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

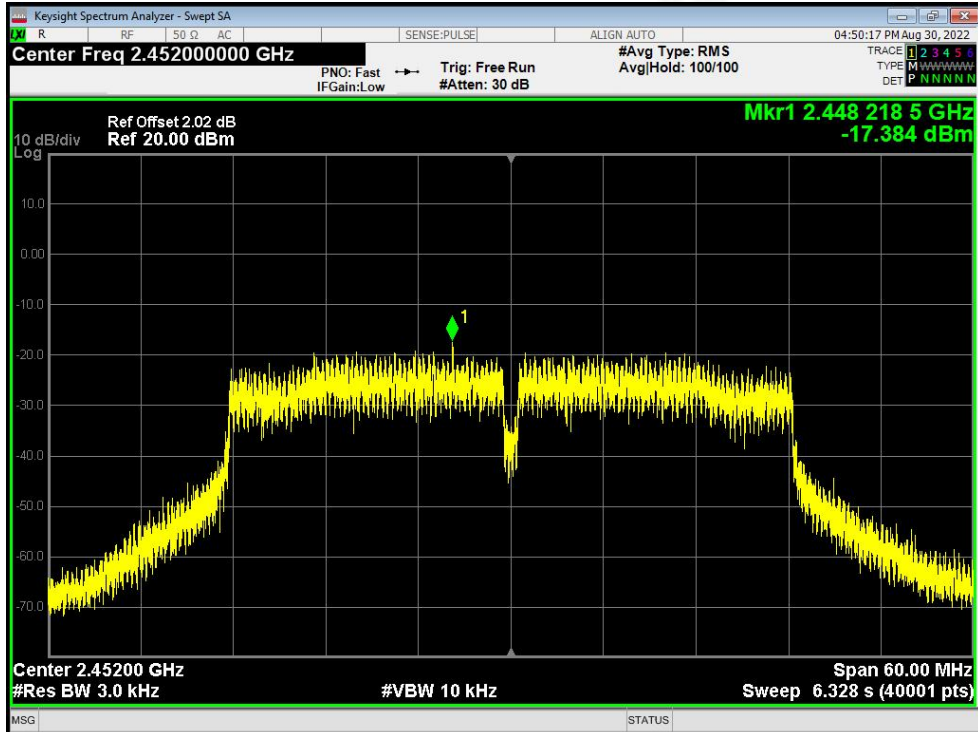| Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2422 MHz	-16.216	8	PASS
2437 MHz	-13.095	8	PASS
2452 MHz	-17.384	8	PASS

