

Appendix Test Data for LTE_band_12

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 B12_1.4MHz_ERP

Band: 12 / Bandwidth: 1.4MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	699.7	1	0	23.18	0.41	21.44	<=34.77	Pass
			2	23.24	0.41	21.50	<=34.77	Pass
			5	23.24	0.41	21.50	<=34.77	Pass
		3	0	23.72	0.41	21.98	<=34.77	Pass
			2	23.75	0.41	22.01	<=34.77	Pass
			3	23.75	0.41	22.01	<=34.77	Pass
		6	0	22.73	0.41	20.99	<=34.77	Pass
	707.5	1	0	23.24	0.41	21.50	<=34.77	Pass
			2	23.24	0.41	21.50	<=34.77	Pass
			5	23.26	0.41	21.52	<=34.77	Pass
		3	0	23.82	0.41	22.08	<=34.77	Pass
			2	23.80	0.41	22.06	<=34.77	Pass
			3	23.81	0.41	22.07	<=34.77	Pass
		6	0	22.84	0.41	21.10	<=34.77	Pass
	715.3	1	0	23.28	0.41	21.54	<=34.77	Pass
			2	23.26	0.41	21.52	<=34.77	Pass
			5	23.23	0.41	21.49	<=34.77	Pass
		3	0	24.00	0.41	22.26	<=34.77	Pass
			2	24.00	0.41	22.26	<=34.77	Pass
			3	23.92	0.41	22.18	<=34.77	Pass
		6	0	22.88	0.41	21.14	<=34.77	Pass
16QAM	699.7	1	0	22.22	0.41	20.48	<=34.77	Pass
			2	22.25	0.41	20.51	<=34.77	Pass
			5	22.32	0.41	20.58	<=34.77	Pass
		3	0	22.73	0.41	20.99	<=34.77	Pass
			2	22.77	0.41	21.03	<=34.77	Pass
			3	22.74	0.41	21.00	<=34.77	Pass
		6	0	21.65	0.41	19.91	<=34.77	Pass
	707.5	1	0	22.50	0.41	20.76	<=34.77	Pass
			2	22.49	0.41	20.75	<=34.77	Pass
			5	22.50	0.41	20.76	<=34.77	Pass
		3	0	22.78	0.41	21.04	<=34.77	Pass
			2	22.78	0.41	21.04	<=34.77	Pass
			3	22.79	0.41	21.05	<=34.77	Pass
		6	0	21.86	0.41	20.12	<=34.77	Pass
	715.3	1	0	22.47	0.41	20.73	<=34.77	Pass
			2	22.45	0.41	20.71	<=34.77	Pass
			5	22.39	0.41	20.65	<=34.77	Pass
		3	0	23.06	0.41	21.32	<=34.77	Pass
			2	23.09	0.41	21.35	<=34.77	Pass
			3	23.08	0.41	21.34	<=34.77	Pass
		6	0	21.89	0.41	20.15	<=34.77	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

1.1.2 B12_3MHz_ERP

Band: 12 / Bandwidth: 3MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	

QPSK	700.5	1	0	23.19	0.41	21.45	<=34.77	Pass
			7	23.23	0.41	21.49	<=34.77	Pass
			14	23.22	0.41	21.48	<=34.77	Pass
		8	0	22.71	0.41	20.97	<=34.77	Pass
			4	22.69	0.41	20.95	<=34.77	Pass
			7	22.71	0.41	20.97	<=34.77	Pass
		15	0	22.71	0.41	20.97	<=34.77	Pass
	707.5	1	0	23.24	0.41	21.50	<=34.77	Pass
			7	23.26	0.41	21.52	<=34.77	Pass
			14	23.28	0.41	21.54	<=34.77	Pass
		8	0	22.80	0.41	21.06	<=34.77	Pass
			4	22.82	0.41	21.08	<=34.77	Pass
			7	22.80	0.41	21.06	<=34.77	Pass
		15	0	22.79	0.41	21.05	<=34.77	Pass
	714.5	1	0	23.53	0.41	21.79	<=34.77	Pass
			7	23.49	0.41	21.75	<=34.77	Pass
			14	23.40	0.41	21.66	<=34.77	Pass
		8	0	22.87	0.41	21.13	<=34.77	Pass
			4	22.89	0.41	21.15	<=34.77	Pass
			7	22.86	0.41	21.12	<=34.77	Pass
		15	0	22.90	0.41	21.16	<=34.77	Pass
16QAM	700.5	1	0	22.26	0.41	20.52	<=34.77	Pass
			7	22.26	0.41	20.52	<=34.77	Pass
			14	22.22	0.41	20.48	<=34.77	Pass
		8	0	21.76	0.41	20.02	<=34.77	Pass
			4	21.78	0.41	20.04	<=34.77	Pass
			7	21.76	0.41	20.02	<=34.77	Pass
		15	0	21.78	0.41	20.04	<=34.77	Pass
	707.5	1	0	22.48	0.41	20.74	<=34.77	Pass
			7	22.52	0.41	20.78	<=34.77	Pass
			14	22.47	0.41	20.73	<=34.77	Pass
		8	0	21.75	0.41	20.01	<=34.77	Pass
			4	21.80	0.41	20.06	<=34.77	Pass
			7	21.76	0.41	20.02	<=34.77	Pass
		15	0	21.73	0.41	19.99	<=34.77	Pass
	714.5	1	0	22.96	0.41	21.22	<=34.77	Pass
			7	22.89	0.41	21.15	<=34.77	Pass
			14	22.83	0.41	21.09	<=34.77	Pass
		8	0	22.09	0.41	20.35	<=34.77	Pass
			4	22.12	0.41	20.38	<=34.77	Pass
			7	22.11	0.41	20.37	<=34.77	Pass
		15	0	21.98	0.41	20.24	<=34.77	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

1.1.3 B12_5MHz_ERP

Band: 12 / Bandwidth: 5MHz / NTN								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	701.5	1	0	23.31	0.41	21.57	<=34.77	Pass
			13	23.24	0.41	21.50	<=34.77	Pass
			24	23.35	0.41	21.61	<=34.77	Pass
		12	0	22.77	0.41	21.03	<=34.77	Pass
			6	22.73	0.41	20.99	<=34.77	Pass
			13	22.78	0.41	21.04	<=34.77	Pass
		25	0	22.80	0.41	21.06	<=34.77	Pass
	707.5	1	0	23.22	0.41	21.48	<=34.77	Pass
			13	23.30	0.41	21.56	<=34.77	Pass

			24	23.39	0.41	21.65	<=34.77	Pass	
		12	0	22.81	0.41	21.07	<=34.77	Pass	
			6	22.83	0.41	21.09	<=34.77	Pass	
			13	22.82	0.41	21.08	<=34.77	Pass	
		25	0	22.82	0.41	21.08	<=34.77	Pass	
	713.5	1	0	23.58	0.41	21.84	<=34.77	Pass	
			13	23.68	0.41	21.94	<=34.77	Pass	
			24	23.66	0.41	21.92	<=34.77	Pass	
		12	0	22.92	0.41	21.18	<=34.77	Pass	
			6	22.86	0.41	21.12	<=34.77	Pass	
			13	22.92	0.41	21.18	<=34.77	Pass	
		25	0	22.94	0.41	21.20	<=34.77	Pass	
	16QAM	701.5	1	0	22.38	0.41	20.64	<=34.77	Pass
				13	22.31	0.41	20.57	<=34.77	Pass
24				22.41	0.41	20.67	<=34.77	Pass	
12			0	21.73	0.41	19.99	<=34.77	Pass	
			6	21.70	0.41	19.96	<=34.77	Pass	
			13	21.73	0.41	19.99	<=34.77	Pass	
25		0	21.80	0.41	20.06	<=34.77	Pass		
707.5		1	0	22.54	0.41	20.80	<=34.77	Pass	
			13	22.57	0.41	20.83	<=34.77	Pass	
			24	22.63	0.41	20.89	<=34.77	Pass	
		12	0	21.82	0.41	20.08	<=34.77	Pass	
			6	21.84	0.41	20.10	<=34.77	Pass	
			13	21.83	0.41	20.09	<=34.77	Pass	
25		0	21.80	0.41	20.06	<=34.77	Pass		
713.5		1	0	22.26	0.41	20.52	<=34.77	Pass	
			13	22.28	0.41	20.54	<=34.77	Pass	
			24	22.29	0.41	20.55	<=34.77	Pass	
		12	0	21.97	0.41	20.23	<=34.77	Pass	
			6	21.92	0.41	20.18	<=34.77	Pass	
			13	22.00	0.41	20.26	<=34.77	Pass	
25		0	21.99	0.41	20.25	<=34.77	Pass		
Note1: ERP=Conducted Power+Antenna Gain-2.15									

Note1: ERP=Conducted Power+Antenna Gain-2.15

1.1.4 B12_10MHz_ERP

Band: 12 / Bandwidth: 10MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	704	1	0	23.23	0.41	21.49	<=34.77	Pass
			25	23.30	0.41	21.56	<=34.77	Pass
			49	23.37	0.41	21.63	<=34.77	Pass
		25	0	22.66	0.41	20.92	<=34.77	Pass
			13	22.80	0.41	21.06	<=34.77	Pass
			25	22.83	0.41	21.09	<=34.77	Pass
		50	0	22.77	0.41	21.03	<=34.77	Pass
	707.5	1	0	23.20	0.41	21.46	<=34.77	Pass
			25	23.34	0.41	21.60	<=34.77	Pass
			49	23.36	0.41	21.62	<=34.77	Pass
		25	0	22.75	0.41	21.01	<=34.77	Pass
			13	22.86	0.41	21.12	<=34.77	Pass
			25	22.77	0.41	21.03	<=34.77	Pass
		50	0	22.80	0.41	21.06	<=34.77	Pass
	711	1	0	23.33	0.41	21.59	<=34.77	Pass
			25	23.47	0.41	21.73	<=34.77	Pass
			49	23.49	0.41	21.75	<=34.77	Pass
		25	0	22.96	0.41	21.22	<=34.77	Pass

16QAM	704	50	13	22.88	0.41	21.14	<=34.77	Pass
			25	22.94	0.41	21.20	<=34.77	Pass
			0	22.97	0.41	21.23	<=34.77	Pass
		1	0	22.26	0.41	20.52	<=34.77	Pass
			25	22.32	0.41	20.58	<=34.77	Pass
			49	22.41	0.41	20.67	<=34.77	Pass
		25	0	21.75	0.41	20.01	<=34.77	Pass
			13	21.87	0.41	20.13	<=34.77	Pass
			25	21.89	0.41	20.15	<=34.77	Pass
	707.5	50	0	21.77	0.41	20.03	<=34.77	Pass
			0	22.38	0.41	20.64	<=34.77	Pass
			25	22.52	0.41	20.78	<=34.77	Pass
		1	49	22.53	0.41	20.79	<=34.77	Pass
			0	21.80	0.41	20.06	<=34.77	Pass
		25	13	21.85	0.41	20.11	<=34.77	Pass
			25	21.76	0.41	20.02	<=34.77	Pass
			0	21.77	0.41	20.03	<=34.77	Pass
	711	50	0	22.83	0.41	21.09	<=34.77	Pass
			25	22.94	0.41	21.20	<=34.77	Pass
			49	22.91	0.41	21.17	<=34.77	Pass
		1	0	21.98	0.41	20.24	<=34.77	Pass
			13	21.93	0.41	20.19	<=34.77	Pass
			25	21.98	0.41	20.24	<=34.77	Pass
		25	0	21.94	0.41	20.20	<=34.77	Pass
			0					
			0					

Note1: ERP=Conducted Power+Antenna Gain-2.15

2. Frequency Stability

2.1 Test Result

2.1.1 B12_1.4MHz

Band: 12 / Bandwidth: 1.4MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	699.7	6	0	20	3.27	2.103	0.0030	-2.5 to 2.5	Pass
					3.85	2.346	0.0034	-2.5 to 2.5	Pass
					4.43	-4.077	-0.0058	-2.5 to 2.5	Pass
				-30	3.85	-0.200	-0.0003	-2.5 to 2.5	Pass
					3.85	3.505	0.0050	-2.5 to 2.5	Pass
					3.85	5.050	0.0072	-2.5 to 2.5	Pass
				0	3.85	-0.443	-0.0006	-2.5 to 2.5	Pass
					3.85	-0.973	-0.0014	-2.5 to 2.5	Pass
					3.85	1.130	0.0016	-2.5 to 2.5	Pass
				40	3.85	0.730	0.0010	-2.5 to 2.5	Pass
					3.85	-2.289	-0.0033	-2.5 to 2.5	Pass
					3.85	-4.134	-0.0058	-2.5 to 2.5	Pass
	707.5	6	0	20	3.85	2.160	0.0031	-2.5 to 2.5	Pass
					4.43	-0.300	-0.0004	-2.5 to 2.5	Pass
					3.85	-3.004	-0.0042	-2.5 to 2.5	Pass
				-30	3.85	1.988	0.0028	-2.5 to 2.5	Pass
					3.85	1.245	0.0018	-2.5 to 2.5	Pass
					3.85	1.202	0.0017	-2.5 to 2.5	Pass
				0	3.85	3.533	0.0050	-2.5 to 2.5	Pass
					3.85	-0.443	-0.0006	-2.5 to 2.5	Pass
					3.85	4.263	0.0060	-2.5 to 2.5	Pass

	715.3	6	0	50	3.85	-1.259	-0.0018	-2.5 to 2.5	Pass
				20	3.27	-1.516	-0.0021	-2.5 to 2.5	Pass
					3.85	2.432	0.0034	-2.5 to 2.5	Pass
					4.43	5.579	0.0078	-2.5 to 2.5	Pass
				-30	3.85	-0.157	-0.0002	-2.5 to 2.5	Pass
				-20	3.85	3.004	0.0042	-2.5 to 2.5	Pass
				-10	3.85	2.160	0.0030	-2.5 to 2.5	Pass
				0	3.85	-2.146	-0.0030	-2.5 to 2.5	Pass
				10	3.85	-1.402	-0.0020	-2.5 to 2.5	Pass
				30	3.85	-0.043	-0.0001	-2.5 to 2.5	Pass
				40	3.85	-0.544	-0.0008	-2.5 to 2.5	Pass
				50	3.85	-4.821	-0.0067	-2.5 to 2.5	Pass
16QAM	699.7	6	0	20	3.27	1.445	0.0021	-2.5 to 2.5	Pass
					3.85	-1.016	-0.0015	-2.5 to 2.5	Pass
					4.43	-1.273	-0.0018	-2.5 to 2.5	Pass
					3.85	3.390	0.0048	-2.5 to 2.5	Pass
				-30	3.85	-1.416	-0.0020	-2.5 to 2.5	Pass
				-20	3.85	-2.046	-0.0029	-2.5 to 2.5	Pass
				-10	3.85	-2.046	-0.0029	-2.5 to 2.5	Pass
				0	3.85	-3.519	-0.0050	-2.5 to 2.5	Pass
				10	3.85	-1.044	-0.0015	-2.5 to 2.5	Pass
				30	3.85	-2.031	-0.0029	-2.5 to 2.5	Pass
				40	3.85	0.129	0.0002	-2.5 to 2.5	Pass
				50	3.85	4.663	0.0067	-2.5 to 2.5	Pass
	707.5	6	0	20	3.27	-0.801	-0.0011	-2.5 to 2.5	Pass
					3.85	-2.489	-0.0035	-2.5 to 2.5	Pass
					4.43	0.558	0.0008	-2.5 to 2.5	Pass
					3.85	2.089	0.0030	-2.5 to 2.5	Pass
				-30	3.85	-3.576	-0.0051	-2.5 to 2.5	Pass
				-20	3.85	-3.047	-0.0043	-2.5 to 2.5	Pass
				-10	3.85	-3.047	-0.0043	-2.5 to 2.5	Pass
				0	3.85	5.250	0.0074	-2.5 to 2.5	Pass
				10	3.85	-1.917	-0.0027	-2.5 to 2.5	Pass
				30	3.85	-3.304	-0.0047	-2.5 to 2.5	Pass
				40	3.85	0.415	0.0006	-2.5 to 2.5	Pass
				50	3.85	-3.405	-0.0048	-2.5 to 2.5	Pass
	715.3	6	0	20	3.27	-0.072	-0.0001	-2.5 to 2.5	Pass
					3.85	-4.435	-0.0062	-2.5 to 2.5	Pass
					4.43	-0.529	-0.0007	-2.5 to 2.5	Pass
					3.85	3.219	0.0045	-2.5 to 2.5	Pass
				-30	3.85	-4.692	-0.0066	-2.5 to 2.5	Pass
				-20	3.85	-4.692	-0.0066	-2.5 to 2.5	Pass
				-10	3.85	2.675	0.0037	-2.5 to 2.5	Pass
				0	3.85	2.246	0.0031	-2.5 to 2.5	Pass
				10	3.85	-4.292	-0.0060	-2.5 to 2.5	Pass
				30	3.85	-1.044	-0.0015	-2.5 to 2.5	Pass
				40	3.85	-1.874	-0.0026	-2.5 to 2.5	Pass
				50	3.85	-2.475	-0.0035	-2.5 to 2.5	Pass

