

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 B5_1.4MHz_ERP

Band: 5 / Bandwidth: 1.4MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	824.7	1	0	23.11	5.17	26.13	<=38.45	Pass
			2	23.24	5.17	26.26	<=38.45	Pass
			5	23.05	5.17	26.07	<=38.45	Pass
		3	0	23.18	5.17	26.20	<=38.45	Pass
			2	23.18	5.17	26.20	<=38.45	Pass
			3	23.17	5.17	26.19	<=38.45	Pass
		6	0	22.12	5.17	25.14	<=38.45	Pass
	836.5	1	0	23.15	5.17	26.17	<=38.45	Pass
			2	23.27	5.17	26.29	<=38.45	Pass
			5	23.17	5.17	26.19	<=38.45	Pass
		3	0	23.28	5.17	26.30	<=38.45	Pass
			2	23.30	5.17	26.32	<=38.45	Pass
			3	23.25	5.17	26.27	<=38.45	Pass
		6	0	22.27	5.17	25.29	<=38.45	Pass
	848.3	1	0	22.99	5.17	26.01	<=38.45	Pass
			2	23.11	5.17	26.13	<=38.45	Pass
			5	22.99	5.17	26.01	<=38.45	Pass
		3	0	23.01	5.17	26.03	<=38.45	Pass
			2	23.06	5.17	26.08	<=38.45	Pass
			3	23.06	5.17	26.08	<=38.45	Pass
		6	0	22.03	5.17	25.05	<=38.45	Pass
16QAM	824.7	1	0	22.07	5.17	25.09	<=38.45	Pass
			2	22.18	5.17	25.20	<=38.45	Pass
			5	22.12	5.17	25.14	<=38.45	Pass
		3	0	22.24	5.17	25.26	<=38.45	Pass
			2	22.20	5.17	25.22	<=38.45	Pass
			3	22.24	5.17	25.26	<=38.45	Pass
		6	0	21.03	5.17	24.05	<=38.45	Pass
	836.5	1	0	22.32	5.17	25.34	<=38.45	Pass
			2	22.45	5.17	25.47	<=38.45	Pass
			5	22.32	5.17	25.34	<=38.45	Pass
		3	0	22.22	5.17	25.24	<=38.45	Pass
			2	22.26	5.17	25.28	<=38.45	Pass
			3	22.26	5.17	25.28	<=38.45	Pass
		6	0	21.24	5.17	24.26	<=38.45	Pass
	848.3	1	0	21.93	5.17	24.95	<=38.45	Pass
			2	22.07	5.17	25.09	<=38.45	Pass
			5	21.98	5.17	25.00	<=38.45	Pass
		3	0	22.15	5.17	25.17	<=38.45	Pass
			2	22.13	5.17	25.15	<=38.45	Pass
			3	22.11	5.17	25.13	<=38.45	Pass
		6	0	20.92	5.17	23.94	<=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	23.17	5.17	26.19	<=38.45	Pass
			7	23.25	5.17	26.27	<=38.45	Pass
			14	23.10	5.17	26.12	<=38.45	Pass
		8	0	22.11	5.17	25.13	<=38.45	Pass
			4	22.18	5.17	25.20	<=38.45	Pass
			7	22.12	5.17	25.14	<=38.45	Pass
		15	0	22.11	5.17	25.13	<=38.45	Pass
	836.5	1	0	23.24	5.17	26.26	<=38.45	Pass
			7	23.38	5.17	26.40	<=38.45	Pass
			14	23.19	5.17	26.21	<=38.45	Pass
		8	0	22.26	5.17	25.28	<=38.45	Pass
			4	22.25	5.17	25.27	<=38.45	Pass
			7	22.21	5.17	25.23	<=38.45	Pass
		15	0	22.16	5.17	25.18	<=38.45	Pass
	847.5	1	0	22.56	5.17	25.58	<=38.45	Pass
			7	22.71	5.17	25.73	<=38.45	Pass
			14	22.52	5.17	25.54	<=38.45	Pass
		8	0	21.55	5.17	24.57	<=38.45	Pass
			4	21.54	5.17	24.56	<=38.45	Pass
			7	21.48	5.17	24.50	<=38.45	Pass
		15	0	21.54	5.17	24.56	<=38.45	Pass
16QAM	825.5	1	0	22.71	5.17	25.73	<=38.45	Pass
			7	22.84	5.17	25.86	<=38.45	Pass
			14	22.68	5.17	25.70	<=38.45	Pass
		8	0	21.26	5.17	24.28	<=38.45	Pass
			4	21.31	5.17	24.33	<=38.45	Pass
			7	21.26	5.17	24.28	<=38.45	Pass
		15	0	21.16	5.17	24.18	<=38.45	Pass
	836.5	1	0	22.24	5.17	25.26	<=38.45	Pass
			7	22.24	5.17	25.26	<=38.45	Pass
			14	21.86	5.17	24.88	<=38.45	Pass
		8	0	20.79	5.17	23.81	<=38.45	Pass
			4	20.83	5.17	23.85	<=38.45	Pass
			7	20.76	5.17	23.78	<=38.45	Pass
		15	0	20.71	5.17	23.73	<=38.45	Pass
	847.5	1	0	21.53	5.17	24.55	<=38.45	Pass
			7	21.68	5.17	24.70	<=38.45	Pass
			14	21.51	5.17	24.53	<=38.45	Pass
		8	0	20.63	5.17	23.65	<=38.45	Pass
			4	20.64	5.17	23.66	<=38.45	Pass
			7	20.58	5.17	23.60	<=38.45	Pass
		15	0	20.60	5.17	23.62	<=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	22.57	5.17	25.59	<=38.45	Pass
			13	22.63	5.17	25.65	<=38.45	Pass
			24	22.61	5.17	25.63	<=38.45	Pass
		12	0	21.63	5.17	24.65	<=38.45	Pass
			6	21.66	5.17	24.68	<=38.45	Pass
			13	21.58	5.17	24.60	<=38.45	Pass
		25	0	21.58	5.17	24.60	<=38.45	Pass
	836.5	1	0	22.68	5.17	25.70	<=38.45	Pass
			13	22.75	5.17	25.77	<=38.45	Pass
			24	22.61	5.17	25.63	<=38.45	Pass
		12	0	21.70	5.17	24.72	<=38.45	Pass
			6	21.72	5.17	24.74	<=38.45	Pass
			13	21.79	5.17	24.81	<=38.45	Pass
		25	0	21.72	5.17	24.74	<=38.45	Pass
	846.5	1	0	22.49	5.17	25.51	<=38.45	Pass
			13	22.65	5.17	25.67	<=38.45	Pass
			24	22.44	5.17	25.46	<=38.45	Pass
		12	0	21.54	5.17	24.56	<=38.45	Pass
			6	21.56	5.17	24.58	<=38.45	Pass
			13	21.41	5.17	24.43	<=38.45	Pass
		25	0	21.54	5.17	24.56	<=38.45	Pass
16QAM	826.5	1	0	21.40	5.17	24.42	<=38.45	Pass
			13	21.52	5.17	24.54	<=38.45	Pass
			24	21.46	5.17	24.48	<=38.45	Pass
		12	0	20.77	5.17	23.79	<=38.45	Pass
			6	20.73	5.17	23.75	<=38.45	Pass
			13	20.58	5.17	23.60	<=38.45	Pass
		25	0	20.66	5.17	23.68	<=38.45	Pass
	836.5	1	0	21.91	5.17	24.93	<=38.45	Pass
			13	22.00	5.17	25.02	<=38.45	Pass
			24	21.81	5.17	24.83	<=38.45	Pass
		12	0	20.83	5.17	23.85	<=38.45	Pass
			6	20.84	5.17	23.86	<=38.45	Pass
			13	20.85	5.17	23.87	<=38.45	Pass
		25	0	20.77	5.17	23.79	<=38.45	Pass
	846.5	1	0	21.56	5.17	24.58	<=38.45	Pass
			13	21.66	5.17	24.68	<=38.45	Pass
			24	21.53	5.17	24.55	<=38.45	Pass
		12	0	20.61	5.17	23.63	<=38.45	Pass
			6	20.64	5.17	23.66	<=38.45	Pass
			13	20.47	5.17	23.49	<=38.45	Pass
		25	0	20.57	5.17	23.59	<=38.45	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

