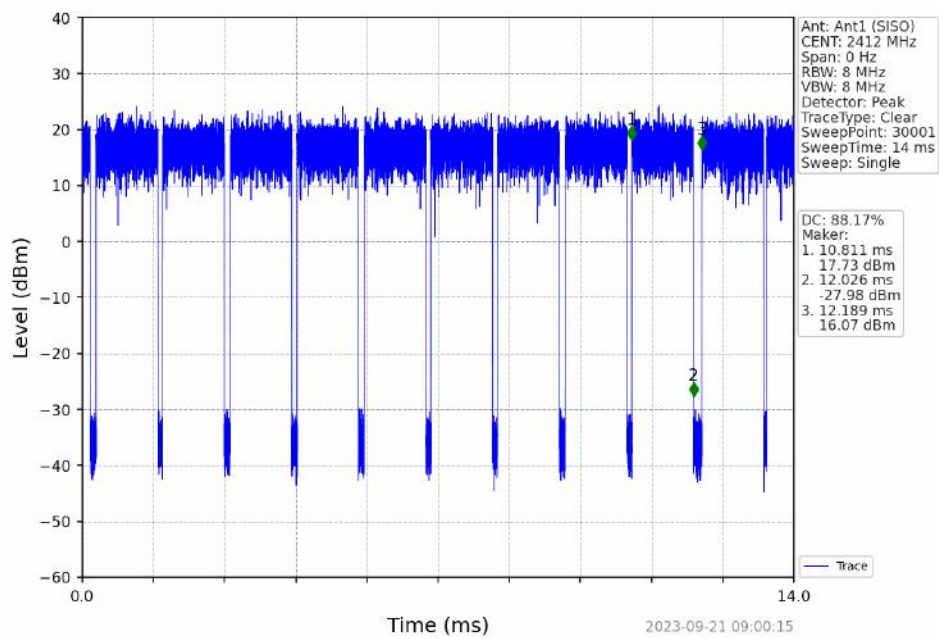
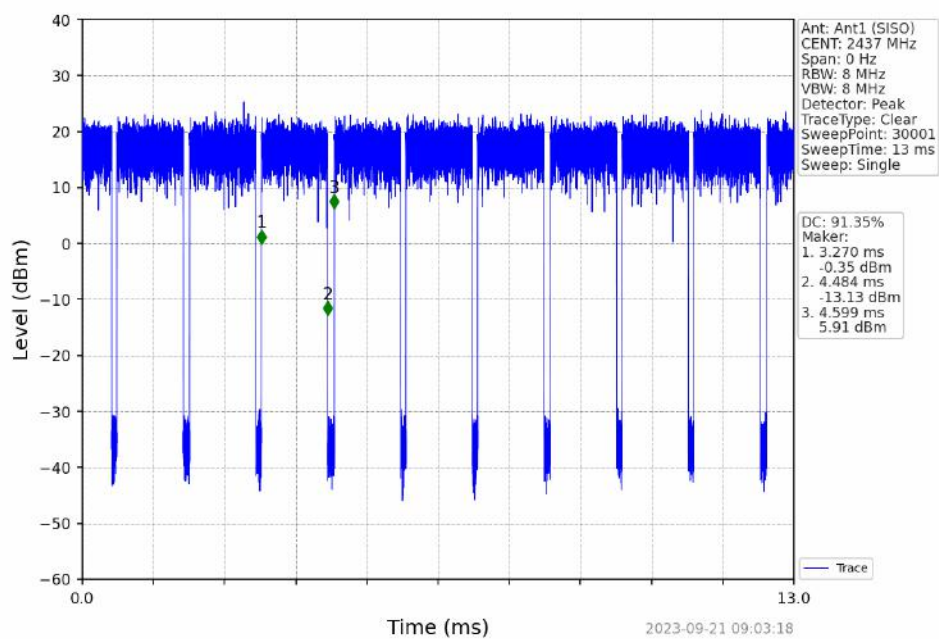




802.11ac(VHT20)_LCH_2412MHz_NTNV

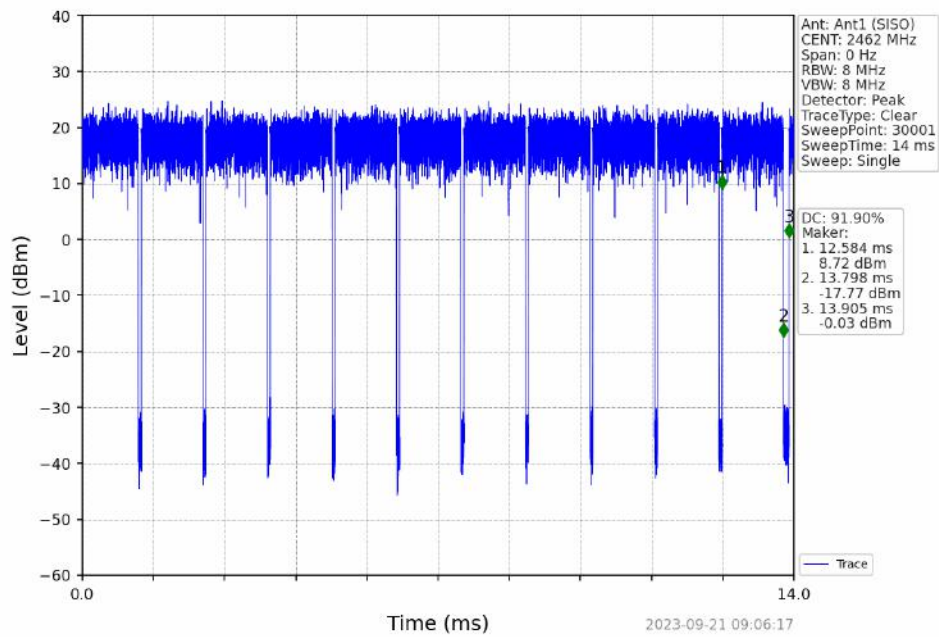


802.11ac(VHT20)_MCH_2437MHz_NTNV

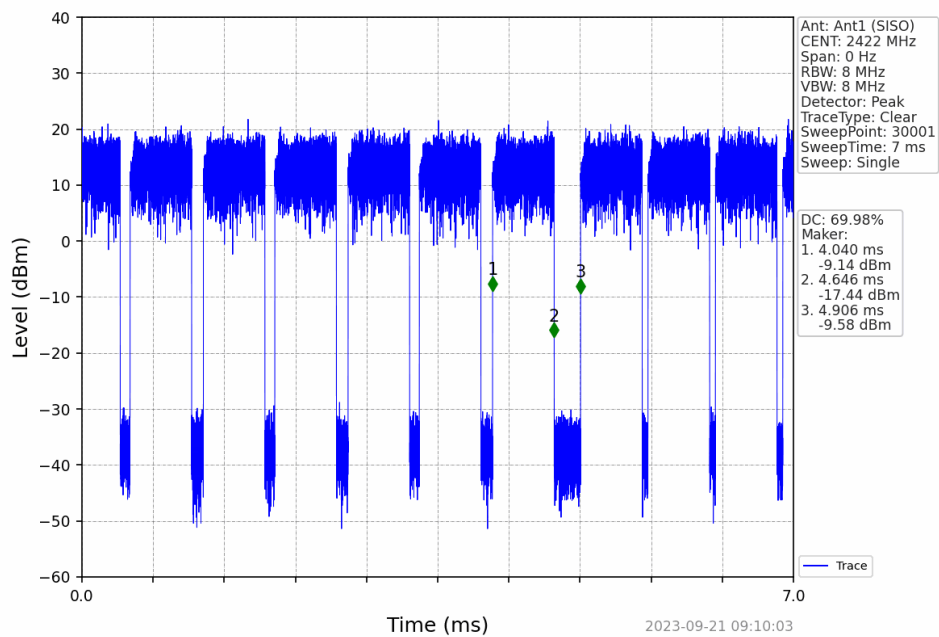




802.11ac(VHT20)_HCH_2462MHz_NTNV

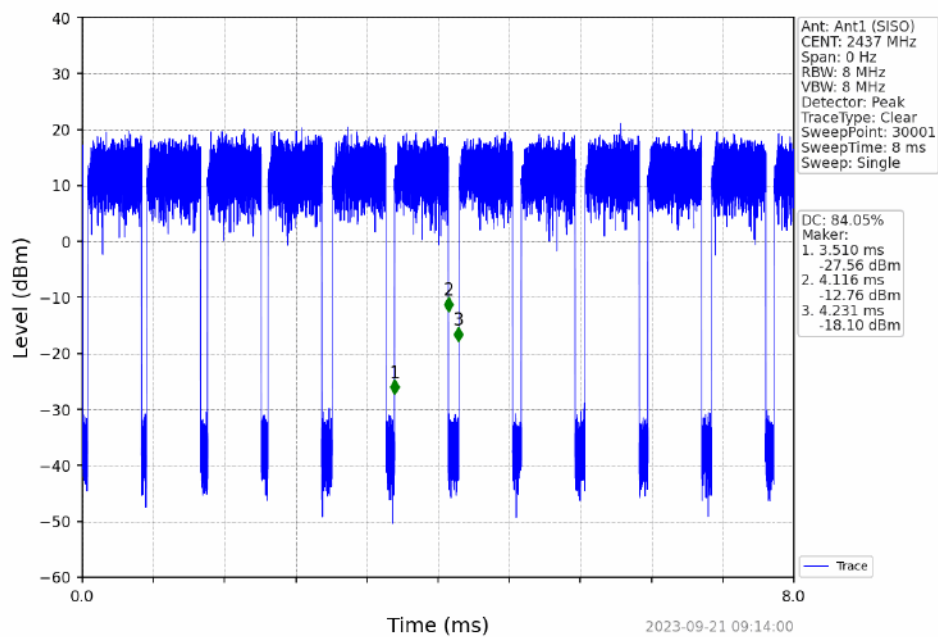


802.11ac(VHT40)_LCH_2422MHz_NTNV

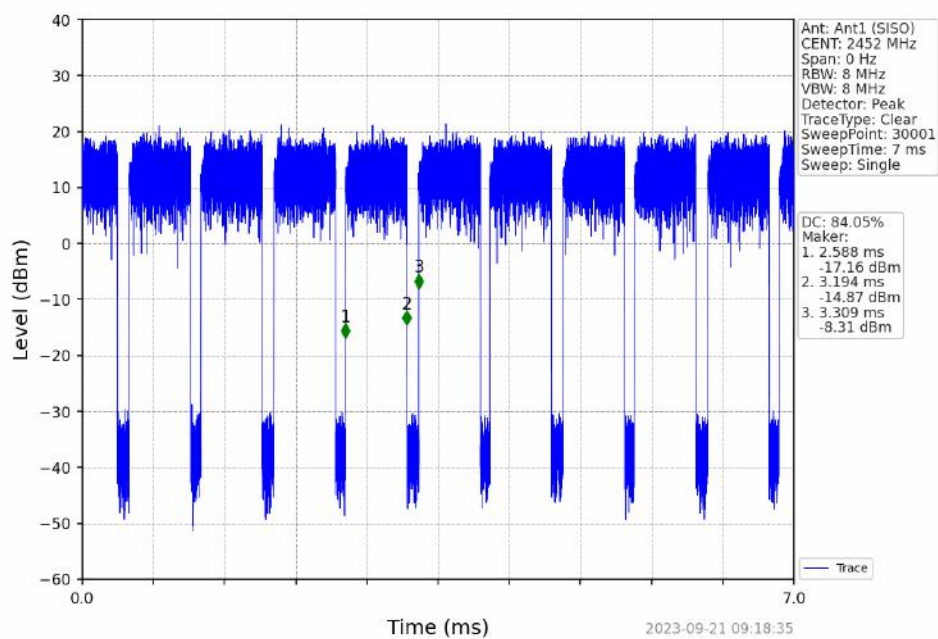




802.11ac(VHT40)_MCH_2437MHz_NTNV

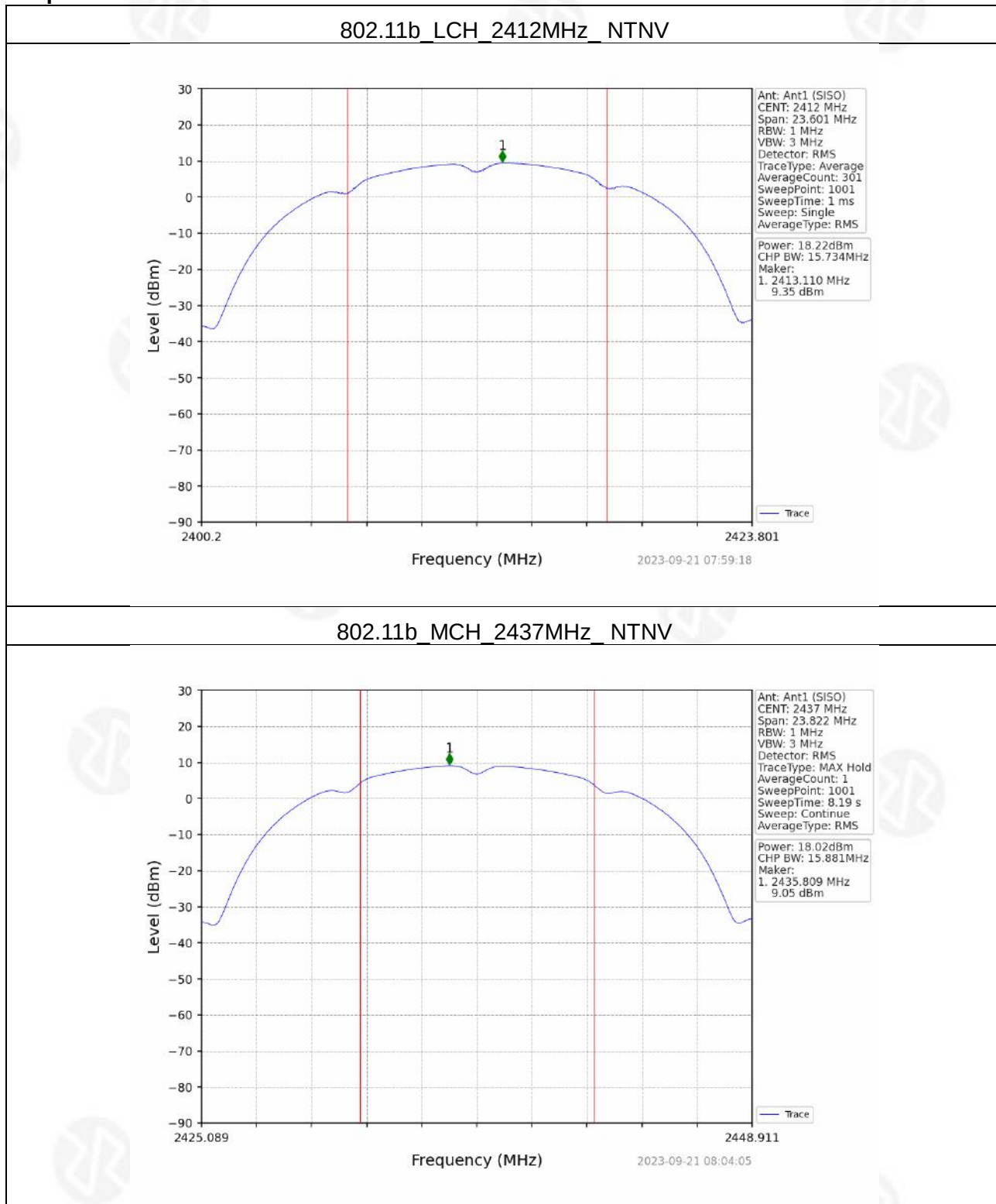


802.11ac(VHT40)_HCH_2452MHz_NTNV



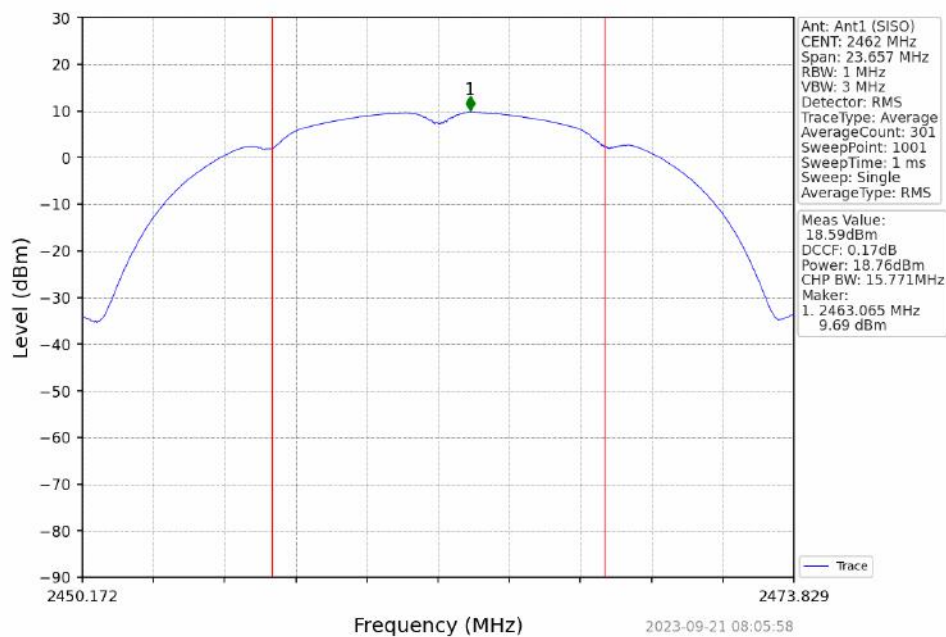


Test Graph:
Antenna 1:
Output Power:

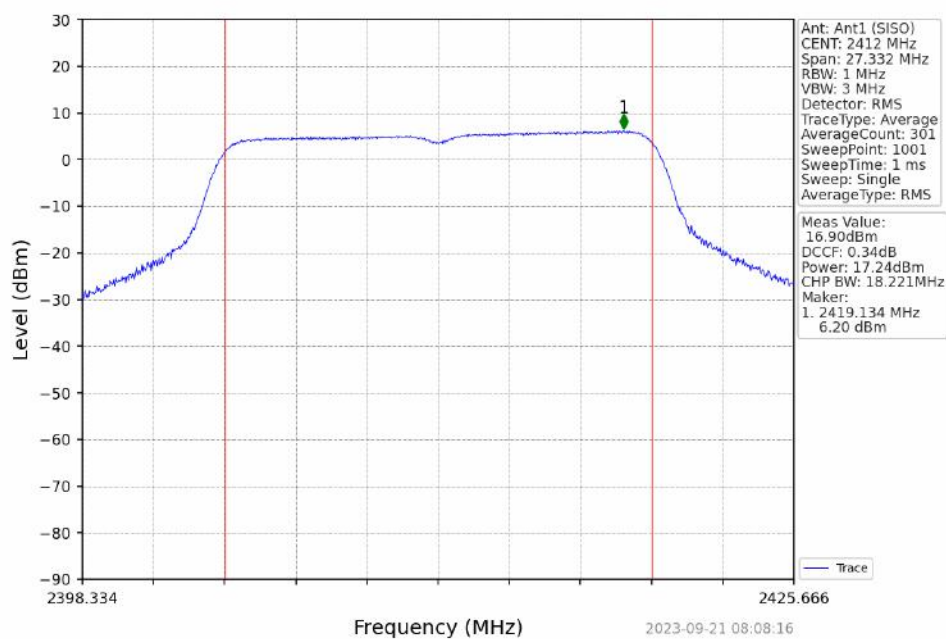




802.11b_HCH_2462MHz_NTNV

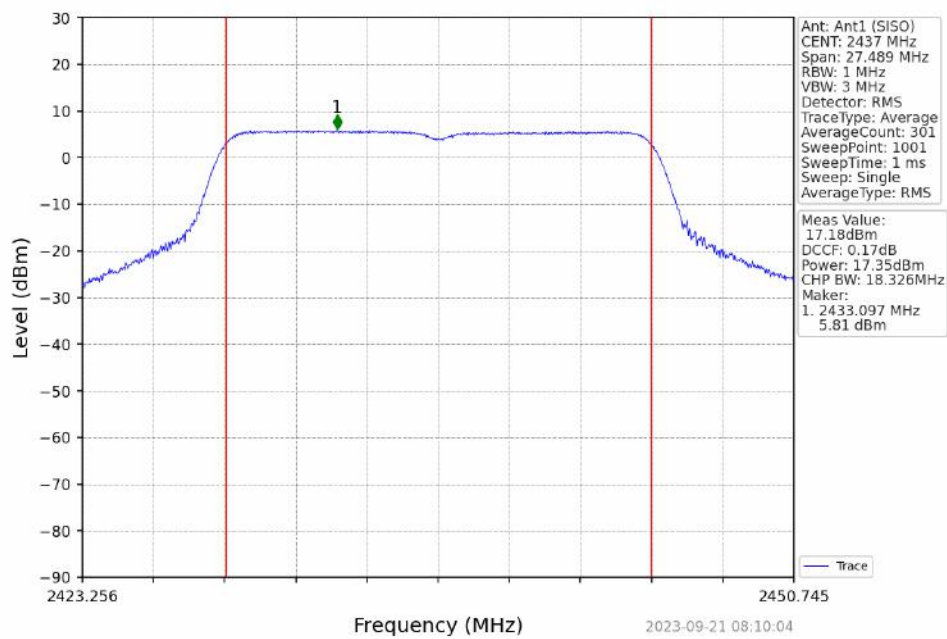


802.11g_LCH_2412MHz_NTNV

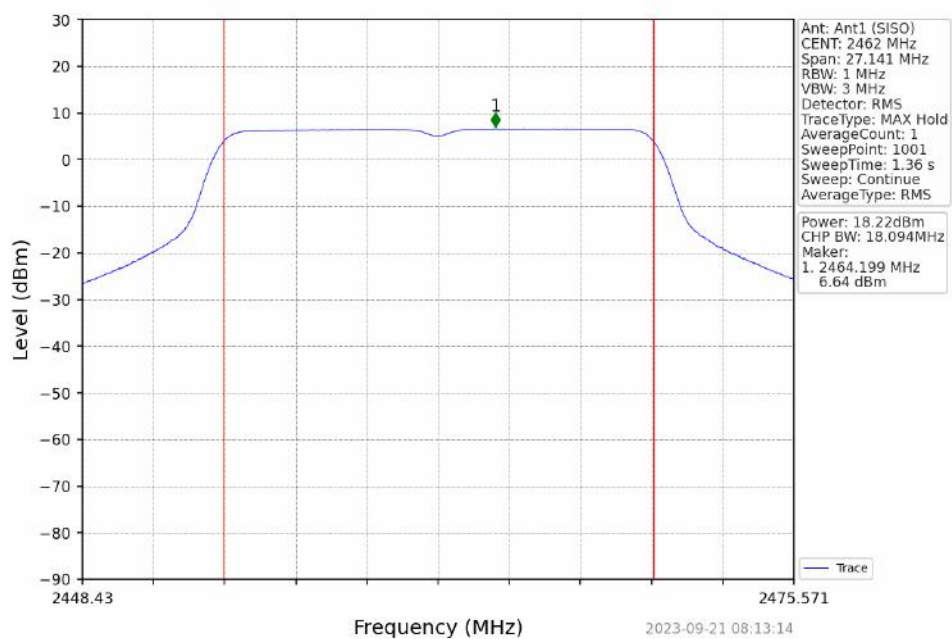




802.11g_MCH_2437MHz_NTNV

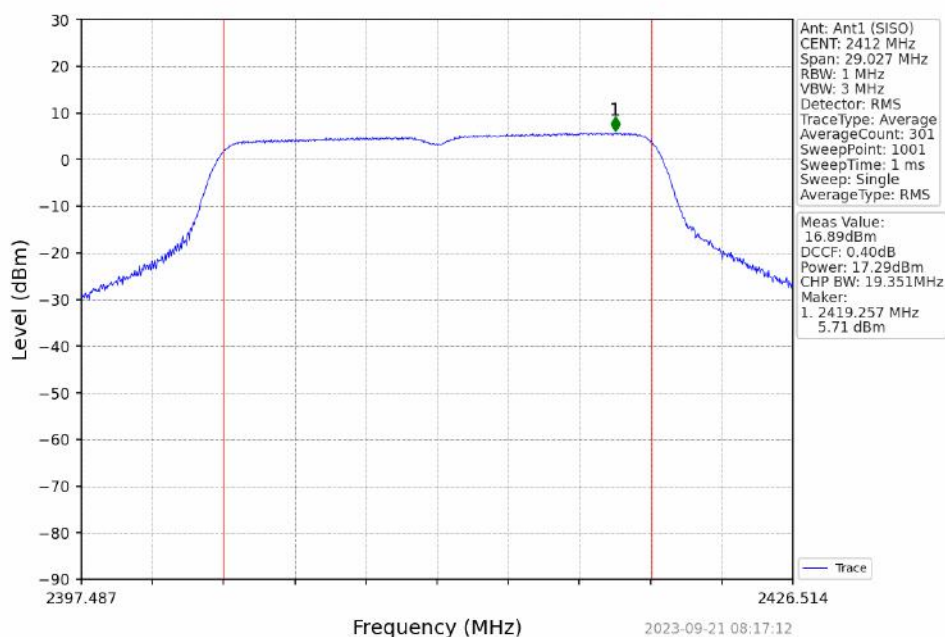


802.11g_HCH_2462MHz_NTNV

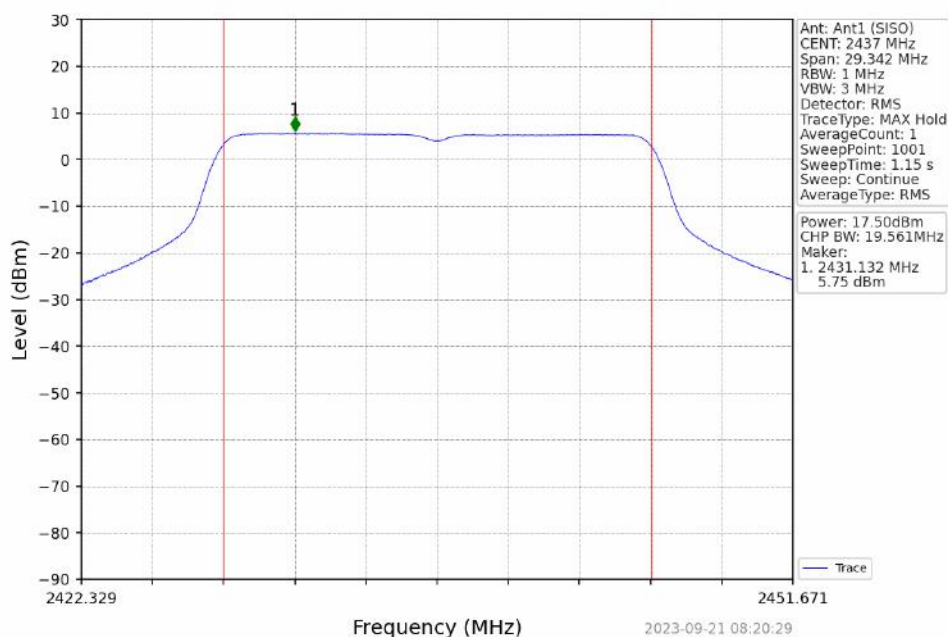




802.11n(HT20)_LCH_2412MHz_NTNV

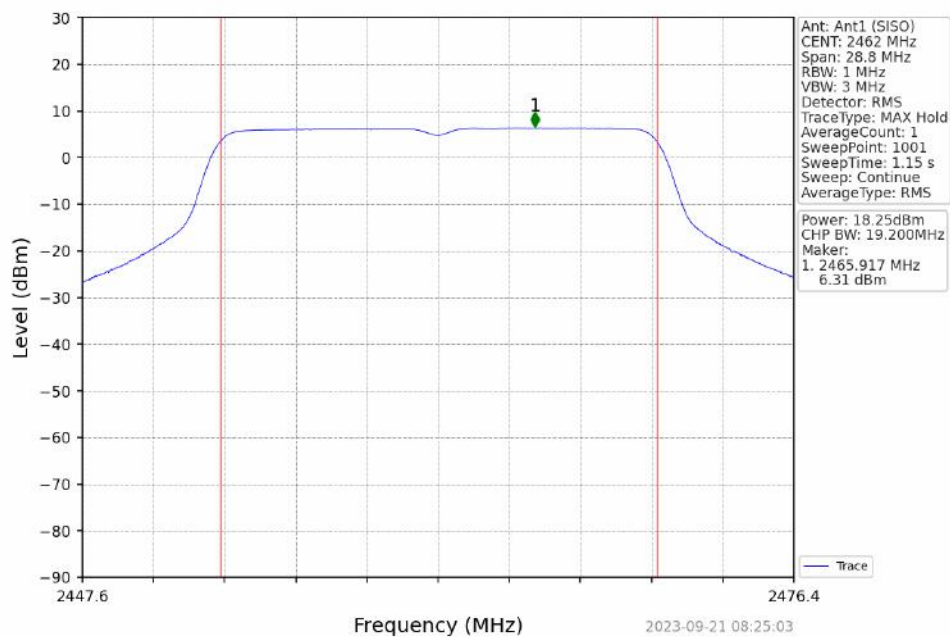


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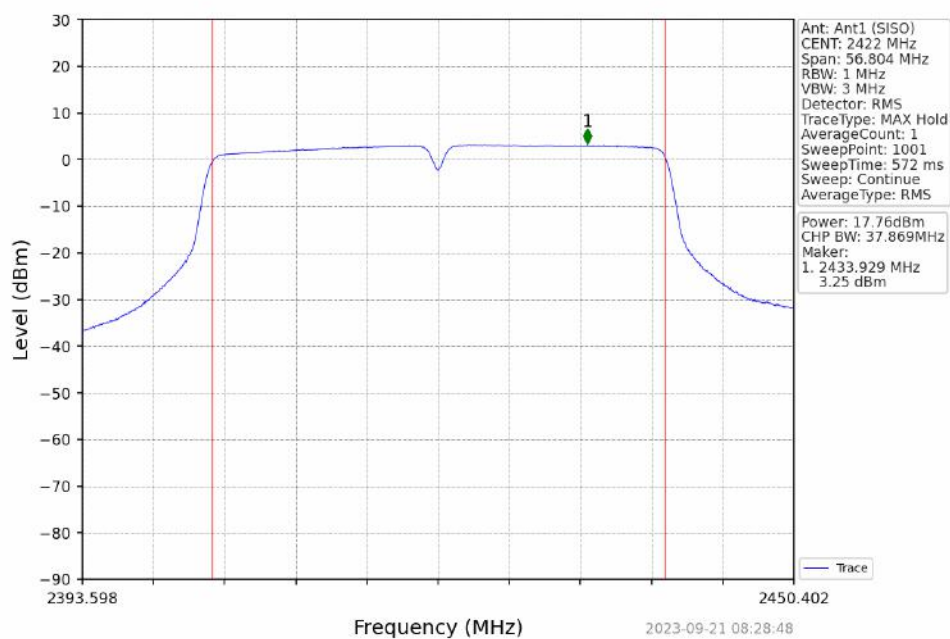




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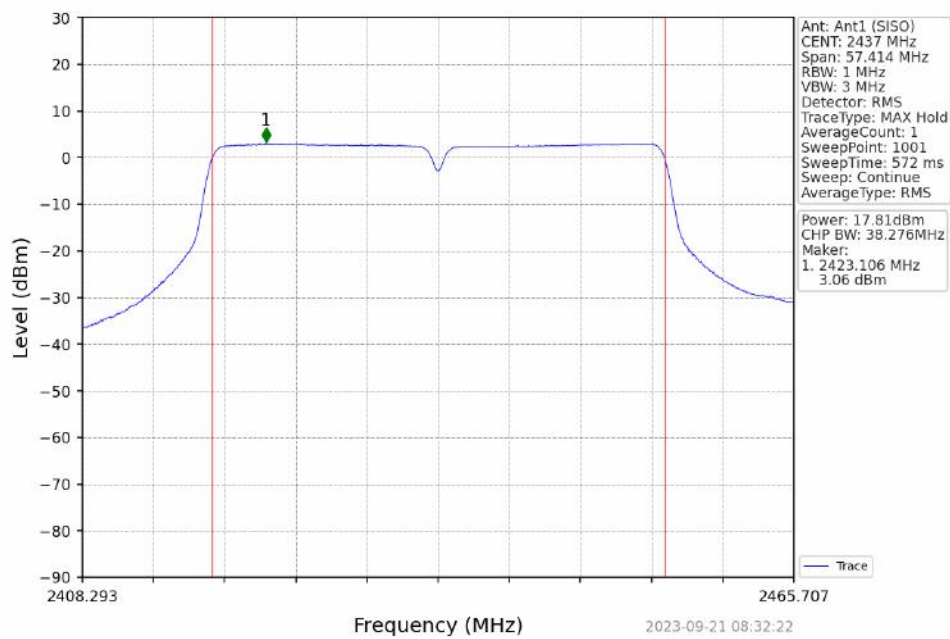