2.1.2 B12_3MHz

Band: 12 / Bandwidth: 3MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	700.5	15	0	20	3.27	-0.157	-0.0002	-2.5 to 2.5	Pass
					3.85	-1.688	-0.0024	-2.5 to 2.5	Pass
					4.43	0.601	0.0009	-2.5 to 2.5	Pass
				-30	3.85	1.044	0.0015	-2.5 to 2.5	Pass
				-20	3.85	0.043	0.0001	-2.5 to 2.5	Pass
				-10	3.85	-4.020	-0.0057	-2.5 to 2.5	Pass
				0	3.85	-2.561	-0.0037	-2.5 to 2.5	Pass
				50	3.85	-2.561	-0.0037	-2.5 to 2.5	Pass

				10	3.85	-4.649	-0.0066	-2.5 to 2.5	Pass
				30	3.85	0.658	0.0009	-2.5 to 2.5	Pass
				40	3.85	0.830	0.0012	-2.5 to 2.5	Pass
				50	3.85	-1.788	-0.0026	-2.5 to 2.5	Pass
	707.5	15	0	20	3.27	-2.961	-0.0042	-2.5 to 2.5	Pass
					3.85	-1.402	-0.0020	-2.5 to 2.5	Pass
					4.43	-2.317	-0.0033	-2.5 to 2.5	Pass
				-30	3.85	-0.644	-0.0009	-2.5 to 2.5	Pass
				-20	3.85	-1.674	-0.0024	-2.5 to 2.5	Pass
				-10	3.85	0.701	0.0010	-2.5 to 2.5	Pass
				0	3.85	-3.262	-0.0046	-2.5 to 2.5	Pass
				10	3.85	1.030	0.0015	-2.5 to 2.5	Pass
				30	3.85	0.601	0.0008	-2.5 to 2.5	Pass
				40	3.85	-0.672	-0.0009	-2.5 to 2.5	Pass
				50	3.85	3.719	0.0053	-2.5 to 2.5	Pass
	714.5	15	0	20	3.27	2.403	0.0034	-2.5 to 2.5	Pass
					3.85	-1.287	-0.0018	-2.5 to 2.5	Pass
					4.43	0.687	0.0010	-2.5 to 2.5	Pass
				-30	3.85	-0.830	-0.0012	-2.5 to 2.5	Pass
				-20	3.85	-2.131	-0.0030	-2.5 to 2.5	Pass
				-10	3.85	4.320	0.0060	-2.5 to 2.5	Pass
				0	3.85	1.903	0.0027	-2.5 to 2.5	Pass
				10	3.85	-2.275	-0.0032	-2.5 to 2.5	Pass
				30	3.85	0.143	0.0002	-2.5 to 2.5	Pass
				40	3.85	0.343	0.0005	-2.5 to 2.5	Pass
				50	3.85	-2.646	-0.0037	-2.5 to 2.5	Pass
16QAM	700.5	15	0	20	3.27	-0.157	-0.0002	-2.5 to 2.5	Pass
					3.85	-2.990	-0.0043	-2.5 to 2.5	Pass
					4.43	-0.558	-0.0008	-2.5 to 2.5	Pass
				-30	3.85	0.515	0.0007	-2.5 to 2.5	Pass
				-20	3.85	-3.719	-0.0053	-2.5 to 2.5	Pass
				-10	3.85	1.373	0.0020	-2.5 to 2.5	Pass
				0	3.85	-3.548	-0.0051	-2.5 to 2.5	Pass
				10	3.85	2.232	0.0032	-2.5 to 2.5	Pass
				30	3.85	-0.229	-0.0003	-2.5 to 2.5	Pass
				40	3.85	-3.333	-0.0048	-2.5 to 2.5	Pass
				50	3.85	0.973	0.0014	-2.5 to 2.5	Pass
	707.5	15	0	20	3.27	1.230	0.0017	-2.5 to 2.5	Pass
					3.85	0.186	0.0003	-2.5 to 2.5	Pass
					4.43	1.516	0.0021	-2.5 to 2.5	Pass
				-30	3.85	-1.101	-0.0016	-2.5 to 2.5	Pass
				-20	3.85	-2.103	-0.0030	-2.5 to 2.5	Pass
				-10	3.85	-1.645	-0.0023	-2.5 to 2.5	Pass
				0	3.85	2.131	0.0030	-2.5 to 2.5	Pass
				10	3.85	-0.844	-0.0012	-2.5 to 2.5	Pass
				30	3.85	-2.546	-0.0036	-2.5 to 2.5	Pass
				40	3.85	2.475	0.0035	-2.5 to 2.5	Pass
				50	3.85	4.835	0.0068	-2.5 to 2.5	Pass
	714.5	15	0	20	3.27	1.345	0.0019	-2.5 to 2.5	Pass
					3.85	4.120	0.0058	-2.5 to 2.5	Pass
					4.43	-4.005	-0.0056	-2.5 to 2.5	Pass
				-30	3.85	2.332	0.0033	-2.5 to 2.5	Pass
				-20	3.85	-1.817	-0.0025	-2.5 to 2.5	Pass
				-10	3.85	4.363	0.0061	-2.5 to 2.5	Pass
				0	3.85	-0.887	-0.0012	-2.5 to 2.5	Pass
				10	3.85	1.903	0.0027	-2.5 to 2.5	Pass
				30	3.85	1.373	0.0019	-2.5 to 2.5	Pass
				40	3.85	-1.745	-0.0024	-2.5 to 2.5	Pass
				50	3.85	3.991	0.0056	-2.5 to 2.5	Pass

2.1.3 B12_5MHz

Band: 12 / Bandwidth: 5MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	701.5	25	0	20	3.27	-3.748	-0.0053	-2.5 to 2.5	Pass
					3.85	-3.147	-0.0045	-2.5 to 2.5	Pass
					4.43	-0.057	-0.0001	-2.5 to 2.5	Pass
				-30	3.85	1.116	0.0016	-2.5 to 2.5	Pass
				-20	3.85	0.887	0.0013	-2.5 to 2.5	Pass
				-10	3.85	-0.472	-0.0007	-2.5 to 2.5	Pass
				0	3.85	-4.363	-0.0062	-2.5 to 2.5	Pass
				10	3.85	2.789	0.0040	-2.5 to 2.5	Pass
				30	3.85	-6.080	-0.0087	-2.5 to 2.5	Pass
				40	3.85	-1.531	-0.0022	-2.5 to 2.5	Pass
				50	3.85	-2.747	-0.0039	-2.5 to 2.5	Pass
	707.5	25	0	20	3.27	0.243	0.0003	-2.5 to 2.5	Pass
					3.85	2.532	0.0036	-2.5 to 2.5	Pass
					4.43	4.163	0.0059	-2.5 to 2.5	Pass
				-30	3.85	1.431	0.0020	-2.5 to 2.5	Pass
				-20	3.85	0.615	0.0009	-2.5 to 2.5	Pass
				-10	3.85	3.977	0.0056	-2.5 to 2.5	Pass
				0	3.85	0.901	0.0013	-2.5 to 2.5	Pass
				10	3.85	1.316	0.0019	-2.5 to 2.5	Pass
				30	3.85	-3.033	-0.0043	-2.5 to 2.5	Pass
				40	3.85	-1.116	-0.0016	-2.5 to 2.5	Pass
				50	3.85	-3.104	-0.0044	-2.5 to 2.5	Pass
	713.5	25	0	20	3.27	-2.990	-0.0042	-2.5 to 2.5	Pass
					3.85	3.004	0.0042	-2.5 to 2.5	Pass
					4.43	-1.945	-0.0027	-2.5 to 2.5	Pass
				-30	3.85	-6.208	-0.0087	-2.5 to 2.5	Pass
				-20	3.85	-3.977	-0.0056	-2.5 to 2.5	Pass
				-10	3.85	-5.007	-0.0070	-2.5 to 2.5	Pass
				0	3.85	-3.047	-0.0043	-2.5 to 2.5	Pass
				10	3.85	-2.718	-0.0038	-2.5 to 2.5	Pass
				30	3.85	-1.774	-0.0025	-2.5 to 2.5	Pass
				40	3.85	-3.562	-0.0050	-2.5 to 2.5	Pass
16QAM	701.5	25	0	20	3.27	-2.418	-0.0034	-2.5 to 2.5	Pass
					3.85	0.944	0.0013	-2.5 to 2.5	Pass
					4.43	-0.887	-0.0013	-2.5 to 2.5	Pass
				-30	3.85	1.659	0.0024	-2.5 to 2.5	Pass
				-20	3.85	-2.747	-0.0039	-2.5 to 2.5	Pass
				-10	3.85	0.515	0.0007	-2.5 to 2.5	Pass
				0	3.85	0.858	0.0012	-2.5 to 2.5	Pass
				10	3.85	1.974	0.0028	-2.5 to 2.5	Pass
				30	3.85	-0.987	-0.0014	-2.5 to 2.5	Pass
				40	3.85	-3.462	-0.0049	-2.5 to 2.5	Pass
				50	3.85	-1.674	-0.0024	-2.5 to 2.5	Pass
	707.5	25	0	20	3.27	-0.687	-0.0010	-2.5 to 2.5	Pass
					3.85	2.632	0.0037	-2.5 to 2.5	Pass
					4.43	-0.358	-0.0005	-2.5 to 2.5	Pass
				-30	3.85	-1.345	-0.0019	-2.5 to 2.5	Pass
				-20	3.85	-1.359	-0.0019	-2.5 to 2.5	Pass
				-10	3.85	1.917	0.0027	-2.5 to 2.5	Pass
				0	3.85	-3.533	-0.0050	-2.5 to 2.5	Pass
				10	3.85	0.486	0.0007	-2.5 to 2.5	Pass

	713.5	25	0	30	3.85	3.905	0.0055	-2.5 to 2.5	Pass
				40	3.85	2.689	0.0038	-2.5 to 2.5	Pass
				50	3.85	-0.715	-0.0010	-2.5 to 2.5	Pass
				20	3.27	-2.446	-0.0034	-2.5 to 2.5	Pass
					3.85	-0.744	-0.0010	-2.5 to 2.5	Pass
					4.43	0.501	0.0007	-2.5 to 2.5	Pass
				-30	3.85	-3.018	-0.0042	-2.5 to 2.5	Pass
				-20	3.85	-4.964	-0.0070	-2.5 to 2.5	Pass
				-10	3.85	-2.561	-0.0036	-2.5 to 2.5	Pass
				0	3.85	-4.621	-0.0065	-2.5 to 2.5	Pass
				10	3.85	-0.787	-0.0011	-2.5 to 2.5	Pass
				30	3.85	-2.160	-0.0030	-2.5 to 2.5	Pass
				40	3.85	0.658	0.0009	-2.5 to 2.5	Pass
				50	3.85	-5.422	-0.0076	-2.5 to 2.5	Pass

2.1.4 B12_10MHz

Band: 12 / Bandwidth: 10MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	704	50	0	20	3.27	-0.815	-0.0012	-2.5 to 2.5	Pass
					3.85	-1.116	-0.0016	-2.5 to 2.5	Pass
					4.43	-1.230	-0.0017	-2.5 to 2.5	Pass
				-30	3.85	1.287	0.0018	-2.5 to 2.5	Pass
				-20	3.85	0.229	0.0003	-2.5 to 2.5	Pass
				-10	3.85	1.459	0.0021	-2.5 to 2.5	Pass
				0	3.85	1.173	0.0017	-2.5 to 2.5	Pass
				10	3.85	2.232	0.0032	-2.5 to 2.5	Pass
				30	3.85	-0.587	-0.0008	-2.5 to 2.5	Pass
				40	3.85	-1.431	-0.0020	-2.5 to 2.5	Pass
				50	3.85	-1.059	-0.0015	-2.5 to 2.5	Pass
	707.5	50	0	20	3.27	-1.230	-0.0017	-2.5 to 2.5	Pass
					3.85	2.074	0.0029	-2.5 to 2.5	Pass
					4.43	0.401	0.0006	-2.5 to 2.5	Pass
				-30	3.85	-1.287	-0.0018	-2.5 to 2.5	Pass
				-20	3.85	1.774	0.0025	-2.5 to 2.5	Pass
				-10	3.85	0.629	0.0009	-2.5 to 2.5	Pass
				0	3.85	-1.116	-0.0016	-2.5 to 2.5	Pass
				10	3.85	-3.119	-0.0044	-2.5 to 2.5	Pass
				30	3.85	-2.317	-0.0033	-2.5 to 2.5	Pass
				40	3.85	0.515	0.0007	-2.5 to 2.5	Pass
				50	3.85	-0.486	-0.0007	-2.5 to 2.5	Pass
	711	50	0	20	3.27	-0.186	-0.0003	-2.5 to 2.5	Pass
					3.85	-2.761	-0.0039	-2.5 to 2.5	Pass
					4.43	0.529	0.0007	-2.5 to 2.5	Pass
				-30	3.85	1.159	0.0016	-2.5 to 2.5	Pass
				-20	3.85	-1.616	-0.0023	-2.5 to 2.5	Pass
				-10	3.85	1.516	0.0021	-2.5 to 2.5	Pass
				0	3.85	-0.973	-0.0014	-2.5 to 2.5	Pass
				10	3.85	-0.973	-0.0014	-2.5 to 2.5	Pass
				30	3.85	-2.460	-0.0035	-2.5 to 2.5	Pass
				40	3.85	1.717	0.0024	-2.5 to 2.5	Pass
				50	3.85	-0.200	-0.0003	-2.5 to 2.5	Pass
16QAM	704	50	0	20	3.27	-1.645	-0.0023	-2.5 to 2.5	Pass
					3.85	-2.604	-0.0037	-2.5 to 2.5	Pass
					4.43	0.257	0.0004	-2.5 to 2.5	Pass
				-30	3.85	0.844	0.0012	-2.5 to 2.5	Pass
				-20	3.85	-1.516	-0.0022	-2.5 to 2.5	Pass

