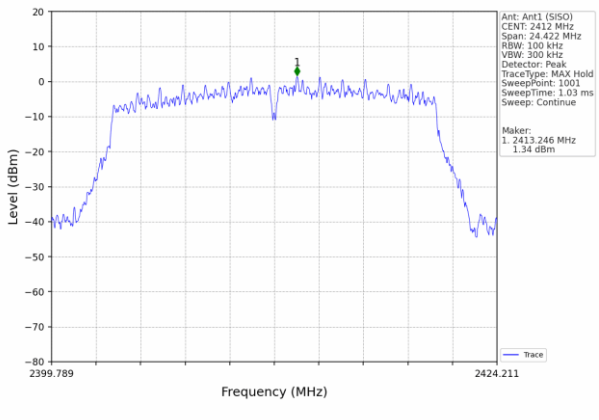
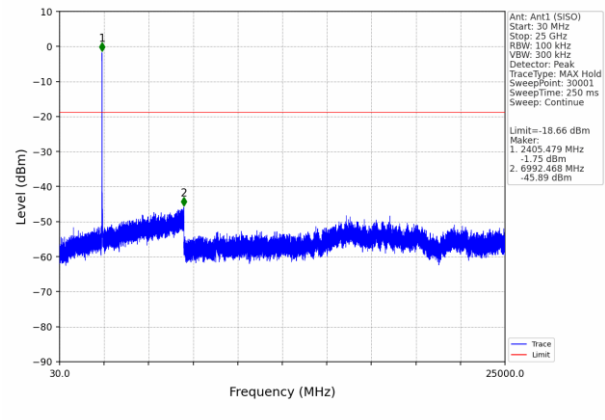
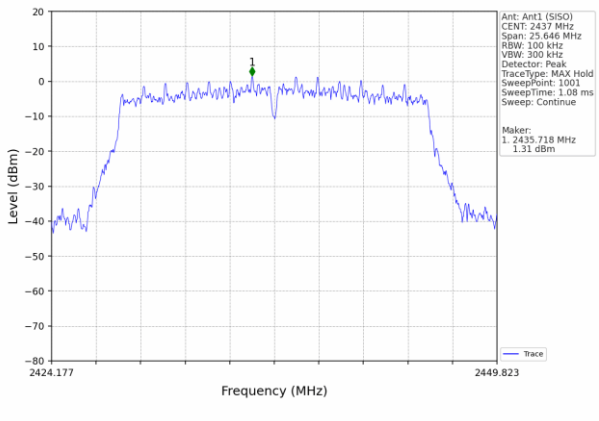
Test Mode: 802.11n20	Lowest channel

