

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	22.50	-1.9	18.45	<=34.77	Pass
			13	22.60	-1.9	18.55	<=34.77	Pass
			24	22.61	-1.9	18.56	<=34.77	Pass
		12	0	21.75	-1.9	17.70	<=34.77	Pass
			6	21.69	-1.9	17.64	<=34.77	Pass
			13	22.12	-1.9	18.07	<=34.77	Pass
		25	0	21.68	-1.9	17.63	<=34.77	Pass
	710	1	0	22.55	-1.9	18.50	<=34.77	Pass
			13	22.60	-1.9	18.55	<=34.77	Pass
			24	22.74	-1.9	18.69	<=34.77	Pass
		12	0	22.03	-1.9	17.98	<=34.77	Pass
			6	21.60	-1.9	17.55	<=34.77	Pass
			13	21.74	-1.9	17.69	<=34.77	Pass
		25	0	21.59	-1.9	17.54	<=34.77	Pass
	713.5	1	0	22.57	-1.9	18.52	<=34.77	Pass
			13	22.63	-1.9	18.58	<=34.77	Pass
			24	22.52	-1.9	18.47	<=34.77	Pass
		12	0	21.75	-1.9	17.70	<=34.77	Pass
			6	22.00	-1.9	17.95	<=34.77	Pass
			13	21.95	-1.9	17.90	<=34.77	Pass
		25	0	21.96	-1.9	17.91	<=34.77	Pass
16QAM	706.5	1	0	22.20	-1.9	18.15	<=34.77	Pass
			13	22.16	-1.9	18.11	<=34.77	Pass
			24	22.55	-1.9	18.50	<=34.77	Pass
		12	0	20.78	-1.9	16.73	<=34.77	Pass
			6	20.79	-1.9	16.74	<=34.77	Pass
			13	21.01	-1.9	16.96	<=34.77	Pass
		25	0	20.81	-1.9	16.76	<=34.77	Pass
	710	1	0	22.05	-1.9	18.00	<=34.77	Pass
			13	21.74	-1.9	17.69	<=34.77	Pass
			24	21.82	-1.9	17.77	<=34.77	Pass
		12	0	20.97	-1.9	16.92	<=34.77	Pass
			6	20.56	-1.9	16.51	<=34.77	Pass
			13	20.99	-1.9	16.94	<=34.77	Pass
		25	0	20.69	-1.9	16.64	<=34.77	Pass
	713.5	1	0	22.34	-1.9	18.29	<=34.77	Pass
			13	22.42	-1.9	18.37	<=34.77	Pass
			24	22.68	-1.9	18.63	<=34.77	Pass
		12	0	21.17	-1.9	17.12	<=34.77	Pass
			6	21.16	-1.9	17.11	<=34.77	Pass
			13	21.17	-1.9	17.12	<=34.77	Pass
		25	0	21.17	-1.9	17.12	<=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	22.75	-1.9	18.70	<=34.77	Pass
			25	22.67	-1.9	18.62	<=34.77	Pass
			49	22.70	-1.9	18.65	<=34.77	Pass
		25	0	21.66	-1.9	17.61	<=34.77	Pass
			13	22.05	-1.9	18.00	<=34.77	Pass
			25	21.83	-1.9	17.78	<=34.77	Pass
		50	0	22.08	-1.9	18.03	<=34.77	Pass
			0	22.92	-1.9	18.87	<=34.77	Pass
			25	22.81	-1.9	18.76	<=34.77	Pass
	710	1	49	22.91	-1.9	18.86	<=34.77	Pass
			0	22.15	-1.9	18.10	<=34.77	Pass
			13	21.59	-1.9	17.54	<=34.77	Pass
		25	25	21.77	-1.9	17.72	<=34.77	Pass
			0	21.60	-1.9	17.55	<=34.77	Pass
			0	22.93	-1.9	18.88	<=34.77	Pass
		50	25	22.74	-1.9	18.69	<=34.77	Pass
			49	22.77	-1.9	18.72	<=34.77	Pass
			0	22.09	-1.9	18.04	<=34.77	Pass
16QAM	709	1	13	21.56	-1.9	17.51	<=34.77	Pass
			25	21.97	-1.9	17.92	<=34.77	Pass
			0	21.60	-1.9	17.55	<=34.77	Pass
		25	0	21.93	-1.9	17.88	<=34.77	Pass
			25	22.14	-1.9	18.09	<=34.77	Pass
			49	22.07	-1.9	18.02	<=34.77	Pass
		50	0	20.72	-1.9	16.67	<=34.77	Pass
			13	21.03	-1.9	16.98	<=34.77	Pass
			25	21.21	-1.9	17.16	<=34.77	Pass
	710	1	0	21.12	-1.9	17.07	<=34.77	Pass
			0	21.72	-1.9	17.67	<=34.77	Pass
			25	21.57	-1.9	17.52	<=34.77	Pass
		25	49	21.79	-1.9	17.74	<=34.77	Pass
			0	21.07	-1.9	17.02	<=34.77	Pass
			13	20.61	-1.9	16.56	<=34.77	Pass
		50	25	21.15	-1.9	17.10	<=34.77	Pass
			0	20.61	-1.9	16.56	<=34.77	Pass
			0	22.31	-1.9	18.26	<=34.77	Pass
	711	1	25	22.17	-1.9	18.12	<=34.77	Pass
			49	22.62	-1.9	18.57	<=34.77	Pass
			0	21.19	-1.9	17.14	<=34.77	Pass
		25	13	20.76	-1.9	16.71	<=34.77	Pass
			25	21.19	-1.9	17.14	<=34.77	Pass
			0	20.66	-1.9	16.61	<=34.77	Pass
		50	0					

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	RB Allocation	Temp.	Voltage	Freq. Error	Freq. vs. Rated (ppm)	Verdict

	(MHz)	Size	Offset	(°C)	(VDC)	(Hz)	Result	Limit	
QPSK	706.5	25	0	20	3.27	-16.880	-0.0239	-2.5 to 2.5	Pass
					3.85	2.532	0.0036	-2.5 to 2.5	Pass
					4.43	39.096	0.0553	-2.5 to 2.5	Pass
				-30	3.85	33.331	0.0472	-2.5 to 2.5	Pass
				-20	3.85	-0.343	-0.0005	-2.5 to 2.5	Pass
				-10	3.85	16.236	0.0230	-2.5 to 2.5	Pass
				0	3.85	31.600	0.0447	-2.5 to 2.5	Pass
				10	3.85	44.718	0.0633	-2.5 to 2.5	Pass
				30	3.85	10.872	0.0154	-2.5 to 2.5	Pass
				40	3.85	22.831	0.0323	-2.5 to 2.5	Pass
				50	3.85	30.355	0.0430	-2.5 to 2.5	Pass
	710	25	0	20	3.27	-17.223	-0.0243	-2.5 to 2.5	Pass
					3.85	-14.906	-0.0210	-2.5 to 2.5	Pass
					4.43	7.439	0.0105	-2.5 to 2.5	Pass
				-30	3.85	24.176	0.0341	-2.5 to 2.5	Pass
				-20	3.85	33.674	0.0474	-2.5 to 2.5	Pass
				-10	3.85	38.037	0.0536	-2.5 to 2.5	Pass
				0	3.85	42.758	0.0602	-2.5 to 2.5	Pass
				10	3.85	15.779	0.0222	-2.5 to 2.5	Pass
				30	3.85	-3.004	-0.0042	-2.5 to 2.5	Pass
				40	3.85	0.157	0.0002	-2.5 to 2.5	Pass
				50	3.85	5.078	0.0072	-2.5 to 2.5	Pass
	713.5	25	0	20	3.27	-15.779	-0.0221	-2.5 to 2.5	Pass
					3.85	-10.414	-0.0146	-2.5 to 2.5	Pass
					4.43	23.088	0.0324	-2.5 to 2.5	Pass
				-30	3.85	-0.501	-0.0007	-2.5 to 2.5	Pass
				-20	3.85	20.671	0.0290	-2.5 to 2.5	Pass
				-10	3.85	38.881	0.0545	-2.5 to 2.5	Pass
				0	3.85	9.942	0.0139	-2.5 to 2.5	Pass
				10	3.85	20.328	0.0285	-2.5 to 2.5	Pass
				30	3.85	31.414	0.0440	-2.5 to 2.5	Pass
				40	3.85	45.147	0.0633	-2.5 to 2.5	Pass
16QAM	706.5	25	0	20	3.27	42.357	0.0600	-2.5 to 2.5	Pass
					3.85	3.662	0.0052	-2.5 to 2.5	Pass
					4.43	5.264	0.0075	-2.5 to 2.5	Pass
				-30	3.85	7.567	0.0107	-2.5 to 2.5	Pass
				-20	3.85	9.212	0.0130	-2.5 to 2.5	Pass
				-10	3.85	8.211	0.0116	-2.5 to 2.5	Pass
				0	3.85	9.656	0.0137	-2.5 to 2.5	Pass
				10	3.85	11.287	0.0160	-2.5 to 2.5	Pass
				30	3.85	13.418	0.0190	-2.5 to 2.5	Pass
				40	3.85	11.902	0.0168	-2.5 to 2.5	Pass
				50	3.85	15.864	0.0225	-2.5 to 2.5	Pass
	710	25	0	20	3.27	9.141	0.0129	-2.5 to 2.5	Pass
					3.85	7.195	0.0101	-2.5 to 2.5	Pass
					4.43	-0.815	-0.0011	-2.5 to 2.5	Pass
				-30	3.85	-5.836	-0.0082	-2.5 to 2.5	Pass
				-20	3.85	-10.858	-0.0153	-2.5 to 2.5	Pass
				-10	3.85	-12.431	-0.0175	-2.5 to 2.5	Pass
				0	3.85	-12.074	-0.0170	-2.5 to 2.5	Pass
				10	3.85	-14.949	-0.0211	-2.5 to 2.5	Pass
				30	3.85	-13.618	-0.0192	-2.5 to 2.5	Pass
				40	3.85	-15.163	-0.0214	-2.5 to 2.5	Pass
				50	3.85	-18.668	-0.0263	-2.5 to 2.5	Pass
	713.5	25	0	20	3.27	23.174	0.0325	-2.5 to 2.5	Pass
					3.85	28.968	0.0406	-2.5 to 2.5	Pass
					4.43	26.951	0.0378	-2.5 to 2.5	Pass

				-30	3.85	29.898	0.0419	-2.5 to 2.5	Pass
				-20	3.85	33.817	0.0474	-2.5 to 2.5	Pass
				-10	3.85	36.249	0.0508	-2.5 to 2.5	Pass
				0	3.85	41.342	0.0579	-2.5 to 2.5	Pass
				10	3.85	43.845	0.0615	-2.5 to 2.5	Pass
				30	3.85	-0.243	-0.0003	-2.5 to 2.5	Pass
				40	3.85	-0.672	-0.0009	-2.5 to 2.5	Pass
				50	3.85	0.544	0.0008	-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	
QPSK	709	50	0	20	3.27	-7.896	-0.0111	-2.5 to 2.5	Pass
					3.85	11.415	0.0161	-2.5 to 2.5	Pass
					4.43	14.763	0.0208	-2.5 to 2.5	Pass
				-30	3.85	35.663	0.0503	-2.5 to 2.5	Pass
				-20	3.85	12.102	0.0171	-2.5 to 2.5	Pass
				-10	3.85	16.308	0.0230	-2.5 to 2.5	Pass
				0	3.85	36.378	0.0513	-2.5 to 2.5	Pass
				10	3.85	15.063	0.0212	-2.5 to 2.5	Pass
				30	3.85	17.710	0.0250	-2.5 to 2.5	Pass
				40	3.85	31.199	0.0440	-2.5 to 2.5	Pass
				50	3.85	39.439	0.0556	-2.5 to 2.5	Pass
	710	50	0	20	3.27	-27.165	-0.0383	-2.5 to 2.5	Pass
					3.85	-9.785	-0.0138	-2.5 to 2.5	Pass
					4.43	19.226	0.0271	-2.5 to 2.5	Pass
				-30	3.85	33.245	0.0468	-2.5 to 2.5	Pass
				-20	3.85	41.199	0.0580	-2.5 to 2.5	Pass
				-10	3.85	22.087	0.0311	-2.5 to 2.5	Pass
				0	3.85	6.638	0.0093	-2.5 to 2.5	Pass
				10	3.85	8.411	0.0118	-2.5 to 2.5	Pass
				30	3.85	22.001	0.0310	-2.5 to 2.5	Pass
				40	3.85	29.426	0.0414	-2.5 to 2.5	Pass
				50	3.85	36.936	0.0520	-2.5 to 2.5	Pass
	711	50	0	20	3.27	-30.799	-0.0433	-2.5 to 2.5	Pass
					3.85	-12.503	-0.0176	-2.5 to 2.5	Pass
					4.43	20.299	0.0285	-2.5 to 2.5	Pass
				-30	3.85	40.712	0.0573	-2.5 to 2.5	Pass
				-20	3.85	11.272	0.0159	-2.5 to 2.5	Pass
				-10	3.85	25.907	0.0364	-2.5 to 2.5	Pass
				0	3.85	30.484	0.0429	-2.5 to 2.5	Pass
				10	3.85	43.831	0.0616	-2.5 to 2.5	Pass
				30	3.85	45.261	0.0637	-2.5 to 2.5	Pass
				40	3.85	7.281	0.0102	-2.5 to 2.5	Pass
				50	3.85	14.176	0.0199	-2.5 to 2.5	Pass
16QAM	709	50	0	20	3.27	4.005	0.0056	-2.5 to 2.5	Pass
					3.85	-0.343	-0.0005	-2.5 to 2.5	Pass
					4.43	-10.571	-0.0149	-2.5 to 2.5	Pass
				-30	3.85	-16.837	-0.0237	-2.5 to 2.5	Pass
				-20	3.85	-16.866	-0.0238	-2.5 to 2.5	Pass
				-10	3.85	-19.255	-0.0272	-2.5 to 2.5	Pass
				0	3.85	-22.774	-0.0321	-2.5 to 2.5	Pass
				10	3.85	-24.762	-0.0349	-2.5 to 2.5	Pass
				30	3.85	-26.293	-0.0371	-2.5 to 2.5	Pass
				40	3.85	-34.347	-0.0484	-2.5 to 2.5	Pass
				50	3.85	-33.388	-0.0471	-2.5 to 2.5	Pass

	710	50	0	20	3.27	42.515	0.0599	-2.5 to 2.5	Pass
					3.85	30.870	0.0435	-2.5 to 2.5	Pass
					4.43	19.398	0.0273	-2.5 to 2.5	Pass
				-30	3.85	5.651	0.0080	-2.5 to 2.5	Pass
				-20	3.85	0.215	0.0003	-2.5 to 2.5	Pass
				-10	3.85	-1.960	-0.0028	-2.5 to 2.5	Pass
				0	3.85	-3.619	-0.0051	-2.5 to 2.5	Pass
				10	3.85	-13.161	-0.0185	-2.5 to 2.5	Pass
				30	3.85	-10.471	-0.0147	-2.5 to 2.5	Pass
				40	3.85	-9.770	-0.0138	-2.5 to 2.5	Pass
	711	50	0	50	3.85	-14.362	-0.0202	-2.5 to 2.5	Pass
				20	3.27	25.148	0.0354	-2.5 to 2.5	Pass
					3.85	13.704	0.0193	-2.5 to 2.5	Pass
					4.43	4.764	0.0067	-2.5 to 2.5	Pass
				-30	3.85	-2.003	-0.0028	-2.5 to 2.5	Pass
				-20	3.85	-3.862	-0.0054	-2.5 to 2.5	Pass
				-10	3.85	-3.748	-0.0053	-2.5 to 2.5	Pass
				0	3.85	-7.725	-0.0109	-2.5 to 2.5	Pass
				10	3.85	-21.229	-0.0299	-2.5 to 2.5	Pass
				30	3.85	-19.784	-0.0278	-2.5 to 2.5	Pass
				40	3.85	-21.358	-0.0300	-2.5 to 2.5	Pass
				50	3.85	-28.124	-0.0396	-2.5 to 2.5	Pass

3. Modulation Characteristics

3.1 Test Result

3.1.1 B17_5MHz

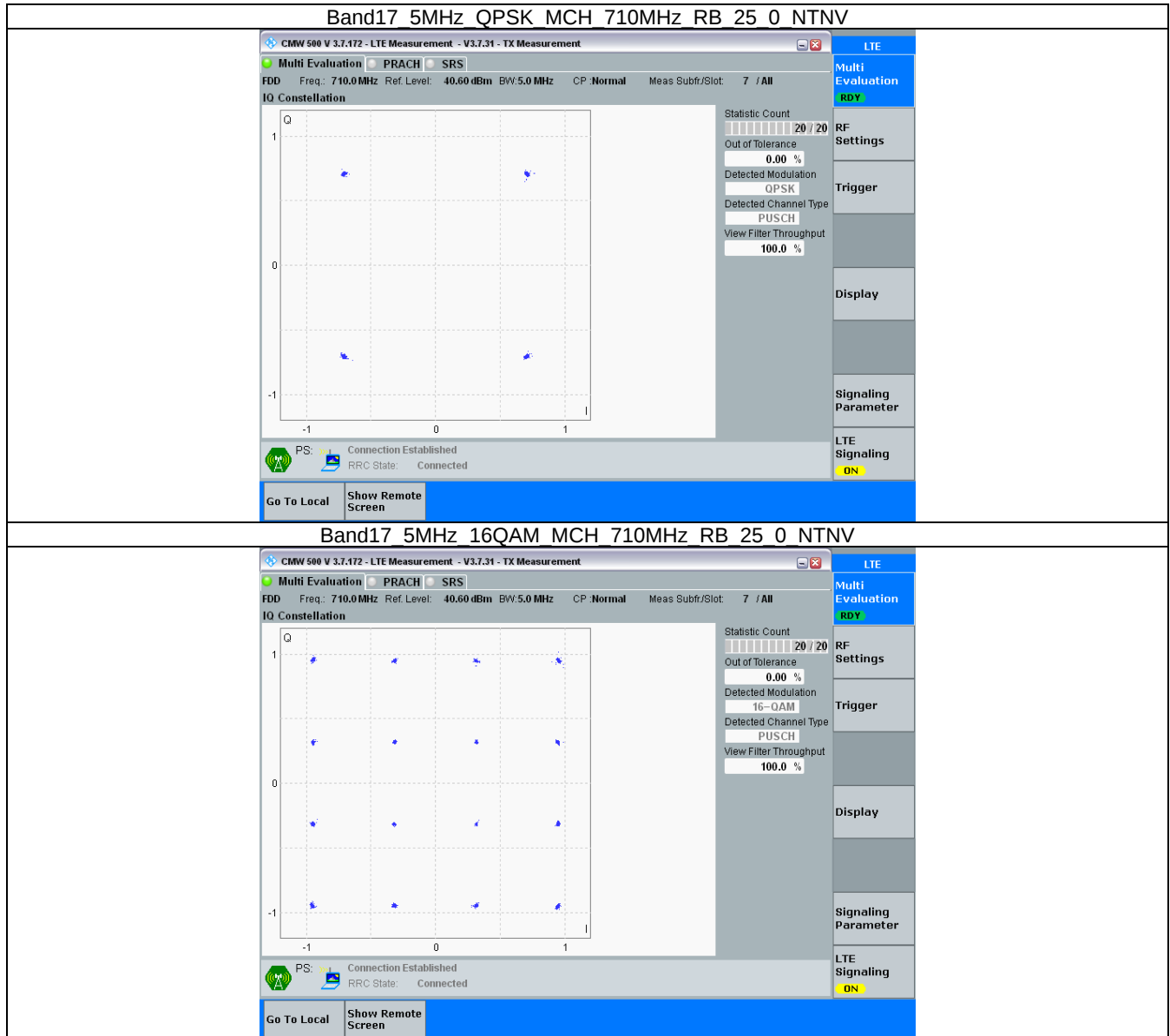
Band: 17 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	710	25	0	Refer To Test Graph		Pass
16QAM	710	25	0	Refer To Test Graph		Pass

