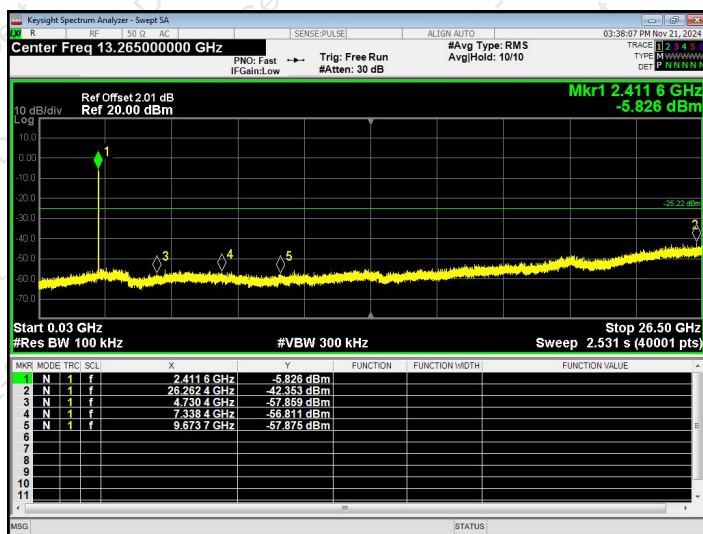




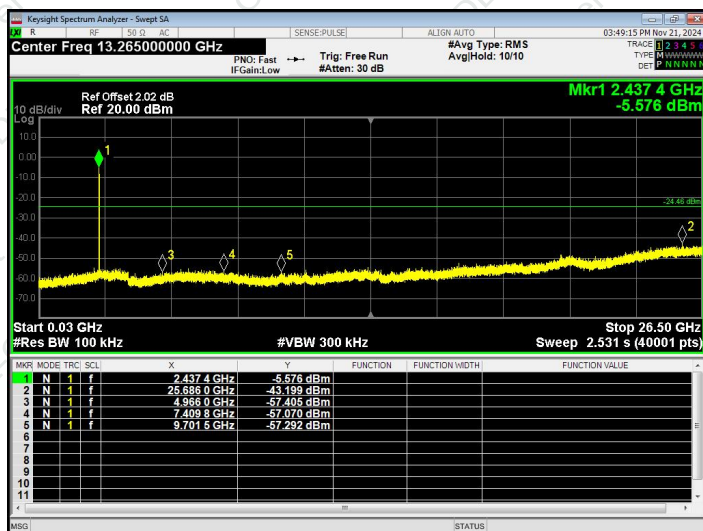
Test plot as follows:

802.11b

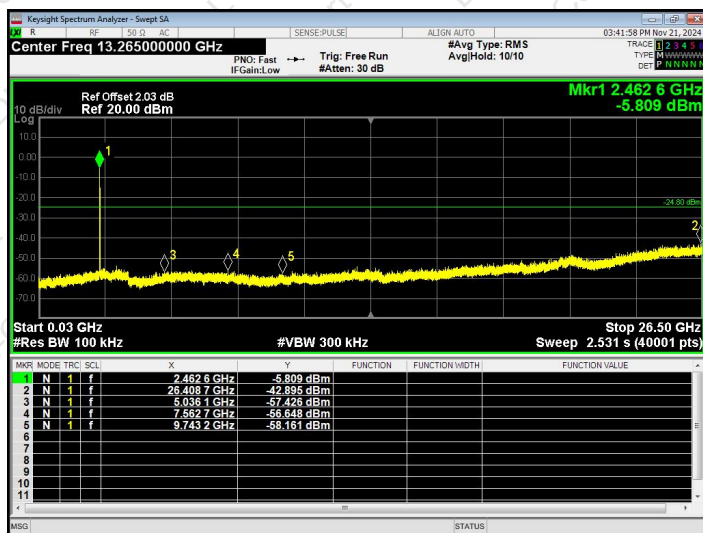
Lowest channel



Middle channel



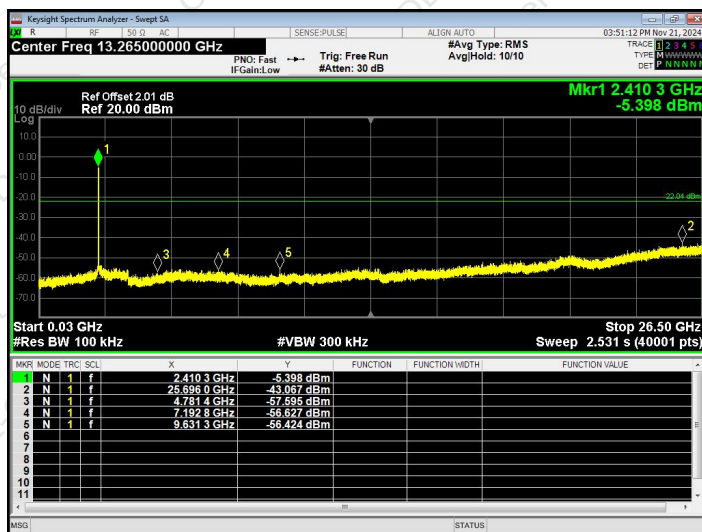
Highest channel



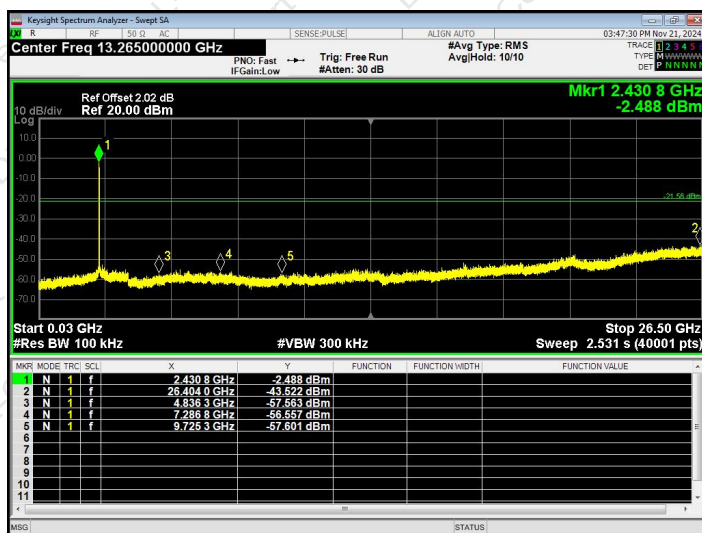


802.11g

