

1.1.1 B17_5MHz_ERP

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	22.66	-1.11	19.40	<=34.77	Pass		
			25	22.63	-1.11	19.37	<=34.77	Pass		
			49	22.40	-1.11	19.14	<=34.77	Pass		
		25	0	21.54	-1.11	18.28	<=34.77	Pass		
			13	21.36	-1.11	18.10	<=34.77	Pass		
			25	21.26	-1.11	18.00	<=34.77	Pass		
		50	0	21.33	-1.11	18.07	<=34.77	Pass		
		710	1	0	22.64	-1.11	19.38	<=34.77	Pass	
				25	22.50	-1.11	19.24	<=34.77	Pass	
	49			22.29	-1.11	19.03	<=34.77	Pass		
	25		0	21.47	-1.11	18.21	<=34.77	Pass		
			13	21.52	-1.11	18.26	<=34.77	Pass		
			25	21.39	-1.11	18.13	<=34.77	Pass		
	50		0	21.38	-1.11	18.12	<=34.77	Pass		
	711		1	0	22.61	-1.11	19.35	<=34.77	Pass	
				25	22.27	-1.11	19.01	<=34.77	Pass	
		49		22.23	-1.11	18.97	<=34.77	Pass		
		25	0	21.38	-1.11	18.12	<=34.77	Pass		
			13	21.32	-1.11	18.06	<=34.77	Pass		
			25	21.27	-1.11	18.01	<=34.77	Pass		
		50	0	21.42	-1.11	18.16	<=34.77	Pass		
		16QAM	709	1	0	22.14	-1.11	18.88	<=34.77	Pass
					25	22.00	-1.11	18.74	<=34.77	Pass
	49				22.00	-1.11	18.74	<=34.77	Pass	
25	0			20.53	-1.11	17.27	<=34.77	Pass		
	13			20.45	-1.11	17.19	<=34.77	Pass		
	25			20.49	-1.11	17.23	<=34.77	Pass		
50	0			20.34	-1.11	17.08	<=34.77	Pass		
710	1			0	21.82	-1.11	18.56	<=34.77	Pass	
				25	21.49	-1.11	18.23	<=34.77	Pass	
			49	21.52	-1.11	18.26	<=34.77	Pass		
	25		0	20.53	-1.11	17.27	<=34.77	Pass		
			13	20.42	-1.11	17.16	<=34.77	Pass		
			25	20.34	-1.11	17.08	<=34.77	Pass		
	50		0	20.35	-1.11	17.09	<=34.77	Pass		
	711		1	0	21.89	-1.11	18.63	<=34.77	Pass	
				25	21.60	-1.11	18.34	<=34.77	Pass	
49				21.35	-1.11	18.09	<=34.77	Pass		
25			0	20.61	-1.11	17.35	<=34.77	Pass		
			13	20.53	-1.11	17.27	<=34.77	Pass		
			25	20.43	-1.11	17.17	<=34.77	Pass		
50			0	20.45	-1.11	17.19	<=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	0.552	0.0008	-2.5 to 2.5	Pass
					3.85	-0.120	-0.0002	-2.5 to 2.5	Pass
					4.43	0.568	0.0008	-2.5 to 2.5	Pass
				-30	3.85	0.041	0.0001	-2.5 to 2.5	Pass
				-20	3.85	0.609	0.0009	-2.5 to 2.5	Pass
				-10	3.85	0.287	0.0004	-2.5 to 2.5	Pass
				0	3.85	0.364	0.0005	-2.5 to 2.5	Pass
				10	3.85	-0.010	0.0000	-2.5 to 2.5	Pass
				30	3.85	0.318	0.0004	-2.5 to 2.5	Pass
				40	3.85	0.267	0.0004	-2.5 to 2.5	Pass
				50	3.85	0.051	0.0001	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band17_OBW

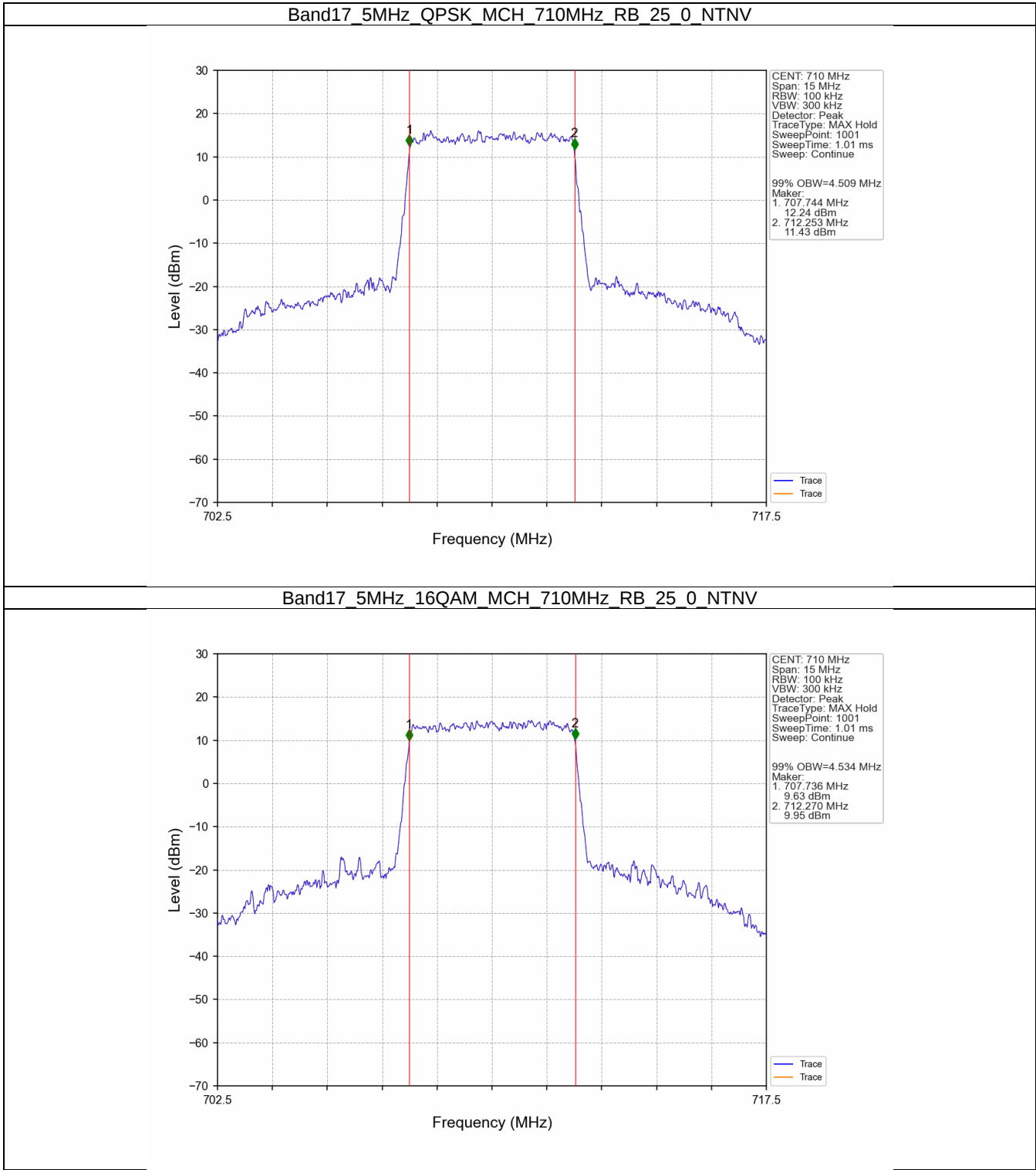
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	4.509	/	Pass
	16QAM	710	25	0	4.534	/	Pass
10	QPSK	710	50	0	8.991	/	Pass
	16QAM	710	50	0	8.992	/	Pass

