

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 B5_1.4MHz_ERP

Band: 5 / Bandwidth: 1.4MHz / NTV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	824.7	1	0	23.13	5.17	26.15	<=38.45	Pass
			5	23.07	5.17	26.09	<=38.45	Pass
		6	0	22.04	5.17	25.06	<=38.45	Pass
	836.5	1	0	22.84	5.17	25.86	<=38.45	Pass
			5	22.93	5.17	25.95	<=38.45	Pass
		6	0	21.97	5.17	24.99	<=38.45	Pass
	848.3	1	0	22.75	5.17	25.77	<=38.45	Pass
			5	22.92	5.17	25.94	<=38.45	Pass
		6	0	21.84	5.17	24.86	<=38.45	Pass
16QAM	824.7	1	0	21.92	5.17	24.94	<=38.45	Pass
			5	21.80	5.17	24.82	<=38.45	Pass
		6	0	20.94	5.17	23.96	<=38.45	Pass
	836.5	1	0	22.04	5.17	25.06	<=38.45	Pass
			5	22.06	5.17	25.08	<=38.45	Pass
		6	0	21.03	5.17	24.05	<=38.45	Pass
	848.3	1	0	21.81	5.17	24.83	<=38.45	Pass
			5	22.09	5.17	25.11	<=38.45	Pass
		6	0	21.05	5.17	24.07	<=38.45	Pass
Note1: ERP=Conducted Power+Antenna Gain-2.15								

1.1.2 B5_3MHz_ERP

Band: 5 / Bandwidth: 3MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	825.5	1	0	23.03	5.17	26.05	<=38.45	Pass
			14	22.62	5.17	25.64	<=38.45	Pass
		15	0	21.77	5.17	24.79	<=38.45	Pass
	836.5	1	0	22.92	5.17	25.94	<=38.45	Pass
			14	22.75	5.17	25.77	<=38.45	Pass
		15	0	21.96	5.17	24.98	<=38.45	Pass
	847.5	1	0	22.55	5.17	25.57	<=38.45	Pass
			14	22.85	5.17	25.87	<=38.45	Pass
		15	0	21.78	5.17	24.80	<=38.45	Pass
16QAM	825.5	1	0	21.91	5.17	24.93	<=38.45	Pass
			14	21.52	5.17	24.54	<=38.45	Pass
		15	0	20.82	5.17	23.84	<=38.45	Pass
	836.5	1	0	21.74	5.17	24.76	<=38.45	Pass
			14	21.60	5.17	24.62	<=38.45	Pass
		15	0	20.96	5.17	23.98	<=38.45	Pass
	847.5	1	0	21.89	5.17	24.91	<=38.45	Pass
			14	22.34	5.17	25.36	<=38.45	Pass
		15	0	20.97	5.17	23.99	<=38.45	Pass
Note1: ERP=Conducted Power+Antenna Gain-2.15								

1.1.3 B5_5MHz_ERP

Band: 5 / Bandwidth: 5MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	826.5	1	0	23.13	5.17	26.15	<=38.45	Pass
			24	22.78	5.17	25.80	<=38.45	Pass
		25	0	21.83	5.17	24.85	<=38.45	Pass
	836.5	1	0	22.99	5.17	26.01	<=38.45	Pass
			24	22.85	5.17	25.87	<=38.45	Pass
		25	0	22.03	5.17	25.05	<=38.45	Pass
	846.5	1	0	22.66	5.17	25.68	<=38.45	Pass
			24	23.08	5.17	26.10	<=38.45	Pass
		25	0	21.77	5.17	24.79	<=38.45	Pass
16QAM	826.5	1	0	22.45	5.17	25.47	<=38.45	Pass
			24	22.15	5.17	25.17	<=38.45	Pass
		25	0	20.98	5.17	24.00	<=38.45	Pass
	836.5	1	0	22.15	5.17	25.17	<=38.45	Pass
			24	22.02	5.17	25.04	<=38.45	Pass
		25	0	21.06	5.17	24.08	<=38.45	Pass
	846.5	1	0	21.88	5.17	24.90	<=38.45	Pass
			24	22.33	5.17	25.35	<=38.45	Pass
		25	0	20.75	5.17	23.77	<=38.45	Pass
Note1: ERP=Conducted Power+Antenna Gain-2.15								

1.1.4 B5_10MHz_ERP

Band: 5 / Bandwidth: 10MHz / NTV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	829	1	0	23.19	5.17	26.21	<=38.45	Pass
			49	23.13	5.17	26.15	<=38.45	Pass
		50	0	22.01	5.17	25.03	<=38.45	Pass
	836.5	1	0	22.93	5.17	25.95	<=38.45	Pass
			49	22.75	5.17	25.77	<=38.45	Pass
		50	0	21.97	5.17	24.99	<=38.45	Pass
	844	1	0	22.79	5.17	25.81	<=38.45	Pass
			49	23.13	5.17	26.15	<=38.45	Pass
		50	0	21.71	5.17	24.73	<=38.45	Pass
16QAM	829	1	0	22.60	5.17	25.62	<=38.45	Pass
			49	22.42	5.17	25.44	<=38.45	Pass
	836.5	1	0	21.94	5.17	24.96	<=38.45	Pass
			49	21.77	5.17	24.79	<=38.45	Pass
	844	1	0	21.60	5.17	24.62	<=38.45	Pass
49			21.95	5.17	24.97	<=38.45	Pass	
Note1: ERP=Conducted Power+Antenna Gain-2.15								

2. Frequency Stability

2.1 Test Result

2.1.1 B5_10MHz

Band: 5 / Bandwidth: 10MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	836.5	50	0	20	3.40	0.257	0.0003	-2.5 to 2.5	Pass
					3.80	0.987	0.0012	-2.5 to 2.5	Pass
					4.20	0.114	0.0001	-2.5 to 2.5	Pass
				-30	3.80	0.186	0.0002	-2.5 to 2.5	Pass
				-20	3.80	0.100	0.0001	-2.5 to 2.5	Pass
				-10	3.80	-0.029	0.0000	-2.5 to 2.5	Pass
				0	3.80	0.243	0.0003	-2.5 to 2.5	Pass
				10	3.80	0.329	0.0004	-2.5 to 2.5	Pass
				30	3.80	0.272	0.0003	-2.5 to 2.5	Pass
				40	3.80	0.043	0.0001	-2.5 to 2.5	Pass
				50	3.80	0.014	0.0000	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band5_OBW

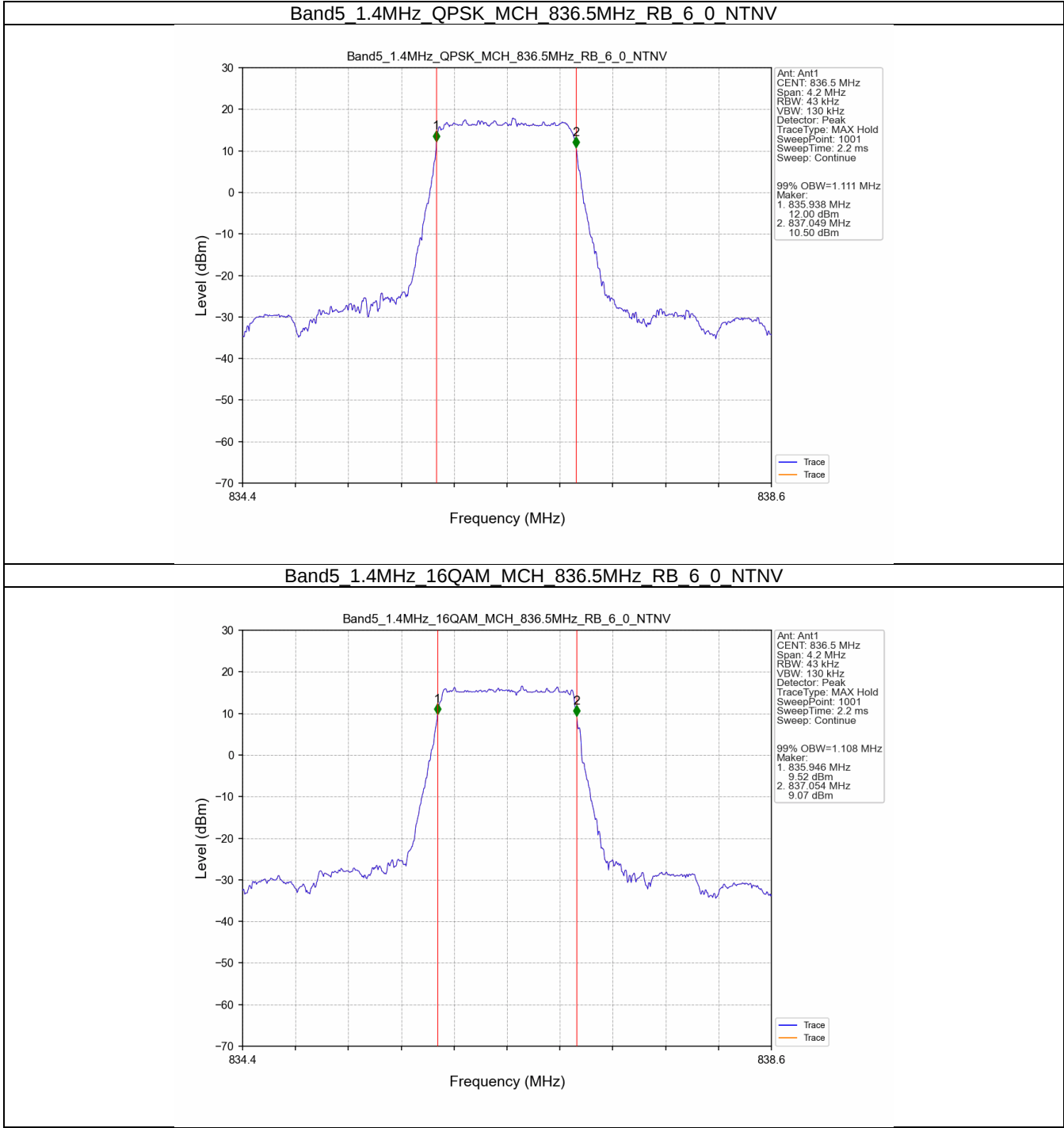
Band: 5 / NTN							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	836.5	6	0	1.111	/	Pass
	16QAM	836.5	6	0	1.108	/	Pass
3	QPSK	836.5	15	0	2.743	/	Pass
	16QAM	836.5	15	0	2.739	/	Pass
5	QPSK	836.5	25	0	4.559	/	Pass
	16QAM	836.5	25	0	4.530	/	Pass
10	QPSK	836.5	50	0	9.054	/	Pass
	16QAM	836.5	27	0	5.098	/	Pass

