

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	22.94	-5.14	15.65	<=34.77	Pass
			13	23.06	-5.14	15.77	<=34.77	Pass
			24	22.99	-5.14	15.70	<=34.77	Pass
		12	0	21.98	-5.14	14.69	<=34.77	Pass
			6	22.09	-5.14	14.80	<=34.77	Pass
			13	22.03	-5.14	14.74	<=34.77	Pass
		25	0	22.03	-5.14	14.74	<=34.77	Pass
	710	1	0	23.00	-5.14	15.71	<=34.77	Pass
			13	23.18	-5.14	15.89	<=34.77	Pass
			24	23.10	-5.14	15.81	<=34.77	Pass
		12	0	22.14	-5.14	14.85	<=34.77	Pass
			6	22.19	-5.14	14.90	<=34.77	Pass
			13	22.10	-5.14	14.81	<=34.77	Pass
		25	0	22.13	-5.14	14.84	<=34.77	Pass
	713.5	1	0	23.14	-5.14	15.85	<=34.77	Pass
			13	23.39	-5.14	16.10	<=34.77	Pass
			24	23.28	-5.14	15.99	<=34.77	Pass
		12	0	22.28	-5.14	14.99	<=34.77	Pass
			6	22.35	-5.14	15.06	<=34.77	Pass
			13	22.28	-5.14	14.99	<=34.77	Pass
		25	0	22.27	-5.14	14.98	<=34.77	Pass
16QAM	706.5	1	0	21.79	-5.14	14.50	<=34.77	Pass
			13	21.92	-5.14	14.63	<=34.77	Pass
			24	21.91	-5.14	14.62	<=34.77	Pass
		12	0	21.06	-5.14	13.77	<=34.77	Pass
			6	21.17	-5.14	13.88	<=34.77	Pass
			13	21.13	-5.14	13.84	<=34.77	Pass
		25	0	21.14	-5.14	13.85	<=34.77	Pass
	710	1	0	22.25	-5.14	14.96	<=34.77	Pass
			13	22.49	-5.14	15.20	<=34.77	Pass
			24	22.36	-5.14	15.07	<=34.77	Pass
		12	0	21.23	-5.14	13.94	<=34.77	Pass
			6	21.33	-5.14	14.04	<=34.77	Pass
			13	21.22	-5.14	13.93	<=34.77	Pass
		25	0	21.22	-5.14	13.93	<=34.77	Pass
	713.5	1	0	22.25	-5.14	14.96	<=34.77	Pass
			13	22.46	-5.14	15.17	<=34.77	Pass
			24	22.37	-5.14	15.08	<=34.77	Pass
		12	0	21.33	-5.14	14.04	<=34.77	Pass
			6	21.44	-5.14	14.15	<=34.77	Pass
			13	21.37	-5.14	14.08	<=34.77	Pass
		25	0	21.43	-5.14	14.14	<=34.77	Pass
64QAM	706.5	1	0	21.00	-5.14	13.71	<=34.77	Pass
			13	21.07	-5.14	13.78	<=34.77	Pass
			24	21.05	-5.14	13.76	<=34.77	Pass
		12	0	20.01	-5.14	12.72	<=34.77	Pass
			6	20.14	-5.14	12.85	<=34.77	Pass

256QAM	710	25	13	20.18	-5.14	12.89	<=34.77	Pass
			0	20.21	-5.14	12.92	<=34.77	Pass
	710	1	0	21.23	-5.14	13.94	<=34.77	Pass
			13	21.43	-5.14	14.14	<=34.77	Pass
			24	21.39	-5.14	14.10	<=34.77	Pass
		12	0	20.41	-5.14	13.12	<=34.77	Pass
			6	20.64	-5.14	13.35	<=34.77	Pass
			13	20.26	-5.14	12.97	<=34.77	Pass
		25	0	20.66	-5.14	13.37	<=34.77	Pass
	713.5	1	0	21.38	-5.14	14.09	<=34.77	Pass
			13	21.59	-5.14	14.30	<=34.77	Pass
			24	21.53	-5.14	14.24	<=34.77	Pass
		12	0	20.51	-5.14	13.22	<=34.77	Pass
			6	20.55	-5.14	13.26	<=34.77	Pass
			13	20.46	-5.14	13.17	<=34.77	Pass
		25	0	20.38	-5.14	13.09	<=34.77	Pass
	706.5	1	0	21.13	-5.14	13.84	<=34.77	Pass
			13	21.24	-5.14	13.95	<=34.77	Pass
			24	21.16	-5.14	13.87	<=34.77	Pass
		12	0	20.12	-5.14	12.83	<=34.77	Pass
			6	20.29	-5.14	13	<=34.77	Pass
			13	20.34	-5.14	13.05	<=34.77	Pass
		25	0	20.40	-5.14	13.11	<=34.77	Pass
		1	0	21.37	-5.14	14.08	<=34.77	Pass
			13	21.57	-5.14	14.28	<=34.77	Pass
			24	21.57	-5.14	14.28	<=34.77	Pass
		12	0	20.57	-5.14	13.28	<=34.77	Pass
			6	20.79	-5.14	13.5	<=34.77	Pass
			13	20.41	-5.14	13.12	<=34.77	Pass
		25	0	20.84	-5.14	13.55	<=34.77	Pass
	713.5	1	0	21.51	-5.14	14.22	<=34.77	Pass
			13	21.73	-5.14	14.44	<=34.77	Pass
			24	21.71	-5.14	14.42	<=34.77	Pass
		12	0	20.66	-5.14	13.37	<=34.77	Pass
			6	20.72	-5.14	13.43	<=34.77	Pass
			13	20.61	-5.14	13.32	<=34.77	Pass
		25	0	20.51	-5.14	13.22	<=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	23.03	-5.14	15.74	<=34.77	Pass
			25	23.25	-5.14	15.96	<=34.77	Pass
			49	23.21	-5.14	15.92	<=34.77	Pass
		25	0	22.08	-5.14	14.79	<=34.77	Pass
			13	22.17	-5.14	14.88	<=34.77	Pass
			25	22.10	-5.14	14.81	<=34.77	Pass
	710	50	0	22.08	-5.14	14.79	<=34.77	Pass
		1	0	23.11	-5.14	15.82	<=34.77	Pass
			25	23.27	-5.14	15.98	<=34.77	Pass
			49	23.28	-5.14	15.99	<=34.77	Pass
		25	0	22.14	-5.14	14.85	<=34.77	Pass
			13	22.18	-5.14	14.89	<=34.77	Pass

