

Annex for FCC 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	23.64	-3.44	18.05	<=34.77	Pass		
			2	23.55	-3.44	17.96	<=34.77	Pass		
			5	23.29	-3.44	17.70	<=34.77	Pass		
		3	0	23.63	-3.44	18.04	<=34.77	Pass		
			2	23.46	-3.44	17.87	<=34.77	Pass		
			3	23.40	-3.44	17.81	<=34.77	Pass		
		6	0	22.55	-3.44	16.96	<=34.77	Pass		
		707.5	1	0	23.33	-3.44	17.74	<=34.77	Pass	
				2	23.42	-3.44	17.83	<=34.77	Pass	
	5			23.58	-3.44	17.99	<=34.77	Pass		
	3		0	23.35	-3.44	17.76	<=34.77	Pass		
			2	23.48	-3.44	17.89	<=34.77	Pass		
			3	23.55	-3.44	17.96	<=34.77	Pass		
	6	0	22.42	-3.44	16.83	<=34.77	Pass			
	715.3	1	0	23.17	-3.44	17.58	<=34.77	Pass		
			2	23.00	-3.44	17.41	<=34.77	Pass		
			5	22.87	-3.44	17.28	<=34.77	Pass		
		3	0	23.11	-3.44	17.52	<=34.77	Pass		
			2	23.01	-3.44	17.42	<=34.77	Pass		
			3	22.96	-3.44	17.37	<=34.77	Pass		
		6	0	22.14	-3.44	16.55	<=34.77	Pass		
		16QAM	699.7	1	0	22.74	-3.44	17.15	<=34.77	Pass
					2	22.59	-3.44	17.00	<=34.77	Pass
	5				22.42	-3.44	16.83	<=34.77	Pass	
3	0			22.75	-3.44	17.16	<=34.77	Pass		
	2			22.61	-3.44	17.02	<=34.77	Pass		
	3			22.54	-3.44	16.95	<=34.77	Pass		
6	0			21.47	-3.44	15.88	<=34.77	Pass		
707.5	1		0	22.41	-3.44	16.82	<=34.77	Pass		
			2	22.48	-3.44	16.89	<=34.77	Pass		
			5	22.64	-3.44	17.05	<=34.77	Pass		
	3		0	22.51	-3.44	16.92	<=34.77	Pass		
			2	22.60	-3.44	17.01	<=34.77	Pass		
			3	22.57	-3.44	16.98	<=34.77	Pass		
6	0		21.43	-3.44	15.84	<=34.77	Pass			
715.3	1		0	22.19	-3.44	16.60	<=34.77	Pass		
			2	22.12	-3.44	16.53	<=34.77	Pass		
			5	22.00	-3.44	16.41	<=34.77	Pass		
	3		0	22.32	-3.44	16.73	<=34.77	Pass		
			2	22.31	-3.44	16.72	<=34.77	Pass		
			3	22.24	-3.44	16.65	<=34.77	Pass		
	6		0	21.18	-3.44	15.59	<=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	23.53	-3.44	17.94	<=34.77	Pass
			7	23.08	-3.44	17.49	<=34.77	Pass
			14	22.93	-3.44	17.34	<=34.77	Pass
		8	0	22.46	-3.44	16.87	<=34.77	Pass
			4	22.23	-3.44	16.64	<=34.77	Pass
			7	22.07	-3.44	16.48	<=34.77	Pass
		15	0	22.28	-3.44	16.69	<=34.77	Pass
	707.5	1	0	23.14	-3.44	17.55	<=34.77	Pass
			7	23.51	-3.44	17.92	<=34.77	Pass
			14	23.58	-3.44	17.99	<=34.77	Pass
		8	0	22.32	-3.44	16.73	<=34.77	Pass
			4	22.50	-3.44	16.91	<=34.77	Pass
			7	22.55	-3.44	16.96	<=34.77	Pass
		15	0	22.48	-3.44	16.89	<=34.77	Pass
	714.5	1	0	23.24	-3.44	17.65	<=34.77	Pass
			7	23.22	-3.44	17.63	<=34.77	Pass
			14	22.82	-3.44	17.23	<=34.77	Pass
		8	0	22.29	-3.44	16.70	<=34.77	Pass
			4	22.26	-3.44	16.67	<=34.77	Pass
			7	22.16	-3.44	16.57	<=34.77	Pass
		15	0	22.26	-3.44	16.67	<=34.77	Pass
16QAM	700.5	1	0	23.17	-3.44	17.58	<=34.77	Pass
			7	22.70	-3.44	17.11	<=34.77	Pass
			14	22.55	-3.44	16.96	<=34.77	Pass
		8	0	21.60	-3.44	16.01	<=34.77	Pass
			4	21.32	-3.44	15.73	<=34.77	Pass
			7	21.21	-3.44	15.62	<=34.77	Pass
		15	0	21.33	-3.44	15.74	<=34.77	Pass
	707.5	1	0	22.16	-3.44	16.57	<=34.77	Pass
			7	22.59	-3.44	17.00	<=34.77	Pass
			14	22.56	-3.44	16.97	<=34.77	Pass
		8	0	21.37	-3.44	15.78	<=34.77	Pass
			4	21.48	-3.44	15.89	<=34.77	Pass
			7	21.58	-3.44	15.99	<=34.77	Pass
		15	0	21.39	-3.44	15.80	<=34.77	Pass
	714.5	1	0	22.38	-3.44	16.79	<=34.77	Pass
			7	22.45	-3.44	16.86	<=34.77	Pass
			14	22.09	-3.44	16.50	<=34.77	Pass
		8	0	21.29	-3.44	15.70	<=34.77	Pass
			4	21.22	-3.44	15.63	<=34.77	Pass
			7	21.14	-3.44	15.55	<=34.77	Pass
		15	0	21.31	-3.44	15.72	<=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	23.67	-3.44	18.08	<=34.77	Pass
			13	23.08	-3.44	17.49	<=34.77	Pass
			24	22.80	-3.44	17.21	<=34.77	Pass
		12	0	22.29	-3.44	16.70	<=34.77	Pass
			6	22.14	-3.44	16.55	<=34.77	Pass

Model: MDPT3301LE

16QAM	707.5		13	21.94	-3.44	16.35	<=34.77	Pass	
		25	0	22.12	-3.44	16.53	<=34.77	Pass	
		1	0	22.99	-3.44	17.40	<=34.77	Pass	
			13	23.63	-3.44	18.04	<=34.77	Pass	
			24	23.67	-3.44	18.08	<=34.77	Pass	
		12	0	22.18	-3.44	16.59	<=34.77	Pass	
			6	22.53	-3.44	16.94	<=34.77	Pass	
			13	22.59	-3.44	17.00	<=34.77	Pass	
		25	0	22.42	-3.44	16.83	<=34.77	Pass	
		713.5	1	0	23.65	-3.44	18.06	<=34.77	Pass
				13	23.39	-3.44	17.80	<=34.77	Pass
				24	22.97	-3.44	17.38	<=34.77	Pass
	12		0	22.45	-3.44	16.86	<=34.77	Pass	
			6	22.41	-3.44	16.82	<=34.77	Pass	
			13	22.22	-3.44	16.63	<=34.77	Pass	
	25		0	22.32	-3.44	16.73	<=34.77	Pass	
	701.5		1	0	22.56	-3.44	16.97	<=34.77	Pass
		13		22.07	-3.44	16.48	<=34.77	Pass	
		24		21.76	-3.44	16.17	<=34.77	Pass	
		12	0	21.24	-3.44	15.65	<=34.77	Pass	
			6	21.15	-3.44	15.56	<=34.77	Pass	
			13	20.95	-3.44	15.36	<=34.77	Pass	
		25	0	21.07	-3.44	15.48	<=34.77	Pass	
		707.5	1	0	22.10	-3.44	16.51	<=34.77	Pass
13				22.73	-3.44	17.14	<=34.77	Pass	
24				22.84	-3.44	17.25	<=34.77	Pass	
12			0	21.15	-3.44	15.56	<=34.77	Pass	
			6	21.50	-3.44	15.91	<=34.77	Pass	
	13		21.49	-3.44	15.90	<=34.77	Pass		
25	0	21.29	-3.44	15.70	<=34.77	Pass			
713.5	1	0	22.90	-3.44	17.31	<=34.77	Pass		
		13	22.69	-3.44	17.10	<=34.77	Pass		
		24	22.30	-3.44	16.71	<=34.77	Pass		
	12	0	21.44	-3.44	15.85	<=34.77	Pass		
		6	21.49	-3.44	15.90	<=34.77	Pass		
		13	21.22	-3.44	15.63	<=34.77	Pass		
25	0	21.36	-3.44	15.77	<=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	23.47	-3.44	17.88	<=34.77	Pass
			25	22.83	-3.44	17.24	<=34.77	Pass
			49	23.64	-3.44	18.05	<=34.77	Pass
		25	0	21.96	-3.44	16.37	<=34.77	Pass
			13	21.98	-3.44	16.39	<=34.77	Pass
			25	22.11	-3.44	16.52	<=34.77	Pass
		50	0	22.02	-3.44	16.43	<=34.77	Pass
	707.5	1	0	22.89	-3.44	17.30	<=34.77	Pass
			25	23.56	-3.44	17.97	<=34.77	Pass
			49	23.52	-3.44	17.93	<=34.77	Pass
		25	0	21.95	-3.44	16.36	<=34.77	Pass
			13	22.43	-3.44	16.84	<=34.77	Pass
			25	22.38	-3.44	16.79	<=34.77	Pass
		50	0	22.09	-3.44	16.50	<=34.77	Pass

16QAM	711	1	0	23.23	-3.44	17.64	<=34.77	Pass
			25	23.59	-3.44	18.00	<=34.77	Pass
			49	22.97	-3.44	17.38	<=34.77	Pass
		25	0	22.21	-3.44	16.62	<=34.77	Pass
			13	22.60	-3.44	17.01	<=34.77	Pass
			25	22.31	-3.44	16.72	<=34.77	Pass
		50	0	22.25	-3.44	16.66	<=34.77	Pass
	704	1	0	23.08	-3.44	17.49	<=34.77	Pass
			25	22.43	-3.44	16.84	<=34.77	Pass
			49	23.17	-3.44	17.58	<=34.77	Pass
		25	0	18.98	-3.44	13.39	<=34.77	Pass
			13	18.98	-3.44	13.39	<=34.77	Pass
			25	18.94	-3.44	13.35	<=34.77	Pass
		50	0	18.90	-3.44	13.31	<=34.77	Pass
	707.5	1	0	21.94	-3.44	16.35	<=34.77	Pass
			25	22.59	-3.44	17.00	<=34.77	Pass
			49	22.60	-3.44	17.01	<=34.77	Pass
		25	0	18.94	-3.44	13.35	<=34.77	Pass
			13	18.98	-3.44	13.39	<=34.77	Pass
			25	18.94	-3.44	13.35	<=34.77	Pass
		50	0	18.85	-3.44	13.26	<=34.77	Pass
	711	1	0	22.77	-3.44	17.18	<=34.77	Pass
			25	23.15	-3.44	17.56	<=34.77	Pass
			49	22.52	-3.44	16.93	<=34.77	Pass
		25	0	18.88	-3.44	13.29	<=34.77	Pass
			13	18.91	-3.44	13.32	<=34.77	Pass
			25	18.97	-3.44	13.38	<=34.77	Pass
		50	0	18.87	-3.44	13.28	<=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	-17.824	-0.0255	-2.5 to 2.5	Pass
					3.70	-9.298	-0.0133	-2.5 to 2.5	Pass
					4.26	-15.178	-0.0217	-2.5 to 2.5	Pass
				-30	3.70	-11.559	-0.0165	-2.5 to 2.5	Pass
				-20	3.70	-16.479	-0.0236	-2.5 to 2.5	Pass
				-10	3.70	-25.034	-0.0358	-2.5 to 2.5	Pass
				0	3.70	-10.285	-0.0147	-2.5 to 2.5	Pass
				10	3.70	-5.808	-0.0083	-2.5 to 2.5	Pass
				30	3.70	-17.953	-0.0257	-2.5 to 2.5	Pass
				40	3.70	-24.948	-0.0357	-2.5 to 2.5	Pass
				50	3.70	-4.721	-0.0067	-2.5 to 2.5	Pass
	707.5	6	0	20	3.15	21.801	0.0308	-2.5 to 2.5	Pass
					3.70	4.206	0.0059	-2.5 to 2.5	Pass
					4.26	26.894	0.0380	-2.5 to 2.5	Pass
				-30	3.70	22.259	0.0315	-2.5 to 2.5	Pass
				-20	3.70	14.634	0.0207	-2.5 to 2.5	Pass
				-10	3.70	3.262	0.0046	-2.5 to 2.5	Pass

Model: MDPT3301LE

				0	3.70	10.629	0.0150	-2.5 to 2.5	Pass
				10	3.70	16.322	0.0231	-2.5 to 2.5	Pass
				30	3.70	27.180	0.0384	-2.5 to 2.5	Pass
				40	3.70	11.745	0.0166	-2.5 to 2.5	Pass
				50	3.70	21.029	0.0297	-2.5 to 2.5	Pass
	715.3	6	0	20	3.15	-16.136	-0.0226	-2.5 to 2.5	Pass
					3.70	-20.413	-0.0285	-2.5 to 2.5	Pass
					4.26	-8.612	-0.0120	-2.5 to 2.5	Pass
				-30	3.70	-16.923	-0.0237	-2.5 to 2.5	Pass
				-20	3.70	-14.319	-0.0200	-2.5 to 2.5	Pass
				-10	3.70	-12.860	-0.0180	-2.5 to 2.5	Pass
				0	3.70	-5.322	-0.0074	-2.5 to 2.5	Pass
				10	3.70	-10.672	-0.0149	-2.5 to 2.5	Pass
				30	3.70	-25.921	-0.0362	-2.5 to 2.5	Pass
				40	3.70	-9.842	-0.0138	-2.5 to 2.5	Pass
				50	3.70	-28.009	-0.0392	-2.5 to 2.5	Pass
16QAM	699.7	6	0	20	3.15	-11.616	-0.0166	-2.5 to 2.5	Pass
					3.70	-16.894	-0.0241	-2.5 to 2.5	Pass
					4.26	-12.946	-0.0185	-2.5 to 2.5	Pass
				-30	3.70	-14.162	-0.0202	-2.5 to 2.5	Pass
				-20	3.70	-8.998	-0.0129	-2.5 to 2.5	Pass
				-10	3.70	-2.160	-0.0031	-2.5 to 2.5	Pass
				0	3.70	-29.740	-0.0425	-2.5 to 2.5	Pass
				10	3.70	-24.290	-0.0347	-2.5 to 2.5	Pass
				30	3.70	-15.922	-0.0228	-2.5 to 2.5	Pass
				40	3.70	-27.409	-0.0392	-2.5 to 2.5	Pass
				50	3.70	-8.783	-0.0126	-2.5 to 2.5	Pass
	707.5	6	0	20	3.15	5.279	0.0075	-2.5 to 2.5	Pass
					3.70	9.398	0.0133	-2.5 to 2.5	Pass
					4.26	19.684	0.0278	-2.5 to 2.5	Pass
				-30	3.70	20.442	0.0289	-2.5 to 2.5	Pass
				-20	3.70	18.525	0.0262	-2.5 to 2.5	Pass
				-10	3.70	7.396	0.0105	-2.5 to 2.5	Pass
				0	3.70	21.615	0.0306	-2.5 to 2.5	Pass
				10	3.70	3.433	0.0049	-2.5 to 2.5	Pass
				30	3.70	11.330	0.0160	-2.5 to 2.5	Pass
				40	3.70	17.509	0.0247	-2.5 to 2.5	Pass
				50	3.70	2.775	0.0039	-2.5 to 2.5	Pass
	715.3	6	0	20	3.15	-14.319	-0.0200	-2.5 to 2.5	Pass
					3.70	-23.017	-0.0322	-2.5 to 2.5	Pass
					4.26	-19.641	-0.0275	-2.5 to 2.5	Pass
				-30	3.70	-20.142	-0.0282	-2.5 to 2.5	Pass
				-20	3.70	-15.607	-0.0218	-2.5 to 2.5	Pass
				-10	3.70	-7.911	-0.0111	-2.5 to 2.5	Pass
				0	3.70	-5.136	-0.0072	-2.5 to 2.5	Pass
				10	3.70	-14.305	-0.0200	-2.5 to 2.5	Pass
				30	3.70	-18.368	-0.0257	-2.5 to 2.5	Pass
				40	3.70	-25.134	-0.0351	-2.5 to 2.5	Pass
				50	3.70	-9.141	-0.0128	-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	-19.169	-0.0274	-2.5 to 2.5	Pass
					3.70	-23.503	-0.0336	-2.5 to 2.5	Pass
					4.26	-15.450	-0.0221	-2.5 to 2.5	Pass