3.1.2 Band5_XDB

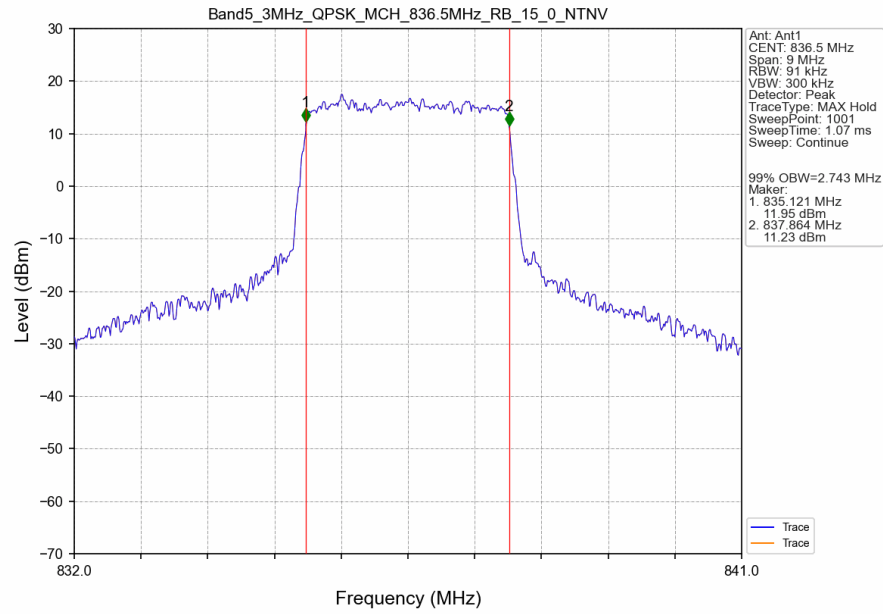
Band: 5 / NTNv							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	836.5	6	0	1.319	/	Pass
	16QAM	836.5	6	0	1.333	/	Pass
3	QPSK	836.5	15	0	3.040	/	Pass
	16QAM	836.5	15	0	3.023	/	Pass
5	QPSK	836.5	25	0	5.090	/	Pass
	16QAM	836.5	25	0	5.048	/	Pass
10	QPSK	836.5	50	0	10.360	/	Pass
	16QAM	836.5	27	0	6.324	/	Pass

3.2 Test Graph

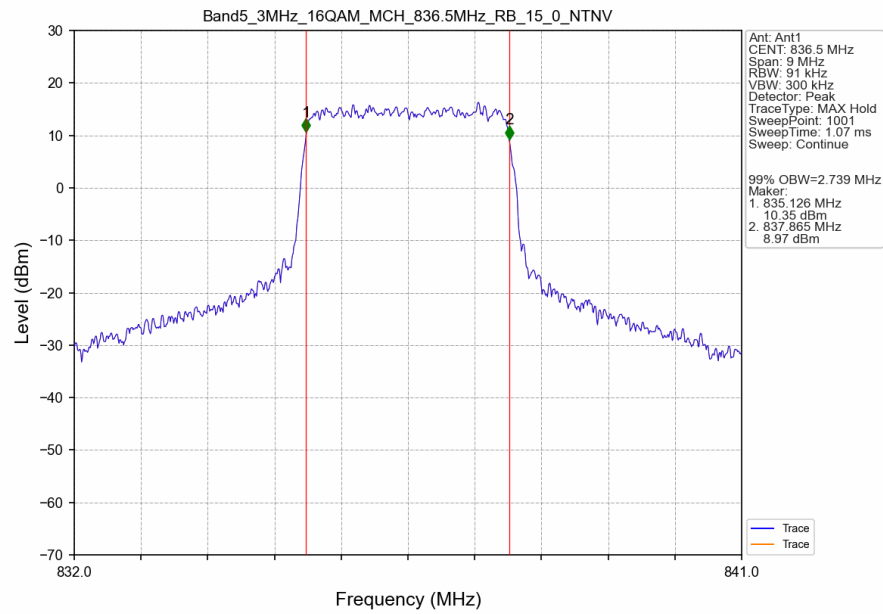
3.2.1 Band5_OBW



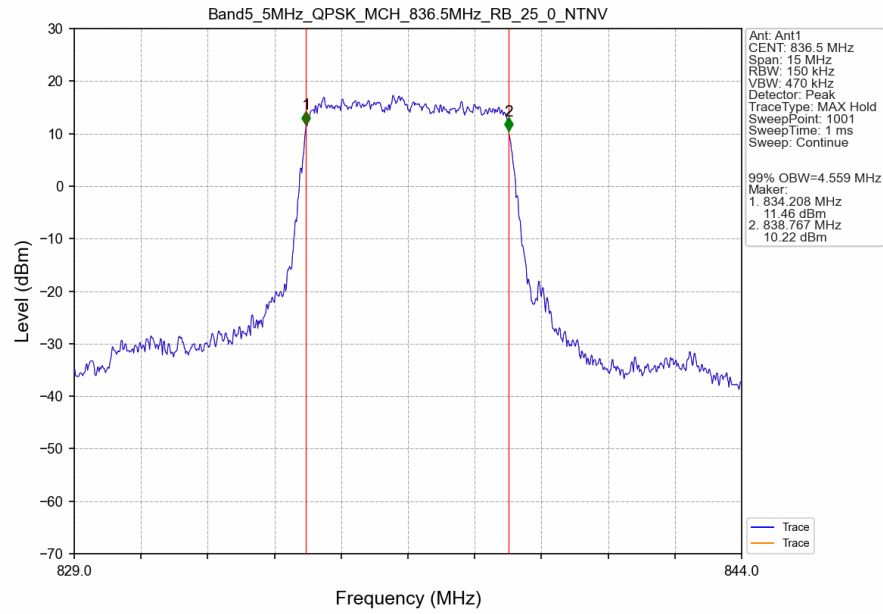
Band5_3MHz_QPSK_MCH_836.5MHz_RB_15_0_NTNV



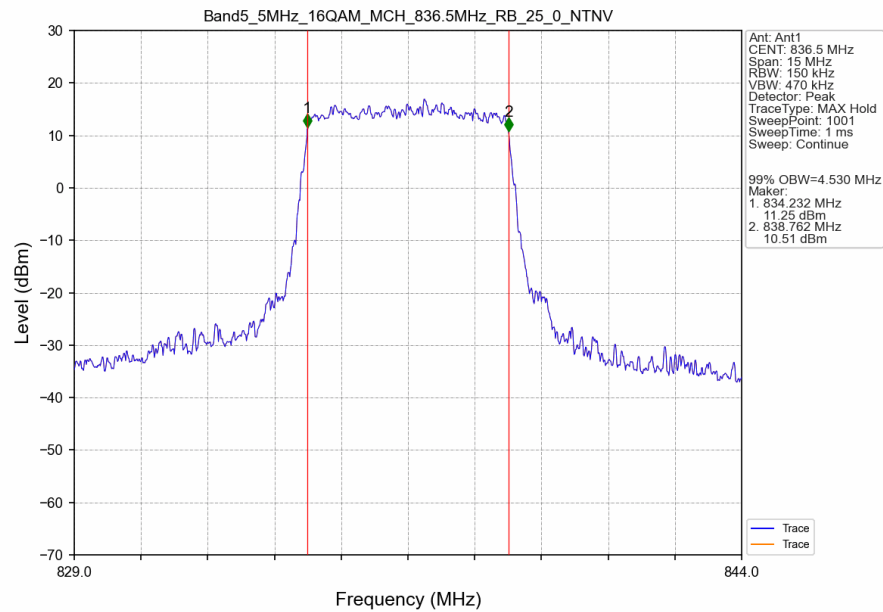
Band5_3MHz_16QAM_MCH_836.5MHz_RB_15_0_NTNV



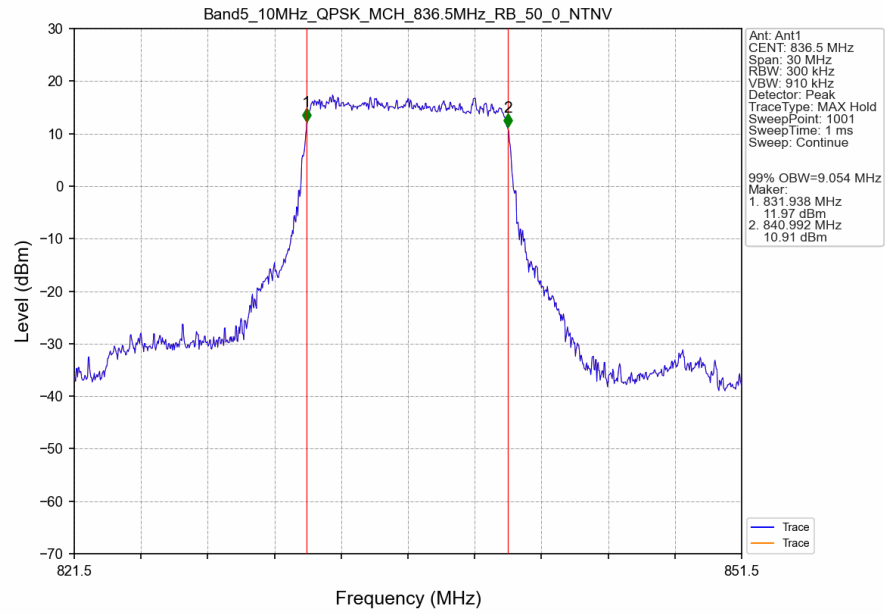
Band5 5MHz QPSK MCH 836.5MHz RB 25 0 NTN



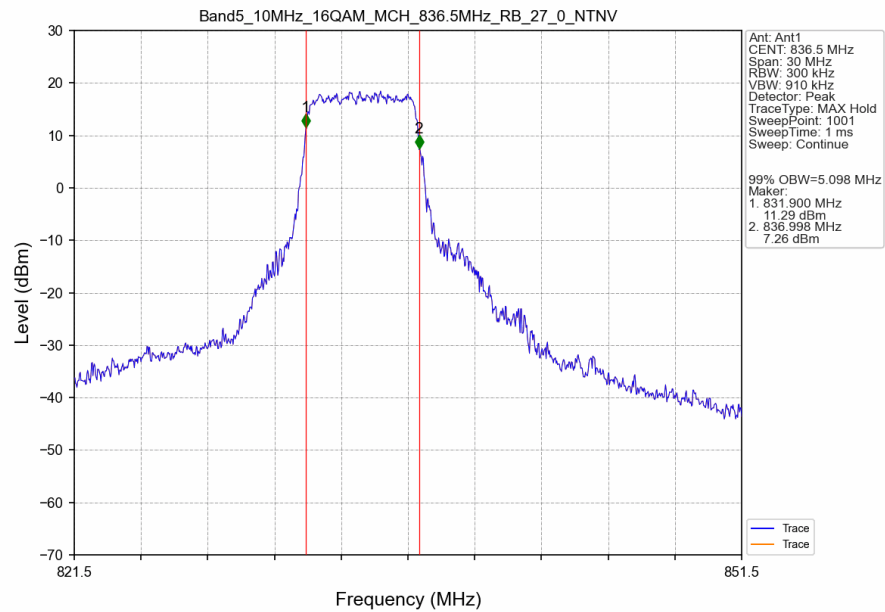
Band5 5MHz 16QAM MCH 836.5MHz RB 25 0 NTN



