

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	23.90	-1.59	20.16	<=34.77	Pass
			13	23.56	-1.59	19.82	<=34.77	Pass
			24	23.98	-1.59	20.24	<=34.77	Pass
		12	0	23.28	-1.59	19.54	<=34.77	Pass
			6	23.23	-1.59	19.49	<=34.77	Pass
			13	23.03	-1.59	19.29	<=34.77	Pass
		25	0	23.18	-1.59	19.44	<=34.77	Pass
	782	1	0	23.82	-1.59	20.08	<=34.77	Pass
			13	24.19	-1.59	20.45	<=34.77	Pass
			24	23.19	-1.59	19.45	<=34.77	Pass
		12	0	23.21	-1.59	19.47	<=34.77	Pass
			6	23.06	-1.59	19.32	<=34.77	Pass
			13	23.11	-1.59	19.37	<=34.77	Pass
		25	0	23.27	-1.59	19.53	<=34.77	Pass
	784.5	1	0	23.84	-1.59	20.10	<=34.77	Pass
			13	23.30	-1.59	19.56	<=34.77	Pass
			24	23.72	-1.59	19.98	<=34.77	Pass
		12	0	23.16	-1.59	19.42	<=34.77	Pass
			6	23.17	-1.59	19.43	<=34.77	Pass
			13	23.15	-1.59	19.41	<=34.77	Pass
		25	0	23.16	-1.59	19.42	<=34.77	Pass
16QAM	779.5	1	0	23.93	-1.59	20.19	<=34.77	Pass
			13	23.31	-1.59	19.57	<=34.77	Pass
			24	23.51	-1.59	19.77	<=34.77	Pass
		12	0	22.16	-1.59	18.42	<=34.77	Pass
			6	22.30	-1.59	18.56	<=34.77	Pass
			13	22.14	-1.59	18.40	<=34.77	Pass
		25	0	22.29	-1.59	18.55	<=34.77	Pass
	782	1	0	23.48	-1.59	19.74	<=34.77	Pass
			13	24.23	-1.59	20.49	<=34.77	Pass
			24	22.90	-1.59	19.16	<=34.77	Pass
		12	0	22.19	-1.59	18.45	<=34.77	Pass
			6	22.25	-1.59	18.51	<=34.77	Pass
			13	22.18	-1.59	18.44	<=34.77	Pass
		25	0	22.21	-1.59	18.47	<=34.77	Pass
	784.5	1	0	23.70	-1.59	19.96	<=34.77	Pass
			13	23.39	-1.59	19.65	<=34.77	Pass
			24	23.27	-1.59	19.53	<=34.77	Pass
		12	0	22.31	-1.59	18.57	<=34.77	Pass
			6	22.13	-1.59	18.39	<=34.77	Pass
			13	22.23	-1.59	18.49	<=34.77	Pass
		25	0	22.01	-1.59	18.27	<=34.77	Pass
64QAM	779.5	1	0	23.74	-1.59	20.00	<=34.77	Pass
			13	23.20	-1.59	19.46	<=34.77	Pass
			24	23.35	-1.59	19.61	<=34.77	Pass
		12	0	21.91	-1.59	18.17	<=34.77	Pass
			6	22.20	-1.59	18.46	<=34.77	Pass
			13	21.99	-1.59	18.25	<=34.77	Pass
		25	0	22.24	-1.59	18.50	<=34.77	Pass
	782	1	0	23.57	-1.59	19.83	<=34.77	Pass
			13	23.49	-1.59	19.75	<=34.77	Pass
			24	23.09	-1.59	19.35	<=34.77	Pass
	784.5	12	0	22.41	-1.59	18.67	<=34.77	Pass
			6	22.01	-1.59	18.27	<=34.77	Pass

			13	22.10	-1.59	18.36	<=34.77	Pass	
		25	0	22.21	-1.59	18.47	<=34.77	Pass	
	784.5	1		0	23.38	-1.59	19.64	<=34.77	Pass
				13	22.62	-1.59	18.88	<=34.77	Pass
				24	23.21	-1.59	19.47	<=34.77	Pass
		12		0	22.03	-1.59	18.29	<=34.77	Pass
				6	22.01	-1.59	18.27	<=34.77	Pass
				13	22.10	-1.59	18.36	<=34.77	Pass
		25	0	22.08	-1.59	18.34	<=34.77	Pass	
		Note1: ERP=Conducted Power+Antenna Gain-2.15							

1.1.2 B13_10MHz_ERP

Band: 13 / Bandwidth: 10MHz / NTVN								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	782	1	0	24.28	-1.59	20.54	<=34.77	Pass
			25	24.02	-1.59	20.28	<=34.77	Pass
			49	22.81	-1.59	19.07	<=34.77	Pass
		25	0	23.46	-1.59	19.72	<=34.77	Pass
			13	23.18	-1.59	19.44	<=34.77	Pass
			25	23.08	-1.59	19.34	<=34.77	Pass
		50	0	23.24	-1.59	19.50	<=34.77	Pass
16QAM	782	1	0	23.75	-1.59	20.01	<=34.77	Pass
			25	24.96	-1.59	21.22	<=34.77	Pass
			49	22.93	-1.59	19.19	<=34.77	Pass
		25	0	22.36	-1.59	18.62	<=34.77	Pass
			13	22.25	-1.59	18.51	<=34.77	Pass
			25	22.23	-1.59	18.49	<=34.77	Pass
		50	0	22.41	-1.59	18.67	<=34.77	Pass
64QAM	782	1	0	23.60	-1.59	19.86	<=34.77	Pass
			25	24.92	-1.59	21.18	<=34.77	Pass
			49	22.69	-1.59	18.95	<=34.77	Pass
		25	0	22.30	-1.59	18.56	<=34.77	Pass
			13	22.32	-1.59	18.58	<=34.77	Pass
			25	21.99	-1.59	18.25	<=34.77	Pass
		50	0	22.23	-1.59	18.49	<=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	3.4	0.800	0.0010	-2.5 to 2.5	Pass
					3.8	-0.100	-0.0001	-2.5 to 2.5	Pass
					4.2	-2.700	-0.0035	-2.5 to 2.5	Pass
				-30	3.8	-1.200	-0.0015	-2.5 to 2.5	Pass
				-20	3.8	-2.100	-0.0027	-2.5 to 2.5	Pass
				-10	3.8	2.100	0.0027	-2.5 to 2.5	Pass
				0	3.8	-2.100	-0.0027	-2.5 to 2.5	Pass
				10	3.8	-1.200	-0.0015	-2.5 to 2.5	Pass
				30	3.8	-2.700	-0.0035	-2.5 to 2.5	Pass
				40	3.8	-0.500	-0.0006	-2.5 to 2.5	Pass
				50	3.8	0.800	0.0010	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band13_OBW