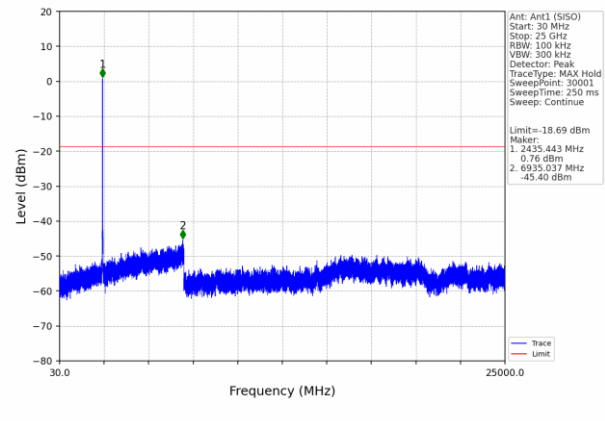




0.03GHz~26.5GHz

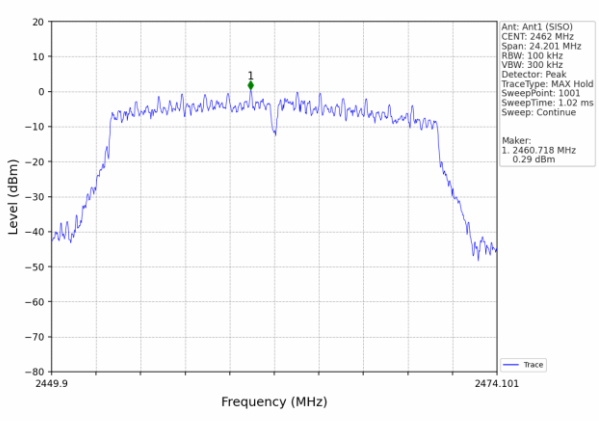
Test channel: 802.11g	Middle channel

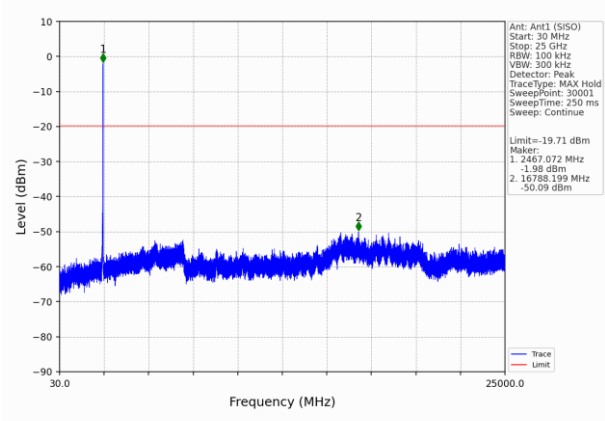




0.03GHz~26.5GHz

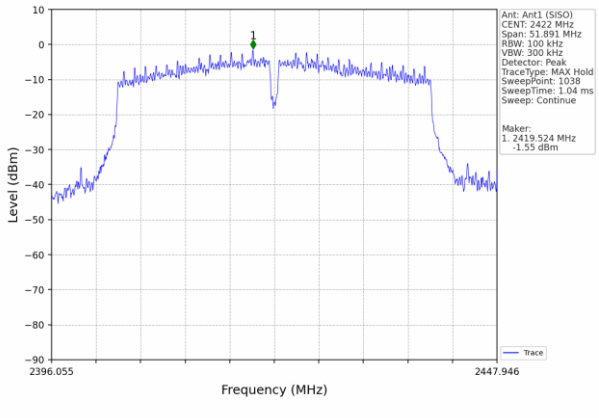
Test channel: 802.11g	Highest channel

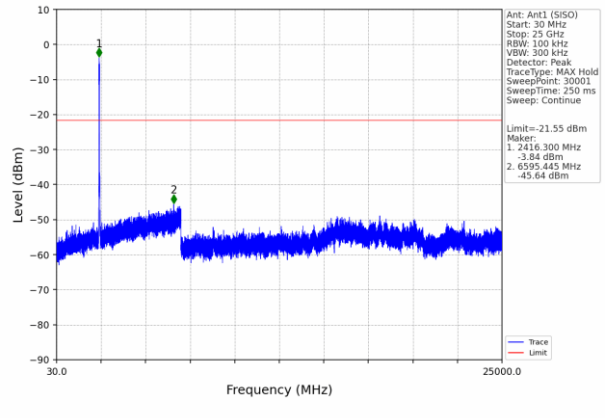




0.03GHz~26.5GHz

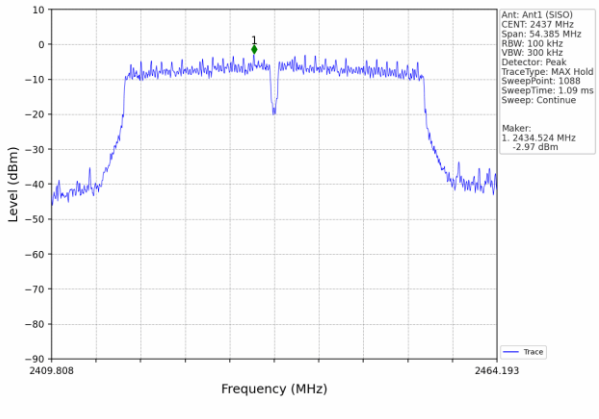
Test Mode: 802.11n40	Lowest channel

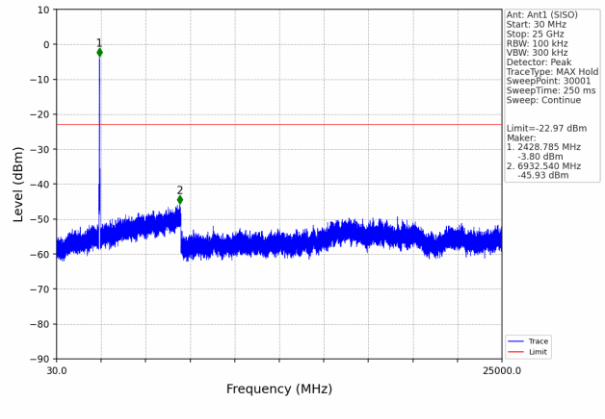




0.03GHz~26.5GHz

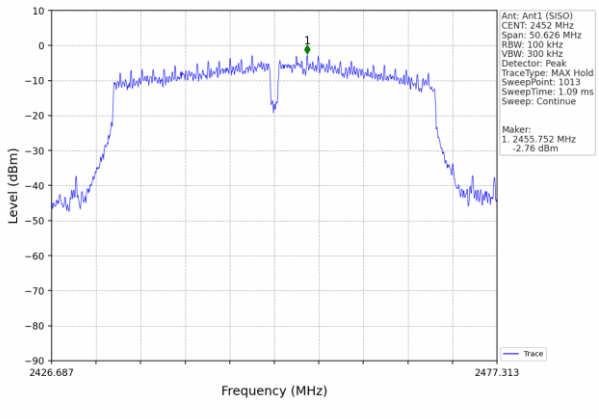
Test channel: 802.11g	Middle channel

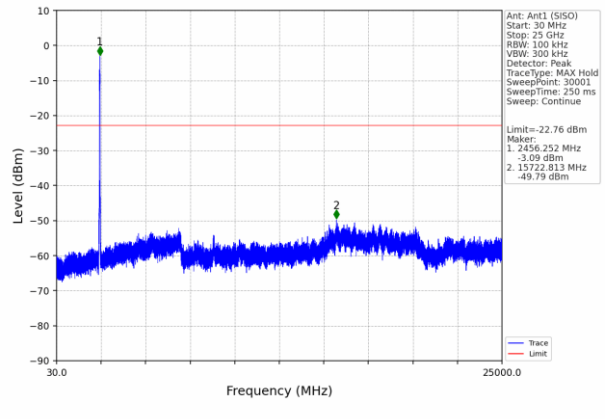




0.03GHz~26.5GHz

Test channel: 802.11g	Highest channel





0.03GHz~26.5GHz

4.. AVERAGE OUTPUT POWER

4.1. APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247 (b)(3)	Average Output Power	1 watt or 30dBm	2400-2483.5	PASS

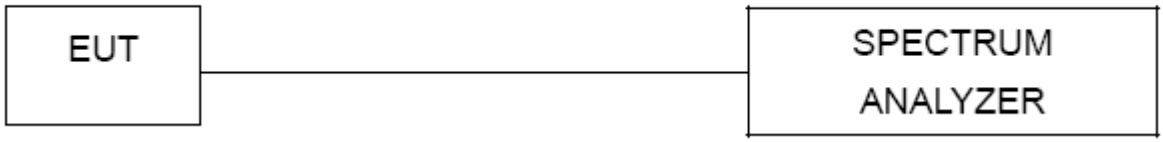
4.1.1. TEST PROCEDURE

a.The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
b.Set span to at least 1.5 times the OBW.
c.Set RBW = 1% to 5% of the OBW, not to exceed 1 MHz.
d.Set VBW ⩾ [3 × RBW].
e.Number of points in sweep ⩾ [2 × span / RBW]. (This gives bin-to-bin spacing ⩽ RBW / 2, so that narrowband signals are not lost between frequency bins.)
f.Sweep time = auto.
g.Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
h.If transmit duty cycle < 98%, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at the maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFF intervals) or at duty cycle ⩾ 98%, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."
i.Trace average at least 100 traces in power averaging (rms) mode.
j.Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

4.1.2. DEVIATION FROM STANDARD

No deviation.

4.1.3. TEST SETUP



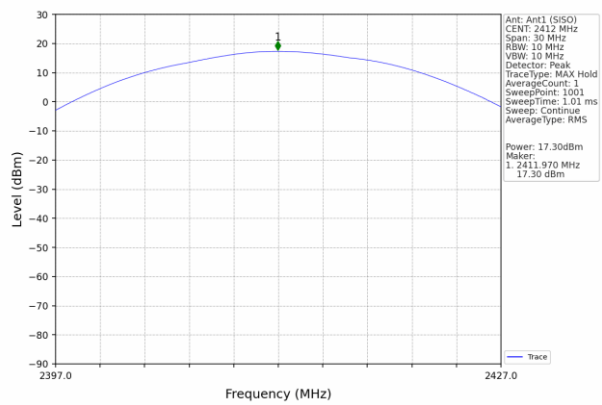
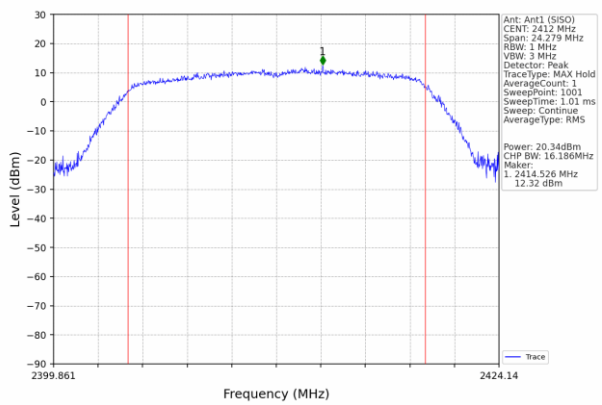
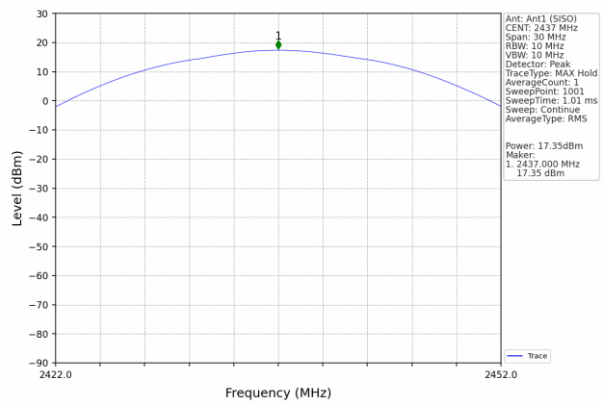
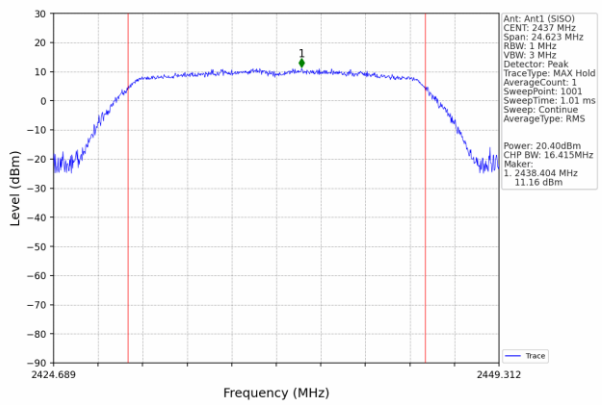
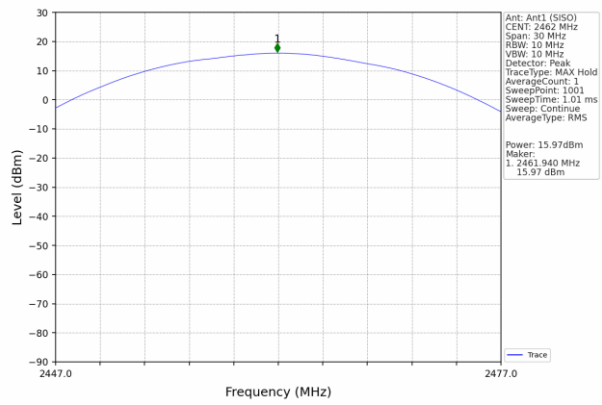
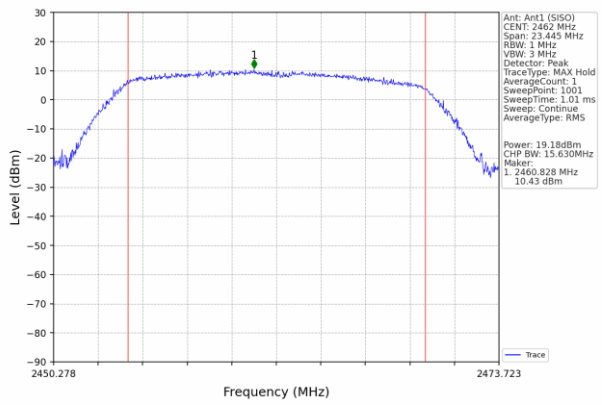
4.1.4. EUT OPERATION CONDITIONS

