

Appendix B.11

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 B13_5MHz_ERP

Band: 13 / Bandwidth: 5MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	779.5	1	0	23.67	-5.50	16.02	<=34.77	Pass
			13	23.84	-5.50	16.19	<=34.77	Pass
			24	23.68	-5.50	16.03	<=34.77	Pass
		12	0	22.59	-5.50	14.94	<=34.77	Pass
			6	22.74	-5.50	15.09	<=34.77	Pass
			13	22.62	-5.50	14.97	<=34.77	Pass
		25	0	22.70	-5.50	15.05	<=34.77	Pass
	782	1	0	23.76	-5.50	16.11	<=34.77	Pass
			13	23.81	-5.50	16.16	<=34.77	Pass
			24	23.64	-5.50	15.99	<=34.77	Pass
		12	0	22.74	-5.50	15.09	<=34.77	Pass
			6	22.73	-5.50	15.08	<=34.77	Pass
			13	22.66	-5.50	15.01	<=34.77	Pass
		25	0	22.71	-5.50	15.06	<=34.77	Pass
	784.5	1	0	23.78	-5.50	16.13	<=34.77	Pass
			13	23.84	-5.50	16.19	<=34.77	Pass
			24	23.57	-5.50	15.92	<=34.77	Pass
		12	0	22.69	-5.50	15.04	<=34.77	Pass
			6	22.70	-5.50	15.05	<=34.77	Pass
			13	22.68	-5.50	15.03	<=34.77	Pass
		25	0	22.70	-5.50	15.05	<=34.77	Pass
16QAM	779.5	1	0	22.60	-5.50	14.95	<=34.77	Pass
			13	22.81	-5.50	15.16	<=34.77	Pass
			24	22.16	-5.50	14.51	<=34.77	Pass
		12	0	21.49	-5.50	13.84	<=34.77	Pass
			6	21.71	-5.50	14.06	<=34.77	Pass
			13	21.53	-5.50	13.88	<=34.77	Pass
		25	0	21.68	-5.50	14.03	<=34.77	Pass
	782	1	0	22.31	-5.50	14.66	<=34.77	Pass
			13	22.59	-5.50	14.94	<=34.77	Pass
			24	22.59	-5.50	14.94	<=34.77	Pass
		12	0	21.64	-5.50	13.99	<=34.77	Pass
			6	21.81	-5.50	14.16	<=34.77	Pass
			13	21.74	-5.50	14.09	<=34.77	Pass
		25	0	21.66	-5.50	14.01	<=34.77	Pass
	784.5	1	0	22.64	-5.50	14.99	<=34.77	Pass
			13	22.58	-5.50	14.93	<=34.77	Pass
			24	22.33	-5.50	14.68	<=34.77	Pass
		12	0	21.69	-5.50	14.04	<=34.77	Pass
			6	21.69	-5.50	14.04	<=34.77	Pass
			13	21.68	-5.50	14.03	<=34.77	Pass
		25	0	21.66	-5.50	14.01	<=34.77	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

1.1.2 B13_10MHz_ERP

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	23.70	-5.50	16.05	<=34.77	Pass
			25	23.27	-5.50	15.62	<=34.77	Pass
			49	23.72	-5.50	16.07	<=34.77	Pass
		25	0	22.75	-5.50	15.10	<=34.77	Pass
			13	22.73	-5.50	15.08	<=34.77	Pass
			25	22.65	-5.50	15.00	<=34.77	Pass
		50	0	22.70	-5.50	15.05	<=34.77	Pass
16QAM	782	1	0	22.50	-5.50	14.85	<=34.77	Pass
			25	22.83	-5.50	15.18	<=34.77	Pass
			49	22.56	-5.50	14.91	<=34.77	Pass
		25	0	21.83	-5.50	14.18	<=34.77	Pass
			13	21.77	-5.50	14.12	<=34.77	Pass
			25	21.84	-5.50	14.19	<=34.77	Pass
		50	0	21.79	-5.50	14.14	<=34.77	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

2. Frequency Stability

2.1 Test Result

2.1.1 B13_10MHz

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	3.27	0.100	0.0001	-2.5 to 2.5	Pass
					3.85	1.200	0.0015	-2.5 to 2.5	Pass
					4.43	-0.700	-0.0009	-2.5 to 2.5	Pass
				-30	3.85	-0.700	-0.0009	-2.5 to 2.5	Pass
				-20	3.85	-0.200	-0.0003	-2.5 to 2.5	Pass
				-10	3.85	-0.700	-0.0009	-2.5 to 2.5	Pass
				0	3.85	-0.800	-0.0010	-2.5 to 2.5	Pass
				10	3.85	-0.100	-0.0001	-2.5 to 2.5	Pass
				30	3.85	-0.300	-0.0004	-2.5 to 2.5	Pass
				40	3.85	-0.600	-0.0008	-2.5 to 2.5	Pass
				50	3.85	-0.800	-0.0010	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band13_OBW

