

1. Effective (Isotropic) Radiated Power Output Data

1.1 B13_5MHz_ERP

1.1.1 Test Result

Band: 13 / Bandwidth: 5MHz / NTVN								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	779.5	1	0	23.46	1.10	22.41	<=34.77	Pass
			13	23.72	1.10	22.67	<=34.77	Pass
			24	23.62	1.10	22.57	<=34.77	Pass
		12	0	22.59	1.10	21.54	<=34.77	Pass
			6	22.72	1.10	21.67	<=34.77	Pass
			13	22.68	1.10	21.63	<=34.77	Pass
		25	0	22.62	1.10	21.57	<=34.77	Pass
	782	1	0	23.57	1.10	22.52	<=34.77	Pass
			13	23.81	1.10	22.76	<=34.77	Pass
			24	23.73	1.10	22.68	<=34.77	Pass
		12	0	22.70	1.10	21.65	<=34.77	Pass
			6	22.82	1.10	21.77	<=34.77	Pass
			13	22.81	1.10	21.76	<=34.77	Pass
	25	0	22.75	1.10	21.70	<=34.77	Pass	
	784.5	1	0	23.65	1.10	22.60	<=34.77	Pass
			13	23.82	1.10	22.77	<=34.77	Pass
			24	23.68	1.10	22.63	<=34.77	Pass
		12	0	22.77	1.10	21.72	<=34.77	Pass
			6	22.86	1.10	21.81	<=34.77	Pass
			13	22.80	1.10	21.75	<=34.77	Pass
		25	0	22.76	1.10	21.71	<=34.77	Pass
16QAM	779.5	1	0	22.48	1.10	21.43	<=34.77	Pass
			13	22.81	1.10	21.76	<=34.77	Pass
			24	22.75	1.10	21.70	<=34.77	Pass
		12	0	21.52	1.10	20.47	<=34.77	Pass
			6	21.66	1.10	20.61	<=34.77	Pass
			13	21.64	1.10	20.59	<=34.77	Pass
		25	0	21.63	1.10	20.58	<=34.77	Pass
	782	1	0	22.41	1.10	21.36	<=34.77	Pass
			13	22.65	1.10	21.60	<=34.77	Pass
			24	22.54	1.10	21.49	<=34.77	Pass
		12	0	21.63	1.10	20.58	<=34.77	Pass
			6	21.80	1.10	20.75	<=34.77	Pass
			13	21.78	1.10	20.73	<=34.77	Pass
	25	0	21.76	1.10	20.71	<=34.77	Pass	
	784.5	1	0	22.93	1.10	21.88	<=34.77	Pass
			13	23.12	1.10	22.07	<=34.77	Pass
			24	22.94	1.10	21.89	<=34.77	Pass
		12	0	21.79	1.10	20.74	<=34.77	Pass
			6	21.88	1.10	20.83	<=34.77	Pass
			13	21.80	1.10	20.75	<=34.77	Pass
		25	0	21.76	1.10	20.71	<=34.77	Pass
Note1: ERP=Conducted Power+Antenna Gain-2.15								

1.2 B13_10MHz_ERP

1.2.1 Test Result

Band: 13 / Bandwidth: 10MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	782	1	0	23.52	1.10	22.47	<=34.77	Pass
			25	23.86	1.10	22.81	<=34.77	Pass
			49	23.77	1.10	22.72	<=34.77	Pass
		25	0	22.68	1.10	21.63	<=34.77	Pass
			13	22.75	1.10	21.70	<=34.77	Pass
			25	22.84	1.10	21.79	<=34.77	Pass
		50	0	22.76	1.10	21.71	<=34.77	Pass
16QAM	782	1	0	23.00	1.10	21.95	<=34.77	Pass
			25	23.43	1.10	22.38	<=34.77	Pass
			49	23.25	1.10	22.20	<=34.77	Pass
		25	0	21.72	1.10	20.67	<=34.77	Pass
			13	21.83	1.10	20.78	<=34.77	Pass
			25	21.88	1.10	20.83	<=34.77	Pass
		50	0	21.77	1.10	20.72	<=34.77	Pass
Note1: ERP=Conducted Power+Antenna Gain-2.15								

2. Frequency Stability

2.1 B13_10MHz

2.1.1 Test Result

Band: 13 / Bandwidth: 10MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	782	50	0	20	10.2	-3.491	-0.0045	-2.5 to 2.5	Pass
					12	-3.938	-0.0050	-2.5 to 2.5	Pass
					13.8	-7.681	-0.0098	-2.5 to 2.5	Pass
				-30	12	-5.621	-0.0072	-2.5 to 2.5	Pass
				-20	12	-1.957	-0.0025	-2.5 to 2.5	Pass
				-10	12	-2.806	-0.0036	-2.5 to 2.5	Pass
				0	12	-6.017	-0.0077	-2.5 to 2.5	Pass
				10	12	-6.280	-0.0080	-2.5 to 2.5	Pass
				30	12	-8.845	-0.0113	-2.5 to 2.5	Pass
				40	12	-10.275	-0.0131	-2.5 to 2.5	Pass
				50	12	-4.189	-0.0054	-2.5 to 2.5	Pass

