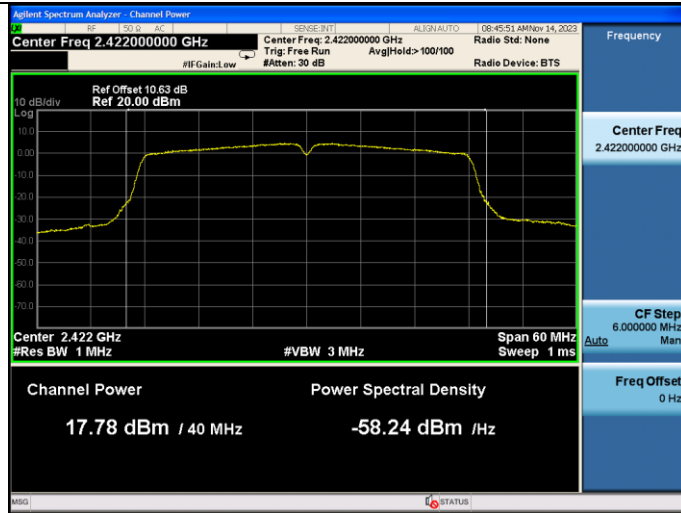


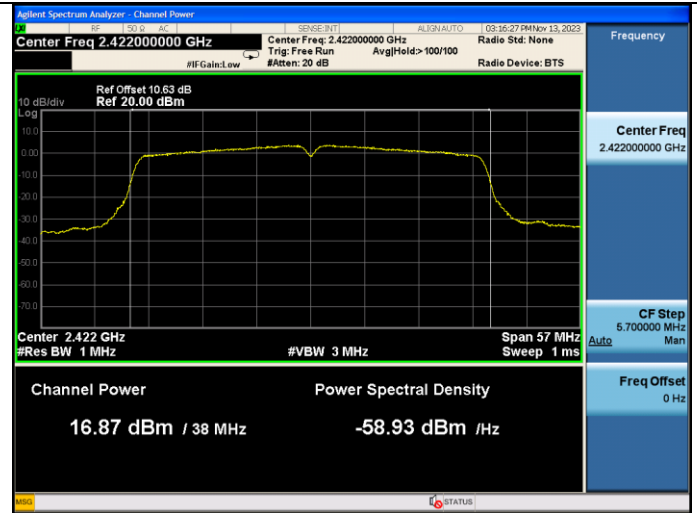
**ANTA:**

Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz

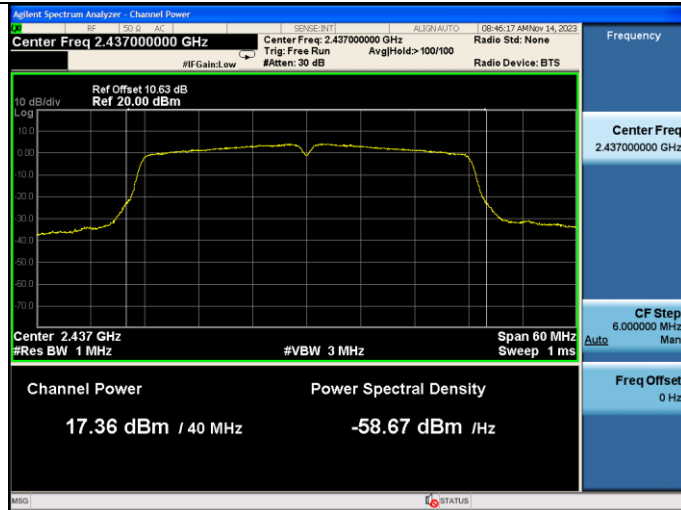


**ANTB:**

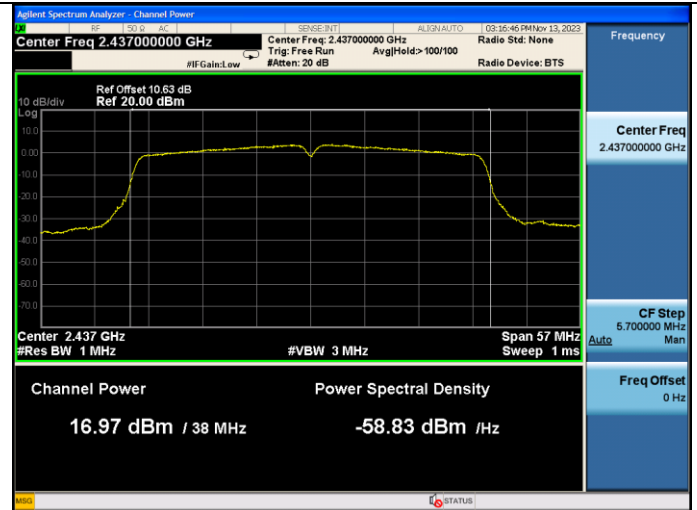
Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz



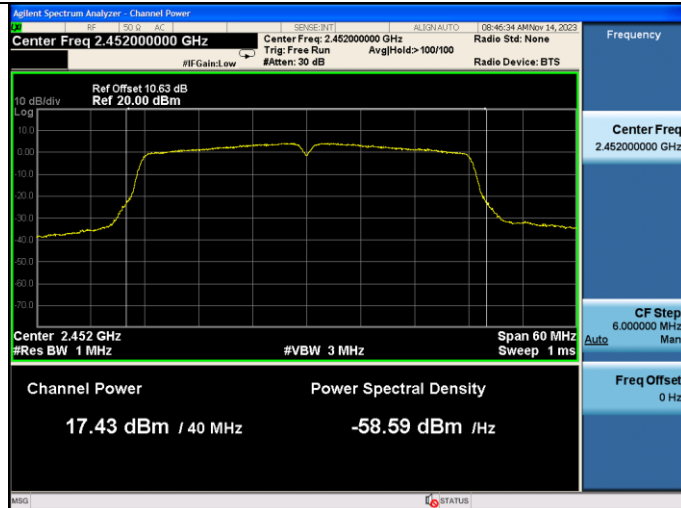
**Test CH6: 2437MHz**



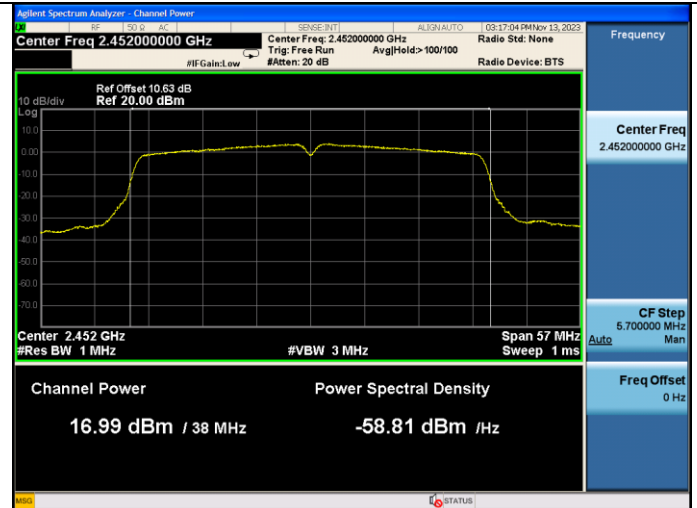
**Test CH6: 2437MHz**



**Test CH9: 2452MHz**



**Test CH9: 2452MHz**



## 9. POWER SPECTRAL DENSITY TEST

### 9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Apr.01,23	1 Year
2.	RF Cable	HUBER+SUHNER	SUCOFLEX-106	505238/6	Apr.02,23	1 Year

### 9.2. Limit

For digitally modulated systems, the 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.

### 9.3. Test Procedure

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 DTS bandwidth.
- c) Set the RBW to:  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
- d) Set the VBW  $\geq [3 \times \text{RBW}]$ .
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.