TX CH03
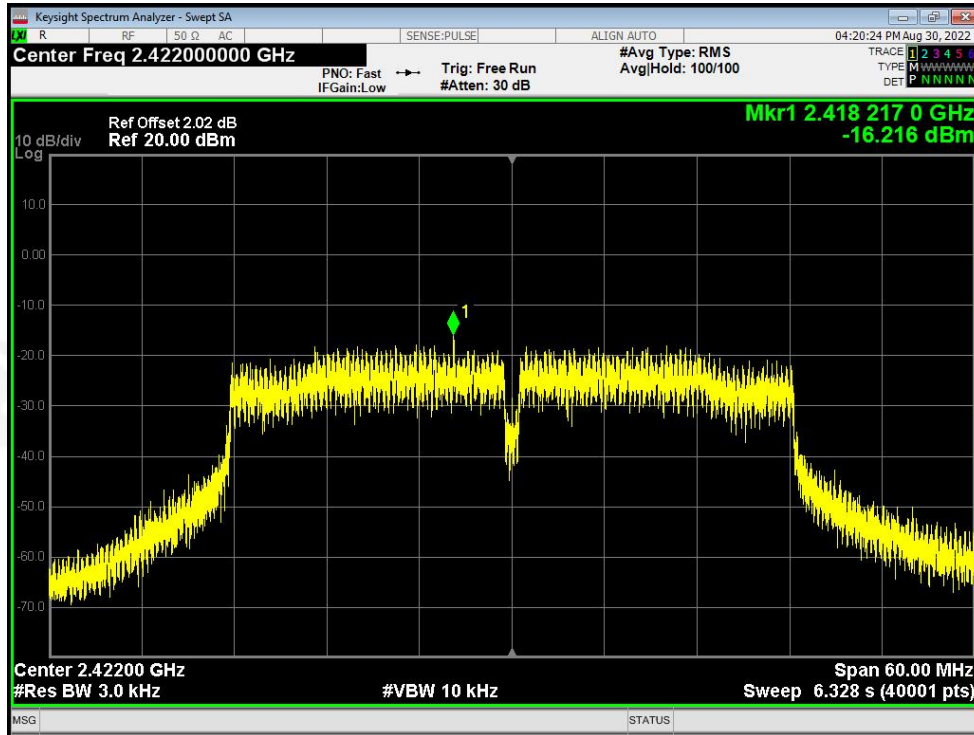
TX CH06
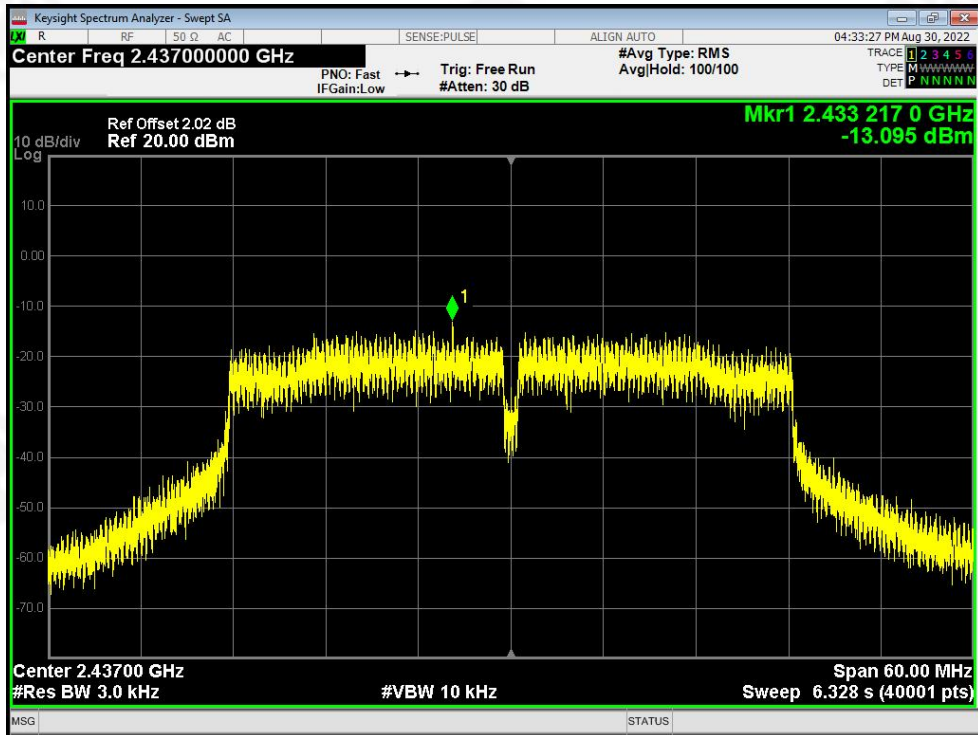
TX CH09

7. CHANNEL BANDWIDTH& 99% OCCUPY BANDWIDTH

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	ANSI C63.10:2013 and KDB558074 D01DTS 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	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS

7.2 TEST PROCEDURE

1. Set RBW = 100 kHz.

2. Set the video bandwidth (VBW) ≥ 3 xRBW.

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 :	AC 120V
Test Mode :	TX b Mode		

Test CH	-6dB Occupy Bandwidth (MHz)				Limit(KHz)	Result
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)		
Lowest	9.091	14.438	14.08	35.033	>500	Pass
Middle	9.096	14.094	15.021	32.514		
Highest	9.114	13.809	13.809	35.038		