				-10	3.85	-2.532	-0.0036	-2.5 to 2.5	Pass
				0	3.85	-0.987	-0.0014	-2.5 to 2.5	Pass
				10	3.85	0.315	0.0004	-2.5 to 2.5	Pass
				30	3.85	0.730	0.0010	-2.5 to 2.5	Pass
				40	3.85	0.386	0.0005	-2.5 to 2.5	Pass
				50	3.85	0.672	0.0010	-2.5 to 2.5	Pass
	707.5	50	0	20	3.27	-0.186	-0.0003	-2.5 to 2.5	Pass
					3.85	-0.086	-0.0001	-2.5 to 2.5	Pass
					4.43	-0.100	-0.0001	-2.5 to 2.5	Pass
				-30	3.85	1.459	0.0021	-2.5 to 2.5	Pass
				-20	3.85	-0.572	-0.0008	-2.5 to 2.5	Pass
				-10	3.85	0.157	0.0002	-2.5 to 2.5	Pass
				0	3.85	0.443	0.0006	-2.5 to 2.5	Pass
				10	3.85	-0.587	-0.0008	-2.5 to 2.5	Pass
				30	3.85	-0.529	-0.0007	-2.5 to 2.5	Pass
				40	3.85	1.416	0.0020	-2.5 to 2.5	Pass
				50	3.85	-0.973	-0.0014	-2.5 to 2.5	Pass
	711	50	0	20	3.27	1.860	0.0026	-2.5 to 2.5	Pass
					3.85	-2.518	-0.0035	-2.5 to 2.5	Pass
					4.43	-1.788	-0.0025	-2.5 to 2.5	Pass
				-30	3.85	-0.415	-0.0006	-2.5 to 2.5	Pass
				-20	3.85	-0.200	-0.0003	-2.5 to 2.5	Pass
				-10	3.85	0.772	0.0011	-2.5 to 2.5	Pass
				0	3.85	-4.463	-0.0063	-2.5 to 2.5	Pass
				10	3.85	3.891	0.0055	-2.5 to 2.5	Pass
				30	3.85	-1.960	-0.0028	-2.5 to 2.5	Pass
				40	3.85	0.443	0.0006	-2.5 to 2.5	Pass
				50	3.85	-0.672	-0.0009	-2.5 to 2.5	Pass

3. Modulation Characteristics

3.1 Test Result

3.1.1 B12_1.4MHz

Band: 12 / Bandwidth: 1.4MHz / NTN						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	707.5	6	0	Refer To Test Graph		Pass
16QAM	707.5	6	0	Refer To Test Graph		Pass

3.1.2 B12_3MHz

Band: 12 / Bandwidth: 3MHz / NTN						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	707.5	15	0	Refer To Test Graph		Pass
16QAM	707.5	15	0	Refer To Test Graph		Pass

3.1.3 B12_5MHz

Band: 12 / Bandwidth: 5MHz / NTN						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	

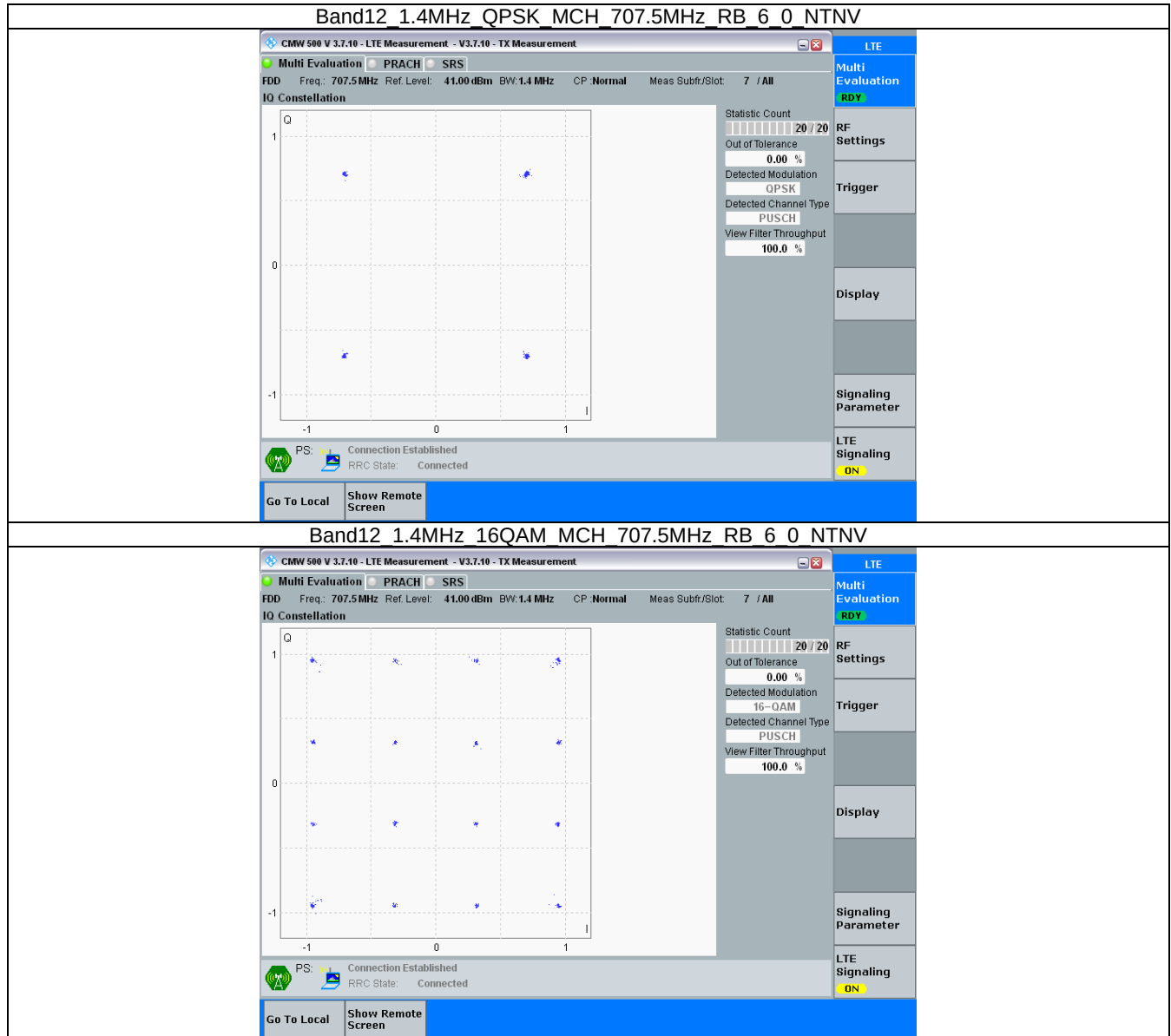
QPSK	707.5	25	0	Refer To Test Graph	Pass
16QAM	707.5	25	0	Refer To Test Graph	Pass

3.1.4 B12_10MHz

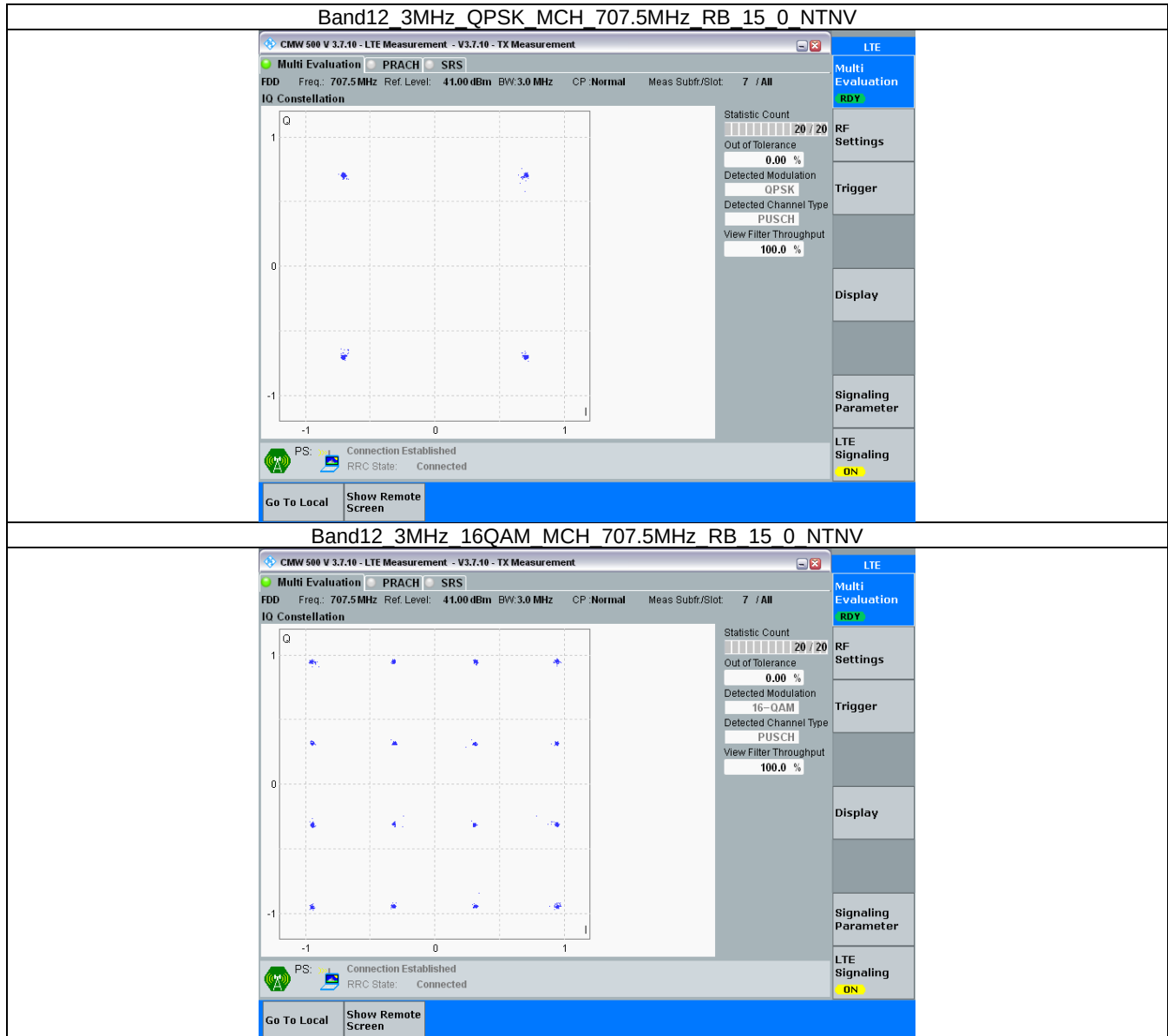
Band: 12 / Bandwidth: 10MHz / NTVN						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	707.5	50	0	Refer To Test Graph		Pass
16QAM	707.5	50	0	Refer To Test Graph		Pass

