

# 1. Effective (Isotropic) Radiated Power Output Data

## 1.1 B12\_1.4MHz\_ERP

### 1.1.1 Test Result

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	22.23	0.48	20.56	<=34.77	Pass		
			2	22.35	0.48	20.68	<=34.77	Pass		
			5	22.24	0.48	20.57	<=34.77	Pass		
		3	0	22.32	0.48	20.65	<=34.77	Pass		
			2	22.29	0.48	20.62	<=34.77	Pass		
			3	22.28	0.48	20.61	<=34.77	Pass		
		6	0	21.23	0.48	19.56	<=34.77	Pass		
		707.5	1	0	22.45	0.48	20.78	<=34.77	Pass	
				2	22.50	0.48	20.83	<=34.77	Pass	
	5			22.44	0.48	20.77	<=34.77	Pass		
	3		0	22.52	0.48	20.85	<=34.77	Pass		
			2	22.53	0.48	20.86	<=34.77	Pass		
			3	22.54	0.48	20.87	<=34.77	Pass		
	6		0	21.52	0.48	19.85	<=34.77	Pass		
	715.3		1	0	22.57	0.48	20.90	<=34.77	Pass	
				2	22.70	0.48	21.03	<=34.77	Pass	
		5		22.62	0.48	20.95	<=34.77	Pass		
		3	0	22.65	0.48	20.98	<=34.77	Pass		
			2	22.70	0.48	21.03	<=34.77	Pass		
			3	22.72	0.48	21.05	<=34.77	Pass		
		6	0	21.64	0.48	19.97	<=34.77	Pass		
		16QAM	699.7	1	0	21.38	0.48	19.71	<=34.77	Pass
					2	21.49	0.48	19.82	<=34.77	Pass
	5				21.38	0.48	19.71	<=34.77	Pass	
3	0			21.36	0.48	19.69	<=34.77	Pass		
	2			21.33	0.48	19.66	<=34.77	Pass		
	3			21.36	0.48	19.69	<=34.77	Pass		
6	0			20.27	0.48	18.60	<=34.77	Pass		
707.5	1			0	21.42	0.48	19.75	<=34.77	Pass	
				2	21.54	0.48	19.87	<=34.77	Pass	
			5	21.42	0.48	19.75	<=34.77	Pass		
	3		0	21.69	0.48	20.02	<=34.77	Pass		
			2	21.73	0.48	20.06	<=34.77	Pass		
			3	21.75	0.48	20.08	<=34.77	Pass		
	6		0	20.59	0.48	18.92	<=34.77	Pass		
	715.3		1	0	21.57	0.48	19.90	<=34.77	Pass	
				2	21.71	0.48	20.04	<=34.77	Pass	
5				21.67	0.48	20.00	<=34.77	Pass		
3			0	21.73	0.48	20.06	<=34.77	Pass		
			2	21.76	0.48	20.09	<=34.77	Pass		
			3	21.73	0.48	20.06	<=34.77	Pass		
6			0	20.62	0.48	18.95	<=34.77	Pass		

Note1: ERP=Conducted Power+Antenna Gain-2.15

## 1.2 B12\_3MHz\_ERP

### 1.2.1 Test Result

Band: 12 / Bandwidth: 3MHz / NTV										
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	700.5	1	0	22.29	0.48	20.62	<=34.77	Pass		
			7	22.43	0.48	20.76	<=34.77	Pass		
			14	22.30	0.48	20.63	<=34.77	Pass		
		8	0	21.25	0.48	19.58	<=34.77	Pass		
			4	21.40	0.48	19.73	<=34.77	Pass		
			7	21.36	0.48	19.69	<=34.77	Pass		
		15	0	21.28	0.48	19.61	<=34.77	Pass		
		707.5	1	0	22.44	0.48	20.77	<=34.77	Pass	
				7	22.58	0.48	20.91	<=34.77	Pass	
	14			22.46	0.48	20.79	<=34.77	Pass		
	8		0	21.49	0.48	19.82	<=34.77	Pass		
			4	21.53	0.48	19.86	<=34.77	Pass		
			7	21.49	0.48	19.82	<=34.77	Pass		
	15		0	21.50	0.48	19.83	<=34.77	Pass		
	714.5		1	0	22.65	0.48	20.98	<=34.77	Pass	
				7	22.78	0.48	21.11	<=34.77	Pass	
		14		22.64	0.48	20.97	<=34.77	Pass		
		8	0	21.62	0.48	19.95	<=34.77	Pass		
			4	21.61	0.48	19.94	<=34.77	Pass		
			7	21.58	0.48	19.91	<=34.77	Pass		
		15	0	21.61	0.48	19.94	<=34.77	Pass		
		16QAM	700.5	1	0	21.43	0.48	19.76	<=34.77	Pass
					7	21.63	0.48	19.96	<=34.77	Pass
	14				21.50	0.48	19.83	<=34.77	Pass	
	8			0	20.22	0.48	18.55	<=34.77	Pass	
				4	20.35	0.48	18.68	<=34.77	Pass	
				7	20.33	0.48	18.66	<=34.77	Pass	
15	0			20.27	0.48	18.60	<=34.77	Pass		
707.5	1			0	22.05	0.48	20.38	<=34.77	Pass	
				7	22.22	0.48	20.55	<=34.77	Pass	
			14	22.11	0.48	20.44	<=34.77	Pass		
	8		0	20.68	0.48	19.01	<=34.77	Pass		
			4	20.74	0.48	19.07	<=34.77	Pass		
			7	20.68	0.48	19.01	<=34.77	Pass		
	15		0	20.62	0.48	18.95	<=34.77	Pass		
	714.5		1	0	21.65	0.48	19.98	<=34.77	Pass	
				7	21.81	0.48	20.14	<=34.77	Pass	
14				21.64	0.48	19.97	<=34.77	Pass		
8			0	20.69	0.48	19.02	<=34.77	Pass		
			4	20.74	0.48	19.07	<=34.77	Pass		
			7	20.69	0.48	19.02	<=34.77	Pass		
15			0	20.65	0.48	18.98	<=34.77	Pass		

Note1: ERP=Conducted Power+Antenna Gain-2.15

### 1.3 B12\_5MHz\_ERP

#### 1.3.1 Test Result

Band: 12 / Bandwidth: 5MHz / NTV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	701.5	1	0	21.94	0.48	20.27	<=34.77	Pass
			13	22.14	0.48	20.47	<=34.77	Pass
			24	22.13	0.48	20.46	<=34.77	Pass

	707.5	12	0	20.93	0.48	19.26	<=34.77	Pass	
			6	21.16	0.48	19.49	<=34.77	Pass	
			13	21.25	0.48	19.58	<=34.77	Pass	
		25	0	20.87	0.48	19.20	<=34.77	Pass	
			1	0	21.62	0.48	19.95	<=34.77	Pass
				13	21.76	0.48	20.09	<=34.77	Pass
		24		21.76	0.48	20.09	<=34.77	Pass	
		12	0	20.81	0.48	19.14	<=34.77	Pass	
			6	20.86	0.48	19.19	<=34.77	Pass	
	13		20.80	0.48	19.13	<=34.77	Pass		
	25	0	20.83	0.48	19.16	<=34.77	Pass		
		713.5	1	0	21.71	0.48	20.04	<=34.77	Pass
				13	21.99	0.48	20.32	<=34.77	Pass
	24			21.75	0.48	20.08	<=34.77	Pass	
	12	0	0	20.81	0.48	19.14	<=34.77	Pass	
			6	21.09	0.48	19.42	<=34.77	Pass	
			13	20.77	0.48	19.10	<=34.77	Pass	
	25	0	20.88	0.48	19.21	<=34.77	Pass		
		701.5	1	0	20.65	0.48	18.98	<=34.77	Pass
				13	20.84	0.48	19.17	<=34.77	Pass
	24			20.76	0.48	19.09	<=34.77	Pass	
	12		0	19.40	0.48	17.73	<=34.77	Pass	
			6	19.62	0.48	17.95	<=34.77	Pass	
			13	19.69	0.48	18.02	<=34.77	Pass	
25	0		19.54	0.48	17.87	<=34.77	Pass		
	707.5		1	0	20.58	0.48	18.91	<=34.77	Pass
				13	20.75	0.48	19.08	<=34.77	Pass
24		20.70		0.48	19.03	<=34.77	Pass		
12	0	0	19.87	0.48	18.20	<=34.77	Pass		
		6	19.85	0.48	18.18	<=34.77	Pass		
		13	19.82	0.48	18.15	<=34.77	Pass		
25	0	19.92	0.48	18.25	<=34.77	Pass			
	713.5	1	0	21.18	0.48	19.51	<=34.77	Pass	
			13	21.38	0.48	19.71	<=34.77	Pass	
24			21.27	0.48	19.60	<=34.77	Pass		
12	0	0	19.80	0.48	18.13	<=34.77	Pass		
		6	19.91	0.48	18.24	<=34.77	Pass		
		13	19.79	0.48	18.12	<=34.77	Pass		
25	0	19.79	0.48	18.12	<=34.77	Pass			

