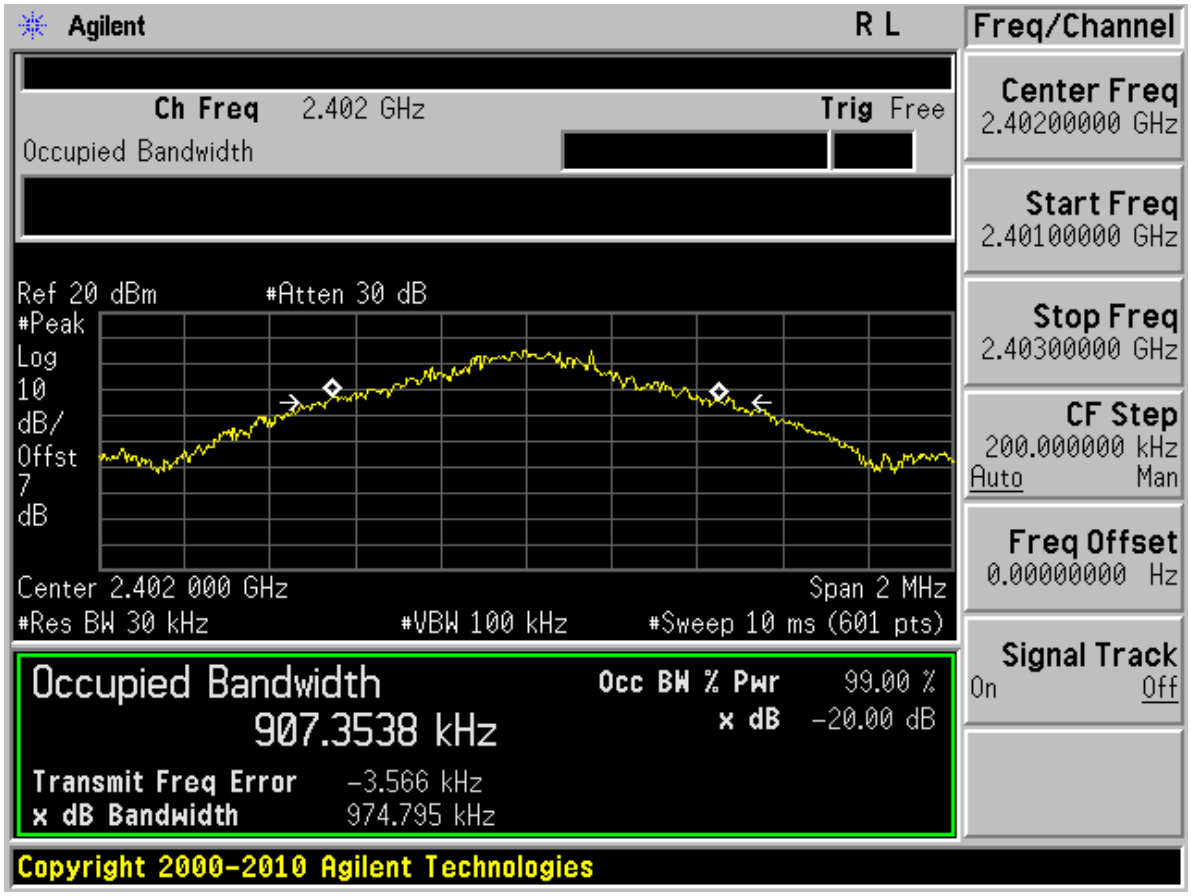
Appendix A

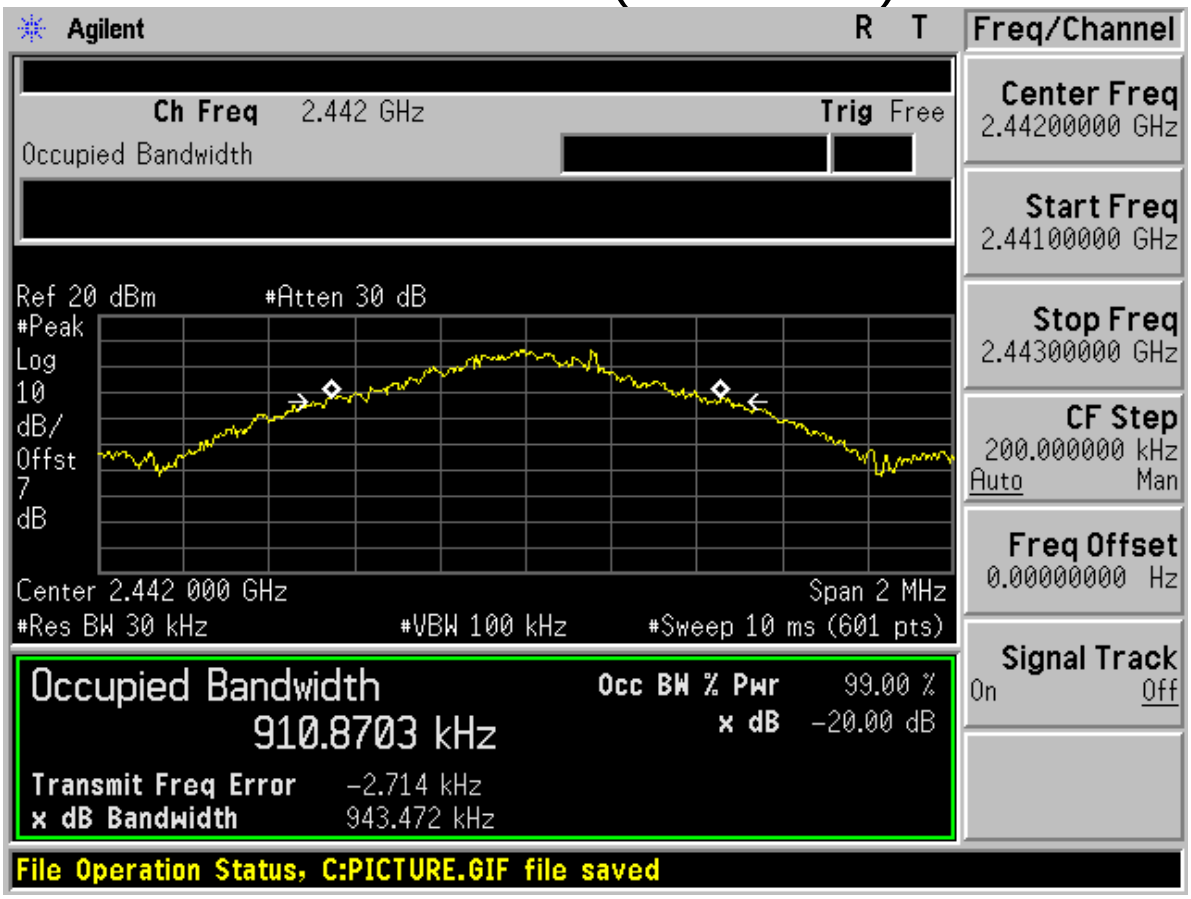
20dB bandwidth measurement

According to FCC Part 15.247 (a) (1)

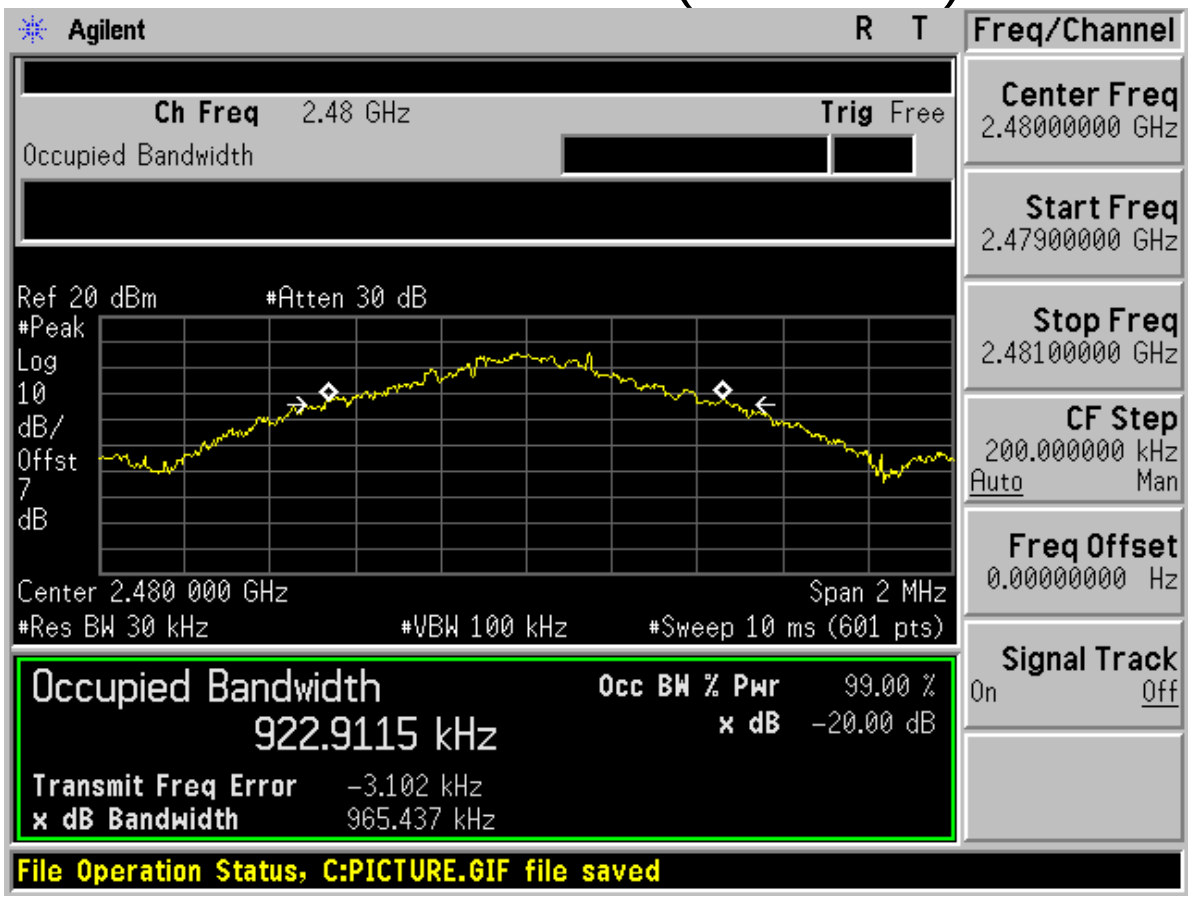
Channel 0 (2402MHz)



Channel 40 (2442MHz)



Channel 78 (2480MHz)

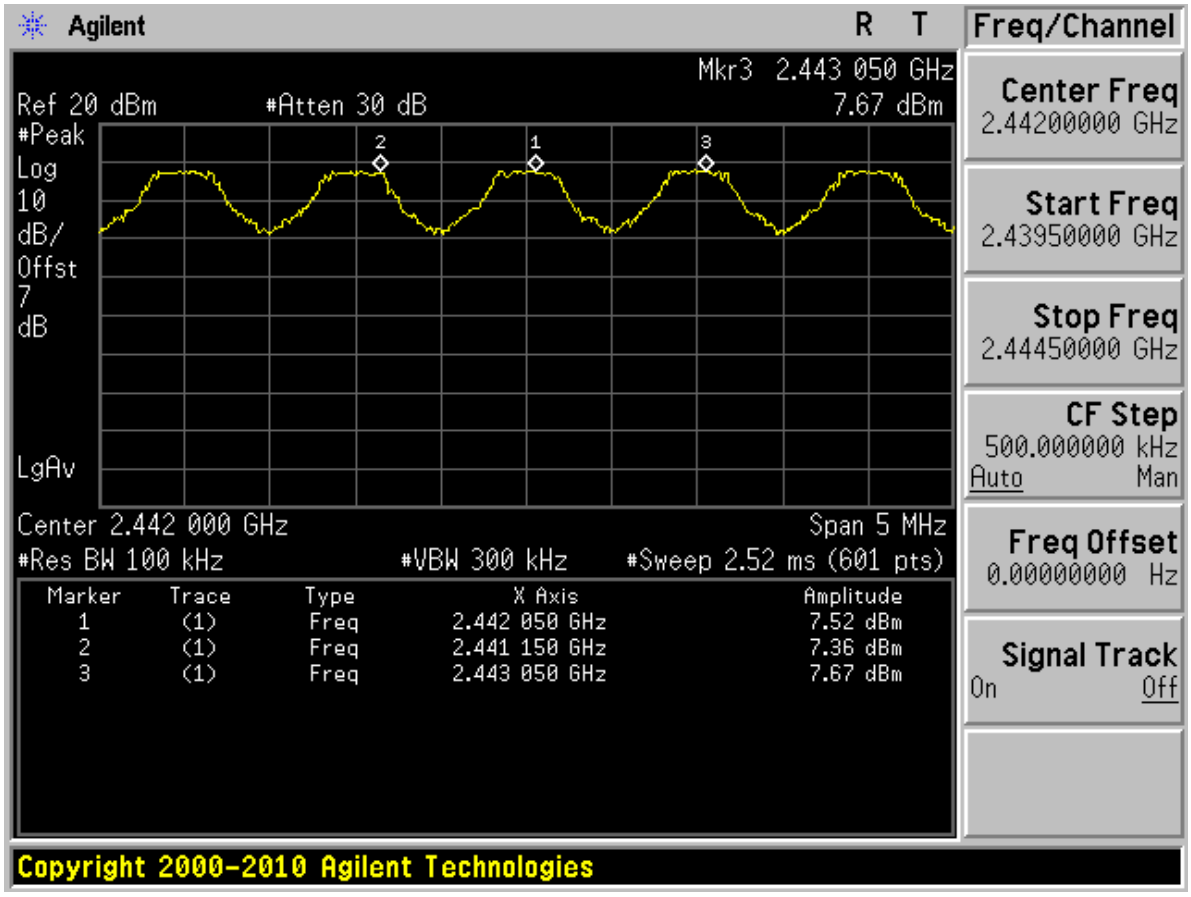


Appendix B

Carrier frequency separation measurement

According to FCC Part 15.247 (a) (1)

