

1. Effective (Isotropic) Radiated Power Output Data

1.1 B30_5MHz_EIRP

1.1.1 Test Result

Band: 30 / Bandwidth: 5MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	2307.5	1	0	21.26	0.22	21.48	<=23.98	Pass
			13	21.05	0.22	21.27	<=23.98	Pass
			24	20.92	0.22	21.14	<=23.98	Pass
		12	0	19.93	0.22	20.15	<=23.98	Pass
			6	20.05	0.22	20.27	<=23.98	Pass
			13	19.96	0.22	20.18	<=23.98	Pass
		25	0	19.95	0.22	20.17	<=23.98	Pass
	2310	1	0	20.87	0.22	21.09	<=23.98	Pass
			13	21.03	0.22	21.25	<=23.98	Pass
			24	20.91	0.22	21.13	<=23.98	Pass
		12	0	19.95	0.22	20.17	<=23.98	Pass
			6	20.01	0.22	20.23	<=23.98	Pass
			13	19.90	0.22	20.12	<=23.98	Pass
		25	0	19.93	0.22	20.15	<=23.98	Pass
	2312.5	1	0	20.99	0.22	21.21	<=23.98	Pass
			13	20.99	0.22	21.21	<=23.98	Pass
			24	20.90	0.22	21.12	<=23.98	Pass
		12	0	19.97	0.22	20.19	<=23.98	Pass
			6	19.97	0.22	20.19	<=23.98	Pass
			13	19.85	0.22	20.07	<=23.98	Pass
		25	0	19.91	0.22	20.13	<=23.98	Pass
16QAM	2307.5	1	0	19.79	0.22	20.01	<=23.98	Pass
			13	19.86	0.22	20.08	<=23.98	Pass
			24	19.69	0.22	19.91	<=23.98	Pass
		12	0	18.95	0.22	19.17	<=23.98	Pass
			6	19.02	0.22	19.24	<=23.98	Pass
			13	18.94	0.22	19.16	<=23.98	Pass
		25	0	18.97	0.22	19.19	<=23.98	Pass
	2310	1	0	19.98	0.22	20.20	<=23.98	Pass
			13	20.05	0.22	20.27	<=23.98	Pass
			24	19.98	0.22	20.20	<=23.98	Pass
		12	0	18.91	0.22	19.13	<=23.98	Pass
			6	18.97	0.22	19.19	<=23.98	Pass
			13	18.88	0.22	19.10	<=23.98	Pass
		25	0	18.92	0.22	19.14	<=23.98	Pass
	2312.5	1	0	20.13	0.22	20.35	<=23.98	Pass
			13	20.17	0.22	20.39	<=23.98	Pass
			24	20.10	0.22	20.32	<=23.98	Pass
		12	0	18.96	0.22	19.18	<=23.98	Pass
			6	19.02	0.22	19.24	<=23.98	Pass
			13	18.90	0.22	19.12	<=23.98	Pass
		25	0	18.87	0.22	19.09	<=23.98	Pass

Note1: EIRP=Conducted Power+Antenna Gain

1.2 B30_10MHz_EIRP

1.2.1 Test Result

Band: 30 / Bandwidth: 10MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	2310	1	0	21.56	0.22	21.78	<=23.98	Pass
			25	21.22	0.22	21.44	<=23.98	Pass
			49	21.00	0.22	21.22	<=23.98	Pass
		25	0	20.00	0.22	20.22	<=23.98	Pass
			13	19.97	0.22	20.19	<=23.98	Pass
			25	19.88	0.22	20.10	<=23.98	Pass
		50	0	19.97	0.22	20.19	<=23.98	Pass
16QAM	2310	1	0	19.94	0.22	20.16	<=23.98	Pass
			25	20.10	0.22	20.32	<=23.98	Pass
			49	19.92	0.22	20.14	<=23.98	Pass
		25	0	19.03	0.22	19.25	<=23.98	Pass
			13	19.05	0.22	19.27	<=23.98	Pass
			25	18.95	0.22	19.17	<=23.98	Pass
		50	0	18.96	0.22	19.18	<=23.98	Pass

Note1: EIRP=Conducted Power+Antenna Gain

2. Frequency Stability

2.1 B30_5MHz

2.1.1 Test Result

Band: 30 / Bandwidth: 5MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	2307.5	25	0	20	3.27	-9.027	-0.0039	-2.5 to 2.5	Pass
					3.85	-6.738	-0.0029	-2.5 to 2.5	Pass
					4.43	0.129	0.0001	-2.5 to 2.5	Pass
				-30	3.85	-8.011	-0.0035	-2.5 to 2.5	Pass
				-20	3.85	2.618	0.0011	-2.5 to 2.5	Pass
				-10	3.85	-8.554	-0.0037	-2.5 to 2.5	Pass
				0	3.85	-6.495	-0.0028	-2.5 to 2.5	Pass
				10	3.85	-10.343	-0.0045	-2.5 to 2.5	Pass
				30	3.85	-10.958	-0.0047	-2.5 to 2.5	Pass
				40	3.85	-11.559	-0.0050	-2.5 to 2.5	Pass
				50	3.85	-15.864	-0.0069	-2.5 to 2.5	Pass
	2310	25	0	20	3.27	-17.824	-0.0077	-2.5 to 2.5	Pass
					3.85	-13.475	-0.0058	-2.5 to 2.5	Pass
					4.43	-7.925	-0.0034	-2.5 to 2.5	Pass
				-30	3.85	-2.832	-0.0012	-2.5 to 2.5	Pass
				-20	3.85	-5.794	-0.0025	-2.5 to 2.5	Pass
				-10	3.85	-8.612	-0.0037	-2.5 to 2.5	Pass
				0	3.85	9.556	0.0041	-2.5 to 2.5	Pass
				10	3.85	-12.331	-0.0053	-2.5 to 2.5	Pass
				30	3.85	-5.980	-0.0026	-2.5 to 2.5	Pass
				40	3.85	-7.796	-0.0034	-2.5 to 2.5	Pass

16QAM	2312.5	25	0	50	3.85	-9.255	-0.0040	-2.5 to 2.5	Pass
				20	3.27	-3.533	-0.0015	-2.5 to 2.5	Pass
					3.85	-12.388	-0.0054	-2.5 to 2.5	Pass
					4.43	-7.796	-0.0034	-2.5 to 2.5	Pass
				-30	3.85	2.089	0.0009	-2.5 to 2.5	Pass
				-20	3.85	-1.273	-0.0006	-2.5 to 2.5	Pass
				-10	3.85	-4.377	-0.0019	-2.5 to 2.5	Pass
				0	3.85	-2.589	-0.0011	-2.5 to 2.5	Pass
				10	3.85	3.548	0.0015	-2.5 to 2.5	Pass
				30	3.85	-2.117	-0.0009	-2.5 to 2.5	Pass
				40	3.85	-4.678	-0.0020	-2.5 to 2.5	Pass
				50	3.85	6.623	0.0029	-2.5 to 2.5	Pass
16QAM	2307.5	25	0	20	3.27	-9.255	-0.0040	-2.5 to 2.5	Pass
					3.85	-7.939	-0.0034	-2.5 to 2.5	Pass
					4.43	-9.542	-0.0041	-2.5 to 2.5	Pass
					3.85	-5.879	-0.0025	-2.5 to 2.5	Pass
				-30	3.85	-12.231	-0.0053	-2.5 to 2.5	Pass
				-20	3.85	-14.806	-0.0064	-2.5 to 2.5	Pass
				-10	3.85	-9.198	-0.0040	-2.5 to 2.5	Pass
				0	3.85	-5.836	-0.0025	-2.5 to 2.5	Pass
				10	3.85	-10.371	-0.0045	-2.5 to 2.5	Pass
				30	3.85	-11.430	-0.0050	-2.5 to 2.5	Pass
				40	3.85	-17.195	-0.0075	-2.5 to 2.5	Pass
				50	3.85	-10.042	-0.0043	-2.5 to 2.5	Pass
	2310	25	0	20	3.85	-7.510	-0.0033	-2.5 to 2.5	Pass
					4.43	-4.063	-0.0018	-2.5 to 2.5	Pass
					3.85	-2.289	-0.0010	-2.5 to 2.5	Pass
					3.85	-10.328	-0.0045	-2.5 to 2.5	Pass
				-30	3.85	-11.444	-0.0050	-2.5 to 2.5	Pass
				-20	3.85	-6.208	-0.0027	-2.5 to 2.5	Pass
				-10	3.85	6.208	0.0027	-2.5 to 2.5	Pass
				0	3.85	4.148	0.0018	-2.5 to 2.5	Pass
				10	3.85	-4.420	-0.0019	-2.5 to 2.5	Pass
				30	3.85	5.007	0.0022	-2.5 to 2.5	Pass
				40	3.85	-5.693	-0.0025	-2.5 to 2.5	Pass
				50	3.85	-0.687	-0.0003	-2.5 to 2.5	Pass
16QAM	2312.5	25	0	20	4.43	11.358	0.0049	-2.5 to 2.5	Pass
					3.85	-11.959	-0.0052	-2.5 to 2.5	Pass
					3.85	6.595	0.0029	-2.5 to 2.5	Pass
					3.85	-9.542	-0.0041	-2.5 to 2.5	Pass
				-30	3.85	-4.277	-0.0018	-2.5 to 2.5	Pass
				-20	3.85	-5.922	-0.0026	-2.5 to 2.5	Pass
				-10	3.85	-9.112	-0.0039	-2.5 to 2.5	Pass
				0	3.85	-4.177	-0.0018	-2.5 to 2.5	Pass
				10	3.85	8.283	0.0036	-2.5 to 2.5	Pass
				30	3.85				
				40	3.85				
				50	3.85				

2.2 B30_10MHz

2.2.1 Test Result

Band: 30 / Bandwidth: 10MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	2310	50	0	20	3.27	-7.896	-0.0034	-2.5 to 2.5	Pass
					3.85	-4.334	-0.0019	-2.5 to 2.5	Pass

					4.43	-3.390	-0.0015	-2.5 to 2.5	Pass
				-30	3.85	-10.271	-0.0044	-2.5 to 2.5	Pass
				-20	3.85	-0.529	-0.0002	-2.5 to 2.5	Pass
				-10	3.85	-2.360	-0.0010	-2.5 to 2.5	Pass
				0	3.85	-0.815	-0.0004	-2.5 to 2.5	Pass
				10	3.85	-8.883	-0.0038	-2.5 to 2.5	Pass
				30	3.85	-7.296	-0.0032	-2.5 to 2.5	Pass
				40	3.85	-1.516	-0.0007	-2.5 to 2.5	Pass
				50	3.85	6.094	0.0026	-2.5 to 2.5	Pass
16QAM	2310	50	0	20	3.27	-5.765	-0.0025	-2.5 to 2.5	Pass
					3.85	-7.396	-0.0032	-2.5 to 2.5	Pass
					4.43	-7.939	-0.0034	-2.5 to 2.5	Pass
				-30	3.85	-1.903	-0.0008	-2.5 to 2.5	Pass
				-20	3.85	-9.184	-0.0040	-2.5 to 2.5	Pass
				-10	3.85	-10.114	-0.0044	-2.5 to 2.5	Pass
				0	3.85	-12.774	-0.0055	-2.5 to 2.5	Pass
				10	3.85	-8.011	-0.0035	-2.5 to 2.5	Pass
				30	3.85	-0.043	0.0000	-2.5 to 2.5	Pass
				40	3.85	-9.384	-0.0041	-2.5 to 2.5	Pass
				50	3.85	27.065	0.0117	-2.5 to 2.5	Pass

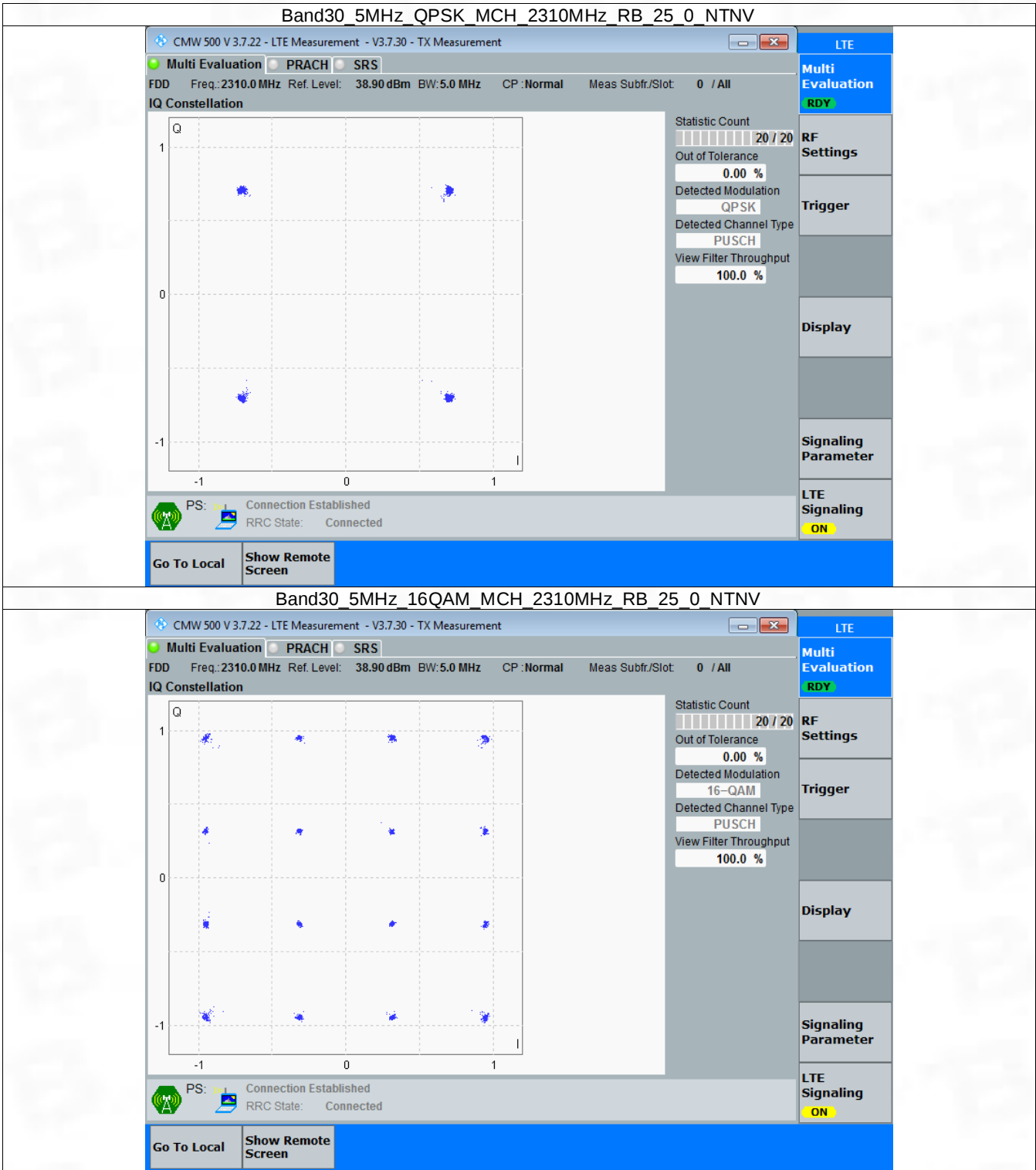
3. Modulation Characteristics

3.1 B30_5MHz

3.1.1 Test Result

Band: 30 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	2310	25	0	Refer To Test Graph		Pass
16QAM	2310	25	0	Refer To Test Graph		Pass

3.1.2 Test Graph

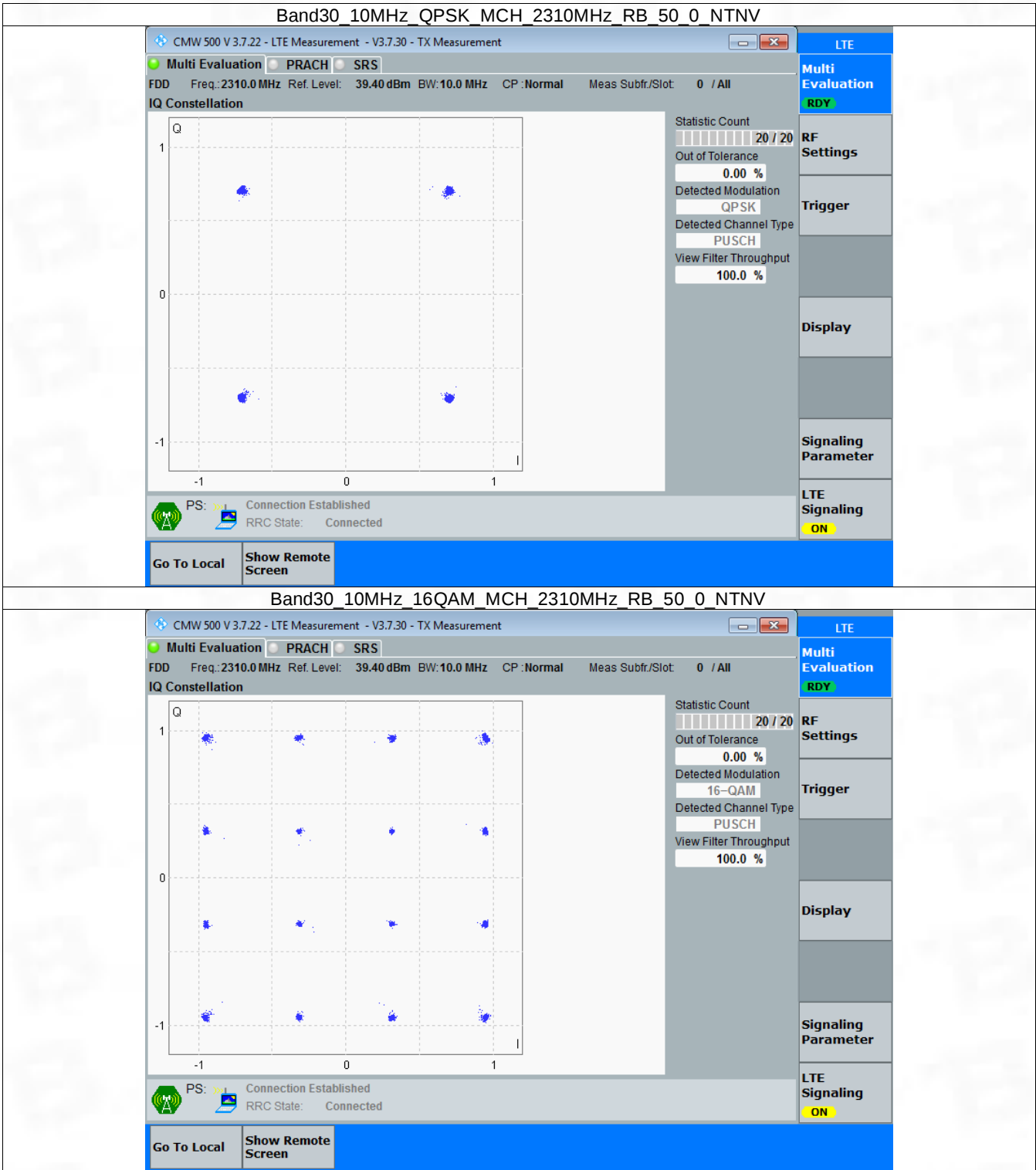


3.2 B30_10MHz

3.2.1 Test Result

Band: 30 / Bandwidth: 10MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	2310	50	0	Refer To Test Graph		Pass
16QAM	2310	50	0	Refer To Test Graph		Pass