3.1.2 B17_10MHz

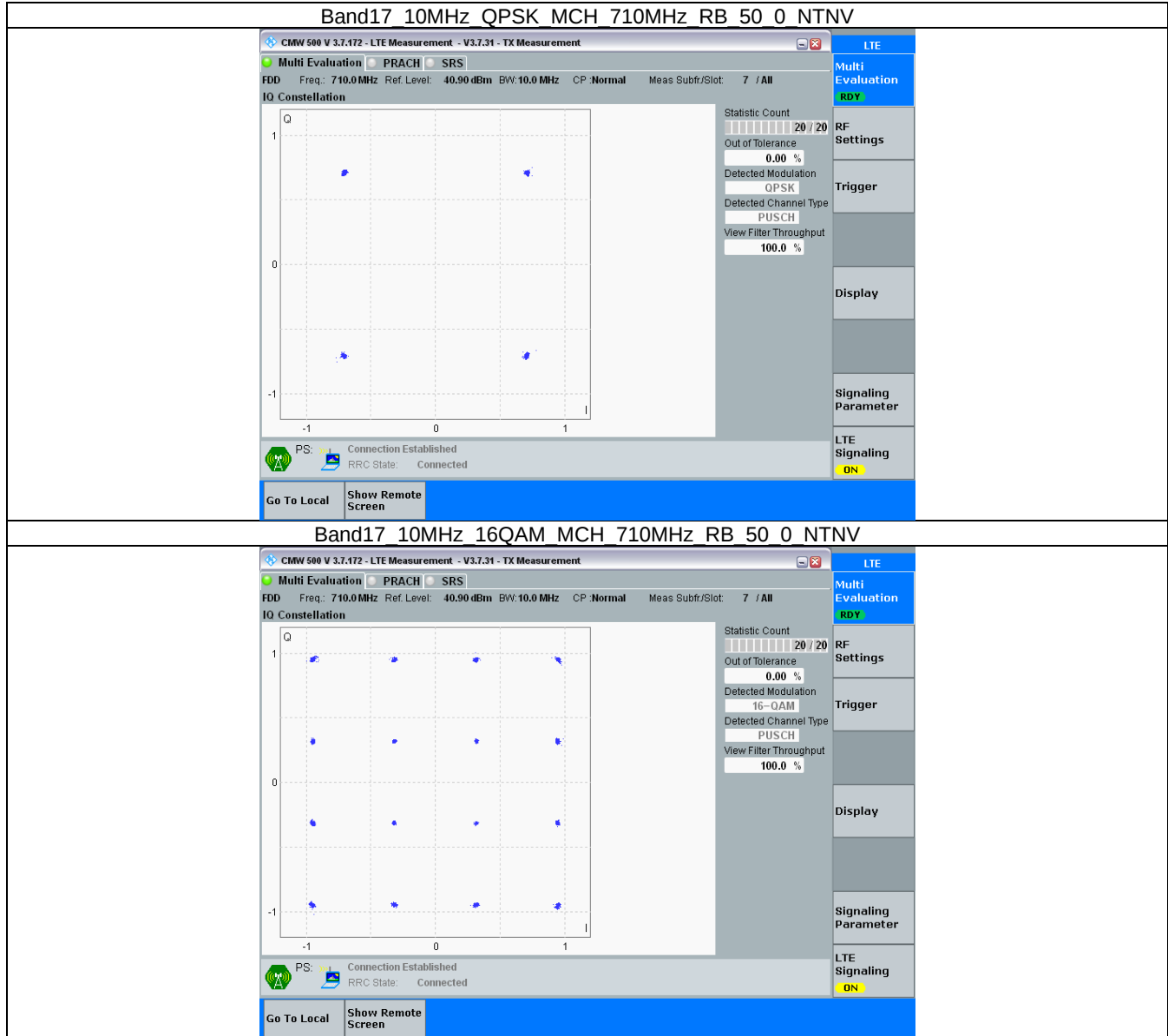
Band: 17 / Bandwidth: 10MHz / NTVN						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	710	50	0	Refer To Test Graph		Pass
16QAM	710	50	0	Refer To Test Graph		Pass

3.2 Test Graph

3.2.1 B17_5MHz



3.2.2 B17_10MHz



4. 99% & 26dB Bandwidth

4.1 Test Result

4.1.1 Band17_OBW

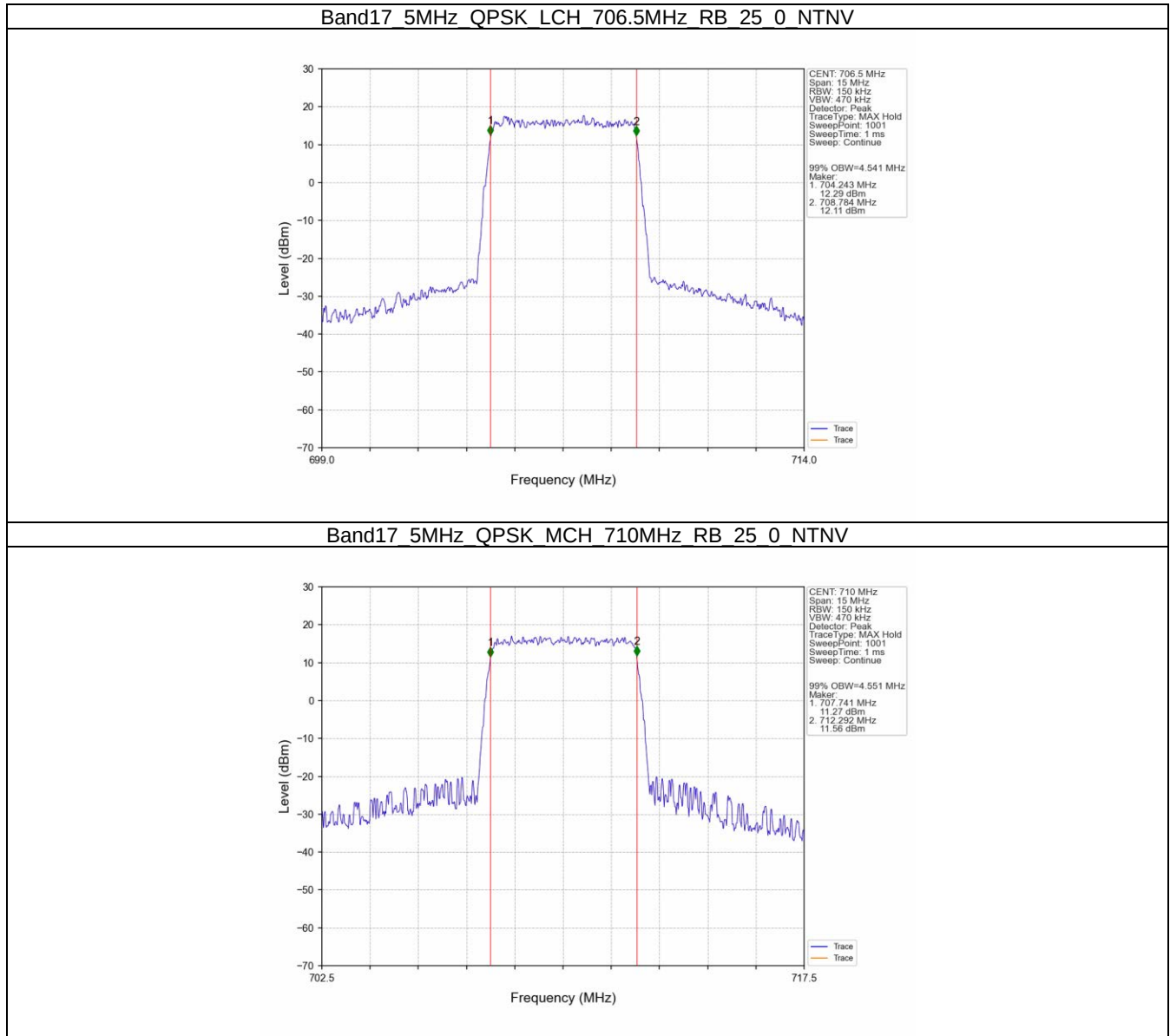
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	706.5	25	0	4.541	/	Pass
		710	25	0	4.551	/	Pass
		713.5	25	0	4.537	/	Pass
	16QAM	706.5	25	0	4.576	/	Pass
		710	25	0	4.556	/	Pass
		713.5	25	0	4.528	/	Pass
10	QPSK	709	50	0	9.074	/	Pass
		710	50	0	9.076	/	Pass
		711	50	0	9.022	/	Pass
	16QAM	709	50	0	9.043	/	Pass
		710	50	0	9.045	/	Pass
		711	50	0	9.061	/	Pass

4.1.2 Band17_XDB

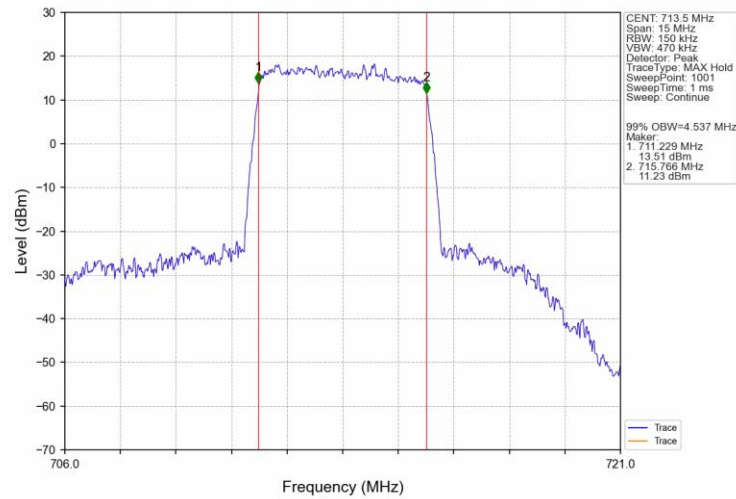
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	706.5	25	0	5.033	/	Pass
		710	25	0	5.083	/	Pass
		713.5	25	0	5.041	/	Pass
	16QAM	706.5	25	0	5.050	/	Pass
		710	25	0	5.062	/	Pass
		713.5	25	0	5.026	/	Pass
10	QPSK	709	50	0	10.058	/	Pass
		710	50	0	10.025	/	Pass
		711	50	0	10.032	/	Pass
	16QAM	709	50	0	10.003	/	Pass
		710	50	0	10.018	/	Pass
		711	50	0	10.017	/	Pass

4.2 Test Graph

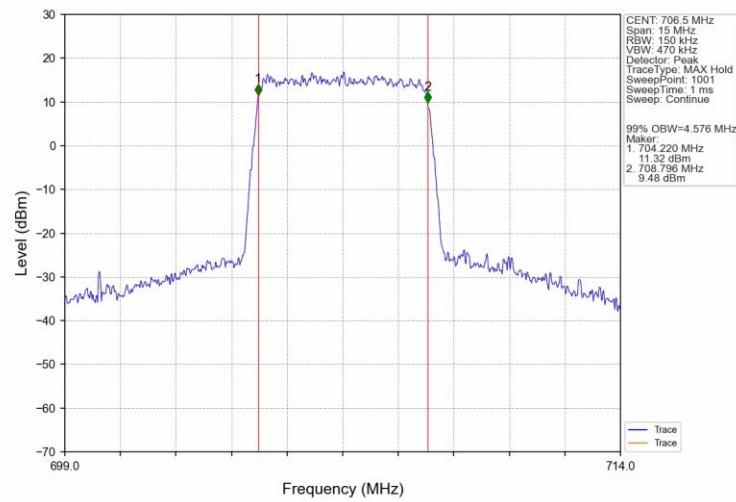
4.2.1 Band17_OBW



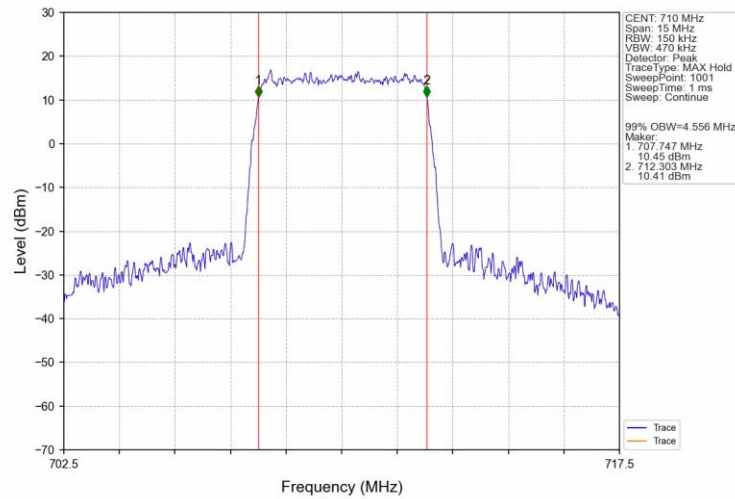
Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



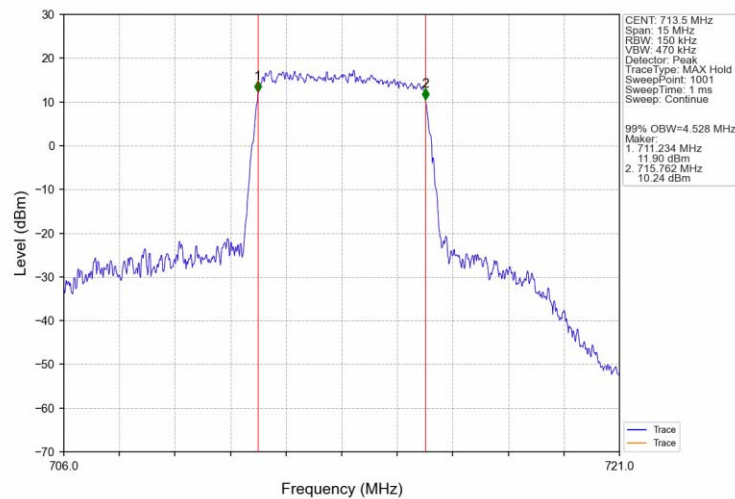
Band17_5MHz_16QAM_LCH_706.5MHz_RB_25_0_NTNV



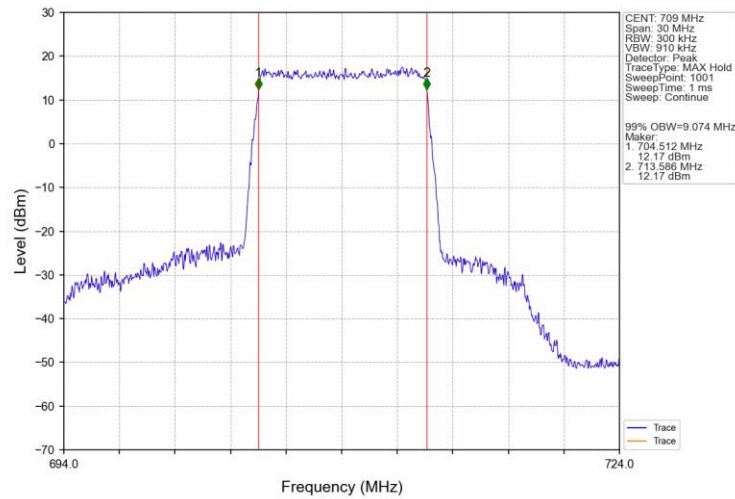
Band17_5MHz_16QAM_MCH_710MHz_RB_25_0_NTNV



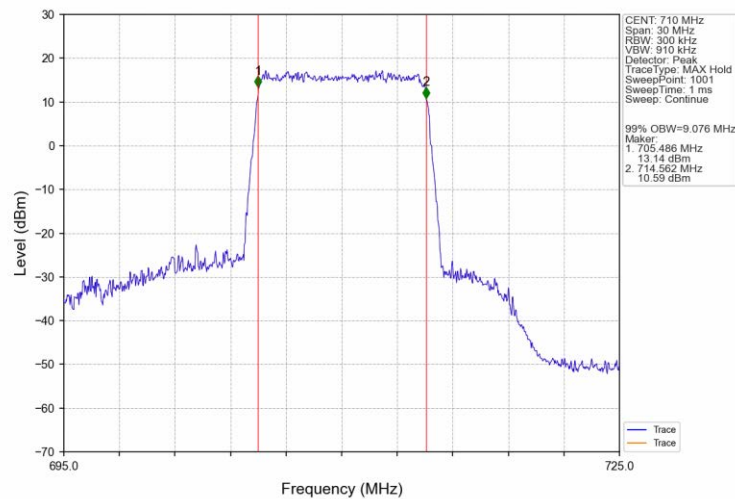
Band17_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



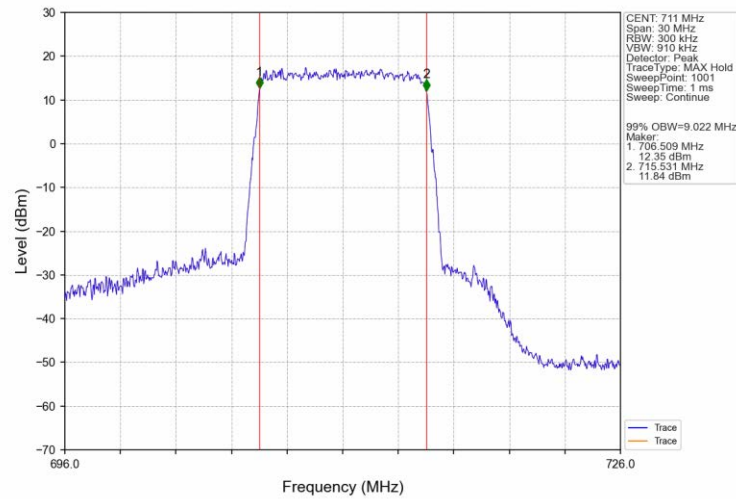
Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV



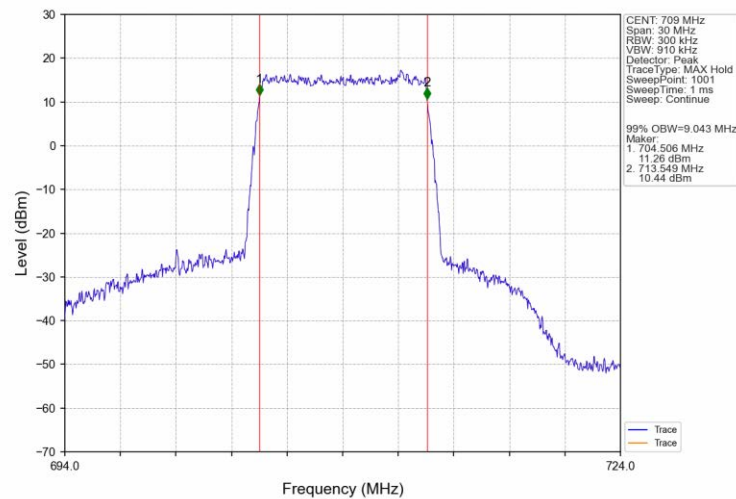
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



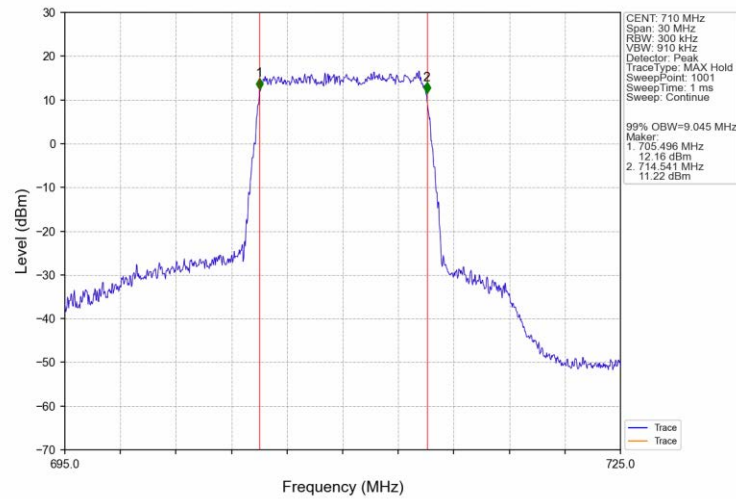
Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



