

1. Transmitter Conducted Power Output

1.1 Test Result

1.1.1 B26a_1.4MHz

Band: 26a / Bandwidth: 1.4MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)		Verdict
		Size	Offset	Result	Limit	
QPSK	819	1	0	24.07	<=50	Pass
			2	23.99	<=50	Pass
			5	24.10	<=50	Pass
		3	0	24.10	<=50	Pass
			2	24.05	<=50	Pass
			3	24.12	<=50	Pass
		6	0	23.24	<=50	Pass
	823.3	1	0	24.08	<=50	Pass
			2	24.12	<=50	Pass
			5	24.09	<=50	Pass
		3	0	24.09	<=50	Pass
			2	24.17	<=50	Pass
			3	24.13	<=50	Pass
		6	0	23.20	<=50	Pass
16QAM	819	1	0	23.41	<=50	Pass
			2	23.24	<=50	Pass
			5	23.25	<=50	Pass
		3	0	23.26	<=50	Pass
			2	23.22	<=50	Pass
			3	23.42	<=50	Pass
		6	0	22.13	<=50	Pass
	823.3	1	0	23.22	<=50	Pass
			2	23.32	<=50	Pass
			5	23.21	<=50	Pass
		3	0	23.23	<=50	Pass
			2	23.21	<=50	Pass
			2	23.21	<=50	Pass
QPSK	814.7	1	0	24.13	<=50	Pass
16QAM	823.3	3	3	23.40	<=50	Pass
QPSK	814.7	1	2	24.02	<=50	Pass
16QAM	823.3	6	0	22.11	<=50	Pass
QPSK	814.7	1	5	24.04	<=50	Pass
64QAM	814.7	1	0	22.05	<=50	Pass
			2	22.25	<=50	Pass
QPSK	814.7	3	0	23.18	<=50	Pass
			2	24.10	<=50	Pass
64QAM	814.7	1	5	22.56	<=50	Pass
QPSK	814.7	3	3	24.03	<=50	Pass
64QAM	814.7	3	0	22.12	<=50	Pass
QPSK	814.7	6	0	23.20	<=50	Pass
64QAM	814.7	3	2	22.39	<=50	Pass
			3	22.39	<=50	Pass
		6	0	21.22	<=50	Pass
	819	1	0	22.31	<=50	Pass
			2	22.62	<=50	Pass
			5	22.10	<=50	Pass
		3	0	22.44	<=50	Pass
			2	22.43	<=50	Pass
			3	22.15	<=50	Pass
		6	0	21.40	<=50	Pass

	823.3	1	0	22.28	<=50	Pass
			2	22.59	<=50	Pass
			5	22.09	<=50	Pass
		3	0	22.15	<=50	Pass
			2	22.42	<=50	Pass
			3	22.41	<=50	Pass
16QAM	814.7	6	0	21.25	<=50	Pass
			0	23.26	<=50	Pass
			2	23.46	<=50	Pass
		3	5	23.29	<=50	Pass
			0	23.35	<=50	Pass
			2	23.27	<=50	Pass
		6	3	23.19	<=50	Pass
			0	22.19	<=50	Pass
			0	22.19	<=50	Pass

1.1.2 B26a_3MHz

Band: 26a / Bandwidth: 3MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)		Verdict
		Size	Offset	Result	Limit	
QPSK	815.5	1	0	24.16	<=50	Pass
			7	24.11	<=50	Pass
			14	24.02	<=50	Pass
		8	0	23.15	<=50	Pass
			4	23.14	<=50	Pass
			7	23.17	<=50	Pass
		15	0	23.15	<=50	Pass
	819	1	0	24.14	<=50	Pass
			7	24.10	<=50	Pass
			14	24.05	<=50	Pass
		8	0	23.18	<=50	Pass
			4	23.19	<=50	Pass
			7	23.24	<=50	Pass
		15	0	23.18	<=50	Pass
	822.5	1	0	24.14	<=50	Pass
			7	24.12	<=50	Pass
			14	24.06	<=50	Pass
		8	0	23.18	<=50	Pass
			4	23.20	<=50	Pass
			7	23.23	<=50	Pass
		15	0	23.17	<=50	Pass
16QAM	815.5	1	0	23.20	<=50	Pass
			7	23.31	<=50	Pass
			14	23.67	<=50	Pass
		8	0	22.26	<=50	Pass
			4	22.15	<=50	Pass
			7	22.30	<=50	Pass
		15	0	22.20	<=50	Pass
	819	1	0	23.23	<=50	Pass
			7	23.36	<=50	Pass
			14	23.69	<=50	Pass
		8	0	22.27	<=50	Pass
			4	22.18	<=50	Pass
			7	22.34	<=50	Pass
		15	0	22.22	<=50	Pass
	822.5	1	0	23.21	<=50	Pass
			7	23.35	<=50	Pass

		8	14	23.69	<=50	Pass
			0	22.27	<=50	Pass
			4	22.19	<=50	Pass
			7	22.35	<=50	Pass
		15	0	22.22	<=50	Pass
64QAM	815.5	1	0	22.21	<=50	Pass
			7	22.40	<=50	Pass
			14	22.01	<=50	Pass
		8	0	21.07	<=50	Pass
			4	21.33	<=50	Pass
			7	21.18	<=50	Pass
		15	0	21.29	<=50	Pass
	819	1	0	22.23	<=50	Pass
			7	22.44	<=50	Pass
			14	22.03	<=50	Pass
		8	0	21.11	<=50	Pass
			4	21.37	<=50	Pass
			7	21.22	<=50	Pass
		15	0	21.31	<=50	Pass
	822.5	1	0	22.24	<=50	Pass
			7	22.44	<=50	Pass
			14	22.03	<=50	Pass
		8	0	21.10	<=50	Pass
			4	21.37	<=50	Pass
			7	21.23	<=50	Pass
		15	0	21.30	<=50	Pass

1.1.3 B26a_5MHz

Band: 26a / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)		Verdict
		Size	Offset	Result	Limit	
QPSK	816.5	1	0	24.28	<=50	Pass
			13	24.15	<=50	Pass
			24	24.19	<=50	Pass
		12	0	23.20	<=50	Pass
			6	23.20	<=50	Pass
			13	23.22	<=50	Pass
		25	0	23.26	<=50	Pass
	819	1	0	24.28	<=50	Pass
			13	24.17	<=50	Pass
			24	24.19	<=50	Pass
		12	0	23.21	<=50	Pass
			6	23.19	<=50	Pass
			13	23.24	<=50	Pass
		25	0	23.27	<=50	Pass
	821.5	1	0	24.26	<=50	Pass
			13	24.16	<=50	Pass
			24	24.21	<=50	Pass
		12	0	23.22	<=50	Pass
			6	23.20	<=50	Pass
			13	23.24	<=50	Pass
		25	0	23.24	<=50	Pass
16QAM	816.5	1	0	23.31	<=50	Pass
			13	23.45	<=50	Pass
			24	23.10	<=50	Pass
		12	0	22.23	<=50	Pass

		25	6	22.25	<=50	Pass
			13	22.23	<=50	Pass
			0	22.25	<=50	Pass
		1	0	23.34	<=50	Pass
			13	23.48	<=50	Pass
			24	23.10	<=50	Pass
		12	0	22.24	<=50	Pass
			6	22.27	<=50	Pass
			13	22.25	<=50	Pass
		25	0	22.28	<=50	Pass
	821.5	1	0	23.34	<=50	Pass
			13	23.49	<=50	Pass
			24	23.12	<=50	Pass
		12	0	22.24	<=50	Pass
			6	22.28	<=50	Pass
			13	22.25	<=50	Pass
		25	0	22.26	<=50	Pass
64QAM	816.5	1	0	22.35	<=50	Pass
			13	22.18	<=50	Pass
			24	22.41	<=50	Pass
		12	0	21.22	<=50	Pass
			6	21.15	<=50	Pass
			13	21.33	<=50	Pass
		25	0	21.27	<=50	Pass
	819	1	0	22.37	<=50	Pass
			13	22.20	<=50	Pass
			24	22.44	<=50	Pass
		12	0	21.26	<=50	Pass
			6	21.18	<=50	Pass
			13	21.35	<=50	Pass
		25	0	21.29	<=50	Pass
	821.5	1	0	22.38	<=50	Pass
			13	22.21	<=50	Pass
			24	22.41	<=50	Pass
		12	0	21.26	<=50	Pass
			6	21.18	<=50	Pass
			13	21.36	<=50	Pass
		25	0	21.27	<=50	Pass

1.1.4 B26a_10MHz

Band: 26a / Bandwidth: 10MHz / NTN						
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)		Verdict
		Size	Offset	Result	Limit	
QPSK	819	1	0	24.20	<=50	Pass
			25	24.16	<=50	Pass
			49	24.21	<=50	Pass
		25	0	23.21	<=50	Pass
			13	23.24	<=50	Pass
			25	23.23	<=50	Pass
		50	0	23.20	<=50	Pass
16QAM	819	1	0	23.75	<=50	Pass
			25	23.21	<=50	Pass
			49	23.38	<=50	Pass
		25	0	22.26	<=50	Pass
			13	22.30	<=50	Pass
			25	22.22	<=50	Pass

		50	0	22.21	<=50	Pass
64QAM	819	1	0	22.08	<=50	Pass
			25	22.25	<=50	Pass
			49	22.46	<=50	Pass
			0	21.25	<=50	Pass
		25	13	21.30	<=50	Pass
			25	21.25	<=50	Pass
		50	0	21.22	<=50	Pass

2. Frequency Stability

2.1 Test Result

2.1.1 B26a_10MHz

Band: 26a / Bandwidth: 10MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	819	50	0	20	3.6	-2.317	-0.0028	-2.5 to 2.5	Pass
					3.85	-3.905	-0.0048	-2.5 to 2.5	Pass
					4.3	-4.163	-0.0051	-2.5 to 2.5	Pass
				-30	3.85	-3.719	-0.0045	-2.5 to 2.5	Pass
				-20	3.85	-3.462	-0.0042	-2.5 to 2.5	Pass
				-10	3.85	-3.290	-0.0040	-2.5 to 2.5	Pass
				0	3.85	-3.920	-0.0048	-2.5 to 2.5	Pass
				10	3.85	-3.262	-0.0040	-2.5 to 2.5	Pass
				30	3.85	-2.847	-0.0035	-2.5 to 2.5	Pass
				40	3.85	-2.418	-0.0030	-2.5 to 2.5	Pass
				50	3.85	-1.931	-0.0024	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band26a_OBW