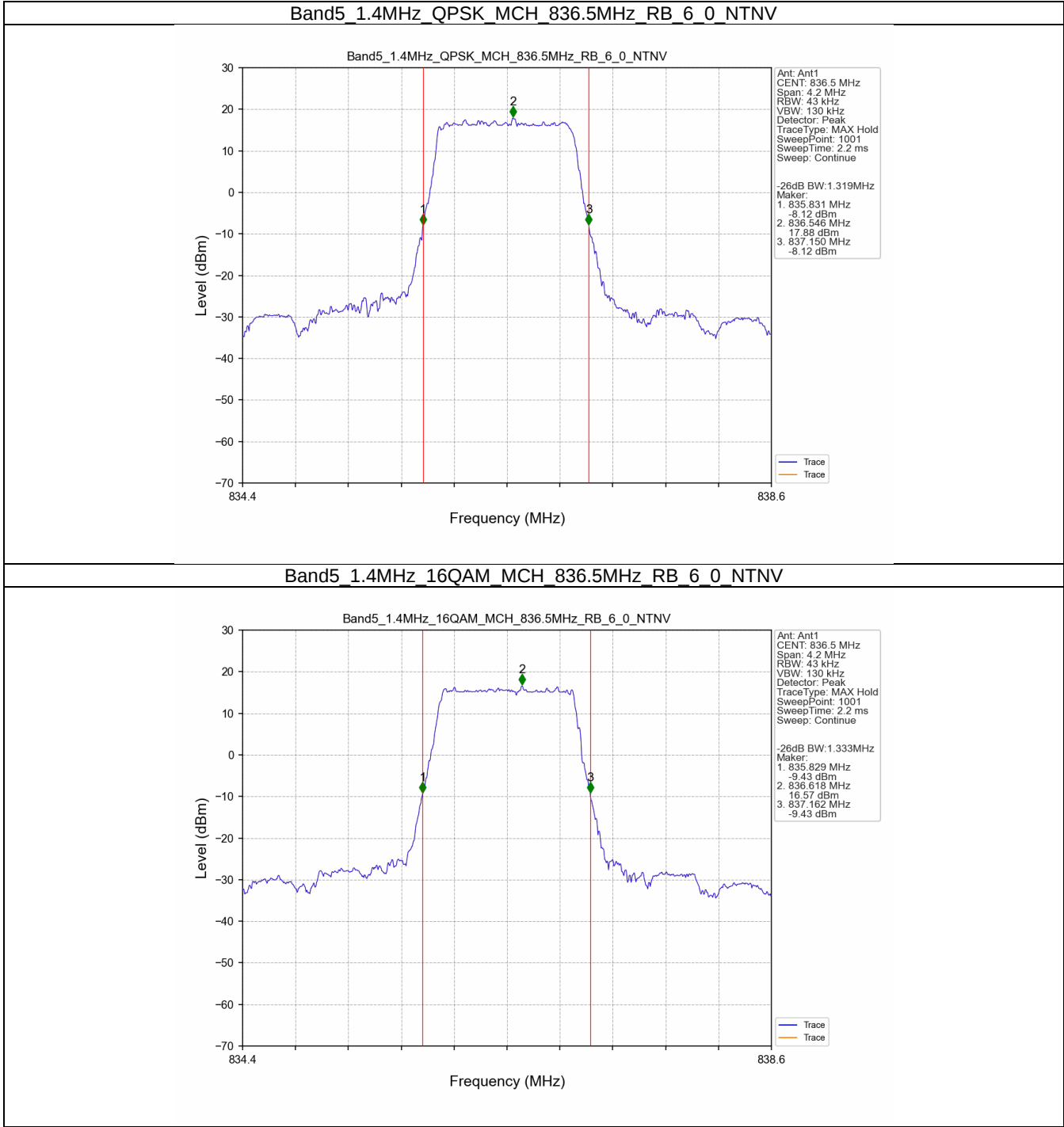
Band5_10MHz_QPSK_MCH_836.5MHz_RB_50_0_NTNV



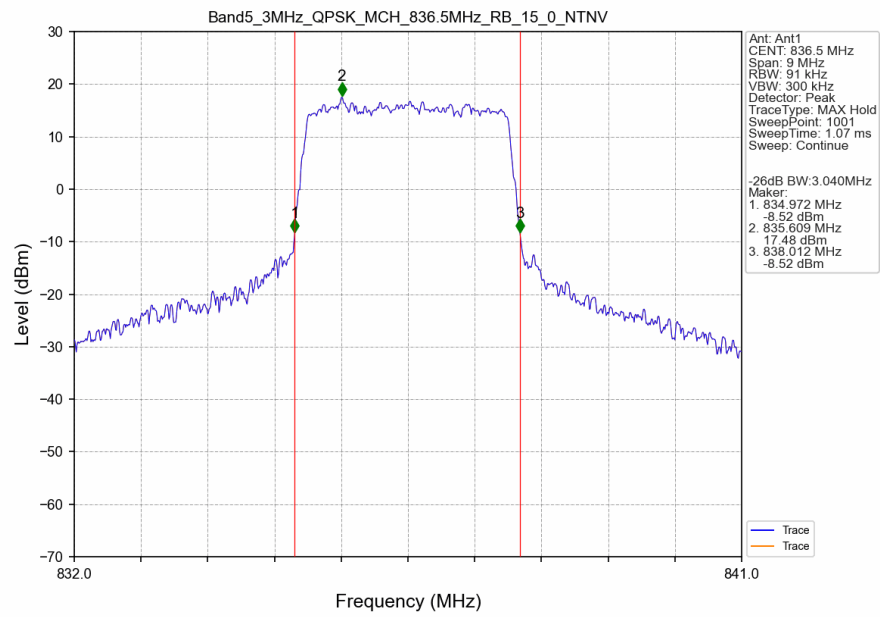
Band5_10MHz_16QAM_MCH_836.5MHz_RB_27_0_NTNV



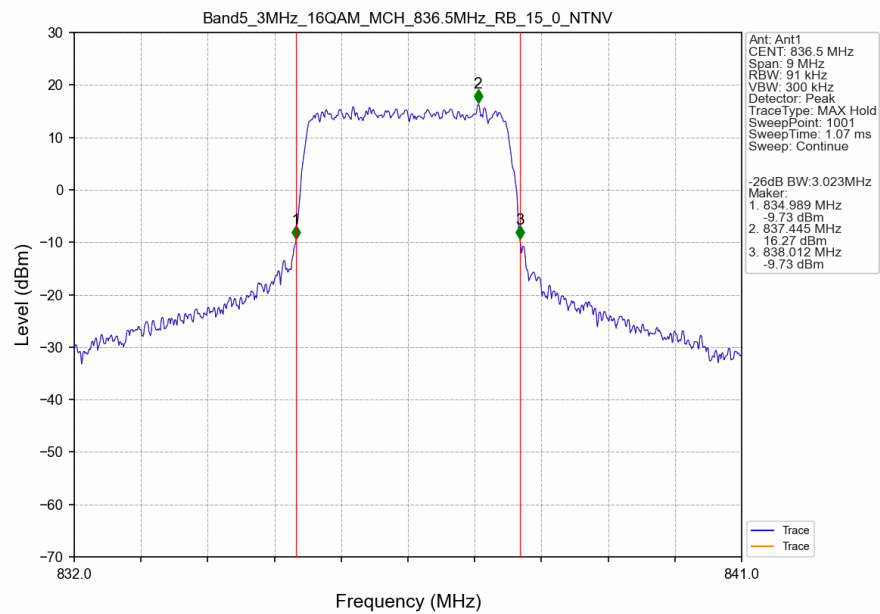
3.2.2 Band5_XDB



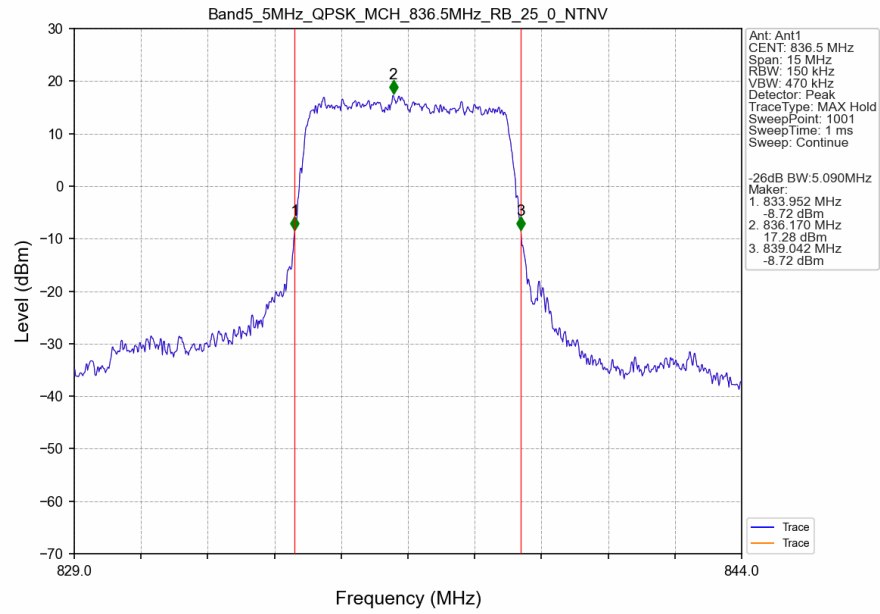
Band5_3MHz_QPSK_MCH_836.5MHz_RB_15_0_NTNV



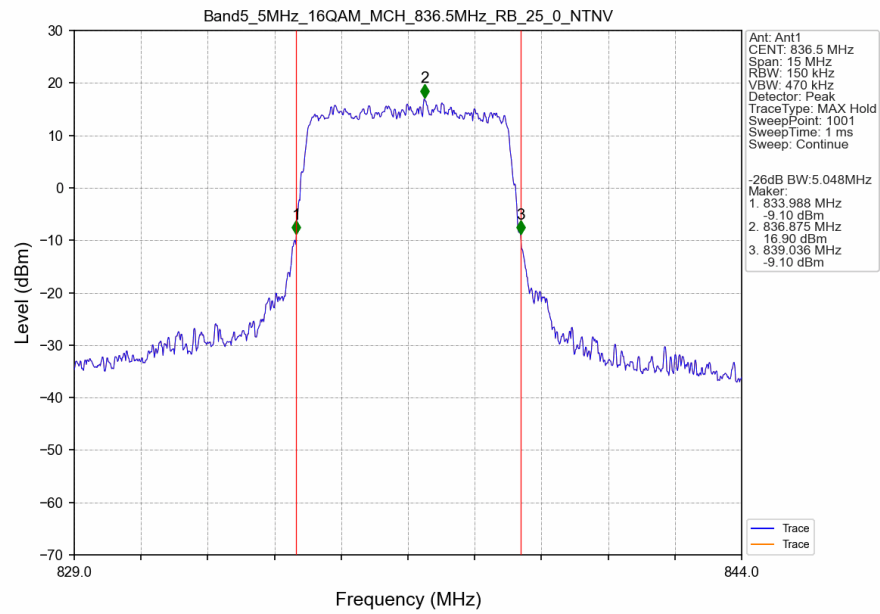
Band5_3MHz_16QAM_MCH_836.5MHz_RB_15_0_NTNV



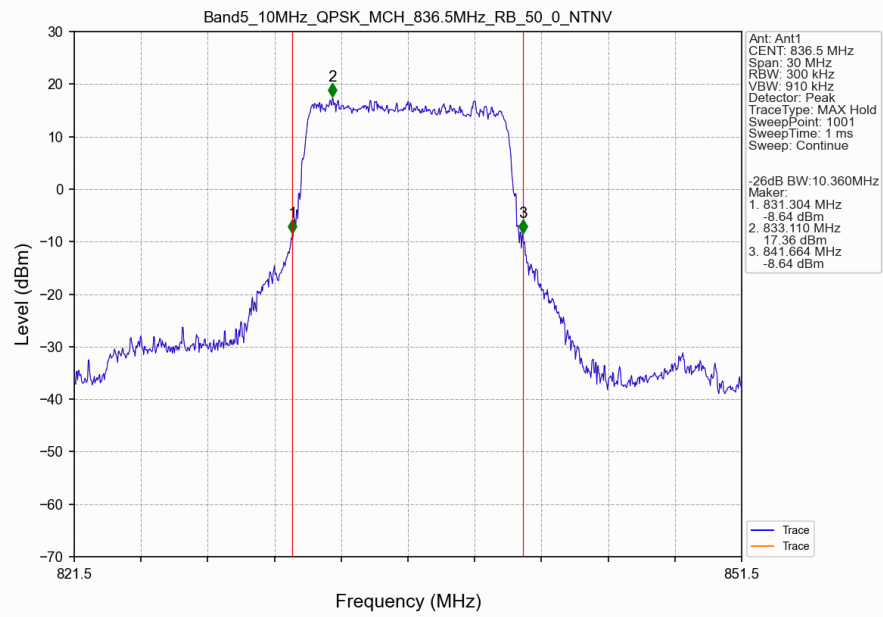
Band5 5MHz QPSK MCH 836.5MHz RB 25 0 NTN