1.1.4 B5_10MHz_ERP

Band: 5 / Bandwidth: 10MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	829	1	0	22.61	5.17	25.63	<=38.45	Pass
			25	22.80	5.17	25.82	<=38.45	Pass
			49	22.67	5.17	25.69	<=38.45	Pass
		25	0	21.84	5.17	24.86	<=38.45	Pass
			13	21.73	5.17	24.75	<=38.45	Pass

			25	21.61	5.17	24.63	<=38.45	Pass
		50	0	21.78	5.17	24.80	<=38.45	Pass
	836.5	1	0	22.72	5.17	25.74	<=38.45	Pass
			25	22.89	5.17	25.91	<=38.45	Pass
			49	22.60	5.17	25.62	<=38.45	Pass
		25	0	21.83	5.17	24.85	<=38.45	Pass
			13	21.76	5.17	24.78	<=38.45	Pass
			25	21.92	5.17	24.94	<=38.45	Pass
		50	0	21.86	5.17	24.88	<=38.45	Pass
	844	1	0	22.66	5.17	25.68	<=38.45	Pass
			25	22.73	5.17	25.75	<=38.45	Pass
			49	22.52	5.17	25.54	<=38.45	Pass
		25	0	21.49	5.17	24.51	<=38.45	Pass
			13	21.60	5.17	24.62	<=38.45	Pass
			25	21.48	5.17	24.50	<=38.45	Pass
		50	0	21.49	5.17	24.51	<=38.45	Pass
16QAM	829	1	0	22.20	5.17	25.22	<=38.45	Pass
			25	22.42	5.17	25.44	<=38.45	Pass
			49	22.20	5.17	25.22	<=38.45	Pass
		12	0	21.77	5.17	24.79	<=38.45	Pass
			19	21.81	5.17	24.83	<=38.45	Pass
			38	21.75	5.17	24.77	<=38.45	Pass
		27	0	20.94	5.17	23.96	<=38.45	Pass
	836.5	1	0	21.83	5.17	24.85	<=38.45	Pass
			25	22.04	5.17	25.06	<=38.45	Pass
			49	21.71	5.17	24.73	<=38.45	Pass
		12	0	21.79	5.17	24.81	<=38.45	Pass
			19	21.76	5.17	24.78	<=38.45	Pass
			38	21.75	5.17	24.77	<=38.45	Pass
		27	0	20.93	5.17	23.95	<=38.45	Pass
	844	1	0	21.62	5.17	24.64	<=38.45	Pass
			25	21.74	5.17	24.76	<=38.45	Pass
			49	21.53	5.17	24.55	<=38.45	Pass
		12	0	21.57	5.17	24.59	<=38.45	Pass
			19	21.68	5.17	24.70	<=38.45	Pass
			38	21.64	5.17	24.66	<=38.45	Pass
		27	23	20.60	5.17	23.62	<=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	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	836.5	50	0	20	LV	0.644	0.0008	-2.5 to 2.5	Pass
					NV	0.558	0.0007	-2.5 to 2.5	Pass
					HV	0.744	0.0009	-2.5 to 2.5	Pass
				-30	NV	0.129	0.0002	-2.5 to 2.5	Pass
				-20	NV	0.100	0.0001	-2.5 to 2.5	Pass
				-10	NV	0.243	0.0003	-2.5 to 2.5	Pass
				0	NV	0.272	0.0003	-2.5 to 2.5	Pass
				10	NV	-0.129	-0.0002	-2.5 to 2.5	Pass
				30	NV	0.329	0.0004	-2.5 to 2.5	Pass
				40	NV	0.229	0.0003	-2.5 to 2.5	Pass
				50	NV	0.815	0.0010	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band5_OBW

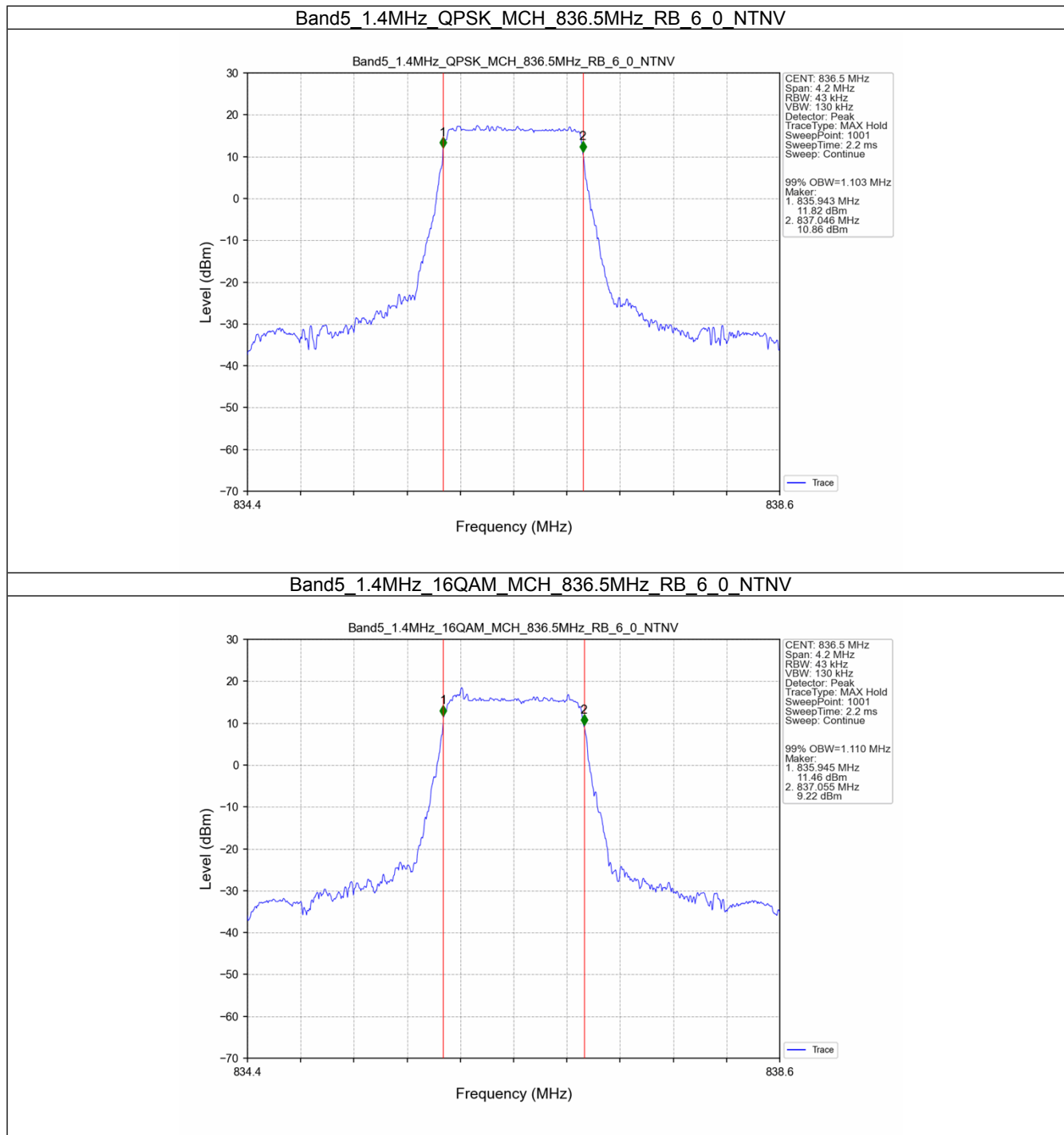
Band: 5 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	836.5	6	0	1.103	/	Pass
	16QAM	836.5	6	0	1.110	/	Pass
3	QPSK	836.5	15	0	2.741	/	Pass
	16QAM	836.5	15	0	2.751	/	Pass
5	QPSK	836.5	25	0	4.567	/	Pass
	16QAM	836.5	25	0	4.555	/	Pass
10	QPSK	836.5	50	0	9.055	/	Pass
	16QAM	836.5	27	0	5.100	/	Pass

