



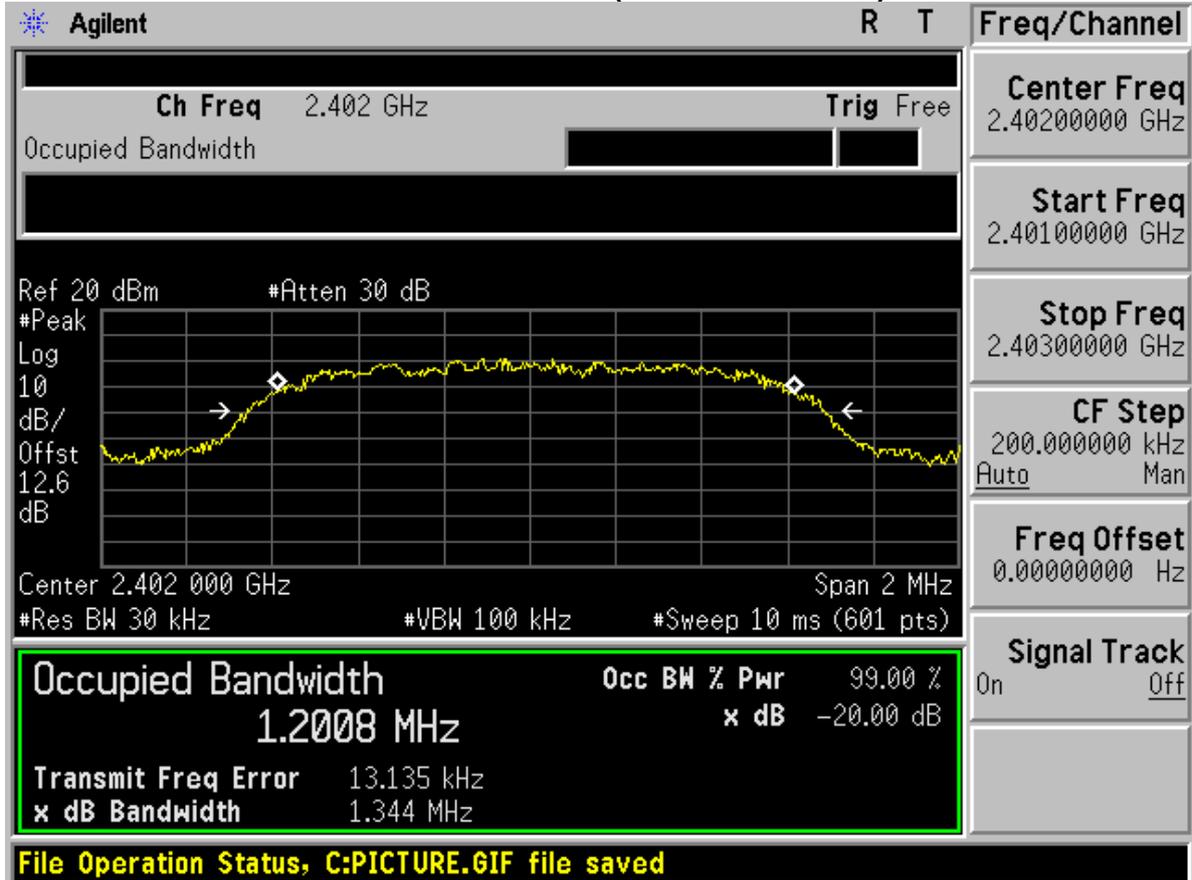
Appendix A

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

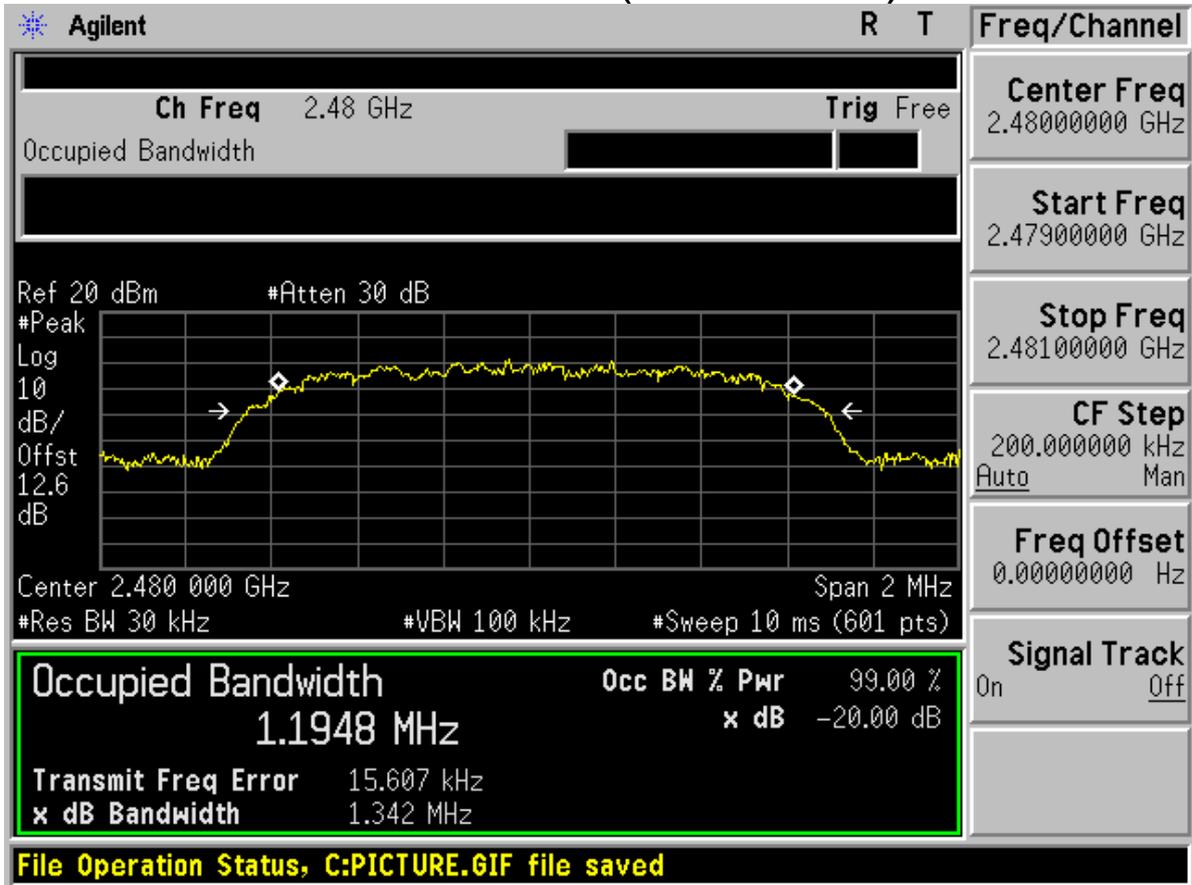
Center 2.442 000 GHz Span 2 MHz
#Res BW 30 kHz #VBW 100 kHz #Sweep 10 ms (601 pts)

| | |
|---------------------------------------|-----------------------------|
| Occupied Bandwidth | Occ BW % Pwr 99.00 % |
| 1.1919 MHz | x dB -20.00 dB |
| Transmit Freq Error 13.907 kHz | |
| x dB Bandwidth 1.315 MHz | |

File Operation Status, C:PICTURE.GIF file saved



Channel 78 (2480MHz)



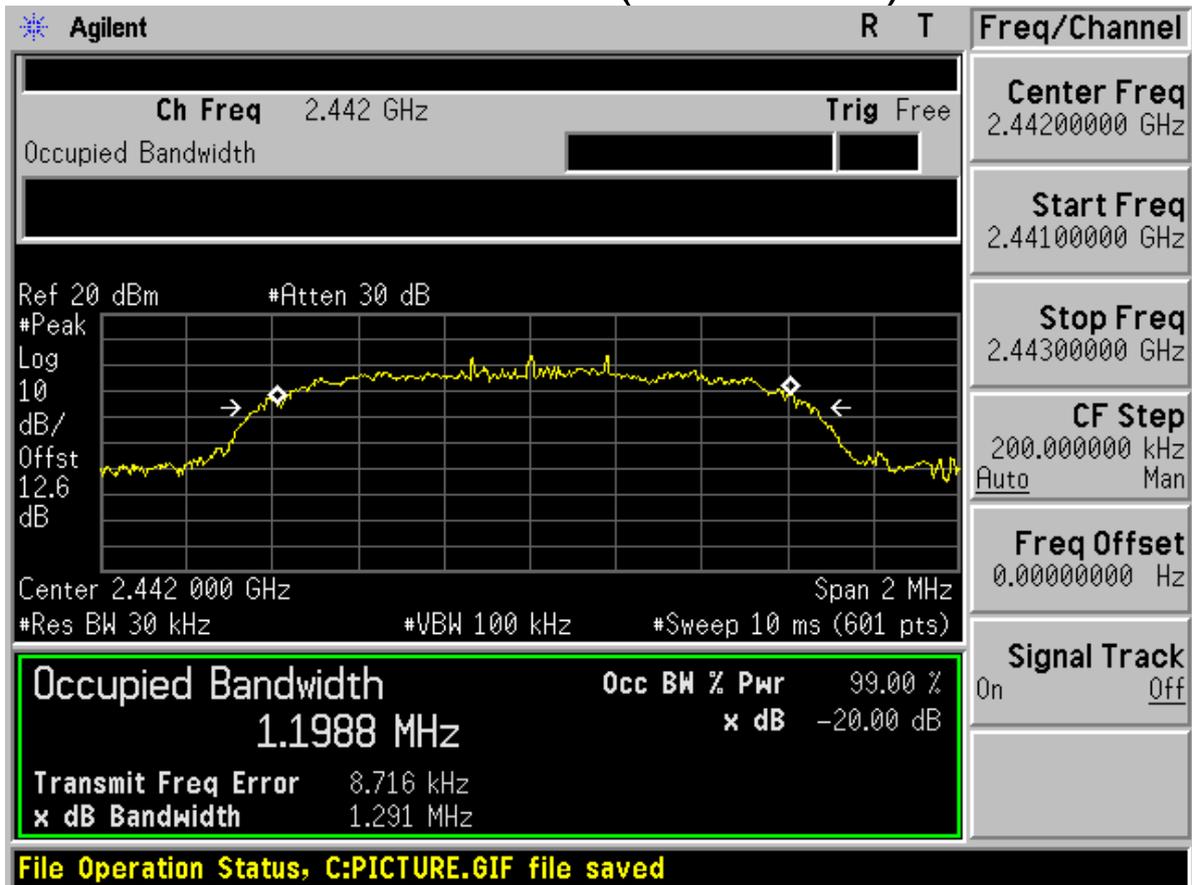


Modulation: 8DPSK Channel 0 (2402MHz)



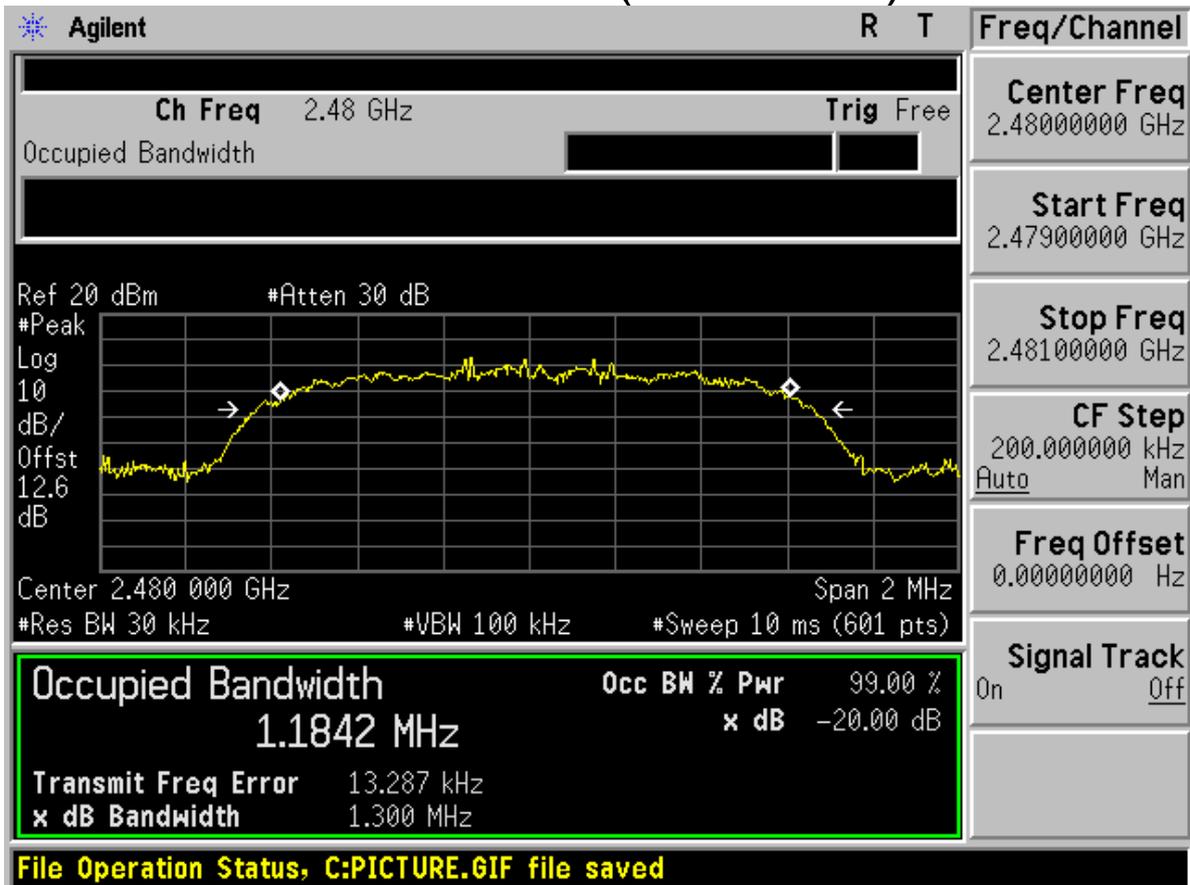


Channel 40 (2442MHz)





Channel 78 (2480MHz)





Appendix B

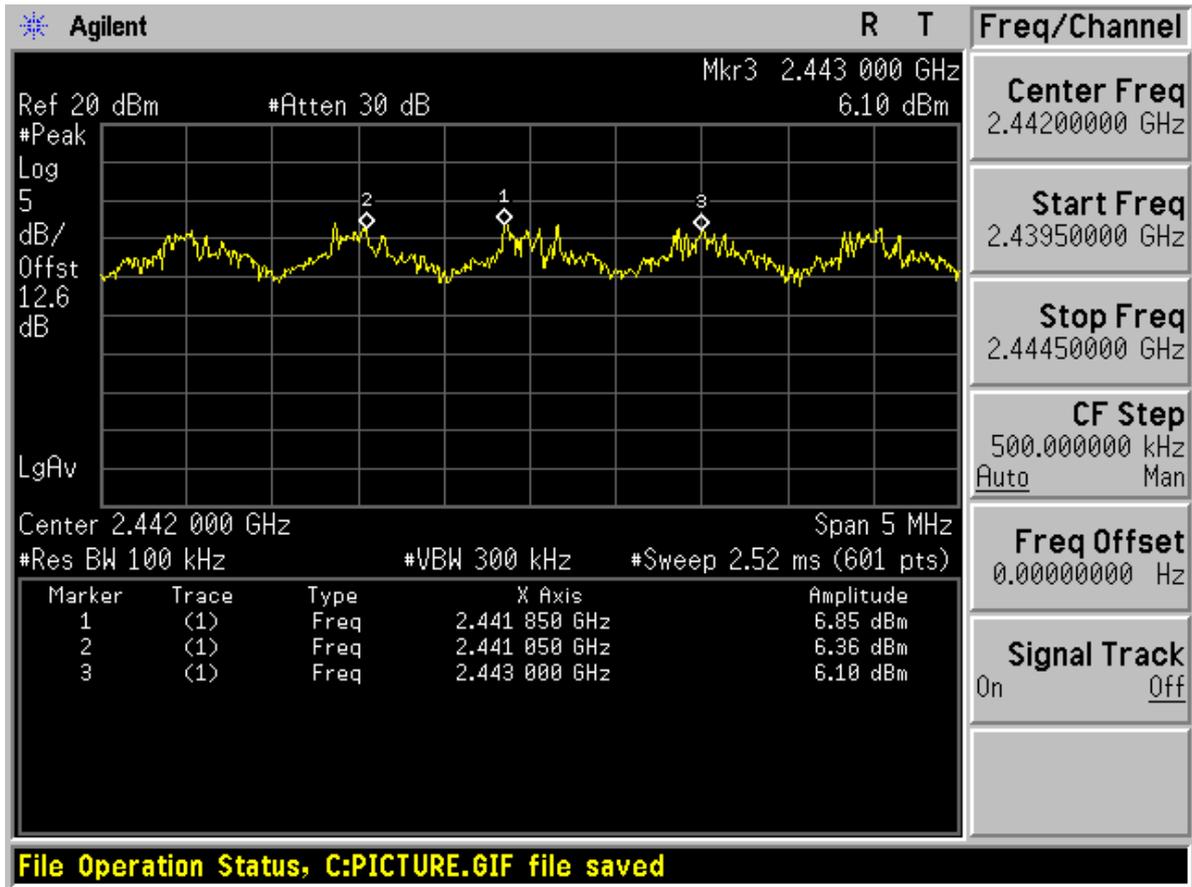
Carrier frequency separation measurement

According to FCC Part 15.247 (a) (1)