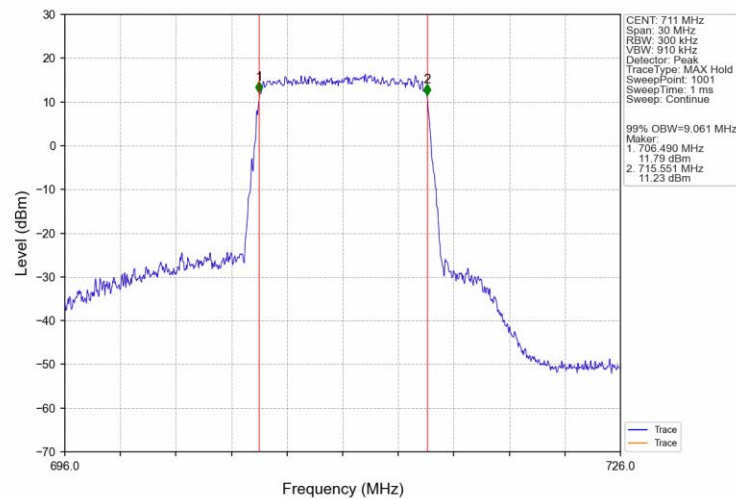
Band17_10MHz_16QAM_LCH_709MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV

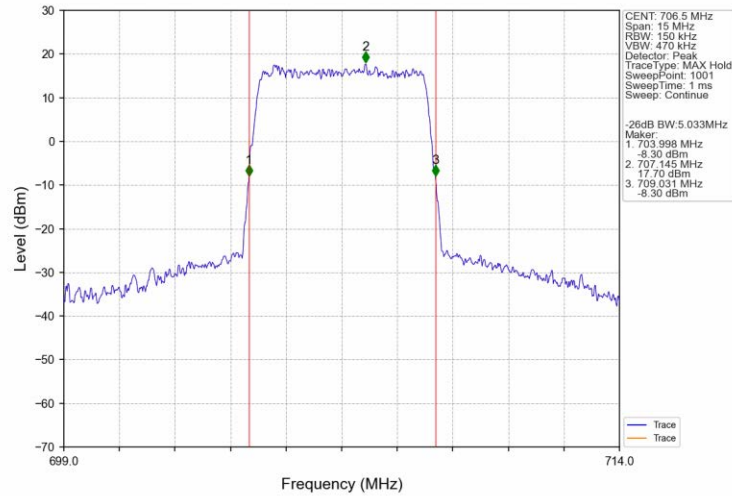


Band17_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV

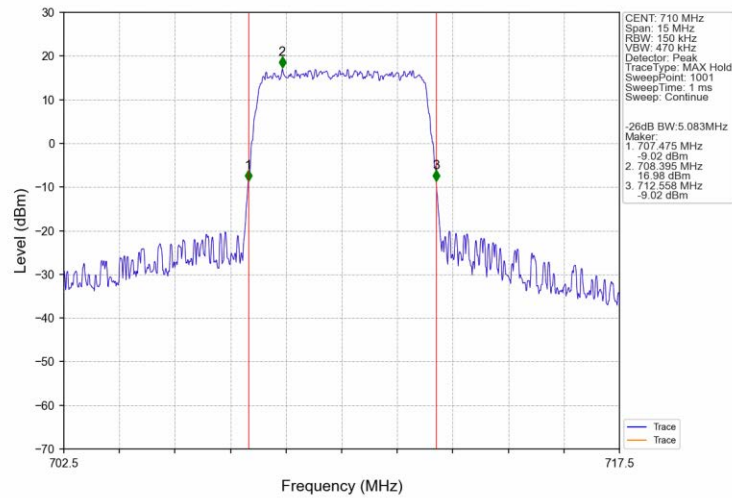


4.2.2 Band17_XDB

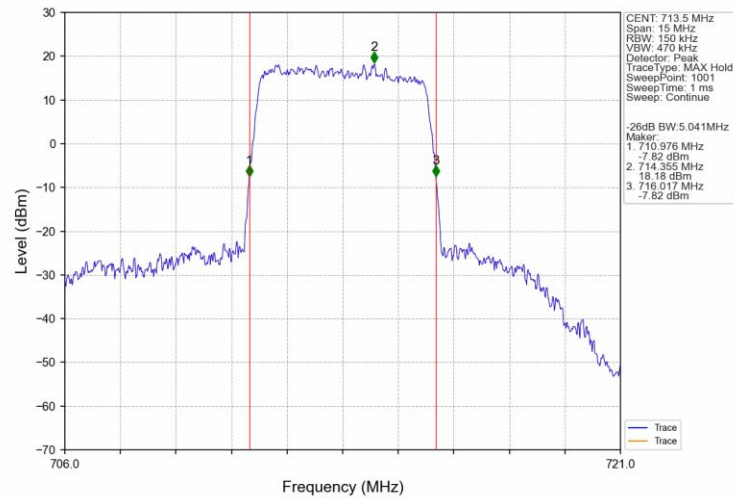
Band17 5MHz QPSK LCH 706.5MHz RB 25 0 NTNV



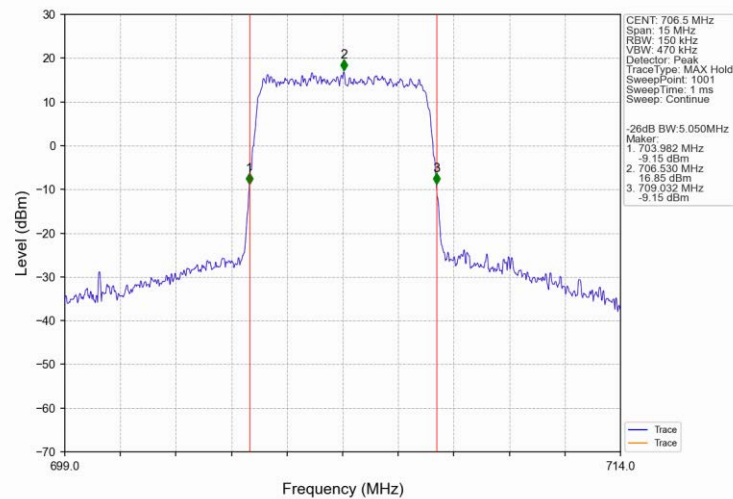
Band17 5MHz QPSK MCH 710MHz RB 25 0 NTNV



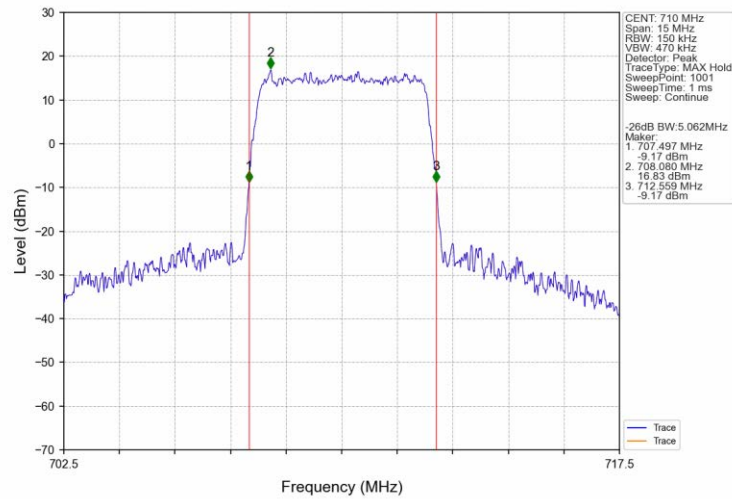
Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



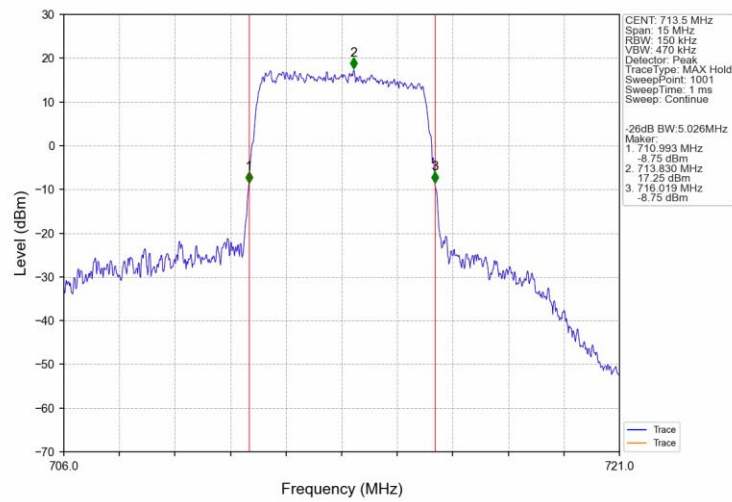
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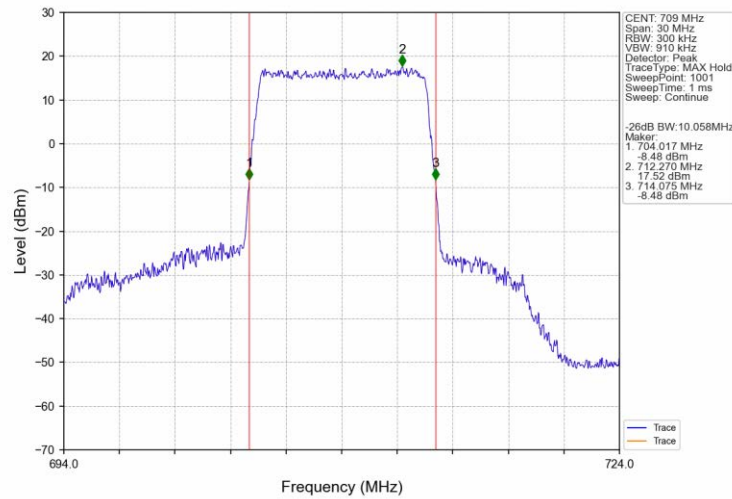
Band17_5MHz_16QAM_MCH_710MHz_RB_25_0_NTNV



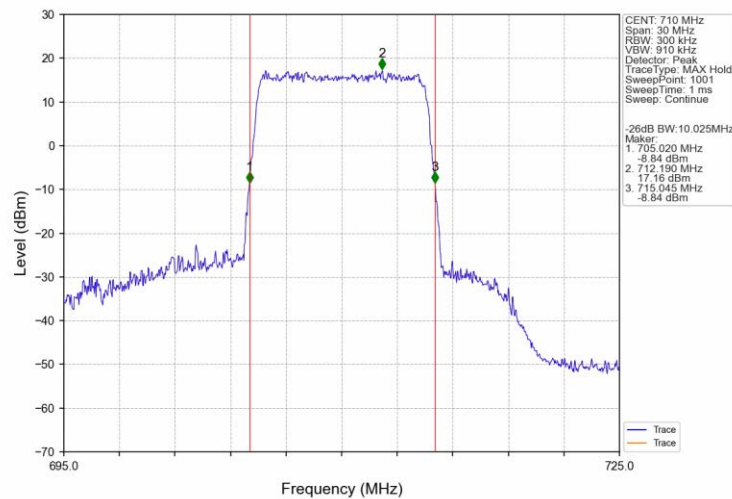
Band17_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



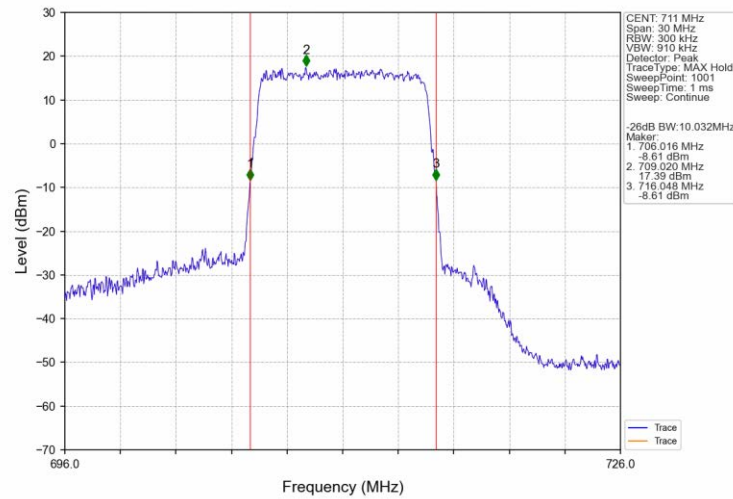
Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV



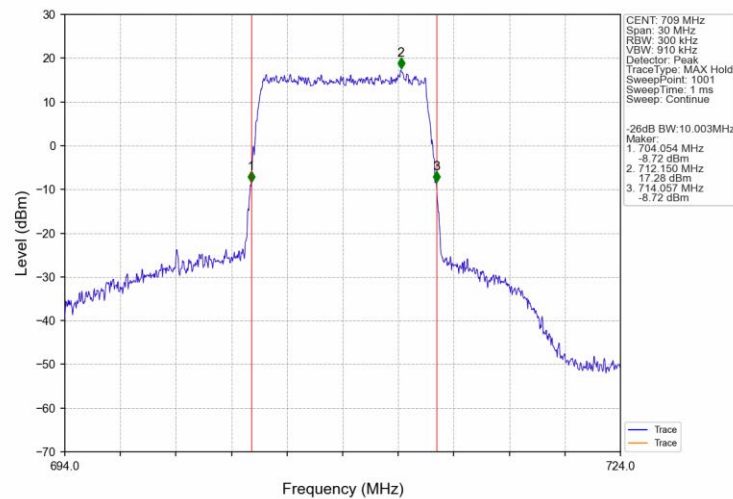
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



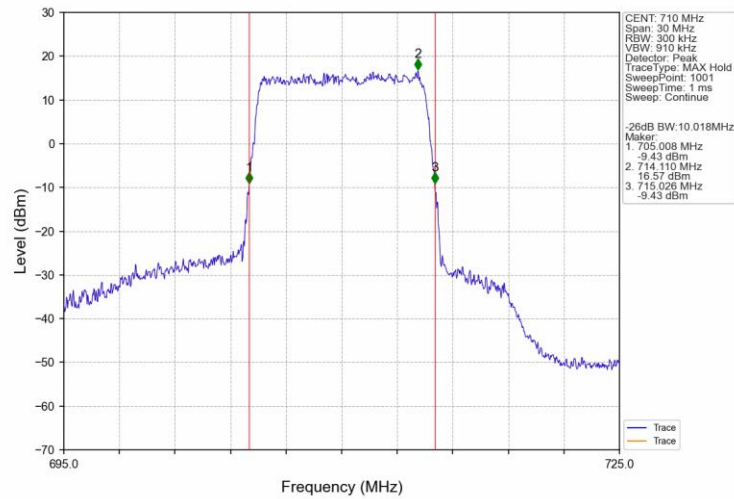
Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



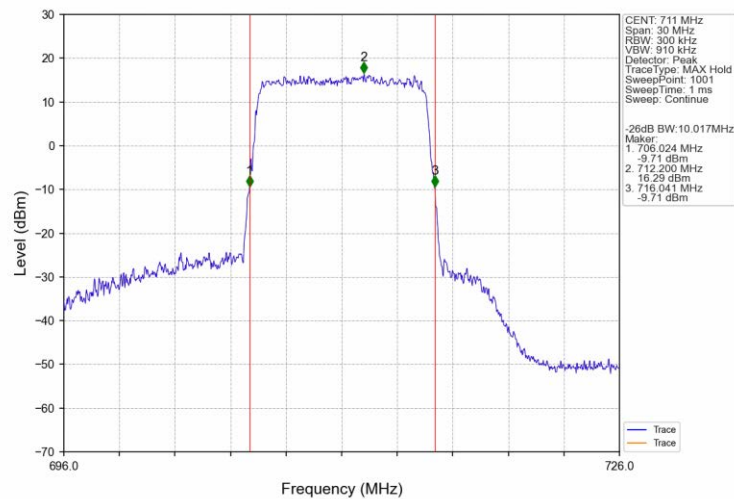
Band17_10MHz_16QAM_LCH_709MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV



5. Peak-Average Ratio

5.1 Test Result

5.1.1 B17_5MHz

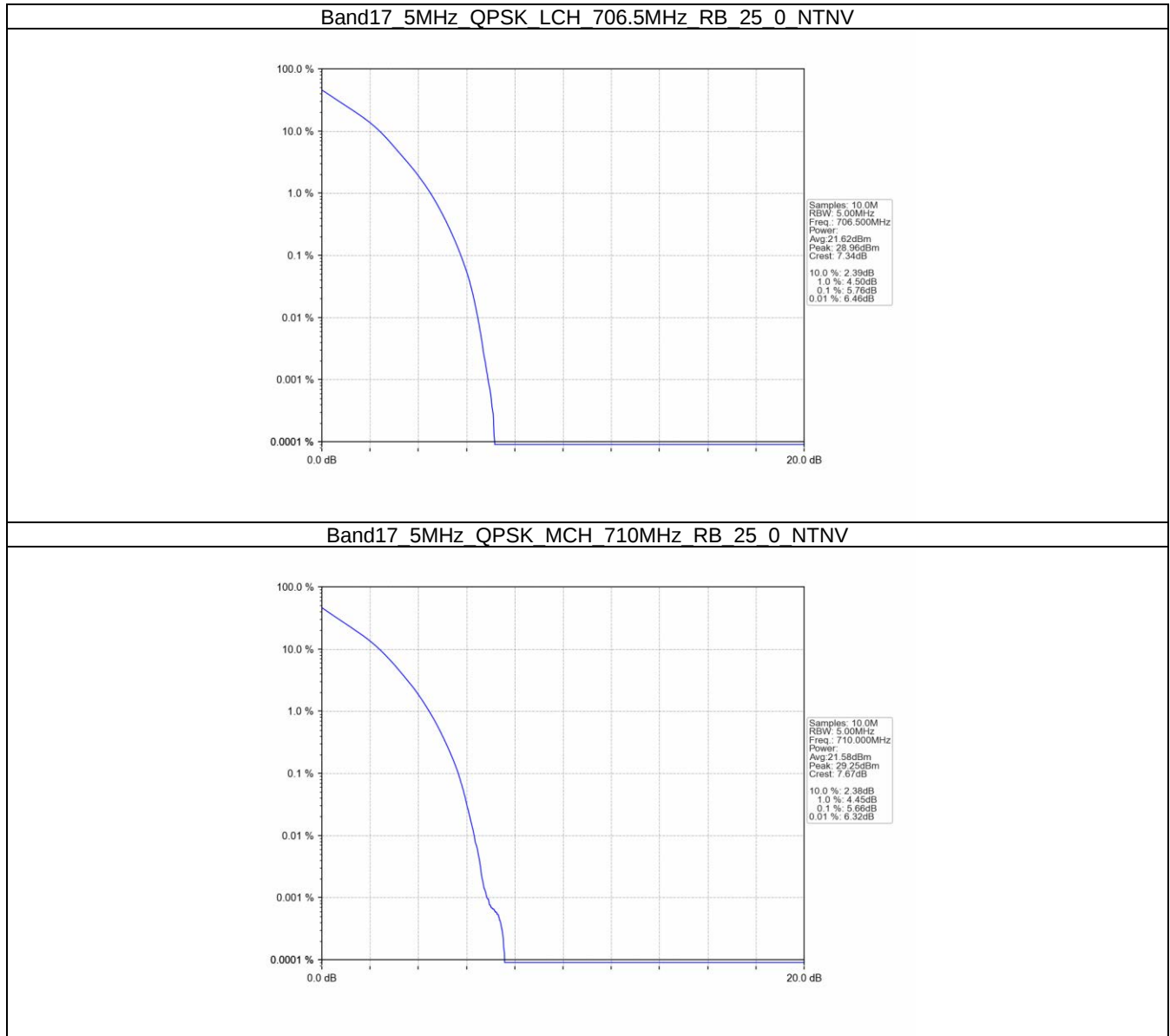
Band: 17 / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	706.5	25	0	5.76	<=13	Pass
	710	25	0	5.66	<=13	Pass
	713.5	25	0	5.48	<=13	Pass
16QAM	706.5	25	0	6.54	<=13	Pass
	710	25	0	6.38	<=13	Pass
	713.5	25	0	6.17	<=13	Pass