Model: MDPT3301LE

				-30	3.70	-12.016	-0.0172	-2.5 to 2.5	Pass
				-20	3.70	-15.593	-0.0223	-2.5 to 2.5	Pass
				-10	3.70	-10.371	-0.0148	-2.5 to 2.5	Pass
				0	3.70	-27.952	-0.0399	-2.5 to 2.5	Pass
				10	3.70	-8.869	-0.0127	-2.5 to 2.5	Pass
				30	3.70	-3.633	-0.0052	-2.5 to 2.5	Pass
				40	3.70	-16.994	-0.0243	-2.5 to 2.5	Pass
				50	3.70	-15.278	-0.0218	-2.5 to 2.5	Pass
	707.5	15	0	20	3.15	12.975	0.0183	-2.5 to 2.5	Pass
					3.70	7.110	0.0100	-2.5 to 2.5	Pass
					4.26	14.348	0.0203	-2.5 to 2.5	Pass
				-30	3.70	1.230	0.0017	-2.5 to 2.5	Pass
				-20	3.70	15.464	0.0219	-2.5 to 2.5	Pass
				-10	3.70	23.832	0.0337	-2.5 to 2.5	Pass
				0	3.70	0.029	0.0000	-2.5 to 2.5	Pass
				10	3.70	2.904	0.0041	-2.5 to 2.5	Pass
				30	3.70	5.808	0.0082	-2.5 to 2.5	Pass
				40	3.70	4.649	0.0066	-2.5 to 2.5	Pass
				50	3.70	4.578	0.0065	-2.5 to 2.5	Pass
	714.5	15	0	20	3.15	-21.315	-0.0298	-2.5 to 2.5	Pass
					3.70	-11.430	-0.0160	-2.5 to 2.5	Pass
					4.26	-8.783	-0.0123	-2.5 to 2.5	Pass
				-30	3.70	-27.466	-0.0384	-2.5 to 2.5	Pass
				-20	3.70	-6.895	-0.0097	-2.5 to 2.5	Pass
				-10	3.70	-2.575	-0.0036	-2.5 to 2.5	Pass
				0	3.70	-12.217	-0.0171	-2.5 to 2.5	Pass
				10	3.70	-25.306	-0.0354	-2.5 to 2.5	Pass
				30	3.70	-5.851	-0.0082	-2.5 to 2.5	Pass
				40	3.70	-9.427	-0.0132	-2.5 to 2.5	Pass
				50	3.70	-3.405	-0.0048	-2.5 to 2.5	Pass
16QAM	700.5	15	0	20	3.15	-22.931	-0.0327	-2.5 to 2.5	Pass
					3.70	-12.045	-0.0172	-2.5 to 2.5	Pass
					4.26	-17.395	-0.0248	-2.5 to 2.5	Pass
				-30	3.70	-24.118	-0.0344	-2.5 to 2.5	Pass
				-20	3.70	-6.323	-0.0090	-2.5 to 2.5	Pass
				-10	3.70	-15.793	-0.0225	-2.5 to 2.5	Pass
				0	3.70	-12.846	-0.0183	-2.5 to 2.5	Pass
				10	3.70	-12.360	-0.0176	-2.5 to 2.5	Pass
				30	3.70	-3.004	-0.0043	-2.5 to 2.5	Pass
				40	3.70	-13.504	-0.0193	-2.5 to 2.5	Pass
				50	3.70	-16.365	-0.0234	-2.5 to 2.5	Pass
	707.5	15	0	20	3.15	13.561	0.0192	-2.5 to 2.5	Pass
					3.70	10.772	0.0152	-2.5 to 2.5	Pass
					4.26	19.012	0.0269	-2.5 to 2.5	Pass
				-30	3.70	22.202	0.0314	-2.5 to 2.5	Pass
				-20	3.70	16.379	0.0232	-2.5 to 2.5	Pass
				-10	3.70	9.484	0.0134	-2.5 to 2.5	Pass
				0	3.70	21.901	0.0310	-2.5 to 2.5	Pass
				10	3.70	0.858	0.0012	-2.5 to 2.5	Pass
				30	3.70	8.898	0.0126	-2.5 to 2.5	Pass
				40	3.70	15.721	0.0222	-2.5 to 2.5	Pass
				50	3.70	20.113	0.0284	-2.5 to 2.5	Pass
	714.5	15	0	20	3.15	-11.387	-0.0159	-2.5 to 2.5	Pass
					3.70	17.381	0.0243	-2.5 to 2.5	Pass
					4.26	11.716	0.0164	-2.5 to 2.5	Pass
				-30	3.70	0.844	0.0012	-2.5 to 2.5	Pass
				-20	3.70	18.454	0.0258	-2.5 to 2.5	Pass
				-10	3.70	2.804	0.0039	-2.5 to 2.5	Pass
				0	3.70	12.531	0.0175	-2.5 to 2.5	Pass

				10	3.70	26.050	0.0365	-2.5 to 2.5	Pass
				30	3.70	6.938	0.0097	-2.5 to 2.5	Pass
				40	3.70	10.772	0.0151	-2.5 to 2.5	Pass
				50	3.70	11.473	0.0161	-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	-14.148	-0.0202	-2.5 to 2.5	Pass
					3.70	-16.580	-0.0236	-2.5 to 2.5	Pass
					4.26	-16.608	-0.0237	-2.5 to 2.5	Pass
				-30	3.70	-15.936	-0.0227	-2.5 to 2.5	Pass
				-20	3.70	-6.595	-0.0094	-2.5 to 2.5	Pass
				-10	3.70	-7.396	-0.0105	-2.5 to 2.5	Pass
				0	3.70	-13.289	-0.0189	-2.5 to 2.5	Pass
				10	3.70	-20.800	-0.0297	-2.5 to 2.5	Pass
				30	3.70	-10.614	-0.0151	-2.5 to 2.5	Pass
				40	3.70	-16.580	-0.0236	-2.5 to 2.5	Pass
				50	3.70	-22.531	-0.0321	-2.5 to 2.5	Pass
	707.5	25	0	20	3.15	-22.931	-0.0324	-2.5 to 2.5	Pass
					3.70	-19.112	-0.0270	-2.5 to 2.5	Pass
					4.26	-8.798	-0.0124	-2.5 to 2.5	Pass
				-30	3.70	-23.990	-0.0339	-2.5 to 2.5	Pass
				-20	3.70	-21.615	-0.0306	-2.5 to 2.5	Pass
				-10	3.70	-12.317	-0.0174	-2.5 to 2.5	Pass
				0	3.70	-2.789	-0.0039	-2.5 to 2.5	Pass
				10	3.70	-14.749	-0.0208	-2.5 to 2.5	Pass
				30	3.70	-14.277	-0.0202	-2.5 to 2.5	Pass
				40	3.70	-16.966	-0.0240	-2.5 to 2.5	Pass
				50	3.70	-7.467	-0.0106	-2.5 to 2.5	Pass
	713.5	25	0	20	3.15	-14.405	-0.0202	-2.5 to 2.5	Pass
					3.70	-16.594	-0.0233	-2.5 to 2.5	Pass
					4.26	-10.471	-0.0147	-2.5 to 2.5	Pass
				-30	3.70	-10.700	-0.0150	-2.5 to 2.5	Pass
				-20	3.70	-10.586	-0.0148	-2.5 to 2.5	Pass
				-10	3.70	-25.477	-0.0357	-2.5 to 2.5	Pass
				0	3.70	-5.922	-0.0083	-2.5 to 2.5	Pass
				10	3.70	-8.340	-0.0117	-2.5 to 2.5	Pass
				30	3.70	-9.255	-0.0130	-2.5 to 2.5	Pass
				40	3.70	-7.095	-0.0099	-2.5 to 2.5	Pass
				50	3.70	-21.415	-0.0300	-2.5 to 2.5	Pass
16QAM	701.5	25	0	20	3.15	-10.099	-0.0144	-2.5 to 2.5	Pass
					3.70	-7.939	-0.0113	-2.5 to 2.5	Pass
					4.26	-12.074	-0.0172	-2.5 to 2.5	Pass
				-30	3.70	-11.387	-0.0162	-2.5 to 2.5	Pass
				-20	3.70	-3.591	-0.0051	-2.5 to 2.5	Pass
				-10	3.70	-16.422	-0.0234	-2.5 to 2.5	Pass
				0	3.70	-4.191	-0.0060	-2.5 to 2.5	Pass
				10	3.70	-19.569	-0.0279	-2.5 to 2.5	Pass
				30	3.70	-14.834	-0.0211	-2.5 to 2.5	Pass
				40	3.70	-18.497	-0.0264	-2.5 to 2.5	Pass
				50	3.70	-15.678	-0.0223	-2.5 to 2.5	Pass
	707.5	25	0	20	3.15	-14.992	-0.0212	-2.5 to 2.5	Pass
					3.70	12.031	0.0170	-2.5 to 2.5	Pass
					4.26	4.835	0.0068	-2.5 to 2.5	Pass
				-30	3.70	20.928	0.0296	-2.5 to 2.5	Pass

				-20	3.70	3.448	0.0049	-2.5 to 2.5	Pass
				-10	3.70	12.131	0.0171	-2.5 to 2.5	Pass
				0	3.70	16.608	0.0235	-2.5 to 2.5	Pass
				10	3.70	21.458	0.0303	-2.5 to 2.5	Pass
				30	3.70	25.535	0.0361	-2.5 to 2.5	Pass
				40	3.70	4.563	0.0064	-2.5 to 2.5	Pass
				50	3.70	12.059	0.0170	-2.5 to 2.5	Pass
	713.5	25	0	20	3.15	5.164	0.0072	-2.5 to 2.5	Pass
					3.70	8.397	0.0118	-2.5 to 2.5	Pass
					4.26	25.992	0.0364	-2.5 to 2.5	Pass
				-30	3.70	13.776	0.0193	-2.5 to 2.5	Pass
				-20	3.70	0.501	0.0007	-2.5 to 2.5	Pass
				-10	3.70	10.600	0.0149	-2.5 to 2.5	Pass
				0	3.70	21.987	0.0308	-2.5 to 2.5	Pass
				10	3.70	-0.801	-0.0011	-2.5 to 2.5	Pass
				30	3.70	-1.602	-0.0022	-2.5 to 2.5	Pass
				40	3.70	-3.018	-0.0042	-2.5 to 2.5	Pass
				50	3.70	-1.674	-0.0023	-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	-19.956	-0.0283	-2.5 to 2.5	Pass
					3.70	-17.910	-0.0254	-2.5 to 2.5	Pass
					4.26	-22.116	-0.0314	-2.5 to 2.5	Pass
				-30	3.70	-11.072	-0.0157	-2.5 to 2.5	Pass
				-20	3.70	-20.685	-0.0294	-2.5 to 2.5	Pass
				-10	3.70	-8.440	-0.0120	-2.5 to 2.5	Pass
				0	3.70	-16.923	-0.0240	-2.5 to 2.5	Pass
				10	3.70	-19.341	-0.0275	-2.5 to 2.5	Pass
				30	3.70	-21.014	-0.0298	-2.5 to 2.5	Pass
				40	3.70	-14.691	-0.0209	-2.5 to 2.5	Pass
	707.5	50	0	50	3.70	-21.286	-0.0302	-2.5 to 2.5	Pass
				20	3.15	-18.611	-0.0263	-2.5 to 2.5	Pass
					3.70	-28.110	-0.0397	-2.5 to 2.5	Pass
					4.26	-3.662	-0.0052	-2.5 to 2.5	Pass
				-30	3.70	-15.106	-0.0214	-2.5 to 2.5	Pass
				-20	3.70	-15.121	-0.0214	-2.5 to 2.5	Pass
				-10	3.70	-18.311	-0.0259	-2.5 to 2.5	Pass
				0	3.70	-19.841	-0.0280	-2.5 to 2.5	Pass
				10	3.70	-6.809	-0.0096	-2.5 to 2.5	Pass
				30	3.70	-18.983	-0.0268	-2.5 to 2.5	Pass
	711	50	0	40	3.70	-23.489	-0.0332	-2.5 to 2.5	Pass
				50	3.70	-14.563	-0.0206	-2.5 to 2.5	Pass
				20	3.15	-17.395	-0.0245	-2.5 to 2.5	Pass
					3.70	-18.482	-0.0260	-2.5 to 2.5	Pass
					4.26	-22.087	-0.0311	-2.5 to 2.5	Pass
				-30	3.70	-11.716	-0.0165	-2.5 to 2.5	Pass
				-20	3.70	-19.727	-0.0277	-2.5 to 2.5	Pass
				-10	3.70	-21.544	-0.0303	-2.5 to 2.5	Pass
				0	3.70	-9.756	-0.0137	-2.5 to 2.5	Pass
				10	3.70	-15.950	-0.0224	-2.5 to 2.5	Pass
16QAM	704	50	0	20	3.15	-0.415	-0.0006	-2.5 to 2.5	Pass
					3.70	-0.415	-0.0006	-2.5 to 2.5	Pass

					3.70	2.046	0.0029	-2.5 to 2.5	Pass
					4.26	3.104	0.0044	-2.5 to 2.5	Pass
				-30	3.70	3.219	0.0046	-2.5 to 2.5	Pass
				-20	3.70	3.662	0.0052	-2.5 to 2.5	Pass
				-10	3.70	2.232	0.0032	-2.5 to 2.5	Pass
				0	3.70	1.616	0.0023	-2.5 to 2.5	Pass
				10	3.70	0.000	0.0000	-2.5 to 2.5	Pass
				30	3.70	-0.830	-0.0012	-2.5 to 2.5	Pass
				40	3.70	-2.089	-0.0030	-2.5 to 2.5	Pass
				50	3.70	3.619	0.0051	-2.5 to 2.5	Pass
	707.5	50	0	20	3.15	-5.937	-0.0084	-2.5 to 2.5	Pass
					3.70	-6.738	-0.0095	-2.5 to 2.5	Pass
					4.26	-0.486	-0.0007	-2.5 to 2.5	Pass
				-30	3.70	-2.403	-0.0034	-2.5 to 2.5	Pass
				-20	3.70	-6.223	-0.0088	-2.5 to 2.5	Pass
				-10	3.70	-0.086	-0.0001	-2.5 to 2.5	Pass
				0	3.70	-3.490	-0.0049	-2.5 to 2.5	Pass
				10	3.70	-7.653	-0.0108	-2.5 to 2.5	Pass
				30	3.70	-2.646	-0.0037	-2.5 to 2.5	Pass
				40	3.70	-2.861	-0.0040	-2.5 to 2.5	Pass
				50	3.70	-4.120	-0.0058	-2.5 to 2.5	Pass
	711	50	0	20	3.15	2.375	0.0033	-2.5 to 2.5	Pass
					3.70	-1.659	-0.0023	-2.5 to 2.5	Pass
					4.26	0.558	0.0008	-2.5 to 2.5	Pass
				-30	3.70	-5.078	-0.0071	-2.5 to 2.5	Pass
				-20	3.70	-3.061	-0.0043	-2.5 to 2.5	Pass
				-10	3.70	0.644	0.0009	-2.5 to 2.5	Pass
				0	3.70	2.961	0.0042	-2.5 to 2.5	Pass
				10	3.70	-3.662	-0.0052	-2.5 to 2.5	Pass
				30	3.70	-0.272	-0.0004	-2.5 to 2.5	Pass
				40	3.70	1.717	0.0024	-2.5 to 2.5	Pass
				50	3.70	-4.478	-0.0063	-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 / NTV						
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

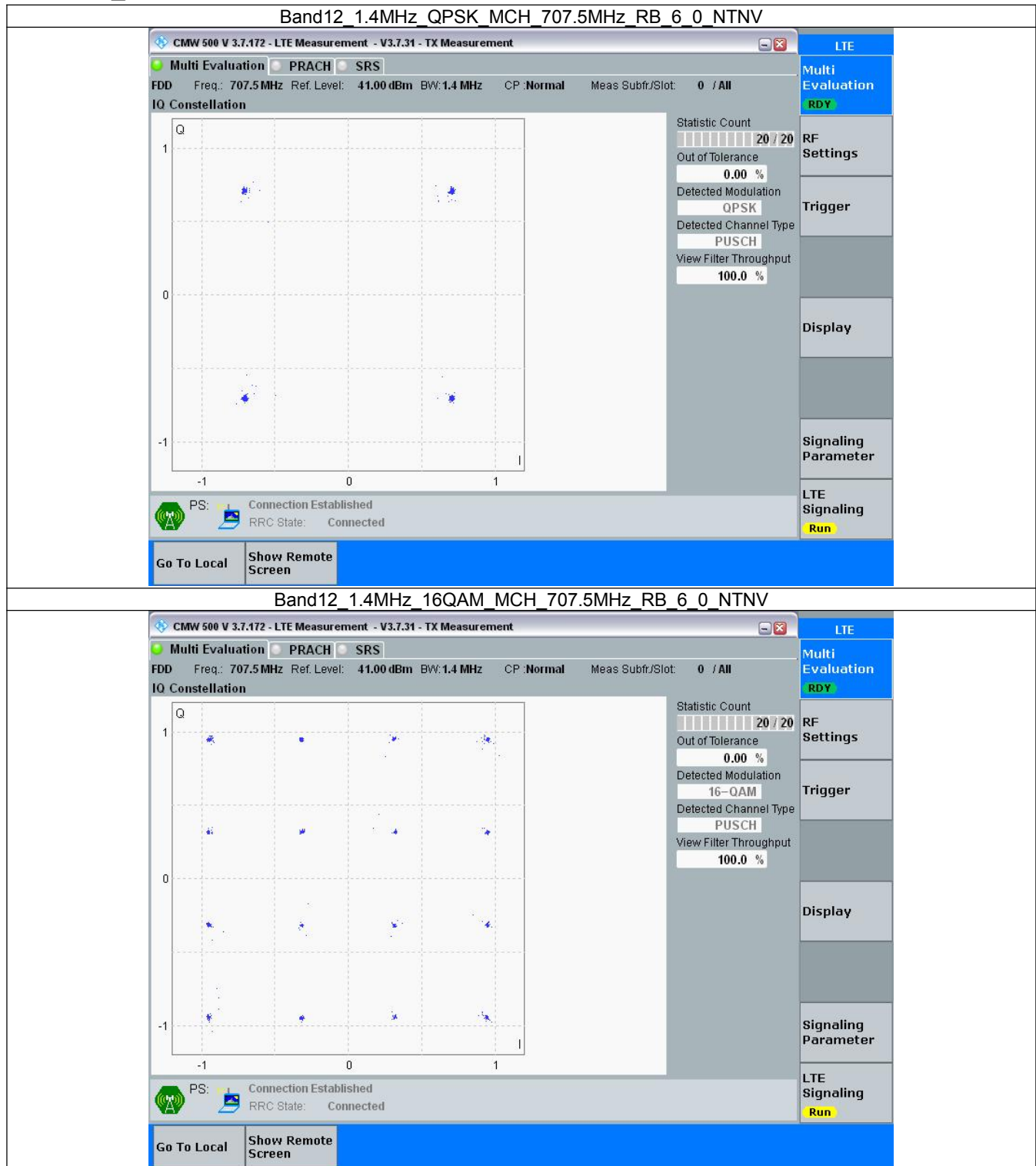
Band: 12 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	707.5	25	0	Refer To Test Graph		Pass
16QAM	707.5	25	0	Refer To Test Graph		Pass