Note1: ERP=Conducted Power+Antenna Gain-2.15

## 1.4 B12\_10MHz\_ERP

### 1.4.1 Test Result

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	21.62	0.48	19.95	<=34.77	Pass
			25	21.93	0.48	20.26	<=34.77	Pass
			49	21.83	0.48	20.16	<=34.77	Pass
		25	0	20.45	0.48	18.78	<=34.77	Pass
			13	20.68	0.48	19.01	<=34.77	Pass
			25	20.68	0.48	19.01	<=34.77	Pass
	50	0	20.50	0.48	18.83	<=34.77	Pass	
	707.5	1	0	21.60	0.48	19.93	<=34.77	Pass
			25	21.86	0.48	20.19	<=34.77	Pass

16QAM	711	25	49	21.92	0.48	20.25	<=34.77	Pass	
			0	20.86	0.48	19.19	<=34.77	Pass	
			13	20.83	0.48	19.16	<=34.77	Pass	
			25	21.00	0.48	19.33	<=34.77	Pass	
		50	0	20.88	0.48	19.21	<=34.77	Pass	
		1	0	21.74	0.48	20.07	<=34.77	Pass	
			25	21.88	0.48	20.21	<=34.77	Pass	
			49	21.89	0.48	20.22	<=34.77	Pass	
			0	20.86	0.48	19.19	<=34.77	Pass	
		25	13	20.88	0.48	19.21	<=34.77	Pass	
			25	20.95	0.48	19.28	<=34.77	Pass	
			50	0	20.87	0.48	19.20	<=34.77	Pass
	0		20.90	0.48	19.23	<=34.77	Pass		
	704	1	25	21.15	0.48	19.48	<=34.77	Pass	
			49	21.25	0.48	19.58	<=34.77	Pass	
			0	19.43	0.48	17.76	<=34.77	Pass	
			13	19.76	0.48	18.09	<=34.77	Pass	
		25	25	19.64	0.48	17.97	<=34.77	Pass	
			50	0	19.52	0.48	17.85	<=34.77	Pass
			0	20.57	0.48	18.90	<=34.77	Pass	
			25	20.82	0.48	19.15	<=34.77	Pass	
		707.5	1	49	20.94	0.48	19.27	<=34.77	Pass
				0	19.90	0.48	18.23	<=34.77	Pass
				13	19.85	0.48	18.18	<=34.77	Pass
25				20.05	0.48	18.38	<=34.77	Pass	
25	50		0	19.87	0.48	18.20	<=34.77	Pass	
	0		20.81	0.48	19.14	<=34.77	Pass		
	25		21.16	0.48	19.49	<=34.77	Pass		
	49		20.98	0.48	19.31	<=34.77	Pass		
711	25		0	19.93	0.48	18.26	<=34.77	Pass	
			13	20.07	0.48	18.40	<=34.77	Pass	
			25	20.11	0.48	18.44	<=34.77	Pass	
			50	0	20.01	0.48	18.34	<=34.77	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

## 2. Frequency Stability

### 2.1 B12\_1.4MHz

#### 2.1.1 Test Result

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	-2.346	-0.0034	-2.5 to 2.5	Pass
					3.85	-1.030	-0.0015	-2.5 to 2.5	Pass
					4.43	-1.345	-0.0019	-2.5 to 2.5	Pass
				-30	3.85	-3.862	-0.0055	-2.5 to 2.5	Pass
				-20	3.85	-0.472	-0.0007	-2.5 to 2.5	Pass
				-10	3.85	-2.646	-0.0038	-2.5 to 2.5	Pass
				0	3.85	1.345	0.0019	-2.5 to 2.5	Pass
				10	3.85	-3.848	-0.0055	-2.5 to 2.5	Pass
				30	3.85	-0.758	-0.0011	-2.5 to 2.5	Pass
				40	3.85	-5.193	-0.0074	-2.5 to 2.5	Pass
				50	3.85	-2.918	-0.0042	-2.5 to 2.5	Pass
				707.5	6	0	20	3.27	-0.186

					3.85	0.672	0.0009	-2.5 to 2.5	Pass
					4.43	-2.604	-0.0037	-2.5 to 2.5	Pass
				-30	3.85	0.086	0.0001	-2.5 to 2.5	Pass
				-20	3.85	-1.059	-0.0015	-2.5 to 2.5	Pass
				-10	3.85	-0.973	-0.0014	-2.5 to 2.5	Pass
				0	3.85	-3.004	-0.0042	-2.5 to 2.5	Pass
				10	3.85	-0.043	-0.0001	-2.5 to 2.5	Pass
				30	3.85	-1.459	-0.0021	-2.5 to 2.5	Pass
				40	3.85	1.831	0.0026	-2.5 to 2.5	Pass
	50	3.85	-3.734	-0.0053	-2.5 to 2.5	Pass			
	715.3	6	0	20	3.27	-3.290	-0.0046	-2.5 to 2.5	Pass
					3.85	-1.359	-0.0019	-2.5 to 2.5	Pass
					4.43	-0.257	-0.0004	-2.5 to 2.5	Pass
				-30	3.85	2.661	0.0037	-2.5 to 2.5	Pass
				-20	3.85	2.232	0.0031	-2.5 to 2.5	Pass
				-10	3.85	-0.129	-0.0002	-2.5 to 2.5	Pass
				0	3.85	-1.302	-0.0018	-2.5 to 2.5	Pass
				10	3.85	-0.086	-0.0001	-2.5 to 2.5	Pass
30				3.85	0.000	0.0000	-2.5 to 2.5	Pass	
40	3.85	-3.176	-0.0044	-2.5 to 2.5	Pass				
50	3.85	-3.104	-0.0043	-2.5 to 2.5	Pass				
16QAM	699.7	6	0	20	3.27	0.401	0.0006	-2.5 to 2.5	Pass
					3.85	-5.779	-0.0083	-2.5 to 2.5	Pass
					4.43	-0.129	-0.0002	-2.5 to 2.5	Pass
				-30	3.85	-1.101	-0.0016	-2.5 to 2.5	Pass
				-20	3.85	-1.402	-0.0020	-2.5 to 2.5	Pass
				-10	3.85	-0.129	-0.0002	-2.5 to 2.5	Pass
				0	3.85	-1.431	-0.0020	-2.5 to 2.5	Pass
				10	3.85	-2.904	-0.0042	-2.5 to 2.5	Pass
				30	3.85	-3.405	-0.0049	-2.5 to 2.5	Pass
	40	3.85	-1.202	-0.0017	-2.5 to 2.5	Pass			
	50	3.85	-2.890	-0.0041	-2.5 to 2.5	Pass			
	707.5	6	0	20	3.27	-1.259	-0.0018	-2.5 to 2.5	Pass
					3.85	1.345	0.0019	-2.5 to 2.5	Pass
					4.43	0.300	0.0004	-2.5 to 2.5	Pass
				-30	3.85	-1.459	-0.0021	-2.5 to 2.5	Pass
				-20	3.85	-1.659	-0.0023	-2.5 to 2.5	Pass
				-10	3.85	-2.646	-0.0037	-2.5 to 2.5	Pass
				0	3.85	-0.272	-0.0004	-2.5 to 2.5	Pass
10				3.85	-0.043	-0.0001	-2.5 to 2.5	Pass	
30				3.85	-0.172	-0.0002	-2.5 to 2.5	Pass	
40	3.85	-1.202	-0.0017	-2.5 to 2.5	Pass				
50	3.85	-0.143	-0.0002	-2.5 to 2.5	Pass				
715.3	6	0	20	3.27	-1.516	-0.0021	-2.5 to 2.5	Pass	
				3.85	-1.345	-0.0019	-2.5 to 2.5	Pass	
				4.43	-1.287	-0.0018	-2.5 to 2.5	Pass	
			-30	3.85	-2.904	-0.0041	-2.5 to 2.5	Pass	
			-20	3.85	-1.245	-0.0017	-2.5 to 2.5	Pass	
			-10	3.85	2.332	0.0033	-2.5 to 2.5	Pass	
			0	3.85	-1.960	-0.0027	-2.5 to 2.5	Pass	
			10	3.85	1.259	0.0018	-2.5 to 2.5	Pass	
			30	3.85	-4.478	-0.0063	-2.5 to 2.5	Pass	
40	3.85	0.687	0.0010	-2.5 to 2.5	Pass				
50	3.85	-1.431	-0.0020	-2.5 to 2.5	Pass				