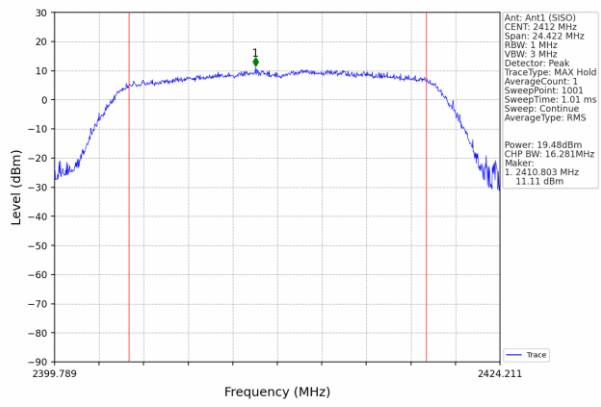
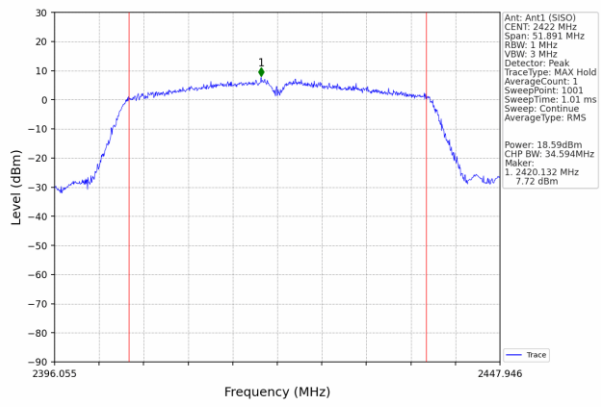
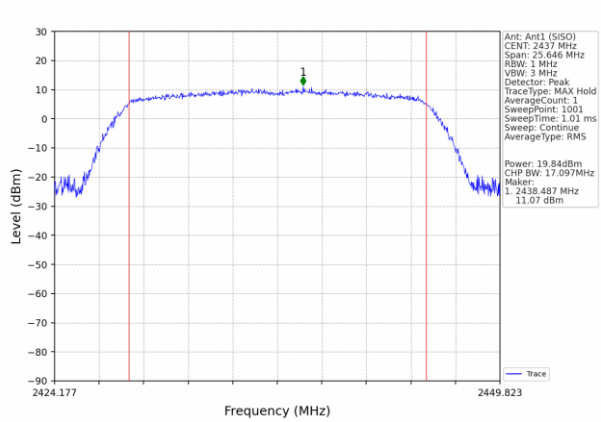
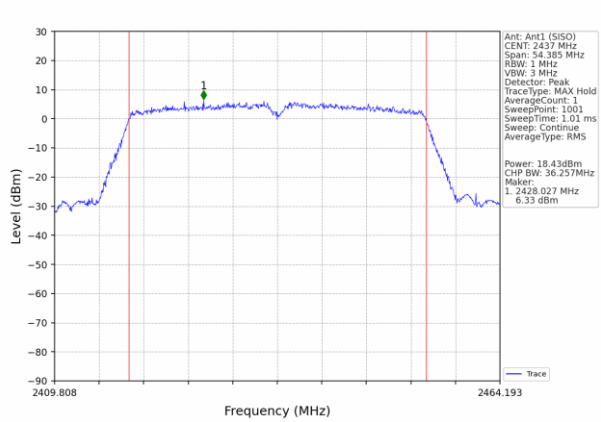
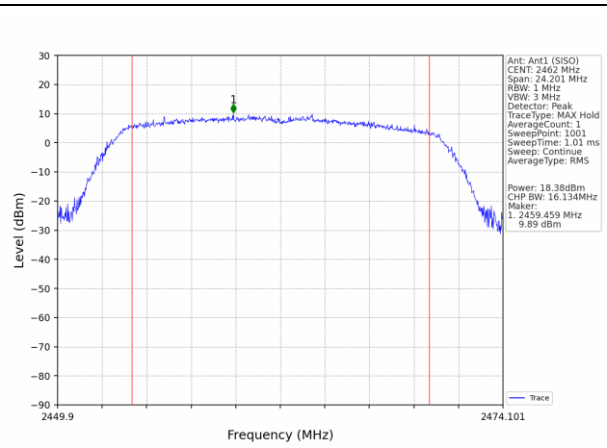
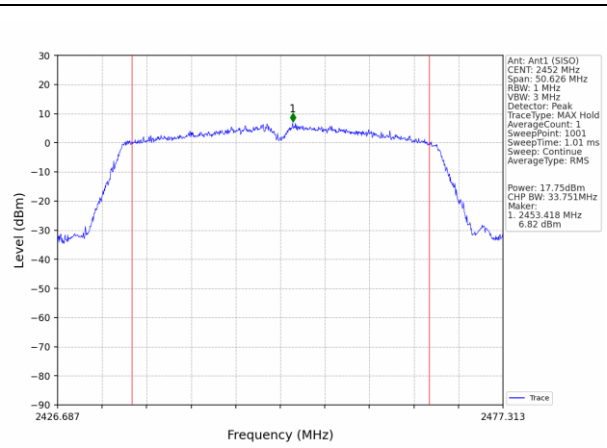
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