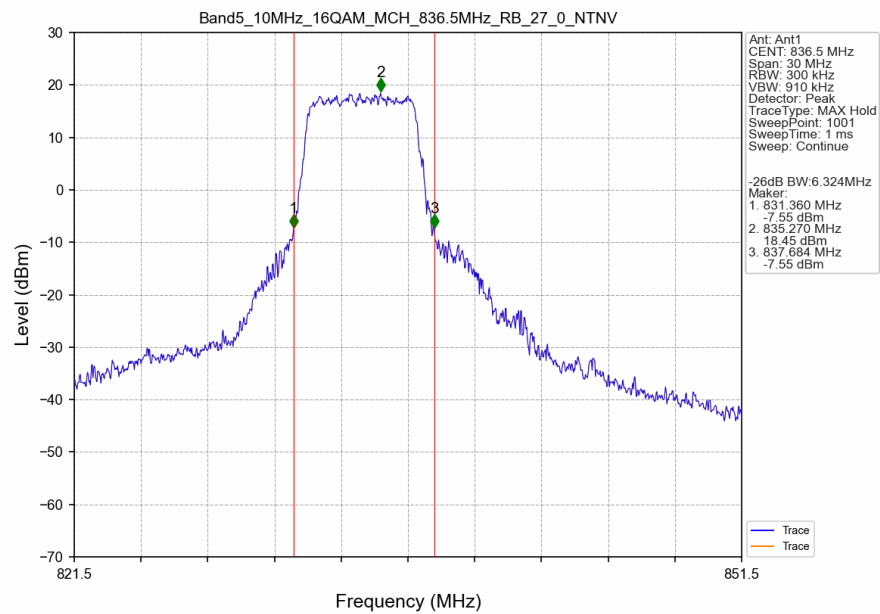
Band5 5MHz 16QAM MCH 836.5MHz RB 25 0 NTN



Band5_10MHz_QPSK_MCH_836.5MHz_RB_50_0_NTNV



Band5_10MHz_16QAM_MCH_836.5MHz_RB_27_0_NTNV



4. Peak-Average Ratio

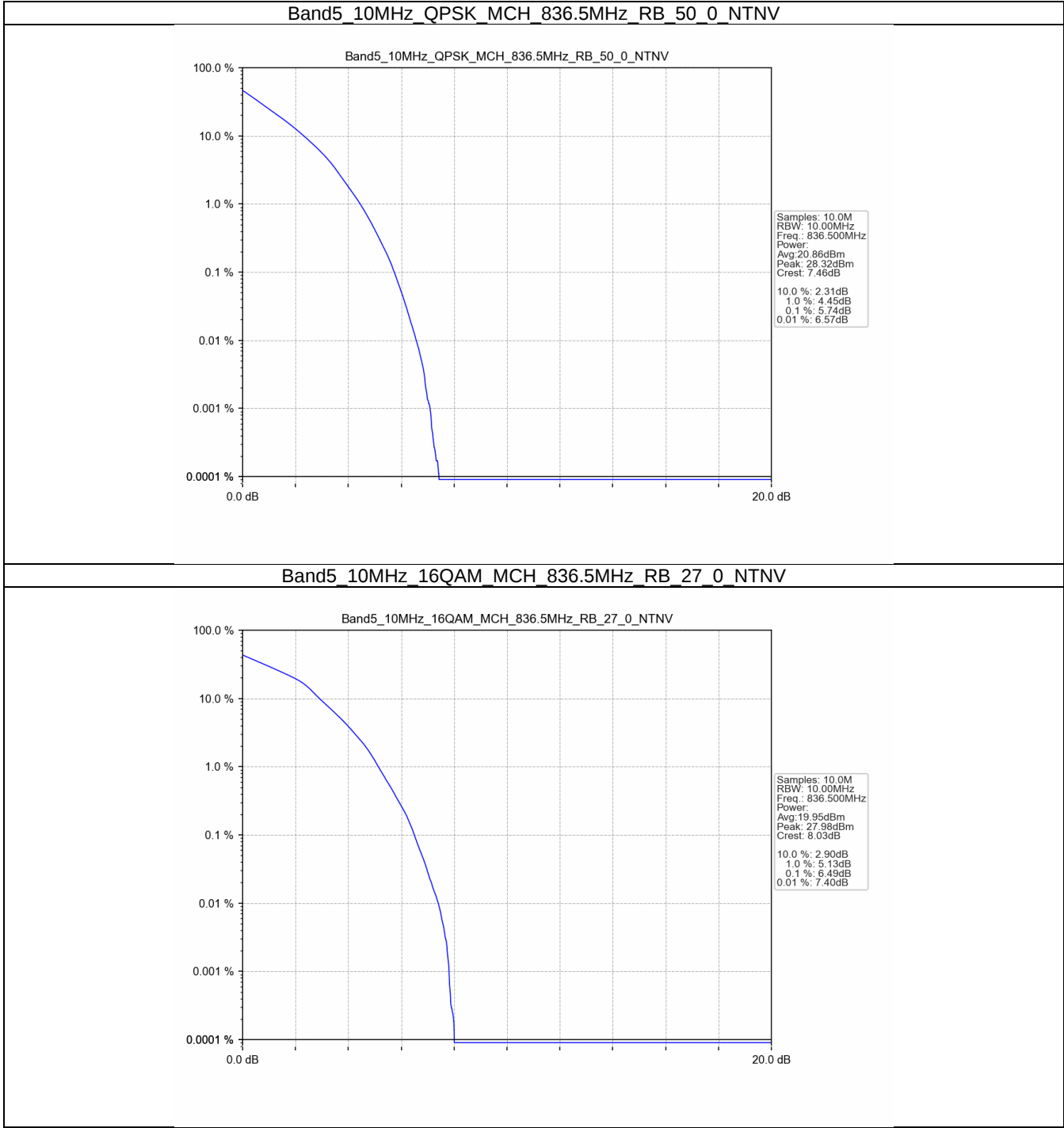
4.1 Test Result

4.1.1 B5_10MHz

Band: 5 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	836.5	50	0	5.74	<=13	Pass
16QAM	836.5	27	0	6.49	<=13	Pass

4.2 Test Graph

4.2.1 B5_10MHz



5. Spurious Emission

5.1 Test Result

5.1.1 B5_1.4MHz

Band: 5 / Bandwidth: 1.4MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	824.7	1	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
		848.3	1	0	Refer To Test Graph	
	5			Refer To Test Graph		Pass
	6		0	Refer To Test Graph		Pass

5.1.2 B5_3MHz

Band: 5 / Bandwidth: 3MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	825.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
	847.5	1	0	Refer To Test Graph		Pass
			14	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass

5.1.3 B5_5MHz

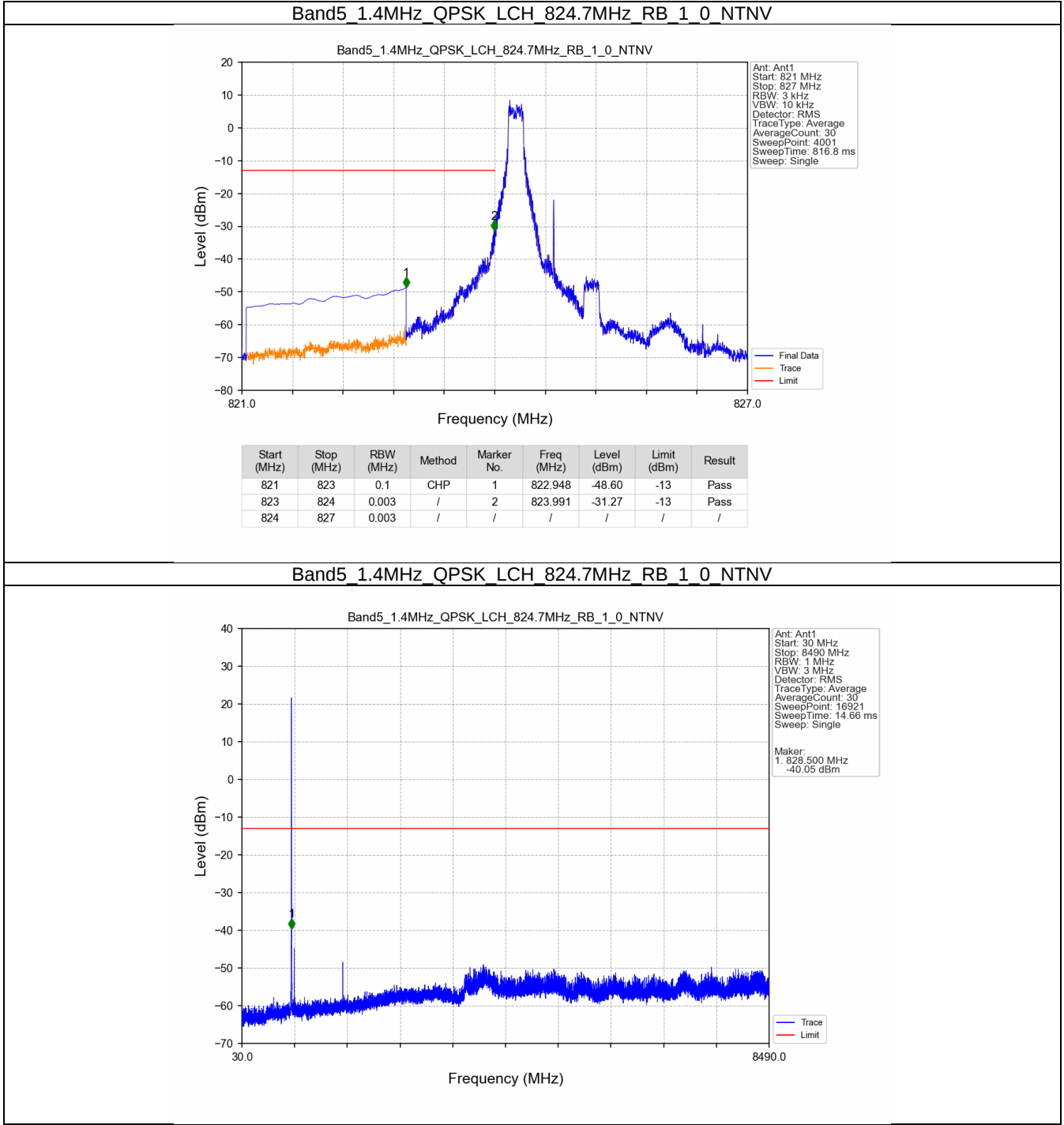
Band: 5 / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	826.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
	846.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass

5.1.4 B5_10MHz

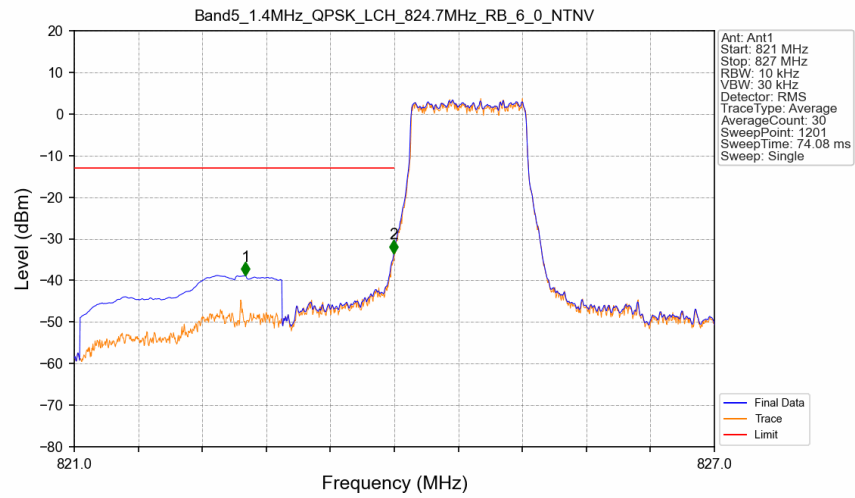
Band: 5 / Bandwidth: 10MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	829	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
	844	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

5.2 Test Graph

5.2.1 B5_1.4MHz

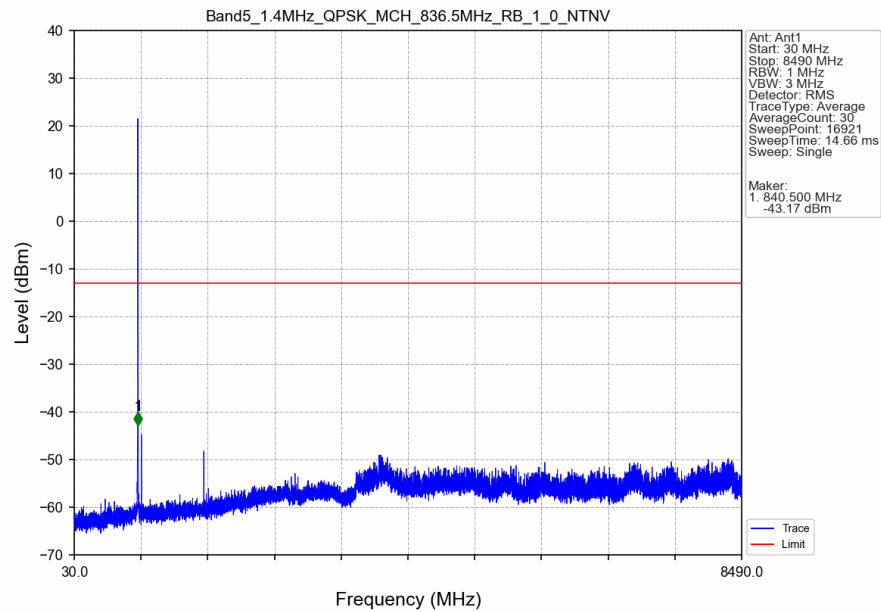


Band5 1.4MHz QPSK LCH 824.7MHz RB 6 0 NTV

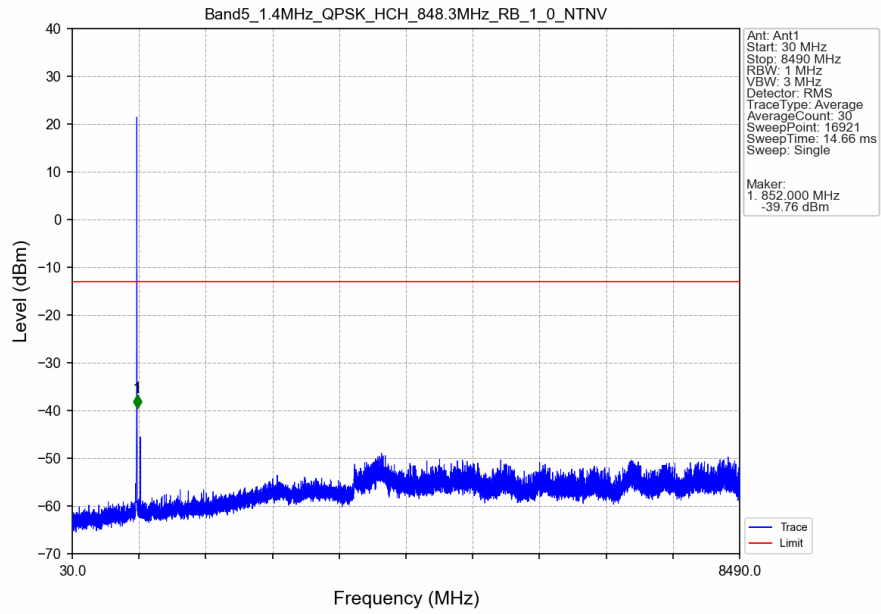


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	823	0.1	CHP	1	822.605	-38.80	-13	Pass
823	824	0.013	CHP	2	823.995	-33.41	-13	Pass
824	827	0.013	CHP	/	/	/	/	/

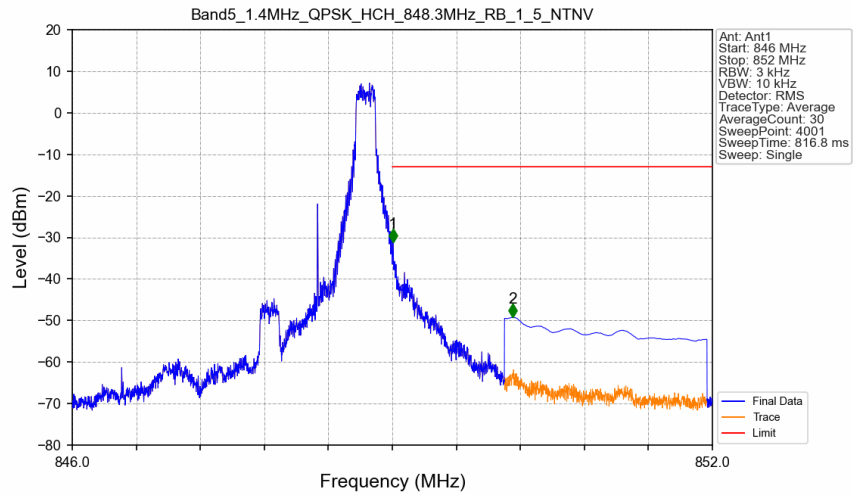
Band5 1.4MHz QPSK MCH 836.5MHz RB 1 0 NTV



Band5 1.4MHz QPSK HCH 848.3MHz RB 1 0 NTN

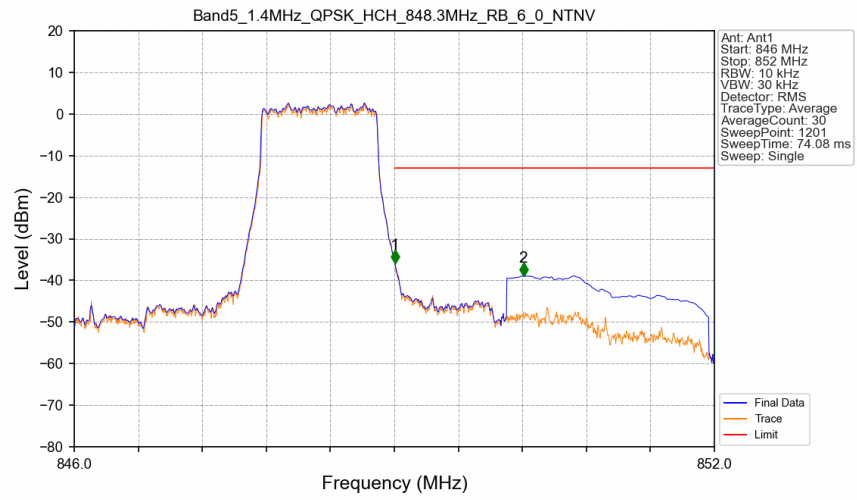


Band5 1.4MHz QPSK HCH 848.3MHz RB 1 5 NTN



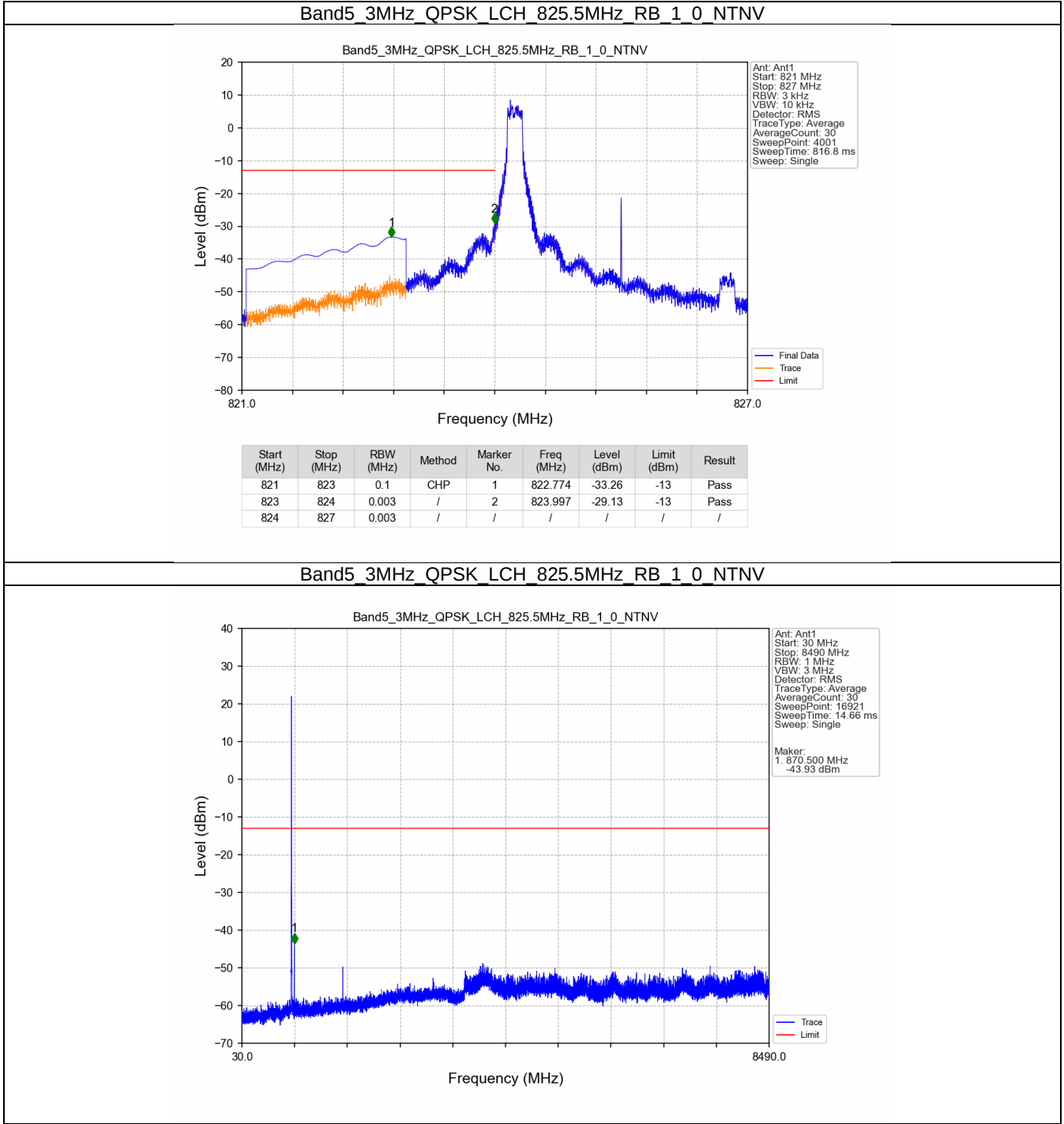
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.003	/	/	/	/	/	/
849	850	0.003	/	1	849.008	-31.06	-13	Pass
850	852	0.1	CHP	2	850.126	-49.19	-13	Pass

