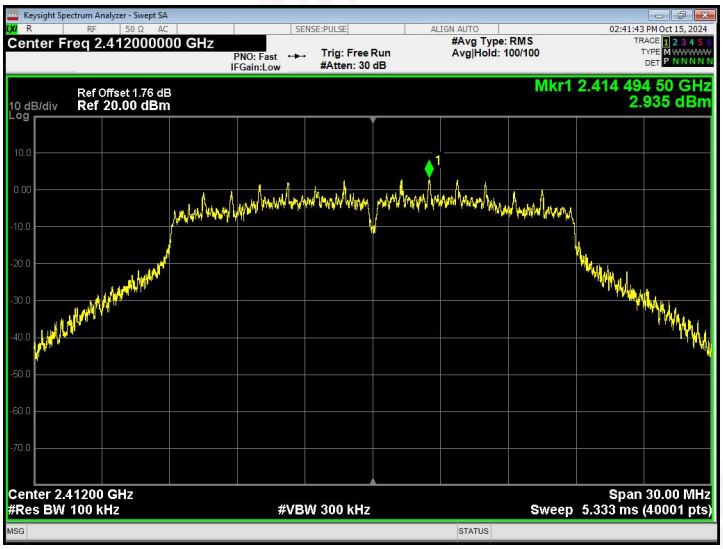
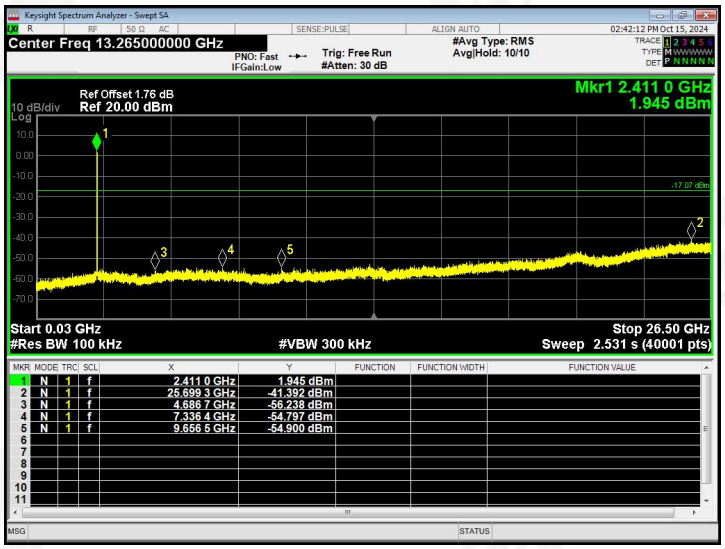
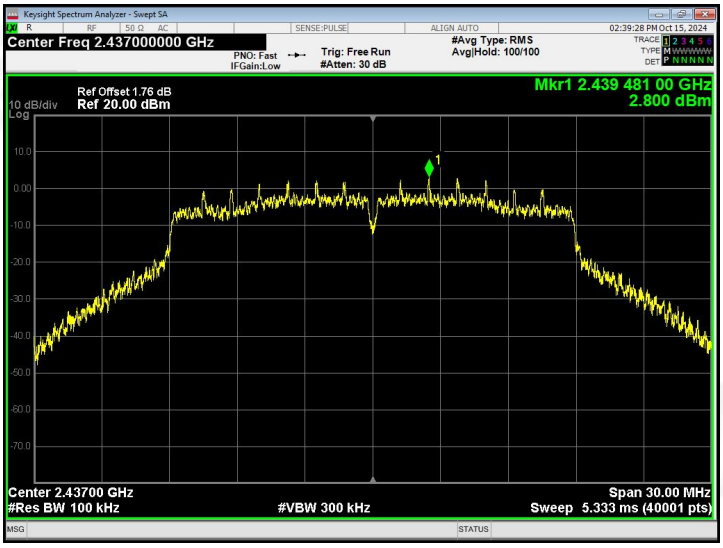
SISO ANT B - 802.11n20

