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Annex for 2.4G Wi-Fi

Test Report No.: CTL2411057011-WR02

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1. Duty Cycle - SA

1.1 Test Result

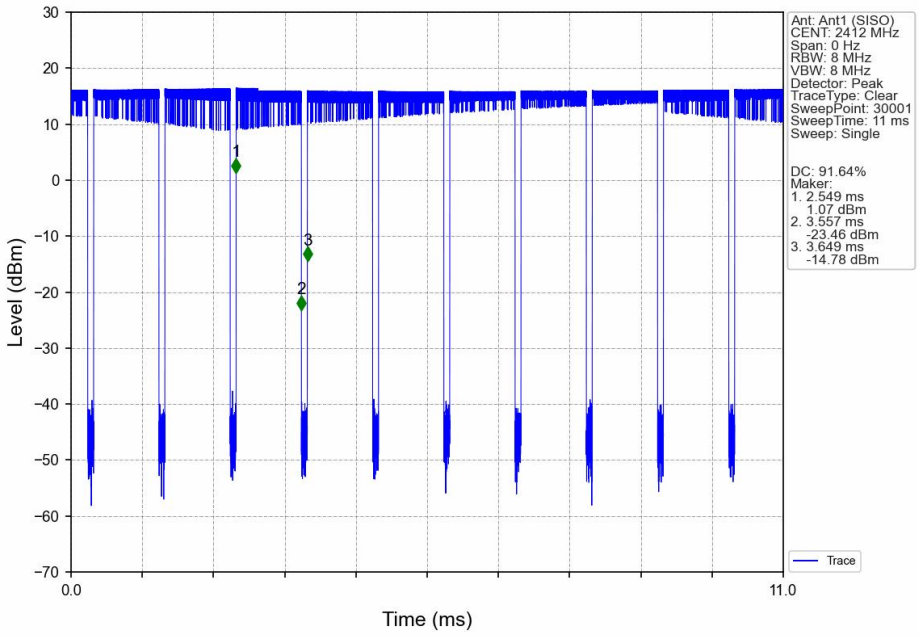
1.1.1 Ant1

Ant1								
ENV	Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	802.11b	SISO	2412	1.008	1.100	91.64	0.38	0.03
			2442	1.008	1.100	91.64	0.38	0.03
			2472	1.009	1.100	91.73	0.38	0.03
	802.11g	SISO	2412	0.617	0.669	92.23	0.35	0.00
			2442	0.617	0.669	92.23	0.35	0.03
			2472	0.616	0.669	92.08	0.36	0.03
	802.11n (HT20)	SISO	2412	0.612	0.665	92.03	0.36	0.07
			2442	0.612	0.665	92.03	0.36	0.00
			2472	0.612	0.665	92.03	0.36	0.04
	802.11n (HT40)	SISO	2422	0.613	0.665	92.18	0.35	0.07
			2442	0.614	0.697	88.09	0.55	4.23
			2462	0.613	0.665	92.18	0.35	0.04

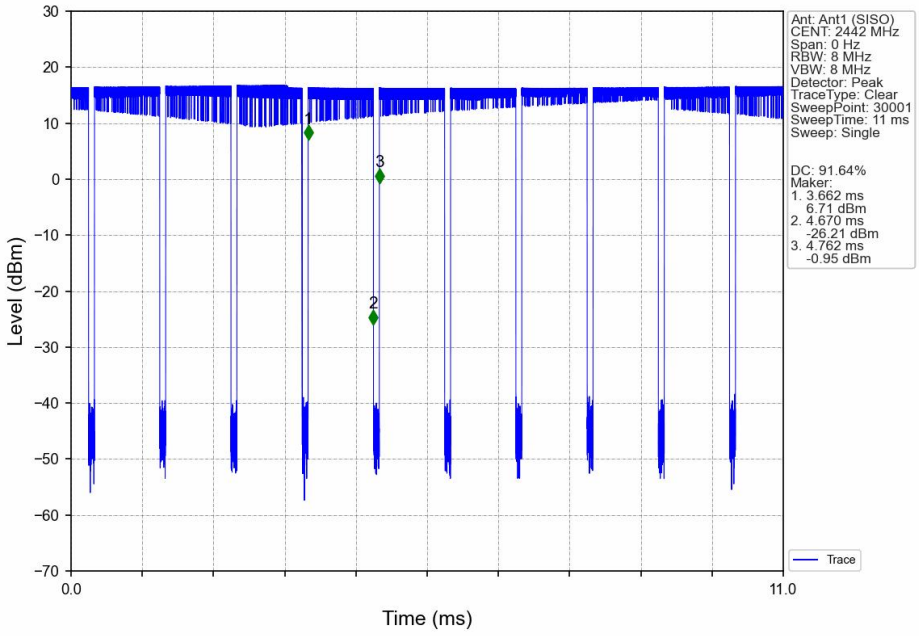
1.2 Test Graph

1.2.1 Ant1

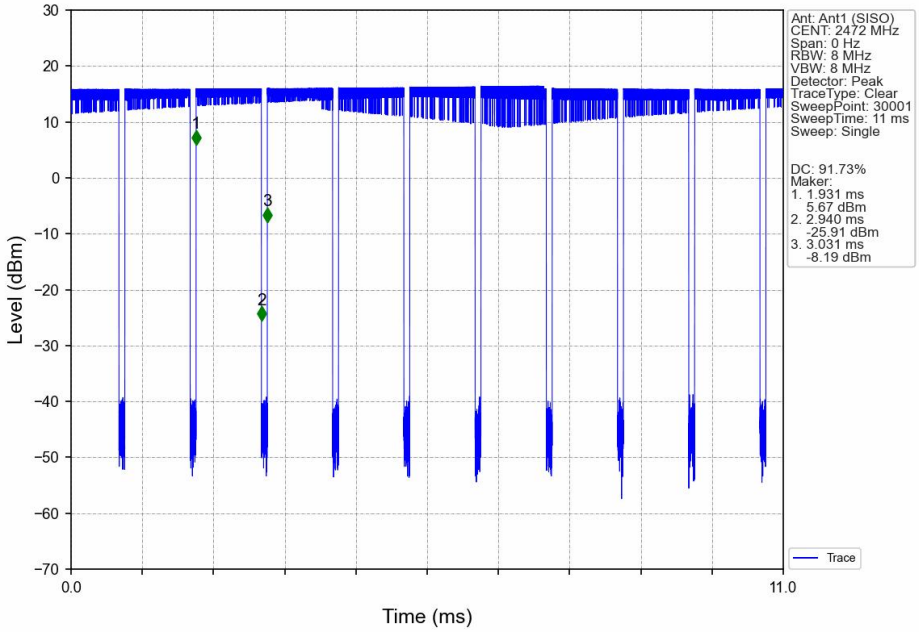
802.11b_2412MHz_Ant1 (SISO)_NTNV



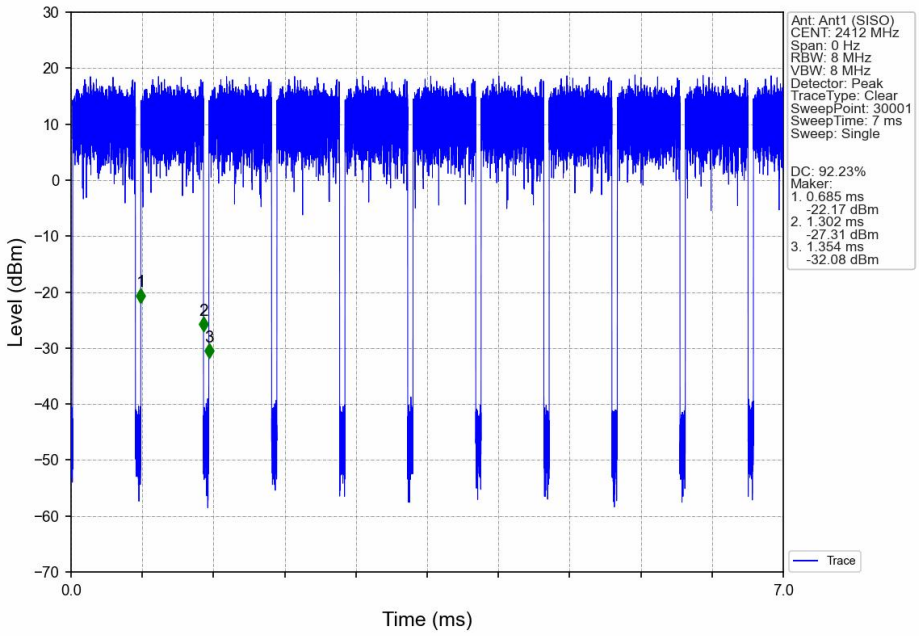
802.11b_2442MHz_Ant1 (SISO)_NTNV



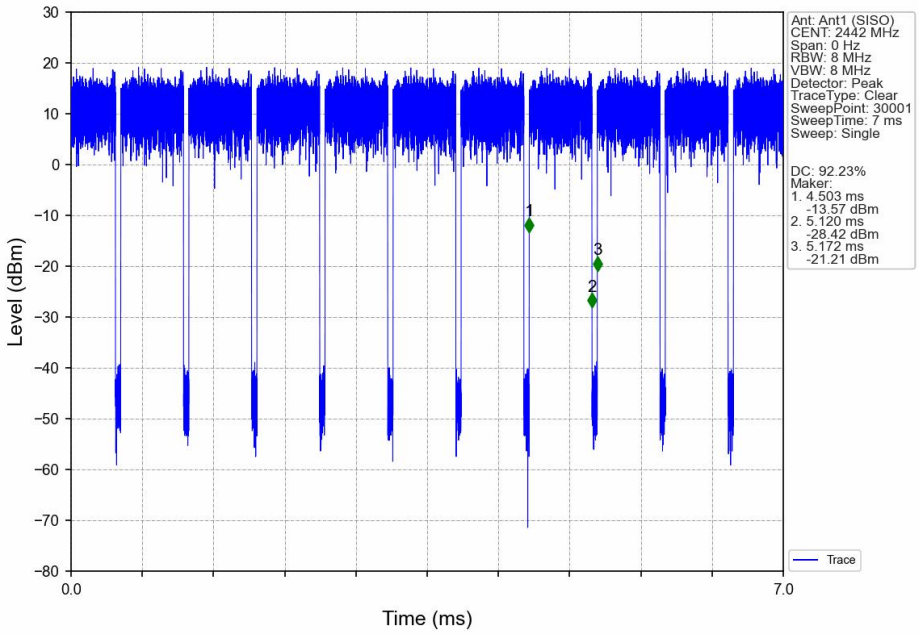
802.11b_2472MHz_Ant1 (SISO)_NTNV



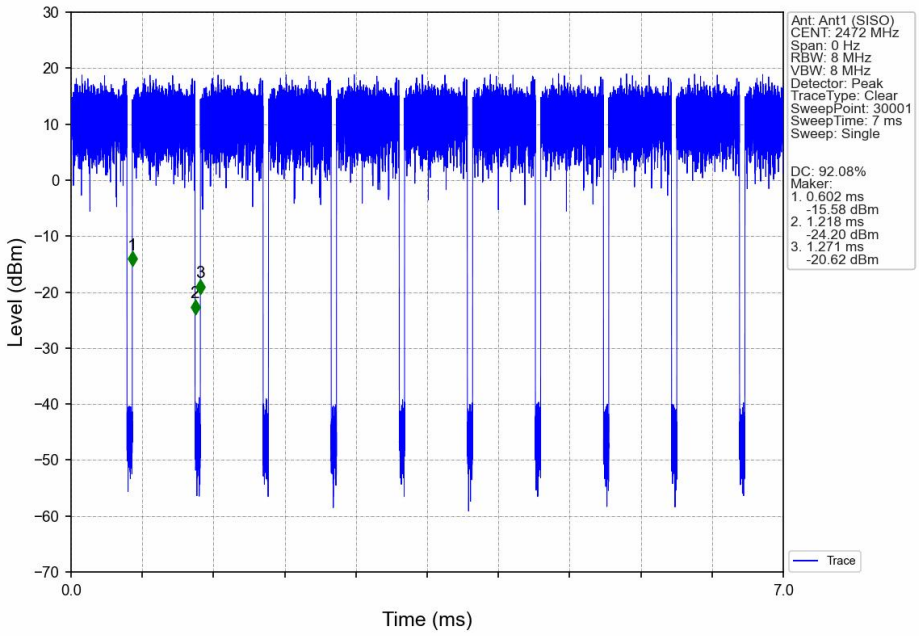
802.11g_2412MHz_Ant1 (SISO)_NTNV



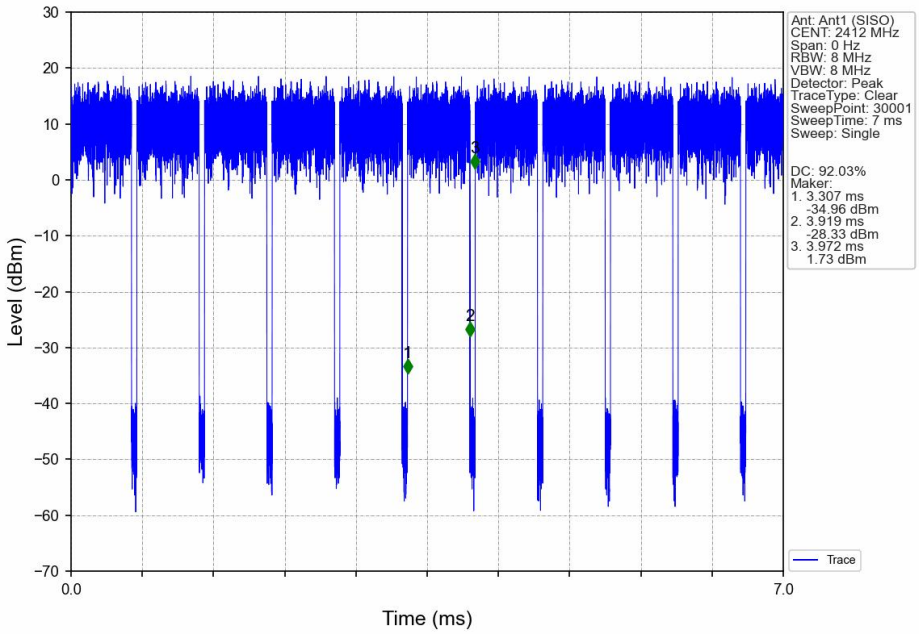
802.11g_2442MHz_Ant1 (SISO)_NTNV



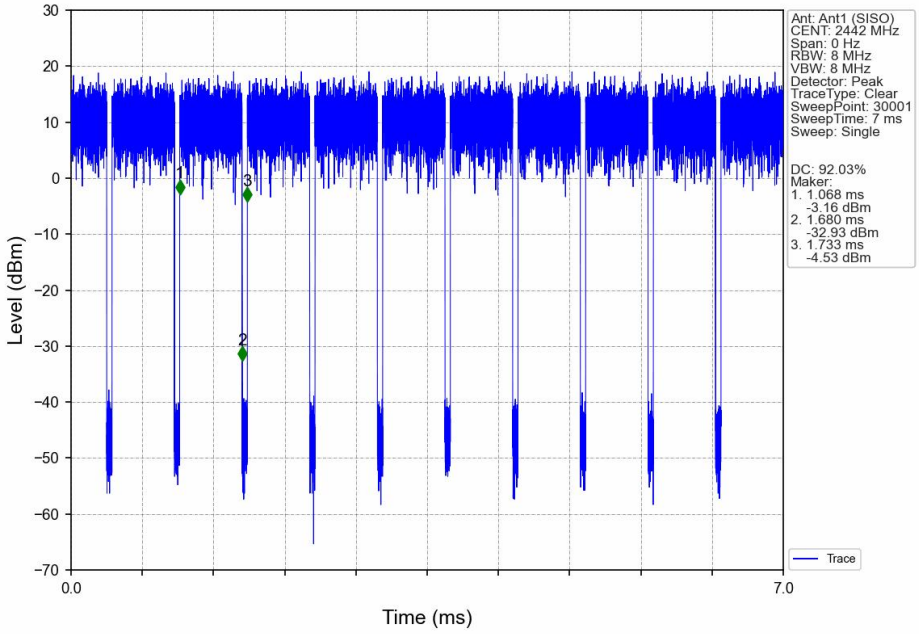
802.11g_2472MHz_Ant1 (SISO)_NTNV



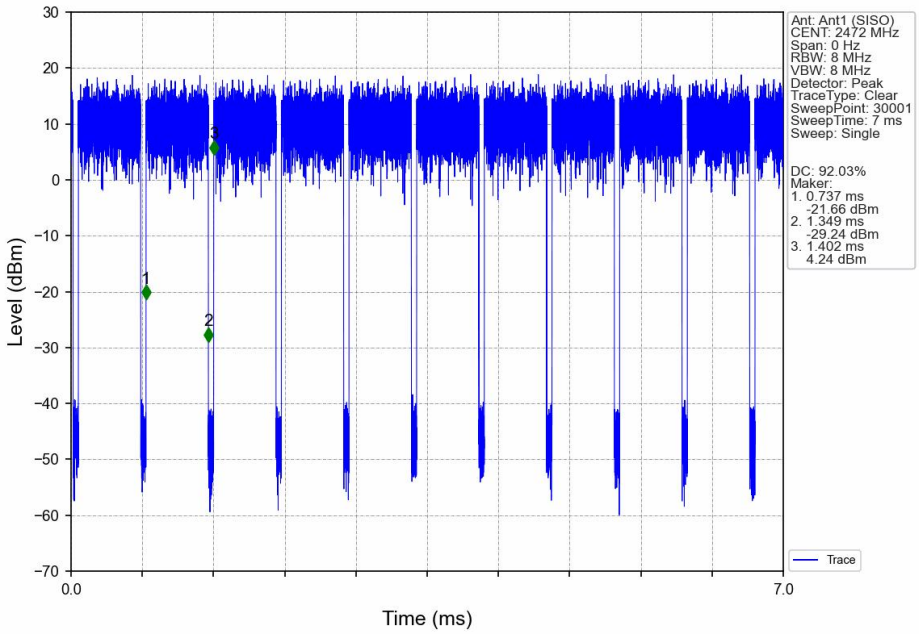
802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV



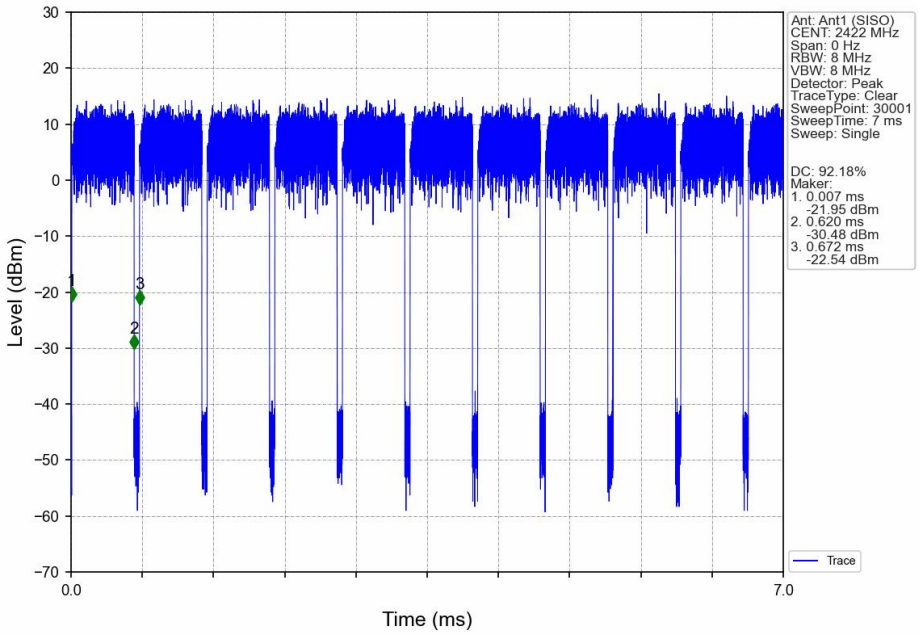
802.11n(HT20)_2442MHz_Ant1 (SISO)_NTNV



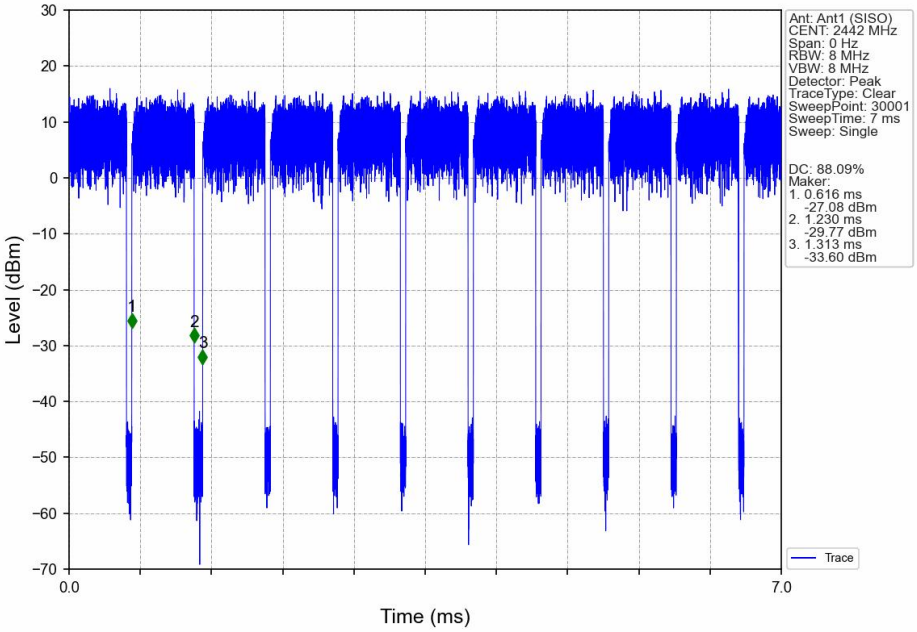
802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV



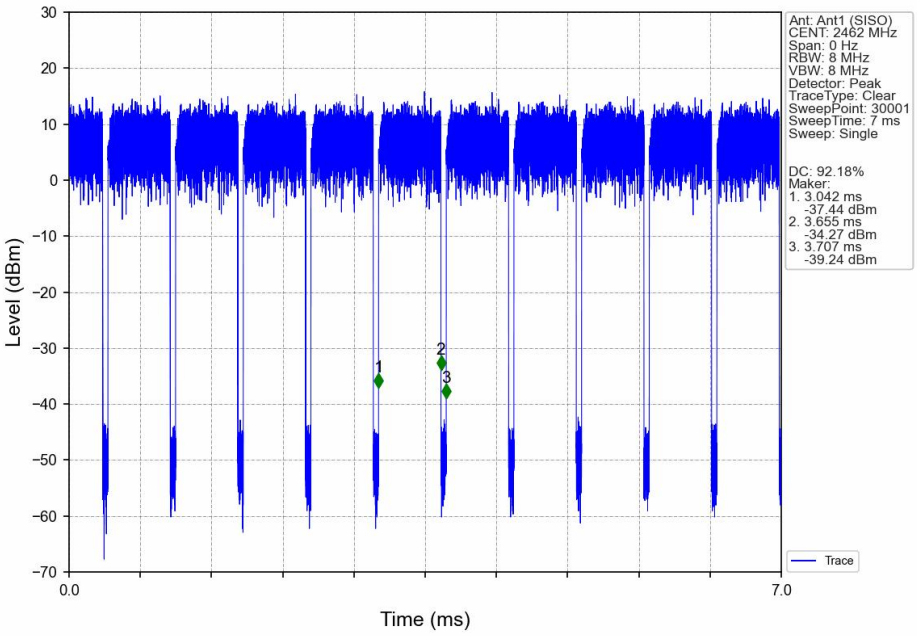
802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_2442MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV



