

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	
64QAM	706.5	1	0	22.38	3.00	23.23	<=34.77	Pass
			13	22.42	3.00	23.27	<=34.77	Pass
			24	22.31	3.00	23.16	<=34.77	Pass
		12	0	21.42	3.00	22.27	<=34.77	Pass
			6	21.41	3.00	22.26	<=34.77	Pass
			13	21.34	3.00	22.19	<=34.77	Pass
		25	0	21.46	3.00	22.31	<=34.77	Pass
	710	1	0	22.53	3.00	23.38	<=34.77	Pass
			13	22.62	3.00	23.47	<=34.77	Pass
			24	22.46	3.00	23.31	<=34.77	Pass
		12	0	21.39	3.00	22.24	<=34.77	Pass
			6	21.34	3.00	22.19	<=34.77	Pass
			13	21.41	3.00	22.26	<=34.77	Pass
		25	0	21.36	3.00	22.21	<=34.77	Pass
	713.5	1	0	22.54	3.00	23.39	<=34.77	Pass
			13	22.55	3.00	23.40	<=34.77	Pass
			24	22.45	3.00	23.30	<=34.77	Pass
		12	0	21.56	3.00	22.41	<=34.77	Pass
			6	21.57	3.00	22.42	<=34.77	Pass
			13	21.55	3.00	22.40	<=34.77	Pass
		25	0	21.43	3.00	22.28	<=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	
64QAM	709	1	0	22.64	3.00	23.49	<=34.77	Pass
			25	22.55	3.00	23.40	<=34.77	Pass
			49	22.51	3.00	23.36	<=34.77	Pass
		25	0	21.45	3.00	22.30	<=34.77	Pass
			13	21.42	3.00	22.27	<=34.77	Pass
			25	21.36	3.00	22.21	<=34.77	Pass
		50	0	21.40	3.00	22.25	<=34.77	Pass
	710	1	0	22.44	3.00	23.29	<=34.77	Pass
			25	22.41	3.00	23.26	<=34.77	Pass
			49	22.36	3.00	23.21	<=34.77	Pass
		25	0	21.46	3.00	22.31	<=34.77	Pass
			13	21.43	3.00	22.28	<=34.77	Pass
			25	21.48	3.00	22.33	<=34.77	Pass
		50	0	21.38	3.00	22.23	<=34.77	Pass
	711	1	0	22.27	3.00	23.12	<=34.77	Pass
			25	22.22	3.00	23.07	<=34.77	Pass
			49	22.15	3.00	23.00	<=34.77	Pass

		25	0	21.48	3.00	22.33	<=34.77	Pass
			13	21.44	3.00	22.29	<=34.77	Pass
			25	21.51	3.00	22.36	<=34.77	Pass
		50	0	21.39	3.00	22.24	<=34.77	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

2. Frequency Stability

2.1 Test Result

2.1.1 B17_5MHz

Band: 17 / Bandwidth: 5MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
64QAM	706.5	25	0	20	3.27	1.030	0.0015	-2.5 to 2.5	Pass
					3.85	0.830	0.0012	-2.5 to 2.5	Pass
					4.43	4.592	0.0065	-2.5 to 2.5	Pass
				-30	3.85	3.047	0.0043	-2.5 to 2.5	Pass
				-20	3.85	-0.787	-0.0011	-2.5 to 2.5	Pass
				-10	3.85	3.076	0.0044	-2.5 to 2.5	Pass
				0	3.85	-0.730	-0.0010	-2.5 to 2.5	Pass
				10	3.85	3.161	0.0045	-2.5 to 2.5	Pass
				30	3.85	2.489	0.0035	-2.5 to 2.5	Pass
				40	3.85	-3.605	-0.0051	-2.5 to 2.5	Pass
				50	3.85	-1.702	-0.0024	-2.5 to 2.5	Pass
	710	25	0	20	3.27	4.520	0.0064	-2.5 to 2.5	Pass
					3.85	2.432	0.0034	-2.5 to 2.5	Pass
					4.43	2.432	0.0034	-2.5 to 2.5	Pass
				-30	3.85	7.825	0.0110	-2.5 to 2.5	Pass
				-20	3.85	6.309	0.0089	-2.5 to 2.5	Pass
				-10	3.85	9.027	0.0127	-2.5 to 2.5	Pass
				0	3.85	10.099	0.0142	-2.5 to 2.5	Pass
				10	3.85	5.236	0.0074	-2.5 to 2.5	Pass
				30	3.85	3.991	0.0056	-2.5 to 2.5	Pass
				40	3.85	2.160	0.0030	-2.5 to 2.5	Pass
				50	3.85	6.995	0.0099	-2.5 to 2.5	Pass
	713.5	25	0	20	3.27	-0.129	-0.0002	-2.5 to 2.5	Pass
					3.85	-2.003	-0.0028	-2.5 to 2.5	Pass
					4.43	0.114	0.0002	-2.5 to 2.5	Pass
				-30	3.85	0.215	0.0003	-2.5 to 2.5	Pass
				-20	3.85	1.302	0.0018	-2.5 to 2.5	Pass
				-10	3.85	-1.388	-0.0019	-2.5 to 2.5	Pass
				0	3.85	-3.676	-0.0052	-2.5 to 2.5	Pass
				10	3.85	-2.918	-0.0041	-2.5 to 2.5	Pass
				30	3.85	0.944	0.0013	-2.5 to 2.5	Pass
				40	3.85	-0.973	-0.0014	-2.5 to 2.5	Pass
				50	3.85	-0.772	-0.0011	-2.5 to 2.5	Pass

2.1.2 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	
64QAM	709	50	0	20	3.27	-3.119	-0.0044	-2.5 to 2.5	Pass
					3.85	-0.358	-0.0005	-2.5 to 2.5	Pass
					4.43	-5.322	-0.0075	-2.5 to 2.5	Pass
				-30	3.85	-0.186	-0.0003	-2.5 to 2.5	Pass
				-20	3.85	-2.747	-0.0039	-2.5 to 2.5	Pass
				-10	3.85	-3.805	-0.0054	-2.5 to 2.5	Pass
				0	3.85	-5.550	-0.0078	-2.5 to 2.5	Pass
				10	3.85	-3.233	-0.0046	-2.5 to 2.5	Pass
				30	3.85	-1.330	-0.0019	-2.5 to 2.5	Pass
				40	3.85	-6.680	-0.0094	-2.5 to 2.5	Pass
				50	3.85	-3.090	-0.0044	-2.5 to 2.5	Pass
	710	50	0	20	3.27	4.349	0.0061	-2.5 to 2.5	Pass
					3.85	4.563	0.0064	-2.5 to 2.5	Pass
					4.43	2.260	0.0032	-2.5 to 2.5	Pass
				-30	3.85	-0.486	-0.0007	-2.5 to 2.5	Pass
				-20	3.85	1.230	0.0017	-2.5 to 2.5	Pass
				-10	3.85	3.777	0.0053	-2.5 to 2.5	Pass
				0	3.85	1.774	0.0025	-2.5 to 2.5	Pass
				10	3.85	0.801	0.0011	-2.5 to 2.5	Pass
				30	3.85	1.717	0.0024	-2.5 to 2.5	Pass
				40	3.85	7.138	0.0101	-2.5 to 2.5	Pass
				50	3.85	6.008	0.0085	-2.5 to 2.5	Pass
	711	50	0	20	3.27	-1.917	-0.0027	-2.5 to 2.5	Pass
					3.85	2.289	0.0032	-2.5 to 2.5	Pass
					4.43	1.960	0.0028	-2.5 to 2.5	Pass
				-30	3.85	0.300	0.0004	-2.5 to 2.5	Pass
				-20	3.85	0.086	0.0001	-2.5 to 2.5	Pass
				-10	3.85	-0.987	-0.0014	-2.5 to 2.5	Pass
				0	3.85	-2.375	-0.0033	-2.5 to 2.5	Pass
				10	3.85	-2.904	-0.0041	-2.5 to 2.5	Pass
				30	3.85	-2.260	-0.0032	-2.5 to 2.5	Pass
				40	3.85	-0.987	-0.0014	-2.5 to 2.5	Pass
				50	3.85	-1.144	-0.0016	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band17_OBW

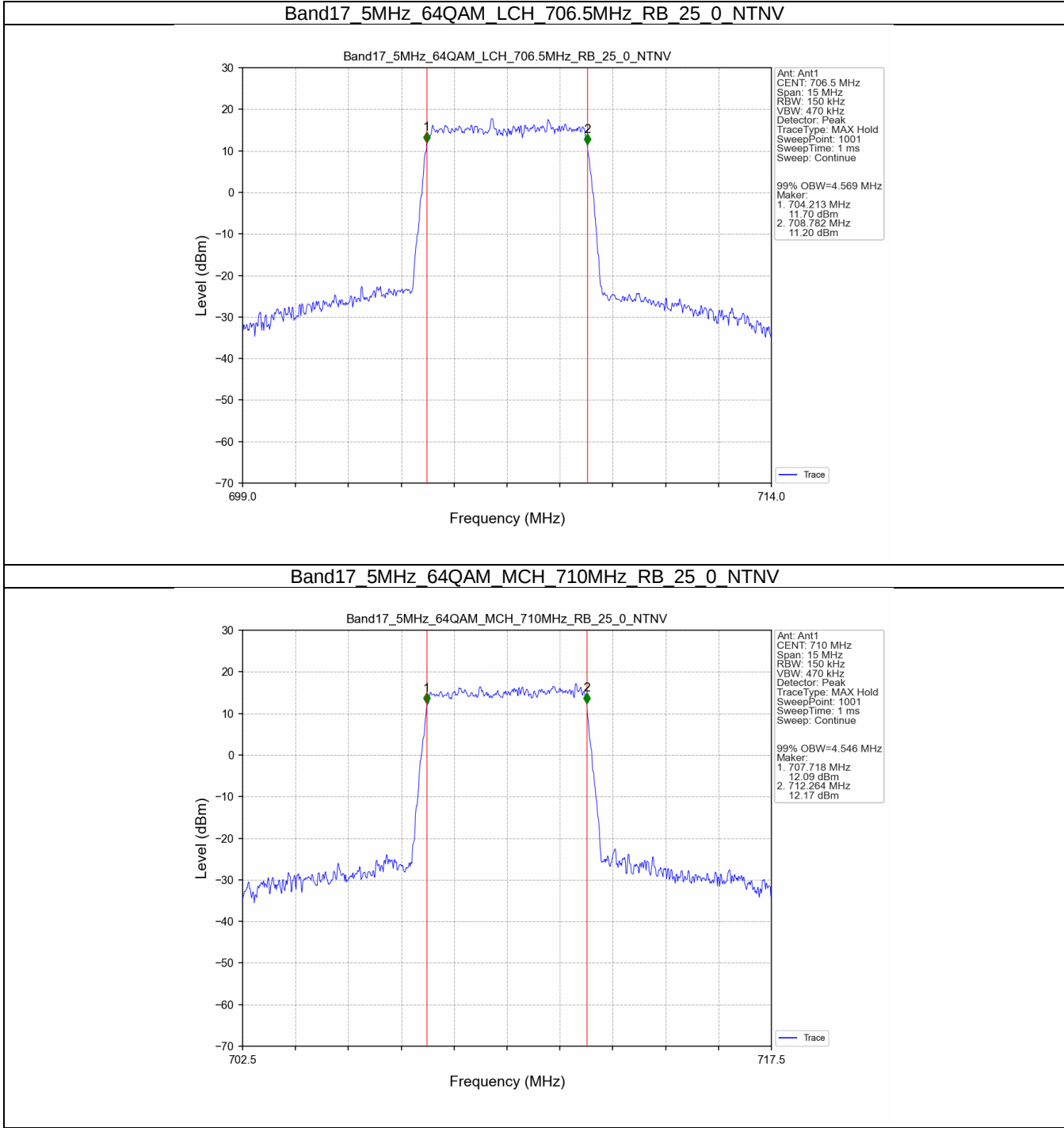
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	64QAM	706.5	25	0	4.569	/	Pass
		710	25	0	4.546	/	Pass
		713.5	25	0	4.550	/	Pass
10	64QAM	709	50	0	9.046	/	Pass
		710	50	0	8.999	/	Pass
		711	50	0	9.044	/	Pass

