Appendix A: Test results

1. RF Output Power

1.1 Test Result and Data

ZIGBEE Maximum Output Power		
Test Frequency (MHz)	Power (dBm)	Result
2405	10.32	Pass
2440	10.07	Pass
2480	9.88	Pass

The maximum EIRP = 10.32dBm+1.5dBi = 11.82dBm = 0.015W which is lower than the limit of 4W listed in RSS-247.

2405MHz

2440MHz

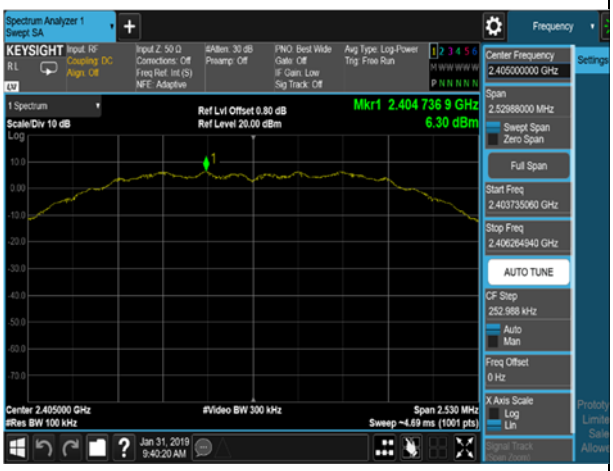
2480MHz

2. Power Spectral Density

2.1 Test Result and Data

ZIGBEE Peak Power Spectral Density		
Test Frequency (MHz)	PSD (dBm/100kHz)	Result
2405	6.30	Pass
2440	6.09	Pass
2480	5.86	Pass

2405MHz



2440MHz

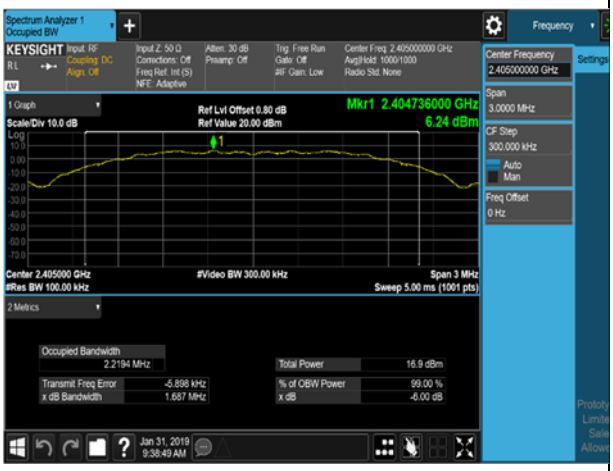
2480MHz

3. 6dB BandWidth

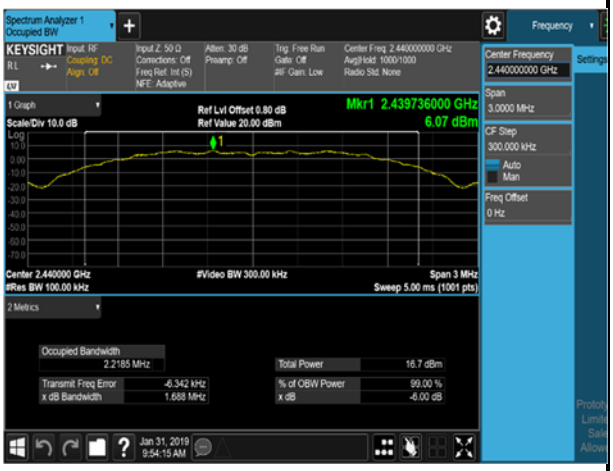
3.1 Test Result and Data

ZIGBEE Occupied 6dB Bandwidth			
Test Frequency (MHz)	Occupied Bandwidth (kHz)	Min Limit (kHz)	Result
2405	1686.6	500	Pass
2440	1687.9	500	Pass
2480	1681.9	500	Pass

