

Appendix A: Test results

1. Duty Cycle

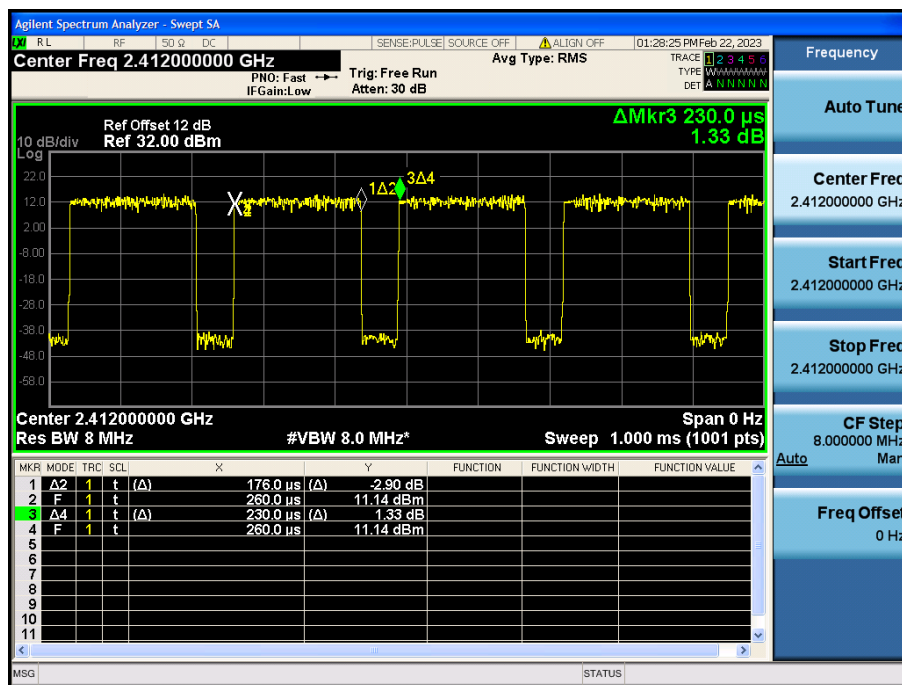
1.1 Test Data

Mode	Data rates (Mbps)	On Time (msec)	Period (msec)	Duty Cycle (linear)	Duty Cycle (%)	Duty Cycle Factor (dB)	1/ T Minimum VBW (kHz)	Average Factor (dB)
IEEE 802.11g	6 Mbps	0.1760	0.2300	0.77	76.52	1.16	5.68	-2.32

Remark:

- 1) Duty cycle= On Time/ Period;
- 2) Duty Cycle factor = $10 * \log(1/ \text{Duty cycle})$;
- 3) Average factor = $20 \log_{10} \text{Duty Cycle}$.

1.2 Test Plots



2. Minimum 6dB bandwidth

2.1 Test Data

ANT0:

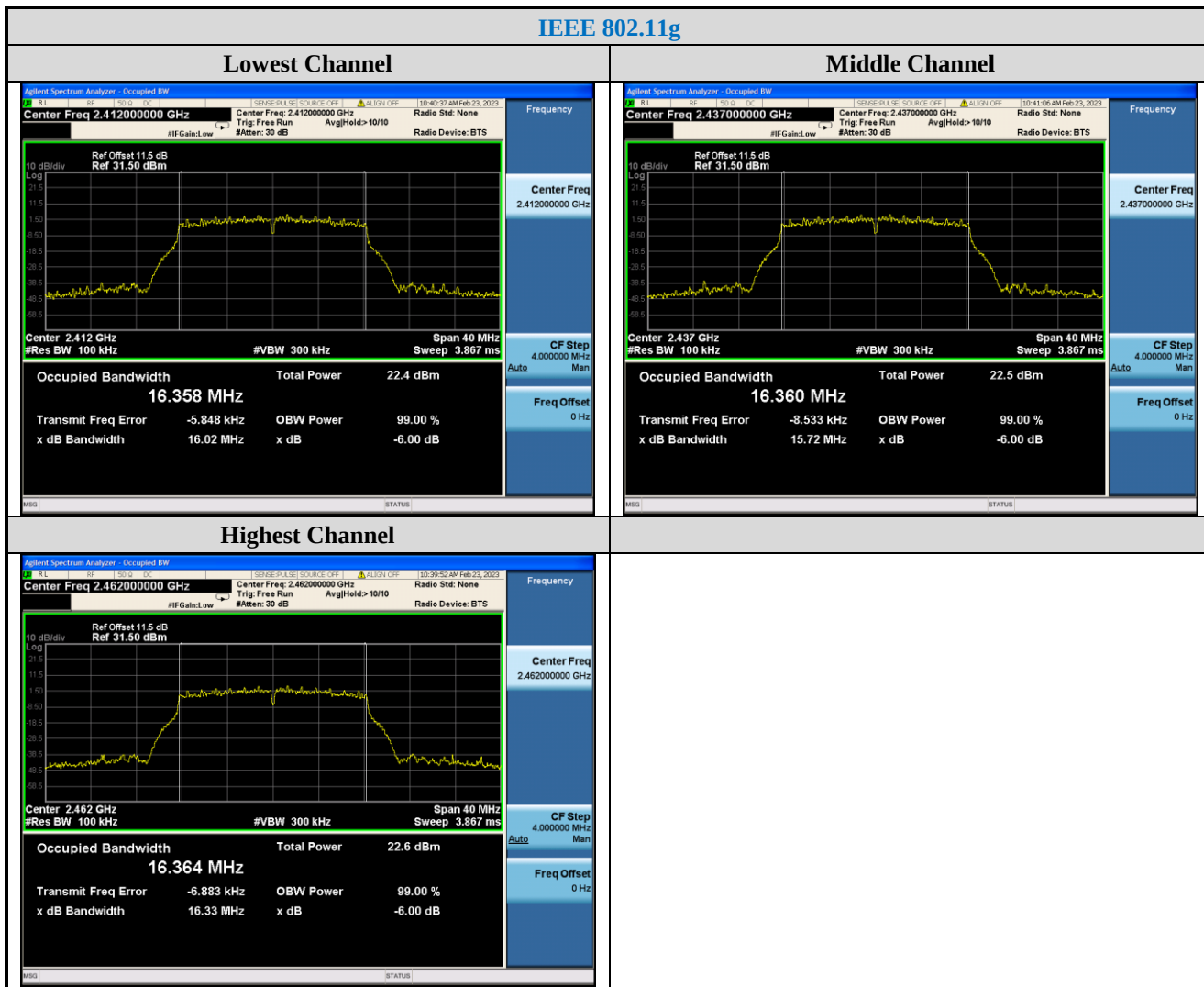
WLAN Occupied 6dB Bandwidth				
Mode	Test Frequency (MHz)	Ant	Occupied Bandwidth (MHz)	Result
802.11g	2412	Ant0	16.02	Pass
802.11g	2437	Ant0	15.72	Pass
802.11g	2462	Ant0	16.33	Pass

ANT1:

WLAN Occupied 6dB Bandwidth				
Mode	Test Frequency (MHz)	Ant	Occupied Bandwidth (MHz)	Result
802.11g	2412	Ant1	16.02	Pass
802.11g	2437	Ant1	15.74	Pass
802.11g	2462	Ant1	16.02	Pass