Band5 1.4MHz QPSK HCH 848.3MHz RB 6 0 NTNV

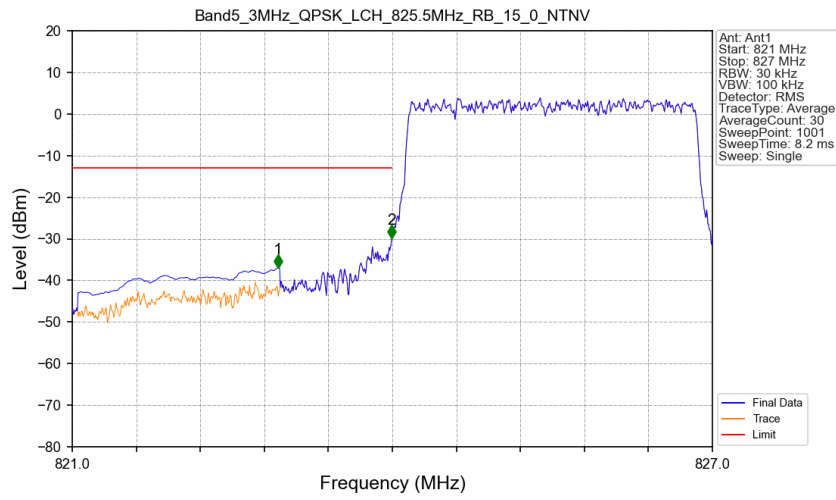


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.013	CHP	/	/	/	/	/
849	850	0.013	CHP	1	849.005	-35.87	-13	Pass
850	852	0.1	CHP	2	850.210	-38.94	-13	Pass

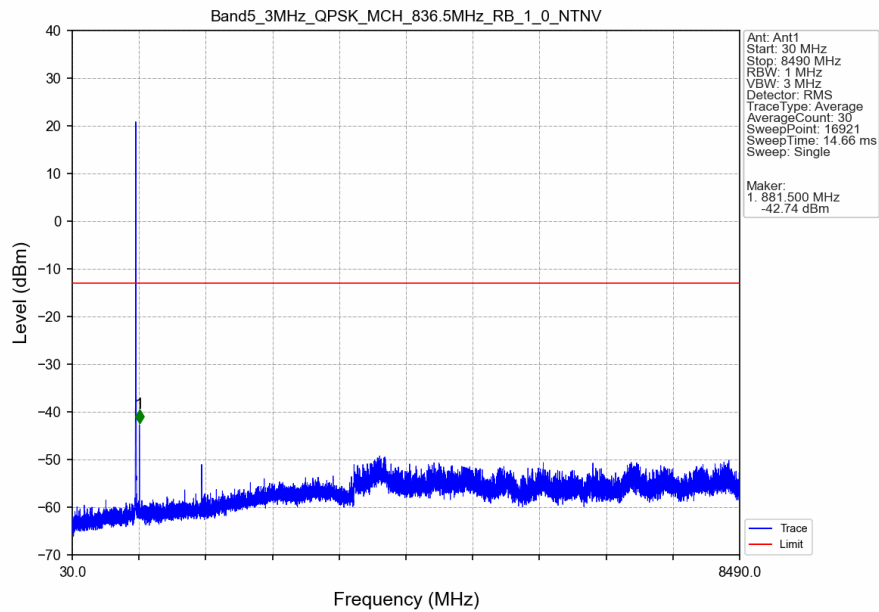
5.2.2 B5_3MHz



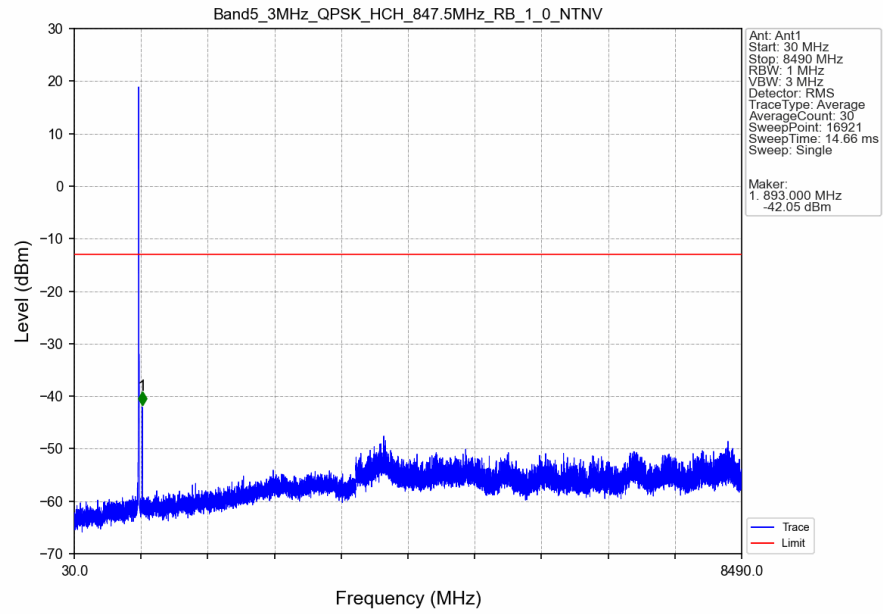
Band5_3MHz_QPSK_LCH_825.5MHz_RB_15_0_NTNV



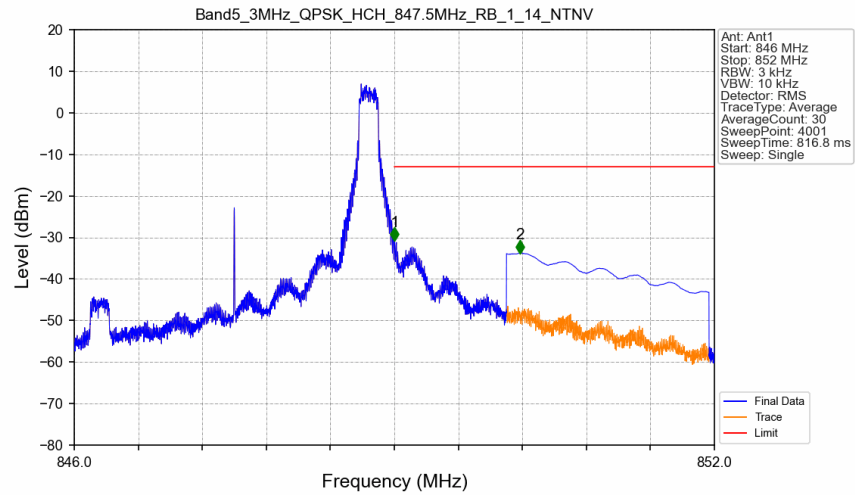
Band5_3MHz_QPSK_MCH_836.5MHz_RB_1_0_NTNV



Band5_3MHz_QPSK_HCH_847.5MHz_RB_1_0_NTNV

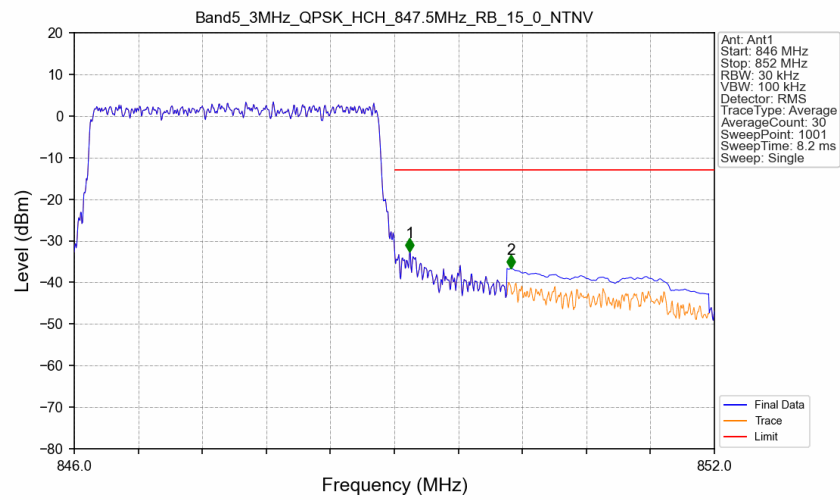


Band5_3MHz_QPSK_HCH_847.5MHz_RB_1_14_NTNV



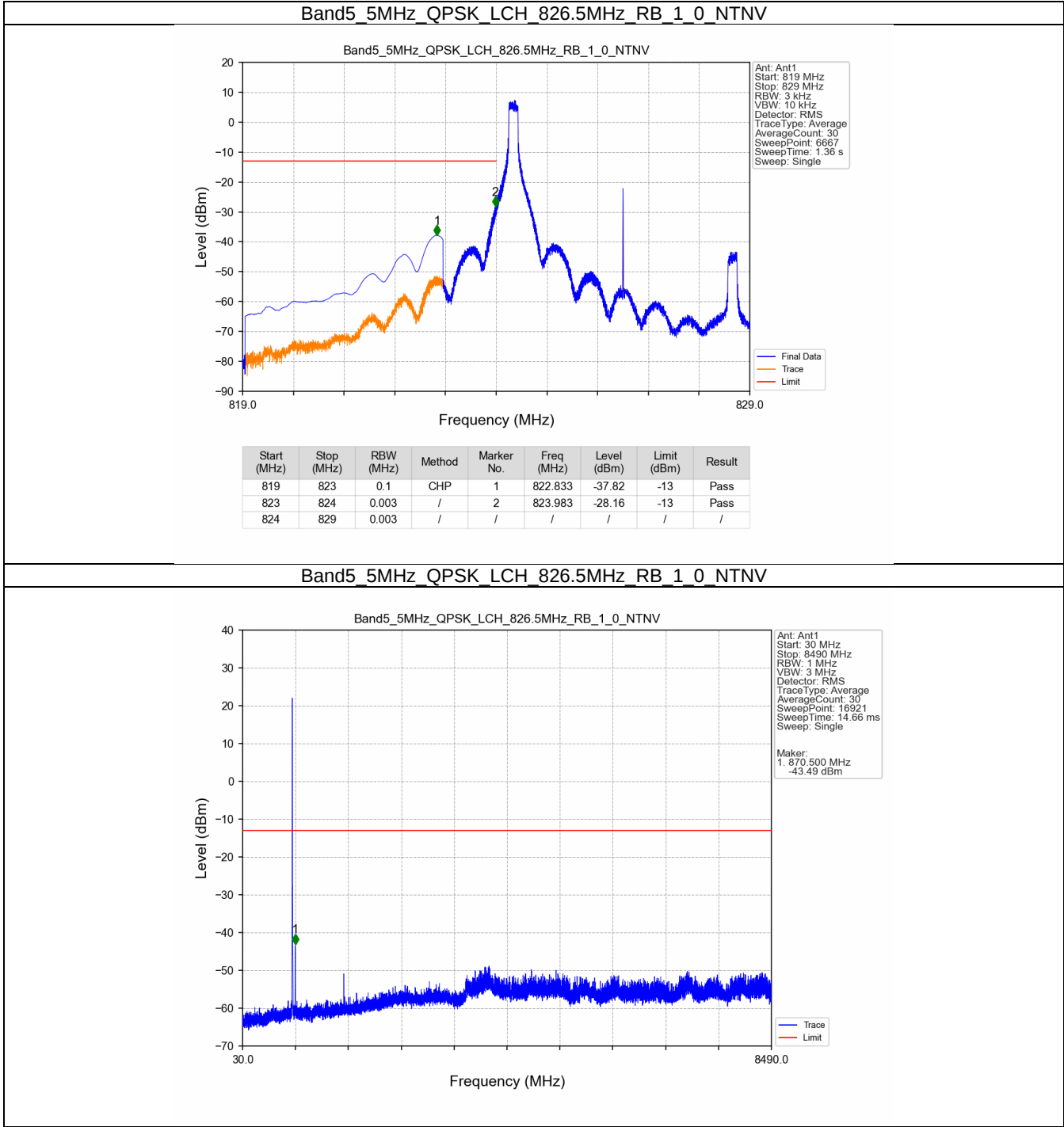
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.003	/	/	/	/	/	/
849	850	0.003	/	1	849.001	-30.74	-13	Pass
850	852	0.1	CHP	2	850.176	-33.77	-13	Pass