2405MHz



2440MHz



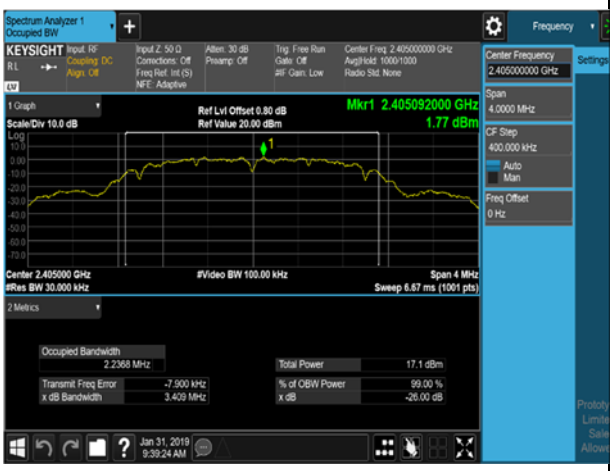
2480MHz

4. 99% BandWidth

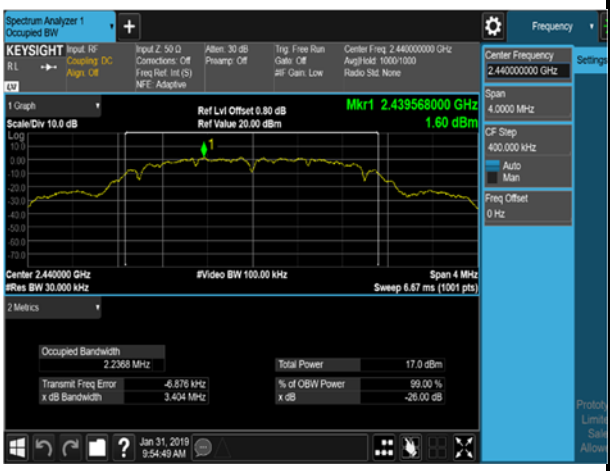
4.1 Test Result and Data

ZIGBEE 99% Occupied Bandwidth		
Test Frequency (MHz)	99% Occupied Bandwidth (MHz)	Result
2405	2.2368	Pass
2440	2.2368	Pass
2480	2.2407	Pass

