

Horizontal-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2385.075	38.44	-2.53	35.91	54.00	-18.09	AVG			
2	2390.000	35.99	-2.51	33.48	54.00	-20.52	AVG			
3	2400.000	54.45	-2.49	51.96	54.00	-2.04	AVG			

Anbotek

Test Mode: 802.11b
2412MHz
Vertical-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2386.725	42.79	-2.52	40.27	74.00	-33.73	peak			
2	2390.000	38.84	-2.51	36.33	74.00	-37.67	peak			
3	2400.000	55.81	-2.49	53.32	74.00	-20.68	peak			

AMB

Vertical-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2385.350	34.68	-2.52	32.16	54.00	-21.84	AVG			
2	2390.000	33.45	-2.51	30.94	54.00	-23.06	AVG			
3	2400.000	47.39	-2.49	44.90	54.00	-9.10	AVG			

Anbotek

Test Mode: 802.11b
2462MHz
Horizontal-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	38.76	-2.31	36.45	74.00	-37.55	peak			
2	2487.850	45.90	-2.30	43.60	74.00	-30.40	peak			

Anbotek

Horizontal-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	29.90	-2.31	27.59	54.00	-26.41	AVG			
2	2488.075	34.91	-2.30	32.61	54.00	-21.39	AVG			

Anbotek

Test Mode: 802.11b
2462MHz
Vertical-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	35.59	-2.31	33.28	74.00	-40.72	peak			
2	2487.850	41.29	-2.30	38.99	74.00	-35.01	peak			

Anbotek

Vertical-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	29.47	-2.31	27.16	54.00	-26.84	AVG			
2	2488.075	33.83	-2.30	31.53	54.00	-22.47	AVG			

Anbotek

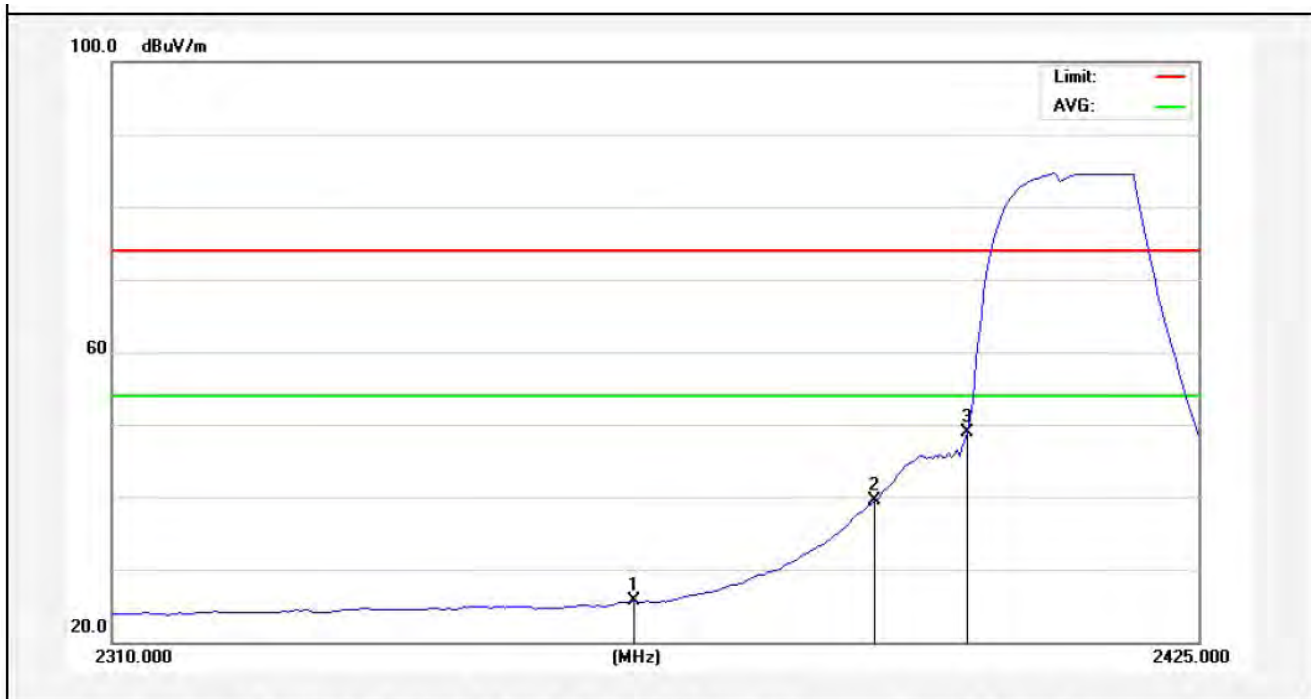
Test Mode: 802.11g
2412MHz
Horizontal-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2383.313	43.04	-2.53	40.51	74.00	-33.49	peak			
2	2390.000	50.72	-2.51	48.21	74.00	-25.79	peak			
3	2400.000	64.38	-2.49	61.89	74.00	-12.11	peak			

AMB

Horizontal-AV:



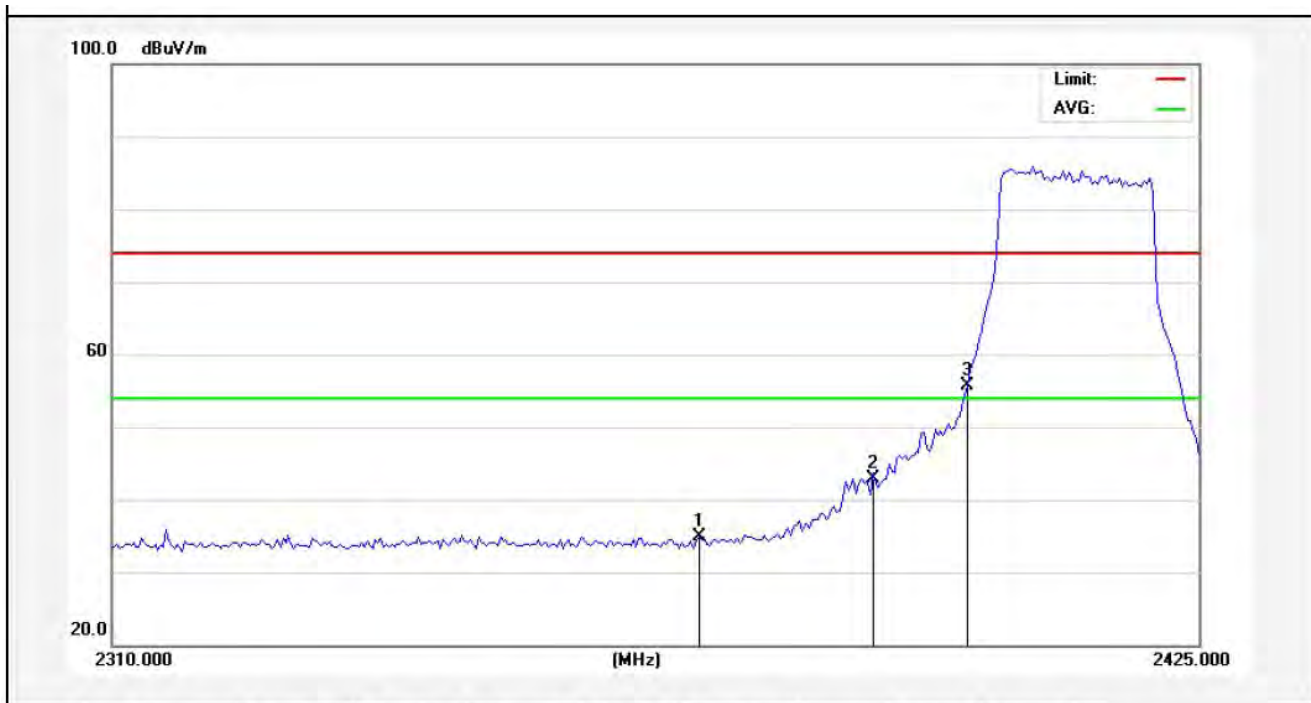
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2364.625	28.22	-2.57	25.65	54.00	-28.35	AVG			
2	2390.000	42.00	-2.51	39.49	54.00	-14.51	AVG			
3	2400.000	51.32	-2.49	48.83	54.00	-5.17	AVG			

Anbotek

Test Mode: 802.11g

2412MHz

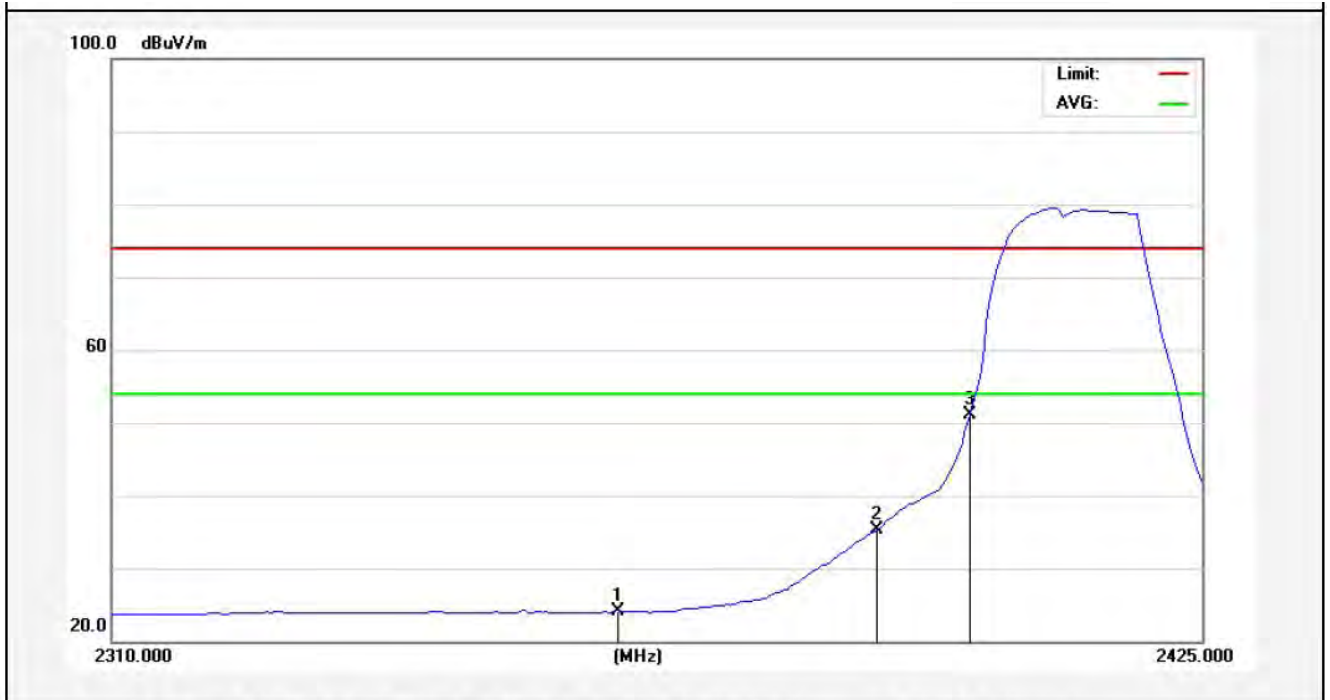
Vertical-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2371.525	37.46	-2.56	34.90	74.00	-39.10	peak			
2	2390.000	45.38	-2.51	42.87	74.00	-31.13	peak			
3	2400.000	58.25	-2.49	55.76	74.00	-18.24	peak			

AMB

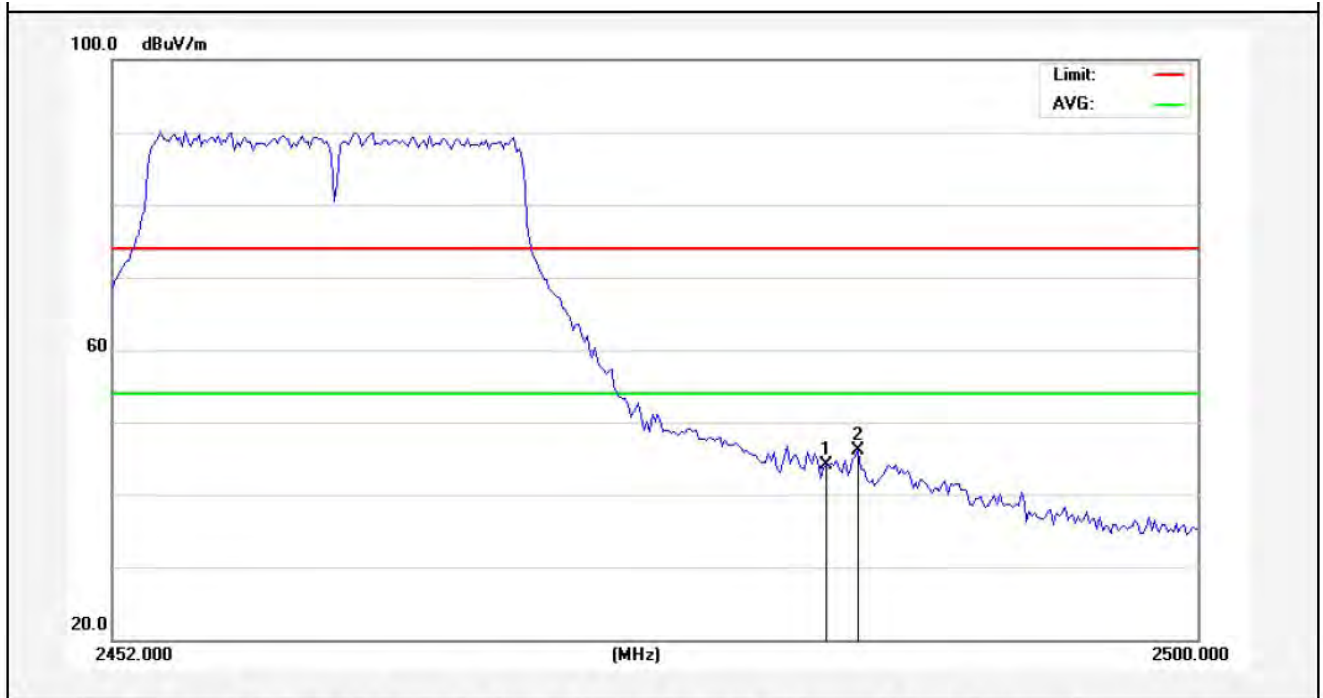
Vertical-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2362.900	26.77	-2.57	24.20	54.00	-29.80	AVG			
2	2390.000	37.89	-2.51	35.38	54.00	-18.62	AVG			
3	2400.000	53.69	-2.49	51.20	54.00	-2.80	AVG			

Anbotek

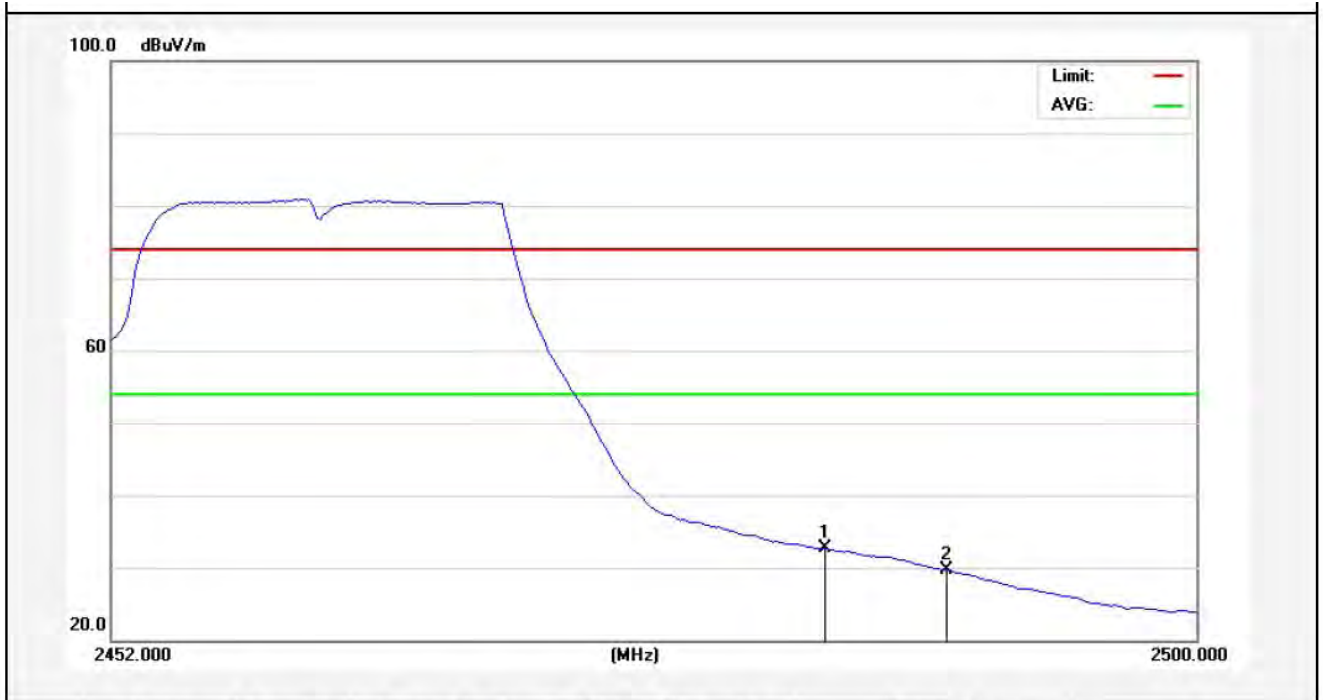
Test Mode: 802.11g
2462MHz
Horizontal-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	46.44	-2.31	44.13	74.00	-29.87	peak			
2	2485.000	48.47	-2.30	46.17	74.00	-27.83	peak			

Anbotek

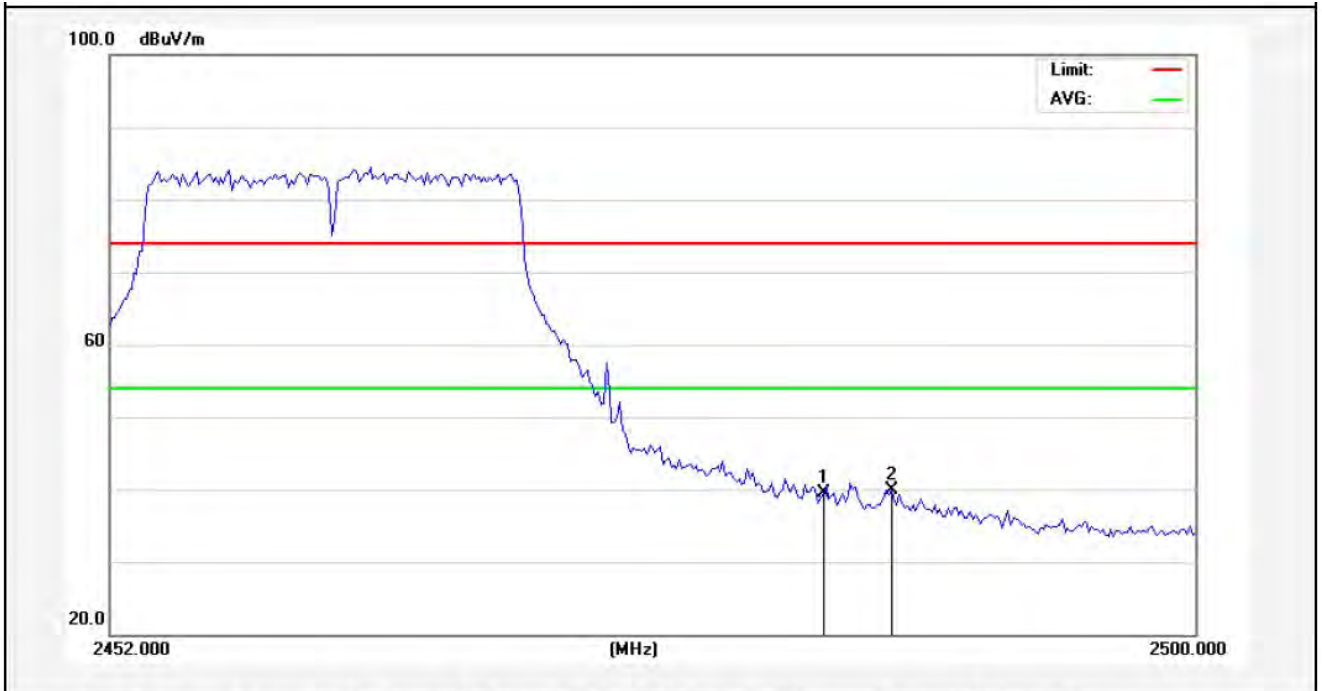
Horizontal-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	34.93	-2.31	32.62	54.00	-21.38	AVG			
2	2488.960	31.99	-2.29	29.70	54.00	-24.30	AVG			

Anbotek

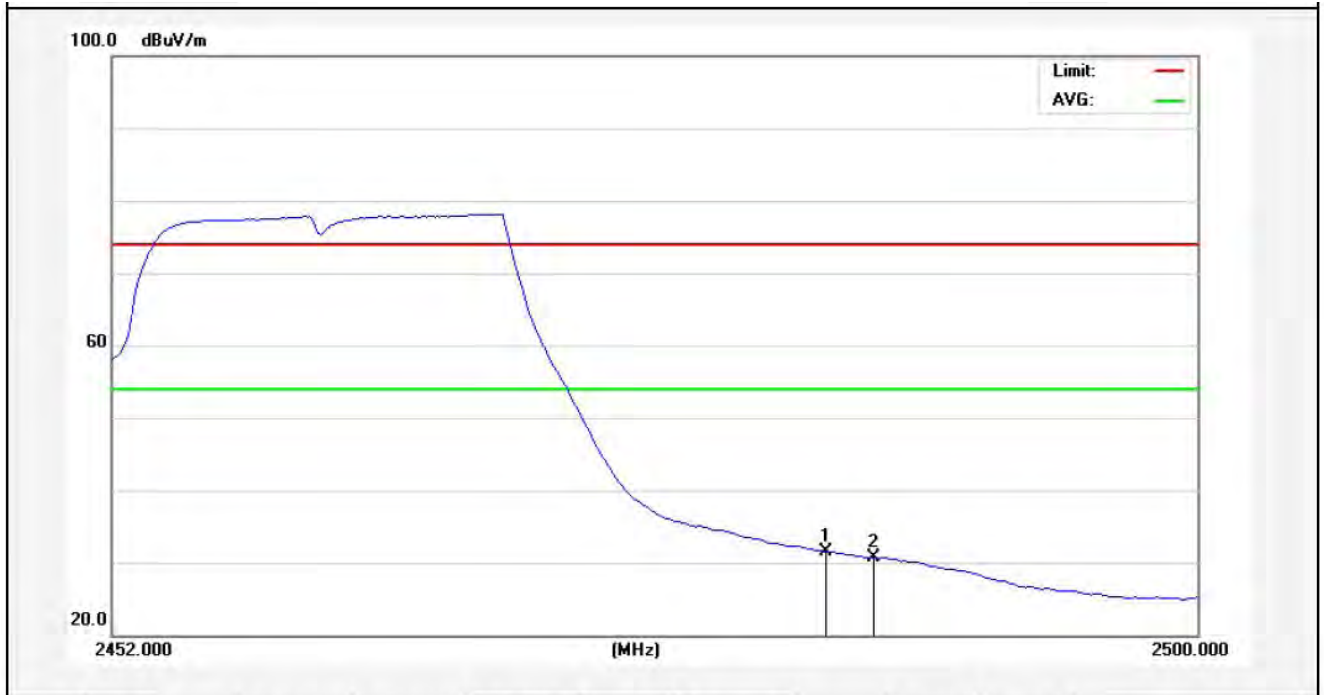
Test Mode: 802.11g
2462MHz
Vertical-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	41.84	-2.31	39.53	74.00	-34.47	peak			
2	2486.560	42.21	-2.30	39.91	74.00	-34.09	peak			

Anbotek

Vertical-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	33.89	-2.31	31.58	54.00	-22.42	AVG			
2	2485.720	32.99	-2.30	30.69	54.00	-23.31	AVG			