3.2.2 Test Graph



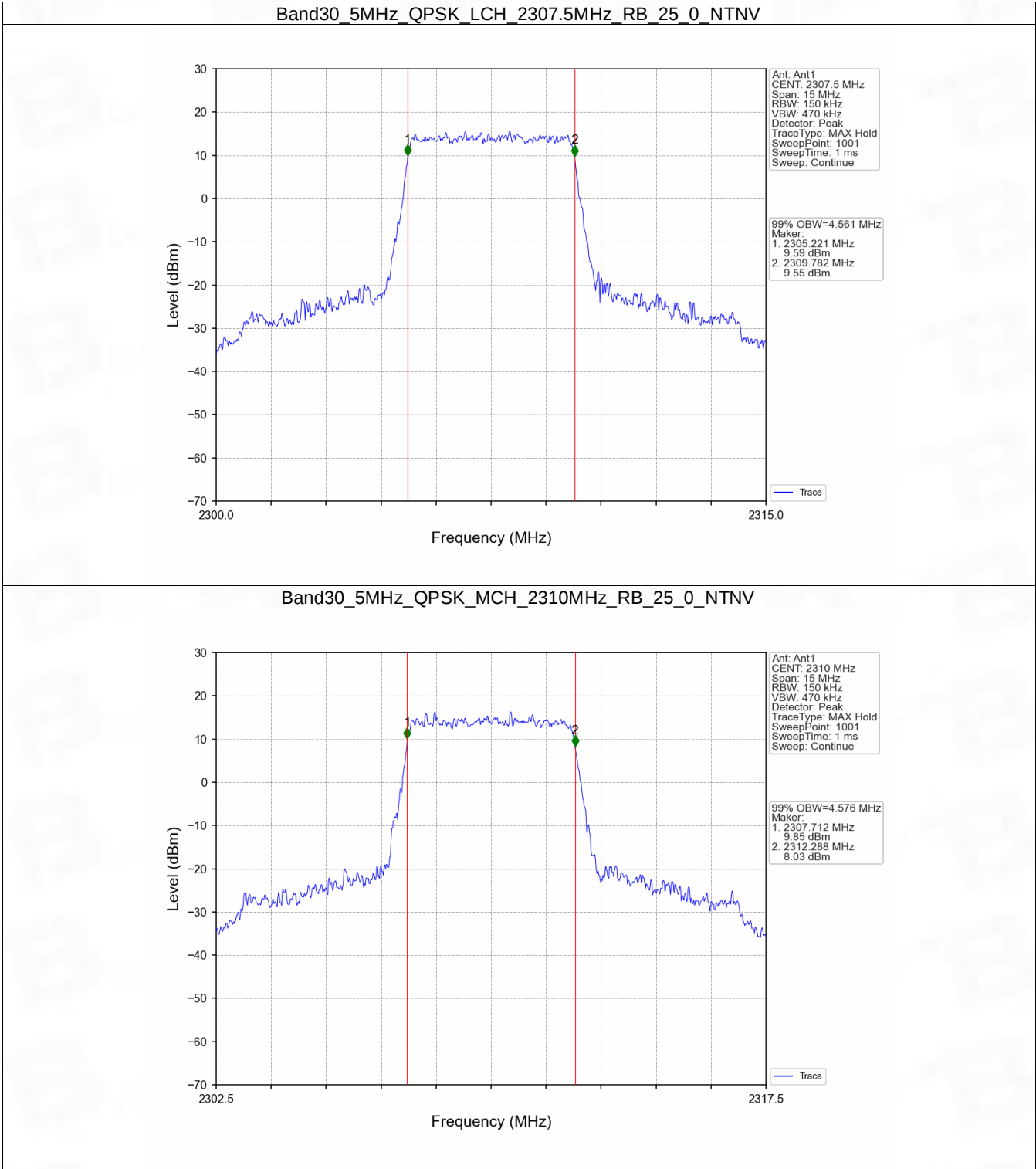
4. 99% & 26dB Bandwidth

4.1 Band30_OBW

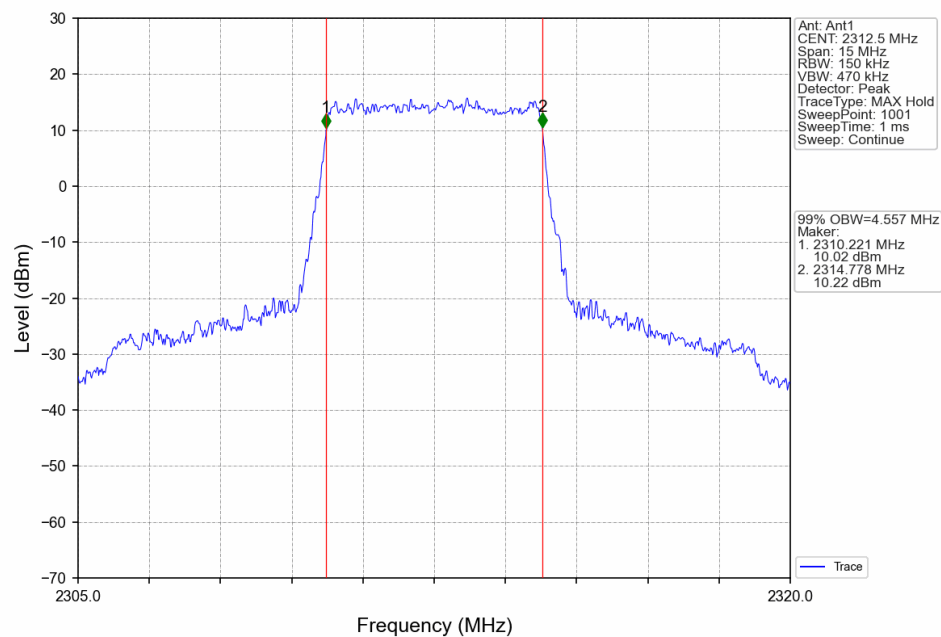
4.1.1 Test Result

Band: 30 / NTNV						
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)	Verdict
			Size	Offset	Result	
5	QPSK	2307.5	25	0	4.561	Pass
		2310	25	0	4.576	Pass
		2312.5	25	0	4.557	Pass
	16QAM	2307.5	25	0	4.582	Pass
		2310	25	0	4.558	Pass
		2312.5	25	0	4.552	Pass
10	QPSK	2310	50	0	9.049	Pass
	16QAM	2310	50	0	9.051	Pass