3.1.4 B12_10MHz

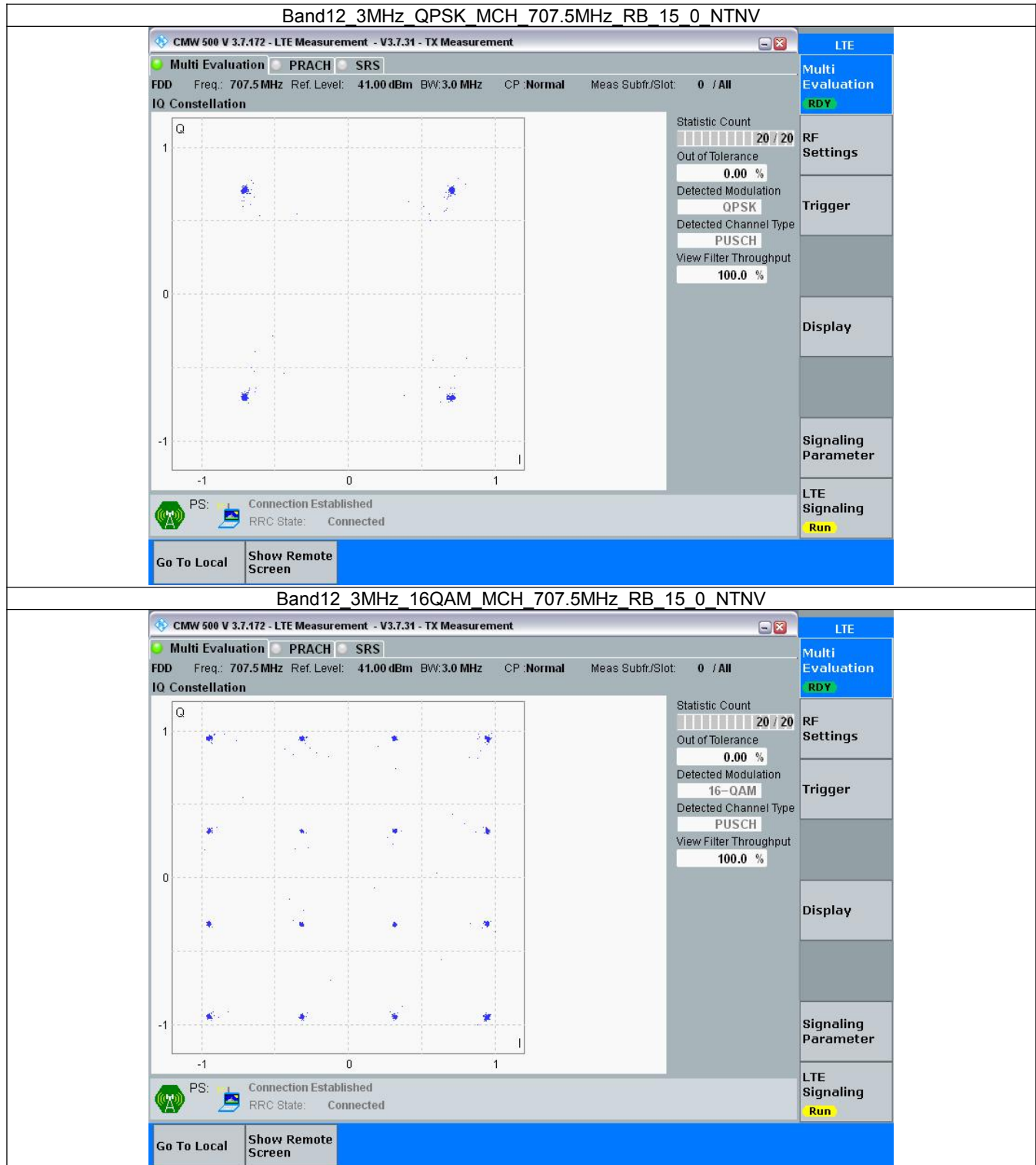
Band: 12 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	707.5	50	0	Refer To Test Graph		Pass
16QAM	707.5	50	0	Refer To Test Graph		Pass

3.2 Test Graph

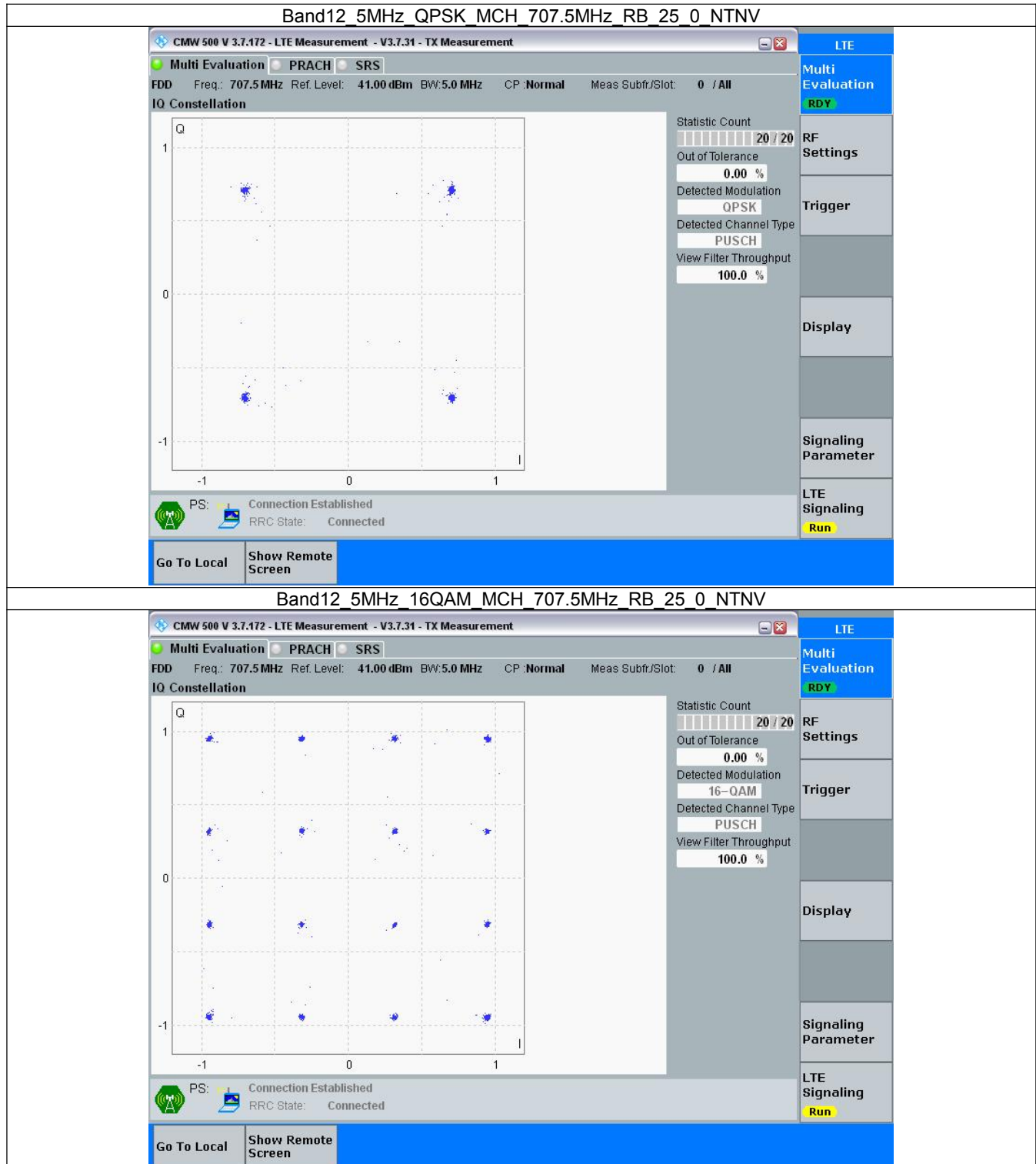
3.2.1 B12_1.4MHz



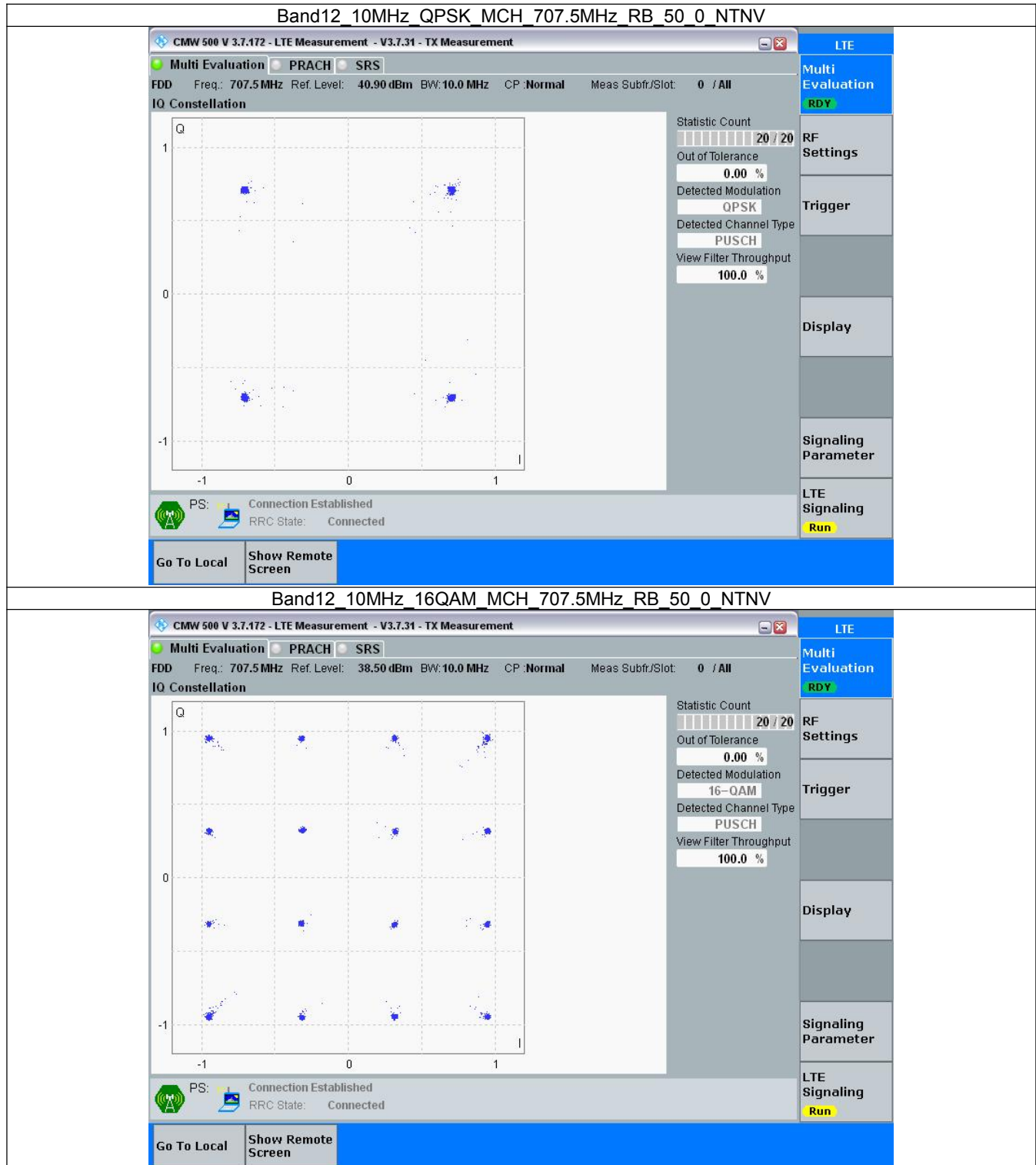
3.2.2 B12_3MHz



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	1.107	/	Pass
		707.5	6	0	1.118	/	Pass
		715.3	6	0	1.104	/	Pass
	16QAM	699.7	6	0	1.109	/	Pass
		707.5	6	0	1.111	/	Pass
		715.3	6	0	1.102	/	Pass
3	QPSK	700.5	15	0	2.740	/	Pass
		707.5	15	0	2.729	/	Pass
		714.5	15	0	2.740	/	Pass
	16QAM	700.5	15	0	2.728	/	Pass
		707.5	15	0	2.727	/	Pass
		714.5	15	0	2.727	/	Pass
5	QPSK	701.5	25	0	4.564	/	Pass
		707.5	25	0	4.517	/	Pass
		713.5	25	0	4.527	/	Pass
	16QAM	701.5	25	0	4.532	/	Pass
		707.5	25	0	4.527	/	Pass
		713.5	25	0	4.530	/	Pass
10	QPSK	704	50	0	9.037	/	Pass
		707.5	50	0	9.014	/	Pass
		711	50	0	8.991	/	Pass
	16QAM	704	50	0	9.032	/	Pass
		707.5	50	0	9.047	/	Pass
		711	50	0	9.056	/	Pass

4.1.2 Band12_XDB

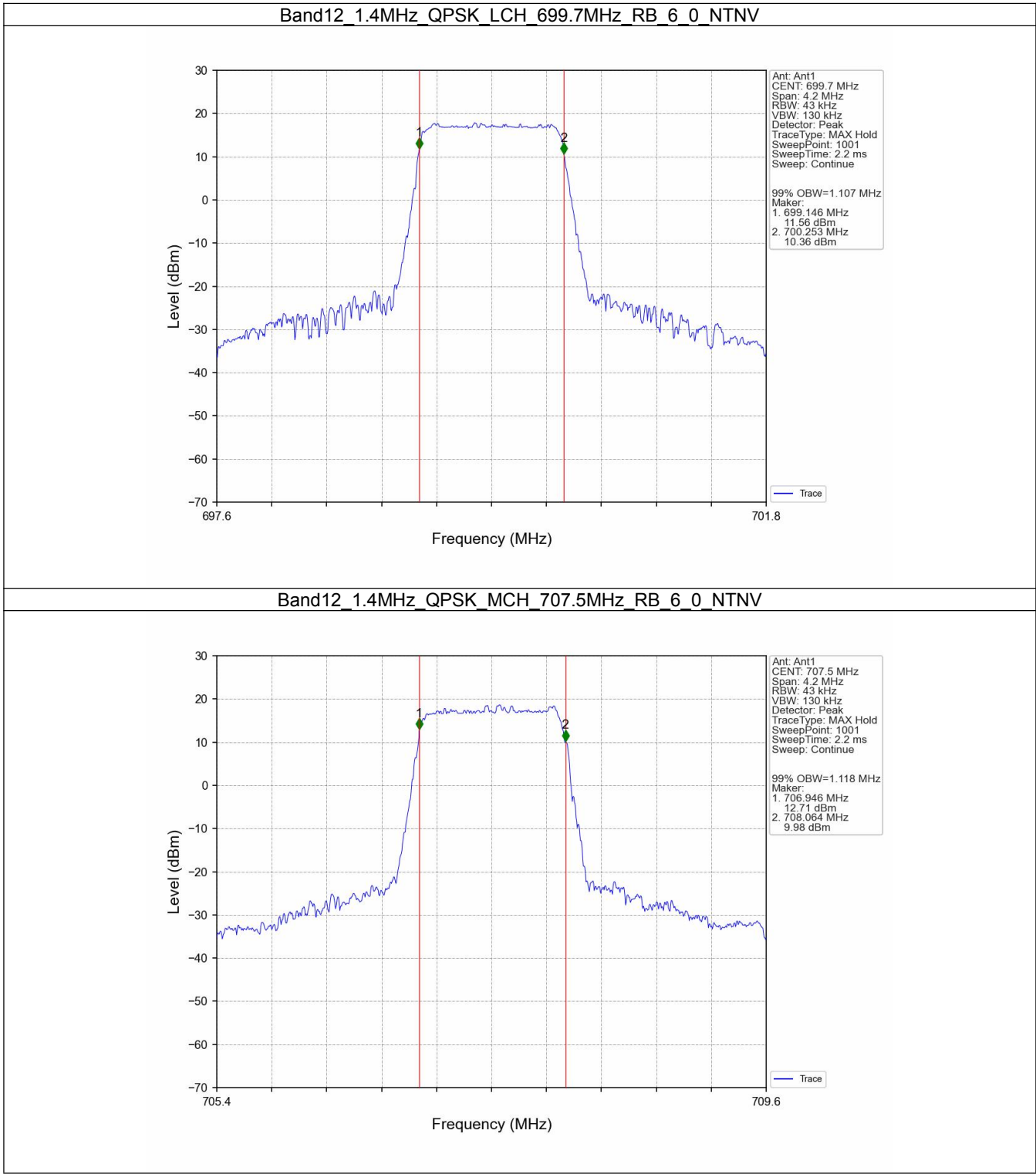
Band: 12 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	699.7	6	0	1.298	/	Pass
		707.5	6	0	1.292	/	Pass
		715.3	6	0	1.297	/	Pass
	16QAM	699.7	6	0	1.288	/	Pass
		707.5	6	0	1.310	/	Pass
		715.3	6	0	1.286	/	Pass
3	QPSK	700.5	15	0	3.009	/	Pass
		707.5	15	0	3.020	/	Pass
		714.5	15	0	3.004	/	Pass
	16QAM	700.5	15	0	3.024	/	Pass
		707.5	15	0	3.017	/	Pass
		714.5	15	0	3.024	/	Pass
5	QPSK	701.5	25	0	5.059	/	Pass
		707.5	25	0	4.994	/	Pass
		713.5	25	0	5.009	/	Pass

