

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 B17_5MHz_ERP

Band: 17 / Bandwidth: 5MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	706.5	1	0	23.78	-5.20	16.43	<=34.77	Pass
			13	23.61	-5.20	16.26	<=34.77	Pass
			24	23.83	-5.20	16.48	<=34.77	Pass
		12	0	22.84	-5.20	15.49	<=34.77	Pass
			6	22.83	-5.20	15.48	<=34.77	Pass
			13	22.83	-5.20	15.48	<=34.77	Pass
		25	0	22.89	-5.20	15.54	<=34.77	Pass
	710	1	0	23.71	-5.20	16.36	<=34.77	Pass
			13	23.76	-5.20	16.41	<=34.77	Pass
			24	23.86	-5.20	16.51	<=34.77	Pass
		12	0	22.86	-5.20	15.51	<=34.77	Pass
			6	22.86	-5.20	15.51	<=34.77	Pass
			13	22.79	-5.20	15.44	<=34.77	Pass
		25	0	22.89	-5.20	15.54	<=34.77	Pass
	713.5	1	0	23.79	-5.20	16.44	<=34.77	Pass
			13	23.72	-5.20	16.37	<=34.77	Pass
			24	23.71	-5.20	16.36	<=34.77	Pass
		12	0	22.85	-5.20	15.50	<=34.77	Pass
			6	22.75	-5.20	15.40	<=34.77	Pass
			13	22.77	-5.20	15.42	<=34.77	Pass
		25	0	22.82	-5.20	15.47	<=34.77	Pass
16QAM	706.5	1	0	22.97	-5.20	15.62	<=34.77	Pass
			13	22.90	-5.20	15.55	<=34.77	Pass
			24	22.90	-5.20	15.55	<=34.77	Pass
		12	0	21.92	-5.20	14.57	<=34.77	Pass
			6	21.89	-5.20	14.54	<=34.77	Pass
			13	21.88	-5.20	14.53	<=34.77	Pass
		25	0	21.91	-5.20	14.56	<=34.77	Pass
	710	1	0	23.13	-5.20	15.78	<=34.77	Pass
			13	22.93	-5.20	15.58	<=34.77	Pass
			24	22.94	-5.20	15.59	<=34.77	Pass
		12	0	21.93	-5.20	14.58	<=34.77	Pass
			6	21.86	-5.20	14.51	<=34.77	Pass
			13	21.88	-5.20	14.53	<=34.77	Pass
		25	0	21.91	-5.20	14.56	<=34.77	Pass
	713.5	1	0	22.97	-5.20	15.62	<=34.77	Pass
			13	22.98	-5.20	15.63	<=34.77	Pass
			24	22.37	-5.20	15.02	<=34.77	Pass
		12	0	21.86	-5.20	14.51	<=34.77	Pass
			6	21.70	-5.20	14.35	<=34.77	Pass
			13	21.56	-5.20	14.21	<=34.77	Pass
		25	0	21.70	-5.20	14.35	<=34.77	Pass
64QAM	706.5	1	0	22.04	-5.20	14.69	<=34.77	Pass
			13	21.62	-5.20	14.27	<=34.77	Pass
			24	21.63	-5.20	14.28	<=34.77	Pass
		12	0	20.90	-5.20	13.55	<=34.77	Pass
			6	20.93	-5.20	13.58	<=34.77	Pass
			13	20.84	-5.20	13.49	<=34.77	Pass
		25	0	20.91	-5.20	13.56	<=34.77	Pass

	710	1	0	22.08	-5.20	14.73	<=34.77	Pass
			13	22.01	-5.20	14.66	<=34.77	Pass
			24	21.86	-5.20	14.51	<=34.77	Pass
		12	0	20.77	-5.20	13.42	<=34.77	Pass
			6	20.86	-5.20	13.51	<=34.77	Pass
			13	20.87	-5.20	13.52	<=34.77	Pass
		25	0	20.87	-5.20	13.52	<=34.77	Pass
	713.5	1	0	21.86	-5.20	14.51	<=34.77	Pass
			13	21.75	-5.20	14.40	<=34.77	Pass
			24	21.86	-5.20	14.51	<=34.77	Pass
		12	0	20.89	-5.20	13.54	<=34.77	Pass
			6	20.74	-5.20	13.39	<=34.77	Pass
			13	20.79	-5.20	13.44	<=34.77	Pass
		25	0	20.85	-5.20	13.50	<=34.77	Pass
256QAM	706.5	1	0	19.01	-5.20	11.66	<=34.77	Pass
			13	18.83	-5.20	11.48	<=34.77	Pass
			24	18.88	-5.20	11.53	<=34.77	Pass
		12	0	18.88	-5.20	11.53	<=34.77	Pass
			6	18.84	-5.20	11.49	<=34.77	Pass
			13	18.83	-5.20	11.48	<=34.77	Pass
		25	0	18.84	-5.20	11.49	<=34.77	Pass
	710	1	0	18.89	-5.20	11.54	<=34.77	Pass
			13	18.70	-5.20	11.35	<=34.77	Pass
			24	18.69	-5.20	11.34	<=34.77	Pass
		12	0	18.84	-5.20	11.49	<=34.77	Pass
			6	18.84	-5.20	11.49	<=34.77	Pass
			13	18.79	-5.20	11.44	<=34.77	Pass
		25	0	18.85	-5.20	11.50	<=34.77	Pass
	713.5	1	0	18.96	-5.20	11.61	<=34.77	Pass
			13	18.83	-5.20	11.48	<=34.77	Pass
			24	18.87	-5.20	11.52	<=34.77	Pass
		12	0	18.81	-5.20	11.46	<=34.77	Pass
			6	18.86	-5.20	11.51	<=34.77	Pass
			13	18.76	-5.20	11.41	<=34.77	Pass
		25	0	18.81	-5.20	11.46	<=34.77	Pass
Note1: ERP=Conducted Power+Antenna Gain-2.15								

1.1.2 B17_10MHz_ERP

Band: 17 / Bandwidth: 10MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	709	1	0	23.92	-5.20	16.57	<=34.77	Pass
			25	23.68	-5.20	16.33	<=34.77	Pass
			49	23.75	-5.20	16.40	<=34.77	Pass
		25	0	22.87	-5.20	15.52	<=34.77	Pass
			13	22.83	-5.20	15.48	<=34.77	Pass
			25	22.81	-5.20	15.46	<=34.77	Pass
		50	0	22.82	-5.20	15.47	<=34.77	Pass
	710	1	0	23.85	-5.20	16.50	<=34.77	Pass
			25	23.72	-5.20	16.37	<=34.77	Pass
			49	23.66	-5.20	16.31	<=34.77	Pass
		25	0	22.88	-5.20	15.53	<=34.77	Pass
			13	22.79	-5.20	15.44	<=34.77	Pass
			25	22.79	-5.20	15.44	<=34.77	Pass
		50	0	22.81	-5.20	15.46	<=34.77	Pass
	711	1	0	23.83	-5.20	16.48	<=34.77	Pass

		25	25	23.55	-5.20	16.20	<=34.77	Pass
			49	23.54	-5.20	16.19	<=34.77	Pass
			0	22.86	-5.20	15.51	<=34.77	Pass
			13	22.79	-5.20	15.44	<=34.77	Pass
			25	22.78	-5.20	15.43	<=34.77	Pass
		50	0	22.82	-5.20	15.47	<=34.77	Pass
16QAM	709	1	0	22.97	-5.20	15.62	<=34.77	Pass
			25	23.02	-5.20	15.67	<=34.77	Pass
			49	22.97	-5.20	15.62	<=34.77	Pass
		25	0	21.86	-5.20	14.51	<=34.77	Pass
			13	21.81	-5.20	14.46	<=34.77	Pass
			25	21.82	-5.20	14.47	<=34.77	Pass
		50	0	21.88	-5.20	14.53	<=34.77	Pass
	710	1	0	22.91	-5.20	15.56	<=34.77	Pass
			25	23.00	-5.20	15.65	<=34.77	Pass
			49	22.78	-5.20	15.43	<=34.77	Pass
		25	0	21.87	-5.20	14.52	<=34.77	Pass
			13	21.86	-5.20	14.51	<=34.77	Pass
			25	21.17	-5.20	13.82	<=34.77	Pass
		50	0	21.86	-5.20	14.51	<=34.77	Pass
	711	1	0	23.15	-5.20	15.80	<=34.77	Pass
			25	22.56	-5.20	15.21	<=34.77	Pass
			49	22.46	-5.20	15.11	<=34.77	Pass
		25	0	21.90	-5.20	14.55	<=34.77	Pass
			13	21.78	-5.20	14.43	<=34.77	Pass
			25	21.70	-5.20	14.35	<=34.77	Pass
		50	0	21.85	-5.20	14.50	<=34.77	Pass
64QAM	709	1	0	21.99	-5.20	14.64	<=34.77	Pass
			25	21.89	-5.20	14.54	<=34.77	Pass
			49	21.67	-5.20	14.32	<=34.77	Pass
		25	0	20.87	-5.20	13.52	<=34.77	Pass
			13	20.83	-5.20	13.48	<=34.77	Pass
			25	20.74	-5.20	13.39	<=34.77	Pass
		50	0	20.82	-5.20	13.47	<=34.77	Pass
	710	1	0	22.09	-5.20	14.74	<=34.77	Pass
			25	21.69	-5.20	14.34	<=34.77	Pass
			49	21.70	-5.20	14.35	<=34.77	Pass
		25	0	20.86	-5.20	13.51	<=34.77	Pass
			13	20.74	-5.20	13.39	<=34.77	Pass
			25	20.70	-5.20	13.35	<=34.77	Pass
		50	0	20.83	-5.20	13.48	<=34.77	Pass
	711	1	0	21.68	-5.20	14.33	<=34.77	Pass
			25	21.65	-5.20	14.30	<=34.77	Pass
			49	21.62	-5.20	14.27	<=34.77	Pass
		25	0	20.86	-5.20	13.51	<=34.77	Pass
			13	20.80	-5.20	13.45	<=34.77	Pass
			25	20.77	-5.20	13.42	<=34.77	Pass
		50	0	20.82	-5.20	13.47	<=34.77	Pass
256QAM	709	1	0	18.94	-5.20	11.59	<=34.77	Pass
			25	18.90	-5.20	11.55	<=34.77	Pass
			49	18.97	-5.20	11.62	<=34.77	Pass
		25	0	18.84	-5.20	11.49	<=34.77	Pass
			13	18.79	-5.20	11.44	<=34.77	Pass
			25	18.79	-5.20	11.44	<=34.77	Pass
		50	0	18.80	-5.20	11.45	<=34.77	Pass
	710	1	0	18.76	-5.20	11.41	<=34.77	Pass
			25	18.84	-5.20	11.49	<=34.77	Pass
			49	18.70	-5.20	11.35	<=34.77	Pass
		25	0	18.71	-5.20	11.36	<=34.77	Pass