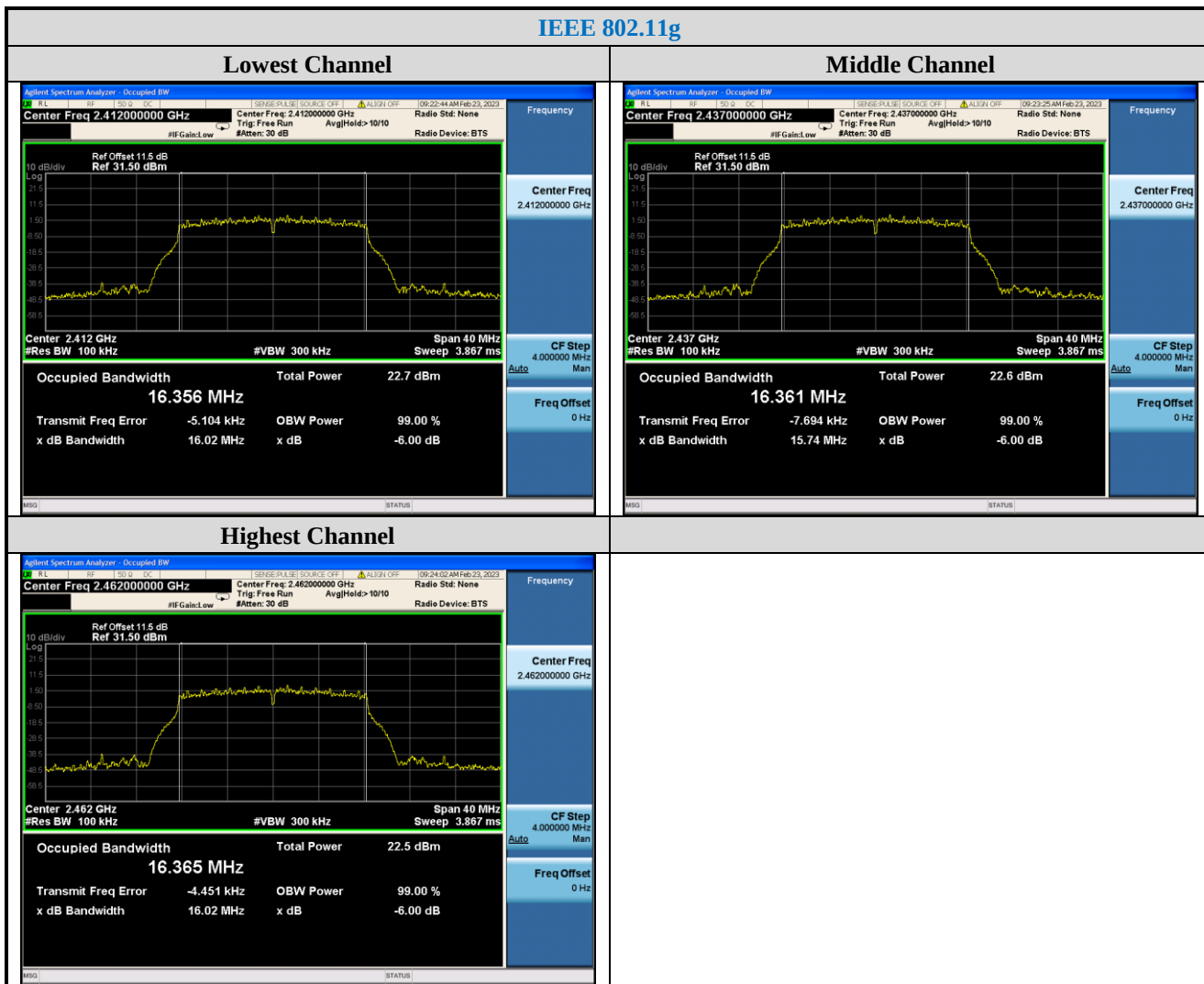
2.2 Test Plots

ANT0



ANT1

IEEE 802.11g



3. Occupied Bandwidth

3.1 Test Data

ANT0:

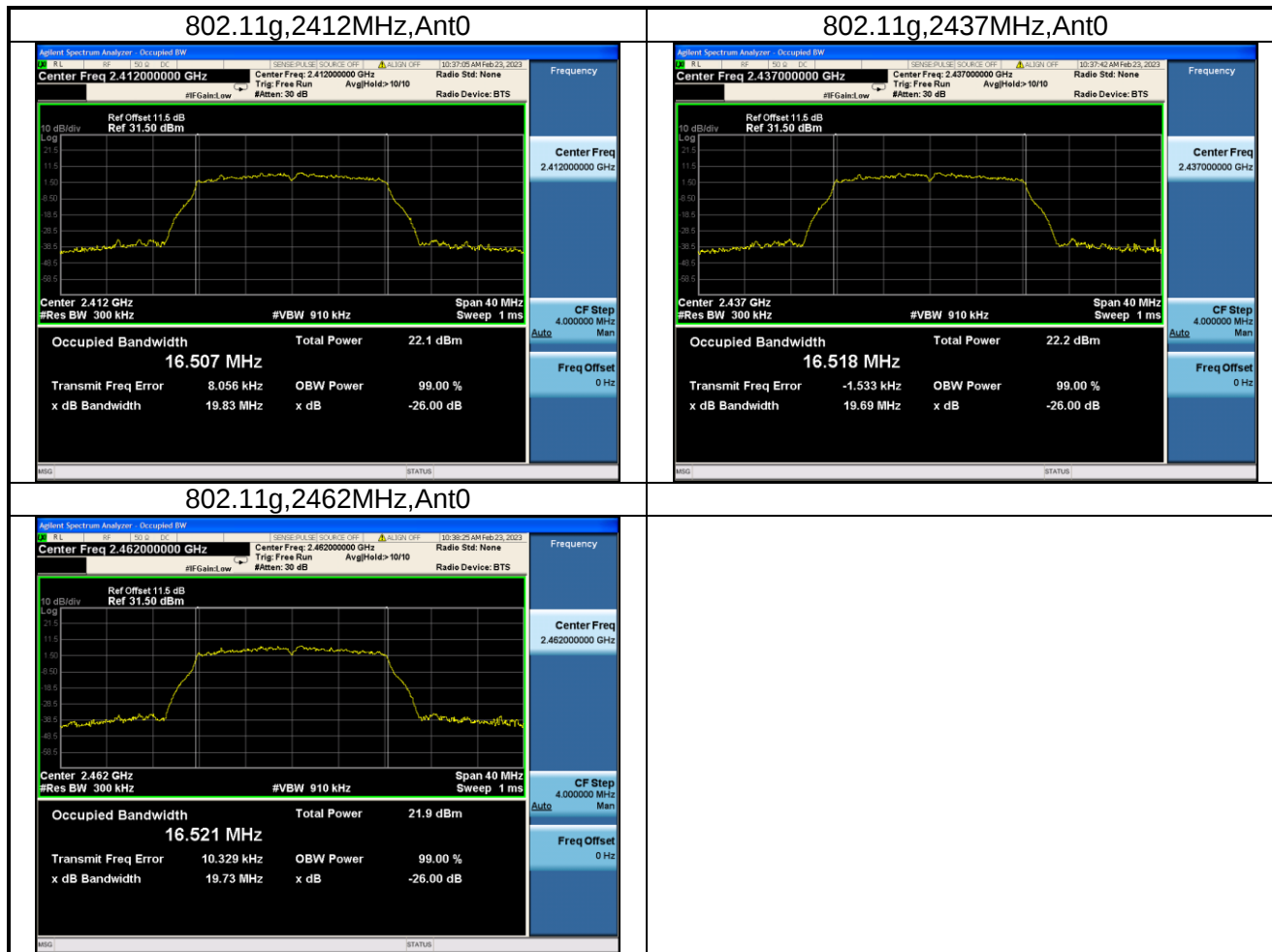
WLAN 99% Occupied Bandwidth				
Mode	Test Frequency (MHz)	Ant	99% Occupied Bandwidth (MHz)	Result
802.11g	2412	Ant0	16.507	Pass
802.11g	2437	Ant0	16.518	Pass
802.11g	2462	Ant0	16.521	Pass