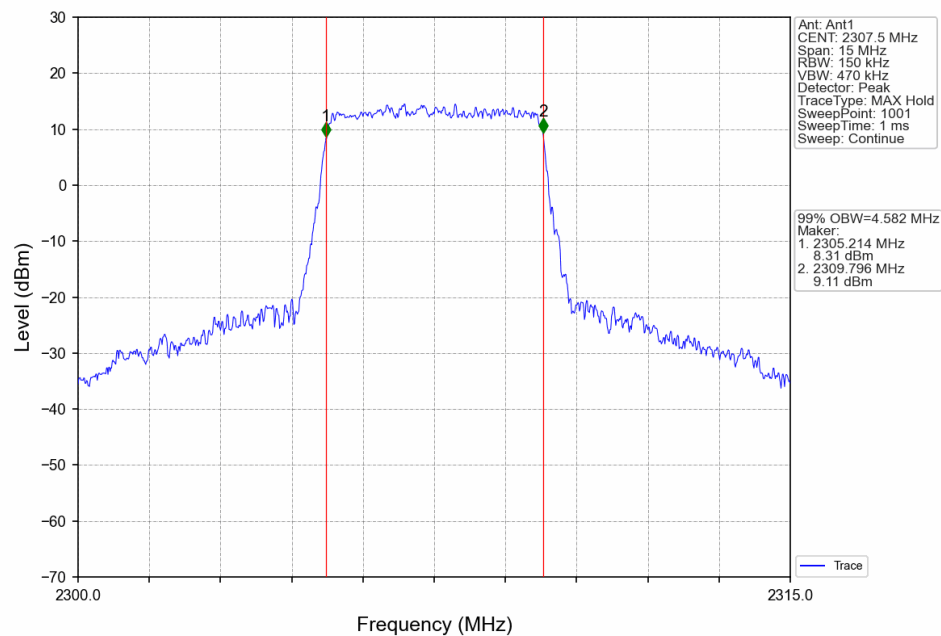
4.1.2 Test Graph

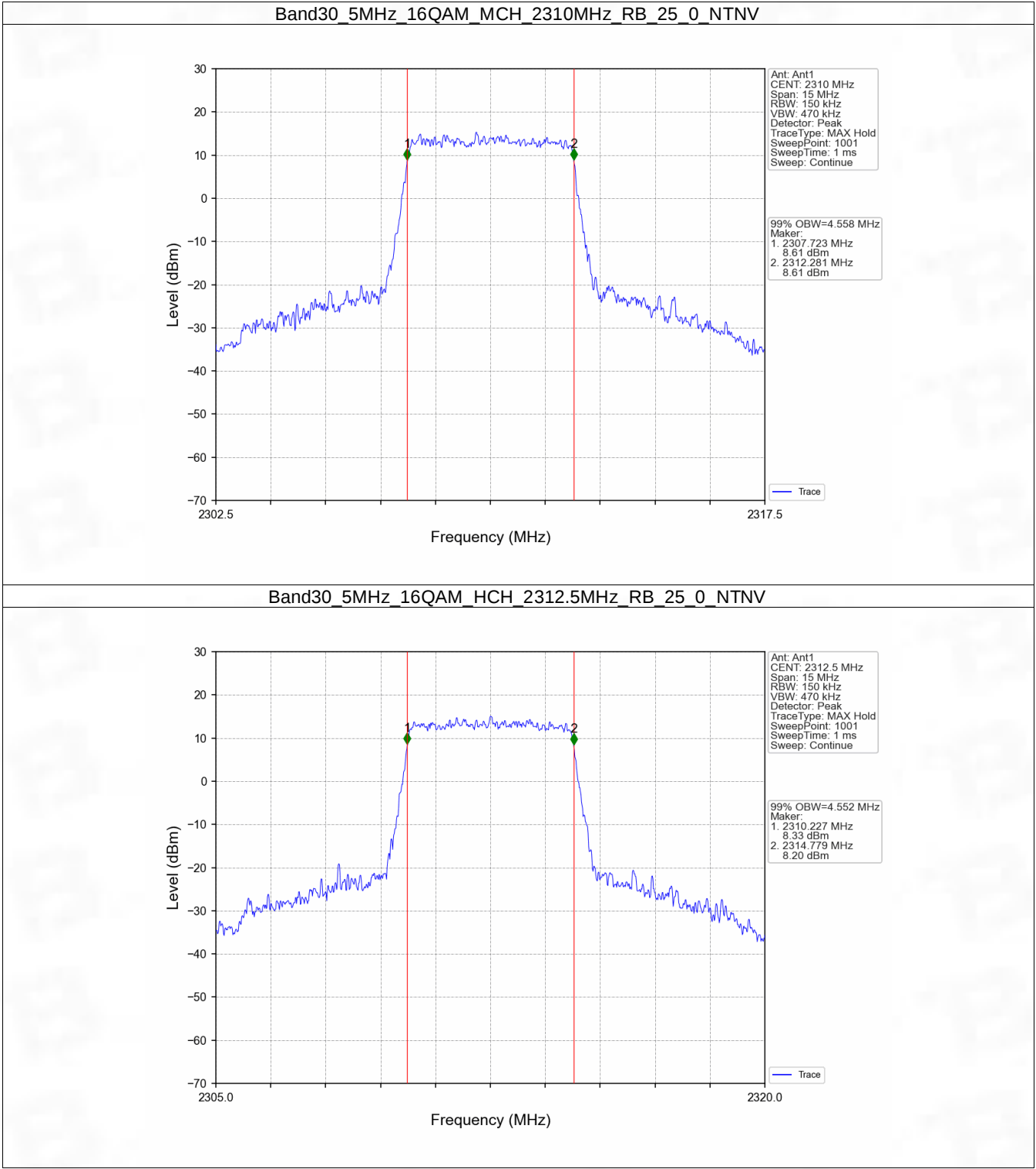


Band30_5MHz_QPSK_HCH_2312.5MHz_RB_25_0_NTNV

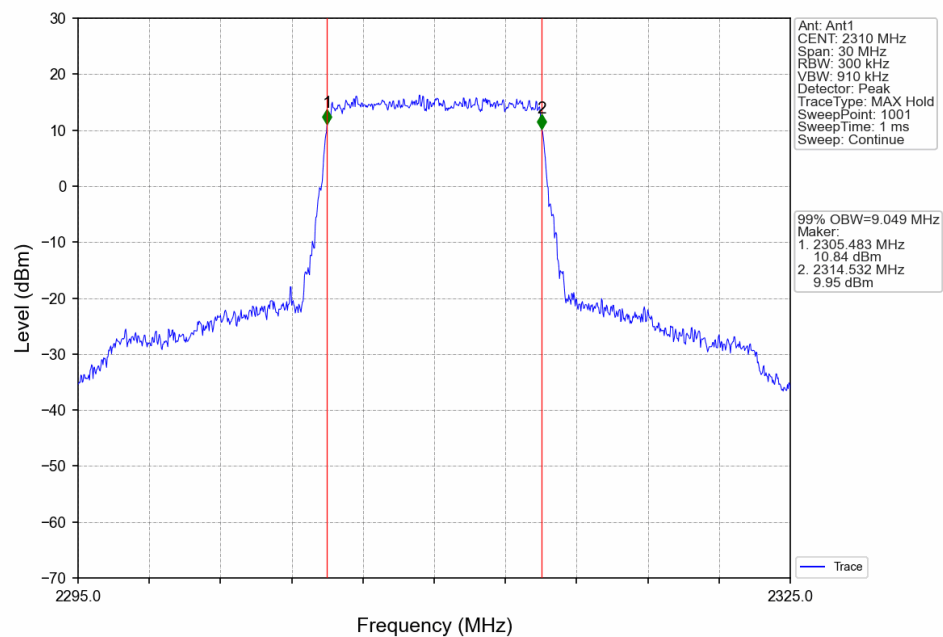


Band30_5MHz_16QAM_LCH_2307.5MHz_RB_25_0_NTNV

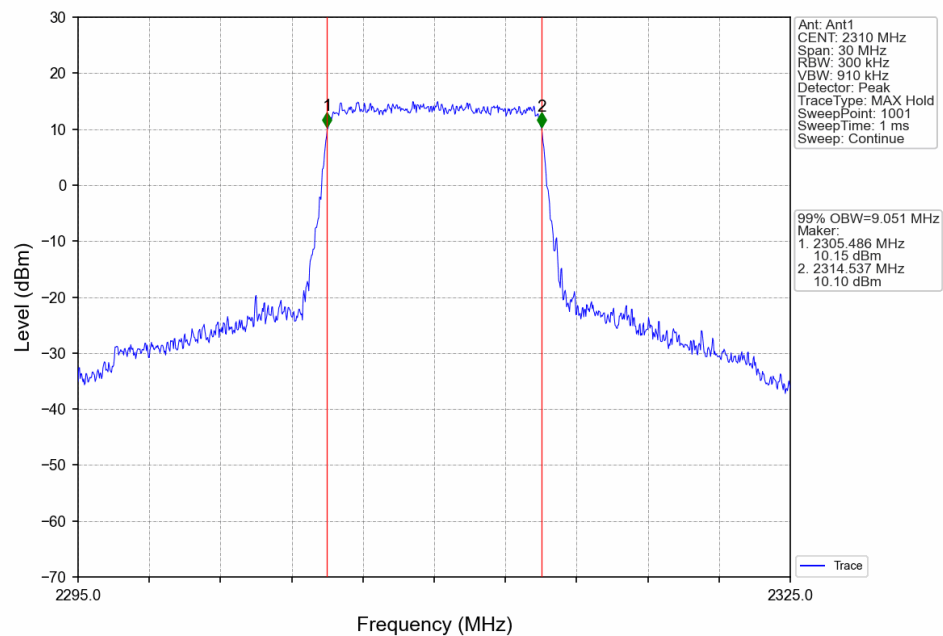




Band30_10MHz_QPSK_MCH_2310MHz_RB_50_0_NTNV



Band30_10MHz_16QAM_MCH_2310MHz_RB_50_0_NTNV

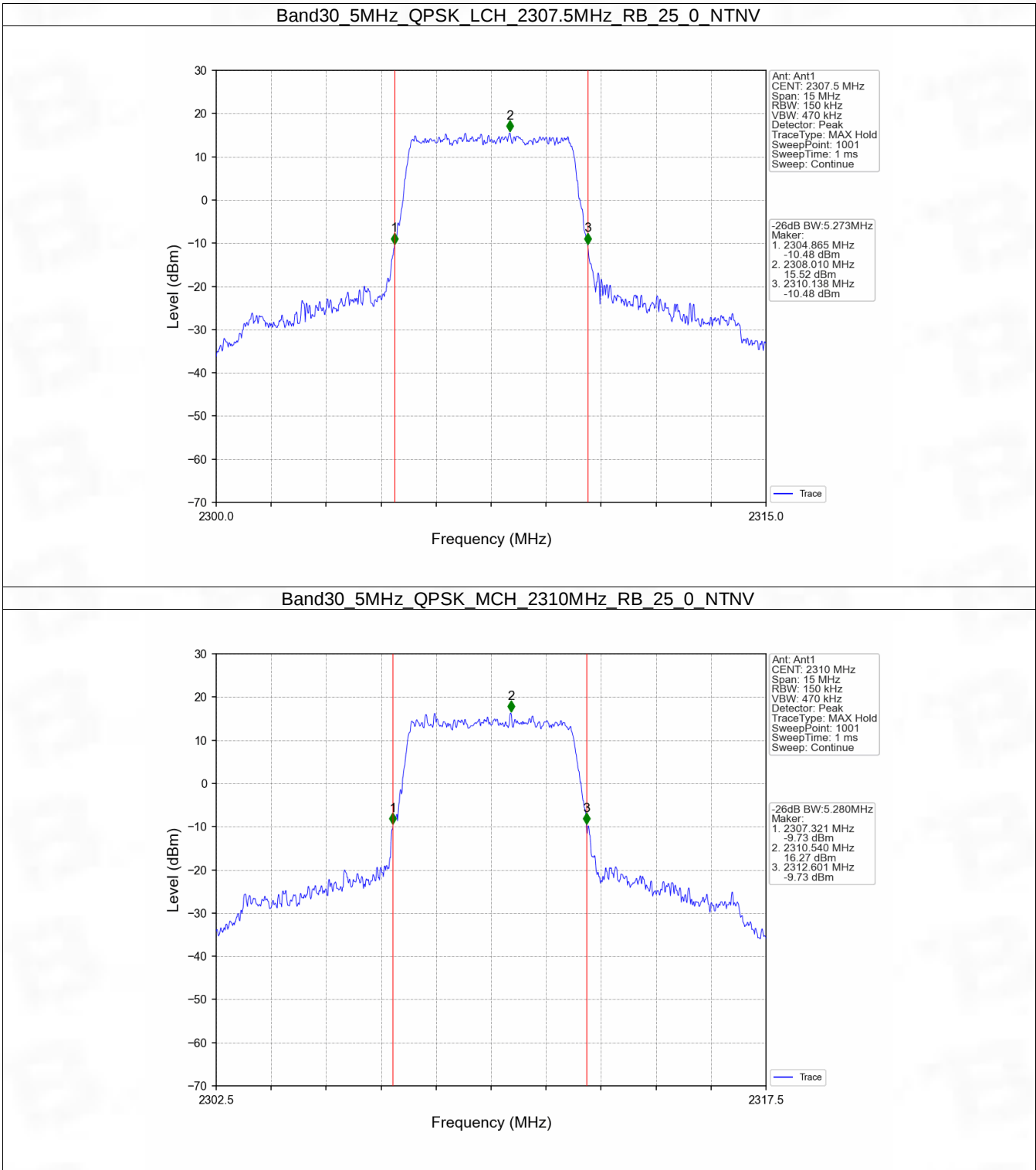


4.2 Band30_XDB

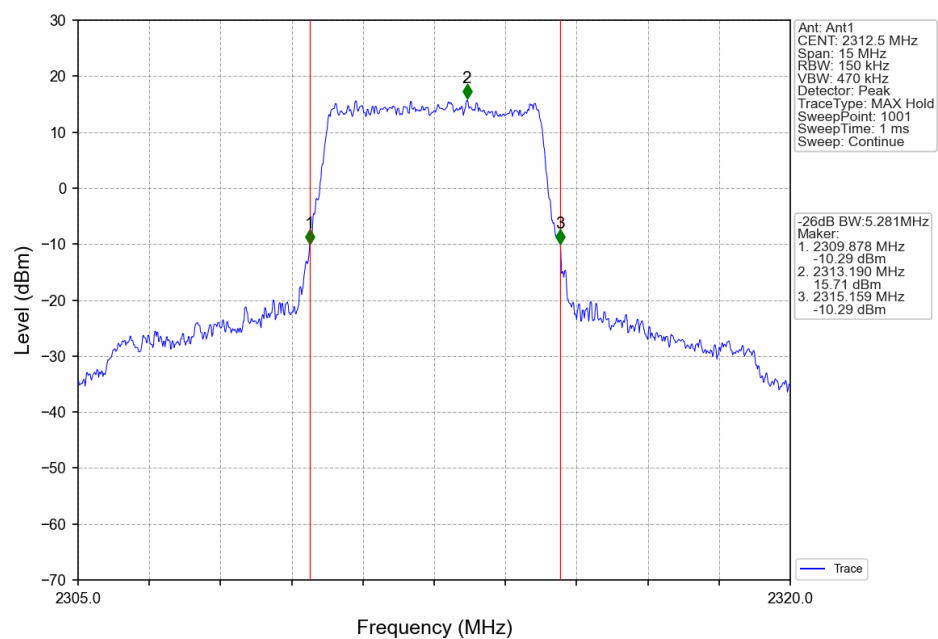
4.2.1 Test Result

Band: 30 / NTNV						
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)	Verdict
			Size	Offset	Result	
5	QPSK	2307.5	25	0	5.273	Pass
		2310	25	0	5.280	Pass
		2312.5	25	0	5.281	Pass
	16QAM	2307.5	25	0	5.268	Pass
		2310	25	0	5.210	Pass
		2312.5	25	0	5.254	Pass
10	QPSK	2310	50	0	10.204	Pass
	16QAM	2310	50	0	10.222	Pass

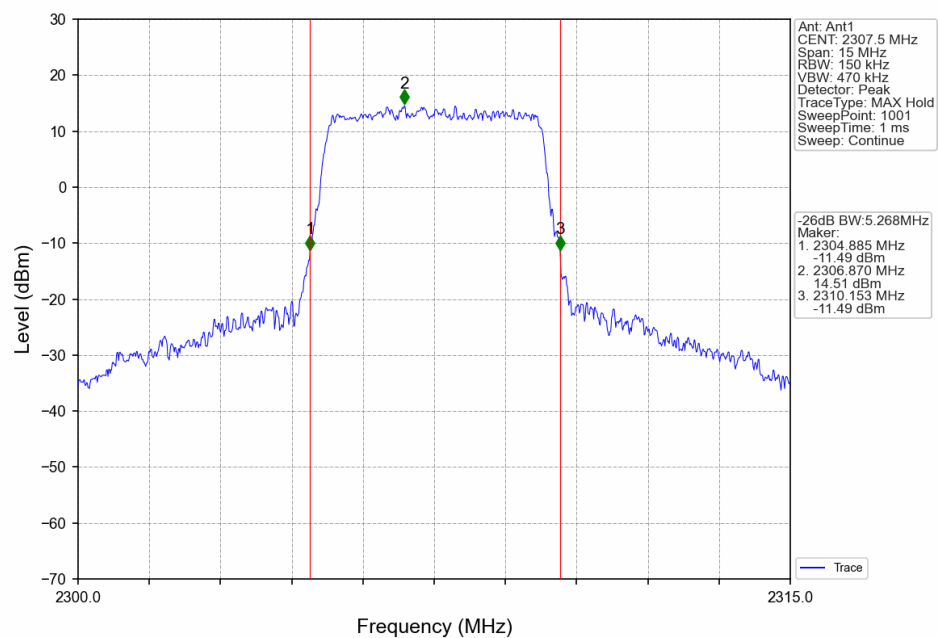
4.2.2 Test Graph



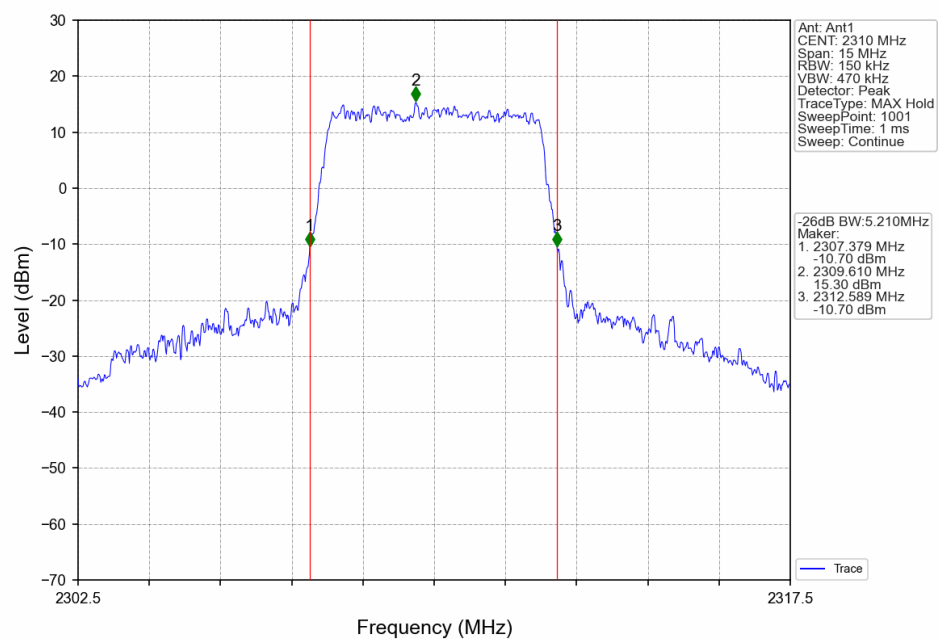
Band30_5MHz_QPSK_HCH_2312.5MHz_RB_25_0_NTNV



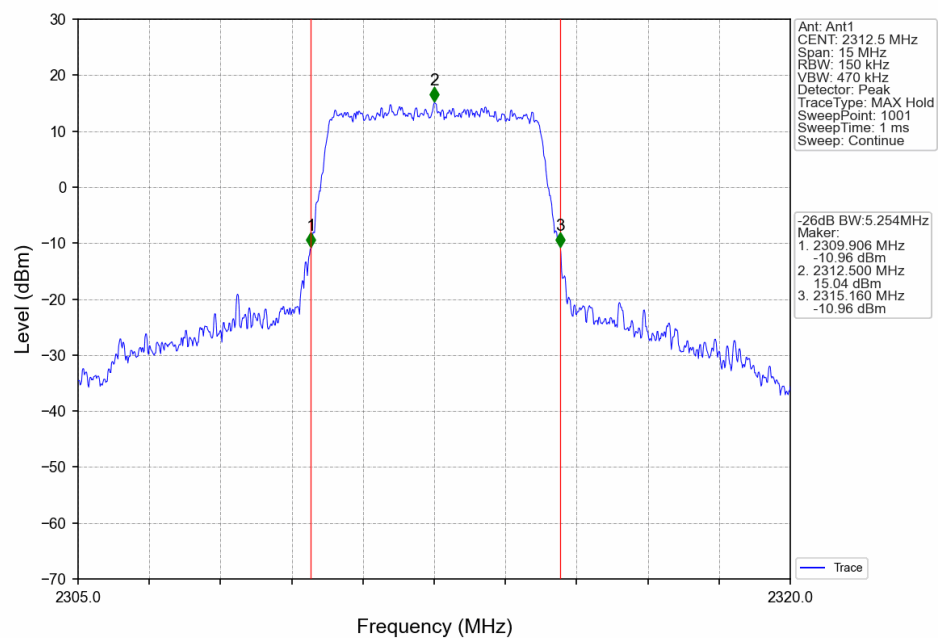
Band30_5MHz_16QAM_LCH_2307.5MHz_RB_25_0_NTNV



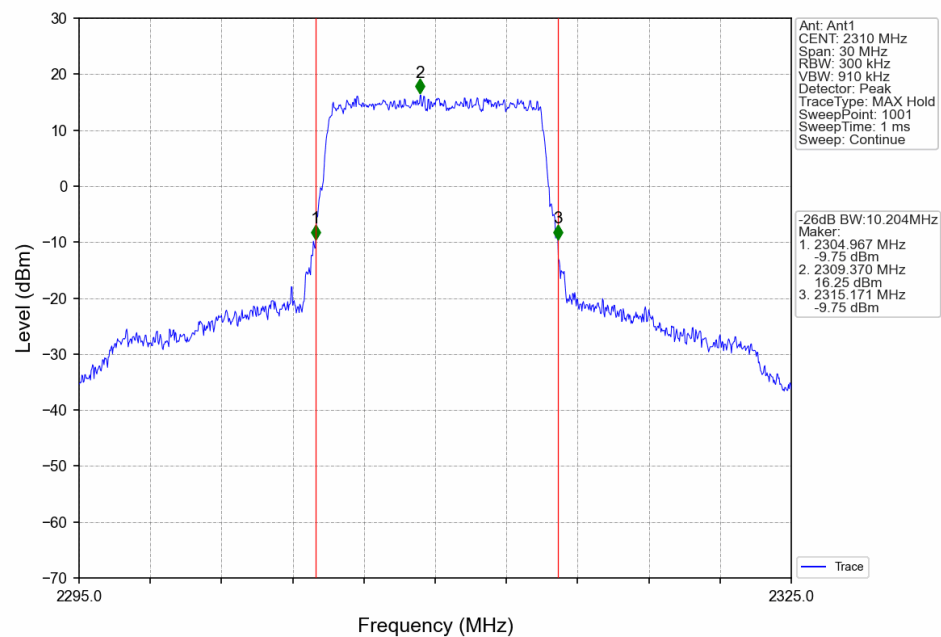
Band30_5MHz_16QAM_MCH_2310MHz_RB_25_0_NTNV



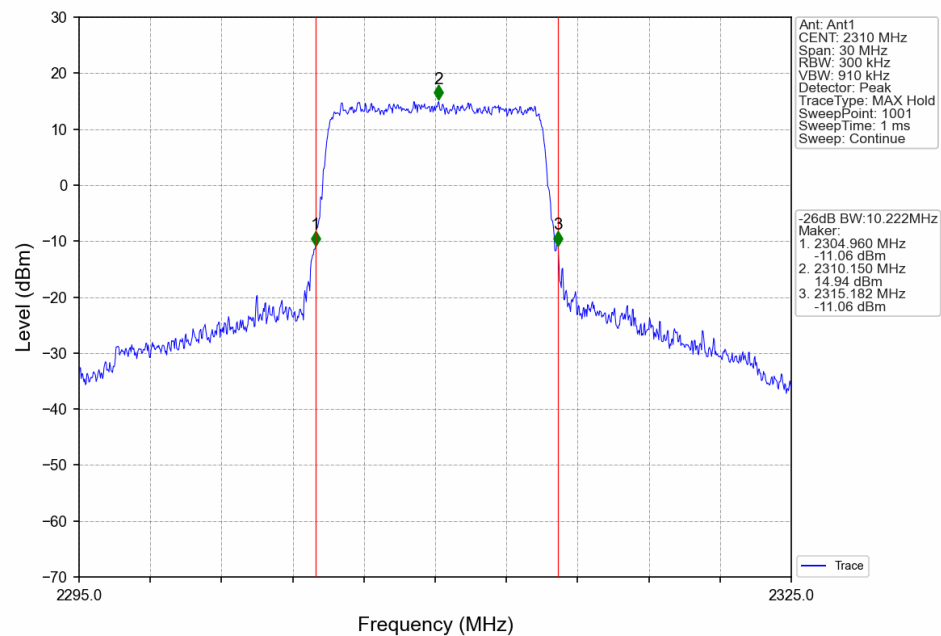
Band30_5MHz_16QAM_HCH_2312.5MHz_RB_25_0_NTNV



Band30_10MHz_QPSK_MCH_2310MHz_RB_50_0_NTNV



Band30_10MHz_16QAM_MCH_2310MHz_RB_50_0_NTNV



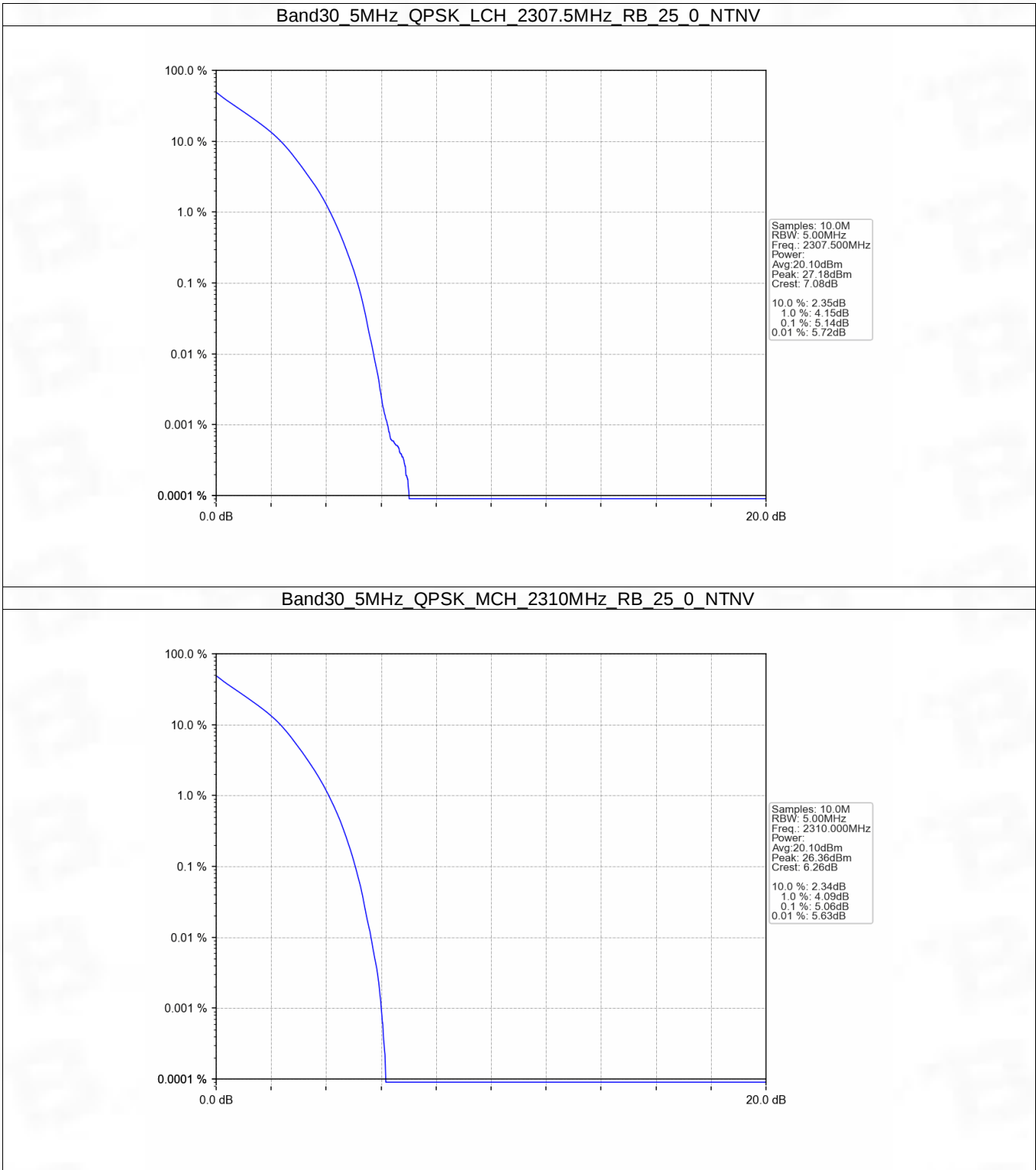
5. Peak-Average Ratio

5.1 B30_5MHz

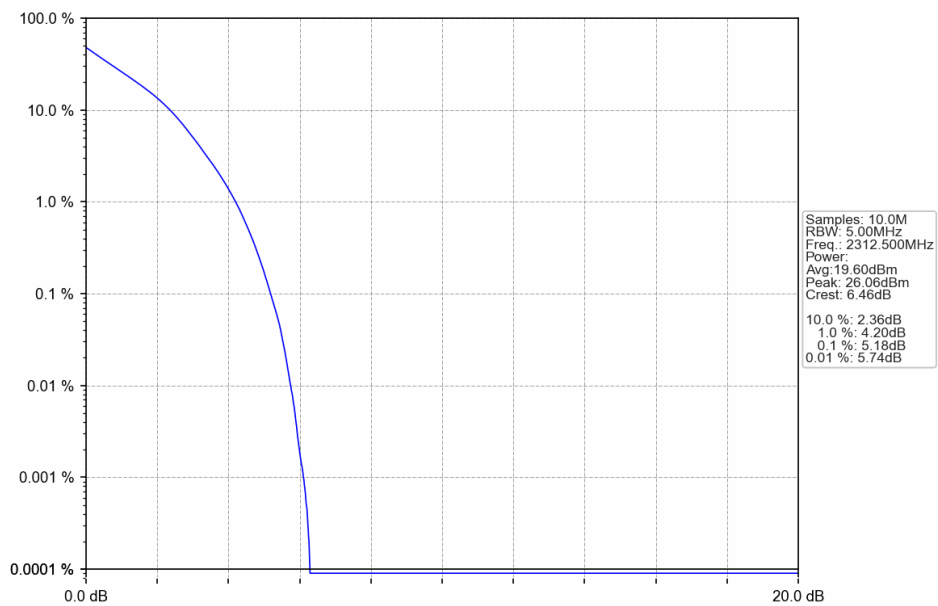
5.1.1 Test Result

Band: 30 / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	2307.5	25	0	5.14	<=13	Pass
	2310	25	0	5.06	<=13	Pass
	2312.5	25	0	5.18	<=13	Pass
16QAM	2307.5	25	0	5.83	<=13	Pass
	2310	25	0	5.75	<=13	Pass
	2312.5	25	0	5.93	<=13	Pass