Model: MDPT3301LE

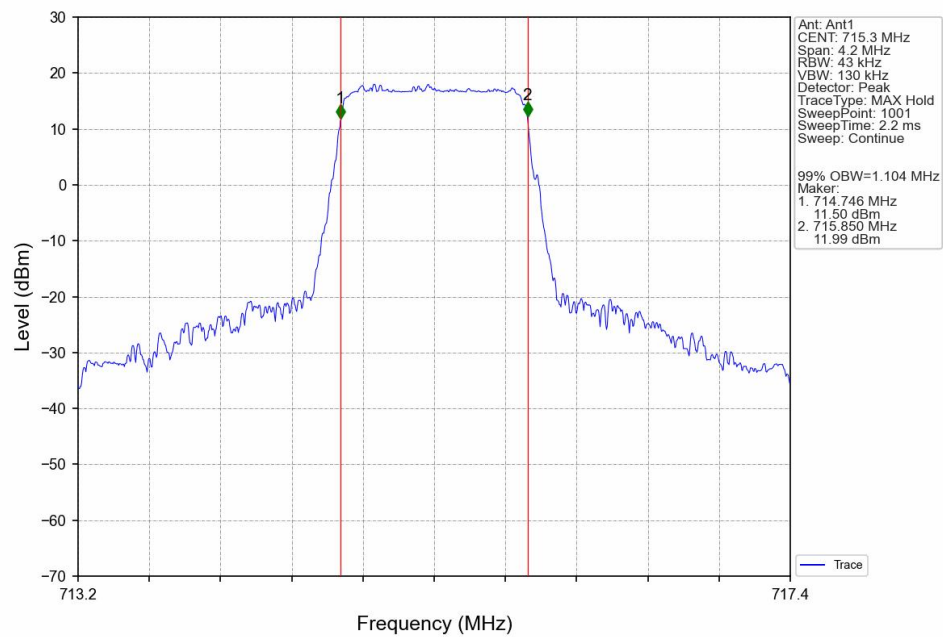
10	16QAM	701.5	25	0	5.013	/	Pass
		707.5	25	0	5.053	/	Pass
		713.5	25	0	5.031	/	Pass
	QPSK	704	50	0	9.934	/	Pass
		707.5	50	0	9.837	/	Pass
		711	50	0	9.926	/	Pass
	16QAM	704	50	0	9.936	/	Pass
		707.5	50	0	9.984	/	Pass
		711	50	0	9.975	/	Pass

4.2 Test Graph

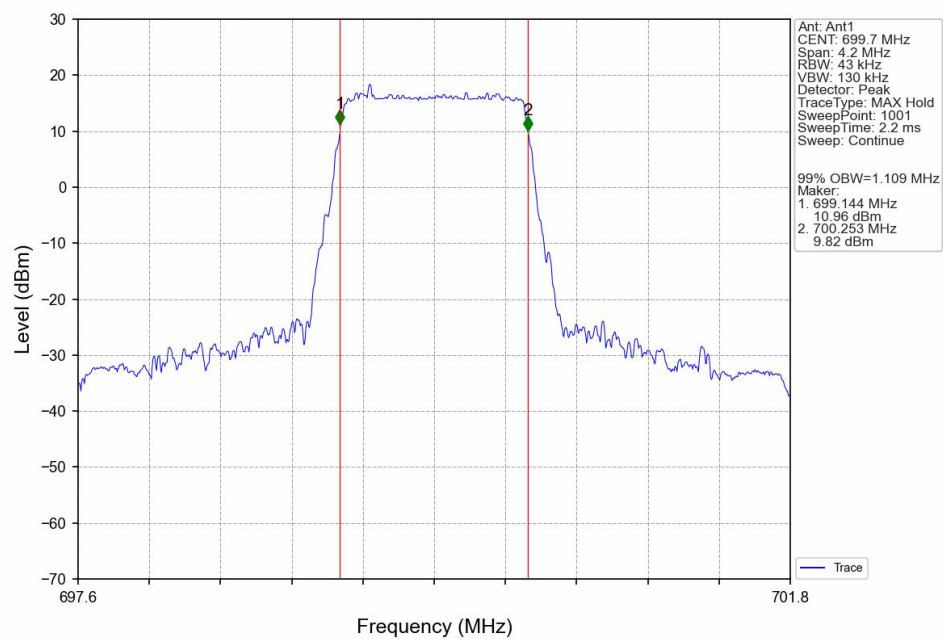
4.2.1 Band12_OBW



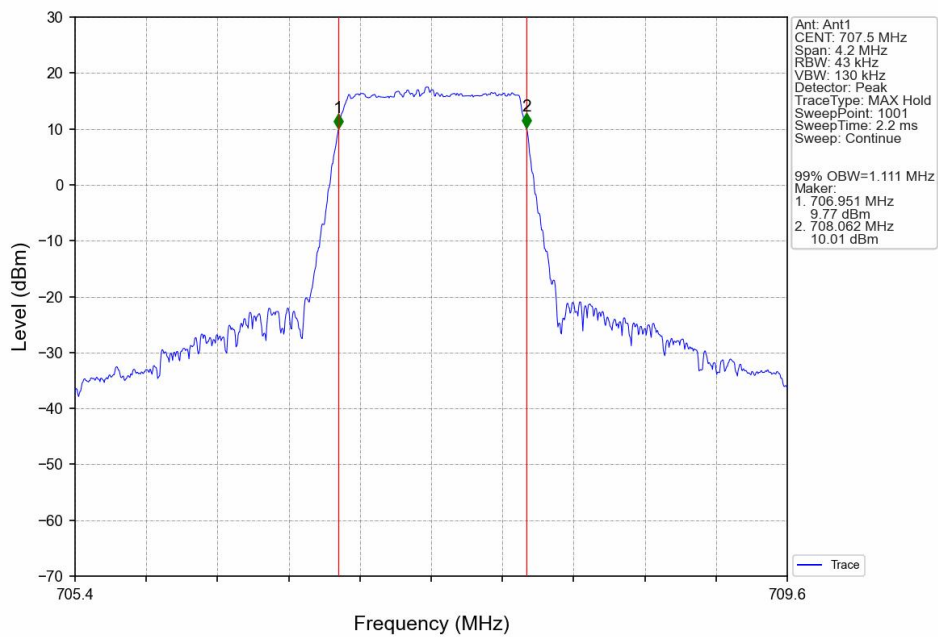
Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



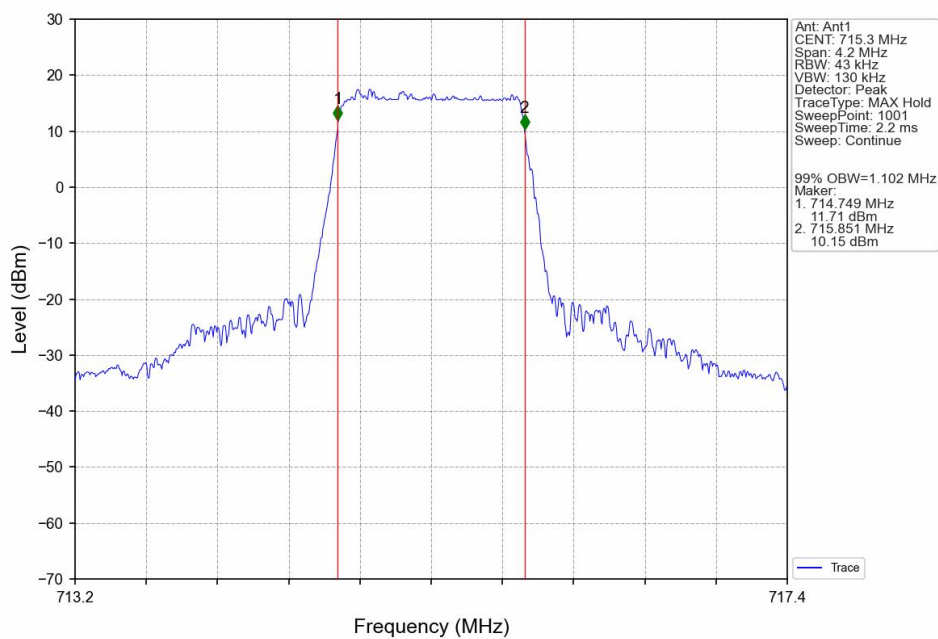
Band12_1.4MHz_16QAM_LCH_699.7MHz_RB_6_0_NTNV



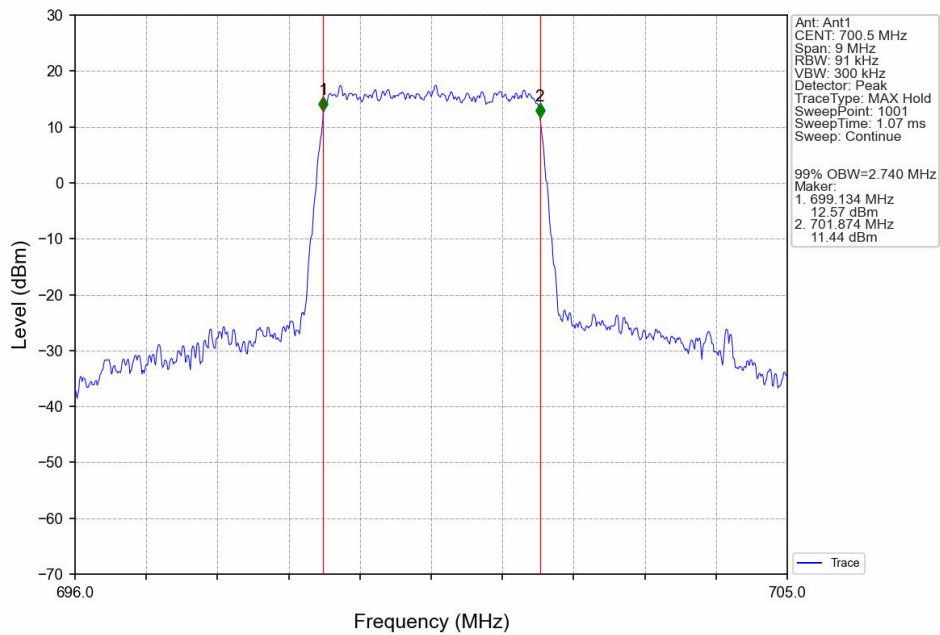
Band12_1.4MHz_16QAM_MCH_707.5MHz_RB_6_0_NTNV



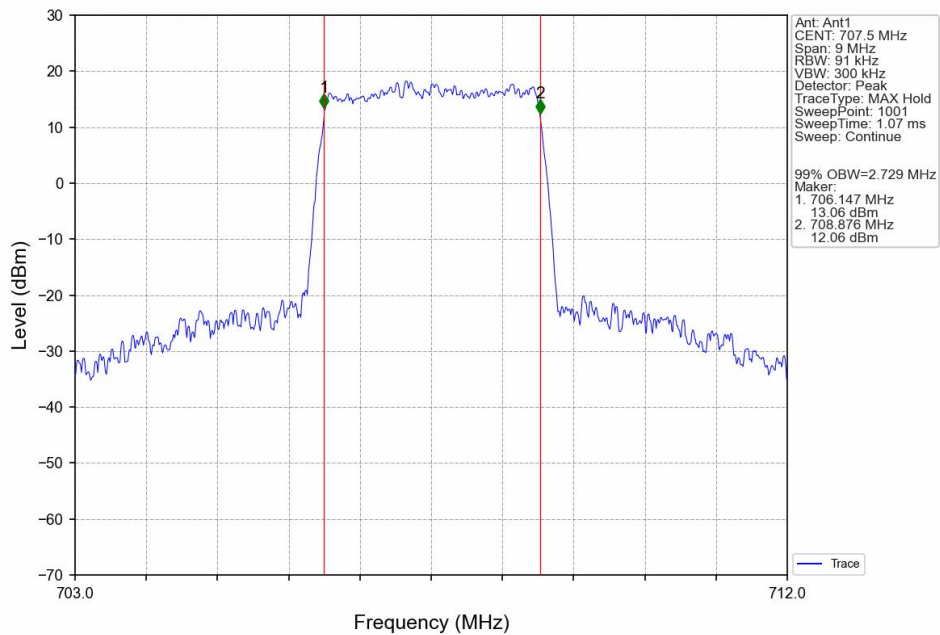
Band12_1.4MHz_16QAM_HCH_715.3MHz_RB_6_0_NTNV



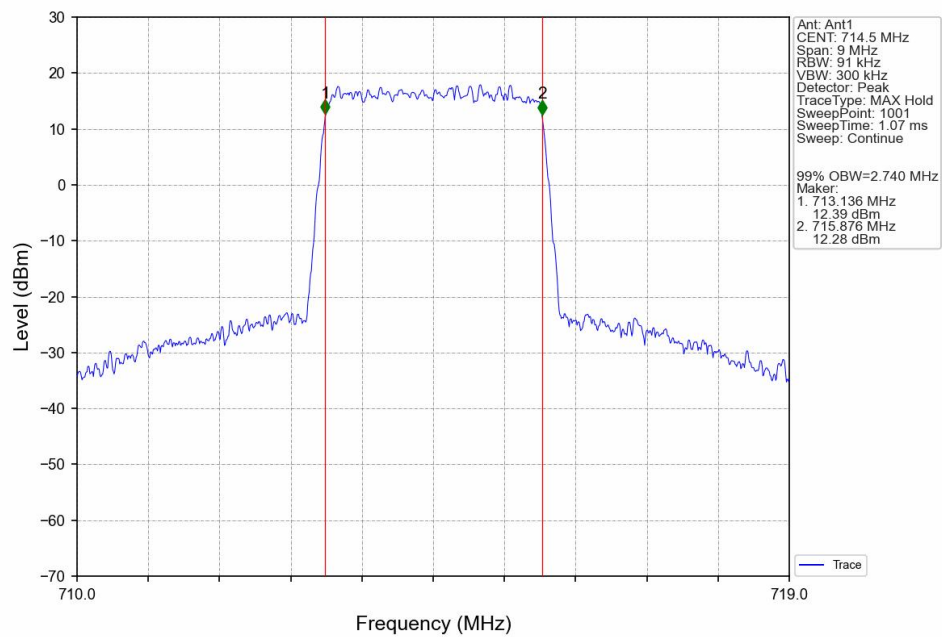
Band12_3MHz_QPSK_LCH_700.5MHz_RB_15_0_NTNV



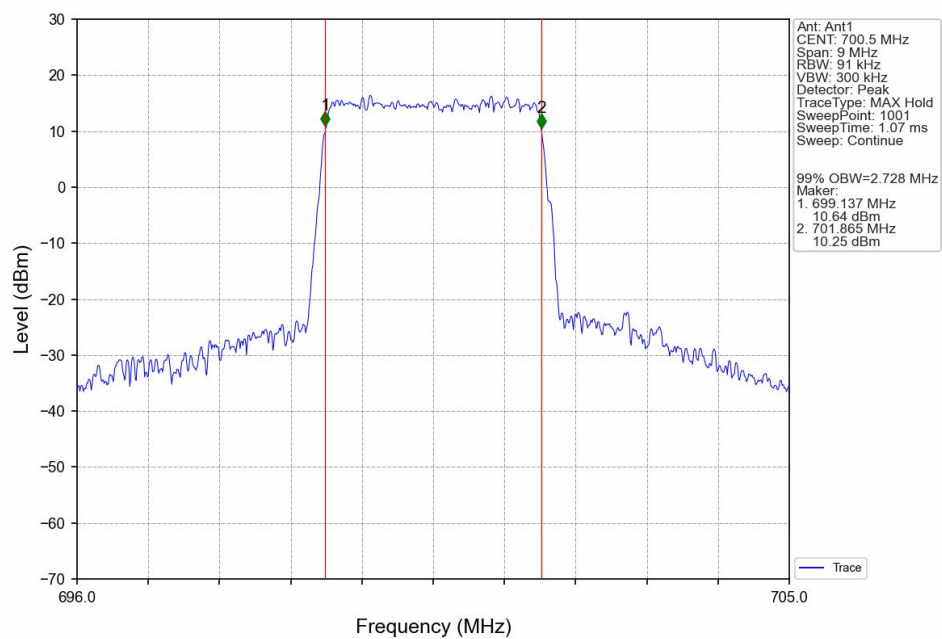
Band12_3MHz_QPSK_MCH_707.5MHz_RB_15_0_NTNV