ANT1:

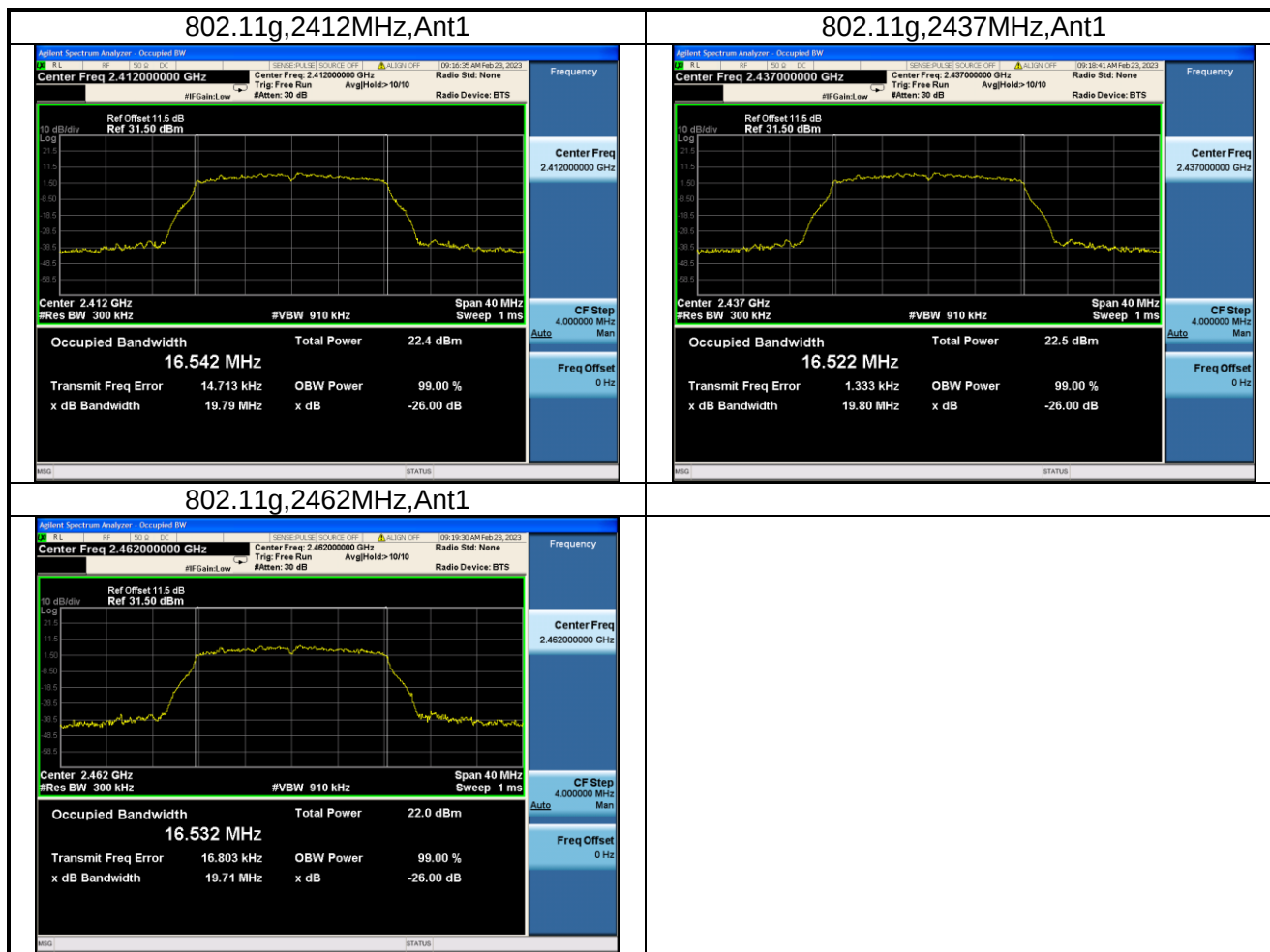
WLAN 99% Occupied Bandwidth				
Mode	Test Frequency (MHz)	Ant	99% Occupied Bandwidth (MHz)	Result
802.11g	2412	Ant1	16.542	Pass
802.11g	2437	Ant1	16.522	Pass
802.11g	2462	Ant1	16.532	Pass

3.2 Test Plots

ANT0:



ANT1:



4. Maximum conducted output power

4.1 Test Data

ANT0:

WLAN Output Power					
Mode	Test Frequency (MHz)	Ant	Max Peak Power (dBm)	Limit (dBm)	Result
802.11g	2412	Ant0	24.78	30	Pass
802.11g	2437	Ant0	25.14	30	Pass
802.11g	2462	Ant0	25.21	30	Pass

Note:

1: EIRP(dBm)= Power(dBm)+Antenna Gain(dBi);

ANT1:

WLAN Output Power					
Mode	Test Frequency (MHz)	Ant	Max Peak Power (dBm)	Limit (dBm)	Result
802.11g	2412	Ant1	24.81	30	Pass
802.11g	2437	Ant1	25.16	30	Pass
802.11g	2462	Ant1	25.17	30	Pass

Note:

1: EIRP(dBm)= Power(dBm)+Antenna Gain(dBi);

5. Power spectrum density

5.1 Test Data

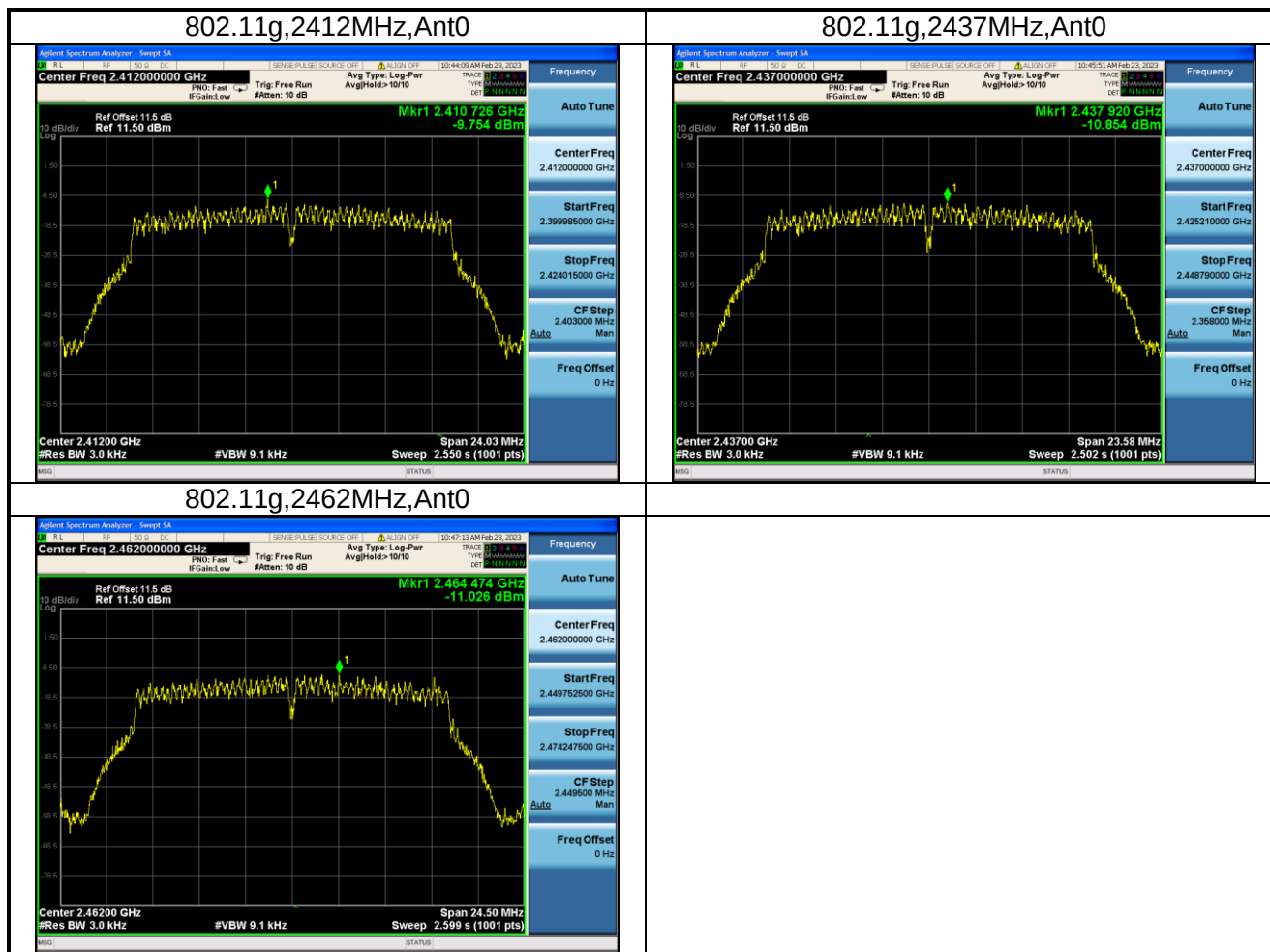
ANT0:

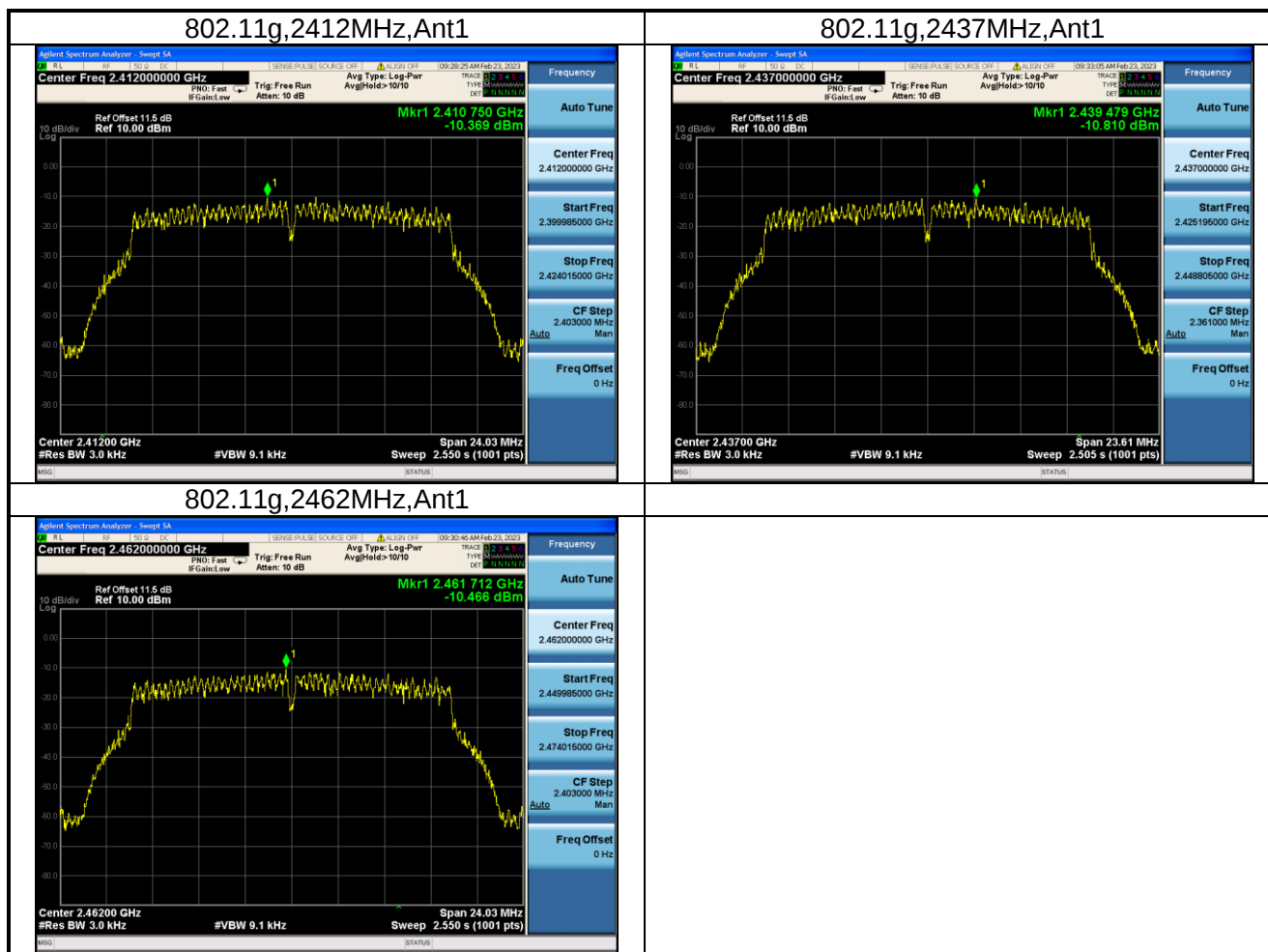
WLAN Power Spectral Density							
Mode	Test Frequency (MHz)	Ant	Duty Cycle Factor (dB)	PSD (dBm)	RBW (kHz)	Limit (dBm)	Result
802.11g	2412	Ant0	1.16	-9.754	3	8	Pass
802.11g	2437	Ant0	1.16	-10.854	3	8	Pass
802.11g	2462	Ant0	1.16	-11.026	3	8	Pass

ANT1:

WLAN Power Spectral Density							
Mode	Test Frequency (MHz)	Ant	Duty Cycle Factor (dB)	PSD (dBm)	RBW (kHz)	Limit (dBm)	Result
802.11g	2412	Ant1	1.16	-10.369	3	8	Pass
802.11g	2437	Ant1	1.16	-10.810	3	8	Pass
802.11g	2462	Ant1	1.16	-10.466	3	8	Pass

5.2 Test Plots





6. Emission outside the frequency band

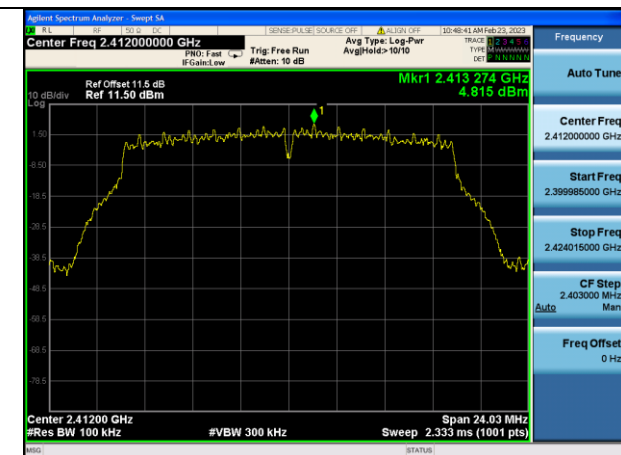
6.1 Test Data

WLAN Transmitter Spurious Emission						
Mode	Test Frequency (MHz)	Ant	Plot No.	Frequency Range	Emission (dBm)	Result
802.11g	2412	Ant0	1	Reference Level	4.815	Pass
802.11g	2412	Ant0	2	Band Edge	-37.861	Pass
802.11g	2412	Ant0	3	30MHz~25000MHz	-41.228	Pass
802.11g	2437	Ant0	1	Reference Level	4.940	Pass
802.11g	2437	Ant0	3	30MHz~25000MHz	-41.734	Pass
802.11g	2462	Ant0	1	Reference Level	5.021	Pass
802.11g	2462	Ant0	2	Band Edge	-46.503	Pass
802.11g	2462	Ant0	3	30MHz~25000MHz	-41.451	Pass