802.11n(HT40)_LCH_2422MHz_NTNV

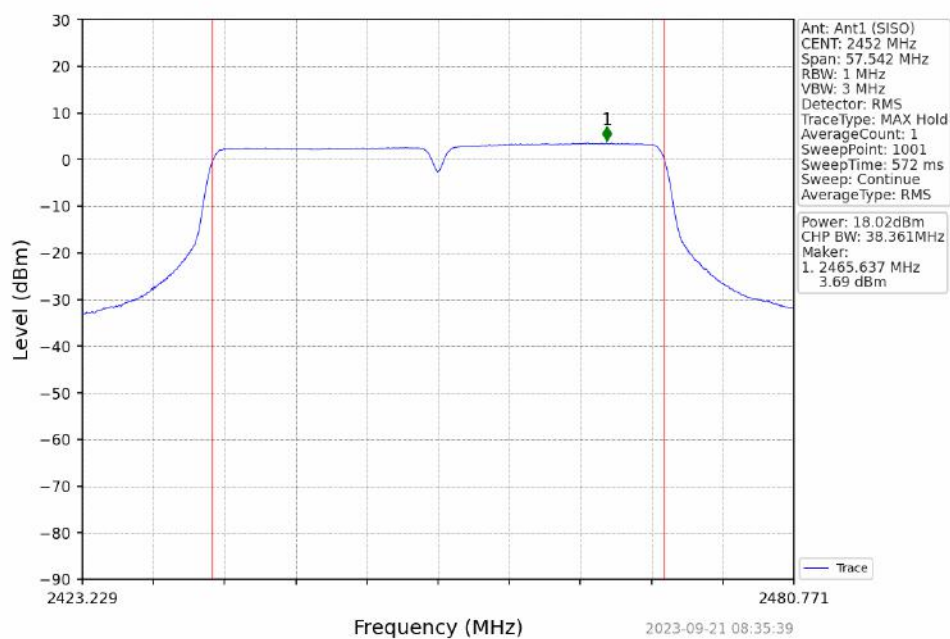




802.11n(HT40)_MCH_2437MHz_NTNV

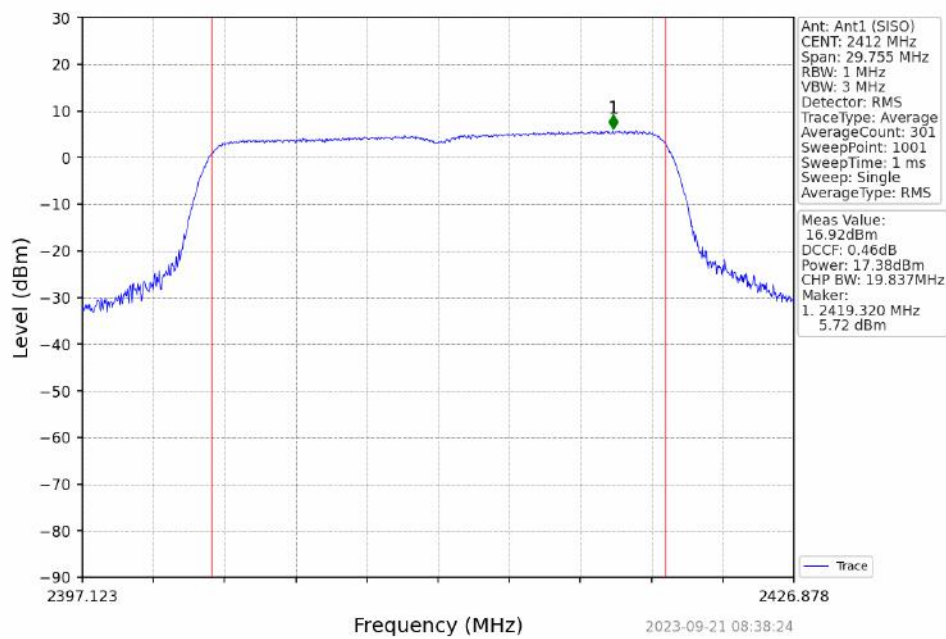


802.11n(HT40)_HCH_2452MHz_NTNV

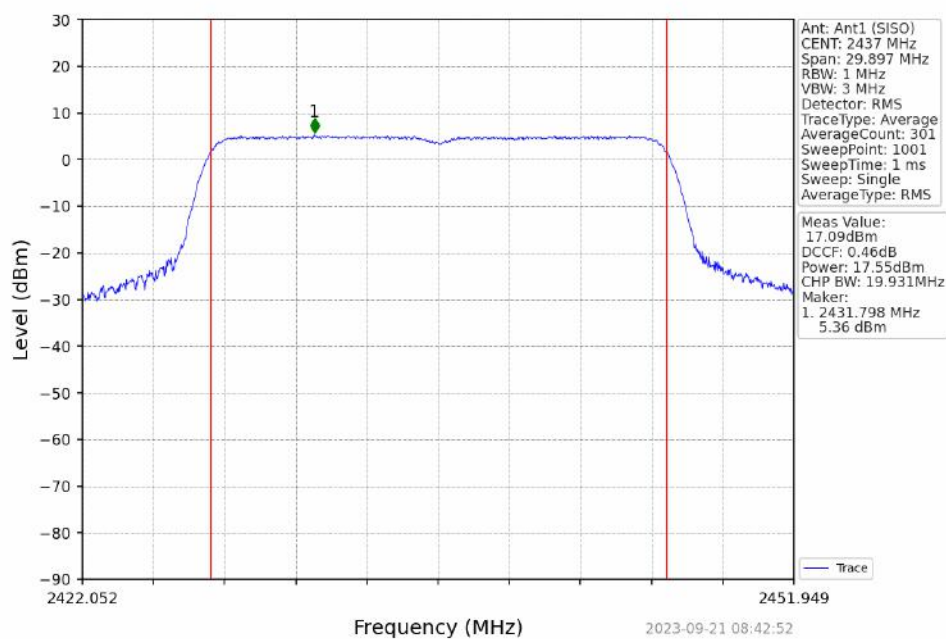




802.11ax(HEW20)_LCH_2412MHz_RU242_Left_NTNV

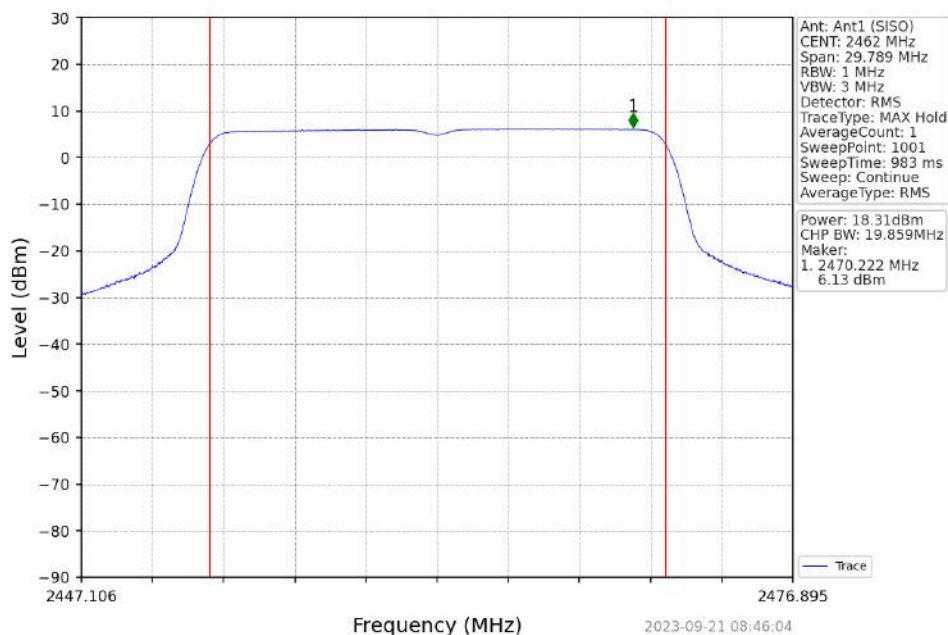


802.11ax(HEW20)_MCH_2437MHz_RU242_Left_NTNV

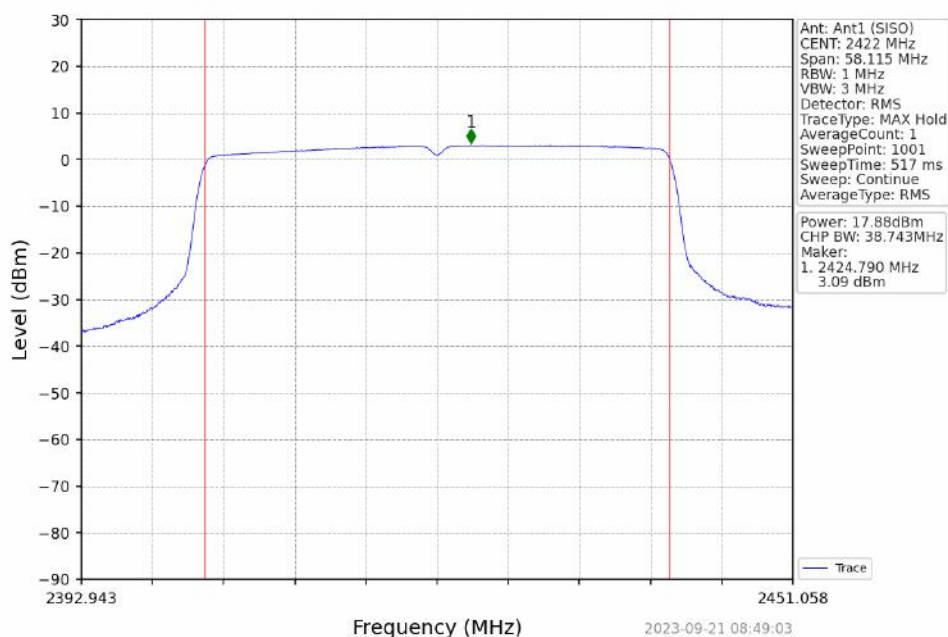




802.11ax(HEW20)_HCH_2462MHz_RU242_Left_NTNV

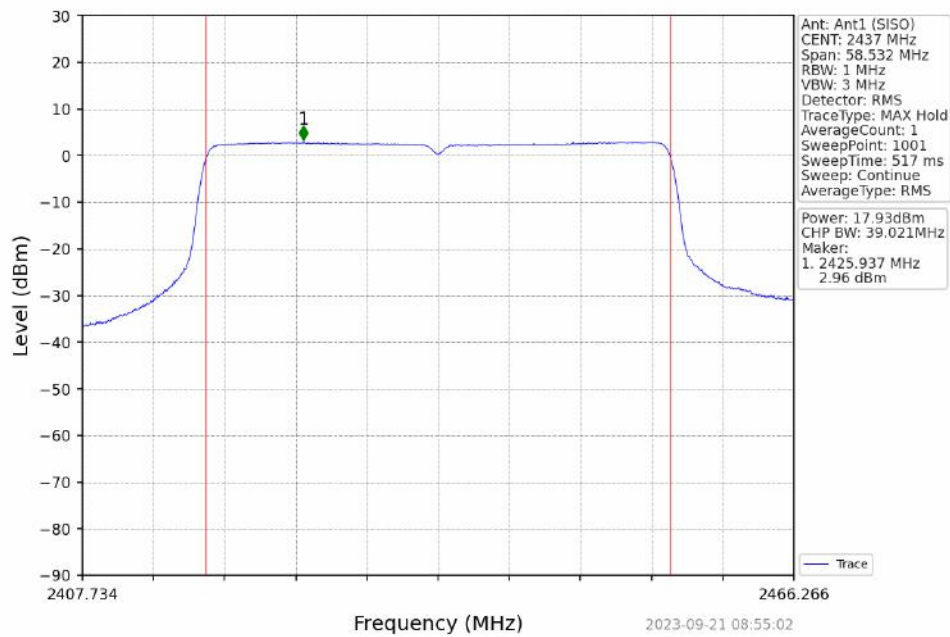


802.11ax(HEW40)_LCH_2422MHz_RU484_Left_NTNV

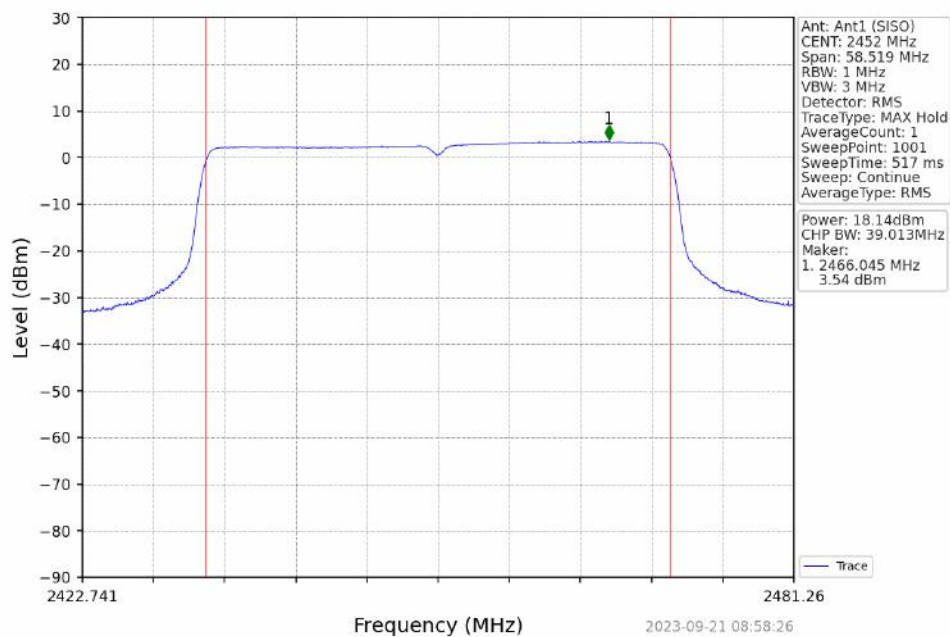




802.11ax(HEW40)_MCH_2437MHz_RU484_Left_NTNV

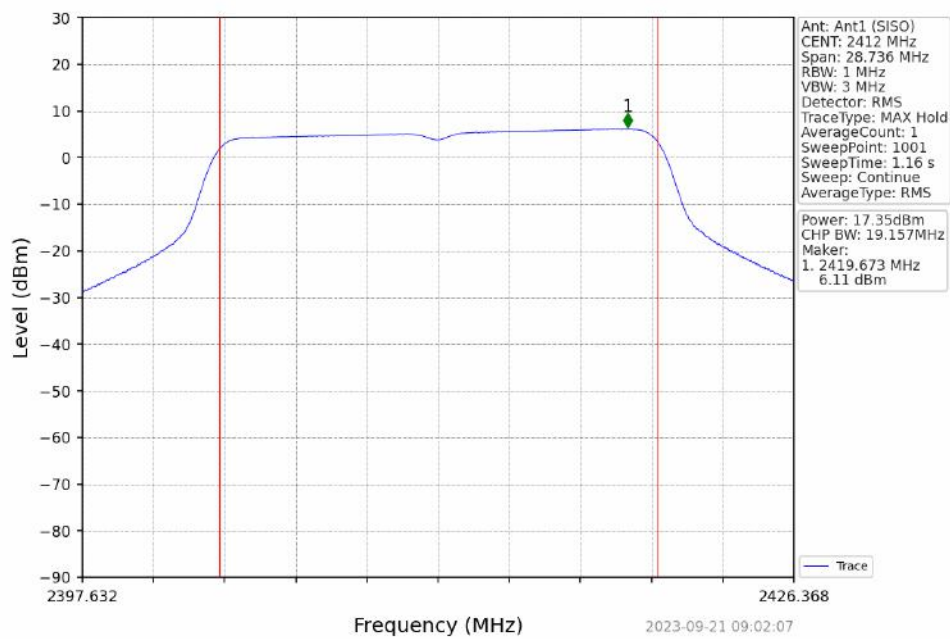


802.11ax(HEW40)_HCH_2452MHz_RU484_Left_NTNV

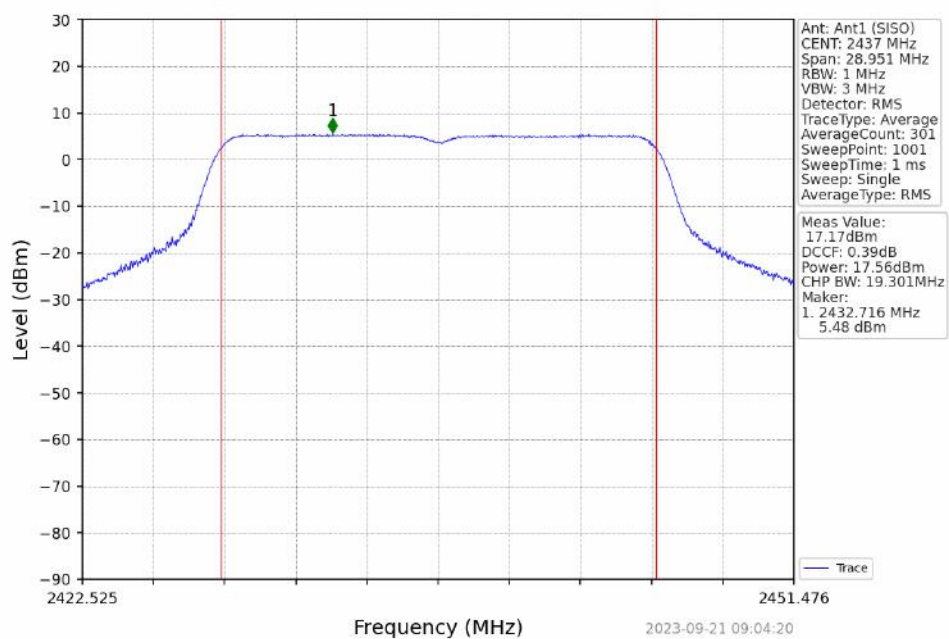




802.11ac(VHT20)_LCH_2412MHz_NTNV

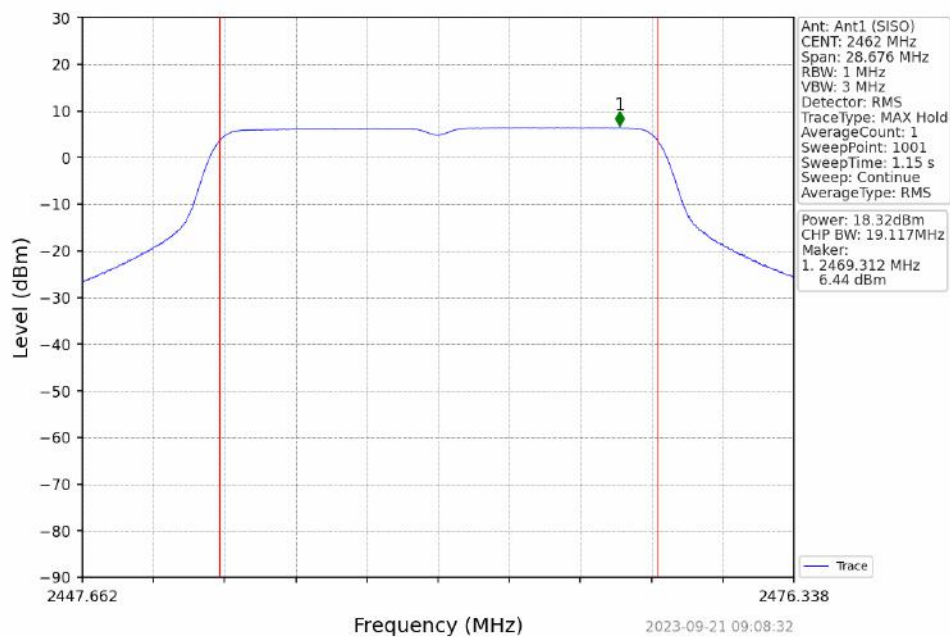


802.11ac(VHT20)_MCH_2437MHz_NTNV

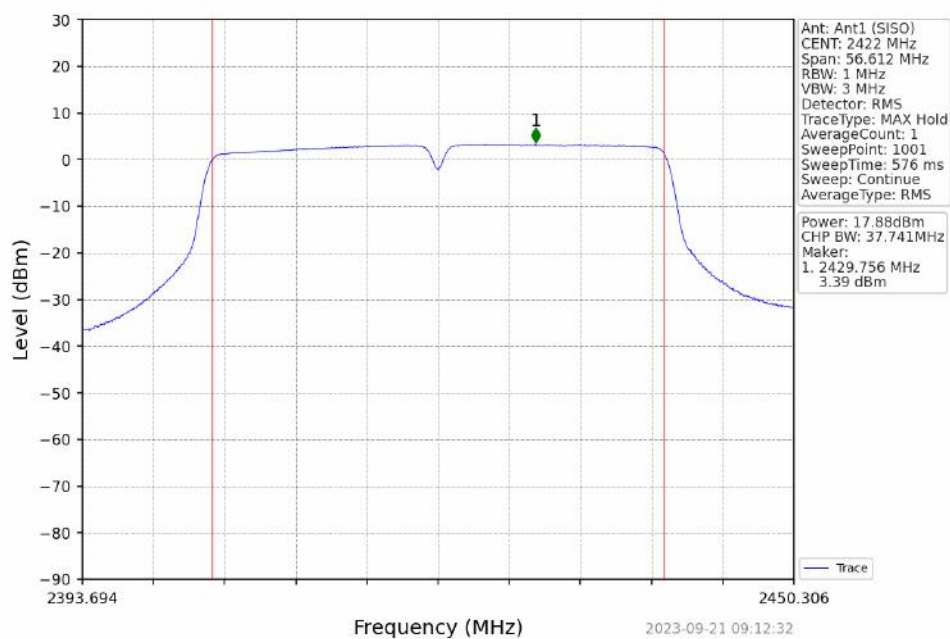




802.11ac(VHT20)_HCH_2462MHz_NTNV

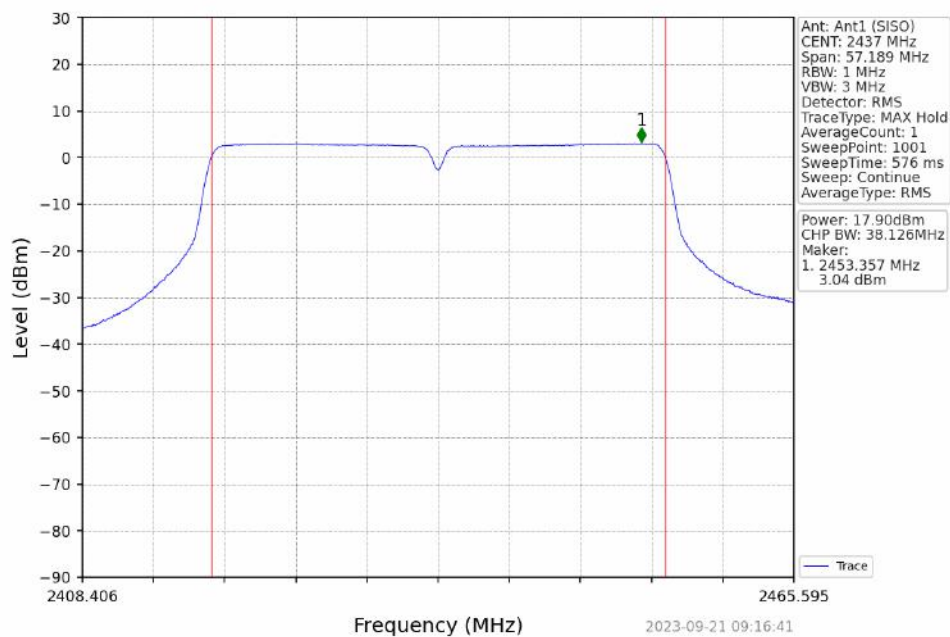


802.11ac(VHT40)_LCH_2422MHz_NTNV

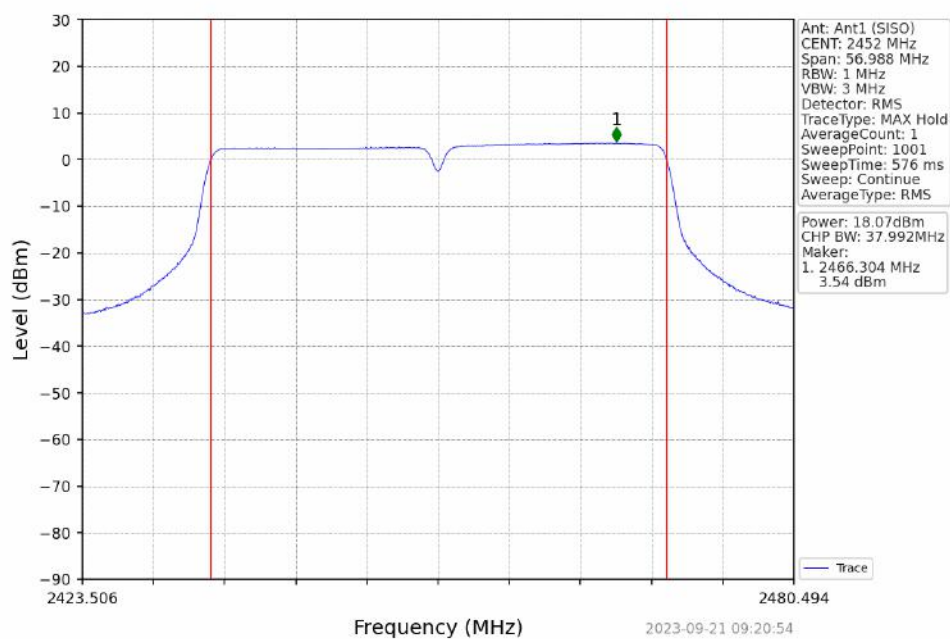




802.11ac(VHT40)_MCH_2437MHz_NTNV

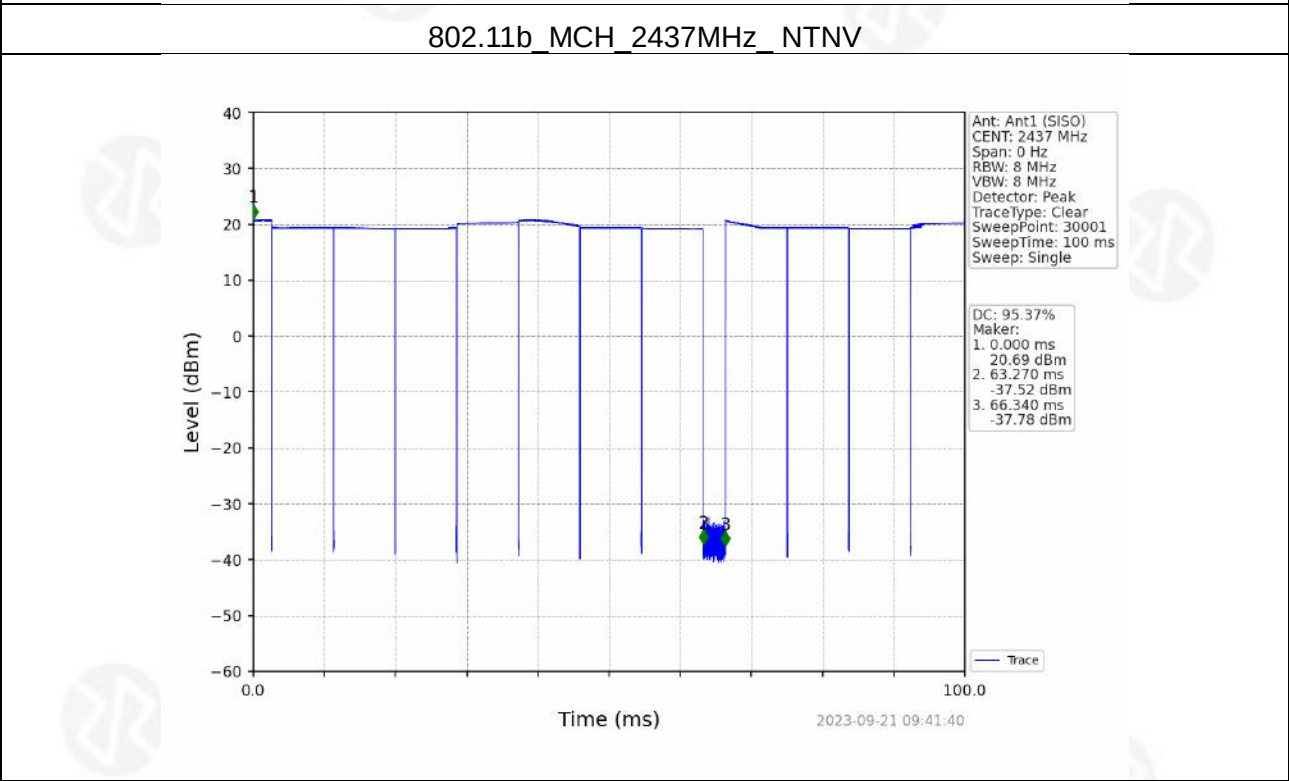
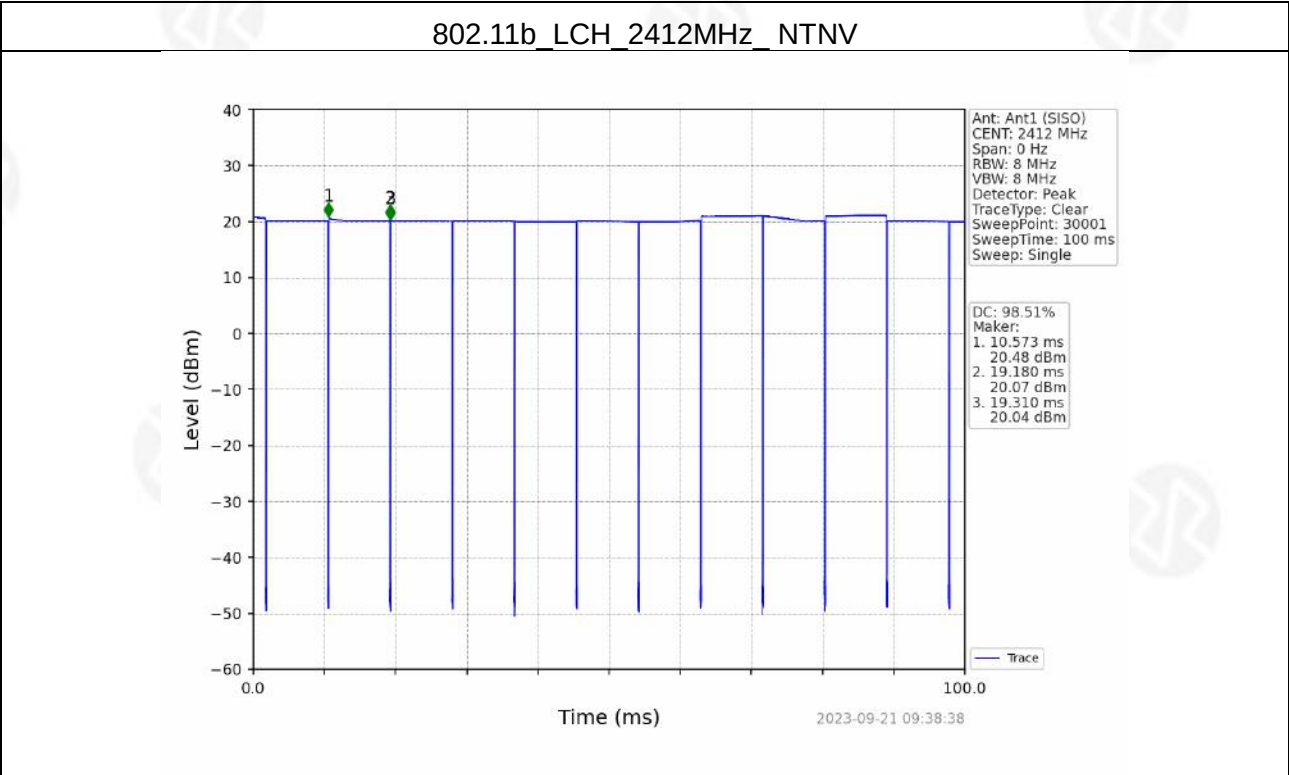


802.11ac(VHT40)_HCH_2452MHz_NTNV



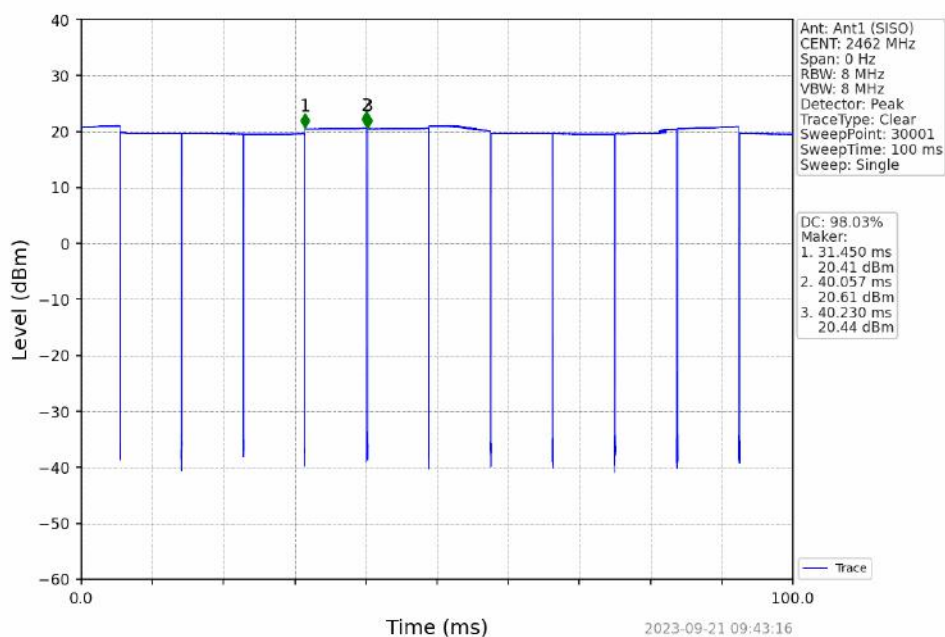


Test Graph:
Antenna 2:
Duty Cycle:

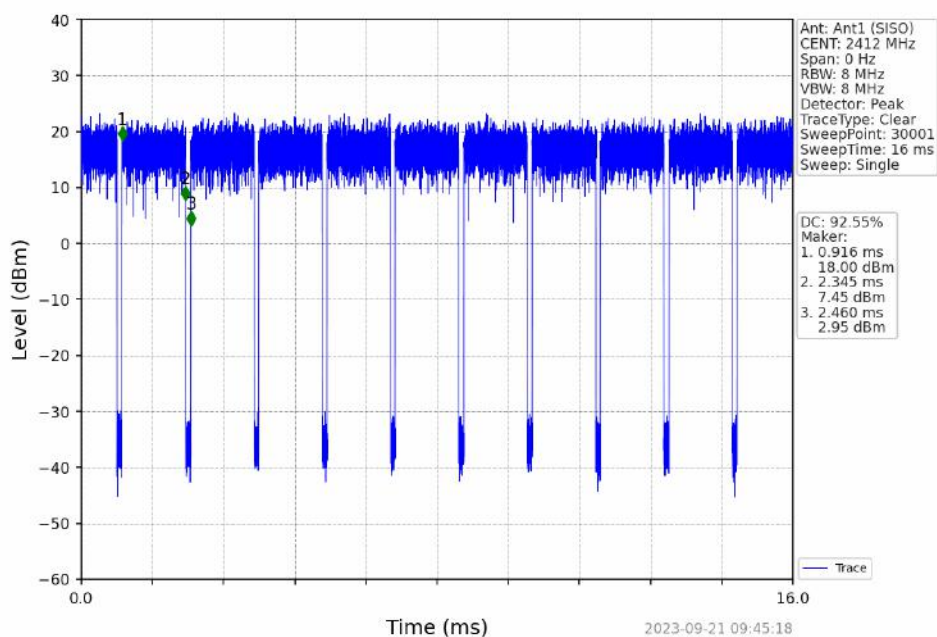




802.11b_HCH_2462MHz_NTNV

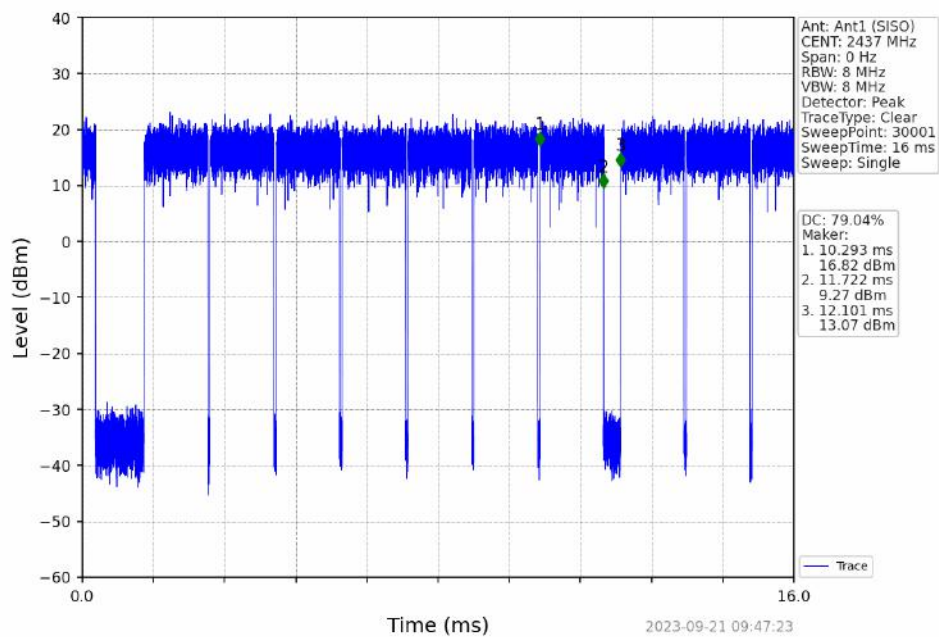


802.11g_LCH_2412MHz_NTNV

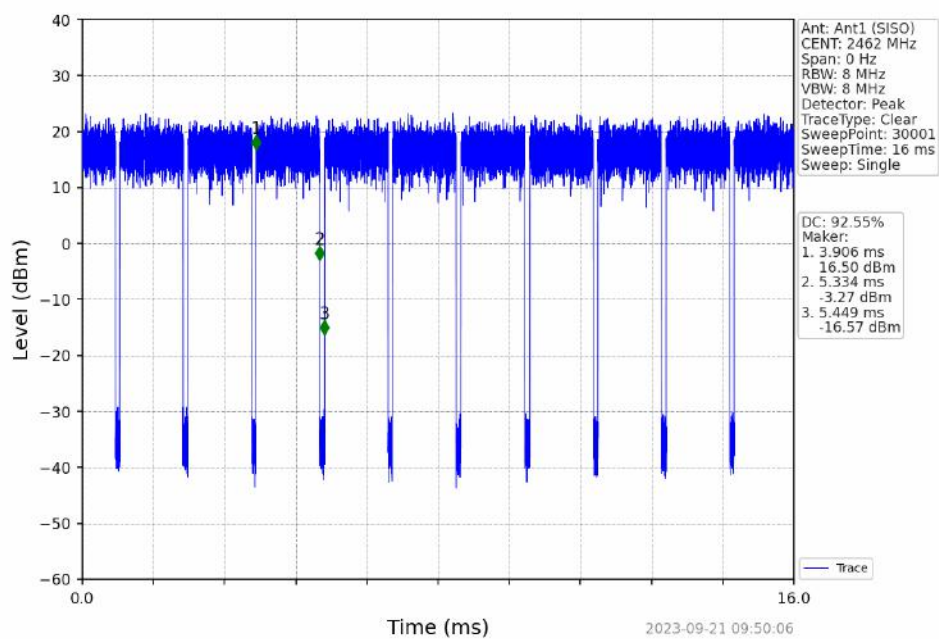




802.11g_MCH_2437MHz_NTNV

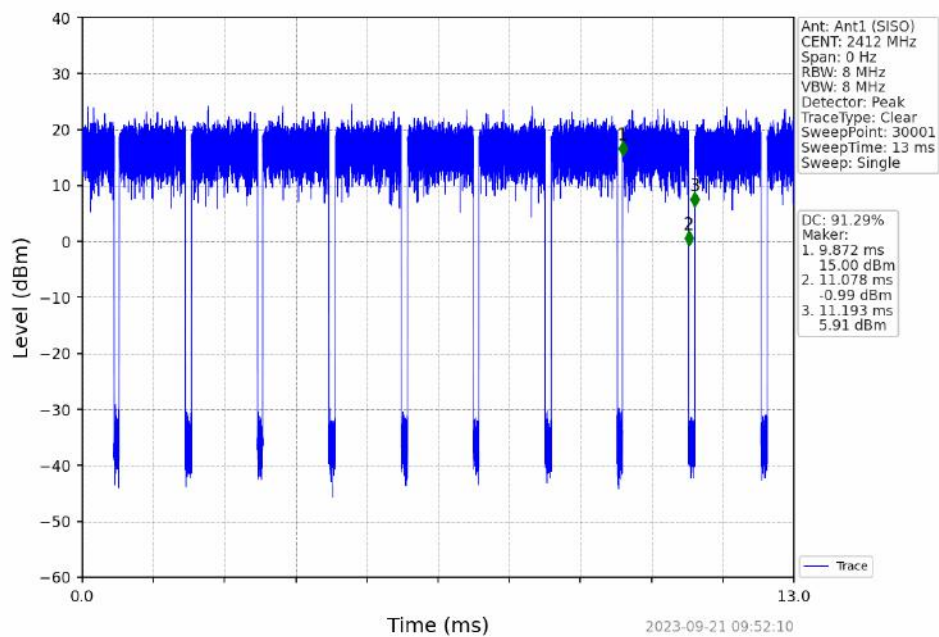


802.11g_HCH_2462MHz_NTNV

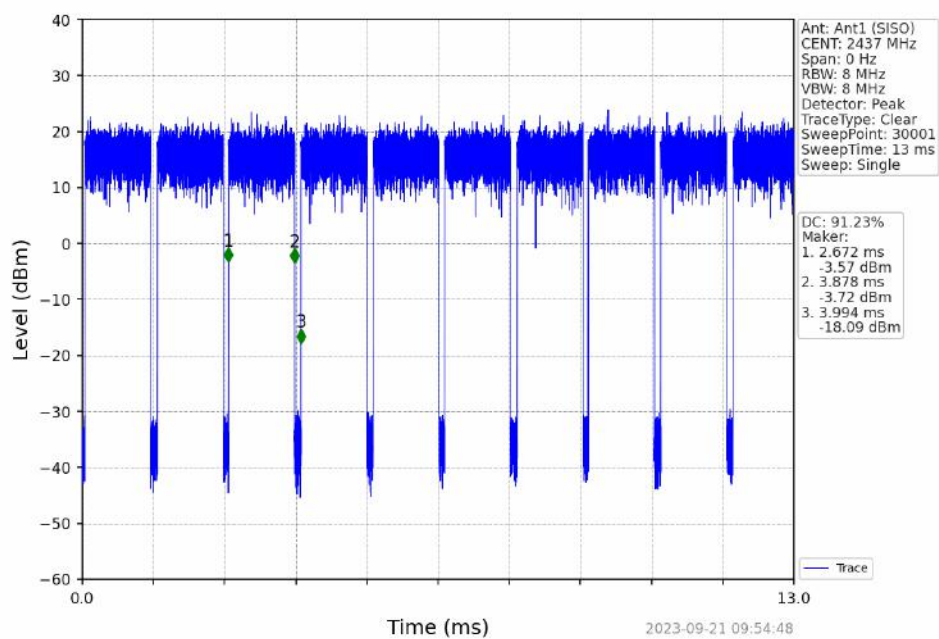




802.11n(HT20)_LCH_2412MHz_NTNV

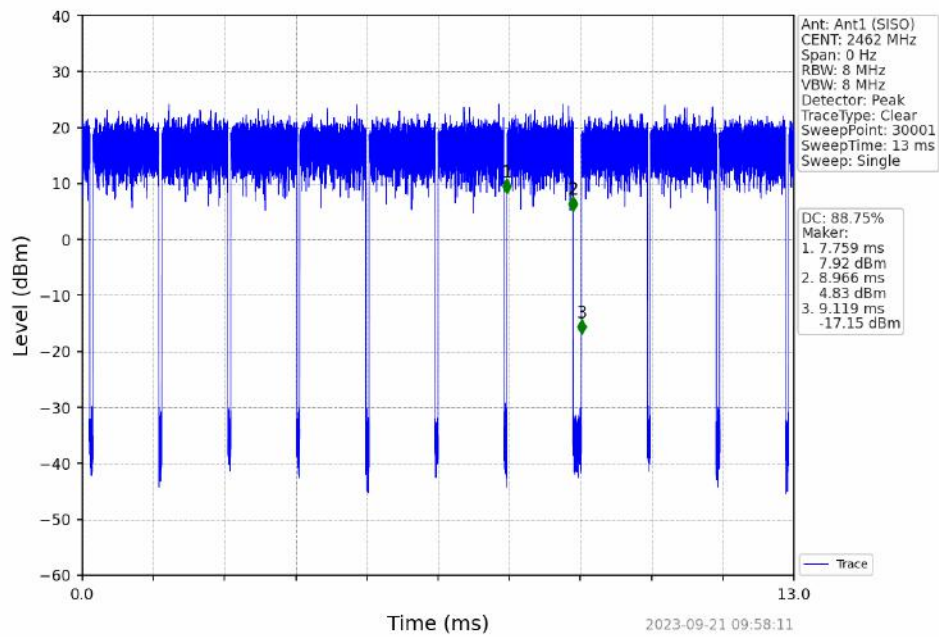


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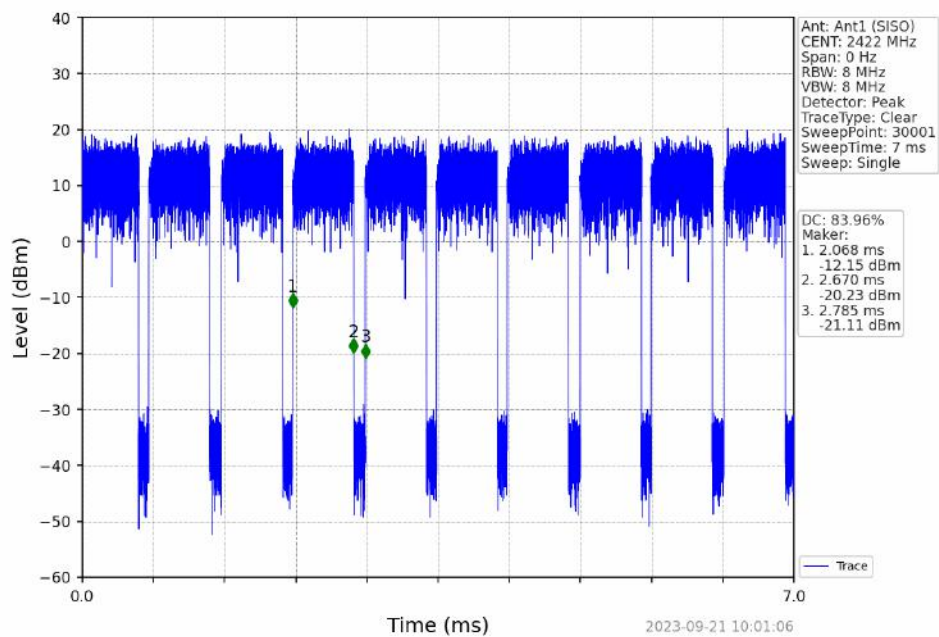




802.11n(HT20)_HCH_2462MHz_NTNV

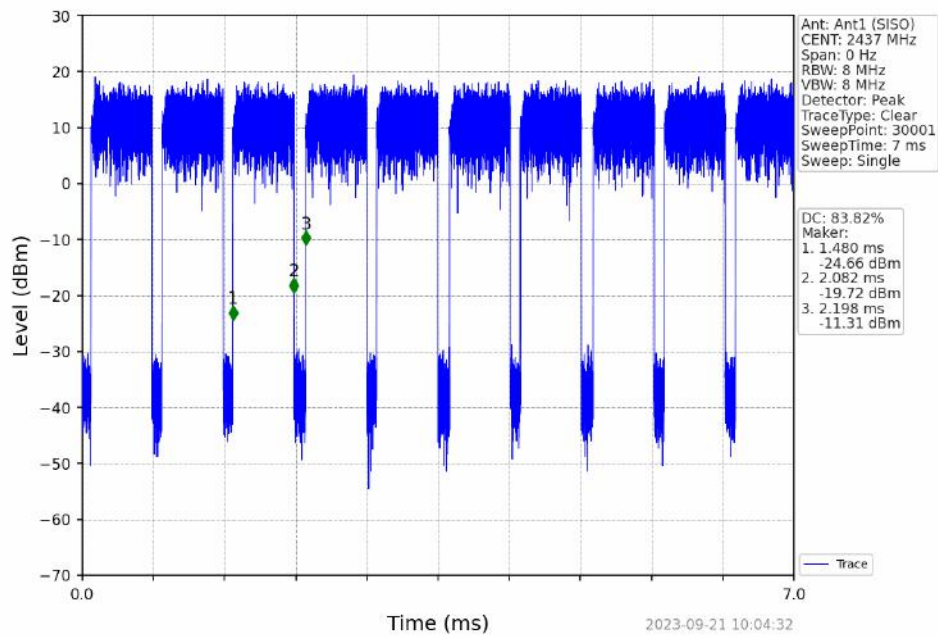


802.11n(HT40)_LCH_2422MHz_NTNV

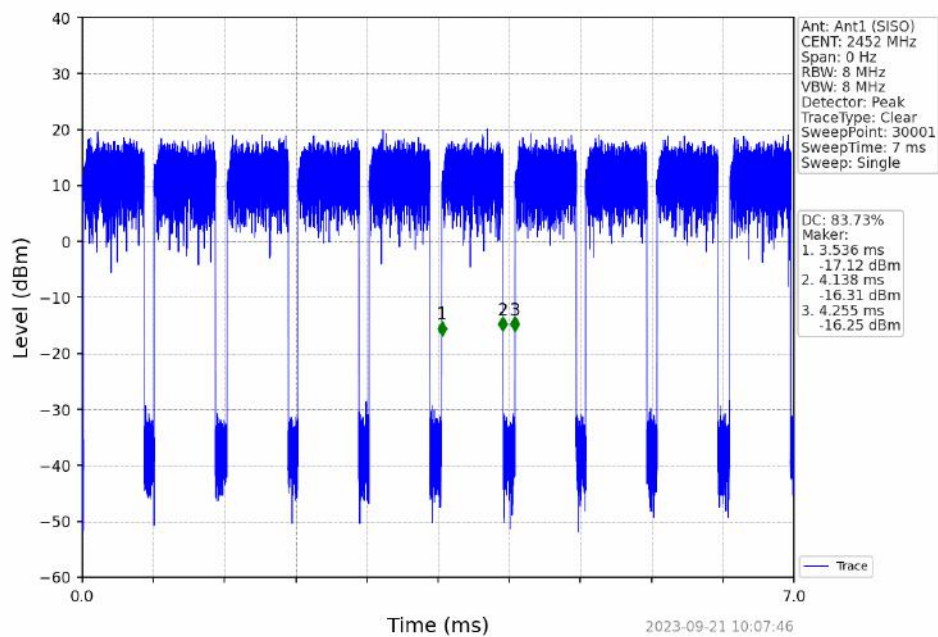




802.11n(HT40)_MCH_2437MHz_NTNV

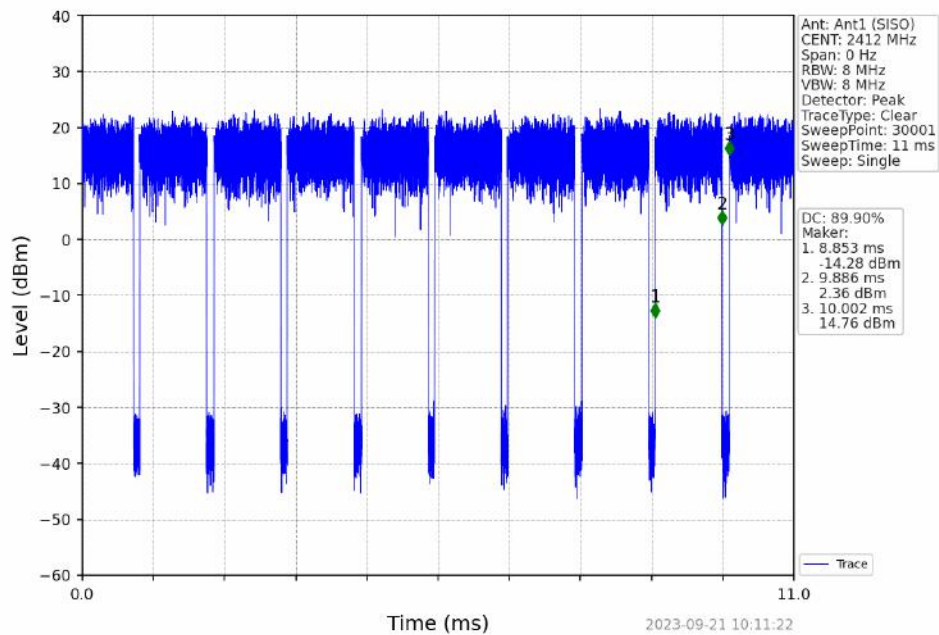


802.11n(HT40)_HCH_2452MHz_NTNV

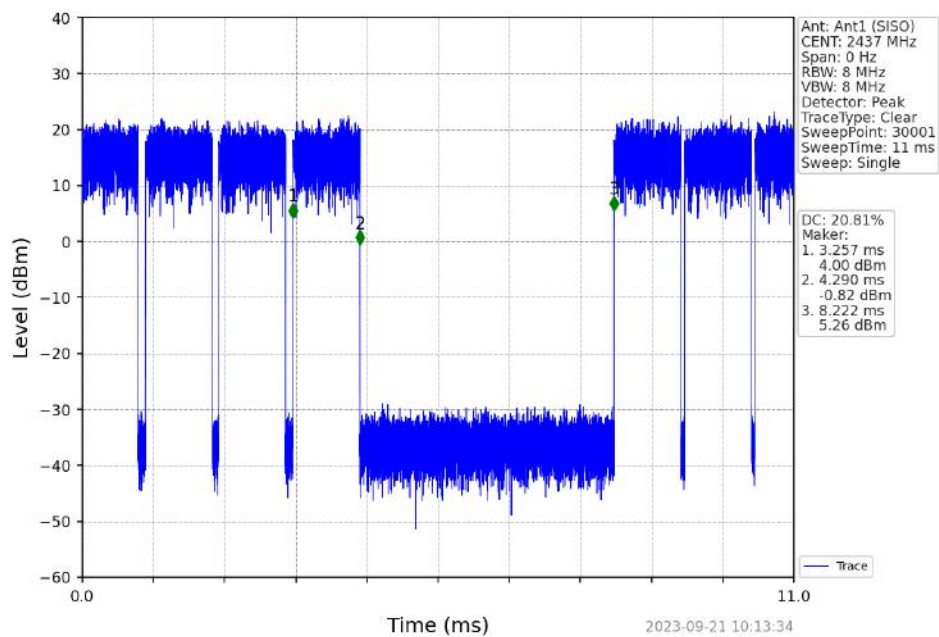




802.11ax(HEW20)_LCH_2412MHz_RU242_Left_NTNV

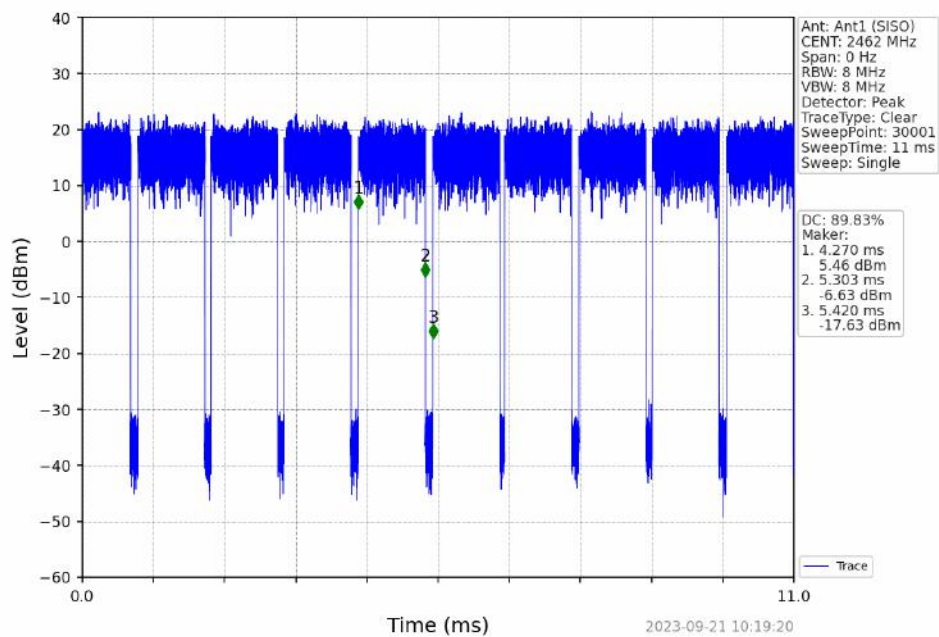


802.11ax(HEW20)_MCH_2437MHz_RU242_Left_NTNV

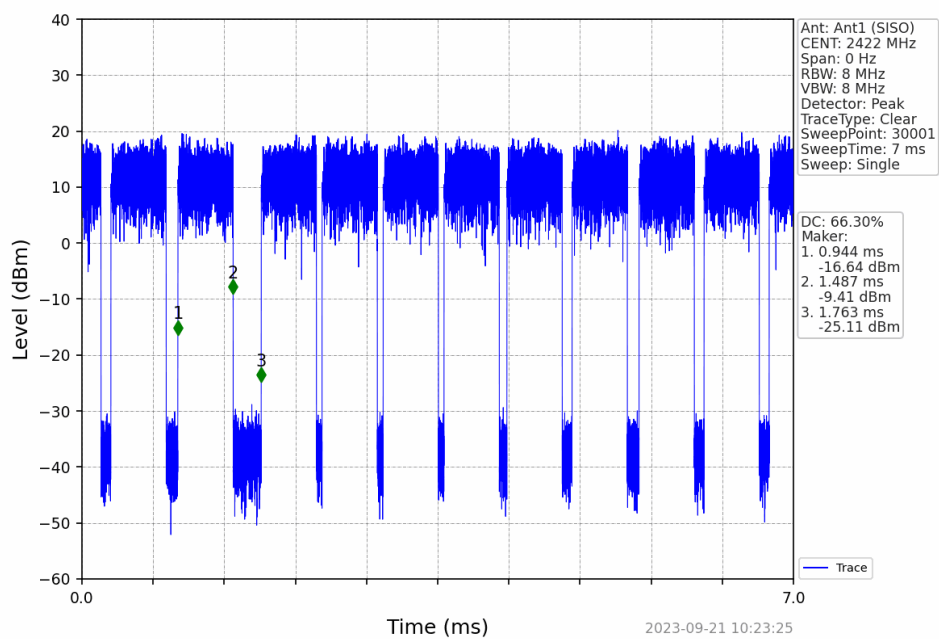




802.11ax(HEW20)_HCH_2462MHz_RU242_Left_NTNV

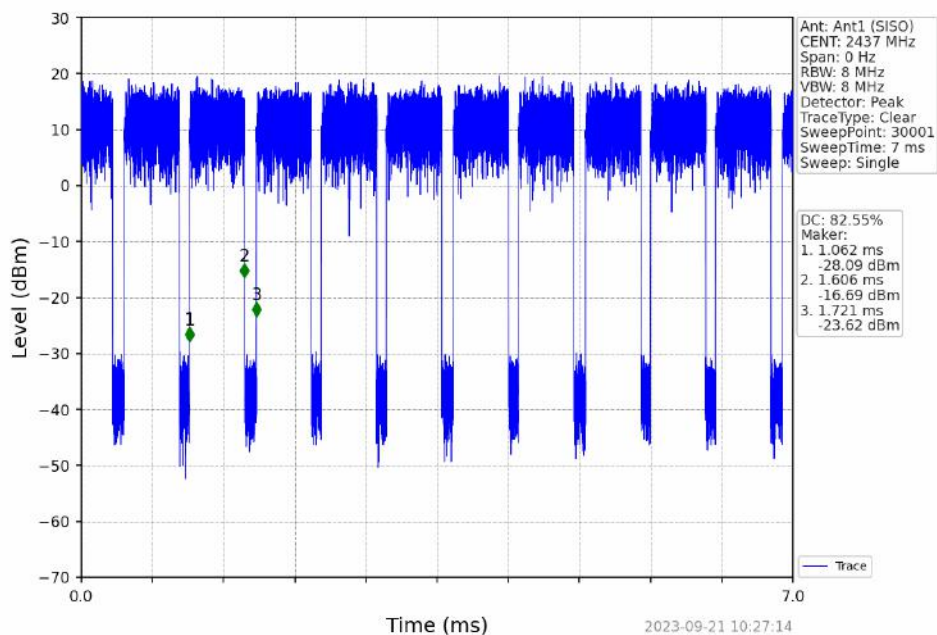


802.11ax(HEW40)_LCH_2422MHz_RU484_Left_NTNV

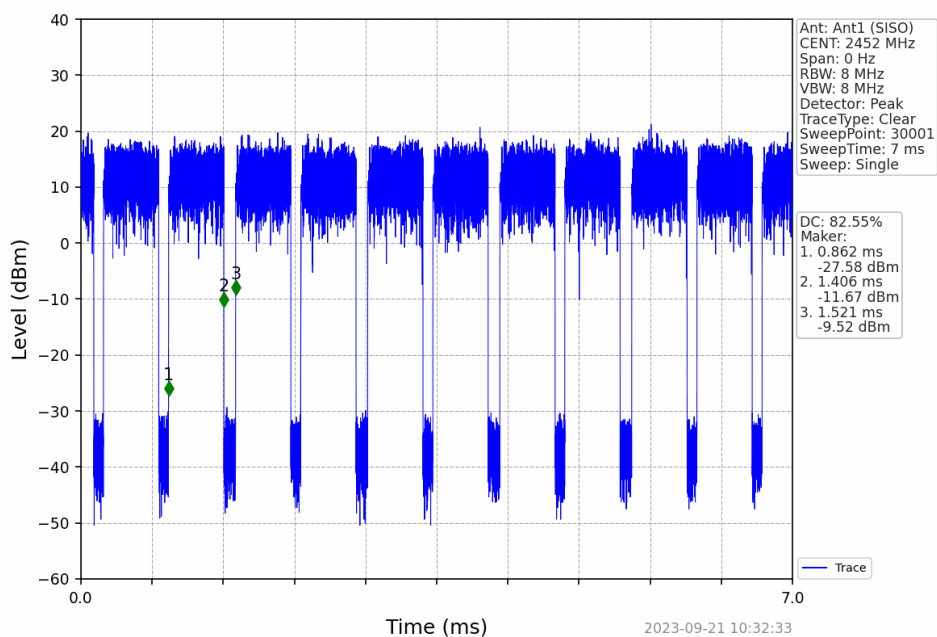




802.11ax(HEW40)_MCH_2437MHz_RU484_Left_NTNV

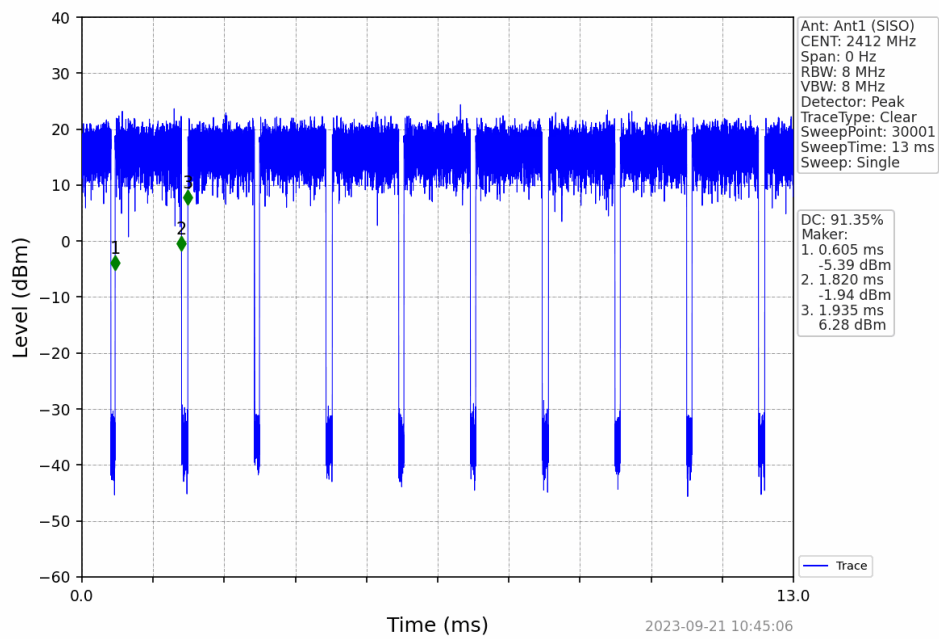


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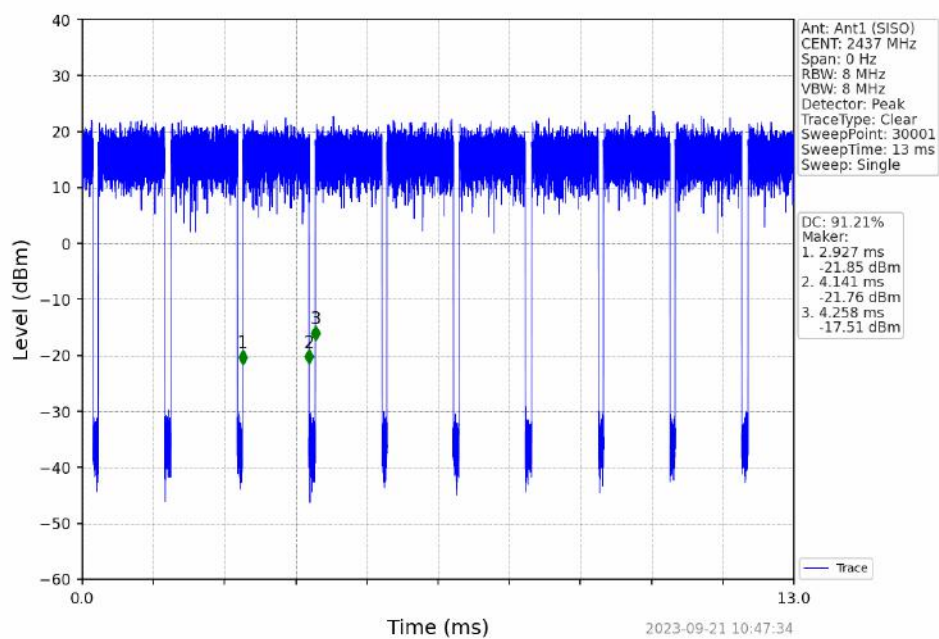




802.11ac(VHT20)_LCH_2412MHz_NTNV

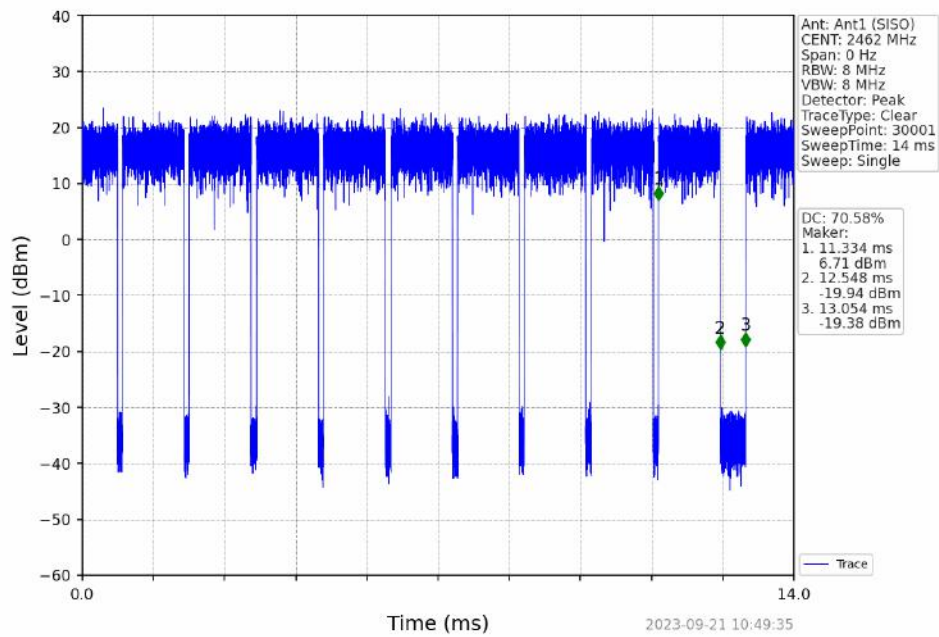


802.11ac(VHT20)_MCH_2437MHz_NTNV

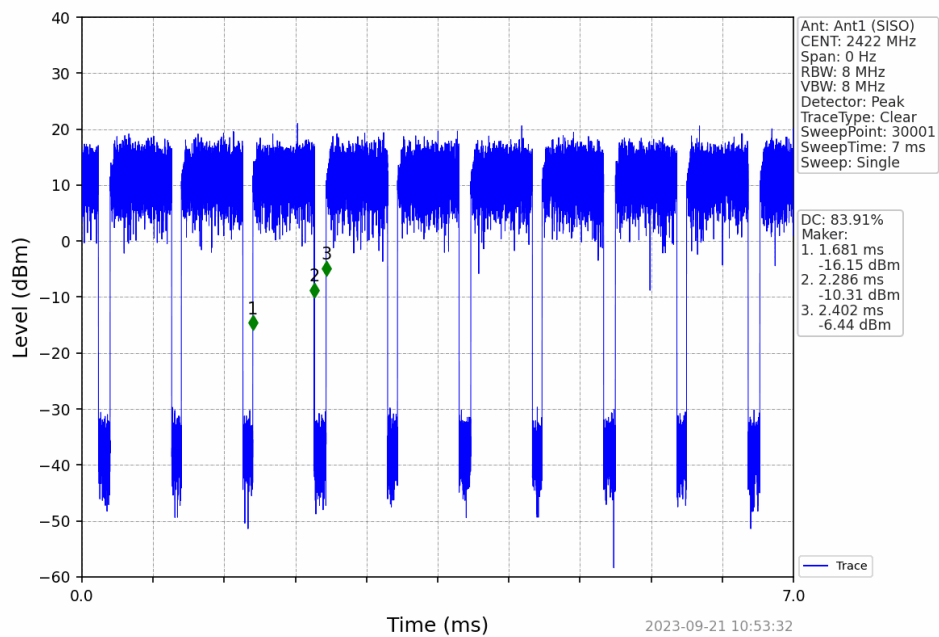




802.11ac(VHT20)_HCH_2462MHz_NTNV

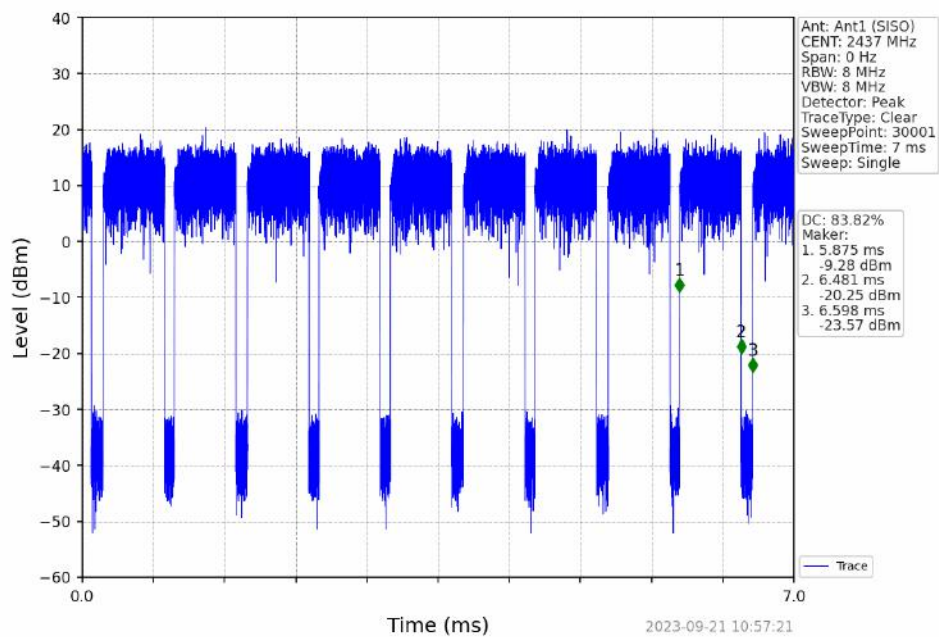


802.11ac(VHT40)_LCH_2422MHz_NTNV

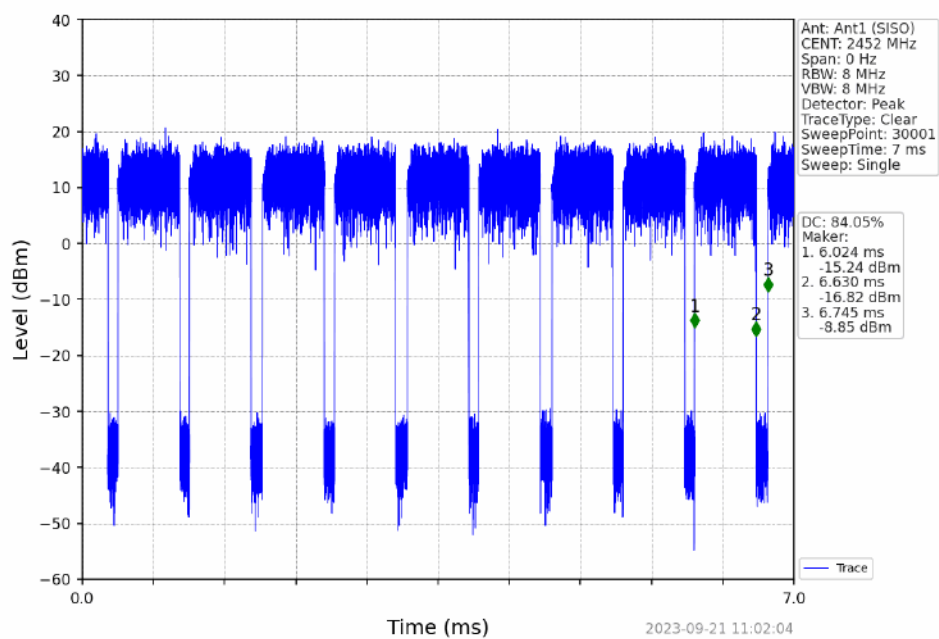




802.11ac(VHT40)_MCH_2437MHz_NTNV

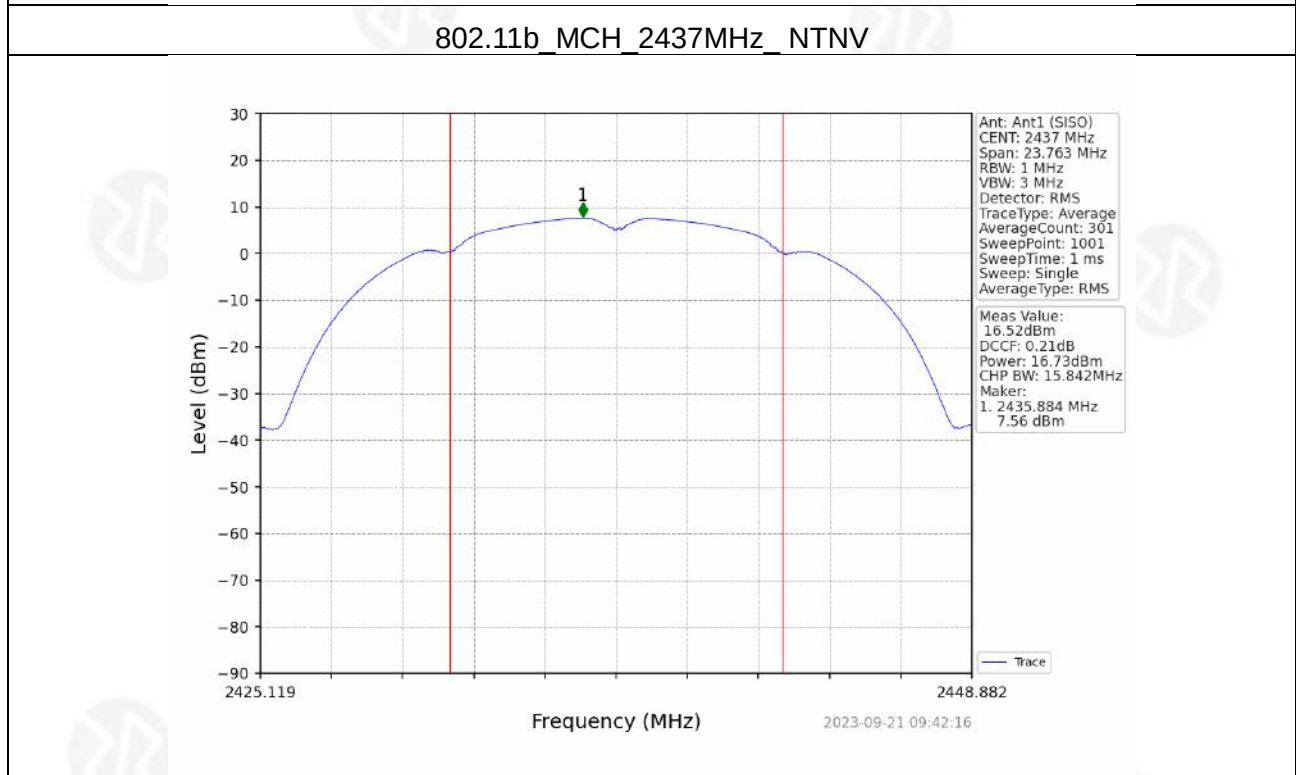
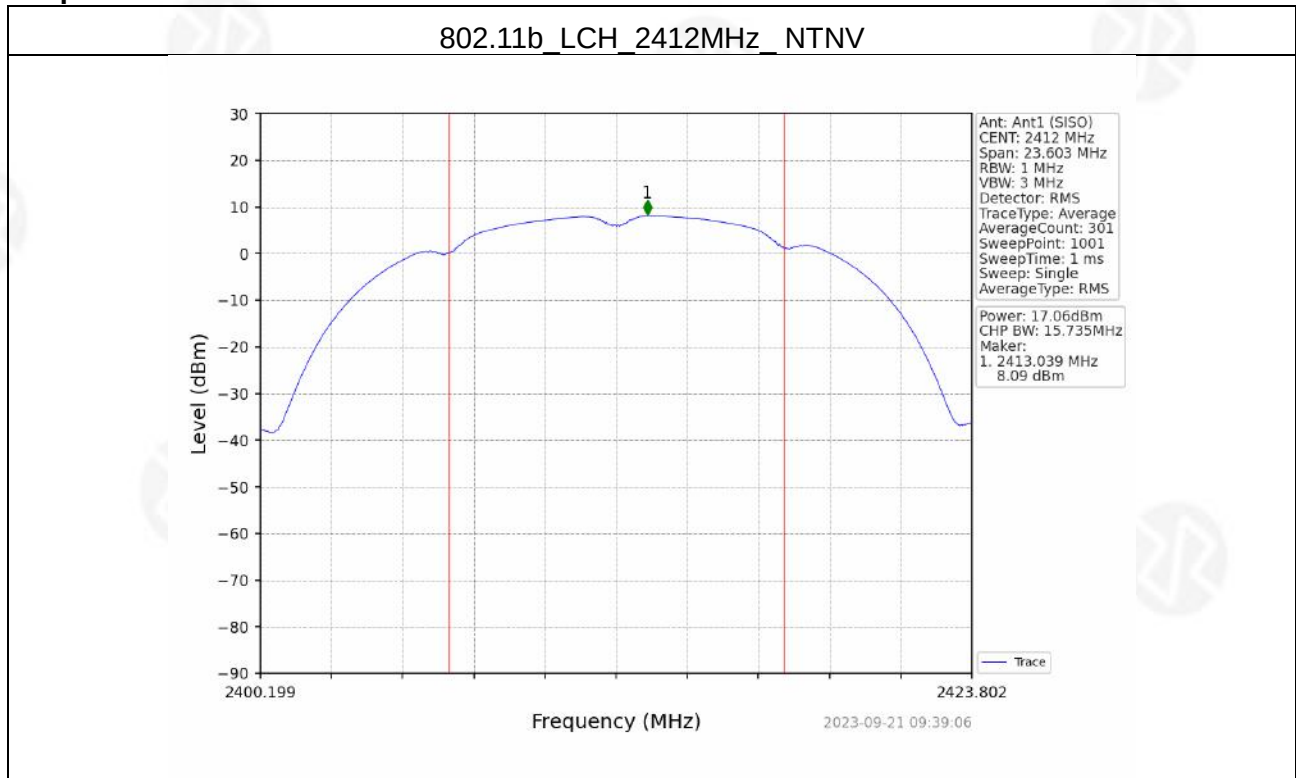


