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	23.89	-1.52	20.22	<=34.77	Pass
			13	23.99	-1.52	20.32	<=34.77	Pass
			24	23.81	-1.52	20.14	<=34.77	Pass
		12	0	22.88	-1.52	19.21	<=34.77	Pass
			6	23.00	-1.52	19.33	<=34.77	Pass
			13	22.91	-1.52	19.24	<=34.77	Pass
		25	0	22.95	-1.52	19.28	<=34.77	Pass
	710	1	0	23.86	-1.52	20.19	<=34.77	Pass
			13	23.84	-1.52	20.17	<=34.77	Pass
			24	23.63	-1.52	19.96	<=34.77	Pass
		12	0	22.76	-1.52	19.09	<=34.77	Pass
			6	22.74	-1.52	19.07	<=34.77	Pass
			13	22.72	-1.52	19.05	<=34.77	Pass
		25	0	22.70	-1.52	19.03	<=34.77	Pass
	713.5	1	0	23.66	-1.52	19.99	<=34.77	Pass
			13	23.63	-1.52	19.96	<=34.77	Pass
			24	23.38	-1.52	19.71	<=34.77	Pass
		12	0	22.57	-1.52	18.90	<=34.77	Pass
			6	22.51	-1.52	18.84	<=34.77	Pass
			13	22.46	-1.52	18.79	<=34.77	Pass
		25	0	22.49	-1.52	18.82	<=34.77	Pass
16QAM	706.5	1	0	22.94	-1.52	19.27	<=34.77	Pass
			13	22.97	-1.52	19.30	<=34.77	Pass
			24	22.84	-1.52	19.17	<=34.77	Pass
		12	0	21.86	-1.52	18.19	<=34.77	Pass
			6	22.00	-1.52	18.33	<=34.77	Pass
			13	21.89	-1.52	18.22	<=34.77	Pass
		25	0	21.94	-1.52	18.27	<=34.77	Pass
	710	1	0	23.00	-1.52	19.33	<=34.77	Pass
			13	23.03	-1.52	19.36	<=34.77	Pass
			24	22.81	-1.52	19.14	<=34.77	Pass
		12	0	21.79	-1.52	18.12	<=34.77	Pass
			6	21.80	-1.52	18.13	<=34.77	Pass
			13	21.74	-1.52	18.07	<=34.77	Pass
		25	0	21.71	-1.52	18.04	<=34.77	Pass
	713.5	1	0	22.73	-1.52	19.06	<=34.77	Pass
			13	22.73	-1.52	19.06	<=34.77	Pass
			24	22.48	-1.52	18.81	<=34.77	Pass
		12	0	21.55	-1.52	17.88	<=34.77	Pass
			6	21.51	-1.52	17.84	<=34.77	Pass
			13	21.47	-1.52	17.80	<=34.77	Pass
		25	0	21.53	-1.52	17.86	<=34.77	Pass
64QAM	706.5	1	0	21.96	-1.52	18.29	<=34.77	Pass
			13	22.08	-1.52	18.41	<=34.77	Pass
			24	22.05	-1.52	18.38	<=34.77	Pass
		12	0	20.89	-1.52	17.22	<=34.77	Pass
			6	20.96	-1.52	17.29	<=34.77	Pass
			13	20.92	-1.52	17.25	<=34.77	Pass
		25	0	20.95	-1.52	17.28	<=34.77	Pass

	710	1	0	21.95	-1.52	18.28	<=34.77	Pass
			13	21.91	-1.52	18.24	<=34.77	Pass
			24	21.57	-1.52	17.90	<=34.77	Pass
		12	0	20.79	-1.52	17.12	<=34.77	Pass
			6	20.75	-1.52	17.08	<=34.77	Pass
			13	20.69	-1.52	17.02	<=34.77	Pass
		25	0	20.68	-1.52	17.01	<=34.77	Pass
	713.5	1	0	21.81	-1.52	18.14	<=34.77	Pass
			13	21.70	-1.52	18.03	<=34.77	Pass
			24	21.49	-1.52	17.82	<=34.77	Pass
		12	0	20.59	-1.52	16.92	<=34.77	Pass
			6	20.56	-1.52	16.89	<=34.77	Pass
			13	20.45	-1.52	16.78	<=34.77	Pass
		25	0	20.49	-1.52	16.82	<=34.77	Pass
256QAM	706.5	1	0	18.98	-1.52	15.31	<=34.77	Pass
			13	19.20	-1.52	15.53	<=34.77	Pass
			24	19.13	-1.52	15.46	<=34.77	Pass
		12	0	18.96	-1.52	15.29	<=34.77	Pass
			6	19.03	-1.52	15.36	<=34.77	Pass
			13	18.98	-1.52	15.31	<=34.77	Pass
		25	0	18.97	-1.52	15.30	<=34.77	Pass
	710	1	0	18.96	-1.52	15.29	<=34.77	Pass
			13	18.98	-1.52	15.31	<=34.77	Pass
			24	18.74	-1.52	15.07	<=34.77	Pass
		12	0	18.80	-1.52	15.13	<=34.77	Pass
			6	18.82	-1.52	15.15	<=34.77	Pass
			13	18.74	-1.52	15.07	<=34.77	Pass
		25	0	18.74	-1.52	15.07	<=34.77	Pass
	713.5	1	0	18.77	-1.52	15.10	<=34.77	Pass
			13	18.66	-1.52	14.99	<=34.77	Pass
			24	18.58	-1.52	14.91	<=34.77	Pass
		12	0	18.70	-1.52	15.03	<=34.77	Pass
			6	18.60	-1.52	14.93	<=34.77	Pass
			13	18.53	-1.52	14.86	<=34.77	Pass
		25	0	18.57	-1.52	14.90	<=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	23.81	-1.52	20.14	<=34.77	Pass
			25	23.83	-1.52	20.16	<=34.77	Pass
			49	23.47	-1.52	19.80	<=34.77	Pass
		25	0	22.84	-1.52	19.17	<=34.77	Pass
			13	22.88	-1.52	19.21	<=34.77	Pass
			25	22.75	-1.52	19.08	<=34.77	Pass
		50	0	22.85	-1.52	19.18	<=34.77	Pass
	710	1	0	23.83	-1.52	20.16	<=34.77	Pass
			25	23.77	-1.52	20.10	<=34.77	Pass
			49	23.40	-1.52	19.73	<=34.77	Pass
		25	0	22.82	-1.52	19.15	<=34.77	Pass
			13	22.72	-1.52	19.05	<=34.77	Pass
			25	22.60	-1.52	18.93	<=34.77	Pass
		50	0	22.67	-1.52	19.00	<=34.77	Pass
	711	1	0	23.85	-1.52	20.18	<=34.77	Pass

			25	23.78	-1.52	20.11	<=34.77	Pass
			49	23.35	-1.52	19.68	<=34.77	Pass
		25	0	22.78	-1.52	19.11	<=34.77	Pass
			13	22.77	-1.52	19.10	<=34.77	Pass
			25	22.57	-1.52	18.90	<=34.77	Pass
		50	0	22.64	-1.52	18.97	<=34.77	Pass
16QAM	709	1	0	22.95	-1.52	19.28	<=34.77	Pass
			25	22.99	-1.52	19.32	<=34.77	Pass
			49	22.68	-1.52	19.01	<=34.77	Pass
		25	0	21.87	-1.52	18.20	<=34.77	Pass
			13	21.91	-1.52	18.24	<=34.77	Pass
			25	21.76	-1.52	18.09	<=34.77	Pass
		50	0	21.81	-1.52	18.14	<=34.77	Pass
	710	1	0	22.99	-1.52	19.32	<=34.77	Pass
			25	22.89	-1.52	19.22	<=34.77	Pass
			49	22.47	-1.52	18.80	<=34.77	Pass
		25	0	21.82	-1.52	18.15	<=34.77	Pass
			13	21.71	-1.52	18.04	<=34.77	Pass
			25	21.65	-1.52	17.98	<=34.77	Pass
		50	0	21.67	-1.52	18.00	<=34.77	Pass
	711	1	0	23.04	-1.52	19.37	<=34.77	Pass
			25	22.87	-1.52	19.20	<=34.77	Pass
			49	22.50	-1.52	18.83	<=34.77	Pass
		25	0	21.79	-1.52	18.12	<=34.77	Pass
			13	21.77	-1.52	18.10	<=34.77	Pass
			25	21.56	-1.52	17.89	<=34.77	Pass
		50	0	21.63	-1.52	17.96	<=34.77	Pass
64QAM	709	1	0	22.04	-1.52	18.37	<=34.77	Pass
			25	22.03	-1.52	18.36	<=34.77	Pass
			49	21.74	-1.52	18.07	<=34.77	Pass
		25	0	20.85	-1.52	17.18	<=34.77	Pass
			13	20.89	-1.52	17.22	<=34.77	Pass
			25	20.71	-1.52	17.04	<=34.77	Pass
		50	0	20.85	-1.52	17.18	<=34.77	Pass
	710	1	0	22.00	-1.52	18.33	<=34.77	Pass
			25	21.98	-1.52	18.31	<=34.77	Pass
			49	21.55	-1.52	17.88	<=34.77	Pass
		25	0	20.84	-1.52	17.17	<=34.77	Pass
			13	20.73	-1.52	17.06	<=34.77	Pass
			25	20.65	-1.52	16.98	<=34.77	Pass
		50	0	20.73	-1.52	17.06	<=34.77	Pass
	711	1	0	22.08	-1.52	18.41	<=34.77	Pass
			25	21.96	-1.52	18.29	<=34.77	Pass
			49	21.64	-1.52	17.97	<=34.77	Pass
		25	0	20.78	-1.52	17.11	<=34.77	Pass
			13	20.78	-1.52	17.11	<=34.77	Pass
			25	20.59	-1.52	16.92	<=34.77	Pass
		50	0	20.64	-1.52	16.97	<=34.77	Pass
256QAM	709	1	0	19.00	-1.52	15.33	<=34.77	Pass
			25	19.01	-1.52	15.34	<=34.77	Pass
			49	18.70	-1.52	15.03	<=34.77	Pass
		25	0	18.86	-1.52	15.19	<=34.77	Pass
			13	18.88	-1.52	15.21	<=34.77	Pass
			25	18.73	-1.52	15.06	<=34.77	Pass
		50	0	18.84	-1.52	15.17	<=34.77	Pass
	710	1	0	18.93	-1.52	15.26	<=34.77	Pass
			25	18.93	-1.52	15.26	<=34.77	Pass
			49	18.59	-1.52	14.92	<=34.77	Pass
		25	0	18.81	-1.52	15.14	<=34.77	Pass

			13	18.78	-1.52	15.11	<=34.77	Pass
			25	18.68	-1.52	15.01	<=34.77	Pass
		50	0	18.79	-1.52	15.12	<=34.77	Pass
	711	1	0	18.93	-1.52	15.26	<=34.77	Pass
			25	18.91	-1.52	15.24	<=34.77	Pass
			49	18.59	-1.52	14.92	<=34.77	Pass
		25	0	18.83	-1.52	15.16	<=34.77	Pass
			13	18.78	-1.52	15.11	<=34.77	Pass
			25	18.60	-1.52	14.93	<=34.77	Pass
		50	0	18.74	-1.52	15.07	<=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	1.616	0.0023	-2.5 to 2.5	Pass
					NV	0.393	0.0006	-2.5 to 2.5	Pass
					HV	0.723	0.0010	-2.5 to 2.5	Pass
				-30	NV	0.774	0.0011	-2.5 to 2.5	Pass
				-20	NV	-0.101	-0.0001	-2.5 to 2.5	Pass
				-10	NV	0.235	0.0003	-2.5 to 2.5	Pass
				0	NV	-0.501	-0.0007	-2.5 to 2.5	Pass
				10	NV	0.156	0.0002	-2.5 to 2.5	Pass
				30	NV	2.113	0.0030	-2.5 to 2.5	Pass
				40	NV	0.016	0.0000	-2.5 to 2.5	Pass
				50	NV	0.086	0.0001	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band17_OBW

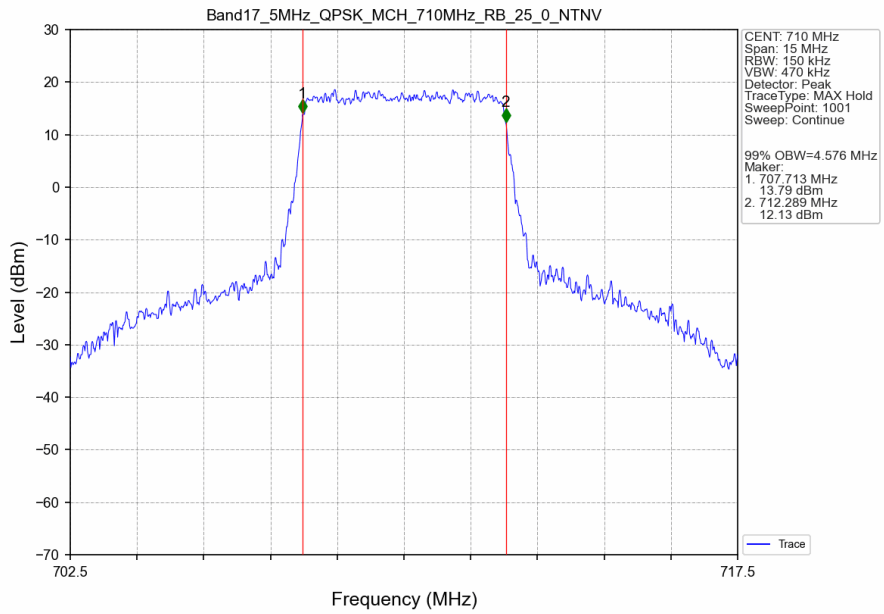
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	4.576	/	Pass
	16QAM	710	25	0	4.569	/	Pass
	64QAM	710	25	0	4.564	/	Pass
	256QAM	710	25	0	4.571	/	Pass
10	QPSK	710	50	0	9.091	/	Pass
	16QAM	710	50	0	9.076	/	Pass
	64QAM	710	50	0	9.074	/	Pass
	256QAM	710	50	0	9.074	/	Pass

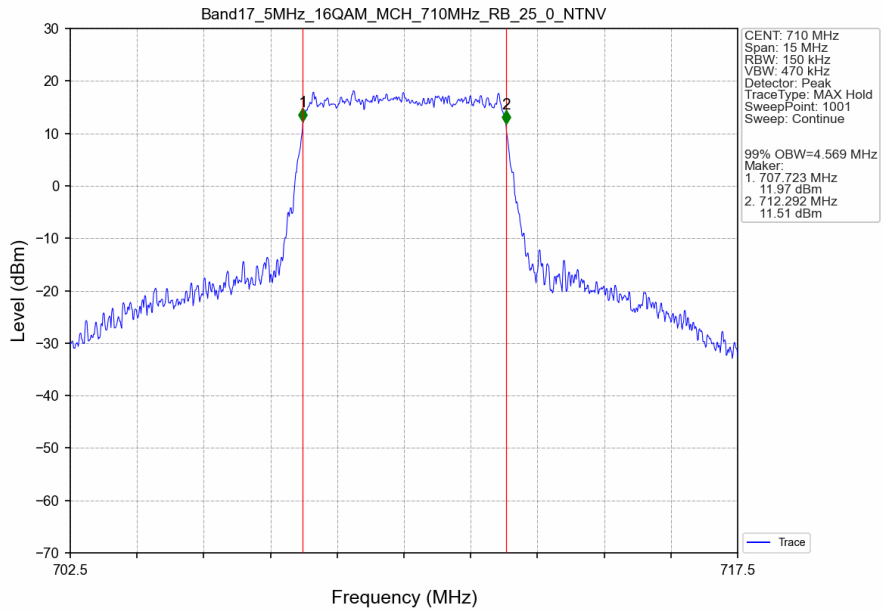
3.1.2 Band17_XDB

Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	5.281	/	Pass
	16QAM	710	25	0	5.265	/	Pass
	64QAM	710	25	0	5.272	/	Pass
	256QAM	710	25	0	5.190	/	Pass
10	QPSK	710	50	0	10.261	/	Pass
	16QAM	710	50	0	10.200	/	Pass
	64QAM	710	50	0	10.107	/	Pass
	256QAM	710	50	0	10.226	/	Pass

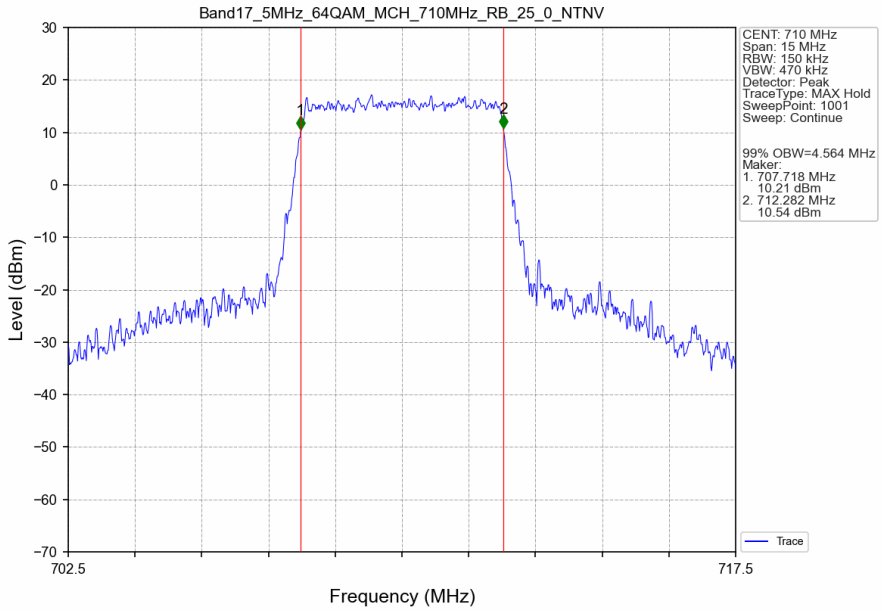
3.2 Test Graph

3.2.1 Band17_OBW

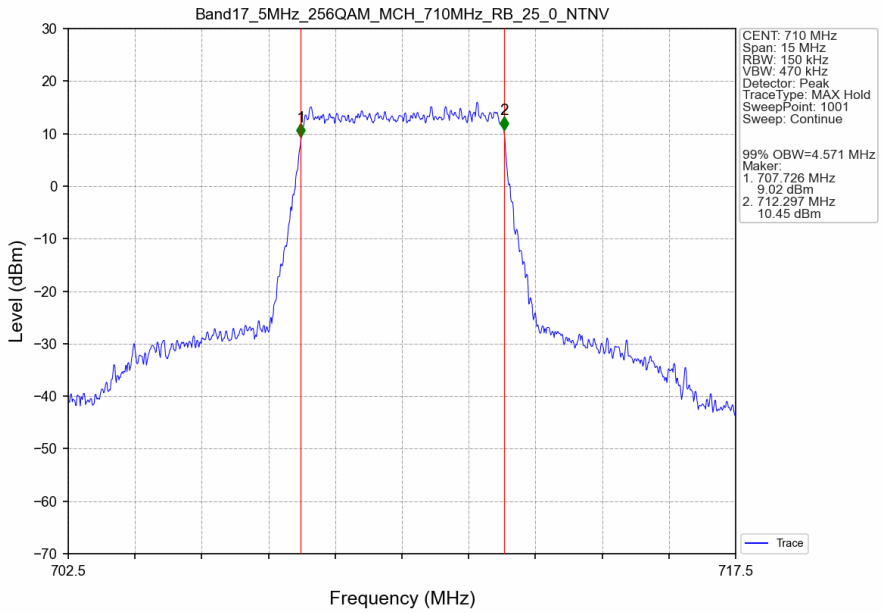
Band17_5MHz_QPSK_MCH_710MHz_RB_25_0_NTNV


Band17_5MHz_16QAM_MCH_710MHz_RB_25_0_NTNV


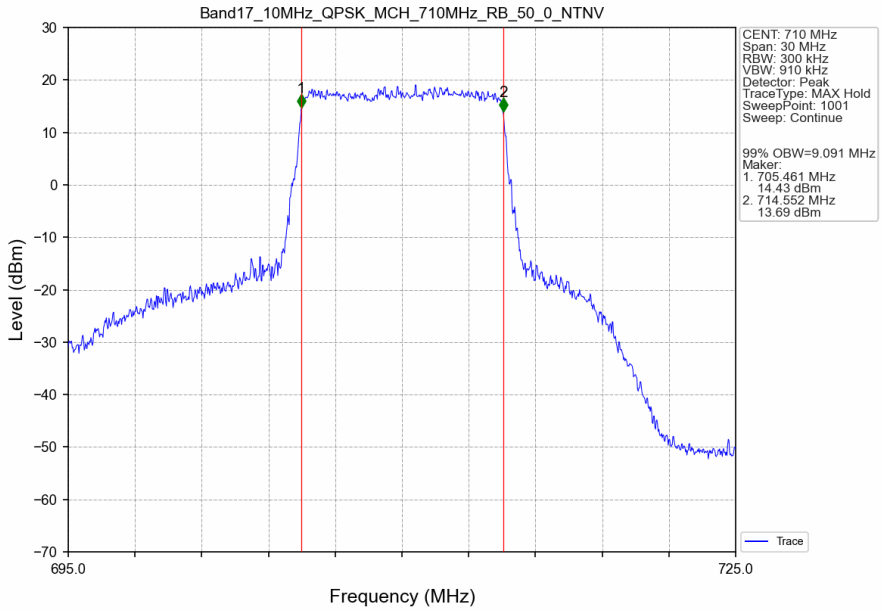
Band17_5MHz_64QAM_MCH_710MHz_RB_25_0_NTNV



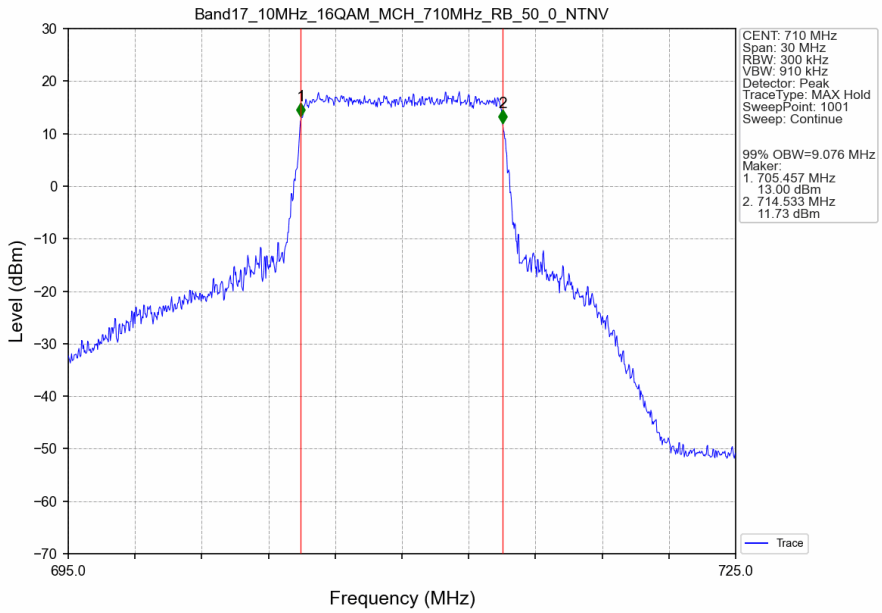
Band17_5MHz_256QAM_MCH_710MHz_RB_25_0_NTNV



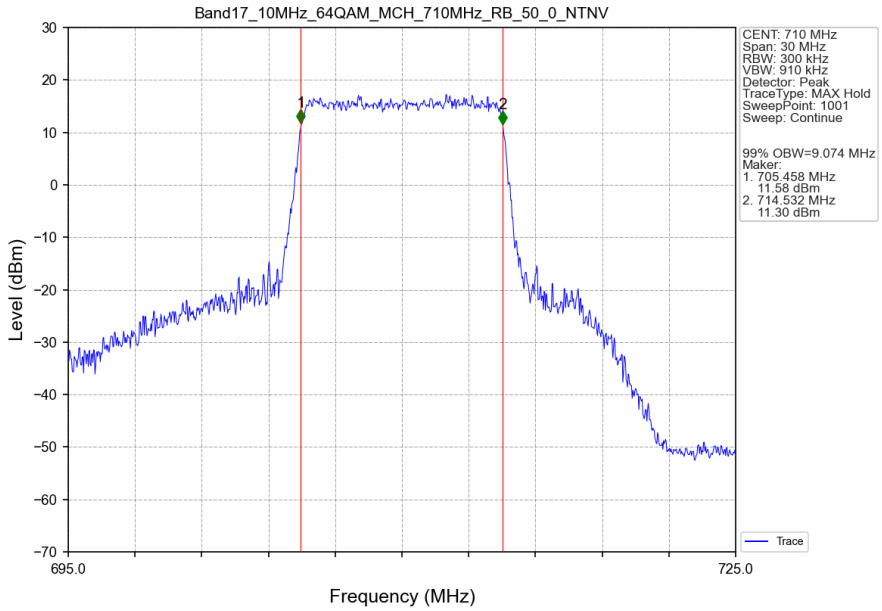
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



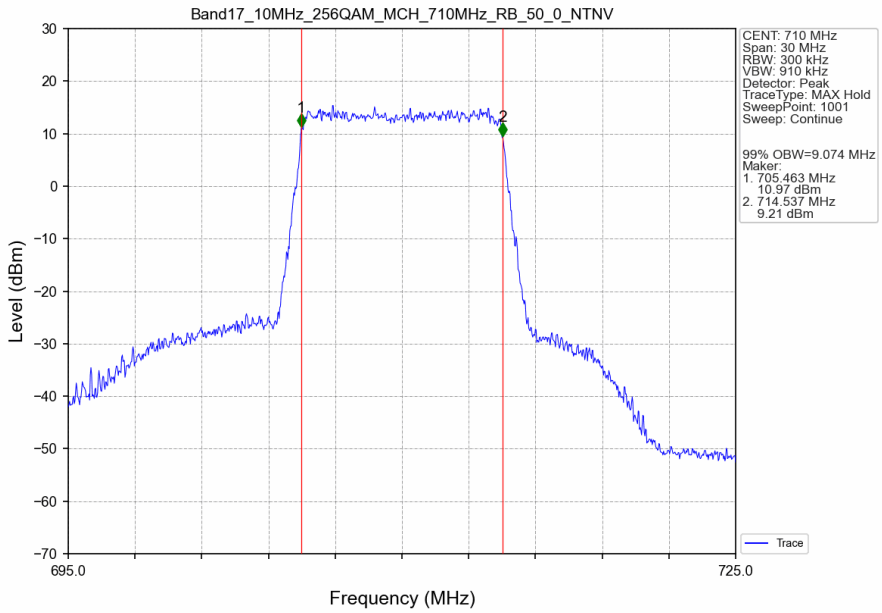
Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



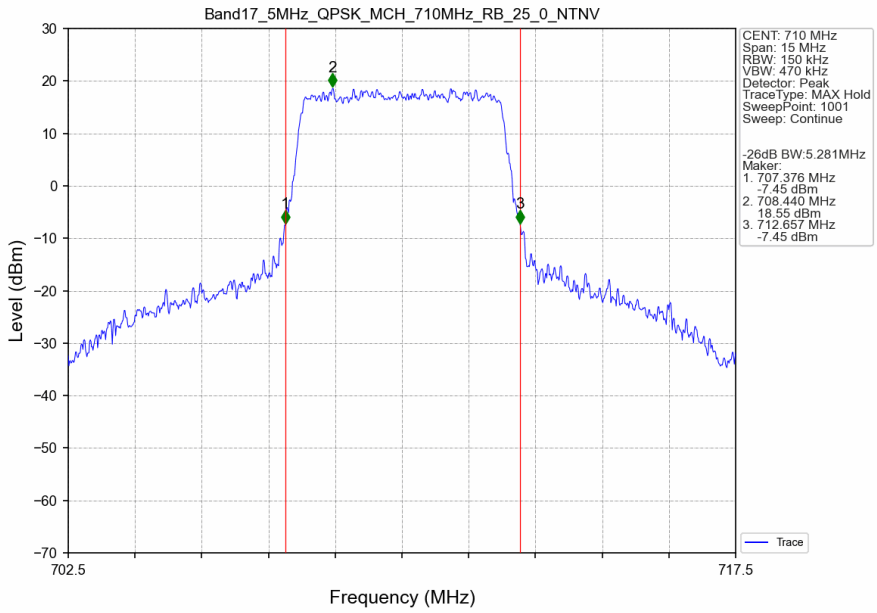
Band17_10MHz_64QAM_MCH_710MHz_RB_50_0_NTNV

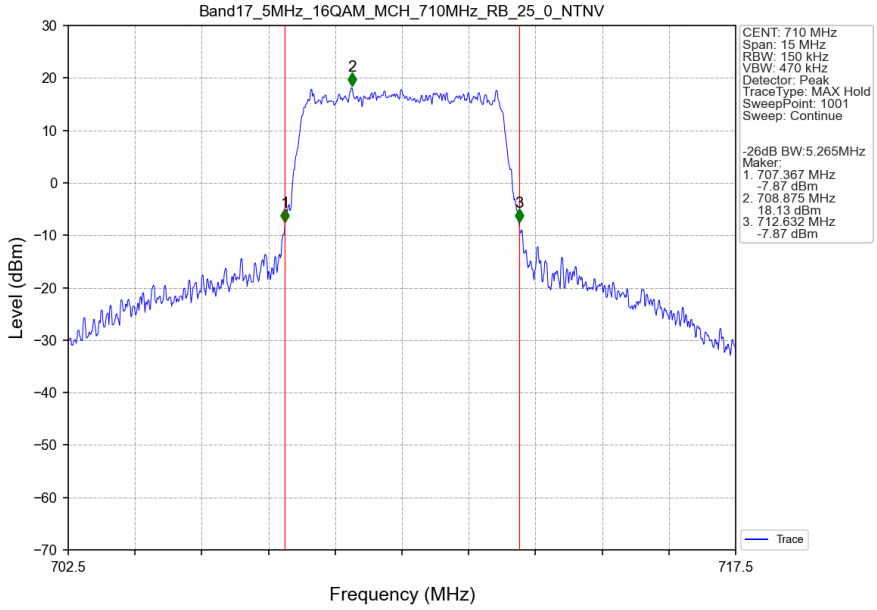


Band17_10MHz_256QAM_MCH_710MHz_RB_50_0_NTNV

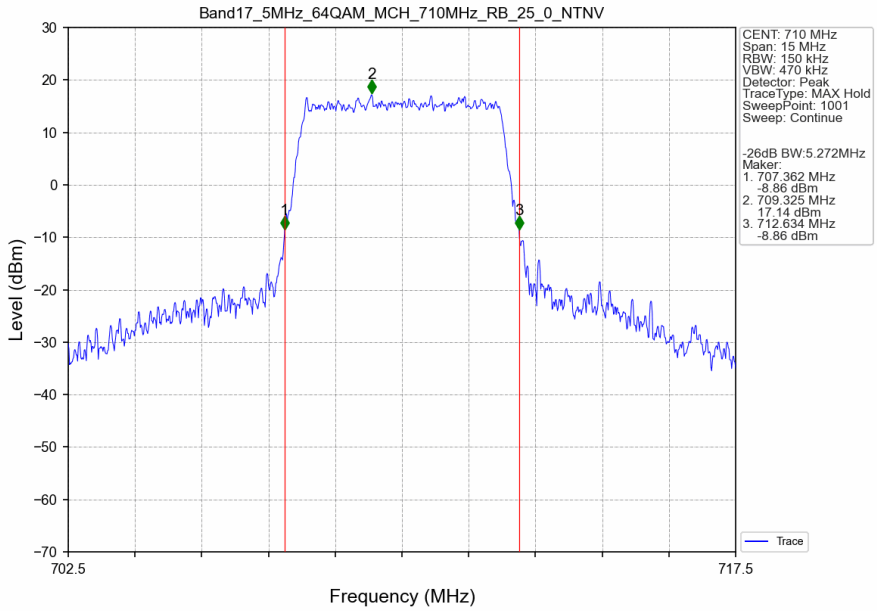


3.2.2 Band17_XDB

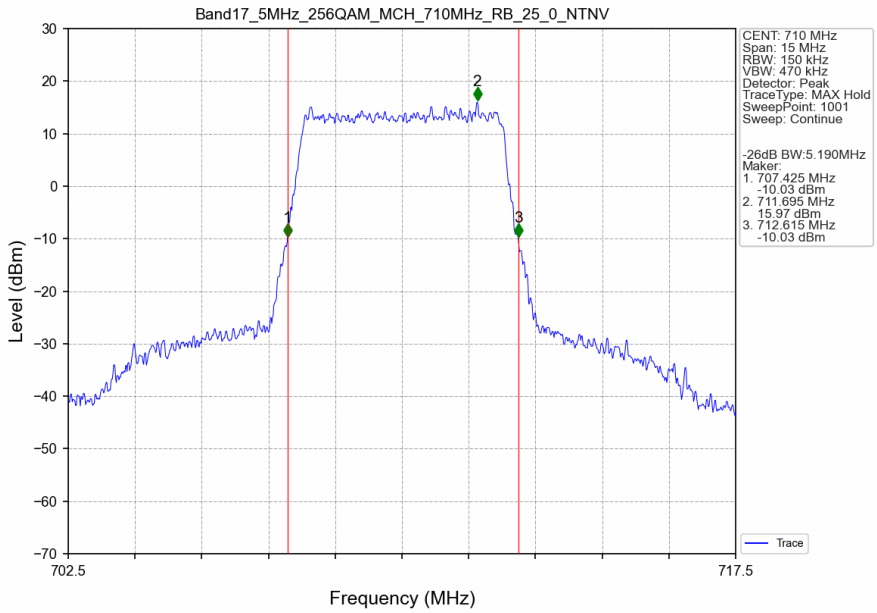
Band17_5MHz_QPSK_MCH_710MHz_RB_25_0_NTNV


Band17_5MHz_16QAM_MCH_710MHz_RB_25_0_NTNV


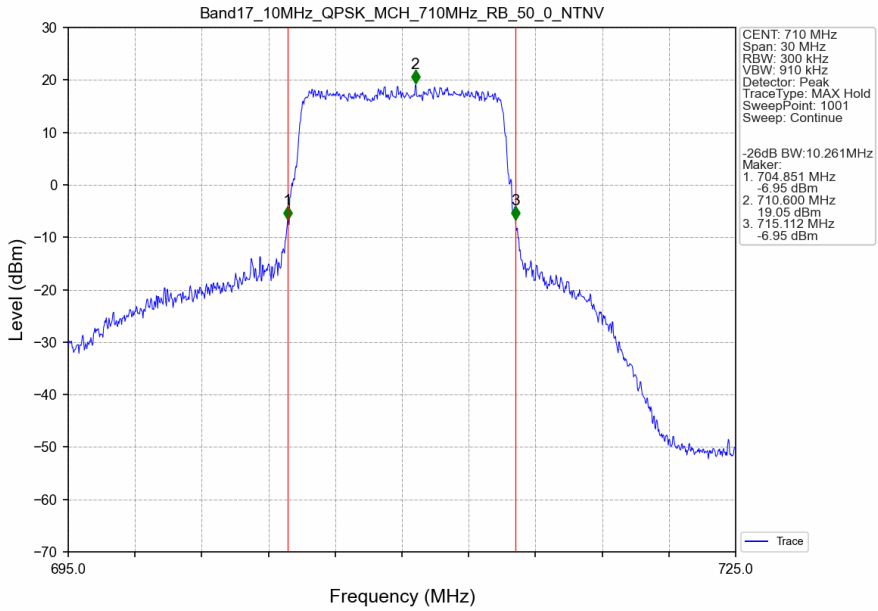
Band17_5MHz_64QAM_MCH_710MHz_RB_25_0_NTNV



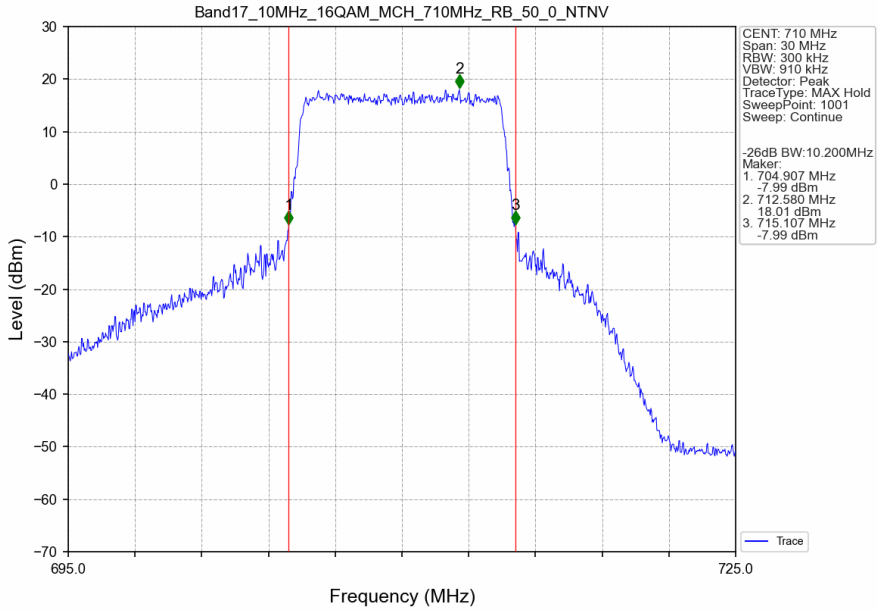
Band17_5MHz_256QAM_MCH_710MHz_RB_25_0_NTNV



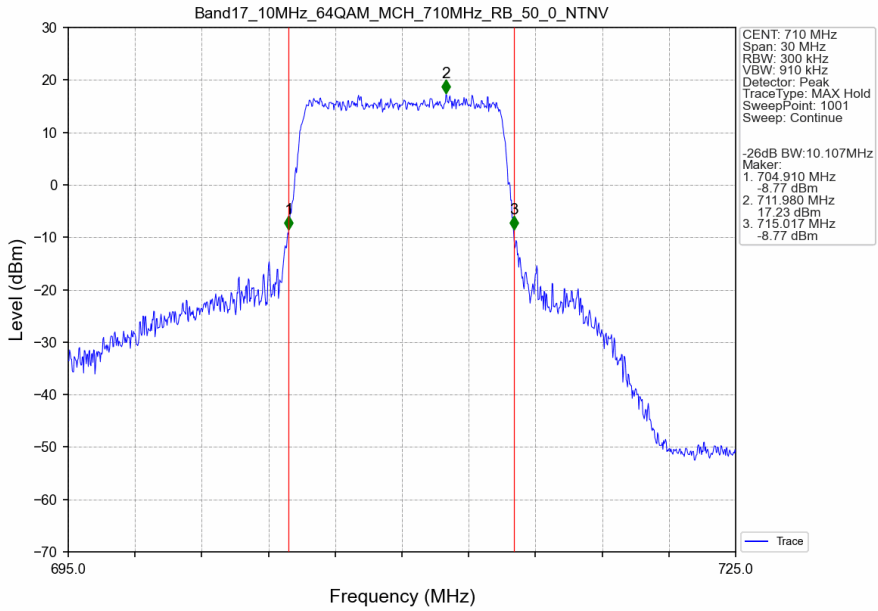
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



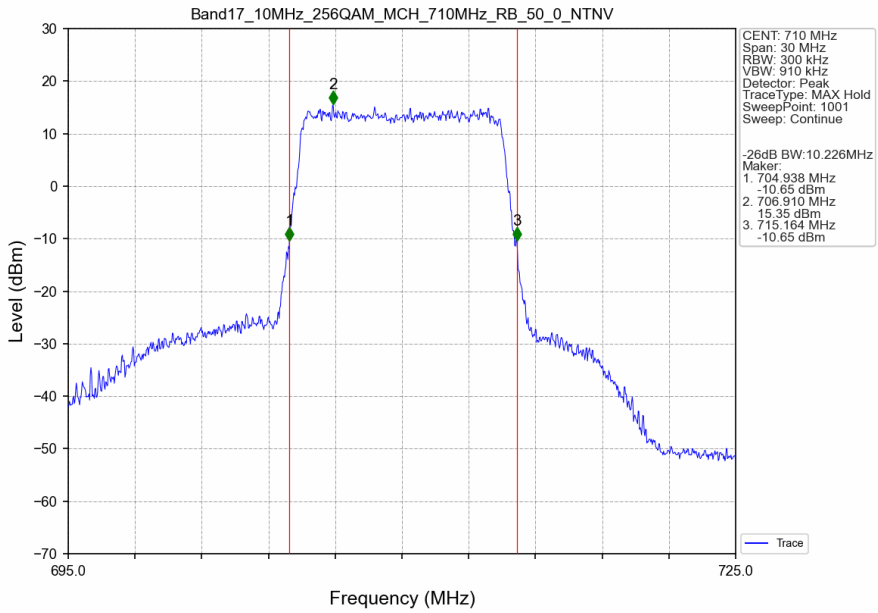
Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_64QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_256QAM_MCH_710MHz_RB_50_0_NTNV



4. Peak-Average Ratio

4.1 Test Result

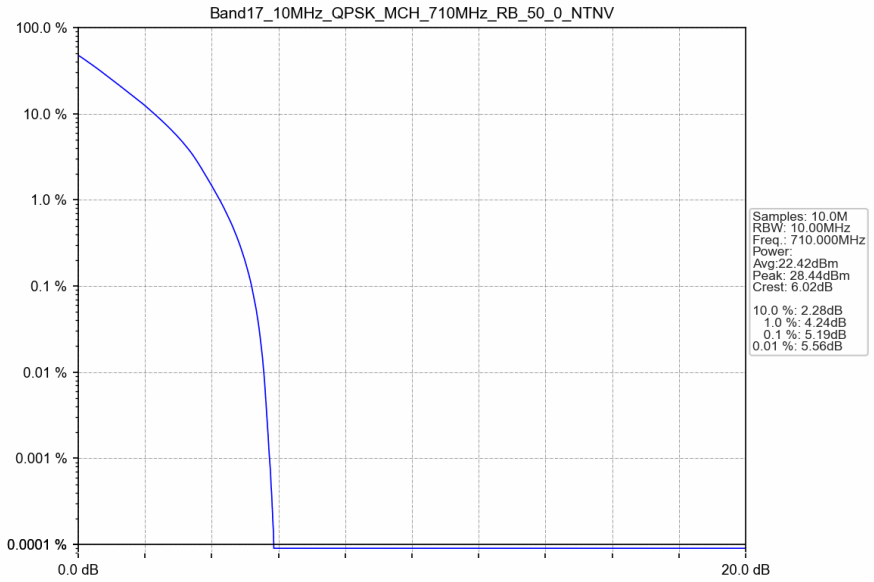
4.1.1 B17_10MHz

Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	710	50	0	5.19	<=13	Pass
16QAM	710	50	0	6.00	<=13	Pass
64QAM	710	50	0	6.39	<=13	Pass
256QAM	710	50	0	6.63	<=13	Pass

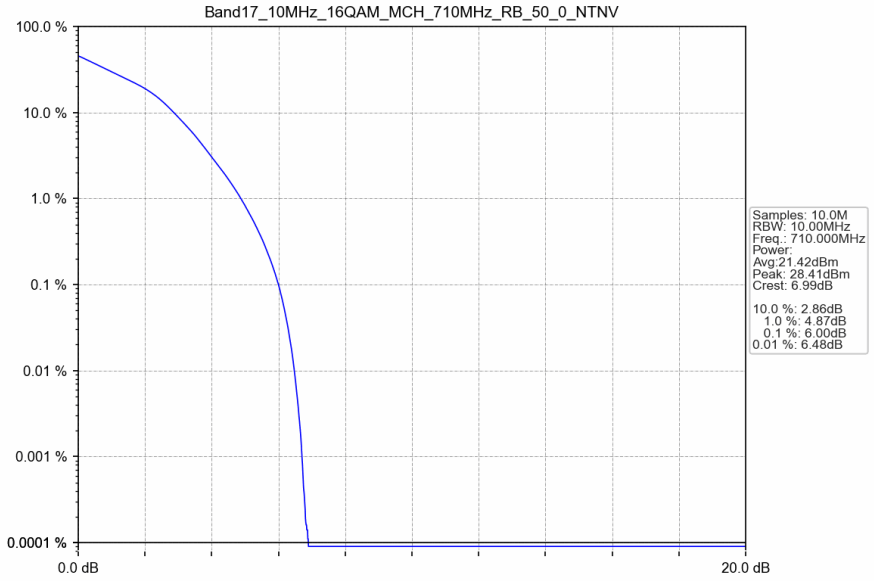
4.2 Test Graph

4.2.1 B17_10MHz

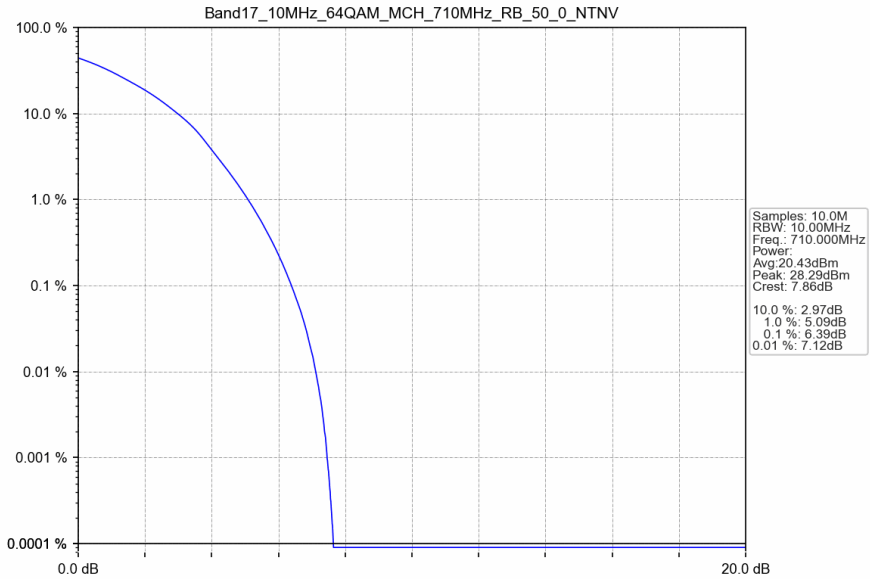
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



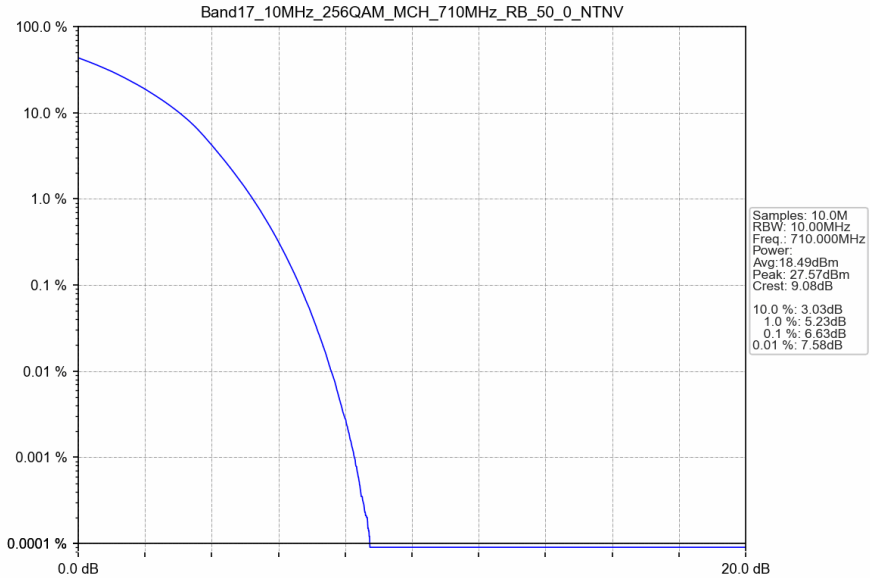
Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_64QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_256QAM_MCH_710MHz_RB_50_0_NTNV



5. Spurious Emission

5.1 Test Result

5.1.1 B17_5MHz

Band: 17 / Bandwidth: 5MHz / NTNV						
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

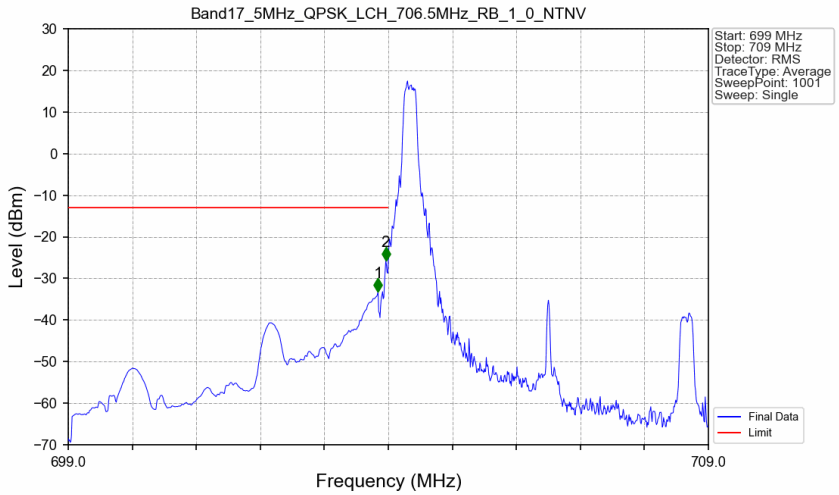
5.1.2 B17_10MHz

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

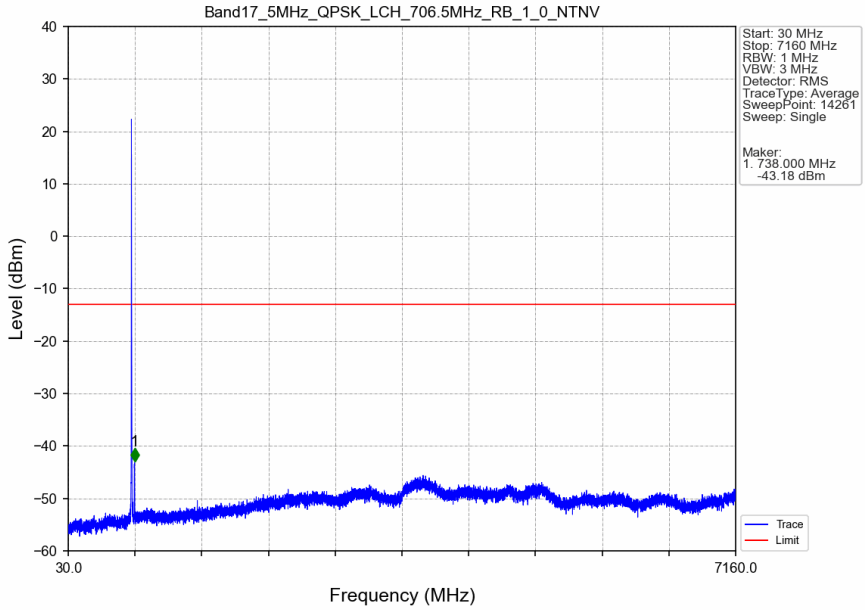
5.2.1 B17_5MHz

Band17_5MHz_QPSK_LCH_706.5MHz_RB_1_0_NTNV

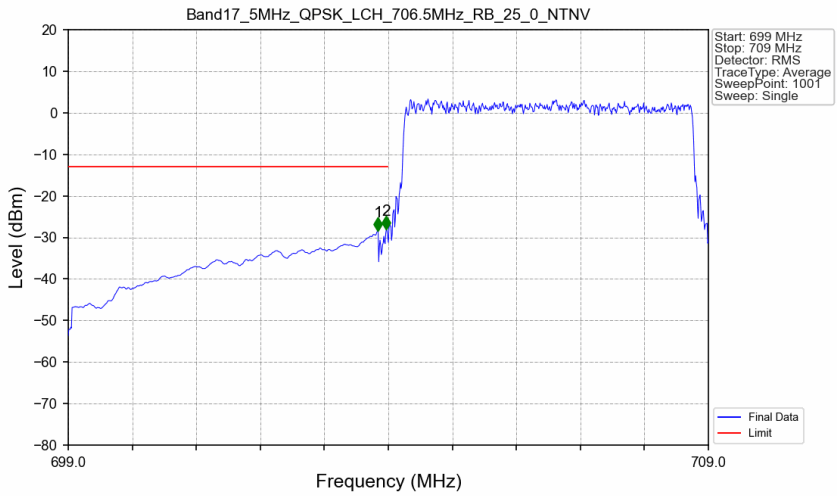


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.840	-33.19	-13	Pass
703.9	704	0.03	/	2	703.960	-25.73	-13	Pass
704	709	0.03	/	/	/	/	/	/

