

1. Effective (Isotropic) Radiated Power Output Data

1.1 B17_5MHz_ERP

1.1.1 Test Result

Band: 17 / Bandwidth: 5MHz / NTV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	706.5	1	0	24.51	1.30	23.66	<=34.77	Pass
			13	24.67	1.30	23.82	<=34.77	Pass
			24	24.54	1.30	23.69	<=34.77	Pass
		12	0	23.62	1.30	22.77	<=34.77	Pass
			6	23.69	1.30	22.84	<=34.77	Pass
			13	23.67	1.30	22.82	<=34.77	Pass
		25	0	23.68	1.30	22.83	<=34.77	Pass
	710	1	0	24.60	1.30	23.75	<=34.77	Pass
			13	24.71	1.30	23.86	<=34.77	Pass
			24	24.59	1.30	23.74	<=34.77	Pass
		12	0	23.72	1.30	22.87	<=34.77	Pass
			6	23.76	1.30	22.91	<=34.77	Pass
			13	23.72	1.30	22.87	<=34.77	Pass
		25	0	23.73	1.30	22.88	<=34.77	Pass
	713.5	1	0	24.61	1.30	23.76	<=34.77	Pass
			13	24.73	1.30	23.88	<=34.77	Pass
			24	24.51	1.30	23.66	<=34.77	Pass
		12	0	23.72	1.30	22.87	<=34.77	Pass
			6	23.78	1.30	22.93	<=34.77	Pass
			13	23.71	1.30	22.86	<=34.77	Pass
		25	0	23.72	1.30	22.87	<=34.77	Pass
16QAM	706.5	1	0	23.38	1.30	22.53	<=34.77	Pass
			13	23.55	1.30	22.70	<=34.77	Pass
			24	23.47	1.30	22.62	<=34.77	Pass
		12	0	22.70	1.30	21.85	<=34.77	Pass
			6	22.75	1.30	21.90	<=34.77	Pass
			13	22.68	1.30	21.83	<=34.77	Pass
		25	0	22.77	1.30	21.92	<=34.77	Pass
	710	1	0	23.90	1.30	23.05	<=34.77	Pass
			13	23.96	1.30	23.11	<=34.77	Pass
			24	23.83	1.30	22.98	<=34.77	Pass
		12	0	22.83	1.30	21.98	<=34.77	Pass
			6	22.86	1.30	22.01	<=34.77	Pass
			13	22.75	1.30	21.90	<=34.77	Pass
		25	0	22.77	1.30	21.92	<=34.77	Pass
	713.5	1	0	23.71	1.30	22.86	<=34.77	Pass
			13	23.81	1.30	22.96	<=34.77	Pass
			24	23.63	1.30	22.78	<=34.77	Pass
		12	0	22.78	1.30	21.93	<=34.77	Pass
			6	22.79	1.30	21.94	<=34.77	Pass
			13	22.71	1.30	21.86	<=34.77	Pass
		25	0	22.78	1.30	21.93	<=34.77	Pass
Note1: ERP=Conducted Power+Antenna Gain-2.15								

1.2 B17_10MHz_ERP

1.2.1 Test Result

Band: 17 / Bandwidth: 10MHz / NTVN								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	709	1	0	24.58	1.30	23.73	<=34.77	Pass
			25	24.84	1.30	23.99	<=34.77	Pass
			49	24.64	1.30	23.79	<=34.77	Pass
		25	0	23.74	1.30	22.89	<=34.77	Pass
			13	23.75	1.30	22.90	<=34.77	Pass
			25	23.76	1.30	22.91	<=34.77	Pass
		50	0	23.80	1.30	22.95	<=34.77	Pass
	710	1	0	24.58	1.30	23.73	<=34.77	Pass
			25	24.87	1.30	24.02	<=34.77	Pass
			49	24.62	1.30	23.77	<=34.77	Pass
		25	0	23.74	1.30	22.89	<=34.77	Pass
			13	23.76	1.30	22.91	<=34.77	Pass
			25	23.76	1.30	22.91	<=34.77	Pass
		50	0	23.79	1.30	22.94	<=34.77	Pass
	711	1	0	24.67	1.30	23.82	<=34.77	Pass
			25	24.90	1.30	24.05	<=34.77	Pass
			49	24.64	1.30	23.79	<=34.77	Pass
		25	0	23.77	1.30	22.92	<=34.77	Pass
			13	23.75	1.30	22.90	<=34.77	Pass
			25	23.79	1.30	22.94	<=34.77	Pass
		50	0	23.80	1.30	22.95	<=34.77	Pass
16QAM	709	1	0	24.14	1.30	23.29	<=34.77	Pass
			25	24.40	1.30	23.55	<=34.77	Pass
			49	24.15	1.30	23.30	<=34.77	Pass
		25	0	22.86	1.30	22.01	<=34.77	Pass
			13	22.90	1.30	22.05	<=34.77	Pass
			25	22.88	1.30	22.03	<=34.77	Pass
		50	0	22.88	1.30	22.03	<=34.77	Pass
	710	1	0	23.80	1.30	22.95	<=34.77	Pass
			25	24.03	1.30	23.18	<=34.77	Pass
			49	23.83	1.30	22.98	<=34.77	Pass
		25	0	22.83	1.30	21.98	<=34.77	Pass
			13	22.83	1.30	21.98	<=34.77	Pass
			25	22.87	1.30	22.02	<=34.77	Pass
		50	0	22.84	1.30	21.99	<=34.77	Pass
	711	1	0	23.66	1.30	22.81	<=34.77	Pass
			25	23.87	1.30	23.02	<=34.77	Pass
			49	23.65	1.30	22.80	<=34.77	Pass
		25	0	22.95	1.30	22.10	<=34.77	Pass
			13	22.89	1.30	22.04	<=34.77	Pass
			25	22.95	1.30	22.10	<=34.77	Pass
		50	0	22.88	1.30	22.03	<=34.77	Pass
Note1: ERP=Conducted Power+Antenna Gain-2.15								

2. Frequency Stability

2.1 B17_10MHz

2.1.1 Test Result

Band: 17 / Bandwidth: 10MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	709	50	0	20	10.2	-6.014	-0.0085	-2.5 to 2.5	Pass
					12	-8.564	-0.0121	-2.5 to 2.5	Pass
					13.8	-2.497	-0.0035	-2.5 to 2.5	Pass
				-30	12	-3.527	-0.0050	-2.5 to 2.5	Pass
				-20	12	-5.226	-0.0074	-2.5 to 2.5	Pass
				-10	12	-4.154	-0.0059	-2.5 to 2.5	Pass
				0	12	-9.394	-0.0132	-2.5 to 2.5	Pass
				10	12	-7.954	-0.0112	-2.5 to 2.5	Pass
				30	12	-3.502	-0.0049	-2.5 to 2.5	Pass
				40	12	-7.168	-0.0101	-2.5 to 2.5	Pass
				50	12	-8.640	-0.0122	-2.5 to 2.5	Pass
	710	50	0	20	10.2	-5.651	-0.0080	-2.5 to 2.5	Pass
					12	-9.383	-0.0132	-2.5 to 2.5	Pass
					13.8	-3.245	-0.0046	-2.5 to 2.5	Pass
				-30	12	-11.586	-0.0163	-2.5 to 2.5	Pass
				-20	12	-9.791	-0.0138	-2.5 to 2.5	Pass
				-10	12	-6.102	-0.0086	-2.5 to 2.5	Pass
				0	12	-5.797	-0.0082	-2.5 to 2.5	Pass
				10	12	-5.429	-0.0076	-2.5 to 2.5	Pass
				30	12	-5.342	-0.0075	-2.5 to 2.5	Pass
				40	12	-5.481	-0.0077	-2.5 to 2.5	Pass
				50	12	-5.400	-0.0076	-2.5 to 2.5	Pass
	711	50	0	20	10.2	-6.271	-0.0088	-2.5 to 2.5	Pass
					12	-5.528	-0.0078	-2.5 to 2.5	Pass
					13.8	-4.598	-0.0065	-2.5 to 2.5	Pass
				-30	12	-6.619	-0.0093	-2.5 to 2.5	Pass
				-20	12	-9.608	-0.0135	-2.5 to 2.5	Pass
				-10	12	-9.517	-0.0134	-2.5 to 2.5	Pass
				0	12	-4.551	-0.0064	-2.5 to 2.5	Pass
				10	12	-3.650	-0.0051	-2.5 to 2.5	Pass
				30	12	-9.410	-0.0132	-2.5 to 2.5	Pass
				40	12	-5.402	-0.0076	-2.5 to 2.5	Pass
				50	12	-8.918	-0.0125	-2.5 to 2.5	Pass