3.1.2 Band17_XDB

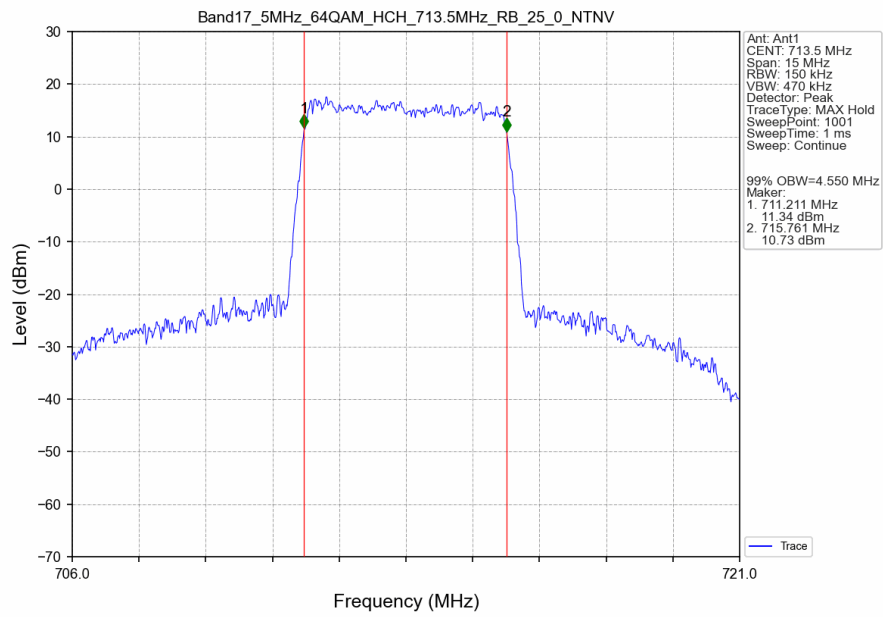
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	64QAM	706.5	25	0	5.033	/	Pass
		710	25	0	5.030	/	Pass
		713.5	25	0	5.034	/	Pass
10	64QAM	709	50	0	9.987	/	Pass
		710	50	0	9.995	/	Pass
		711	50	0	9.888	/	Pass

3.2 Test Graph

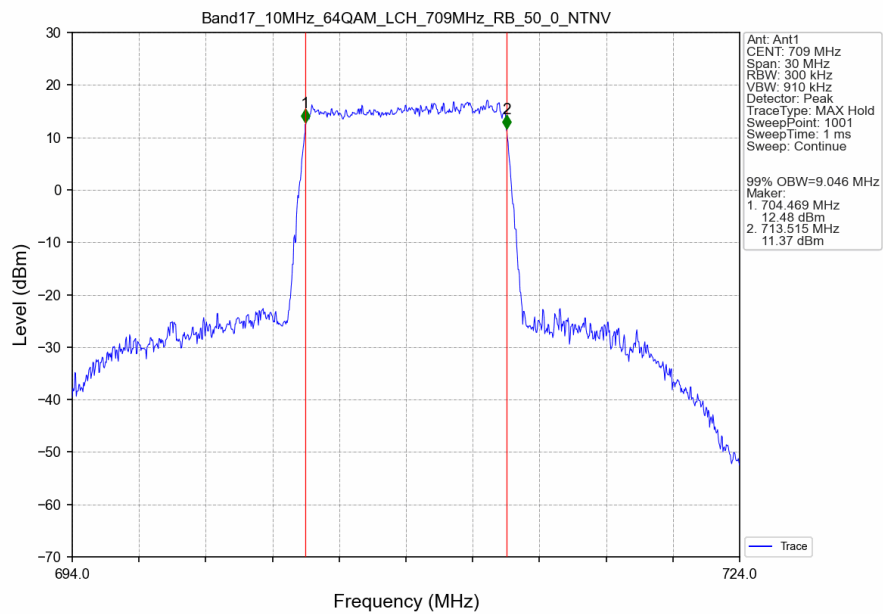
3.2.1 Band17_OBW



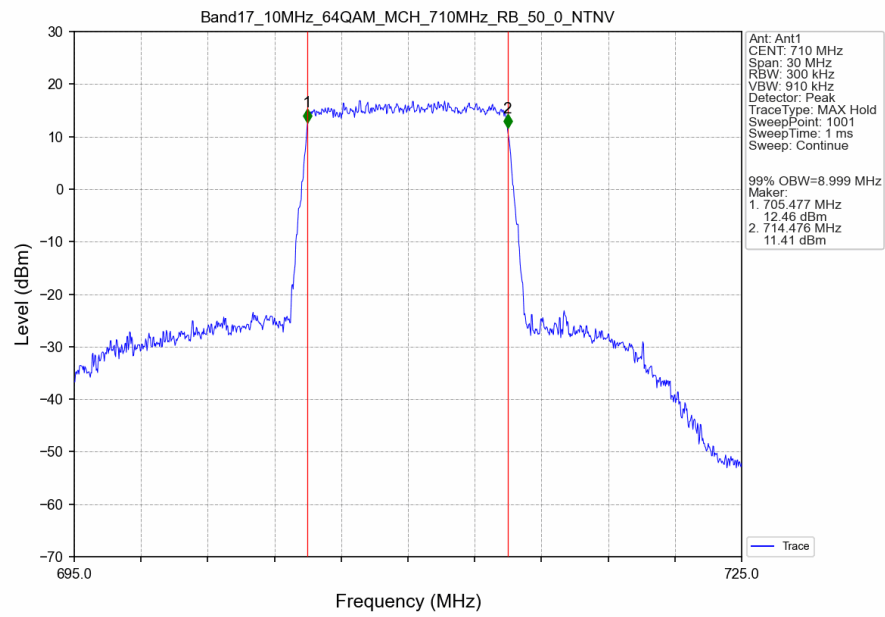
Band17_5MHz_64QAM_HCH_713.5MHz_RB_25_0_NTNV



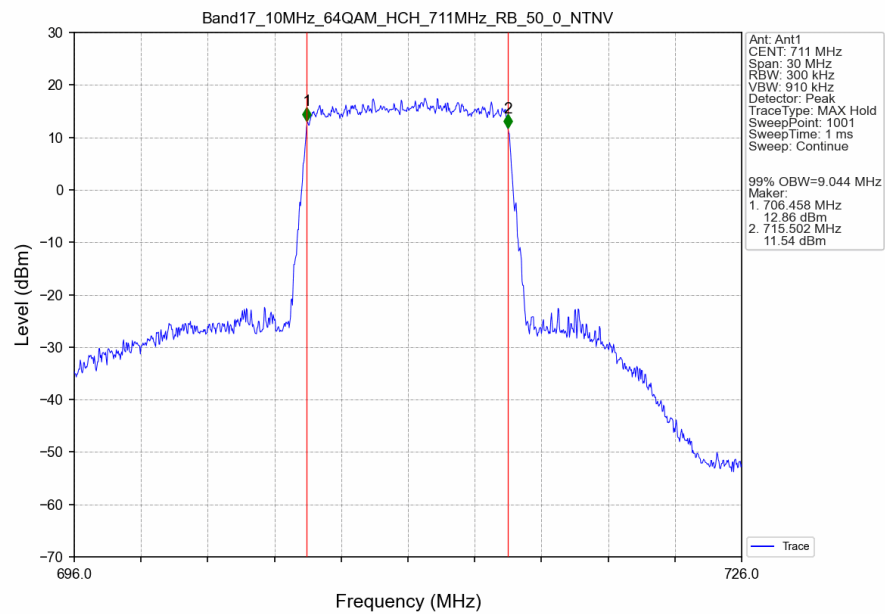
Band17_10MHz_64QAM_LCH_709MHz_RB_50_0_NTNV



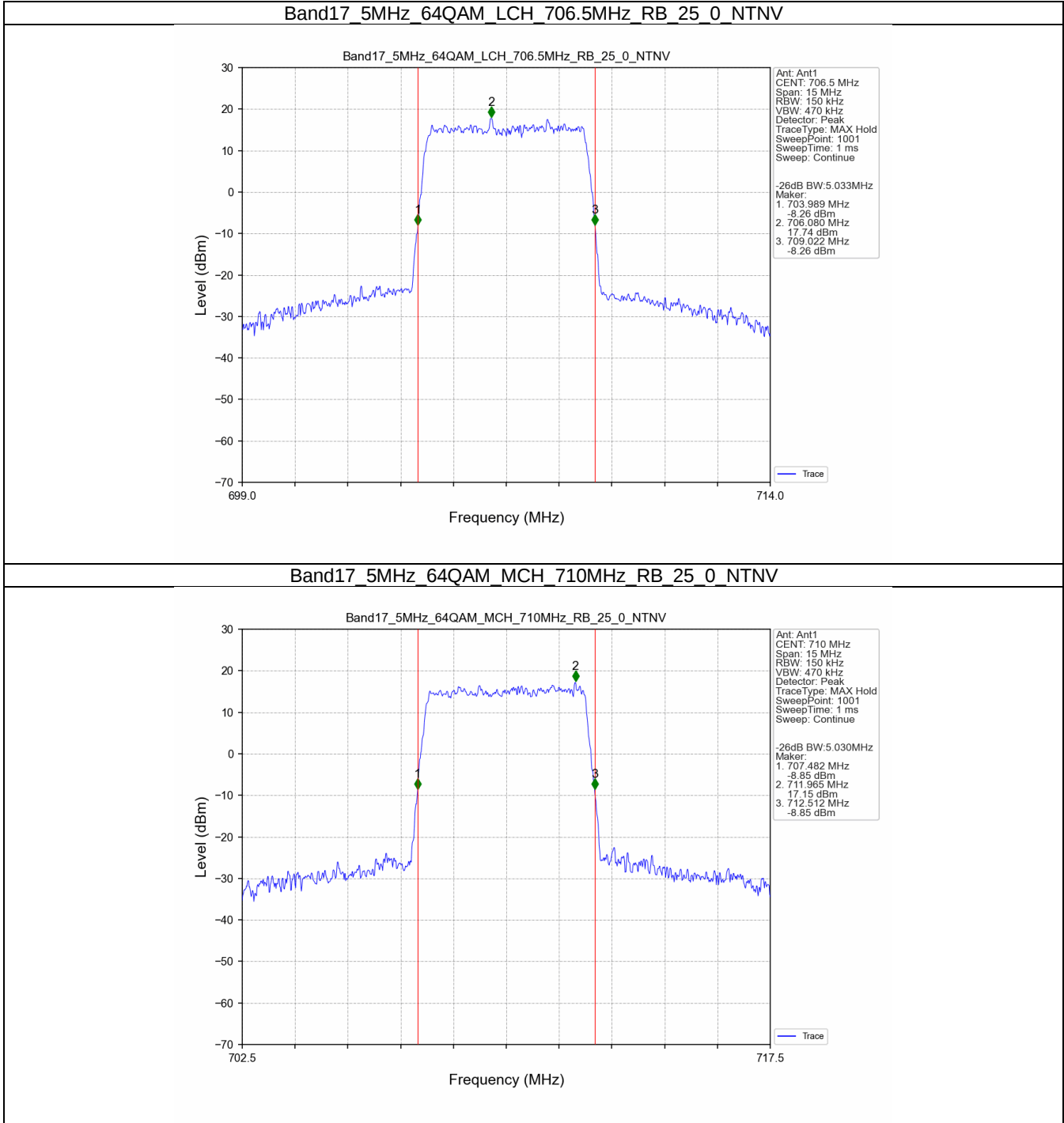
Band17_10MHz_64QAM_MCH_710MHz_RB_50_0_NTNV



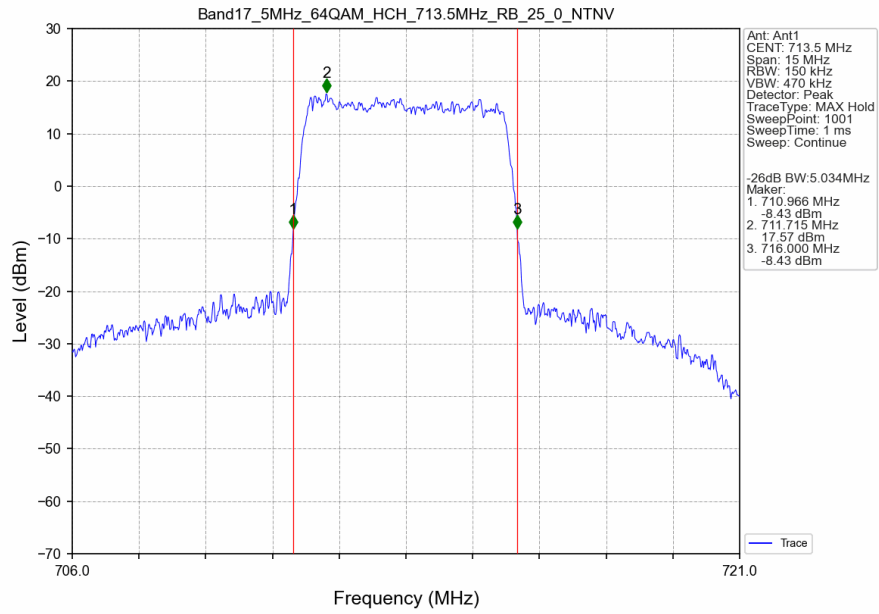
Band17_10MHz_64QAM_HCH_711MHz_RB_50_0_NTNV