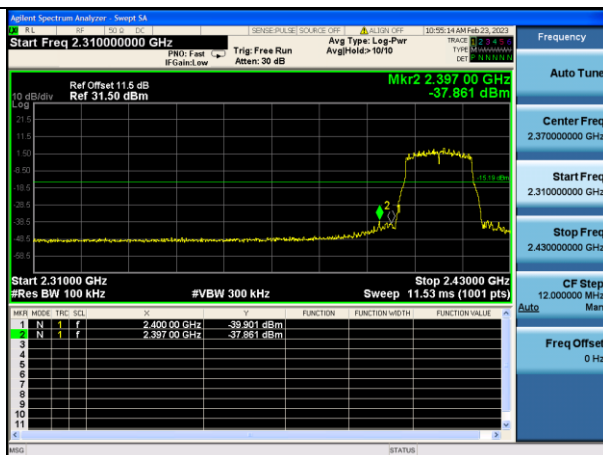
WLAN Transmitter Spurious Emission						
Mode	Test Frequency (MHz)	Ant	Plot No.	Frequency Range	Emission (dBm)	Result
802.11g	2412	Ant1	1	Reference Level	4.855	Pass
802.11g	2412	Ant1	2	Band Edge	-37.259	Pass
802.11g	2412	Ant1	3	30MHz~25000MHz	-41.452	Pass
802.11g	2437	Ant1	1	Reference Level	4.906	Pass
802.11g	2437	Ant1	3	30MHz~25000MHz	-41.642	Pass
802.11g	2462	Ant1	1	Reference Level	4.976	Pass
802.11g	2462	Ant1	2	Band Edge	-46.952	Pass
802.11g	2462	Ant1	3	30MHz~25000MHz	-41.173	Pass

9.2 Test Plots

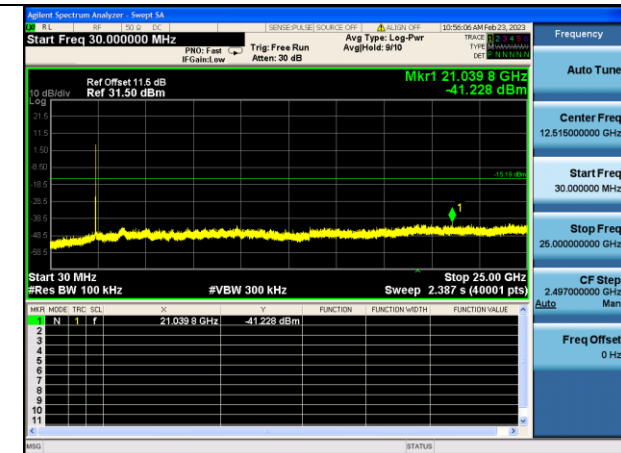
802.11g,2412MHz,Ant0,Plot 1,Reference Level



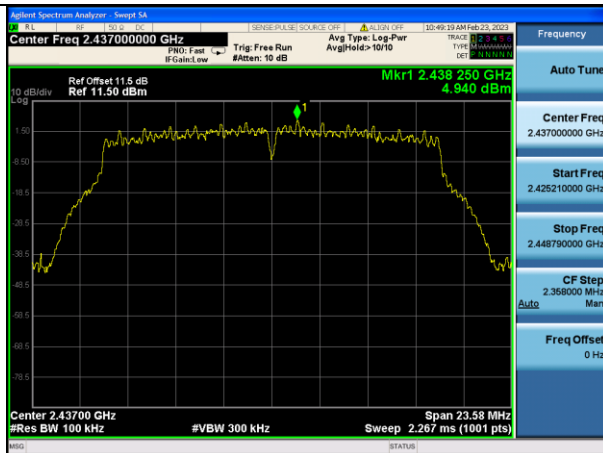
802.11g,2412MHz,Ant0,Plot 2,Band Edge



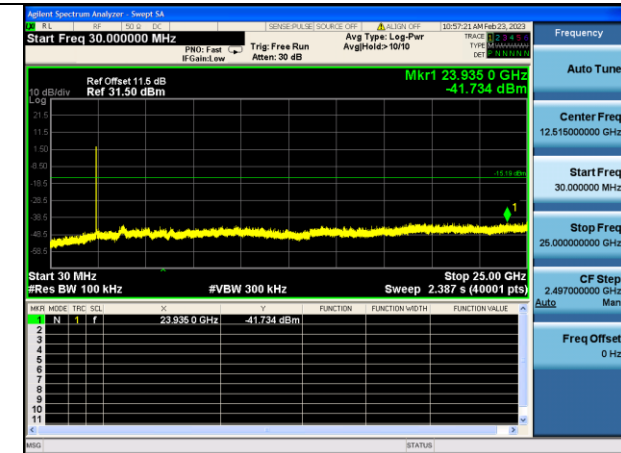
802.11g,2412MHz,Ant0,Plot 3,30MHz~2500 0MHz



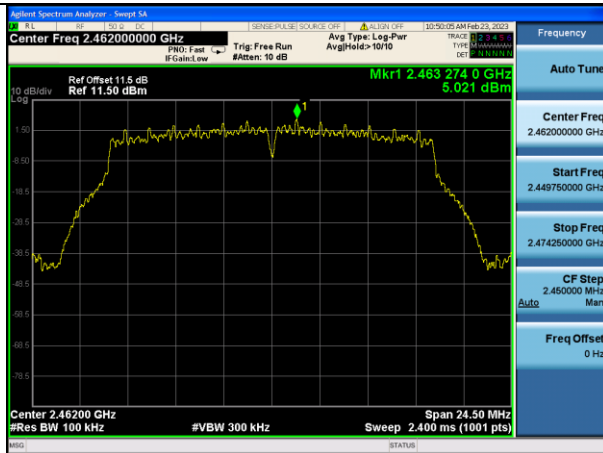
802.11g,2437MHz,Ant0,Plot 1,Reference Level



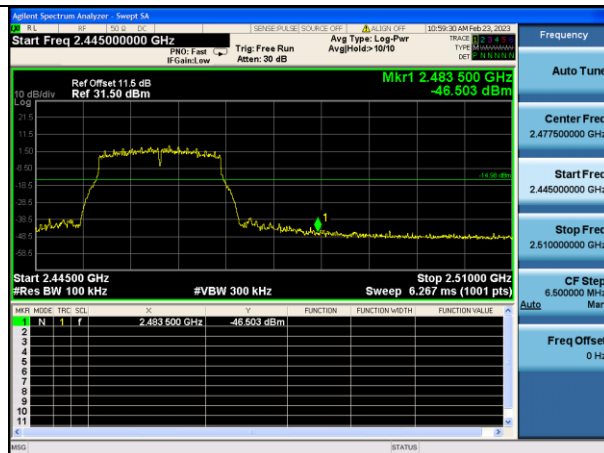
802.11g,2437MHz,Ant0,Plot 2,30MHz~2500 0MHz