3.1.2 Band17_XDB

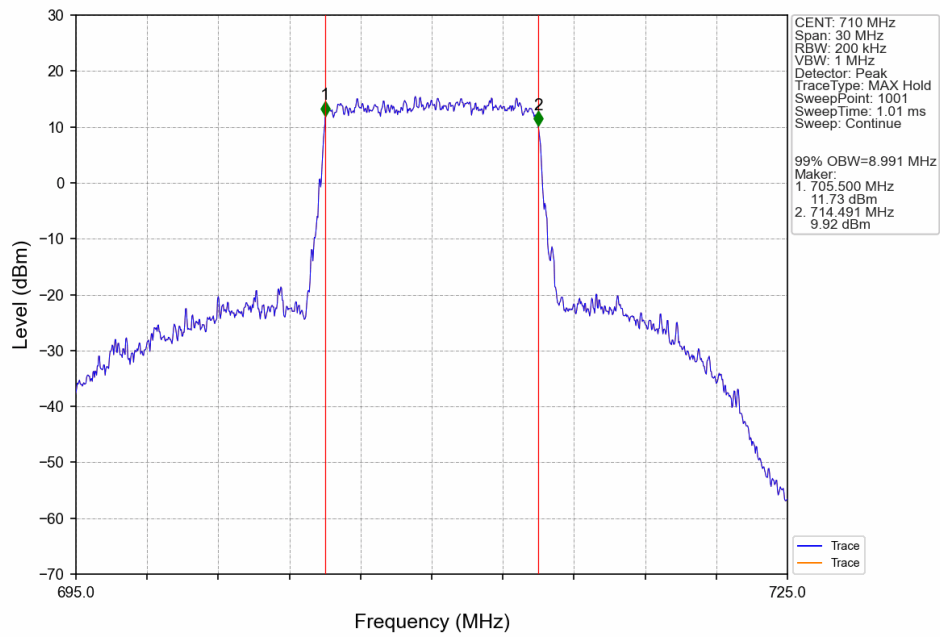
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	5.021	/	Pass
	16QAM	710	25	0	5.047	/	Pass
10	QPSK	710	50	0	9.852	/	Pass
	16QAM	710	50	0	9.858	/	Pass