2. RF Output Power, Duty Cycle, Tx-sequence, Tx-gap, Medium Utilization

2.1 Test Result

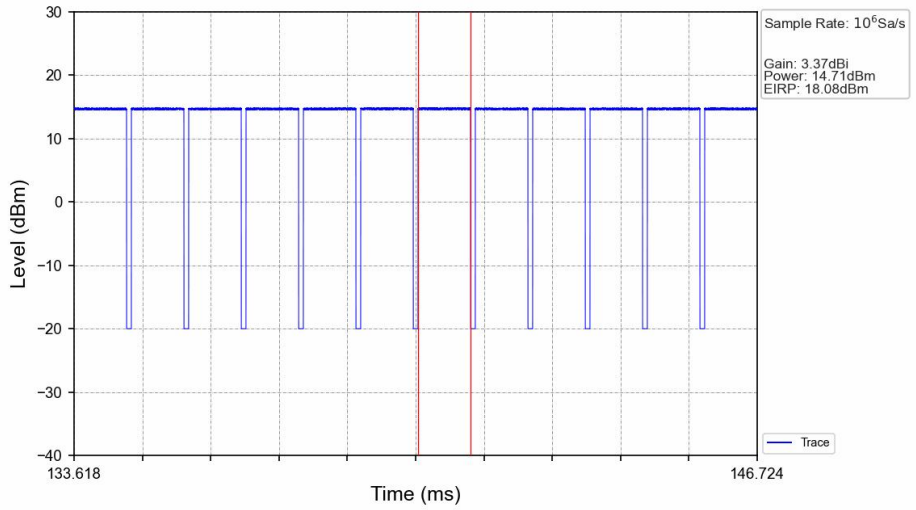
2.1.1 Power

ENV	Mode	TX Type	Frequency (MHz)	ANT	Gain (dBi)	Power (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
NTNV	802.11b	SISO	2412	1	3.37	14.71	18.08	<=20	Pass
			2442	1	3.37	13.09	16.46	<=20	Pass
			2472	1	3.37	13.82	17.19	<=20	Pass
	802.11g	SISO	2412	1	3.37	14.65	18.02	<=20	Pass
			2442	1	3.37	12.92	16.29	<=20	Pass
			2472	1	3.37	13.71	17.08	<=20	Pass
	802.11n (HT20)	SISO	2412	1	3.37	14.35	17.72	<=20	Pass
			2442	1	3.37	12.77	16.14	<=20	Pass
			2472	1	3.37	13.55	16.92	<=20	Pass
	802.11n (HT40)	SISO	2422	1	3.37	13.26	16.63	<=20	Pass
			2442	1	3.37	12.50	15.87	<=20	Pass
			2462	1	3.37	13.06	16.43	<=20	Pass
HTNV	802.11b	SISO	2412	1	3.37	14.68	18.05	<=20	Pass
			2442	1	3.37	13.07	16.44	<=20	Pass
			2472	1	3.37	13.80	17.17	<=20	Pass
	802.11g	SISO	2412	1	3.37	14.62	17.99	<=20	Pass
			2442	1	3.37	12.94	16.31	<=20	Pass
			2472	1	3.37	13.70	17.07	<=20	Pass
	802.11n (HT20)	SISO	2412	1	3.37	14.33	17.70	<=20	Pass
			2442	1	3.37	12.75	16.12	<=20	Pass
			2472	1	3.37	13.53	16.90	<=20	Pass
	802.11n (HT40)	SISO	2422	1	3.37	13.24	16.61	<=20	Pass
			2442	1	3.37	12.48	15.85	<=20	Pass
			2462	1	3.37	13.02	16.39	<=20	Pass
LTNV	802.11b	SISO	2412	1	3.37	14.65	18.02	<=20	Pass
			2442	1	3.37	13.07	16.44	<=20	Pass
			2472	1	3.37	13.79	17.16	<=20	Pass
	802.11g	SISO	2412	1	3.37	14.58	17.95	<=20	Pass
			2442	1	3.37	12.94	16.31	<=20	Pass
			2472	1	3.37	13.90	17.27	<=20	Pass
	802.11n (HT20)	SISO	2412	1	3.37	14.32	17.69	<=20	Pass
			2442	1	3.37	12.73	16.10	<=20	Pass
			2472	1	3.37	13.51	16.88	<=20	Pass
	802.11n (HT40)	SISO	2422	1	3.37	13.37	16.74	<=20	Pass
			2442	1	3.37	12.42	15.79	<=20	Pass
			2462	1	3.37	13.03	16.40	<=20	Pass
Note1: E.I.R.P = Measured Power + Antenna Gain									

2.2 Test Graph

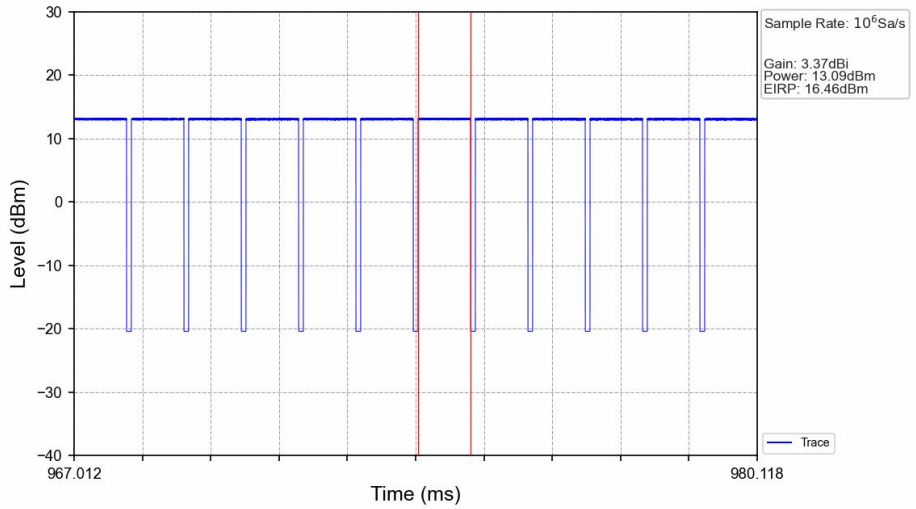
2.2.1 Power

802.11b_2412MHz_Ant1 (SISO)_NTNV



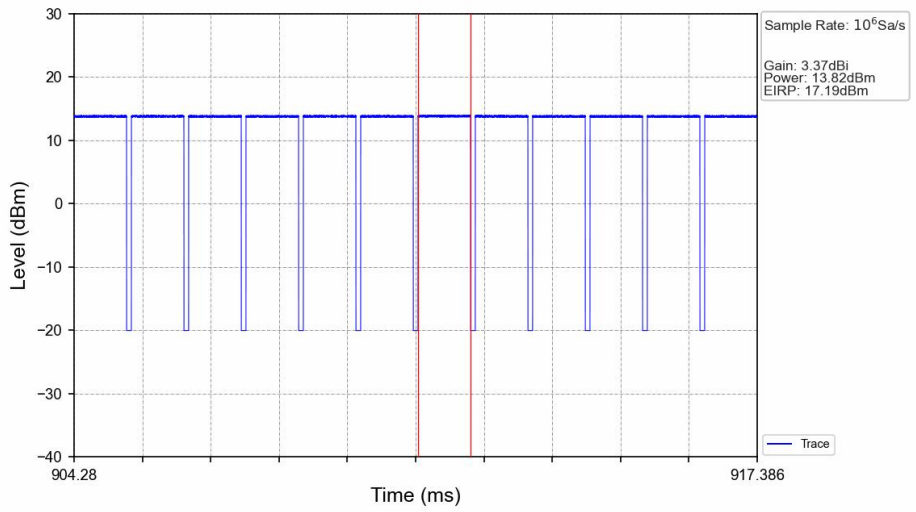
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	1.008	1.008	1.009	1.009	1.008	1.008	**1.008**	1.009	1.009	1.008	1.008	1.008
Power (dBm)	14.69	14.69	14.69	14.69	14.69	14.70	**14.71**	14.69	14.69	14.69	14.70	14.69
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11b_2442MHz_Ant1 (SISO)_NTNV



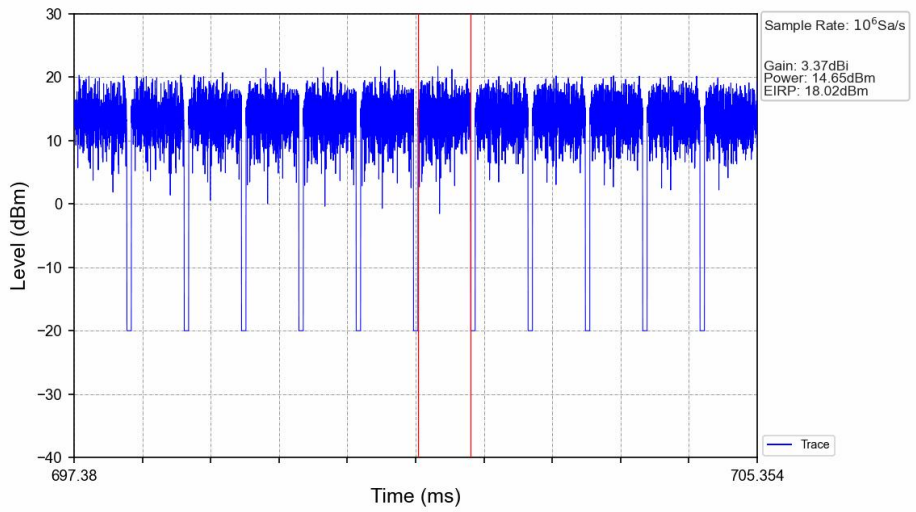
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	1.008	1.008	1.009	1.009	1.008	1.008	**1.008**	1.008	1.009	1.008	1.008	1.008
Power (dBm)	13.07	13.07	13.07	13.06	13.07	13.07	**13.09**	13.06	13.06	13.05	13.06	13.06
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11b_2472MHz_Ant1 (SISO)_NTNV



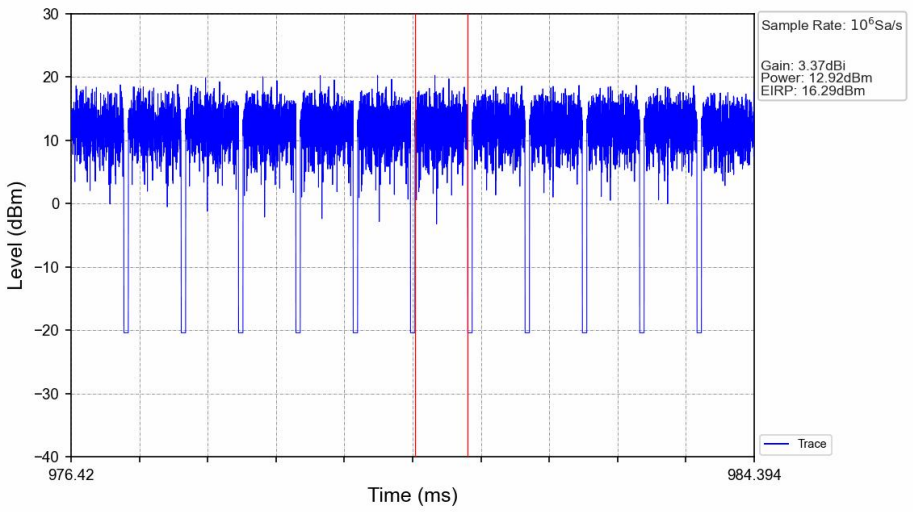
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	1.008	1.008	1.009	1.009	1.008	1.008	**1.008**	1.009	1.009	1.008	1.008	1.008
Power (dBm)	13.80	13.80	13.79	13.79	13.81	13.80	**13.82**	13.81	13.79	13.79	13.79	13.79
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11g_2412MHz_Ant1 (SISO)_NTNV



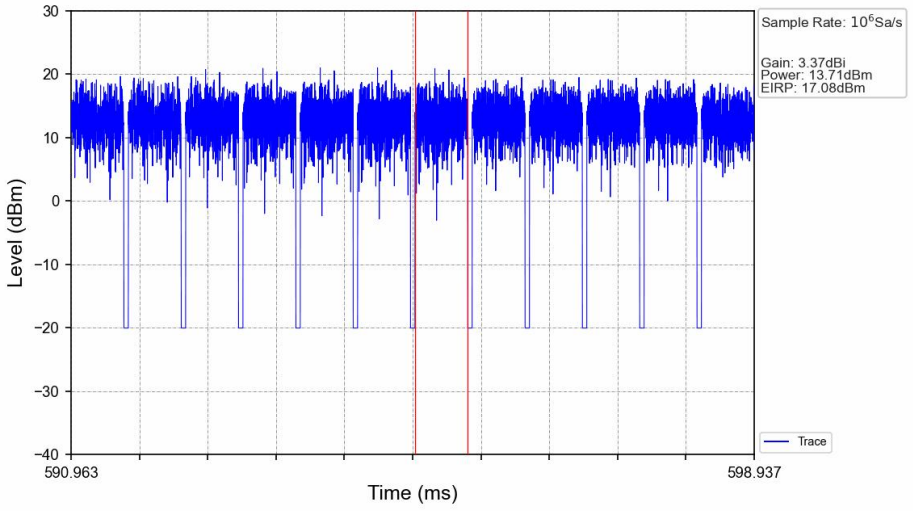
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.616	0.616	0.616	0.616	0.616	0.616	**0.616**	0.617	0.617	0.617	0.617	0.616
Power (dBm)	14.41	14.39	14.56	14.59	14.60	14.61	**14.65**	14.38	14.39	14.39	14.39	14.39
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11g_2442MHz_Ant1 (SISO)_NTNV



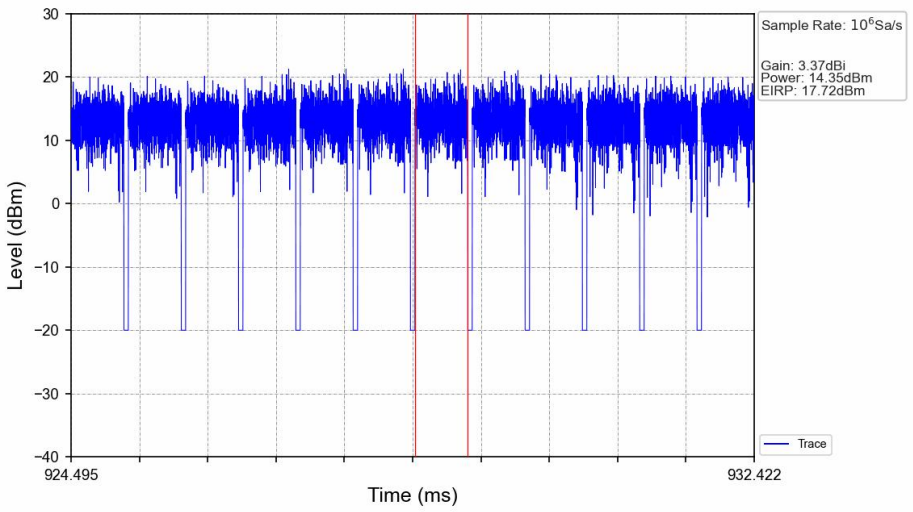
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.616	0.616	0.616	0.616	0.616	0.616	**0.616**	0.617	0.617	0.617	0.616	0.616
Power (dBm)	12.71	12.69	12.89	12.89	12.90	12.91	**12.92**	12.70	12.70	12.70	12.71	12.67
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11g_2472MHz_Ant1 (SISO)_NTNV



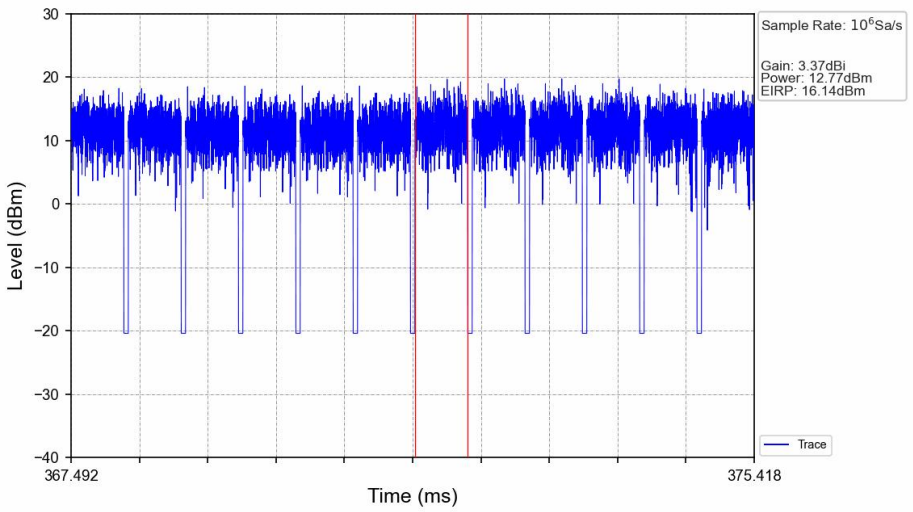
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.616	0.616	0.616	0.616	0.616	0.616	**0.616**	0.617	0.617	0.617	0.616	0.616
Power (dBm)	13.50	13.49	13.70	13.69	13.69	13.70	**13.71**	13.50	13.50	13.50	13.50	13.47
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV



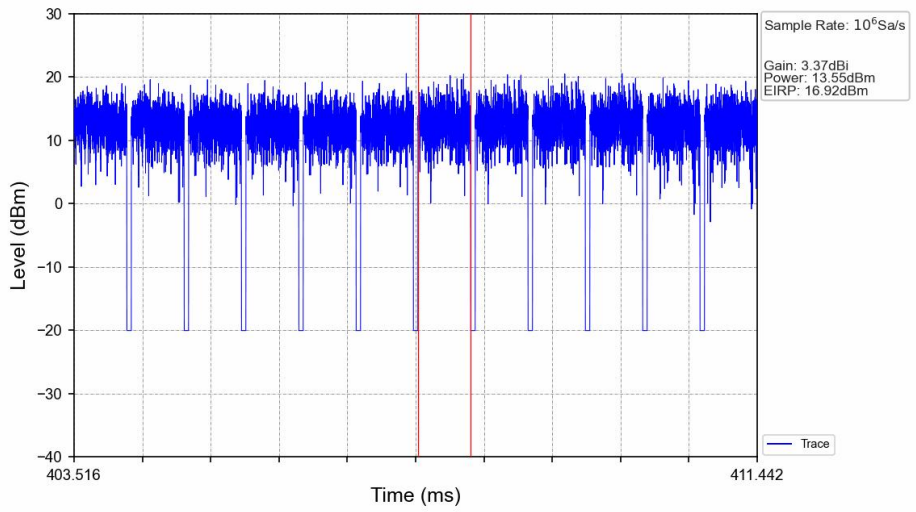
Burst No.	1	2	3	4	5	6	7	8	9	10	11	12
Length (ms)	0.613	0.613	0.613	0.612	0.612	0.612	**0.612**	0.612	0.612	0.612	0.612	0.612
Power (dBm)	13.76	13.76	13.77	13.92	14.33	14.34	**14.35**	14.35	14.03	13.98	13.97	13.96
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT20)_2442MHz_Ant1 (SISO)_NTNV



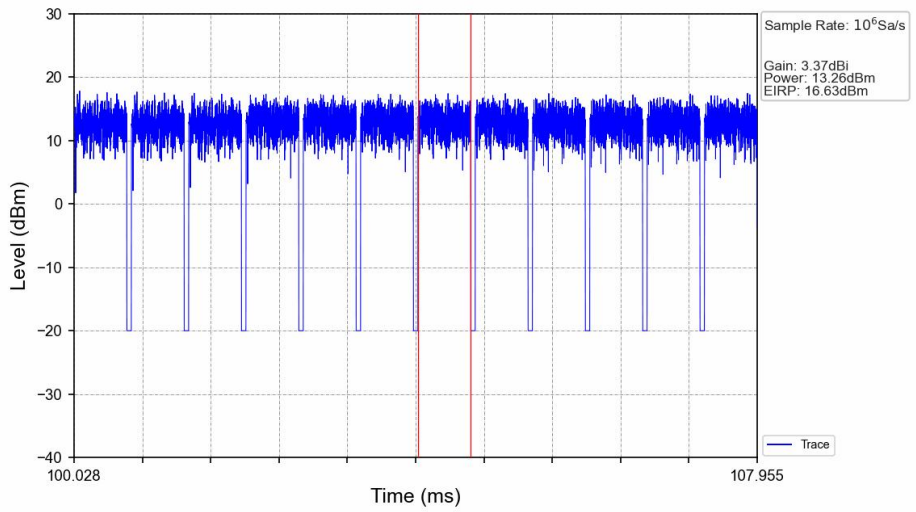
Burst No.	1	2	3	4	5	6	7	8	9	10	11	12
Length (ms)	0.612	0.612	0.613	0.613	0.613	0.613	**0.612**	0.612	0.612	0.612	0.612	0.612
Power (dBm)	12.40	12.38	12.19	12.19	12.19	12.19	**12.77**	12.74	12.72	12.71	12.56	12.37
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV



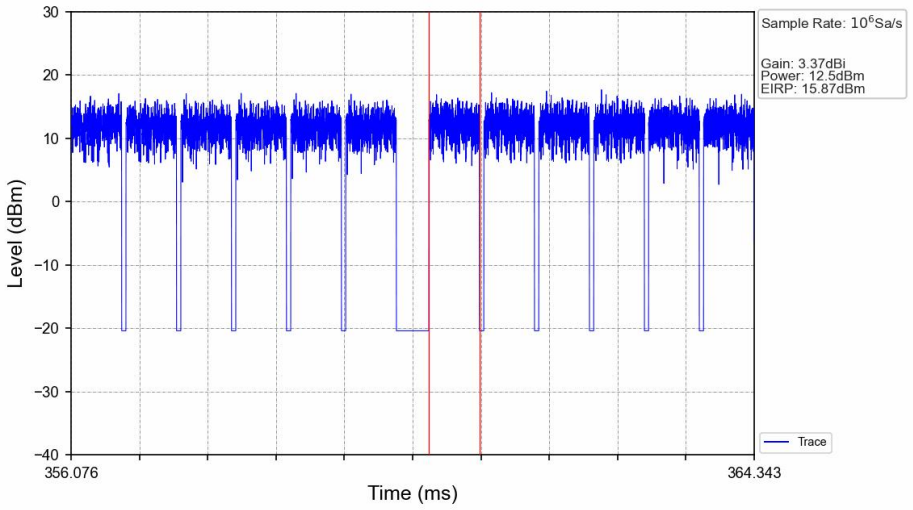
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.612	0.612	0.613	0.613	0.613	0.612	**0.612**	0.612	0.612	0.612	0.612	0.612
Power (dBm)	13.23	13.17	12.98	12.98	12.99	13.10	**13.55**	13.54	13.53	13.52	13.28	13.15
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV



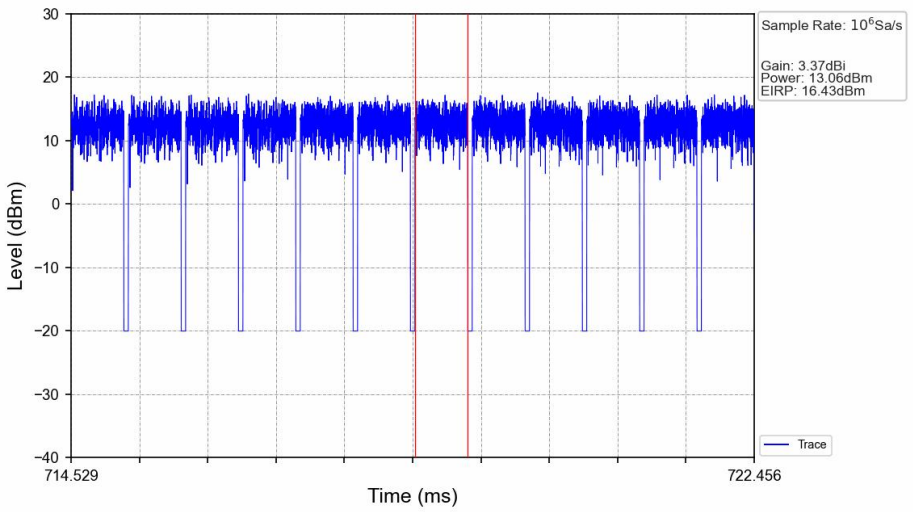
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.612	0.612	0.612	0.612	0.612	0.612	**0.612**	0.612	0.613	0.613	0.613	0.613
Power (dBm)	13.06	13.06	13.06	13.23	13.24	13.26	**13.26**	13.23	13.13	13.11	13.11	13.12
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT40)_2442MHz_Ant1 (SISO)_NTNV



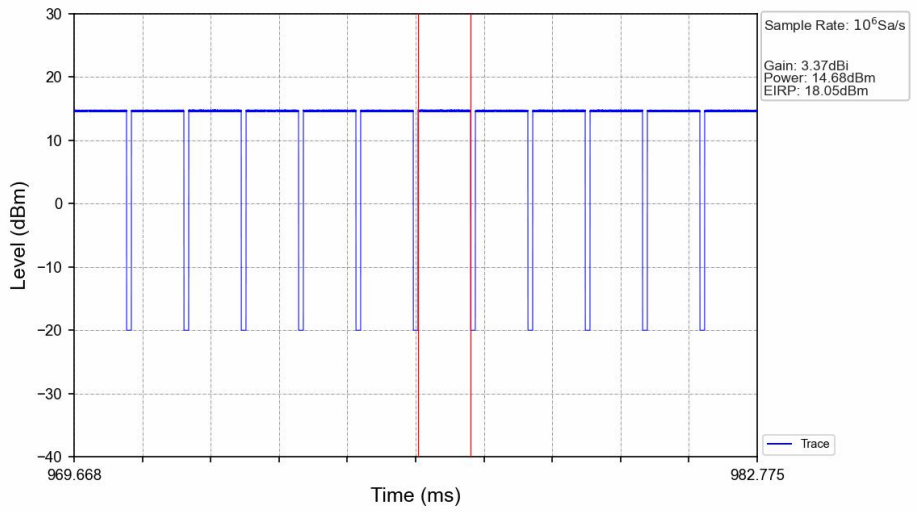
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.612	0.611	0.612	0.612	0.612	0.612	**0.612**	0.612	0.612	0.612	0.613	0.613
Power (dBm)	12.29	12.24	12.22	12.21	12.20	12.20	**12.50**	12.45	12.42	12.41	12.32	12.34
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV



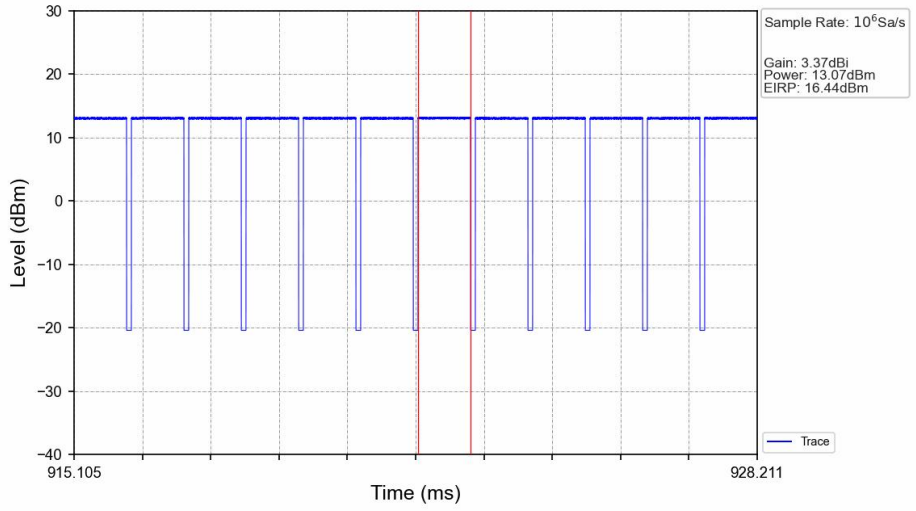
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.612	0.612	0.612	0.612	0.612	0.612	**0.612**	0.612	0.612	0.613	0.613	0.613
Power (dBm)	12.84	12.83	12.83	12.87	13.04	13.05	**13.06**	13.05	12.95	12.88	12.88	12.91
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11b_2412MHz_Ant1 (SISO)_HTNV



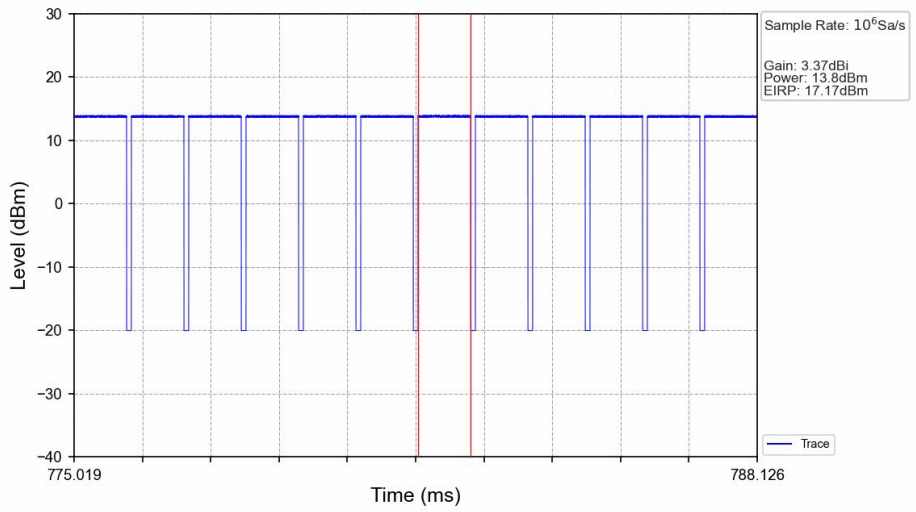
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	1.008	1.008	1.008	1.008	1.008	1.009	**1.009**	1.008	1.008	1.008	1.008	1.009
Power (dBm)	14.66	14.66	14.68	14.67	14.67	14.66	**14.68**	14.66	14.67	14.67	14.65	14.66
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11b_2442MHz_Ant1 (SISO)_HTNV



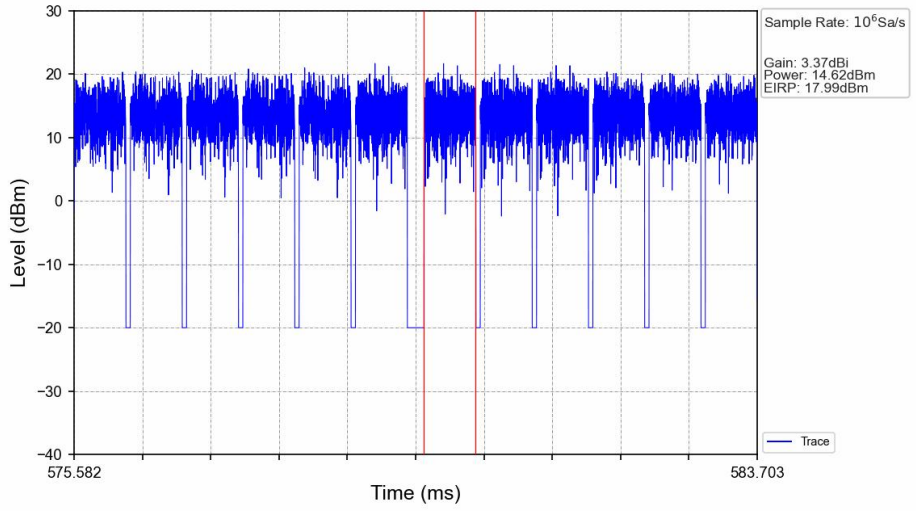
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	1.008	1.008	1.008	1.009	1.008	1.008	**1.008**	1.008	1.009	1.009	1.008	1.008
Power (dBm)	13.04	13.05	13.05	13.05	13.05	13.05	**13.07**	13.05	13.05	13.05	13.05	13.05
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11b_2472MHz_Ant1 (SISO)_HTNV



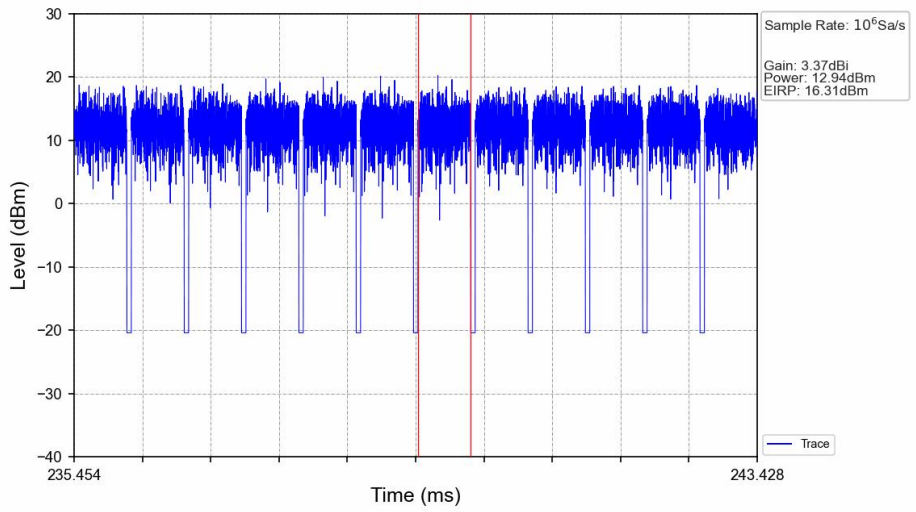
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	1.009	1.008	1.008	1.008	1.008	1.008	**1.008**	1.007	1.008	1.008	1.008	1.008
Power (dBm)	13.79	13.78	13.78	13.78	13.79	13.78	**13.80**	13.78	13.77	13.77	13.78	13.78
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11g_2412MHz_Ant1 (SISO)_HTNV



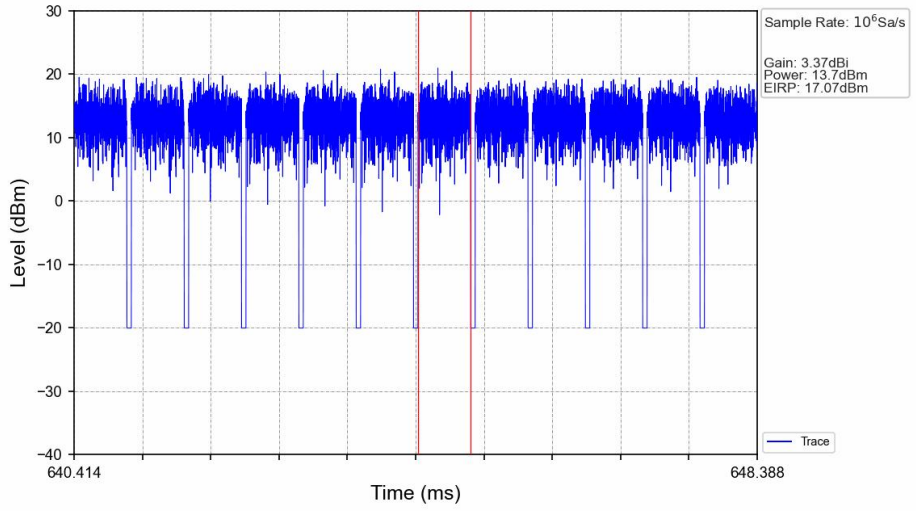
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.616	0.616	0.616	0.616	0.616	0.616	**0.616**	0.616	0.616	0.616	0.617	0.617
Power (dBm)	14.26	14.35	14.34	14.33	14.32	14.52	**14.62**	14.60	14.58	14.40	14.37	14.37
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11g_2442MHz_Ant1 (SISO)_HTNV



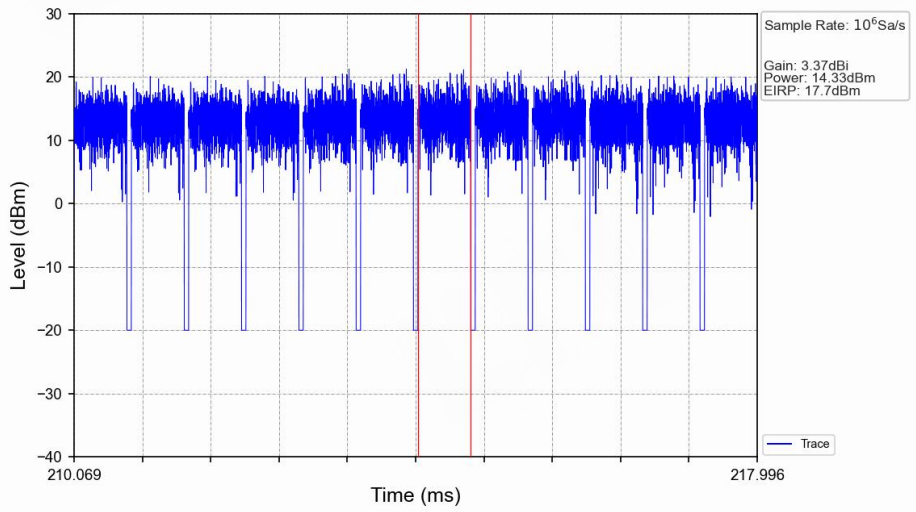
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.616	0.616	0.616	0.616	0.616	0.616	**0.616**	0.617	0.617	0.617	0.617	0.616
Power (dBm)	12.73	12.71	12.85	12.86	12.88	12.89	**12.94**	12.68	12.69	12.70	12.69	12.69
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11g_2472MHz_Ant1 (SISO)_HTNV



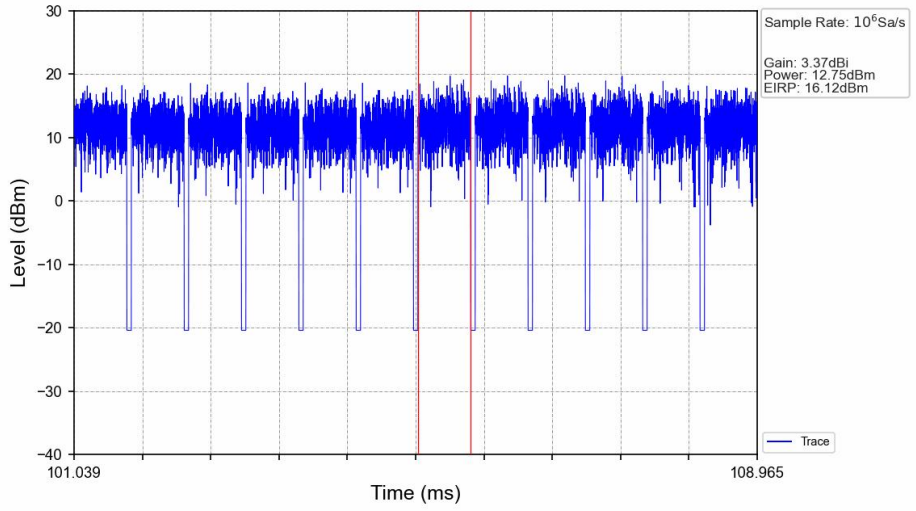
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.616	0.616	0.616	0.616	0.616	0.616	**0.616**	0.617	0.617	0.617	0.617	0.616
Power (dBm)	13.54	13.53	13.67	13.65	13.66	13.68	**13.70**	13.48	13.49	13.50	13.49	13.51
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT20)_2412MHz_Ant1 (SISO)_HTNV



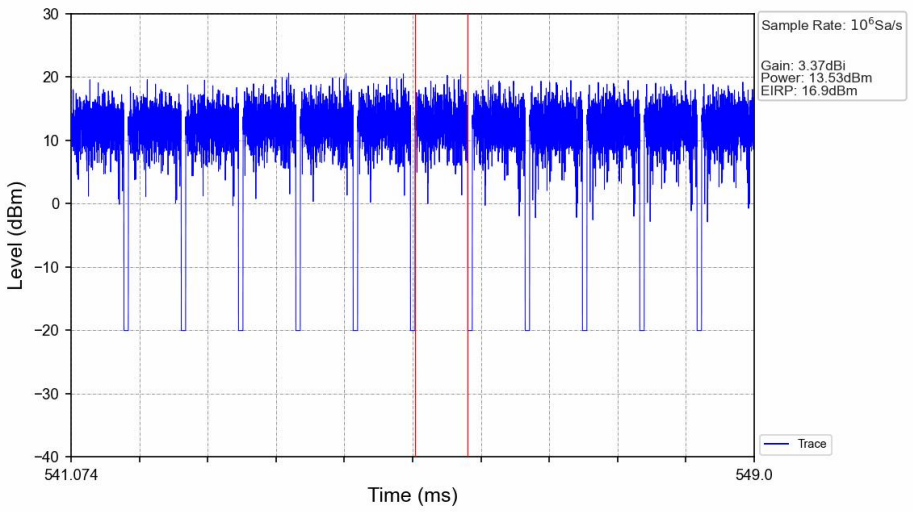
Burst No.	1	2	3	4	5	6	7	8	9	10	11	12
Length (ms)	0.613	0.613	0.613	0.613	0.612	0.612	**0.612**	0.612	0.612	0.612	0.612	0.612
Power (dBm)	13.74	13.74	13.75	13.75	14.01	14.32	**14.33**	14.33	14.32	13.96	13.95	13.94
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT20)_2442MHz_Ant1 (SISO)_HTNV



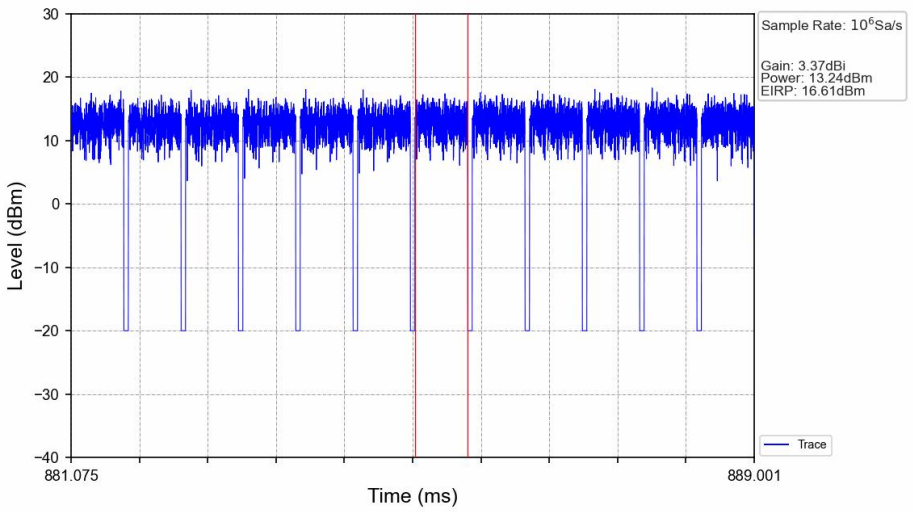
Burst No.	1	2	3	4	5	6	7	8	9	10	11	12
Length (ms)	0.612	0.612	0.613	0.613	0.613	0.613	**0.612**	0.612	0.612	0.612	0.612	0.612
Power (dBm)	12.39	12.35	12.17	12.17	12.17	12.17	**12.75**	12.72	12.70	12.69	12.55	12.34
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT20)_2472MHz_Ant1 (SISO)_HTNV



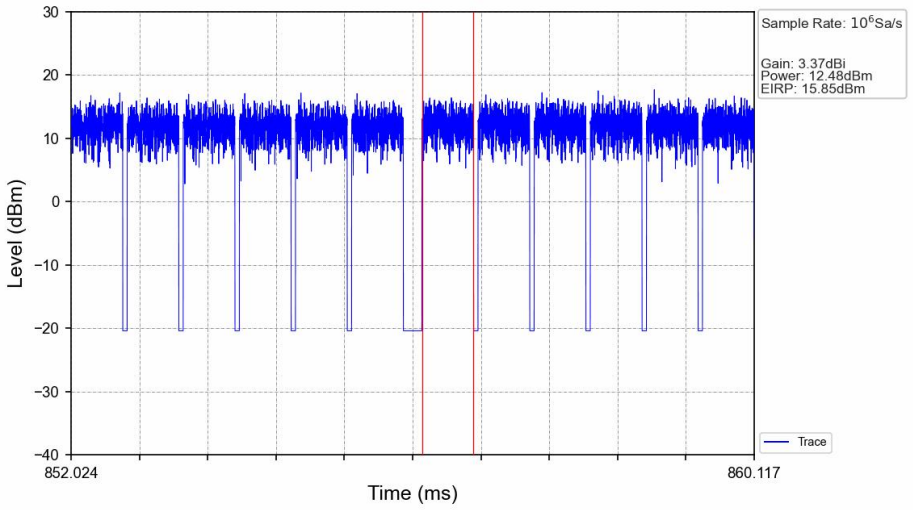
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.613	0.613	0.612	0.612	0.612	0.612	**0.612**	0.612	0.612	0.612	0.612	0.611
Power (dBm)	12.94	12.95	13.00	13.50	13.51	13.52	**13.53**	13.36	13.15	13.13	13.13	13.14
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT40)_2422MHz_Ant1 (SISO)_HTNV



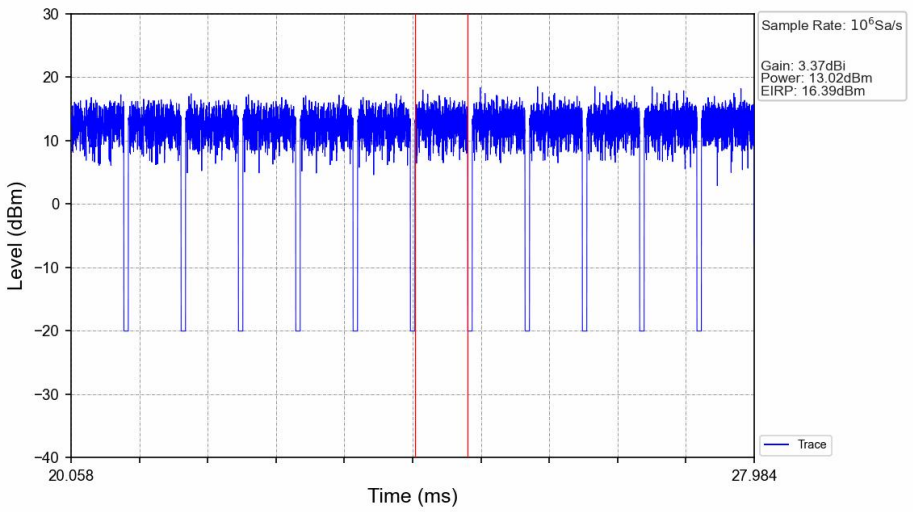
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.612	0.611	0.612	0.612	0.612	0.612	**0.612**	0.612	0.612	0.612	0.612	0.613
Power (dBm)	13.08	13.01	13.02	13.02	13.02	13.04	**13.24**	13.23	13.21	13.19	13.12	13.13
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT40)_2442MHz_Ant1 (SISO)_HTNV



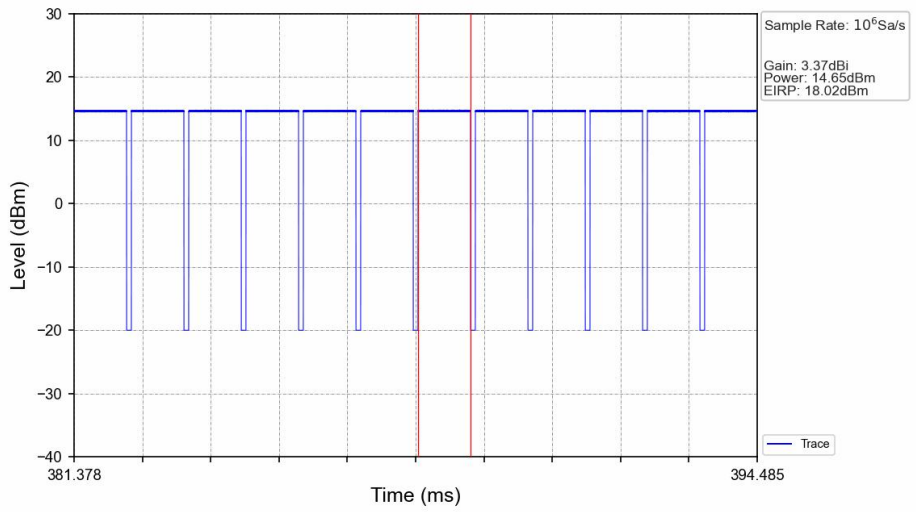
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.612	0.611	0.612	0.612	0.612	0.612	**0.612**	0.612	0.612	0.612	0.612	0.613
Power (dBm)	12.29	12.23	12.23	12.22	12.21	12.21	**12.48**	12.45	12.43	12.40	12.33	12.32
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT40)_2462MHz_Ant1 (SISO)_HTNV



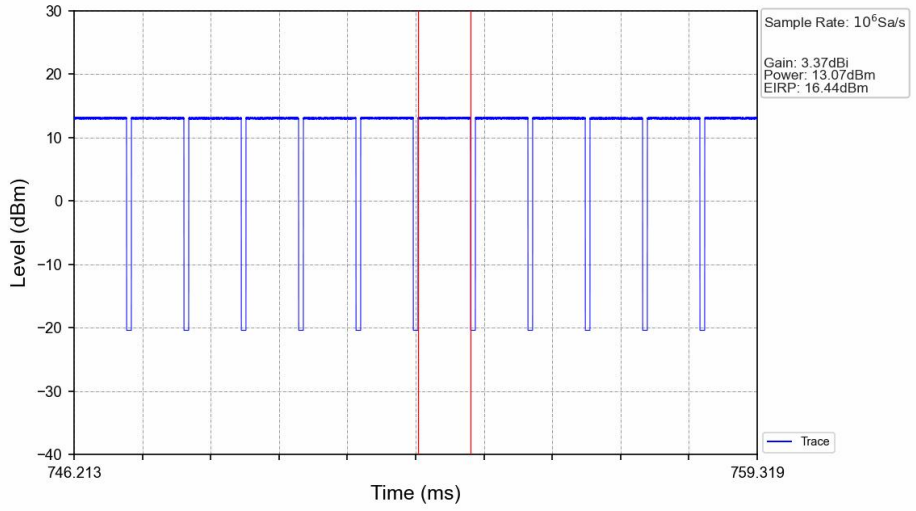
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.612	0.611	0.612	0.612	0.612	0.612	**0.612**	0.612	0.612	0.612	0.612	0.613
Power (dBm)	12.87	12.76	12.79	12.78	12.77	12.76	**13.02**	13.00	13.00	12.98	12.95	12.96
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11b_2412MHz_Ant1 (SISO)_LTNV



