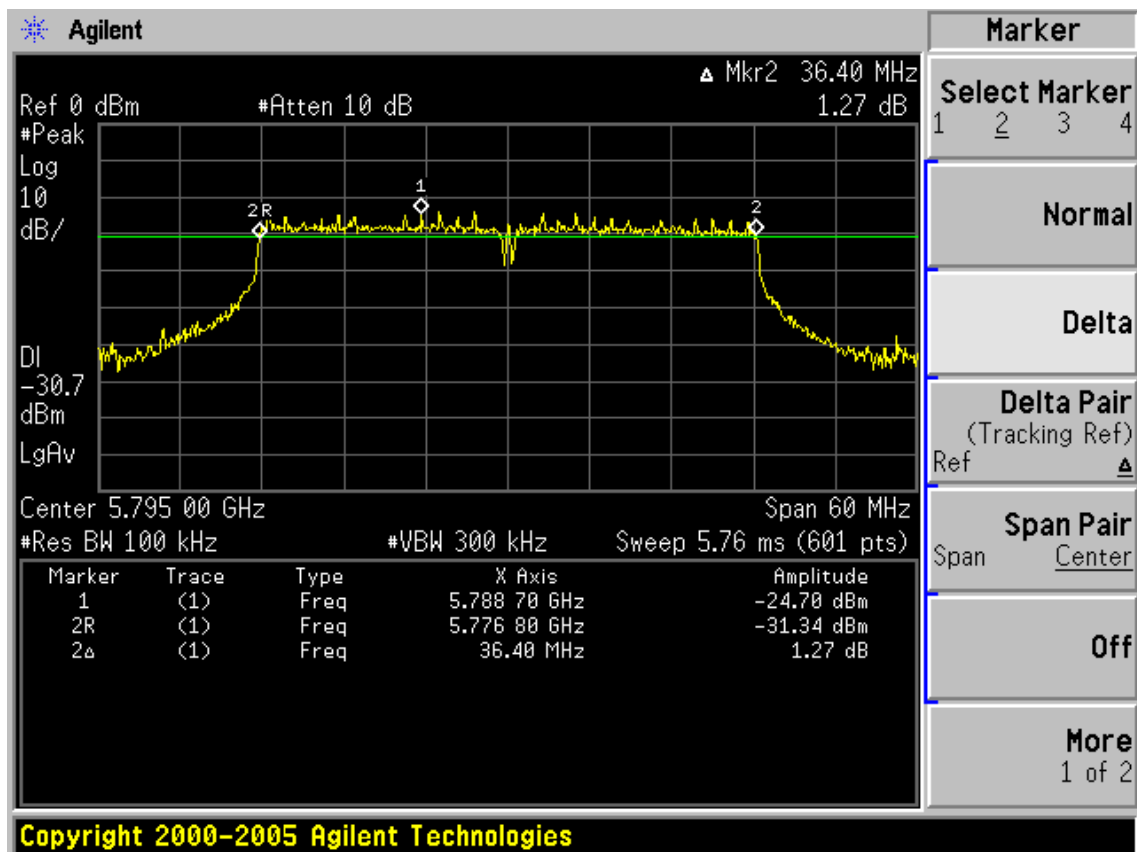
AT1:



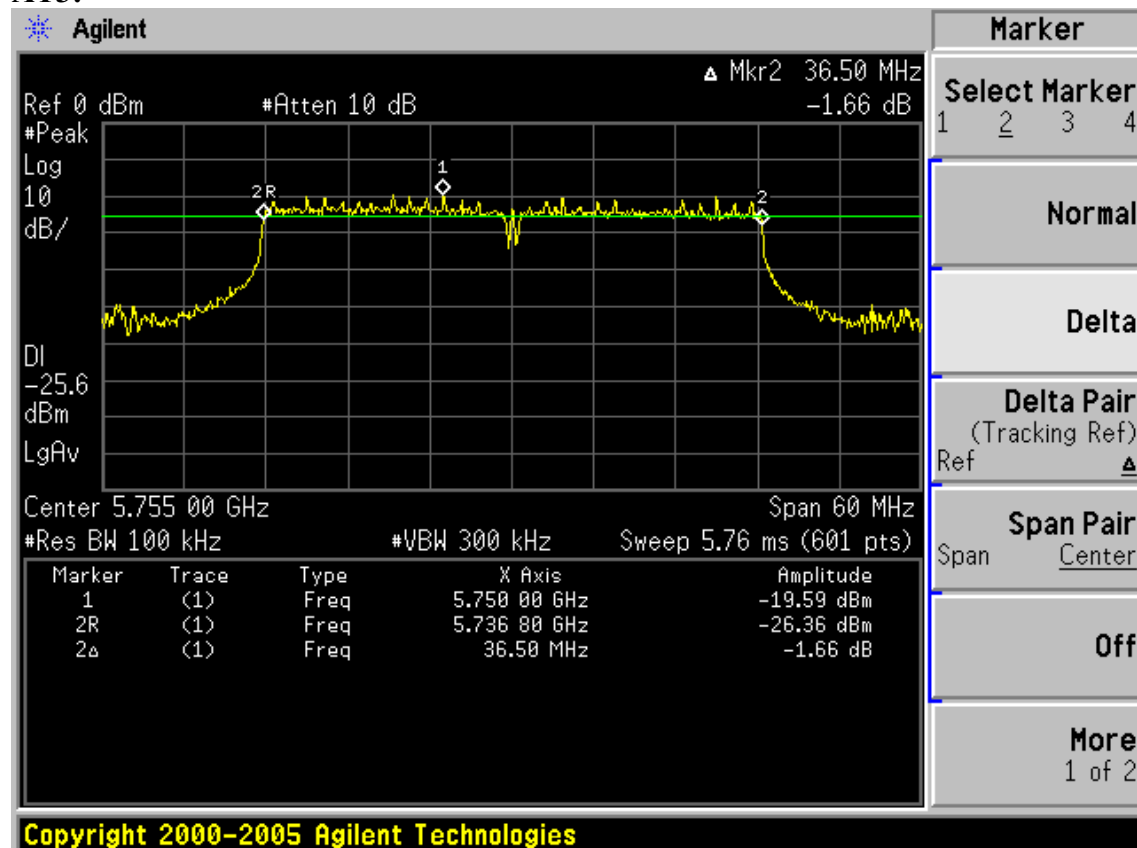


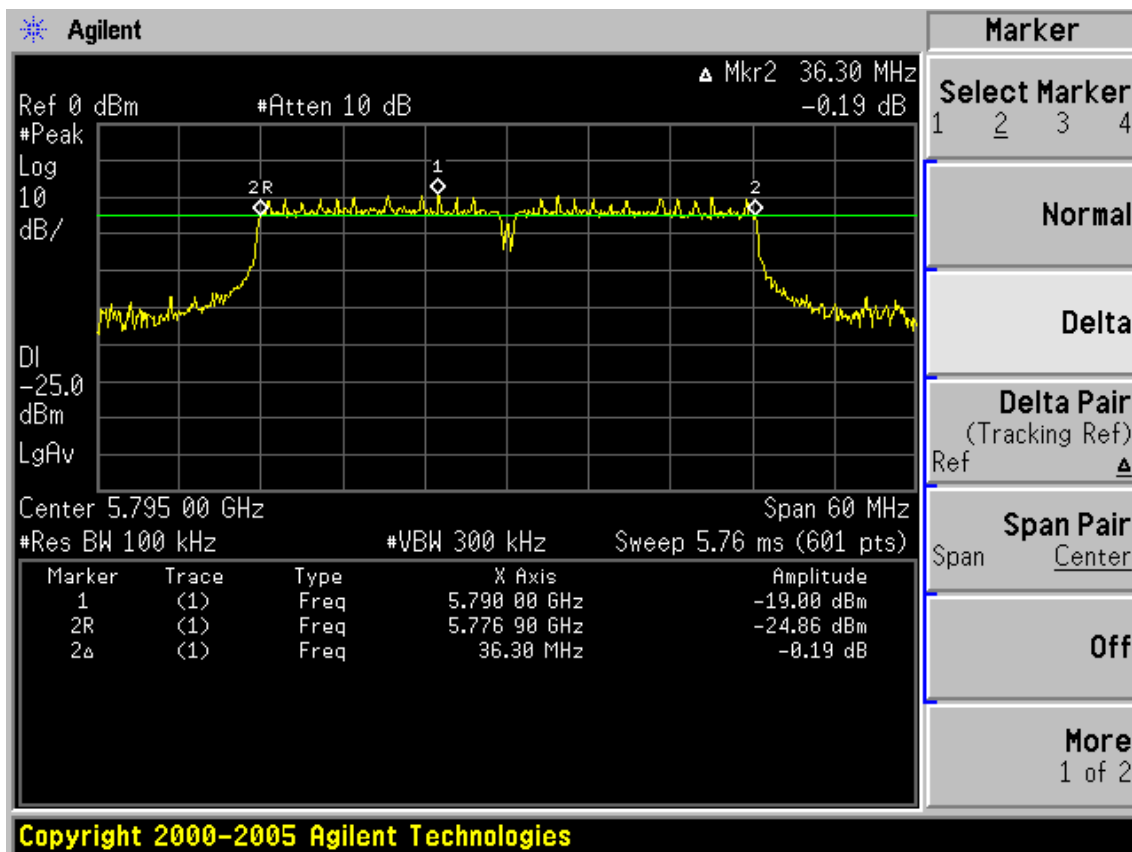
AT2:





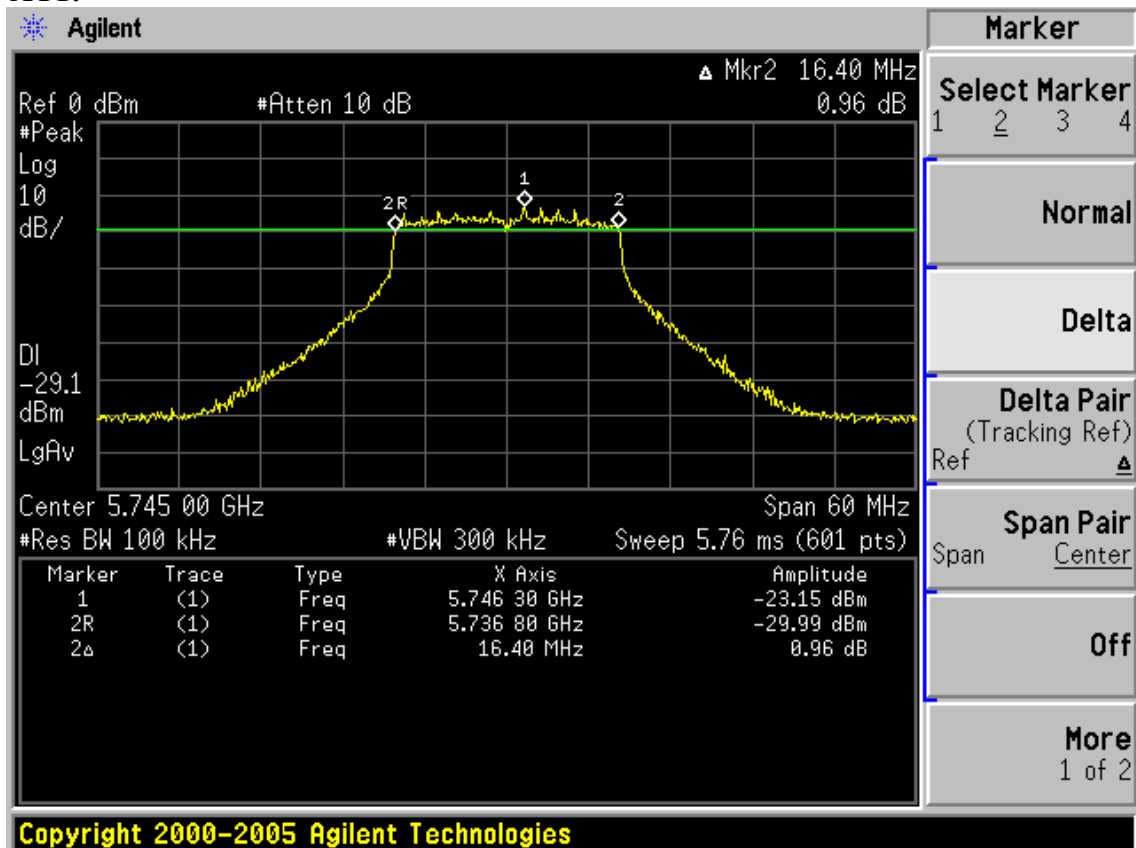
AT3:

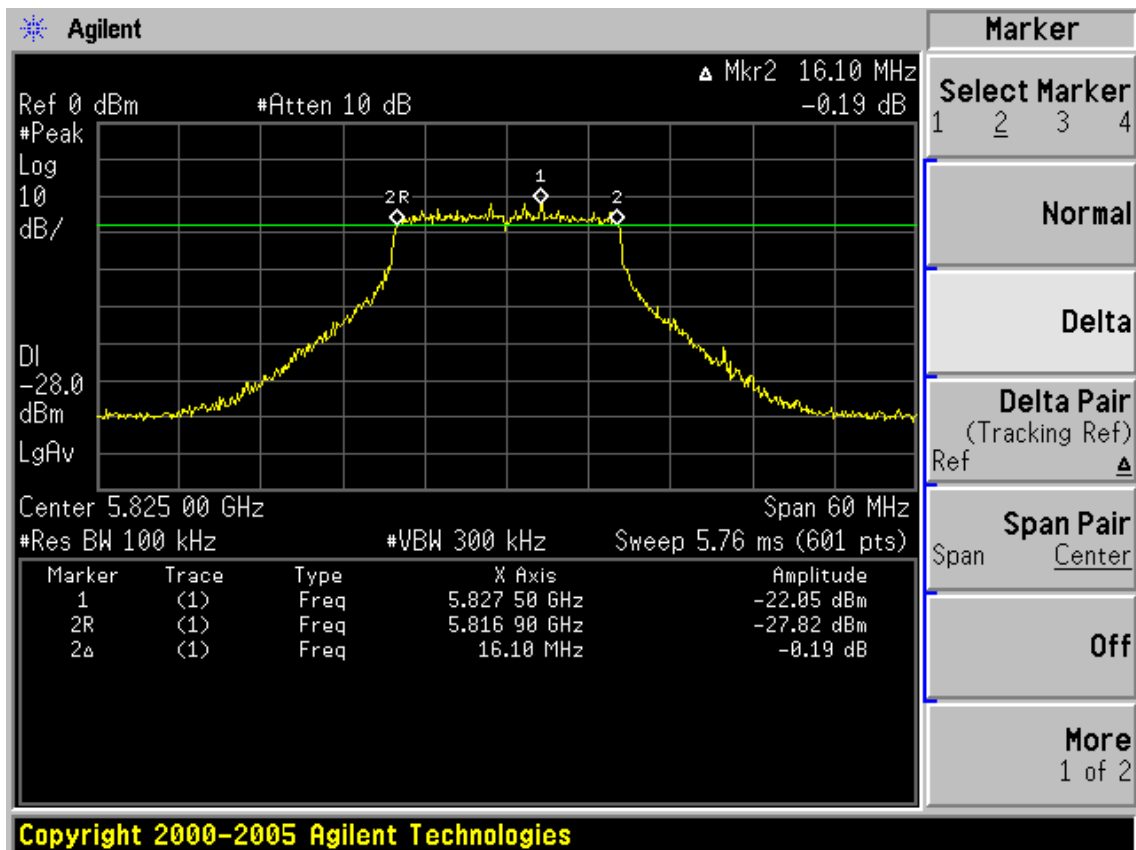
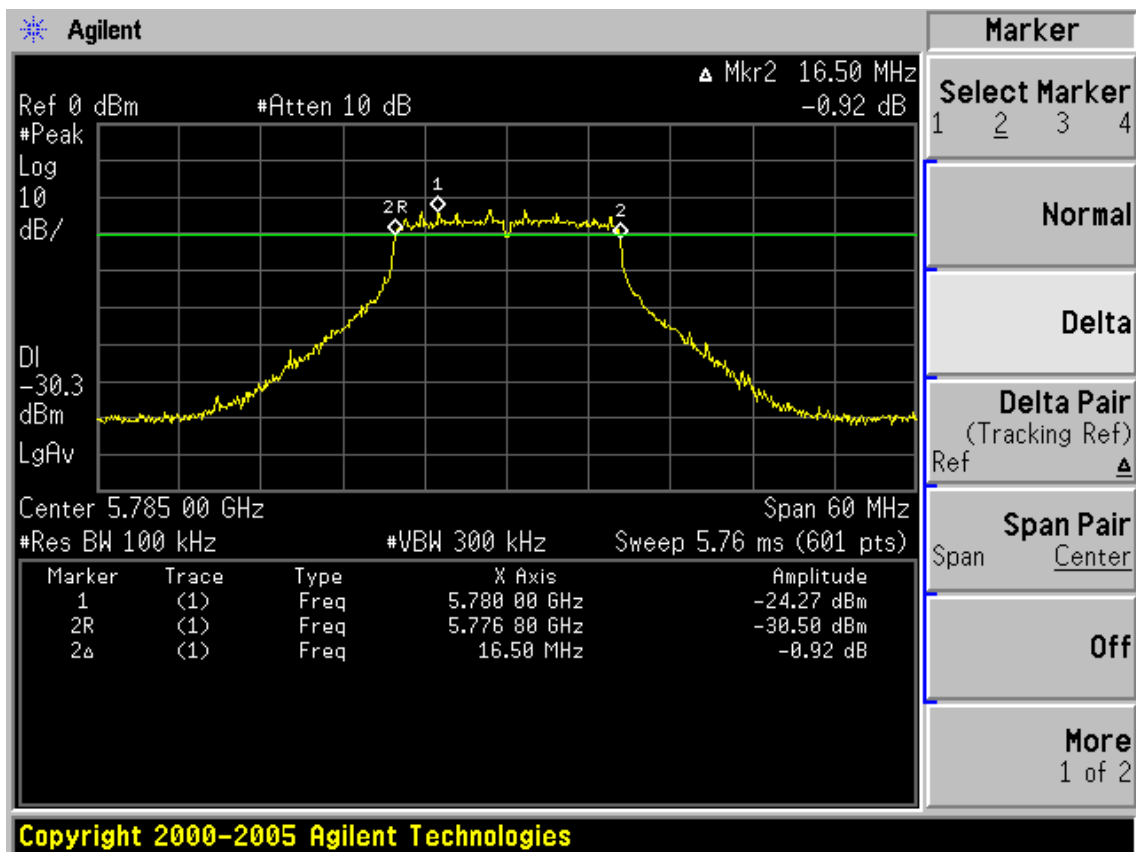




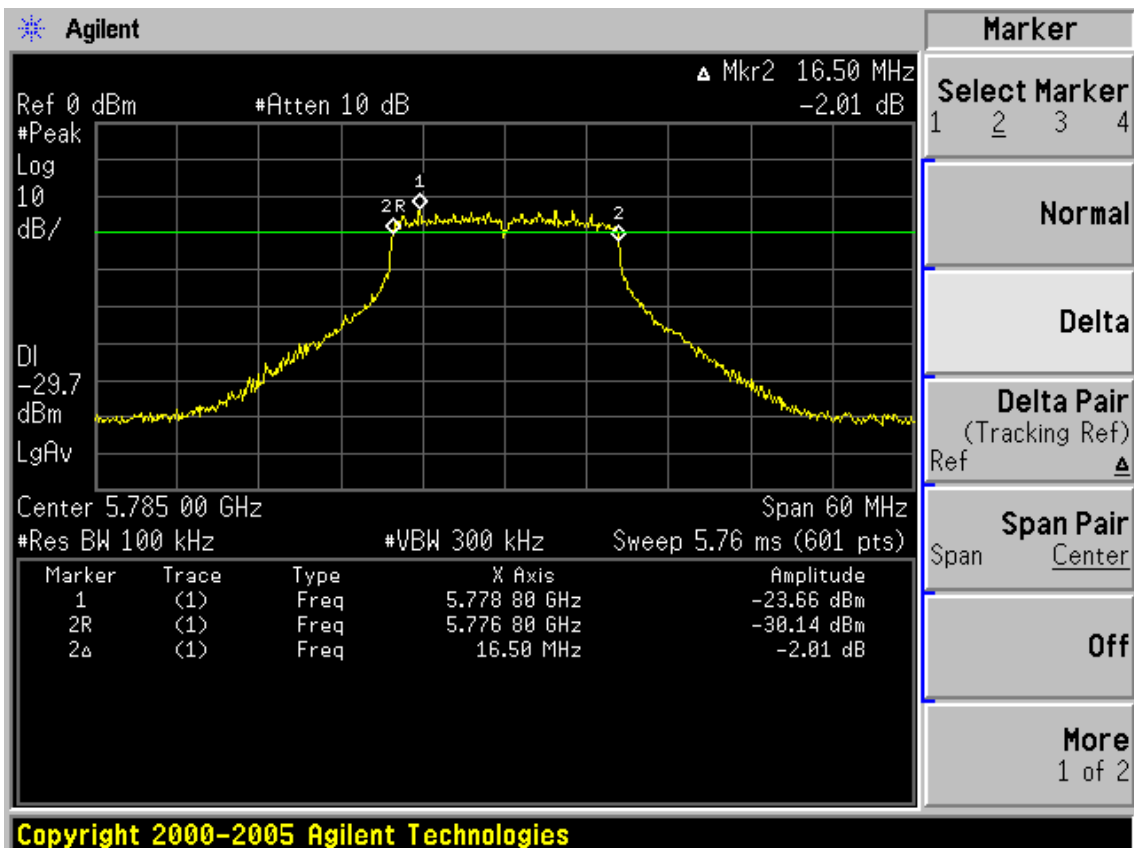
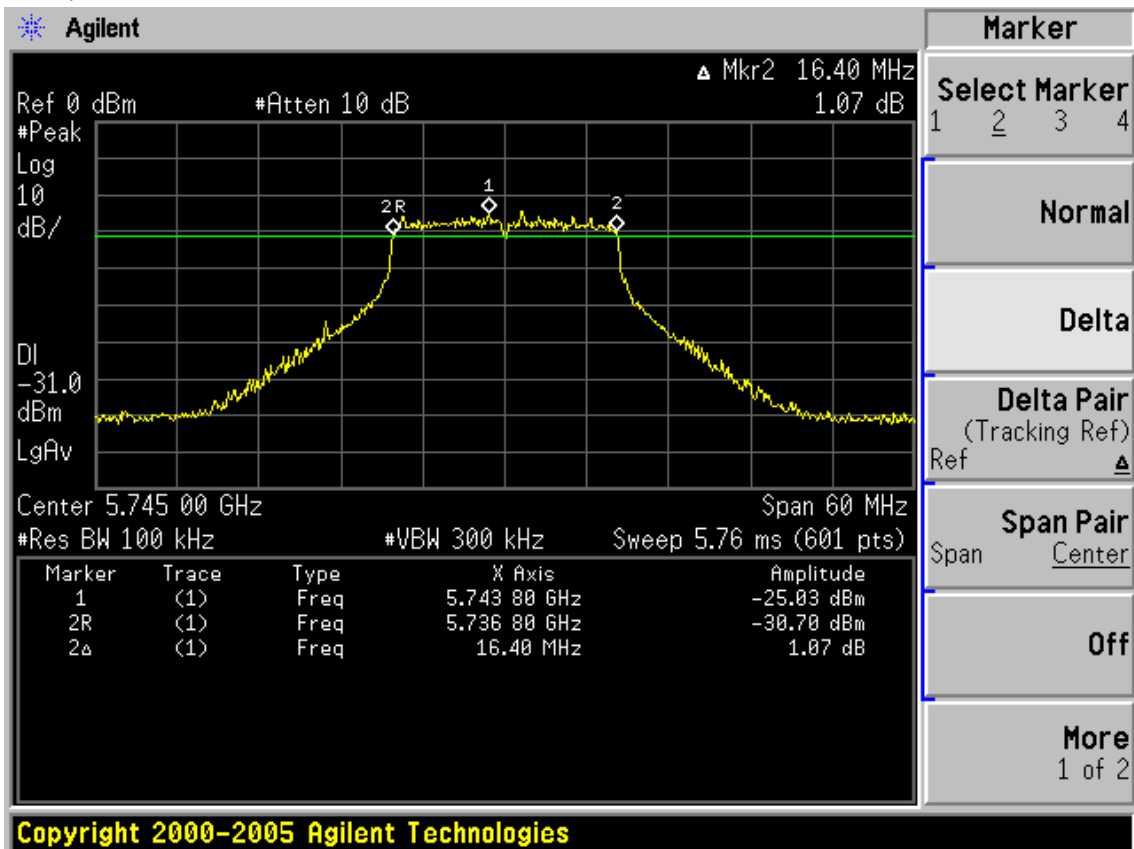
Test Mode: IEEE 802.11a TX

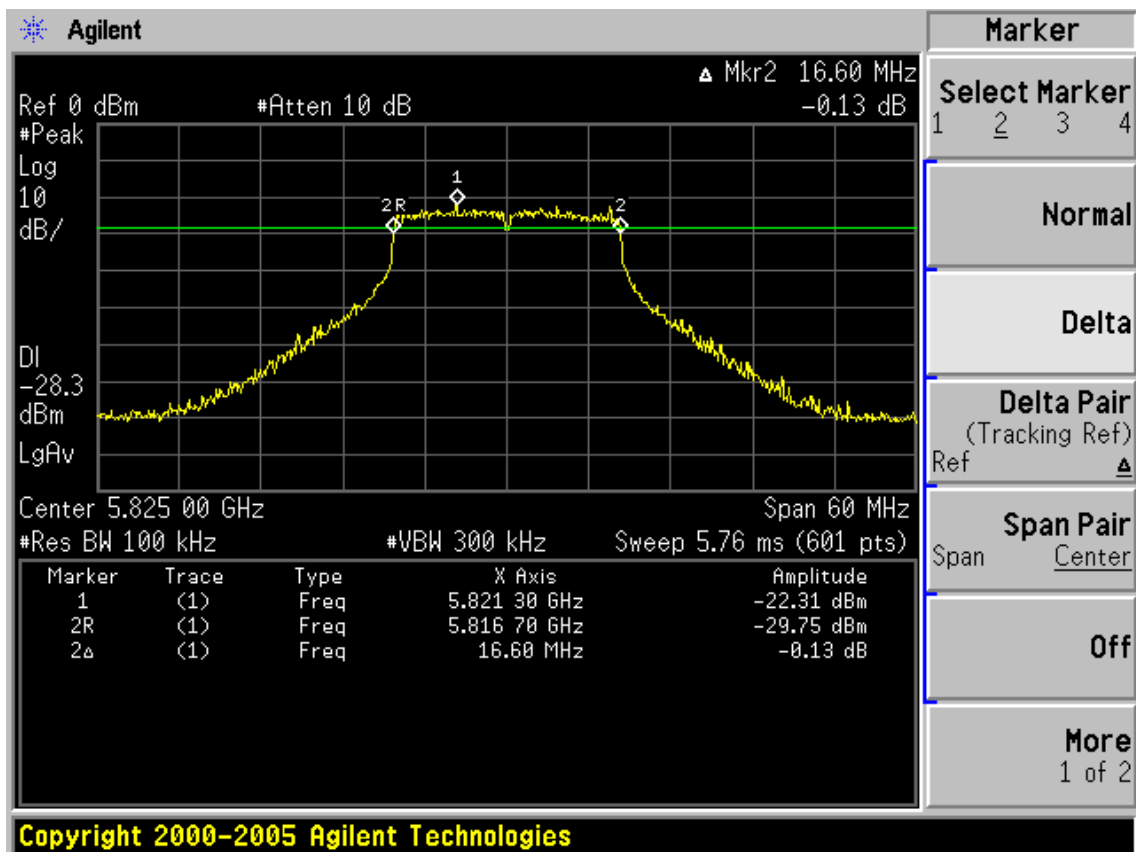
AT1:



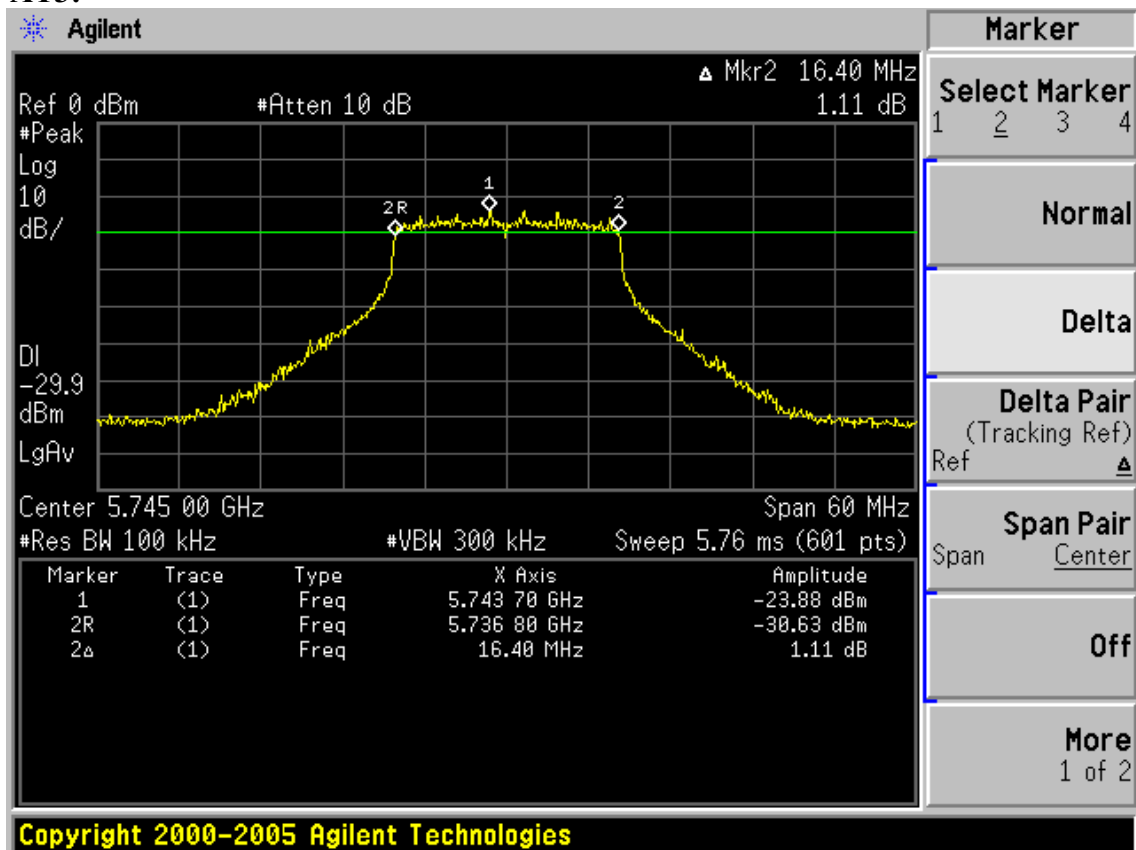


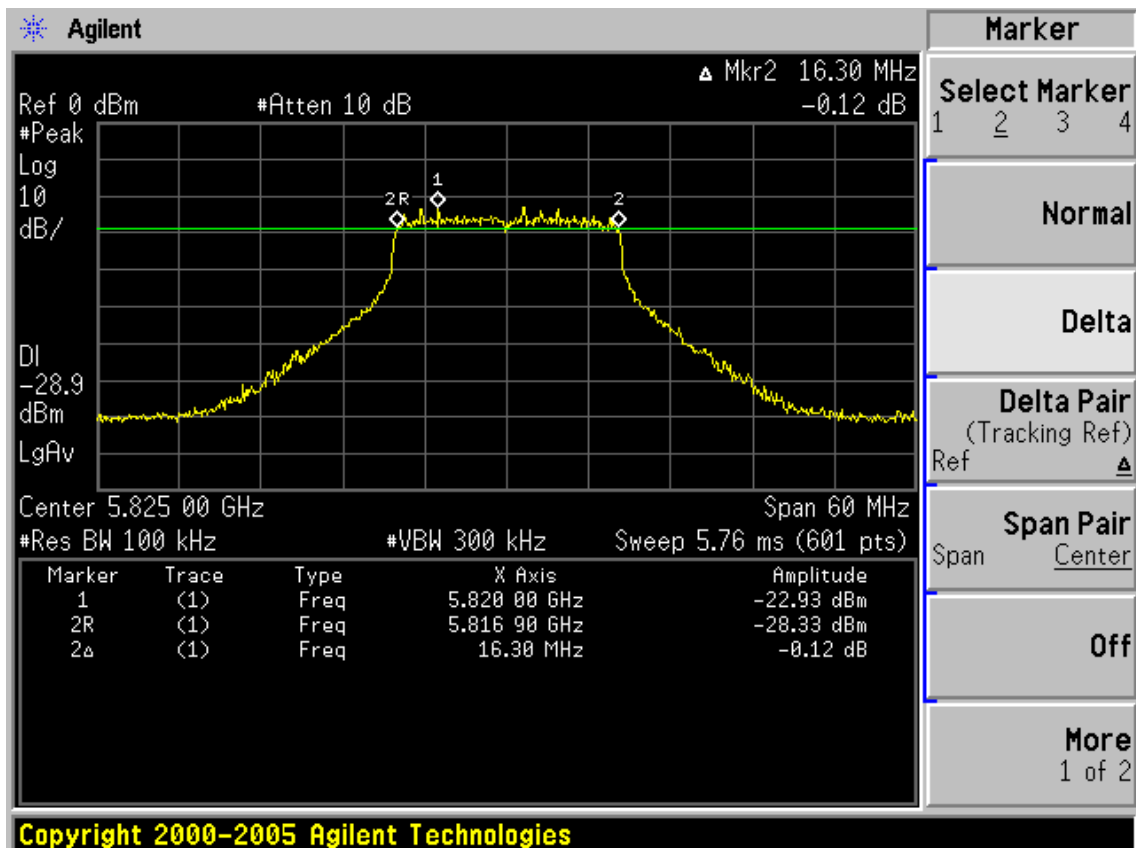
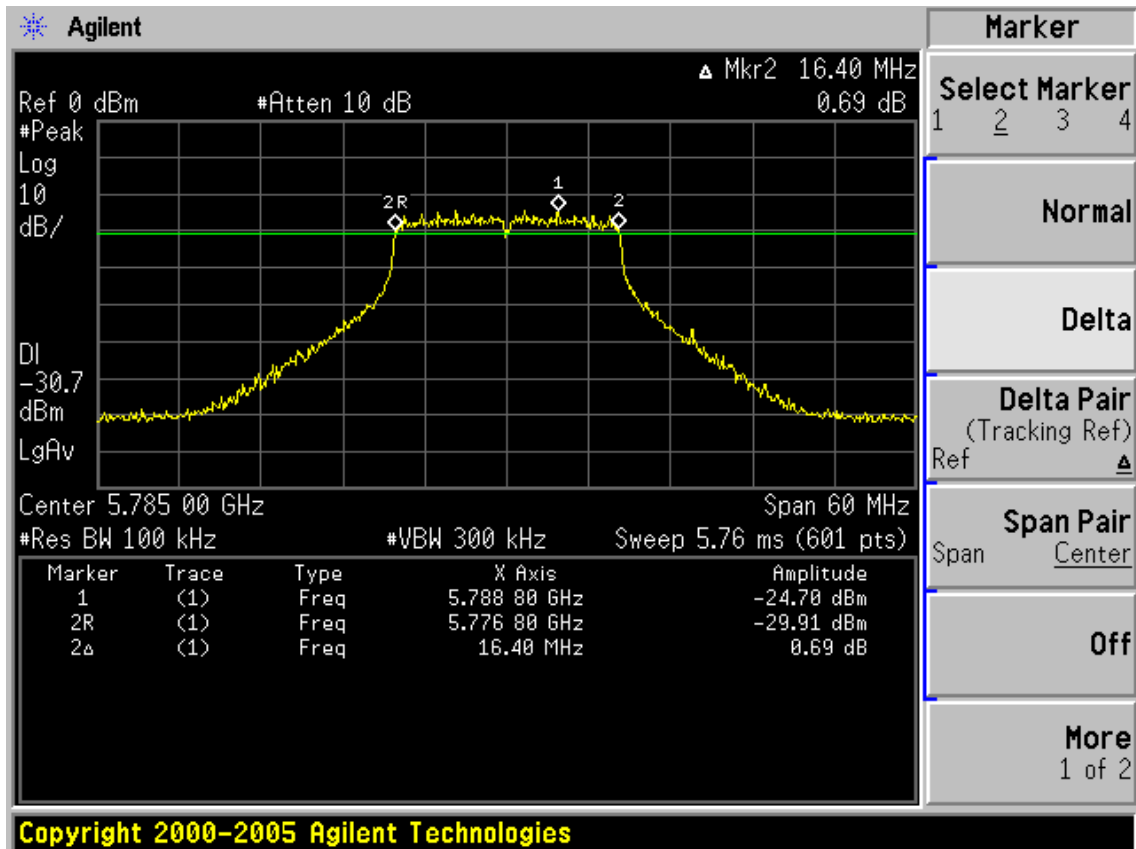
AT2:





AT3:





8. OUTPUT POWER TEST

8.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 09	1 Year
2.	Horn Antenna	EMCO	3115	9607-4877	May. 27, 08	1.5 Year
3.	Horn Antenna	EMCO	3115	9510-4580	May.10, 09	1.5 Year
4.	Signal Generator	HP	83732B	VS3449051	May.08, 09	1 Year
5.	Amplifier	Agilent	8449B	3008A02495	Nov.24.08	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX 102	28620/2	May.08, 09	1 Year
7.	RF Cable	Hubersuhner	SUCOFLEX 102	271471/4	May.08, 09	1 Year
8.	RF Cable	Hubersuhner	SUCOFLEX 102	29086/2	May.08, 09	1 Year
9.	RF Cable	Hubersuhner	SUCOFLEX 102	271473/4	May.08, 09	1 Year
10.	RF Cable	Hubersuhner	SUCOFLEX 102	29091/2	May.08, 09	1 Year

8.2. Limit(FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

8.3. Test Procedure

The transmitter output was connected to a spectrum analyzer by suitable attenuation, the channel power measure function of spectrum Analyzer was used to measure out the PK output power of device. According power output option 2, method #3 of KDB558074.2.

8.4. Test Results

EUT: Altai A3 Smart WiFi M/N:WA3011N							
Power: DC 56V From adapter input AC 120V/60Hz							
Data Rate:11b 1Mbps; 11g: 6Mbps; 11n HT20: 6.5Mbps; 11n HT40: 13.5Mbps;11a:6MHz							
Ambient Temperature:24°C				Relative Humidity: 62%			
Test date:2009-06-13				Test by: Sunny-lu			
Mode	CH	Chain 1	Chain 2	Chain 3	FCC Total PK power (dBm)	FCC Limit (dBm)	Margin (dB)
		PK Level (dBm)	PK Level (dBm)	PK Level (dBm)			
11b	CH1	21.97	22.25	22.35	26.96	30.00	3.04
	CH6	22.40	22.04	22.13	26.96	30.00	3.04
	CH11	22.11	21.74	22.10	26.76	30.00	3.24
11g	CH1	22.13	22.16	22.38	27.00	30.00	3.00
	CH6	21.82	22.29	22.45	26.97	30.00	3.03
	CH11	22.10	22.15	22.38	26.98	30.00	3.02
11n HT20	CH1	22.12	21.98	22.09	26.83	30.00	3.17
	CH6	22.09	22.08	22.31	26.93	30.00	3.07
	CH11	22.11	22.13	22.28	26.95	30.00	3.05
	CH149	22.13	22.25	22.19	26.96	28.00	1.04
	CH157	21.96	22.18	22.10	26.85	28.00	1.15
	CH165	22.01	22.12	22.32	26.92	28.00	1.08
11n HT40	CH3	22.11	22.20	22.38	27.00	30.00	3.00
	CH6	22.09	22.21	22.35	26.99	30.00	3.01
	CH9	22.08	22.19	22.34	26.98	30.00	3.02
	CH151	21.85	21.12	21.96	26.43	28.00	1.57
	CH159	22.15	22.28	22.23	26.99	28.00	1.01
11a	CH149	22.75	20.55	20.65	26.21	28.00	1.79
	CH157	22.68	21.24	20.95	26.46	28.00	1.54
	CH165	22.42	22.48	21.68	26.98	28.00	1.02
Conclusion: PASS							
Total power=Chain1 Level +Chain2 Level+Chain3 Level(Linear)							
The device's antenna gain for 5GHz is 8dBi, so the limit shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.							

9. POWER SPECTRAL DENSITY TEST

9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4446A	US44300459	May,08, 09	1 Year
2	Attenuator	Agilent	8491B	MY39262165	May,08, 09	1 Year
3	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May,08, 09	1Year

9.2. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.3. Test Procedure

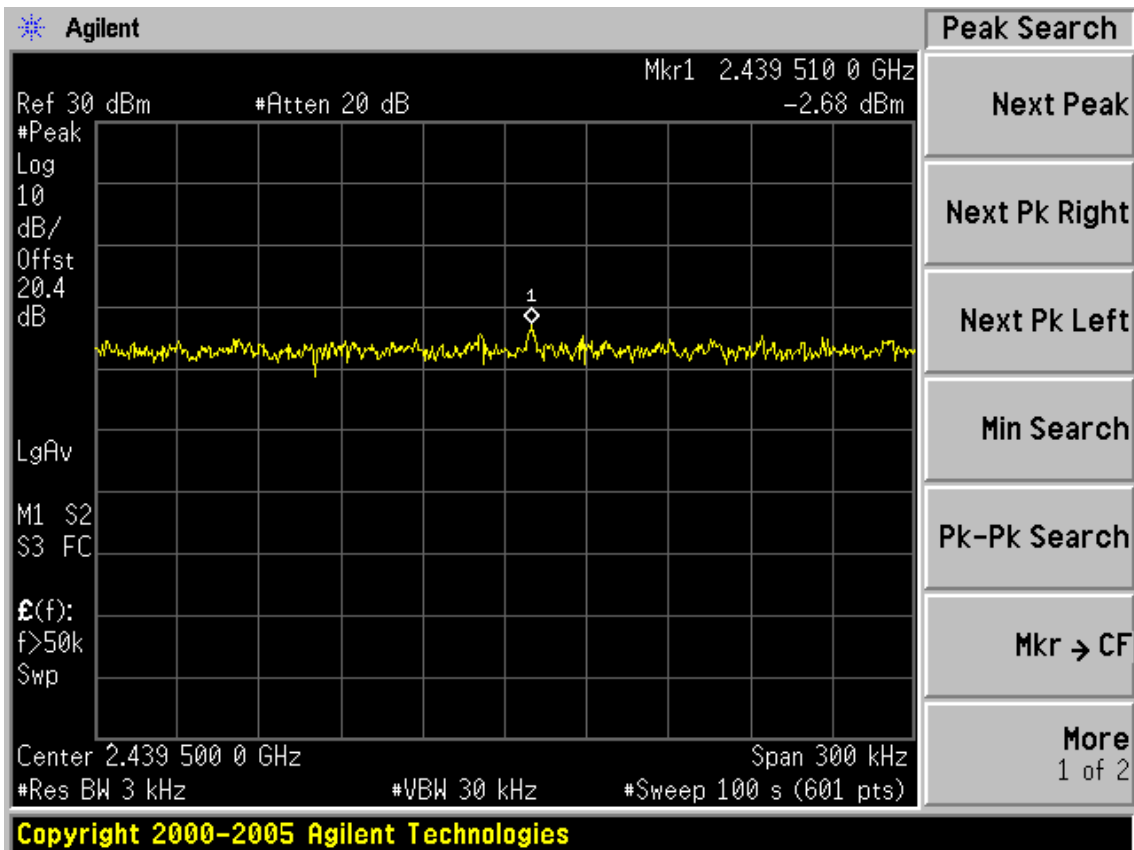
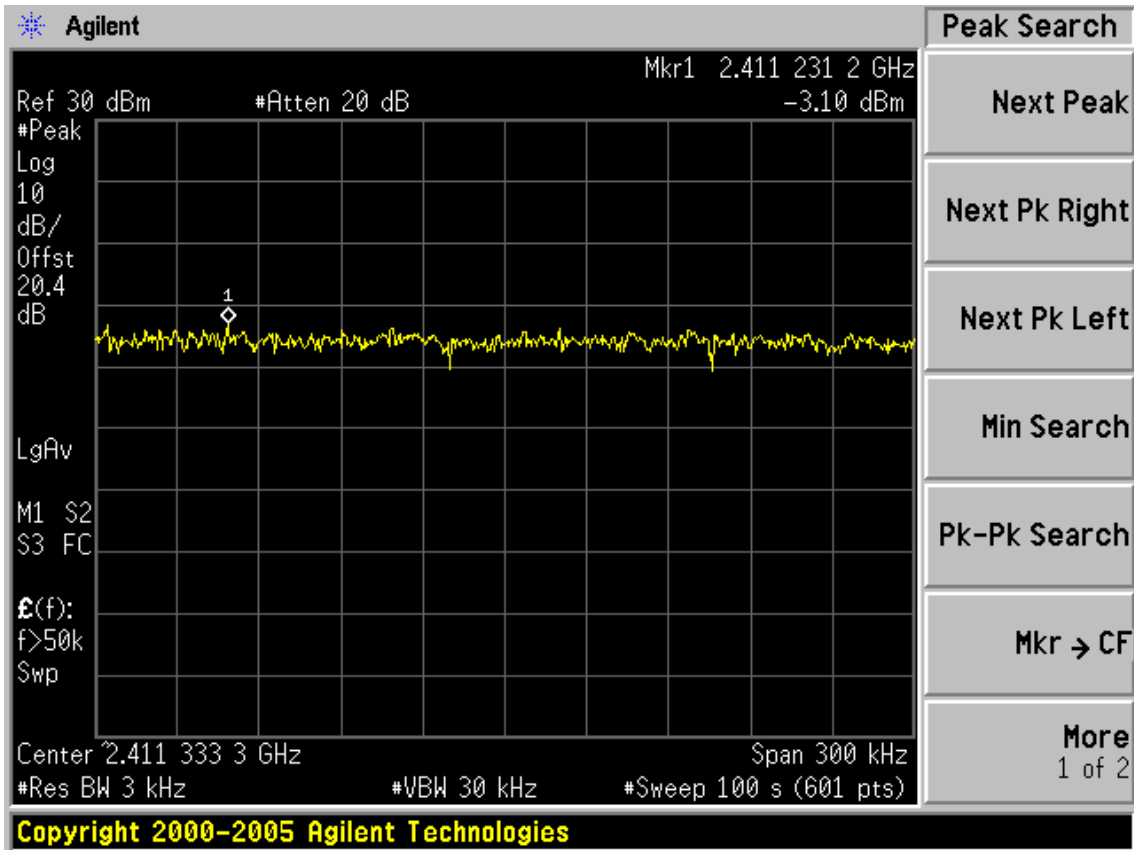
The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 3kHz RBW and 30kHz VBW, sweep time=span/3kHz according PSD option 1 of KDB 558074.

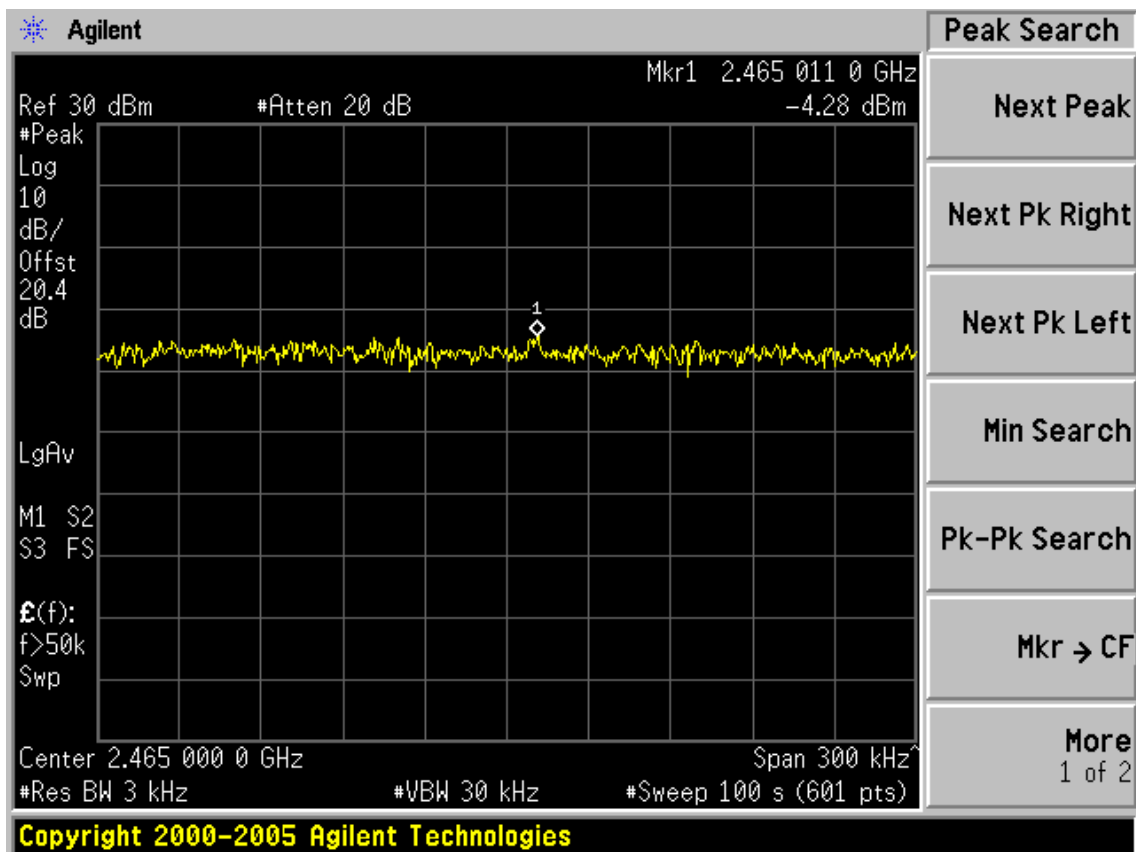
9.4.Test Results

EUT: Altai A3 Smart WiFi M/N:WA3011N							
Power: DC 56V From adapter Input AC 120V/60Hz							
Data Rate:11b 1Mbps; 11g; 6Mbps; 11n HT20: 6.5Mbps; 11n HT40: 13.5Mbps;11a:6MHz							
Ambient Temperature:23℃				Relative Humidity: 61%			
Test date:2009-06-11				Test by:Sunny_Lu			
Mode	CH	Chain1	Chanin 2	chain 3	FCC Total PK power(dBm)	FCC Limit (dBm)	Margin (dB)
		PK Level (dBm)	PK Level (dBm)	PK Level (dBm)			
11b	CH1	-3.10	-2.51	-4.43	1.50	8.00	6.50
	CH6	-2.68	-4.02	-1.30	2.25	8.00	5.75
	CH11	-4.28	-4.15	-3.28	0.89	8.00	7.11
11g	CH1	-8.26	-8.22	-8.79	-3.64	8.00	11.64
	CH6	-8.45	-8.02	-10.27	-4.04	8.00	12.04
	CH11	-8.47	-8.69	-9.11	-3.98	8.00	11.98
11n HT20	CH1	-9.05	-9.12	-8.98	-4.28	8.00	12.28
	CH6	-8.95	-9.75	-7.96	-4.05	8.00	12.05
	CH11	-9.14	-8.57	-9.56	-4.30	8.00	12.30
	CH149	-9.64	-8.64	-9.84	-4.57	8.00	12.57
	CH157	-8.61	-7.11	-7.44	-2.90	8.00	10.90
	CH165	-6.20	-5.59	-8.36	-1.79	8.00	9.79
11n HT40	CH3	-11.59	-10.70	-12.90	-6.87	8.00	14.87
	CH6	-11.97	-12.30	-11.53	-7.15	8.00	15.15
	CH9	-12.08	-10.54	-11.93	-6.69	8.00	14.69
	CH151	-10.01	-12.22	-12.99	-6.78	8.00	14.78
	CH159	-10.36	-11.65	-11.48	-6.35	8.00	14.35
11a	CH149	-8.94	-9.47	-8.80	-4.29	8.00	12.29
	CH157	-7.59	-8.86	-7.86	-3.30	8.00	11.30
	CH165	-6.64	-6.27	-5.84	-1.47	8.00	9.47
Conclusion:PASS							
Total power=Chain1 Level +Chain2 Level+Chain3 Level(Linear)							

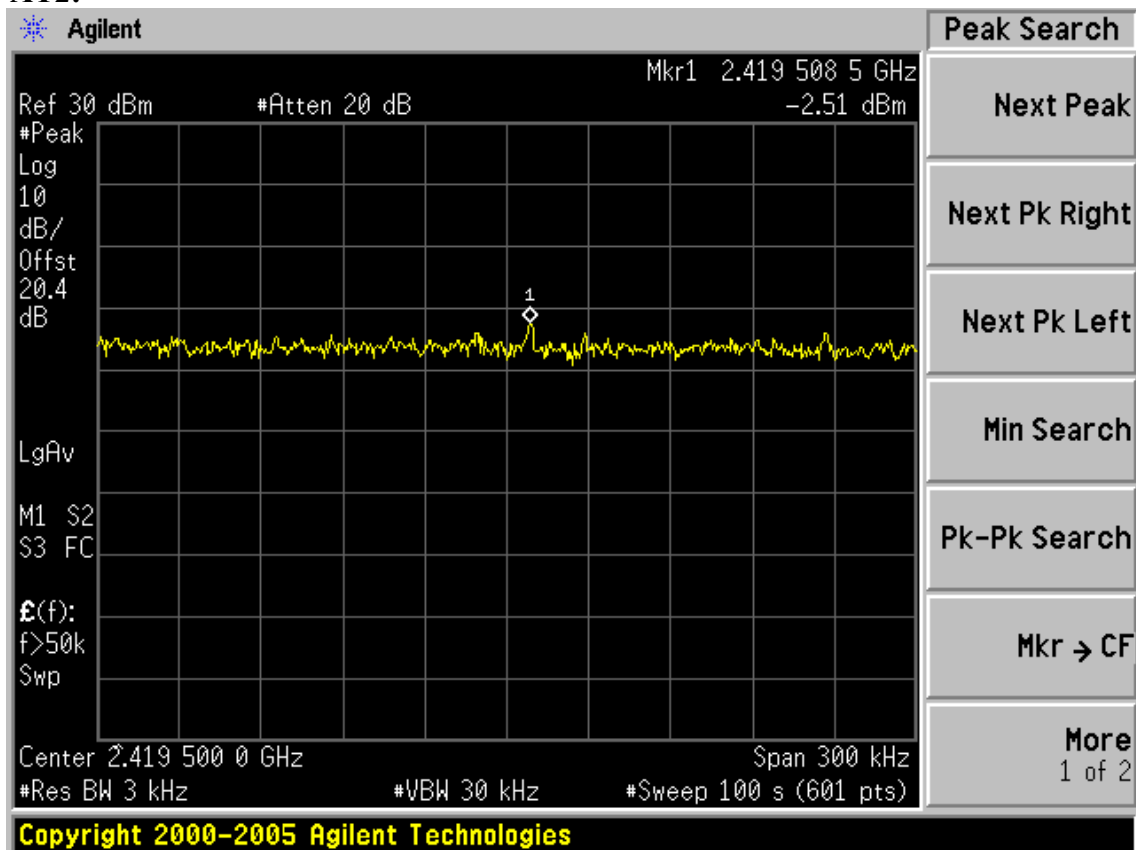
Test Mode: IEEE 802.11b TX

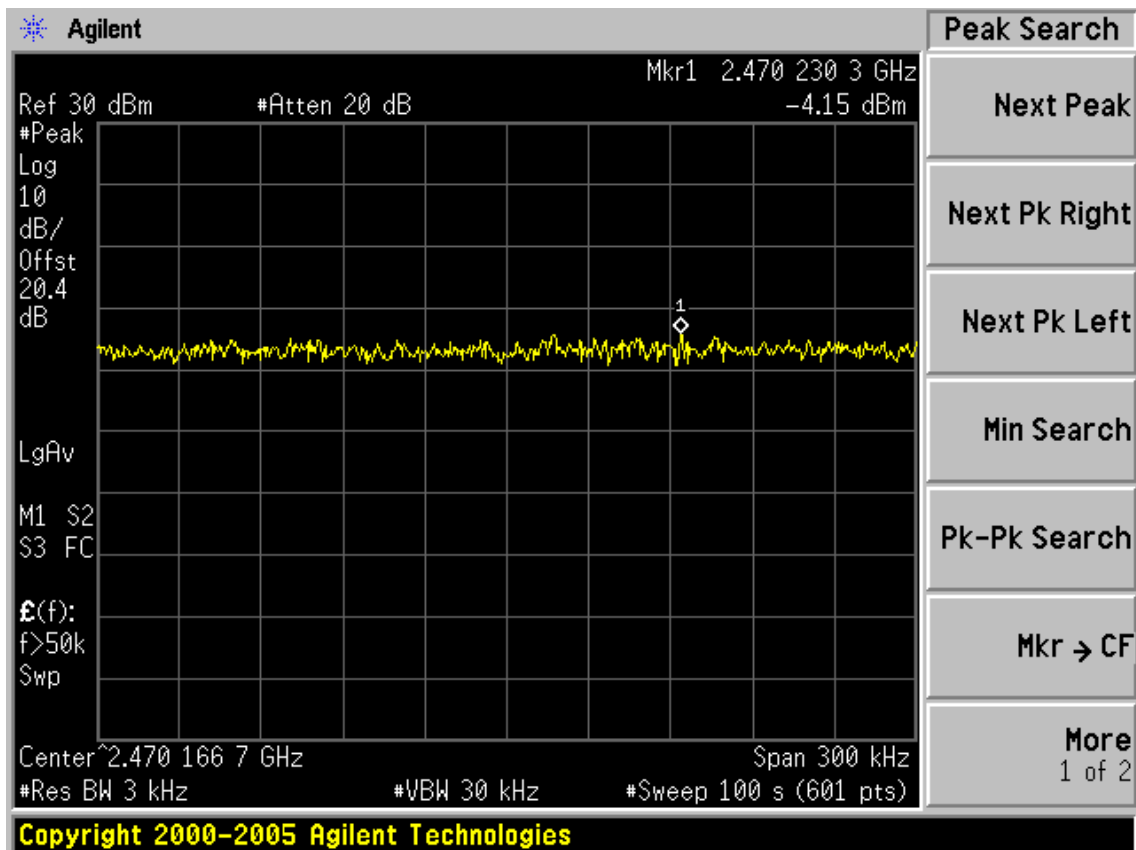
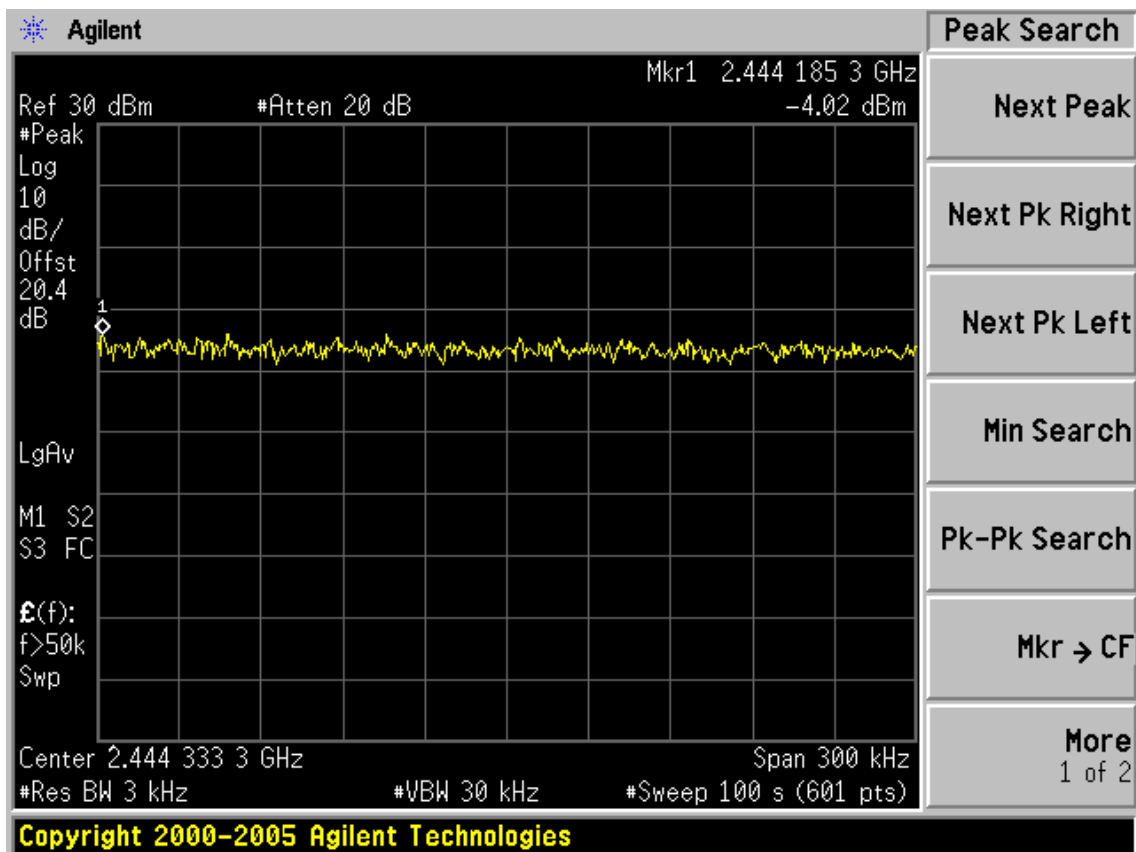
AT1:



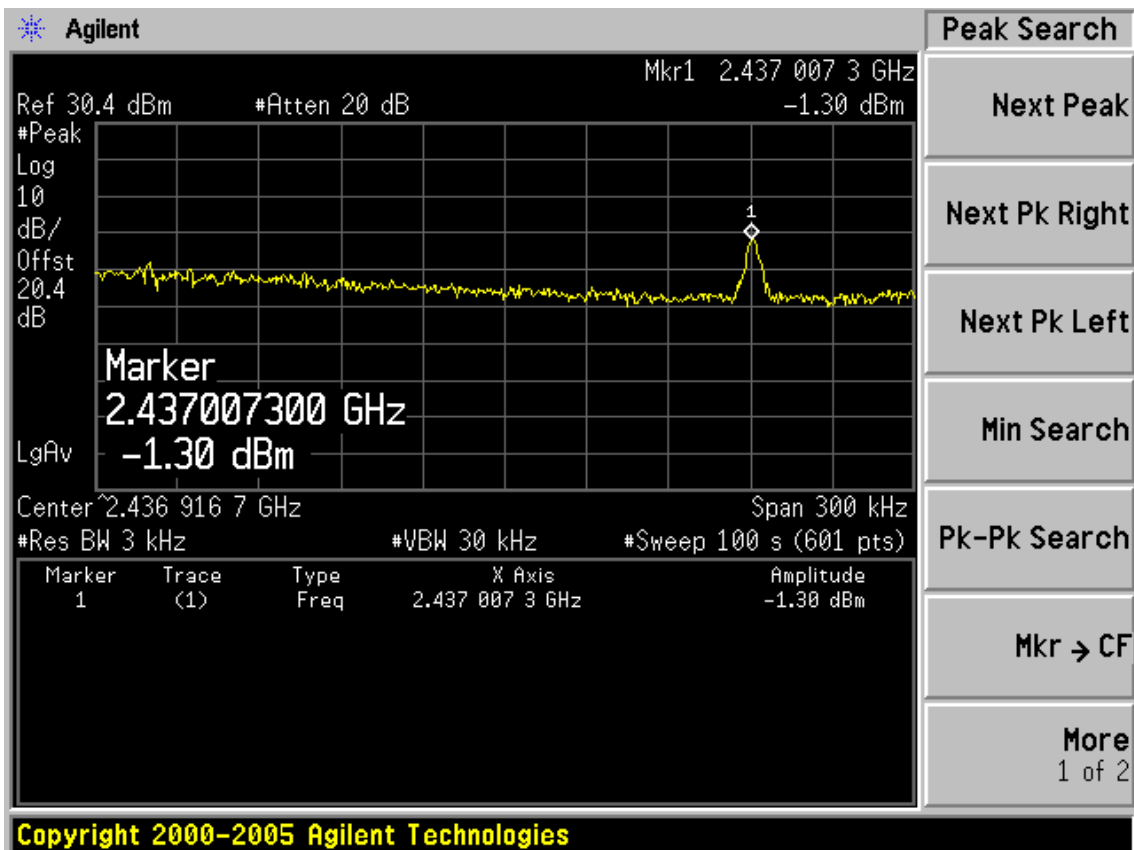
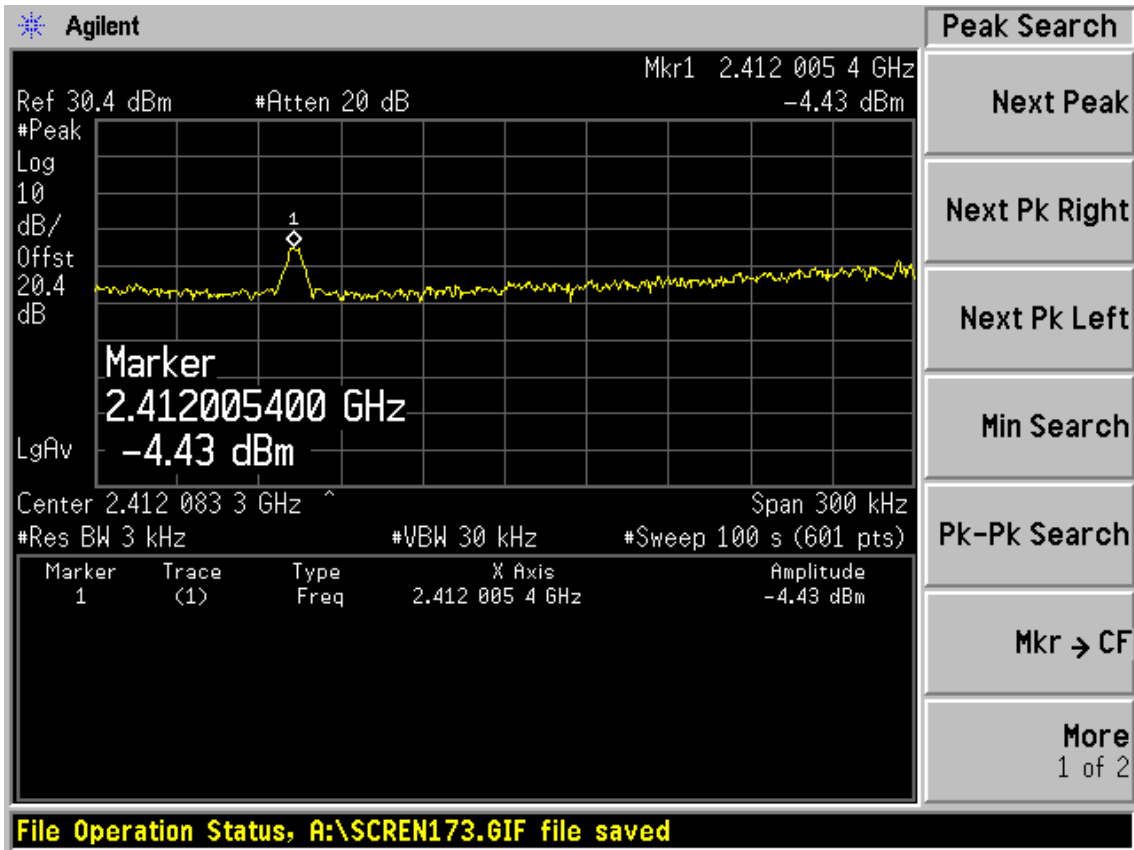


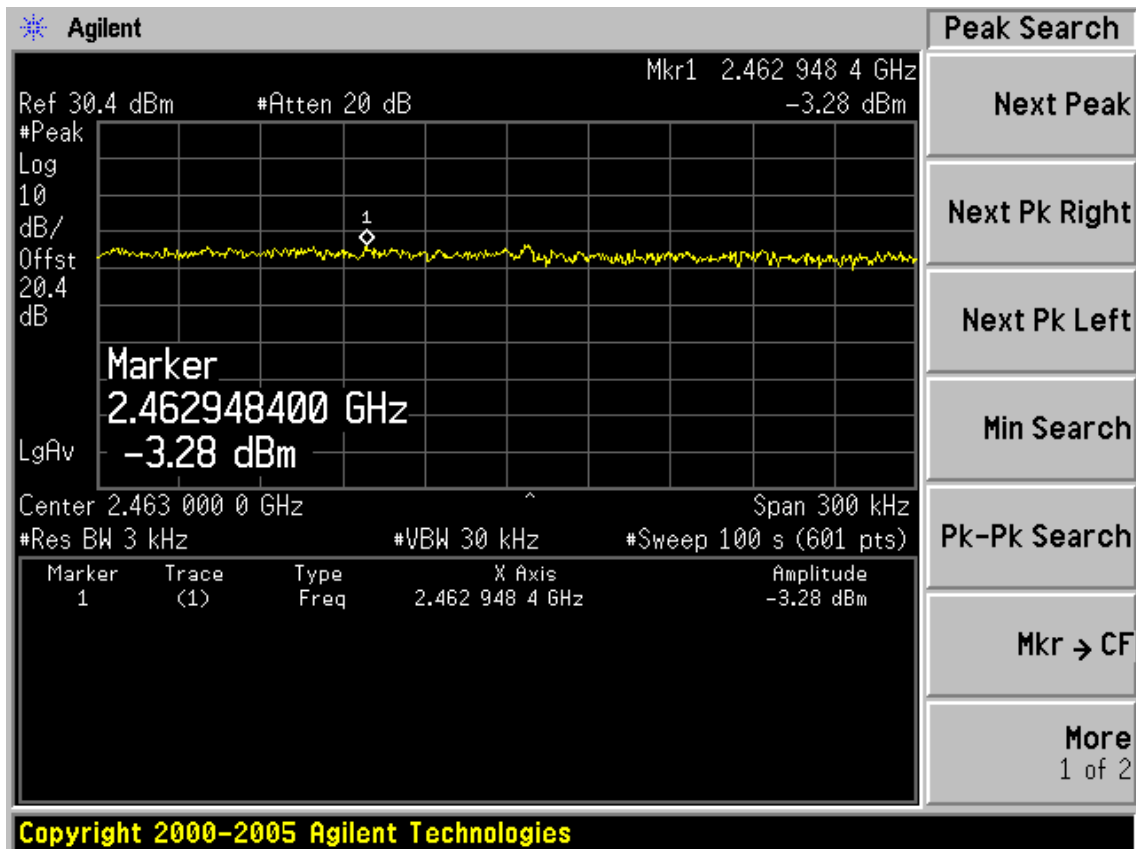
AT2:





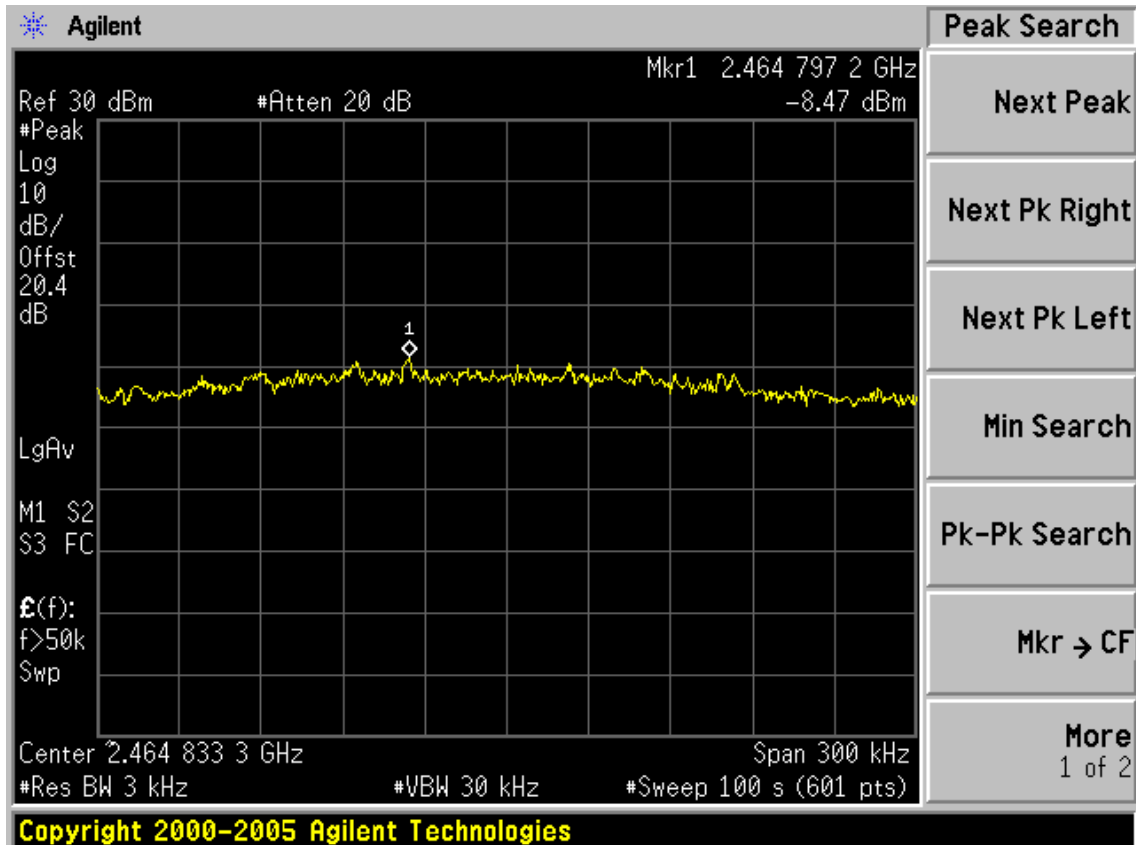
AT3:

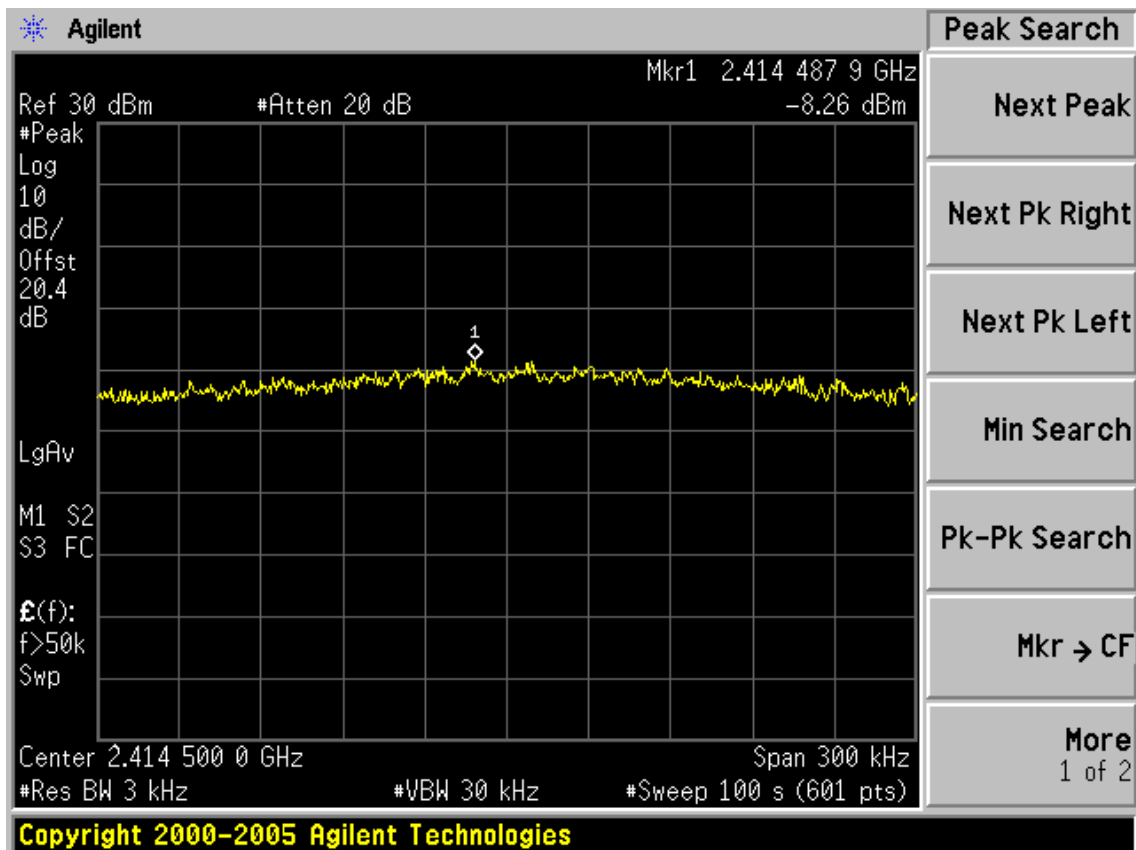
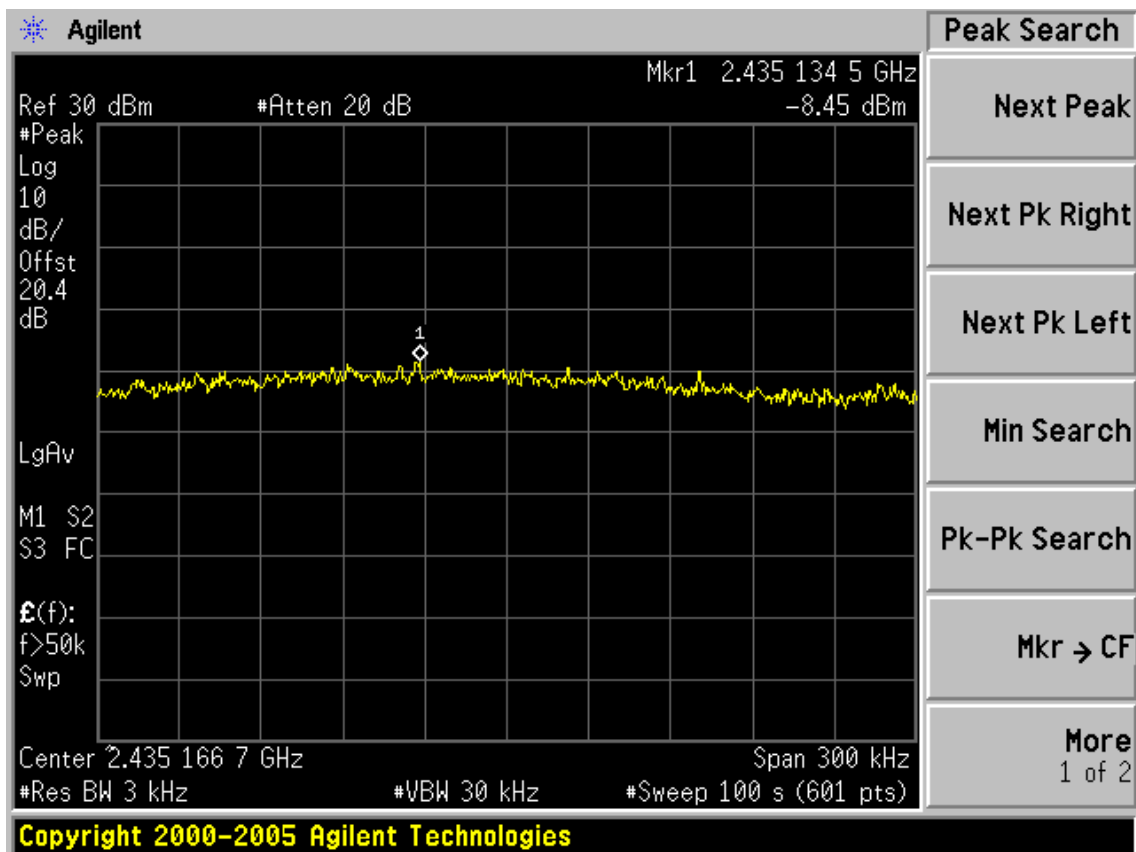




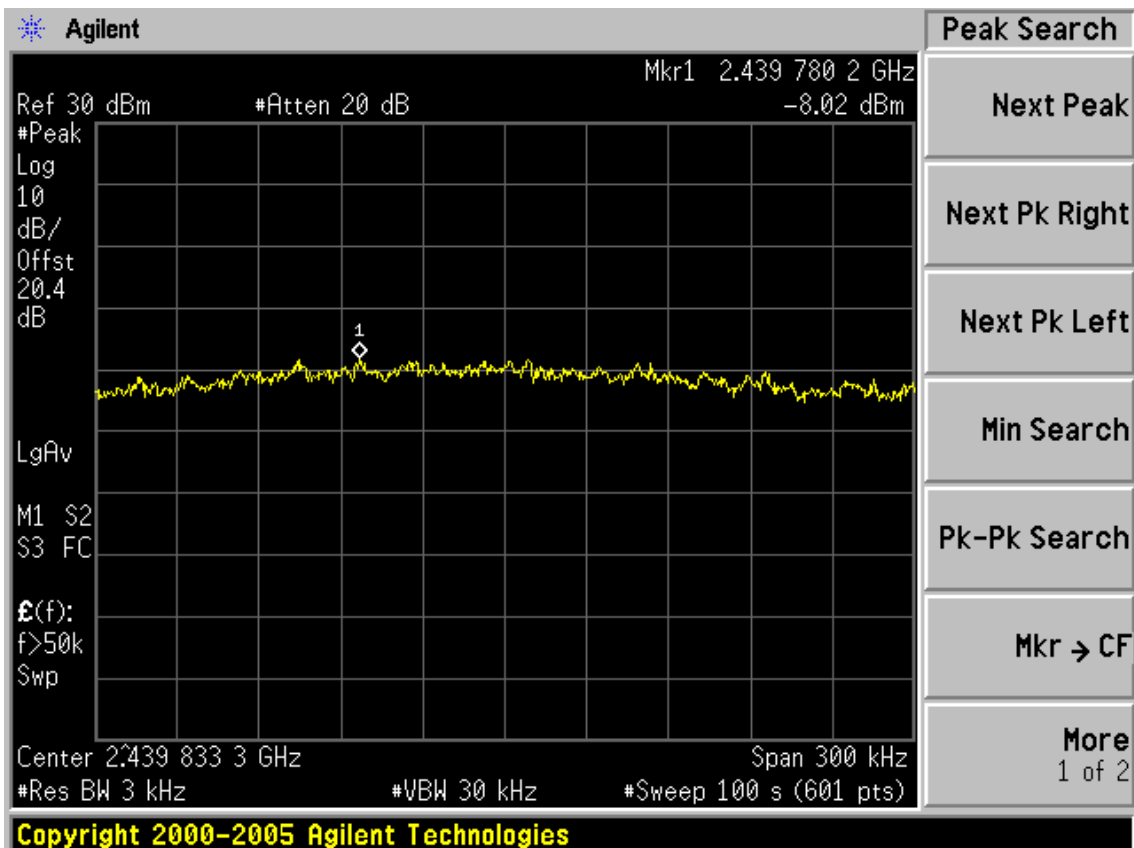
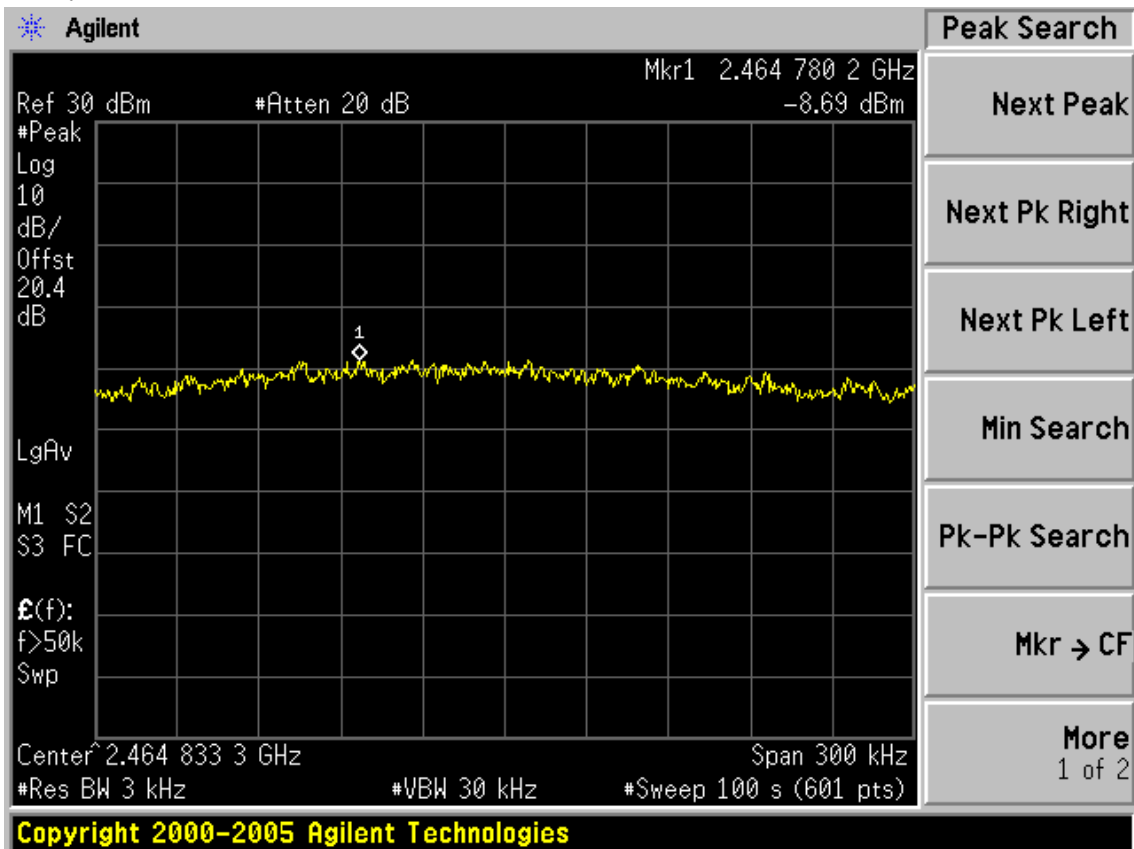
Test Mode: IEEE 802.11g TX