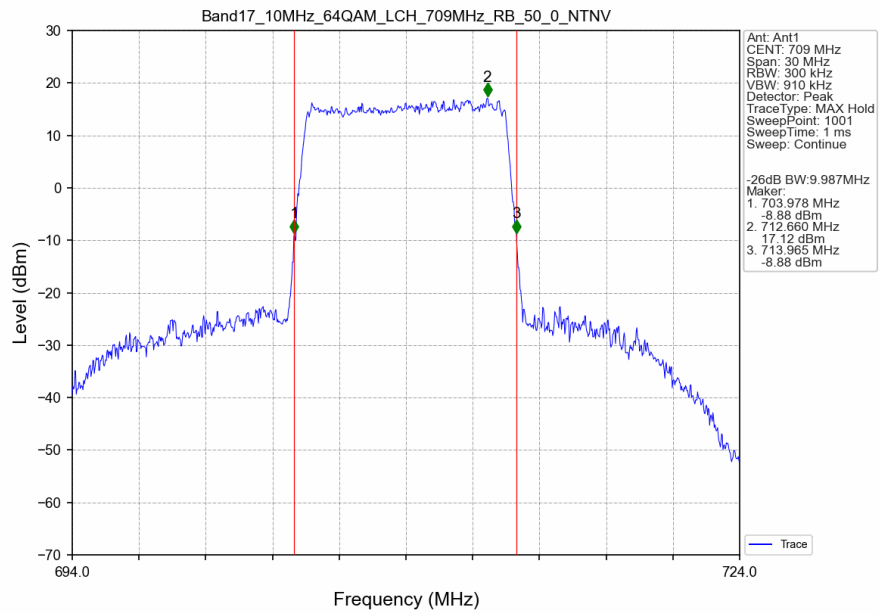
3.2.2 Band17_XDB



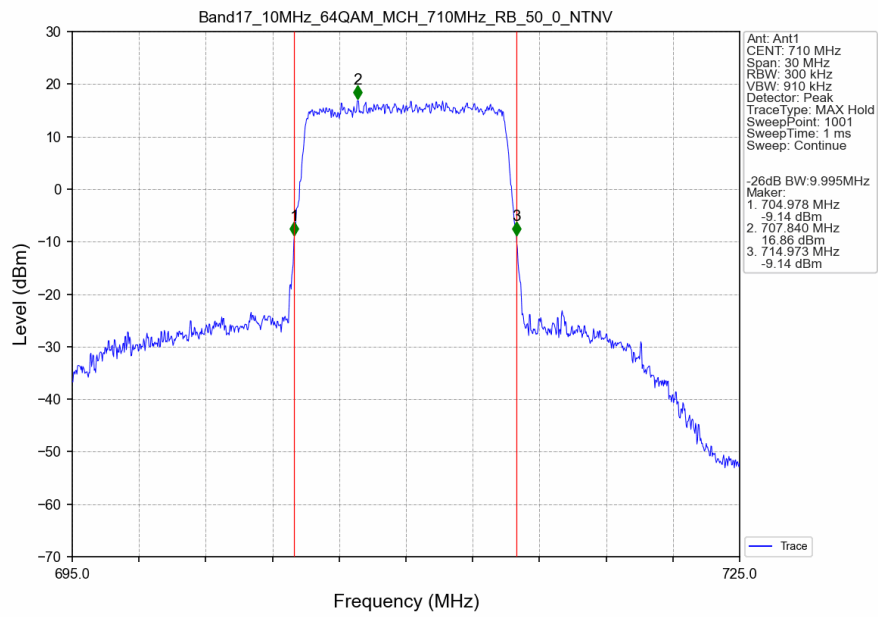
Band17_5MHz_64QAM_HCH_713.5MHz_RB_25_0_NTNV



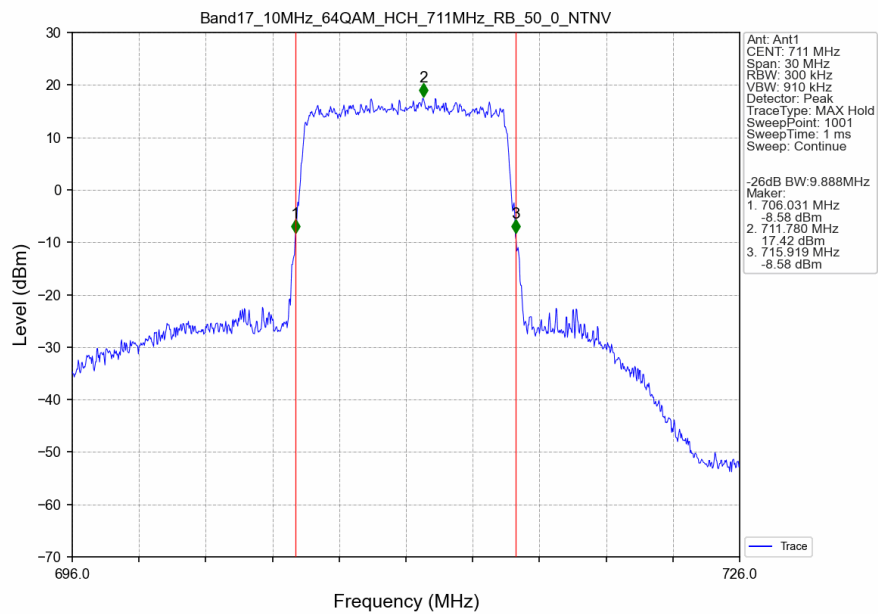
Band17_10MHz_64QAM_LCH_709MHz_RB_50_0_NTNV



Band17_10MHz_64QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_64QAM_HCH_711MHz_RB_50_0_NTNV



4. Peak-Average Ratio

4.1 Test Result

4.1.1 B17_5MHz

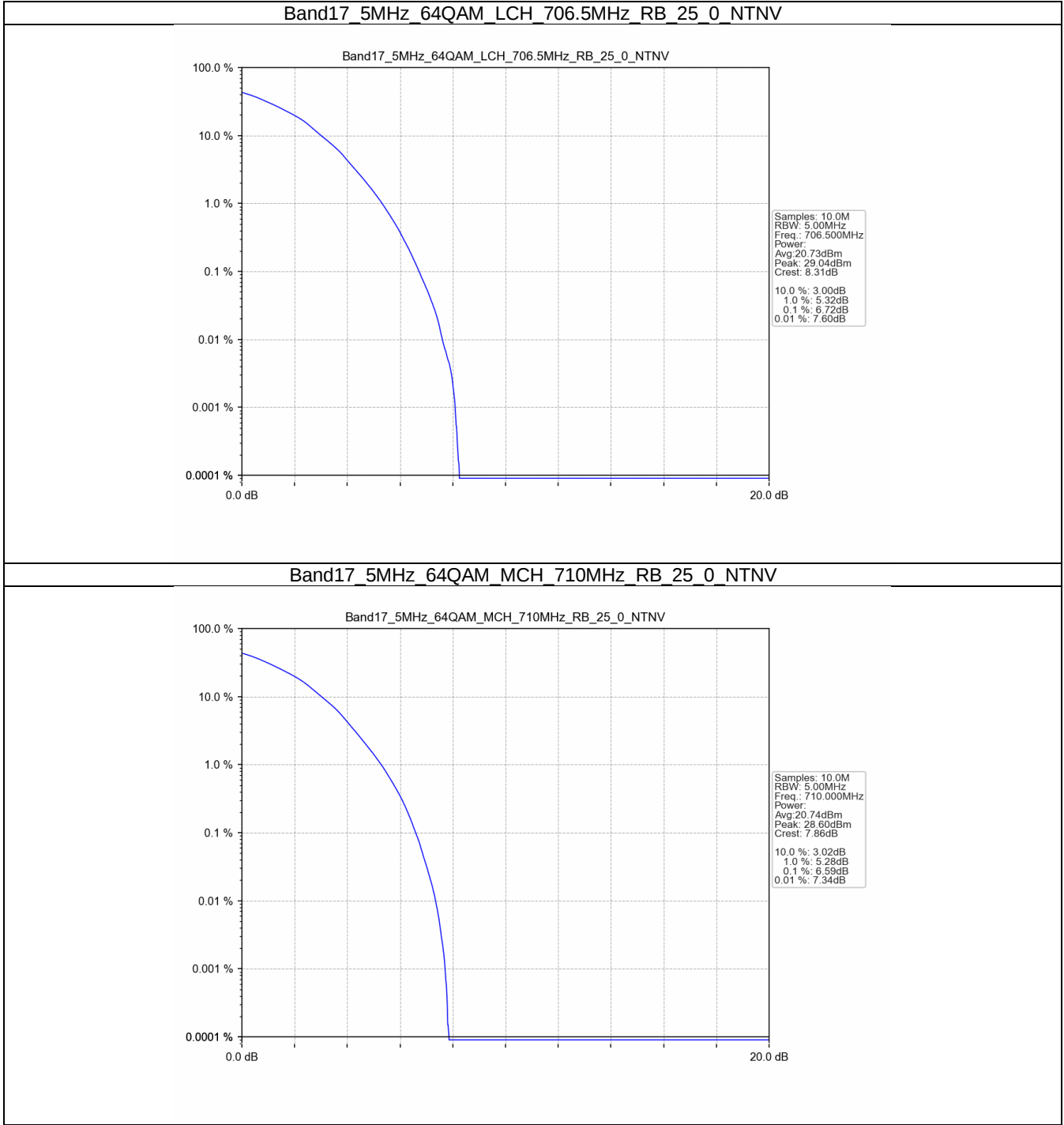
Band: 17 / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
64QAM	706.5	25	0	6.72	<=13	Pass
	710	25	0	6.59	<=13	Pass
	713.5	25	0	6.42	<=13	Pass

4.1.2 B17_10MHz

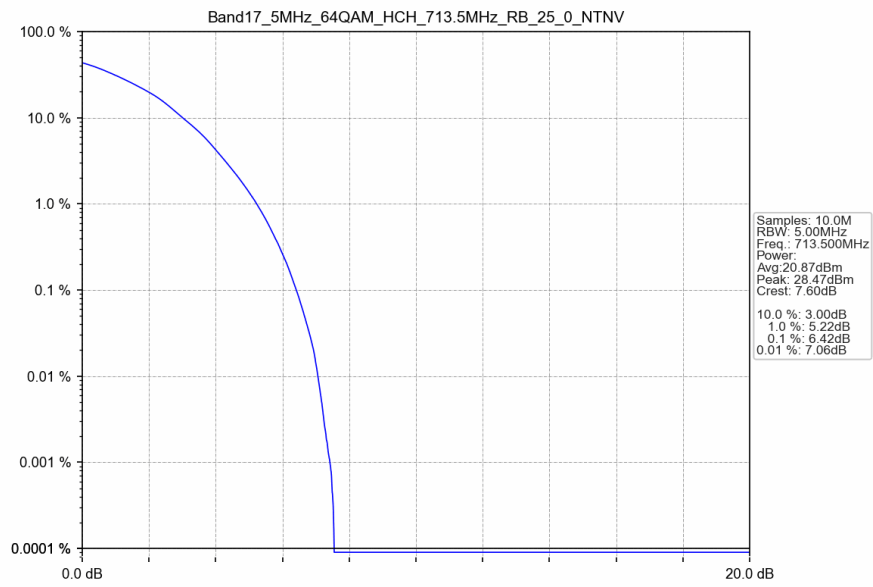
Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
64QAM	709	50	0	6.55	<=13	Pass
	710	50	0	6.56	<=13	Pass
	711	50	0	6.50	<=13	Pass