5.1.2 B17_10MHz

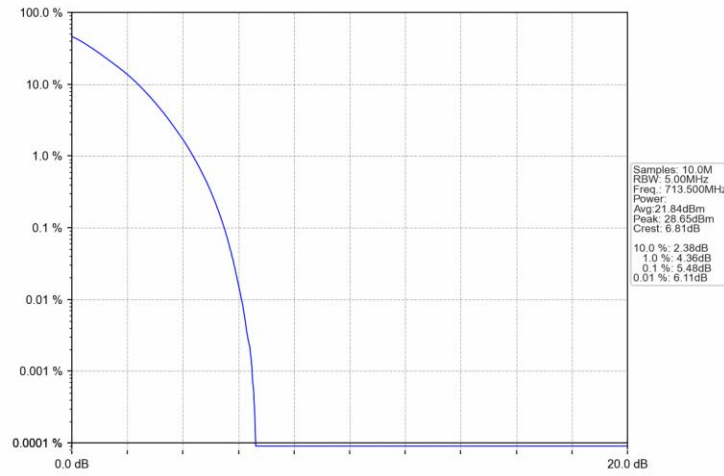
Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	709	50	0	5.73	<=13	Pass
	710	50	0	5.70	<=13	Pass
	711	50	0	5.62	<=13	Pass
16QAM	709	50	0	6.39	<=13	Pass
	710	50	0	6.45	<=13	Pass
	711	50	0	6.41	<=13	Pass

5.2 Test Graph

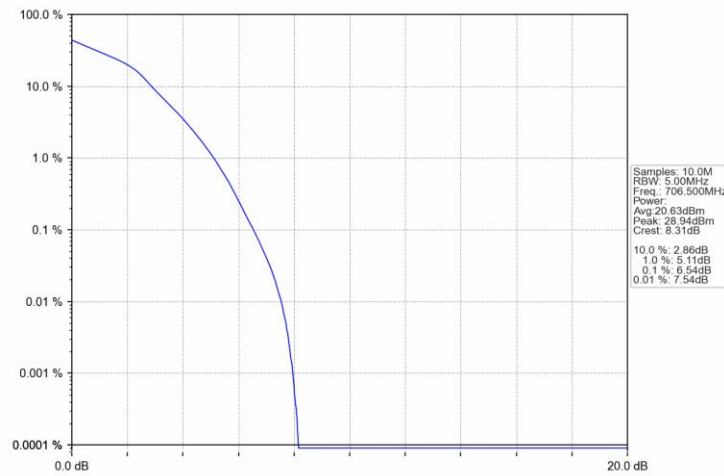
5.2.1 B17_5MHz



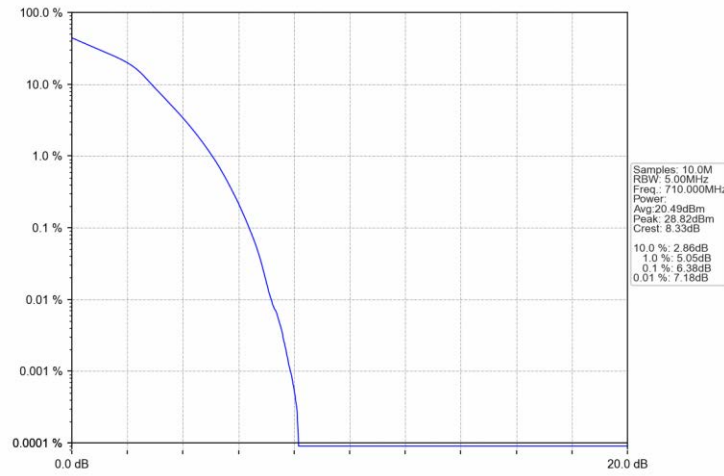
Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



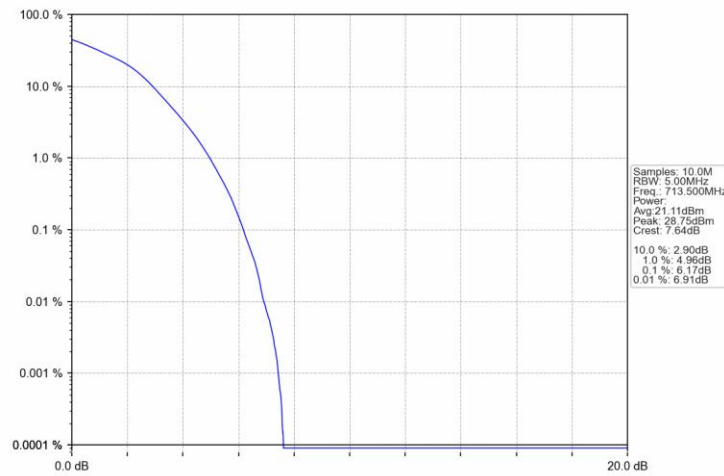
Band17_5MHz_16QAM_LCH_706.5MHz_RB_25_0_NTNV



Band17_5MHz_16QAM_MCH_710MHz_RB_25_0_NTNV

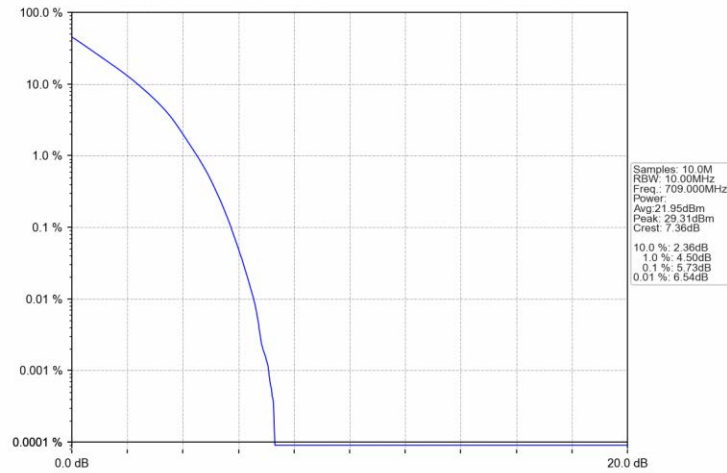


Band17_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV

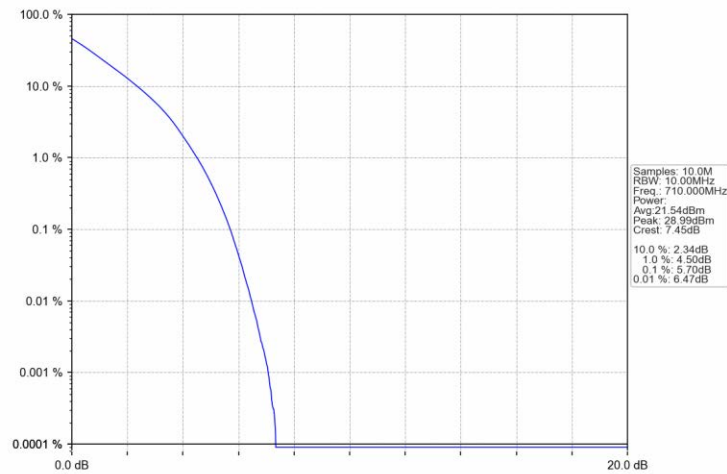


5.2.2 B17_10MHz

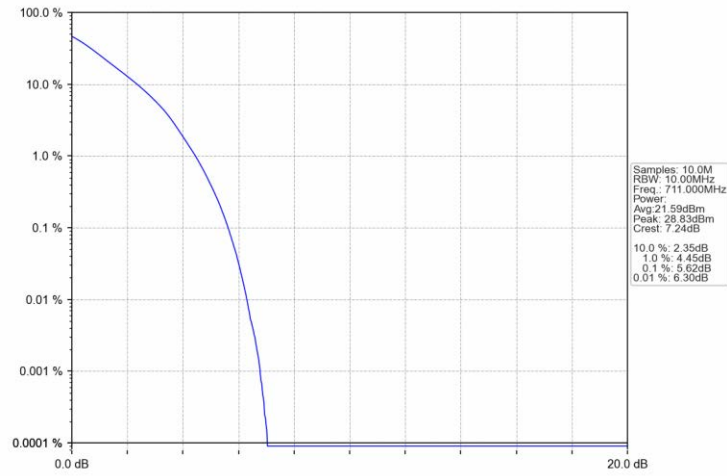
Band17 10MHz QPSK LCH 709MHz RB 50 0 NTN



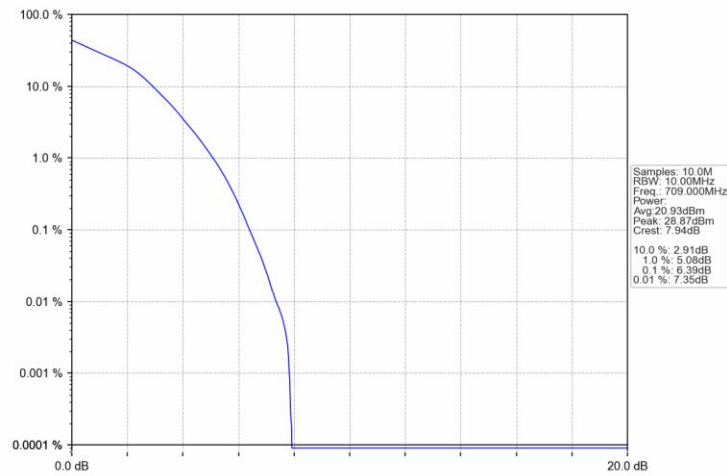
Band17 10MHz QPSK MCH 710MHz RB 50 0 NTN



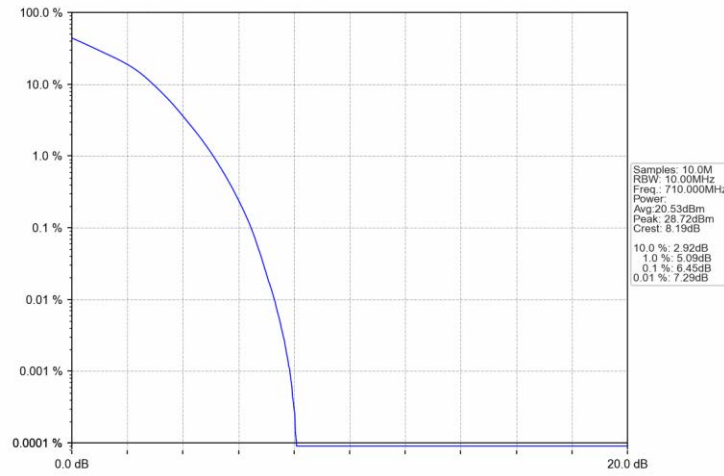
Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



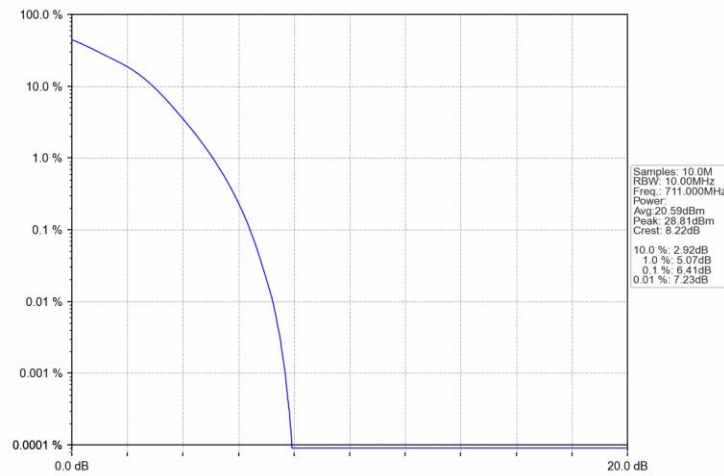
Band17_10MHz_16QAM_LCH_709MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV



6. Spurious Emission

6.1 Test Result

6.1.1 B17_5MHz

Band: 17 / Bandwidth: 5MHz / NTVN						
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
16QAM	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

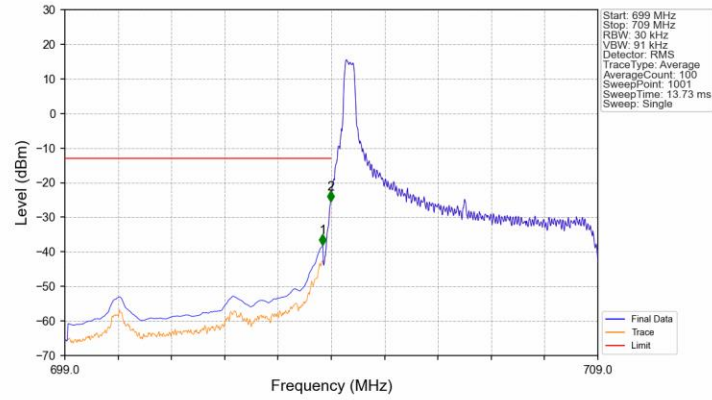
6.1.2 B17_10MHz

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
16QAM	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

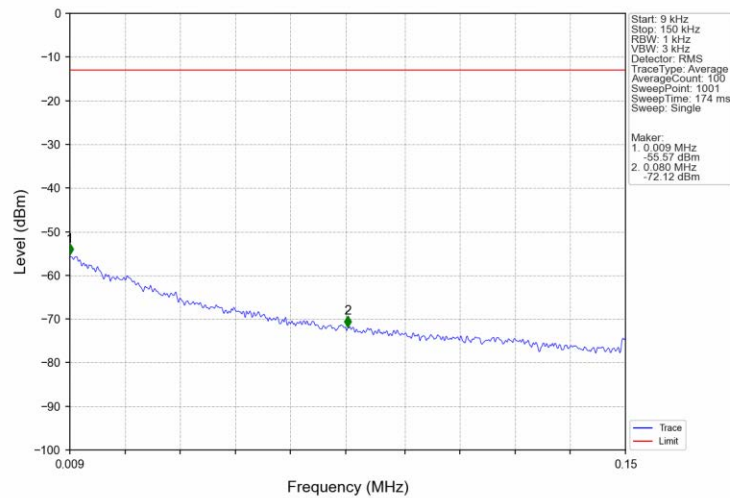
6.2 Test Graph

6.2.1 B17_5MHz

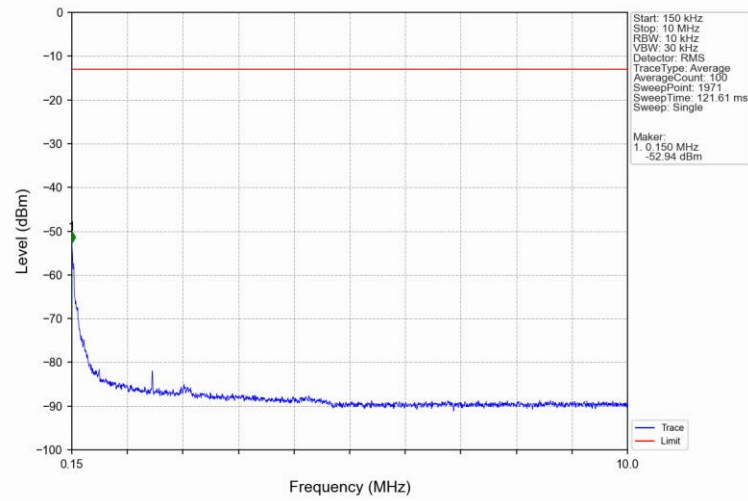
Band17 5MHz QPSK LCH 706.5MHz RB 1 0 NTN



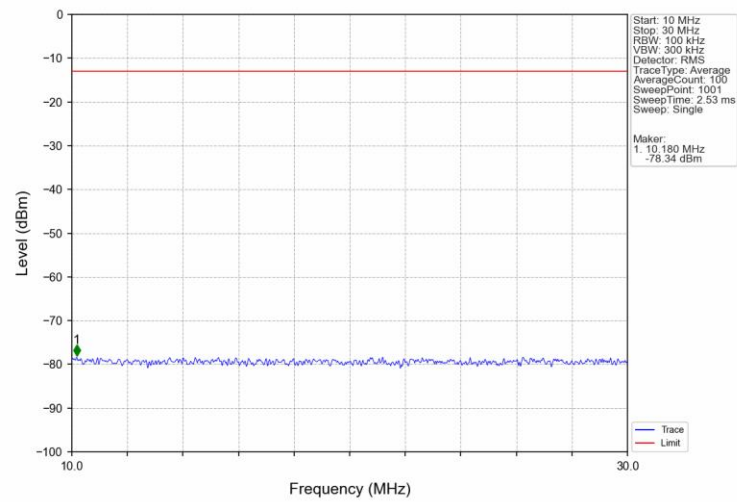
Band17 5MHz QPSK LCH 706.5MHz RB 1 0 NTN



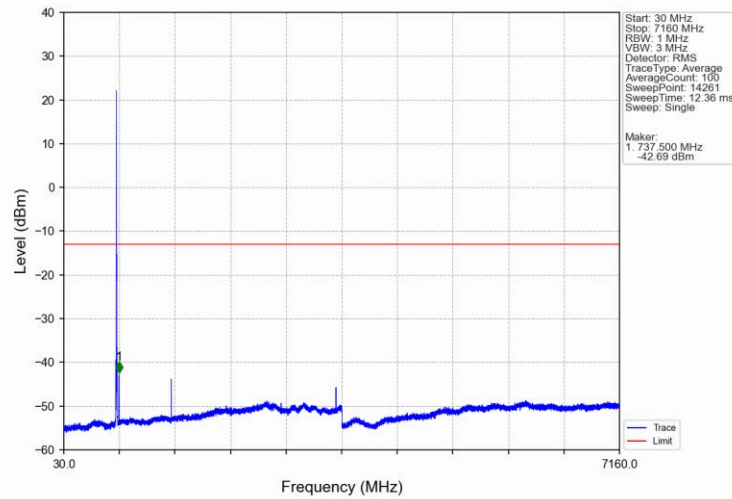
Band17_5MHz_QPSK_LCH_706.5MHz_RB_1_0_NTNV



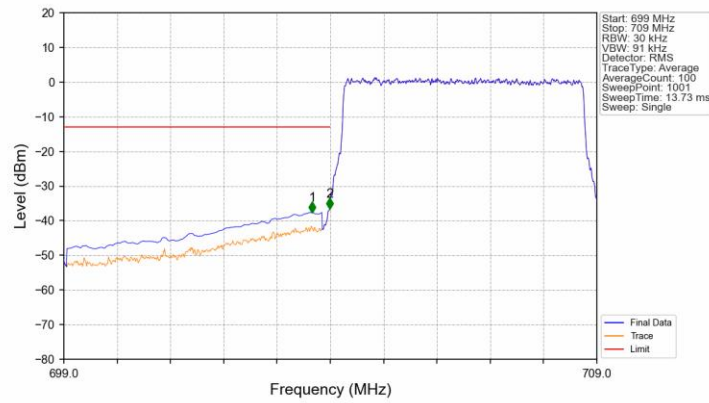
Band17_5MHz_QPSK_LCH_706.5MHz_RB_1_0_NTNV