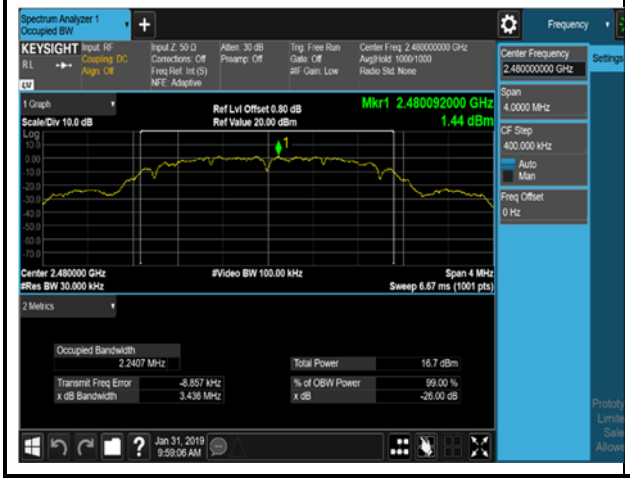
2405MHz



2440MHz



2480MHz



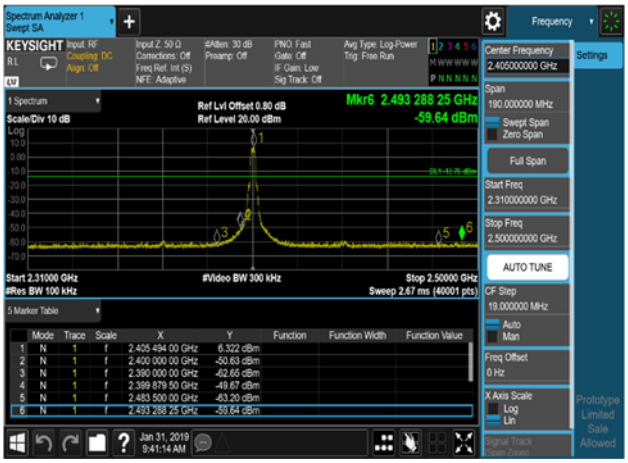
5. Transmitter Spurious Emission

5.1 Test Result and Data

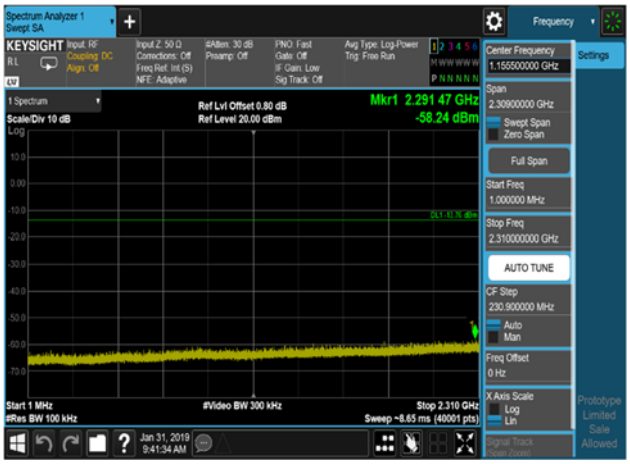
ZIGBEE Transmitter Spurious Emission			
Test Frequency (MHz)	Test Range	Power (dBm)	Result
2405	1MHz~2310MHz	-58.24	Pass
2405	2500MHz~5000MHz	-56.15	Pass
2405	5000MHz~25000MHz	-40.93	Pass
2405	Band Edge	-49.67	Pass
2405	Reference Level	6.24	Pass
2440	1MHz~2310MHz	-58.33	Pass
2440	2500MHz~5000MHz	-55.68	Pass
2440	5000MHz~25000MHz	-41.70	Pass
2440	Band Edge	-59.73	Pass
2440	Reference Level	6.09	Pass
2480	1MHz~2310MHz	-58.32	Pass
2480	2500MHz~5000MHz	-55.58	Pass
2480	5000MHz~25000MHz	-41.68	Pass
2480	Band Edge	-46.23	Pass
2480	Reference Level	5.87	Pass