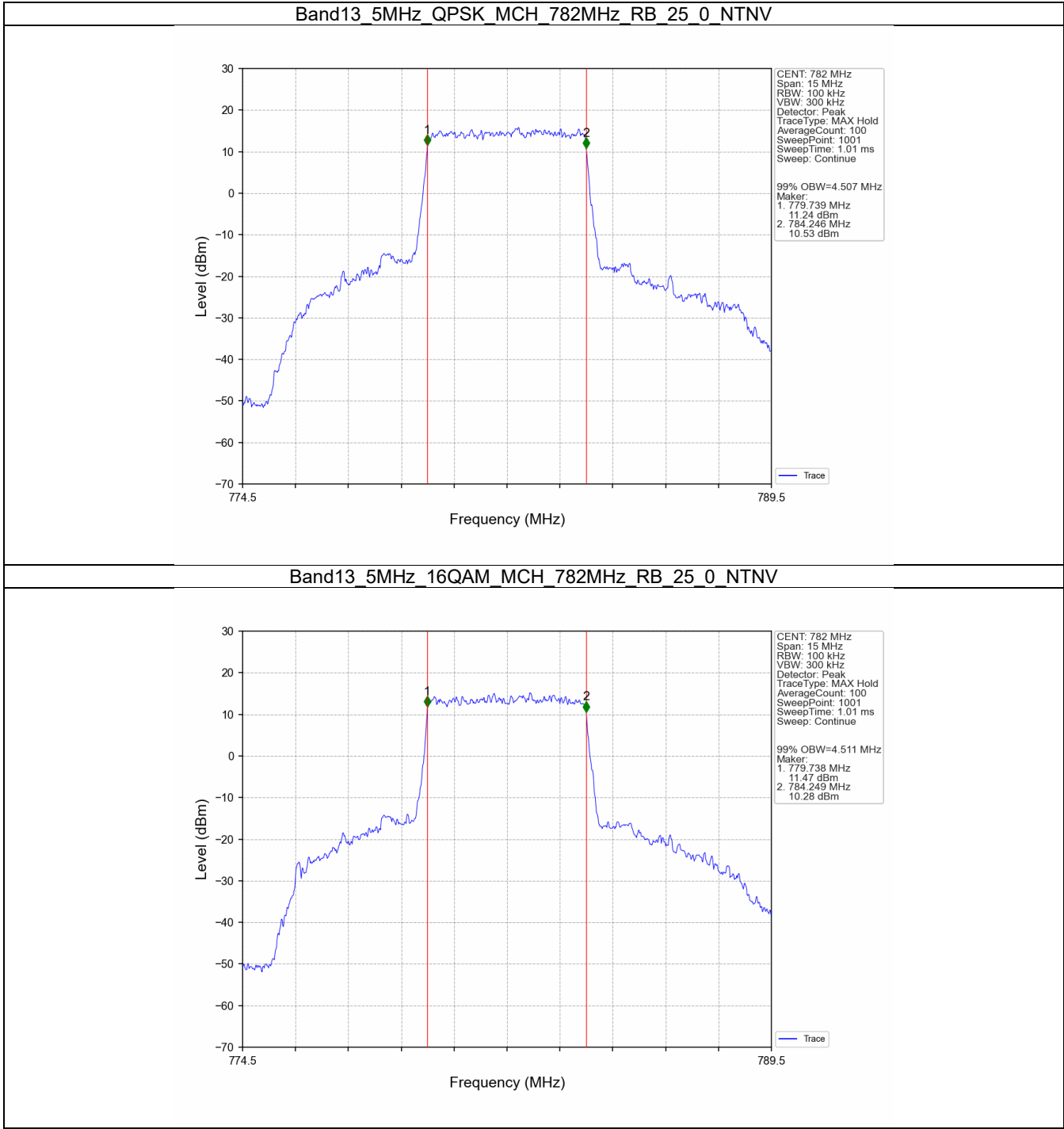
Band: 13 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	782	25	0	4.507	/	Pass
	16QAM	782	25	0	4.511	/	Pass
	64QAM	782	25	0	4.507	/	Pass
10	QPSK	782	50	0	8.937	/	Pass
	16QAM	782	50	0	8.942	/	Pass
	64QAM	782	50	0	8.986	/	Pass

3.1.2 Band13_XDB

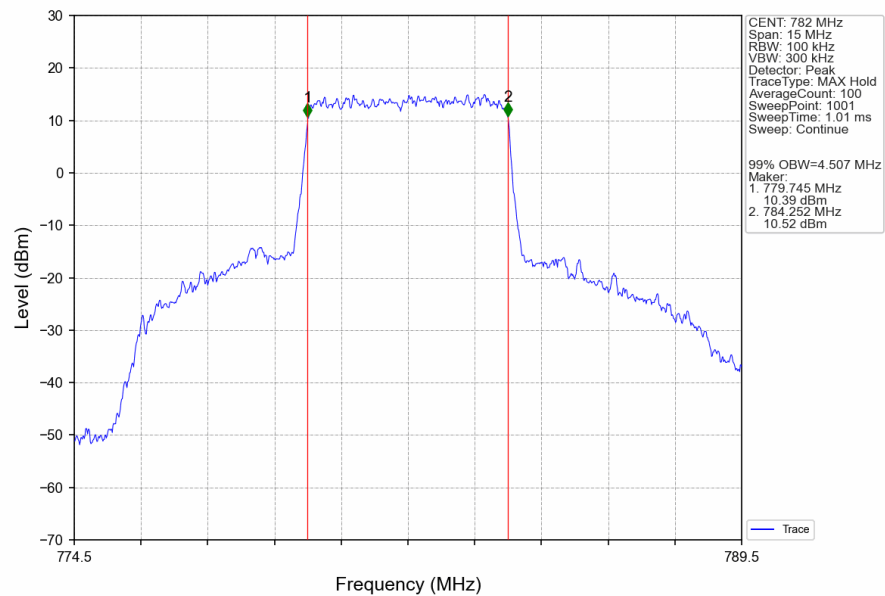
Band: 13 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	782	25	0	5.042	/	Pass
	16QAM	782	25	0	5.049	/	Pass
	64QAM	782	25	0	5.011	/	Pass
10	QPSK	782	50	0	9.718	/	Pass
	16QAM	782	50	0	9.744	/	Pass
	64QAM	782	50	0	9.730	/	Pass