3.2 Test Graph

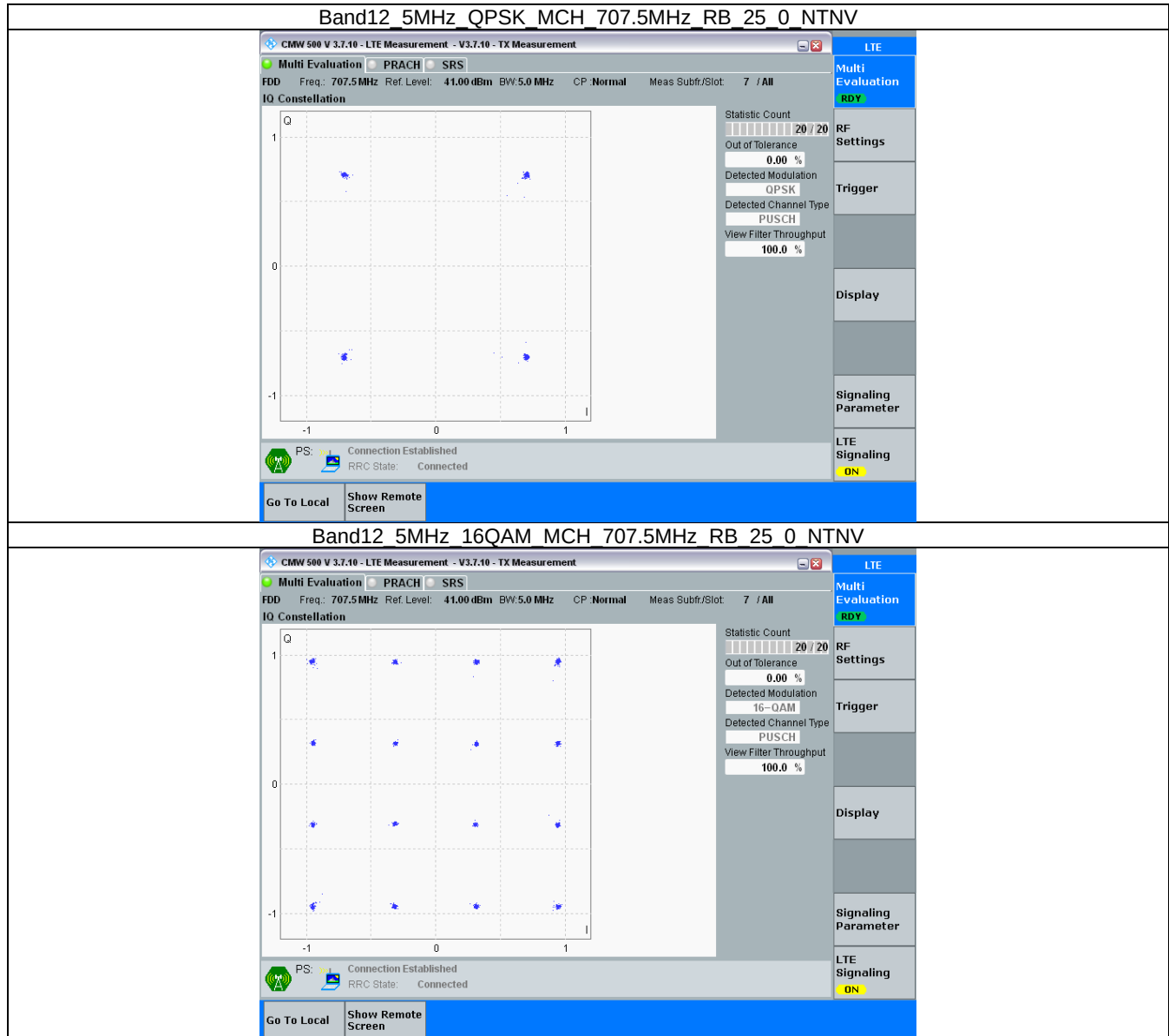
3.2.1 B12_1.4MHz



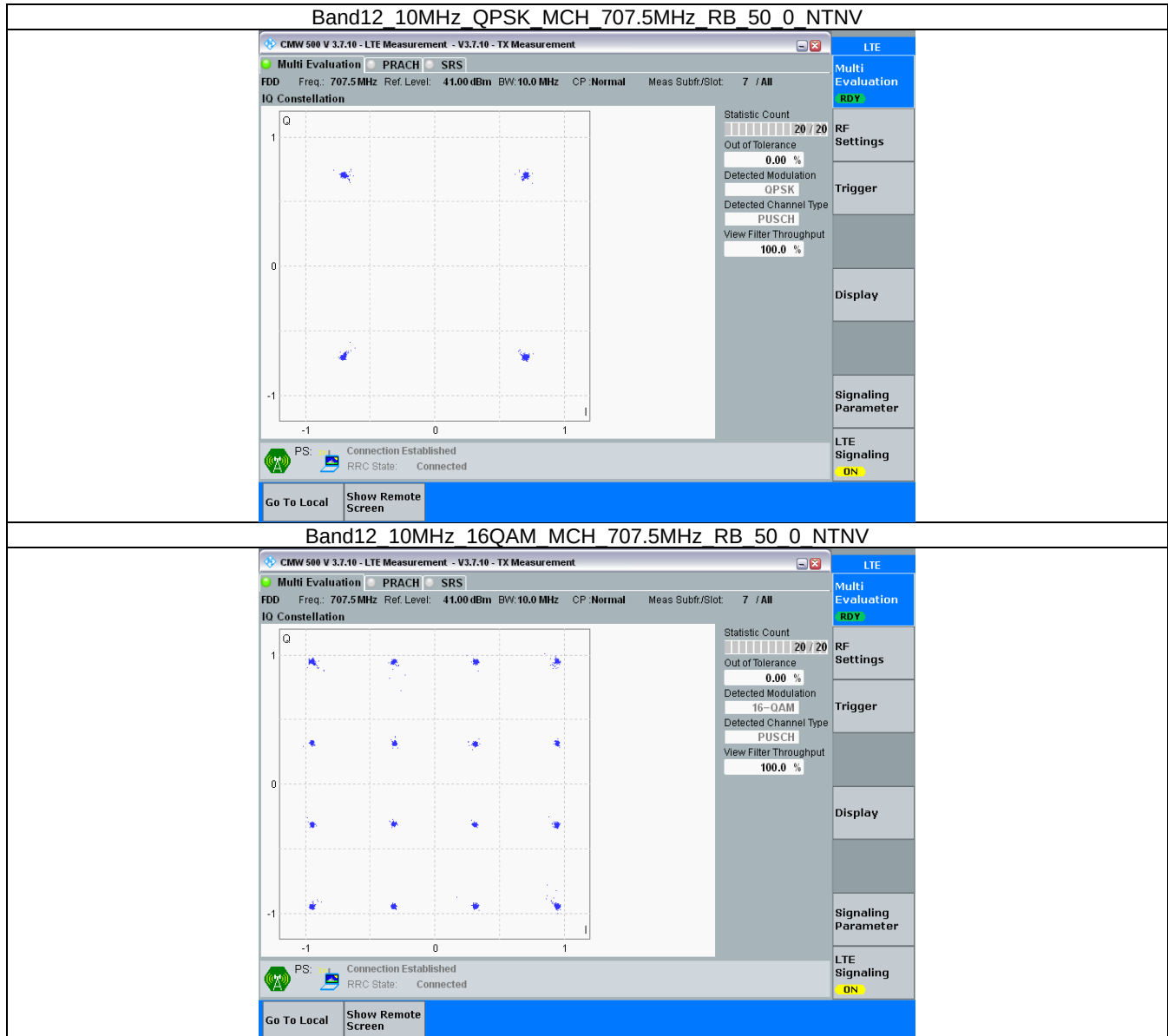
3.2.2 B12_3MHz



3.2.3 B12_5MHz



3.2.4 B12_10MHz



4. 99% & 26dB Bandwidth

4.1 Test Result

4.1.1 Band12_OBW

Band: 12 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	699.7	6	0	1.113	/	Pass
		707.5	6	0	1.112	/	Pass
		715.3	6	0	1.107	/	Pass
	16QAM	699.7	6	0	1.110	/	Pass
		707.5	6	0	1.106	/	Pass
		715.3	6	0	1.119	/	Pass
3	QPSK	700.5	15	0	2.729	/	Pass
		707.5	15	0	2.733	/	Pass
		714.5	15	0	2.731	/	Pass
	16QAM	700.5	15	0	2.734	/	Pass
		707.5	15	0	2.728	/	Pass
		714.5	15	0	2.735	/	Pass
5	QPSK	701.5	25	0	4.543	/	Pass
		707.5	25	0	4.545	/	Pass
		713.5	25	0	4.564	/	Pass
	16QAM	701.5	25	0	4.542	/	Pass
		707.5	25	0	4.555	/	Pass
		713.5	25	0	4.546	/	Pass
10	QPSK	704	50	0	9.041	/	Pass
		707.5	50	0	9.044	/	Pass
		711	50	0	9.056	/	Pass
	16QAM	704	50	0	9.045	/	Pass
		707.5	50	0	9.026	/	Pass
		711	50	0	9.071	/	Pass

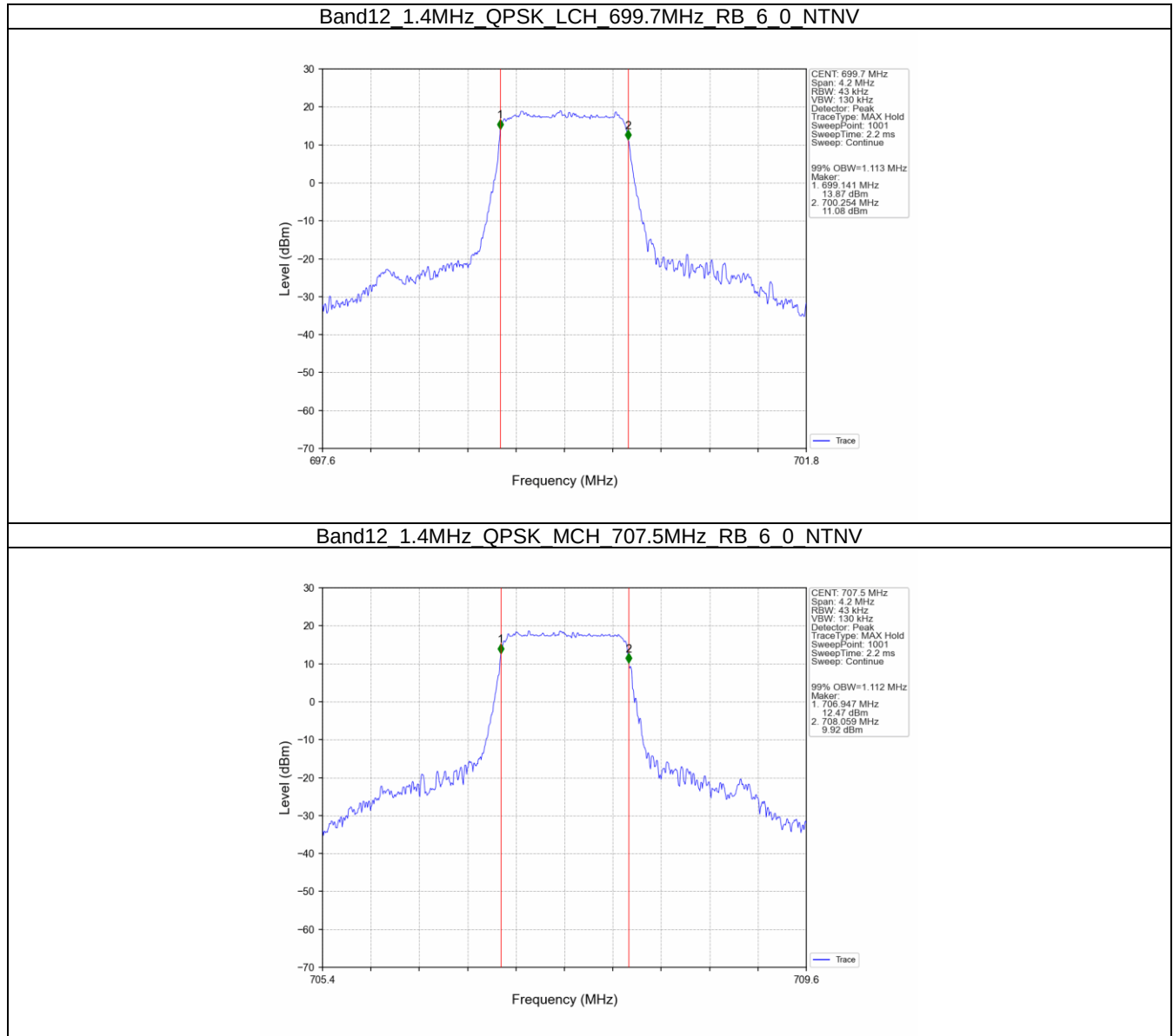
4.1.2 Band12_XDB

Band: 12 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	699.7	6	0	1.312	/	Pass
		707.5	6	0	1.328	/	Pass
		715.3	6	0	1.346	/	Pass
	16QAM	699.7	6	0	1.320	/	Pass
		707.5	6	0	1.316	/	Pass
		715.3	6	0	1.321	/	Pass
3	QPSK	700.5	15	0	3.016	/	Pass
		707.5	15	0	3.011	/	Pass
		714.5	15	0	3.010	/	Pass
	16QAM	700.5	15	0	3.017	/	Pass
		707.5	15	0	3.025	/	Pass
		714.5	15	0	3.000	/	Pass
5	QPSK	701.5	25	0	5.049	/	Pass
		707.5	25	0	5.103	/	Pass
		713.5	25	0	5.034	/	Pass

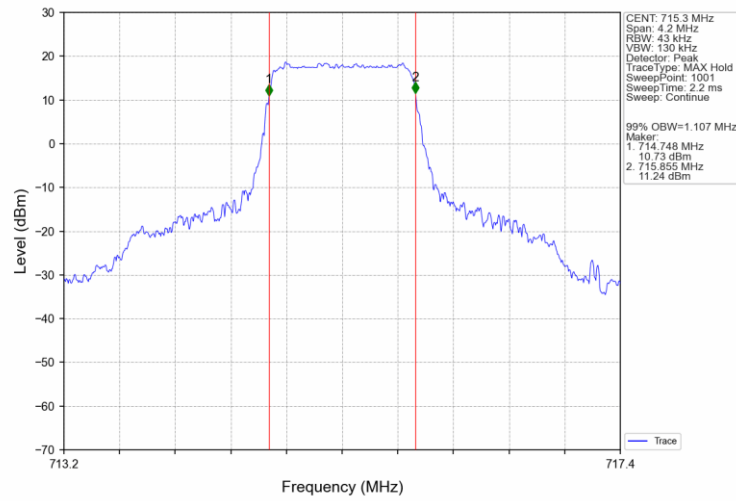
10	16QAM	701.5	25	0	5.054	/	Pass
		707.5	25	0	5.041	/	Pass
		713.5	25	0	5.059	/	Pass
	QPSK	704	50	0	9.950	/	Pass
		707.5	50	0	9.922	/	Pass
		711	50	0	9.961	/	Pass
	16QAM	704	50	0	9.900	/	Pass
		707.5	50	0	9.859	/	Pass
		711	50	0	9.943	/	Pass

4.2 Test Graph

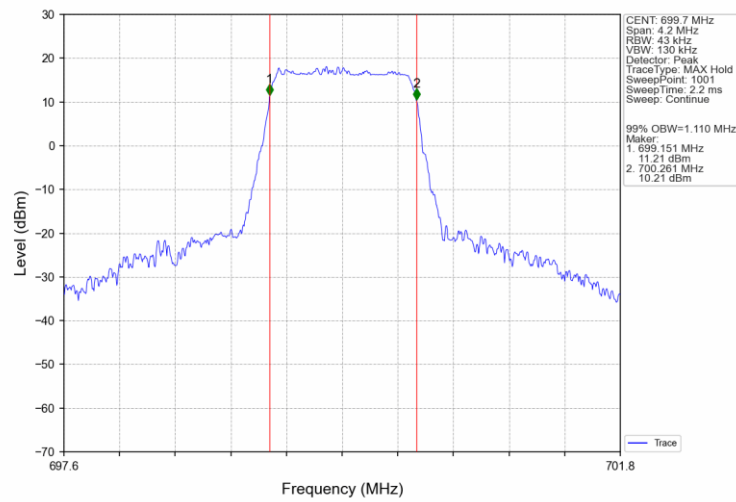
4.2.1 Band12_OBW



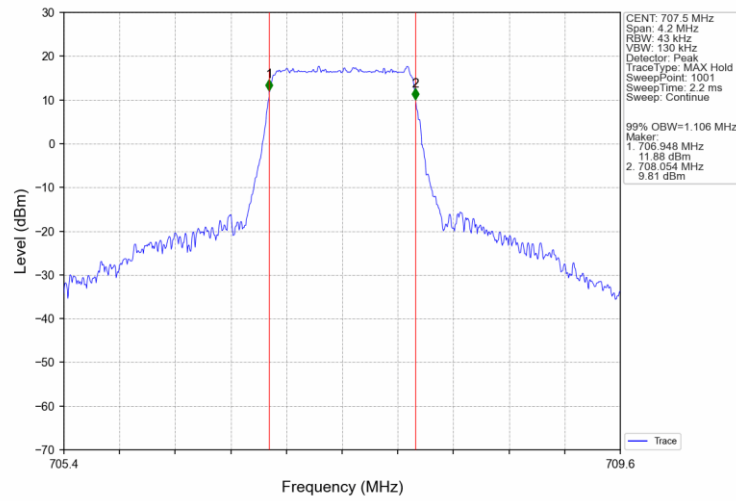
Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



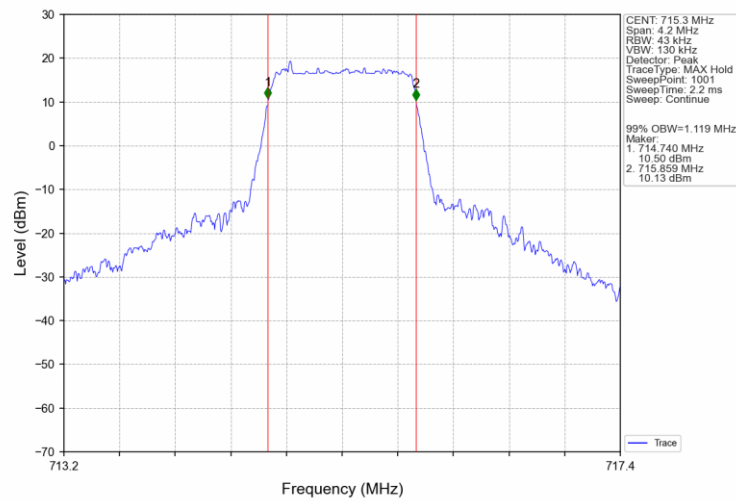
Band12_1.4MHz_16QAM_LCH_699.7MHz_RB_6_0_NTNV



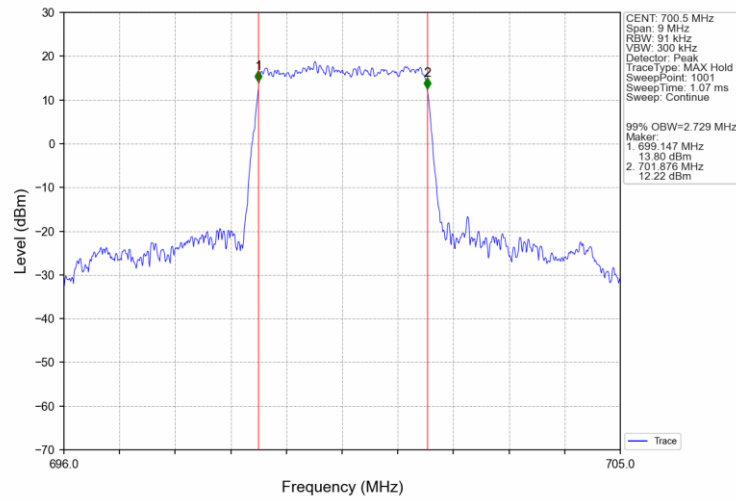
Band12_1.4MHz_16QAM_MCH_707.5MHz_RB_6_0_NTNV