Band17_5MHz_QPSK_LCH_706.5MHz_RB_1_0_NTNV

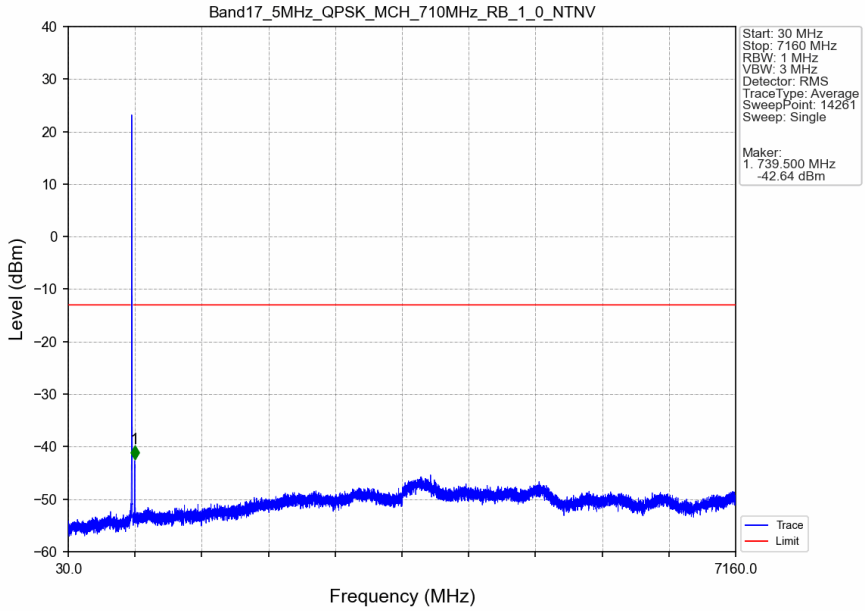


Band17_5MHz_QPSK_LCH_706.5MHz_RB_25_0_NTNV

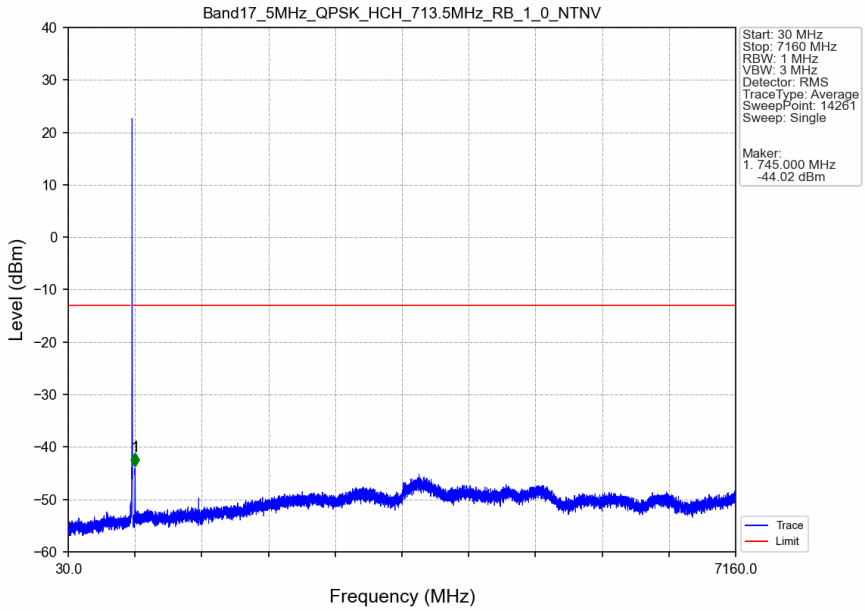


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.840	-28.44	-13	Pass
703.9	704	0.03	/	2	703.970	-27.95	-13	Pass
704	709	0.03	/	/	/	/	/	/

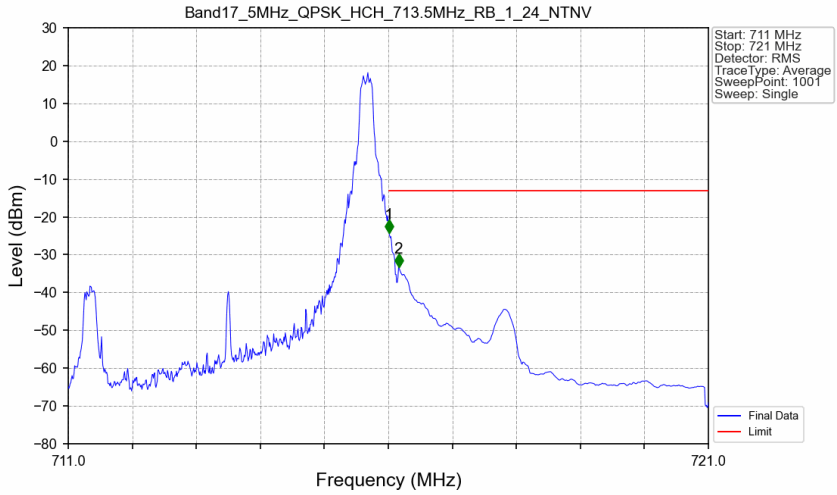
Band17_5MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_0_NTNV

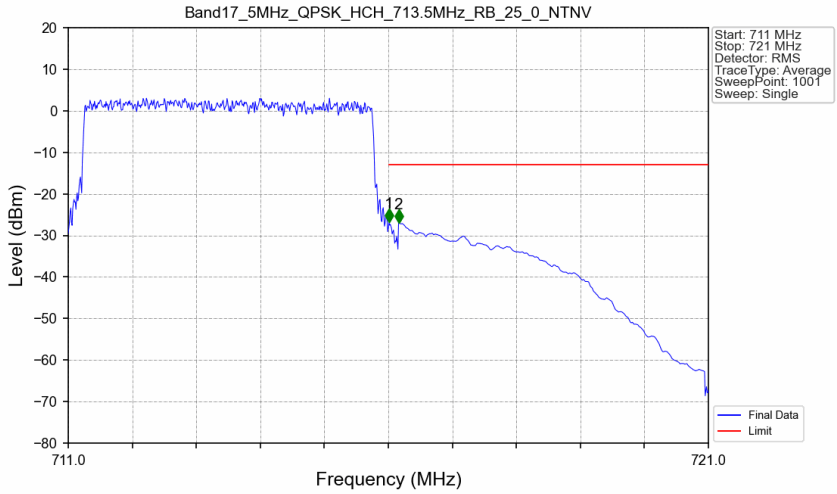


Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_24_NTNV



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	-24.19	-13	Pass
716.1	721	0.1	CHP	2	716.160	-33.17	-13	Pass

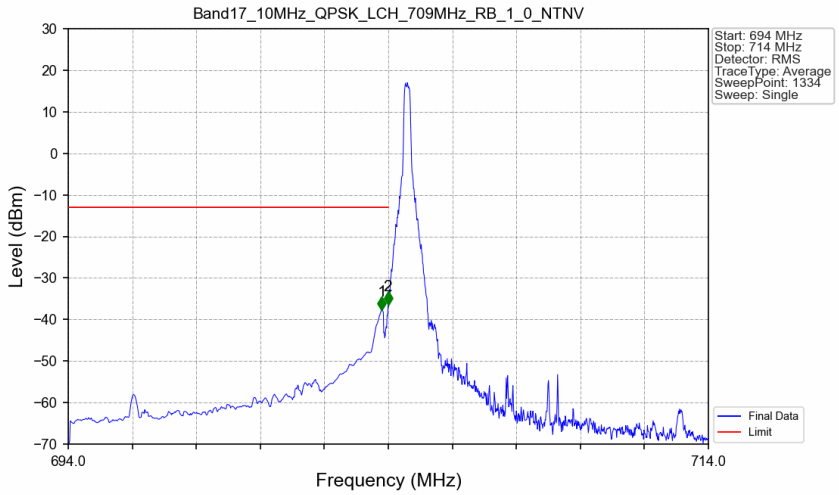
Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



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	716.010	-26.72	-13	Pass
716.1	721	0.1	CHP	2	716.160	-27.00	-13	Pass