4.2 Test Graph

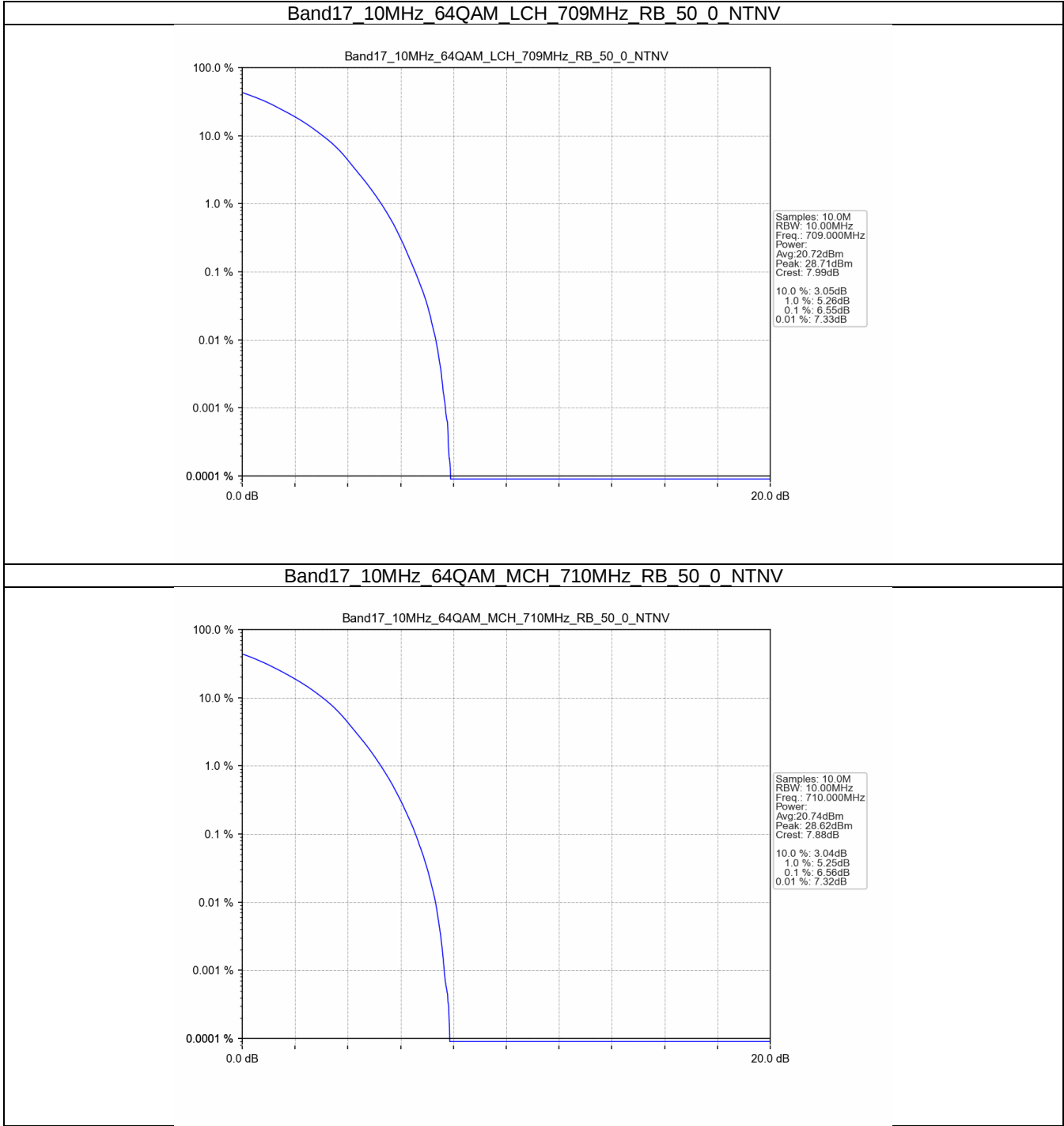
4.2.1 B17_5MHz



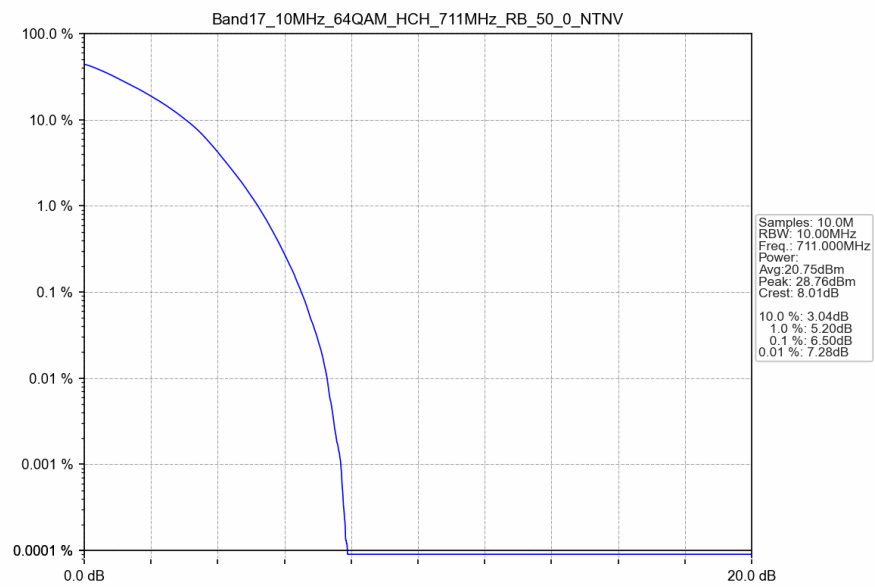
Band17_5MHz_64QAM_HCH_713.5MHz_RB_25_0_NTNV



4.2.2 B17_10MHz



Band17_10MHz_64QAM_HCH_711MHz_RB_50_0_NTNV



5. Spurious Emission

5.1 Test Result

5.1.1 B17_5MHz

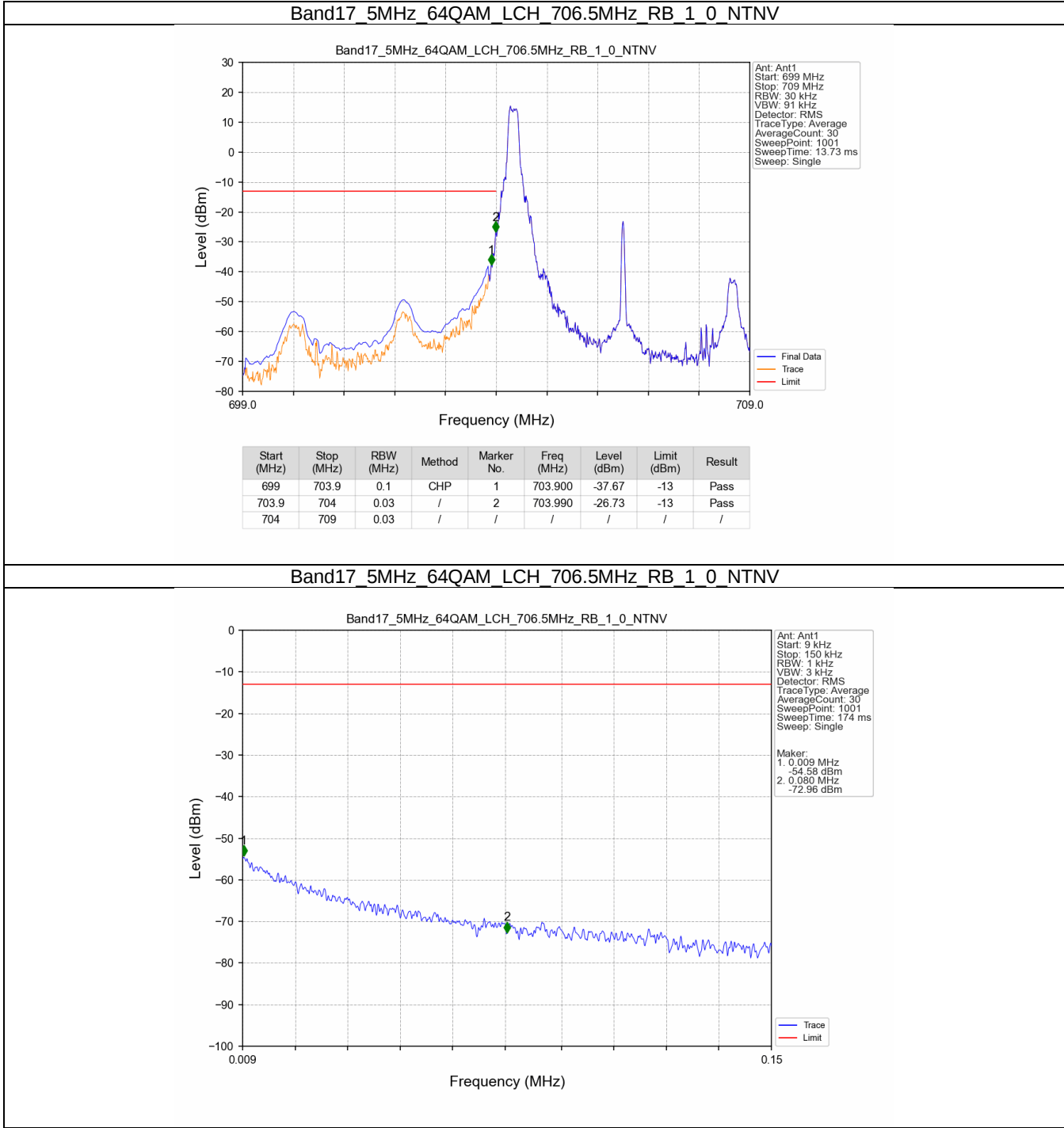
Band: 17 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
64QAM	706.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	710	1	0	Refer To Test Graph		Pass
	713.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass

5.1.2 B17_10MHz

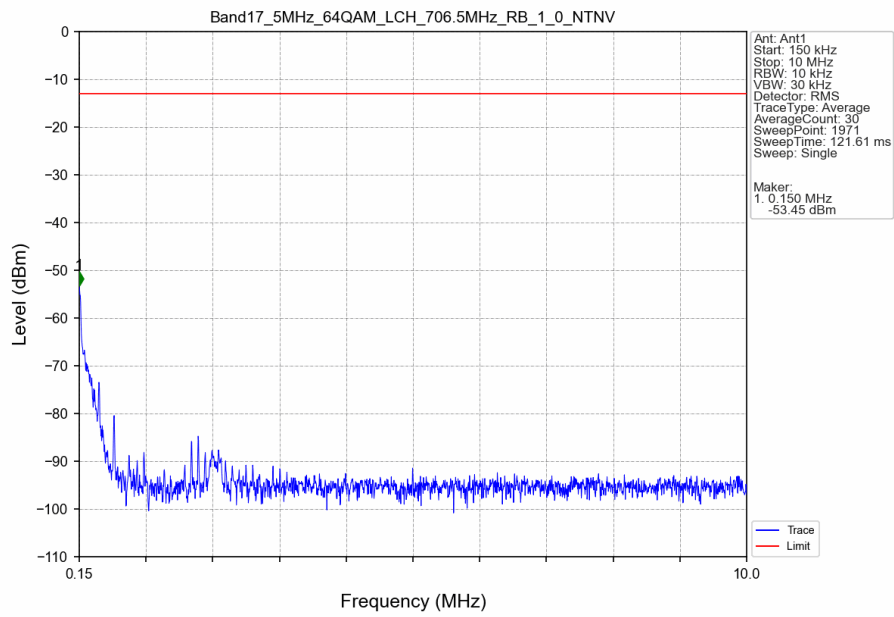
Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
64QAM	709	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	710	1	0	Refer To Test Graph		Pass
	711	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

5.2 Test Graph

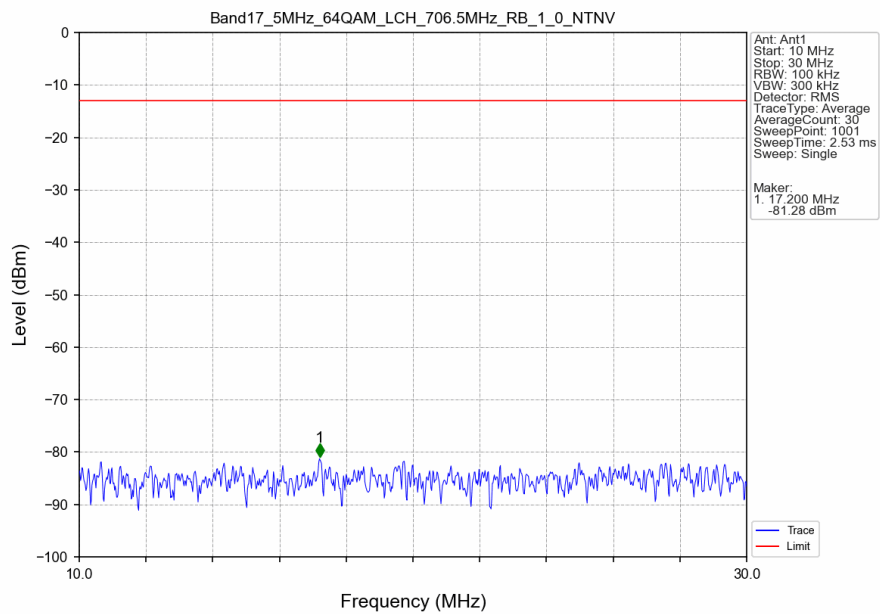
5.2.1 B17_5MHz



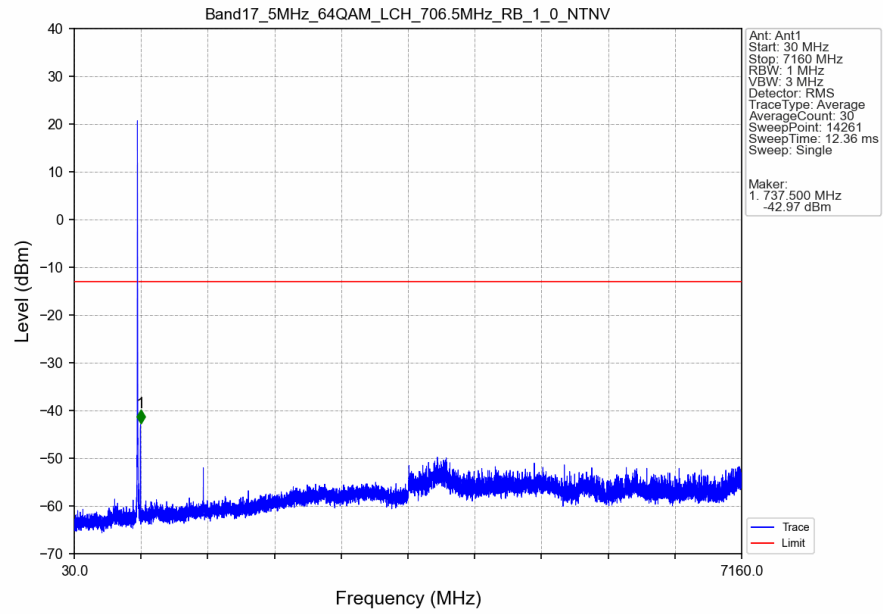
Band17_5MHz_64QAM_LCH_706.5MHz_RB_1_0_NTNV



