

Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	120V/60Hz
Test Mode :	TX n Mode(40M)MIMO		

Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2422 MHz	-15.679	8	PASS
2437 MHz	-16.519	8	PASS
2452 MHz	-15.956	8	PASS

7. CHANNEL BANDWIDTH& 99% OCCUPY BANDWIDTH

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	$\geq 500\text{KHz}$ (6dB bandwidth)	2400-2483.5	PASS

7.2 TEST PROCEDURE

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

7.6 TEST RESULT

Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	120V/60Hz
Test Mode :	TX b Mode Antenna 1		

Test CH	Limit(KHz)	Result				
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)	Limit(KHz)	Result
Lowest	8.498	16.330	17.600	36.340	>500	Pass
Middle	8.551	16.380	17.570	36.310		
Highest	9.057	16.340	17.590	36.330		

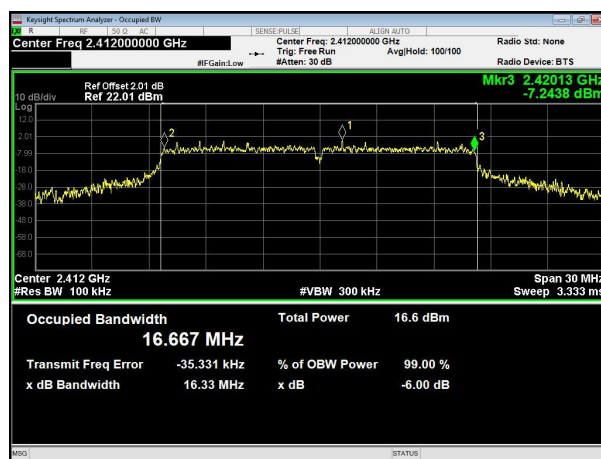
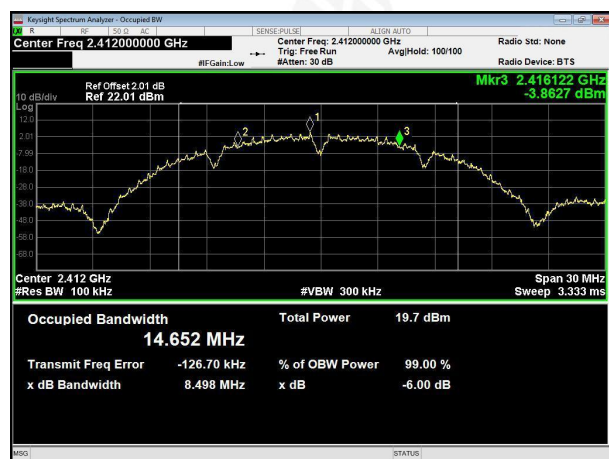
Test CH	99% Occupy Bandwidth (MHz)				Result
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)	
Lowest	14.652	16.667	17.773	36.249	Pass
Middle	14.617	16.640	17.788	36.226	
Highest	14.573	16.647	17.779	36.229	

Test plot as follows:

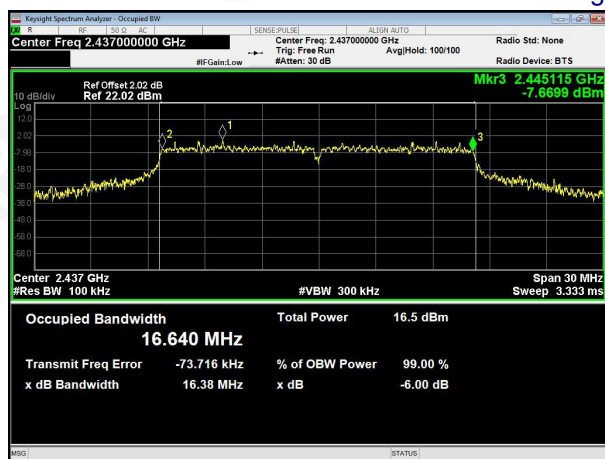
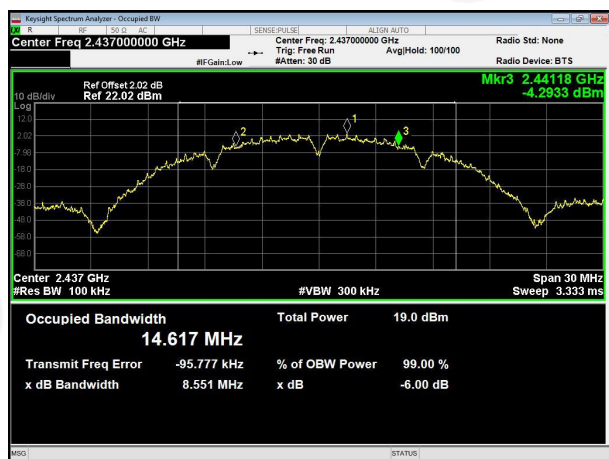
802.11b