2.2 B12\_3MHz

## 2.2.1 Test Result

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	0.286	0.0004	-2.5 to 2.5	Pass
					3.85	-3.376	-0.0048	-2.5 to 2.5	Pass
					4.43	-1.101	-0.0016	-2.5 to 2.5	Pass
				-30	3.85	-1.187	-0.0017	-2.5 to 2.5	Pass
				-20	3.85	-3.276	-0.0047	-2.5 to 2.5	Pass
				-10	3.85	-0.973	-0.0014	-2.5 to 2.5	Pass
				0	3.85	-1.016	-0.0015	-2.5 to 2.5	Pass
				10	3.85	-2.131	-0.0030	-2.5 to 2.5	Pass
				30	3.85	-0.343	-0.0005	-2.5 to 2.5	Pass
				40	3.85	-3.934	-0.0056	-2.5 to 2.5	Pass
	50	3.85	-2.832	-0.0040	-2.5 to 2.5	Pass			
	707.5	15	0	20	3.27	2.131	0.0030	-2.5 to 2.5	Pass
					3.85	-0.486	-0.0007	-2.5 to 2.5	Pass
					4.43	-1.559	-0.0022	-2.5 to 2.5	Pass
				-30	3.85	0.730	0.0010	-2.5 to 2.5	Pass
				-20	3.85	1.345	0.0019	-2.5 to 2.5	Pass
				-10	3.85	-0.815	-0.0012	-2.5 to 2.5	Pass
				0	3.85	-1.574	-0.0022	-2.5 to 2.5	Pass
				10	3.85	1.774	0.0025	-2.5 to 2.5	Pass
				30	3.85	-1.645	-0.0023	-2.5 to 2.5	Pass
				40	3.85	-0.272	-0.0004	-2.5 to 2.5	Pass
	50	3.85	1.016	0.0014	-2.5 to 2.5	Pass			
	714.5	15	0	20	3.27	-0.472	-0.0007	-2.5 to 2.5	Pass
					3.85	-0.916	-0.0013	-2.5 to 2.5	Pass
					4.43	-1.302	-0.0018	-2.5 to 2.5	Pass
				-30	3.85	0.687	0.0010	-2.5 to 2.5	Pass
				-20	3.85	1.760	0.0025	-2.5 to 2.5	Pass
				-10	3.85	0.143	0.0002	-2.5 to 2.5	Pass
				0	3.85	1.116	0.0016	-2.5 to 2.5	Pass
				10	3.85	-3.419	-0.0048	-2.5 to 2.5	Pass
30				3.85	-1.059	-0.0015	-2.5 to 2.5	Pass	
40				3.85	-0.072	-0.0001	-2.5 to 2.5	Pass	
50	3.85	0.644	0.0009	-2.5 to 2.5	Pass				
16QAM	700.5	15	0	20	3.27	-1.931	-0.0028	-2.5 to 2.5	Pass
					3.85	-2.031	-0.0029	-2.5 to 2.5	Pass
					4.43	1.760	0.0025	-2.5 to 2.5	Pass
				-30	3.85	-2.074	-0.0030	-2.5 to 2.5	Pass
				-20	3.85	0.730	0.0010	-2.5 to 2.5	Pass
				-10	3.85	0.486	0.0007	-2.5 to 2.5	Pass
				0	3.85	-1.616	-0.0023	-2.5 to 2.5	Pass
				10	3.85	0.772	0.0011	-2.5 to 2.5	Pass
				30	3.85	-1.073	-0.0015	-2.5 to 2.5	Pass
				40	3.85	-2.232	-0.0032	-2.5 to 2.5	Pass
	50	3.85	-0.701	-0.0010	-2.5 to 2.5	Pass			
	707.5	15	0	20	3.27	-0.715	-0.0010	-2.5 to 2.5	Pass
					3.85	2.460	0.0035	-2.5 to 2.5	Pass
					4.43	3.190	0.0045	-2.5 to 2.5	Pass
				-30	3.85	0.100	0.0001	-2.5 to 2.5	Pass
				-20	3.85	1.531	0.0022	-2.5 to 2.5	Pass
				-10	3.85	0.615	0.0009	-2.5 to 2.5	Pass
				0	3.85	0.272	0.0004	-2.5 to 2.5	Pass
				10	3.85	-1.531	-0.0022	-2.5 to 2.5	Pass
				30	3.85	0.315	0.0004	-2.5 to 2.5	Pass
40				3.85	-2.246	-0.0032	-2.5 to 2.5	Pass	

	714.5	15	0	50	3.85	-1.173	-0.0017	-2.5 to 2.5	Pass
				20	3.27	-2.418	-0.0034	-2.5 to 2.5	Pass
					3.85	-0.801	-0.0011	-2.5 to 2.5	Pass
					4.43	-0.386	-0.0005	-2.5 to 2.5	Pass
				-30	3.85	-1.273	-0.0018	-2.5 to 2.5	Pass
				-20	3.85	-1.559	-0.0022	-2.5 to 2.5	Pass
				-10	3.85	0.429	0.0006	-2.5 to 2.5	Pass
				0	3.85	1.931	0.0027	-2.5 to 2.5	Pass
				10	3.85	1.702	0.0024	-2.5 to 2.5	Pass
				30	3.85	2.804	0.0039	-2.5 to 2.5	Pass
				40	3.85	0.215	0.0003	-2.5 to 2.5	Pass
				50	3.85	0.529	0.0007	-2.5 to 2.5	Pass

## 2.3 B12\_5MHz

### 2.3.1 Test Result

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	-1.845	-0.0026	-2.5 to 2.5	Pass
					3.85	0.401	0.0006	-2.5 to 2.5	Pass
					4.43	-1.287	-0.0018	-2.5 to 2.5	Pass
				-30	3.85	-0.229	-0.0003	-2.5 to 2.5	Pass
				-20	3.85	-2.046	-0.0029	-2.5 to 2.5	Pass
				-10	3.85	-2.060	-0.0029	-2.5 to 2.5	Pass
				0	3.85	-2.604	-0.0037	-2.5 to 2.5	Pass
				10	3.85	-4.435	-0.0063	-2.5 to 2.5	Pass
				30	3.85	-2.289	-0.0033	-2.5 to 2.5	Pass
				40	3.85	-2.961	-0.0042	-2.5 to 2.5	Pass
	50	3.85	-0.429	-0.0006	-2.5 to 2.5	Pass			
	707.5	25	0	20	3.27	-0.057	-0.0001	-2.5 to 2.5	Pass
					3.85	-2.847	-0.0040	-2.5 to 2.5	Pass
					4.43	0.200	0.0003	-2.5 to 2.5	Pass
				-30	3.85	-1.388	-0.0020	-2.5 to 2.5	Pass
				-20	3.85	-1.502	-0.0021	-2.5 to 2.5	Pass
				-10	3.85	1.674	0.0024	-2.5 to 2.5	Pass
				0	3.85	-1.416	-0.0020	-2.5 to 2.5	Pass
				10	3.85	-1.259	-0.0018	-2.5 to 2.5	Pass
				30	3.85	-0.486	-0.0007	-2.5 to 2.5	Pass
				40	3.85	-1.459	-0.0021	-2.5 to 2.5	Pass
	50	3.85	-0.329	-0.0005	-2.5 to 2.5	Pass			
	713.5	25	0	20	3.27	-0.558	-0.0008	-2.5 to 2.5	Pass
					3.85	-4.020	-0.0056	-2.5 to 2.5	Pass
					4.43	-0.343	-0.0005	-2.5 to 2.5	Pass
				-30	3.85	0.257	0.0004	-2.5 to 2.5	Pass
				-20	3.85	0.587	0.0008	-2.5 to 2.5	Pass
				-10	3.85	-1.101	-0.0015	-2.5 to 2.5	Pass
				0	3.85	-1.988	-0.0028	-2.5 to 2.5	Pass
				10	3.85	-0.901	-0.0013	-2.5 to 2.5	Pass
30				3.85	0.615	0.0009	-2.5 to 2.5	Pass	
40				3.85	-3.061	-0.0043	-2.5 to 2.5	Pass	
50	3.85	-1.173	-0.0016	-2.5 to 2.5	Pass				
16QAM	701.5	25	0	20	3.27	0.315	0.0004	-2.5 to 2.5	Pass
					3.85	-2.203	-0.0031	-2.5 to 2.5	Pass
					4.43	0.029	0.0000	-2.5 to 2.5	Pass
				-30	3.85	1.459	0.0021	-2.5 to 2.5	Pass