	711	50	25	22.18	-5.14	14.89	<=34.77	Pass
			0	22.18	-5.14	14.89	<=34.77	Pass
			0	23.30	-5.14	16.01	<=34.77	Pass
		1	25	23.39	-5.14	16.10	<=34.77	Pass
			49	23.38	-5.14	16.09	<=34.77	Pass
			0	22.27	-5.14	14.98	<=34.77	Pass
		25	13	22.21	-5.14	14.92	<=34.77	Pass
			25	22.25	-5.14	14.96	<=34.77	Pass
		50	0	22.24	-5.14	14.95	<=34.77	Pass
16QAM	709	1	0	22.62	-5.14	15.33	<=34.77	Pass
			25	22.84	-5.14	15.55	<=34.77	Pass
			49	22.84	-5.14	15.55	<=34.77	Pass
		25	0	21.22	-5.14	13.93	<=34.77	Pass
			13	21.28	-5.14	13.99	<=34.77	Pass
			25	21.27	-5.14	13.98	<=34.77	Pass
		50	0	21.23	-5.14	13.94	<=34.77	Pass
	710	1	0	22.23	-5.14	14.94	<=34.77	Pass
			25	22.48	-5.14	15.19	<=34.77	Pass
			49	22.50	-5.14	15.21	<=34.77	Pass
		25	0	21.24	-5.14	13.95	<=34.77	Pass
			13	21.28	-5.14	13.99	<=34.77	Pass
			25	21.29	-5.14	14.00	<=34.77	Pass
		50	0	21.24	-5.14	13.95	<=34.77	Pass
	711	1	0	22.11	-5.14	14.82	<=34.77	Pass
			25	22.39	-5.14	15.10	<=34.77	Pass
			49	22.42	-5.14	15.13	<=34.77	Pass
		25	0	21.42	-5.14	14.13	<=34.77	Pass
			13	21.42	-5.14	14.13	<=34.77	Pass
			25	21.40	-5.14	14.11	<=34.77	Pass
		50	0	21.36	-5.14	14.07	<=34.77	Pass
64QAM	709	1	0	21.36	-5.14	14.07	<=34.77	Pass
			25	21.55	-5.14	14.26	<=34.77	Pass
			49	21.57	-5.14	14.28	<=34.77	Pass
		25	0	20.29	-5.14	13.00	<=34.77	Pass
			13	20.49	-5.14	13.20	<=34.77	Pass
			25	20.44	-5.14	13.15	<=34.77	Pass
		50	0	20.70	-5.14	13.41	<=34.77	Pass
	710	1	0	21.15	-5.14	13.86	<=34.77	Pass
			25	21.44	-5.14	14.15	<=34.77	Pass
			49	21.46	-5.14	14.17	<=34.77	Pass
		25	0	20.59	-5.14	13.30	<=34.77	Pass
			13	20.78	-5.14	13.49	<=34.77	Pass
			25	20.56	-5.14	13.27	<=34.77	Pass
		50	0	20.64	-5.14	13.35	<=34.77	Pass
	711	1	0	21.01	-5.14	13.72	<=34.77	Pass
			25	21.27	-5.14	13.98	<=34.77	Pass
			49	21.32	-5.14	14.03	<=34.77	Pass
		25	0	20.63	-5.14	13.34	<=34.77	Pass
			13	20.59	-5.14	13.30	<=34.77	Pass
			25	20.61	-5.14	13.32	<=34.77	Pass
		50	0	20.61	-5.14	13.32	<=34.77	Pass
256QAM	709	1	0	21.48	-5.14	14.19	<=34.77	Pass
			25	21.69	-5.14	14.4	<=34.77	Pass
			49	21.68	-5.14	14.39	<=34.77	Pass
		25	0	20.44	-5.14	13.15	<=34.77	Pass
			13	20.62	-5.14	13.33	<=34.77	Pass
			25	20.61	-5.14	13.32	<=34.77	Pass

	710	50	0	20.88	-5.14	13.59	<=34.77	Pass
		1	0	21.34	-5.14	14.05	<=34.77	Pass
			25	21.56	-5.14	14.27	<=34.77	Pass
			49	21.60	-5.14	14.31	<=34.77	Pass
		25	0	20.72	-5.14	13.43	<=34.77	Pass
			13	20.95	-5.14	13.66	<=34.77	Pass
			25	20.73	-5.14	13.44	<=34.77	Pass
		50	0	20.81	-5.14	13.52	<=34.77	Pass
	711	1	0	21.17	-5.14	13.88	<=34.77	Pass
			25	21.42	-5.14	14.13	<=34.77	Pass
			49	21.51	-5.14	14.22	<=34.77	Pass
			0	20.75	-5.14	13.46	<=34.77	Pass
		25	13	20.73	-5.14	13.44	<=34.77	Pass
			25	20.78	-5.14	13.49	<=34.77	Pass
		50	0	20.77	-5.14	13.48	<=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 (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	710	50	0	20	3.27	-6.452	-0.0091	-2.5 to 2.5	Pass
					3.85	-8.011	-0.0113	-2.5 to 2.5	Pass
					4.43	-4.706	-0.0066	-2.5 to 2.5	Pass
				-30	3.85	-4.578	-0.0064	-2.5 to 2.5	Pass
				-20	3.85	-7.510	-0.0106	-2.5 to 2.5	Pass
				-10	3.85	-6.924	-0.0098	-2.5 to 2.5	Pass
				0	3.85	-9.227	-0.0130	-2.5 to 2.5	Pass
				10	3.85	-3.347	-0.0047	-2.5 to 2.5	Pass
				30	3.85	-7.224	-0.0102	-2.5 to 2.5	Pass
				40	3.85	-4.292	-0.0060	-2.5 to 2.5	Pass
				50	3.85	-2.589	-0.0036	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band17_OBW