			13	18.80	-5.20	11.45	<=34.77	Pass
			25	18.76	-5.20	11.41	<=34.77	Pass
		50	0	18.82	-5.20	11.47	<=34.77	Pass
	711	1	0	18.98	-5.20	11.63	<=34.77	Pass
			25	18.85	-5.20	11.50	<=34.77	Pass
			49	18.90	-5.20	11.55	<=34.77	Pass
		25	0	18.82	-5.20	11.47	<=34.77	Pass
			13	18.79	-5.20	11.44	<=34.77	Pass
			25	18.73	-5.20	11.38	<=34.77	Pass
		50	0	18.77	-5.20	11.42	<=34.77	Pass
Note1: ERP=Conducted Power+Antenna Gain-2.15								

2. Frequency Stability

2.1 Test Result

2.1.1 B17_10MHz

Band: 17 / Bandwidth: 10MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	710	50	0	20	LV	-4.700	-0.0066	-2.5 to 2.5	Pass
					NV	-4.700	-0.0066	-2.5 to 2.5	Pass
					HV	-3.900	-0.0055	-2.5 to 2.5	Pass
				-30	NV	-4.100	-0.0058	-2.5 to 2.5	Pass
				-20	NV	-1.600	-0.0023	-2.5 to 2.5	Pass
				-10	NV	-0.900	-0.0013	-2.5 to 2.5	Pass
				0	NV	1.400	0.0020	-2.5 to 2.5	Pass
				10	NV	-5.900	-0.0083	-2.5 to 2.5	Pass
				30	NV	-5.800	-0.0082	-2.5 to 2.5	Pass
				40	NV	-2.800	-0.0039	-2.5 to 2.5	Pass
				50	NV	1.000	0.0014	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band17_OBW

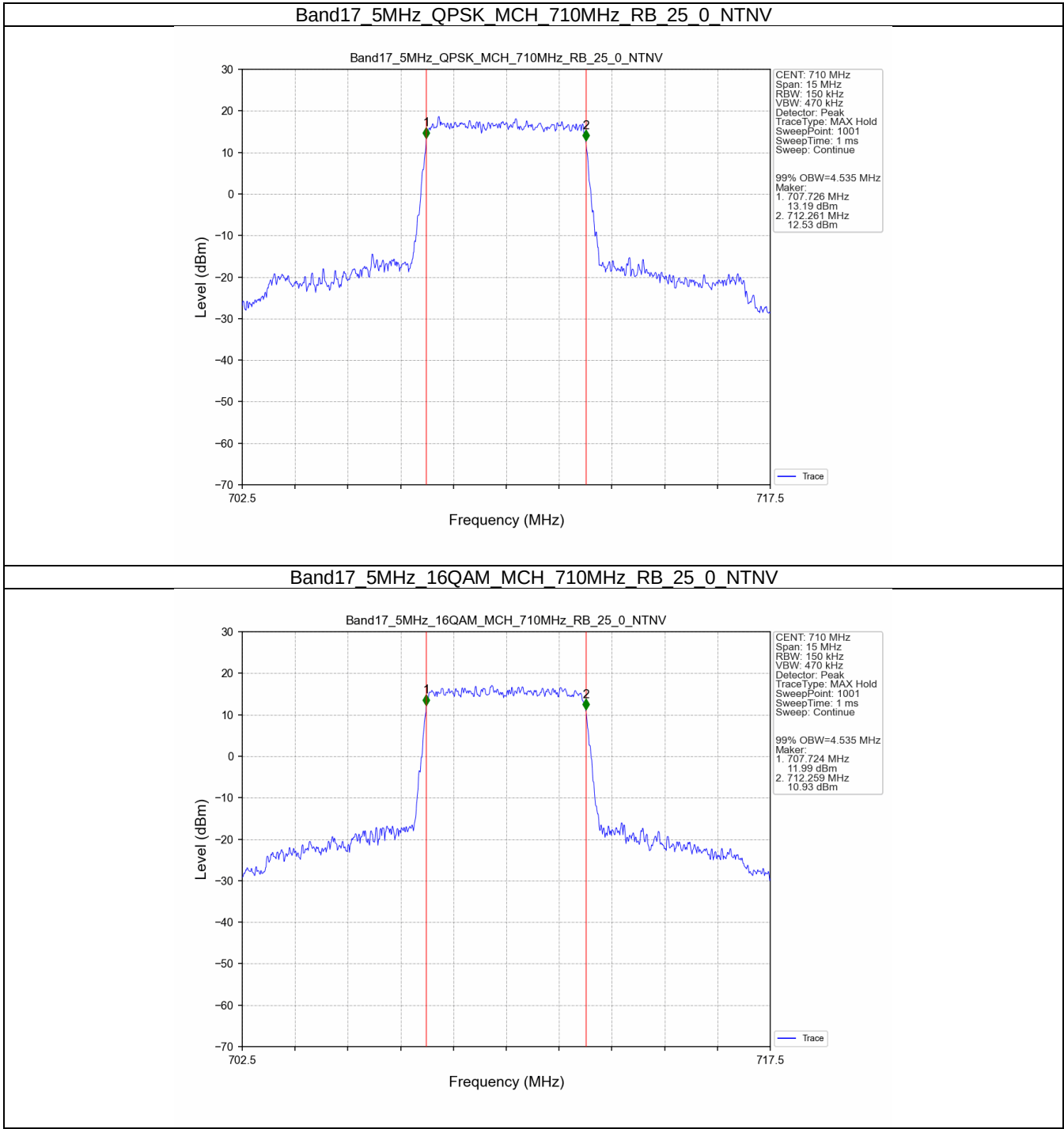
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	4.535	/	Pass
	16QAM	710	25	0	4.535	/	Pass
	64QAM	710	25	0	4.537	/	Pass
	256QAM	710	25	0	4.523	/	Pass
10	QPSK	710	50	0	9.053	/	Pass
	16QAM	710	50	0	9.041	/	Pass
	64QAM	710	50	0	9.055	/	Pass
	256QAM	710	50	0	9.011	/	Pass

3.1.2 Band17_XDB

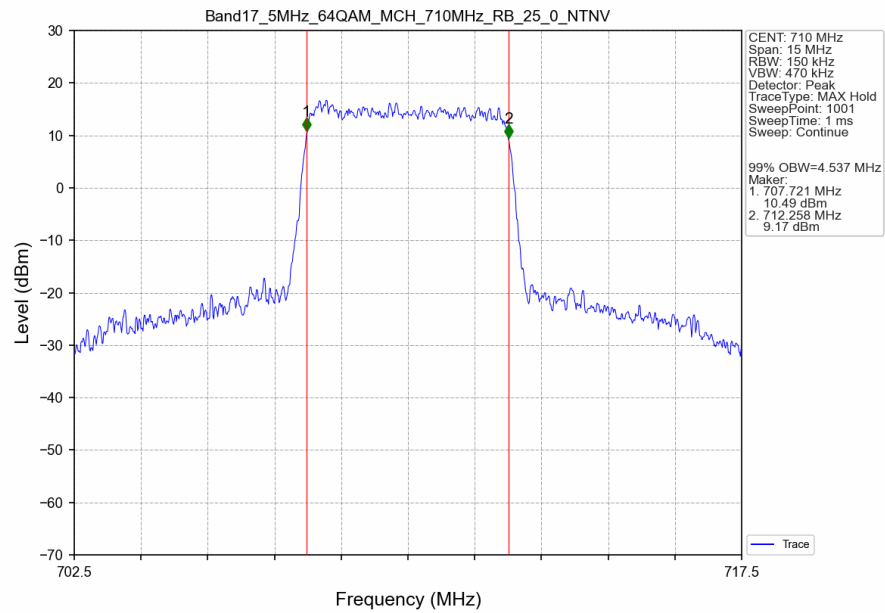
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	5.035	/	Pass
	16QAM	710	25	0	5.029	/	Pass
	64QAM	710	25	0	5.009	/	Pass
	256QAM	710	25	0	5.008	/	Pass
10	QPSK	710	50	0	9.938	/	Pass
	16QAM	710	50	0	9.880	/	Pass
	64QAM	710	50	0	9.969	/	Pass
	256QAM	710	50	0	9.852	/	Pass