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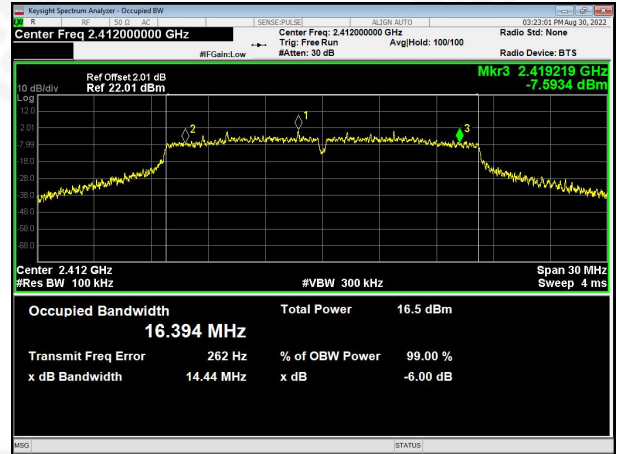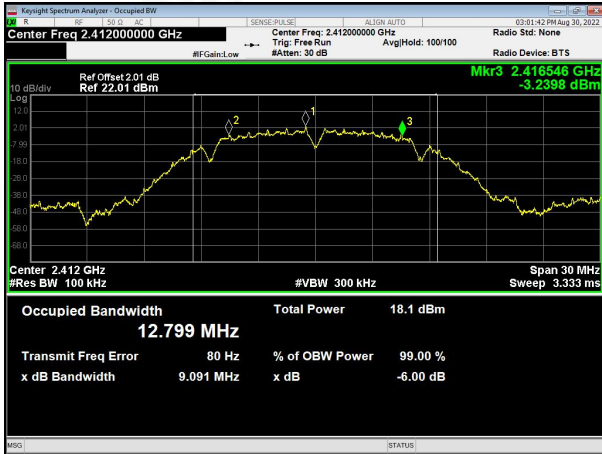☎ +86-400-000-9970   📠 +86-755-2233 6688   ✉ zkt@zkt-lab.com   🌐 www.zkt-lab.com

Test plot as follows:

802.11b	802.11g

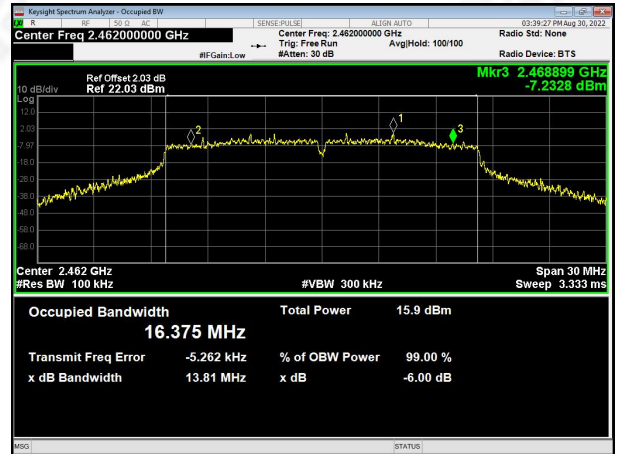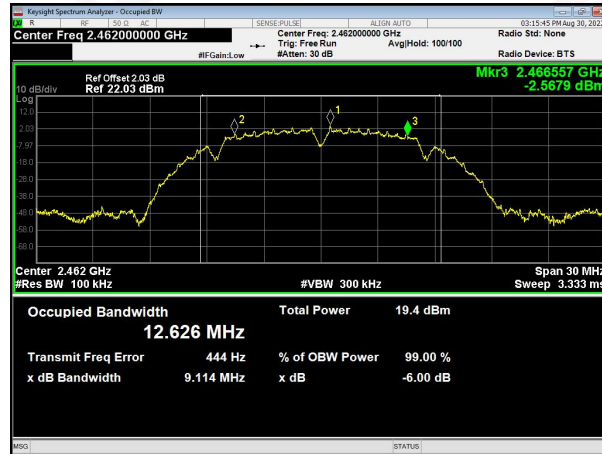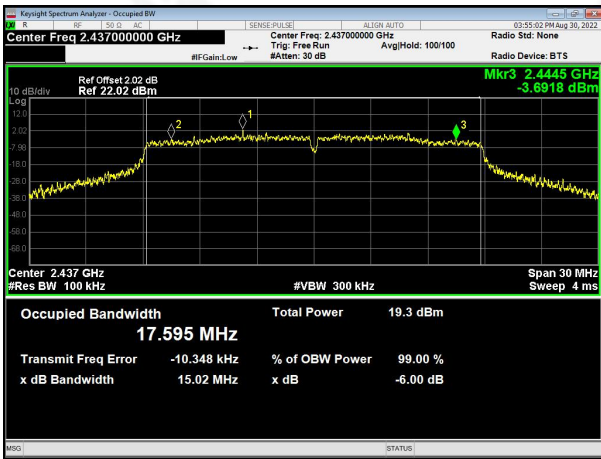## Lowest channel
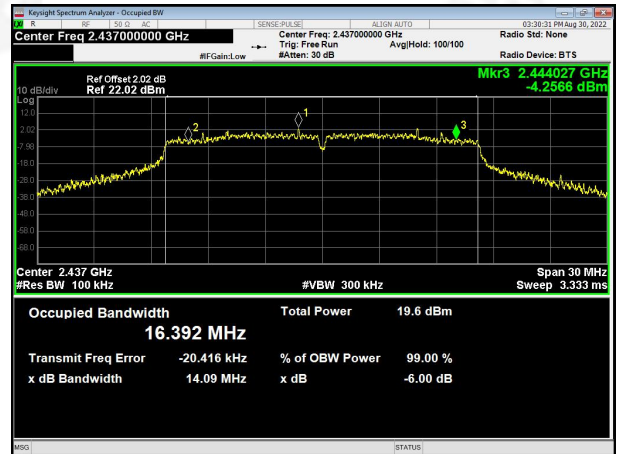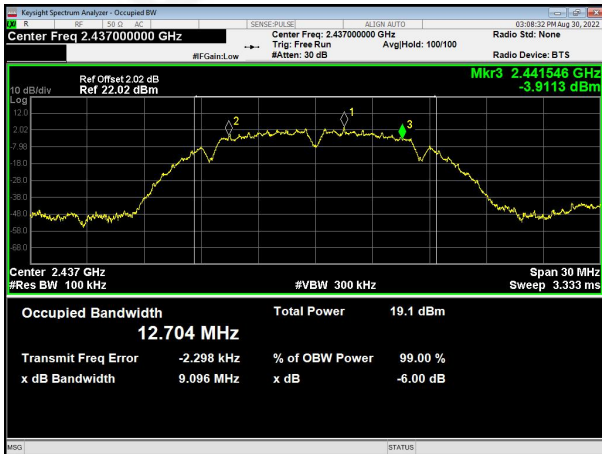
Middle channel