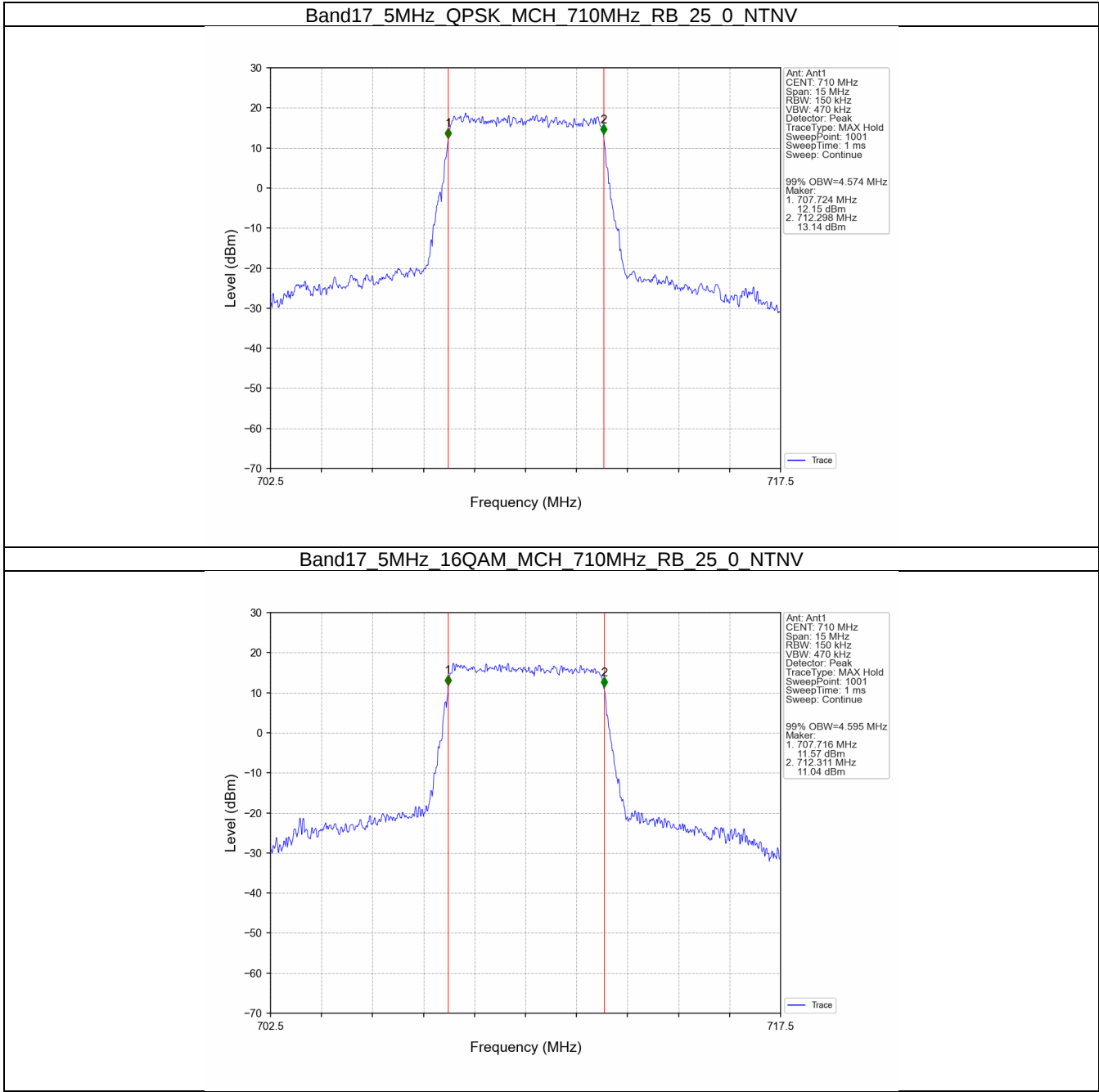
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	4.574	/	Pass
	16QAM	710	25	0	4.595	/	Pass
10	QPSK	710	50	0	9.083	/	Pass
	16QAM	710	50	0	9.065	/	Pass

3.1.2 Band17_XDB

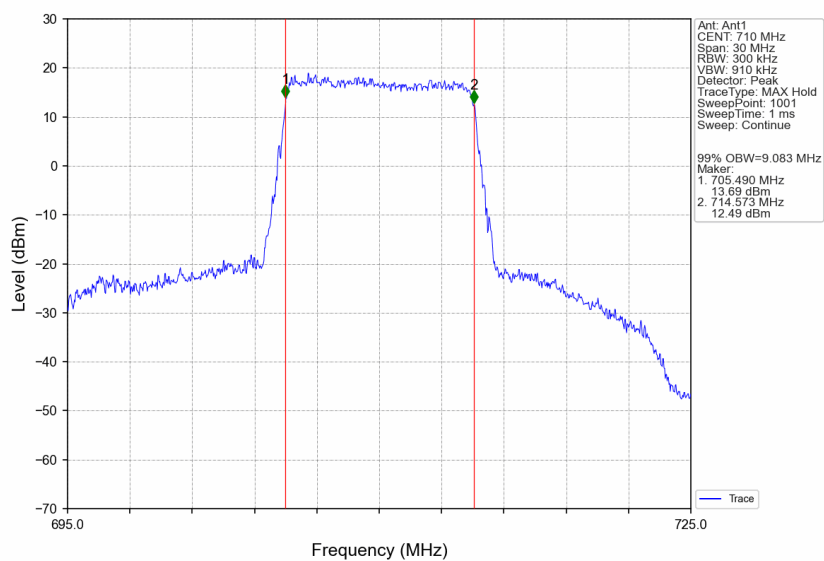
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	5.246	/	Pass
	16QAM	710	25	0	5.258	/	Pass
10	QPSK	710	50	0	10.274	/	Pass
	16QAM	710	50	0	10.219	/	Pass