3.2 Test Graph

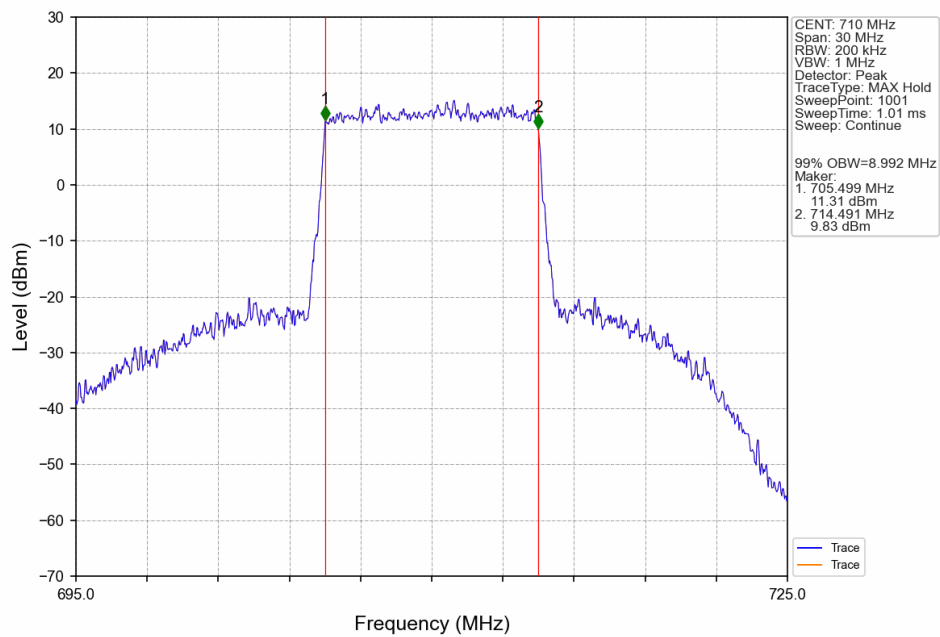
3.2.1 Band17_OBW



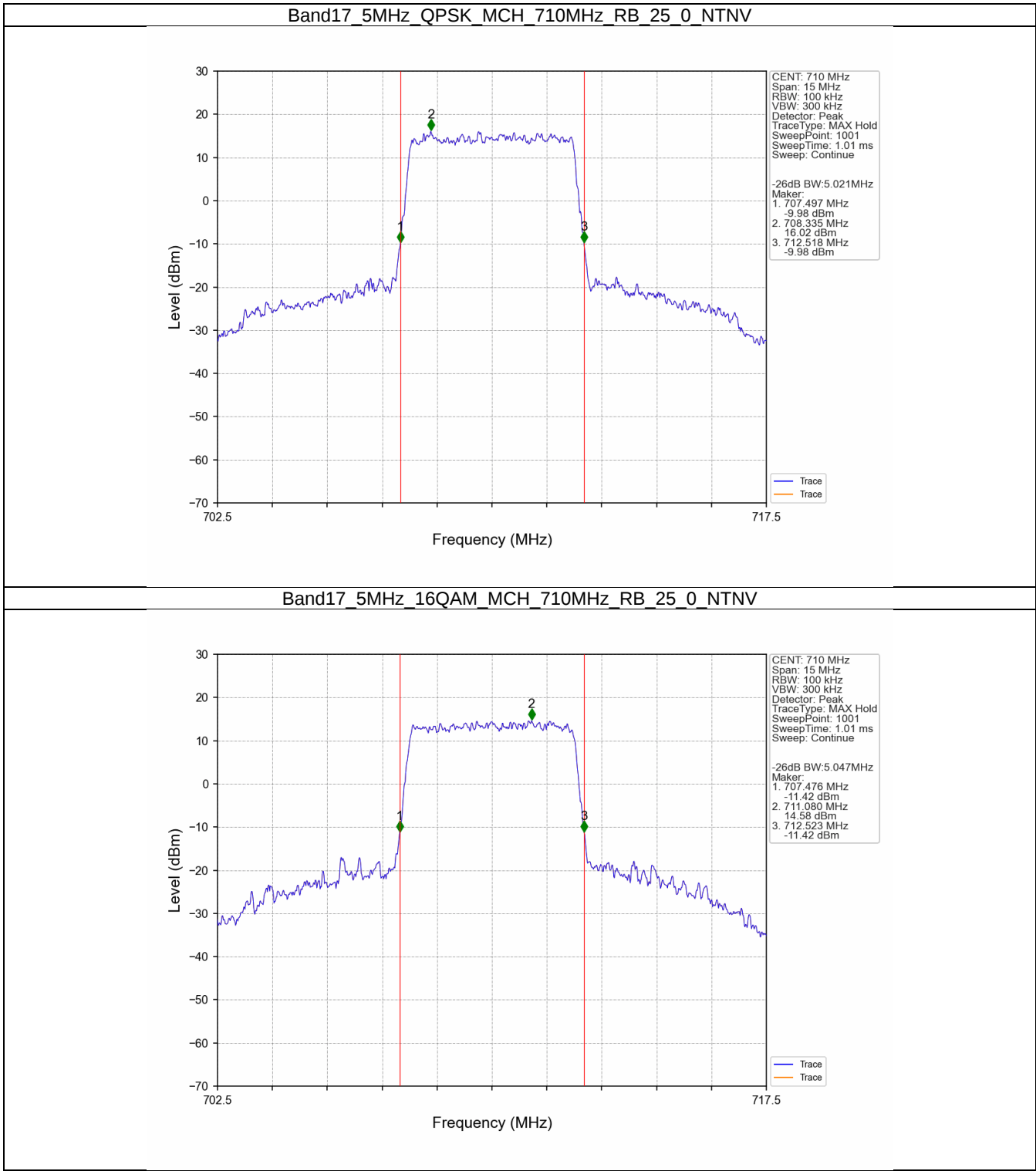
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



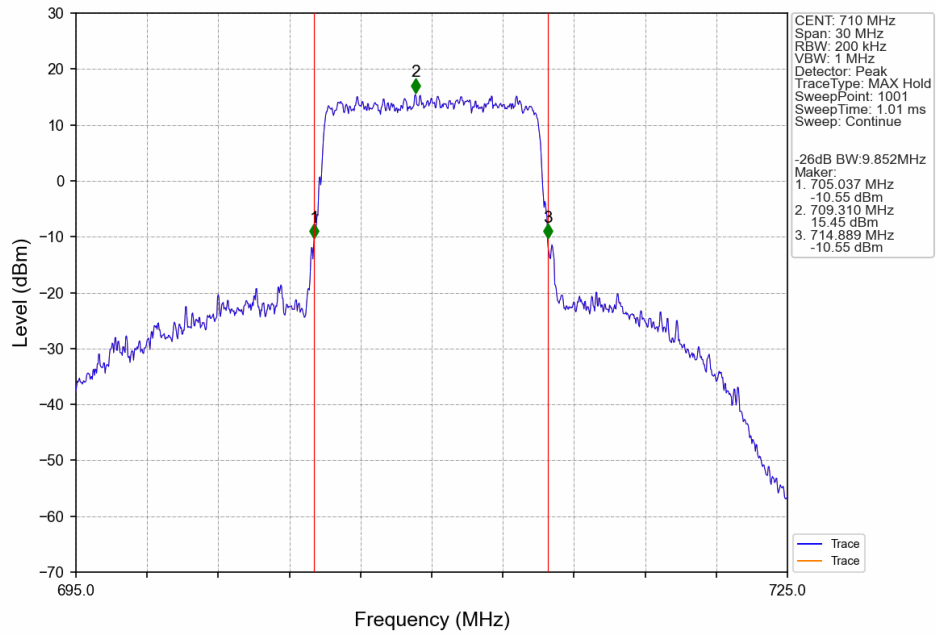
Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



