

1. Effective (Isotropic) Radiated Power Output Data

1.1 B17_5MHz_ERP

1.1.1 Test Result

Band: 17 / Bandwidth: 5MHz / NTN									
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict	
		Size	Offset			Result	Limit		
QPSK	706.5	1	0	23.51	-0.5	20.86	<=34.77	Pass	
			13	23.58	-0.5	20.93	<=34.77	Pass	
			24	23.47	-0.5	20.82	<=34.77	Pass	
		12	0	22.46	-0.5	19.81	<=34.77	Pass	
			6	22.57	-0.5	19.92	<=34.77	Pass	
			13	22.51	-0.5	19.86	<=34.77	Pass	
		25	0	22.53	-0.5	19.88	<=34.77	Pass	
		710	1	0	23.52	-0.5	20.87	<=34.77	Pass
				13	23.5	-0.5	20.85	<=34.77	Pass
	24			23.44	-0.5	20.79	<=34.77	Pass	
	12		0	22.46	-0.5	19.81	<=34.77	Pass	
			6	22.46	-0.5	19.81	<=34.77	Pass	
			13	22.47	-0.5	19.82	<=34.77	Pass	
	25	0	22.44	-0.5	19.79	<=34.77	Pass		
	713.5	1	0	23.48	-0.5	20.83	<=34.77	Pass	
			13	23.53	-0.5	20.88	<=34.77	Pass	
			24	23.43	-0.5	20.78	<=34.77	Pass	
		12	0	22.46	-0.5	19.81	<=34.77	Pass	
			6	22.45	-0.5	19.8	<=34.77	Pass	
			13	22.48	-0.5	19.83	<=34.77	Pass	
	25	0	22.42	-0.5	19.77	<=34.77	Pass		
	16QAM	706.5	1	0	22.63	-0.5	19.98	<=34.77	Pass
				13	22.59	-0.5	19.94	<=34.77	Pass
				24	22.67	-0.5	20.02	<=34.77	Pass
12			0	21.47	-0.5	18.82	<=34.77	Pass	
			6	21.58	-0.5	18.93	<=34.77	Pass	
			13	21.54	-0.5	18.89	<=34.77	Pass	
25		0	21.54	-0.5	18.89	<=34.77	Pass		
710		1	0	22.67	-0.5	20.02	<=34.77	Pass	
			13	22.72	-0.5	20.07	<=34.77	Pass	
			24	22.58	-0.5	19.93	<=34.77	Pass	
		12	0	21.5	-0.5	18.85	<=34.77	Pass	

			6	21.5	-0.5	18.85	<=34.77	Pass
			13	21.5	-0.5	18.85	<=34.77	Pass
		25	0	21.46	-0.5	18.81	<=34.77	Pass
	713.5	1	0	22.7	-0.5	20.05	<=34.77	Pass
			13	22.71	-0.5	20.06	<=34.77	Pass
			24	22.61	-0.5	19.96	<=34.77	Pass
		12	0	21.48	-0.5	18.83	<=34.77	Pass
			6	21.49	-0.5	18.84	<=34.77	Pass
			13	21.51	-0.5	18.86	<=34.77	Pass
		25	0	21.46	-0.5	18.81	<=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 / NTN									
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict	
		Size	Offset			Result	Limit		
QPSK	709	1	0	23.53	-0.5	20.88	<=34.77	Pass	
			25	23.51	-0.5	20.86	<=34.77	Pass	
			49	23.36	-0.5	20.71	<=34.77	Pass	
		25	0	22.52	-0.5	19.87	<=34.77	Pass	
			13	22.58	-0.5	19.93	<=34.77	Pass	
			25	22.5	-0.5	19.85	<=34.77	Pass	
		50	0	22.66	-0.5	20.01	<=34.77	Pass	
		710	1	0	23.56	-0.5	20.91	<=34.77	Pass
				25	23.53	-0.5	20.88	<=34.77	Pass
				49	23.38	-0.5	20.73	<=34.77	Pass
			25	0	22.51	-0.5	19.86	<=34.77	Pass
				13	22.57	-0.5	19.92	<=34.77	Pass
	25			22.49	-0.5	19.84	<=34.77	Pass	
	50	0	22.54	-0.5	19.89	<=34.77	Pass		
	711	1	0	23.57	-0.5	20.92	<=34.77	Pass	
			25	23.53	-0.5	20.88	<=34.77	Pass	
			49	23.4	-0.5	20.75	<=34.77	Pass	
		25	0	22.51	-0.5	19.86	<=34.77	Pass	
			13	22.55	-0.5	19.9	<=34.77	Pass	
			25	22.5	-0.5	19.85	<=34.77	Pass	
		50	0	22.65	-0.5	20	<=34.77	Pass	

16QAM	709	1	0	22.76	-0.5	20.11	<=34.77	Pass		
			25	22.66	-0.5	20.01	<=34.77	Pass		
			49	22.57	-0.5	19.92	<=34.77	Pass		
		25	0	21.56	-0.5	18.91	<=34.77	Pass		
			13	21.59	-0.5	18.94	<=34.77	Pass		
			25	21.52	-0.5	18.87	<=34.77	Pass		
		50	0	21.66	-0.5	19.01	<=34.77	Pass		
		710	1	0	22.7	-0.5	20.05	<=34.77	Pass	
				25	22.68	-0.5	20.03	<=34.77	Pass	
	49			22.49	-0.5	19.84	<=34.77	Pass		
	25		0	21.5	-0.5	18.85	<=34.77	Pass		
			13	21.58	-0.5	18.93	<=34.77	Pass		
			25	21.5	-0.5	18.85	<=34.77	Pass		
	50		0	21.56	-0.5	18.91	<=34.77	Pass		
	711		1	0	22.72	-0.5	20.07	<=34.77	Pass	
				25	22.67	-0.5	20.02	<=34.77	Pass	
		49		22.51	-0.5	19.86	<=34.77	Pass		
		25	0	21.52	-0.5	18.87	<=34.77	Pass		
			13	21.59	-0.5	18.94	<=34.77	Pass		
			25	21.49	-0.5	18.84	<=34.77	Pass		
		50	0	21.65	-0.5	19	<=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	3.27	-0.909	-0.0013	-2.5 to 2.5	Pass	
					3.85	-1.549	-0.0022	-2.5 to 2.5	Pass	
					4.43	-1.353	-0.0019	-2.5 to 2.5	Pass	
				-30	3.85	-0.352	-0.0005	-2.5 to 2.5	Pass	
					-20	3.85	-0.360	-0.0005	-2.5 to 2.5	Pass
					-10	3.85	-0.975	-0.0014	-2.5 to 2.5	Pass
				0	3.85	-0.494	-0.0007	-2.5 to 2.5	Pass	
					10	3.85	-1.156	-0.0016	-2.5 to 2.5	Pass
					30	3.85	-1.407	-0.0020	-2.5 to 2.5	Pass
				40	3.85	-0.980	-0.0014	-2.5 to 2.5	Pass	
					50	3.85	-0.065	-0.0001	-2.5 to 2.5	Pass
					710	50	0	20	3.27	0.395

					3.85	-0.141	-0.0002	-2.5 to 2.5	Pass	
					4.43	0.649	0.0009	-2.5 to 2.5	Pass	
				-30	3.85	-0.005	0.0000	-2.5 to 2.5	Pass	
				-20	3.85	0.725	0.0010	-2.5 to 2.5	Pass	
				-10	3.85	-0.378	-0.0005	-2.5 to 2.5	Pass	
				0	3.85	-0.274	-0.0004	-2.5 to 2.5	Pass	
				10	3.85	-0.514	-0.0007	-2.5 to 2.5	Pass	
				30	3.85	0.063	0.0001	-2.5 to 2.5	Pass	
				40	3.85	0.005	0.0000	-2.5 to 2.5	Pass	
	50	3.85	0.312	0.0004	-2.5 to 2.5	Pass				
	711	50	0	20		3.27	0.048	0.0001	-2.5 to 2.5	Pass
						3.85	-1.050	-0.0015	-2.5 to 2.5	Pass
						4.43	-1.162	-0.0016	-2.5 to 2.5	Pass
					-30	3.85	-0.126	-0.0002	-2.5 to 2.5	Pass
					-20	3.85	-0.862	-0.0012	-2.5 to 2.5	Pass
					-10	3.85	-0.872	-0.0012	-2.5 to 2.5	Pass
					0	3.85	-0.543	-0.0008	-2.5 to 2.5	Pass
					10	3.85	-1.260	-0.0018	-2.5 to 2.5	Pass
					30	3.85	-0.965	-0.0014	-2.5 to 2.5	Pass
	40	3.85	-0.348	-0.0005	-2.5 to 2.5	Pass				
	50	3.85	-0.092	-0.0001	-2.5 to 2.5	Pass				