3.2 Test Graph

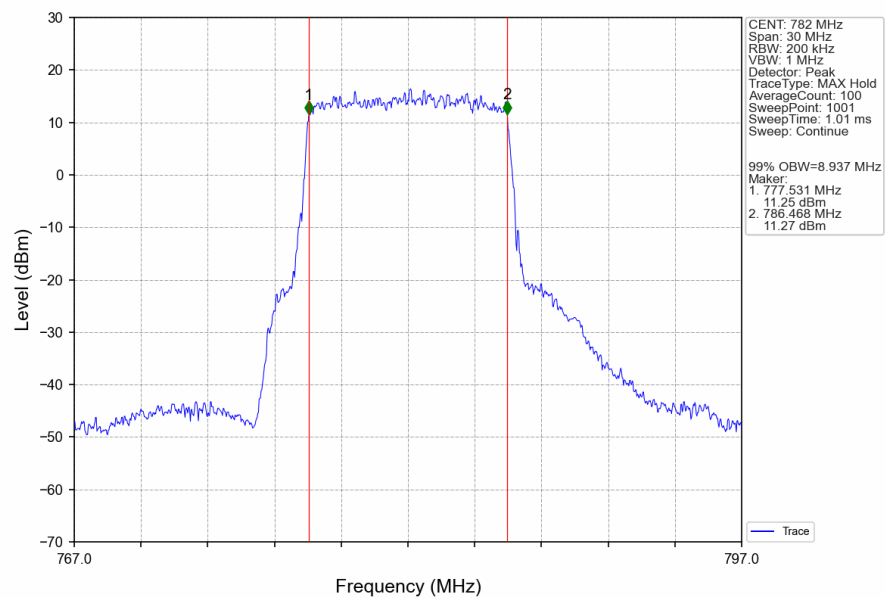
3.2.1 Band13_OBW



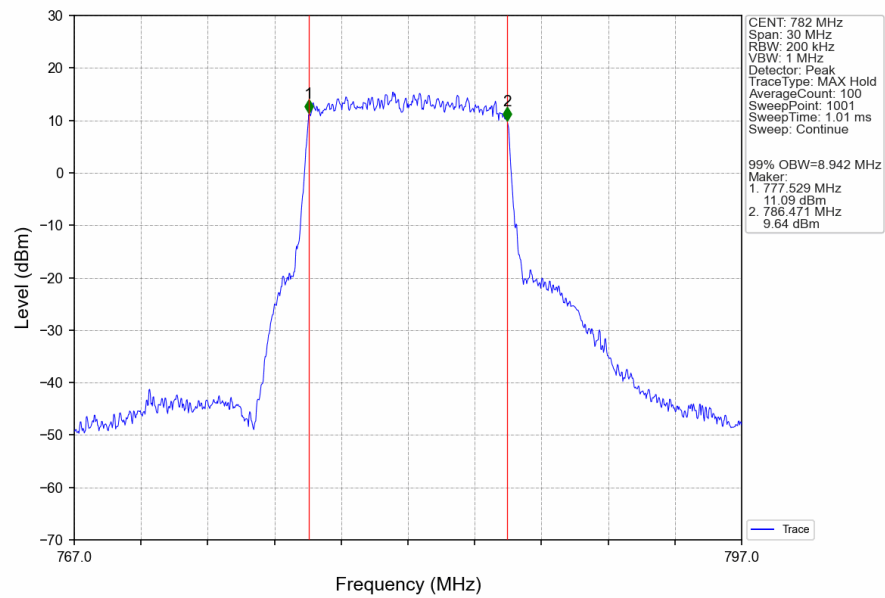
Band13_5MHz_64QAM_MCH_782MHz_RB_25_0_NTNV



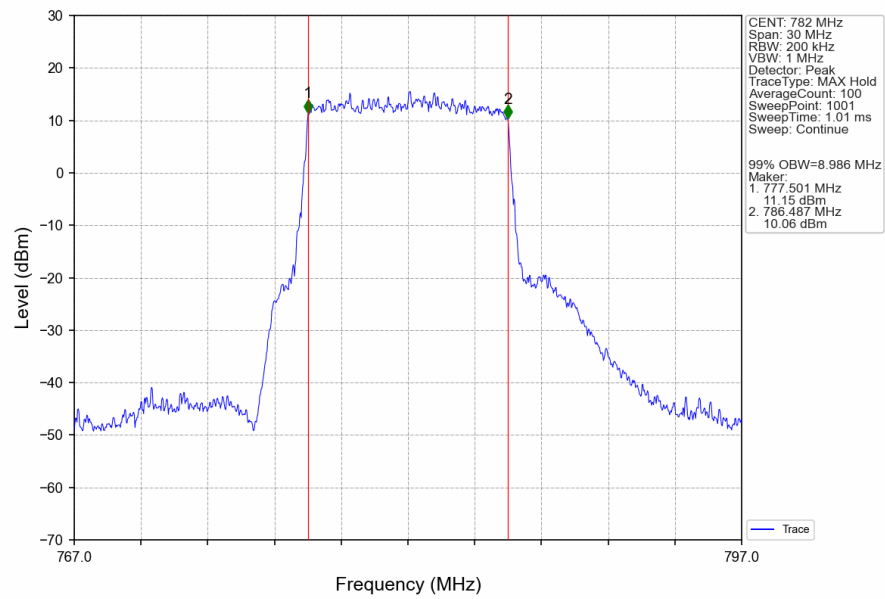
Band13_10MHz_QPSK_MCH_782MHz_RB_50_0_NTNV



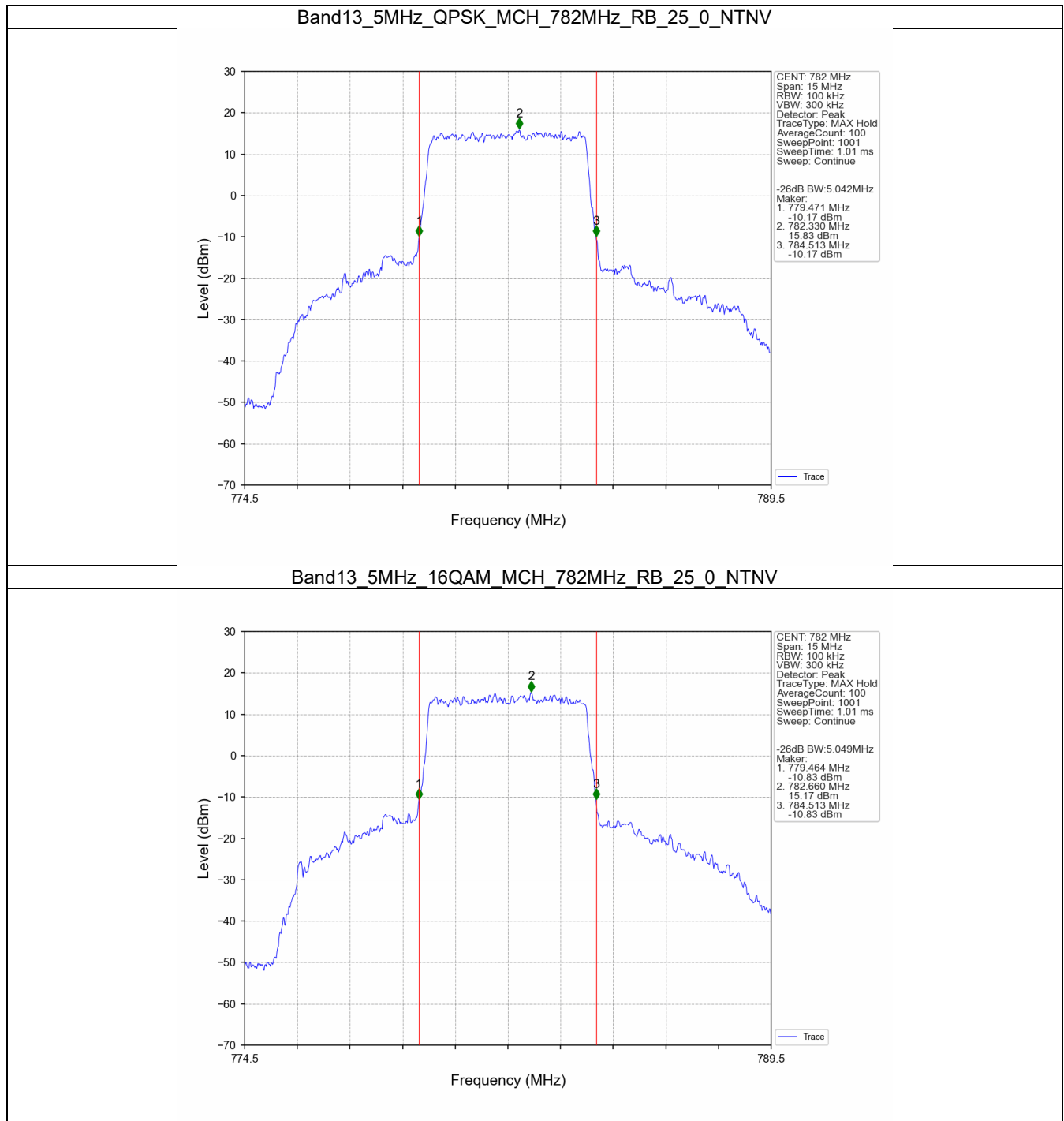
Band13_10MHz_16QAM_MCH_782MHz_RB_50_0_NTNV