Centred at Channel 40

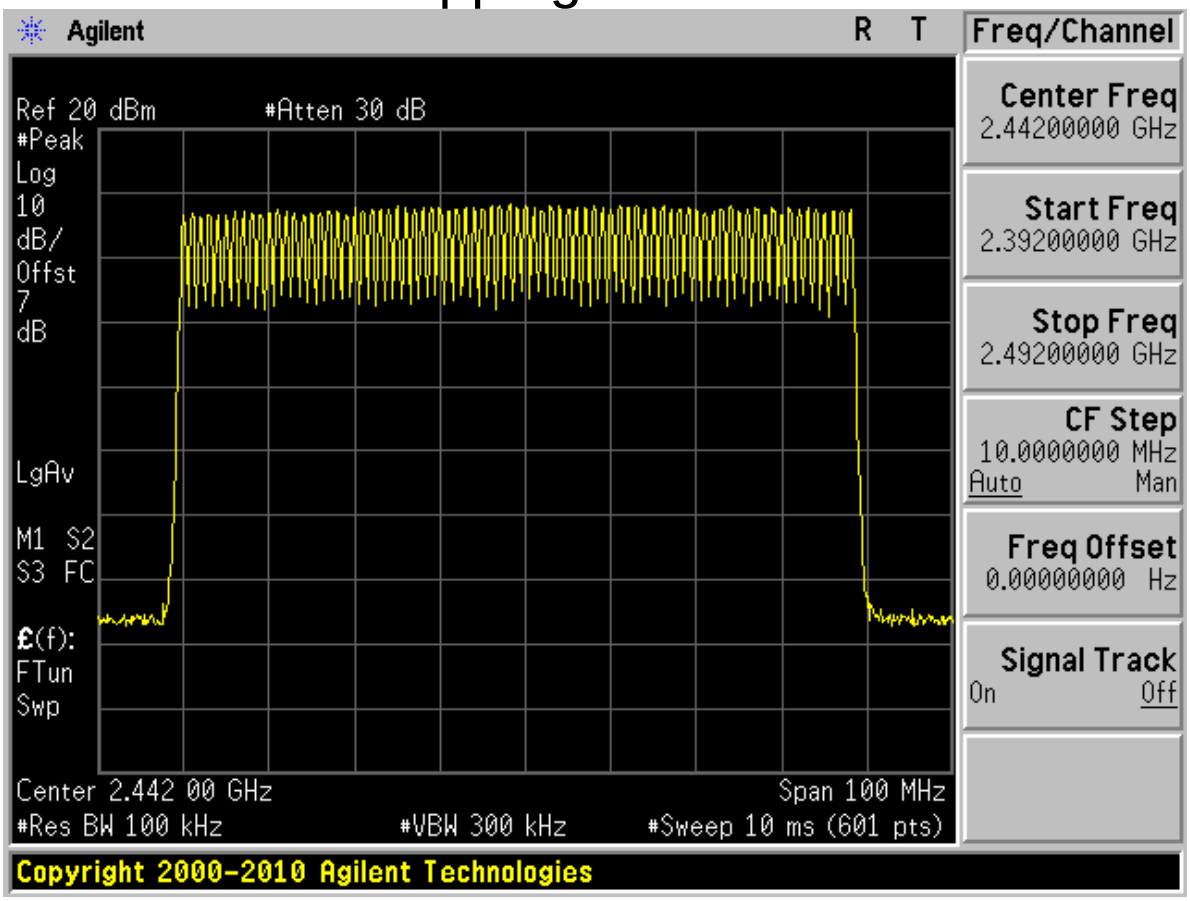


Appendix C

Number of hopping channel

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

Total hopping channels = 79

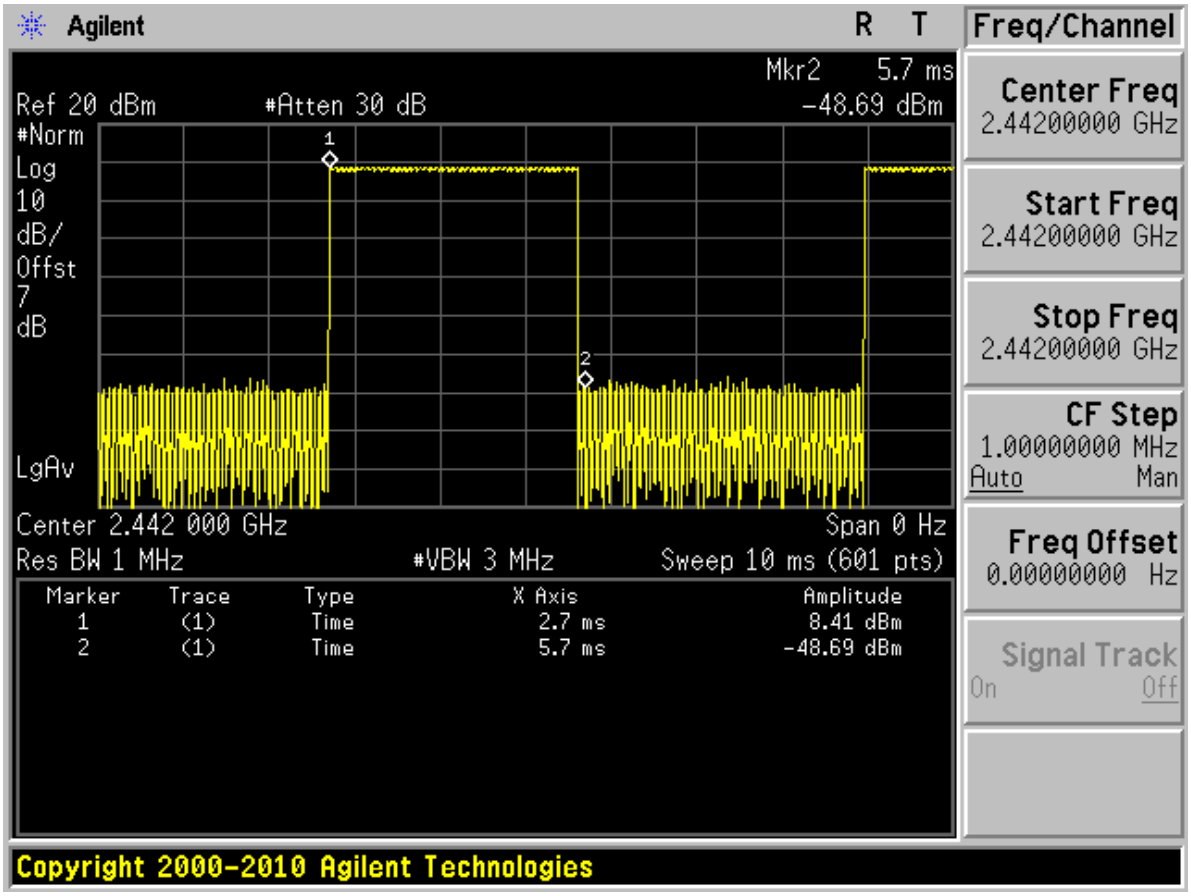


Appendix D

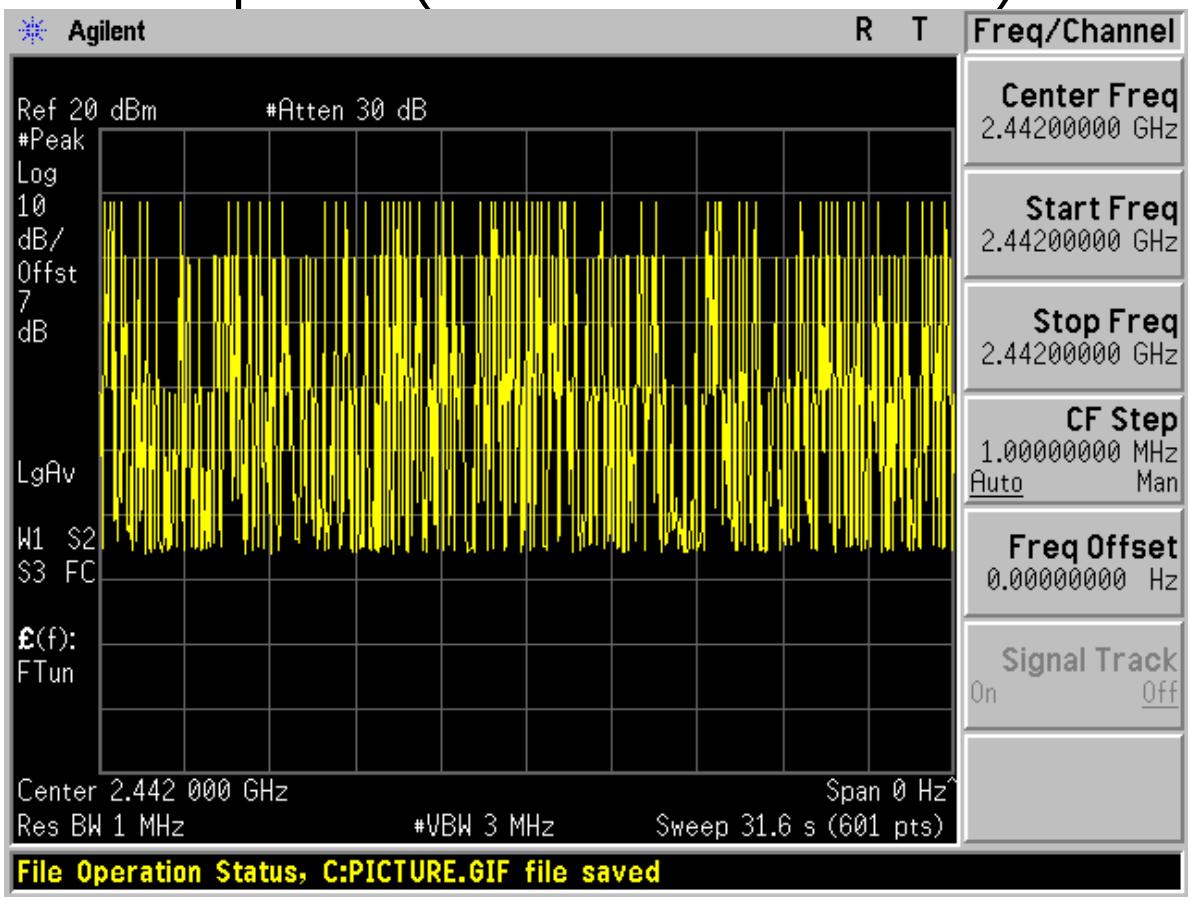
Time of occupancy

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

A burst (One time slot)



A period (Less than 106.7 burst)