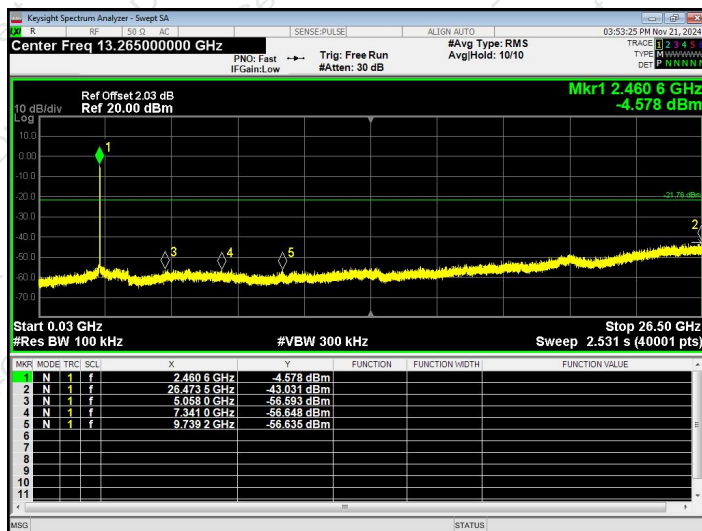
Lowest channel



Middle channel



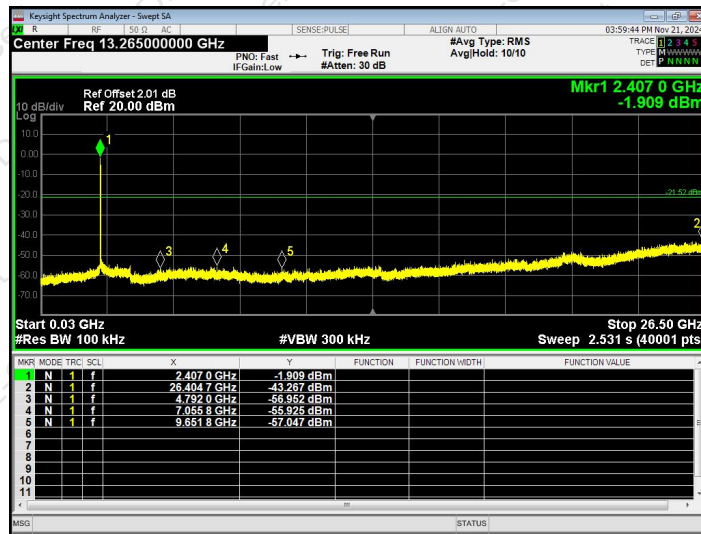
Highest channel



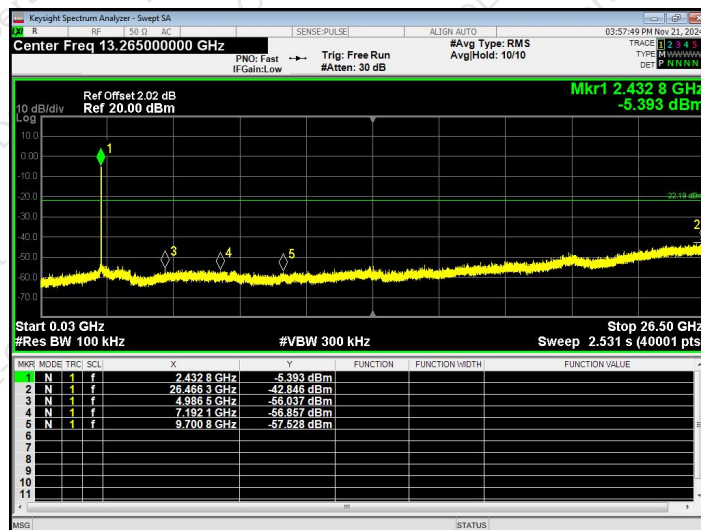


802.11n(HT20)