4.1.5. TEST RESULTS

Temperature:	25 ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V

Mode	Test Channel	Average Output Power (dBm)	LIMIT (dBm)
802.11b	Low	17.30	30.00
	Middle	17.35	30.00
	High	15.97	30.00
802.11g	Low	20.34	30.00
	Middle	20.40	30.00
	High	19.18	30.00
802.11n HT20	Low	19.48	30.00
	Middle	19.84	30.00
	High	18.38	30.00
802.11n HT40	Low	18.59	30.00
	Middle	18.43	30.00
	High	17.75	30.00

802.11b	802.11g
	
2412MHz	2412MHz
	
2437MHz	2437MHz
	
2462MHz	2462MHz

802.11n HT20	802.11n HT40
	
2412MHz	2422MHz
	
2437MHz	2437MHz
	
2462MHz	2452MHz

5.. POWER SPECTRAL DENSITY TEST

5.1. APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	= the frequency band of operation
RB	RBW ≥ 3kHz
VB	VBW ≥ 3RBW
Detector	power averaging (rms) or sample detector (when rms not available).
Trace	rms/average
Sweep Time	Auto

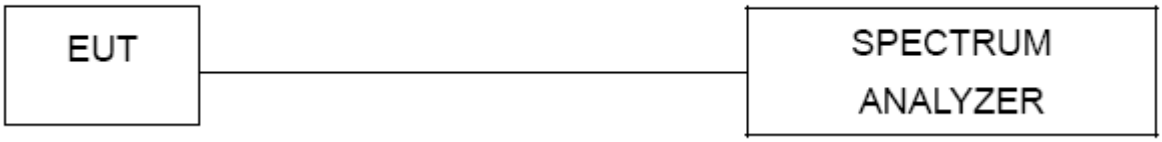
5.1.1. TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

5.1.2. DEVIATION FROM STANDARD

No deviation.

5.1.3. TEST SETUP

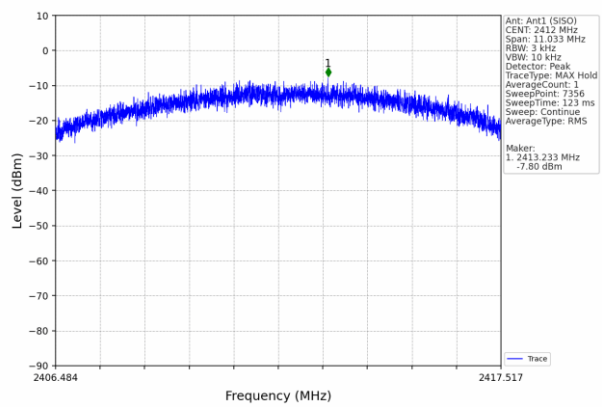
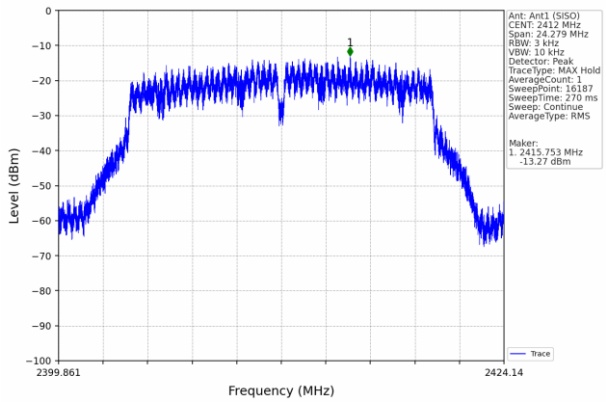
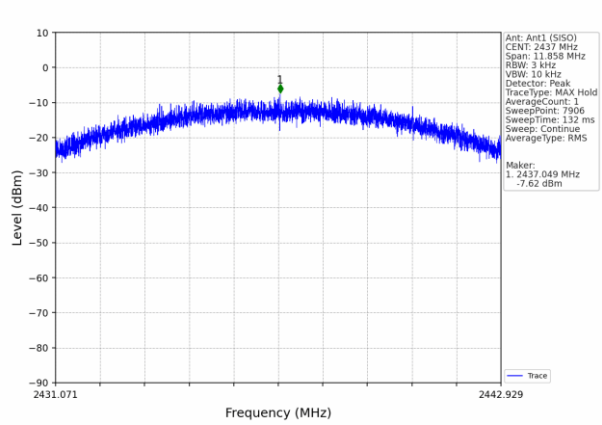
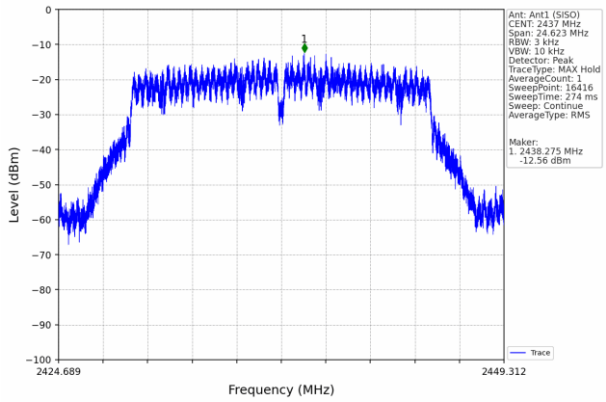
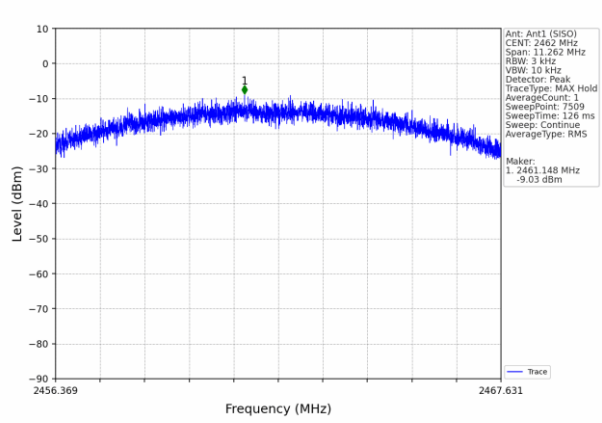
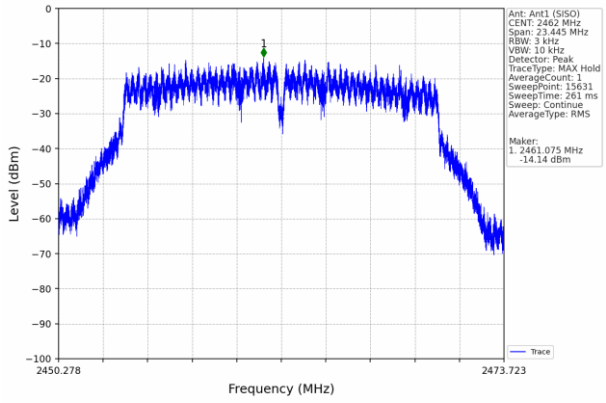