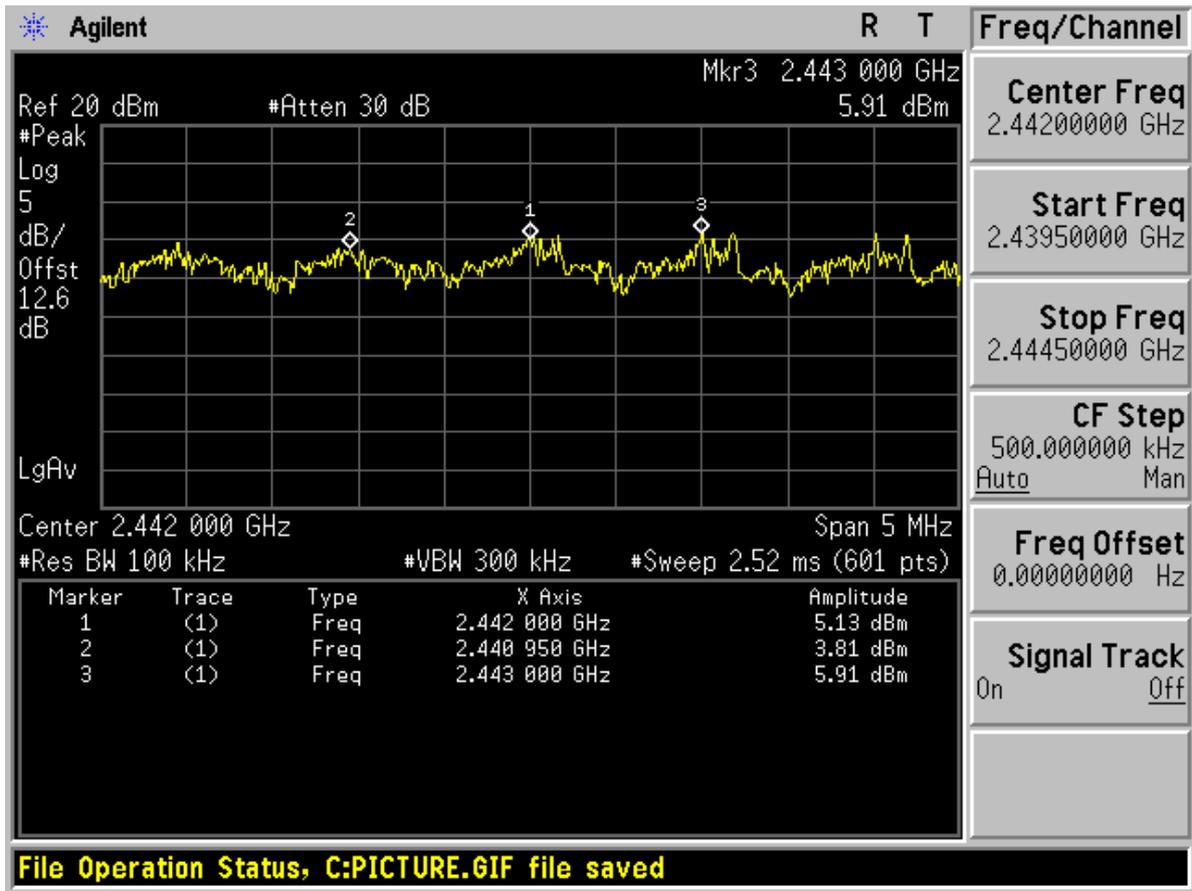
Modulation: $\pi/4$ -DQPSK

Centred at Channel 40





Modulation: 8DPSK Centred at Channel 40





Appendix C

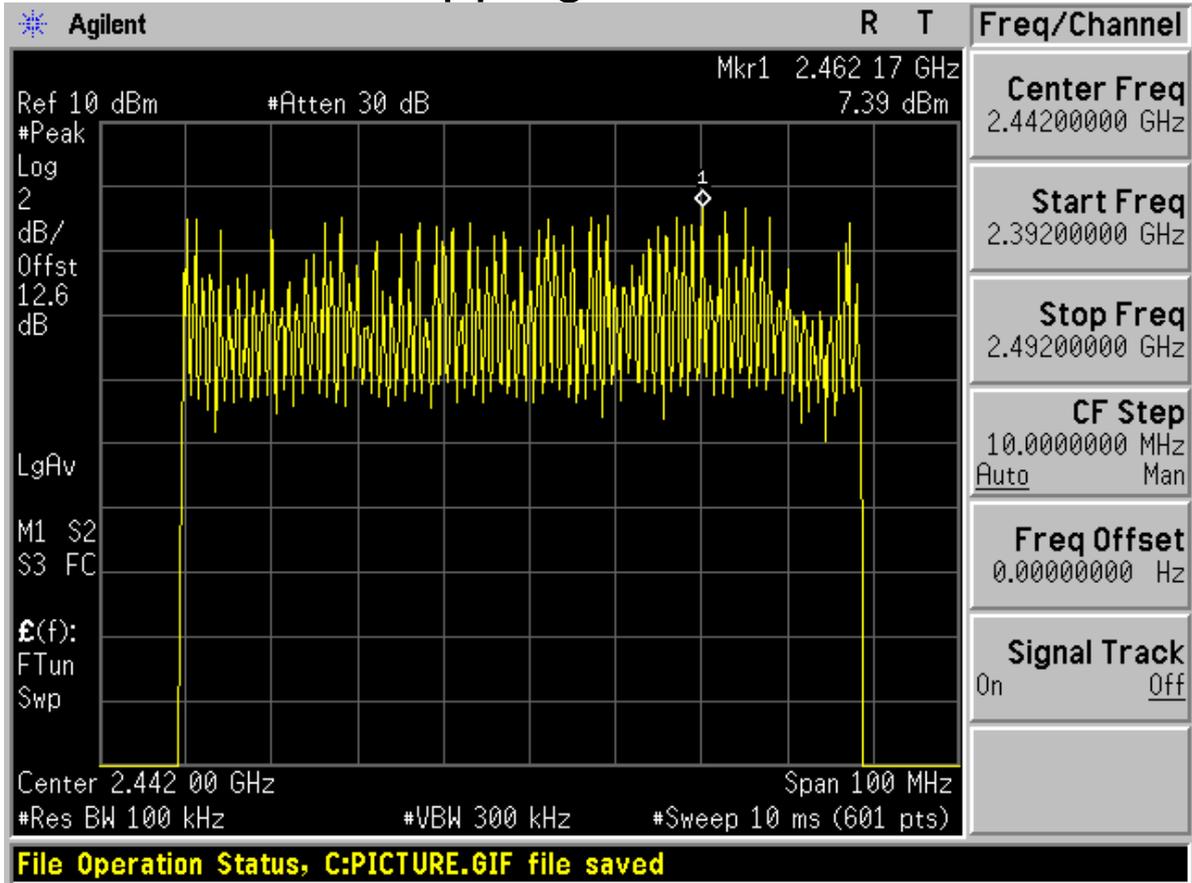
Number of hopping channel

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



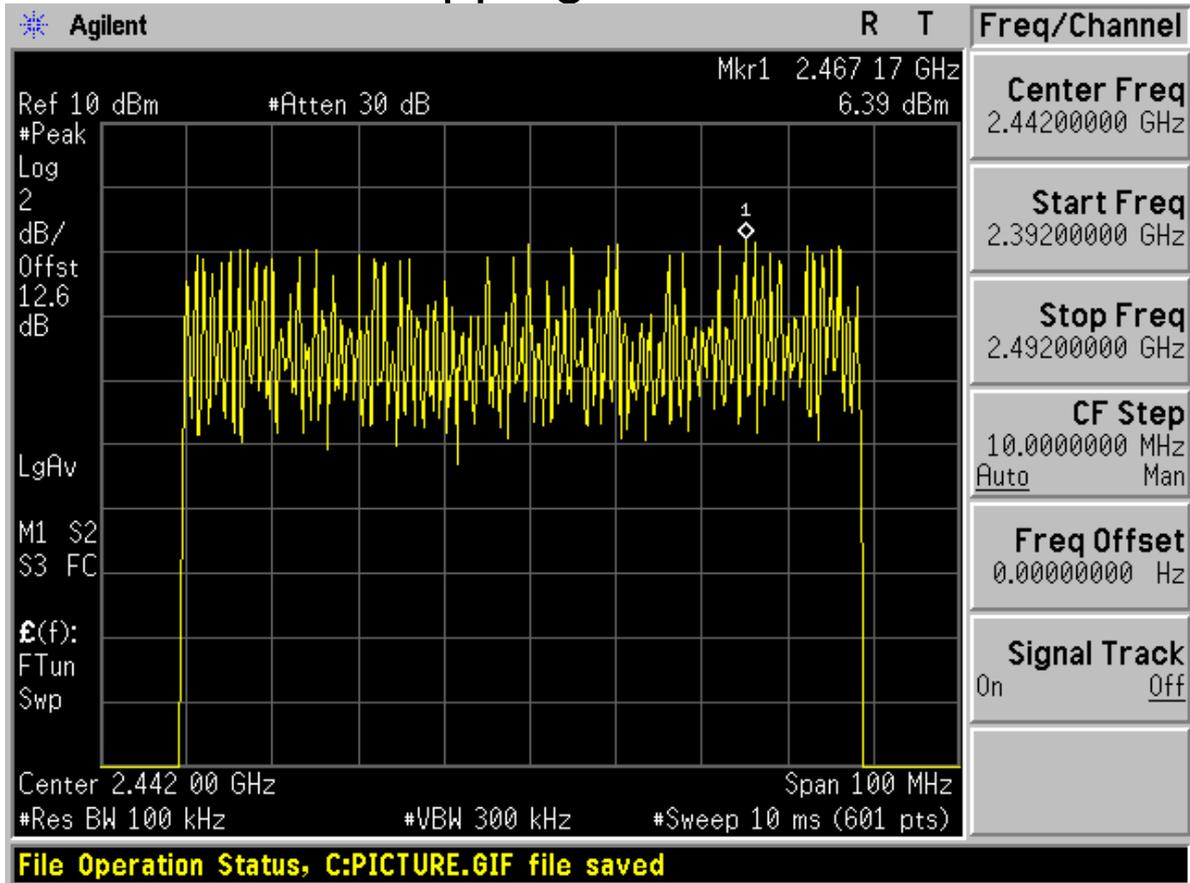
Modulation: $\pi/4$ -DQPSK

Total hopping channels = 79





Modulation: 8DPSK Total hopping channels = 79





Appendix D

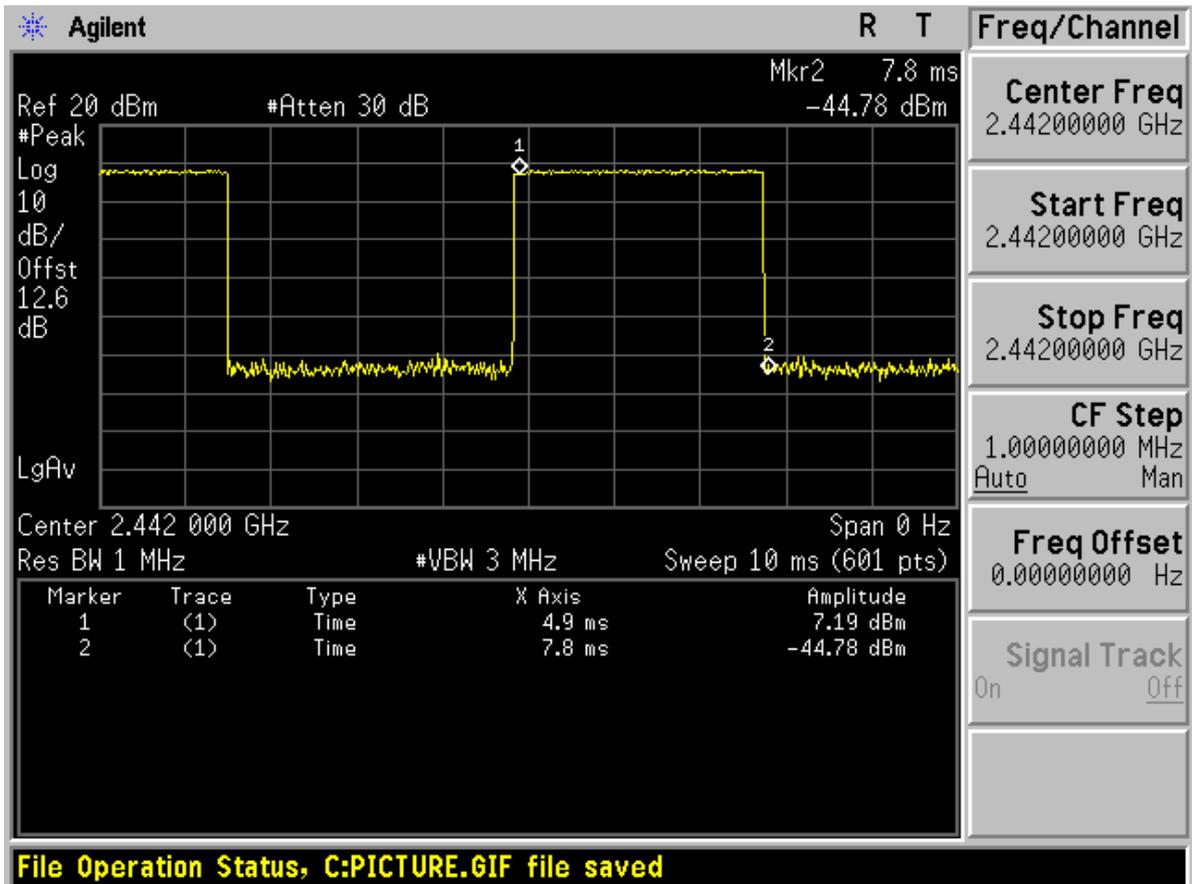
Time of occupancy

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



Modulation: $\pi/4$ -DQPSK

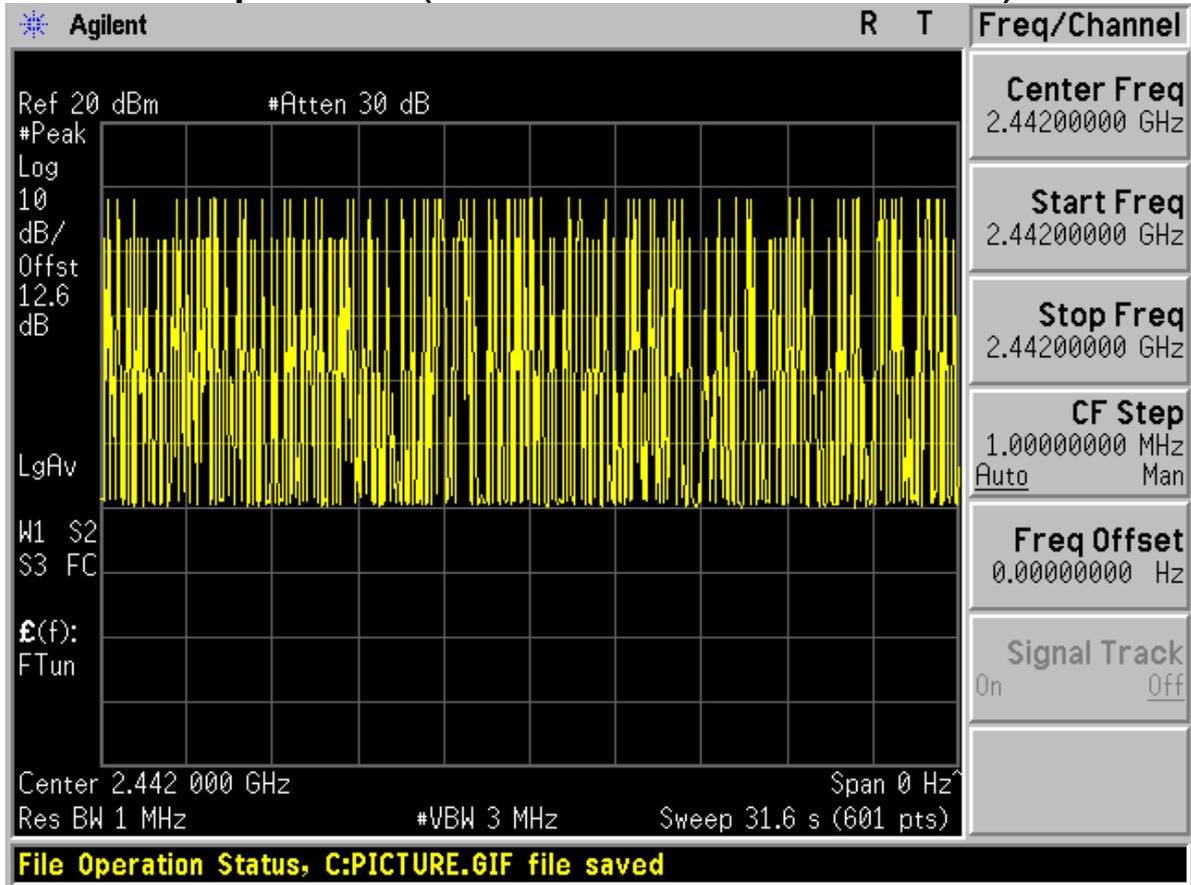
A burst (One time slot)



File Operation Status, C:PICTURE.GIF file saved



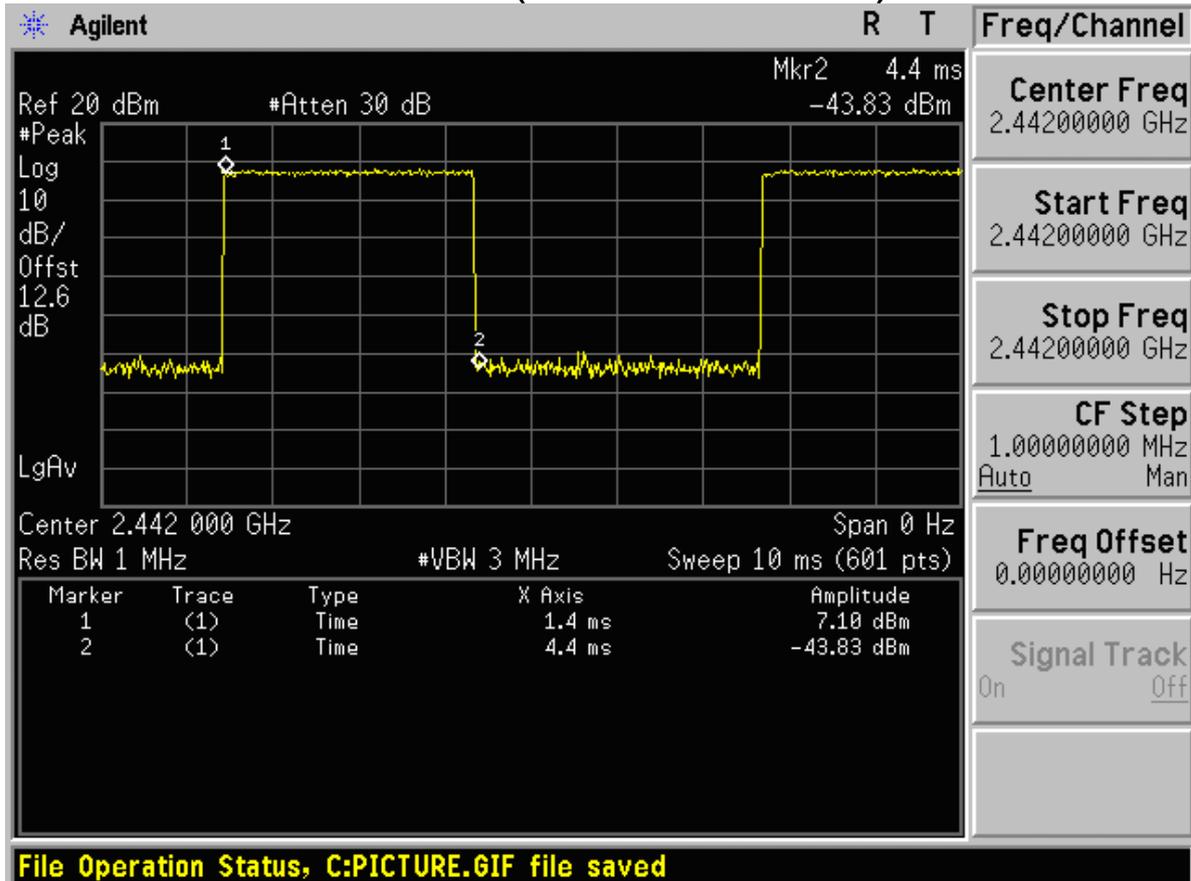
A period (Less than 106.7 burst)





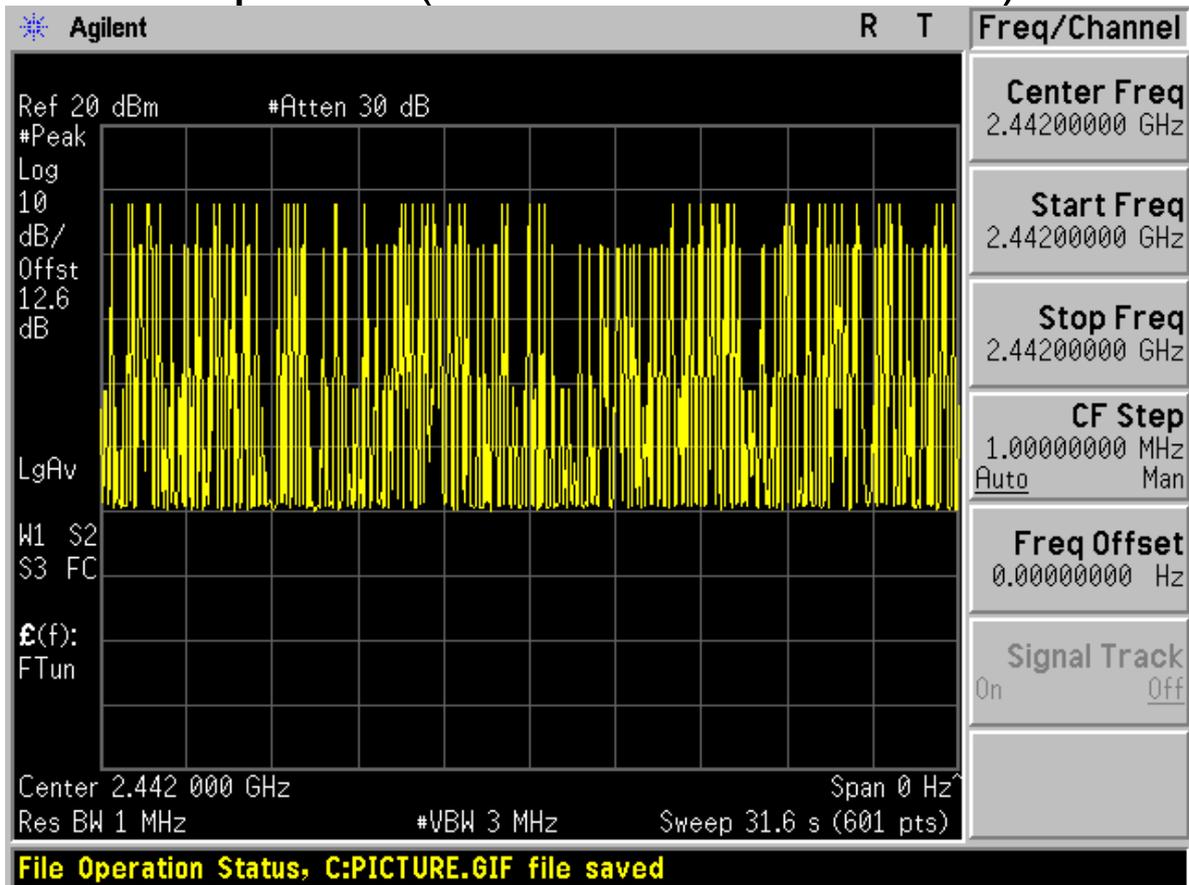
Modulation: 8DPSK

A burst (One time slot)





A period (Less than 106.7 burst)





Appendix E

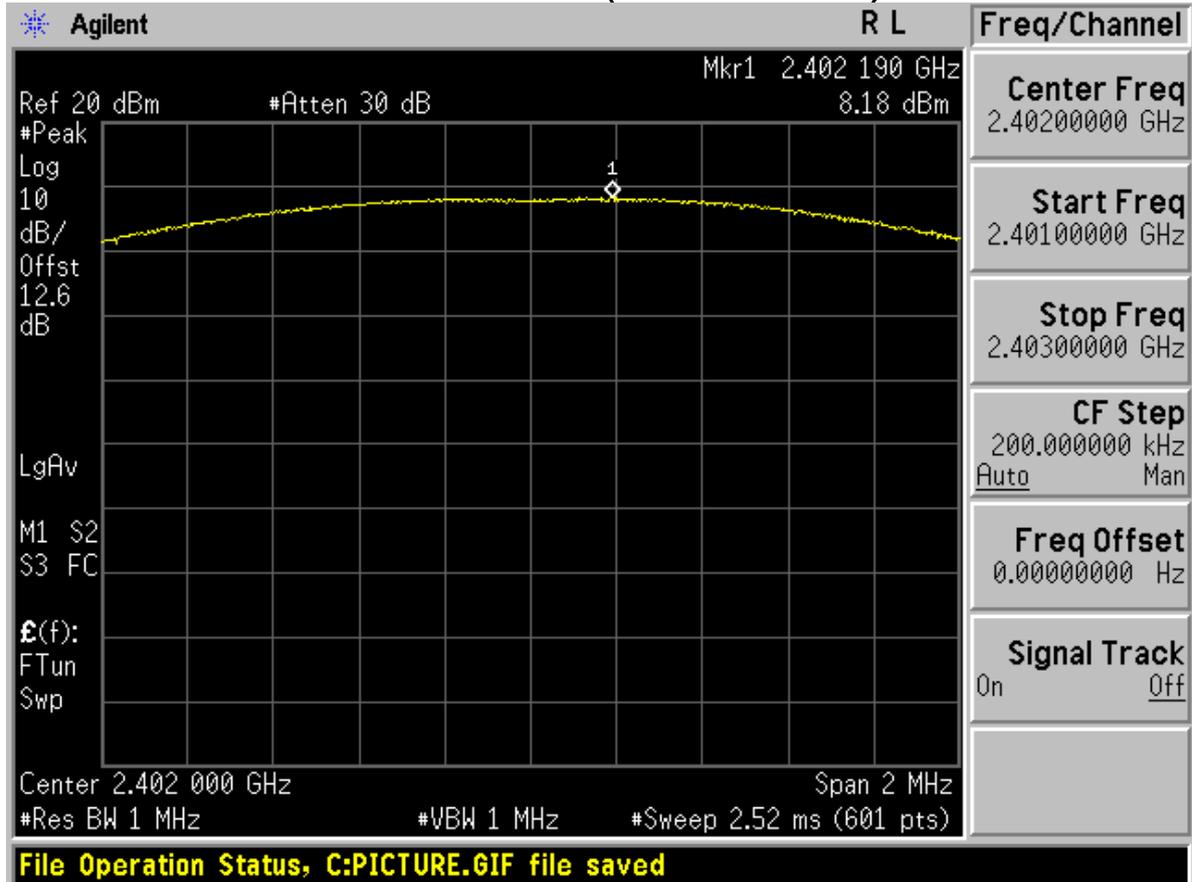
Peak output power

According to FCC Part 15.247 (b) (1)