Band: 13 / NTNV

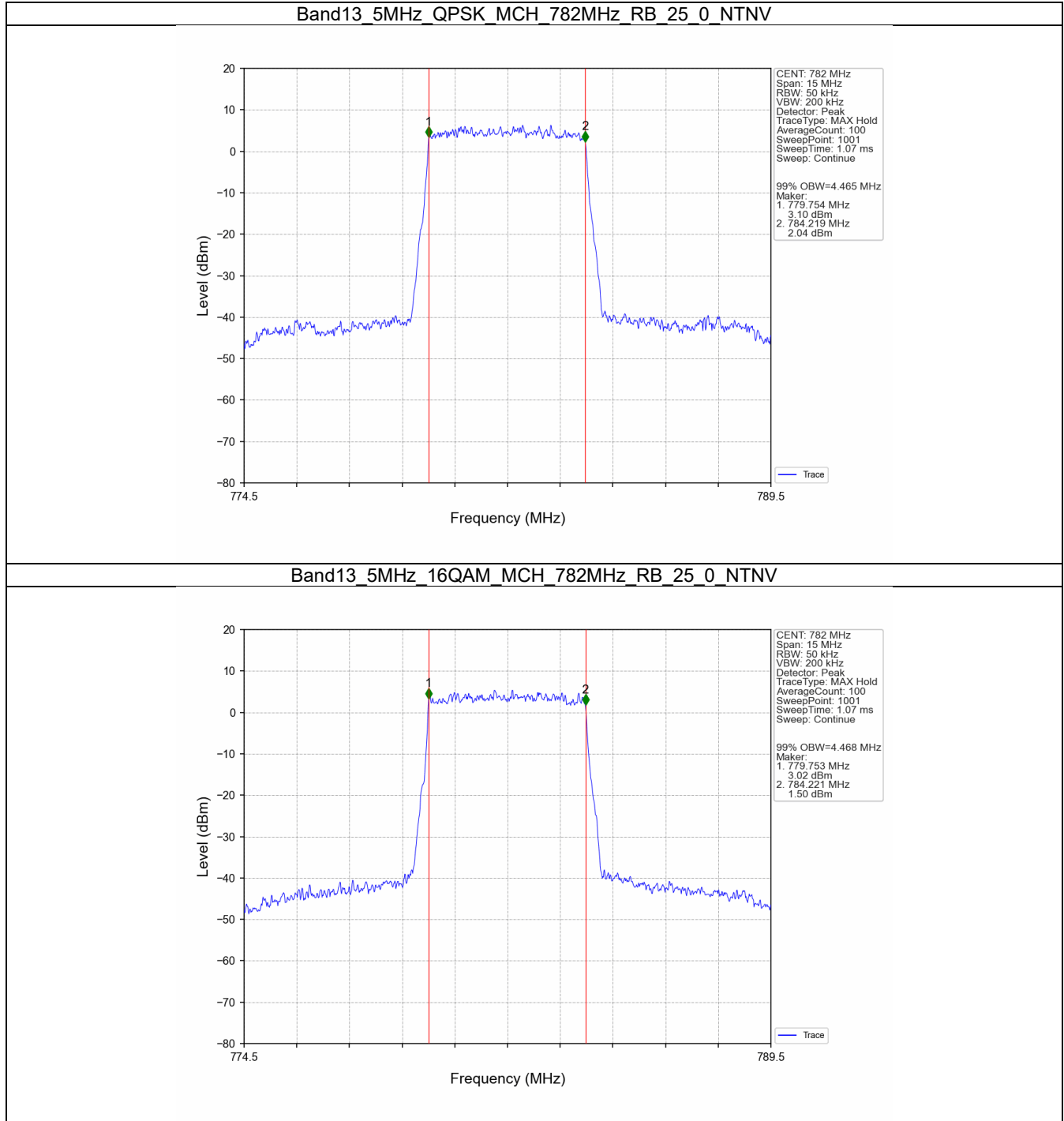
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	782	25	0	4.465	/	Pass
	16QAM	782	25	0	4.468	/	Pass
10	QPSK	782	50	0	8.938	/	Pass
	16QAM	782	50	0	8.915	/	Pass

3.1.2 Band13_XDB

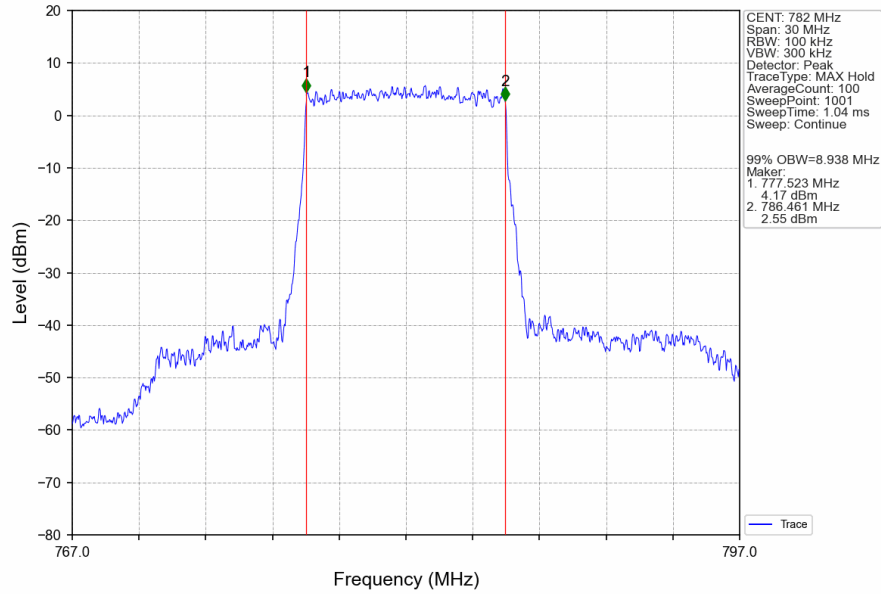
Band: 13 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	782	25	0	4.932	/	Pass
	16QAM	782	25	0	4.918	/	Pass
10	QPSK	782	50	0	9.713	/	Pass
	16QAM	782	50	0	9.570	/	Pass