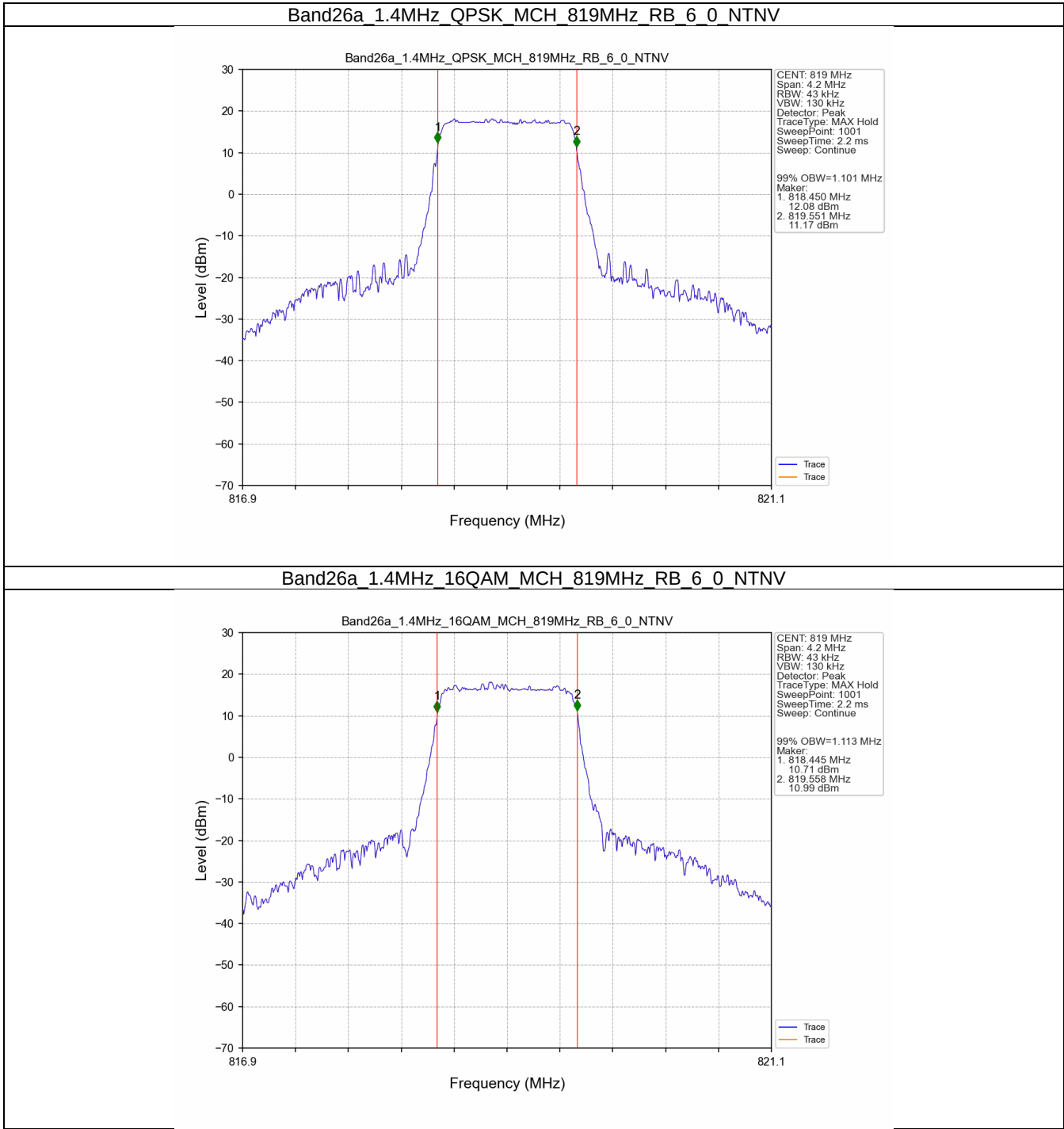
Band: 26a / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	819	6	0	1.101	/	Pass
	16QAM	819	6	0	1.113	/	Pass
3	QPSK	819	15	0	2.739	/	Pass
	16QAM	819	15	0	2.727	/	Pass
5	QPSK	819	25	0	4.554	/	Pass
	16QAM	819	25	0	4.556	/	Pass
10	QPSK	819	50	0	9.048	/	Pass
	16QAM	819	50	0	9.063	/	Pass

3.1.2 Band26a_XDB

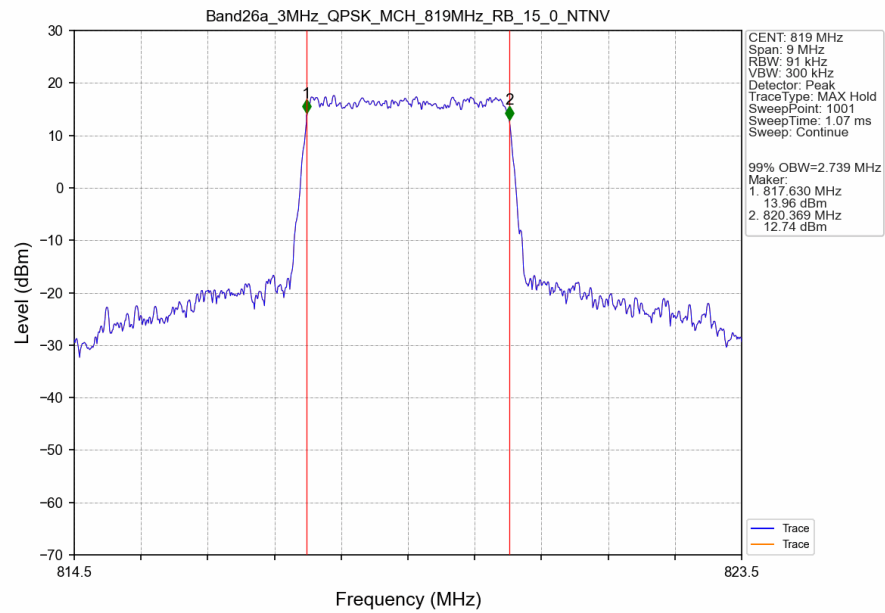
Band: 26a / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	819	6	0	1.325	/	Pass
	16QAM	819	6	0	1.314	/	Pass
3	QPSK	819	15	0	3.054	/	Pass
	16QAM	819	15	0	3.041	/	Pass
5	QPSK	819	25	0	5.046	/	Pass
	16QAM	819	25	0	5.036	/	Pass
10	QPSK	819	50	0	10.004	/	Pass
	16QAM	819	50	0	10.061	/	Pass

3.2 Test Graph

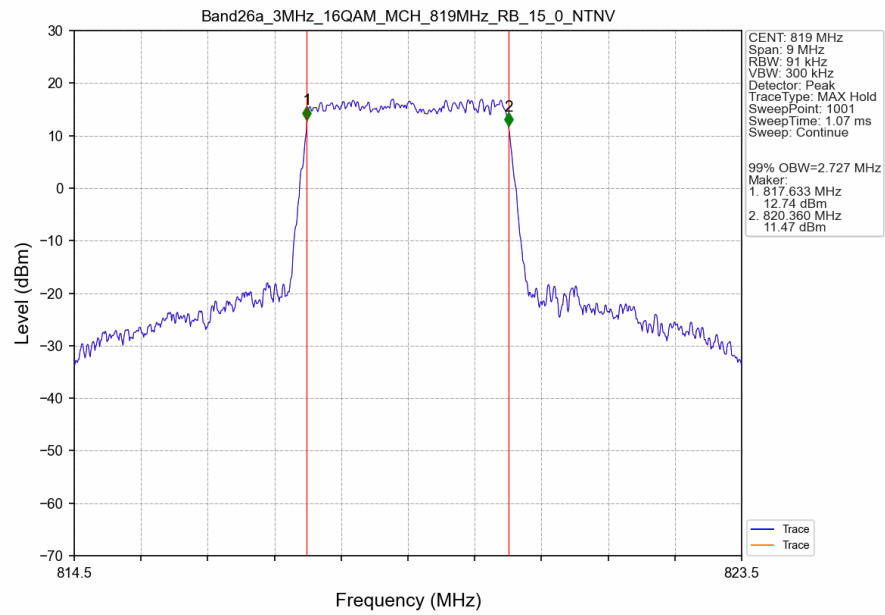
3.2.1 Band26a_OBW



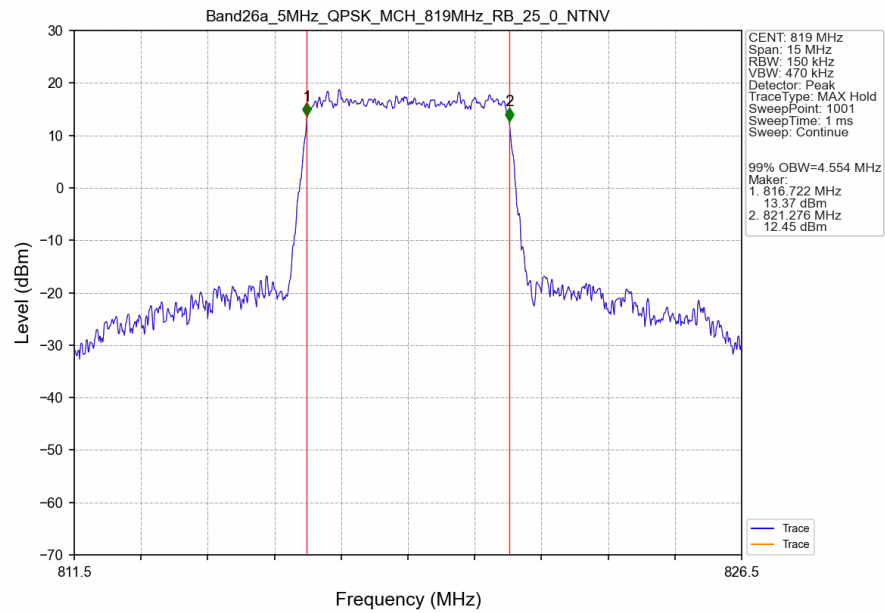
Band26a_3MHz_QPSK_MCH_819MHz_RB_15_0_NTNV



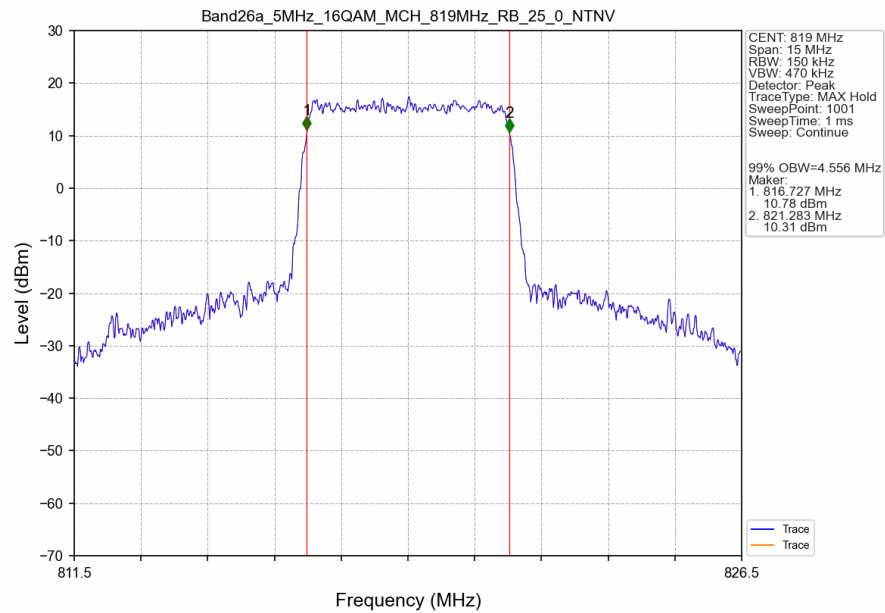
Band26a_3MHz_16QAM_MCH_819MHz_RB_15_0_NTNV



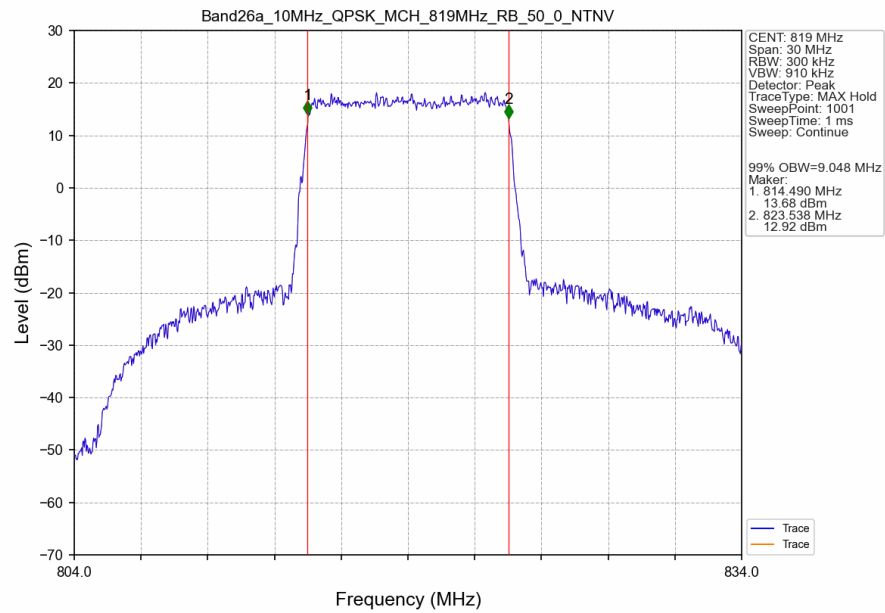
Band26a_5MHz_QPSK_MCH_819MHz_RB_25_0_NTNV



