

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	22.86	0.65	21.36	<=34.77	Pass
			2	22.94	0.65	21.44	<=34.77	Pass
			5	22.94	0.65	21.44	<=34.77	Pass
		3	0	23.40	0.65	21.90	<=34.77	Pass
			2	23.46	0.65	21.96	<=34.77	Pass
			3	23.45	0.65	21.95	<=34.77	Pass
		6	0	22.44	0.65	20.94	<=34.77	Pass
	707.5	1	0	22.94	0.65	21.44	<=34.77	Pass
			2	22.94	0.65	21.44	<=34.77	Pass
			5	22.96	0.65	21.46	<=34.77	Pass
		3	0	23.50	0.65	22.00	<=34.77	Pass
			2	23.48	0.65	21.98	<=34.77	Pass
			3	23.52	0.65	22.02	<=34.77	Pass
		6	0	22.54	0.65	21.04	<=34.77	Pass
	715.3	1	0	23.07	0.65	21.57	<=34.77	Pass
			2	23.09	0.65	21.59	<=34.77	Pass
			5	23.04	0.65	21.54	<=34.77	Pass
		3	0	23.73	0.65	22.23	<=34.77	Pass
			2	23.77	0.65	22.27	<=34.77	Pass
			3	23.71	0.65	22.21	<=34.77	Pass
		6	0	22.66	0.65	21.16	<=34.77	Pass
16QAM	699.7	1	0	21.94	0.65	20.44	<=34.77	Pass
			2	21.95	0.65	20.45	<=34.77	Pass
			5	22.02	0.65	20.52	<=34.77	Pass
		3	0	22.45	0.65	20.95	<=34.77	Pass
			2	22.46	0.65	20.96	<=34.77	Pass
			3	22.47	0.65	20.97	<=34.77	Pass
		6	0	21.33	0.65	19.83	<=34.77	Pass
	707.5	1	0	22.18	0.65	20.68	<=34.77	Pass
			2	22.20	0.65	20.70	<=34.77	Pass
			5	22.16	0.65	20.66	<=34.77	Pass
		3	0	22.50	0.65	21.00	<=34.77	Pass
			2	22.47	0.65	20.97	<=34.77	Pass
			3	22.50	0.65	21.00	<=34.77	Pass
		6	0	21.59	0.65	20.09	<=34.77	Pass
	715.3	1	0	22.18	0.65	20.68	<=34.77	Pass
			2	22.15	0.65	20.65	<=34.77	Pass
			5	22.20	0.65	20.70	<=34.77	Pass
		3	0	22.64	0.65	21.14	<=34.77	Pass
			2	22.63	0.65	21.13	<=34.77	Pass
			3	22.61	0.65	21.11	<=34.77	Pass
		6	0	21.54	0.65	20.04	<=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	22.92	0.65	21.42	<=34.77	Pass
			7	22.94	0.65	21.44	<=34.77	Pass
			14	22.97	0.65	21.47	<=34.77	Pass
		8	0	22.46	0.65	20.96	<=34.77	Pass
			4	22.45	0.65	20.95	<=34.77	Pass
			7	22.45	0.65	20.95	<=34.77	Pass
		15	0	22.48	0.65	20.98	<=34.77	Pass
	707.5	1	0	22.97	0.65	21.47	<=34.77	Pass
			7	23.01	0.65	21.51	<=34.77	Pass
			14	23.04	0.65	21.54	<=34.77	Pass
		8	0	22.54	0.65	21.04	<=34.77	Pass
			4	22.57	0.65	21.07	<=34.77	Pass
			7	22.53	0.65	21.03	<=34.77	Pass
		15	0	22.54	0.65	21.04	<=34.77	Pass
	714.5	1	0	23.26	0.65	21.76	<=34.77	Pass
			7	23.23	0.65	21.73	<=34.77	Pass
			14	23.13	0.65	21.63	<=34.77	Pass
		8	0	22.60	0.65	21.10	<=34.77	Pass
			4	22.62	0.65	21.12	<=34.77	Pass
			7	22.59	0.65	21.09	<=34.77	Pass
		15	0	22.65	0.65	21.15	<=34.77	Pass
16QAM	700.5	1	0	22.02	0.65	20.52	<=34.77	Pass
			7	22.04	0.65	20.54	<=34.77	Pass
			14	21.97	0.65	20.47	<=34.77	Pass
		8	0	21.55	0.65	20.05	<=34.77	Pass
			4	21.53	0.65	20.03	<=34.77	Pass
			7	21.52	0.65	20.02	<=34.77	Pass
		15	0	21.52	0.65	20.02	<=34.77	Pass
	707.5	1	0	22.25	0.65	20.75	<=34.77	Pass
			7	22.27	0.65	20.77	<=34.77	Pass
			14	22.23	0.65	20.73	<=34.77	Pass
		8	0	21.48	0.65	19.98	<=34.77	Pass
			4	21.54	0.65	20.04	<=34.77	Pass
			7	21.51	0.65	20.01	<=34.77	Pass
		15	0	21.48	0.65	19.98	<=34.77	Pass
	714.5	1	0	22.70	0.65	21.20	<=34.77	Pass
			7	22.62	0.65	21.12	<=34.77	Pass
			14	22.56	0.65	21.06	<=34.77	Pass
		8	0	21.84	0.65	20.34	<=34.77	Pass
			4	21.86	0.65	20.36	<=34.77	Pass
			7	21.84	0.65	20.34	<=34.77	Pass
		15	0	21.71	0.65	20.21	<=34.77	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

Band: 12 / Bandwidth: 5MHz / NTVN										
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	701.5	1	0	23.04	0.65	21.54	<=34.77	Pass		
			13	22.98	0.65	21.48	<=34.77	Pass		
			24	23.08	0.65	21.58	<=34.77	Pass		
		12	0	22.53	0.65	21.03	<=34.77	Pass		
			6	22.48	0.65	20.98	<=34.77	Pass		
			13	22.54	0.65	21.04	<=34.77	Pass		
		25	0	22.56	0.65	21.06	<=34.77	Pass		
		707.5	1	0	22.96	0.65	21.46	<=34.77	Pass	
				13	22.99	0.65	21.49	<=34.77	Pass	
	24			23.09	0.65	21.59	<=34.77	Pass		
	12		0	22.52	0.65	21.02	<=34.77	Pass		
			6	22.54	0.65	21.04	<=34.77	Pass		
			13	22.52	0.65	21.02	<=34.77	Pass		
	25		0	22.51	0.65	21.01	<=34.77	Pass		
	713.5		1	0	23.27	0.65	21.77	<=34.77	Pass	
				13	23.40	0.65	21.90	<=34.77	Pass	
		24		23.38	0.65	21.88	<=34.77	Pass		
		12	0	22.63	0.65	21.13	<=34.77	Pass		
			6	22.58	0.65	21.08	<=34.77	Pass		
			13	22.63	0.65	21.13	<=34.77	Pass		
		25	0	22.66	0.65	21.16	<=34.77	Pass		
		16QAM	701.5	1	0	22.14	0.65	20.64	<=34.77	Pass
					13	22.05	0.65	20.55	<=34.77	Pass
	24				22.16	0.65	20.66	<=34.77	Pass	
	12			0	21.48	0.65	19.98	<=34.77	Pass	
				6	21.45	0.65	19.95	<=34.77	Pass	
				13	21.51	0.65	20.01	<=34.77	Pass	
25	0			21.56	0.65	20.06	<=34.77	Pass		
707.5	1			0	22.23	0.65	20.73	<=34.77	Pass	
				13	22.28	0.65	20.78	<=34.77	Pass	
			24	22.34	0.65	20.84	<=34.77	Pass		
	12		0	21.56	0.65	20.06	<=34.77	Pass		
			6	21.56	0.65	20.06	<=34.77	Pass		
			13	21.51	0.65	20.01	<=34.77	Pass		
	25		0	21.51	0.65	20.01	<=34.77	Pass		
	713.5		1	0	21.97	0.65	20.47	<=34.77	Pass	
				13	21.99	0.65	20.49	<=34.77	Pass	
24				21.97	0.65	20.47	<=34.77	Pass		
12			0	21.67	0.65	20.17	<=34.77	Pass		
			6	21.63	0.65	20.13	<=34.77	Pass		
			13	21.69	0.65	20.19	<=34.77	Pass		
25			0	21.69	0.65	20.19	<=34.77	Pass		
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	22.96	0.65	21.46	<=34.77	Pass
			25	23.02	0.65	21.52	<=34.77	Pass
			49	23.07	0.65	21.57	<=34.77	Pass
		25	0	22.37	0.65	20.87	<=34.77	Pass
			13	22.53	0.65	21.03	<=34.77	Pass
			25	22.53	0.65	21.03	<=34.77	Pass
		50	0	22.50	0.65	21.00	<=34.77	Pass
			0	22.92	0.65	21.42	<=34.77	Pass
			25	23.05	0.65	21.55	<=34.77	Pass
	707.5	1	49	23.05	0.65	21.55	<=34.77	Pass
			0	22.46	0.65	20.96	<=34.77	Pass
			13	22.51	0.65	21.01	<=34.77	Pass
		25	25	22.45	0.65	20.95	<=34.77	Pass
			0	22.45	0.65	20.95	<=34.77	Pass
			0	23.08	0.65	21.58	<=34.77	Pass
		50	25	23.20	0.65	21.70	<=34.77	Pass
			49	23.21	0.65	21.71	<=34.77	Pass
			0	22.69	0.65	21.19	<=34.77	Pass
16QAM	704	1	13	22.64	0.65	21.14	<=34.77	Pass
			25	22.70	0.65	21.20	<=34.77	Pass
			0	22.71	0.65	21.21	<=34.77	Pass
		25	0	21.96	0.65	20.46	<=34.77	Pass
			25	22.02	0.65	20.52	<=34.77	Pass
			49	22.11	0.65	20.61	<=34.77	Pass
		50	0	21.46	0.65	19.96	<=34.77	Pass
			13	21.58	0.65	20.08	<=34.77	Pass
			25	21.65	0.65	20.15	<=34.77	Pass
	707.5	1	0	21.49	0.65	20.15	<=34.77	Pass
			0	22.05	0.65	20.55	<=34.77	Pass
			25	22.23	0.65	20.73	<=34.77	Pass
		25	49	22.22	0.65	20.72	<=34.77	Pass
			0	21.48	0.65	19.98	<=34.77	Pass
			13	21.59	0.65	20.09	<=34.77	Pass
		50	25	21.49	0.65	19.99	<=34.77	Pass
			0	21.49	0.65	19.99	<=34.77	Pass
			0	22.56	0.65	21.06	<=34.77	Pass
	711	1	25	22.69	0.65	21.19	<=34.77	Pass
			49	22.63	0.65	21.13	<=34.77	Pass
			0	21.72	0.65	20.22	<=34.77	Pass
		25	13	21.69	0.65	20.19	<=34.77	Pass
			25	21.72	0.65	20.22	<=34.77	Pass
			0	21.71	0.65	20.21	<=34.77	Pass
		50	0	21.71	0.65	20.21	<=34.77	Pass
			0	21.71	0.65	20.21	<=34.77	Pass
			0	21.71	0.65	20.21	<=34.77	Pass

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	3.15	0.243	0.0003	-2.5 to 2.5	Pass
					3.80	-0.687	-0.0010	-2.5 to 2.5	Pass
					4.26	-0.329	-0.0005	-2.5 to 2.5	Pass
				-30	3.80	-0.272	-0.0004	-2.5 to 2.5	Pass
				-20	3.80	-2.189	-0.0031	-2.5 to 2.5	Pass
				-10	3.80	-1.917	-0.0027	-2.5 to 2.5	Pass
				0	3.80	1.388	0.0020	-2.5 to 2.5	Pass
				10	3.80	-3.777	-0.0054	-2.5 to 2.5	Pass
				30	3.80	1.760	0.0025	-2.5 to 2.5	Pass
				40	3.80	0.257	0.0004	-2.5 to 2.5	Pass
				50	3.80	-1.431	-0.0020	-2.5 to 2.5	Pass
	707.5	6	0	20	3.15	-1.631	-0.0023	-2.5 to 2.5	Pass
					3.80	-3.333	-0.0047	-2.5 to 2.5	Pass
					4.26	0.772	0.0011	-2.5 to 2.5	Pass
				-30	3.80	0.486	0.0007	-2.5 to 2.5	Pass
				-20	3.80	2.947	0.0042	-2.5 to 2.5	Pass
				-10	3.80	-4.148	-0.0059	-2.5 to 2.5	Pass
				0	3.80	0.916	0.0013	-2.5 to 2.5	Pass
				10	3.80	-3.805	-0.0054	-2.5 to 2.5	Pass
				30	3.80	-0.186	-0.0003	-2.5 to 2.5	Pass
				40	3.80	-3.533	-0.0050	-2.5 to 2.5	Pass
				50	3.80	3.405	0.0048	-2.5 to 2.5	Pass
	715.3	6	0	20	3.15	3.777	0.0053	-2.5 to 2.5	Pass
					3.80	-4.292	-0.0060	-2.5 to 2.5	Pass
					4.26	5.579	0.0078	-2.5 to 2.5	Pass
				-30	3.80	-4.978	-0.0070	-2.5 to 2.5	Pass
				-20	3.80	-0.072	-0.0001	-2.5 to 2.5	Pass
				-10	3.80	-4.091	-0.0057	-2.5 to 2.5	Pass
				0	3.80	-3.920	-0.0055	-2.5 to 2.5	Pass
				10	3.80	-2.346	-0.0033	-2.5 to 2.5	Pass
				30	3.80	3.591	0.0050	-2.5 to 2.5	Pass
				40	3.80	-0.529	-0.0007	-2.5 to 2.5	Pass
				50	3.80	-1.516	-0.0021	-2.5 to 2.5	Pass
16QAM	699.7	6	0	20	3.15	1.574	0.0022	-2.5 to 2.5	Pass
					3.80	-3.977	-0.0057	-2.5 to 2.5	Pass
					4.26	6.695	0.0096	-2.5 to 2.5	Pass
				-30	3.80	-0.944	-0.0013	-2.5 to 2.5	Pass
				-20	3.80	-5.193	-0.0074	-2.5 to 2.5	Pass
				-10	3.80	1.974	0.0028	-2.5 to 2.5	Pass
				0	3.80	-1.659	-0.0024	-2.5 to 2.5	Pass
				10	3.80	1.702	0.0024	-2.5 to 2.5	Pass
				30	3.80	-2.532	-0.0036	-2.5 to 2.5	Pass
				40	3.80	-0.286	-0.0004	-2.5 to 2.5	Pass
				50	3.80	2.675	0.0038	-2.5 to 2.5	Pass
	707.5	6	0	20	3.15	-3.033	-0.0043	-2.5 to 2.5	Pass
					3.80	7.911	0.0112	-2.5 to 2.5	Pass
					4.26	-0.801	-0.0011	-2.5 to 2.5	Pass
				-30	3.80	2.546	0.0036	-2.5 to 2.5	Pass
				-20	3.80	-1.788	-0.0025	-2.5 to 2.5	Pass
				-10	3.80	-0.129	-0.0002	-2.5 to 2.5	Pass