Anbotek

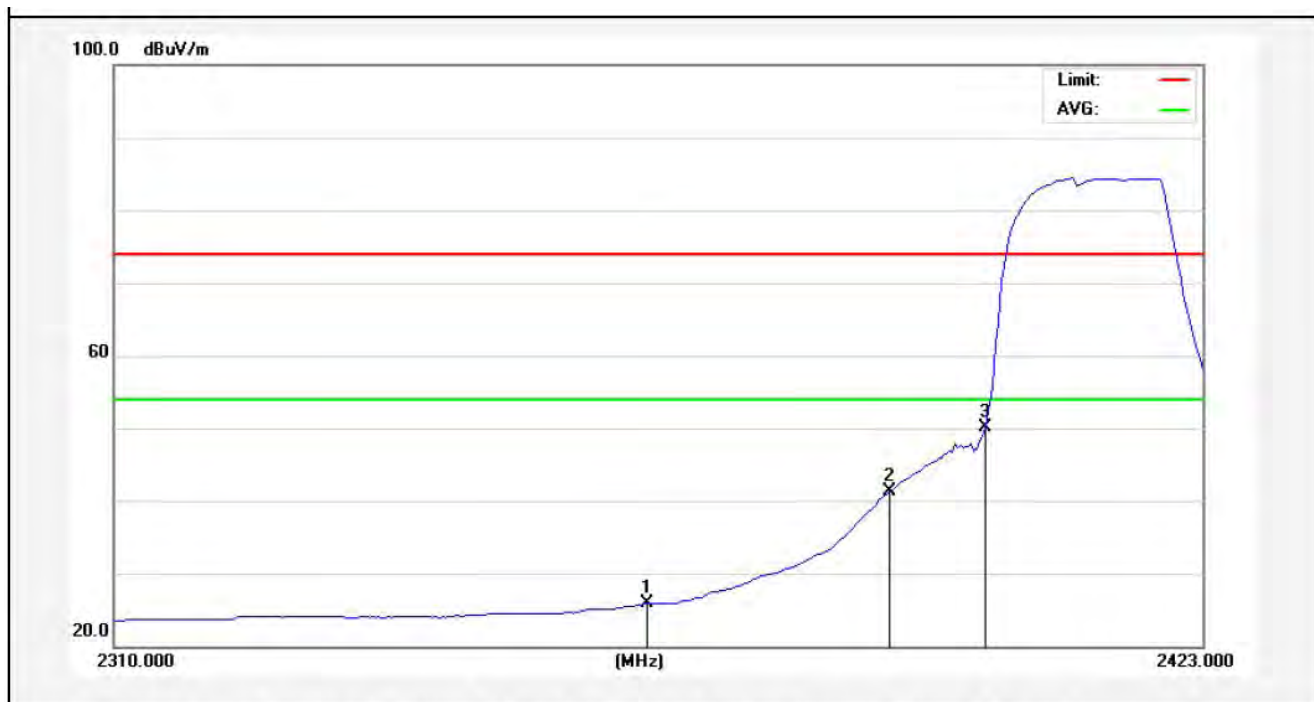
Test Mode: 802.11n (HT20)
2412MHz
Horizontal-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2374.693	40.72	-2.55	38.17	74.00	-35.83	peak			
2	2390.000	53.15	-2.51	50.64	74.00	-23.36	peak			
3	2400.000	64.96	-2.49	62.47	74.00	-11.53	peak			

AMB

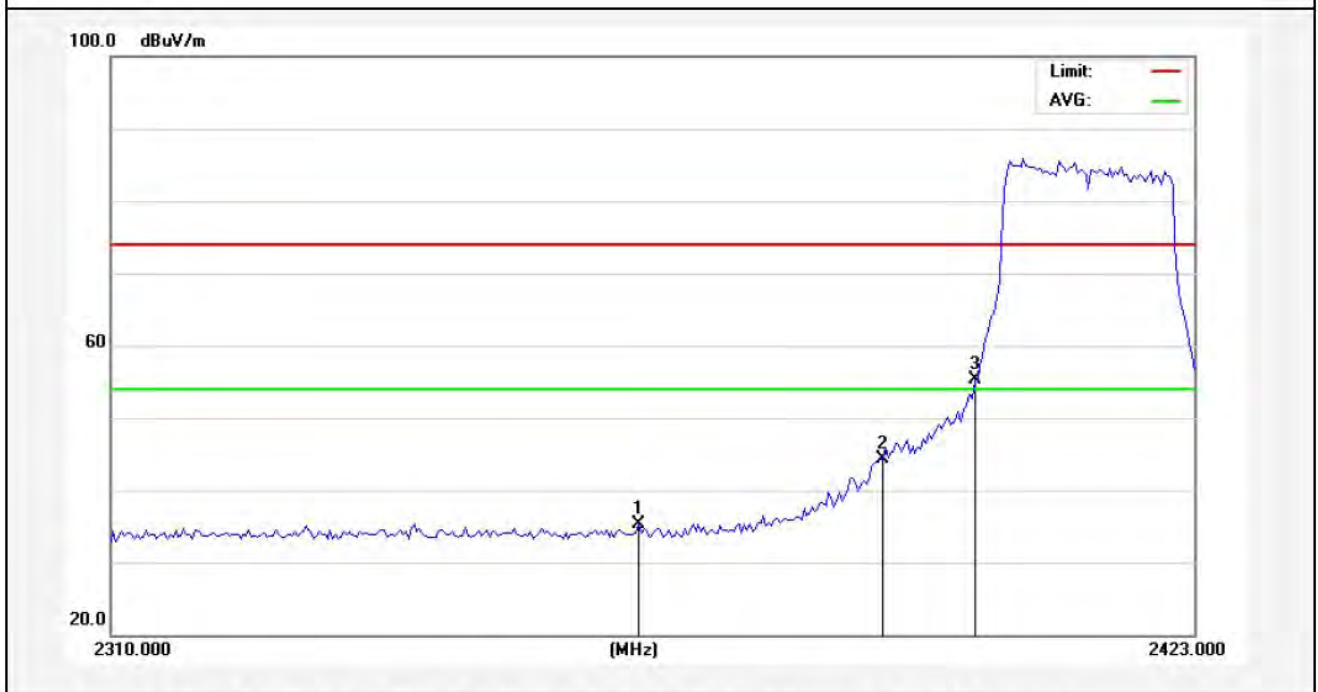
Horizontal-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2364.805	28.44	-2.57	25.87	54.00	-28.13	AVG			
2	2390.000	43.75	-2.51	41.24	54.00	-12.76	AVG			
3	2400.000	52.68	-2.49	50.19	54.00	-3.81	AVG			

Anbotek

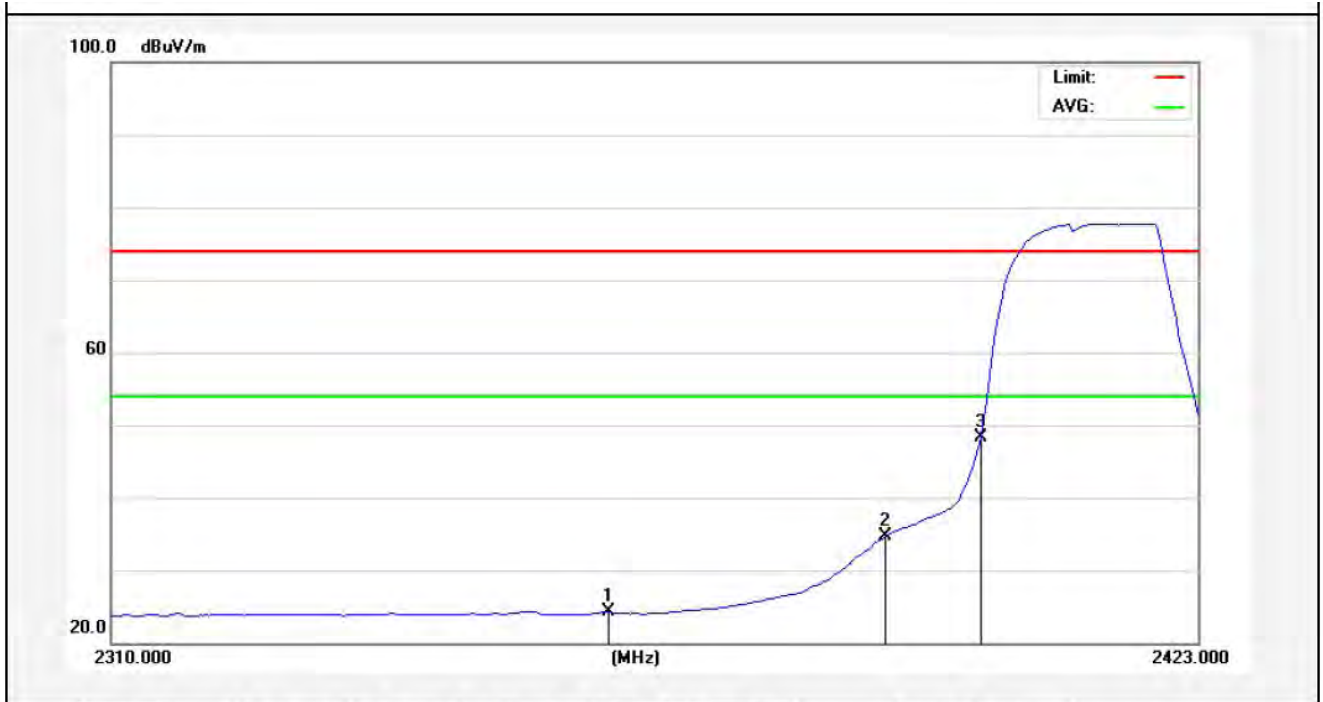
Test Mode: 802.11n (HT20)
2412MHz
Vertical-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2364.523	37.84	-2.57	35.27	74.00	-38.73	peak			
2	2390.000	46.83	-2.51	44.32	74.00	-29.68	peak			
3	2400.000	57.73	-2.49	55.24	74.00	-18.76	peak			

AMB

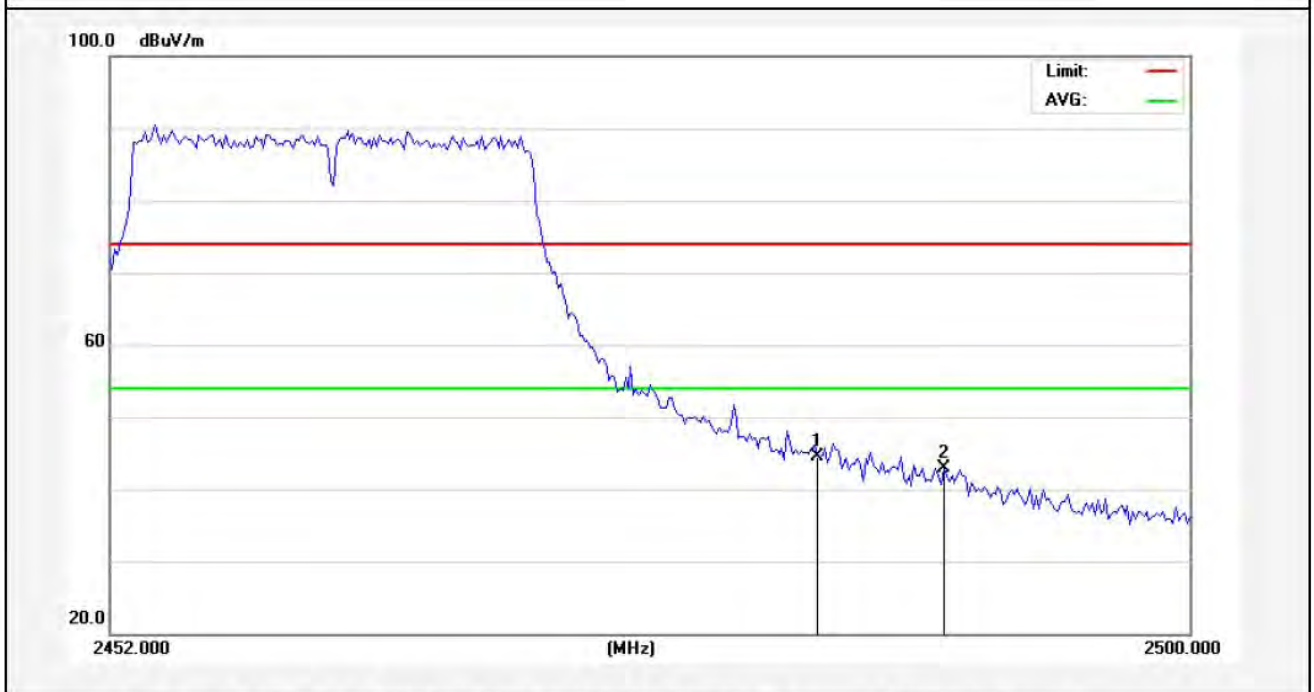
Vertical-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2360.850	26.80	-2.58	24.22	54.00	-29.78	AVG			
2	2390.000	37.15	-2.51	34.64	54.00	-19.36	AVG			
3	2400.000	50.88	-2.49	48.39	54.00	-5.61	AVG			

Anbotek

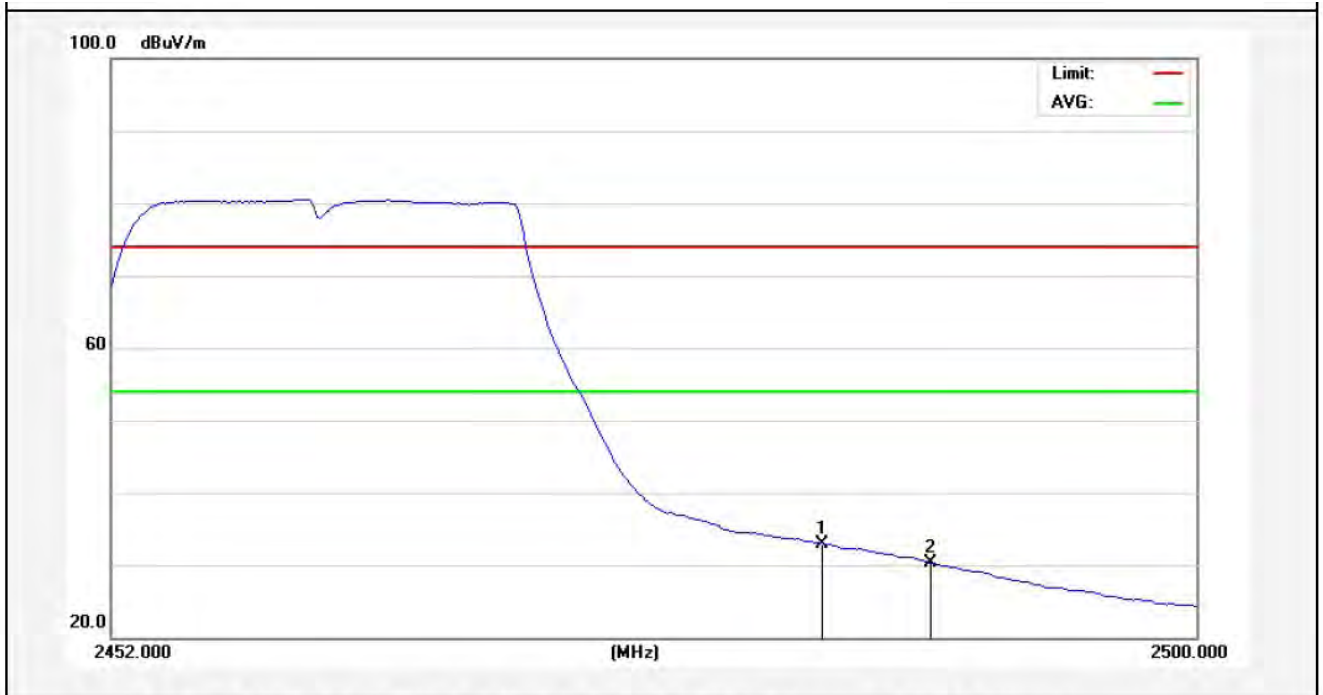
Test Mode: 802.11n (HT20)
2462MHz
Horizontal-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	46.87	-2.31	44.56	74.00	-29.44	peak			
2	2489.080	45.25	-2.29	42.96	74.00	-31.04	peak			

Anbotek

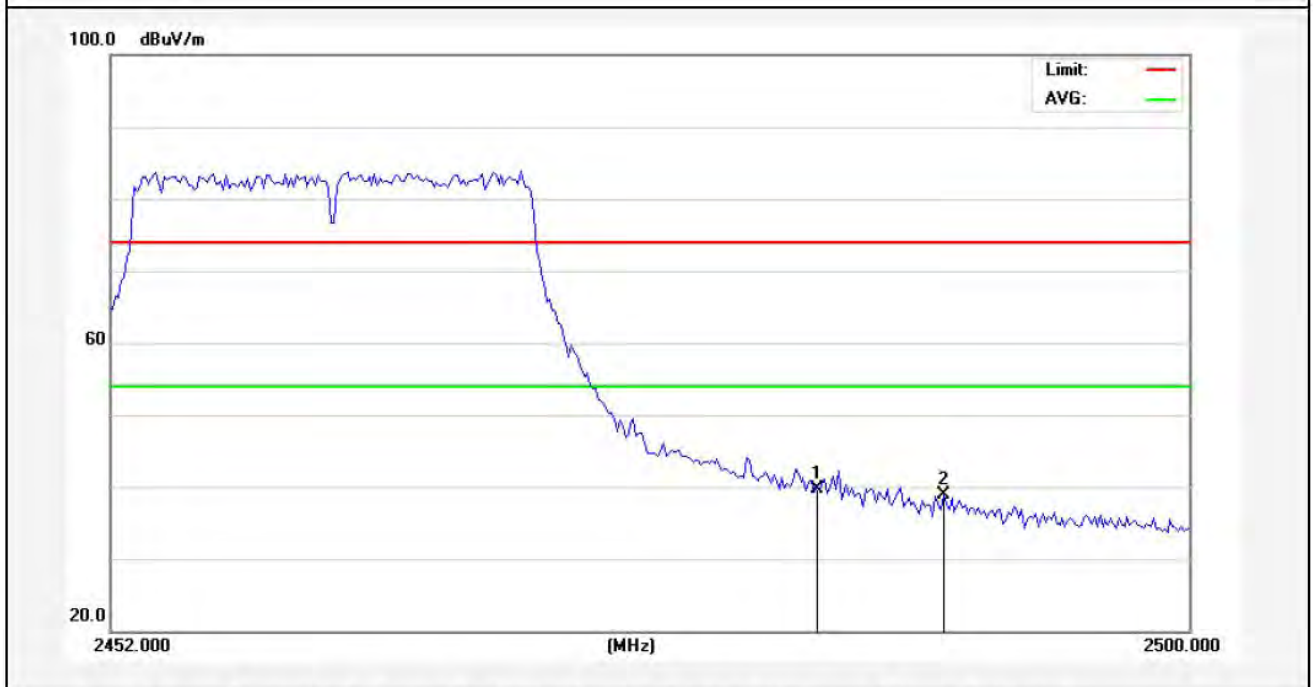
Horizontal-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	35.28	-2.31	32.97	54.00	-21.03	AVG			
2	2488.240	32.62	-2.30	30.32	54.00	-23.68	AVG			

Anbotek

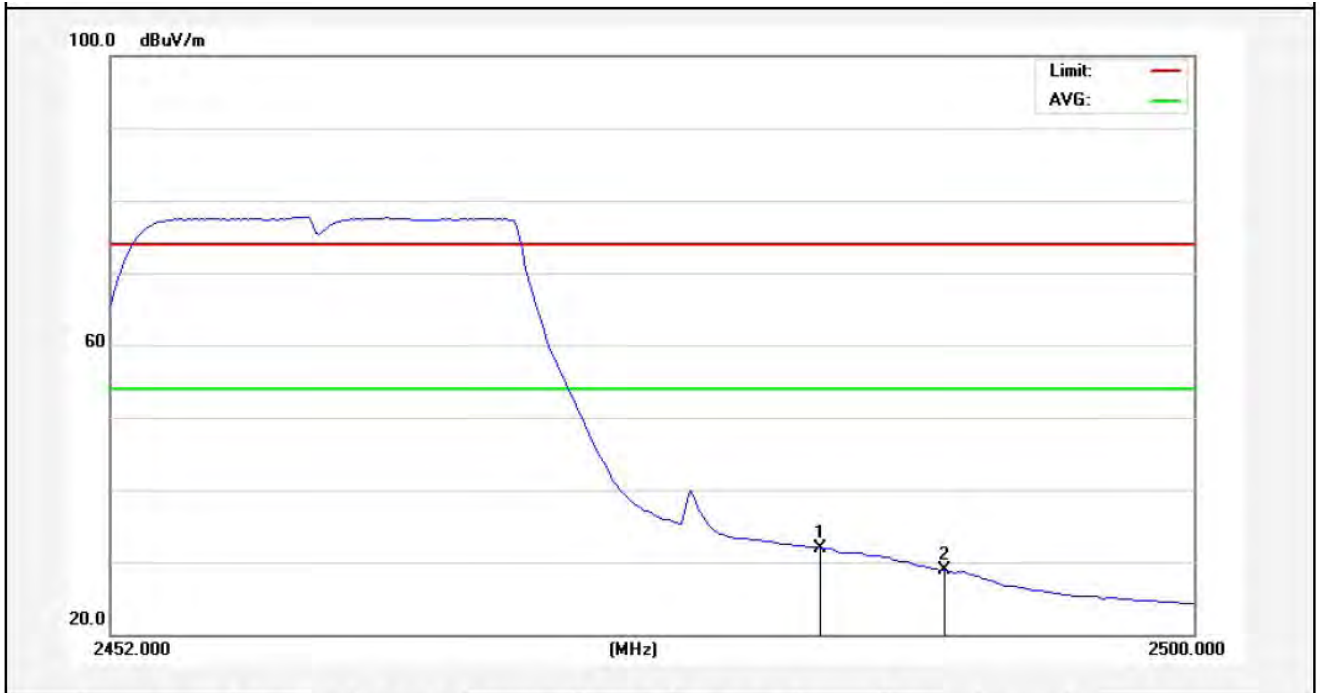
Test Mode: 802.11n (HT20)
2462MHz
Vertical-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	41.94	-2.31	39.63	74.00	-34.37	peak			
2	2489.080	41.29	-2.29	39.00	74.00	-35.00	peak			

Anbotek

Vertical-AV:



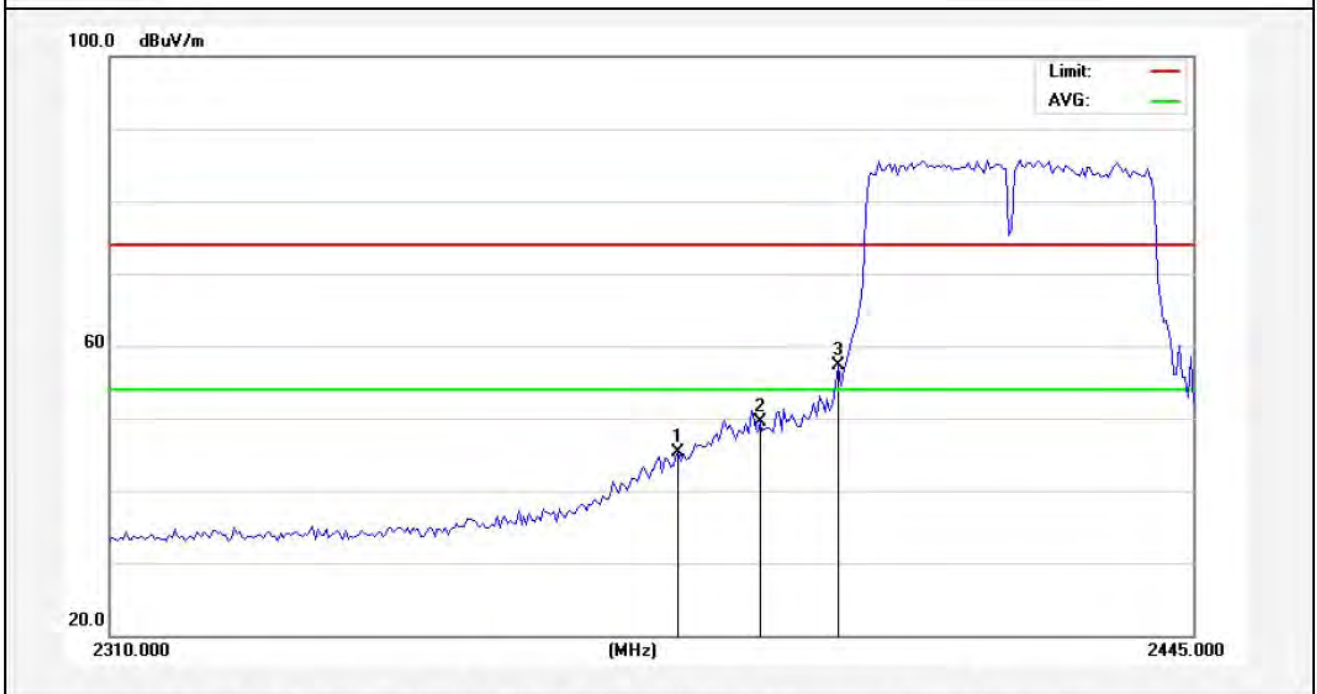
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	34.29	-2.31	31.98	54.00	-22.02	AVG			
2	2488.960	31.17	-2.29	28.88	54.00	-25.12	AVG			