802.11g

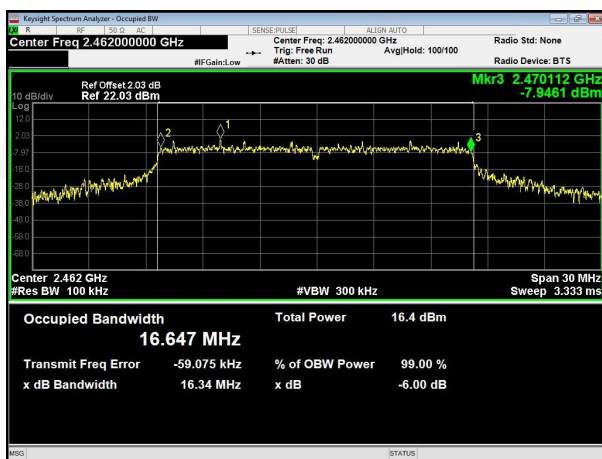
Lowest channel



Middle channel



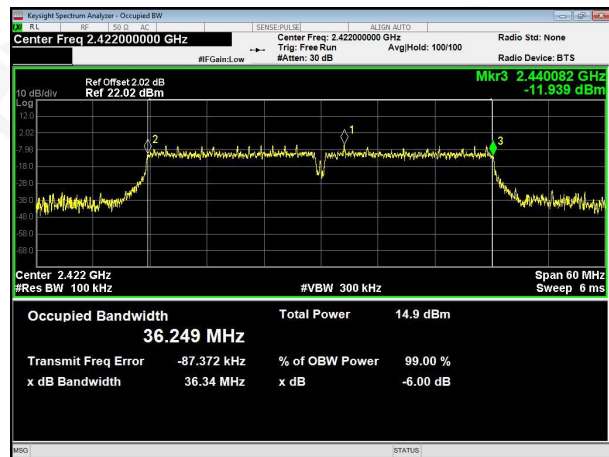
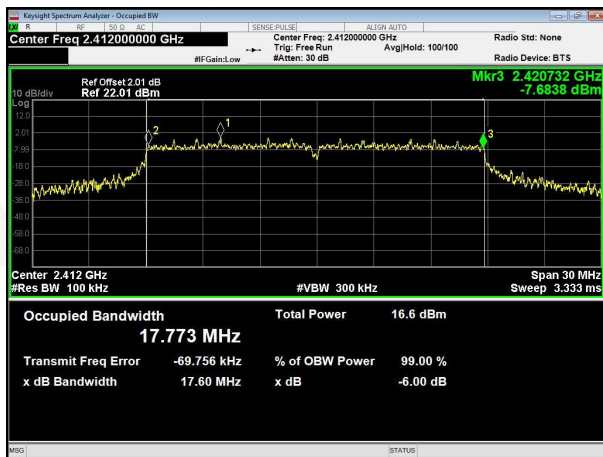
Highest channel



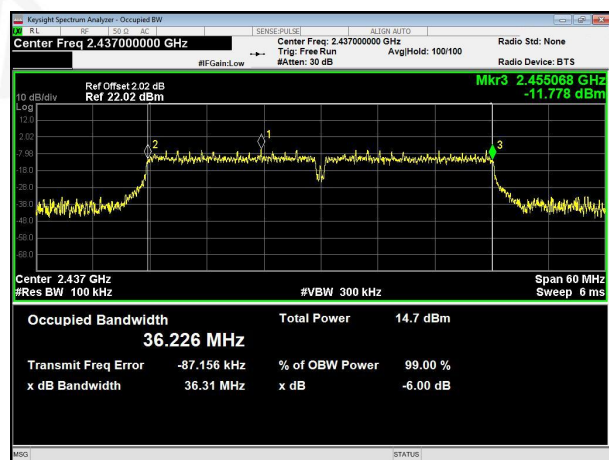
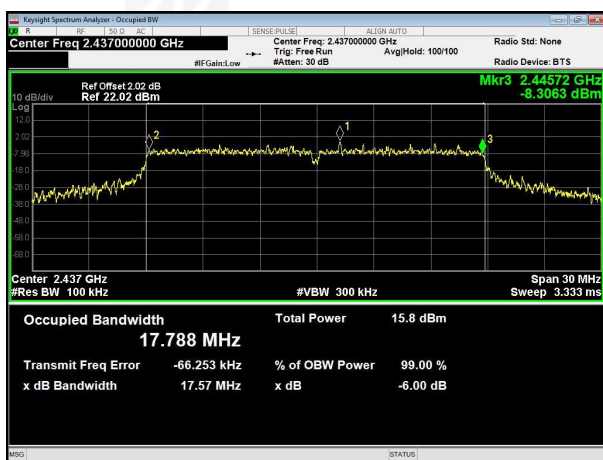
802.11n20