Band17_5MHz_QPSK_LCH_706.5MHz_RB_1_0_NTNV

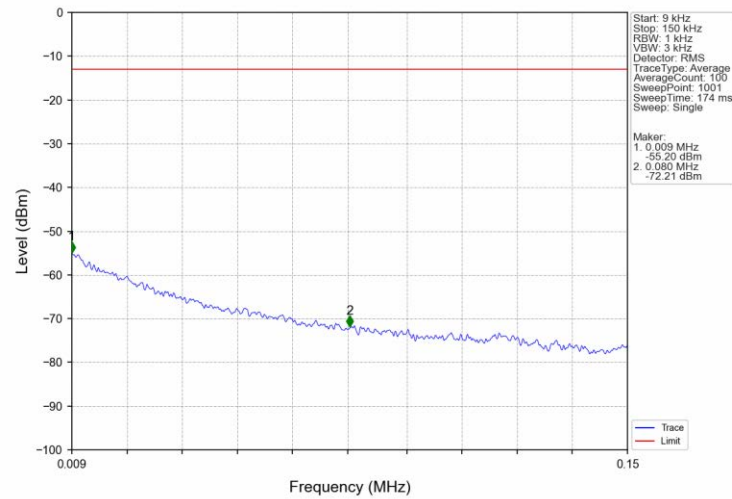


Band17_5MHz_QPSK_LCH_706.5MHz_RB_25_0_NTNV

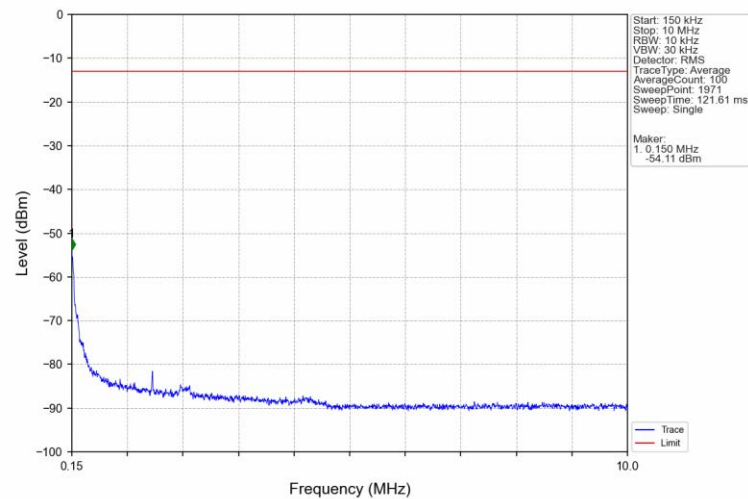


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	ChP	1	703.660	-37.62	-13	Pass
703.9	704	0.03	/	2	703.990	-36.54	-13	Pass
704	709	0.03	/	/	/	/	/	/

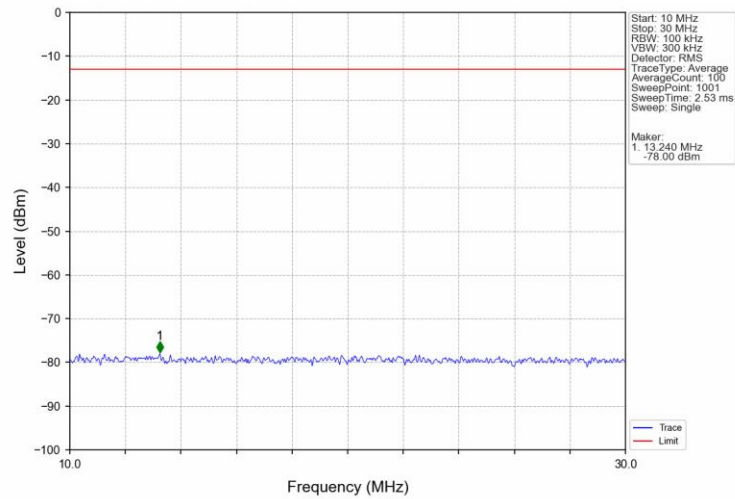
Band17_5MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



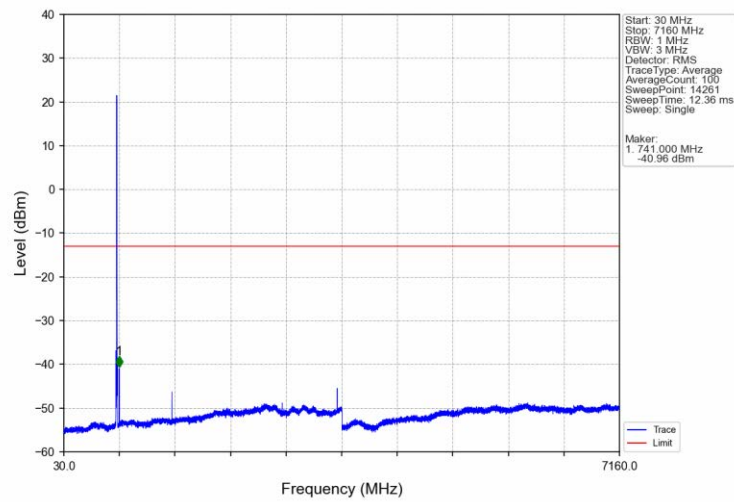
Band17_5MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



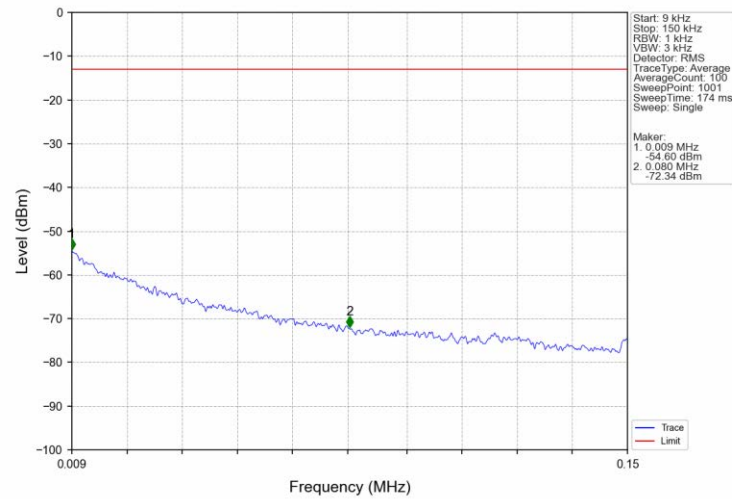
Band17_5MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



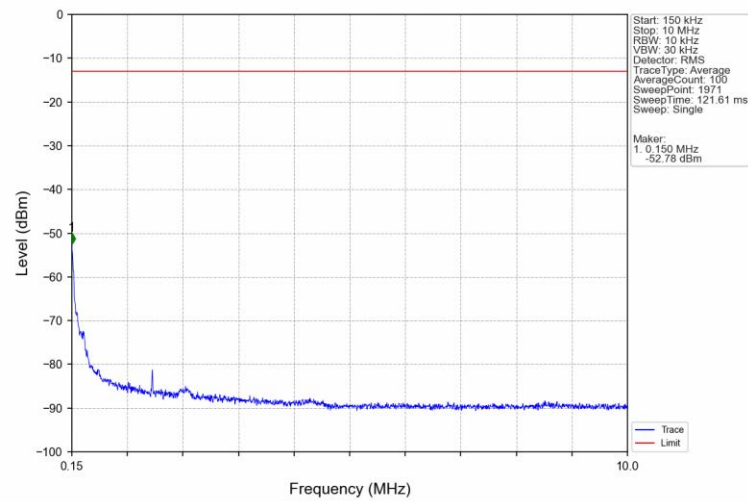
Band17_5MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



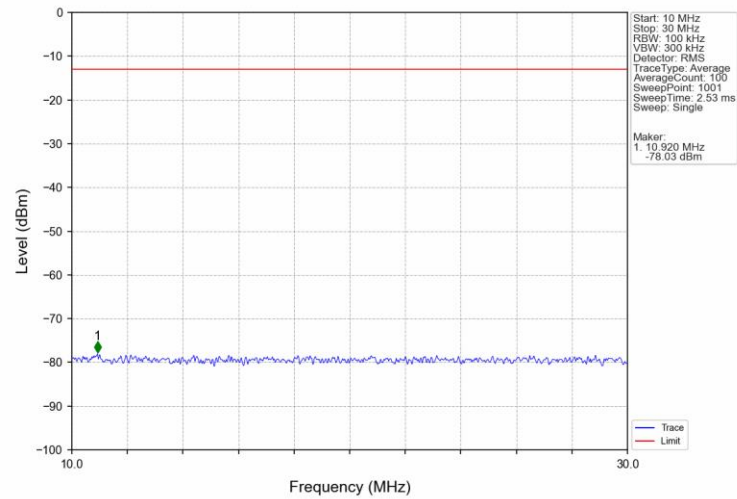
Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_0_NTNV



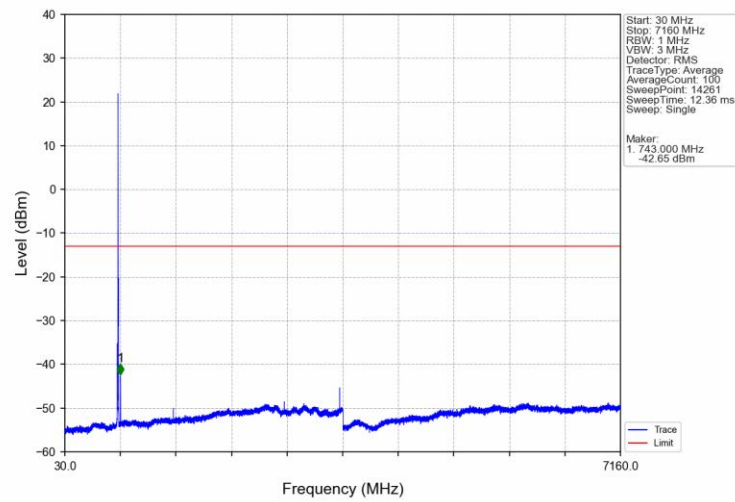
Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_0_NTNV



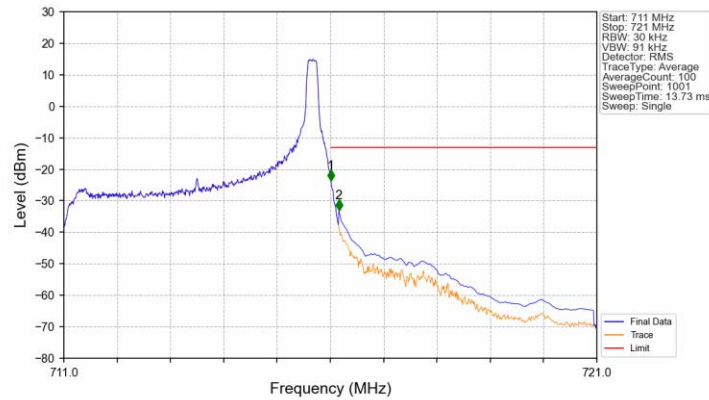
Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_0_NTNV



Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_0_NTNV

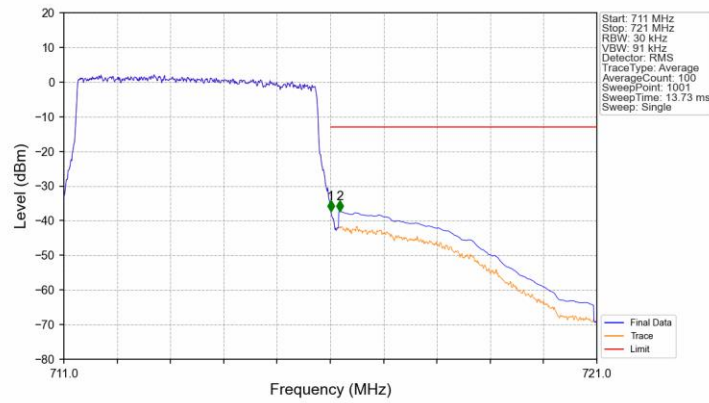


Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_24_NTNV



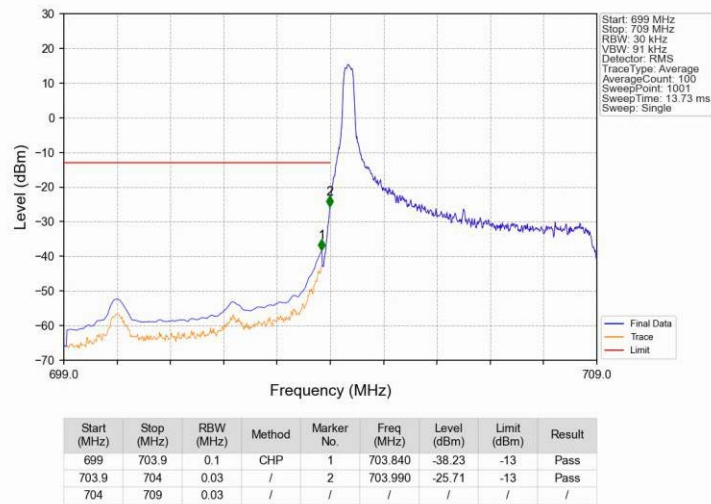
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.010	-23.71	-13	Pass
716.1	721	0.1	CHP	2	716.160	-33.06	-13	Pass

Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV

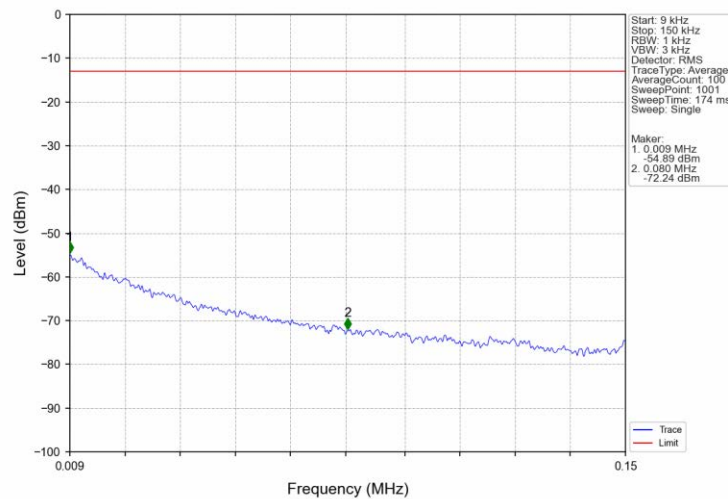


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.010	-37.28	-13	Pass
716.1	721	0.1	CHP	2	716.180	-37.28	-13	Pass

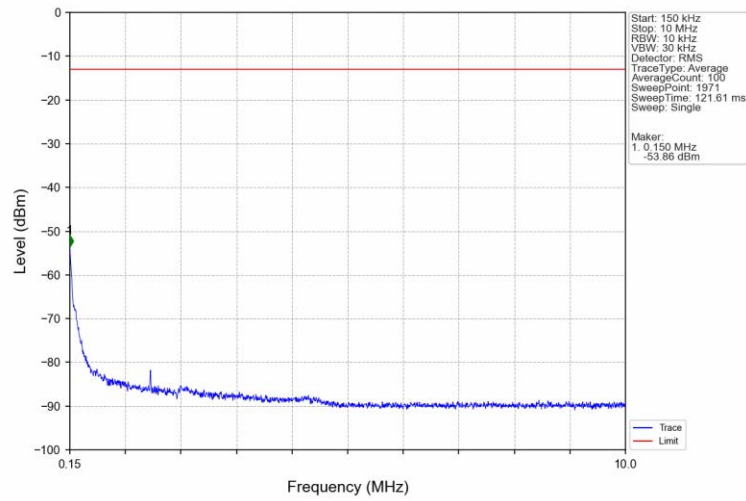
Band17_5MHz_16QAM_LCH_706.5MHz_RB_1_0_NTNV



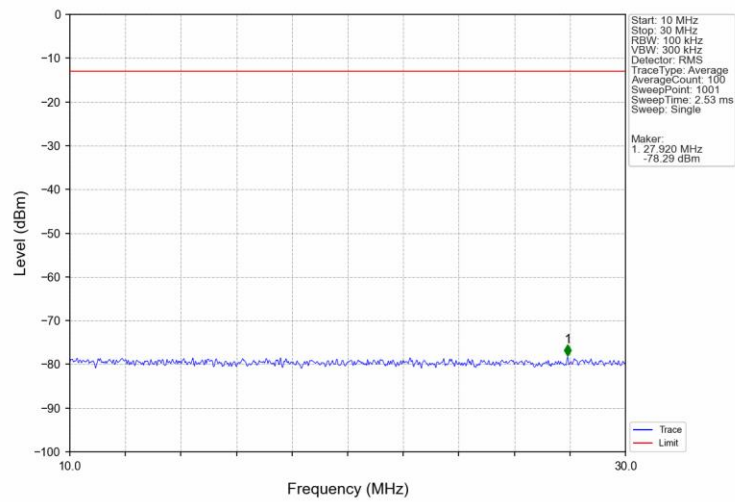
Band17_5MHz_16QAM_LCH_706.5MHz_RB_1_0_NTNV



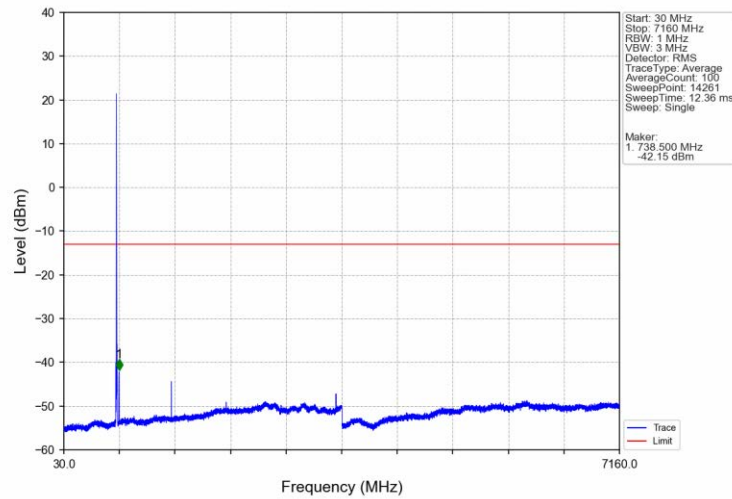
Band17_5MHz_16QAM_LCH_706.5MHz_RB_1_0_NTNV



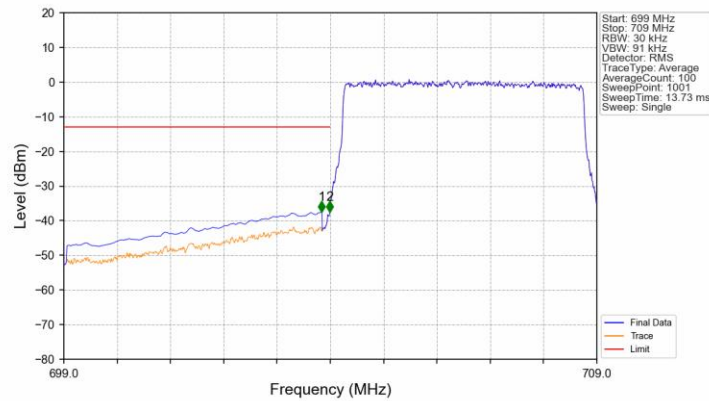
Band17_5MHz_16QAM_LCH_706.5MHz_RB_1_0_NTNV



Band17_5MHz_16QAM_LCH_706.5MHz_RB_1_0_NTNV

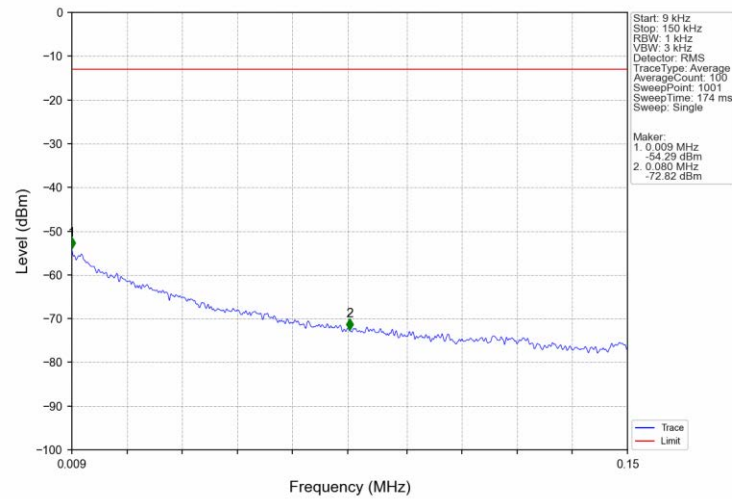


Band17_5MHz_16QAM_LCH_706.5MHz_RB_25_0_NTNV

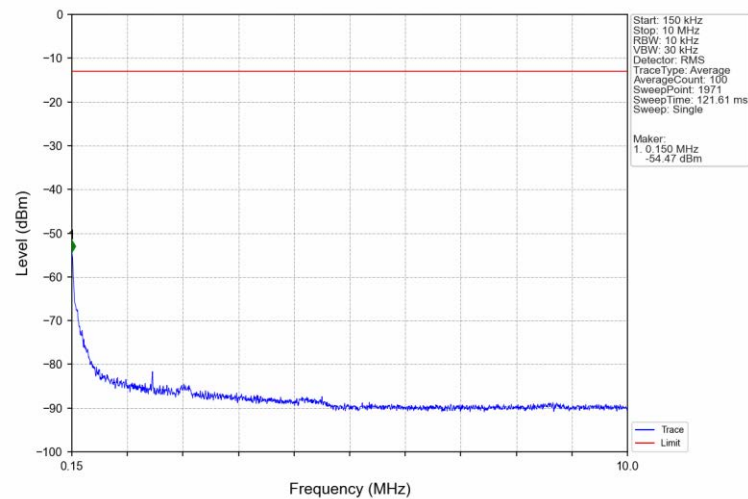


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	ChP	1	703.840	-37.58	-13	Pass
703.9	704	0.03	/	2	703.990	-37.49	-13	Pass
704	709	0.03	/	/	/	/	/	/