Anbotek

Test Mode: 802.11n (HT40)

2422MHz

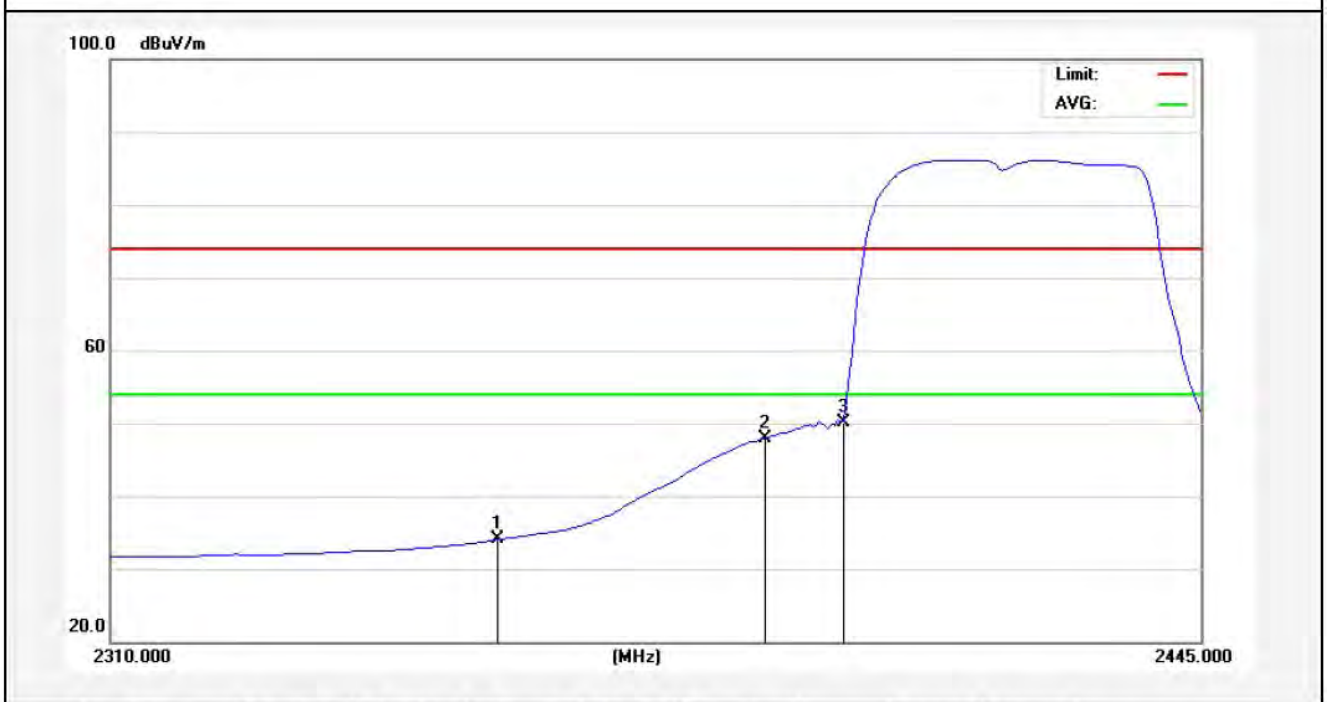
Horizontal-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2380.200	47.87	-2.54	45.33	74.00	-28.67	peak			
2	2390.000	52.06	-2.51	49.55	74.00	-24.45	peak			
3	2400.000	59.83	-2.49	57.34	74.00	-16.66	peak			

AMB

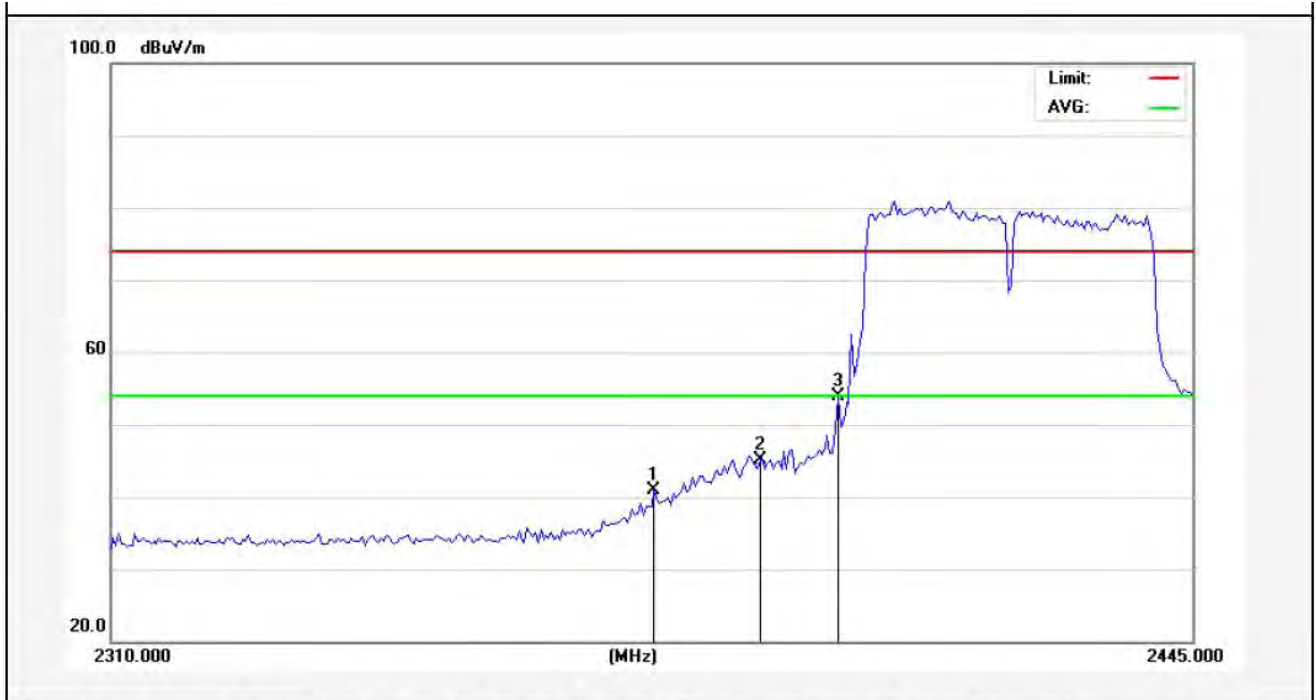
Horizontal-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2357.250	36.63	-2.59	34.04	54.00	-19.96	AVG			
2	2390.000	50.44	-2.51	47.93	54.00	-6.07	AVG			
3	2400.000	52.69	-2.49	50.20	54.00	-3.80	AVG			

Anbotek

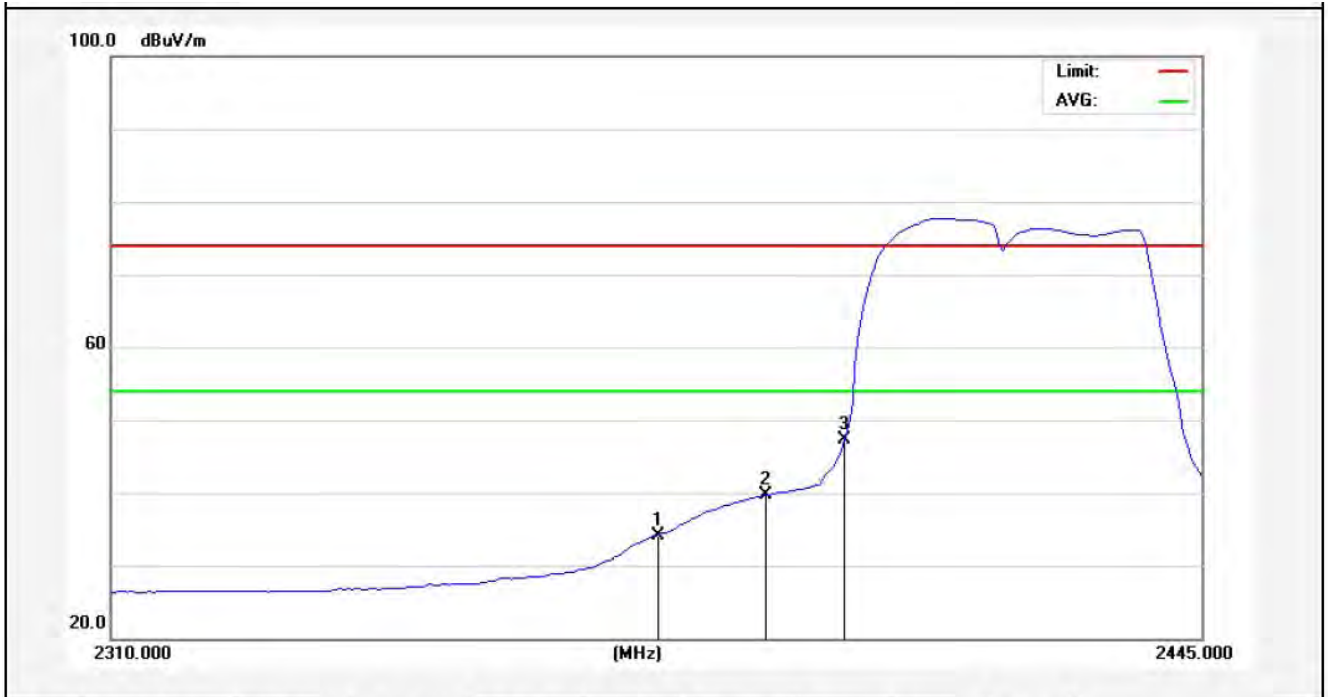
Test Mode: 802.11n (HT40)
2422MHz
Vertical-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2377.162	43.37	-2.54	40.83	74.00	-33.17	peak			
2	2390.000	47.67	-2.51	45.16	74.00	-28.84	peak			
3	2400.000	56.32	-2.49	53.83	74.00	-20.17	peak			

AMB

Vertical-AV:



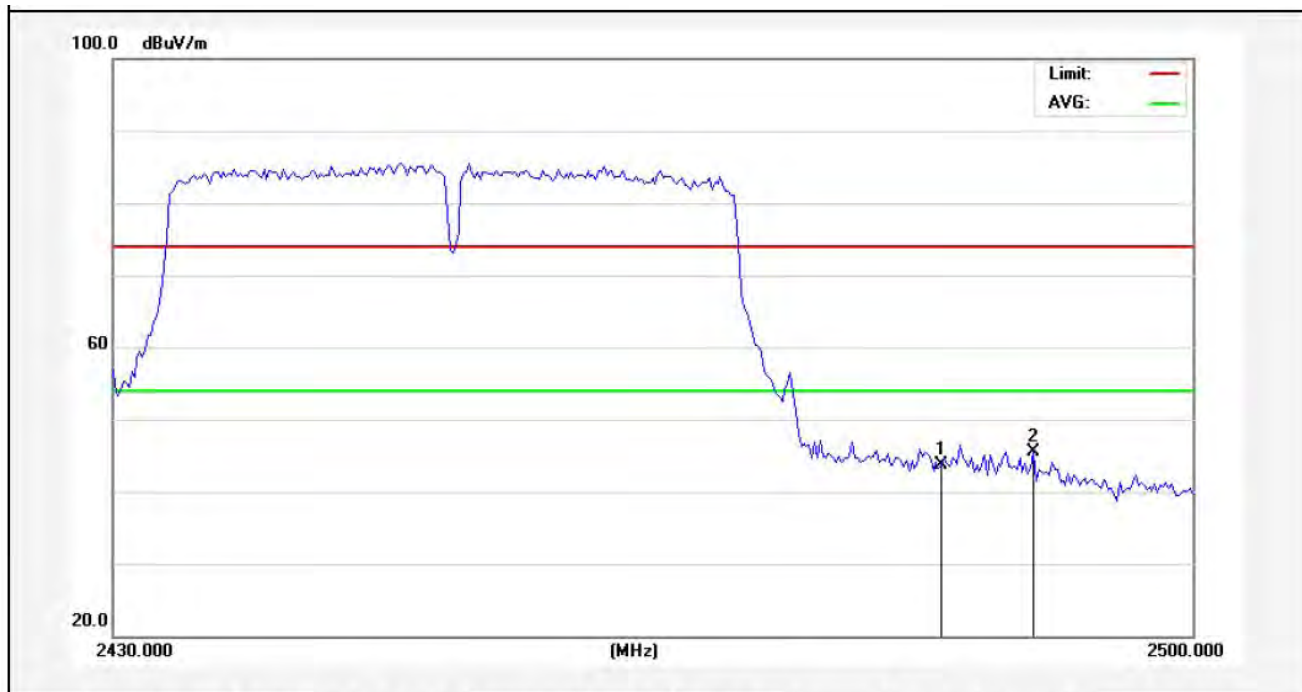
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2376.825	36.67	-2.54	34.13	54.00	-19.87	AVG			
2	2390.000	42.13	-2.51	39.62	54.00	-14.38	AVG			
3	2400.000	49.72	-2.49	47.23	54.00	-6.77	AVG			

Anbotek

Test Mode: 802.11n (HT40)

2452MHz

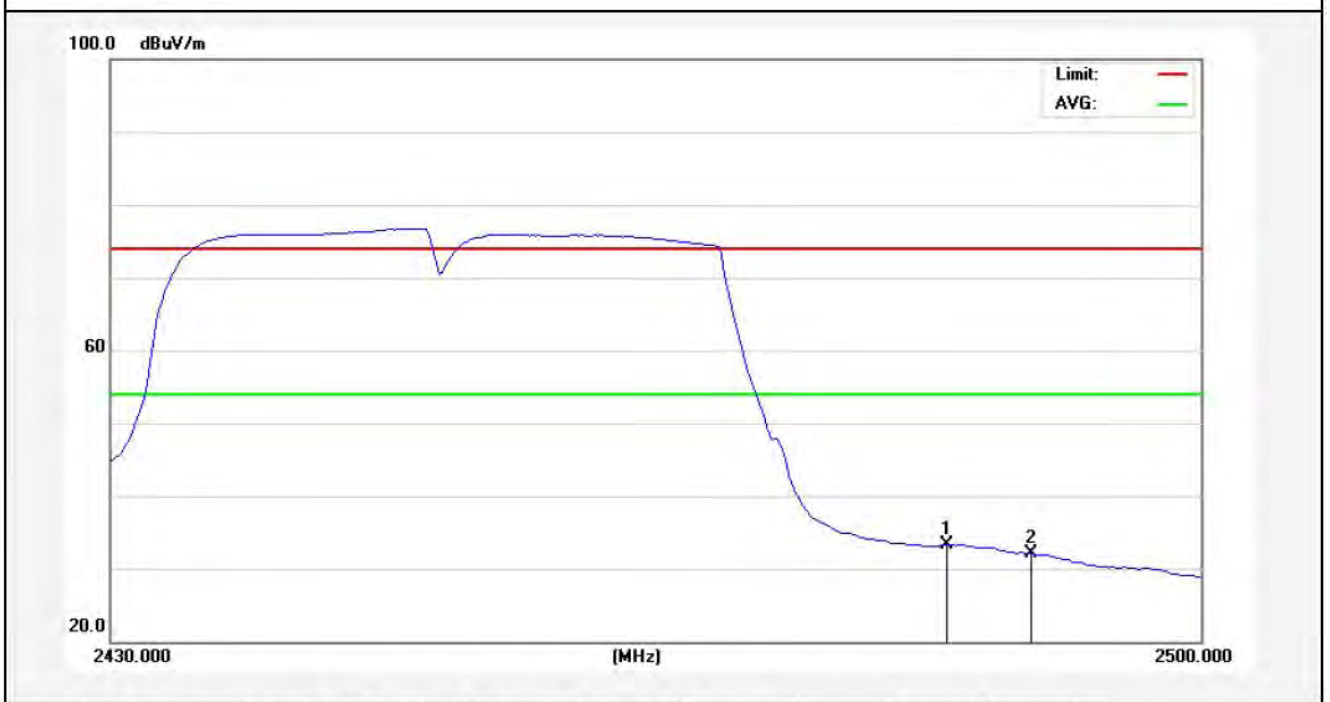
Horizontal-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	46.07	-2.31	43.76	74.00	-30.24	peak			
2	2489.675	47.73	-2.29	45.44	74.00	-28.56	peak			

Anbotek

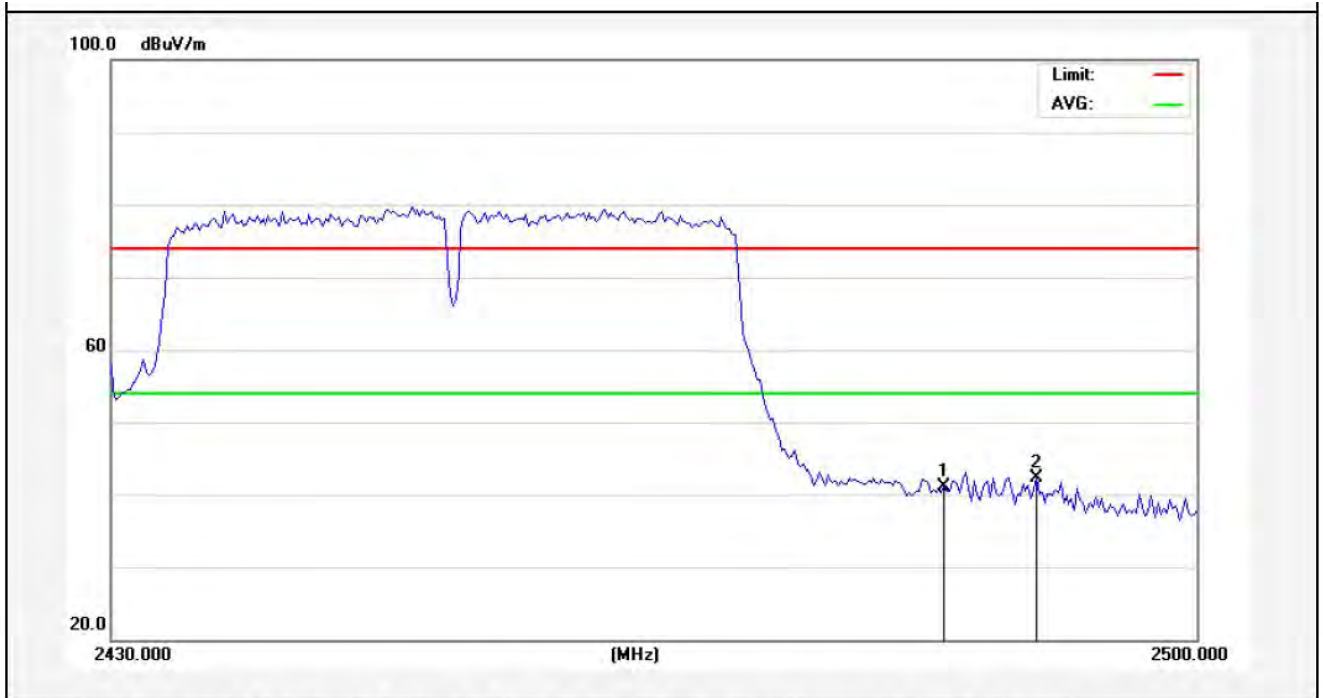
Horizontal-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	35.59	-2.31	33.28	54.00	-20.72	AVG			
2	2489.150	34.36	-2.29	32.07	54.00	-21.93	AVG			

Anbotek

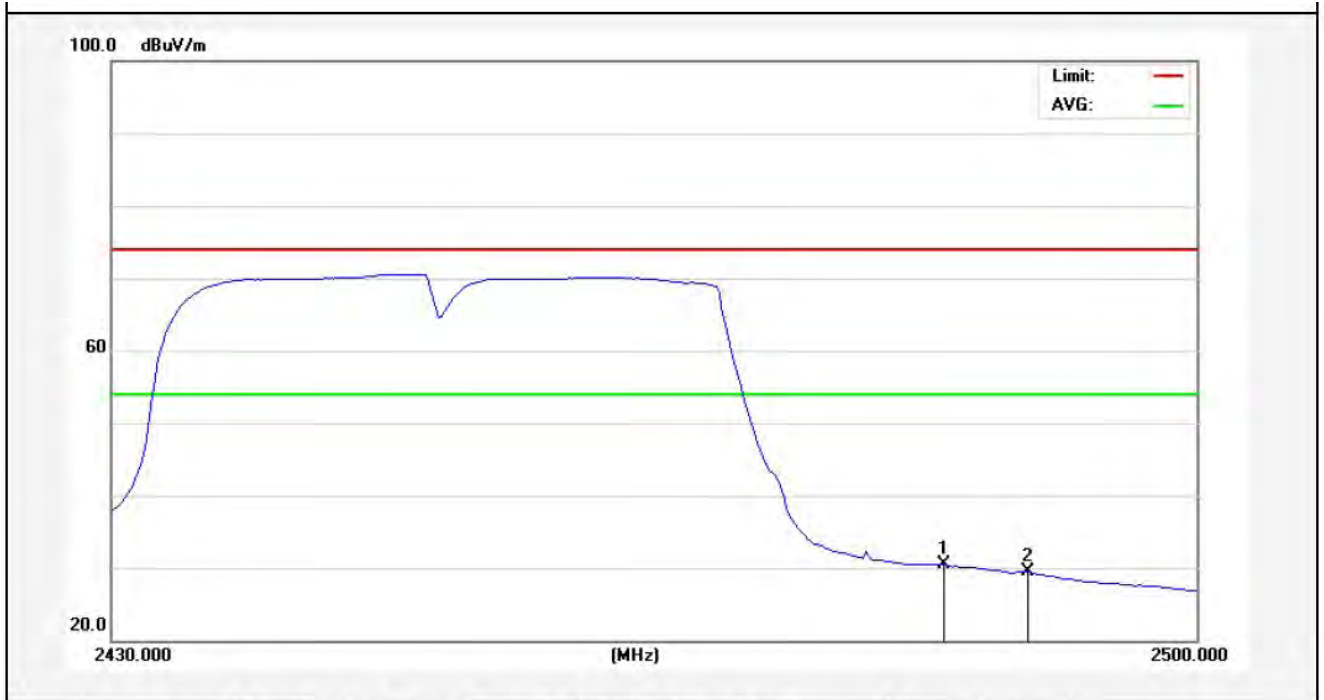
Test Mode: 802.11n (HT40)
2452MHz
Vertical-PEAK:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	43.44	-2.31	41.13	74.00	-32.87	peak			
2	2489.675	44.63	-2.29	42.34	74.00	-31.66	peak			

Anbotek

Vertical-AV:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	32.78	-2.31	30.47	54.00	-23.53	AVG			
2	2489.150	31.75	-2.29	29.46	54.00	-24.54	AVG			

Anbotek

4.5. Peak Power Spectral Density

a. Limit

1. For direct sequence systems, the peak 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.
2. The direct sequence operating of the hybrid system, with the frequency hopping operation turned off, shall comply with the power density requirements of paragraph (d) of this section.

b. Test Procedure

1. Place the EUT on the table and set it in transmitting mode. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set the spectrum analyzer as RBW = 3kHz, VBW = 10kHz, Span = 1.5 times OBW BW, Sweep=500s
3. Record the max. reading.
4. Repeat the above procedure until the measurements for all frequencies are completed.

c. Test Equipment

Same as the equipment listed in 4.2.

d. Test Setup

See 4.1

e. Test Results

Pass

f. Test Data

Please refer to the following data.

