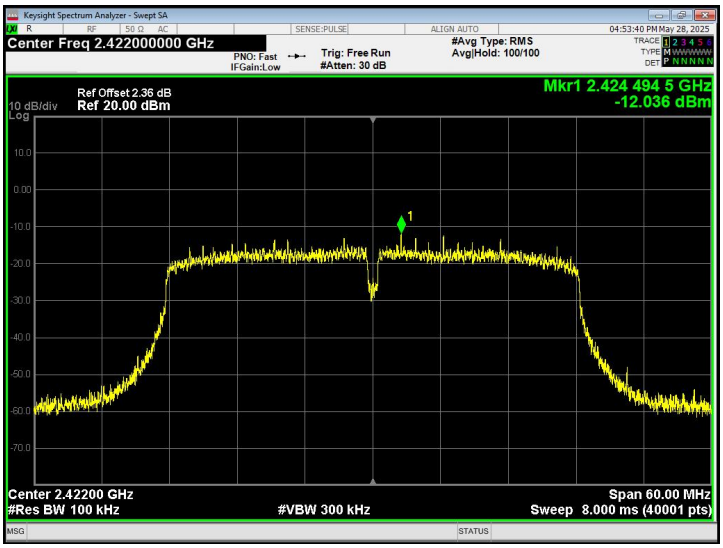
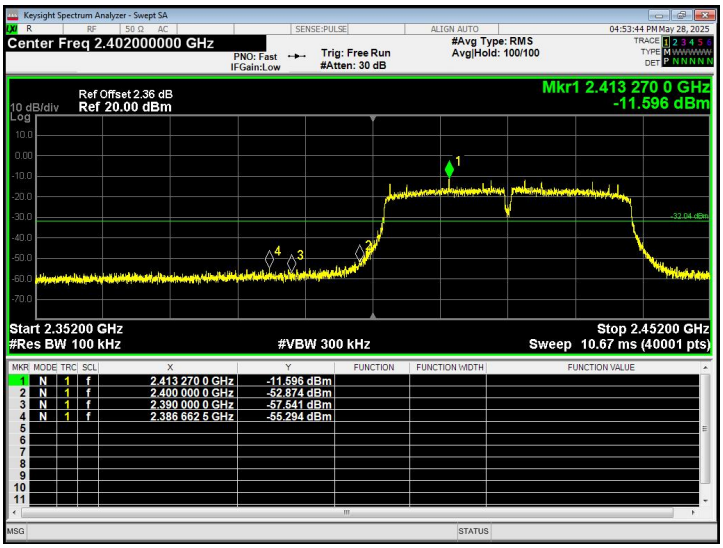
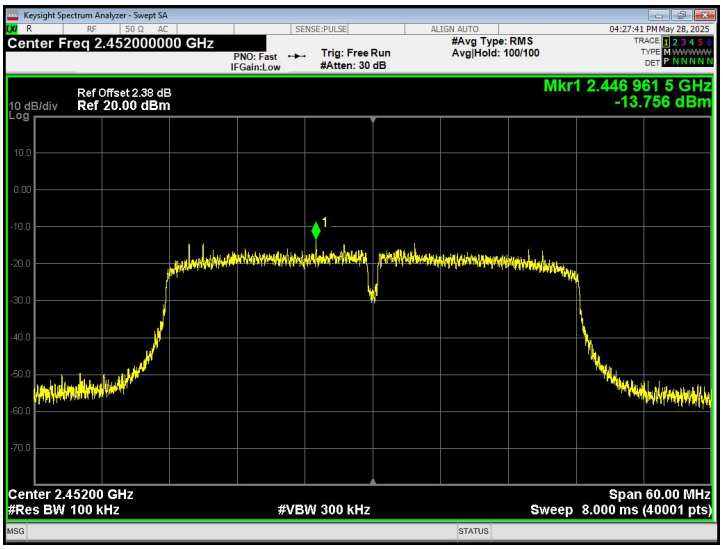
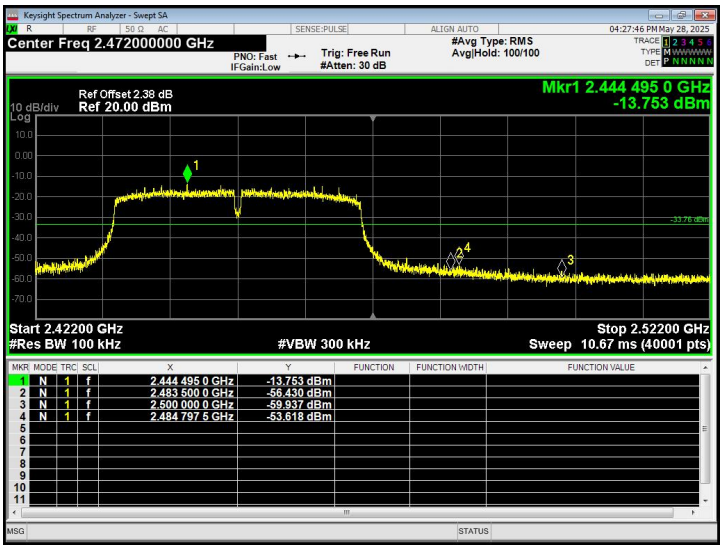
802.11n40 - Lowest channel