				0	3.80	-2.875	-0.0041	-2.5 to 2.5	Pass
				10	3.80	-2.618	-0.0037	-2.5 to 2.5	Pass
				30	3.80	-3.176	-0.0045	-2.5 to 2.5	Pass
				40	3.80	3.905	0.0055	-2.5 to 2.5	Pass
				50	3.80	0.272	0.0004	-2.5 to 2.5	Pass
	715.3	6	0	20	3.15	-1.030	-0.0014	-2.5 to 2.5	Pass
					3.80	1.259	0.0018	-2.5 to 2.5	Pass
					4.26	1.874	0.0026	-2.5 to 2.5	Pass
				-30	3.80	1.945	0.0027	-2.5 to 2.5	Pass
				-20	3.80	-1.388	-0.0019	-2.5 to 2.5	Pass
				-10	3.80	1.016	0.0014	-2.5 to 2.5	Pass
				0	3.80	-3.233	-0.0045	-2.5 to 2.5	Pass
				10	3.80	-2.017	-0.0028	-2.5 to 2.5	Pass
				30	3.80	3.233	0.0045	-2.5 to 2.5	Pass
				40	3.80	-1.416	-0.0020	-2.5 to 2.5	Pass
				50	3.80	-1.731	-0.0024	-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	3.15	-1.459	-0.0021	-2.5 to 2.5	Pass
					3.80	-3.576	-0.0051	-2.5 to 2.5	Pass
					4.26	-2.389	-0.0034	-2.5 to 2.5	Pass
				-30	3.80	0.458	0.0007	-2.5 to 2.5	Pass
				-20	3.80	-2.575	-0.0037	-2.5 to 2.5	Pass
				-10	3.80	-1.860	-0.0027	-2.5 to 2.5	Pass
				0	3.80	-4.578	-0.0065	-2.5 to 2.5	Pass
				10	3.80	4.148	0.0059	-2.5 to 2.5	Pass
				30	3.80	0.229	0.0003	-2.5 to 2.5	Pass
				40	3.80	-2.947	-0.0042	-2.5 to 2.5	Pass
	707.5	15	0	20	3.15	-2.432	-0.0034	-2.5 to 2.5	Pass
					3.80	0.272	0.0004	-2.5 to 2.5	Pass
					4.26	0.000	0.0000	-2.5 to 2.5	Pass
				-30	3.80	2.632	0.0037	-2.5 to 2.5	Pass
				-20	3.80	2.747	0.0039	-2.5 to 2.5	Pass
				-10	3.80	-2.618	-0.0037	-2.5 to 2.5	Pass
				0	3.80	-2.246	-0.0032	-2.5 to 2.5	Pass
				10	3.80	3.004	0.0042	-2.5 to 2.5	Pass
				30	3.80	-5.064	-0.0072	-2.5 to 2.5	Pass
				40	3.80	-0.887	-0.0013	-2.5 to 2.5	Pass
	714.5	15	0	20	3.15	-1.388	-0.0019	-2.5 to 2.5	Pass
					3.80	4.249	0.0059	-2.5 to 2.5	Pass
					4.26	-2.031	-0.0028	-2.5 to 2.5	Pass
				-30	3.80	-5.064	-0.0071	-2.5 to 2.5	Pass
				-20	3.80	1.073	0.0015	-2.5 to 2.5	Pass
				-10	3.80	-0.329	-0.0005	-2.5 to 2.5	Pass
				0	3.80	-1.059	-0.0015	-2.5 to 2.5	Pass
				10	3.80	-3.262	-0.0046	-2.5 to 2.5	Pass
				30	3.80	-2.732	-0.0038	-2.5 to 2.5	Pass
				40	3.80	-1.531	-0.0021	-2.5 to 2.5	Pass
16QAM	700.5	15	0	20	3.15	2.604	0.0037	-2.5 to 2.5	Pass
					3.80	-1.645	-0.0023	-2.5 to 2.5	Pass
					4.26	-3.347	-0.0048	-2.5 to 2.5	Pass

				-30	3.80	1.359	0.0019	-2.5 to 2.5	Pass
				-20	3.80	-3.047	-0.0043	-2.5 to 2.5	Pass
				-10	3.80	0.672	0.0010	-2.5 to 2.5	Pass
				0	3.80	-1.545	-0.0022	-2.5 to 2.5	Pass
				10	3.80	-0.100	-0.0001	-2.5 to 2.5	Pass
				30	3.80	0.172	0.0002	-2.5 to 2.5	Pass
				40	3.80	-4.148	-0.0059	-2.5 to 2.5	Pass
				50	3.80	-1.287	-0.0018	-2.5 to 2.5	Pass
	707.5	15	0	20	3.15	3.219	0.0045	-2.5 to 2.5	Pass
					3.80	-3.848	-0.0054	-2.5 to 2.5	Pass
					4.26	5.364	0.0076	-2.5 to 2.5	Pass
				-30	3.80	-2.017	-0.0029	-2.5 to 2.5	Pass
				-20	3.80	-0.772	-0.0011	-2.5 to 2.5	Pass
				-10	3.80	0.100	0.0001	-2.5 to 2.5	Pass
				0	3.80	-1.788	-0.0025	-2.5 to 2.5	Pass
				10	3.80	-2.618	-0.0037	-2.5 to 2.5	Pass
				30	3.80	2.246	0.0032	-2.5 to 2.5	Pass
				40	3.80	0.615	0.0009	-2.5 to 2.5	Pass
				50	3.80	2.375	0.0034	-2.5 to 2.5	Pass
	714.5	15	0	20	3.15	-5.050	-0.0071	-2.5 to 2.5	Pass
					3.80	-0.930	-0.0013	-2.5 to 2.5	Pass
					4.26	1.516	0.0021	-2.5 to 2.5	Pass
				-30	3.80	0.529	0.0007	-2.5 to 2.5	Pass
				-20	3.80	-1.059	-0.0015	-2.5 to 2.5	Pass
				-10	3.80	-1.945	-0.0027	-2.5 to 2.5	Pass
				0	3.80	-2.575	-0.0036	-2.5 to 2.5	Pass
				10	3.80	0.644	0.0009	-2.5 to 2.5	Pass
				30	3.80	-5.093	-0.0071	-2.5 to 2.5	Pass
				40	3.80	-0.558	-0.0008	-2.5 to 2.5	Pass
				50	3.80	-4.492	-0.0063	-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	3.15	-1.731	-0.0025	-2.5 to 2.5	Pass
					3.80	0.000	0.0000	-2.5 to 2.5	Pass
					4.26	-0.272	-0.0004	-2.5 to 2.5	Pass
				-30	3.80	2.503	0.0036	-2.5 to 2.5	Pass
				-20	3.80	-0.916	-0.0013	-2.5 to 2.5	Pass
				-10	3.80	-2.031	-0.0029	-2.5 to 2.5	Pass
				0	3.80	-1.831	-0.0026	-2.5 to 2.5	Pass
				10	3.80	-1.788	-0.0025	-2.5 to 2.5	Pass
				30	3.80	3.161	0.0045	-2.5 to 2.5	Pass
				40	3.80	-0.958	-0.0014	-2.5 to 2.5	Pass
				50	3.80	0.458	0.0007	-2.5 to 2.5	Pass
	707.5	25	0	20	3.15	2.317	0.0033	-2.5 to 2.5	Pass
					3.80	1.388	0.0020	-2.5 to 2.5	Pass
					4.26	-0.944	-0.0013	-2.5 to 2.5	Pass
				-30	3.80	1.373	0.0019	-2.5 to 2.5	Pass
				-20	3.80	0.916	0.0013	-2.5 to 2.5	Pass
				-10	3.80	1.688	0.0024	-2.5 to 2.5	Pass
				0	3.80	-2.718	-0.0038	-2.5 to 2.5	Pass
				10	3.80	-0.472	-0.0007	-2.5 to 2.5	Pass
				30	3.80	-1.731	-0.0024	-2.5 to 2.5	Pass
				40	3.80	-0.701	-0.0010	-2.5 to 2.5	Pass
				50	3.80	1.130	0.0016	-2.5 to 2.5	Pass

	713.5	25	0	20	3.15	0.772	0.0011	-2.5 to 2.5	Pass
					3.80	3.963	0.0056	-2.5 to 2.5	Pass
					4.26	-0.143	-0.0002	-2.5 to 2.5	Pass
				-30	3.80	1.488	0.0021	-2.5 to 2.5	Pass
				-20	3.80	-1.187	-0.0017	-2.5 to 2.5	Pass
				-10	3.80	0.257	0.0004	-2.5 to 2.5	Pass
				0	3.80	3.004	0.0042	-2.5 to 2.5	Pass
				10	3.80	-1.945	-0.0027	-2.5 to 2.5	Pass
				30	3.80	1.259	0.0018	-2.5 to 2.5	Pass
				40	3.80	-1.144	-0.0016	-2.5 to 2.5	Pass
				50	3.80	1.473	0.0021	-2.5 to 2.5	Pass
16QAM	701.5	25	0	20	3.15	0.629	0.0009	-2.5 to 2.5	Pass
					3.80	-2.818	-0.0040	-2.5 to 2.5	Pass
					4.26	3.734	0.0053	-2.5 to 2.5	Pass
				-30	3.80	0.844	0.0012	-2.5 to 2.5	Pass
				-20	3.80	-0.057	-0.0001	-2.5 to 2.5	Pass
				-10	3.80	3.376	0.0048	-2.5 to 2.5	Pass
				0	3.80	0.200	0.0003	-2.5 to 2.5	Pass
				10	3.80	-1.888	-0.0027	-2.5 to 2.5	Pass
				30	3.80	-1.073	-0.0015	-2.5 to 2.5	Pass
				40	3.80	-2.317	-0.0033	-2.5 to 2.5	Pass
				50	3.80	-3.533	-0.0050	-2.5 to 2.5	Pass
	707.5	25	0	20	3.15	5.679	0.0080	-2.5 to 2.5	Pass
					3.80	2.360	0.0033	-2.5 to 2.5	Pass
					4.26	3.748	0.0053	-2.5 to 2.5	Pass
				-30	3.80	-0.300	-0.0004	-2.5 to 2.5	Pass
				-20	3.80	4.835	0.0068	-2.5 to 2.5	Pass
				-10	3.80	2.604	0.0037	-2.5 to 2.5	Pass
				0	3.80	4.663	0.0066	-2.5 to 2.5	Pass
				10	3.80	0.415	0.0006	-2.5 to 2.5	Pass
				30	3.80	1.073	0.0015	-2.5 to 2.5	Pass
				40	3.80	2.546	0.0036	-2.5 to 2.5	Pass
				50	3.80	2.904	0.0041	-2.5 to 2.5	Pass
	713.5	25	0	20	3.15	-0.215	-0.0003	-2.5 to 2.5	Pass
					3.80	0.200	0.0003	-2.5 to 2.5	Pass
					4.26	-5.479	-0.0077	-2.5 to 2.5	Pass
				-30	3.80	0.486	0.0007	-2.5 to 2.5	Pass
				-20	3.80	-2.089	-0.0029	-2.5 to 2.5	Pass
				-10	3.80	-0.272	-0.0004	-2.5 to 2.5	Pass
				0	3.80	-1.988	-0.0028	-2.5 to 2.5	Pass
				10	3.80	-1.988	-0.0028	-2.5 to 2.5	Pass
				30	3.80	1.259	0.0018	-2.5 to 2.5	Pass
				40	3.80	-1.345	-0.0019	-2.5 to 2.5	Pass
				50	3.80	-2.904	-0.0041	-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	3.15	-1.960	-0.0028	-2.5 to 2.5	Pass
					3.80	-2.975	-0.0042	-2.5 to 2.5	Pass
					4.26	-3.448	-0.0049	-2.5 to 2.5	Pass
				-30	3.80	-1.860	-0.0026	-2.5 to 2.5	Pass
				-20	3.80	0.114	0.0002	-2.5 to 2.5	Pass
				-10	3.80	-1.574	-0.0022	-2.5 to 2.5	Pass
				0	3.80	-1.845	-0.0026	-2.5 to 2.5	Pass
				10	3.80	-2.375	-0.0034	-2.5 to 2.5	Pass

				30	3.80	-2.275	-0.0032	-2.5 to 2.5	Pass
				40	3.80	-1.760	-0.0025	-2.5 to 2.5	Pass
				50	3.80	-3.090	-0.0044	-2.5 to 2.5	Pass
	707.5	50	0	20	3.15	2.375	0.0034	-2.5 to 2.5	Pass
					3.80	1.416	0.0020	-2.5 to 2.5	Pass
					4.26	0.443	0.0006	-2.5 to 2.5	Pass
				-30	3.80	-0.100	-0.0001	-2.5 to 2.5	Pass
				-20	3.80	-0.958	-0.0014	-2.5 to 2.5	Pass
				-10	3.80	-0.429	-0.0006	-2.5 to 2.5	Pass
				0	3.80	0.057	0.0001	-2.5 to 2.5	Pass
				10	3.80	-0.043	-0.0001	-2.5 to 2.5	Pass
				30	3.80	-1.144	-0.0016	-2.5 to 2.5	Pass
				40	3.80	1.645	0.0023	-2.5 to 2.5	Pass
				50	3.80	0.730	0.0010	-2.5 to 2.5	Pass
	711	50	0	20	3.15	2.217	0.0031	-2.5 to 2.5	Pass
					3.80	2.847	0.0040	-2.5 to 2.5	Pass
					4.26	1.316	0.0019	-2.5 to 2.5	Pass
				-30	3.80	0.443	0.0006	-2.5 to 2.5	Pass
				-20	3.80	0.129	0.0002	-2.5 to 2.5	Pass
				-10	3.80	-1.359	-0.0019	-2.5 to 2.5	Pass
				0	3.80	1.774	0.0025	-2.5 to 2.5	Pass
				10	3.80	-0.644	-0.0009	-2.5 to 2.5	Pass
				30	3.80	0.601	0.0008	-2.5 to 2.5	Pass
				40	3.80	1.645	0.0023	-2.5 to 2.5	Pass
				50	3.80	1.574	0.0022	-2.5 to 2.5	Pass
16QAM	704	50	0	20	3.15	0.215	0.0003	-2.5 to 2.5	Pass
					3.80	-0.787	-0.0011	-2.5 to 2.5	Pass
					4.26	3.405	0.0048	-2.5 to 2.5	Pass
				-30	3.80	-1.717	-0.0024	-2.5 to 2.5	Pass
				-20	3.80	-2.704	-0.0038	-2.5 to 2.5	Pass
				-10	3.80	-2.575	-0.0037	-2.5 to 2.5	Pass
				0	3.80	-3.233	-0.0046	-2.5 to 2.5	Pass
				10	3.80	-1.516	-0.0022	-2.5 to 2.5	Pass
				30	3.80	-0.930	-0.0013	-2.5 to 2.5	Pass
				40	3.80	1.473	0.0021	-2.5 to 2.5	Pass
				50	3.80	-2.146	-0.0030	-2.5 to 2.5	Pass
	707.5	50	0	20	3.15	2.217	0.0031	-2.5 to 2.5	Pass
					3.80	2.031	0.0029	-2.5 to 2.5	Pass
					4.26	1.302	0.0018	-2.5 to 2.5	Pass
				-30	3.80	-0.157	-0.0002	-2.5 to 2.5	Pass
				-20	3.80	2.275	0.0032	-2.5 to 2.5	Pass
				-10	3.80	0.515	0.0007	-2.5 to 2.5	Pass
				0	3.80	-2.003	-0.0028	-2.5 to 2.5	Pass
				10	3.80	-0.157	-0.0002	-2.5 to 2.5	Pass
				30	3.80	0.873	0.0012	-2.5 to 2.5	Pass
				40	3.80	3.519	0.0050	-2.5 to 2.5	Pass
				50	3.80	-0.844	-0.0012	-2.5 to 2.5	Pass
	711	50	0	20	3.15	0.129	0.0002	-2.5 to 2.5	Pass
					3.80	0.930	0.0013	-2.5 to 2.5	Pass
					4.26	-1.760	-0.0025	-2.5 to 2.5	Pass
				-30	3.80	2.661	0.0037	-2.5 to 2.5	Pass
				-20	3.80	-0.629	-0.0009	-2.5 to 2.5	Pass
				-10	3.80	1.302	0.0018	-2.5 to 2.5	Pass
				0	3.80	0.844	0.0012	-2.5 to 2.5	Pass
				10	3.80	0.229	0.0003	-2.5 to 2.5	Pass
				30	3.80	1.502	0.0021	-2.5 to 2.5	Pass
				40	3.80	2.460	0.0035	-2.5 to 2.5	Pass
				50	3.80	-0.286	-0.0004	-2.5 to 2.5	Pass

