

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	22.91	-1.52	19.24	<=34.77	Pass
			13	22.98	-1.52	19.31	<=34.77	Pass
			24	22.84	-1.52	19.17	<=34.77	Pass
		12	0	21.94	-1.52	18.27	<=34.77	Pass
			6	22.07	-1.52	18.40	<=34.77	Pass
			13	21.93	-1.52	18.26	<=34.77	Pass
		25	0	22.03	-1.52	18.36	<=34.77	Pass
	710	1	0	22.90	-1.52	19.23	<=34.77	Pass
			13	22.88	-1.52	19.21	<=34.77	Pass
			24	22.52	-1.52	18.85	<=34.77	Pass
		12	0	21.89	-1.52	18.22	<=34.77	Pass
			6	21.93	-1.52	18.26	<=34.77	Pass
			13	22.00	-1.52	18.33	<=34.77	Pass
		25	0	21.93	-1.52	18.26	<=34.77	Pass
	713.5	1	0	22.79	-1.52	19.12	<=34.77	Pass
			13	22.76	-1.52	19.09	<=34.77	Pass
			24	22.55	-1.52	18.88	<=34.77	Pass
		12	0	21.84	-1.52	18.17	<=34.77	Pass
			6	21.75	-1.52	18.08	<=34.77	Pass
			13	21.78	-1.52	18.11	<=34.77	Pass
		25	0	21.73	-1.52	18.06	<=34.77	Pass
16QAM	706.5	1	0	22.25	-1.52	18.58	<=34.77	Pass
			13	22.48	-1.52	18.81	<=34.77	Pass
			24	22.30	-1.52	18.63	<=34.77	Pass
		12	0	21.04	-1.52	17.37	<=34.77	Pass
			6	21.07	-1.52	17.40	<=34.77	Pass
			13	20.97	-1.52	17.30	<=34.77	Pass
		25	0	21.00	-1.52	17.33	<=34.77	Pass
	710	1	0	22.27	-1.52	18.60	<=34.77	Pass
			13	21.84	-1.52	18.17	<=34.77	Pass
			24	22.01	-1.52	18.34	<=34.77	Pass
		12	0	20.89	-1.52	17.22	<=34.77	Pass
			6	21.04	-1.52	17.37	<=34.77	Pass
			13	20.95	-1.52	17.28	<=34.77	Pass
		25	0	20.84	-1.52	17.17	<=34.77	Pass
	713.5	1	0	21.73	-1.52	18.06	<=34.77	Pass
			13	22.05	-1.52	18.38	<=34.77	Pass
			24	21.84	-1.52	18.17	<=34.77	Pass
		12	0	20.88	-1.52	17.21	<=34.77	Pass
			6	20.72	-1.52	17.05	<=34.77	Pass
			13	20.79	-1.52	17.12	<=34.77	Pass
		25	0	20.81	-1.52	17.14	<=34.77	Pass
64QAM	706.5	1	0	21.79	-1.52	18.12	<=34.77	Pass
			13	22.11	-1.52	18.44	<=34.77	Pass
			24	22.06	-1.52	18.39	<=34.77	Pass
		12	0	20.96	-1.52	17.29	<=34.77	Pass
			6	21.07	-1.52	17.40	<=34.77	Pass
			13	20.94	-1.52	17.27	<=34.77	Pass
		25	0	21.00	-1.52	17.33	<=34.77	Pass

	710	1	0	21.64	-1.52	17.97	<=34.77	Pass	
			13	21.92	-1.52	18.25	<=34.77	Pass	
			24	21.75	-1.52	18.08	<=34.77	Pass	
		12	0	20.94	-1.52	17.27	<=34.77	Pass	
			6	20.93	-1.52	17.26	<=34.77	Pass	
			13	20.92	-1.52	17.25	<=34.77	Pass	
		25	0	20.92	-1.52	17.25	<=34.77	Pass	
		713.5	1	0	22.26	-1.52	18.59	<=34.77	Pass
				13	21.93	-1.52	18.26	<=34.77	Pass
	24			21.64	-1.52	17.97	<=34.77	Pass	
	12		0	20.80	-1.52	17.13	<=34.77	Pass	
			6	20.83	-1.52	17.16	<=34.77	Pass	
			13	20.76	-1.52	17.09	<=34.77	Pass	
	25		0	20.81	-1.52	17.14	<=34.77	Pass	
256QAM	706.5	1	0	18.31	-1.52	14.64	<=34.77	Pass	
			13	17.59	-1.52	13.92	<=34.77	Pass	
			24	18.04	-1.52	14.37	<=34.77	Pass	
		12	0	17.99	-1.52	14.32	<=34.77	Pass	
			6	18.08	-1.52	14.41	<=34.77	Pass	
			13	18.07	-1.52	14.40	<=34.77	Pass	
		25	0	17.98	-1.52	14.31	<=34.77	Pass	
	710	1	0	17.98	-1.52	14.31	<=34.77	Pass	
			13	18.12	-1.52	14.45	<=34.77	Pass	
			24	18.14	-1.52	14.47	<=34.77	Pass	
		12	0	17.47	-1.52	13.80	<=34.77	Pass	
			6	18.00	-1.52	14.33	<=34.77	Pass	
			13	18.00	-1.52	14.33	<=34.77	Pass	
		25	0	17.90	-1.52	14.23	<=34.77	Pass	
	713.5	1	0	17.86	-1.52	14.19	<=34.77	Pass	
			13	17.83	-1.52	14.16	<=34.77	Pass	
			24	17.13	-1.52	13.46	<=34.77	Pass	
		12	0	17.99	-1.52	14.32	<=34.77	Pass	
			6	17.86	-1.52	14.19	<=34.77	Pass	
			13	17.83	-1.52	14.16	<=34.77	Pass	
		25	0	17.79	-1.52	14.12	<=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	23.02	-1.52	19.35	<=34.77	Pass
			25	22.87	-1.52	19.20	<=34.77	Pass
			49	22.68	-1.52	19.01	<=34.77	Pass
		25	0	21.90	-1.52	18.23	<=34.77	Pass
			13	22.09	-1.52	18.42	<=34.77	Pass
			25	21.94	-1.52	18.27	<=34.77	Pass
		50	0	21.98	-1.52	18.31	<=34.77	Pass
	710	1	0	22.93	-1.52	19.26	<=34.77	Pass
			25	22.96	-1.52	19.29	<=34.77	Pass
			49	22.73	-1.52	19.06	<=34.77	Pass
		25	0	21.98	-1.52	18.31	<=34.77	Pass
			13	21.93	-1.52	18.26	<=34.77	Pass
			25	21.89	-1.52	18.22	<=34.77	Pass
		50	0	22.05	-1.52	18.38	<=34.77	Pass
	711	1	0	22.96	-1.52	19.29	<=34.77	Pass

		25	25	22.85	-1.52	19.18	<=34.77	Pass
			49	22.50	-1.52	18.83	<=34.77	Pass
			0	21.96	-1.52	18.29	<=34.77	Pass
			13	22.01	-1.52	18.34	<=34.77	Pass
			25	21.93	-1.52	18.26	<=34.77	Pass
		50	0	22.05	-1.52	18.38	<=34.77	Pass
16QAM	709	1	0	21.89	-1.52	18.22	<=34.77	Pass
			25	21.86	-1.52	18.19	<=34.77	Pass
			49	21.84	-1.52	18.17	<=34.77	Pass
		25	0	21.02	-1.52	17.35	<=34.77	Pass
			13	21.02	-1.52	17.35	<=34.77	Pass
			25	20.98	-1.52	17.31	<=34.77	Pass
		50	0	21.08	-1.52	17.41	<=34.77	Pass
	710	1	0	22.21	-1.52	18.54	<=34.77	Pass
			25	22.30	-1.52	18.63	<=34.77	Pass
			49	21.71	-1.52	18.04	<=34.77	Pass
		25	0	20.97	-1.52	17.30	<=34.77	Pass
			13	20.95	-1.52	17.28	<=34.77	Pass
			25	20.89	-1.52	17.22	<=34.77	Pass
		50	0	21.00	-1.52	17.33	<=34.77	Pass
	711	1	0	22.24	-1.52	18.57	<=34.77	Pass
			25	22.34	-1.52	18.67	<=34.77	Pass
			49	21.74	-1.52	18.07	<=34.77	Pass
		25	0	20.87	-1.52	17.20	<=34.77	Pass
			13	21.00	-1.52	17.33	<=34.77	Pass
			25	20.99	-1.52	17.32	<=34.77	Pass
		50	0	20.87	-1.52	17.20	<=34.77	Pass
64QAM	709	1	0	21.86	-1.52	18.19	<=34.77	Pass
			25	21.98	-1.52	18.31	<=34.77	Pass
			49	21.85	-1.52	18.18	<=34.77	Pass
		25	0	21.00	-1.52	17.33	<=34.77	Pass
			13	21.06	-1.52	17.39	<=34.77	Pass
			25	20.85	-1.52	17.18	<=34.77	Pass
		50	0	21.06	-1.52	17.39	<=34.77	Pass
	710	1	0	22.02	-1.52	18.35	<=34.77	Pass
			25	22.01	-1.52	18.34	<=34.77	Pass
			49	21.82	-1.52	18.15	<=34.77	Pass
		25	0	21.02	-1.52	17.35	<=34.77	Pass
			13	20.96	-1.52	17.29	<=34.77	Pass
			25	20.92	-1.52	17.25	<=34.77	Pass
		50	0	20.93	-1.52	17.26	<=34.77	Pass
	711	1	0	22.12	-1.52	18.45	<=34.77	Pass
			25	21.95	-1.52	18.28	<=34.77	Pass
			49	21.84	-1.52	18.17	<=34.77	Pass
		25	0	20.70	-1.52	17.03	<=34.77	Pass
			13	20.98	-1.52	17.31	<=34.77	Pass
			25	20.78	-1.52	17.11	<=34.77	Pass
		50	0	20.92	-1.52	17.25	<=34.77	Pass
256QAM	709	1	0	18.09	-1.52	14.42	<=34.77	Pass
			25	18.00	-1.52	14.33	<=34.77	Pass
			49	18.27	-1.52	14.60	<=34.77	Pass
		25	0	17.84	-1.52	14.17	<=34.77	Pass
			13	18.00	-1.52	14.33	<=34.77	Pass
			25	17.97	-1.52	14.30	<=34.77	Pass
		50	0	18.00	-1.52	14.33	<=34.77	Pass
	710	1	0	18.28	-1.52	14.61	<=34.77	Pass
			25	17.72	-1.52	14.05	<=34.77	Pass
			49	18.10	-1.52	14.43	<=34.77	Pass
		25	0	17.99	-1.52	14.32	<=34.77	Pass