802.11n40 - Highest channel

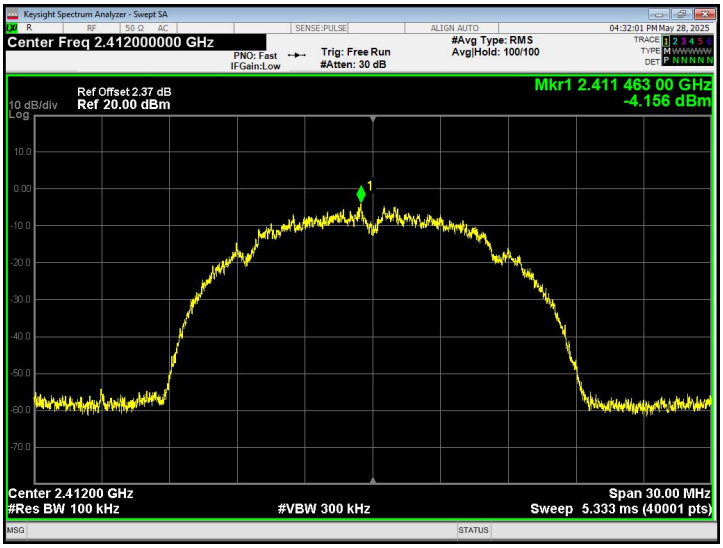


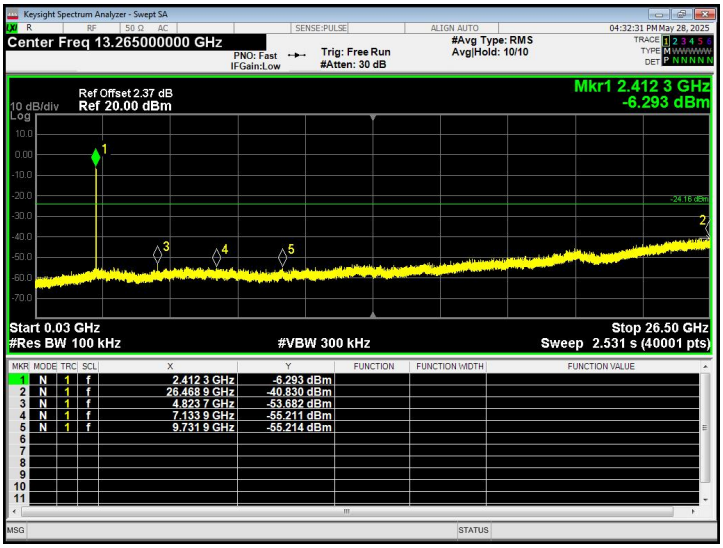


Spurious emission test plot as follows:

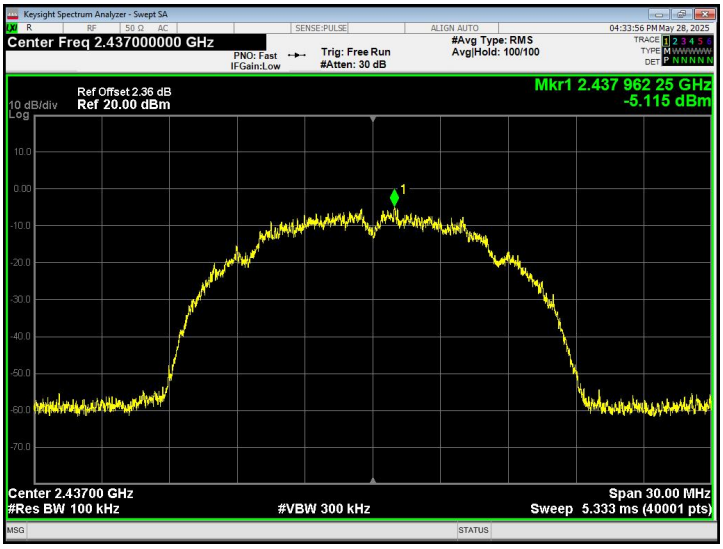
802.11b

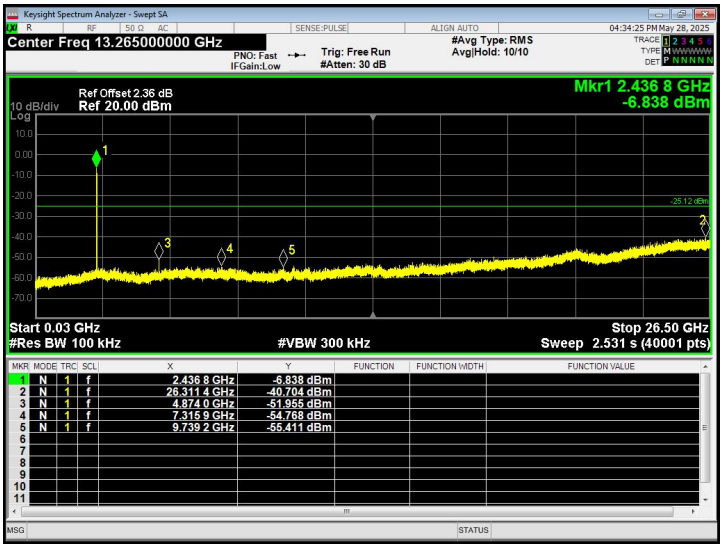
Lowest channel



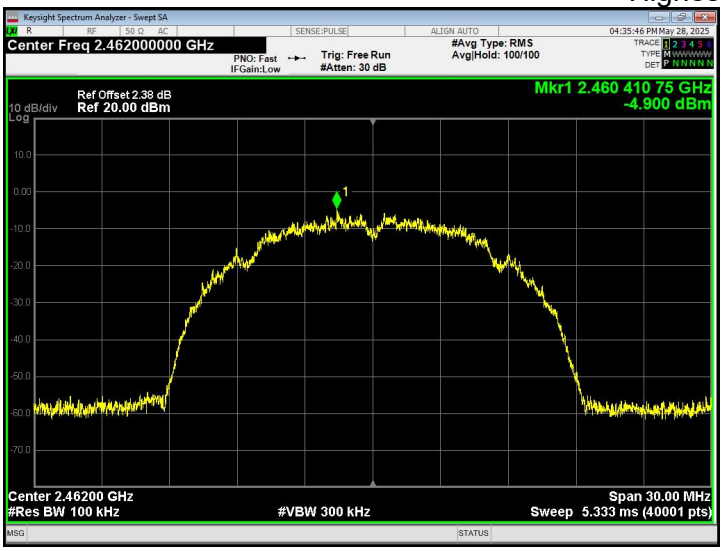


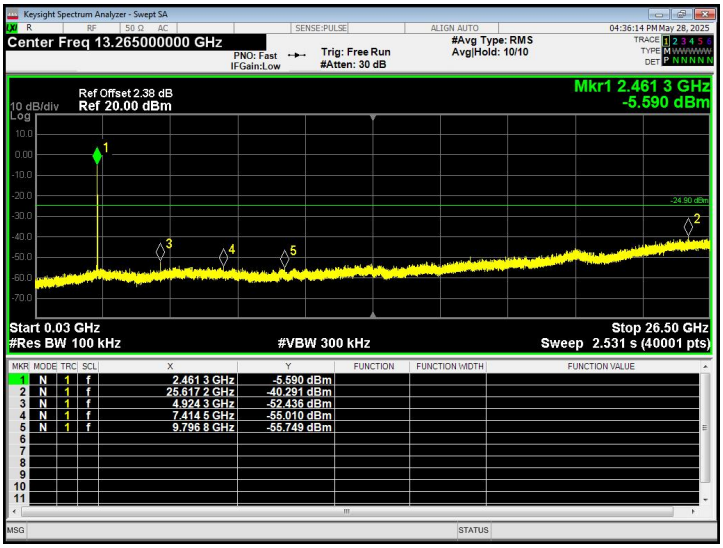
Middle channel





Highest channel

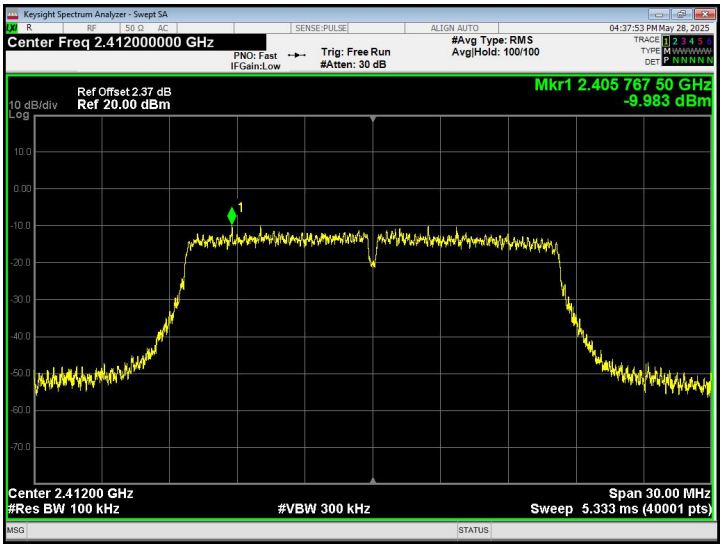


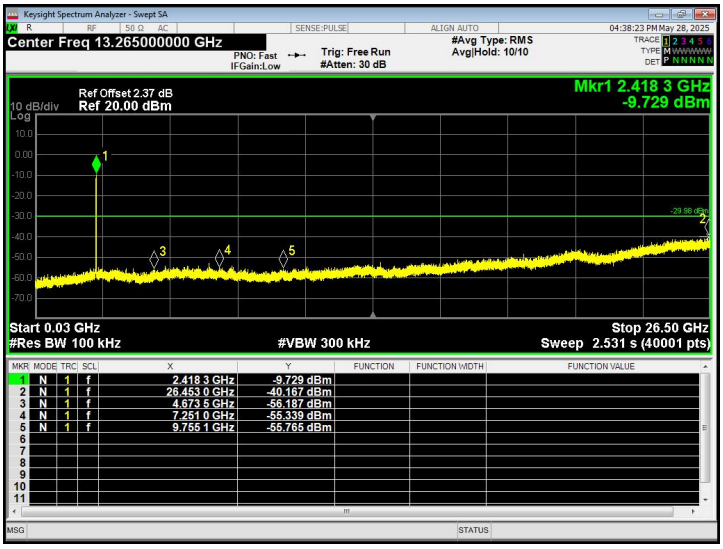


30MHz ~ 26.5GHz

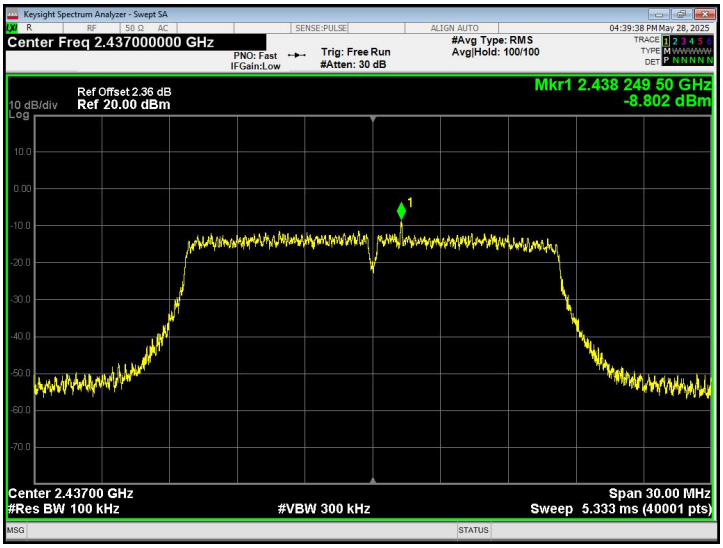