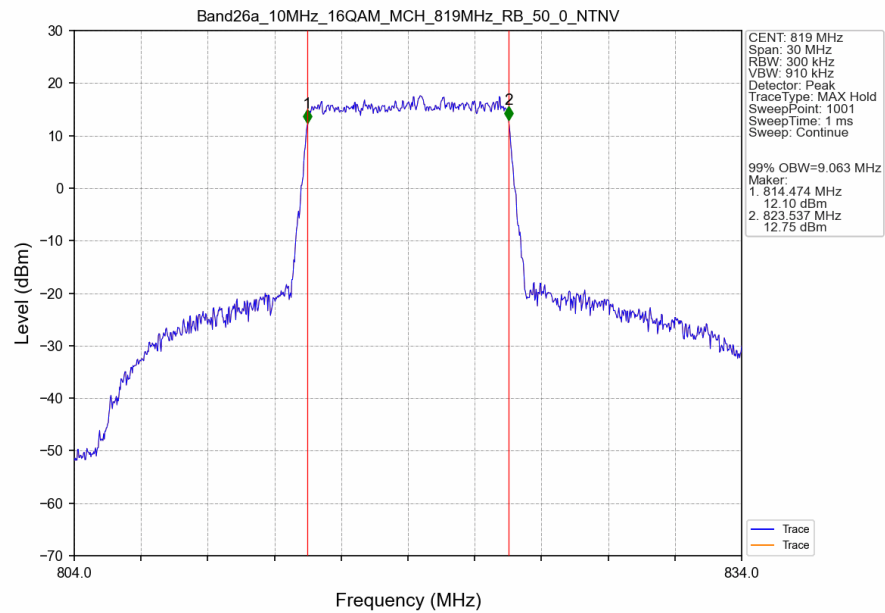
Band26a_5MHz_16QAM_MCH_819MHz_RB_25_0_NTNV



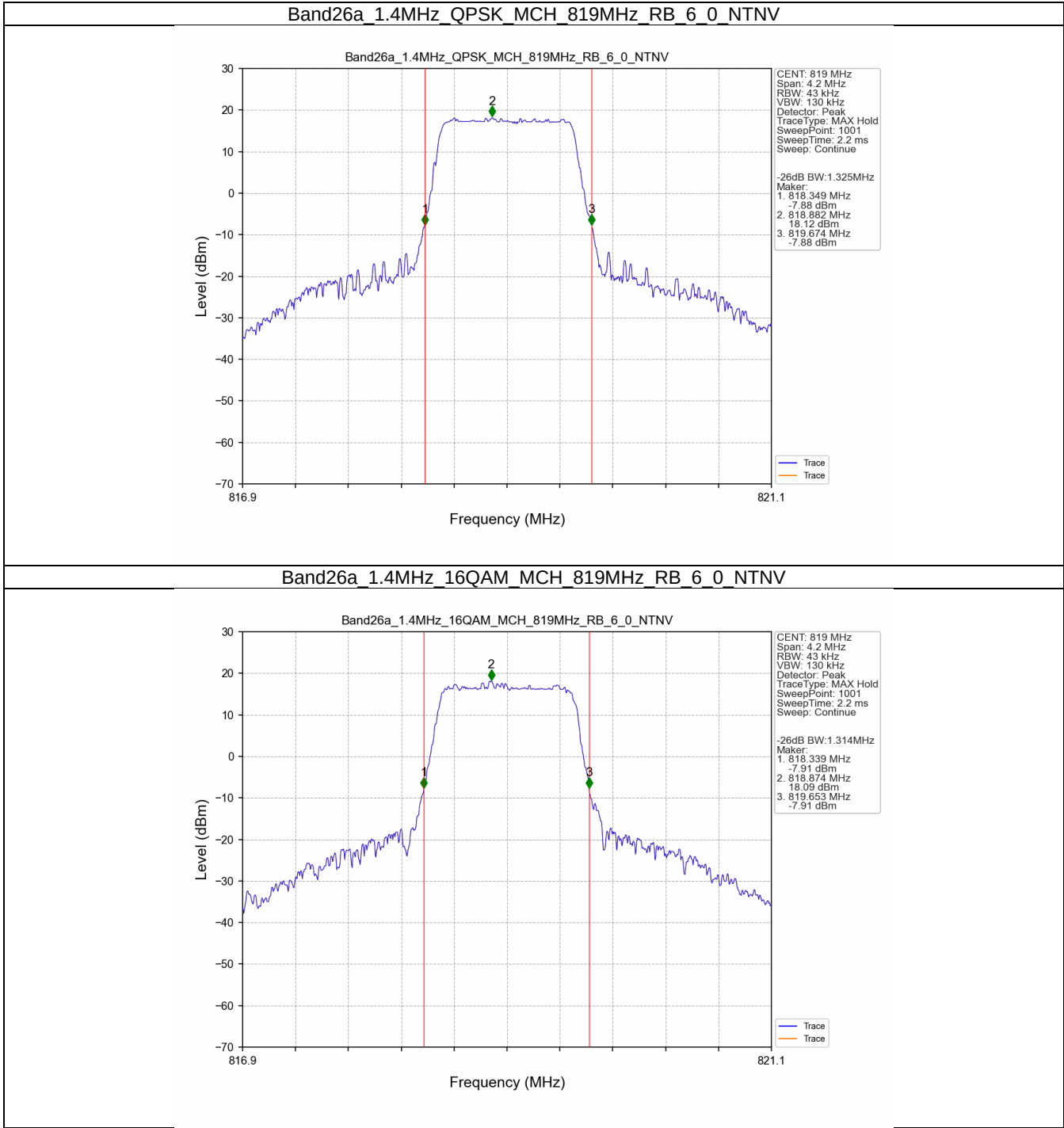
Band26a_10MHz_QPSK_MCH_819MHz_RB_50_0_NTNV



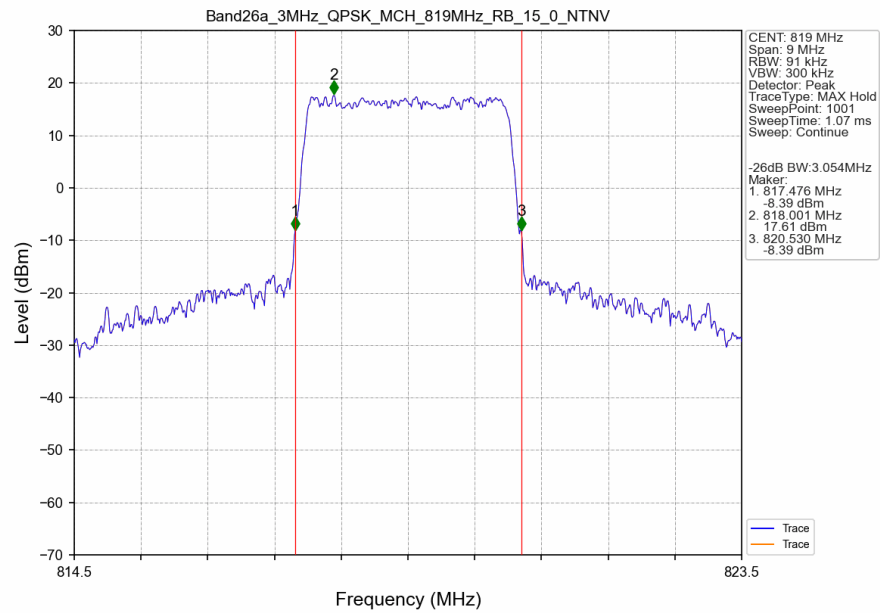
Band26a_10MHz_16QAM_MCH_819MHz_RB_50_0_NTNV



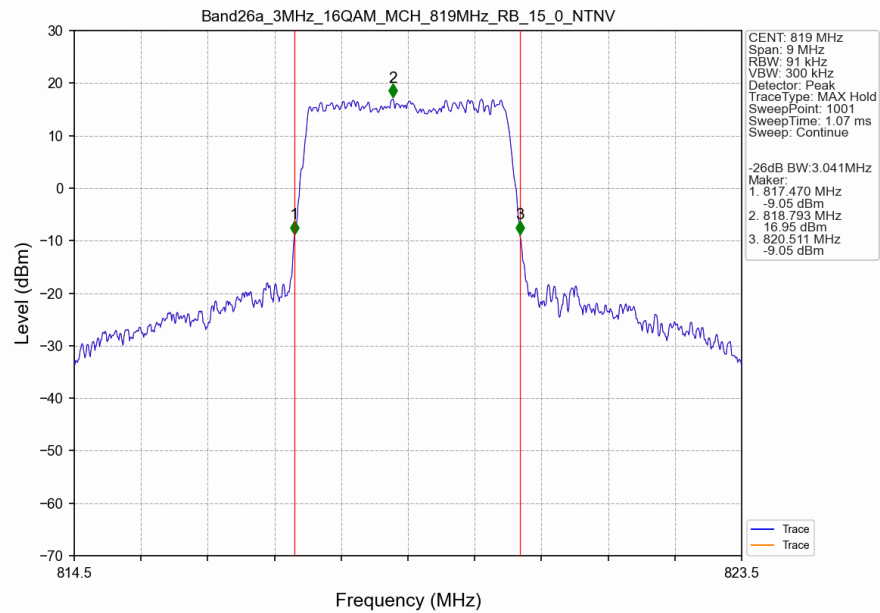
3.2.2 Band26a_XDB



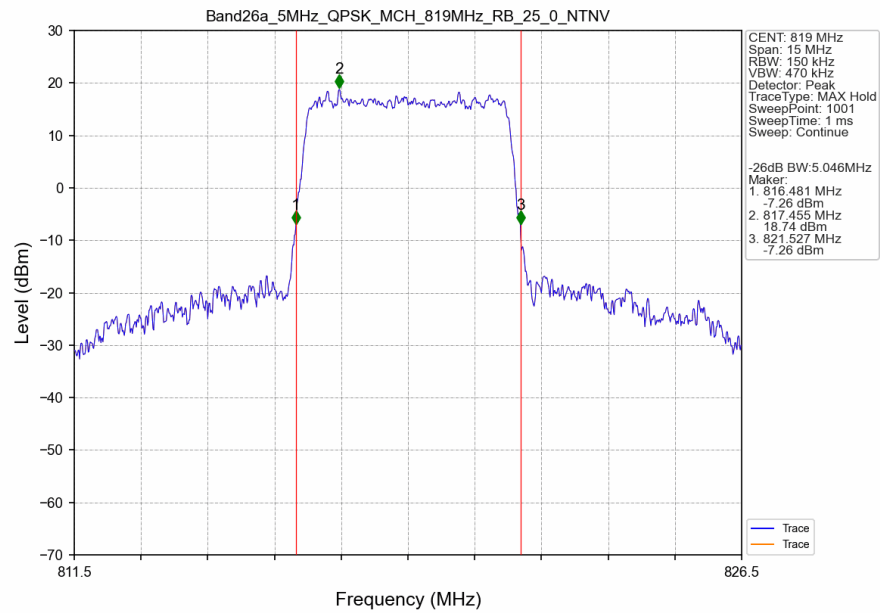
Band26a_3MHz_QPSK_MCH_819MHz_RB_15_0_NTNV