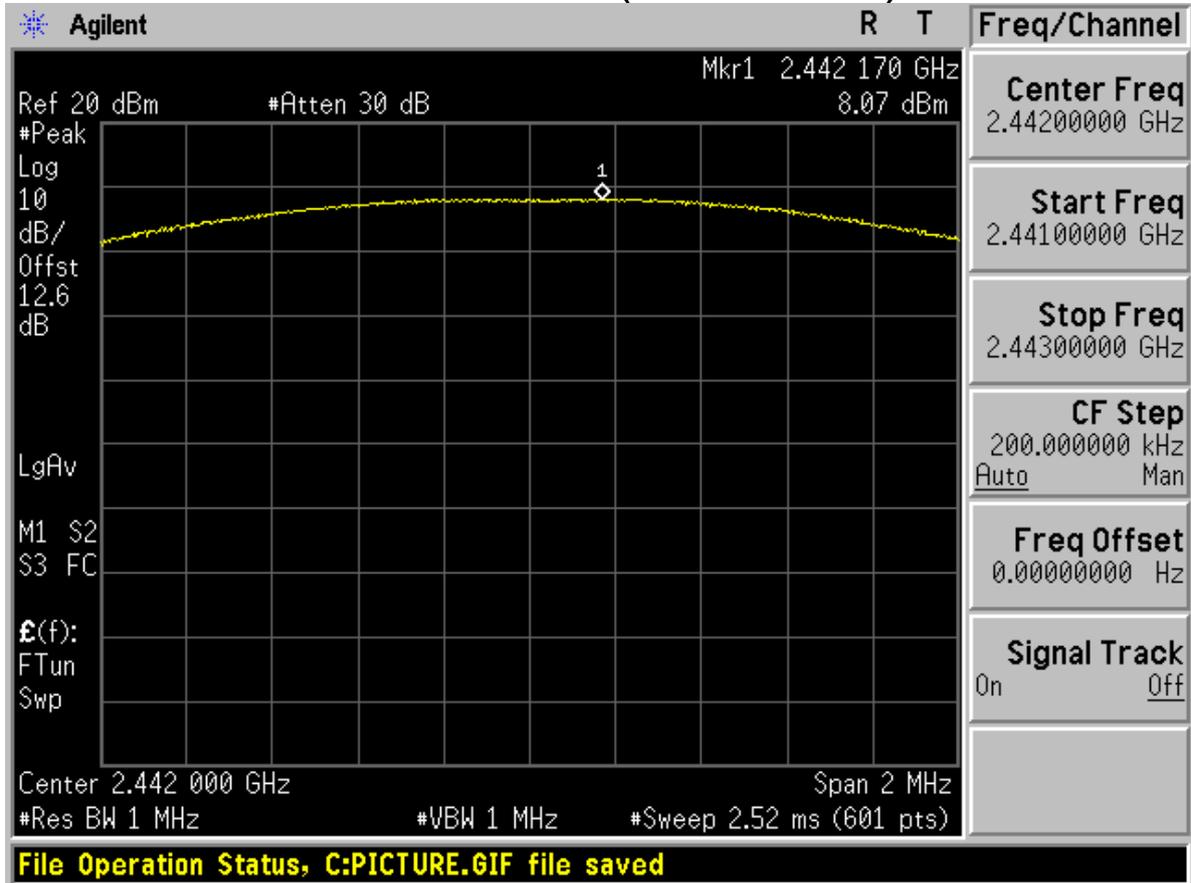
Modulation: $\pi/4$ -DQPSK

Channel 0 (2402MHz)



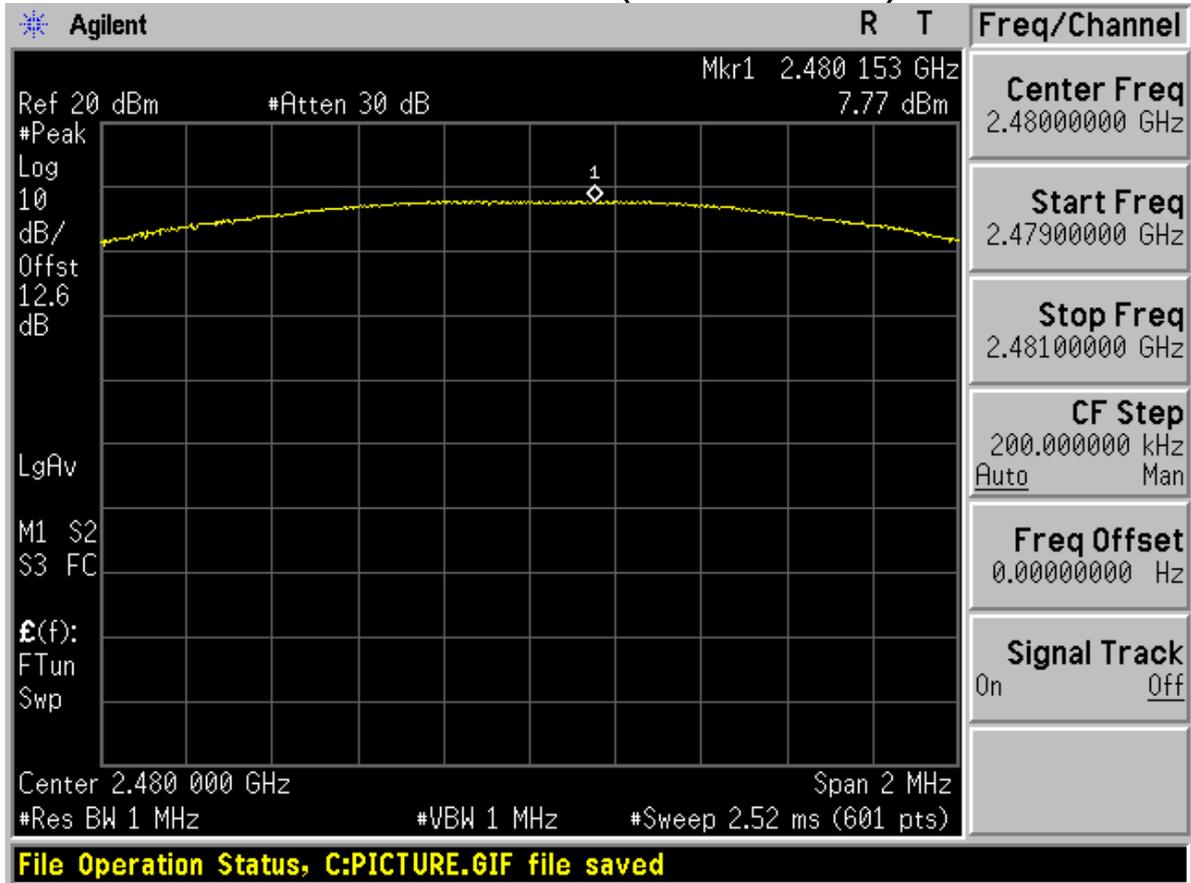


Channel 40 (2442MHz)



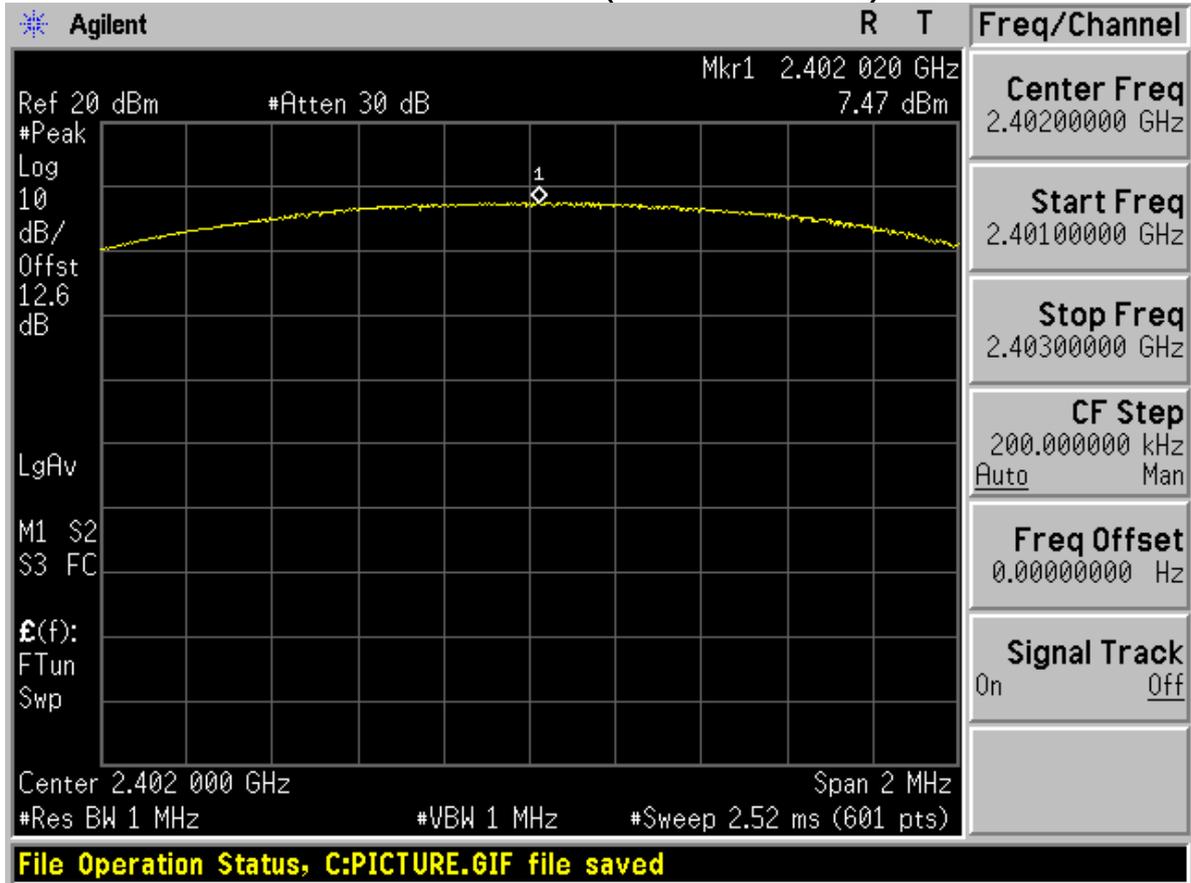


Channel 78 (2480MHz)



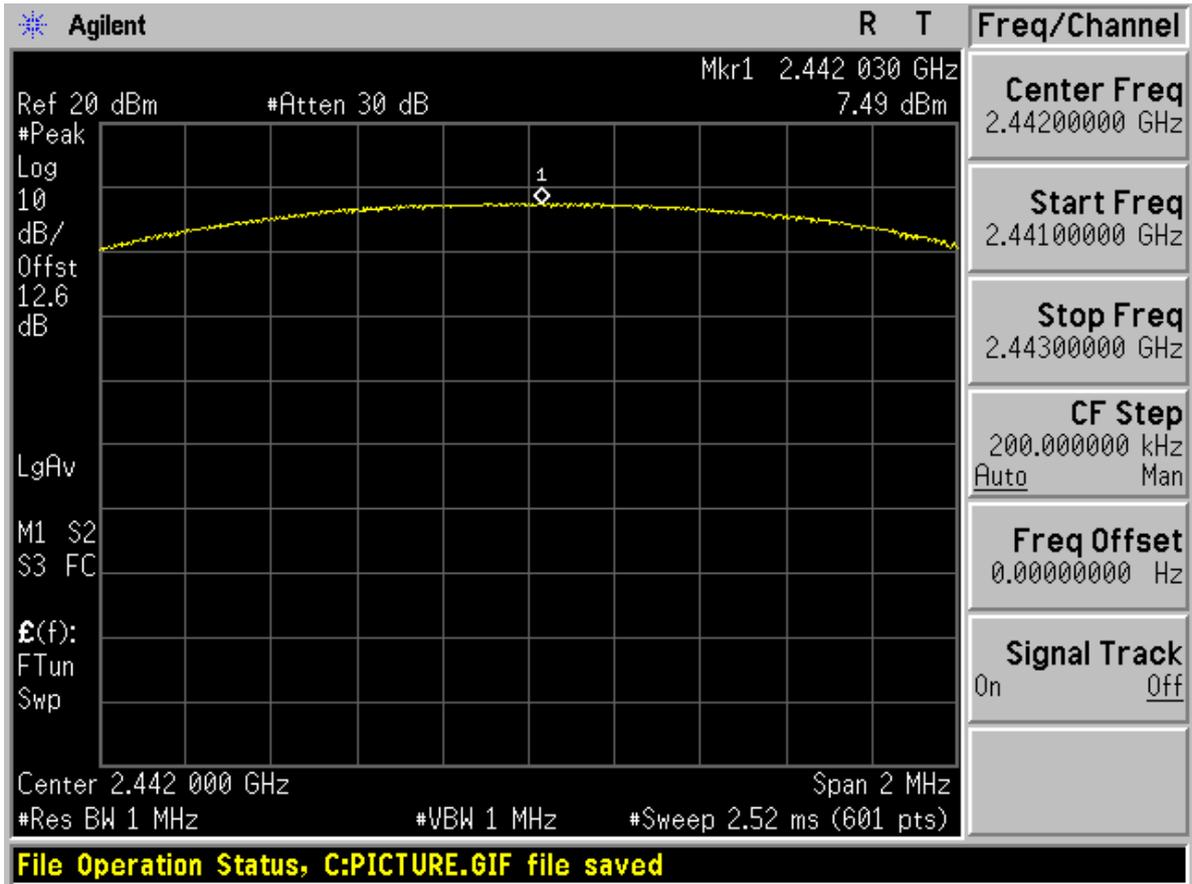


Modulation: 8DPSK Channel 0 (2402MHz)



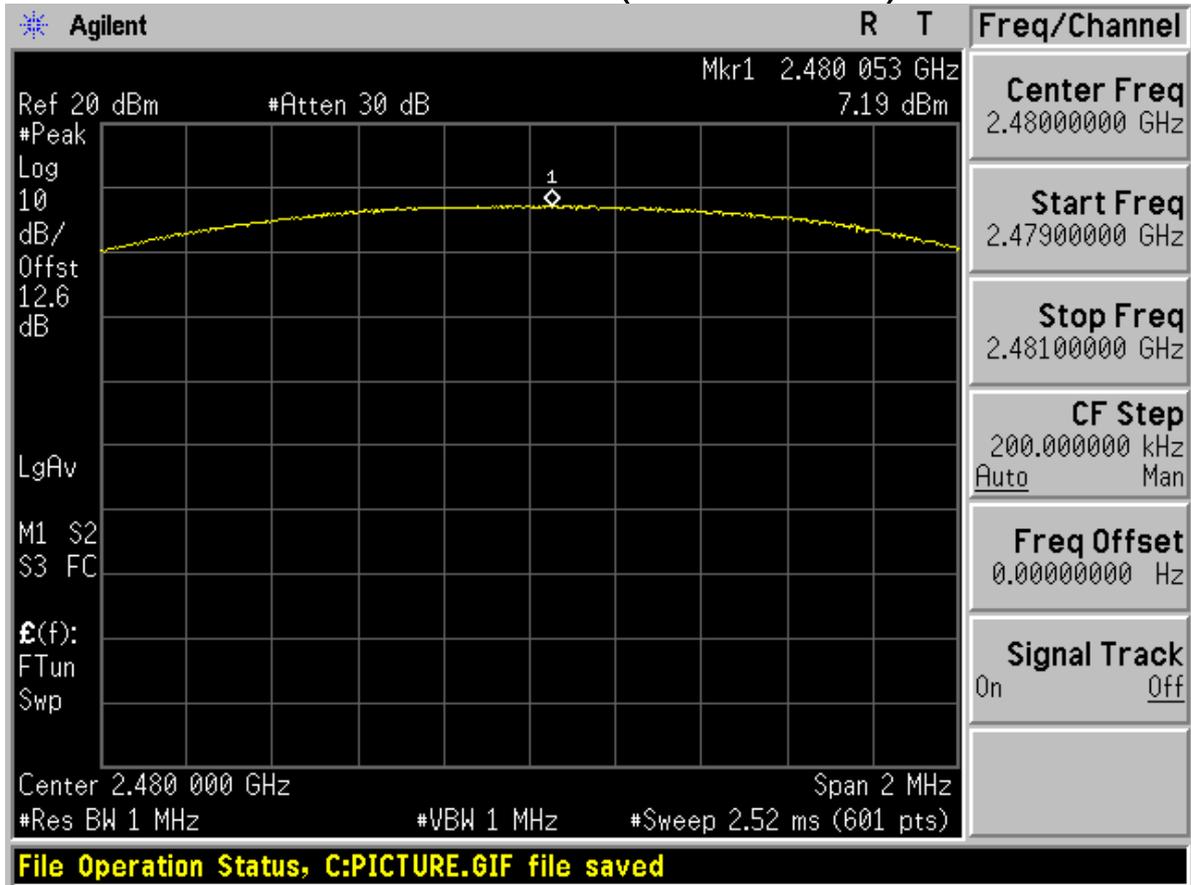


Channel 40 (2442MHz)





Channel 78 (2480MHz)





Appendix F

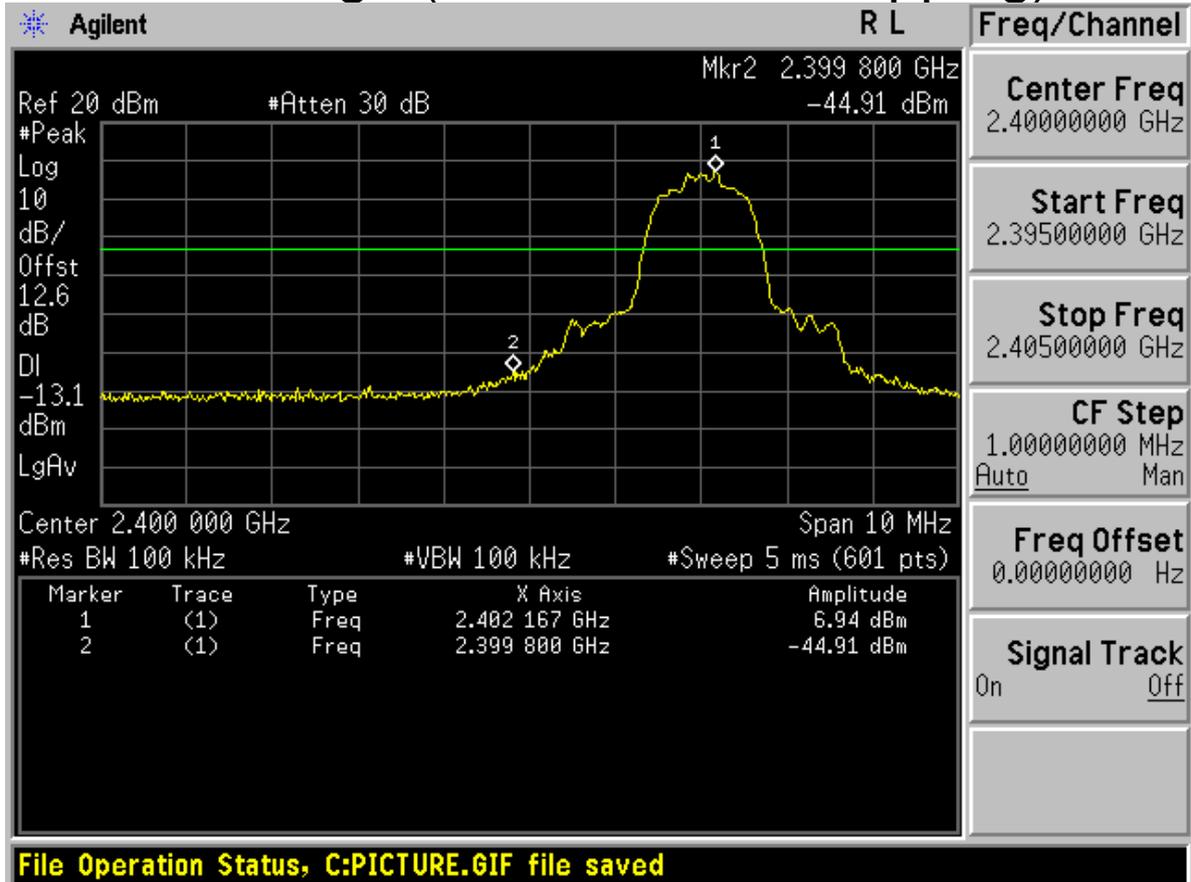
Band edge spurious emission

According to FCC Part 15.247 (d)



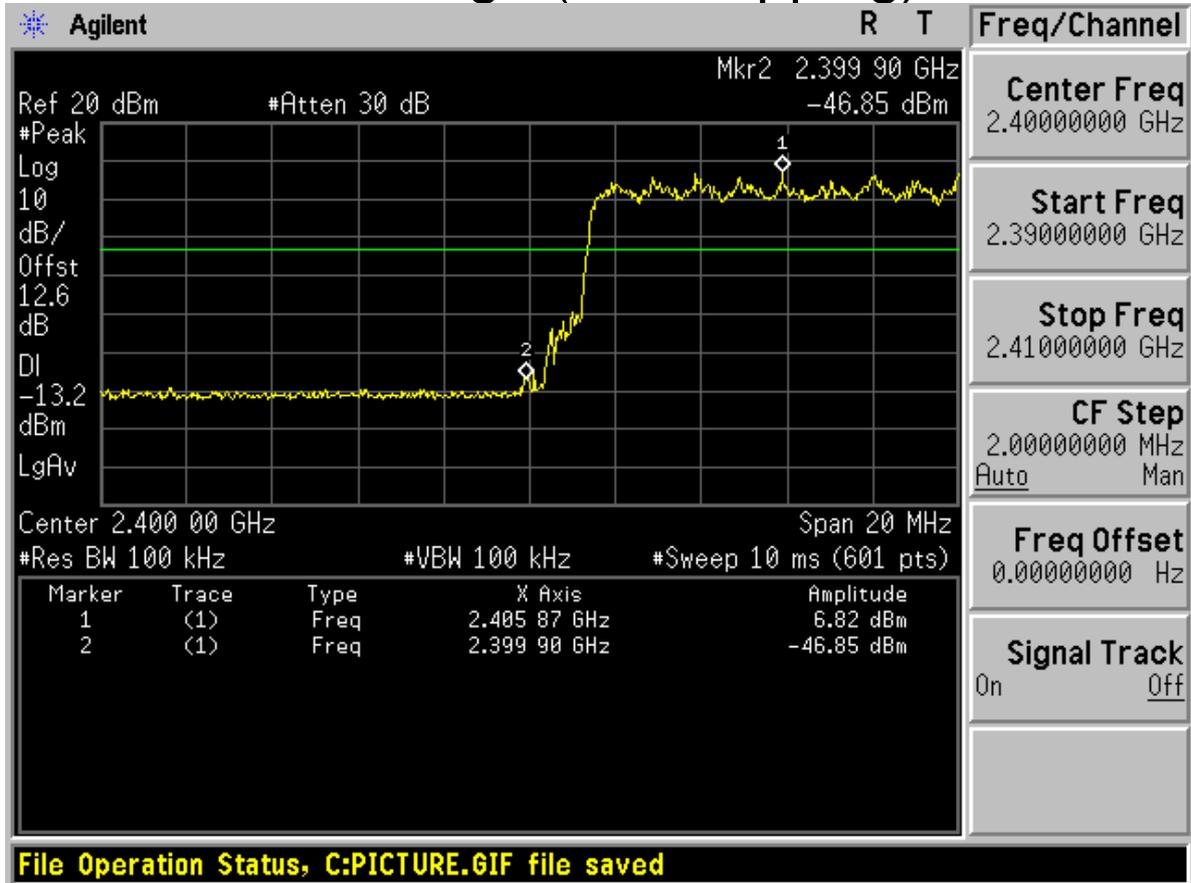
Modulation: $\pi/4$ -DQPSK

Low edge (Channel 0, no hopping)