802.11n40

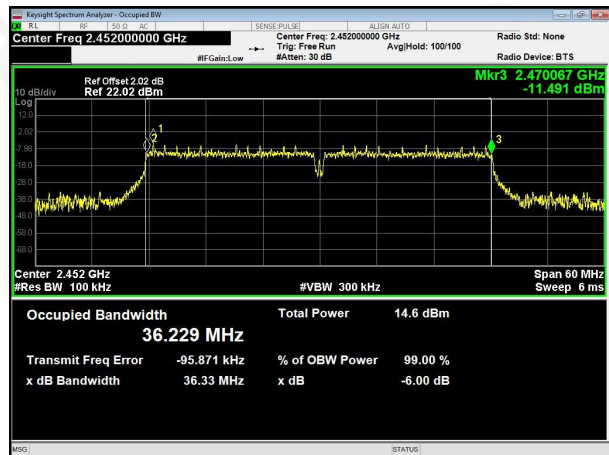
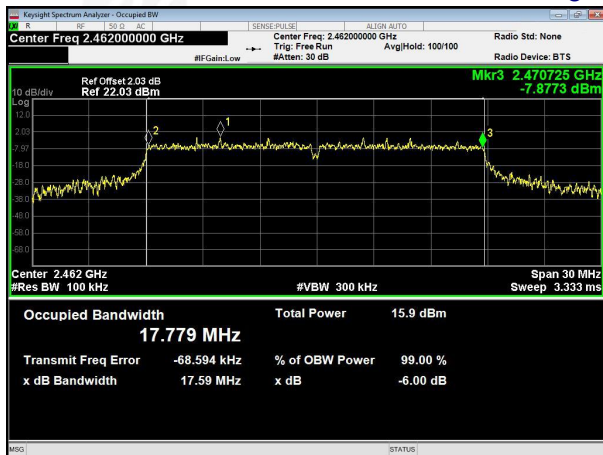
Lowest channel



Middle channel



Highest channel



Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	120V/60Hz
Test Mode :	TX b Mode Antenna 2		

Test CH	-6dB Occupy Bandwidth (MHz)				Limit(KHz)	Result
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)		
Lowest	8.224	16.290	15.020	35.060	>500	Pass
Middle	7.688	15.340	13.450	35.080		
Highest	7.770	15.150	16.090	35.070		

Test CH	99% Occupy Bandwidth (MHz)				Result
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)	
Lowest	12.567	16.350	17.543	35.790	Pass
Middle	12.458	16.338	17.542	35.852	
Highest	12.492	16.359	17.540	35.896	

802.11b

802.11g

LOWEST CHANNEL



Middle channel



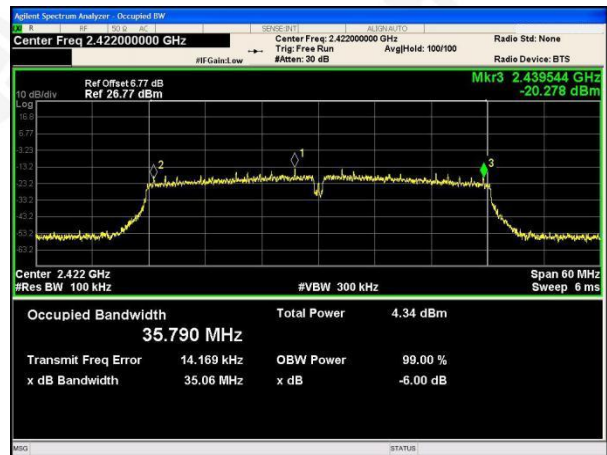
HIGHEST CHANNEL



802.11n20

802.11n40

LOWEST CHANNEL



MIDDLE CHANNEL



HIGHEST CHANNEL



8. PEAK OUTPUT POWER TEST

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

8.1 APPLIED PROCEDURES/LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

8.2 TEST PROCEDURE

- a. The EUT was directly connected to the Power meter

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

8.6 TEST RESULT

Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	120V/60Hz
Test Mode :	TX b Mode Antenna 1		