Highest channel

802.11n20

802.11n40

Lowest channel

802.11n20 Lowest channel	
Occupied Bandwidth	**17.597 MHz**
Total Power	16.9 dBm
Transmit Freq Error	3.639 kHz
% of OBW Power	99.00 %
x dB Bandwidth	14.08 MHz
x dB	-6.00 dB

802.11n40 Lowest channel	
Occupied Bandwidth	**35.950 MHz**
Total Power	16.6 dBm
Transmit Freq Error	6.205 kHz
% of OBW Power	99.00 %
x dB Bandwidth	35.03 MHz
x dB	-6.00 dB

Middle channel

802.11n20 Middle channel	
Occupied Bandwidth	**17.595 MHz**
Total Power	19.3 dBm
Transmit Freq Error	-10.348 kHz
% of OBW Power	99.00 %
x dB Bandwidth	15.02 MHz
x dB	-6.00 dB

802.11n40 Middle channel	
Occupied Bandwidth	**35.938 MHz**
Total Power	19.5 dBm
Transmit Freq Error	-11.224 kHz
% of OBW Power	99.00 %
x dB Bandwidth	32.51 MHz
x dB	-6.00 dB

Highest channel

802.11n20 Highest channel	
Occupied Bandwidth	**17.571 MHz**
Total Power	15.5 dBm
Transmit Freq Error	-17.884 kHz
% of OBW Power	99.00 %
x dB Bandwidth	13.81 MHz
x dB	-6.00 dB

802.11n40 Highest channel	
Occupied Bandwidth	**35.922 MHz**
Total Power	15.1 dBm
Transmit Freq Error	-16.558 kHz
% of OBW Power	99.00 %
x dB Bandwidth	35.04 MHz
x dB	-6.00 dB

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8.PEAK OUTPUT POWER TEST

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	ANSI C63.10:2013 and KDB558074 D01DTS 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