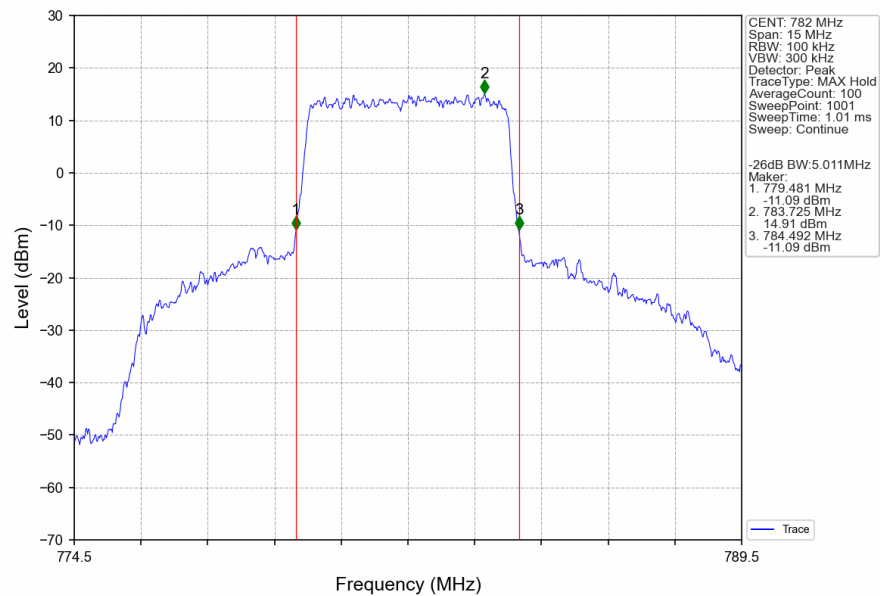
Band13_10MHz_64QAM_MCH_782MHz_RB_50_0_NTNV



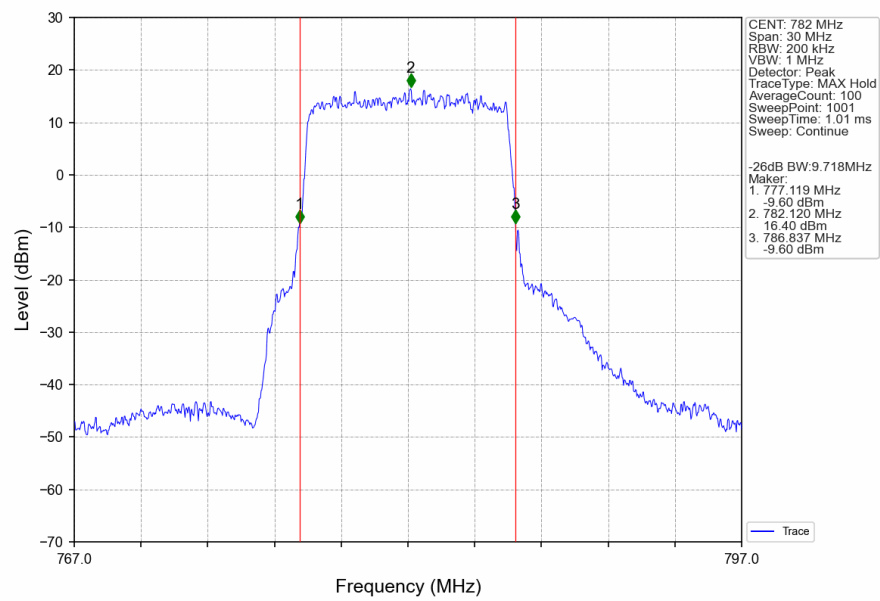
3.2.2 Band13_XDB



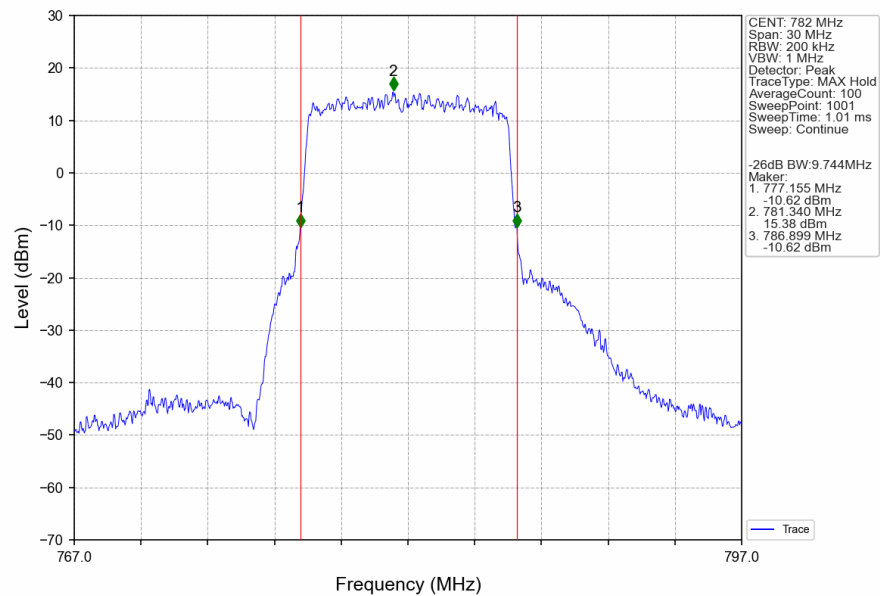
Band13_5MHz_64QAM_MCH_782MHz_RB_25_0_NTNV



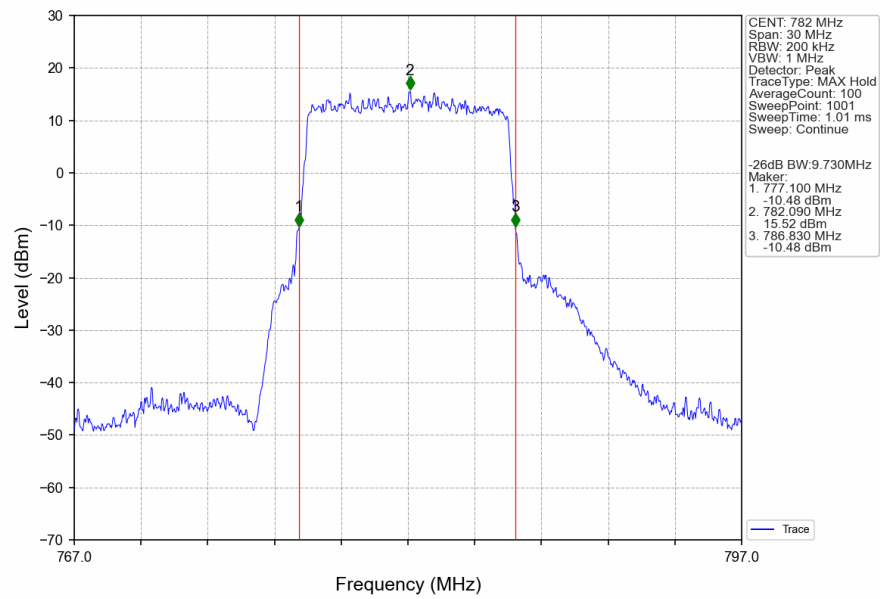
Band13_10MHz_QPSK_MCH_782MHz_RB_50_0_NTNV