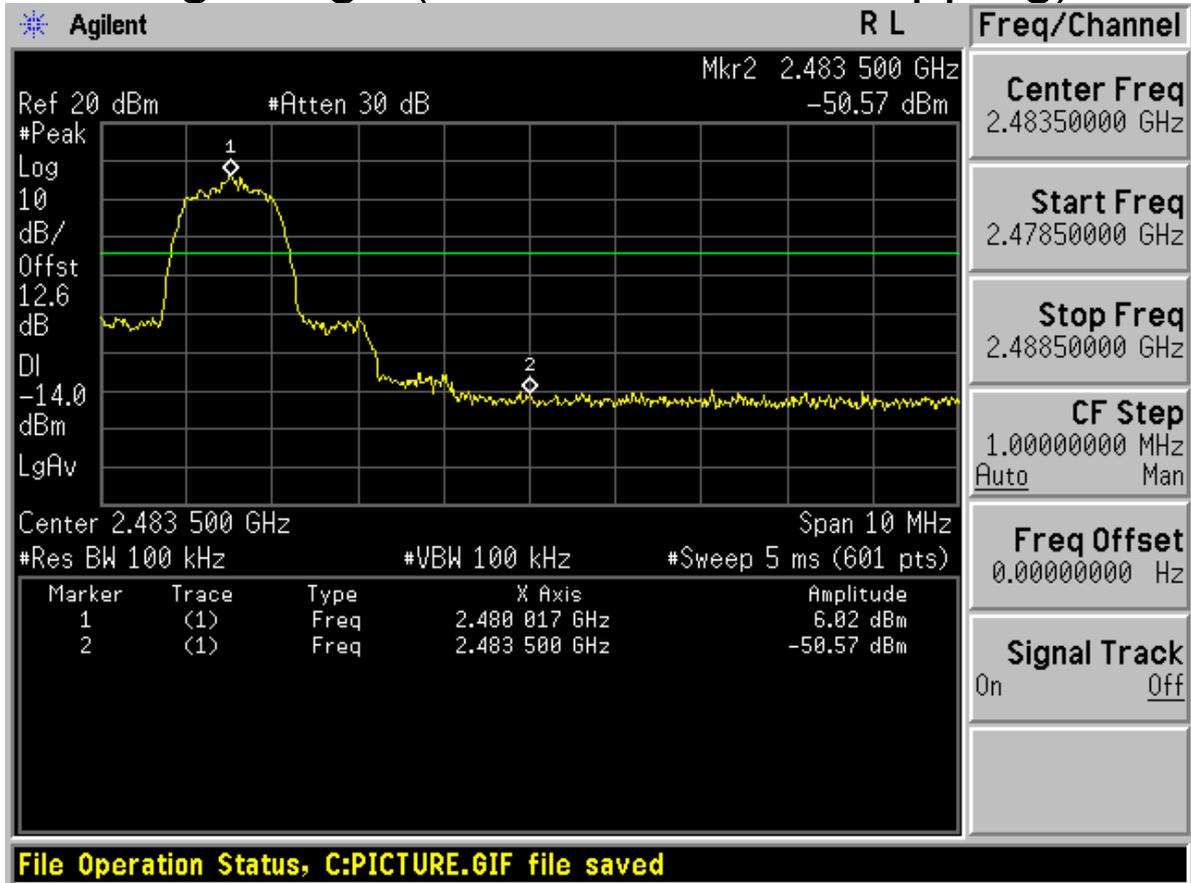


Low edge (with hopping)



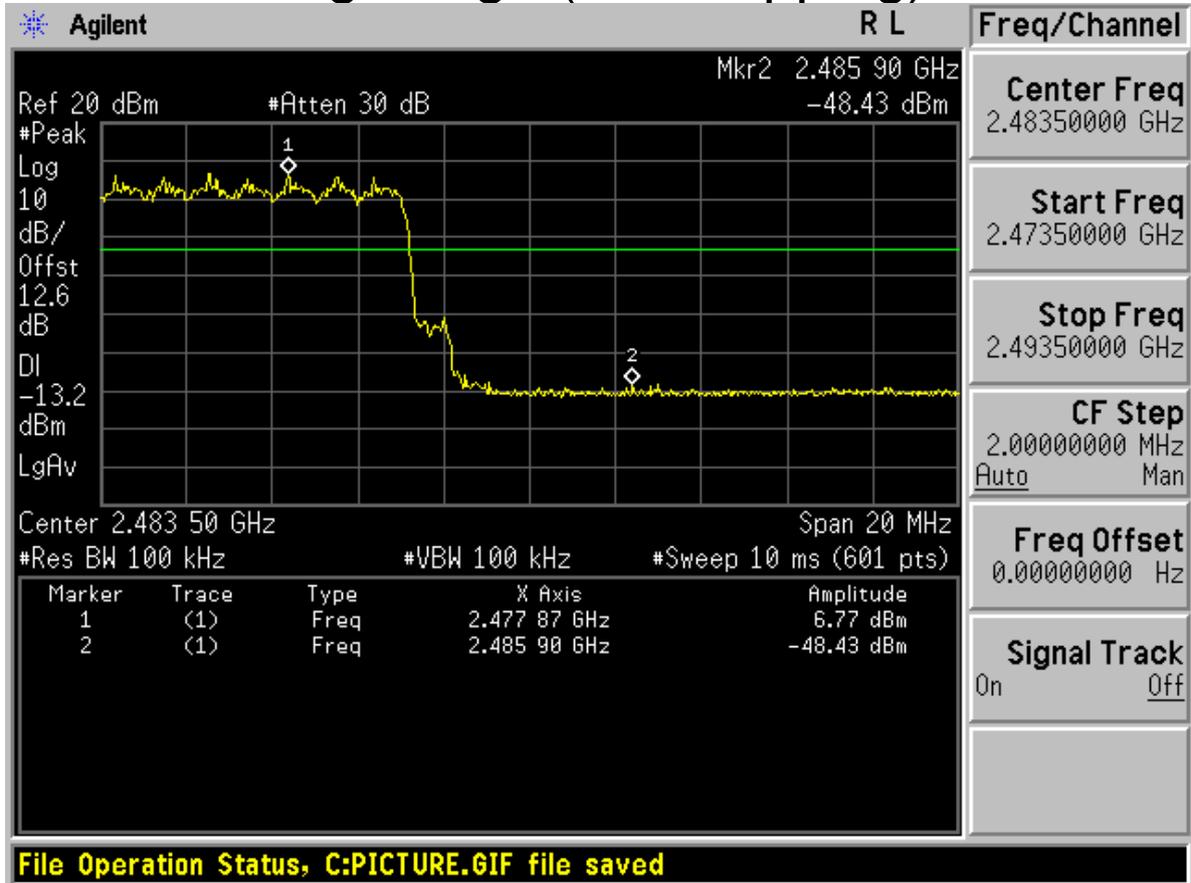


High edge (Channel 78, no hopping)



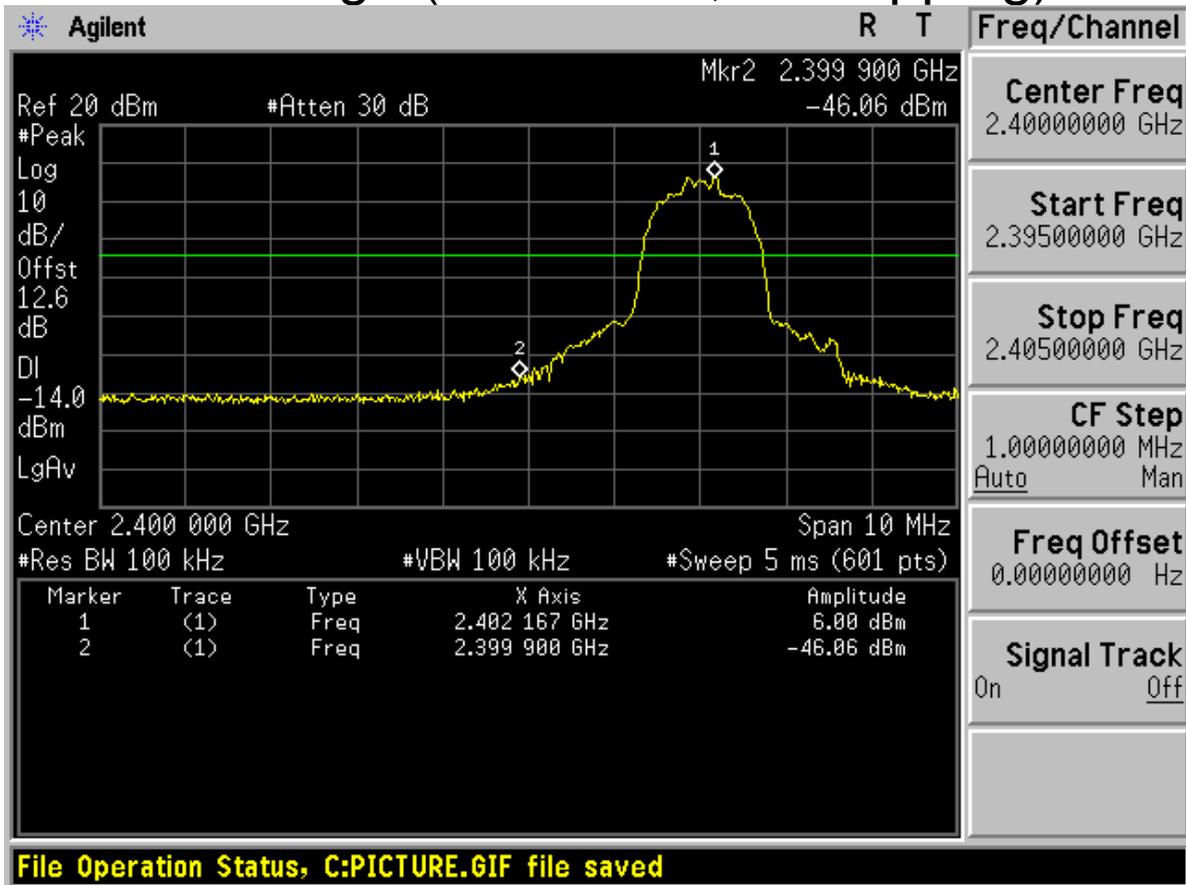


High edge (with hopping)



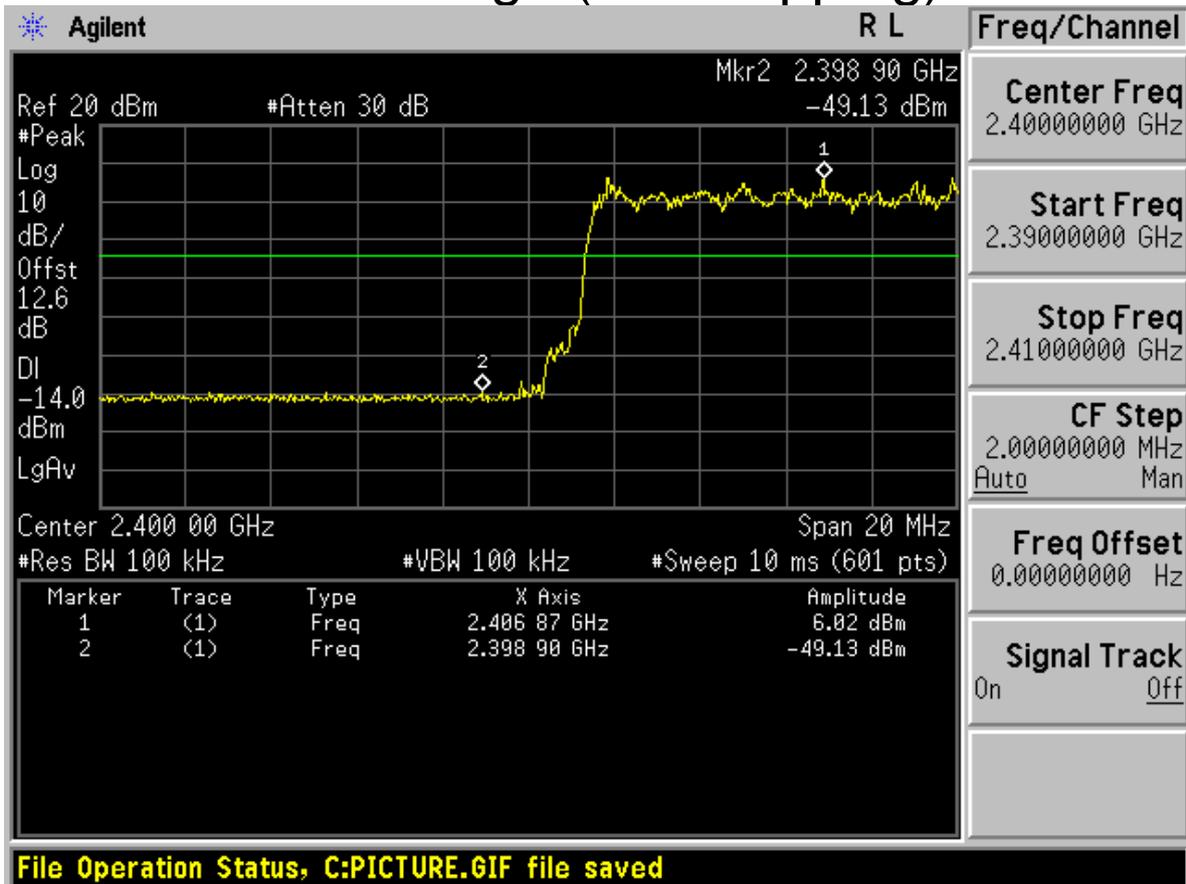


Modulation: 8DPSK Low edge (Channel 0, no hopping)



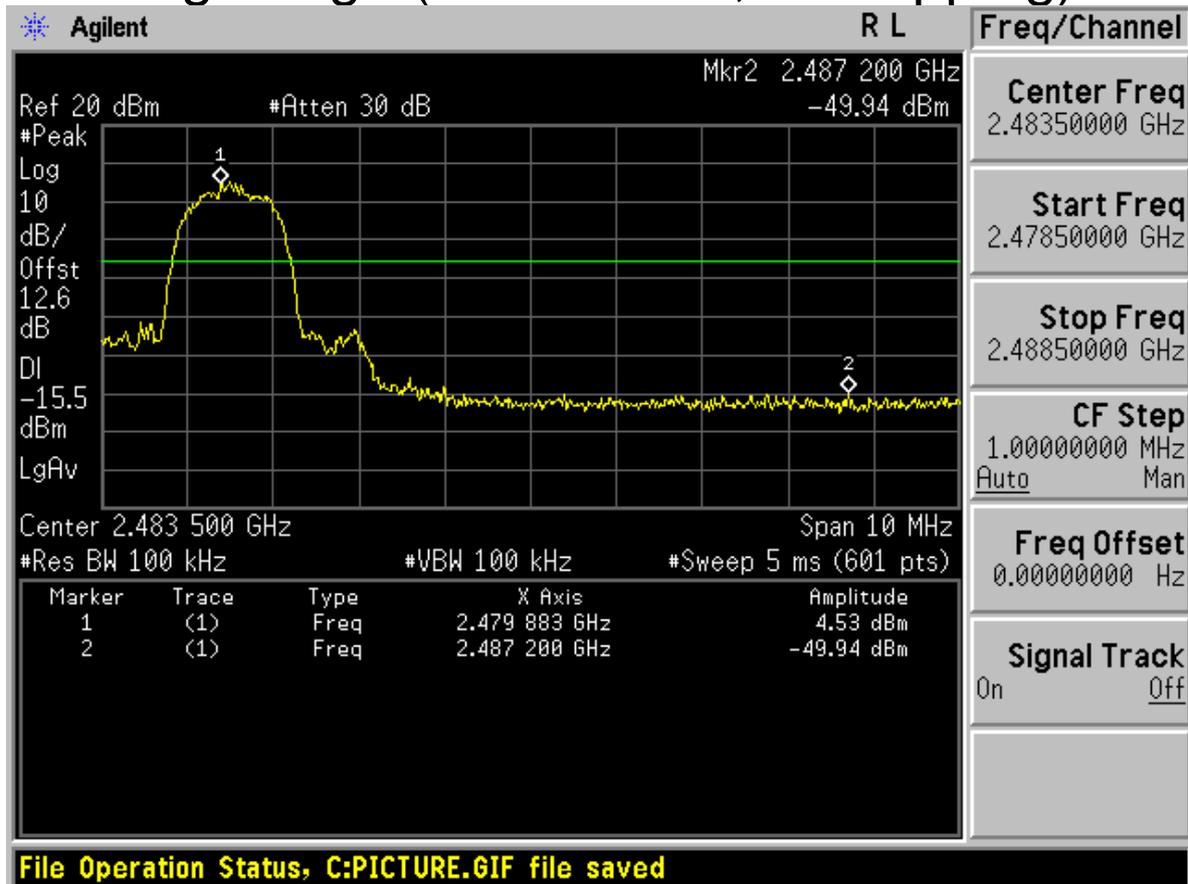


Low edge (with hopping)



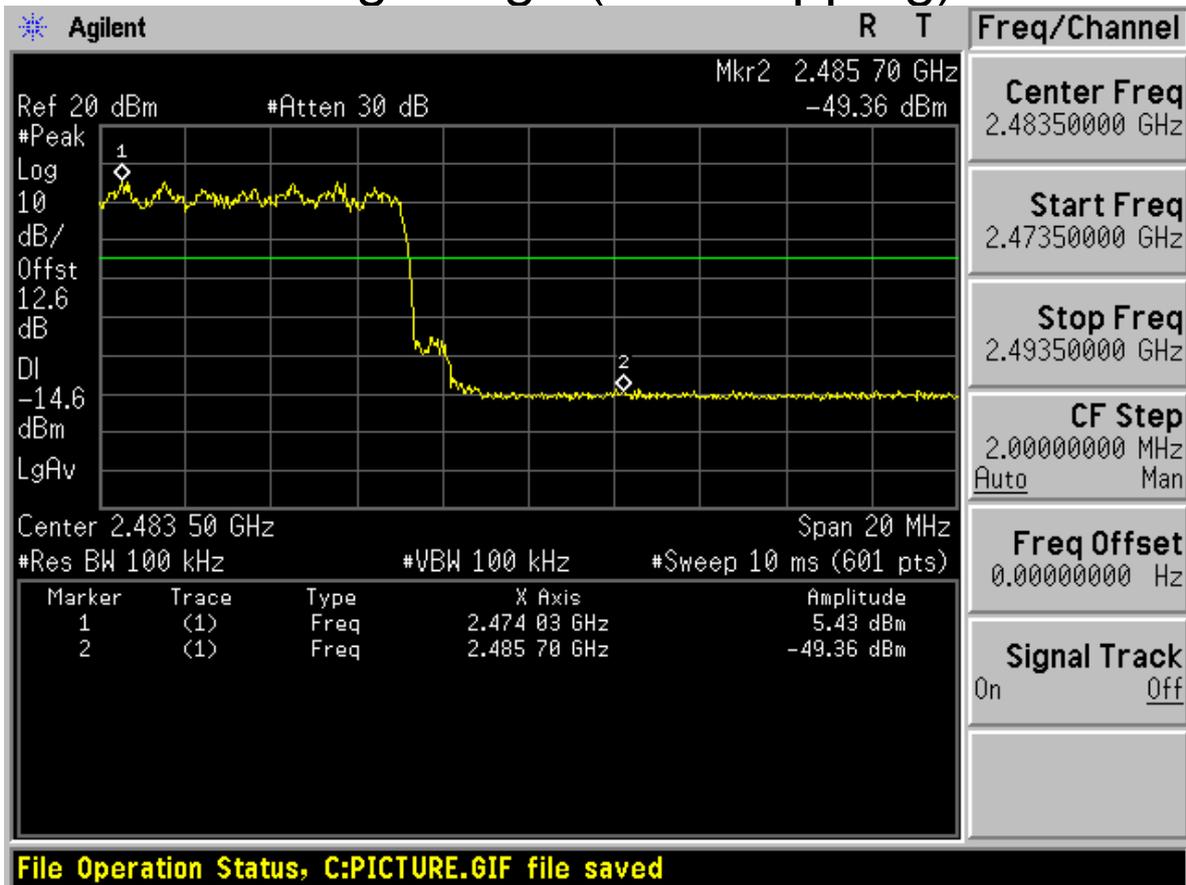


High edge (Channel 78, no hopping)





High edge (with hopping)