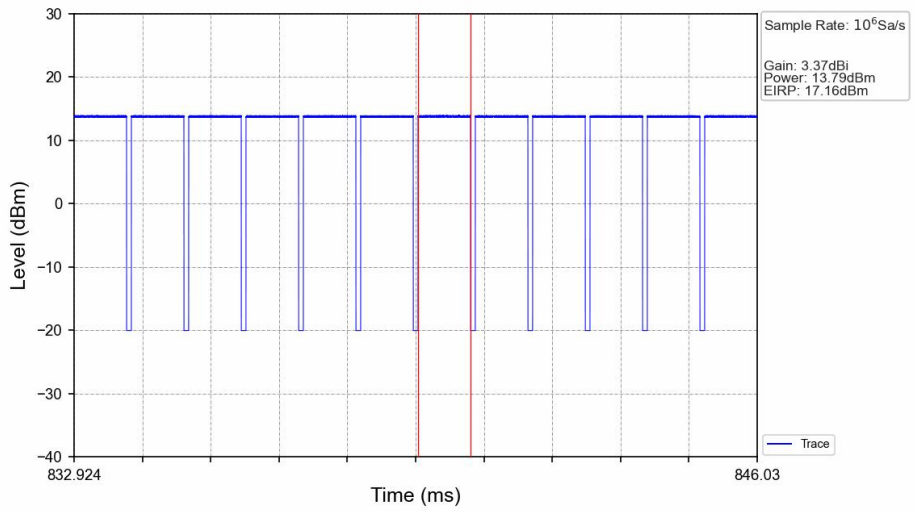
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	1.008	1.008	1.008	1.009	1.009	1.008	**1.008**	1.008	1.008	1.008	1.008	1.009
Power (dBm)	14.63	14.64	14.64	14.63	14.63	14.63	**14.65**	14.64	14.64	14.63	14.63	14.63
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11b_2442MHz_Ant1 (SISO)_LTNV



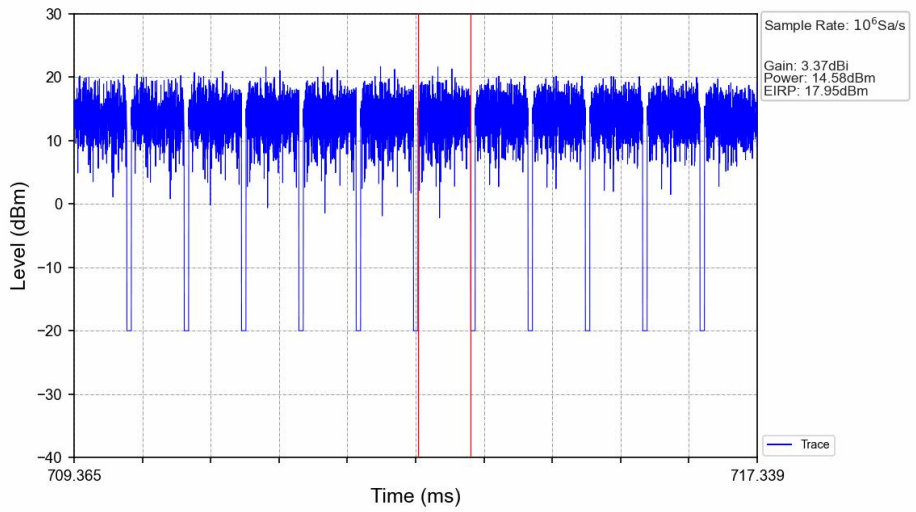
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	1.008	1.008	1.008	1.009	1.009	1.008	**1.008**	1.008	1.009	1.009	1.008	1.008
Power (dBm)	13.06	13.05	13.04	13.05	13.05	13.07	**13.07**	13.06	13.05	13.04	13.05	13.06
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11b_2472MHz_Ant1 (SISO)_LTNV



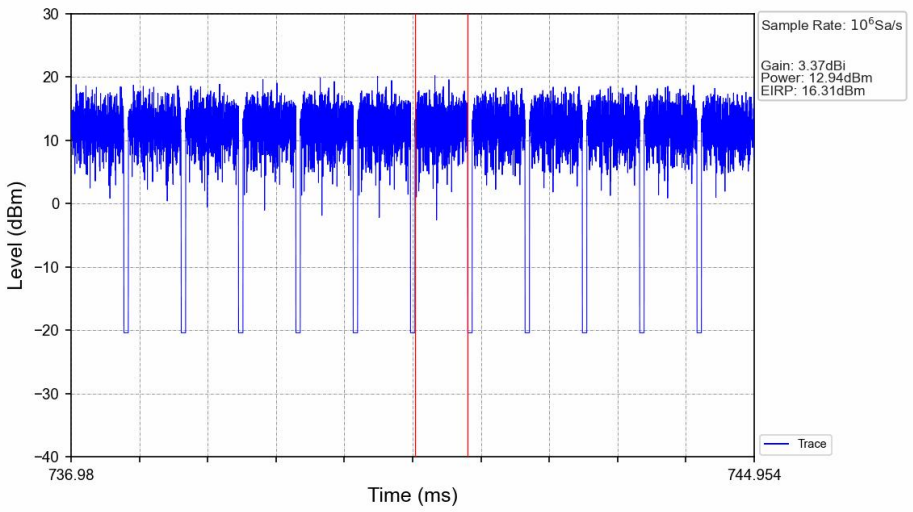
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	1.008	1.008	1.009	1.009	1.008	1.008	**1.008**	1.009	1.009	1.008	1.008	1.008
Power (dBm)	13.78	13.77	13.78	13.77	13.78	13.76	**13.79**	13.78	13.77	13.77	13.77	13.78
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11g_2412MHz_Ant1 (SISO)_LTNV



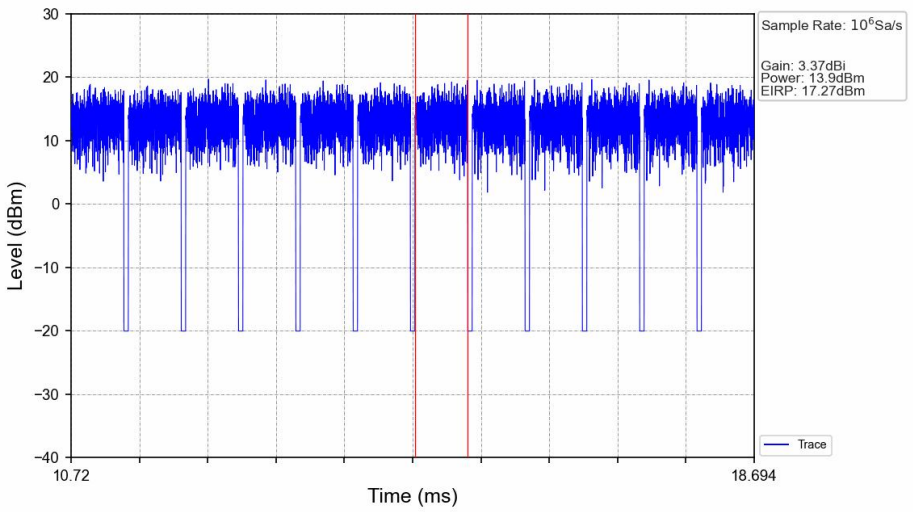
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.616	0.616	0.616	0.616	0.616	0.616	**0.616**	0.617	0.617	0.617	0.617	0.616
Power (dBm)	14.33	14.32	14.46	14.56	14.57	14.56	**14.58**	14.34	14.34	14.34	14.33	14.32
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11g_2442MHz_Ant1 (SISO)_LTNV



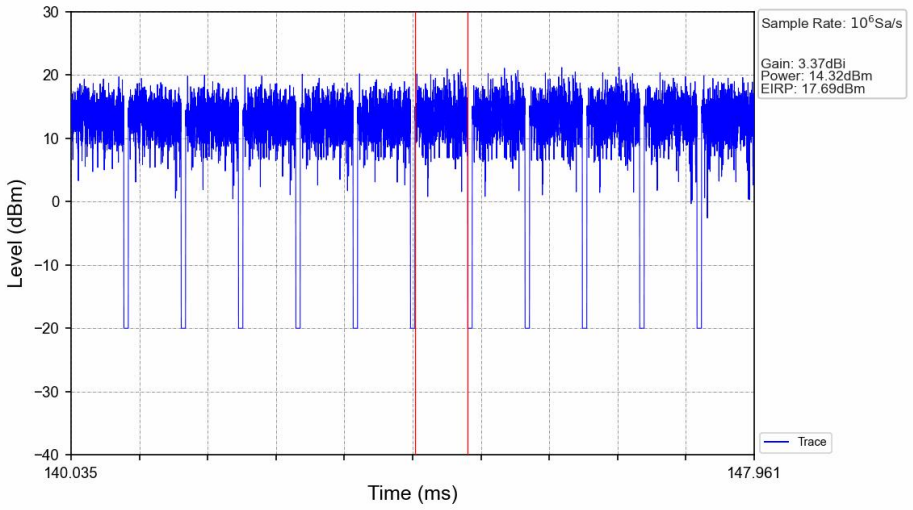
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.616	0.616	0.616	0.616	0.616	0.616	**0.616**	0.617	0.617	0.617	0.617	0.616
Power (dBm)	12.73	12.72	12.83	12.86	12.88	12.89	**12.94**	12.68	12.69	12.70	12.70	12.72
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11g_2472MHz_Ant1 (SISO)_LTNV



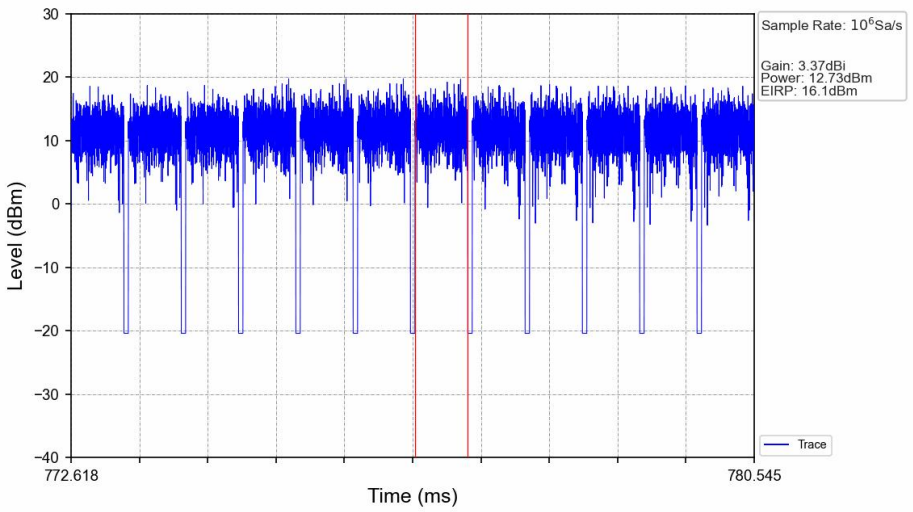
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.616	0.616	0.616	0.617	0.617	0.617	**0.616**	0.616	0.616	0.616	0.616	0.616
Power (dBm)	13.61	13.60	13.78	13.80	13.80	13.80	**13.90**	13.83	13.82	13.82	13.82	13.60
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT20)_2412MHz_Ant1 (SISO)_LTNV



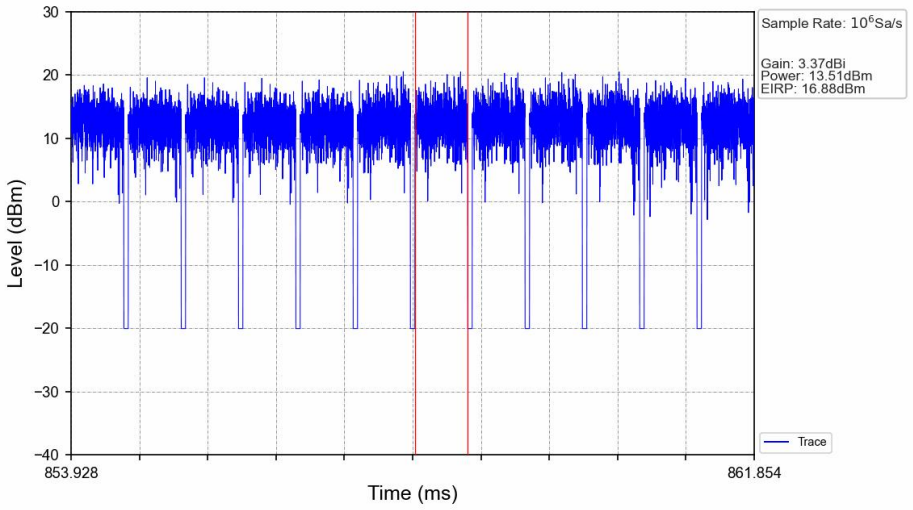
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.612	0.612	0.613	0.613	0.613	0.613	**0.612**	0.612	0.612	0.612	0.612	0.612
Power (dBm)	13.97	13.93	13.74	13.74	13.74	13.74	**14.32**	14.30	14.29	14.28	14.11	13.91
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT20)_2442MHz_Ant1 (SISO)_LTNV



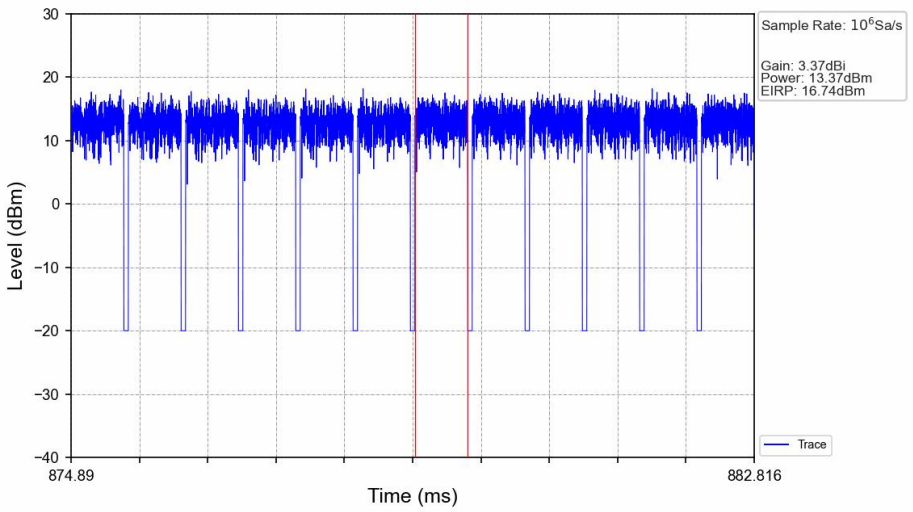
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.613	0.613	0.613	0.612	0.612	0.612	**0.612**	0.612	0.612	0.612	0.612	0.612
Power (dBm)	12.15	12.15	12.15	12.70	12.72	12.72	**12.73**	12.59	12.37	12.36	12.36	12.35
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT20)_2472MHz_Ant1 (SISO)_LTNV



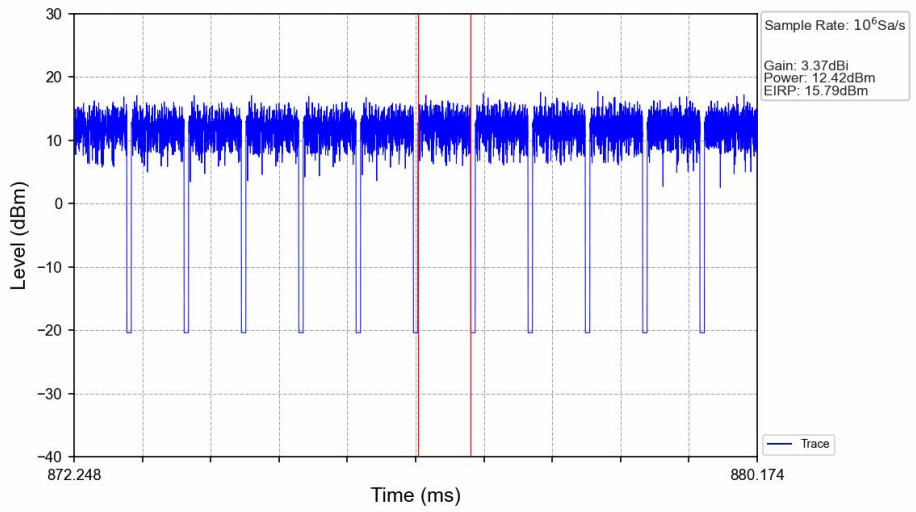
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.612	0.613	0.613	0.613	0.613	0.612	**0.612**	0.612	0.612	0.612	0.612	0.612
Power (dBm)	13.16	12.93	12.93	12.94	12.94	13.38	**13.51**	13.50	13.50	13.40	13.12	13.12
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT40)_2422MHz_Ant1 (SISO)_LTNV



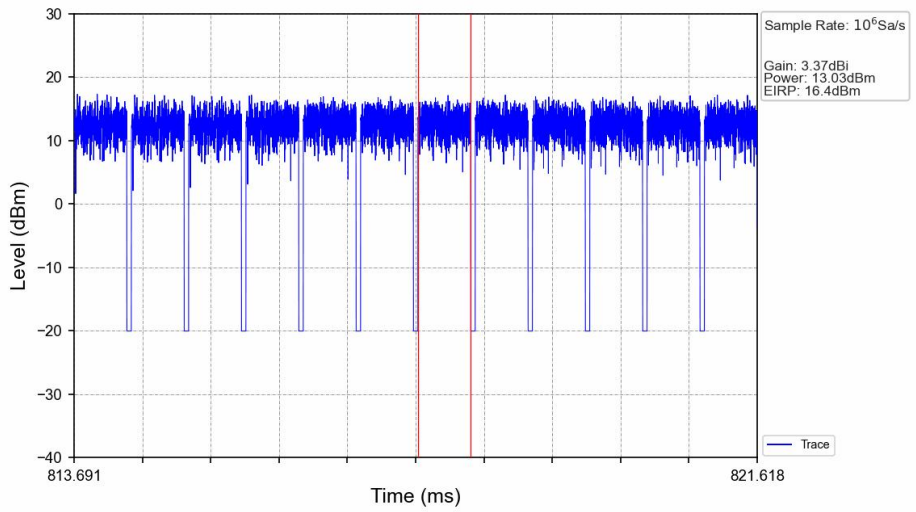
Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.612	0.611	0.612	0.612	0.612	0.612	**0.612**	0.612	0.612	0.612	0.612	0.613
Power (dBm)	13.20	13.10	13.14	13.13	13.12	13.13	**13.37**	13.35	13.34	13.32	13.25	13.21
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT40)_2442MHz_Ant1 (SISO)_LTNV



Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.612	0.611	0.612	0.612	0.612	0.612	**0.612**	0.612	0.612	0.612	0.612	0.613
Power (dBm)	12.27	12.21	12.20	12.19	12.18	12.26	**12.42**	12.40	12.38	12.37	12.31	12.35
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

802.11n(HT40)_2462MHz_Ant1 (SISO)_LTNV



Burst No.	1	2	3	4	5	6	**7**	8	9	10	11	12
Length (ms)	0.612	0.612	0.612	0.612	0.612	0.612	**0.612**	0.612	0.613	0.613	0.613	0.613
Power (dBm)	12.82	12.81	12.81	12.82	13.00	13.02	**13.03**	13.00	12.88	12.86	12.86	12.87
Remark	/	/	/	/	/	/	**Max**	/	/	/	/	/

3. Power Spectral Density

3.1 Test Result

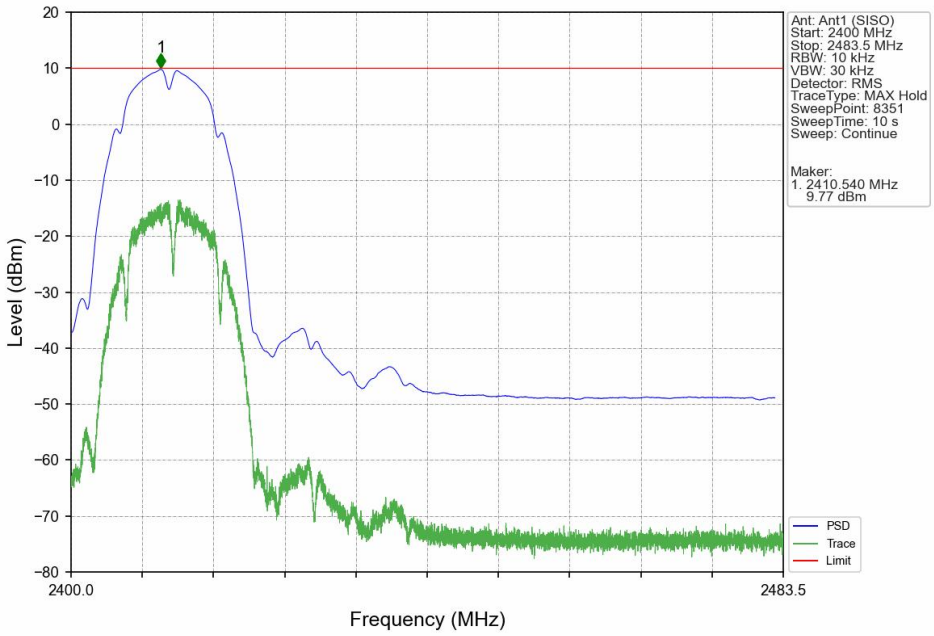
3.1.1 PSD

ENV	Mode	TX Type	Frequency (MHz)	ANT	E.I.R.PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NTNV	802.11b	SISO	2412	1	9.77	<=10	Pass
			2442	1	8.14	<=10	Pass
			2472	1	8.83	<=10	Pass
	802.11g	SISO	2412	1	6.63	<=10	Pass
			2442	1	5.07	<=10	Pass
			2472	1	5.79	<=10	Pass
	802.11n (HT20)	SISO	2412	1	6.20	<=10	Pass
			2442	1	4.66	<=10	Pass
			2472	1	5.44	<=10	Pass
	802.11n (HT40)	SISO	2422	1	2.04	<=10	Pass
			2442	1	1.98	<=10	Pass
			2462	1	1.92	<=10	Pass