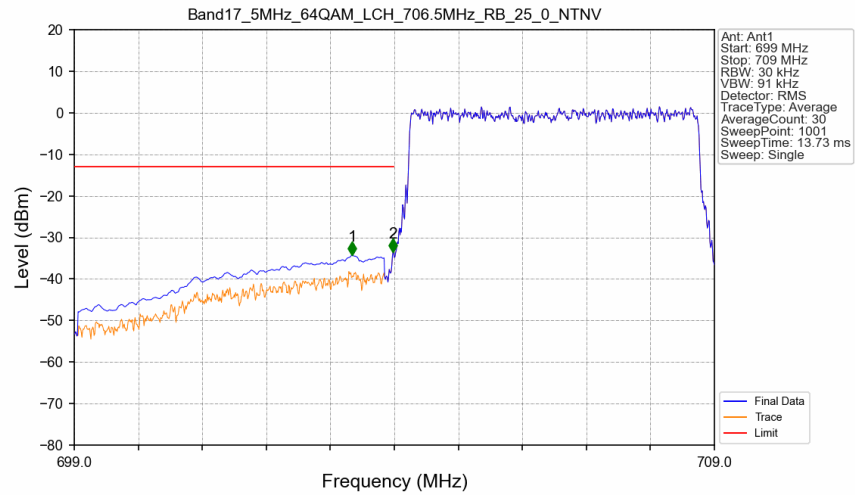
Band17_5MHz_64QAM_LCH_706.5MHz_RB_1_0_NTNV



Band17_5MHz_64QAM_LCH_706.5MHz_RB_1_0_NTNV

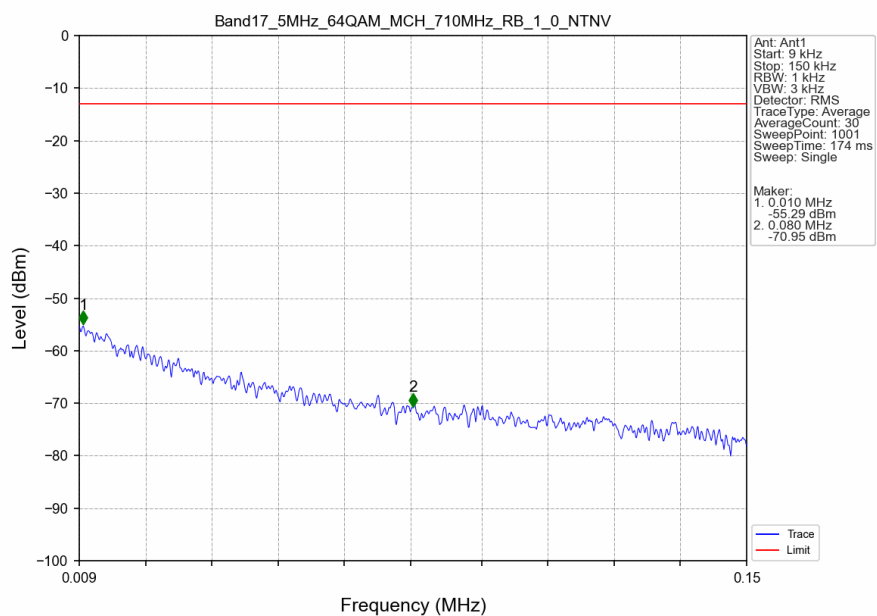


Band17_5MHz_64QAM_LCH_706.5MHz_RB_25_0_NTNV

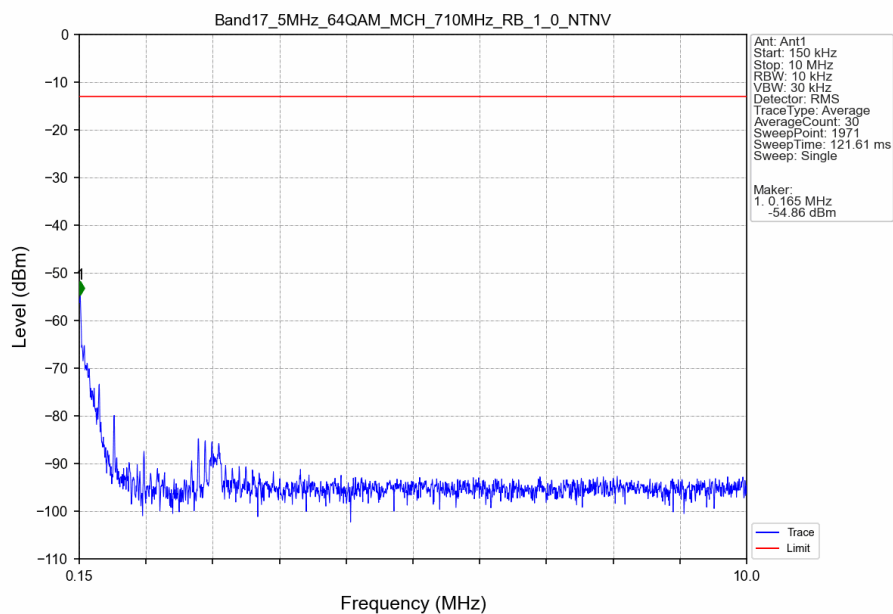


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.340	-34.25	-13	Pass
703.9	704	0.03	/	2	703.980	-33.49	-13	Pass
704	709	0.03	/	/	/	/	/	/

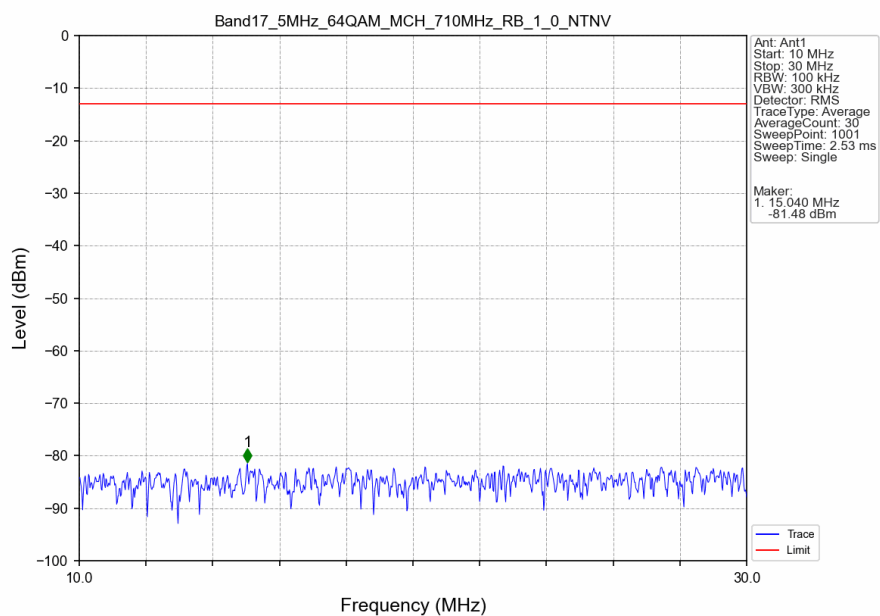
Band17_5MHz_64QAM_MCH_710MHz_RB_1_0_NTNV



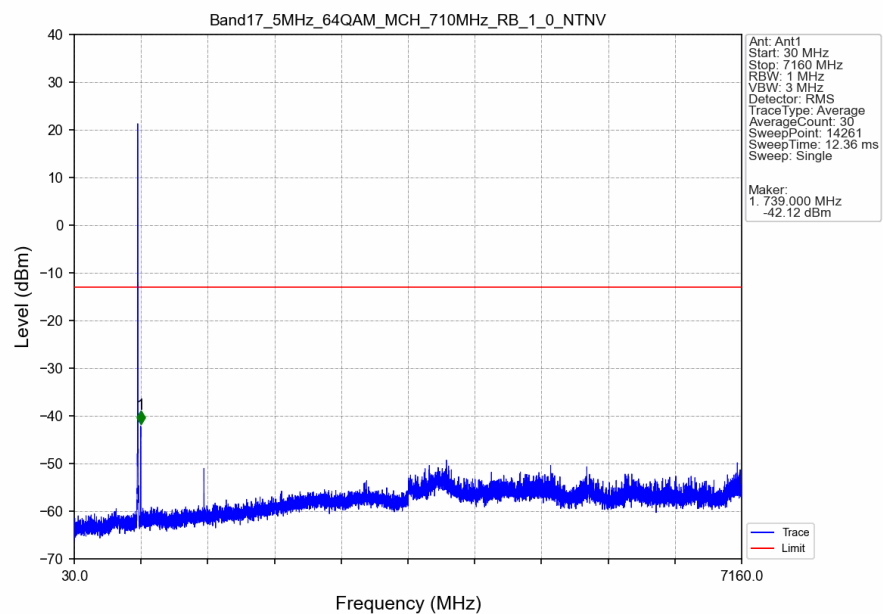
Band17_5MHz_64QAM_MCH_710MHz_RB_1_0_NTNV



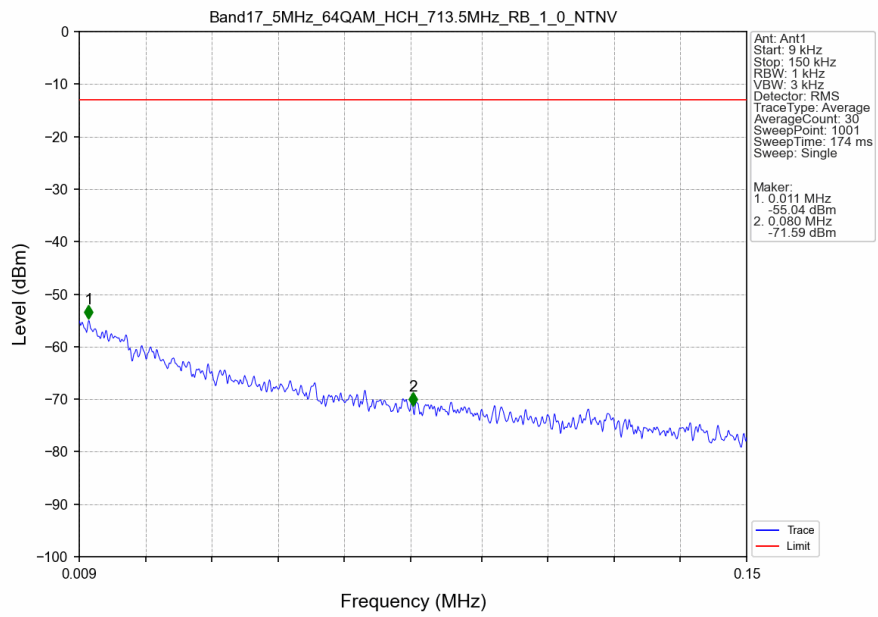
Band17_5MHz_64QAM_MCH_710MHz_RB_1_0_NTNV



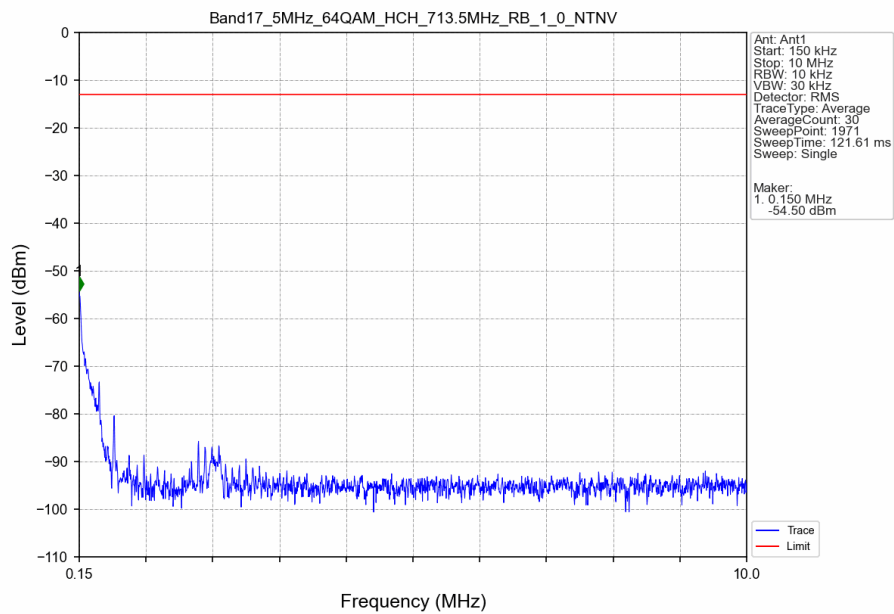
Band17_5MHz_64QAM_MCH_710MHz_RB_1_0_NTNV