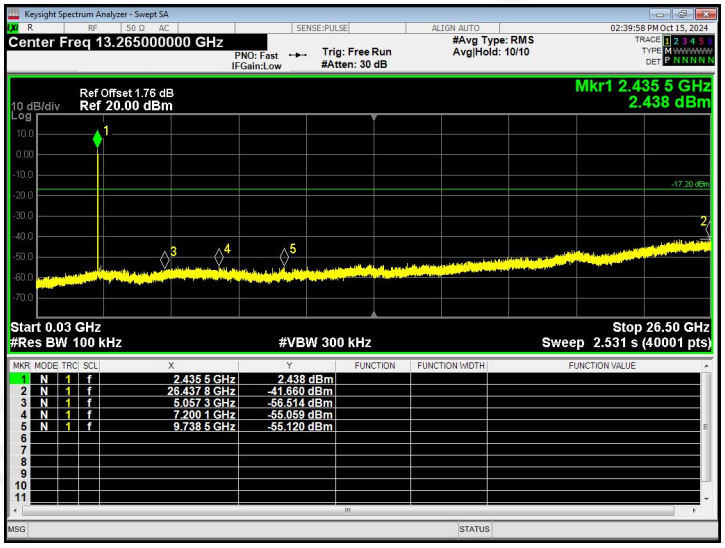
Lowest channel



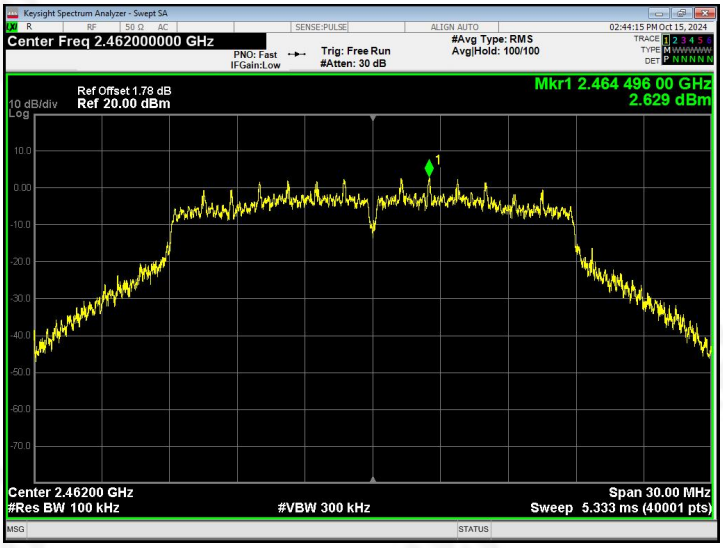


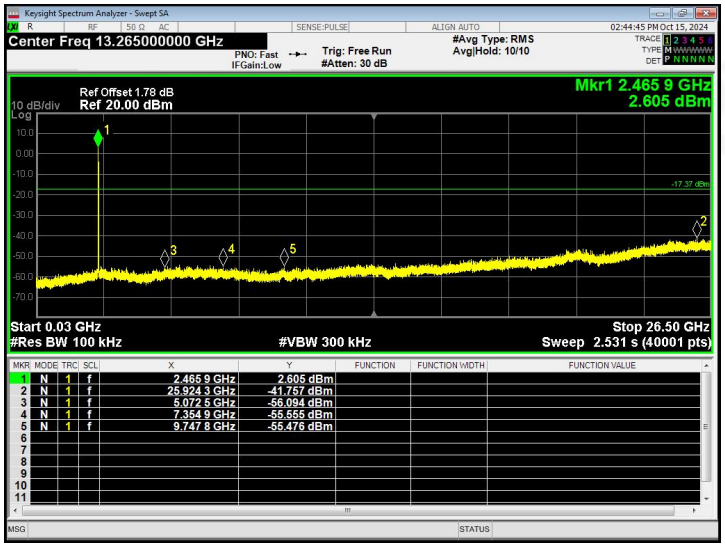
Middle channel





Highest channel

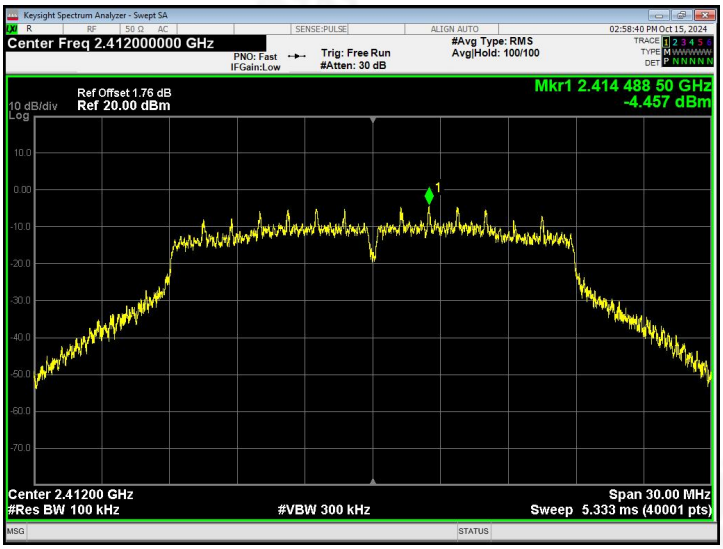


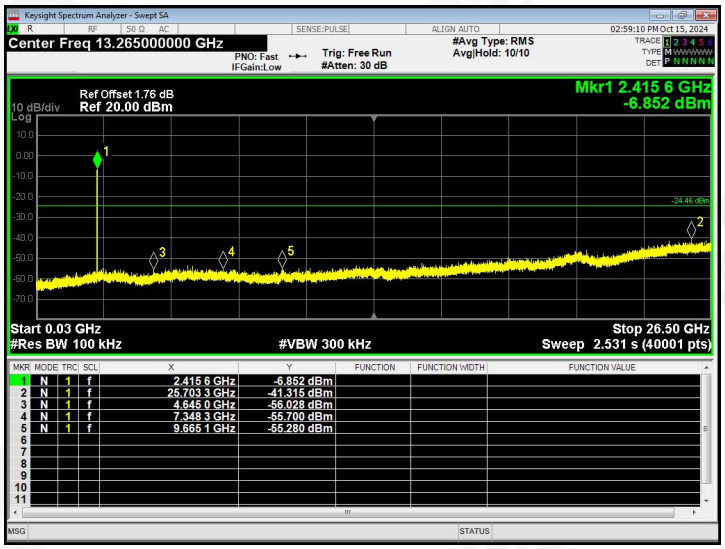


30MHz ~ 26.5GHz

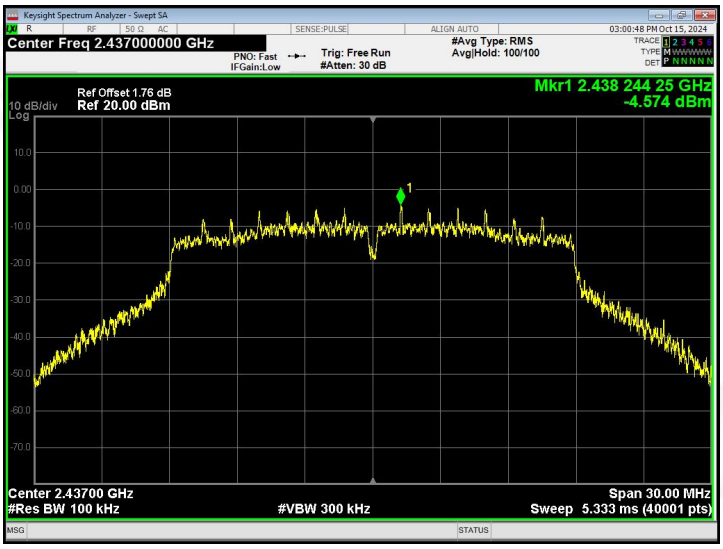
MIMO ANT A - 802.11n20

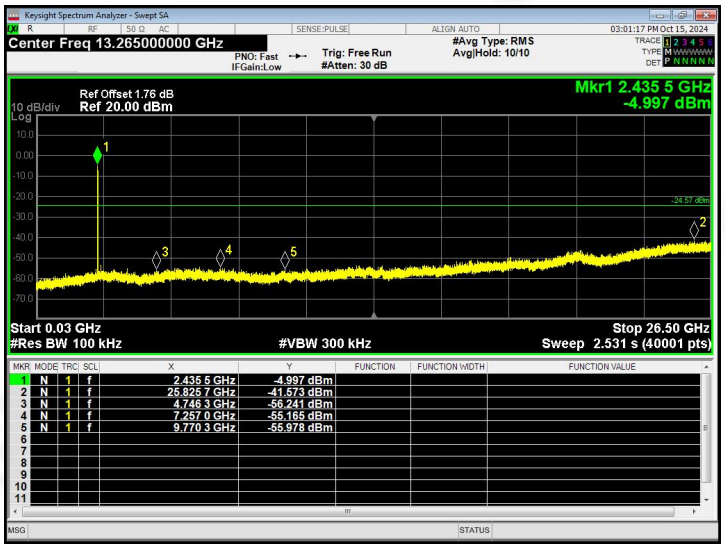
Lowest channel



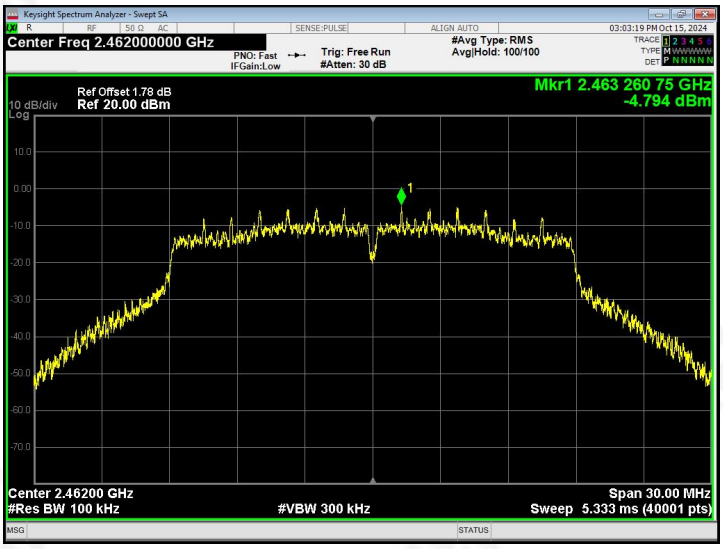