3.2 Test Graph

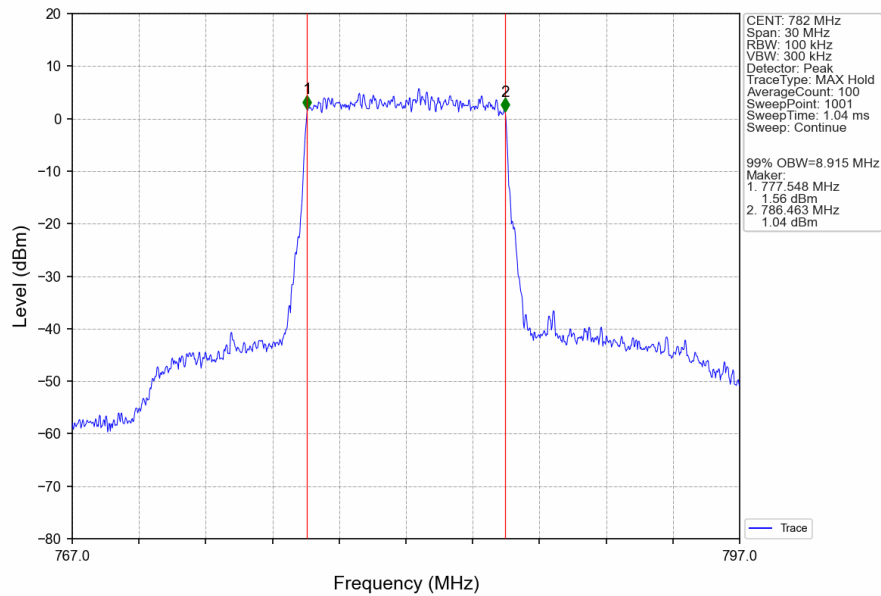
3.2.1 Band13_OBW



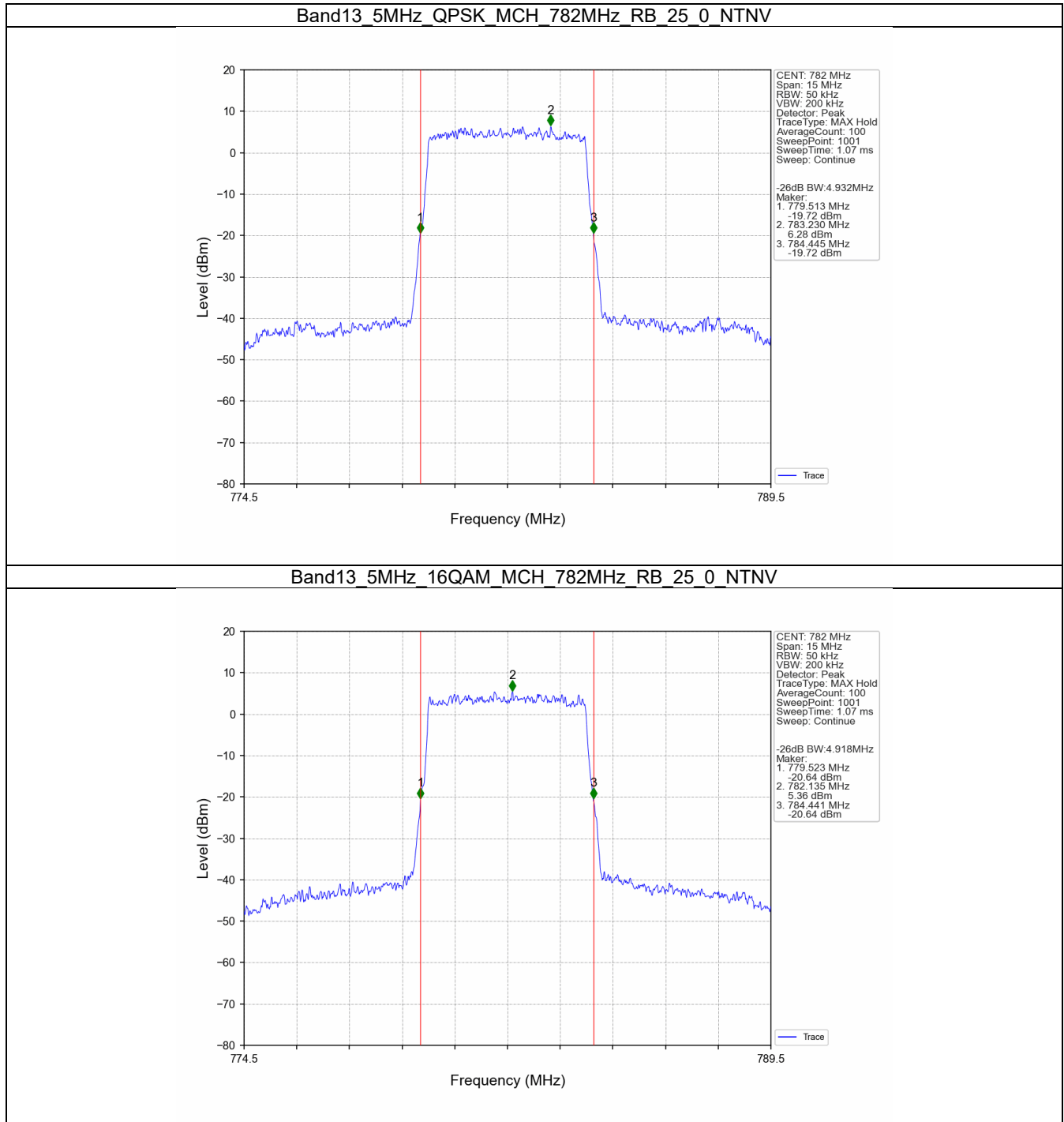
Band13_10MHz_QPSK_MCH_782MHz_RB_50_0_NTNV