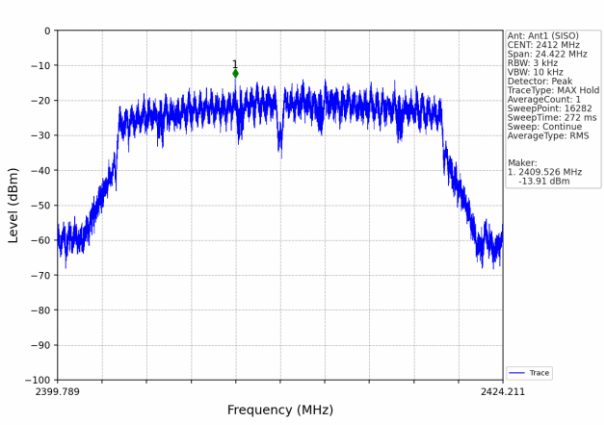
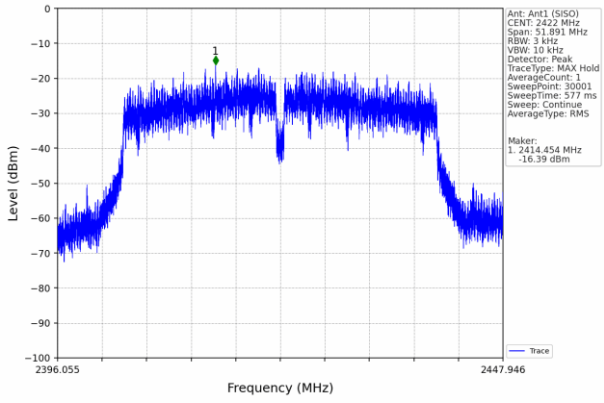
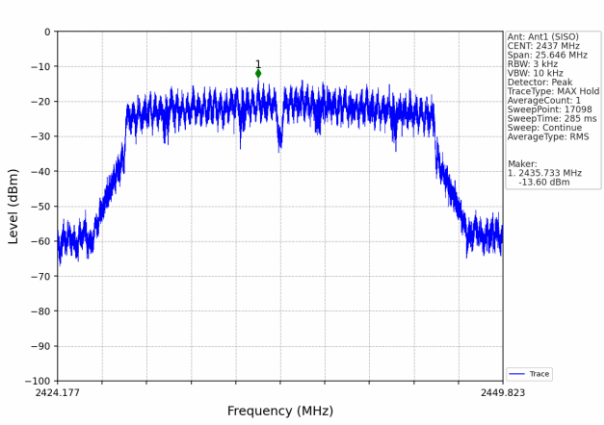
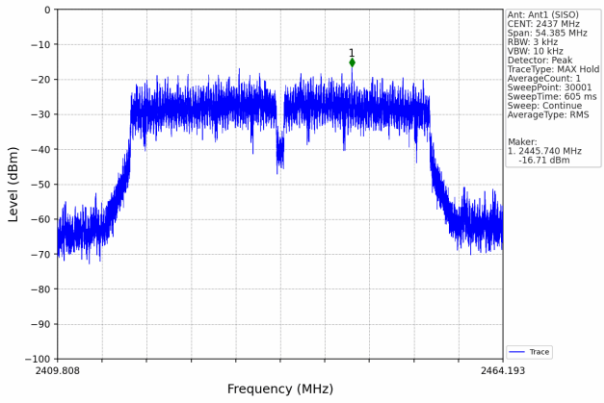
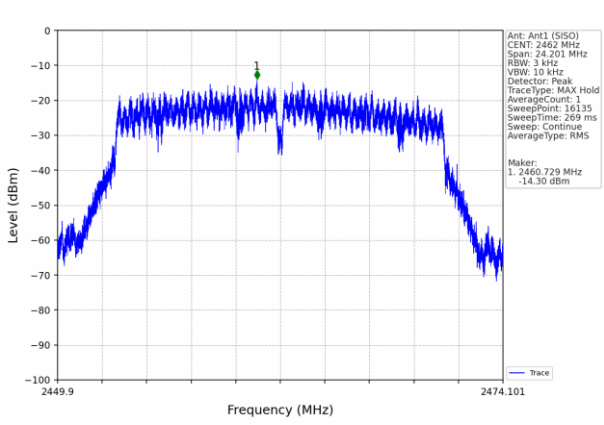
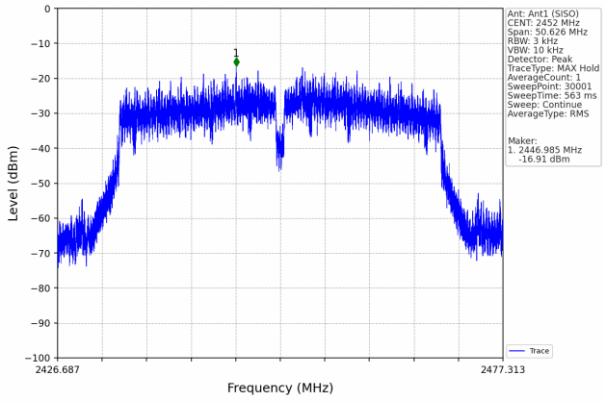
5.1.4. EUT OPERATION CONDITIONS

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.

5.1.5. TEST RESULTS

Mode	Test Channel	Test Result (dBm/3kHz)	Limit (dBm/3kHz)	Result
802.11b	Low	-7.80	8	PASS
	Middle	-7.62	8	PASS
	High	-9.03	8	PASS
802.11g	Low	-13.27	8	PASS
	Middle	-12.56	8	PASS
	High	-14.14	8	PASS
802.11n20	Low	-13.91	8	PASS
	Middle	-13.60	8	PASS
	High	-14.30	8	PASS
802.11n40	Low	-16.39	8	PASS
	Middle	-16.71	8	PASS
	High	-16.91	8	PASS

802.11b	802.11g
	
2412MHz	2412MHz
	
2437MHz	2437MHz
	
2462MHz	2462MHz

802.11n HT20	802.11n HT40
	
2412MHz	2422MHz
	
2437MHz	2437MHz
	
2462MHz	2452MHz

6.. 6DB BANDWIDTH TEST

6.1. 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

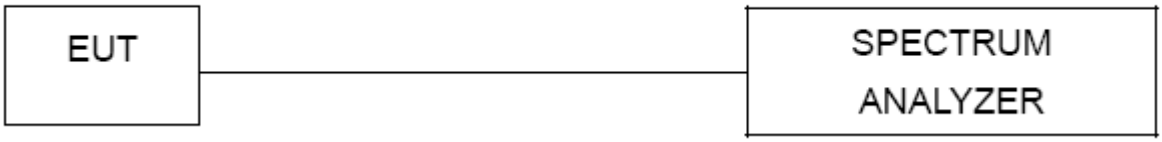
6.1.1. TEST PROCEDURE

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥RBW.
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.

6.1.2. DEVIATION FROM STANDARD

No deviation.