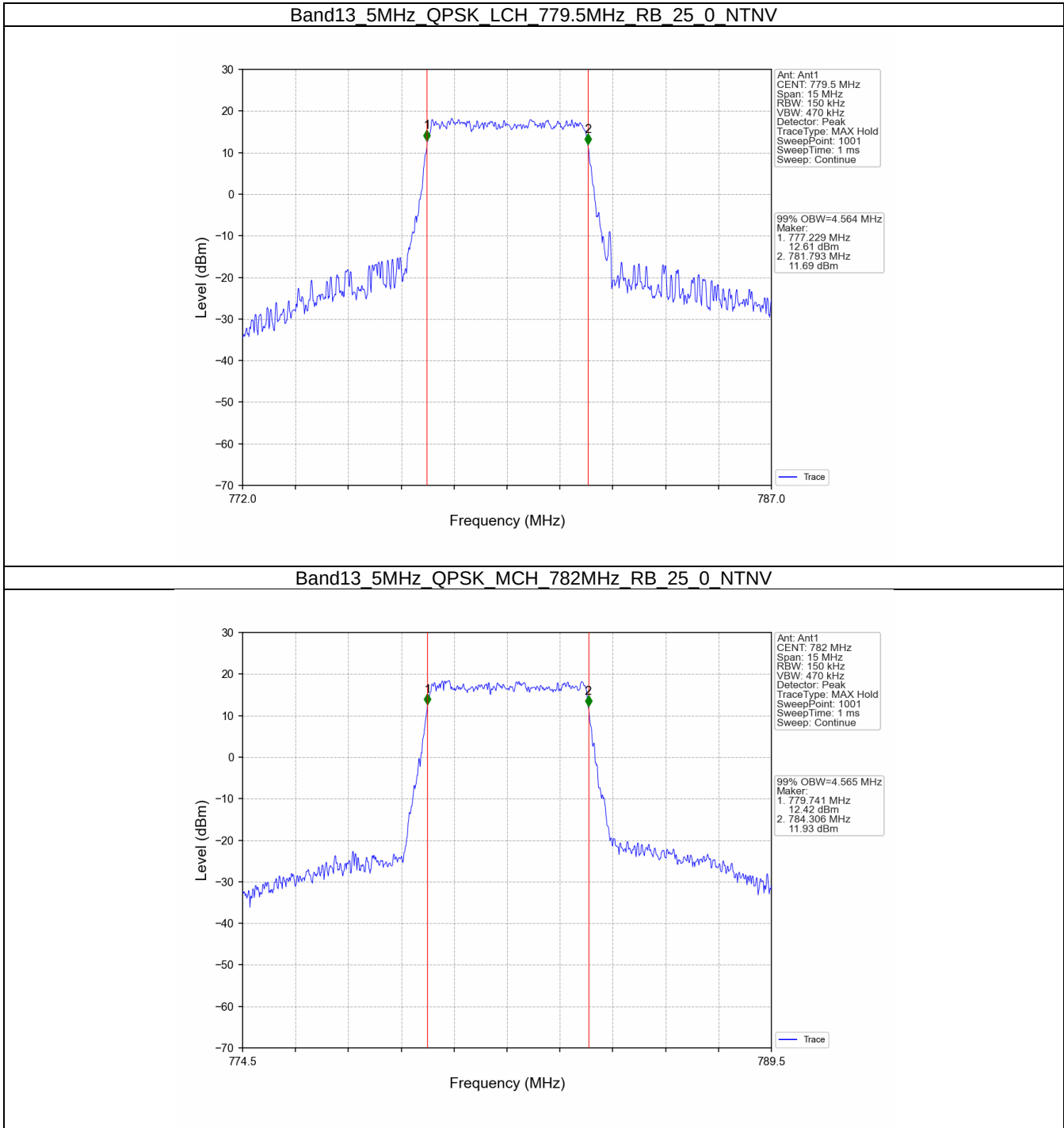
3. 99% & 26dB Bandwidth

3.1 Band13_OBW

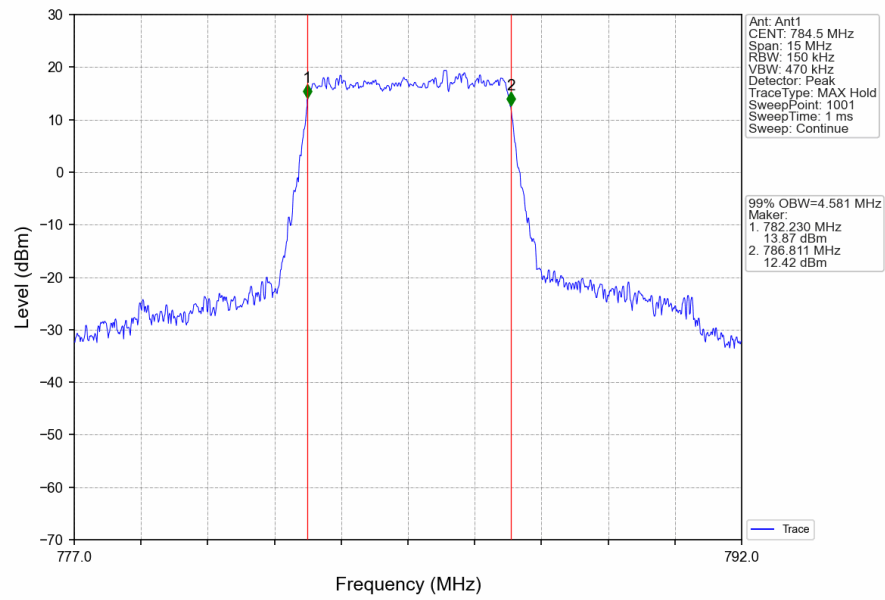
3.1.1 Test Result

Band: 13 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	779.5	25	0	4.564	/	Pass
		782	25	0	4.565	/	Pass
		784.5	25	0	4.581	/	Pass
	16QAM	779.5	25	0	4.576	/	Pass
		782	25	0	4.587	/	Pass
		784.5	25	0	4.569	/	Pass
10	QPSK	782	50	0	9.098	/	Pass
	16QAM	782	50	0	9.078	/	Pass

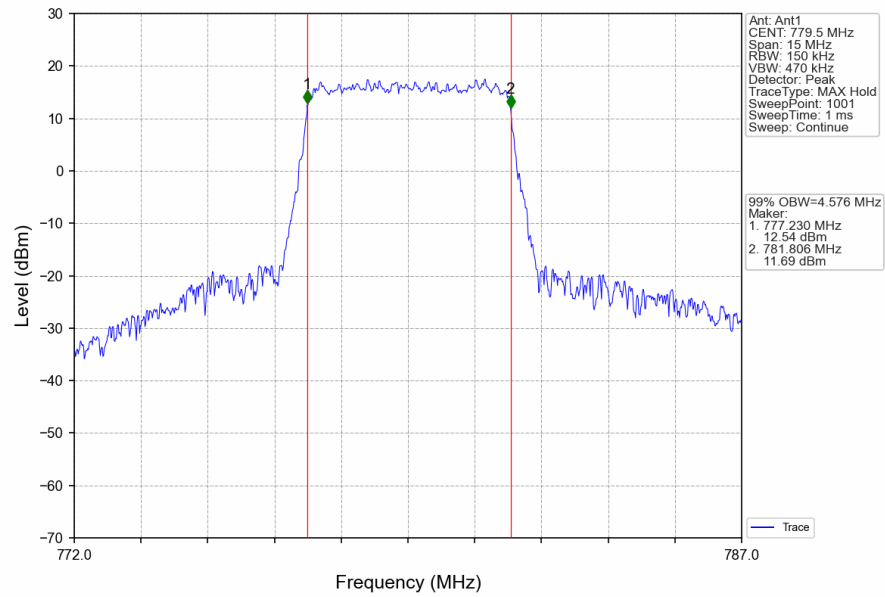
3.1.2 Test Graph



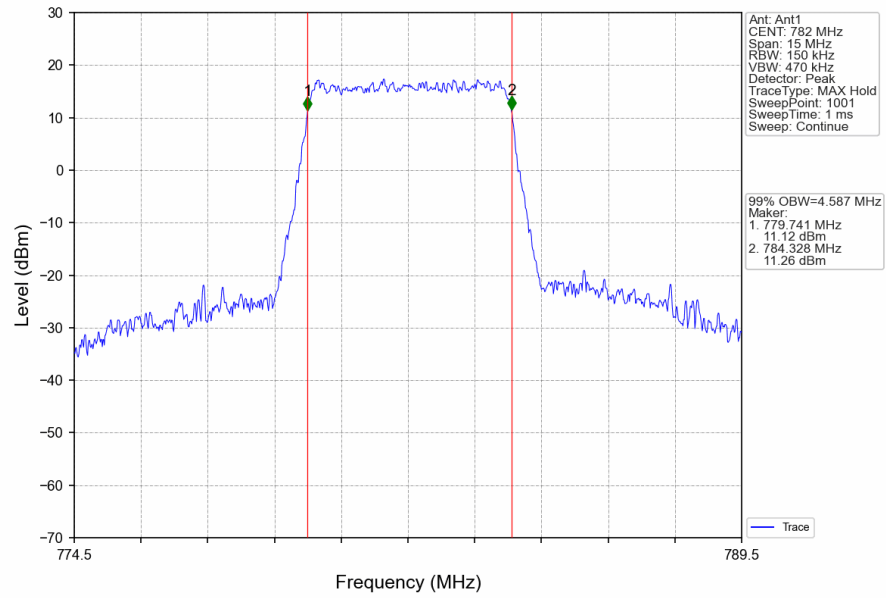
Band13_5MHz_QPSK_HCH_784.5MHz_RB_25_0_NTNV