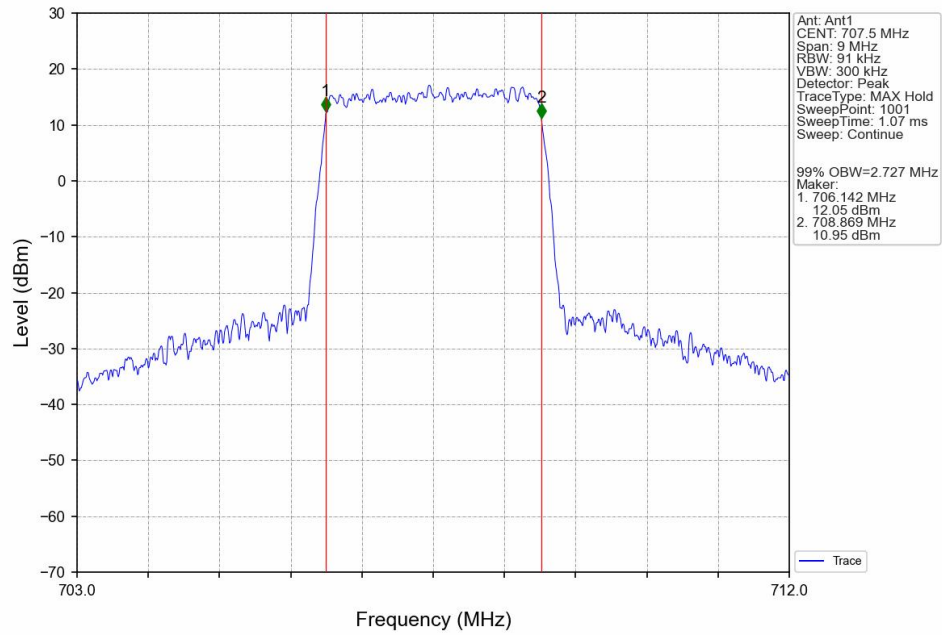
Band12_3MHz_QPSK_HCH_714.5MHz_RB_15_0_NTNV



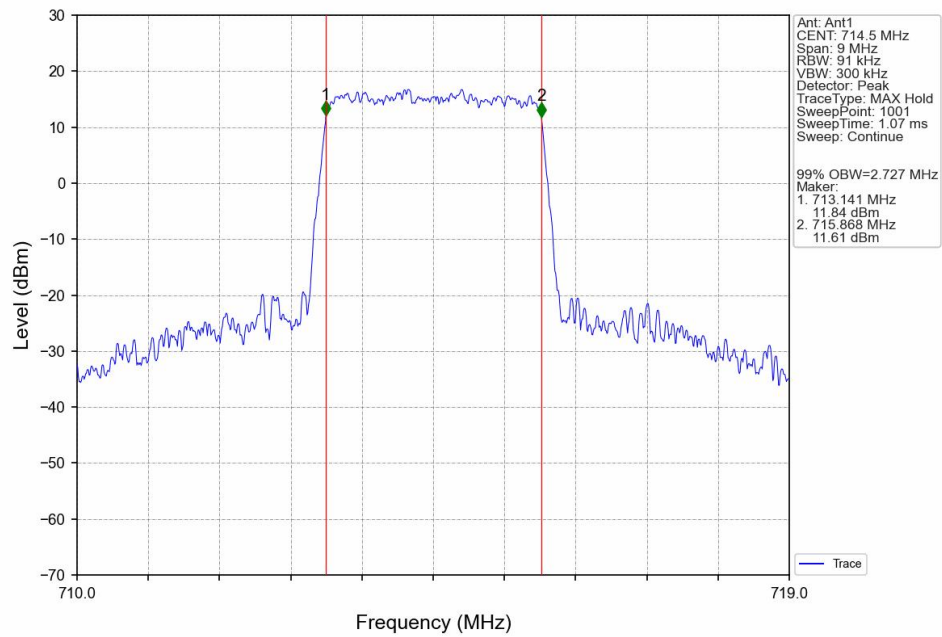
Band12_3MHz_16QAM_LCH_700.5MHz_RB_15_0_NTNV



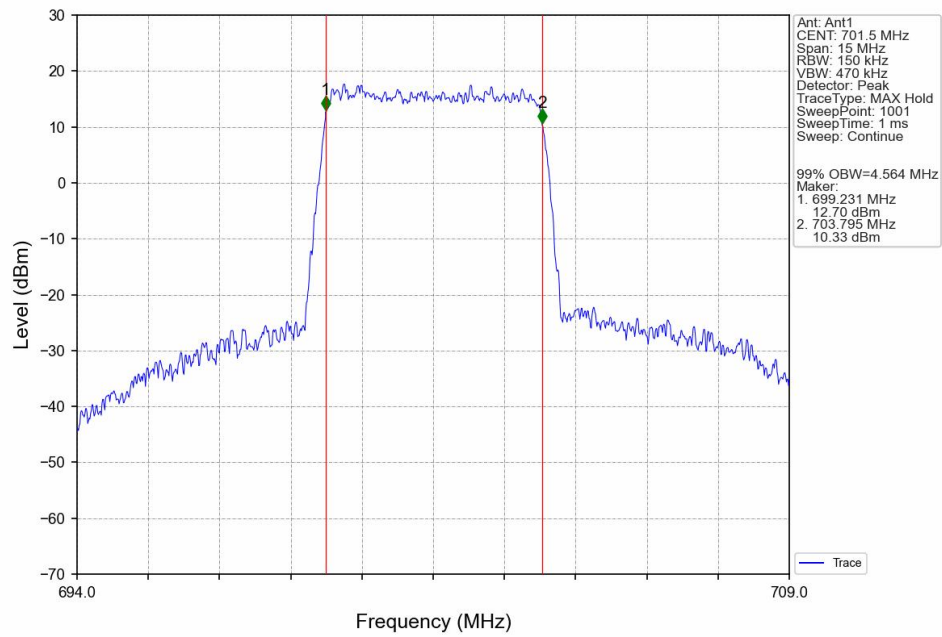
Band12_3MHz_16QAM_MCH_707.5MHz_RB_15_0_NTNV



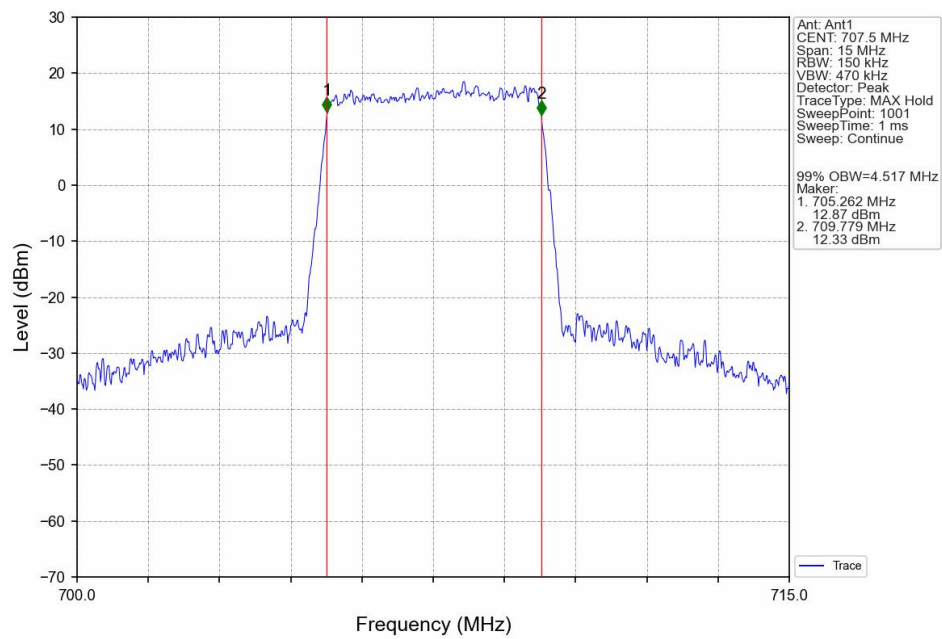
Band12_3MHz_16QAM_HCH_714.5MHz_RB_15_0_NTNV



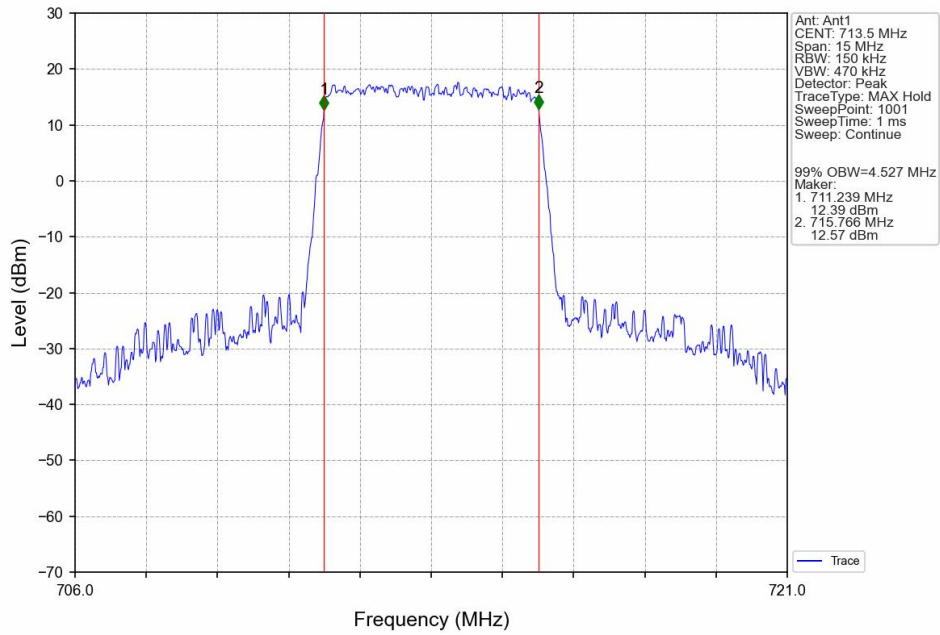
Band12_5MHz_QPSK_LCH_701.5MHz_RB_25_0_NTNV



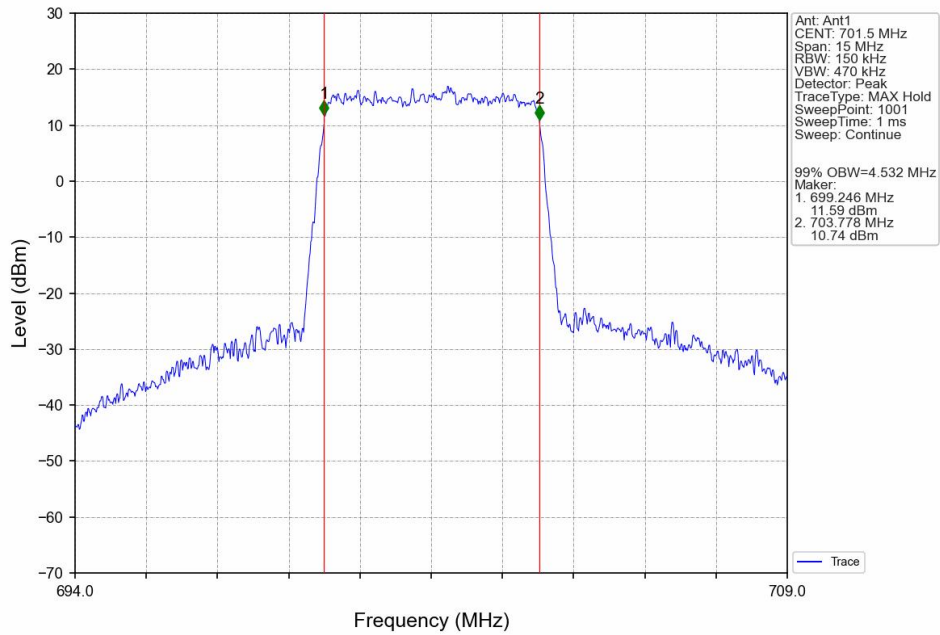
Band12_5MHz_QPSK_MCH_707.5MHz_RB_25_0_NTNV



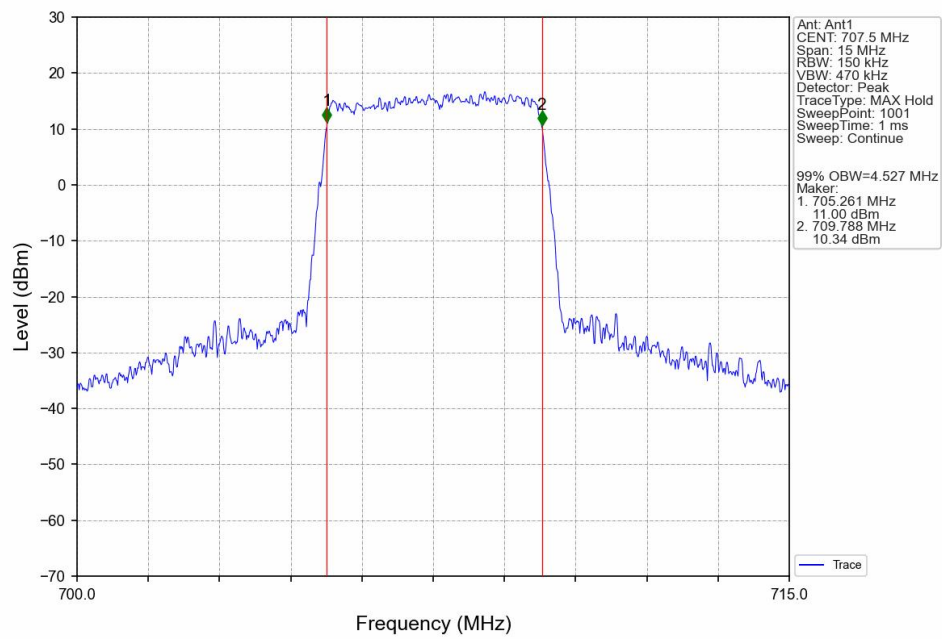
Band12_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



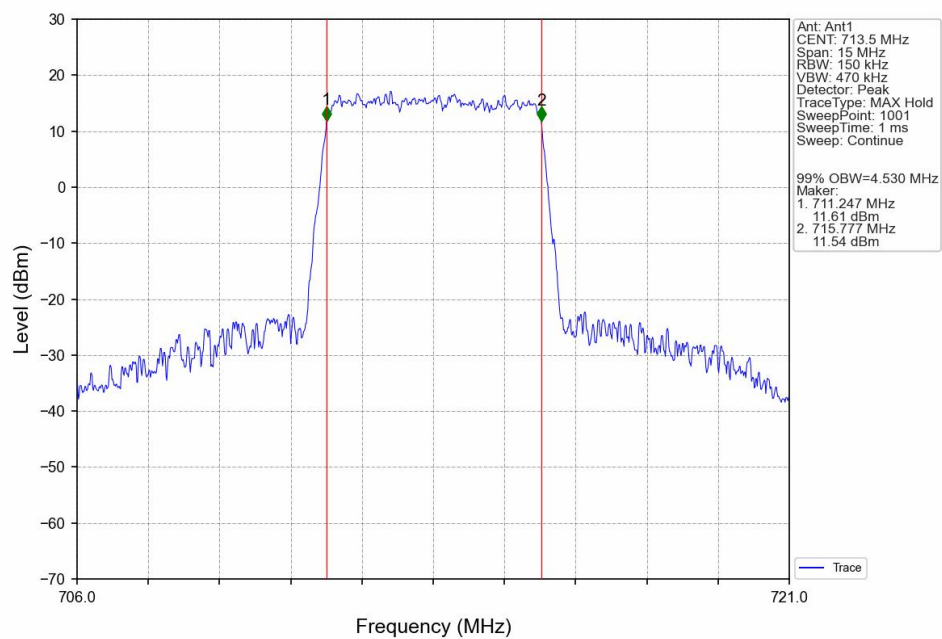
Band12_5MHz_16QAM_LCH_701.5MHz_RB_25_0_NTNV