Band5_3MHz_QPSK_HCH_847.5MHz_RB_15_0_NTNV

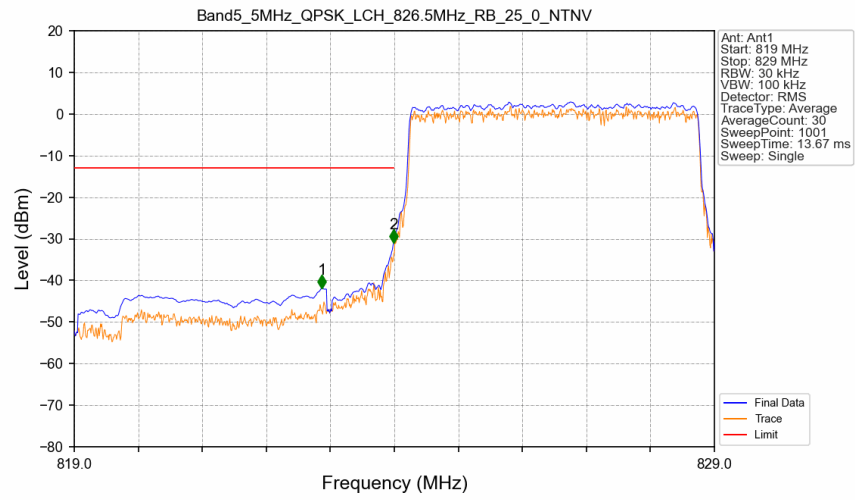


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.03	/	/	/	/	/	/
849	850	0.03	/	1	849.144	-32.62	-13	Pass
850	852	0.1	CHP	2	850.092	-36.64	-13	Pass

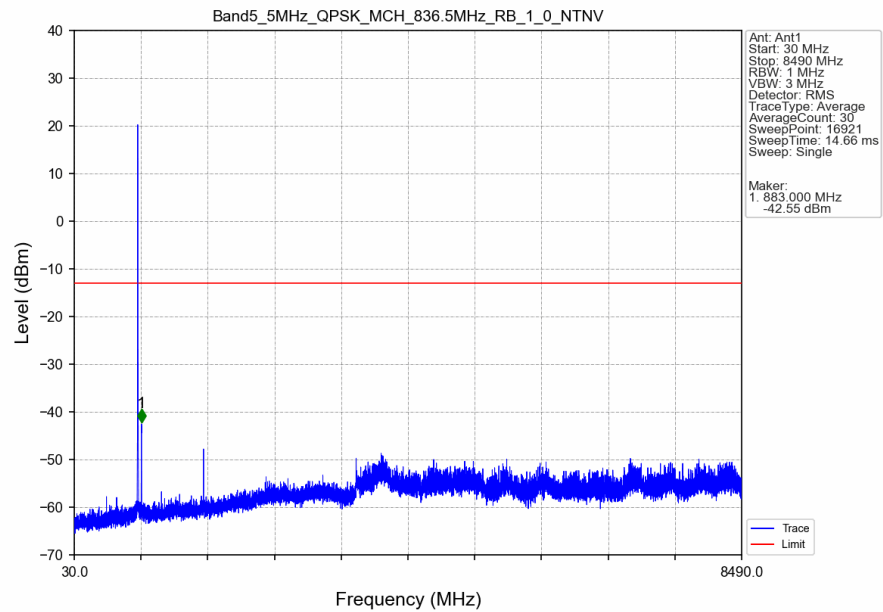
5.2.3 B5_5MHz



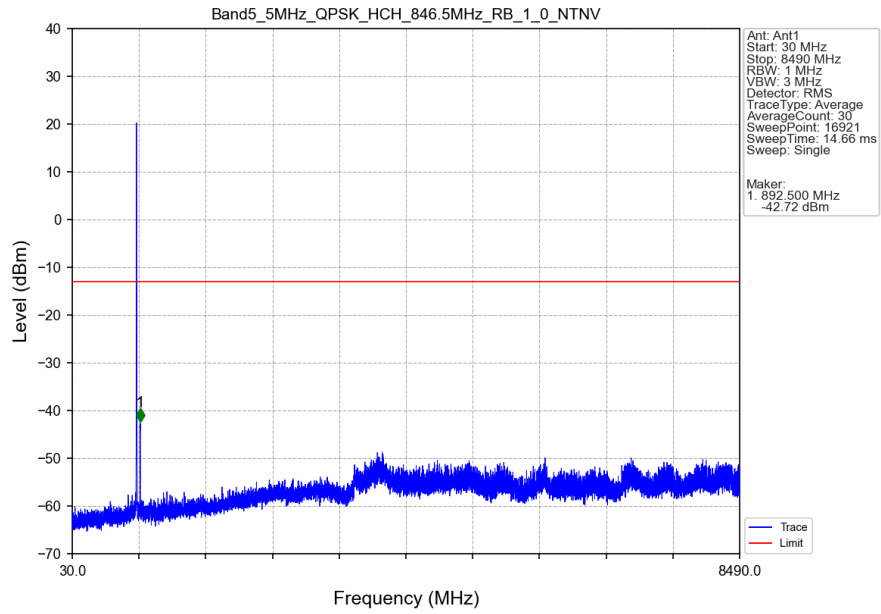
Band5_5MHz_QPSK_LCH_826.5MHz_RB_25_0_NTNV



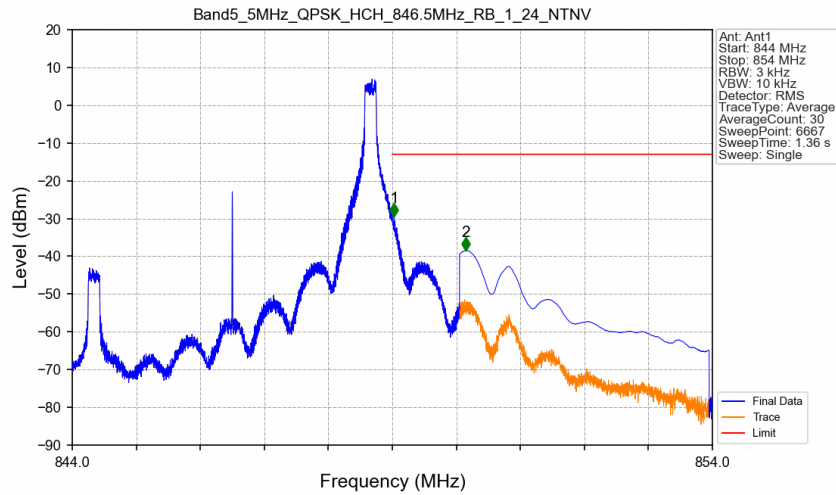
Band5_5MHz_QPSK_MCH_836.5MHz_RB_1_0_NTNV