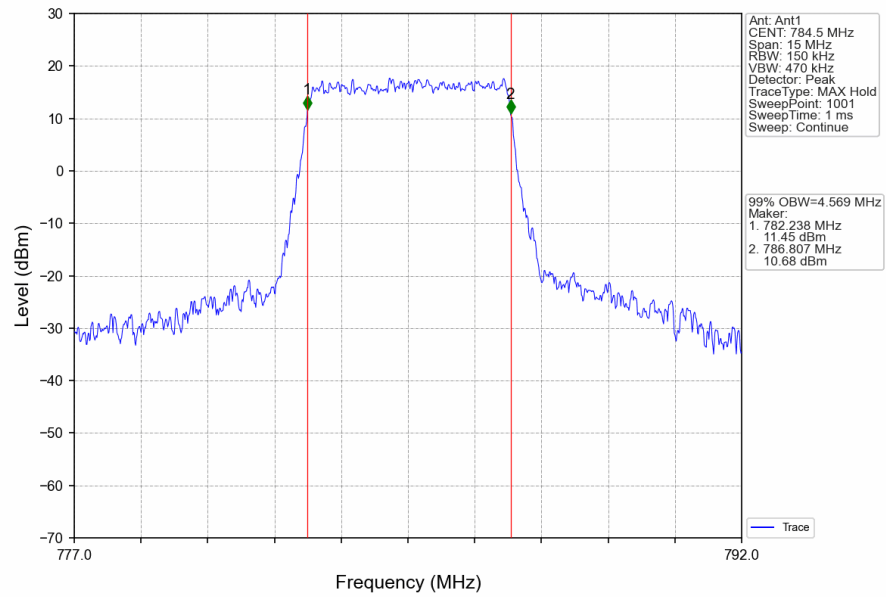
Band13_5MHz_16QAM_LCH_779.5MHz_RB_25_0_NTNV



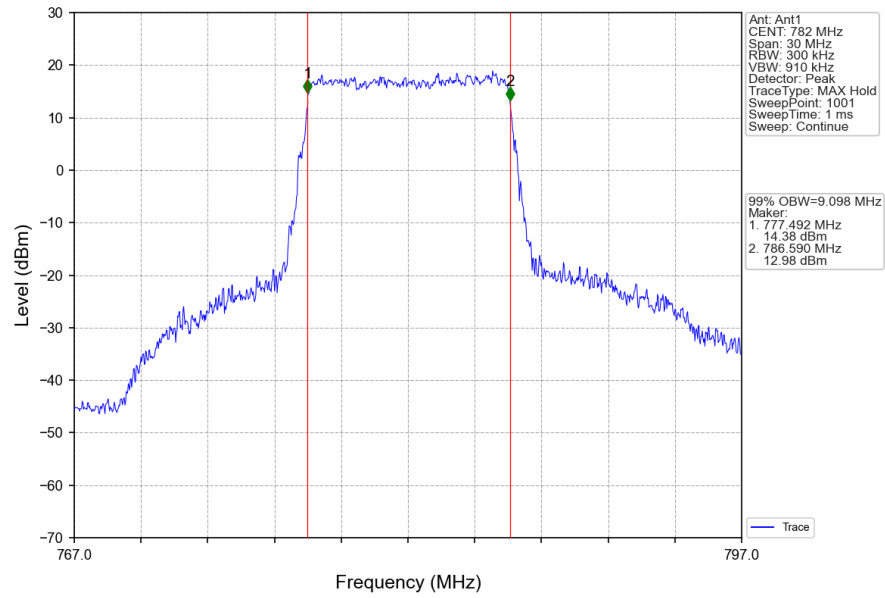
Band13_5MHz_16QAM_MCH_782MHz_RB_25_0_NTNV



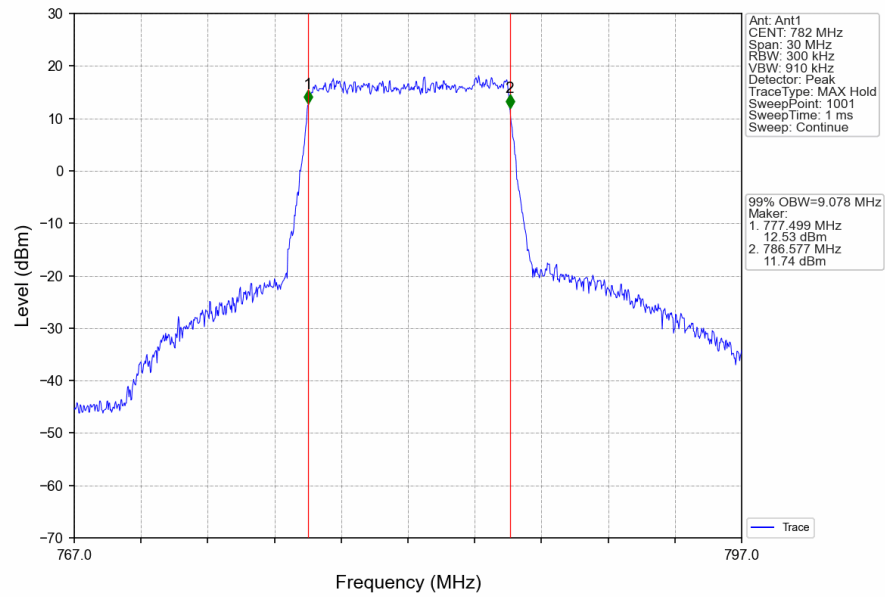
Band13_5MHz_16QAM_HCH_784.5MHz_RB_25_0_NTNV