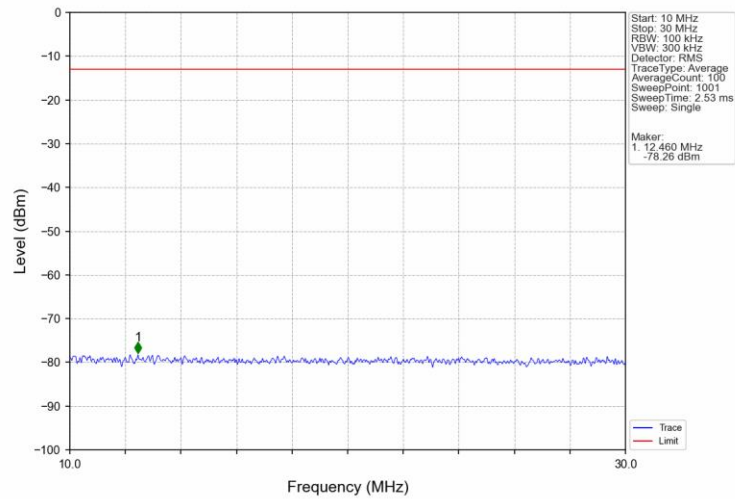
Band17_5MHz_16QAM_MCH_710MHz_RB_1_0_NTNV



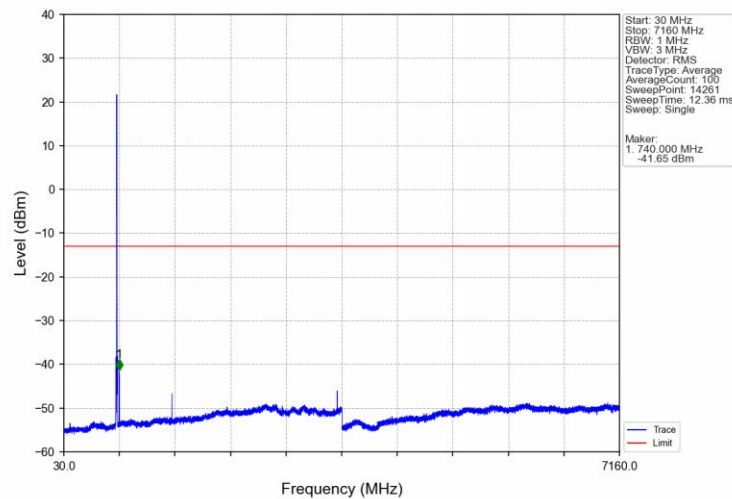
Band17_5MHz_16QAM_MCH_710MHz_RB_1_0_NTNV



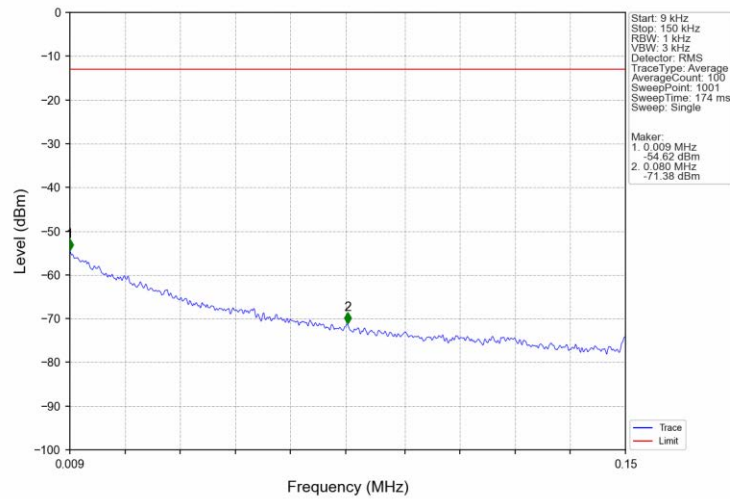
Band17_5MHz_16QAM_MCH_710MHz_RB_1_0_NTNV



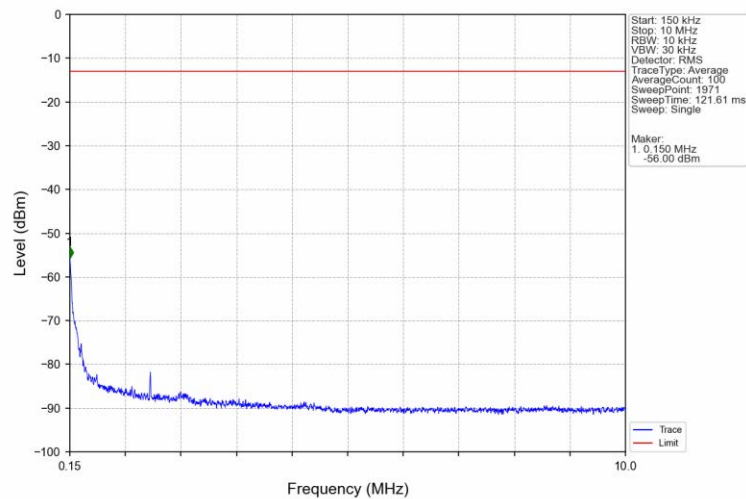
Band17_5MHz_16QAM_MCH_710MHz_RB_1_0_NTNV



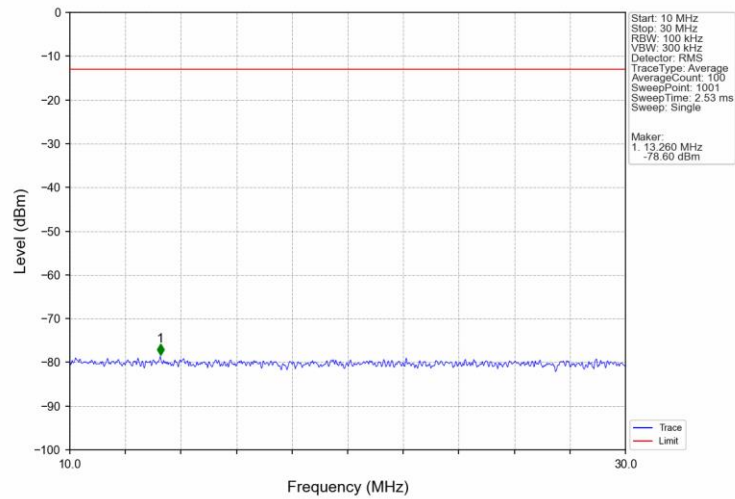
Band17_5MHz_16QAM_HCH_713.5MHz_RB_1_0_NTNV



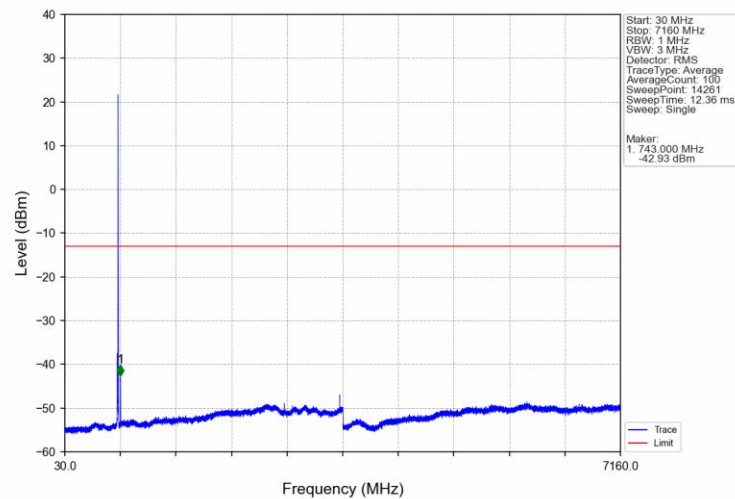
Band17_5MHz_16QAM_HCH_713.5MHz_RB_1_0_NTNV



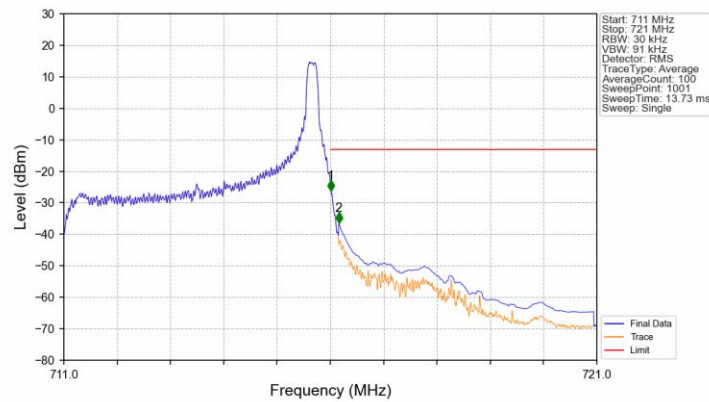
Band17_5MHz_16QAM_HCH_713.5MHz_RB_1_0_NTNV



Band17_5MHz_16QAM_HCH_713.5MHz_RB_1_0_NTNV

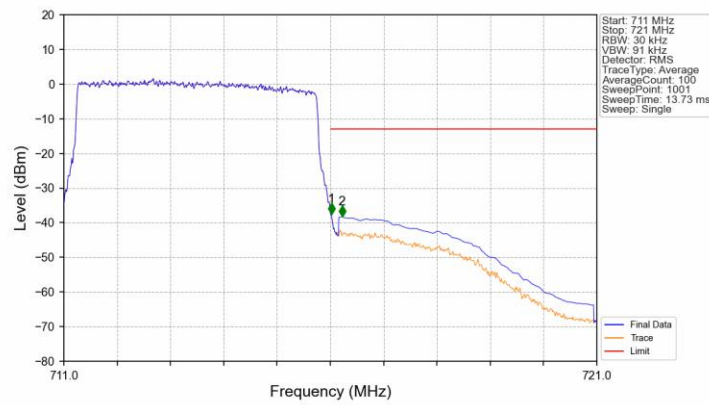


Band17_5MHz_16QAM_HCH_713.5MHz_RB_1_24_NTNV



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	-26.23	-13	Pass
716.1	721	0.1	CHP	2	716.160	-36.43	-13	Pass

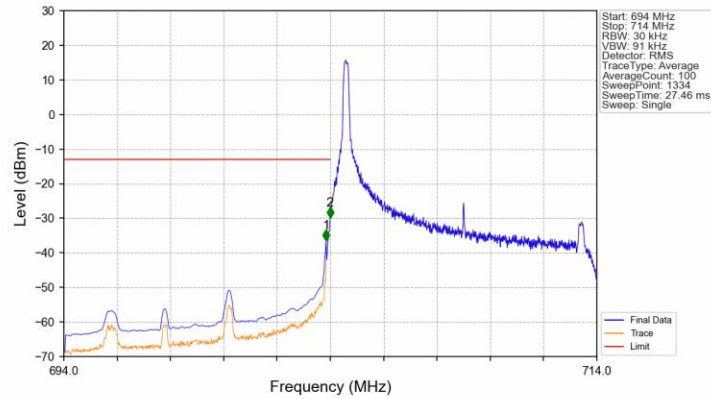
Band17_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



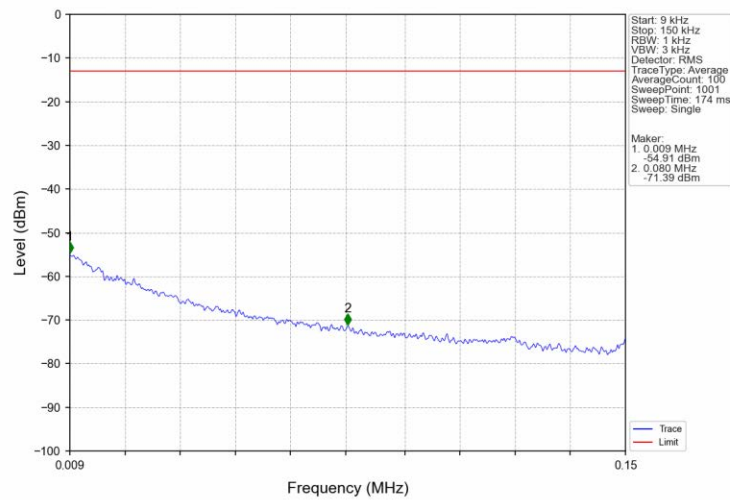
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.020	-37.58	-13	Pass
716.1	721	0.1	CHP	2	716.220	-38.27	-13	Pass

6.2.2 B17_10MHz

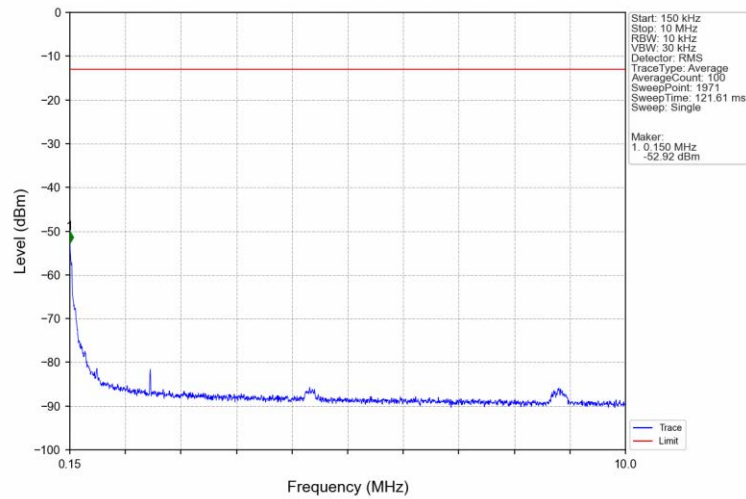
Band17 10MHz QPSK LCH 709MHz RB 1 0 NTN



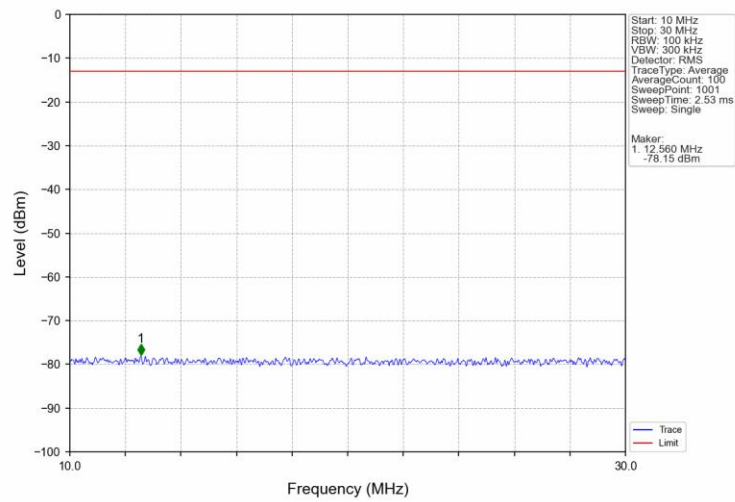
Band17 10MHz QPSK LCH 709MHz RB 1 0 NTN



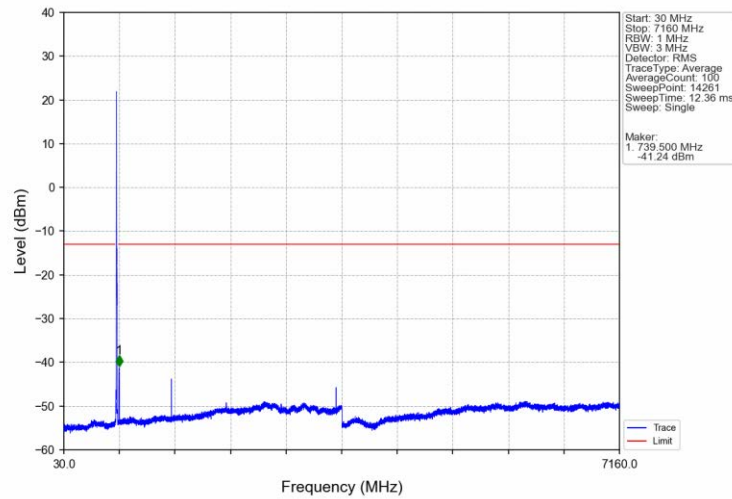
Band17_10MHz_QPSK_LCH_709MHz_RB_1_0_NTNV



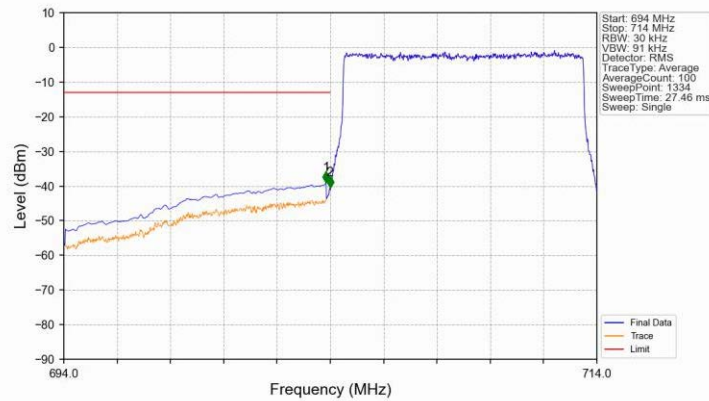
Band17_10MHz_QPSK_LCH_709MHz_RB_1_0_NTNV



Band17_10MHz_QPSK_LCH_709MHz_RB_1_0_NTNV

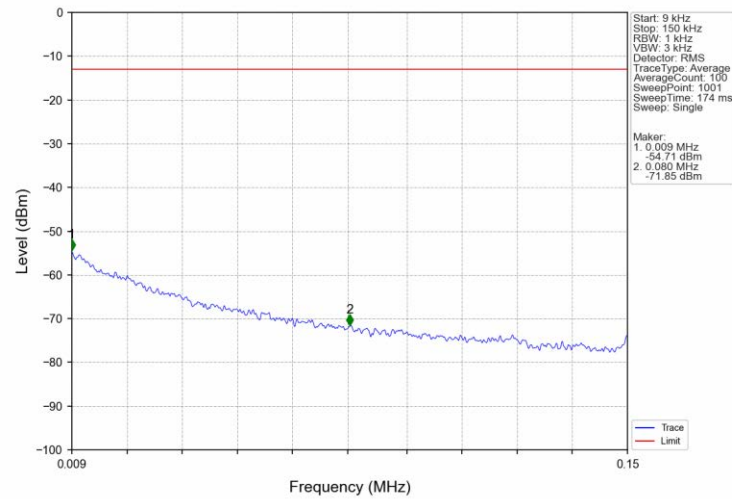


Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV

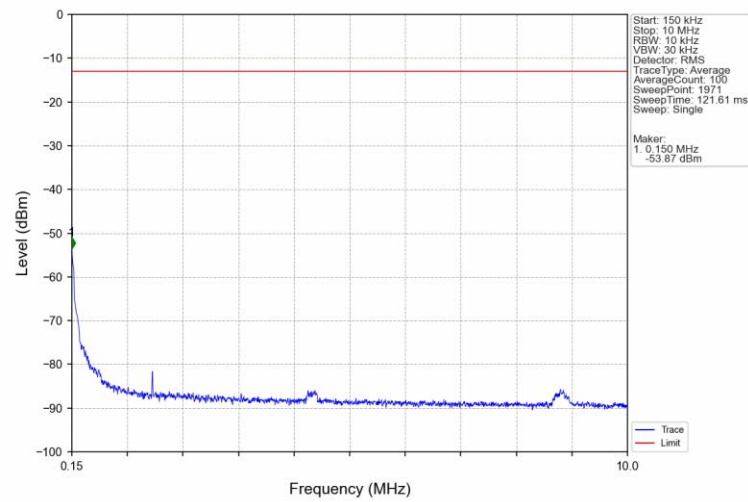


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.842	-38.96	-13	Pass
703.9	704	0.03	/	2	703.992	-40.48	-13	Pass
704	714	0.03	/	/	/	/	/	/