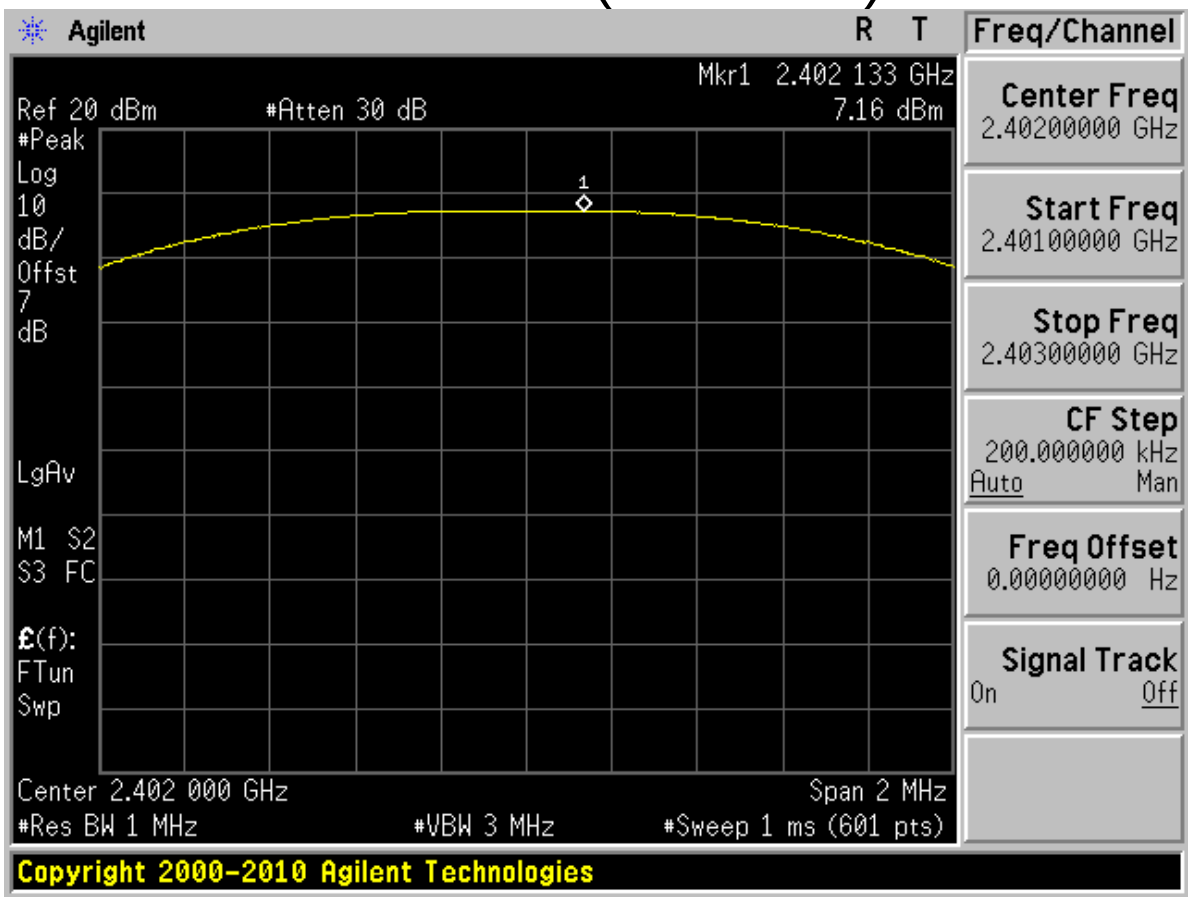


Appendix E

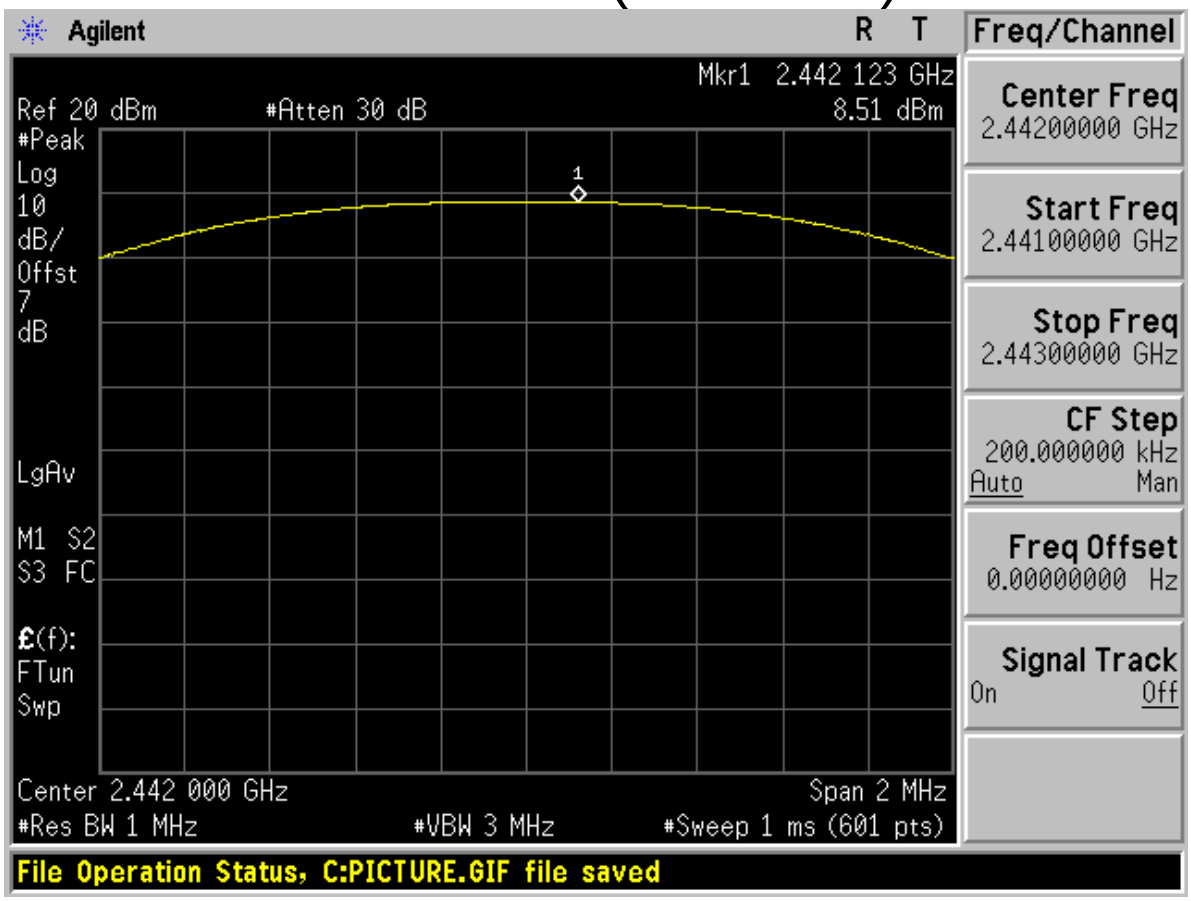
Peak output power

According to FCC Part 15.247 (b) (1)

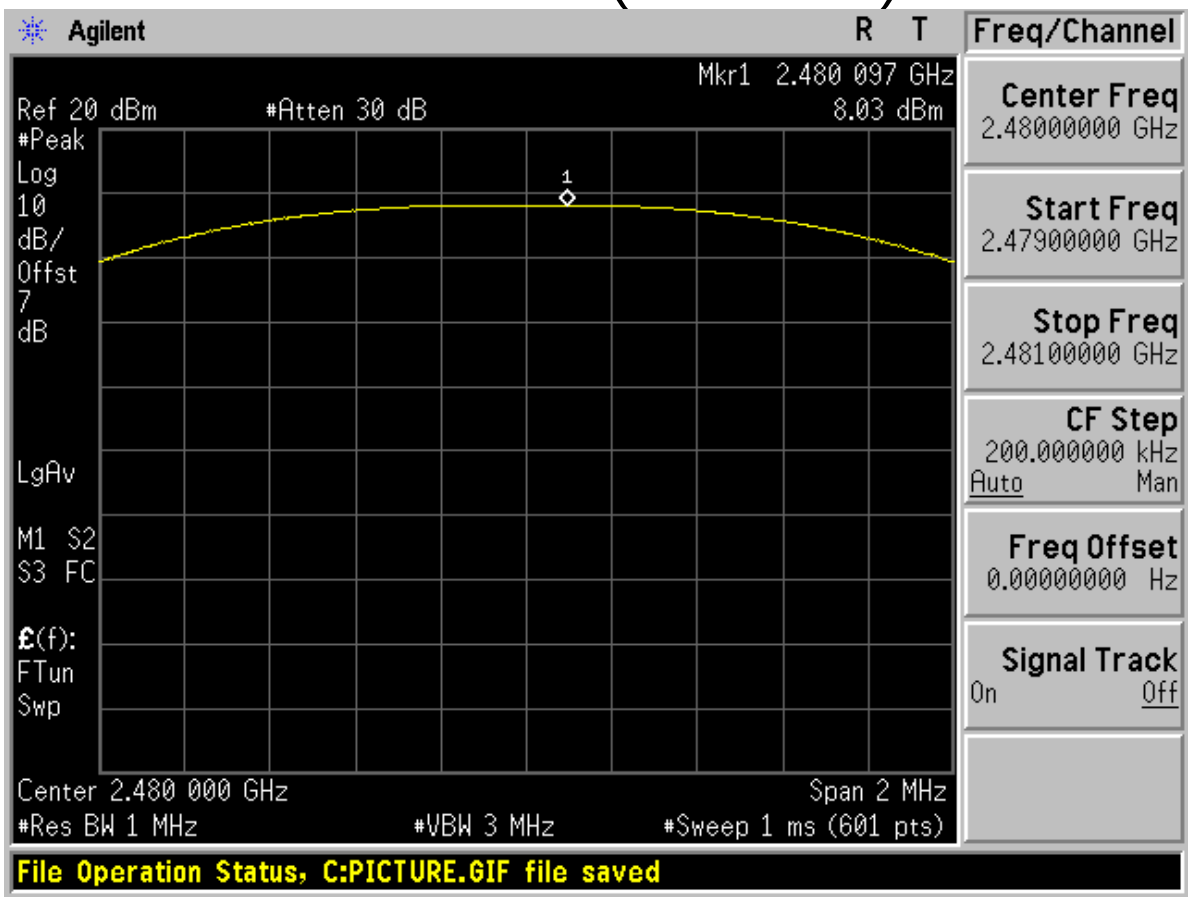
Channel 0 (2402MHz)



Channel 40 (2442MHz)



Channel 78 (2480MHz)

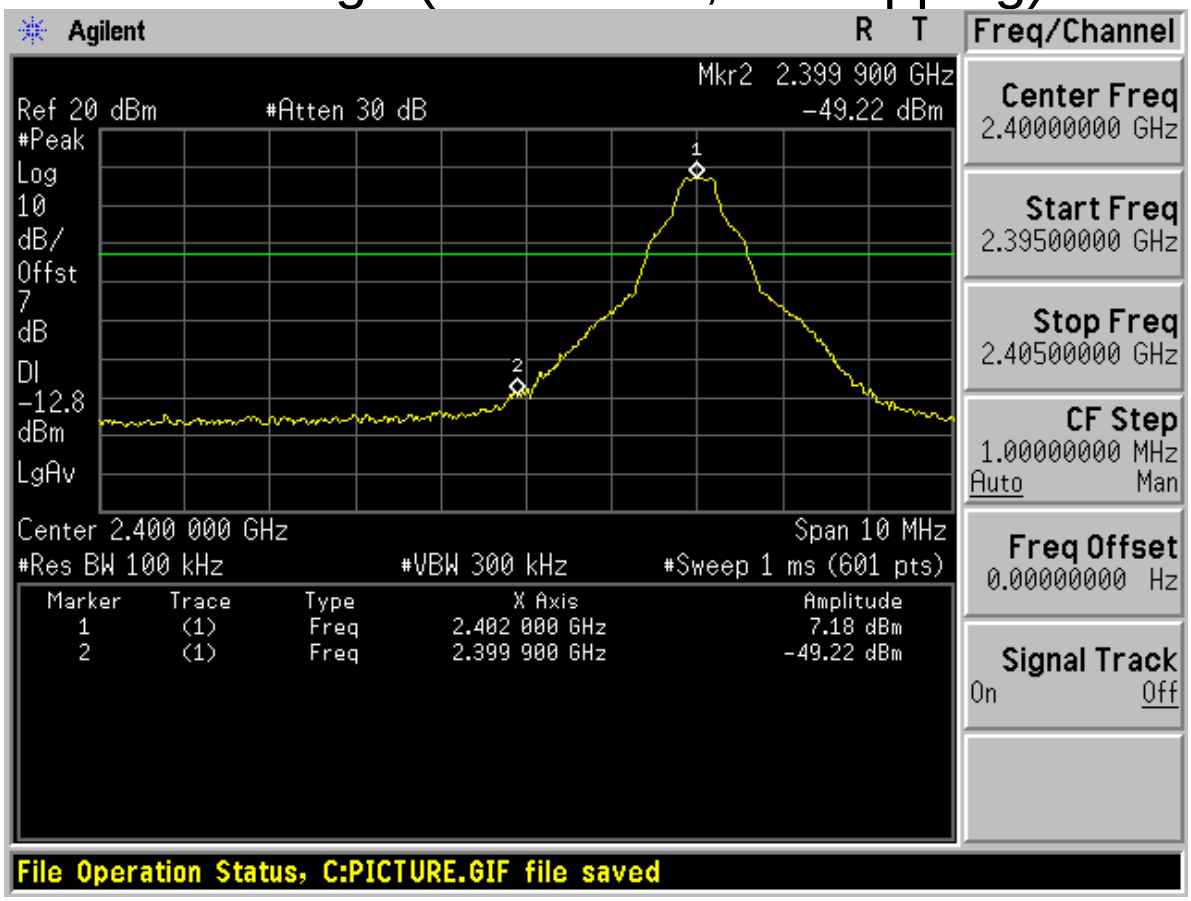


Appendix F

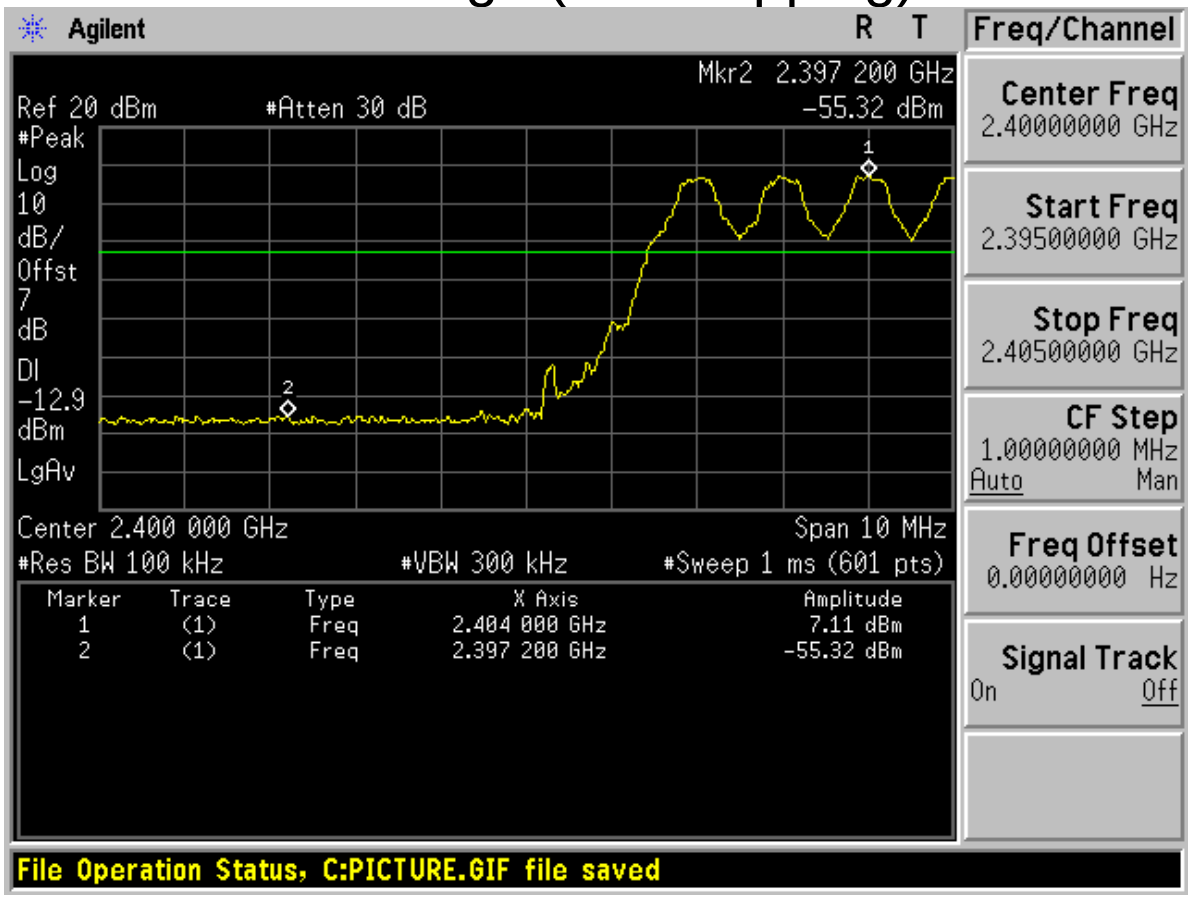
Band edge spurious emission

According to FCC Part 15.247 (d)