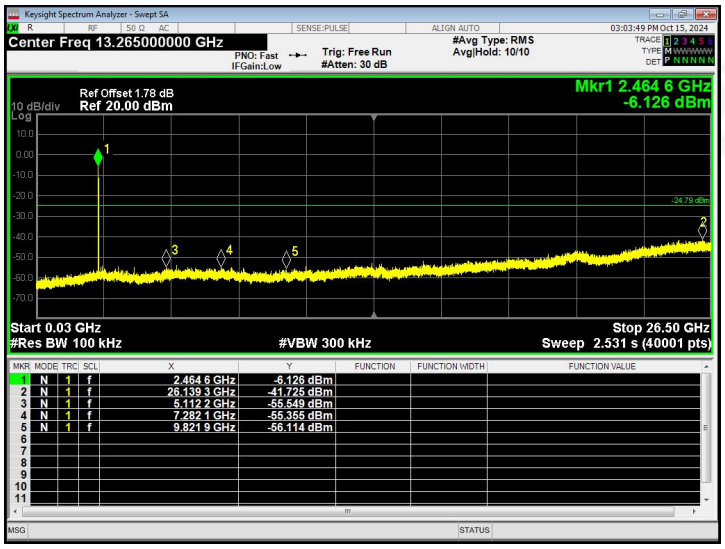
Middle channel





Highest channel

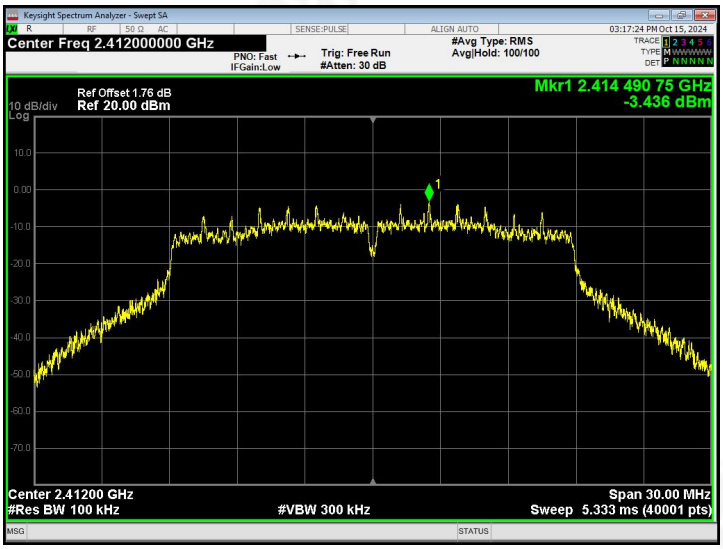


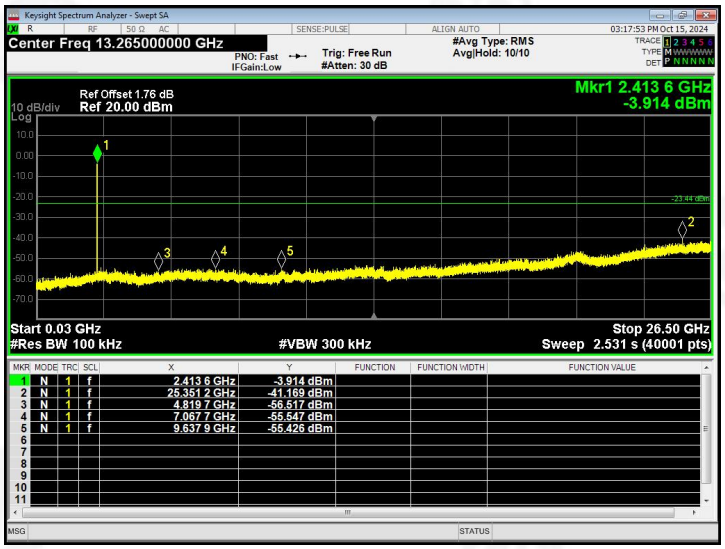


30MHz ~ 26.5GHz

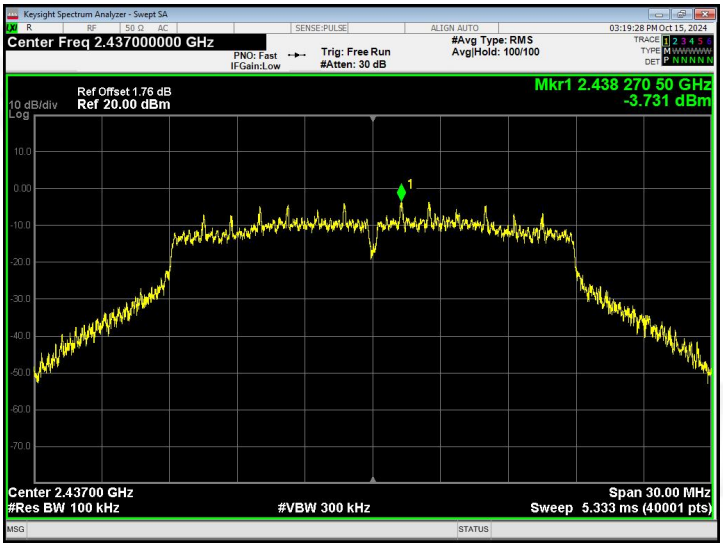
MIMO ANT B - 802.11n20

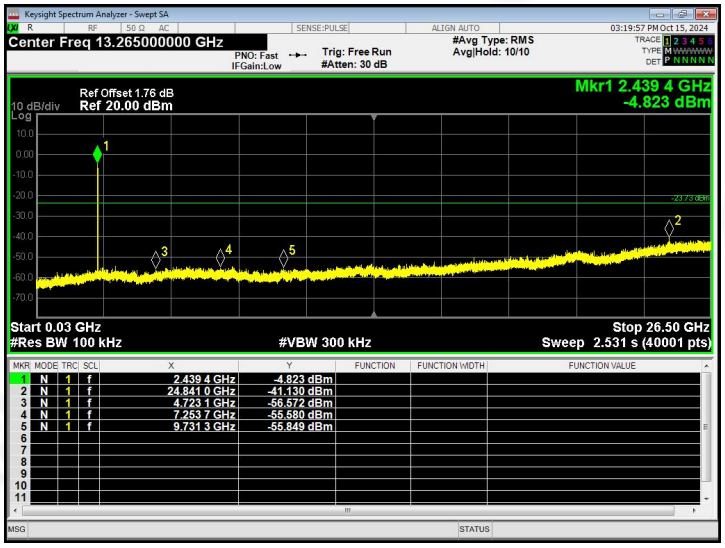
Lowest channel



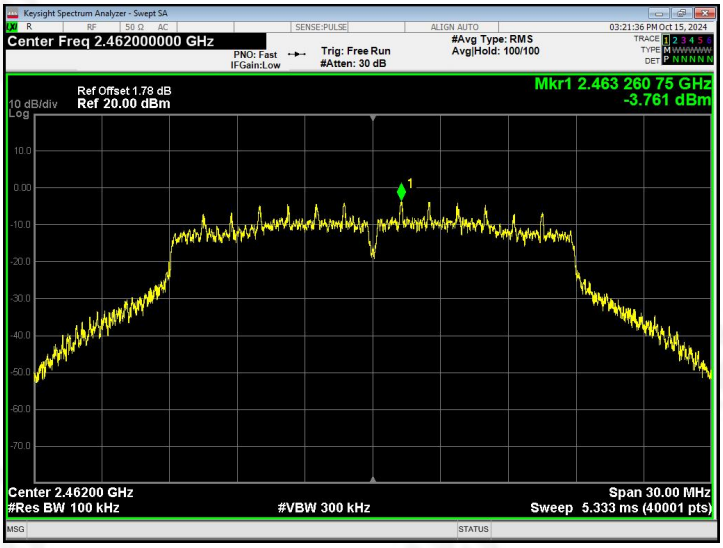


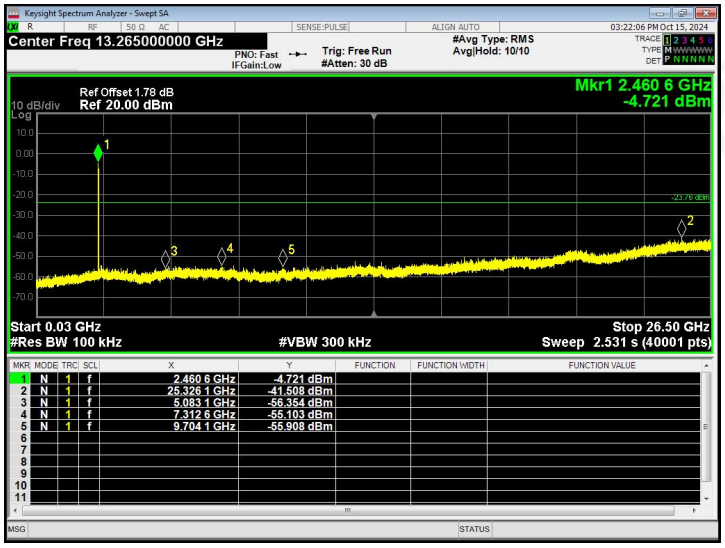
Middle channel