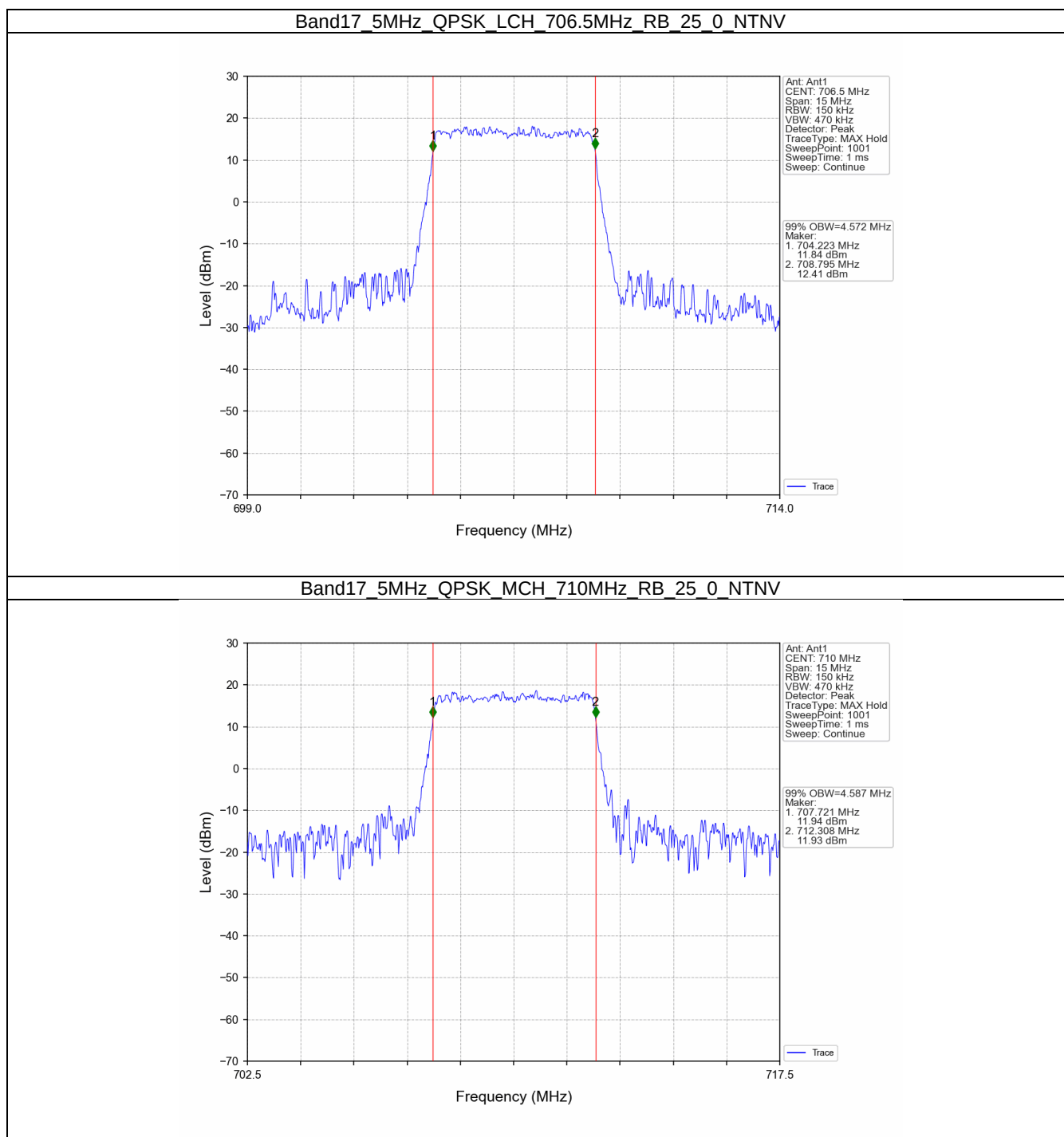
3. 99% & 26dB Bandwidth

3.1 Band17_OBW

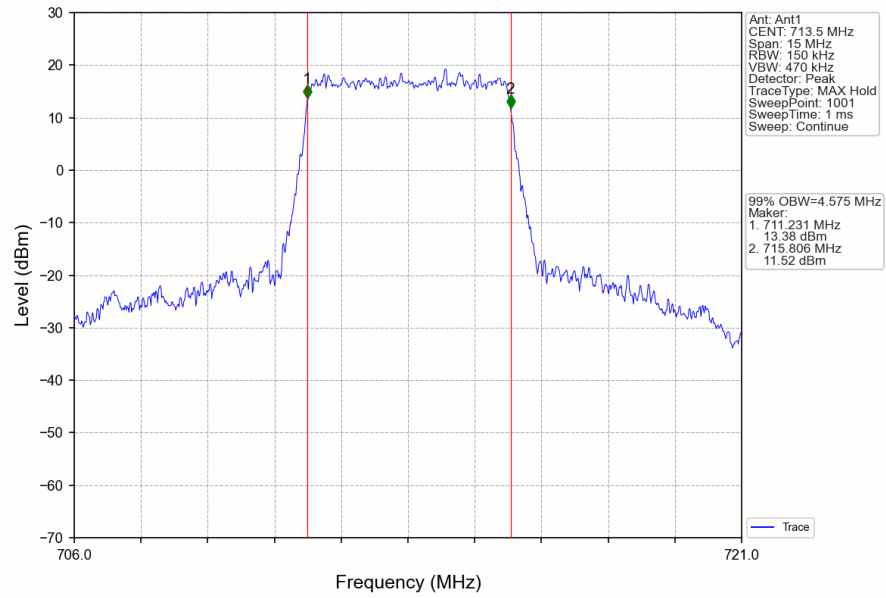
3.1.1 Test Result

Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	706.5	25	0	4.572	/	Pass
		710	25	0	4.587	/	Pass
		713.5	25	0	4.575	/	Pass
	16QAM	706.5	25	0	4.588	/	Pass
		710	25	0	4.602	/	Pass
		713.5	25	0	4.551	/	Pass
10	QPSK	709	50	0	9.088	/	Pass
		710	50	0	9.112	/	Pass
		711	50	0	9.090	/	Pass
	16QAM	709	50	0	9.106	/	Pass
		710	50	0	9.079	/	Pass
		711	50	0	9.090	/	Pass

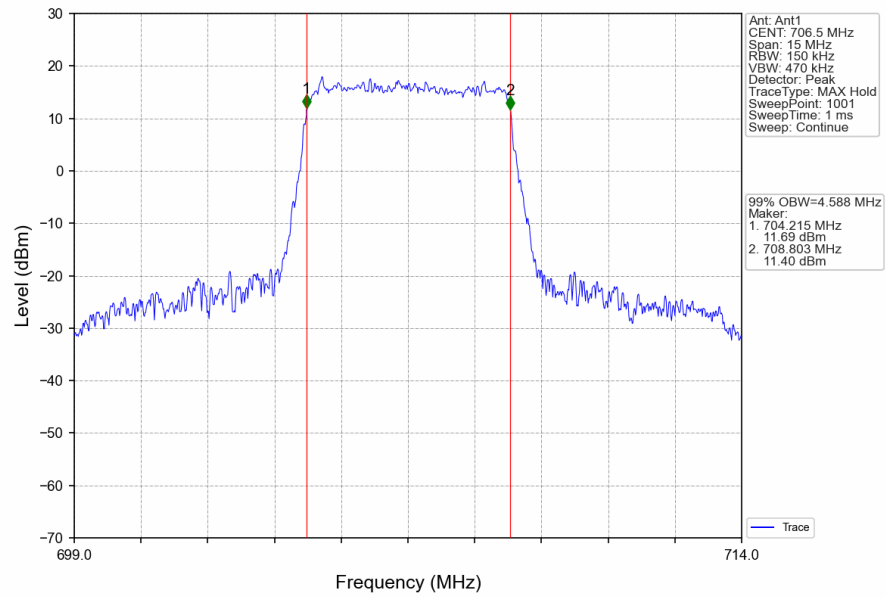
3.1.2 Test Graph



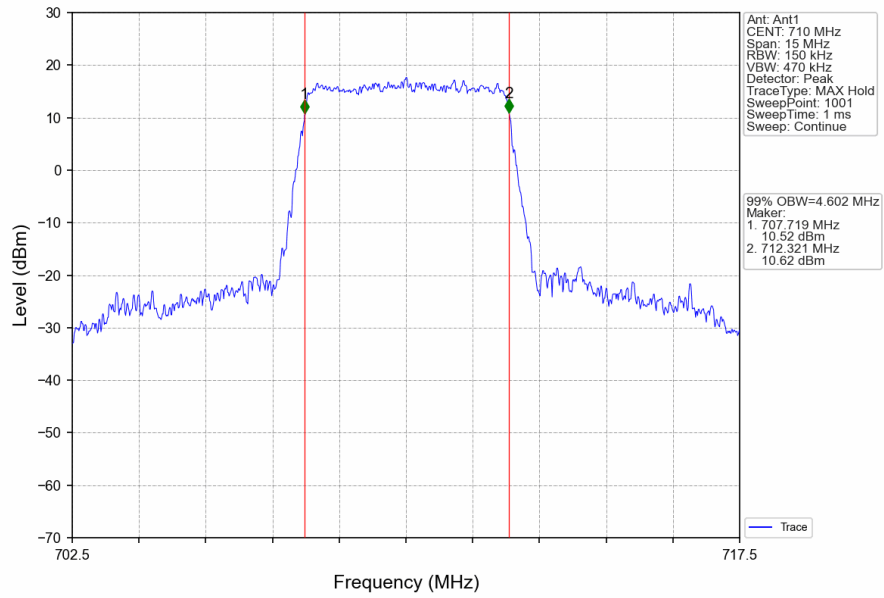
Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



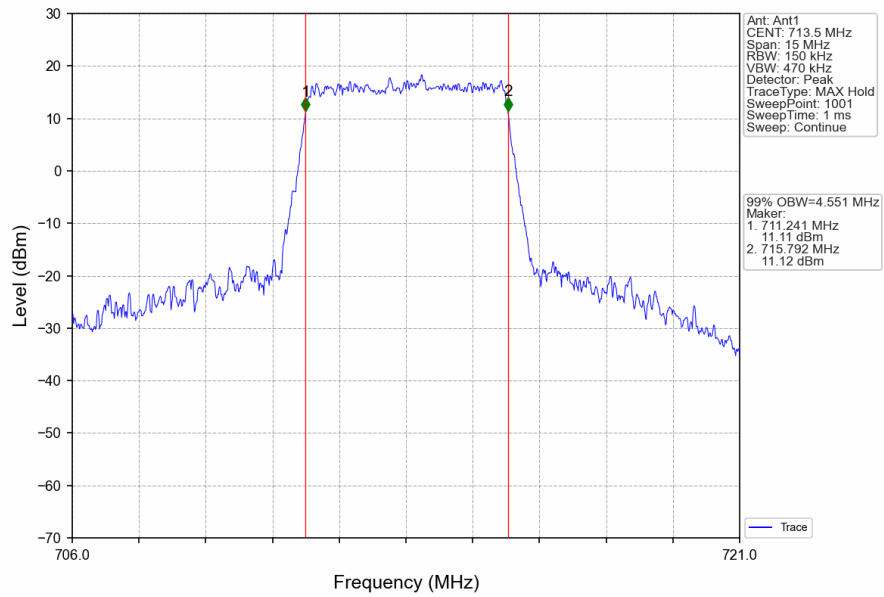
Band17_5MHz_16QAM_LCH_706.5MHz_RB_25_0_NTNV



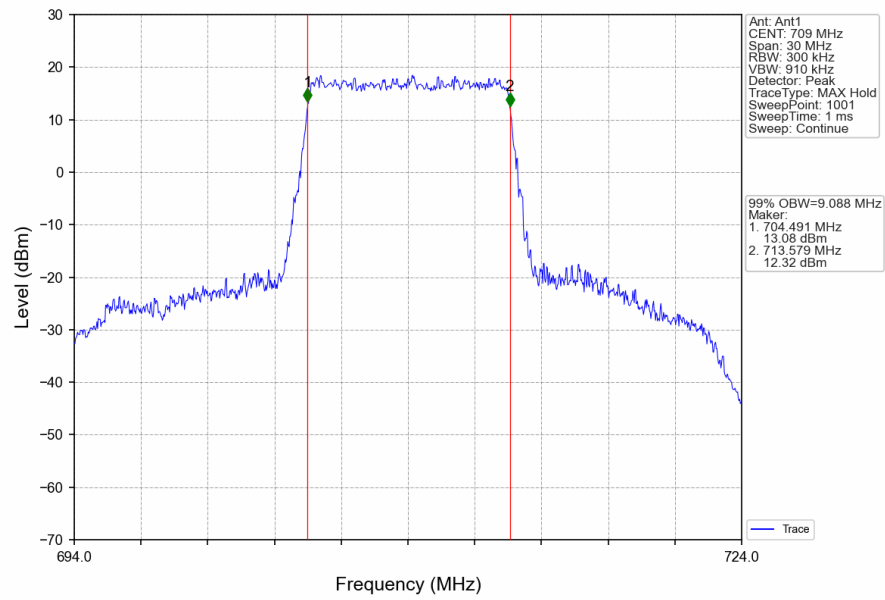
Band17_5MHz_16QAM_MCH_710MHz_RB_25_0_NTNV