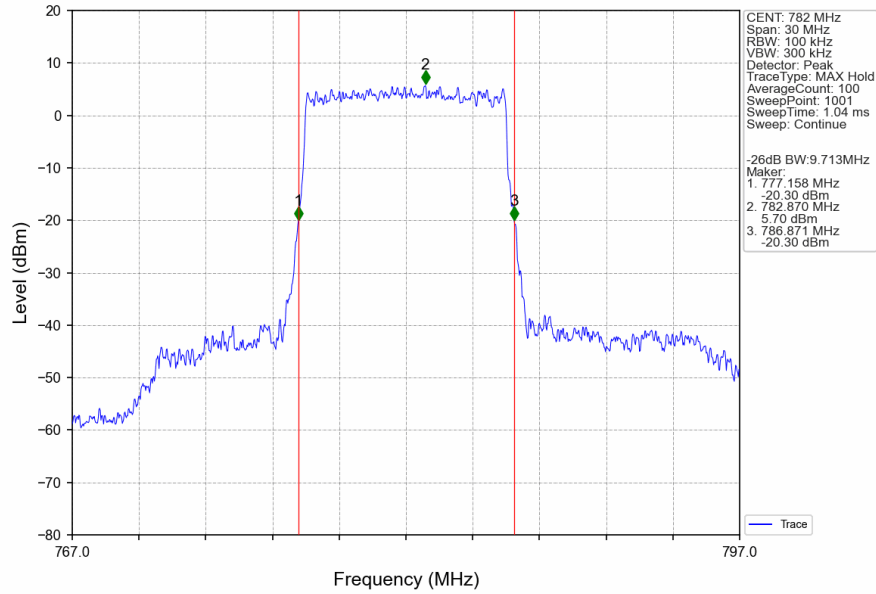
Band13_10MHz_16QAM_MCH_782MHz_RB_50_0_NTNV