9.4.Test Results

EUT: Wi-Fi Module		
M/N: U9W44		
Test date: 2023-11-21~22	Pressure: 103.1±1.0 kpa	Humidity: 51.5±3.0%
Tested by: lili	Test site: RF site	Temperature: 22.5±0.6 °C

Test Mode	CH	Power Spectral Density (dBm/3KHz)		Total (dBm/3KHz)	Limit (dBm/3KHz)
		ANT0	ANT1		
11b	CH1	-6.175	-6.672	N/A	8
	CH6	-6.186	-7.162	N/A	
	CH11	-6.791	-7.571	N/A	
11g	CH1	-5.007	-5.419	-2.20	8
	CH6	-6.116	-5.235	-2.64	
	CH11	-4.410	-6.457	-2.30	
11n HT20	CH1	-6.430	-7.521	-3.93	8
	CH6	-6.667	-7.369	-3.99	
	CH11	-6.370	-6.831	-3.58	
11n HT40	CH3	-8.882	-10.514	-6.61	8
	CH6	-9.599	-9.429	-6.50	
	CH9	-9.438	-9.617	-6.52	

Conclusion:PASS

Note: 1. Directional Gain=  $10 \log[(10^{-3.77/20} + 10^{-1.15/20})^2 / 2]$  dB = 0.6487 dB < 6 dB.

Directional Gain=  $10 \log[(10^{-3.77/10} + 10^{-1.15/10}) / 2]$  dB = -2.2653 dB < 6 dB.