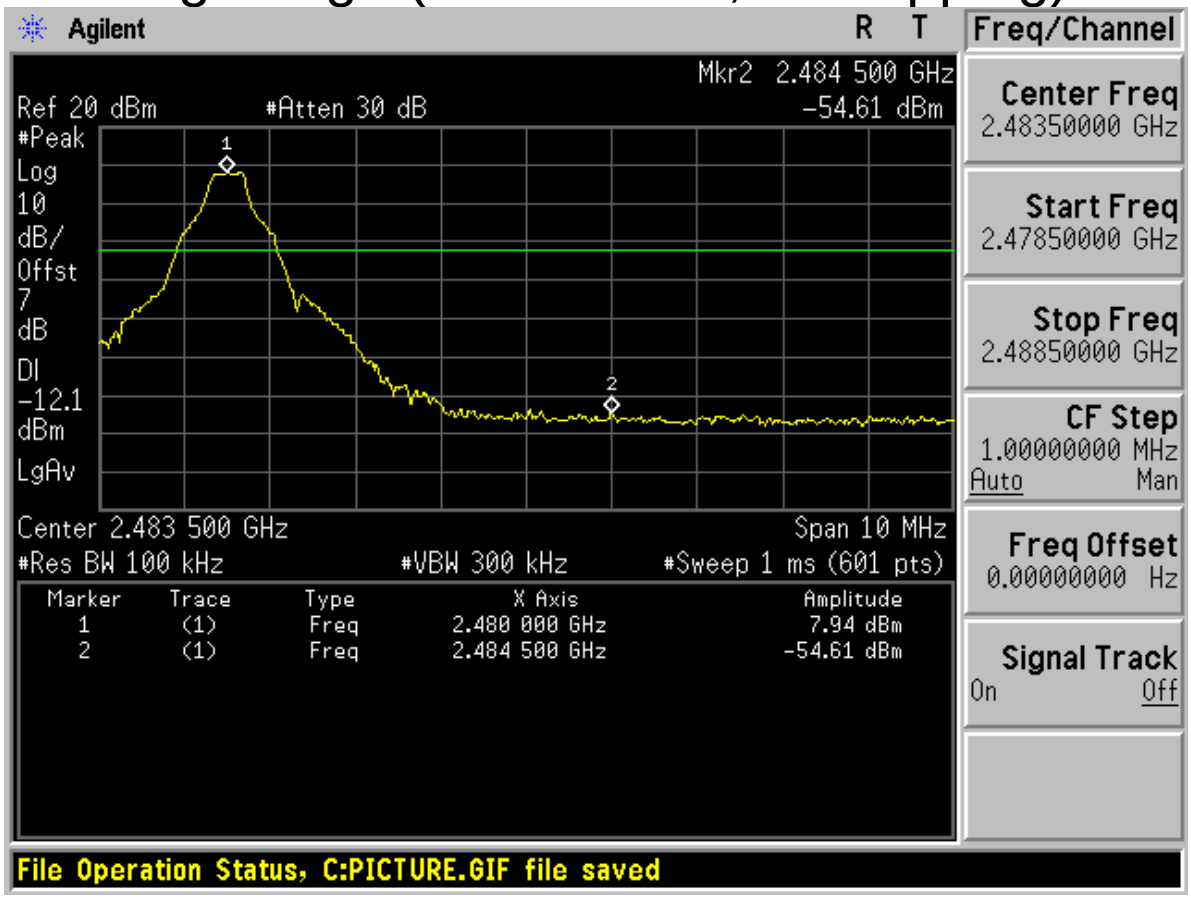
Low edge (Channel 0, no hopping)



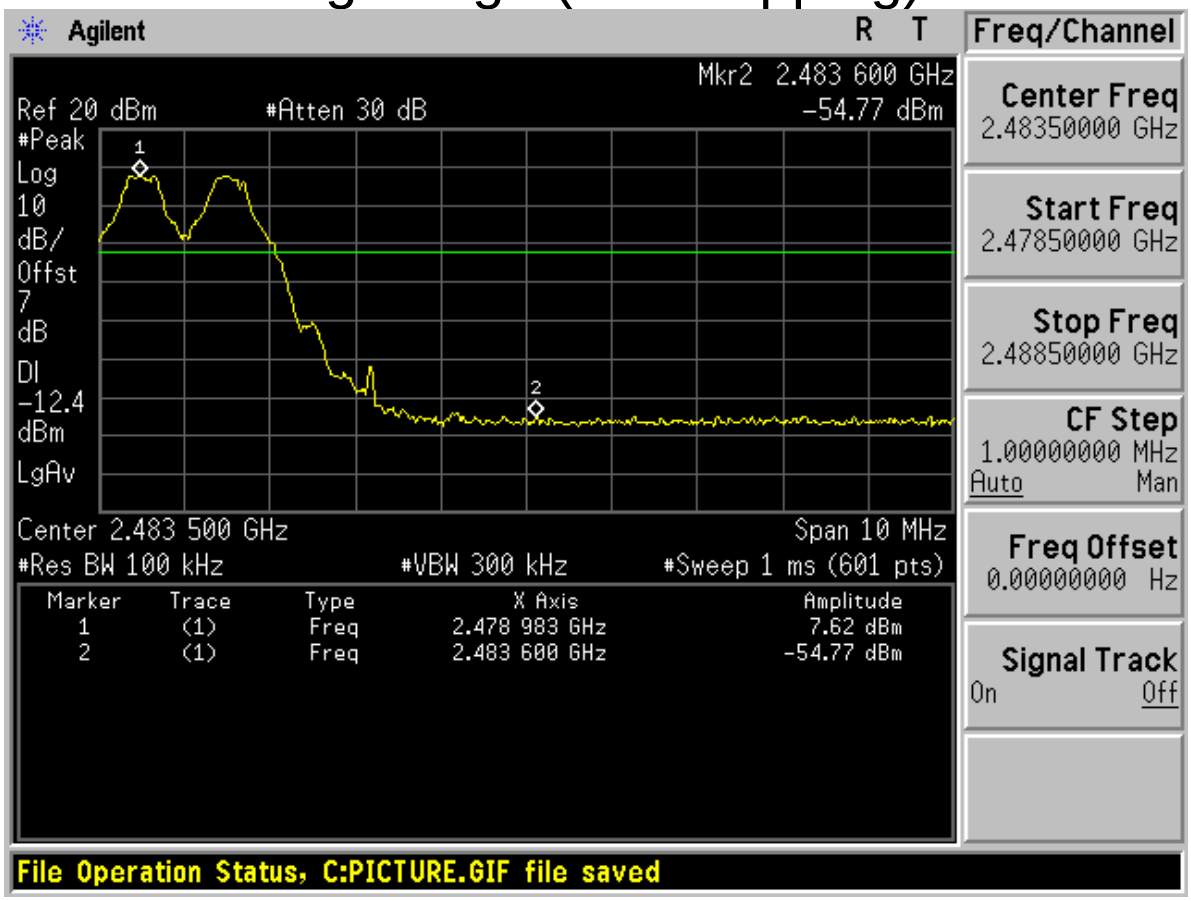
Low edge (with hopping)



High edge (Channel 78, no hopping)



High edge (with hopping)

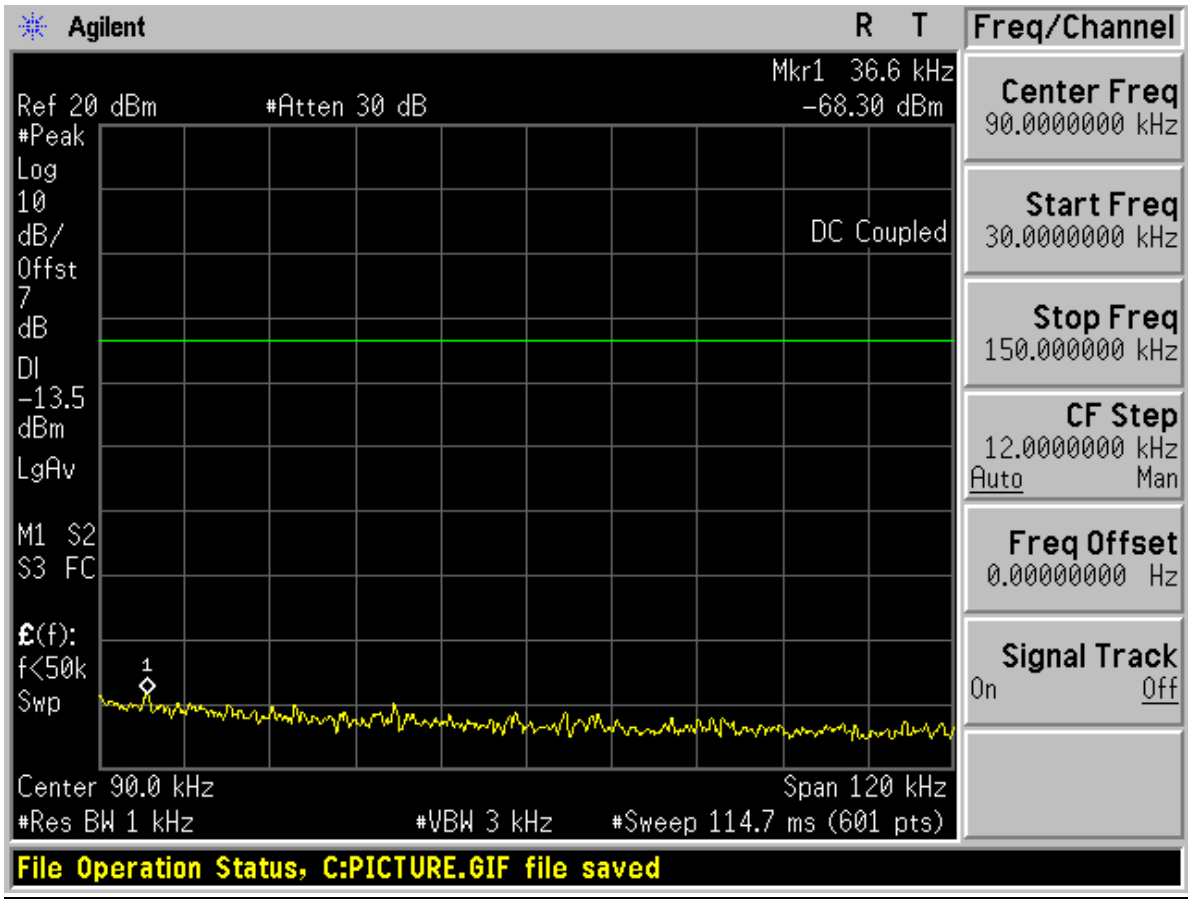


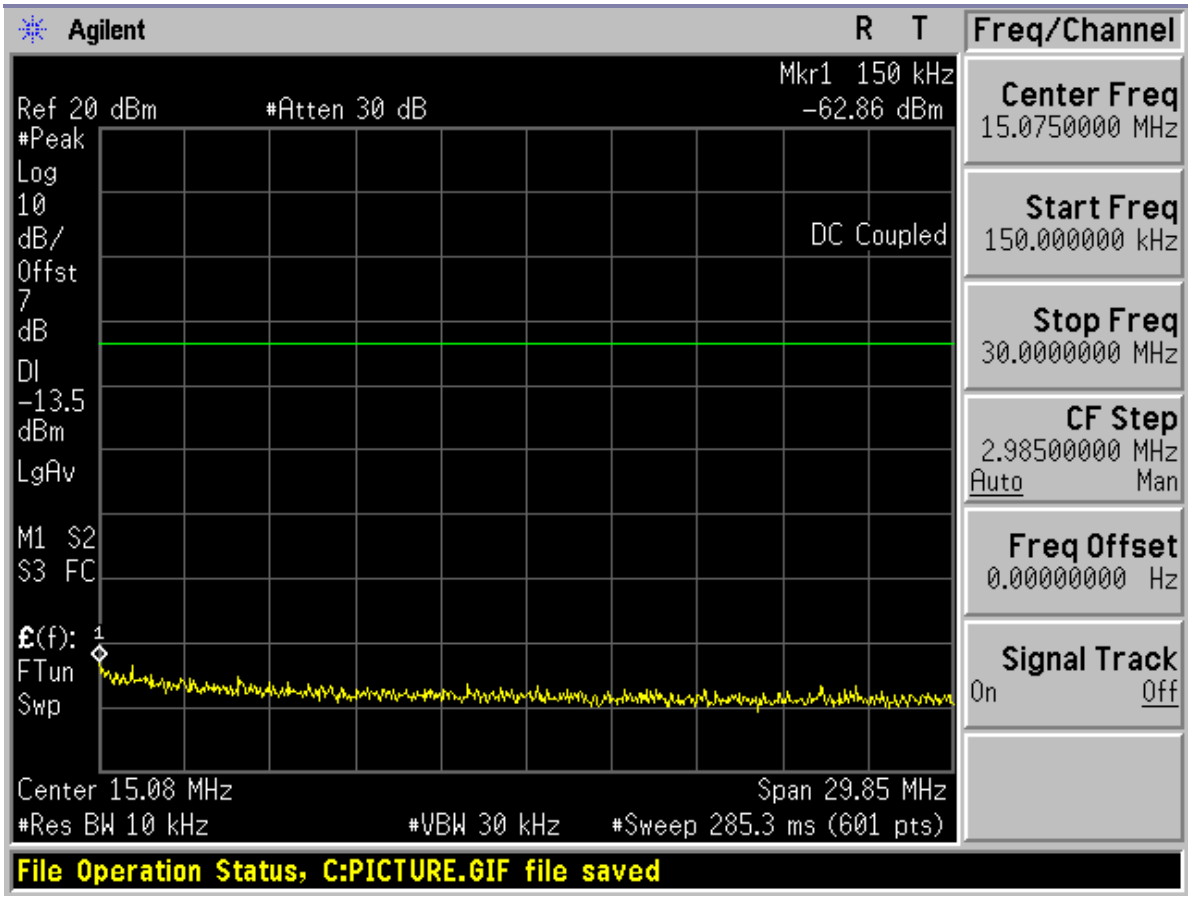
Appendix G

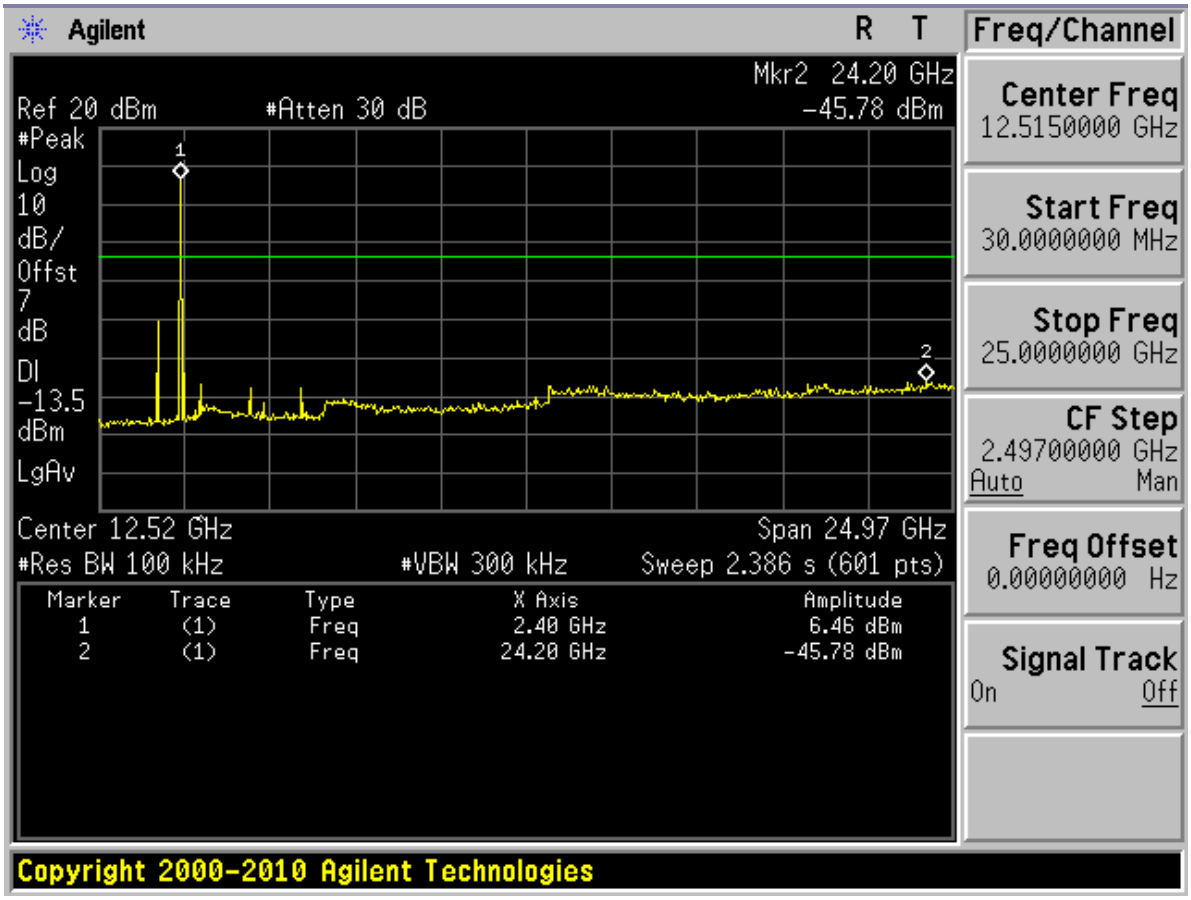
Conducted RF spurious

According to FCC Part 15.247 (d)