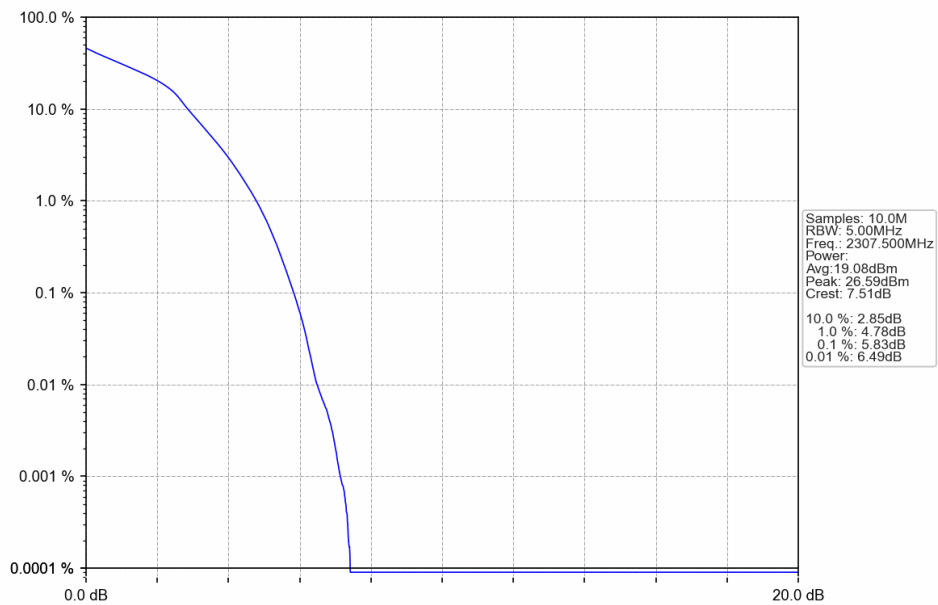
5.1.2 Test Graph



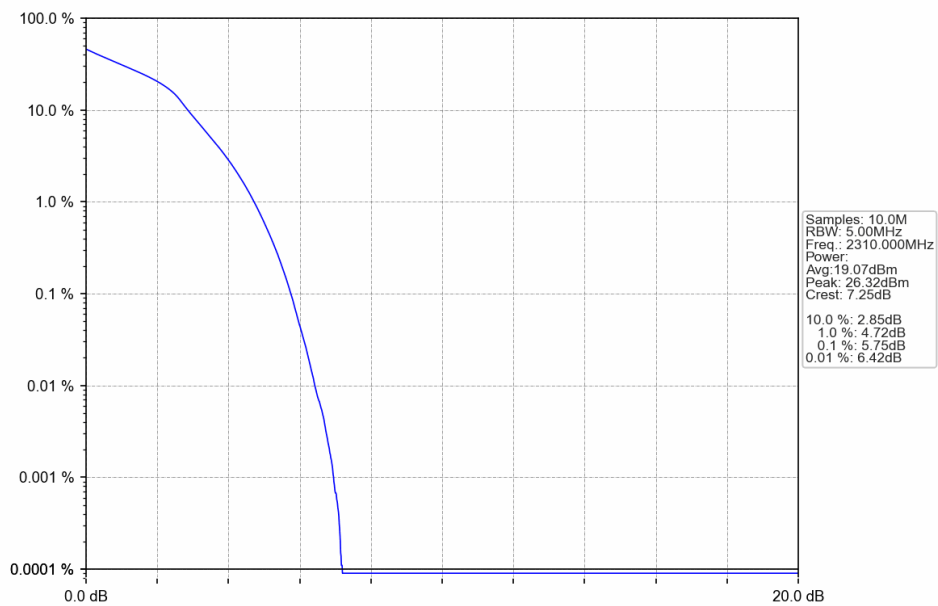
Band30_5MHz_QPSK_HCH_2312.5MHz_RB_25_0_NTNV



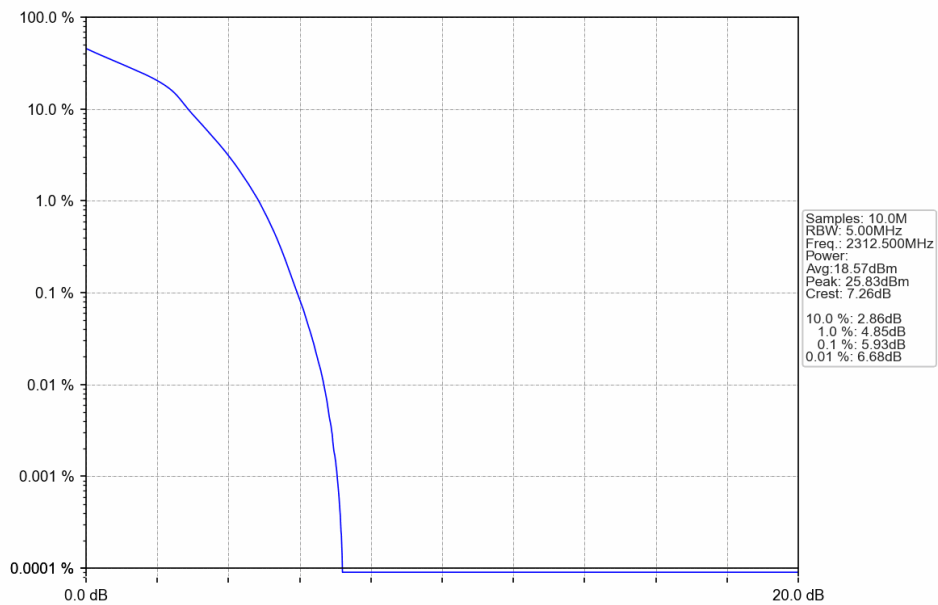
Band30_5MHz_16QAM_LCH_2307.5MHz_RB_25_0_NTNV



Band30_5MHz_16QAM_MCH_2310MHz_RB_25_0_NTNV



Band30_5MHz_16QAM_HCH_2312.5MHz_RB_25_0_NTNV

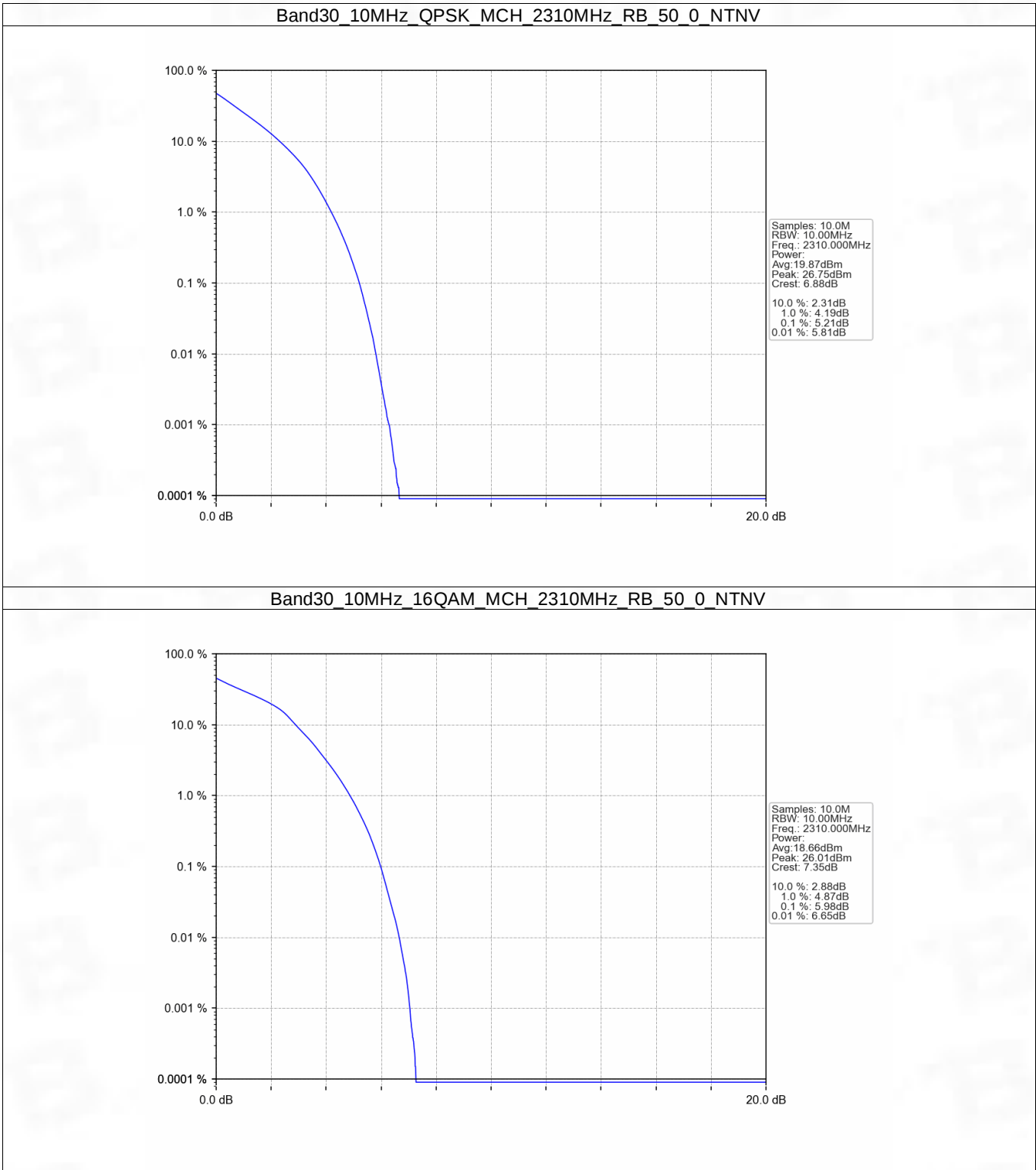


5.2 B30_10MHz

5.2.1 Test Result

Band: 30 / Bandwidth: 10MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	2310	50	0	5.21	<=13	Pass
16QAM	2310	50	0	5.98	<=13	Pass

5.2.2 Test Graph



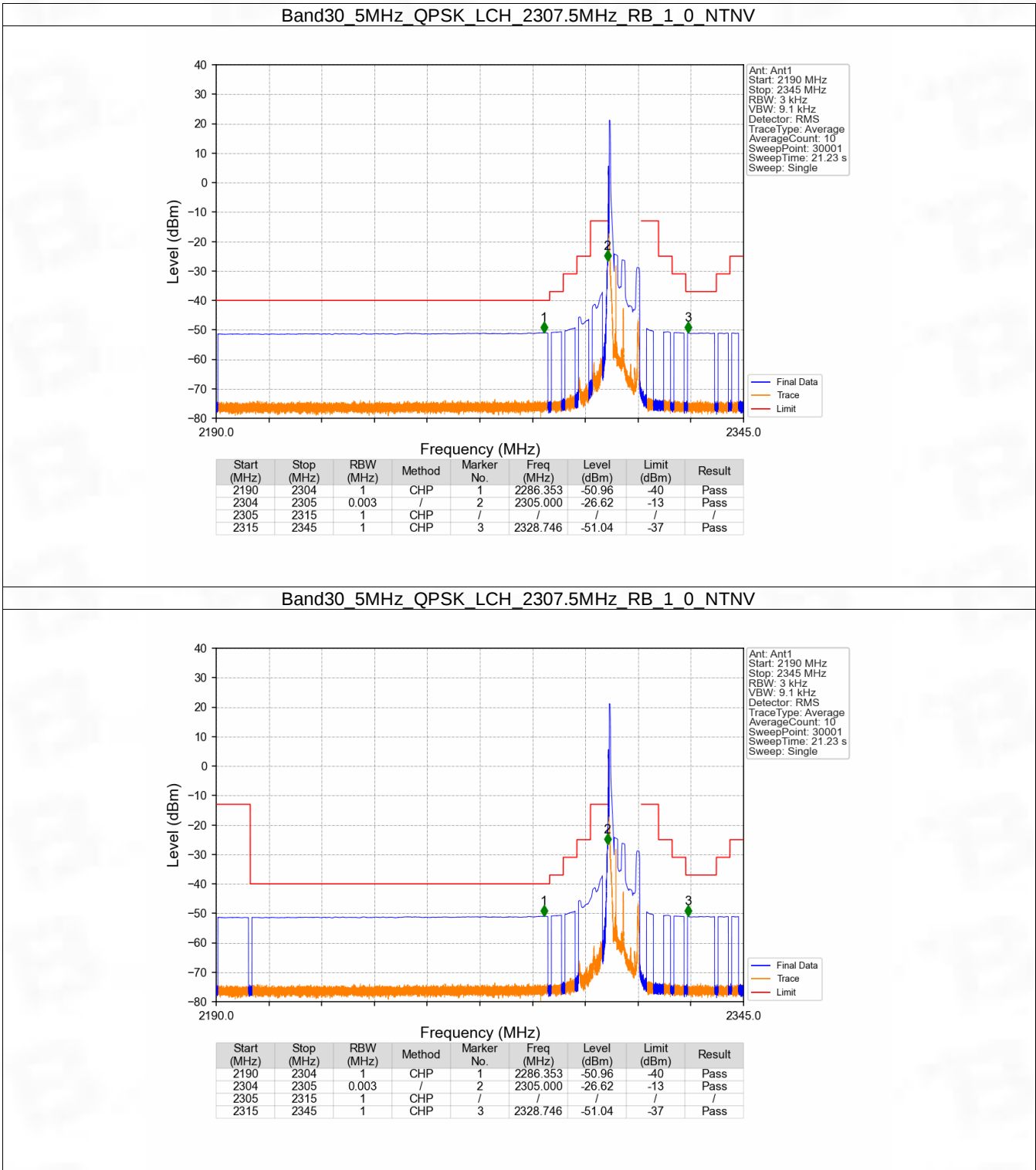
6. Spurious Emission

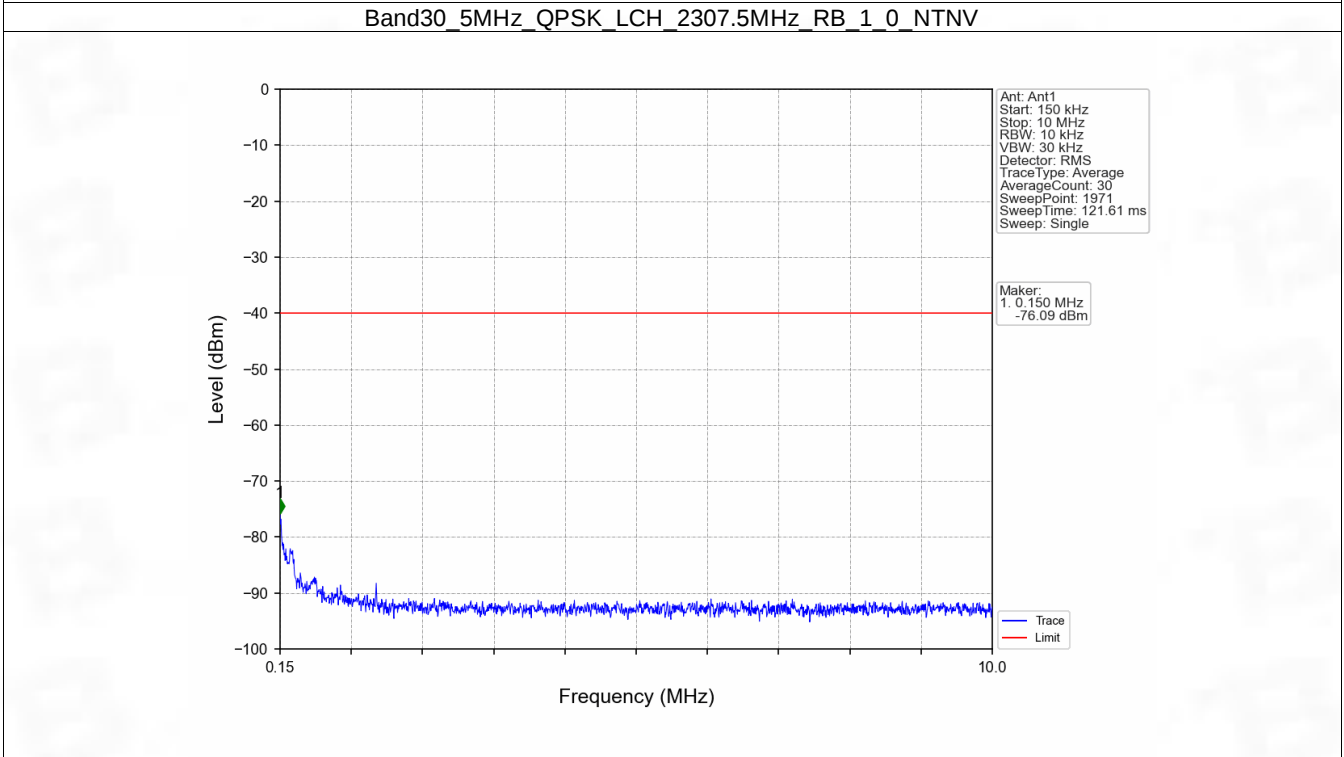
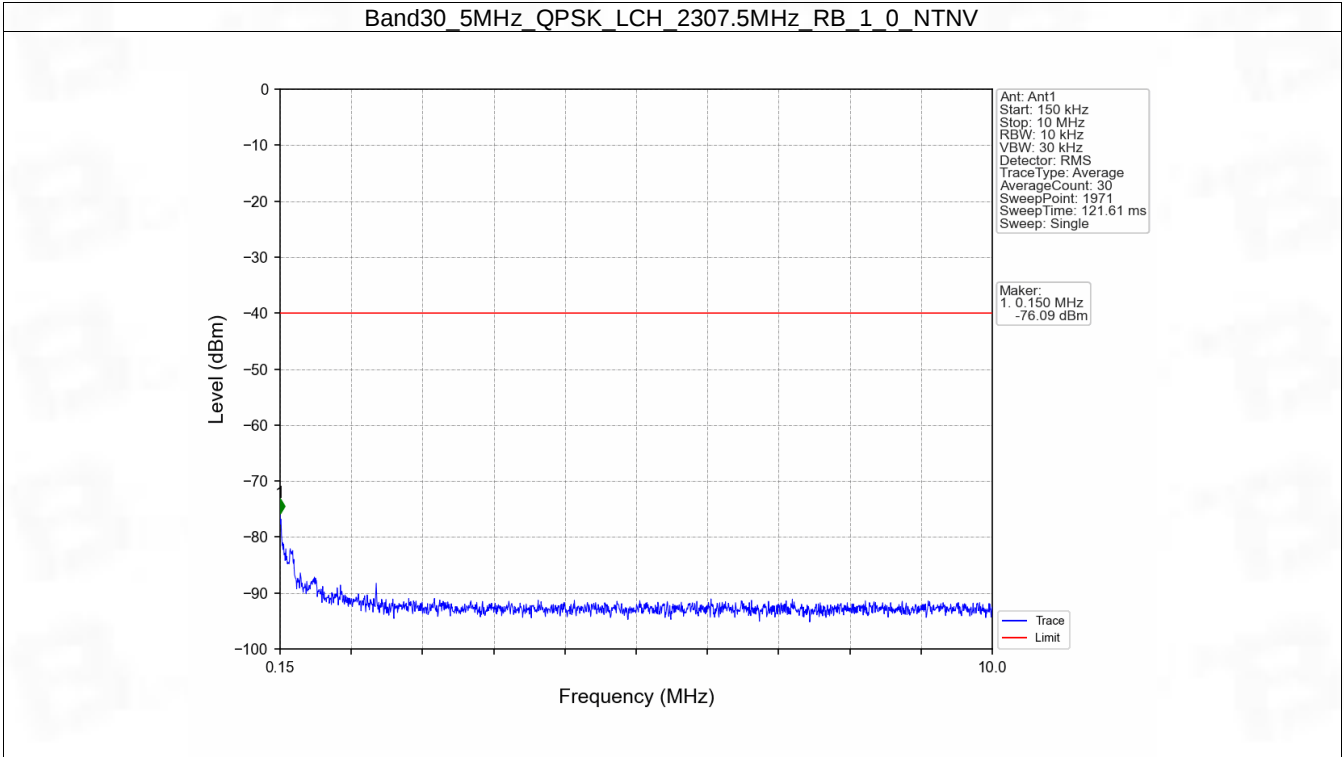
6.1 B30_5MHz