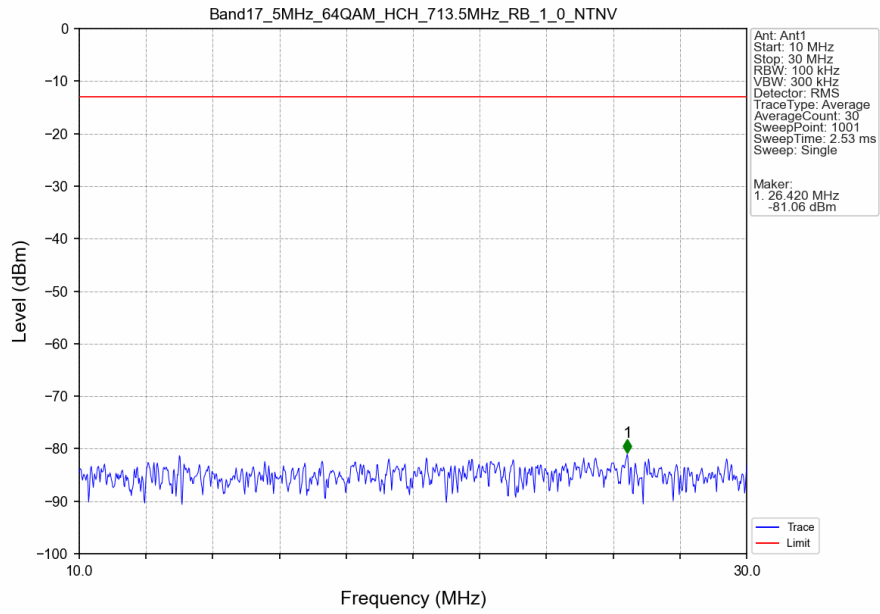
Band17_5MHz_64QAM_HCH_713.5MHz_RB_1_0_NTNV



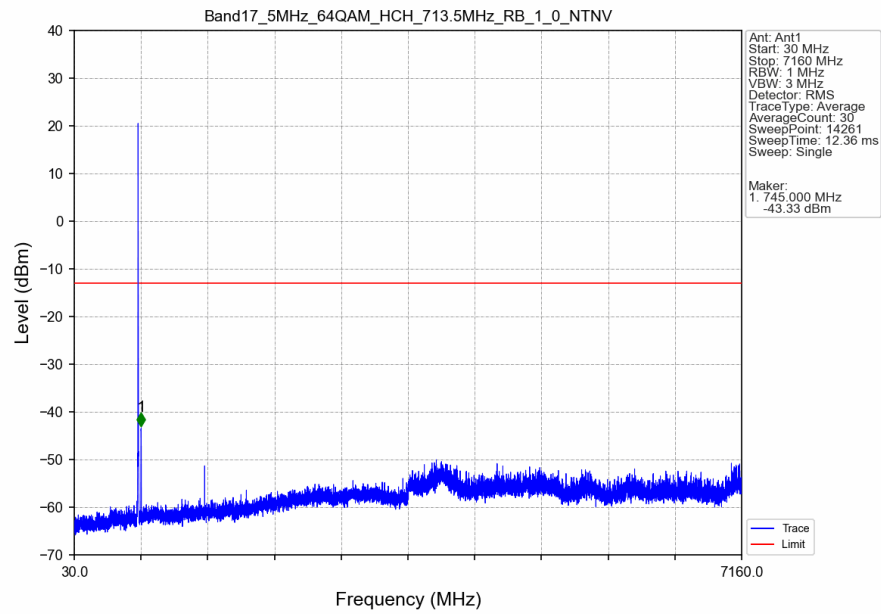
Band17_5MHz_64QAM_HCH_713.5MHz_RB_1_0_NTNV



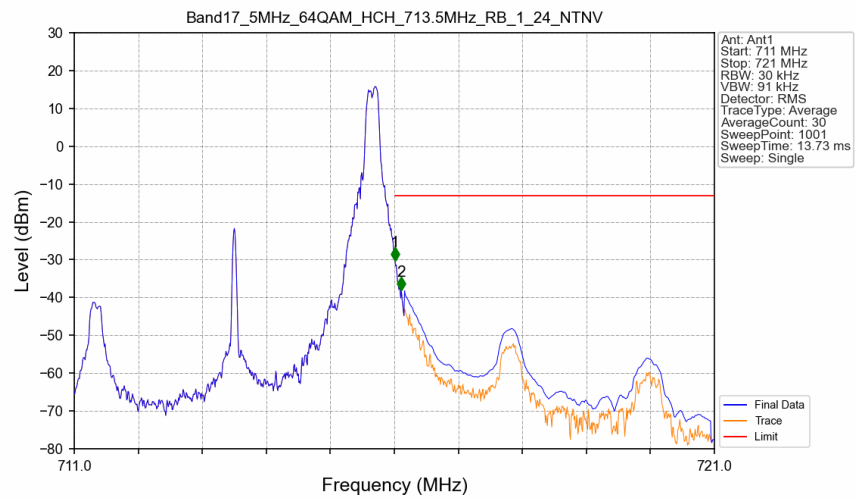
Band17_5MHz_64QAM_HCH_713.5MHz_RB_1_0_NTNV



Band17_5MHz_64QAM_HCH_713.5MHz_RB_1_0_NTNV

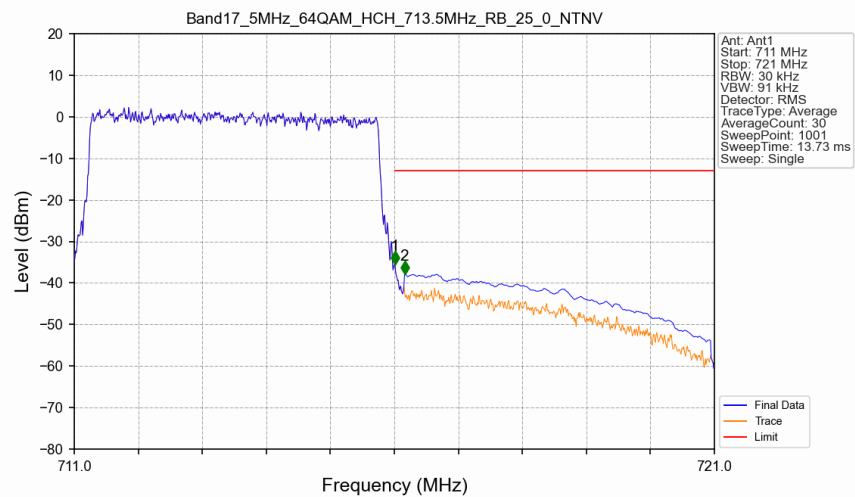


Band17_5MHz_64QAM_HCH_713.5MHz_RB_1_24_NTNV



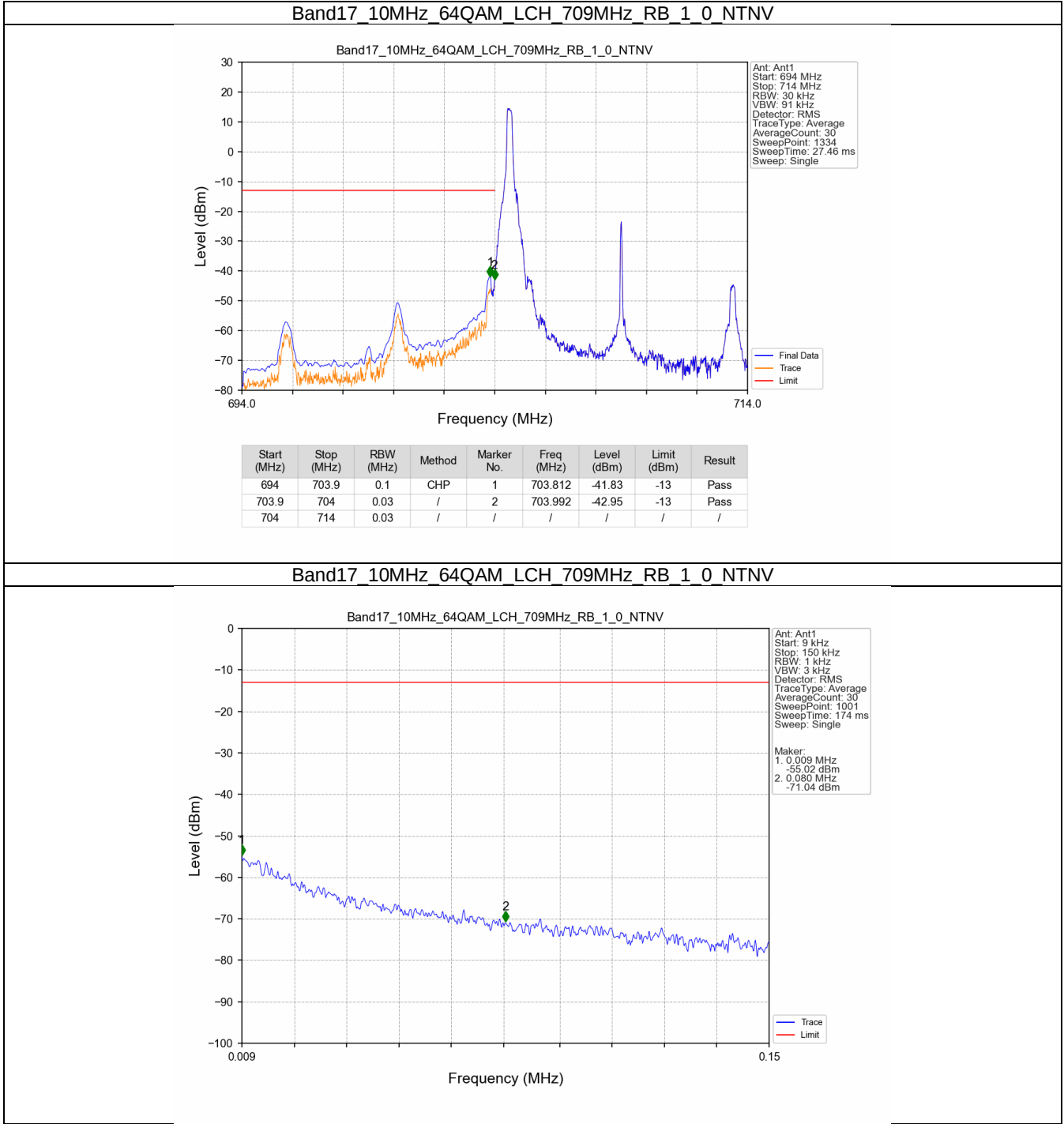
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.010	-30.31	-13	Pass
716.1	721	0.1	CHP	2	716.110	-38.04	-13	Pass

Band17_5MHz_64QAM_HCH_713.5MHz_RB_25_0_NTNV

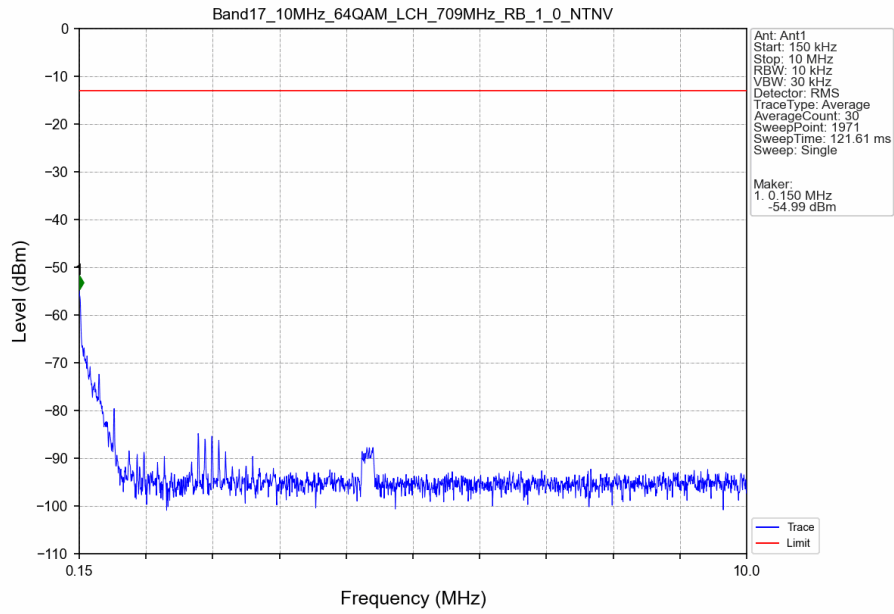


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.010	-35.54	-13	Pass
716.1	721	0.1	CHP	2	716.160	-37.87	-13	Pass