3.2 Test Graph

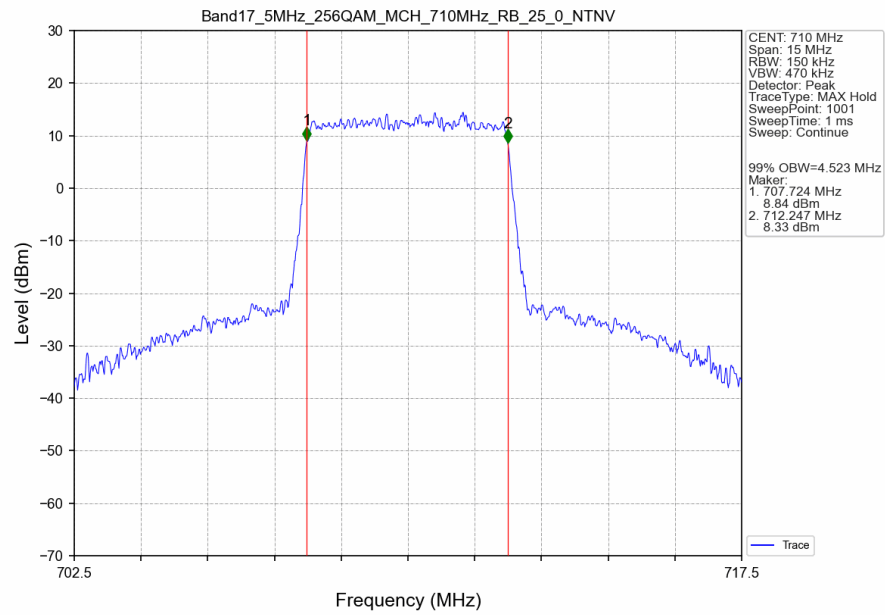
3.2.1 Band17_OBW



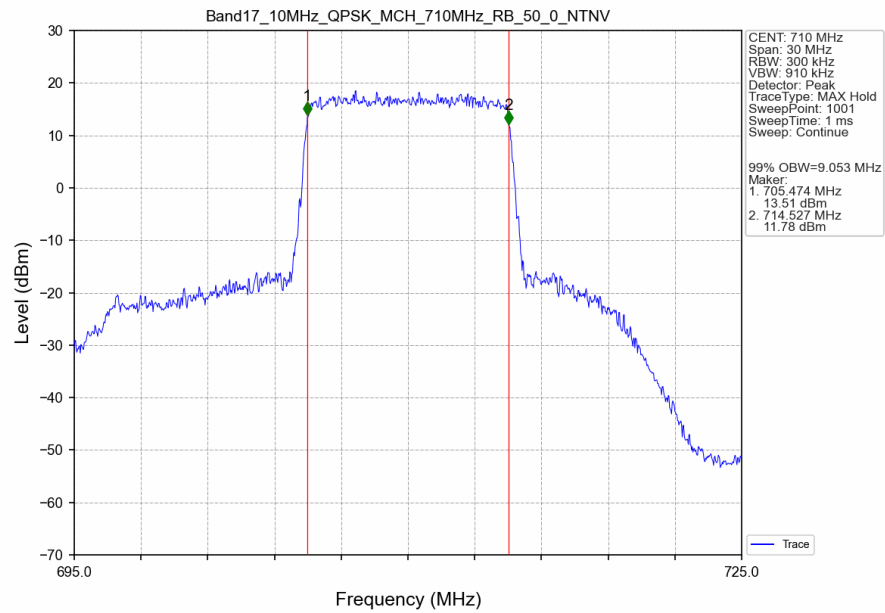
Band17 5MHz 64QAM MCH 710MHz RB 25 0 NTV



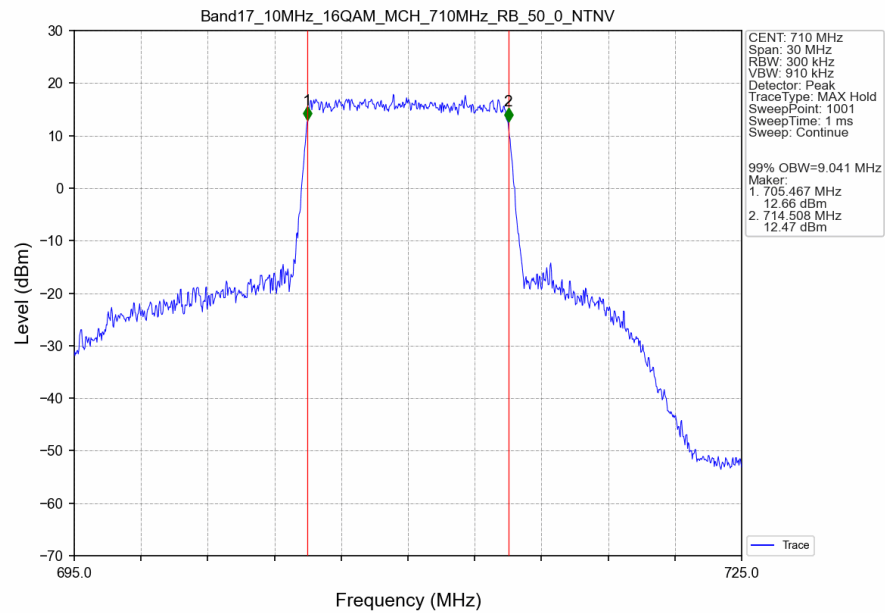
Band17 5MHz 256QAM MCH 710MHz RB 25 0 NTV



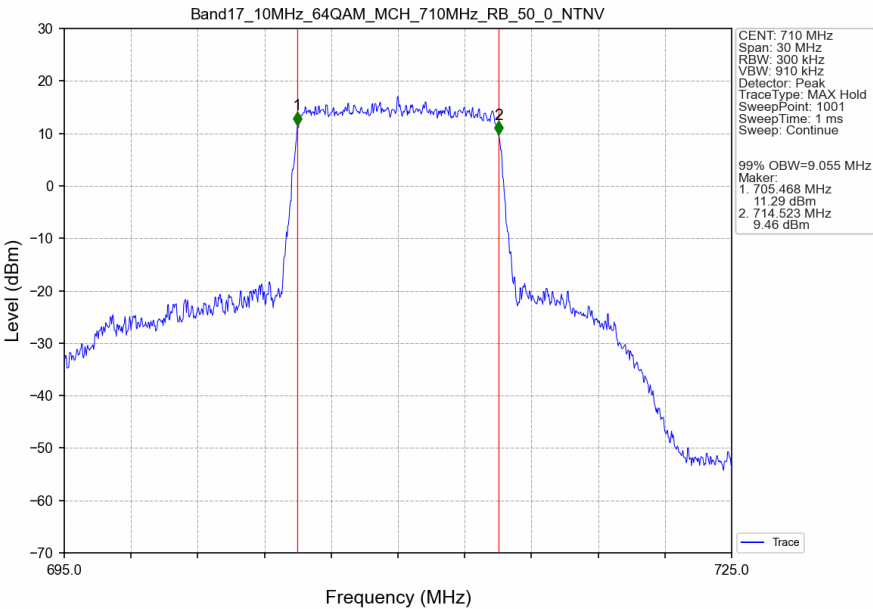
Band17 10MHz QPSK MCH 710MHz RB 50 0 NTV



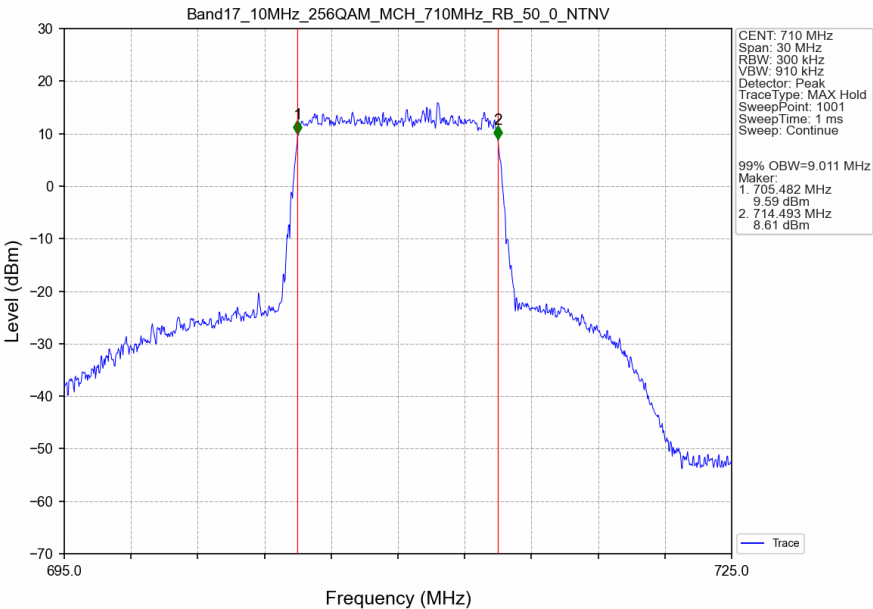
Band17 10MHz 16QAM MCH 710MHz RB 50 0 NTV