802.11ac(VHT40)_HCH_2452MHz_NTNV



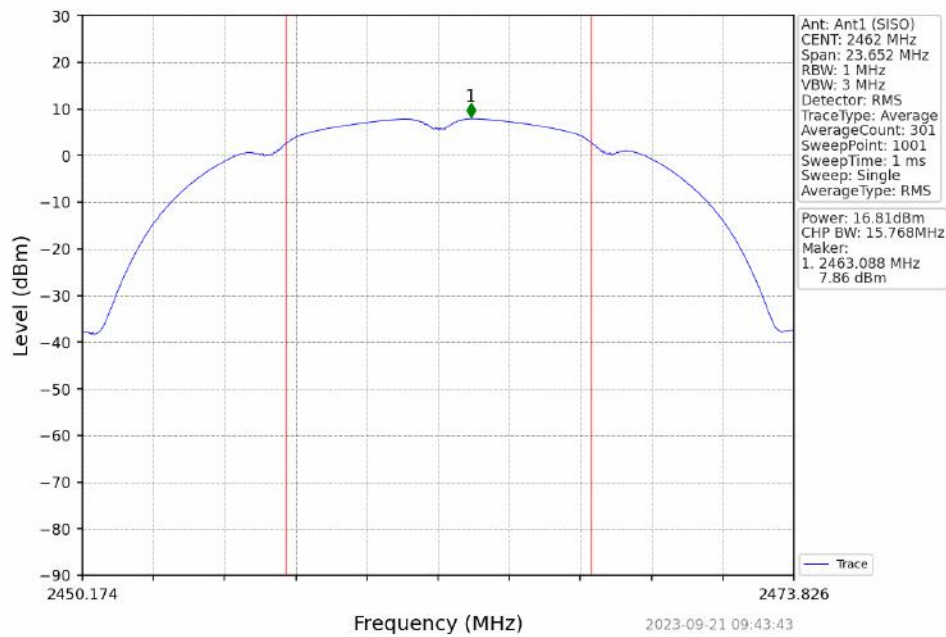


Test Graph:
Antenna 2:
Output Power:

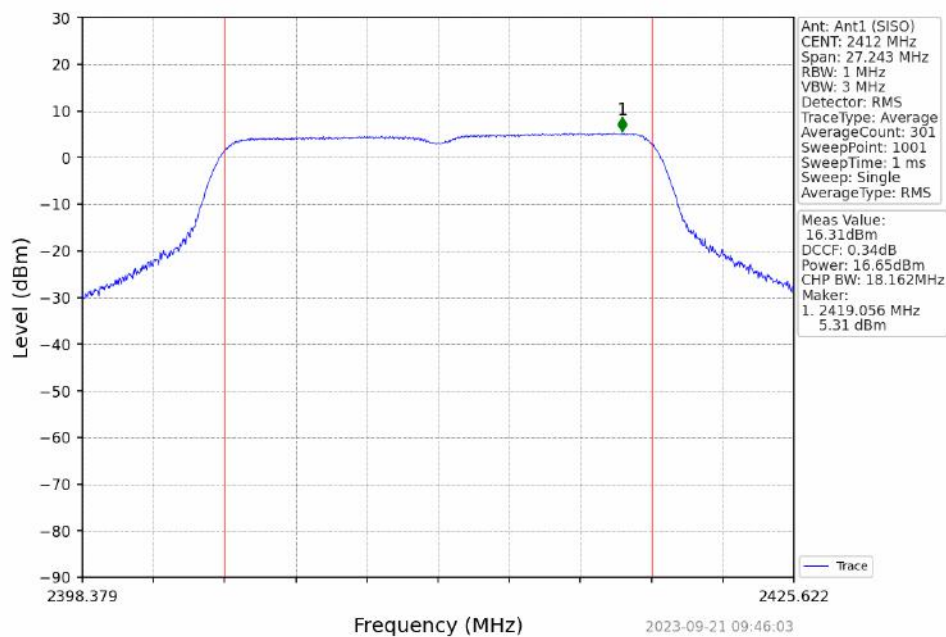




802.11b HCH 2462MHz NTN

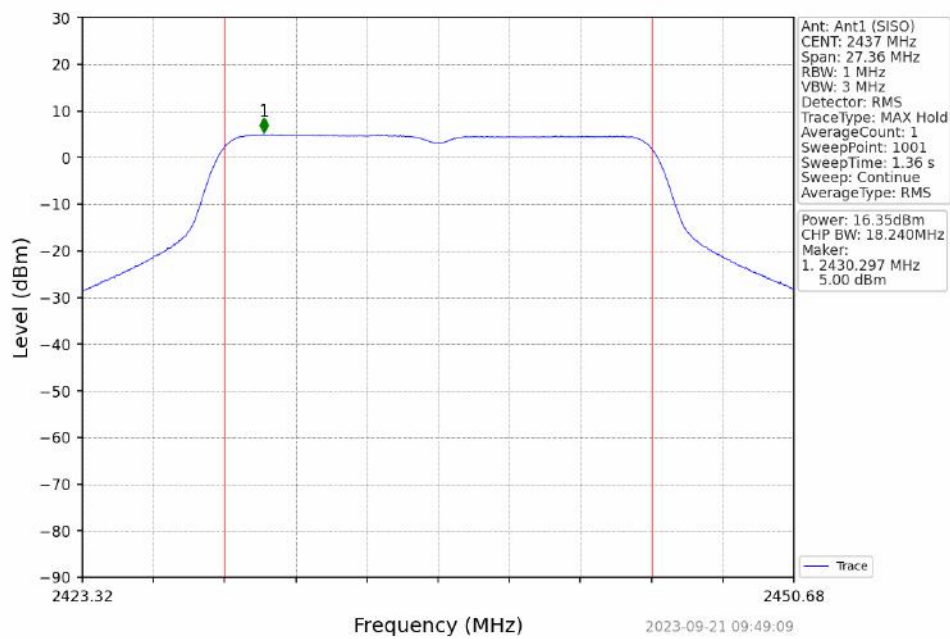


802.11g LCH 2412MHz NTN

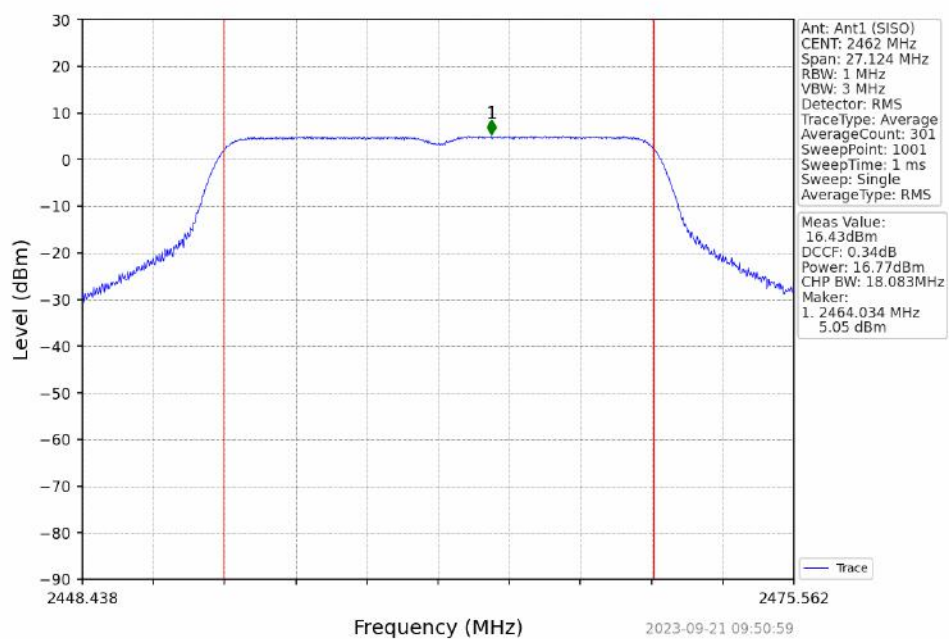




802.11g_MCH_2437MHz_NTNV

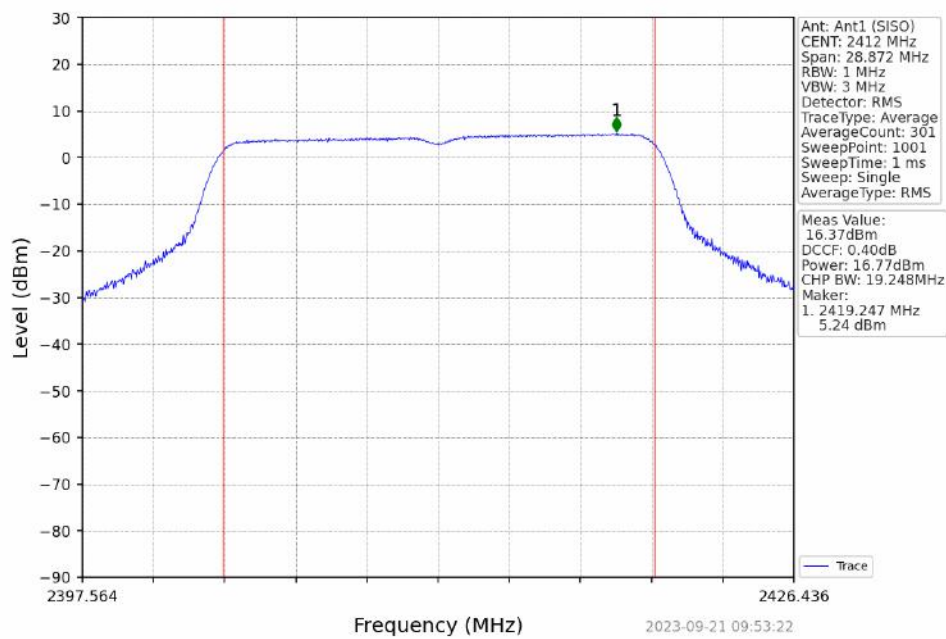


802.11g_HCH_2462MHz_NTNV

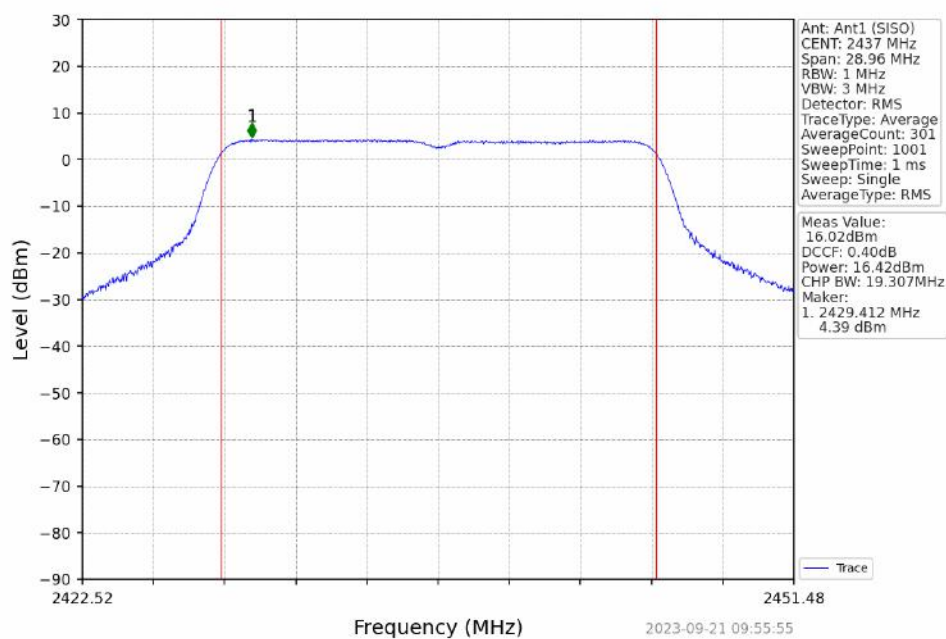




802.11n(HT20)_LCH_2412MHz_NTNV

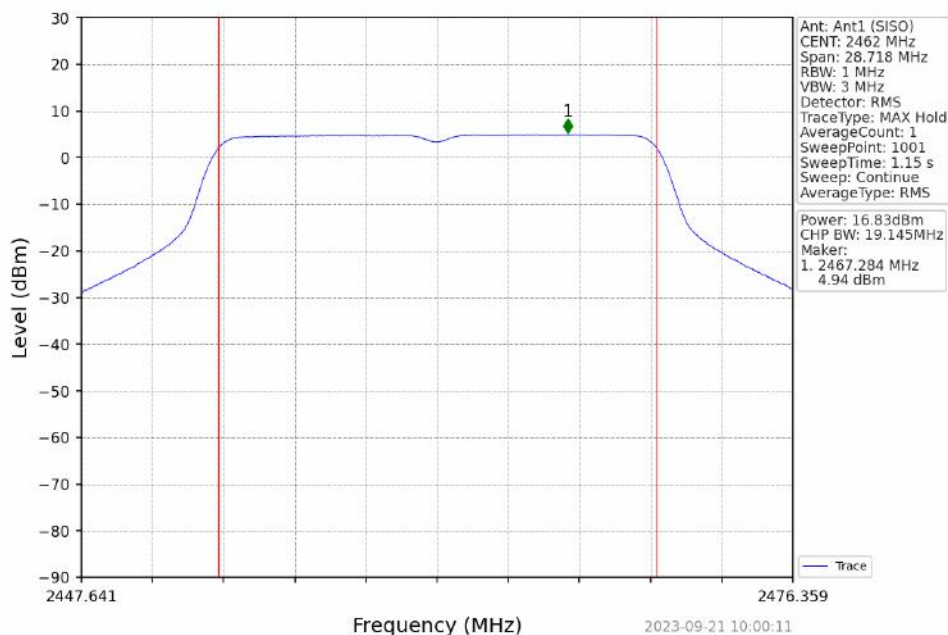


802.11n(HT20)_MCH_2437MHz_NTNV

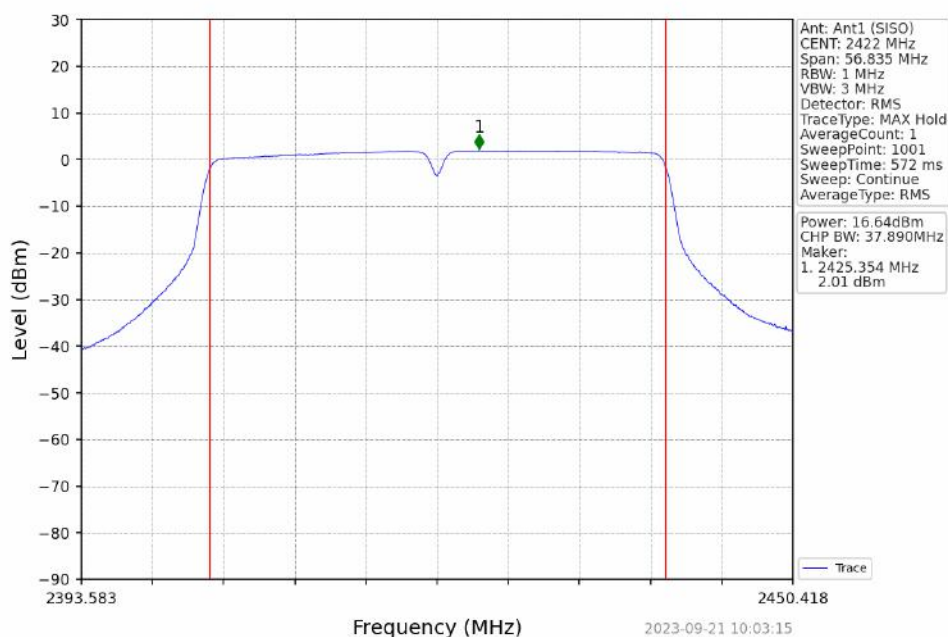




802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV

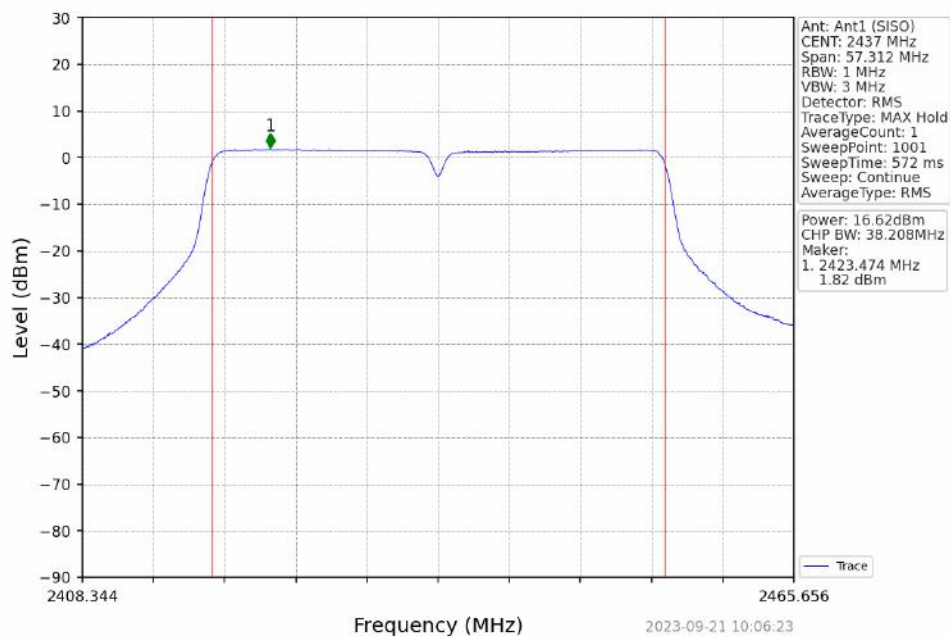


802.11n(HT40)_LCH_2422MHz_NTNV

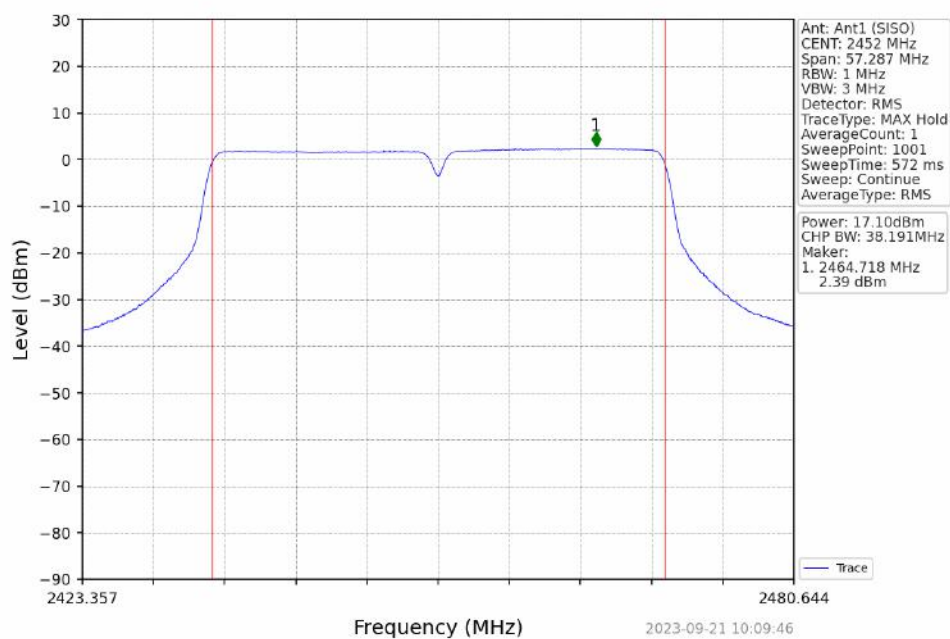




802.11n(HT40)_MCH_2437MHz_NTNV

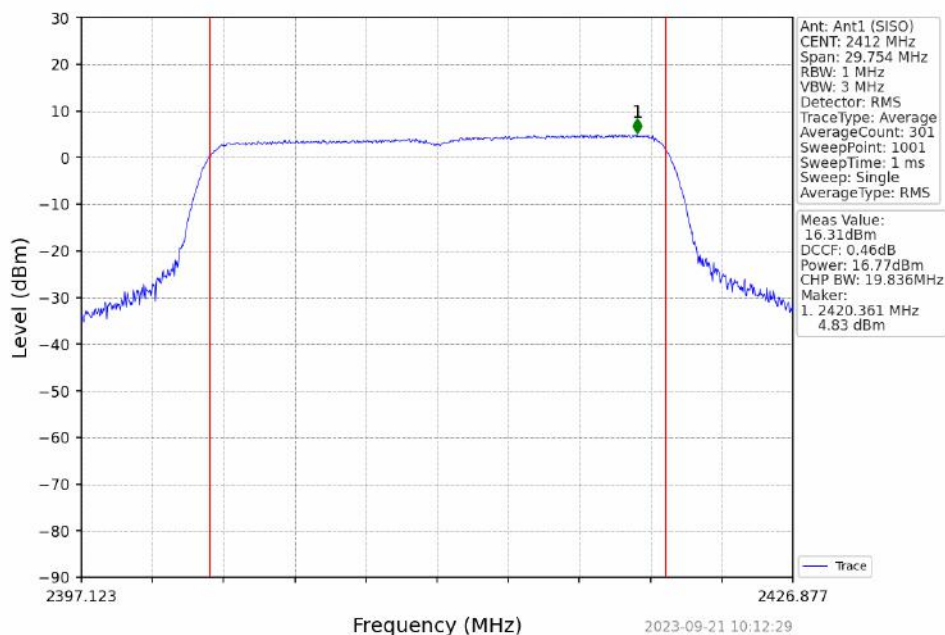


802.11n(HT40)_HCH_2452MHz_NTNV

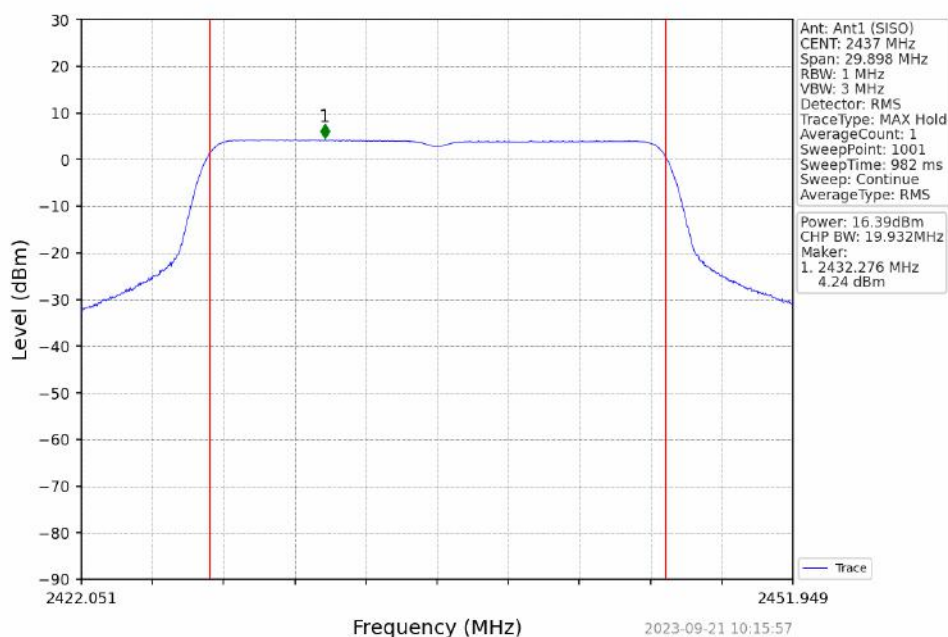




802.11ax(HEW20)_LCH_2412MHz_RU242_Left_NTNV

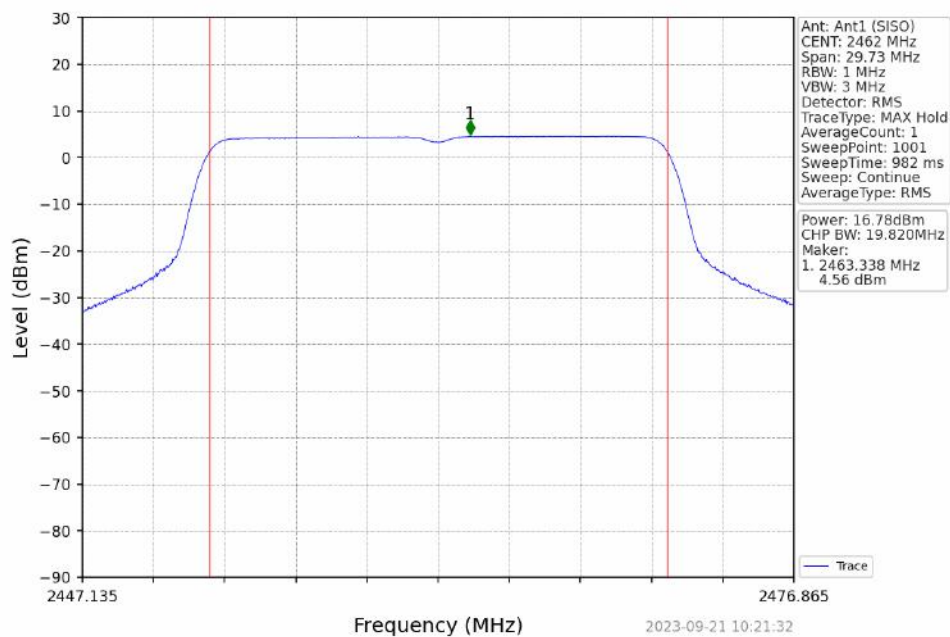


802.11ax(HEW20)_MCH_2437MHz_RU242_Left_NTNV

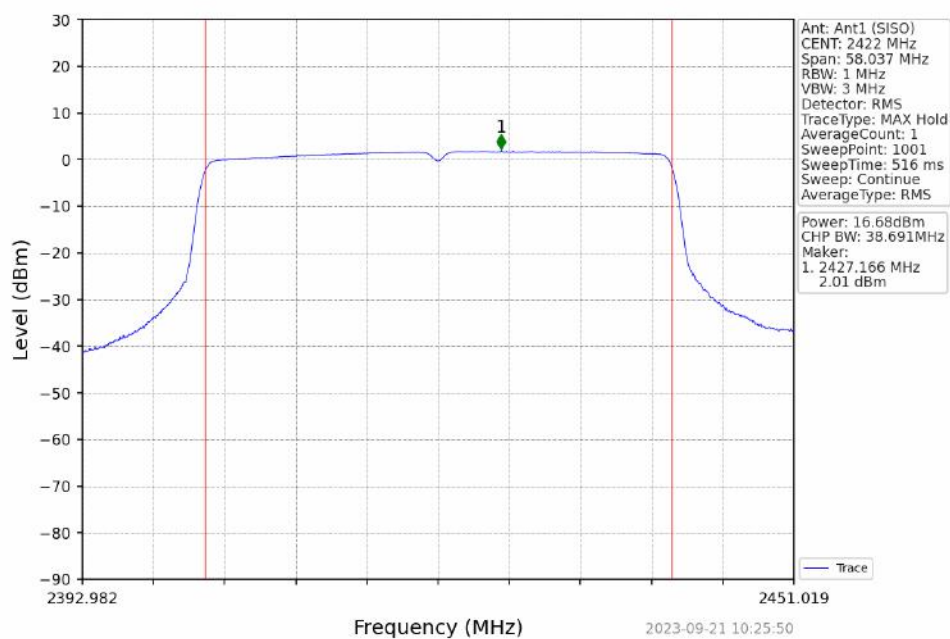




802.11ax(HEW20)_HCH_2462MHz_RU242_Left_NTNV

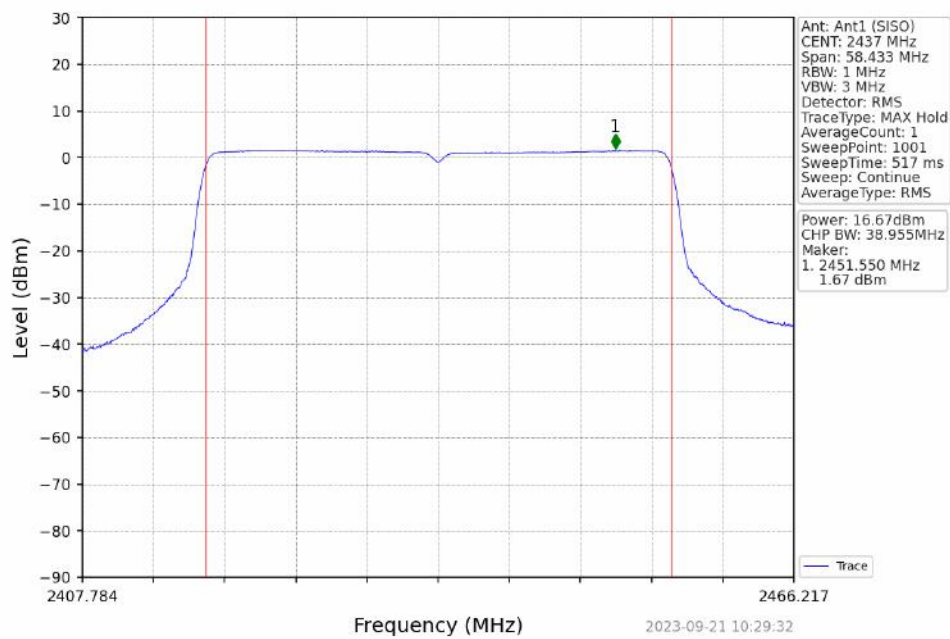


802.11ax(HEW40)_LCH_2422MHz_RU484_Left_NTNV

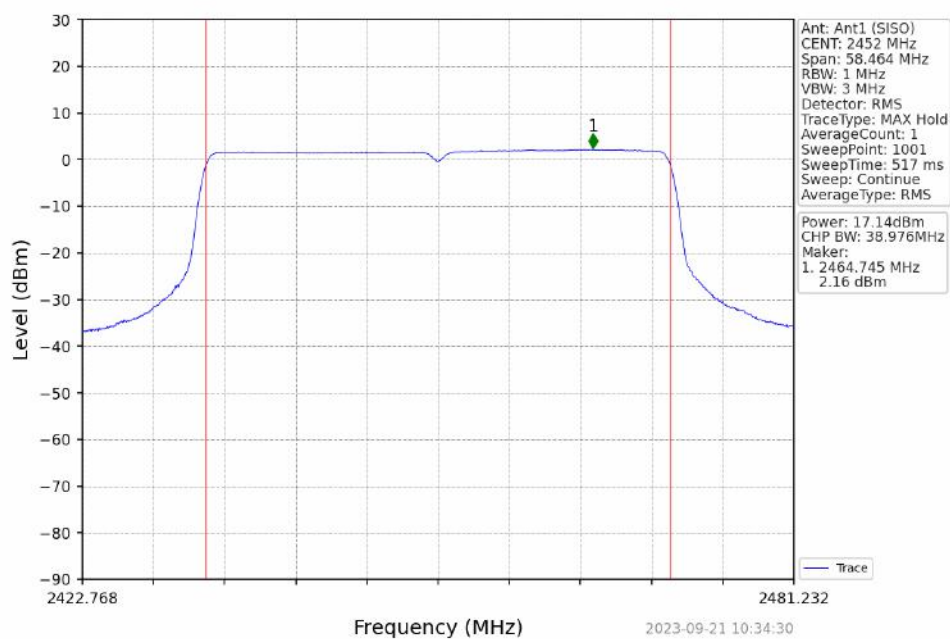




802.11ax(HEW40)_MCH_2437MHz_RU484_Left_NTNV

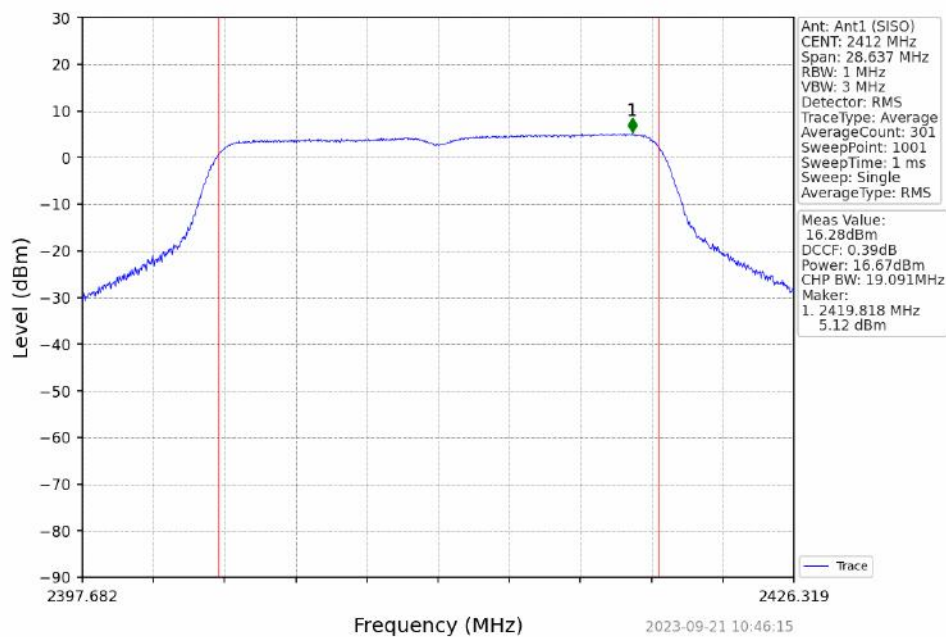


802.11ax(HEW40)_HCH_2452MHz_RU484_Left_NTNV

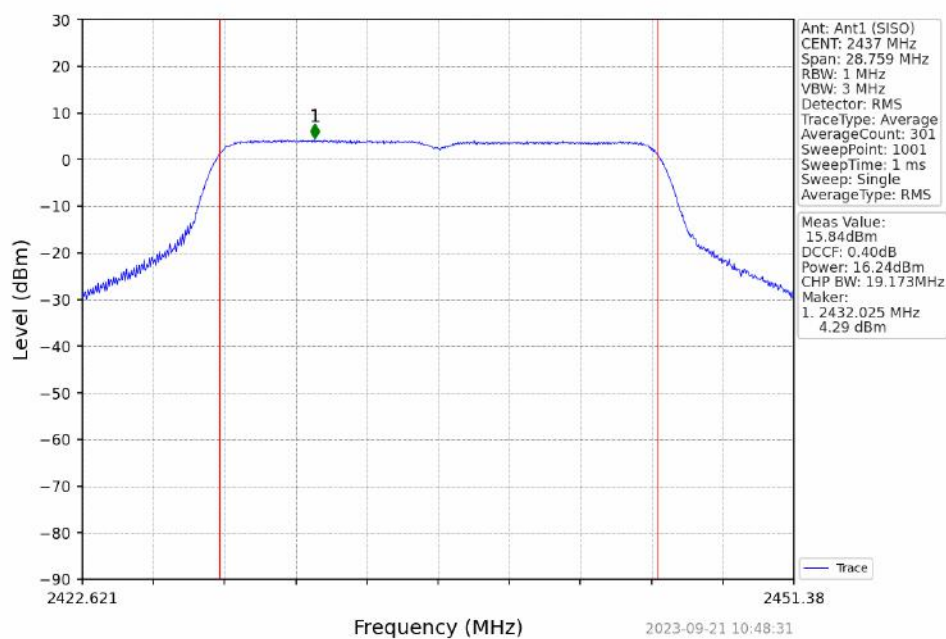




802.11ac(VHT20)_LCH_2412MHz_NTNV

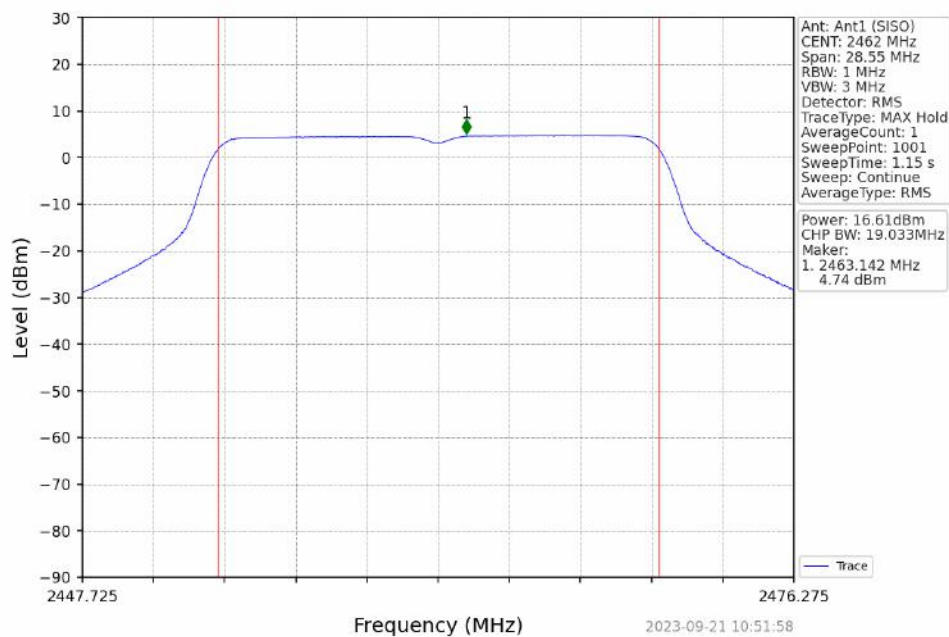


802.11ac(VHT20)_MCH_2437MHz_NTNV

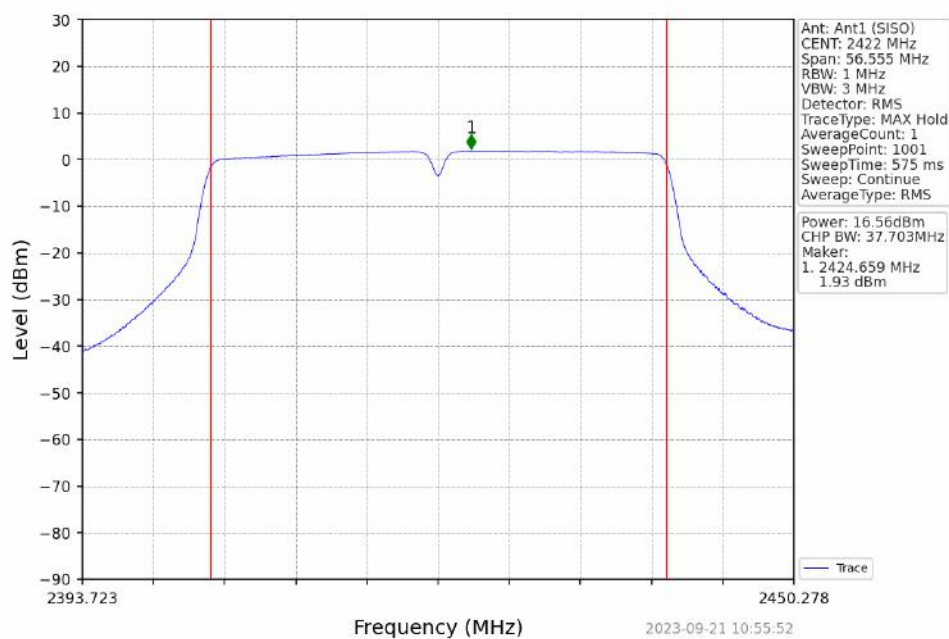




802.11ac(VHT20)_HCH_2462MHz_NTNV

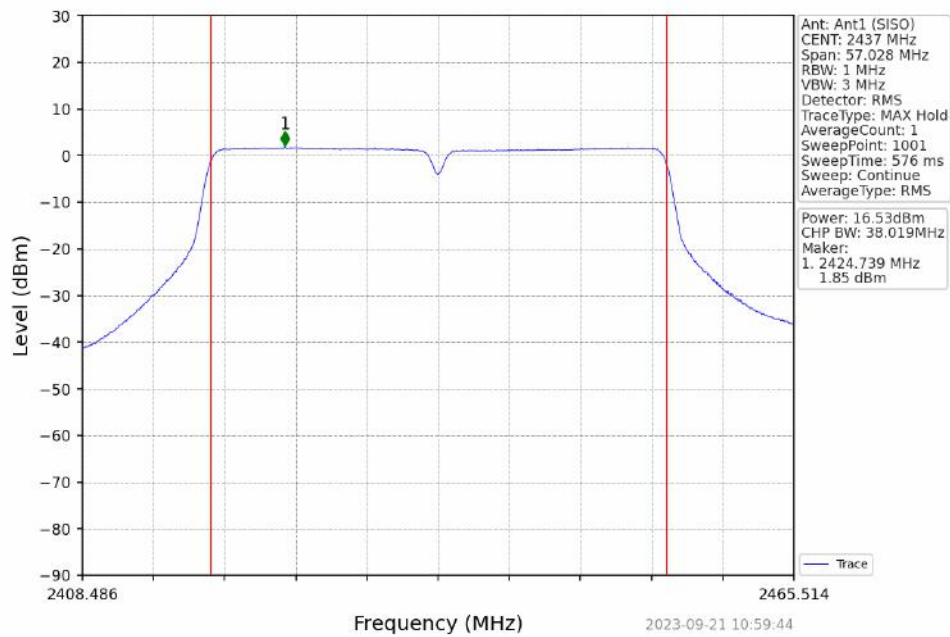


802.11ac(VHT40)_LCH_2422MHz_NTNV

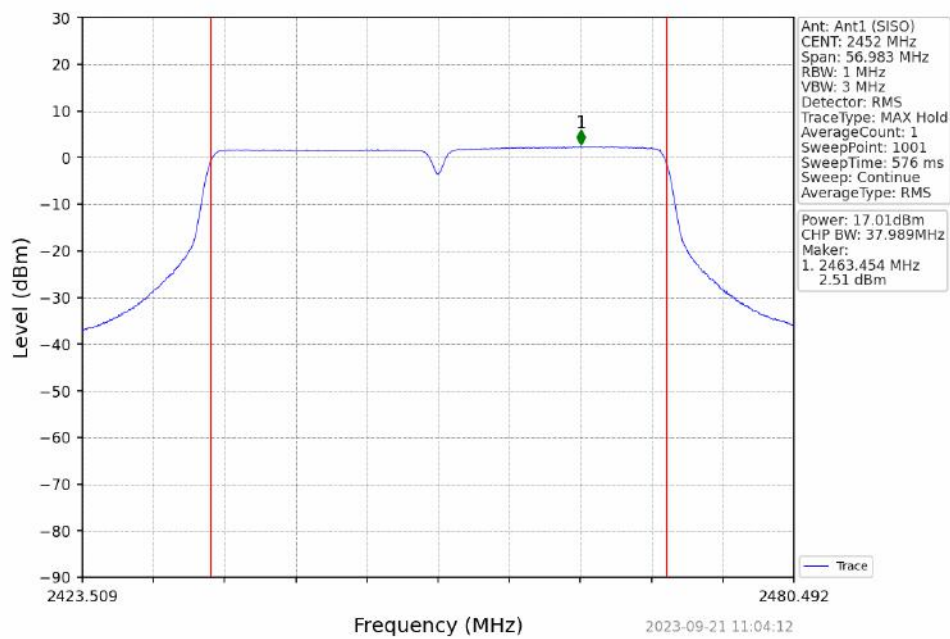




802.11ac(VHT40)_MCH_2437MHz_NTNV



802.11ac(VHT40)_HCH_2452MHz_NTNV





9. CONDUCTED BAND EDGE AND SPURIOUS EMISSION

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013 and KDB558074 D01DTS Meas Guidancev05r02

9.1 APPLICABLE STANDARD

in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in§15.205(a), must also comply with the radiated emission limits specified in15.209(a).

9.2 TEST PROCEDURE

Using the following spectrum analyzer setting:

- A) Set the RBW = 100KHz.
- B) Set the VBW = 300KHz.
- C) Sweep time = auto couple.
- D) Detector function = peak.
- E) Trace mode = max hold.
- F) Allow trace to fully stabilize.

9.3 DEVIATION FROM STANDARD

No deviation.

9.4 TEST SETUP



9.5 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.

9.6 TEST RESULTS



Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage :	DC 3.8V

Antenna 3:

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	3	10.06
		2437	3	10.66
		2462	3	10.74
802.11g	SISO	2412	3	8.88
		2437	3	7.07
		2462	3	8.17
802.11n (HT20)	SISO	2412	3	8.94
		2437	3	7.23
		2462	3	8.01

Antenna 4:

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	4	11.55
		2437	4	12.00
		2462	4	12.29
802.11g	SISO	2412	4	6.81
		2437	4	7.16
		2462	4	7.29
802.11n (HT20)	SISO	2412	4	7.59
		2437	4	8.34
		2462	4	8.65

Note1: Refer to FCC 15.247 and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.



Antenna 1:

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)
802.11b	SISO	2412	/	/	1	9.19
		2437	/	/	1	8.84
		2462	/	/	1	9.30
802.11g	SISO	2412	/	/	1	6.60
		2437	/	/	1	6.13
		2462	/	/	1	6.90
802.11n (HT20)	SISO	2412	/	/	1	6.57
		2437	/	/	1	6.13
		2462	/	/	1	6.96
802.11n (HT40)	SISO	2422	/	/	1	3.73
		2437	/	/	1	3.59
		2452	/	/	1	4.23
802.11ax (HEW20)	SISO	2412	RU242	Left	1	6.36
		2437	RU242	Left	1	5.97
		2462	RU242	Left	1	6.72
802.11ax (HEW40)	SISO	2422	RU484	Left	1	3.57
		2437	RU484	Left	1	3.29
		2452	RU484	Left	1	4.08
802.11ac (VHT20)	SISO	2412	/	/	1	6.71
		2437	/	/	1	6.20
		2462	/	/	1	7.06
802.11ac (VHT40)	SISO	2422	/	/	1	3.83
		2437	/	/	1	3.62
		2452	/	/	1	4.31

Note1: Refer to FCC 15.247 and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.



Antenna 2:

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)
802.11b	SISO	2412	/	/	2	7.86
		2437	/	/	2	7.49
		2462	/	/	2	7.71
802.11g	SISO	2412	/	/	2	5.80
		2437	/	/	2	5.06
		2462	/	/	2	5.36
802.11n (HT20)	SISO	2412	/	/	2	5.76
		2437	/	/	2	4.94
		2462	/	/	2	5.53
802.11n (HT40)	SISO	2422	/	/	2	2.55
		2437	/	/	2	2.25
		2452	/	/	2	3.10
802.11ax (HEW20)	SISO	2412	RU242	Left	2	6.37
		2437	RU242	Left	2	4.66
		2462	RU242	Left	2	5.11
802.11ax (HEW40)	SISO	2422	RU484	Left	2	2.20
		2437	RU484	Left	2	1.92
		2452	RU484	Left	2	2.80
802.11ac (VHT20)	SISO	2412	/	/	2	5.89
		2437	/	/	2	4.95
		2462	/	/	2	5.36
802.11ac (VHT40)	SISO	2422	/	/	2	2.48
		2437	/	/	2	2.25
		2452	/	/	2	2.98

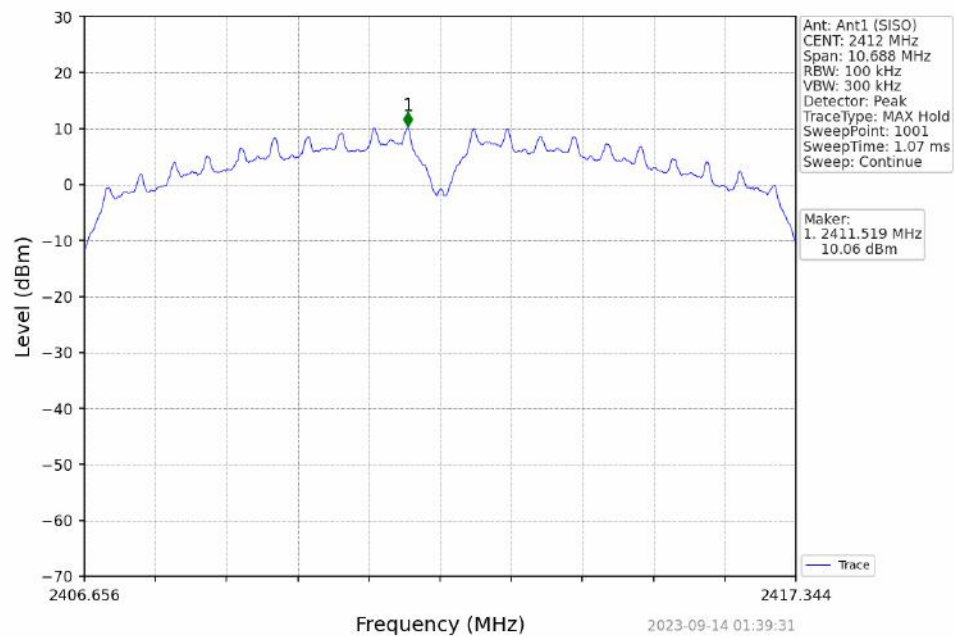
Note1: Refer to FCC 15.247 and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.



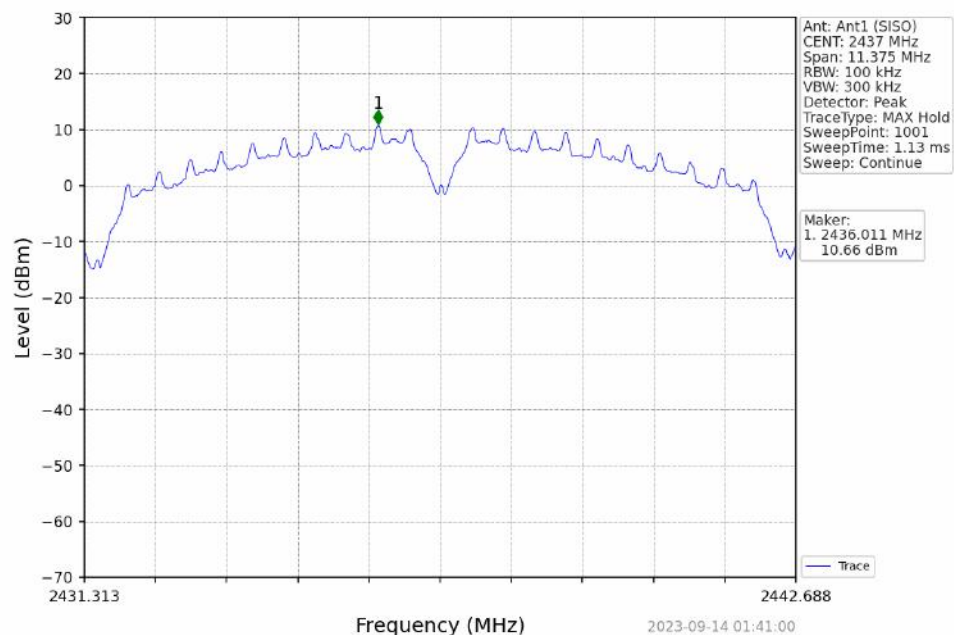
Test Graph

Antenna 3:

802.11b_LCH_2412MHz_NTNV

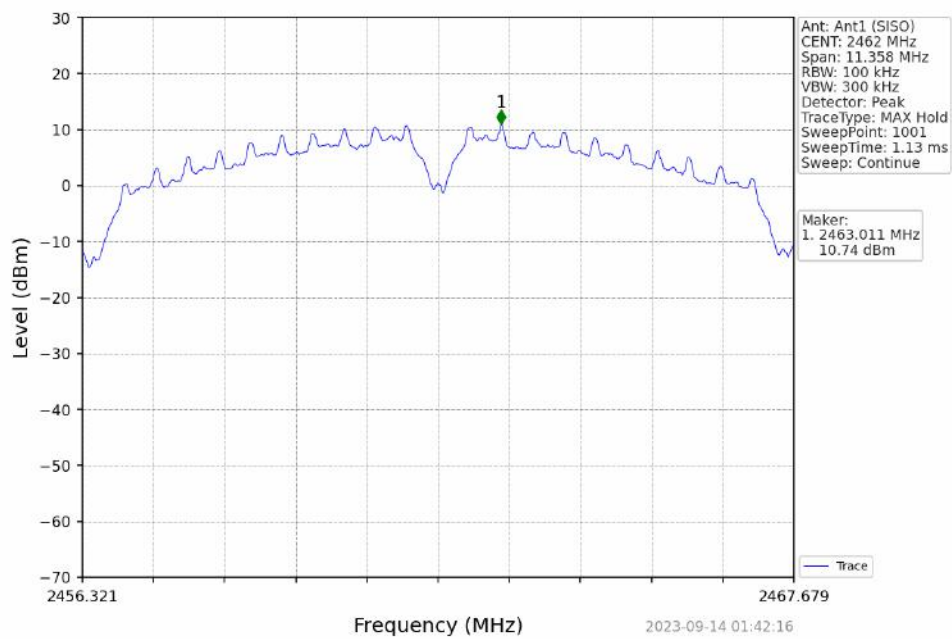


802.11b_MCH_2437MHz_NTNV

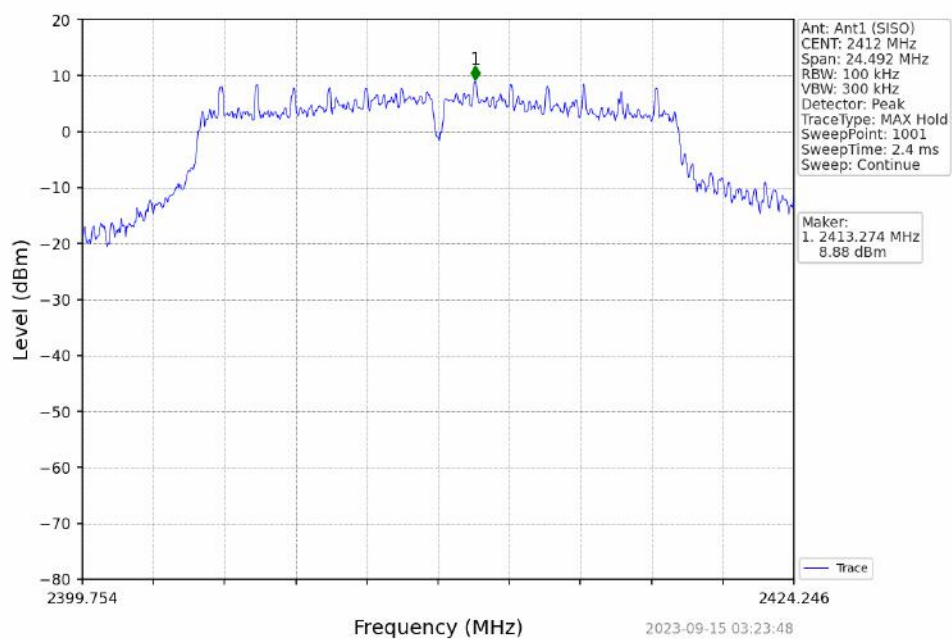




802.11b_HCH_2462MHz_NTNV

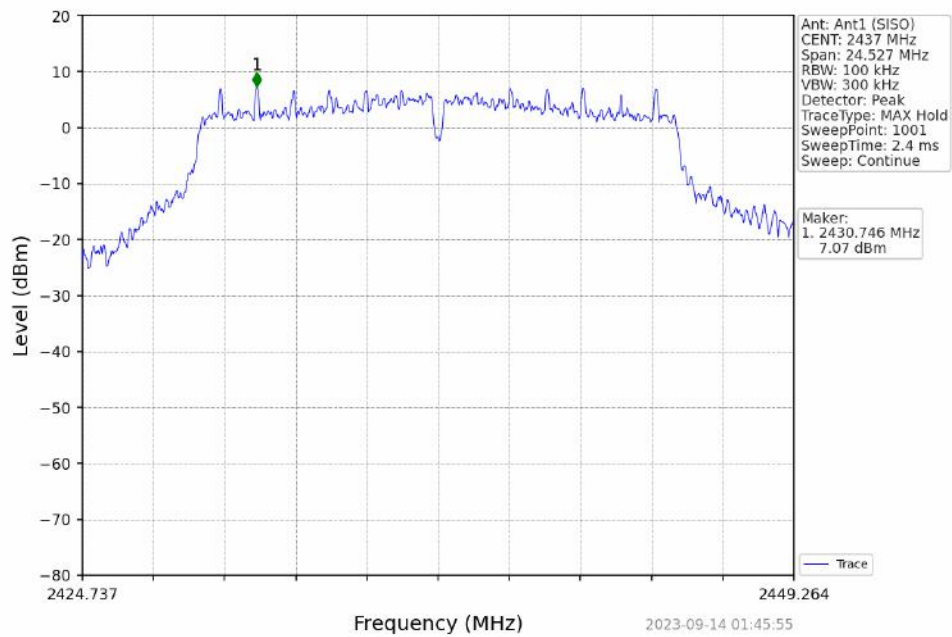


802.11g_LCH_2412MHz_NTNV

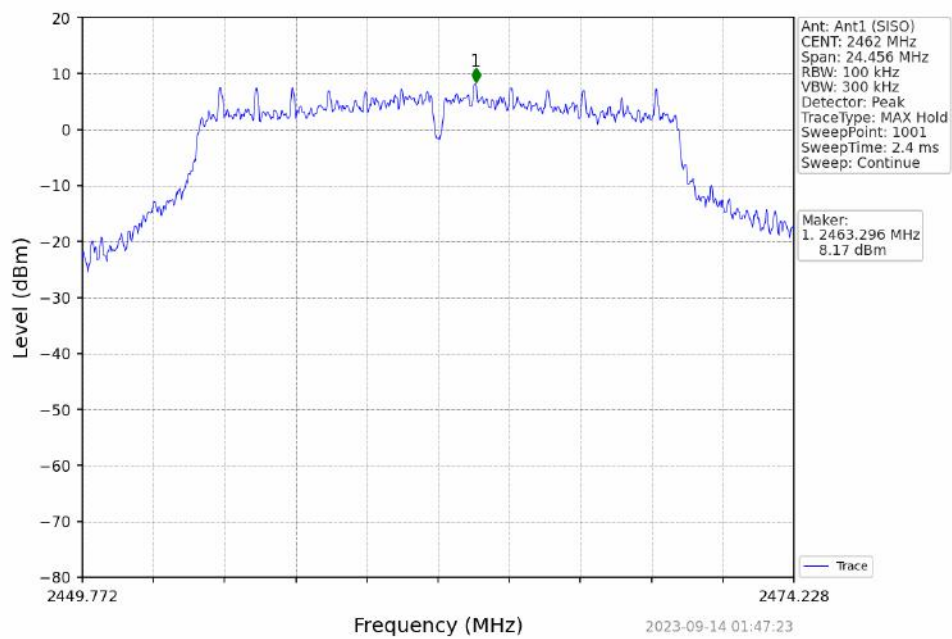




802.11g_MCH_2437MHz_NTNV

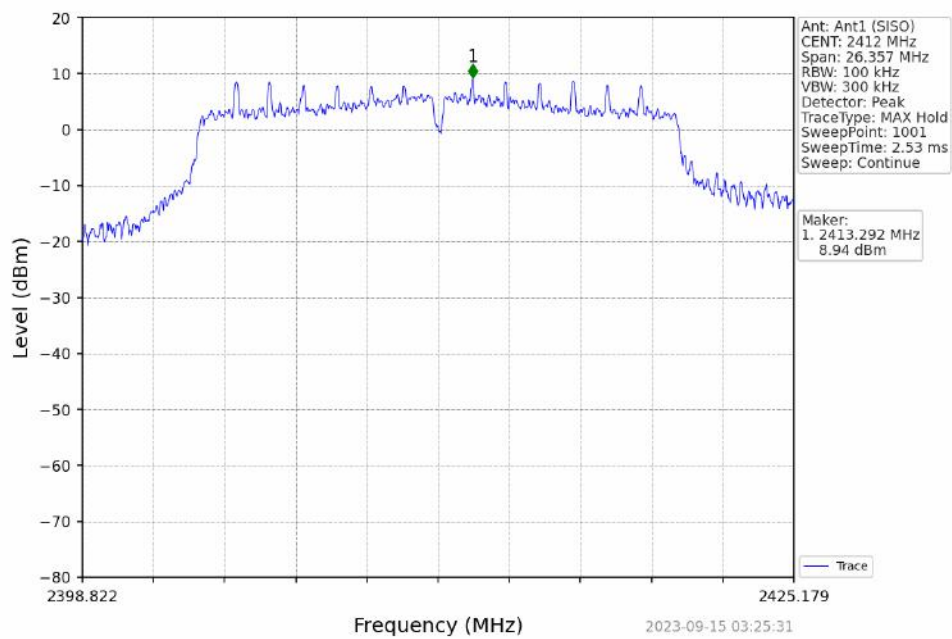


802.11g_HCH_2462MHz_NTNV

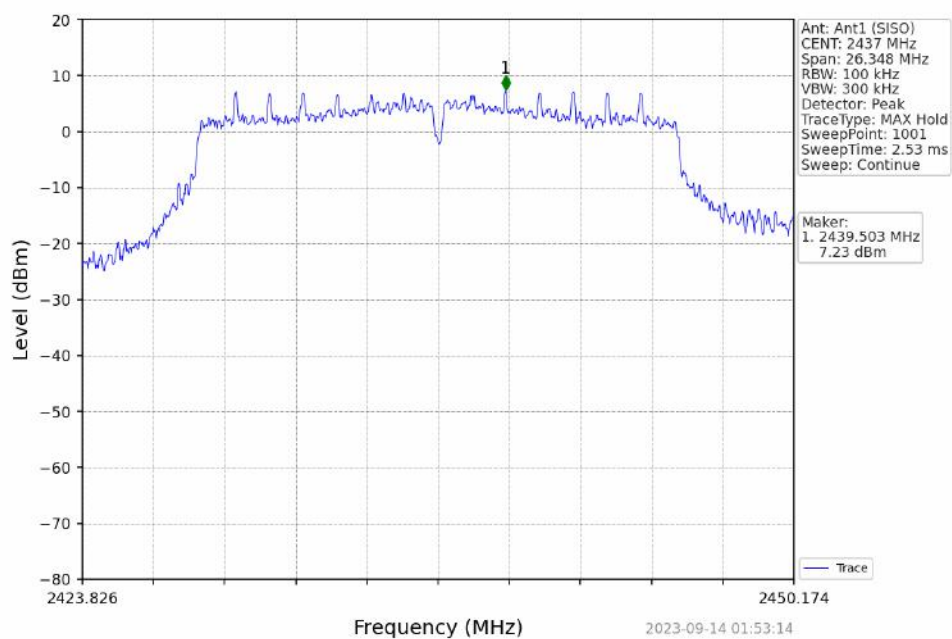




802.11n(HT20)_LCH_2412MHz_NTNV

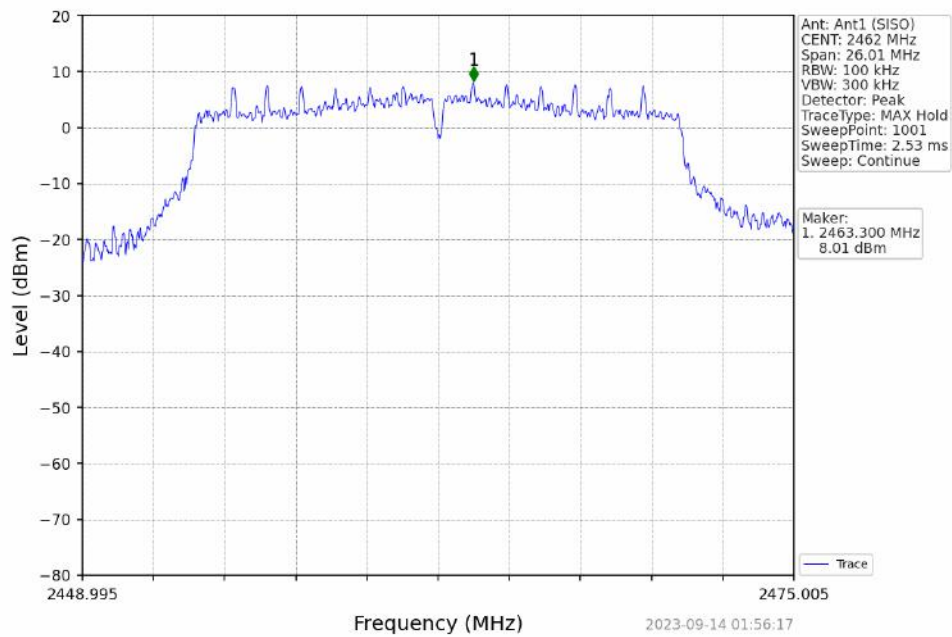


802.11n(HT20)_MCH_2437MHz_NTNV



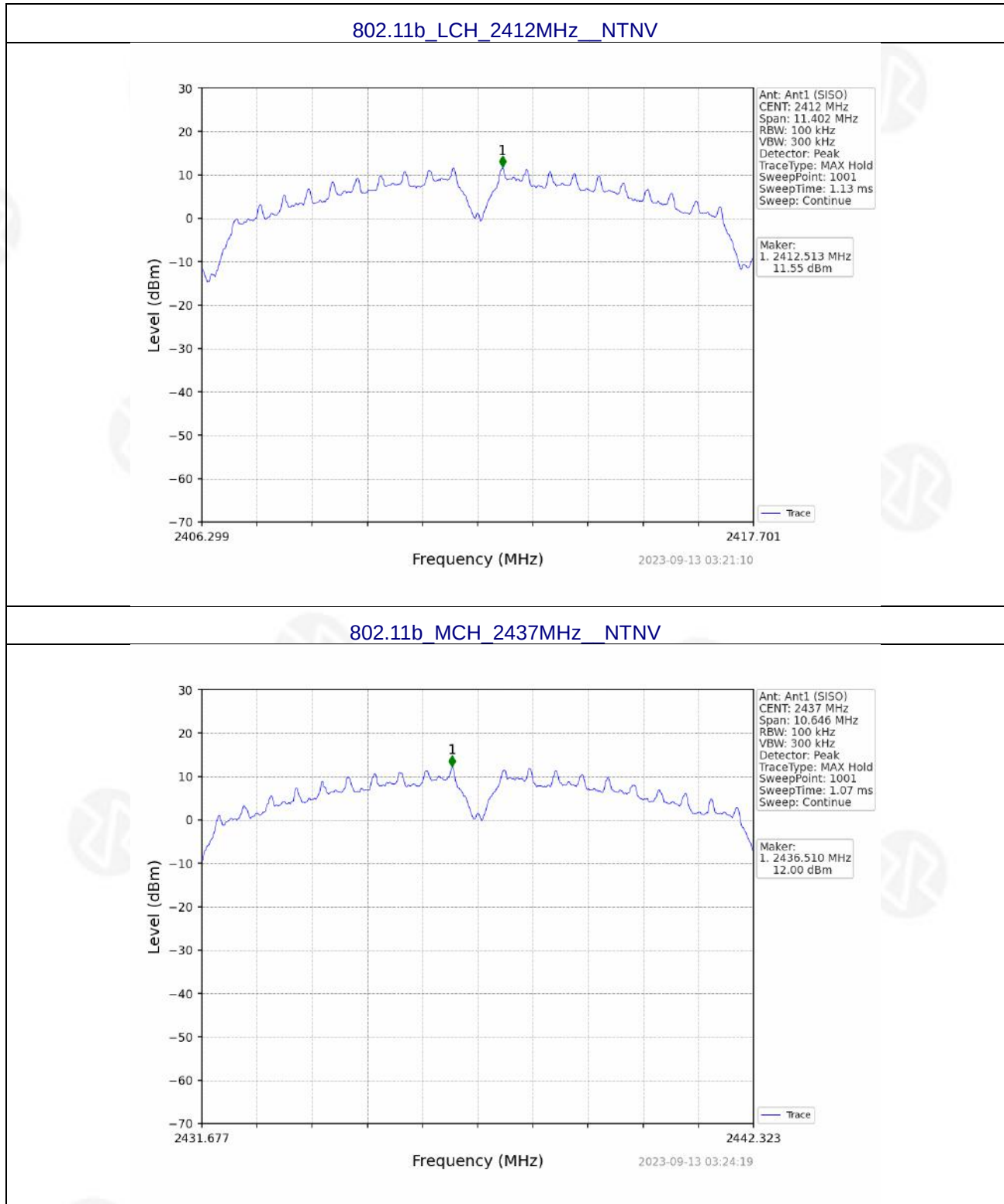


802.11n(HT20)_HCH_2462MHz_NTNV



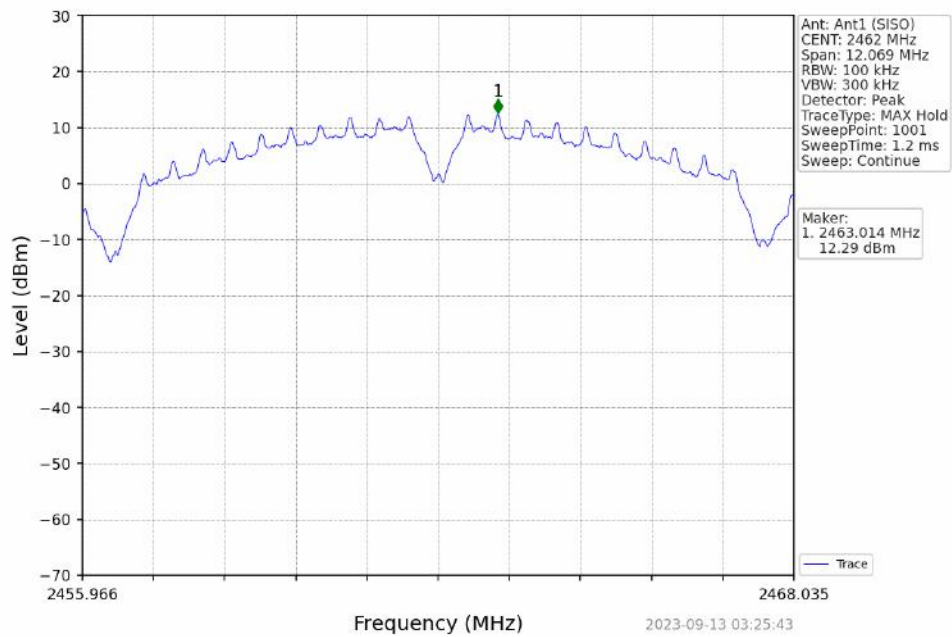


Antenna 4:

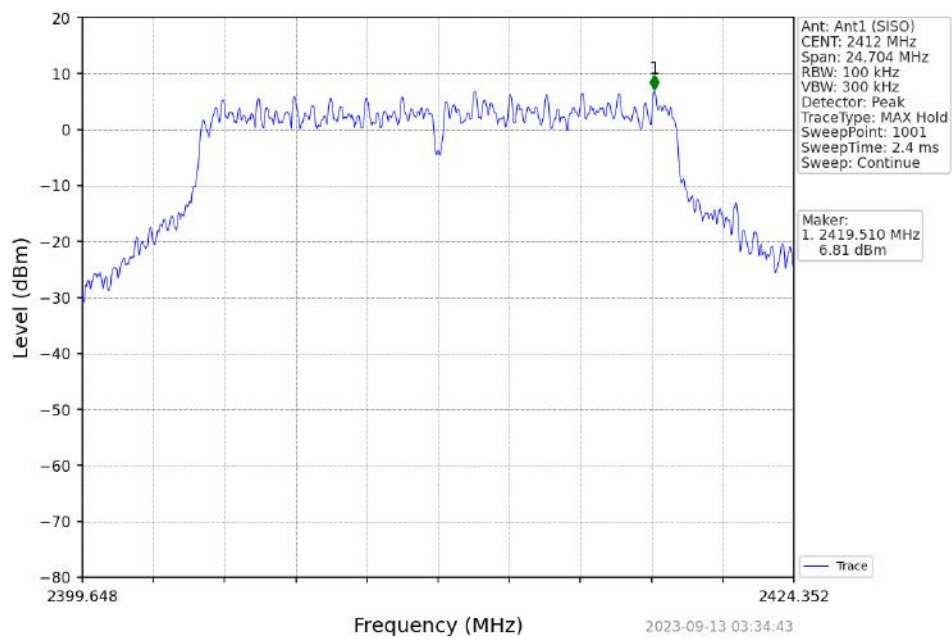




802.11b_HCH_2462MHz_NTNV

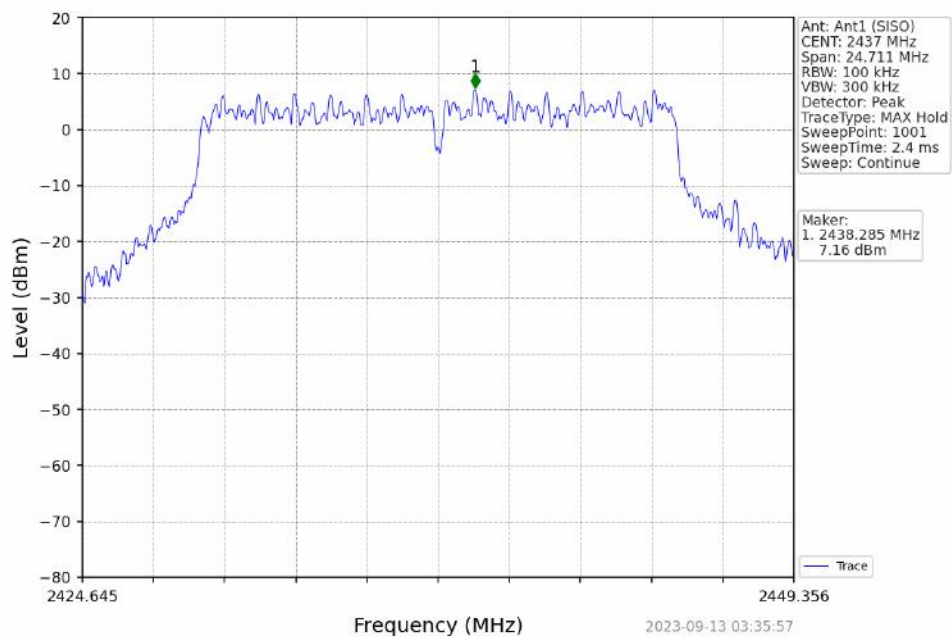


802.11g_LCH_2412MHz_NTNV

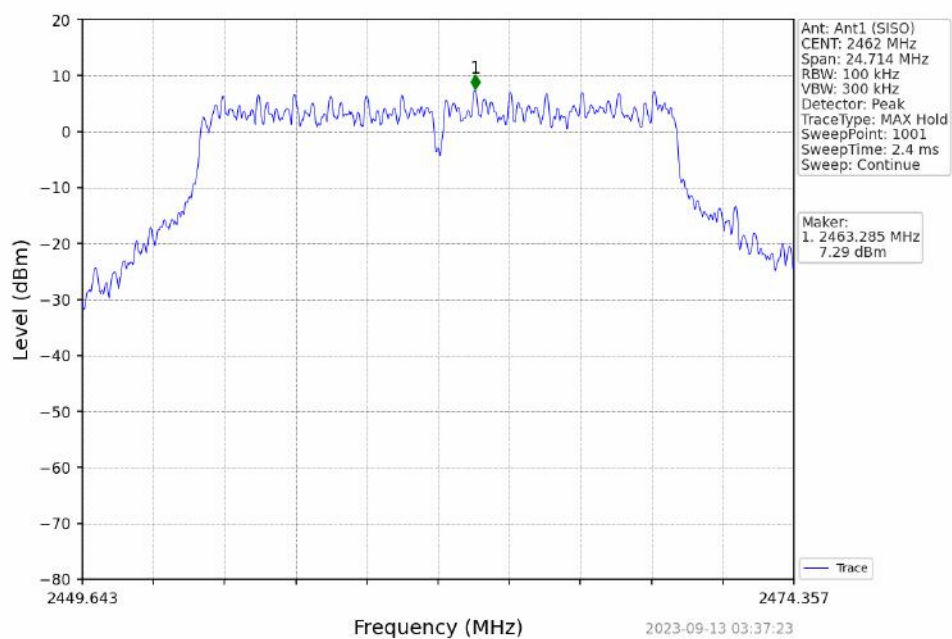




802.11g_MCH_2437MHz_NTNV

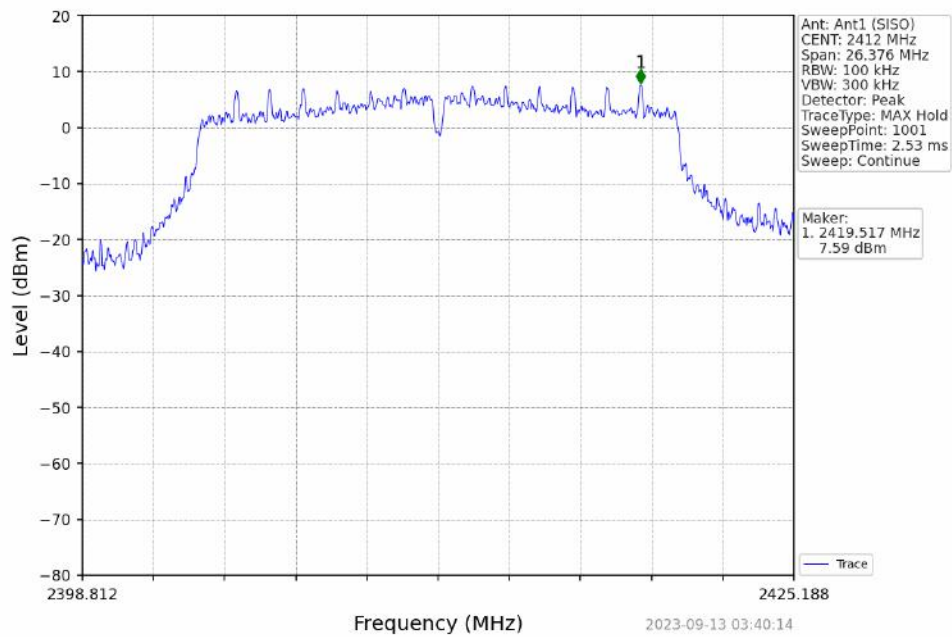


802.11g_HCH_2462MHz_NTNV

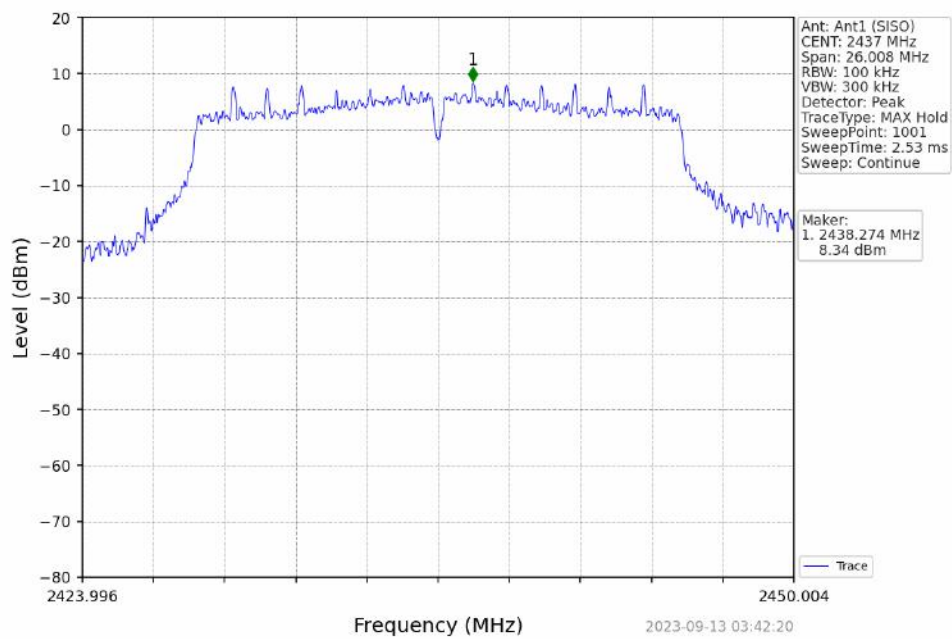




802.11n(HT20)_LCH_2412MHz_NTNV

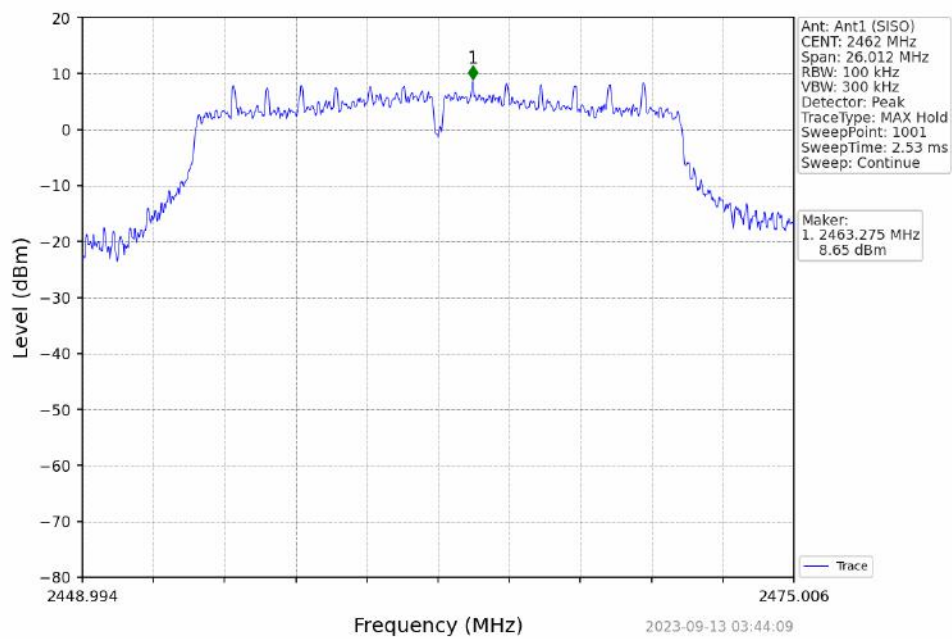


802.11n(HT20)_MCH_2437MHz_NTNV



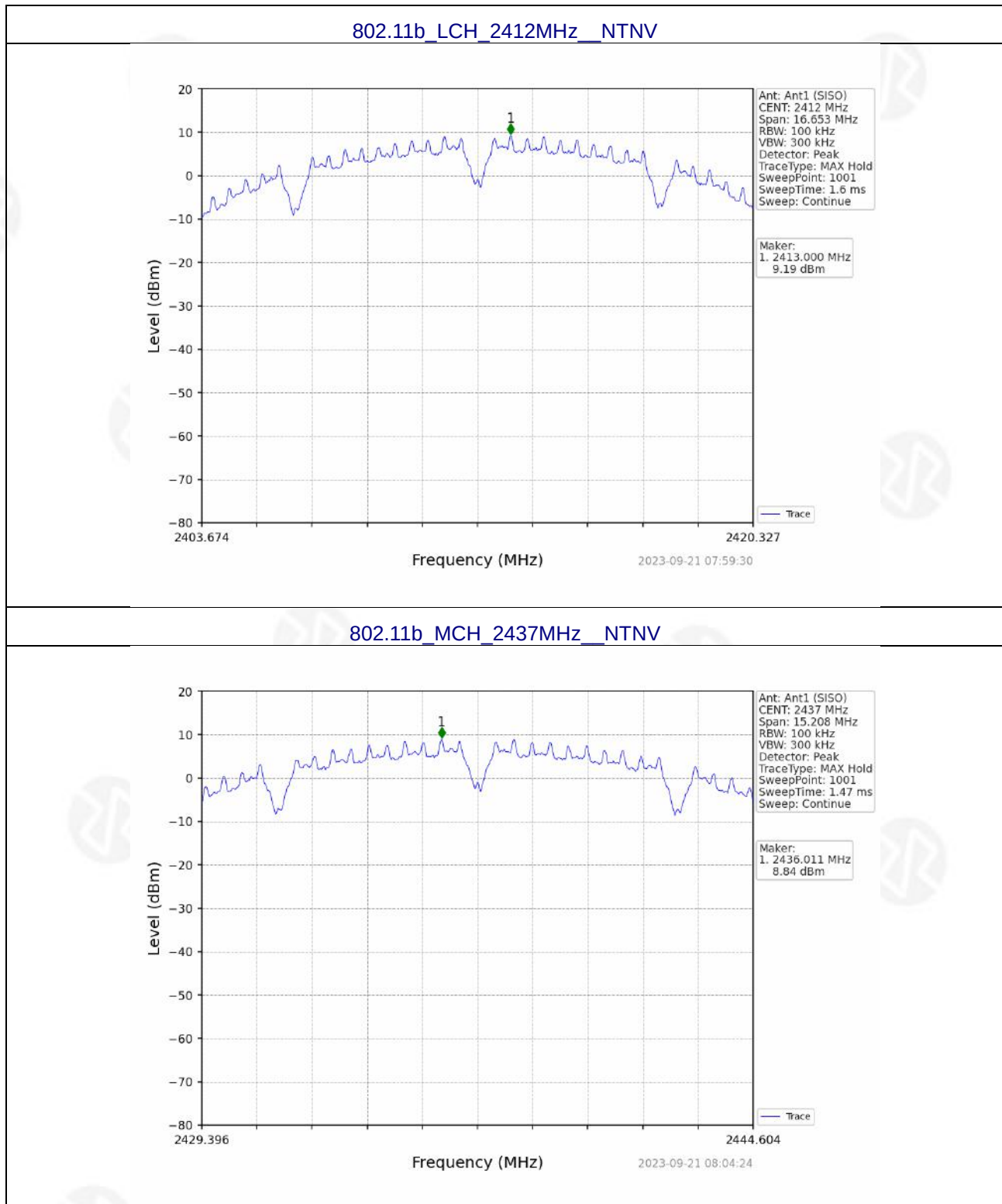


802.11n(HT20)_HCH_2462MHz_NTNV



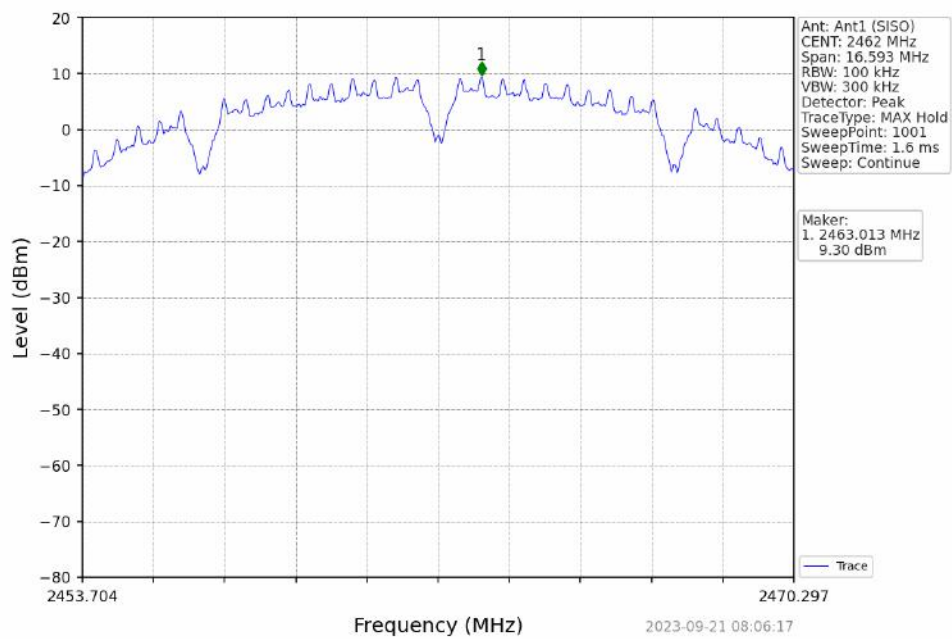


Antenna 1:

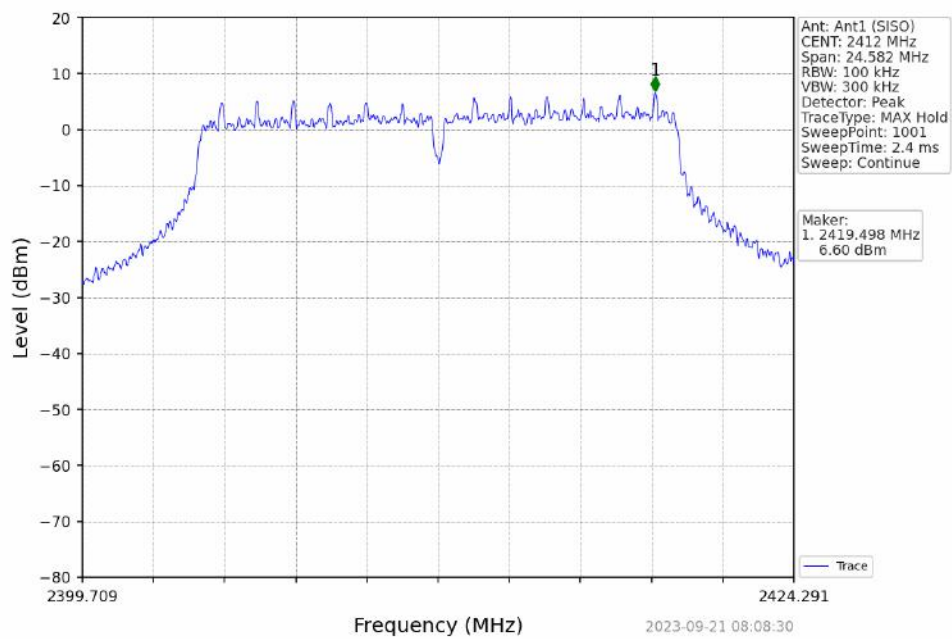




802.11b_HCH_2462MHz_NTNV

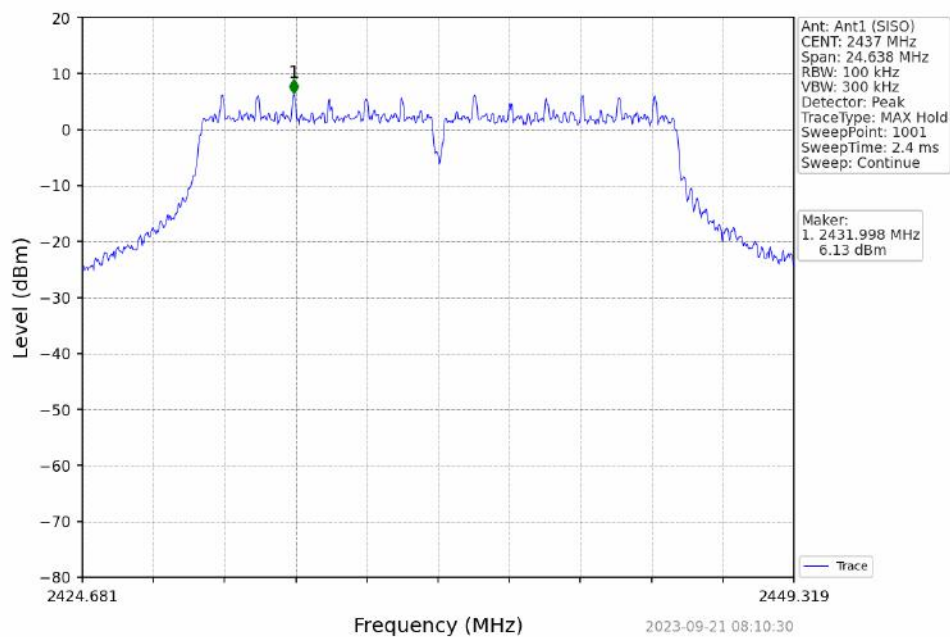


802.11g_LCH_2412MHz_NTNV

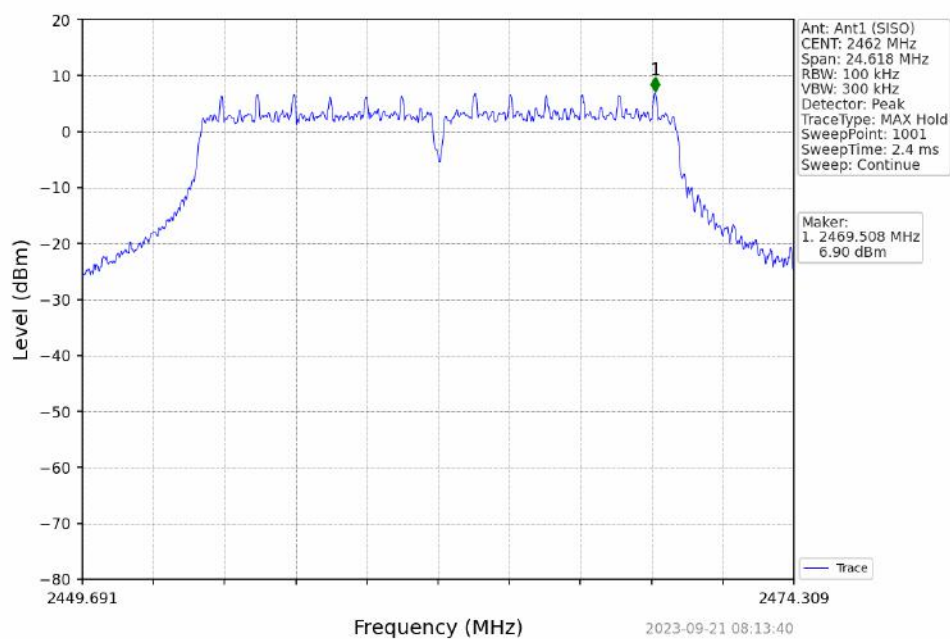




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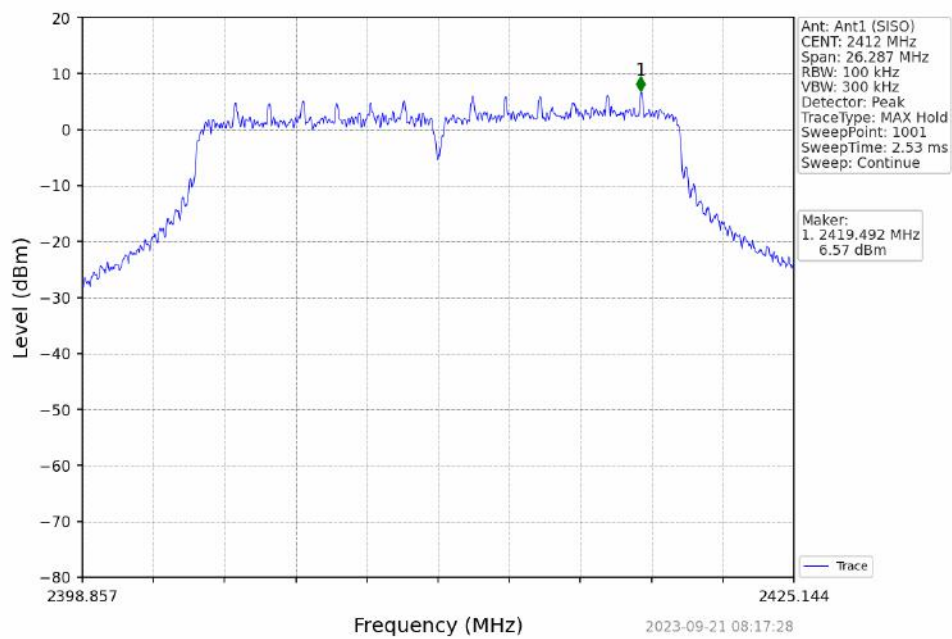


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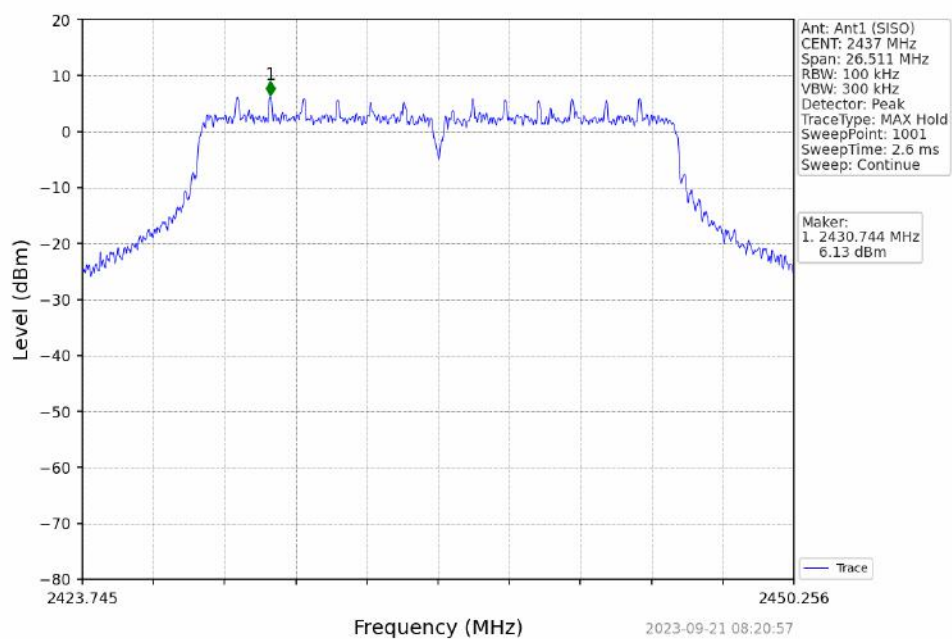




802.11n(HT20)_LCH_2412MHz_NTNV

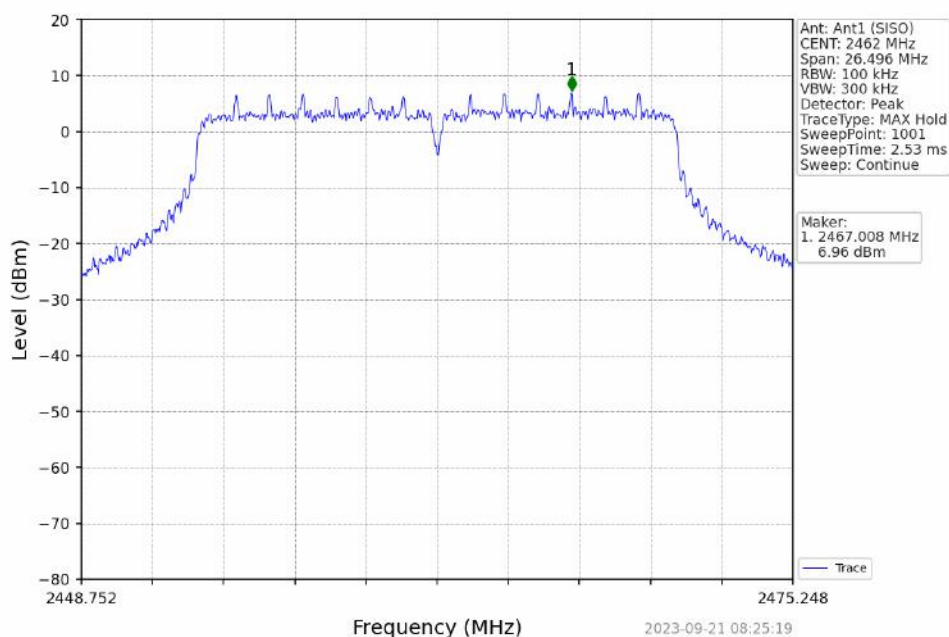


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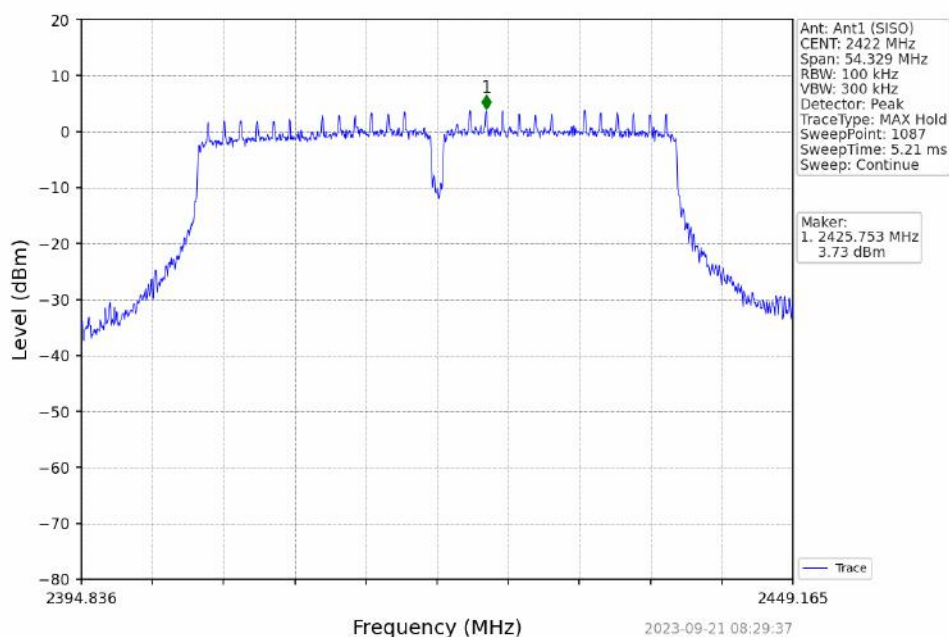