Appendix G

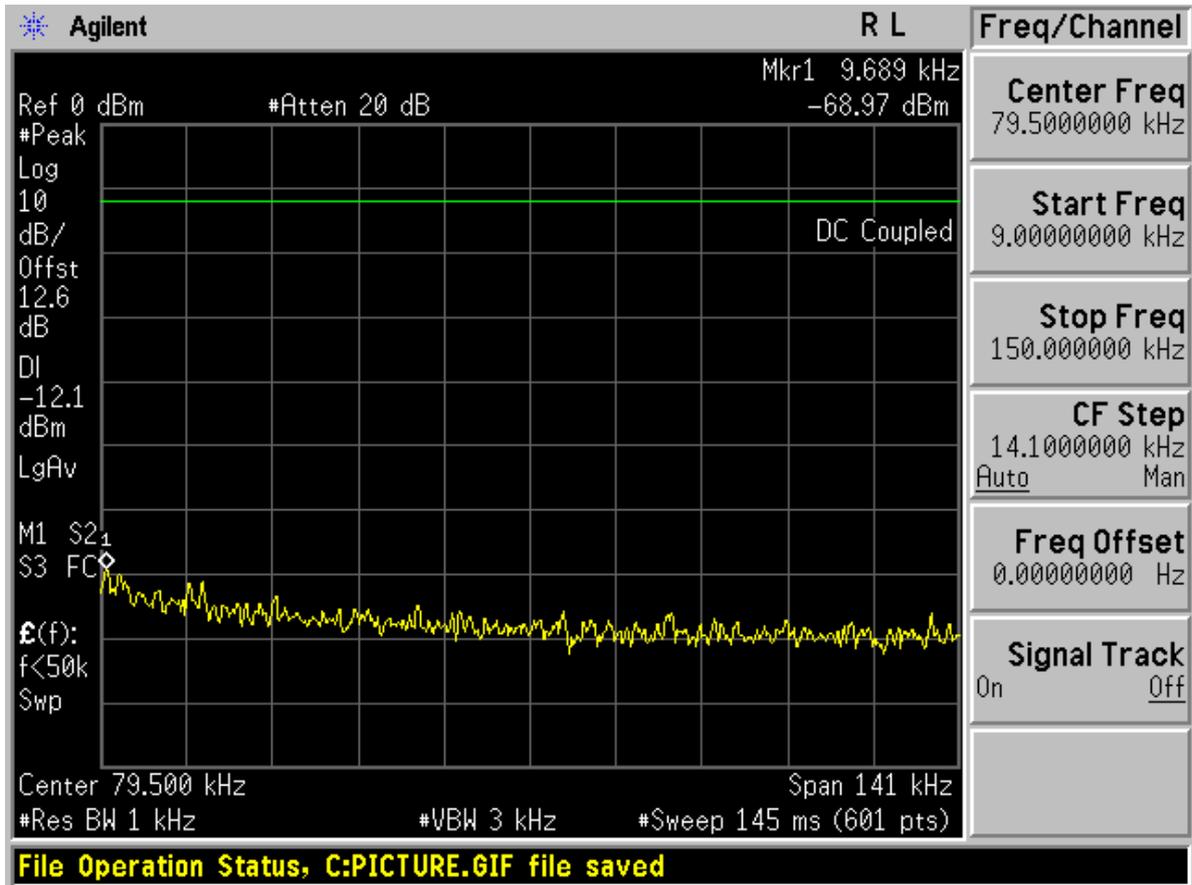
Conducted RF spurious

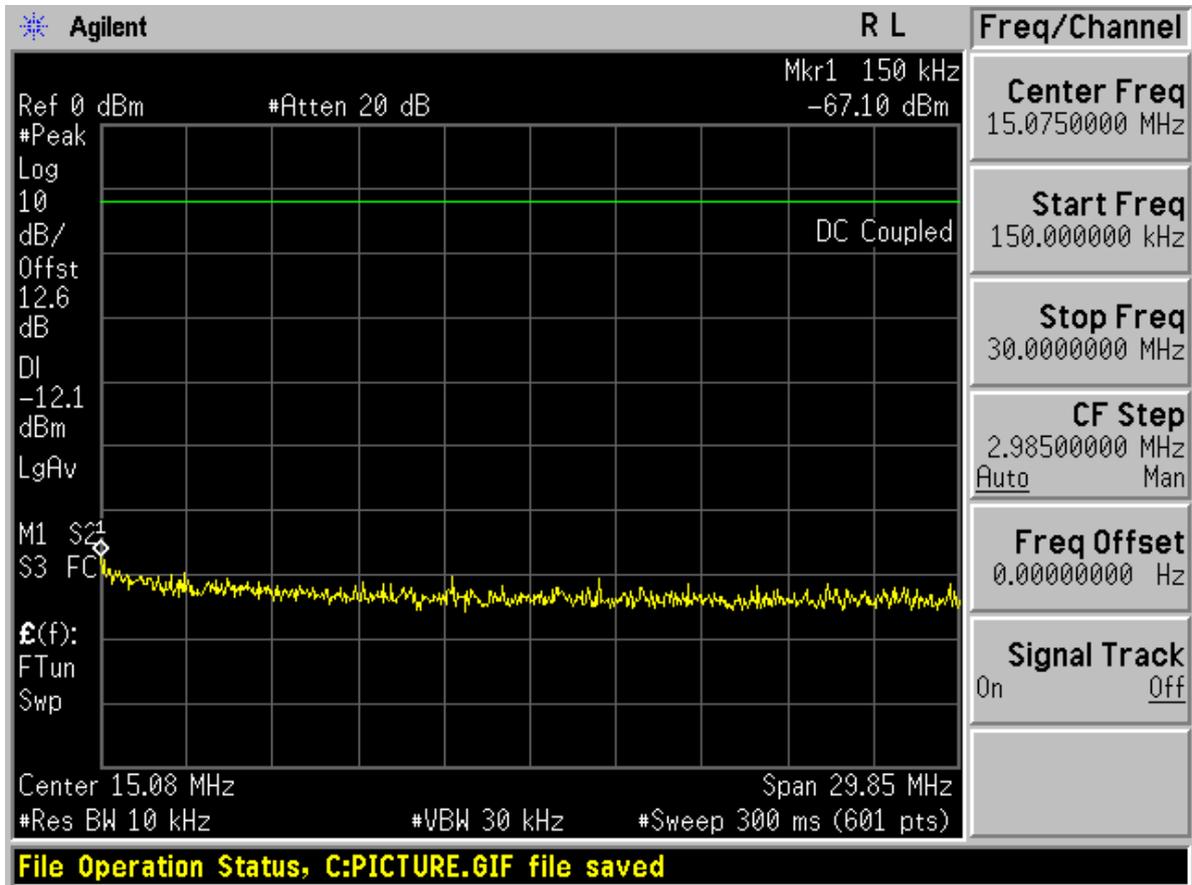
According to FCC Part 15.247 (d)

