



Appendix A

20dB bandwidth measurement

According to FCC Part 15.247 (a) (1)



Modulation: $\pi/4$ -DQPSK Channel 0 (2402MHz)





Channel 40 (2442MHz)

Agilent
R T

Ch Freq 2.442 GHz **Trig** Free

Occupied Bandwidth

Center Freq
2.44200000 GHz

Start Freq
2.44100000 GHz

Stop Freq
2.44300000 GHz

CF Step
200.000000 kHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

Ref 20 dBm #Atten 30 dB

Center 2.442 000 GHz Span 2 MHz
 #Res BW 30 kHz #VBW 100 kHz #Sweep 10 ms (601 pts)

Occupied Bandwidth	Occ BW % Pwr 99.00 %
1.2038 MHz	x dB -20.00 dB
Transmit Freq Error	-48.251 kHz
x dB Bandwidth	1.280 MHz

File Operation Status, C:PICTURE.GIF file saved



Channel 78 (2480MHz)



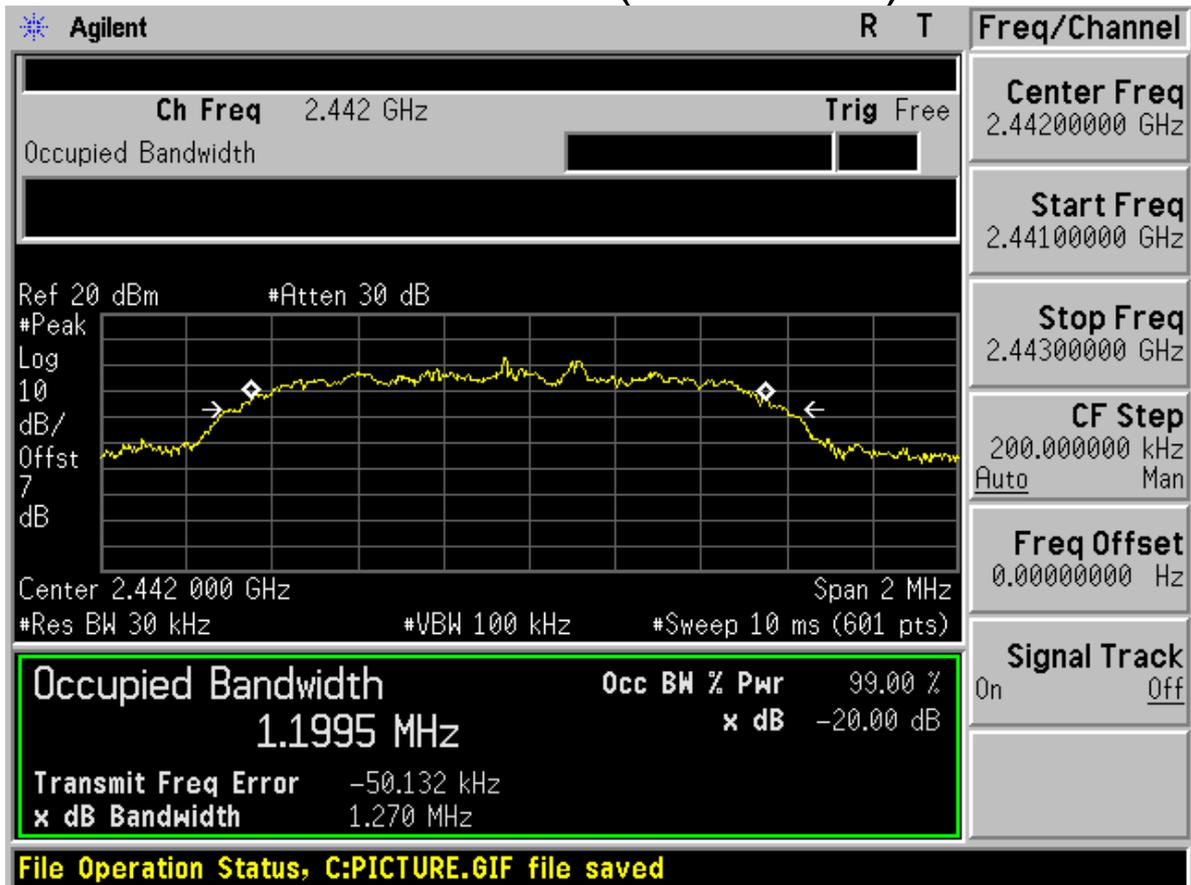


Modulation: 8DPSK Channel 0 (2402MHz)





Channel 40 (2442MHz)





Channel 78 (2480MHz)





Appendix B

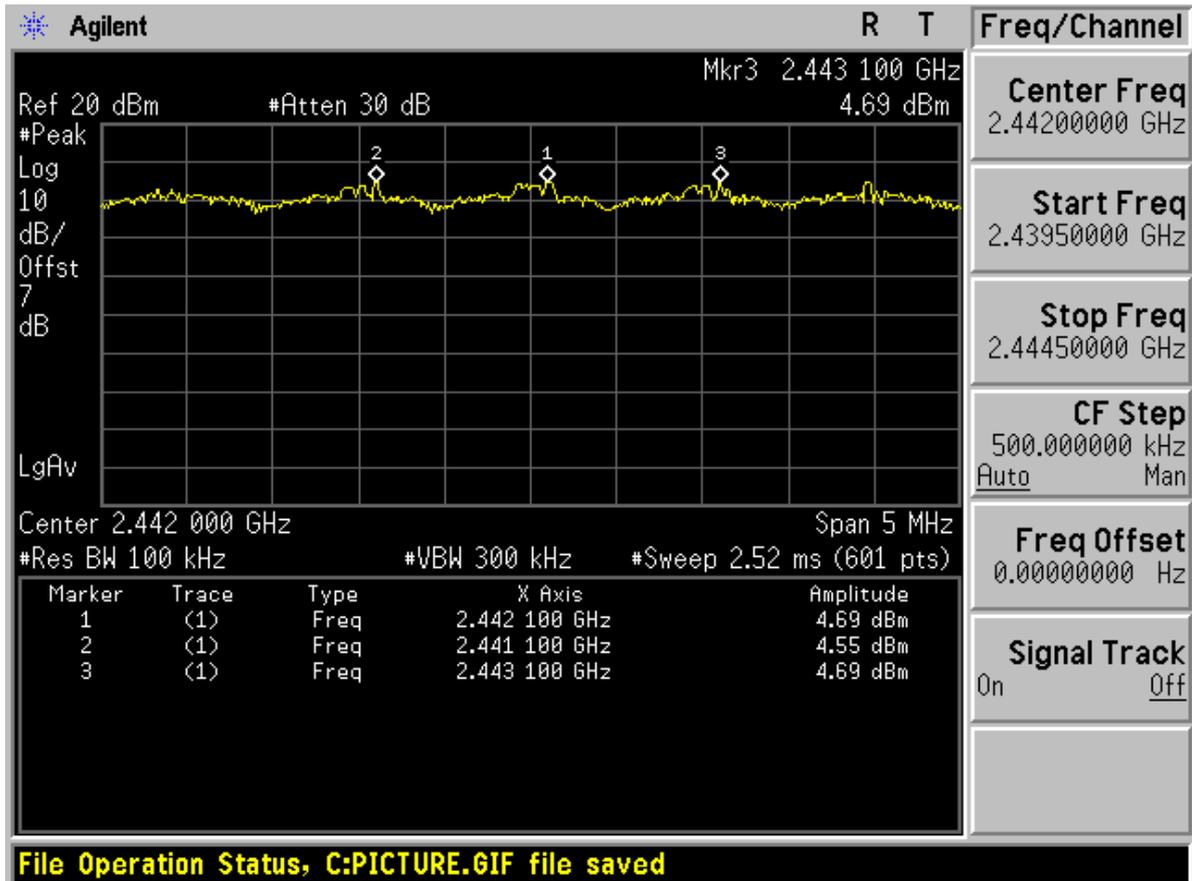
Carrier frequency separation measurement

According to FCC Part 15.247 (a) (1)