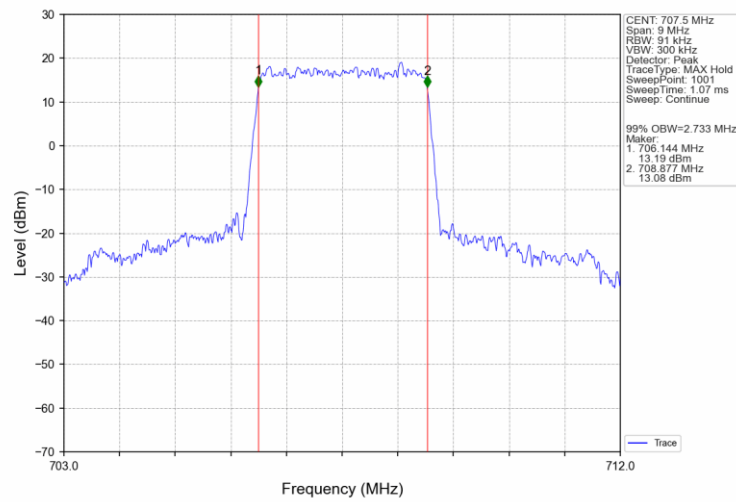
Band12_1.4MHz_16QAM_HCH_715.3MHz_RB_6_0_NTNV



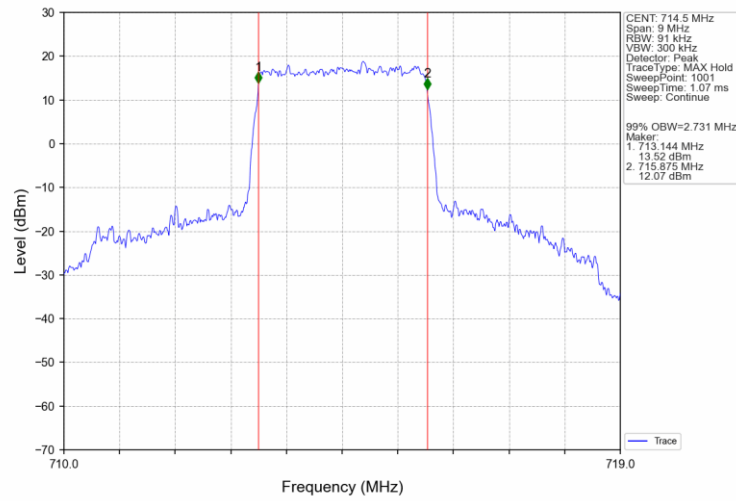
Band12_3MHz_QPSK_LCH_700.5MHz_RB_15_0_NTNV



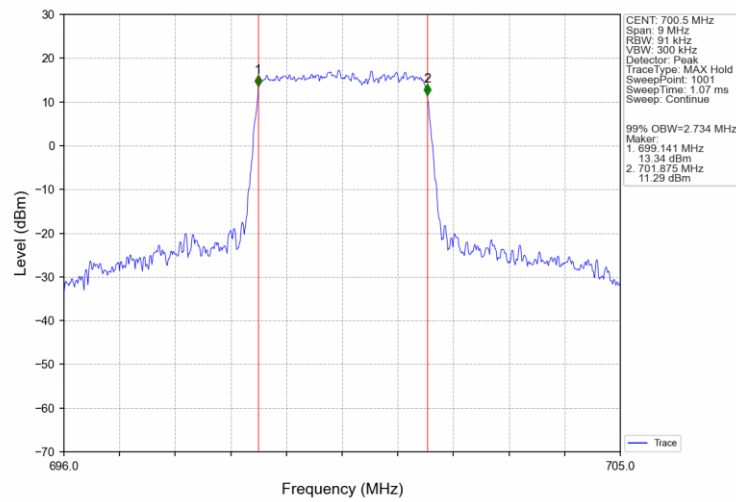
Band12_3MHz_QPSK_MCH_707.5MHz_RB_15_0_NTNV



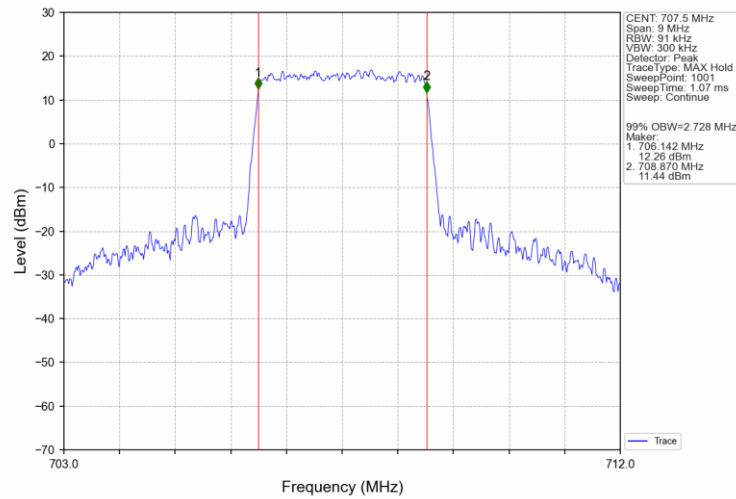
Band12_3MHz_QPSK_HCH_714.5MHz_RB_15_0_NTNV



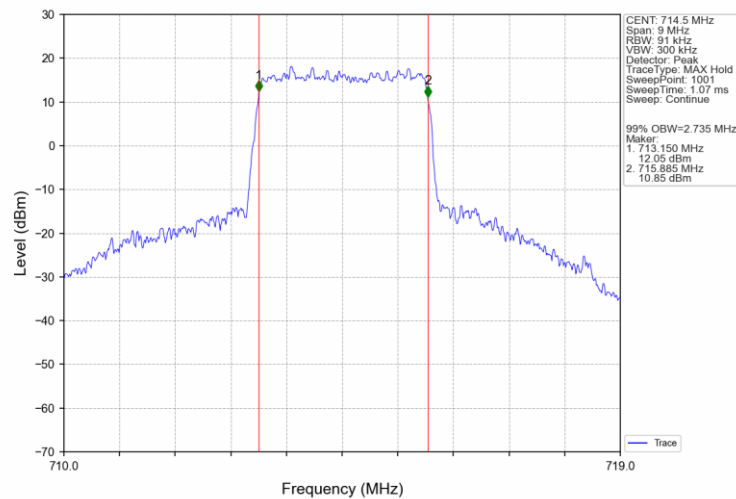
Band12_3MHz_16QAM_LCH_700.5MHz_RB_15_0_NTNV



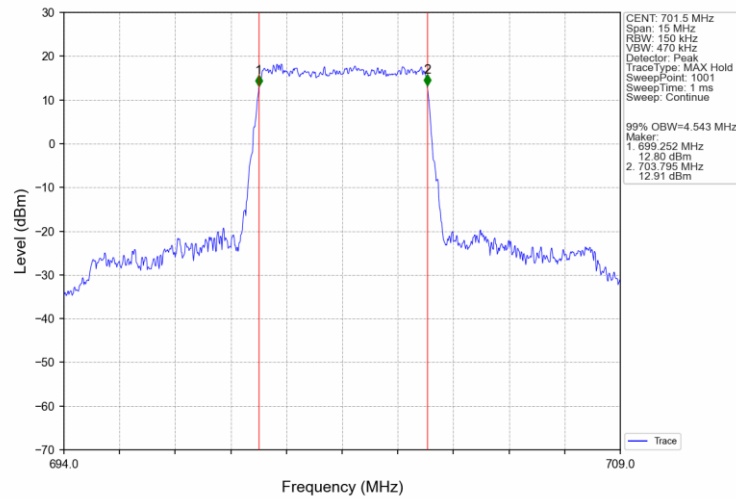
Band12_3MHz_16QAM_MCH_707.5MHz_RB_15_0_NTNV



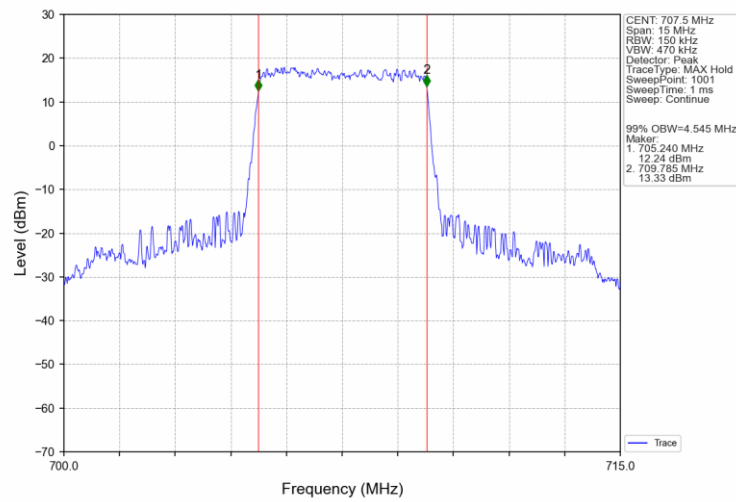
Band12_3MHz_16QAM_HCH_714.5MHz_RB_15_0_NTNV



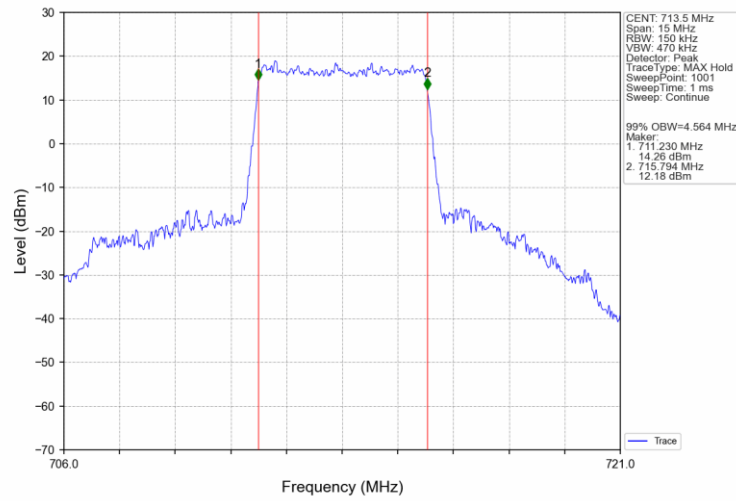
Band12_5MHz_QPSK_LCH_701.5MHz_RB_25_0_NTNV



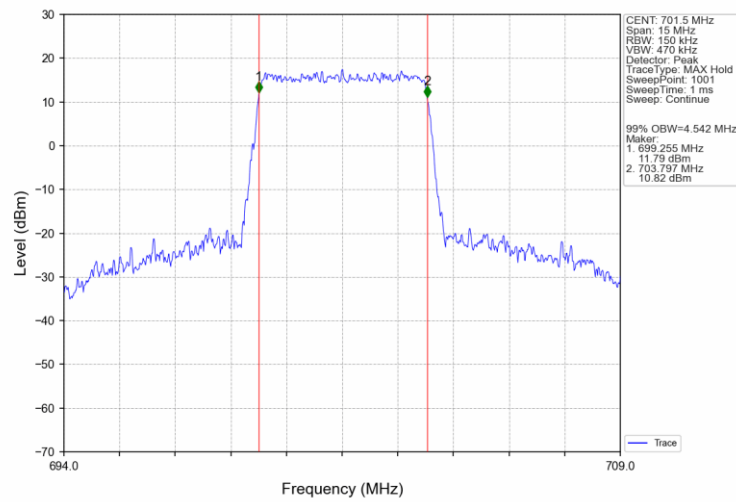
Band12_5MHz_QPSK_MCH_707.5MHz_RB_25_0_NTNV



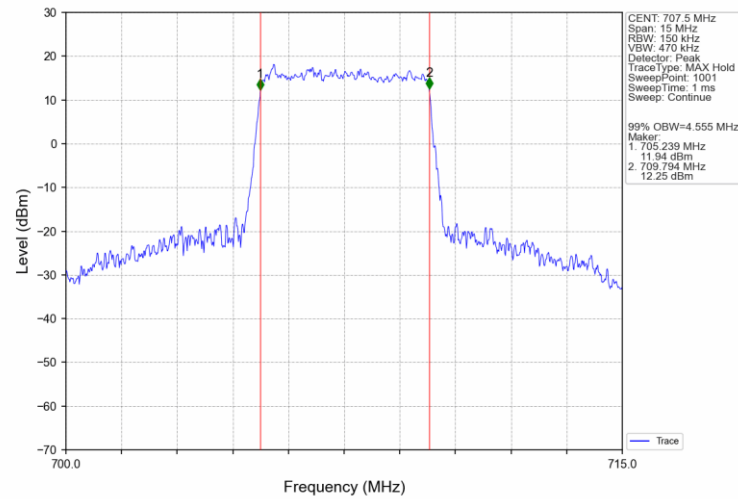
Band12_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



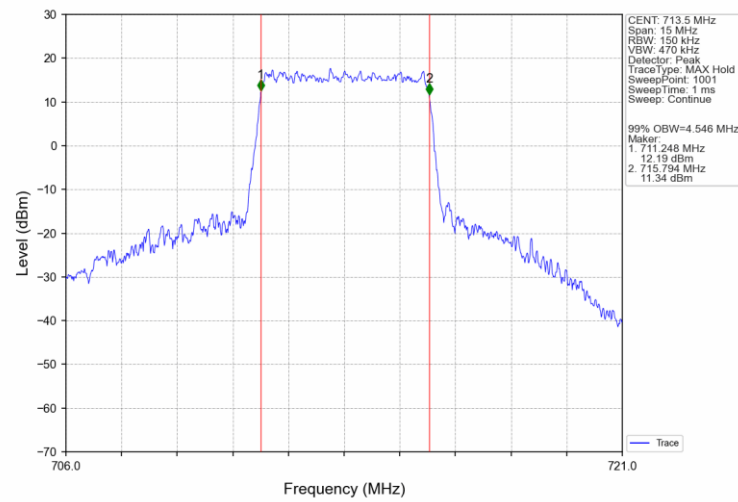
Band12_5MHz_16QAM_LCH_701.5MHz_RB_25_0_NTNV



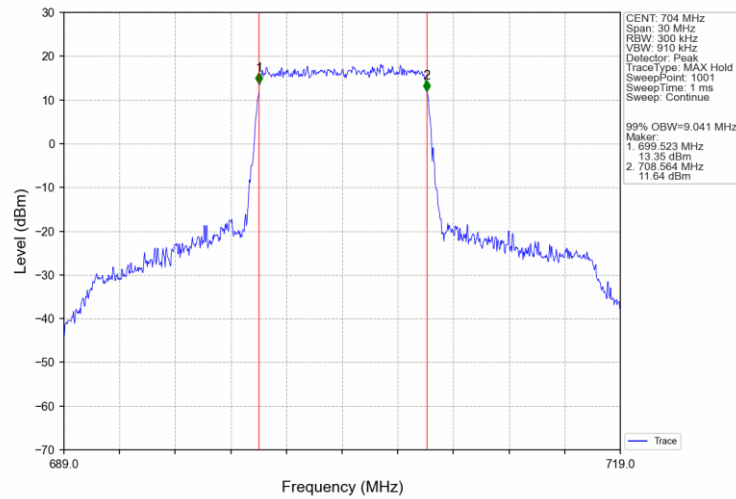
Band12_5MHz_16QAM_MCH_707.5MHz_RB_25_0_NTNV



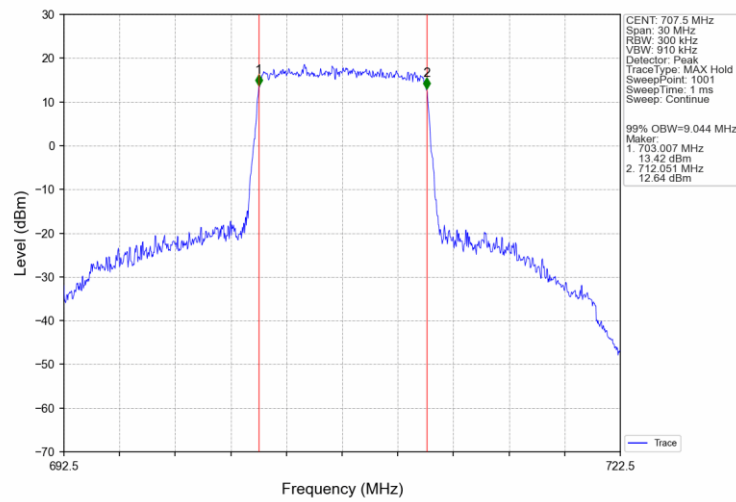
Band12_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