Band13_10MHz_16QAM_MCH_782MHz_RB_50_0_NTNV



Band13_10MHz_64QAM_MCH_782MHz_RB_50_0_NTNV



4. Peak-Average Ratio

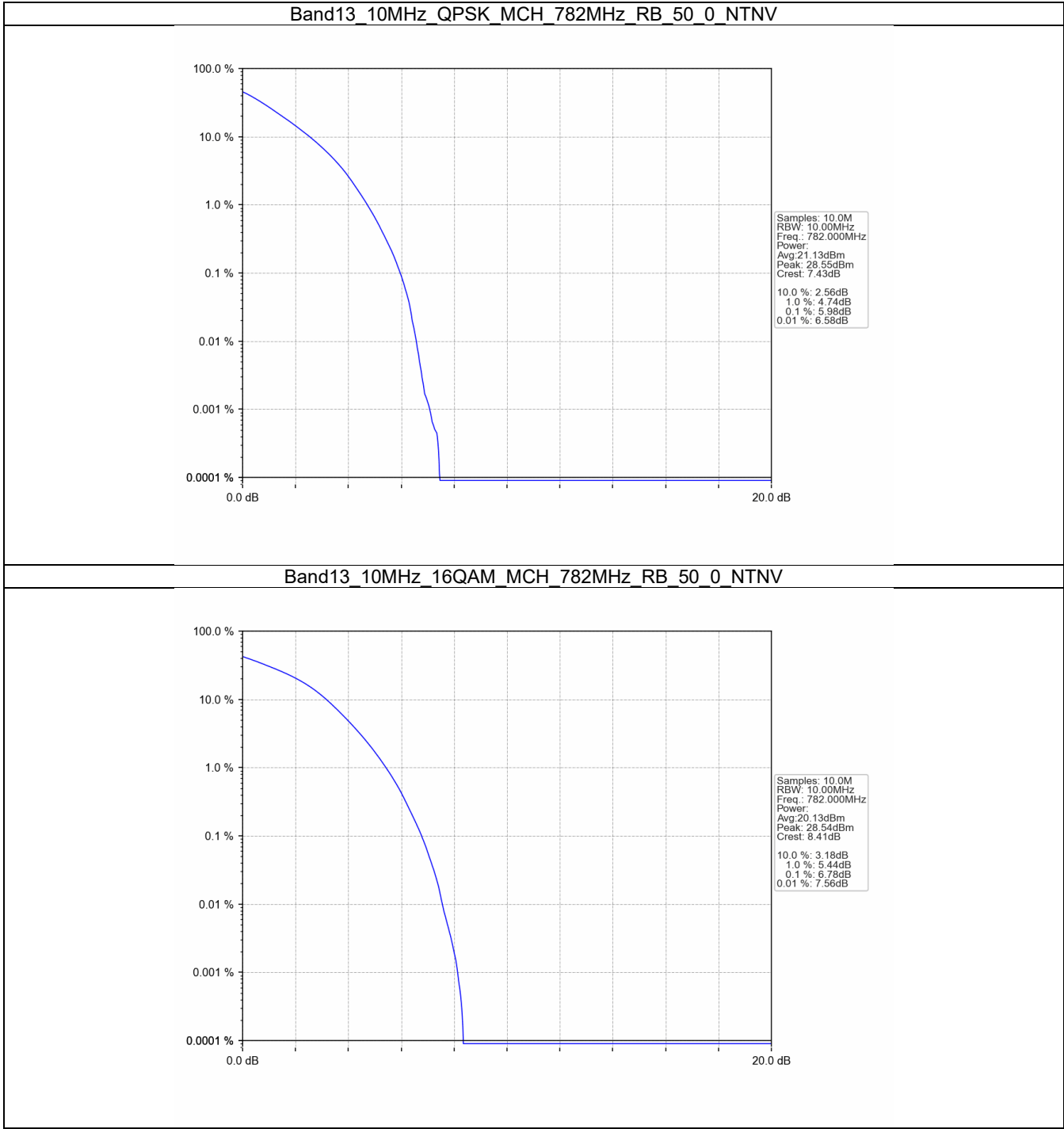
4.1 Test Result

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	5.98	<=13	Pass
16QAM	782	50	0	6.78	<=13	Pass
64QAM	782	50	0	6.74	<=13	Pass

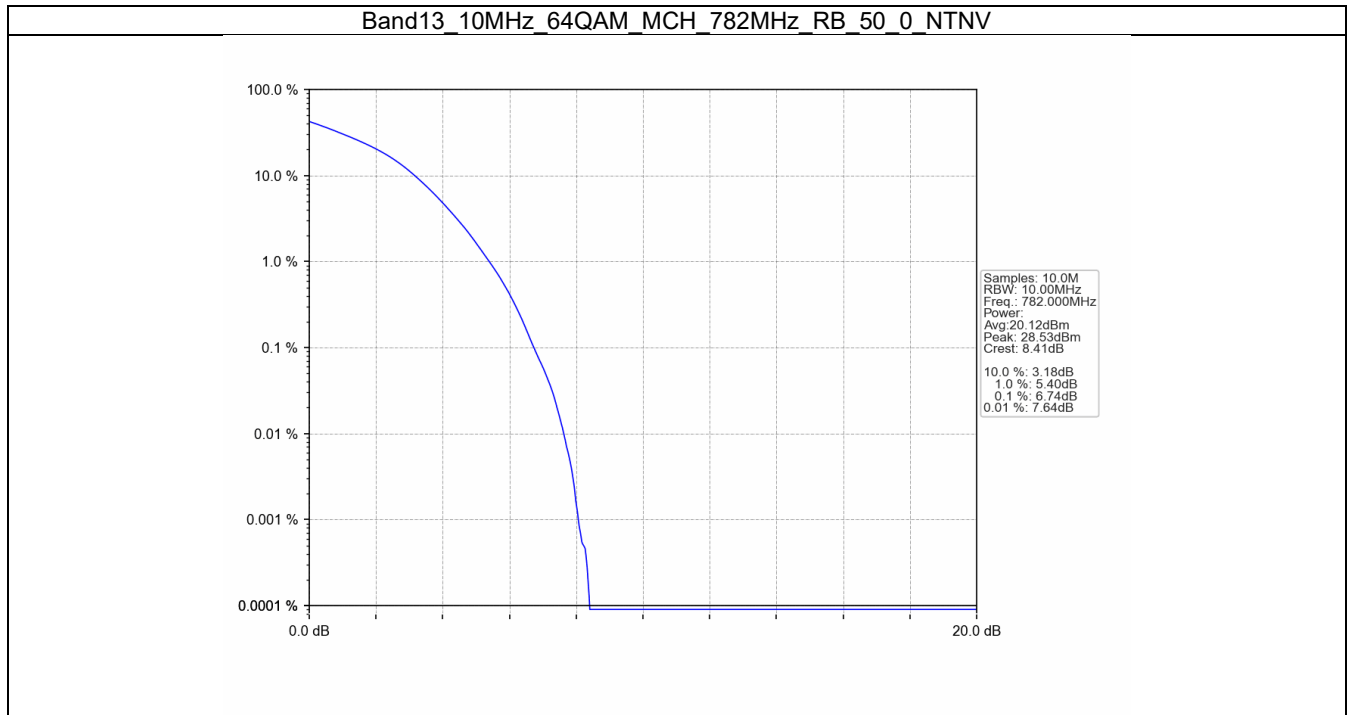
4.2 Test Graph

4.2.1 B13_10MHz



Band13_10MHz_16QAM_MCH_782MHz_RB_50_0_NTNV

Samples: 10.0M
RBW: 10.00MHz
Freq.: 782.000MHz
Power:
Avg 20.13dBm
Peak: 28.54dBm
Crest: 8.41dB
10.0 %: 3.18dB
1.0 %: 5.44dB
0.1 %: 6.78dB
0.01 %: 7.56dB