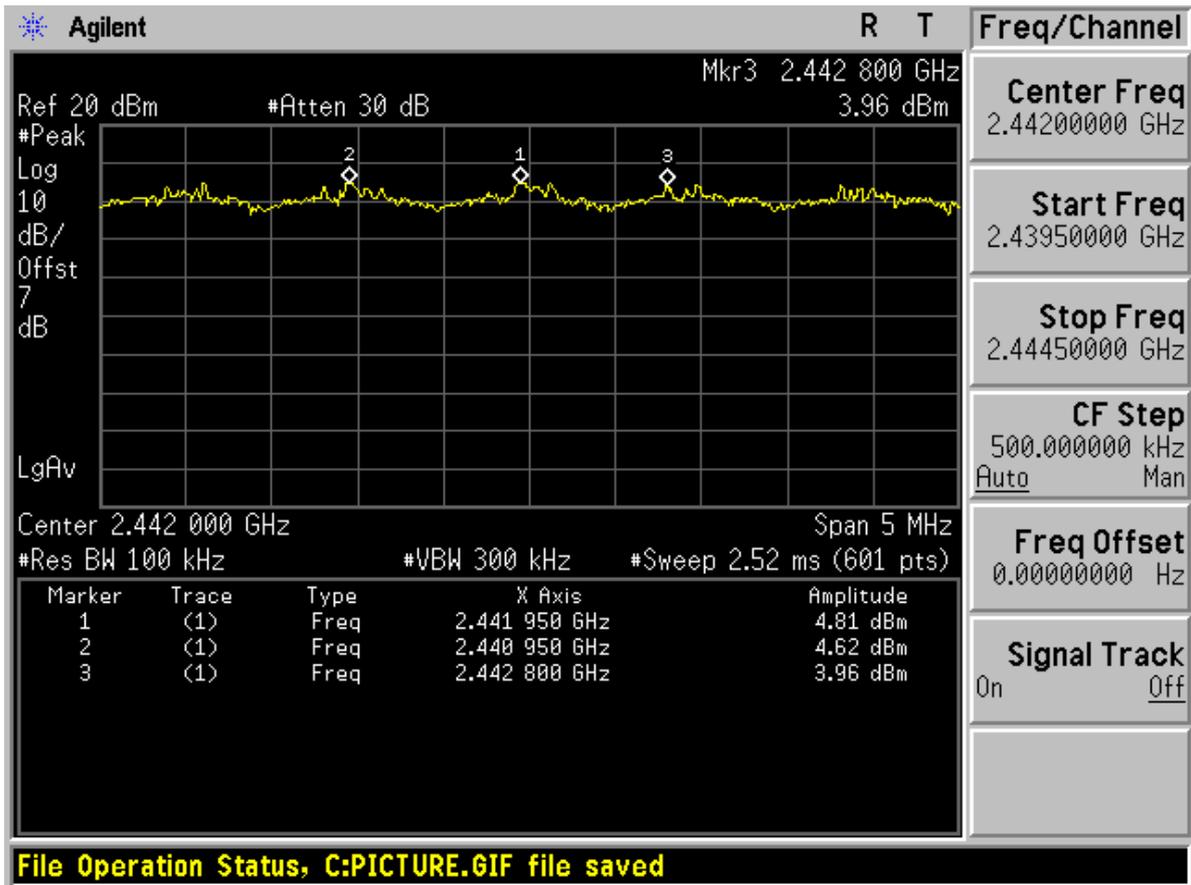
Modulation: $\pi/4$ -DQPSK

Centred at Channel 40





Modulation: 8DPSK Centred at Channel 40





Appendix C

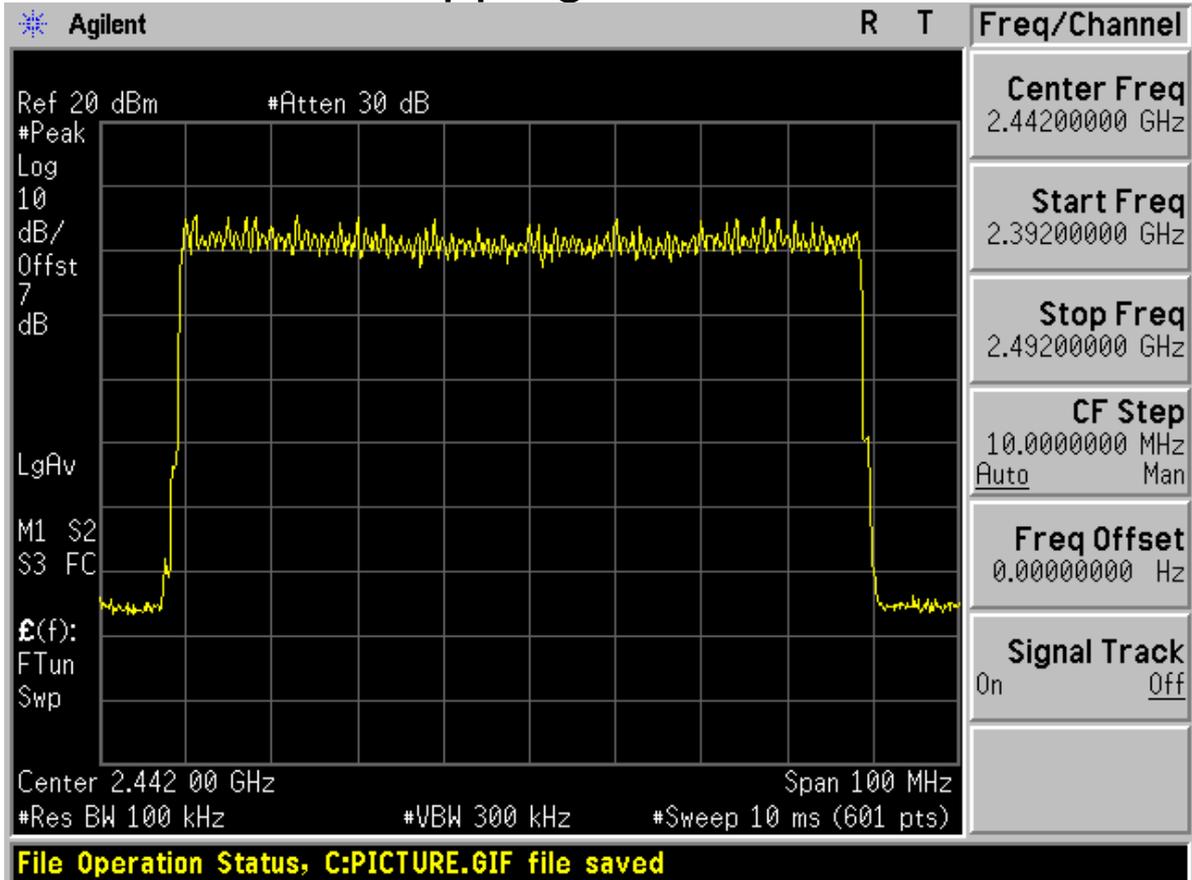
Number of hopping channel

According to FCC Part 15.247 (a) (1) iii



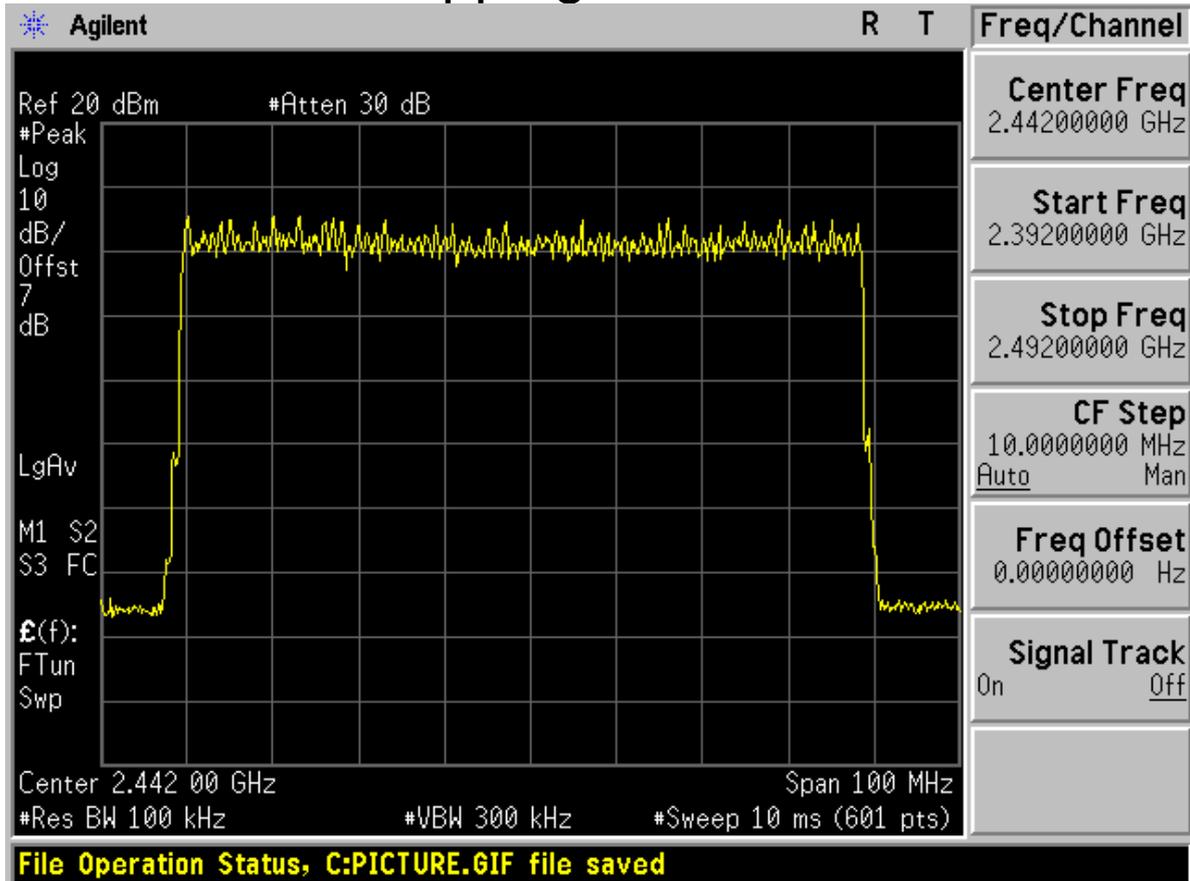
Modulation: $\pi/4$ -DQPSK

Total hopping channels = 79





Modulation: 8DPSK Total hopping channels = 79





Appendix D

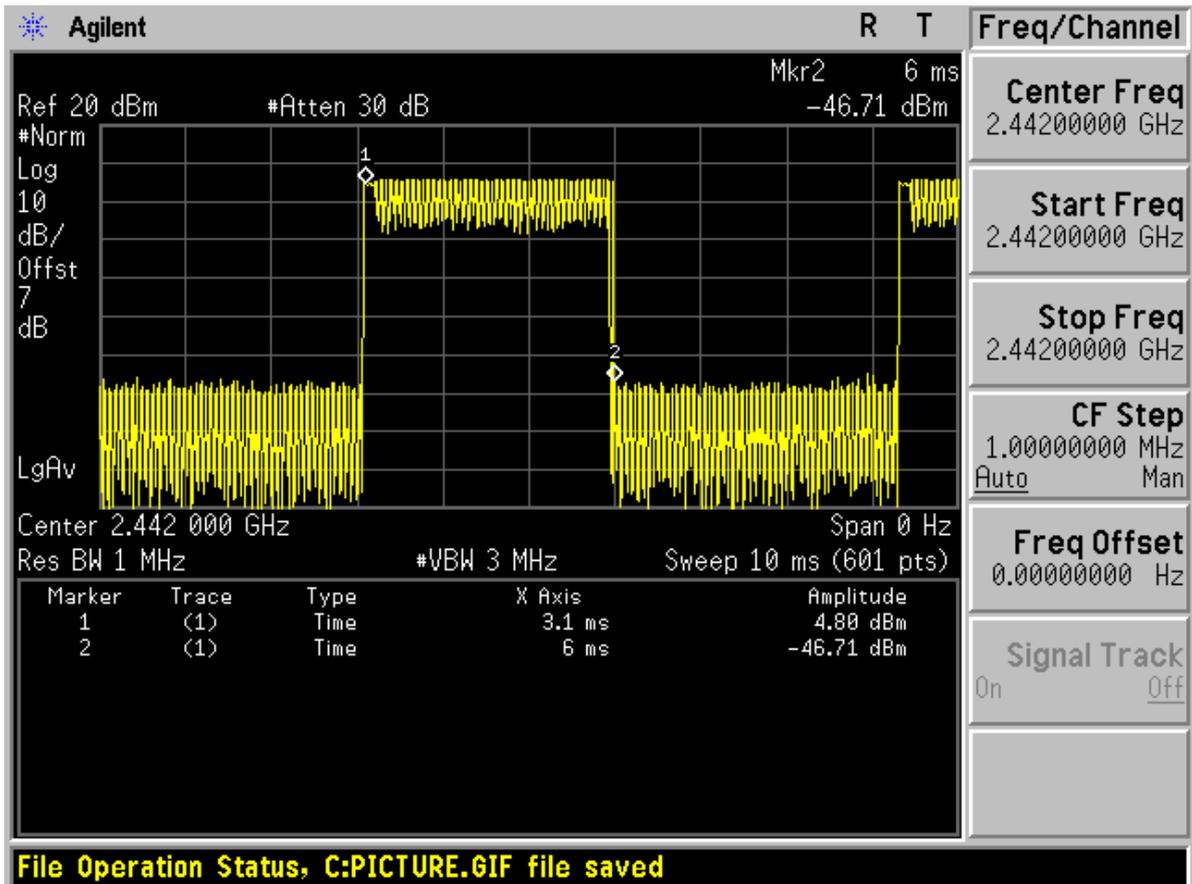
Time of occupancy

According to FCC Part 15.247 (a) (1) iii



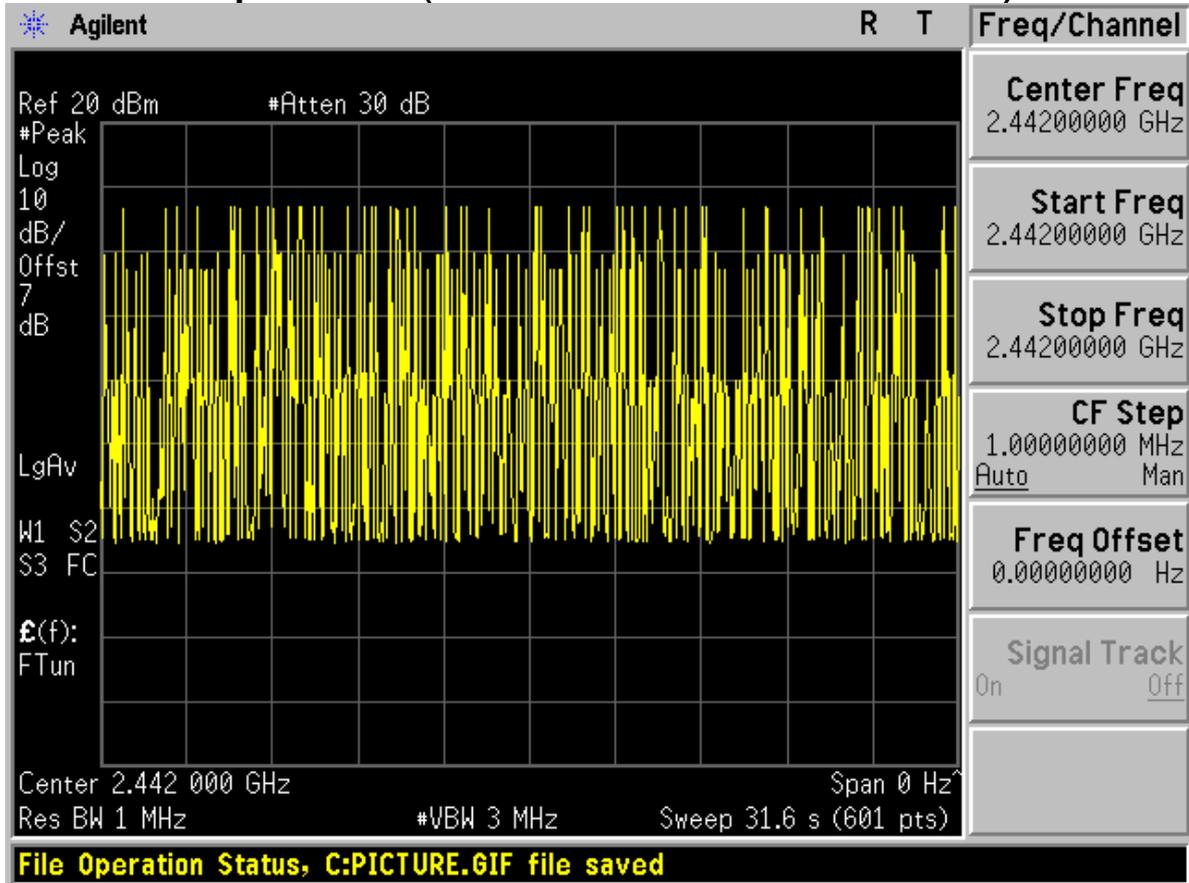
Modulation: $\pi/4$ -DQPSK

A burst (One time slot)





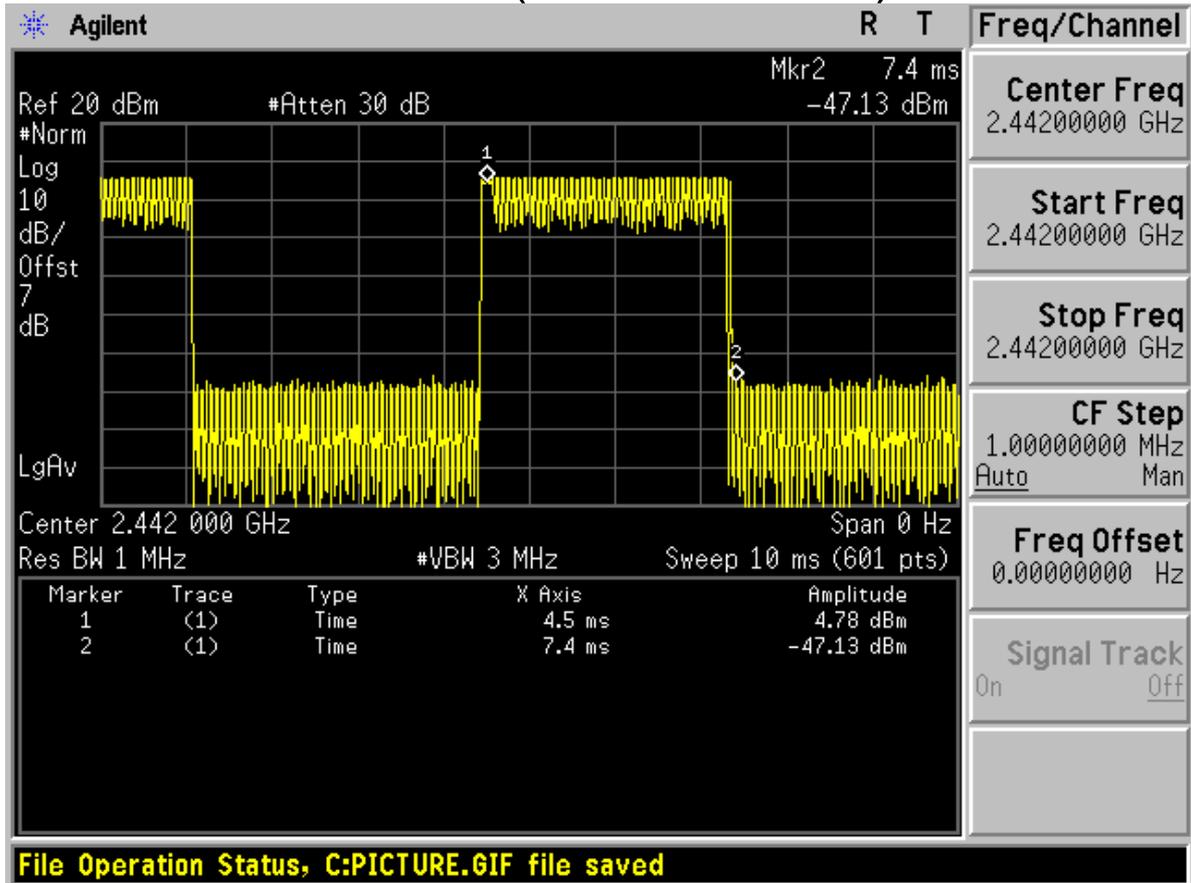
A period (Less than 106.7 burst)





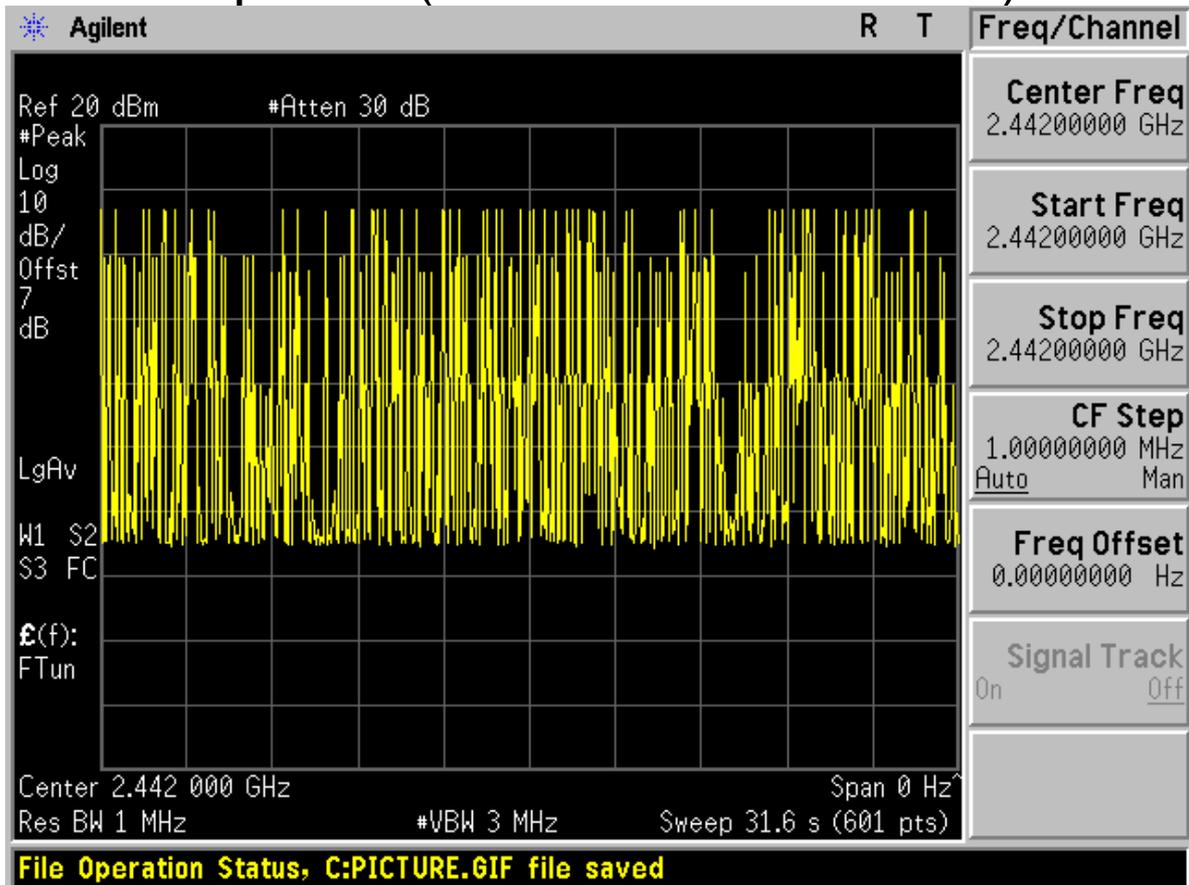
Modulation: 8DPSK

A burst (One time slot)





A period (Less than 106.7 burst)





Appendix E

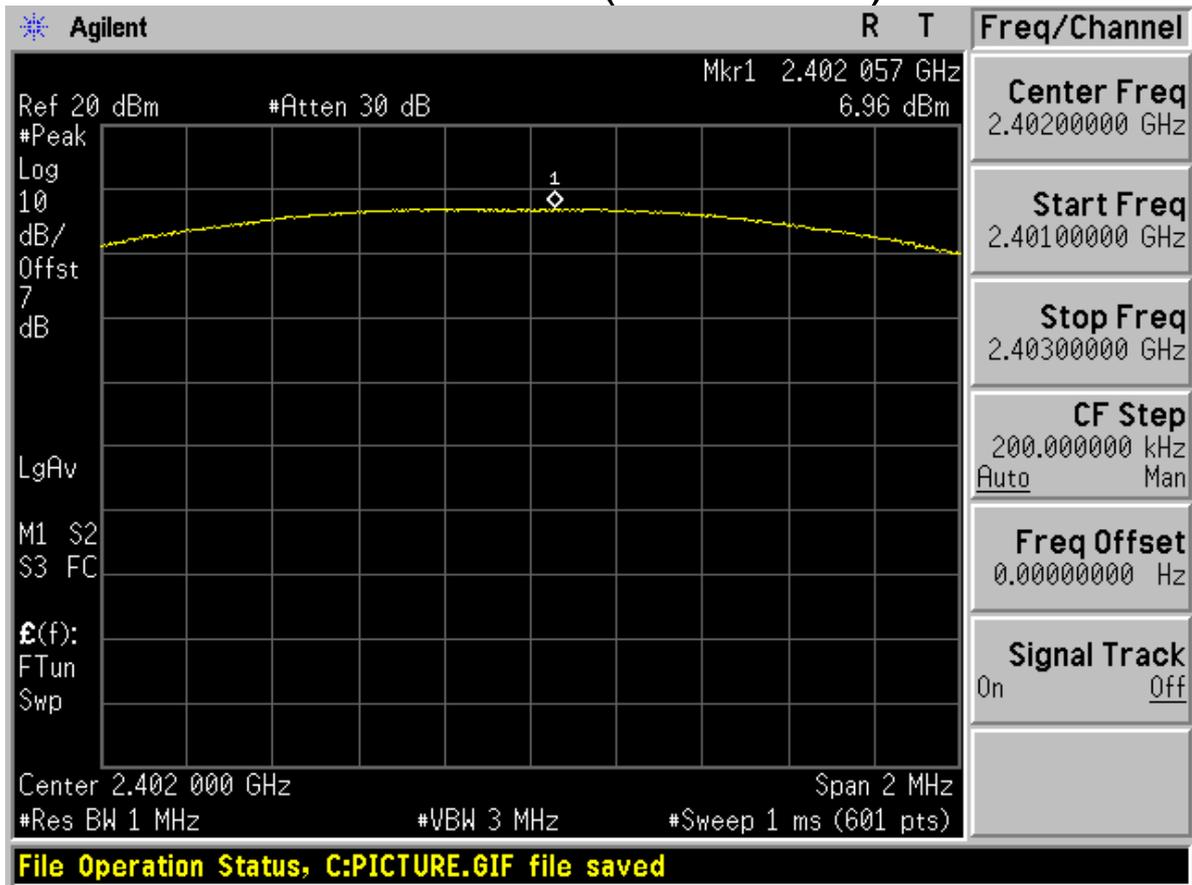
Peak output power

According to FCC Part 15.247 (b) (1)



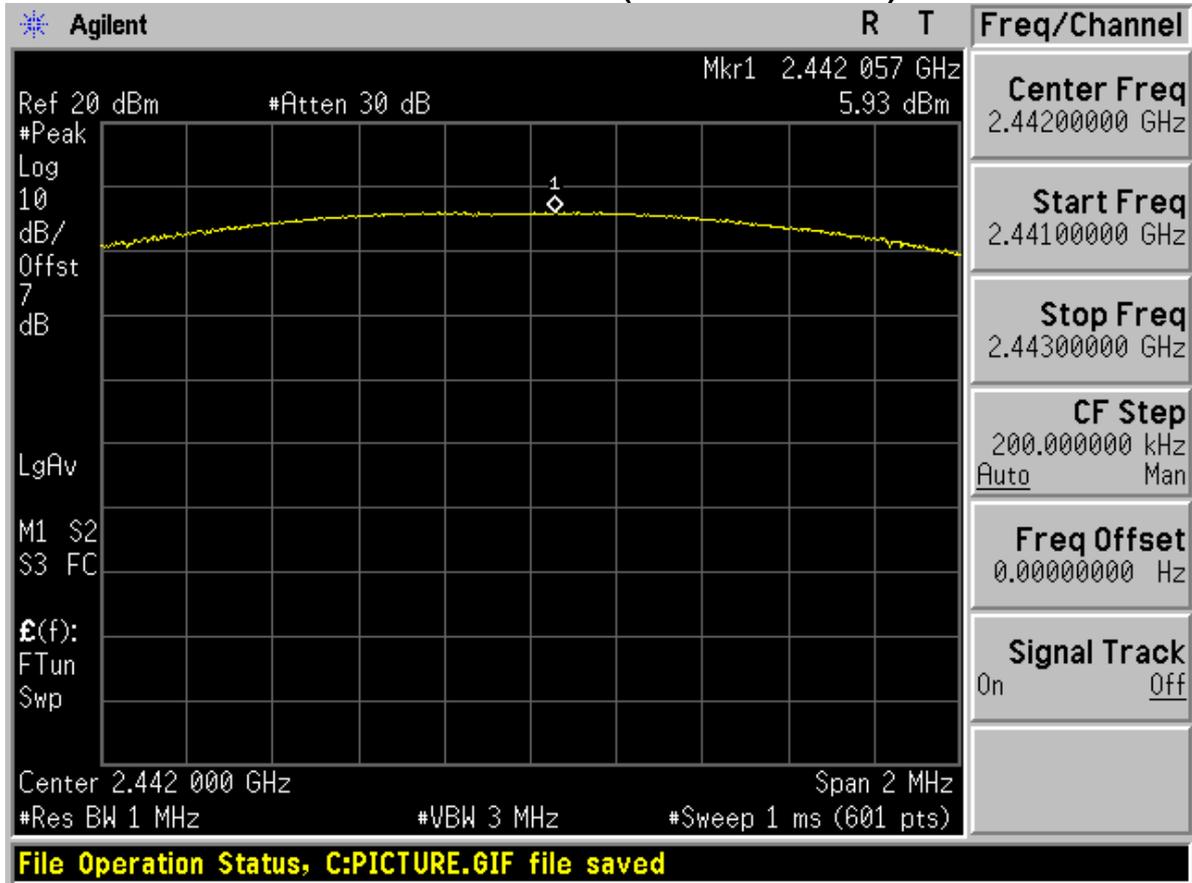
Modulation: $\pi/4$ -DQPSK

Channel 0 (2402MHz)



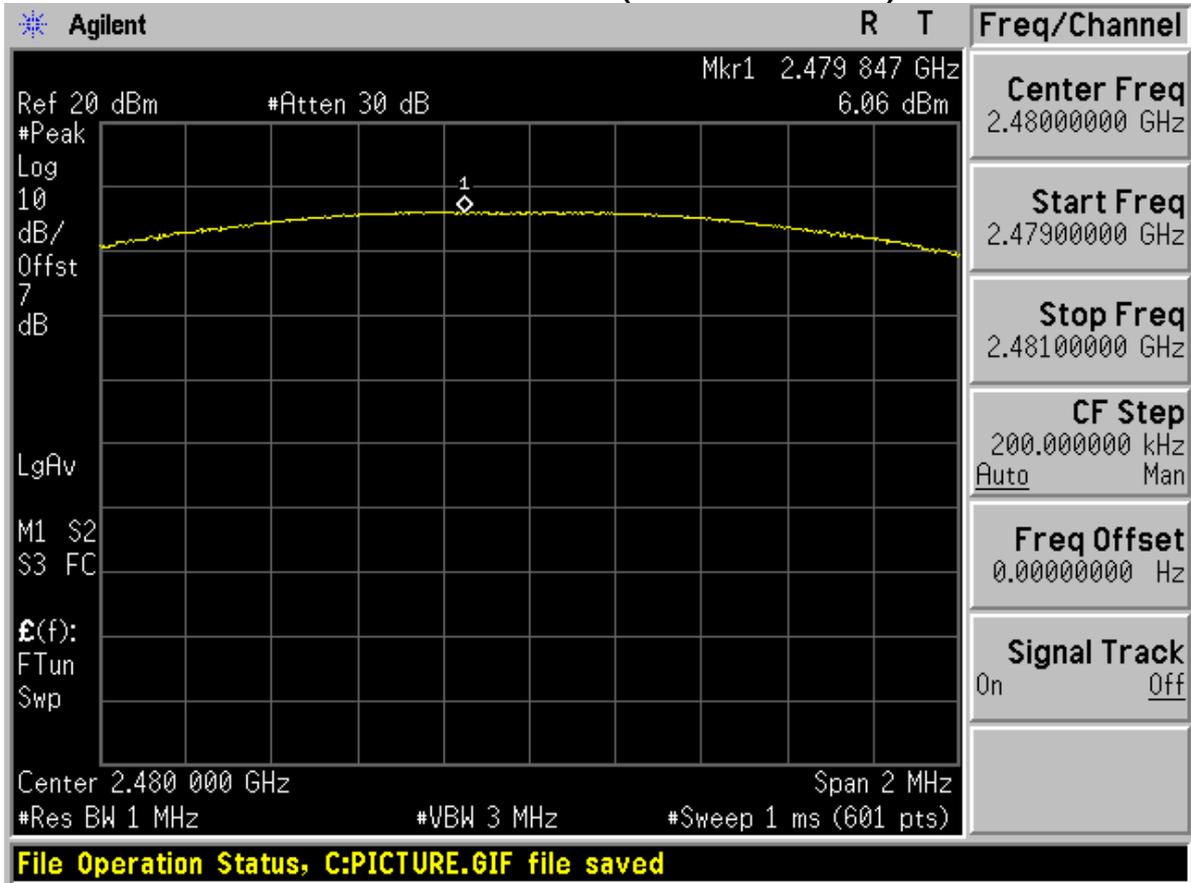


Channel 40 (2442MHz)