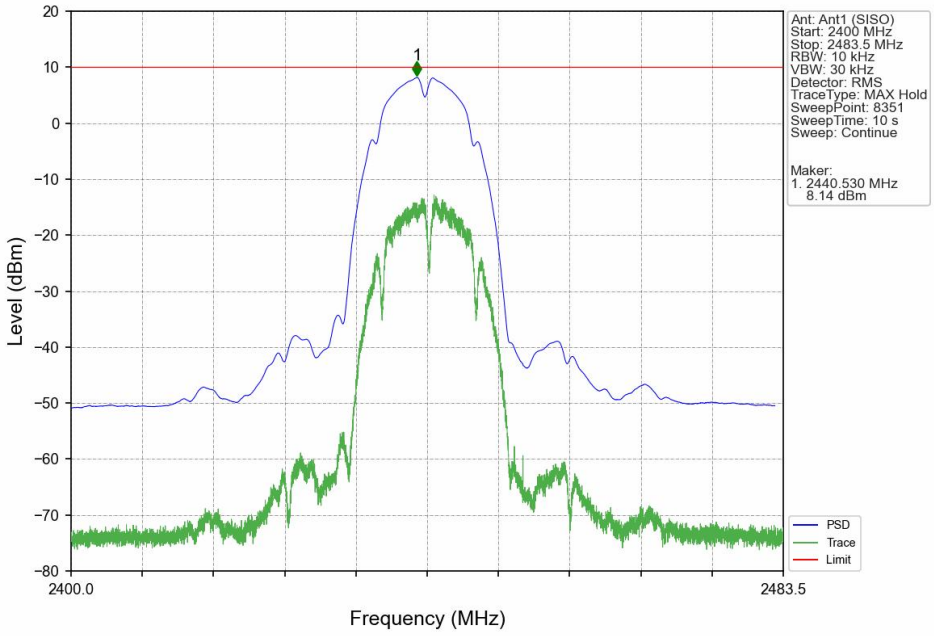
3.2 Test Graph

3.2.1 PSD

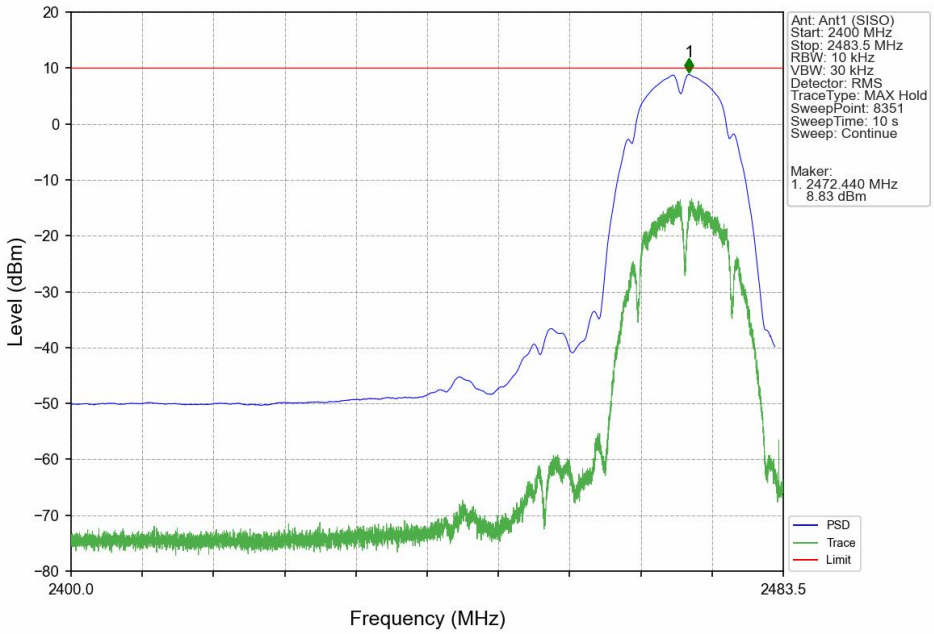
802.11b_2412MHz_Ant1 (SISO)_NTNV



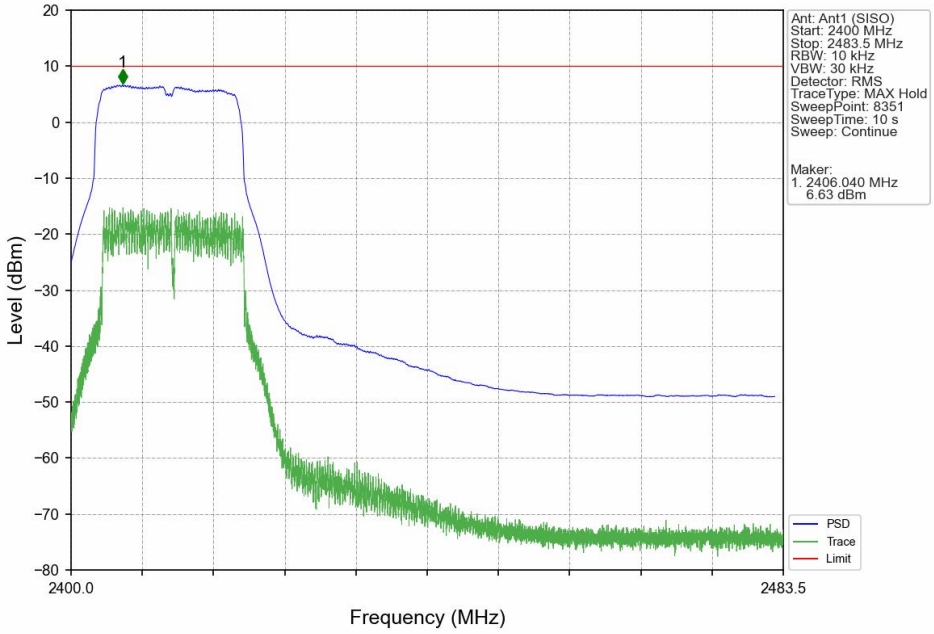
802.11b_2442MHz_Ant1 (SISO)_NTNV



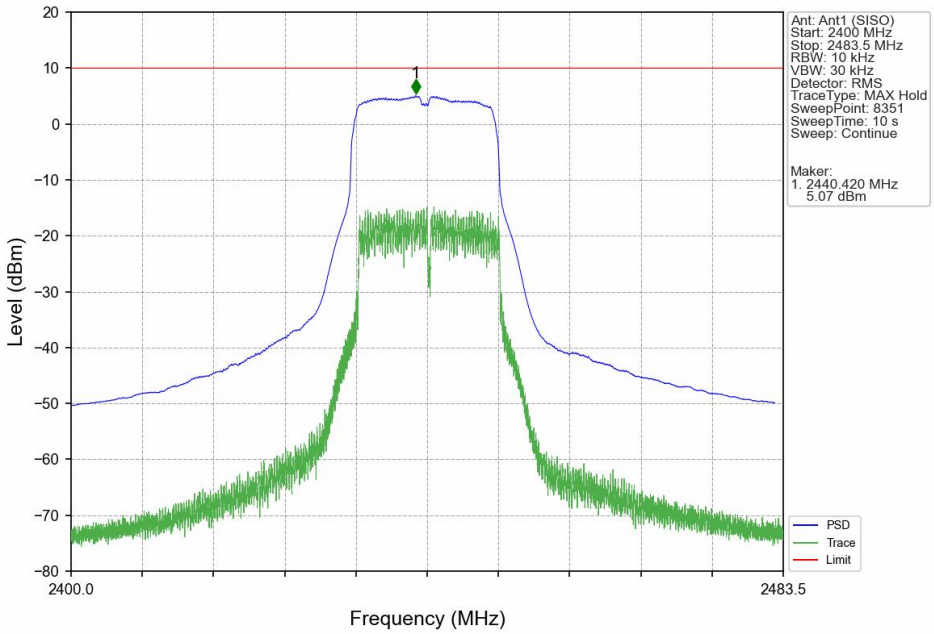
802.11b_2472MHz_Ant1 (SISO)_NTNV



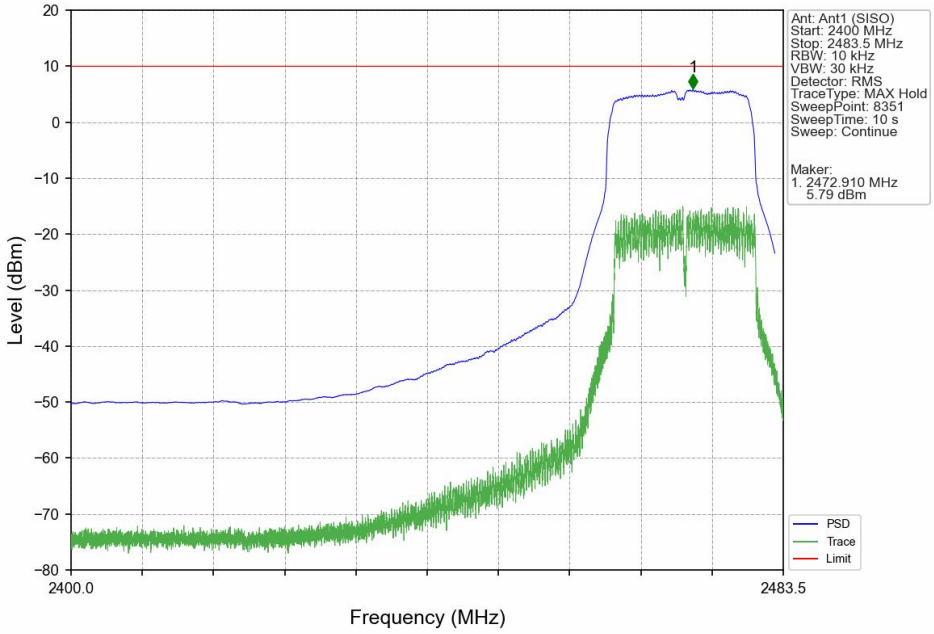
802.11g_2412MHz_Ant1 (SISO)_NTNV



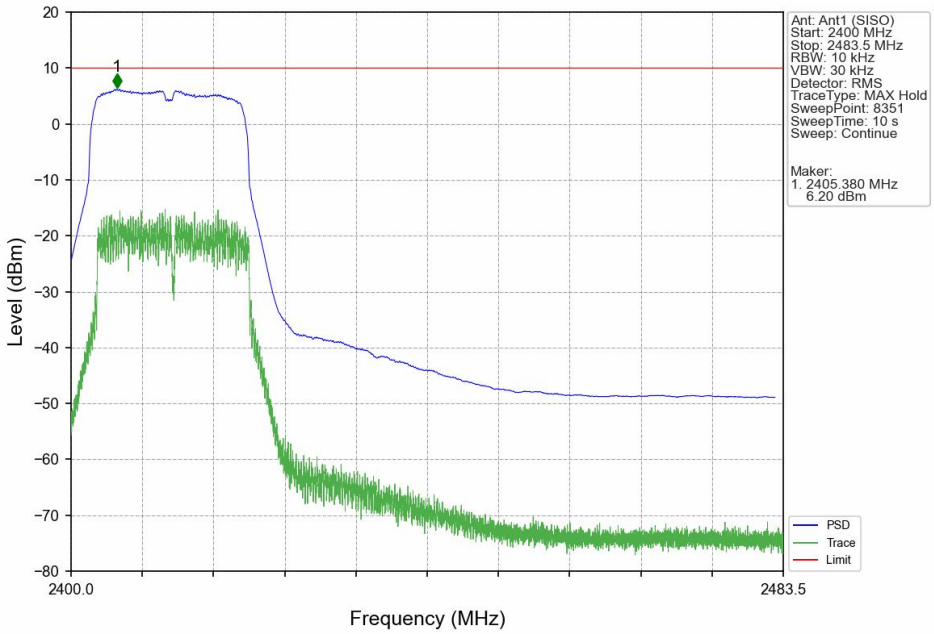
802.11g_2442MHz_Ant1 (SISO)_NTNV



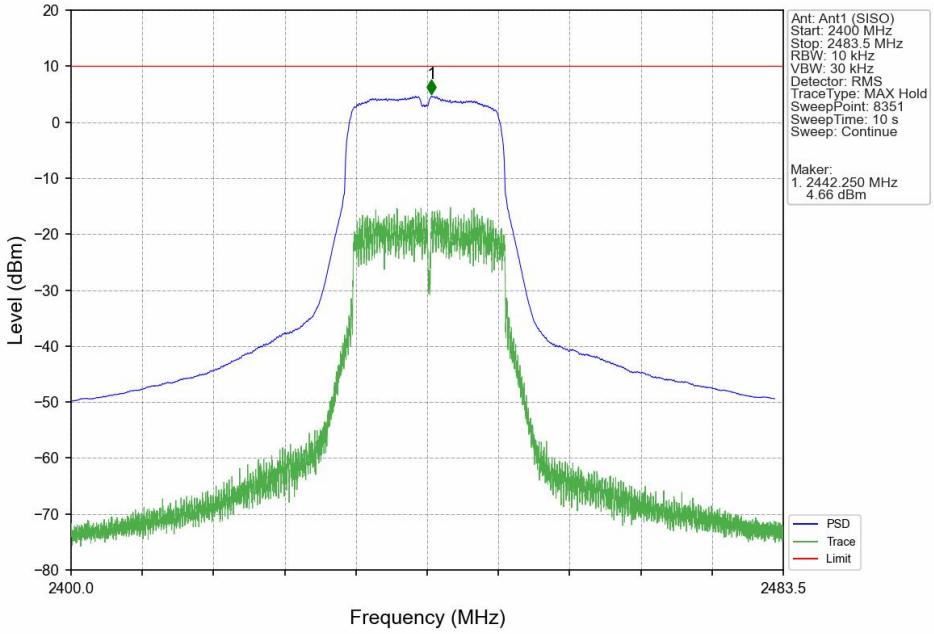
802.11g_2472MHz_Ant1 (SISO)_NTNV



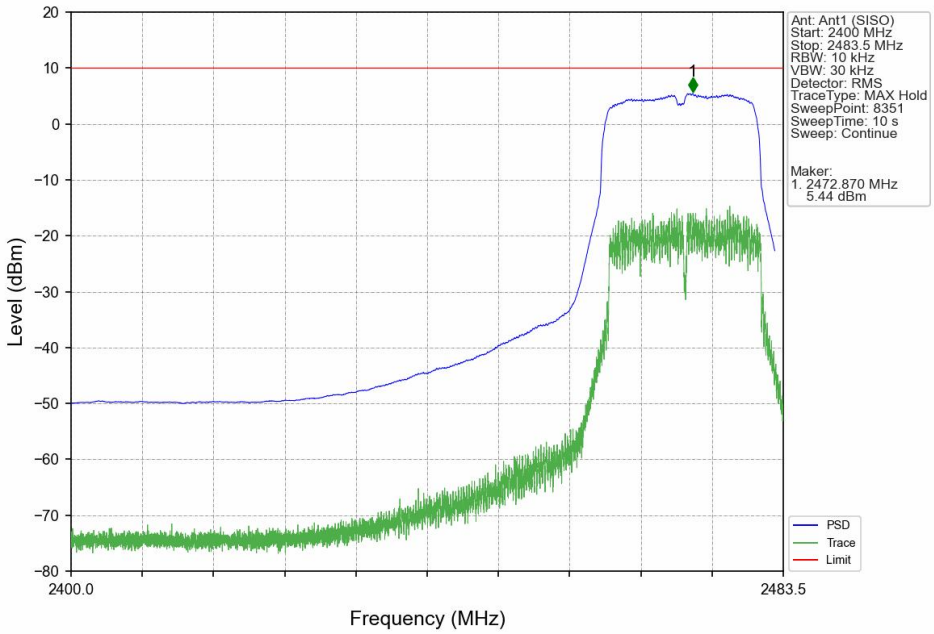
802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV



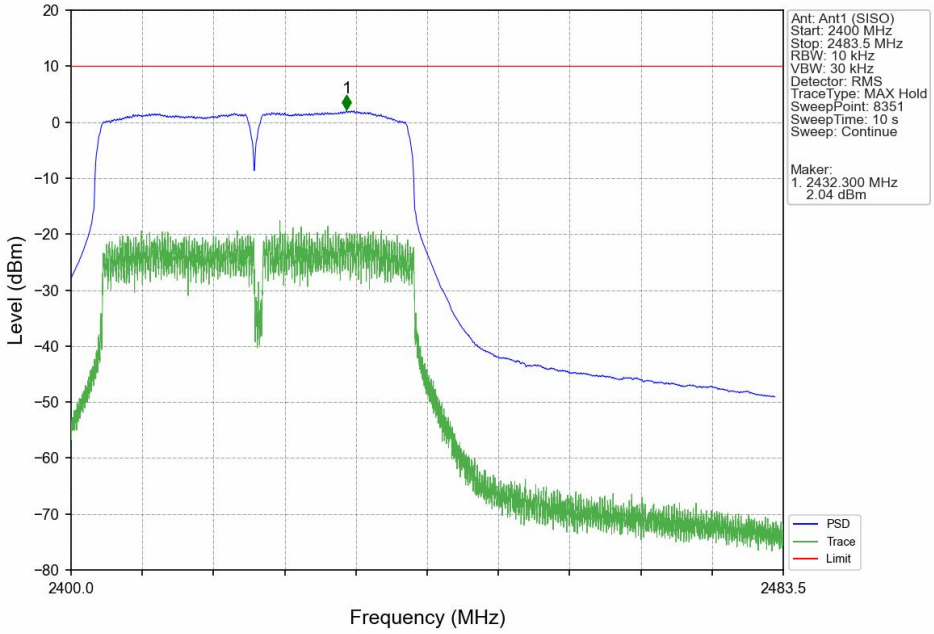
802.11n(HT20)_2442MHz_Ant1 (SISO)_NTNV



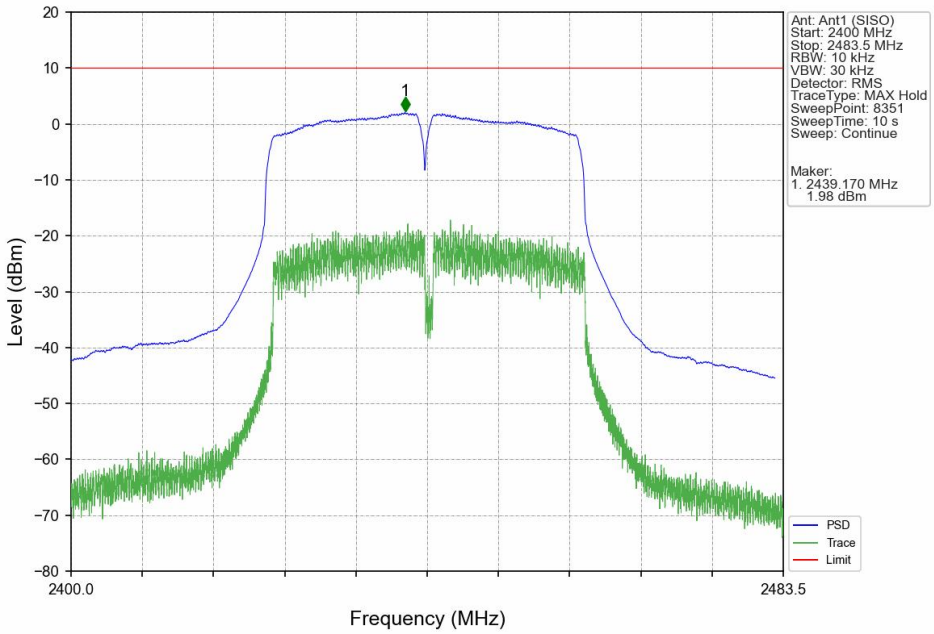
802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV



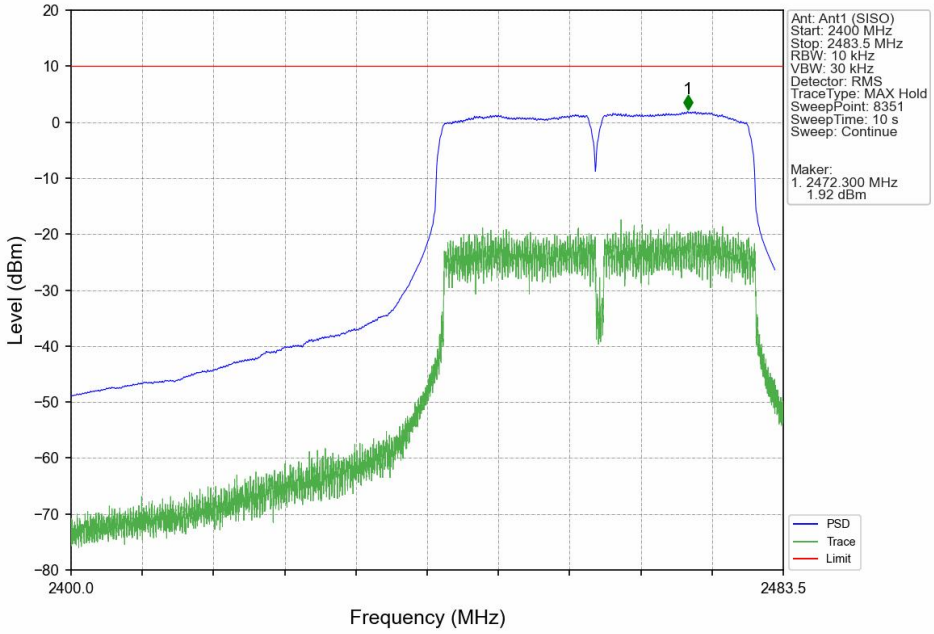
802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_2442MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV



4. Adaptivity (Channel Access Mechanism)

4.1 Test Result

4.1.1 COT

ENV	Mode	TX Type	Frequency (MHz)	ANT	Min Idle Time (ms)		Max COT (ms)		Verdict
					Result	Limit	Result	Limit	
NTNV	802.11g	SISO	2412	1	0.070	>=0.018	0.200	<=13	Pass
			2472	1	0.070	>=0.018	0.200	<=13	Pass

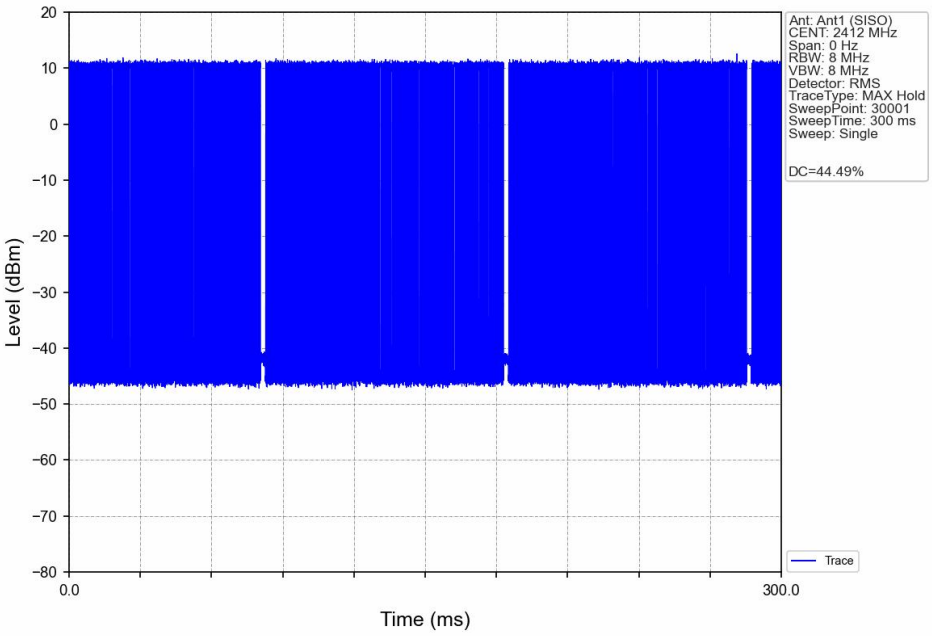
4.1.2 Adaptivity

ENV	Mode	TX Type	Frequency (MHz)	ANT	Interference Signal			Max. Short Control Signal		Verdict
					Type	Add Time (s)	Level (dBm/MHz)	Duty Cycle (%)	Limit (%)	
NTNV	802.11g	SISO	2412	1	AWGN	1.15	-64.65	0.80	<=10	Pass
					AWGN+CW	61.15	-64.65	3.20	<=10	Pass
			2472	1	AWGN	1.15	-63.71	0.00	<=10	Pass
					AWGN+CW	61.15	-63.71	0.00	<=10	Pass