3. Modulation Characteristics

3.1 Test Result

3.1.1 B12_1.4MHz

Band: 12 / Bandwidth: 1.4MHz / NTNV						
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 / NTNV						
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

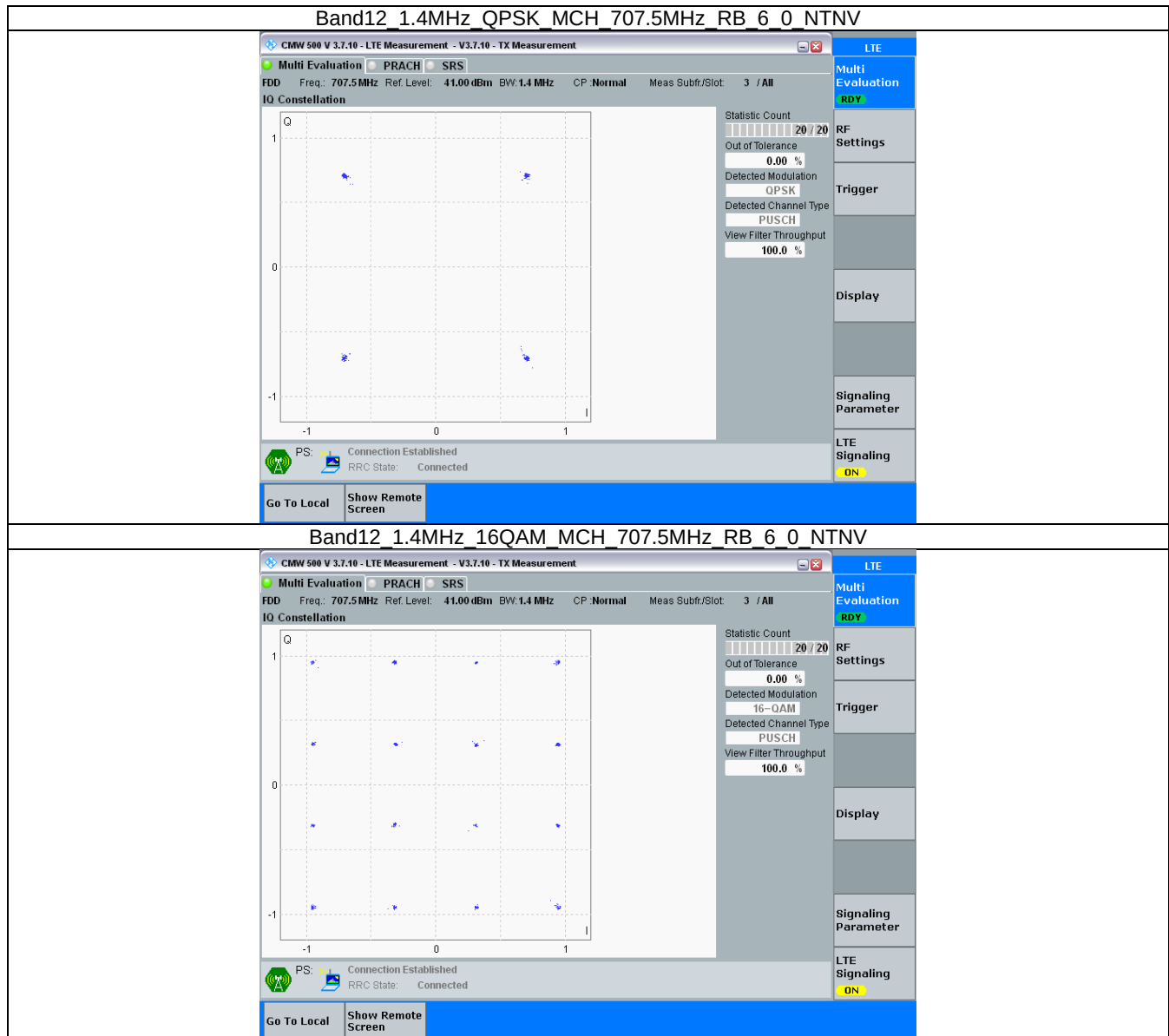
Band: 12 / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	707.5	25	0	Refer To Test Graph		Pass
16QAM	707.5	25	0	Refer To Test Graph		Pass

3.1.4 B12_10MHz

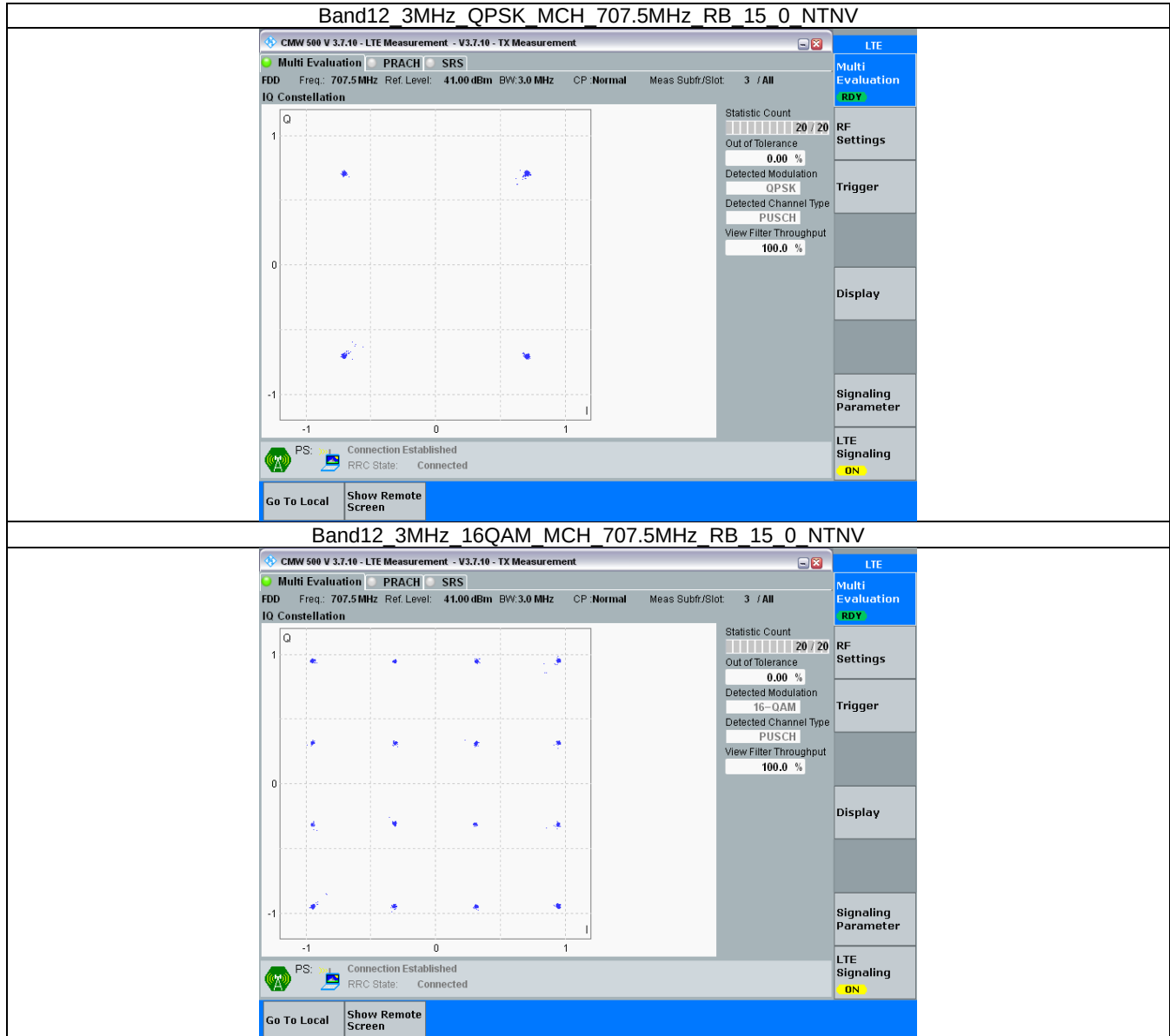
Band: 12 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	707.5	50	0	Refer To Test Graph		Pass
16QAM	707.5	50	0	Refer To Test Graph		Pass