2405MHz,Plot 1,Reference Level

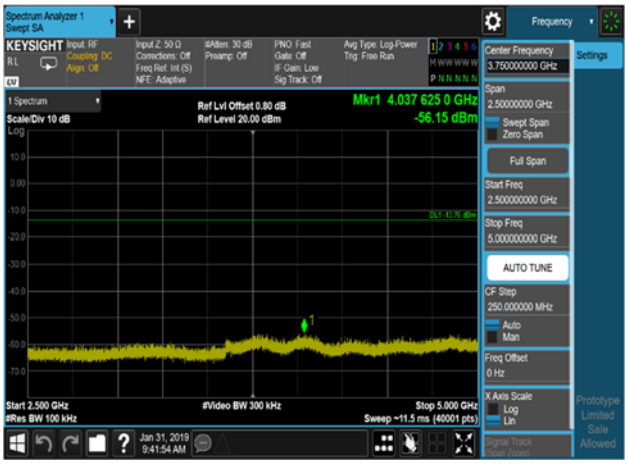
2405MHz,Plot 2,Band Edge



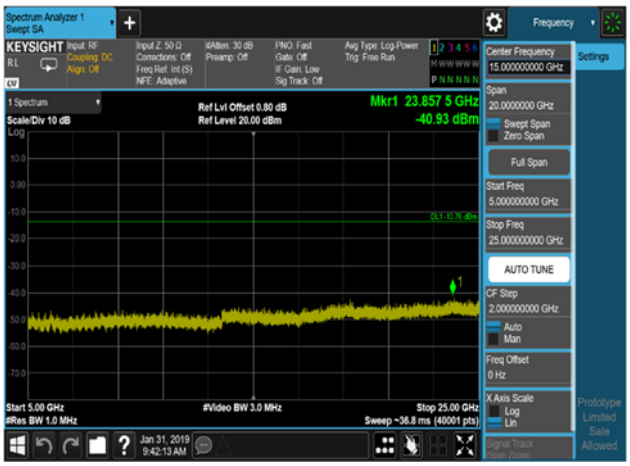
2405MHz,Plot 3,1MHz~2310MHz



2405MHz,Plot 4,2500MHz~5000MHz

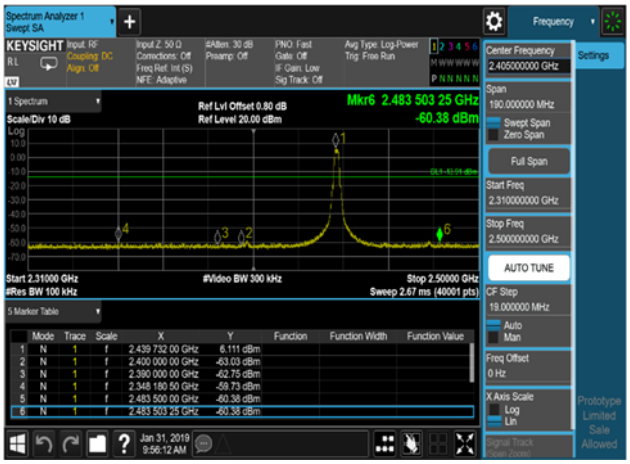


2405MHz,Plot 5,5000MHz~25000MHz

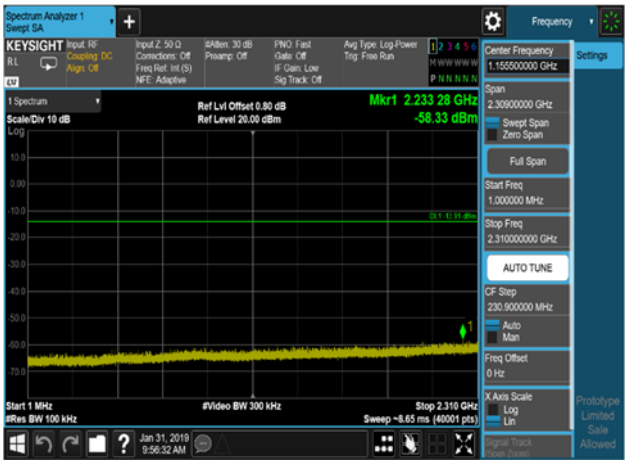


2440MHz,Plot 1,Reference Level

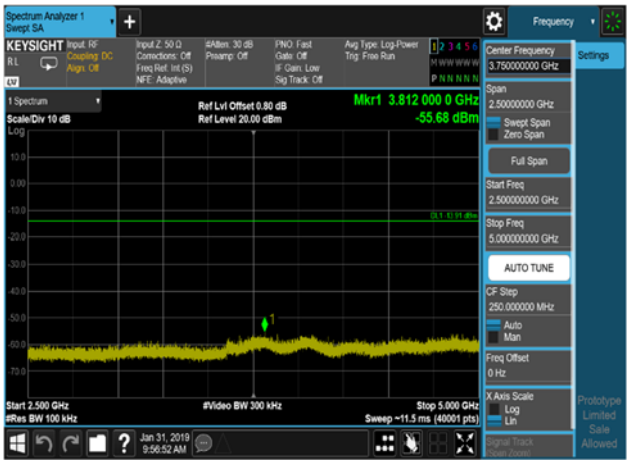
2440MHz,Plot 2,Band Edge



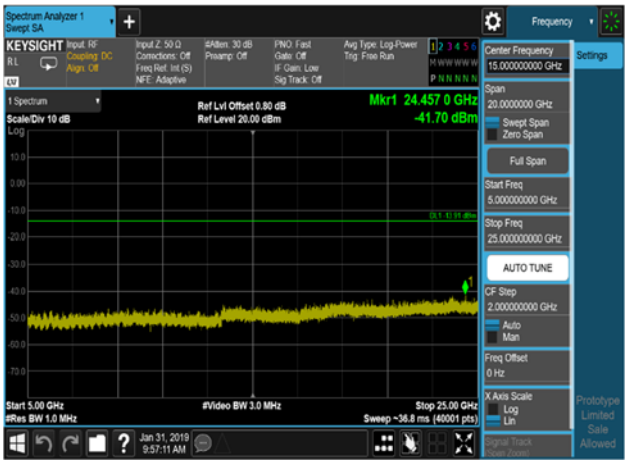