Highest channel

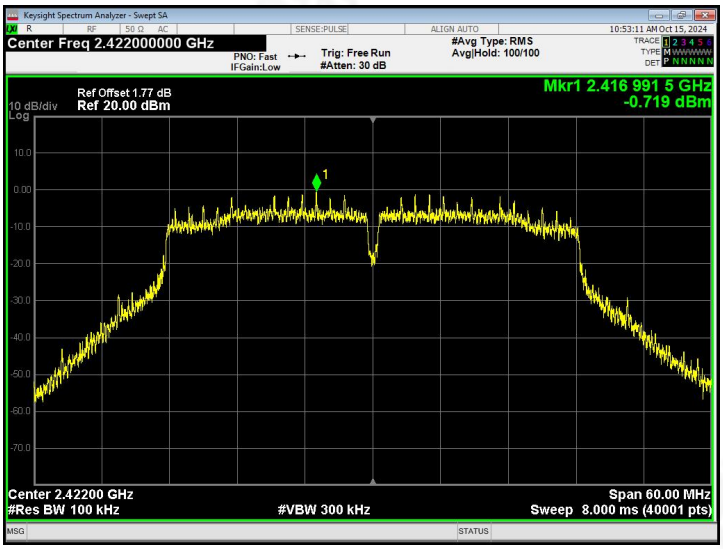


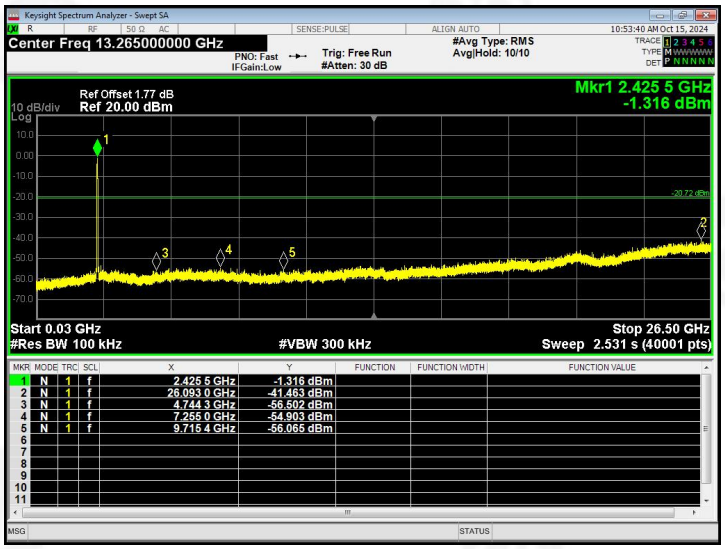


30MHz ~ 26.5GHz

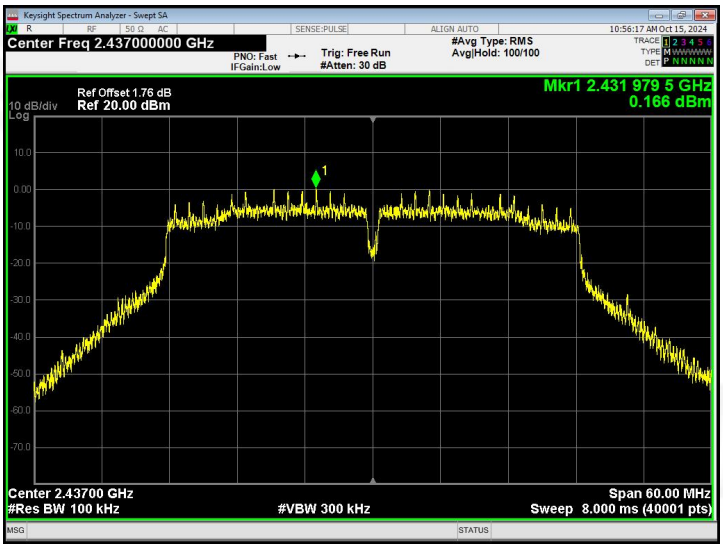
SISO ANT A - 802.11n40

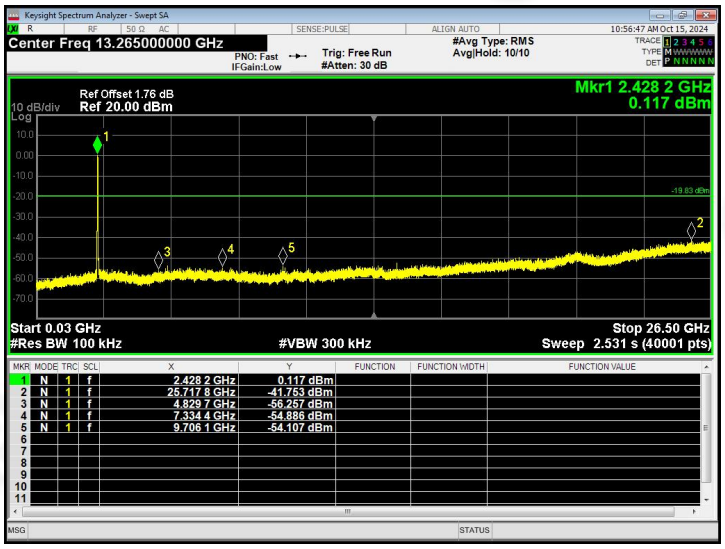
Lowest channel



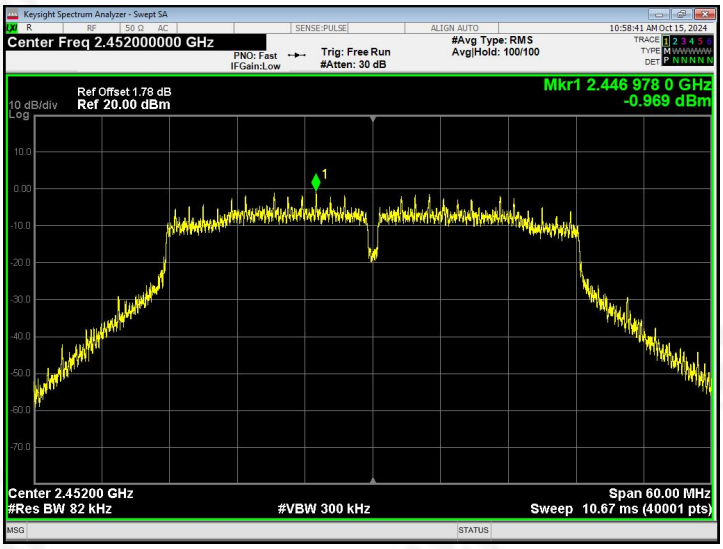


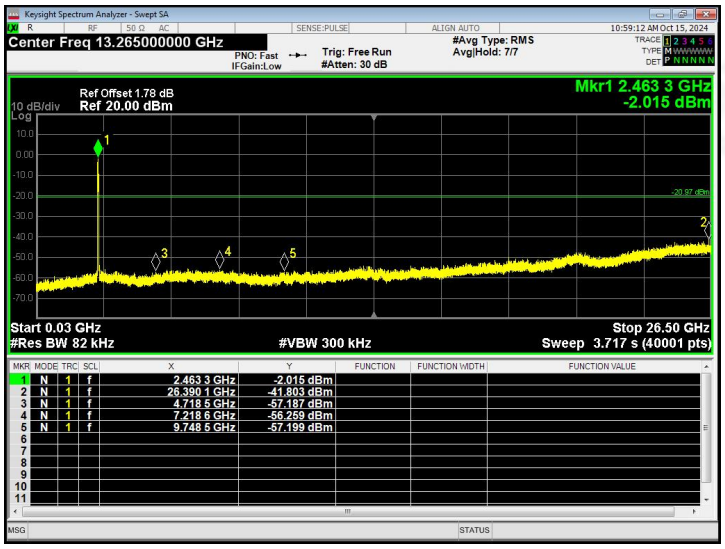
Middle channel





Highest channel

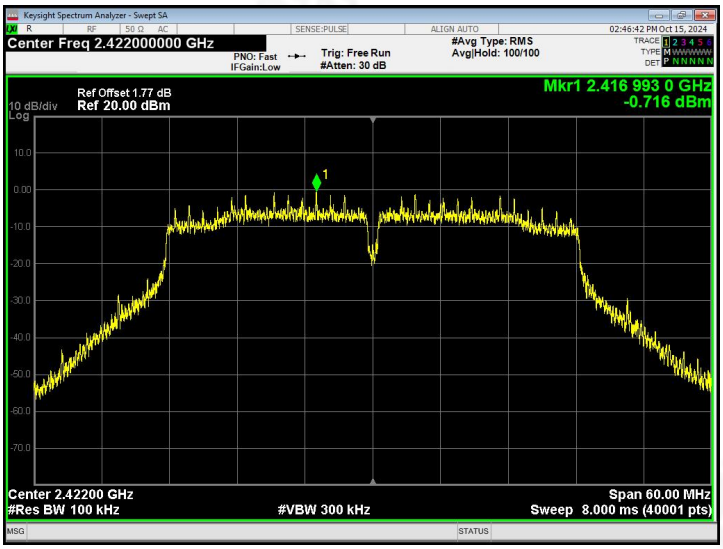


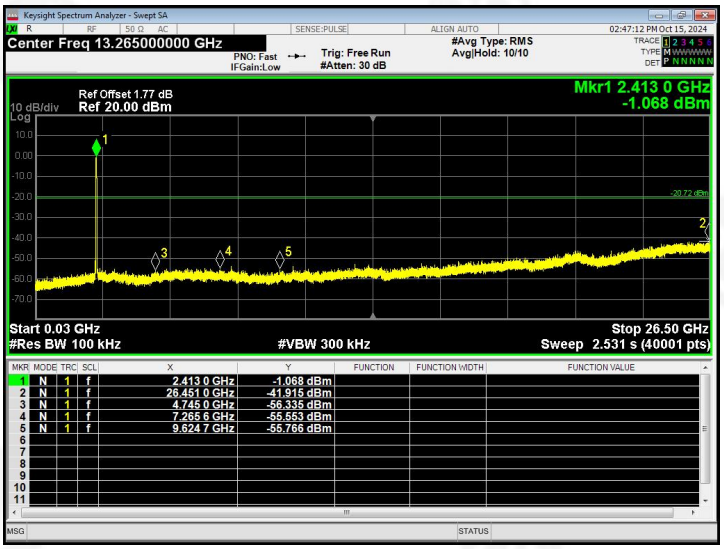