			13	18.04	-1.52	14.37	<=34.77	Pass
			25	18.15	-1.52	14.48	<=34.77	Pass
		50	0	17.76	-1.52	14.09	<=34.77	Pass
	711	1	0	17.92	-1.52	14.25	<=34.77	Pass
			25	18.03	-1.52	14.36	<=34.77	Pass
			49	17.81	-1.52	14.14	<=34.77	Pass
		25	0	17.97	-1.52	14.30	<=34.77	Pass
			13	18.00	-1.52	14.33	<=34.77	Pass
			25	17.92	-1.52	14.25	<=34.77	Pass
		50	0	18.00	-1.52	14.33	<=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	1.100	0.0015	-2.5 to 2.5	Pass
					NV	0.500	0.0007	-2.5 to 2.5	Pass
					HV	1.600	0.0023	-2.5 to 2.5	Pass
				-30	NV	-0.300	-0.0004	-2.5 to 2.5	Pass
				-20	NV	1.500	0.0021	-2.5 to 2.5	Pass
				-10	NV	0.800	0.0011	-2.5 to 2.5	Pass
				0	NV	0.400	0.0006	-2.5 to 2.5	Pass
				10	NV	1.400	0.0020	-2.5 to 2.5	Pass
				30	NV	1.900	0.0027	-2.5 to 2.5	Pass
				40	NV	0.200	0.0003	-2.5 to 2.5	Pass
				50	NV	1.200	0.0017	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band17_OBW

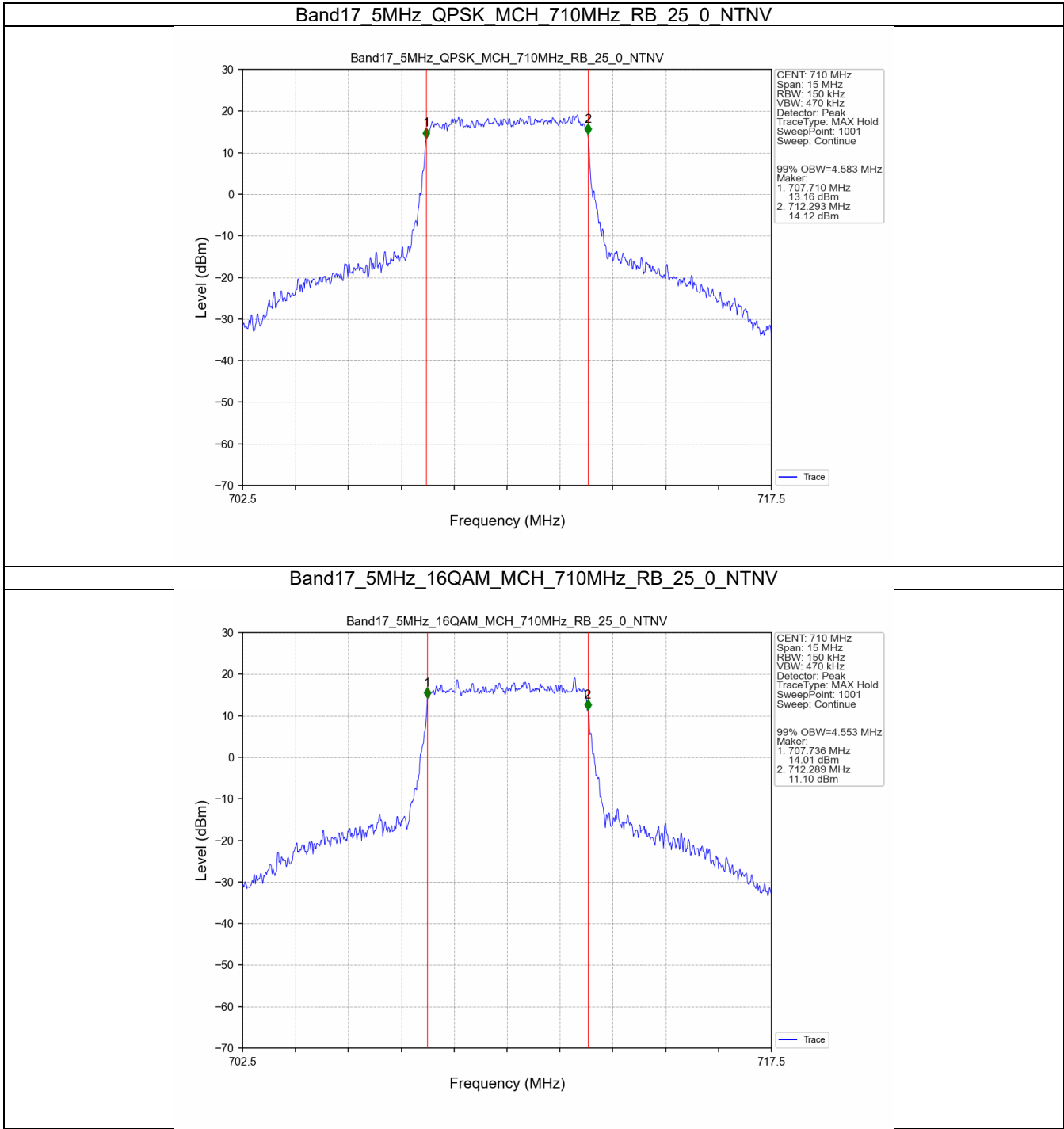
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	4.583	/	Pass
	16QAM	710	25	0	4.553	/	Pass
	64QAM	710	25	0	4.567	/	Pass
	256QAM	710	25	0	4.571	/	Pass
10	QPSK	710	50	0	9.057	/	Pass
	16QAM	710	50	0	9.085	/	Pass
	64QAM	710	50	0	9.063	/	Pass
	256QAM	710	50	0	9.064	/	Pass

3.1.2 Band17_XDB

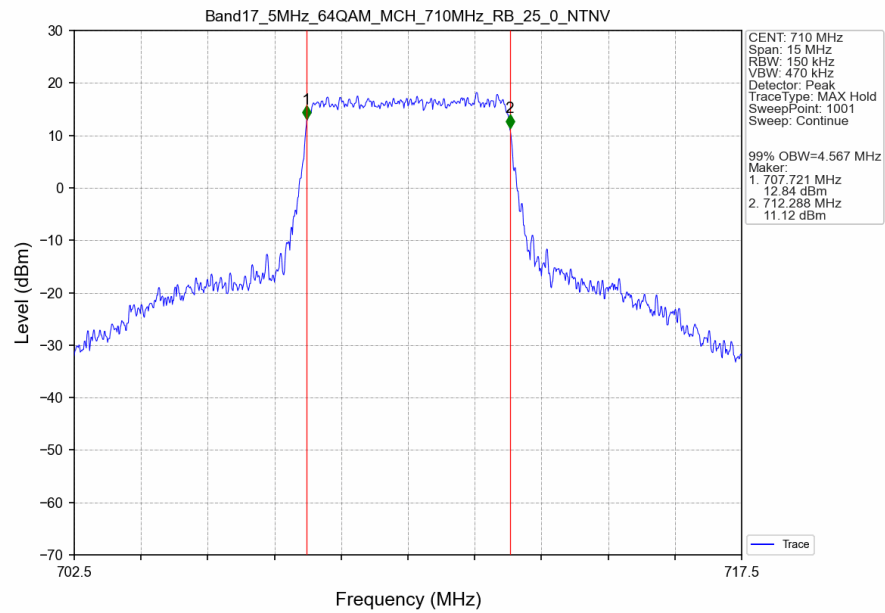
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	5.250	/	Pass
	16QAM	710	25	0	5.182	/	Pass
	64QAM	710	25	0	5.245	/	Pass
	256QAM	710	25	0	5.221	/	Pass
10	QPSK	710	50	0	10.180	/	Pass
	16QAM	710	50	0	10.141	/	Pass
	64QAM	710	50	0	10.126	/	Pass
	256QAM	710	50	0	10.200	/	Pass