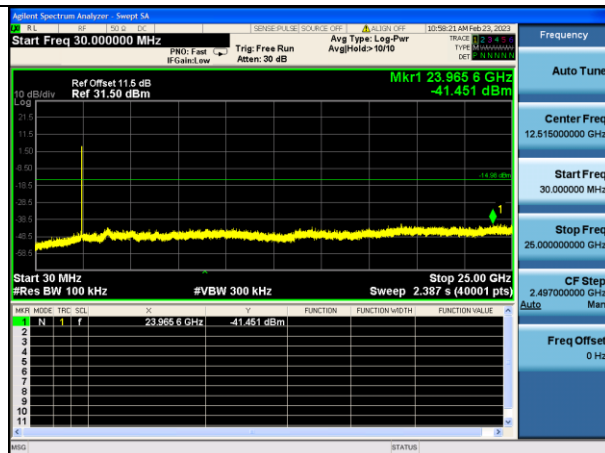
802.11g,2462MHz,Ant0,Plot 1,Reference Level



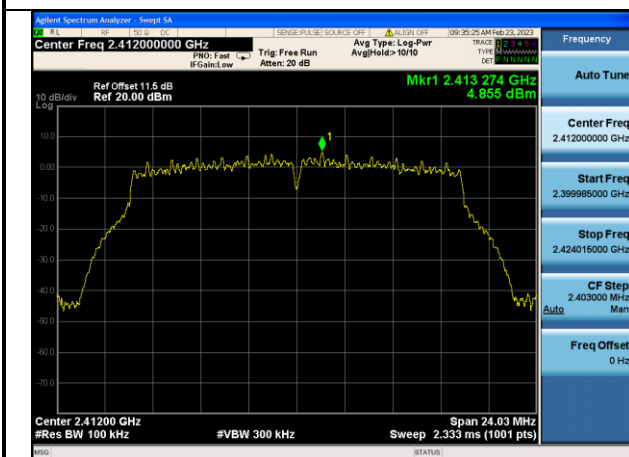
802.11g,2462MHz,Ant0,Plot 2,Band
Edge



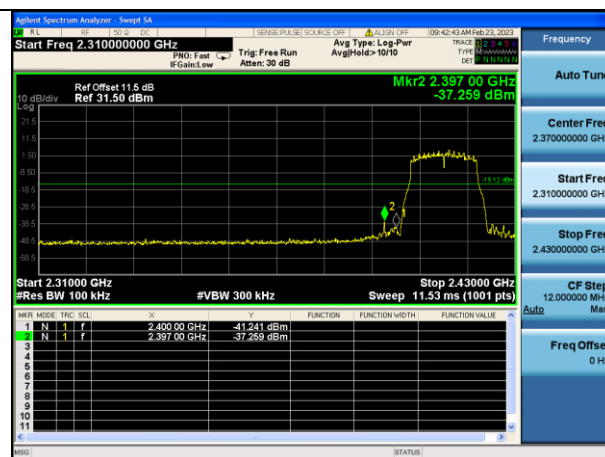
802.11g,2462MHz,Ant0,Plot 3,30MHz~2500
0MHz



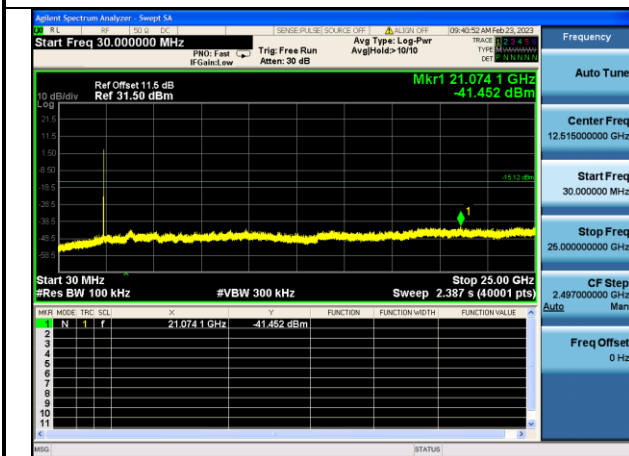
802.11g,2412MHz,Ant1,Plot 1,Reference Level



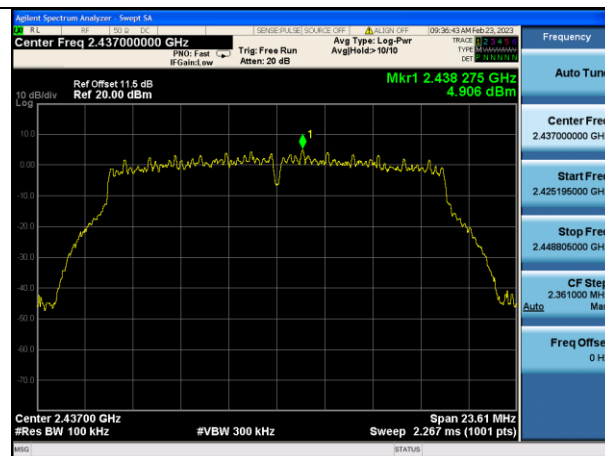
802.11g,2412MHz,Ant1,Plot 2,Band Edge



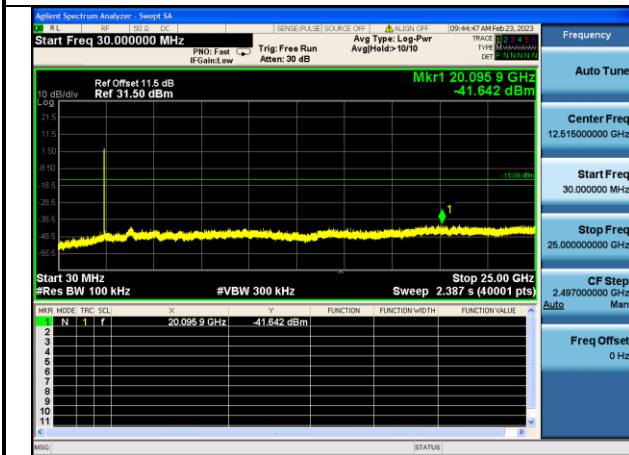
802.11g,2412MHz,Ant1,Plot 3,30MHz~2500 0MHz



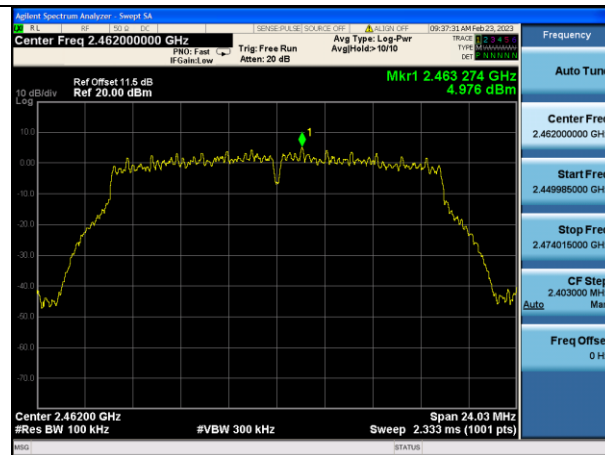
802.11g,2437MHz,Ant1,Plot 1,Reference Level



802.11g,2437MHz,Ant1,Plot 2,30MHz~2500 0MHz



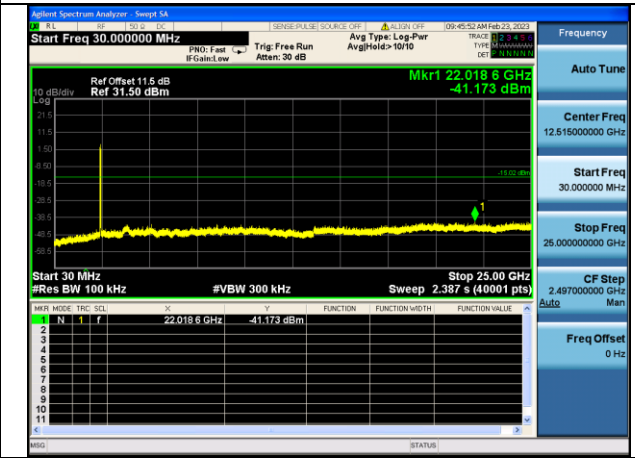
802.11g,2462MHz,Ant1,Plot 1,Reference Level