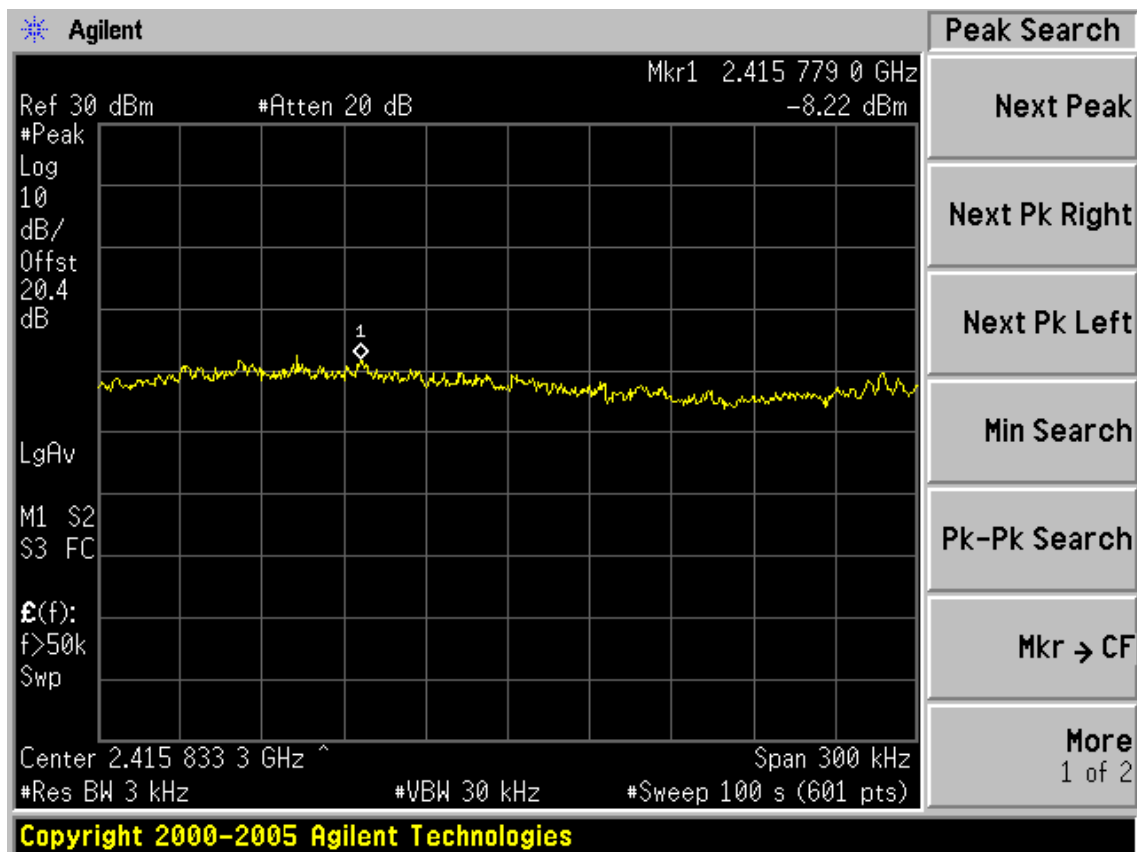
AT1:



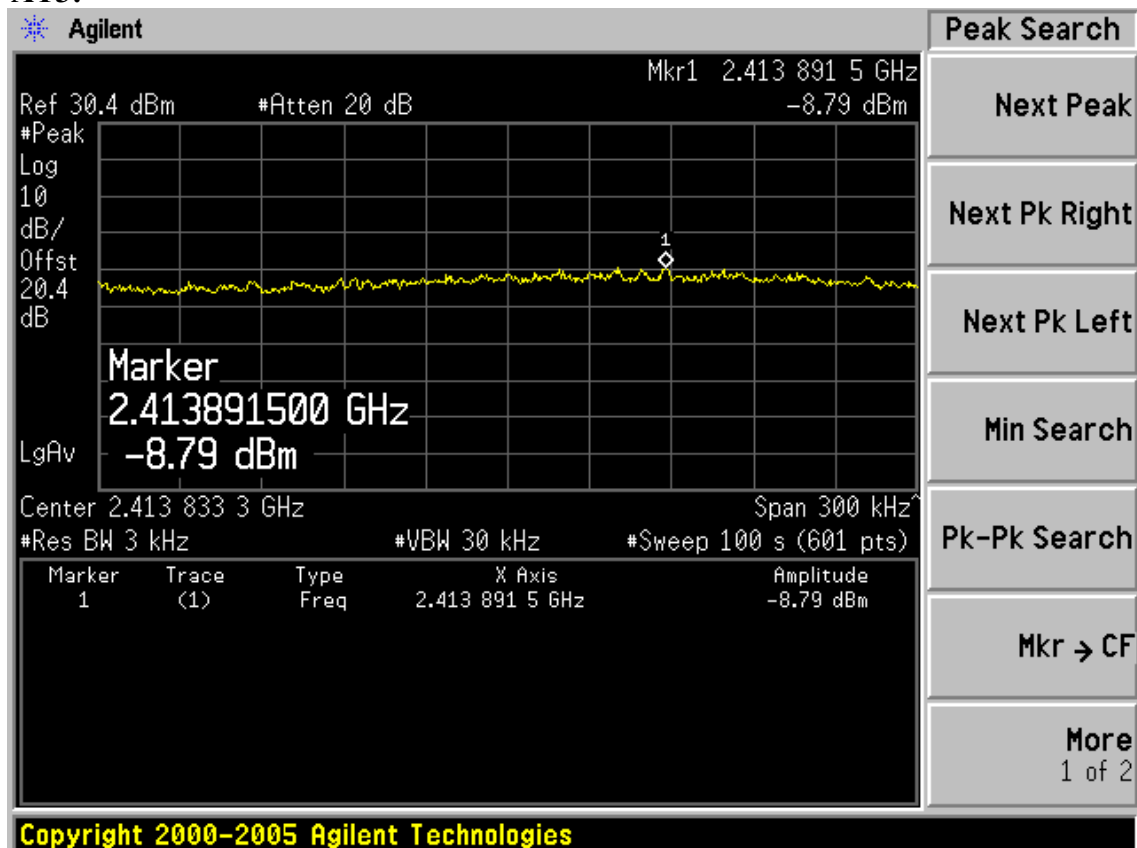


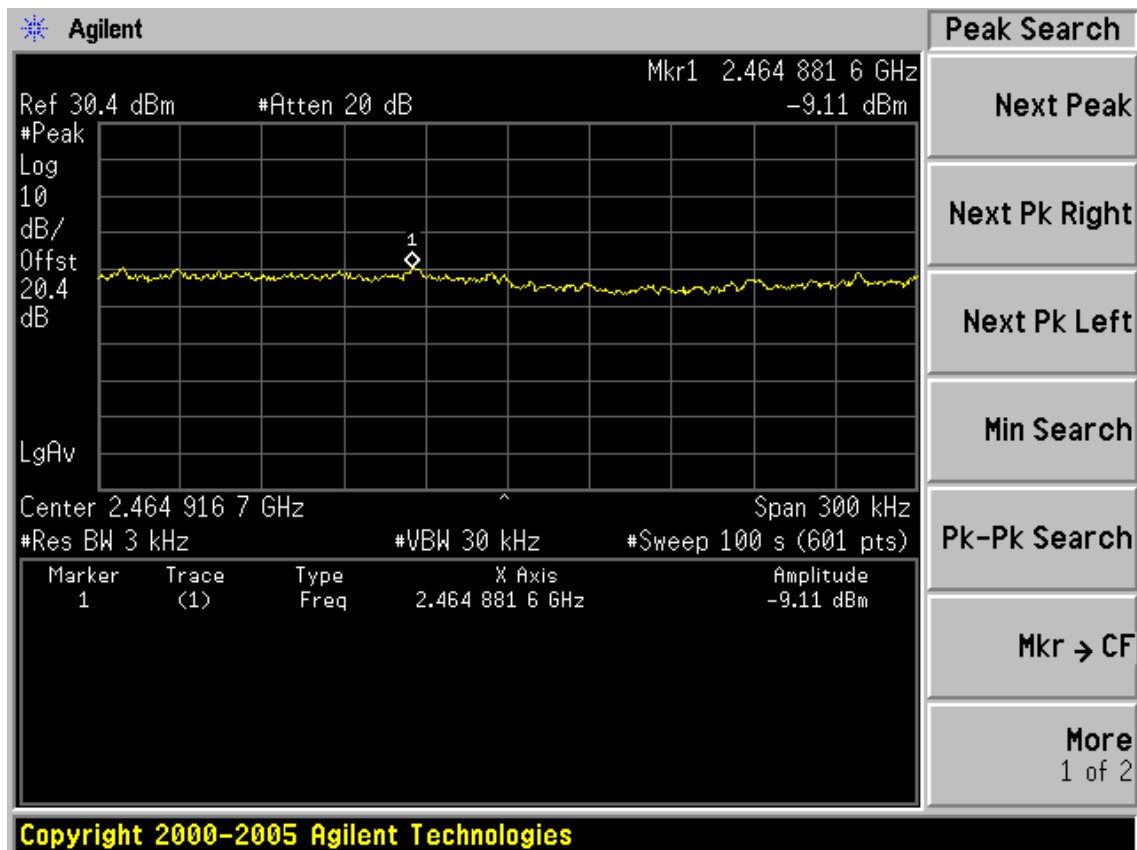
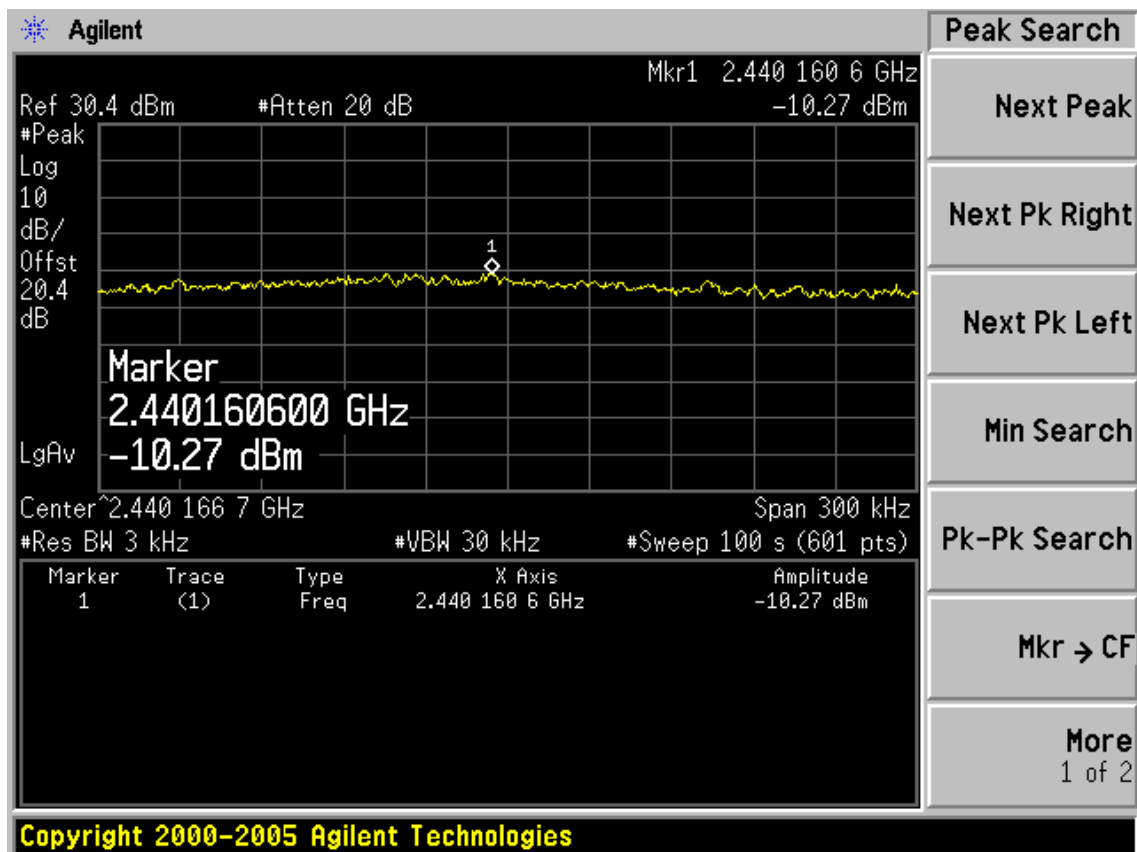
AT2:





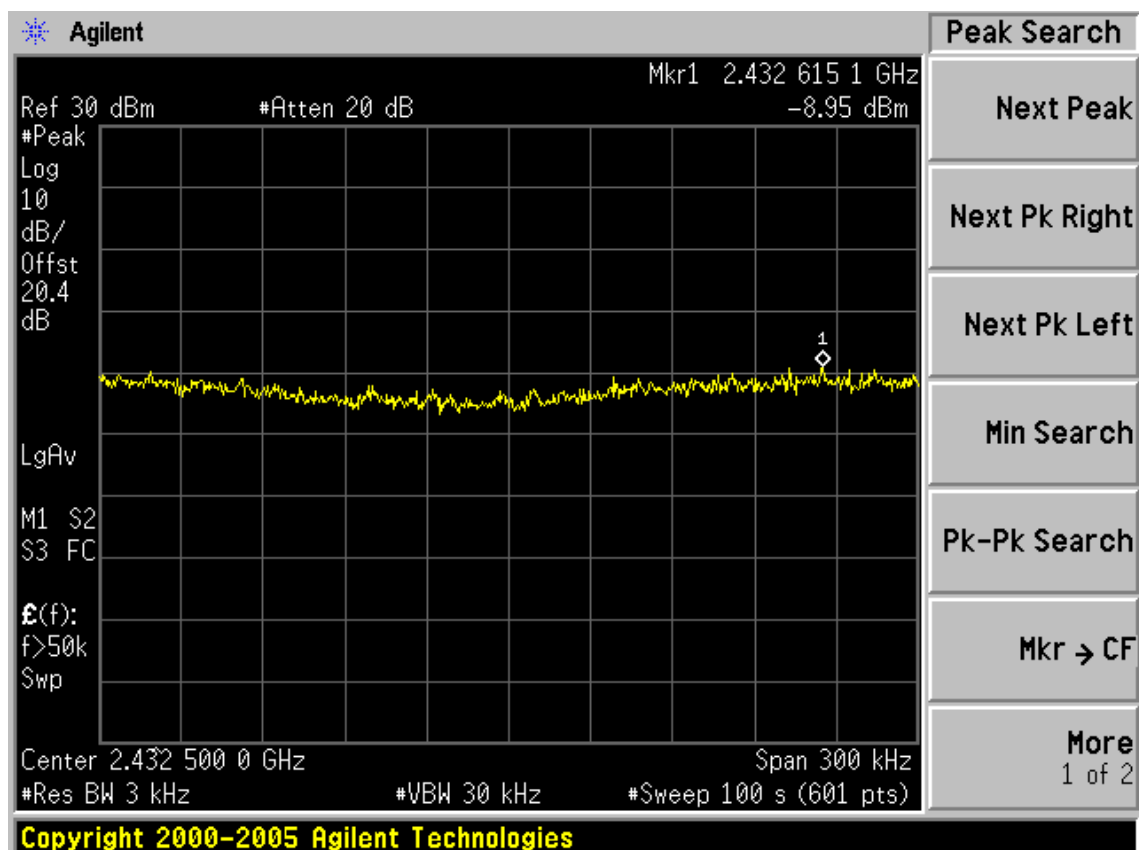
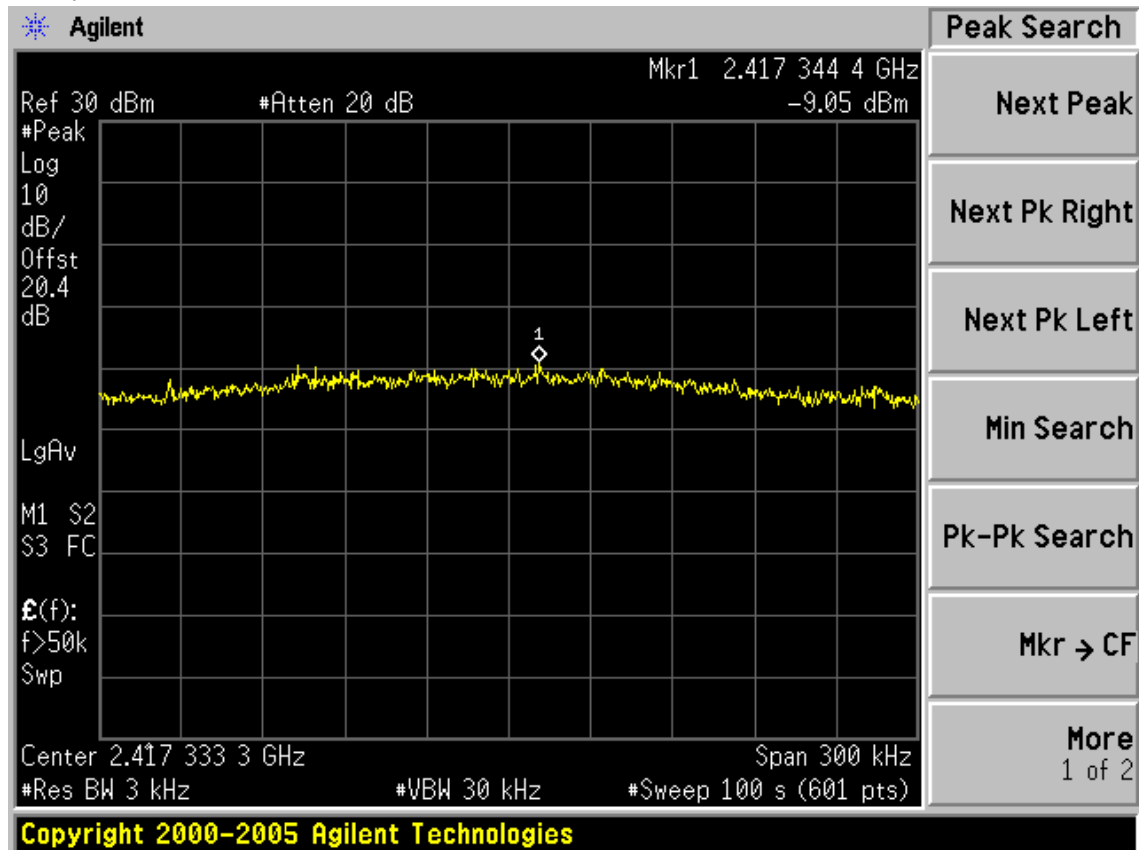
AT3:

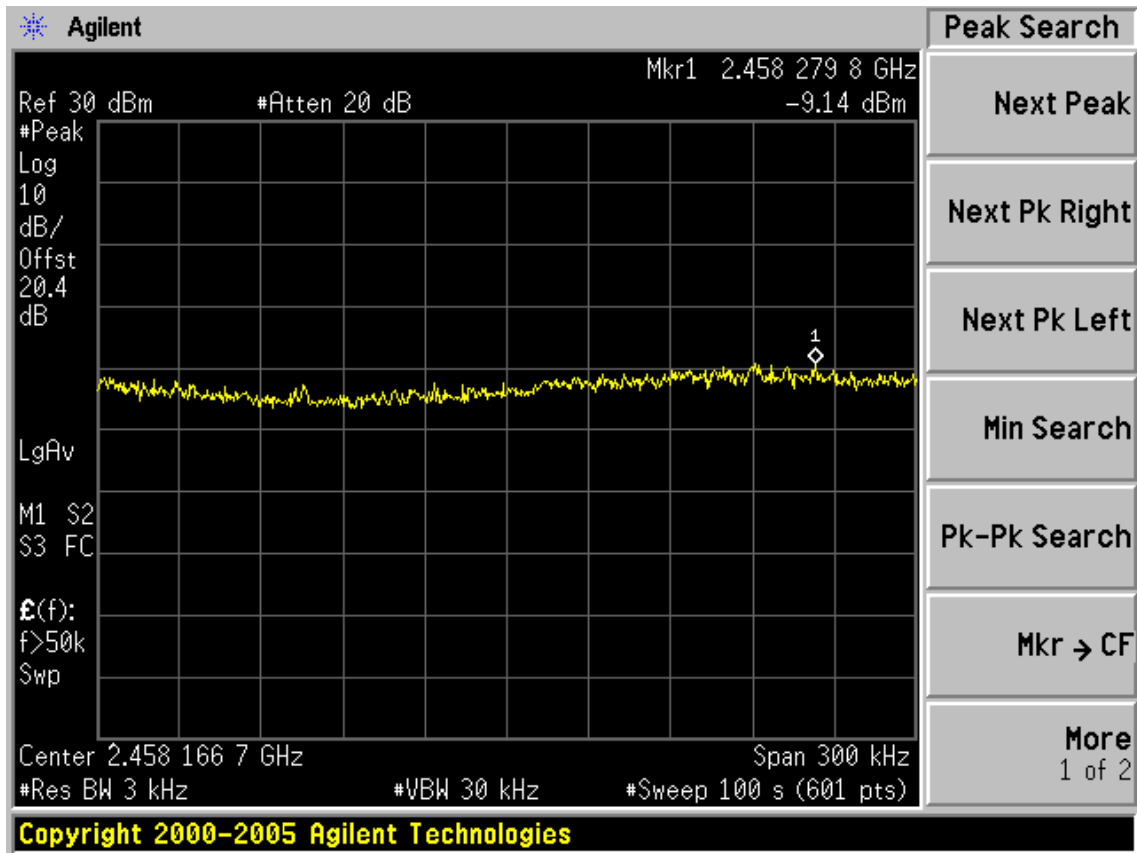




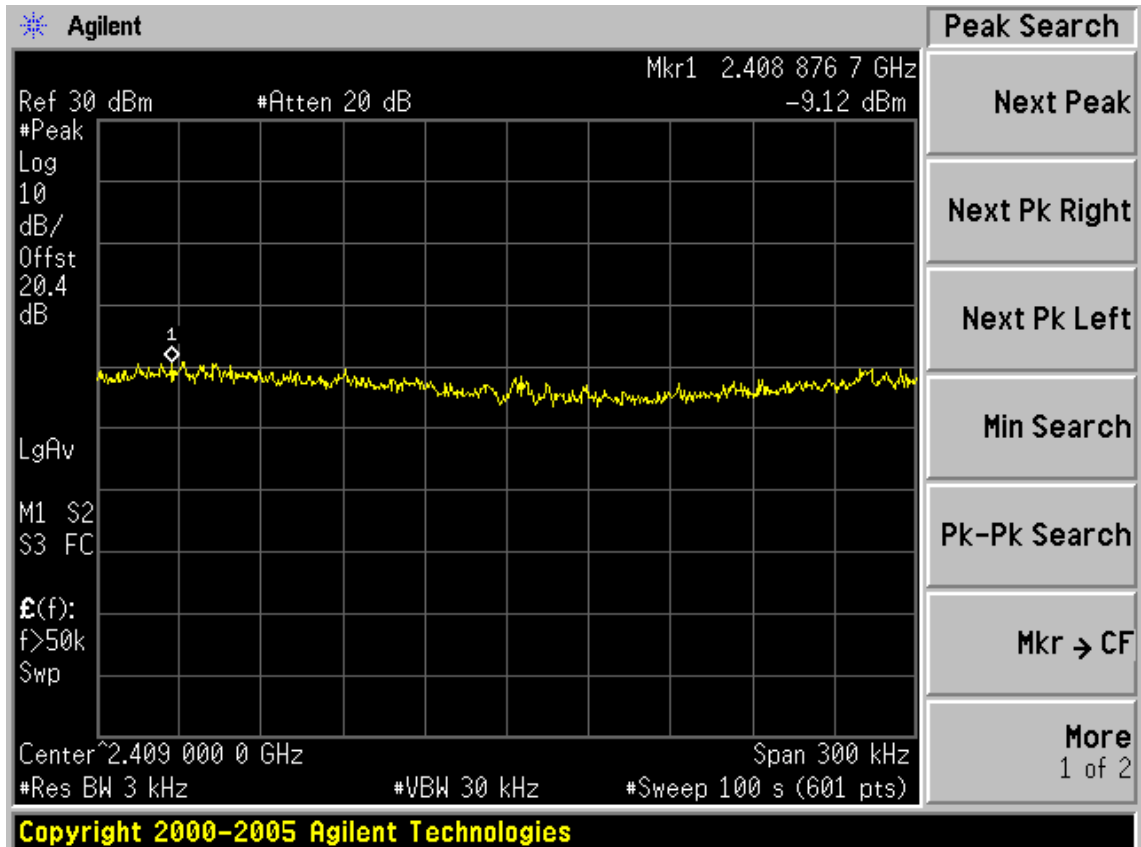
Test Mode: IEEE 802.11n HT20 TX (2.4G)