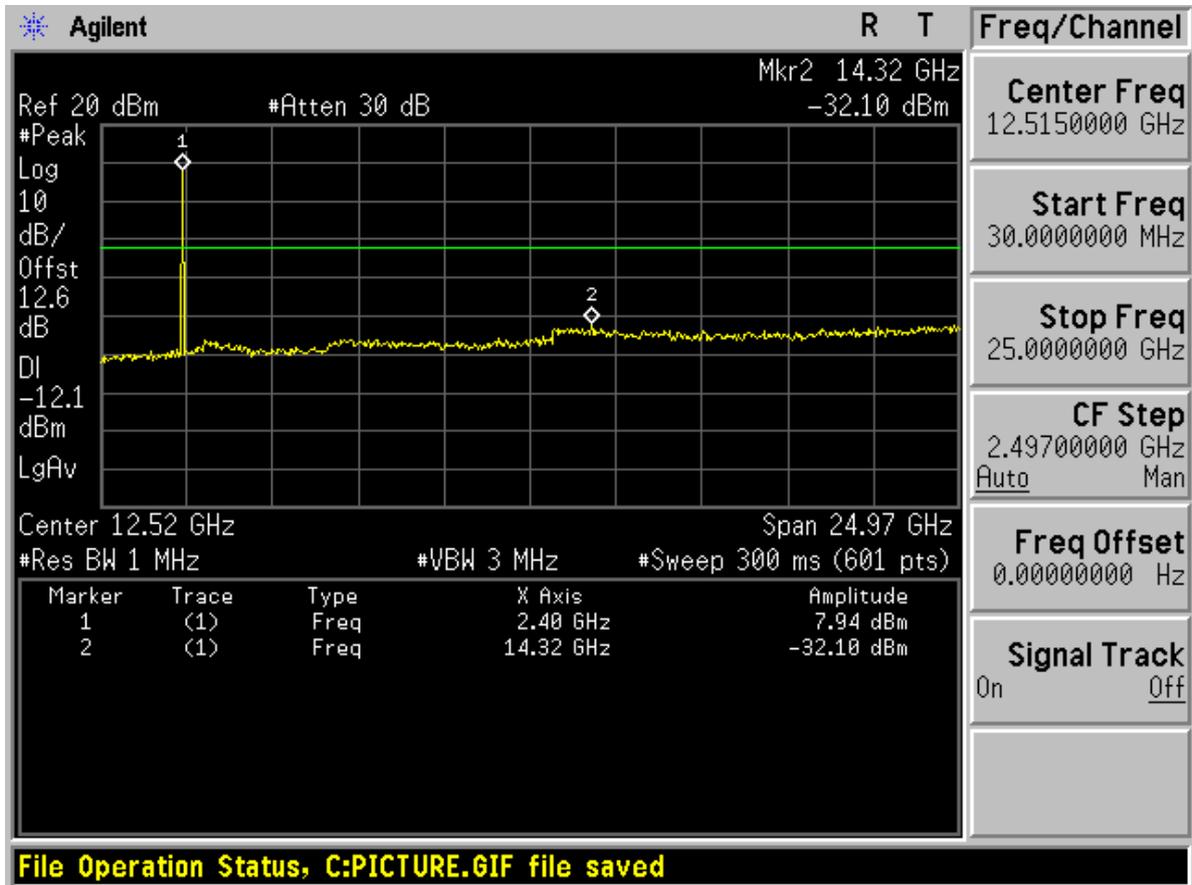


Modulation: $\pi/4$ -DQPSK

Channel 0

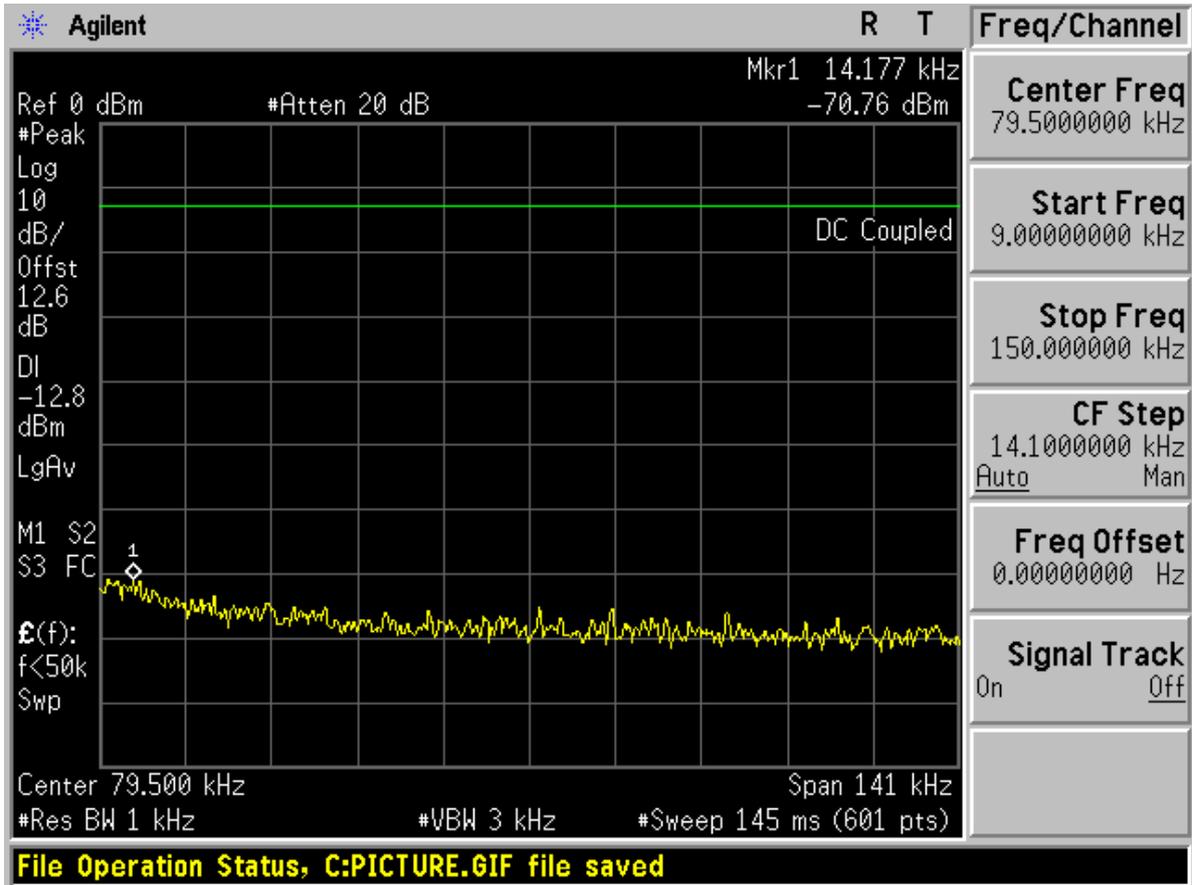


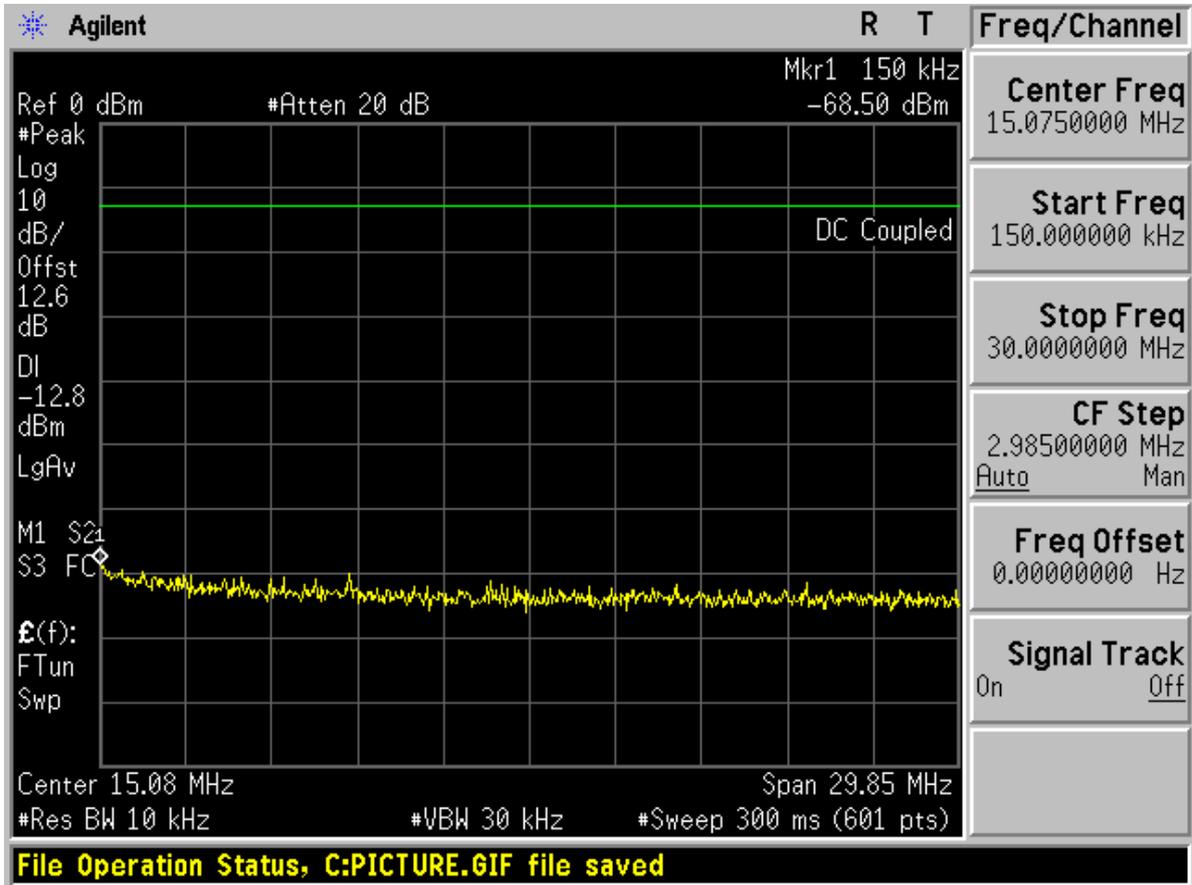


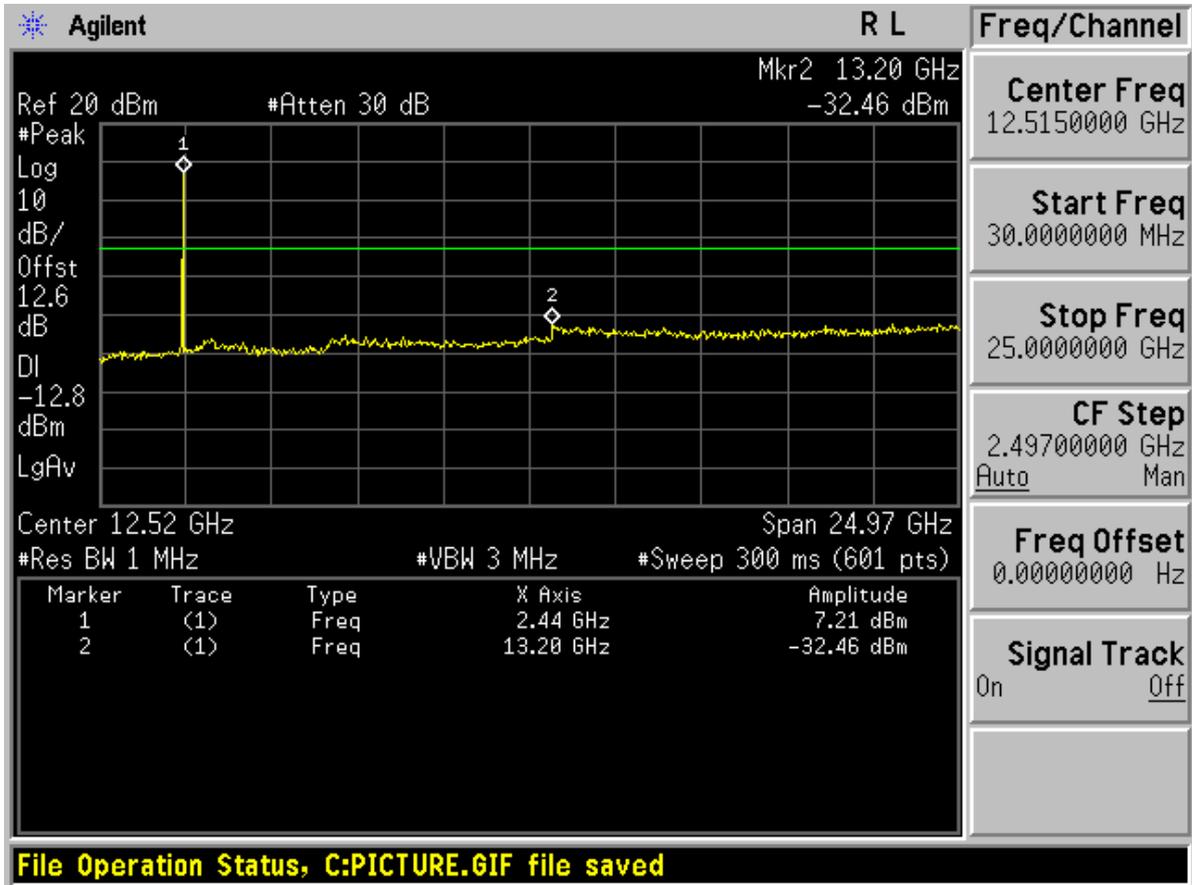




Channel 40

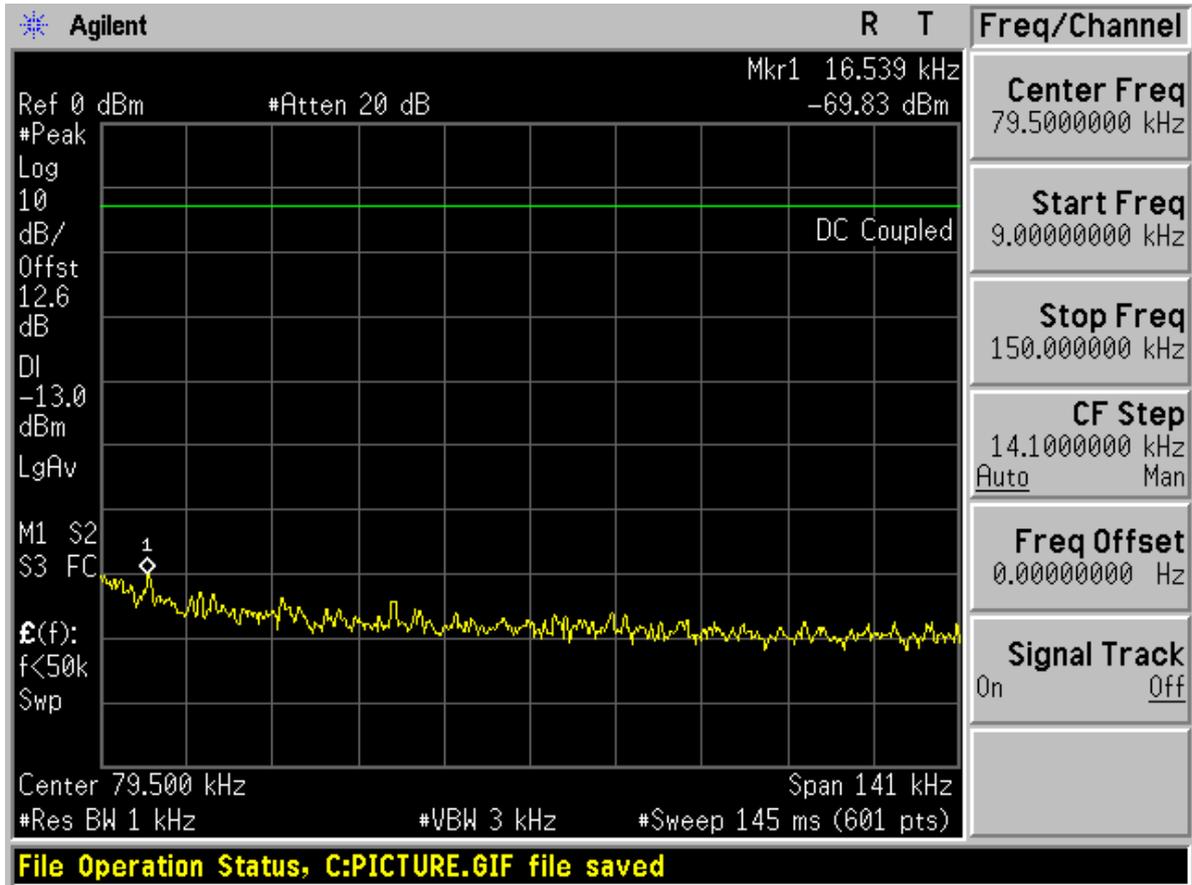


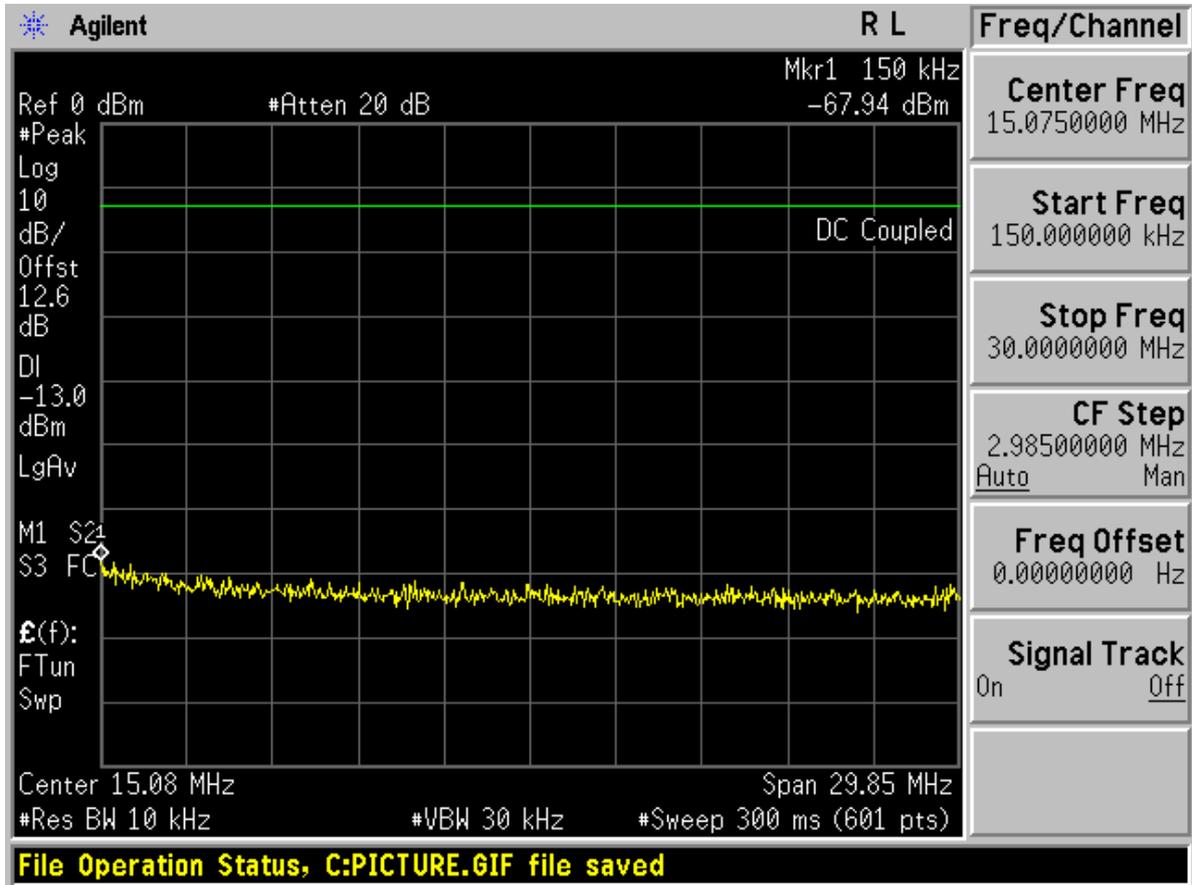


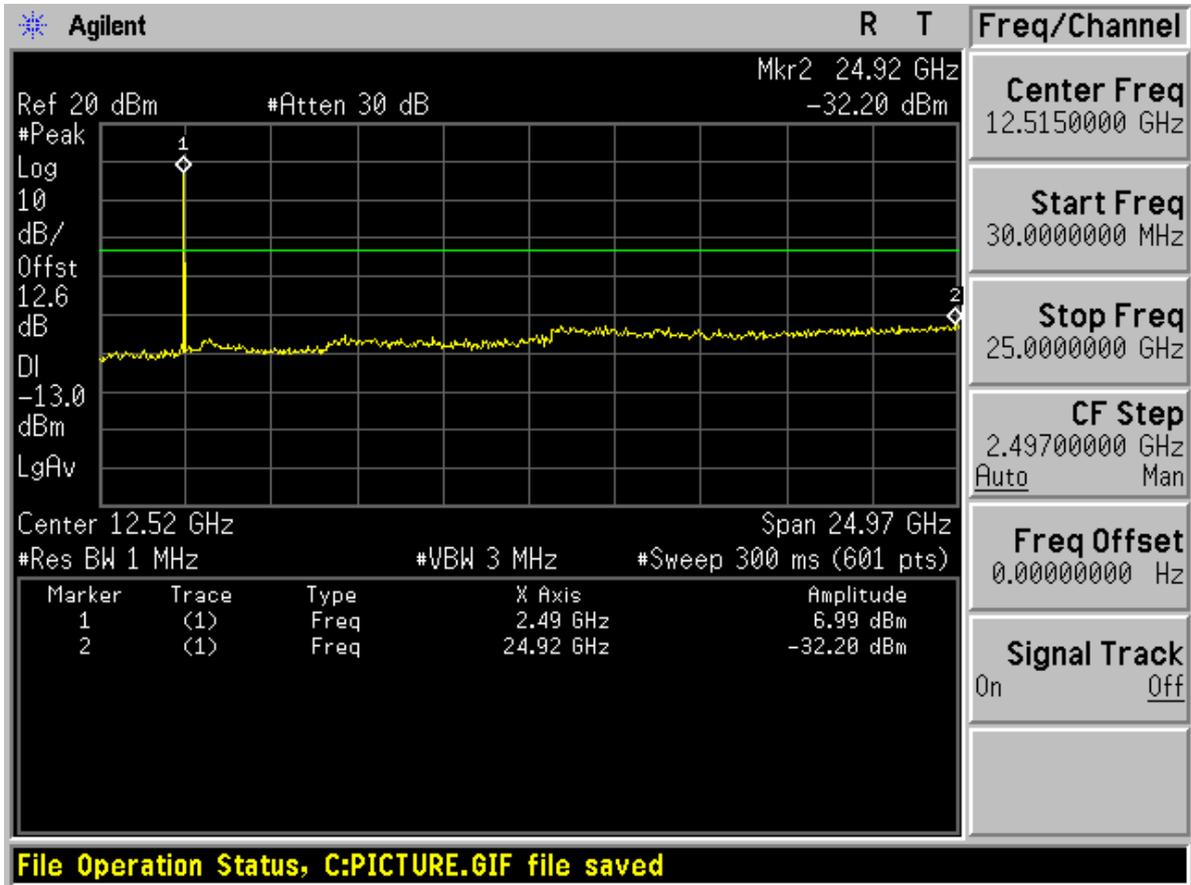




Channel 78

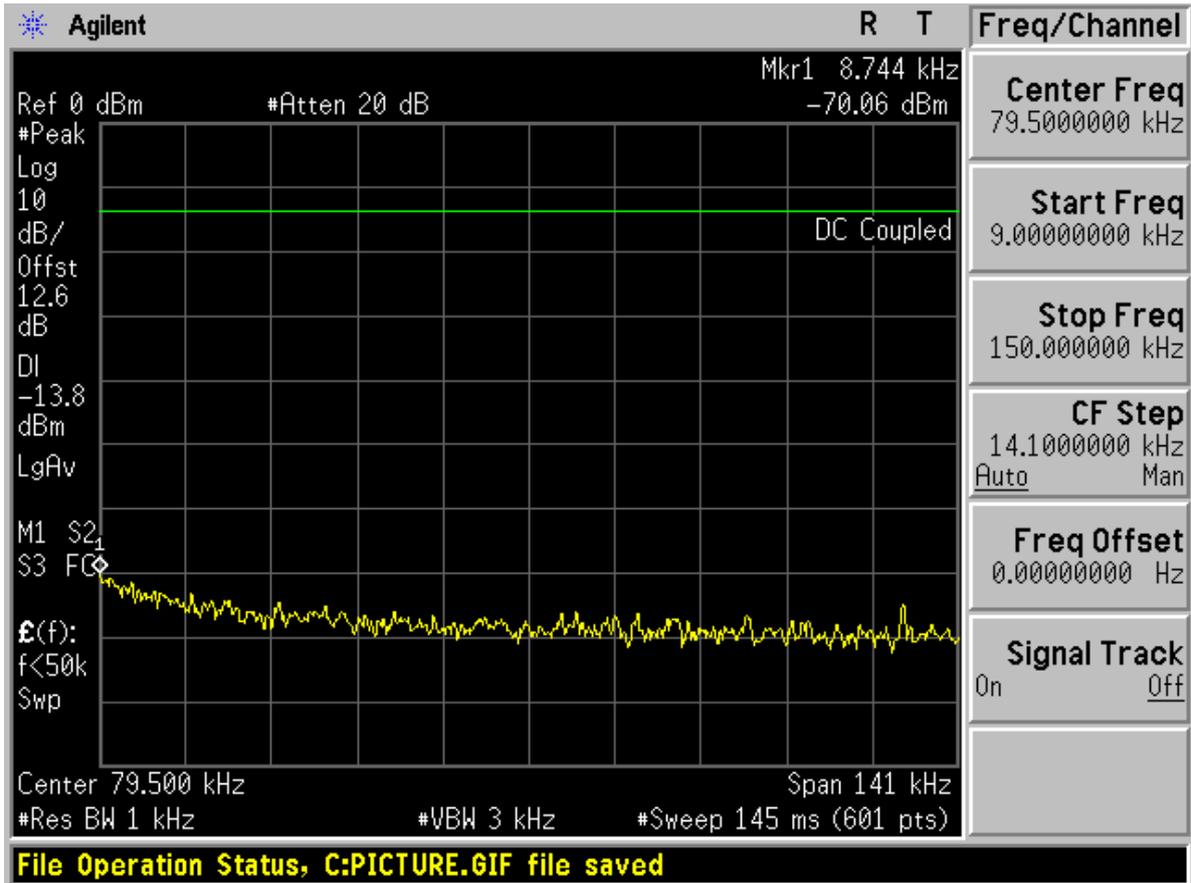


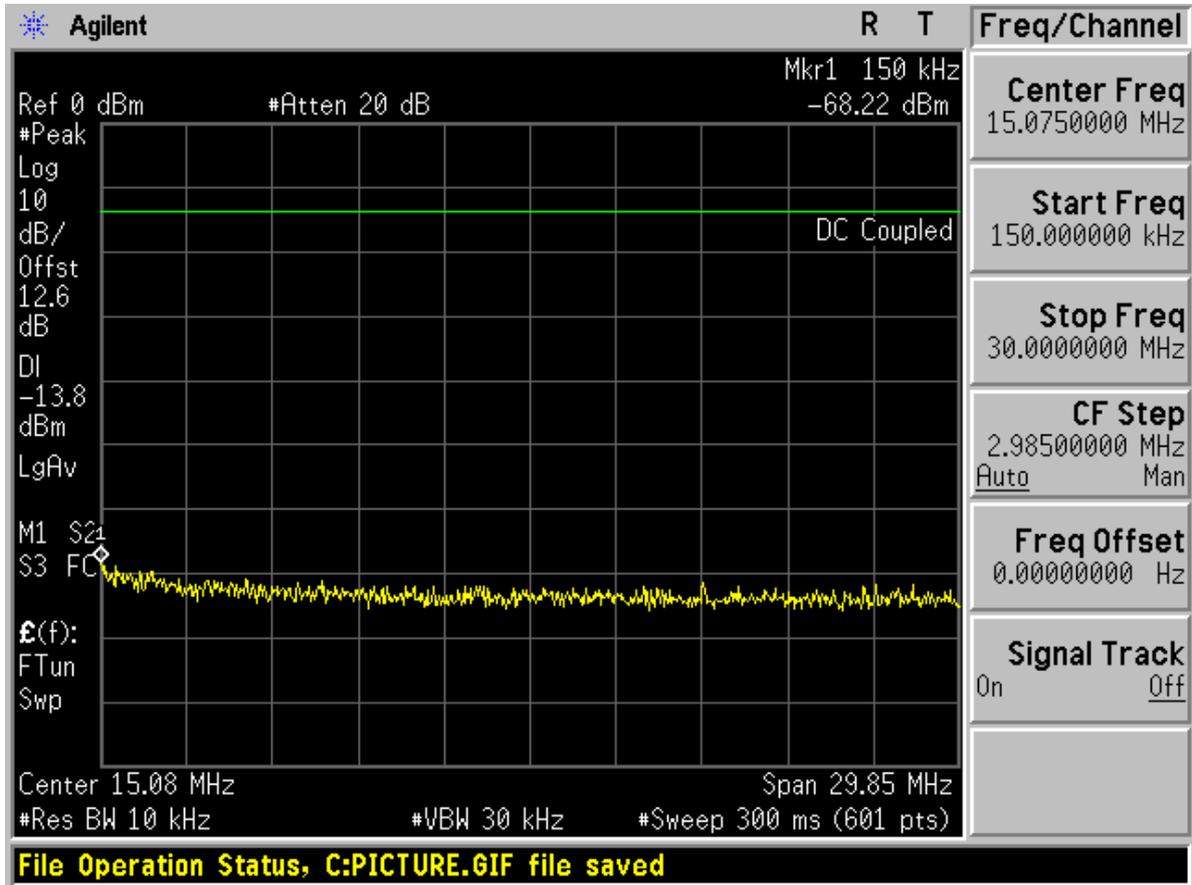


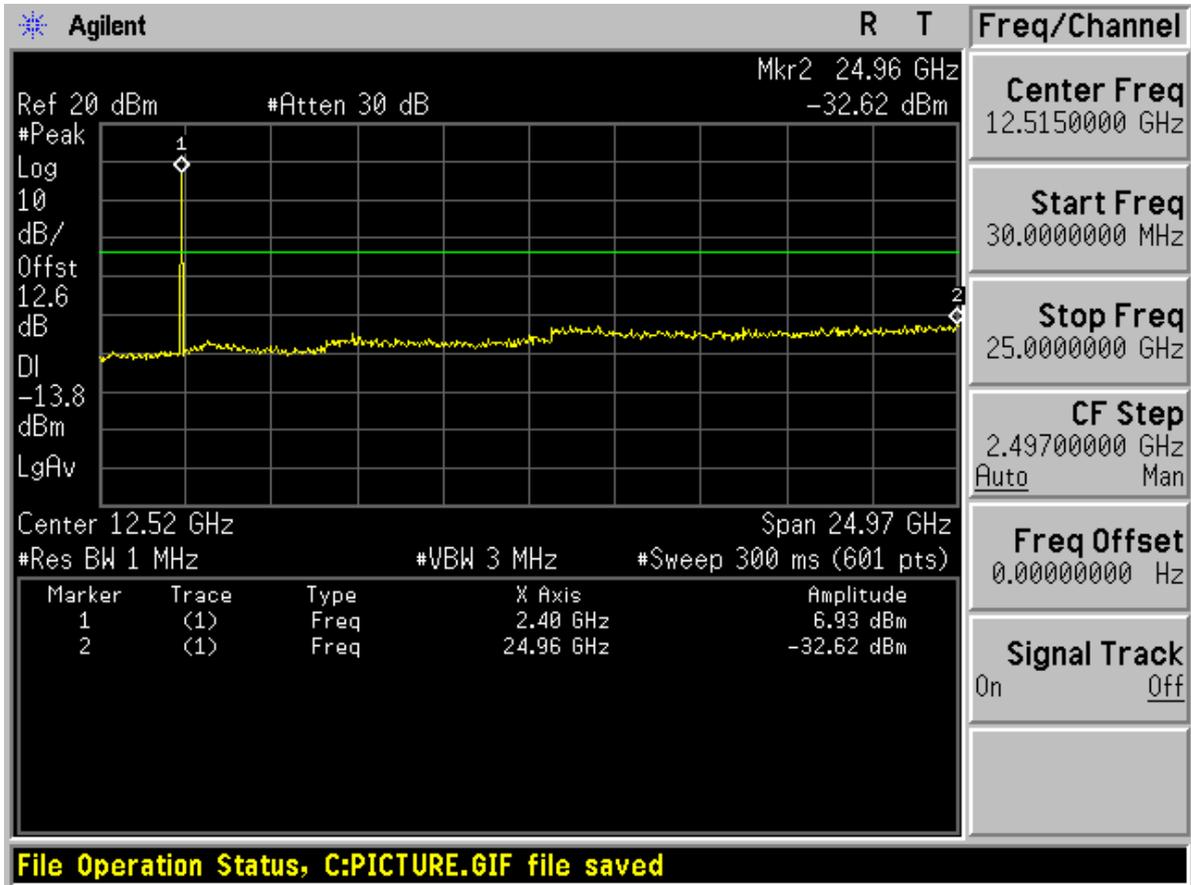




Modulation: 8DPSK Channel 0

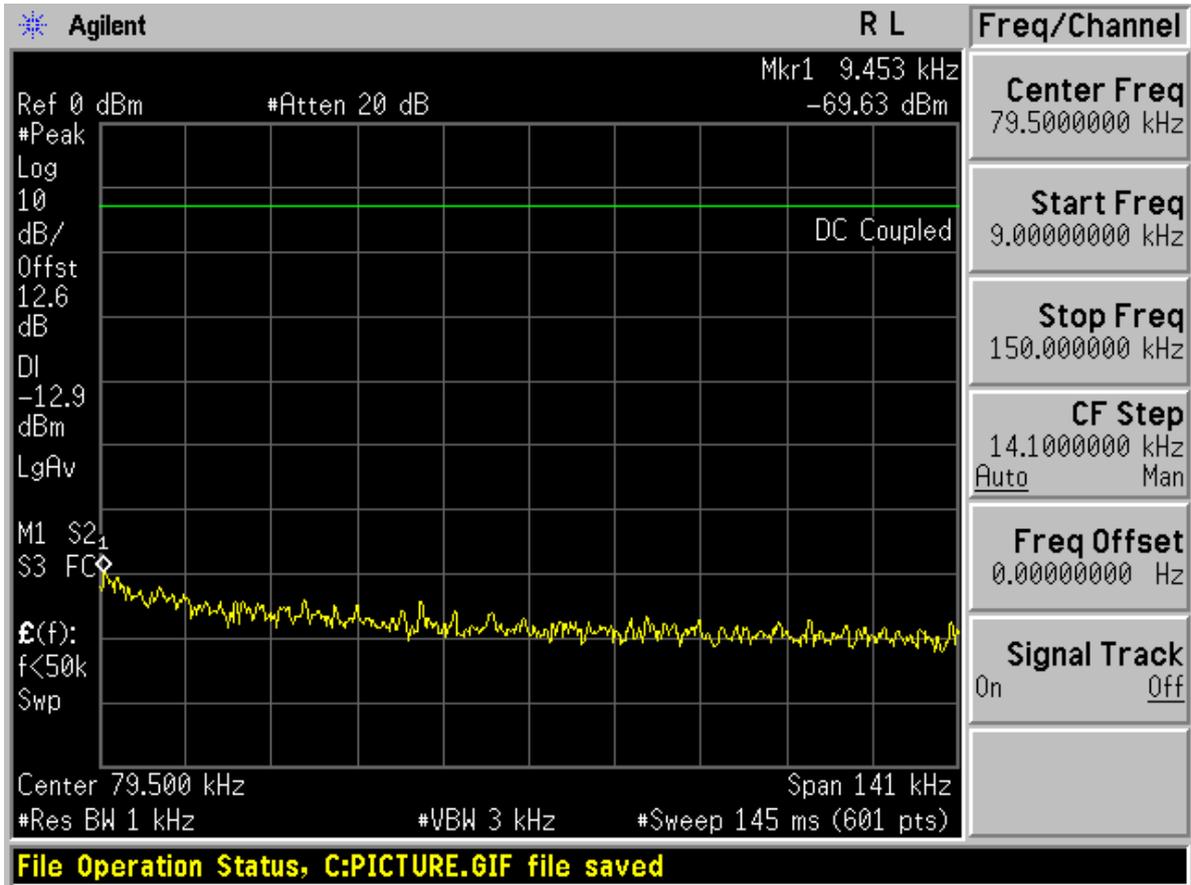


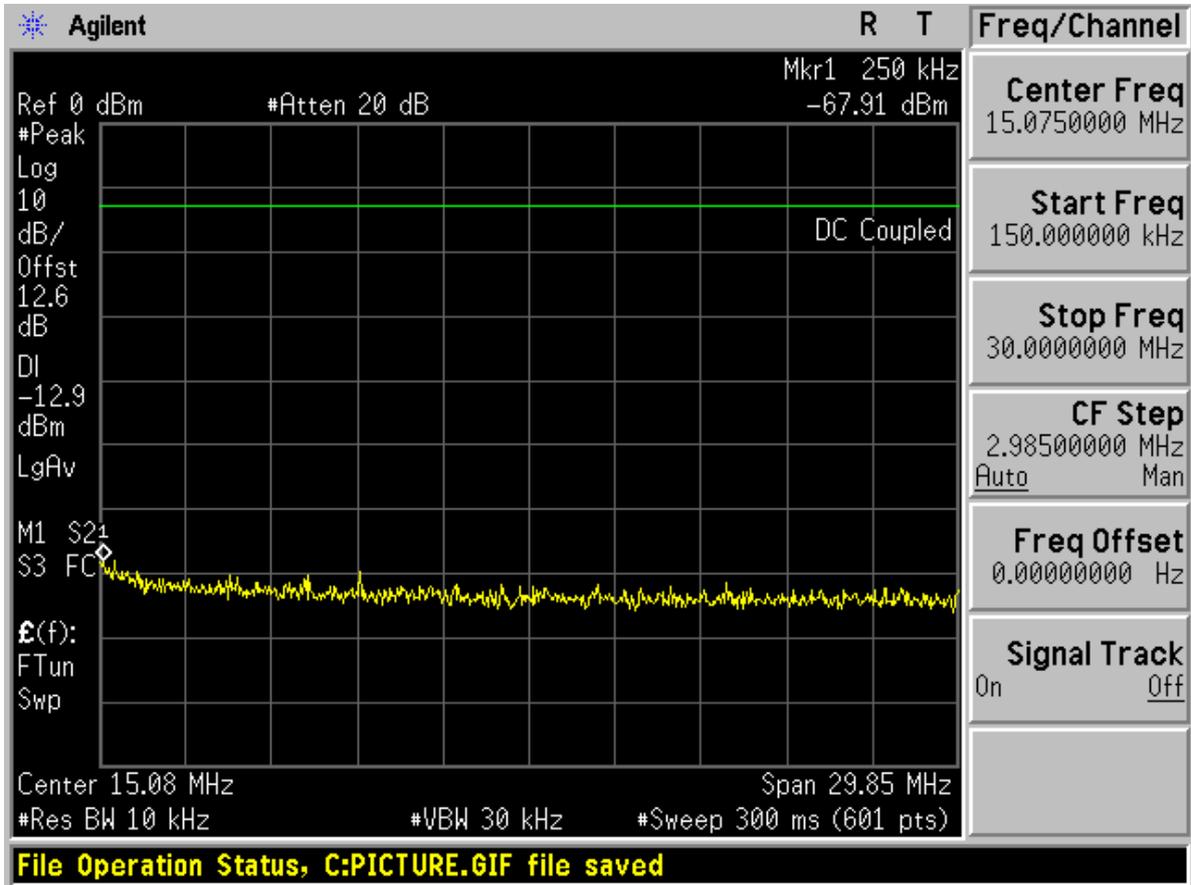


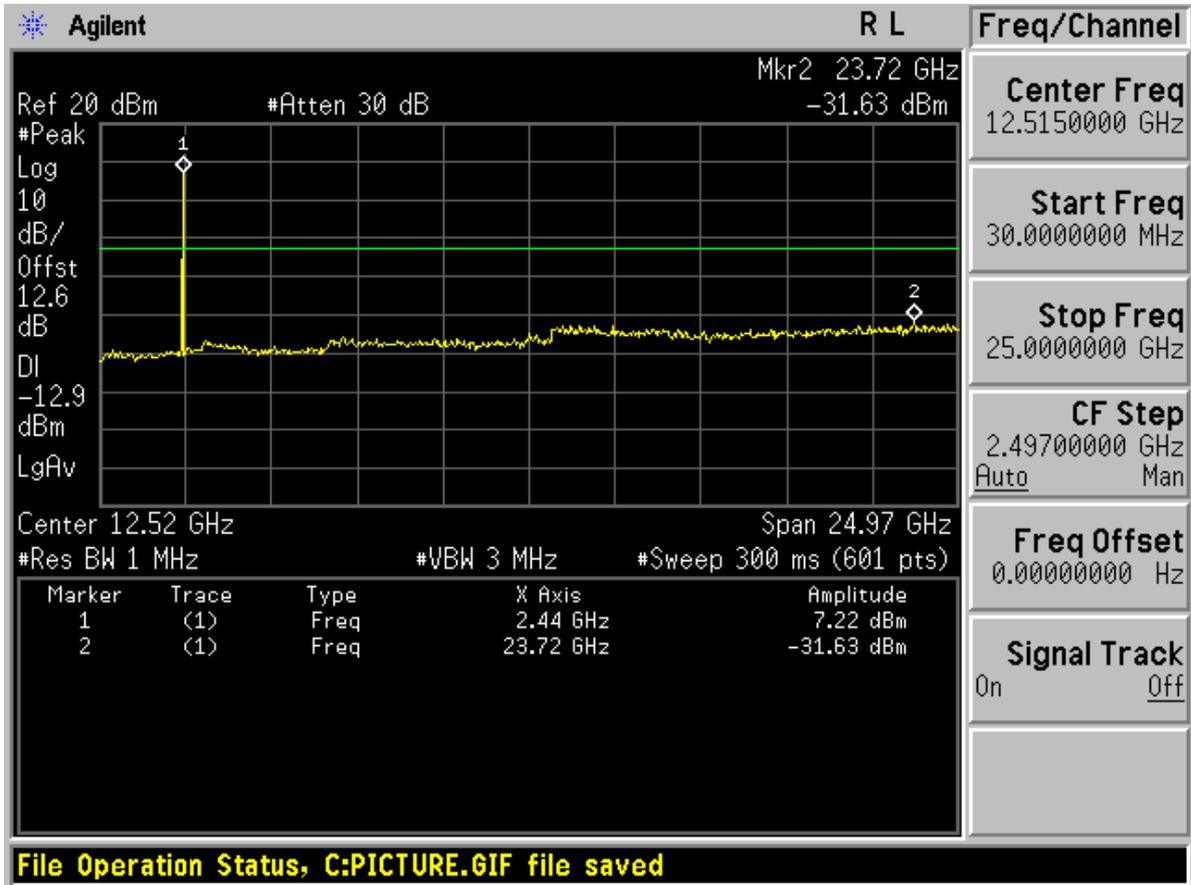




Channel 40

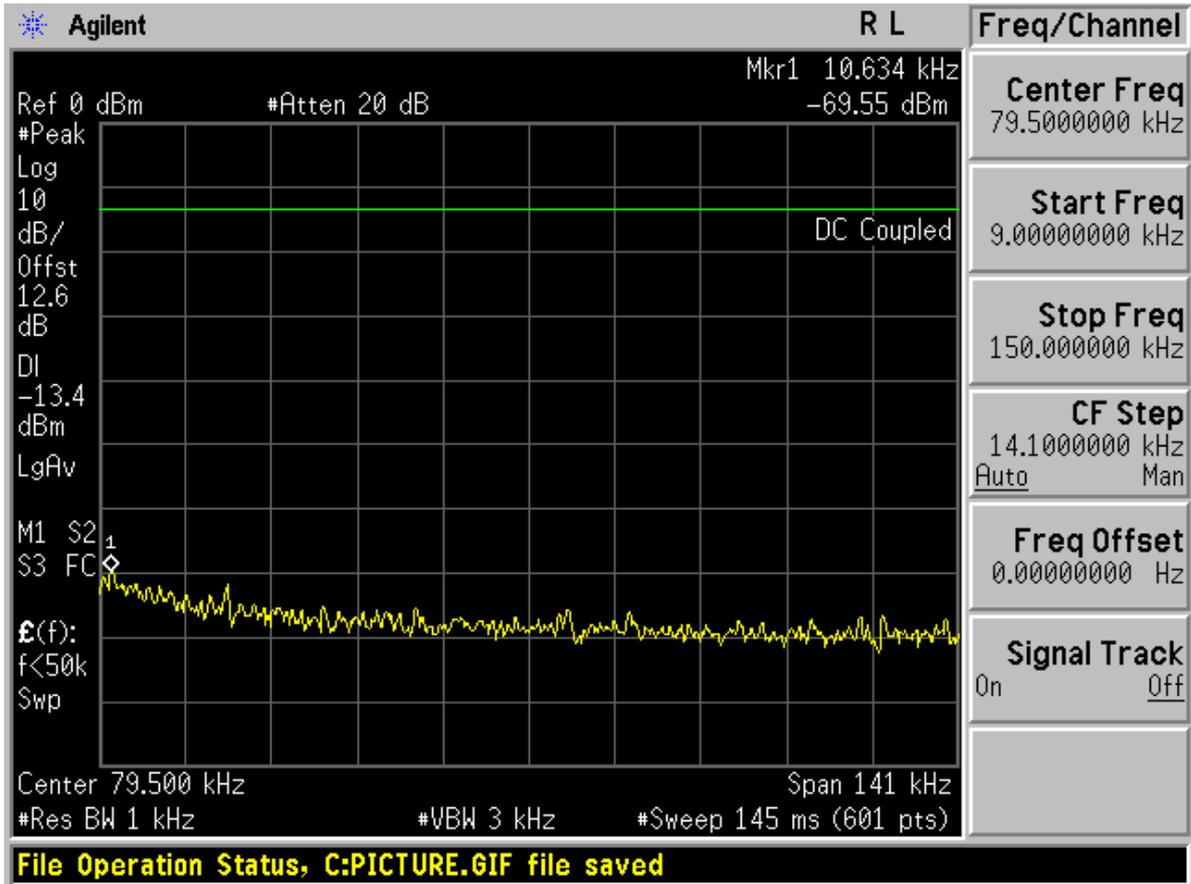


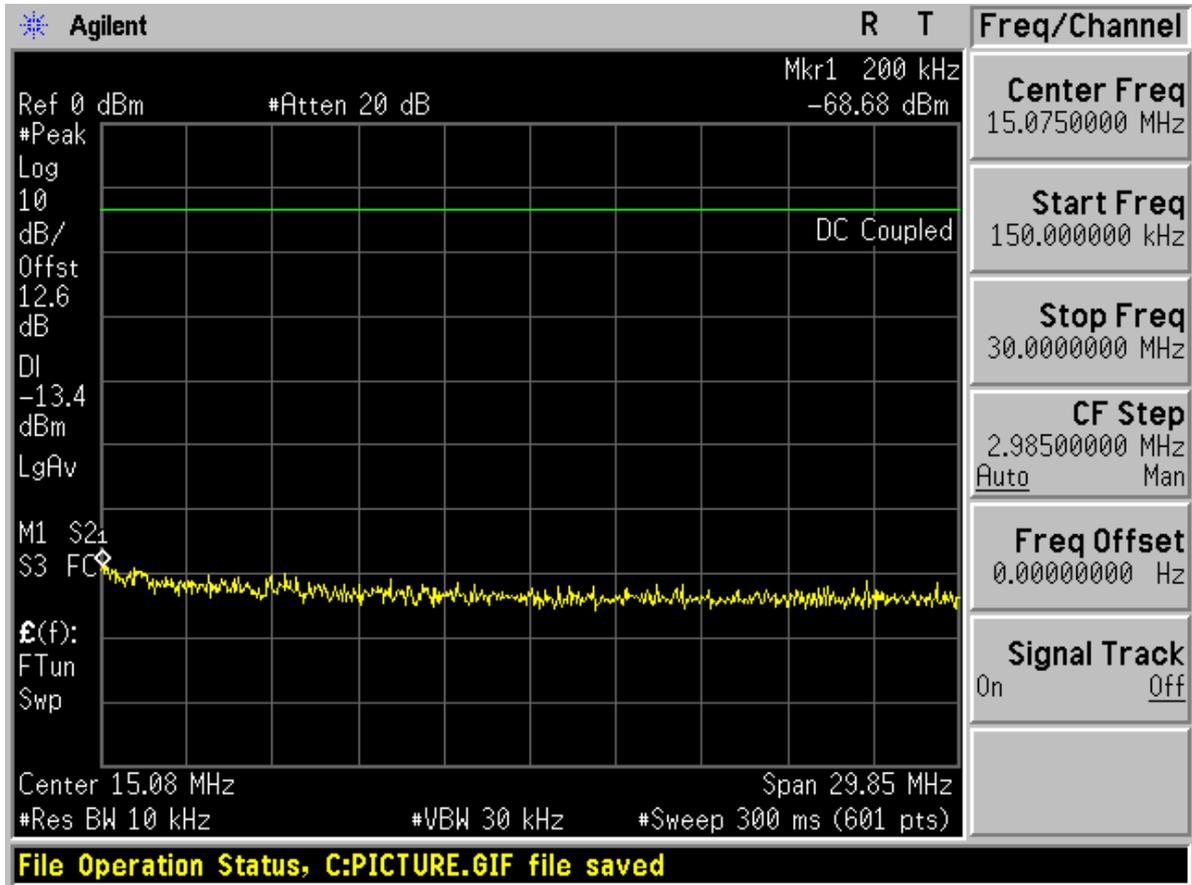


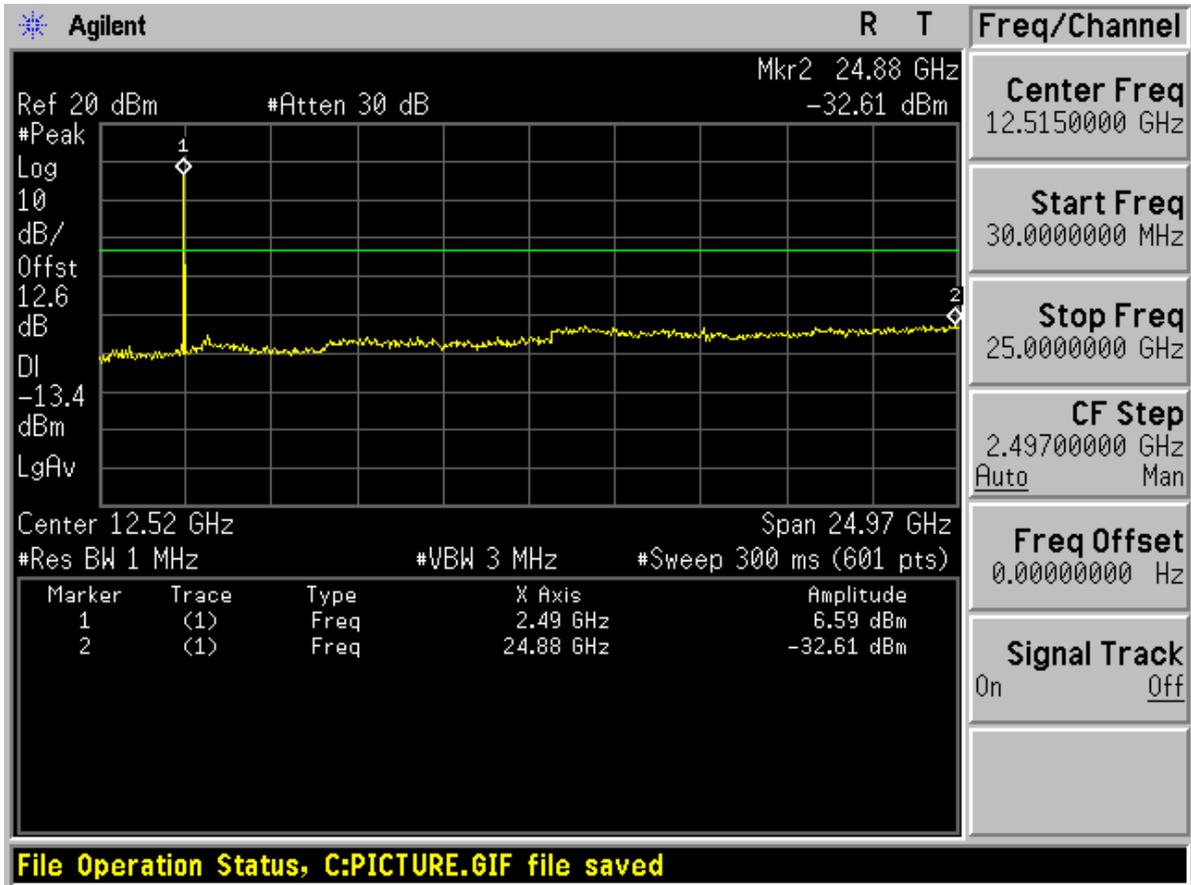




Channel 78









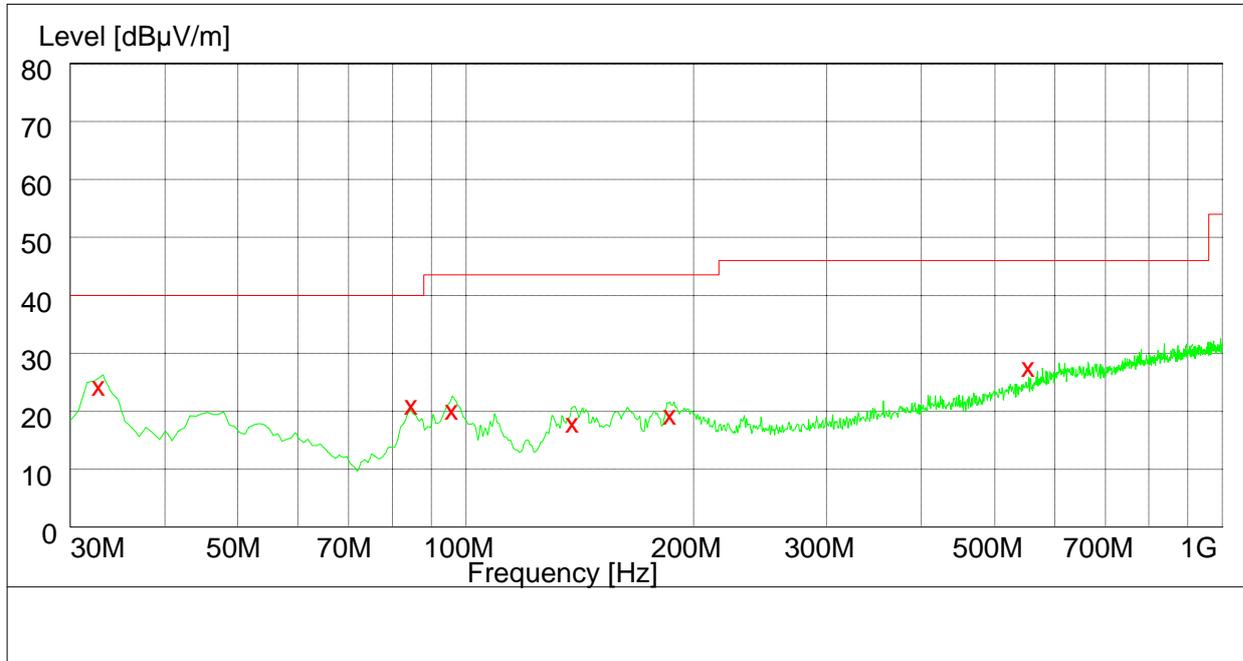
Appendix H

Radiated spurious emission

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



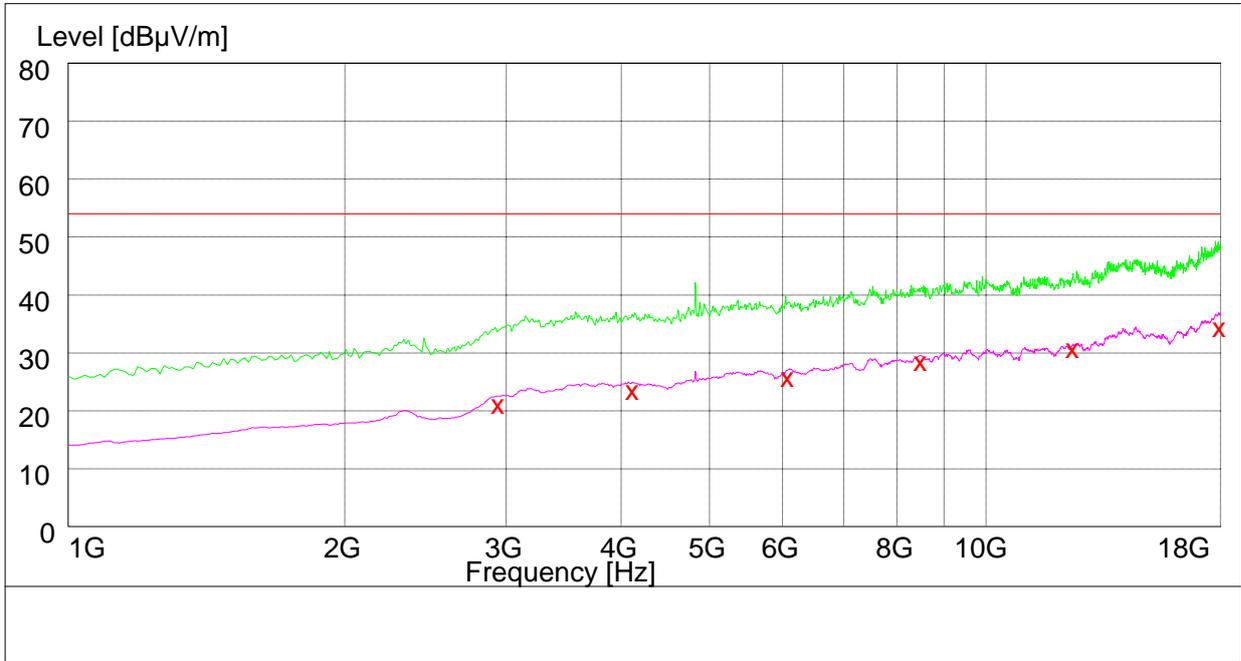
Channel 0 30MHz to 1GHz



| Frequency MHz | Level dBµV/m | Transd dB | Limit dBµV/m | Margin dB | Height cm | Azimuth deg | Plarization |