802.11g

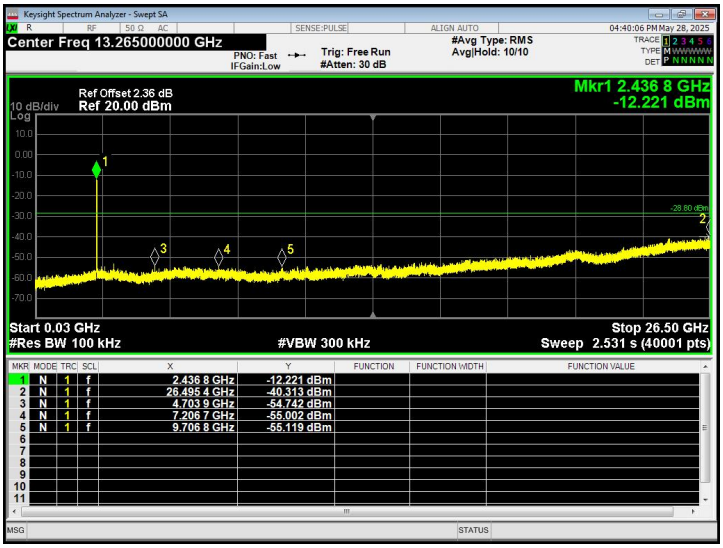
Lowest channel



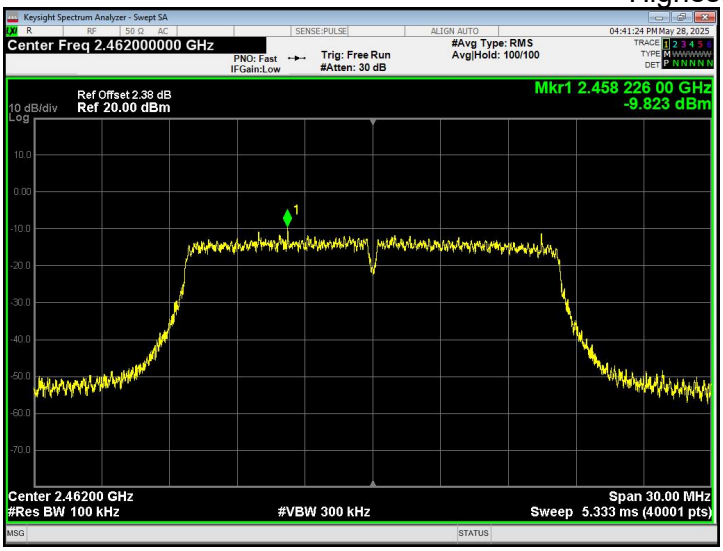


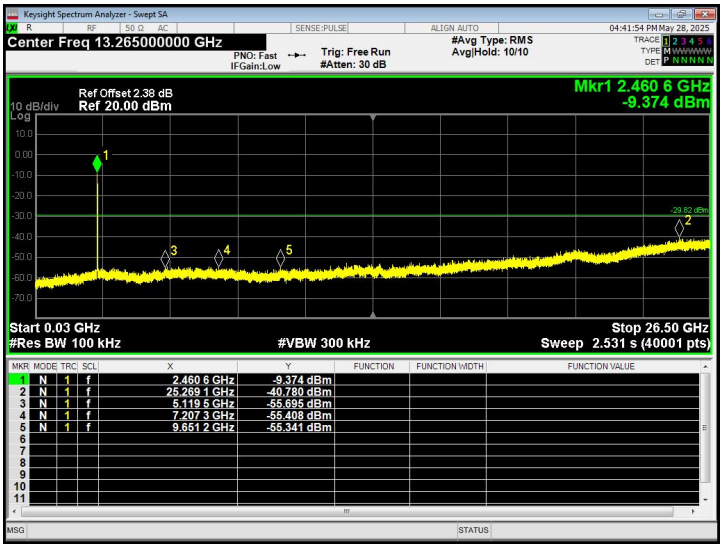
Middle channel





Highest channel

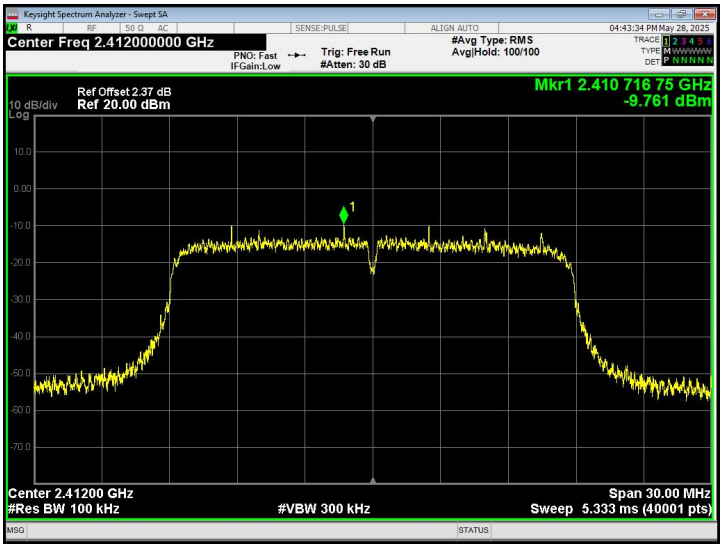


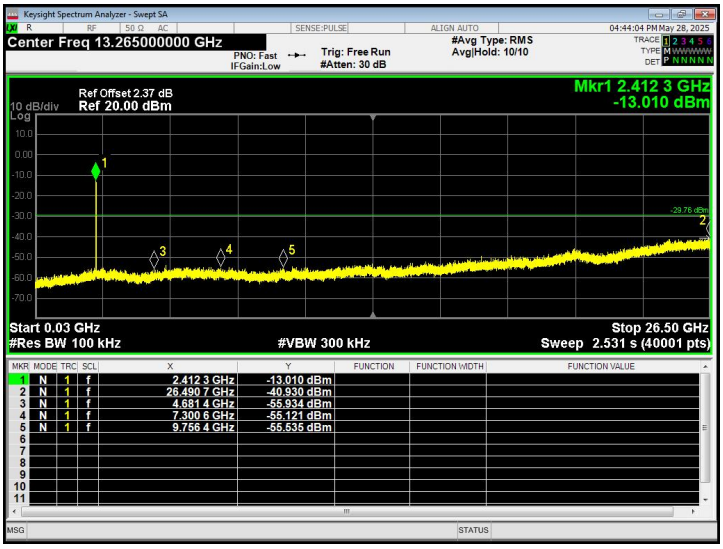


30MHz ~ 26.5GHz

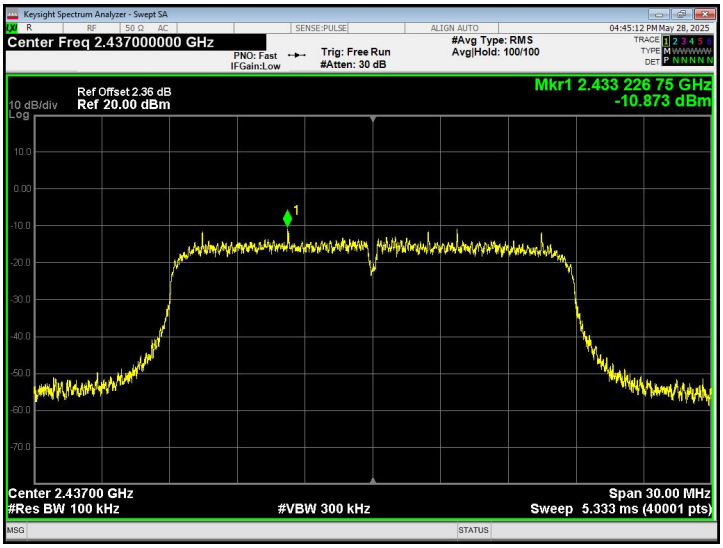
802.11n20

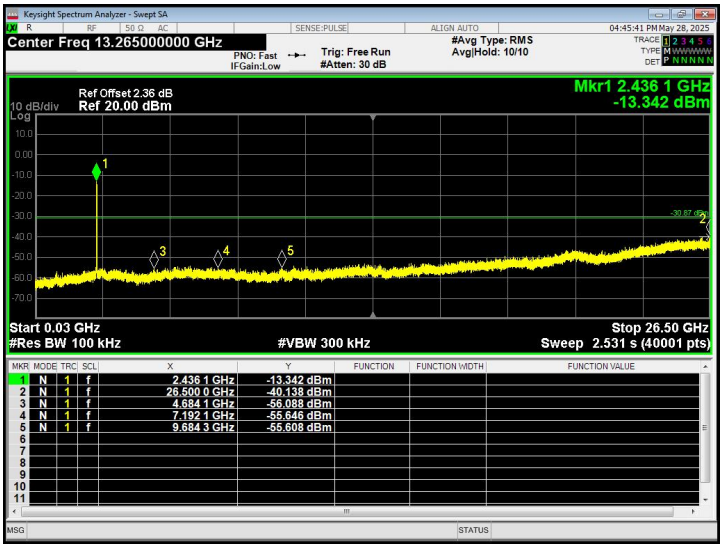