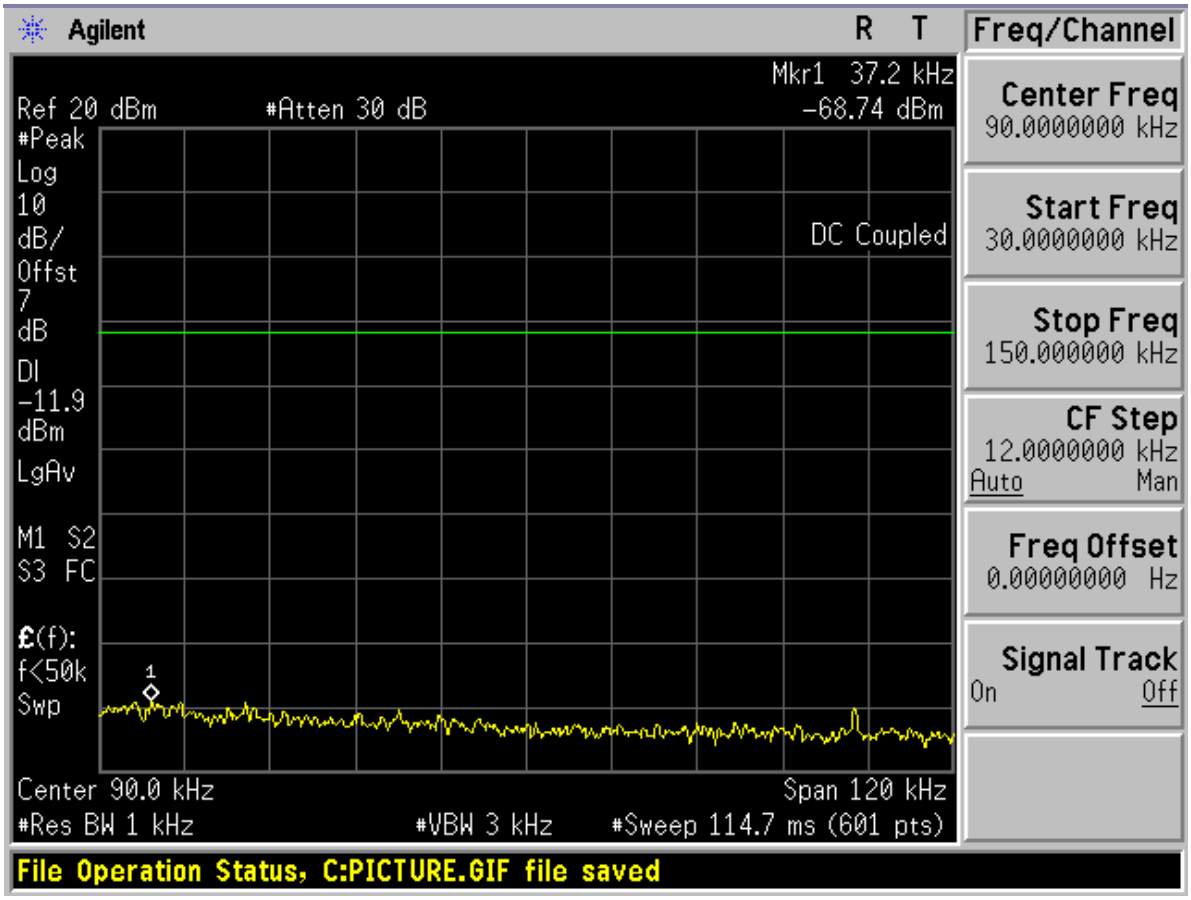
Channel 0

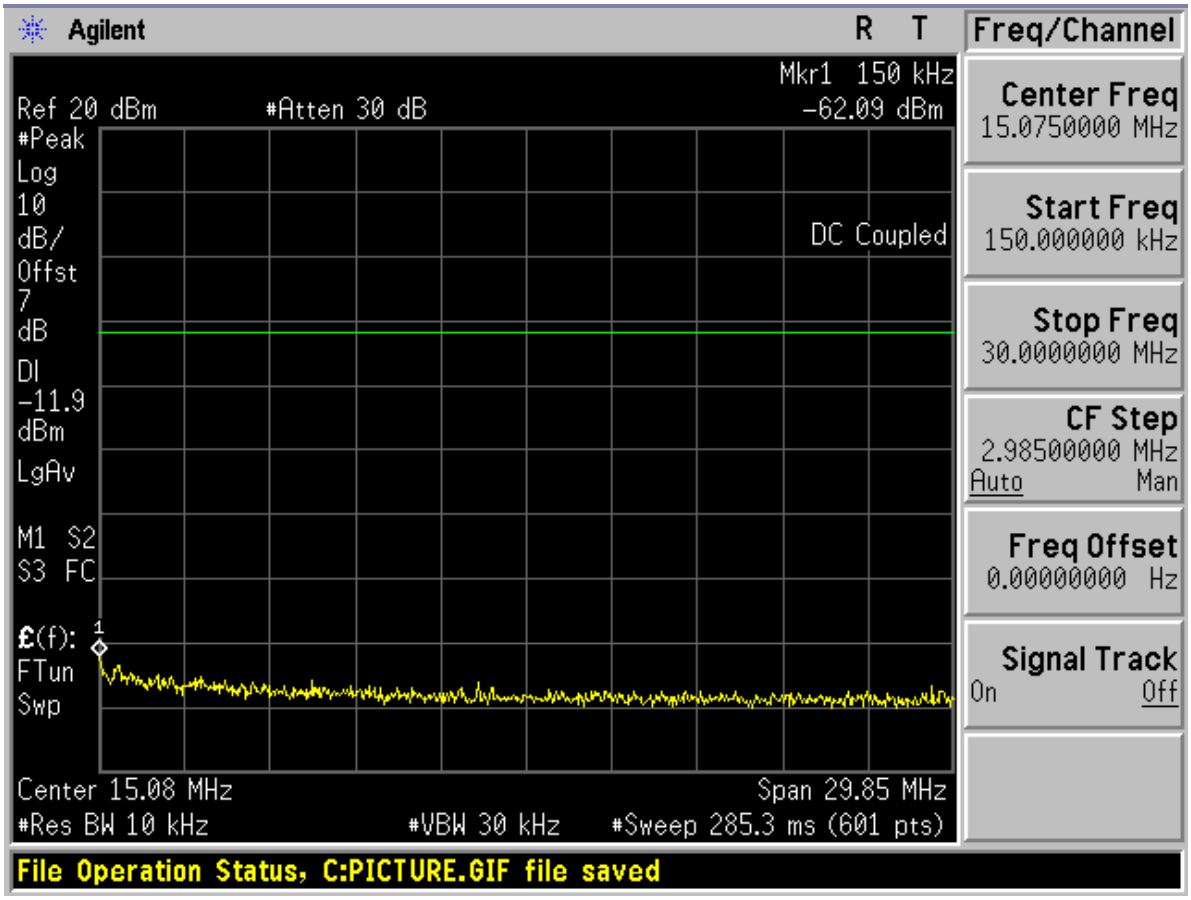

Agilent
R T
Freq/Channel
Mkr1 36.6 kHz
Ref 20 dBm
#Atten 30 dB
-68.30 dBm
#Peak
Log
10
dB/
Offst
7
dB
Dl
-13.5
dBm
LgAv
M1 S2
S3 FC
£(f):
f<50k
Swp
DC Coupled
Center Freq
90.0000000 kHz
Start Freq
30.0000000 kHz
Stop Freq
150.000000 kHz
CF Step
12.0000000 kHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Center 90.0 kHz
Span 120 kHz
#Res BW 1 kHz
#VBW 3 kHz
#Sweep 114.7 ms (601 pts)
File Operation Status, C:PICTURE.GIF file saved

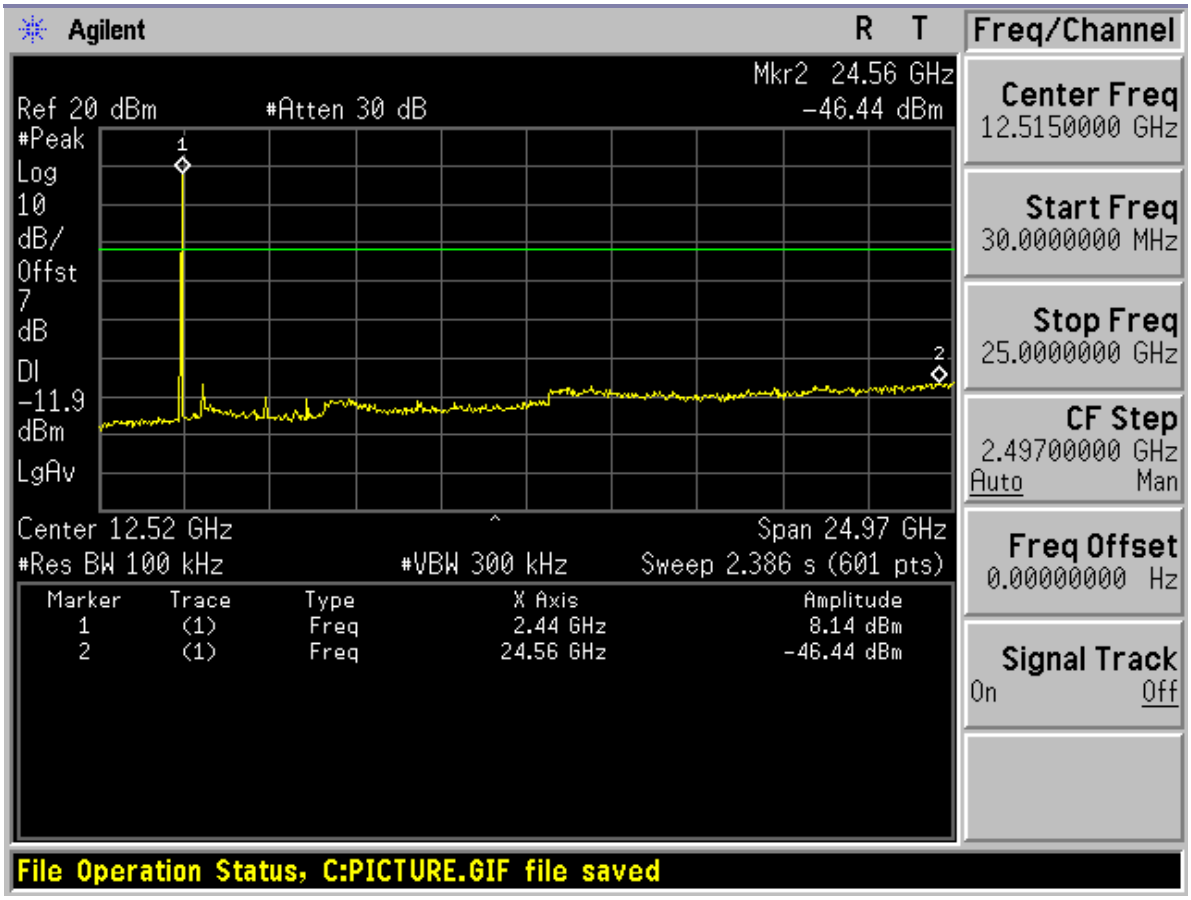

Agilent
R T
Freq/Channel
Mkr1 150 kHz
Ref 20 dBm
#Atten 30 dB
-62.86 dBm
#Peak
Log
10
dB/
Offst
7
dB
DC Coupled
Dl
-13.5
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
Center Freq
15.0750000 MHz
Start Freq
150.000000 kHz
Stop Freq
30.0000000 MHz
CF Step
2.98500000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Center 15.08 MHz
Span 29.85 MHz
#Res BW 10 kHz
#VBW 30 kHz
#Sweep 285.3 ms (601 pts)
File Operation Status, C:PICTURE.GIF file saved


Agilent
R T
Freq/Channel
Mkr2 24.20 GHz
Ref 20 dBm
#Atten 30 dB
-45.78 dBm
#Peak
Log
10
dB/
Offst
7
dB
Dl
-13.5
dBm
LgAv
Center Freq
12.5150000 GHz
Start Freq
30.0000000 MHz
Stop Freq
25.0000000 GHz
CF Step
2.49700000 GHz
Auto
Man
Center 12.52 GHz
Span 24.97 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.386 s (601 pts)
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.40 GHz 6.46 dBm
2 (1) Freq 24.20 GHz -45.78 dBm
Copyright 2000-2010 Agilent Technologies