30MHz ~ 26.5GHz

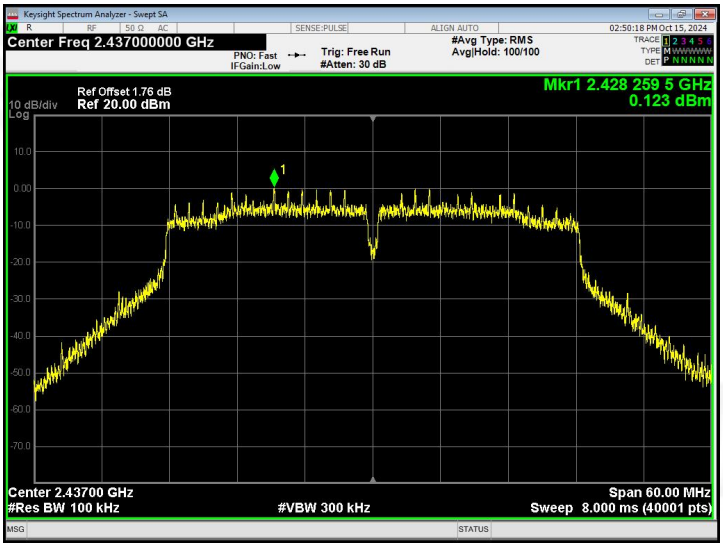
SISO ANT B - 802.11n40

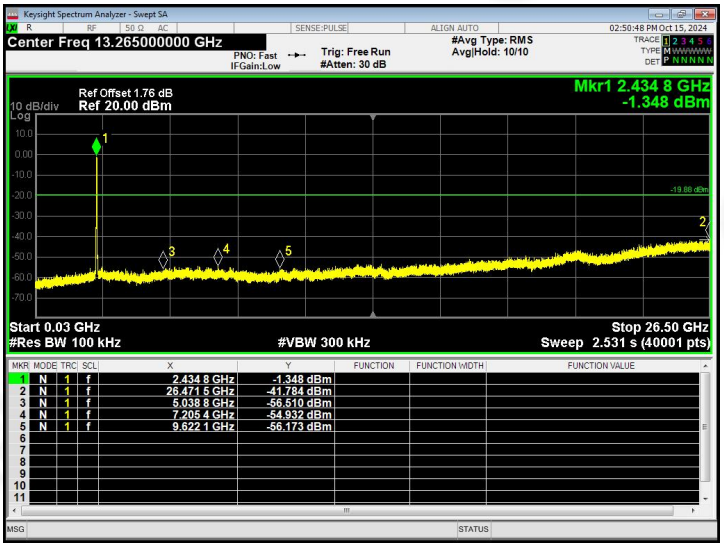
Lowest channel



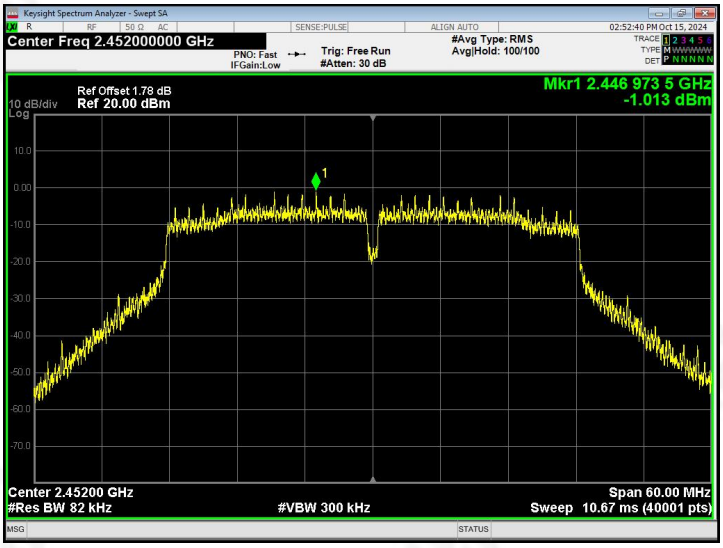


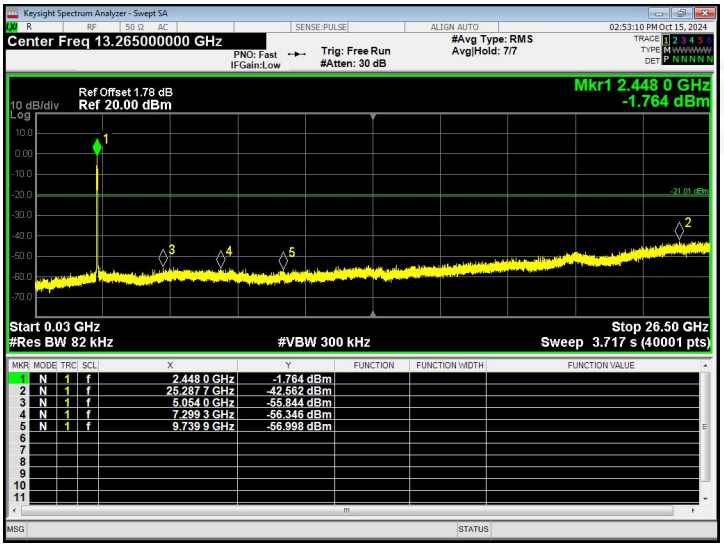
Middle channel





Highest channel

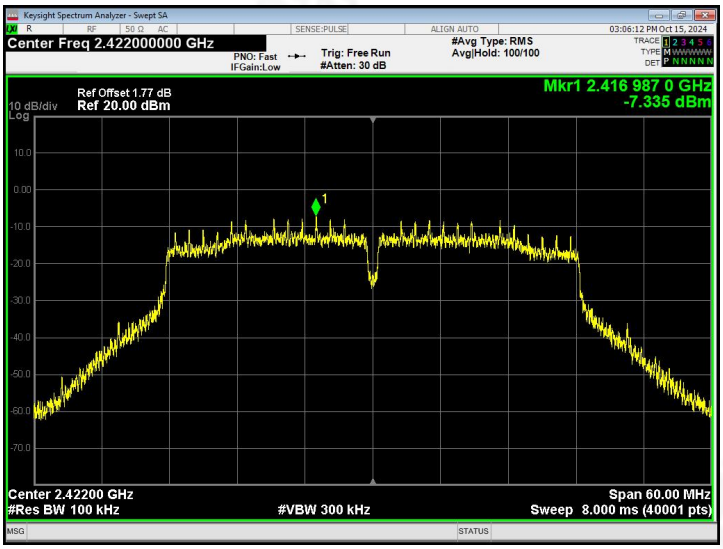


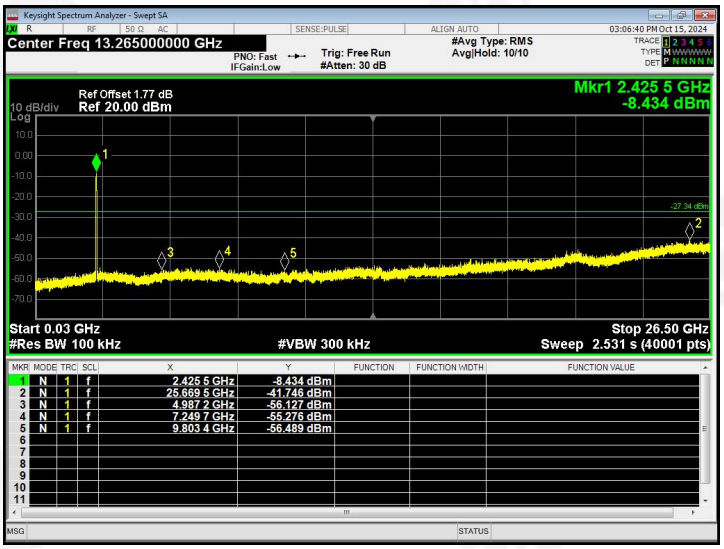


30MHz ~ 26.5GHz

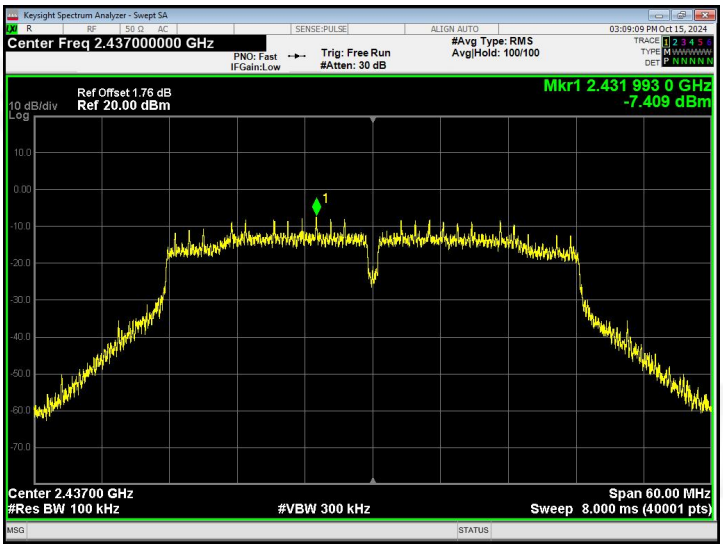
MIMO ANT A - 802.11n40