3.1.2 Band5_XDB

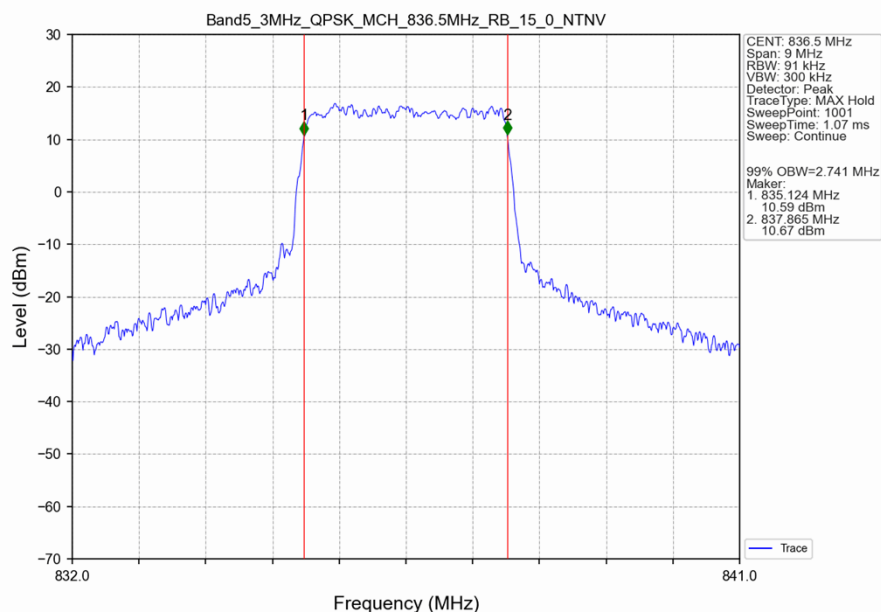
Band: 5 / NTN							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	836.5	6	0	1.324	/	Pass
	16QAM	836.5	6	0	1.310	/	Pass
3	QPSK	836.5	15	0	3.042	/	Pass
	16QAM	836.5	15	0	3.044	/	Pass
5	QPSK	836.5	25	0	5.122	/	Pass
	16QAM	836.5	25	0	5.074	/	Pass
10	QPSK	836.5	50	0	10.261	/	Pass
	16QAM	836.5	27	0	6.249	/	Pass

3.2 Test Graph

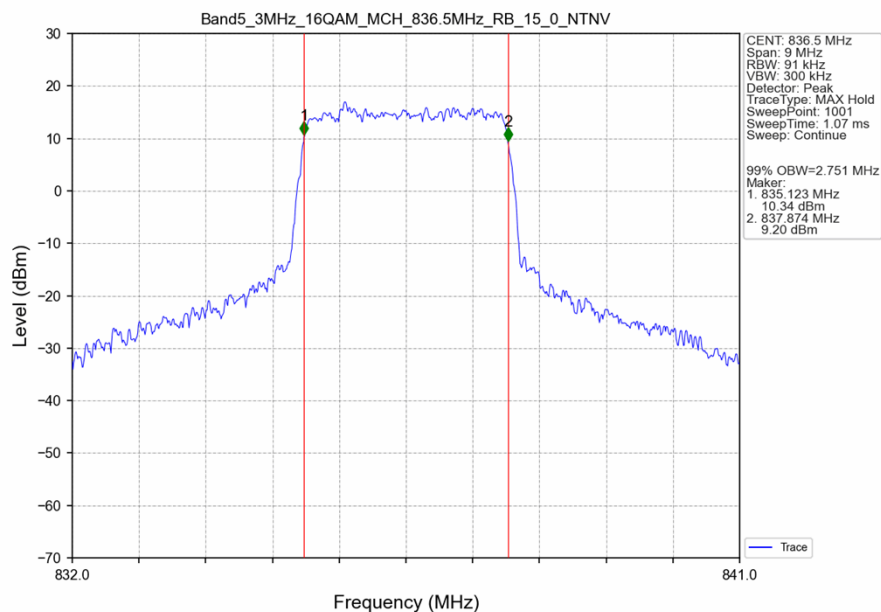
3.2.1 Band5_OBW



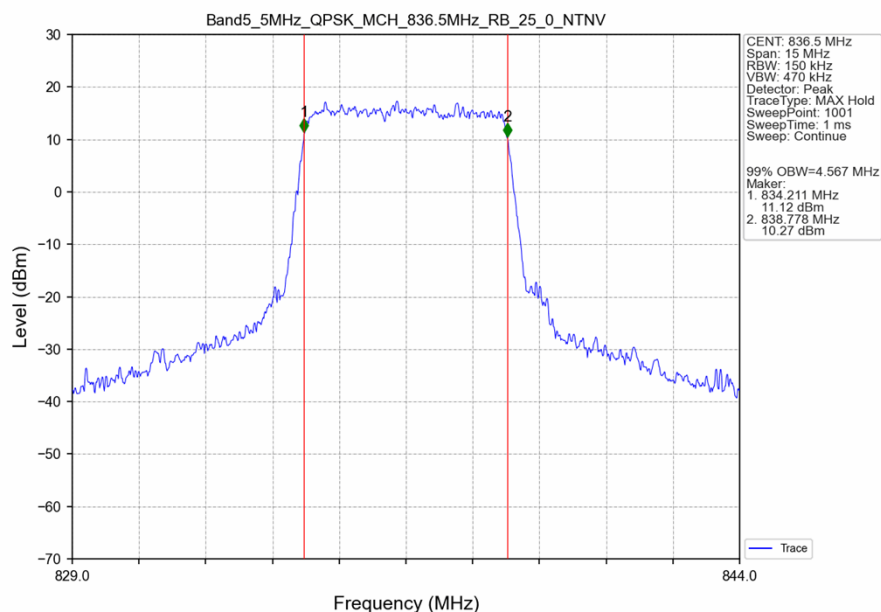
Band5_3MHz_QPSK_MCH_836.5MHz_RB_15_0_NTNV