	707.5	25	0	-20	3.85	-3.347	-0.0048	-2.5 to 2.5	Pass			
				-10	3.85	-5.178	-0.0074	-2.5 to 2.5	Pass			
				0	3.85	-4.206	-0.0060	-2.5 to 2.5	Pass			
				10	3.85	0.830	0.0012	-2.5 to 2.5	Pass			
				30	3.85	0.200	0.0003	-2.5 to 2.5	Pass			
				40	3.85	-1.330	-0.0019	-2.5 to 2.5	Pass			
				50	3.85	-1.616	-0.0023	-2.5 to 2.5	Pass			
	713.5	25	0	20	3.27	-0.772	-0.0011	-2.5 to 2.5	Pass			
					3.85	-3.147	-0.0044	-2.5 to 2.5	Pass			
					4.43	-0.300	-0.0004	-2.5 to 2.5	Pass			
				-30	3.85	-3.133	-0.0044	-2.5 to 2.5	Pass			
				-20	3.85	-1.059	-0.0015	-2.5 to 2.5	Pass			
				-10	3.85	0.443	0.0006	-2.5 to 2.5	Pass			
				0	3.85	1.130	0.0016	-2.5 to 2.5	Pass			
				10	3.85	-0.415	-0.0006	-2.5 to 2.5	Pass			
				30	3.85	0.687	0.0010	-2.5 to 2.5	Pass			
				40	3.85	-1.073	-0.0015	-2.5 to 2.5	Pass			
				50	3.85	1.044	0.0015	-2.5 to 2.5	Pass			
				713.5	25	0	20	3.27	-3.033	-0.0043	-2.5 to 2.5	Pass
								3.85	0.858	0.0012	-2.5 to 2.5	Pass
	4.43	-1.559	-0.0022					-2.5 to 2.5	Pass			
	-30	3.85	-1.688				-0.0024	-2.5 to 2.5	Pass			
	-20	3.85	-1.030				-0.0014	-2.5 to 2.5	Pass			
	-10	3.85	1.330				0.0019	-2.5 to 2.5	Pass			
	0	3.85	-2.046				-0.0029	-2.5 to 2.5	Pass			
	10	3.85	0.658				0.0009	-2.5 to 2.5	Pass			
	30	3.85	-3.891				-0.0055	-2.5 to 2.5	Pass			
40	3.85	-1.731	-0.0024				-2.5 to 2.5	Pass				
50	3.85	1.116	0.0016	-2.5 to 2.5	Pass							

## 2.4 B12\_10MHz

### 2.4.1 Test Result

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	-1.631	-0.0023	-2.5 to 2.5	Pass
					3.85	-3.104	-0.0044	-2.5 to 2.5	Pass
					4.43	-0.672	-0.0010	-2.5 to 2.5	Pass
				-30	3.85	-0.672	-0.0010	-2.5 to 2.5	Pass
				-20	3.85	-0.930	-0.0013	-2.5 to 2.5	Pass
				-10	3.85	-3.376	-0.0048	-2.5 to 2.5	Pass
				0	3.85	-0.901	-0.0013	-2.5 to 2.5	Pass
				10	3.85	-2.160	-0.0031	-2.5 to 2.5	Pass
				30	3.85	-2.990	-0.0042	-2.5 to 2.5	Pass
				40	3.85	-3.090	-0.0044	-2.5 to 2.5	Pass
	50	3.85	-1.245	-0.0018	-2.5 to 2.5	Pass			
	707.5	50	0	20	3.27	0.215	0.0003	-2.5 to 2.5	Pass
					3.85	1.845	0.0026	-2.5 to 2.5	Pass
					4.43	-1.259	-0.0018	-2.5 to 2.5	Pass
				-30	3.85	1.202	0.0017	-2.5 to 2.5	Pass
				-20	3.85	0.057	0.0001	-2.5 to 2.5	Pass
				-10	3.85	-0.930	-0.0013	-2.5 to 2.5	Pass
				0	3.85	-1.874	-0.0026	-2.5 to 2.5	Pass
				10	3.85	-3.433	-0.0049	-2.5 to 2.5	Pass
				30	3.85	-0.415	-0.0006	-2.5 to 2.5	Pass



	711	50	0	40	3.85	0.100	0.0001	-2.5 to 2.5	Pass			
				50	3.85	0.472	0.0007	-2.5 to 2.5	Pass			
				20	3.27	0.973	0.0014	-2.5 to 2.5	Pass			
					3.85	-1.988	-0.0028	-2.5 to 2.5	Pass			
					4.43	-1.459	-0.0021	-2.5 to 2.5	Pass			
				-30	3.85	-0.572	-0.0008	-2.5 to 2.5	Pass			
				-20	3.85	1.502	0.0021	-2.5 to 2.5	Pass			
				-10	3.85	0.687	0.0010	-2.5 to 2.5	Pass			
				0	3.85	-0.458	-0.0006	-2.5 to 2.5	Pass			
				10	3.85	-1.731	-0.0024	-2.5 to 2.5	Pass			
				30	3.85	-0.200	-0.0003	-2.5 to 2.5	Pass			
				40	3.85	-0.415	-0.0006	-2.5 to 2.5	Pass			
				50	3.85	-1.731	-0.0024	-2.5 to 2.5	Pass			
				16QAM	704	50	0	20	3.27	-0.930	-0.0013	-2.5 to 2.5
3.85	-0.300	-0.0004	-2.5 to 2.5						Pass			
4.43	-3.505	-0.0050	-2.5 to 2.5						Pass			
-30	3.85	0.086	0.0001					-2.5 to 2.5	Pass			
-20	3.85	-2.046	-0.0029					-2.5 to 2.5	Pass			
-10	3.85	-3.576	-0.0051					-2.5 to 2.5	Pass			
0	3.85	-1.874	-0.0027					-2.5 to 2.5	Pass			
10	3.85	-2.303	-0.0033					-2.5 to 2.5	Pass			
30	3.85	-1.845	-0.0026					-2.5 to 2.5	Pass			
40	3.85	-0.758	-0.0011					-2.5 to 2.5	Pass			
50	3.85	-2.861	-0.0041					-2.5 to 2.5	Pass			
707.5	50	0	20					3.27	-3.934	-0.0056	-2.5 to 2.5	Pass
								3.85	2.418	0.0034	-2.5 to 2.5	Pass
								4.43	-1.345	-0.0019	-2.5 to 2.5	Pass
			-30		3.85	-1.974	-0.0028	-2.5 to 2.5	Pass			
			-20		3.85	-1.574	-0.0022	-2.5 to 2.5	Pass			
			-10		3.85	-1.903	-0.0027	-2.5 to 2.5	Pass			
			0		3.85	1.974	0.0028	-2.5 to 2.5	Pass			
			10		3.85	-0.300	-0.0004	-2.5 to 2.5	Pass			
			30		3.85	1.574	0.0022	-2.5 to 2.5	Pass			
			40		3.85	-0.401	-0.0006	-2.5 to 2.5	Pass			
			50		3.85	-0.014	0.0000	-2.5 to 2.5	Pass			
			711		50	0	20	3.27	-1.059	-0.0015	-2.5 to 2.5	Pass
								3.85	-0.715	-0.0010	-2.5 to 2.5	Pass
								4.43	-1.030	-0.0014	-2.5 to 2.5	Pass
-30	3.85	-1.202					-0.0017	-2.5 to 2.5	Pass			
-20	3.85	-1.988					-0.0028	-2.5 to 2.5	Pass			
-10	3.85	-1.545					-0.0022	-2.5 to 2.5	Pass			
0	3.85	-2.847		-0.0040			-2.5 to 2.5	Pass				
10	3.85	0.858		0.0012			-2.5 to 2.5	Pass				
30	3.85	0.415		0.0006			-2.5 to 2.5	Pass				
40	3.85	-1.445		-0.0020			-2.5 to 2.5	Pass				
50	3.85	-1.431		-0.0020			-2.5 to 2.5	Pass				