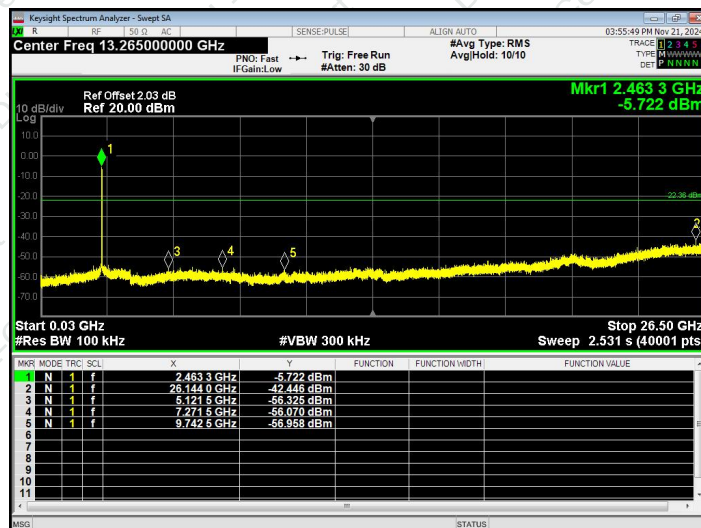
Lowest channel



Middle channel



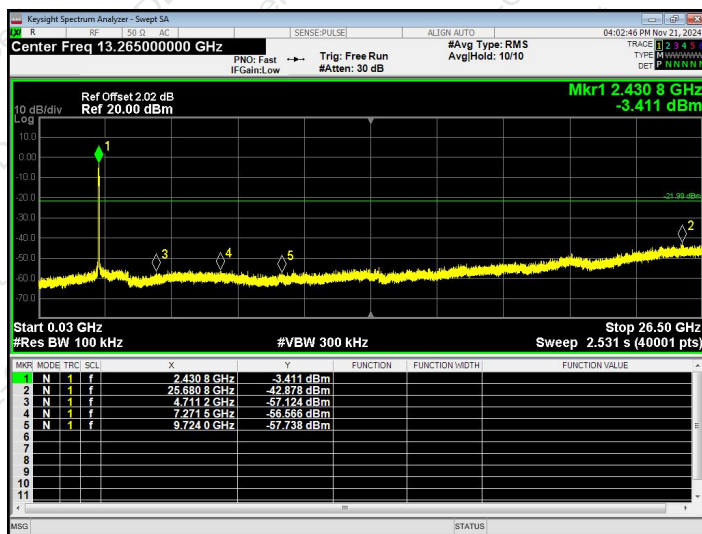
Highest channel



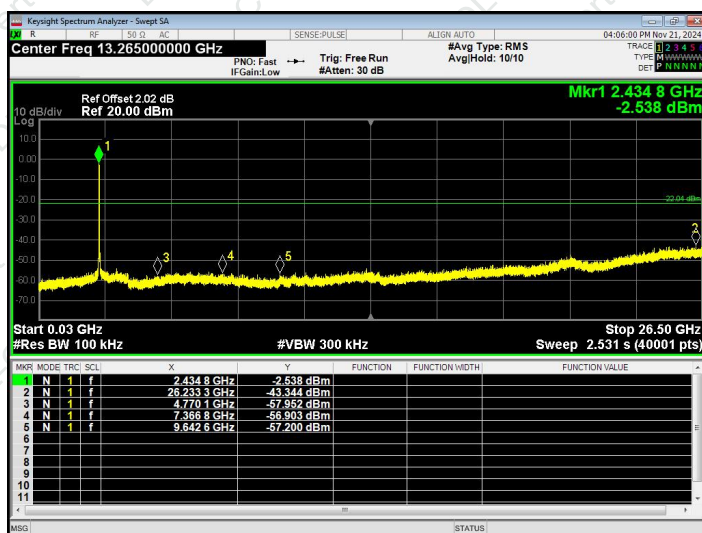


802.11n(HT40)

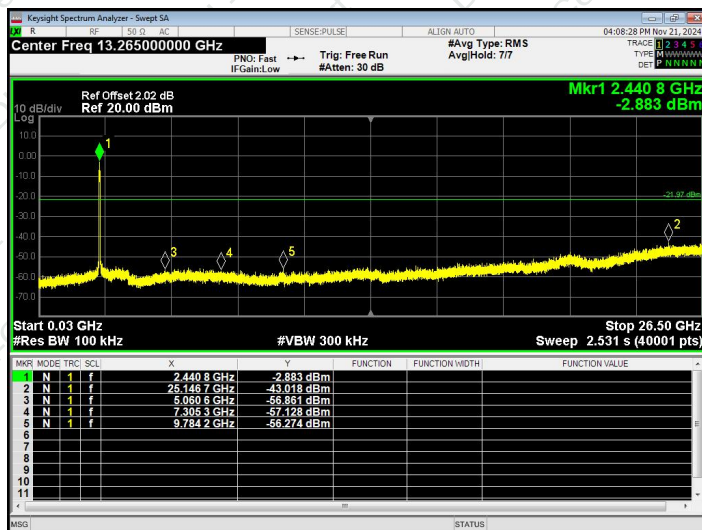
Lowest channel



Middle channel



Highest channel





10. DUTY CYCLE

Test Method:	ANSI C63.10:2013
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10.1 APPLIED PROCEDURES / LIMIT