3.2 Test Graph

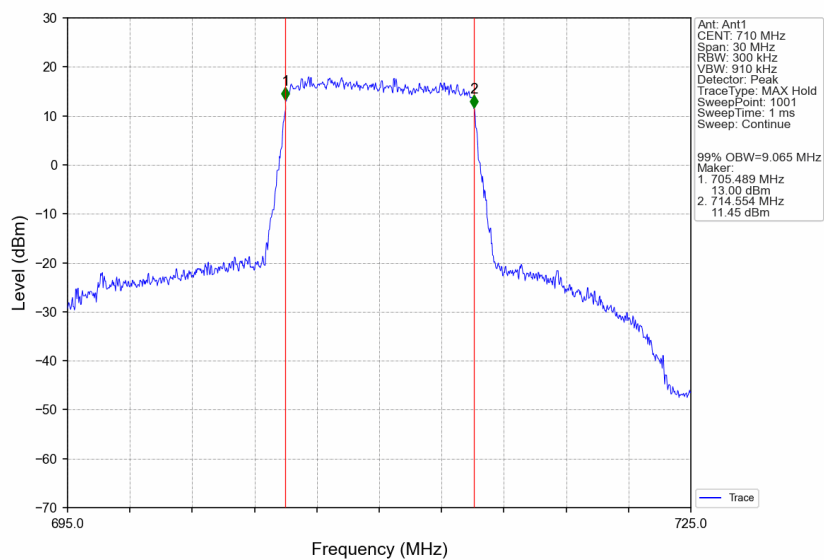
3.2.1 Band17_OBW



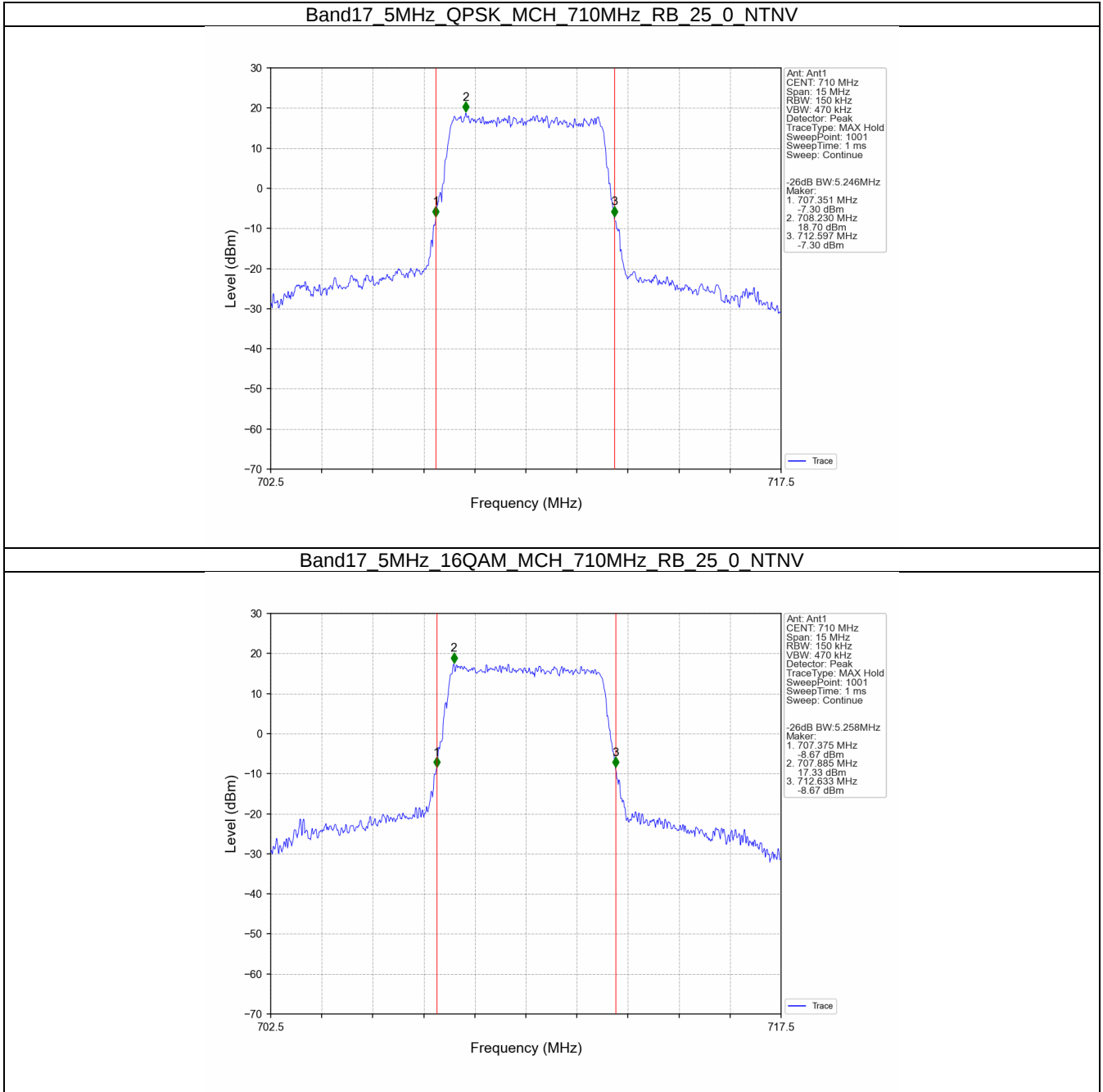
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



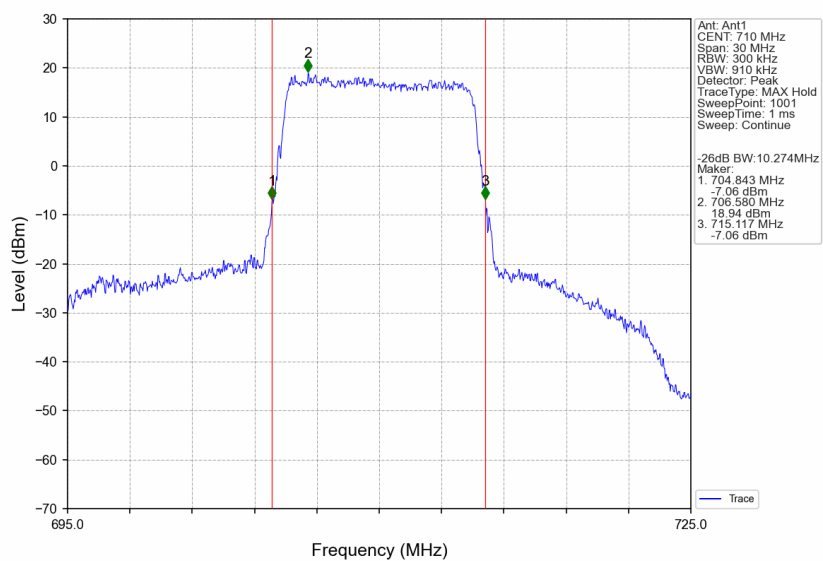
Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