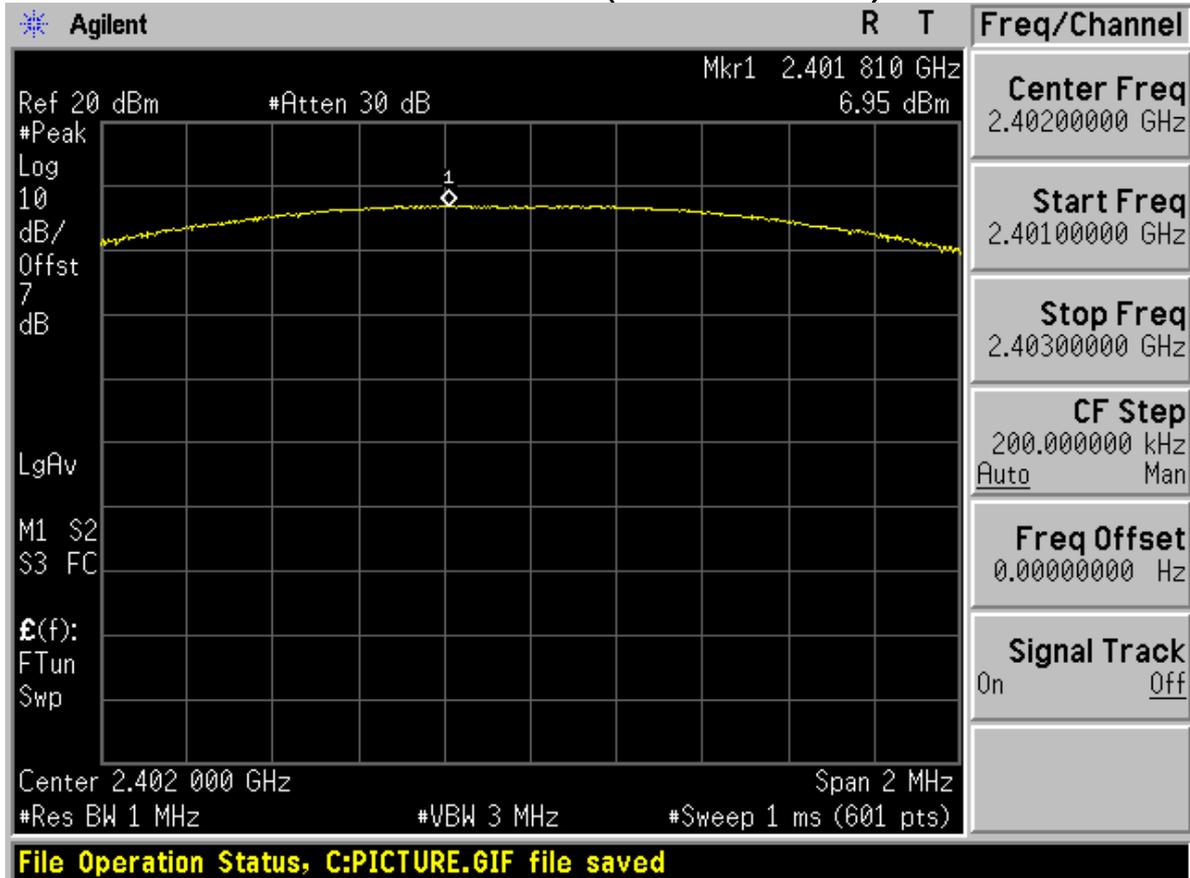


Channel 78 (2480MHz)



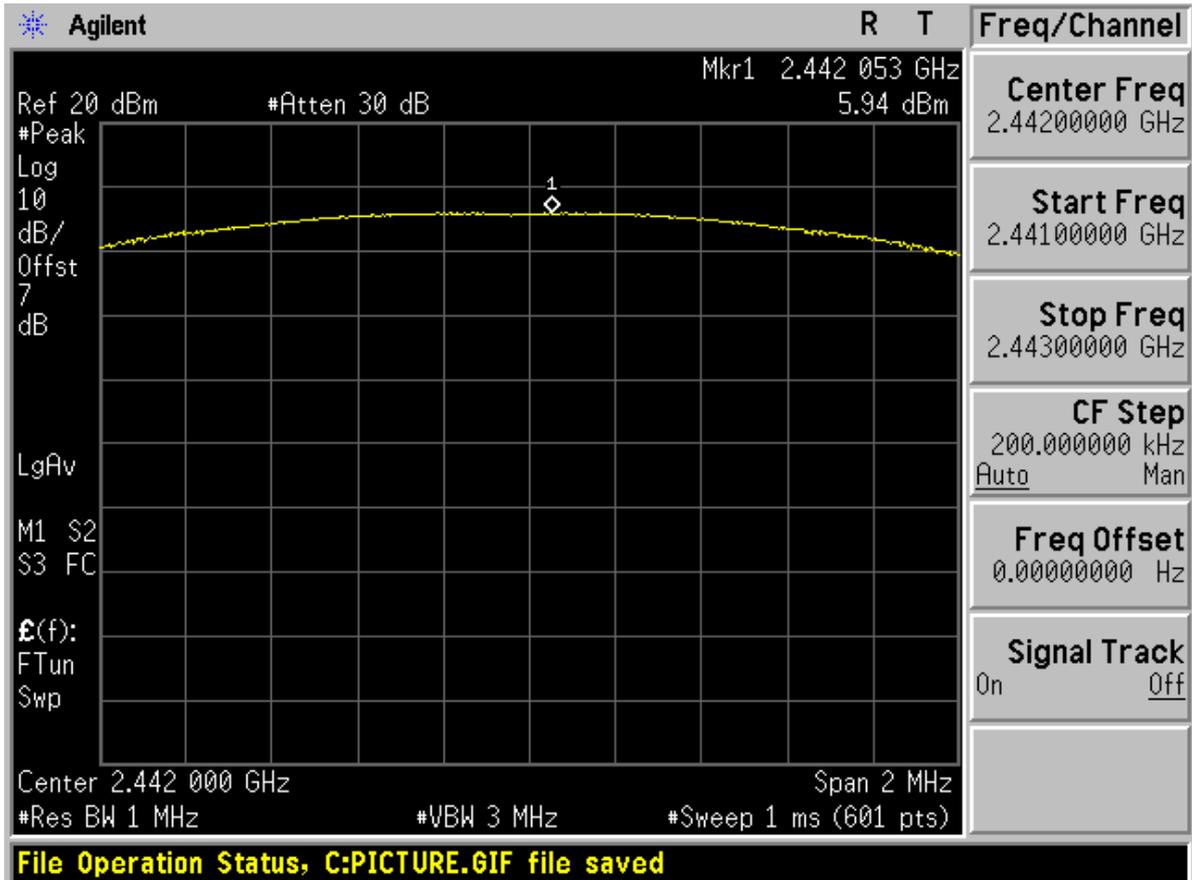


Modulation: 8DPSK Channel 0 (2402MHz)



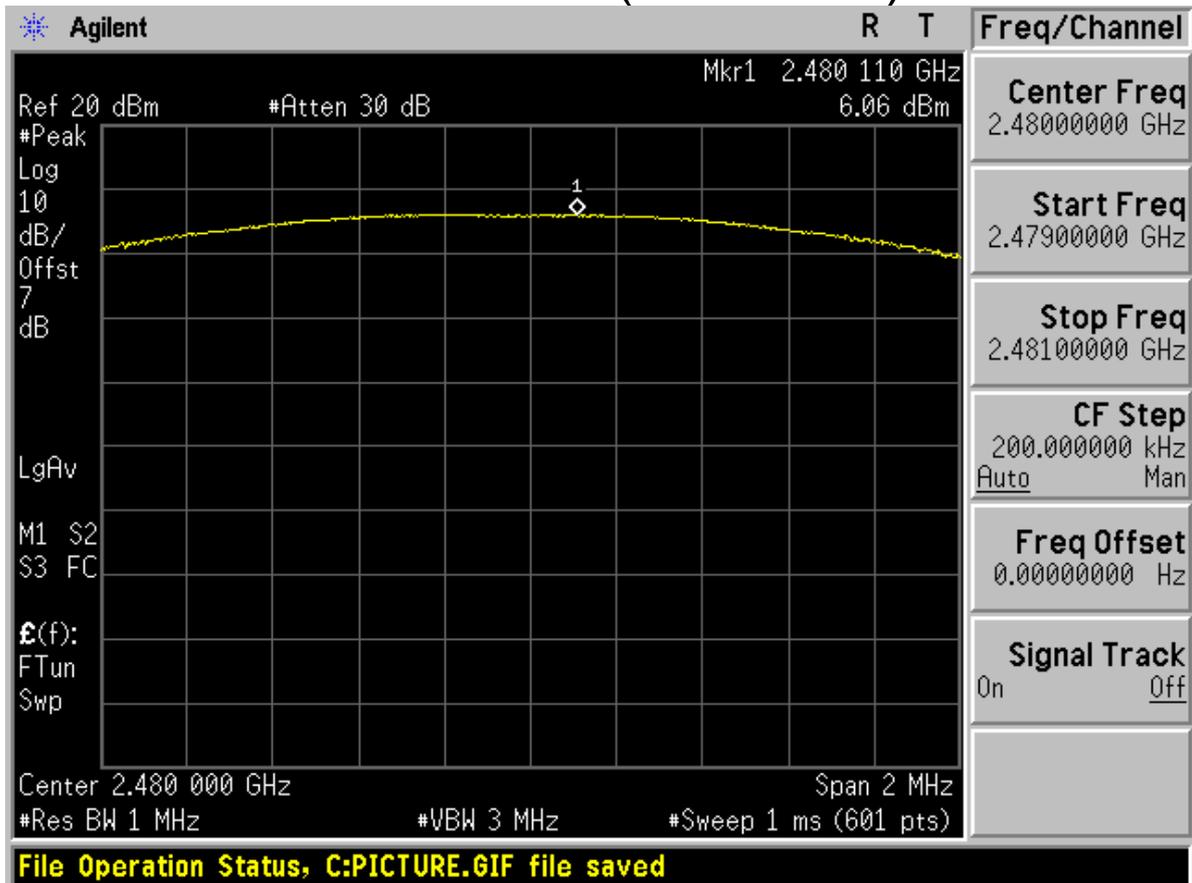


Channel 40 (2442MHz)





Channel 78 (2480MHz)





Appendix F

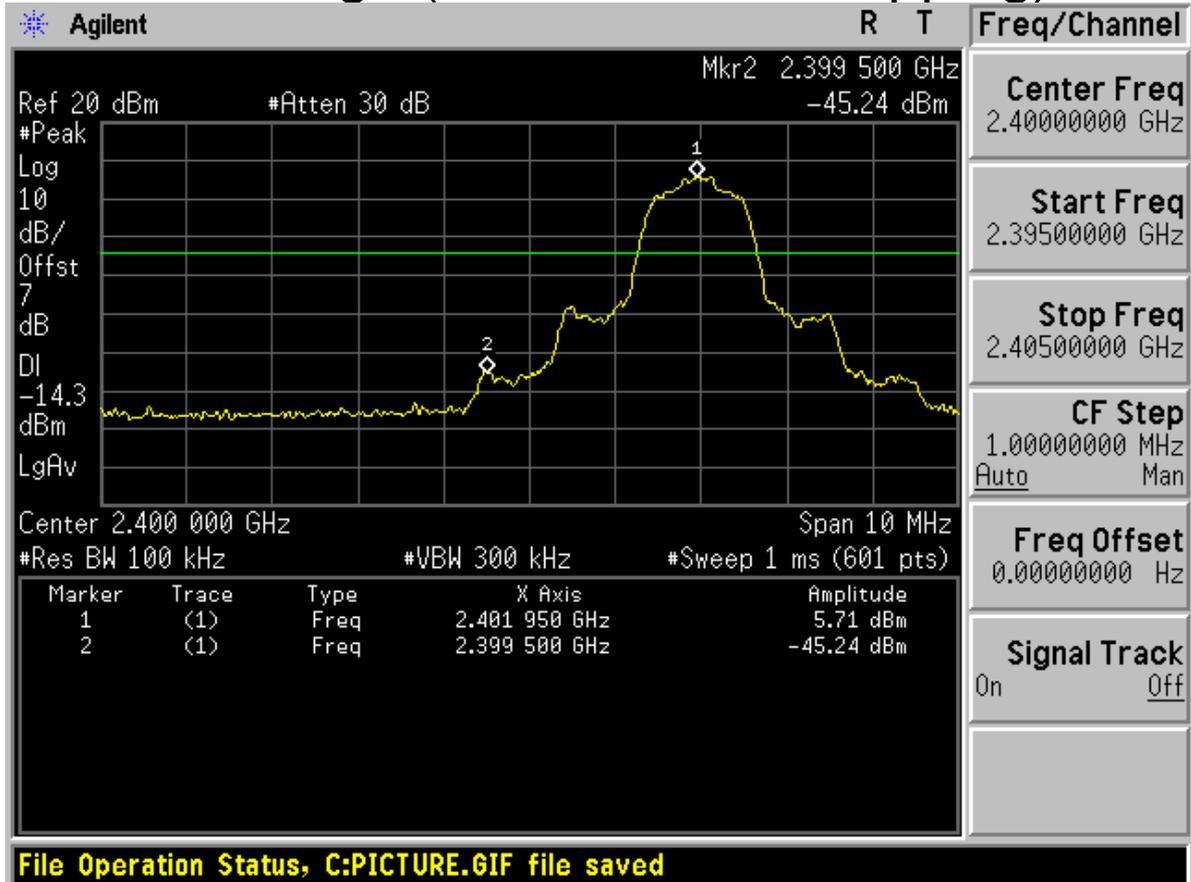
Band edge spurious emission

According to FCC Part 15.247 (d)



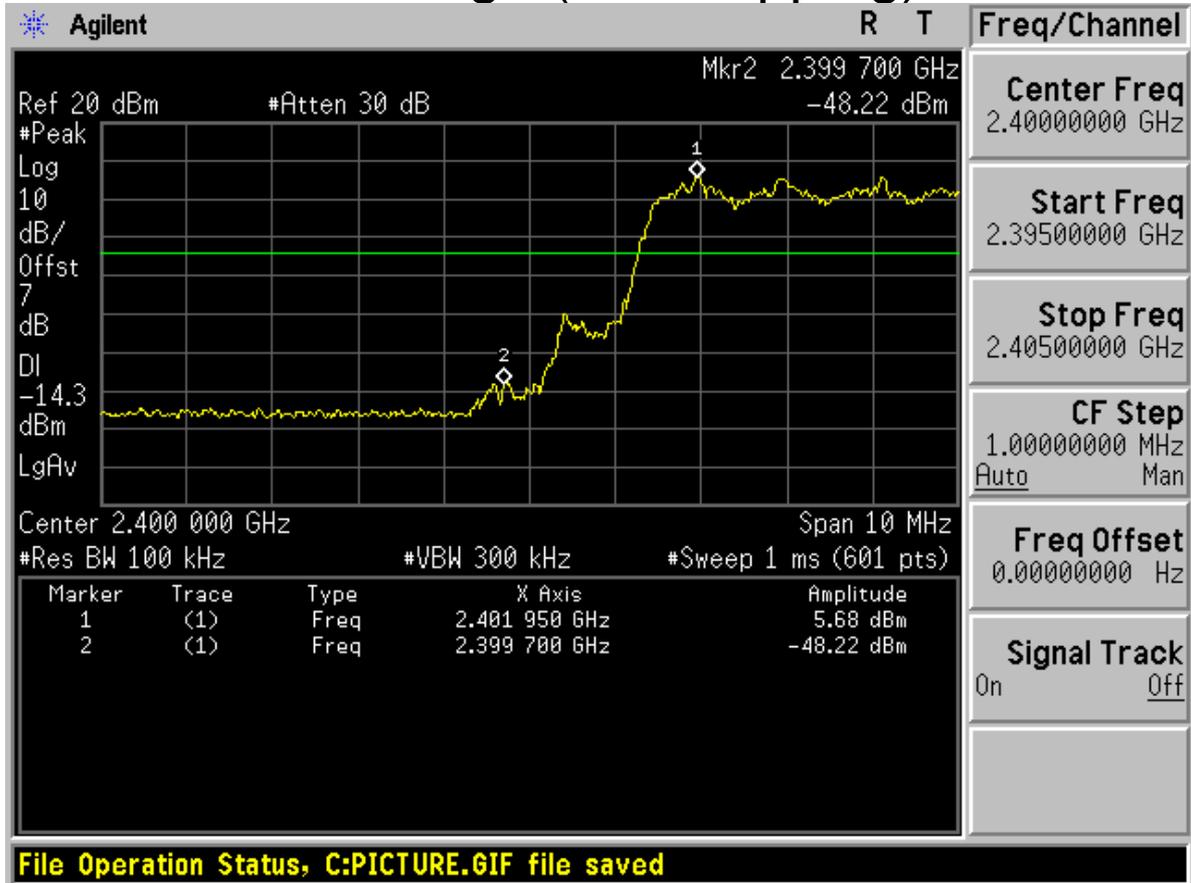
Modulation: $\pi/4$ -DQPSK

Low edge (Channel 0, no hopping)



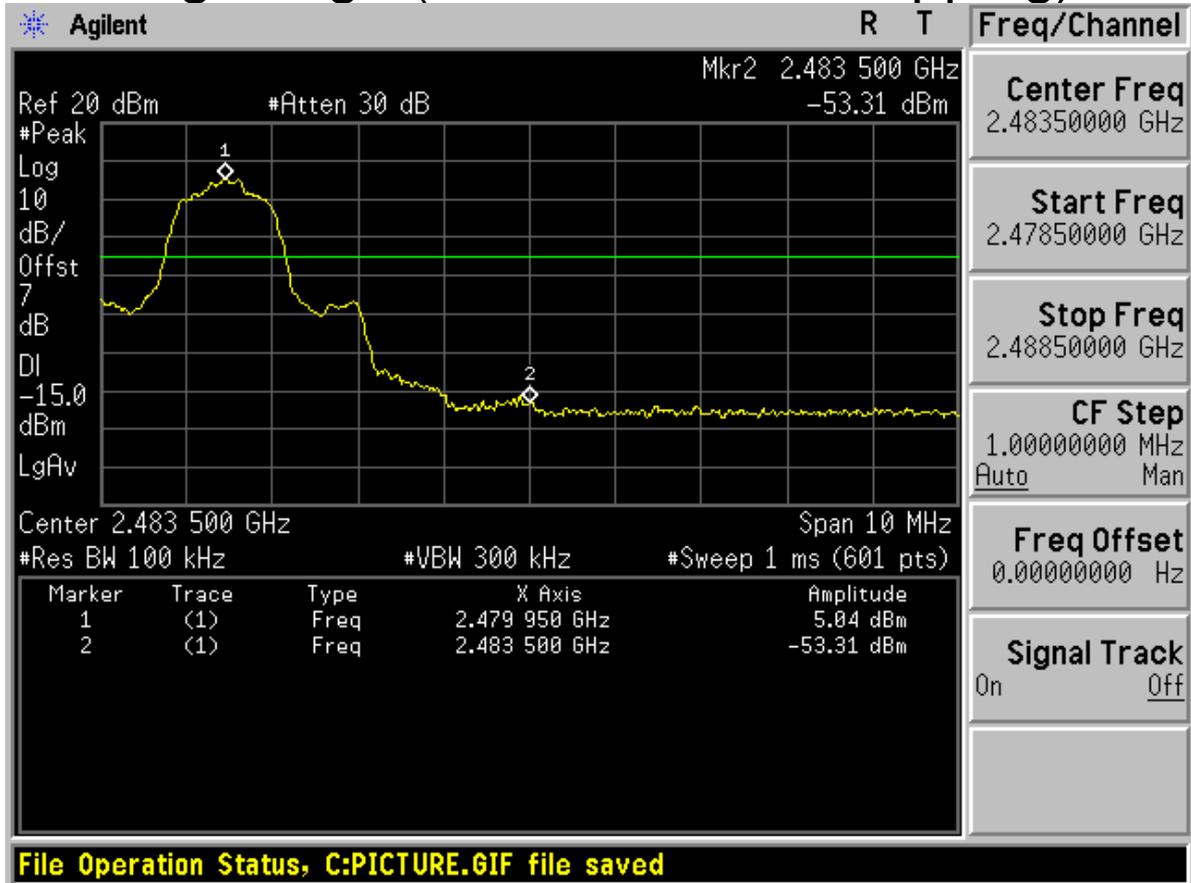


Low edge (with hopping)