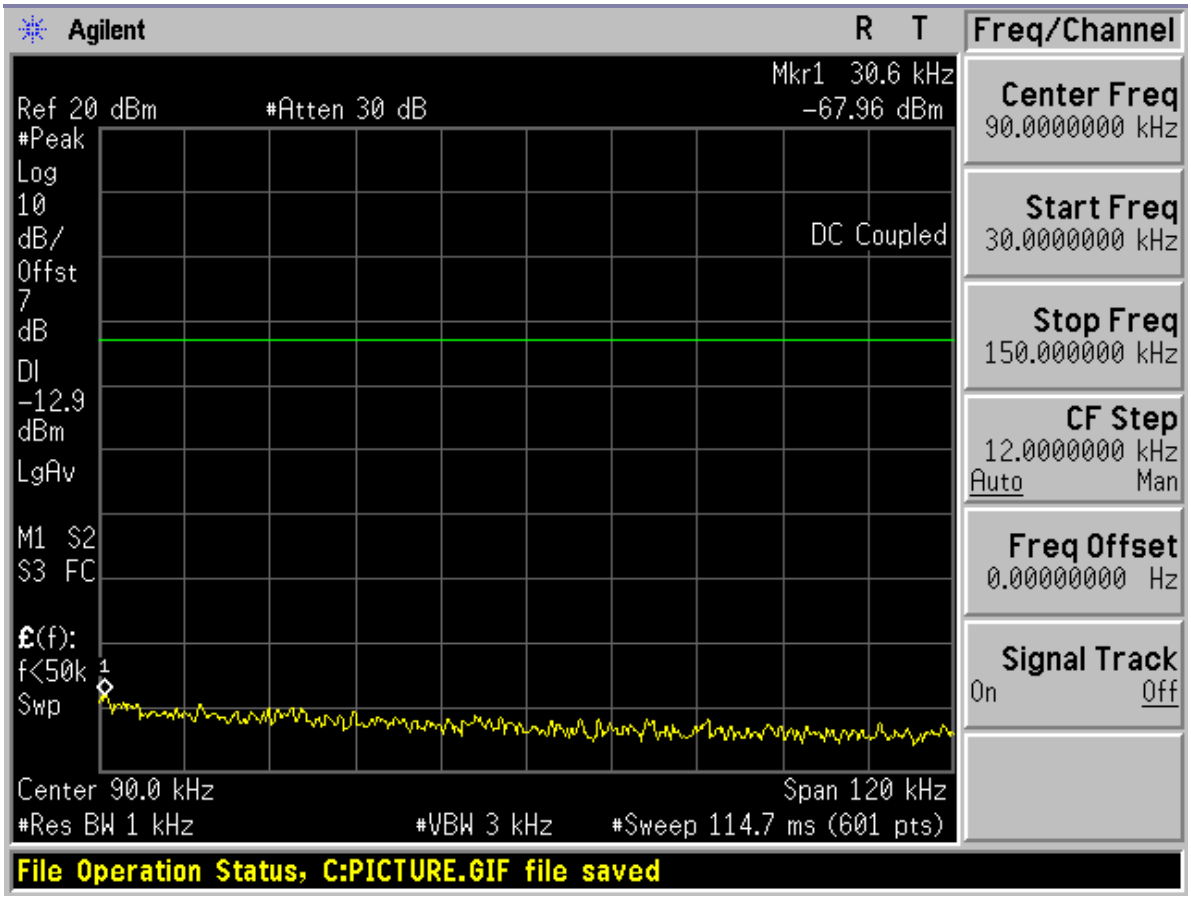
Channel 40

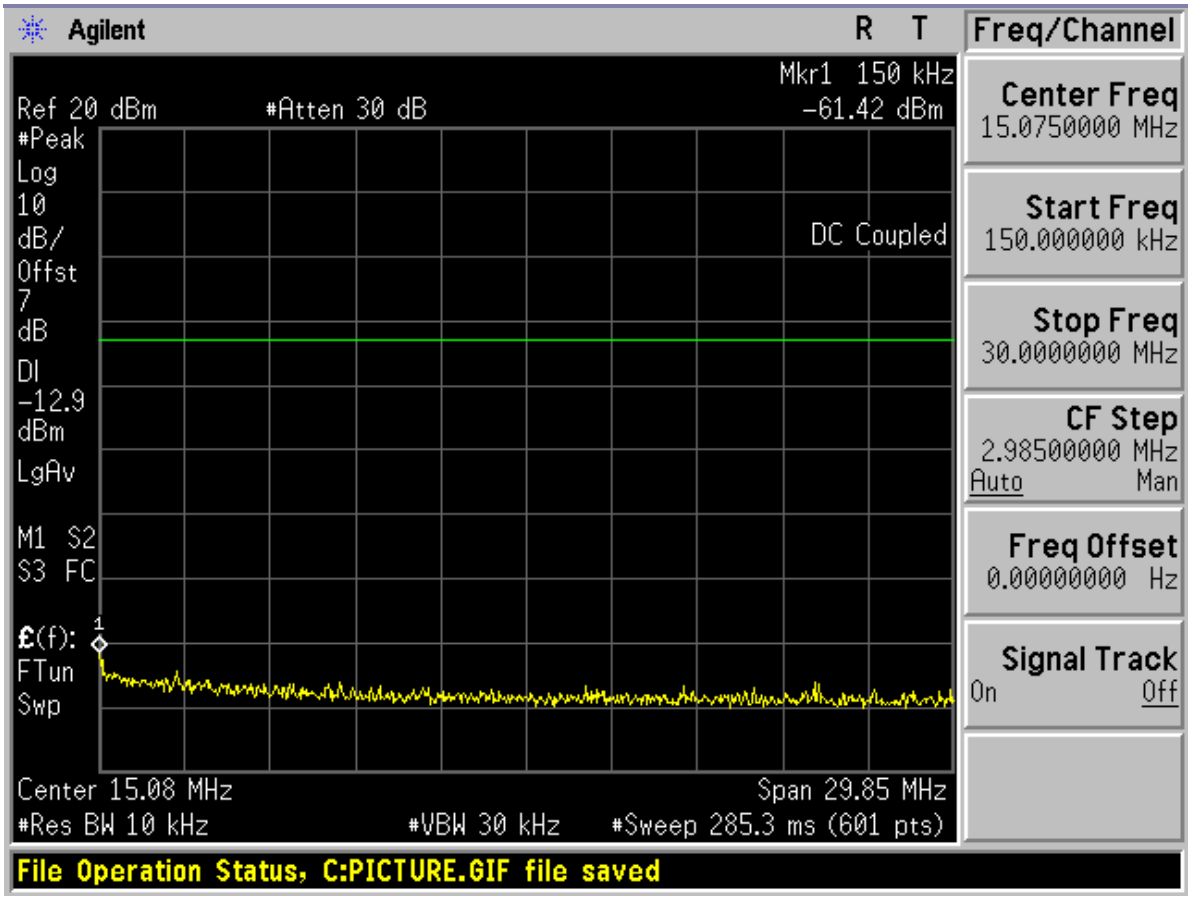

Agilent
R T
Freq/Channel
Mkr1 37.2 kHz
Ref 20 dBm
#Atten 30 dB
-68.74 dBm
#Peak
Log
10
dB/
Offst
7
dB
Dl
-11.9
dBm
LgAv
M1 S2
S3 FC
£(f):
f<50k
Swp
DC Coupled
Center Freq
90.0000000 kHz
Start Freq
30.0000000 kHz
Stop Freq
150.000000 kHz
CF Step
12.0000000 kHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Center 90.0 kHz
Span 120 kHz
#Res BW 1 kHz
#VBW 3 kHz
#Sweep 114.7 ms (601 pts)
File Operation Status, C:PICTURE.GIF file saved

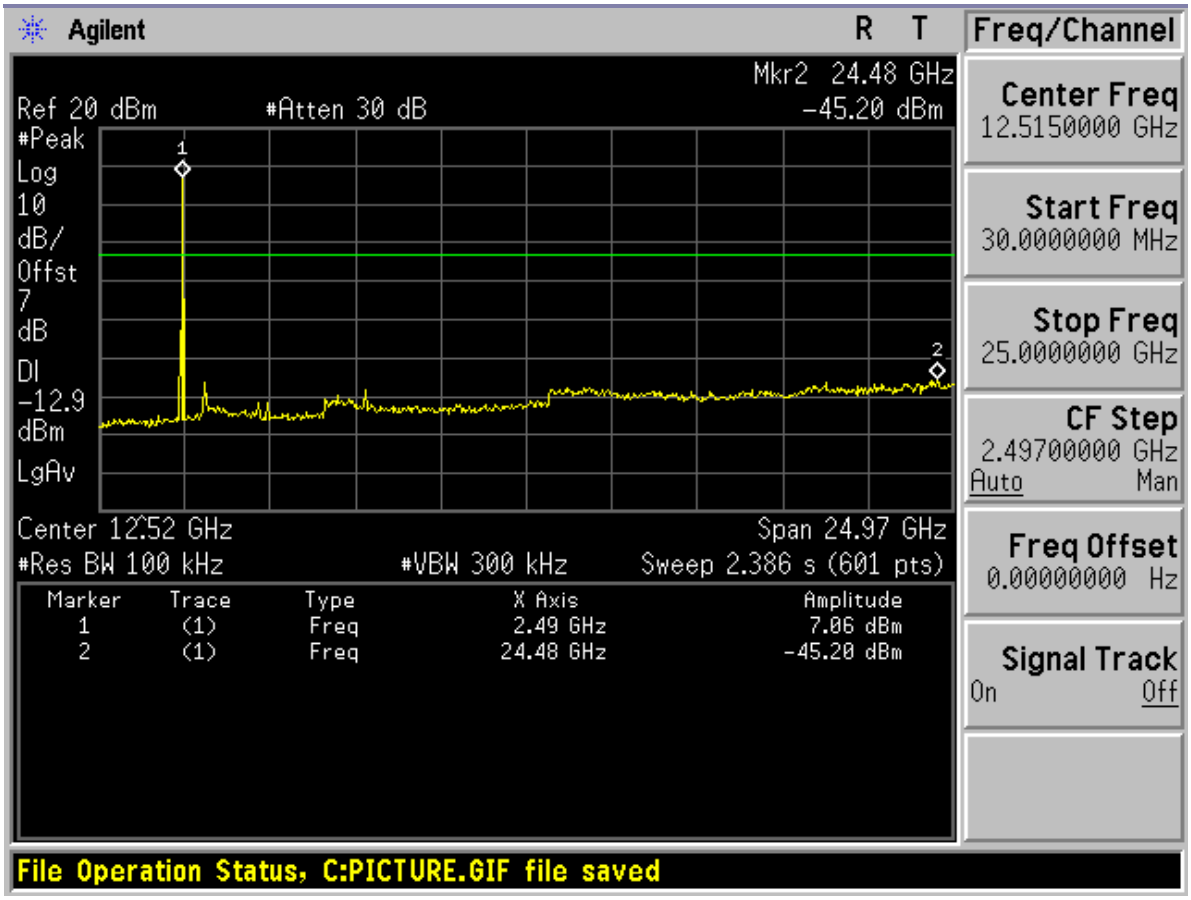

Agilent
R T
Freq/Channel
Mkr1 150 kHz
Ref 20 dBm
#Atten 30 dB
-62.09 dBm
#Peak
Log
10
dB/
Offst
7
dB
DC Coupled
Dl
-11.9
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
Center Freq
15.0750000 MHz
Start Freq
150.000000 kHz
Stop Freq
30.0000000 MHz
CF Step
2.98500000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Center 15.08 MHz
Span 29.85 MHz
#Res BW 10 kHz
#VBW 30 kHz
#Sweep 285.3 ms (601 pts)
File Operation Status, C:PICTURE.GIF file saved


Agilent
R T
Freq/Channel
Mkr2 24.56 GHz
Ref 20 dBm
#Atten 30 dB
-46.44 dBm
#Peak
Log
10
dB/
Offst
7
dB
Dl
-11.9
dBm
LgAv
Center Freq
12.5150000 GHz
Start Freq
30.0000000 MHz
Stop Freq
25.0000000 GHz
CF Step
2.49700000 GHz
Auto
Man
Center 12.52 GHz
Span 24.97 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.386 s (601 pts)
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 8.14 dBm
2 (1) Freq 24.56 GHz -46.44 dBm
File Operation Status, C:PICTURE.GIF file saved

Channel 78


Agilent
R T
Freq/Channel
Mkr1 30.6 kHz
Ref 20 dBm
#Atten 30 dB
-67.96 dBm
#Peak
Log
10
dB/
Offst
7
dB
Dl
-12.9
dBm
LgAv
DC Coupled
M1 S2
S3 FC
£(f):
f<50k
Swp
Center Freq
90.0000000 kHz
Start Freq
30.0000000 kHz
Stop Freq
150.000000 kHz
CF Step
12.0000000 kHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Center 90.0 kHz
Span 120 kHz
#Res BW 1 kHz
#VBW 3 kHz
#Sweep 114.7 ms (601 pts)
File Operation Status, C:PICTURE.GIF file saved


Agilent
R T
Freq/Channel
Mkr1 150 kHz
Ref 20 dBm
#Atten 30 dB
-61.42 dBm
#Peak
Log
10
dB/
Offst
7
dB
DC Coupled
Dl
-12.9
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
Center Freq
15.0750000 MHz
Start Freq
150.000000 kHz
Stop Freq
30.0000000 MHz
CF Step
2.98500000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Center 15.08 MHz
Span 29.85 MHz
#Res BW 10 kHz
#VBW 30 kHz
#Sweep 285.3 ms (601 pts)
File Operation Status, C:PICTURE.GIF file saved