3.2 Test Graph

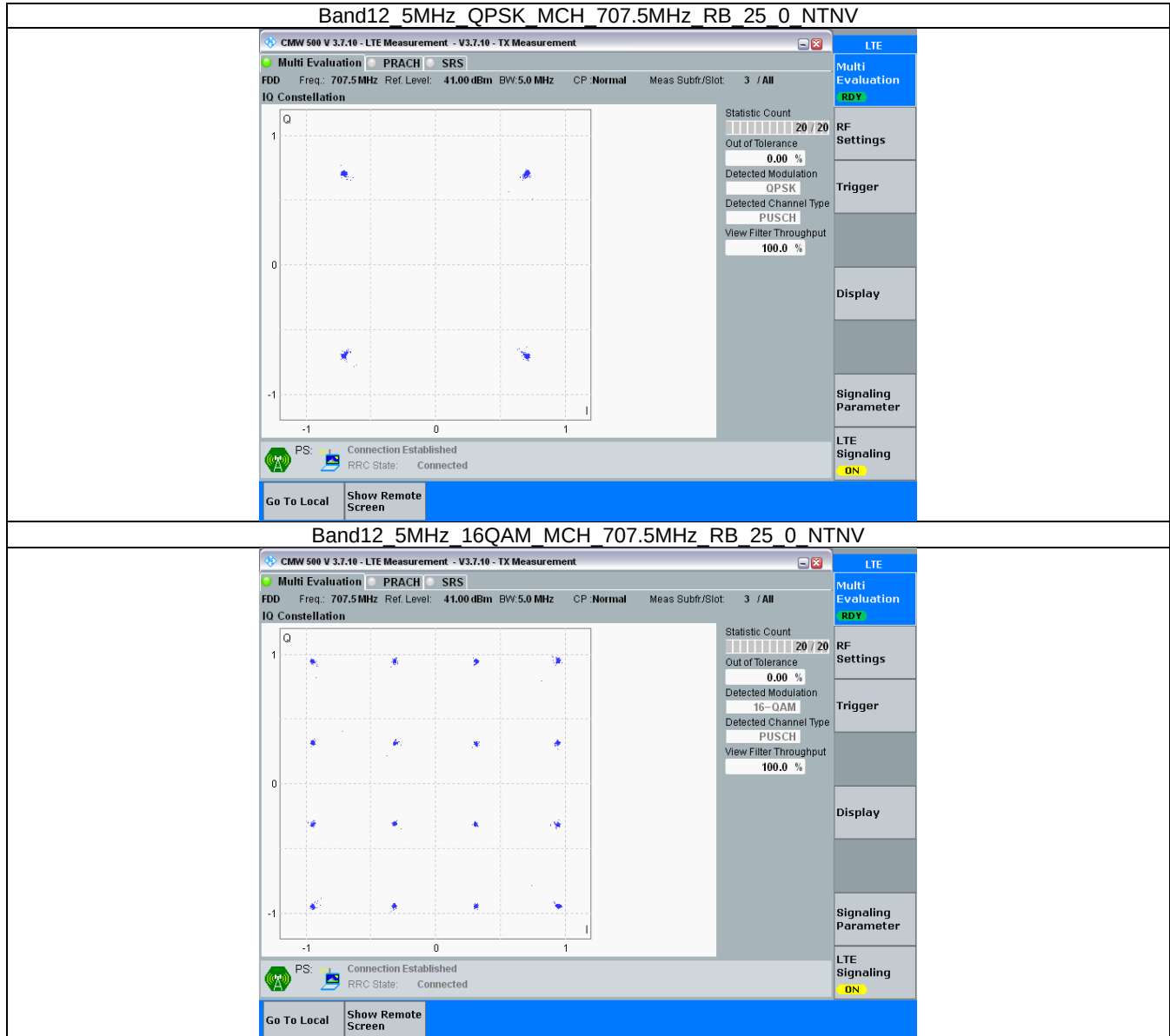
3.2.1 B12_1.4MHz



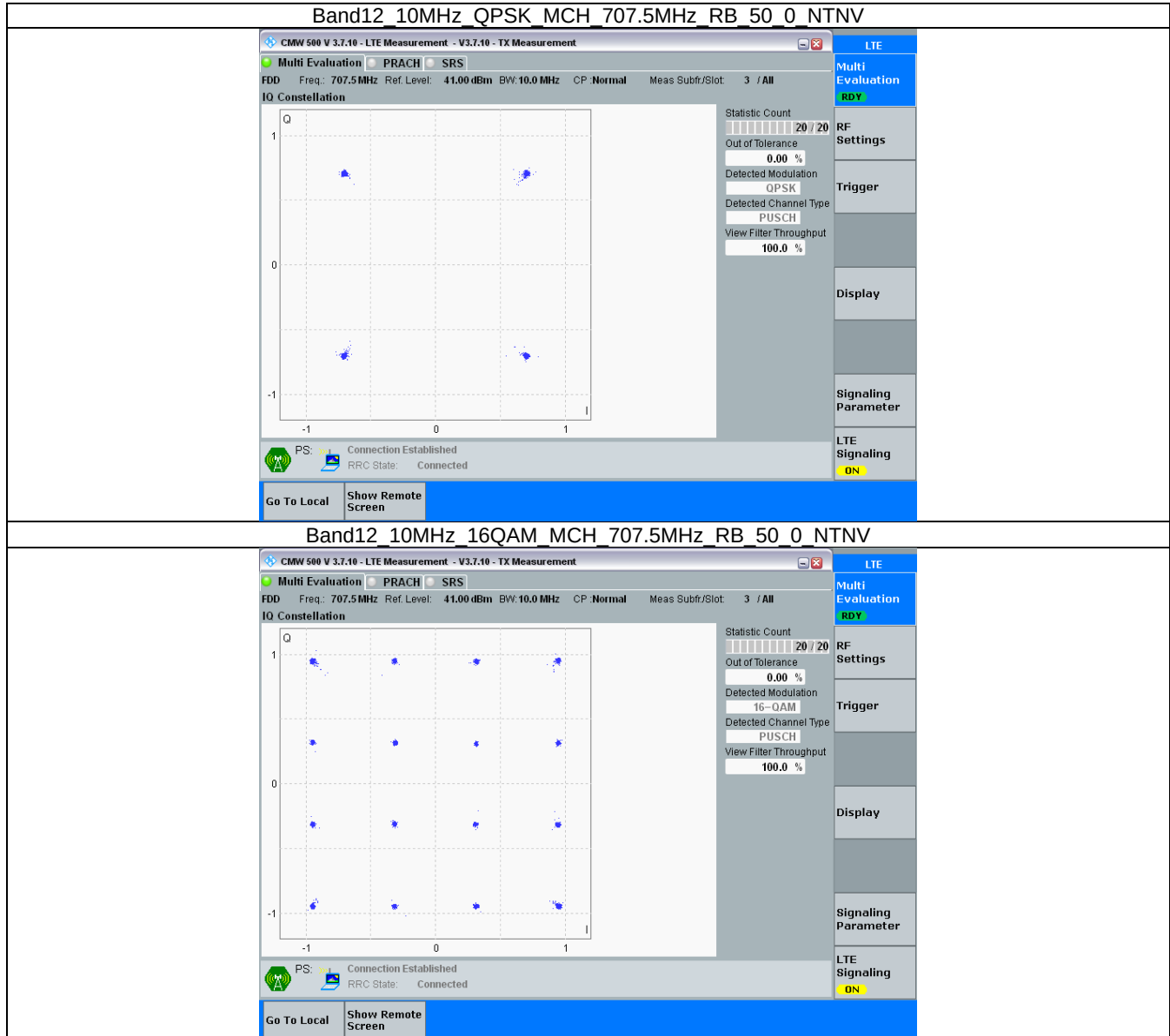
3.2.2 B12_3MHz



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	1.091	/	Pass
		707.5	6	0	1.085	/	Pass
		715.3	6	0	1.086	/	Pass
	16QAM	699.7	6	0	1.086	/	Pass
		707.5	6	0	1.086	/	Pass
		715.3	6	0	1.091	/	Pass
3	QPSK	700.5	15	0	2.688	/	Pass
		707.5	15	0	2.682	/	Pass
		714.5	15	0	2.684	/	Pass
	16QAM	700.5	15	0	2.679	/	Pass
		707.5	15	0	2.688	/	Pass
		714.5	15	0	2.676	/	Pass
5	QPSK	701.5	25	0	4.513	/	Pass
		707.5	25	0	4.512	/	Pass
		713.5	25	0	4.527	/	Pass
	16QAM	701.5	25	0	4.517	/	Pass
		707.5	25	0	4.522	/	Pass
		713.5	25	0	4.506	/	Pass
10	QPSK	704	50	0	8.963	/	Pass
		707.5	50	0	8.934	/	Pass
		711	50	0	8.973	/	Pass
	16QAM	704	50	0	8.963	/	Pass
		707.5	50	0	8.953	/	Pass
		711	50	0	8.954	/	Pass

4.1.2 Band12_XDB

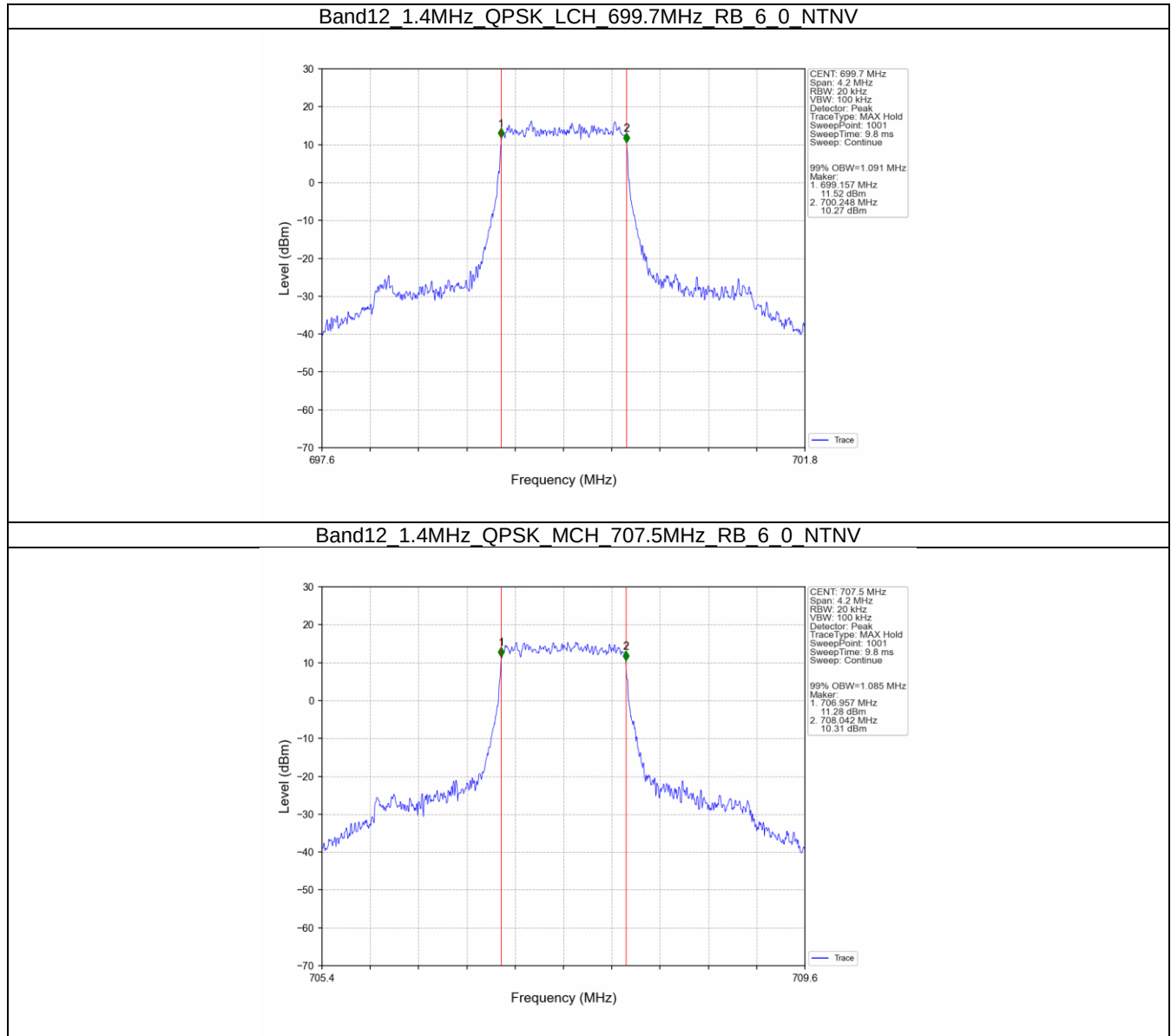
Band: 12 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	699.7	6	0	1.252	/	Pass
		707.5	6	0	1.273	/	Pass
		715.3	6	0	1.257	/	Pass
	16QAM	699.7	6	0	1.264	/	Pass
		707.5	6	0	1.244	/	Pass
		715.3	6	0	1.286	/	Pass
3	QPSK	700.5	15	0	2.881	/	Pass
		707.5	15	0	2.875	/	Pass
		714.5	15	0	2.903	/	Pass
	16QAM	700.5	15	0	2.889	/	Pass
		707.5	15	0	2.900	/	Pass
		714.5	15	0	2.903	/	Pass
5	QPSK	701.5	25	0	4.999	/	Pass
		707.5	25	0	4.978	/	Pass
		713.5	25	0	4.966	/	Pass
	16QAM	701.5	25	0	5.000	/	Pass
		707.5	25	0	4.949	/	Pass
		713.5	25	0	4.944	/	Pass
10	QPSK	704	50	0	9.593	/	Pass



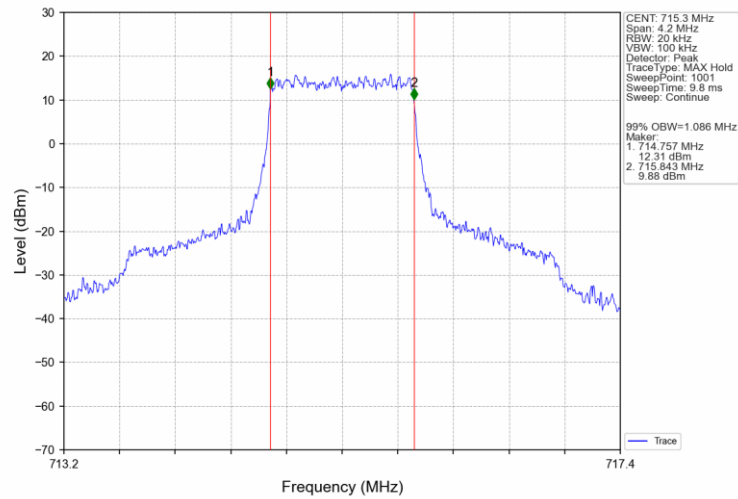
		707.5	50	0	9.554	/	Pass
		711	50	0	9.614	/	Pass
	16QAM	704	50	0	9.547	/	Pass
		707.5	50	0	9.578	/	Pass
		711	50	0	9.548	/	Pass

4.2 Test Graph

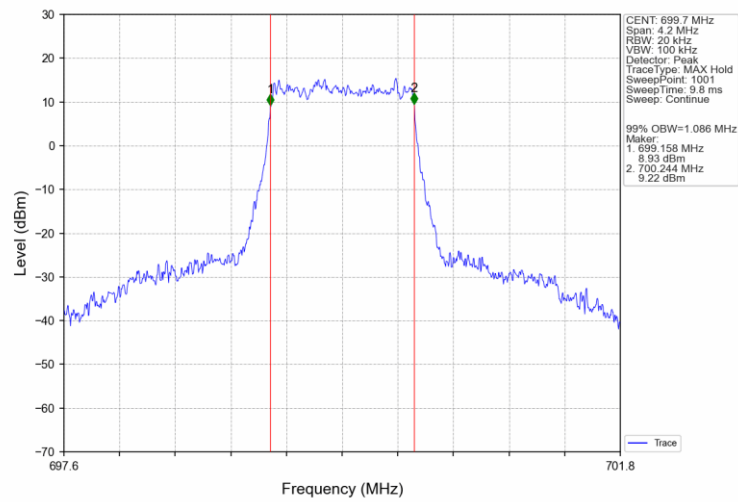
4.2.1 Band12_OBW



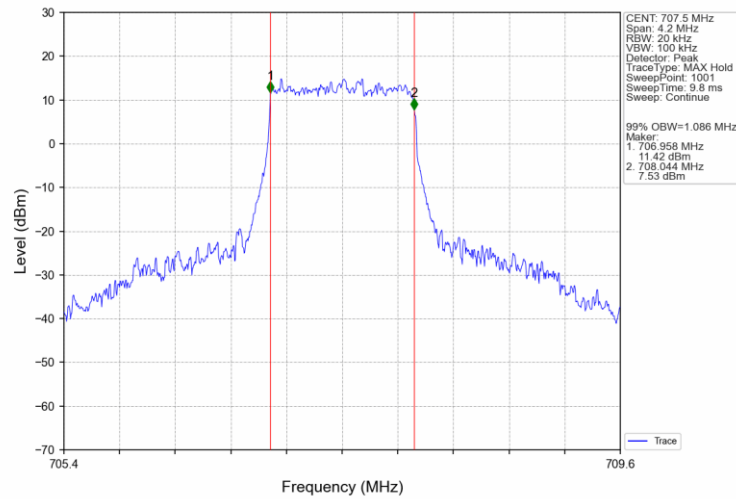
Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



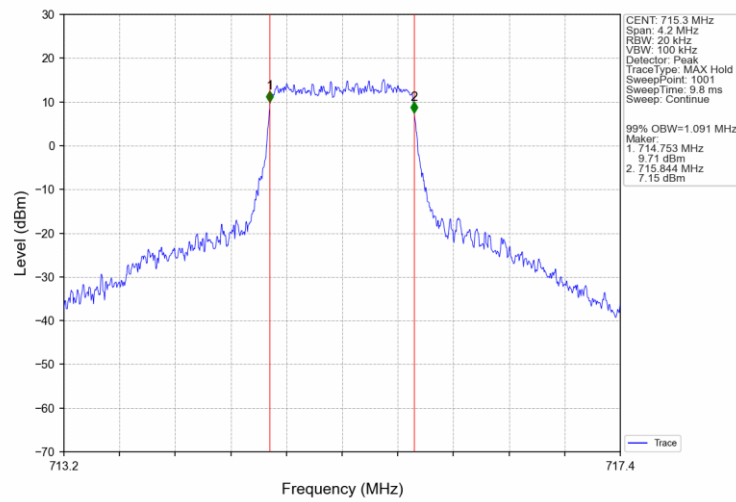
Band12_1.4MHz_16QAM_LCH_699.7MHz_RB_6_0_NTNV



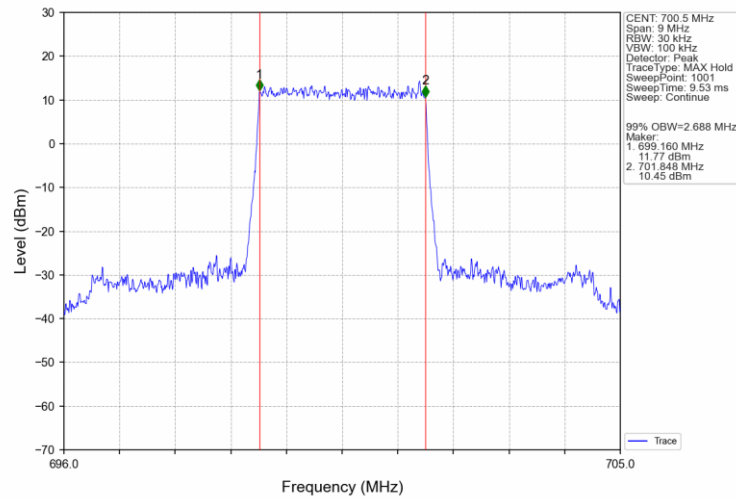
Band12 1.4MHz 16QAM MCH 707.5MHz RB 6 0 NTNV