3.2 Test Graph

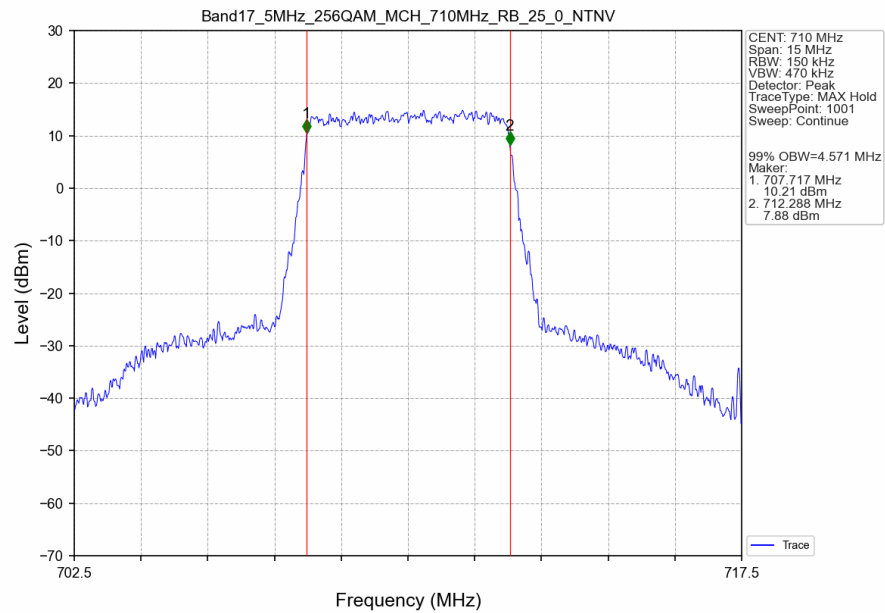
3.2.1 Band17_OBW



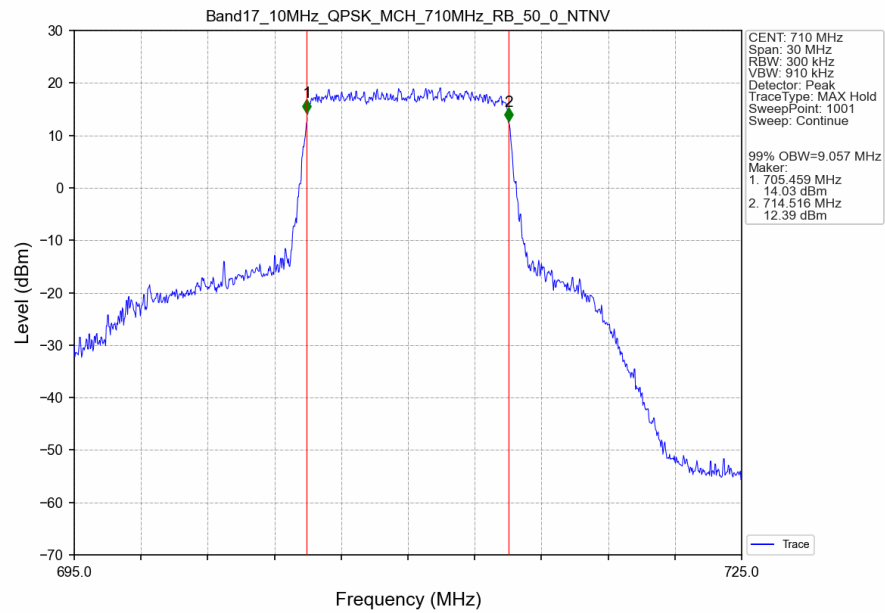
Band17_5MHz_64QAM_MCH_710MHz_RB_25_0_NTNV



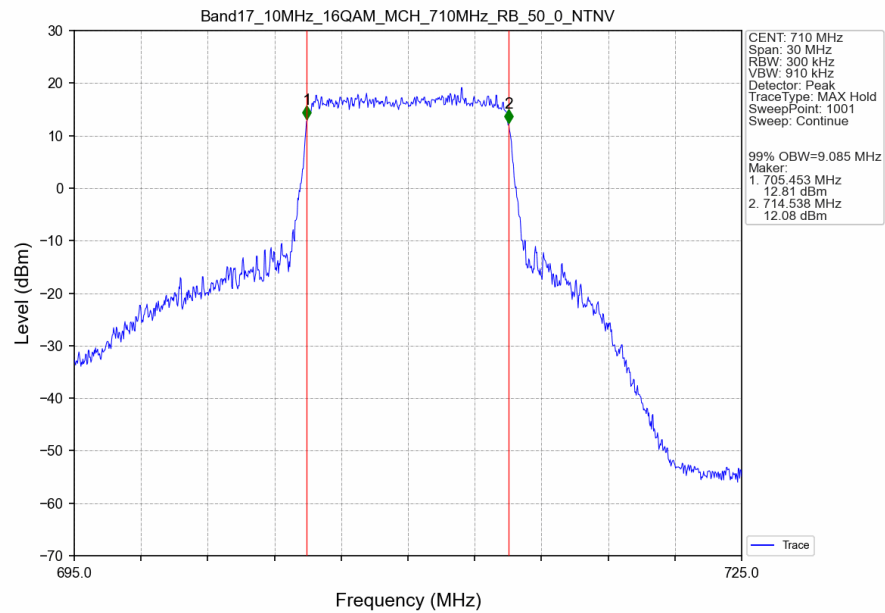
Band17_5MHz_256QAM_MCH_710MHz_RB_25_0_NTNV



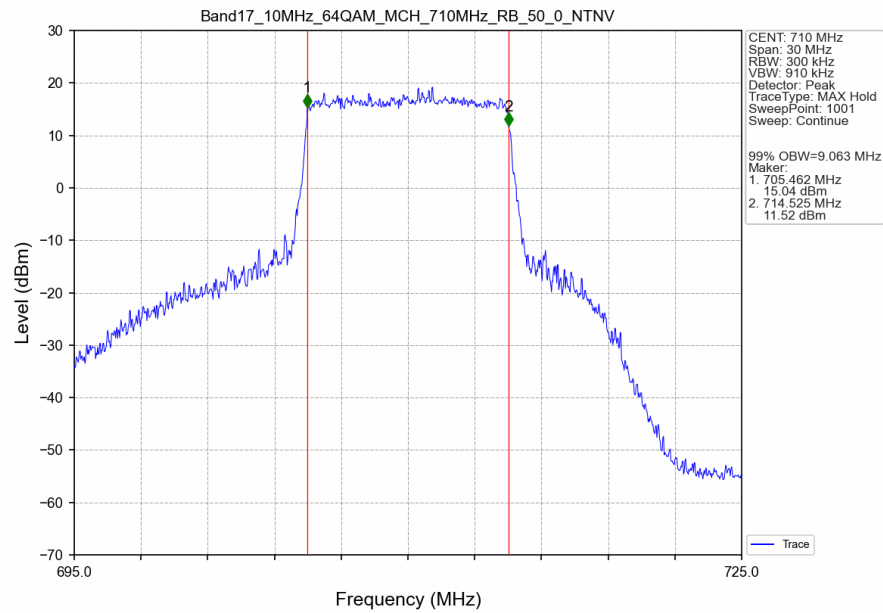
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



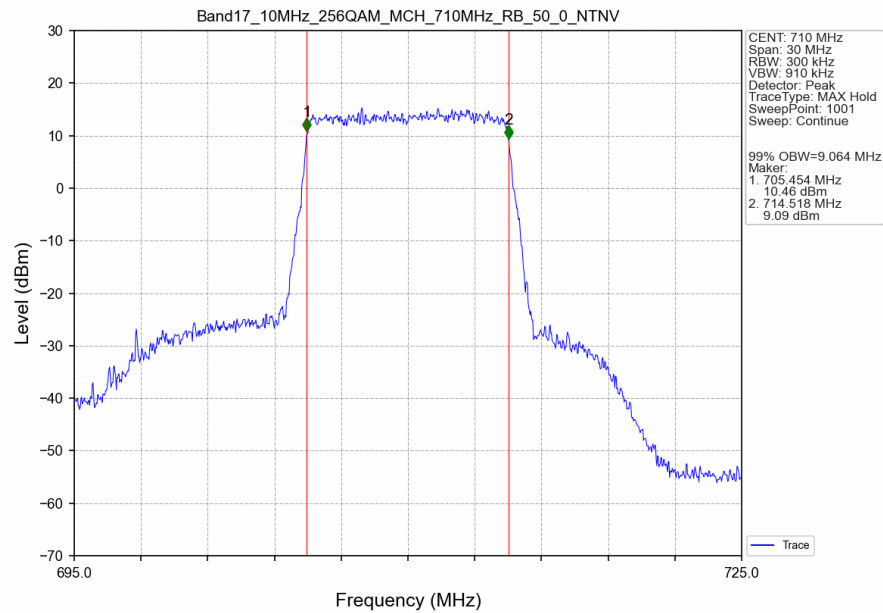
Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