g. Test Plot See the following pages

ANT A

Test mode: IEEE 802.11b

Channel	Frequency (MHz)	PPSD (dBm/3KHz)	ΣPPSD (dBm/3KHz)	Limit (dBm)	Result
Low	2412	-30.37	-	8.00	Pass
Mid	2437	-30.48	-		Pass
High	2462	-30.00	-		Pass

Test mode: IEEE 802.11g

Channel	Frequency (MHz)	PPSD (dBm)	ΣPPSD (dBm)	Limit (dBm)	Result
Low	2412	-31.93	-	8.00	Pass
Mid	2437	-30.66	-		Pass
High	2462	-32.03	-		Pass

Test mode: IEEE 802.11n (HT20)

Channel	Frequency (MHz)	PPSD (dBm/3KHz)	ΣPPSD (dBm/3KHz)	Limit (dBm)	Result
Low	2412	-31.01	-	8.00	Pass
Mid	2437	-29.48	-		Pass
High	2462	-31.84	-		Pass

Test mode: IEEE 802.11n (HT40)

Channel	Frequency (MHz)	PPSD (dBm/3KHz)	ΣPPSD (dBm/3KHz)	Limit (dBm)	Result
Low	2422	-34.73	-	8.00	Pass
Mid	2437	-34.97	-		Pass
High	2452	-34.38	-		Pass

ANT B

Test mode: IEEE 802.11b

Channel	Frequency (MHz)	PPSD (dBm/3KHz)	Σ PPSD (dBm/3KHz)	Limit (dBm)	Result
Low	2412	-34.54	-	8.00	Pass
Mid	2437	-35.14	-		Pass
High	2462	-34.97	-		Pass

Test mode: IEEE 802.11g

Channel	Frequency (MHz)	PPSD (dBm)	Σ PPSD (dBm)	Limit (dBm)	Result
Low	2412	-35.87	-	8.00	Pass
Mid	2437	-34.74	-		Pass
High	2462	-37.10	-		Pass

Test mode: IEEE 802.11n (HT20)

Channel	Frequency (MHz)	PPSD (dBm/3KHz)	Σ PPSD (dBm/3KHz)	Limit (dBm)	Result
Low	2412	-36.18	-	8.00	Pass
Mid	2437	-34.93	-		Pass
High	2462	-36.82	-		Pass

Test mode: IEEE 802.11n (HT40)

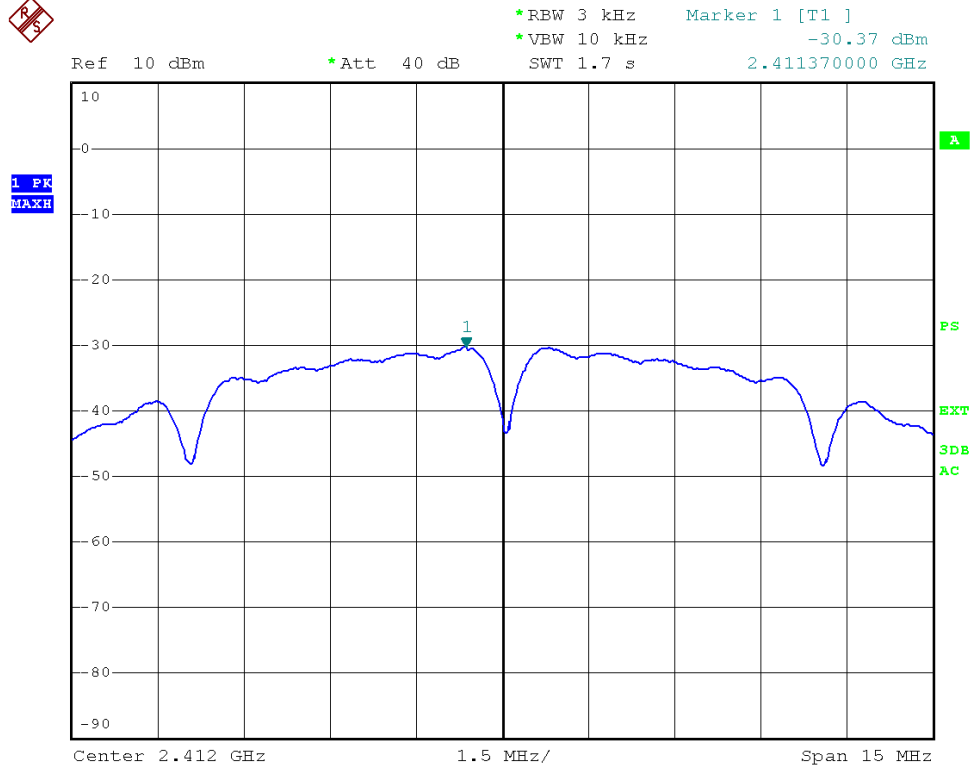
Channel	Frequency (MHz)	PPSD (dBm/3KHz)	Σ PPSD (dBm/3KHz)	Limit (dBm)	Result
Low	2422	-38.34	-	8.00	Pass
Mid	2437	-38.20	-		Pass
High	2452	-40.17	-		Pass

Channel	Channel Frequency (MHz)	ANT A PSD (dBm)	ANT B PSD (dBm)	Data Rate (Mbps)	MIMO PSD (dBm)	Limit (dBm)
802.11n (20M MIMO) mode						
Low	2412	-31.01	-36.18	MCS0	-29.86	8
Middle	2437	-29.48	-34.93	MCS0	-28.39	8
High	2462	-31.84	-36.82	MCS0	-30.64	8
802.11n (40M MIMO) mode						
Low	2422	-34.73	-38.34	MCS0	-33.16	8
Middle	2437	-34.97	-38.20	MCS0	-33.28	8
High	2452	-34.38	-40.17	MCS0	-33.36	8

Anbotek

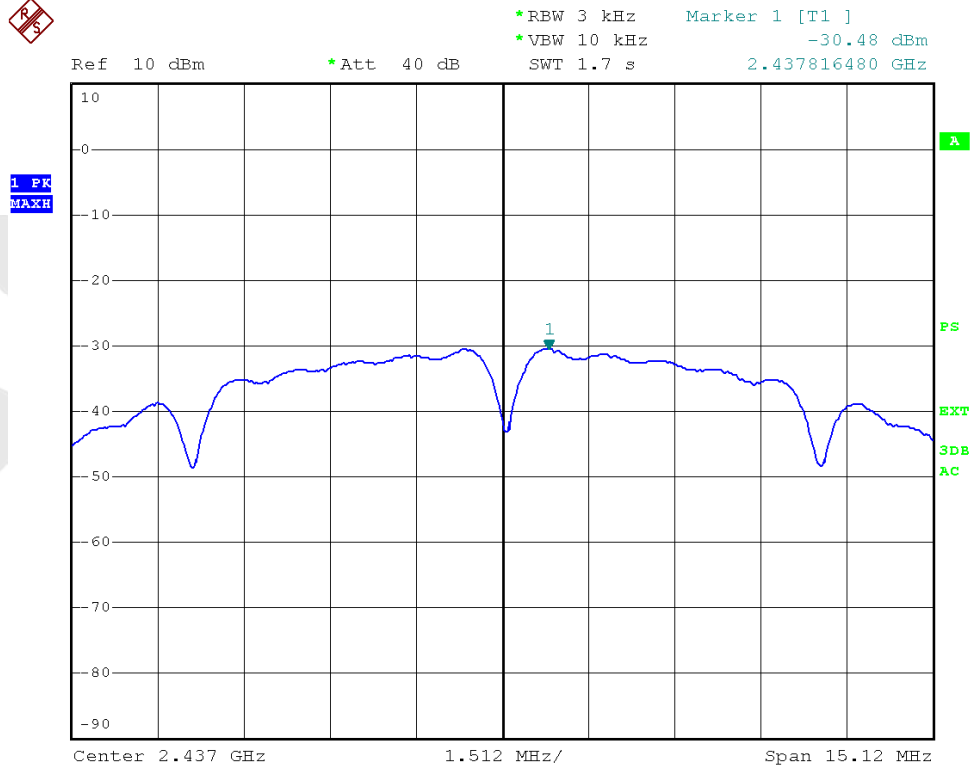
ANT A
802.11 b

CH--Low

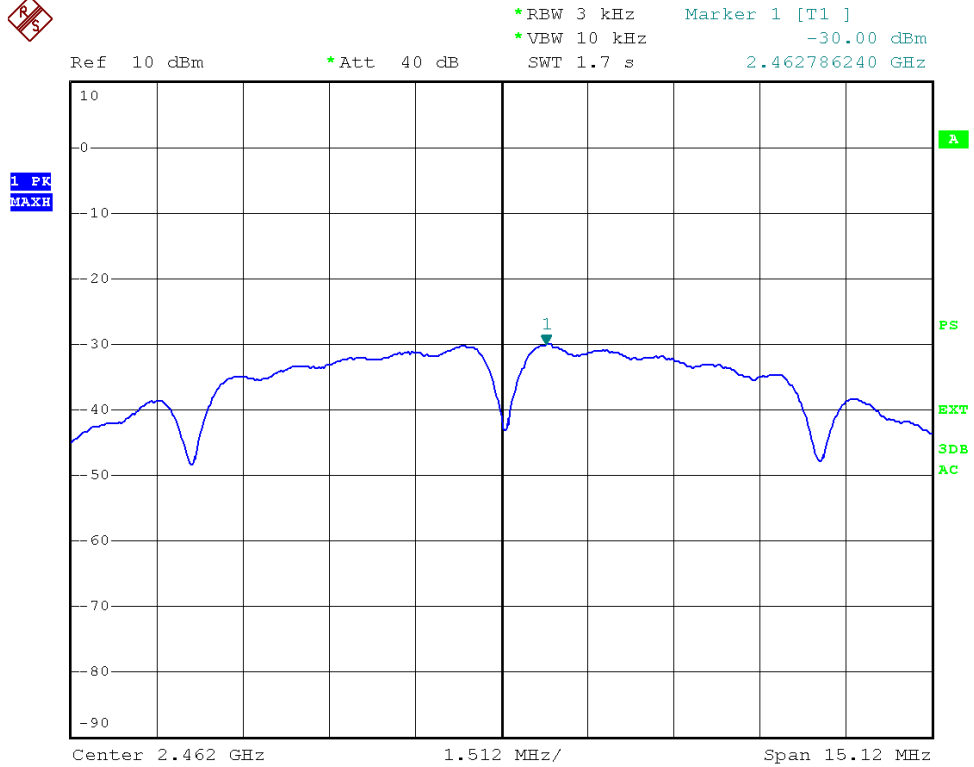


802.11 b

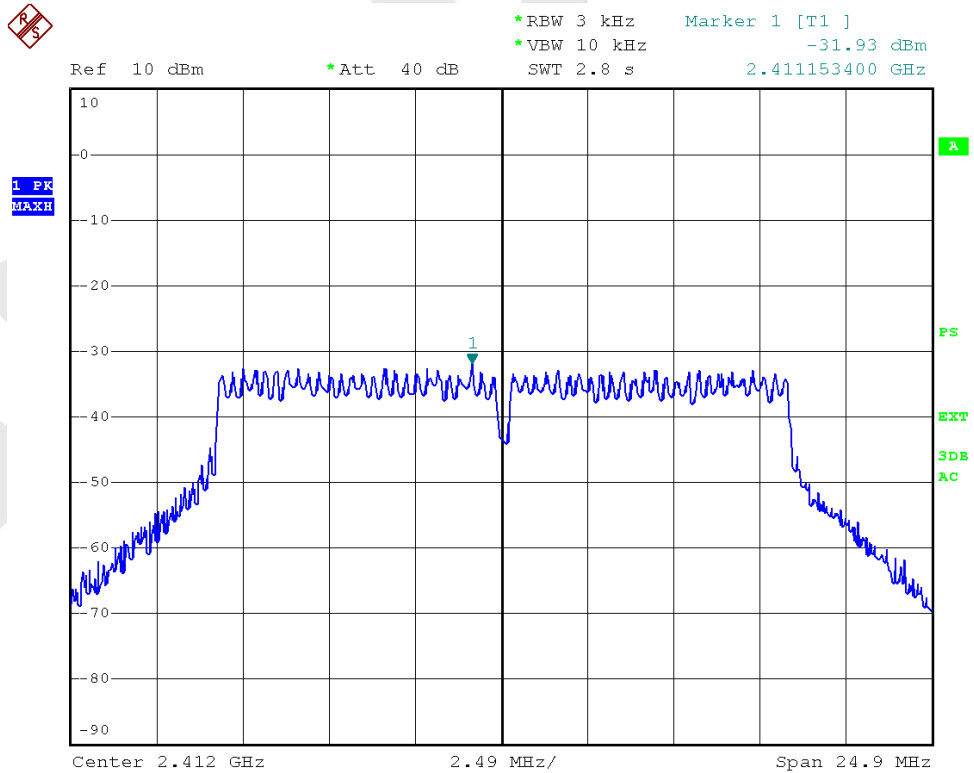
CH--Mid



802.11 b CH--High



802.11g CH--Low

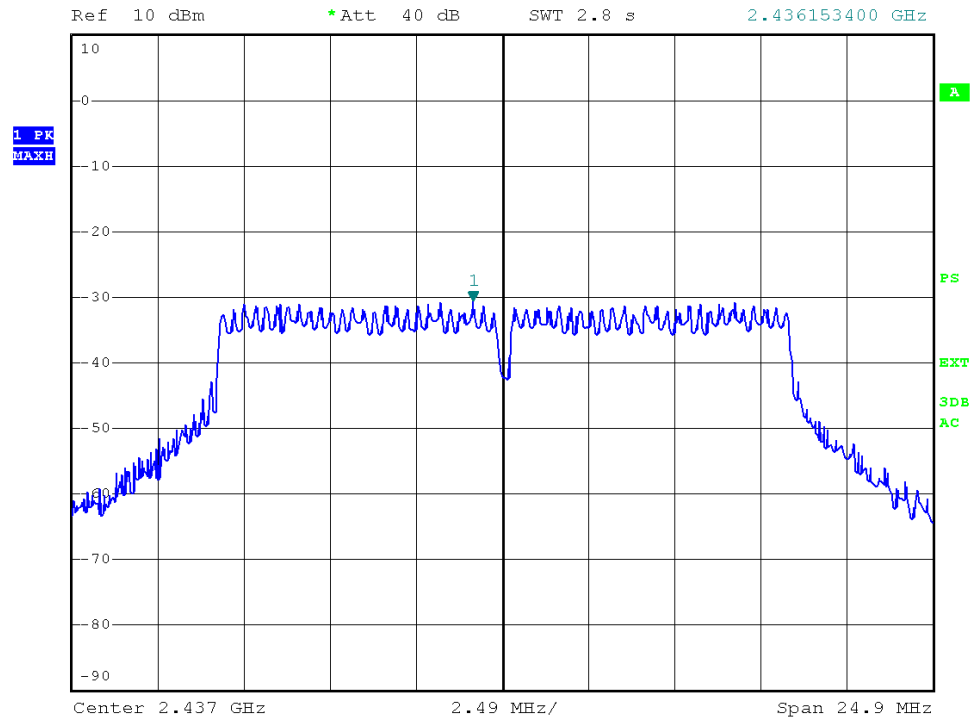


802.11g

CH--Mid



*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -30.66 dBm
SWT 2.8 s 2.436153400 GHz

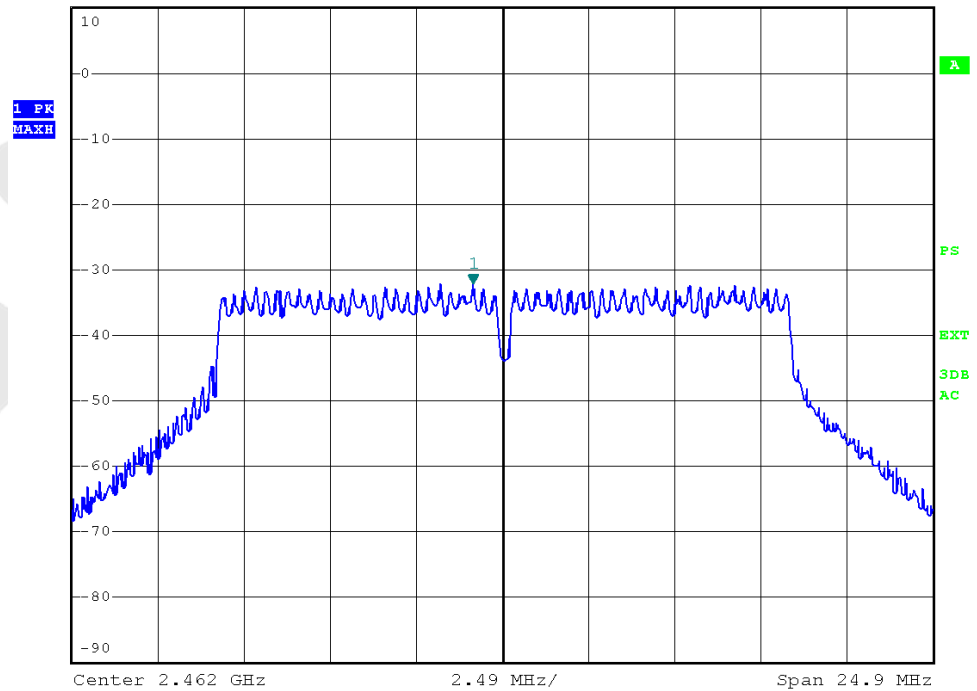


802.11g

CH--High



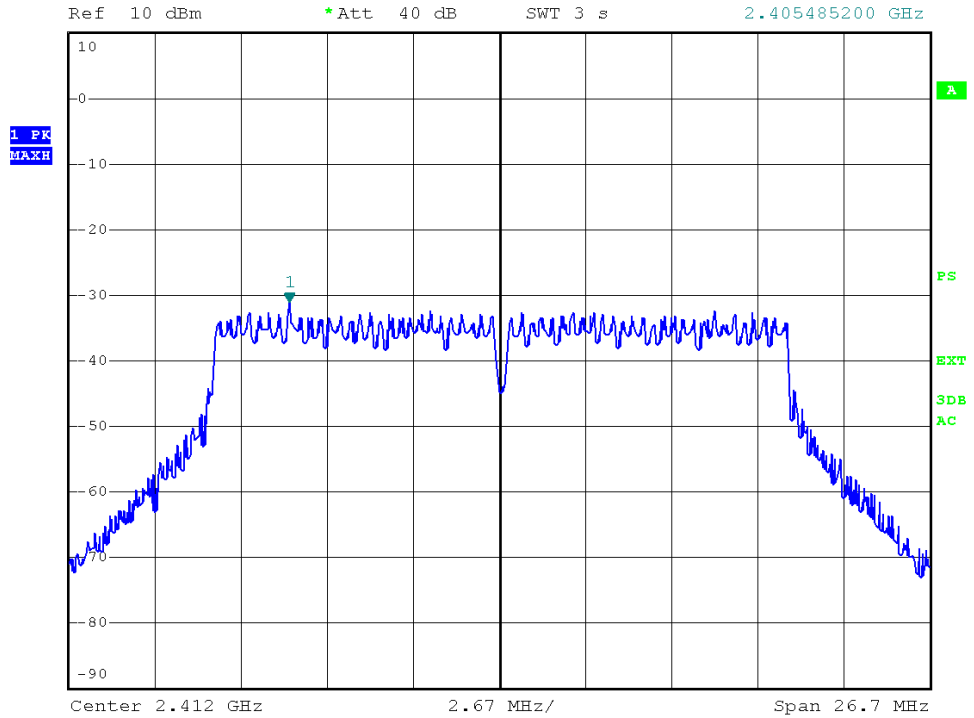
*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -32.03 dBm
SWT 2.8 s 2.461153400 GHz



802.11n (HT20) CH—Low



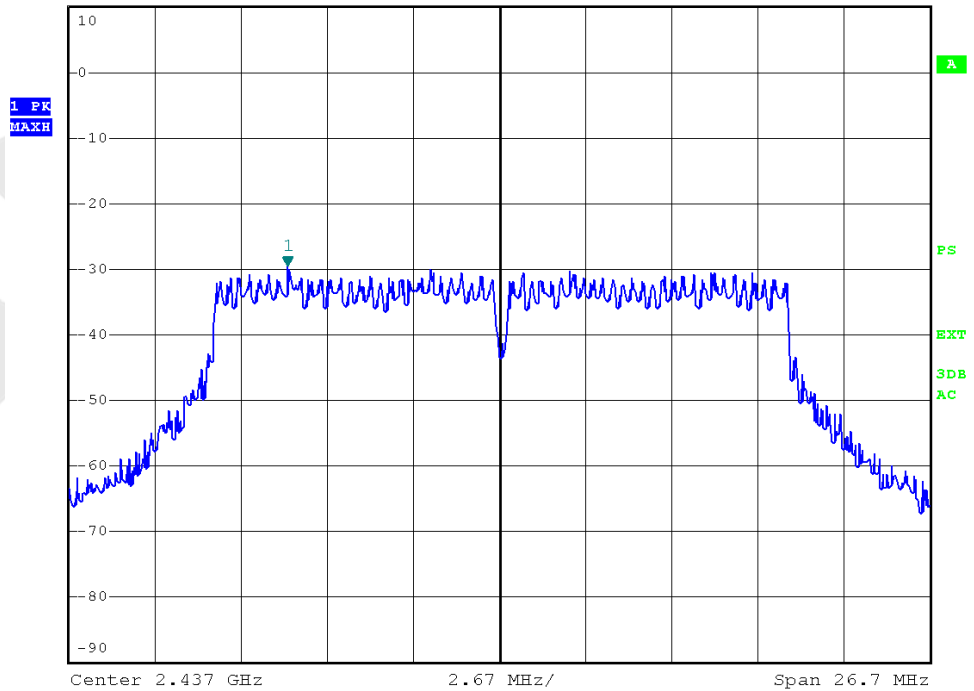
*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -31.01 dBm
SWT 3 s 2.405485200 GHz



802.11n (HT20) CH—Mid



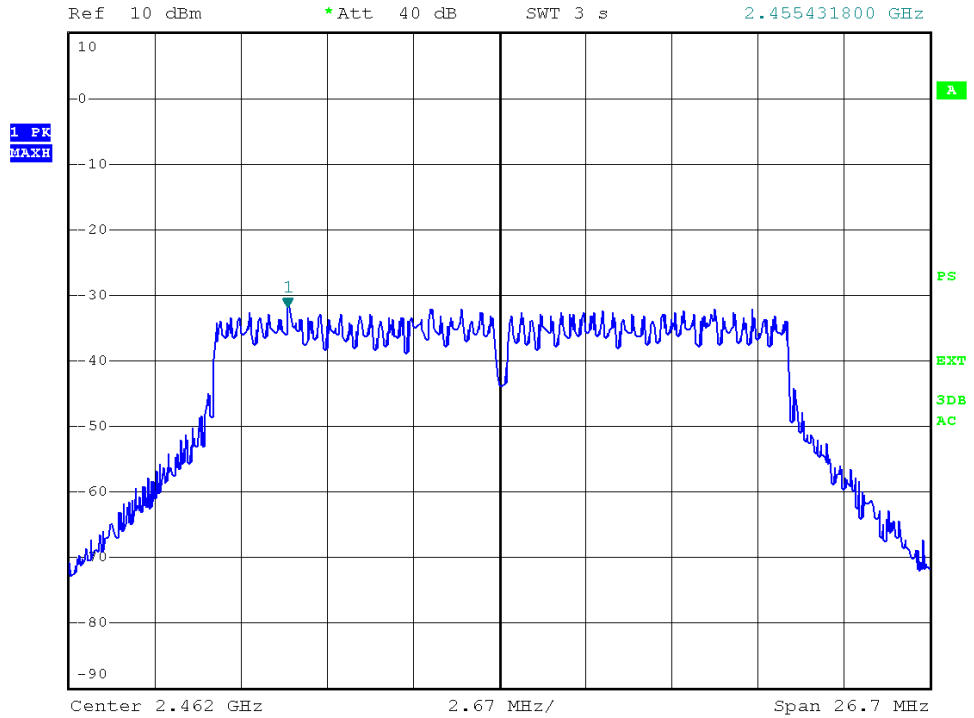
*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -29.48 dBm
SWT 3 s 2.430431800 GHz