Lowest channel



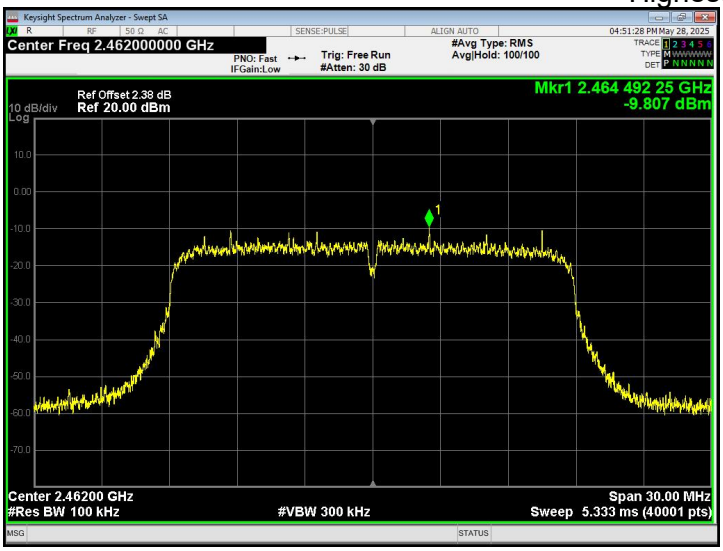


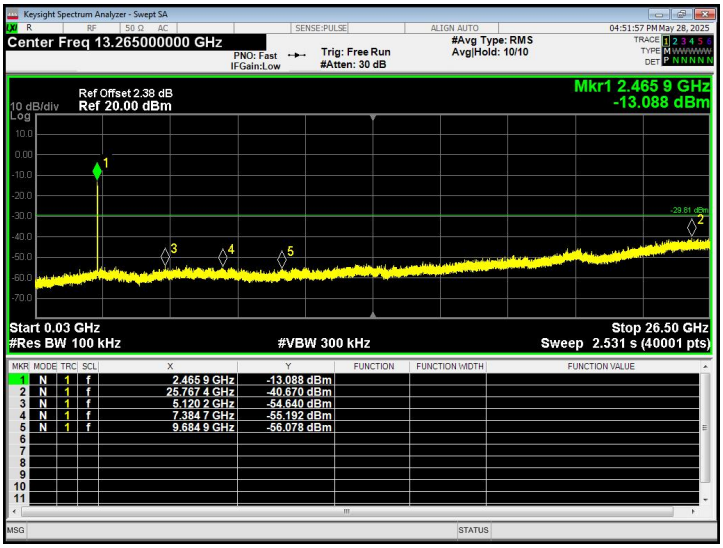
Middle channel





Highest channel

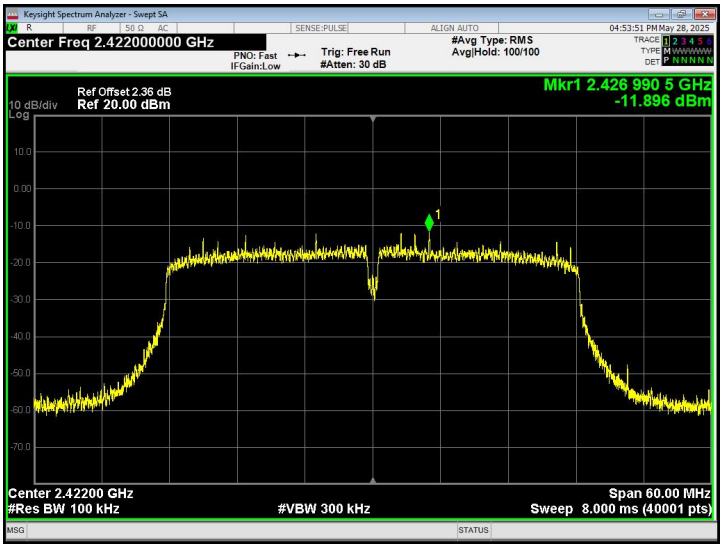


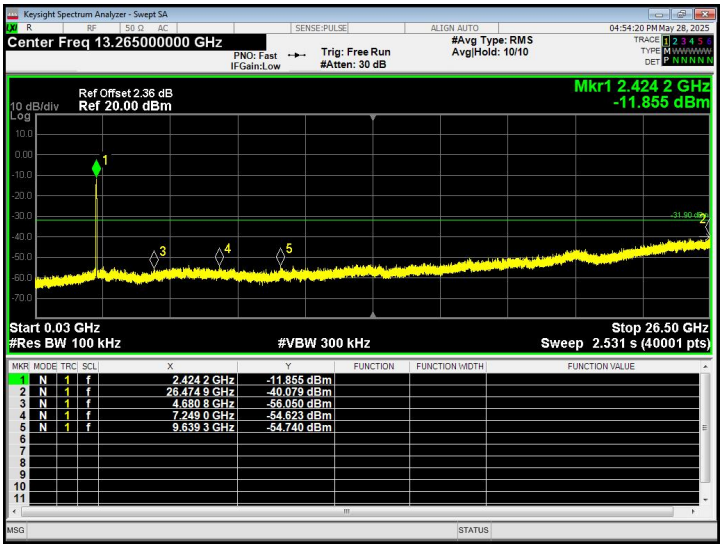


30MHz ~ 26.5GHz

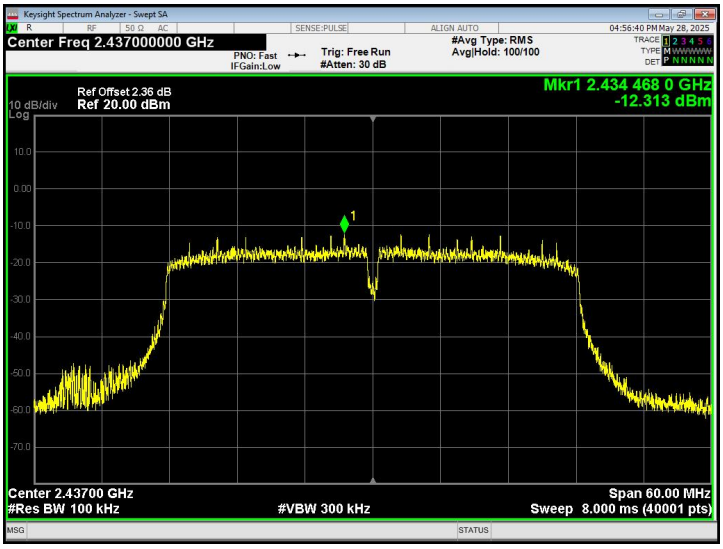
802.11n40

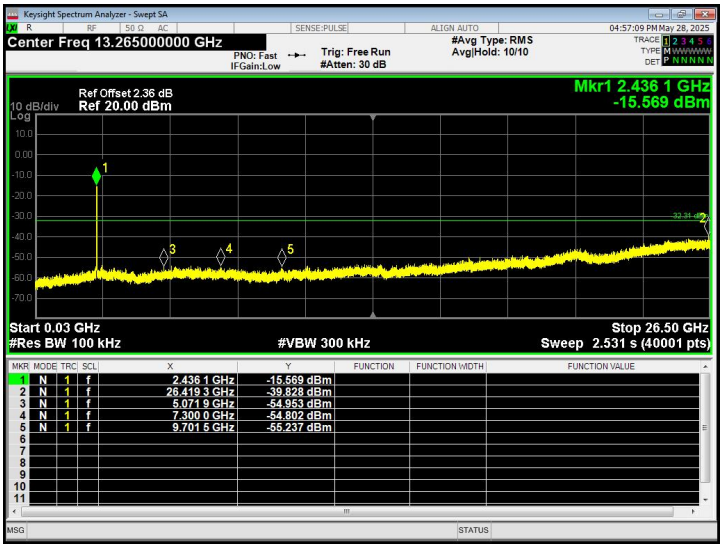
Lowest channel