Band13_10MHz_QPSK_MCH_782MHz_RB_50_0_NTNV



Band13_10MHz_16QAM_MCH_782MHz_RB_50_0_NTNV

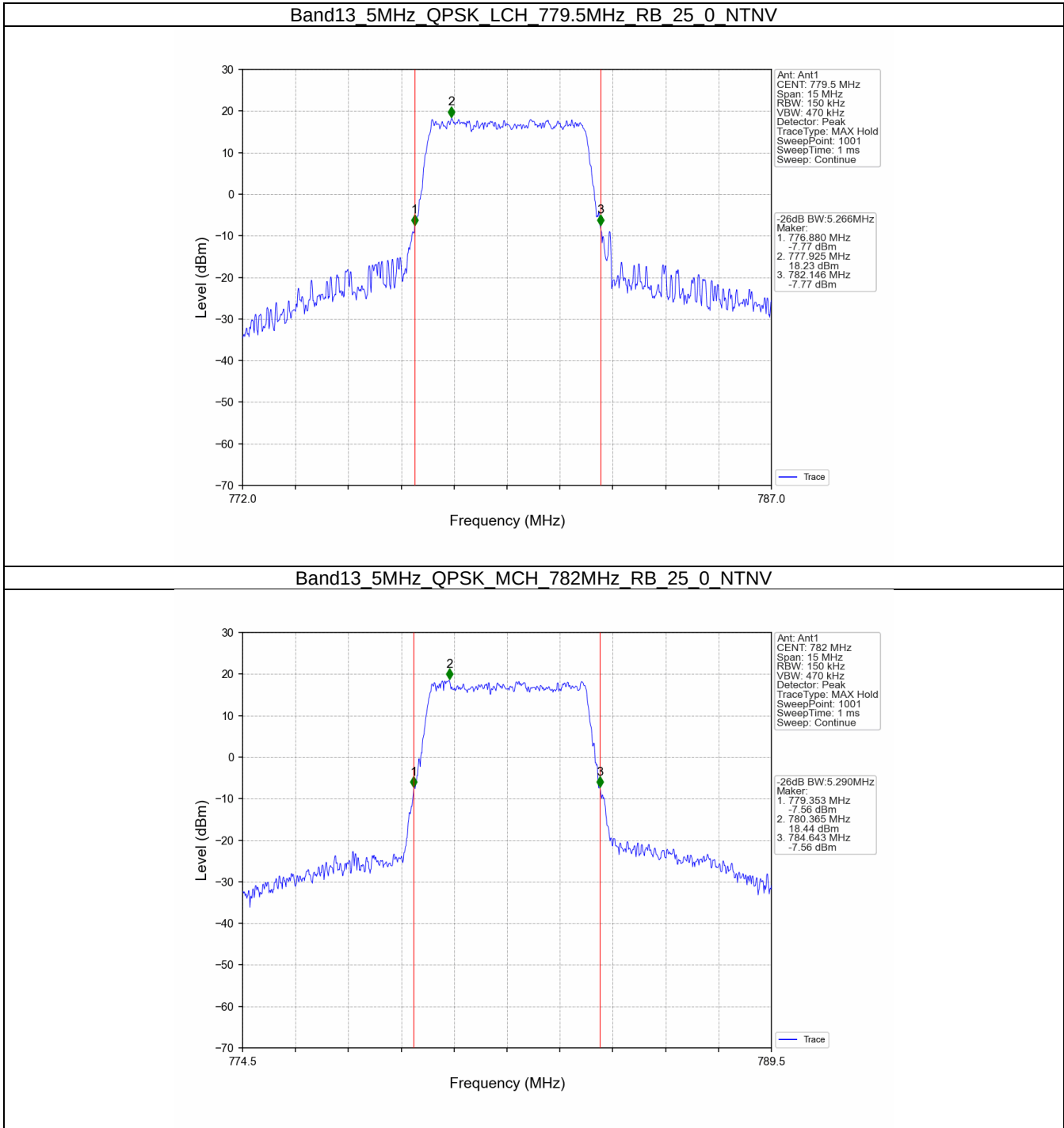


3.2 Band13_XDB

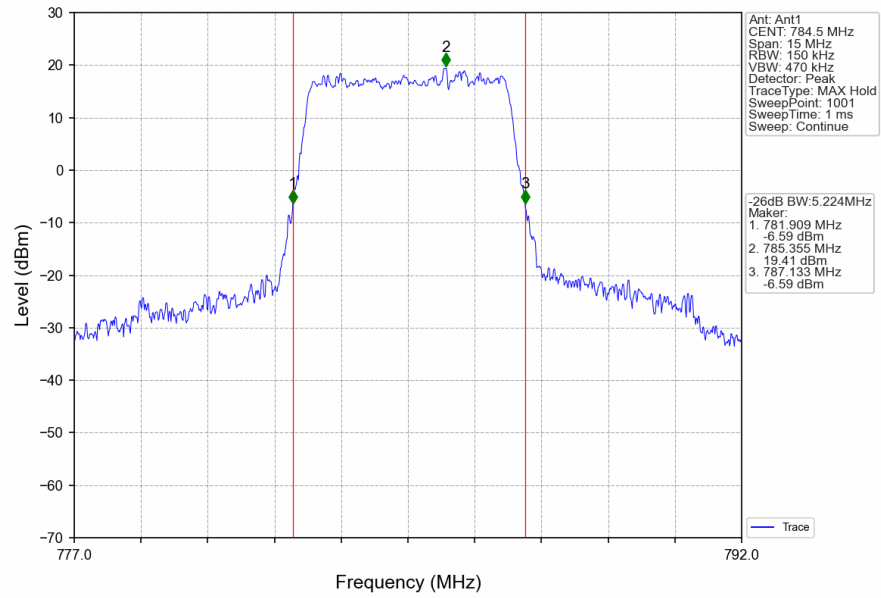
3.2.1 Test Result

Band: 13 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	779.5	25	0	5.266	/	Pass
		782	25	0	5.290	/	Pass
		784.5	25	0	5.224	/	Pass
	16QAM	779.5	25	0	5.294	/	Pass
		782	25	0	5.267	/	Pass
		784.5	25	0	5.293	/	Pass
10	QPSK	782	50	0	10.223	/	Pass
	16QAM	782	50	0	10.187	/	Pass

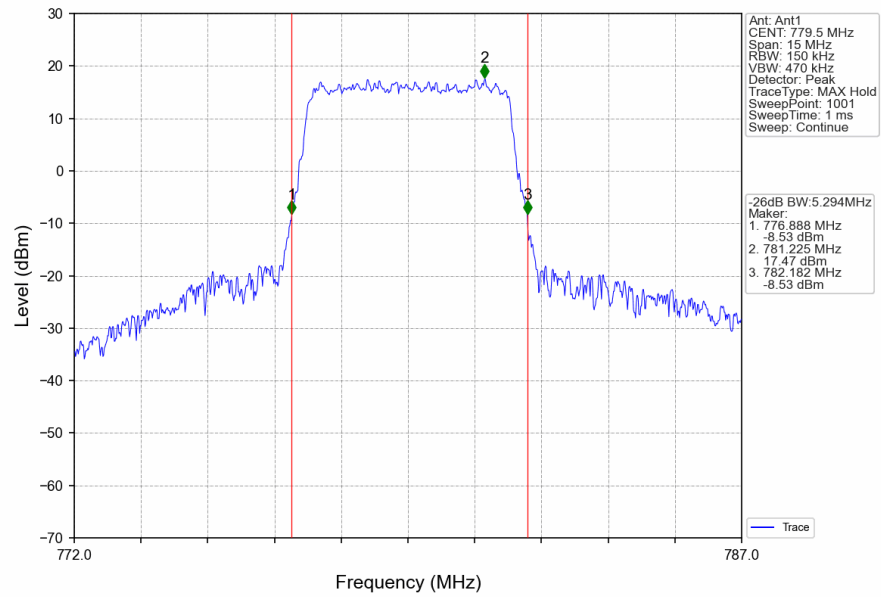
3.2.2 Test Graph



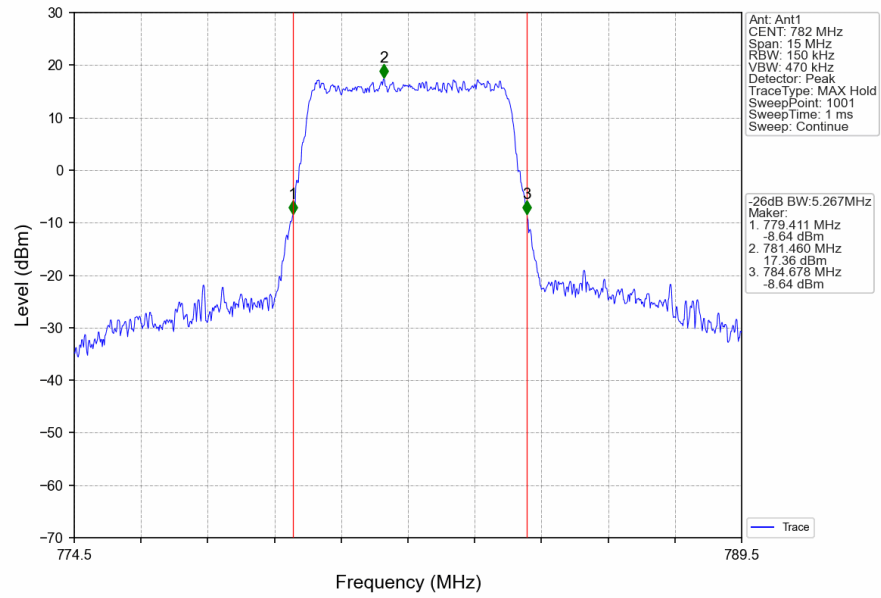
Band13_5MHz_QPSK_HCH_784.5MHz_RB_25_0_NTNV



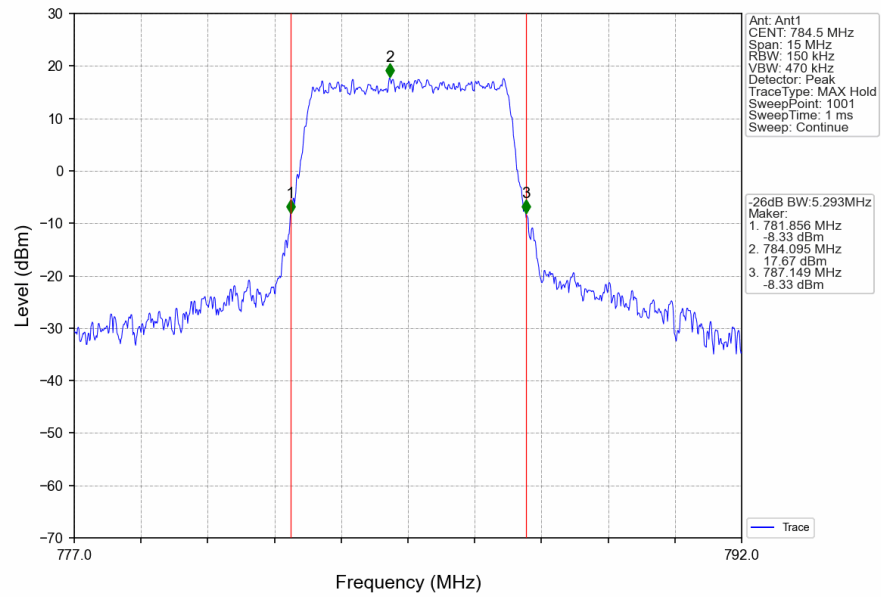
Band13_5MHz_16QAM_LCH_779.5MHz_RB_25_0_NTNV