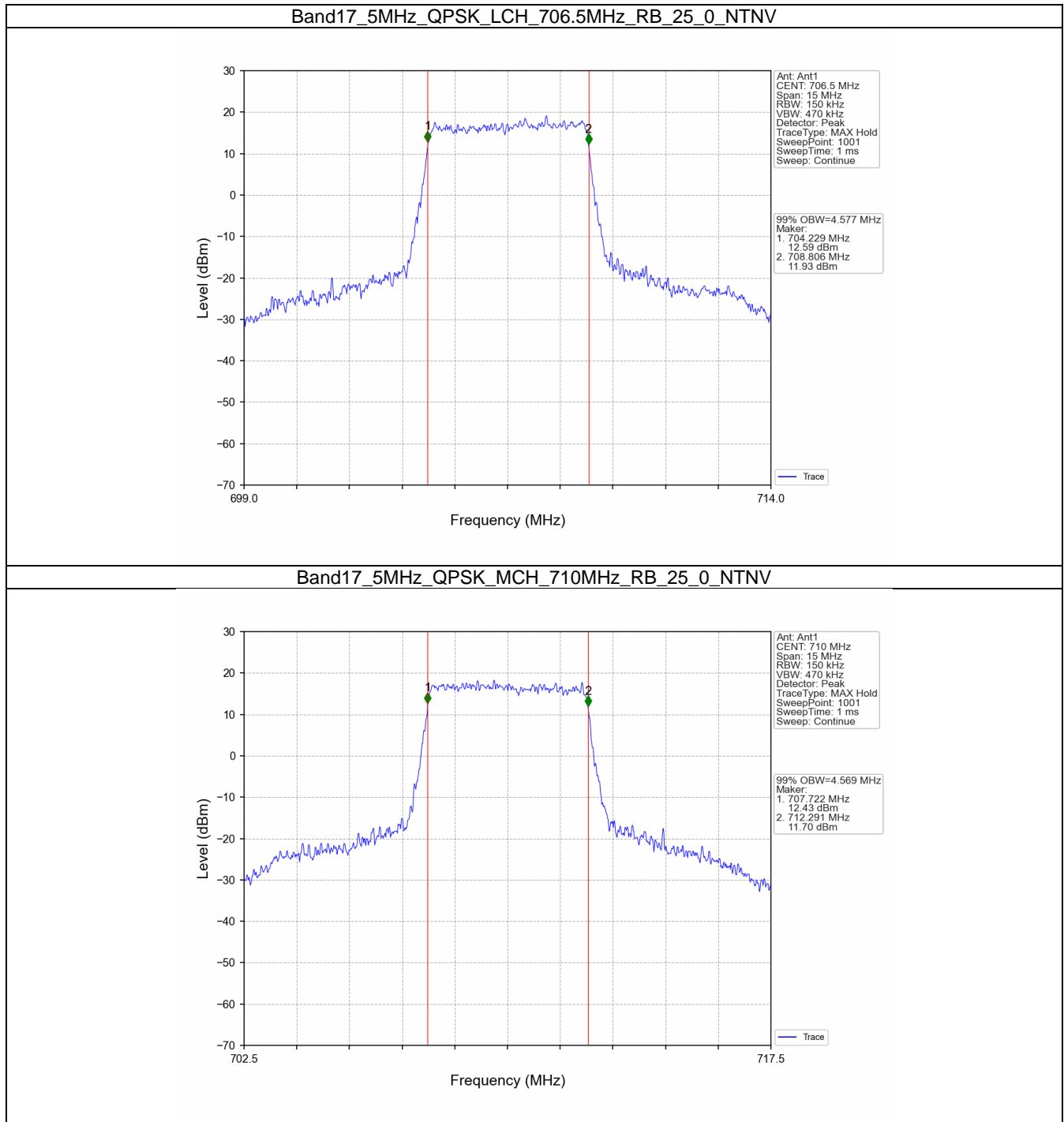
3. 99% & 26dB Bandwidth

3.1 Band17_OBW

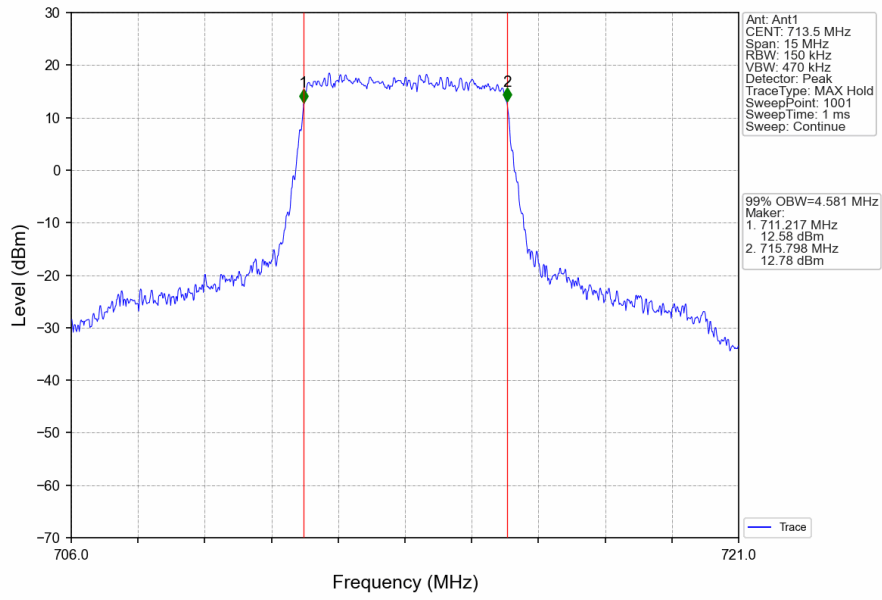
3.1.1 Test Result

Band: 17 / NTV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	706.5	25	0	4.577	/	Pass
		710	25	0	4.569	/	Pass
		713.5	25	0	4.581	/	Pass
	16QAM	706.5	25	0	4.572	/	Pass
		710	25	0	4.569	/	Pass
		713.5	25	0	4.593	/	Pass
10	QPSK	709	50	0	9.045	/	Pass
		710	50	0	9.051	/	Pass
		711	50	0	9.063	/	Pass
	16QAM	709	50	0	9.091	/	Pass
		710	50	0	9.038	/	Pass
		711	50	0	9.088	/	Pass

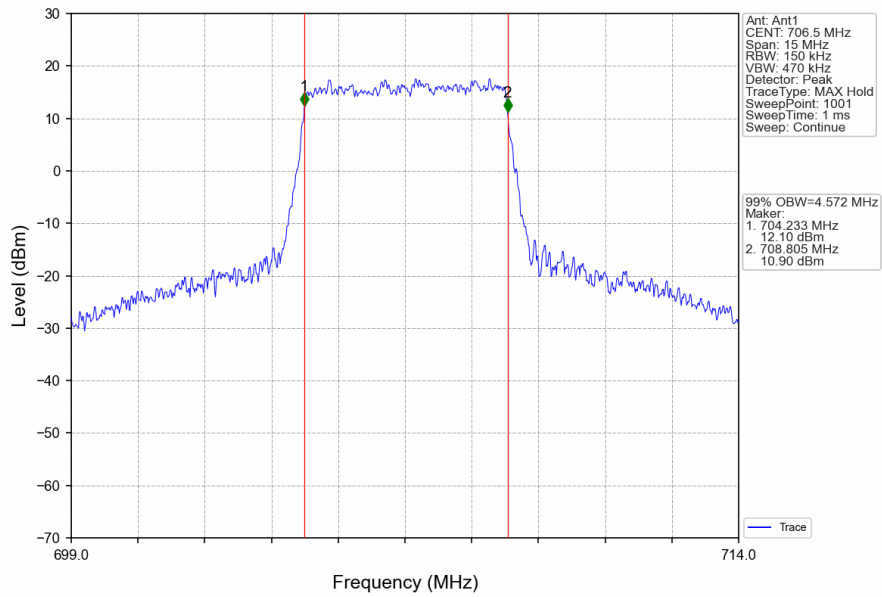
3.1.2 Test Graph



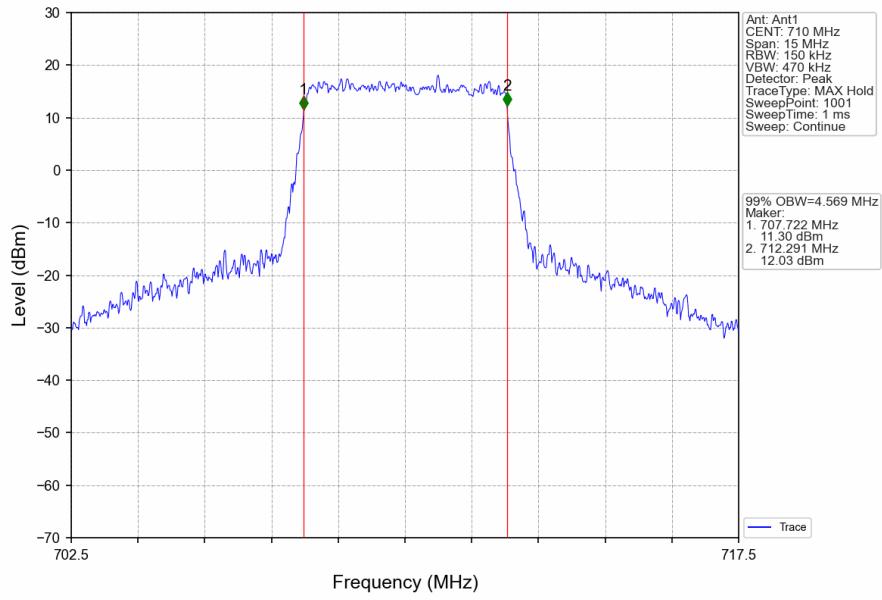
Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



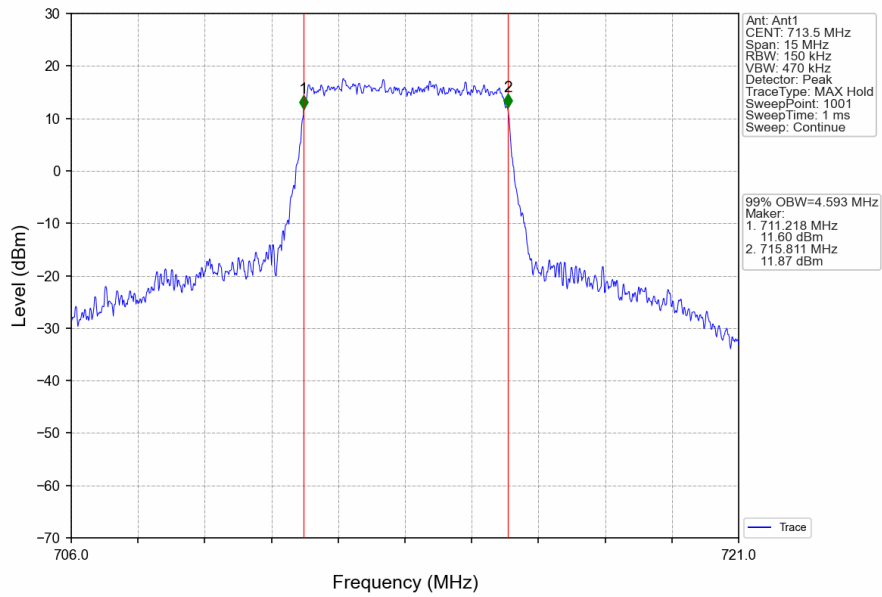
Band17_5MHz_16QAM_LCH_706.5MHz_RB_25_0_NTNV



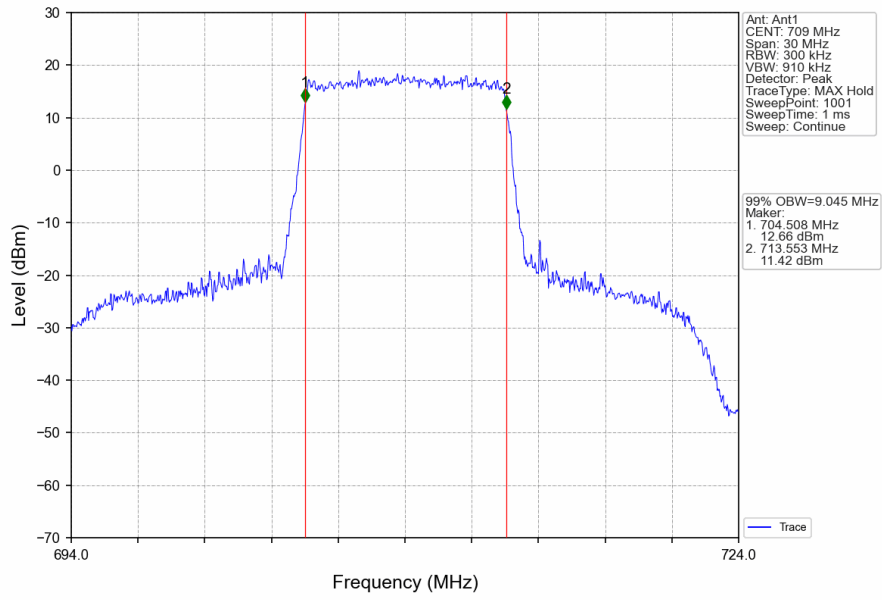
Band17_5MHz_16QAM_MCH_710MHz_RB_25_0_NTNV