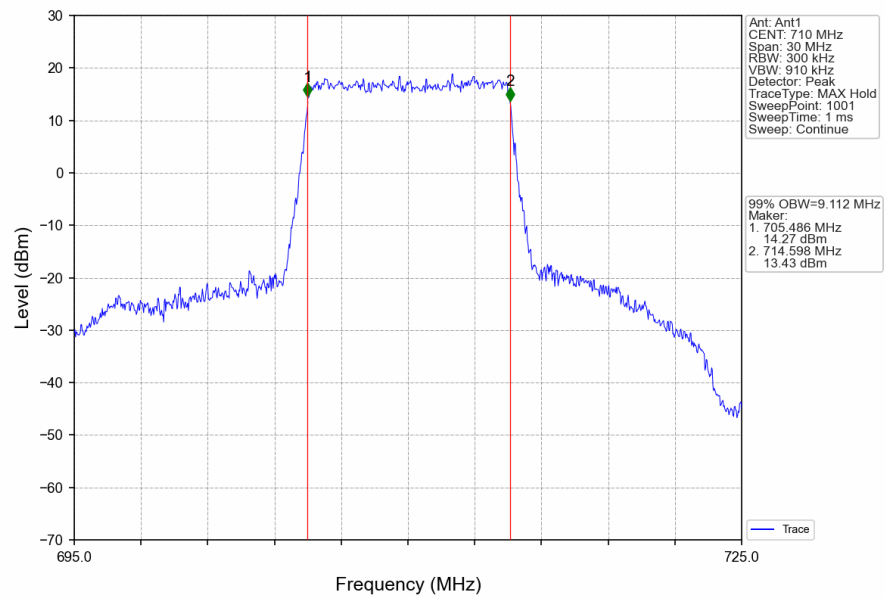
Band17_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



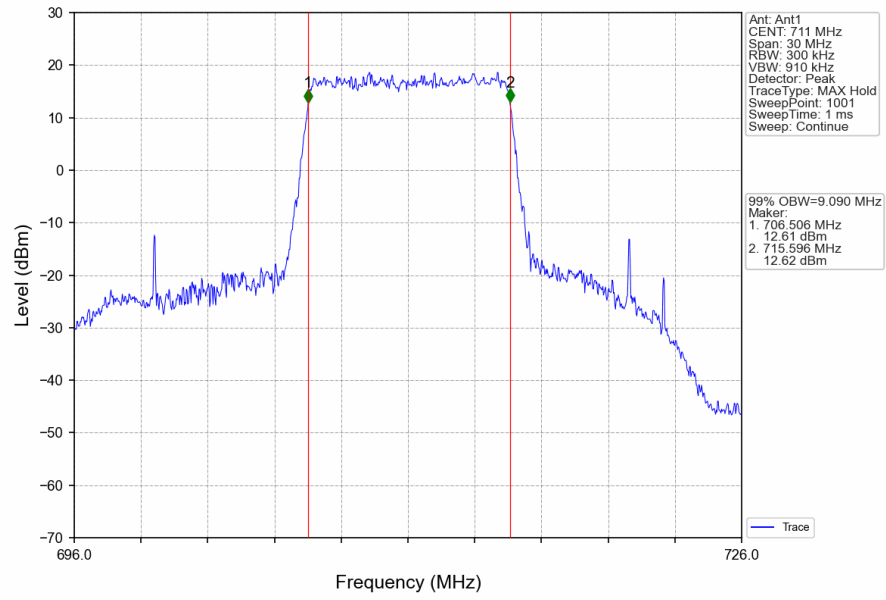
Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV



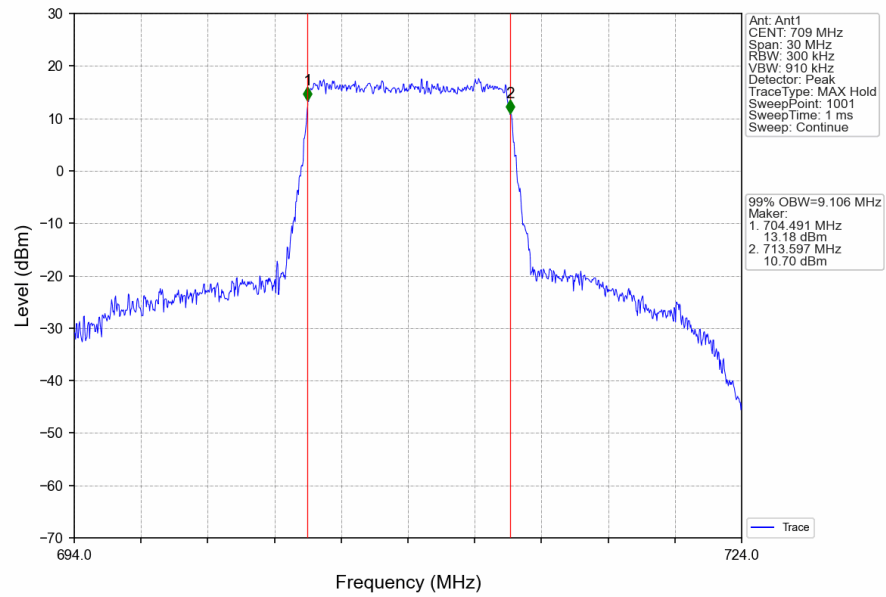
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



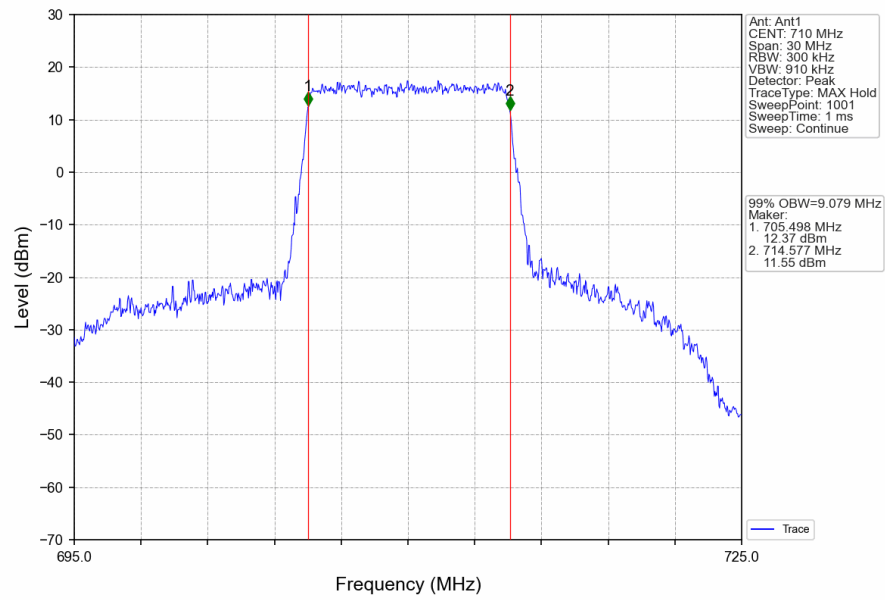
Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



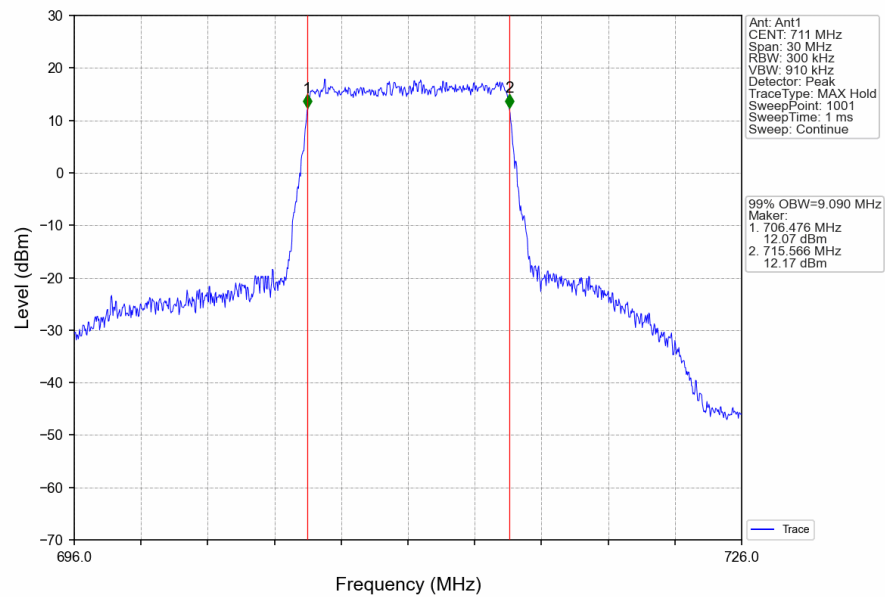
Band17_10MHz_16QAM_LCH_709MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV

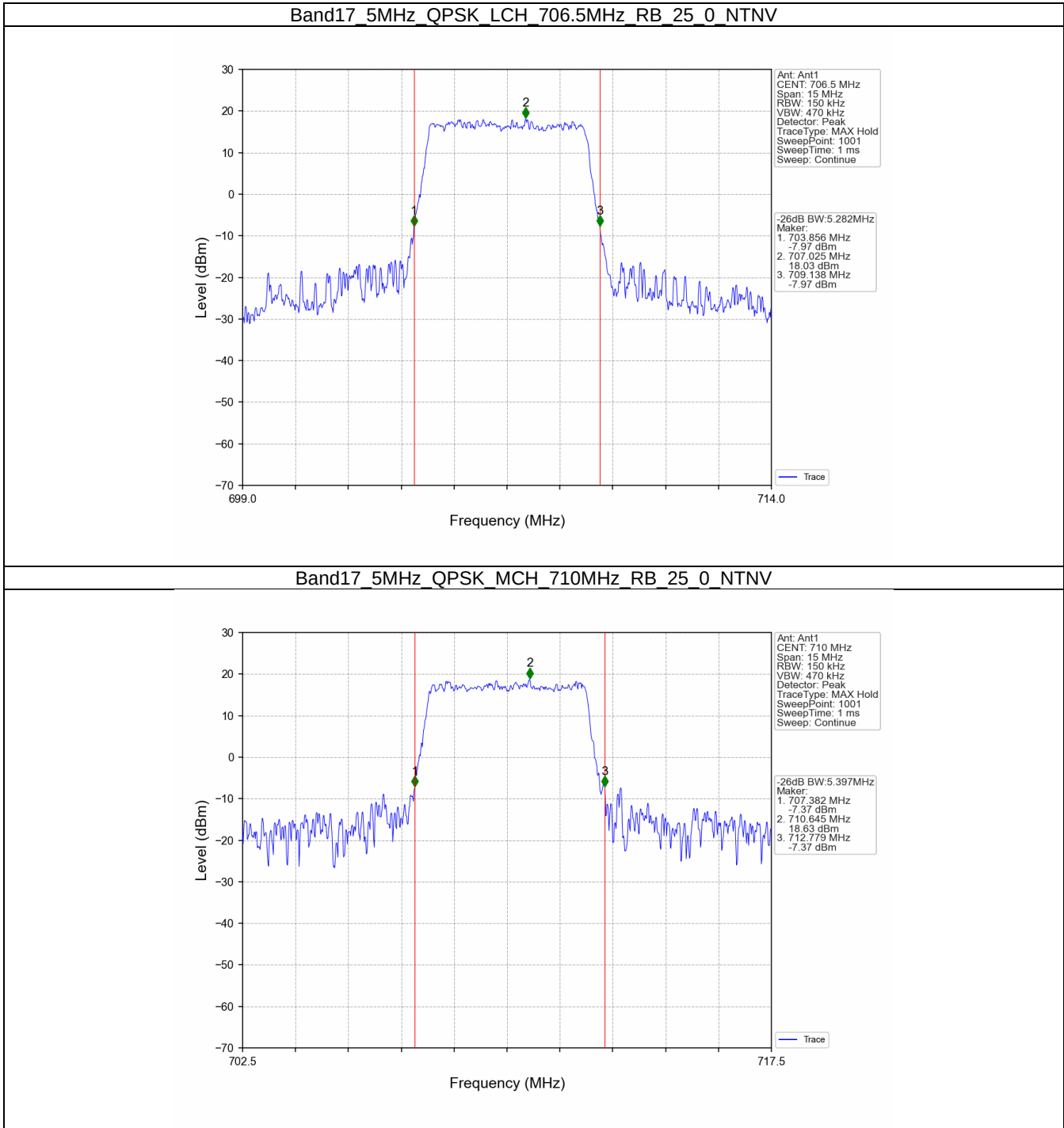


3.2 Band17_XDB

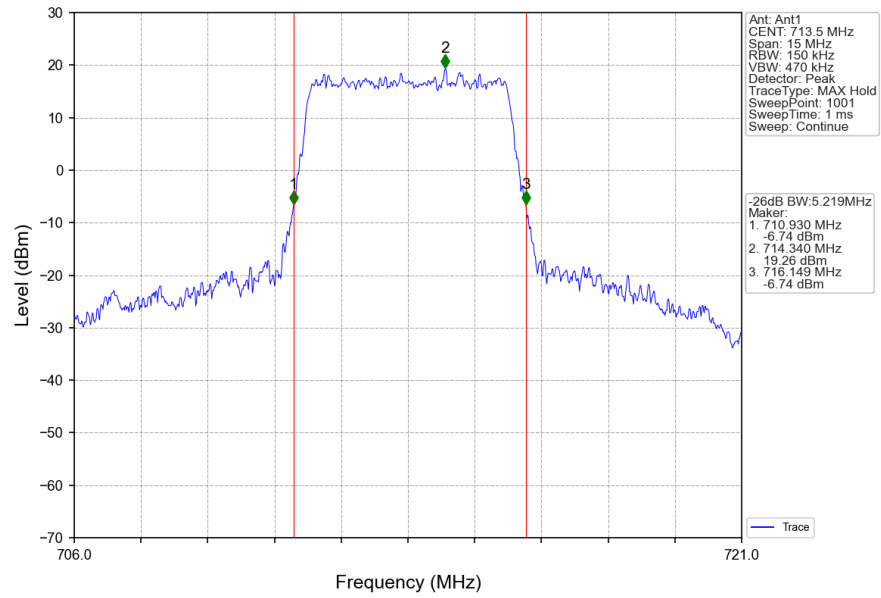
3.2.1 Test Result

Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	706.5	25	0	5.282	/	Pass
		710	25	0	5.397	/	Pass
		713.5	25	0	5.219	/	Pass
	16QAM	706.5	25	0	5.255	/	Pass
		710	25	0	5.296	/	Pass
		713.5	25	0	5.227	/	Pass
10	QPSK	709	50	0	10.344	/	Pass
		710	50	0	10.255	/	Pass
		711	50	0	10.327	/	Pass
	16QAM	709	50	0	10.192	/	Pass
		710	50	0	10.263	/	Pass
		711	50	0	10.288	/	Pass

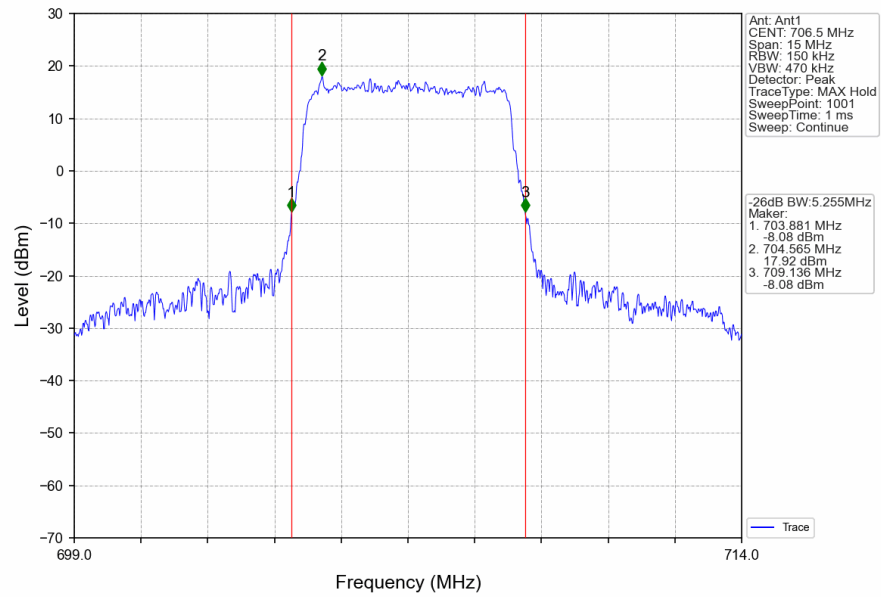
3.2.2 Test Graph



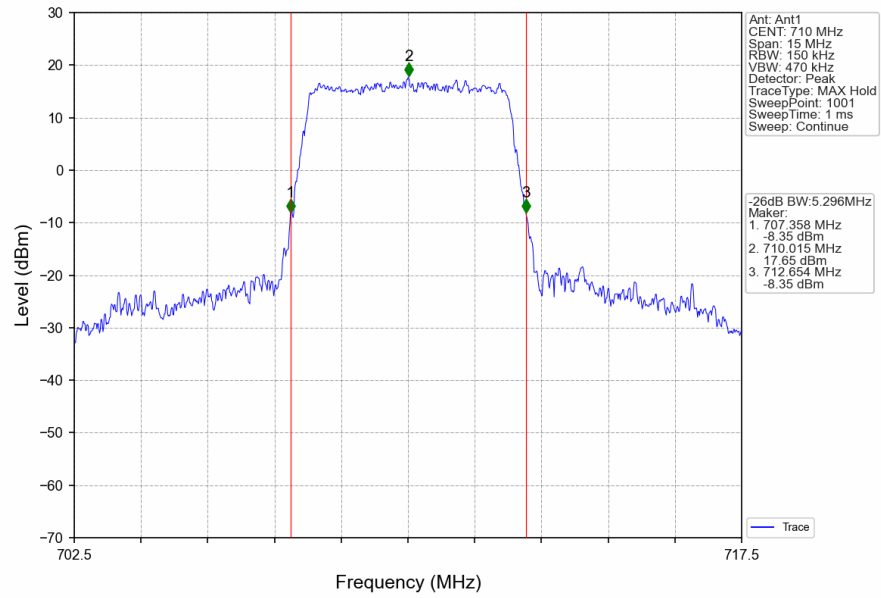
Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



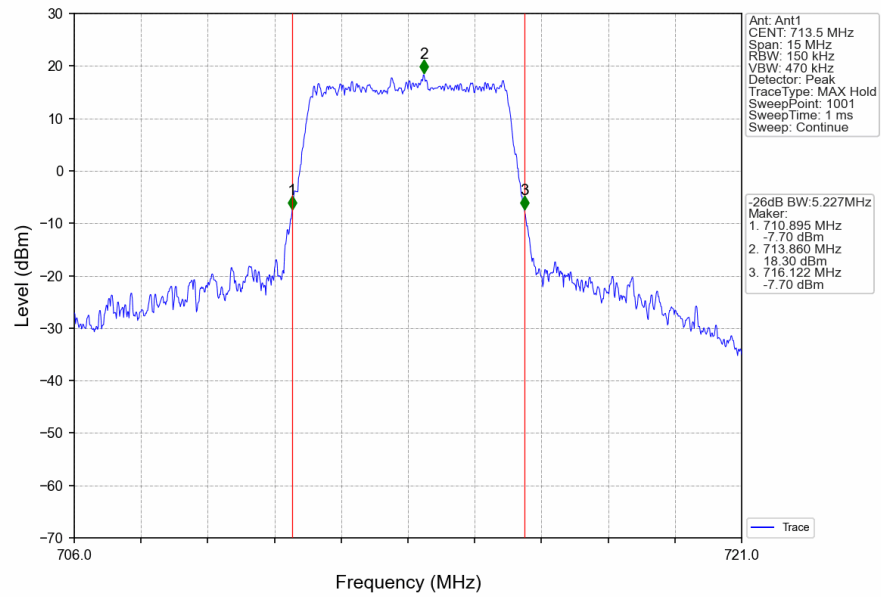
Band17_5MHz_16QAM_LCH_706.5MHz_RB_25_0_NTNV



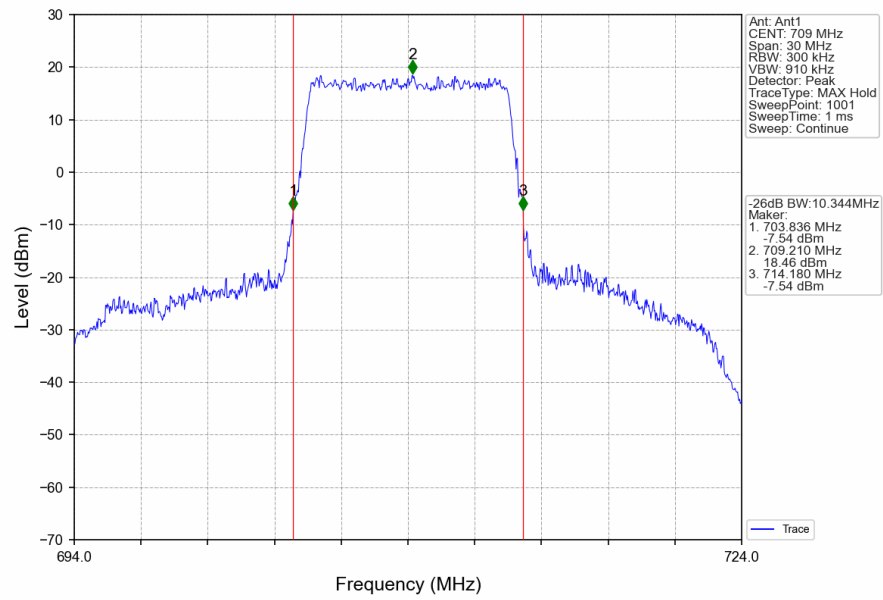
Band17_5MHz_16QAM_MCH_710MHz_RB_25_0_NTNV