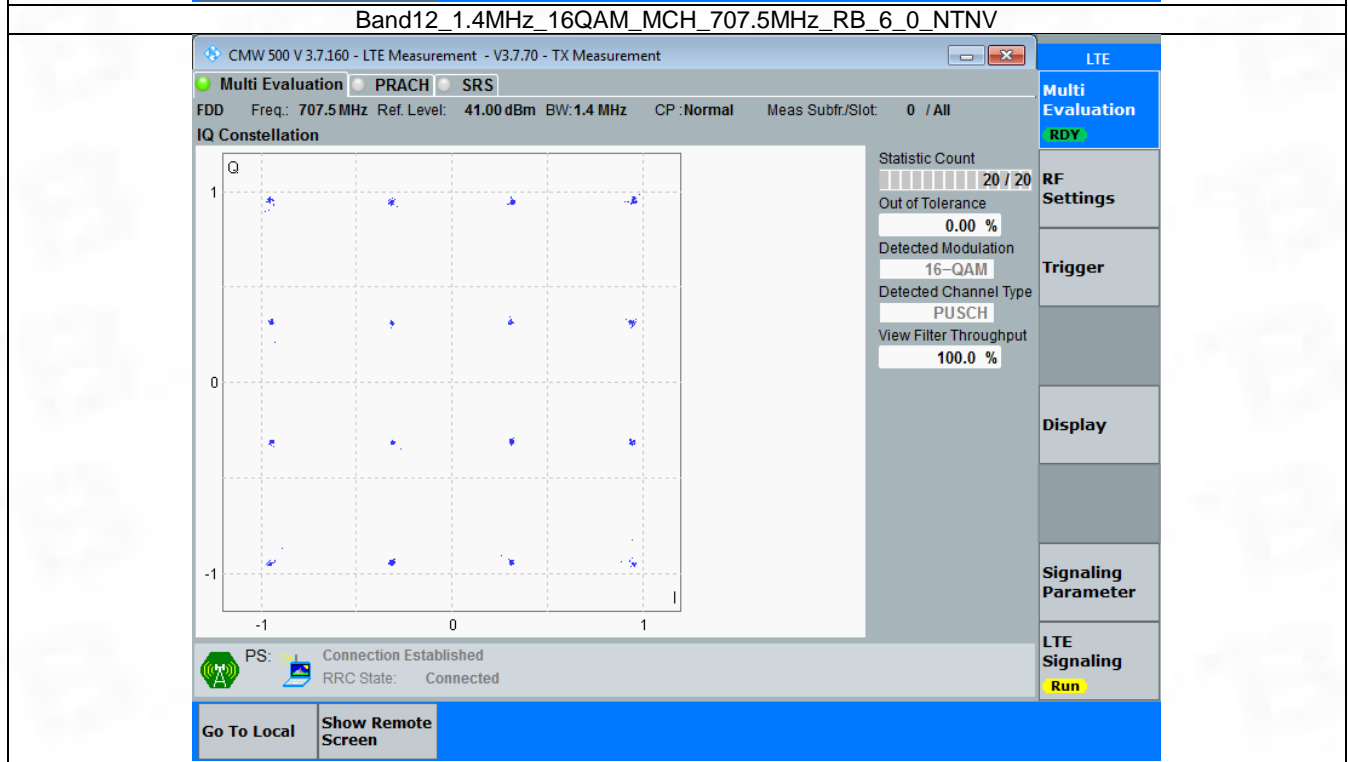
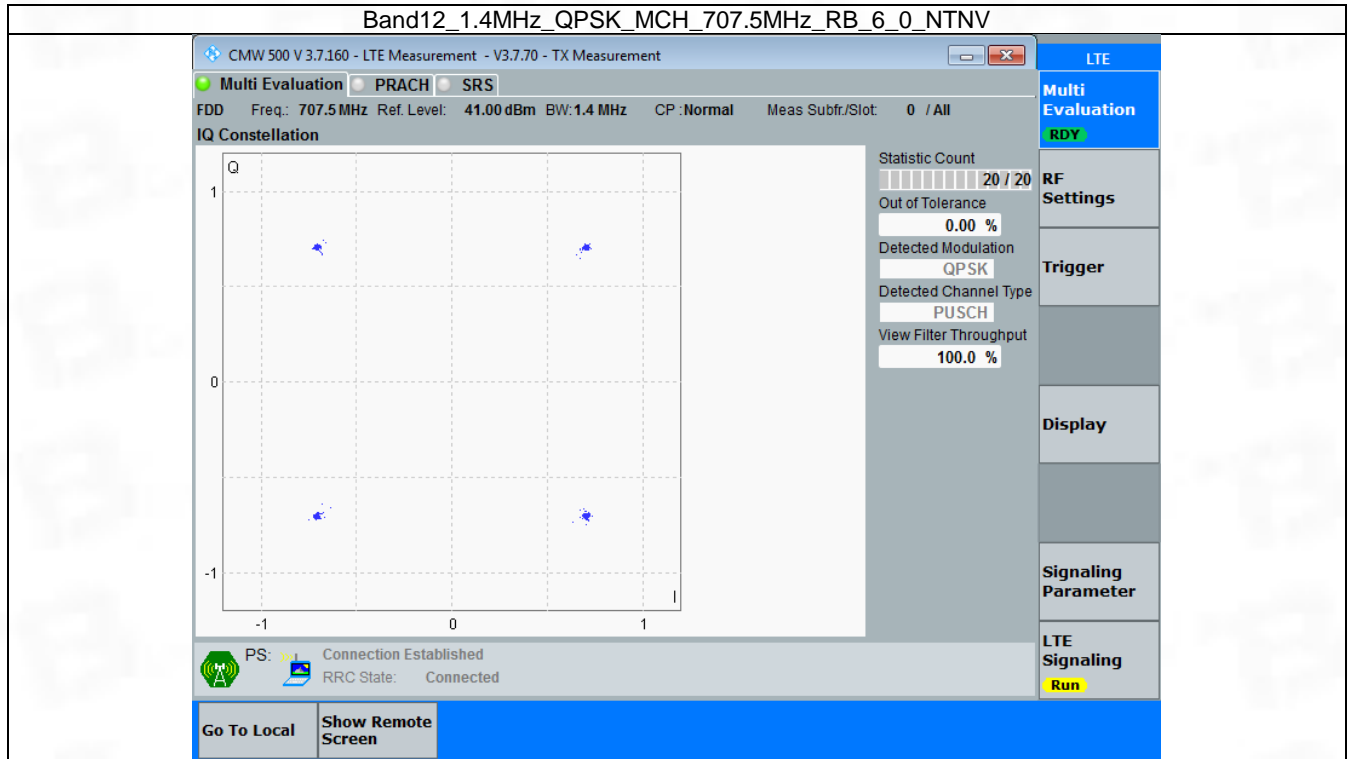
### 3. Modulation Characteristics

#### 3.1 B12\_1.4MHz

##### 3.1.1 Test Result

Band: 12 / Bandwidth: 1.4MHz / NTV						
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 Test Graph