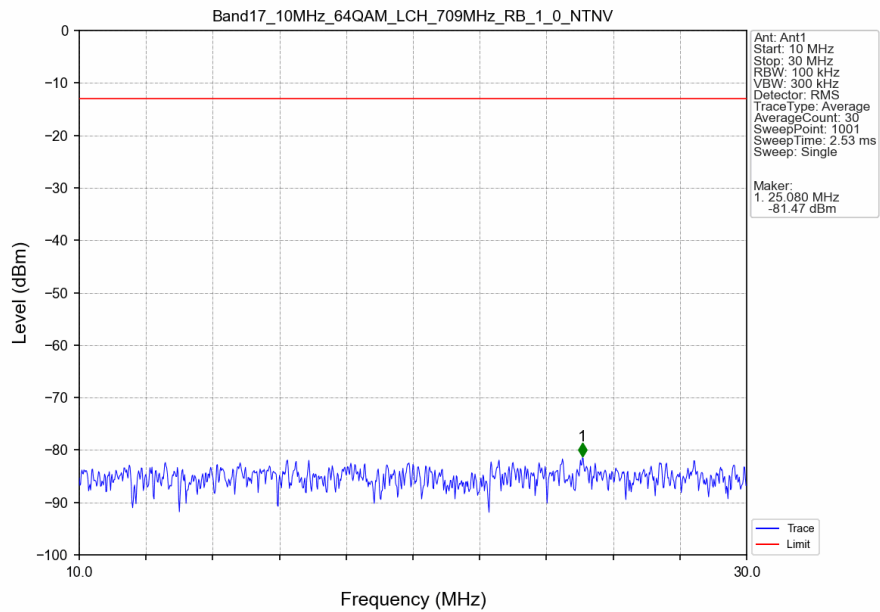
5.2.2 B17_10MHz



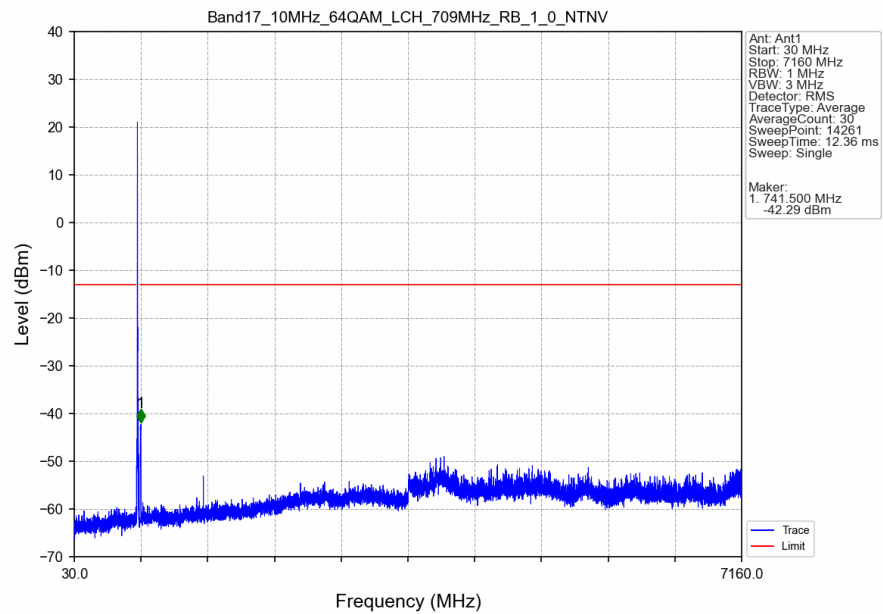
Band17_10MHz_64QAM_LCH_709MHz_RB_1_0_NTNV



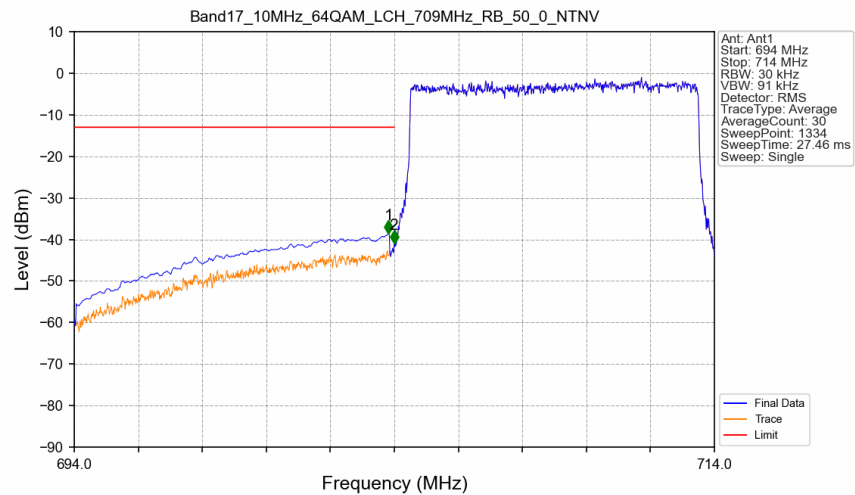
Band17_10MHz_64QAM_LCH_709MHz_RB_1_0_NTNV



Band17_10MHz_64QAM_LCH_709MHz_RB_1_0_NTNV

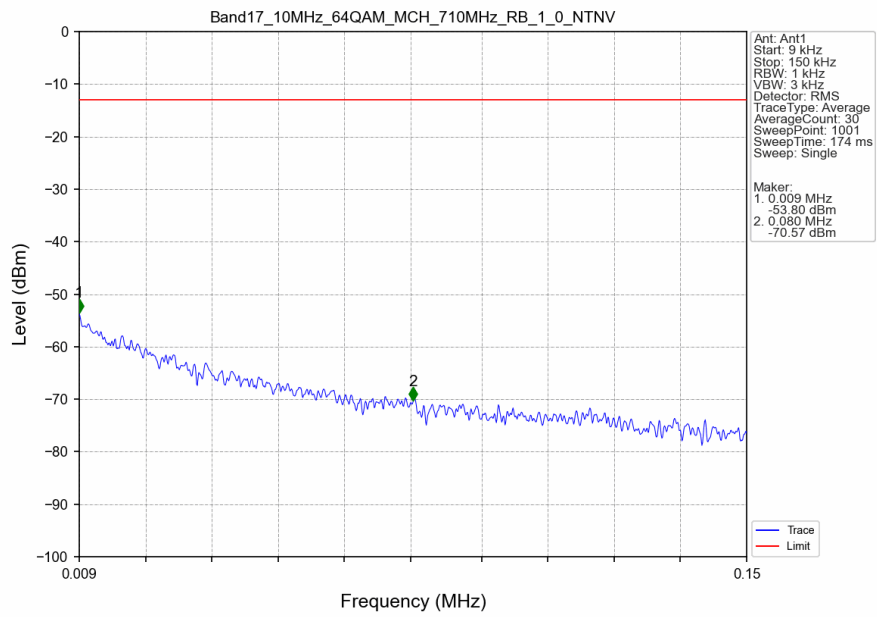


Band17_10MHz_64QAM_LCH_709MHz_RB_50_0_NTNV

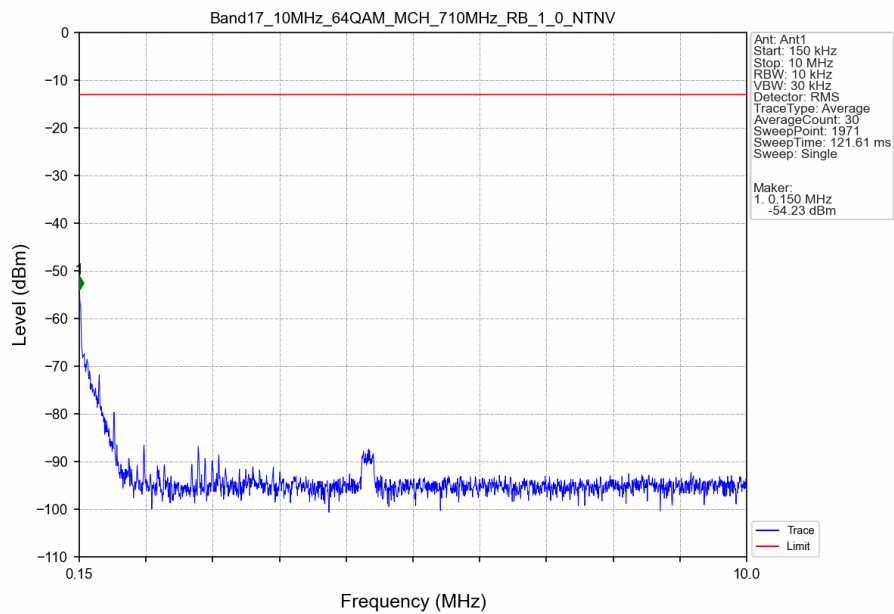


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.812	-38.64	-13	Pass
703.9	704	0.03	/	2	703.992	-40.94	-13	Pass
704	714	0.03	/	/	/	/	/	/

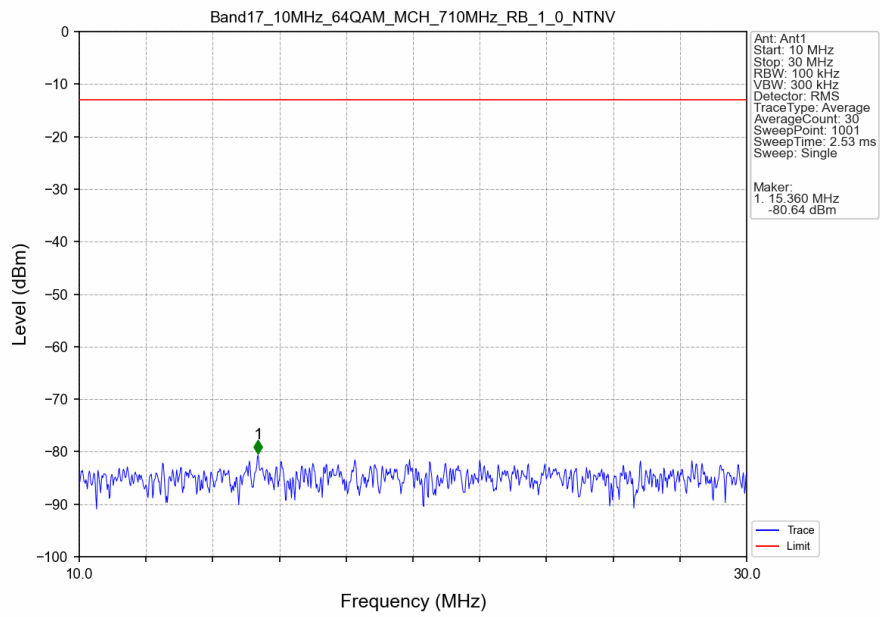
Band17_10MHz_64QAM_MCH_710MHz_RB_1_0_NTNV



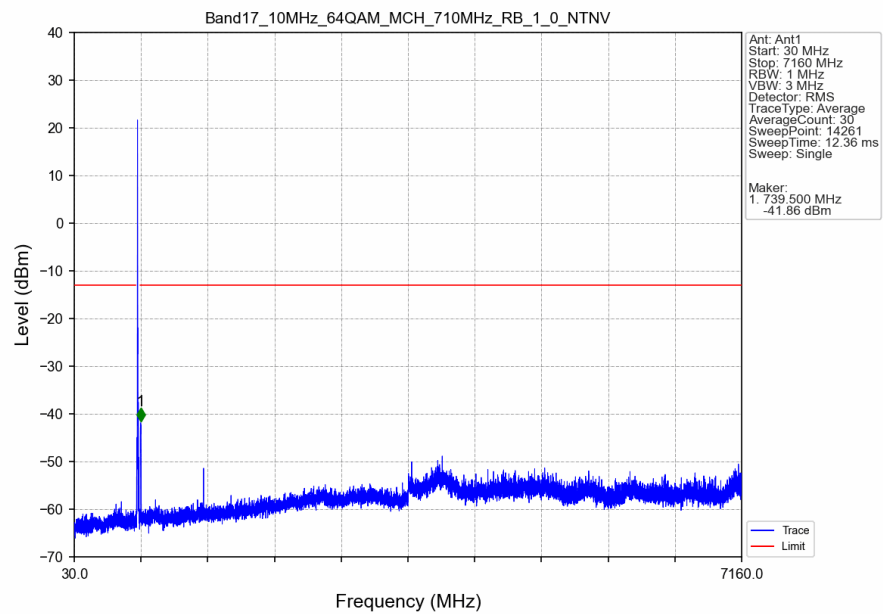
Band17_10MHz_64QAM_MCH_710MHz_RB_1_0_NTNV