|---------------|--------------|-----------|--------------|-----------|-----------|-------------|-------------|
| 32.485000 | 23.50 | 11.7 | 40.0 | 16.5 | 120.0 | 304.00 | VERTICAL |
| 84.840000 | 20.90 | 10.1 | 40.0 | 19.1 | 140.0 | 35.00 | VERTICAL |
| 96.000000 | 21.50 | 12.8 | 43.5 | 22.0 | 104.0 | 118.00 | HORIZONTAL |
| 138.710000 | 19.20 | 8.8 | 43.5 | 24.3 | 107.0 | 339.00 | VERTICAL |
| 184.520000 | 20.50 | 11.6 | 43.5 | 23.0 | 140.0 | 38.00 | HORIZONTAL |
| 553.441000 | 28.50 | 21.5 | 46.0 | 17.5 | 105.0 | 254.00 | 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 |
|---------------|--------------|-----------|--------------|-----------|-----------|-------------|--------------|
| 2945.300000 | 22.30 | -9.4 | 54.0 | 31.7 | 100.0 | 330.00 | VERTICAL |
| 4120.400000 | 24.60 | -5.7 | 54.0 | 29.4 | 200.0 | 173.00 | HORIZONTAL |
| 6084.400000 | 26.90 | -1.5 | 54.0 | 27.1 | 164.0 | 110.00 | VERTICAL |
| 8488.600000 | 29.30 | 3.0 | 54.0 | 24.7 | 200.0 | 232.00 | VERTICAL |
| 12441.100000 | 30.70 | 7.9 | 54.0 | 23.3 | 167.0 | 288.00 | VERTICAL |
| 17984.900000 | 35.60 | 17.2 | 54.0 | 18.4 | 100.0 | 45.00 | VERTICAL |

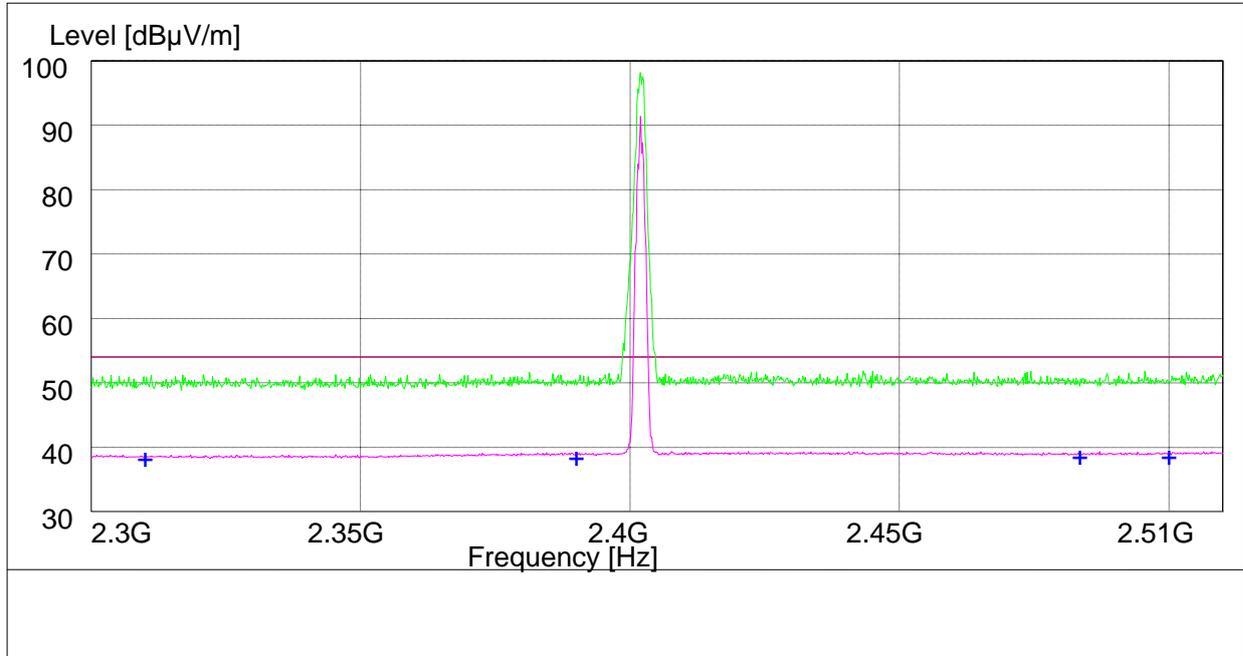


18GHz to 26GHz

Note: No peak found in pre- test.