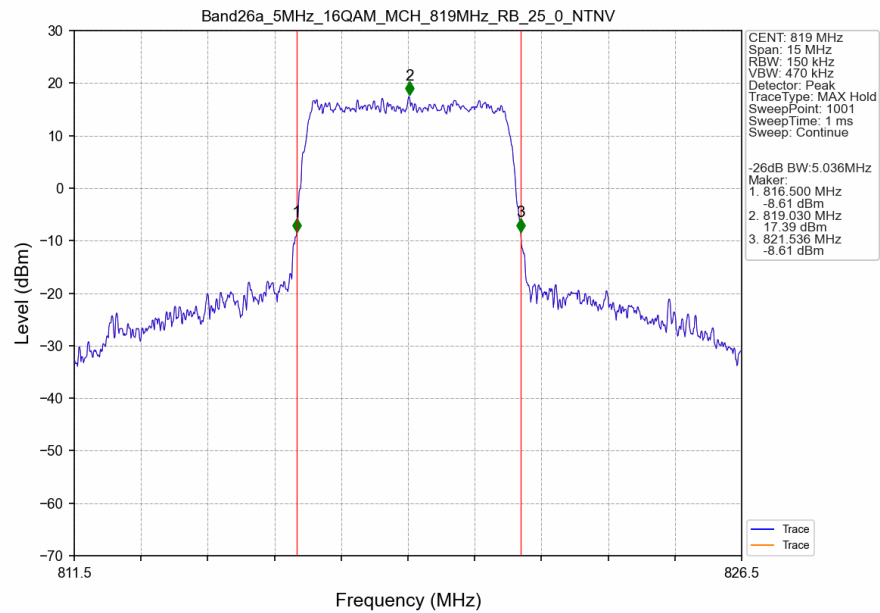
Band26a_3MHz_16QAM_MCH_819MHz_RB_15_0_NTNV



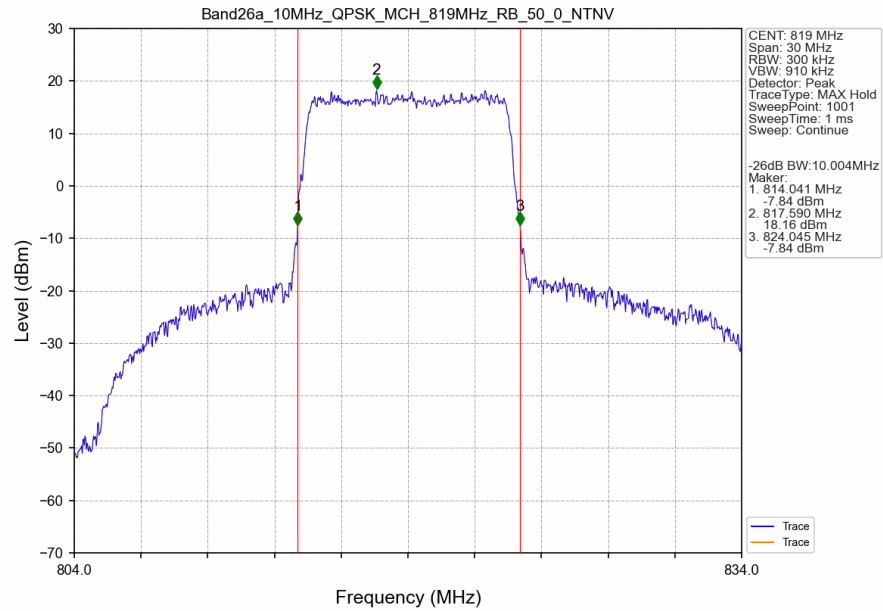
Band26a_5MHz_QPSK_MCH_819MHz_RB_25_0_NTNV



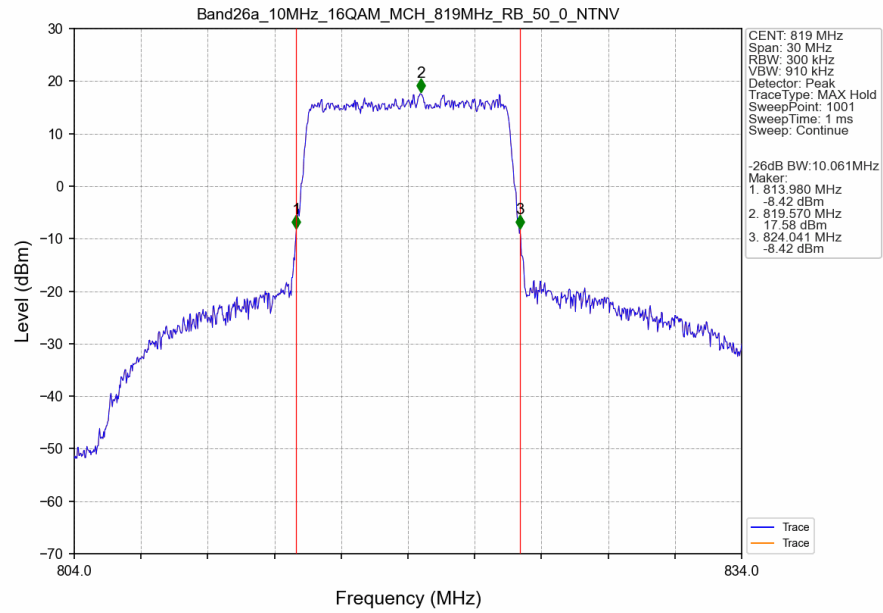
Band26a_5MHz_16QAM_MCH_819MHz_RB_25_0_NTNV



Band26a_10MHz_QPSK_MCH_819MHz_RB_50_0_NTNV



Band26a_10MHz_16QAM_MCH_819MHz_RB_50_0_NTNV



4. Peak-Average Ratio

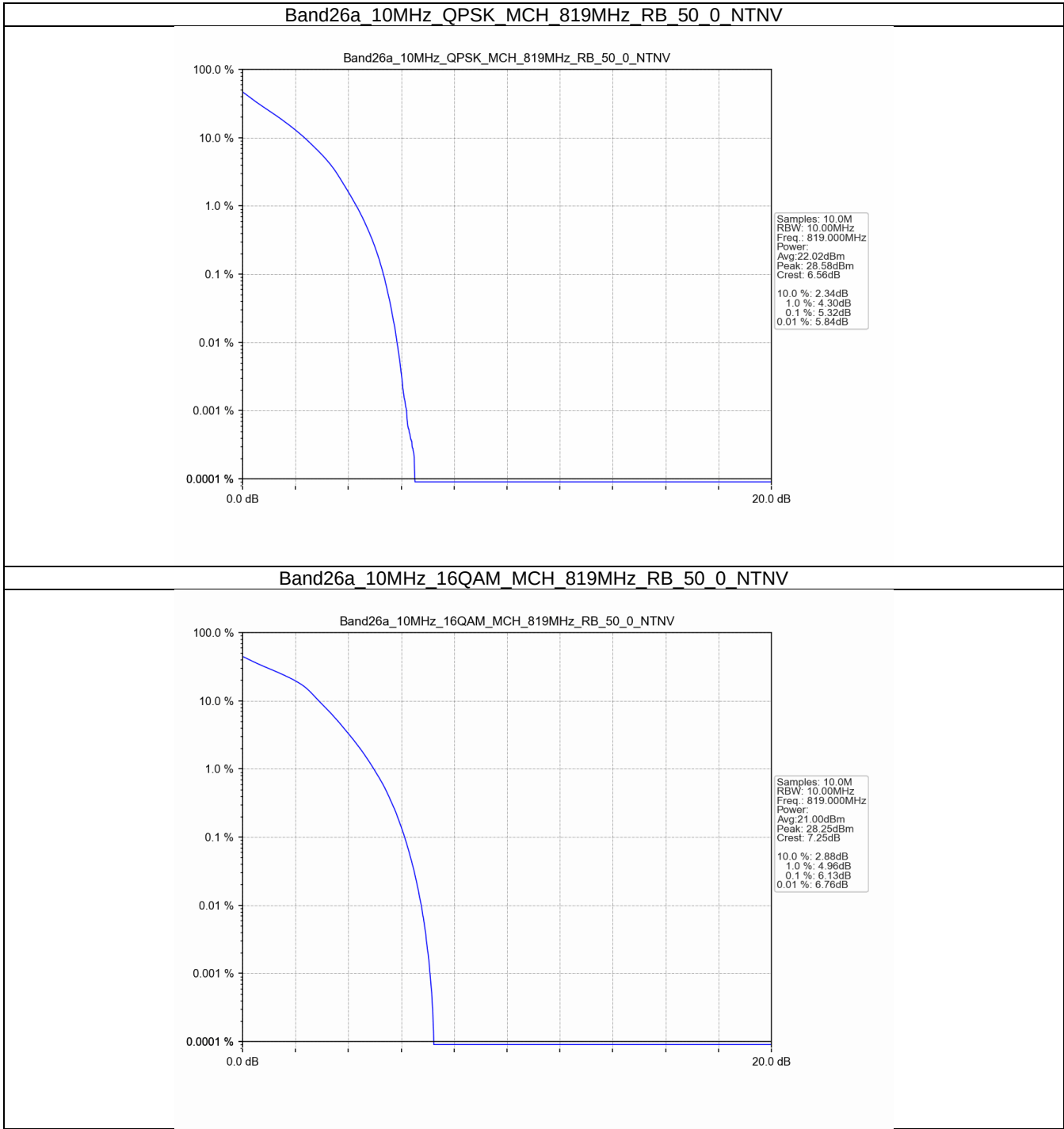
4.1 Test Result

4.1.1 B26a_10MHz

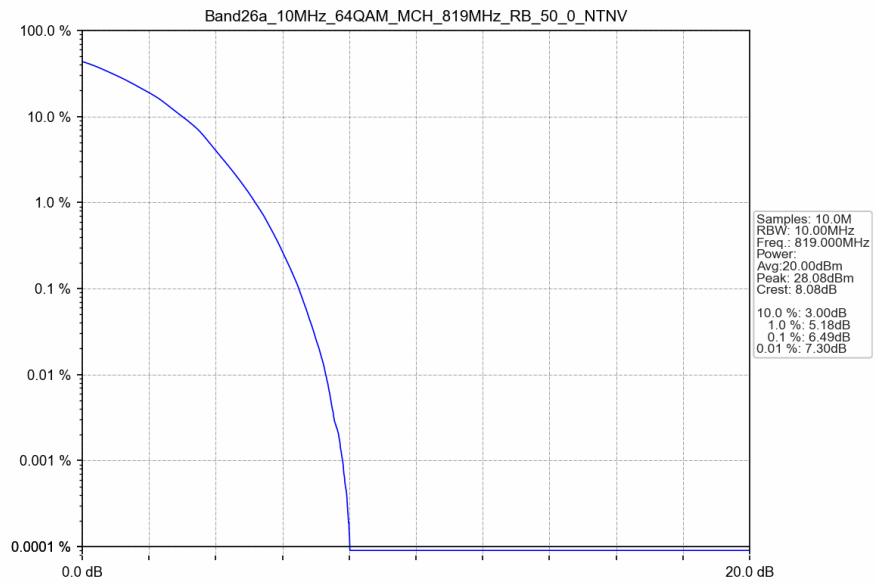
Band: 26a / Bandwidth: 10MHz / NTN						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	819	50	0	5.32	<=13	Pass
16QAM	819	50	0	6.13	<=13	Pass
64QAM	819	50	0	6.49	<=13	Pass

4.2 Test Graph

4.2.1 B26a_10MHz



Band26a_10MHz_64QAM_MCH_819MHz_RB_50_0_NTNV



5. Spurious Emission

5.1 Test Result

5.1.1 B26a_1.4MHz

Band: 26a / Bandwidth: 1.4MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	814.7	1	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
	819	1	0	Refer To Test Graph		Pass
	823.3	1	0	Refer To Test Graph		Pass
			5	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass

5.1.2 B26a_3MHz

Band: 26a / Bandwidth: 3MHz / NTVN						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	815.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	819	1	0	Refer To Test Graph		Pass
	822.5	1	0	Refer To Test Graph		Pass
			14	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass

5.1.3 B26a_5MHz

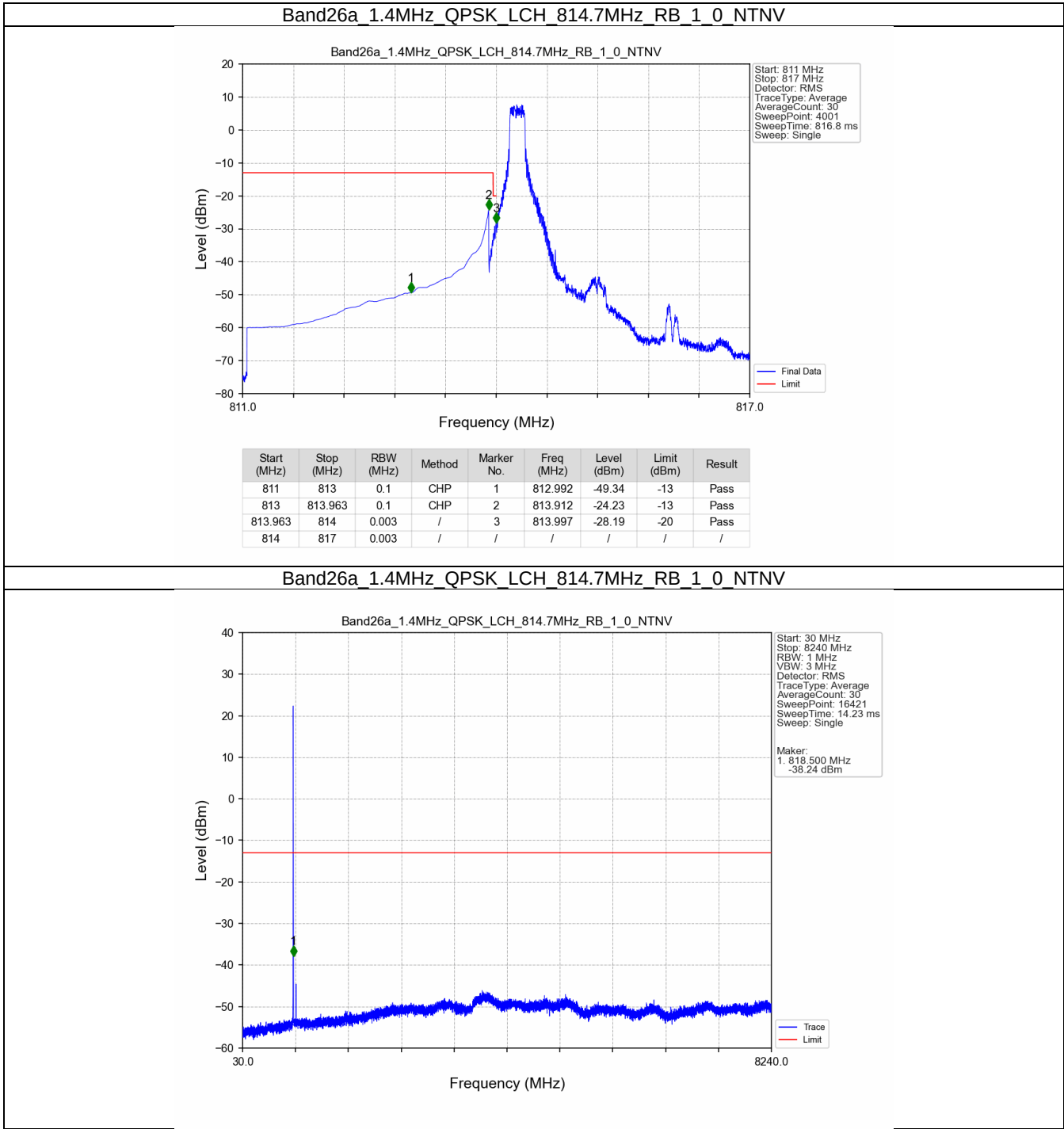
Band: 26a / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	816.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	819	1	0	Refer To Test Graph		Pass
	821.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass

5.1.4 B26a_10MHz

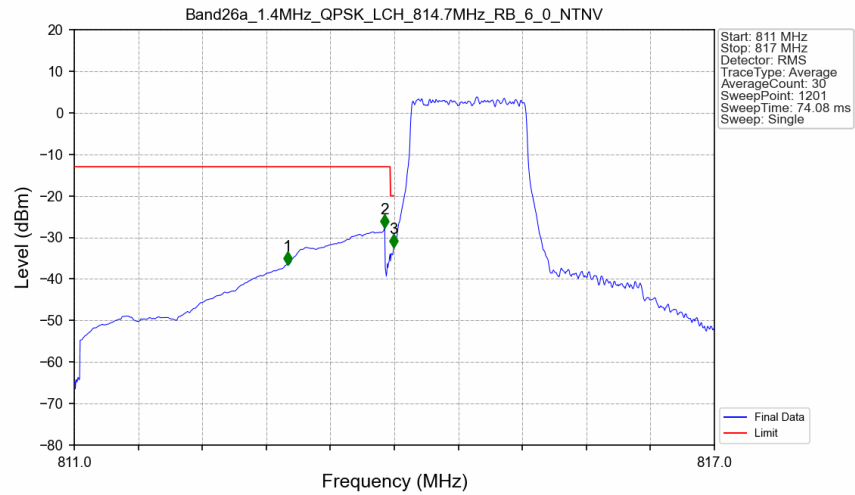
Band: 26a / Bandwidth: 10MHz / NTN/V						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	819	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	819	1	49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

5.2 Test Graph

5.2.1 B26a_1.4MHz

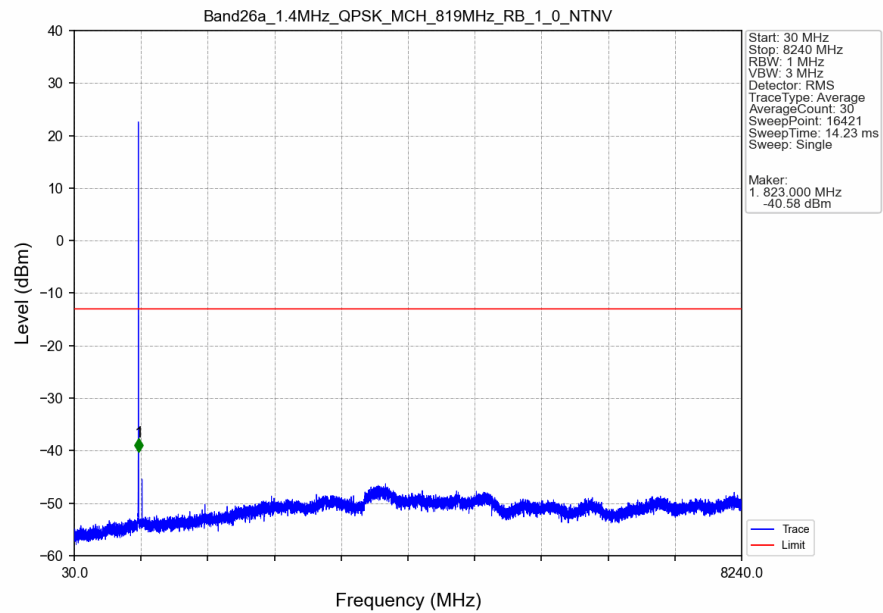


Band26a_1.4MHz_QPSK_LCH_814.7MHz_RB_6_0_NTNV

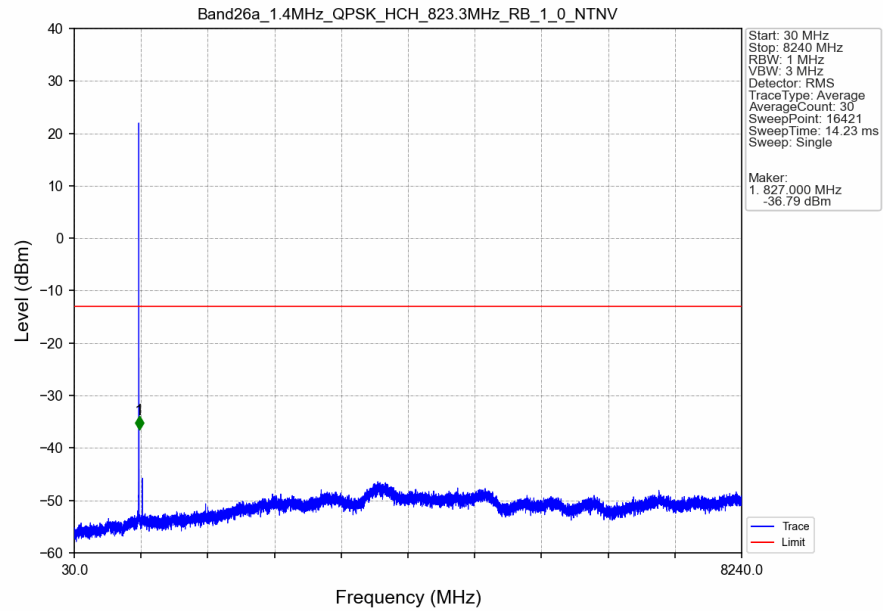


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
811	813	0.1	CHP	1	813.000	-36.55	-13	Pass
813	813.963	0.1	CHP	2	813.910	-27.71	-13	Pass
813.963	814	0.013	CHP	3	813.995	-32.32	-20	Pass
814	817	0.013	CHP	/	/	/	/	/

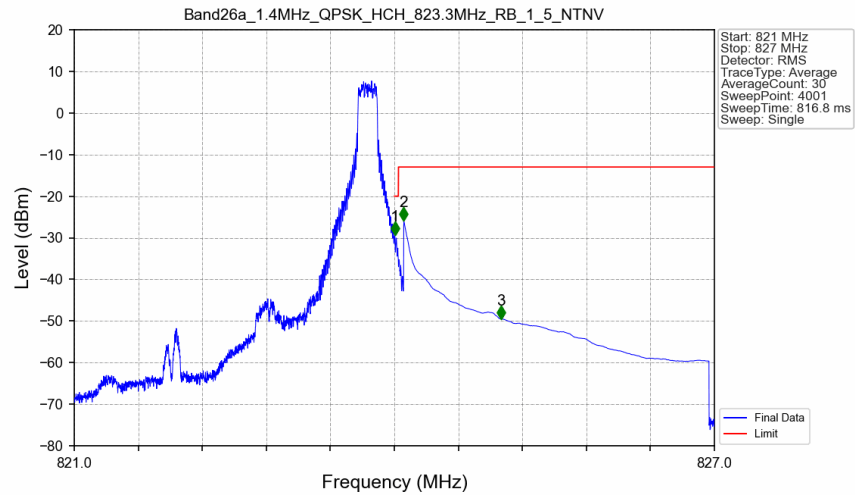
Band26a_1.4MHz_QPSK_MCH_819MHz_RB_1_0_NTNV