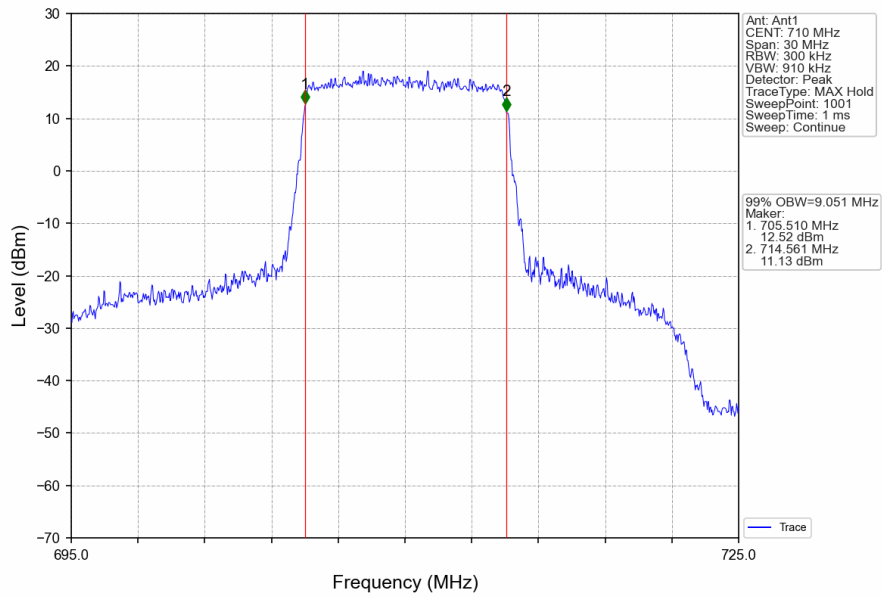
Band17_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



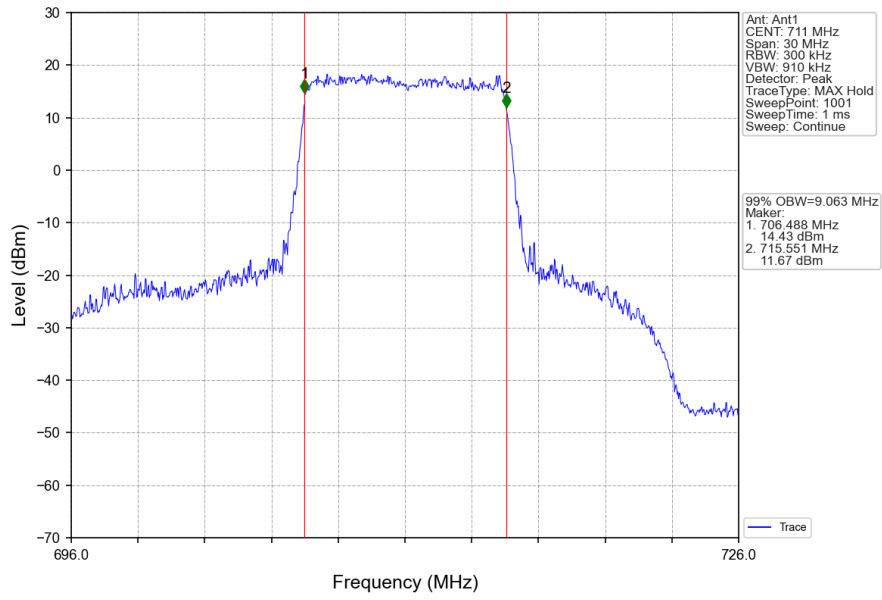
Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV



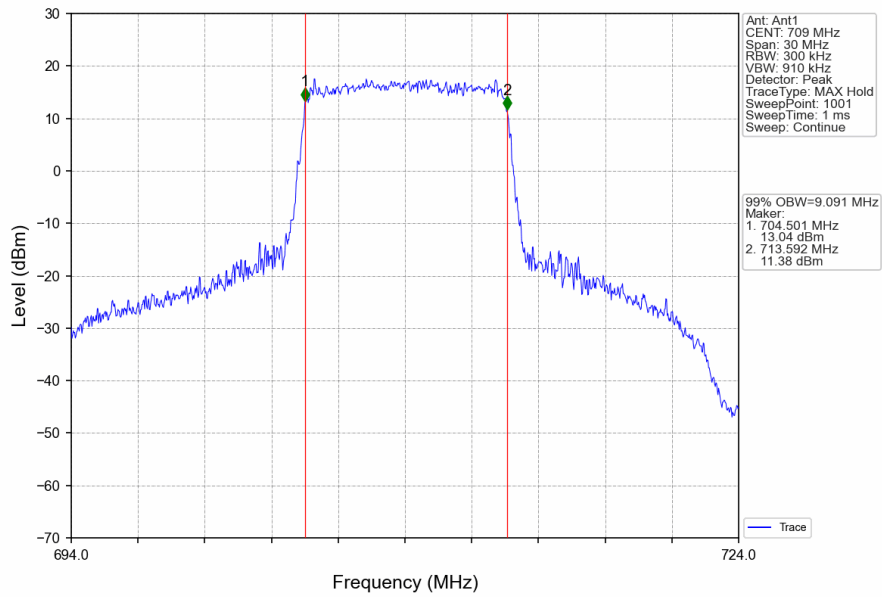
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



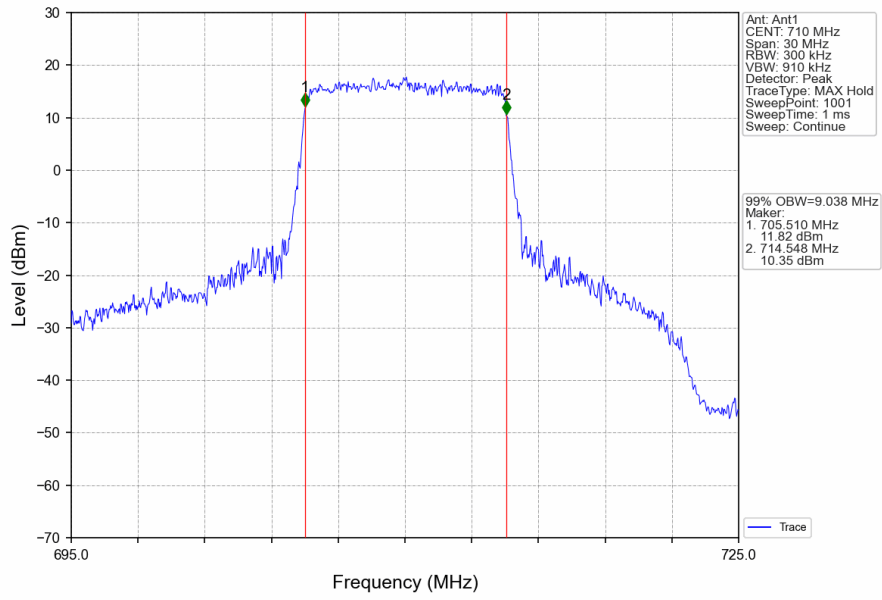
Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



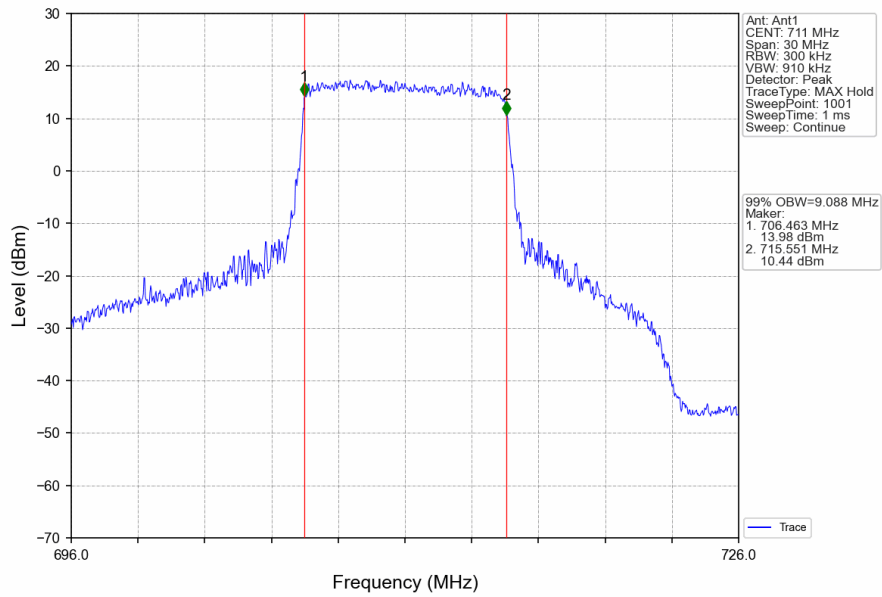
Band17_10MHz_16QAM_LCH_709MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV

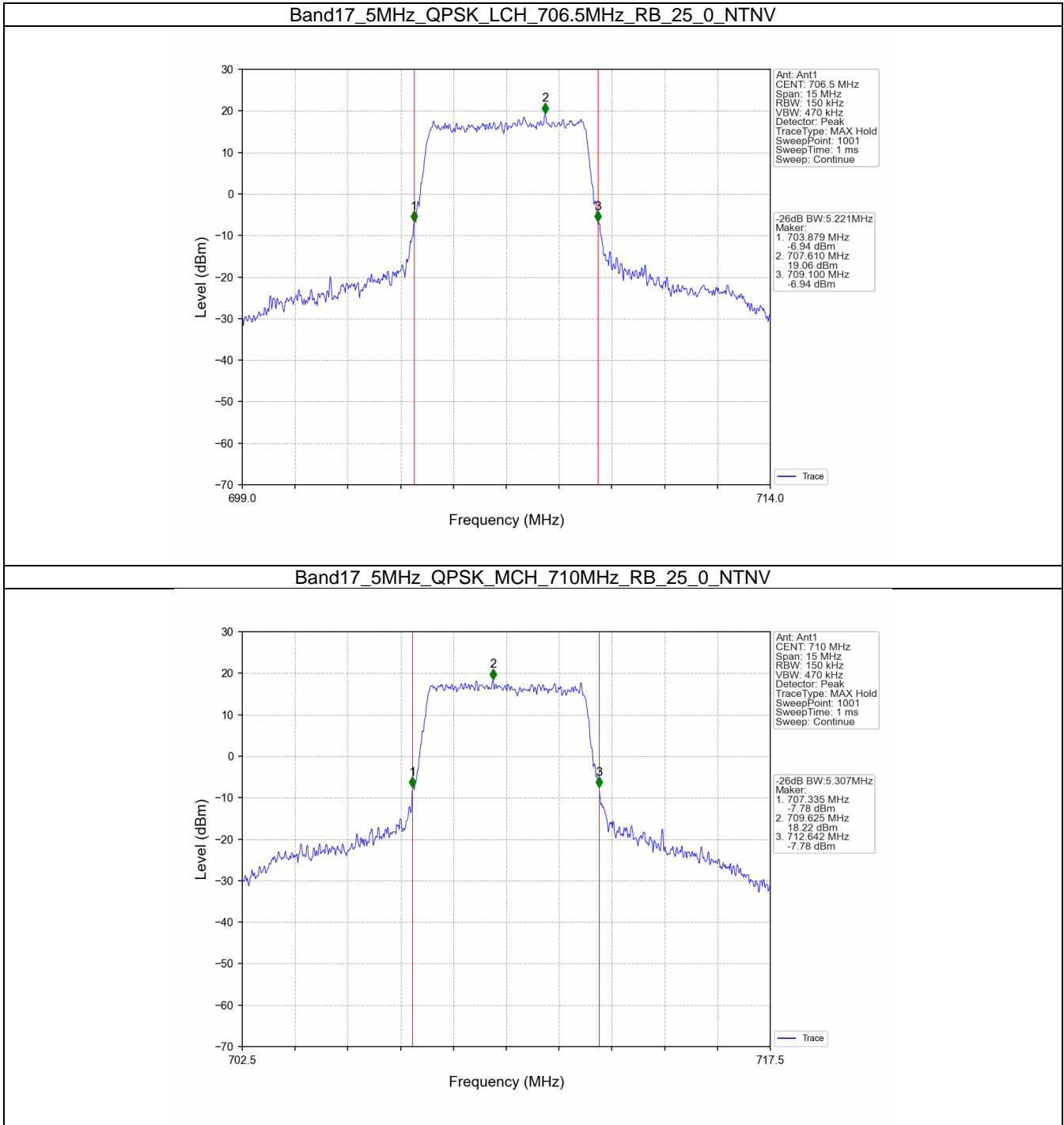


3.2 Band17_XDB

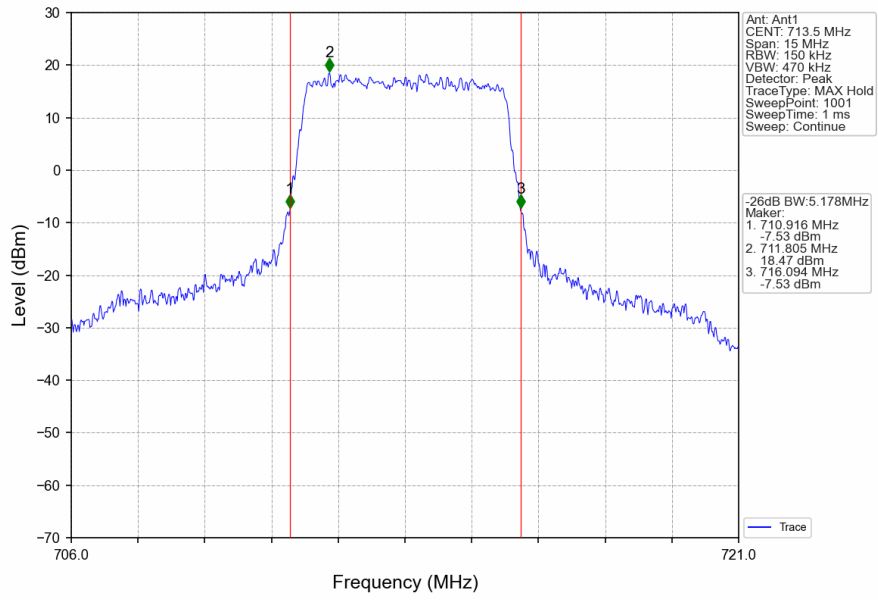
3.2.1 Test Result

Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	706.5	25	0	5.221	/	Pass
		710	25	0	5.307	/	Pass
		713.5	25	0	5.178	/	Pass
	16QAM	706.5	25	0	5.210	/	Pass
		710	25	0	5.325	/	Pass
		713.5	25	0	5.249	/	Pass
10	QPSK	709	50	0	10.123	/	Pass
		710	50	0	10.081	/	Pass
		711	50	0	10.148	/	Pass
	16QAM	709	50	0	10.111	/	Pass
		710	50	0	10.175	/	Pass
		711	50	0	10.274	/	Pass

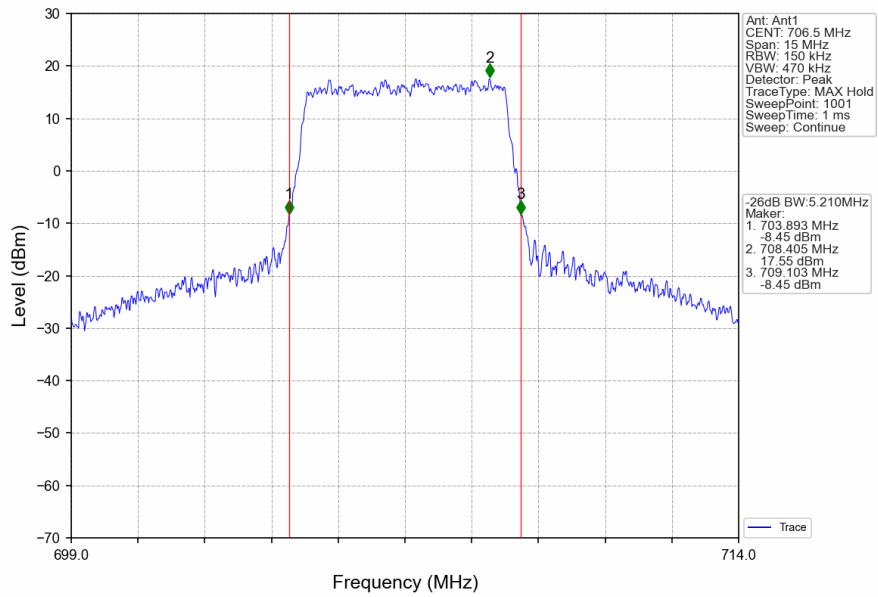
3.2.2 Test Graph



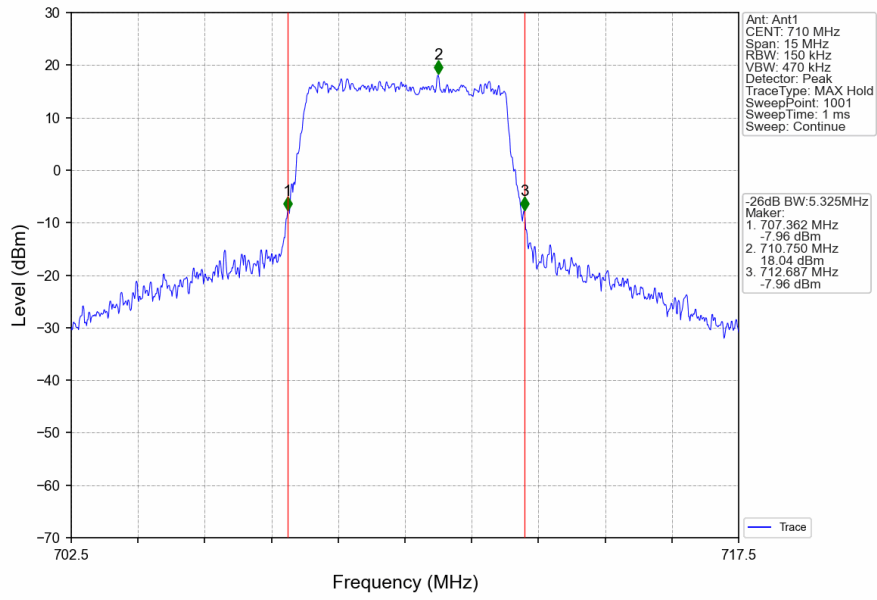
Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



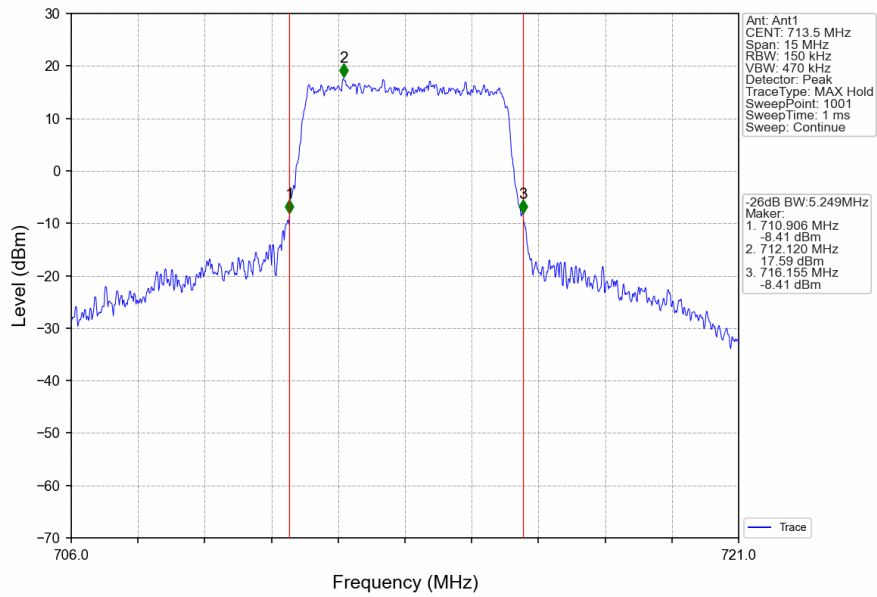
Band17_5MHz_16QAM_LCH_706.5MHz_RB_25_0_NTNV



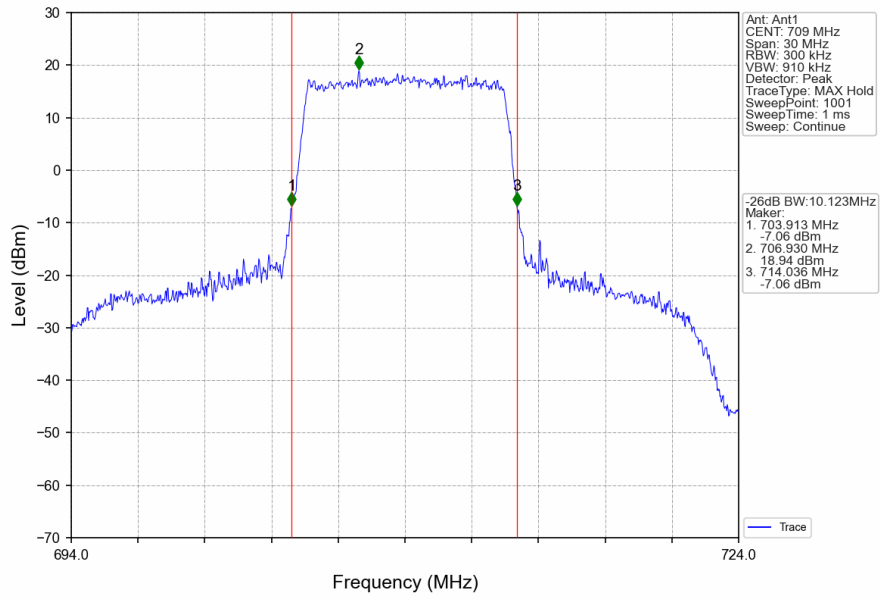
Band17_5MHz_16QAM_MCH_710MHz_RB_25_0_NTNV