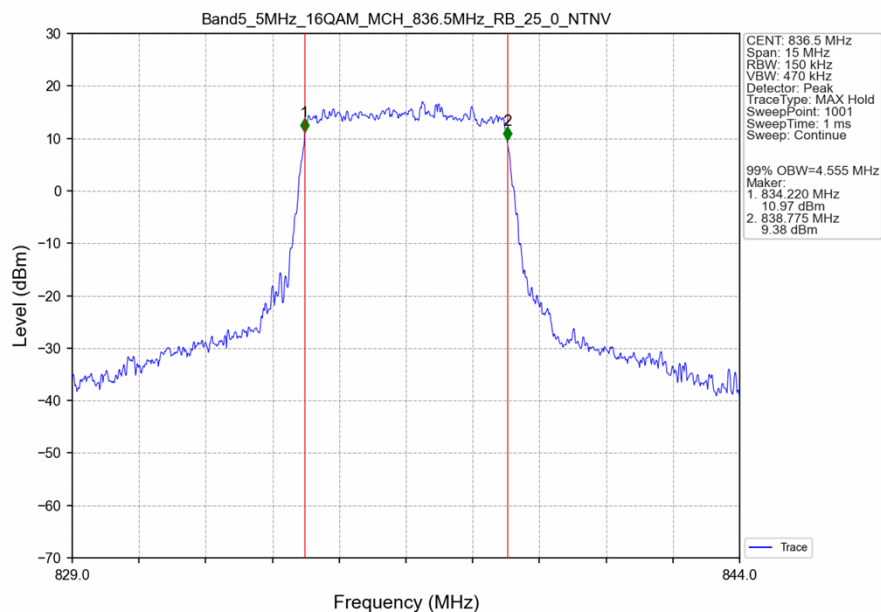
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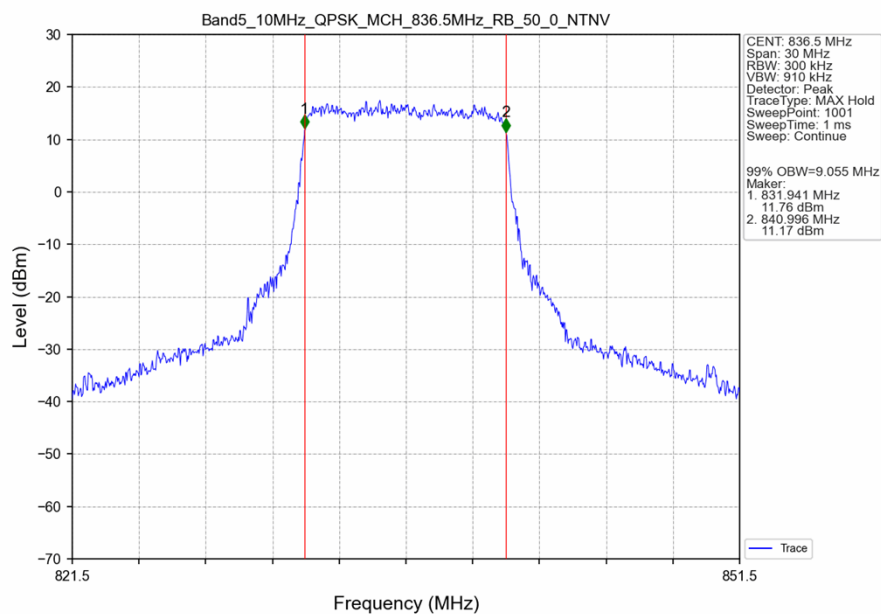
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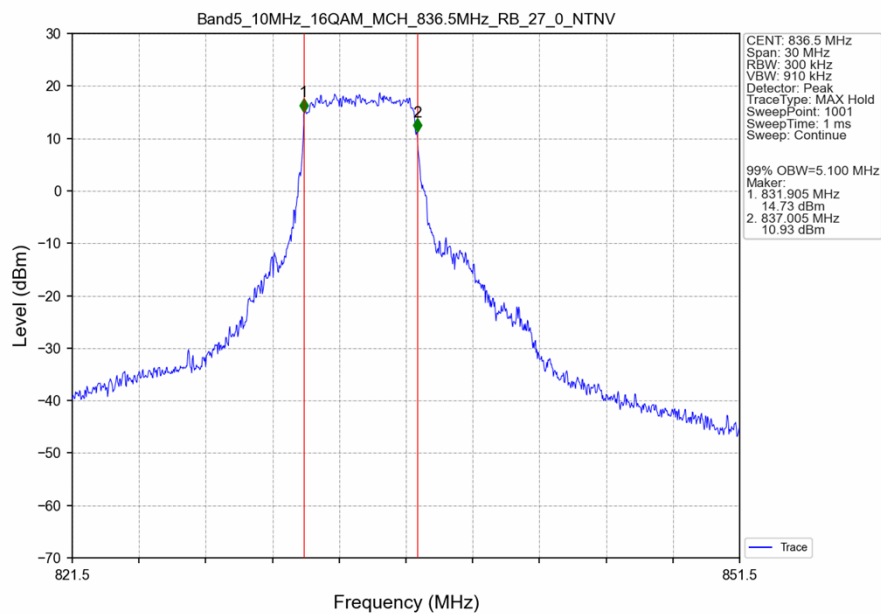
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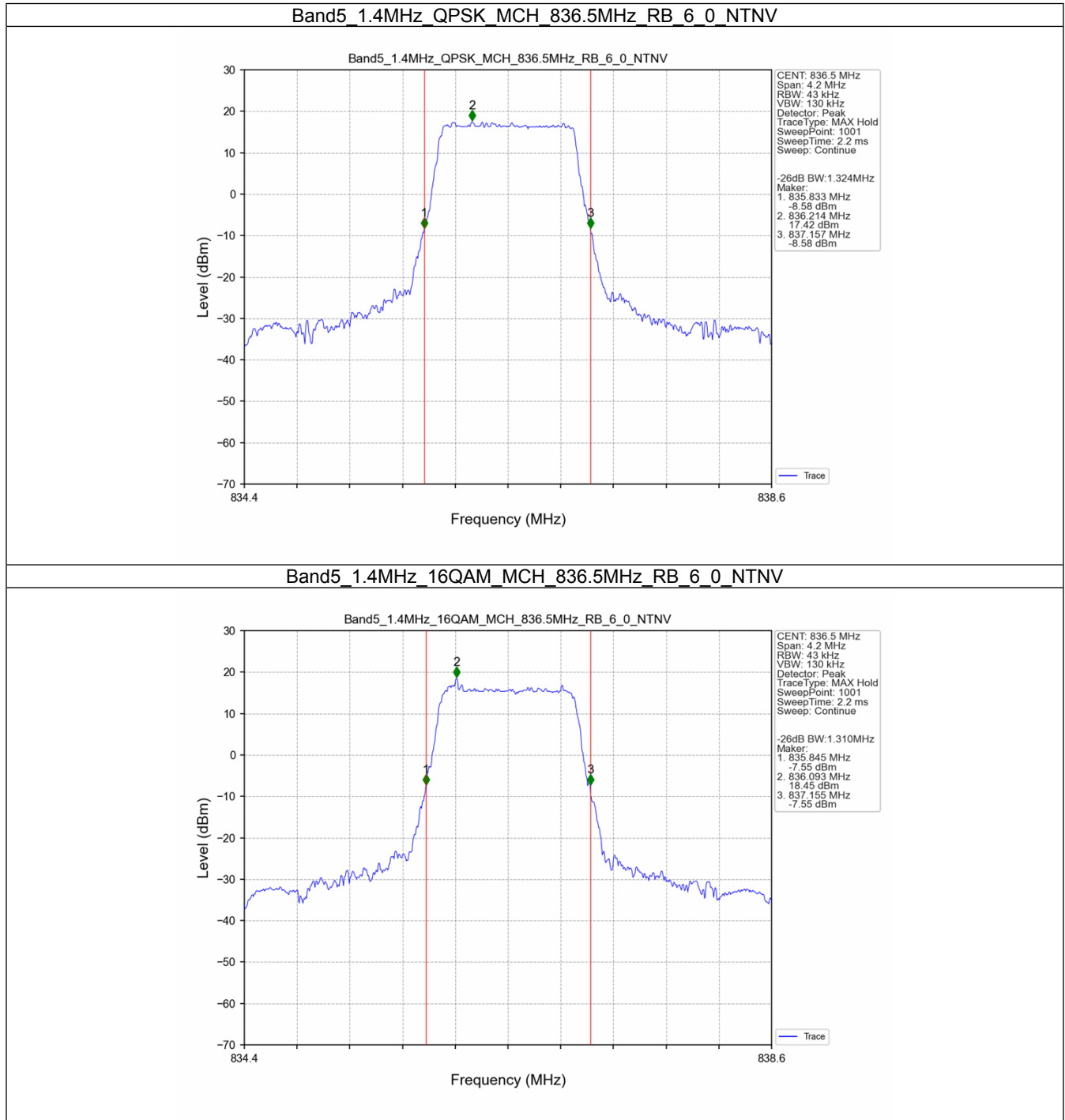
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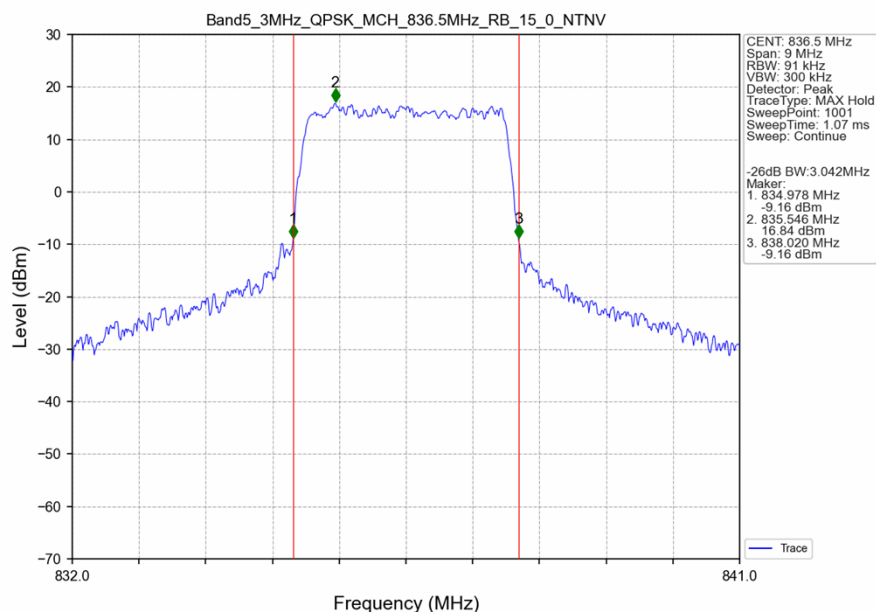
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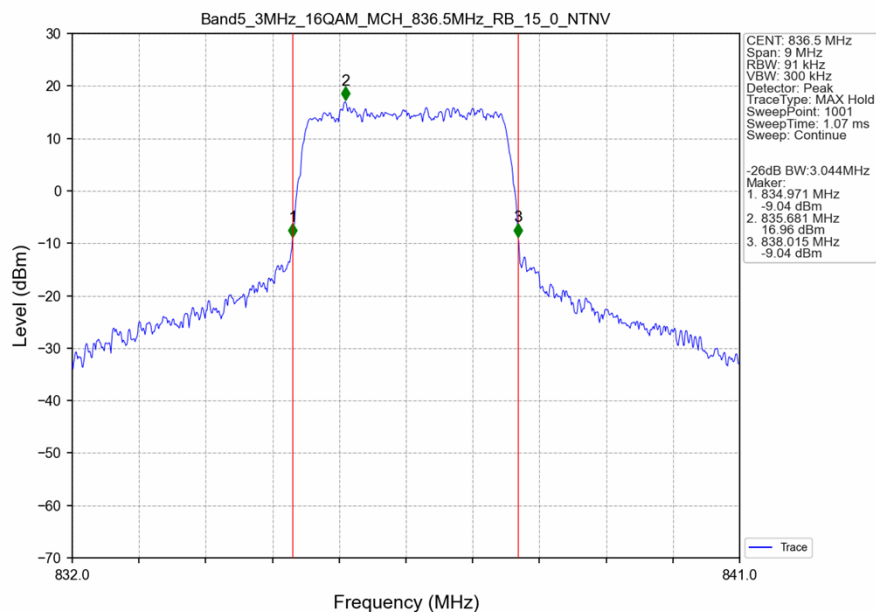
3.2.2 Band5_XDB