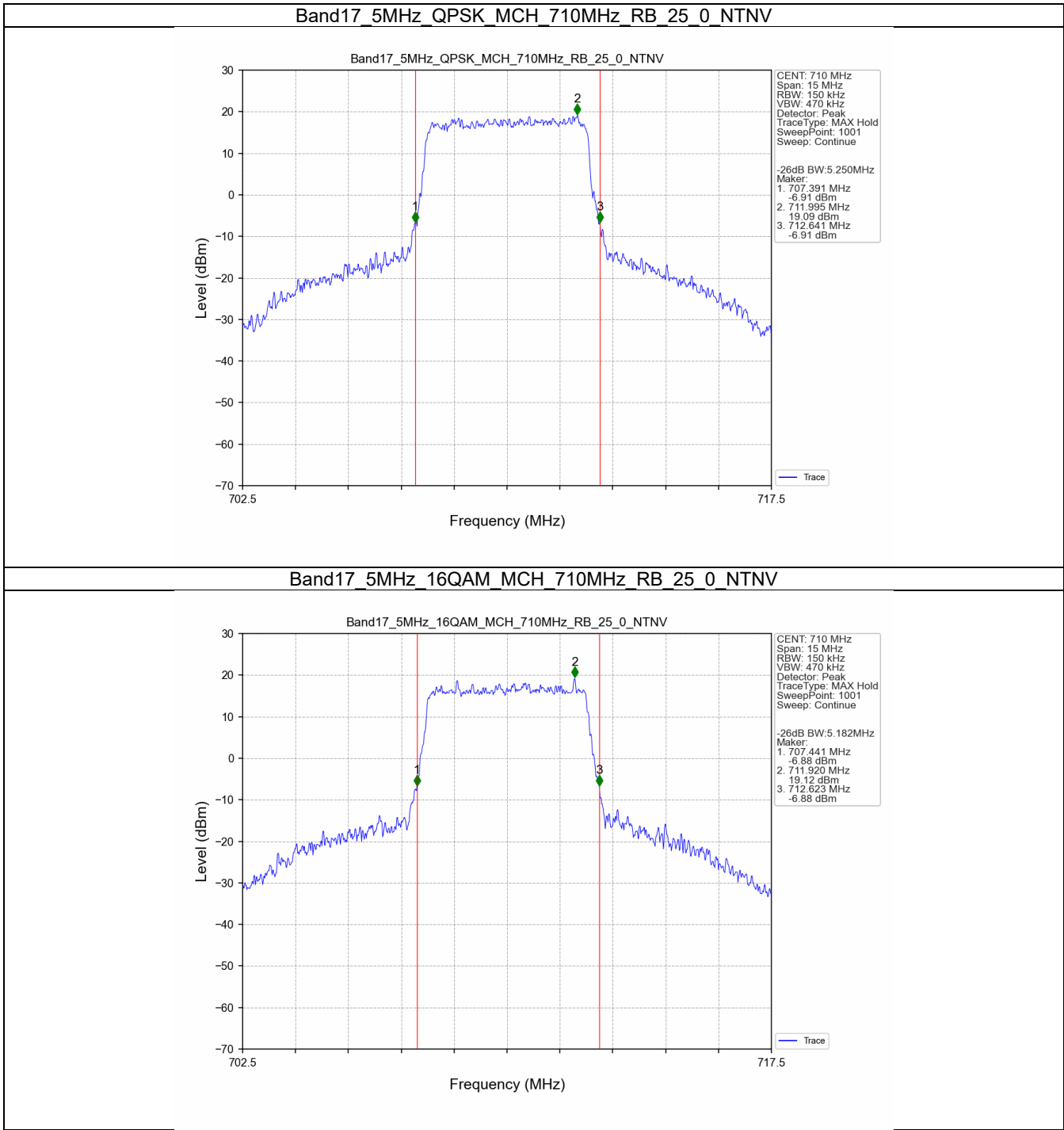
Band17 10MHz 64QAM MCH 710MHz RB 50 0 NTNV



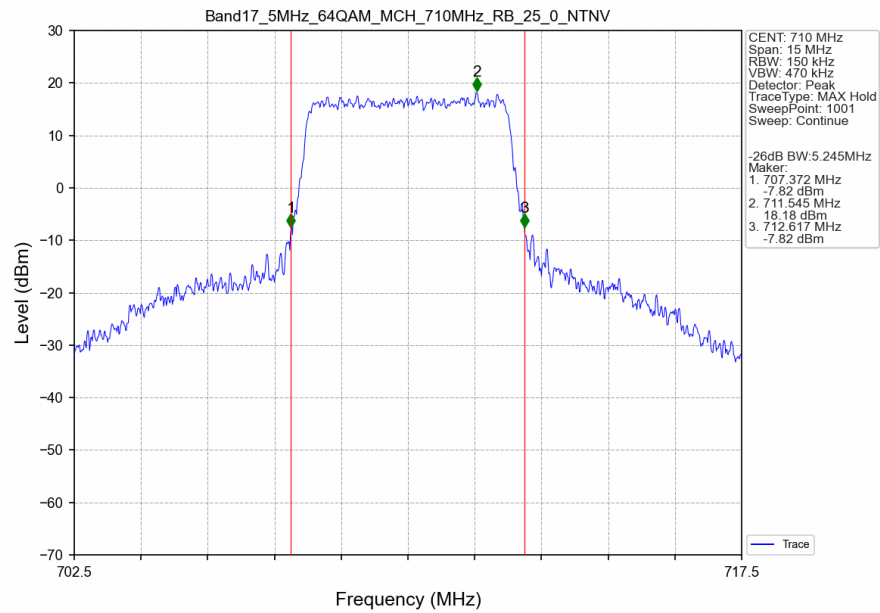
Band17 10MHz 256QAM MCH 710MHz RB 50 0 NTNV



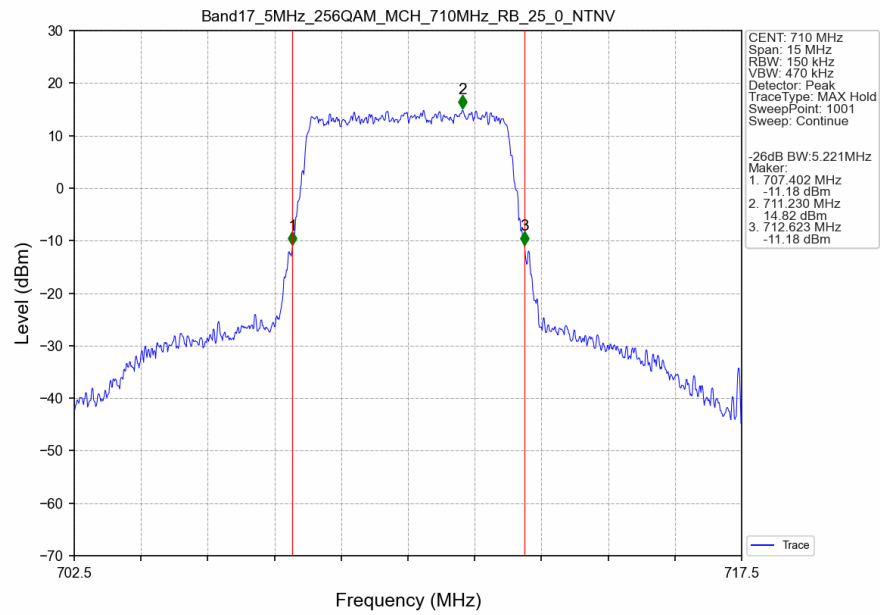
3.2.2 Band17_XDB



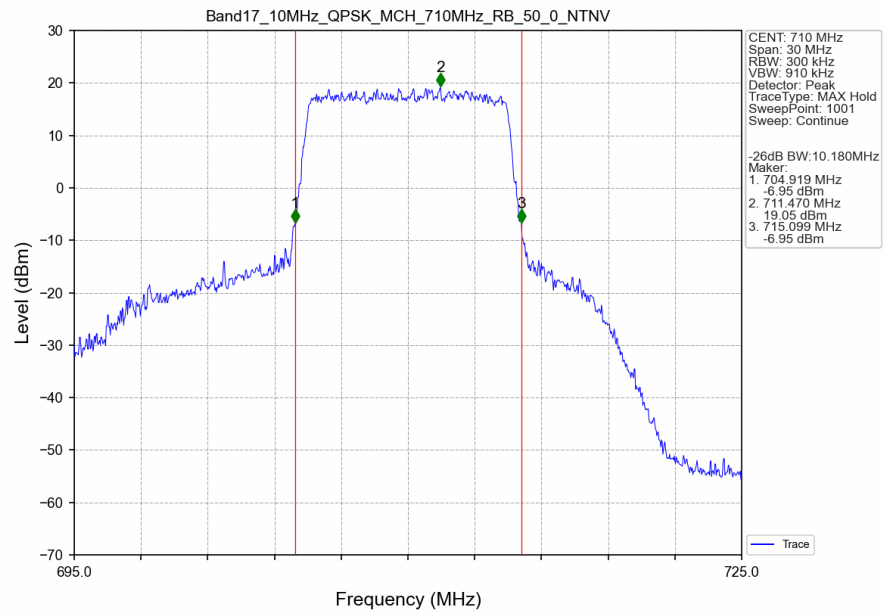
Band17 5MHz 64QAM MCH 710MHz RB 25 0 NTV