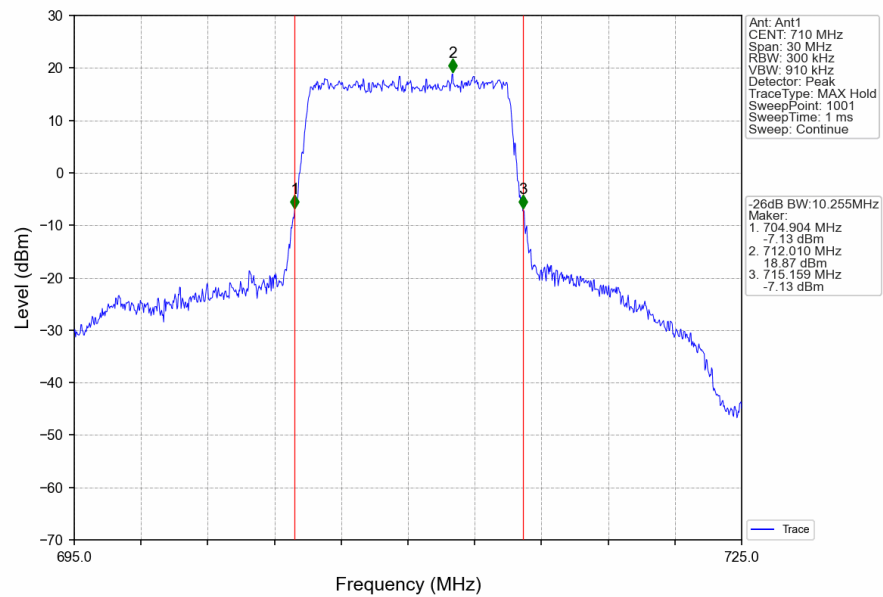
Band17_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



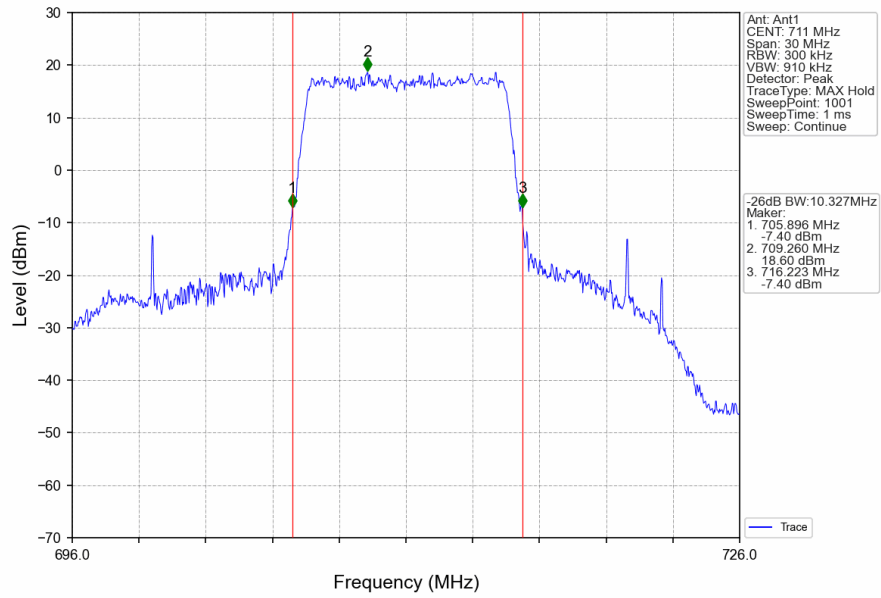
Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV



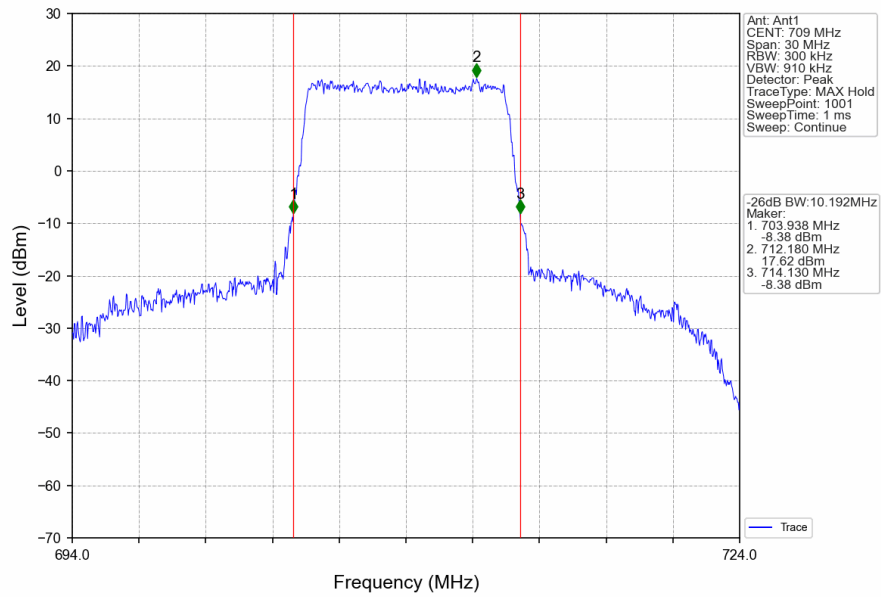
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



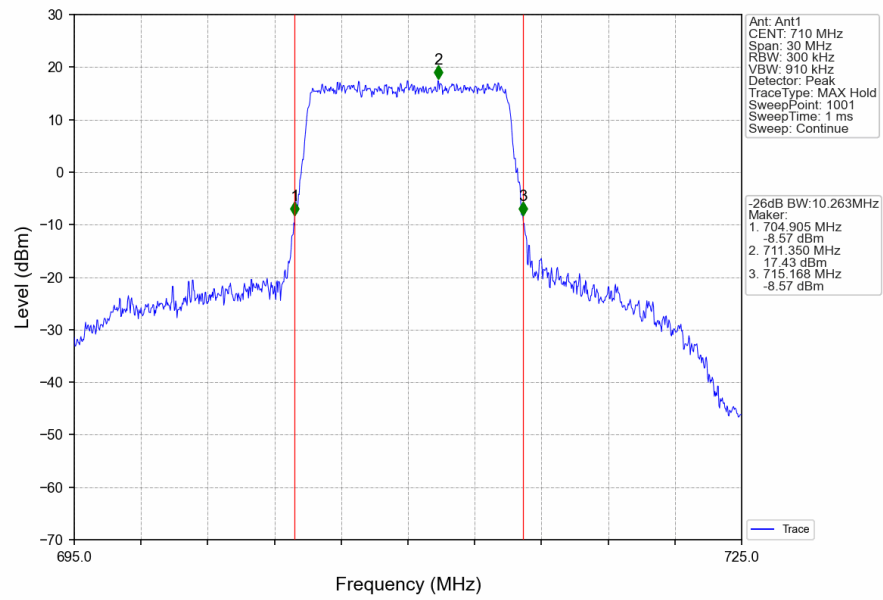
Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



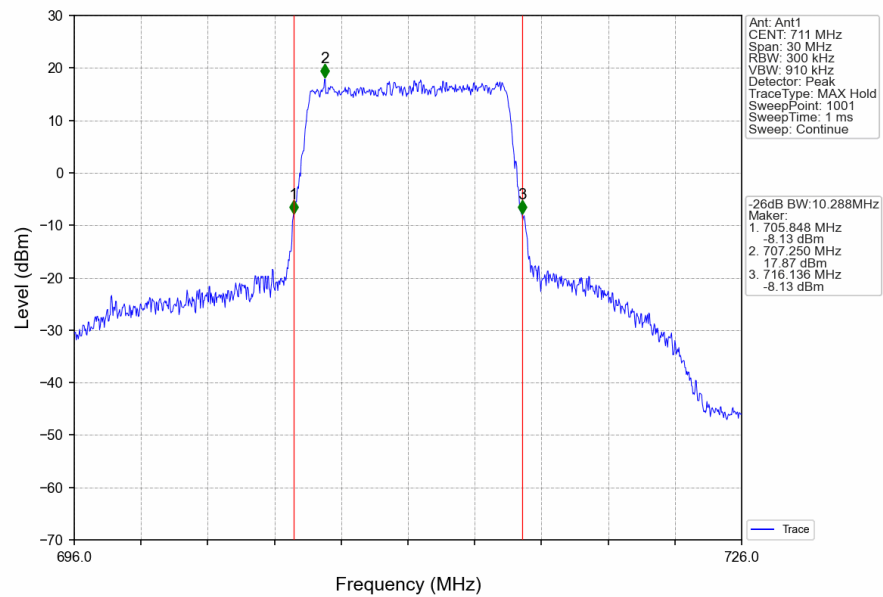
Band17_10MHz_16QAM_LCH_709MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV



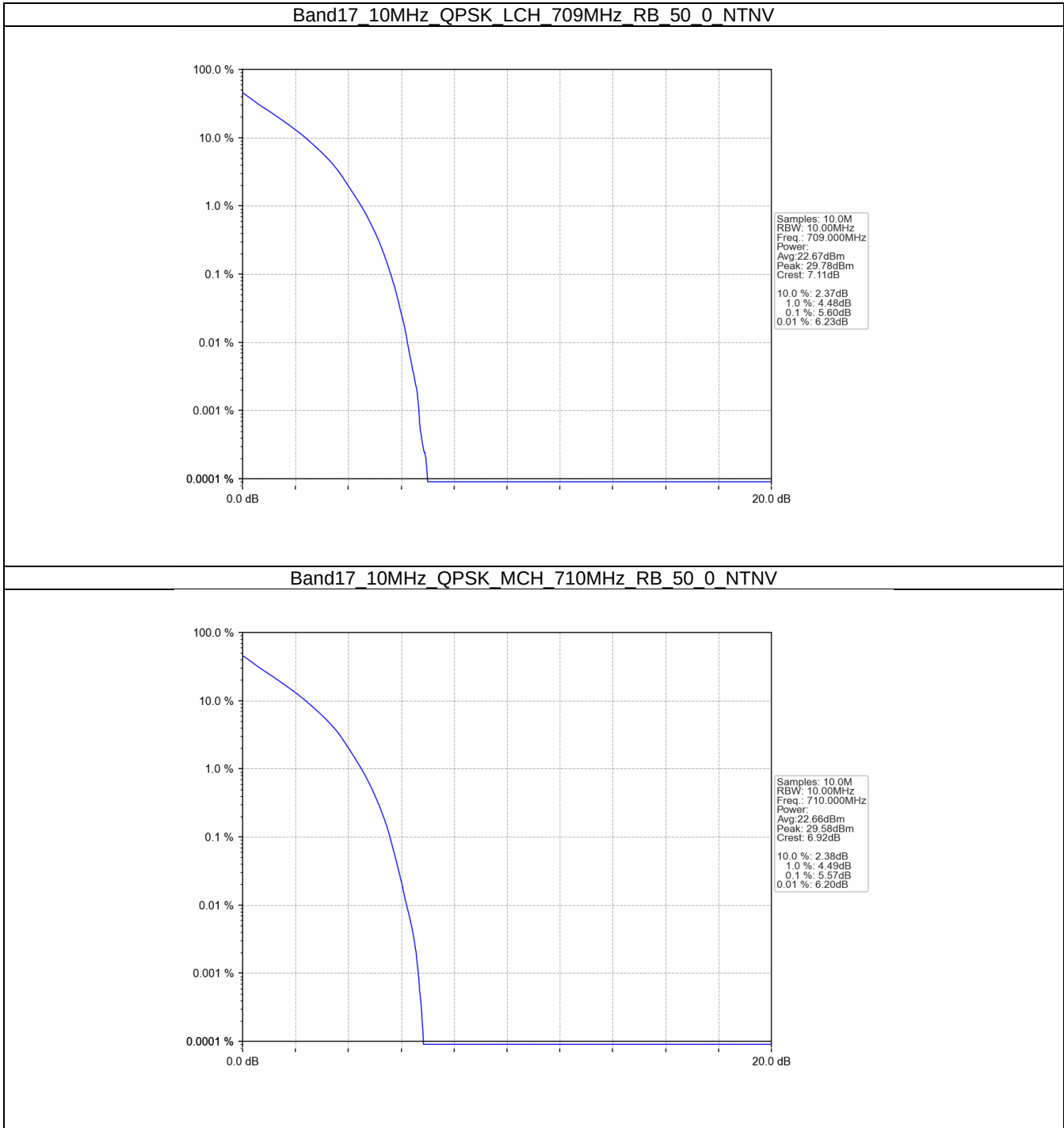
4. Peak-Average Ratio

4.1 B17_10MHz

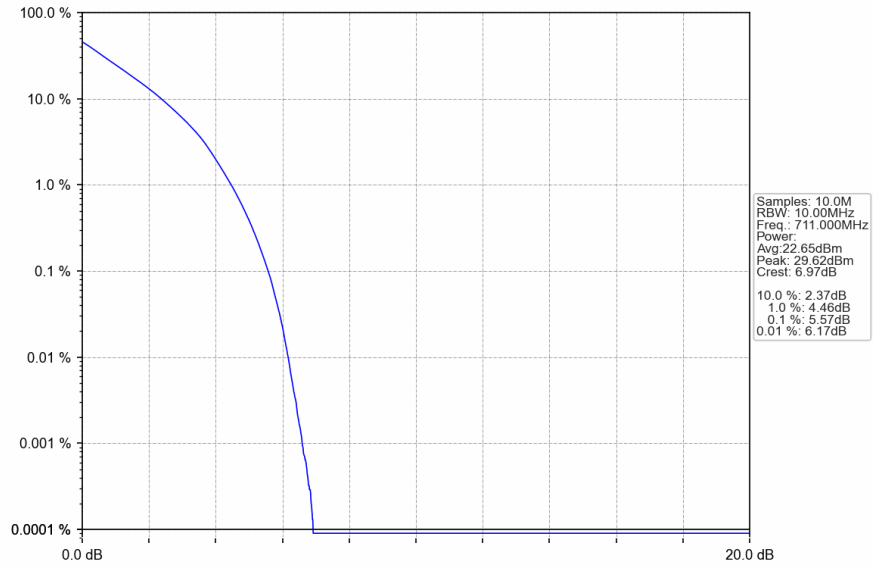
4.1.1 Test Result

Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	709	50	0	5.60	<=13	Pass
	710	50	0	5.57	<=13	Pass
	711	50	0	5.57	<=13	Pass
16QAM	709	50	0	6.33	<=13	Pass
	710	50	0	6.36	<=13	Pass
	711	50	0	6.30	<=13	Pass

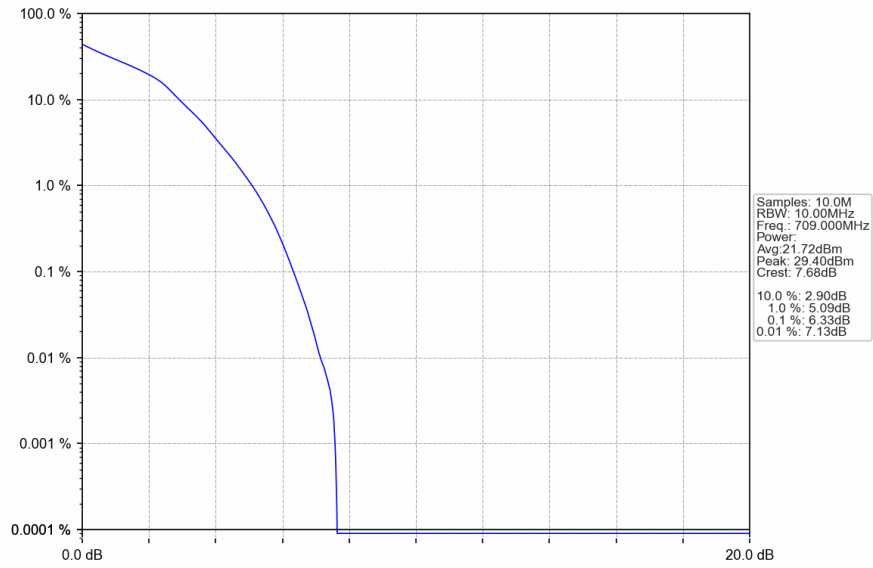
4.1.2 Test Graph



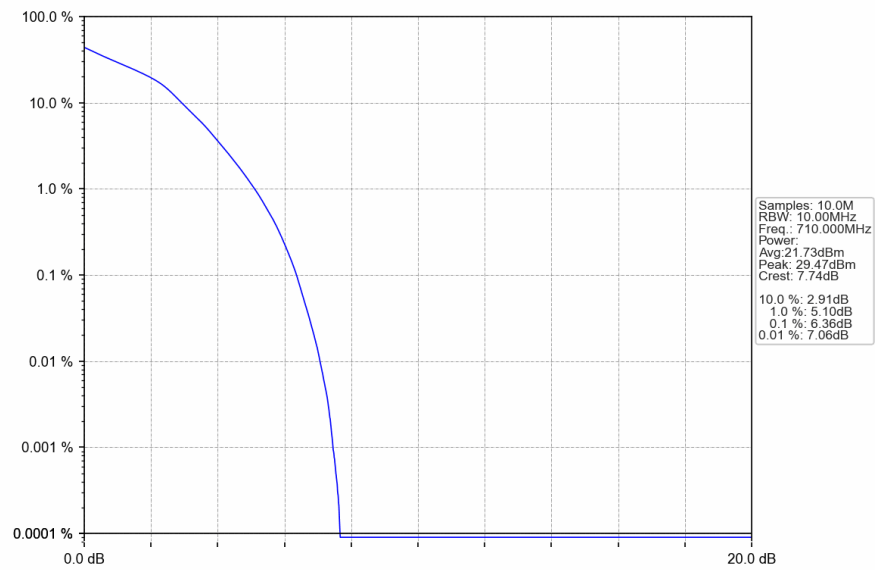
Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



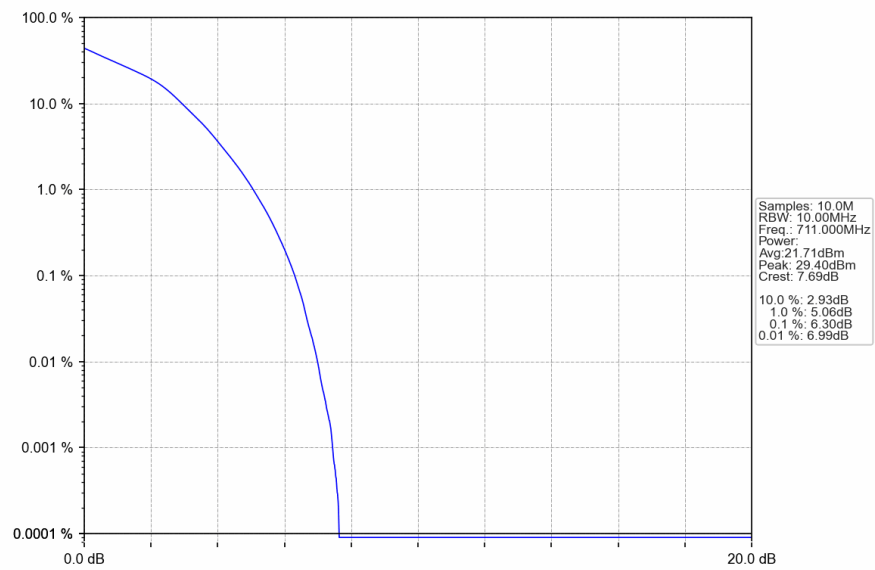
Band17_10MHz_16QAM_LCH_709MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV



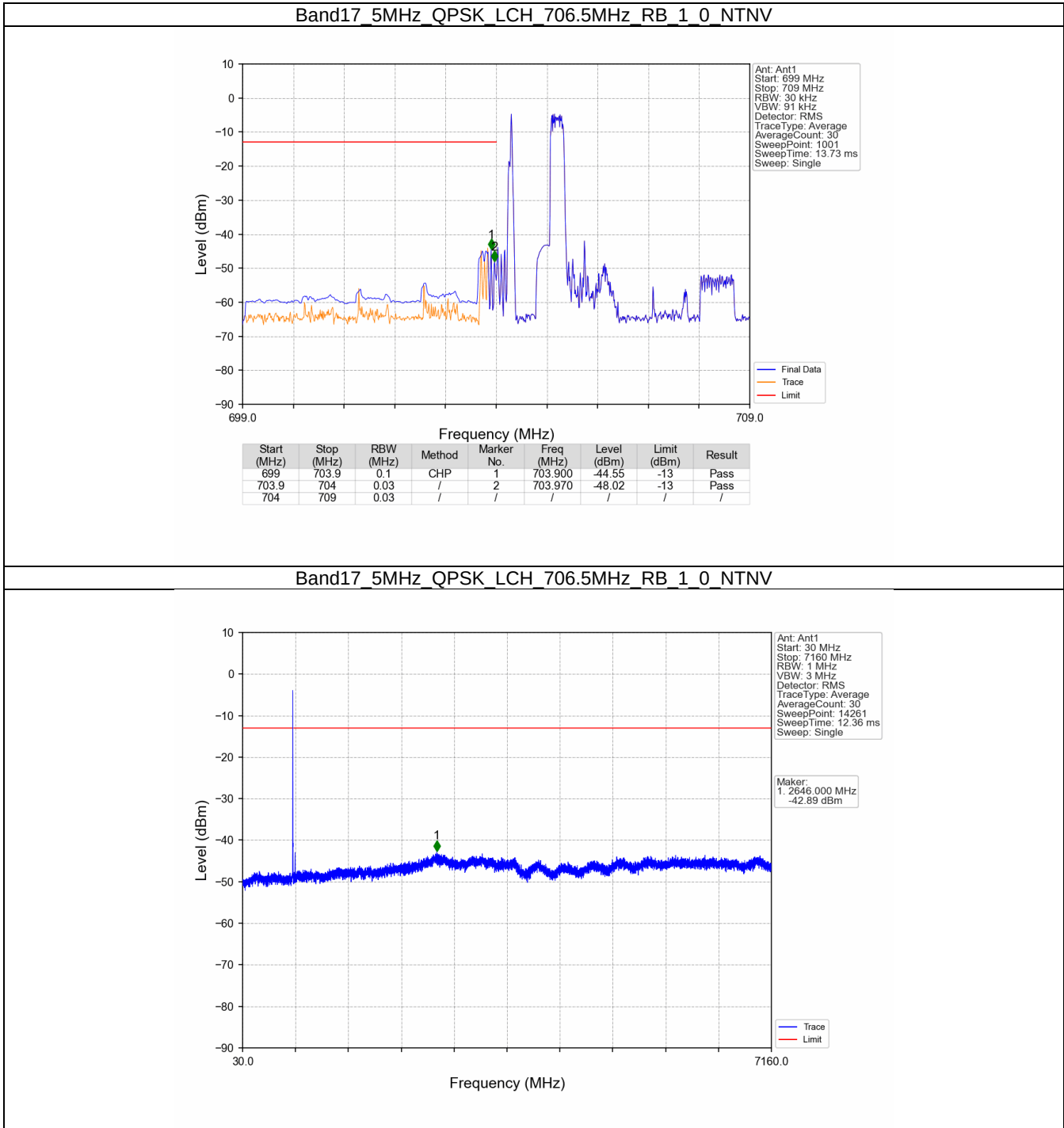
5. Spurious Emission

5.1 B17_5MHz

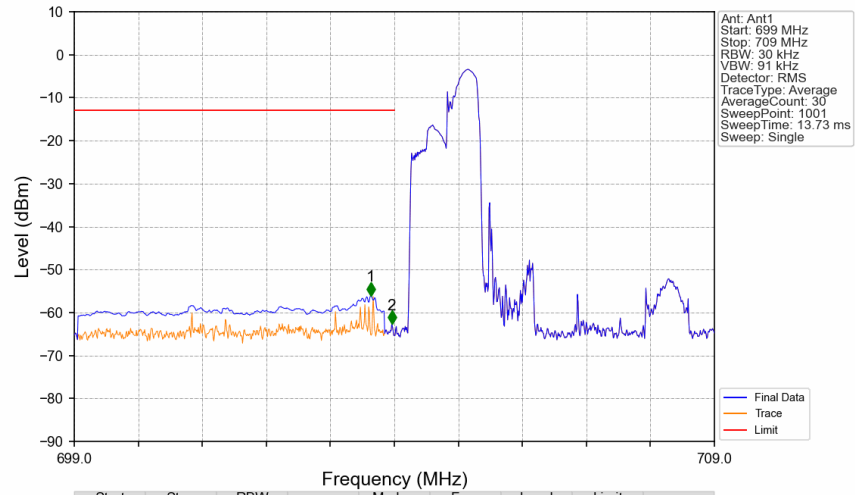
5.1.1 Test Result

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

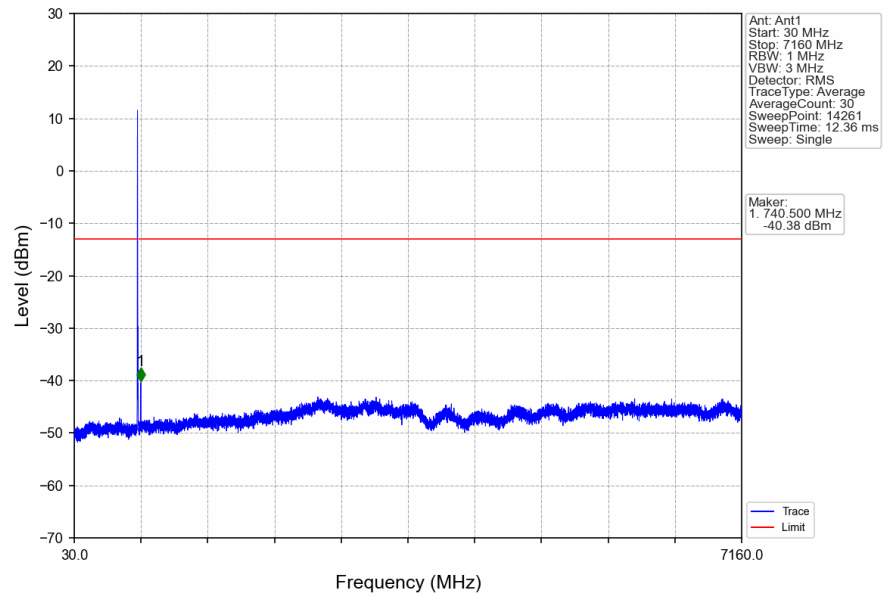
5.1.2 Test Graph



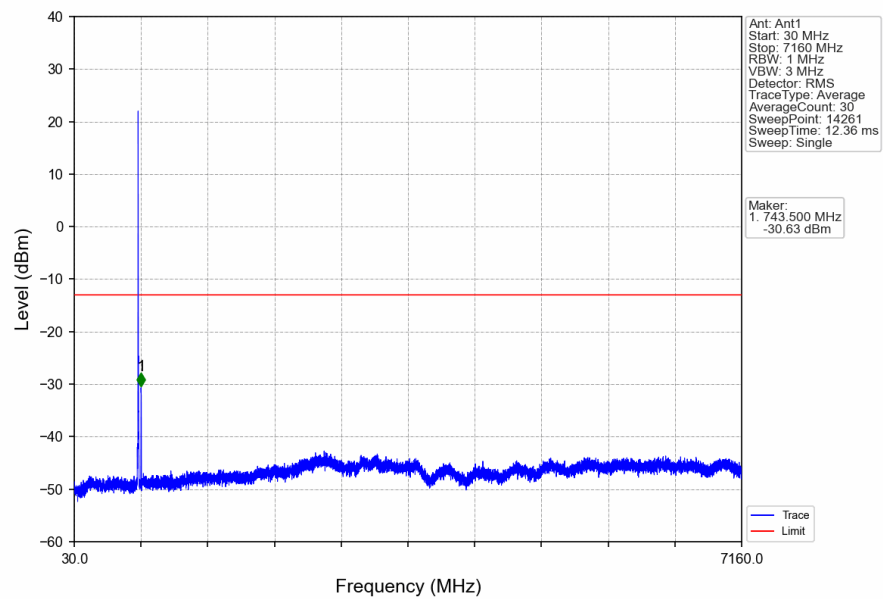
Band17_5MHz_QPSK_LCH_706.5MHz_RB_25_0_NTNV



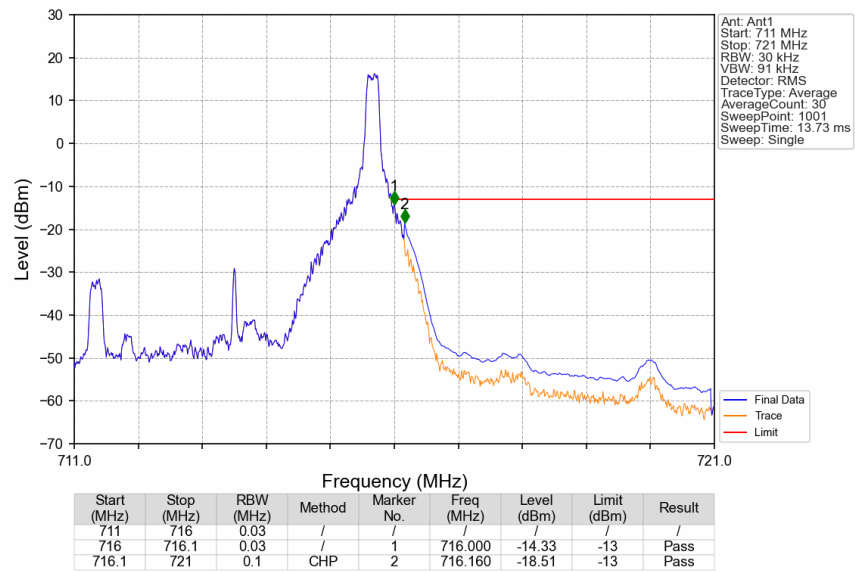
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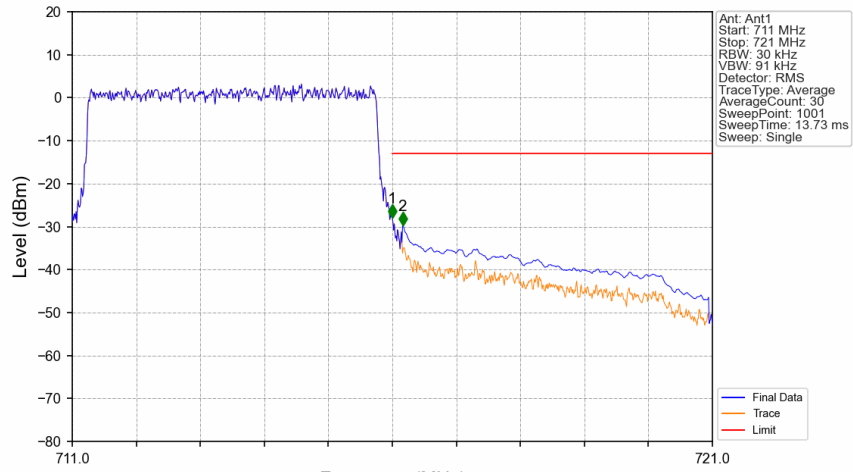
Band17 5MHz QPSK HCH 713.5MHz RB 1 0 NTN