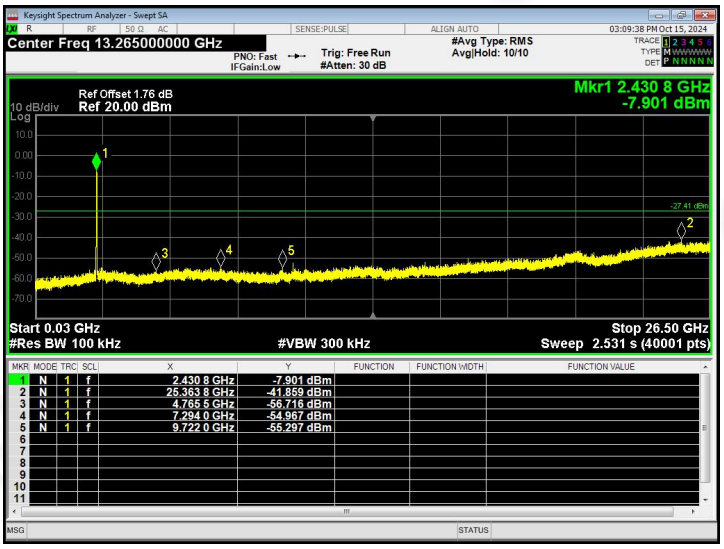
Lowest channel



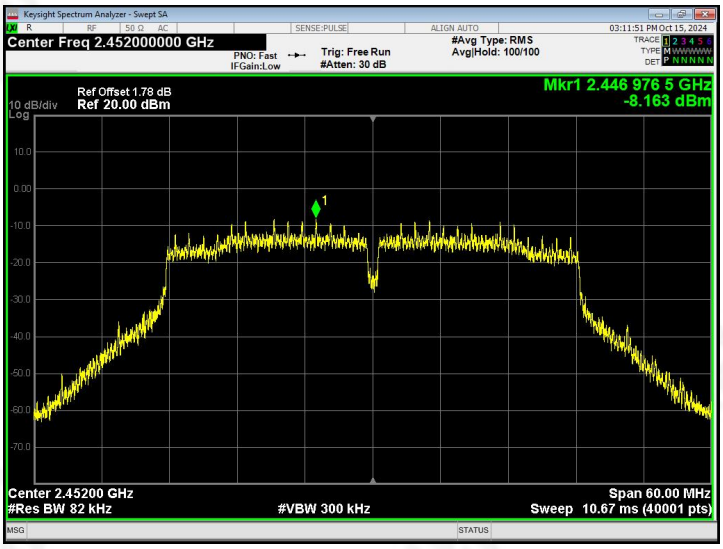


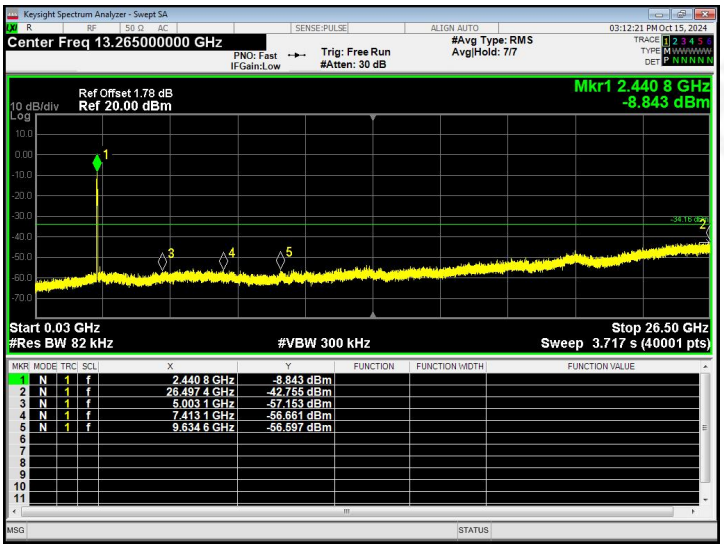
Middle channel





Highest channel

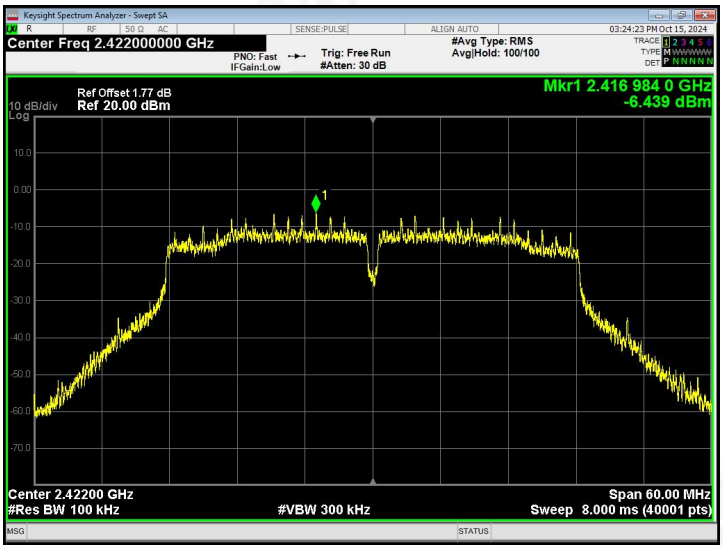


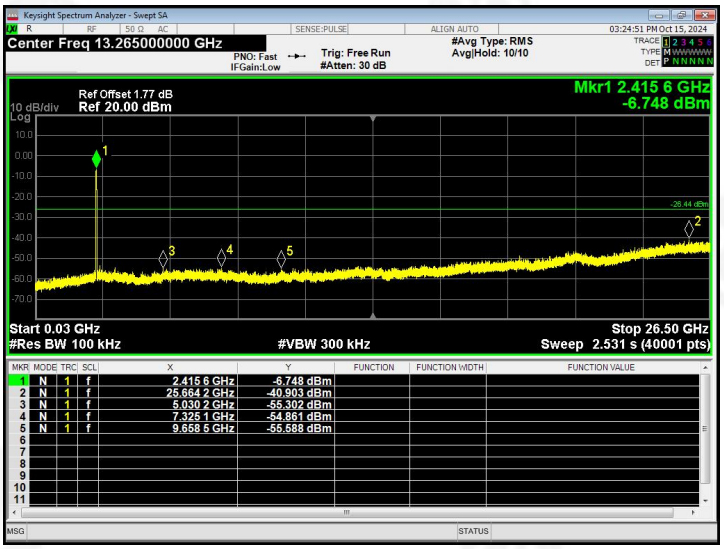


30MHz ~ 26.5GHz

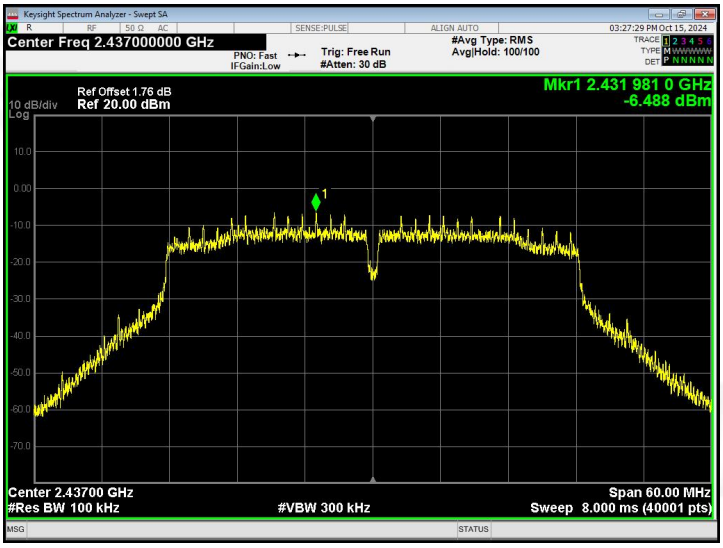
MIMO ANT B - 802.11n40

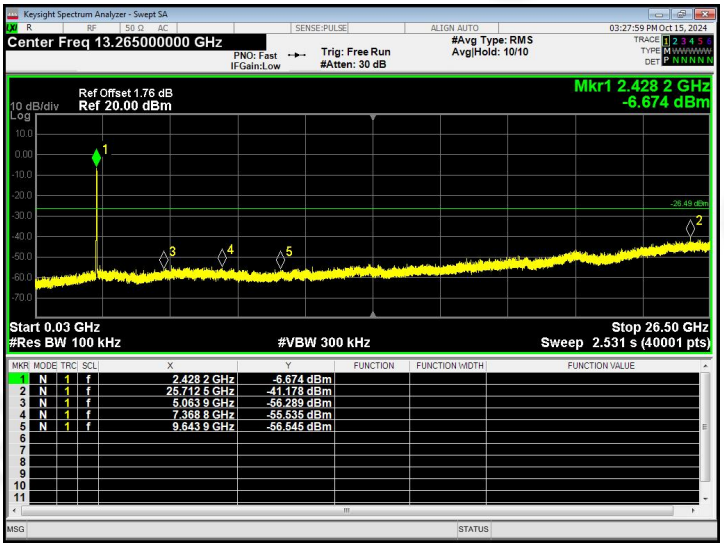
Lowest channel