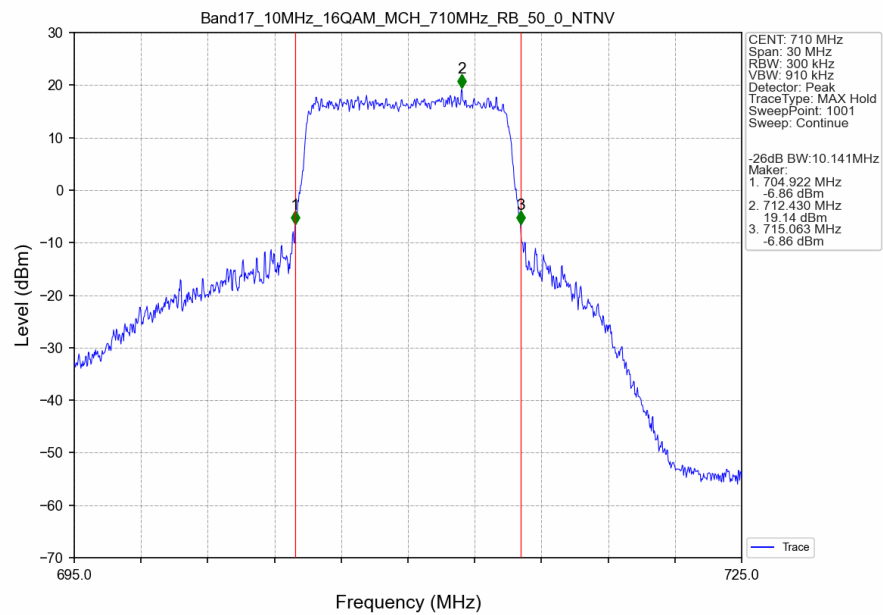
Band17 5MHz 256QAM MCH 710MHz RB 25 0 NTV



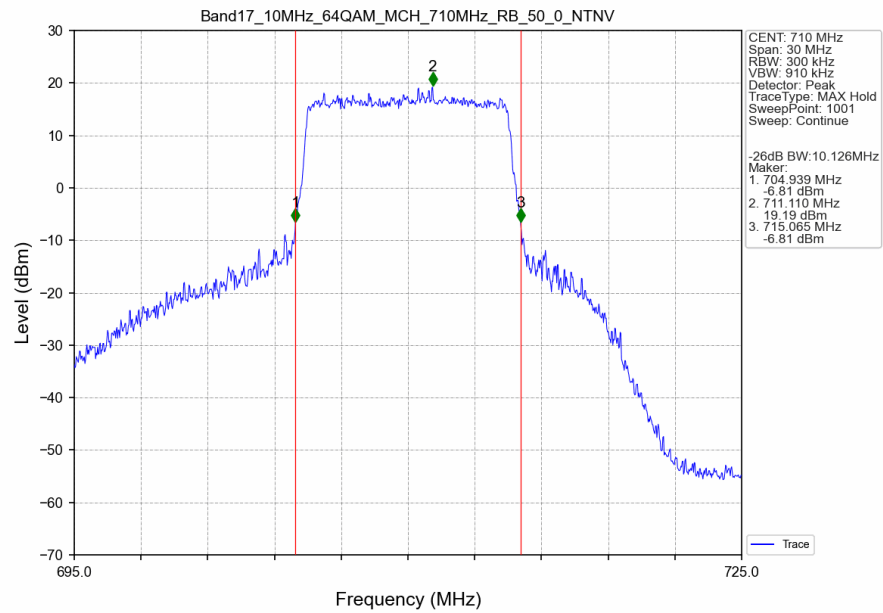
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



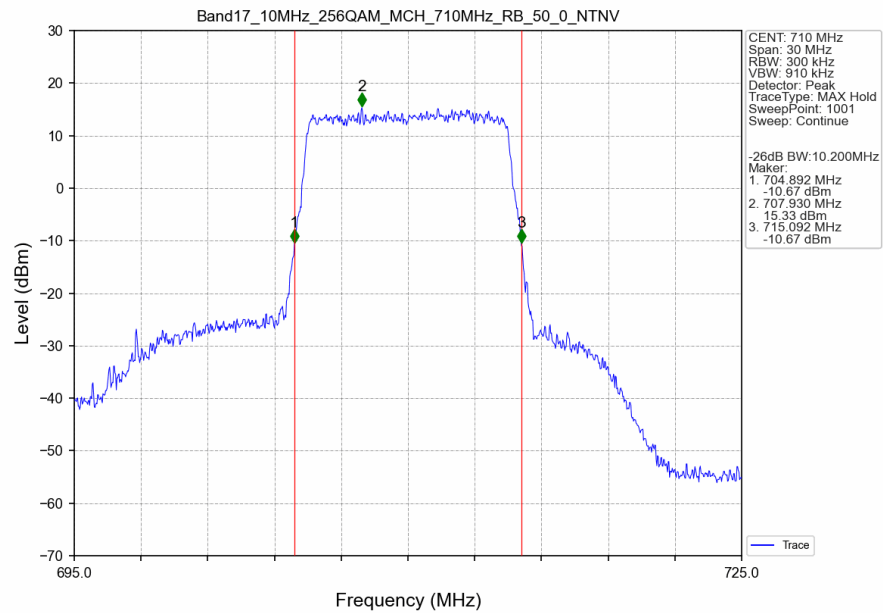
Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