Band12_5MHz_16QAM_MCH_707.5MHz_RB_25_0_NTNV

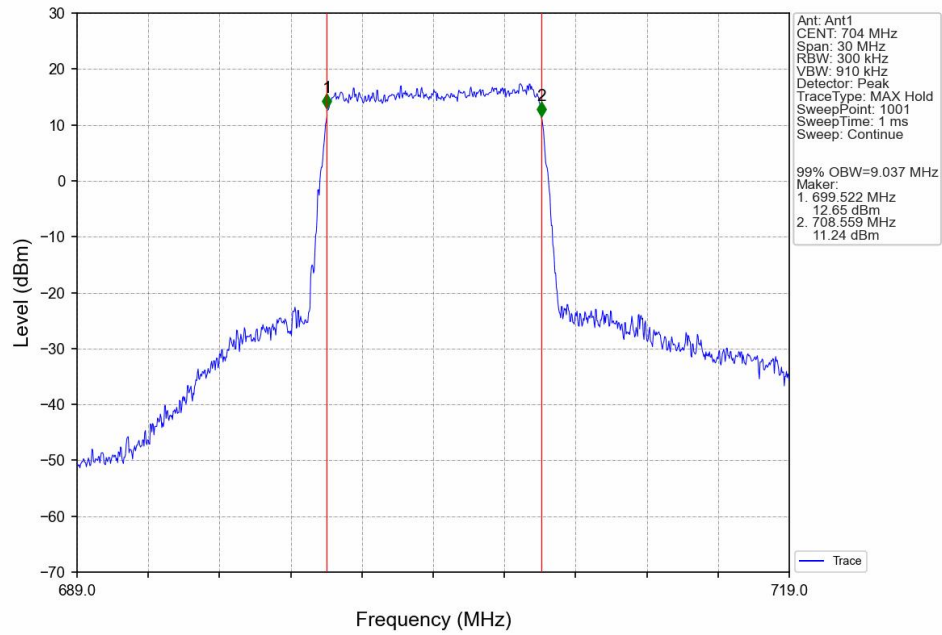


Band12_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV

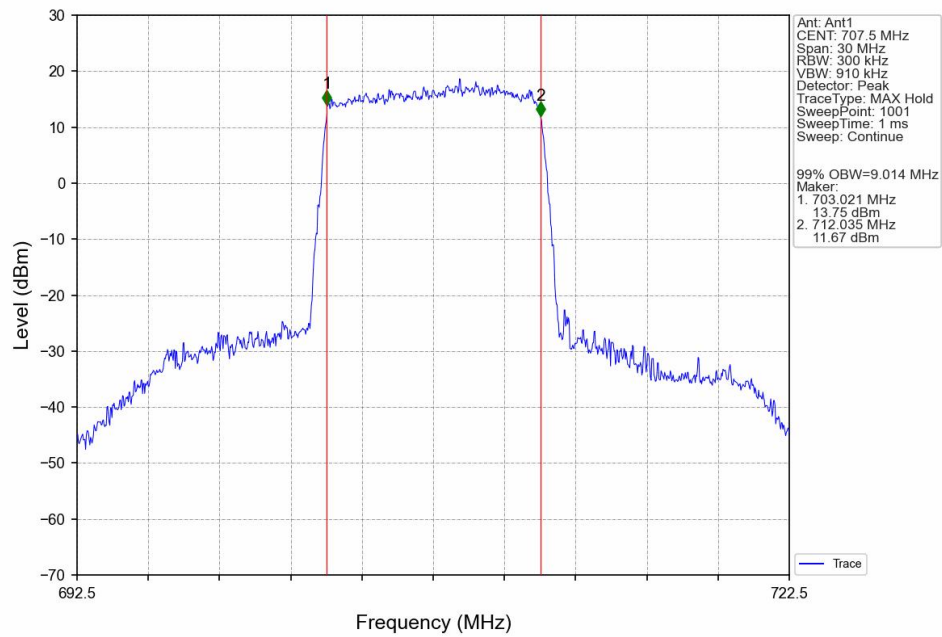


Model: MDPT3301LE

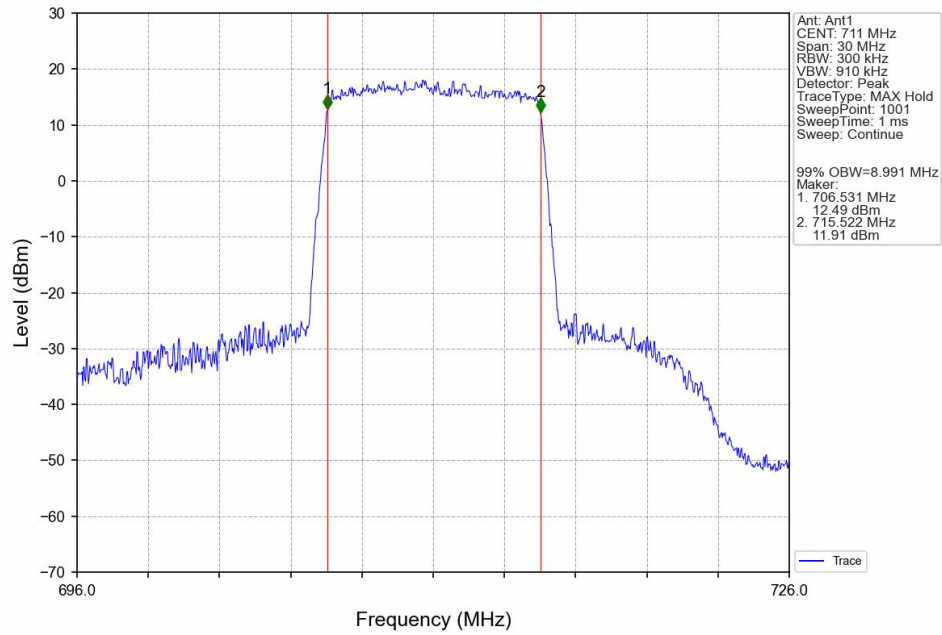
Band12_10MHz_QPSK_LCH_704MHz_RB_50_0_NTNV



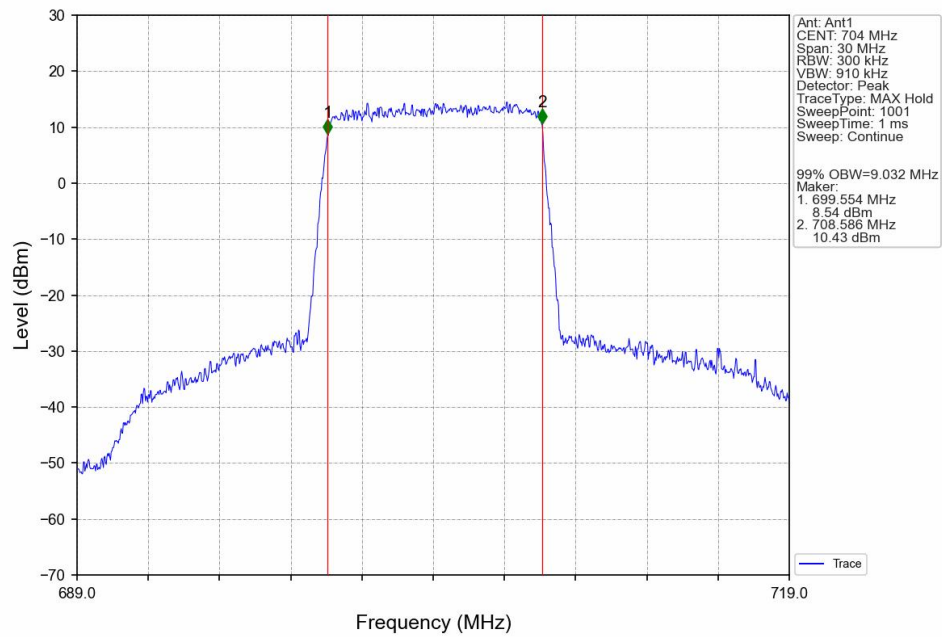
Band12_10MHz_QPSK_MCH_707.5MHz_RB_50_0_NTNV



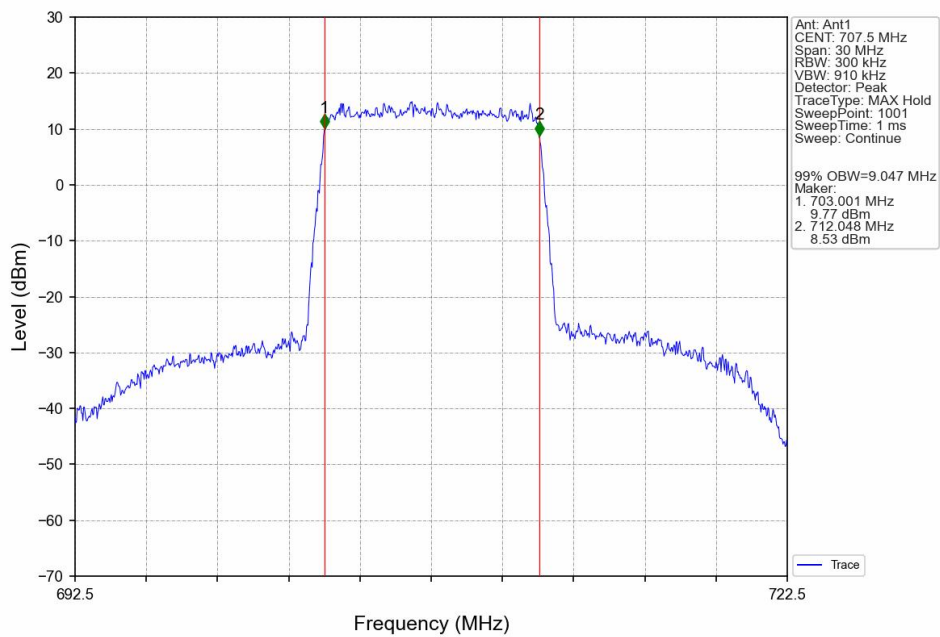
Band12_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



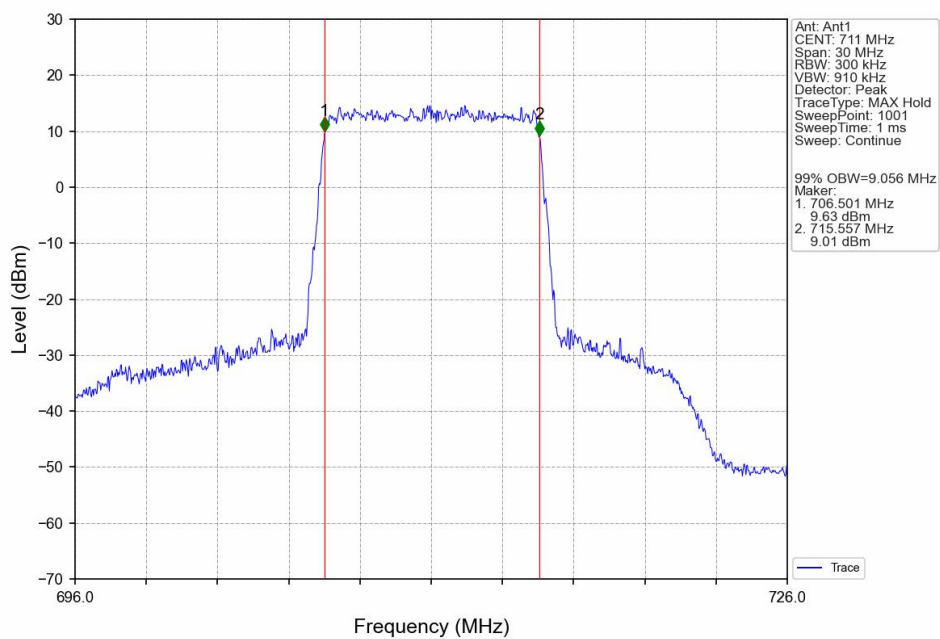
Band12_10MHz_16QAM_LCH_704MHz_RB_50_0_NTNV



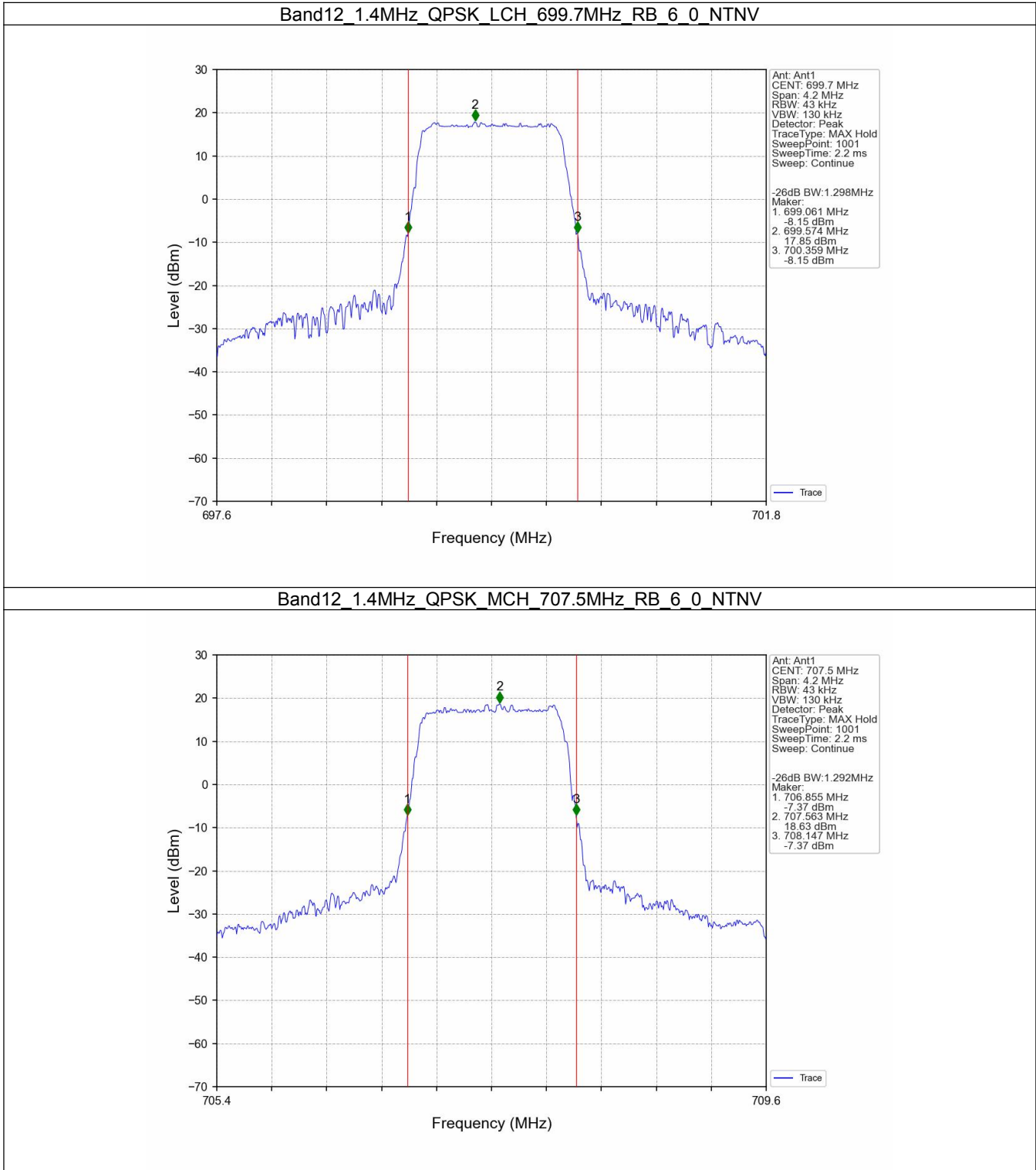
Band12_10MHz_16QAM_MCH_707.5MHz_RB_50_0_NTNV



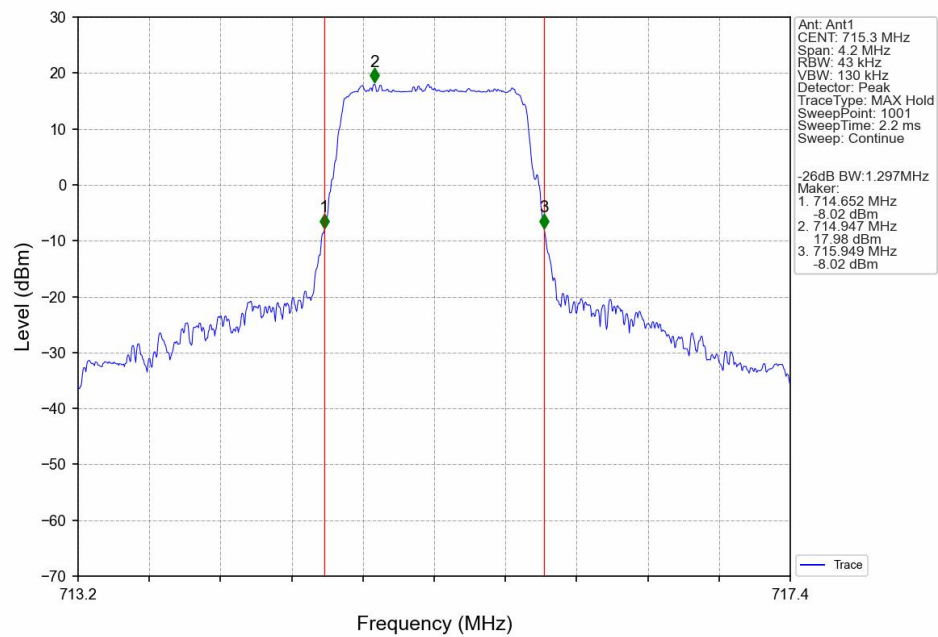
Band12_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV



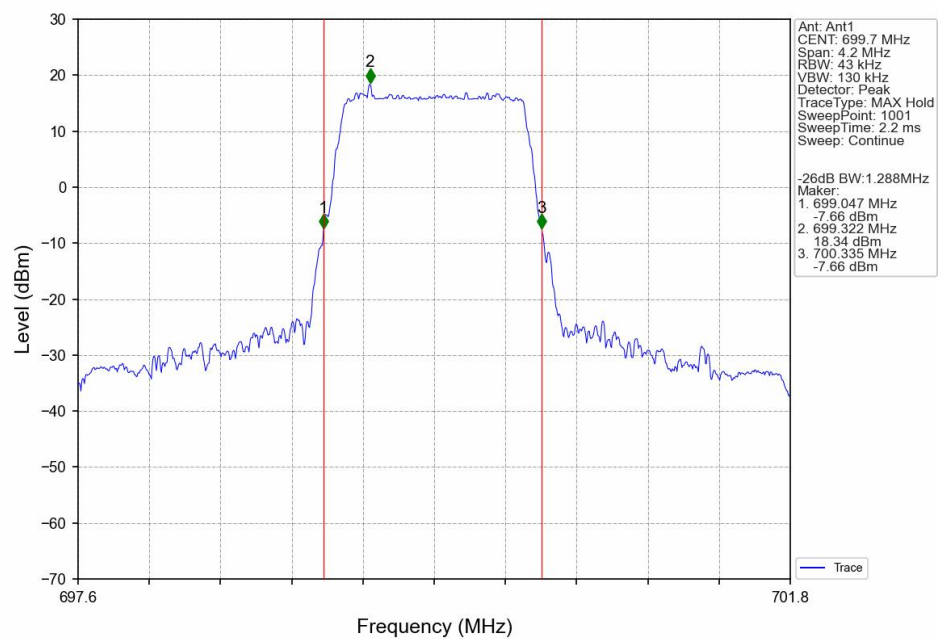
4.2.2 Band12_XDB



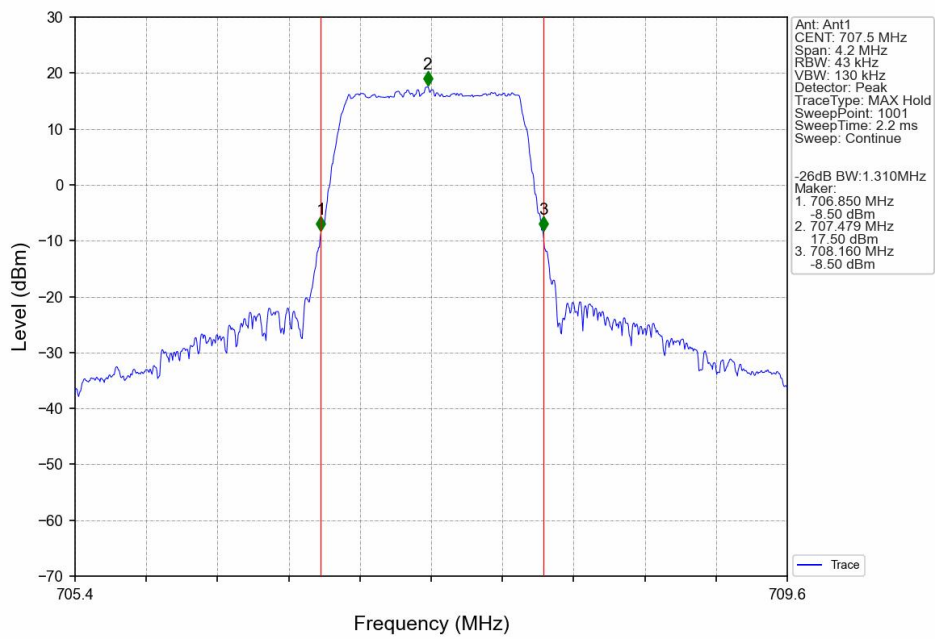
Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



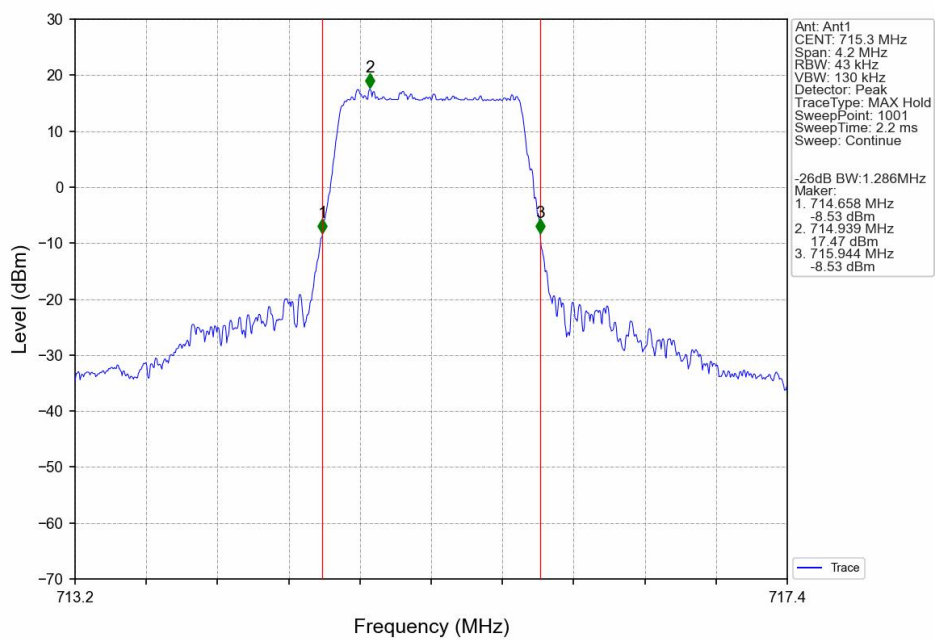
Band12_1.4MHz_16QAM_LCH_699.7MHz_RB_6_0_NTNV



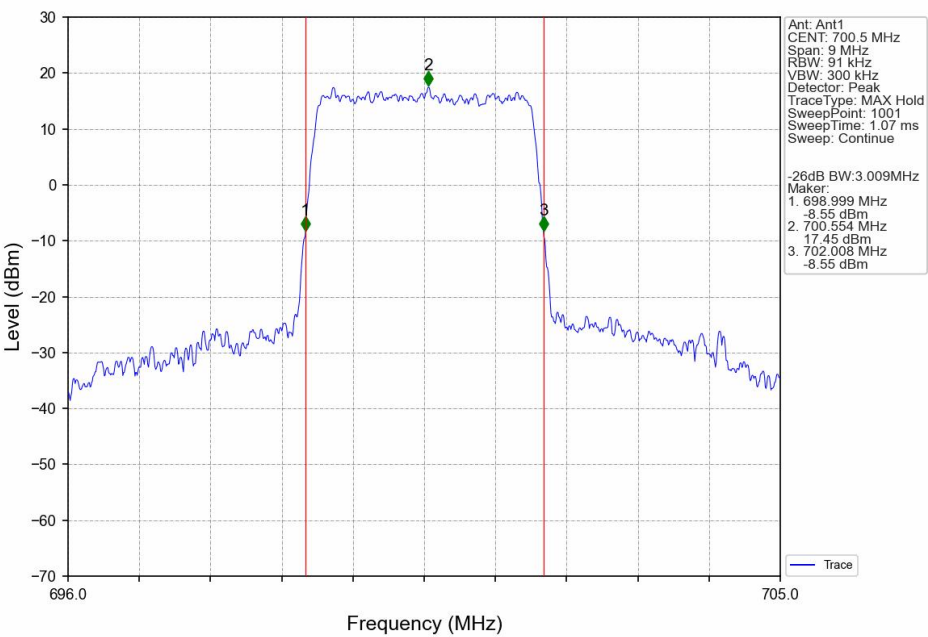
Band12_1.4MHz_16QAM_MCH_707.5MHz_RB_6_0_NTNV



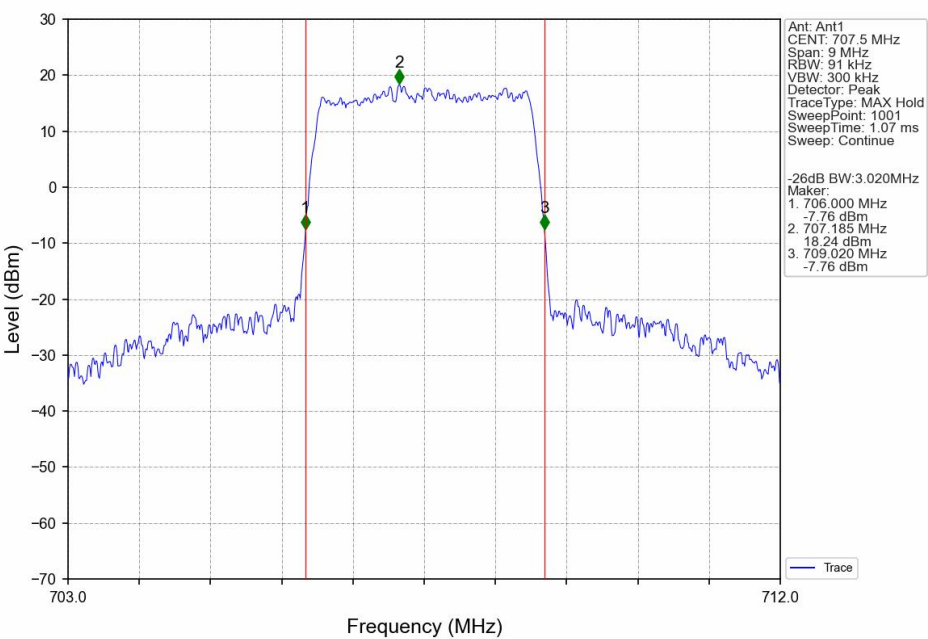
Band12_1.4MHz_16QAM_HCH_715.3MHz_RB_6_0_NTNV



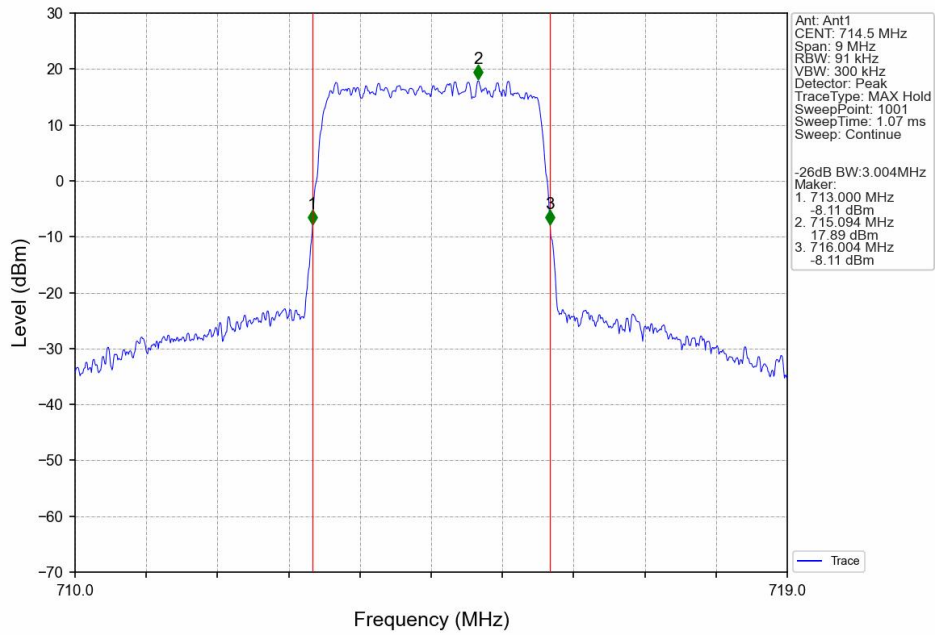
Band12_3MHz_QPSK_LCH_700.5MHz_RB_15_0_NTNV



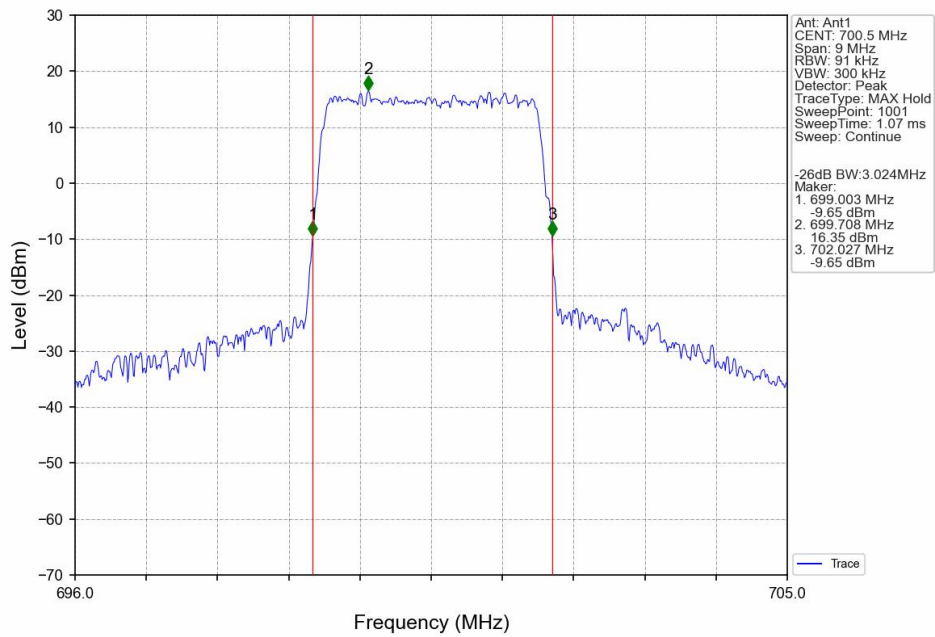
Band12_3MHz_QPSK_MCH_707.5MHz_RB_15_0_NTNV



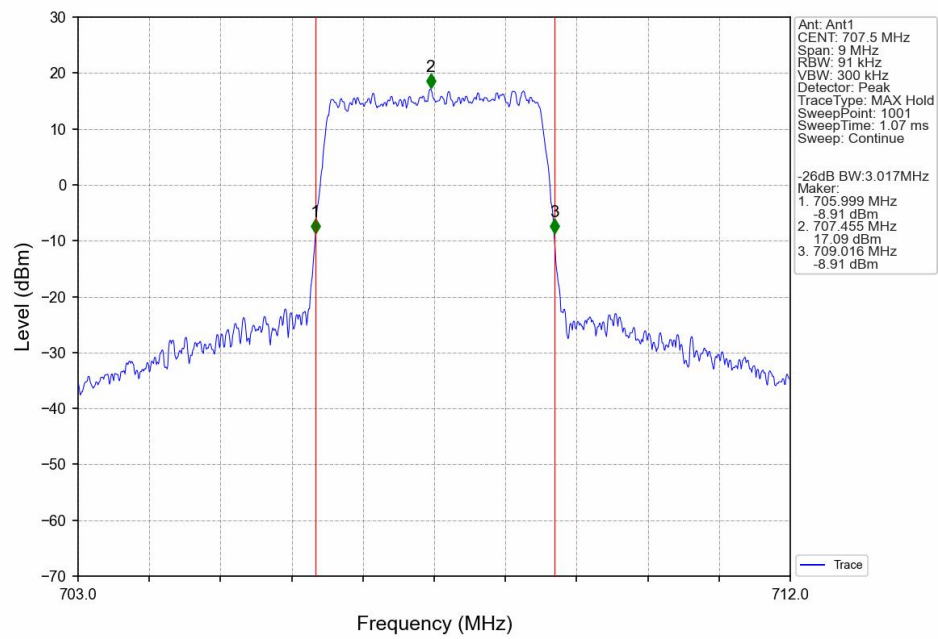
Band12_3MHz_QPSK_HCH_714.5MHz_RB_15_0_NTNV



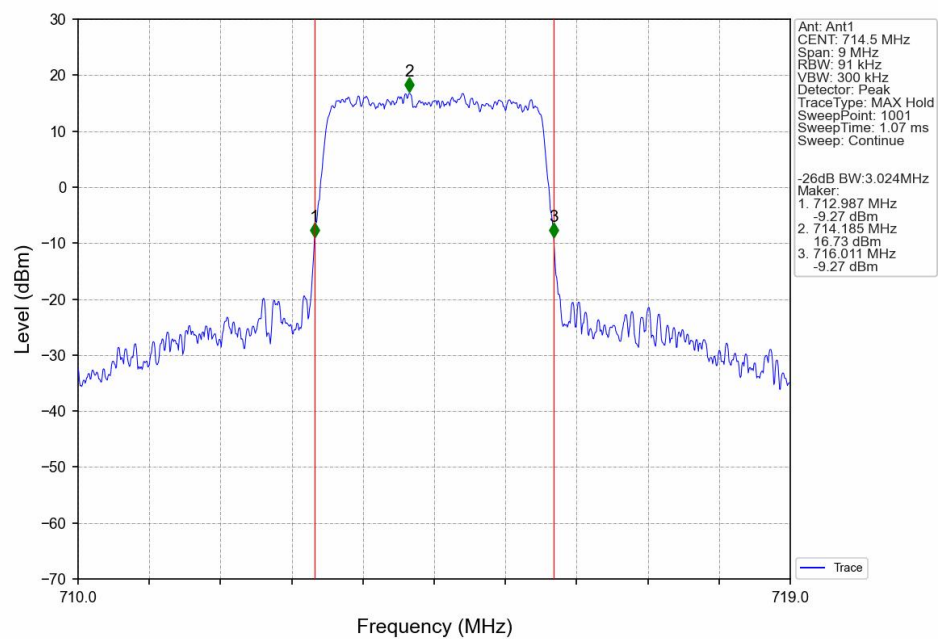
Band12_3MHz_16QAM_LCH_700.5MHz_RB_15_0_NTNV