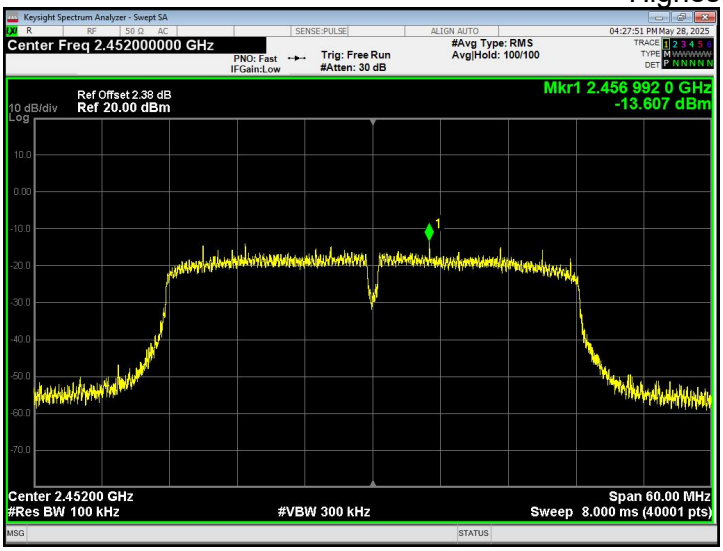


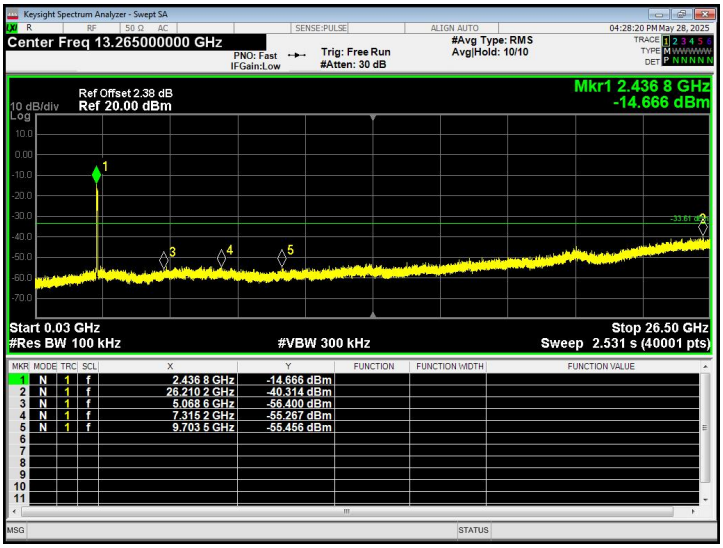
Middle channel





Highest channel





30MHz ~ 26.5GHz

10. DUTY CYCLE

Test Method:	ANSI C63.10:2013

10.1 APPLIED PROCEDURES / LIMIT

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

a) 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.

b) 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:

1) Set the center frequency of the instrument to the center frequency of the transmission.

2) Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value.

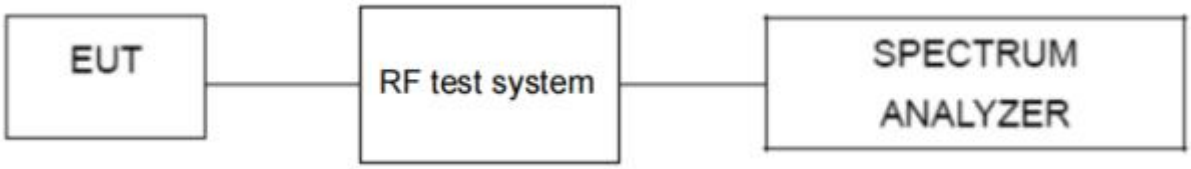
3) Set VBW ≥ RBW. Set detector = peak or average.

4) 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 $T \leq 16.7$ µs.)

10.2 DEVIATION FROM STANDARD

No deviation.