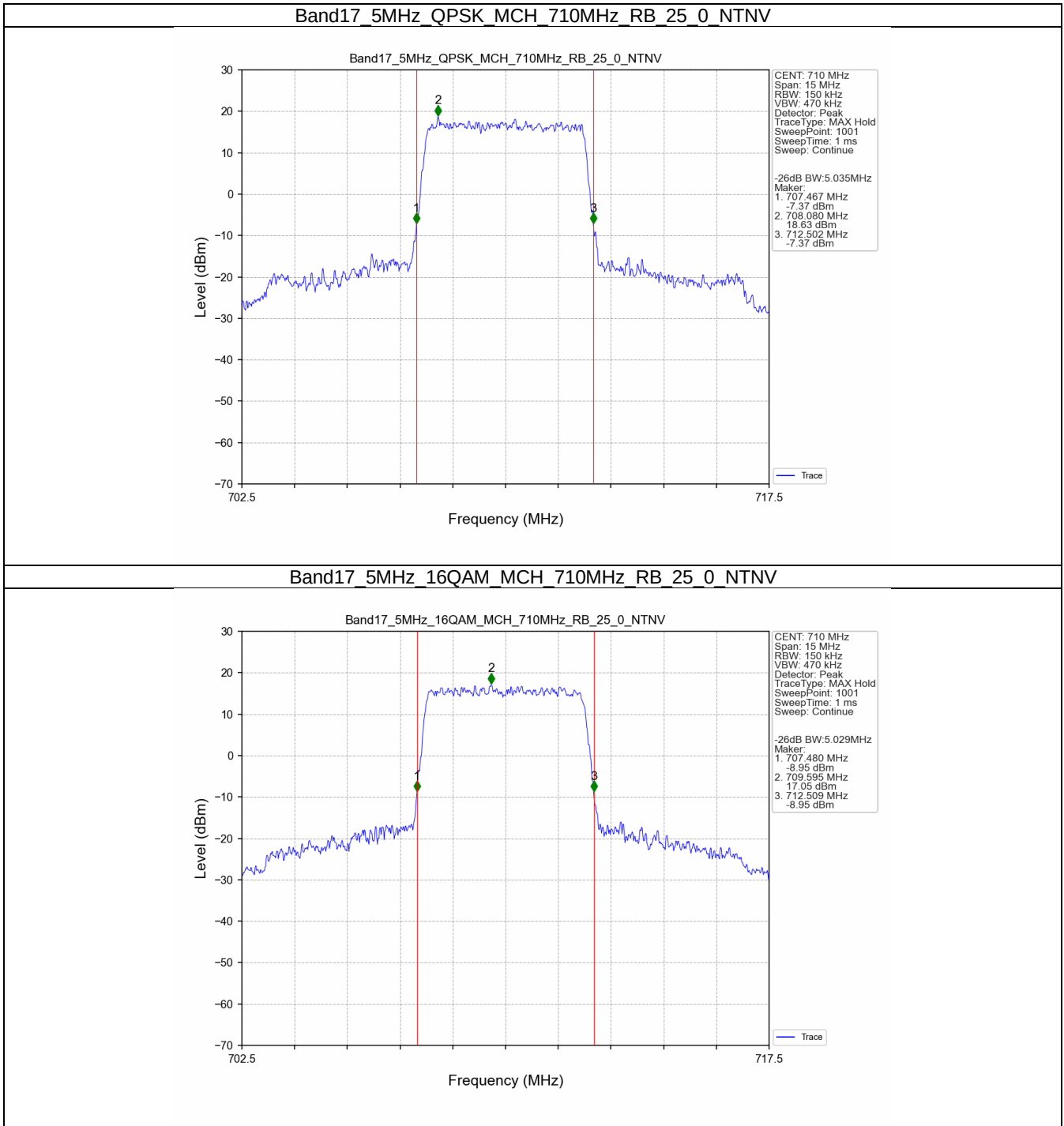
Band17_10MHz_64QAM_MCH_710MHz_RB_50_0_NTNV



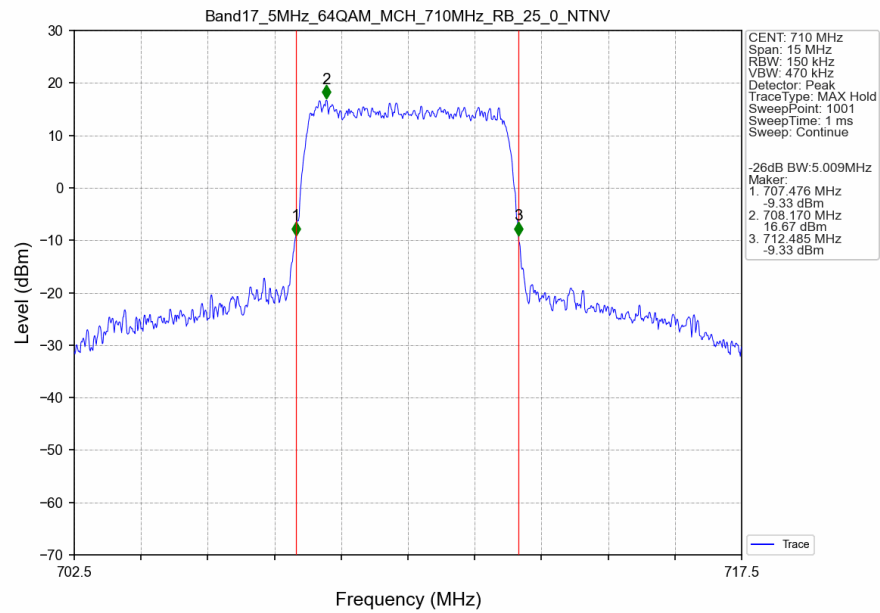
Band17_10MHz_256QAM_MCH_710MHz_RB_50_0_NTNV



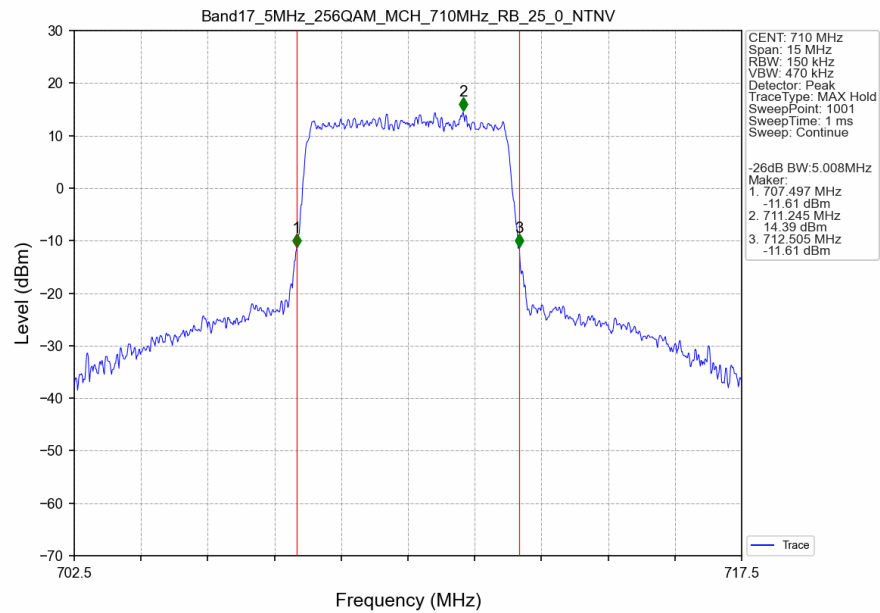
3.2.2 Band17_XDB



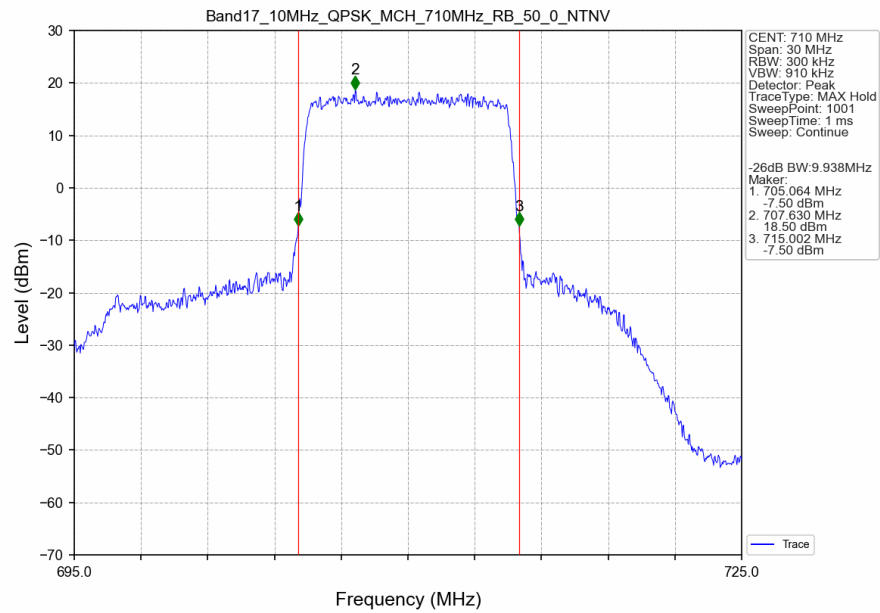
Band17 5MHz 64QAM MCH 710MHz RB 25 0 NTV