Band17 5MHz QPSK HCH 713.5MHz RB 1 24 NTN



Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



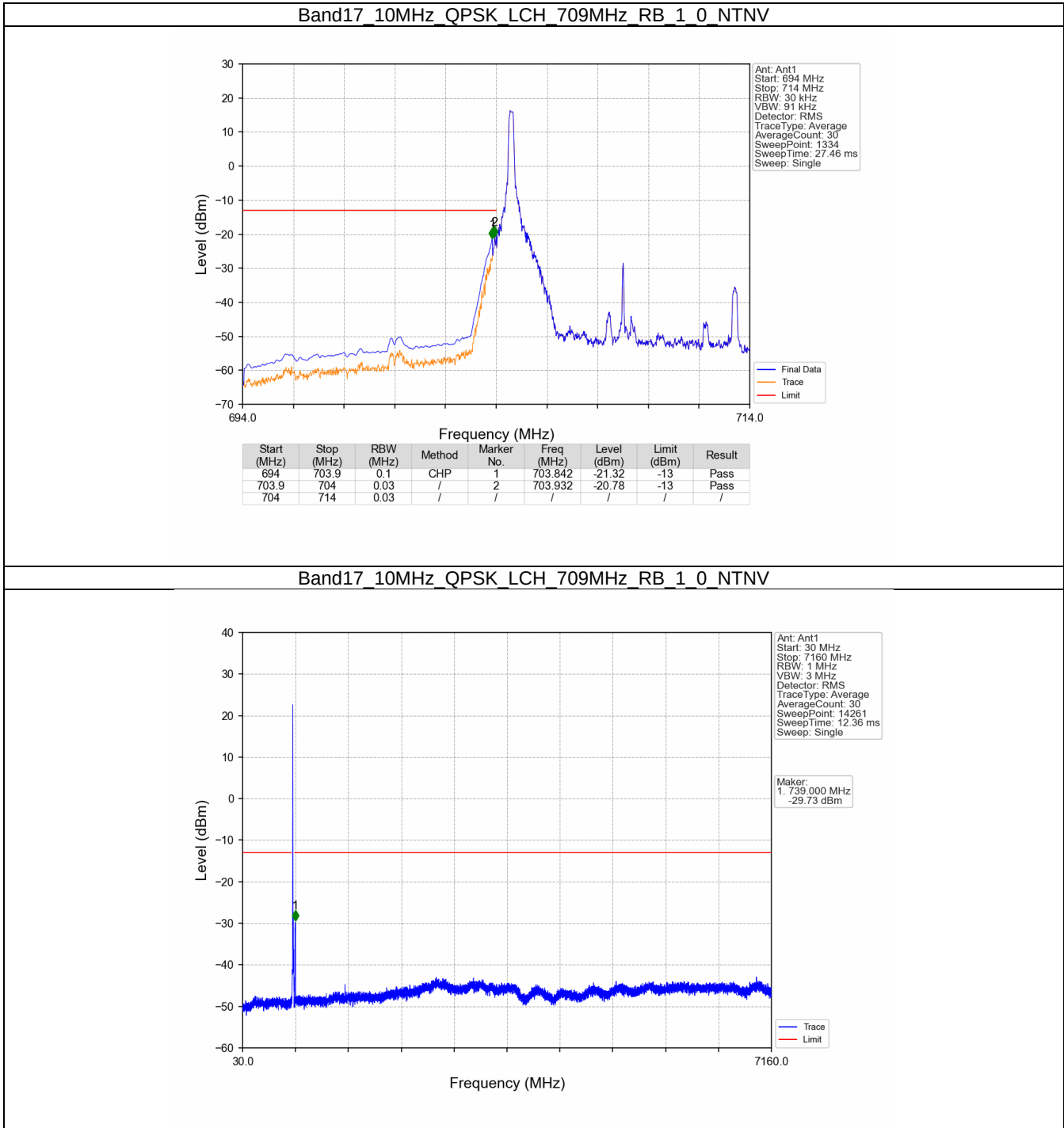
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.000	-27.89	-13	Pass
716.1	721	0.1	CHP	2	716.160	-29.64	-13	Pass

5.2 B17_10MHz

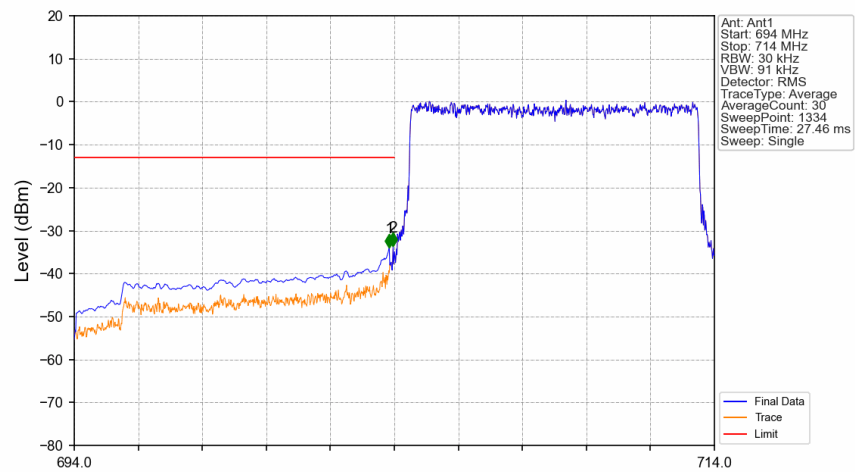
5.2.1 Test Result

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

5.2.2 Test Graph

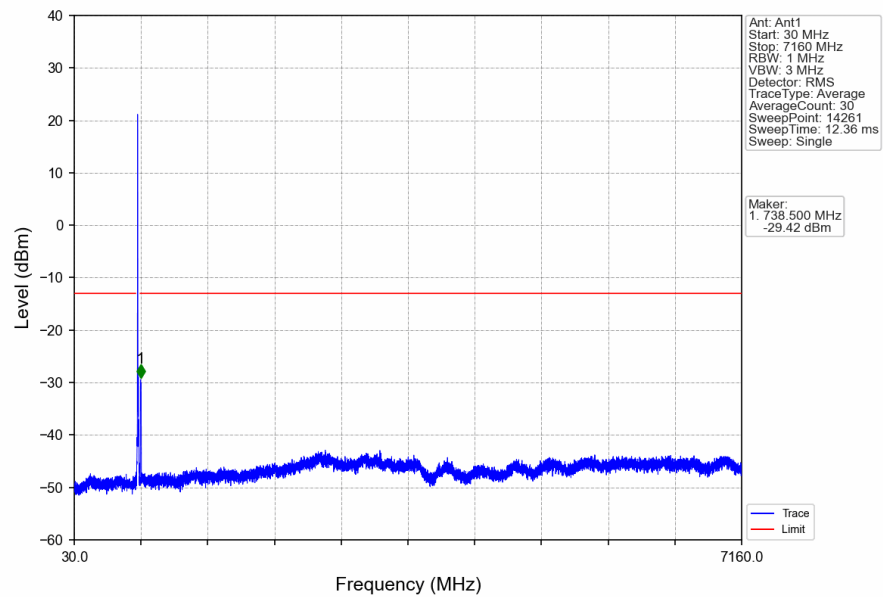


Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV

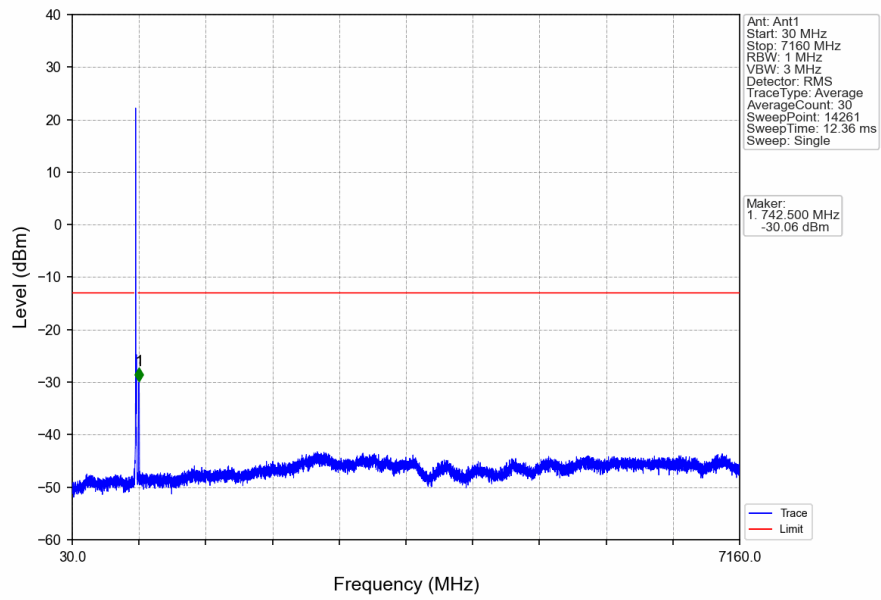


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.842	-33.89	-13	Pass
703.9	704	0.03	/	2	703.962	-33.63	-13	Pass
704	714	0.03	/	/	/	/	/	/

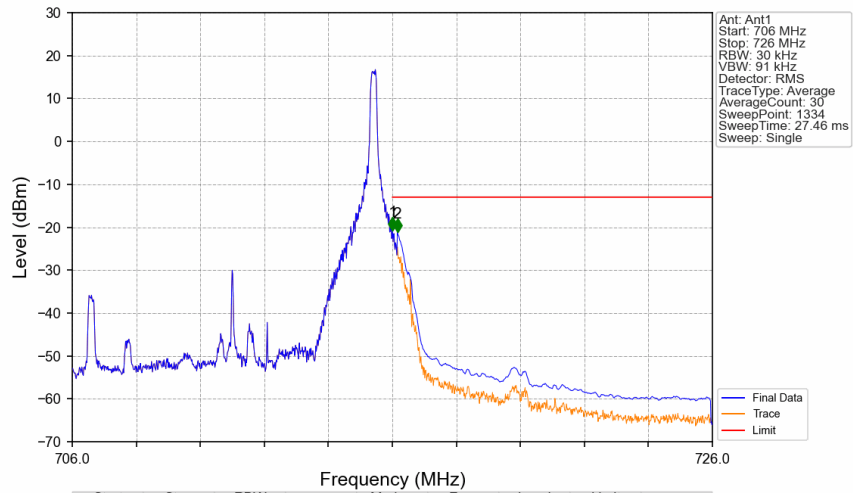
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17 10MHz QPSK HCH 711MHz RB 1 0 NTN

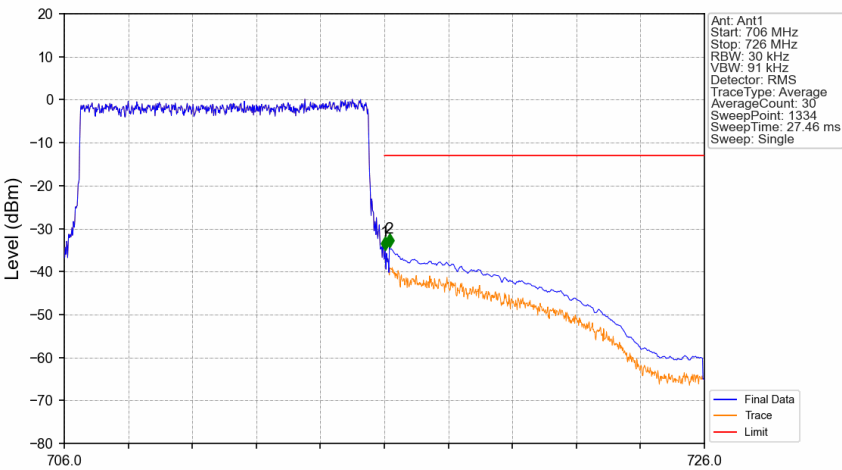


Band17 10MHz QPSK HCH 711MHz RB 1 49 NTN



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	716.008	-20.85	-13	Pass
716.1	726	0.1	CHP	2	716.158	-21.11	-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	/	1	716.023	-35.01	-13	Pass
716	726	0.1	CHP	2	716.158	-34.34	-13	Pass