6.1.1 Test Result

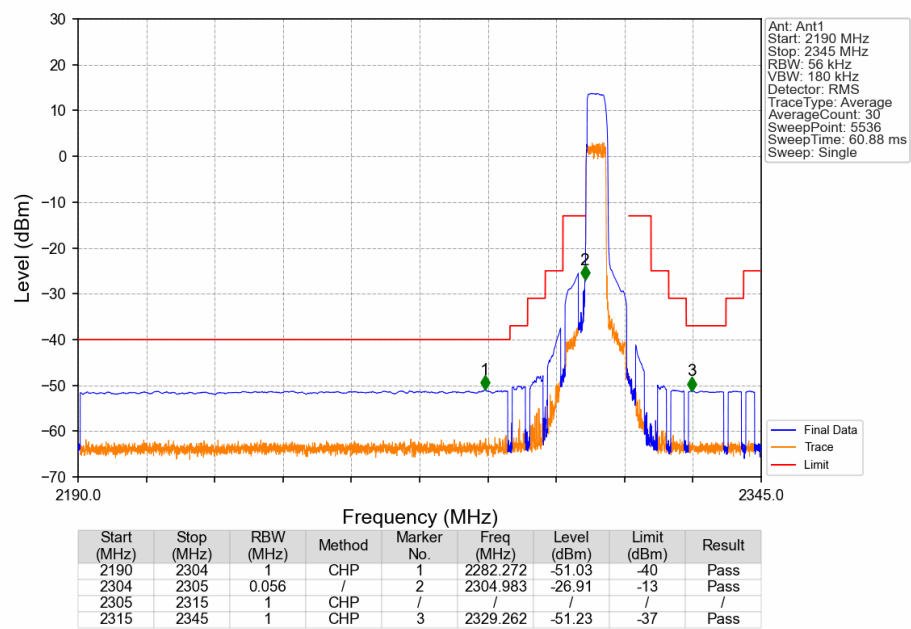
Band: 30 / Bandwidth: 5MHz / NTNV					
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission	
		Size	Offset	Result	Limit
QPSK	2307.5	1	0	Refer To Test Graph	Pass
		25	0	Refer To Test Graph	Pass
	2312.5	1	0	Refer To Test Graph	Pass
		1	0	Refer To Test Graph	Pass
		1	24	Refer To Test Graph	Pass
		25	0	Refer To Test Graph	Pass
16QAM	2307.5	1	0	Refer To Test Graph	Pass
		25	0	Refer To Test Graph	Pass
	2312.5	1	0	Refer To Test Graph	Pass
		1	0	Refer To Test Graph	Pass
		1	24	Refer To Test Graph	Pass
		25	0	Refer To Test Graph	Pass

6.1.2 Test Graph

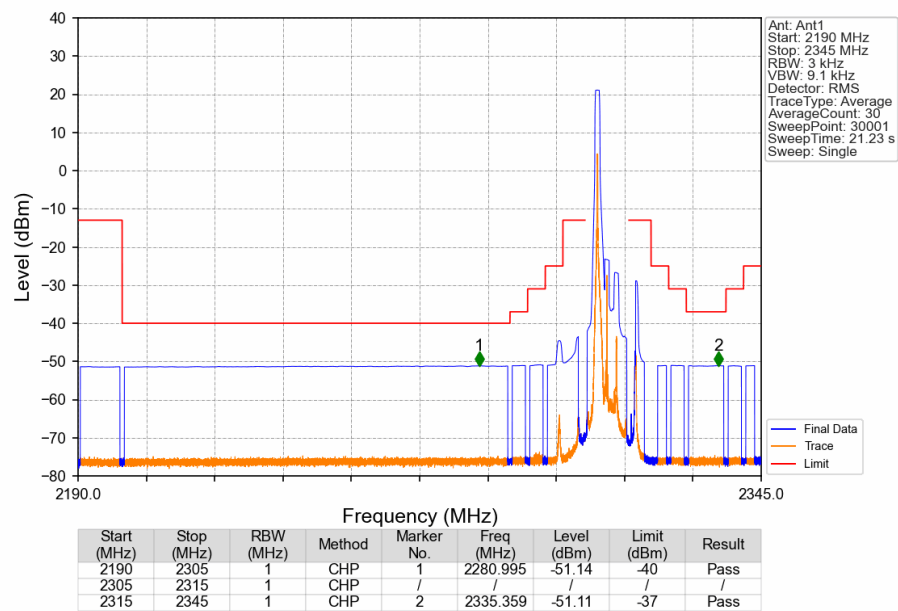


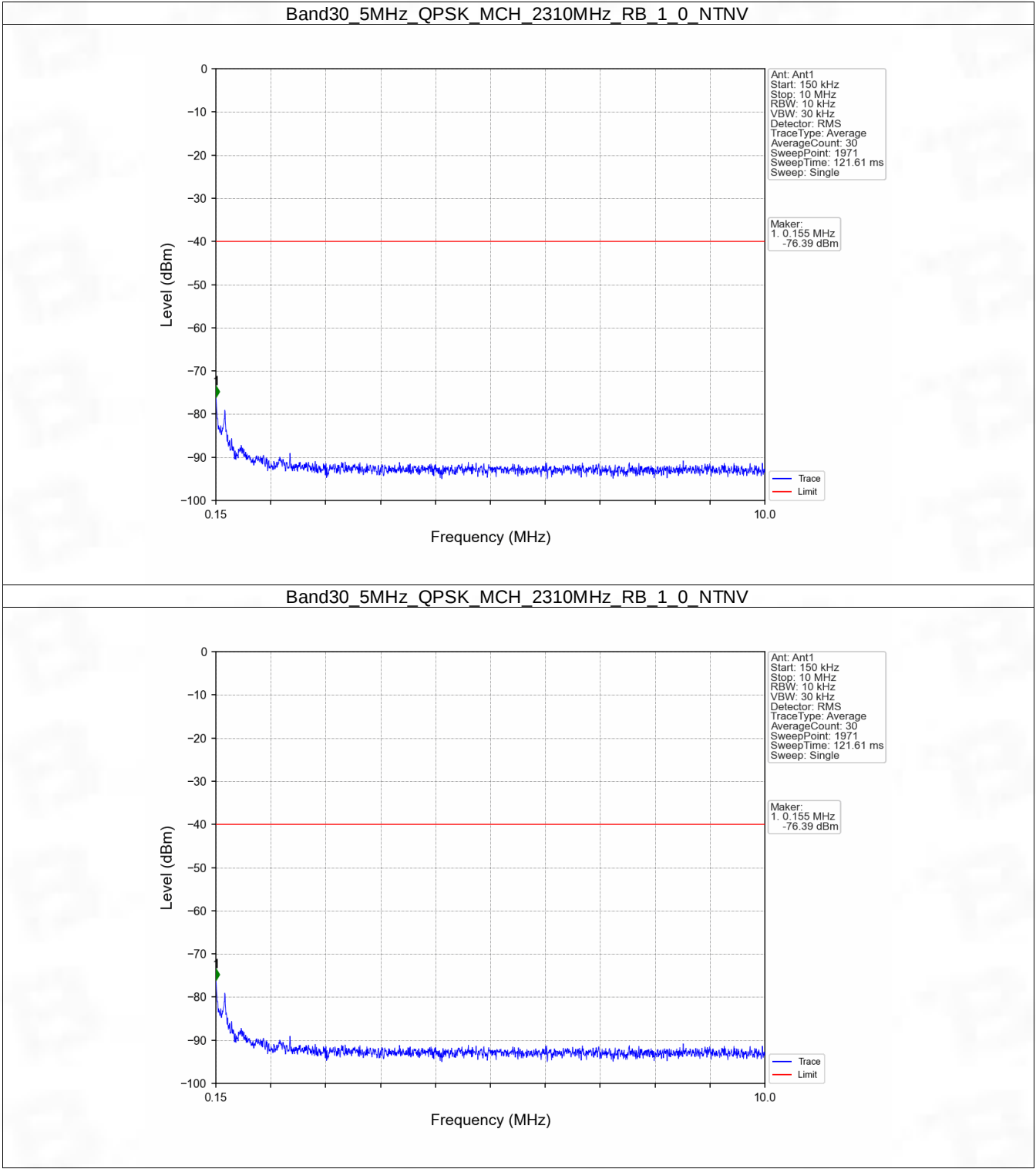


Band30_5MHz_QPSK_LCH_2307.5MHz_RB_25_0_NTNV

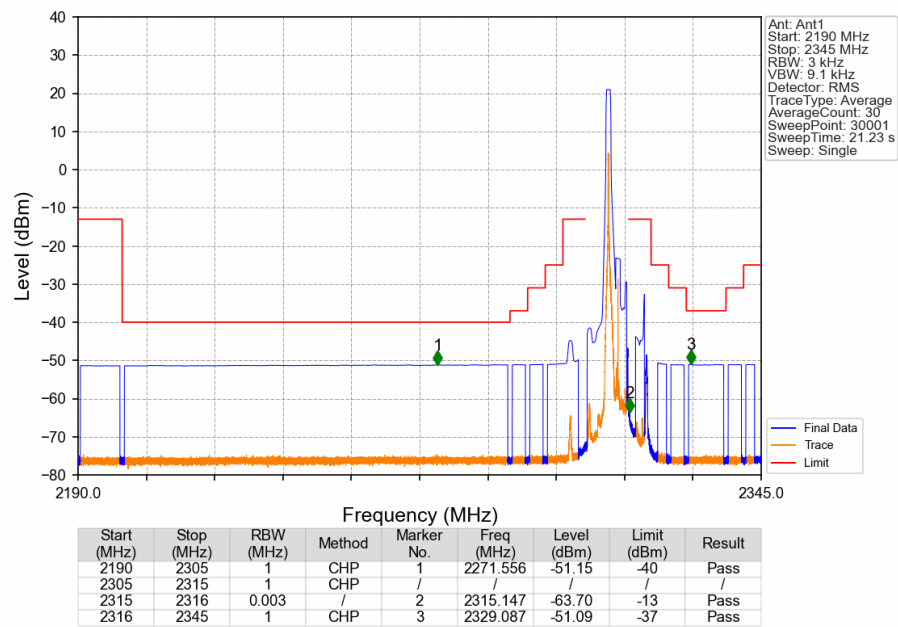


Band30_5MHz_QPSK_MCH_2310MHz_RB_1_0_NTNV

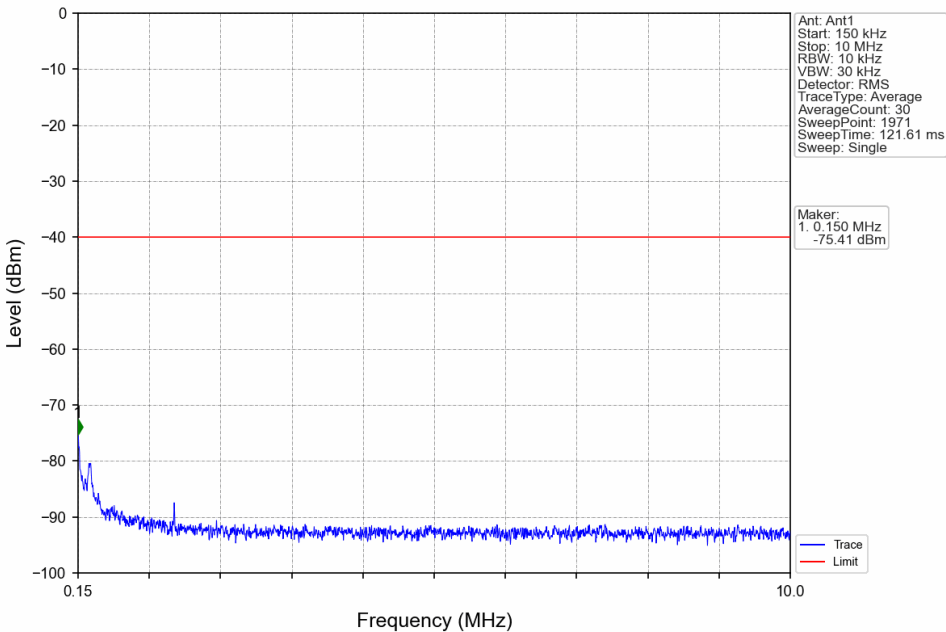


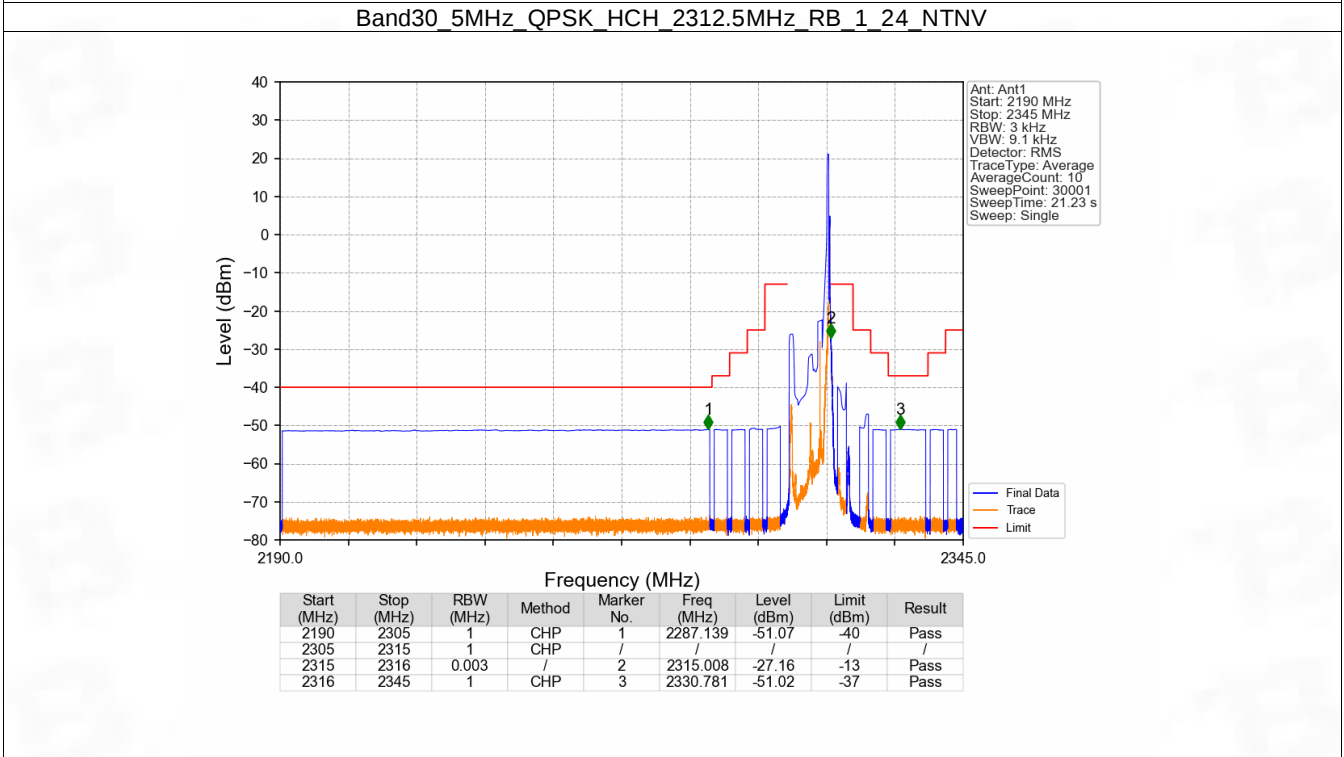
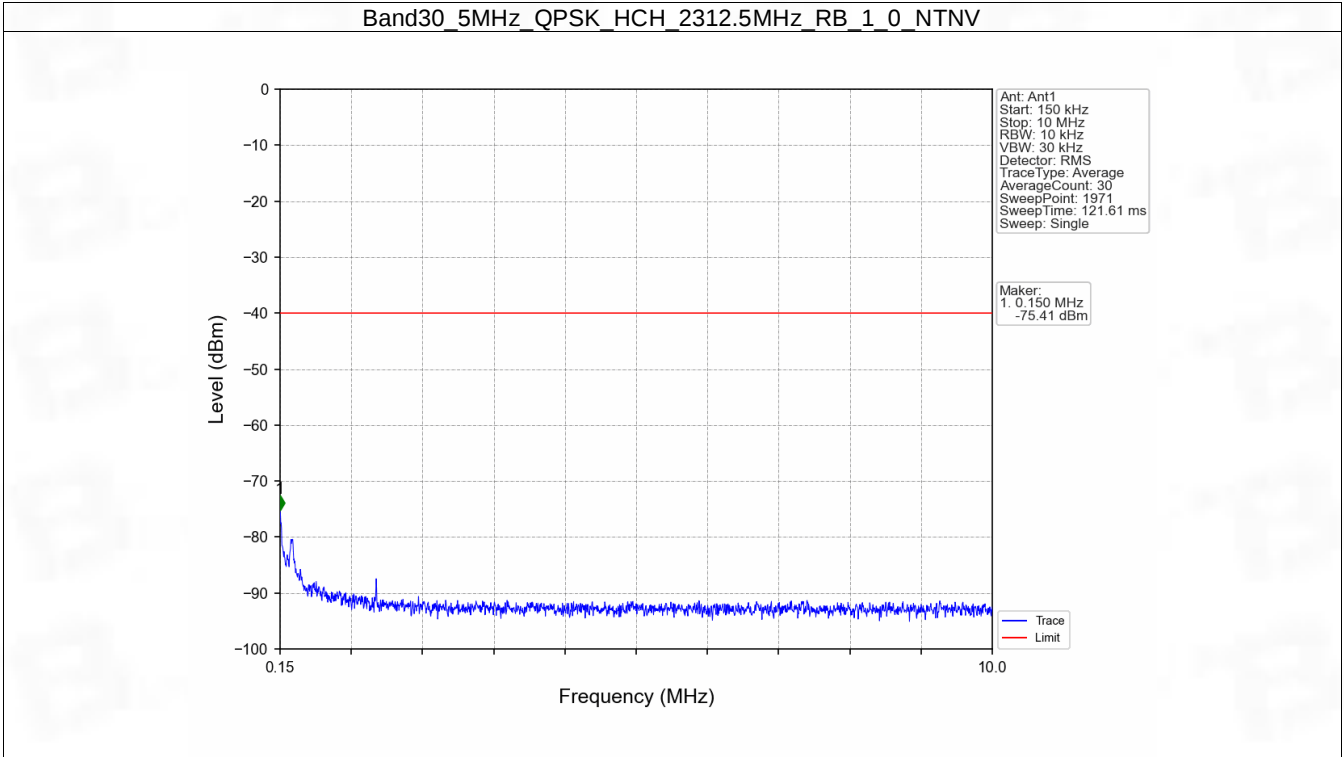