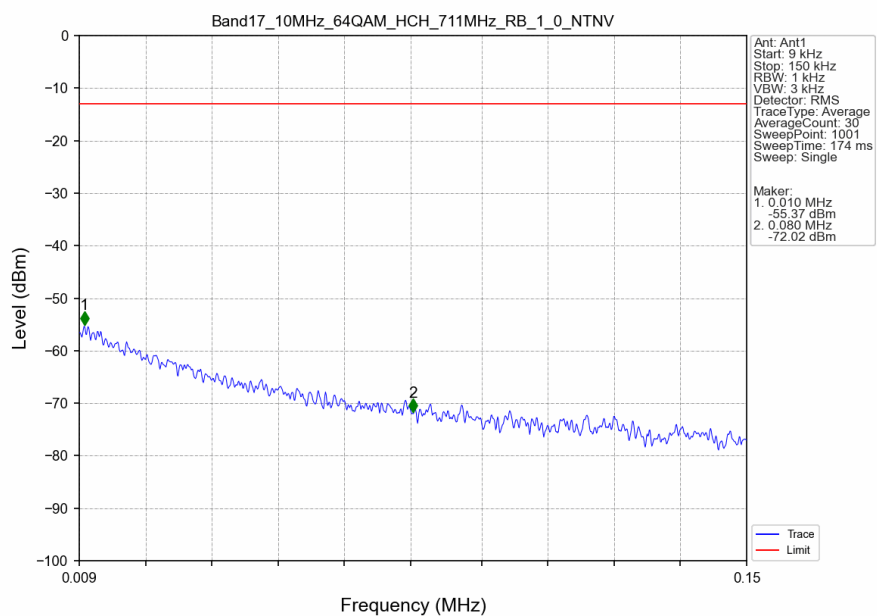
Band17_10MHz_64QAM_MCH_710MHz_RB_1_0_NTNV



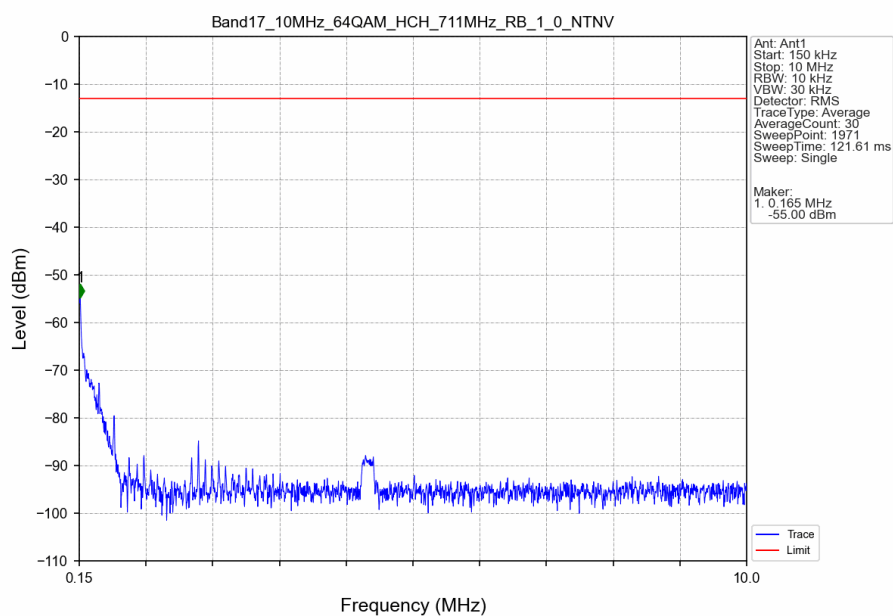
Band17_10MHz_64QAM_MCH_710MHz_RB_1_0_NTNV



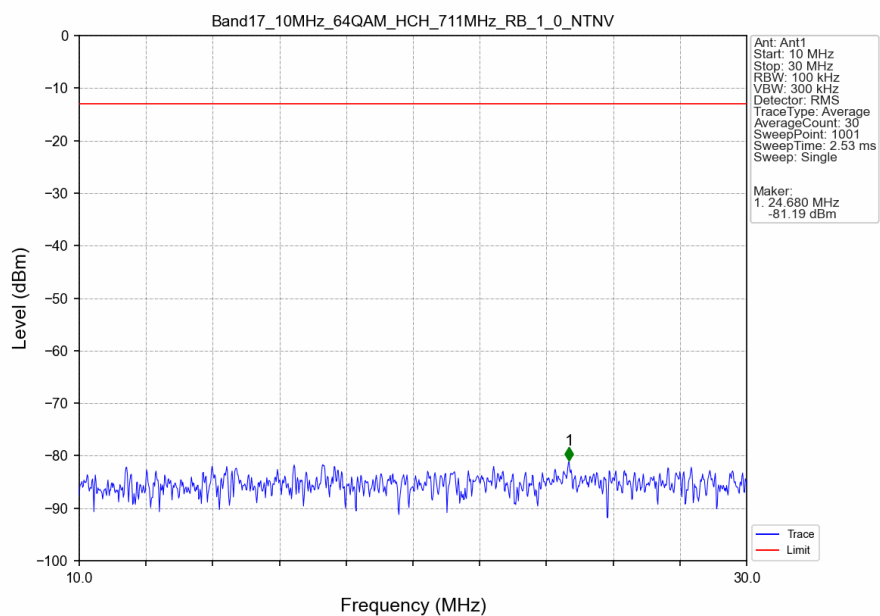
Band17_10MHz_64QAM_HCH_711MHz_RB_1_0_NTNV



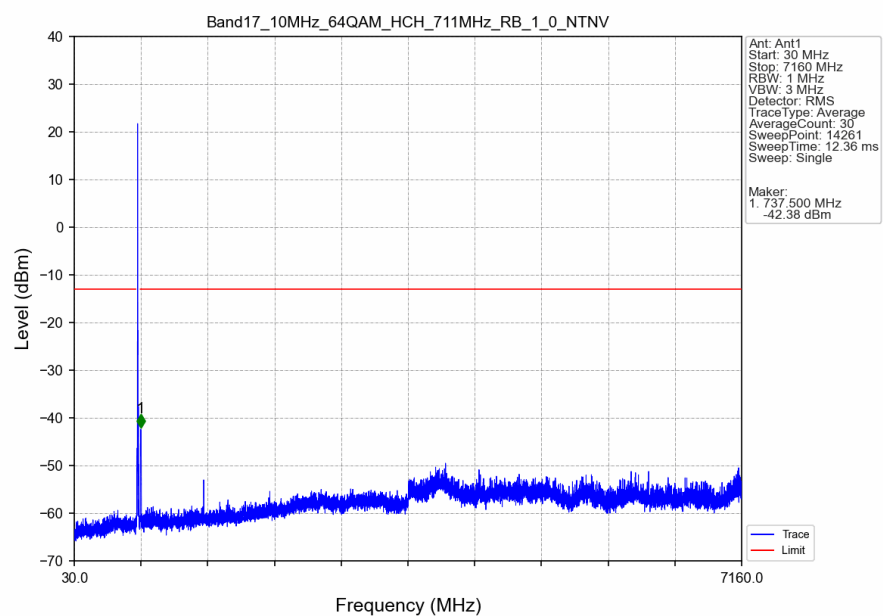
Band17_10MHz_64QAM_HCH_711MHz_RB_1_0_NTNV



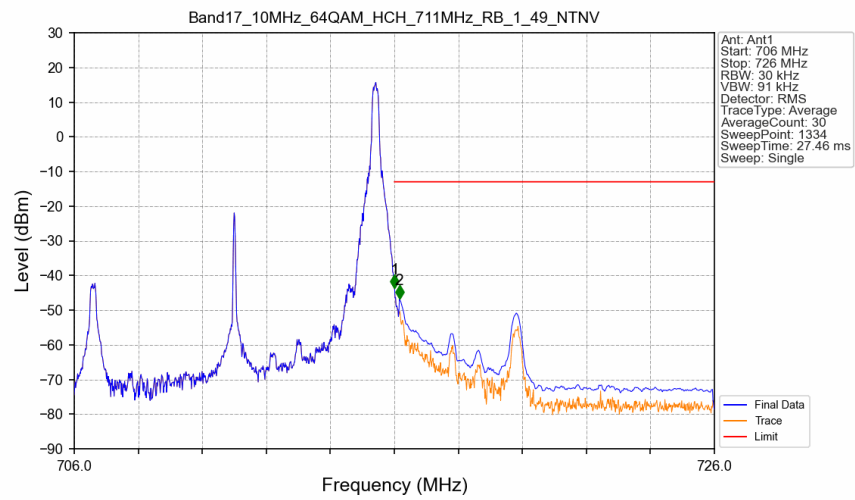
Band17_10MHz_64QAM_HCH_711MHz_RB_1_0_NTNV



Band17_10MHz_64QAM_HCH_711MHz_RB_1_0_NTNV

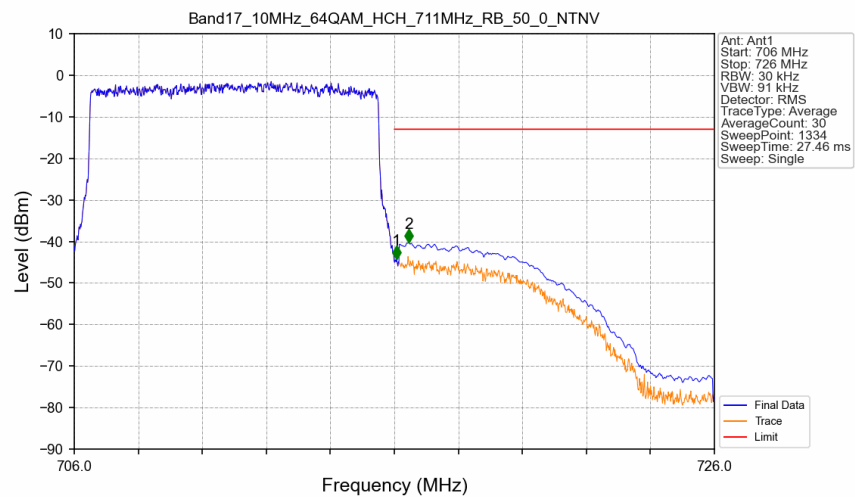


Band17_10MHz_64QAM_HCH_711MHz_RB_1_49_NTNV



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	-43.60	-13	Pass
716.1	726	0.1	CHP	2	716.158	-46.70	-13	Pass

Band17_10MHz_64QAM_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	-44.22	-13	Pass
716.1	726	0.1	CHP	2	716.458	-40.28	-13	Pass

6. Field Strength of Spurious Radiation

LTE Band 17-Low channel								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1409.0	-69.36	-13	-56.36	-72.18	2.48	5.3	Horizontal	Pass
2113.5	-70.19	-13	-57.19	-72.28	2.8	4.89	Horizontal	Pass
2818.0	-68.97	-13	-55.97	-72.37	3.12	6.52	Horizontal	Pass
1409.0	-70.54	-13	-57.54	-73.36	2.48	5.3	Vertical	Pass
2113.5	-70.17	-13	-57.17	-72.26	2.8	4.89	Vertical	Pass
2818.0	-68.96	-13	-55.96	-72.36	3.12	6.52	Vertical	Pass

LTE Band 17-Middle channel								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1411.0	-70.17	-13	-57.17	-73.0	2.49	5.32	Horizontal	Pass
2116.5	-70.27	-13	-57.27	-72.37	2.8	4.9	Horizontal	Pass
2822.0	-68.6	-13	-55.6	-72.0	3.13	6.53	Horizontal	Pass
1411.0	-70.14	-13	-57.14	-72.97	2.49	5.32	Vertical	Pass
2116.5	-70.23	-13	-57.23	-72.33	2.8	4.9	Vertical	Pass
2822.0	-68.72	-13	-55.72	-72.12	3.13	6.53	Vertical	Pass

LTE Band 17-High channel								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1413.0	-70.21	-13	-57.21	-73.05	2.49	5.33	Horizontal	Pass
2119.5	-70.15	-13	-57.15	-72.25	2.81	4.91	Horizontal	Pass
2826.0	-69.05	-13	-56.05	-72.46	3.13	6.54	Horizontal	Pass
1413.0	-70.5	-13	-57.5	-73.34	2.49	5.33	Vertical	Pass
2119.5	-70.29	-13	-57.29	-72.39	2.81	4.91	Vertical	Pass
2826.0	-68.35	-13	-55.35	-71.76	3.13	6.54	Vertical	Pass