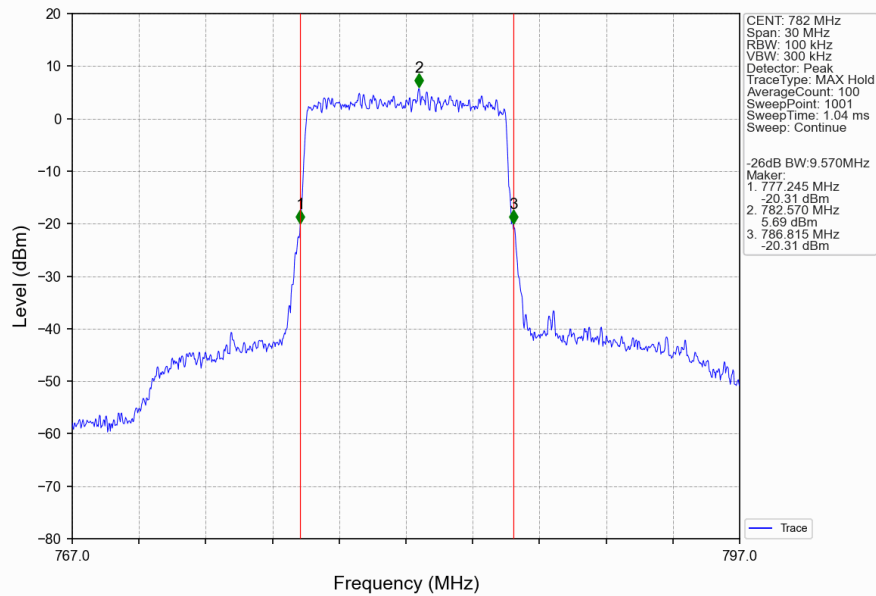
3.2.2 Band13_XDB



Band13_10MHz_QPSK_MCH_782MHz_RB_50_0_NTNV



Band13_10MHz_16QAM_MCH_782MHz_RB_50_0_NTNV



4. Peak-Average Ratio

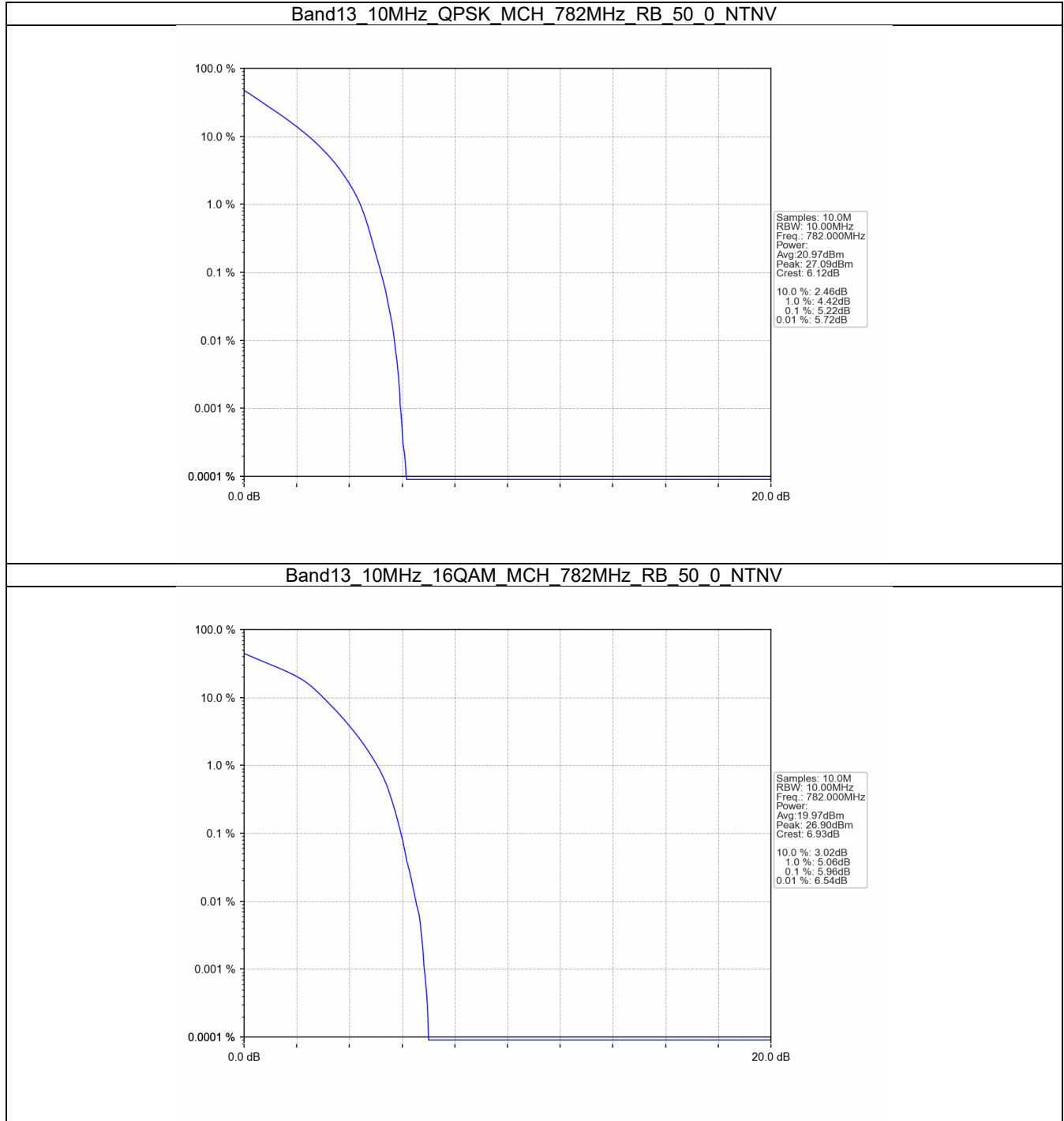
4.1 Test Result

4.1.1 B13_10MHz

Band: 13 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	782	50	0	5.22	≤ 13	Pass
16QAM	782	50	0	5.96	≤ 13	Pass

4.2 Test Graph

4.2.1 B13_10MHz



5. Spurious Emission

5.1 Test Result

5.1.1 B13_5MHz

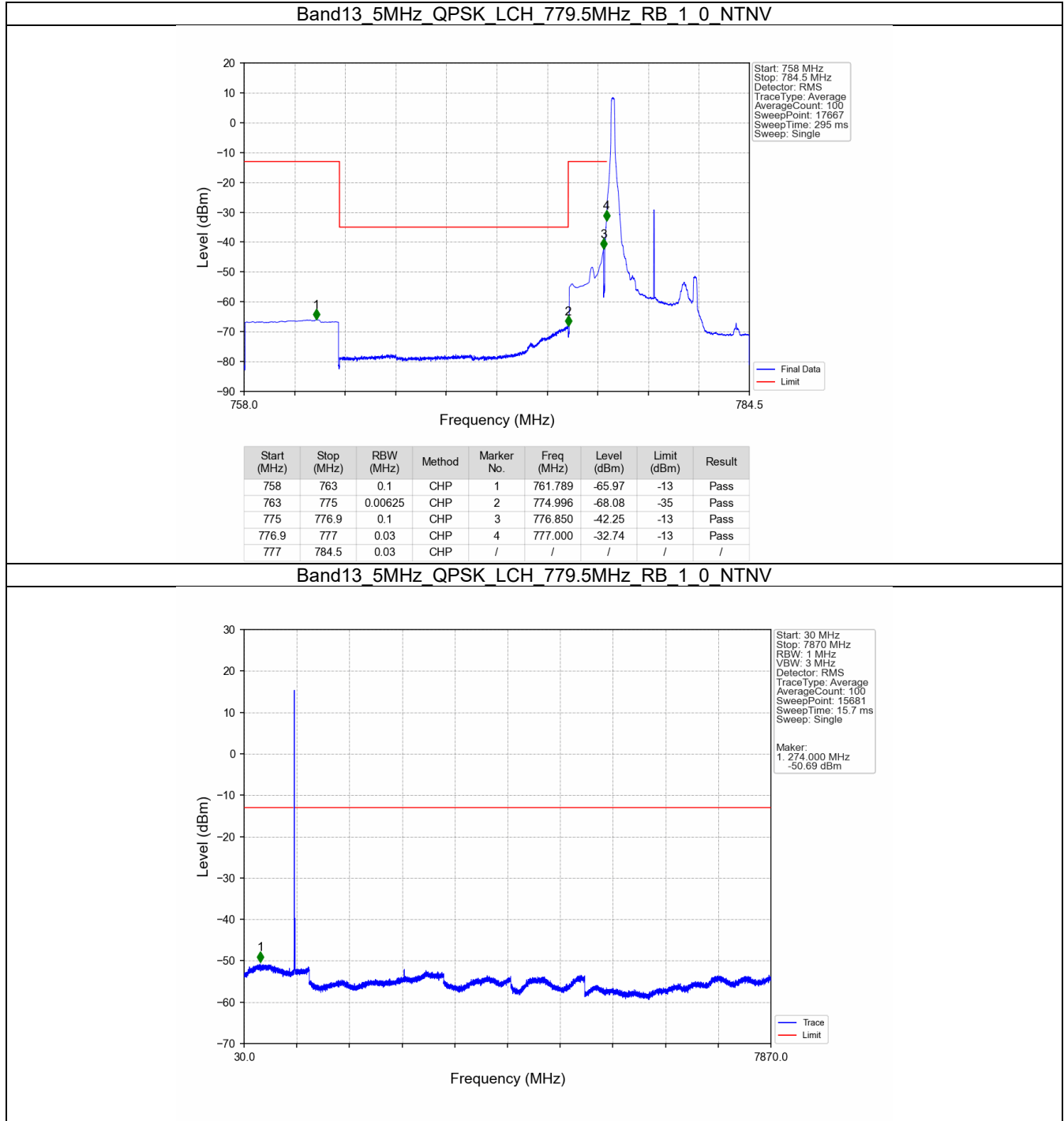
Band: 13 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	779.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	782	1	0	Refer To Test Graph		Pass
	784.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test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