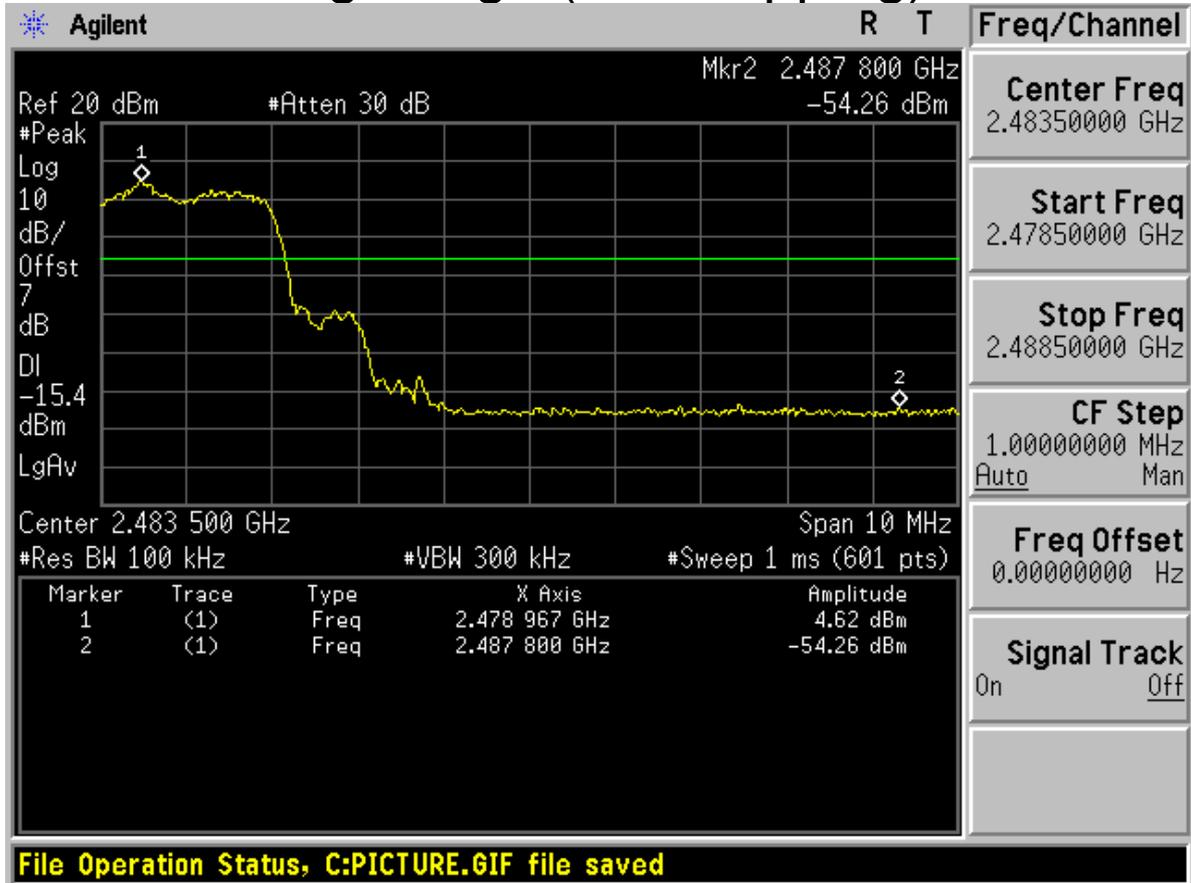


High edge (Channel 78, no hopping)



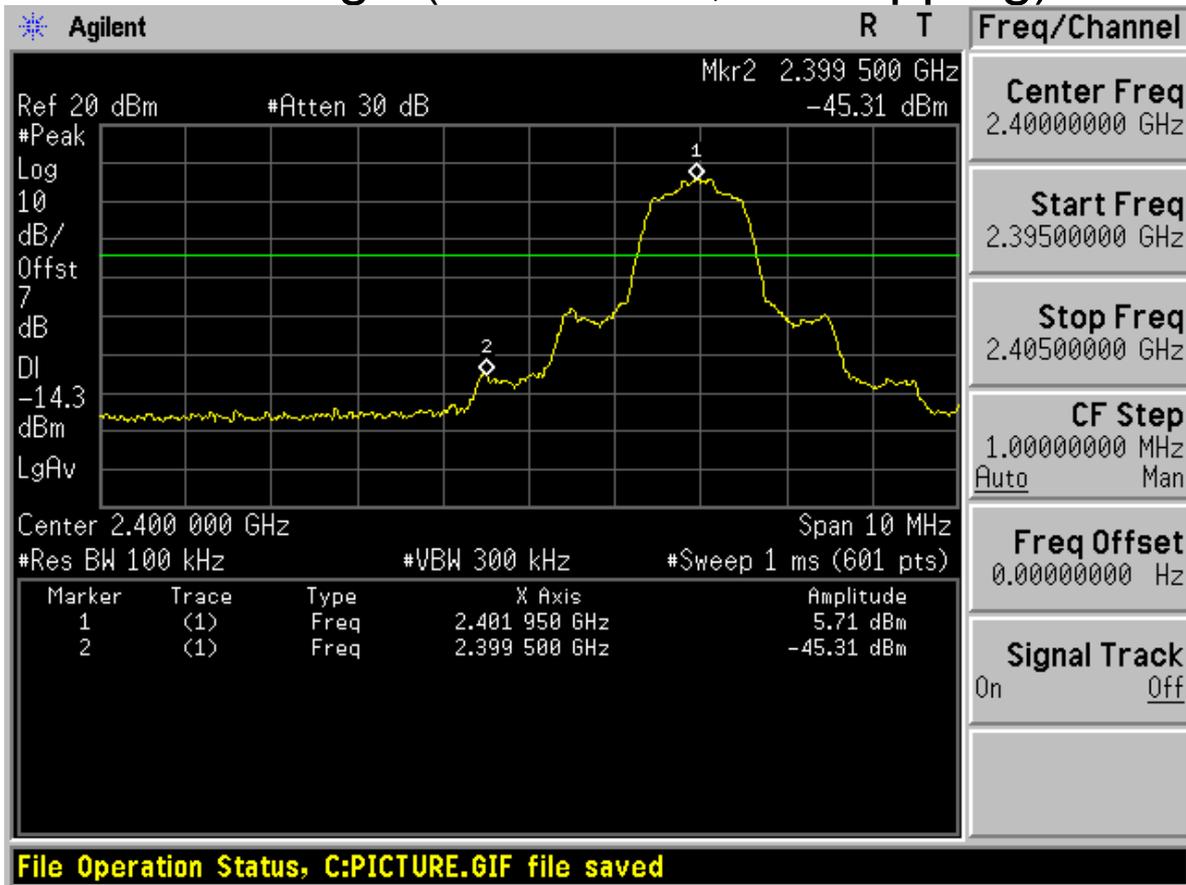


High edge (with hopping)



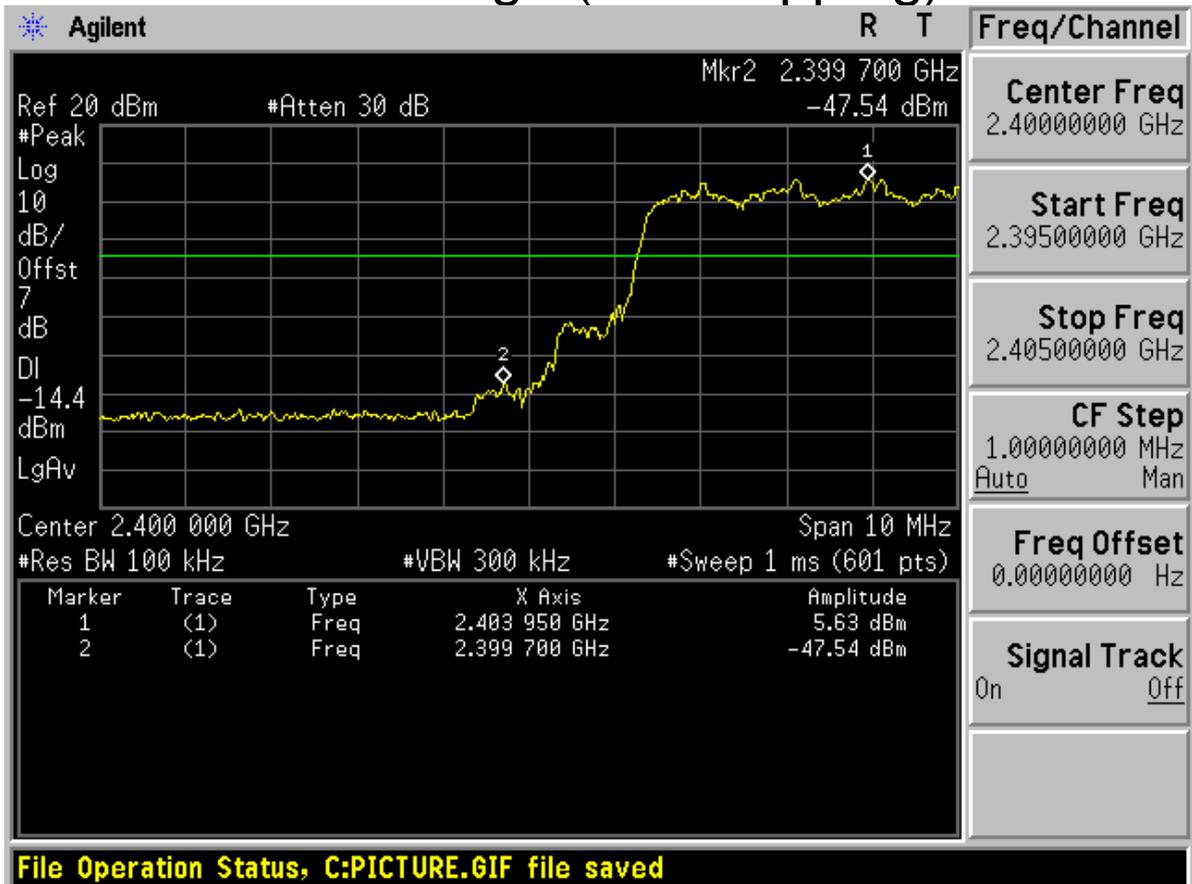


Modulation: 8DPSK Low edge (Channel 0, no hopping)



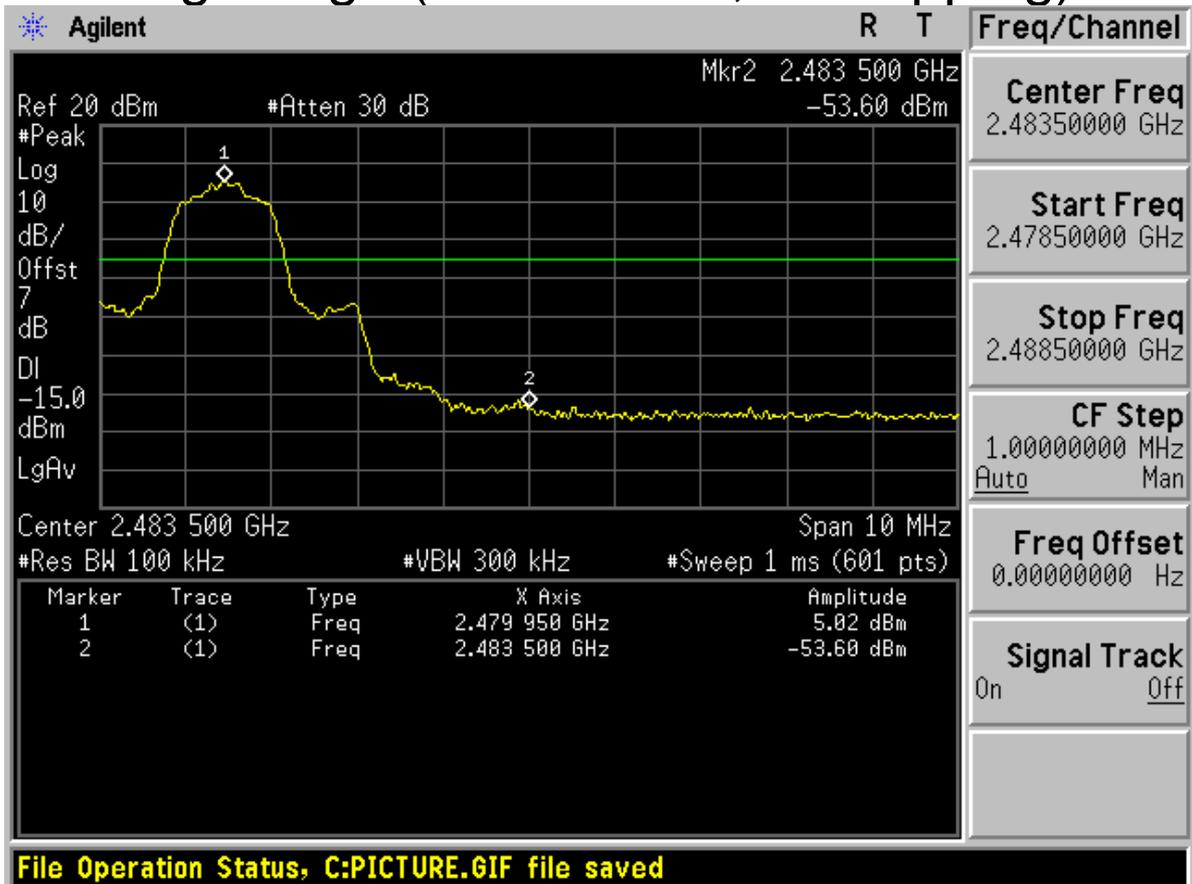


Low edge (with hopping)



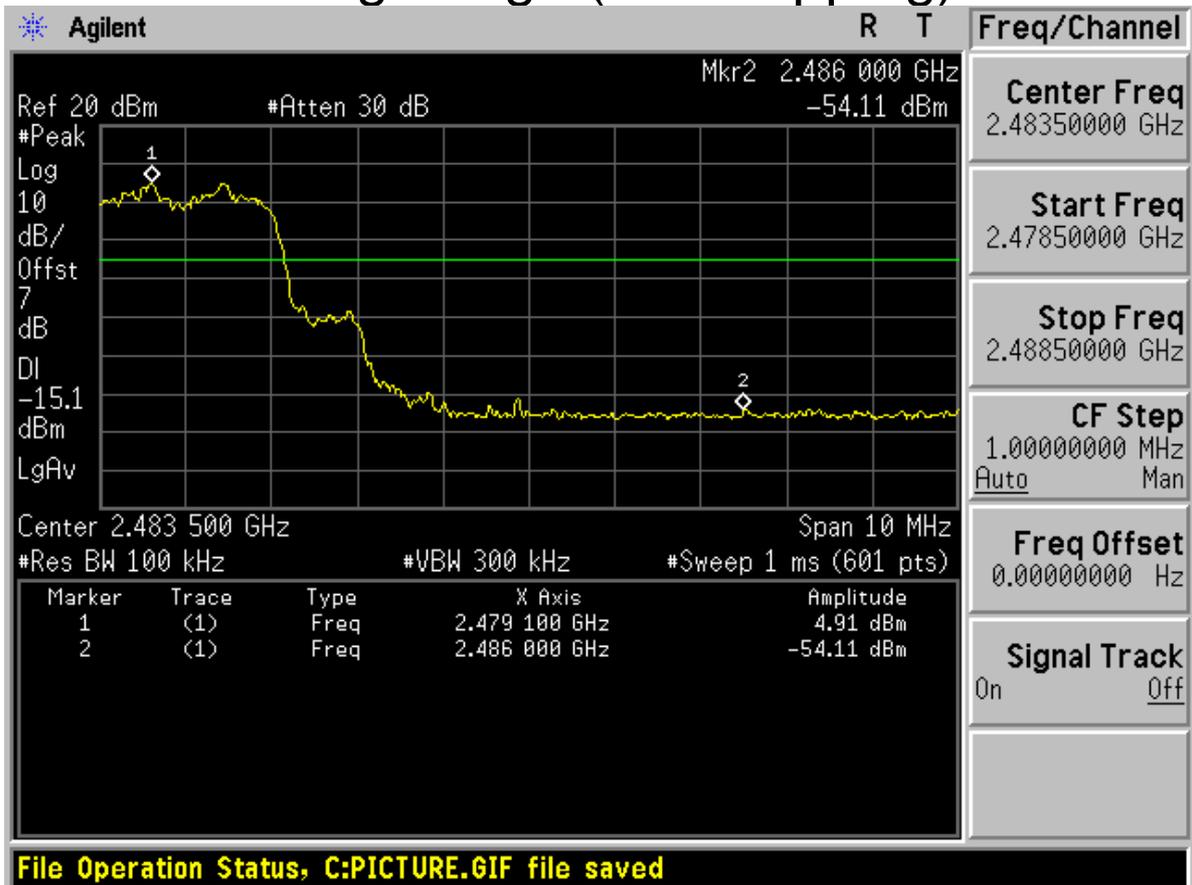


High edge (Channel 78, no hopping)





High edge (with hopping)





Appendix G

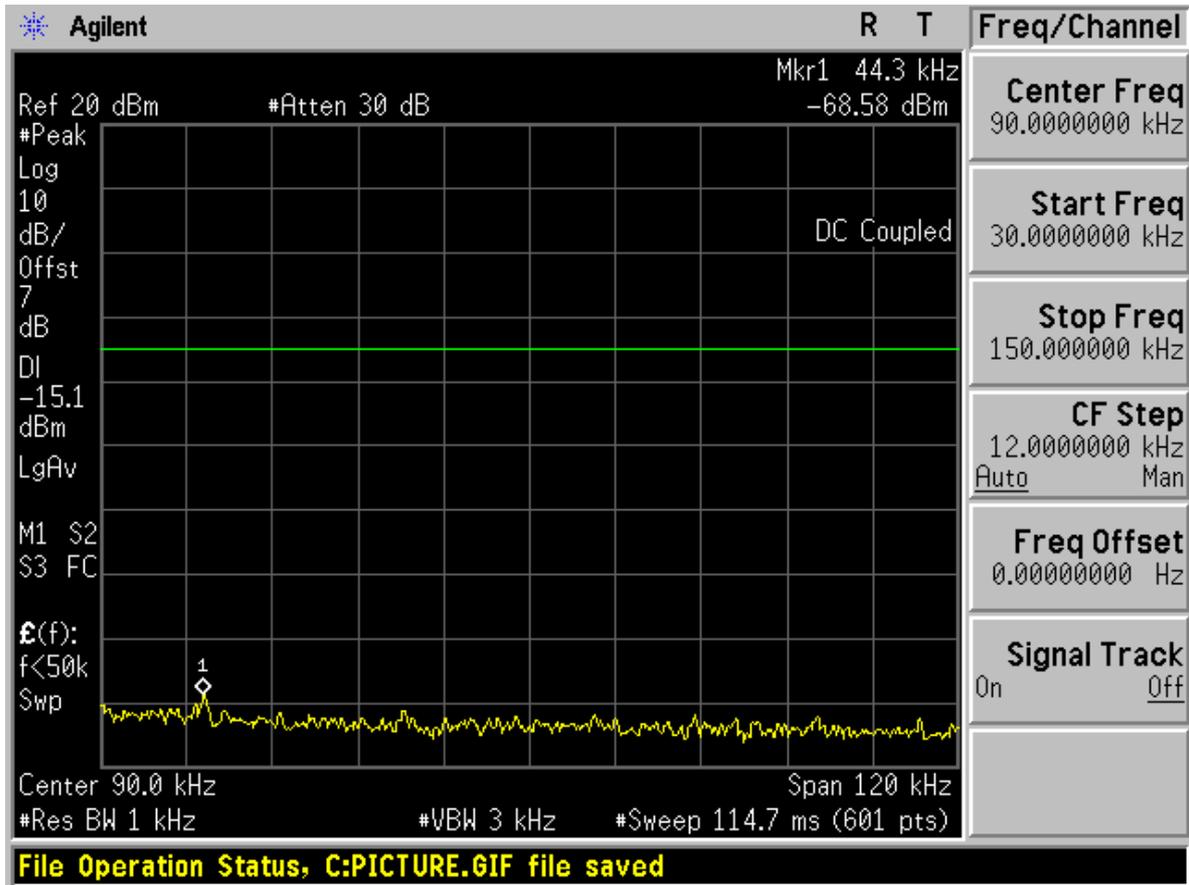
Conducted RF spurious

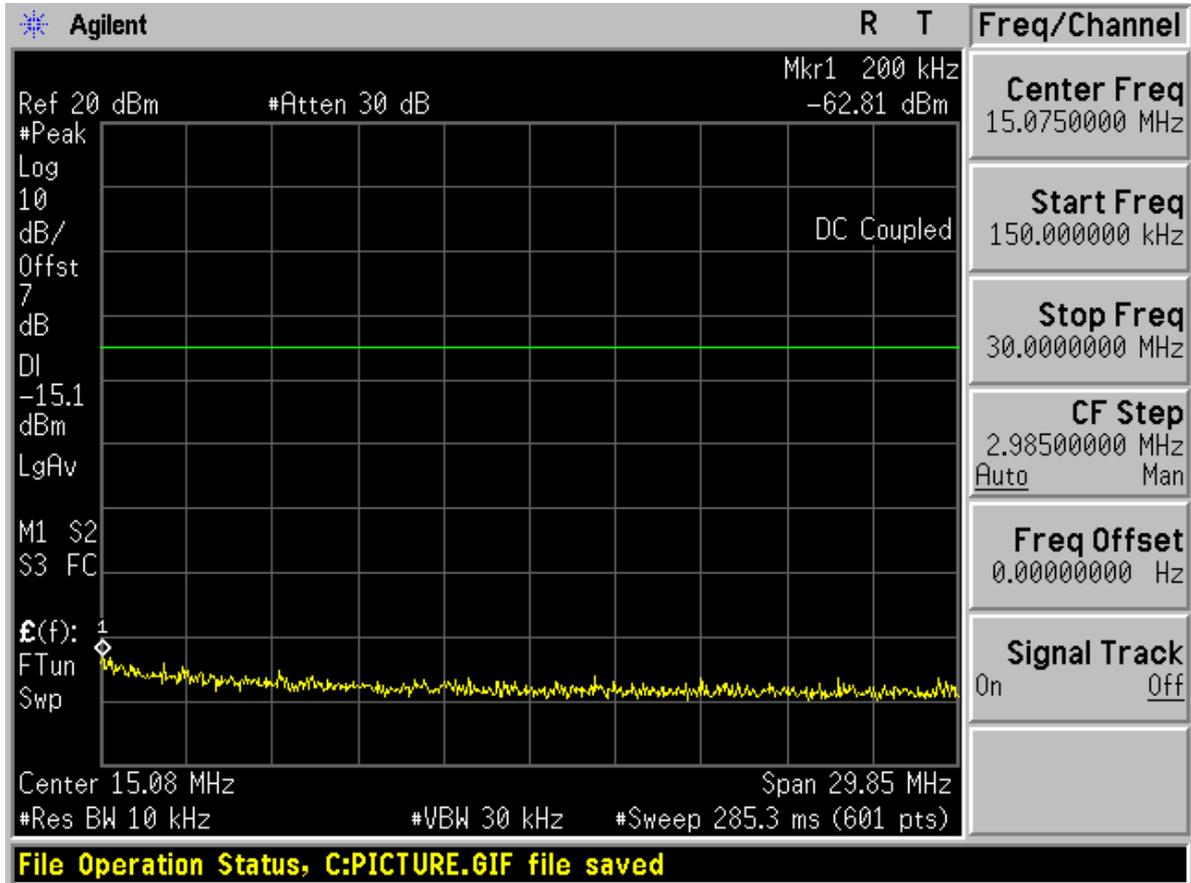
According to FCC Part 15.247 (d)