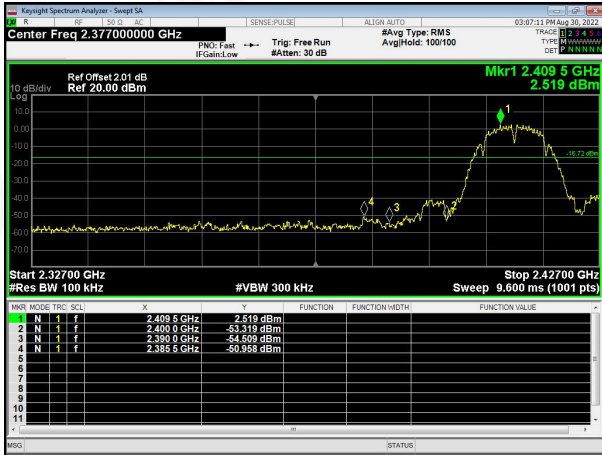### 8.5 EUT OPERATION CONDITIONS

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

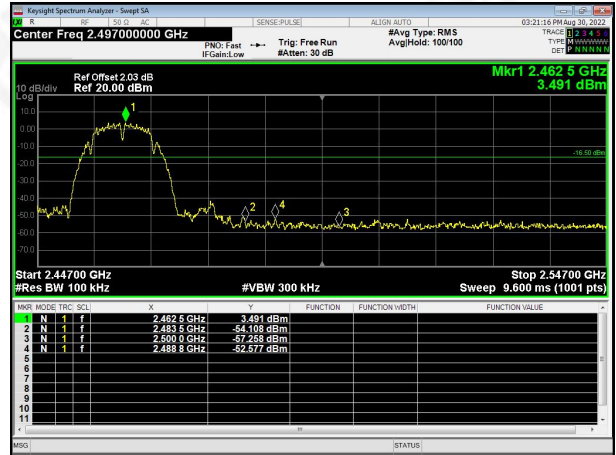| Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC 120V/60Hz

Test CH	Peak Output Power (dBm)				Limit(dBm)	Result
	802.11b	802.11g	802.11n20	802.11n40		
Lowest	6.93	5.54	5.527	4.988	30.00	Pass
Middle	7.546	8.182	6.909	7.997		
Highest	7.698	4.143	4.89	4.037		

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9. CONDUCTED BAND EDGE AND SPURIOUS EMISSION

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013 and KDB558074 D01DTS Meas Guidancev05r02

9.1 APPLICABLE STANDARD

in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in 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
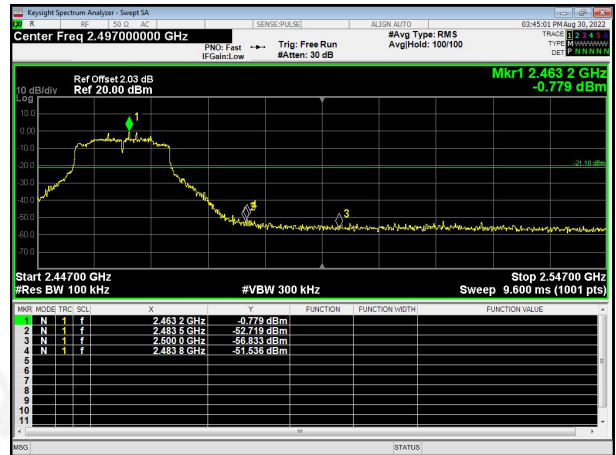
Test plot as follows:

Test mode:	802.11b

Lowest channel

Highest channel

Test mode:	802.11g

Lowest channel

Highest channel

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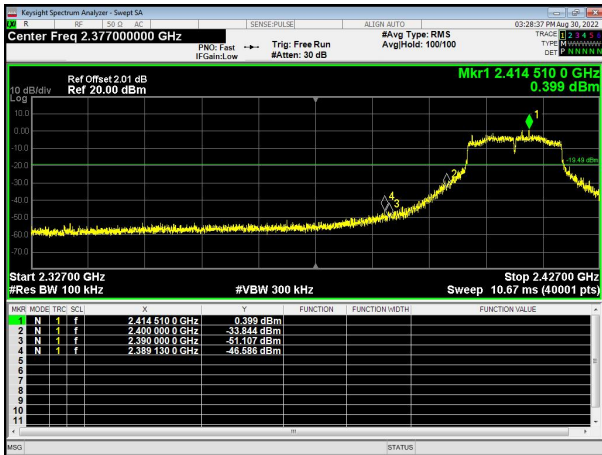
Test mode:	802.11n(HT20)
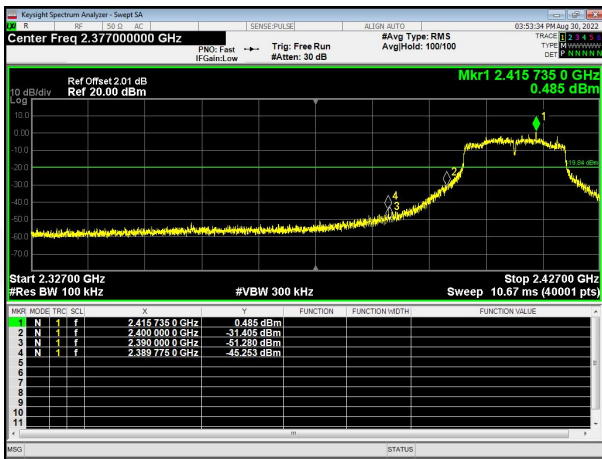
Lowest channel
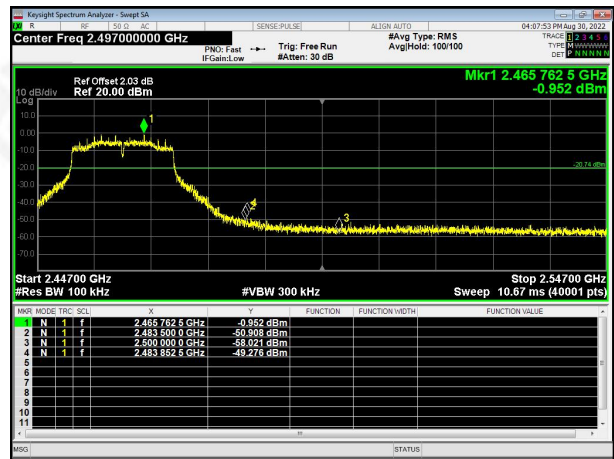
Highest channel

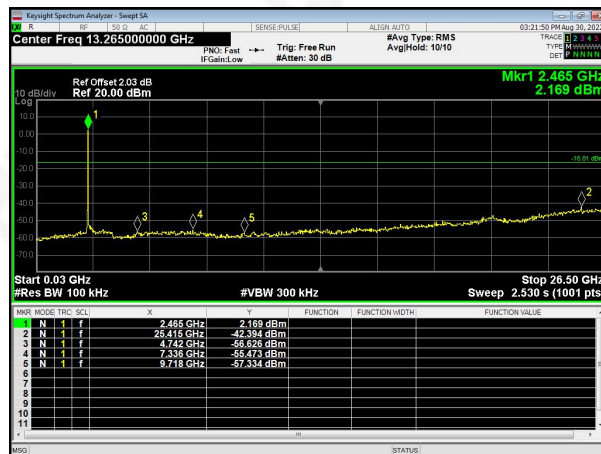| Test mode:	802.11n(HT40)
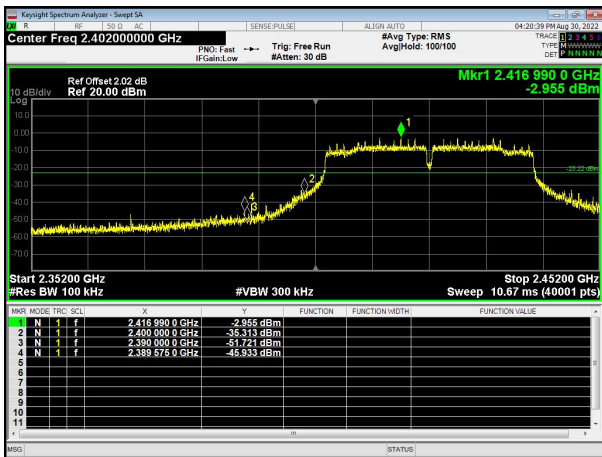
Lowest channel
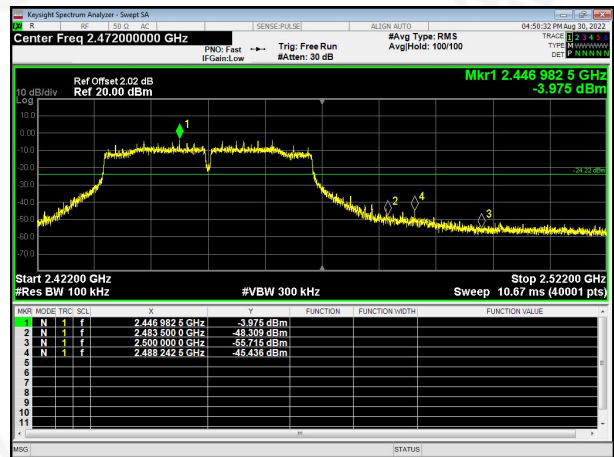
Highest channel