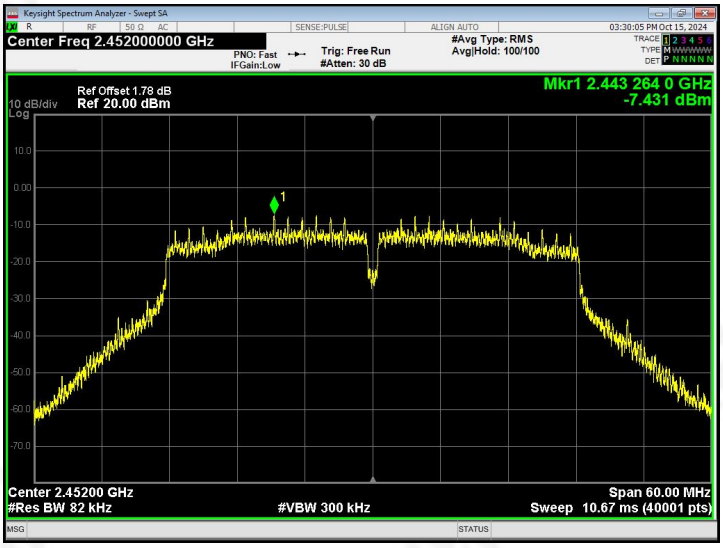


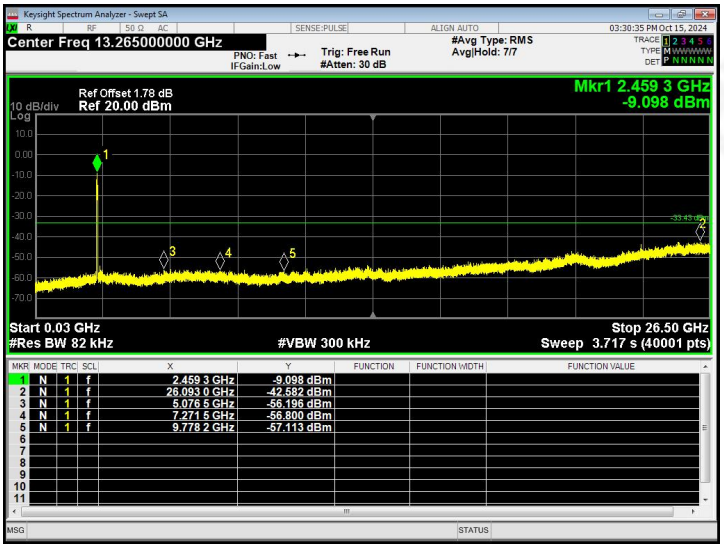
Middle channel





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.

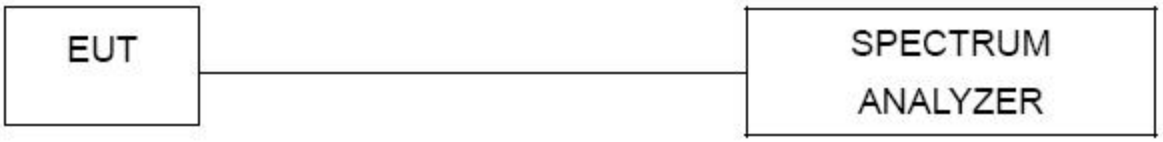
3) Set VBW ≥ RBW. Set detector = peak or average.

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

Mode	Antenna	Frequency (MHz)	Duty Cycle (%)	Correction Factor (dB)
802.11b	SISO ANT A	2412	99.46	0.02
	SISO ANT B	2412	99.46	0.02
802.11g	SISO ANT A	2412	97.75	0.10
	SISO ANT B	2412	98.81	0.05
802.11n20	SISO ANT A	2412	88.26	0.54
	SISO ANT B	2412	89.02	0.51
	MIMO ANT A	2412	88.78	0.52
	MIMO ANT B	2412	88.78	0.52
	MIMO ANT A+B	2412	91.79	0.37
802.11n40	SISO ANT A	2422	89.23	0.50
	SISO ANT B	2422	89.23	0.50
	MIMO ANT A	2422	88.99	0.51
	MIMO ANT B	2422	88.99	0.51
	MIMO ANT A+B	2422	92.00	0.36
Note: Duty Cycle= Ton /Total*100% Correction Factor = 10*log10(1/Duty Cycle)				