6.1.3. TEST SETUP



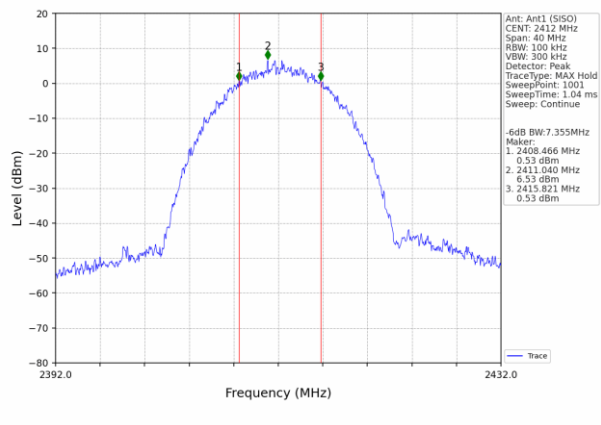
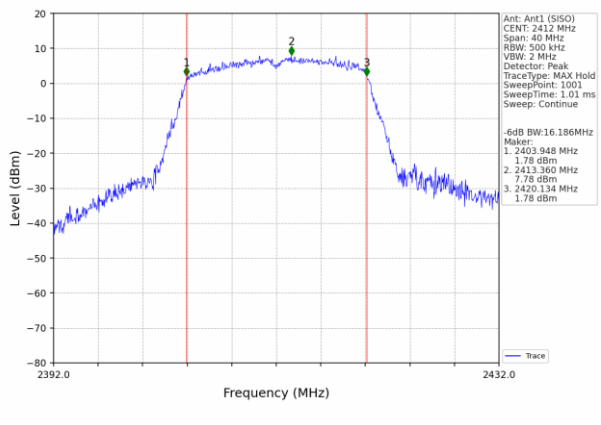
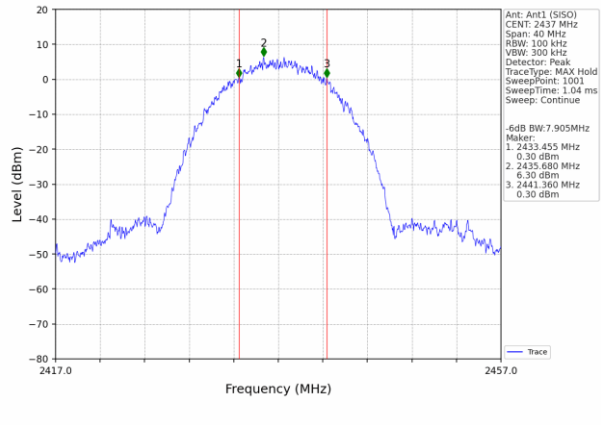
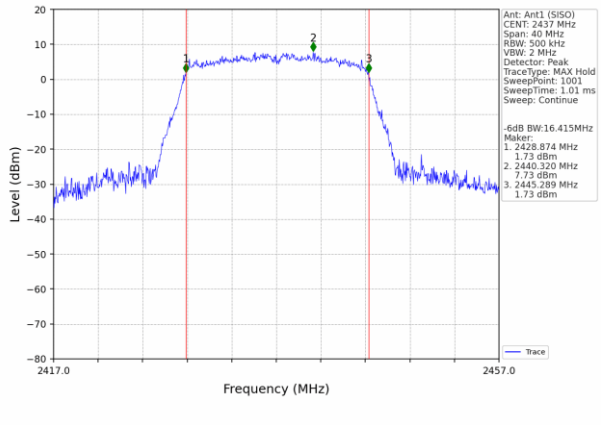
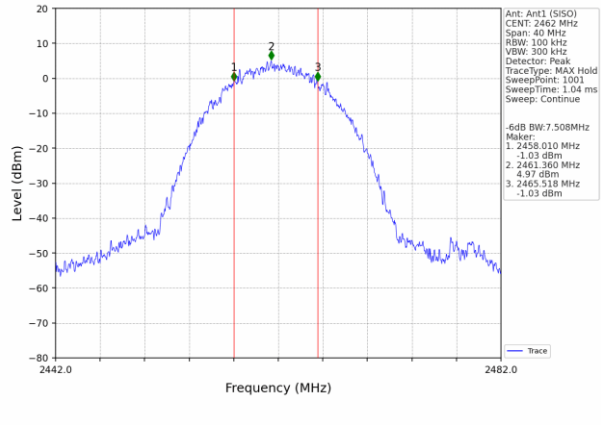
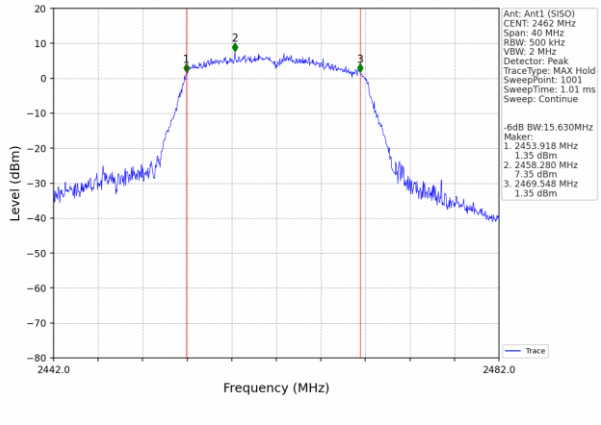
6.1.4. EUT OPERATION CONDITIONS

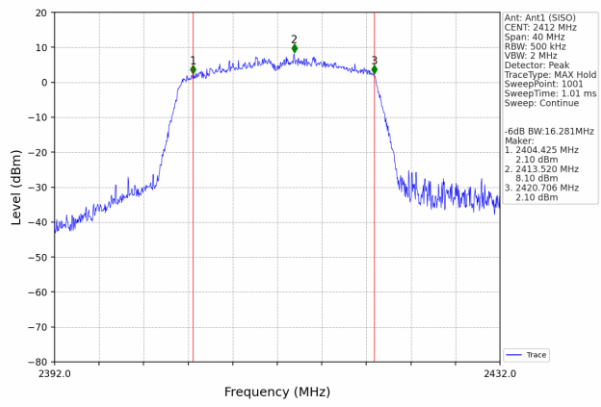
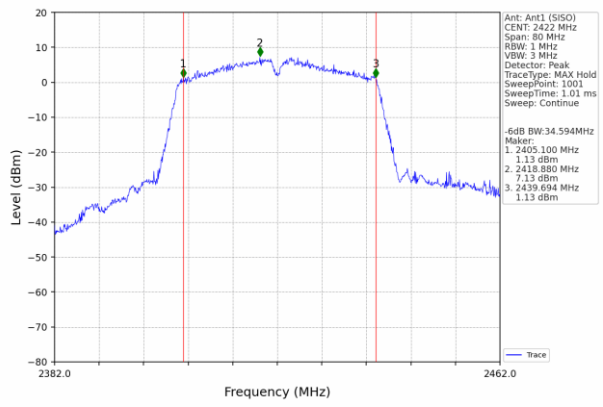
The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.5. TEST RESULTS

	Test Channel	6dB Bandwidth (MHz)	99%Bandwidth (MHz)	Limit (MHz)	Result
802.11b	Low	7.355	12.637	0.5	Pass
	Middle	7.905	12.832	0.5	Pass
	High	7.508	12.673	0.5	Pass
802.11g	Low	16.186	16.834	0.5	Pass
	Middle	16.415	16.994	0.5	Pass
	High	15.630	16.792	0.5	Pass
802.11n HT20	Low	16.281	17.870	0.5	Pass
	Middle	17.097	18.021	0.5	Pass
	High	16.134	17.820	0.5	Pass
802.11n HT40	Low	34.594	36.042	0.5	Pass
	Middle	36.257	36.676	0.5	Pass
	High	33.751	36.021	0.5	Pass