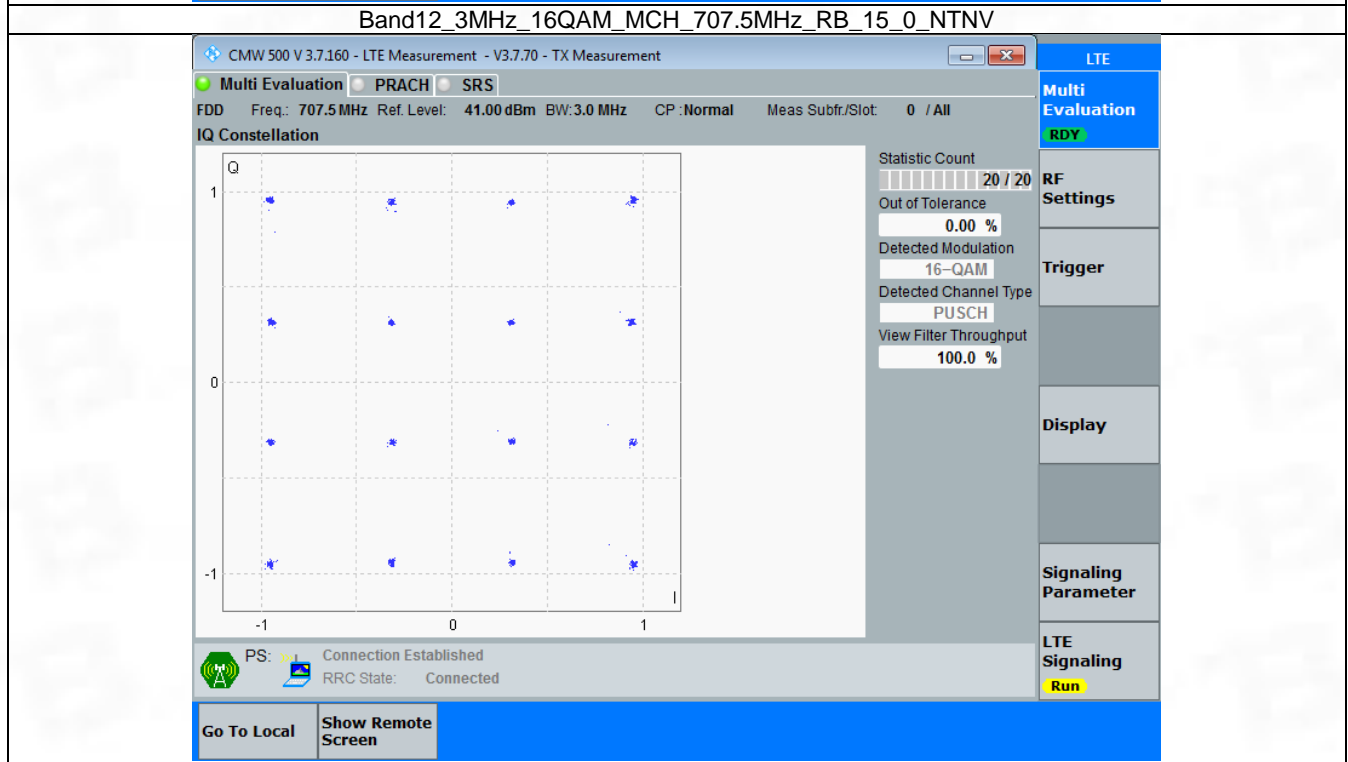
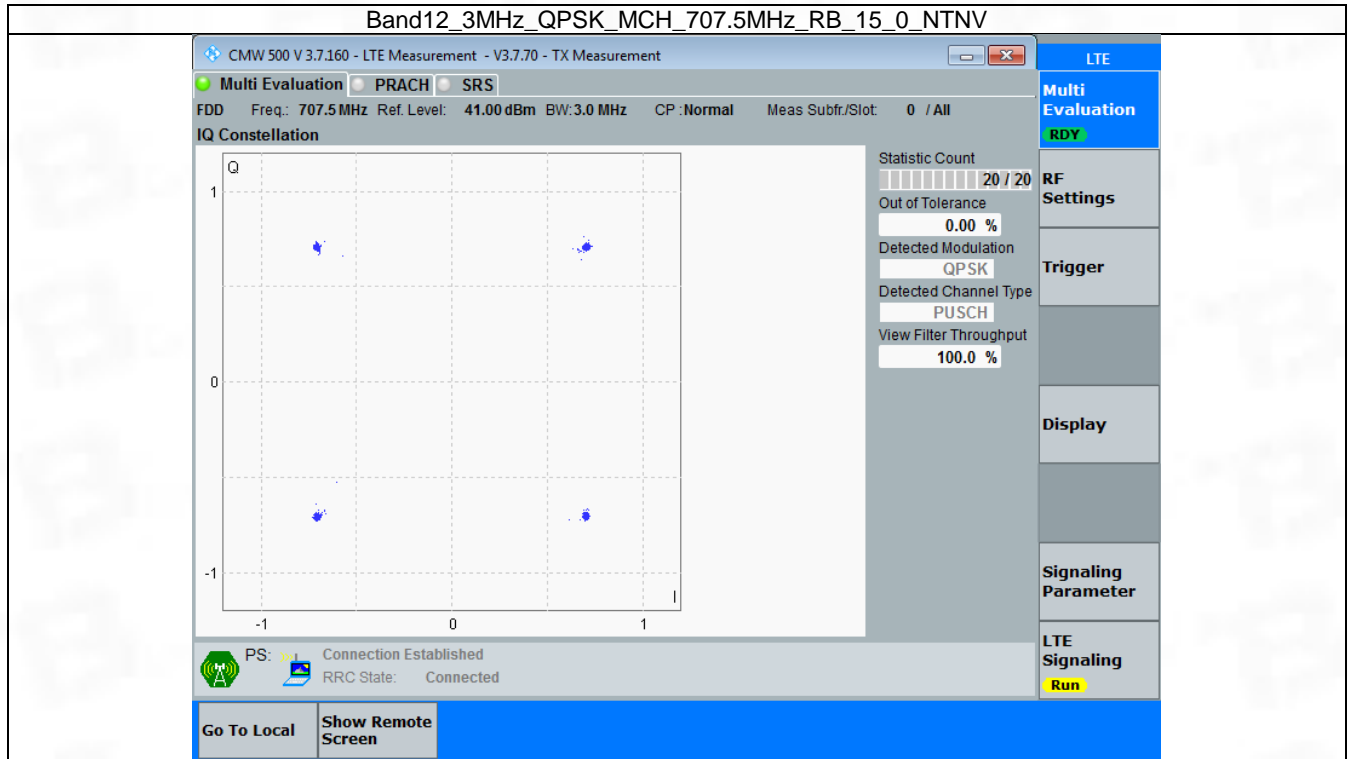


### 3.2 B12\_3MHz

#### 3.2.1 Test Result

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	

### 3.2.2 Test Graph

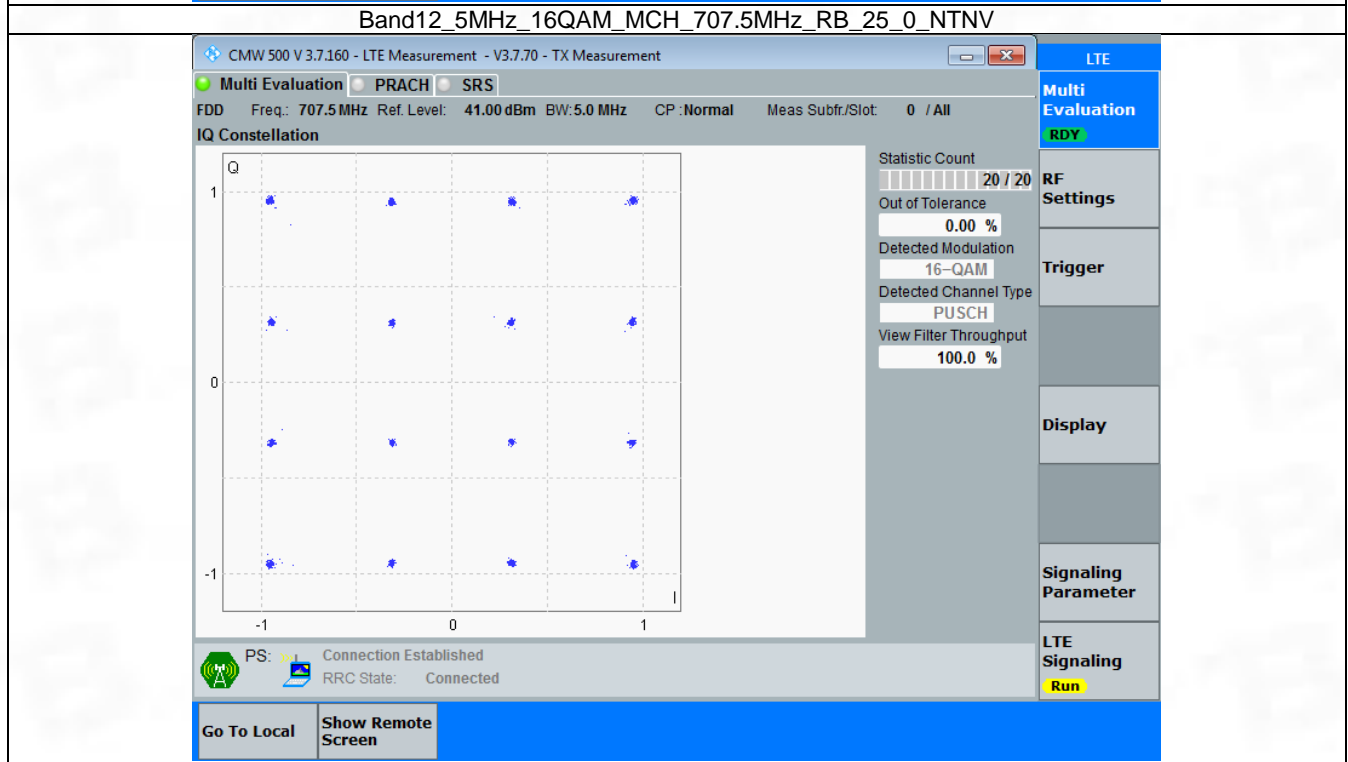
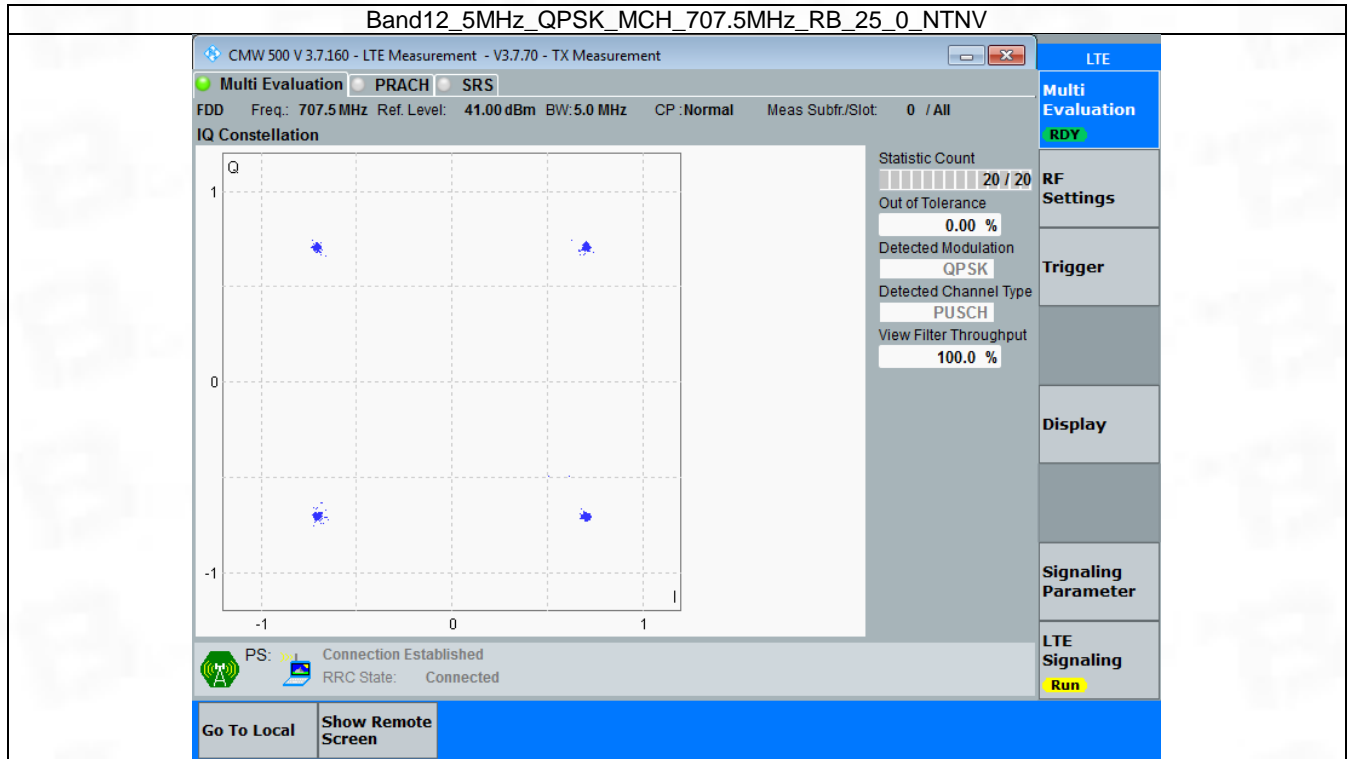