802.11g,2462MHz,Ant1,Plot 2,Band
Edge



802.11g,2462MHz,Ant1,Plot 3,30MHz~2500
0MHz

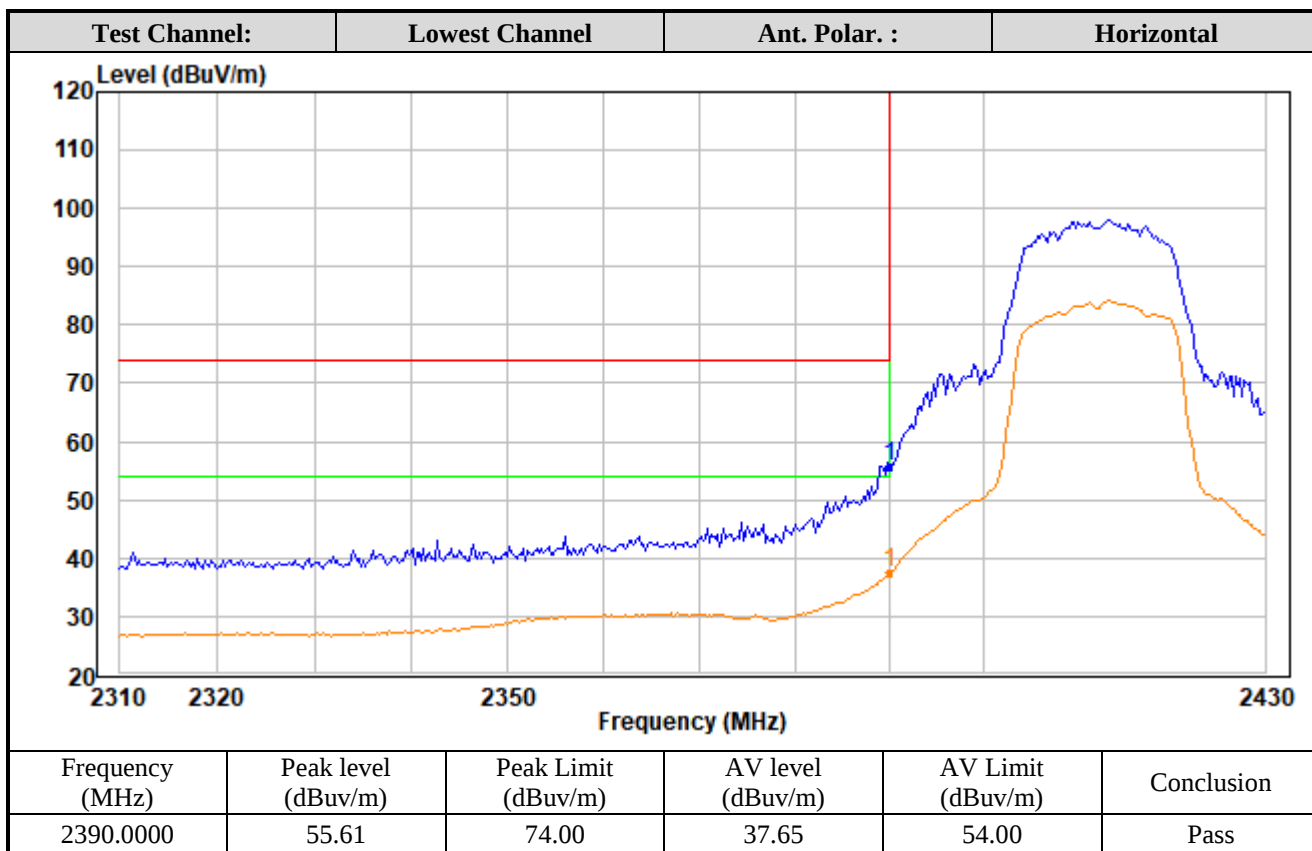


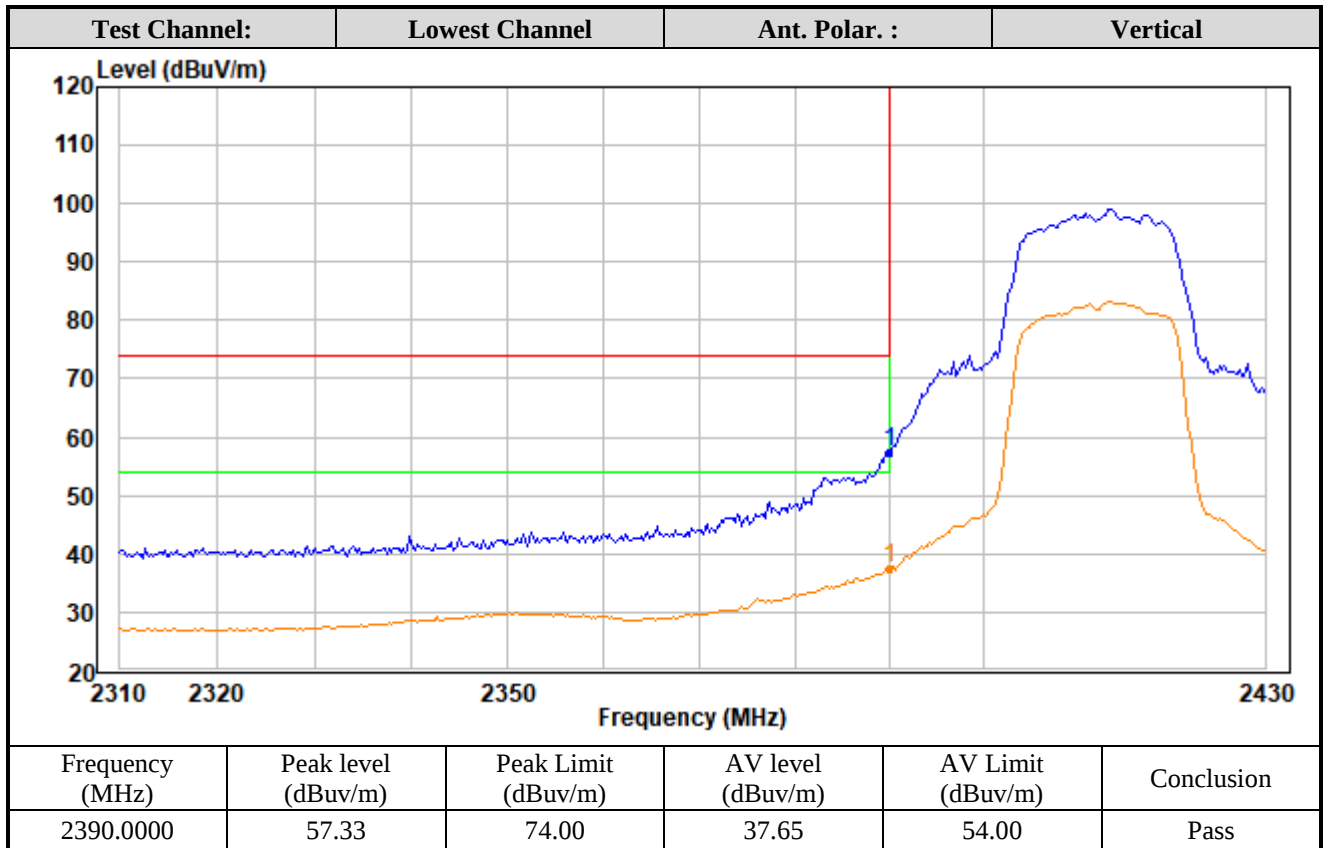