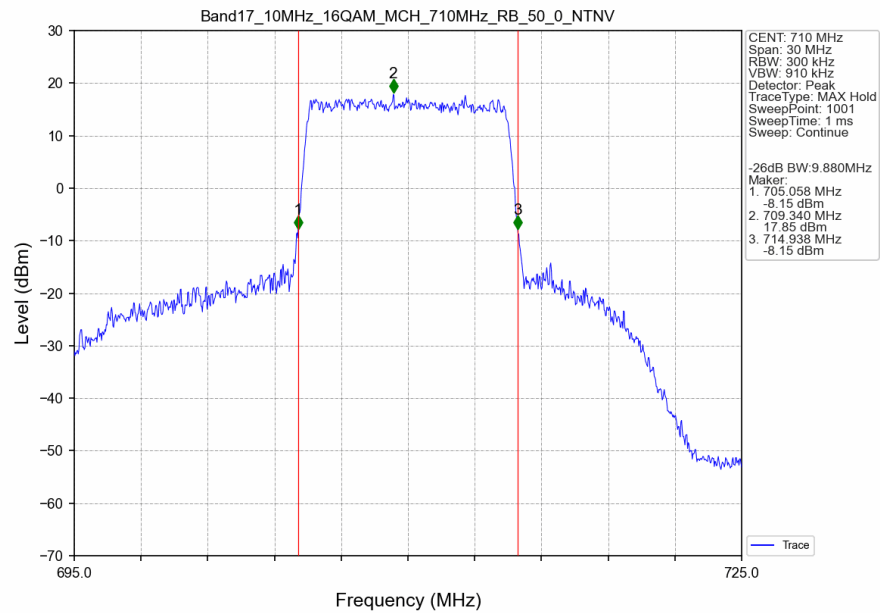
Band17 5MHz 256QAM MCH 710MHz RB 25 0 NTV



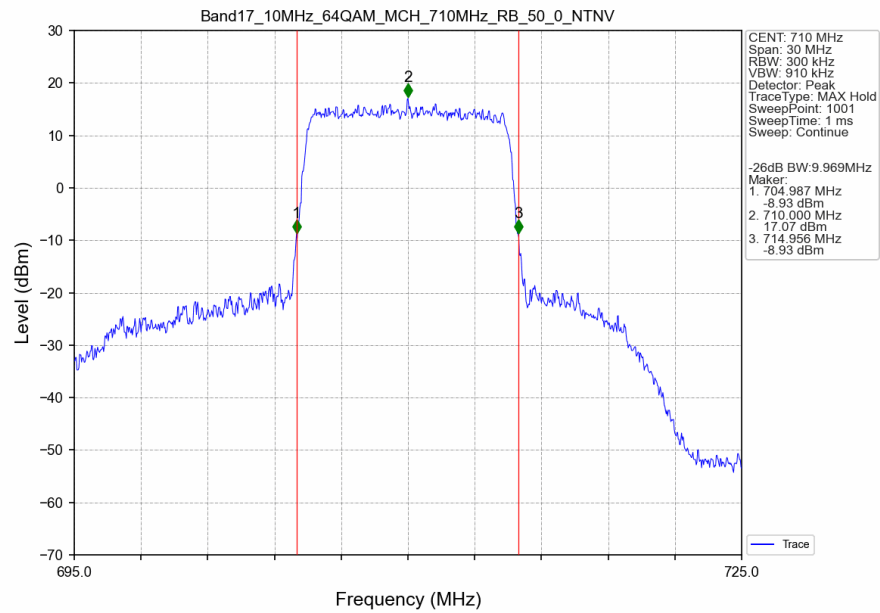
Band17 10MHz QPSK MCH 710MHz RB 50 0 NTV



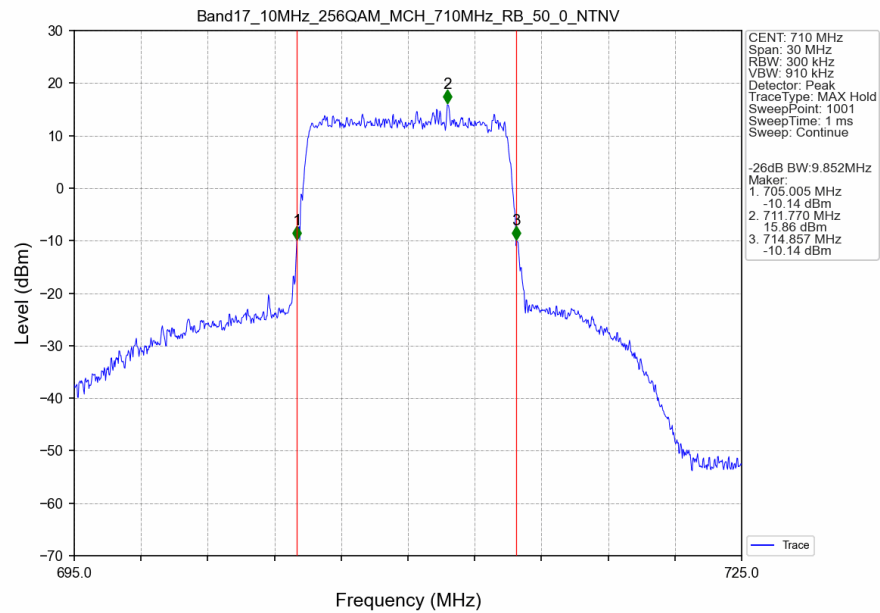
Band17 10MHz 16QAM MCH 710MHz RB 50 0 NTV