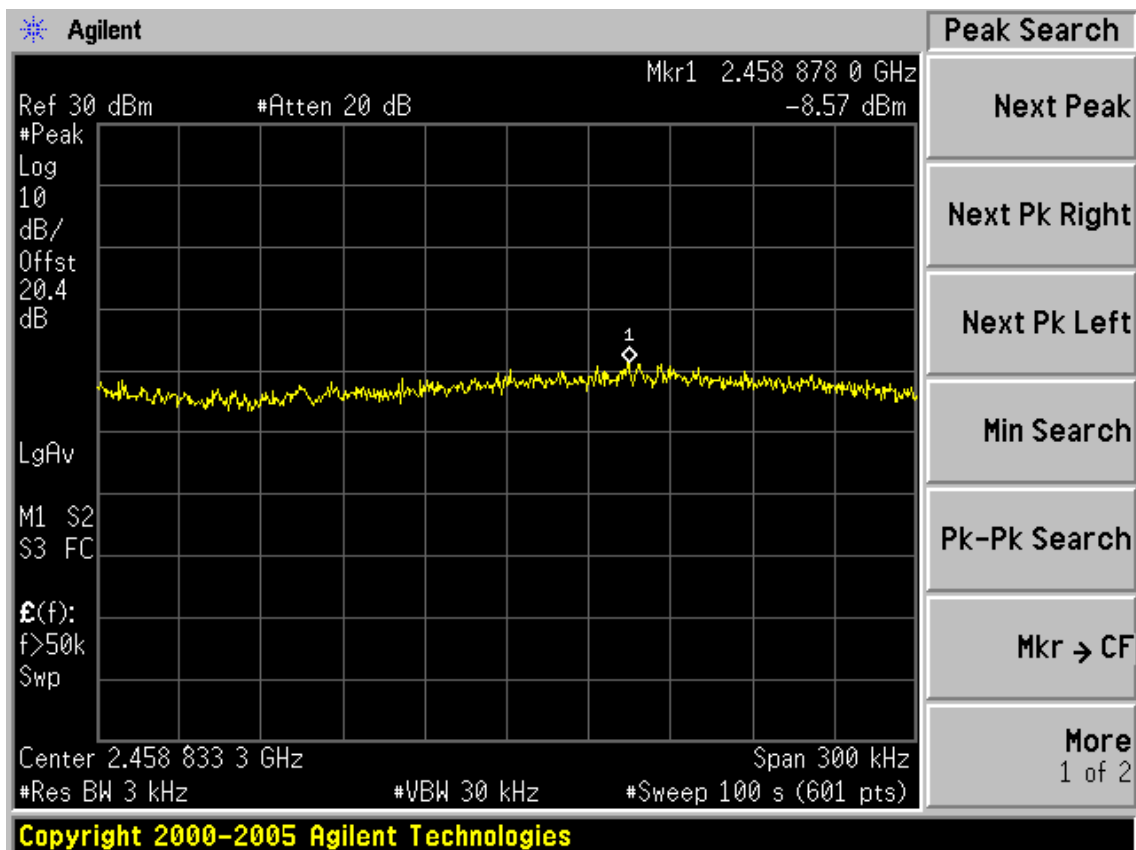
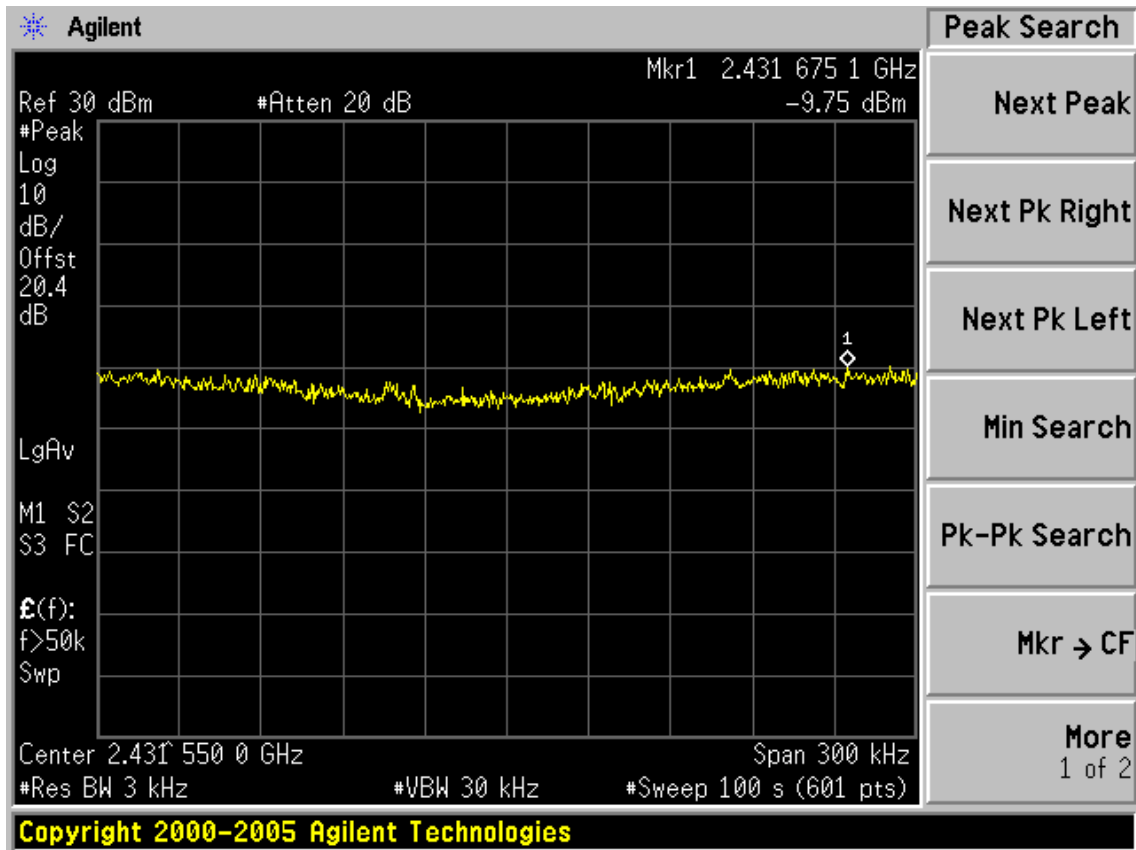
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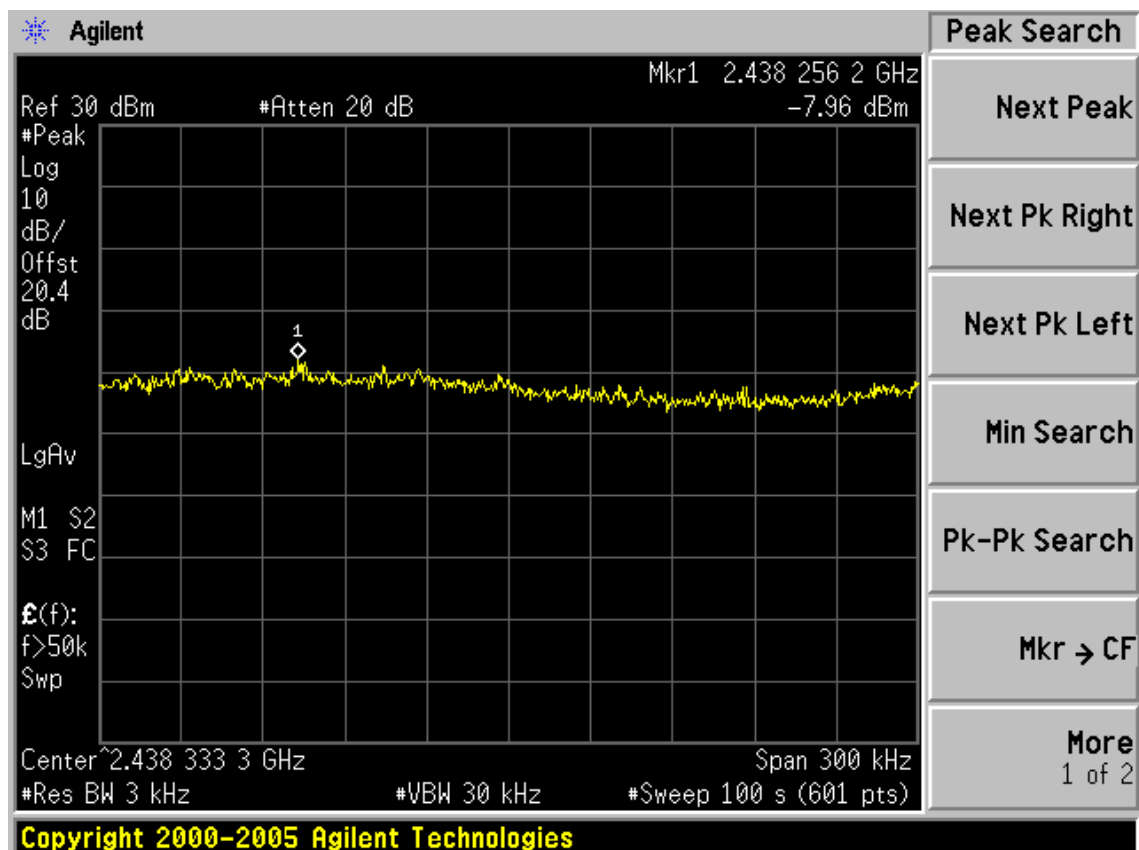
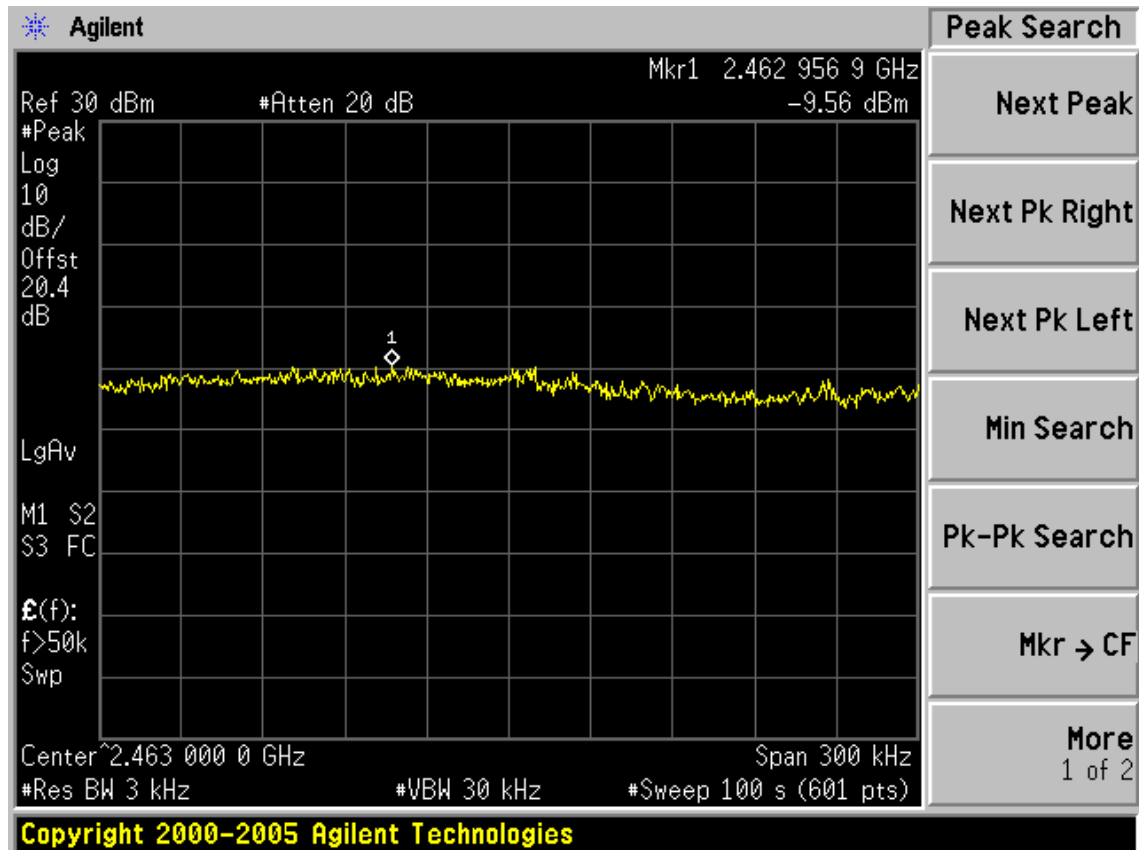


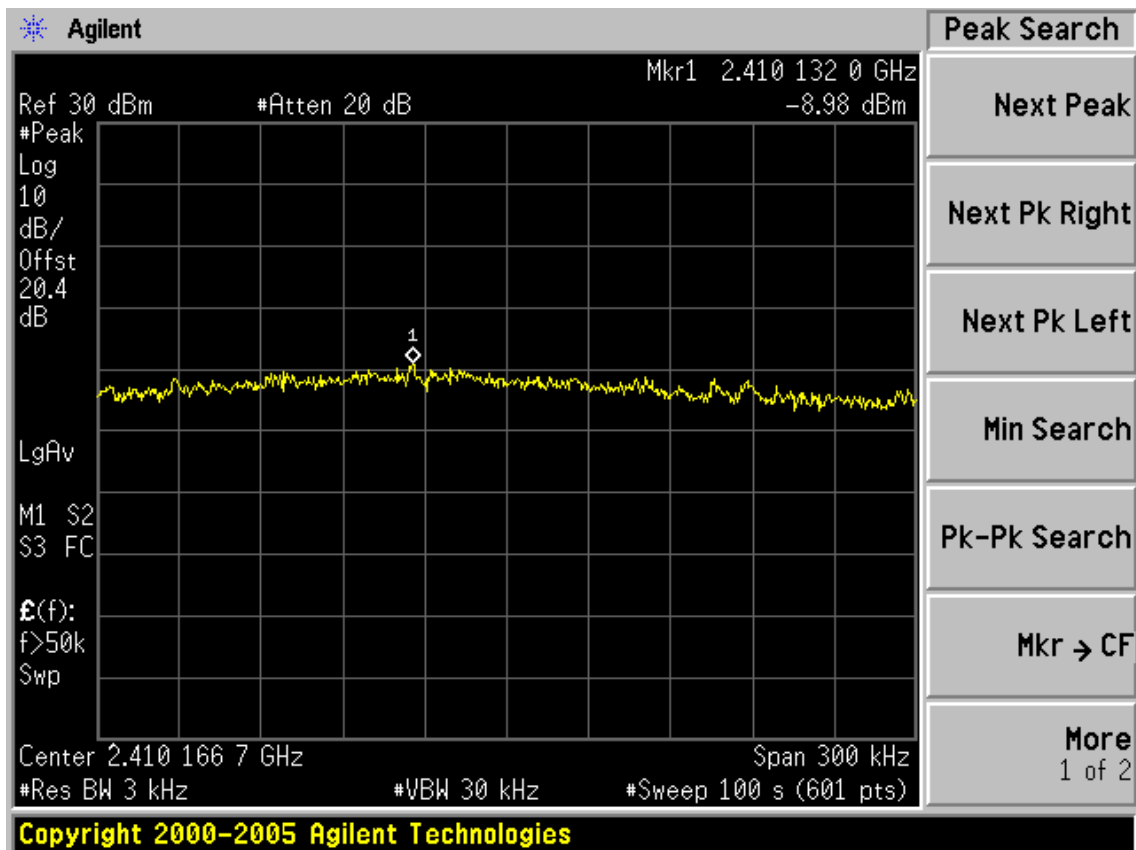
AT2:





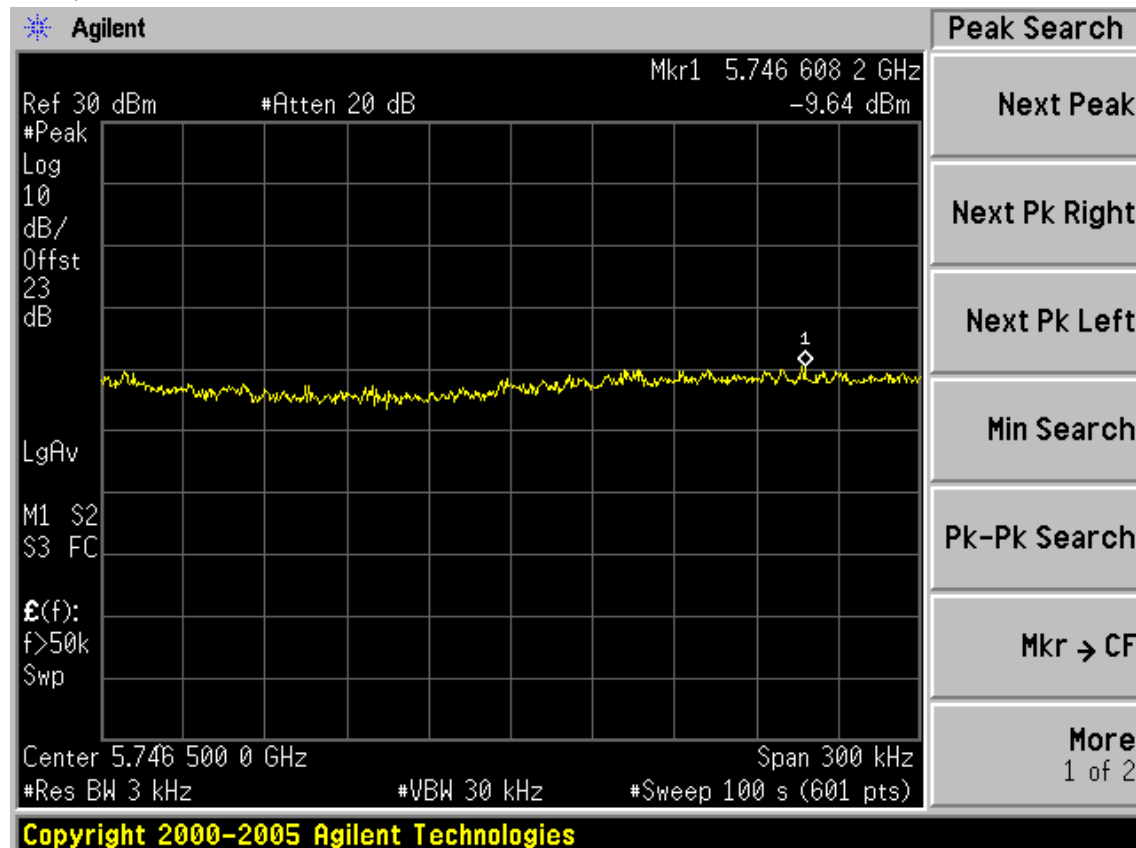
AT3:

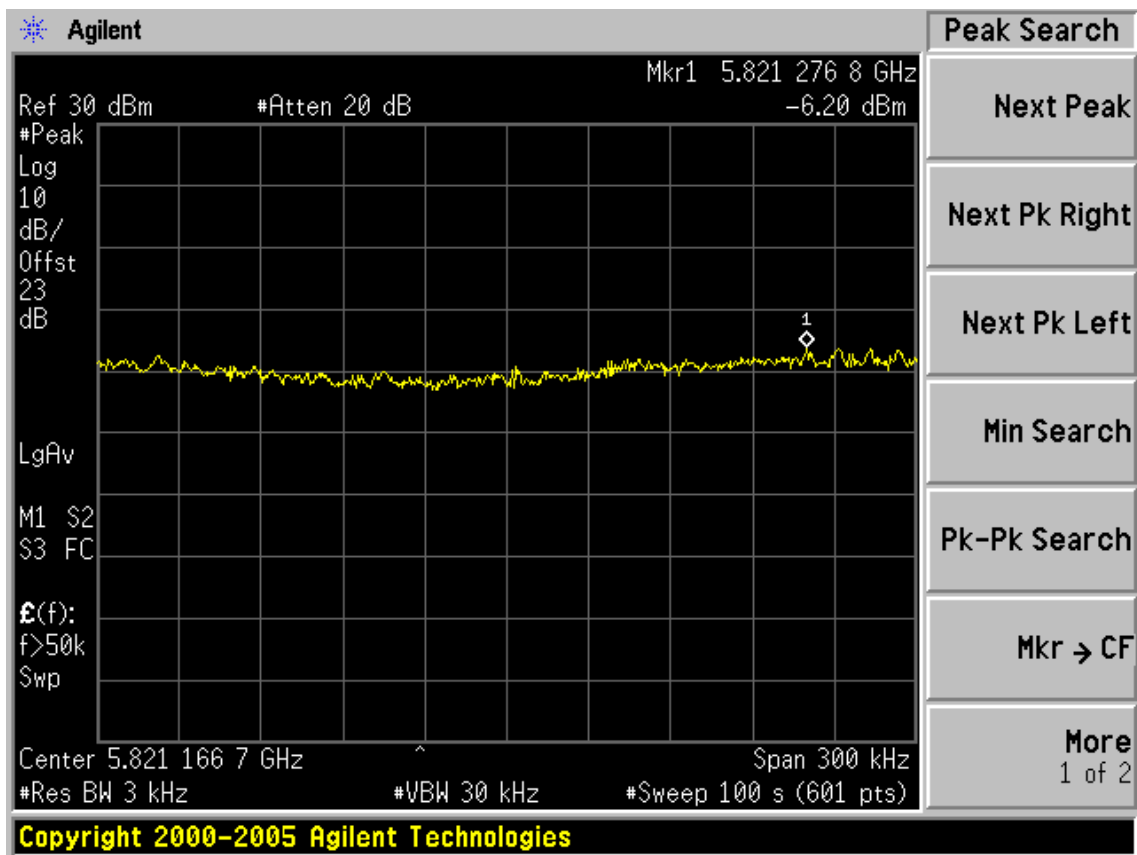
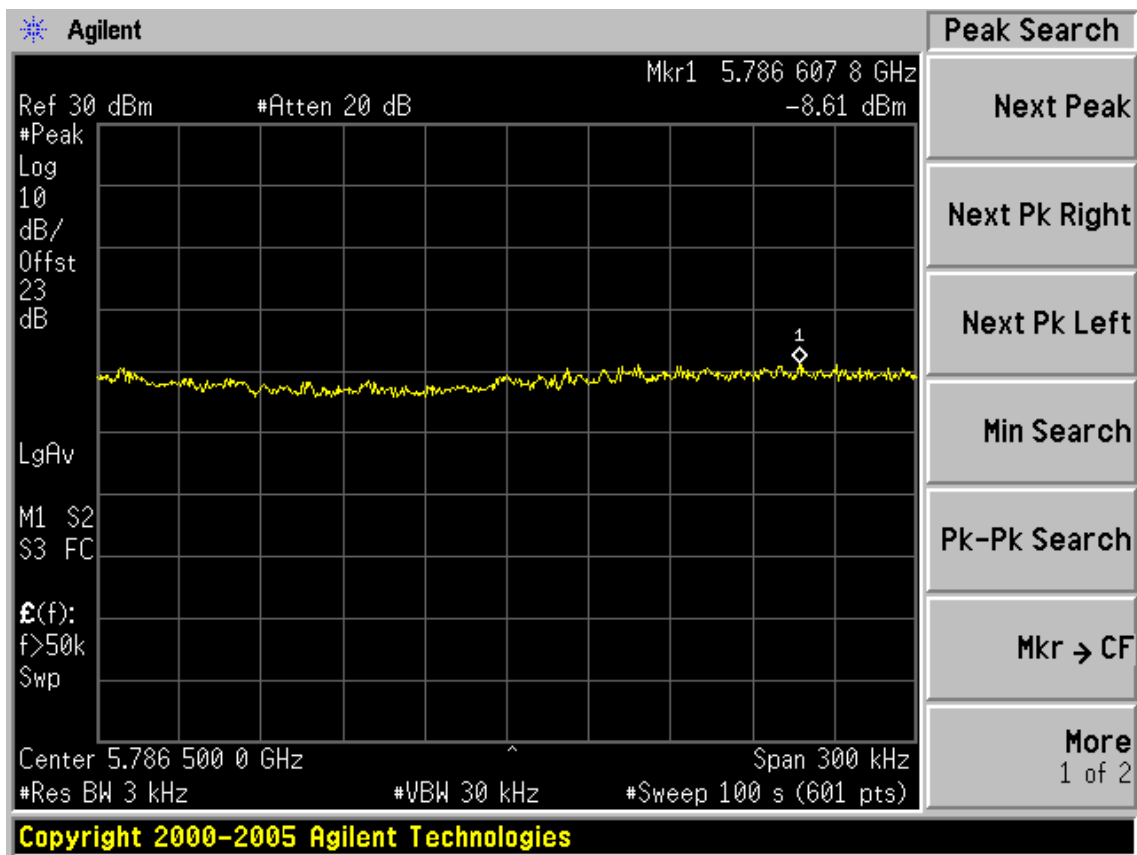




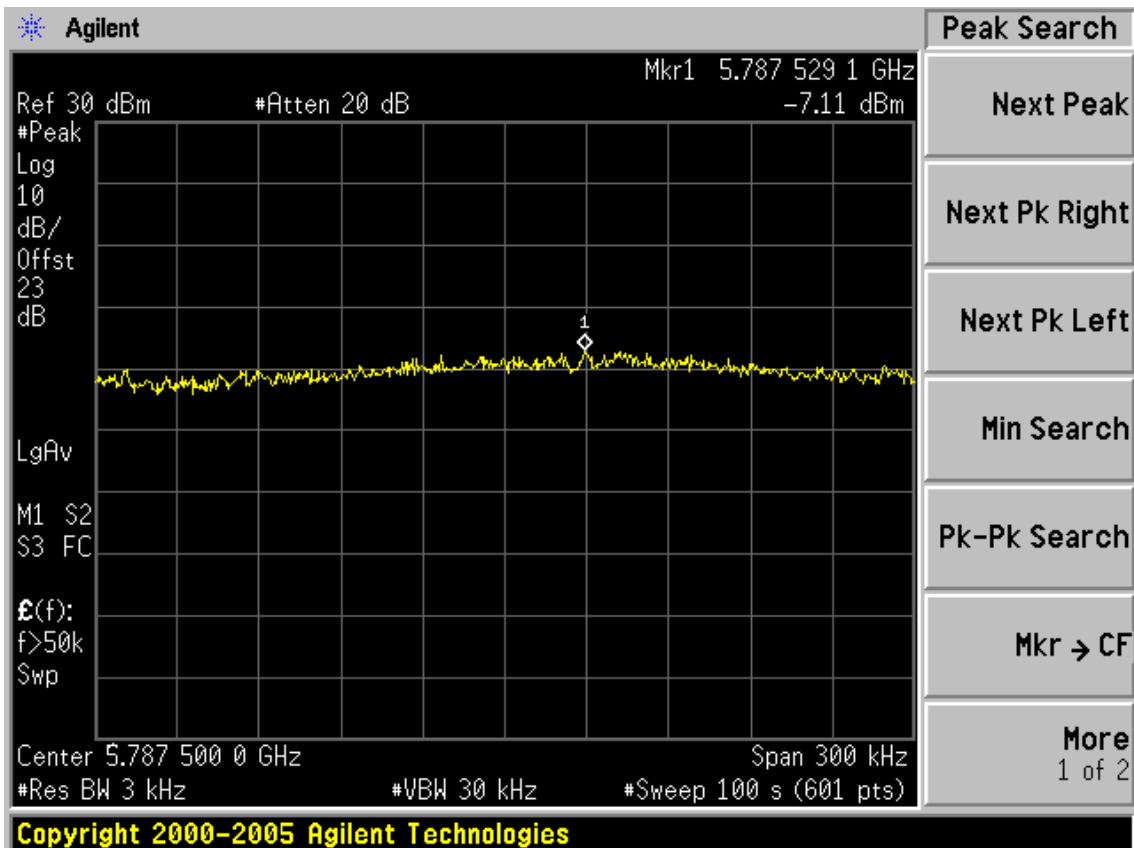
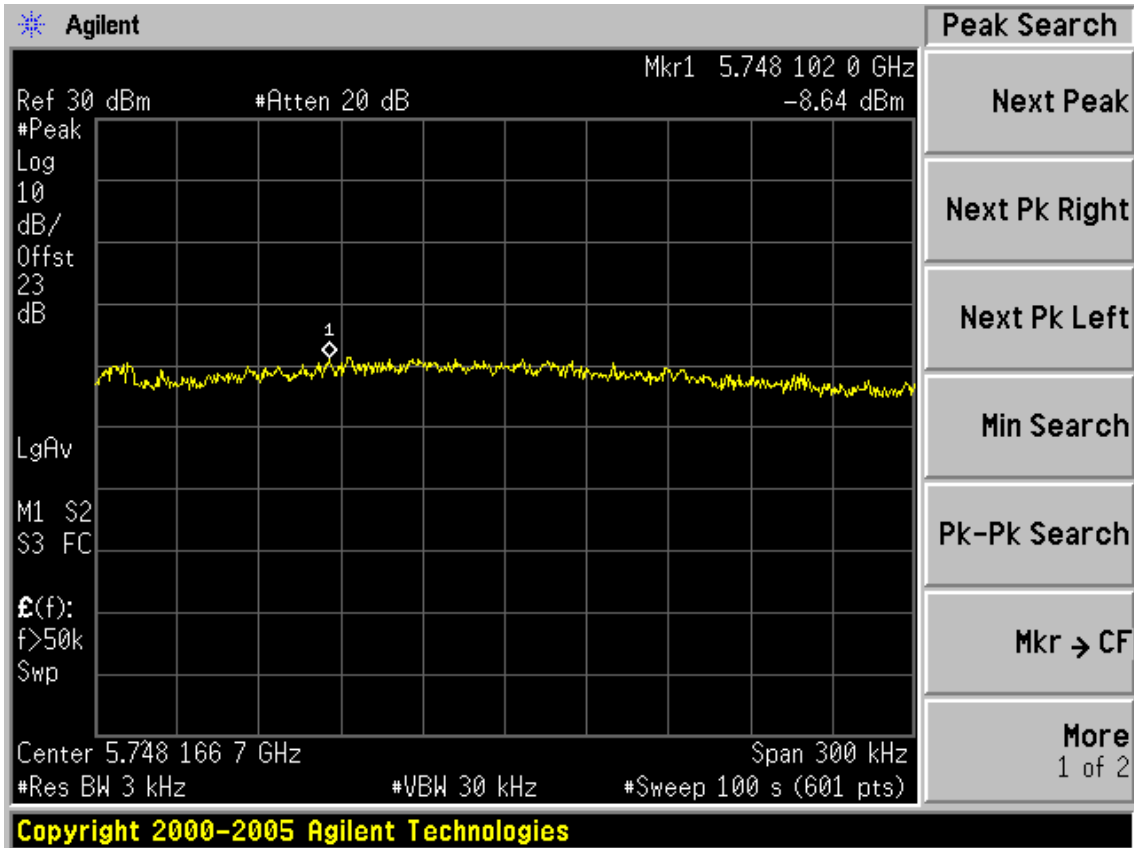
Test Mode: IEEE 802.11n HT20 TX (5.7G)

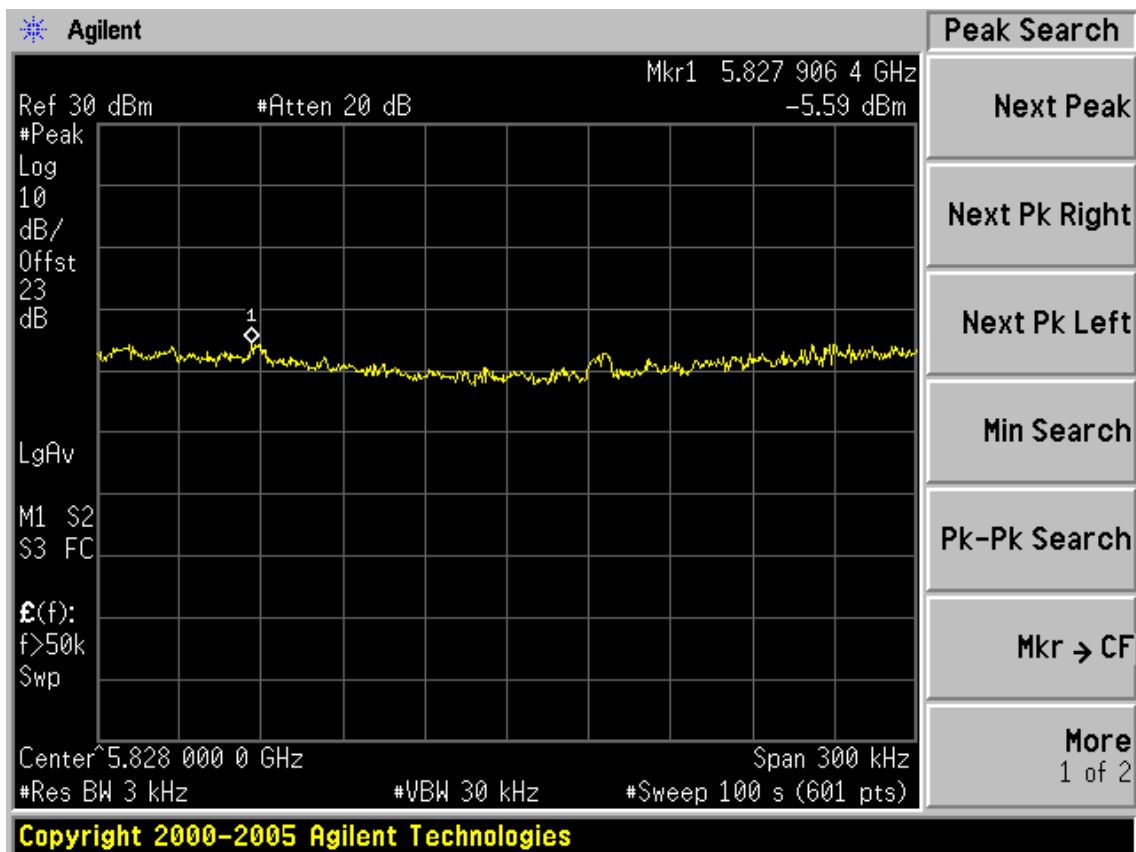
AT1:



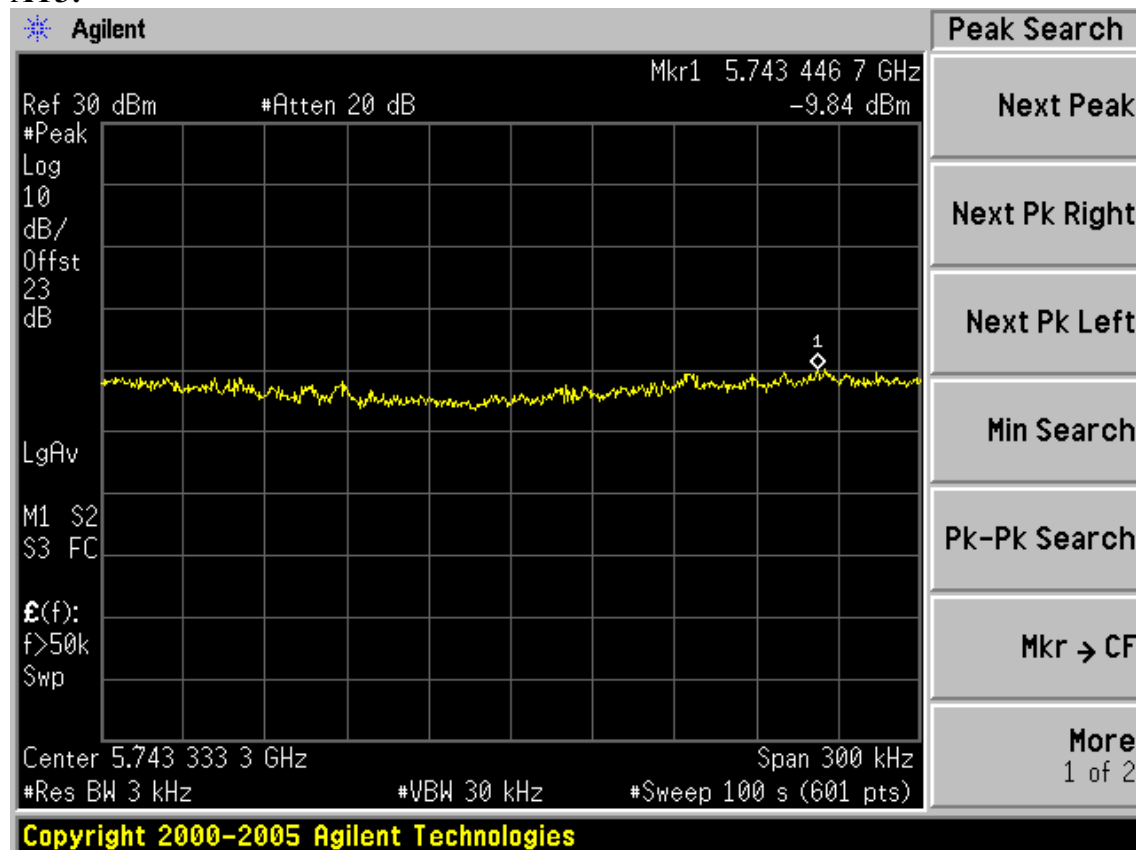


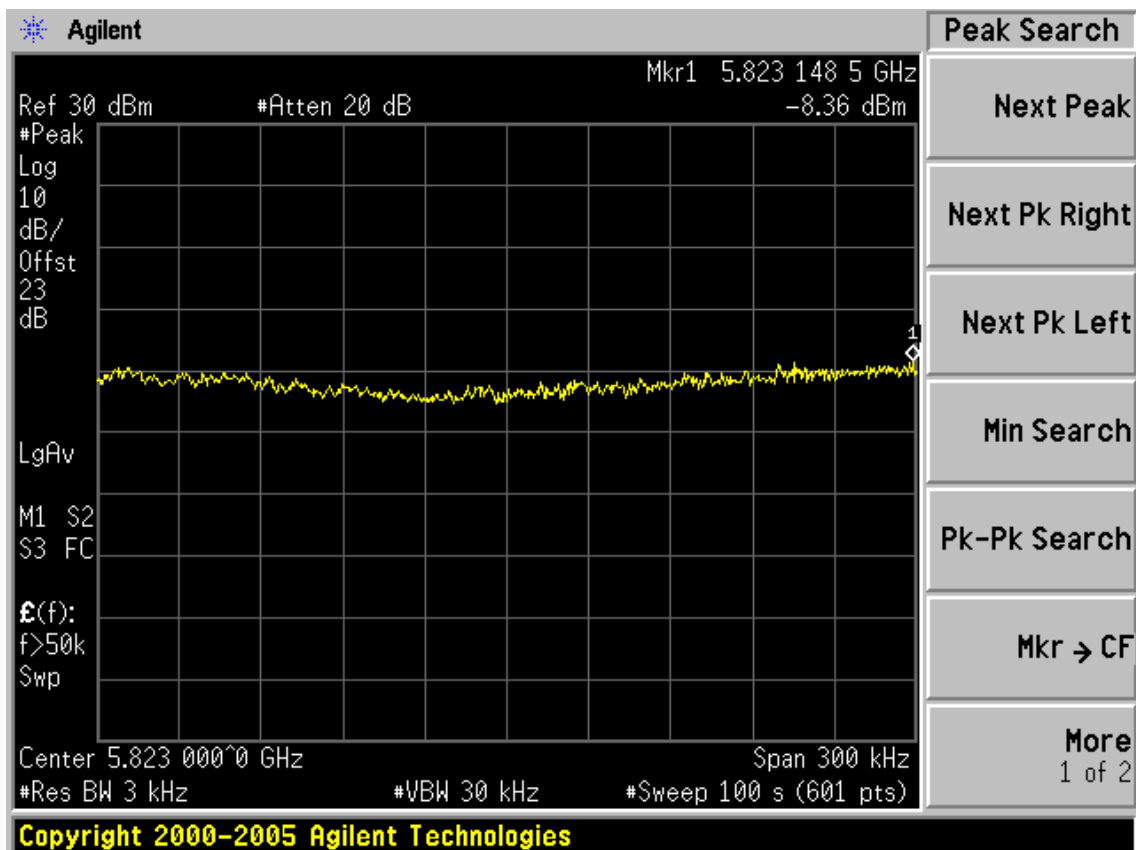
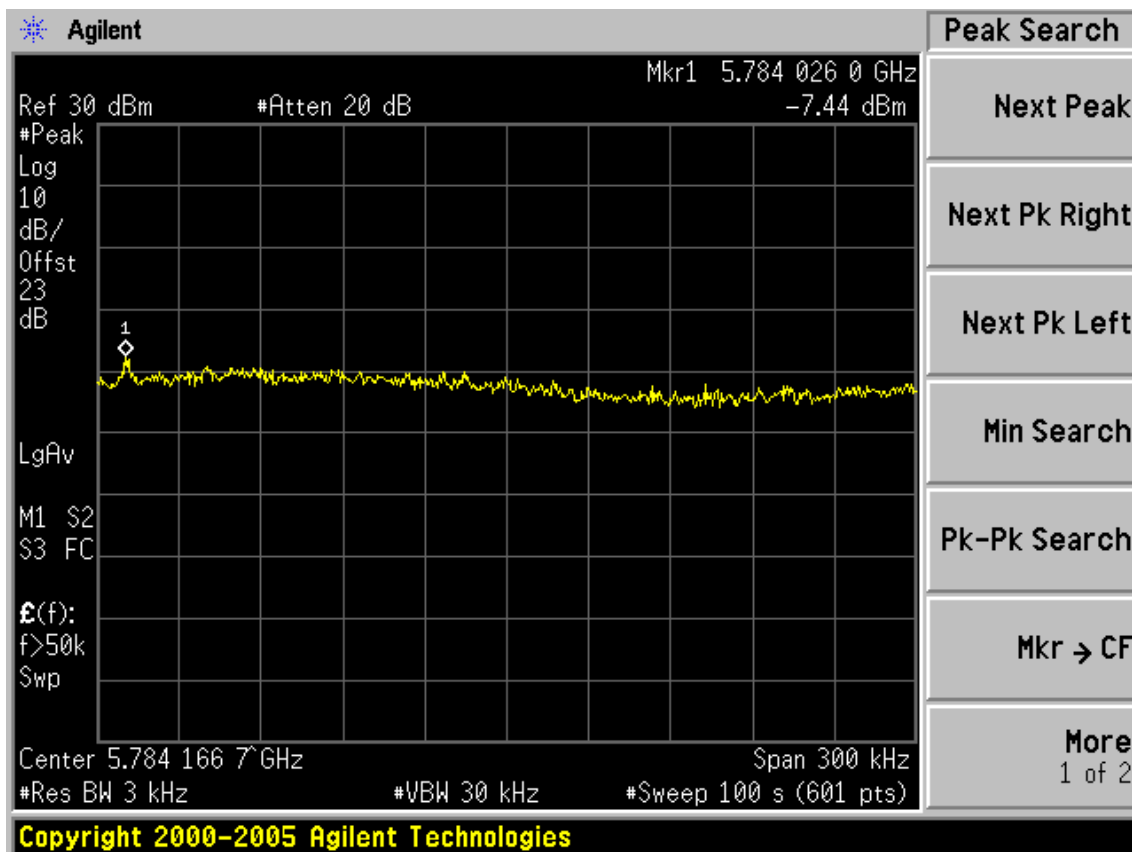
AT2:





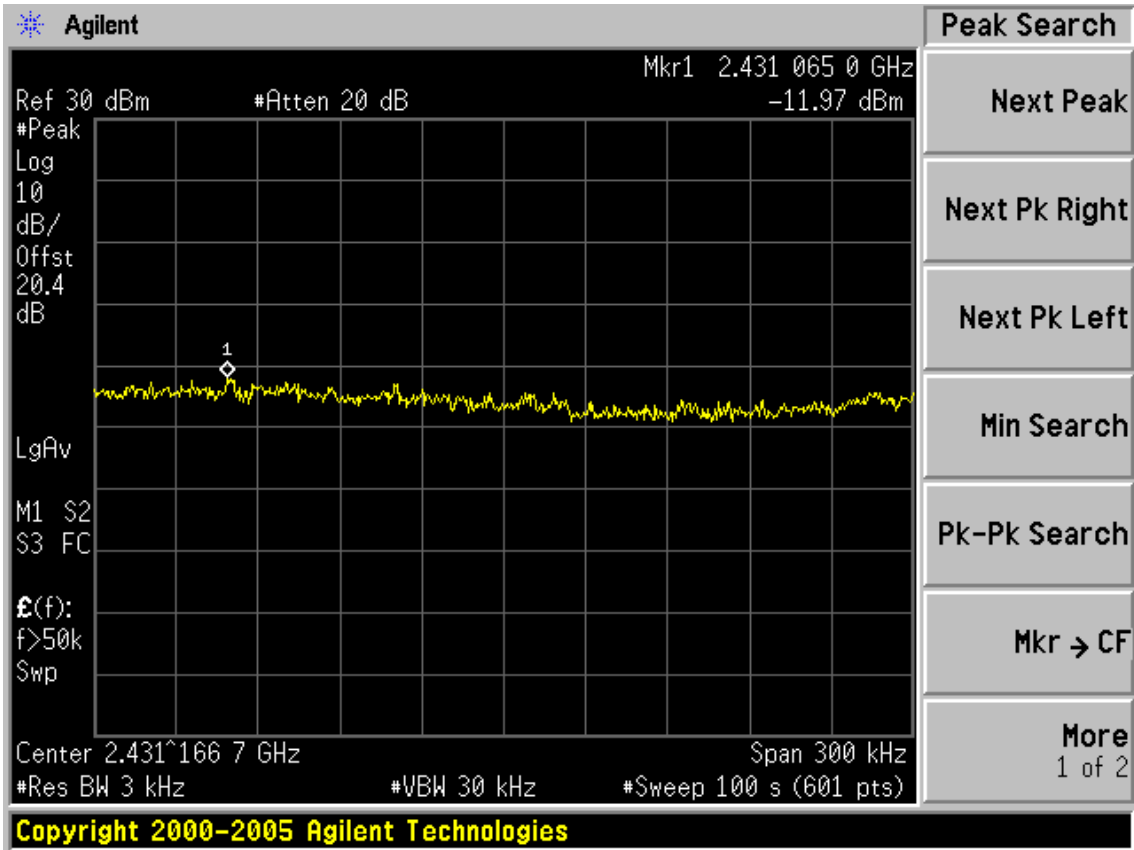
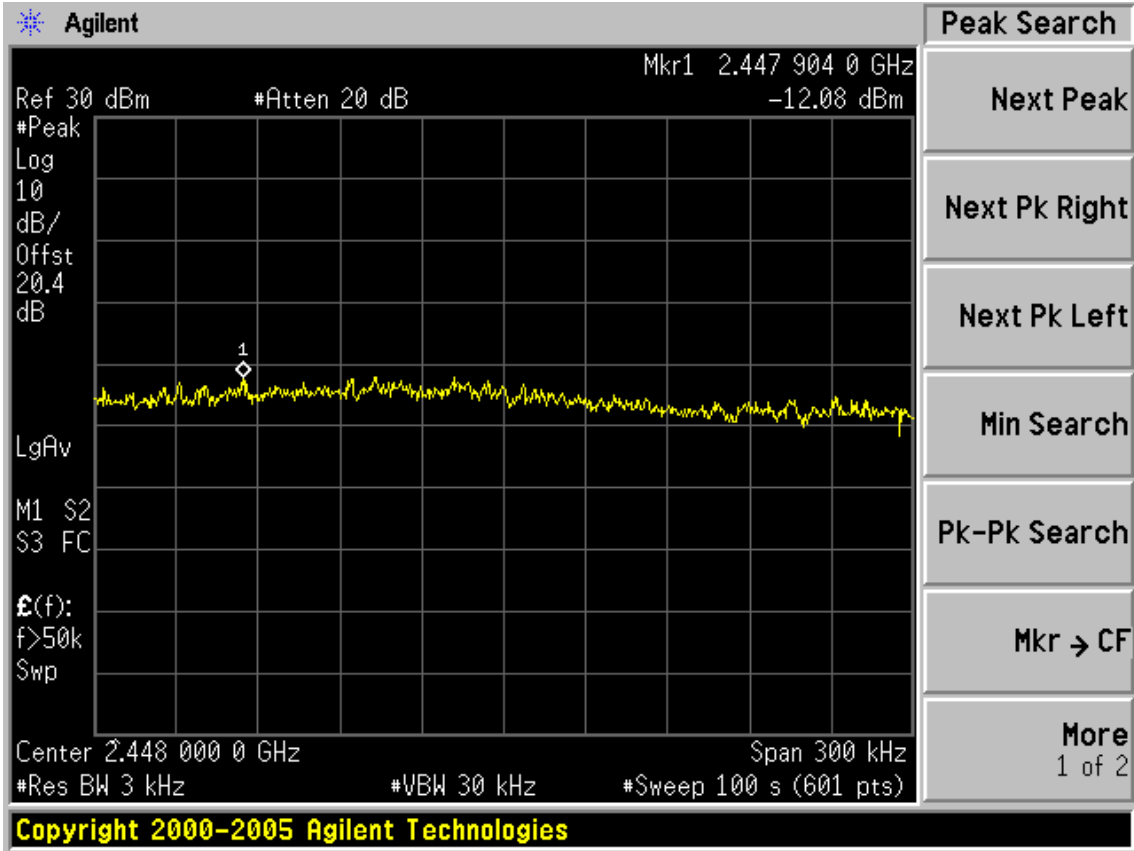
AT3:

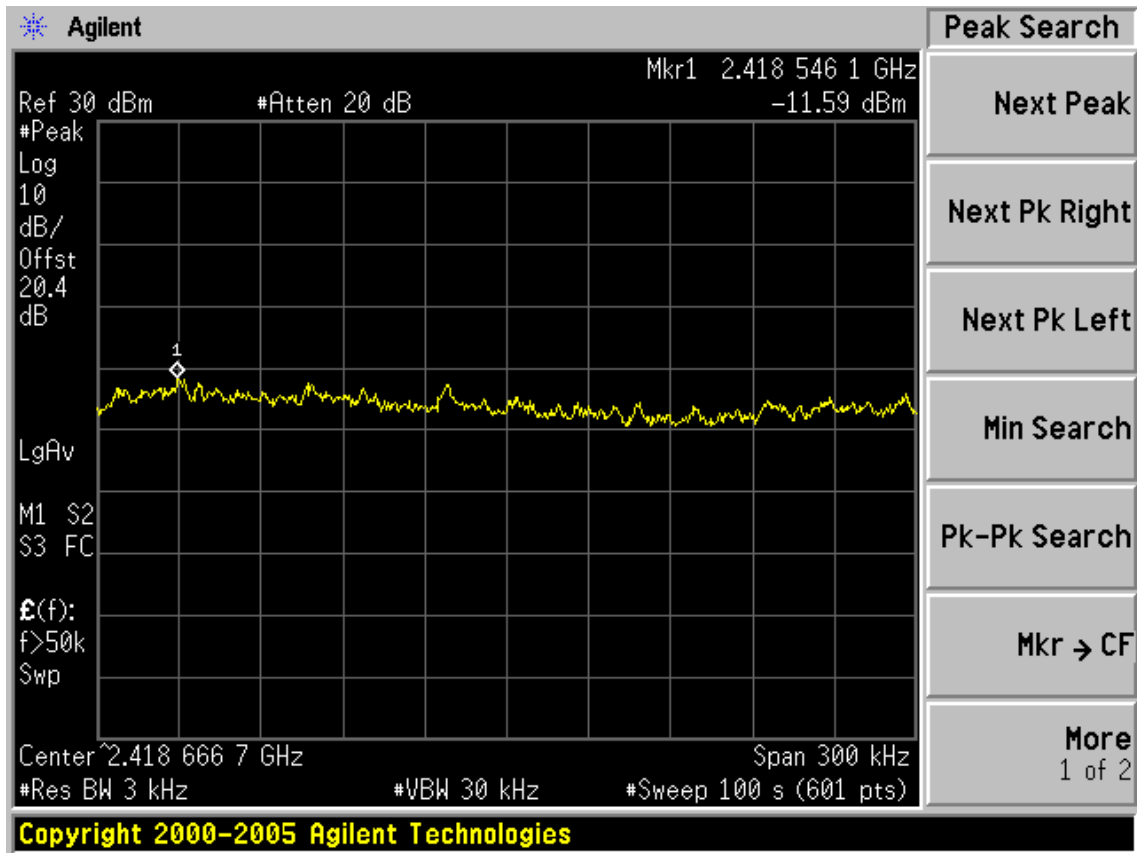




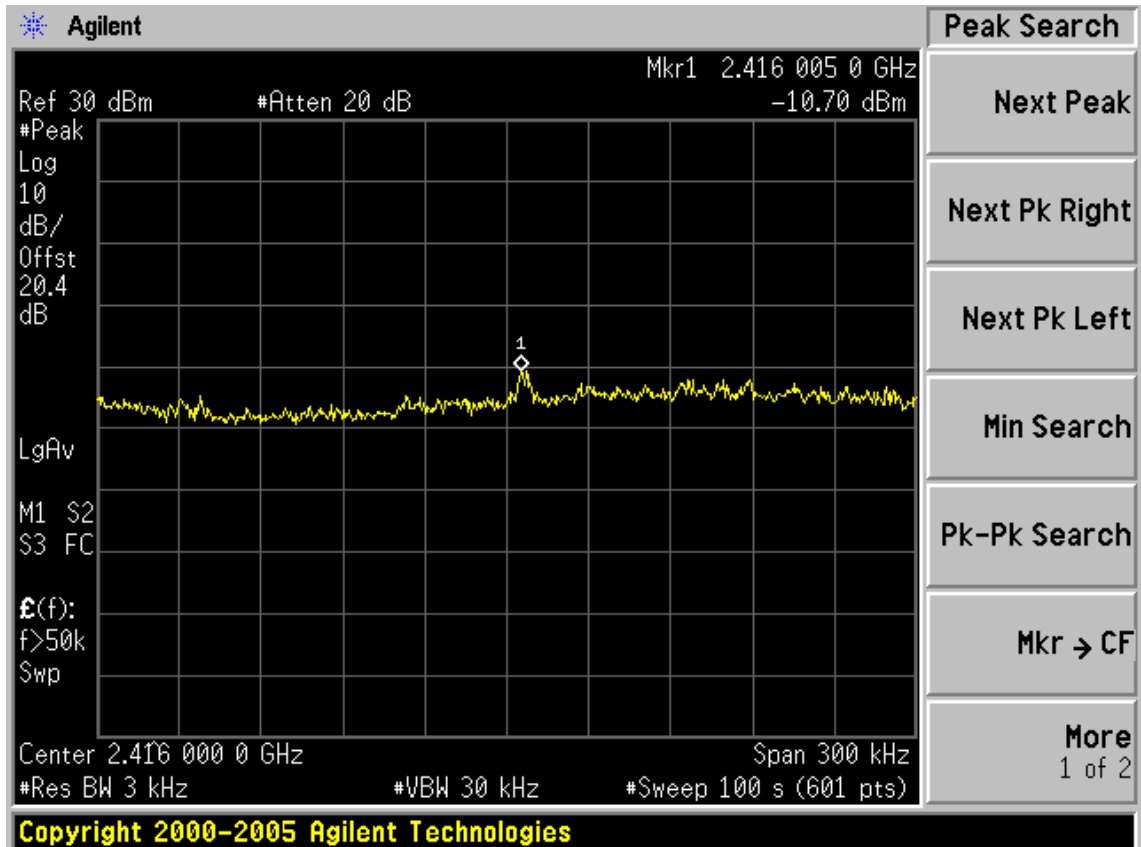
Test Mode: IEEE 802.11n HT40 TX (2.4G)

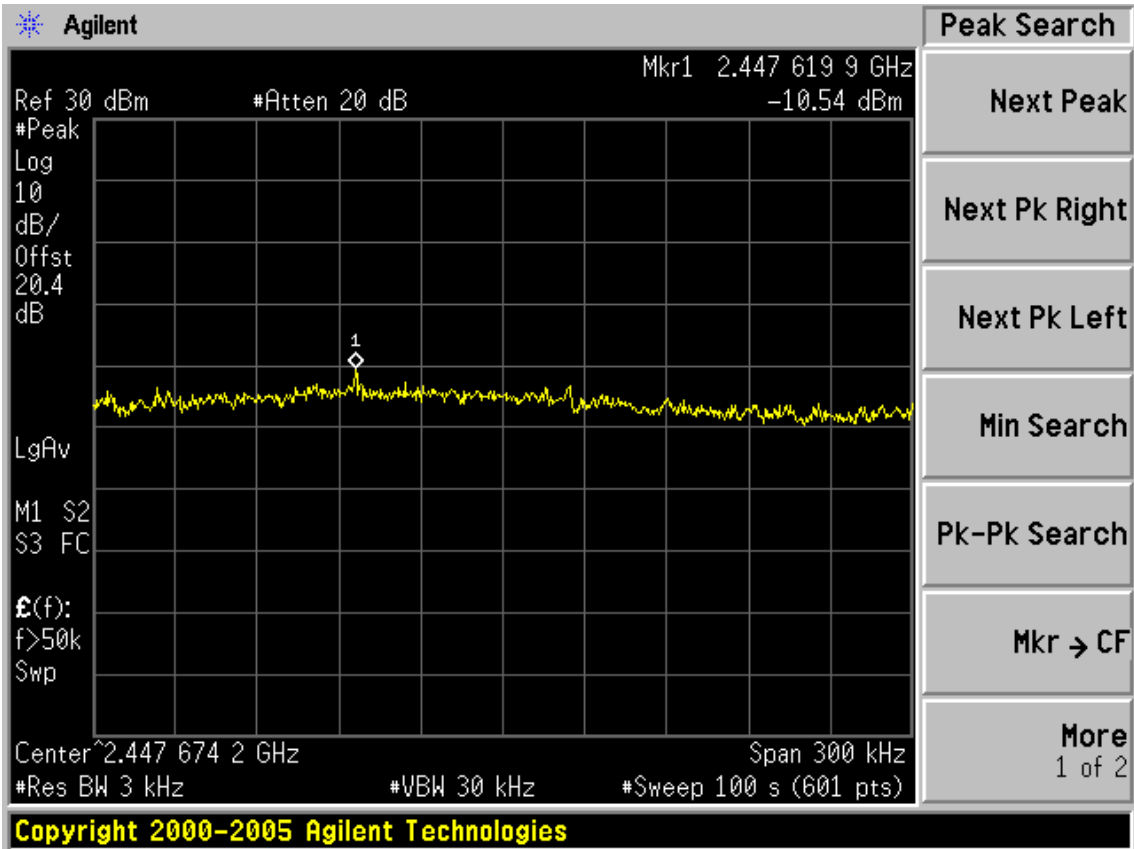
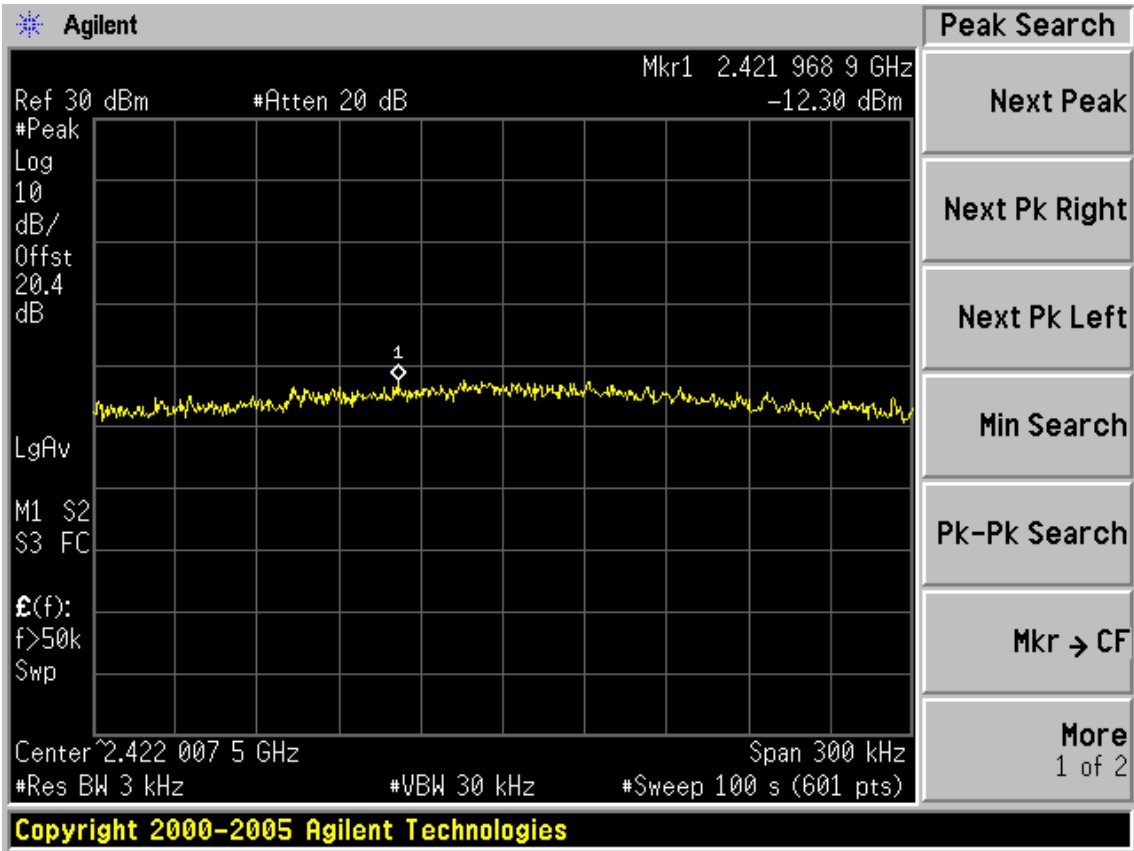
AT1:



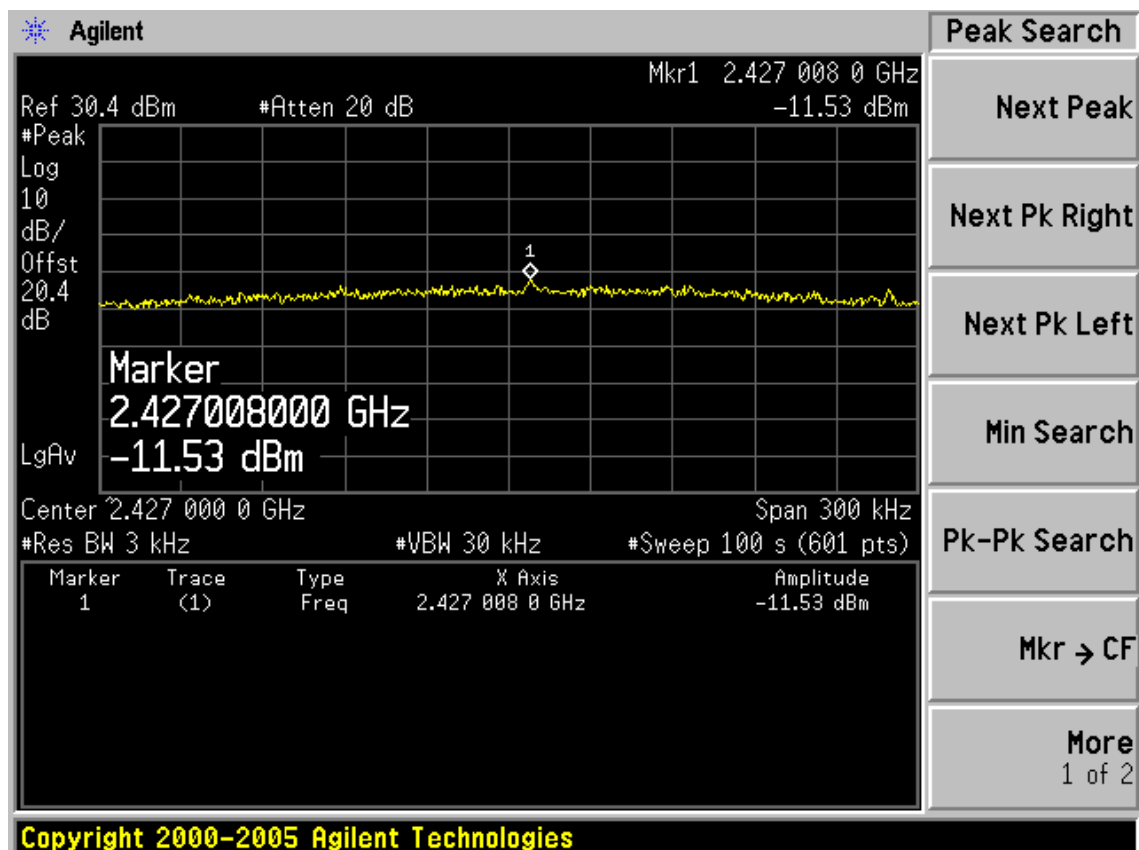
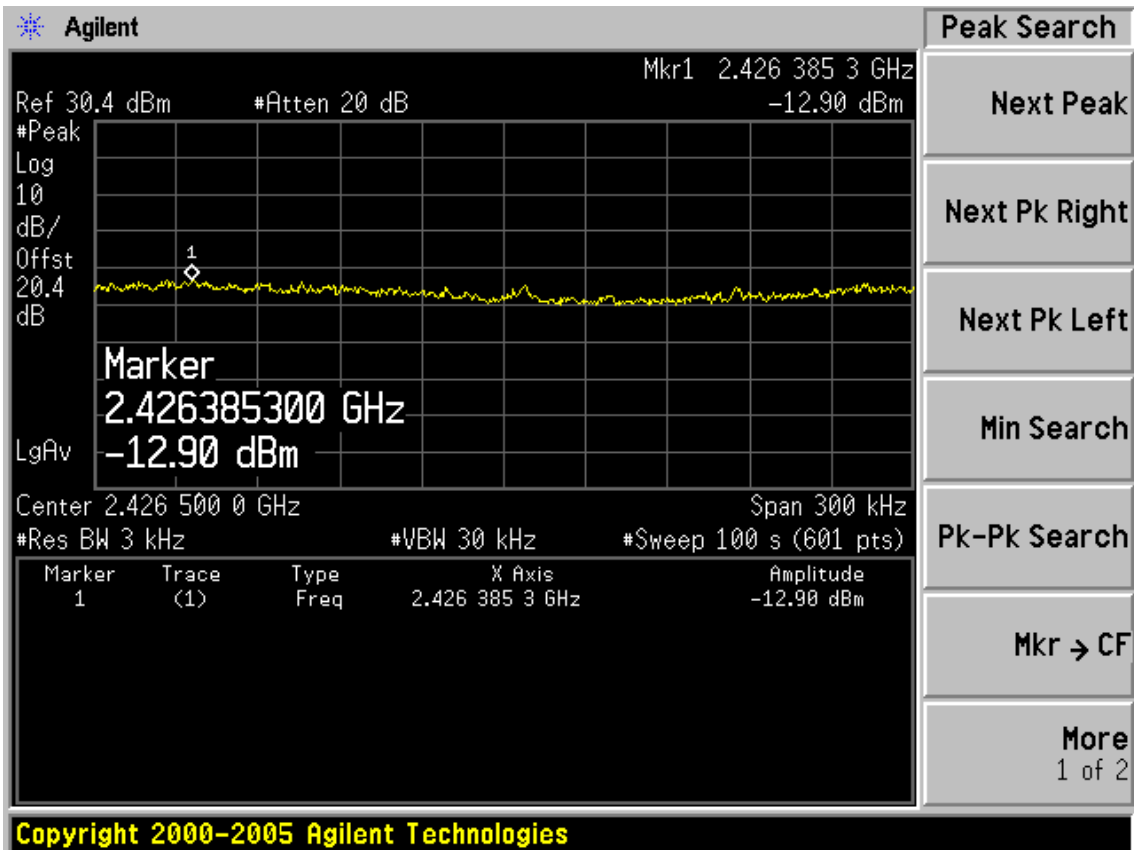


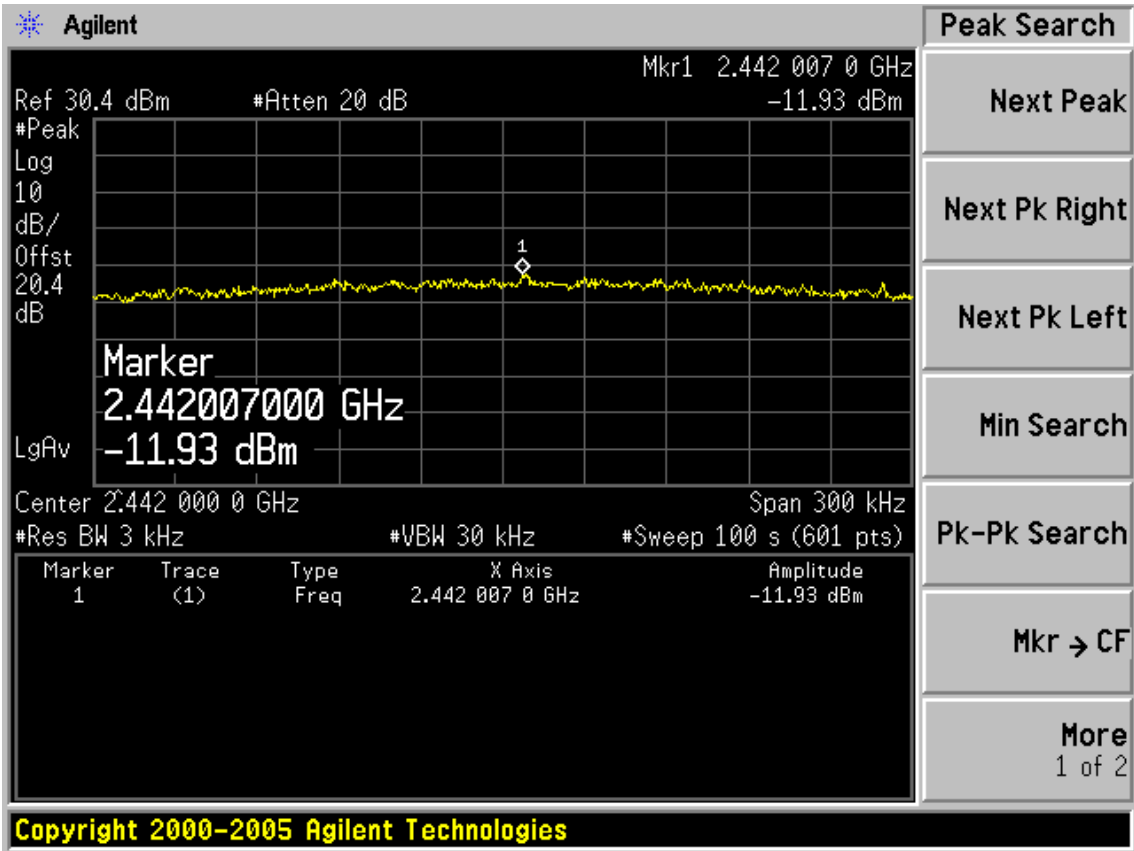
AT2:





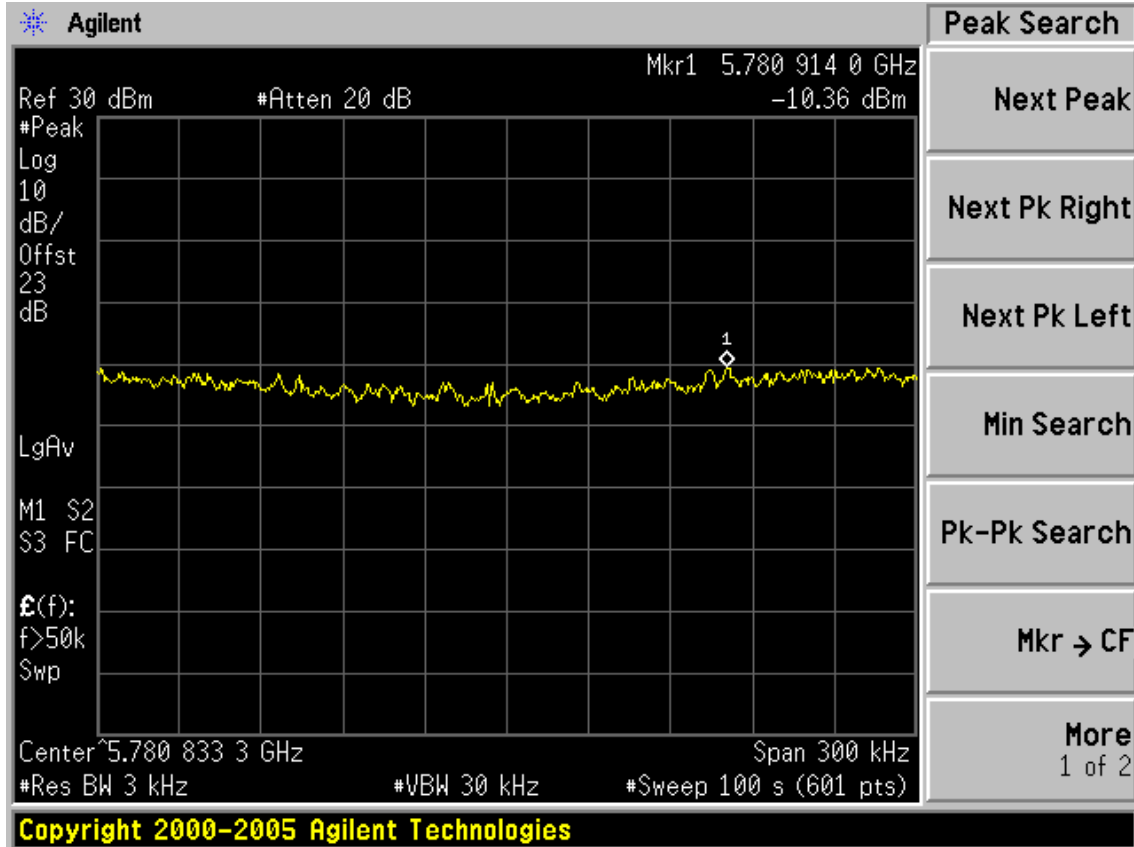
AT3:

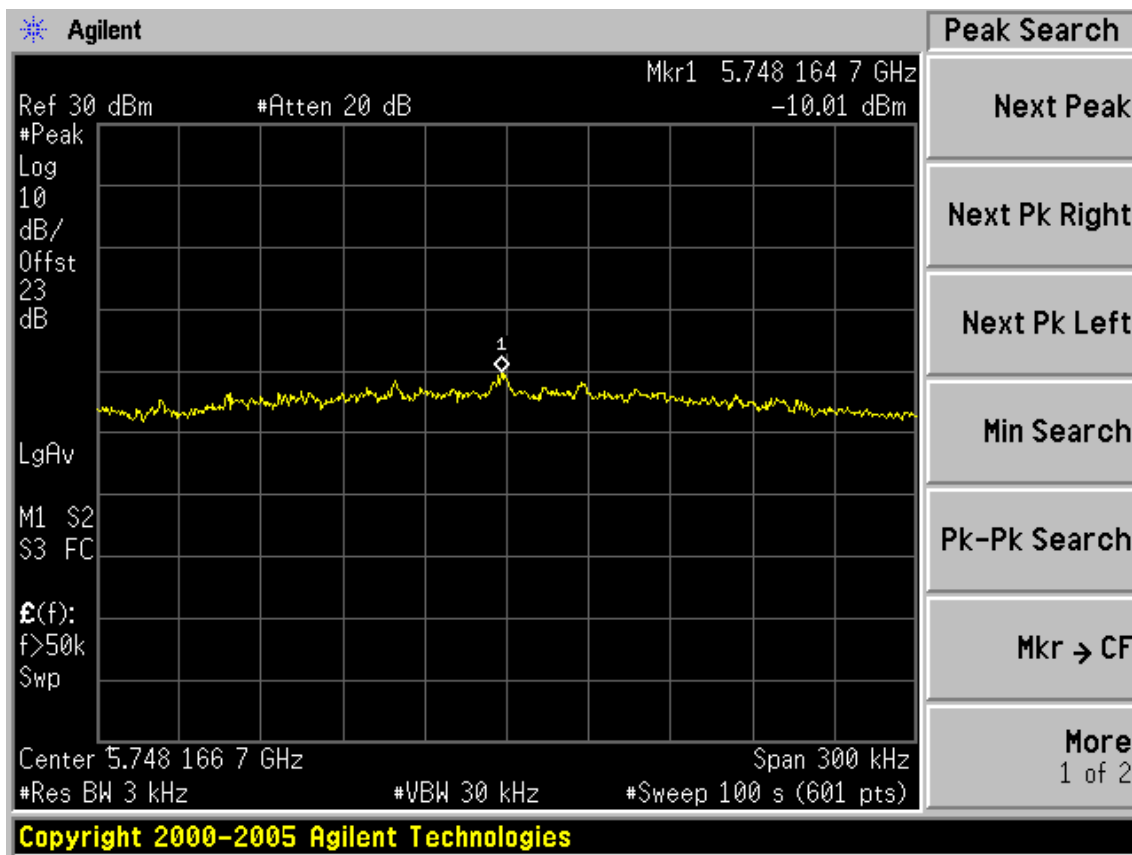




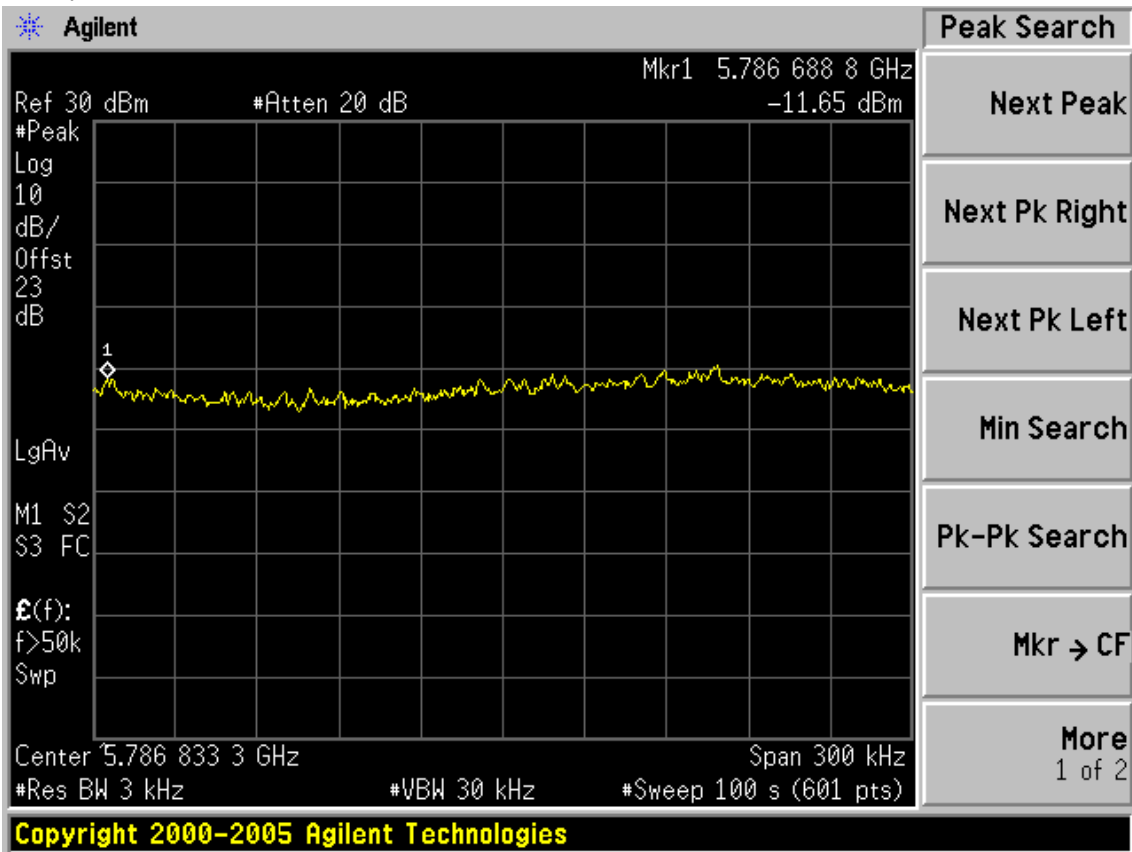
Test Mode: IEEE 802.11n HT40 TX (5.7G)

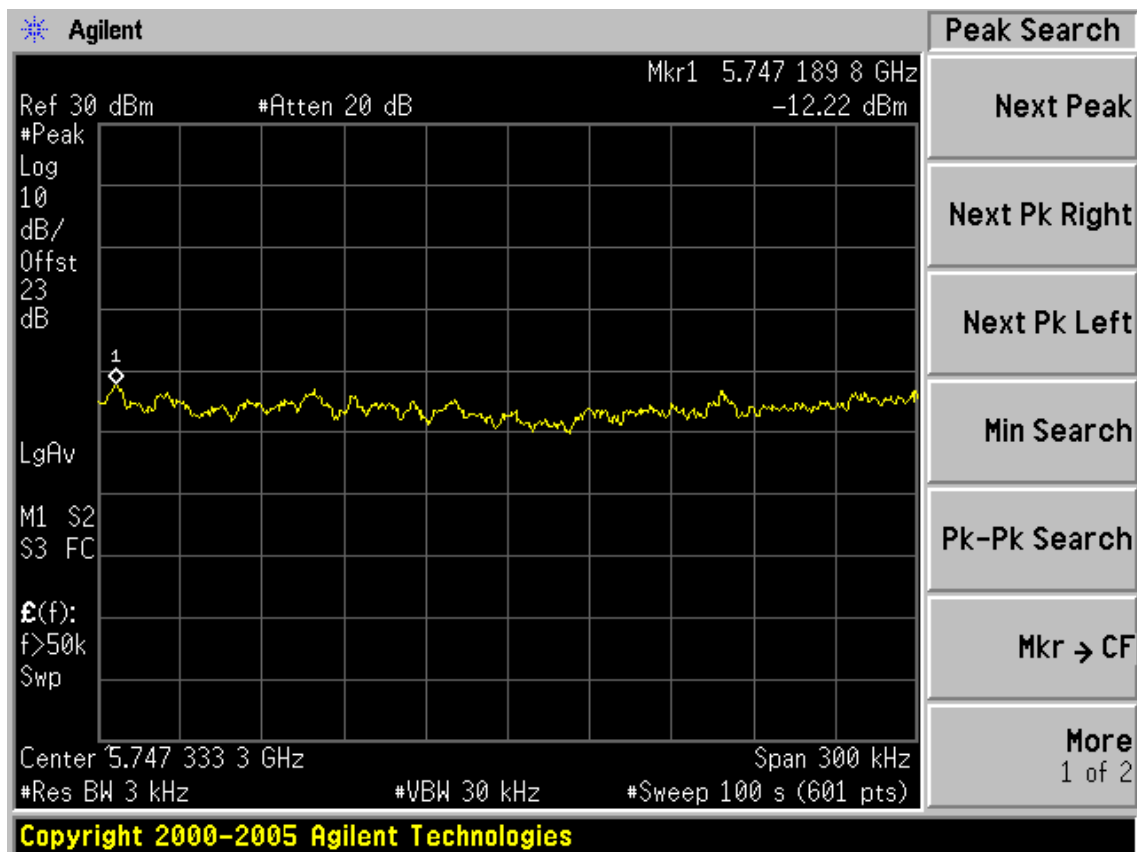
AT1:



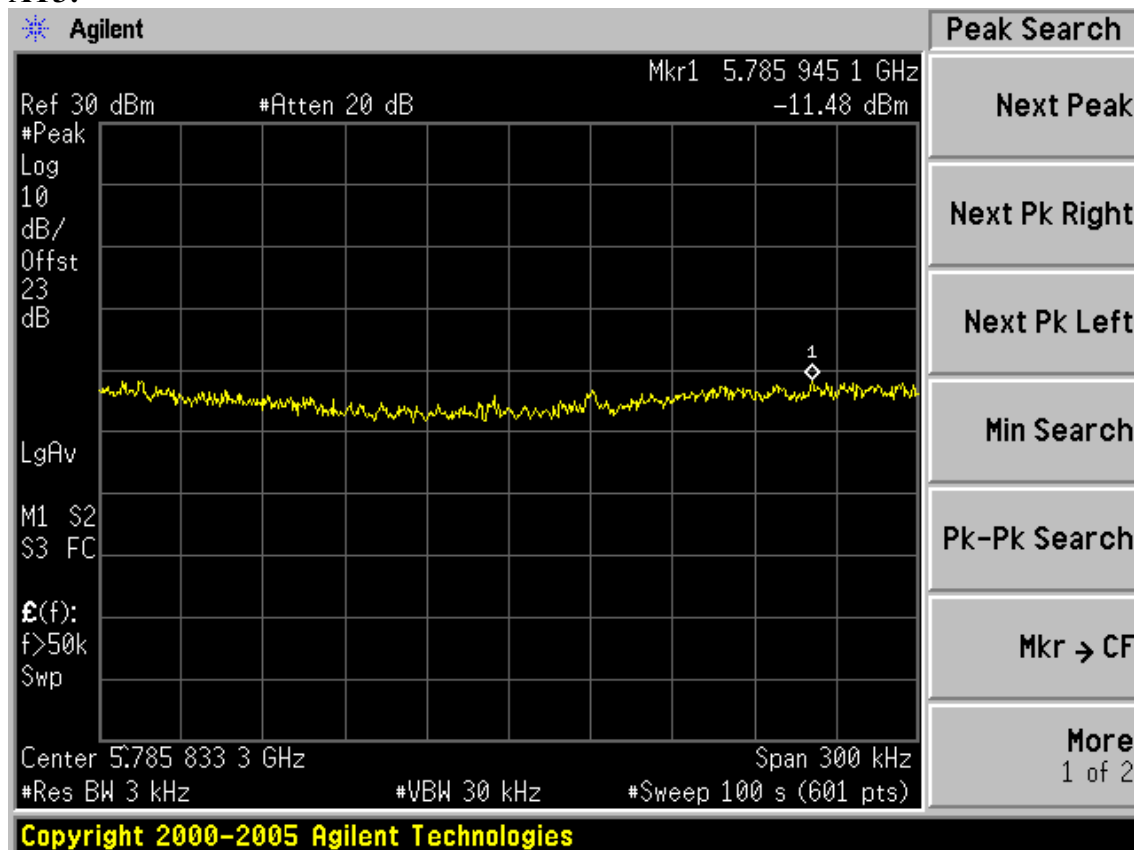


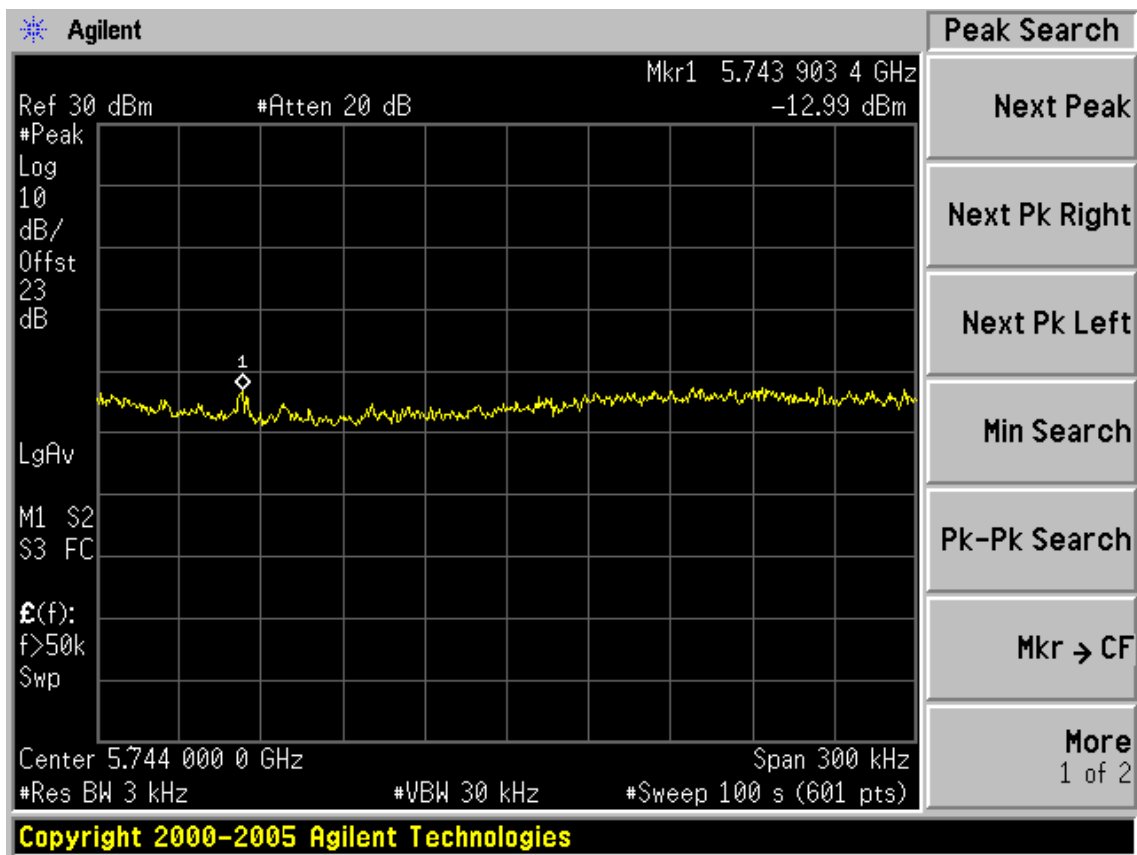
AT2:





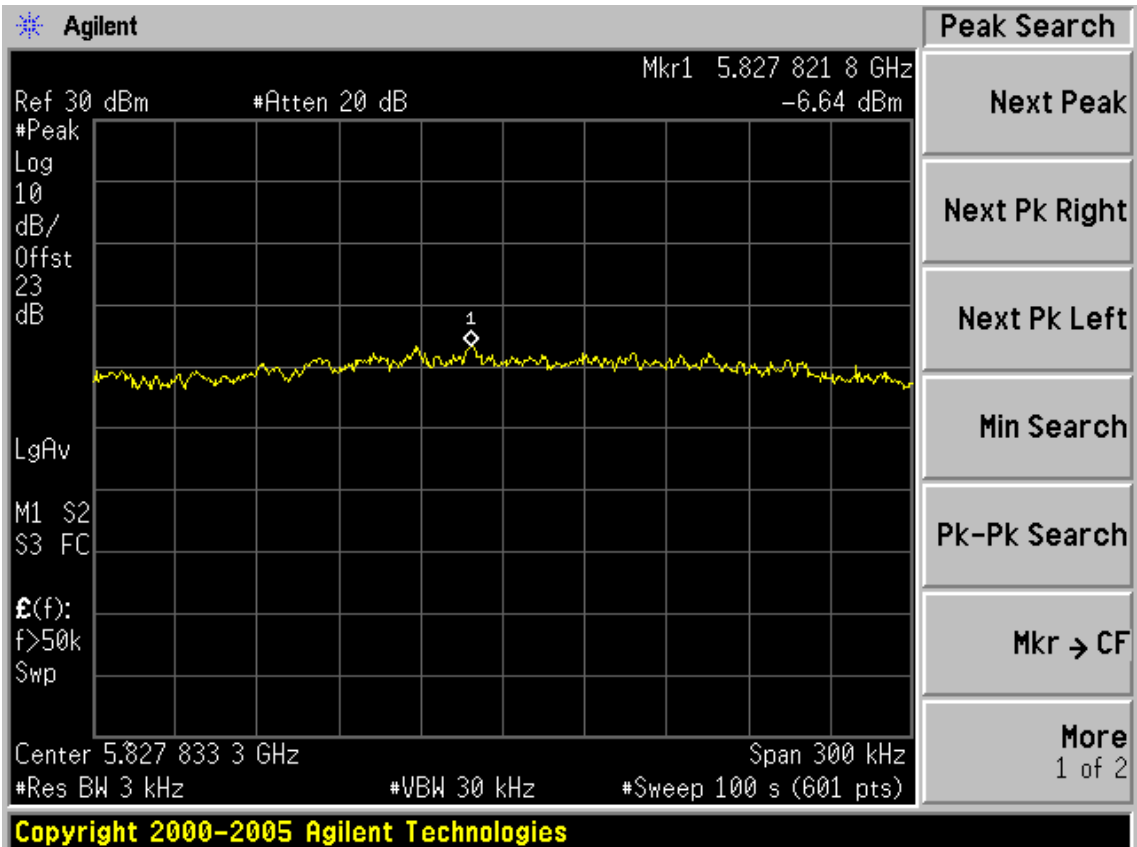
AT3:

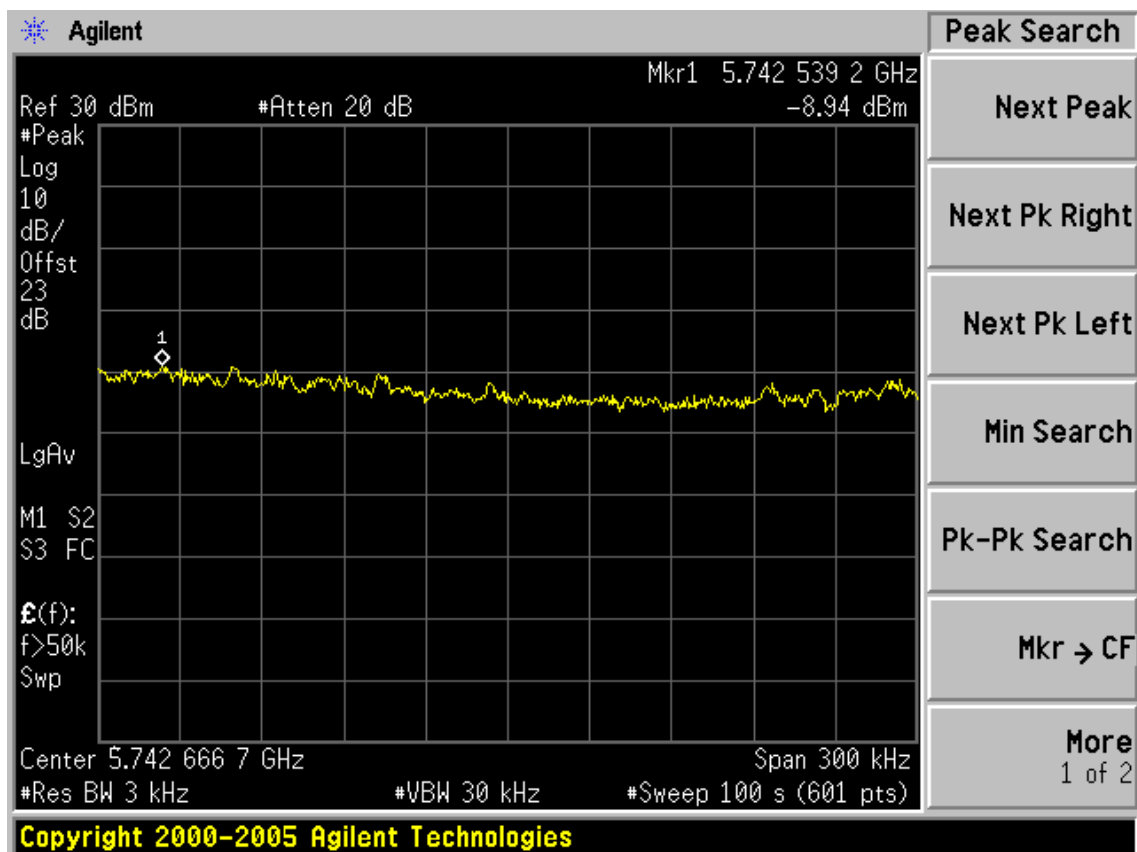
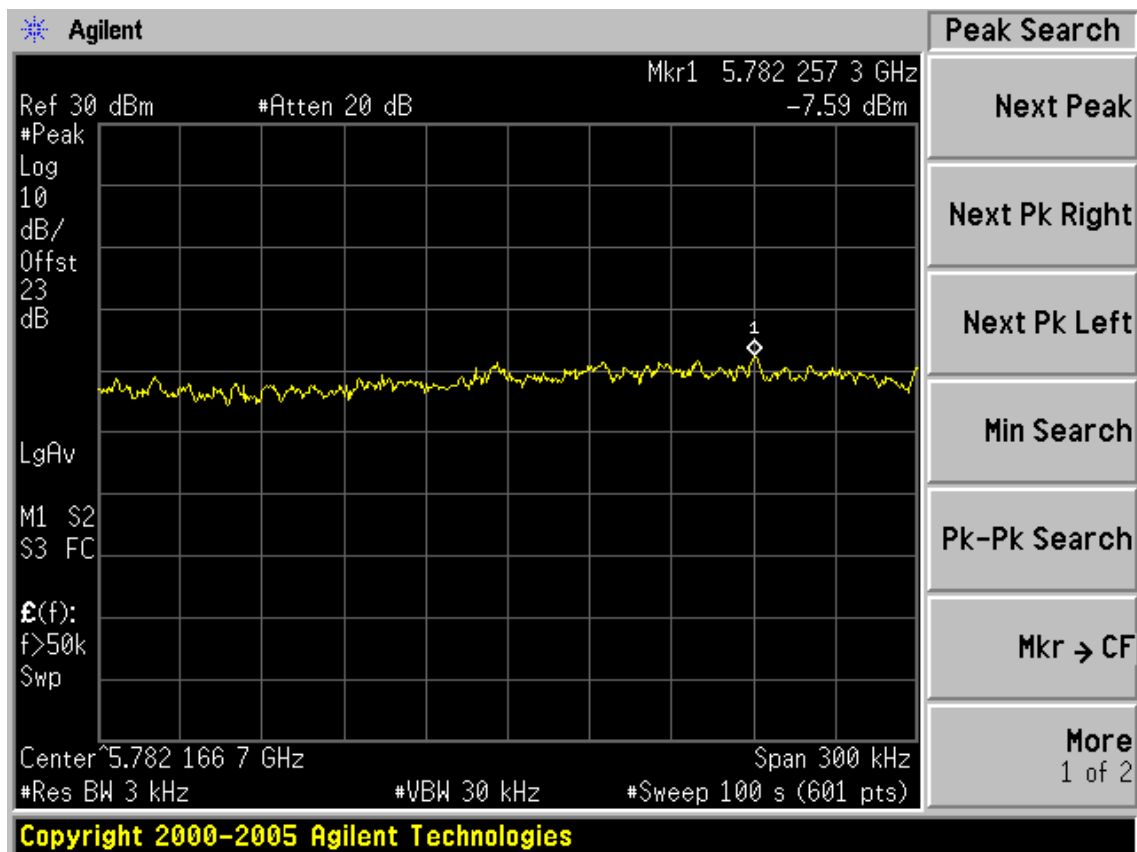




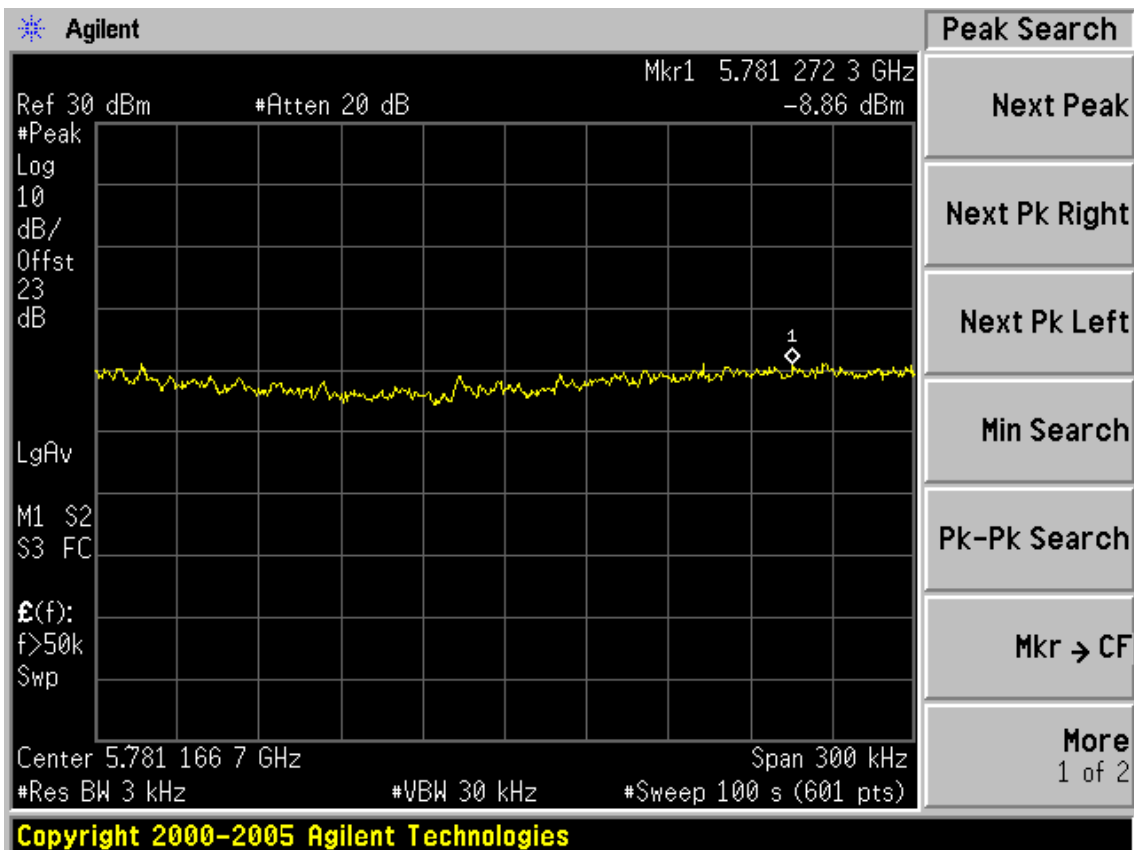
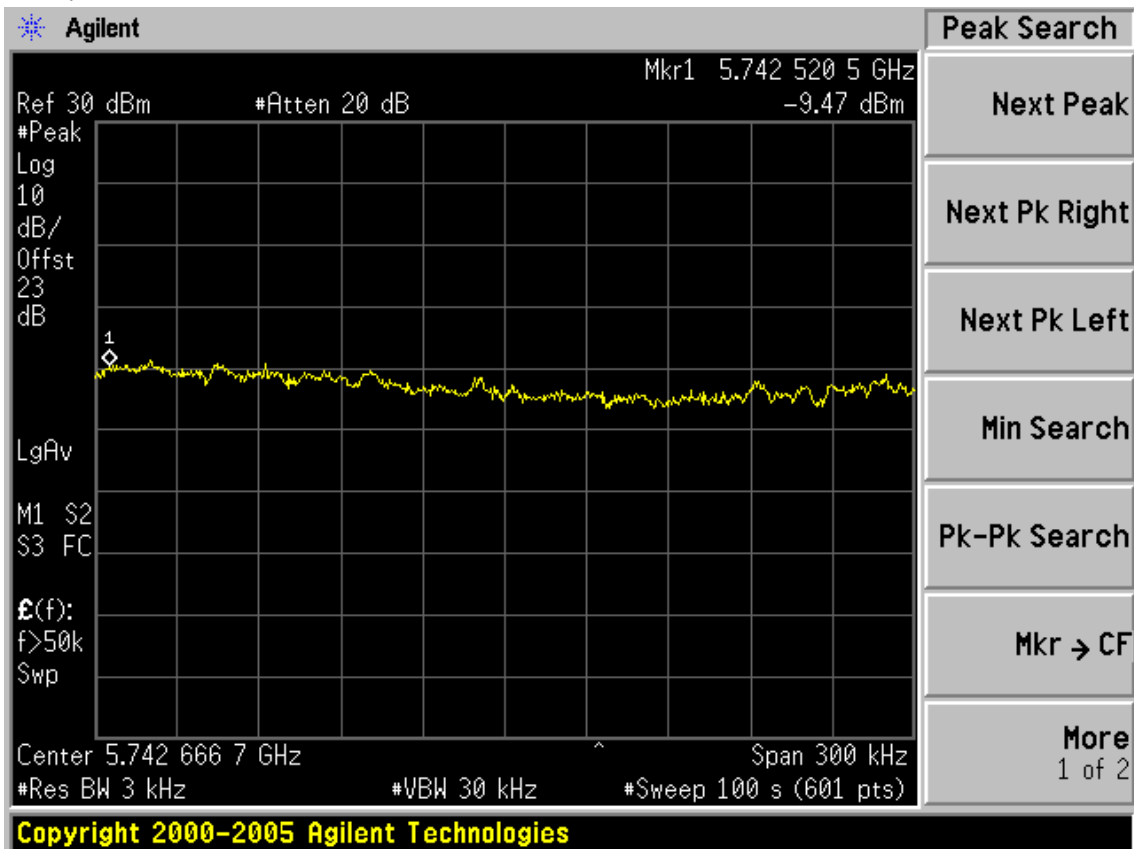
Test Mode: IEEE 802.11a TX

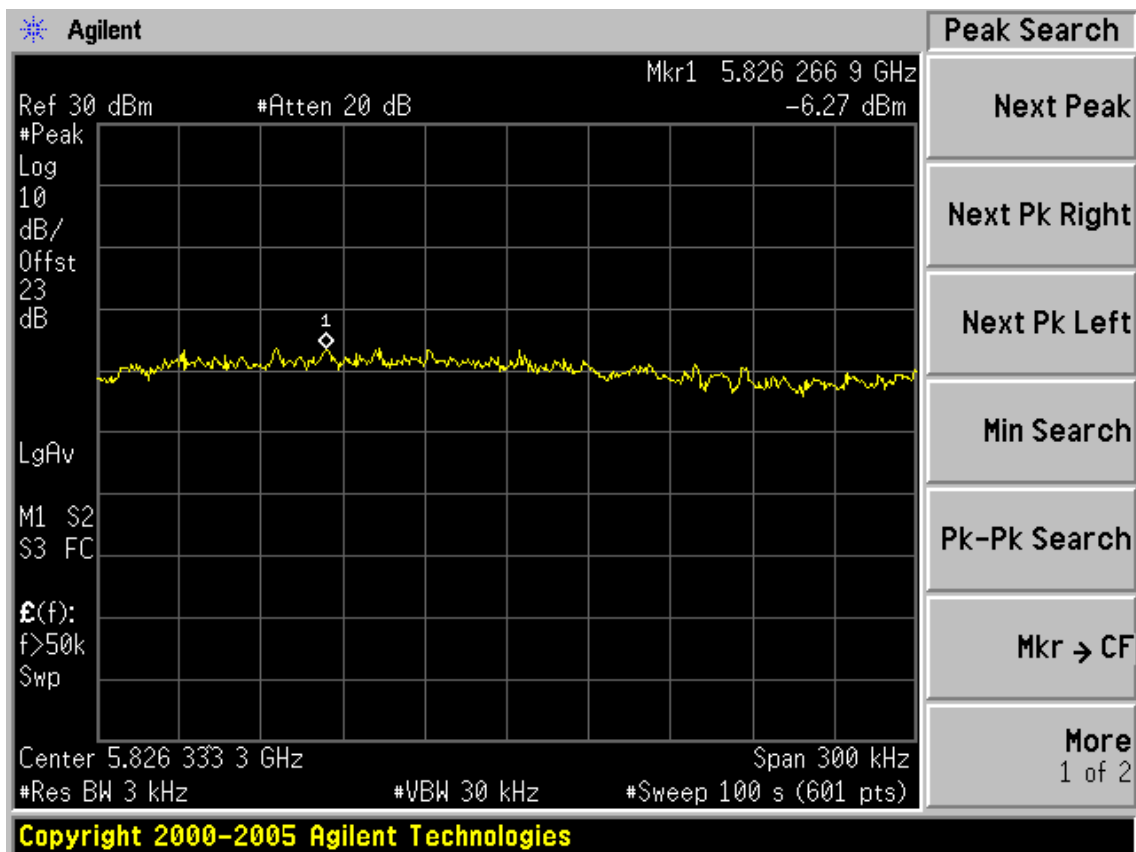
AT1:



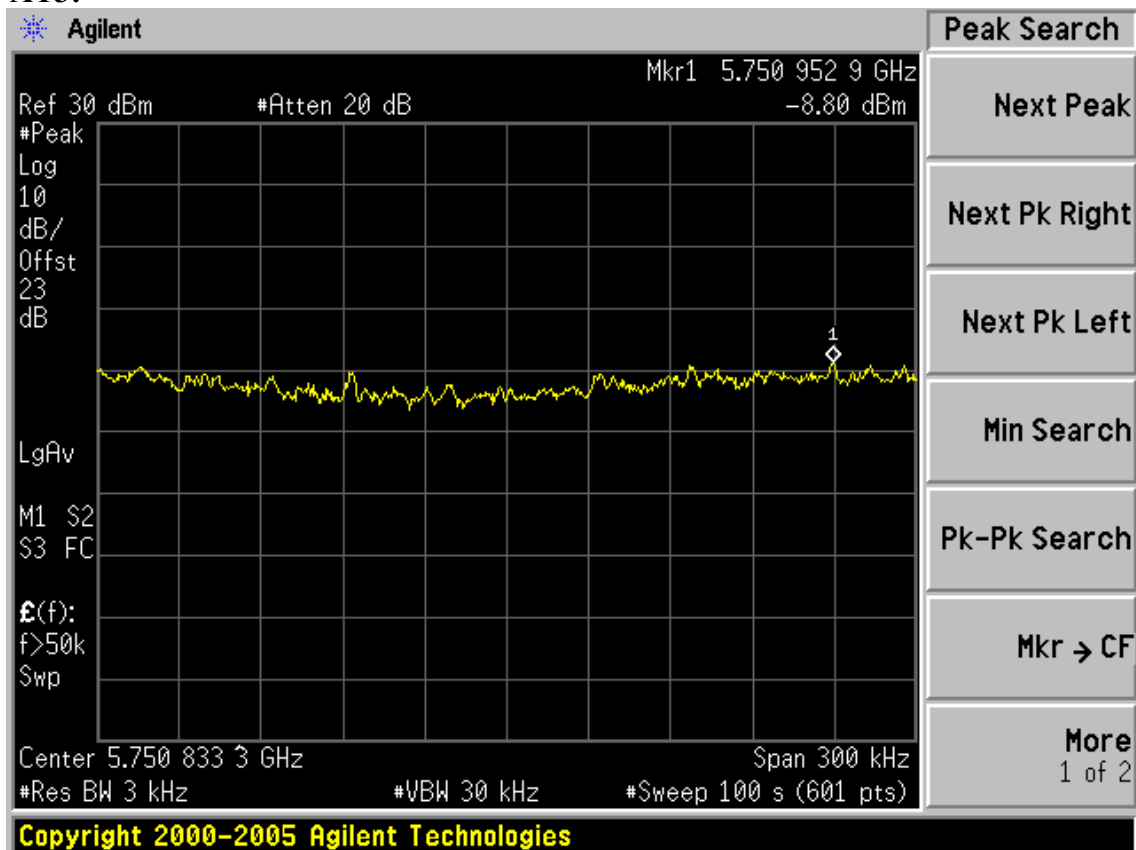


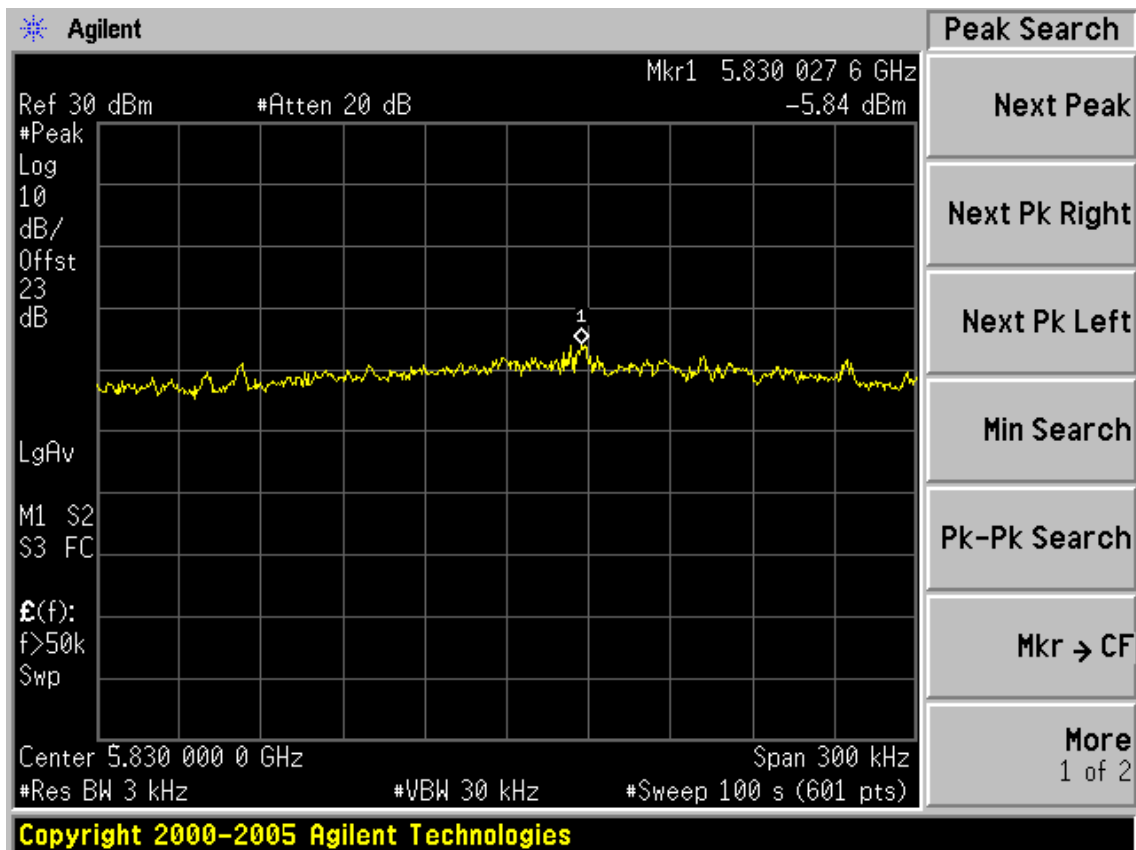
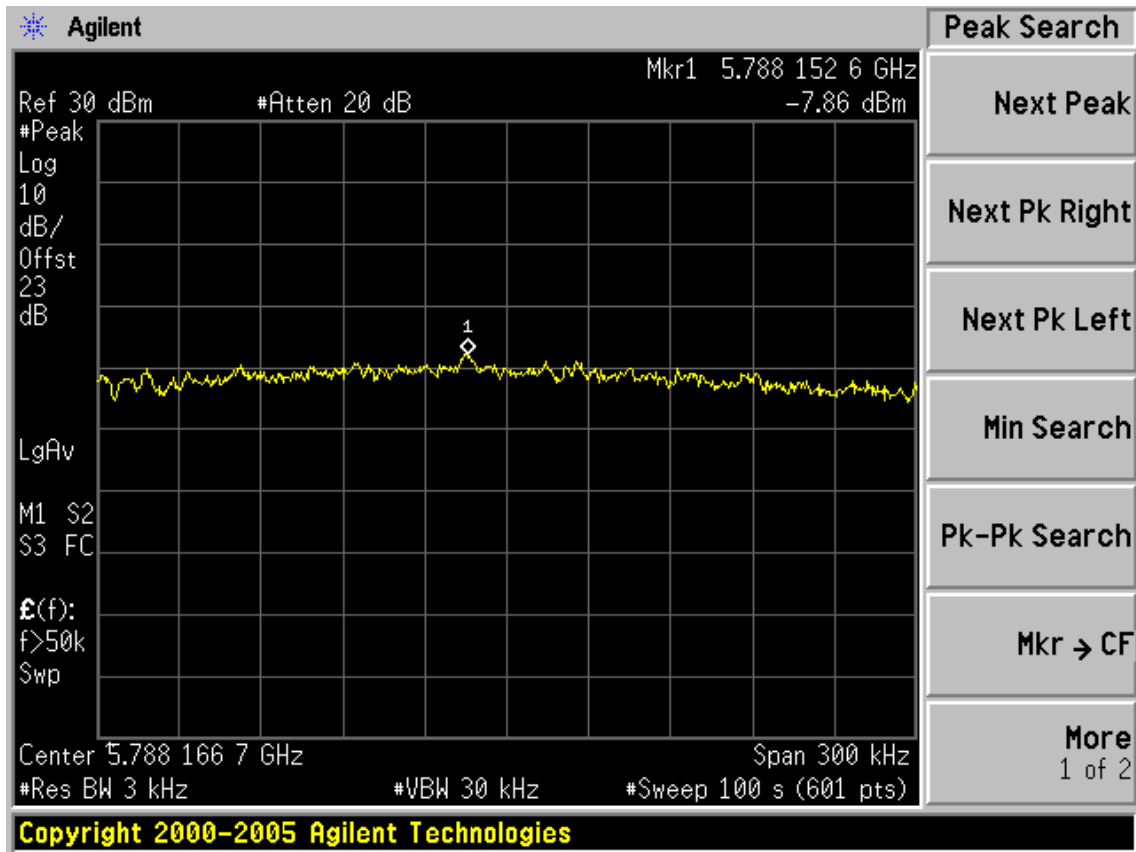
AT2:





AT3:





10. ANTENNA REQUIREMENT

10.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

10.2 ANTENNA CONNECTED CONSTRUCTION

The antennas used for this product are integral Patch MIMO 3x3 Antennas and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 6dBi for 2.4GHz and 8dBi for 5GHz

11.MPE ESTIMATION

11.1.Limit for General Population / Uncontrolled Exposures

Frequency	Power density (mW/cm ²)	Averaging time (minutes)
300MHz~1.5GHz	F/1500	30
1.5GHz~100GHz	1.0	30

Note: F = Frequency in MHz

11.2.Estimation Result

Mode	CH	PK Output power (dBm)	PK Output power (mW)	Antenna Gain (dBi)	Antenna Gain (linear)	MPE
11b	CH1	26.96	496.59	6	3.98	0.3935
	CH6	26.96	496.59	6	3.98	0.3935
	CH11	26.76	474.24	6	3.98	0.3758
11g	CH1	27.00	501.19	6	3.98	0.3971
	CH6	26.97	497.74	6	3.98	0.3944
	CH11	26.98	498.88	6	3.98	0.3953
11N HT20	CH1	26.83	481.95	6	3.98	0.3819
	CH6	26.93	493.17	6	3.98	0.3908
	CH11	26.95	495.45	6	3.98	0.3926
	CH149	26.96	496.59	8	6.31	0.6237
	CH157	26.85	484.17	8	6.31	0.6081
	CH165	26.92	492.04	8	6.31	0.6179
11N HT40	CH3	27.00	501.19	6	3.98	0.3971
	CH6	26.99	500.03	6	3.98	0.3962
	CH9	26.98	498.88	6	3.98	0.3953
	CH151	26.43	439.54	8	6.31	0.5520
	CH159	26.99	500.03	8	6.31	0.6280
11a	CH149	26.21	417.83	8	6.31	0.5247
	CH157	26.46	442.59	8	6.31	0.5558
	CH165	26.98	498.88	8	6.31	0.6265

12.DEVIATION TO TEST SPECIFICATIONS

[NONE]