5. Spurious Emission

5.1 Test Result

5.1.1 B13_5MHz

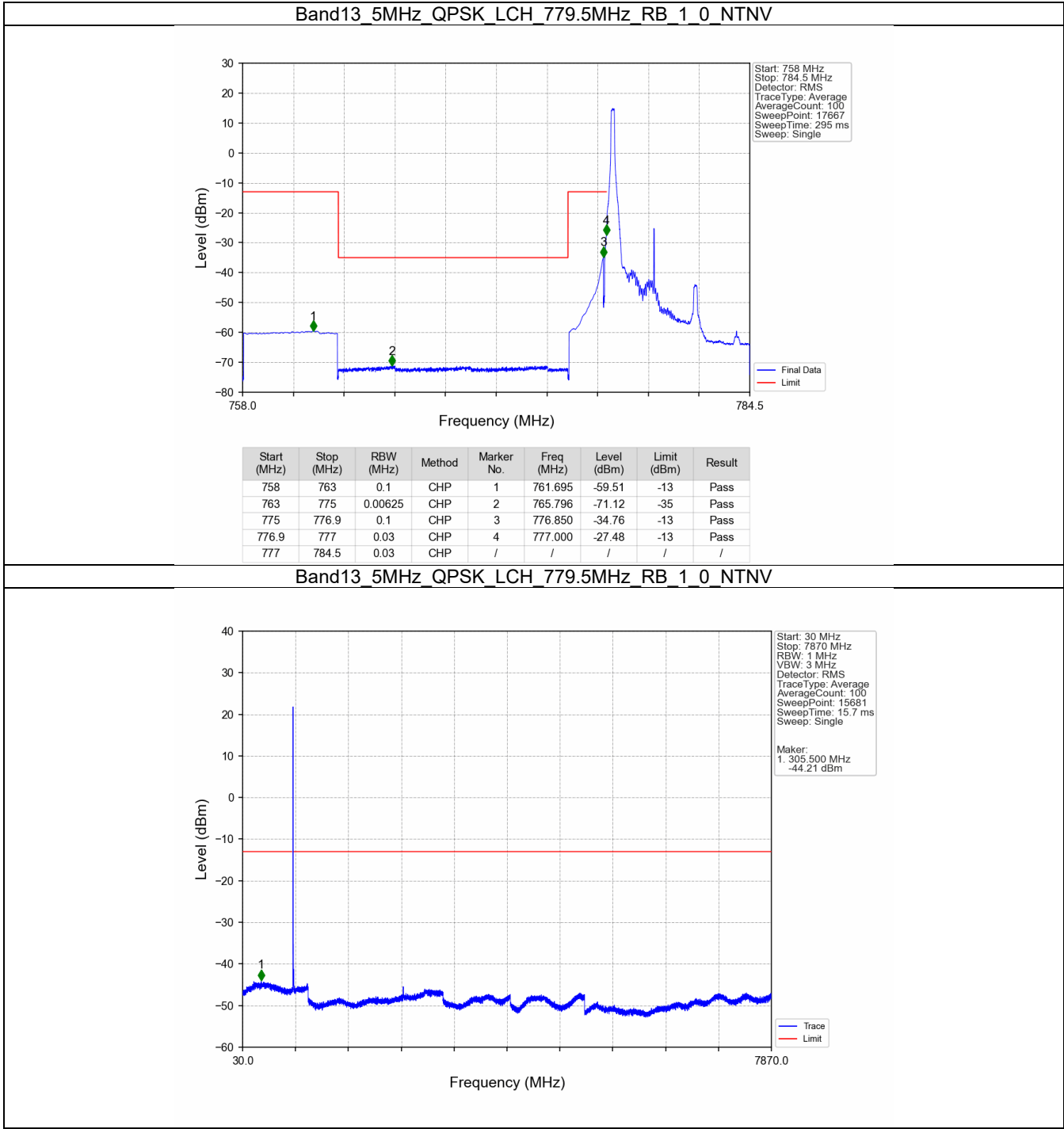
Band: 13 / Bandwidth: 5MHz / NTVN						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	779.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	782	1	0	Refer To Test Graph		Pass
	784.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test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

5.1.2 B13_10MHz

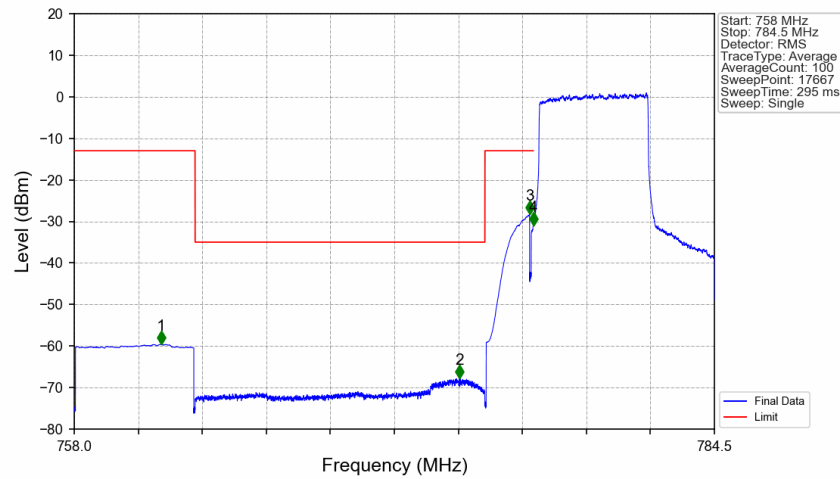
Band: 13 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	782	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	782	1	49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