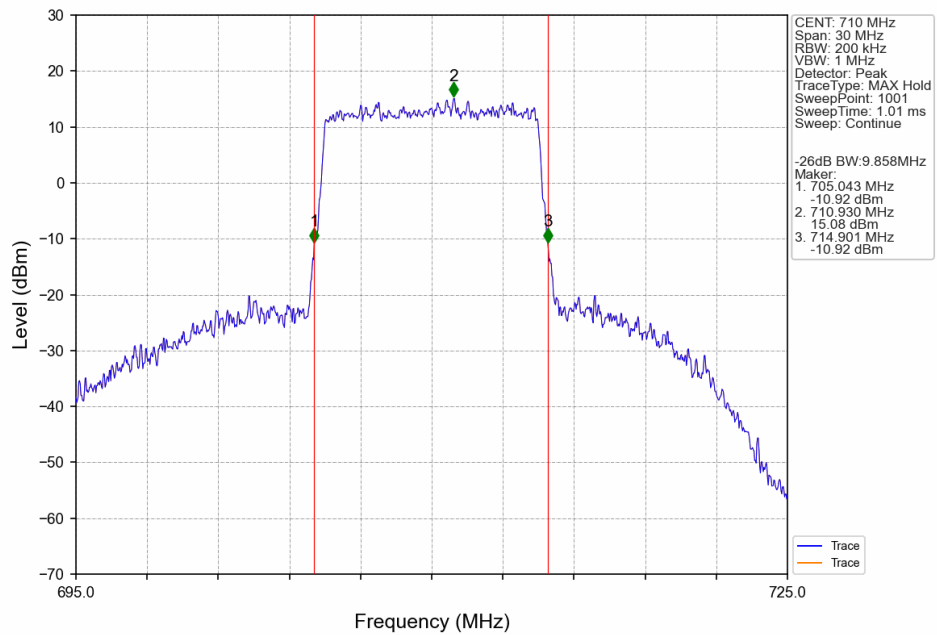
3.2.2 Band17_XDB



Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



4. Peak-Average Ratio

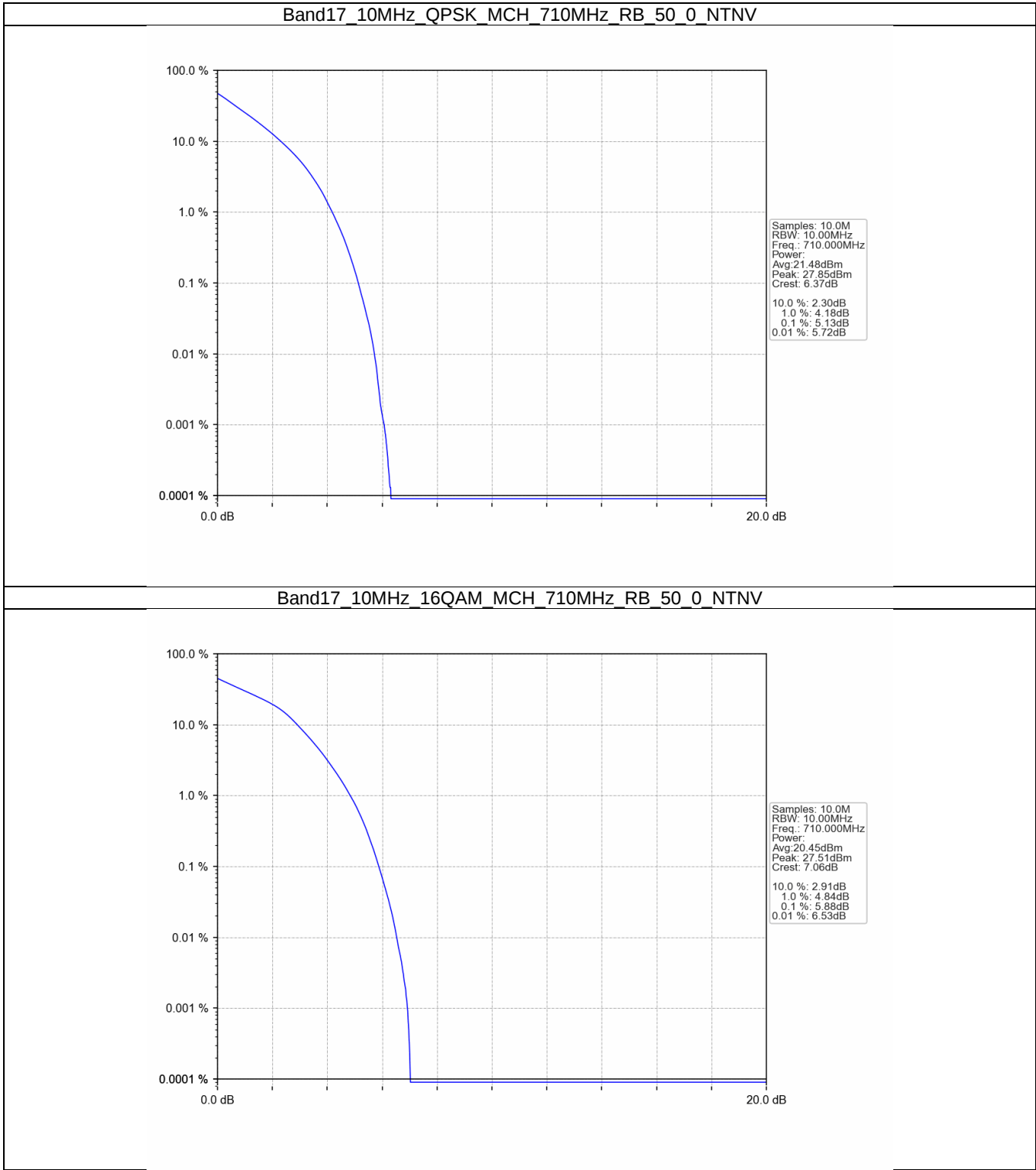
4.1 Test Result

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	5.13	<=13	Pass
16QAM	710	50	0	5.88	<=13	Pass

4.2 Test Graph

4.2.1 B17_10MHz



5. Spurious Emission

5.1 Test Result

5.1.1 B17_5MHz

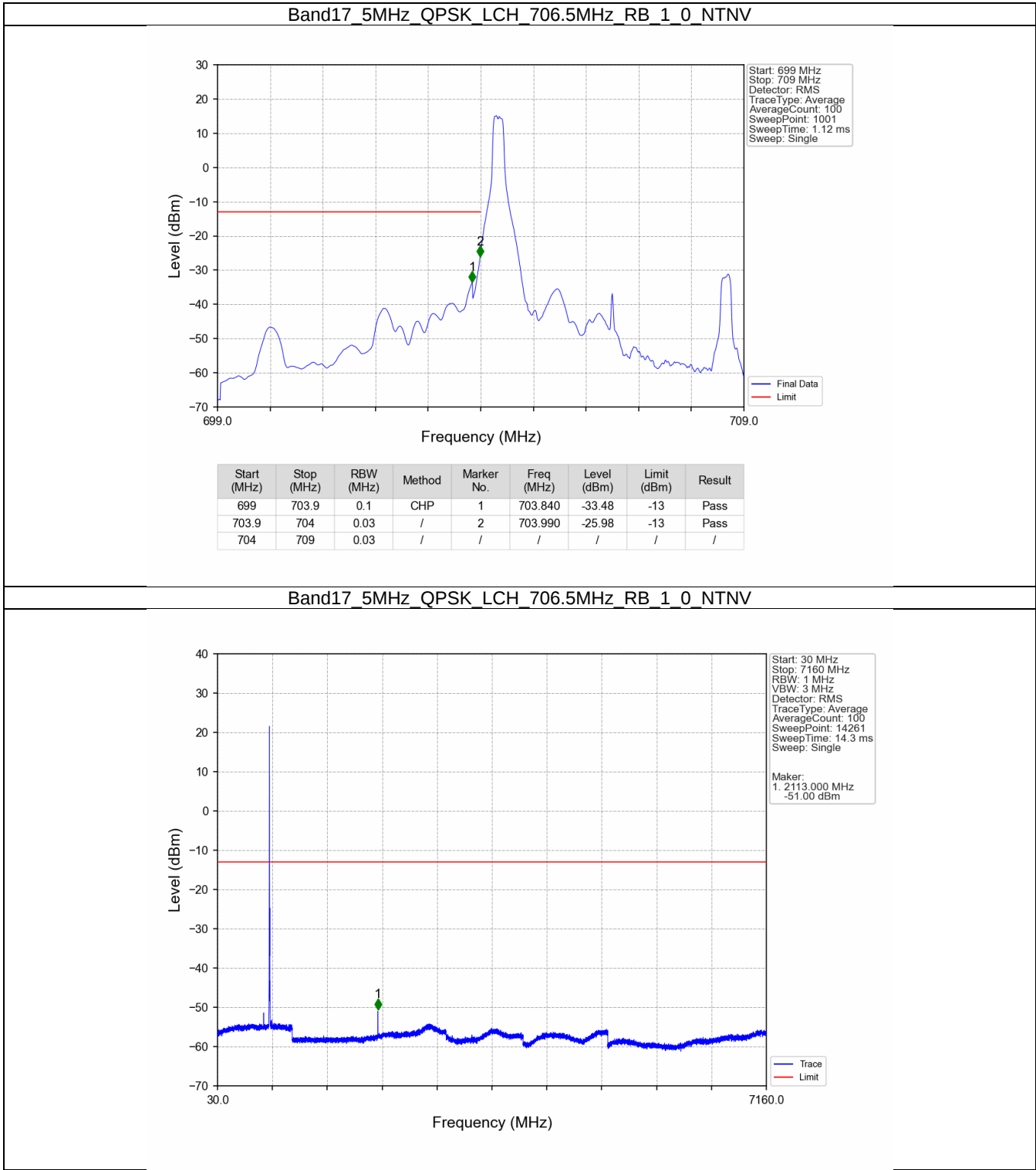
Band: 17 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	706.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	710	1	0	Refer To Test Graph		Pass
	713.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test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