802.11n (HT20) CH—High



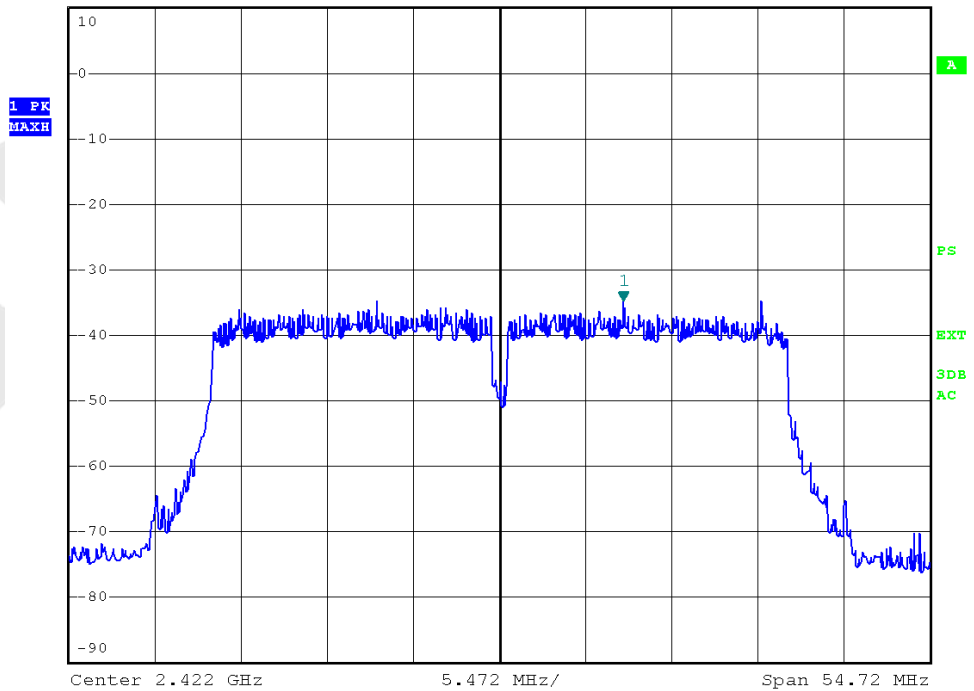
*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -31.84 dBm
SWT 3 s 2.455431800 GHz



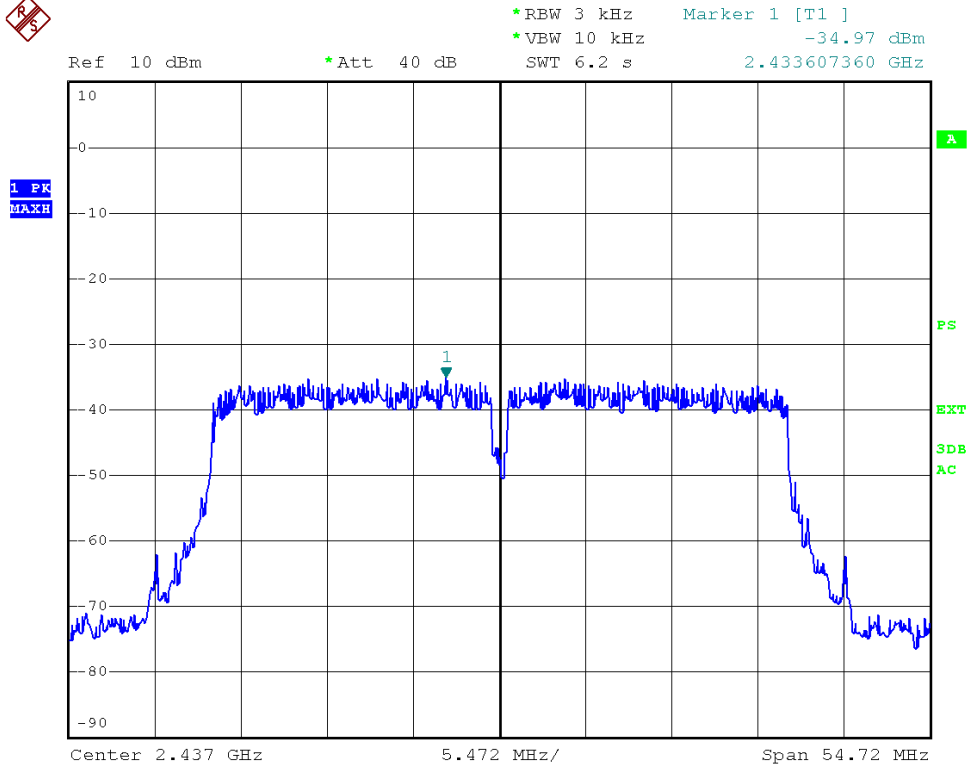
802.11n (HT40) CH—Low



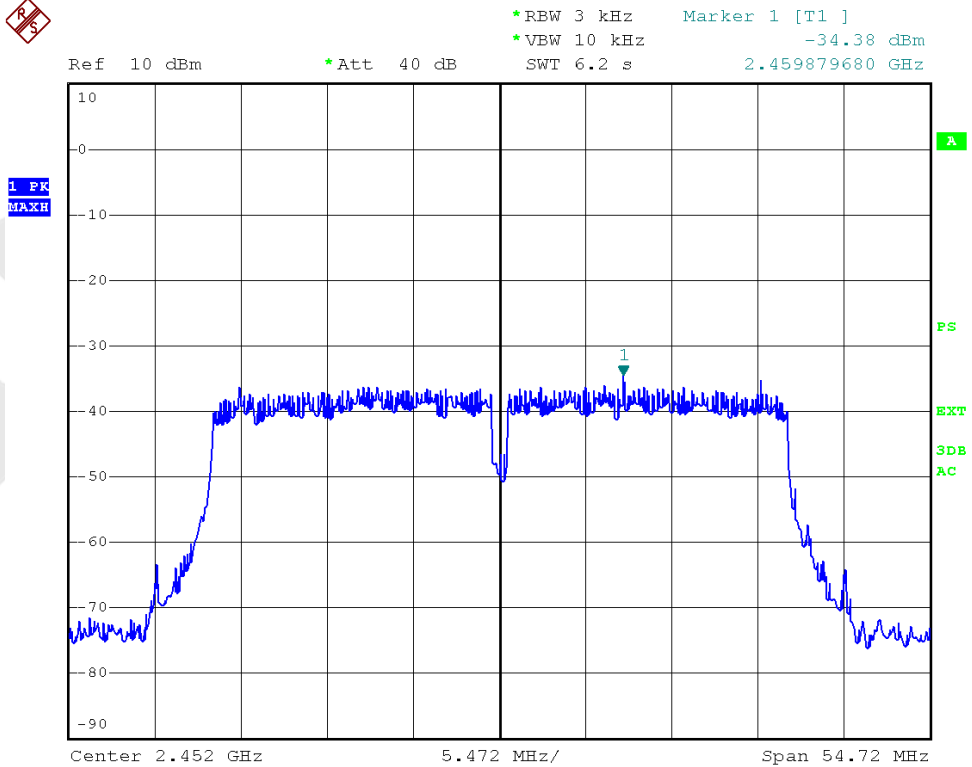
*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -34.73 dBm
SWT 6.2 s 2.429879680 GHz



802.11n (HT40) CH—Mid



802.11n (HT40) CH—High



ANT B
802.11 b

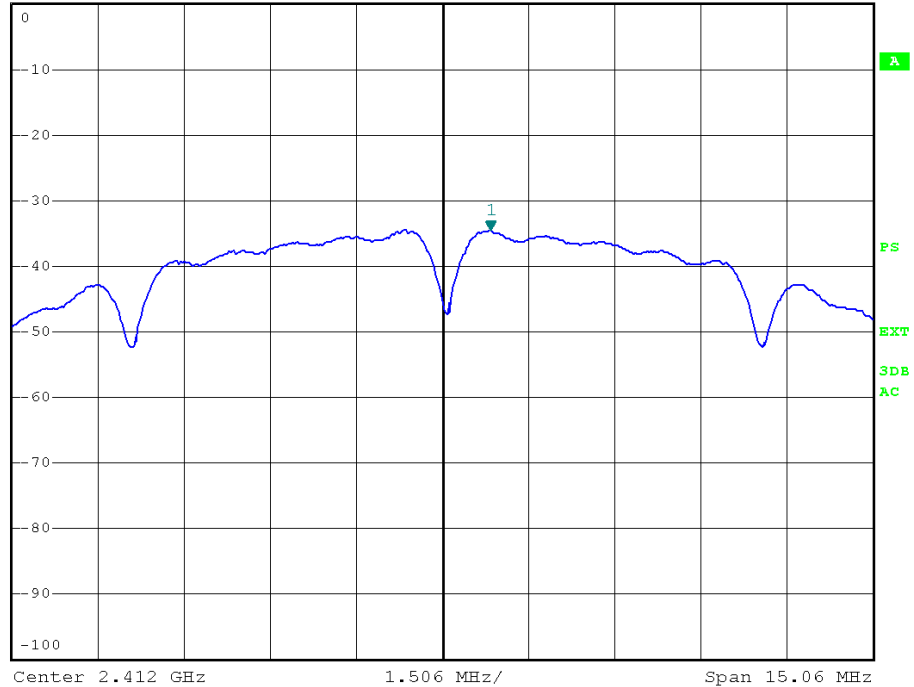
CH--Low



*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -34.54 dBm
SWT 1.7 s 2.412843360 GHz

Ref 0 dBm *Att 25 dB

1 PK
MAXH



802.11 b

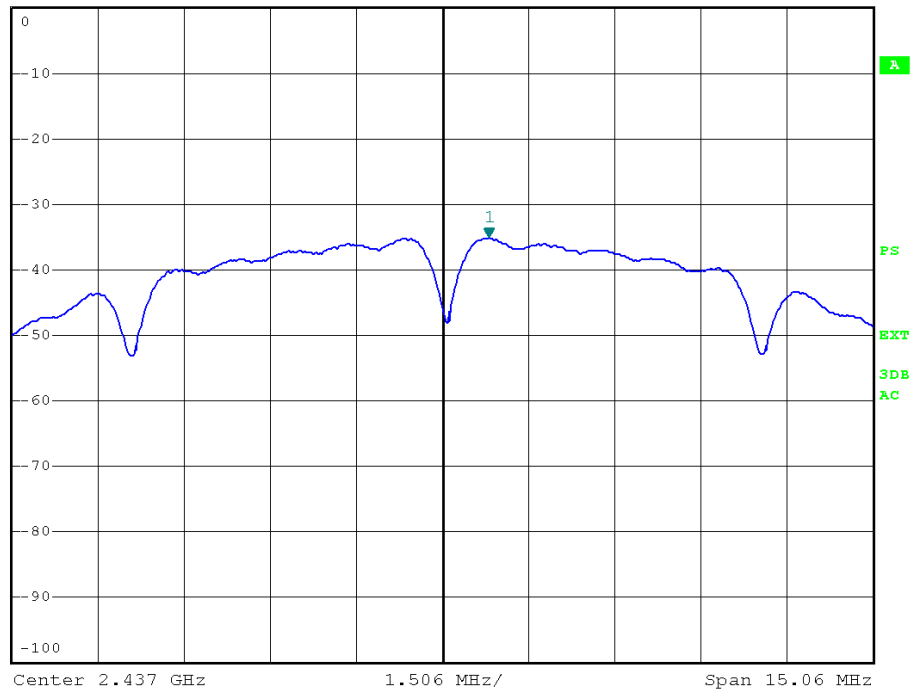
CH--Mid



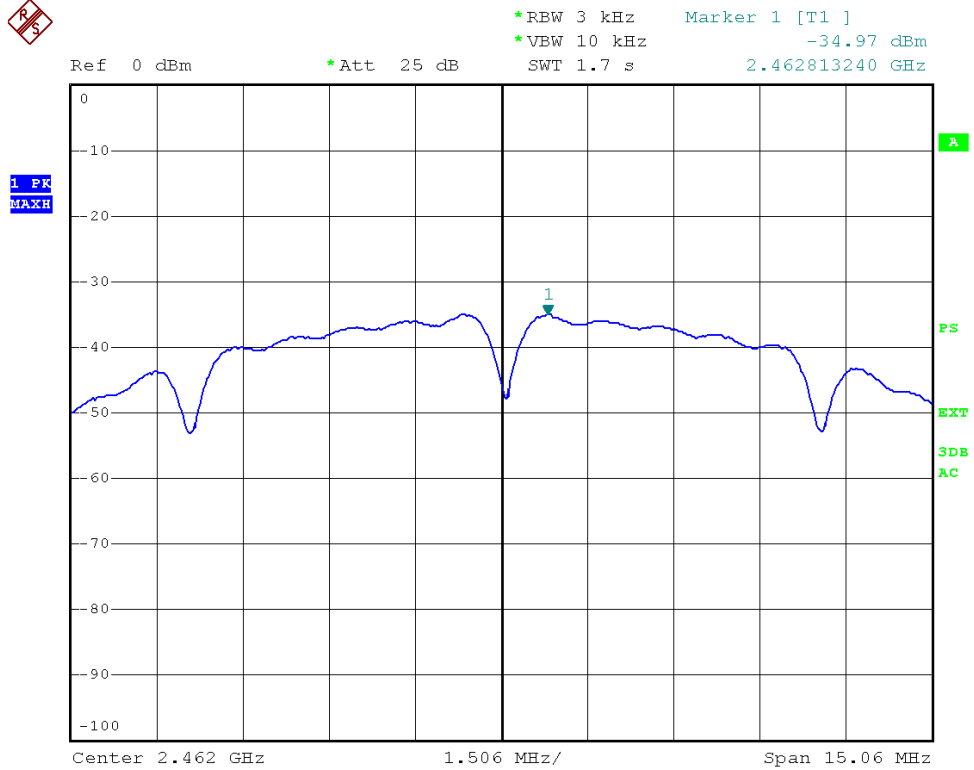
*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -35.14 dBm
SWT 1.7 s 2.437813240 GHz

Ref 0 dBm *Att 25 dB

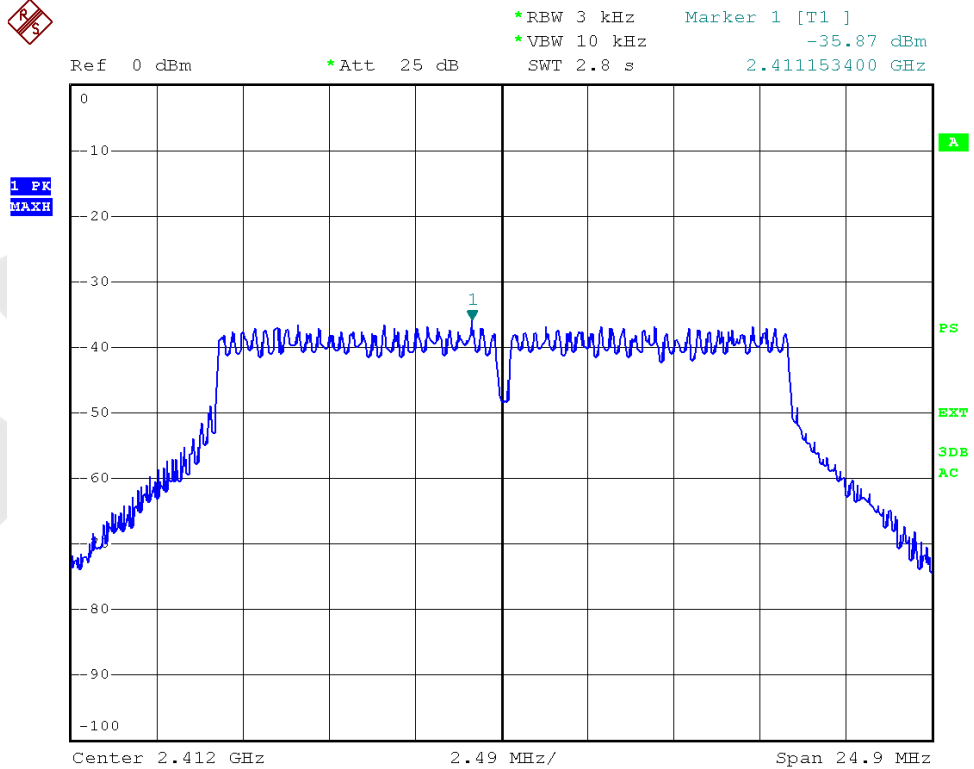
1 PK
MAXH



802.11 b CH--High



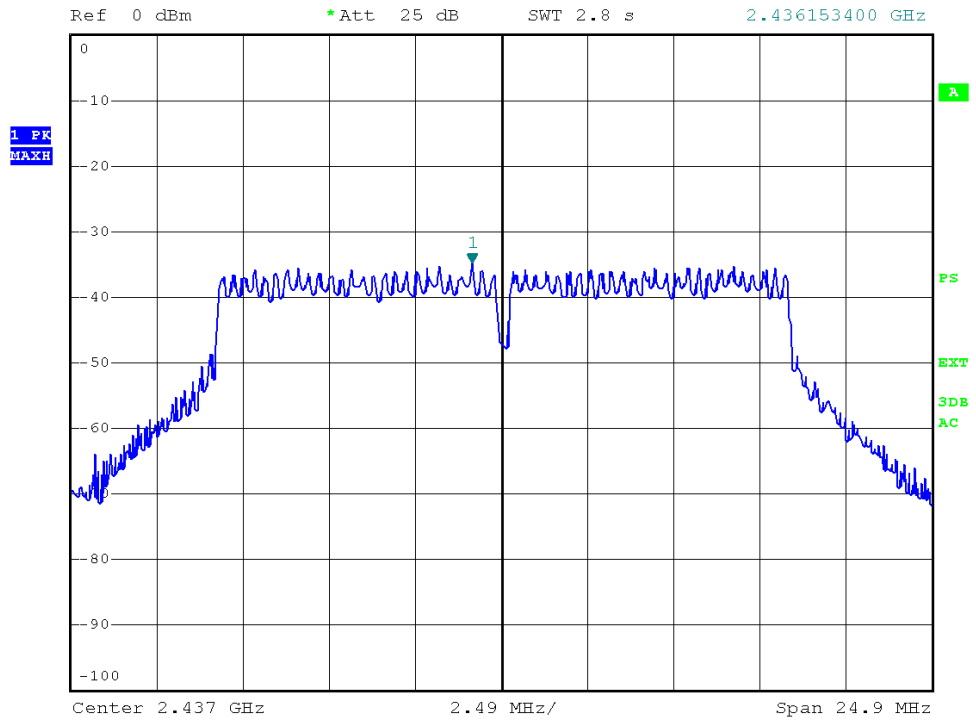
802.11g CH--Low



802.11g CH--Mid



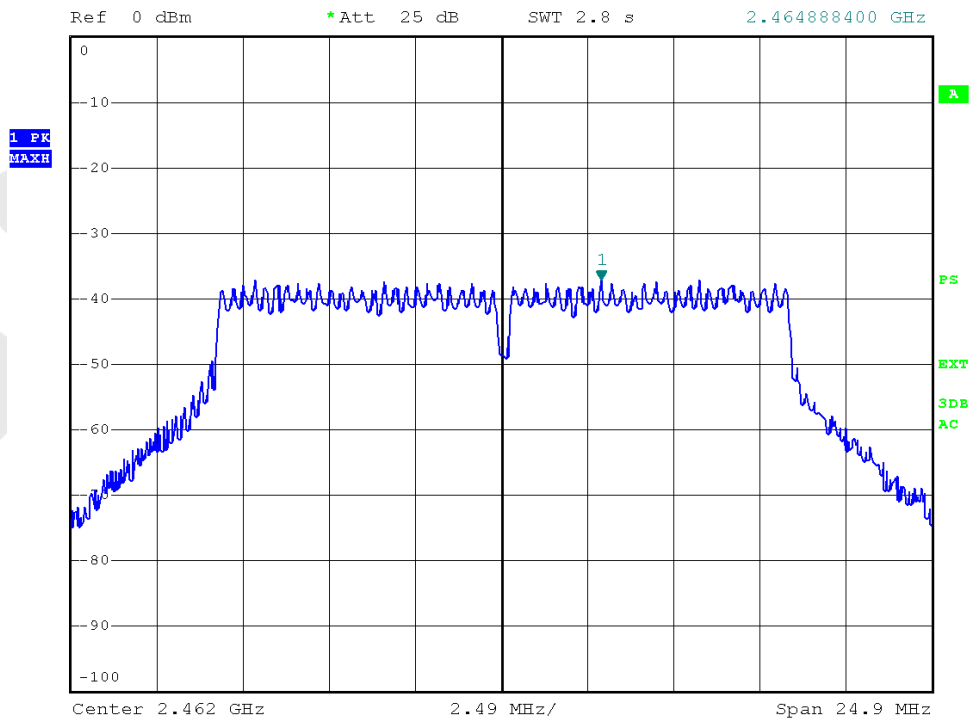
*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -34.74 dBm
SWT 2.8 s 2.436153400 GHz



802.11g CH--High



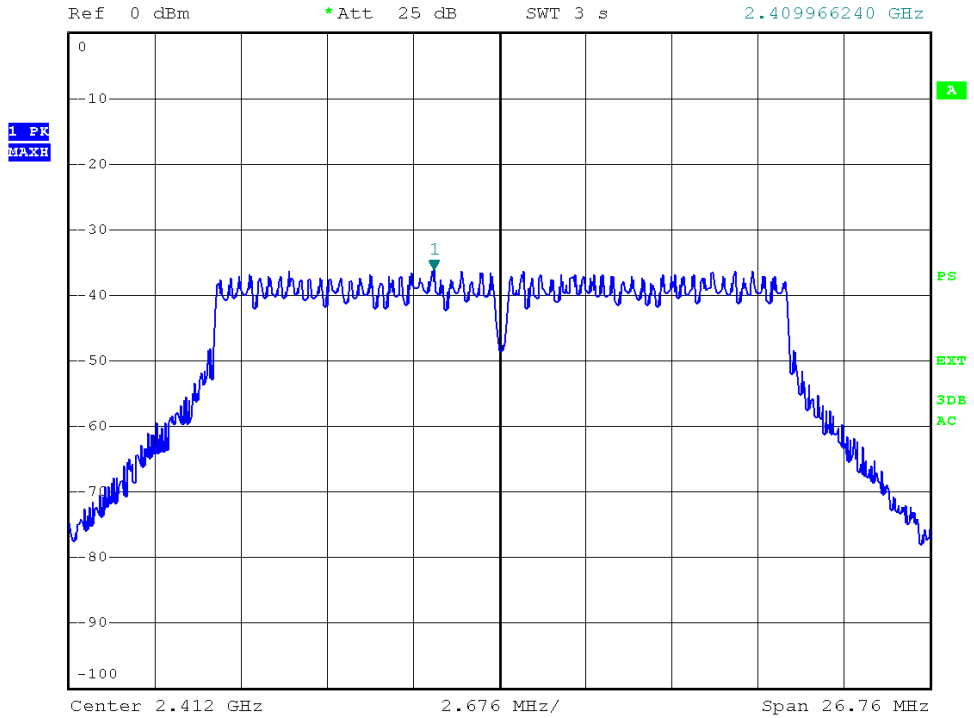
*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -37.10 dBm
SWT 2.8 s 2.464888400 GHz



802.11n (HT20) CH—Low



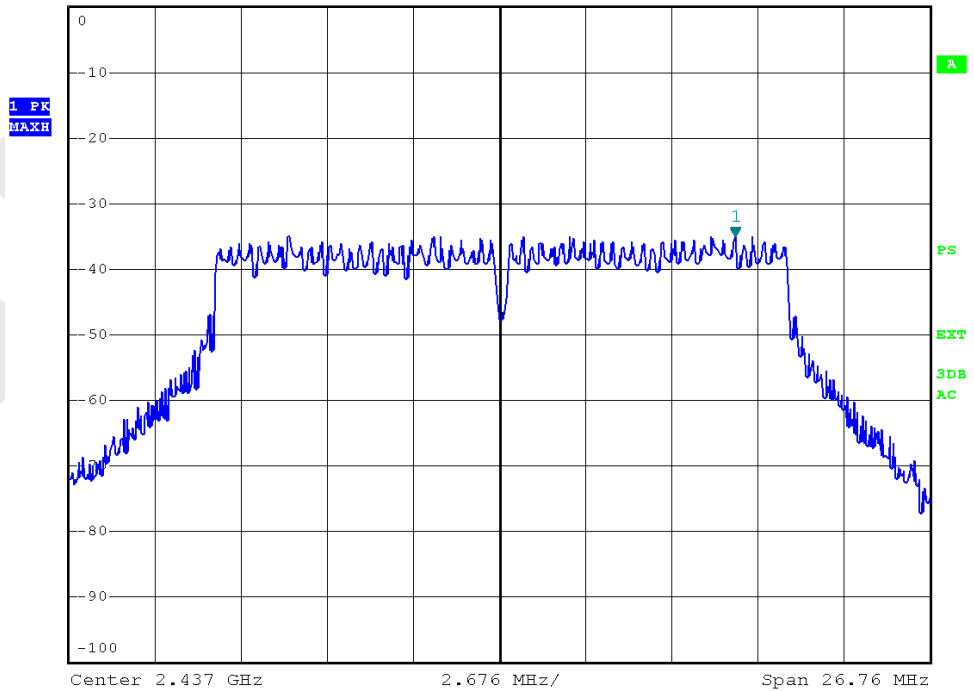
*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -36.18 dBm
SWT 3 s 2.409966240 GHz