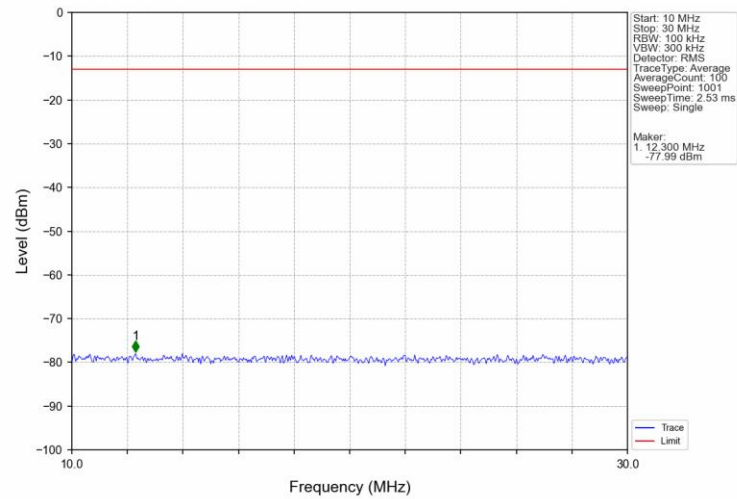
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



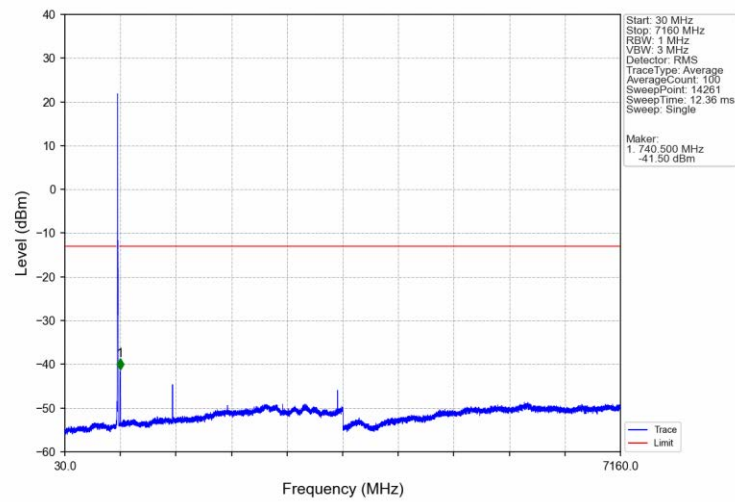
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



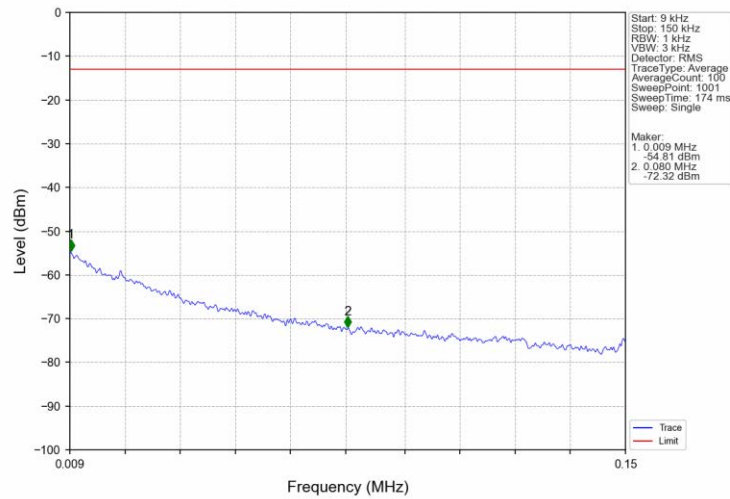
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



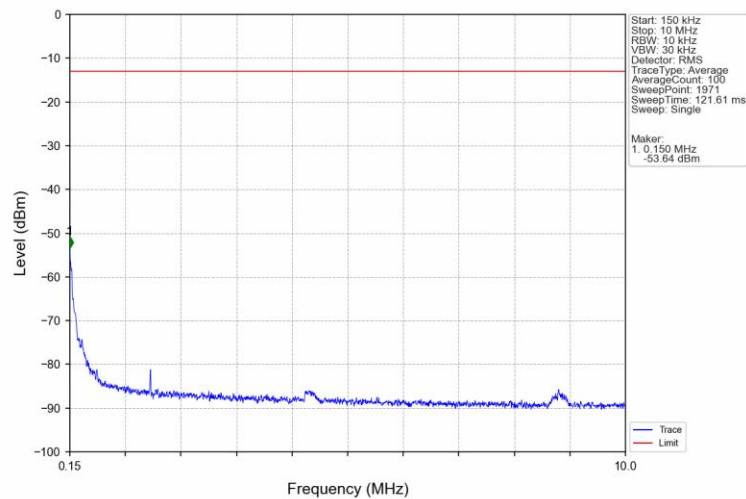
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



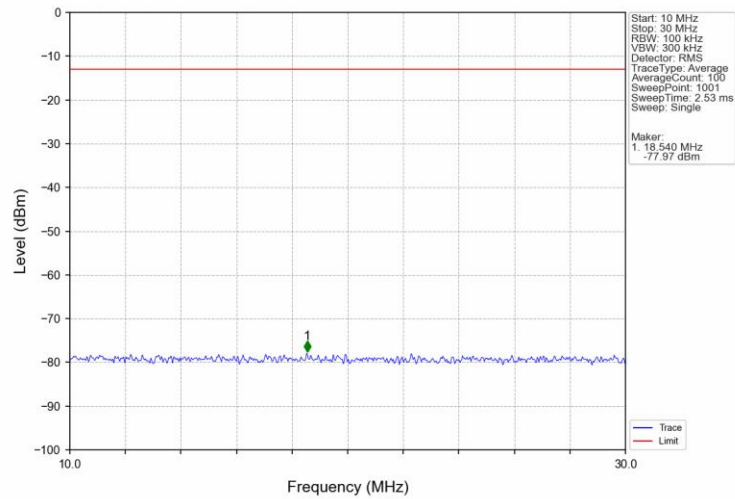
Band17_10MHz_QPSK_HCH_711MHz_RB_1_0_NTNV



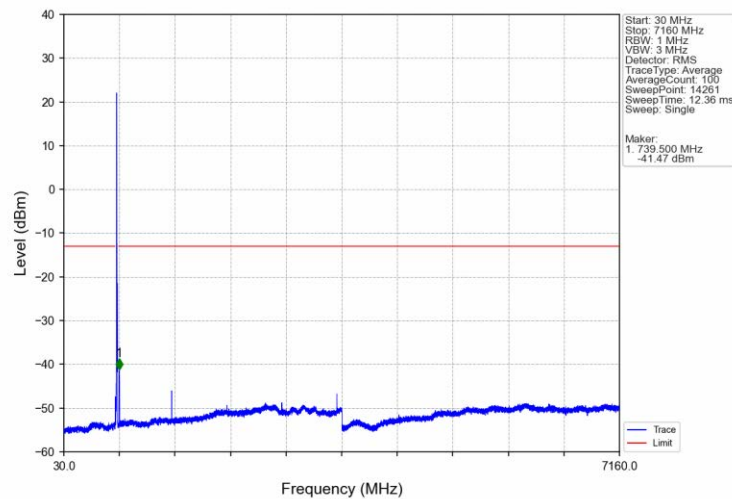
Band17_10MHz_QPSK_HCH_711MHz_RB_1_0_NTNV



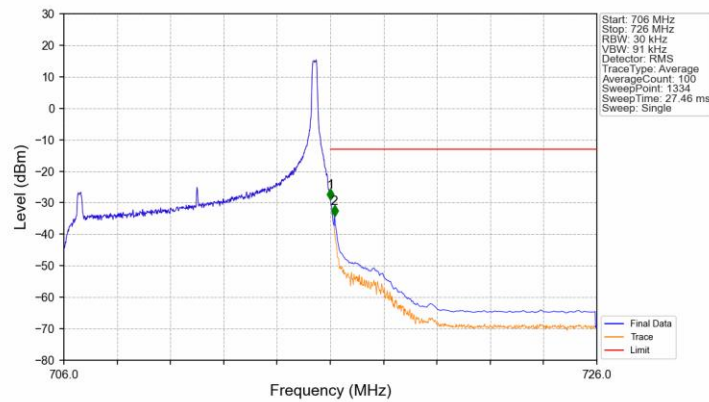
Band17_10MHz_QPSK_HCH_711MHz_RB_1_0_NTNV



Band17_10MHz_QPSK_HCH_711MHz_RB_1_0_NTNV

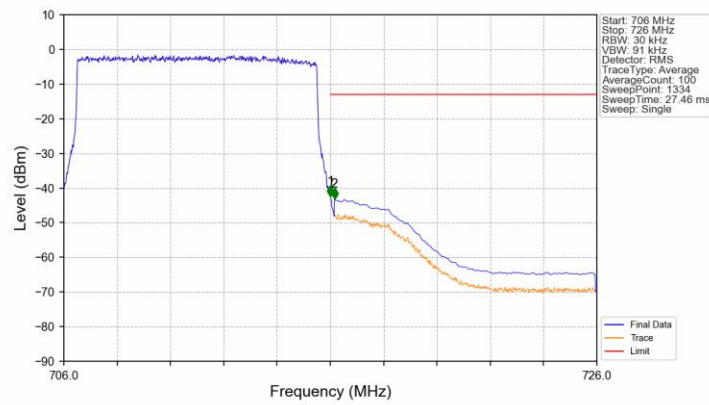


Band17_10MHz_QPSK_HCH_711MHz_RB_1_49_NTNV



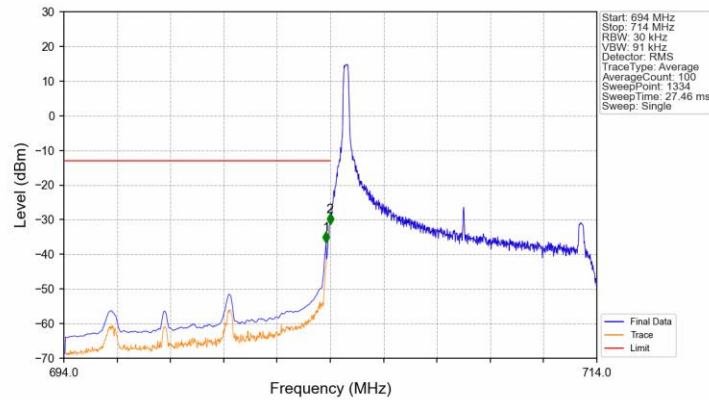
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.008	-29.14	-13	Pass
716.1	726	0.1	CHP	2	716.158	-34.35	-13	Pass

Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



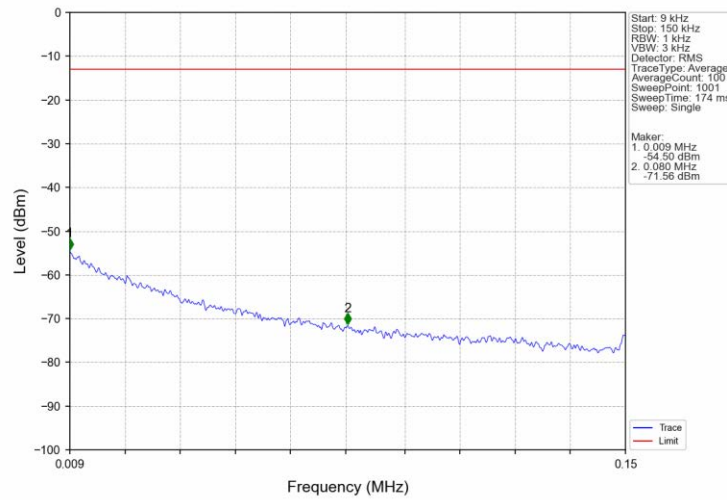
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.008	-42.33	-13	Pass
716.1	726	0.1	CHP	2	716.158	-43.08	-13	Pass

Band17_10MHz_16QAM_LCH_709MHz_RB_1_0_NTNV

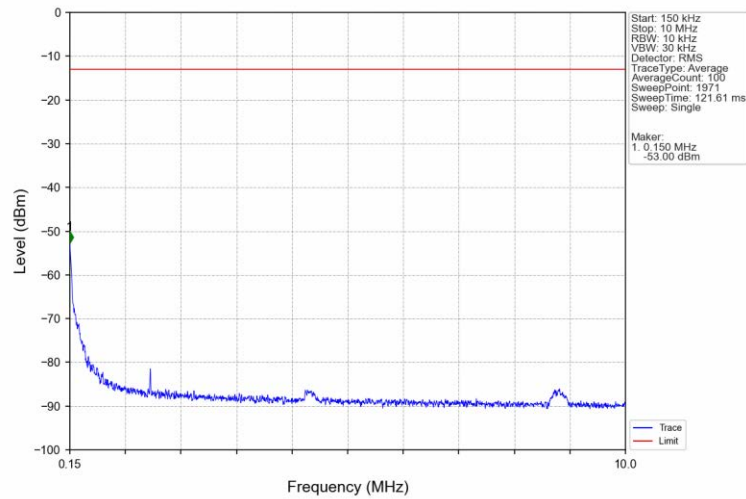


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.842	-36.57	-13	Pass
703.9	704	0.03	/	2	703.992	-31.30	-13	Pass
704	714	0.03	/	/	/	/	/	/

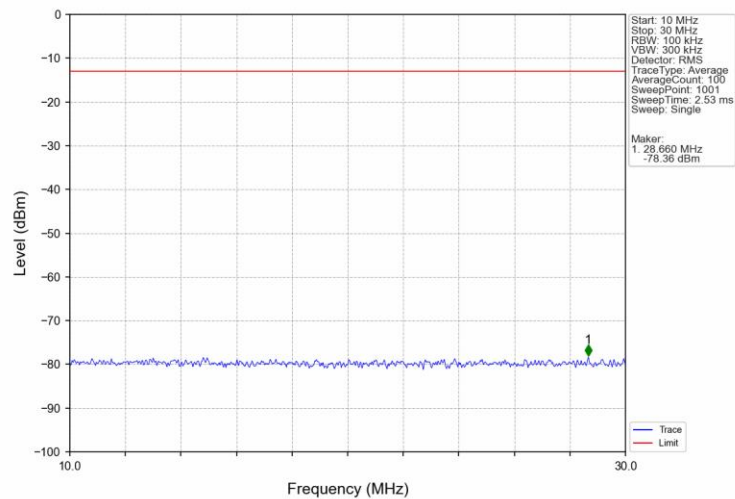
Band17_10MHz_16QAM_LCH_709MHz_RB_1_0_NTNV



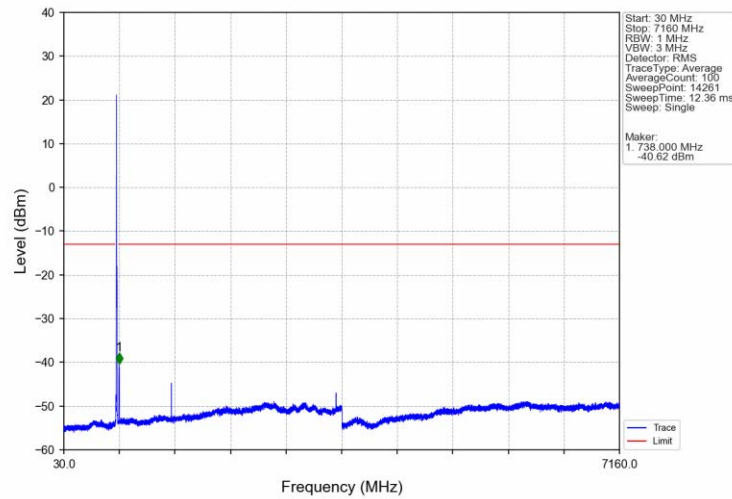
Band17_10MHz_16QAM_LCH_709MHz_RB_1_0_NTNV



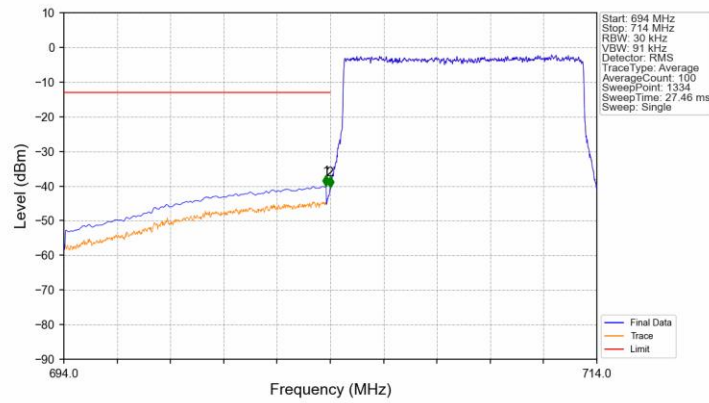
Band17_10MHz_16QAM_LCH_709MHz_RB_1_0_NTNV



Band17_10MHz_16QAM_LCH_709MHz_RB_1_0_NTNV

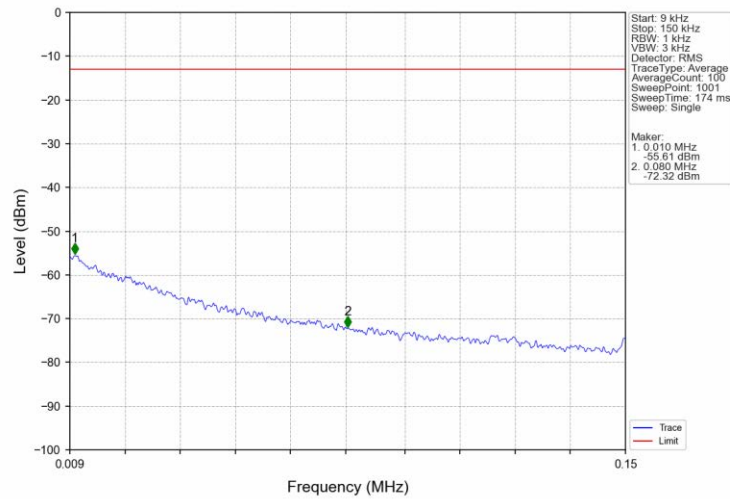


Band17_10MHz_16QAM_LCH_709MHz_RB_50_0_NTNV

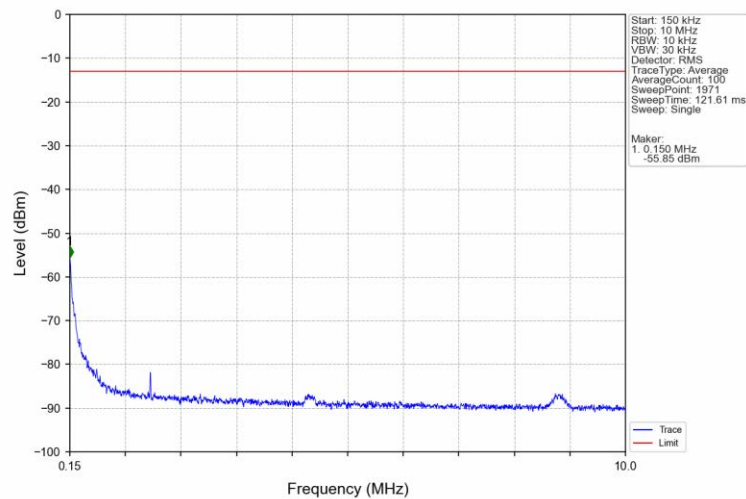


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.842	-39.95	-13	Pass
703.9	704	0.03	/	2	703.992	-40.46	-13	Pass
704	714	0.03	/	/	/	/	/	/