5.1.2 B13_10MHz

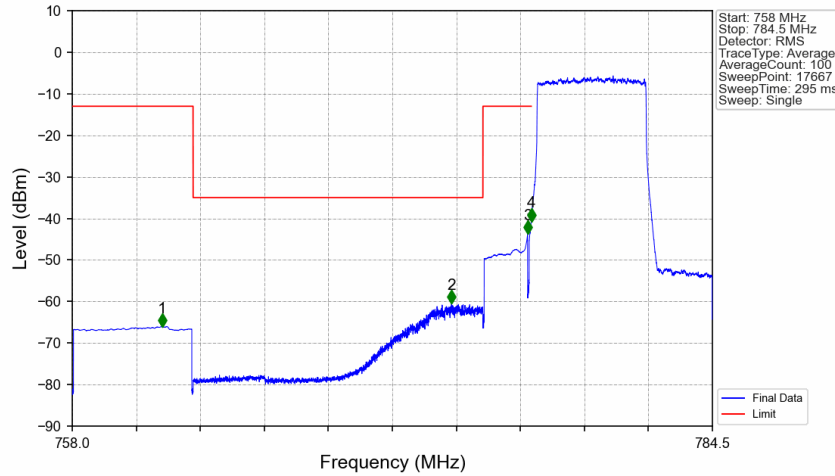
Band: 13 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	782	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	782	1	49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

5.2 Test Graph

5.2.1 B13_5MHz

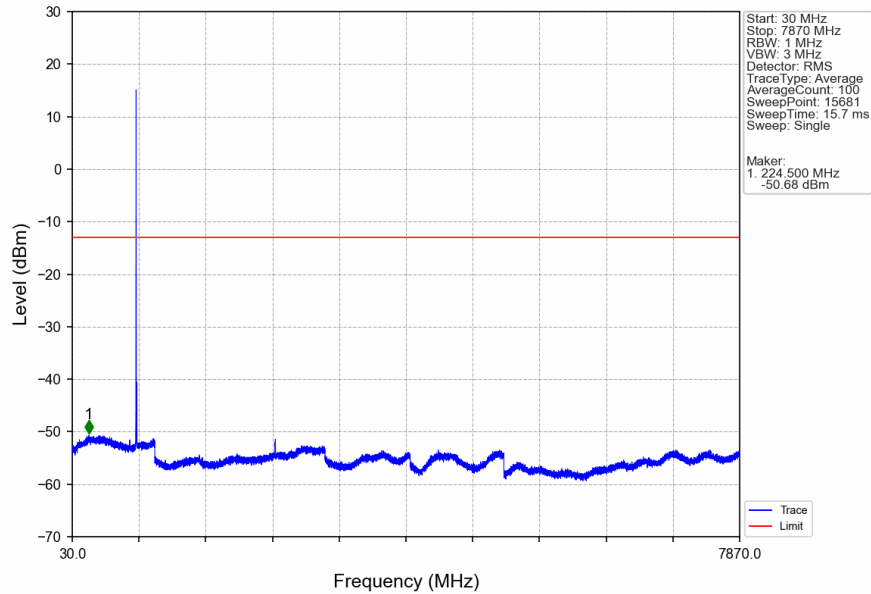


Band13_5MHz_QPSK_LCH_779.5MHz_RB_25_0_NTNV

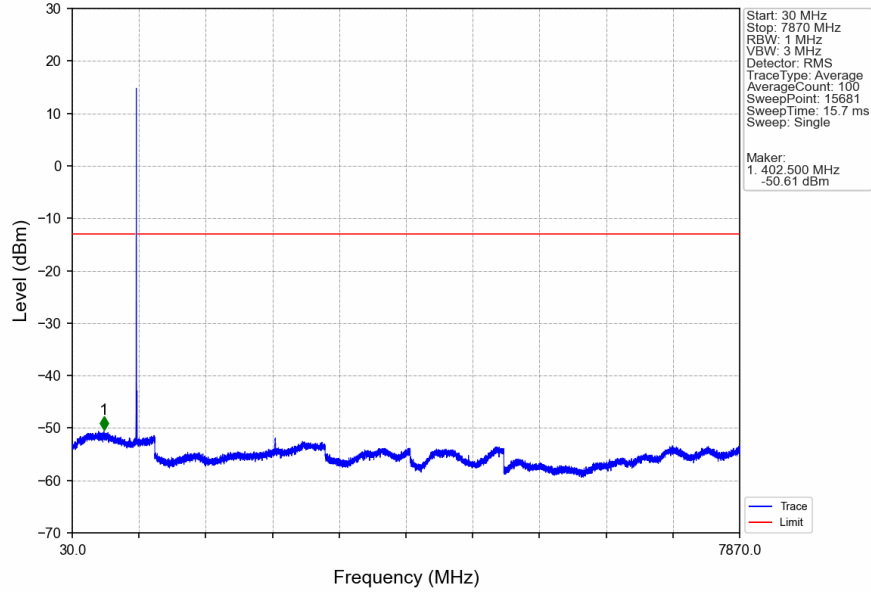


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
758	763	0.1	CHP	1	761.722	-66.04	-13	Pass
763	775	0.00625	CHP	2	773.700	-60.46	-35	Pass
775	776.9	0.1	CHP	3	776.850	-43.76	-13	Pass
776.9	777	0.03	CHP	4	777.000	-40.67	-13	Pass
777	784.5	0.03	CHP	/	/	/	/	/