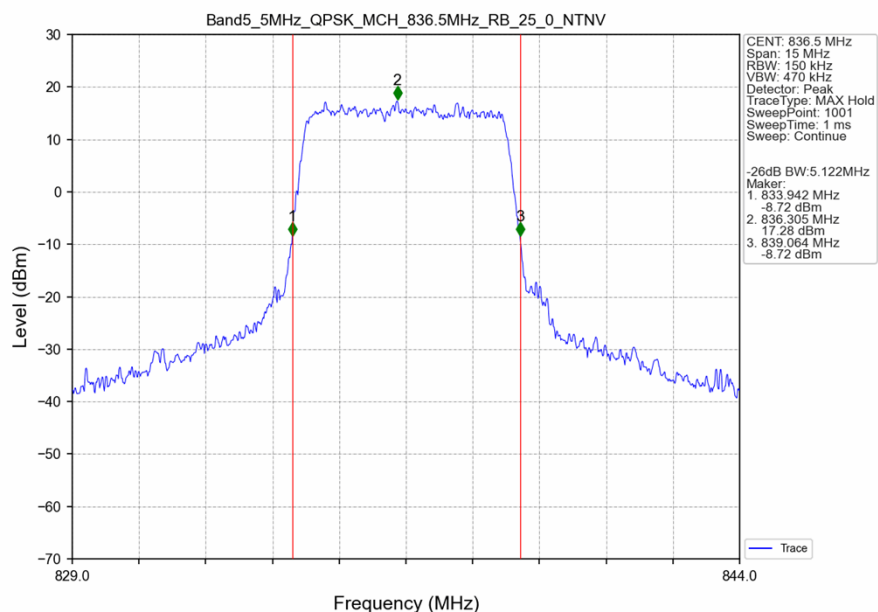
Band5_3MHz_QPSK_MCH_836.5MHz_RB_15_0_NTNV