Band30_5MHz_QPSK_HCH_2312.5MHz_RB_1_0_NTNV

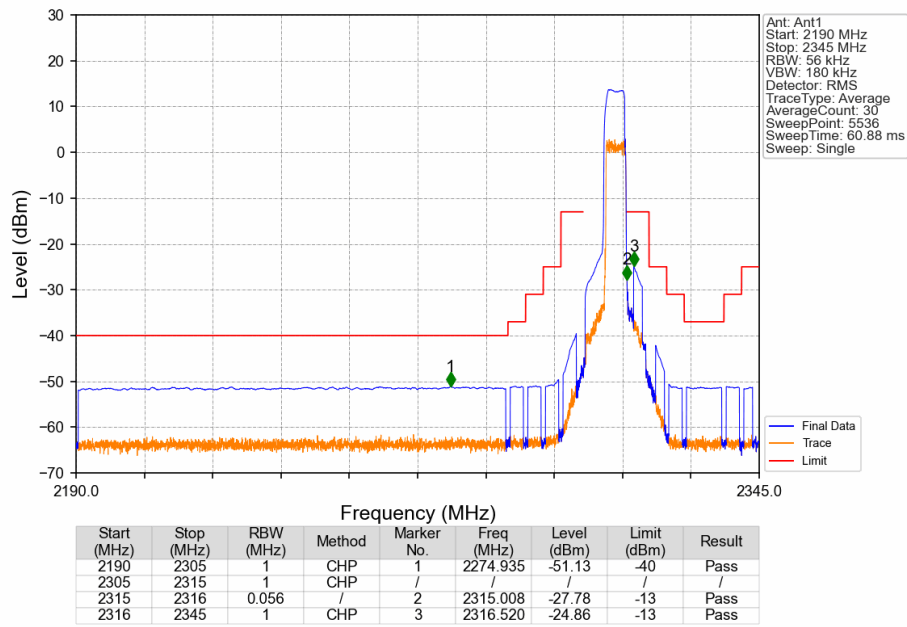


Band30_5MHz_QPSK_HCH_2312.5MHz_RB_1_0_NTNV

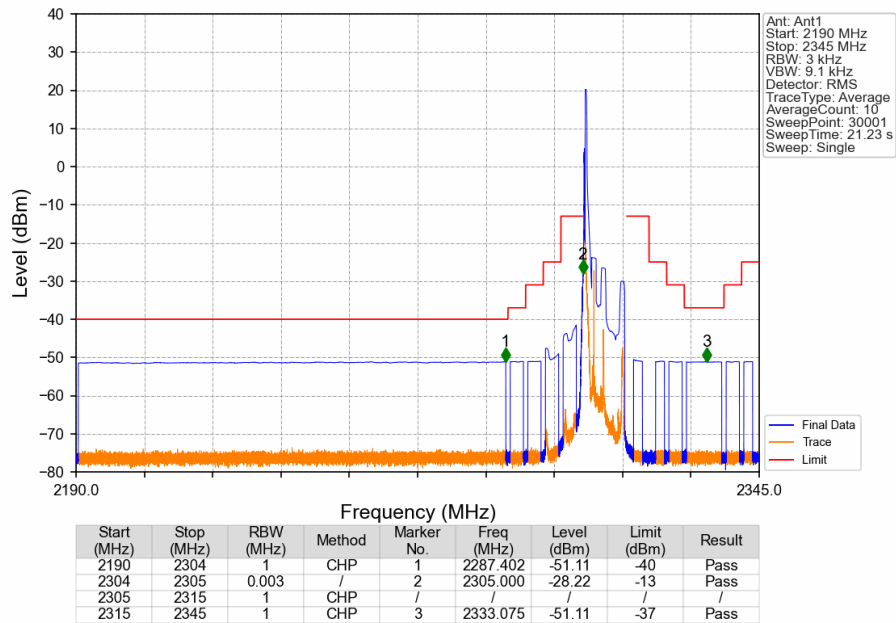




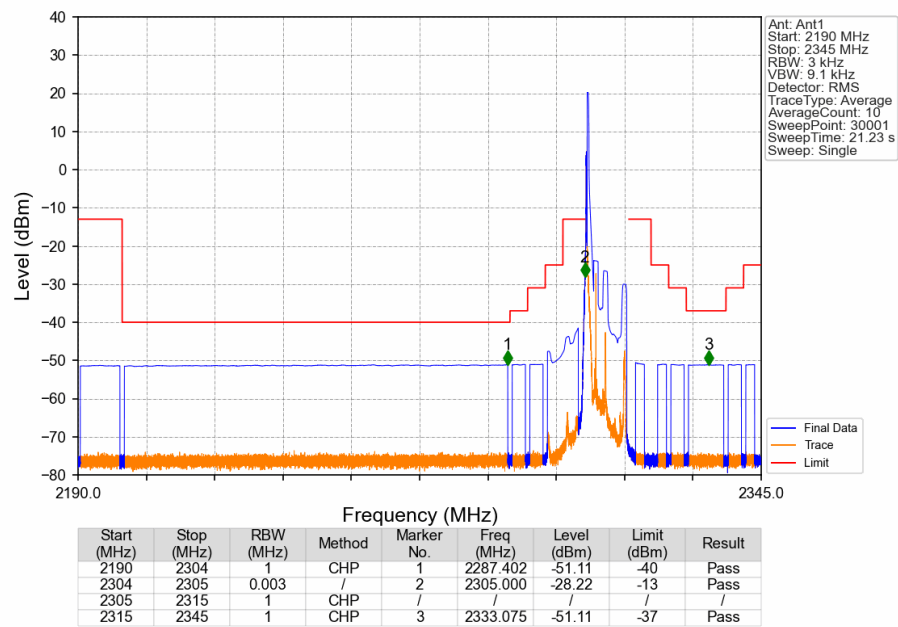
Band30_5MHz_QPSK_HCH_2312.5MHz_RB_25_0_NTNV



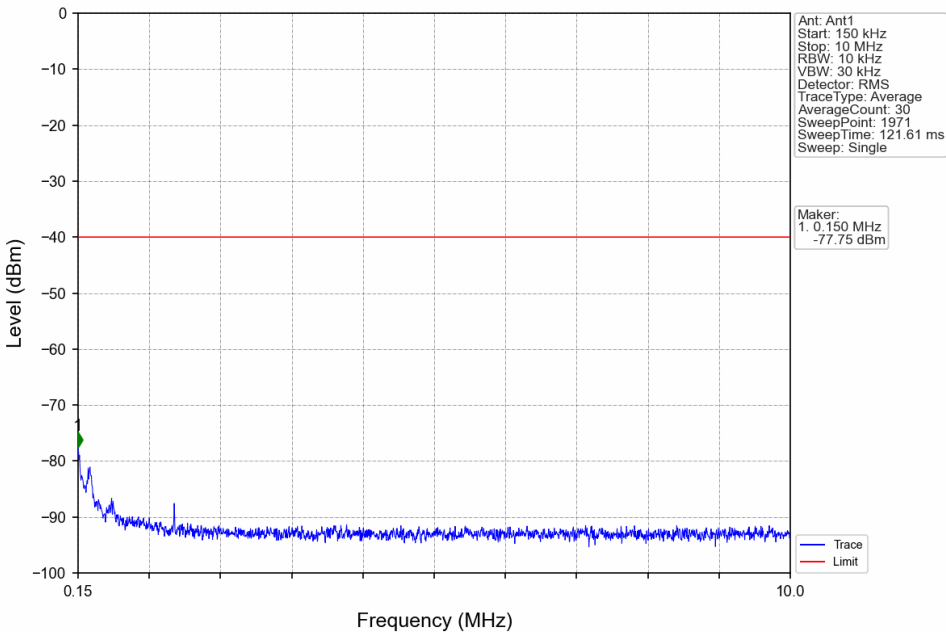
Band30_5MHz_16QAM_LCH_2307.5MHz_RB_1_0_NTNV



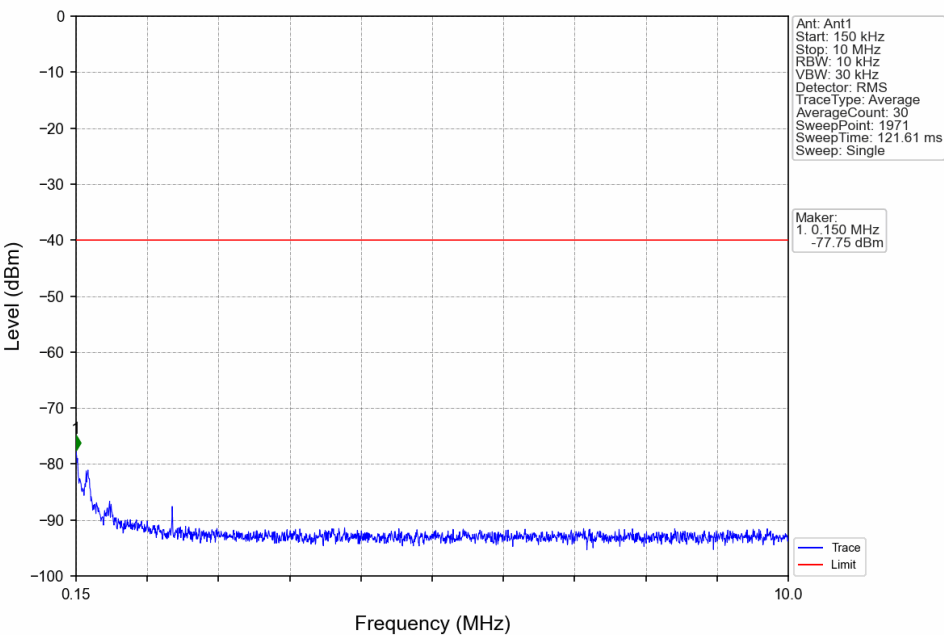
Band30_5MHz_16QAM_LCH_2307.5MHz_RB_1_0_NTNV



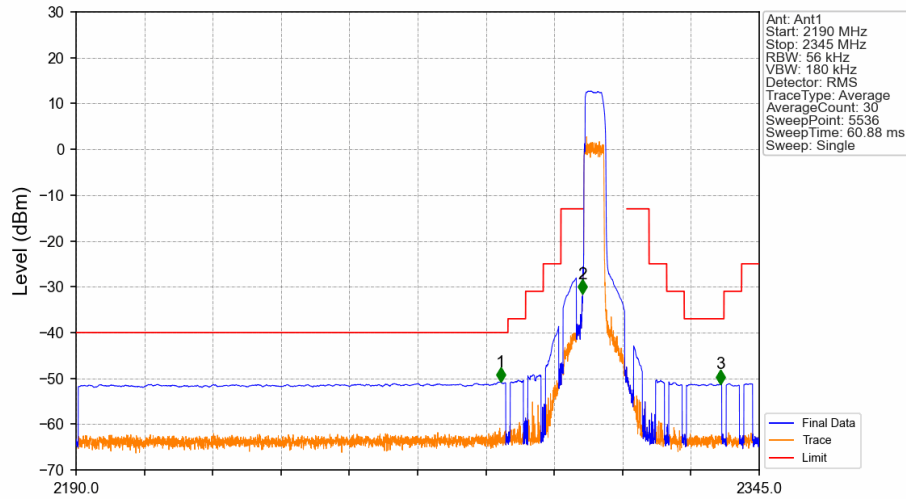
Band30_5MHz_16QAM_LCH_2307.5MHz_RB_1_0_NTNV



Band30_5MHz_16QAM_LCH_2307.5MHz_RB_1_0_NTNV

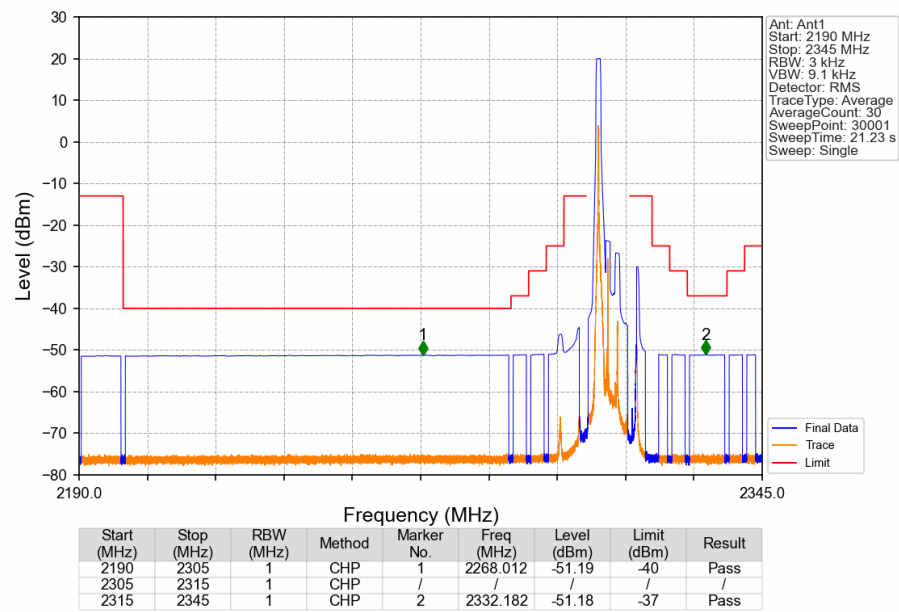


Band30_5MHz_16QAM_LCH_2307.5MHz_RB_25_0_NTNV

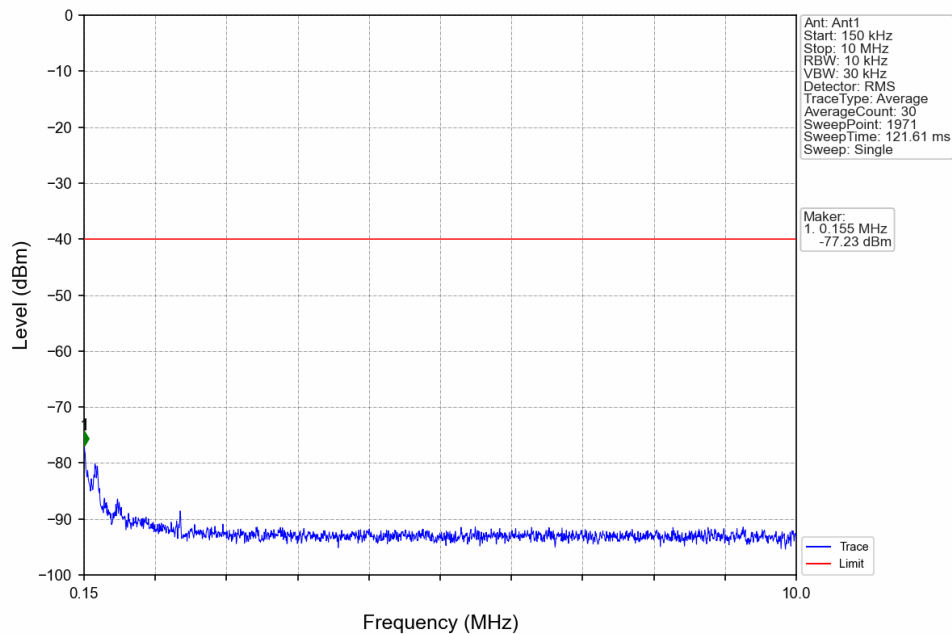


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
2190	2304	1	CHP	1	2286.332	-50.80	-40	Pass
2304	2305	0.056	/	2	2304.955	-31.55	-13	Pass
2305	2315	1	CHP	/	/	/	/	/
2315	2345	1	CHP	3	2336.263	-51.21	-37	Pass

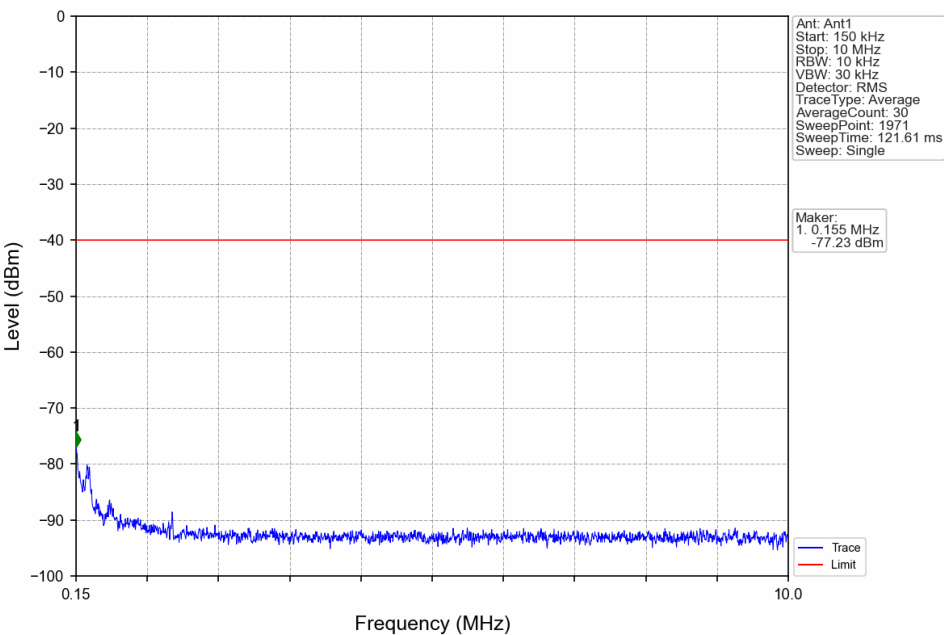
Band30_5MHz_16QAM_MCH_2310MHz_RB_1_0_NTNV



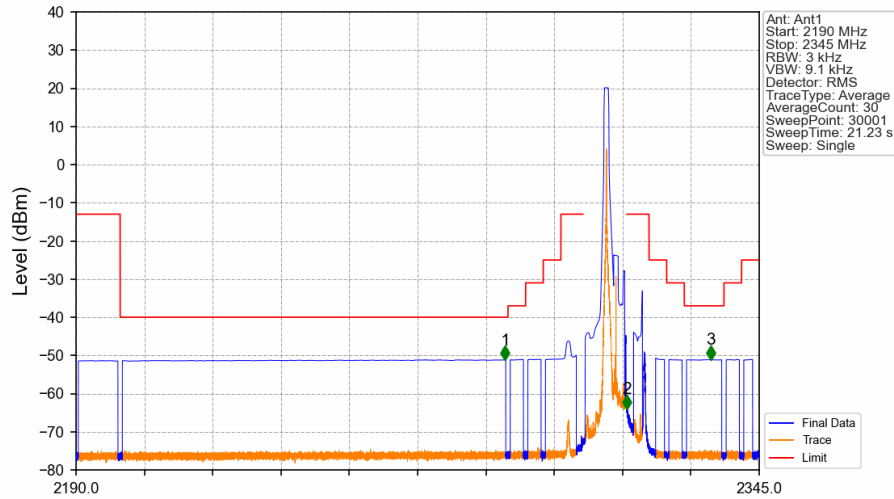
Band30_5MHz_16QAM_MCH_2310MHz_RB_1_0_NTNV