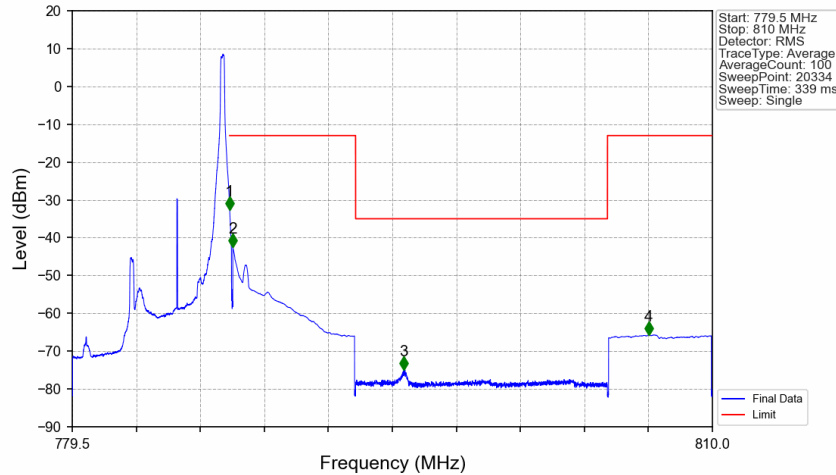
Band13_5MHz_QPSK_MCH_782MHz_RB_1_0_NTNV



Band13_5MHz_QPSK_HCH_784.5MHz_RB_1_0_NTNV

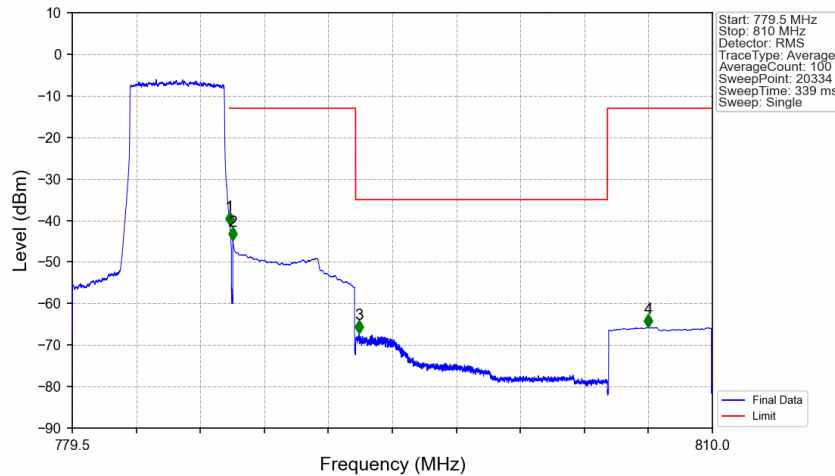


Band13_5MHz_QPSK_HCH_784.5MHz_RB_1_24_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
779.5	787	0.03	CHP	/	/	/	/	/
787	787.1	0.03	CHP	1	787.000	-32.73	-13	Pass
787.1	793	0.1	CHP	2	787.150	-42.38	-13	Pass
793	805	0.00625	CHP	3	795.304	-74.93	-35	Pass
805	810	0.1	CHP	4	806.968	-65.68	-13	Pass

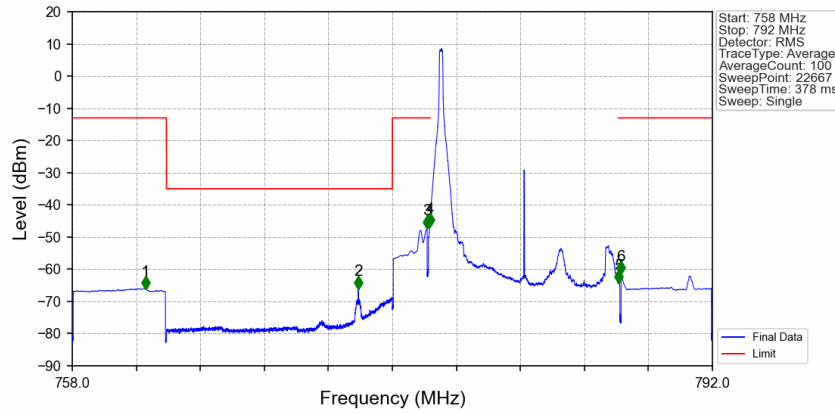
Band13_5MHz_QPSK_HCH_784.5MHz_RB_25_0_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
779.5	787	0.03	CHP	/	/	/	/	/
787	787.1	0.03	CHP	1	787.000	-41.13	-13	Pass
787.1	793	0.1	CHP	2	787.150	-44.77	-13	Pass
793	805	0.00625	CHP	3	793.159	-67.24	-35	Pass
805	810	0.1	CHP	4	806.944	-65.76	-13	Pass