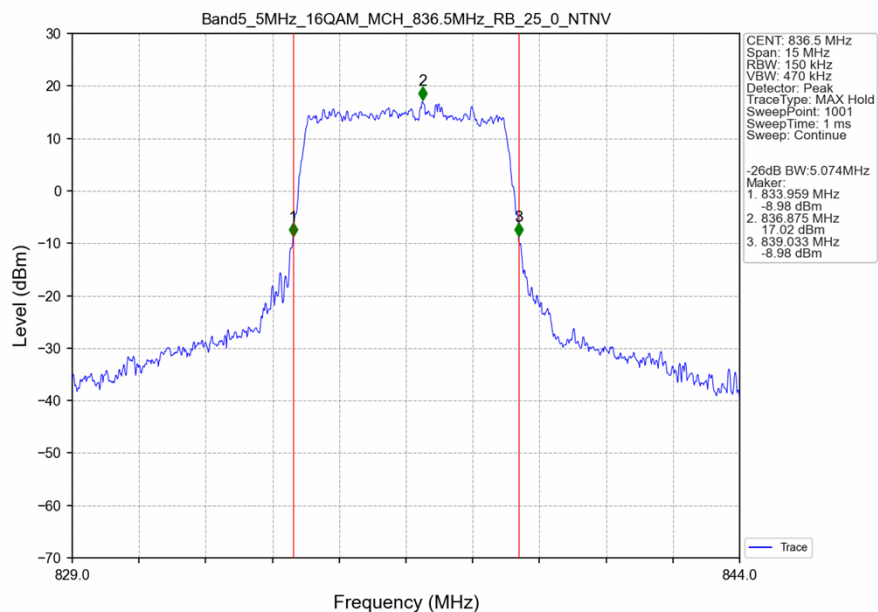
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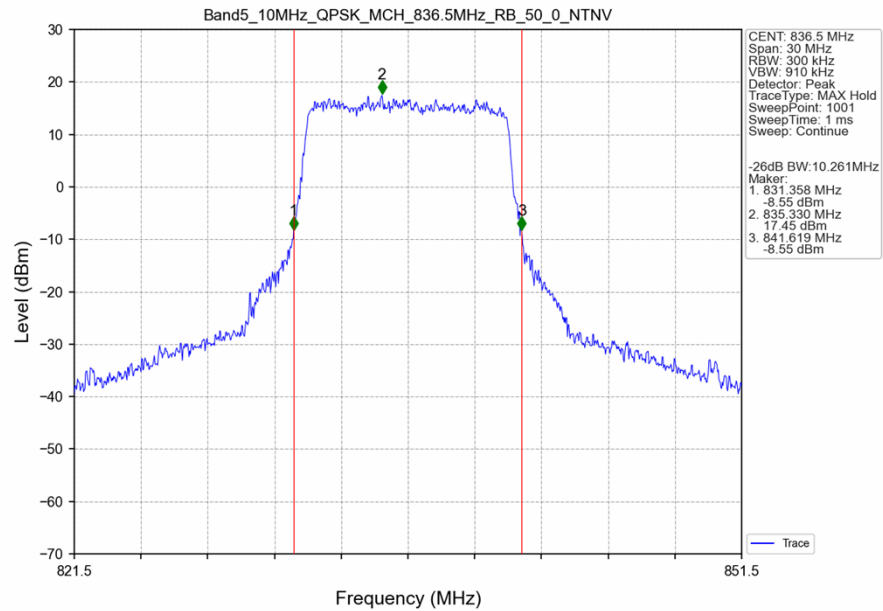
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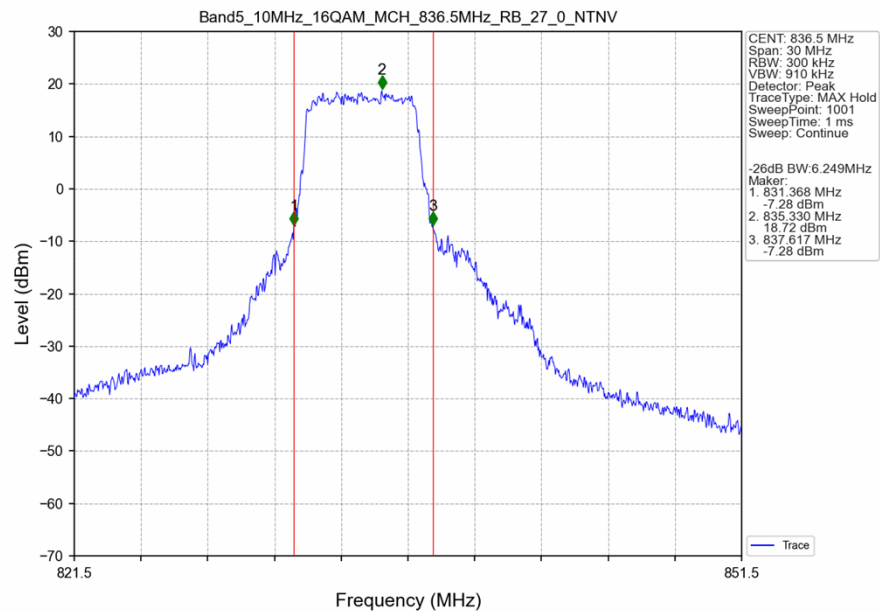
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Band5_10MHz_QPSK_MCH_836.5MHz_RB_50_0_NTNV



Band5_10MHz_16QAM_MCH_836.5MHz_RB_27_0_NTNV





4. Peak-Average Ratio

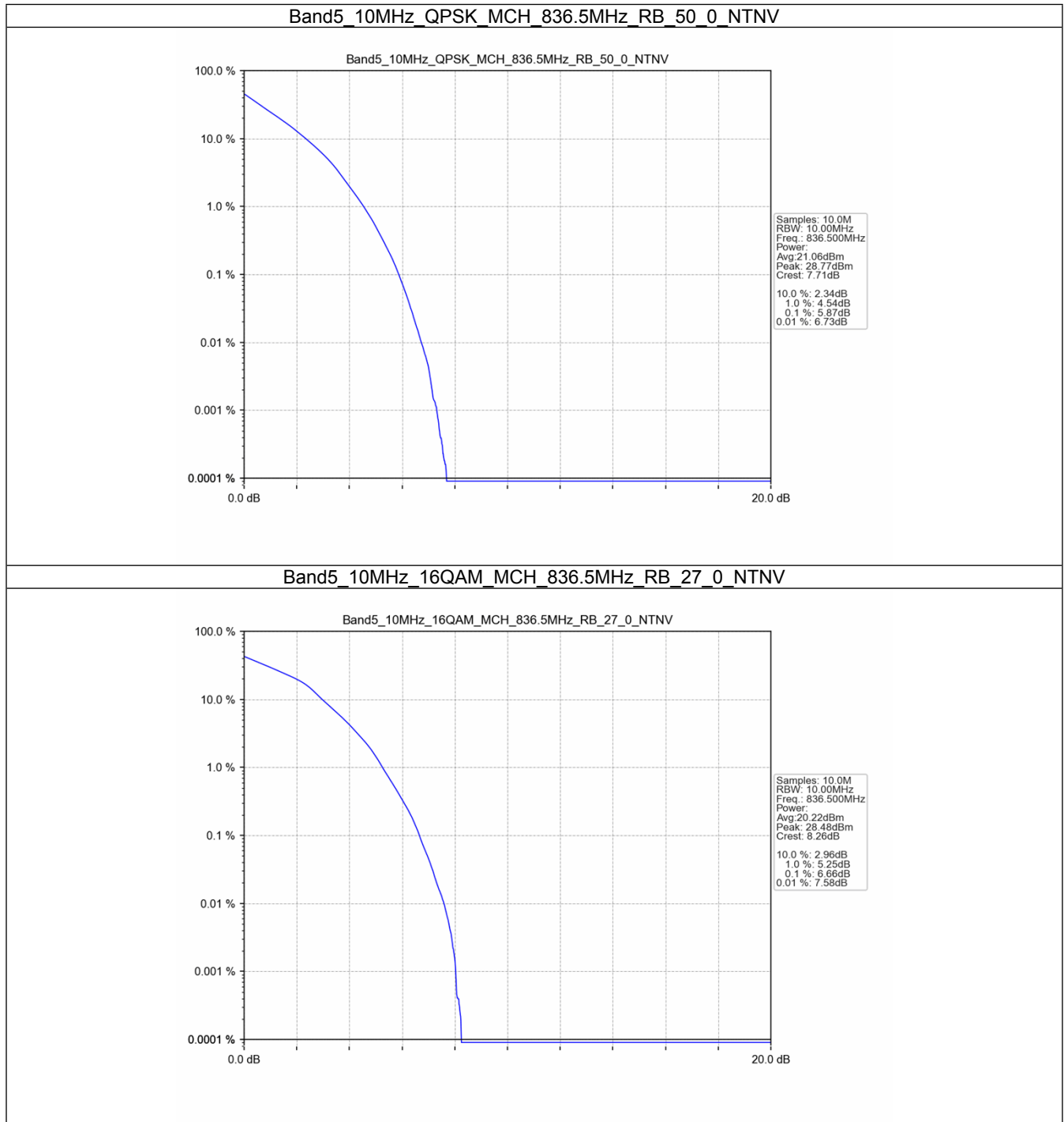
4.1 Test Result

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	5.87	≤ 13	Pass
16QAM	836.5	27	0	6.66	≤ 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 / NTNV						
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		Pass
			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	
	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