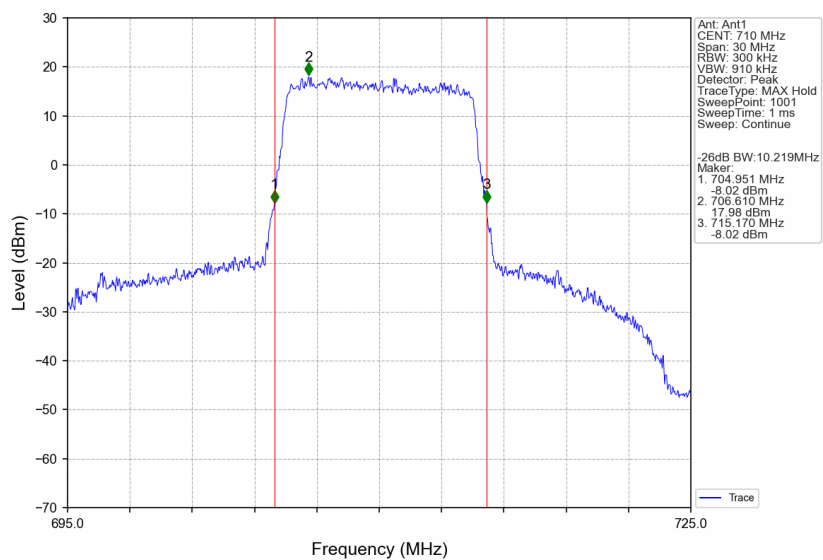
3.2.2 Band17_XDB



Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



4. Peak-Average Ratio

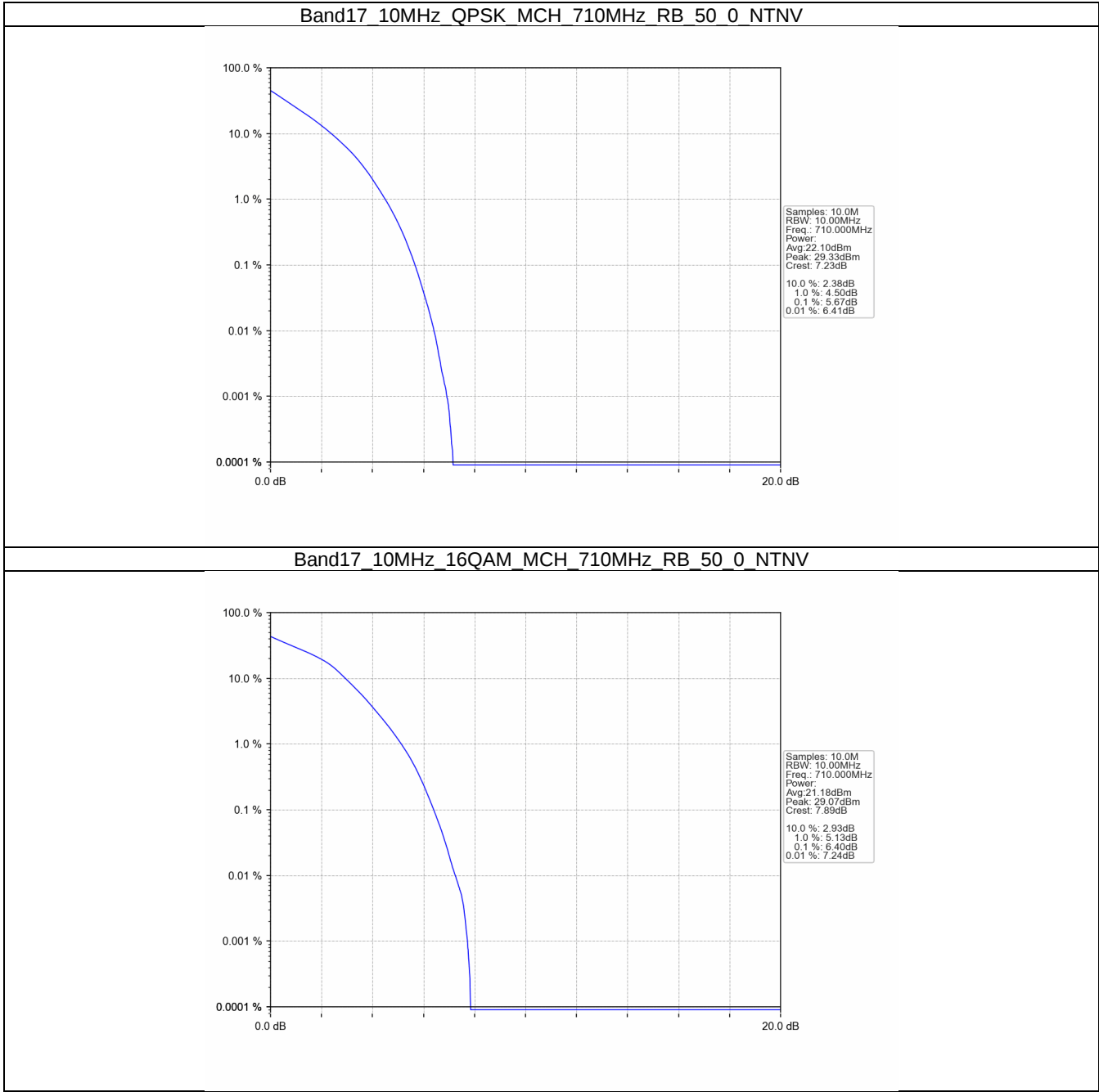
4.1 Test Result

4.1.1 B17_10MHz

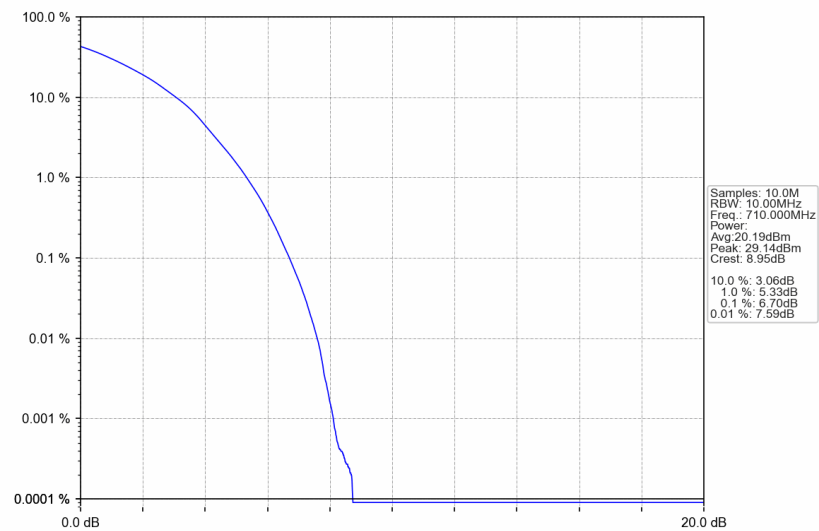
Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	710	50	0	5.67	<=13	Pass
16QAM	710	50	0	6.40	<=13	Pass
64QAM	710	50	0	6.70	<=13	Pass
256QAM	710	50	0	10.56	<=13	Pass