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



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



4. Peak-Average Ratio

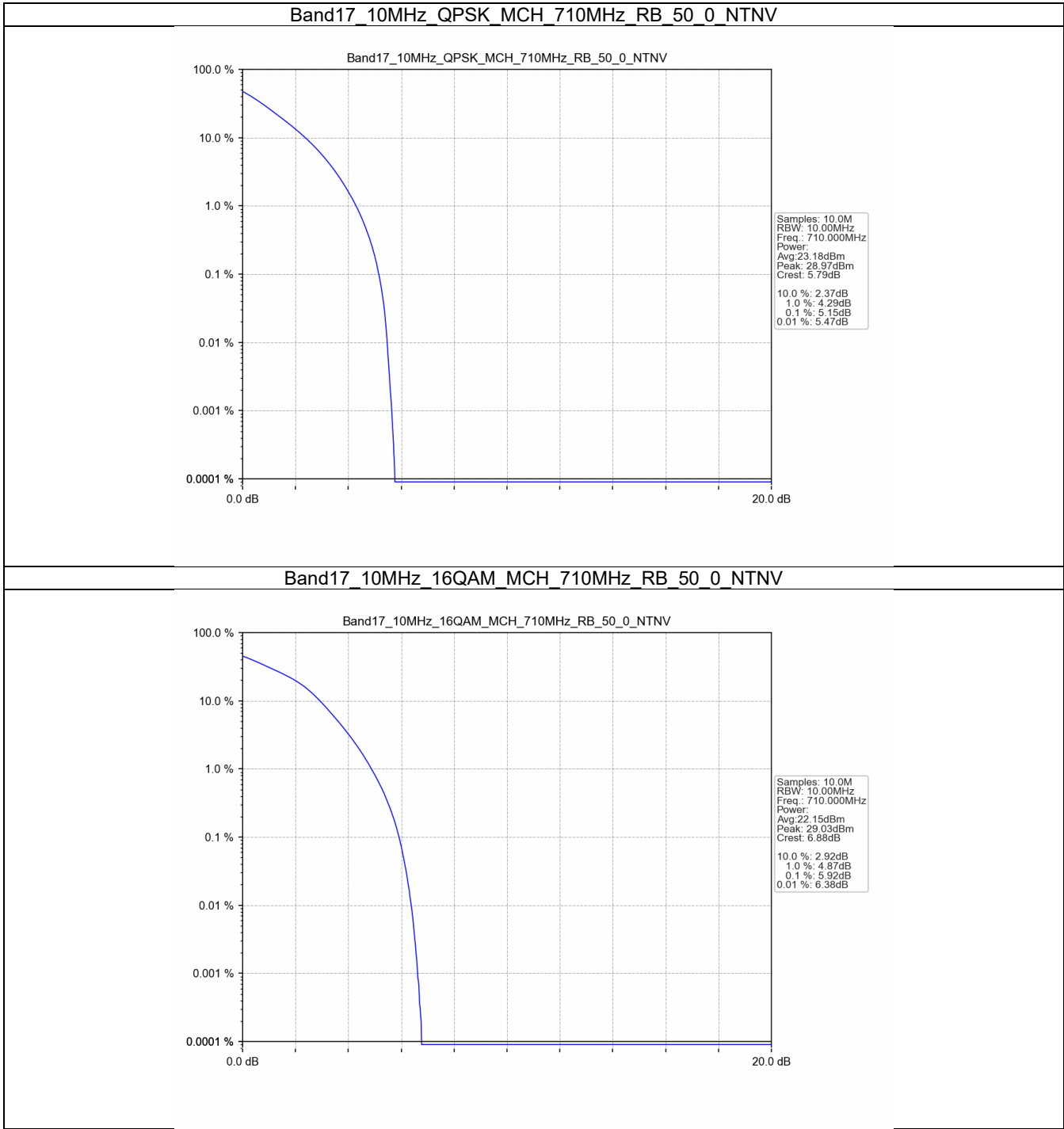
4.1 Test Result

4.1.1 B17_10MHz

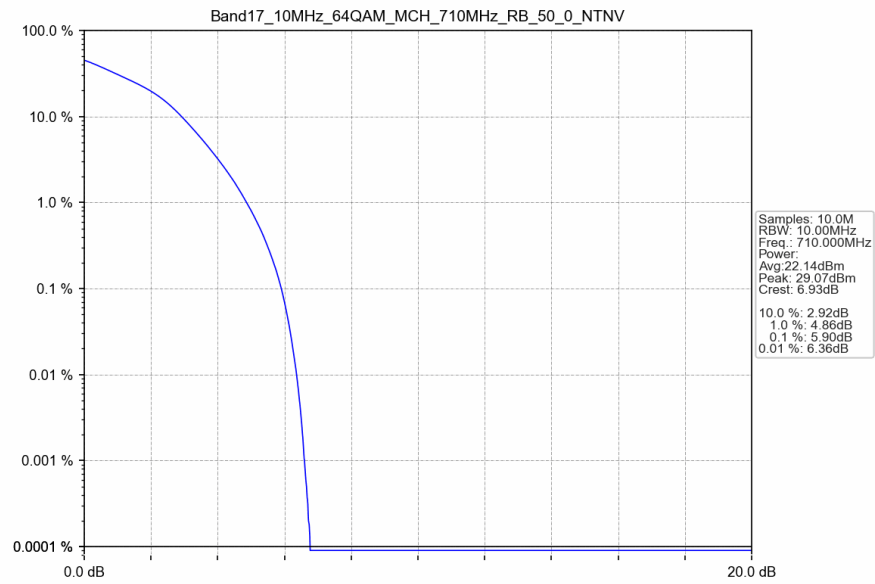
Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	710	50	0	5.15	<=13	Pass
16QAM	710	50	0	5.92	<=13	Pass
64QAM	710	50	0	5.90	<=13	Pass
256QAM	710	50	0	6.57	<=13	Pass

4.2 Test Graph

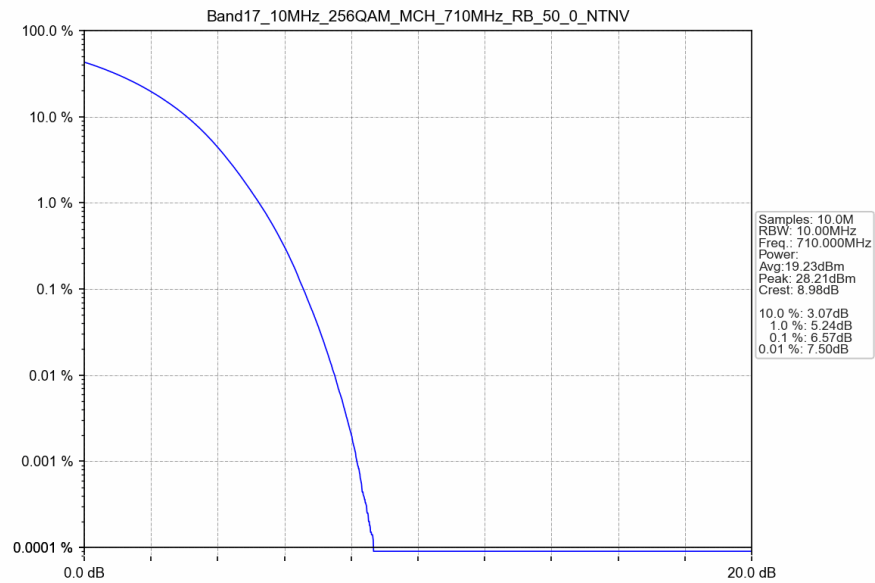
4.2.1 B17_10MHz



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

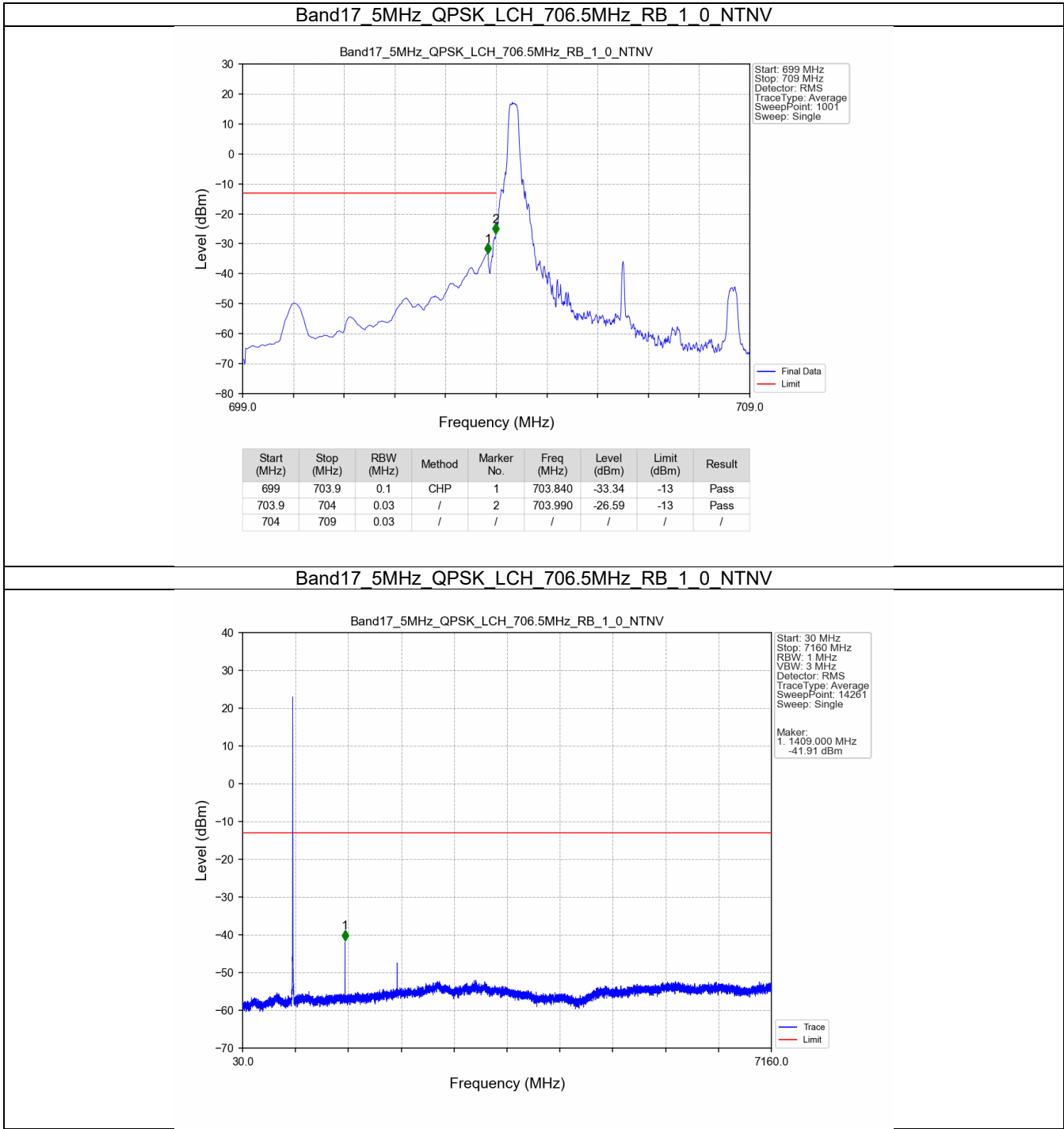
Band: 17 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	706.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	710	1	0	Refer To Test Graph		Pass
	713.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test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

5.1.2 B17_10MHz

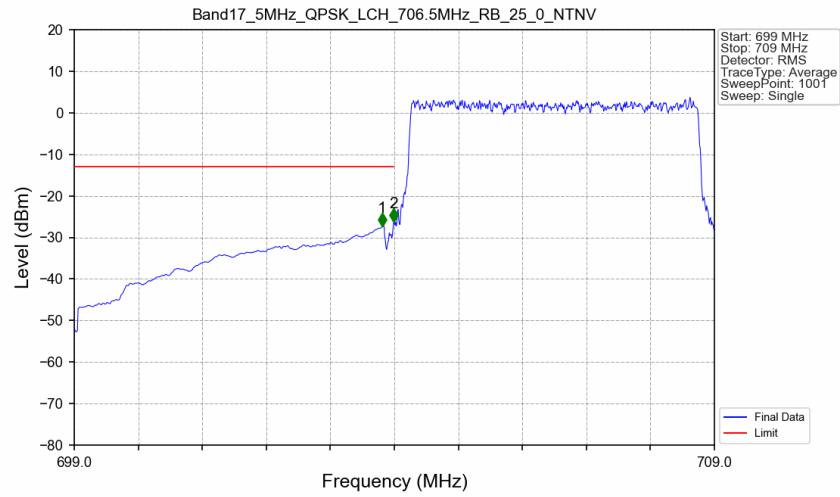
Band: 17 / Bandwidth: 10MHz / NTVN						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	709	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	710	1	0	Refer To Test Graph		Pass
	711	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph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