6dB Bandwidth

802.11b	802.11g
	
2412MHz	2412MHz
	
2437MHz	2437MHz
	
2462MHz	2462MHz

802.11n HT20	802.11n HT40
	
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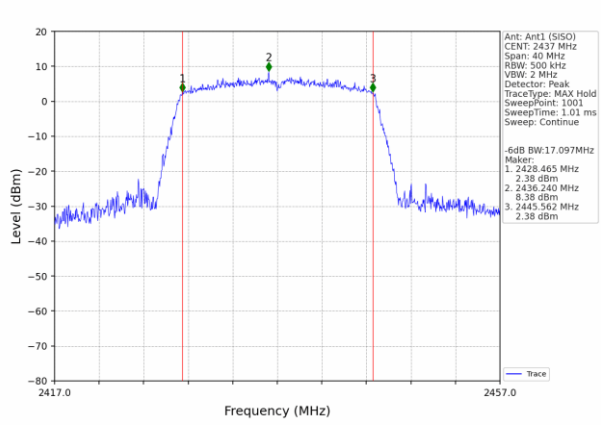
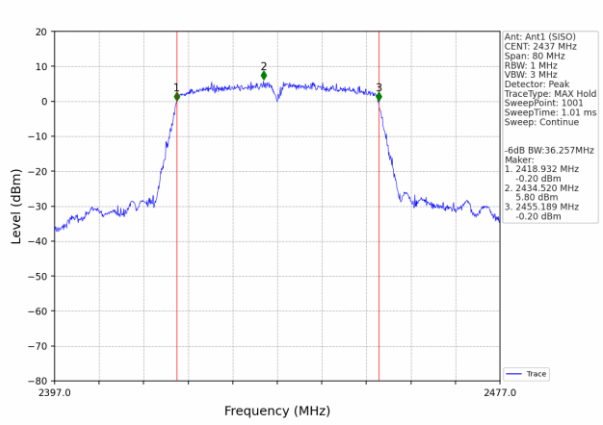
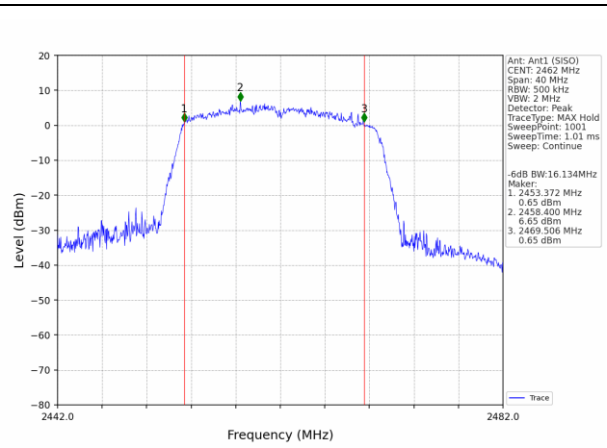
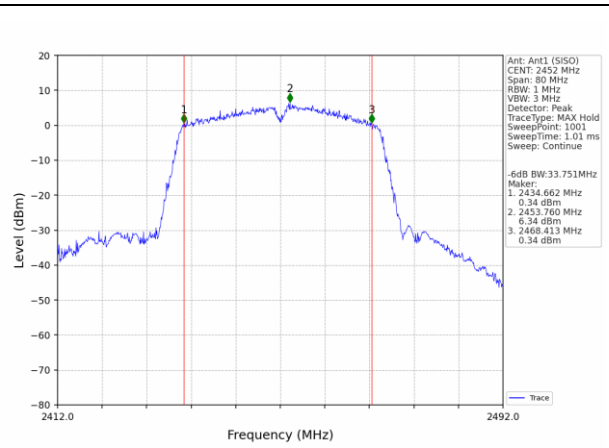
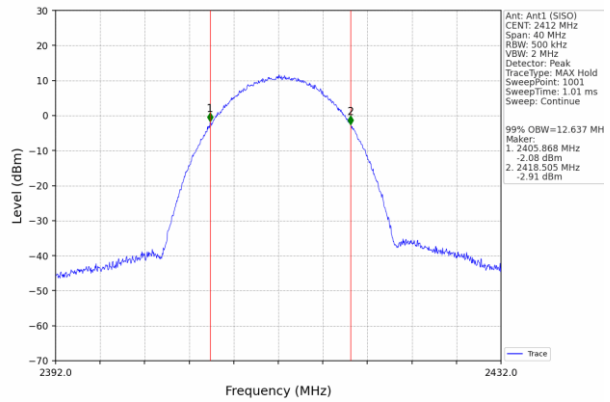
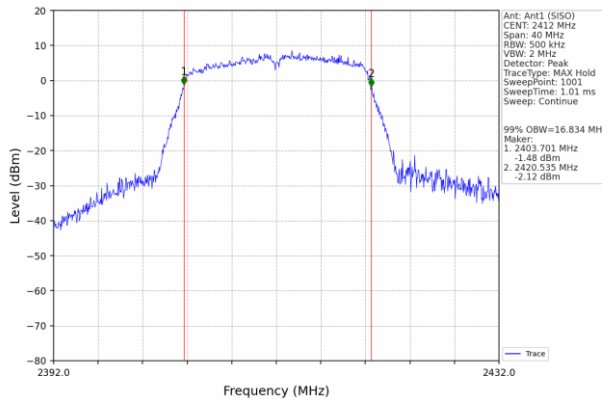
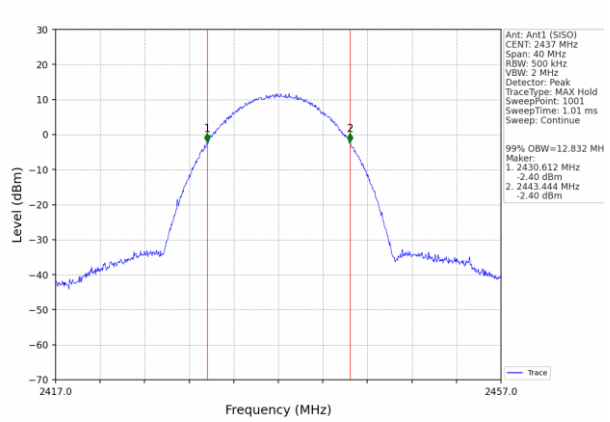
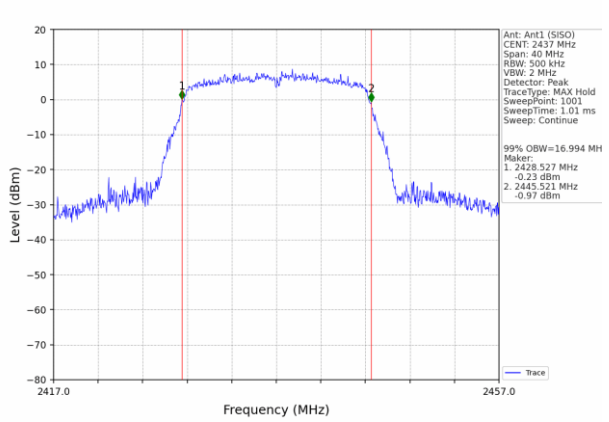
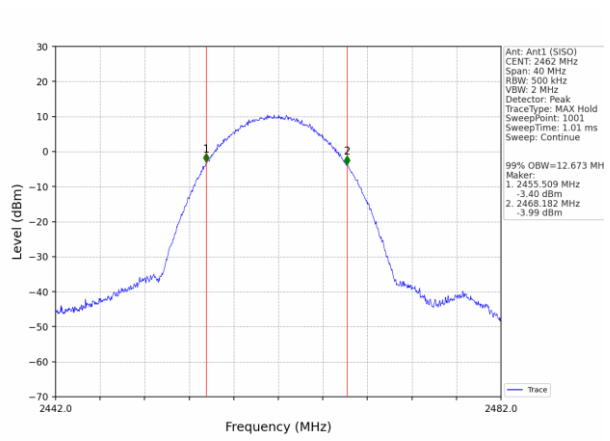
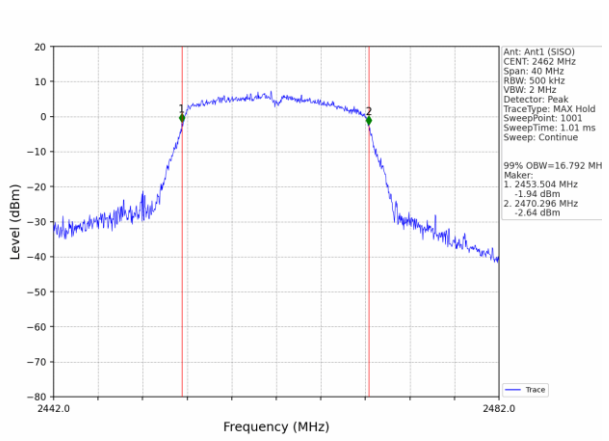
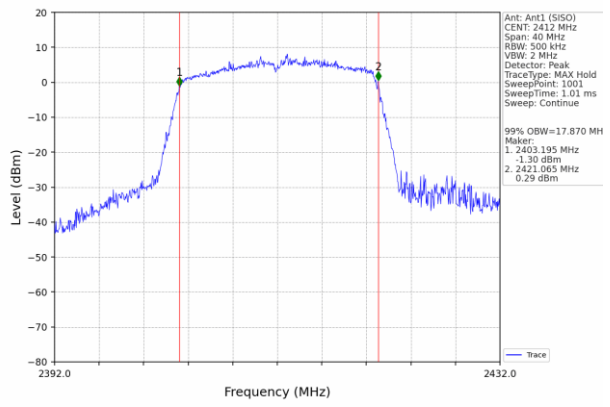
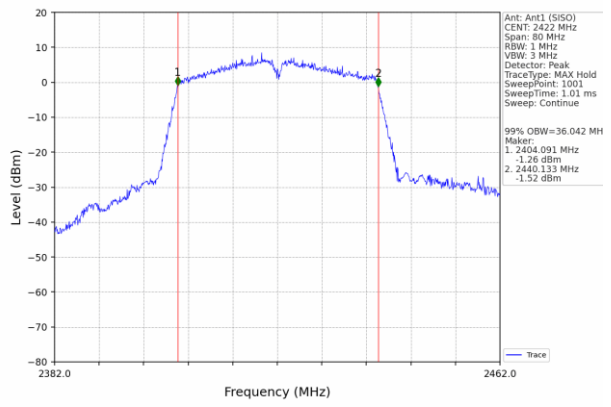
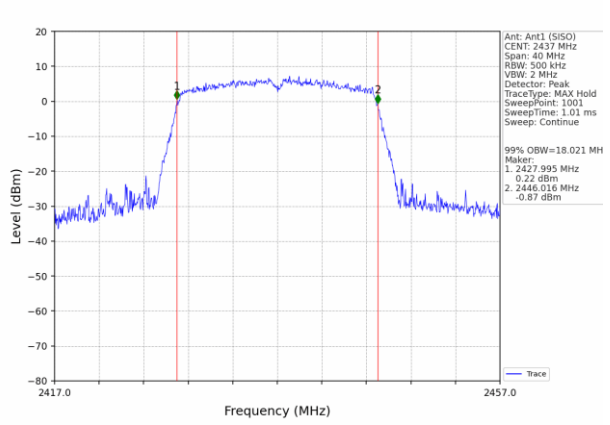