2440MHz,Plot 3,1MHz~2310MHz



2440MHz,Plot 4,2500MHz~5000MHz

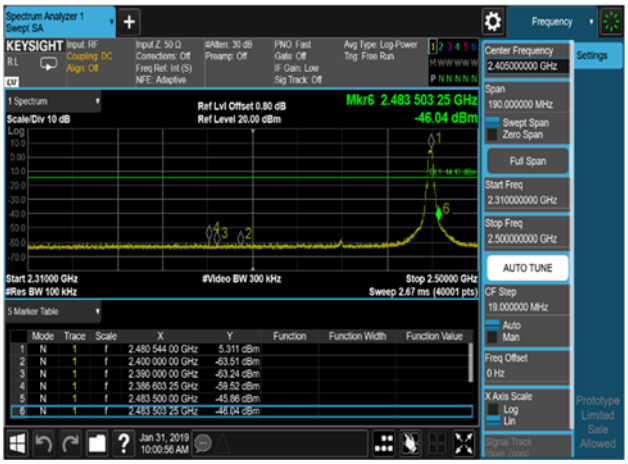


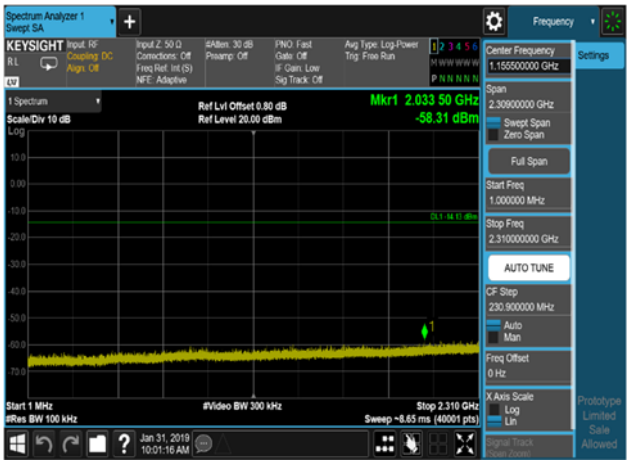
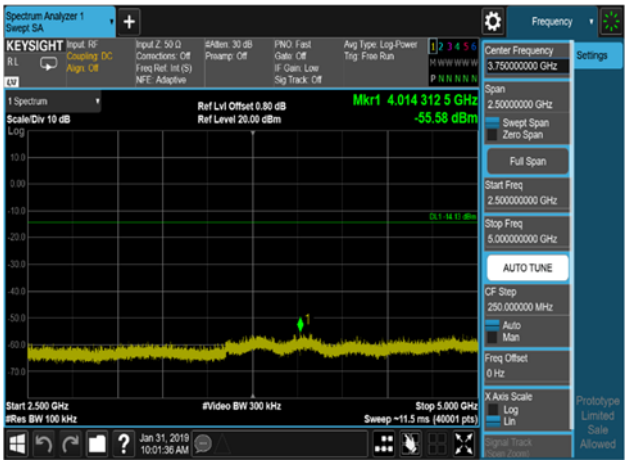
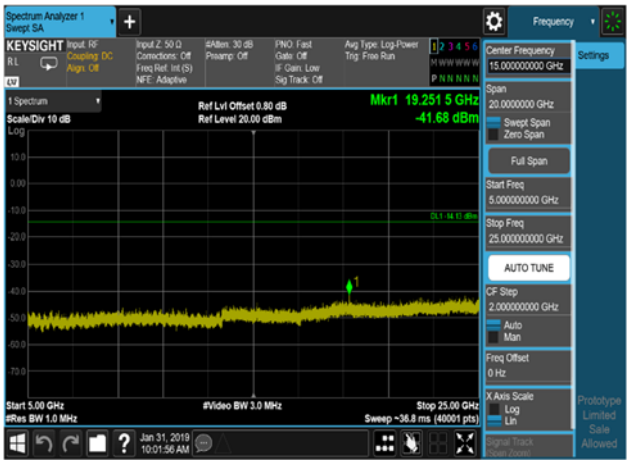
2440MHz,Plot 5,5000MHz~25000MHz



2480MHz,Plot 1,Reference Level

2480MHz,Plot 2,Band Edge



2480MHz,Plot 3,1MHz~2310MHz	2480MHz,Plot 4,2500MHz~5000MHz
	
2480MHz,Plot 5,5000MHz~25000MHz	
	

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