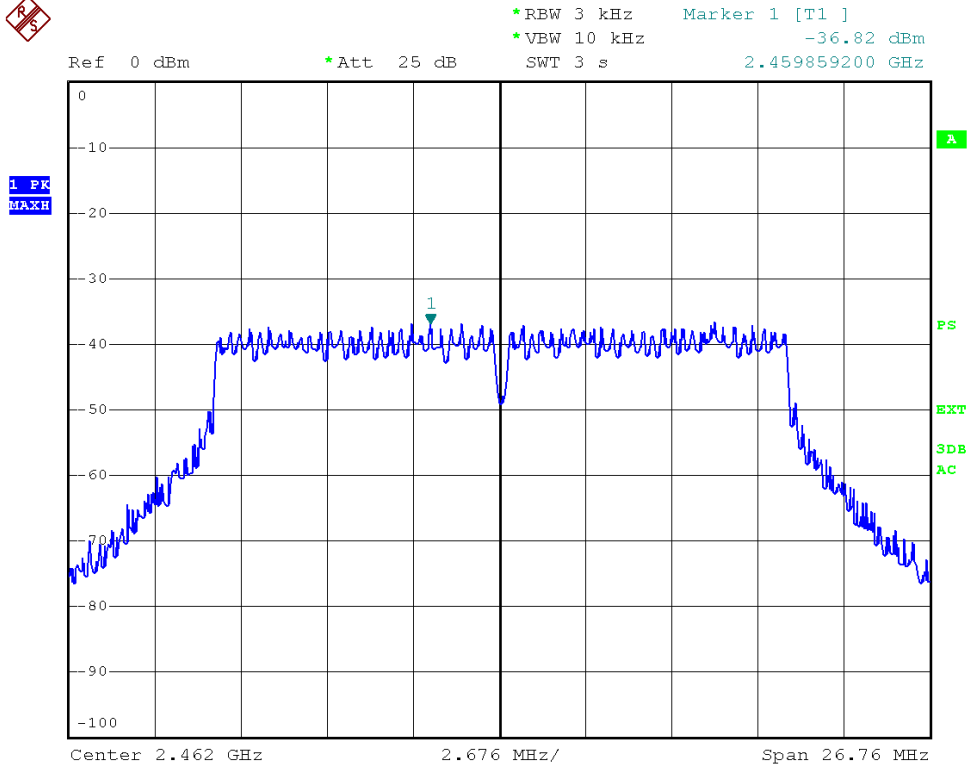
802.11n (HT20) CH—Mid



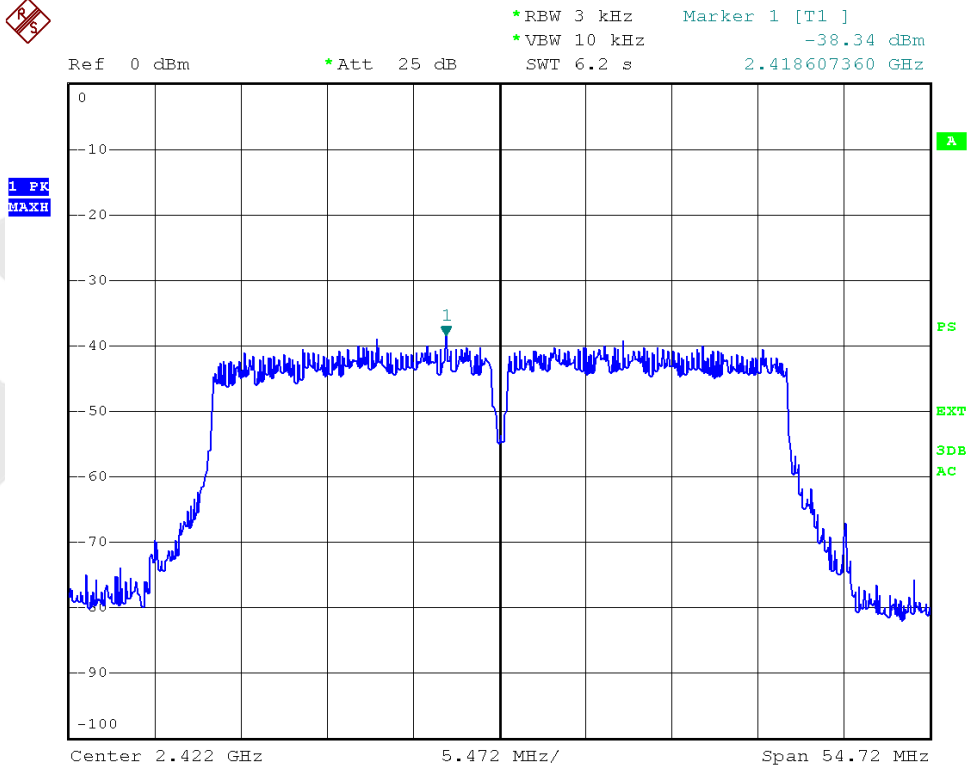
*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -34.93 dBm
SWT 3 s 2.444332240 GHz



802.11n (HT20) CH—High



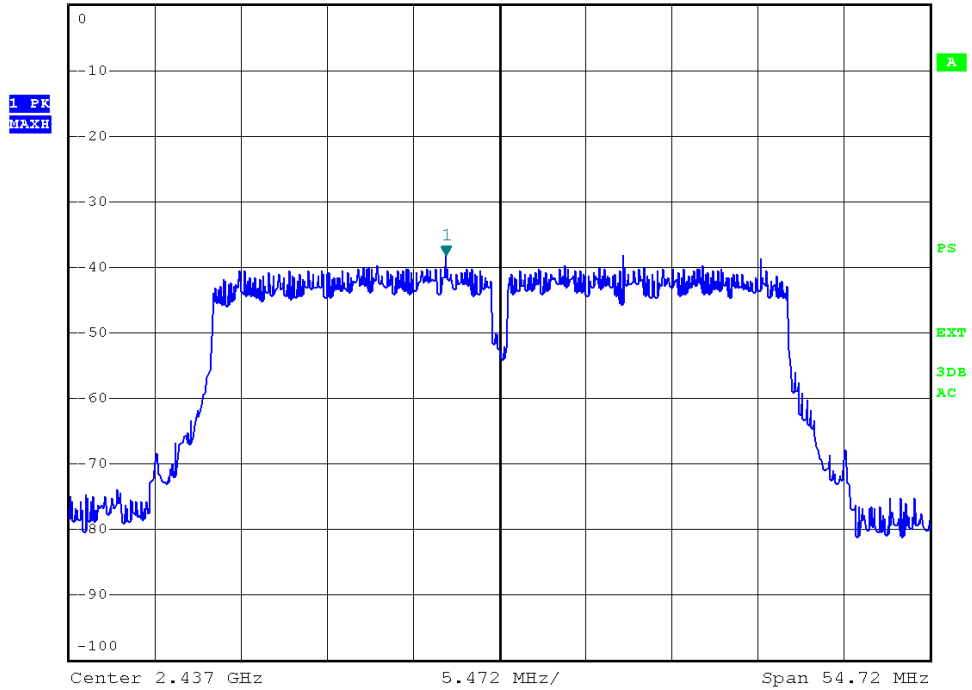
802.11n (HT40) CH—Low



802.11n (HT40) CH—Mid



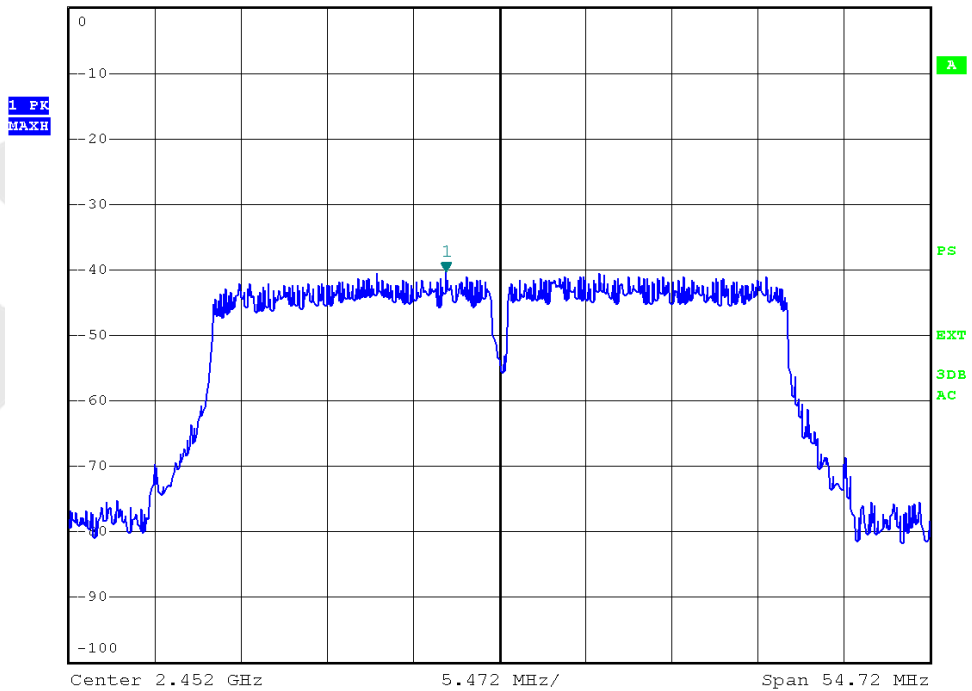
*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -38.20 dBm
Ref 0 dBm *Att 25 dB SWT 6.2 s 2.433607360 GHz



802.11n (HT40) CH—High



*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -40.17 dBm
Ref 0 dBm *Att 25 dB SWT 6.2 s 2.448607360 GHz



4.6. Radiated Emissions

4.6.1.1. Test Limits (< 30 MHZ)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30

4.6.1.2. Test Limits (\geq 30 MHZ)

FIELD STRENGTH of Fundamental: @3M	FIELD STRENGTH of Harmonics	S15.209	
902-928 MHZ		30 - 88 MHz	40 dBuV/m
2.4-2.4835 GHz		88 - 216 MHz	43.5
94 dB μ V/m @3m	54 dB μ V/m @3m	216 - 960 MHz	46
		ABOVE 960 MHz	54dBuV/m

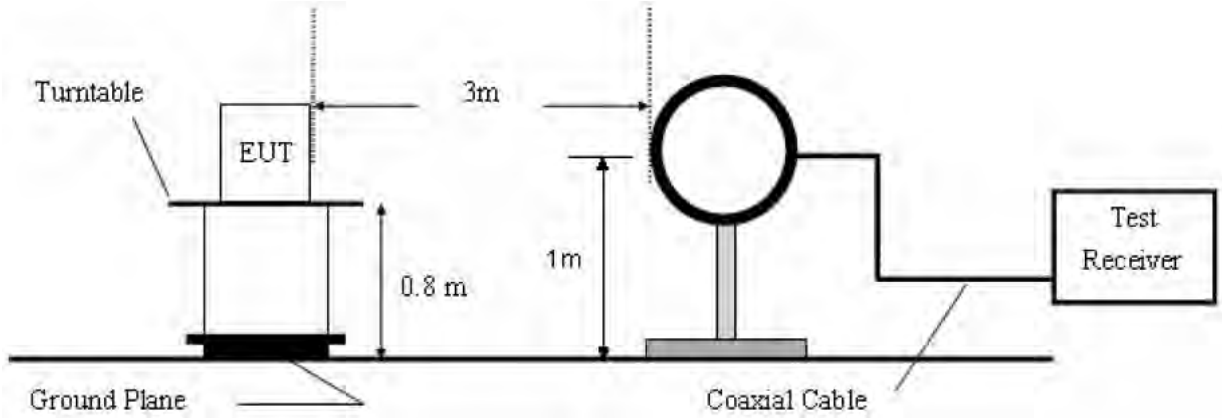
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Test Equipment

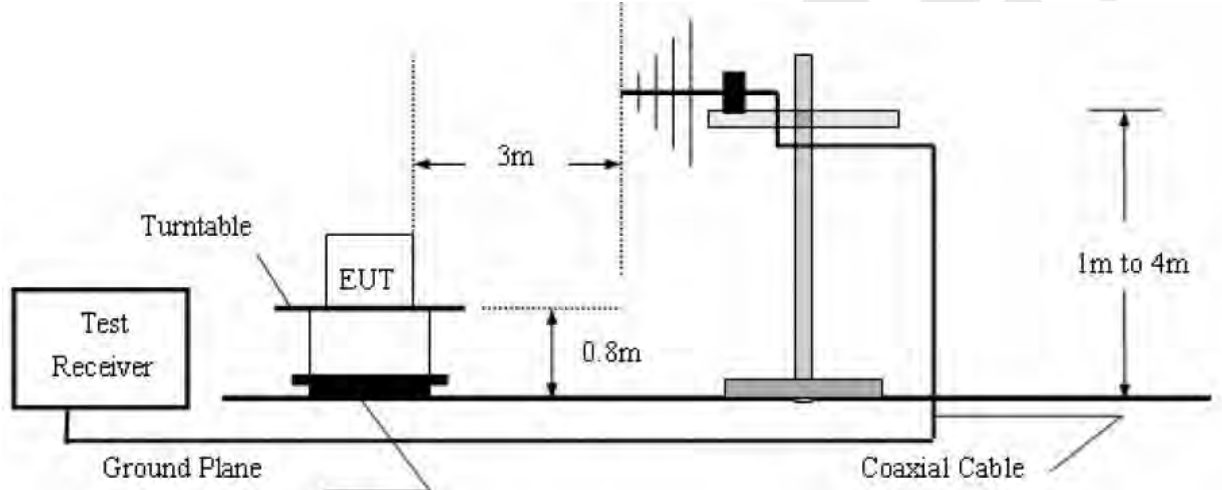
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analysis	Agilent	E4407B	US39390582	Aug. 08, 2014	1 Year
2.	Preamplifier	Instruments corporation	EMC011830	980100	Aug. 08, 2014	1 Year
3.	EMI Test Receiver	Rohde & Schwarz	ESPI	101604	Apr. 22, 2014	1 Year
4.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	Apr. 04, 2014	1 Year
5.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Apr. 24, 2014	1 Year
6.	Pre-amplifier	SONOMA	310N	186860	Aug. 08, 2014	1 Year
7.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A

4.6.2. Test Configuration:

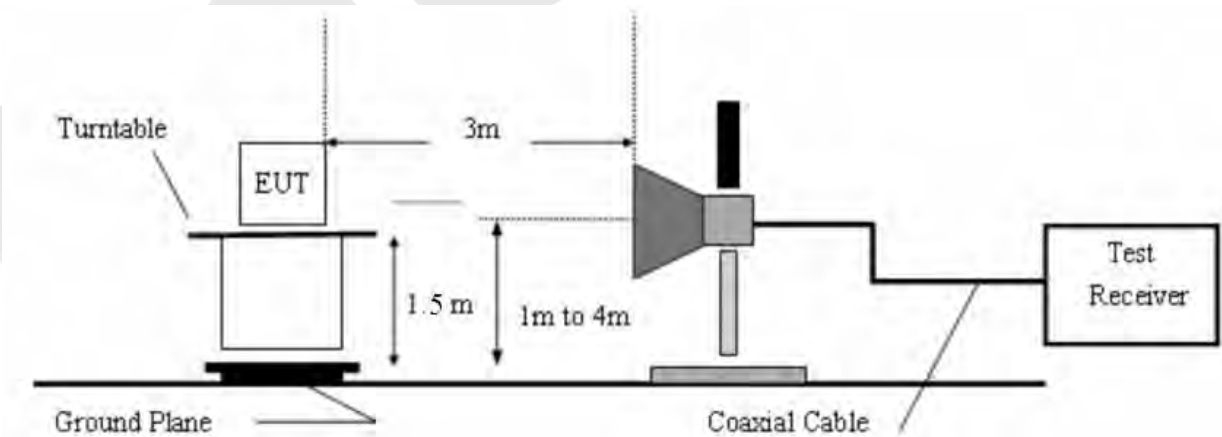
4.6.2.1. 9k to 30MHz emissions:



4.6.2.2. 30M to 1G emissions:



4.6.2.3. 1G to 40G emissions:



4.6.3. Test Procedure

The EUT is placed on a turn table which is 0.8 meter high above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

Measurements are made on 9KHz to 30MHz and 30MHz to 26GHz range with the transmitter set to the lowest, middle, and highest channels.

All readings from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120kHz. All reading are above 1GHz, peak & average values with a resolution bandwidth of 1MHz.

The EUT is tested in 9*6*6 Chamber.

Set both RBW and VBW of spectrum analyzer to 100kHz with a convenient frequency span including 100kHz bandwidth from band edge, check the emission of EUT. If pass then set Spectrum Analyzer as below:

For below 1GHz:

The resolution bandwidth and video bandwidth of test receiver/ spectrum analyzer is 120kHz.

Detector: Quasi-Peak

For above 1GHz Peak measurement:

The resolution bandwidth of test receiver/ spectrum analyzer is 1MHz and video bandwidth is 3MHz.

Detector: Peak

For above 1GHz average measurement:

The resolution bandwidth of test receiver/ spectrum analyzer is 1MHz and the video bandwidth is 10Hz.

Detector: Peak

The test results are listed in Section 4.6.4.

4.6.4. Test Results

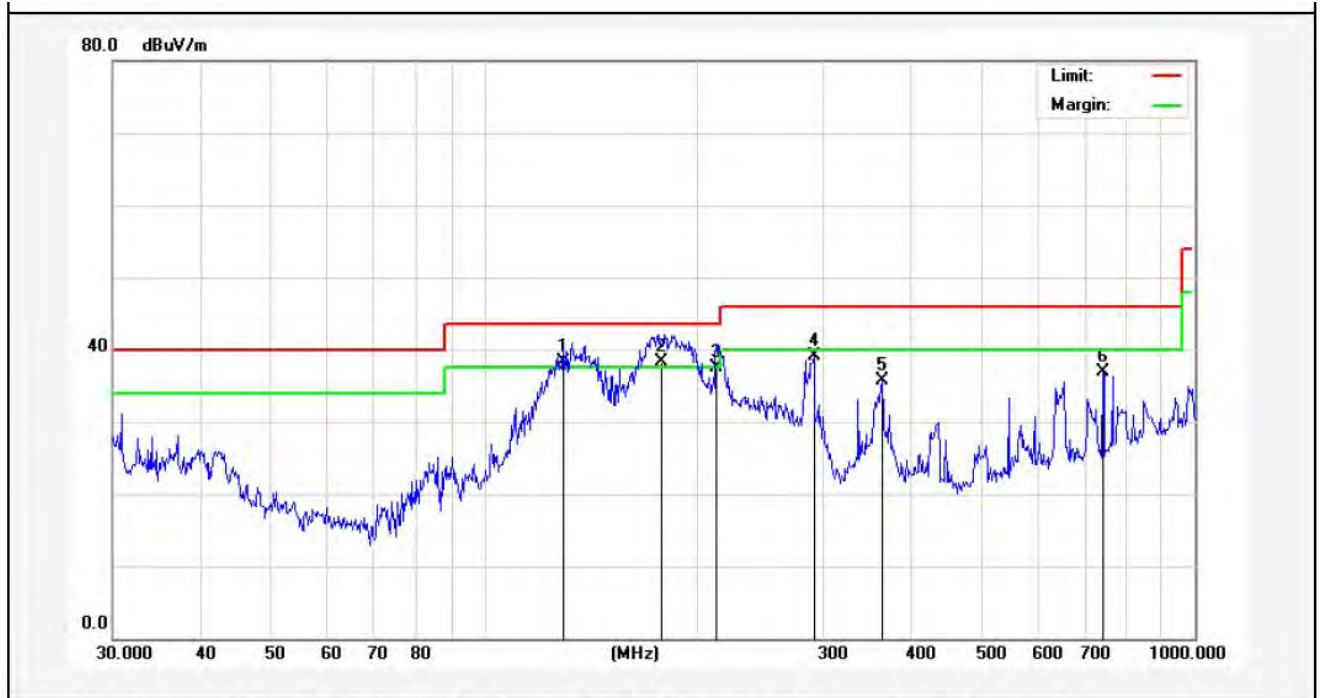
The EUT was tested on (HDMI, MHL) modes, only the worst data of (HDMI) is attached in the following pages.