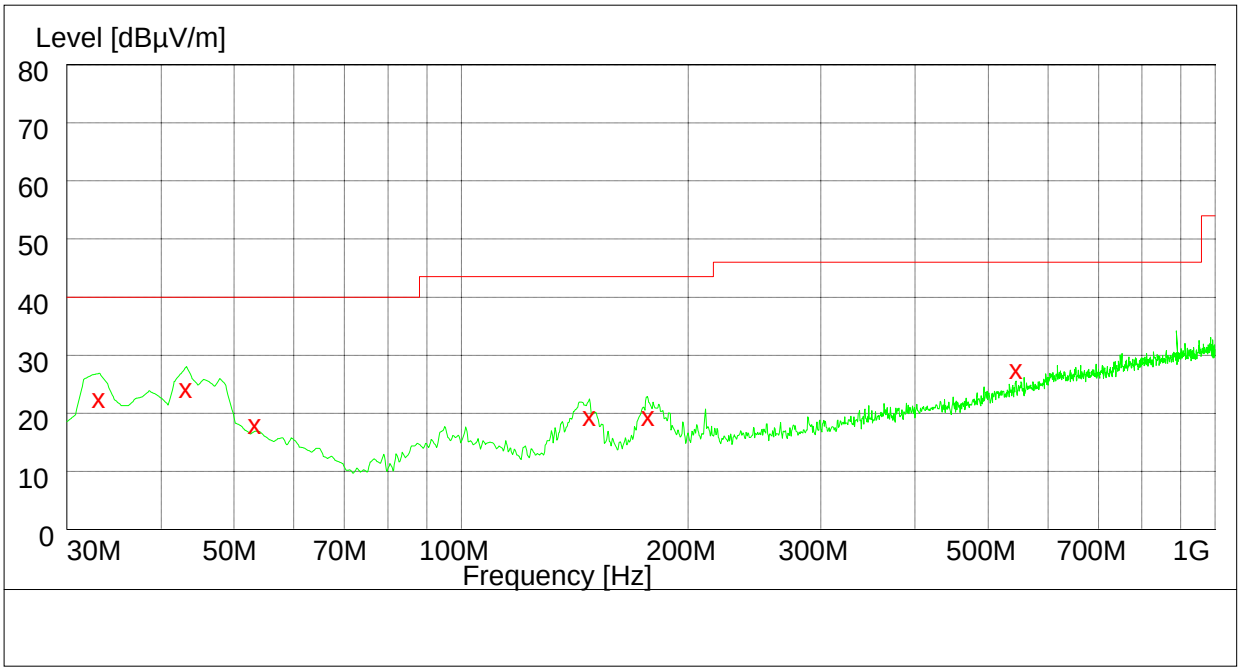

Agilent
R T
Freq/Channel
Mkr2 24.48 GHz
Ref 20 dBm
#Atten 30 dB
-45.20 dBm
#Peak
Log
10
dB/
Offst
7
dB
Dl
-12.9
dBm
LgAv
Center 12.52 GHz
Span 24.97 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.386 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.49 GHz 7.06 dBm
2 (1) Freq 24.48 GHz -45.20 dBm
Center Freq
12.5150000 GHz
Start Freq
30.0000000 MHz
Stop Freq
25.0000000 GHz
CF Step
2.49700000 GHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
File Operation Status, C:PICTURE.GIF file saved

Appendix H

Radiated spurious emission

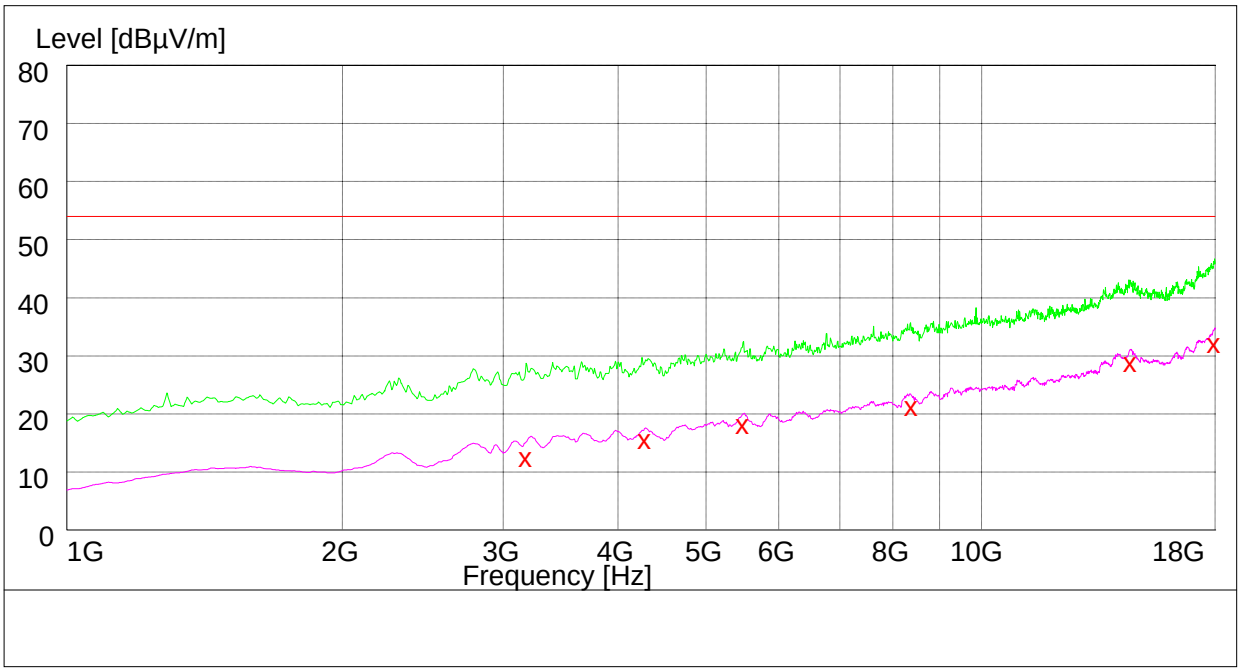
According to FCC Part 15.247 (d) & 15.205 & 15.209

Channel 0
30MHz to 1GHz



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Plarization
33.168000	23.80	11.7	40.0	16.2	100.0	167.00	VERTICAL
43.192000	25.40	13.1	40.0	14.6	103.0	343.00	VERTICAL
53.336000	19.30	12.7	40.0	20.7	100.0	76.00	VERTICAL
148.312000	20.60	8.9	43.5	22.9	103.0	340.00	VERTICAL
177.204000	20.60	10.7	43.5	22.9	109.0	359.00	VERTICAL
545.208000	28.70	21.3	46.0	17.3	103.0	274.00	VERTICAL

1GHz to 18GHz



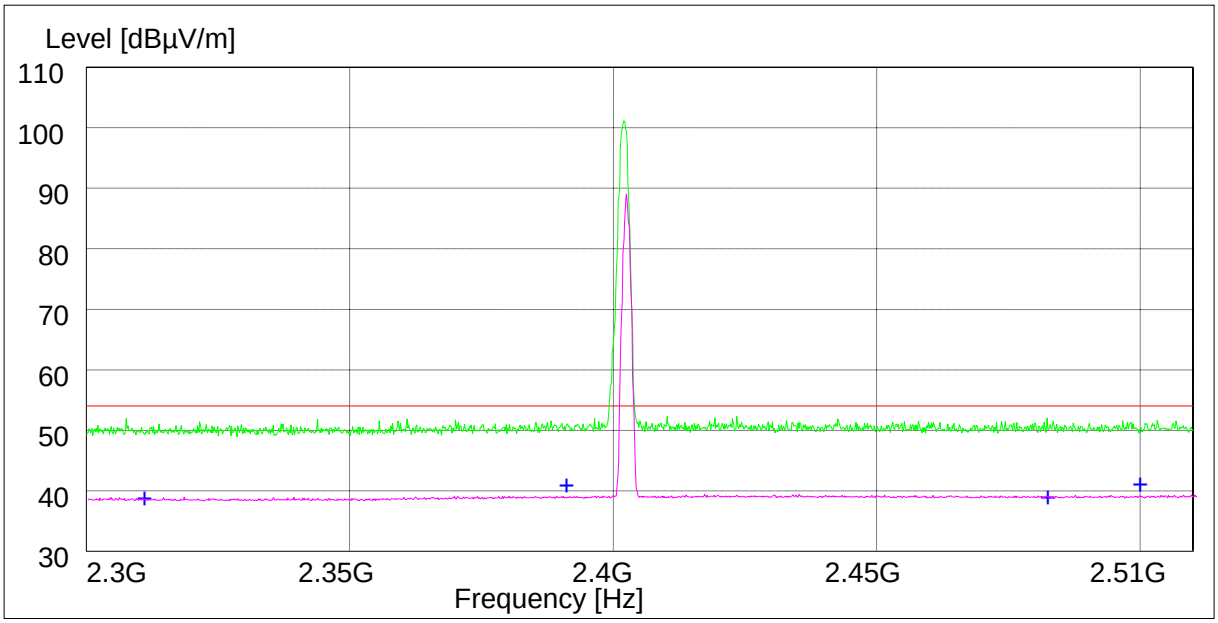
Note: Signal suppressed with a 2.4 GHz band rejection filter

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
3178.500000	13.60	-8.4	54.0	40.4	100.0	130.00	VERTICAL
4284.200000	16.80	-5.1	54.0	37.2	140.0	241.00	HORIZONTAL
5487.000000	19.40	-2.4	54.0	34.6	114.0	315.00	VERTICAL
8388.300000	22.40	2.9	54.0	31.6	100.0	235.00	VERTICAL
14556.700000	30.00	12.2	54.0	24.0	154.0	60.00	VERTICAL
17974.300000	33.30	17.1	54.0	20.7	120.0	264.00	HORIZONTAL

18GHz to 26GHz

Note: No peak found in pre- test.

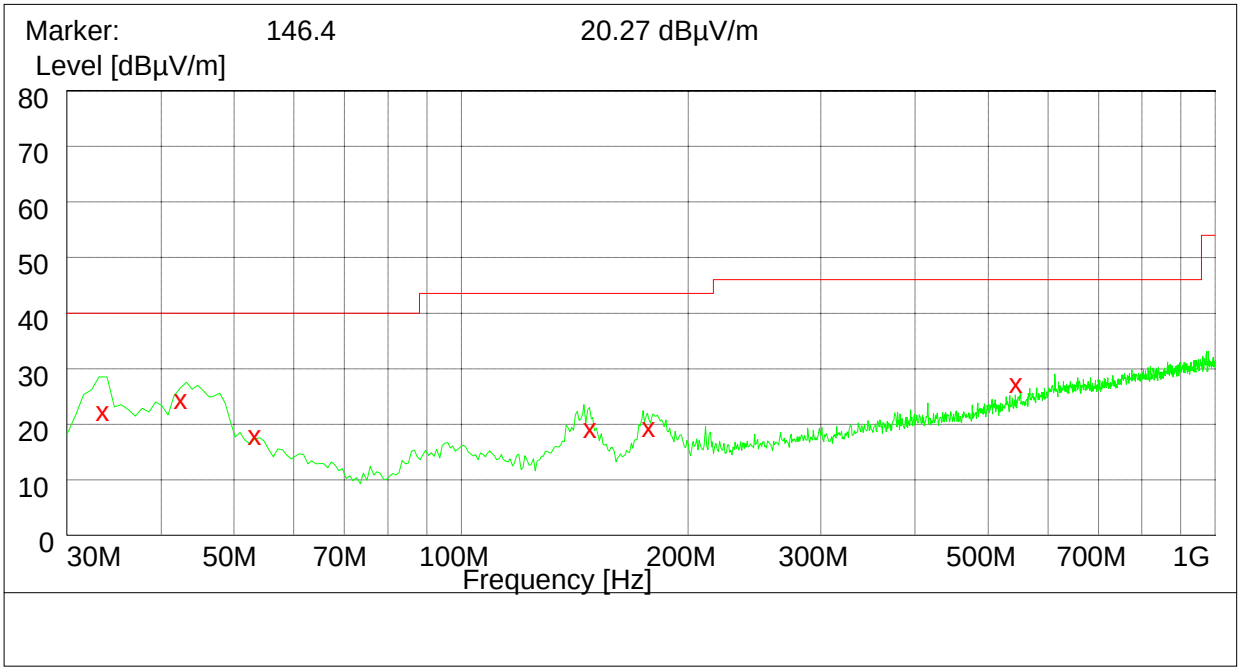
2.30GHz to 2.51GHz



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

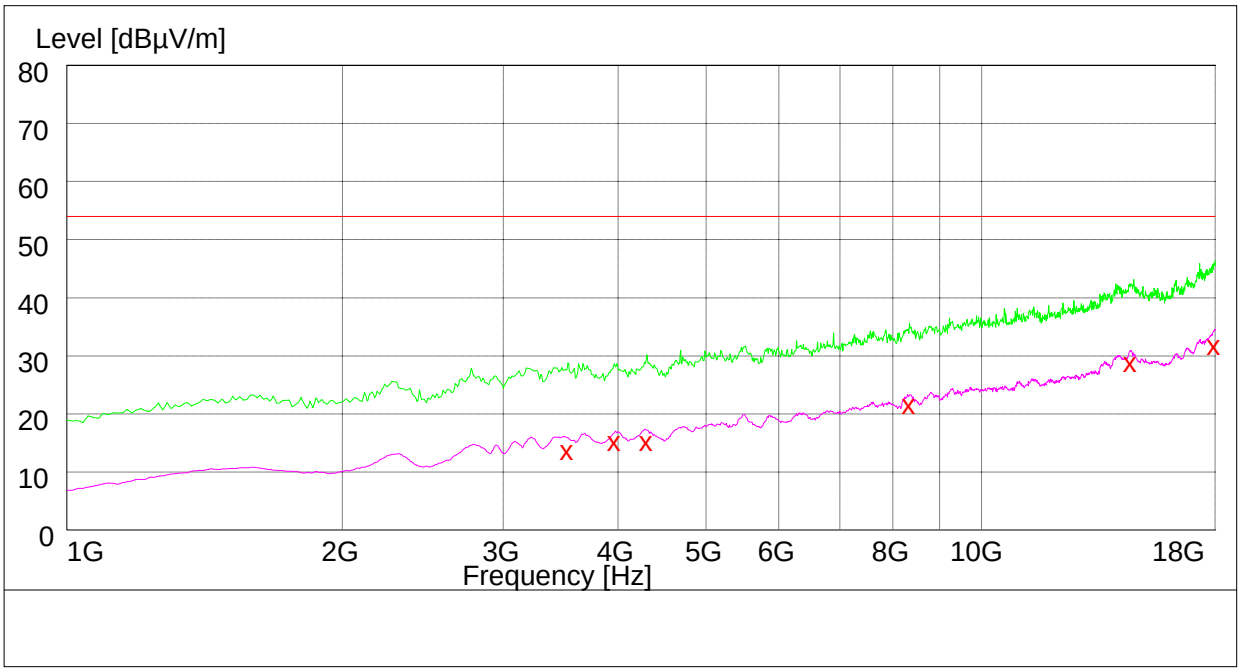
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2310.000000	39.50	33.3	54.0	14.5	100.0	345.00	HORIZONTAL
2390.000000	40.50	33.5	54.0	13.5	106.0	218.00	HORIZONTAL
2483.500000	39.80	33.7	54.0	14.2	109.0	195.00	HORIZONTAL
2500.000000	40.80	33.8	54.0	13.2	102.0	58.00	HORIZONTAL