### 3.3 B12\_5MHz

#### 3.3.1 Test Result

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	

### 3.3.2 Test Graph

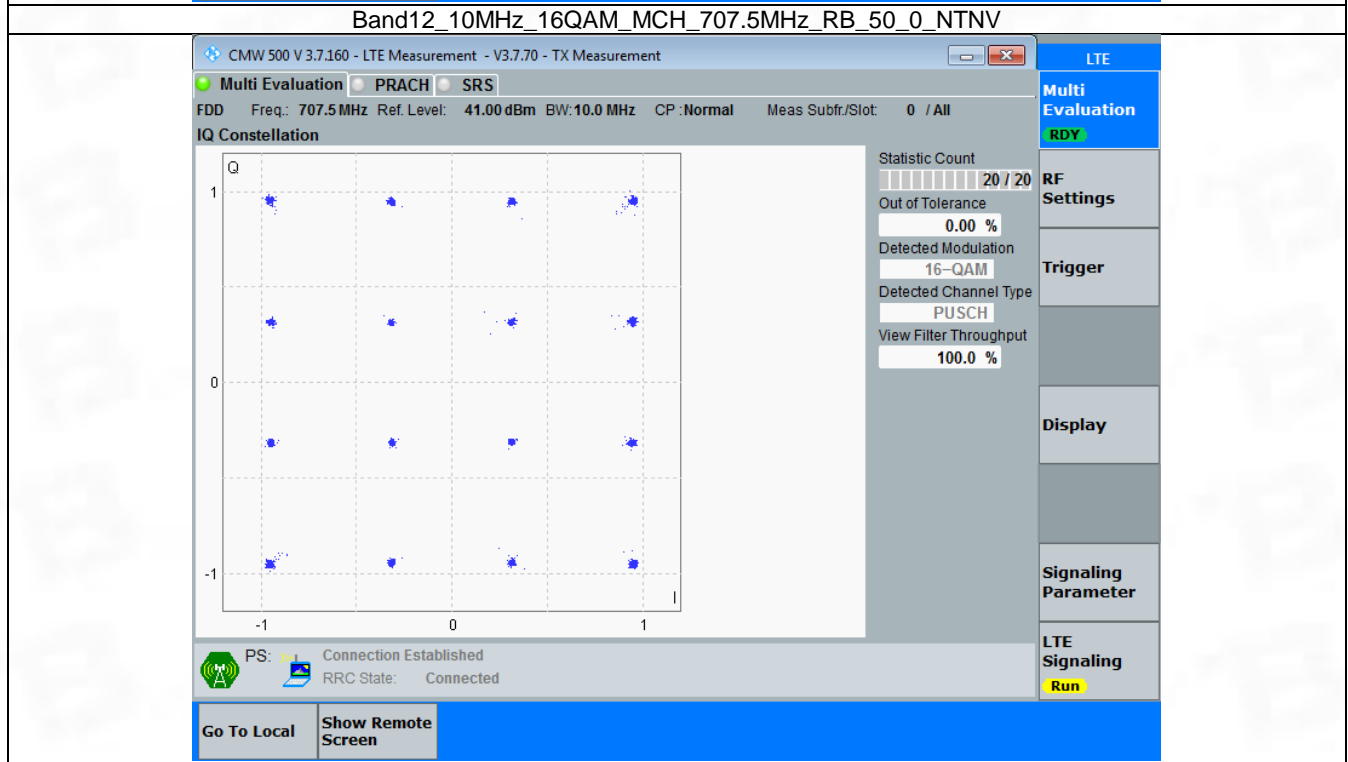
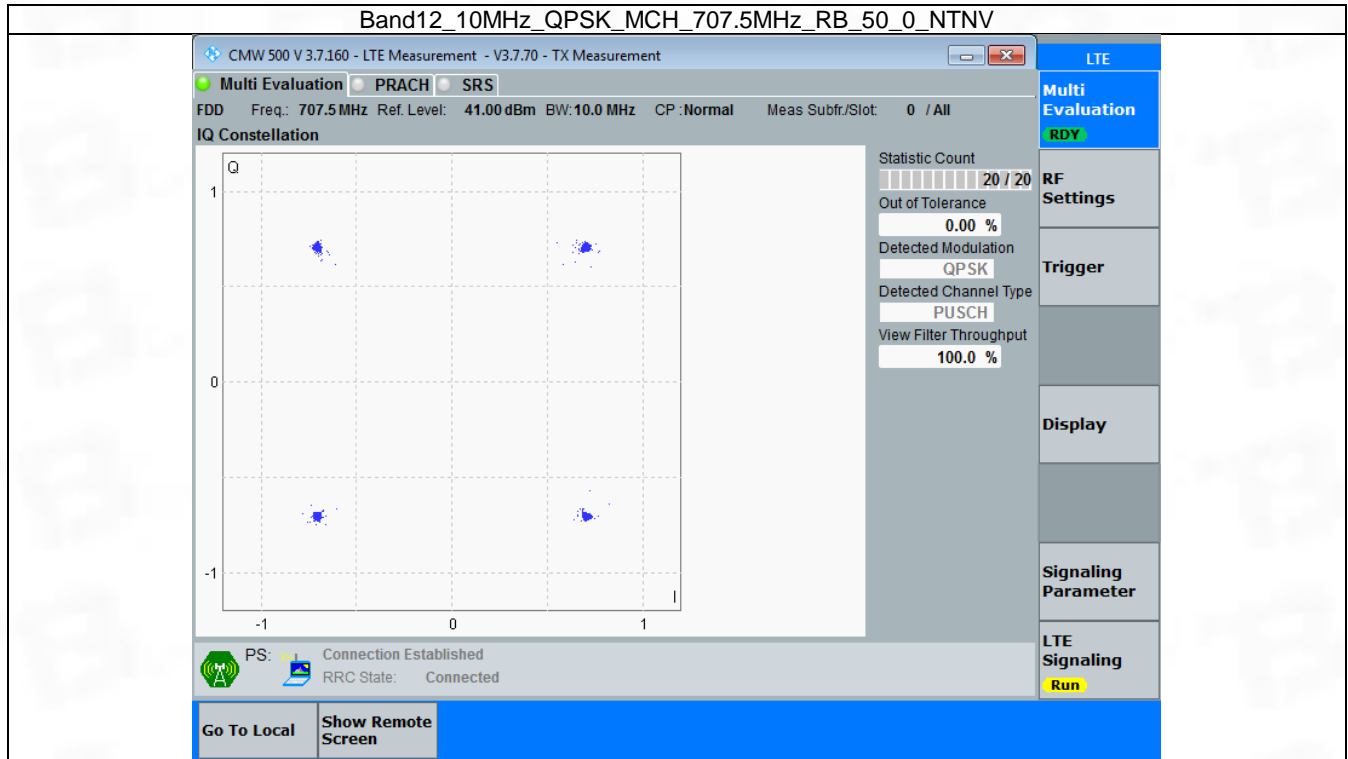