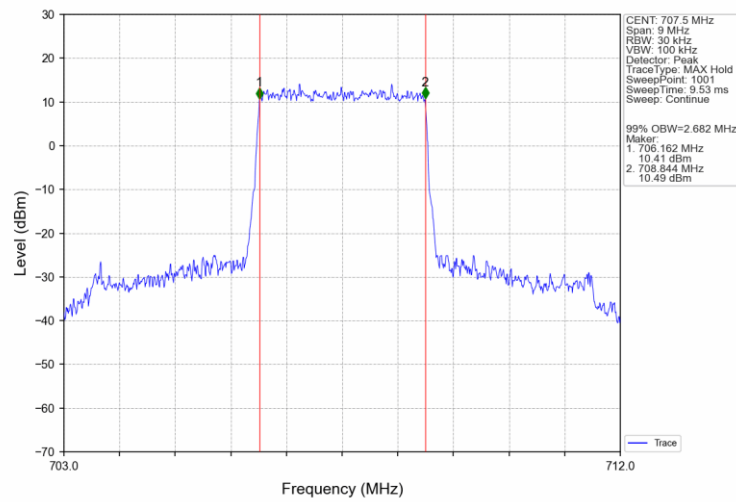
Band12 1.4MHz 16QAM HCH 715.3MHz RB 6 0 NTNV



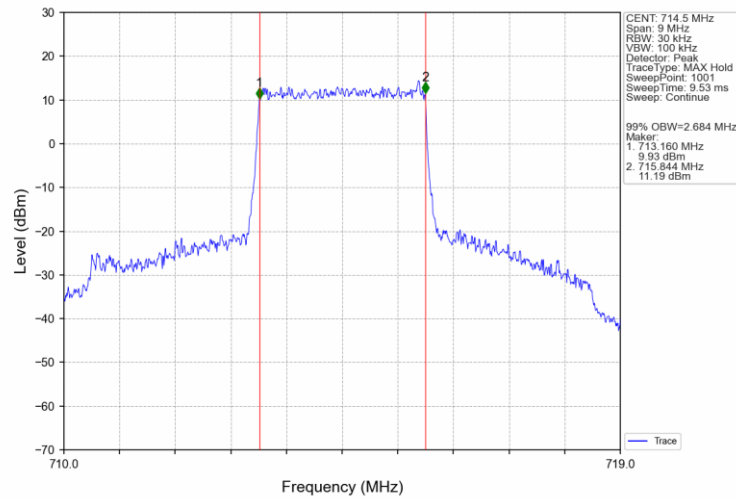
Band12_3MHz_QPSK_LCH_700.5MHz_RB_15_0_NTNV



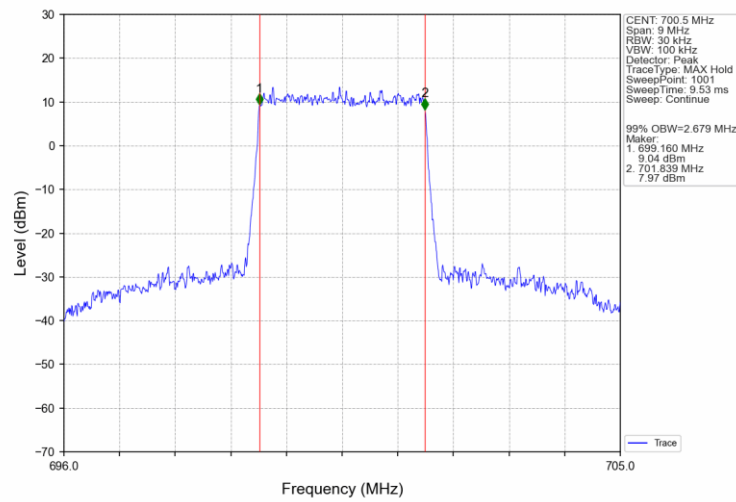
Band12_3MHz_QPSK_MCH_707.5MHz_RB_15_0_NTNV



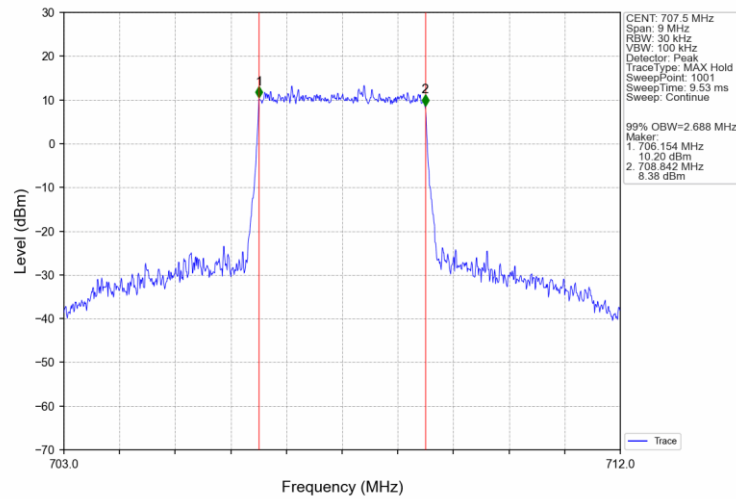
Band12_3MHz_QPSK_HCH_714.5MHz_RB_15_0_NTNV



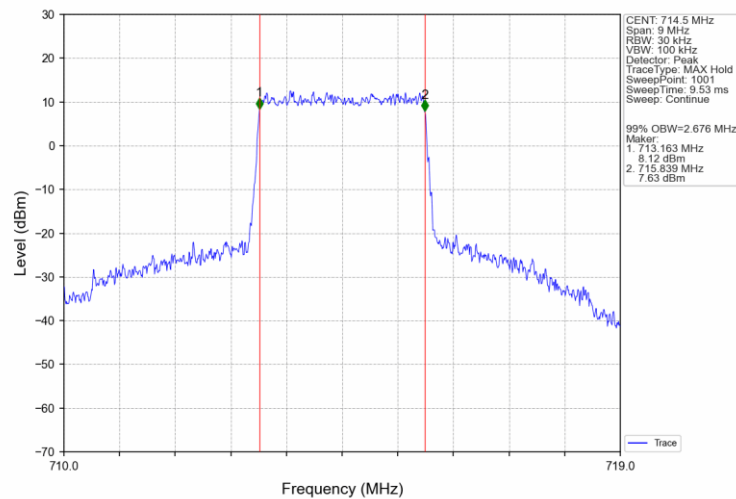
Band12_3MHz_16QAM_LCH_700.5MHz_RB_15_0_NTNV



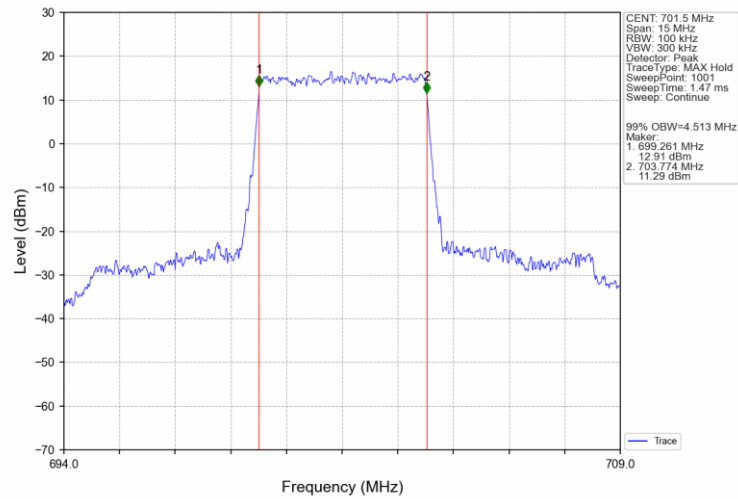
Band12_3MHz_16QAM_MCH_707.5MHz_RB_15_0_NTNV



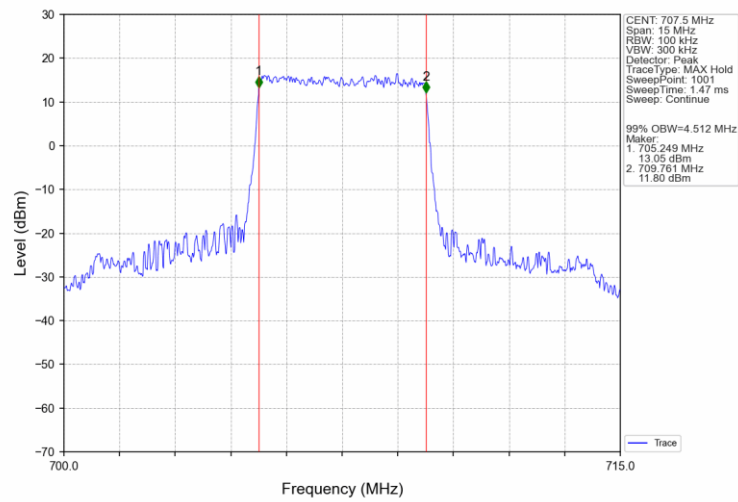
Band12_3MHz_16QAM_HCH_714.5MHz_RB_15_0_NTNV



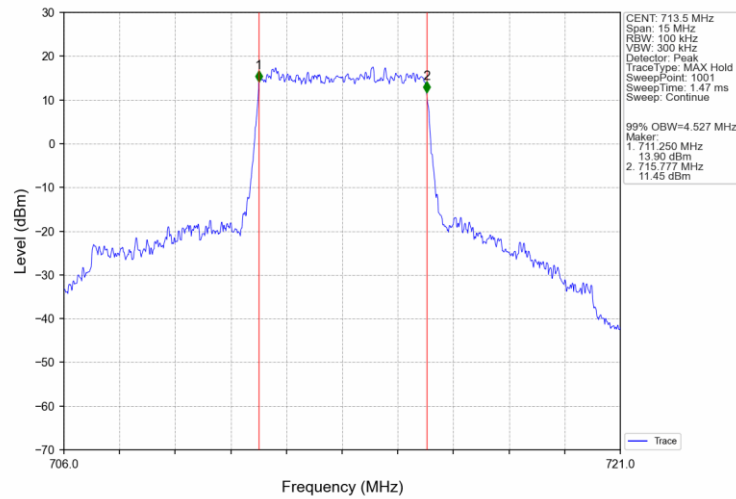
Band12_5MHz_QPSK_LCH_701.5MHz_RB_25_0_NTNV



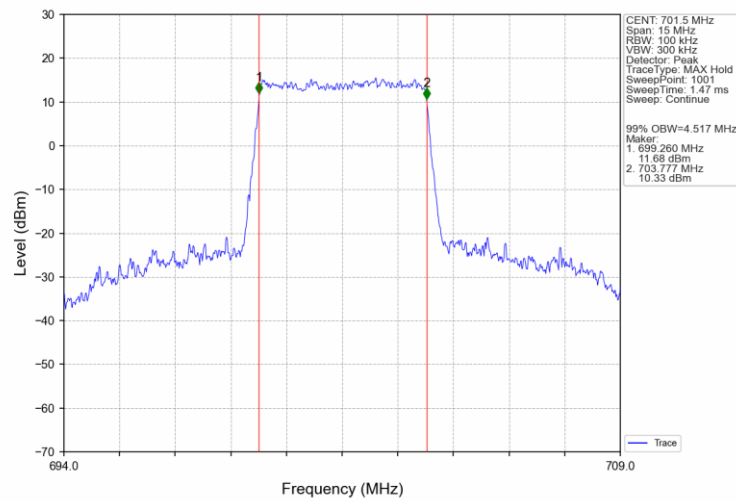
Band12_5MHz_QPSK_MCH_707.5MHz_RB_25_0_NTNV



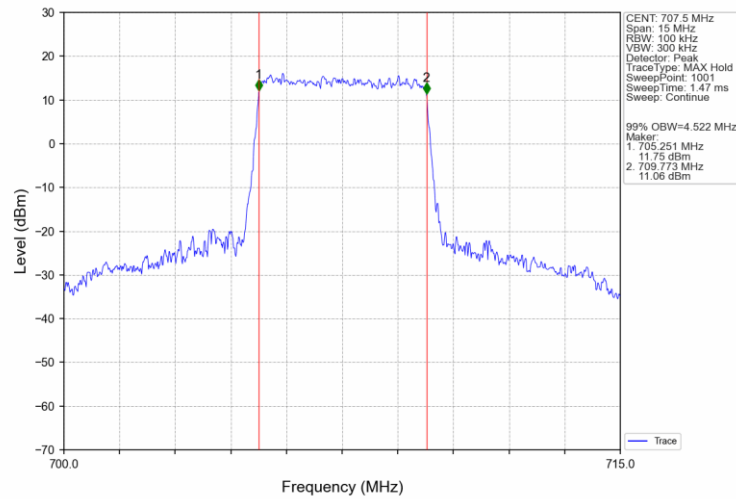
Band12_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



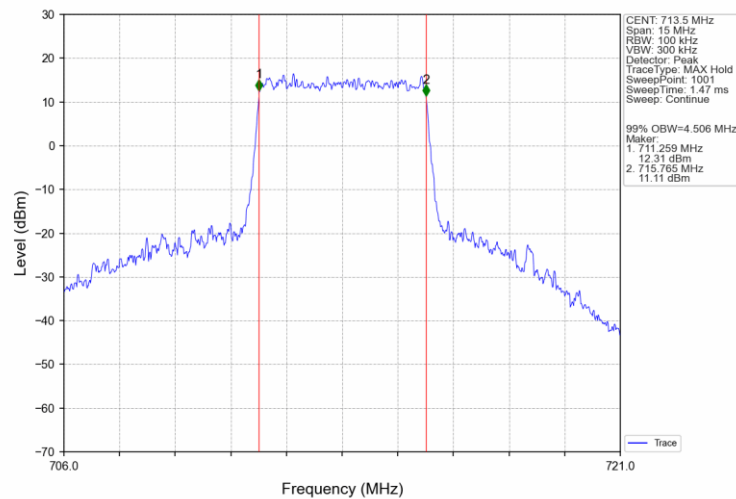
Band12_5MHz_16QAM_LCH_701.5MHz_RB_25_0_NTNV



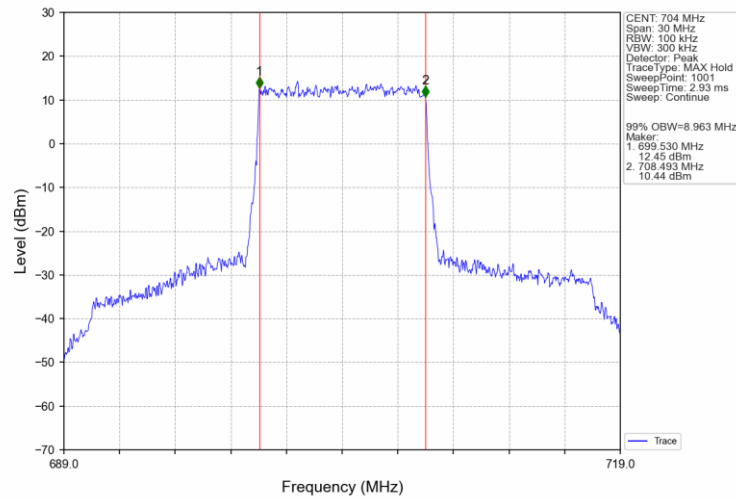
Band12_5MHz_16QAM_MCH_707.5MHz_RB_25_0_NTNV