2.3GHz to 2.51GHz

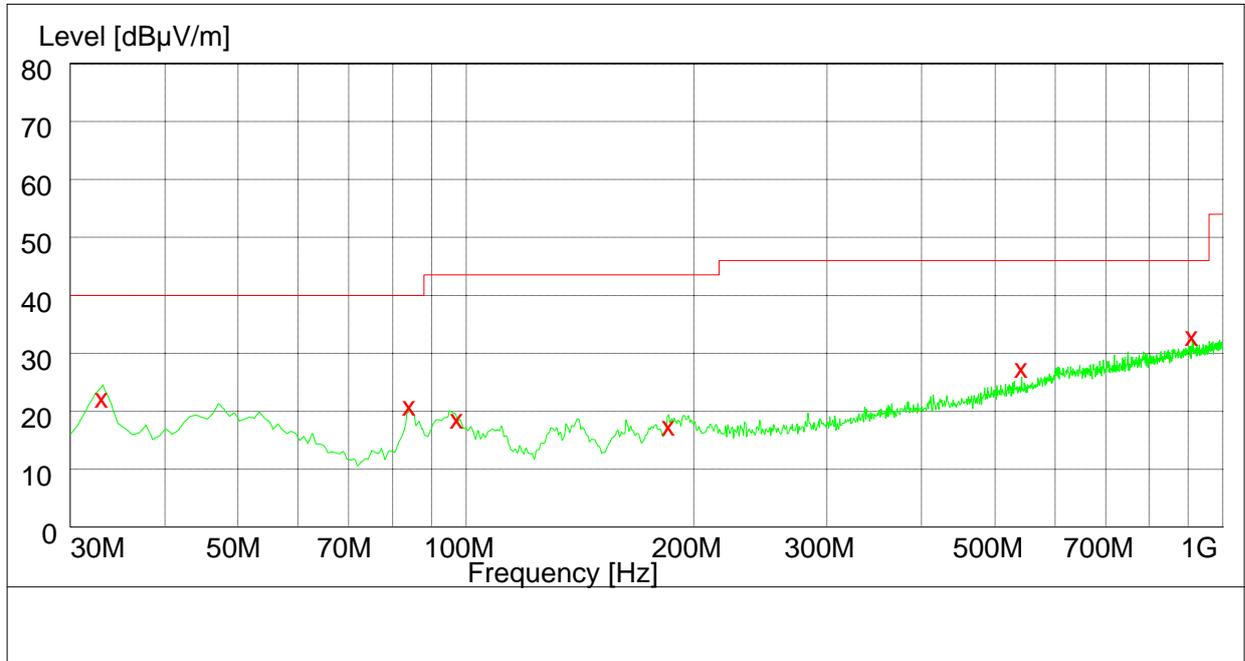


Note: The highest peak exceeds the limit line is carrier frequency.

| Frequency MHz | Level dBμV/m | Transd dB | Limit dBμV/m | Margin dB | Height cm | Azimuth deg | Polarization |
|---------------|--------------|-----------|--------------|-----------|-----------|-------------|--------------|
| 2310.000000 | 39.00 | 33.3 | 54.0 | 15.0 | 102.0 | 0.00 | HORIZONTAL |
| 2390.000000 | 39.50 | 33.5 | 54.0 | 14.5 | 100.0 | 244.00 | VERTICAL |
| 2483.500000 | 39.30 | 33.7 | 54.0 | 14.7 | 142.0 | 250.00 | HORIZONTAL |
| 2500.000000 | 39.30 | 33.8 | 54.0 | 14.7 | 120.0 | 247.00 | VERTICAL |



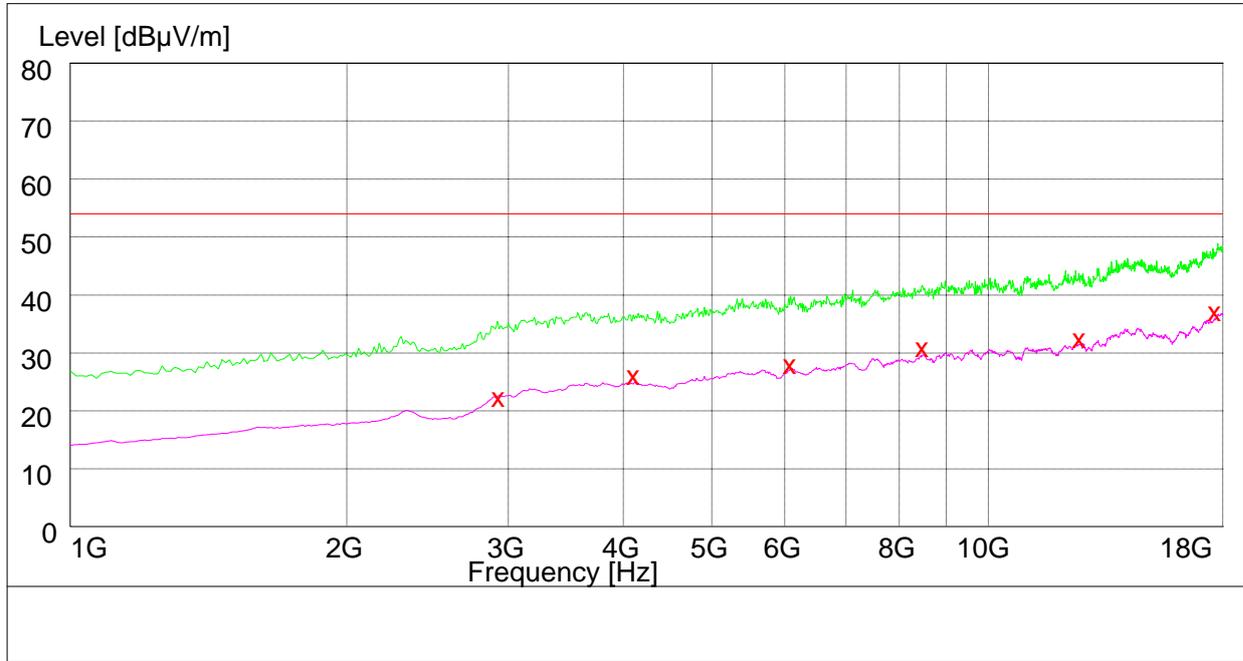
Channel 40 30MHz to 1GHz



| Frequency MHz | Level dBµV/m | Transd dB | Limit dBµV/m | Margin dB | Height cm | Azimuth deg | Polarization |
|---------------|--------------|-----------|--------------|-----------|-----------|-------------|--------------|
| 33.200000 | 21.90 | 11.7 | 40.0 | 18.1 | 128.0 | 140.00 | VERTICAL |
| 84.000000 | 20.10 | 9.9 | 40.0 | 19.9 | 136.0 | 284.00 | HORIZONTAL |
| 97.251000 | 19.90 | 12.9 | 43.5 | 23.6 | 201.0 | 12.00 | VERTICAL |
| 185.140000 | 18.50 | 11.5 | 43.5 | 25.0 | 106.0 | 204.00 | HORIZONTAL |
| 542.180000 | 28.50 | 21.2 | 46.0 | 17.5 | 145.0 | 212.00 | VERTICAL |
| 911.585000 | 34.10 | 26.3 | 46.0 | 11.9 | 125.0 | 32.00 | 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 |
|---------------|--------------|-----------|--------------|-----------|-----------|-------------|--------------|
| 2931.500000 | 22.50 | -9.4 | 54.0 | 31.5 | 110.0 | 250.00 | HORIZONTAL |
| 4111.520000 | 25.50 | -5.7 | 54.0 | 28.5 | 103.0 | 105.00 | VERTICAL |
| 6082.500000 | 26.90 | -1.5 | 54.0 | 27.1 | 140.0 | 257.00 | VERTICAL |
| 8476.500000 | 30.30 | 3.0 | 54.0 | 23.7 | 103.0 | 103.00 | VERTICAL |
| 12433.500000 | 30.60 | 7.9 | 54.0 | 23.4 | 106.0 | 296.00 | HORIZONTAL |
| 17957.200000 | 34.90 | 17.0 | 54.0 | 19.1 | 104.0 | 146.00 | HORIZONTAL |

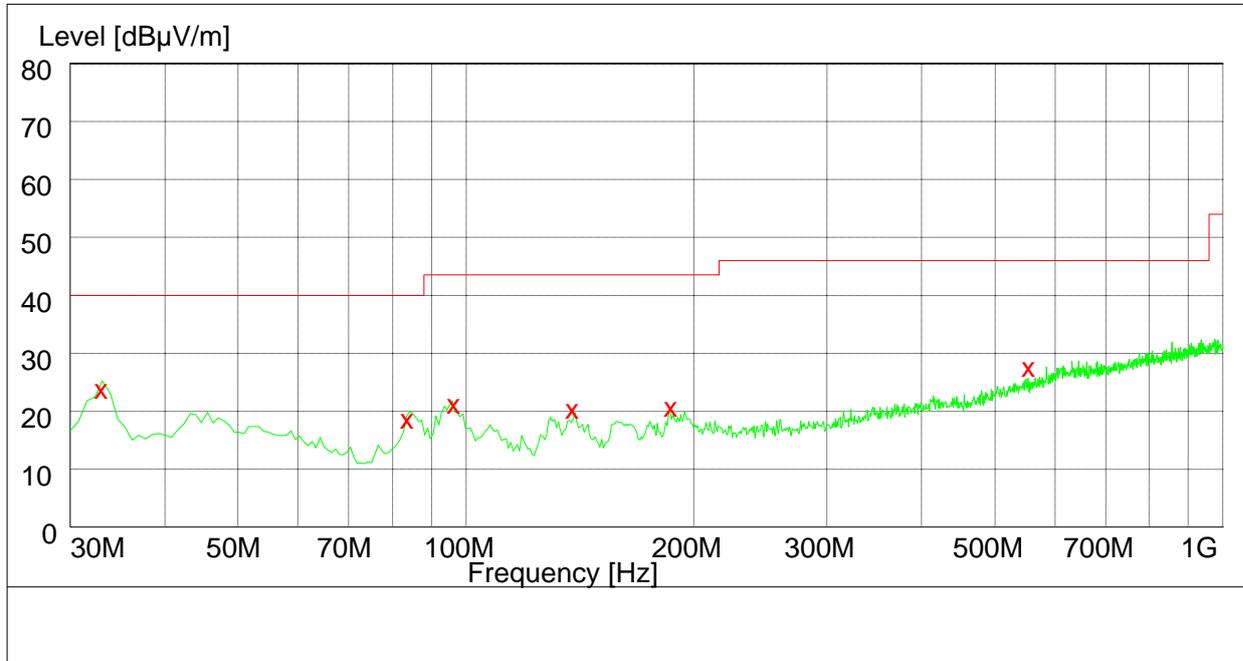


18GHz to 26GHz

Note: No peak found in pre- test.



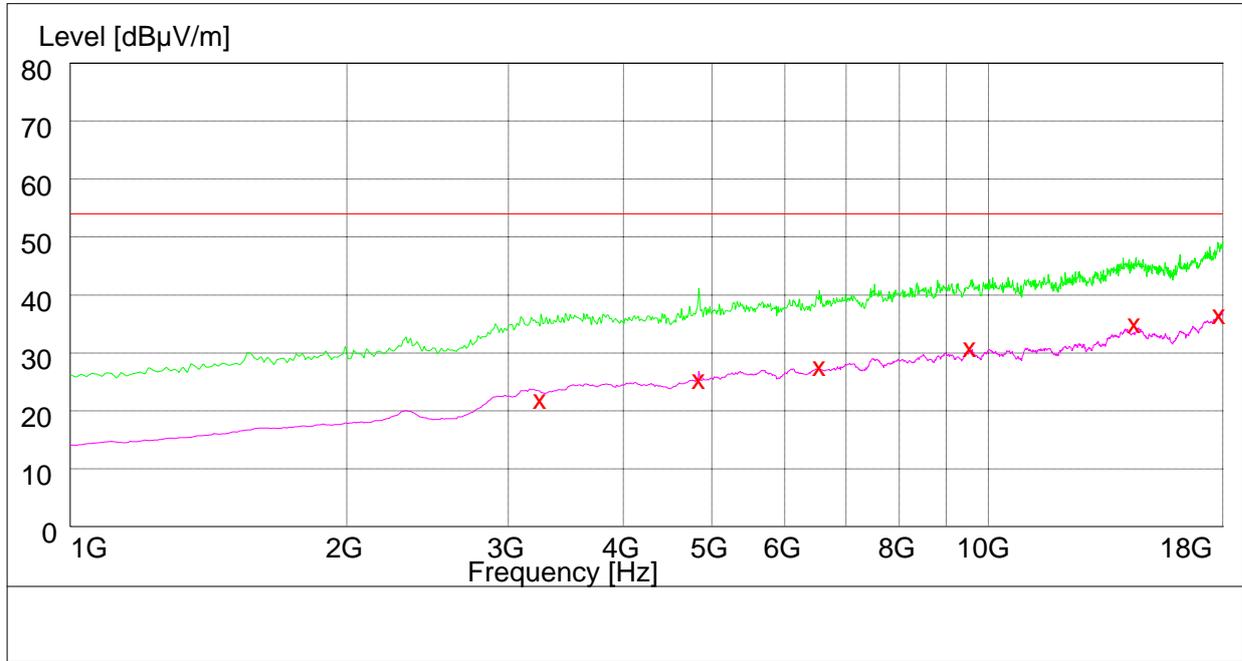
Channel 78 30MHz to 1GHz



| Frequency MHz | Level dBµV/m | Transd dB | Limit dBµV/m | Margin dB | Height cm | Azimuth deg | Polarization |
|---------------|--------------|-----------|--------------|-----------|-----------|-------------|--------------|
| 33.100000 | 22.50 | 11.7 | 40.0 | 17.5 | 145.0 | 28.00 | VERTICAL |
| 83.800000 | 19.90 | 10.1 | 40.0 | 20.1 | 175.0 | 39.00 | VERTICAL |
| 96.414000 | 22.40 | 12.8 | 43.5 | 21.1 | 165.0 | 315.00 | HORIZONTAL |
| 138.584000 | 20.40 | 8.8 | 43.5 | 23.1 | 147.0 | 33.00 | VERTICAL |
| 186.810000 | 20.50 | 11.6 | 43.5 | 23.0 | 105.0 | 235.00 | HORIZONTAL |
| 554.406000 | 28.70 | 21.5 | 46.0 | 17.3 | 125.0 | 204.00 | 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 |
|---------------|--------------|-----------|--------------|-----------|-----------|-------------|--------------|
| 3253.600000 | 23.10 | -8.2 | 54.0 | 30.9 | 165.0 | 52.00 | HORIZONTAL |
| 4842.500000 | 25.50 | -4.0 | 54.0 | 28.5 | 107.0 | 102.00 | VERTICAL |
| 6555.100000 | 26.80 | -0.9 | 54.0 | 27.2 | 199.0 | 54.00 | HORIZONTAL |
| 9559.100000 | 30.80 | 5.0 | 54.0 | 23.2 | 115.0 | 29.00 | VERTICAL |
| 14438.500000 | 35.00 | 12.2 | 54.0 | 19.0 | 121.0 | 32.00 | HORIZONTAL |
| 17995.400000 | 36.80 | 17.3 | 54.0 | 17.2 | 102.0 | 217.00 | HORIZONTAL |

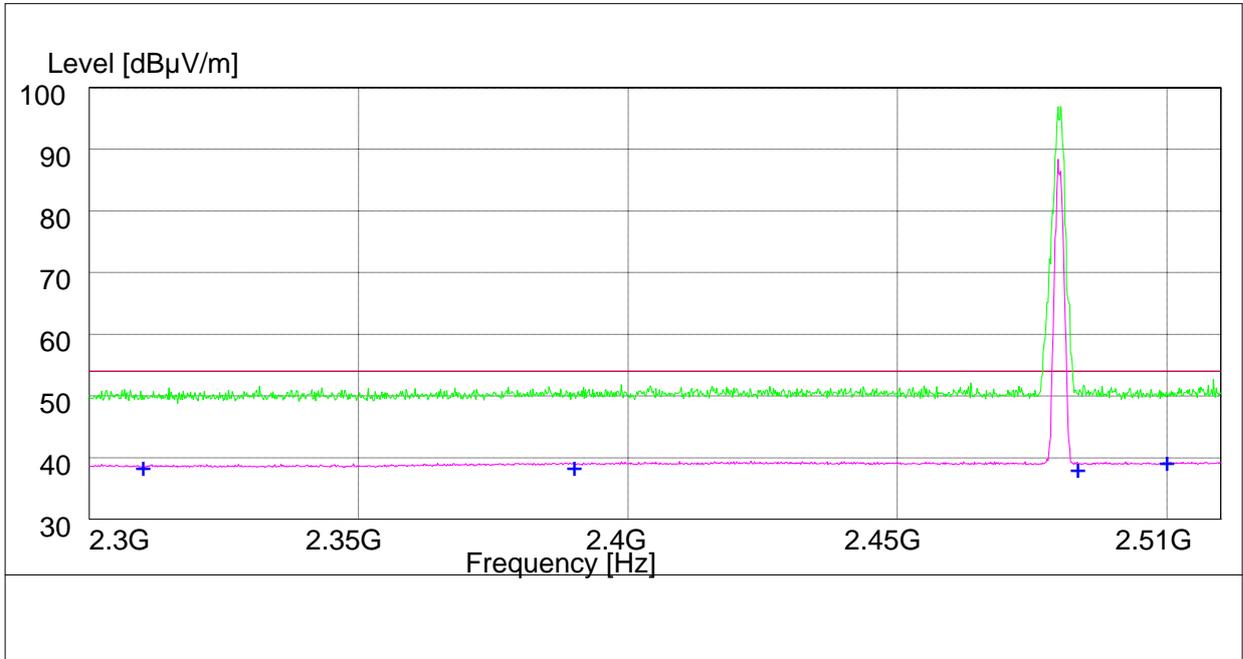


18GHz to 26GHz

Note: No peak found in pre- test.



2.3GHz to 2.51GHz



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 | 39.60 | 33.3 | 54.0 | 14.4 | 121.0 | 39.00 | HORIZONTAL |
| 2390.000000 | 39.60 | 33.5 | 54.0 | 14.4 | 103.0 | 80.00 | VERTICAL |
| 2483.500000 | 38.90 | 33.7 | 54.0 | 15.1 | 108.0 | 55.00 | HORIZONTAL |
| 2500.000000 | 39.80 | 33.8 | 54.0 | 14.2 | 152.0 | 314.00 | VERTICAL |



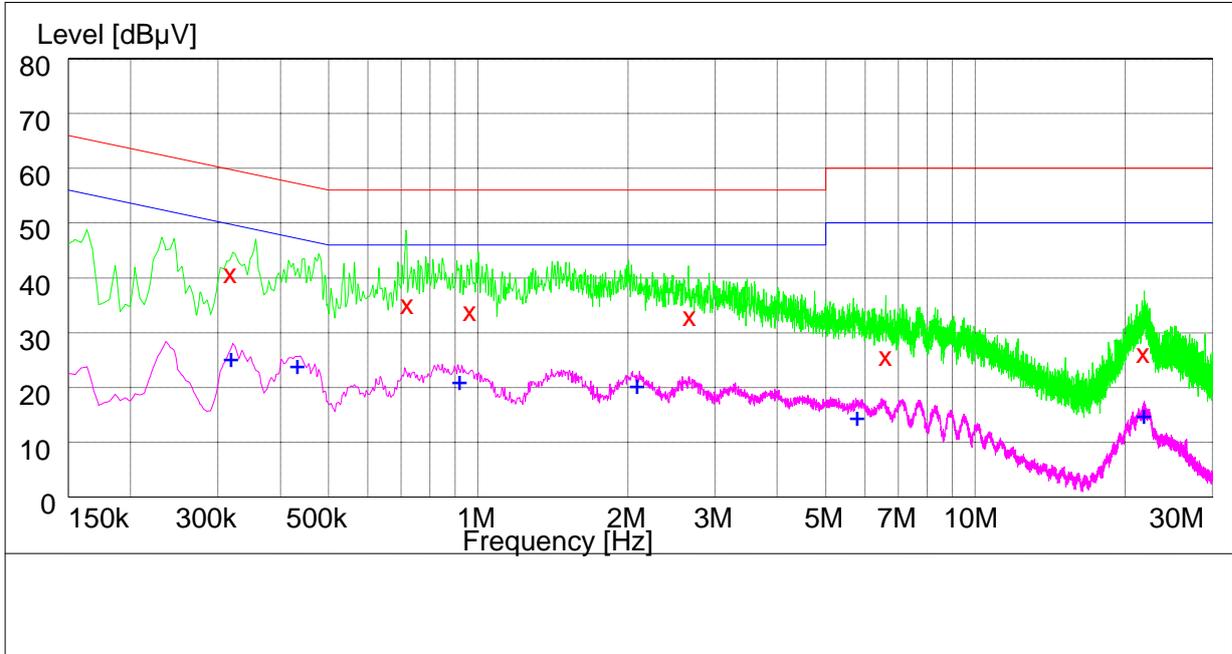
Appendix I

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 |
|---------------|------------|-----------|------------|-----------|------|-----|
| 0.318000 | 40.20 | 10.0 | 60 | 19.8 | N | FLO |
| 0.722000 | 36.50 | 10.1 | 56 | 19.5 | N | FLO |
| 0.966000 | 35.20 | 10.1 | 56 | 20.8 | N | FLO |
| 2.674000 | 32.50 | 10.2 | 56 | 23.5 | N | FLO |
| 6.616000 | 26.30 | 10.2 | 60 | 33.7 | N | FLO |
| 21.872000 | 27.50 | 10.4 | 60 | 32.5 | L1 | FLO |

MEASUREMENT RESULT: AV Detector

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Line | PE |
|---------------|------------|-----------|------------|-----------|------|-----|
| 0.318000 | 26.70 | 10.0 | 50 | 23.3 | N | FLO |
| 0.432000 | 25.40 | 10.1 | 47 | 21.6 | N | FLO |
| 0.916000 | 22.50 | 10.1 | 46 | 23.5 | N | FLO |
| 2.088000 | 20.80 | 10.1 | 46 | 25.2 | N | FLO |
| 5.784000 | 15.90 | 10.2 | 50 | 34.1 | N | FLO |
| 21.894000 | 16.30 | 10.4 | 50 | 33.7 | L1 | FLO |