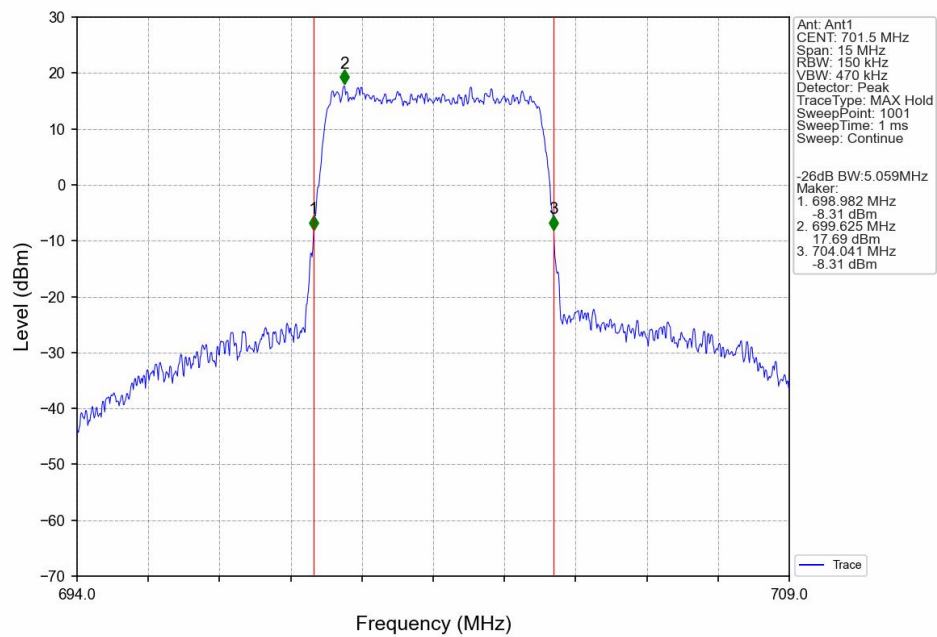
Band12_3MHz_16QAM_MCH_707.5MHz_RB_15_0_NTNV



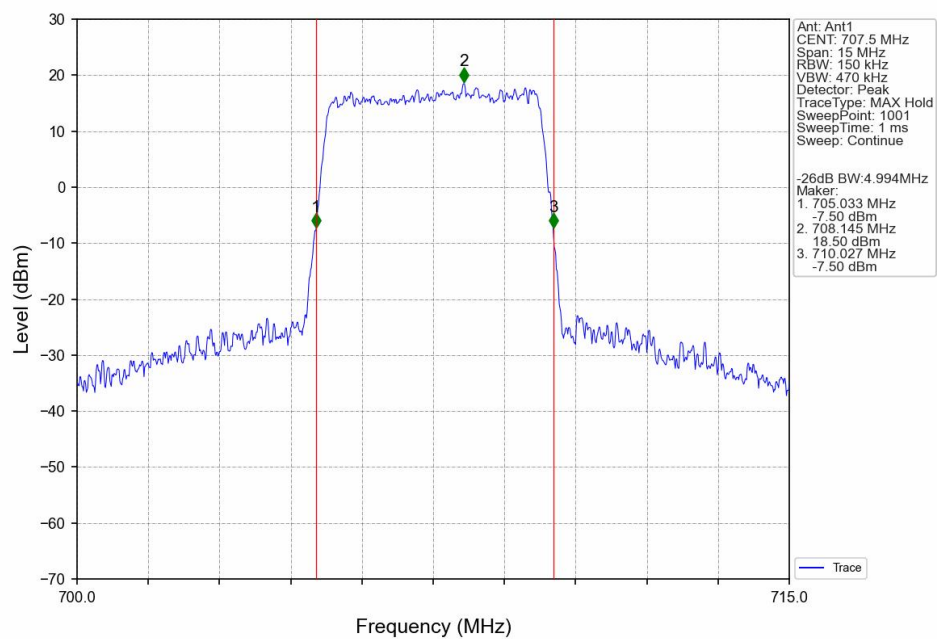
Band12_3MHz_16QAM_HCH_714.5MHz_RB_15_0_NTNV



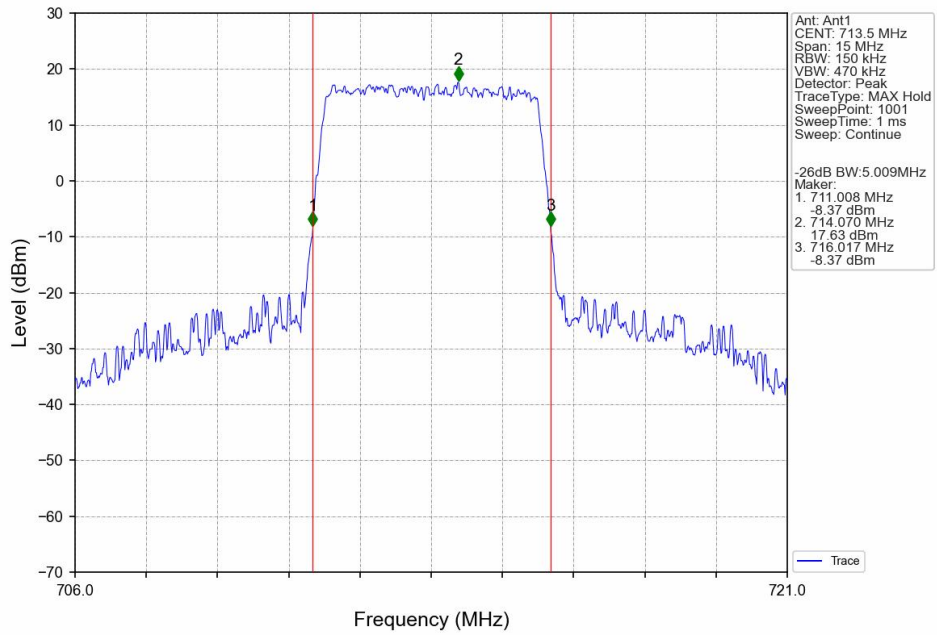
Band12_5MHz_QPSK_LCH_701.5MHz_RB_25_0_NTNV



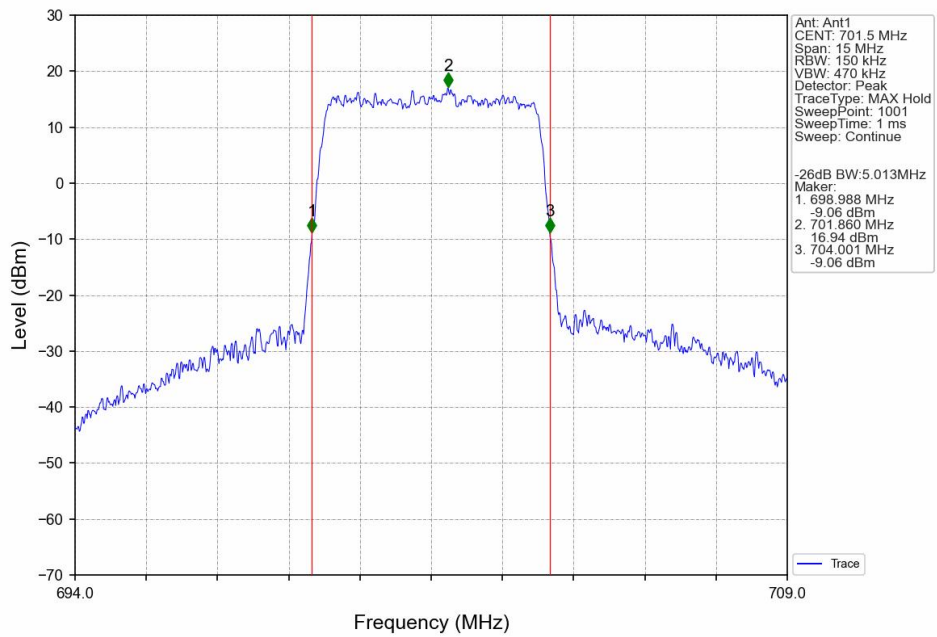
Band12_5MHz_QPSK_MCH_707.5MHz_RB_25_0_NTNV



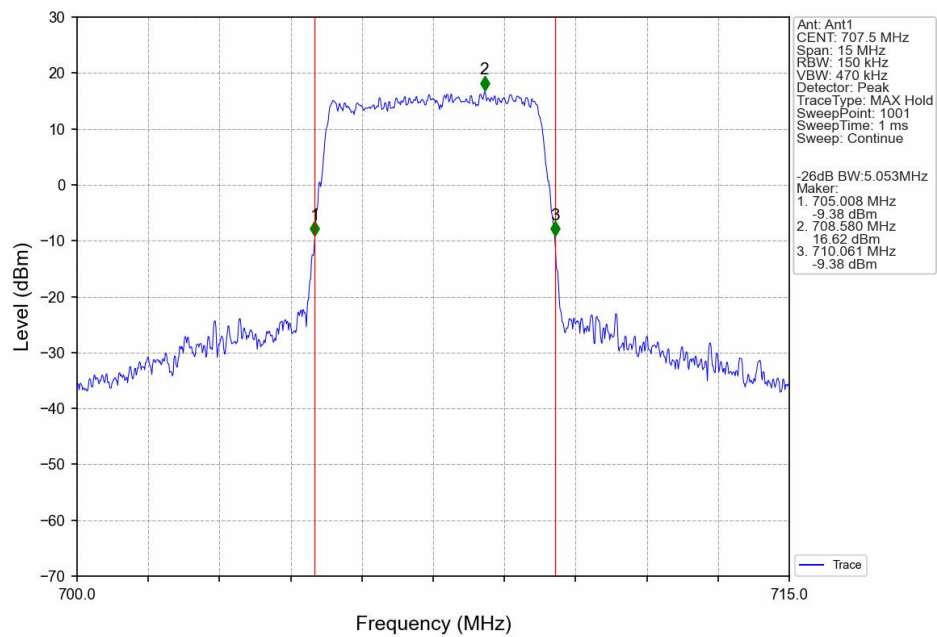
Band12_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



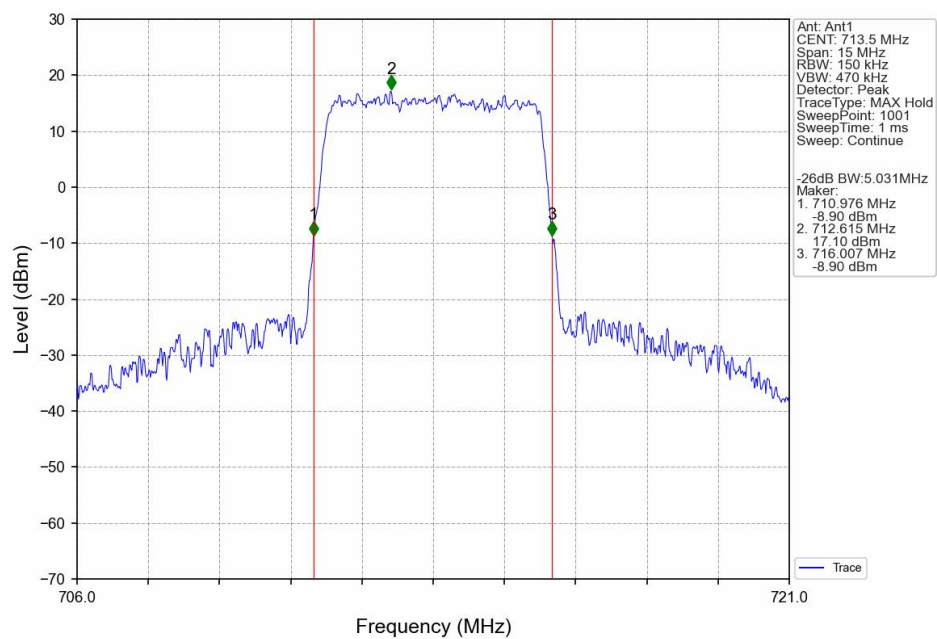
Band12_5MHz_16QAM_LCH_701.5MHz_RB_25_0_NTNV



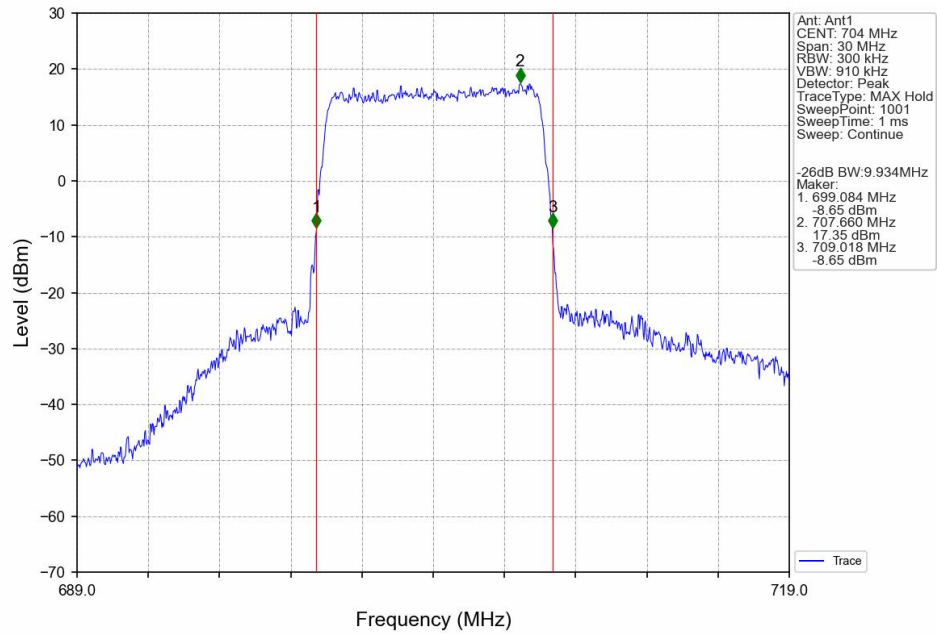
Band12_5MHz_16QAM_MCH_707.5MHz_RB_25_0_NTNV



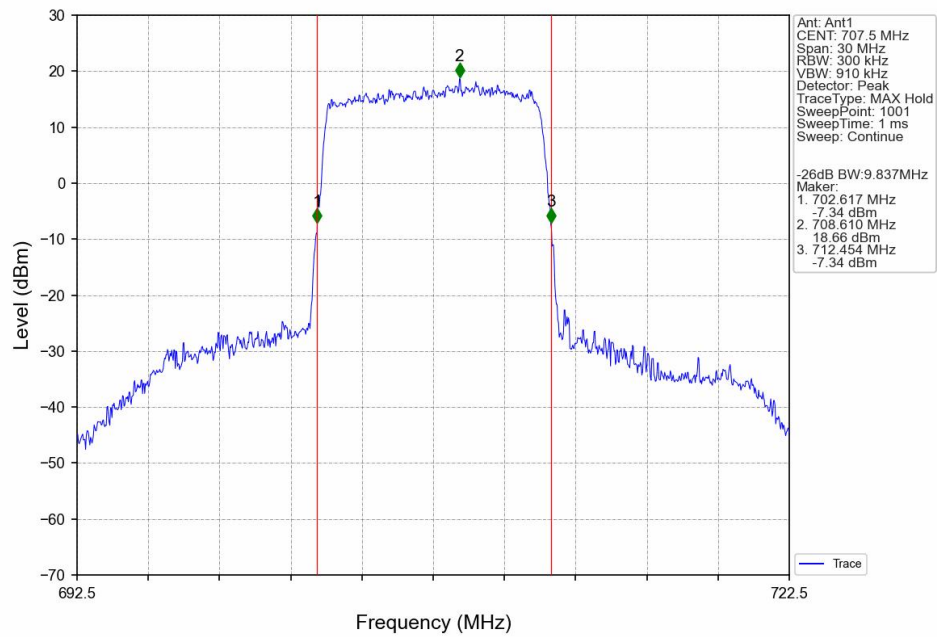
Band12_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



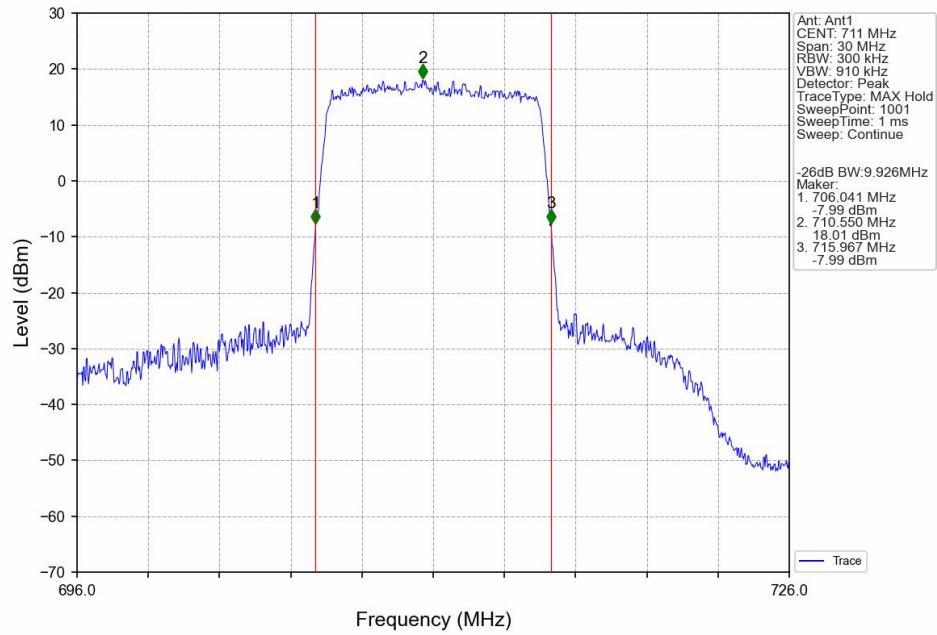
Band12_10MHz_QPSK_LCH_704MHz_RB_50_0_NTNV



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