Job No.:	011503055E	Polarization:	Horizontal
Standard:	(RE)FCC PART15 C _3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Test Mode:	HDMI	Distance:	3m



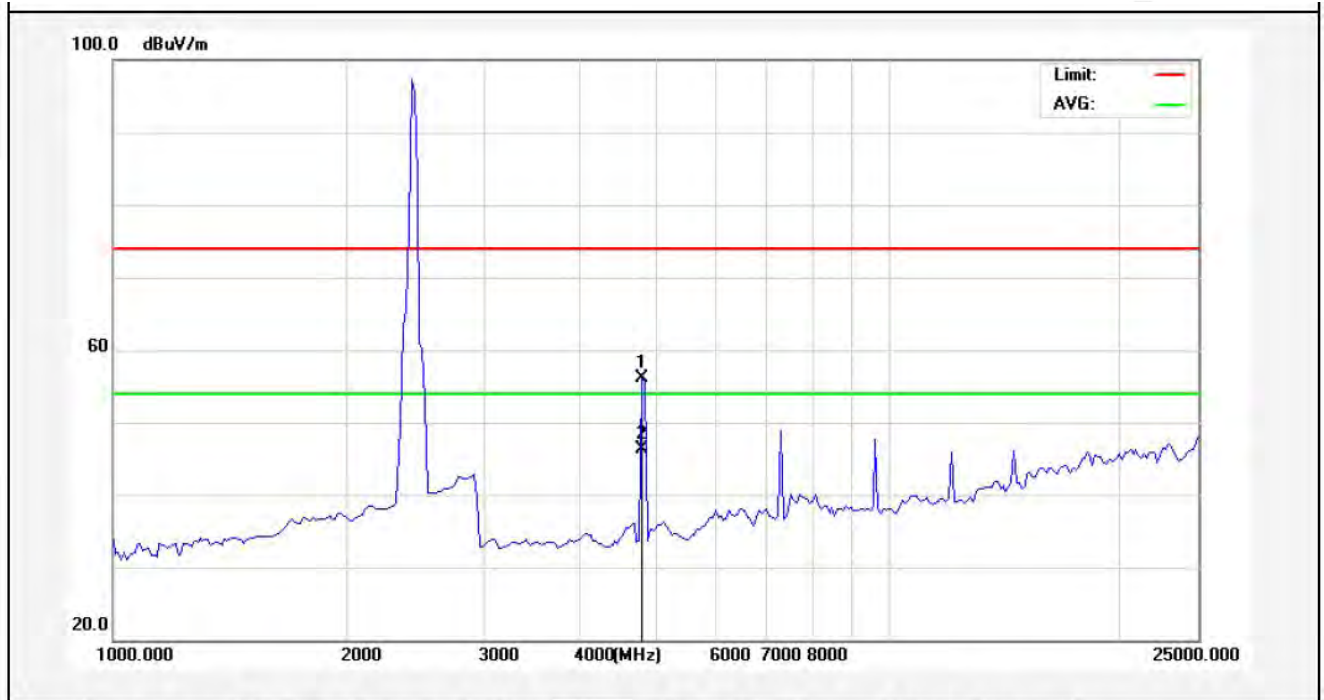
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	191.7450	53.41	-20.92	32.49	43.50	-11.01	peak			
2	291.0360	55.43	-17.92	37.51	46.00	-8.49	peak			
3	336.0352	46.61	-14.49	32.12	46.00	-13.88	peak			
4	709.1823	44.16	-8.31	35.85	46.00	-10.15	peak			
5	779.6068	45.30	-6.95	38.35	46.00	-7.65	peak			
6	848.0563	41.46	-5.66	35.80	46.00	-10.20	peak			

Job No.:	011503055E	Polarization:	Vertical
Standard:	(RE)FCC PART15 C _3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Test Mode:	HDMI	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	129.0146	55.91	-17.67	38.24	43.50	-5.26	QP	100	360	
2	177.1264	55.43	-17.04	38.39	43.50	-5.11	QP	100	0	
3	212.2694	52.91	-15.40	37.51	43.50	-5.99	QP	100	360	
4	291.0360	53.93	-14.92	39.01	46.00	-6.99	peak			
5	362.9844	48.33	-12.61	35.72	46.00	-10.28	peak			
6	742.2586	44.10	-7.23	36.87	46.00	-9.13	peak			

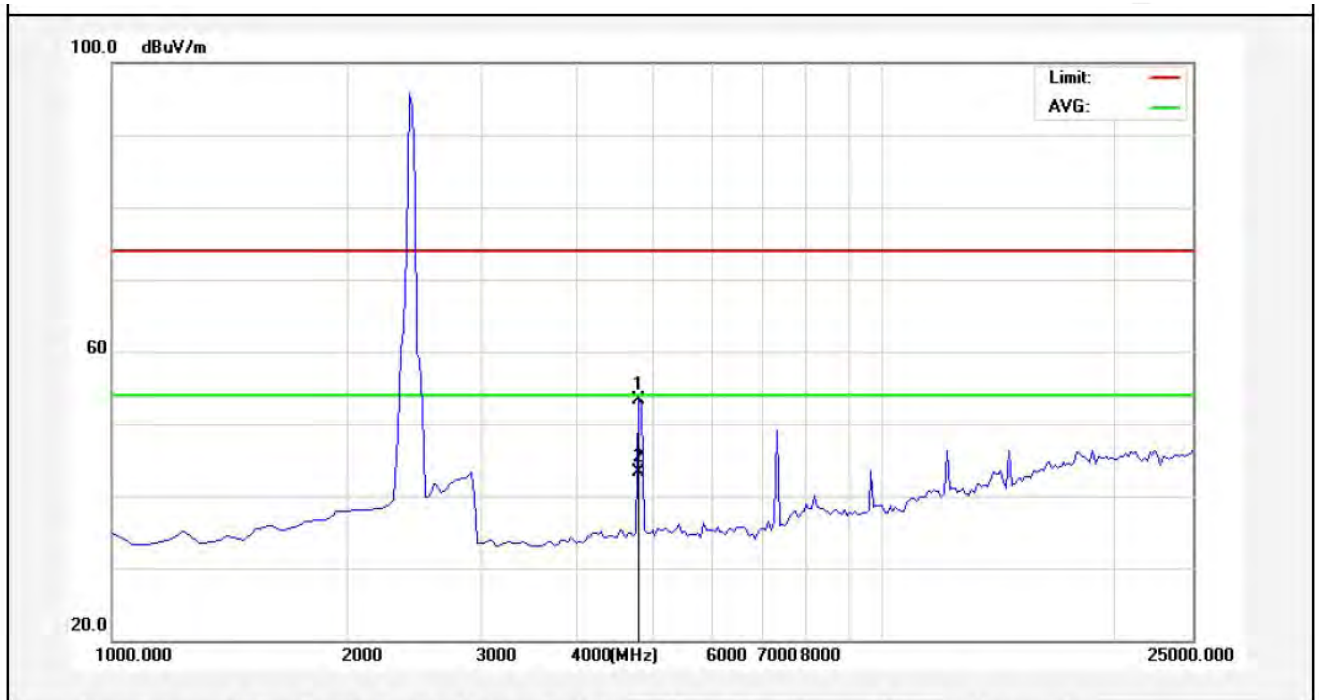
Job No.:	011503055E	Polarization:	Horizontal
Standard:	(RE)FCC PART15 C _3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Note:	ANT A 802.11b(2412MHz)	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	4840.000	52.76	3.37	56.13	74.00	-17.87	peak			
2	4840.000	42.91	3.37	46.28	54.00	-7.72	AVG			

ANT A

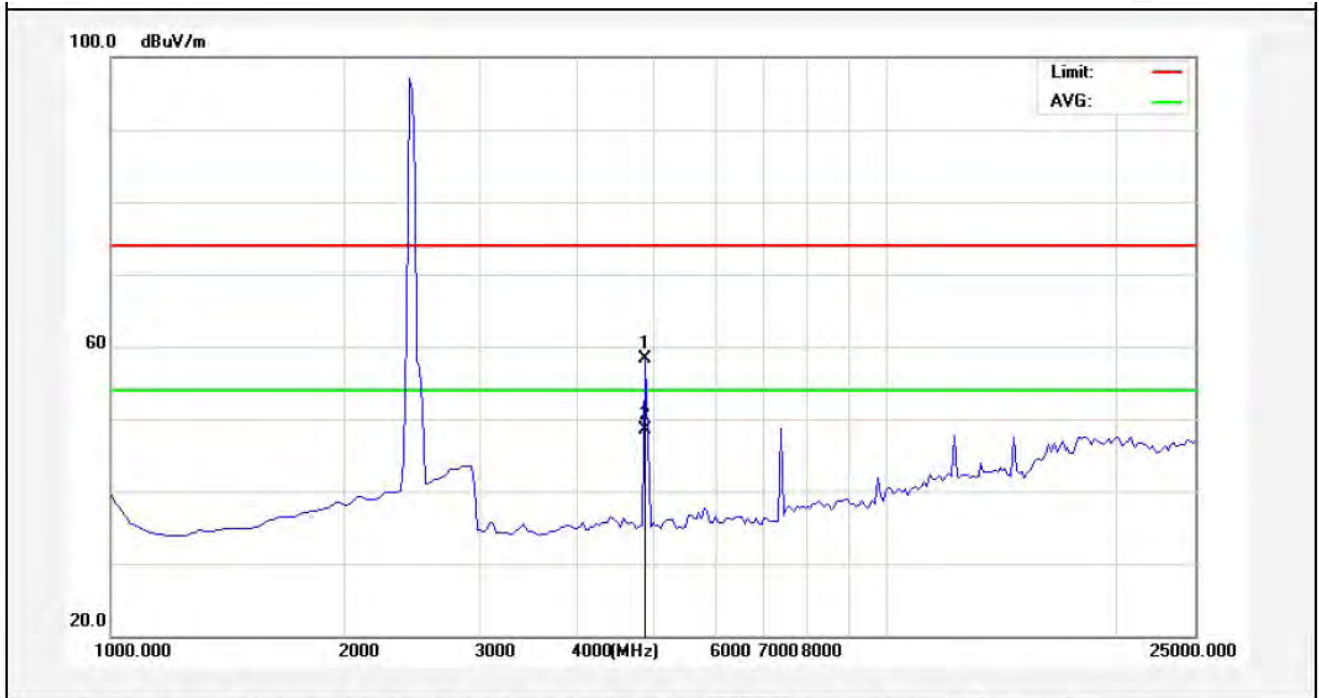
Job No.:	011503055E	Polarization:	Vertical
Standard:	(RE)FCC PART15 C _3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Note:	ANT A 802.11b(2412MHz)	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	4840.000	49.88	3.37	53.25	74.00	-20.75	peak			
2	4840.000	39.86	3.37	43.23	54.00	-10.77	AVG			

AM

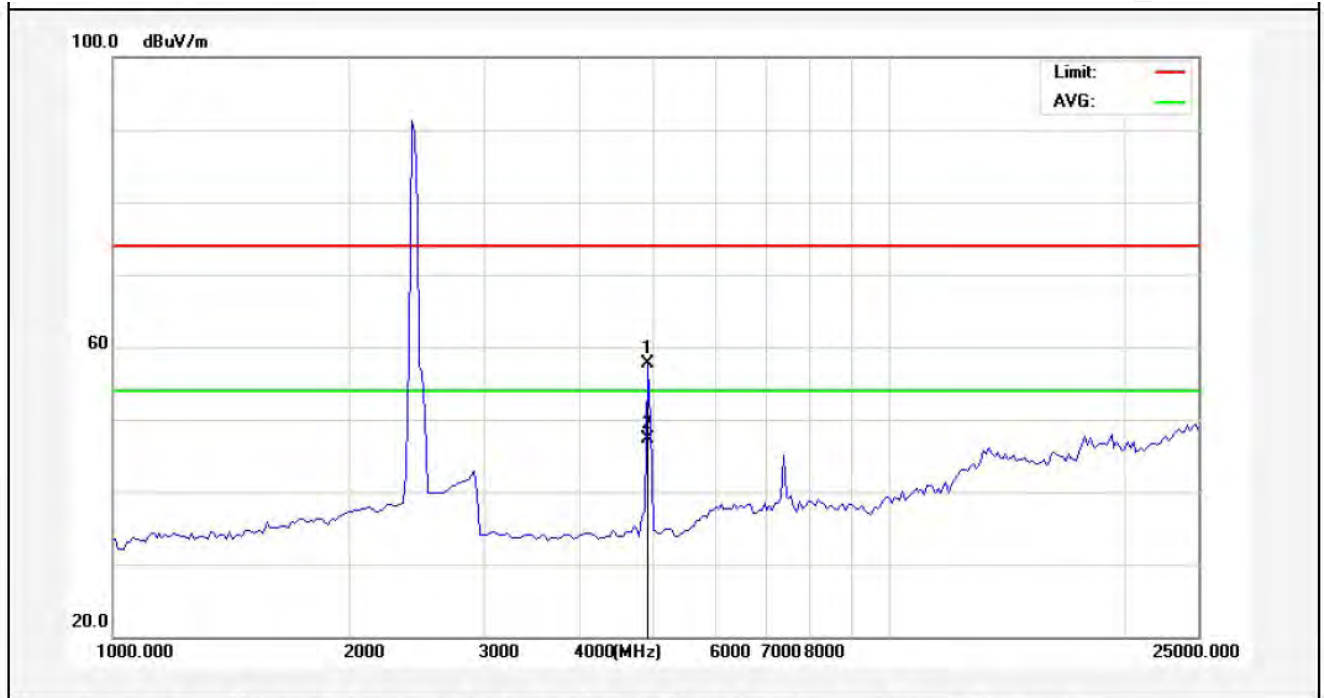
Job No.:	011503055E	Polarization:	Horizontal
Standard:	(RE)FCC PART15 C _3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Note:	ANT A 802.11b(2437MHz)	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	4900.000	54.78	3.47	58.25	74.00	-15.75	peak			
2	4900.000	45.05	3.47	48.52	54.00	-5.48	AVG			

A.M.

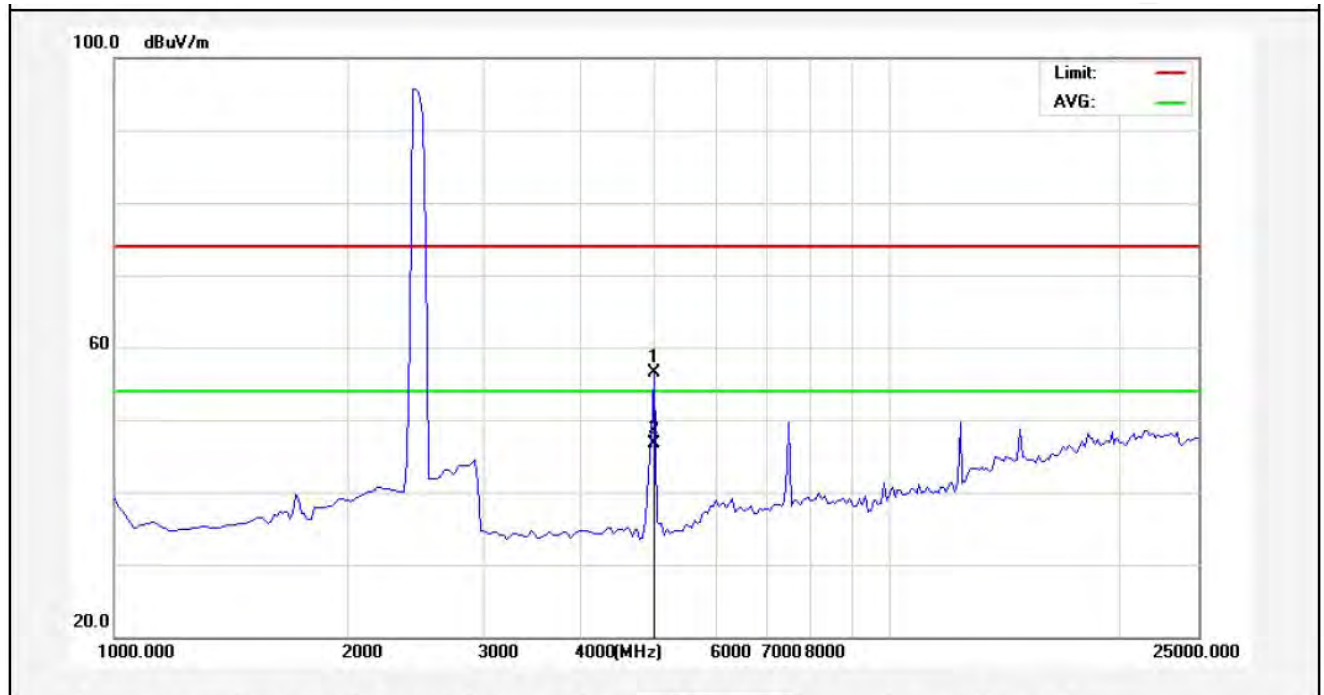
Job No.:	011503055E	Polarization:	Vertical
Standard:	(RE)FCC PART15 C _3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Note:	ANT A 802.11b(2437MHz)	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	4900.000	54.21	3.47	57.68	74.00	-16.32	peak			
2	4900.000	43.81	3.47	47.28	54.00	-6.72	AVG			

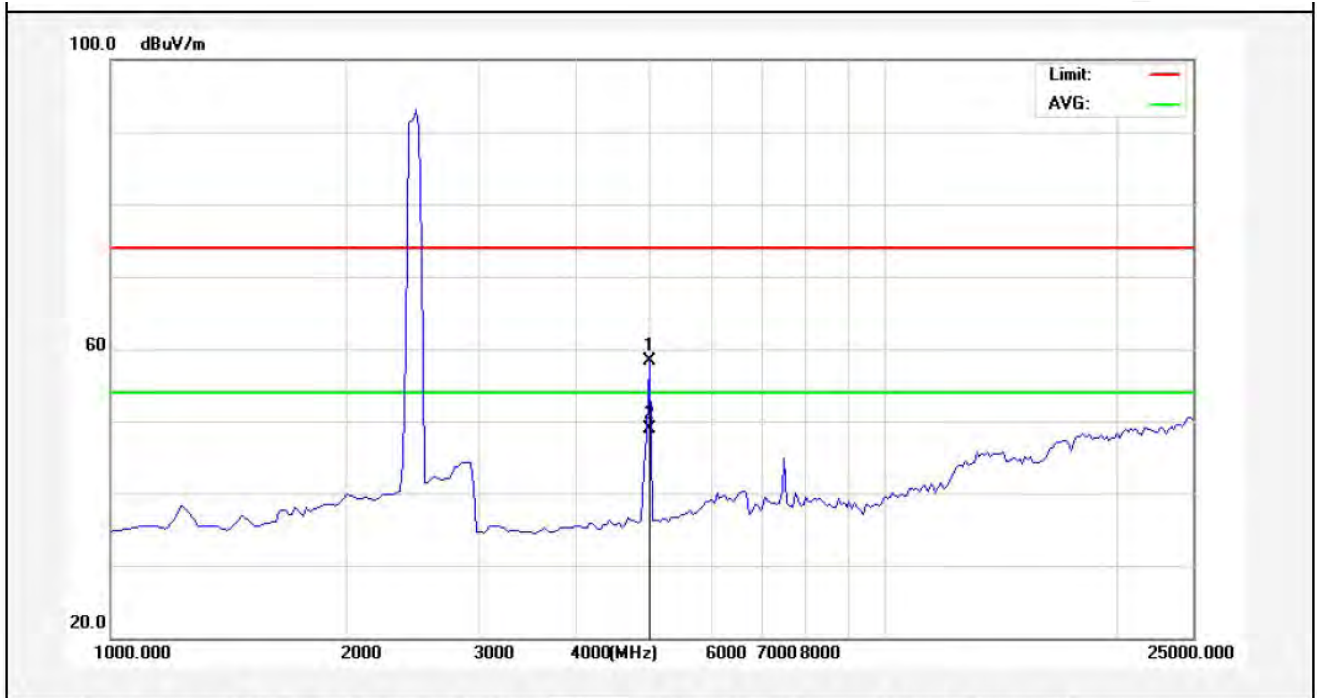
A.M.

Job No.:	011503055E	Polarization:	Horizontal
Standard:	(RE)FCC PART15 C_3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Note:	ANT A 802.11b(2462MHz)	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	4960.000	52.96	3.58	56.54	74.00	-17.46	peak			
2	4960.000	43.16	3.58	46.74	54.00	-7.26	AVG			

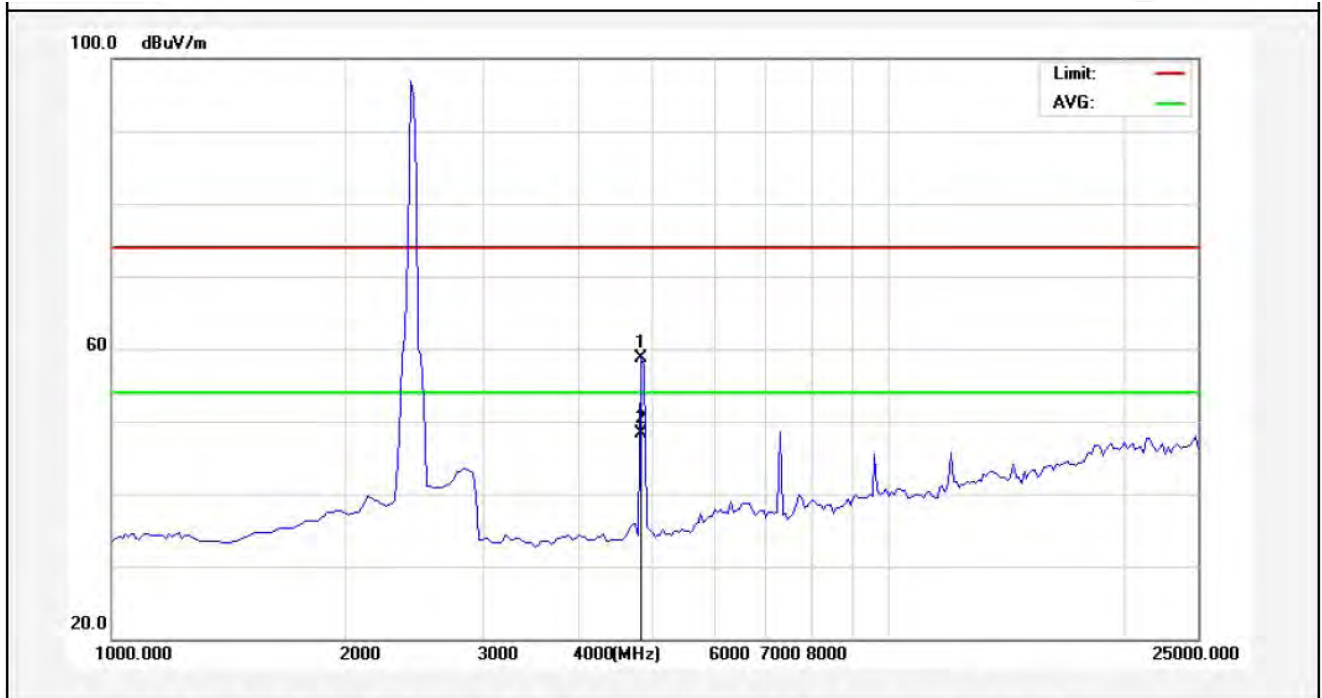
Job No.:	011503055E	Polarization:	Vertical
Standard:	(RE)FCC PART15 C _3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Note:	ANT A 802.11b(2462MHz)	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	4960.000	54.67	3.58	58.25	74.00	-15.75	peak			
2	4960.000	45.37	3.58	48.95	54.00	-5.05	AVG			

AM

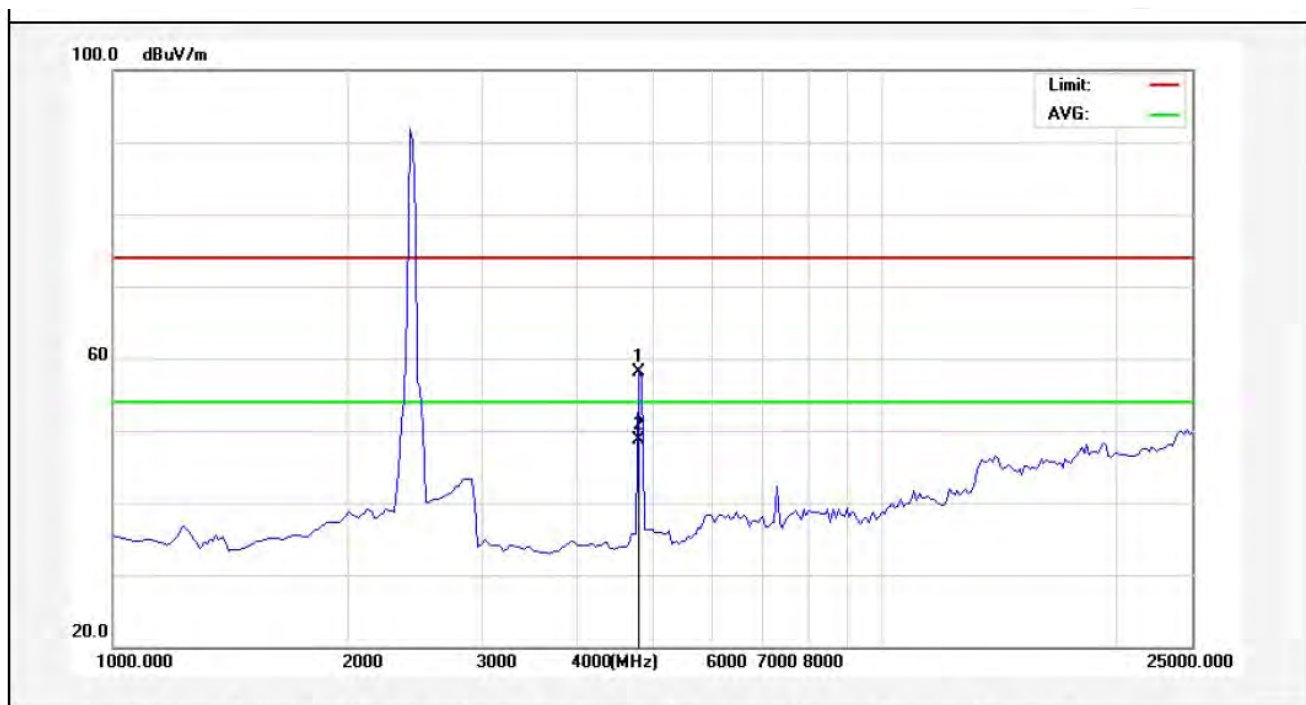
Job No.:	011503055E	Polarization:	Horizontal
Standard:	(RE)FCC PART15 C _3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Note:	ANT B 802.11b(2412MHz)	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	4840.000	55.25	3.37	58.62	74.00	-15.38	peak			
2	4840.000	44.88	3.37	48.25	54.00	-5.75	AVG			