2. U9W44 supports and operates in both correlated MIMO signals and uncorrelated MIMO signals.

**ANTA:**

Test Mode: IEEE 802.11b  
Test CH1: 2412MHz



**ANTB:**

Test Mode: IEEE 802.11b  
Test CH1: 2412MHz



**Test CH6: 2437MHz**



**Test CH6: 2437MHz**



**Test CH11: 2462MHz**

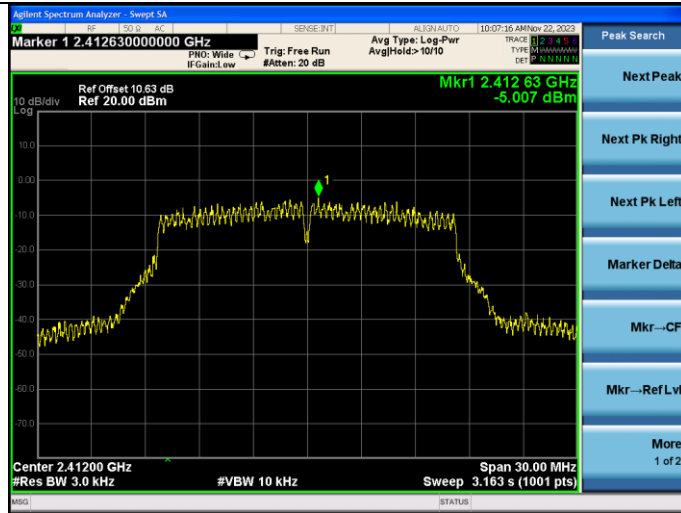


**Test CH11: 2462MHz**



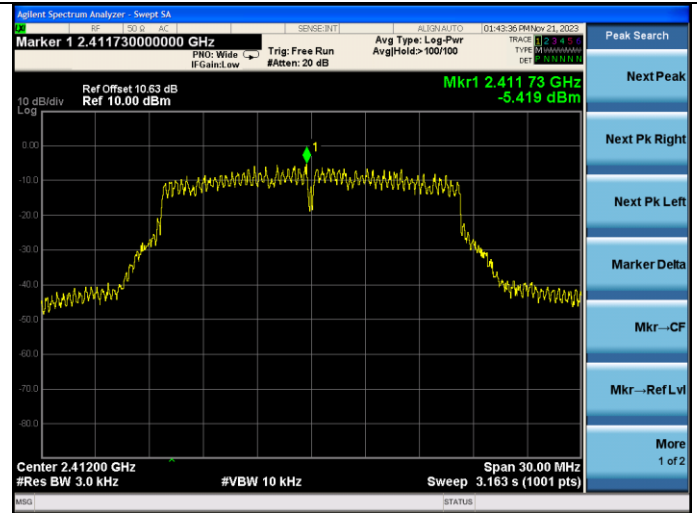
**ANTA:**

Test Mode: IEEE 802.11g  
Test CH1: 2412MHz

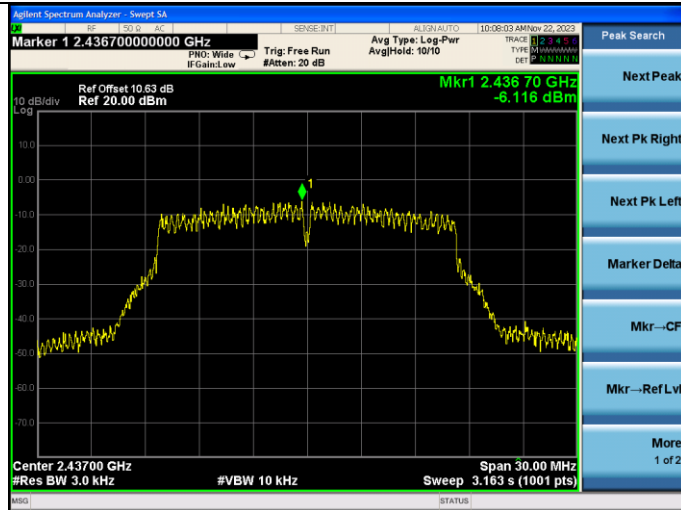


**ANTB:**

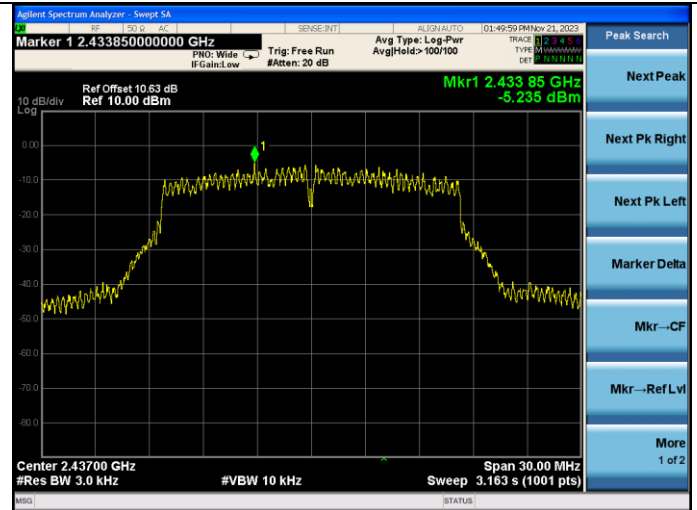
Test Mode: IEEE 802.11g  
Test CH1: 2412MHz