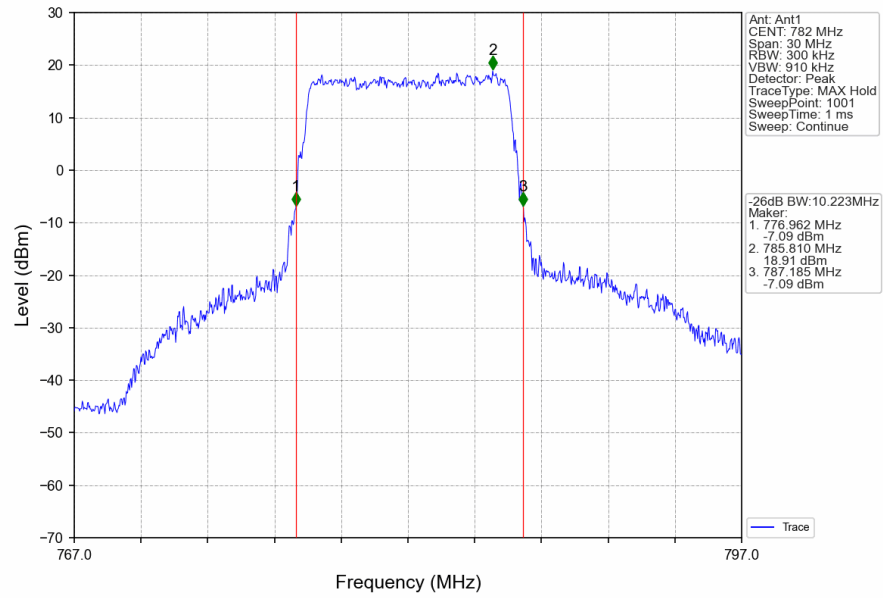
Band13_5MHz_16QAM_MCH_782MHz_RB_25_0_NTNV



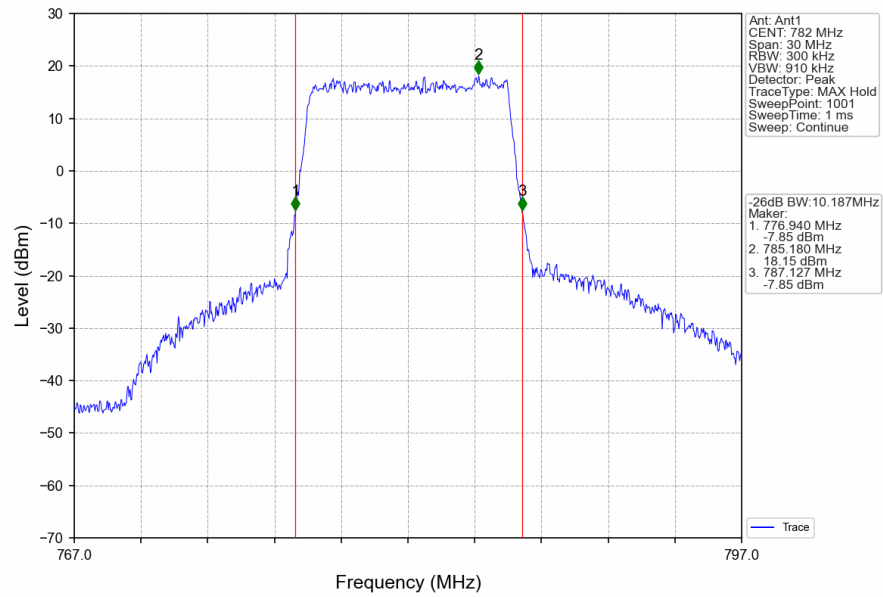
Band13_5MHz_16QAM_HCH_784.5MHz_RB_25_0_NTNV



Band13_10MHz_QPSK_MCH_782MHz_RB_50_0_NTNV



Band13_10MHz_16QAM_MCH_782MHz_RB_50_0_NTNV



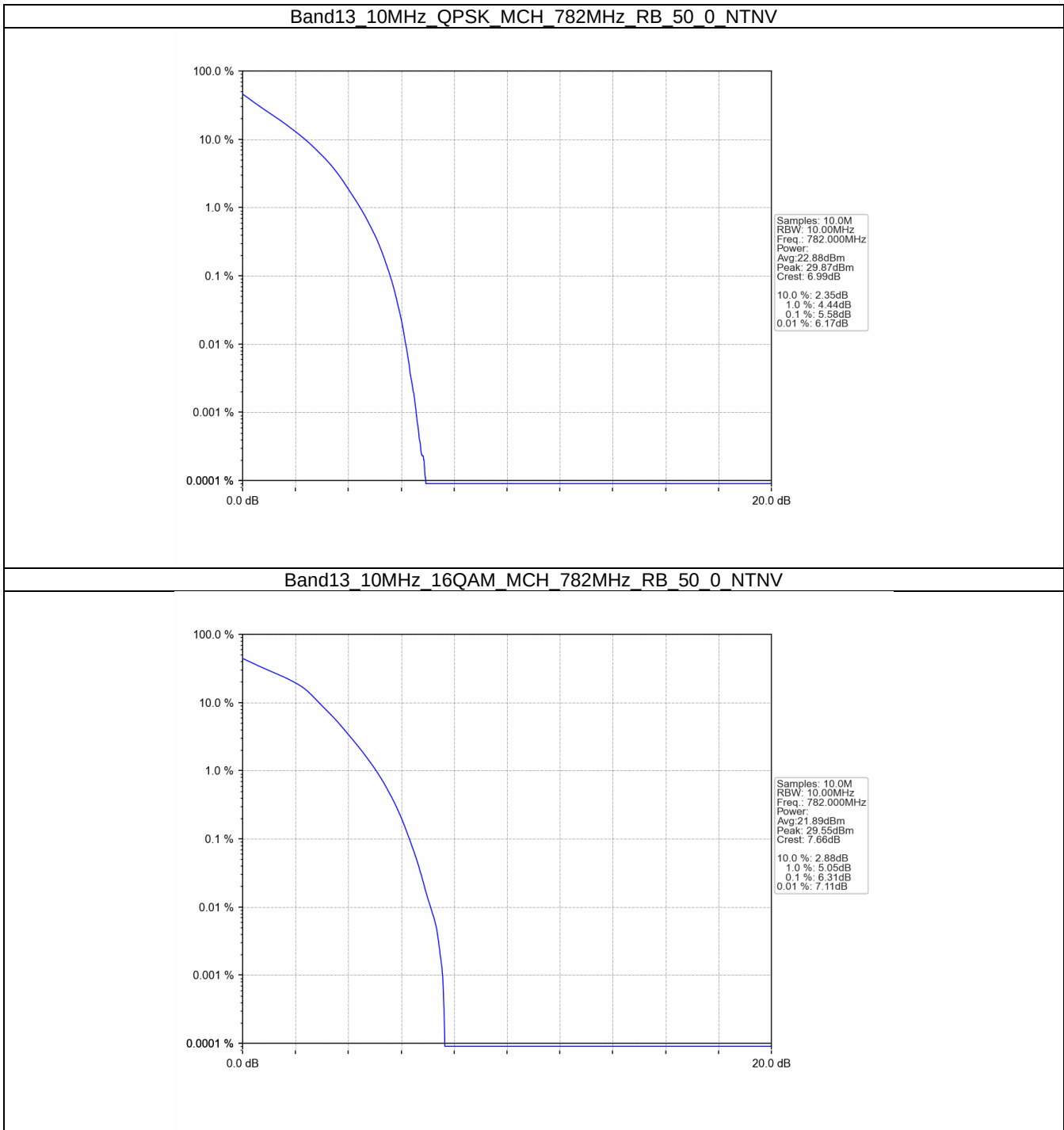
4. Peak-Average Ratio

4.1 B13_10MHz

4.1.1 Test Result

Band: 13 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	782	50	0	5.58	<=13	Pass
16QAM	782	50	0	6.31	<=13	Pass