5.1.2 B17_10MHz

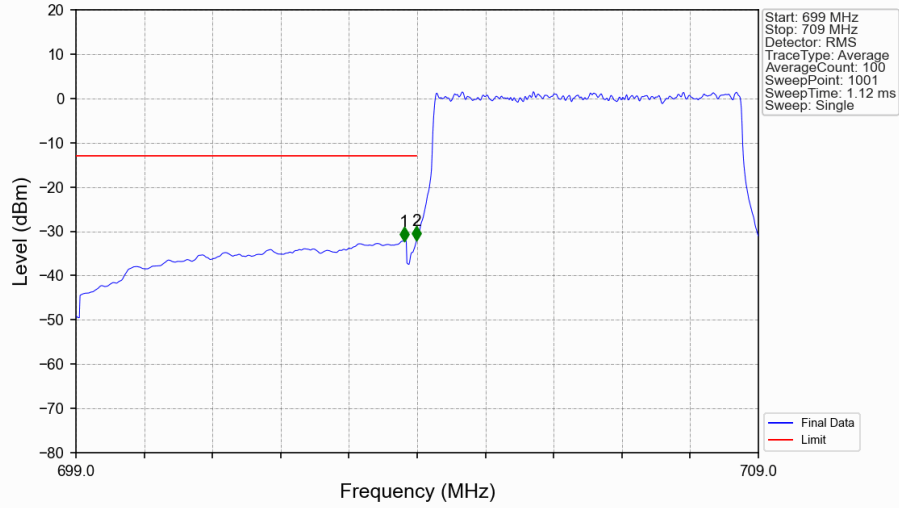
Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	709	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	710	1	0	Refer To Test Graph		Pass
	711	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph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

5.2 Test Graph

5.2.1 B17_5MHz

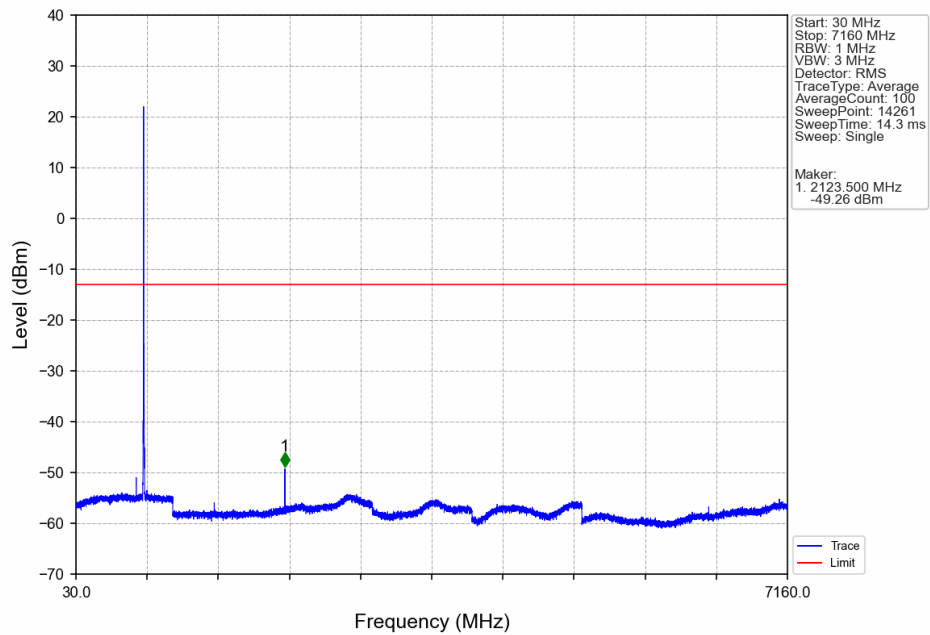


Band17_5MHz_QPSK_LCH_706.5MHz_RB_25_0_NTNV

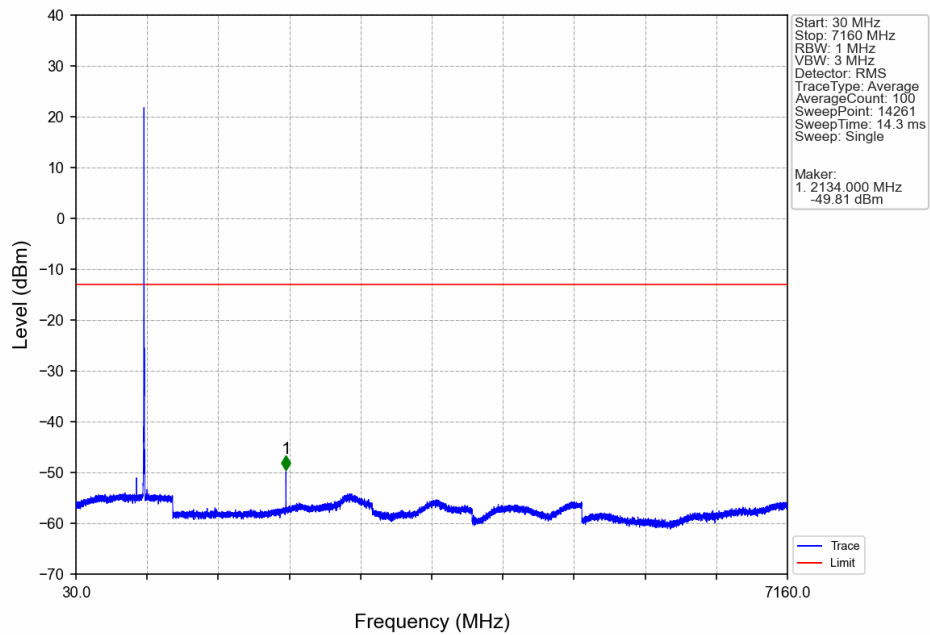


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.810	-32.16	-13	Pass
703.9	704	0.03	/	2	703.990	-32.12	-13	Pass
704	709	0.03	/	/	/	/	/	/