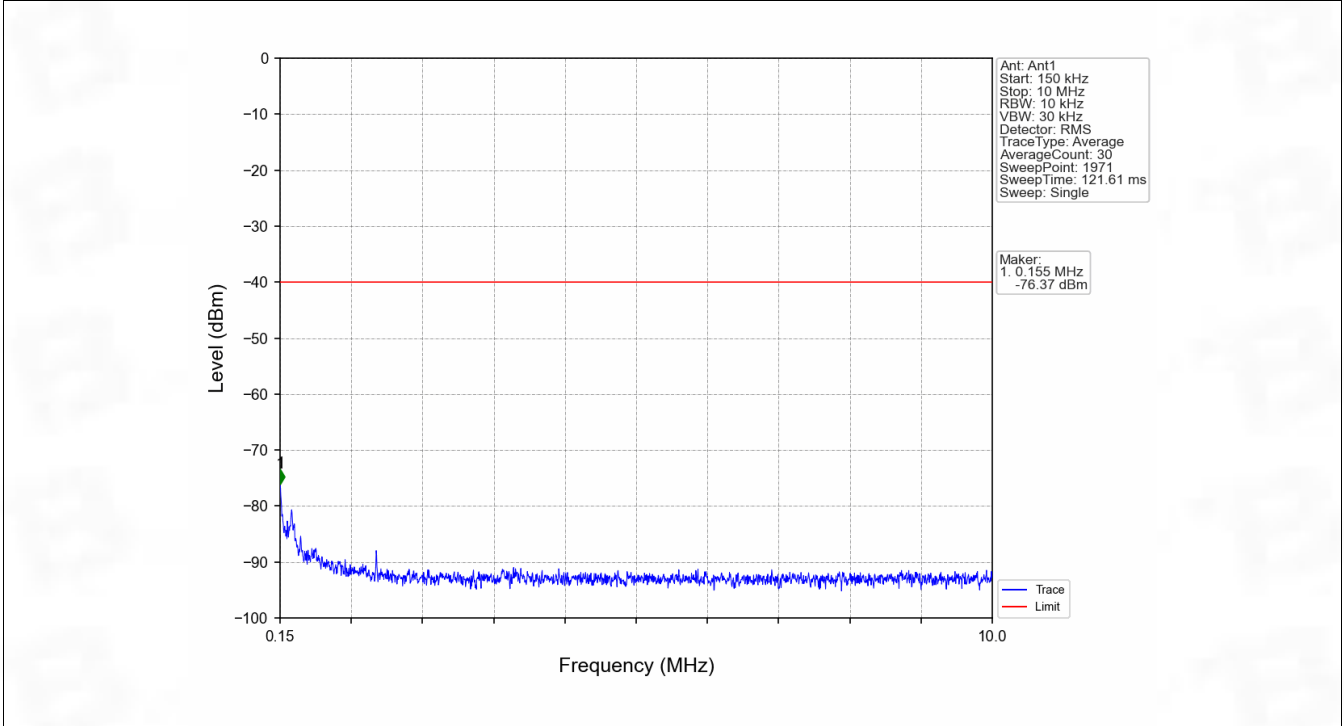
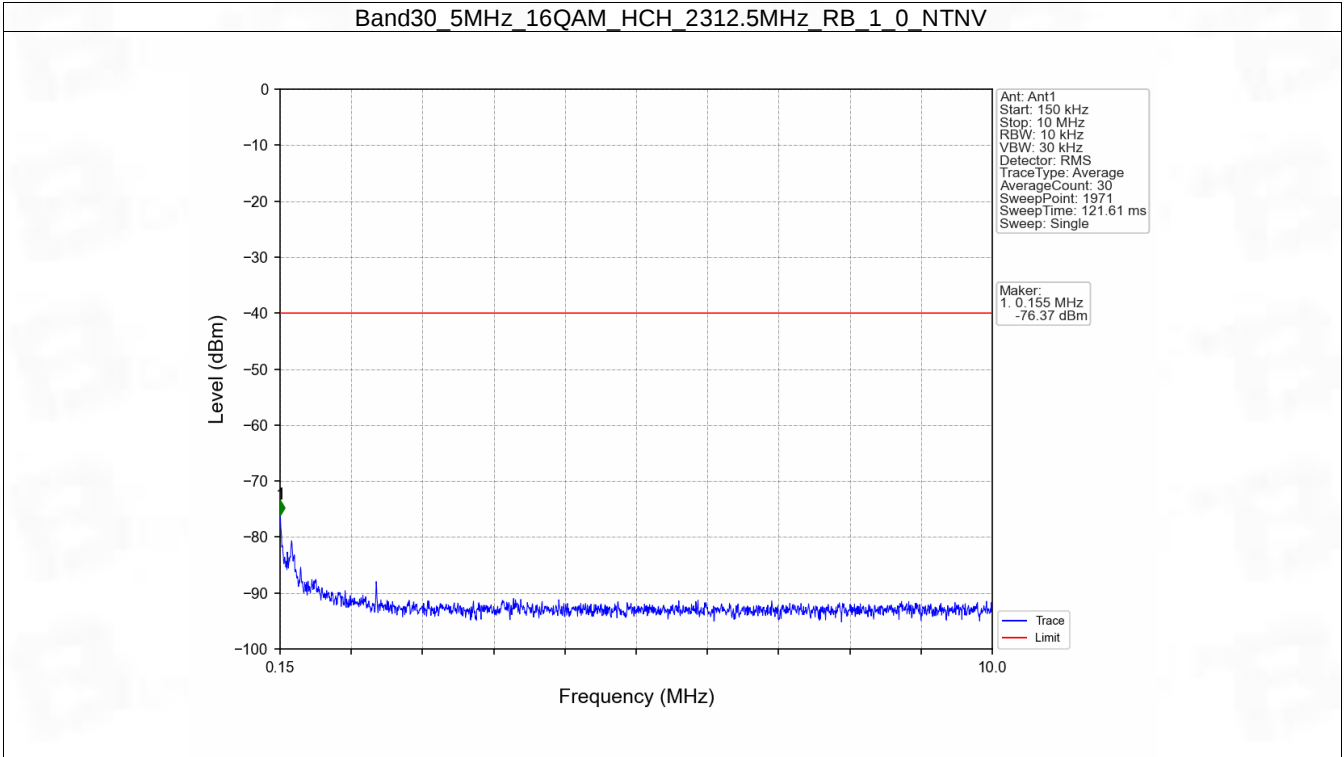
Band30_5MHz_16QAM_MCH_2310MHz_RB_1_0_NTNV



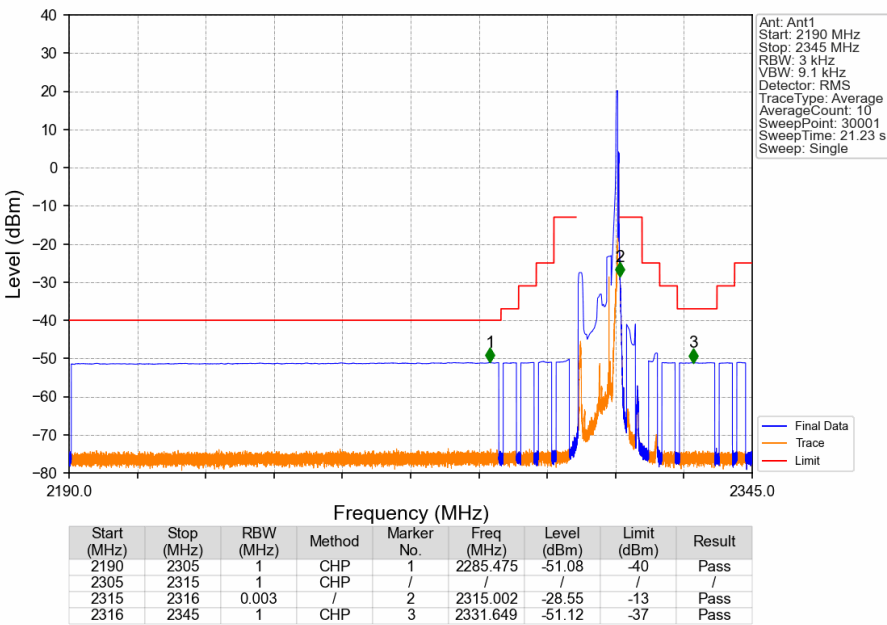
Band30_5MHz_16QAM_HCH_2312.5MHz_RB_1_0_NTNV



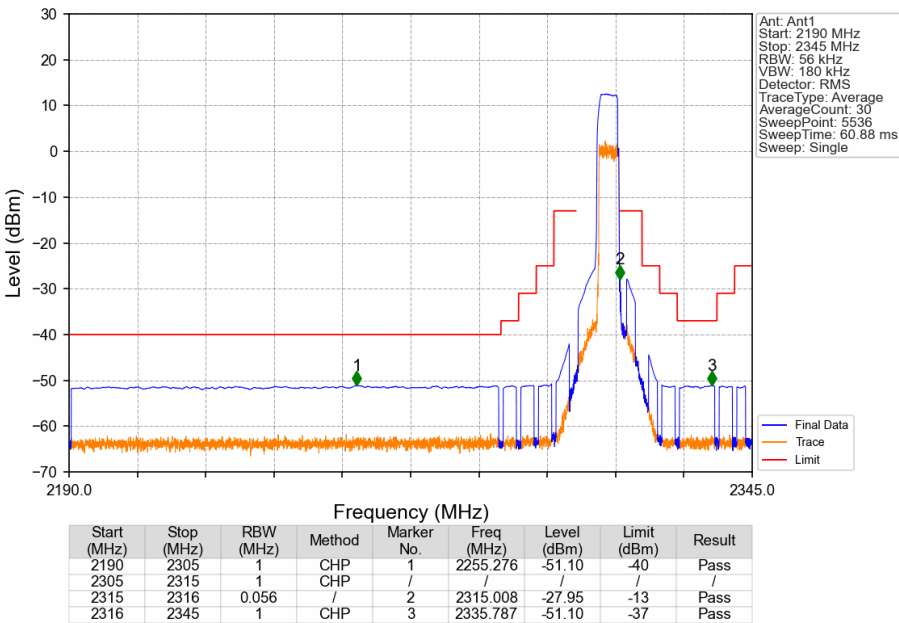
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
2190	2305	1	CHP	1	2287.350	-51.15	-40	Pass
2305	2315	1	CHP	/	/	/	/	/
2315	2316	0.003	/	2	2315.039	-64.02	-13	Pass
2316	2345	1	CHP	3	2334.026	-51.13	-37	Pass



Band30_5MHz_16QAM_HCH_2312.5MHz_RB_1_24_NTNV



Band30_5MHz_16QAM_HCH_2312.5MHz_RB_25_0_NTNV

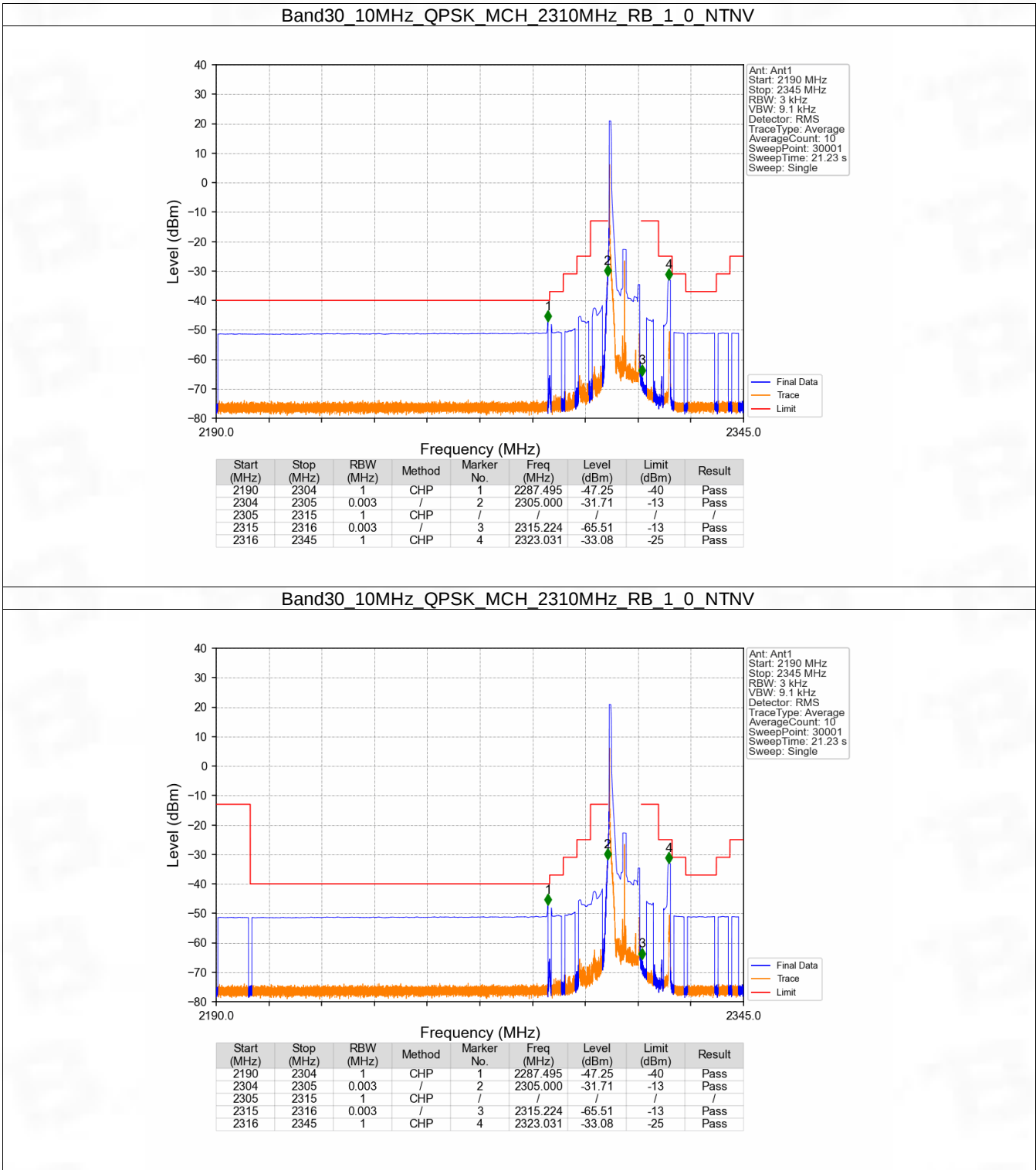


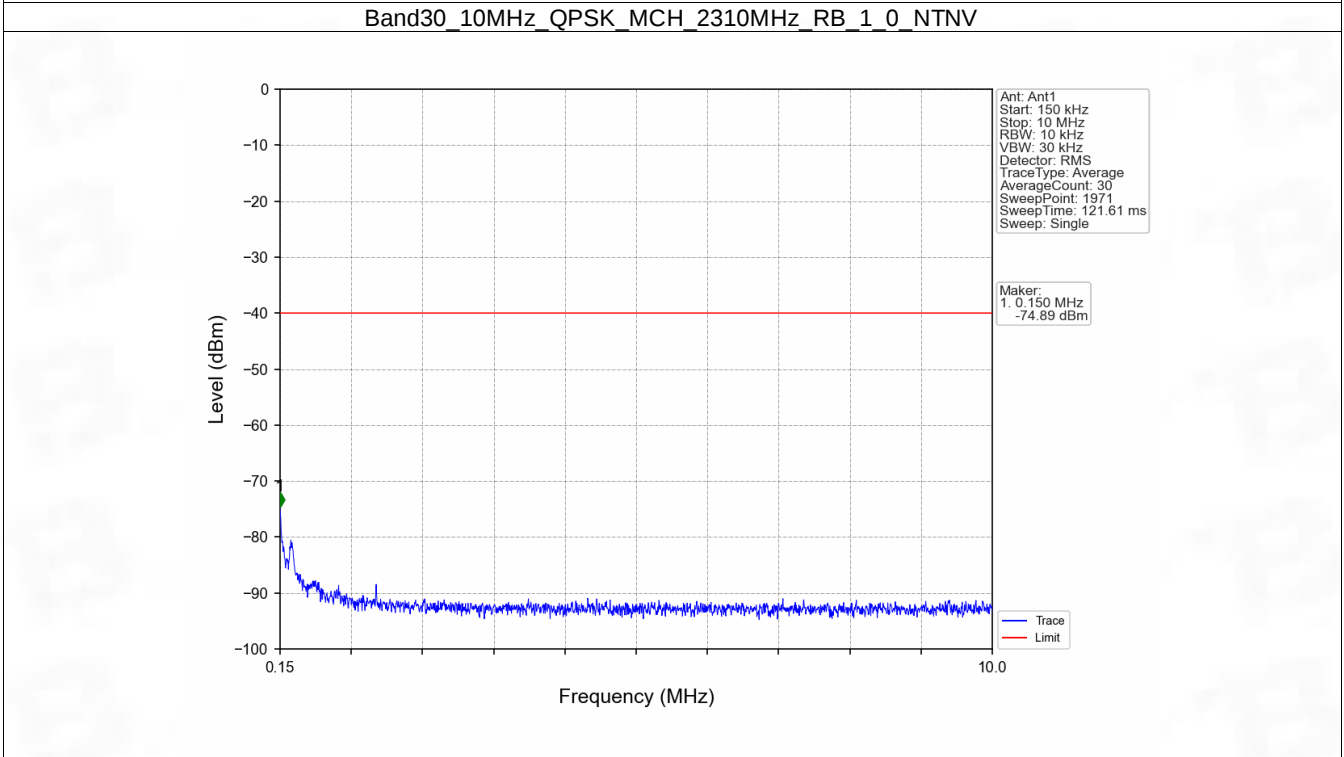
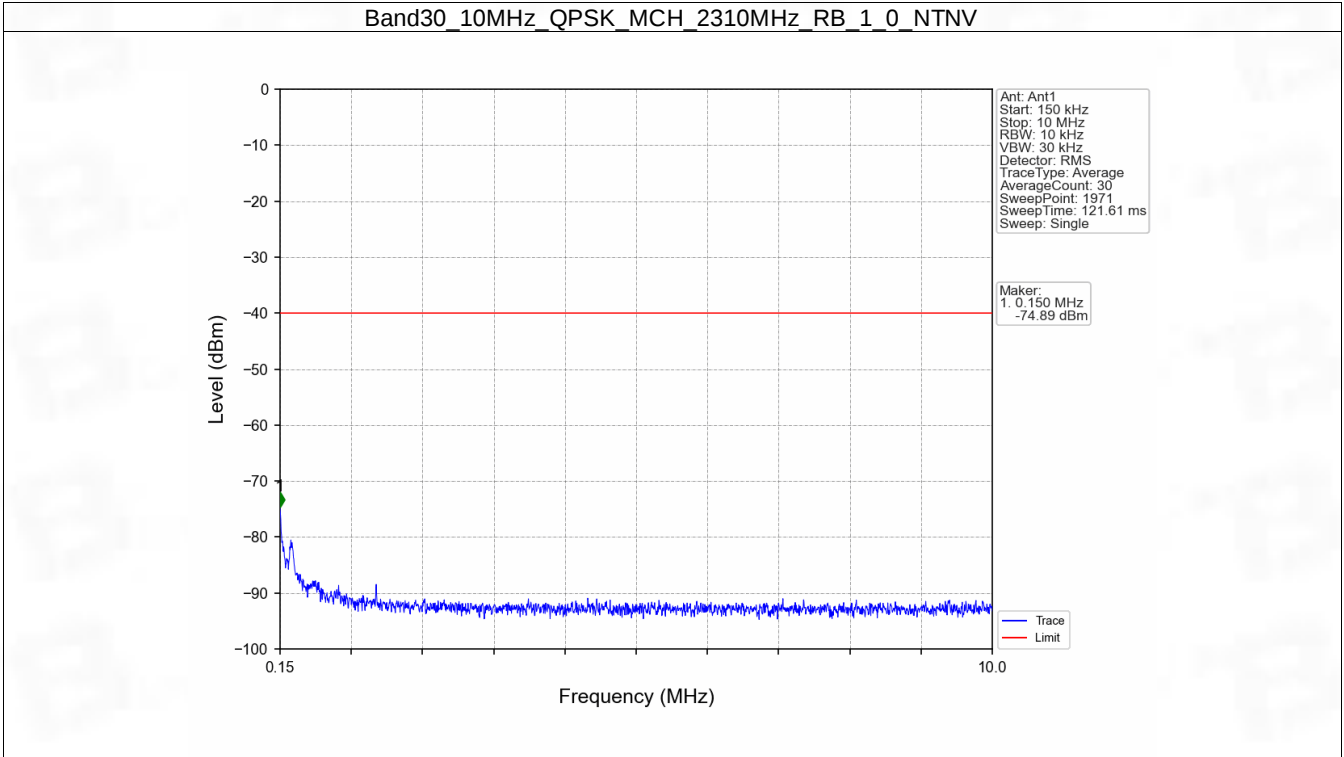
6.2 B30_10MHz