5.2 Test Graph

5.2.1 B17_5MHz

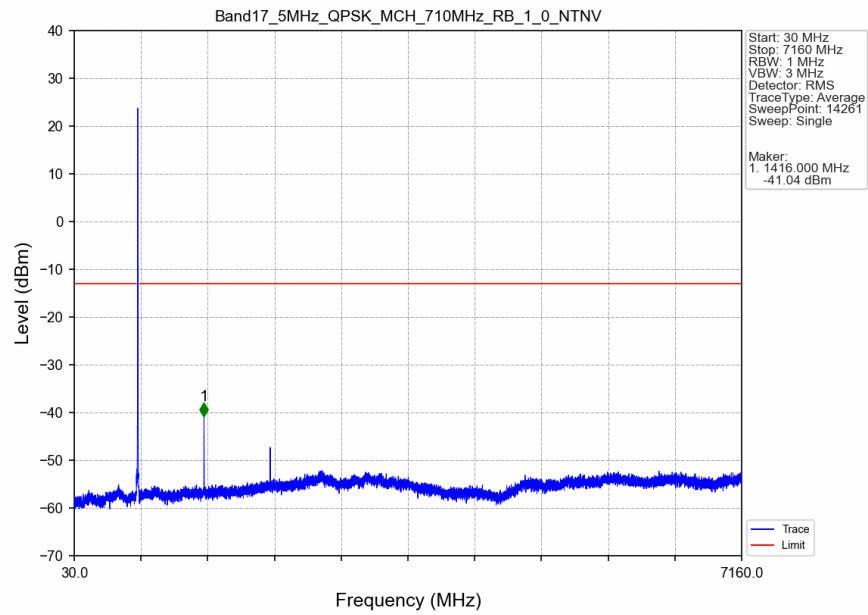


Band17_5MHz_QPSK_LCH_706.5MHz_RB_25_0_NTNV

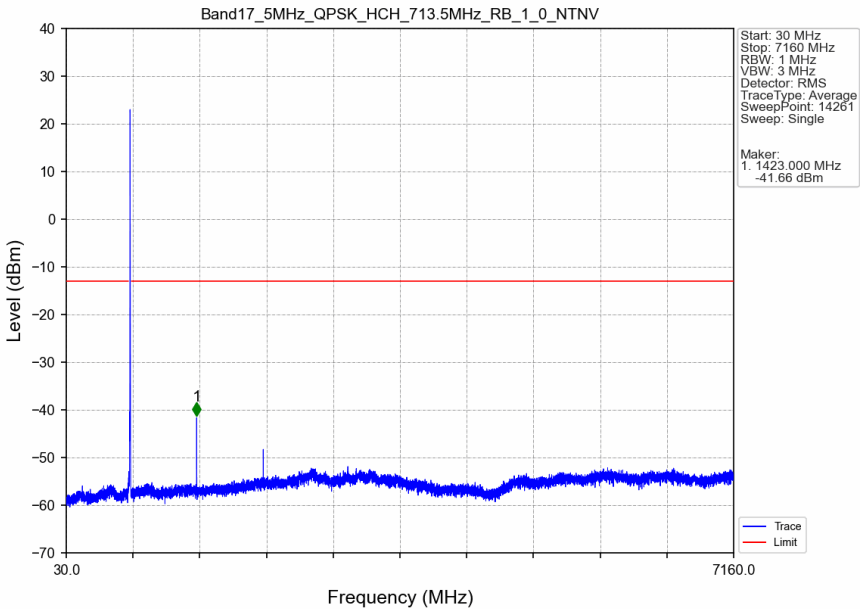


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.810	-27.31	-13	Pass
703.9	704	0.03	/	2	703.990	-26.15	-13	Pass
704	709	0.03	/	/	/	/	/	/

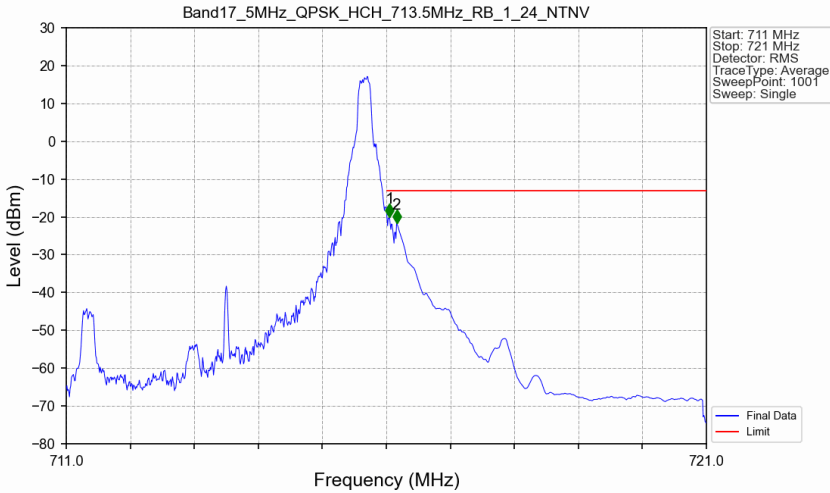
Band17_5MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17 5MHz QPSK HCH 713.5MHz RB 1 0 NTN

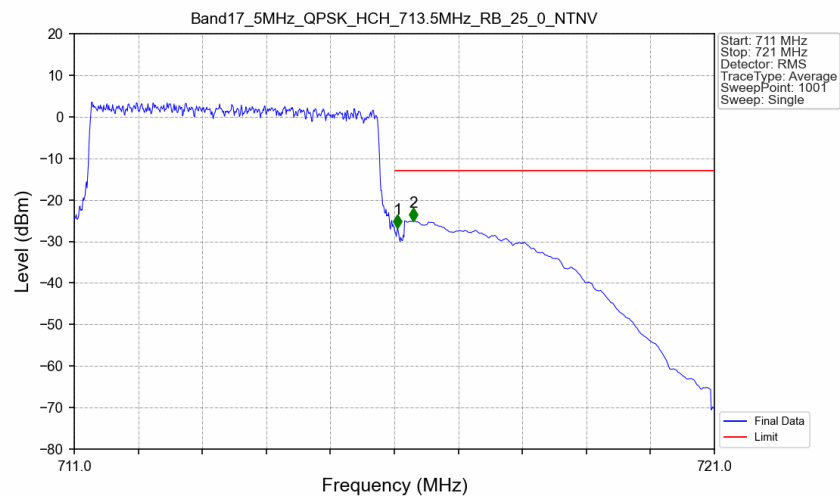


Band17 5MHz QPSK HCH 713.5MHz RB 1 24 NTN



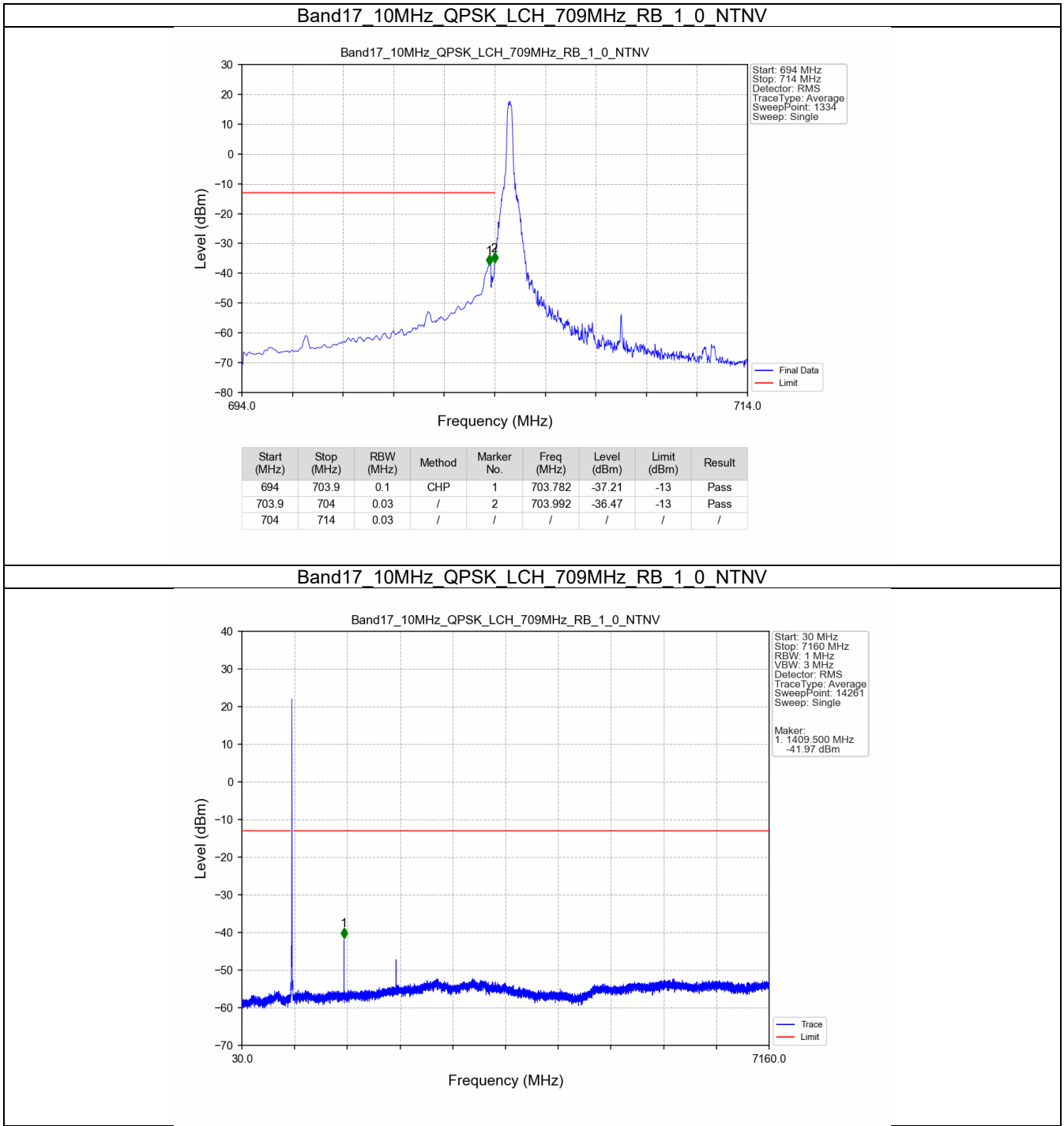
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.050	-20.10	-13	Pass
716.1	721	0.1	CHP	2	716.160	-21.71	-13	Pass