4.1.2 Test Graph



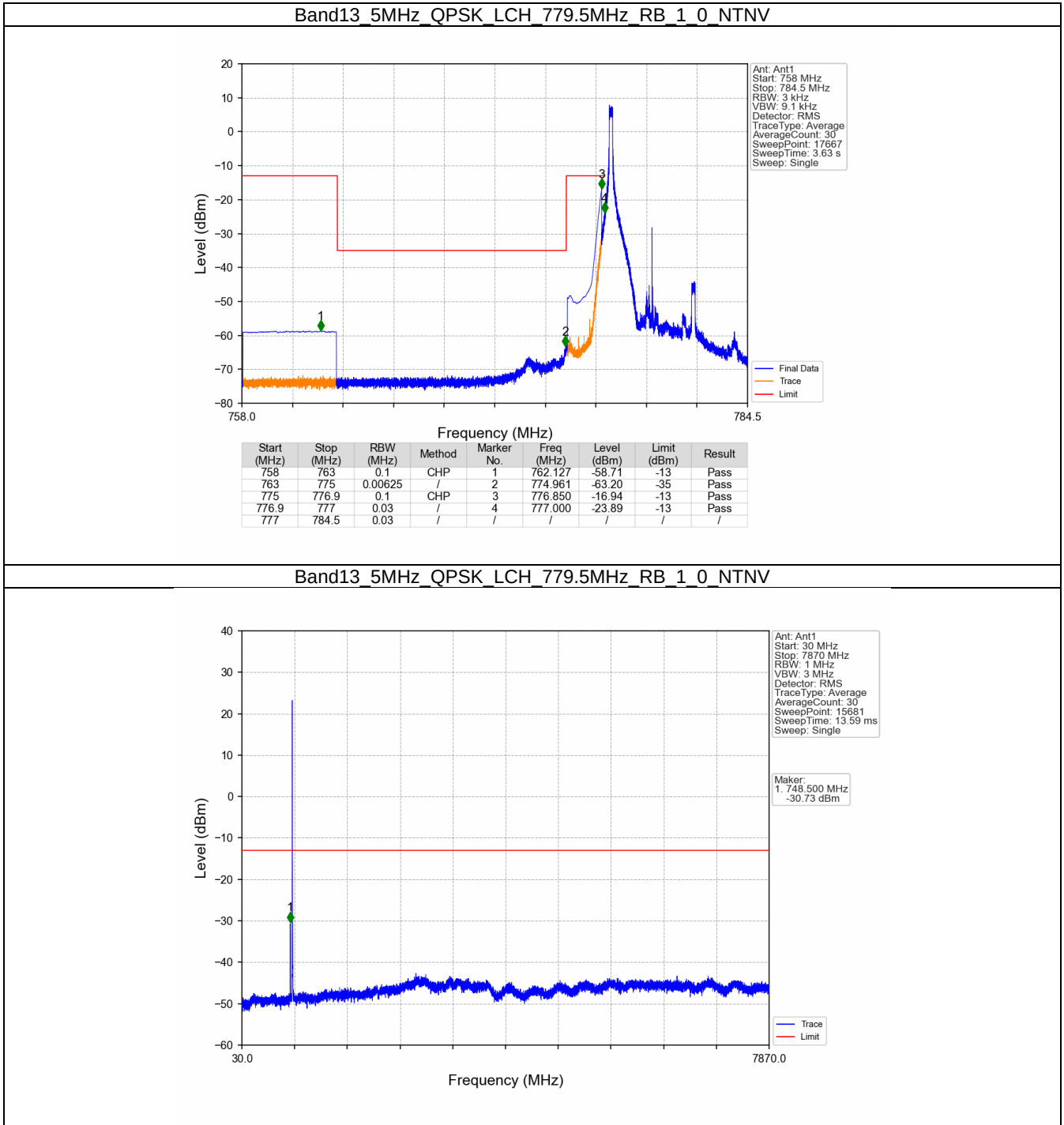
5. Spurious Emission

5.1 B13_5MHz

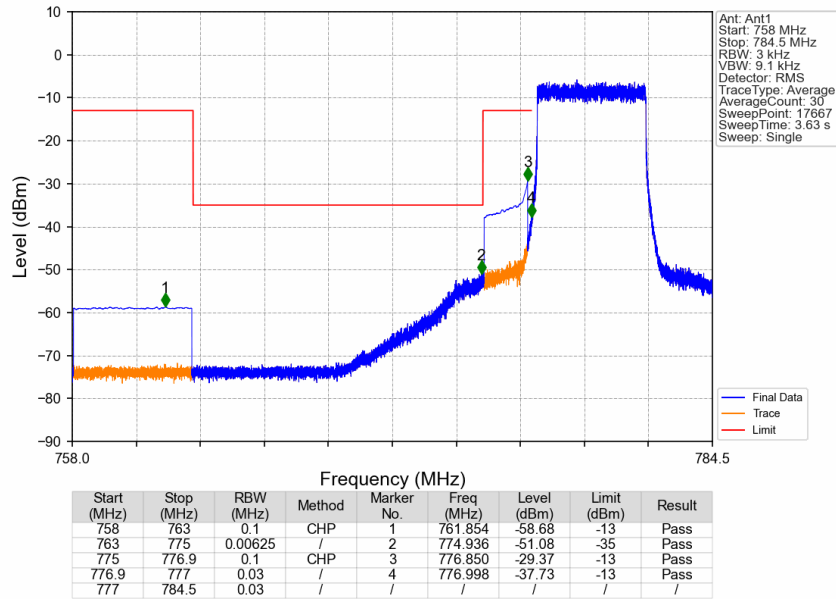
5.1.1 Test Result

Band: 13 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	779.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	782	1	0	Refer To Test Graph		Pass
	784.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass

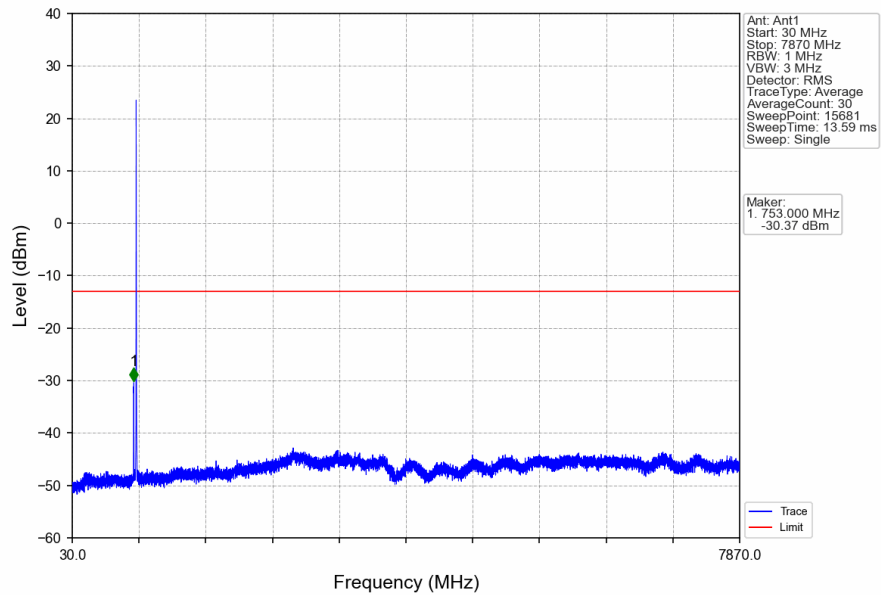
5.1.2 Test Graph



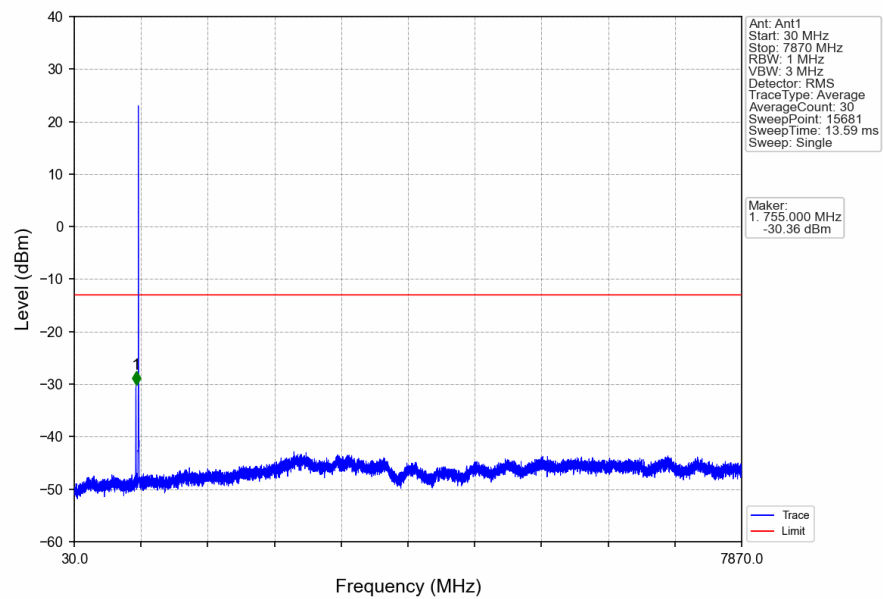
Band13 5MHz QPSK LCH 779.5MHz RB 25 0 NTN



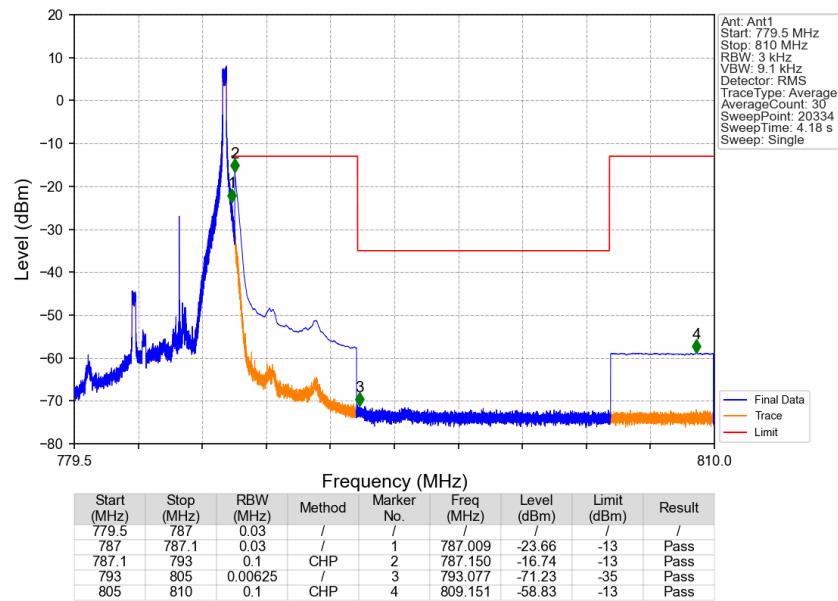
Band13 5MHz QPSK MCH 782MHz RB 1 0 NTN



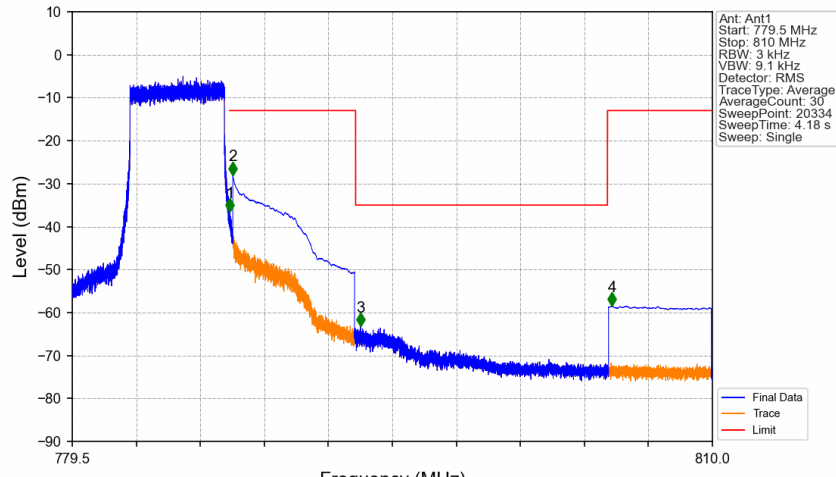
Band13 5MHz QPSK HCH 784.5MHz RB 1 0 NTN



Band13 5MHz QPSK HCH 784.5MHz RB 1 24 NTN



Band13 5MHz QPSK HCH 784.5MHz RB 25 0 NTNV



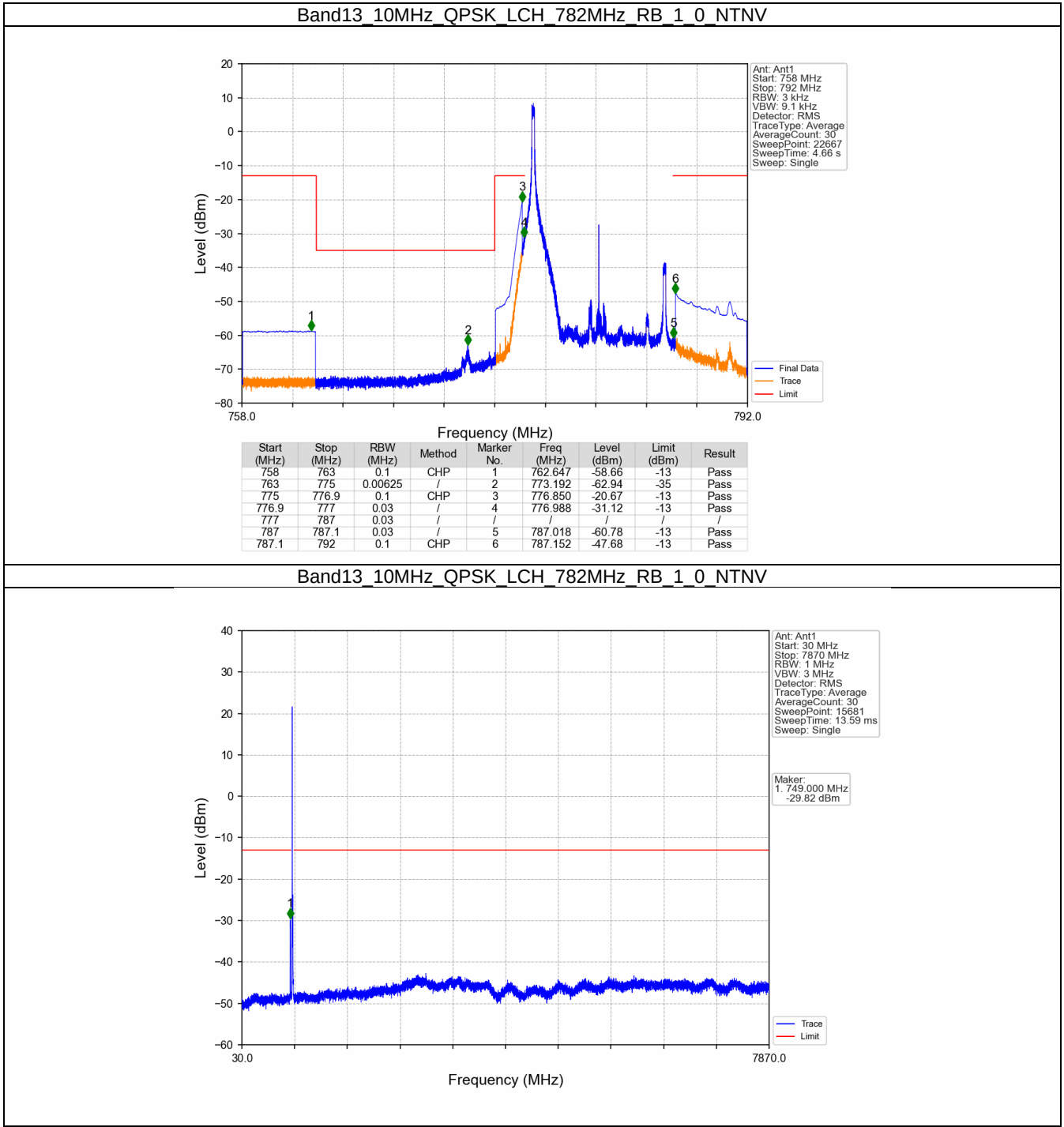
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
779.5	787	0.03	/	/	/	/	/	/
787	787.1	0.03	/	1	787.002	-36.63	-13	Pass
787.1	793	0.1	CHP	2	787.150	-28.02	-13	Pass
793	805	0.00625	/	3	793.239	-63.21	-35	Pass
805	810	0.1	CHP	4	805.213	-58.48	-13	Pass