Test CH	Peak Output Power (dBm)				Limit(dBm)	Result
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)		
Lowest	12.391	11.468	10.914	8.929	30.00	Pass
Middle	12.104	11.235	10.551	8.431		
Highest	12.341	11.117	10.342	8.774		

Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	120V/60Hz
Test Mode :	TX b Mode Antenna 2		

Test CH	Peak Output Power (dBm)				Limit(dBm)	Result
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)		
Lowest	11.321	10.125	9.235	8.723	30.00	Pass
Middle	11.038	10.112	9.123	8.546		
Highest	11.213	10.212	9.101	8.645		

Test CH	MIMO Peak Output Power (dBm)		Limit(dBm)	Result
	802.11n(HT20)	802.11n(HT40)		
Lowest	13.165	11.837	30.00	Pass
Middle	12.905	11.498		
Highest	12.775	11.718		

9. CONDUCTED BAND EDGE AND SPURIOUS EMISSION

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

9.1 APPLICABLE STANDARD

in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in§15.205(a), must also comply with the radiated emission limits specified in15.209(a).

9.2 TEST PROCEDURE

Using the following spectrum analyzer setting:

- A) Set the RBW = 100KHz.
- B) Set the VBW = 300KHz.
- C) Sweep time = auto couple.
- D) Detector function = peak.
- E) Trace mode = max hold.
- F) Allow trace to fully stabilize.

9.3 DEVIATION FROM STANDARD

No deviation.

9.4 TEST SETUP



9.5 EUT OPERATION CONDITIONS

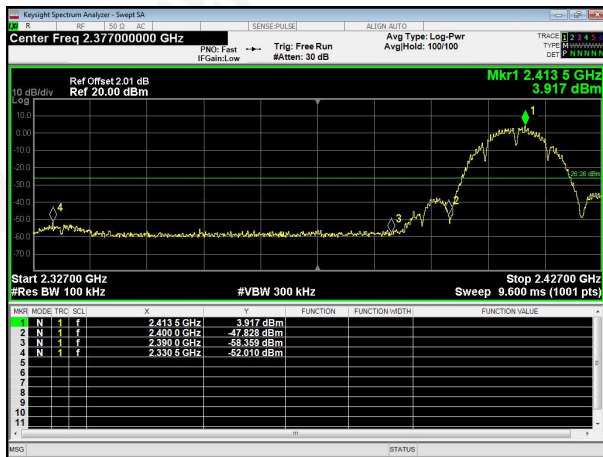
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

9.6 TEST RESULTS

Test plot as follows: Antenna 1

Test mode:

802.11b



Lowest channel



Highest channel

Test mode:

802.11g



Lowest channel



Highest channel

Test mode:

802.11n(HT20)



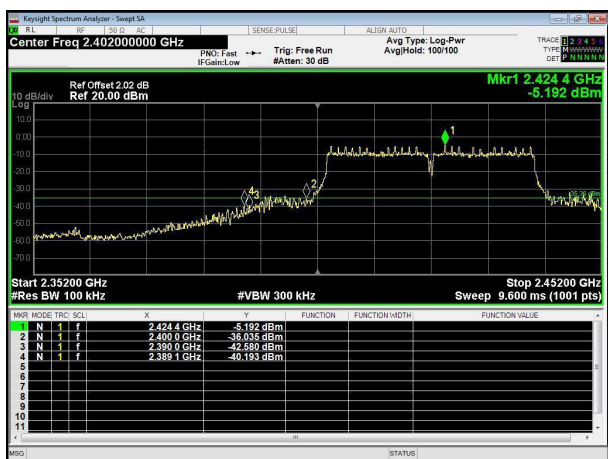
Lowest channel



Highest channel

Test mode:

802.11n(HT40)