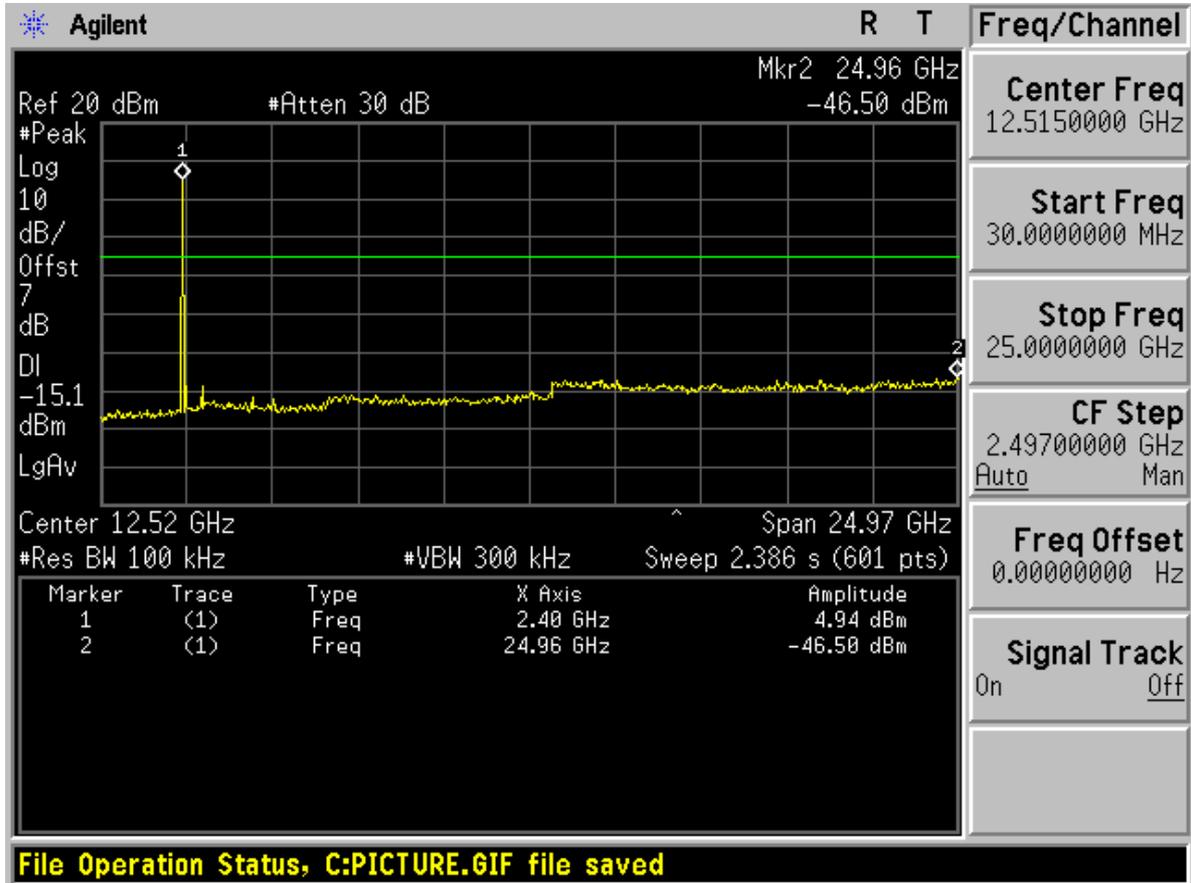


Modulation: $\pi/4$ -DQPSK

Channel 0

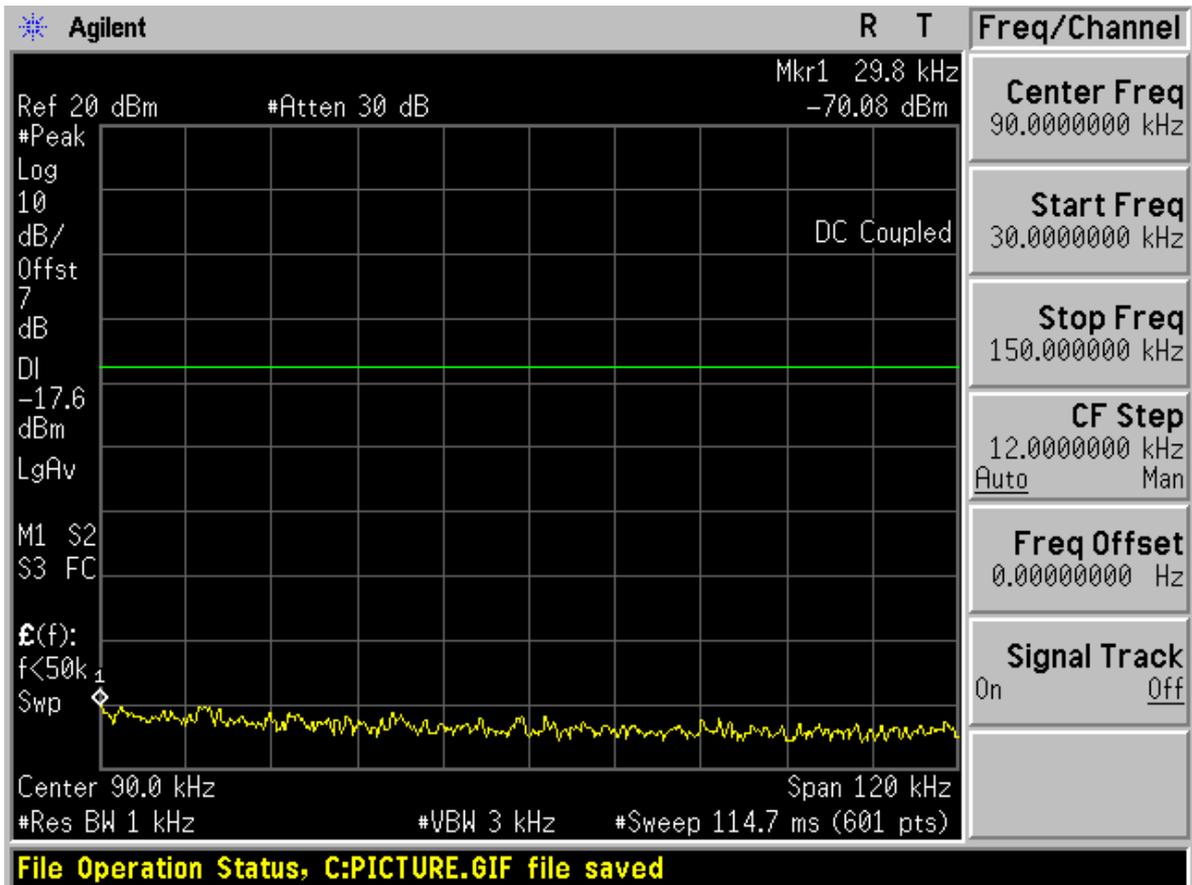


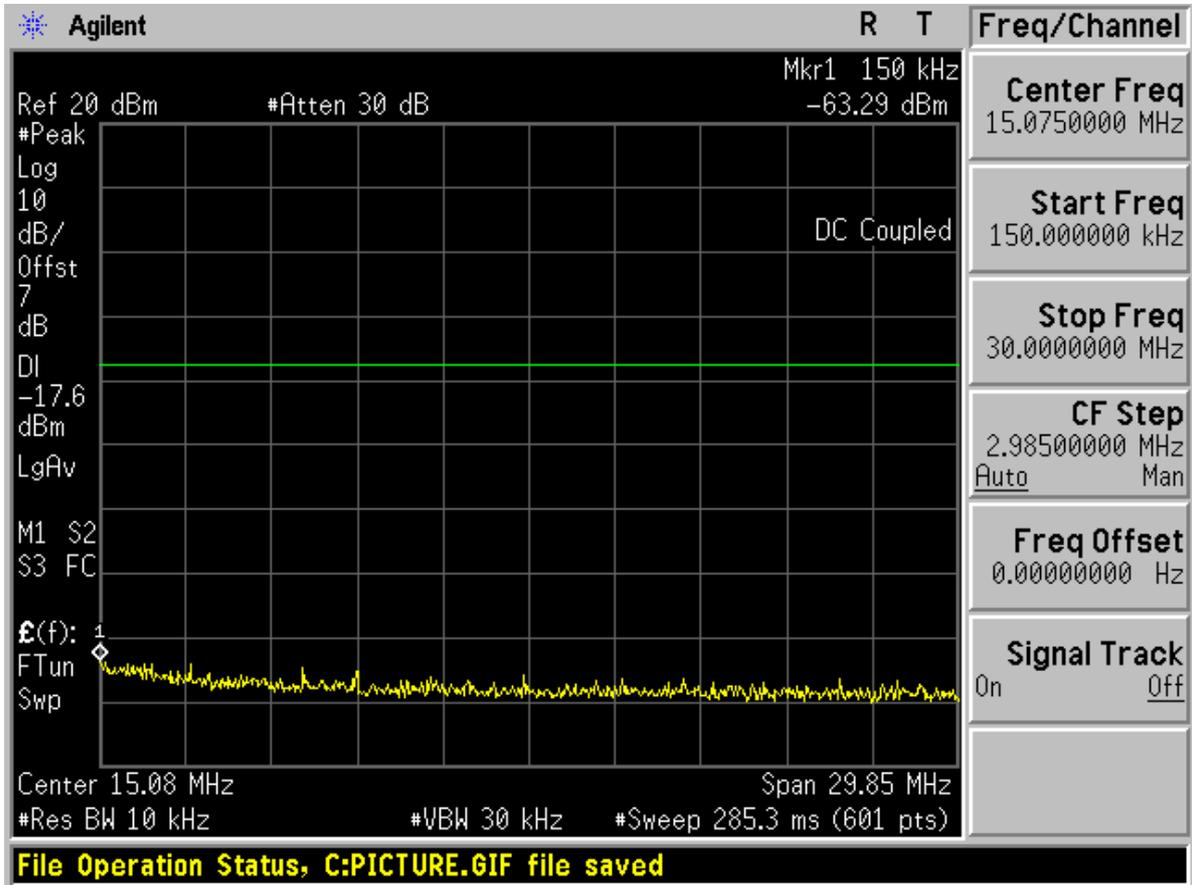


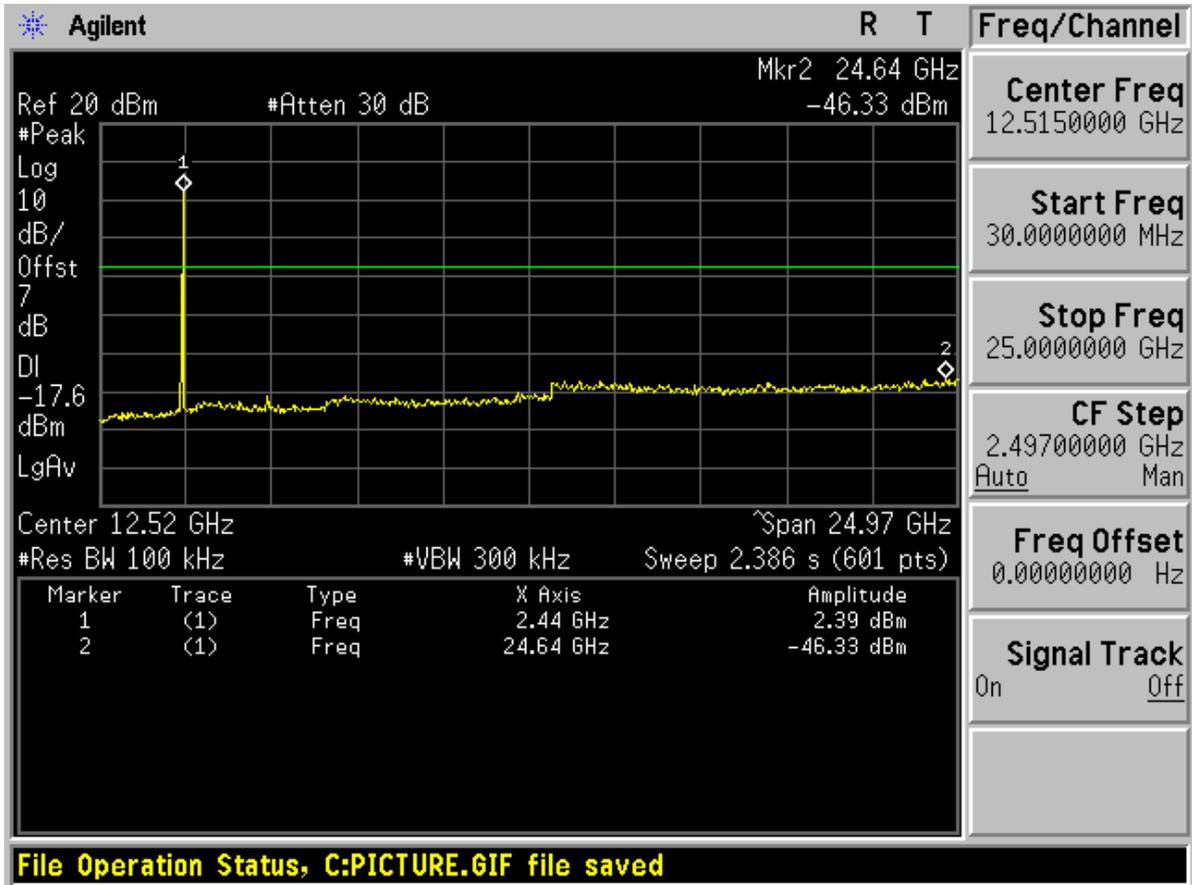




Channel 40

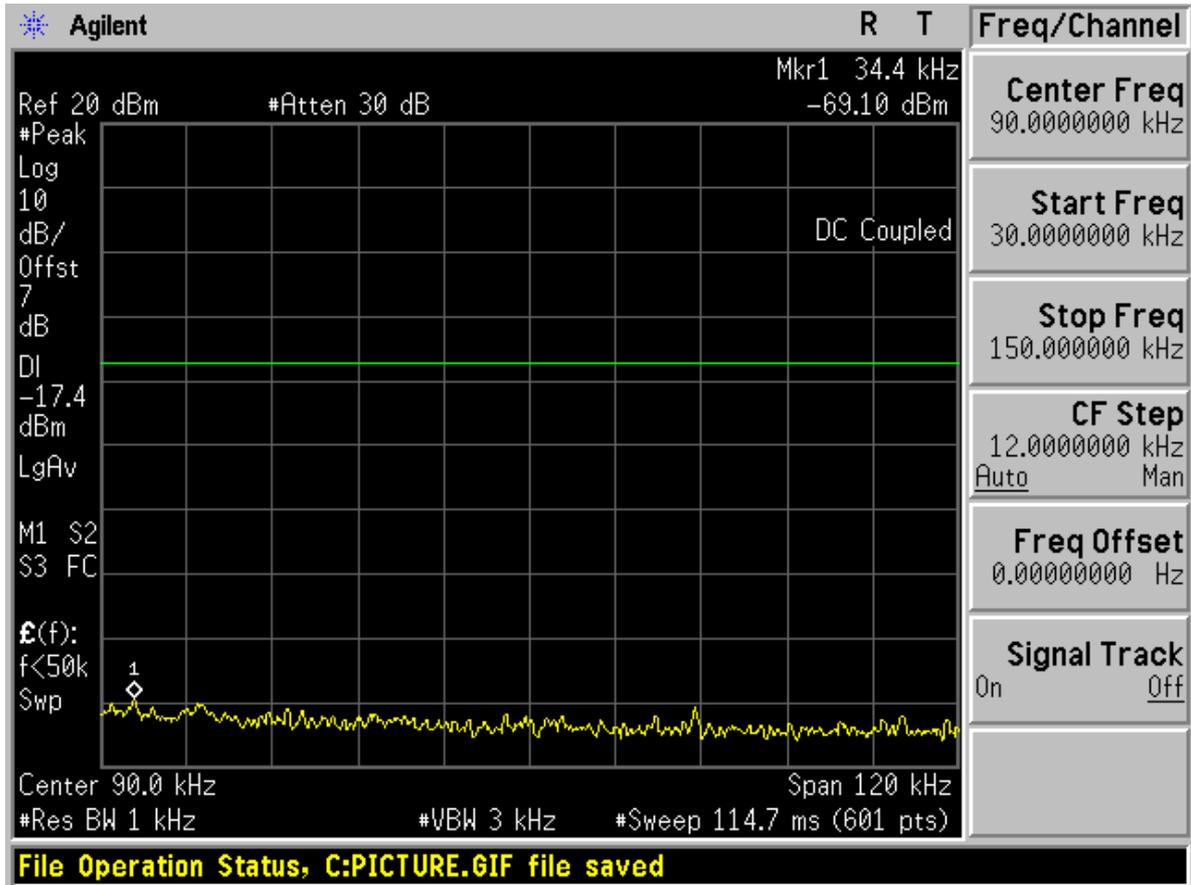


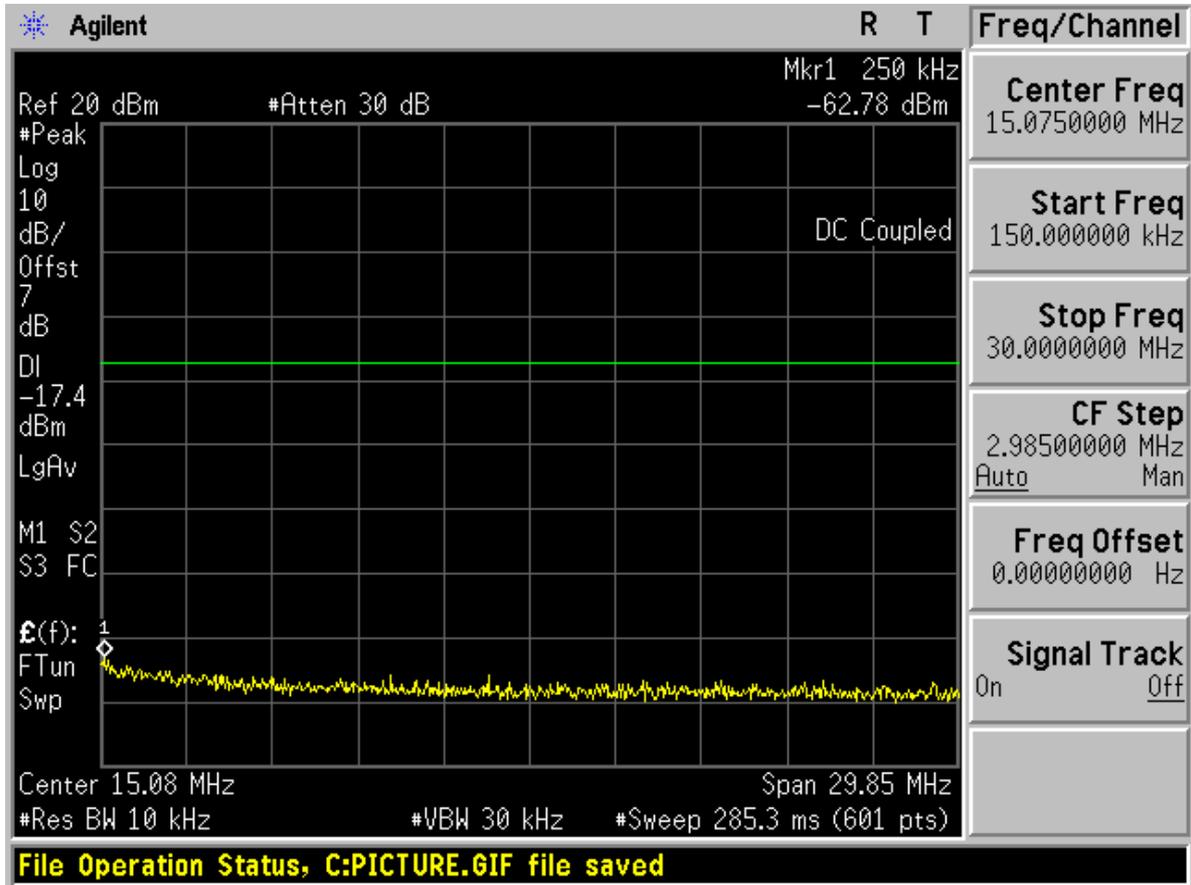


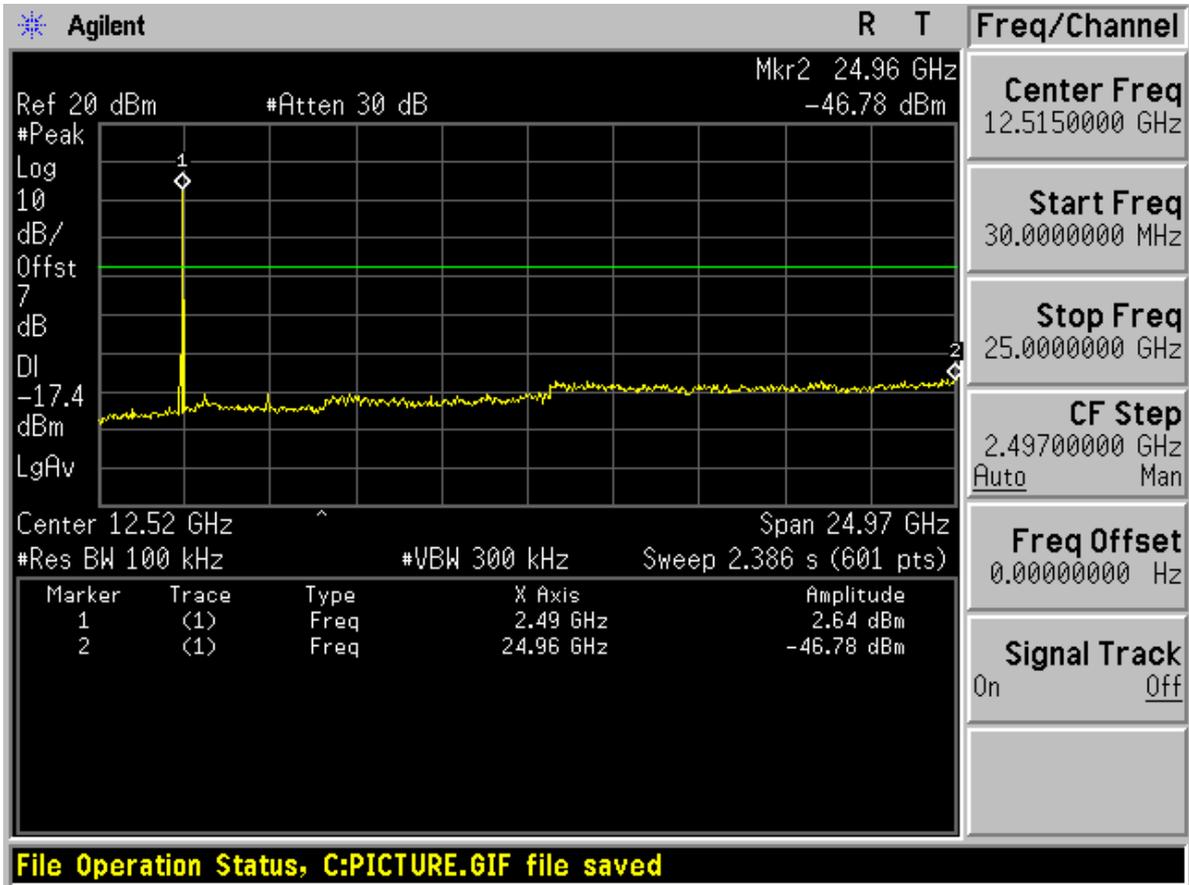




Channel 78

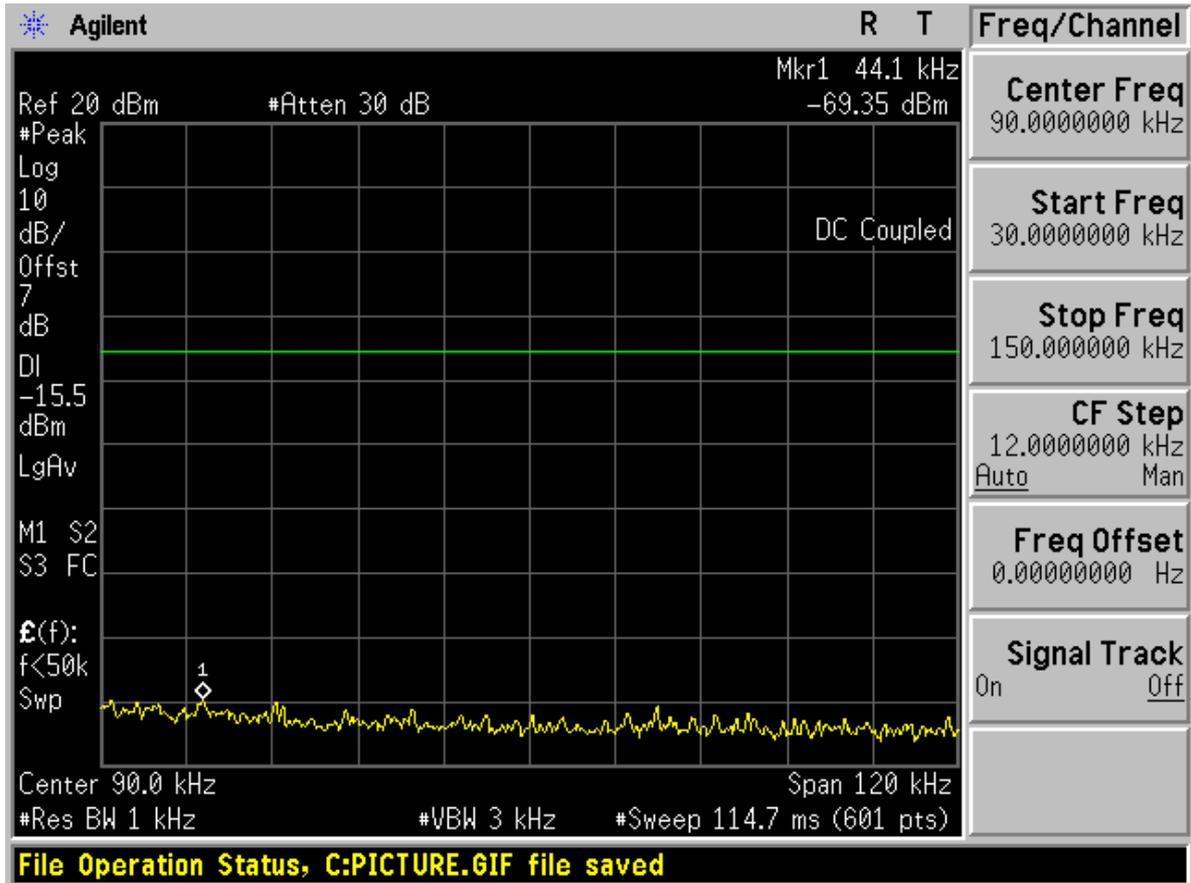


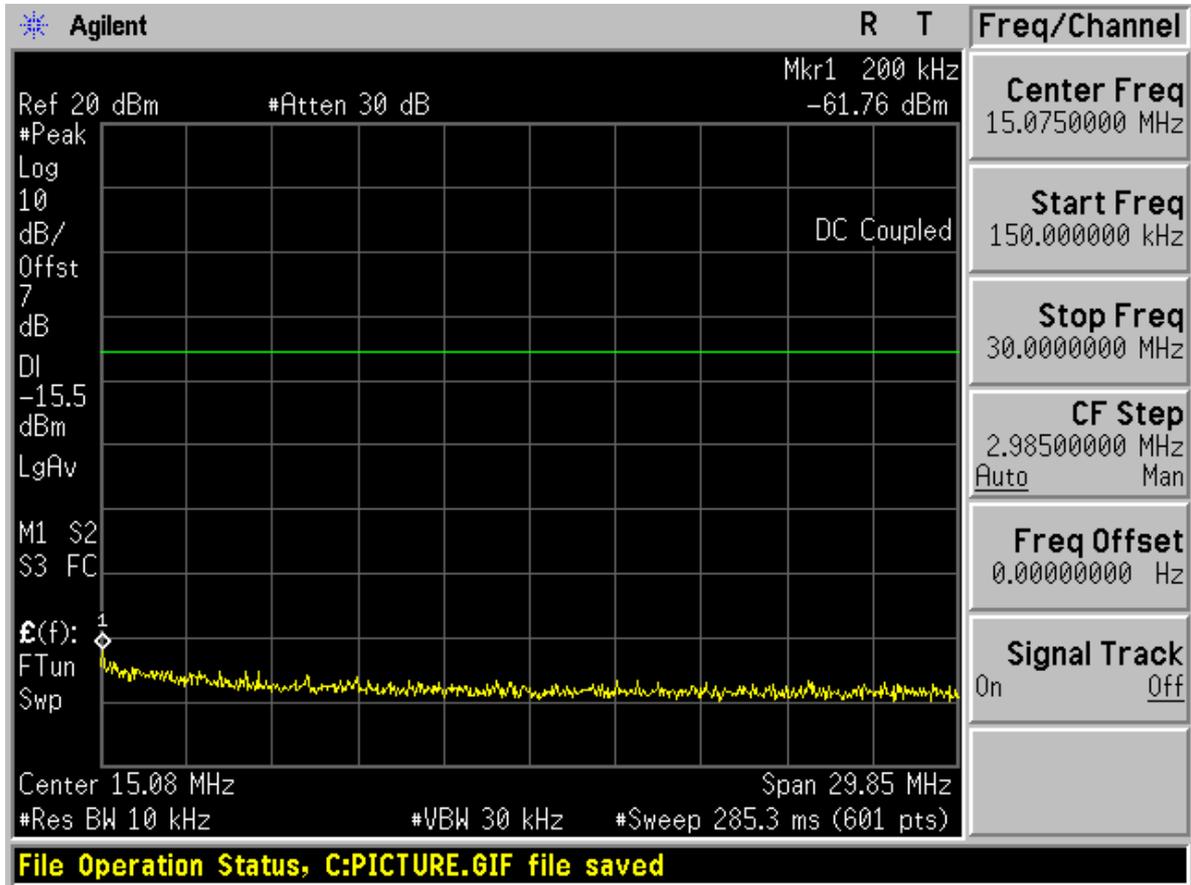


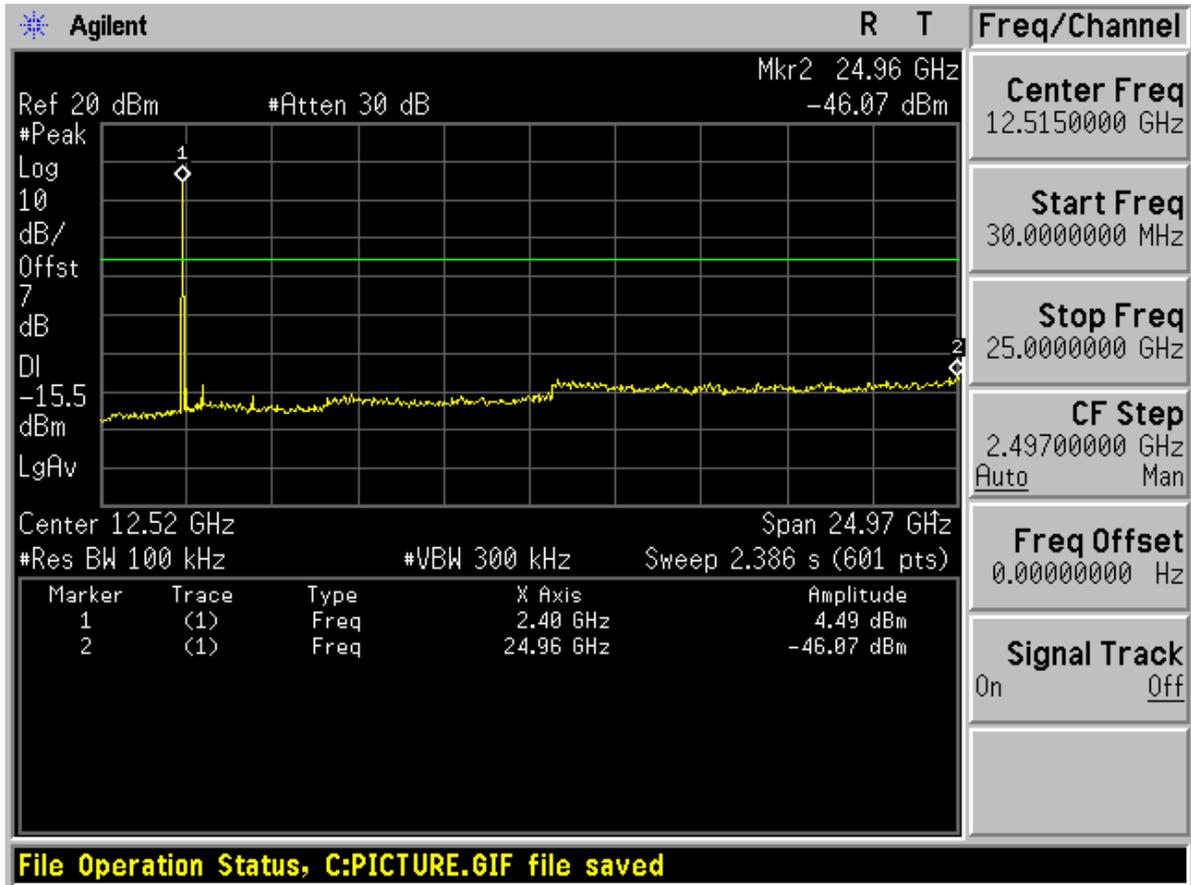




Modulation: 8DPSK Channel 0

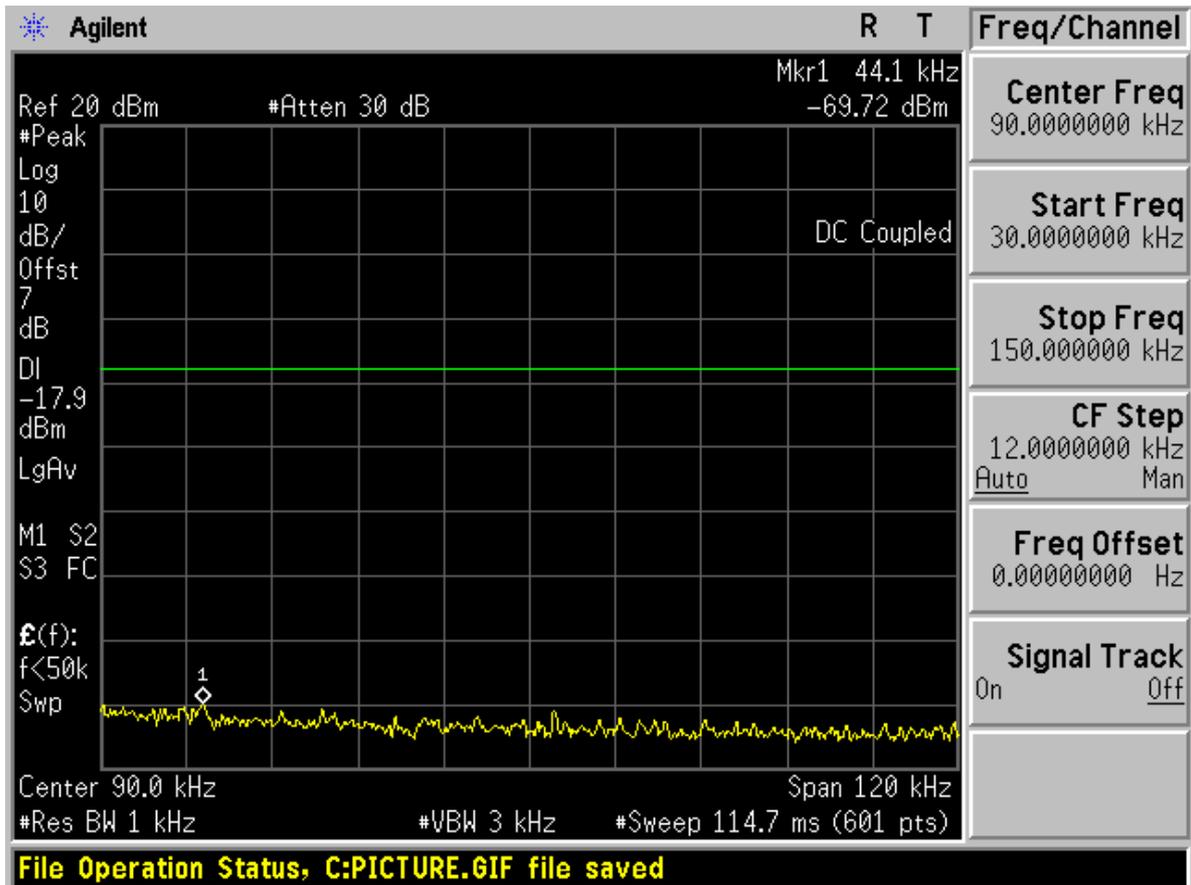


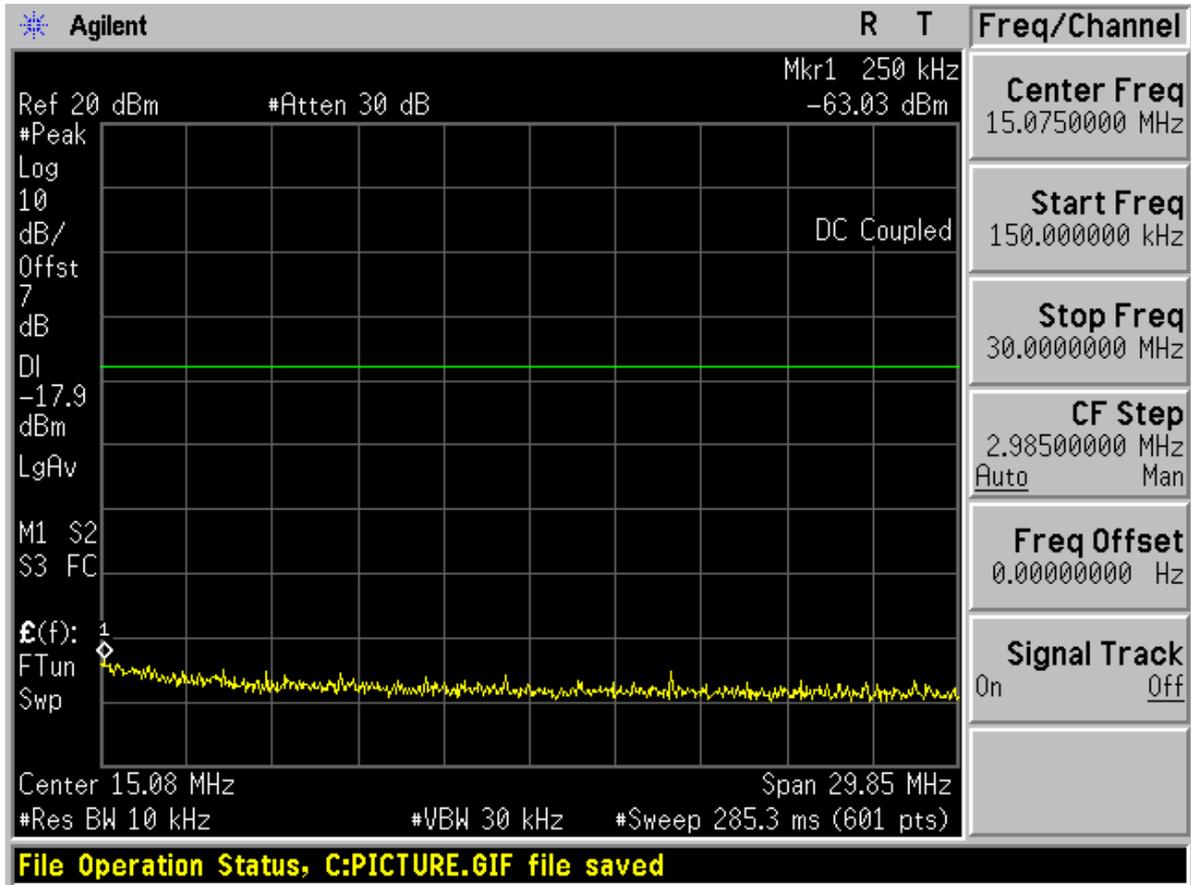


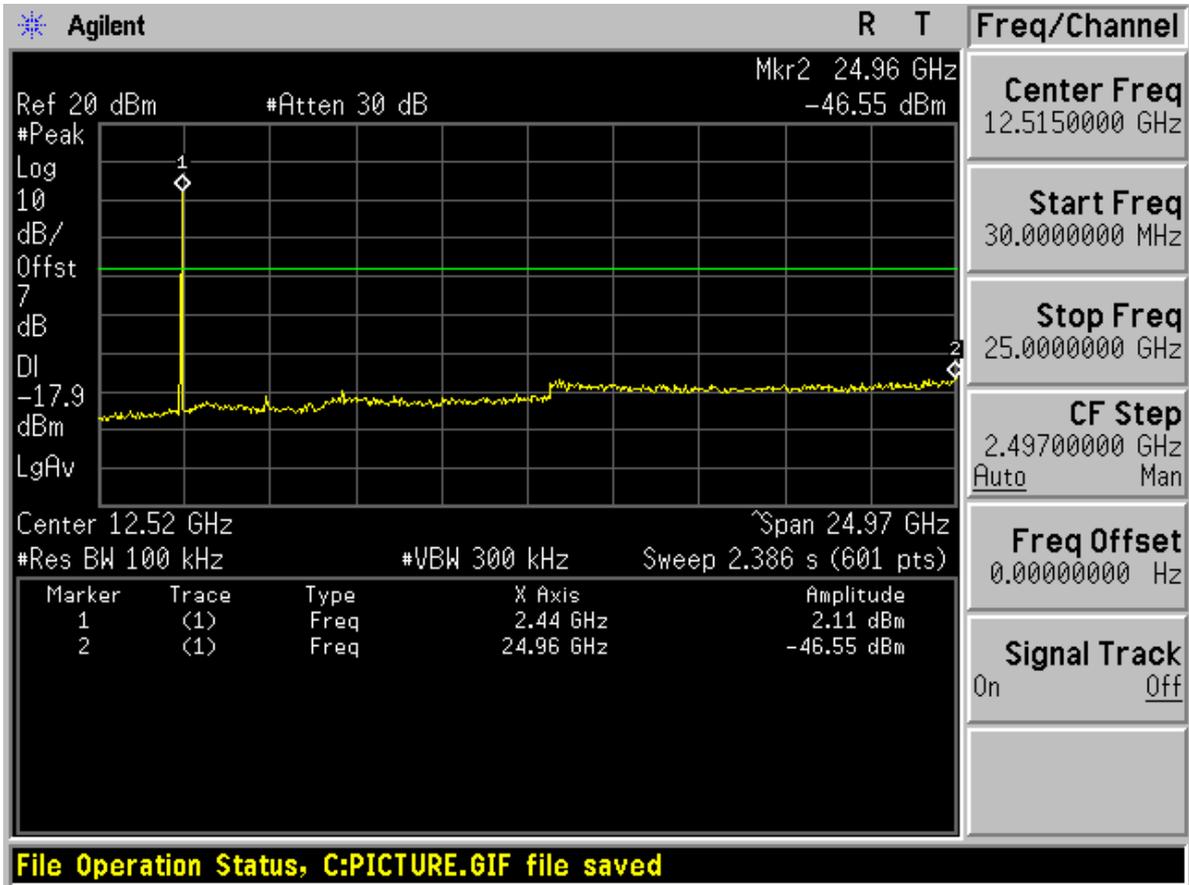