Test plot as follows:
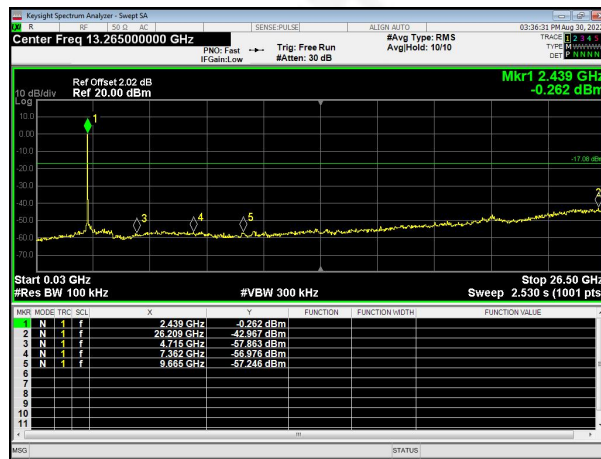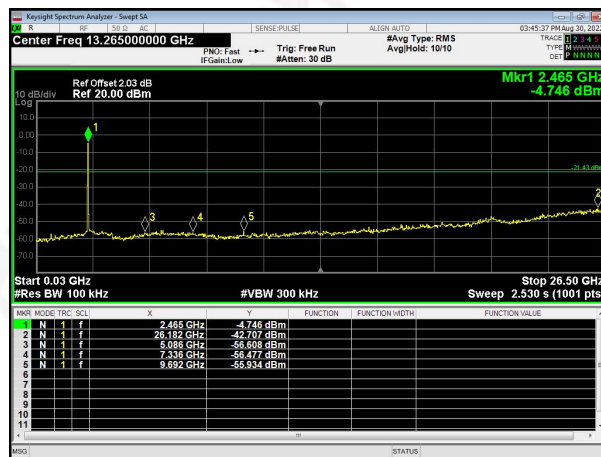
802.11b

Lowest channel
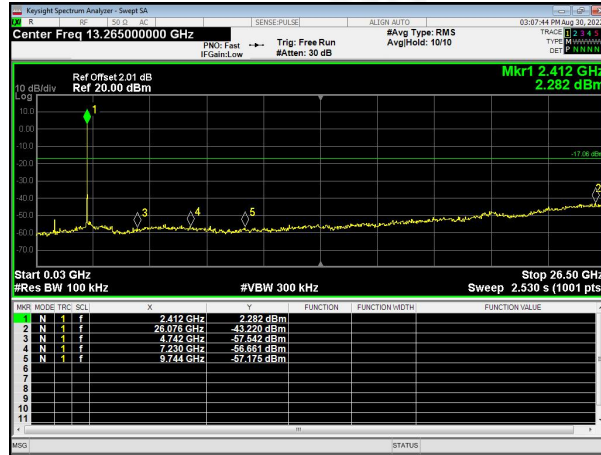
Middle channel
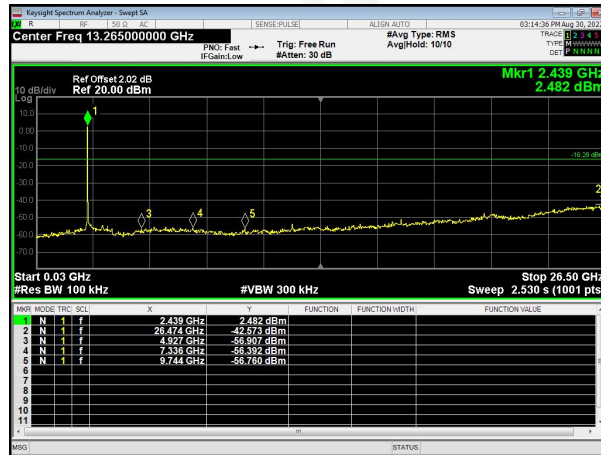
Highest channel