Measurements of duty cycle and transmission duration shall be performed using one of the following techniques:

- A diode detector and an oscilloscope that together have a sufficiently short response time to permit accurate measurements of the ON and OFF times of the transmitted signal.
- The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the ON and OFF times of the transmitted signal:
 - Set the center frequency of the instrument to the center frequency of the transmission.
 - Set $RBW \geq OBW$ if possible; otherwise, set RBW to the largest available value.
 - Set $VBW \geq RBW$. Set detector = peak or average.
 - The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$ and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring the duty cycle shall not be used if $T \leq 16.7 \mu s$.)

10.2 DEVIATION FROM STANDARD

No deviation.

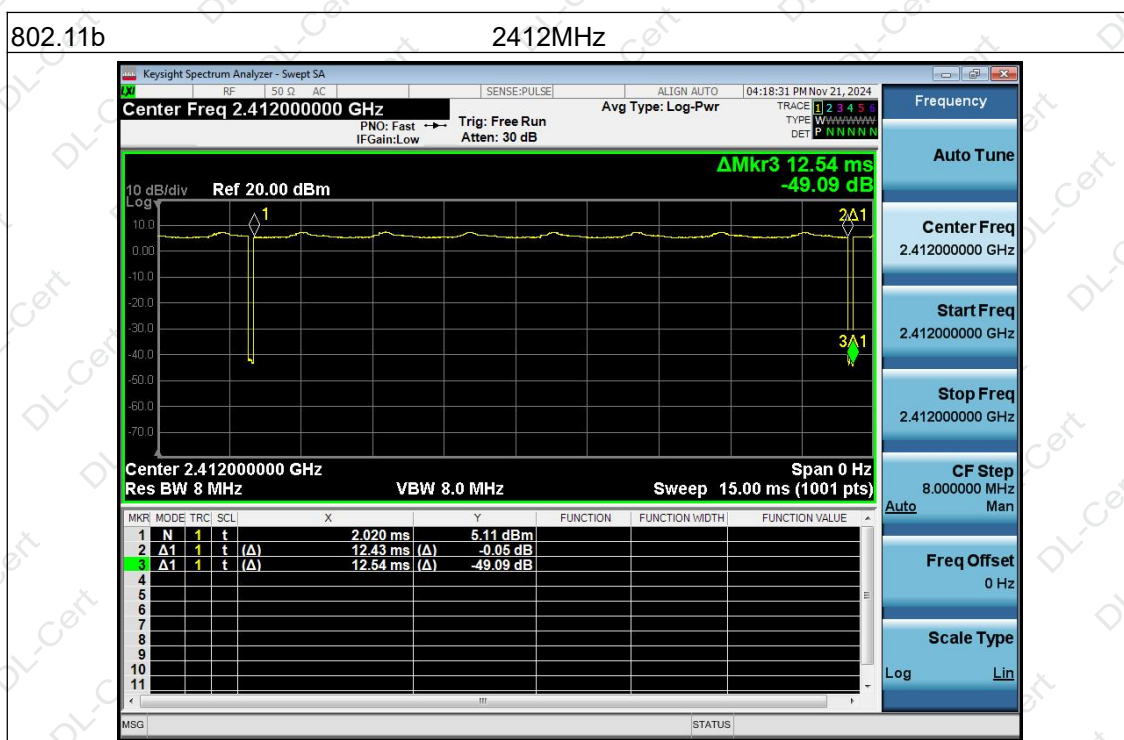
10.3 TEST SETUP





10.4 TEST RESULTS

Mode	Frequency (MHz)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Result
802.11b	2412	99.12	0.04	Pass
802.11g	2412	94.25	0.26	Pass
802.11n20	2412	93.84	0.27	Pass
802.11n40	2422	88.24	0.54	Pass