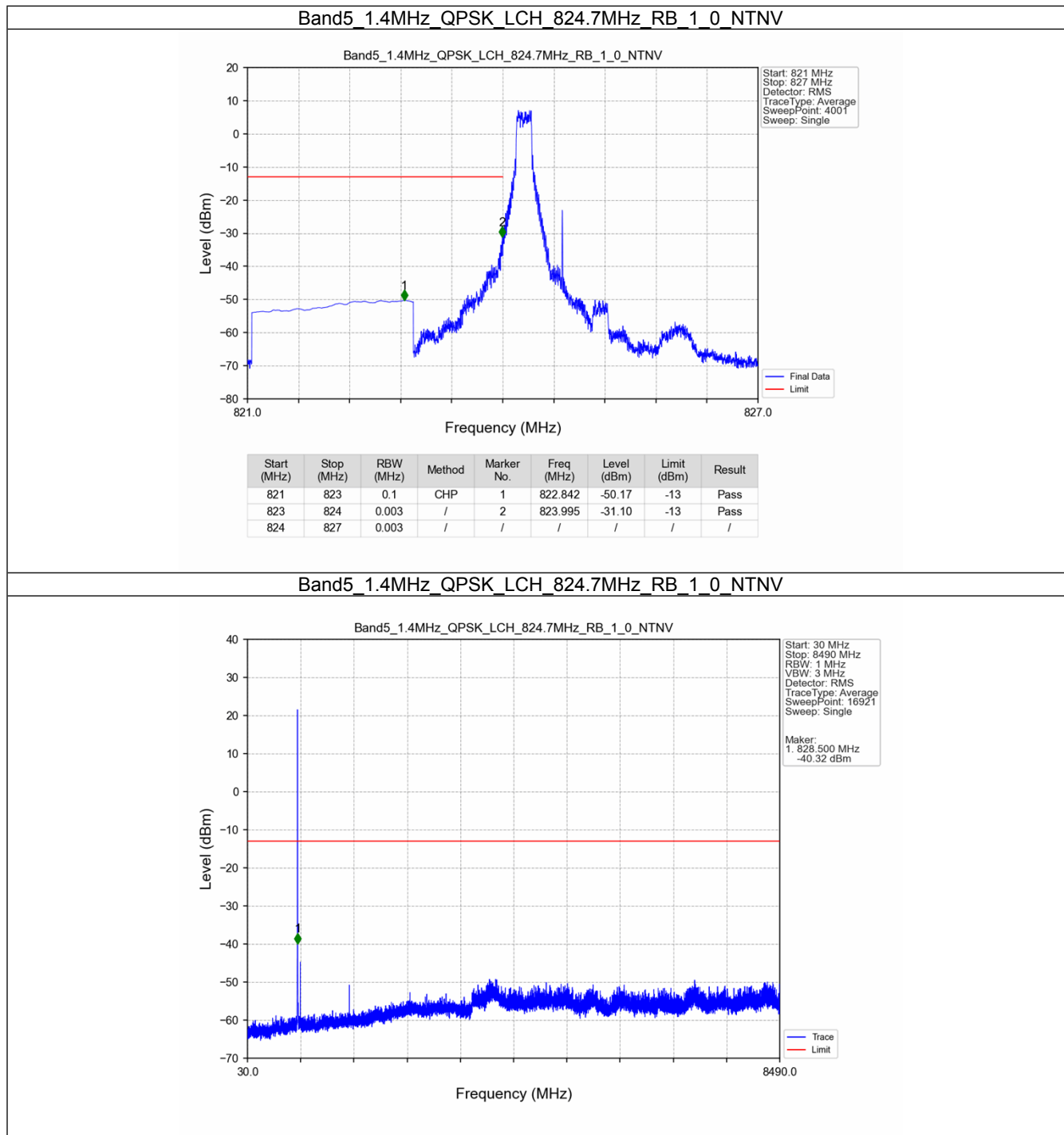
Band: 5 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	829	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass



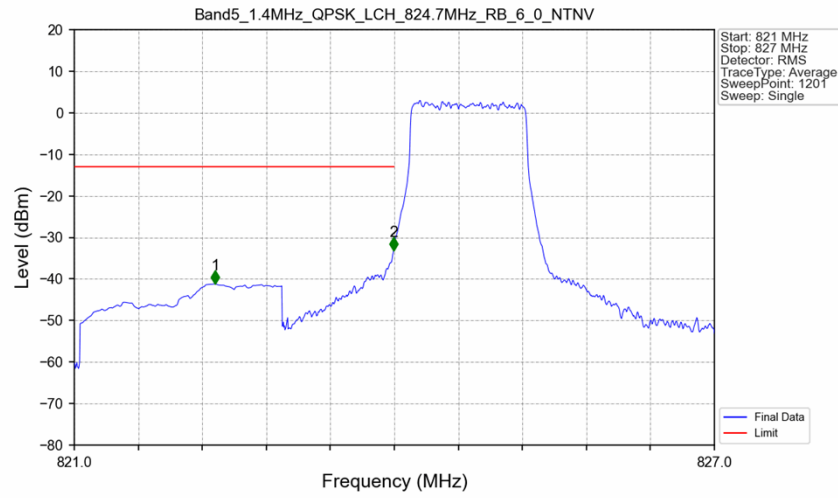
	836.5	1	0	Refer To Test Graph	Pass
	844	1	0	Refer To Test Graph	Pass
			49	Refer To Test Graph	Pass
		50	0	Refer To Test Graph	Pass