4.2 Test Graph

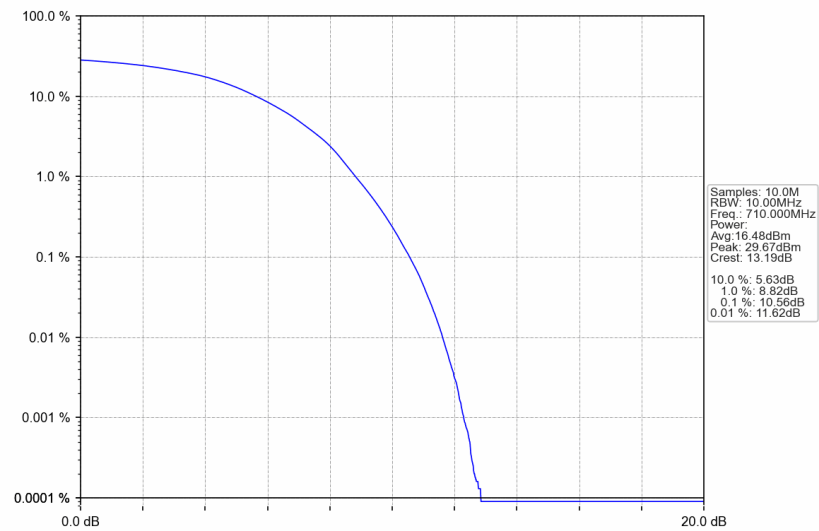
4.2.1 B17_10MHz



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

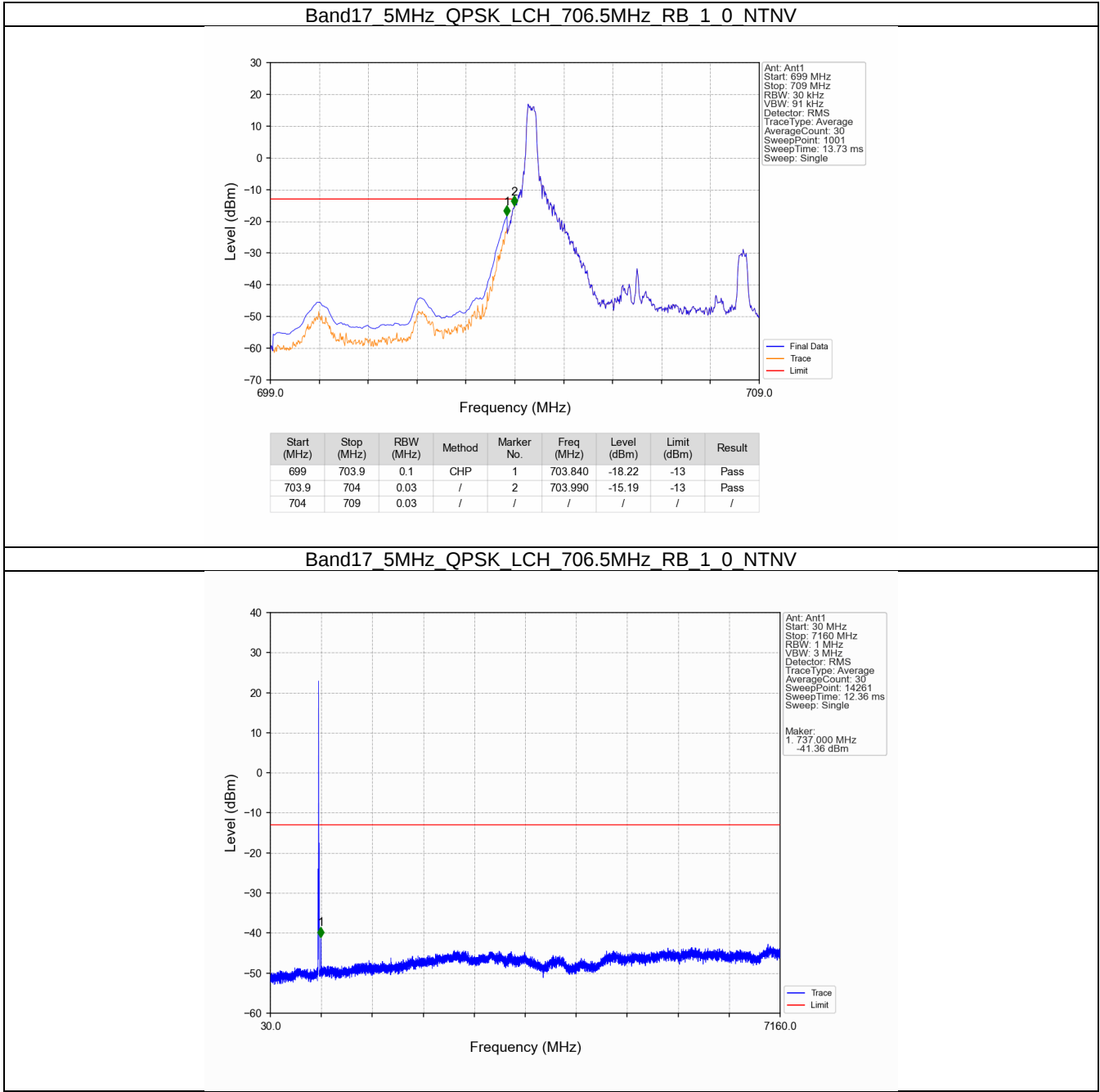
Band: 17 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	706.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	710	1	0	Refer To Test Graph		Pass
	713.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test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

5.1.2 B17_10MHz

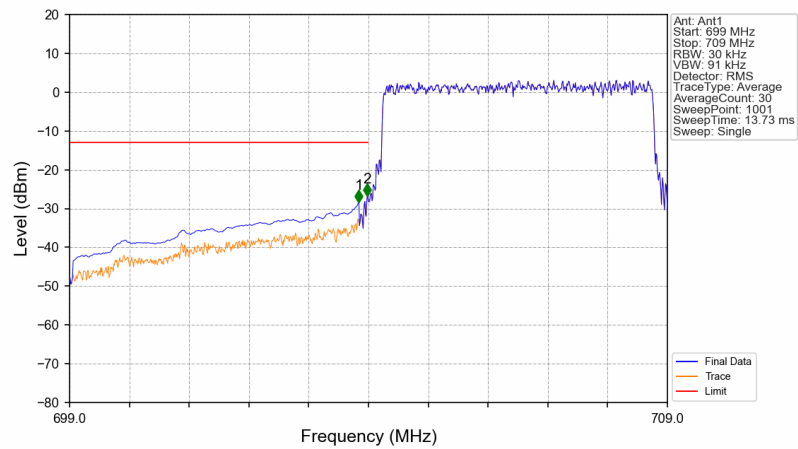
Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	709	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	710	1	0	Refer To Test Graph		Pass
	711	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph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

5.2 Test Graph

5.2.1 B17_5MHz

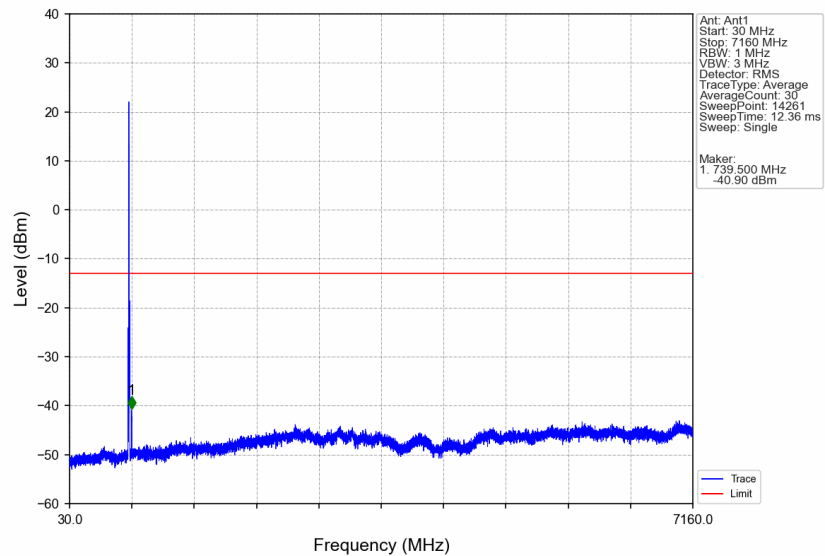


Band17_5MHz_QPSK_LCH_706.5MHz_RB_25_0_NTNV

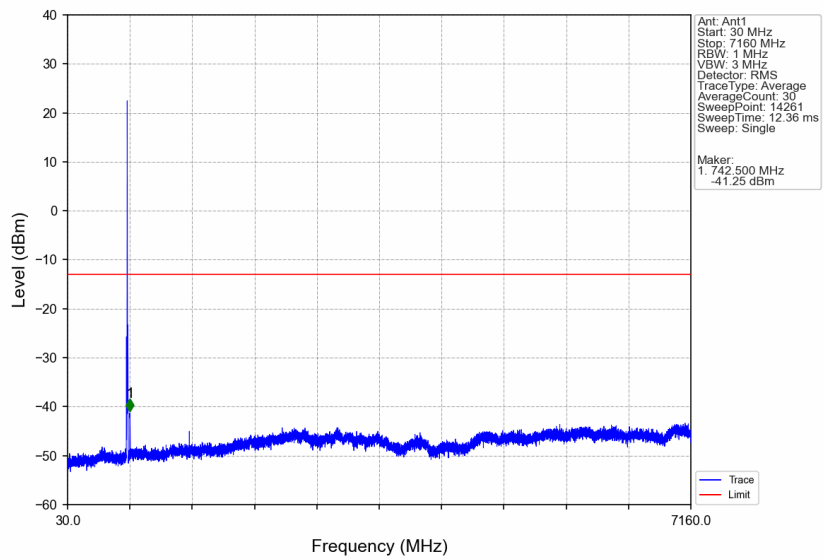


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.840	-28.34	-13	Pass
703.9	704	0.03	/	2	703.980	-26.71	-13	Pass
704	709	0.03	/	/	/	/	/	/