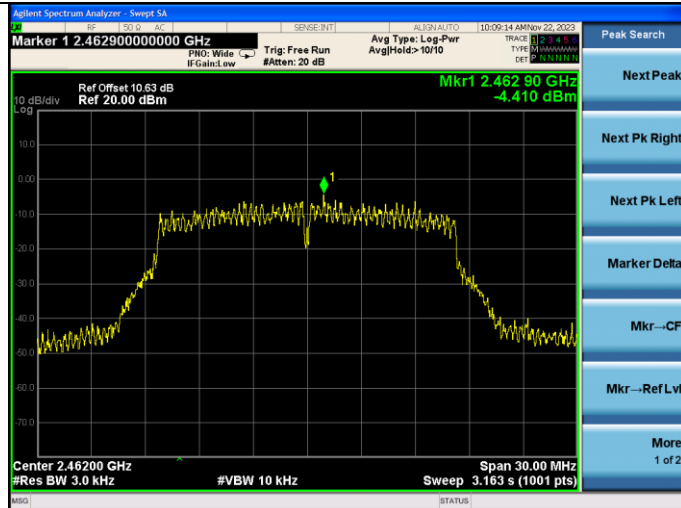
**Test CH6: 2437MHz**



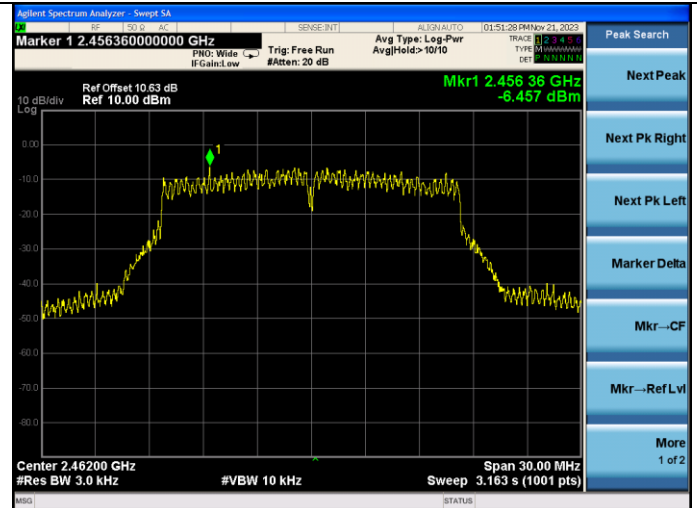
**Test CH6: 2437MHz**



**Test CH11: 2462MHz**

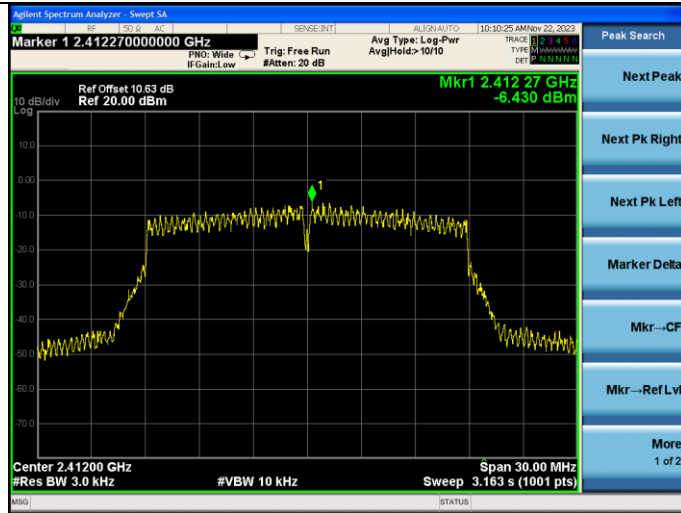


**Test CH11: 2462MHz**



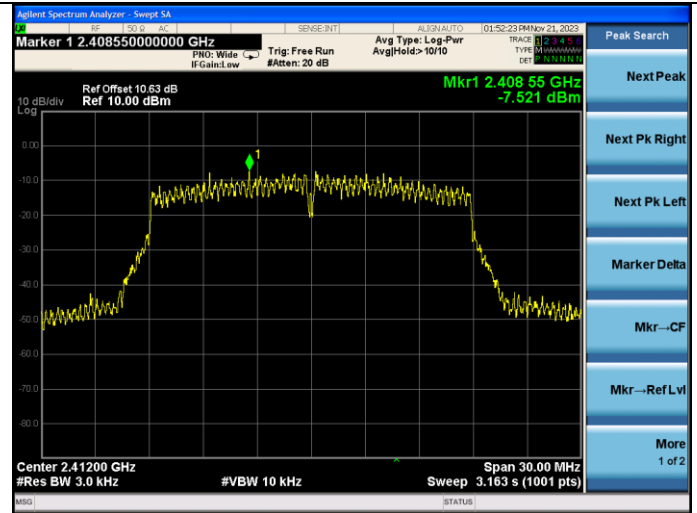