Channel 40

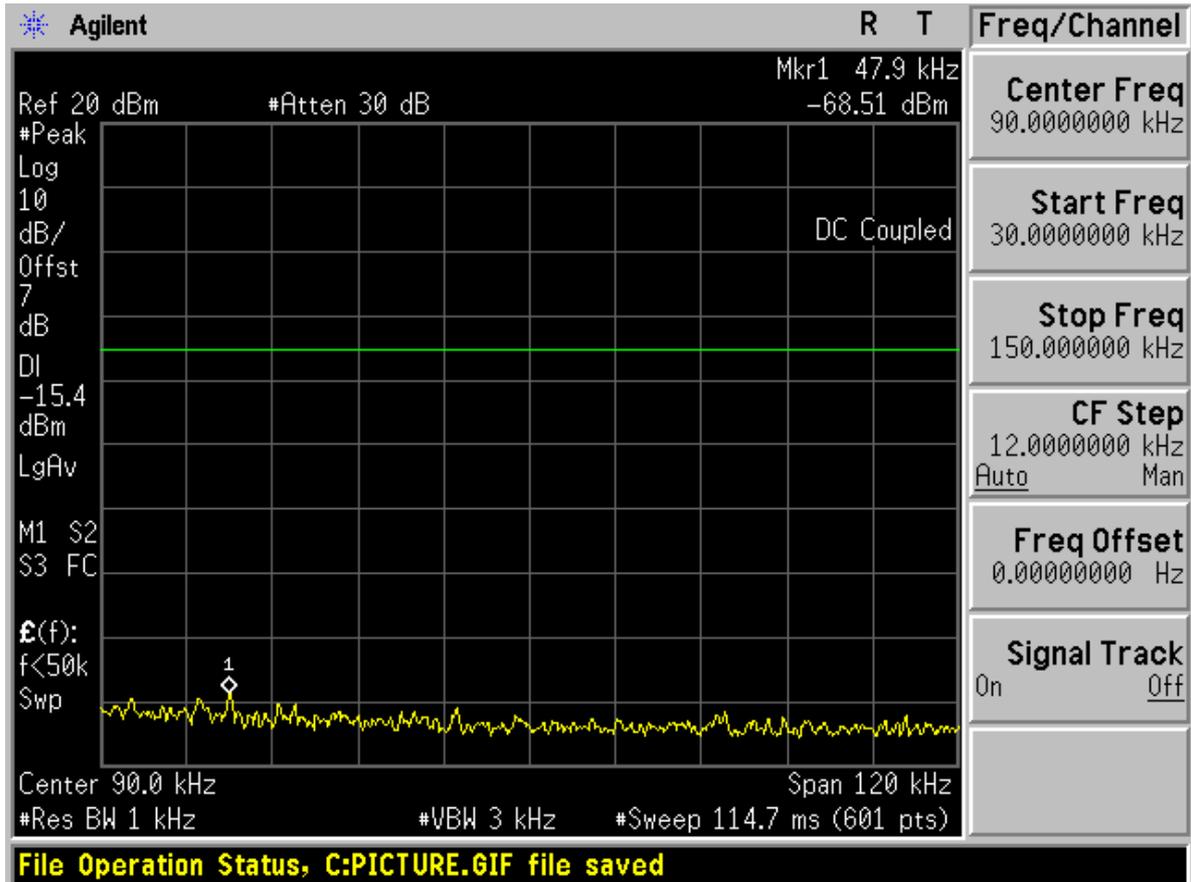


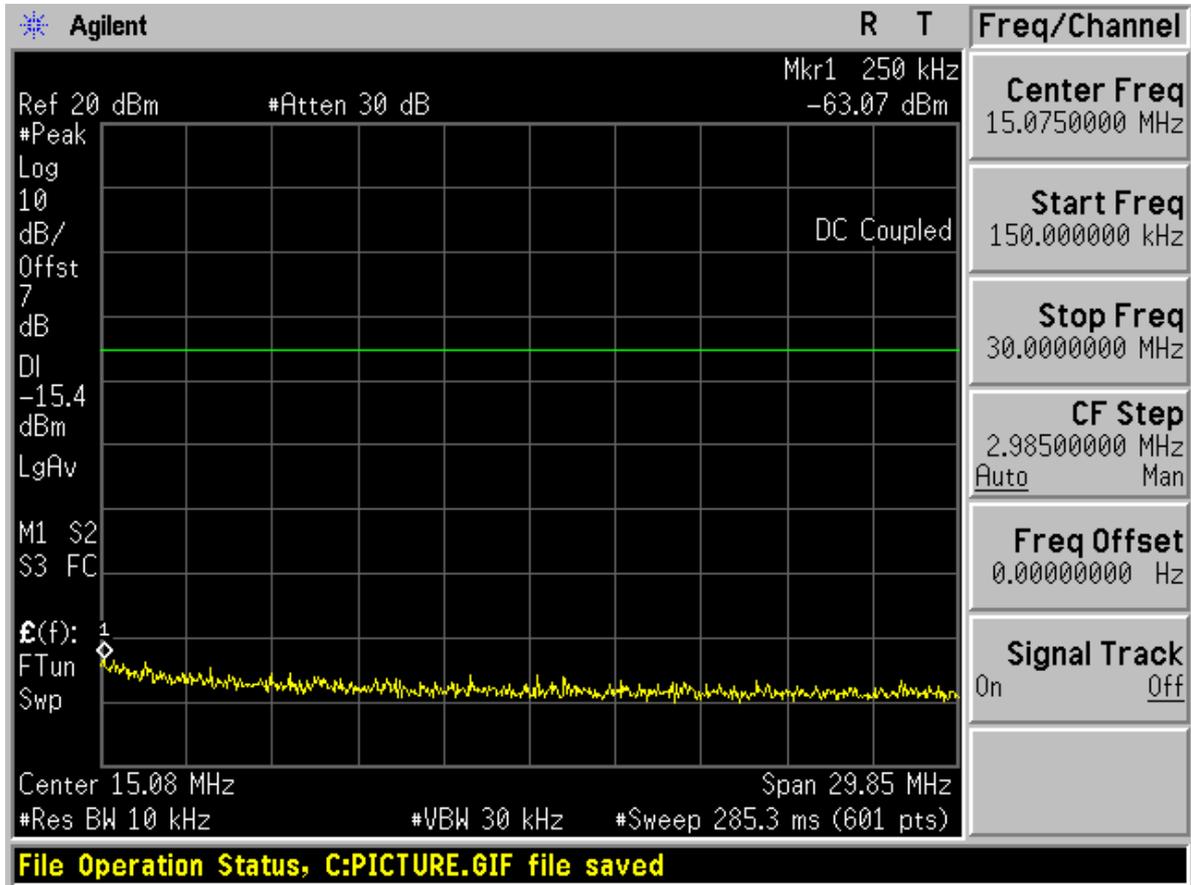


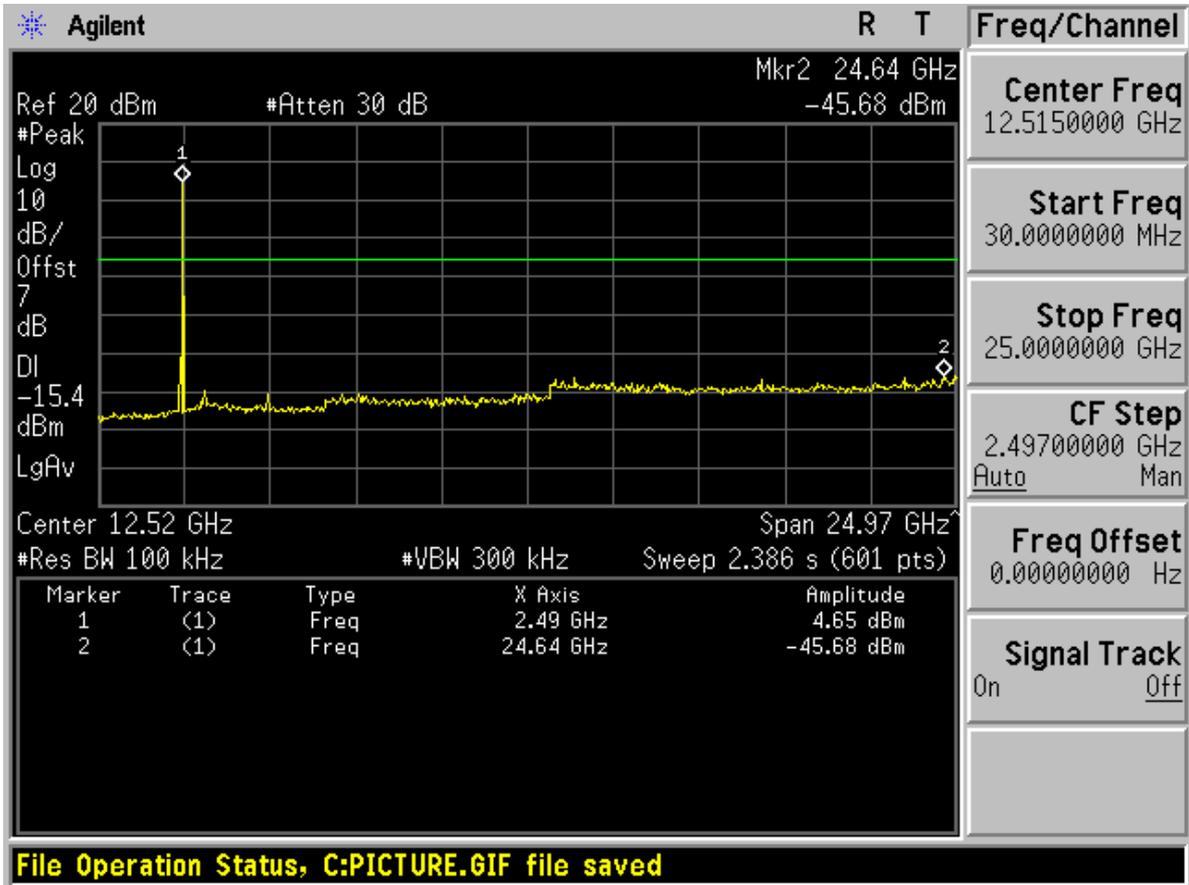




Channel 78









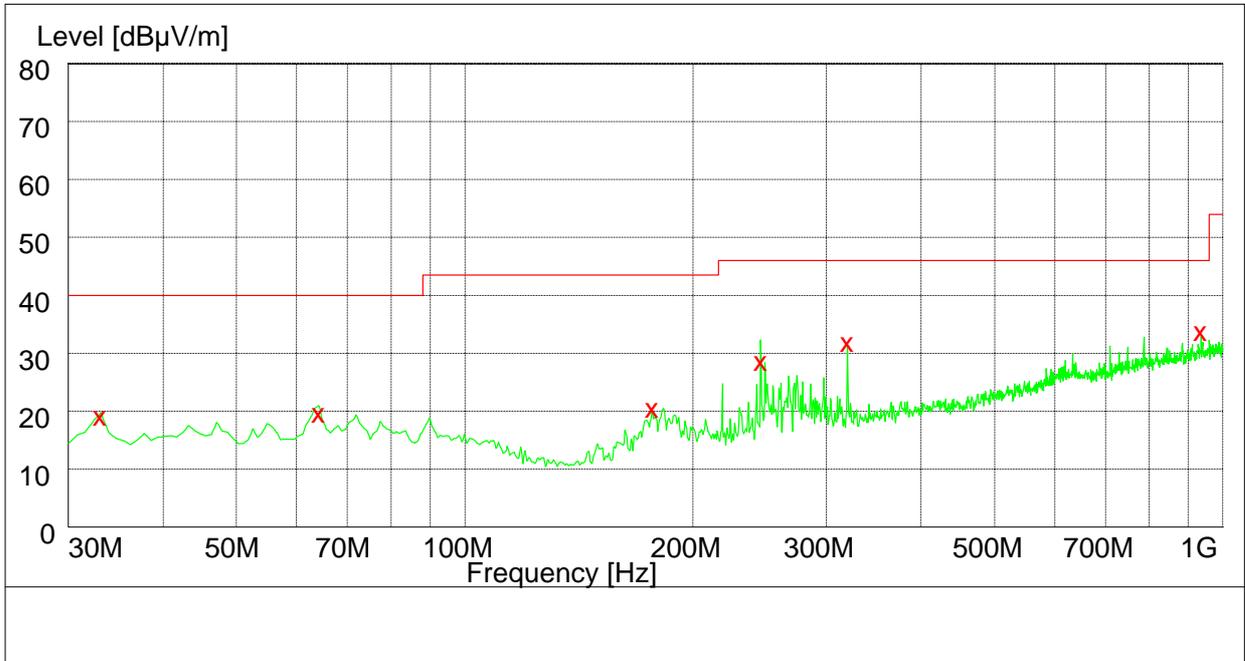
Appendix H

Radiated spurious emission

According to FCC Part 15.247 (d) & 15.205 & 15.209



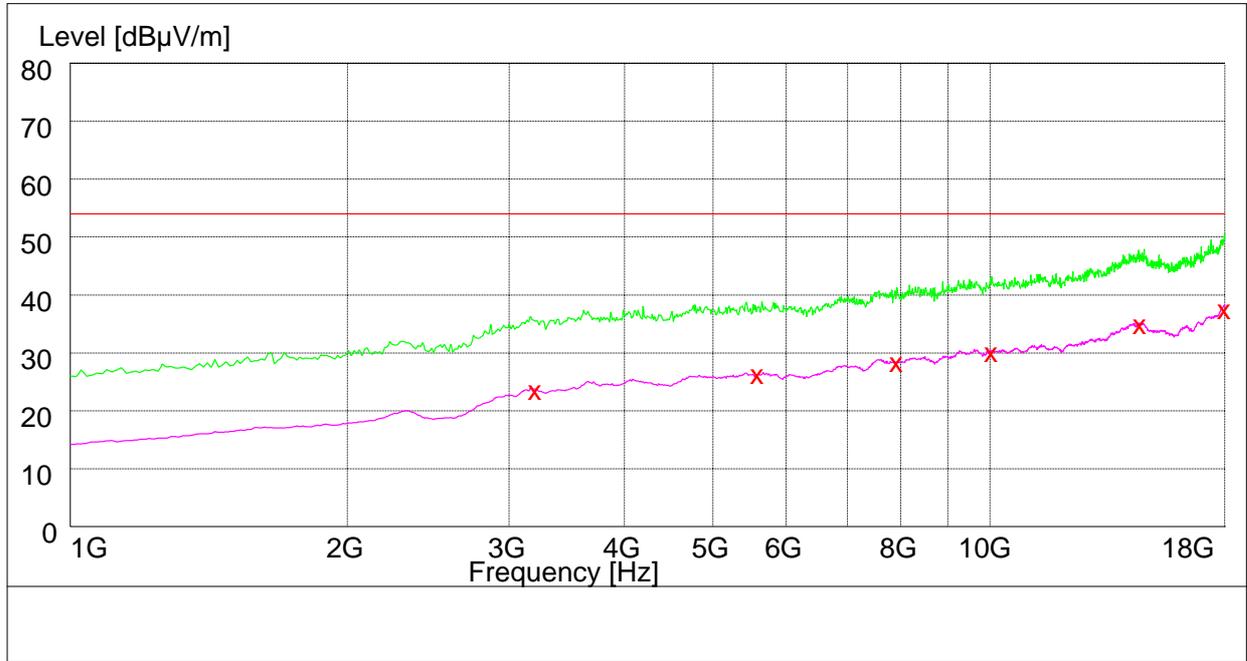
Channel 0 30MHz to 1GHz



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Plarization
33.000000	19.60	11.7	40.0	20.4	267.0	28.00	VERTICAL
64.600000	19.80	11.0	40.0	20.2	137.0	106.00	HORIZONTAL
178.400000	20.20	10.1	43.5	23.3	130.0	85.00	VERTICAL
245.820000	28.50	14.1	46.0	17.5	285.0	286.00	VERTICAL