10.3 TEST SETUP



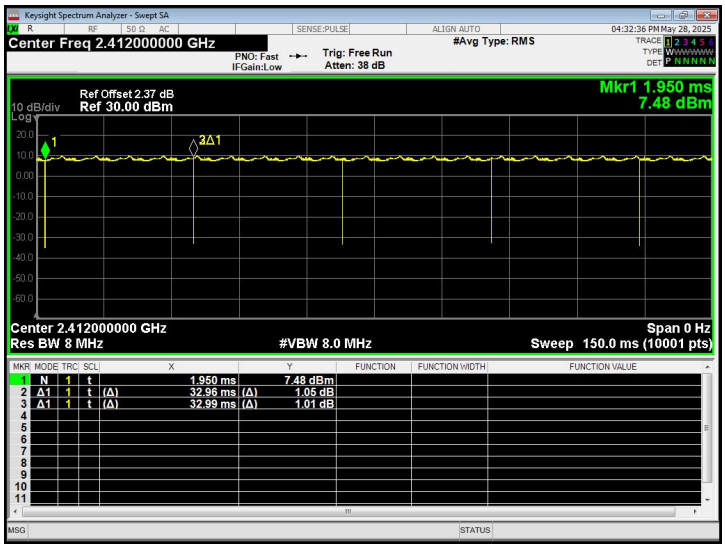
10.4 TEST RESULTS

Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V

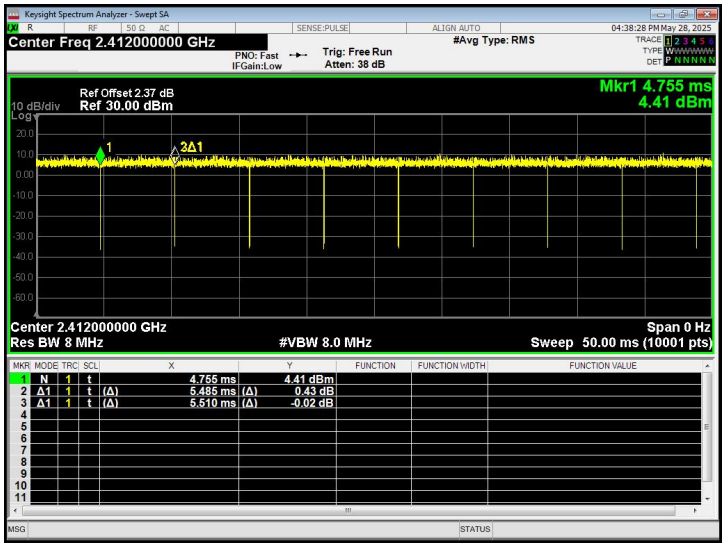
Test Mode	Test Frequency (MHz)	Duty Cycle (%)	Factor (dB)	Result
802.11b	2412	99.91	0	Pass
802.11g	2412	99.64	0	Pass
802.11n20	2412	99.61	0	Pass
802.11n40	2422	98.80	0	Pass

Note: Duty Cycle = Ton / Total * 100%;
Duty Cycle Correction Factor = 10log (1/Duty Cycle).

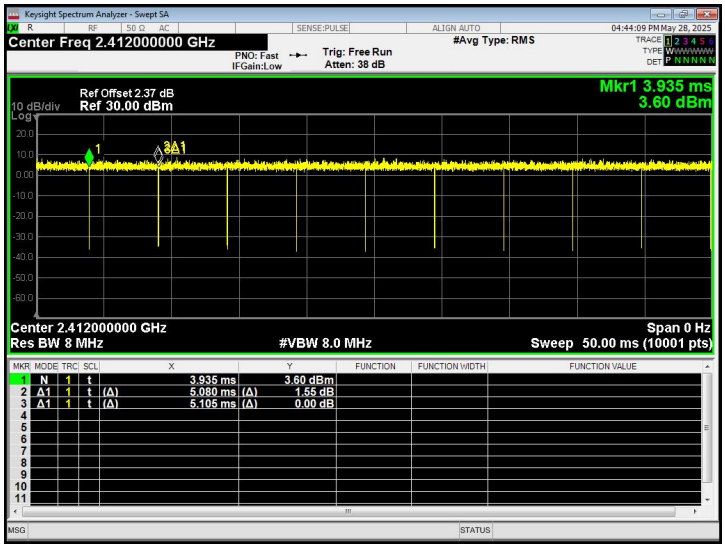
802.11b 2412MHz



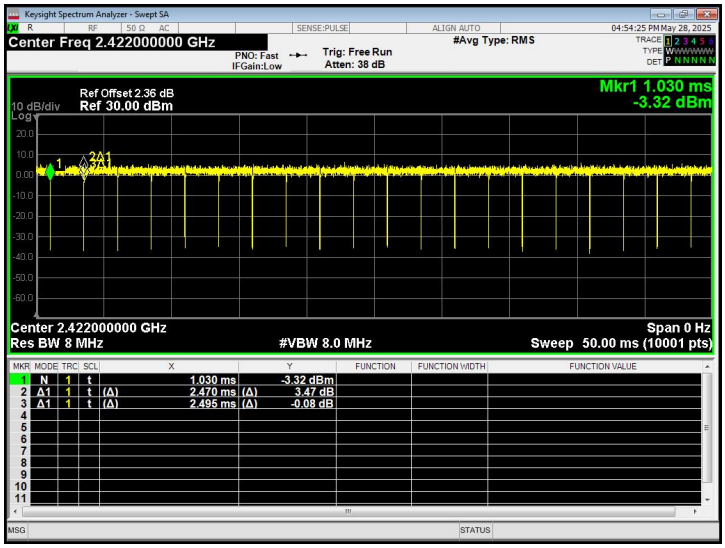
802.11g 2412MHz



802.11n20 2412MHz



802.11n40 2422MHz



Note: All channel have been tested, and the report only reflects the worst case data.

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.	
EUT Antenna:	
The antenna is External antenna, the best case gain of the antenna is 3.69dBi, 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 ※※※※※