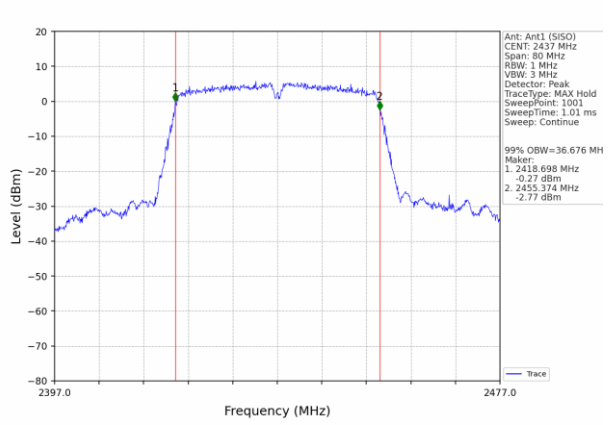
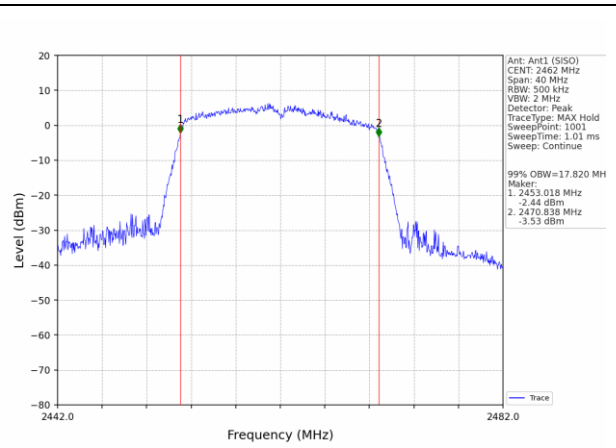
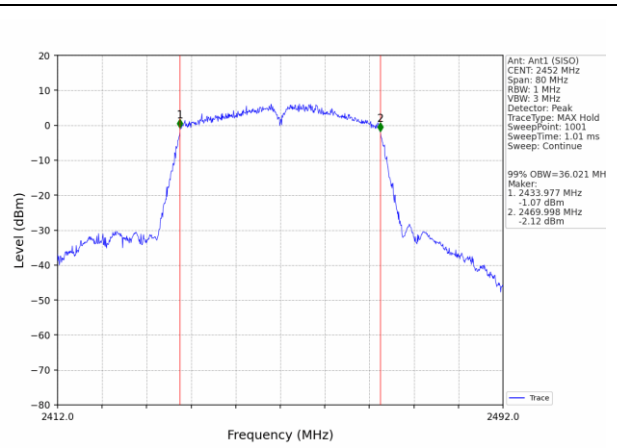
	
2437MHz	2437MHz
	
2462MHz	2452MHz

99% Bandwidth

802.11b	802.11g
	
2412MHz	2412MHz
	
2437MHz	2437MHz
	
2462MHz	2462MHz

802.11n HT20	802.11n HT40
	
2412MHz	2422MHz
	
2437MHz	2437MHz
	
2462MHz	2452MHz

7.. ANTENNA REQUIREMENT

7.1. STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 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.

7.2. EUT ANTENNA

The EUT antenna is Internal Antenna, It comply with the standard requirement.

8.. TEST SEUUP PHOTO

Reference to the appendix I for details.

9.. EUT PHOTO

Reference to the appendix II for details.

※※※※※ **END OF REPORT** ※※※※※