Band26a_1.4MHz_QPSK_HCH_823.3MHz_RB_1_0_NTNV

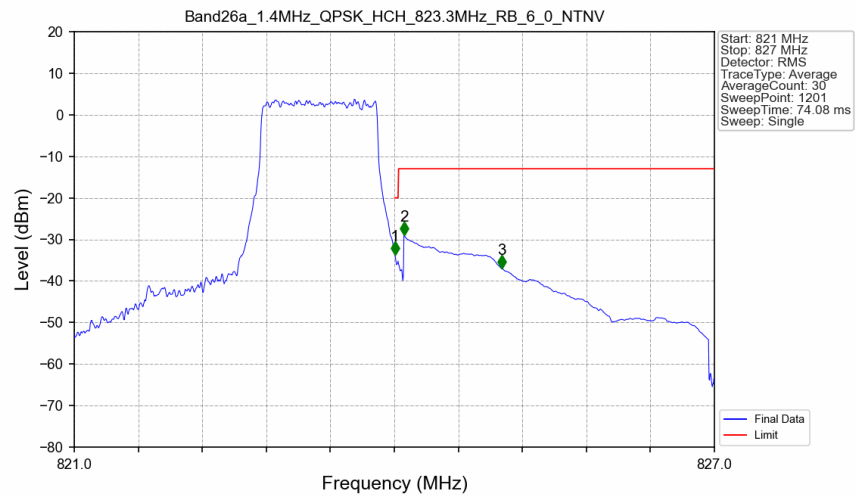


Band26a_1.4MHz_QPSK_HCH_823.3MHz_RB_1_5_NTNV



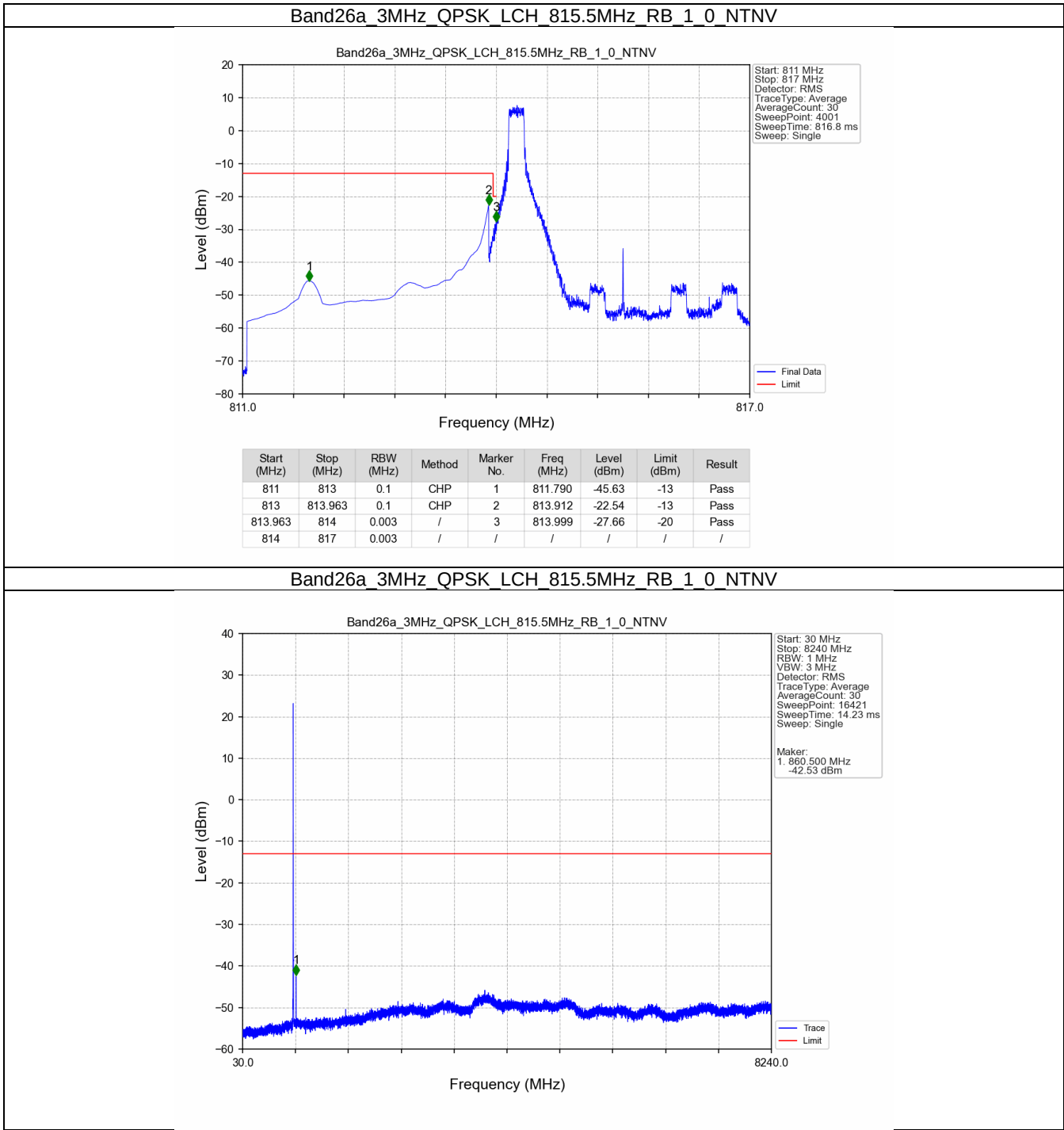
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	824	0.003	/	/	/	/	/	/
824	824.038	0.003	/	1	824.005	-29.32	-20	Pass
824.038	825	0.1	CHP	2	824.088	-25.79	-13	Pass
825	827	0.1	CHP	3	825.000	-49.48	-13	Pass

Band26a 1.4MHz QPSK HCH 823.3MHz RB_6_0_NTNV

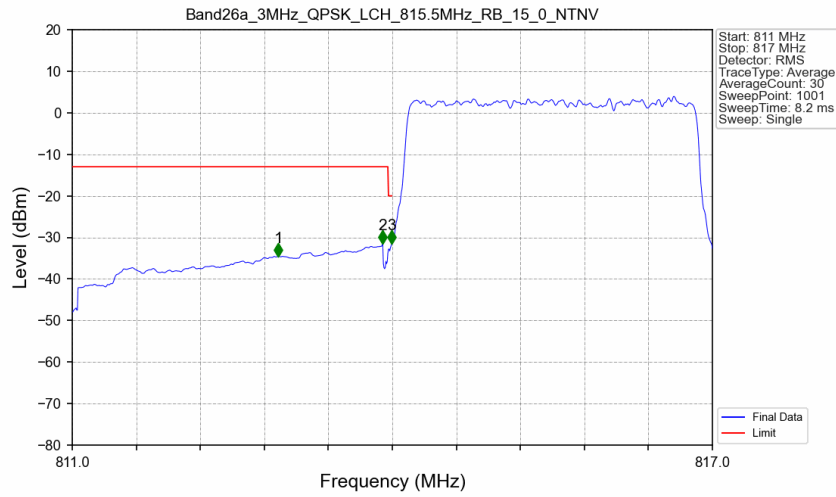


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	824	0.013	CHP	/	/	/	/	/
824	824.038	0.013	CHP	1	824.005	-33.63	-20	Pass
824.038	825	0.1	CHP	2	824.090	-28.91	-13	Pass
825	827	0.1	CHP	3	825.005	-37.00	-13	Pass

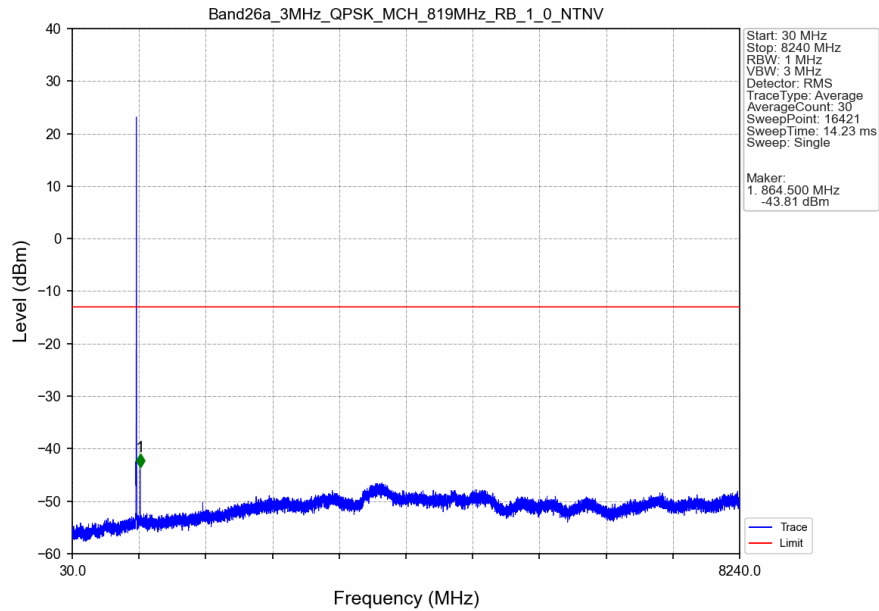
5.2.2 B26a_3MHz



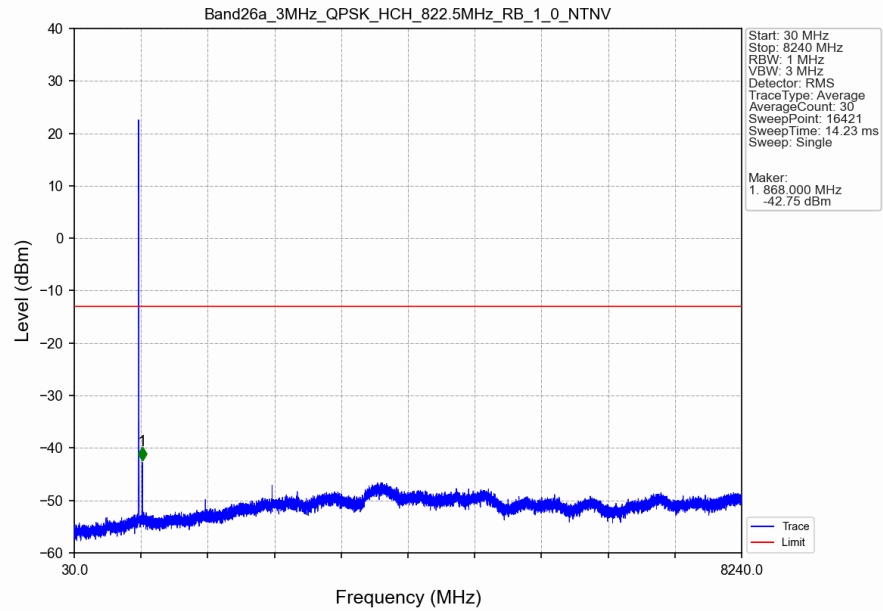
Band26a_3MHz_QPSK_LCH_815.5MHz_RB_15_0_NTNV



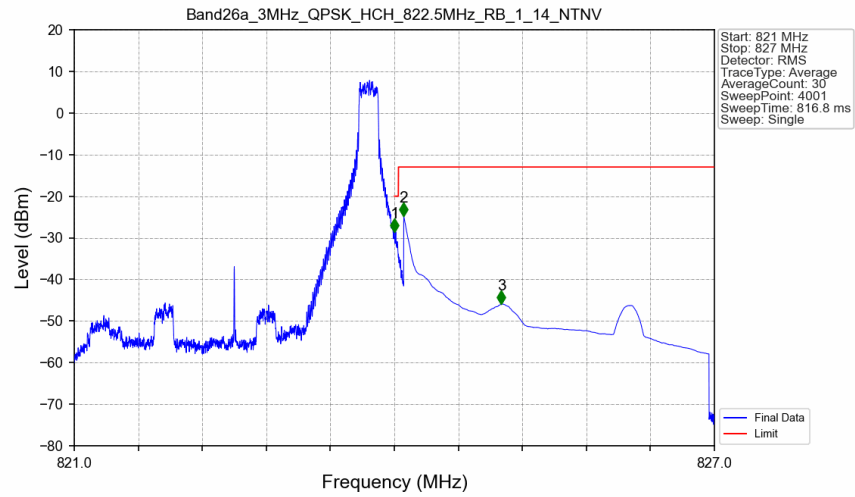
Band26a_3MHz_QPSK_MCH_819MHz_RB_1_0_NTNV