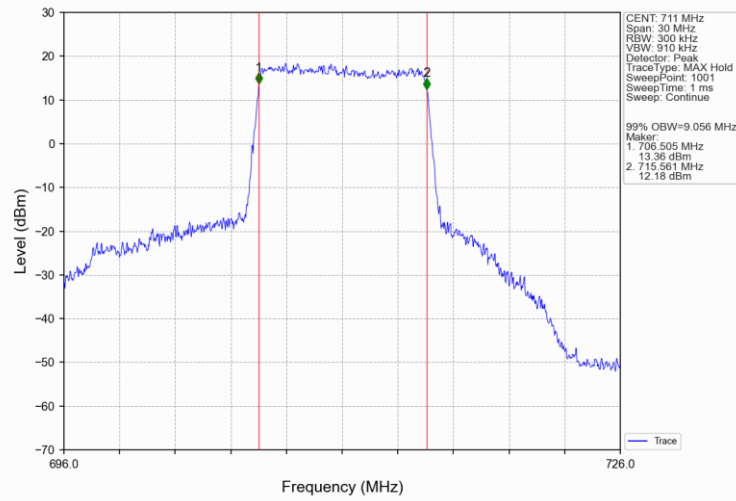
Band12_10MHz_QPSK_LCH_704MHz_RB_50_0_NTNV



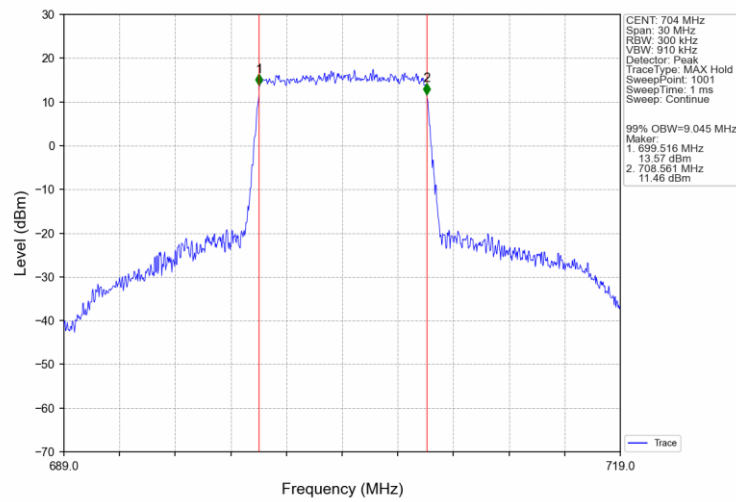
Band12_10MHz_QPSK_MCH_707.5MHz_RB_50_0_NTNV



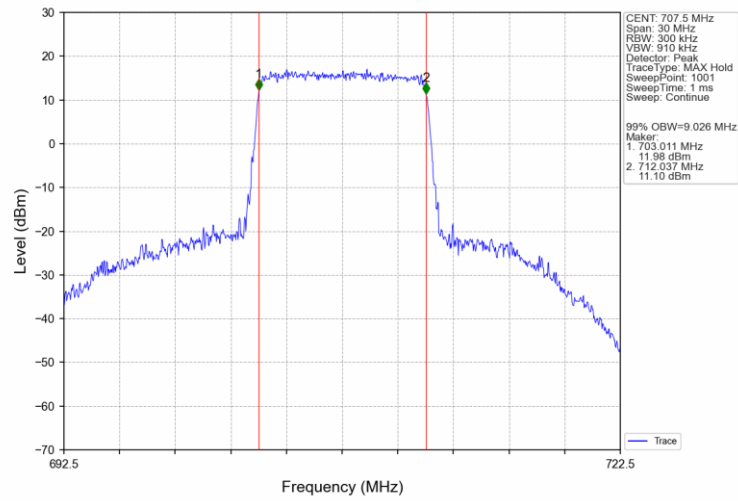
Band12_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



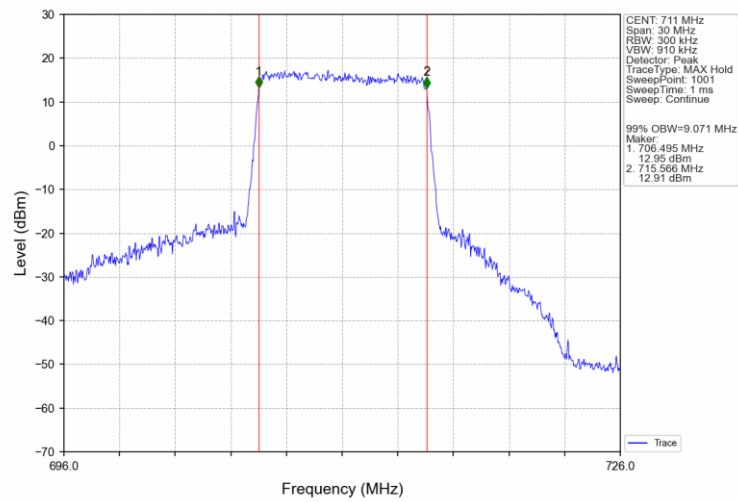
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Band12_10MHz_16QAM_MCH_707.5MHz_RB_50_0_NTNV

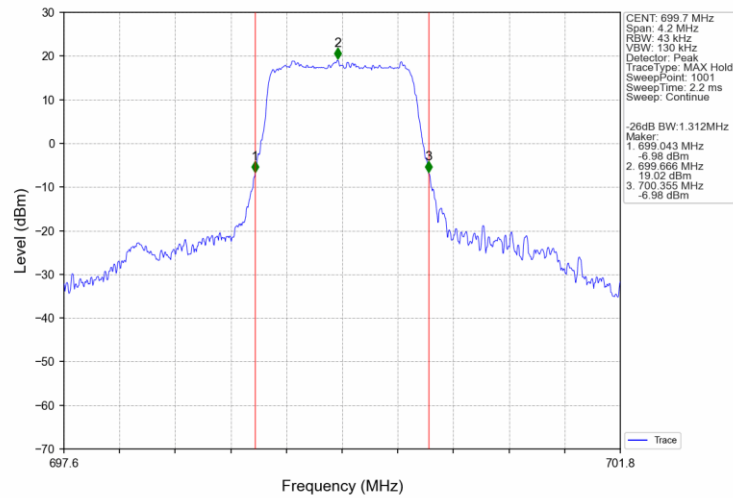


Band12_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV

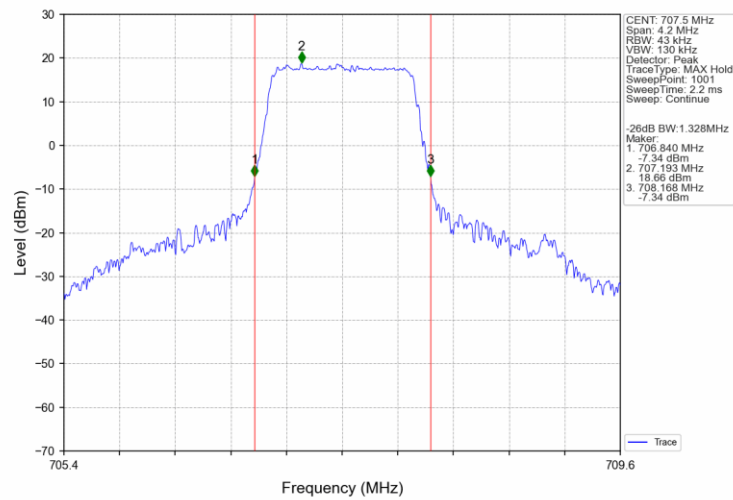


4.2.2 Band12_XDB

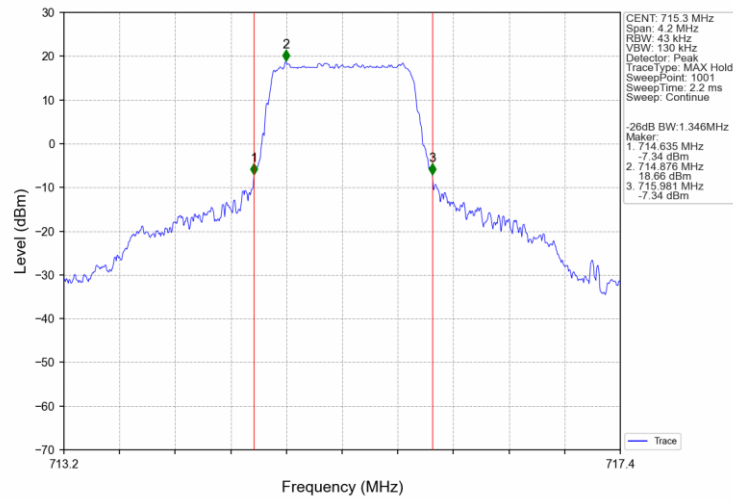
Band12_1.4MHz_QPSK_LCH_699.7MHz_RB_6_0_NTNV



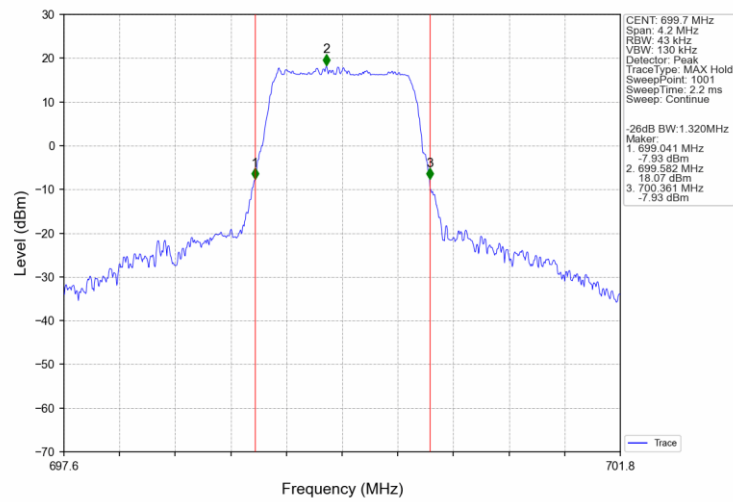
Band12_1.4MHz_QPSK_MCH_707.5MHz_RB_6_0_NTNV



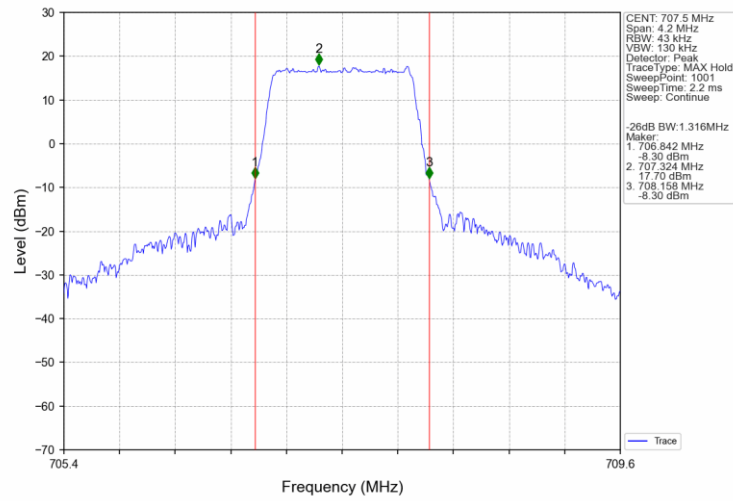
Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



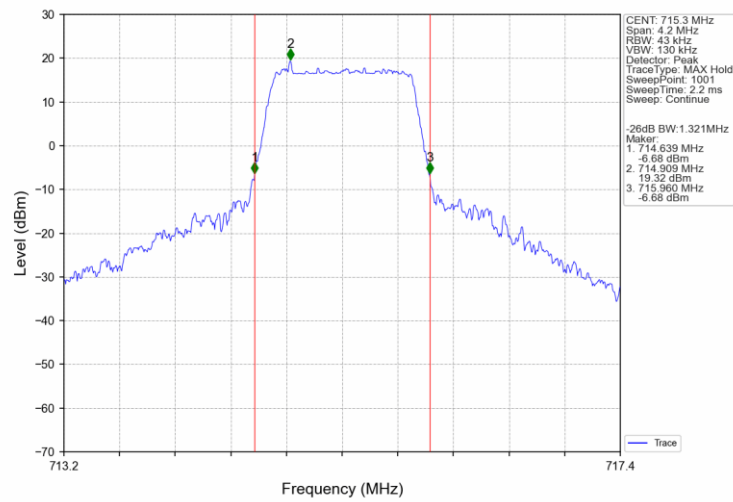
Band12_1.4MHz_16QAM_LCH_699.7MHz_RB_6_0_NTNV



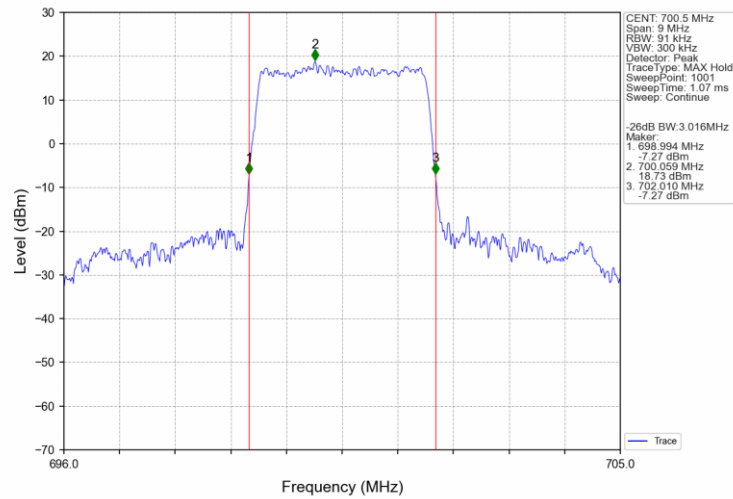
Band12_1.4MHz_16QAM_MCH_707.5MHz_RB_6_0_NTNV



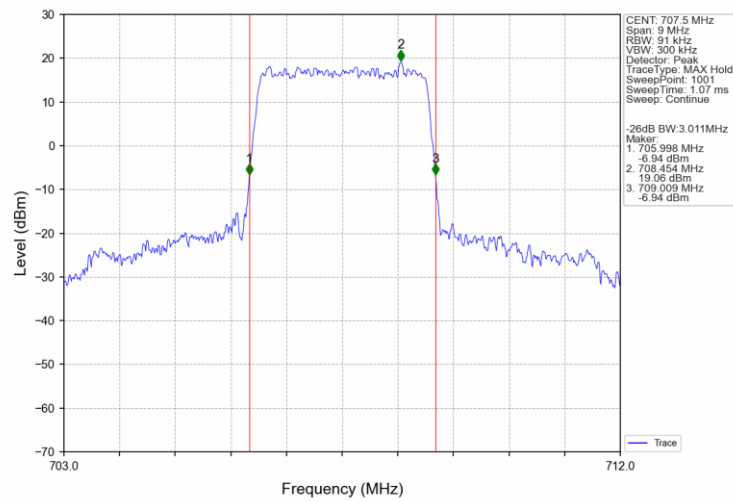
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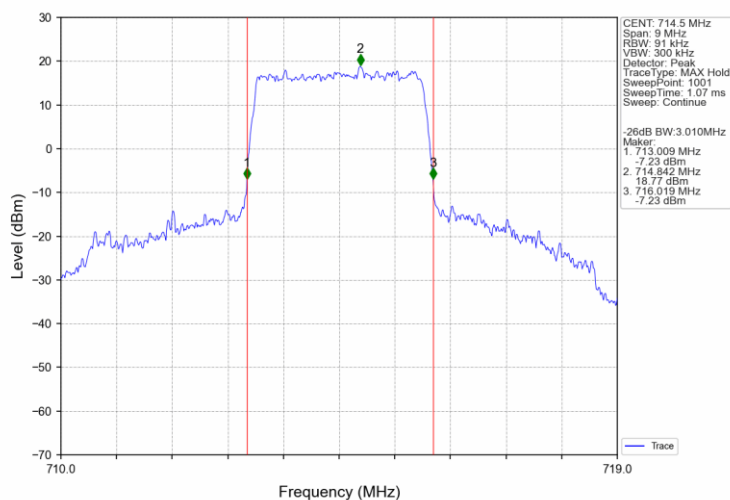
Band12_3MHz_QPSK_LCH_700.5MHz_RB_15_0_NTNV