AM

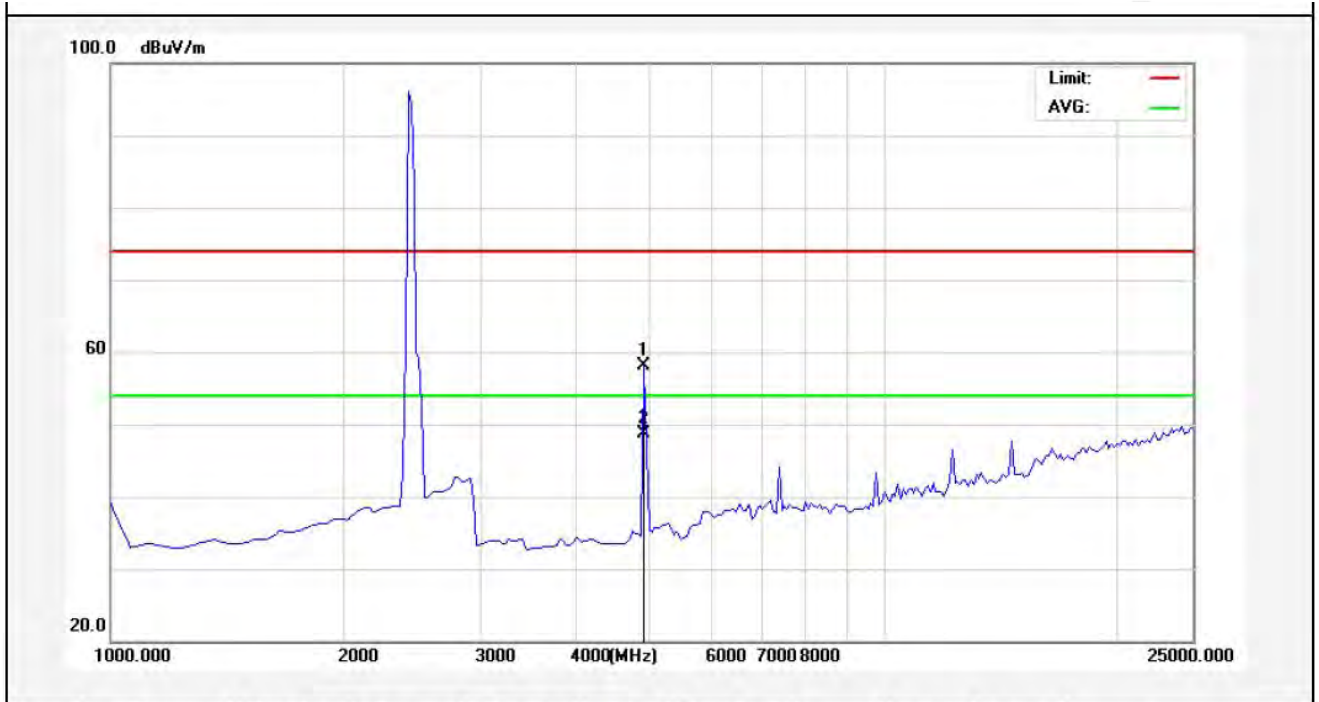
Job No.:	011503055E	Polarization:	Vertical
Standard:	(RE)FCC PART15 C _3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Note:	ANT B 802.11b(2412MHz)	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	4840.000	54.80	3.37	58.17	74.00	-15.83	peak			
2	4840.000	45.37	3.37	48.74	54.00	-5.26	AVG			

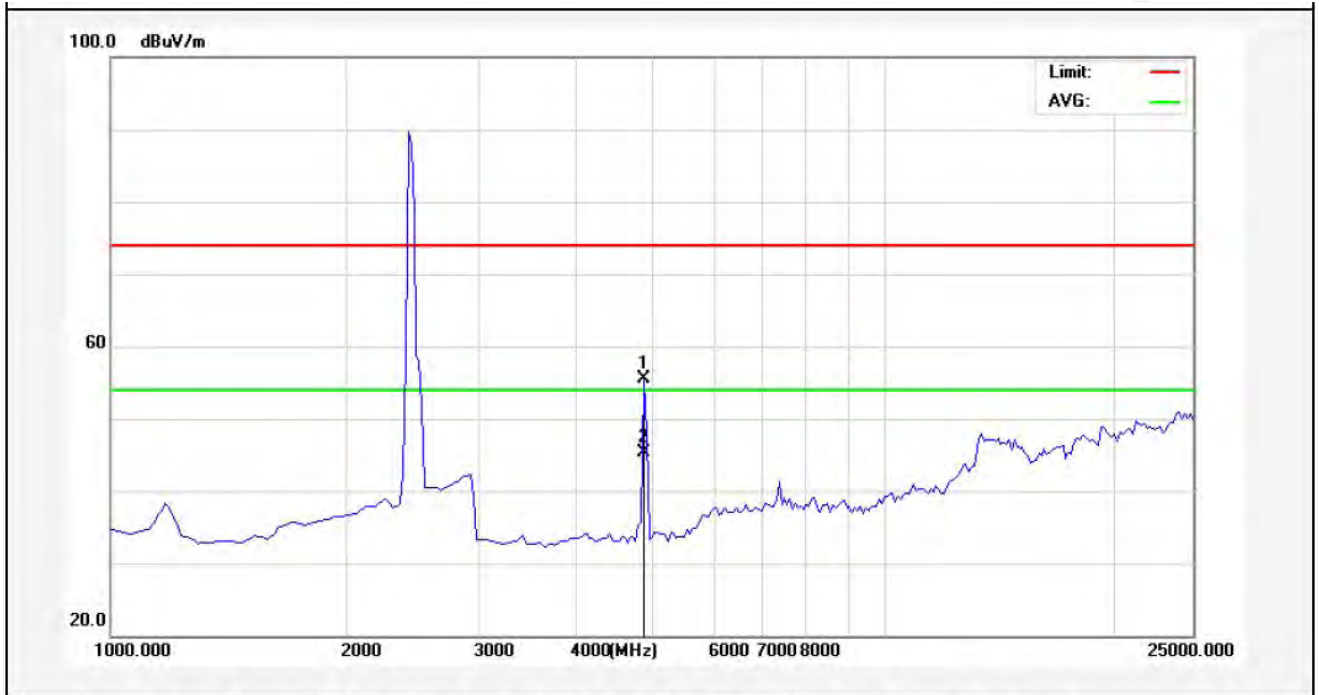
AM

Job No.:	011503055E	Polarization:	Horizontal
Standard:	(RE)FCC PART15 C _3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Note:	ANT B 802.11b(2437MHz)	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	4900.000	54.64	3.47	58.11	74.00	-15.89	peak			
2	4900.000	45.27	3.47	48.74	54.00	-5.26	AVG			

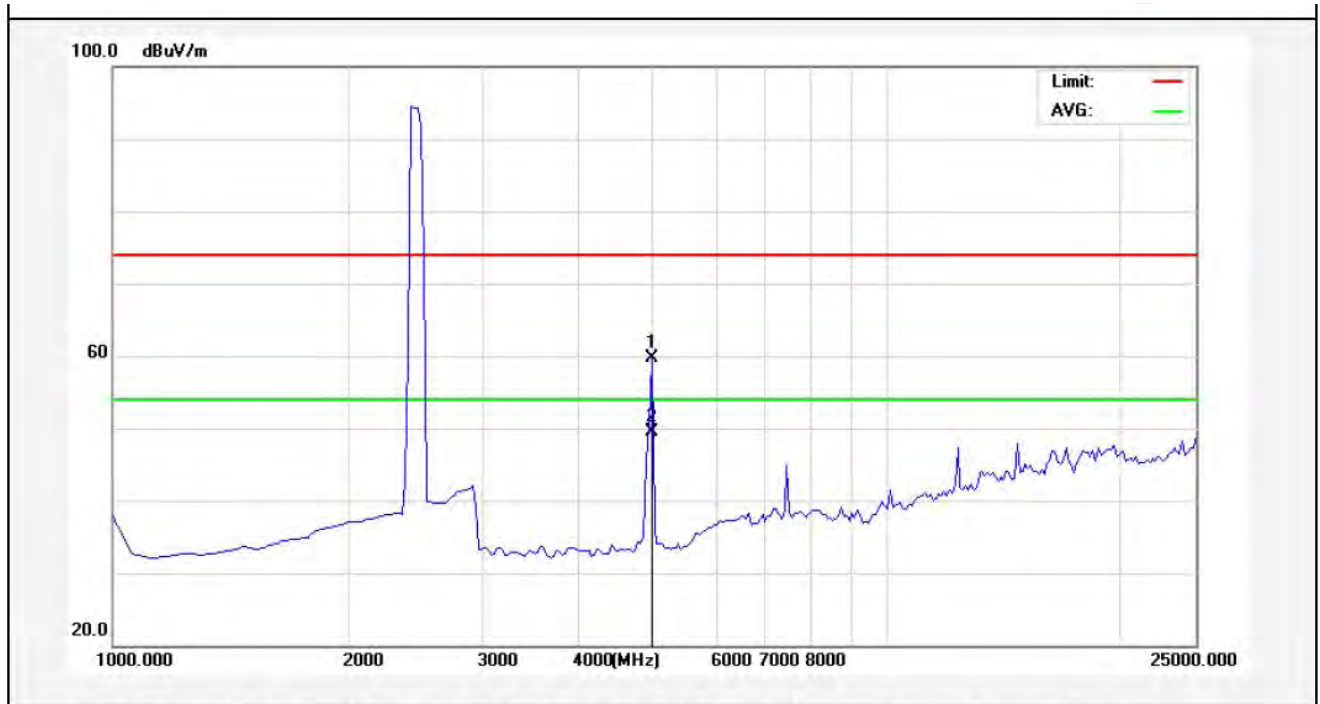
Job No.:	011503055E	Polarization:	Vertical
Standard:	(RE)FCC PART15 C _3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Note:	ANT B 802.11b(2437MHz)	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	4900.000	51.95	3.47	55.42	74.00	-18.58	peak			
2	4900.000	41.85	3.47	45.32	54.00	-8.68	AVG			

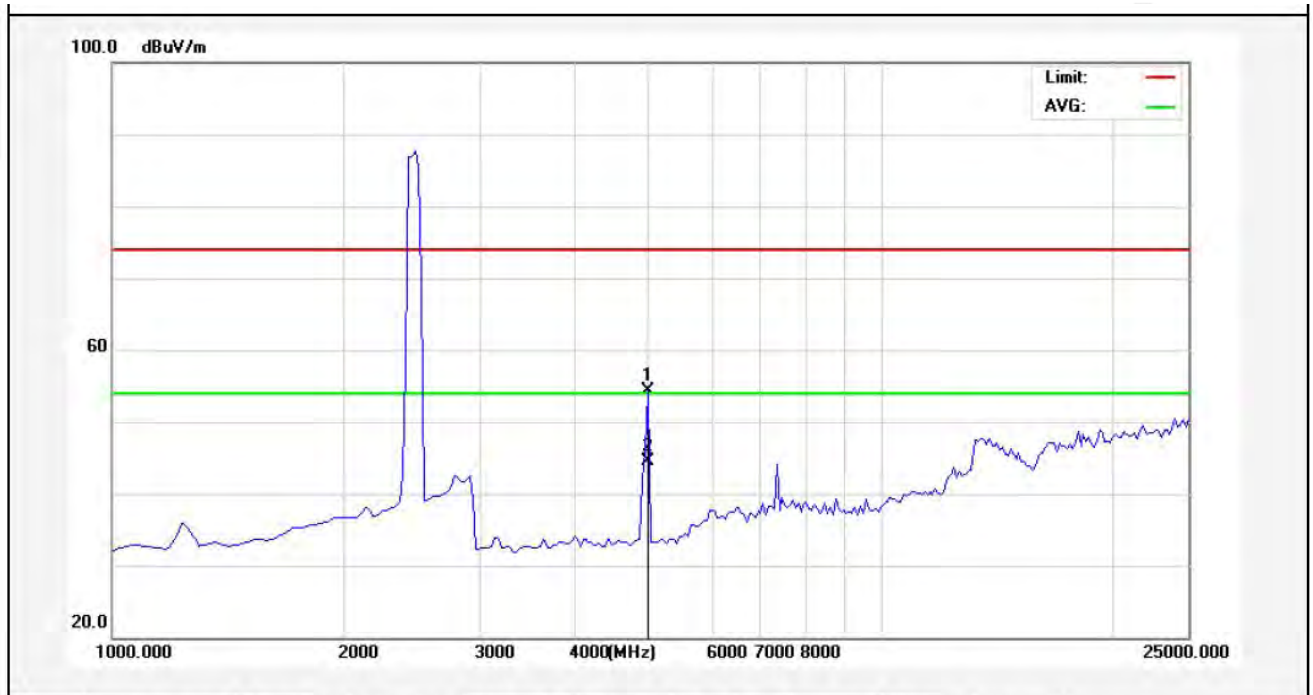
AM

Job No.:	011503055E	Polarization:	Horizontal
Standard:	(RE)FCC PART15 C_3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Note:	ANT B 802.11b(2462MHz)	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	4960.000	56.17	3.58	59.75	74.00	-14.25	peak			
2	4960.000	45.83	3.58	49.41	54.00	-4.59	AVG			

Job No.:	011503055E	Polarization:	Vertical
Standard:	(RE)FCC PART15 C _3m	Power Source:	DC 5V via USB Port
Test item:	Radiation Test	Temp.(C)/Hum.(%RH):	24.3(C)/55%RH
Note:	ANT B 802.11b(2462MHz)	Distance:	3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	4960.000	50.73	3.58	54.31	74.00	-19.69	peak			
2	4960.000	40.89	3.58	44.47	54.00	-9.53	AVG			

A.M.

5. ANTENNA APPLICATION

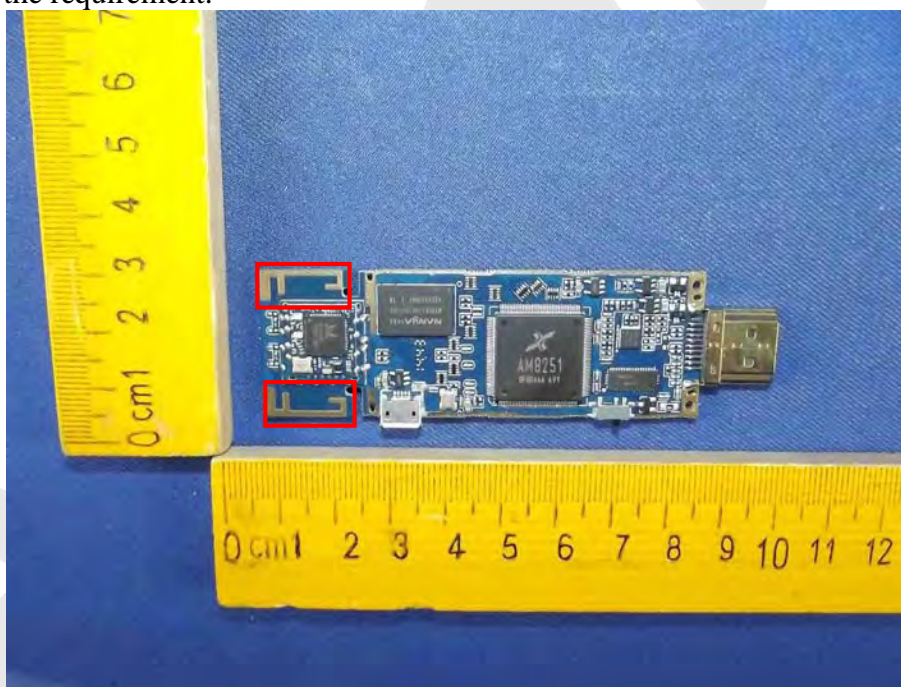
5.1. Antenna requirement

The EUT'S antenna is met the requirement of FCC part 15C 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

5.2. Result

The EUT's antenna used a Integrated antenna which is permanently attached, The antenna's gain is 2dBi and meets the requirement.



6. PHOTOGRAPH

6.1. Photo of Conducted Emission Measurement



6.2. Photo of Radiation Emission Test



APPENDIX I (EXTERNAL PHOTOS)

Figure 1
The EUT-Overall View



Figure 2
The EUT-Front View



Figure 3
The EUT-Back View



Figure 4
The EUT-Top View



Figure 5
The EUT-Bottom View



Figure 6
The EUT-Right Side View



Figure 7
The EUT-Left Side View



Anbotek

APPENDIX II (INTERNAL PHOTOS)

Figure 8
The EUT-Inside View



Figure 9
PCB of the EUT-Front View

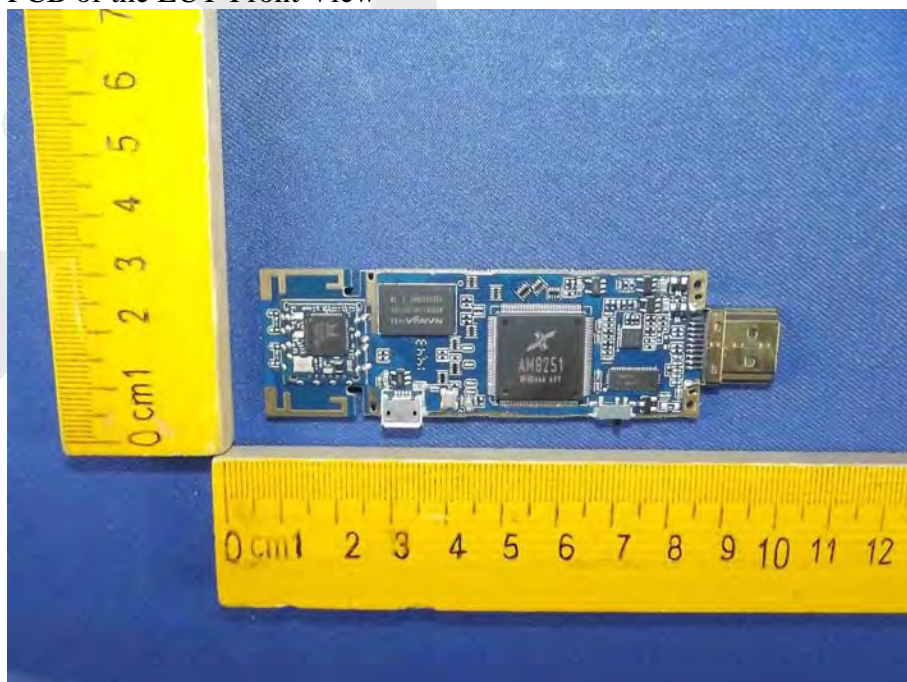


Figure 10
PCB of the EUT-Back View

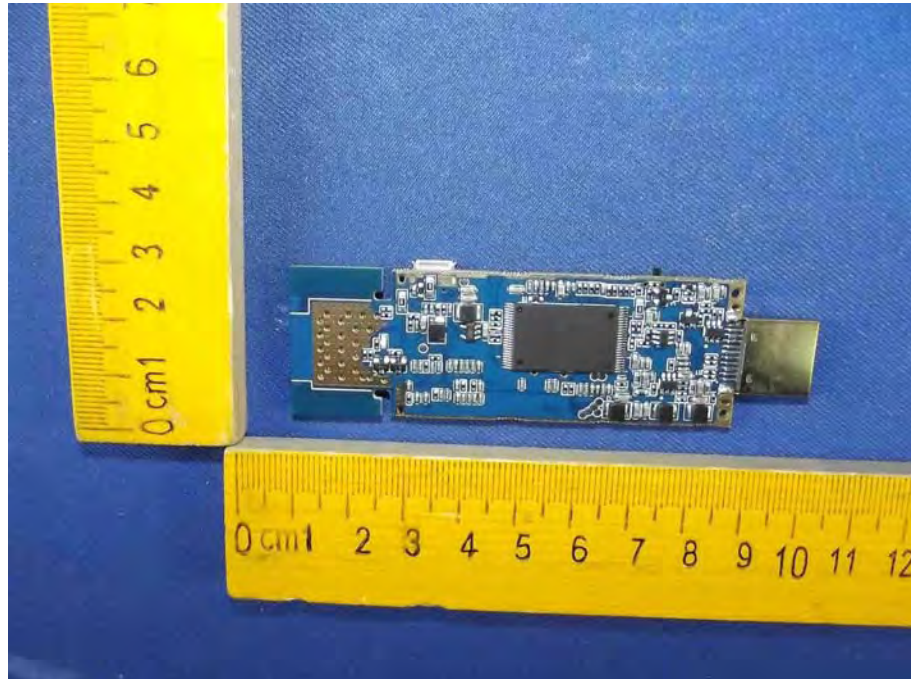


Figure 11
PCB of the EUT-Front View

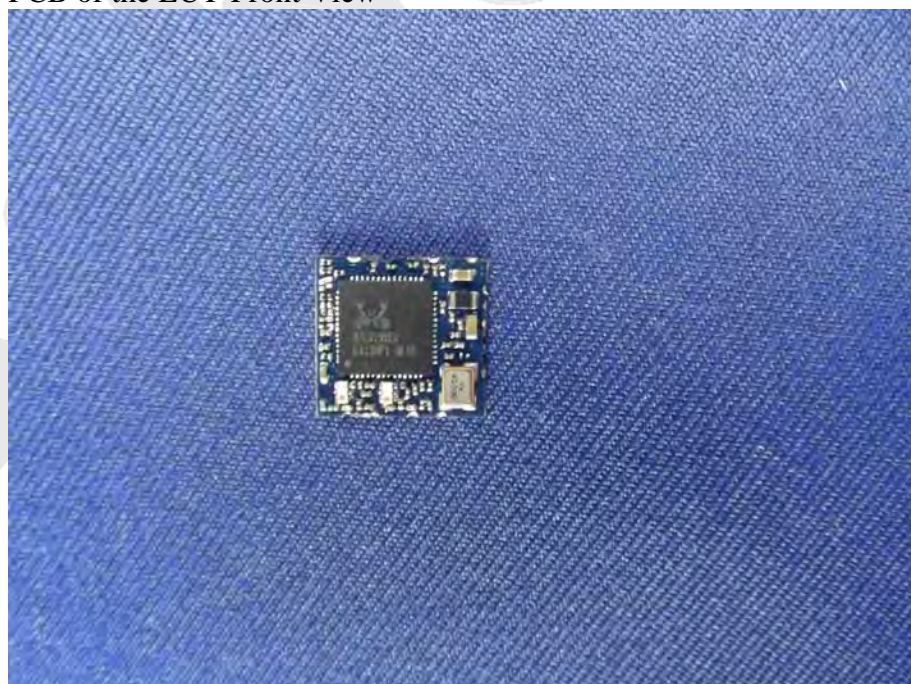
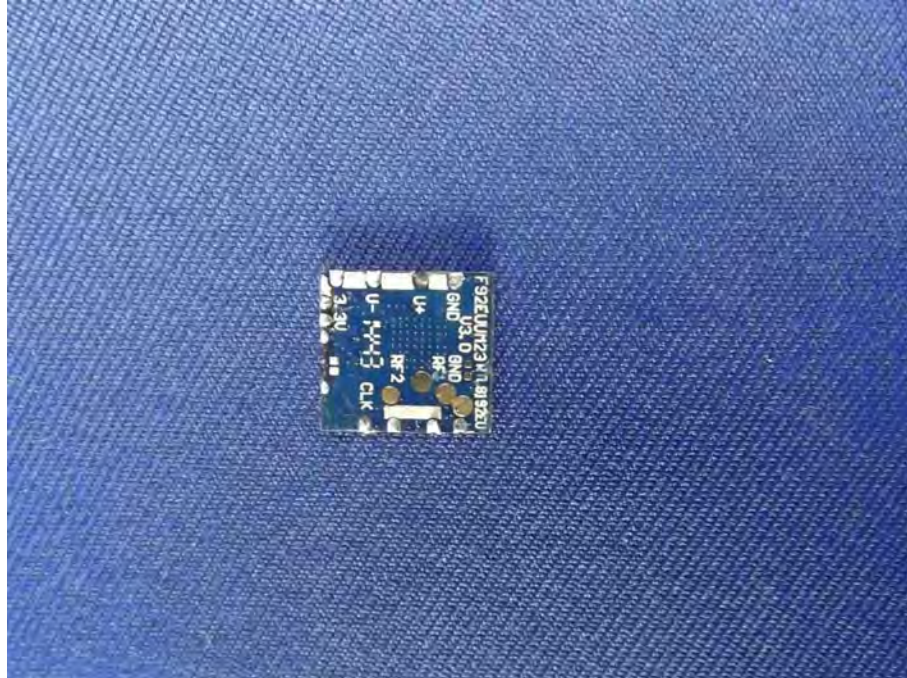


Figure 12
PCB of the EUT-Back View



Anbotek