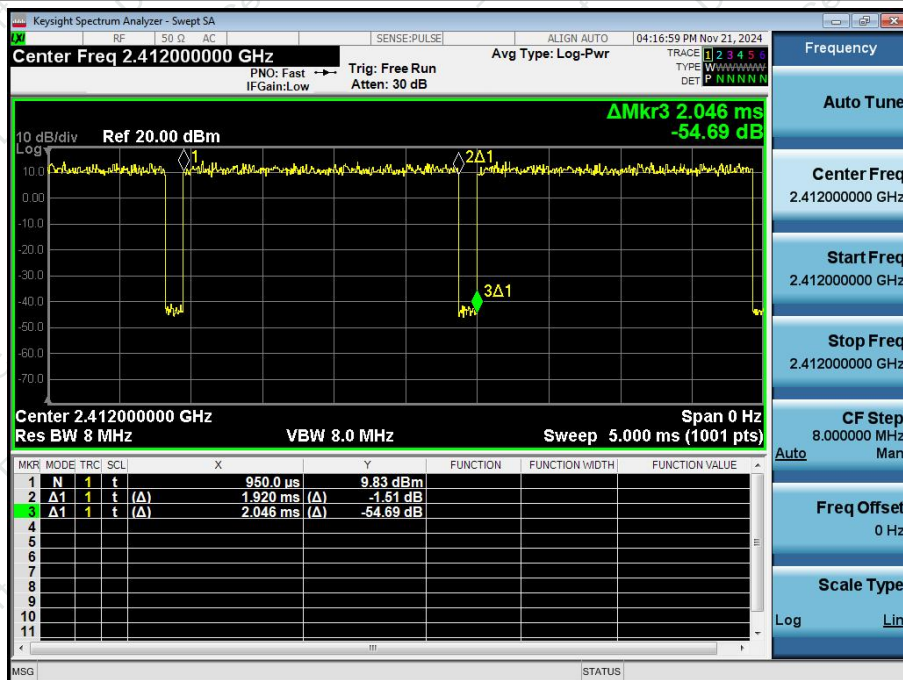
802.11g

2412MHz



802.11n20

2412MHz





Keysight Spectrum Analyzer - Swept SA

Center Freq 2.422000000 GHz

PNO: Fast IFGain: Low Trig: Free Run Atten: 30 dB

Avg Type: Log-Pwr

TRACE 1 2 3 4 5 6
TYPE W W W W W W W
DET P N N N N N N

04:15:27 PM Nov 21, 2024

10 dB/div Ref 20.00 dBm

ΔMkr3 1.071 ms -43.65 dB

2Δ1 3Δ1

Center 2.422000000 GHz Res BW 8 MHz VBW 8.0 MHz Span 0 Hz Sweep 3.000 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	1.440 ms	-5.36 dBm			
2	Δ1	1	t (Δ)	945.0 us	9.39 dB			
3	Δ1	1	t (Δ)	1.071 ms	-43.65 dB			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Res BW 8 MHz

Video BW 8.0 MHz

VBW:3dB RBW 1.0

Span:3dB RBW 106

RBW Control [Gaussian, -3 dB]

$$\text{Duty Cycle} = T_{on} / T_{total} * 100\%$$

Duty Cycle Correction Factor = $10\log (1/\text{Duty Cycle})$

**11. 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 FPC Antenna, the best case gain of the antenna is 1.96 dBi, reference to the appendix II for details	



12. TEST SETUP PHOTO

Reference to the appendix I for details.

13. EUT CONSTRUCTIONAL DETAILS

Reference to the appendix II for details.

***** END OF REPORT *****