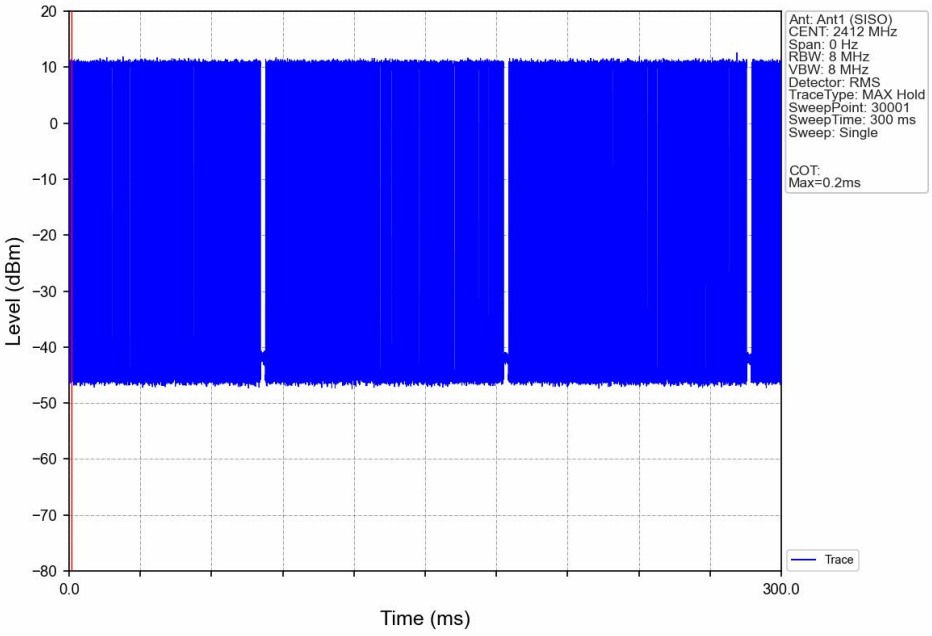
4.2 Test Graph

4.2.1 COT

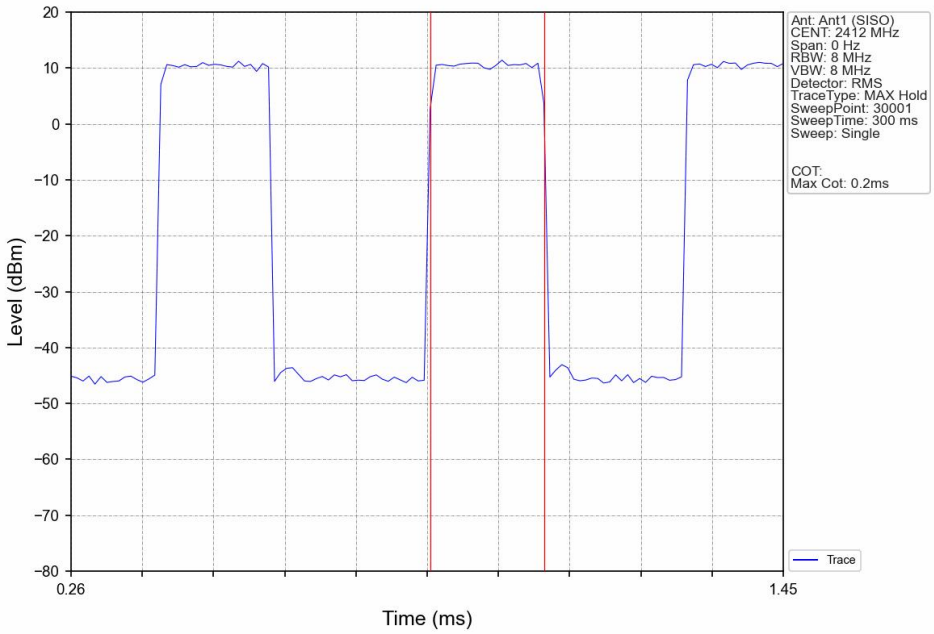
802.11g_2412MHz_Ant1 (SISO)_NTNV



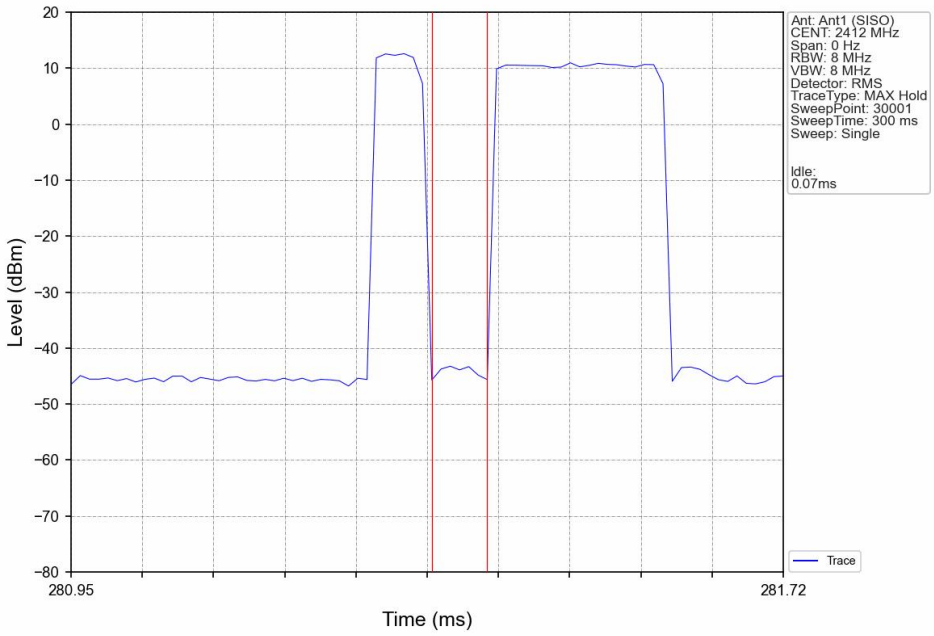
802.11g_2412MHz_Ant1 (SISO)_NTNV



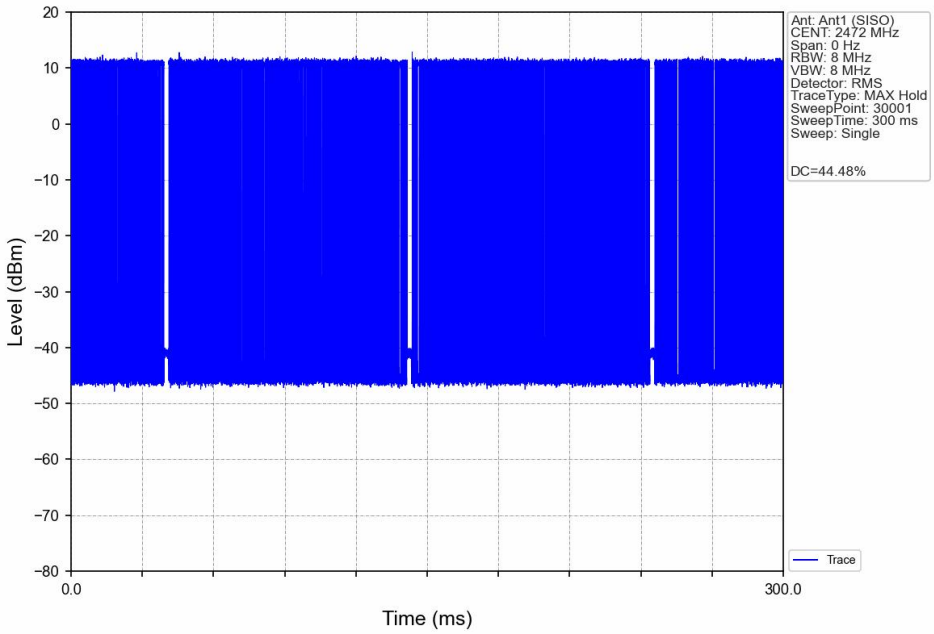
802.11g_2412MHz_Ant1 (SISO)_NTNV



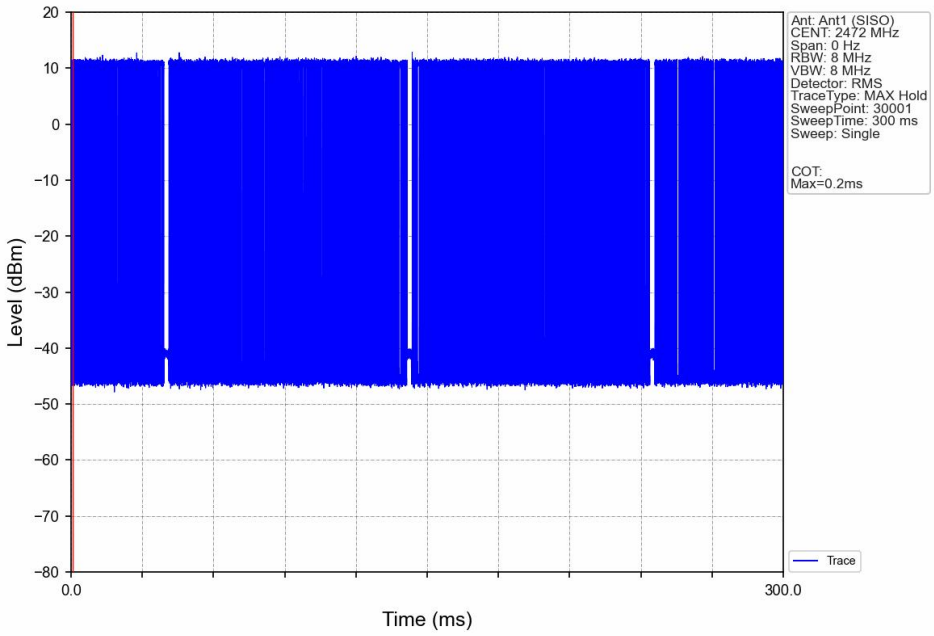
802.11g_2412MHz_Ant1 (SISO)_NTNV



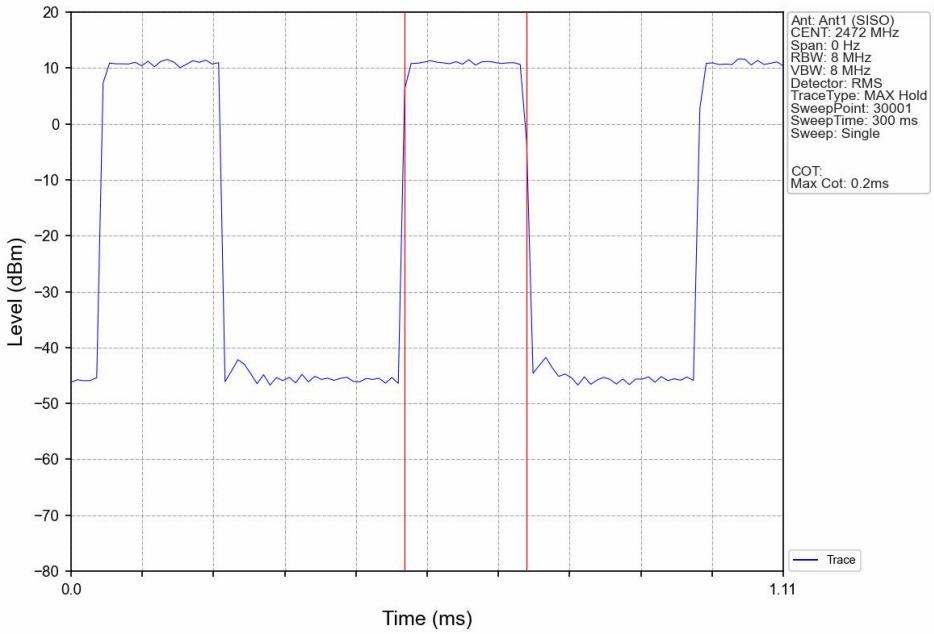
802.11g_2472MHz_Ant1 (SISO)_NTNV



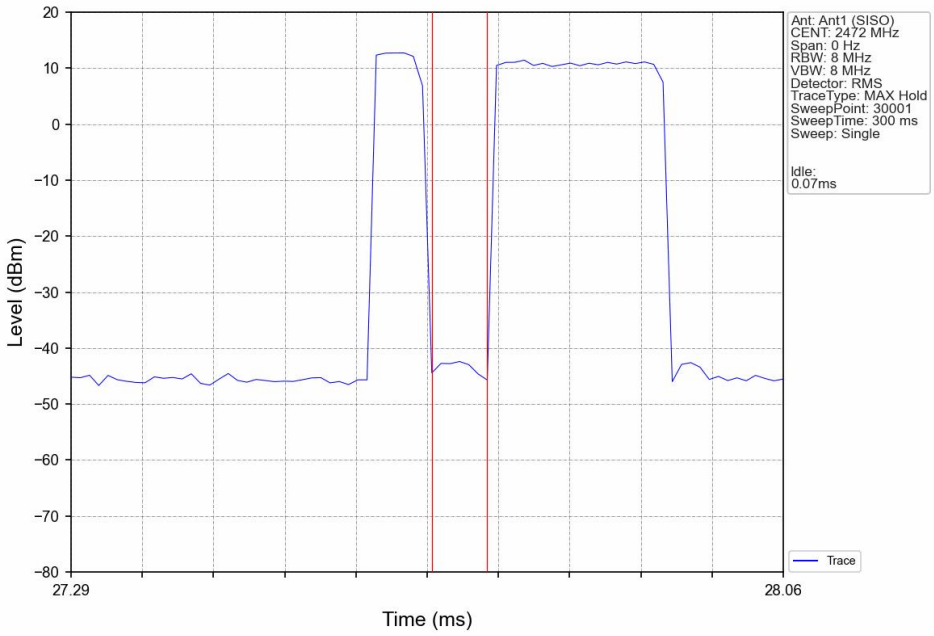
802.11g_2472MHz_Ant1 (SISO)_NTNV



802.11g_2472MHz_Ant1 (SISO)_NTNV

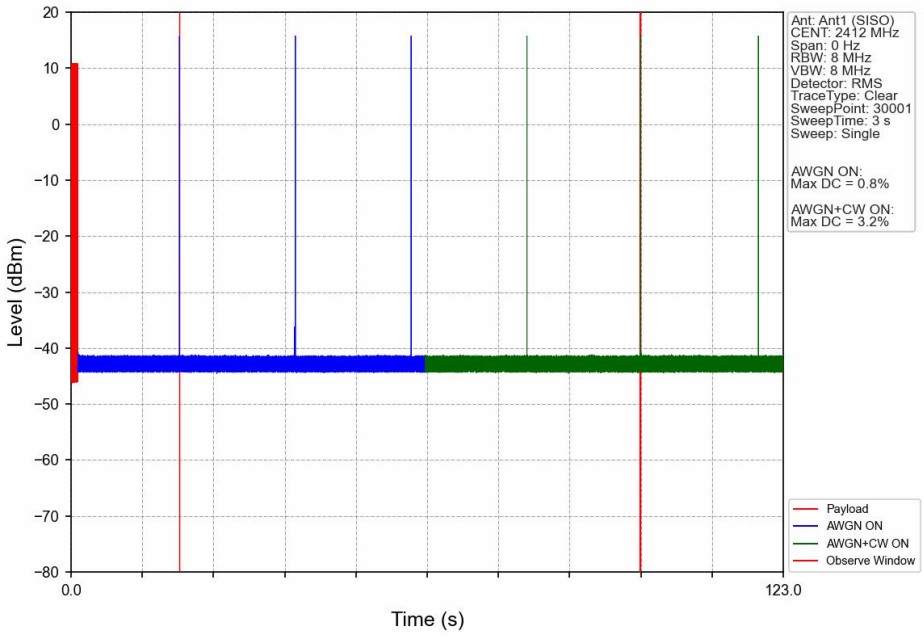


802.11g_2472MHz_Ant1 (SISO)_NTNV

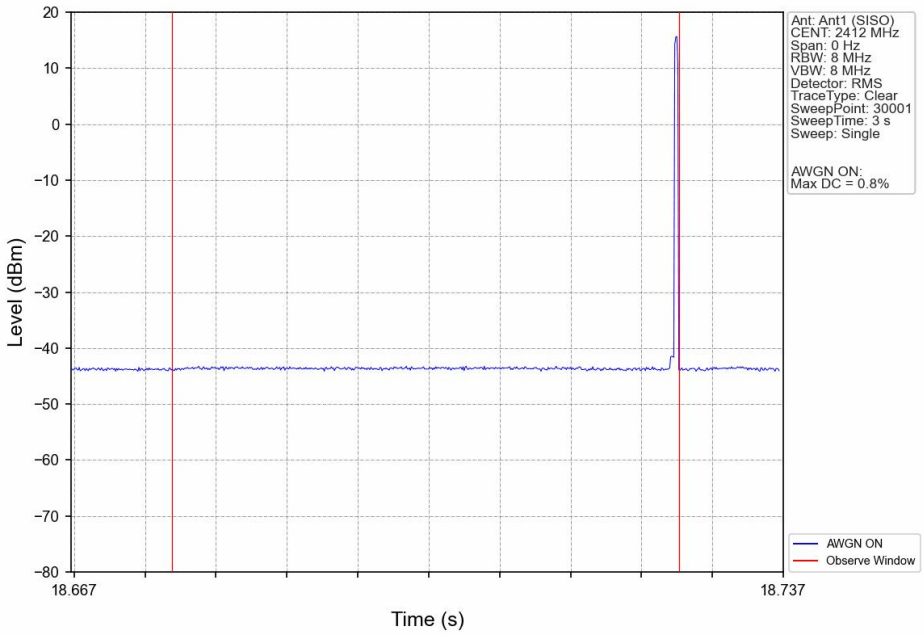


4.2.2 Adaptivity

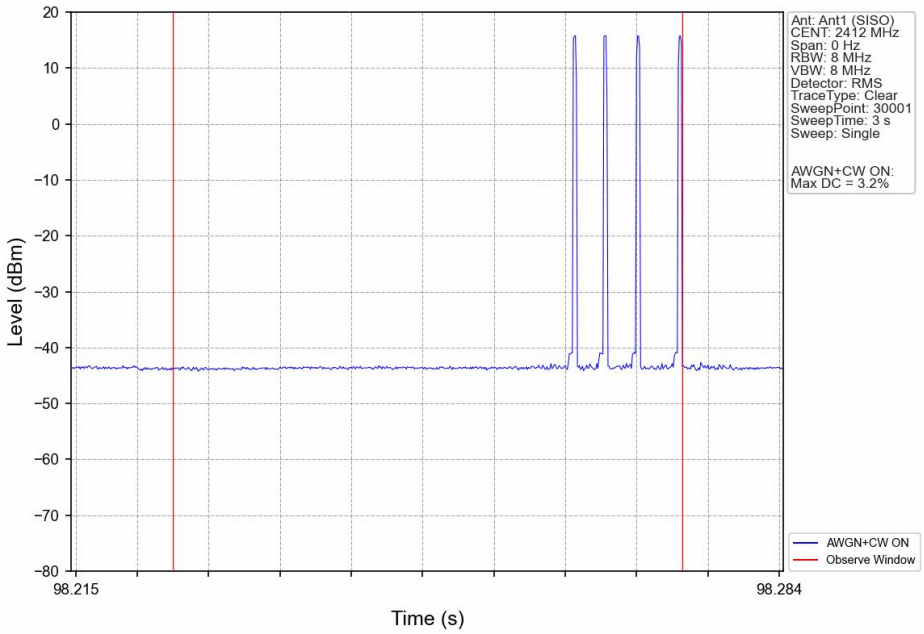
802.11g_2412MHz_Ant1 (SISO)_NTNV



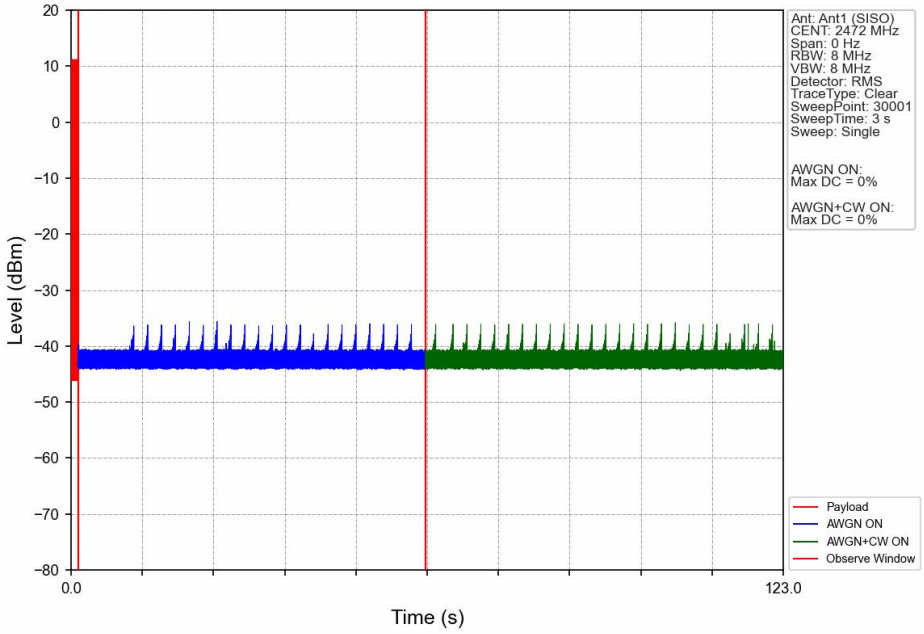
802.11g_2412MHz_Ant1 (SISO)_NTNV



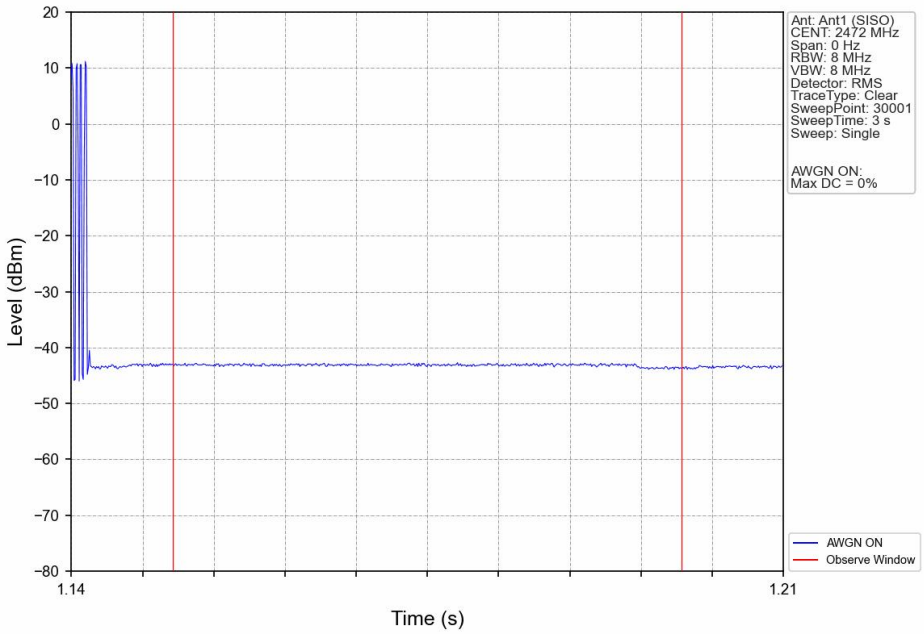
802.11g_2412MHz_Ant1 (SISO)_NTNV



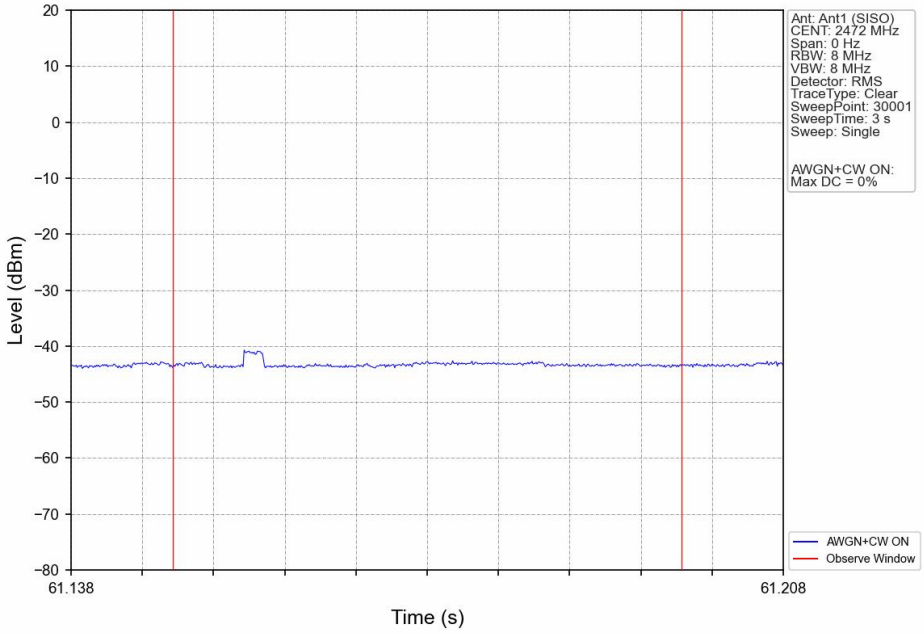
802.11g_2472MHz_Ant1 (SISO)_NTNV



802.11g_2472MHz_Ant1 (SISO)_NTNV



802.11g_2472MHz_Ant1 (SISO)_NTNV



5. Occupied Channel Bandwidth

5.1 Test Result

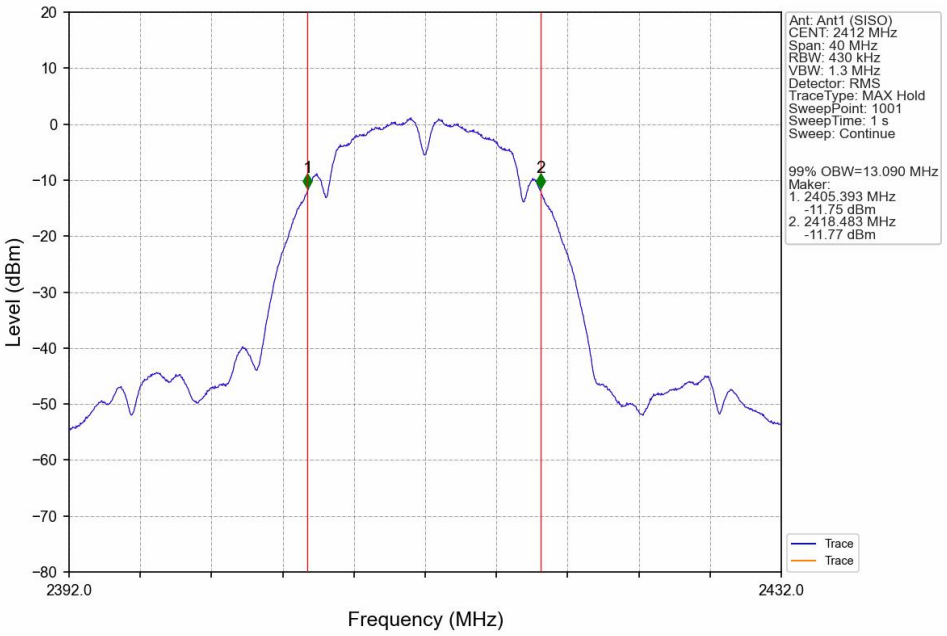
5.1.1 OBW_Ant1

Ant1								
ENV	Mode	TX Type	Frequency (MHz)	OBW (MHz)	Frequency Range (MHz)			Verdict
				Result	FL	FH	Limit	
NTNV	802.11b	SISO	2412	13.090	2405.393	/	>=2400	Pass
			2472	13.023	/	2478.567	<=2483.5	Pass
	802.11g	SISO	2412	16.585	2403.668	/	>=2400	Pass
			2472	16.560	/	2480.287	<=2483.5	Pass
	802.11n (HT20)	SISO	2412	17.786	2403.070	/	>=2400	Pass
			2472	17.752	/	2480.882	<=2483.5	Pass
	802.11n (HT40)	SISO	2422	36.297	2403.833	/	>=2400	Pass
			2462	36.293	/	2480.121	<=2483.5	Pass