Band17 10MHz 64QAM MCH 710MHz RB 50 0 NTNV



Band17 10MHz 256QAM MCH 710MHz RB 50 0 NTNV



4. Peak-Average Ratio

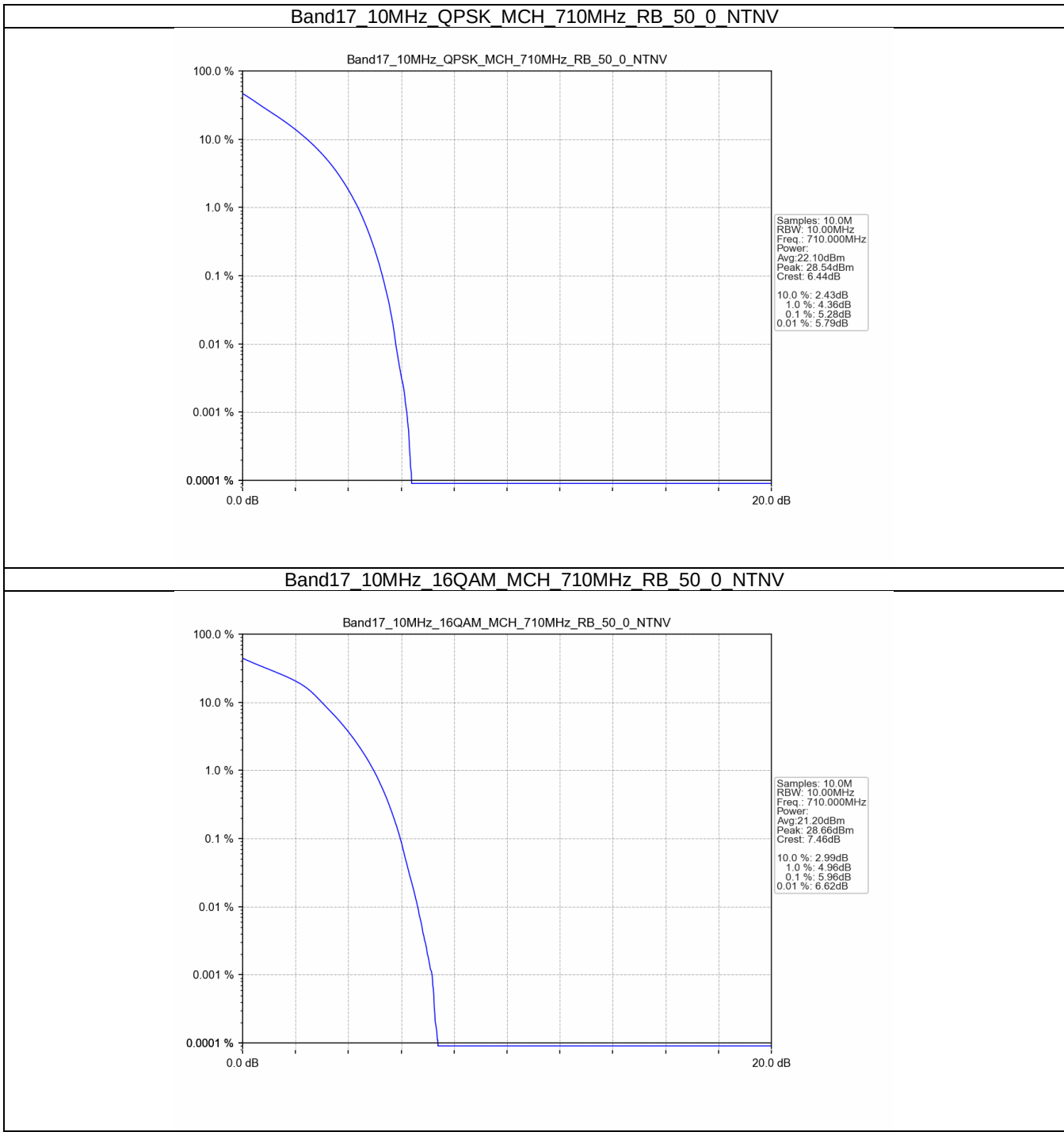
4.1 Test Result

4.1.1 B17_10MHz

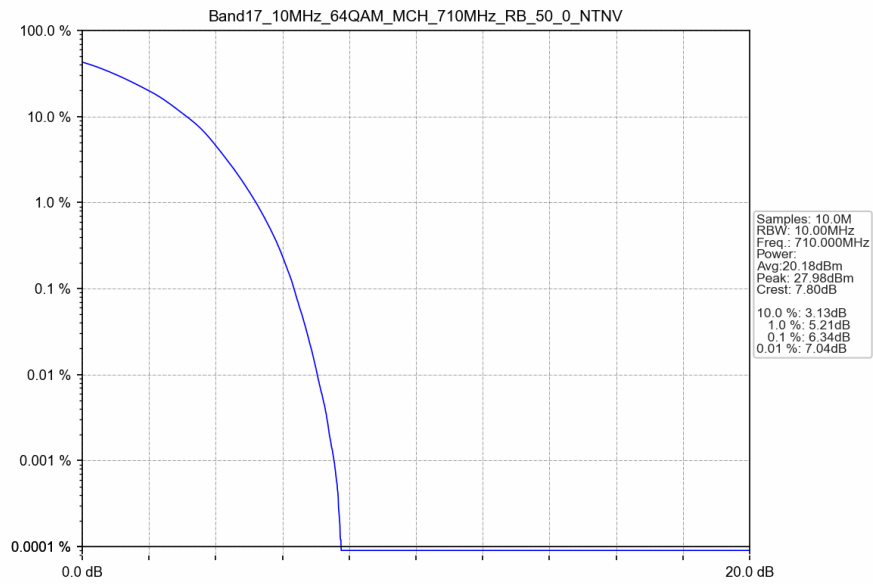
Band: 17 / Bandwidth: 10MHz / NTN						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	710	50	0	5.28	<=13	Pass
16QAM	710	50	0	5.96	<=13	Pass
64QAM	710	50	0	6.34	<=13	Pass
256QAM	710	50	0	6.72	<=13	Pass

4.2 Test Graph

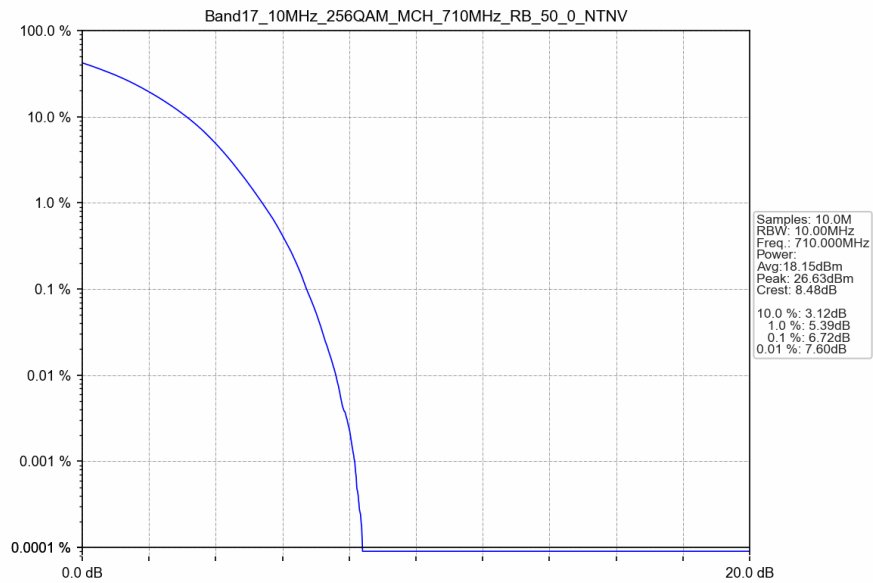
4.2.1 B17_10MHz



Band17 10MHz 64QAM MCH 710MHz RB 50 0 NTNV



Band17 10MHz 256QAM MCH 710MHz RB 50 0 NTNV



5. Spurious Emission

5.1 Test Result

5.1.1 B17_5MHz

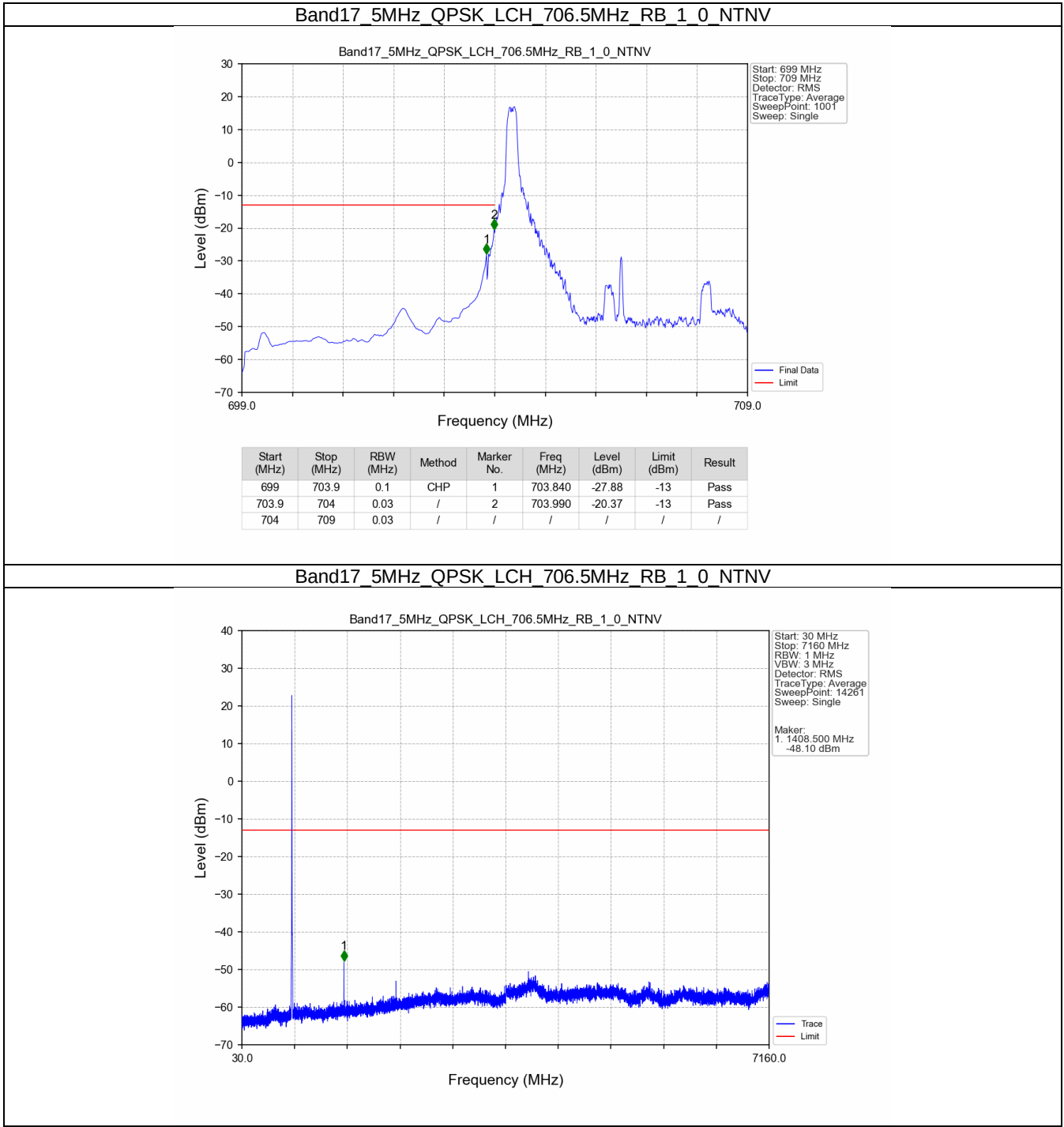
Band: 17 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	706.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	710	1	0	Refer To Test Graph		Pass
	713.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass

5.1.2 B17_10MHz

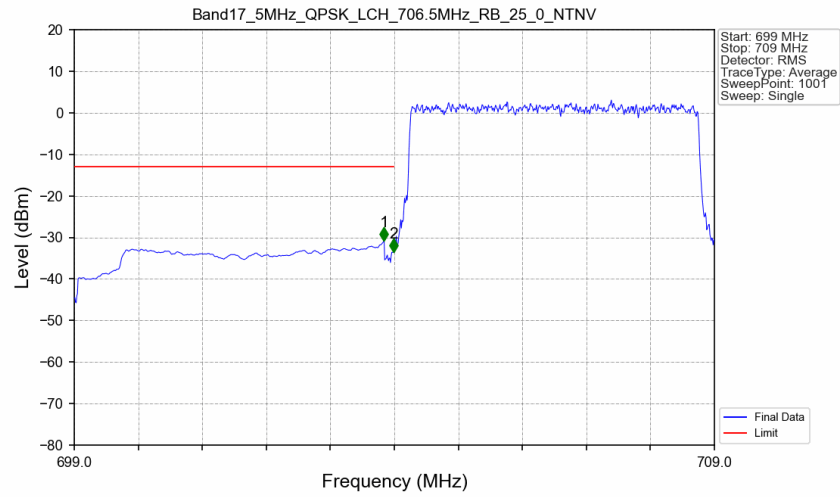
Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	709	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	710	1	0	Refer To Test Graph		Pass
	711	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