Lowest channel

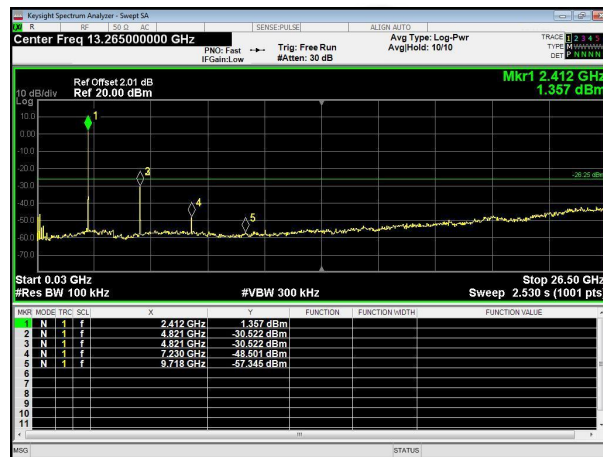


Highest channel

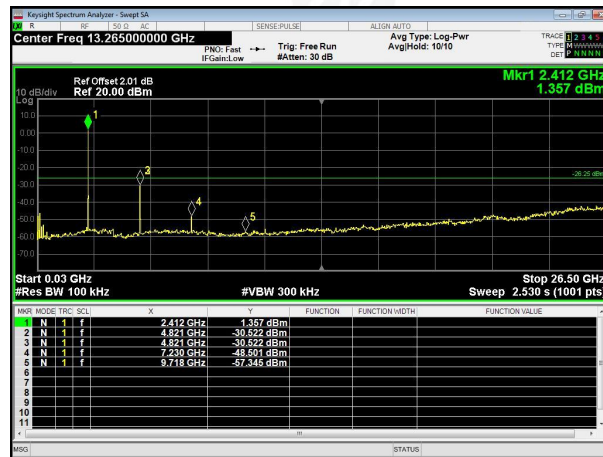
Test plot as follows: Antenna 1

802.11b

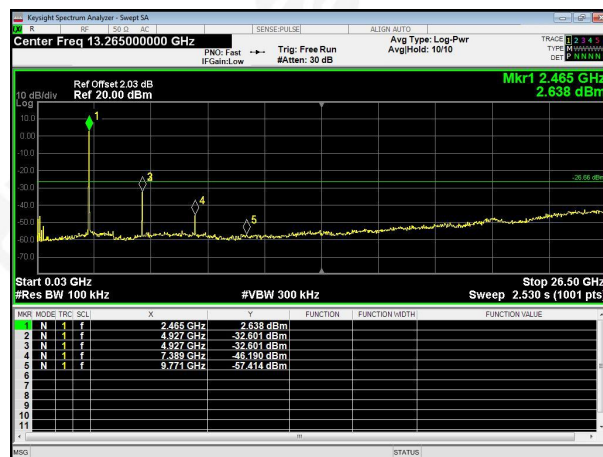
Lowest channel



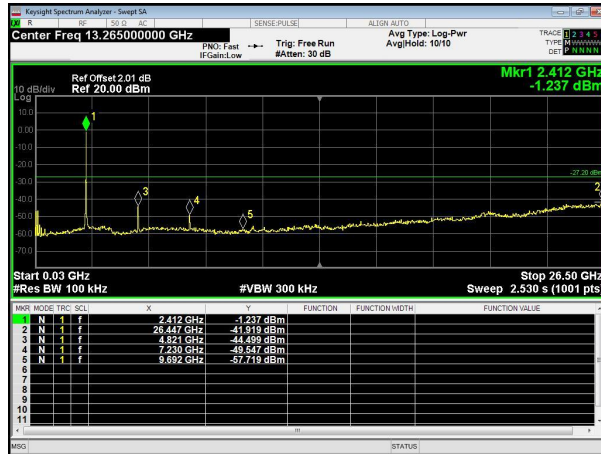
Middle channel



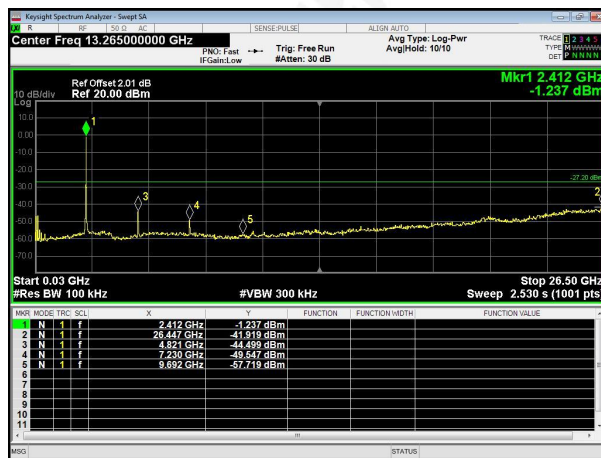
Highest channel



802.11g
Lowest channel



Middle channel



Highest channel