5.2 Test Graph

5.2.1 B13_5MHz

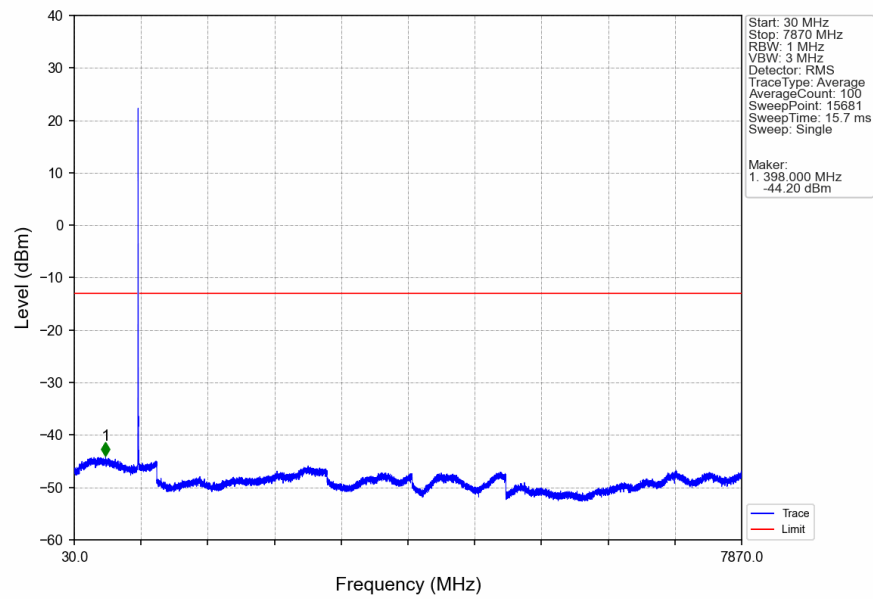


Band13_5MHz_QPSK_LCH_779.5MHz_RB_25_0_NTNV

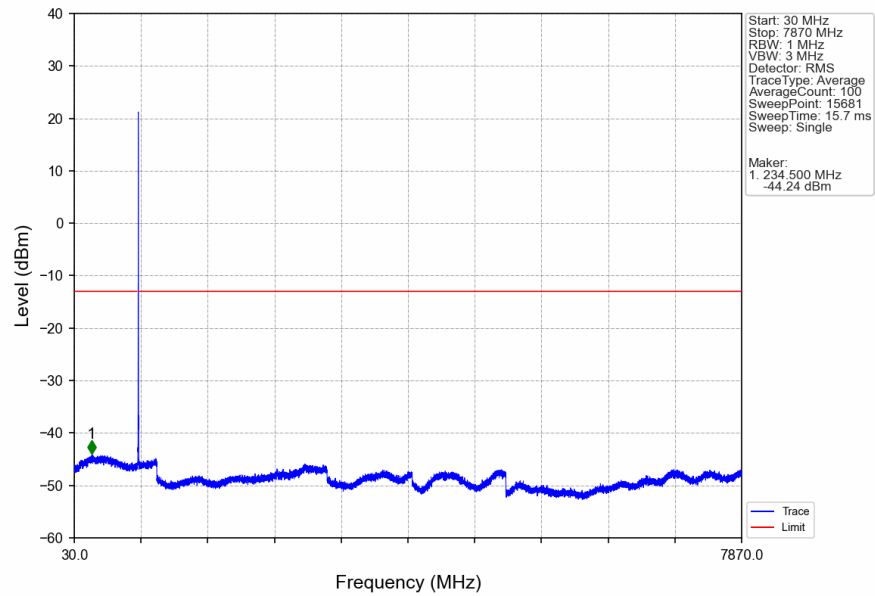


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
758	763	0.1	CHP	1	761.600	-59.62	-13	Pass
763	775	0.00625	CHP	2	773.940	-67.74	-35	Pass
775	776.9	0.1	CHP	3	776.842	-28.28	-13	Pass
776.9	777	0.03	CHP	4	777.000	-30.97	-13	Pass
777	784.5	0.03	CHP	/	/	/	/	/

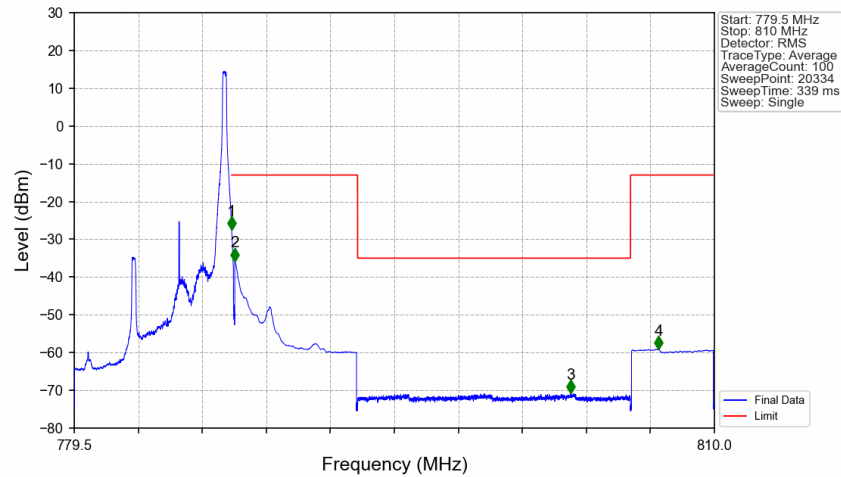
Band13_5MHz_QPSK_MCH_782MHz_RB_1_0_NTNV



Band13_5MHz_QPSK_HCH_784.5MHz_RB_1_0_NTNV

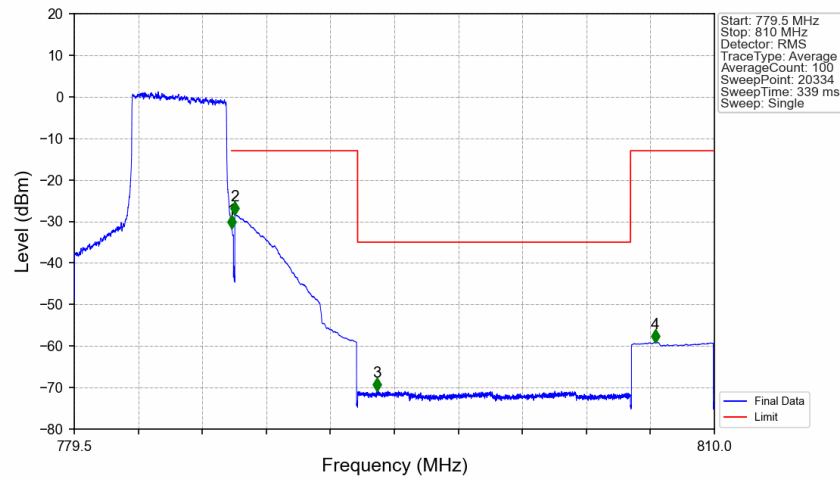


Band13_5MHz_QPSK_HCH_784.5MHz_RB_1_24_NTNV



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	-27.39	-13	Pass
787.1	793	0.1	CHP	2	787.150	-35.76	-13	Pass
793	806	0.00625	CHP	3	803.149	-70.65	-35	Pass
806	810	0.1	CHP	4	807.340	-59.07	-13	Pass

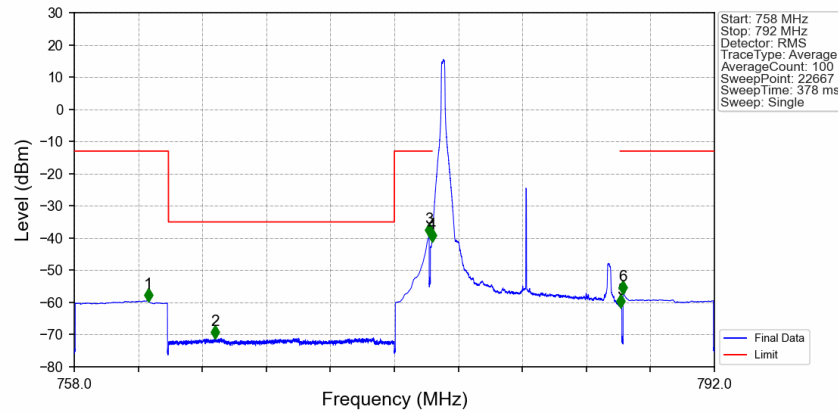
Band13_5MHz_QPSK_HCH_784.5MHz_RB_25_0_NTNV



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	-31.68	-13	Pass
787.1	793	0.1	CHP	2	787.159	-28.39	-13	Pass
793	806	0.00625	CHP	3	793.924	-70.77	-35	Pass
806	810	0.1	CHP	4	807.171	-59.14	-13	Pass