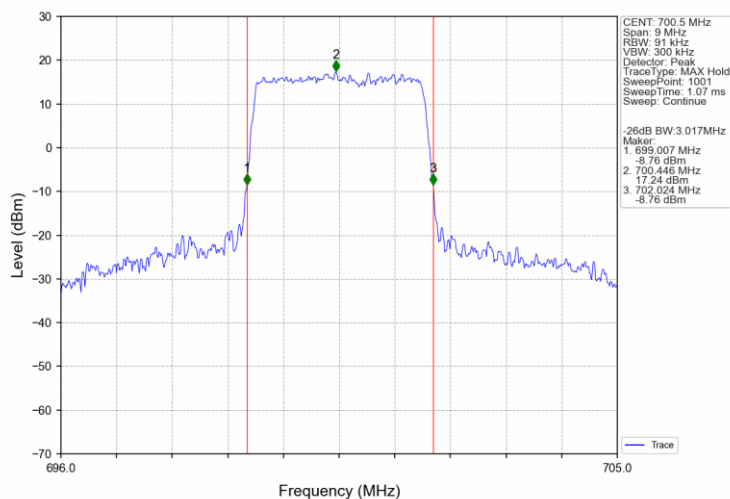
Band12_3MHz_QPSK_MCH_707.5MHz_RB_15_0_NTNV



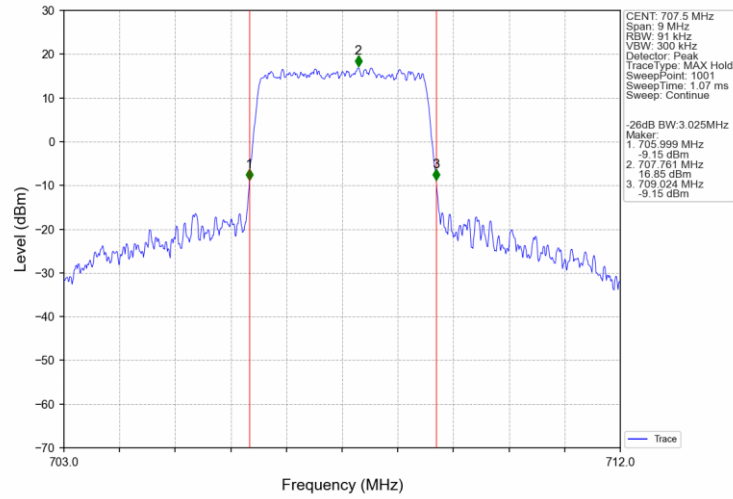
Band12_3MHz_QPSK_HCH_714.5MHz_RB_15_0_NTNV



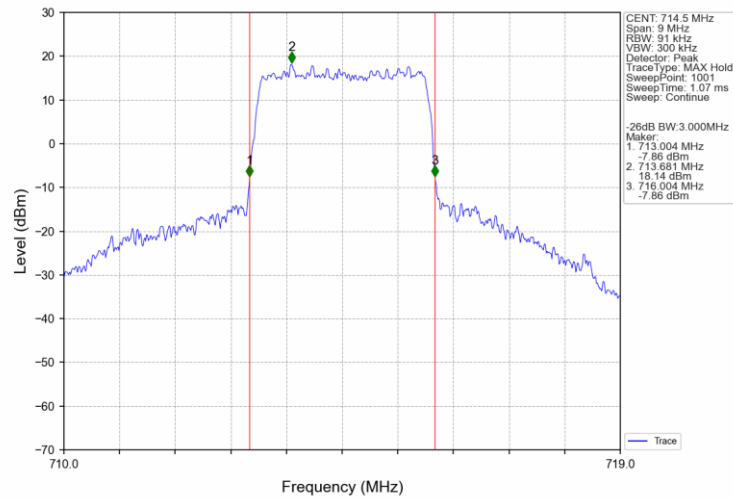
Band12_3MHz_16QAM_LCH_700.5MHz_RB_15_0_NTNV



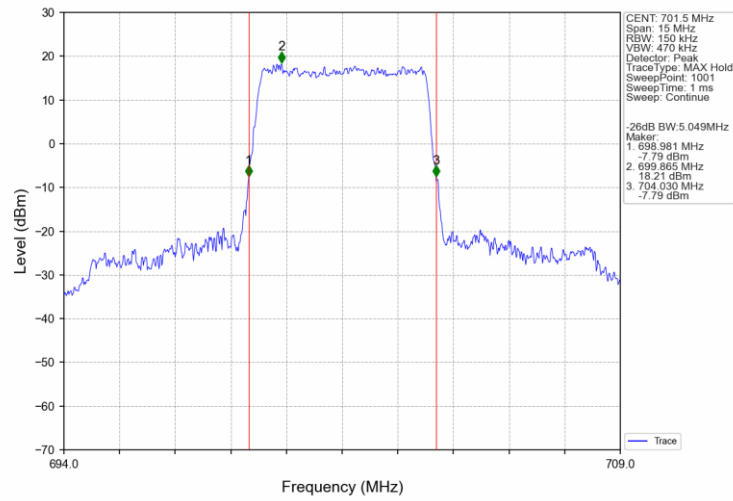
Band12_3MHz_16QAM_MCH_707.5MHz_RB_15_0_NTNV



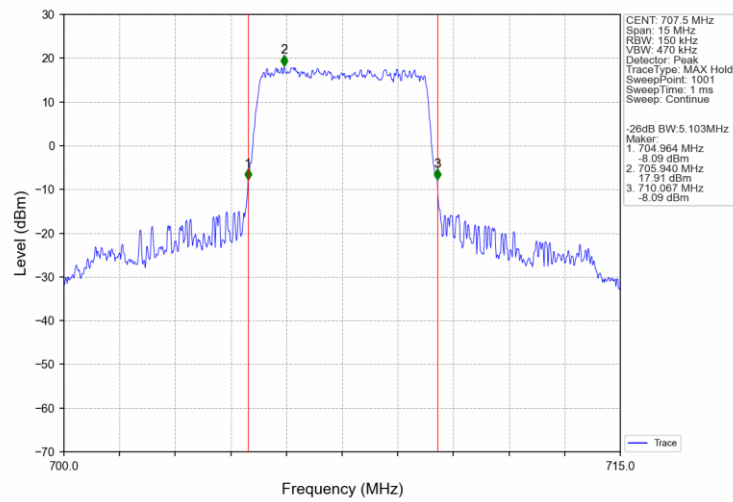
Band12_3MHz_16QAM_HCH_714.5MHz_RB_15_0_NTNV



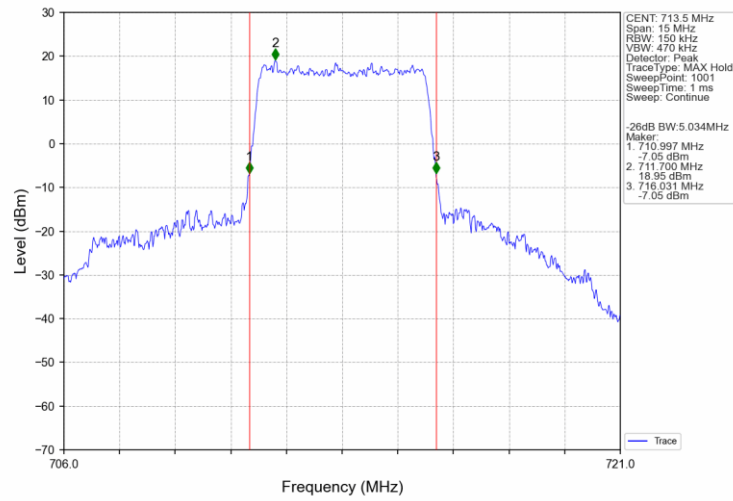
Band12_5MHz_QPSK_LCH_701.5MHz_RB_25_0_NTNV



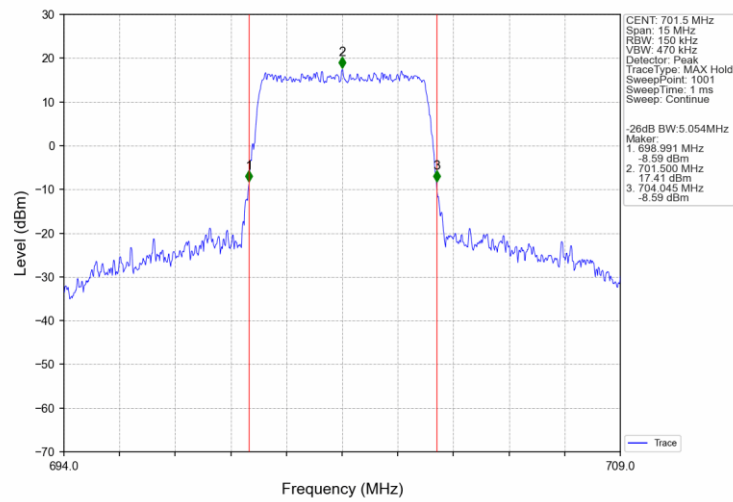
Band12_5MHz_QPSK_MCH_707.5MHz_RB_25_0_NTNV



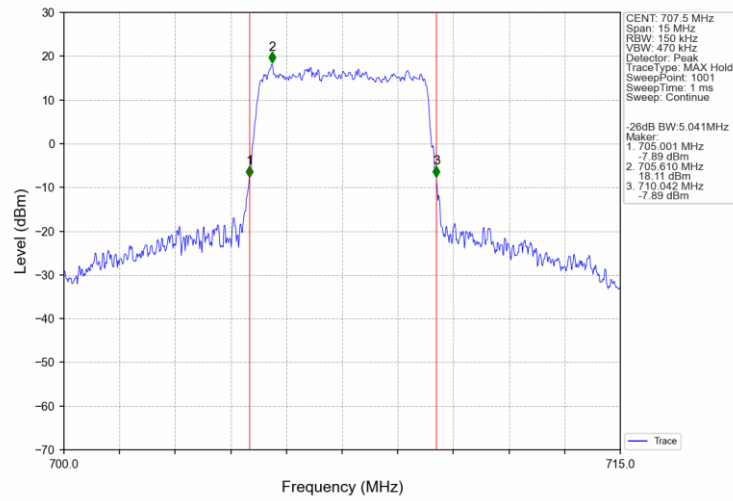
Band12_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



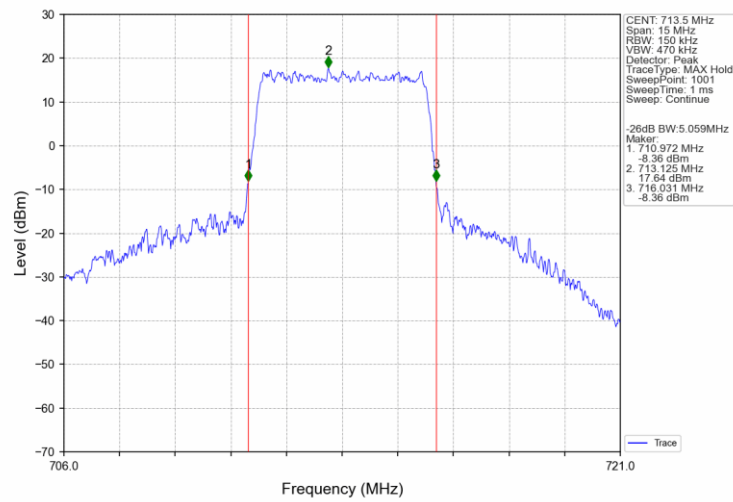
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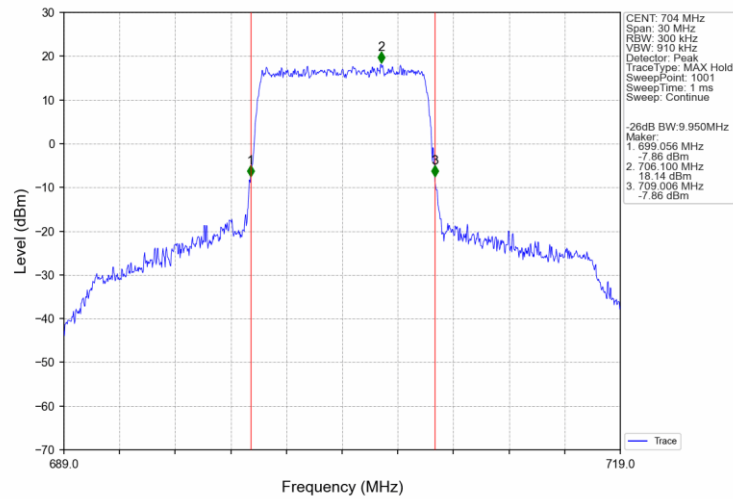
Band12_5MHz_16QAM_MCH_707.5MHz_RB_25_0_NTNV



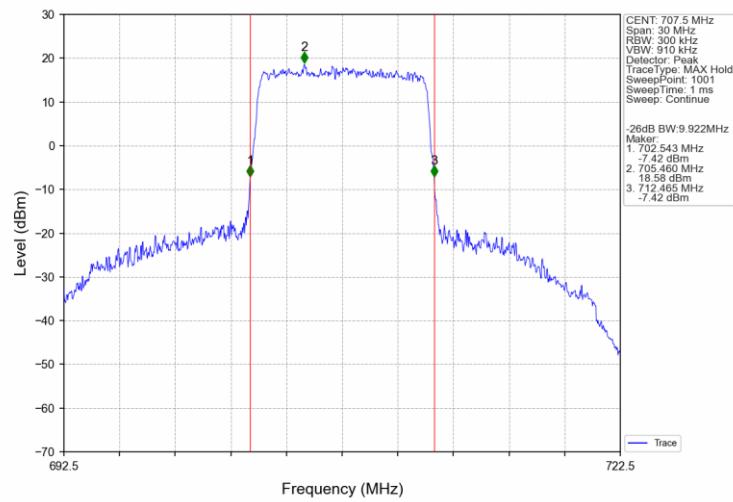
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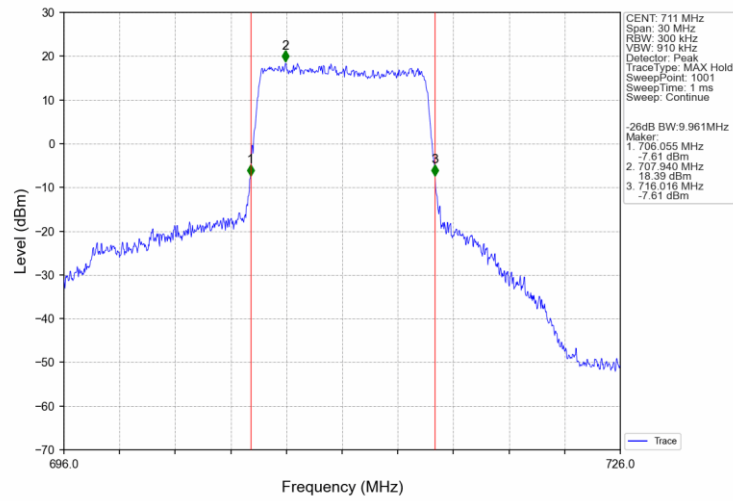
Band12_10MHz_QPSK_LCH_704MHz_RB_50_0_NTNV