6.2.1 Test Result

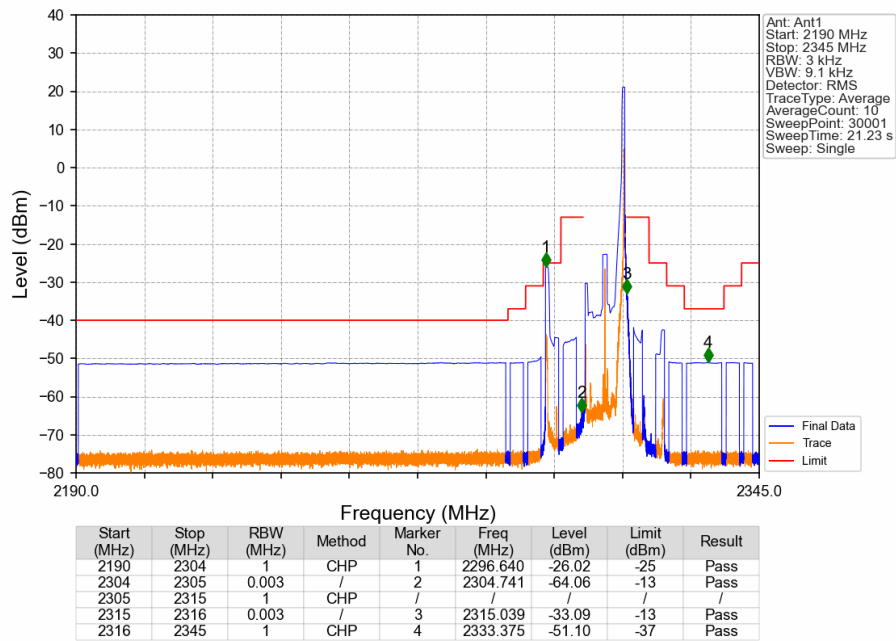
Band: 30 / Bandwidth: 10MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	2310	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
16QAM	2310	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

6.2.2 Test Graph

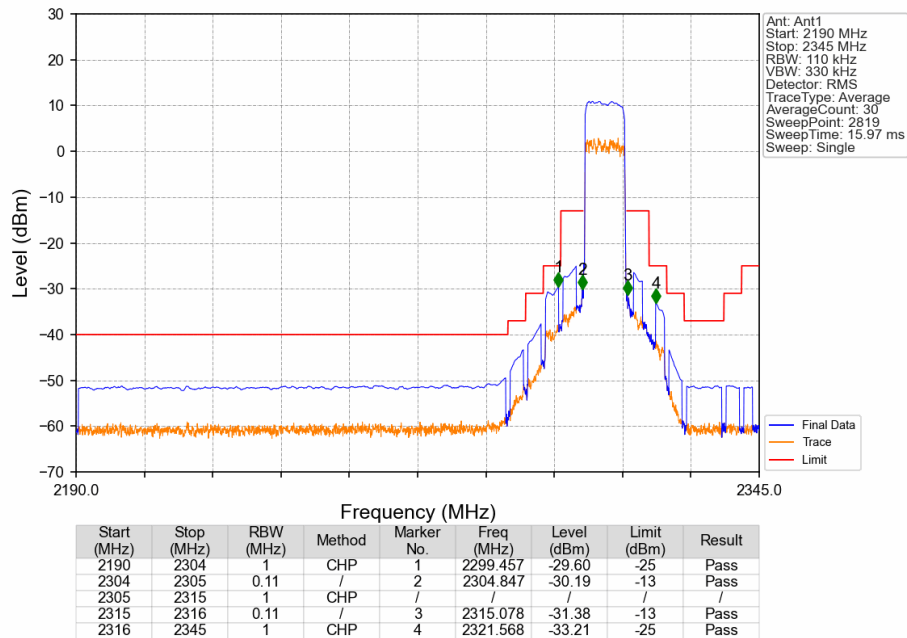




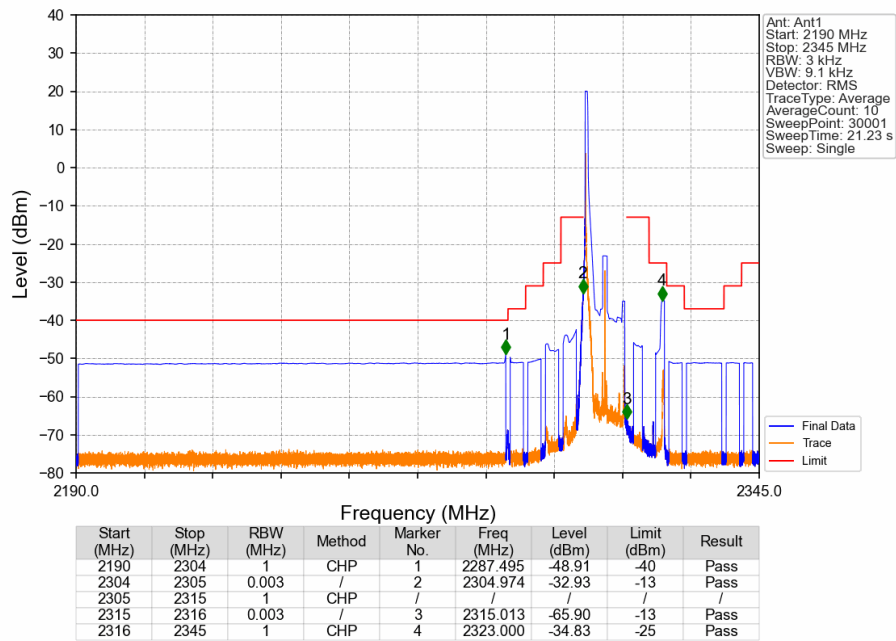
Band30_10MHz_QPSK_MCH_2310MHz_RB_1_49_NTNV



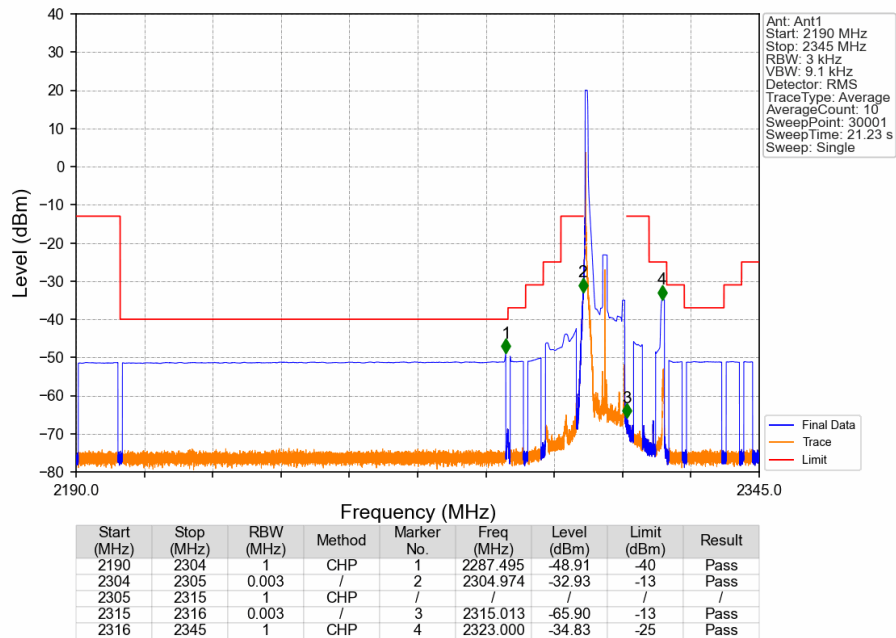
Band30_10MHz_QPSK_MCH_2310MHz_RB_50_0_NTNV

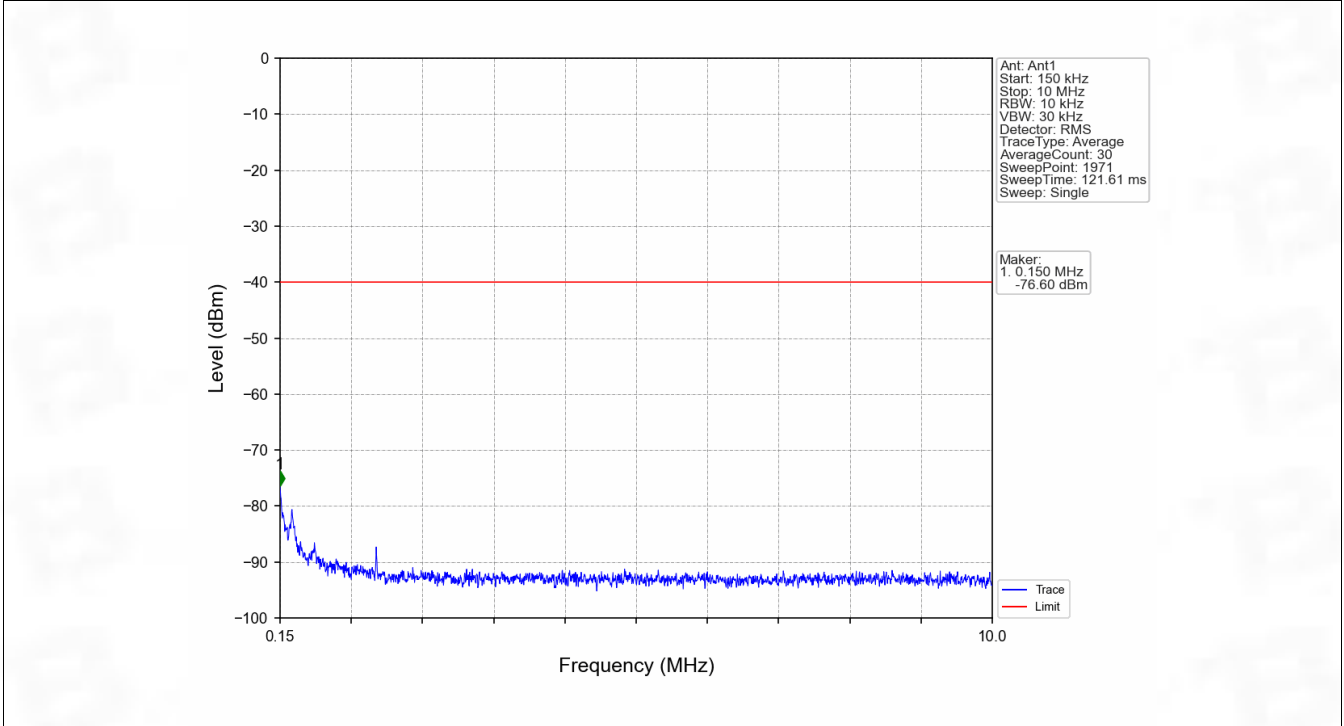
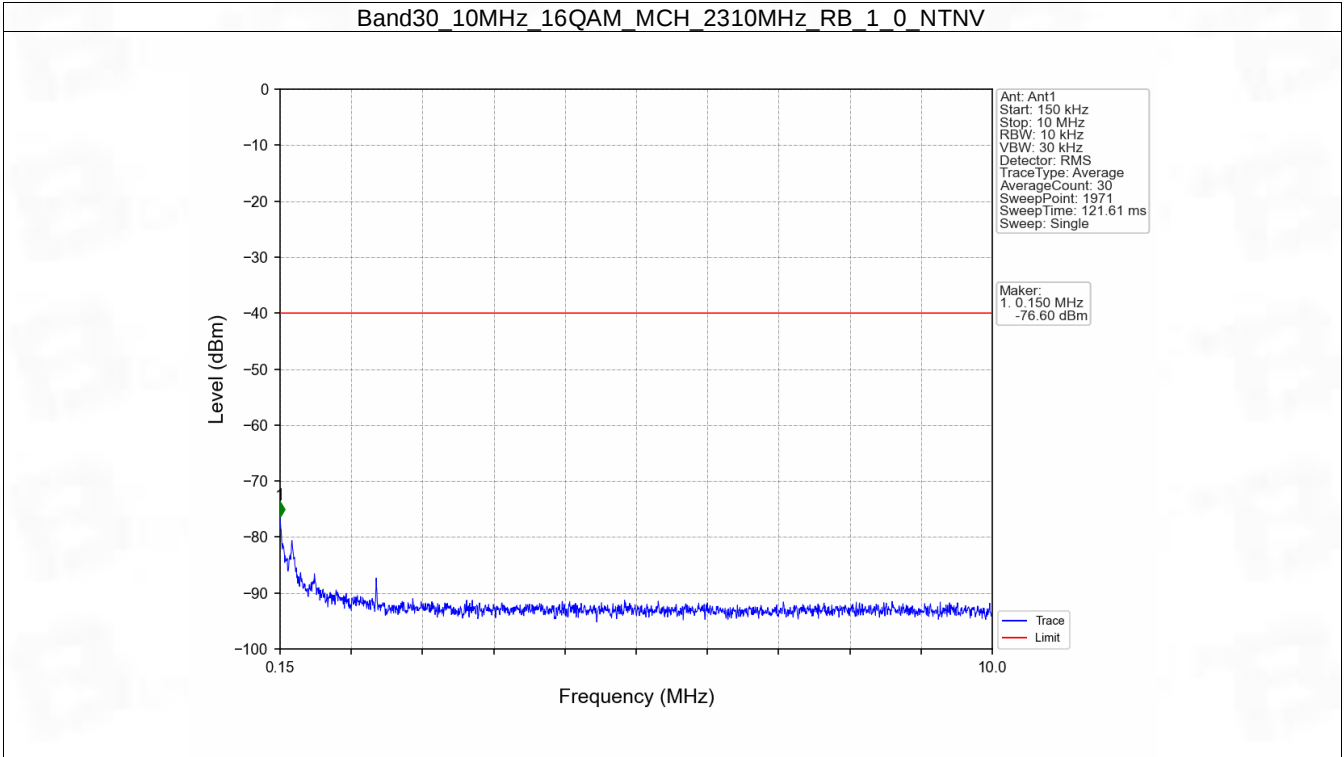


Band30_10MHz_16QAM_MCH_2310MHz_RB_1_0_NTNV

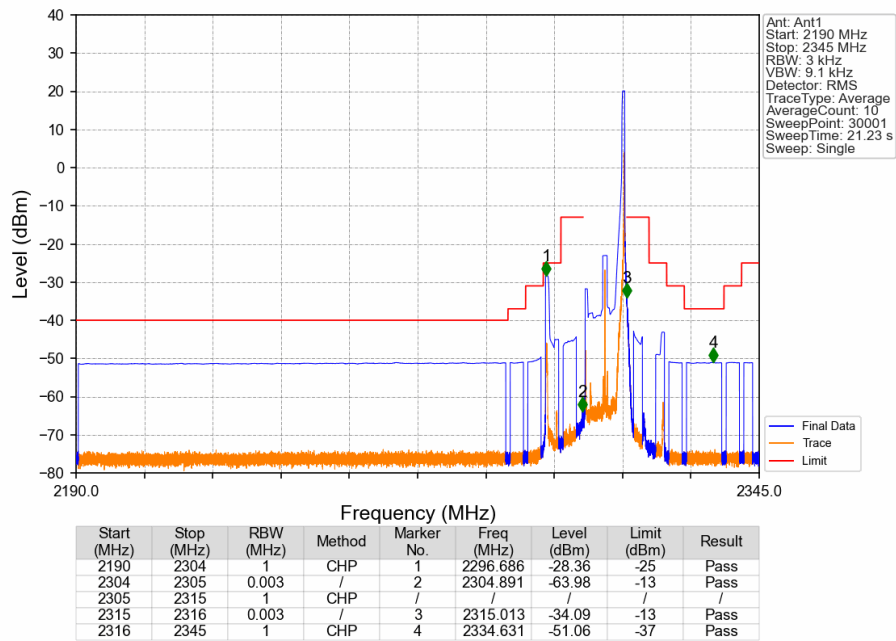


Band30_10MHz_16QAM_MCH_2310MHz_RB_1_0_NTNV

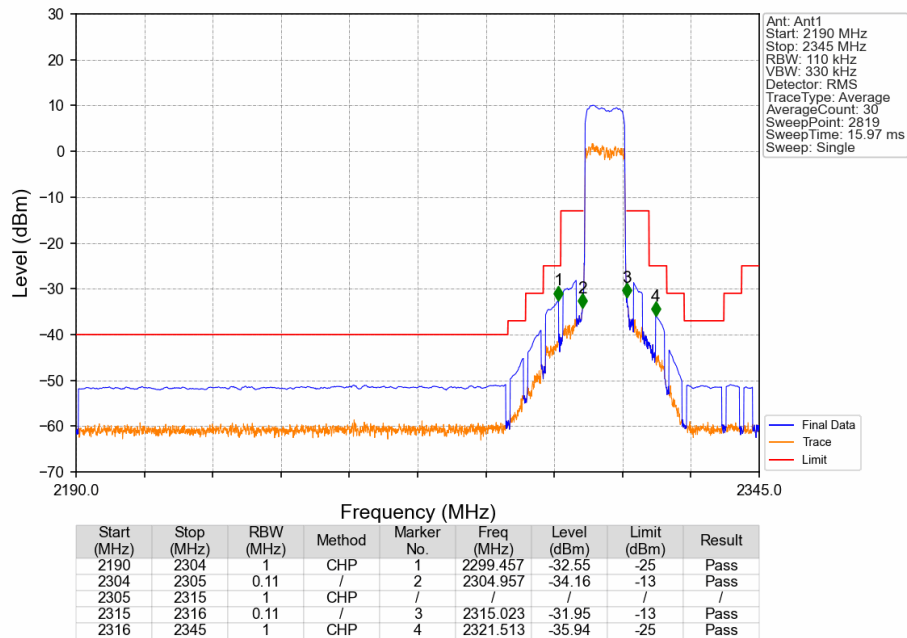




Band30_10MHz_16QAM_MCH_2310MHz_RB_1_49_NTNV



Band30_10MHz_16QAM_MCH_2310MHz_RB_50_0_NTNV



7. Form731

7.1 Form731_Power

7.1.1 Test Result

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
30	5	2307.5	2312.5	0.1337	0.0077	ppm	4M58G7D	27D	21.26
30	5	2307.5	2312.5	0.1040	0.0075	ppm	4M58W7D	27D	20.17
30	10	2310	2310	0.1432	0.0044	ppm	9M05G7D	27D	21.56
30	10	2310	2310	0.1023	0.0117	ppm	9M05W7D	27D	20.10

7.2 Form731_EIRP

7.2.1 Test Result

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
30	5	2307.5	2312.5	0.1406	0.0077	ppm	4M58G7D	27D	21.48
30	5	2307.5	2312.5	0.1094	0.0075	ppm	4M58W7D	27D	20.39
30	10	2310	2310	0.1507	0.0044	ppm	9M05G7D	27D	21.78
30	10	2310	2310	0.1076	0.0117	ppm	9M05W7D	27D	20.32