Channel 40
30MHz to 1GHz



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/	Margin dB	Height cm	Azimuth deg	Polarization
33.124000	23.70	11.7	40.0	16.3	105.0	127.00	VERTICAL
43.252000	25.70	13.1	40.0	14.3	143.0	153.00	VERTICAL
54.216000	19.30	12.7	40.0	20.7	120.0	176.00	VERTICAL
149.011000	20.50	8.9	43.5	23.0	103.0	210.00	VERTICAL
178.215000	20.90	10.7	43.5	22.6	109.0	219.00	VERTICAL
544.248000	28.90	21.3	46.0	17.1	123.0	204.00	VERTICAL

1GHz to 18GHz



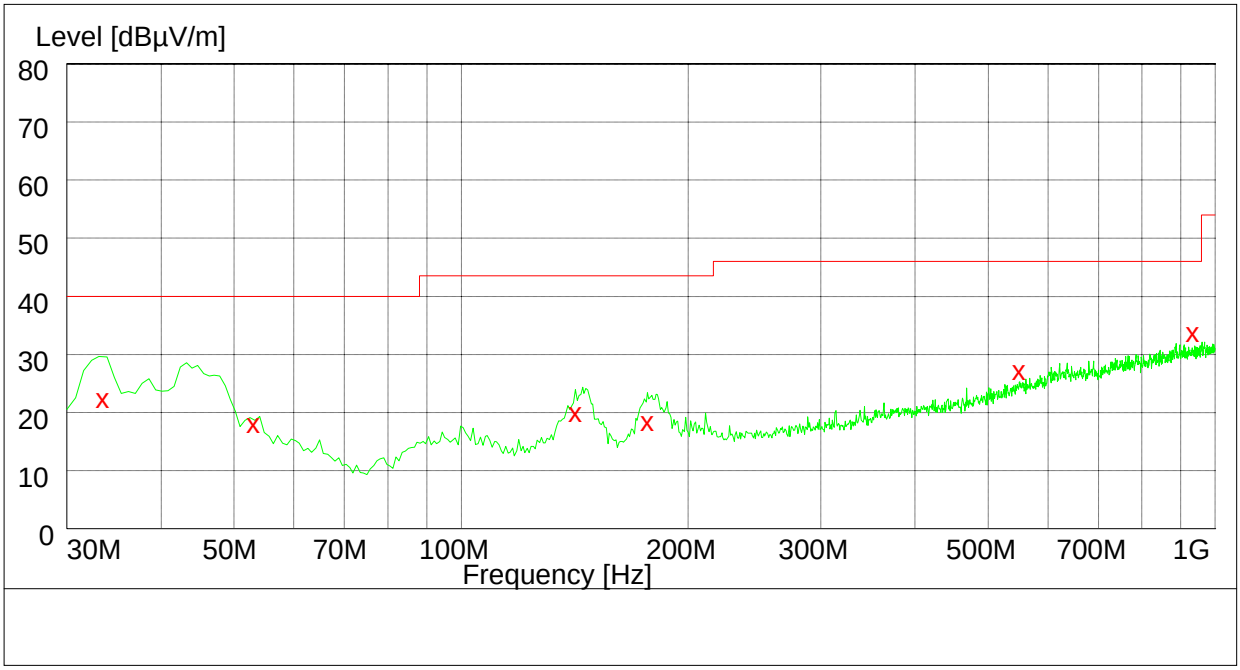
Note: Signal suppressed with a 2.4 GHz band rejection filter

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
3526.100000	14.80	-7.3	54.0	39.2	100.0	12.00	VERTICAL
3972.900000	16.40	-5.9	54.0	37.6	121.0	354.00	VERTICAL
4303.300000	16.50	-5.2	54.0	37.5	114.0	354.00	HORIZONTAL
8342.500000	22.70	2.9	54.0	31.3	120.0	6.00	VERTICAL
14550.100000	30.00	12.3	54.0	24.0	120.0	177.00	VERTICAL
17984.900000	33.00	17.2	54.0	21.0	124.0	102.00	HORIZONTAL

18GHz to 26GHz

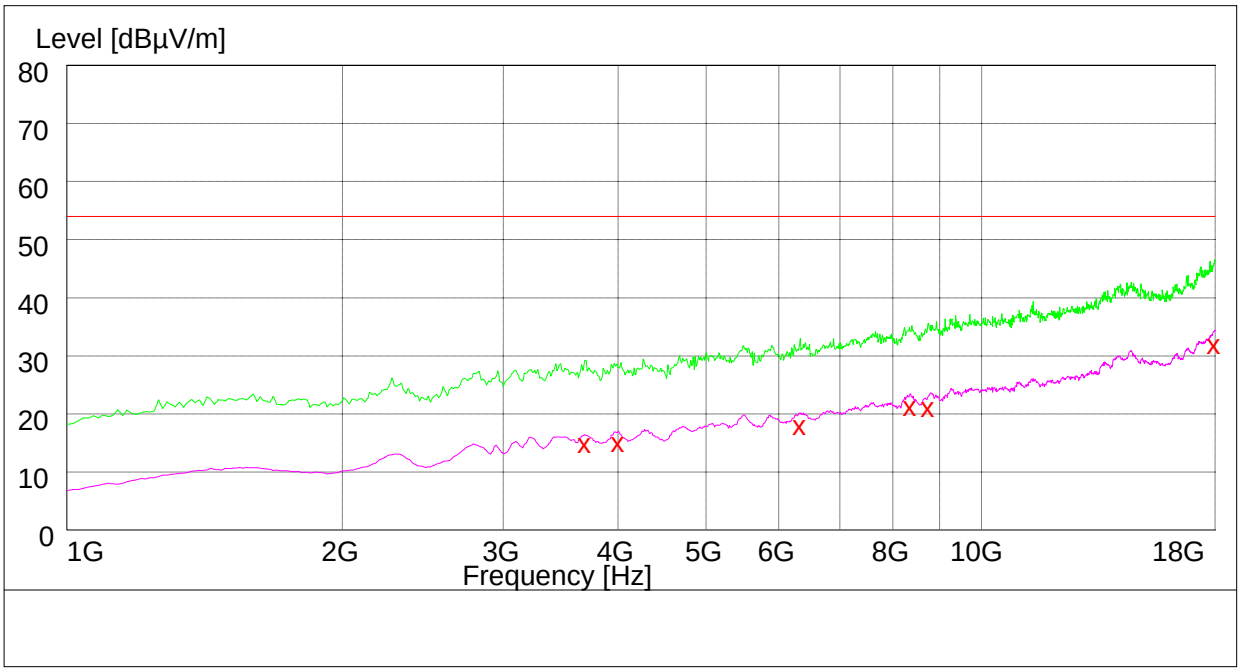
Note: No peak found in pre- test.

Channel 78
30MHz to 1GHz



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
33.500000	23.70	11.7	40.0	16.3	105.0	116.00	HORIZONTAL
53.156000	19.30	12.7	40.0	20.7	147.0	230.00	VERTICAL
142.010000	21.20	8.7	43.5	22.3	105.0	304.00	HORIZONTAL
177.084000	19.60	10.7	43.5	23.9	100.0	359.00	VERTICAL
550.521000	28.40	21.4	46.0	17.6	120.0	224.00	VERTICAL
936.548000	34.90	26.5	46.0	11.1	100.0	42.00	VERTICAL

1GHz to 18GHz



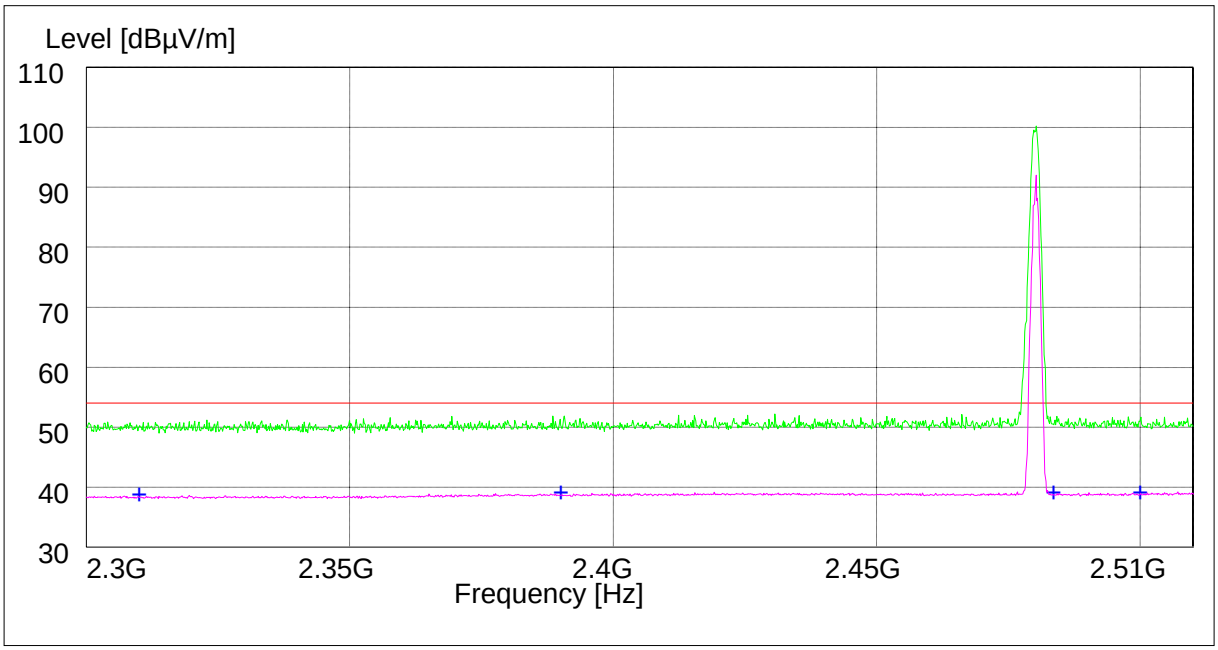
Note: Signal suppressed with a 2.4 GHz band rejection filter

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
3685.200000	16.00	-6.7	54.0	38.0	100.0	220.00	VERTICAL
4009.100000	16.30	-5.8	54.0	37.7	114.0	35.00	HORIZONTAL
6338.700000	19.10	-1.2	54.0	34.9	121.0	177.00	HORIZONTAL
8363.600000	22.50	2.9	54.0	31.5	102.0	111.00	HORIZONTAL
8744.400000	22.20	3.4	54.0	31.8	104.0	137.00	VERTICAL
17981.400000	33.10	17.2	54.0	20.9	120.0	315.00	HORIZONTAL

18GHz to 26GHz

Note: No peak found in pre- test.

2.30GHz to 2.51GHz



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

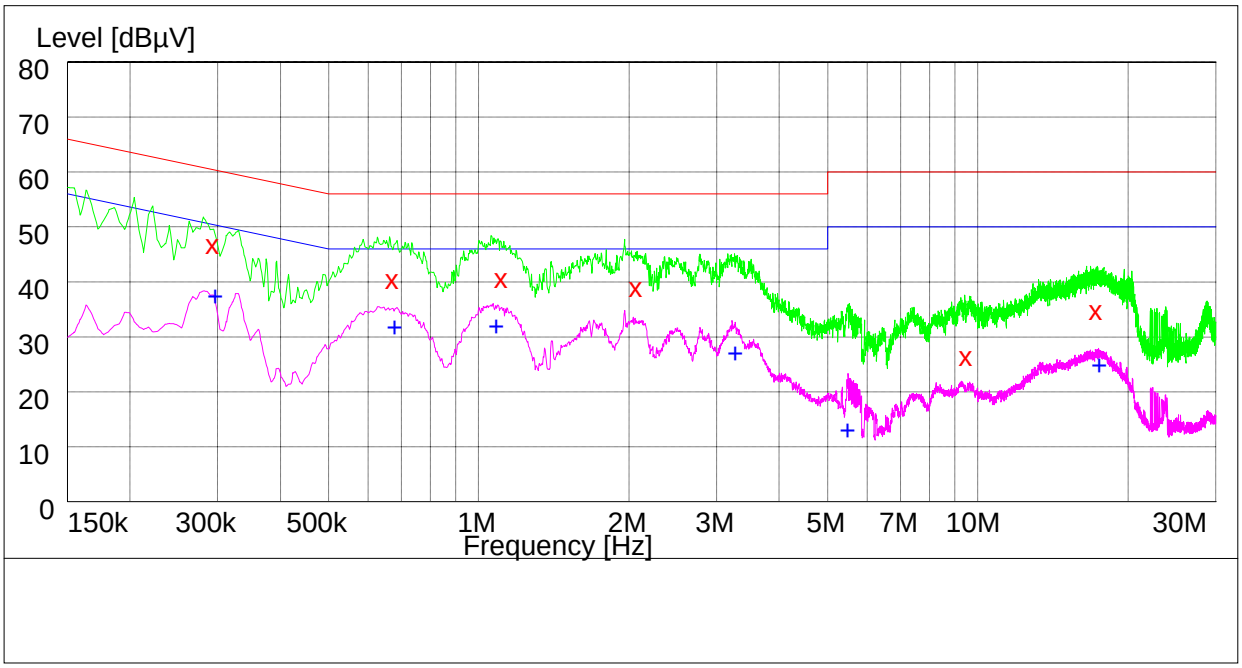
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2310.000000	39.40	33.7	54.0	14.6	152.0	18.00	VERTICAL
2390.000000	39.60	33.7	54.0	14.4	122.0	58.00	VERTICAL
2483.500000	39.80	33.7	54.0	14.2	127.0	158.00	VERTICAL
2500.000000	39.50	33.7	54.0	14.5	125.0	208.00	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
0.294000	48.10	10.0	60	11.9	N	GND
0.672000	41.80	10.1	56	14.2	N	GND
1.114000	42.00	10.1	56	14.0	N	GND
2.072000	40.40	10.1	56	15.6	N	GND
9.508000	27.80	10.3	60	32.2	N	GND
17.318000	36.20	10.3	60	23.8	N	GND

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.296000	38.70	10.0	50	11.3	N	GND
0.678000	33.00	10.1	46	13.0	N	GND
1.084000	33.20	10.1	46	12.8	N	GND
3.262000	28.20	10.2	46	17.8	N	GND
5.476000	14.30	10.2	50	35.7	N	GND
17.528000	26.10	10.3	50	23.9	N	GND