5.2 Test Graph

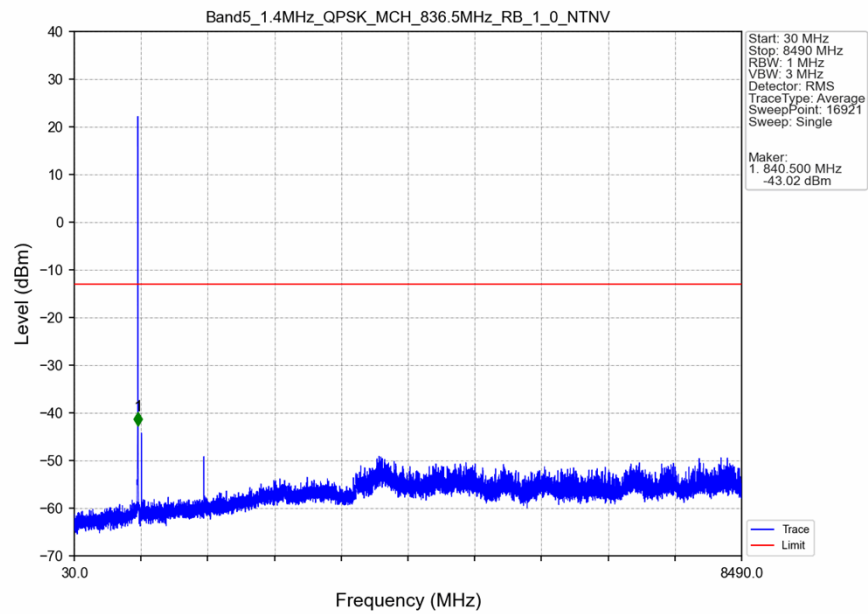
5.2.1 B5_1.4MHz



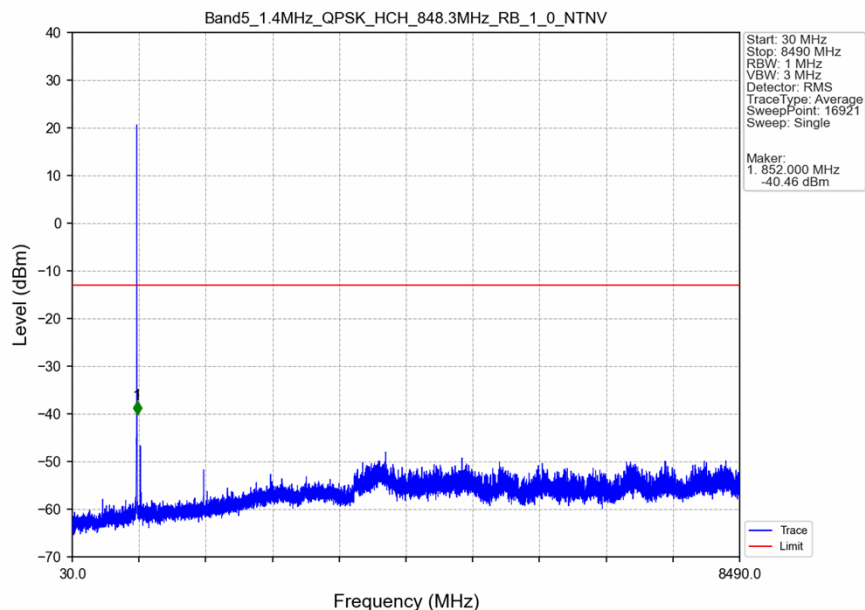
Band5_1.4MHz_QPSK_LCH_824.7MHz_RB_6_0_NTNV



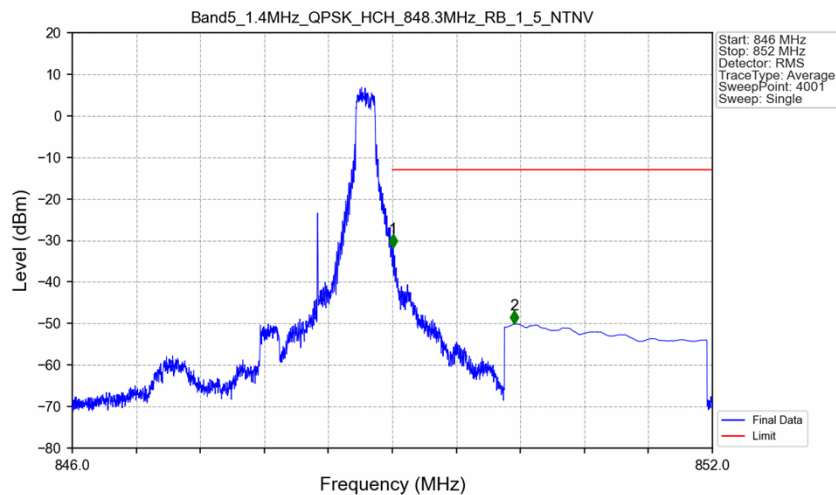
Band5_1.4MHz_QPSK_MCH_836.5MHz_RB_1_0_NTNV



Band5_1.4MHz_QPSK_HCH_848.3MHz_RB_1_0_NTNV

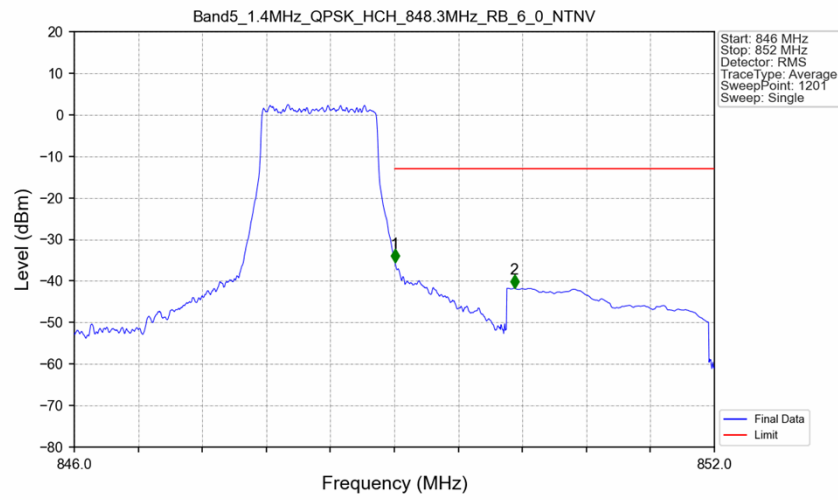


Band5_1.4MHz_QPSK_HCH_848.3MHz_RB_1_5_NTNV



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	849.008	-31.73	-13	Pass
850	852	0.1	CHP	2	850.140	-50.05	-13	Pass

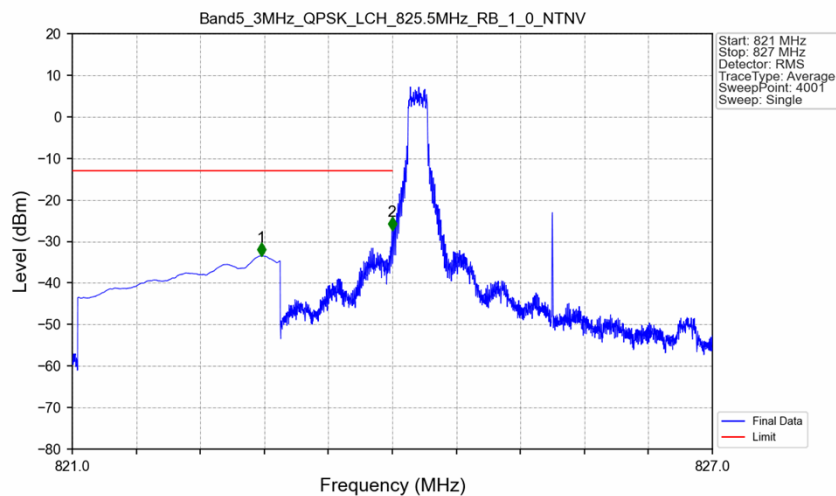
Band5_1.4MHz_QPSK_HCH_848.3MHz_RB_6_0_NTNV



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	-35.53	-13	Pass
850	852	0.1	CHP	2	850.125	-41.68	-13	Pass

5.2.2 B5_3MHz

Band5_3MHz_QPSK_LCH_825.5MHz_RB_1_0_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	823	0.1	CHP	1	822.773	-33.46	-13	Pass
823	824	0.003	/	2	823.997	-27.22	-13	Pass
824	827	0.003	/	/	/	/	/	/

Band5_3MHz_QPSK_LCH_825.5MHz_RB_1_0_NTNV