Band26a_3MHz_QPSK_HCH_822.5MHz_RB_1_0_NTNV

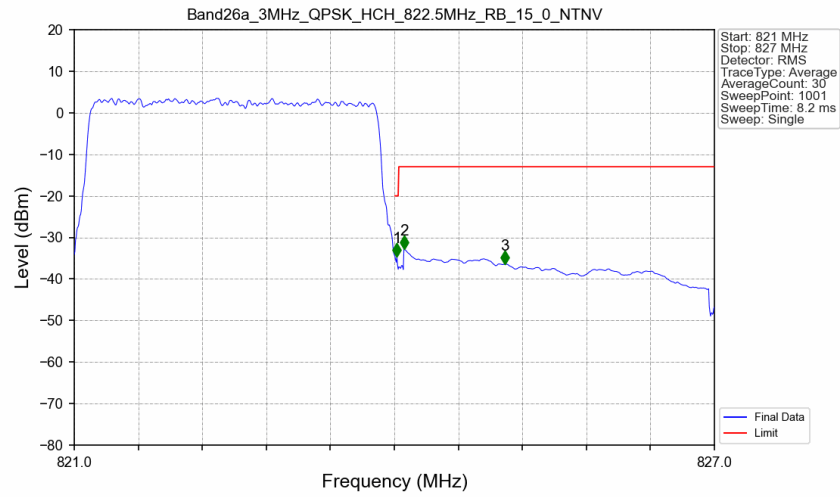


Band26a_3MHz_QPSK_HCH_822.5MHz_RB_1_14_NTNV



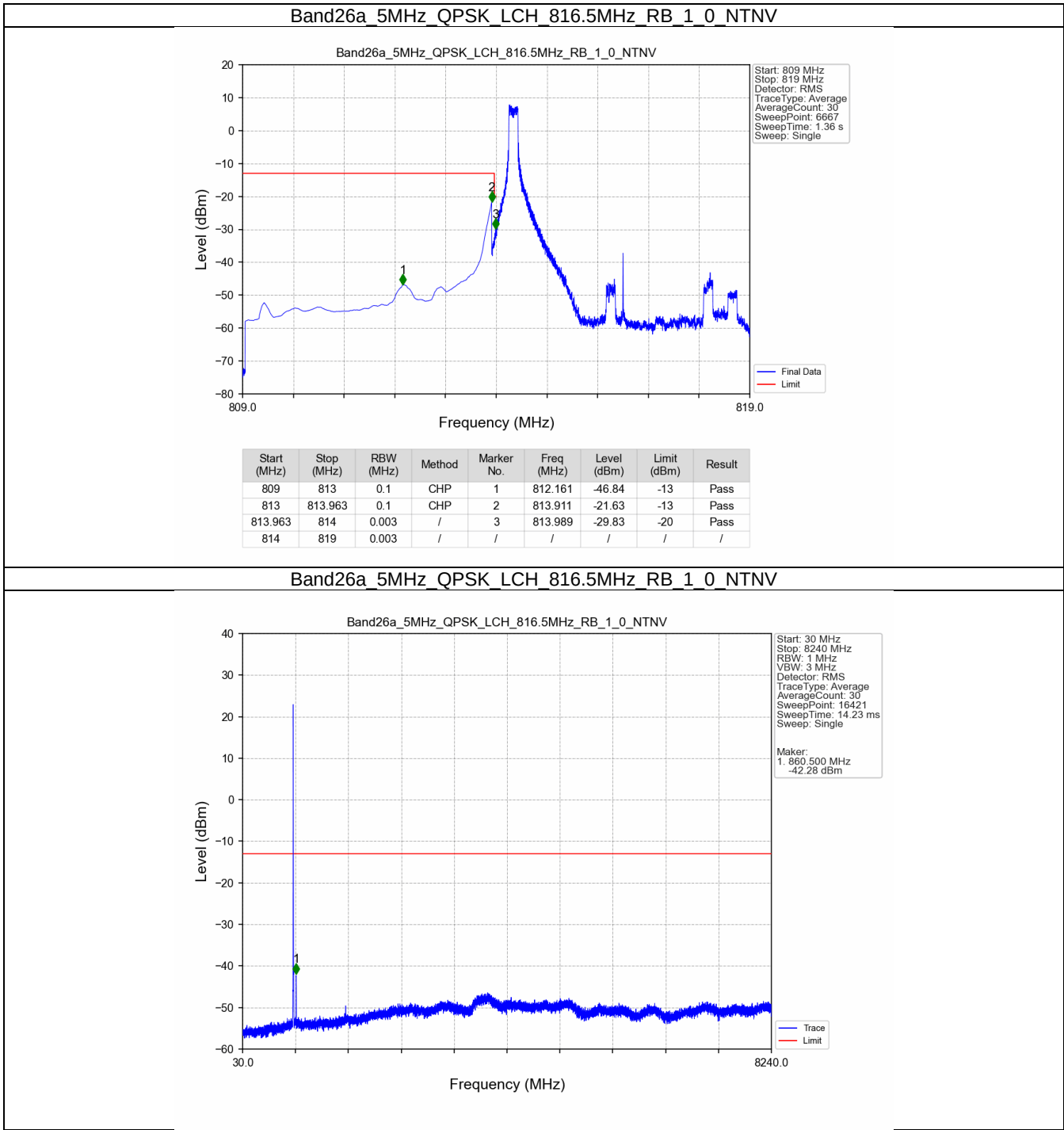
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	824	0.003	/	/	/	/	/	/
824	824.038	0.003	/	1	824.001	-28.54	-20	Pass
824.038	825	0.1	CHP	2	824.088	-24.73	-13	Pass
825	827	0.1	CHP	3	825.004	-45.89	-13	Pass

Band26a_3MHz_QPSK_HCH_822.5MHz_RB_15_0_NTNV

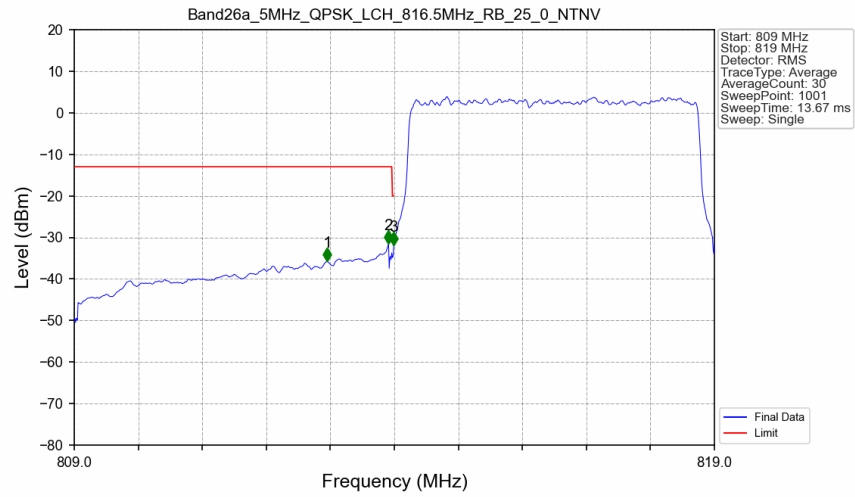


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	824	0.031	CHP	/	/	/	/	/
824	824.038	0.031	CHP	1	824.024	-34.55	-20	Pass
824.038	825	0.1	CHP	2	824.090	-32.81	-13	Pass
825	827	0.1	CHP	3	825.038	-36.41	-13	Pass

5.2.3 B26a_5MHz

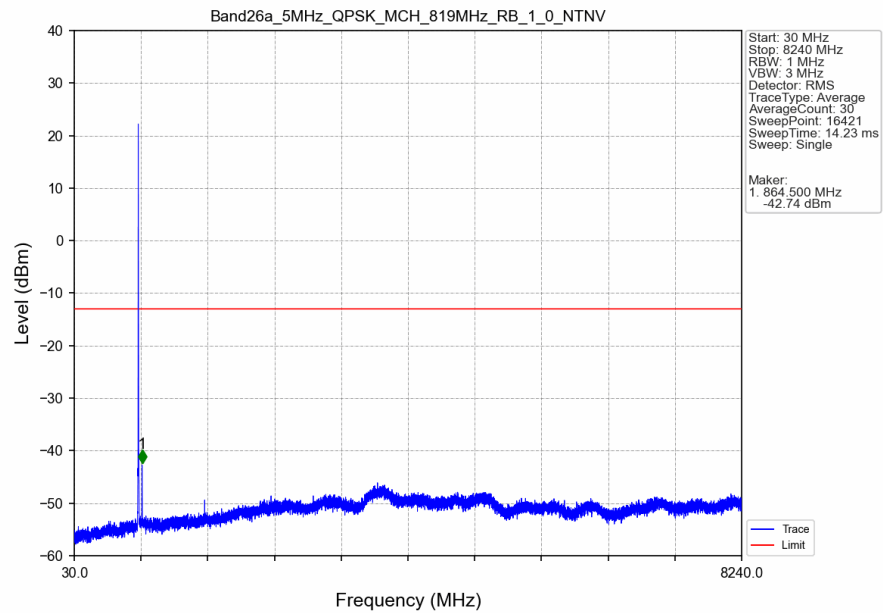


Band26a_5MHz_QPSK_LCH_816.5MHz_RB_25_0_NTNV

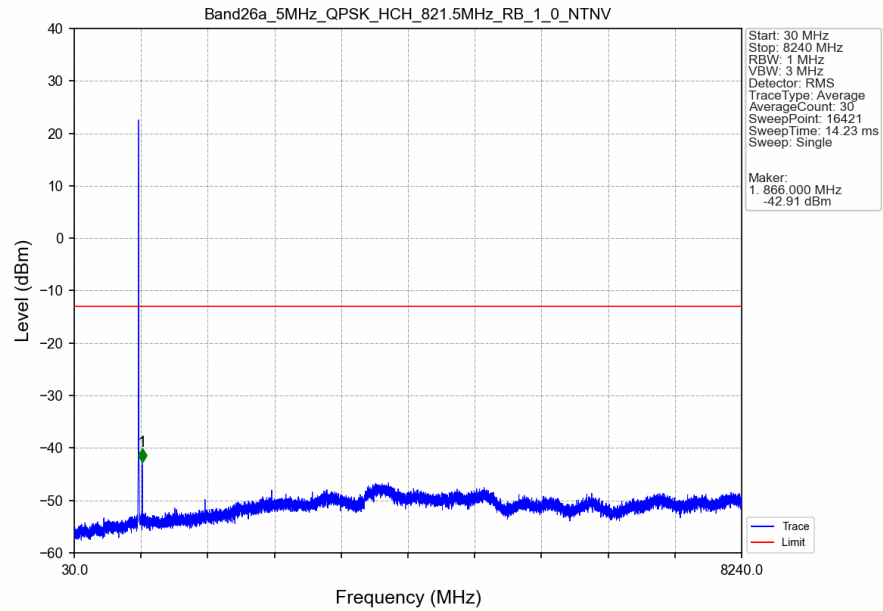


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
809	813	0.1	CHP	1	812.950	-35.73	-13	Pass
813	813.963	0.1	CHP	2	813.910	-31.52	-13	Pass
813.963	814	0.05	CHP	3	813.990	-31.87	-20	Pass
814	819	0.05	CHP	/	/	/	/	/

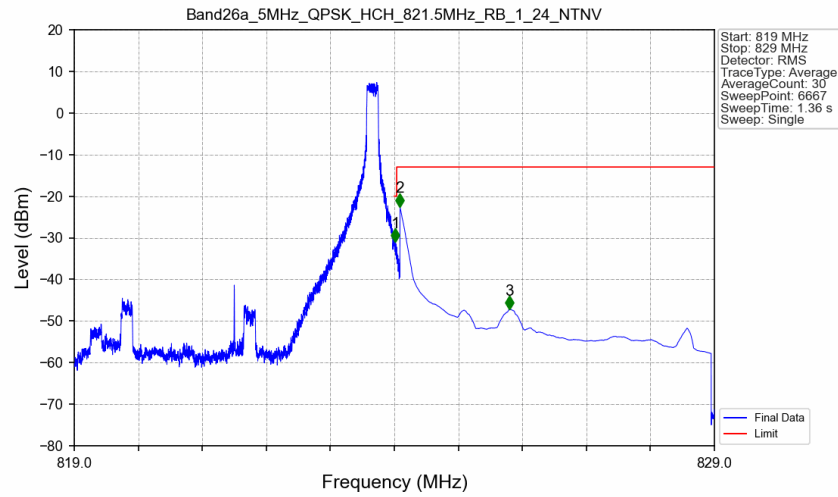
Band26a_5MHz_QPSK_MCH_819MHz_RB_1_0_NTNV



Band26a_5MHz_QPSK_HCH_821.5MHz_RB_1_0_NTNV

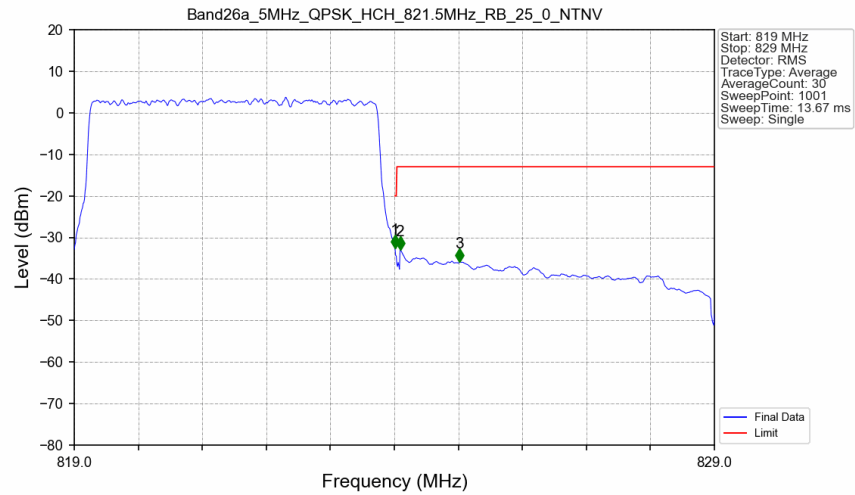


Band26a_5MHz_QPSK_HCH_821.5MHz_RB_1_24_NTNV



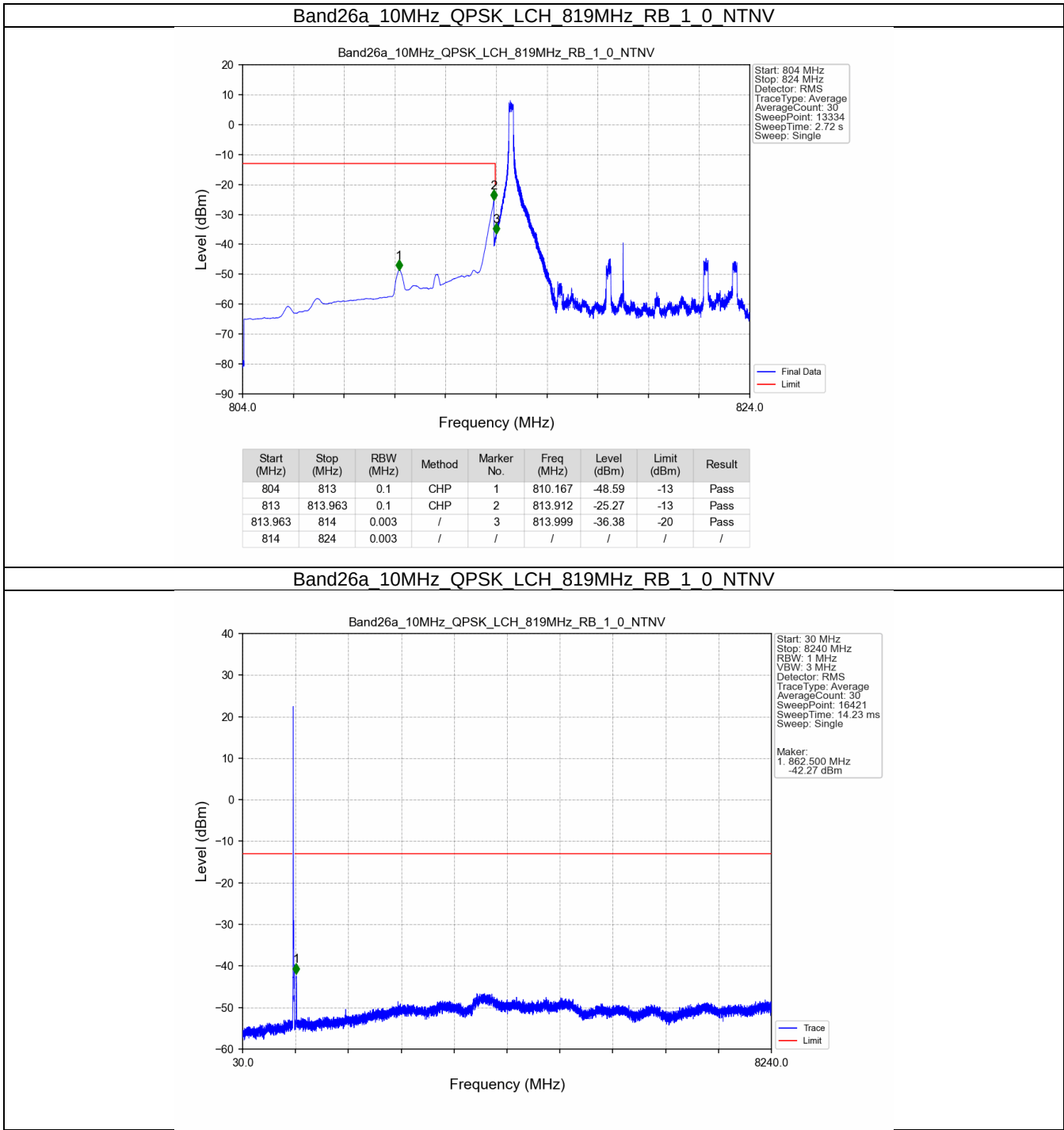
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
819	824	0.003	/	/	/	/	/	/
824	824.038	0.003	/	1	824.014	-30.97	-20	Pass
824.038	825	0.1	CHP	2	824.089	-22.48	-13	Pass
825	829	0.1	CHP	3	825.800	-47.20	-13	Pass

Band26a_5MHz_QPSK_HCH_821.5MHz_RB_25_0_NTNV

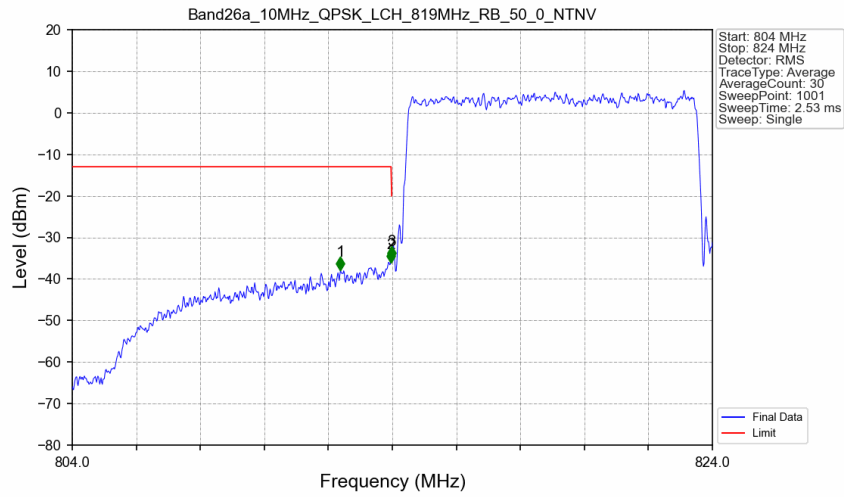


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
819	824	0.05	CHP	/	/	/	/	/
824	824.038	0.05	CHP	1	824.010	-32.53	-20	Pass
824.038	825	0.1	CHP	2	824.090	-32.87	-13	Pass
825	829	0.1	CHP	3	825.020	-35.87	-13	Pass

5.2.4 B26a_10MHz

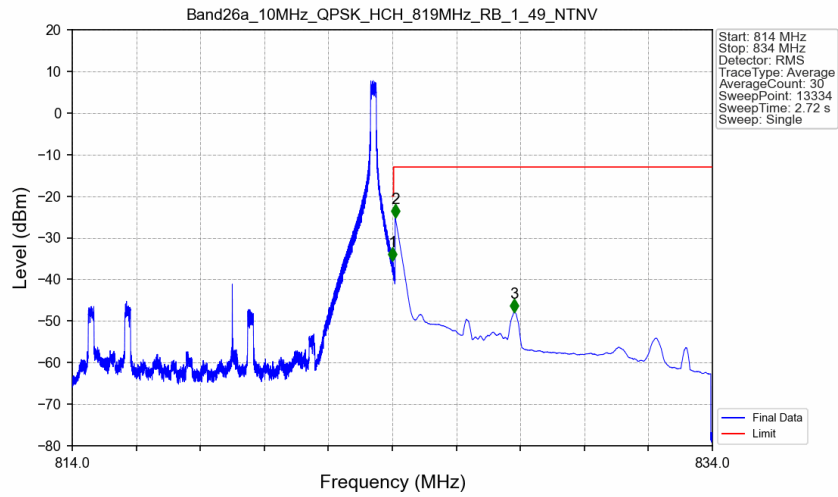


Band26a_10MHz_QPSK_LCH_819MHz_RB_50_0_NTNV



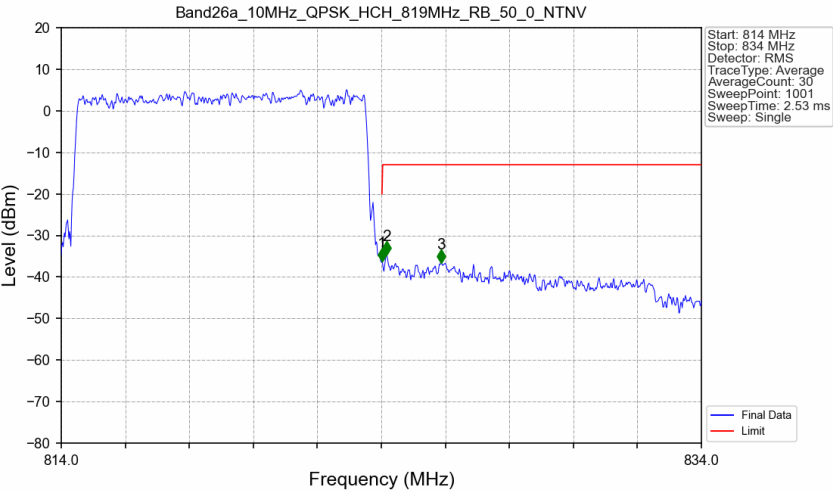
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
804	813	0.1	/	1	812.380	-37.85	-13	Pass
813	813.963	0.1	/	2	813.960	-35.99	-13	Pass
813.963	814	0.1	/	3	813.980	-35.36	-20	Pass
814	824	0.1	/	/	/	/	/	/

Band26a_10MHz_QPSK_HCH_819MHz_RB_1_49_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
814	824	0.003	/	/	/	/	/	/
824	824.038	0.003	/	1	824.011	-35.51	-20	Pass
824.038	825	0.1	CHP	2	824.088	-25.05	-13	Pass
825	834	0.1	CHP	3	827.800	-47.86	-13	Pass

Band26a_10MHz_QPSK_HCH_819MHz_RB_50_0_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
814	824	0.1	/	/	/	/	/	/
824	824.038	0.1	/	1	824.020	-36.26	-20	Pass
824.038	825	0.1	/	2	824.160	-34.66	-13	Pass
825	834	0.1	/	3	825.860	-36.67	-13	Pass

6. Field Strength of Spurious Radiation

LTE Band 26a(814-824MHz) ANT31-Middle channel, Modulation: QPSK, Bandwidth:10MHz, 1RB#0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1629.0	-71.02	-13	-58.02	-73.95	2.62	5.55	Horizontal	Pass
2443.5	-69.31	-13	-56.31	-71.95	3.04	5.68	Horizontal	Pass
3258.0	-66.09	-13	-53.09	-70.37	3.28	7.56	Horizontal	Pass
1629.0	-71.08	-13	-58.08	-74.01	2.62	5.55	Vertical	Pass
2443.5	-69.32	-13	-56.32	-71.96	3.04	5.68	Vertical	Pass
3258.0	-66.66	-13	-53.66	-70.94	3.28	7.56	Vertical	Pass