802.11g
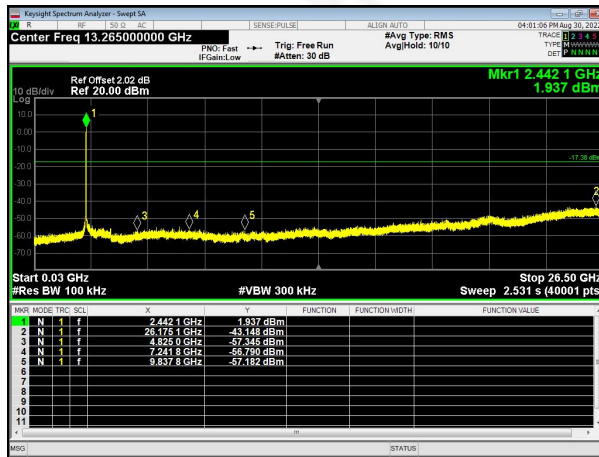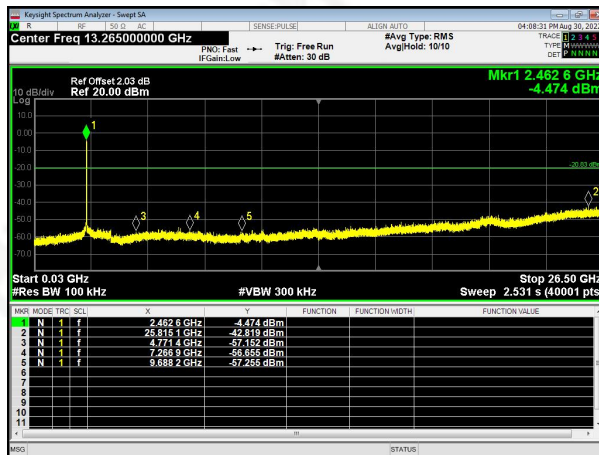
Lowest channel
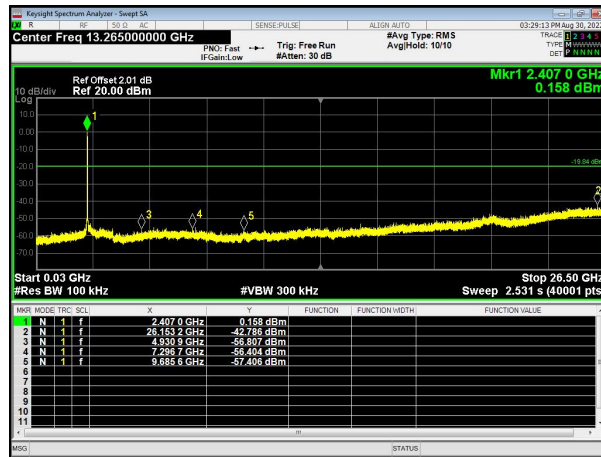
Middle channel

Highest channel

802.11n(HT20)

Lowest channel
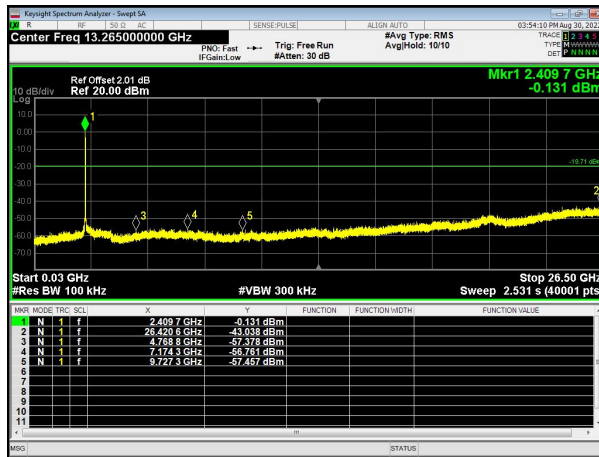
Middle channel

Highest channel

802.11n(HT40)
Lowest channel

Middle channel

Highest channel

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10. ANTENNA REQUIREMENT

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
15.203 requirement: 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, 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. **15.247(c) (1)(i) requirement:** (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi. A transmitter can only be sold or operated with antennas with which it was approved.	
EUT Antenna:	
The antenna is FPCB Antenna, the best case gain of the antenna is 1.42dBi, reference to the appendix II for details	

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11. TEST SETUP PHOTO

Reference to the appendix I for details.

12. EUT CONSTRUCTIONAL DETAILS

Reference to the appendix II for details.

※※※※※ END OF REPORT ※※※※※