5.2 Test Graph

5.2.1 B17_5MHz

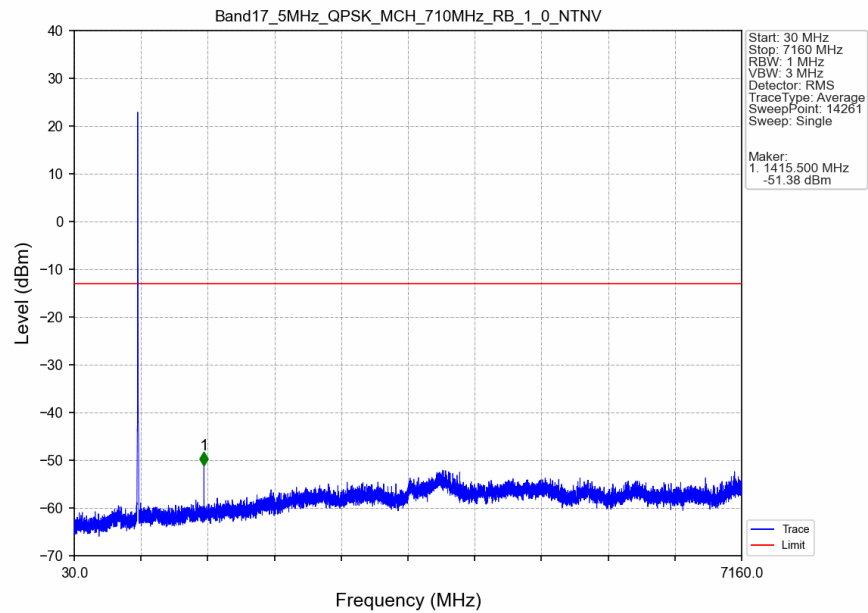


Band17_5MHz_QPSK_LCH_706.5MHz_RB_25_0_NTNV

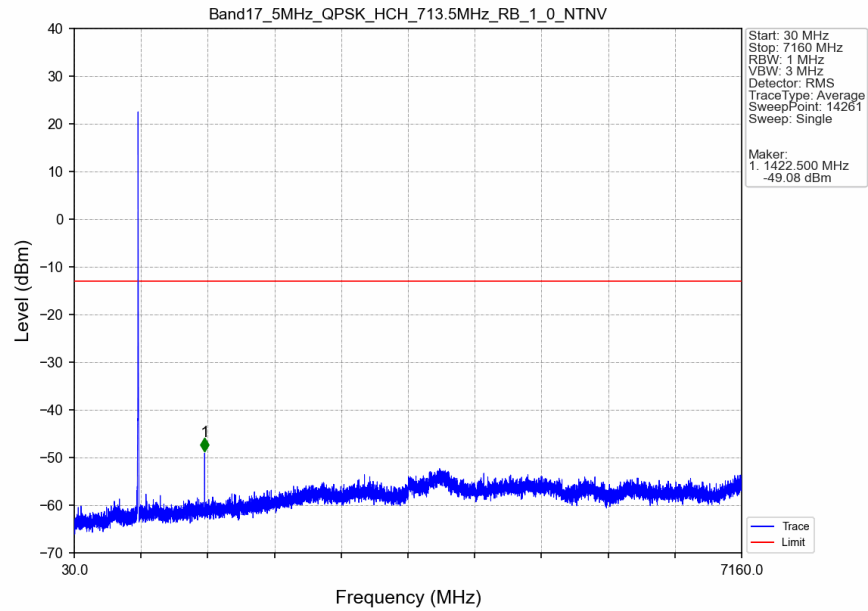


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.840	-30.73	-13	Pass
703.9	704	0.03	/	2	703.990	-33.52	-13	Pass
704	709	0.03	/	/	/	/	/	/

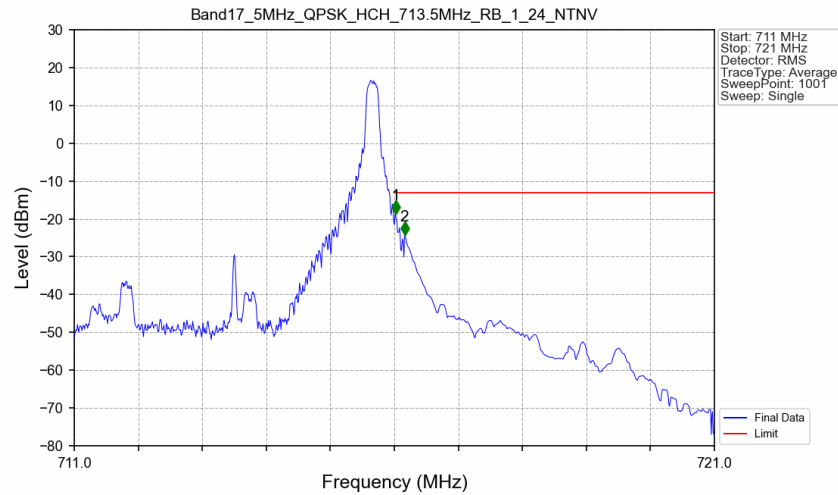
Band17_5MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17 5MHz QPSK HCH 713.5MHz RB 1 0 NTNV

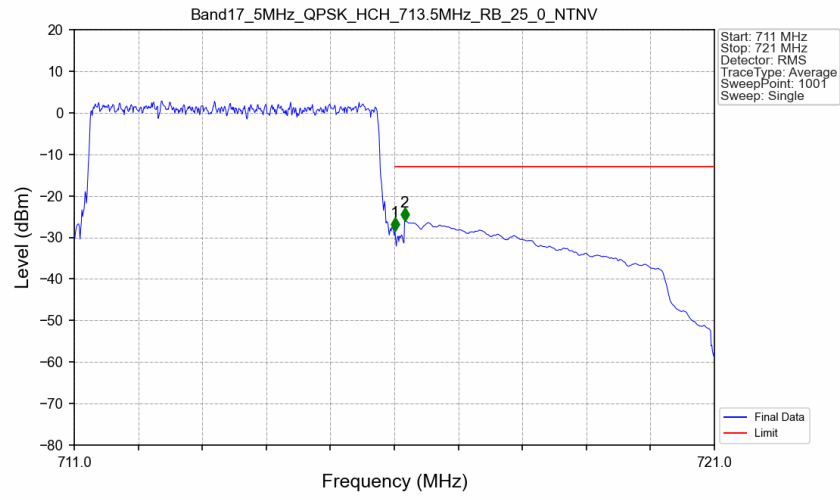


Band17 5MHz QPSK HCH 713.5MHz RB 1 24 NTNV



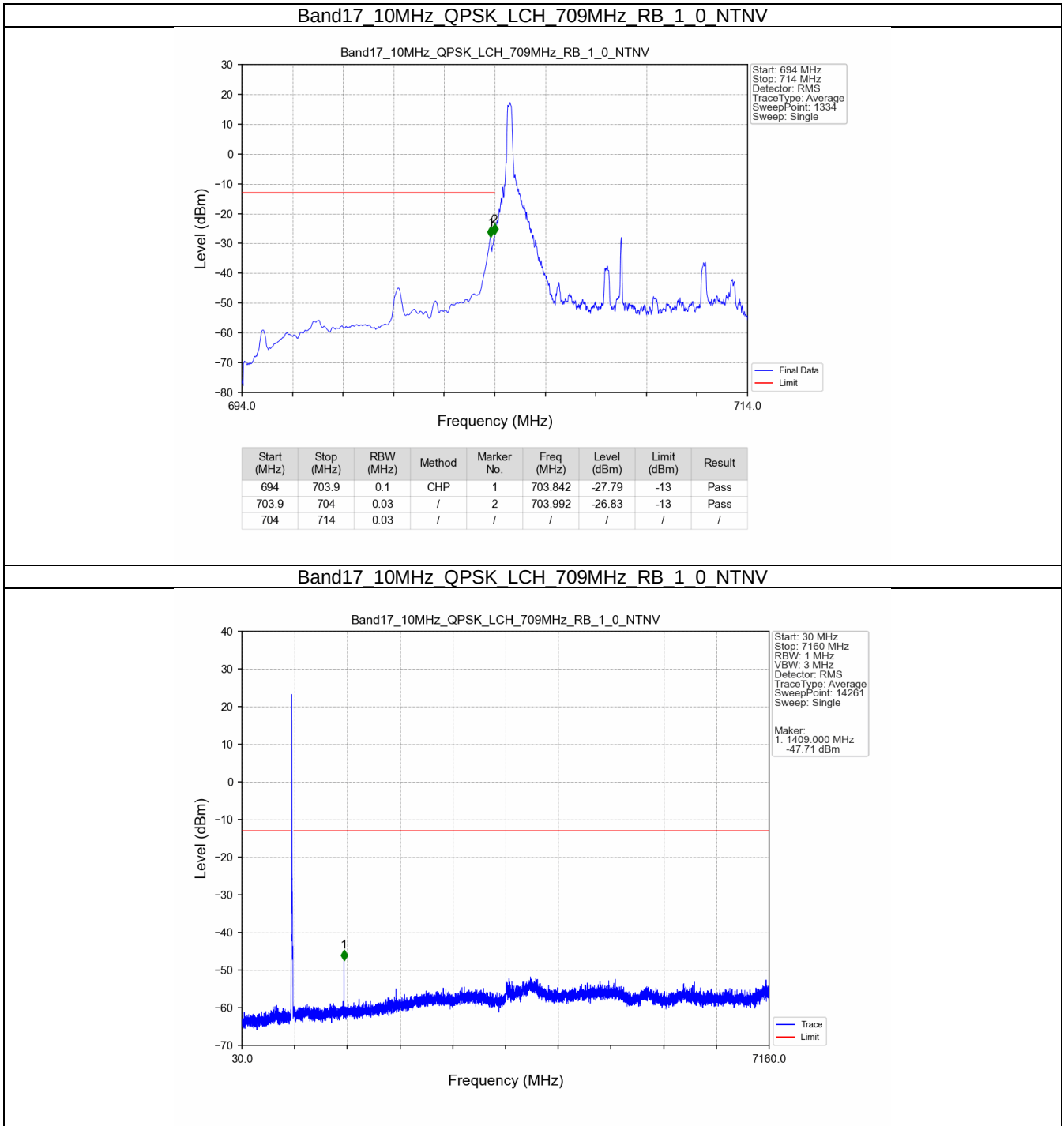
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.020	-18.63	-13	Pass
716.1	721	0.1	CHP	2	716.160	-24.23	-13	Pass