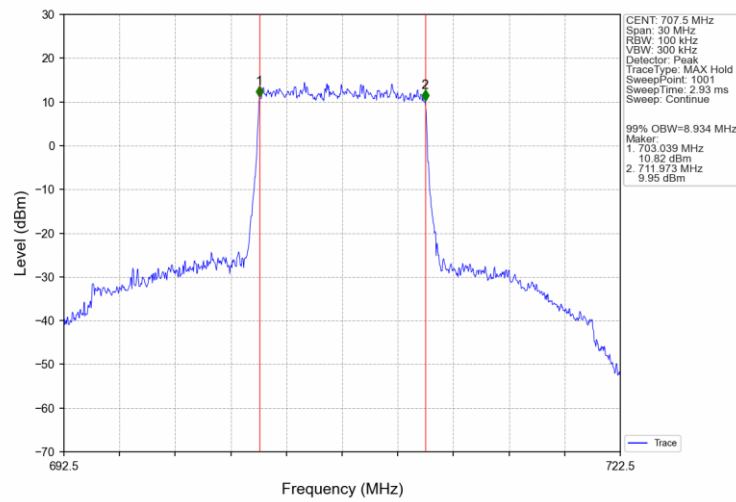
Band12_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



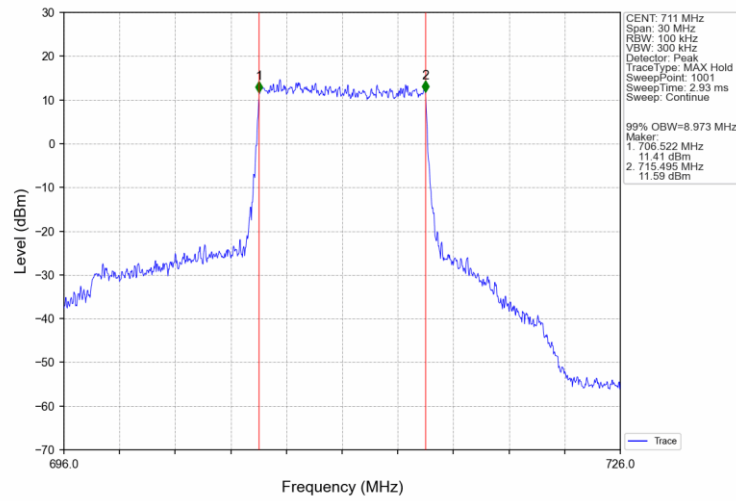
Band12_10MHz_QPSK_LCH_704MHz_RB_50_0_NTNV



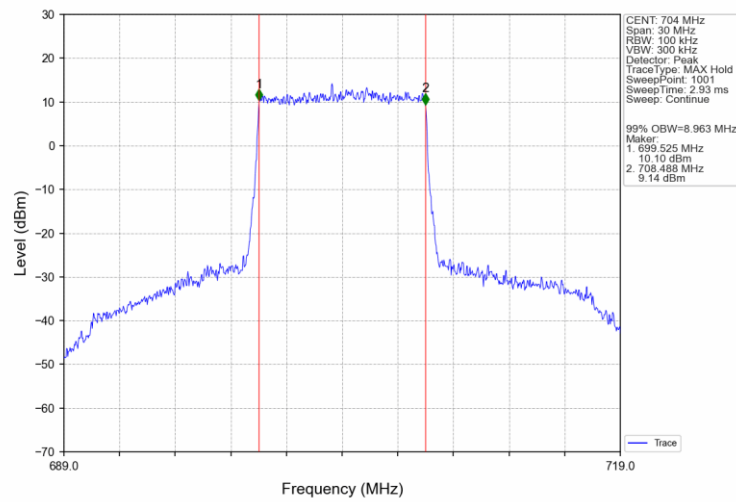
Band12_10MHz_QPSK_MCH_707.5MHz_RB_50_0_NTNV



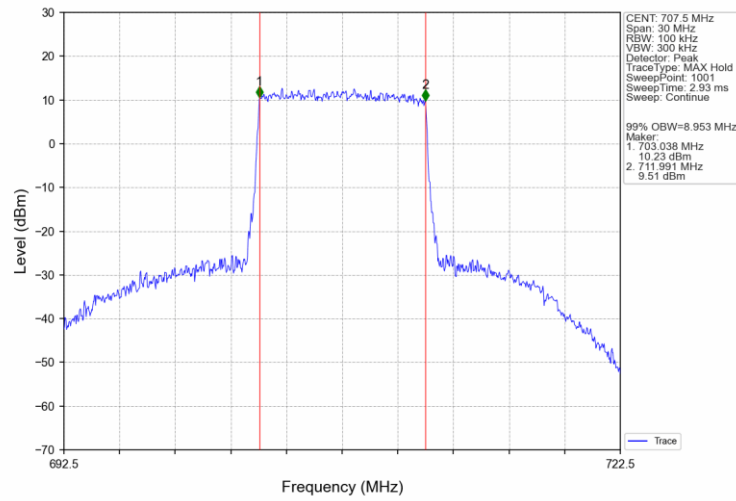
Band12_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



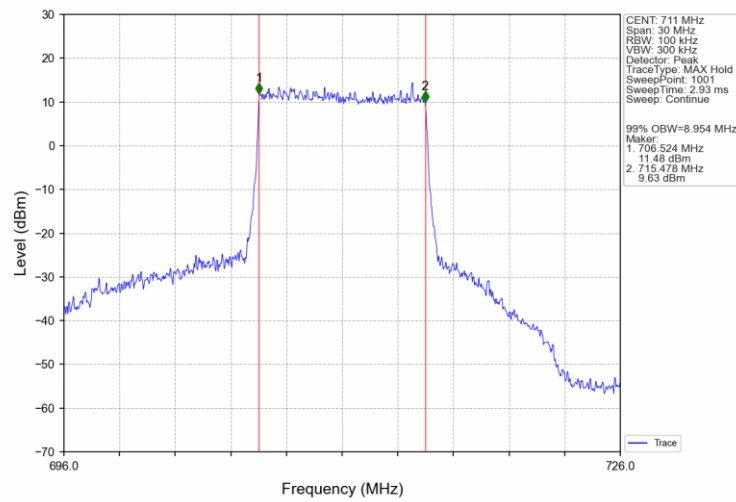
Band12_10MHz_16QAM_LCH_704MHz_RB_50_0_NTNV



Band12_10MHz_16QAM_MCH_707.5MHz_RB_50_0_NTNV

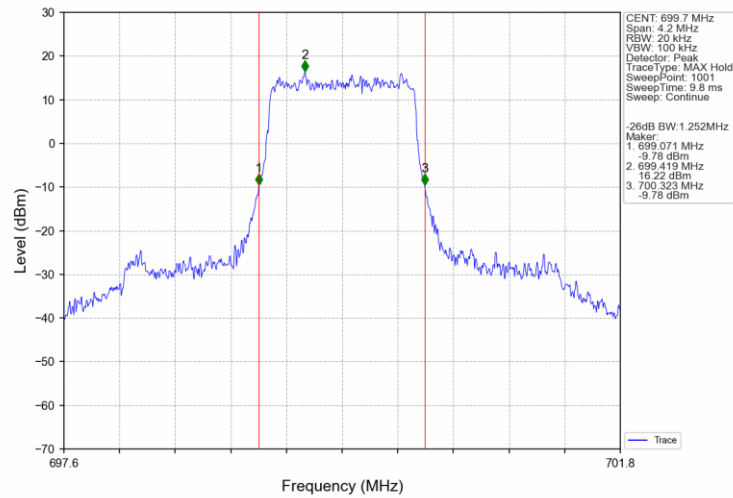


Band12_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV

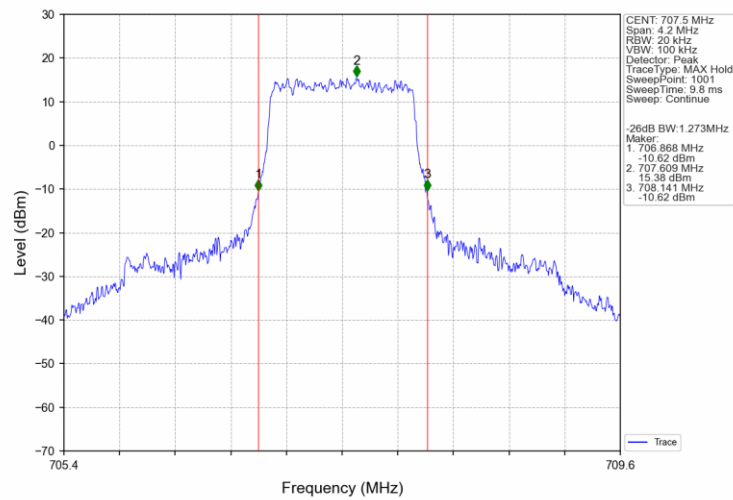


4.2.2 Band12_XDB

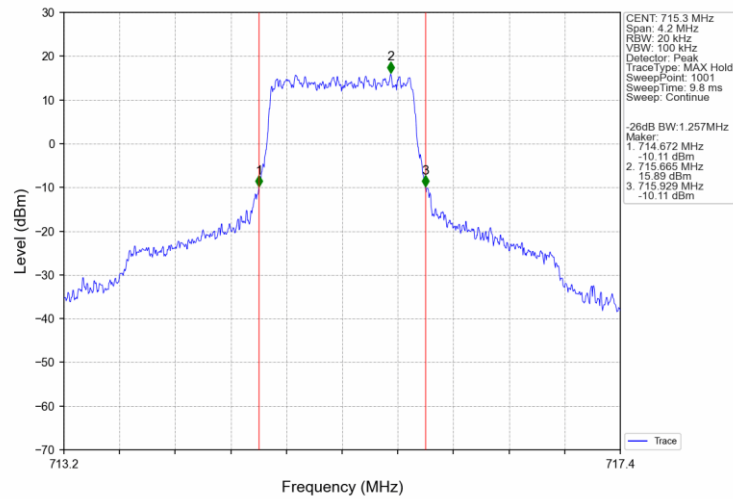
Band12_1.4MHz_QPSK_LCH_699.7MHz_RB_6_0_NTNV



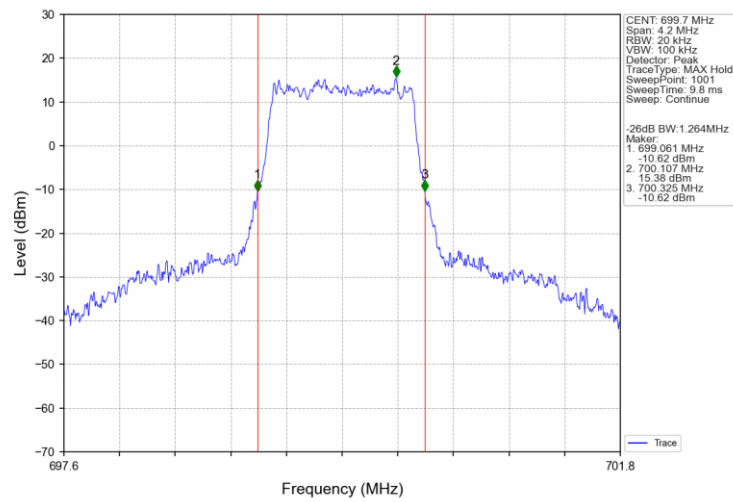
Band12_1.4MHz_QPSK_MCH_707.5MHz_RB_6_0_NTNV



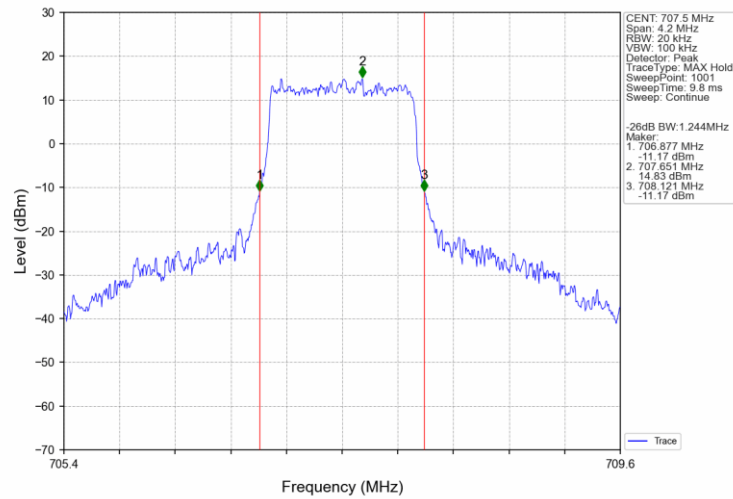
Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



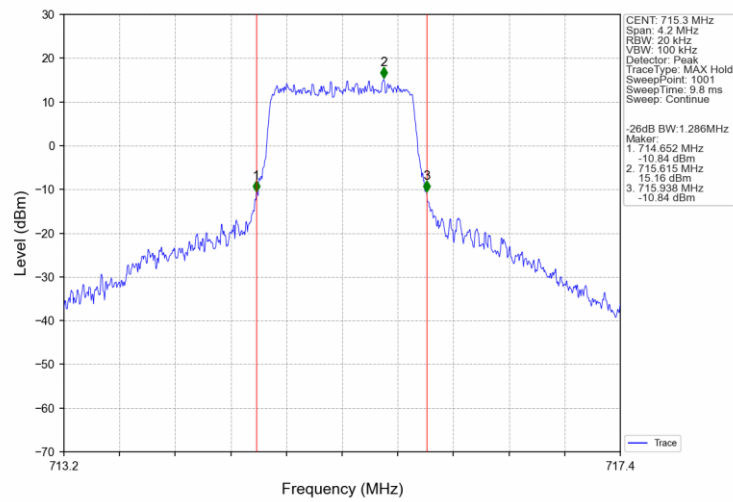
Band12_1.4MHz_16QAM_LCH_699.7MHz_RB_6_0_NTNV



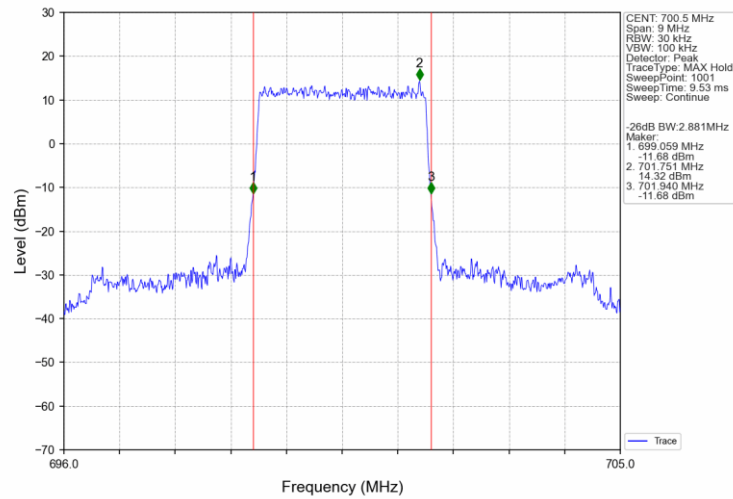
Band12_1.4MHz_16QAM_MCH_707.5MHz_RB_6_0_NTNV