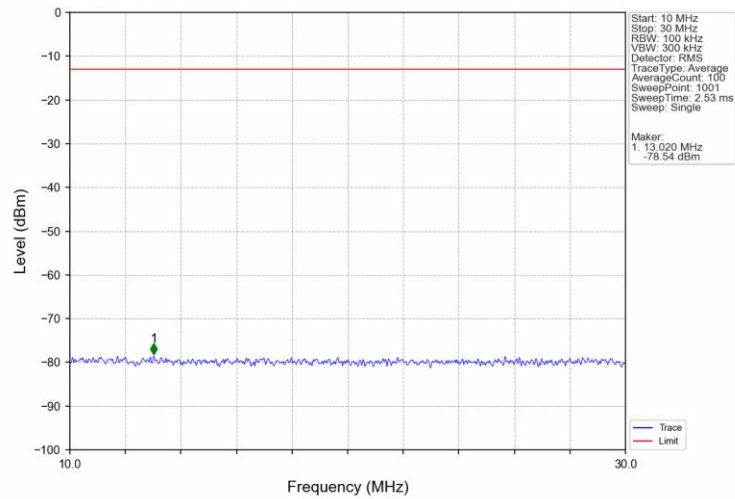
Band17_10MHz_16QAM_MCH_710MHz_RB_1_0_NTNV



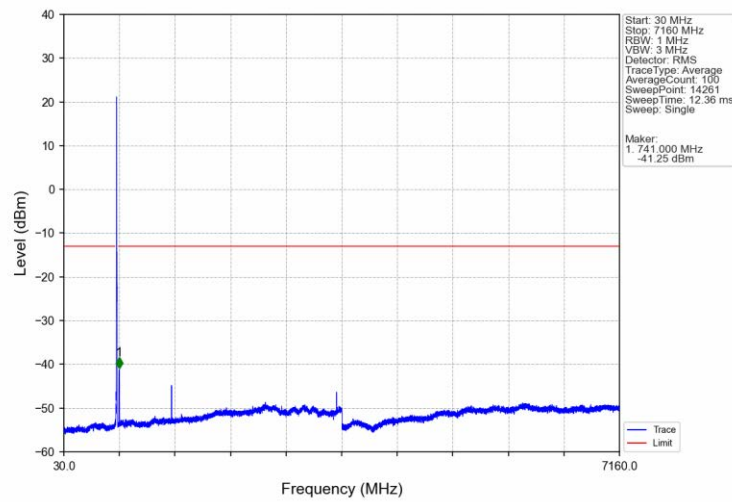
Band17_10MHz_16QAM_MCH_710MHz_RB_1_0_NTNV



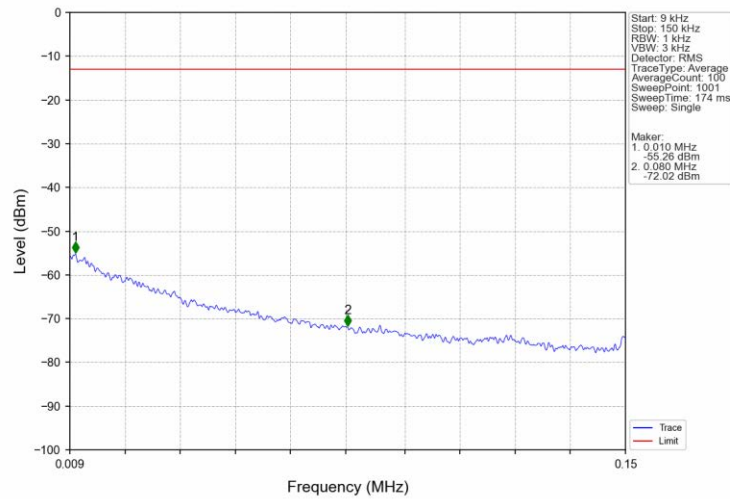
Band17_10MHz_16QAM_MCH_710MHz_RB_1_0_NTNV



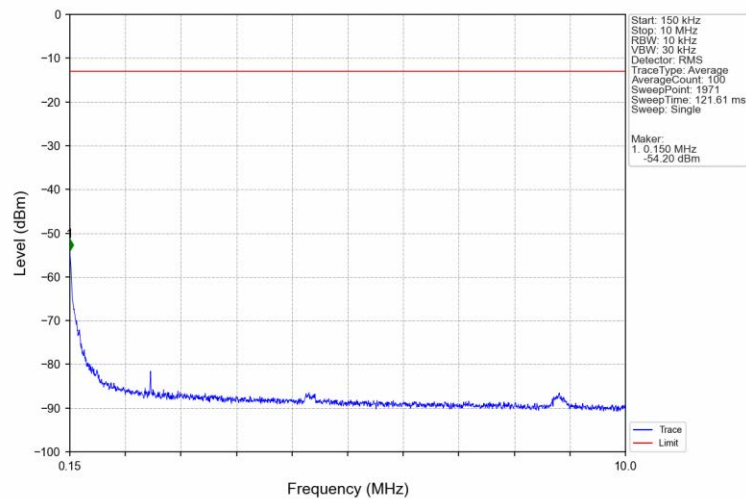
Band17_10MHz_16QAM_MCH_710MHz_RB_1_0_NTNV



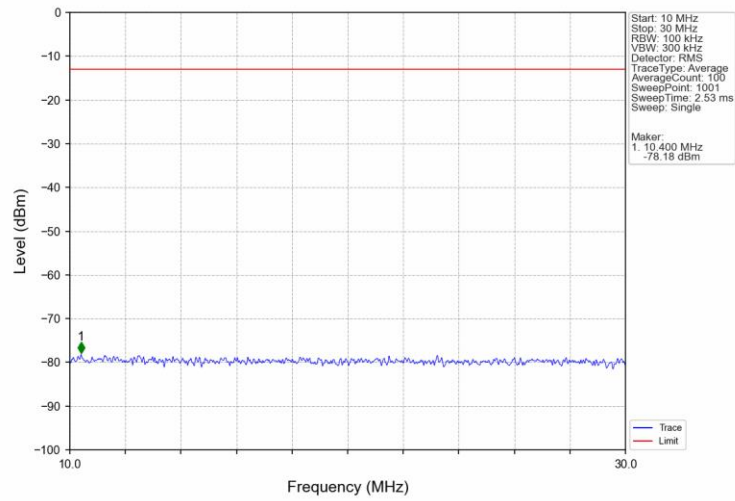
Band17_10MHz_16QAM_HCH_711MHz_RB_1_0_NTNV



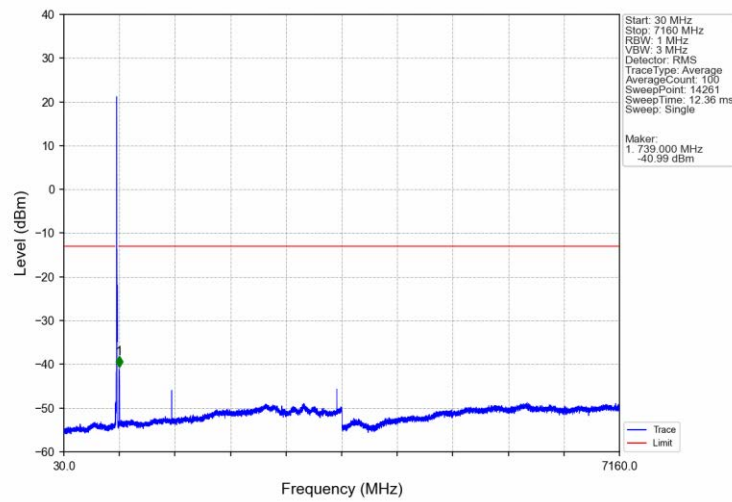
Band17_10MHz_16QAM_HCH_711MHz_RB_1_0_NTNV



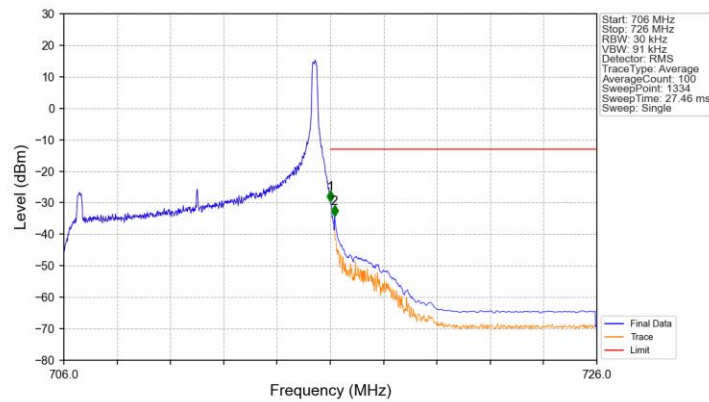
Band17_10MHz_16QAM_HCH_711MHz_RB_1_0_NTNV



Band17_10MHz_16QAM_HCH_711MHz_RB_1_0_NTNV

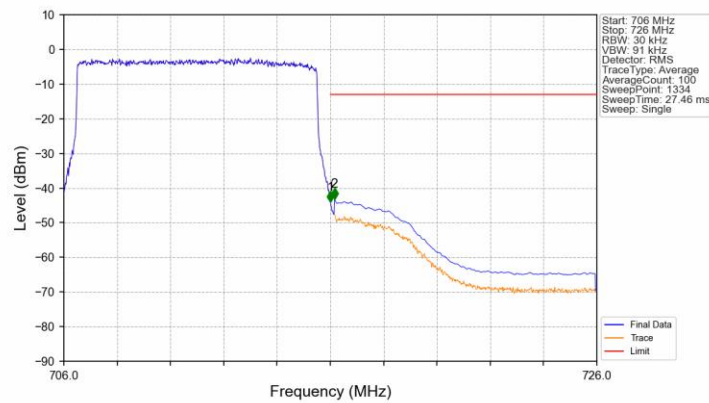


Band17_10MHz_16QAM_HCH_711MHz_RB_1_49_NTNV



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	-29.74	-13	Pass
716.1	726	0.1	CHP	2	716.158	-34.18	-13	Pass

Band17_10MHz_16QAM_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	716.008	-43.98	-13	Pass
716.1	726	0.1	CHP	2	716.158	-43.19	-13	Pass

7. Frequency Stability (IC)

7.1 Test Result

7.1.1 B17_5MHz

Band: 17 / Bandwidth: 5MHz / NTNV									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	OBW (FL - FH) (MHz)		Limit	Verdict
		Size	Offset			FL	FH		
QPSK	706.5	25	0	20	3.27	704.242	708.788	704 to 710	Pass
					3.85	704.237	708.783	704 to 710	Pass
					4.43	704.245	708.782	704 to 710	Pass
				-30	3.85	704.239	708.793	704 to 710	Pass
				-20	3.85	704.247	708.781	704 to 710	Pass
				-10	3.85	704.239	708.791	704 to 710	Pass
				0	3.85	704.241	708.788	704 to 710	Pass
				10	3.85	704.240	708.784	704 to 710	Pass
				30	3.85	704.238	708.795	704 to 710	Pass
				40	3.85	704.239	708.789	704 to 710	Pass
				50	3.85	704.236	708.793	704 to 710	Pass
	710	25	0	20	3.27	707.746	712.294	704 to 716	Pass
					3.85	707.735	712.289	704 to 716	Pass
					4.43	707.739	712.285	704 to 716	Pass
				-30	3.85	707.743	712.293	704 to 716	Pass
				-20	3.85	707.747	712.289	704 to 716	Pass
				-10	3.85	707.735	712.277	704 to 716	Pass
				0	3.85	707.732	712.293	704 to 716	Pass
				10	3.85	707.742	712.294	704 to 716	Pass
				30	3.85	707.735	712.280	704 to 716	Pass
				40	3.85	707.744	712.292	704 to 716	Pass
				50	3.85	707.735	712.285	704 to 716	Pass
	713.5	25	0	20	3.27	711.228	715.780	710 to 716	Pass
					3.85	711.226	715.779	710 to 716	Pass
					4.43	711.228	715.780	710 to 716	Pass
				-30	3.85	711.226	715.778	710 to 716	Pass
				-20	3.85	711.217	715.779	710 to 716	Pass
				-10	3.85	711.221	715.767	710 to 716	Pass
				0	3.85	711.222	715.765	710 to 716	Pass
				10	3.85	711.223	715.774	710 to 716	Pass
				30	3.85	711.217	715.765	710 to 716	Pass
				40	3.85	711.224	715.781	710 to 716	Pass
				50	3.85	711.210	715.777	710 to 716	Pass
16QAM	706.5	25	0	20	3.27	704.226	708.789	704 to 710	Pass
					3.85	704.239	708.798	704 to 710	Pass
					4.43	704.245	708.797	704 to 710	Pass
				-30	3.85	704.226	708.794	704 to 710	Pass
				-20	3.85	704.238	708.788	704 to 710	Pass
				-10	3.85	704.226	708.784	704 to 710	Pass
				0	3.85	704.237	708.790	704 to 710	Pass
				10	3.85	704.240	708.784	704 to 710	Pass
				30	3.85	704.243	708.789	704 to 710	Pass
				40	3.85	704.246	708.792	704 to 710	Pass
				50	3.85	704.217	708.784	704 to 710	Pass
	710	25	0	20	3.27	707.748	712.296	704 to 716	Pass
					3.85	707.734	712.291	704 to 716	Pass

					4.43	707.739	712.303	704 to 716	Pass
				-30	3.85	707.724	712.297	704 to 716	Pass
				-20	3.85	707.723	712.297	704 to 716	Pass
				-10	3.85	707.741	712.295	704 to 716	Pass
				0	3.85	707.727	712.304	704 to 716	Pass
				10	3.85	707.735	712.303	704 to 716	Pass
				30	3.85	707.729	712.304	704 to 716	Pass
				40	3.85	707.735	712.299	704 to 716	Pass
				50	3.85	707.726	712.306	704 to 716	Pass
	713.5	25	0	20	3.27	711.233	715.766	710 to 716	Pass
					3.85	711.234	715.769	710 to 716	Pass
					4.43	711.237	715.751	710 to 716	Pass
				-30	3.85	711.238	715.765	710 to 716	Pass
				-20	3.85	711.218	715.761	710 to 716	Pass
				-10	3.85	711.216	715.775	710 to 716	Pass
				0	3.85	711.234	715.768	710 to 716	Pass
				10	3.85	711.226	715.760	710 to 716	Pass
				30	3.85	711.233	715.767	710 to 716	Pass
				40	3.85	711.232	715.773	710 to 716	Pass
				50	3.85	711.222	715.763	710 to 716	Pass

7.1.2 B17_10MHz

Band: 17 / Bandwidth: 10MHz / NTNV									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	OBW (FL - FH) (MHz)		Limit	Verdict
		Size	Offset			FL	FH		
QPSK	709	50	0	20	3.27	704.519	713.567	704 to 716	Pass
					3.85	704.496	713.535	704 to 716	Pass
					4.43	704.511	713.584	704 to 716	Pass
				-30	3.85	704.500	713.572	704 to 716	Pass
				-20	3.85	704.513	713.582	704 to 716	Pass
				-10	3.85	704.506	713.577	704 to 716	Pass
				0	3.85	704.507	713.575	704 to 716	Pass
				10	3.85	704.507	713.572	704 to 716	Pass
				30	3.85	704.508	713.567	704 to 716	Pass
				40	3.85	704.509	713.569	704 to 716	Pass
				50	3.85	704.508	713.561	704 to 716	Pass
	710	50	0	20	3.27	705.485	714.581	704 to 716	Pass
					3.85	705.502	714.555	704 to 716	Pass
					4.43	705.485	714.551	704 to 716	Pass
				-30	3.85	705.497	714.579	704 to 716	Pass
				-20	3.85	705.506	714.563	704 to 716	Pass
				-10	3.85	705.511	714.552	704 to 716	Pass
				0	3.85	705.515	714.532	704 to 716	Pass
				10	3.85	705.479	714.553	704 to 716	Pass
				30	3.85	705.499	714.562	704 to 716	Pass
				40	3.85	705.498	714.553	704 to 716	Pass
				50	3.85	705.482	714.564	704 to 716	Pass
	711	50	0	20	3.27	706.503	715.516	704 to 716	Pass
					3.85	706.508	715.521	704 to 716	Pass
					4.43	706.513	715.531	704 to 716	Pass
				-30	3.85	706.514	715.521	704 to 716	Pass
				-20	3.85	706.511	715.520	704 to 716	Pass
				-10	3.85	706.515	715.531	704 to 716	Pass
				0	3.85	706.526	715.524	704 to 716	Pass
				10	3.85	706.503	715.541	704 to 716	Pass
				30	3.85	706.516	715.524	704 to 716	Pass
				40	3.85	706.518	715.519	704 to 716	Pass

				50	3.85	706.517	715.525	704 to 716	Pass
16QAM	709	50	0	20	3.27	704.515	713.579	704 to 716	Pass
					3.85	704.521	713.557	704 to 716	Pass
					4.43	704.514	713.560	704 to 716	Pass
					-30	3.85	704.510	713.572	704 to 716
				-20	3.85	704.504	713.546	704 to 716	Pass
				-10	3.85	704.518	713.552	704 to 716	Pass
				0	3.85	704.519	713.581	704 to 716	Pass
				10	3.85	704.512	713.575	704 to 716	Pass
				30	3.85	704.497	713.595	704 to 716	Pass
				40	3.85	704.500	713.585	704 to 716	Pass
				50	3.85	704.501	713.557	704 to 716	Pass
				710	50	0	20	3.27	705.491
	3.85	705.505	714.537					704 to 716	Pass
	4.43	705.507	714.558					704 to 716	Pass
	-30	3.85	705.486					714.535	704 to 716
	-20	3.85	705.497				714.547	704 to 716	Pass
	-10	3.85	705.482				714.551	704 to 716	Pass
	0	3.85	705.497				714.547	704 to 716	Pass
	10	3.85	705.493				714.548	704 to 716	Pass
	30	3.85	705.498				714.547	704 to 716	Pass
	40	3.85	705.502				714.551	704 to 716	Pass
	50	3.85	705.495				714.527	704 to 716	Pass
	711	50	0				20	3.27	706.495
				3.85	706.507	715.531		704 to 716	Pass
				4.43	706.496	715.519		704 to 716	Pass
				-30	3.85	706.478		715.533	704 to 716
				-20	3.85	706.481	715.522	704 to 716	Pass
				-10	3.85	706.514	715.551	704 to 716	Pass
				0	3.85	706.521	715.553	704 to 716	Pass
				10	3.85	706.511	715.555	704 to 716	Pass
				30	3.85	706.493	715.517	704 to 716	Pass
				40	3.85	706.469	715.534	704 to 716	Pass
				50	3.85	706.489	715.548	704 to 716	Pass

8. Form731

8.1 Test Result

8.1.1 Form731_Power

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
17	5	706.5	713.5	0.1879	99.0000	ppm	4M55G7D	27H	22.74
17	5	706.5	713.5	0.1854	99.0000	ppm	4M58W7D	27H	22.68
17	10	709	711	0.1963	99.0000	ppm	9M08G7D	27H	22.93
17	10	709	711	0.1828	99.0000	ppm	9M06W7D	27H	22.62

8.1.2 Form731_ERP

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
17	5	706.5	713.5	0.1146	99.0000	ppm	4M55G7D	27H	20.59



17	5	706.5	713.5	0.1130	99.0000	ppm	4M58W7D	27H	20.53
17	10	709	711	0.1197	99.0000	ppm	9M08G7D	27H	20.78
17	10	709	711	0.1114	99.0000	ppm	9M06W7D	27H	20.47