5.2 B13_10MHz

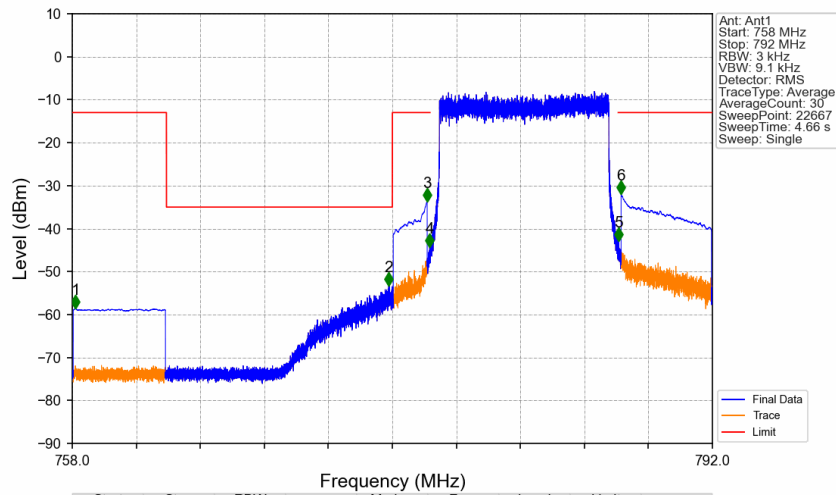
5.2.1 Test Result

Band: 13 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	782	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	782	1	49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

5.2.2 Test Graph

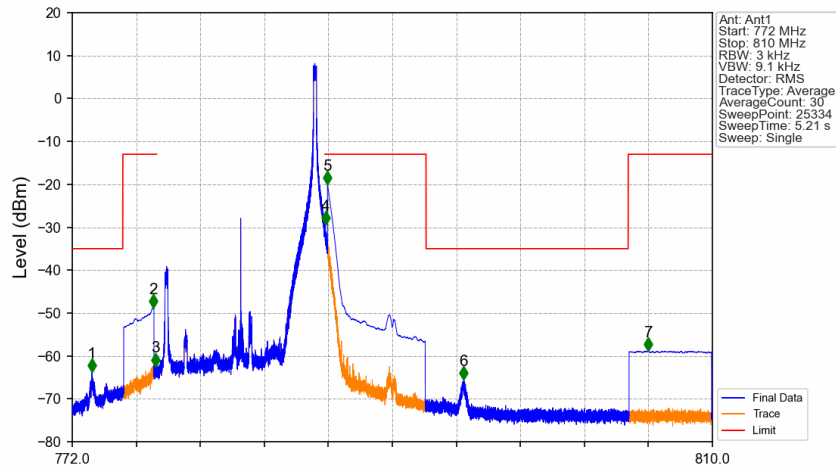


Band13 10MHz QPSK LCH 782MHz RB 50 0 NTNV



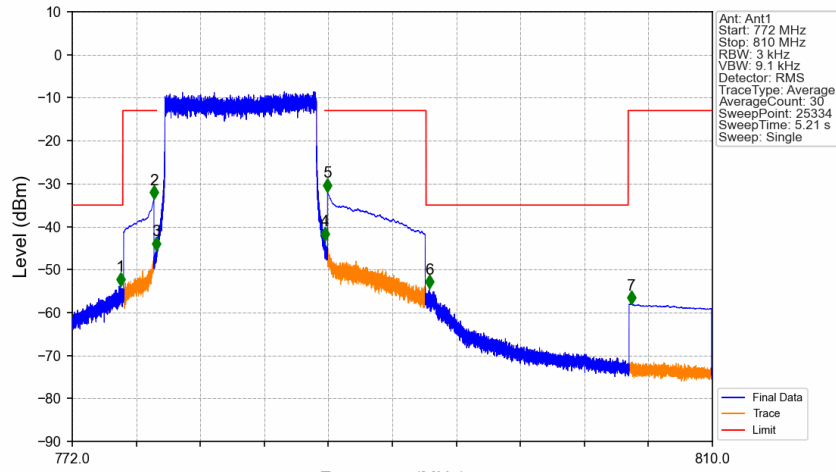
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
758	763	0.1	CHP	1	758.177	-58.57	-13	Pass
763	775	0.00625	/	2	774.808	-53.30	-35	Pass
775	776.9	0.1	CHP	3	776.850	-33.72	-13	Pass
776.9	777	0.03	/	4	776.983	-44.35	-13	Pass
777	787	0.03	/	/	/	/	/	/
787	787.1	0.03	/	5	787.018	-42.96	-13	Pass
787.1	792	0.1	CHP	6	787.150	-32.00	-13	Pass

Band13 10MHz QPSK HCH 782MHz RB 1 49 NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
772	775	0.00625	/	1	773.163	-63.78	-35	Pass
775	776.9	0.1	CHP	2	776.796	-48.83	-13	Pass
776.9	777	0.03	/	3	776.937	-62.47	-13	Pass
777	787	0.03	/	/	/	/	/	/
787	787.1	0.03	/	4	787.026	-29.45	-13	Pass
787.1	793	0.1	CHP	5	787.150	-20.10	-13	Pass
793	805	0.00625	/	6	795.238	-65.50	-35	Pass
805	810	0.1	CHP	7	806.203	-58.86	-13	Pass

Band13 10MHz QPSK HCH 782MHz RB 50 0 NTN



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
772	775	0.00625	/	1	774.853	-53.76	-35	Pass
775	776.9	0.1	CHP	2	776.850	-33.61	-13	Pass
776.9	777	0.03	/	3	776.997	-45.49	-13	Pass
777	787	0.03	/	/	/	/	/	/
787	787.1	0.03	/	4	787.003	-43.17	-13	Pass
787.1	793	0.1	CHP	5	787.150	-31.91	-13	Pass
793	805	0.00625	/	6	793.215	-54.37	-35	Pass
805	810	0.1	CHP	7	805.176	-58.05	-13	Pass