802.11n(HT20)_HCH_2462MHz_NTNV

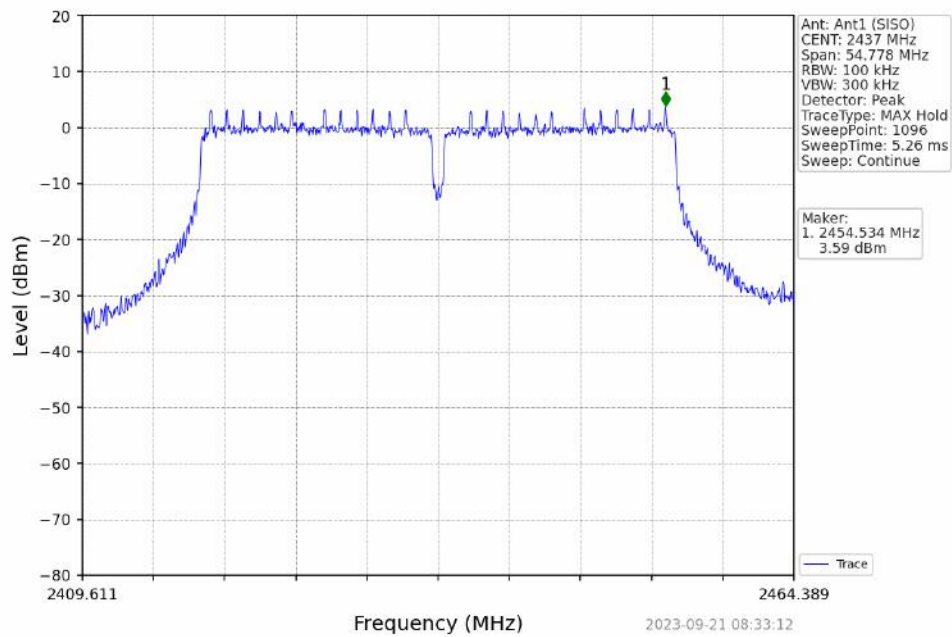


802.11n(HT40)_LCH_2422MHz_NTNV

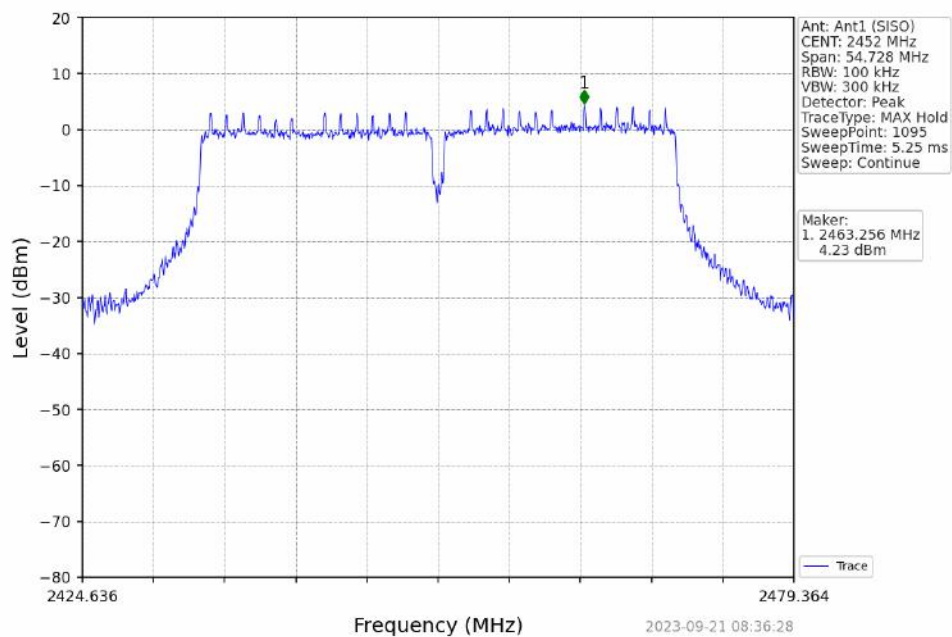




802.11n(HT40)_MCH_2437MHz_NTNV

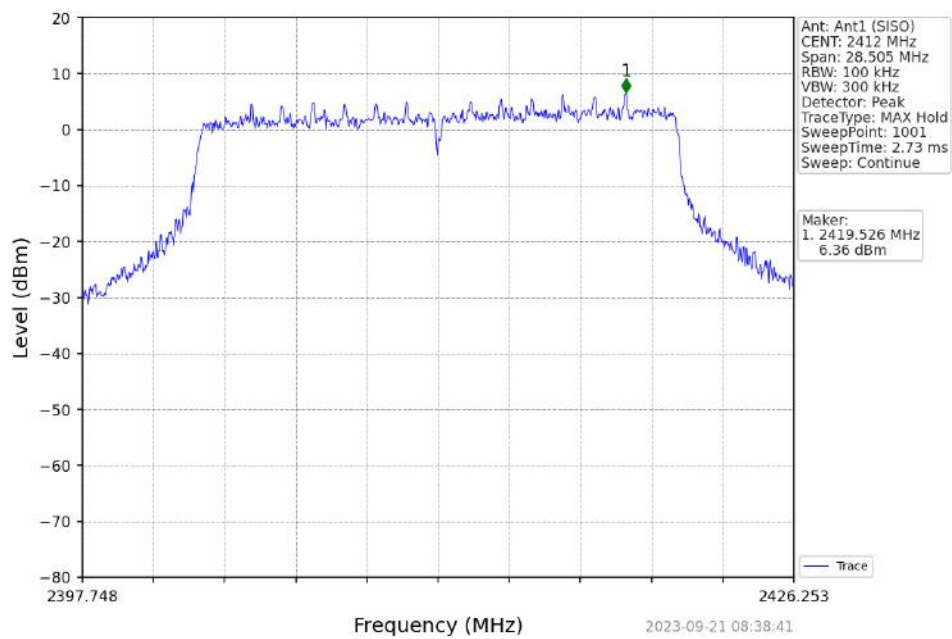


802.11n(HT40)_HCH_2452MHz_NTNV

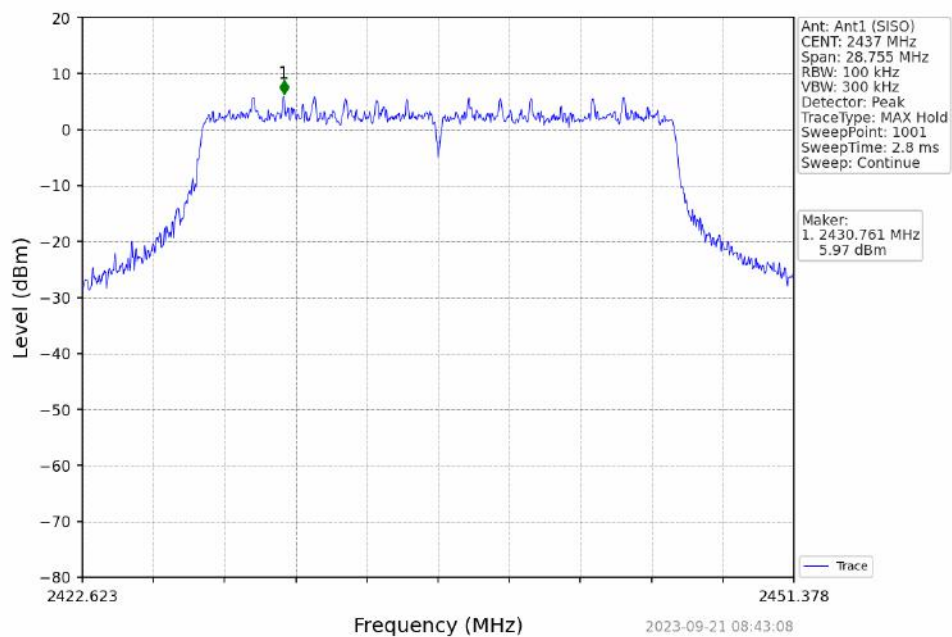




802.11ax(HEW20)_LCH_2412MHz_RU242_Left_NTNV

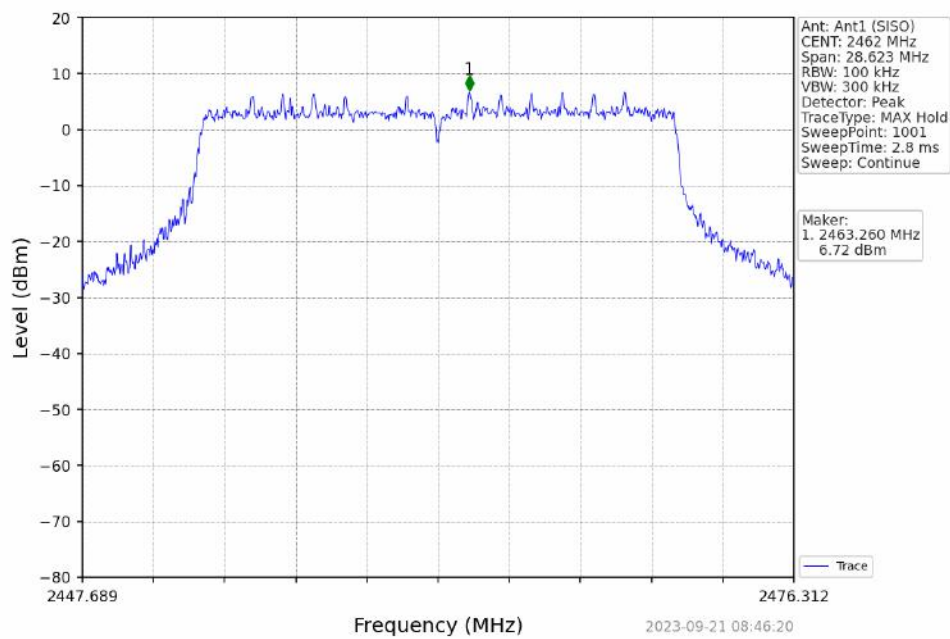


802.11ax(HEW20)_MCH_2437MHz_RU242_Left_NTNV

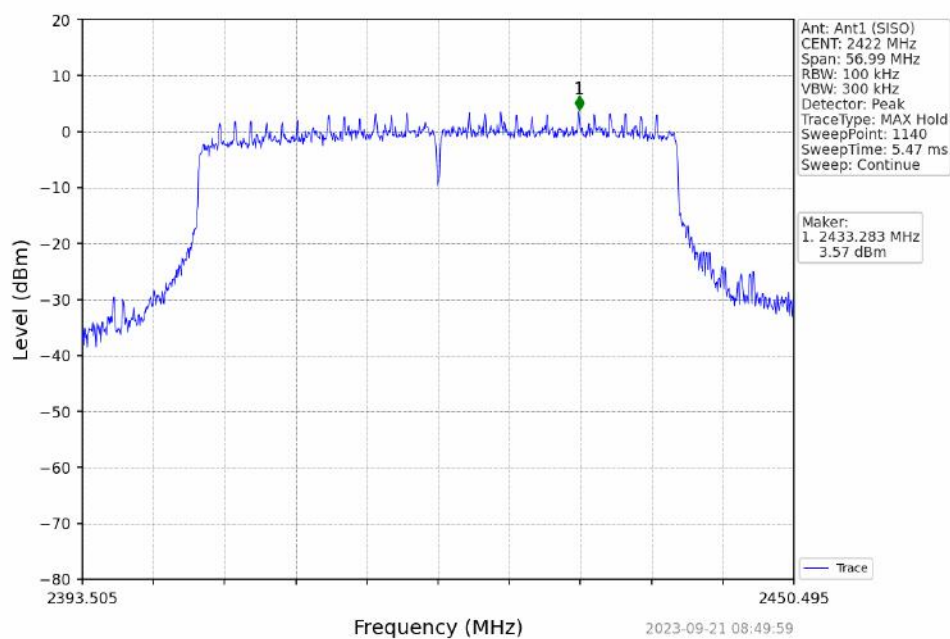




802.11ax(HEW20)_HCH_2462MHz_RU242_Left_NTNV

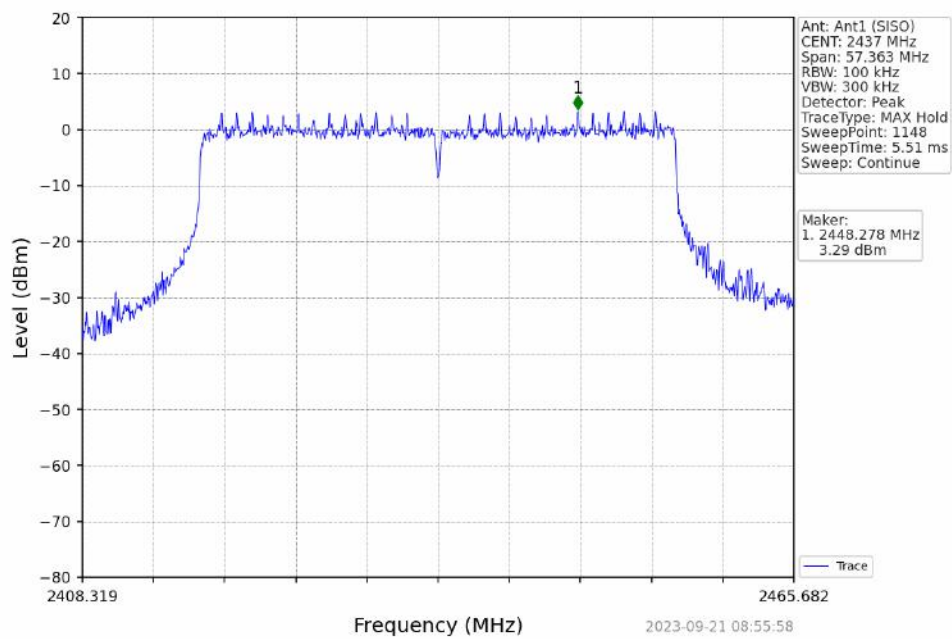


802.11ax(HEW40)_LCH_2422MHz_RU484_Left_NTNV

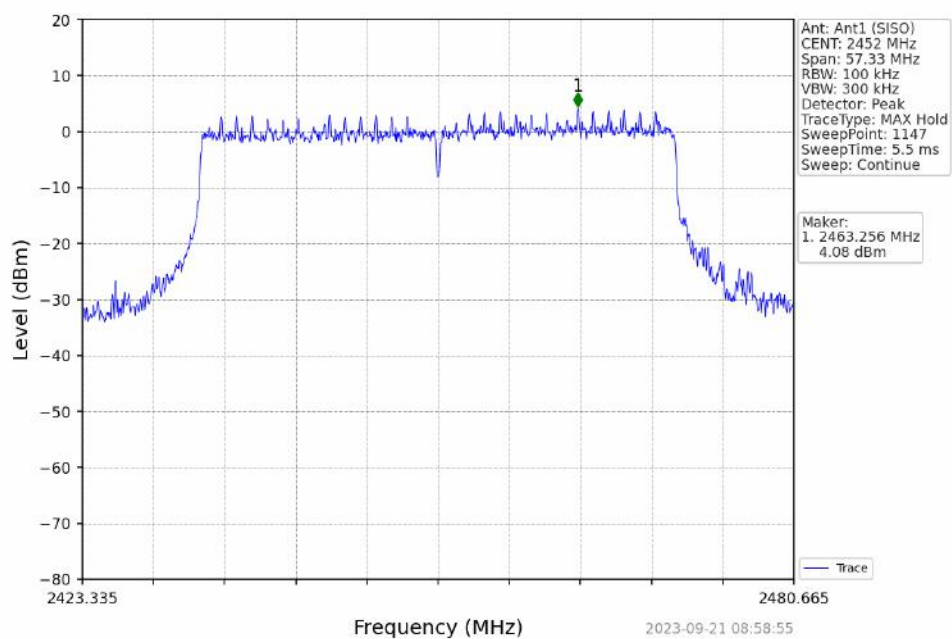




802.11ax(HEW40)_MCH_2437MHz_RU484_Left_NTNV

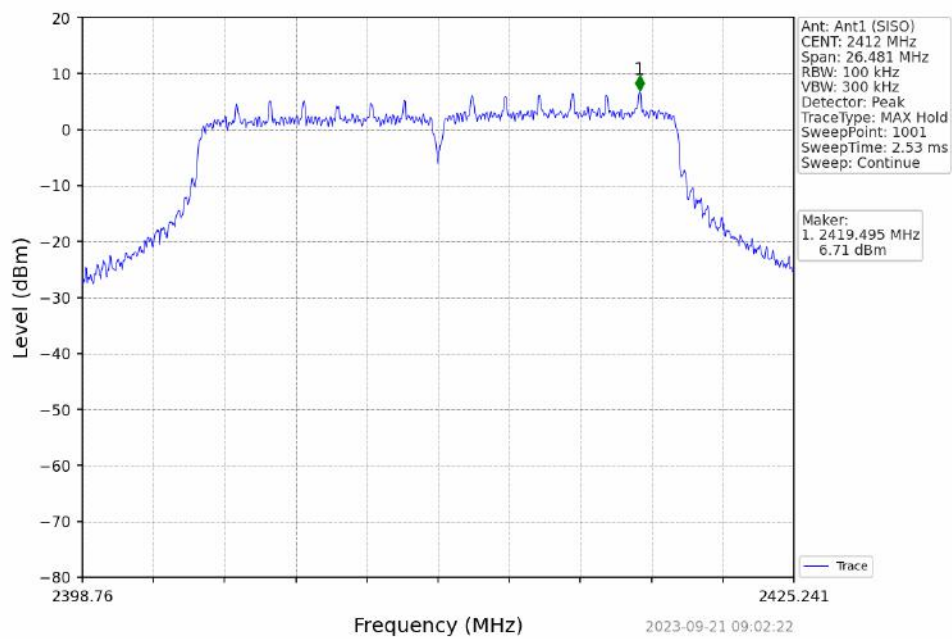


802.11ax(HEW40)_HCH_2452MHz_RU484_Left_NTNV

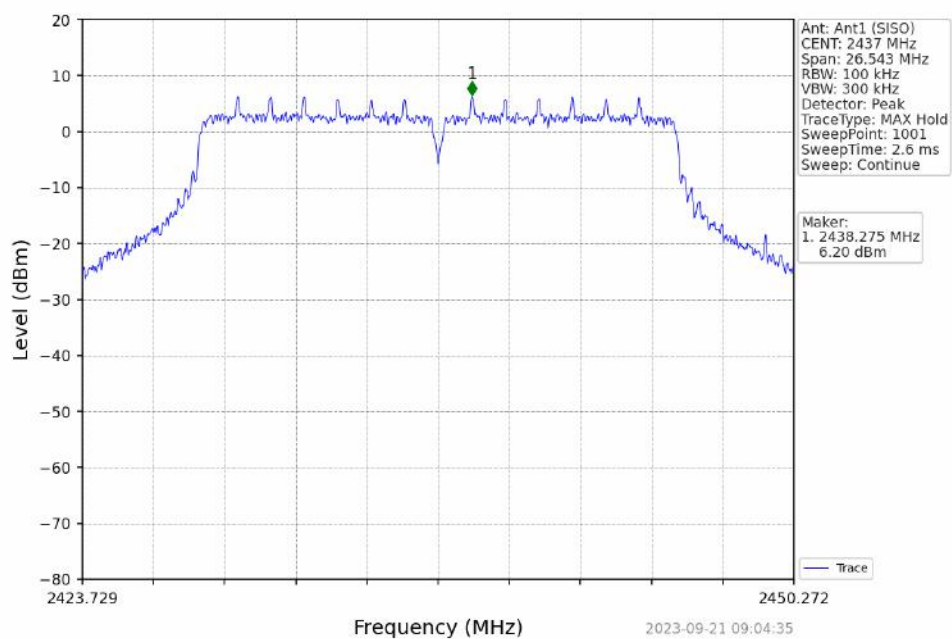




802.11ac(VHT20)_LCH_2412MHz_NTNV

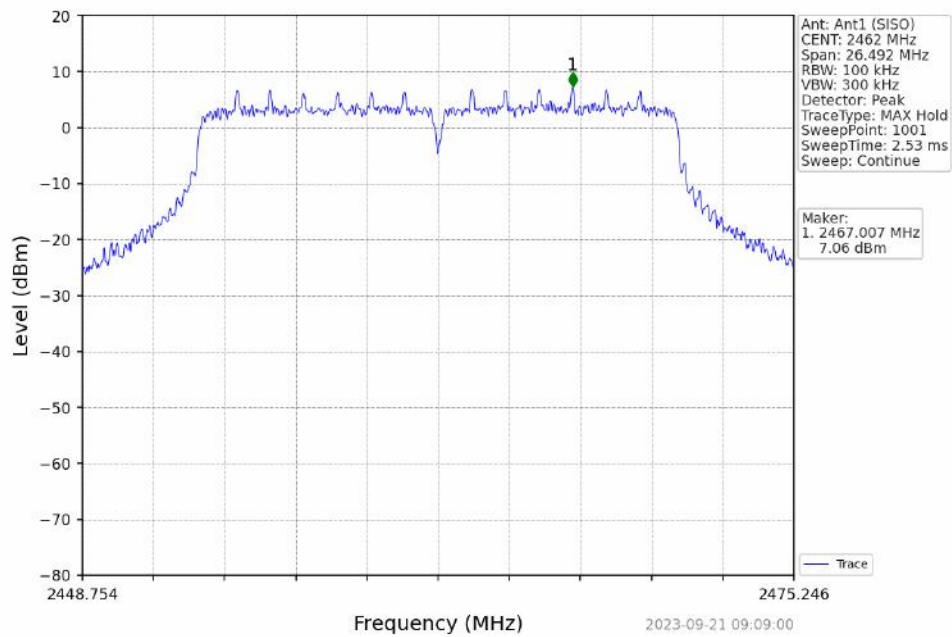


802.11ac(VHT20)_MCH_2437MHz_NTNV

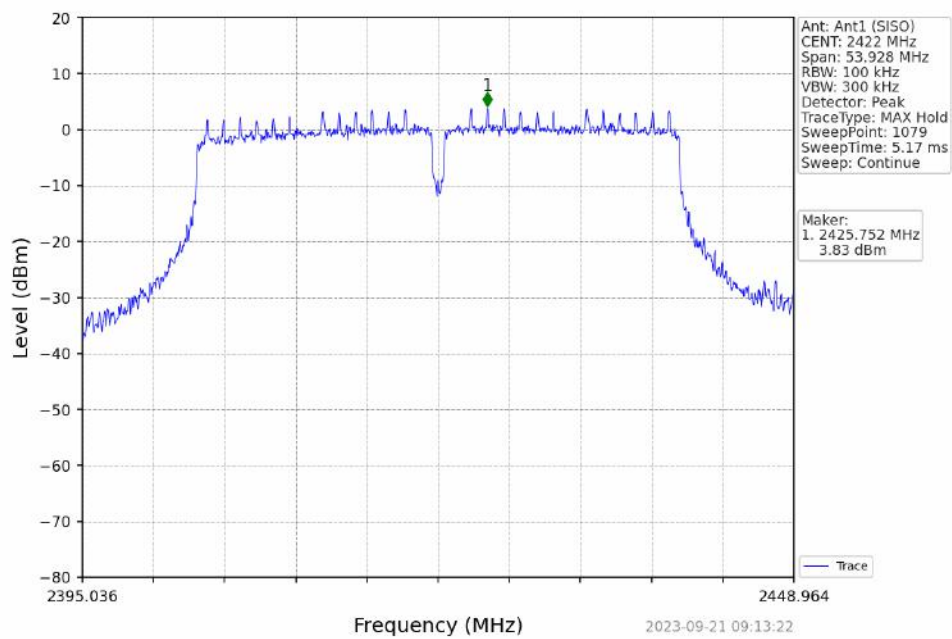




802.11ac(VHT20)_HCH_2462MHz_NTNV

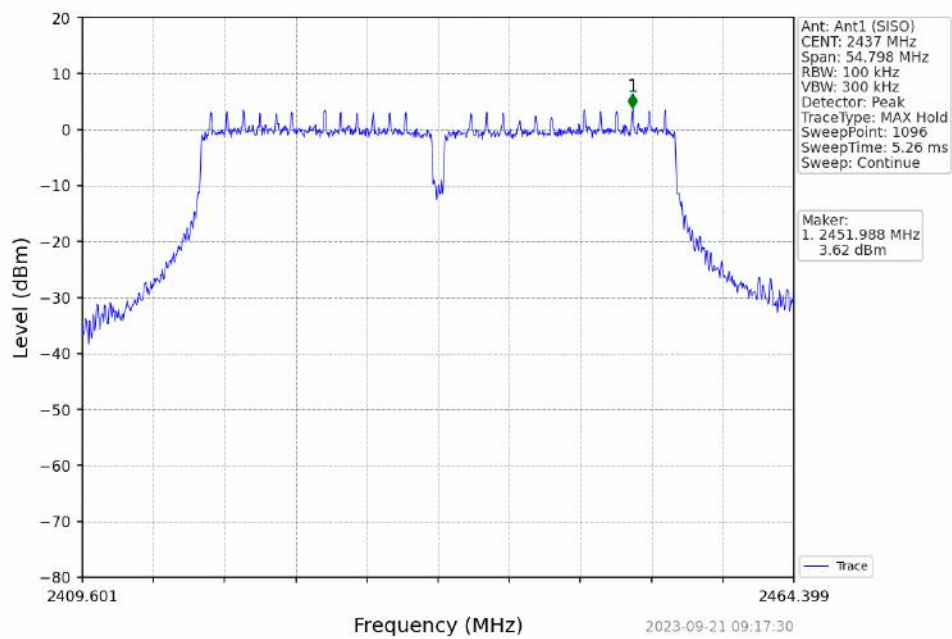


802.11ac(VHT40)_LCH_2422MHz_NTNV

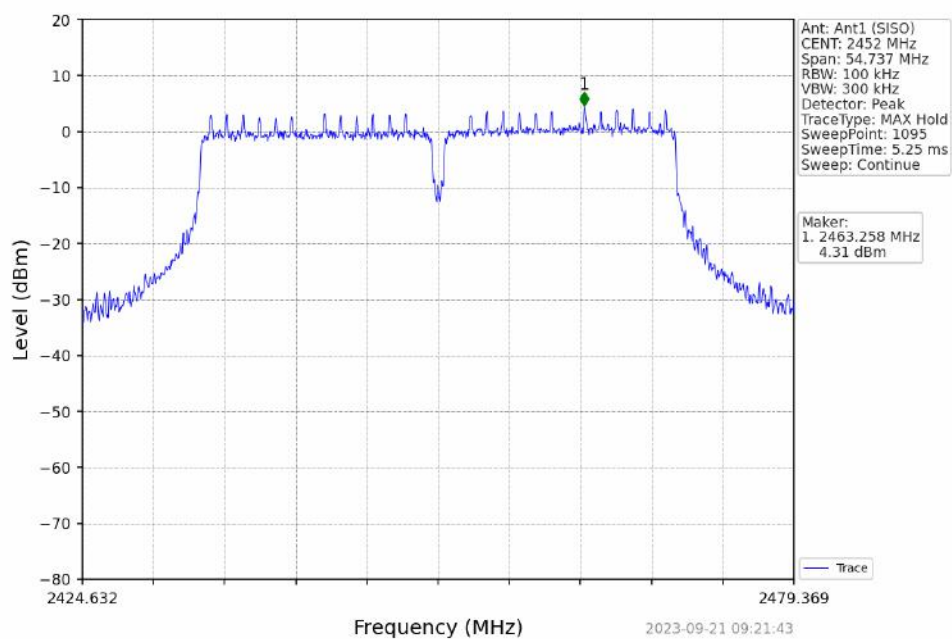




802.11ac(VHT40)_MCH_2437MHz_NTNV

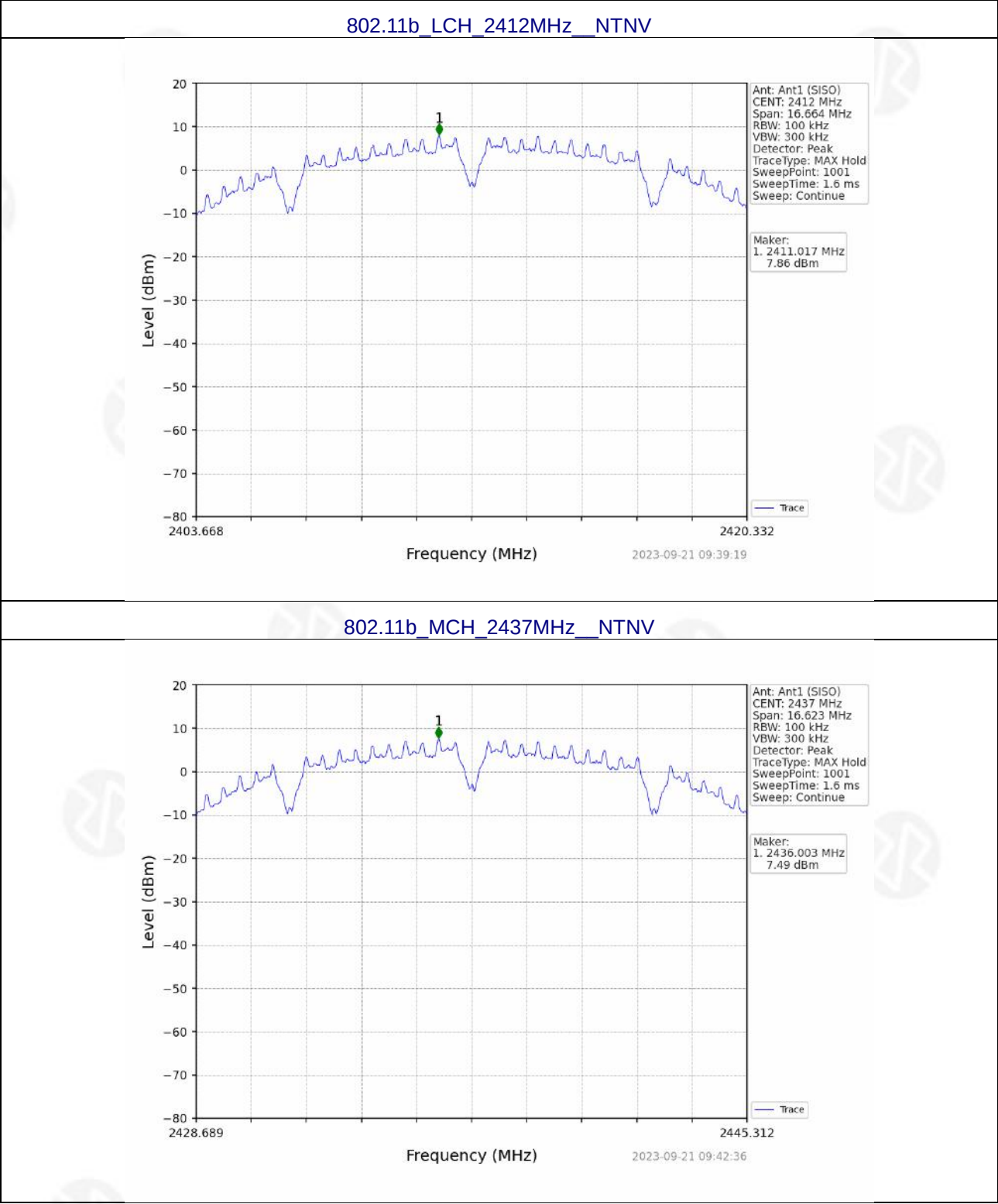


802.11ac(VHT40)_HCH_2452MHz_NTNV



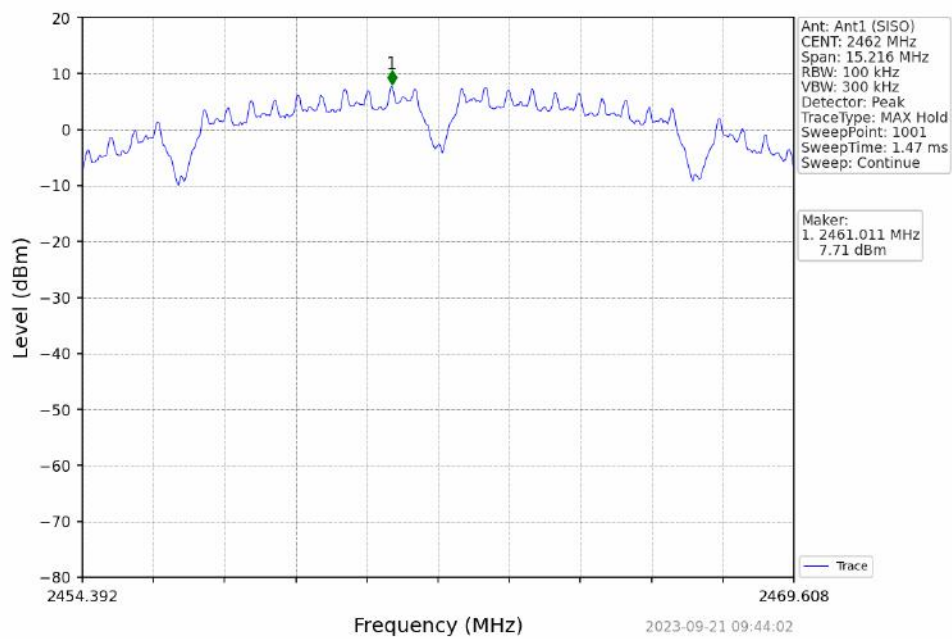


Antenna 2:

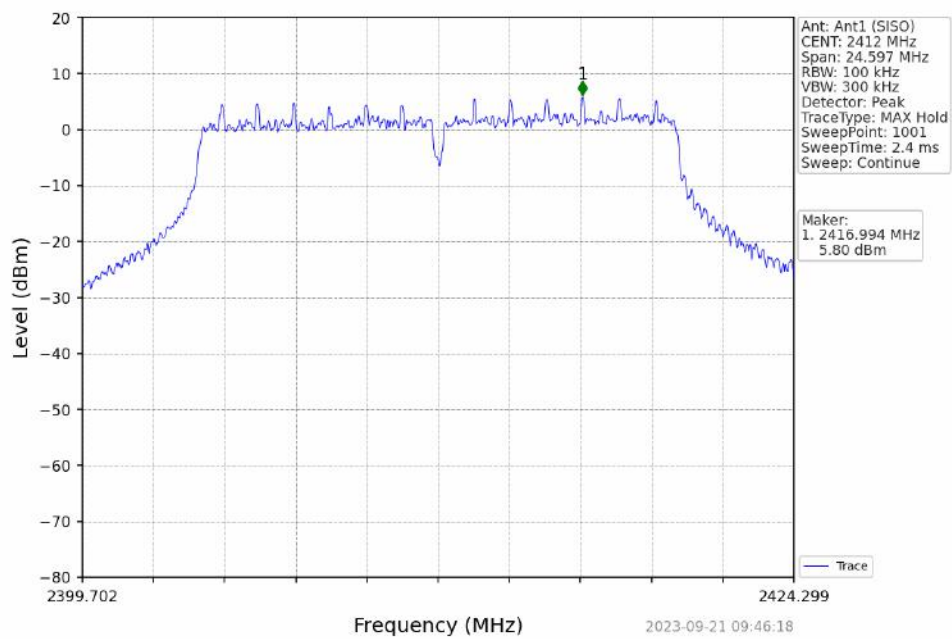




802.11b_HCH_2462MHz_NTNV

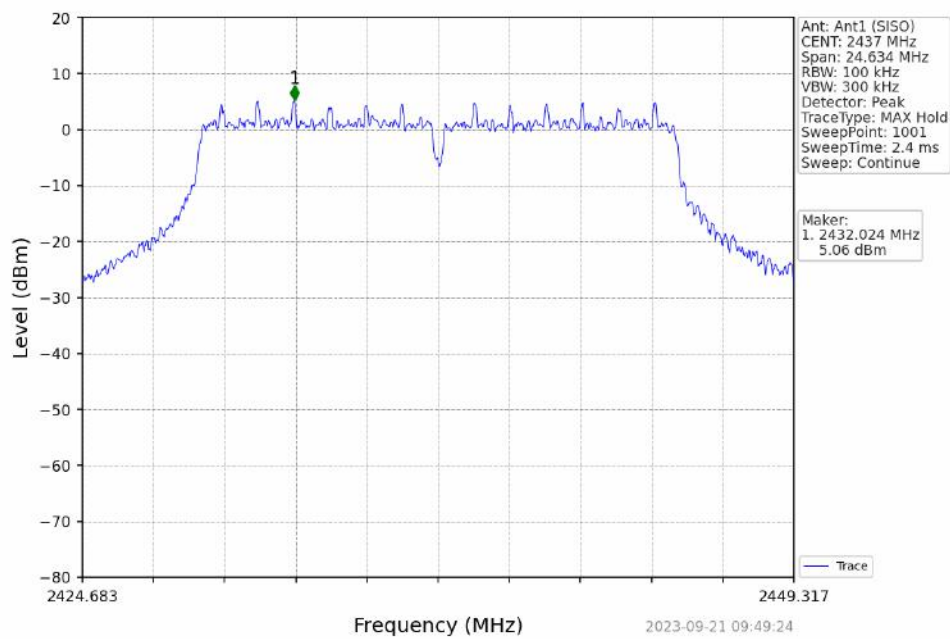


802.11g_LCH_2412MHz_NTNV

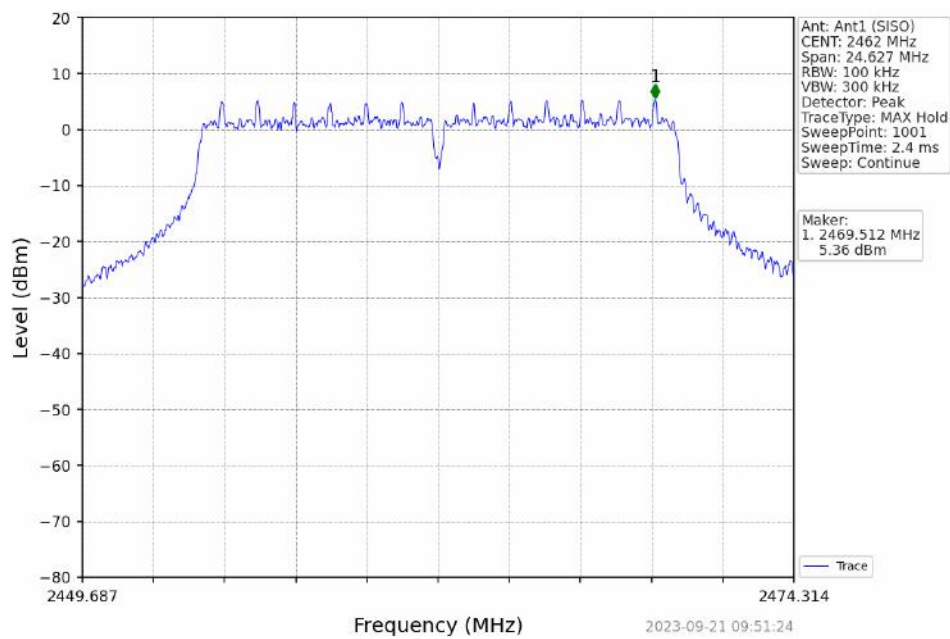




802.11g_MCH_2437MHz_NTNV

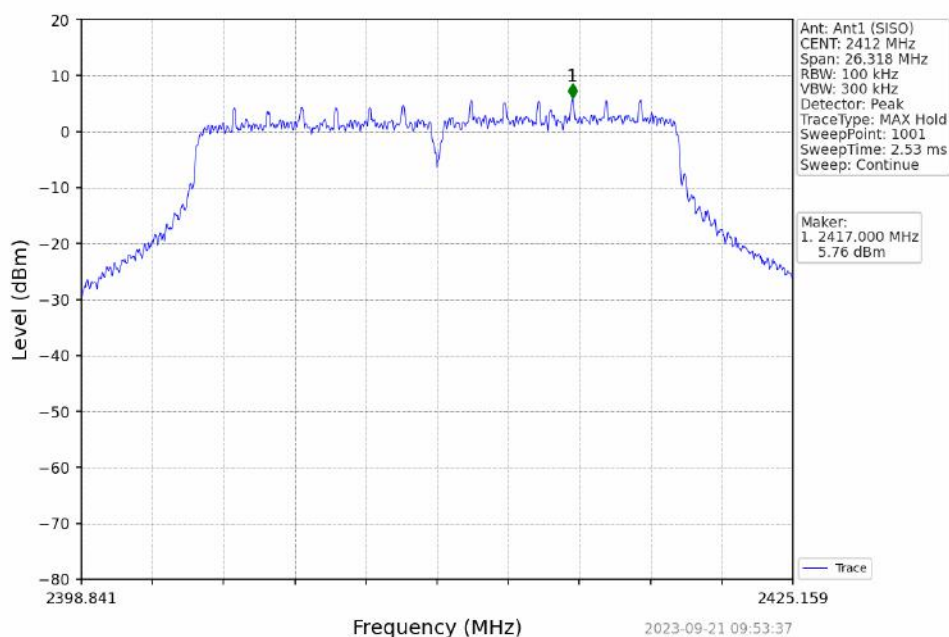


802.11g_HCH_2462MHz_NTNV

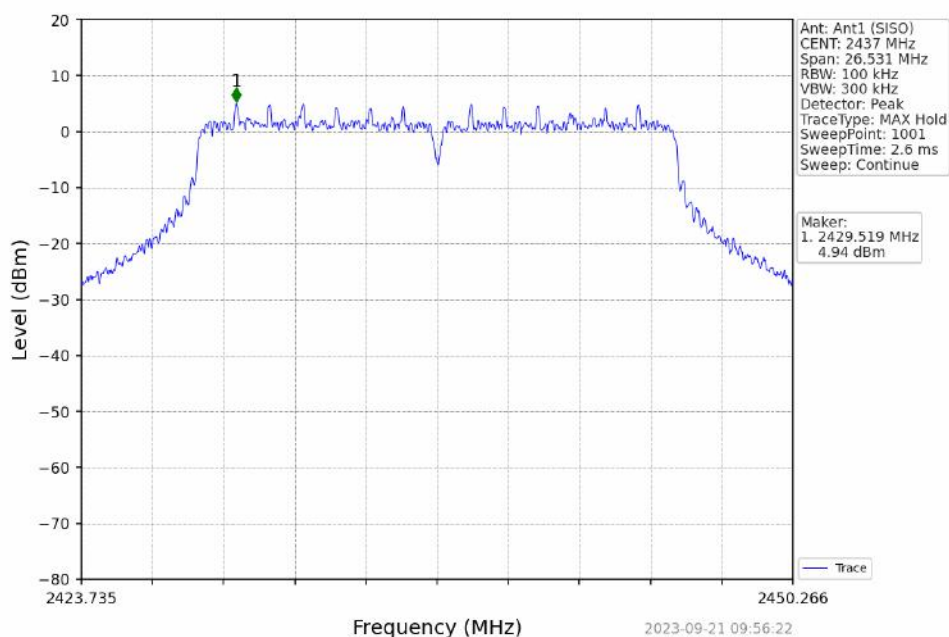




802.11n(HT20)_LCH_2412MHz_NTNV

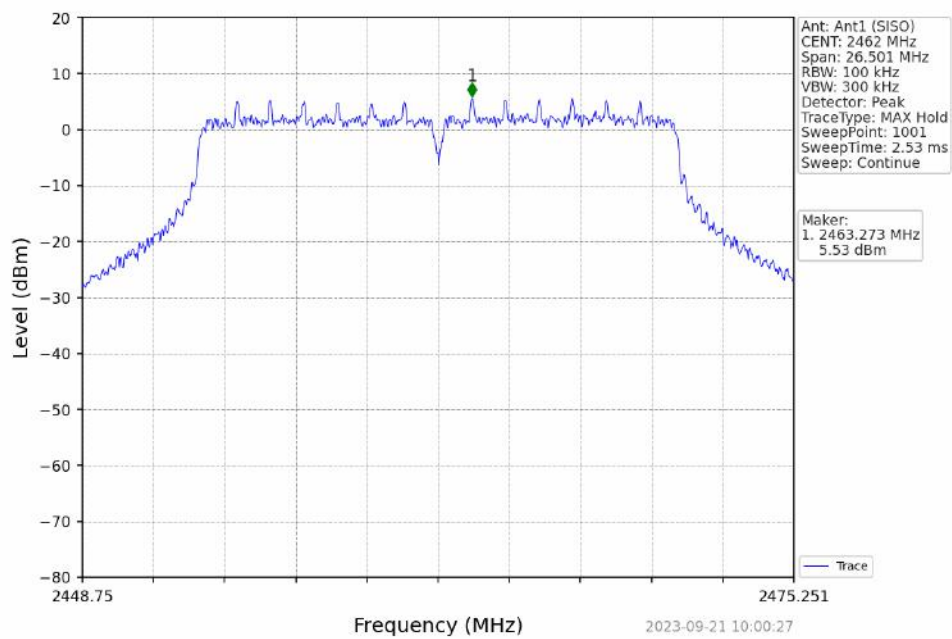


802.11n(HT20)_MCH_2437MHz_NTNV

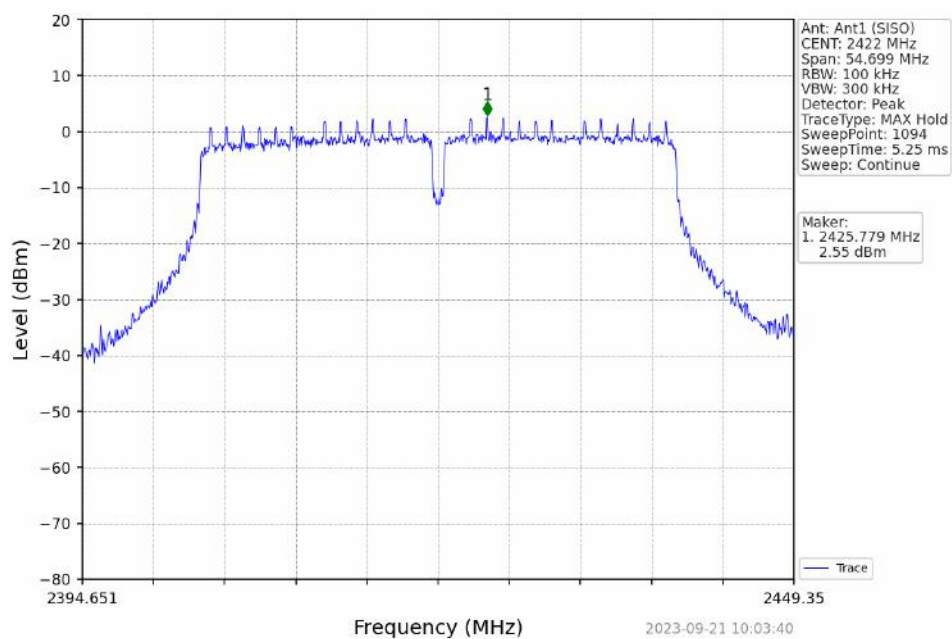




802.11n(HT20)_HCH_2462MHz_NTNV

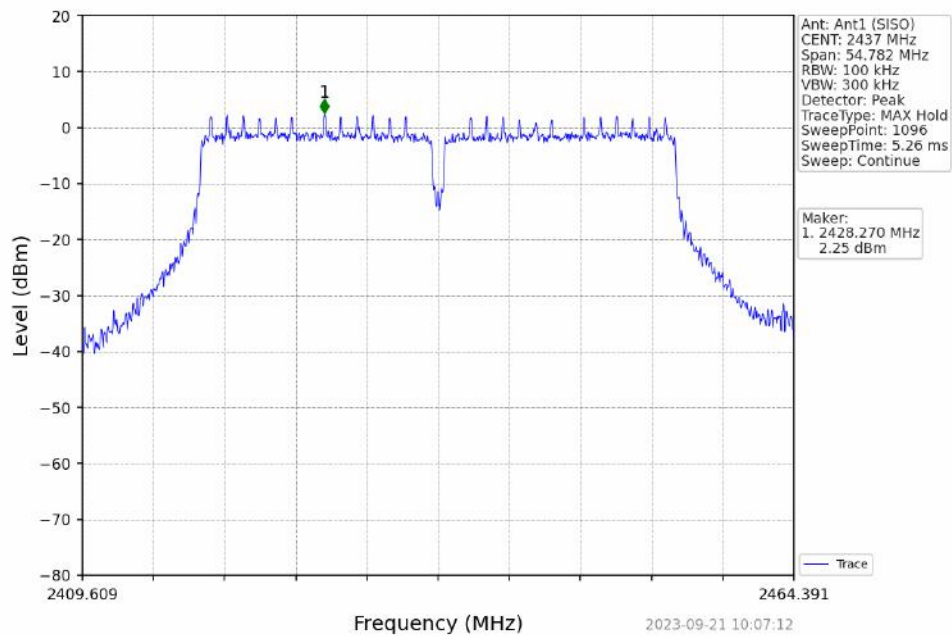


802.11n(HT40)_LCH_2422MHz_NTNV

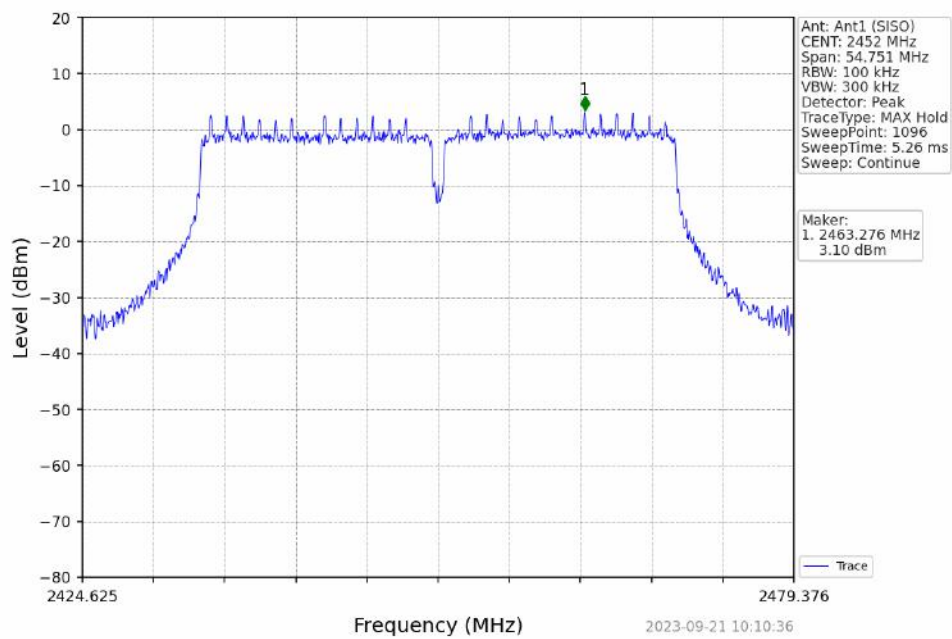




802.11n(HT40)_MCH_2437MHz_NTNV

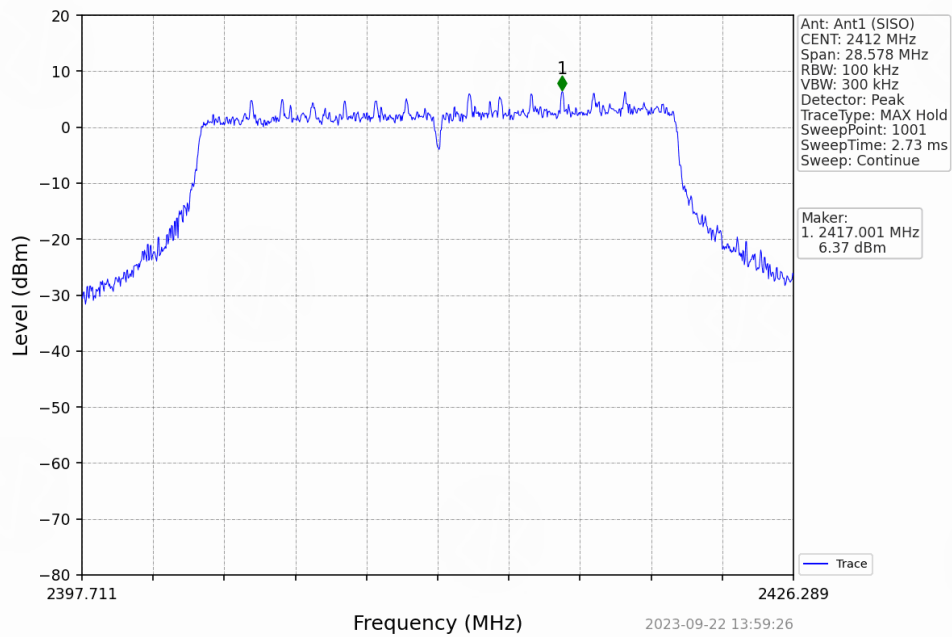


802.11n(HT40)_HCH_2452MHz_NTNV

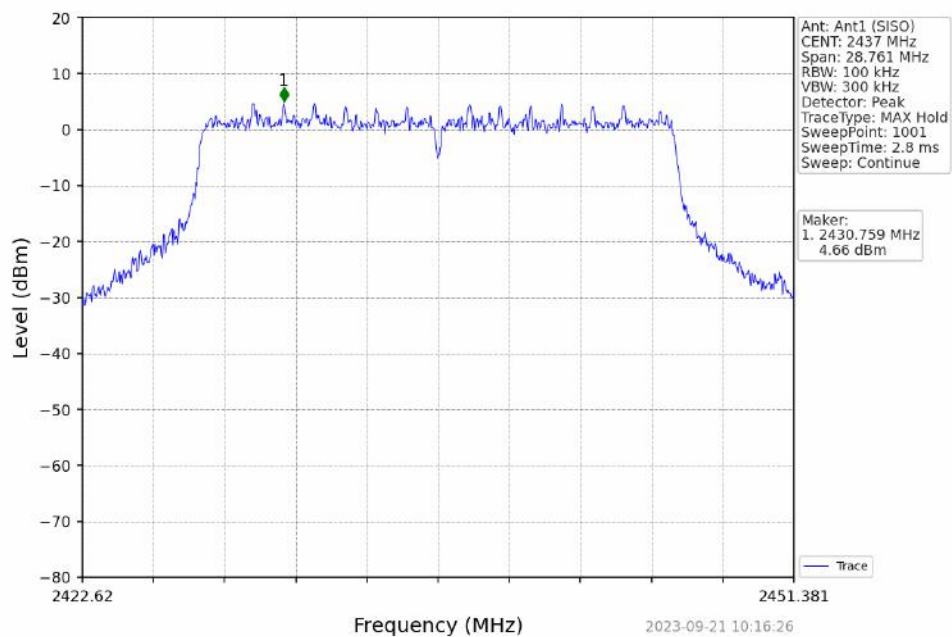




802.11ax(HEW20)_LCH_2412MHz_RU242_Left_NTNV

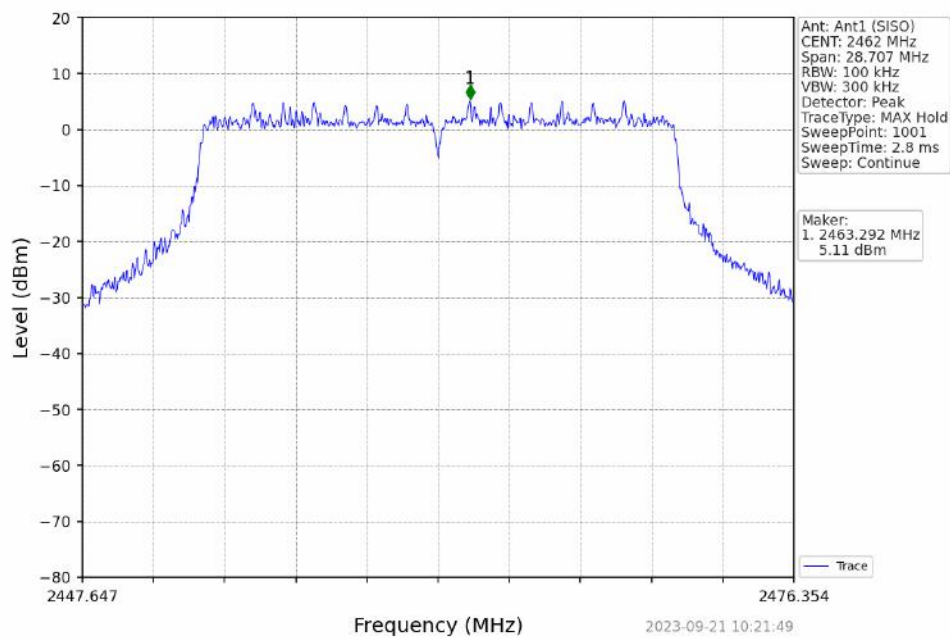


802.11ax(HEW20)_MCH_2437MHz_RU242_Left_NTNV

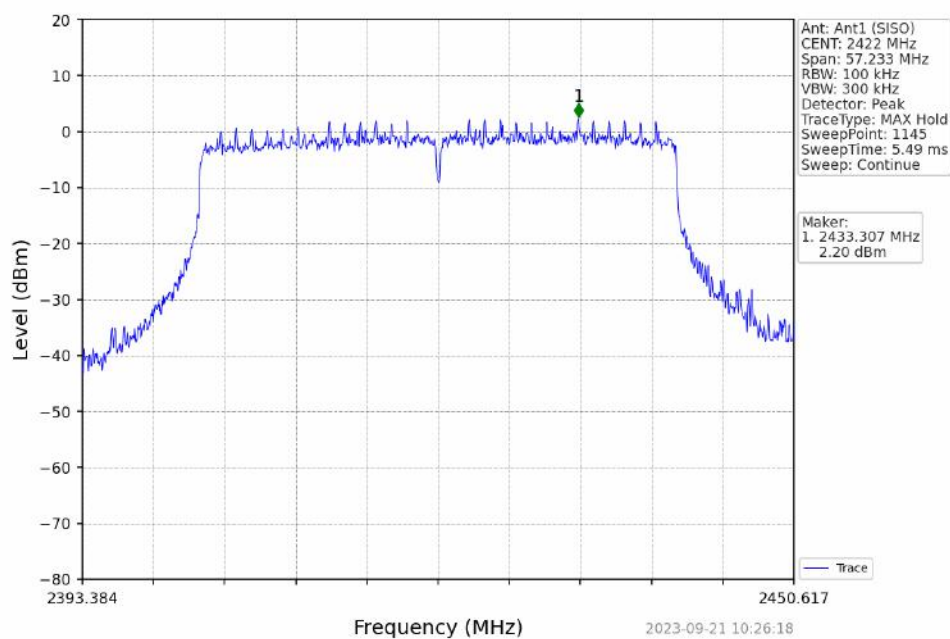




802.11ax(HEW20)_HCH_2462MHz_RU242_Left_NTNV

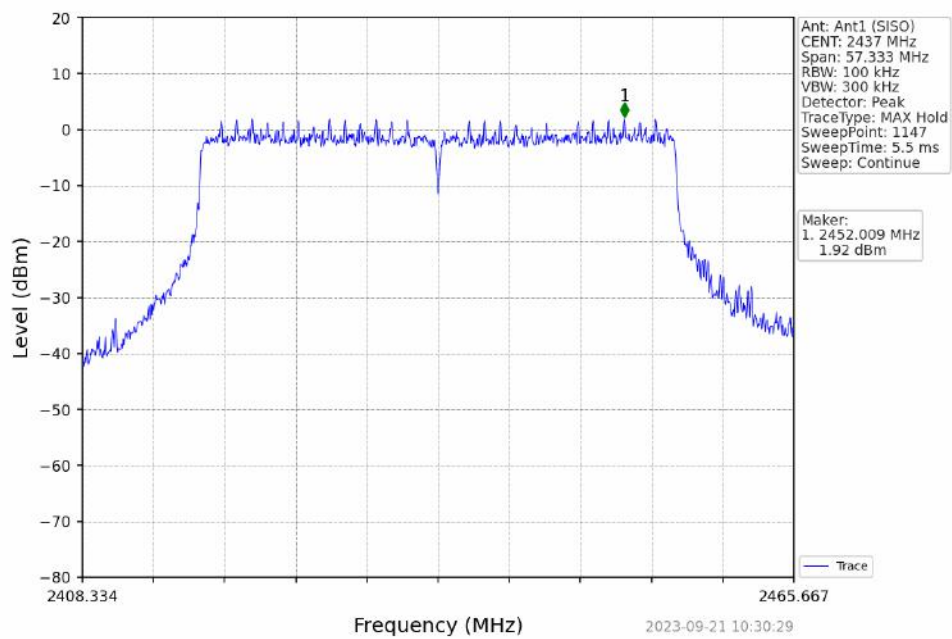


802.11ax(HEW40)_LCH_2422MHz_RU484_Left_NTNV

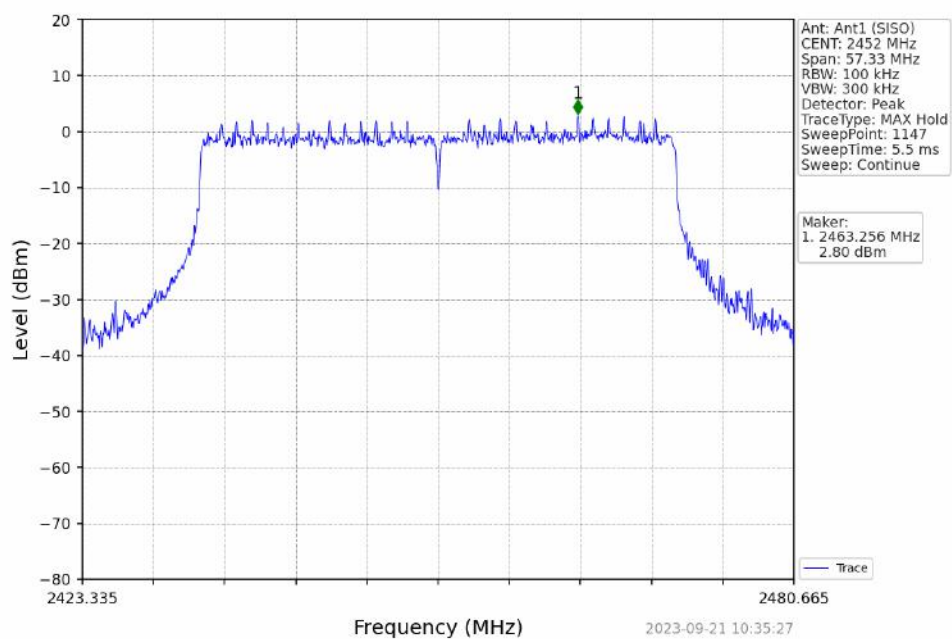




802.11ax(HEW40)_MCH_2437MHz_RU484_Left_NTNV

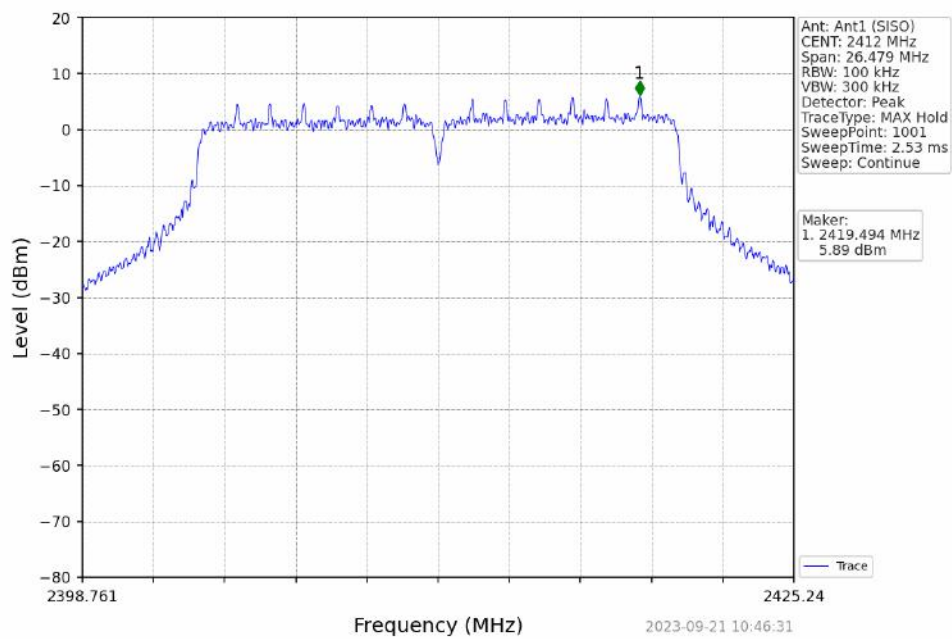


802.11ax(HEW40)_HCH_2452MHz_RU484_Left_NTNV

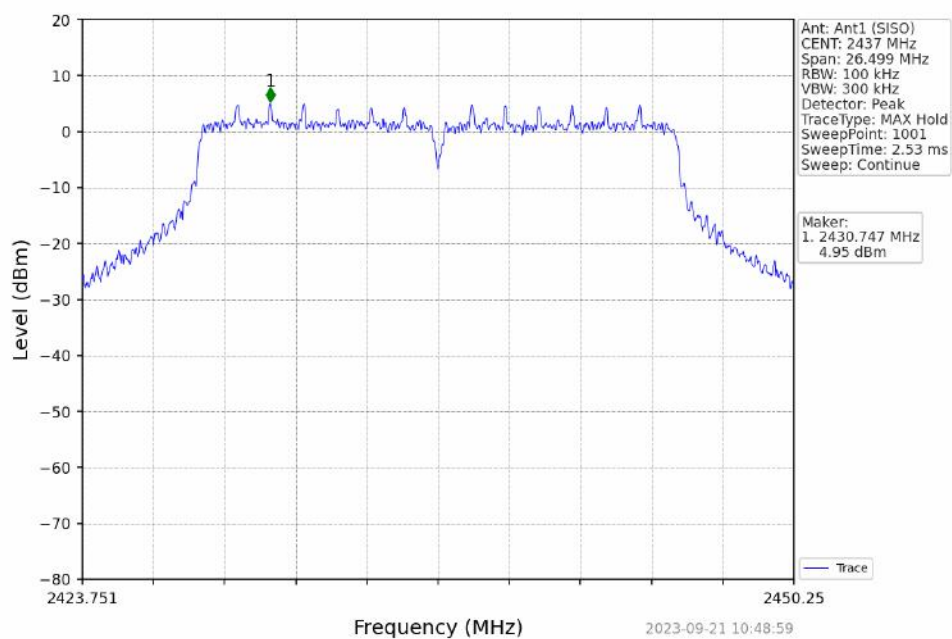




802.11ac(VHT20)_LCH_2412MHz_NTNV

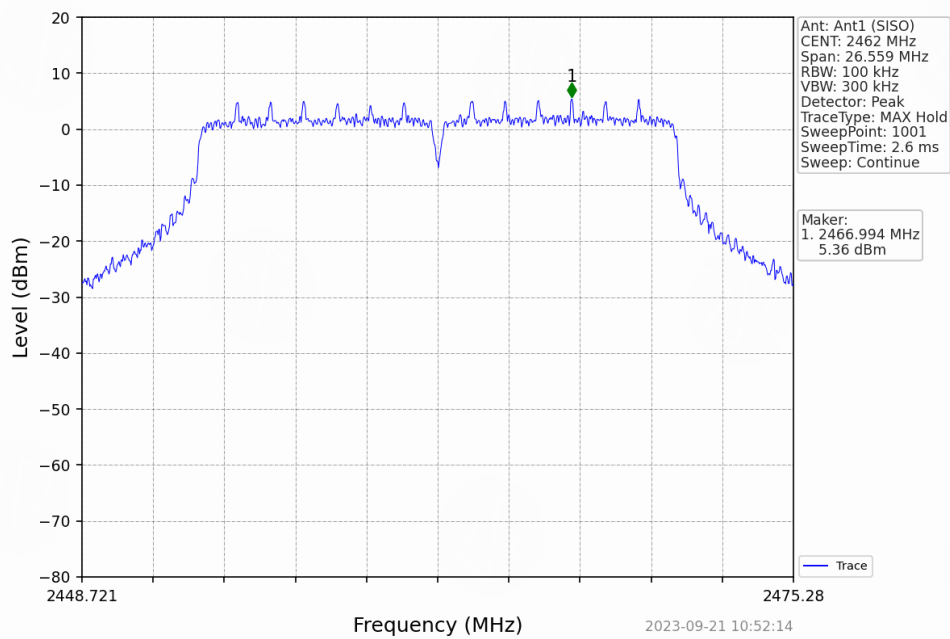


802.11ac(VHT20)_MCH_2437MHz_NTNV

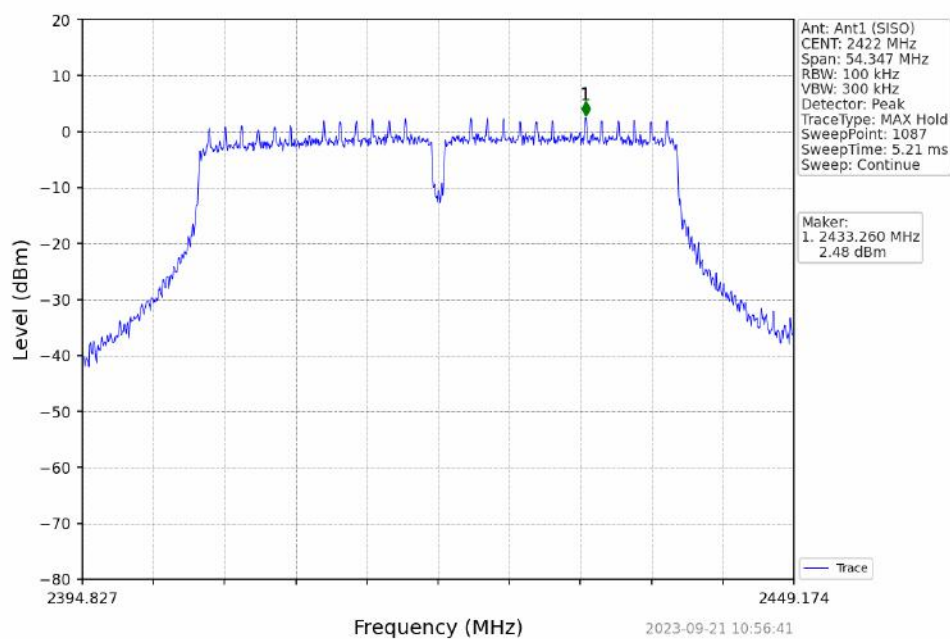




802.11ac(VHT20)_HCH_2462MHz_NTNV

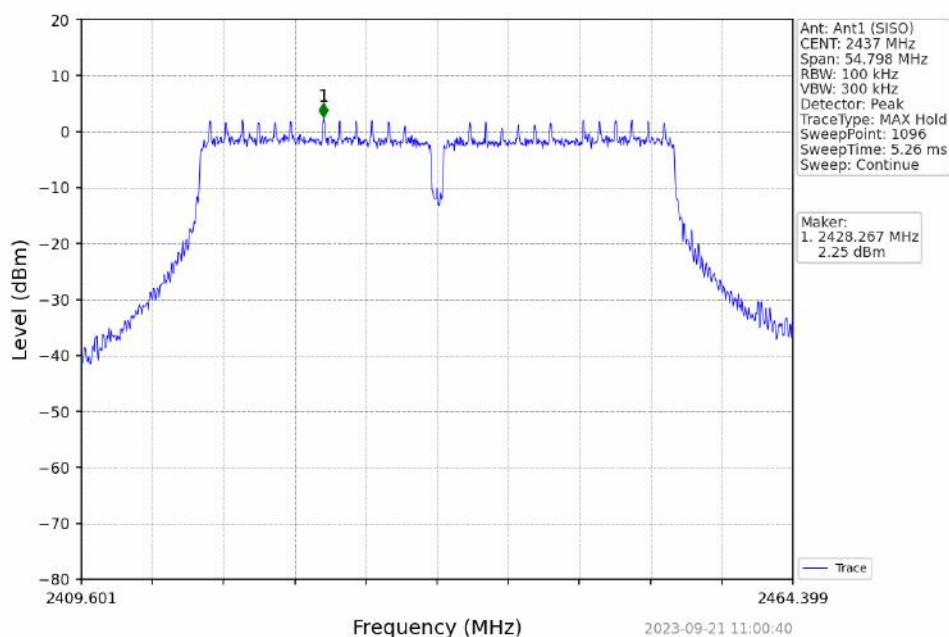


802.11ac(VHT40)_LCH_2422MHz_NTNV

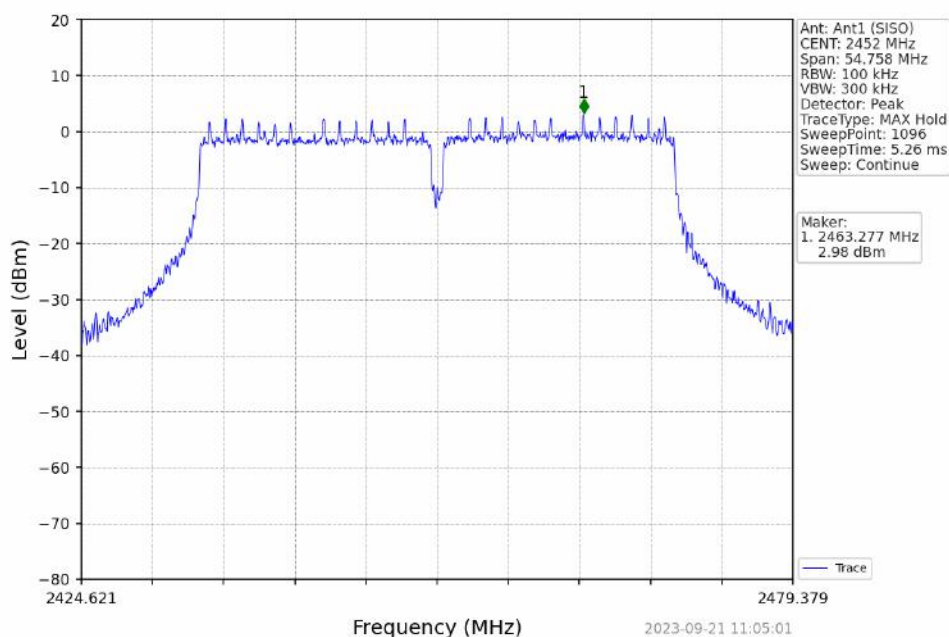




802.11ac(VHT40)_MCH_2437MHz_NTNV



802.11ac(VHT40)_HCH_2452MHz_NTNV





Conducted Spurious Emission

Antenna 3:

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	3	10.74	-19.26	Pass
		2437	3	10.74	-19.26	Pass
		2462	3	10.74	-19.26	Pass
802.11g	SISO	2412	3	8.88	-21.12	Pass
		2437	3	8.88	-21.12	Pass
		2462	3	8.88	-21.12	Pass
802.11n (HT20)	SISO	2412	3	8.94	-21.06	Pass
		2437	3	8.94	-21.06	Pass
		2462	3	8.94	-21.06	Pass

Antenna 4:

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	4	12.29	-17.71	Pass
		2437	4	12.29	-17.71	Pass
		2462	4	12.29	-17.71	Pass
802.11g	SISO	2412	4	7.29	-22.71	Pass
		2437	4	7.29	-22.71	Pass
		2462	4	7.29	-22.71	Pass
802.11n (HT20)	SISO	2412	4	8.65	-21.35	Pass
		2437	4	8.65	-21.35	Pass
		2462	4	8.65	-21.35	Pass

Note1: Refer to FCC 15.247 and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.



Antenna 1:

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	/	/	1	9.30	-20.70	Pass
		2437	/	/	1	9.30	-20.70	Pass
		2462	/	/	1	9.30	-20.70	Pass
802.11g	SISO	2412	/	/	1	6.90	-23.10	Pass
		2437	/	/	1	6.90	-23.10	Pass
		2462	/	/	1	6.90	-23.10	Pass
802.11n (HT20)	SISO	2412	/	/	1	6.96	-23.04	Pass
		2437	/	/	1	6.96	-23.04	Pass
		2462	/	/	1	6.96	-23.04	Pass
802.11n (HT40)	SISO	2422	/	/	1	4.23	-25.77	Pass
		2437	/	/	1	4.23	-25.77	Pass
		2452	/	/	1	4.23	-25.77	Pass
802.11ax (HEW20)	SISO	2412	RU242	Left	1	6.72	-23.28	Pass
		2437	RU242	Left	1	6.72	-23.28	Pass
		2462	RU242	Left	1	6.72	-23.28	Pass
802.11ax (HEW40)	SISO	2422	RU484	Left	1	4.08	-25.92	Pass
		2437	RU484	Left	1	4.08	-25.92	Pass
		2452	RU484	Left	1	4.08	-25.92	Pass
802.11ac (VHT20)	SISO	2412	/	/	1	7.06	-22.94	Pass
		2437	/	/	1	7.06	-22.94	Pass
		2462	/	/	1	7.06	-22.94	Pass
802.11ac (VHT40)	SISO	2422	/	/	1	4.31	-25.69	Pass
		2437	/	/	1	4.31	-25.69	Pass
		2452	/	/	1	4.31	-25.69	Pass
Note1: Refer to FCC 15.247 and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.								



Antenna 2:

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	/	/	2	7.86	-22.14	Pass
		2437	/	/	2	7.86	-22.14	Pass
		2462	/	/	2	7.86	-22.14	Pass
802.11g	SISO	2412	/	/	2	5.80	-24.20	Pass
		2437	/	/	2	5.80	-24.20	Pass
		2462	/	/	2	5.80	-24.20	Pass
802.11n (HT20)	SISO	2412	/	/	2	5.76	-24.24	Pass
		2437	/	/	2	5.76	-24.24	Pass
		2462	/	/	2	5.76	-24.24	Pass
802.11n (HT40)	SISO	2422	/	/	2	3.10	-26.90	Pass
		2437	/	/	2	3.10	-26.90	Pass
		2452	/	/	2	3.10	-26.90	Pass
802.11ax (HEW20)	SISO	2412	RU242	Left	2	6.37	-23.63	Pass
		2437	RU242	Left	2	6.37	-23.63	Pass
		2462	RU242	Left	2	6.37	-23.63	Pass
802.11ax (HEW40)	SISO	2422	RU484	Left	2	2.80	-27.20	Pass
		2437	RU484	Left	2	2.80	-27.20	Pass
		2452	RU484	Left	2	2.80	-27.20	Pass
802.11ac (VHT20)	SISO	2412	/	/	2	5.89	-24.11	Pass
		2437	/	/	2	5.89	-24.11	Pass
		2462	/	/	2	5.89	-24.11	Pass
802.11ac (VHT40)	SISO	2422	/	/	2	2.98	-27.02	Pass
		2437	/	/	2	2.98	-27.02	Pass
		2452	/	/	2	2.98	-27.02	Pass
Note1: Refer to FCC 15.247 and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.								



Test Graph
Antenna 3:

