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	24.14	-7.40	14.59	<=34.77	Pass
			13	24.21	-7.40	14.66	<=34.77	Pass
			24	24.11	-7.40	14.56	<=34.77	Pass
		12	0	23.18	-7.40	13.63	<=34.77	Pass
			6	23.25	-7.40	13.70	<=34.77	Pass
			13	23.14	-7.40	13.59	<=34.77	Pass
		25	0	23.19	-7.40	13.64	<=34.77	Pass
	710	1	0	24.19	-7.40	14.64	<=34.77	Pass
			13	24.26	-7.40	14.71	<=34.77	Pass
			24	24.18	-7.40	14.63	<=34.77	Pass
		12	0	23.15	-7.40	13.60	<=34.77	Pass
			6	23.19	-7.40	13.64	<=34.77	Pass
			13	23.20	-7.40	13.65	<=34.77	Pass
		25	0	23.17	-7.40	13.62	<=34.77	Pass
	713.5	1	0	24.28	-7.40	14.73	<=34.77	Pass
			13	24.16	-7.40	14.61	<=34.77	Pass
			24	23.99	-7.40	14.44	<=34.77	Pass
		12	0	23.24	-7.40	13.69	<=34.77	Pass
			6	23.29	-7.40	13.74	<=34.77	Pass
			13	23.16	-7.40	13.61	<=34.77	Pass
		25	0	23.19	-7.40	13.64	<=34.77	Pass
16QAM	706.5	1	0	23.44	-7.40	13.89	<=34.77	Pass
			13	23.48	-7.40	13.93	<=34.77	Pass
			24	23.06	-7.40	13.51	<=34.77	Pass
		12	0	22.18	-7.40	12.63	<=34.77	Pass
			6	22.30	-7.40	12.75	<=34.77	Pass
			13	22.17	-7.40	12.62	<=34.77	Pass
		25	0	22.25	-7.40	12.70	<=34.77	Pass
	710	1	0	23.76	-7.40	14.21	<=34.77	Pass
			13	23.40	-7.40	13.85	<=34.77	Pass
			24	23.23	-7.40	13.68	<=34.77	Pass
		12	0	22.30	-7.40	12.75	<=34.77	Pass
			6	22.24	-7.40	12.69	<=34.77	Pass
			13	22.27	-7.40	12.72	<=34.77	Pass
		25	0	22.22	-7.40	12.67	<=34.77	Pass
	713.5	1	0	23.37	-7.40	13.82	<=34.77	Pass
			13	23.52	-7.40	13.97	<=34.77	Pass
			24	23.17	-7.40	13.62	<=34.77	Pass
		12	0	22.19	-7.40	12.64	<=34.77	Pass
			6	22.24	-7.40	12.69	<=34.77	Pass
			13	22.24	-7.40	12.69	<=34.77	Pass
		25	0	22.21	-7.40	12.66	<=34.77	Pass
64QAM	706.5	1	0	23.23	-7.40	13.68	<=34.77	Pass
			13	23.18	-7.40	13.63	<=34.77	Pass
			24	23.16	-7.40	13.61	<=34.77	Pass
		12	0	22.18	-7.40	12.63	<=34.77	Pass
			6	22.25	-7.40	12.70	<=34.77	Pass
			13	22.23	-7.40	12.68	<=34.77	Pass
		25	0	22.22	-7.40	12.67	<=34.77	Pass

	710	1	0	22.93	-7.40	13.38	<=34.77	Pass
			13	23.34	-7.40	13.79	<=34.77	Pass
			24	23.14	-7.40	13.59	<=34.77	Pass
		12	0	22.18	-7.40	12.63	<=34.77	Pass
			6	22.27	-7.40	12.72	<=34.77	Pass
			13	22.14	-7.40	12.59	<=34.77	Pass
		25	0	22.25	-7.40	12.70	<=34.77	Pass
	713.5	1	0	23.14	-7.40	13.59	<=34.77	Pass
			13	23.23	-7.40	13.68	<=34.77	Pass
			24	22.26	-7.40	12.71	<=34.77	Pass
		12	0	22.30	-7.40	12.75	<=34.77	Pass
			6	22.25	-7.40	12.70	<=34.77	Pass
			13	22.16	-7.40	12.61	<=34.77	Pass
		25	0	22.19	-7.40	12.64	<=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	24.12	-7.40	14.57	<=34.77	Pass
			25	24.28	-7.40	14.73	<=34.77	Pass
			49	24.10	-7.40	14.55	<=34.77	Pass
		25	0	23.20	-7.40	13.65	<=34.77	Pass
			13	23.18	-7.40	13.63	<=34.77	Pass
			25	23.21	-7.40	13.66	<=34.77	Pass
		50	0	23.20	-7.40	13.65	<=34.77	Pass
	710	1	0	23.92	-7.40	14.37	<=34.77	Pass
			25	24.23	-7.40	14.68	<=34.77	Pass
			49	24.18	-7.40	14.63	<=34.77	Pass
		25	0	23.29	-7.40	13.74	<=34.77	Pass
			13	23.18	-7.40	13.63	<=34.77	Pass
			25	23.23	-7.40	13.68	<=34.77	Pass
		50	0	23.17	-7.40	13.62	<=34.77	Pass
	711	1	0	24.14	-7.40	14.59	<=34.77	Pass
			25	24.24	-7.40	14.69	<=34.77	Pass
			49	24.14	-7.40	14.59	<=34.77	Pass
		25	0	23.20	-7.40	13.65	<=34.77	Pass
			13	23.24	-7.40	13.69	<=34.77	Pass
			25	23.20	-7.40	13.65	<=34.77	Pass
		50	0	23.18	-7.40	13.63	<=34.77	Pass
16QAM	709	1	0	23.25	-7.40	13.70	<=34.77	Pass
			25	23.18	-7.40	13.63	<=34.77	Pass
			49	23.38	-7.40	13.83	<=34.77	Pass
		25	0	22.16	-7.40	12.61	<=34.77	Pass
			13	22.34	-7.40	12.79	<=34.77	Pass
			25	22.19	-7.40	12.64	<=34.77	Pass
		50	0	22.21	-7.40	12.66	<=34.77	Pass
	710	1	0	23.87	-7.40	14.32	<=34.77	Pass
			25	23.17	-7.40	13.62	<=34.77	Pass
			49	23.35	-7.40	13.80	<=34.77	Pass
		25	0	22.19	-7.40	12.64	<=34.77	Pass
			13	22.15	-7.40	12.60	<=34.77	Pass
			25	22.22	-7.40	12.67	<=34.77	Pass
		50	0	22.15	-7.40	12.60	<=34.77	Pass
	711	1	0	23.30	-7.40	13.75	<=34.77	Pass

			25	23.45	-7.40	13.90	<=34.77	Pass
			49	23.11	-7.40	13.56	<=34.77	Pass
		25	0	22.30	-7.40	12.75	<=34.77	Pass
			13	22.24	-7.40	12.69	<=34.77	Pass
			25	22.24	-7.40	12.69	<=34.77	Pass
		50	0	22.15	-7.40	12.60	<=34.77	Pass
64QAM	709	1	0	23.37	-7.40	13.82	<=34.77	Pass
			25	23.24	-7.40	13.69	<=34.77	Pass
			49	22.68	-7.40	13.13	<=34.77	Pass
		25	0	22.25	-7.40	12.70	<=34.77	Pass
			13	22.45	-7.40	12.90	<=34.77	Pass
			25	22.19	-7.40	12.64	<=34.77	Pass
		50	0	22.28	-7.40	12.73	<=34.77	Pass
	710	1	0	22.67	-7.40	13.12	<=34.77	Pass
			25	22.80	-7.40	13.25	<=34.77	Pass
			49	22.91	-7.40	13.36	<=34.77	Pass
		25	0	22.21	-7.40	12.66	<=34.77	Pass
			13	22.25	-7.40	12.70	<=34.77	Pass
			25	22.22	-7.40	12.67	<=34.77	Pass
		50	0	22.23	-7.40	12.68	<=34.77	Pass
	711	1	0	22.09	-7.40	12.54	<=34.77	Pass
			25	23.33	-7.40	13.78	<=34.77	Pass
			49	22.92	-7.40	13.37	<=34.77	Pass
		25	0	22.17	-7.40	12.62	<=34.77	Pass
			13	22.26	-7.40	12.71	<=34.77	Pass
			25	22.20	-7.40	12.65	<=34.77	Pass
		50	0	22.19	-7.40	12.64	<=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	-0.800	-0.0011	-2.5 to 2.5	Pass
					NV	-1.200	-0.0017	-2.5 to 2.5	Pass
					HV	0.900	0.0013	-2.5 to 2.5	Pass
				-30	NV	-0.400	-0.0006	-2.5 to 2.5	Pass
				-20	NV	0.100	0.0001	-2.5 to 2.5	Pass
				-10	NV	-2.100	-0.0030	-2.5 to 2.5	Pass
				0	NV	0.800	0.0011	-2.5 to 2.5	Pass
				10	NV	-1.300	-0.0018	-2.5 to 2.5	Pass
				30	NV	-0.700	-0.0010	-2.5 to 2.5	Pass
				40	NV	-1.900	-0.0027	-2.5 to 2.5	Pass
				50	NV	0.600	0.0008	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band17_OBW

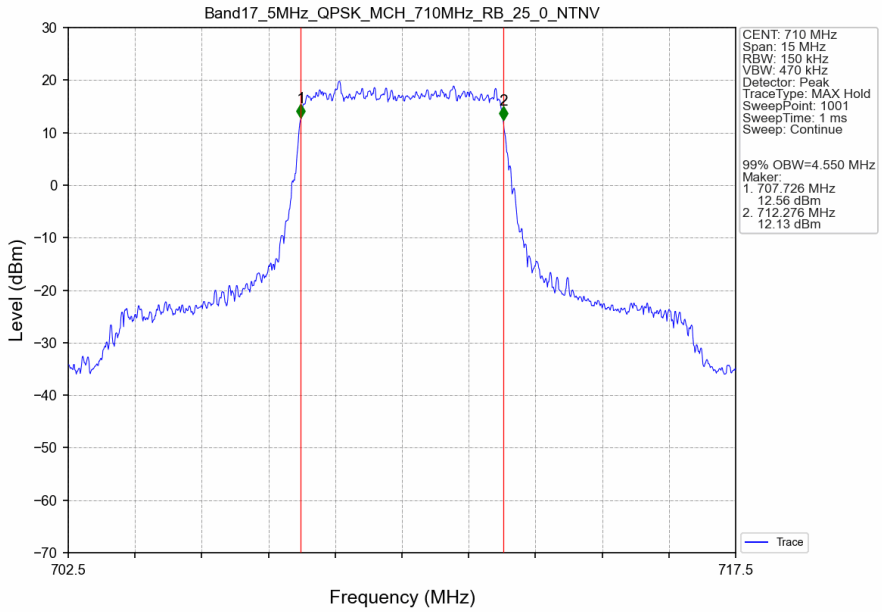
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	4.550	/	Pass
	16QAM	710	25	0	4.528	/	Pass
10	QPSK	710	50	0	9.055	/	Pass
	16QAM	710	50	0	9.027	/	Pass

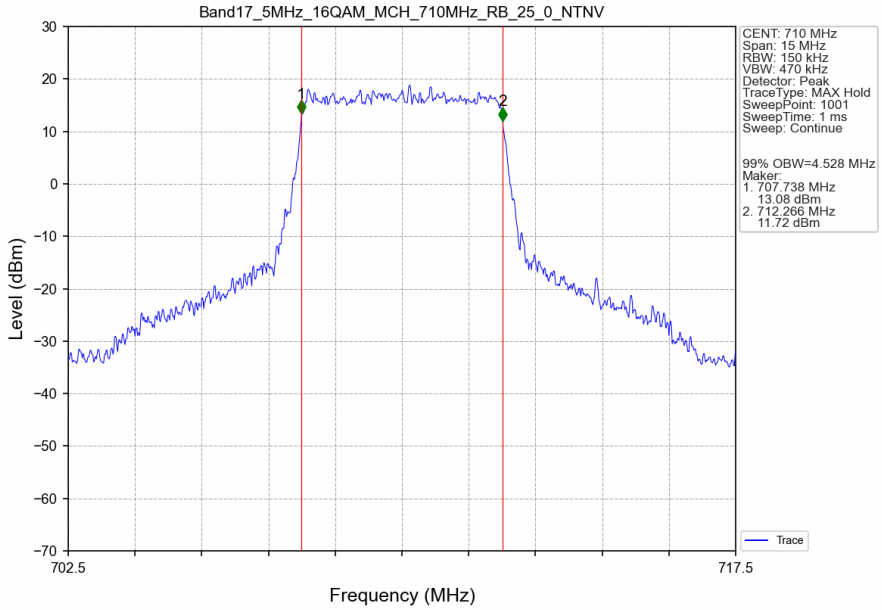
3.1.2 Band17_XDB

Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	5.137	/	Pass
	16QAM	710	25	0	5.223	/	Pass
10	QPSK	710	50	0	10.177	/	Pass
	16QAM	710	50	0	10.245	/	Pass

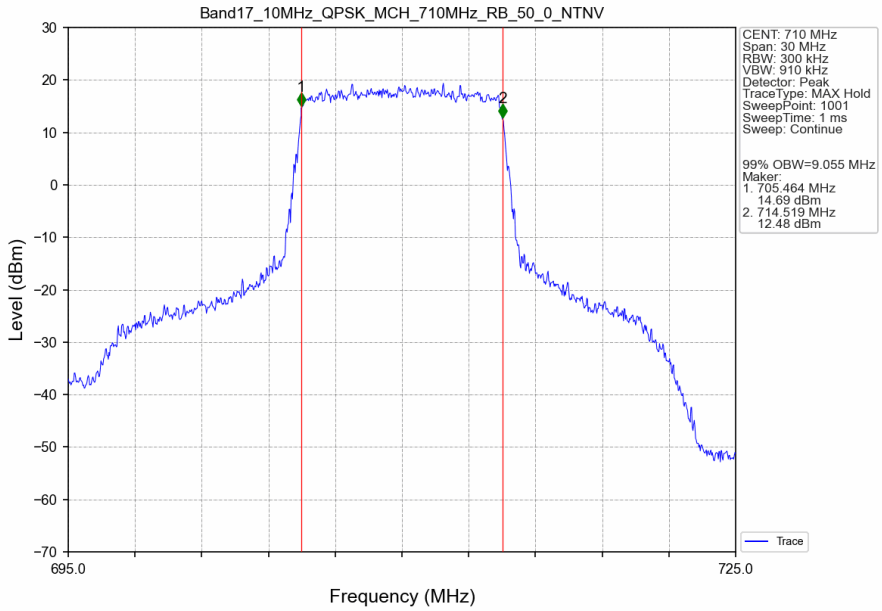
3.2 Test Graph

3.2.1 Band17_OBW

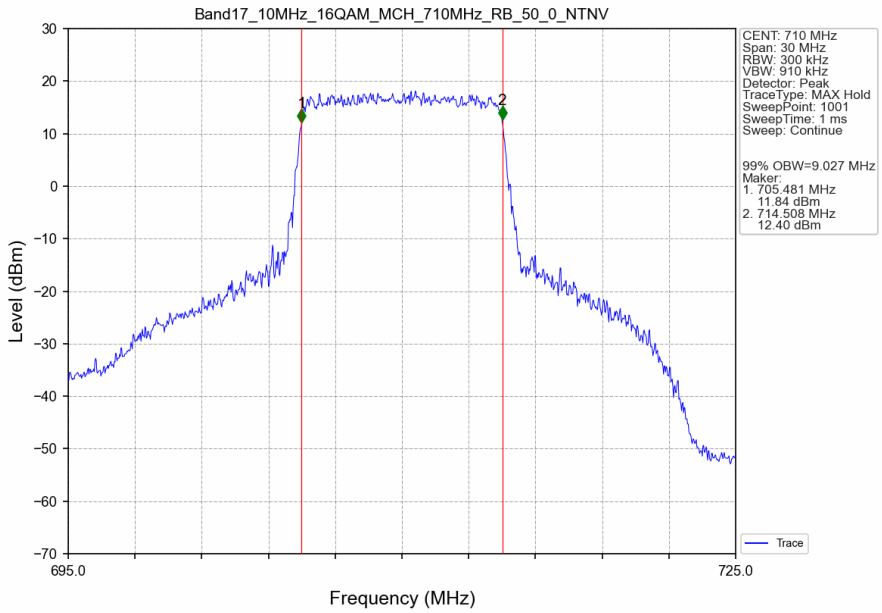
Band17_5MHz_QPSK_MCH_710MHz_RB_25_0_NTNV


Band17_5MHz_16QAM_MCH_710MHz_RB_25_0_NTNV


Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV

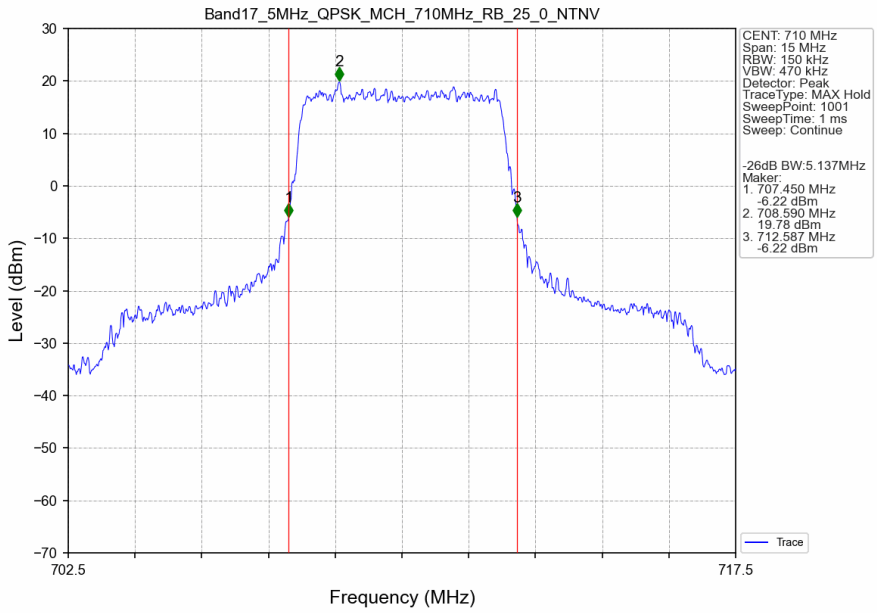


Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV

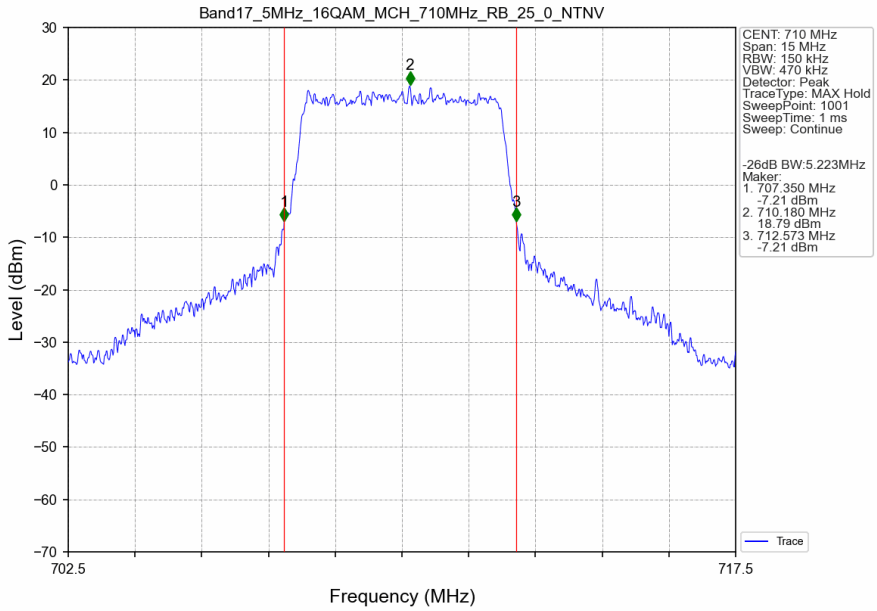


3.2.2 Band17_XDB

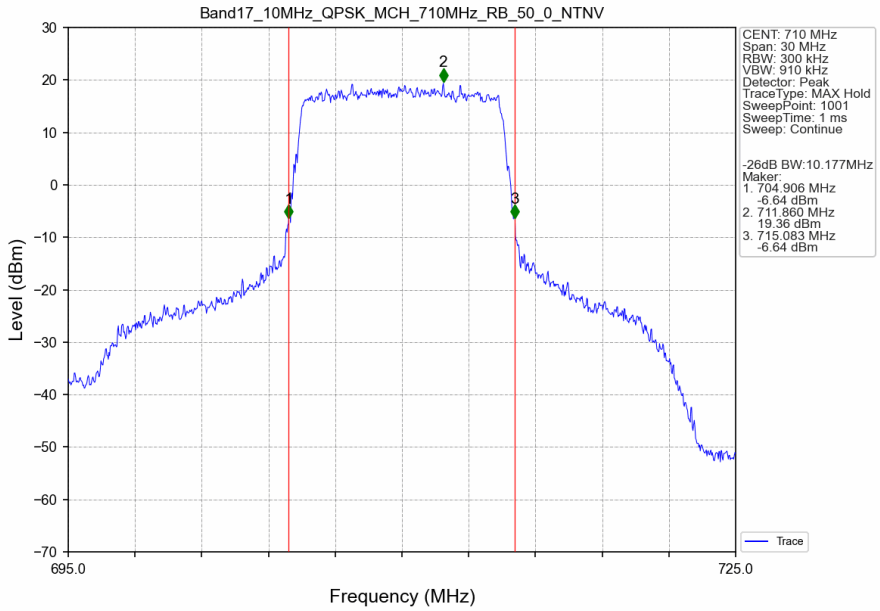
Band17_5MHz_QPSK_MCH_710MHz_RB_25_0_NTNV



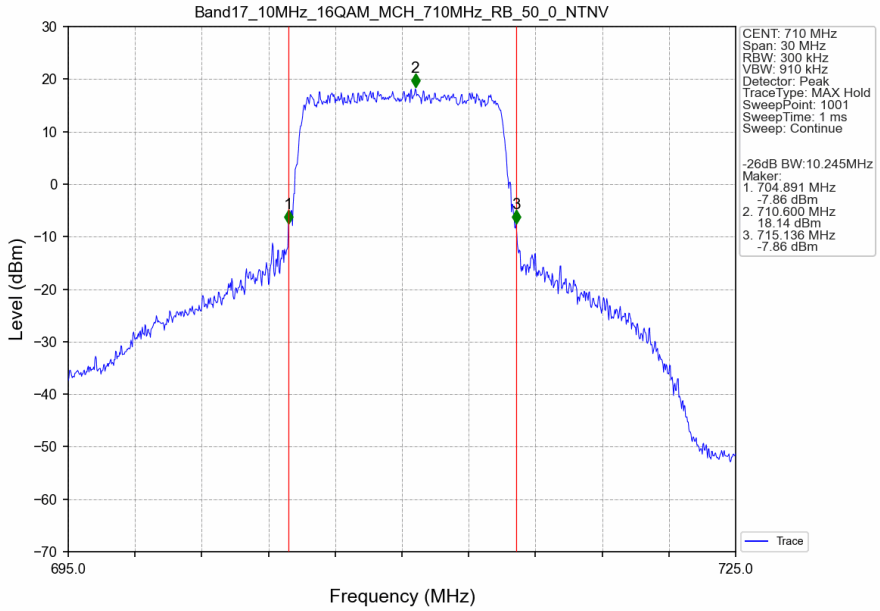
Band17_5MHz_16QAM_MCH_710MHz_RB_25_0_NTNV



Band17_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

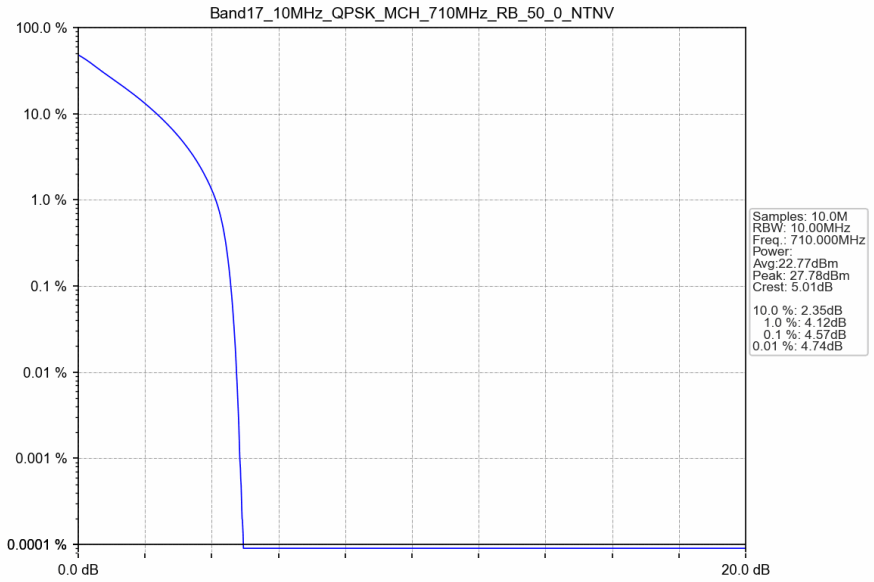
4.1.1 B17_10MHz

Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	710	50	0	4.57	<=13	Pass
16QAM	710	50	0	5.58	<=13	Pass
64QAM	710	50	0	5.58	<=13	Pass

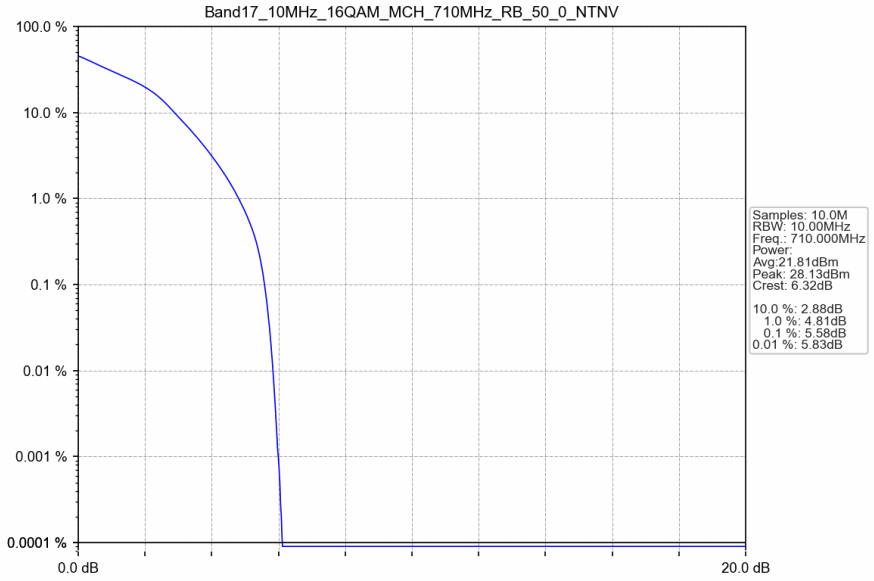
4.2 Test Graph

4.2.1 B17_10MHz

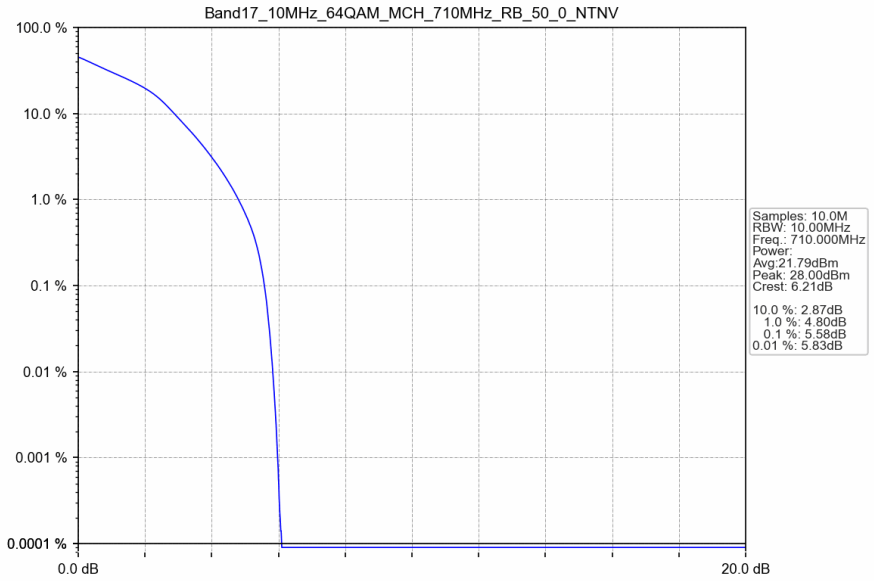
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_64QAM_MCH_710MHz_RB_50_0_NTNV



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

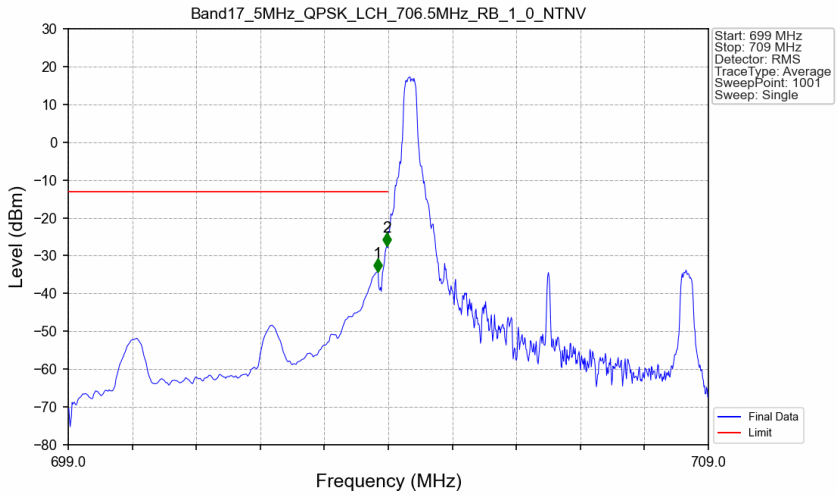
5.1.2 B17_10MHz

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

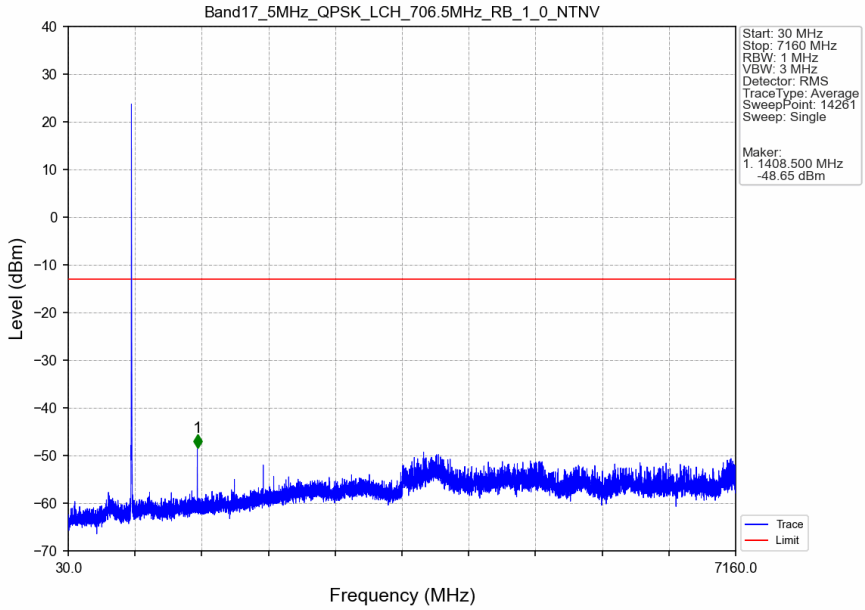
5.2.1 B17_5MHz

Band17_5MHz_QPSK_LCH_706.5MHz_RB_1_0_NTNV

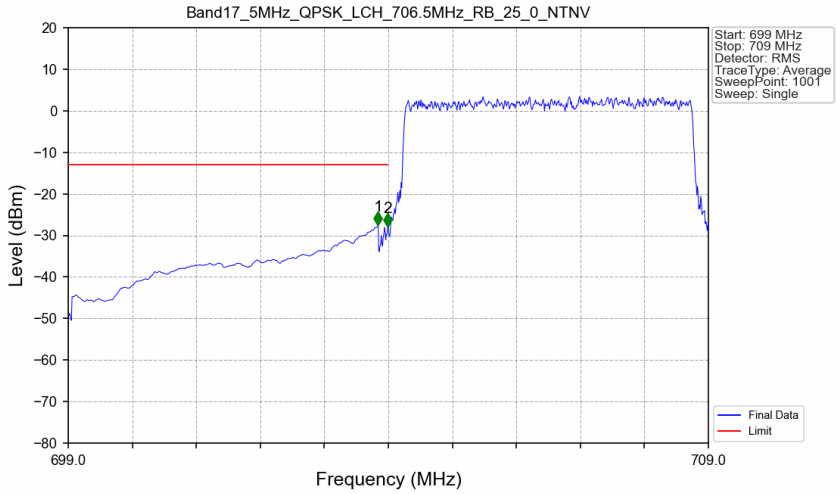


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.830	-34.24	-13	Pass
703.9	704	0.03	/	2	703.980	-27.37	-13	Pass
704	709	0.03	/	/	/	/	/	/

Band17_5MHz_QPSK_LCH_706.5MHz_RB_1_0_NTNV

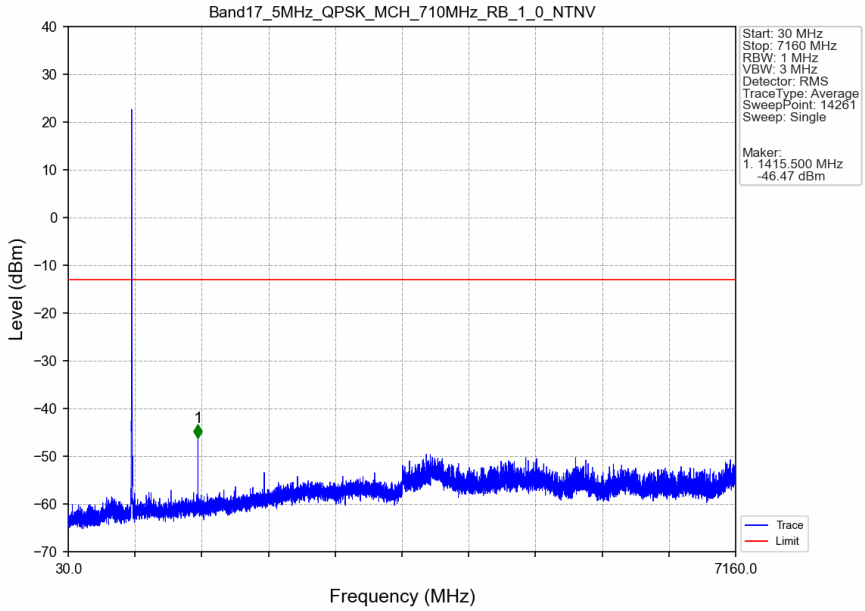


Band17_5MHz_QPSK_LCH_706.5MHz_RB_25_0_NTNV

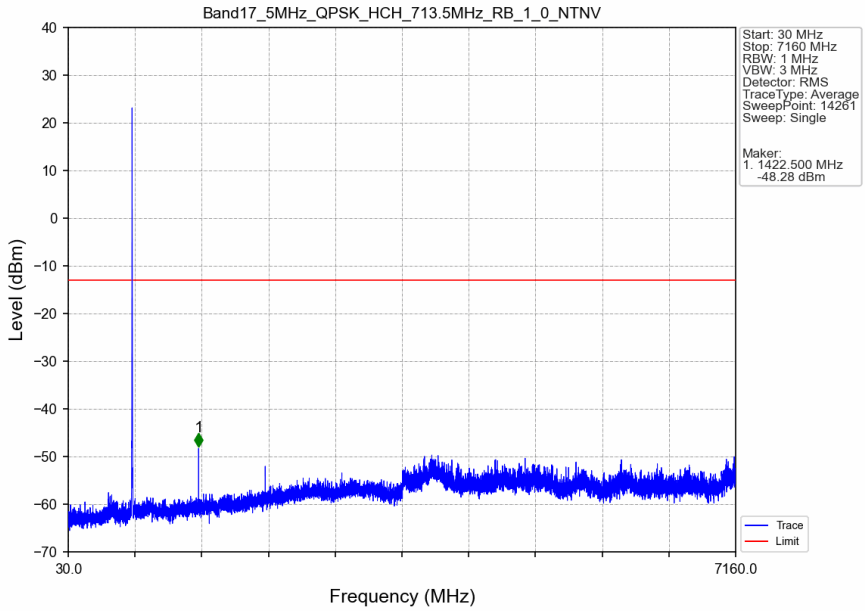


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.840	-27.52	-13	Pass
703.9	704	0.03	/	2	703.990	-27.82	-13	Pass
704	709	0.03	/	/	/	/	/	/

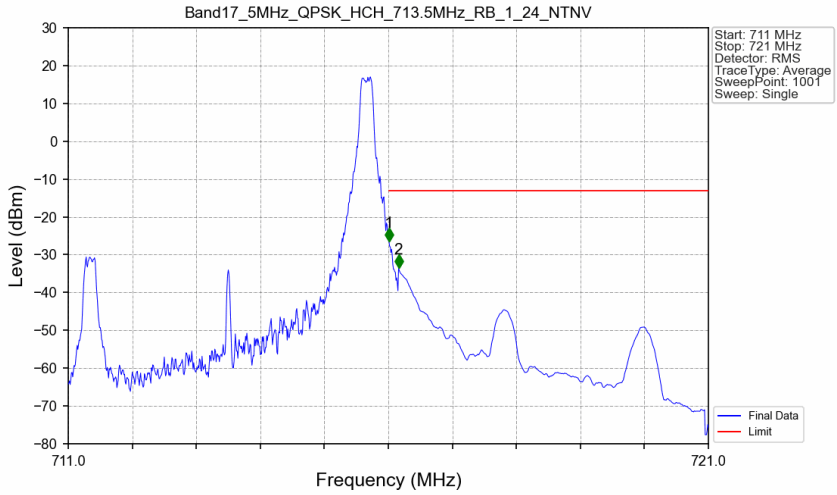
Band17_5MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_0_NTNV

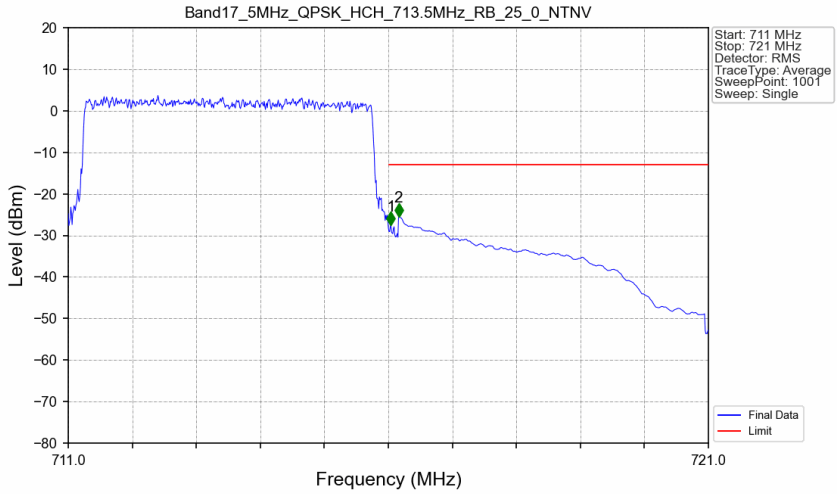


Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_24_NTNV



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	-26.37	-13	Pass
716.1	721	0.1	CHP	2	716.160	-33.55	-13	Pass

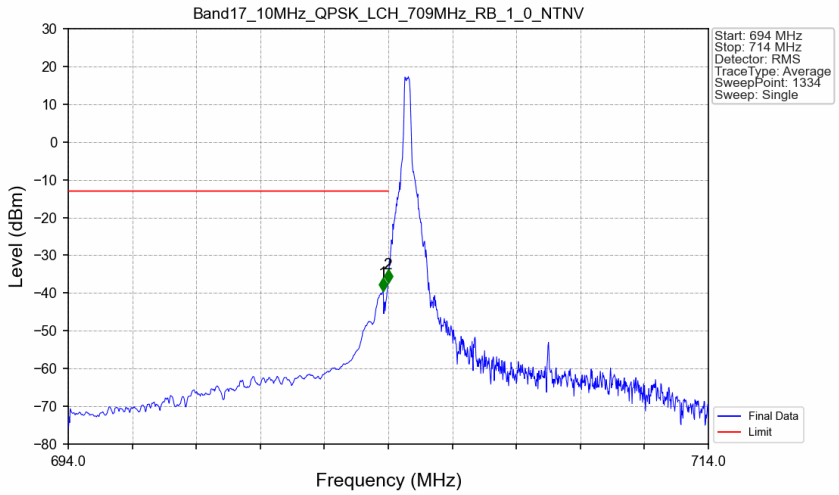
Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



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	716.040	-27.50	-13	Pass
716.1	721	0.1	CHP	2	716.160	-25.39	-13	Pass

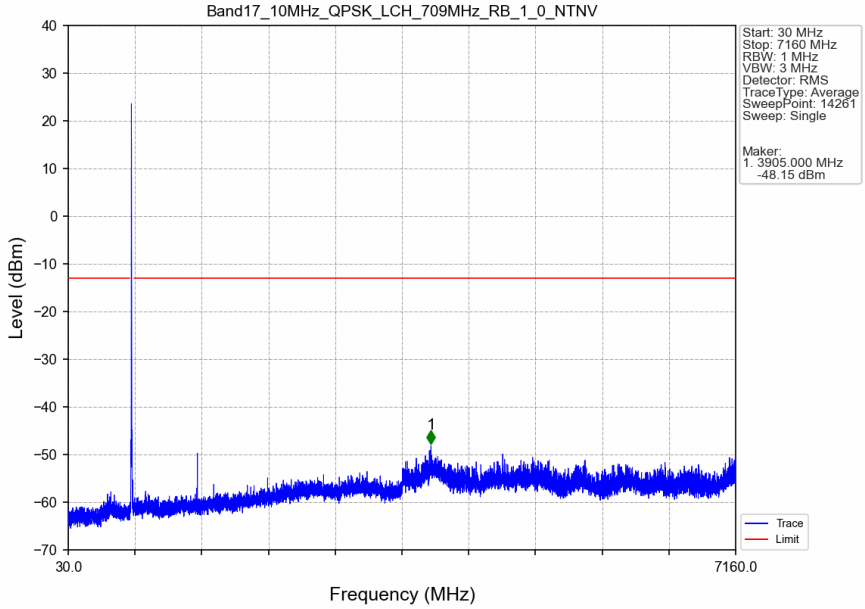
5.2.2 B17_10MHz

Band17_10MHz_QPSK_LCH_709MHz_RB_1_0_NTNV

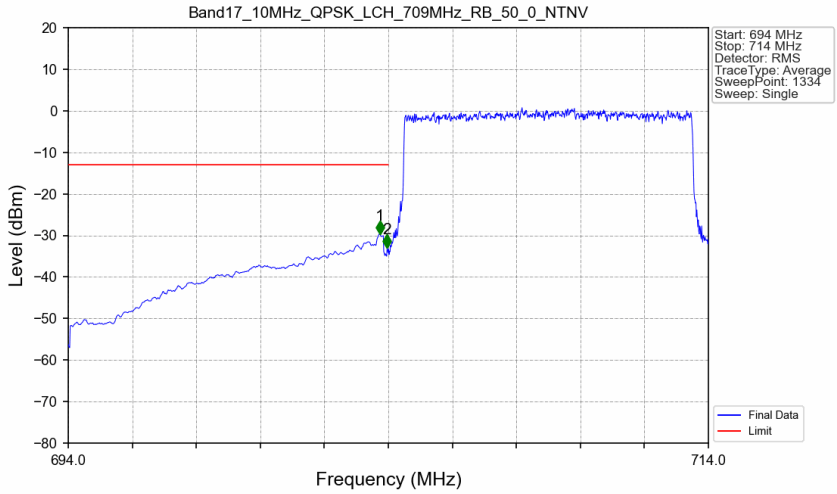


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.827	-39.55	-13	Pass
703.9	704	0.03	/	2	703.992	-37.30	-13	Pass
704	714	0.03	/	/	/	/	/	/