319.980000	32.00	16.0	46.0	14.0	175.0	167.00	HORIZONTAL
936.540000	34.80	26.5	46.0	11.2	204.0	12.00	HORIZONTAL



1GHz to 18GHz



Note: Signal suppressed with a 2.4 GHz band rejection filter

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
3186.000000	23.50	-8.4	54.0	30.5	169.0	255.00	HORIZONTAL
5610.000000	26.20	-2.2	54.0	27.8	111.0	349.00	VERTICAL
7925.000000	28.30	1.9	54.0	25.7	190.0	210.00	VERTICAL
10032.000000	30.00	5.2	54.0	24.0	148.0	114.00	VERTICAL
14560.000000	34.40	12.2	54.0	19.6	151.0	75.00	VERTICAL
17995.000000	37.50	17.3	54.0	16.5	143.0	322.00	HORIZONTAL

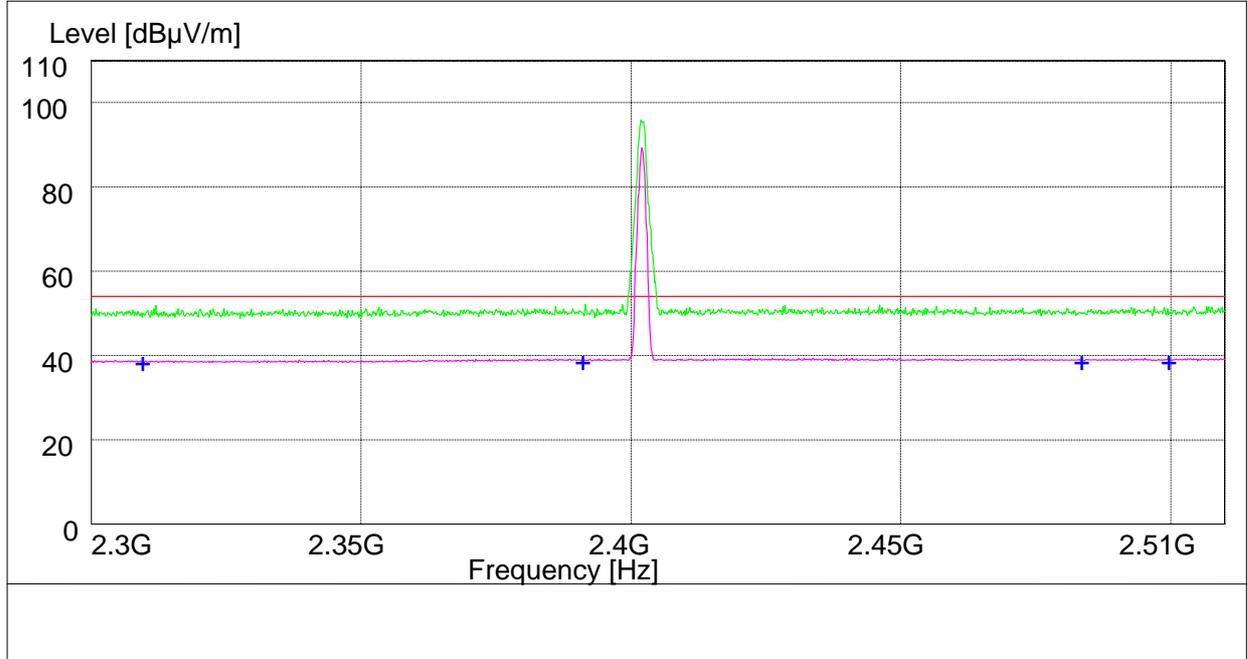


18GHz to 26GHz

Note: No peak found in pre- test.