7. Band Edges Compliance

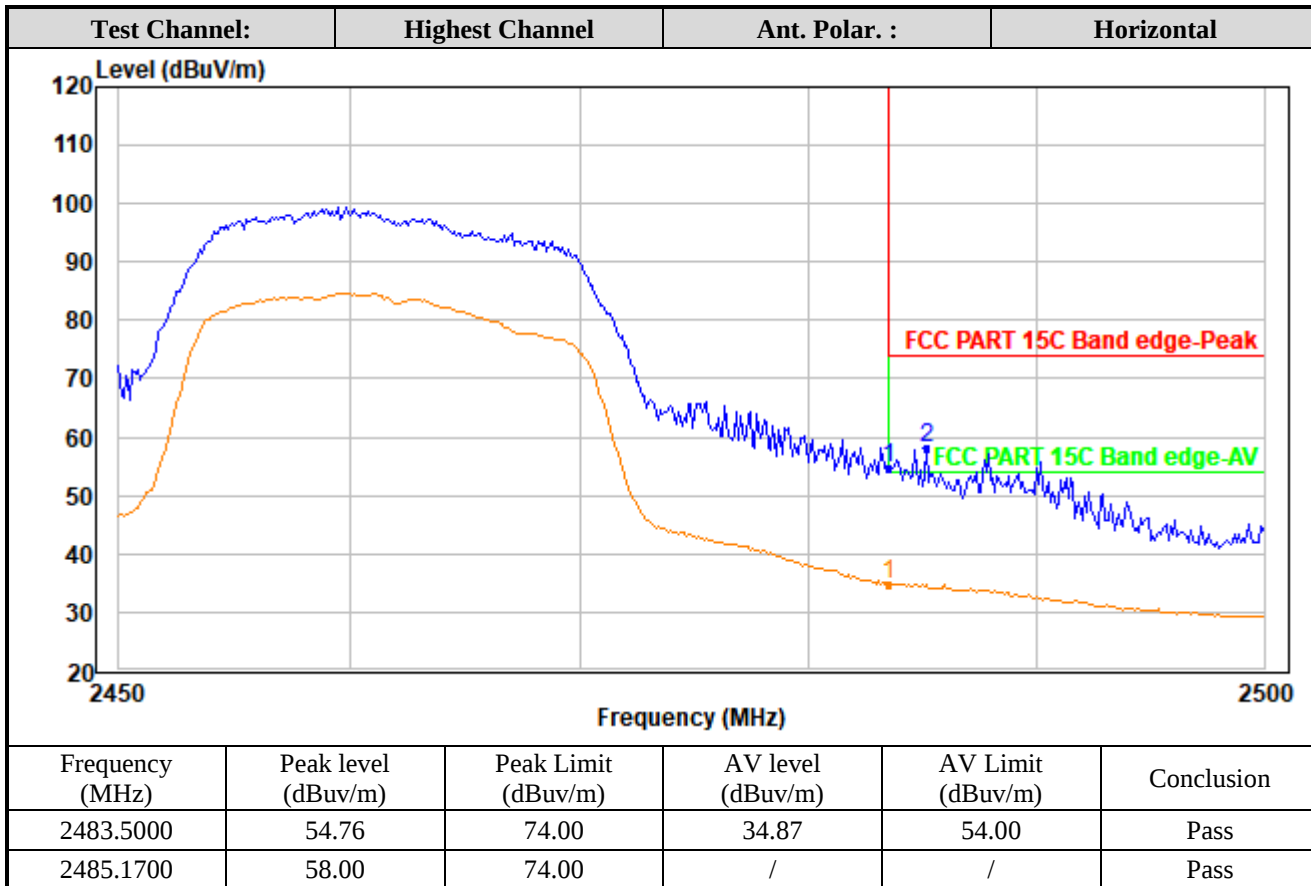
7.1 Test Data

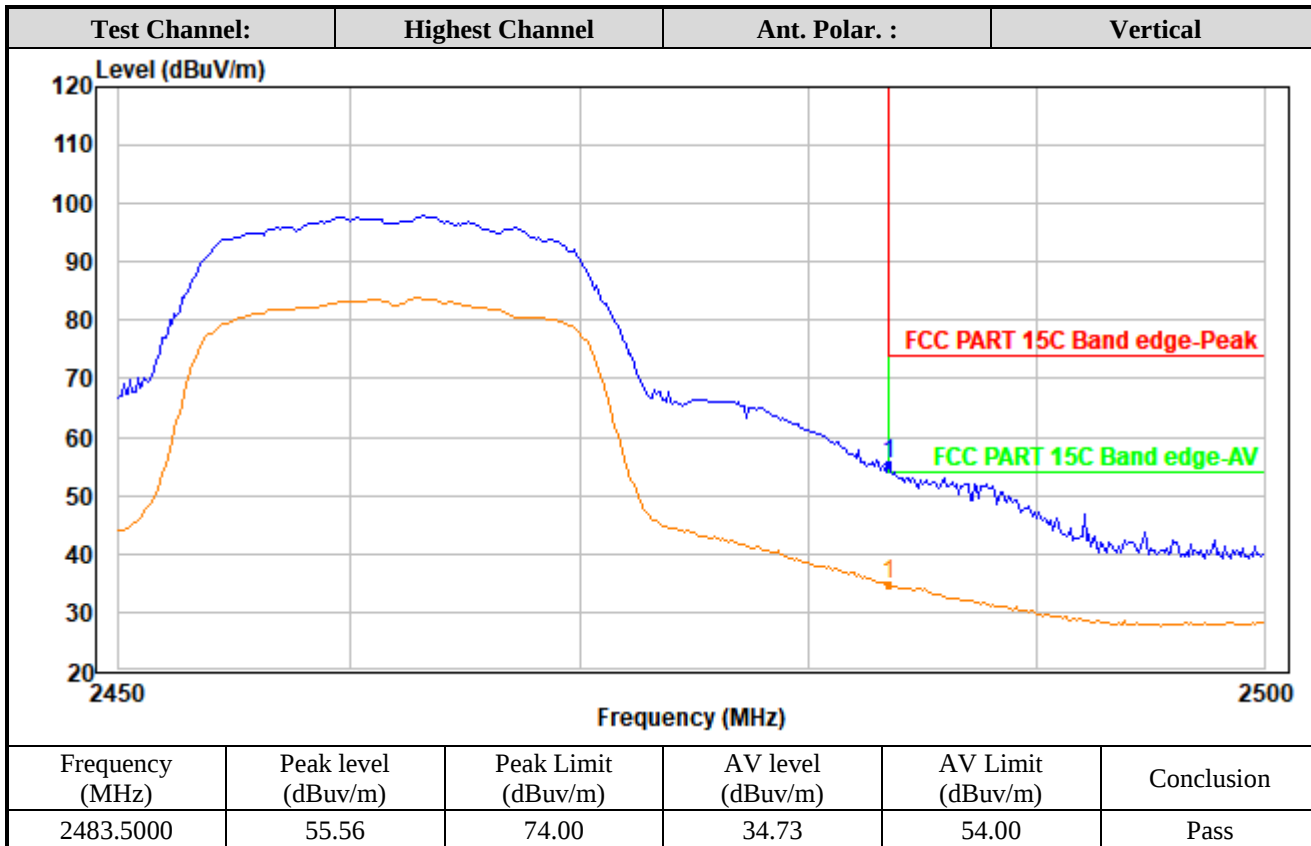
IEEE 802.11g

ANT0









IEEE 802.11g

ANT1