Band17_10MHz_QPSK_LCH_709MHz_RB_1_0_NTNV

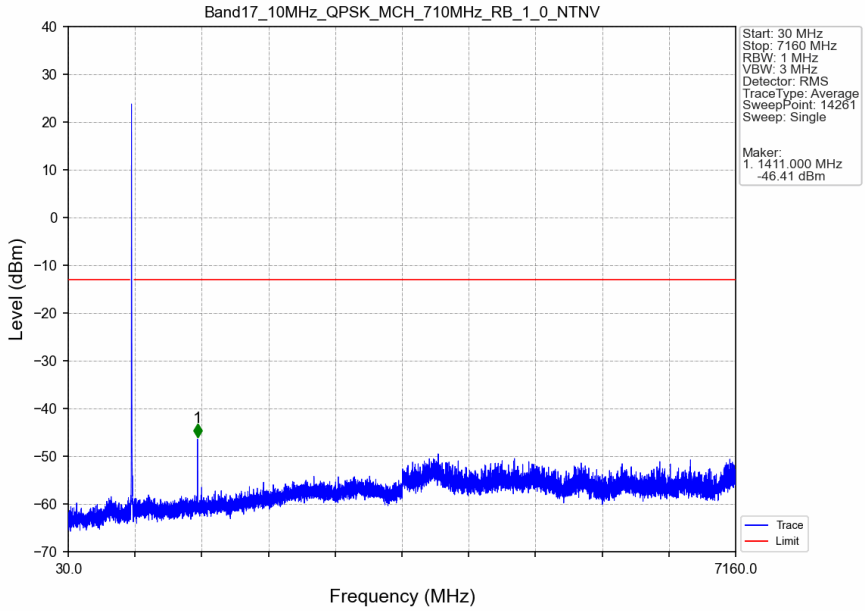


Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV

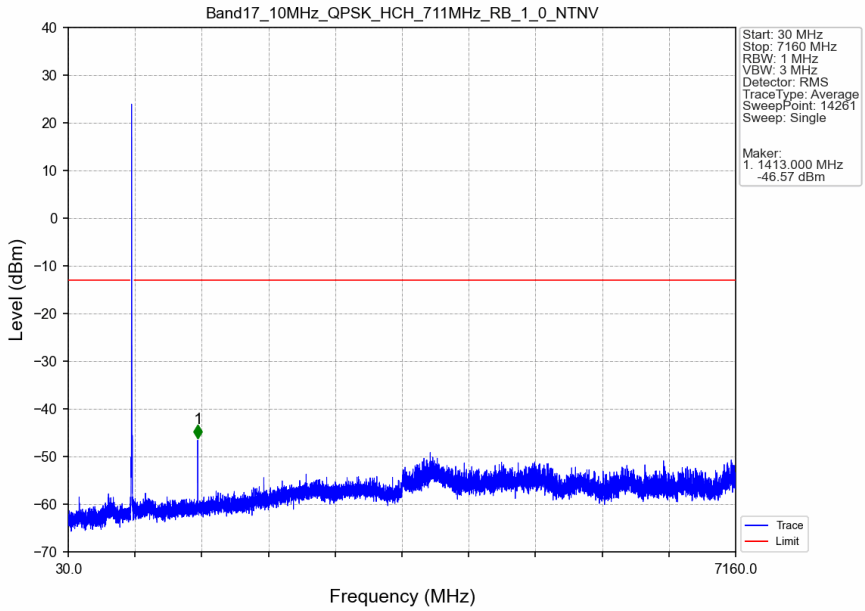


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.737	-29.60	-13	Pass
703.9	704	0.03	/	2	703.962	-32.93	-13	Pass
704	714	0.03	/	/	/	/	/	/

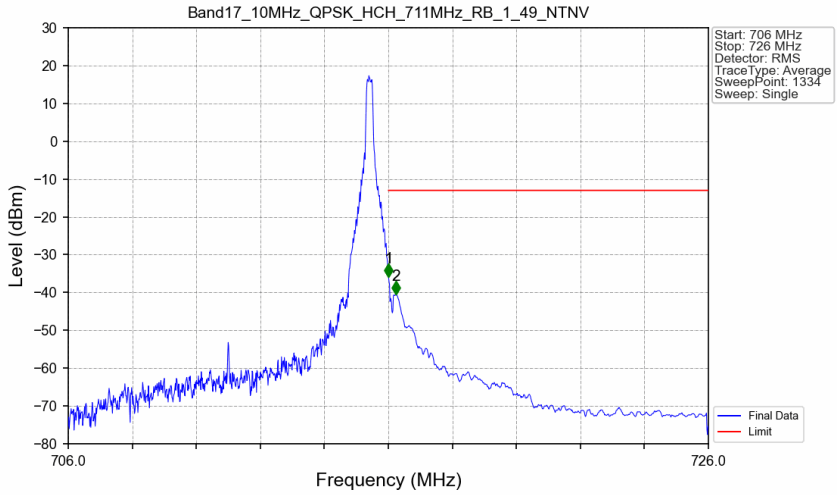
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17_10MHz_QPSK_HCH_711MHz_RB_1_0_NTNV

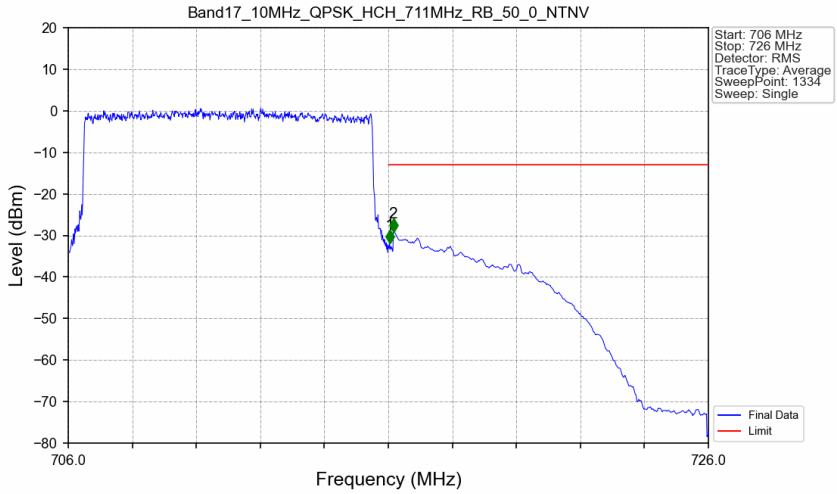


Band17_10MHz_QPSK_HCH_711MHz_RB_1_49_NTNV



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	-35.92	-13	Pass
716.1	726	0.1	CHP	2	716.233	-40.48	-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	716.038	-31.80	-13	Pass
716.1	726	0.1	CHP	2	716.158	-29.15	-13	Pass

6. Field Strength of Spurious Radiation

LTE Band 17 ANT0-Low channel, Modulation: QPSK, Bandwidth:10MHz, 1RB#0								
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	-69.1	-13	-56.1	-71.92	2.48	5.3	Horizontal	Pass
2113.5	-66.39	-13	-53.39	-68.48	2.8	4.89	Horizontal	Pass
2818.0	-68.83	-13	-55.83	-72.23	3.12	6.52	Horizontal	Pass
1409.0	-70.6	-13	-57.6	-73.42	2.48	5.3	Vertical	Pass
2113.5	-70.35	-13	-57.35	-72.44	2.8	4.89	Vertical	Pass
2818.0	-68.65	-13	-55.65	-72.05	3.12	6.52	Vertical	Pass

LTE Band 17 ANT0-Middle channel, Modulation: QPSK, Bandwidth:10MHz, 1RB#0								
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	-70.31	-13	-57.31	-73.14	2.49	5.32	Horizontal	Pass
2116.5	-71.07	-13	-58.07	-73.17	2.8	4.9	Horizontal	Pass
2822.0	-69.14	-13	-56.14	-72.54	3.13	6.53	Horizontal	Pass
1411.0	-71.0	-13	-58.0	-73.83	2.49	5.32	Vertical	Pass
2116.5	-71.02	-13	-58.02	-73.12	2.8	4.9	Vertical	Pass
2822.0	-69.09	-13	-56.09	-72.49	3.13	6.53	Vertical	Pass

LTE Band 17 ANT0-High channel, Modulation: QPSK, Bandwidth:10MHz, 1RB#0								
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	-70.9	-13	-57.9	-73.74	2.49	5.33	Horizontal	Pass
2119.5	-70.86	-13	-57.86	-72.96	2.81	4.91	Horizontal	Pass
2826.0	-69.14	-13	-56.14	-72.55	3.13	6.54	Horizontal	Pass
1413.0	-69.85	-13	-56.85	-72.69	2.49	5.33	Vertical	Pass
2119.5	-70.82	-13	-57.82	-72.92	2.81	4.91	Vertical	Pass
2826.0	-69.16	-13	-56.16	-72.57	3.13	6.54	Vertical	Pass