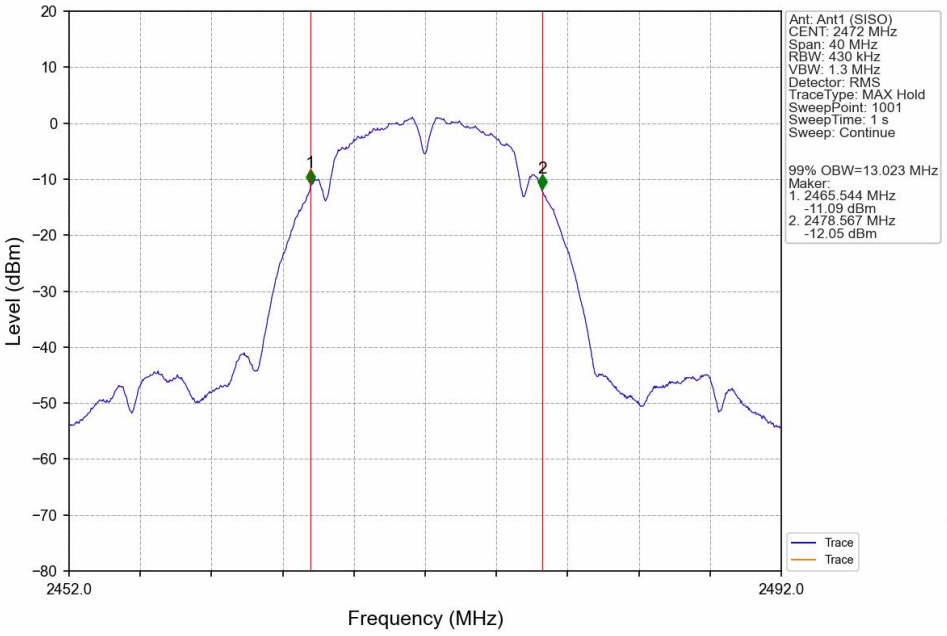
5.2 Test Graph

5.2.1 OBW_Ant1

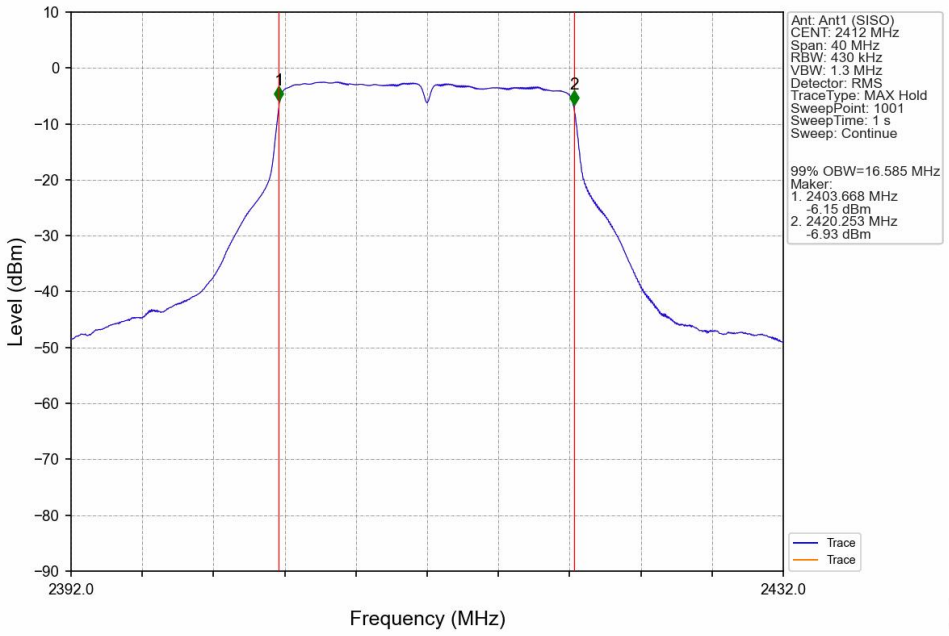
802.11b_2412MHz_Ant1 (SISO)_NTNV



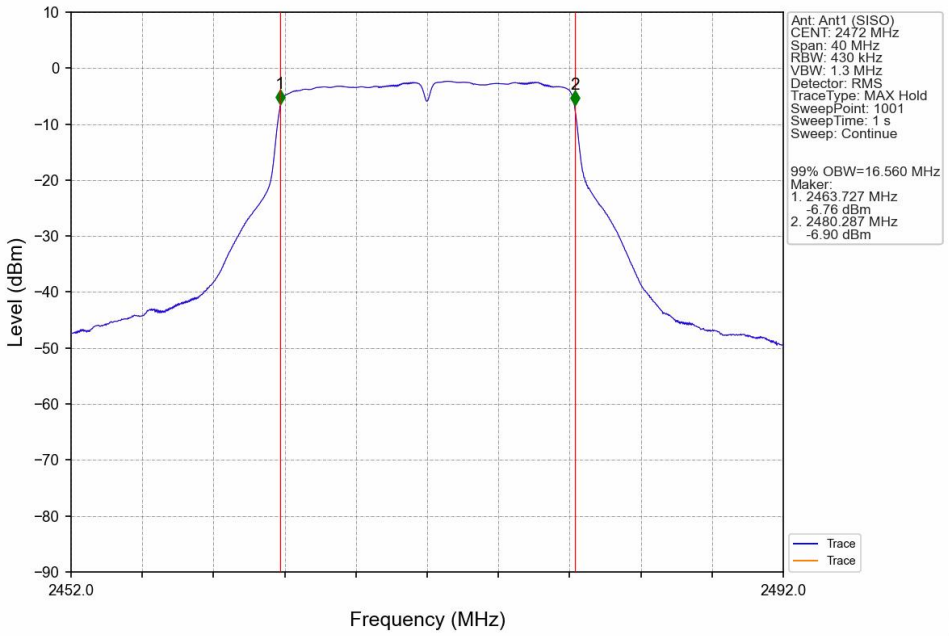
802.11b_2472MHz_Ant1 (SISO)_NTNV



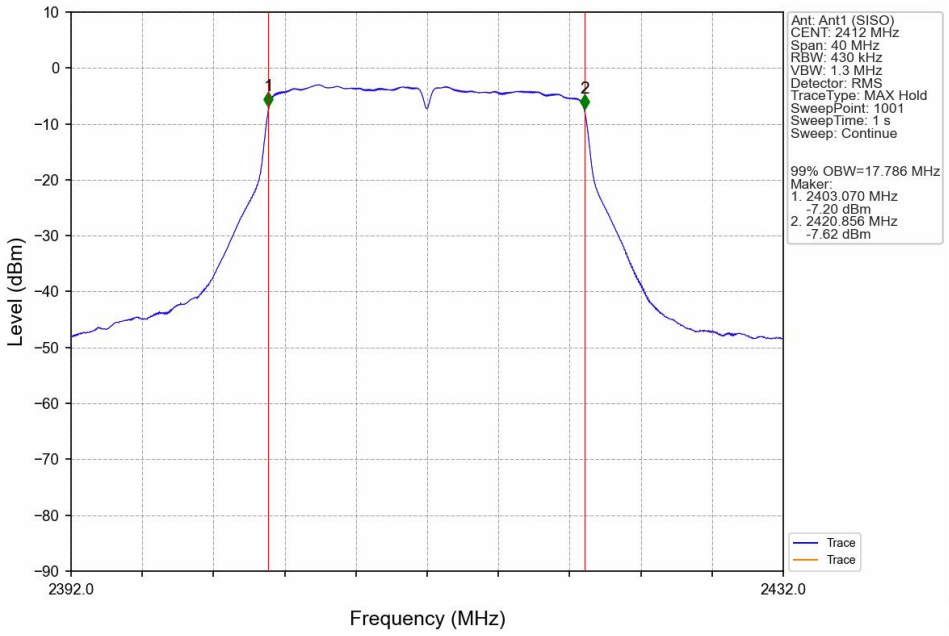
802.11g_2412MHz_Ant1 (SISO)_NTNV



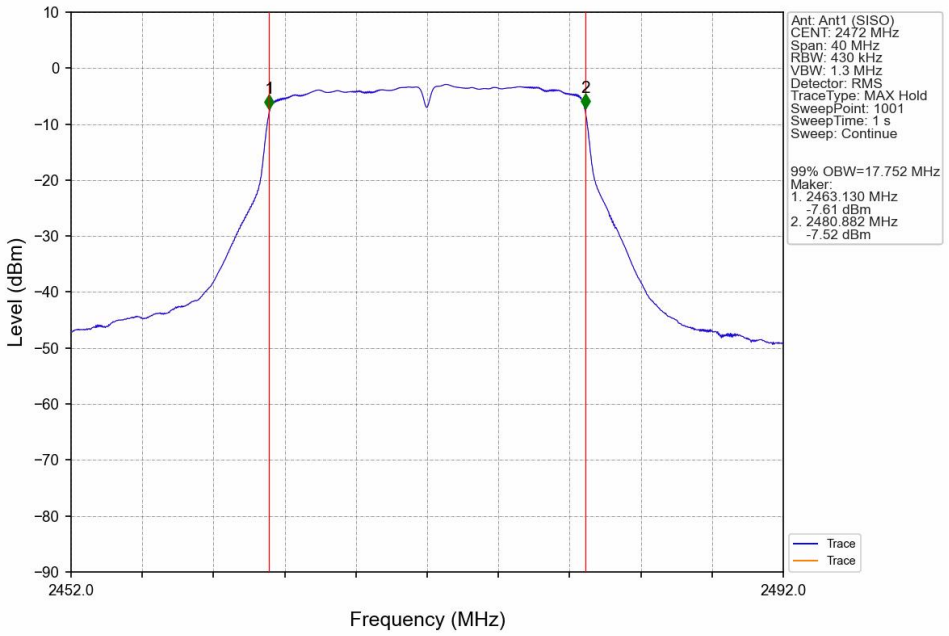
802.11g_2472MHz_Ant1 (SISO)_NTNV



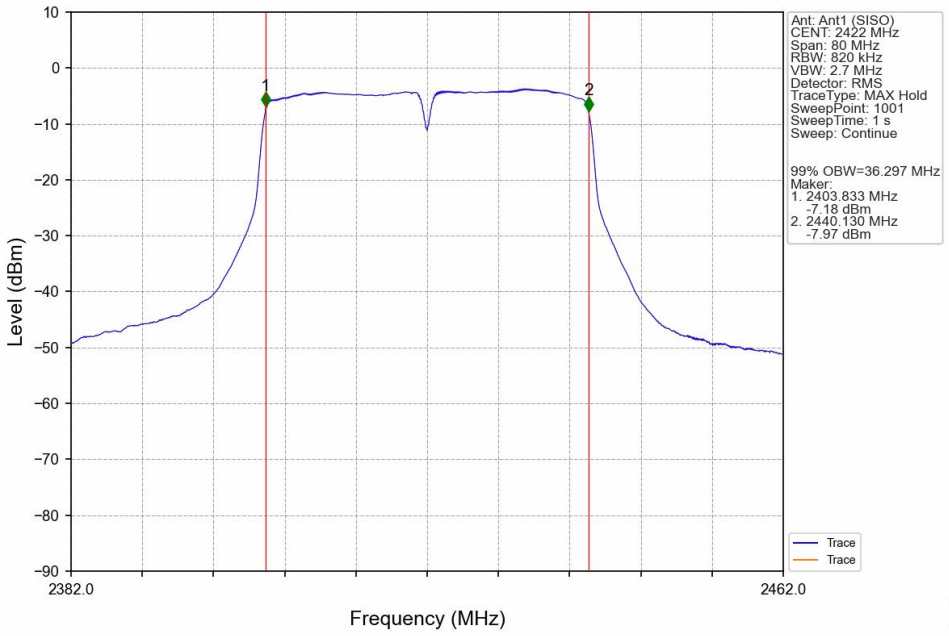
802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV



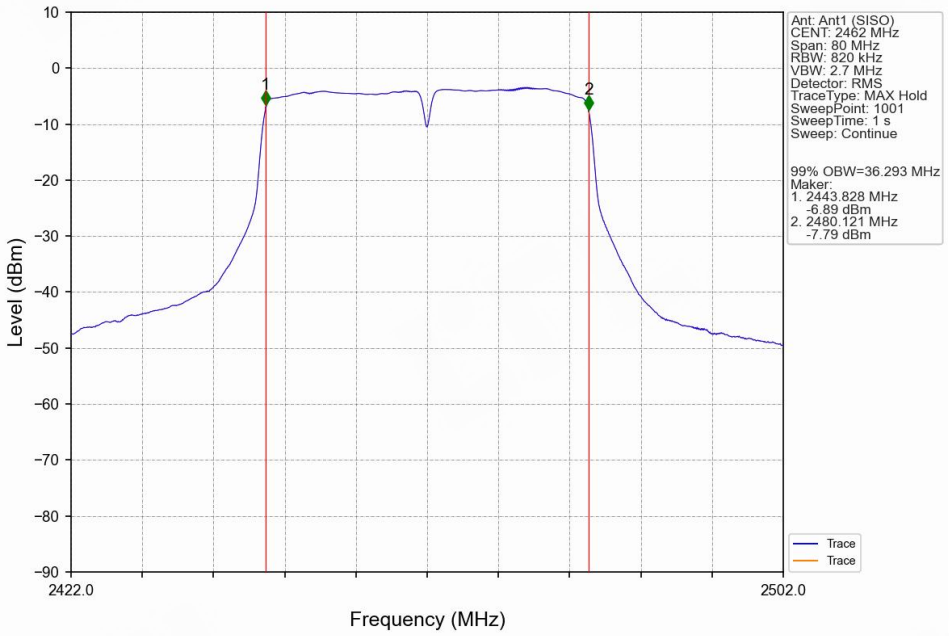
802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV



6. Transmitter Unwanted Emissions In The Out-Of-Band Domain

6.1 Test Result

6.1.1 802.11b-Ant1_NTNV

Ant1_NTNV							
Mode	TX Type	Frequency (MHz)	ANT	Test Freq. (MHz)	Result (dBm/MHz)	Limit (dBm/MHz)	Verdict
802.11b	SISO	2412	1	2374.320	-52.38	<=-20	Pass
				2374.410	-52.40	<=-20	Pass
				2375.410	-52.30	<=-20	Pass
				2376.410	-52.39	<=-20	Pass
				2377.410	-52.42	<=-20	Pass
				2378.410	-52.41	<=-20	Pass
				2379.410	-52.44	<=-20	Pass
				2380.410	-52.44	<=-20	Pass
				2381.410	-52.37	<=-20	Pass
				2382.410	-51.90	<=-20	Pass
				2383.410	-51.18	<=-20	Pass
				2384.410	-51.18	<=-20	Pass
				2385.410	-48.75	<=-20	Pass
				2386.410	-49.05	<=-20	Pass
				2387.410	-49.31	<=-10	Pass
				2387.500	-49.37	<=-10	Pass
				2388.500	-50.35	<=-10	Pass
				2389.500	-51.28	<=-10	Pass
				2390.500	-50.20	<=-10	Pass
				2391.500	-48.63	<=-10	Pass
				2392.500	-46.95	<=-10	Pass
				2393.500	-43.93	<=-10	Pass
				2394.500	-41.87	<=-10	Pass
				2395.500	-42.72	<=-10	Pass
				2396.500	-38.12	<=-10	Pass
				2397.500	-38.21	<=-10	Pass
				2398.500	-39.36	<=-10	Pass
				2399.500	-42.17	<=-10	Pass
		2472	1	2484.000	-42.37	<=-10	Pass
				2485.000	-40.17	<=-10	Pass
				2486.000	-38.82	<=-10	Pass
				2487.000	-37.68	<=-10	Pass
				2488.000	-39.51	<=-10	Pass
				2489.000	-41.60	<=-10	Pass
				2490.000	-43.76	<=-10	Pass
				2491.000	-45.25	<=-10	Pass
				2492.000	-47.15	<=-10	Pass
				2493.000	-47.82	<=-10	Pass
				2494.000	-49.24	<=-10	Pass
				2495.000	-49.99	<=-10	Pass
				2496.000	-48.53	<=-10	Pass
				2496.023	-49.30	<=-10	Pass
				2497.023	-48.06	<=-20	Pass
				2498.023	-47.04	<=-20	Pass
				2499.023	-48.94	<=-20	Pass
				2500.023	-49.84	<=-20	Pass

				2501.023	-50.13	<=-20	Pass
				2502.023	-50.71	<=-20	Pass
				2503.023	-50.78	<=-20	Pass
				2504.023	-50.82	<=-20	Pass
				2505.023	-50.67	<=-20	Pass
				2506.023	-50.89	<=-20	Pass
				2507.023	-50.75	<=-20	Pass
				2508.023	-50.60	<=-20	Pass
				2509.023	-50.54	<=-20	Pass
				2509.046	-50.53	<=-20	Pass

6.1.2 802.11g-Ant1_NTNV

Ant1_NTNV							
Mode	TX Type	Frequency (MHz)	ANT	Test Freq. (MHz)	Result (dBm/MHz)	Limit (dBm/MHz)	Verdict
802.11g	SISO	2412	1	2367.330	-51.71	<=-20	Pass
				2367.915	-51.66	<=-20	Pass
				2368.915	-51.67	<=-20	Pass
				2369.915	-51.62	<=-20	Pass
				2370.915	-51.42	<=-20	Pass
				2371.915	-51.44	<=-20	Pass
				2372.915	-51.38	<=-20	Pass
				2373.915	-51.28	<=-20	Pass
				2374.915	-51.01	<=-20	Pass
				2375.915	-50.89	<=-20	Pass
				2376.915	-50.56	<=-20	Pass
				2377.915	-50.16	<=-20	Pass
				2378.915	-49.76	<=-20	Pass
				2379.915	-49.53	<=-20	Pass
				2380.915	-49.28	<=-20	Pass
				2381.915	-48.55	<=-20	Pass
				2382.915	-47.93	<=-20	Pass
				2383.915	-47.33	<=-10	Pass
				2384.500	-46.80	<=-10	Pass
				2385.500	-46.17	<=-10	Pass
				2386.500	-45.83	<=-10	Pass
				2387.500	-45.09	<=-10	Pass
				2388.500	-44.54	<=-10	Pass
				2389.500	-43.58	<=-10	Pass
				2390.500	-42.98	<=-10	Pass
				2391.500	-41.83	<=-10	Pass
				2392.500	-40.92	<=-10	Pass
				2393.500	-39.91	<=-10	Pass
				2394.500	-38.81	<=-10	Pass
				2395.500	-37.82	<=-10	Pass
				2396.500	-36.78	<=-10	Pass
				2397.500	-36.11	<=-10	Pass
				2398.500	-34.59	<=-10	Pass
				2399.500	-31.54	<=-10	Pass
		2472	1	2484.000	-30.03	<=-10	Pass
				2485.000	-35.07	<=-10	Pass
				2486.000	-38.01	<=-10	Pass
				2487.000	-39.37	<=-10	Pass
				2488.000	-39.91	<=-10	Pass
				2489.000	-40.56	<=-10	Pass
				2490.000	-40.82	<=-10	Pass
				2491.000	-41.36	<=-10	Pass

				2492.000	-42.38	<=-10	Pass
				2493.000	-42.76	<=-10	Pass
				2494.000	-43.38	<=-10	Pass
				2495.000	-44.09	<=-10	Pass
				2496.000	-44.56	<=-10	Pass
				2497.000	-45.31	<=-10	Pass
				2498.000	-45.70	<=-10	Pass
				2499.000	-46.14	<=-10	Pass
				2499.560	-46.54	<=-10	Pass
				2500.560	-47.06	<=-20	Pass
				2501.560	-47.44	<=-20	Pass
				2502.560	-47.56	<=-20	Pass
				2503.560	-48.12	<=-20	Pass
				2504.560	-48.37	<=-20	Pass
				2505.560	-48.75	<=-20	Pass
				2506.560	-48.97	<=-20	Pass
				2507.560	-49.23	<=-20	Pass
				2508.560	-49.17	<=-20	Pass
				2509.560	-49.54	<=-20	Pass
				2510.560	-49.65	<=-20	Pass
				2511.560	-49.64	<=-20	Pass
				2512.560	-49.82	<=-20	Pass
				2513.560	-49.98	<=-20	Pass
				2514.560	-49.92	<=-20	Pass
				2515.560	-50.14	<=-20	Pass
				2516.120	-50.02	<=-20	Pass

6.1.3 802.11n(HT20)-Ant1_NTNV

Ant1_NTNV							
Mode	TX Type	Frequency (MHz)	ANT	Test Freq. (MHz)	Result (dBm/MHz)	Limit (dBm/MHz)	Verdict
802.11n (HT20)	SISO	2412	1	2364.928	-51.75	<=-20	Pass
				2365.714	-51.57	<=-20	Pass
				2366.714	-51.57	<=-20	Pass
				2367.714	-51.46	<=-20	Pass
				2368.714	-51.54	<=-20	Pass
				2369.714	-51.40	<=-20	Pass
				2370.714	-51.55	<=-20	Pass
				2371.714	-51.35	<=-20	Pass
				2372.714	-51.33	<=-20	Pass
				2373.714	-51.21	<=-20	Pass
				2374.714	-50.87	<=-20	Pass
				2375.714	-50.76	<=-20	Pass
				2376.714	-50.39	<=-20	Pass
				2377.714	-50.07	<=-20	Pass
				2378.714	-49.82	<=-20	Pass
				2379.714	-49.49	<=-20	Pass
				2380.714	-48.99	<=-20	Pass
				2381.714	-48.54	<=-20	Pass
				2382.714	-48.10	<=-10	Pass
				2383.500	-47.54	<=-10	Pass
				2384.500	-47.34	<=-10	Pass
				2385.500	-46.78	<=-10	Pass
				2386.500	-46.24	<=-10	Pass
				2387.500	-45.28	<=-10	Pass
				2388.500	-44.49	<=-10	Pass
				2389.500	-43.67	<=-10	Pass

				2390.500	-42.55	<=-10	Pass
				2391.500	-41.69	<=-10	Pass
				2392.500	-40.67	<=-10	Pass
				2393.500	-39.95	<=-10	Pass
				2394.500	-39.02	<=-10	Pass
				2395.500	-38.02	<=-10	Pass
				2396.500	-37.46	<=-10	Pass
				2397.500	-36.66	<=-10	Pass
				2398.500	-35.34	<=-10	Pass
				2399.500	-31.67	<=-10	Pass
		2472	1	2484.000	-30.70	<=-10	Pass
				2485.000	-35.09	<=-10	Pass
				2486.000	-38.25	<=-10	Pass
				2487.000	-39.45	<=-10	Pass
				2488.000	-40.24	<=-10	Pass
				2489.000	-40.73	<=-10	Pass
				2490.000	-41.30	<=-10	Pass
				2491.000	-41.80	<=-10	Pass
				2492.000	-42.28	<=-10	Pass
				2493.000	-43.13	<=-10	Pass
				2494.000	-43.21	<=-10	Pass
				2495.000	-43.87	<=-10	Pass
				2496.000	-44.74	<=-10	Pass
				2497.000	-44.93	<=-10	Pass
				2498.000	-45.50	<=-10	Pass
				2499.000	-46.11	<=-10	Pass
				2500.000	-46.51	<=-10	Pass
				2500.752	-46.70	<=-10	Pass
				2501.752	-47.16	<=-20	Pass
				2502.752	-47.32	<=-20	Pass
				2503.752	-47.91	<=-20	Pass
				2504.752	-48.21	<=-20	Pass
				2505.752	-48.49	<=-20	Pass
				2506.752	-48.70	<=-20	Pass
				2507.752	-48.90	<=-20	Pass
				2508.752	-49.17	<=-20	Pass
				2509.752	-49.44	<=-20	Pass
				2510.752	-49.56	<=-20	Pass
				2511.752	-49.68	<=-20	Pass
				2512.752	-49.87	<=-20	Pass
				2513.752	-49.85	<=-20	Pass
				2514.752	-49.94	<=-20	Pass
				2515.752	-49.91	<=-20	Pass
				2516.752	-50.07	<=-20	Pass
				2517.752	-50.17	<=-20	Pass
				2518.504	-50.16	<=-20	Pass