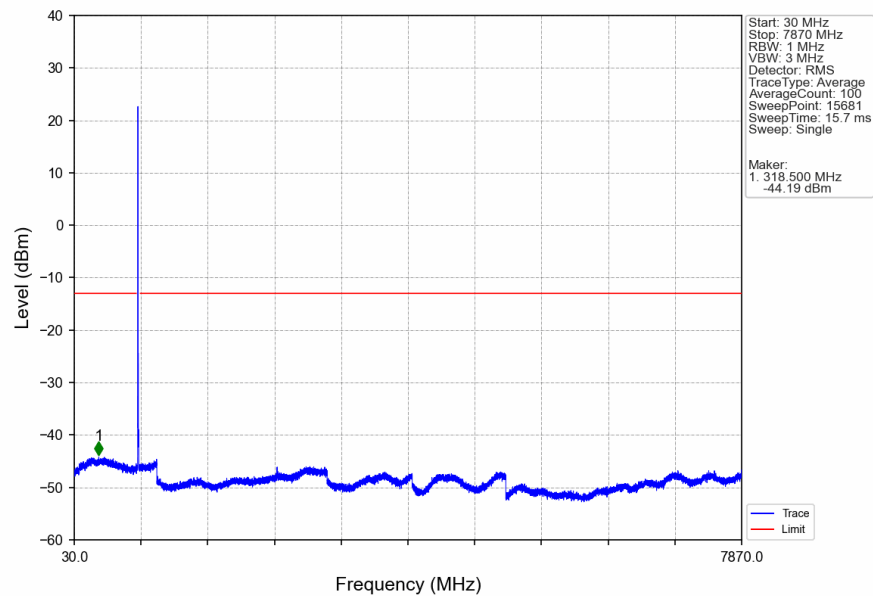
5.2.2 B13_10MHz

Band13_10MHz_QPSK_LCH_782MHz_RB_1_0_NTNV

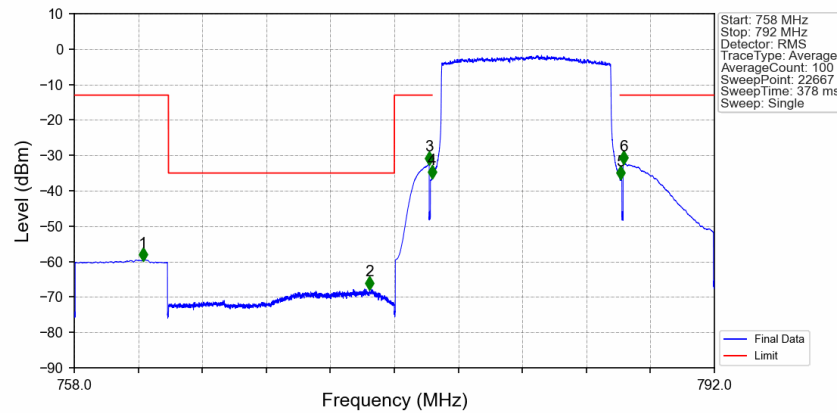


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
758	763	0.1	CHP	1	761.932	-59.44	-13	Pass
763	775	0.00625	CHP	2	765.479	-70.95	-35	Pass
775	776.9	0.1	CHP	3	776.850	-39.16	-13	Pass
776.9	777	0.03	CHP	4	777.000	-40.85	-13	Pass
777	787	0.03	CHP	/	/	/	/	/
787	787.1	0.03	CHP	5	787.033	-61.29	-13	Pass
787.1	792	0.1	CHP	6	787.150	-57.06	-13	Pass

Band13_10MHz_QPSK_LCH_782MHz_RB_1_0_NTNV

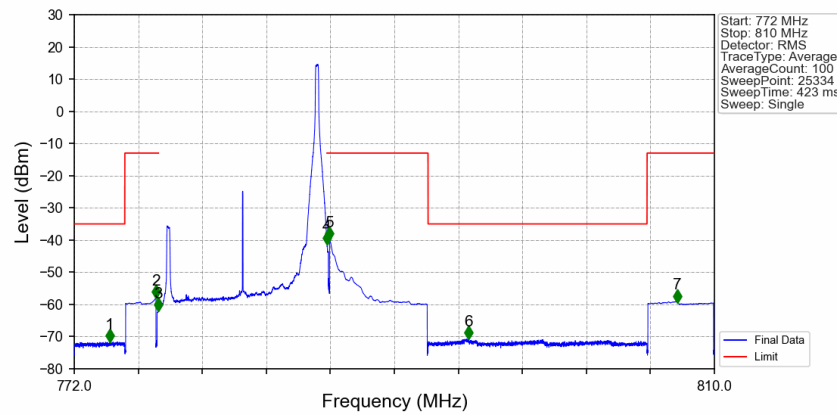


Band13_10MHz_QPSK_LCH_782MHz_RB_50_0_NTNV

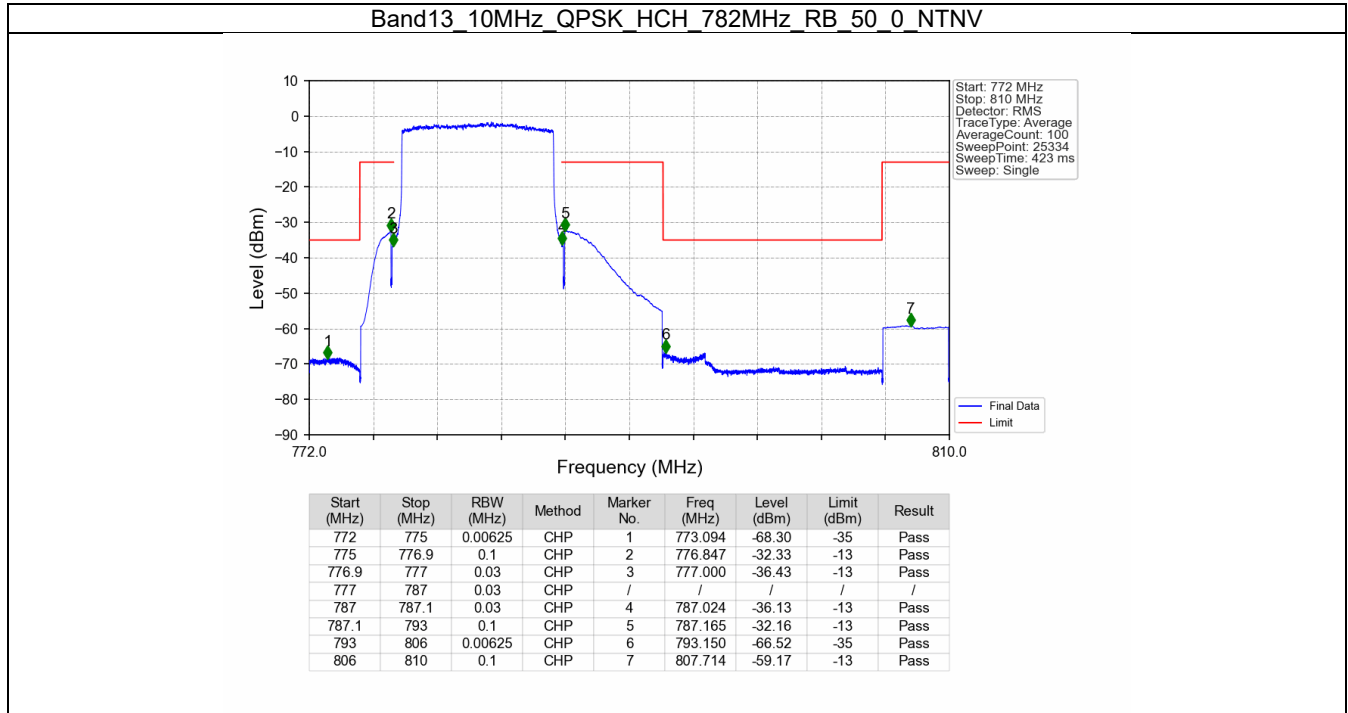


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
758	763	0.1	CHP	1	761.647	-59.52	-13	Pass
763	775	0.00625	CHP	2	773.692	-67.59	-35	Pass
775	776.9	0.1	CHP	3	776.844	-32.35	-13	Pass
776.9	777	0.03	CHP	4	777.000	-36.18	-13	Pass
777	787	0.03	CHP	/	/	/	/	/
787	787.1	0.03	CHP	5	787.026	-36.42	-13	Pass
787.1	792	0.1	CHP	6	787.165	-32.24	-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	CHP	1	774.105	-71.47	-35	Pass
775	776.9	0.1	CHP	2	776.848	-57.85	-13	Pass
776.9	777	0.03	CHP	3	776.991	-61.85	-13	Pass
777	787	0.03	CHP	/	/	/	/	/
787	787.1	0.03	CHP	4	787.000	-41.00	-13	Pass
787.1	793	0.1	CHP	5	787.150	-39.63	-13	Pass
793	806	0.00625	CHP	6	795.400	-70.57	-35	Pass
806	810	0.1	CHP	7	807.780	-59.12	-13	Pass



---End of Attachment---