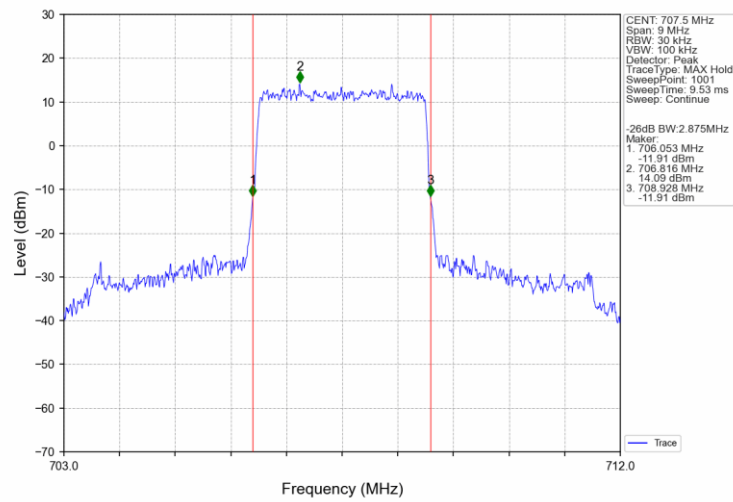
Band12_1.4MHz_16QAM_HCH_715.3MHz_RB_6_0_NTNV



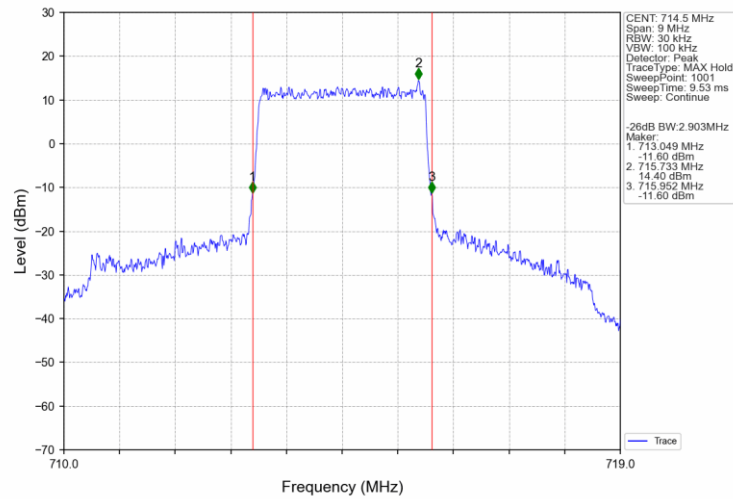
Band12_3MHz_QPSK_LCH_700.5MHz_RB_15_0_NTNV



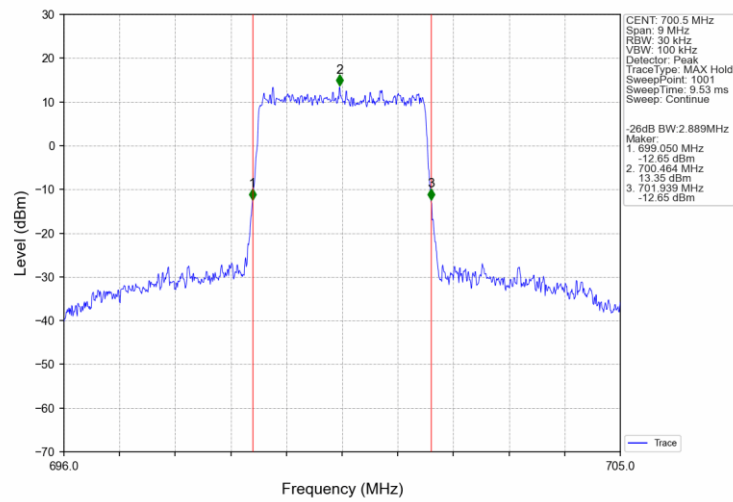
Band12_3MHz_QPSK_MCH_707.5MHz_RB_15_0_NTNV



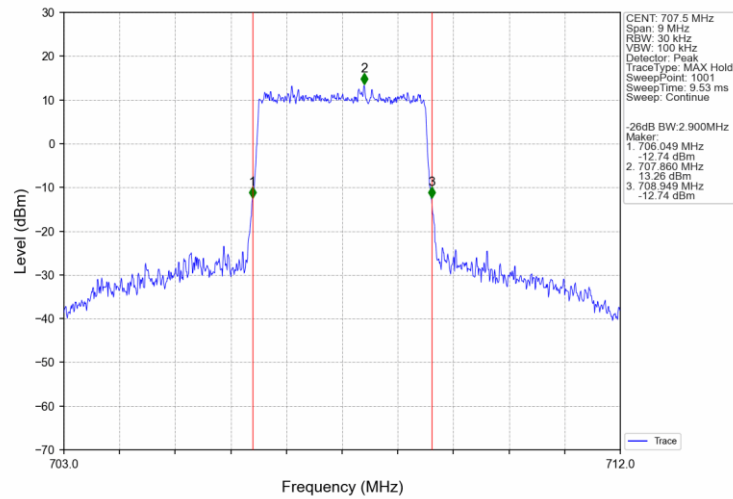
Band12_3MHz_QPSK_HCH_714.5MHz_RB_15_0_NTNV



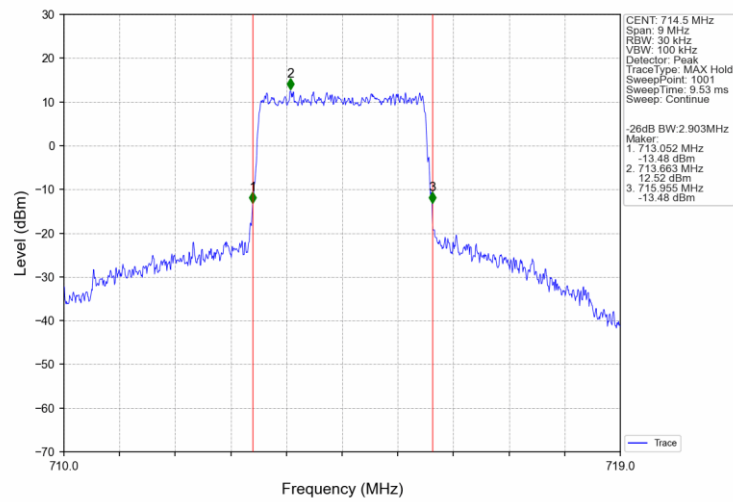
Band12_3MHz_16QAM_LCH_700.5MHz_RB_15_0_NTNV



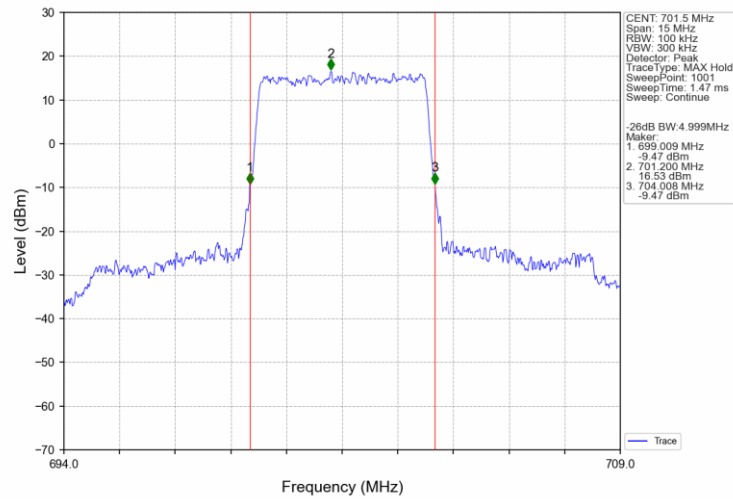
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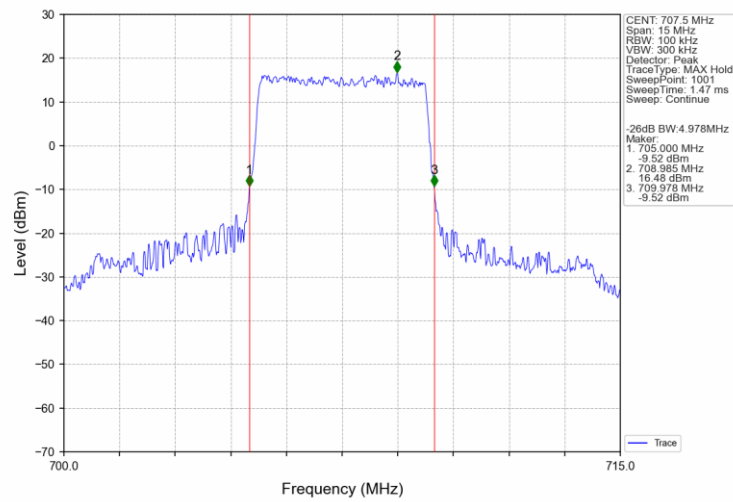
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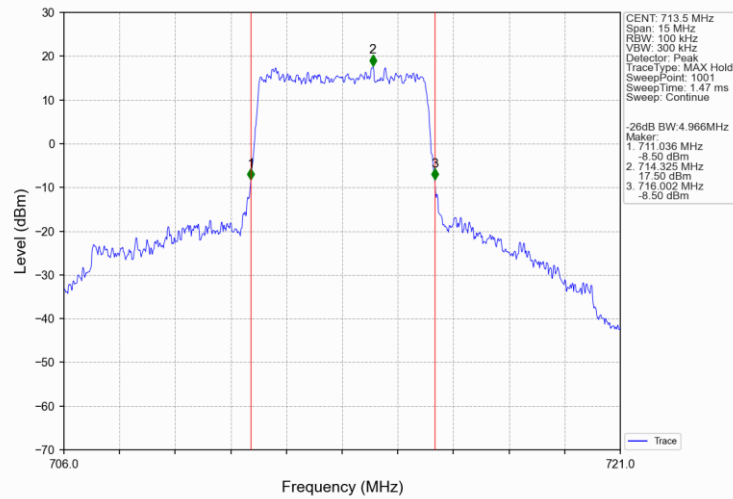
Band12_5MHz_QPSK_LCH_701.5MHz_RB_25_0_NTNV



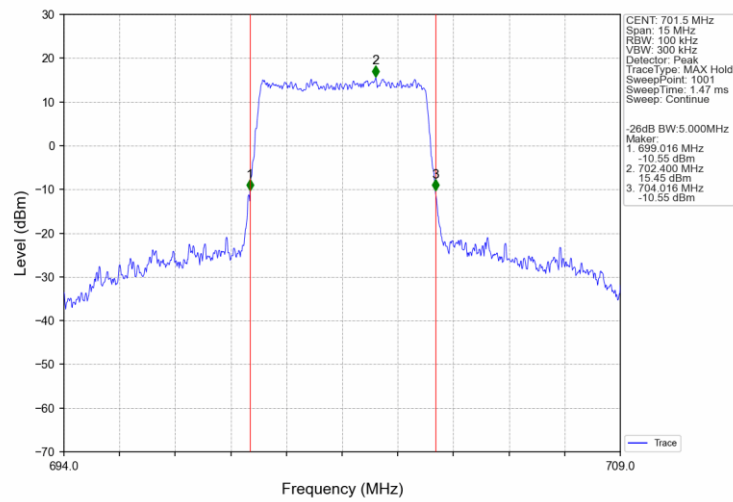
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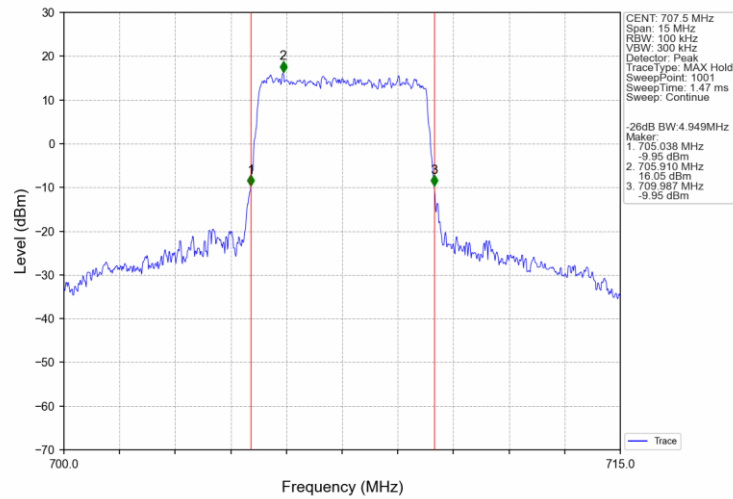
Band12_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



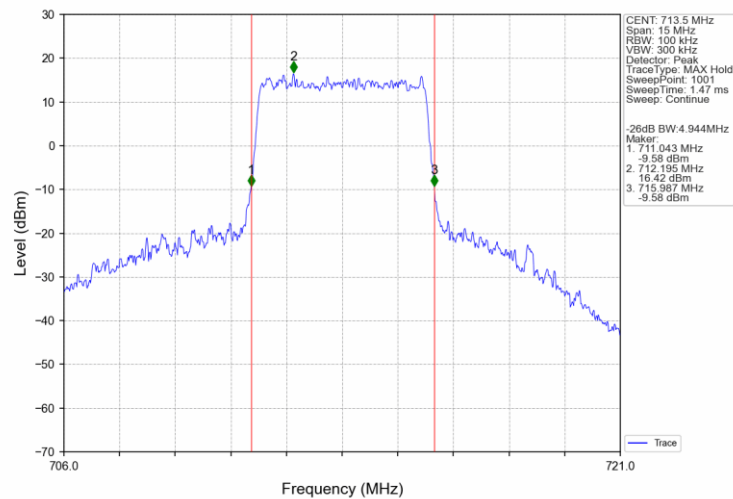
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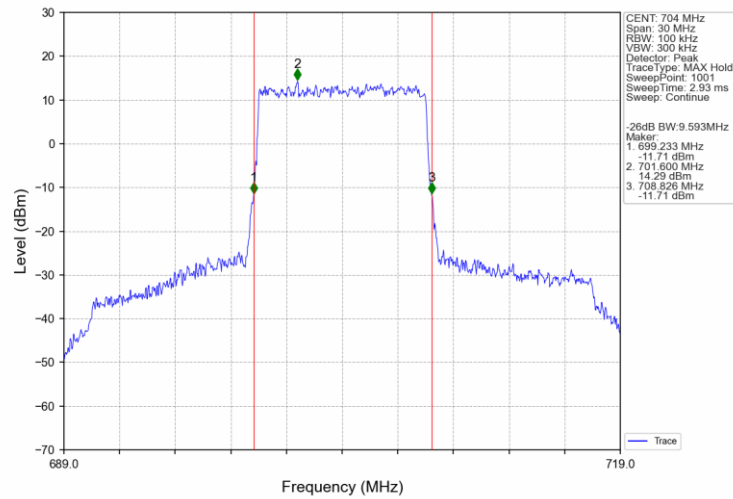
Band12_5MHz_16QAM_MCH_707.5MHz_RB_25_0_NTNV