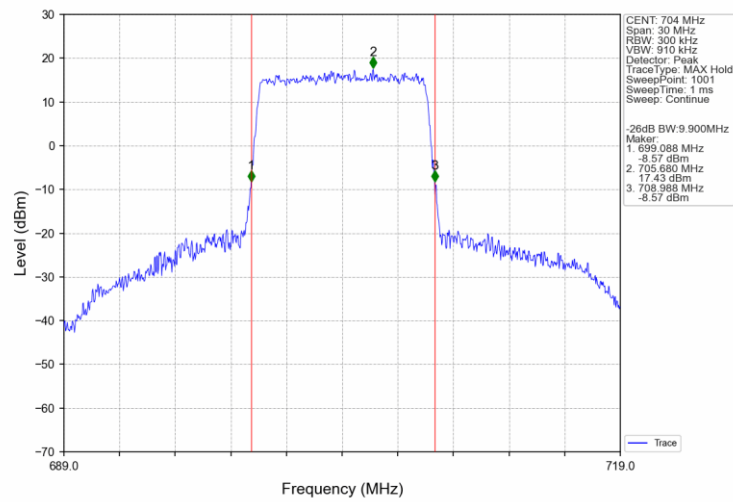
Band12_10MHz_QPSK_MCH_707.5MHz_RB_50_0_NTNV



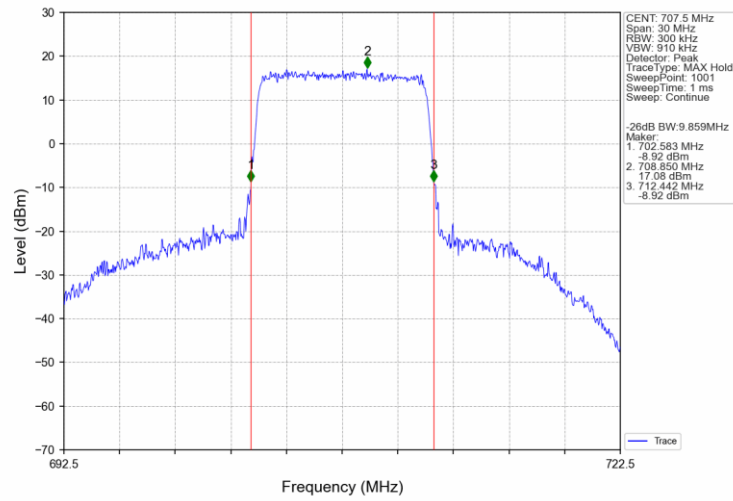
Band12_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



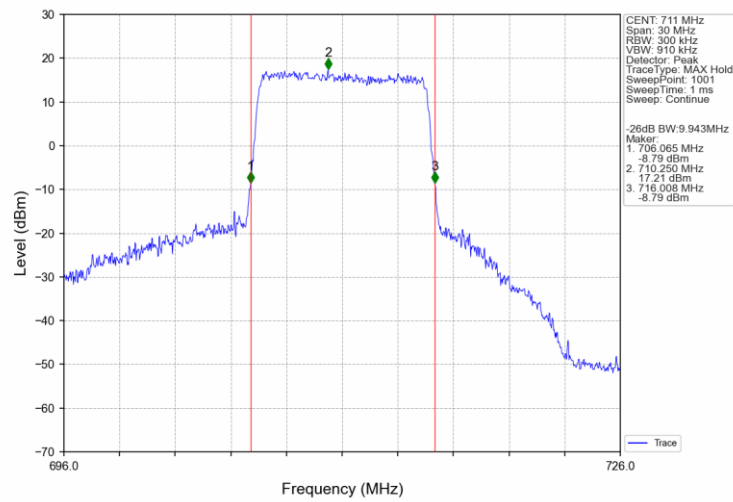
Band12_10MHz_16QAM_LCH_704MHz_RB_50_0_NTNV



Band12_10MHz_16QAM_MCH_707.5MHz_RB_50_0_NTNV



Band12_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV



5. Peak-Average Ratio

5.1 Test Result

5.1.1 B12_1.4MHz

Band: 12 / Bandwidth: 1.4MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	699.7	6	0	5.29	<=13	Pass
	707.5	6	0	4.98	<=13	Pass
	715.3	6	0	4.28	<=13	Pass
16QAM	699.7	6	0	6.09	<=13	Pass
	707.5	6	0	5.83	<=13	Pass
	715.3	6	0	5.06	<=13	Pass

5.1.2 B12_3MHz

Band: 12 / Bandwidth: 3MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	700.5	15	0	5.42	<=13	Pass
	707.5	15	0	5.18	<=13	Pass
	714.5	15	0	4.67	<=13	Pass
16QAM	700.5	15	0	6.23	<=13	Pass
	707.5	15	0	6.03	<=13	Pass
	714.5	15	0	5.47	<=13	Pass

5.1.3 B12_5MHz

Band: 12 / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	701.5	25	0	5.52	<=13	Pass
	707.5	25	0	5.46	<=13	Pass
	713.5	25	0	5.18	<=13	Pass
16QAM	701.5	25	0	6.25	<=13	Pass
	707.5	25	0	6.16	<=13	Pass
	713.5	25	0	5.87	<=13	Pass

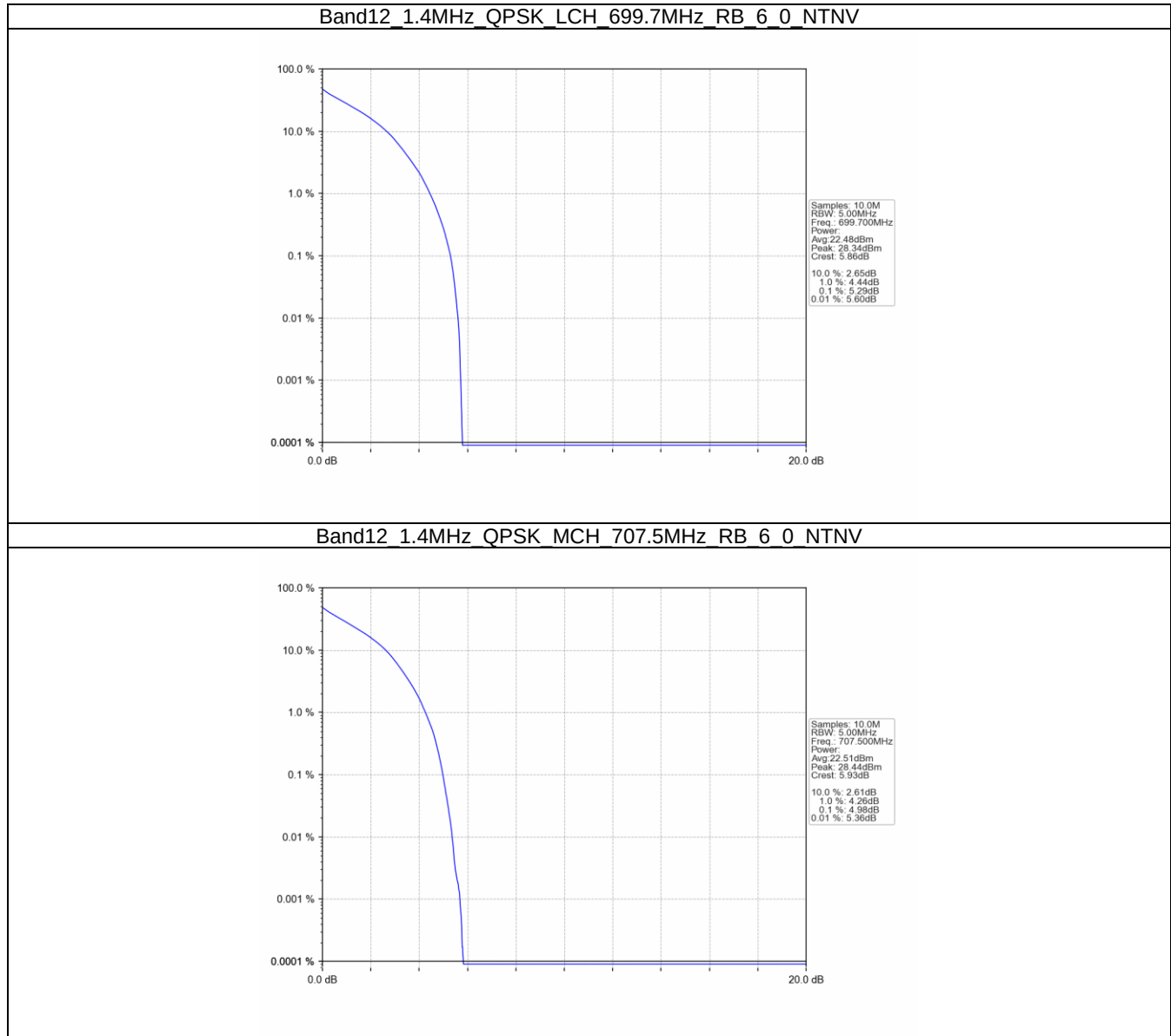
5.1.4 B12_10MHz

Band: 12 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	704	50	0	5.29	<=13	Pass
	707.5	50	0	5.30	<=13	Pass
	711	50	0	5.30	<=13	Pass
16QAM	704	50	0	6.10	<=13	Pass
	707.5	50	0	6.14	<=13	Pass
	711	50	0	6.07	<=13	Pass

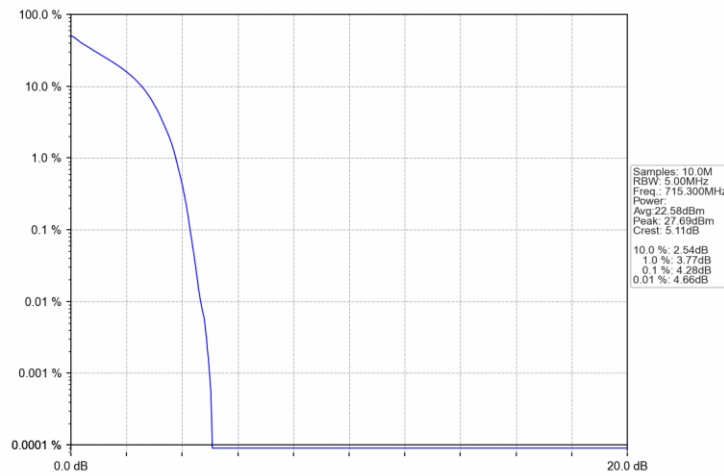


5.2 Test Graph

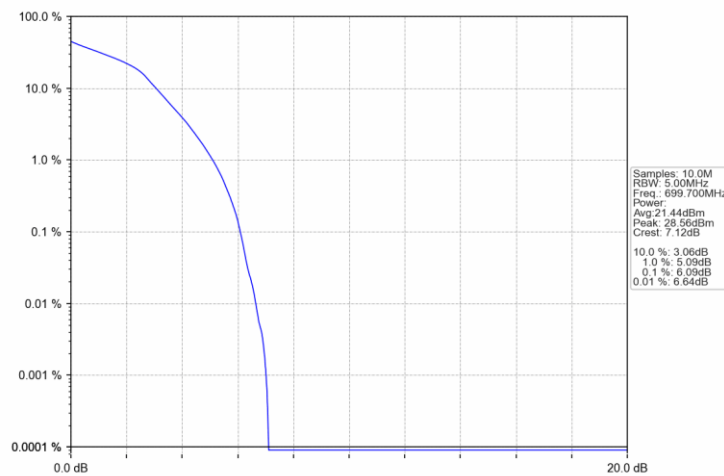
5.2.1 B12_1.4MHz



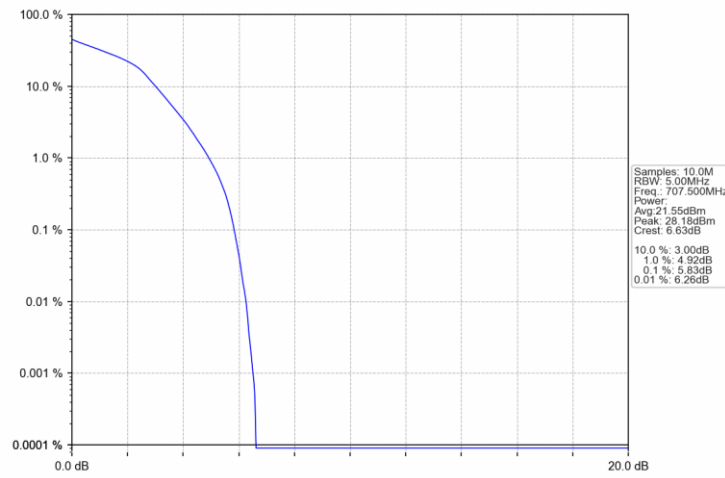
Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



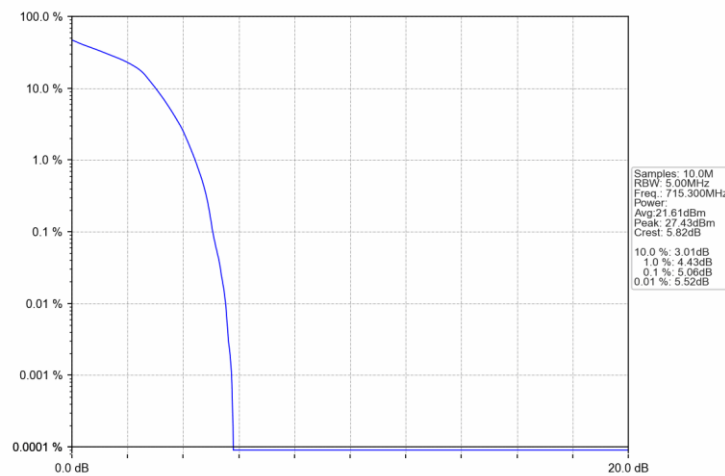
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Band12_1.4MHz_16QAM_MCH_707.5MHz_RB_6_0_NTNV

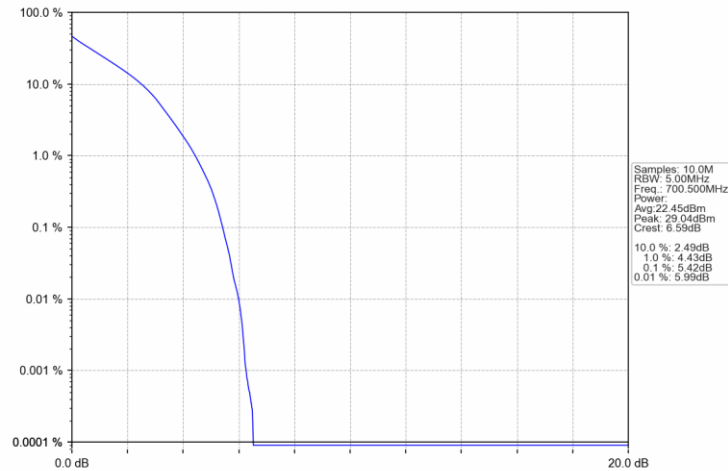


Band12_1.4MHz_16QAM_HCH_715.3MHz_RB_6_0_NTNV



5.2.2 B12_3MHz

Band12_3MHz_QPSK_LCH_700.5MHz_RB_15_0_NTNV



Band12_3MHz_QPSK_MCH_707.5MHz_RB_15_0_NTNV