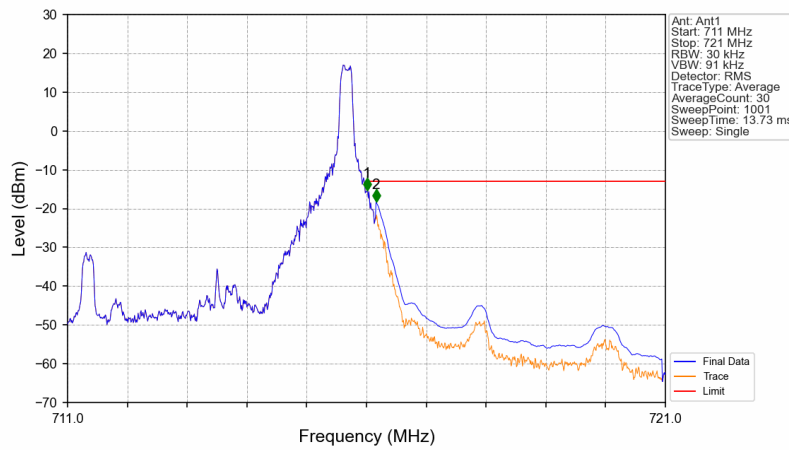
Band17_5MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_0_NTNV

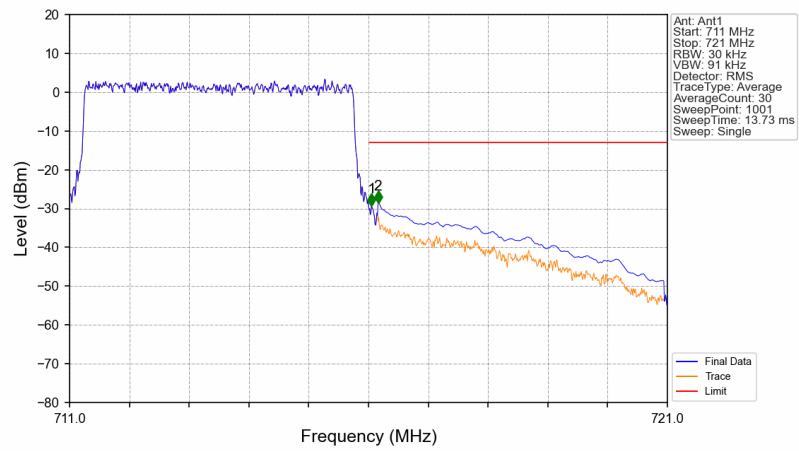


Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_24_NTNV



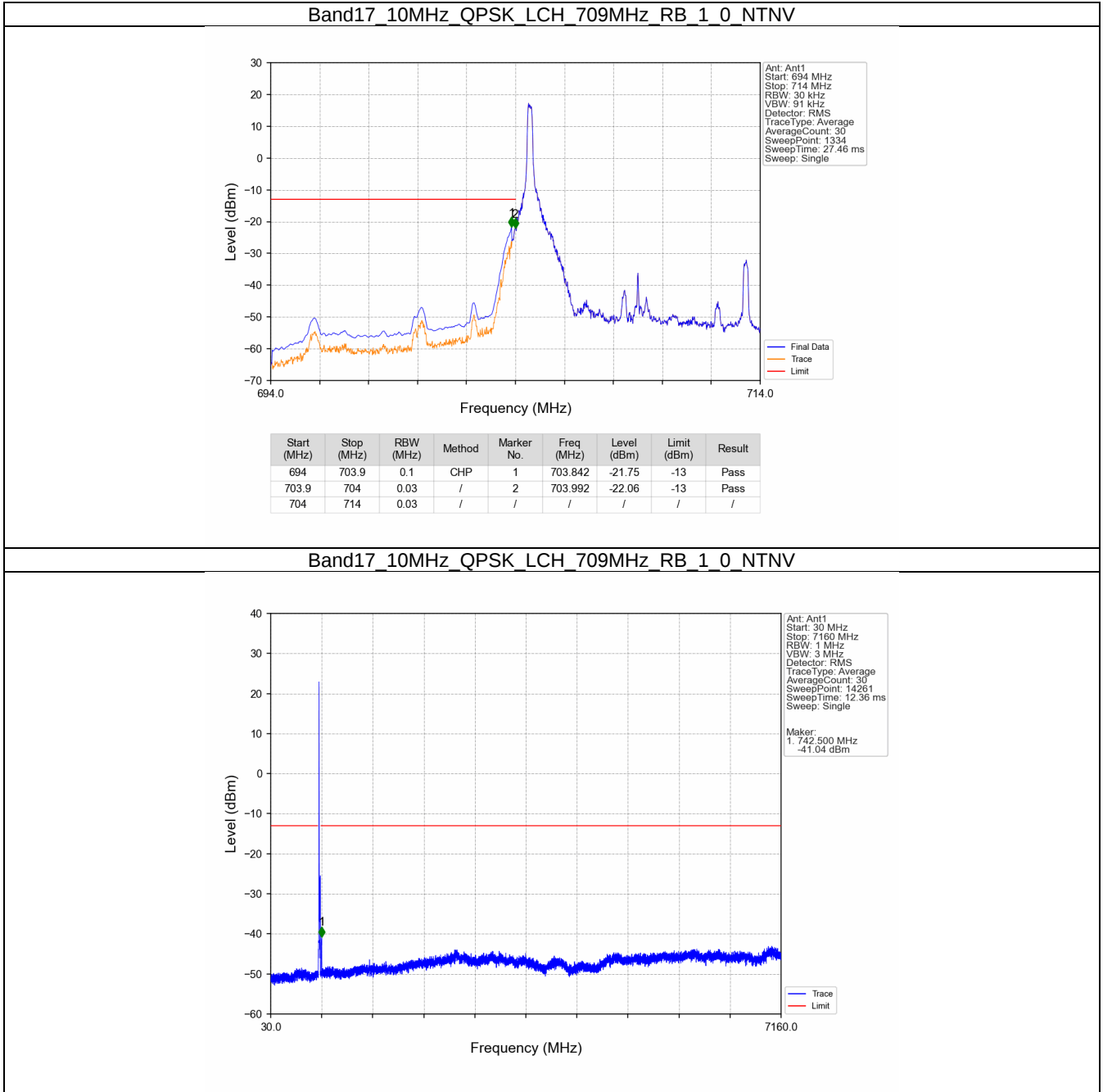
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.010	-15.33	-13	Pass
716.1	721	0.1	CHP	2	716.160	-18.20	-13	Pass

Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV

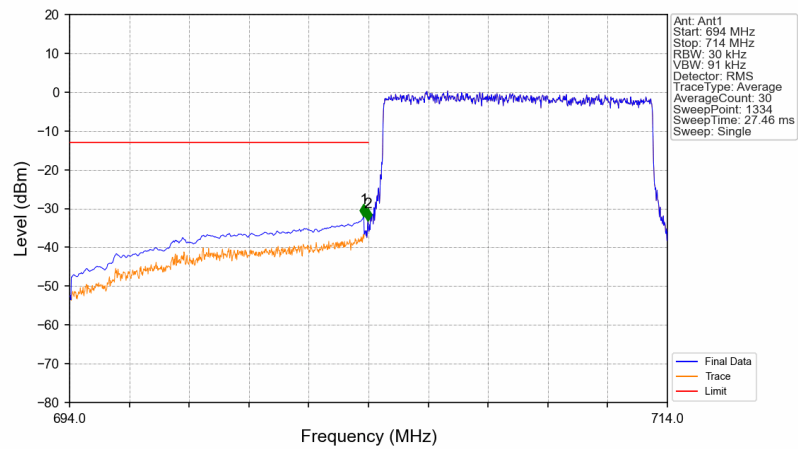


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.050	-29.34	-13	Pass
716.1	721	0.1	CHP	2	716.160	-28.64	-13	Pass

5.2.2 B17_10MHz

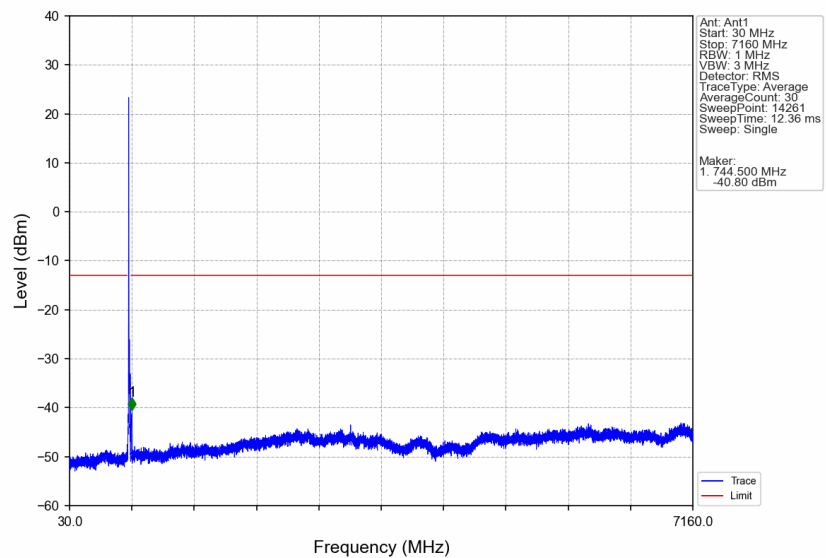


Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV

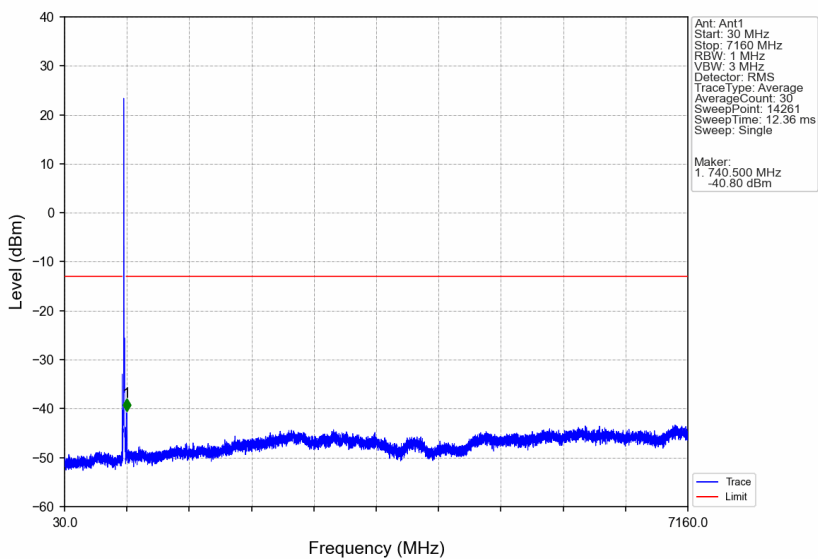


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.842	-31.98	-13	Pass
703.9	704	0.03	/	2	703.977	-33.14	-13	Pass
704	714	0.03	/	/	/	/	/	/

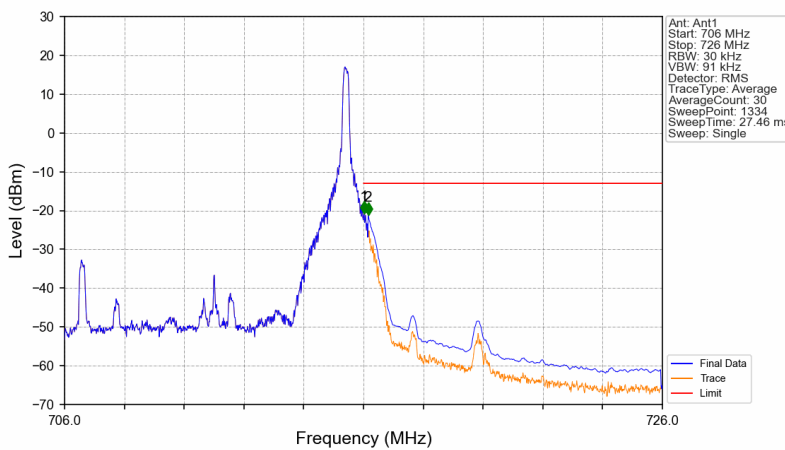
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17_10MHz_QPSK_HCH_711MHz_RB_1_0_NTNV

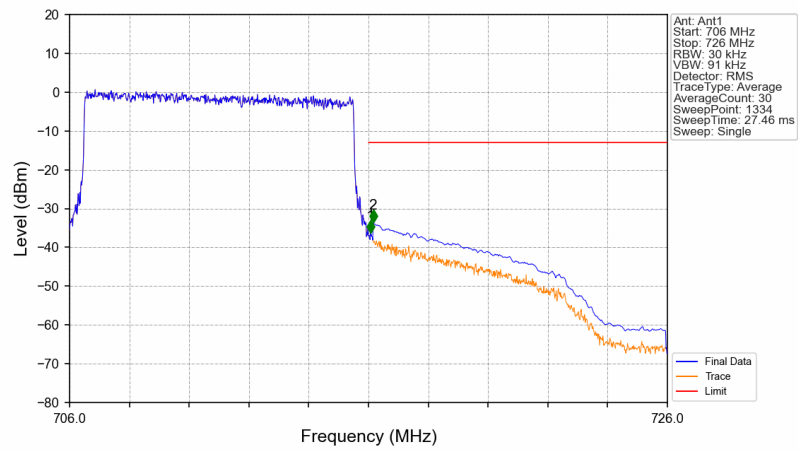


Band17_10MHz_QPSK_HCH_711MHz_RB_1_49_NTNV



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	716.023	-20.74	-13	Pass
716.1	726	0.1	CHP	2	716.158	-21.04	-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	716.068	-36.29	-13	Pass
716.1	726	0.1	CHP	2	716.158	-33.49	-13	Pass