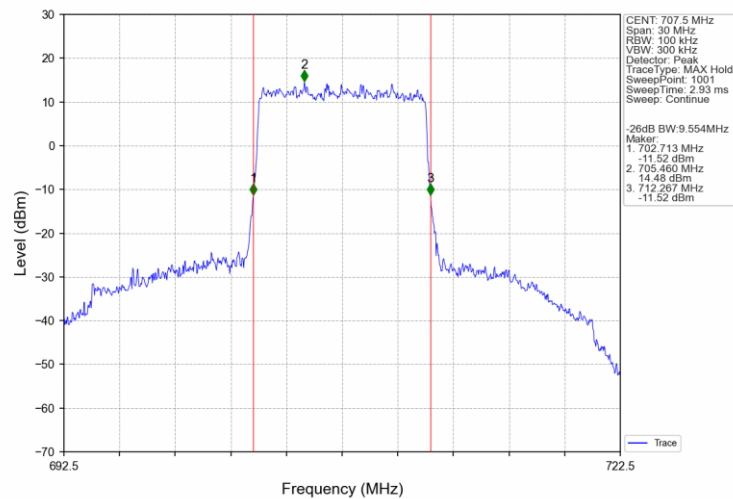
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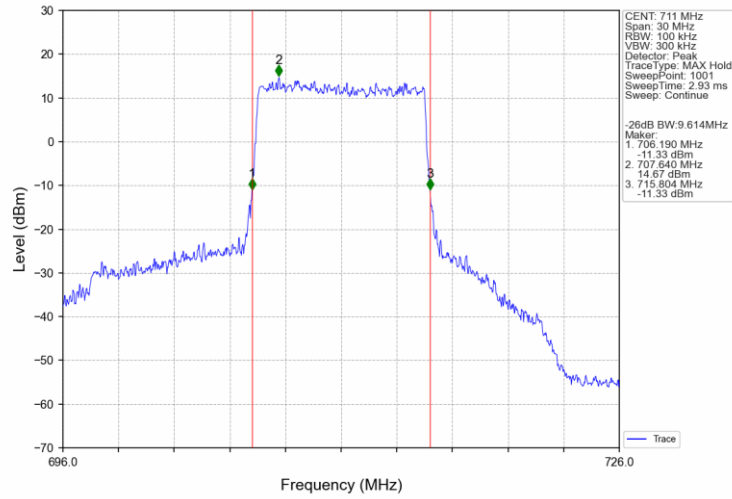
Band12_10MHz_QPSK_LCH_704MHz_RB_50_0_NTNV



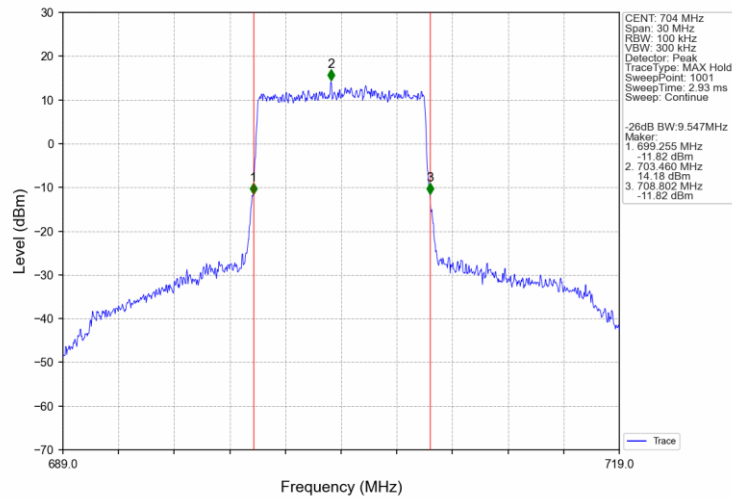
Band12_10MHz_QPSK_MCH_707.5MHz_RB_50_0_NTNV



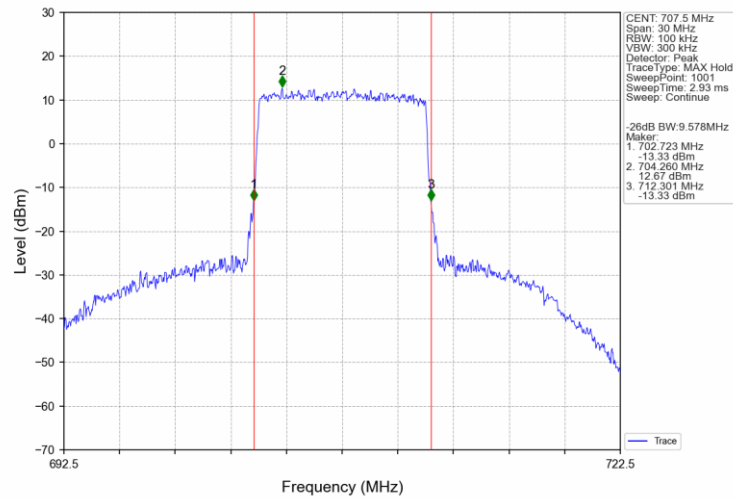
Band12_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



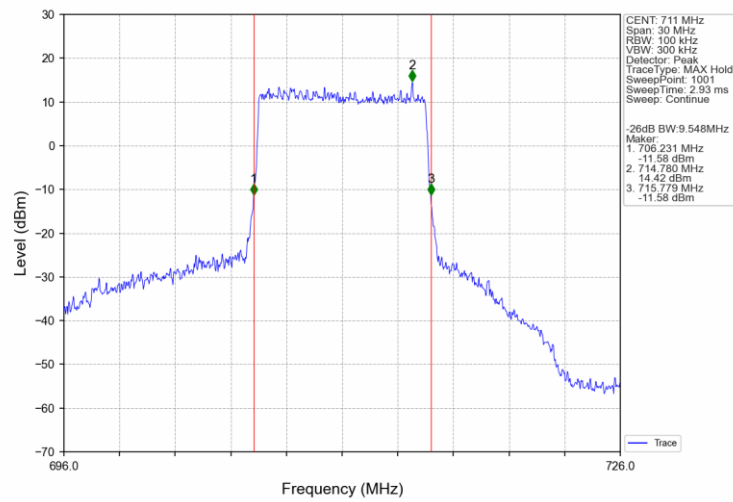
Band12_10MHz_16QAM_LCH_704MHz_RB_50_0_NTNV



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	5.26	<=13	Pass
	707.5	6	0	4.96	<=13	Pass
	715.3	6	0	4.28	<=13	Pass
16QAM	699.7	6	0	6.06	<=13	Pass
	707.5	6	0	5.82	<=13	Pass
	715.3	6	0	5.08	<=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	5.43	<=13	Pass
	707.5	15	0	5.09	<=13	Pass
	714.5	15	0	4.66	<=13	Pass
16QAM	700.5	15	0	6.23	<=13	Pass
	707.5	15	0	5.95	<=13	Pass
	714.5	15	0	5.46	<=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	5.51	<=13	Pass
	707.5	25	0	5.43	<=13	Pass
	713.5	25	0	5.18	<=13	Pass
16QAM	701.5	25	0	6.24	<=13	Pass
	707.5	25	0	6.17	<=13	Pass
	713.5	25	0	5.86	<=13	Pass

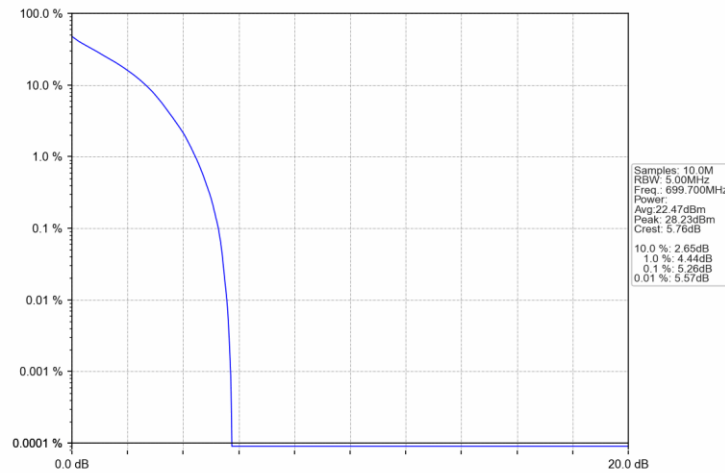
5.1.4 B12_10MHz

Band: 12 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	704	50	0	5.27	<=13	Pass
	707.5	50	0	5.27	<=13	Pass
	711	50	0	5.28	<=13	Pass
16QAM	704	50	0	6.07	<=13	Pass
	707.5	50	0	6.12	<=13	Pass
	711	50	0	6.07	<=13	Pass

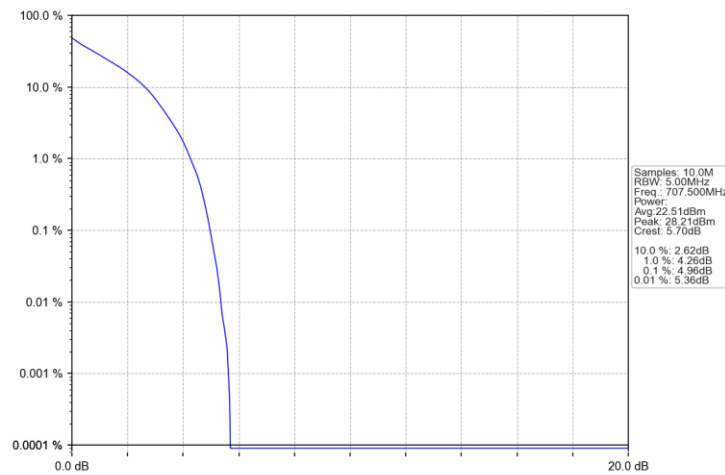
5.2 Test Graph

5.2.1 B12_1.4MHz

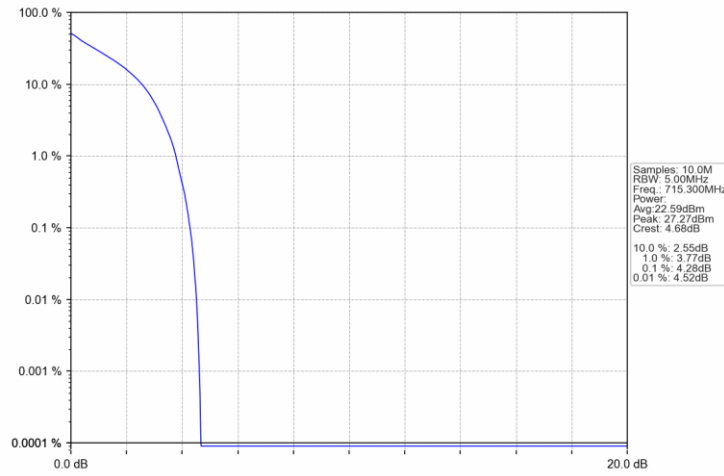
Band12_1.4MHz_QPSK_LCH_699.7MHz_RB_6_0_NTNV



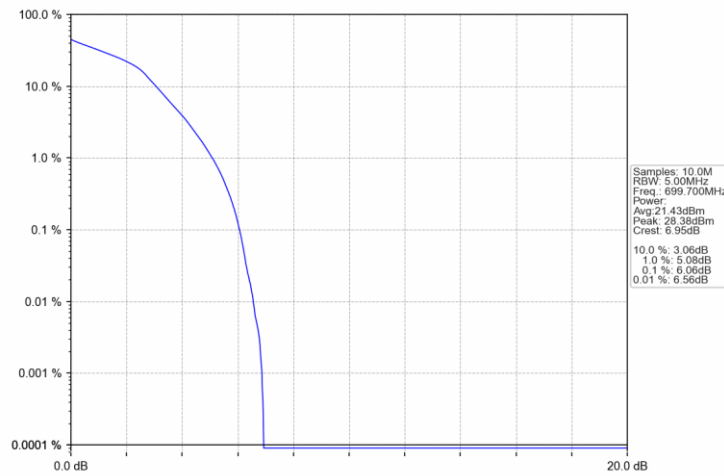
Band12_1.4MHz_QPSK_MCH_707.5MHz_RB_6_0_NTNV



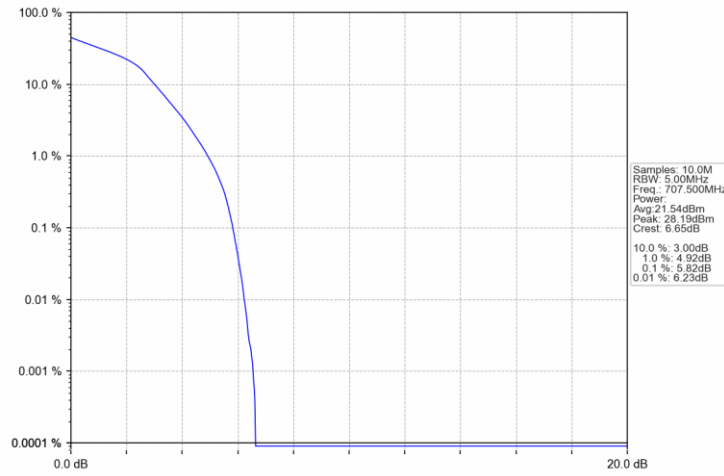
Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



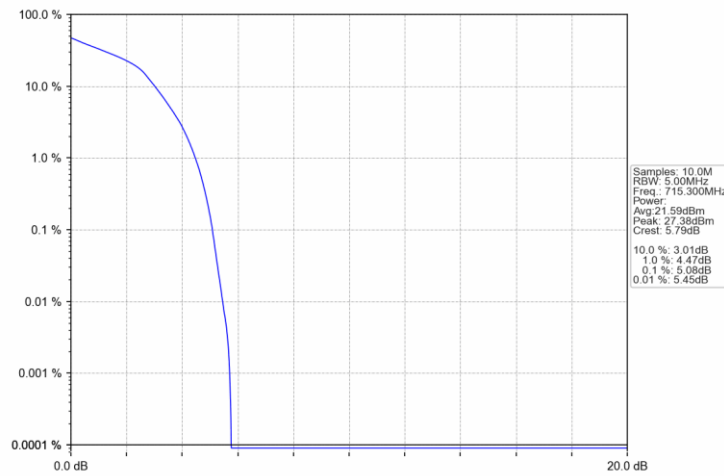
Band12_1.4MHz_16QAM_LCH_699.7MHz_RB_6_0_NTNV



Band12 1.4MHz 16QAM MCH 707.5MHz RB 6 0 NTNV

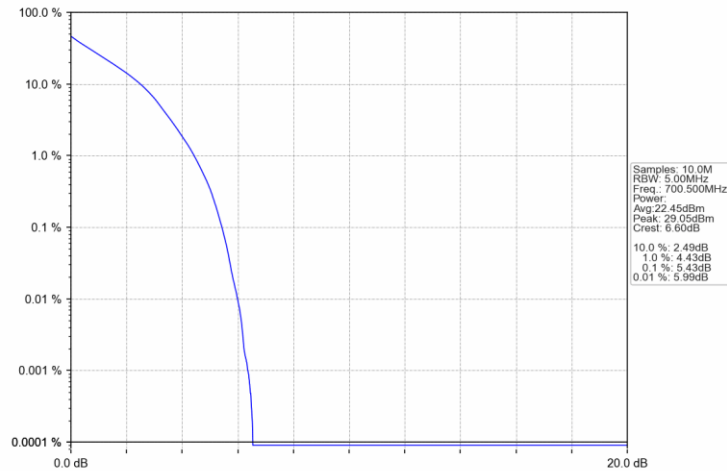


Band12 1.4MHz 16QAM HCH 715.3MHz RB 6 0 NTNV



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