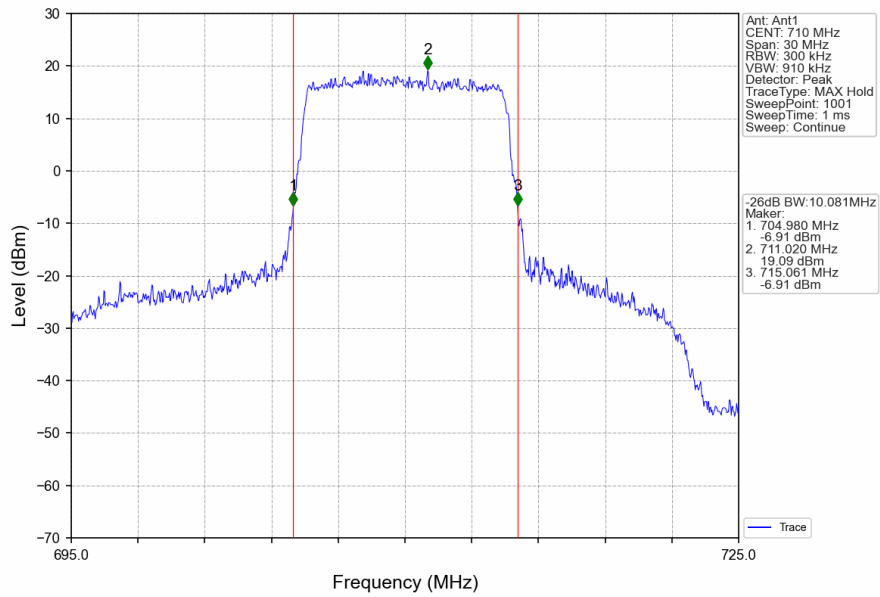
Band17_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



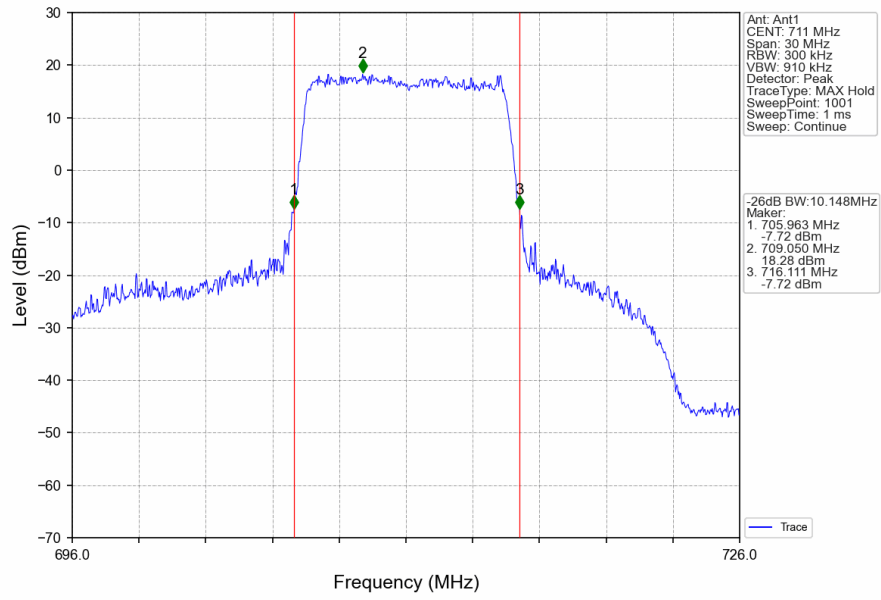
Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV



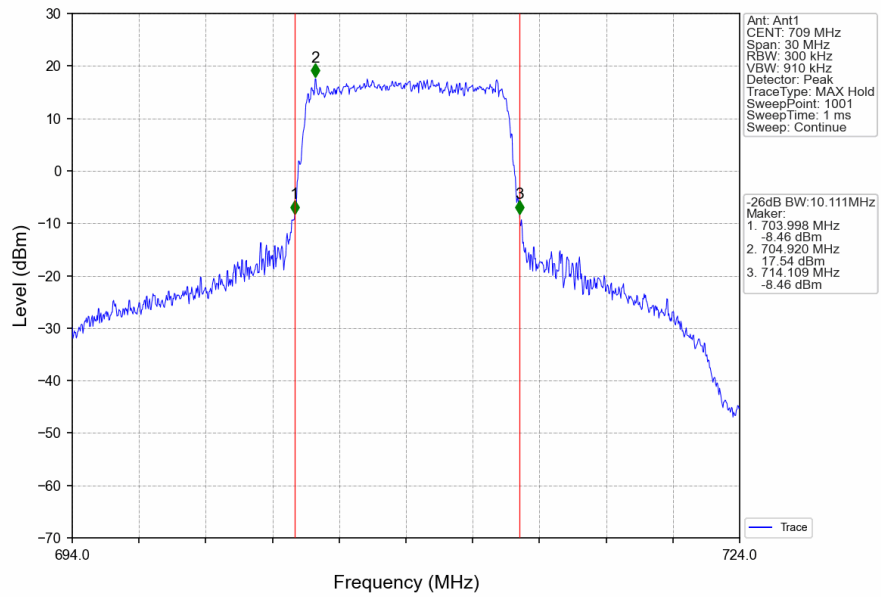
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



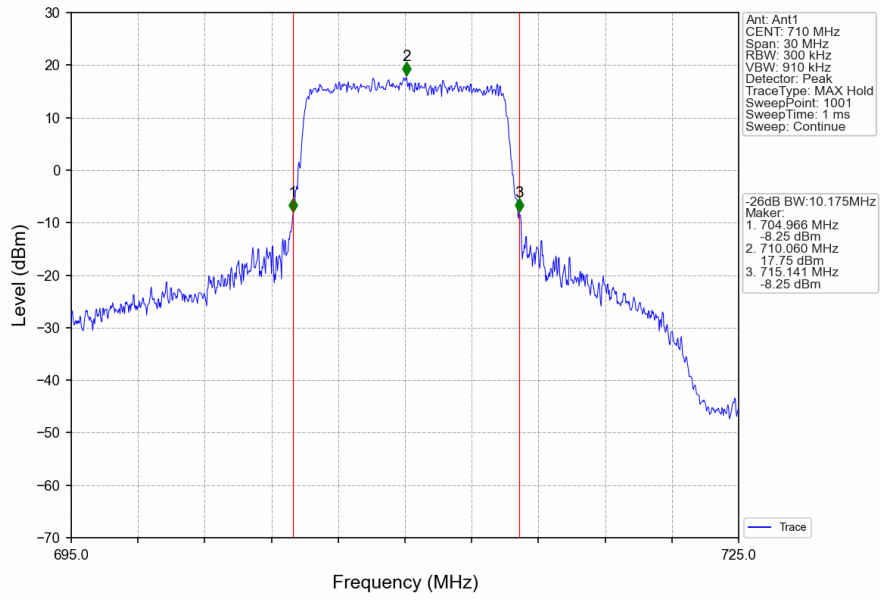
Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



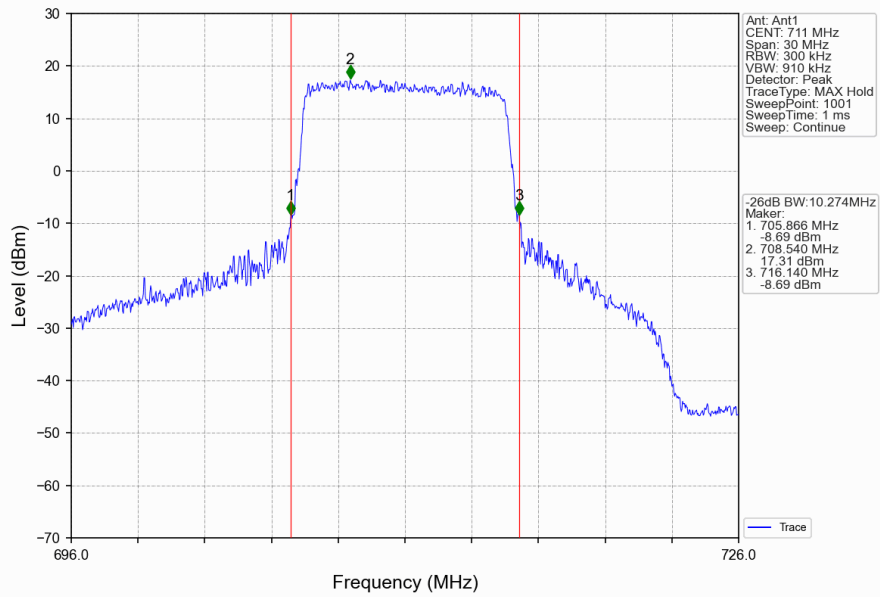
Band17_10MHz_16QAM_LCH_709MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV



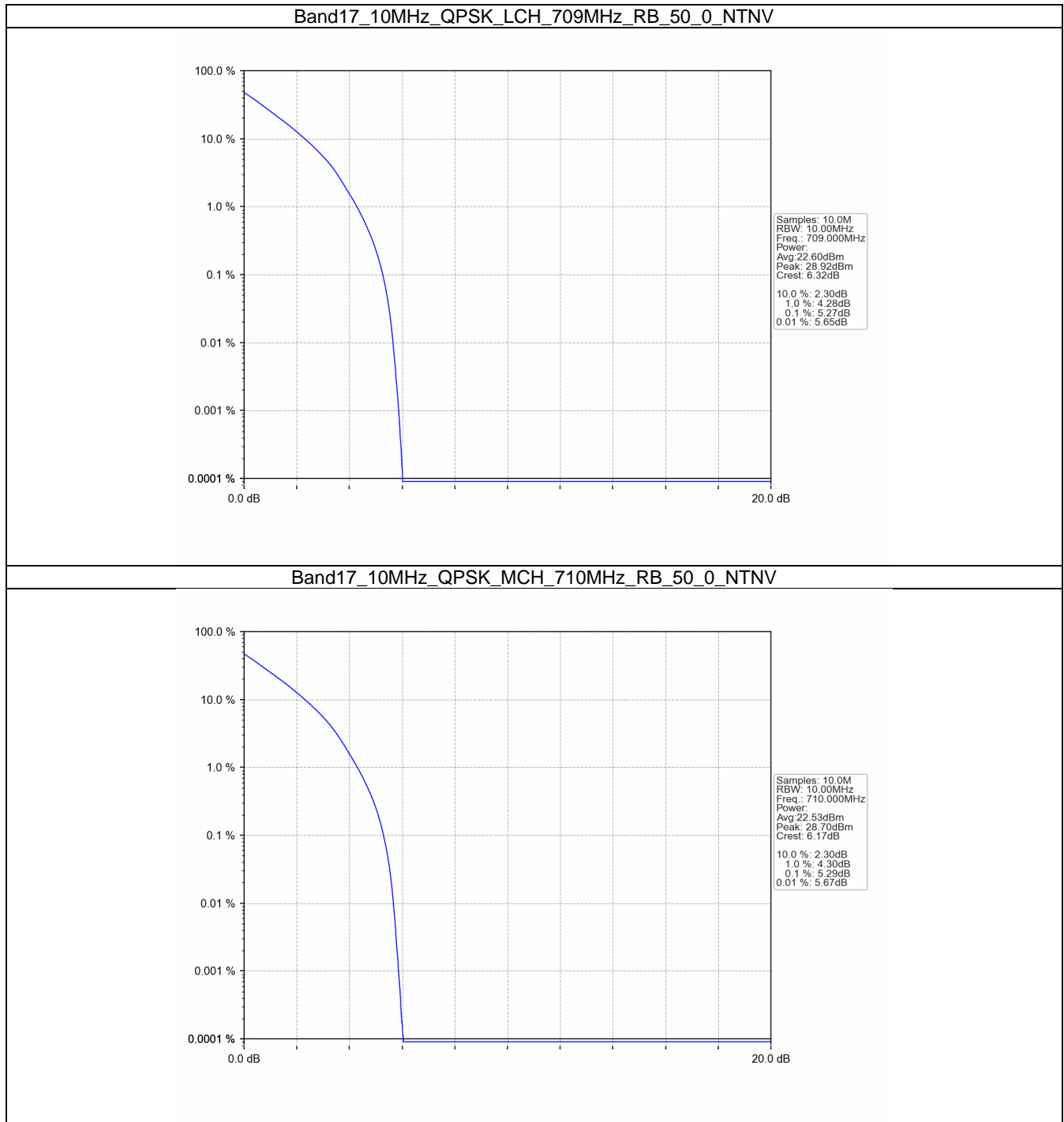
4. Peak-Average Ratio

4.1 B17_10MHz

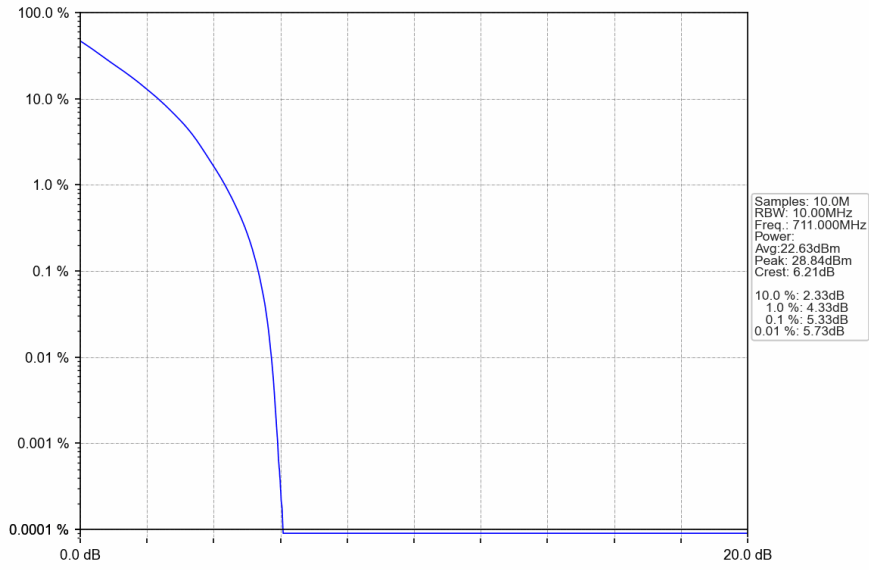
4.1.1 Test Result

Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	709	50	0	5.27	<=13	Pass
	710	50	0	5.29	<=13	Pass
	711	50	0	5.33	<=13	Pass
16QAM	709	50	0	6.09	<=13	Pass
	710	50	0	6.11	<=13	Pass
	711	50	0	6.13	<=13	Pass

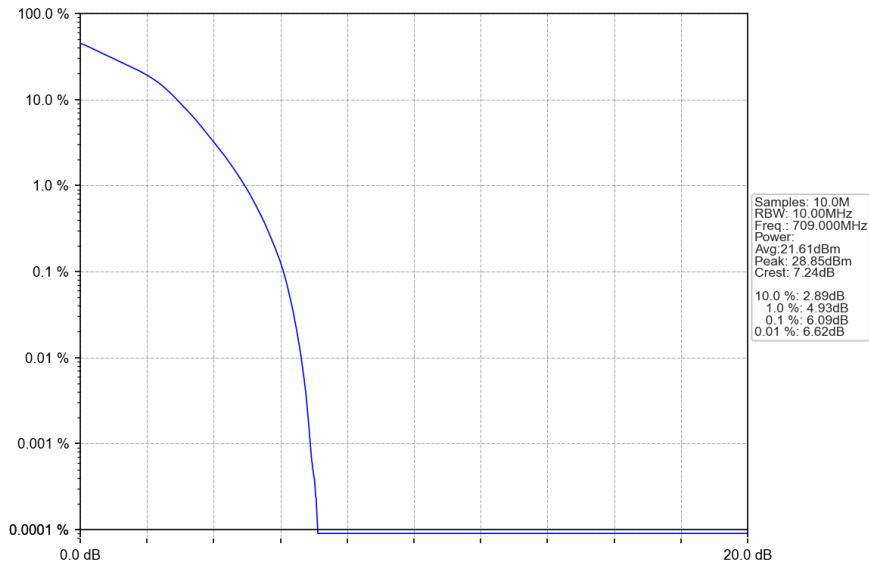
4.1.2 Test Graph



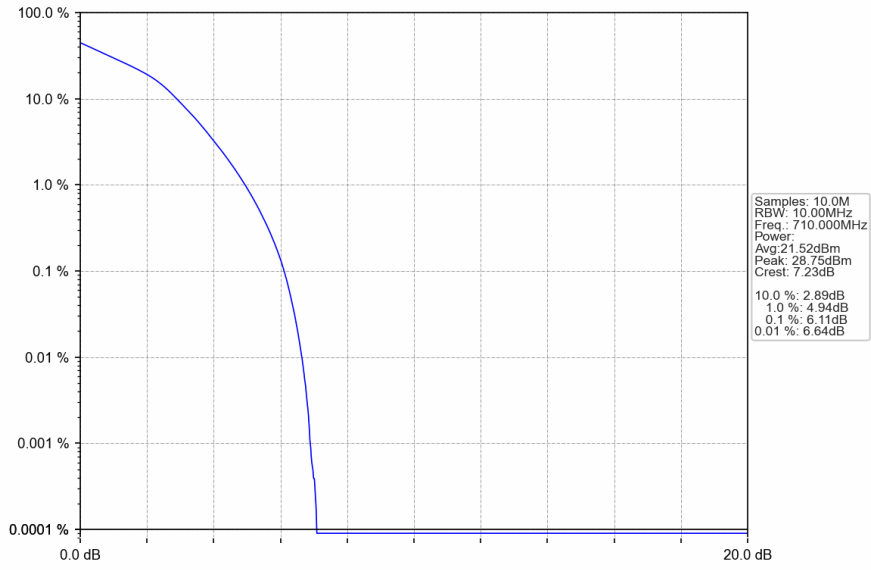
Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



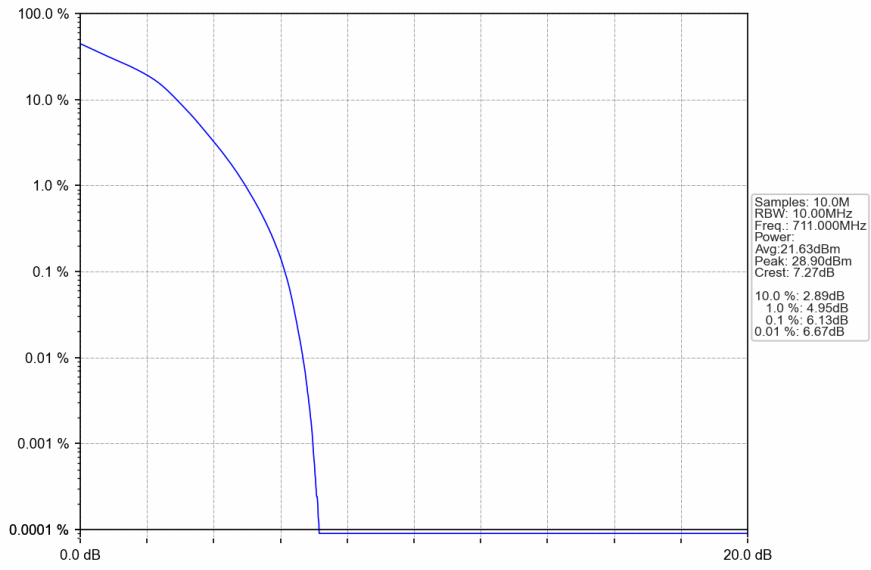
Band17_10MHz_16QAM_LCH_709MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV



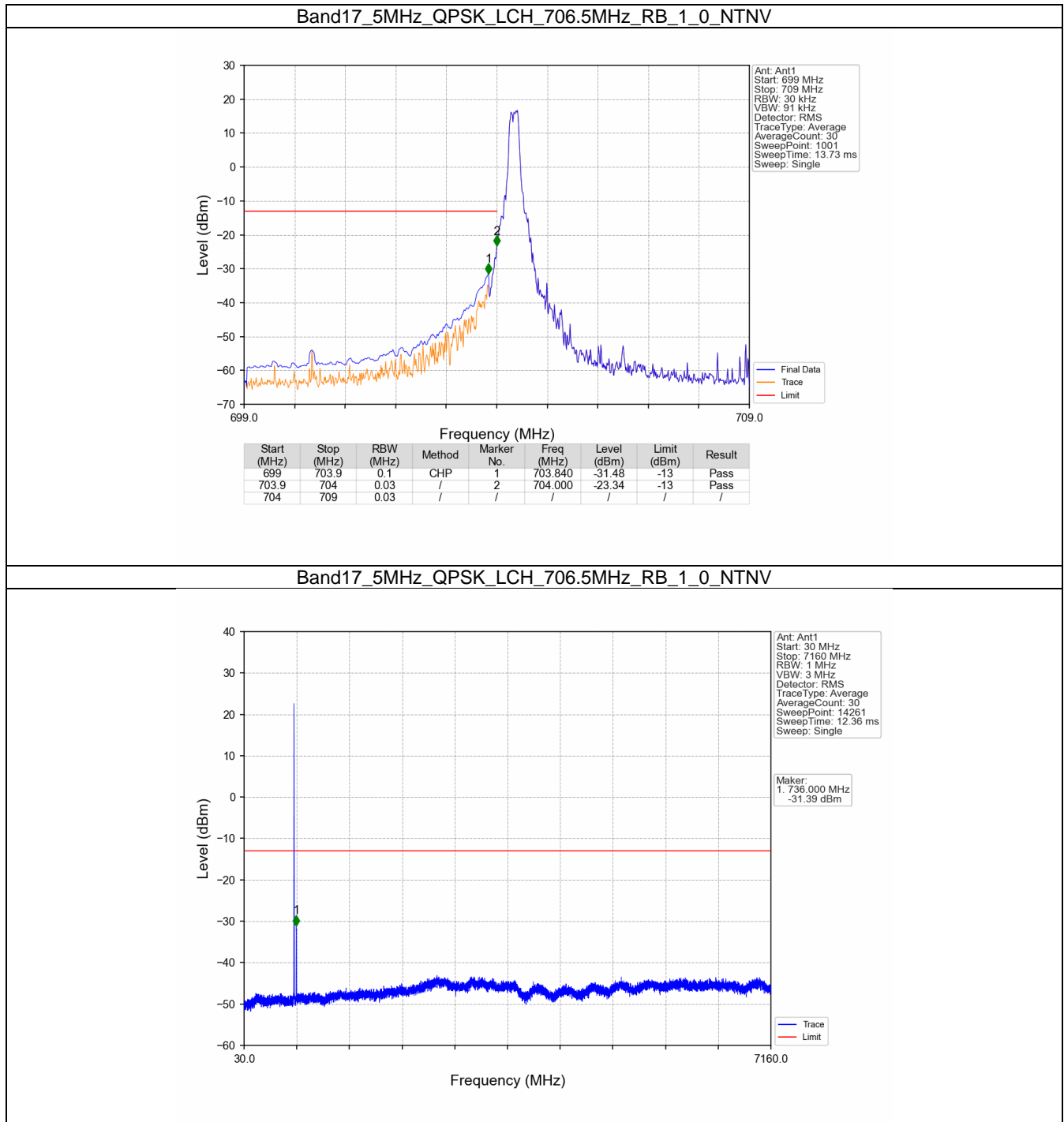
5. Spurious Emission

5.1 B17_5MHz

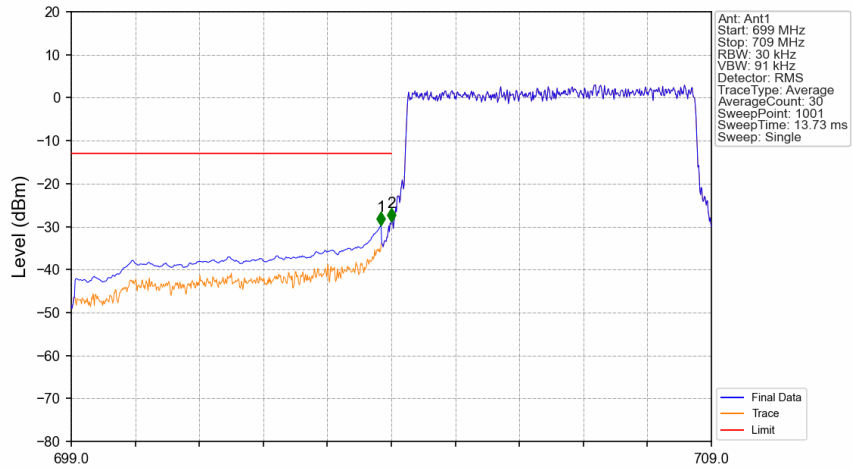
5.1.1 Test Result

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	
		1	0	Refer To Test Graph	Pass	
	713.5	1	24	Refer To Test Graph	Pass	
		25	0	Refer To Test Graph	Pass	

5.1.2 Test Graph

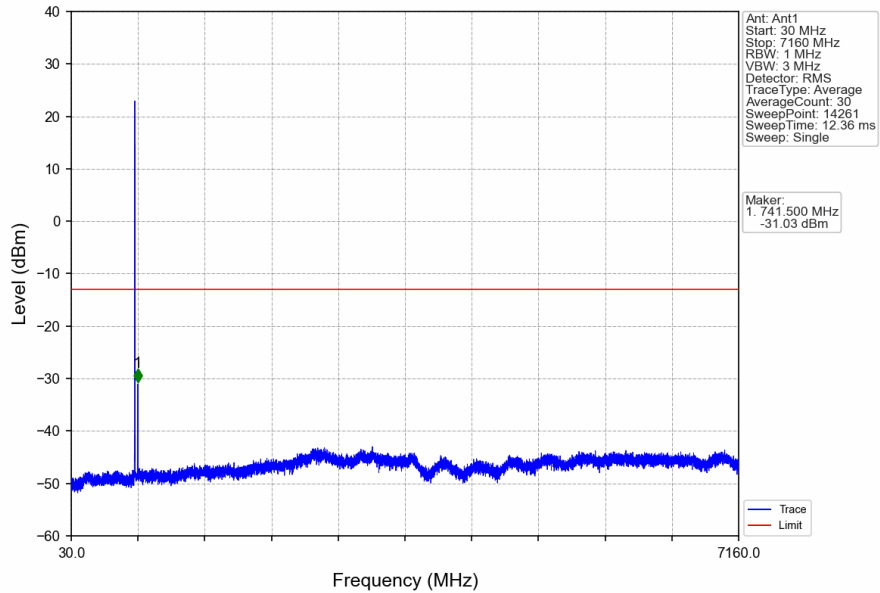


Band17_5MHz_QPSK_LCH_706.5MHz_RB_25_0_NTNV

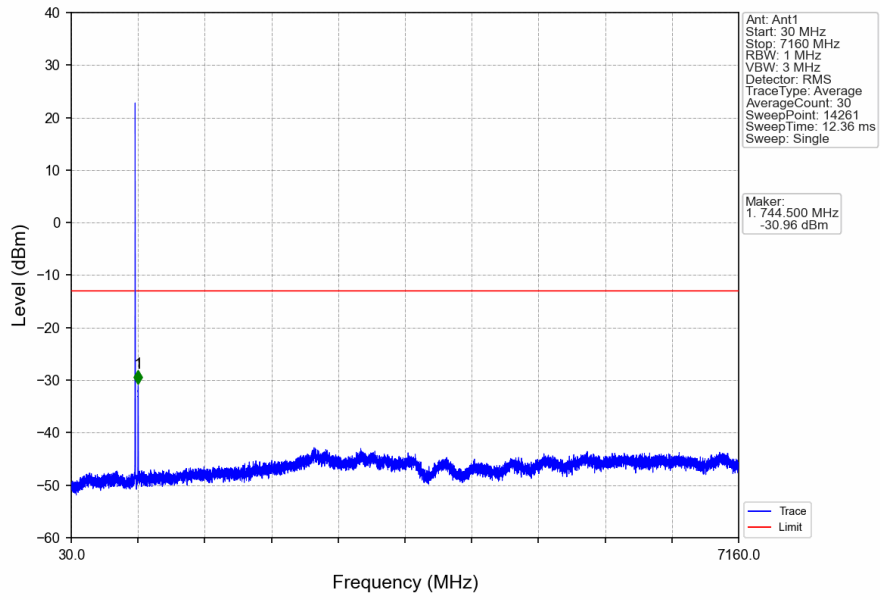


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.840	-29.73	-13	Pass
703.9	704	0.03	/	2	704.000	-28.91	-13	Pass
704	709	0.03	/	/	/	/	/	/

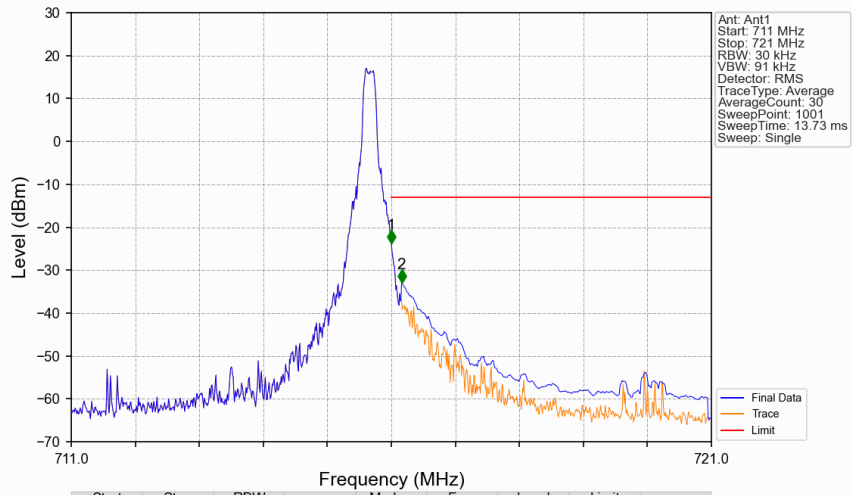
Band17_5MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_0_NTNV

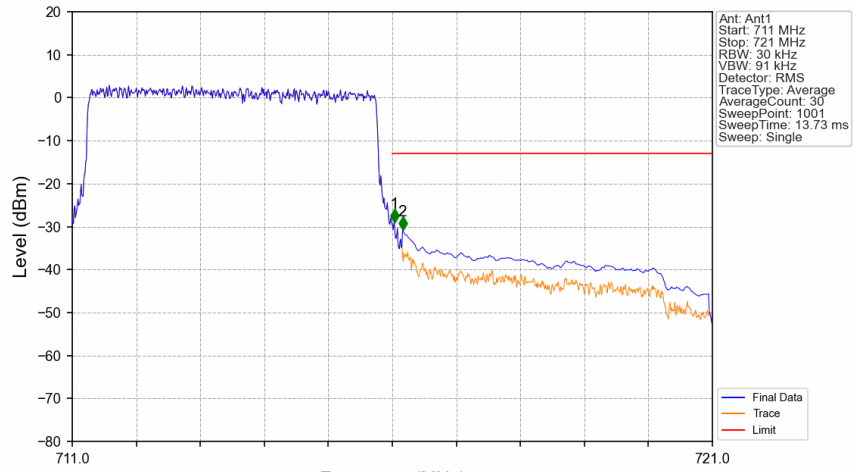


Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_24_NTNV



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	716.000	-23.74	-13	Pass
716.1	721	0.1	CHP	2	716.160	-33.04	-13	Pass

Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



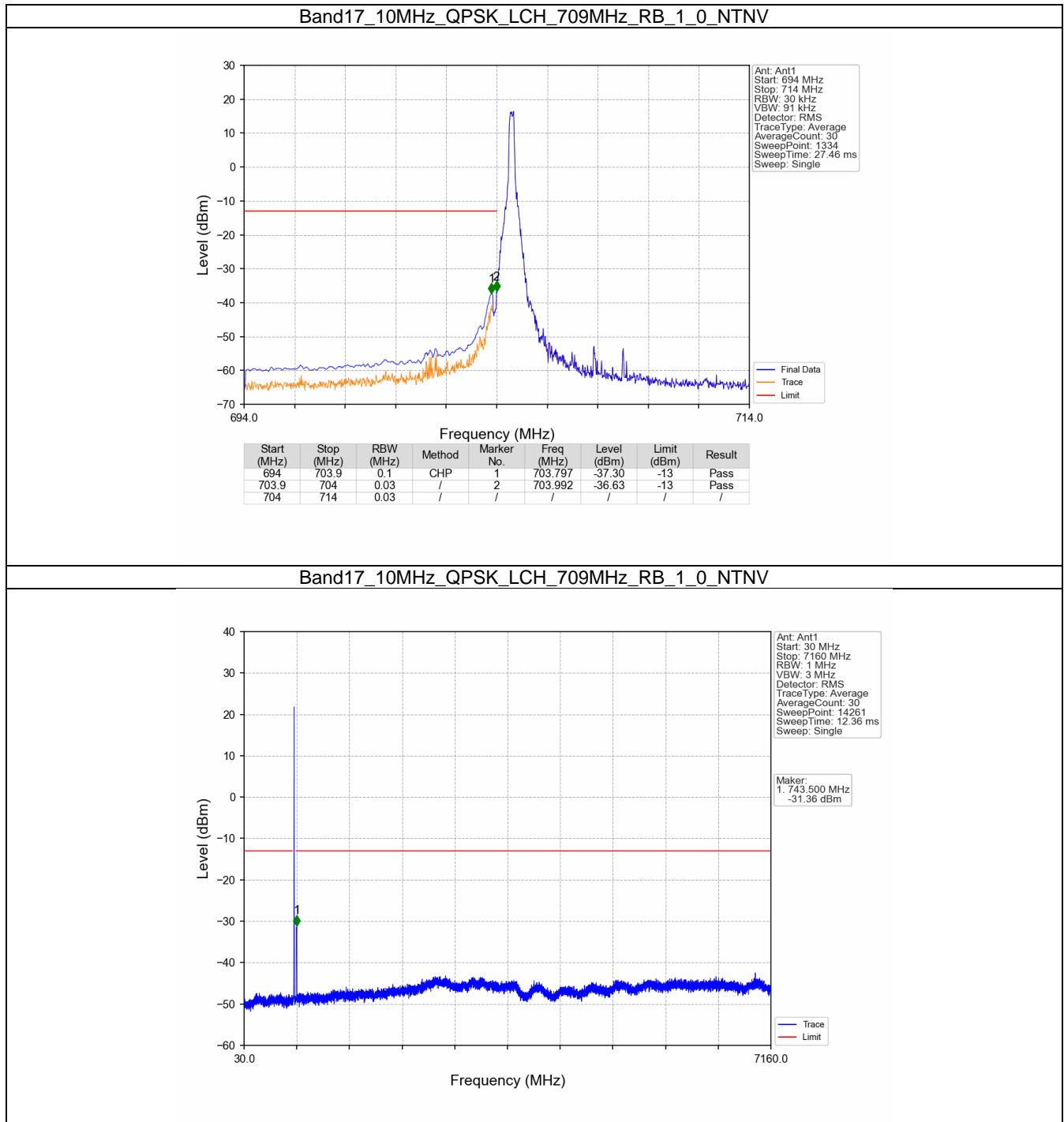
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.030	-28.99	-13	Pass
716.1	721	0.1	CHP	2	716.160	-30.78	-13	Pass

5.2 B17_10MHz

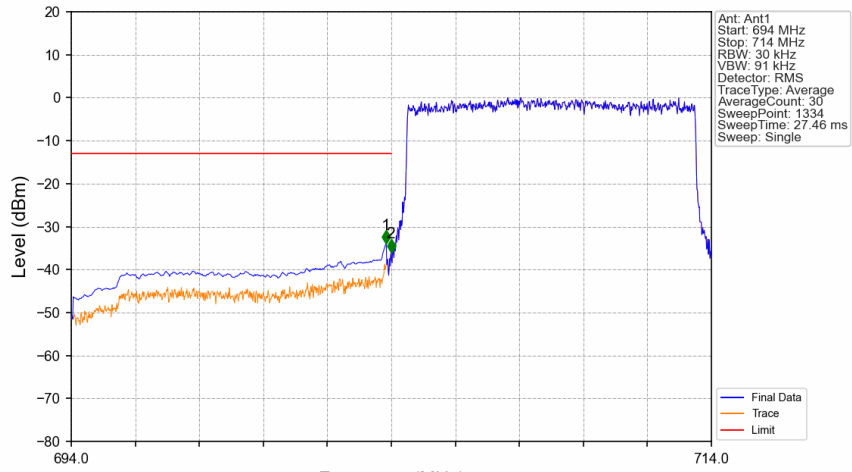
5.2.1 Test Result

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

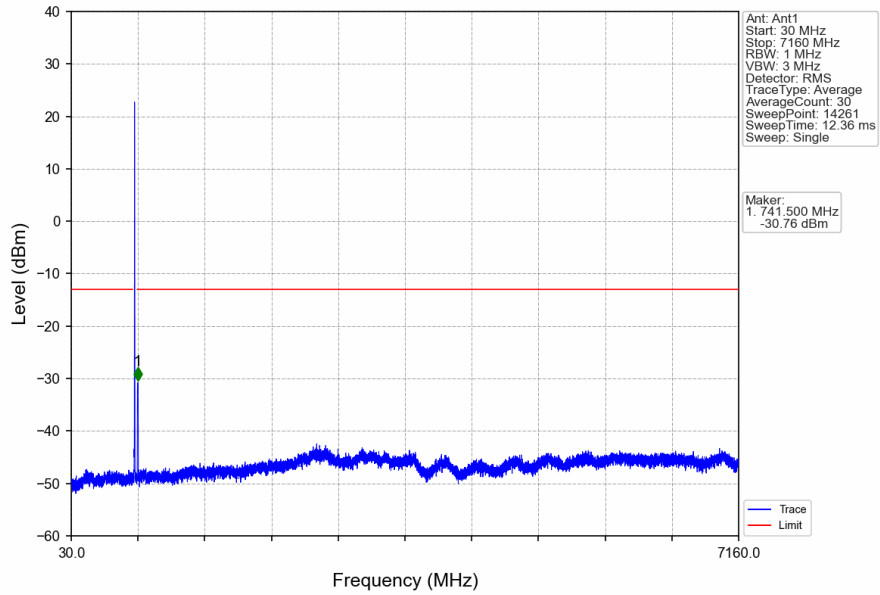


Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV

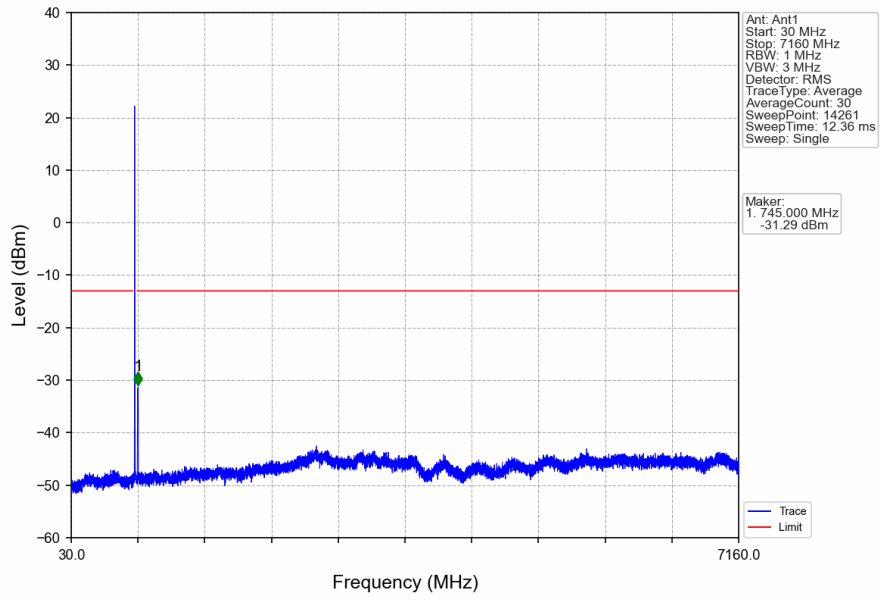


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.827	-34.01	-13	Pass
703.9	704	0.03	/	2	703.992	-36.02	-13	Pass
704	714	0.03	/	/	/	/	/	/

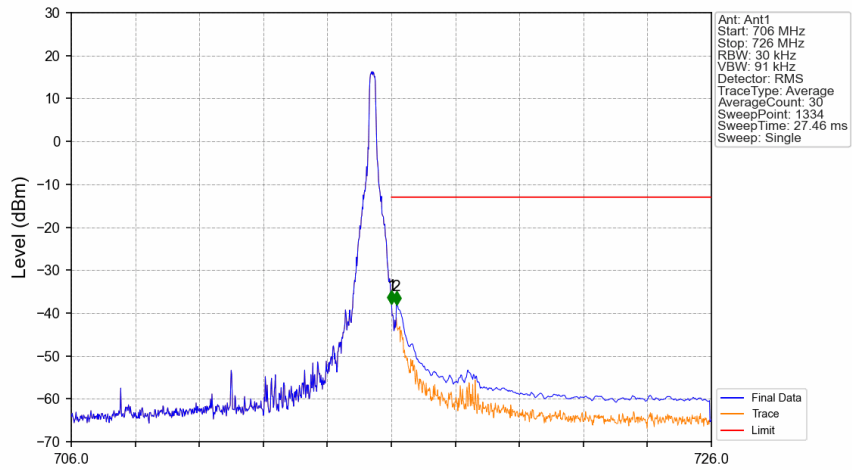
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17_10MHz_QPSK_HCH_711MHz_RB_1_0_NTNV

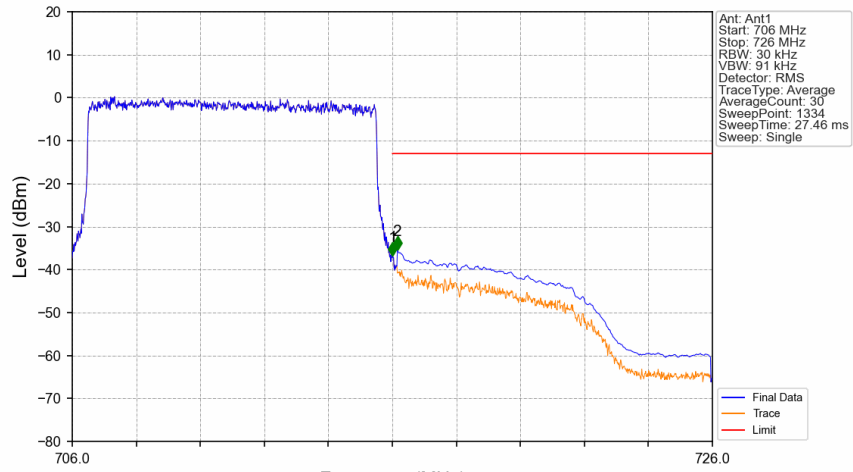


Band17_10MHz_QPSK_HCH_711MHz_RB_1_49_NTNV



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	-37.86	-13	Pass
716.1	726	0.1	CHP	2	716.158	-38.07	-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	-36.78	-13	Pass
716.1	726	0.1	CHP	2	716.158	-35.36	-13	Pass