Band5_5MHz_QPSK_HCH_846.5MHz_RB_1_0_NTNV

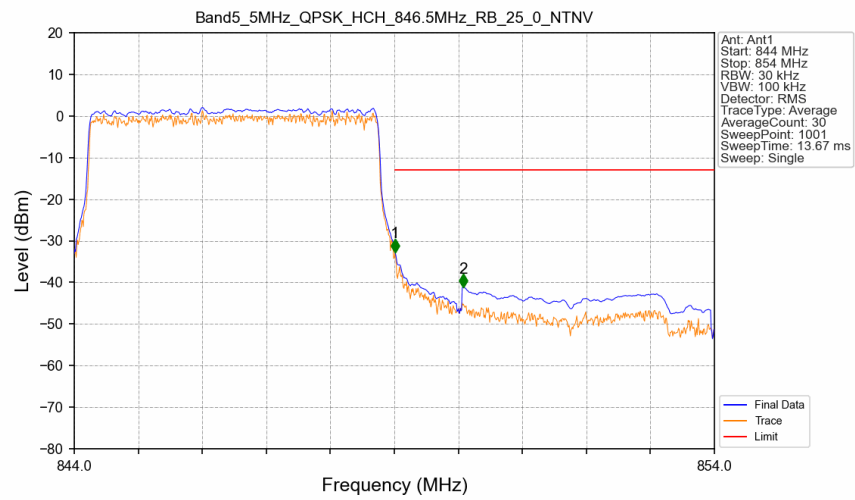


Band5_5MHz_QPSK_HCH_846.5MHz_RB_1_24_NTNV



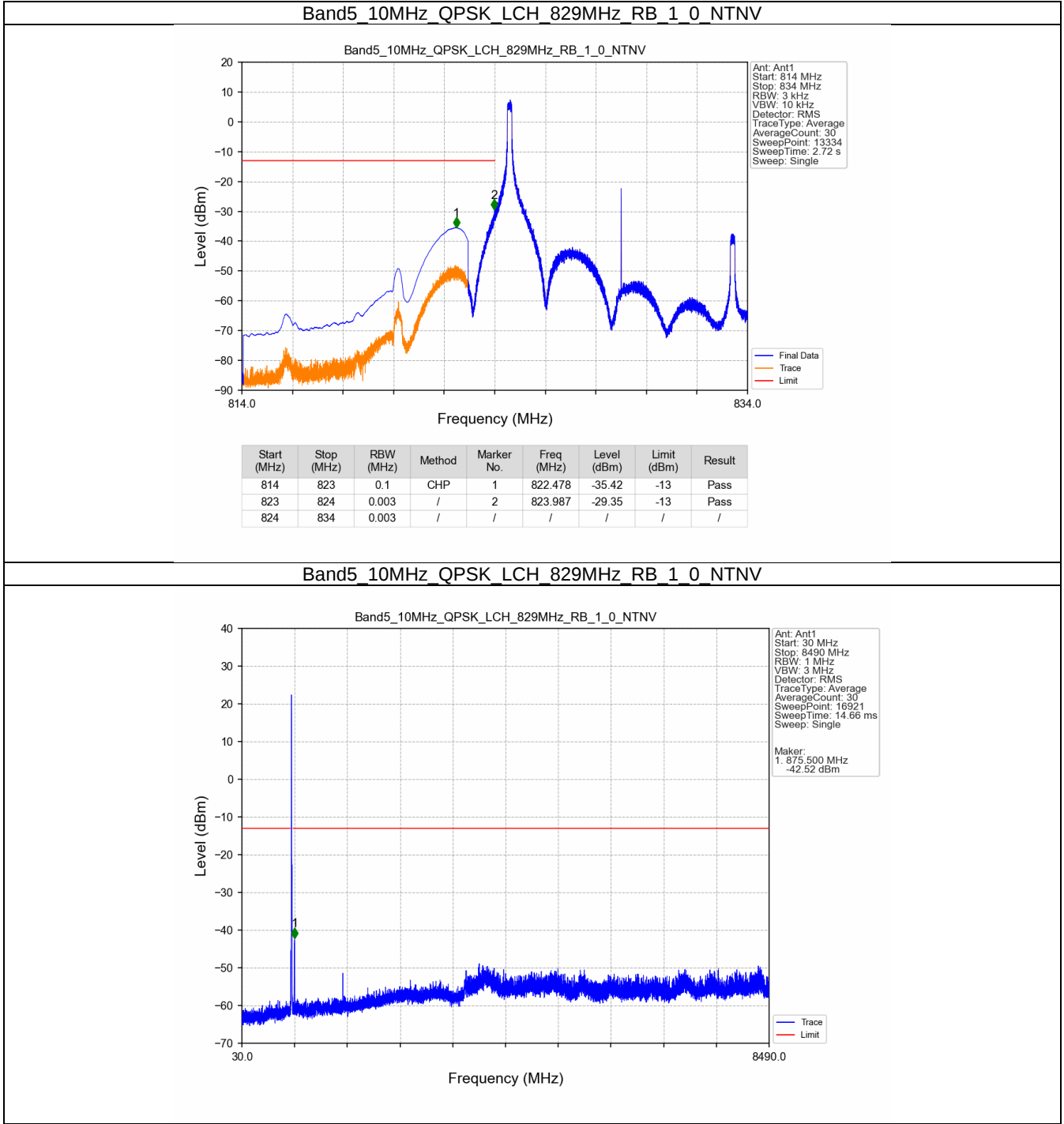
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
844	849	0.003	/	/	/	/	/	/
849	850	0.003	/	1	849.027	-29.51	-13	Pass
850	854	0.1	CHP	2	850.151	-38.49	-13	Pass

Band5 5MHz QPSK HCH 846.5MHz RB 25 0 NTNV

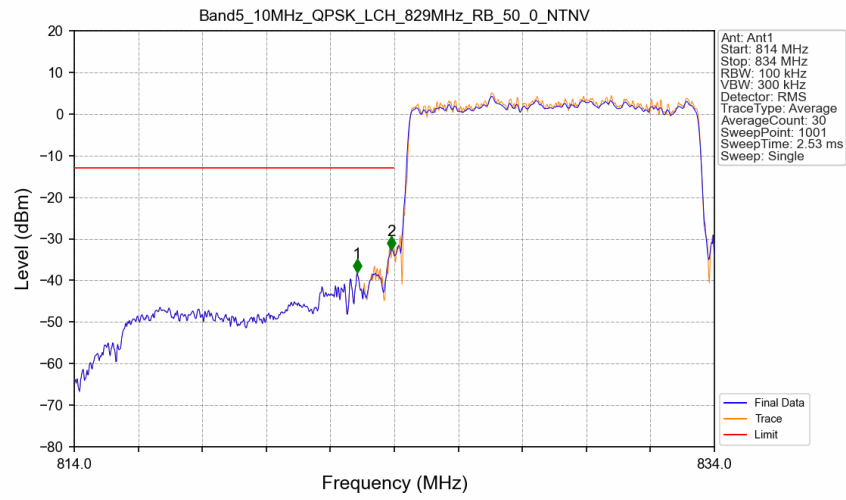


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
844	849	0.051	CHP	/	/	/	/	/
849	850	0.051	CHP	1	849.010	-32.68	-13	Pass
850	854	0.1	CHP	2	850.080	-41.18	-13	Pass

5.2.4 B5_10MHz

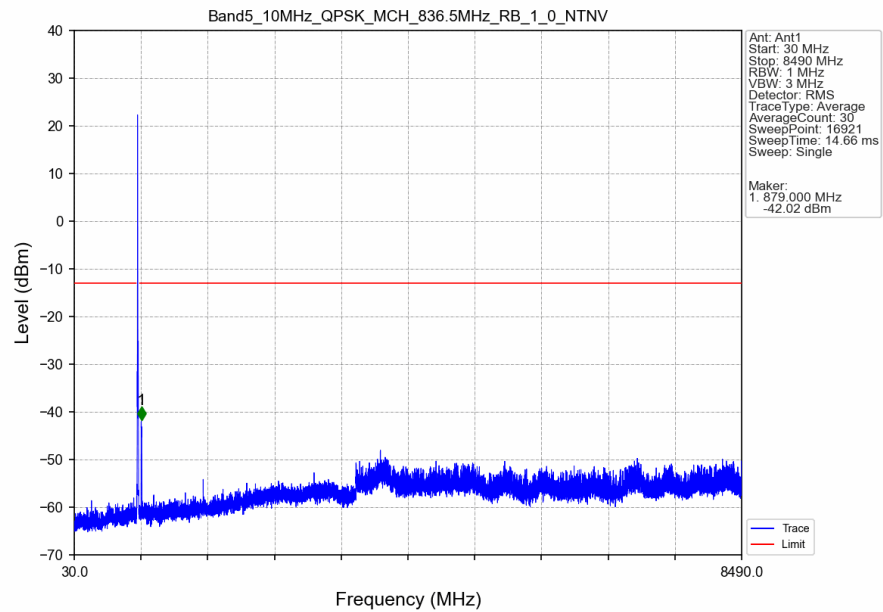


Band5_10MHz_QPSK_LCH_829MHz_RB_50_0_NTNV

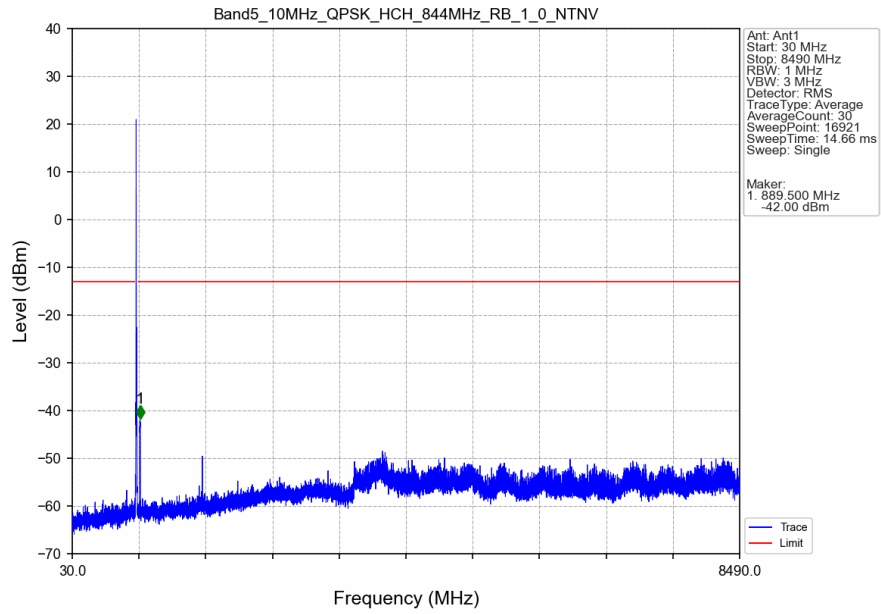


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
814	823	0.1	/	1	822.840	-38.13	-13	Pass
823	824	0.104	CHP	2	823.900	-32.67	-13	Pass
824	834	0.104	CHP	/	/	/	/	/

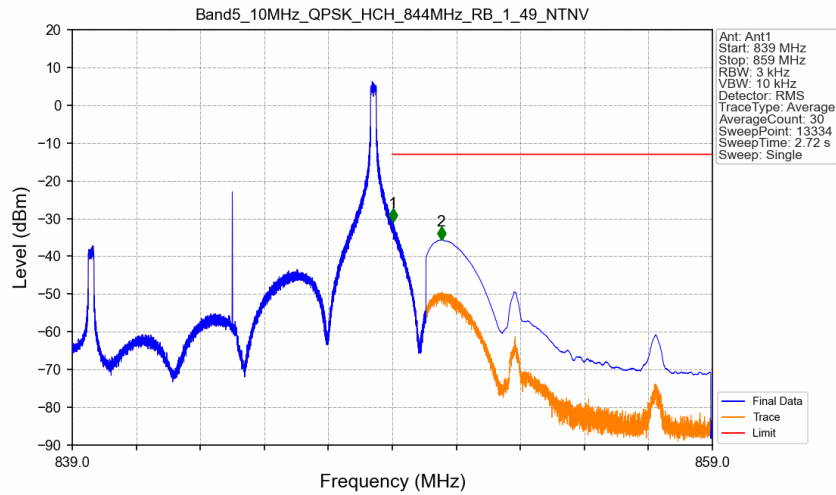
Band5_10MHz_QPSK_MCH_836.5MHz_RB_1_0_NTNV



Band5_10MHz_QPSK_HCH_844MHz_RB_1_0_NTNV

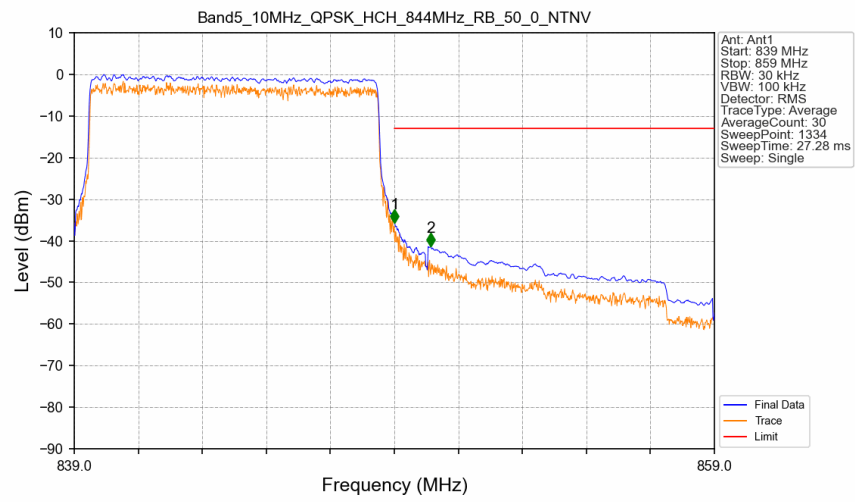


Band5_10MHz_QPSK_HCH_844MHz_RB_1_49_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
839	849	0.003	/	/	/	/	/	/
849	850	0.003	/	1	849.016	-30.79	-13	Pass
850	859	0.1	CHP	2	850.528	-35.61	-13	Pass

Band5_10MHz_QPSK_HCH_844MHz_RB_50_0_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
839	849	0.063	CHP	/	/	/	/	/
849	850	0.063	CHP	1	849.008	-35.61	-13	Pass
850	859	0.1	CHP	2	850.133	-41.37	-13	Pass