6.1.4 802.11n(HT40)-Ant1_NTNV

Ant1_NTNV							
Mode	TX Type	Frequency (MHz)	ANT	Test Freq. (MHz)	Result (dBm/MHz)	Limit (dBm/MHz)	Verdict
802.11n (HT40)	SISO	2422	1	2327.906	-55.09	<=-20	Pass
				2328.203	-55.12	<=-20	Pass
				2329.203	-55.27	<=-20	Pass
				2330.203	-55.07	<=-20	Pass
				2331.203	-55.15	<=-20	Pass
				2332.203	-55.07	<=-20	Pass

				2333.203	-55.17	<=-20	Pass
				2334.203	-55.20	<=-20	Pass
				2335.203	-55.21	<=-20	Pass
				2336.203	-55.21	<=-20	Pass
				2337.203	-55.19	<=-20	Pass
				2338.203	-55.21	<=-20	Pass
				2339.203	-55.07	<=-20	Pass
				2340.203	-55.11	<=-20	Pass
				2341.203	-55.11	<=-20	Pass
				2342.203	-55.03	<=-20	Pass
				2343.203	-55.01	<=-20	Pass
				2344.203	-54.81	<=-20	Pass
				2345.203	-54.69	<=-20	Pass
				2346.203	-54.55	<=-20	Pass
				2347.203	-54.45	<=-20	Pass
				2348.203	-54.17	<=-20	Pass
				2349.203	-54.06	<=-20	Pass
				2350.203	-53.74	<=-20	Pass
				2351.203	-53.66	<=-20	Pass
				2352.203	-53.46	<=-20	Pass
				2353.203	-53.06	<=-20	Pass
				2354.203	-52.91	<=-20	Pass
				2355.203	-52.53	<=-20	Pass
				2356.203	-52.16	<=-20	Pass
				2357.203	-51.90	<=-20	Pass
				2358.203	-51.54	<=-20	Pass
				2359.203	-51.18	<=-20	Pass
				2360.203	-50.54	<=-20	Pass
				2361.203	-50.49	<=-20	Pass
				2362.203	-50.25	<=-20	Pass
				2363.203	-49.88	<=-20	Pass
				2364.203	-49.67	<=-10	Pass
				2364.500	-49.60	<=-10	Pass
				2365.500	-49.23	<=-10	Pass
				2366.500	-49.26	<=-10	Pass
				2367.500	-48.92	<=-10	Pass
				2368.500	-48.77	<=-10	Pass
				2369.500	-48.58	<=-10	Pass
				2370.500	-48.35	<=-10	Pass
				2371.500	-48.37	<=-10	Pass
				2372.500	-48.46	<=-10	Pass
				2373.500	-47.98	<=-10	Pass
				2374.500	-47.68	<=-10	Pass
				2375.500	-46.99	<=-10	Pass
				2376.500	-46.93	<=-10	Pass
				2377.500	-46.50	<=-10	Pass
				2378.500	-46.28	<=-10	Pass
				2379.500	-45.71	<=-10	Pass
				2380.500	-45.39	<=-10	Pass
				2381.500	-45.16	<=-10	Pass
				2382.500	-44.77	<=-10	Pass
				2383.500	-43.96	<=-10	Pass
				2384.500	-43.70	<=-10	Pass
				2385.500	-43.10	<=-10	Pass
				2386.500	-42.78	<=-10	Pass
				2387.500	-42.80	<=-10	Pass
				2388.500	-42.01	<=-10	Pass
				2389.500	-41.74	<=-10	Pass
				2390.500	-41.43	<=-10	Pass

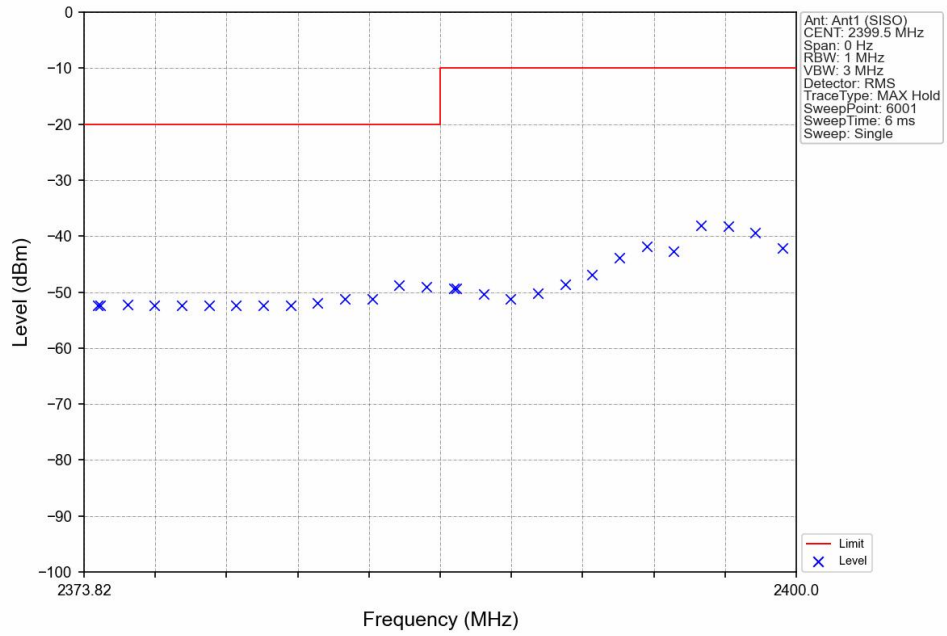
				2391.500	-41.19	<=-10	Pass
				2392.500	-40.65	<=-10	Pass
				2393.500	-40.09	<=-10	Pass
				2394.500	-39.63	<=-10	Pass
				2395.500	-38.84	<=-10	Pass
				2396.500	-38.14	<=-10	Pass
				2397.500	-36.84	<=-10	Pass
				2398.500	-34.79	<=-10	Pass
				2399.500	-32.17	<=-10	Pass
		2462	1	2484.000	-31.15	<=-10	Pass
				2485.000	-33.52	<=-10	Pass
				2486.000	-37.20	<=-10	Pass
				2487.000	-38.08	<=-10	Pass
				2488.000	-39.91	<=-10	Pass
				2489.000	-40.59	<=-10	Pass
				2490.000	-41.31	<=-10	Pass
				2491.000	-41.75	<=-10	Pass
				2492.000	-42.09	<=-10	Pass
				2493.000	-42.27	<=-10	Pass
				2494.000	-42.97	<=-10	Pass
				2495.000	-43.13	<=-10	Pass
				2496.000	-43.51	<=-10	Pass
				2497.000	-43.67	<=-10	Pass
				2498.000	-43.98	<=-10	Pass
				2499.000	-44.29	<=-10	Pass
				2500.000	-44.53	<=-10	Pass
				2501.000	-44.77	<=-10	Pass
				2502.000	-45.17	<=-10	Pass
				2503.000	-45.36	<=-10	Pass
				2504.000	-45.60	<=-10	Pass
				2505.000	-45.75	<=-10	Pass
				2506.000	-45.64	<=-10	Pass
				2507.000	-45.81	<=-10	Pass
				2508.000	-46.04	<=-10	Pass
				2509.000	-46.44	<=-10	Pass
				2510.000	-46.68	<=-10	Pass
				2511.000	-46.90	<=-10	Pass
				2512.000	-47.13	<=-10	Pass
				2513.000	-47.07	<=-10	Pass
				2514.000	-47.21	<=-10	Pass
				2515.000	-47.35	<=-10	Pass
				2516.000	-47.52	<=-10	Pass
				2517.000	-47.81	<=-10	Pass
				2518.000	-48.28	<=-10	Pass
				2519.000	-48.35	<=-10	Pass
				2519.293	-48.35	<=-10	Pass
				2520.293	-48.58	<=-20	Pass
				2521.293	-48.95	<=-20	Pass
				2522.293	-49.02	<=-20	Pass
				2523.293	-49.31	<=-20	Pass
				2524.293	-49.32	<=-20	Pass
				2525.293	-49.55	<=-20	Pass
				2526.293	-49.85	<=-20	Pass
				2527.293	-50.07	<=-20	Pass
				2528.293	-50.37	<=-20	Pass
				2529.293	-50.54	<=-20	Pass
				2530.293	-50.60	<=-20	Pass
				2531.293	-50.89	<=-20	Pass
				2532.293	-51.00	<=-20	Pass

				2533.293	-51.04	<=-20	Pass
				2534.293	-51.10	<=-20	Pass
				2535.293	-51.33	<=-20	Pass
				2536.293	-51.44	<=-20	Pass
				2537.293	-51.54	<=-20	Pass
				2538.293	-51.55	<=-20	Pass
				2539.293	-51.56	<=-20	Pass
				2540.293	-51.79	<=-20	Pass
				2541.293	-51.79	<=-20	Pass
				2542.293	-51.84	<=-20	Pass
				2543.293	-51.84	<=-20	Pass
				2544.293	-51.81	<=-20	Pass
				2545.293	-51.78	<=-20	Pass
				2546.293	-51.81	<=-20	Pass
				2547.293	-51.68	<=-20	Pass
				2548.293	-51.88	<=-20	Pass
				2549.293	-51.82	<=-20	Pass
				2550.293	-51.76	<=-20	Pass
				2551.293	-51.82	<=-20	Pass
				2552.293	-51.89	<=-20	Pass
				2553.293	-51.78	<=-20	Pass
				2554.293	-51.93	<=-20	Pass
				2555.293	-52.00	<=-20	Pass
				2555.586	-52.09	<=-20	Pass

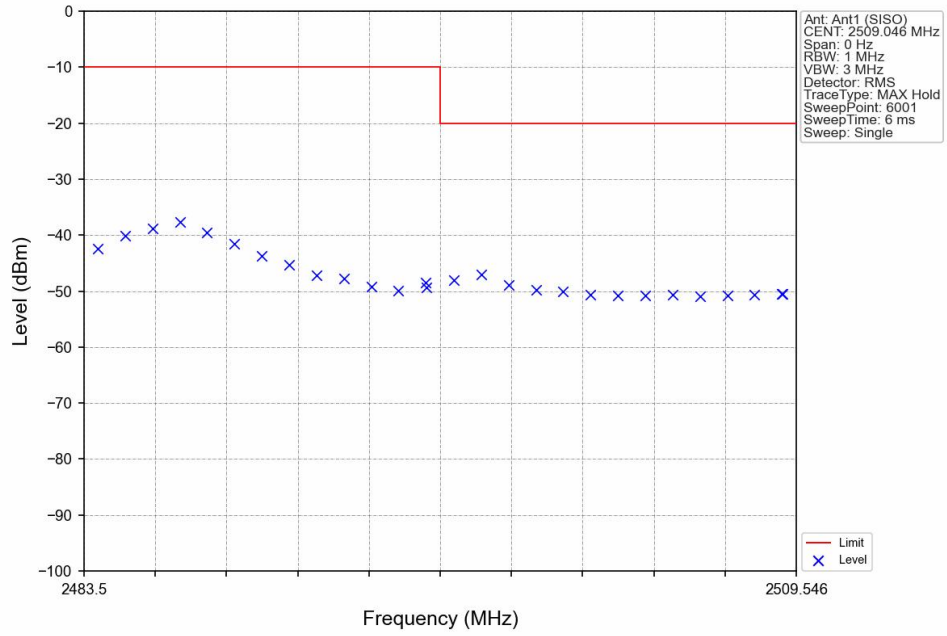
6.2 Test Graph

6.2.1 802.11b-Ant1_NTNV

802.11b_2412MHz_Ant1 (SISO)_NTNV

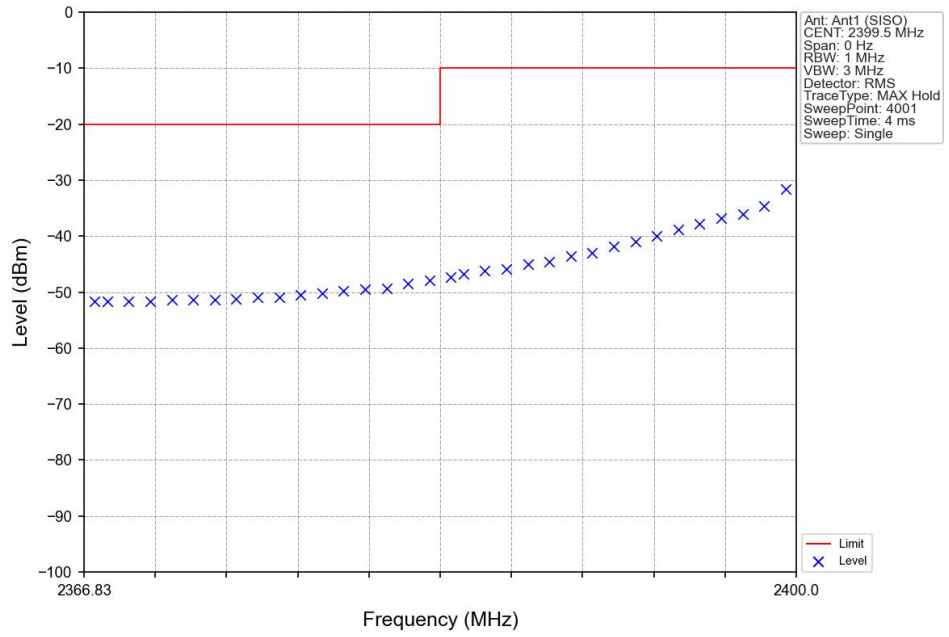


802.11b_2472MHz_Ant1 (SISO)_NTNV

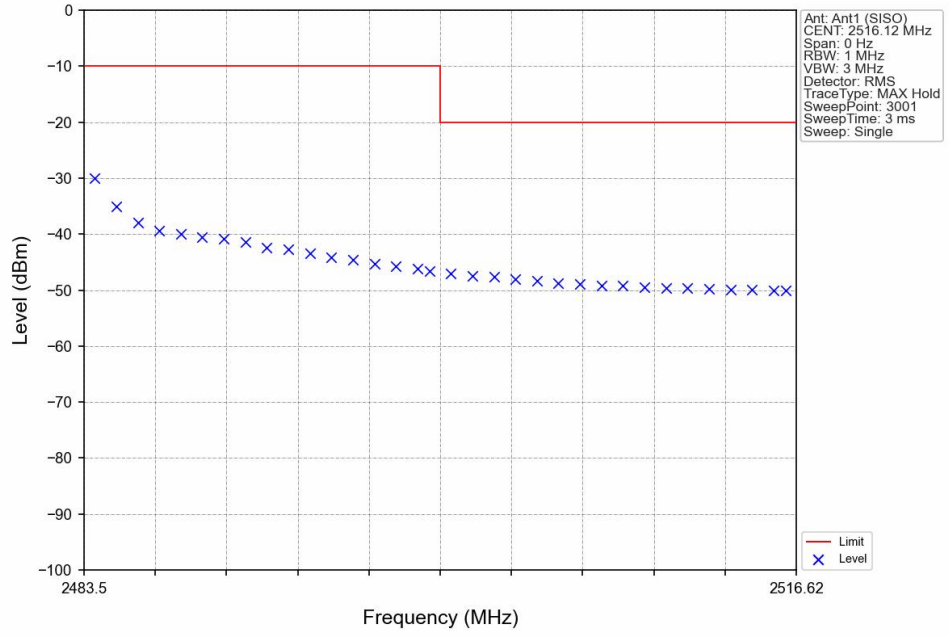


6.2.2 802.11g-Ant1_NTNV

802.11g_2412MHz_Ant1 (SISO)_NTNV

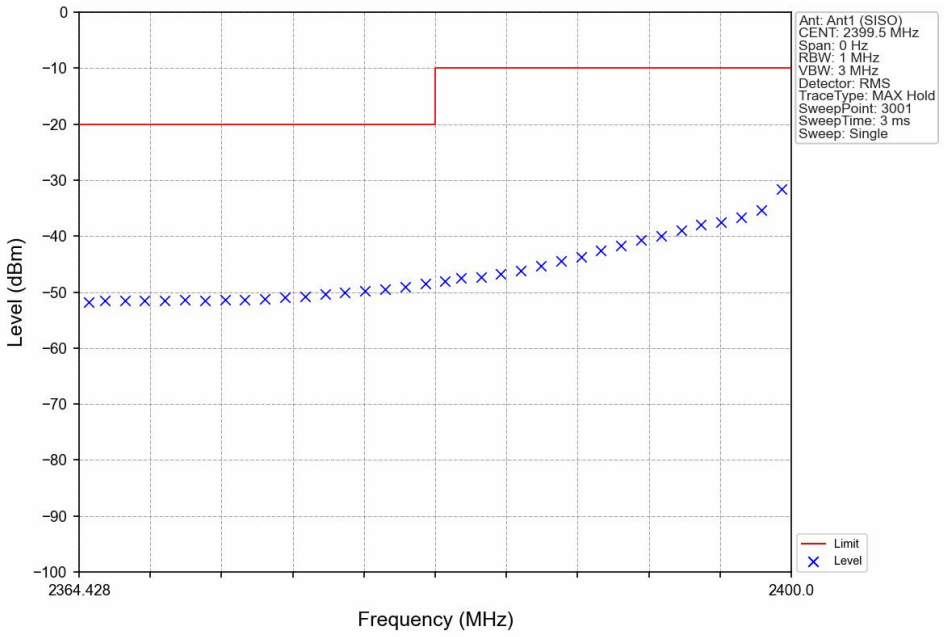


802.11g_2472MHz_Ant1 (SISO)_NTNV

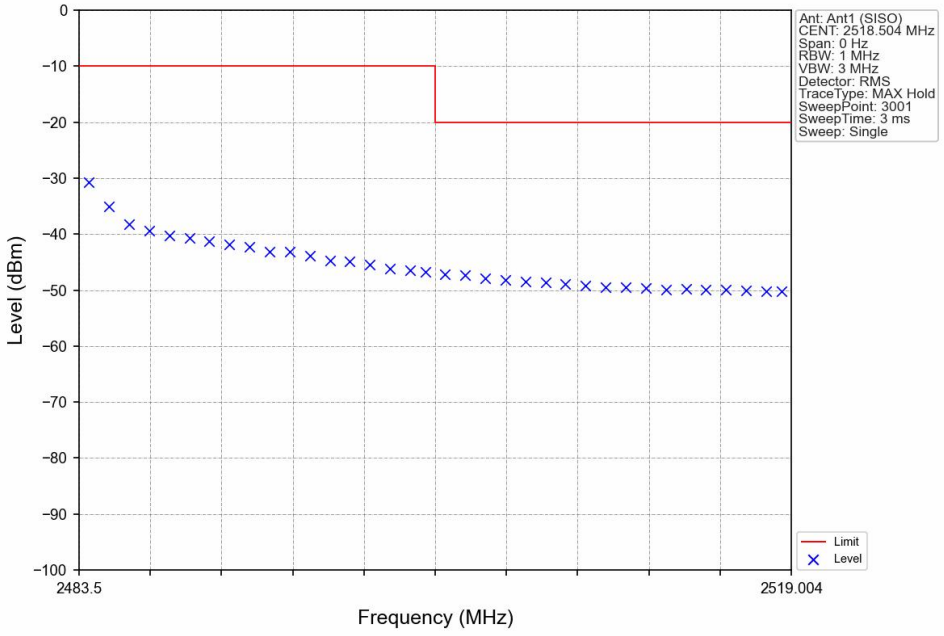


6.2.3 802.11n(HT20)-Ant1_NTNV

802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV

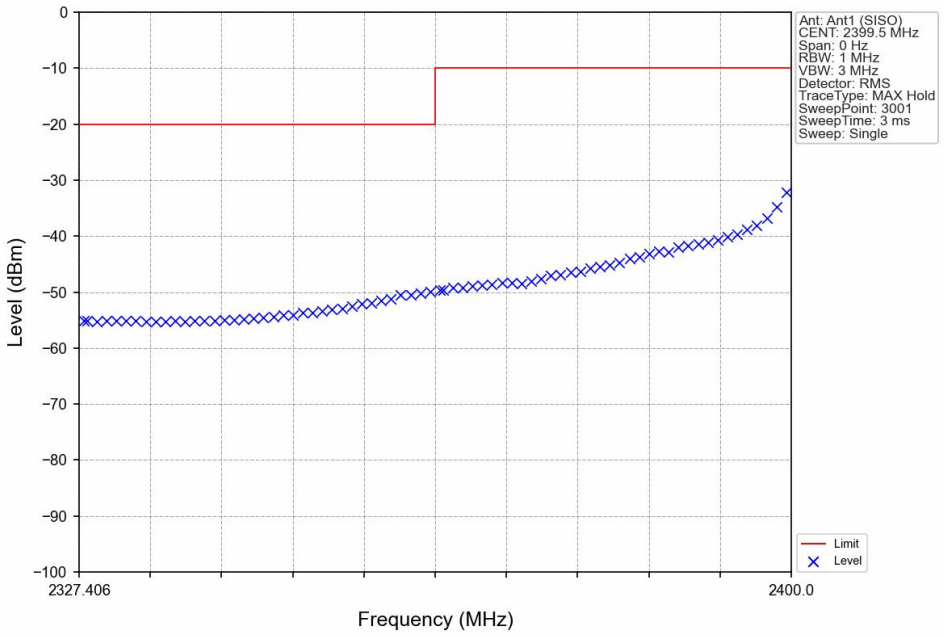


802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV

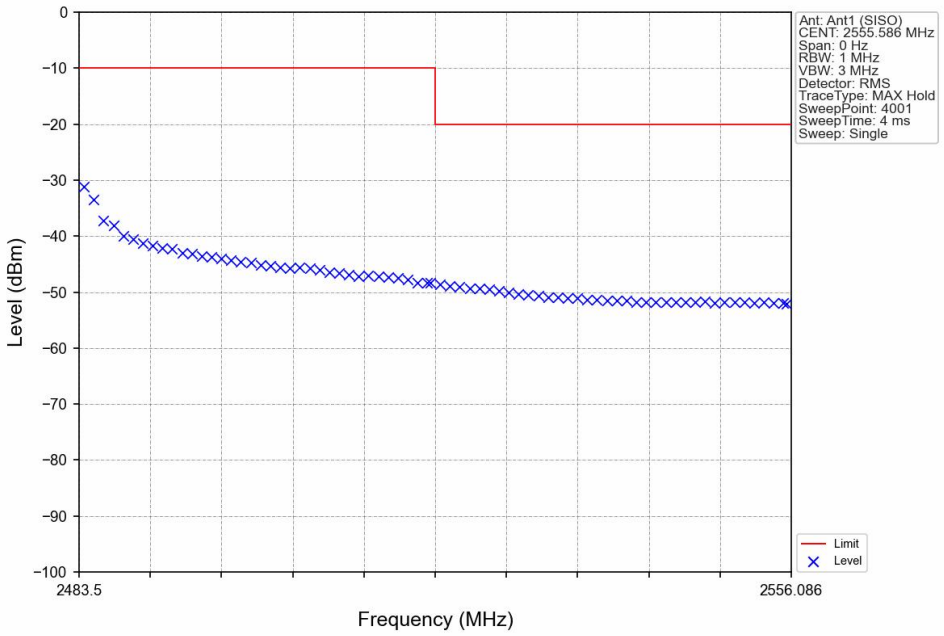


6.2.4 802.11n(HT40)-Ant1_NTNV

802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV



7. Receiver Blocking

7.1 Test Result

7.1.1 Ant1

Ant1									
ENV	Mode	TX Type	Frequency (MHz)	Wanted signal level (dBm)	Blocking Signal		PER (%)	Limit (%)	Verdict
					Frequency (MHz)	Power (dBm)			
NTNV	802.11b	SISO	2412	-70.63	2300	-30.63	0.00	<=10	Pass
					2330	-30.63	0.00	<=10	Pass
					2360	-30.63	0.00	<=10	Pass
				-64.63	2380	-30.63	0.00	<=10	Pass
			2472	-64.63	2504	-30.63	0.00	<=10	Pass
				-70.63	2524	-30.63	0.00	<=10	Pass
					2584	-30.63	0.00	<=10	Pass
					2674	-30.63	0.00	<=10	Pass
Note1: Receiver Category=1									