**ANTA:**

Test Mode: IEEE 802.11n HT20  
Test CH1: 2412MHz

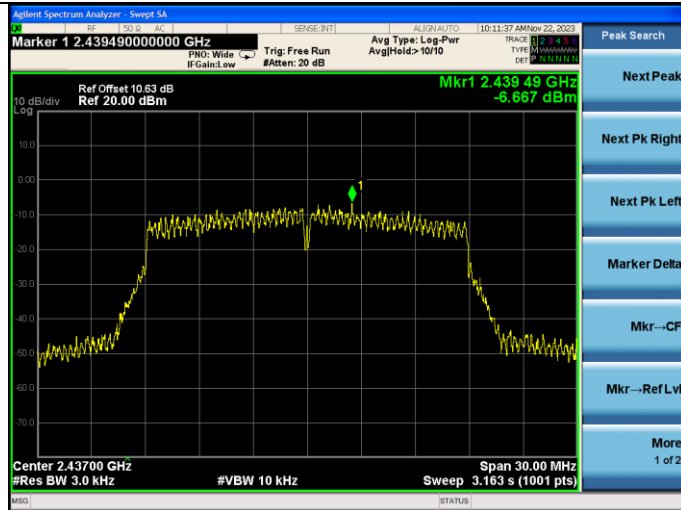


**ANTB:**

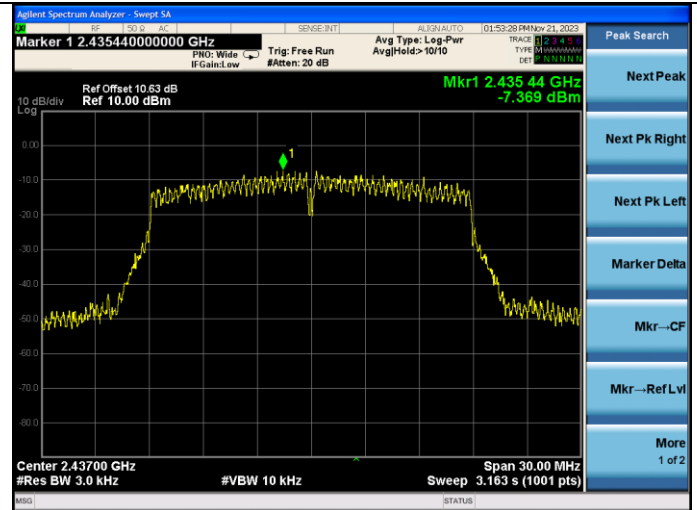
Test Mode: IEEE 802.11n HT20  
Test CH1: 2412MHz



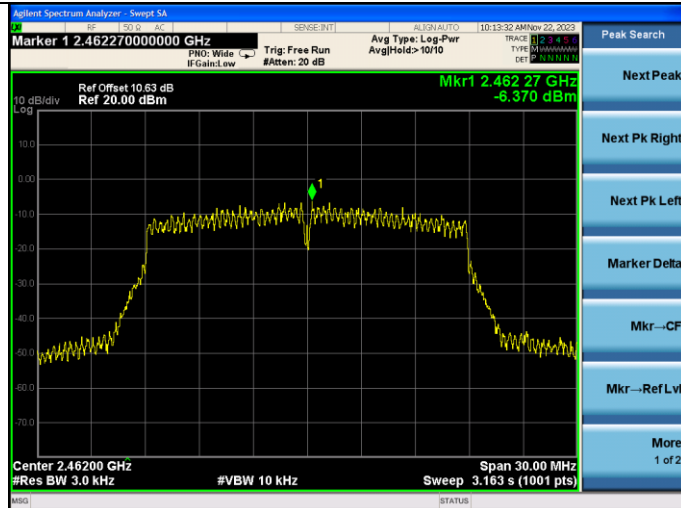
**Test CH6: 2437MHz**



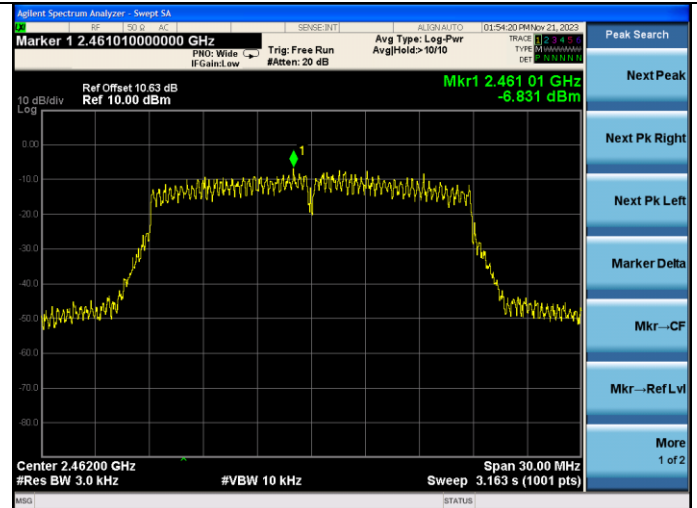
**Test CH6: 2437MHz**



**Test CH11: 2462MHz**

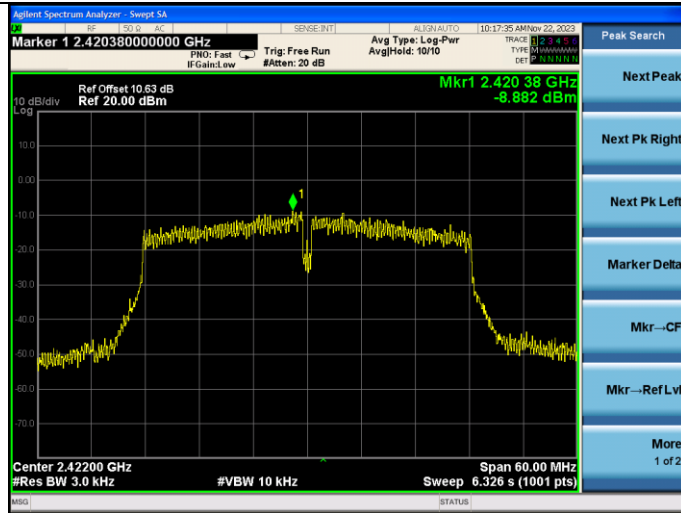


**Test CH11: 2462MHz**



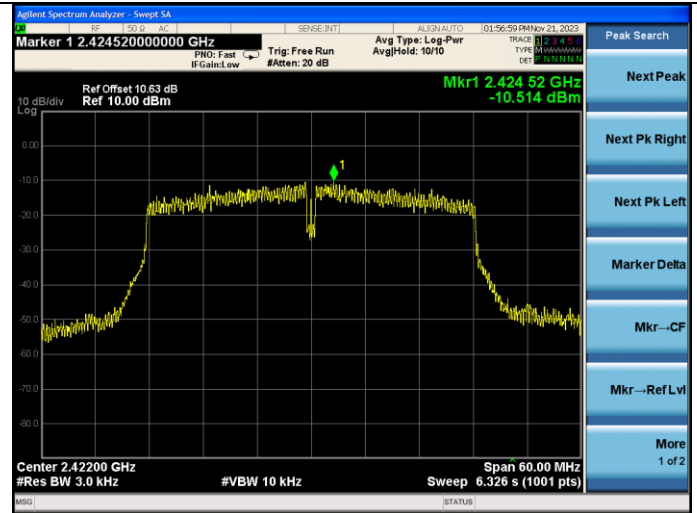
**ANTA:**

Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz

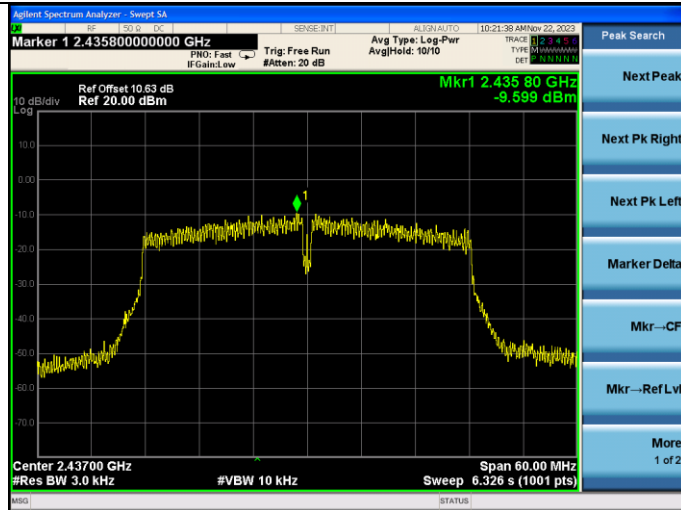


**ANTB:**

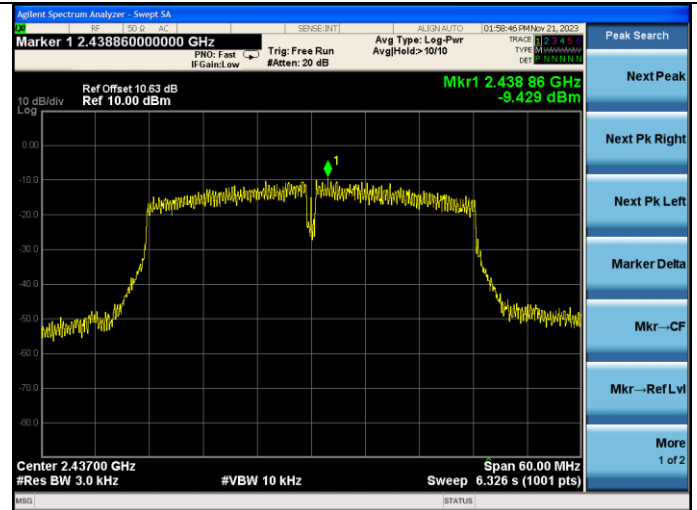
Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz



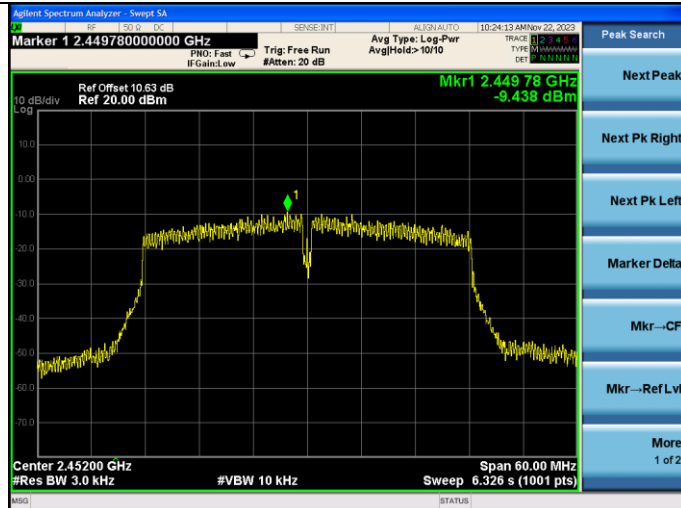
**Test CH6: 2437MHz**



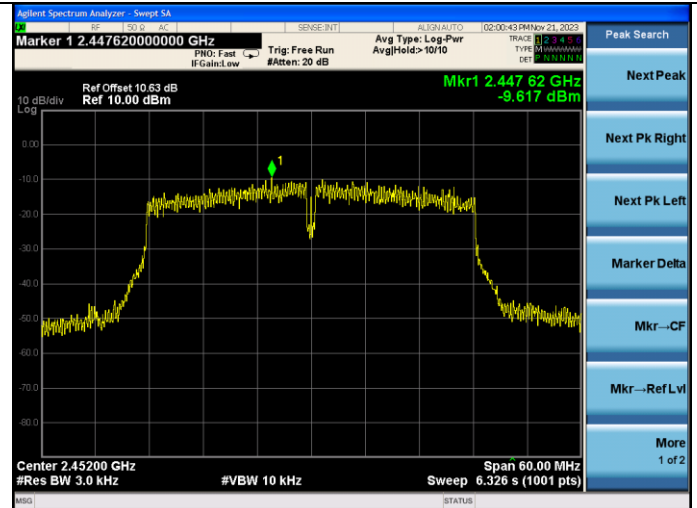
**Test CH6: 2437MHz**



**Test CH9: 2452MHz**



**Test CH9: 2452MHz**



## 10. ANTENNA REQUIREMENT

### 10.1. Standard Applicable

For intentional device, according to FCC 47 CFR 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### 10.2. Antenna Connected Construction

The antennas used for this product is Embedded Pattern Antennas (Antenna A/B) that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is WIFI 2.4GHz Peak Gain: -3.77dBi max (Antenna A); -1.15dBi max (Antenna B).



## 11. DEVIATION TO TEST SPECIFICATIONS

[NONE]

..... **THE END** .....