2GHz to 3GHz

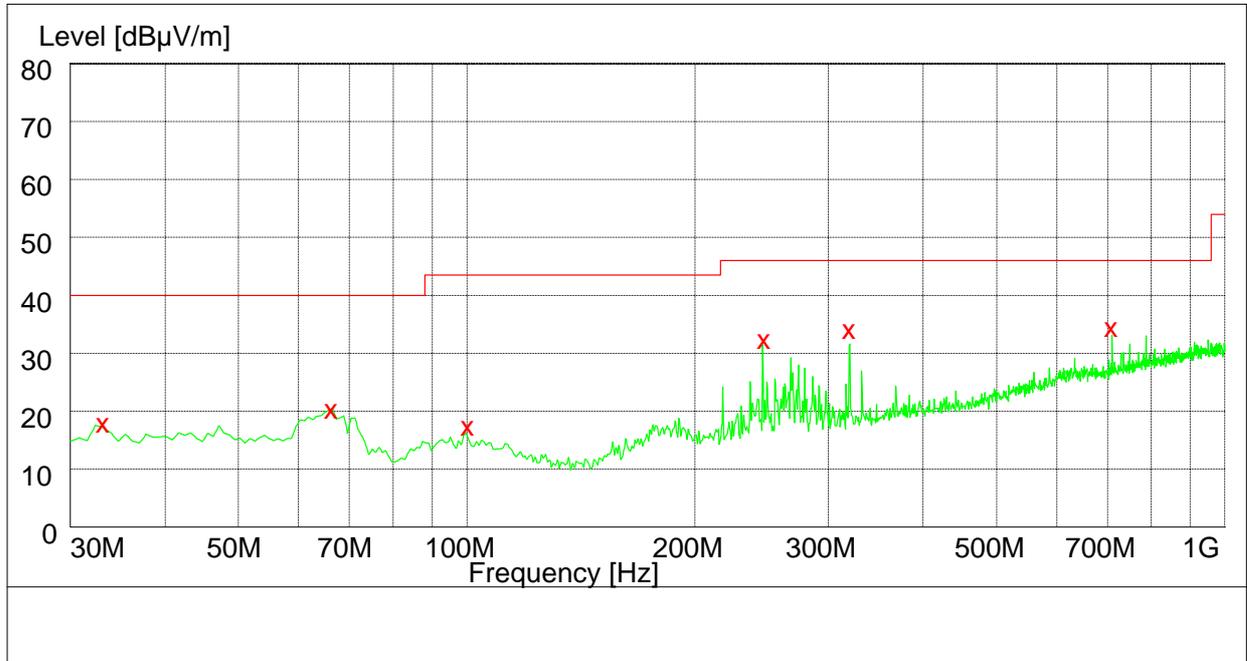


Note: The highest peak exceeds the limit line is carrier frequency.

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2310.000000	38.10	33.3	54.0	15.9	102.0	276.00	HORIZONTAL
2390.000000	38.40	33.5	54.0	15.6	184.0	222.00	VERTICAL
2483.500000	38.20	33.7	54.0	15.8	126.0	12.00	HORIZONTAL
2500.000000	38.30	33.8	54.0	16.7	127.0	55.00	HORIZONTAL



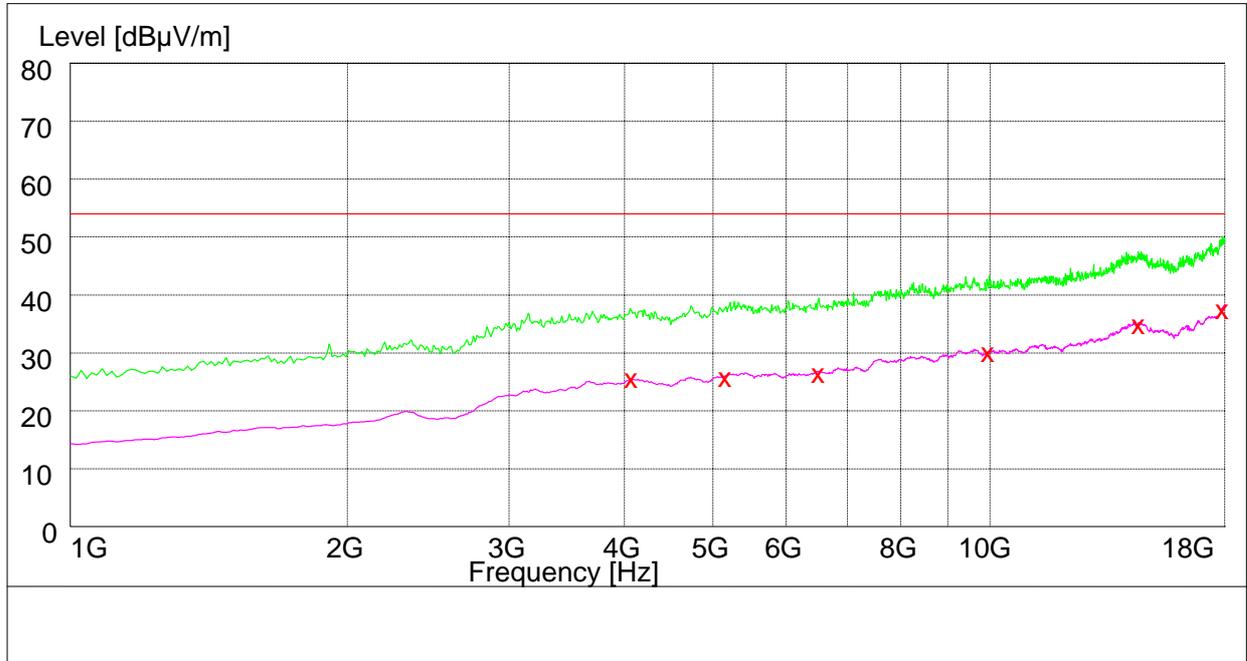
Channel 40 30MHz to 1GHz



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
33.300000	19.00	11.7	40.0	21.0	143.0	188.00	HORIZONTAL
67.200000	19.90	10.0	40.0	20.1	118.0	194.00	HORIZONTAL
99.960000	17.20	13.1	43.5	26.3	222.0	287.00	HORIZONTAL
248.110000	32.30	14.1	46.0	13.7	160.0	296.00	VERTICAL
319.980000	33.70	16.0	46.0	12.3	120.0	53.00	HORIZONTAL
710.400000	35.10	23.4	46.0	10.9	273.0	308.00	HORIZONTAL



1GHz to 18GHz



Note: Signal suppressed with a 2.4 GHz band rejection filter

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
4090.000000	25.20	-5.7	54.0	28.8	184.0	329.00	VERTICAL
5145.000000	25.60	-3.4	54.0	28.4	157.0	51.00	HORIZONTAL
6553.500000	26.30	-0.8	54.0	27.7	184.0	101.00	VERTICAL
9968.500000	30.00	5.1	54.0	24.0	108.0	241.00	HORIZONTAL
14548.000000	34.80	12.0	54.0	19.2	190.0	310.00	HORIZONTAL
17936.000000	37.50	16.7	54.0	16.5	179.0	188.00	VERTICAL

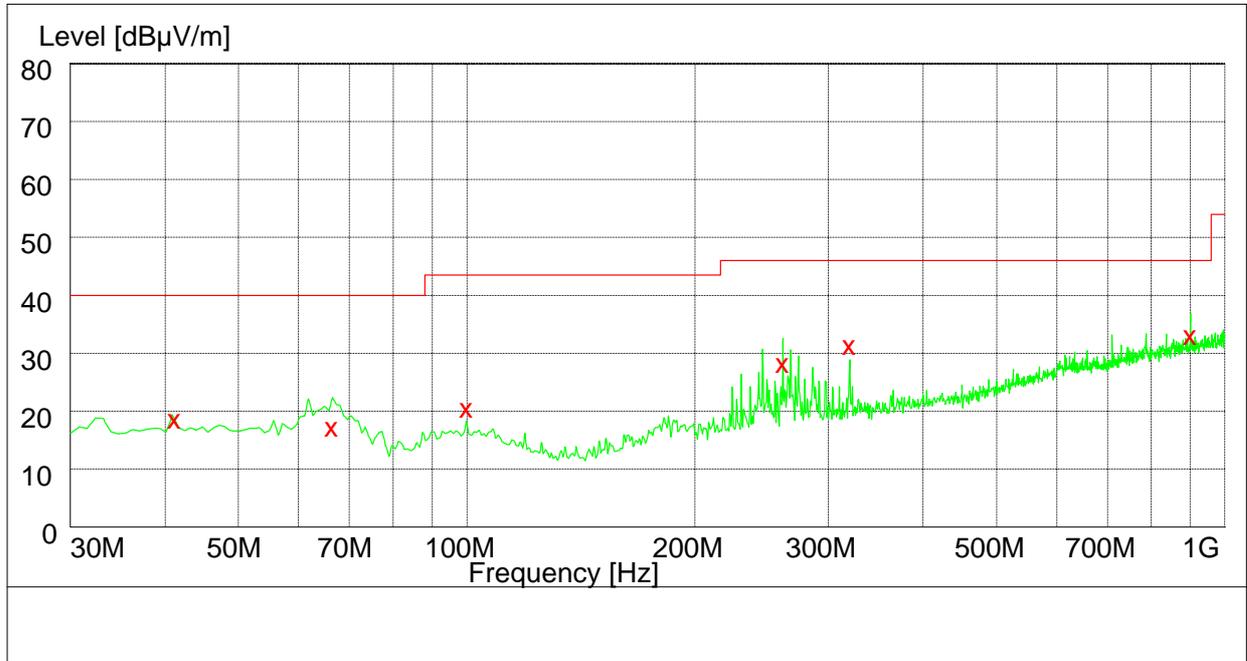


18GHz to 26GHz

Note: No peak found in pre- test.



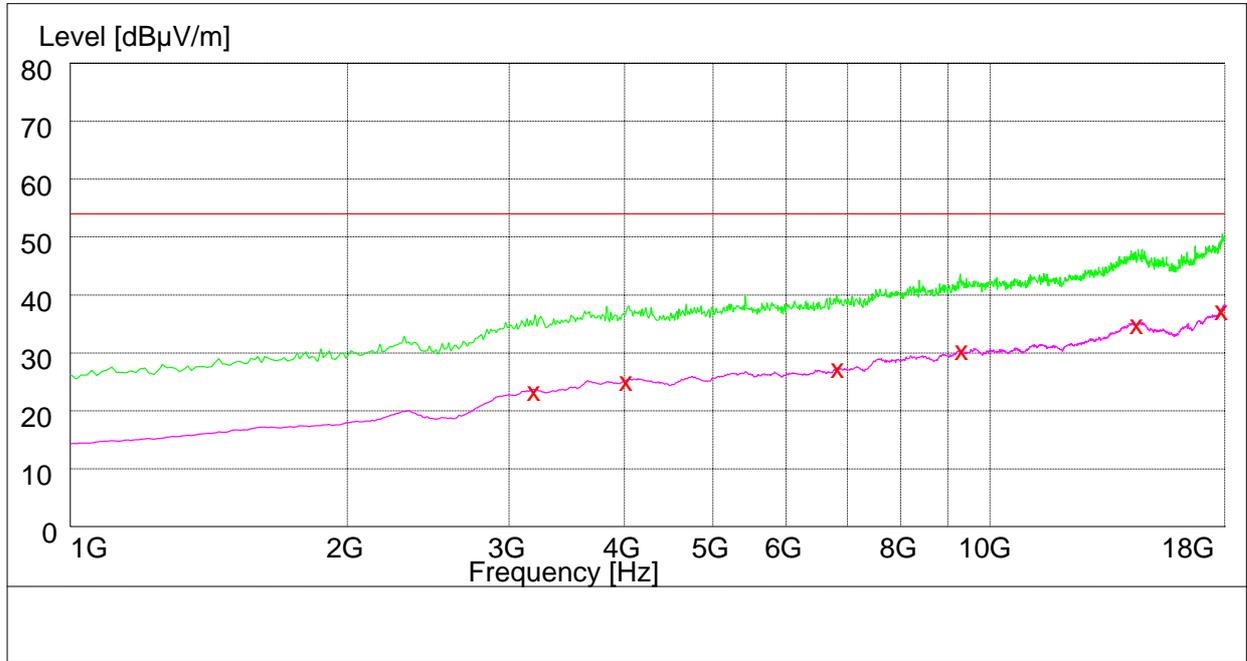
Channel 78 30MHz to 1GHz



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
41.050000	19.20	13.1	40.0	20.8	225.0	20.00	VERTICAL
66.300000	17.60	10.1	40.0	22.4	109.0	116.00	VERTICAL
99.980000	20.20	13.1	43.5	23.3	117.0	33.00	HORIZONTAL
261.120000	28.40	14.2	46.0	17.6	269.0	7.00	HORIZONTAL
319.980000	31.50	16.0	46.0	14.5	234.0	162.00	VERTICAL
892.400000	32.40	26.2	46.0	13.6	117.0	51.00	HORIZONTAL



1GHz to 18GHz



Note: Signal suppressed with a 2.4 GHz band rejection filter

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
3224.500000	23.40	-8.3	54.0	30.6	172.0	231.00	HORIZONTAL
4008.000000	24.80	-5.7	54.0	29.2	152.0	152.00	HORIZONTAL
6877.500000	27.20	-0.2	54.0	26.8	127.0	72.00	VERTICAL
9371.000000	30.10	4.7	54.0	23.9	176.0	117.00	HORIZONTAL
14466.000000	35.00	12.3	54.0	19.0	116.0	177.00	VERTICAL
17892.500000	37.30	16.6	54.0	16.7	188.0	119.00	VERTICAL

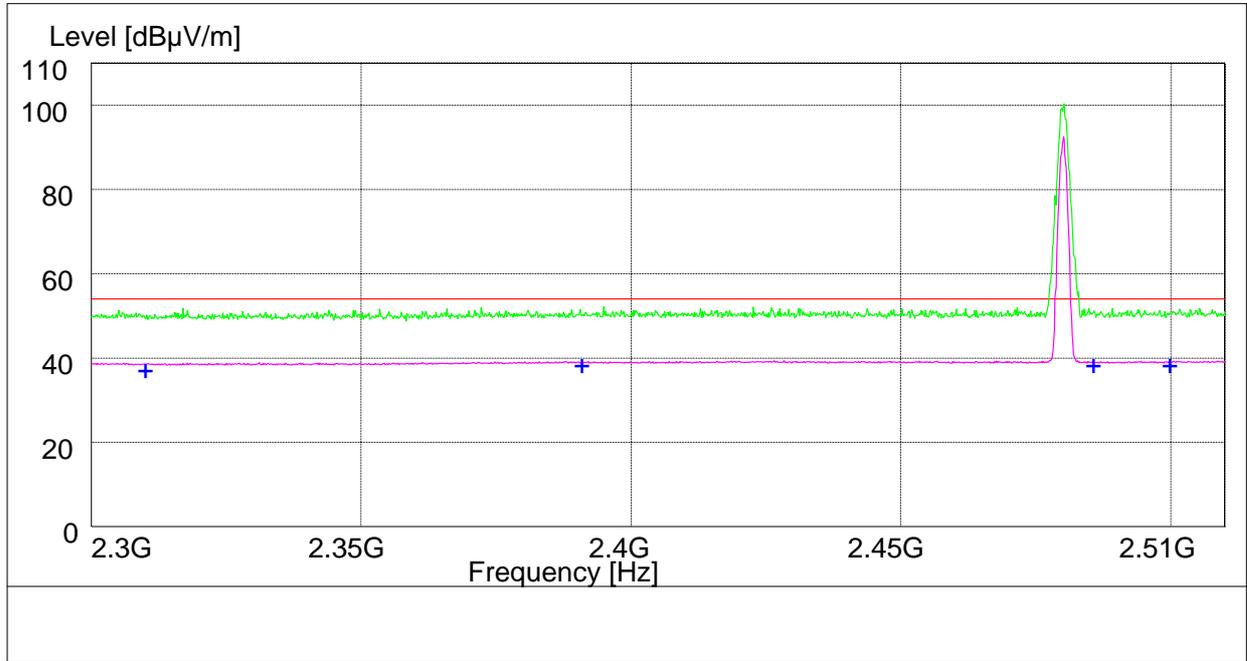


18GHz to 26GHz

Note: No peak found in pre- test.



2GHz to 3GHz



Note: The highest peak exceeds the limit line is carrier frequency.

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2310.000000	38.20	33.3	54.0	15.8	124.0	127.00	HORIZONTAL
2390.000000	38.30	33.5	54.0	15.7	146.0	50.00	VERTICAL
2483.500000	38.30	33.7	54.0	15.7	140.0	326.00	VERTICAL
2500.000000	38.40	33.8	54.0	15.6	175.0	88.00	VERTICAL



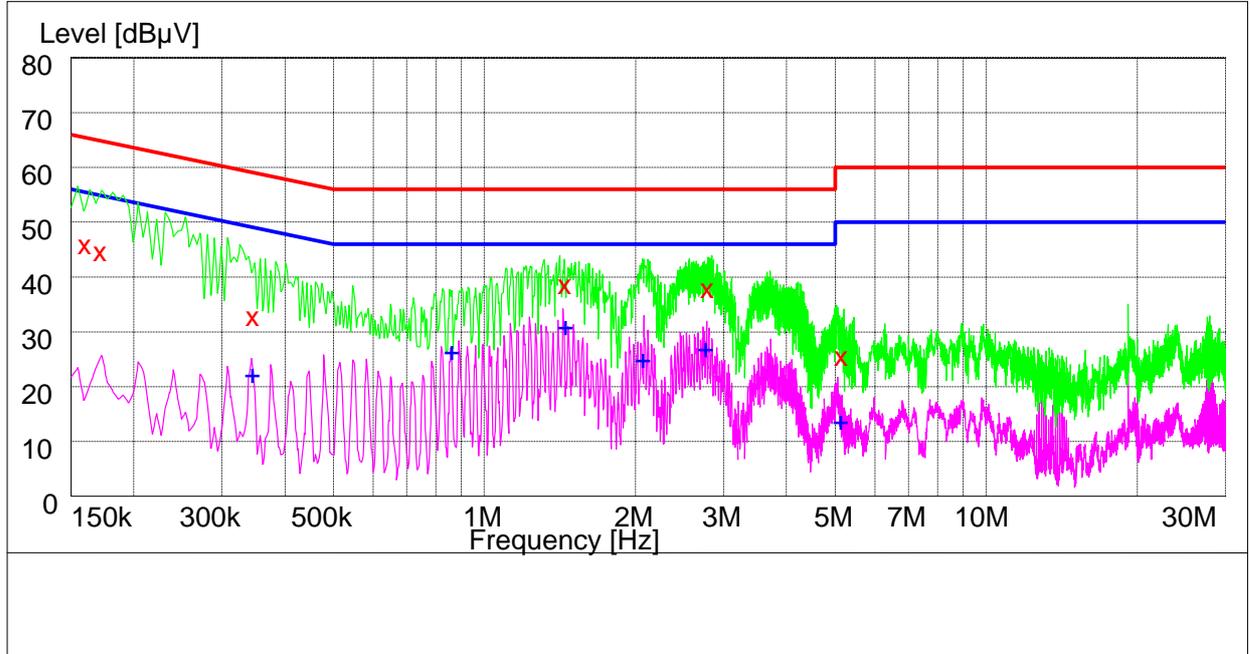
Appendix I

Conducted Emission at Power Port

According to FCC Part 15.207



Channel 40



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.160000	47.20	10.1	66	18.8	N	FLO
0.172000	46.10	10.1	65	18.9	N	FLO
0.346000	34.20	10.0	59	24.8	N	FLO
1.450000	39.90	10.1	56	16.1	N	FLO
2.796000	39.20	10.2	56	16.8	N	FLO
5.168000	26.80	10.2	60	33.2	N	FLO

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.344000	23.70	10.0	49	25.3	N	FLO
0.862000	27.80	10.1	46	18.2	N	FLO
1.452000	32.30	10.1	46	13.7	N	FLO
2.068000	26.30	10.1	46	19.7	N	FLO
2.760000	28.20	10.2	46	17.8	N	FLO
5.136000	15.10	10.2	50	34.9	N	FLO