Band17 5MHz QPSK HCH 713.5MHz RB 25 0 NTN

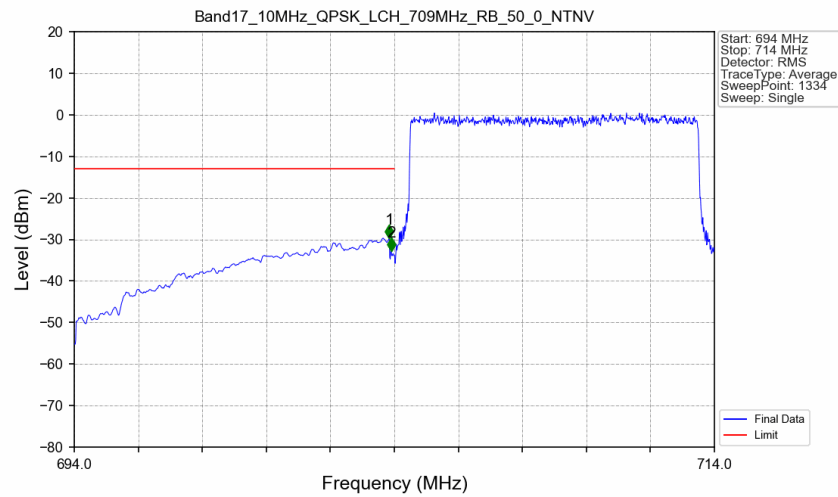


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.050	-26.74	-13	Pass
716.1	721	0.1	CHP	2	716.300	-25.04	-13	Pass

5.2.2 B17_10MHz

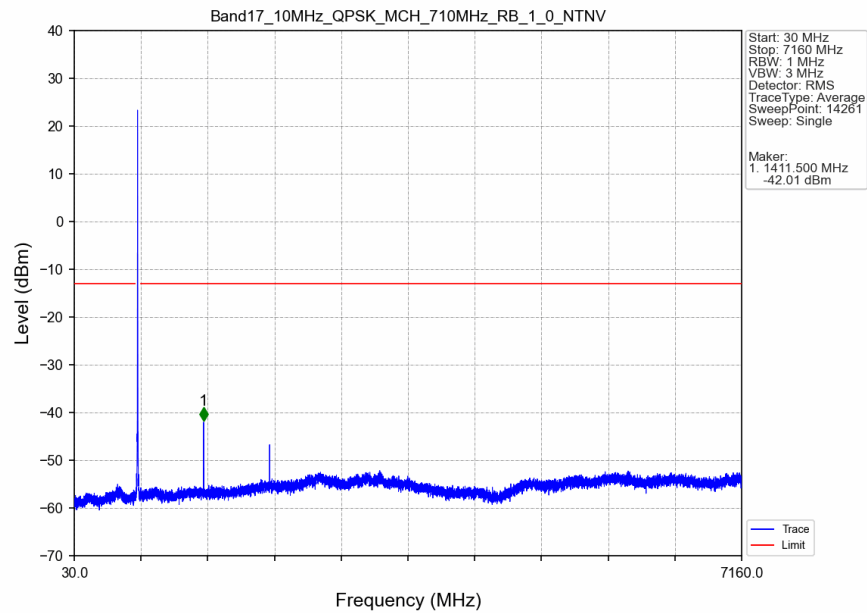


Band17 10MHz QPSK LCH 709MHz RB 50 0 NTN

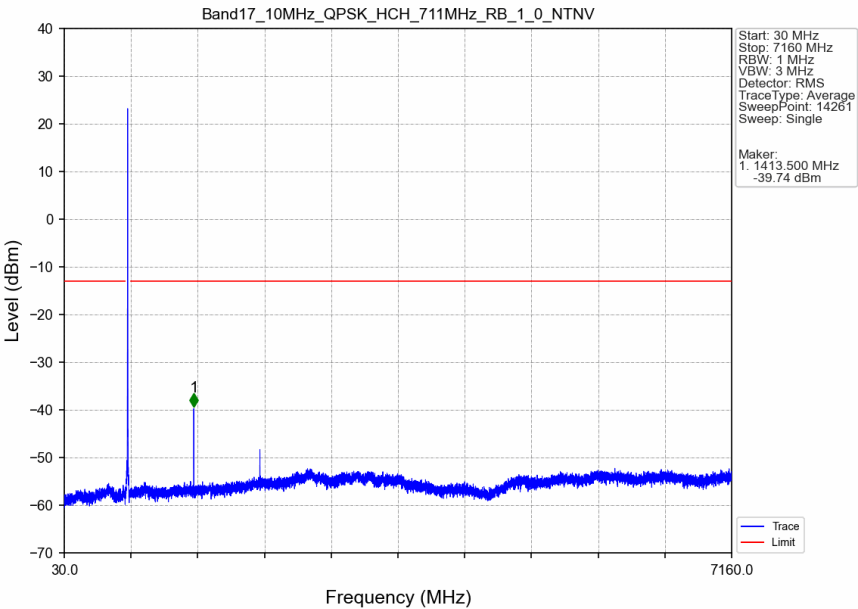


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.842	-29.59	-13	Pass
703.9	704	0.03	/	2	703.902	-32.80	-13	Pass
704	714	0.03	/	/	/	/	/	/

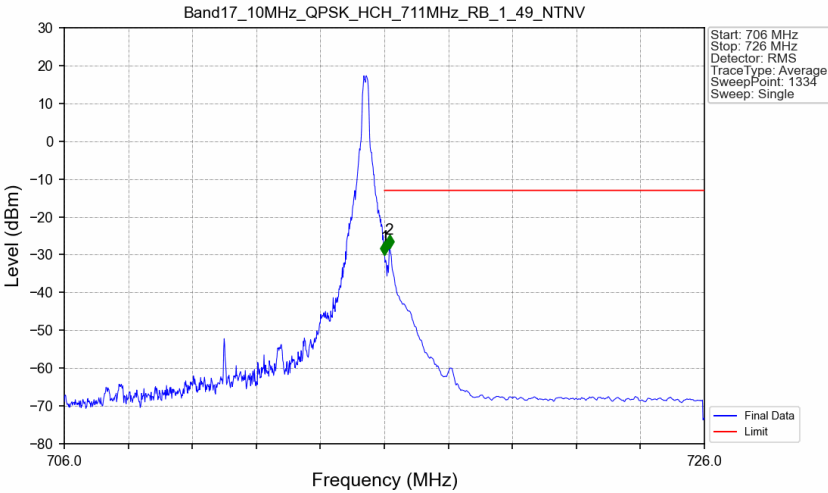
Band17 10MHz QPSK MCH 710MHz RB 1 0 NTN



Band17 10MHz QPSK HCH 711MHz RB 1 0 NTNV

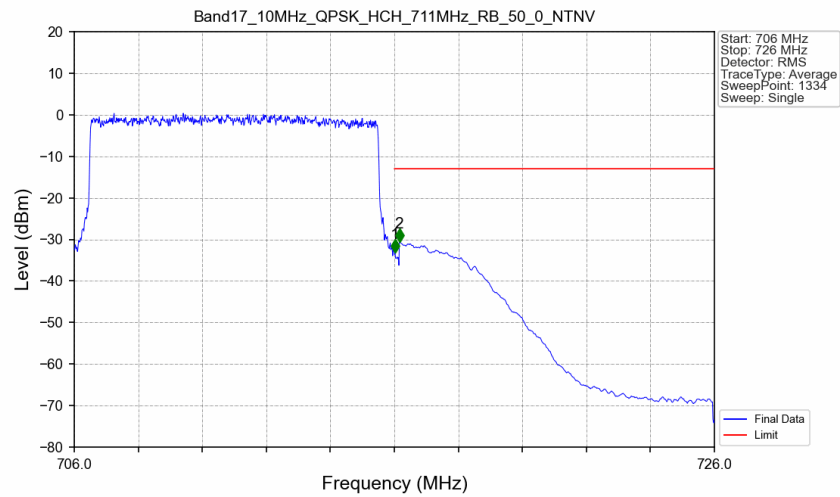


Band17 10MHz QPSK HCH 711MHz RB 1 49 NTNV



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	-30.06	-13	Pass
716.1	726	0.1	CHP	2	716.158	-28.20	-13	Pass

Band17 10MHz QPSK HCH 711MHz RB 50 0 NTV



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	-33.07	-13	Pass
716.1	726	0.1	CHP	2	716.158	-30.52	-13	Pass