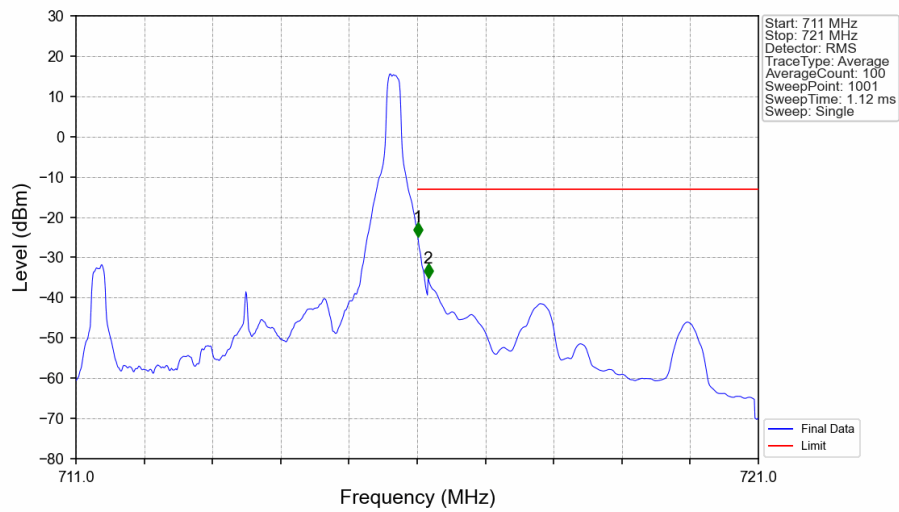
Band17_5MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17 5MHz QPSK HCH 713.5MHz RB_1_0 NTN

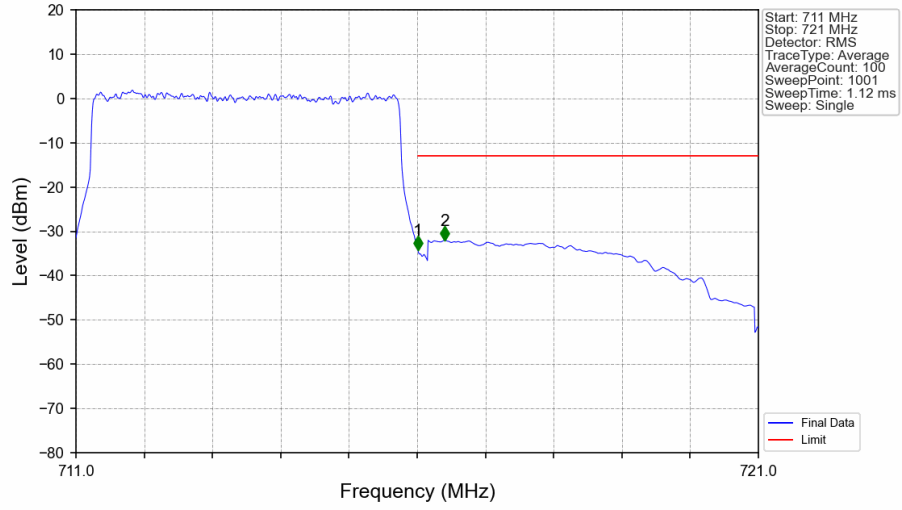


Band17 5MHz QPSK HCH 713.5MHz RB 1 24 NTN



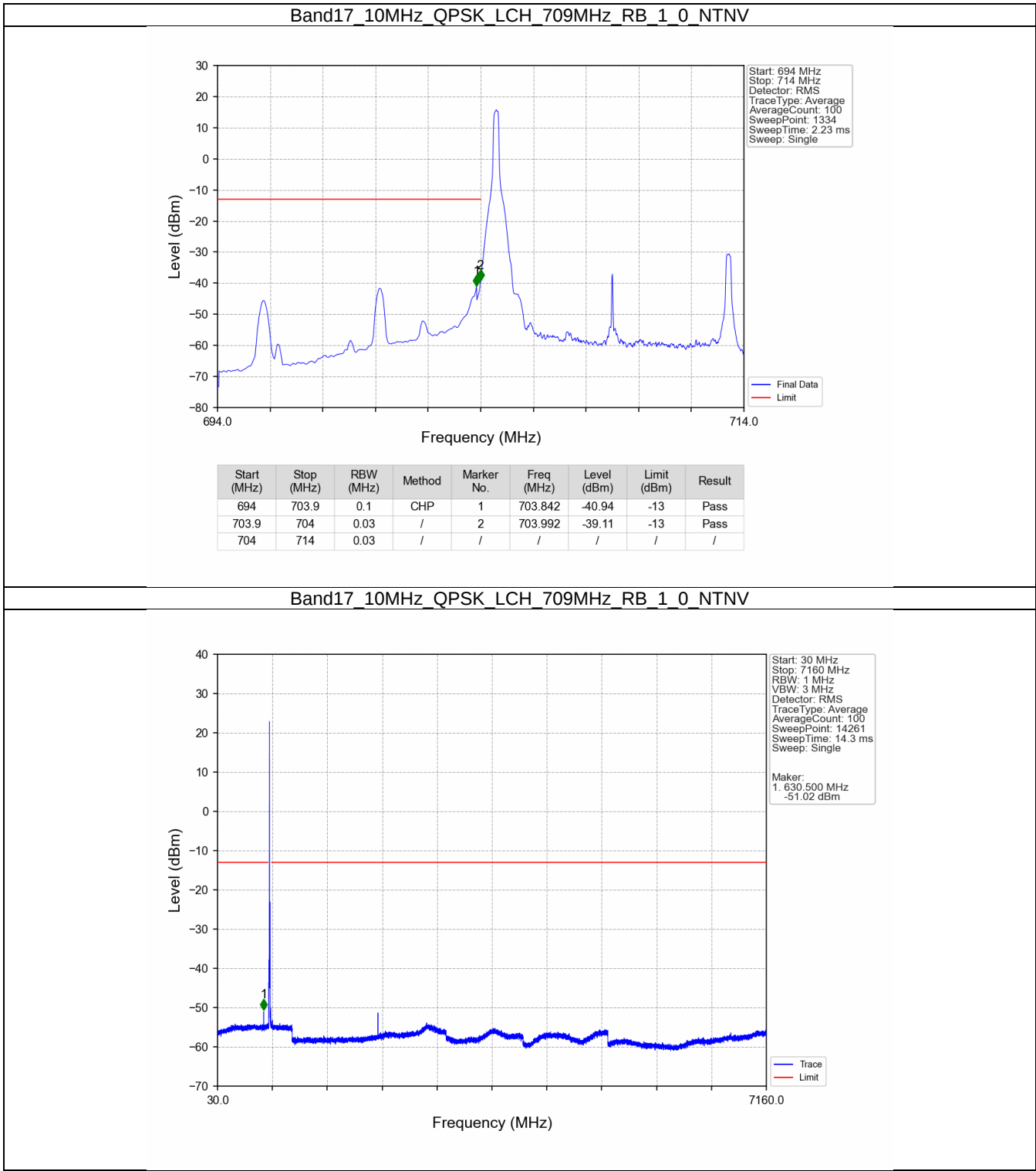
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.010	-24.87	-13	Pass
716.1	721	0.1	CHP	2	716.160	-35.00	-13	Pass

Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV

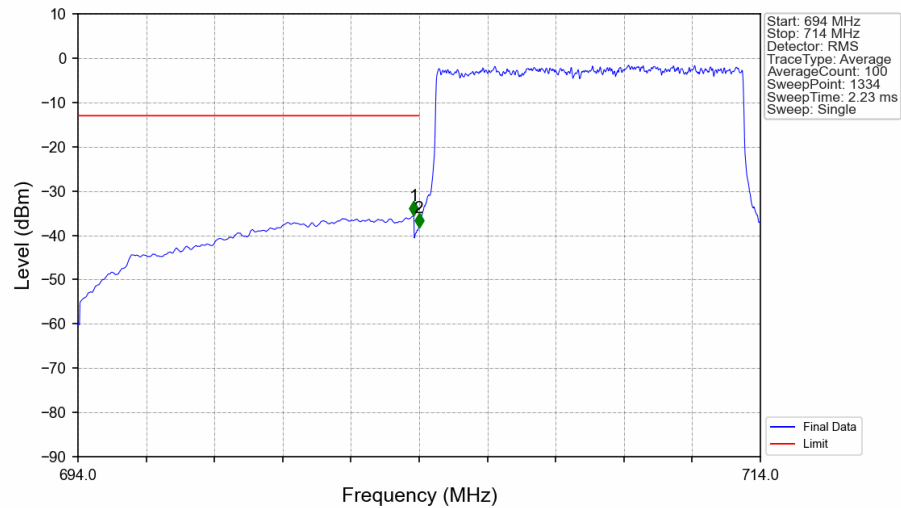


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.010	-34.18	-13	Pass
716.1	721	0.1	CHP	2	716.400	-32.02	-13	Pass

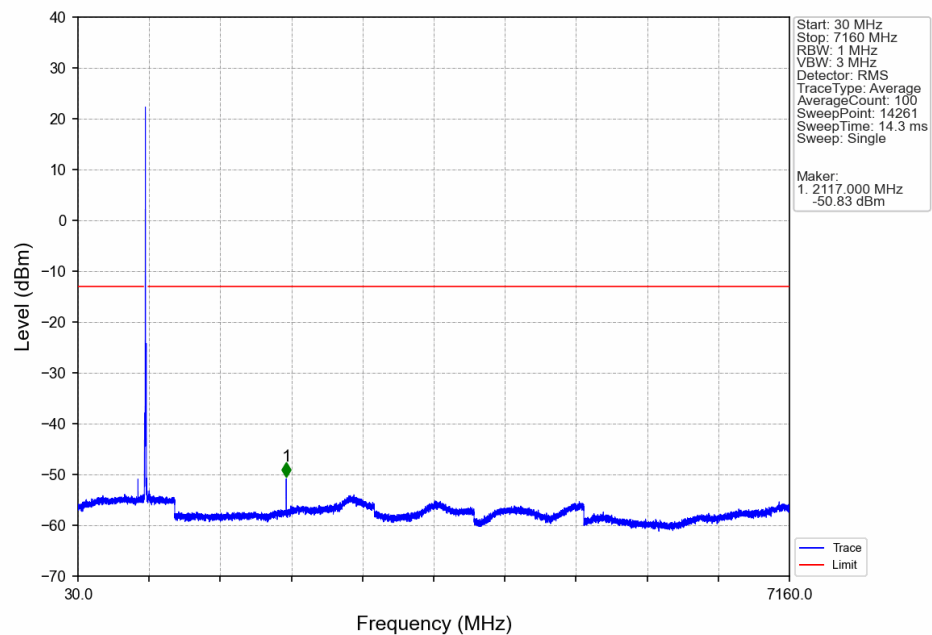
5.2.2 B17_10MHz



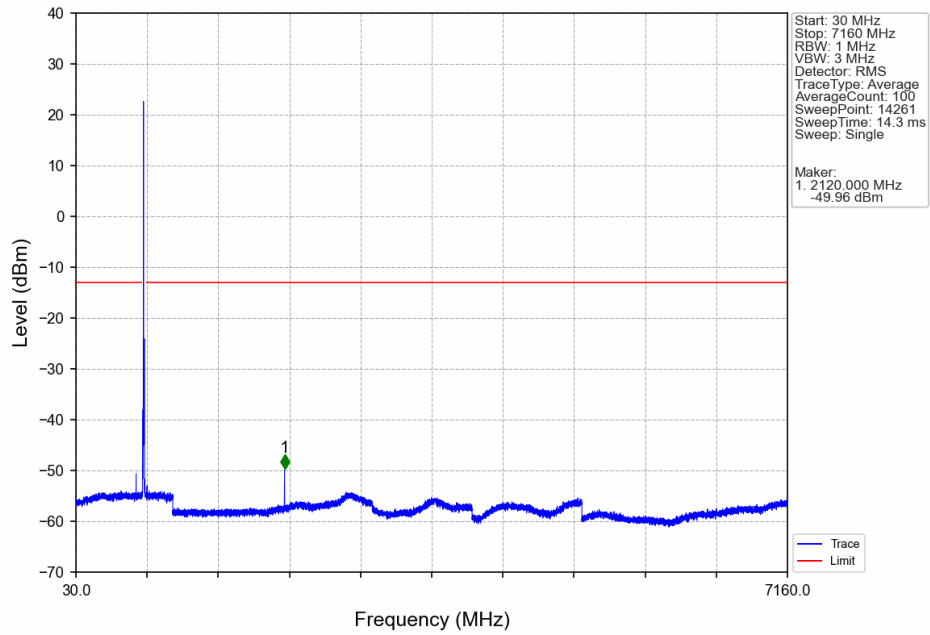
Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV



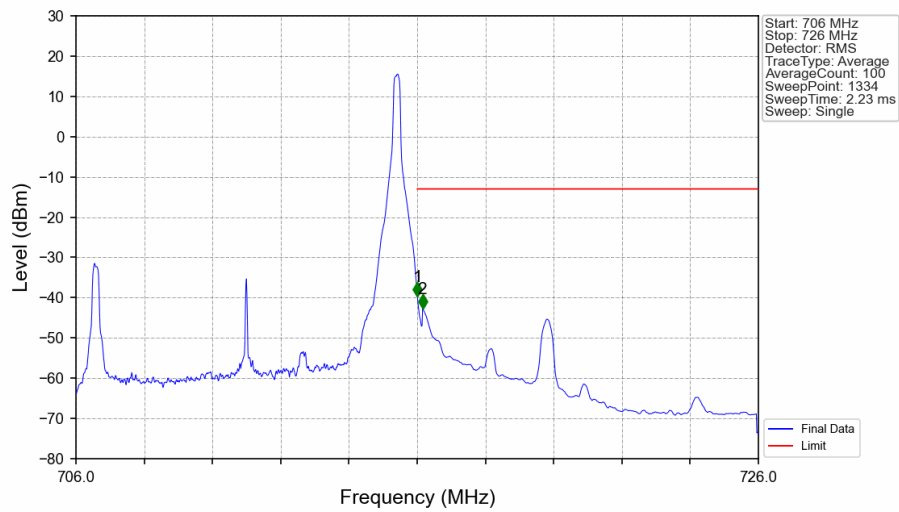
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17_10MHz_QPSK_HCH_711MHz_RB_1_0_NTNV

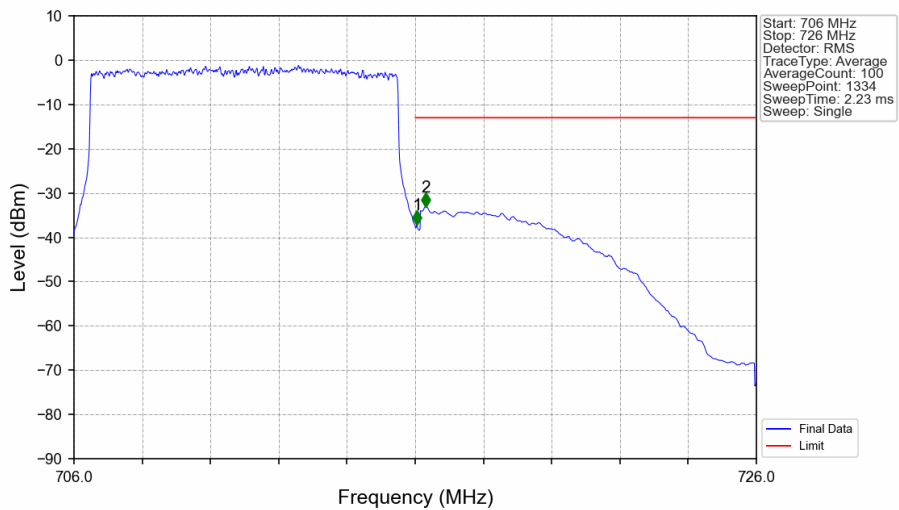


Band17_10MHz_QPSK_HCH_711MHz_RB_1_49_NTNV



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	-39.61	-13	Pass
716.1	726	0.1	CHP	2	716.158	-42.72	-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	716.053	-37.21	-13	Pass
716.1	726	0.1	CHP	2	716.308	-33.10	-13	Pass

6. Field Strength of Spurious Radiation

1.1. Test Band = LTE Band 17_ TM1

1.1.1. Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1409.3333	68.65	-49.99	24.17	-52.44	-13.00	39.44	Horizontal
2	2113.7778	54.52	-49.46	26.50	-63.70	-13.00	50.70	Horizontal
3	2421.3333	54.71	-49.36	27.06	-62.85	-13.00	49.85	Horizontal
4	2818.2222	51.61	-48.70	27.77	-64.58	-13.00	51.58	Horizontal
5	4515.5556	50.52	-48.19	30.13	-62.80	-13.00	49.80	Horizontal

1.2. Test Band = LTE Band 17_ TM1

1.2.1. Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1409.3333	60.00	-49.99	24.17	-61.09	-13.00	48.09	Vertical
2	2113.7778	48.96	-49.46	26.50	-69.26	-13.00	56.26	Vertical
3	2818.2222	49.71	-48.70	27.77	-66.48	-13.00	53.48	Vertical
4	3664	50.24	-48.62	28.76	-64.88	-13.00	51.88	Vertical
5	5148.8889	50.84	-47.96	31.62	-60.77	-13.00	47.77	Vertical
6	6836.4444	50.87	-46.77	35.24	-55.92	-13.00	42.92	Vertical

1.3. Test Band = LTE Band 17_ TM1

1.3.1. Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1409.3333	71.49	-49.99	24.17	-49.60	-13.00	36.60	Horizontal
2	2113.7778	54.48	-49.46	26.50	-63.74	-13.00	50.74	Horizontal
3	2468.4444	51.85	-49.08	27.14	-65.35	-13.00	52.35	Horizontal
4	3167.5556	50.42	-48.72	28.23	-65.32	-13.00	52.32	Horizontal
5	4246.6667	49.84	-48.21	29.69	-63.93	-13.00	50.93	Horizontal
6	5356.4444	50.77	-47.61	32.20	-59.90	-13.00	46.90	Horizontal

1.4. Test Band = LTE Band 17_ TM1

1.4.1. Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1408.8889	57.47	-49.99	24.16	-63.62	-13.00	50.62	Vertical
2	2468.4444	51.03	-49.08	27.14	-66.17	-13.00	53.17	Vertical
3	2818.2222	50.97	-48.70	27.77	-65.22	-13.00	52.22	Vertical
4	3633.3333	50.42	-48.55	28.71	-64.68	-13.00	51.68	Vertical
5	4653.7778	49.36	-48.06	30.44	-63.52	-13.00	50.52	Vertical
6	6256.4444	51.51	-47.42	33.77	-57.39	-13.00	44.39	Vertical

1.5. Test Band = LTE Band 17_ TM1

1.5.1. Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1413.3333	71.52	-49.99	24.19	-49.53	-13.00	36.53	Horizontal
2	2119.5556	52.50	-49.47	26.52	-65.71	-13.00	52.71	Horizontal
3	2556.8889	50.20	-49.05	27.30	-66.81	-13.00	53.81	Horizontal
4	3657.3333	51.19	-48.61	28.75	-63.92	-13.00	50.92	Horizontal
5	5686.2222	51.49	-47.52	32.67	-58.62	-13.00	45.62	Horizontal
6	7065.7778	51.41	-46.22	35.62	-54.45	-13.00	41.45	Horizontal

1.6. Test Band = LTE Band 17_ TM1

1.6.1. Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1412.8889	56.72	-49.99	24.19	-64.34	-13.00	51.34	Vertical
2	1811.1111	46.99	-49.83	25.83	-72.27	-13.00	59.27	Vertical
3	2439.5556	60.95	-49.25	27.09	-56.47	-13.00	43.47	Vertical
4	3184.8889	49.36	-48.67	28.25	-66.32	-13.00	53.32	Vertical
5	4384.8889	48.45	-48.04	29.92	-64.93	-13.00	51.93	Vertical
6	5474.2222	50.16	-47.40	32.53	-59.98	-13.00	46.98	Vertical