Band17 5MHz QPSK HCH 713.5MHz RB 25 0 NTN

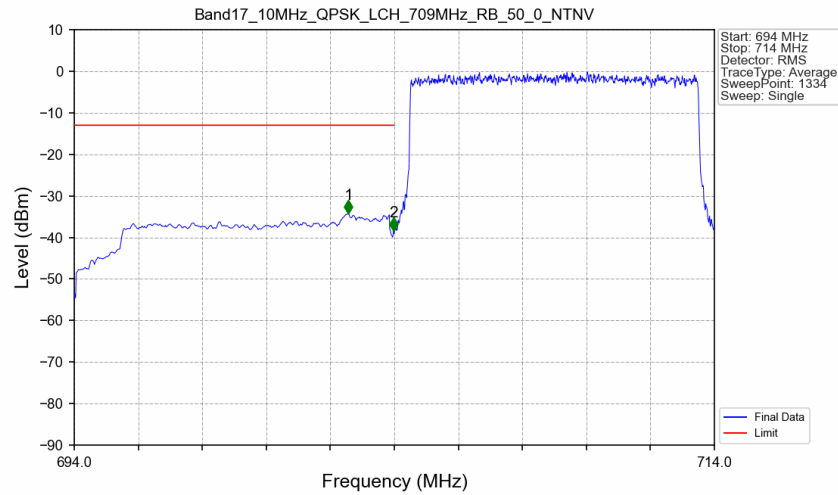


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.010	-28.37	-13	Pass
716.1	721	0.1	CHP	2	716.160	-25.96	-13	Pass

5.2.2 B17_10MHz

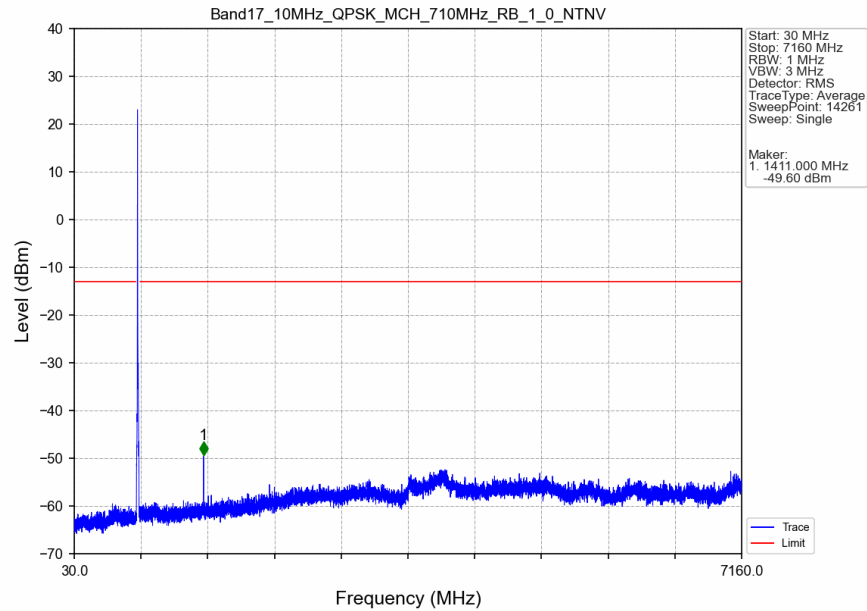


Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV

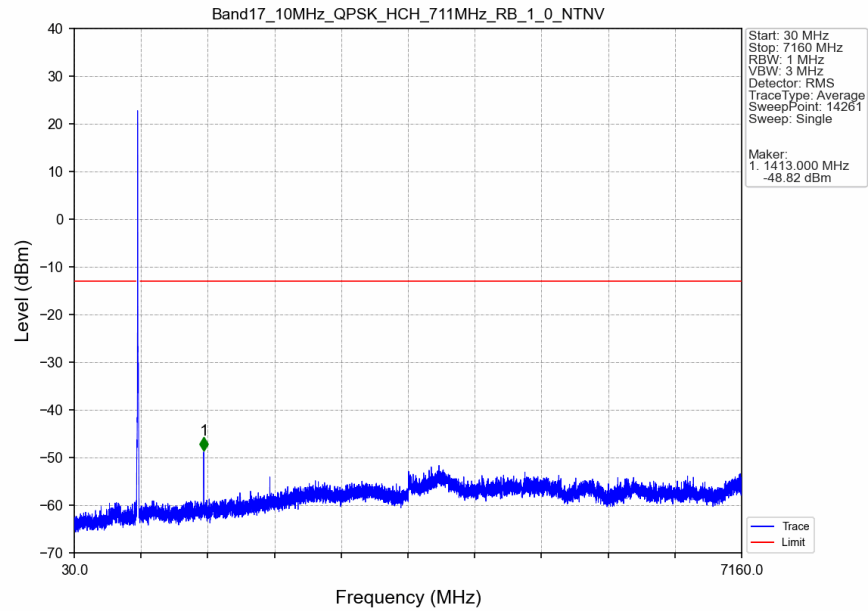


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	702.567	-34.27	-13	Pass
703.9	704	0.03	/	2	703.977	-38.42	-13	Pass
704	714	0.03	/	/	/	/	/	/

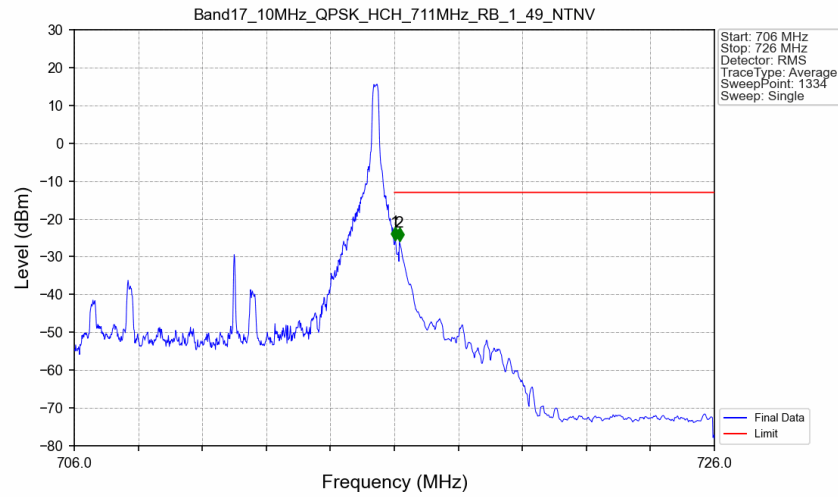
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17 10MHz QPSK HCH 711MHz RB 1 0 NTN

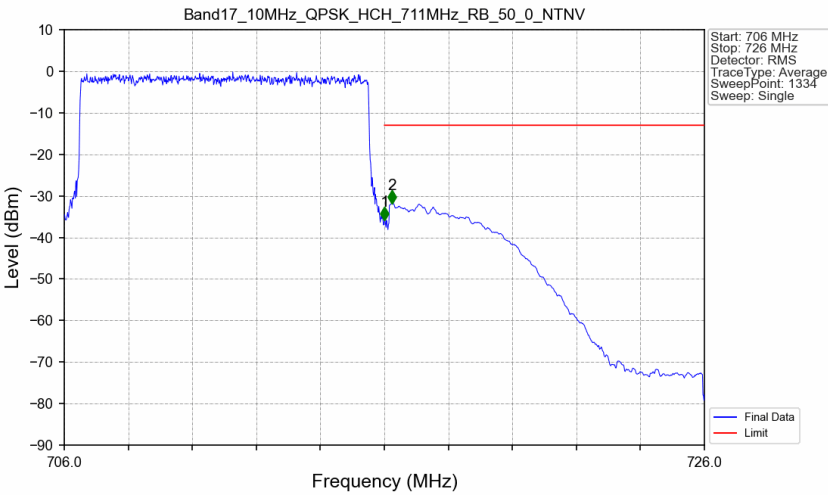


Band17 10MHz QPSK HCH 711MHz RB 1 49 NTN



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.023	-25.71	-13	Pass
716.1	726	0.1	CHP	2	716.158	-25.89	-13	Pass

Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.008	-35.85	-13	Pass
716.1	726	0.1	CHP	2	716.233	-31.79	-13	Pass