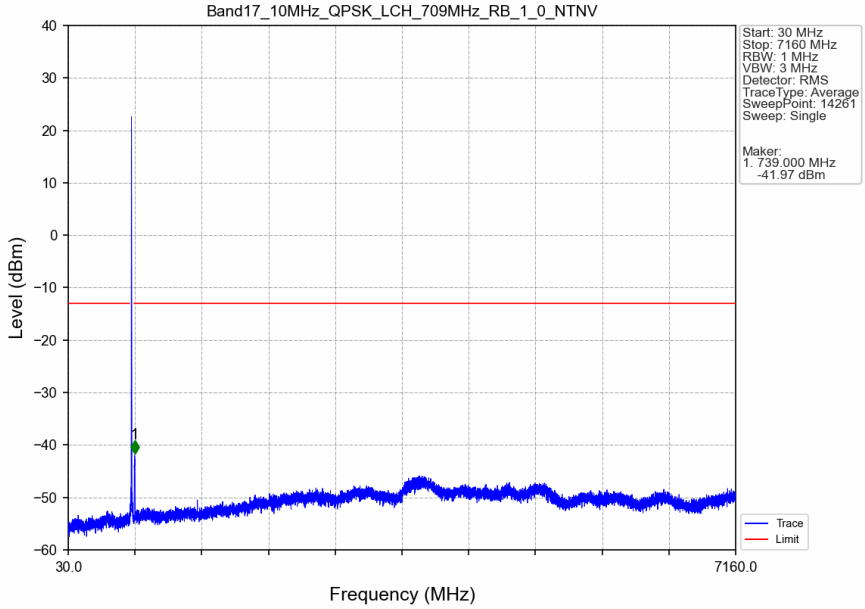
5.2.2 B17_10MHz

Band17_10MHz_QPSK_LCH_709MHz_RB_1_0_NTNV

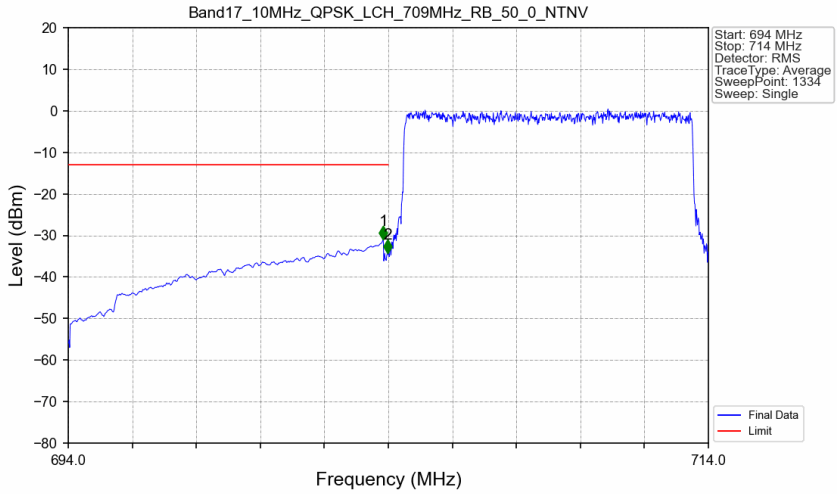


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.797	-37.76	-13	Pass
703.9	704	0.03	/	2	703.992	-36.51	-13	Pass
704	714	0.03	/	/	/	/	/	/

Band17_10MHz_QPSK_LCH_709MHz_RB_1_0_NTNV

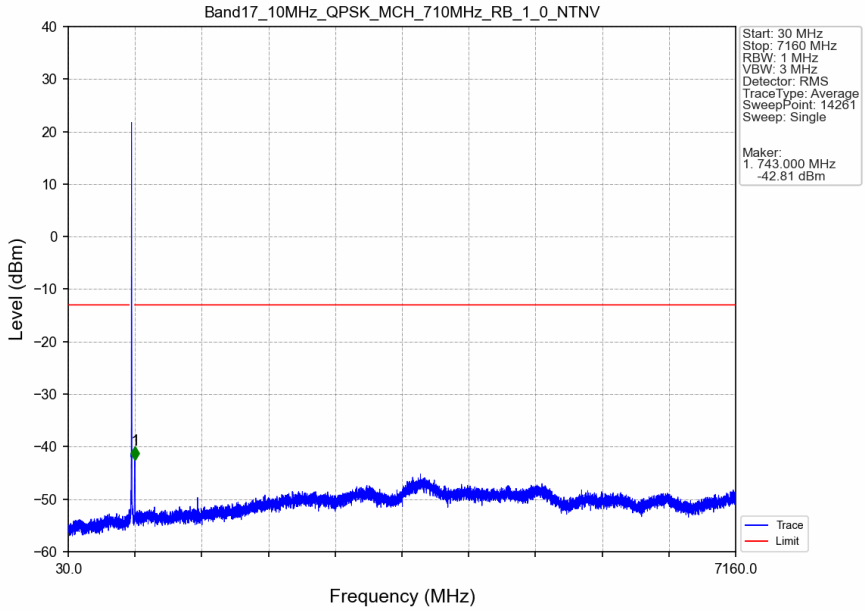


Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV

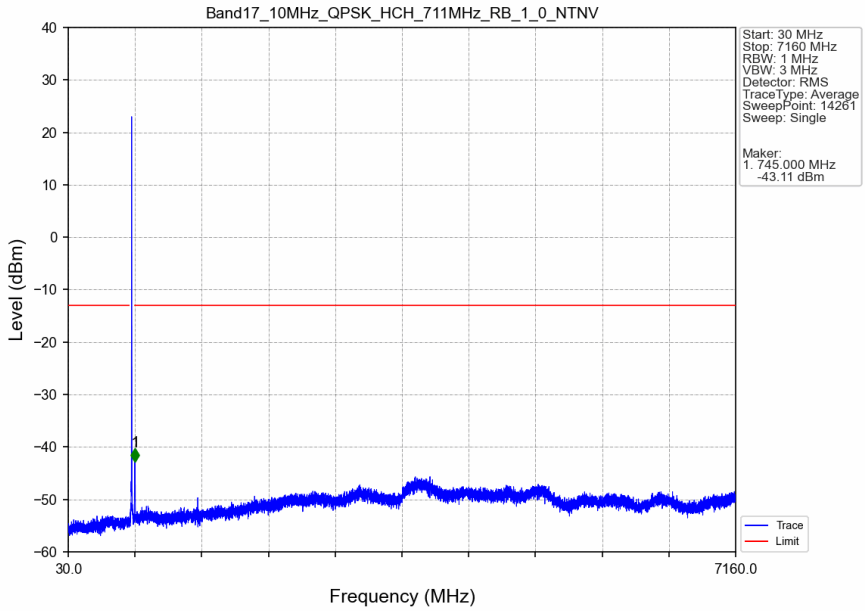


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.842	-31.02	-13	Pass
703.9	704	0.03	/	2	703.977	-34.25	-13	Pass
704	714	0.03	/	/	/	/	/	/

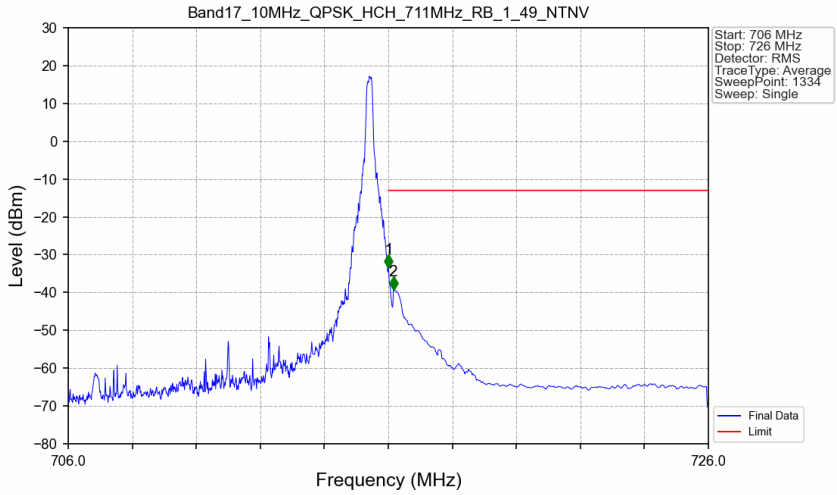
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17_10MHz_QPSK_HCH_711MHz_RB_1_0_NTNV

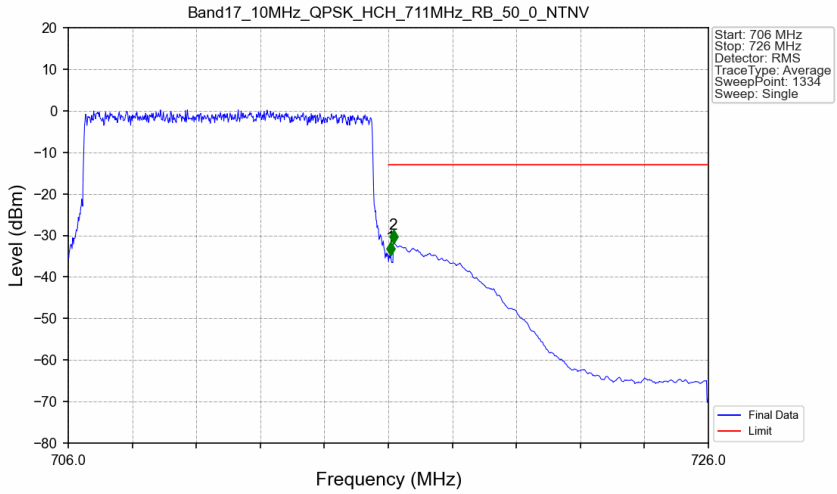


Band17_10MHz_QPSK_HCH_711MHz_RB_1_49_NTNV



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	-33.42	-13	Pass
716.1	726	0.1	CHP	2	716.158	-39.22	-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	-34.69	-13	Pass
716.1	726	0.1	CHP	2	716.158	-31.78	-13	Pass