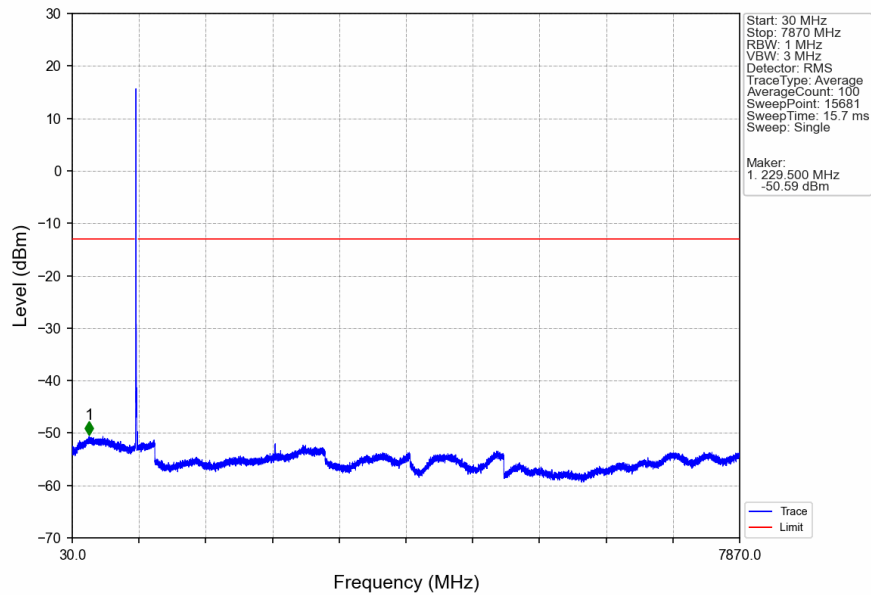
5.2.2 B13_10MHz

Band13_10MHz_QPSK_LCH_782MHz_RB_1_0_NTNV

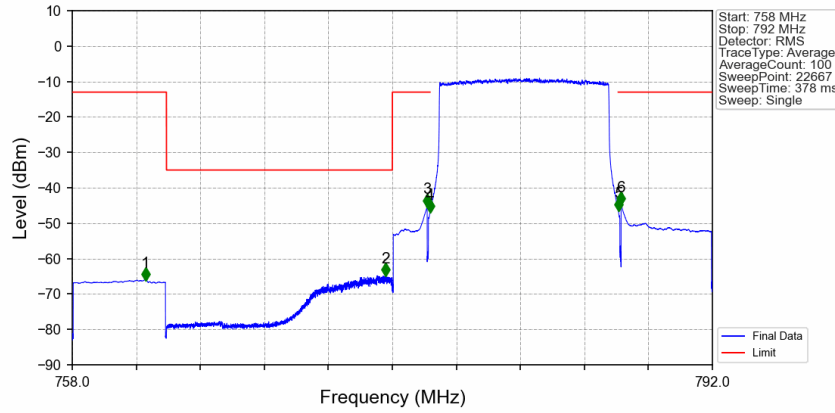


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
758	763	0.1	CHP	1	761.896	-65.93	-13	Pass
763	775	0.00625	CHP	2	773.195	-65.79	-35	Pass
775	776.9	0.1	CHP	3	776.850	-46.98	-13	Pass
776.9	777	0.03	CHP	4	777.000	-46.38	-13	Pass
777	787	0.03	CHP	/	/	/	/	/
787	787.1	0.03	CHP	5	787.029	-63.96	-13	Pass
787.1	792	0.1	CHP	6	787.150	-61.20	-13	Pass

Band13_10MHz_QPSK_LCH_782MHz_RB_1_0_NTNV

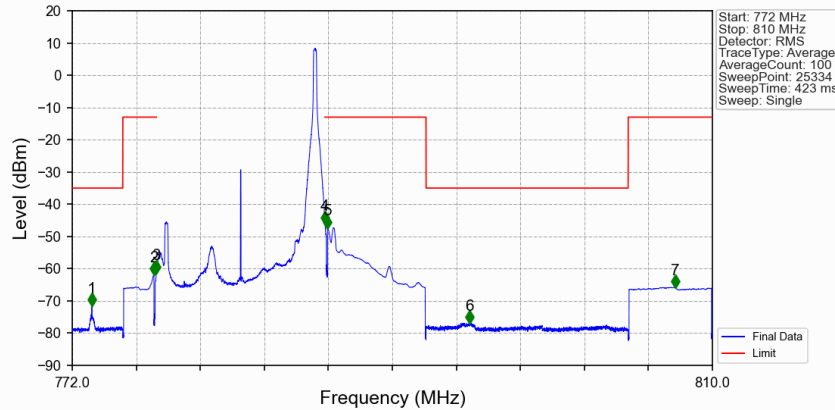


Band13 10MHz QPSK LCH 782MHz RB 50 0 NTN



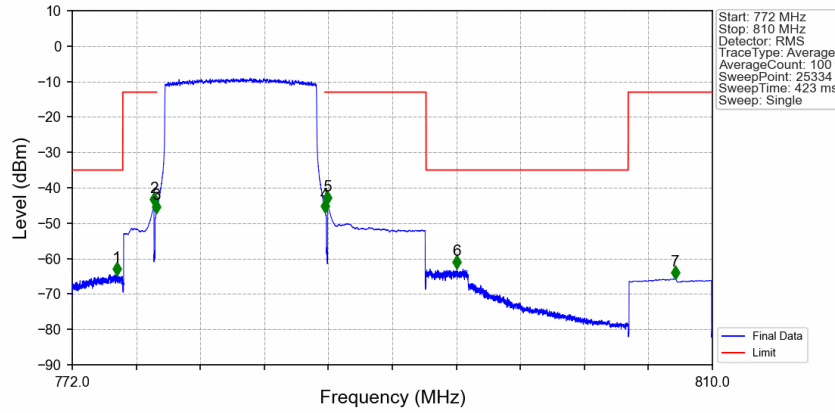
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
758	763	0.1	CHP	1	761.897	-65.97	-13	Pass
763	775	0.00625	CHP	2	774.640	-64.72	-35	Pass
775	776.9	0.1	CHP	3	776.850	-45.15	-13	Pass
776.9	777	0.03	CHP	4	777.000	-46.69	-13	Pass
777	787	0.03	CHP	/	/	/	/	/
787	787.1	0.03	CHP	5	787.000	-46.31	-13	Pass
787.1	792	0.1	CHP	6	787.150	-44.54	-13	Pass

Band13 10MHz QPSK HCH 782MHz RB 1 49 NTN



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
772	775	0.00625	CHP	1	773.164	-71.39	-35	Pass
775	776.9	0.1	CHP	2	776.850	-61.61	-13	Pass
776.9	777	0.03	CHP	3	777.000	-61.10	-13	Pass
777	787	0.03	CHP	/	/	/	/	/
787	787.1	0.03	CHP	4	787.000	-45.80	-13	Pass
787.1	793	0.1	CHP	5	787.150	-47.25	-13	Pass
793	805	0.00625	CHP	6	795.597	-76.65	-35	Pass
805	810	0.1	CHP	7	807.804	-65.68	-13	Pass

Band13_10MHz_QPSK_HCH_782MHz_RB_50_0_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
772	775	0.00625	CHP	1	774.640	-64.48	-35	Pass
775	776.9	0.1	CHP	2	776.850	-44.88	-13	Pass
776.9	777	0.03	CHP	3	777.000	-46.83	-13	Pass
777	787	0.03	CHP	/	/	/	/	/
787	787.1	0.03	CHP	4	787.000	-46.61	-13	Pass
787.1	793	0.1	CHP	5	787.150	-44.43	-13	Pass
793	805	0.00625	CHP	6	794.830	-62.59	-35	Pass
805	810	0.1	CHP	7	807.811	-65.55	-13	Pass

- End of the Appendix -