### 3.4 B12\_10MHz

#### 3.4.1 Test Result

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	

### 3.4.2 Test Graph





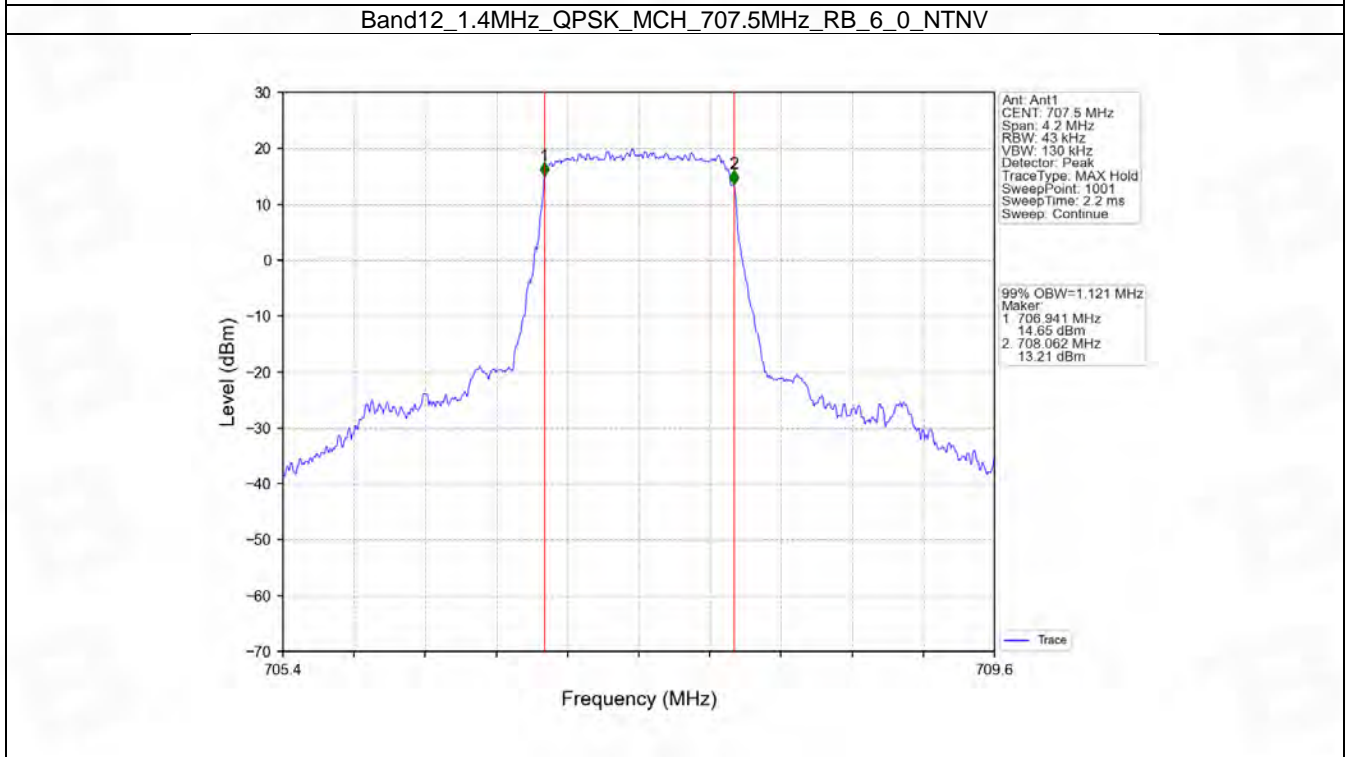
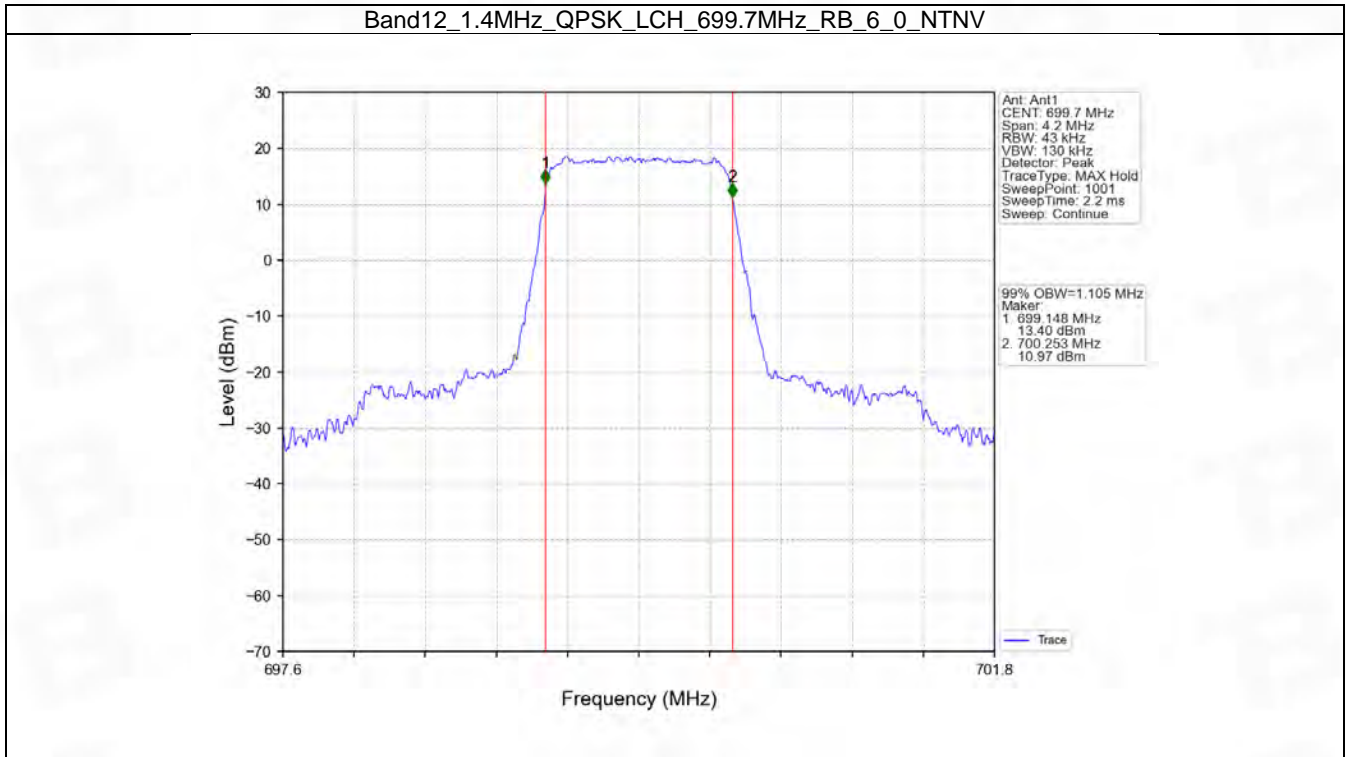
## 4. 99% & 26dB Bandwidth

### 4.1 Band12\_OBW

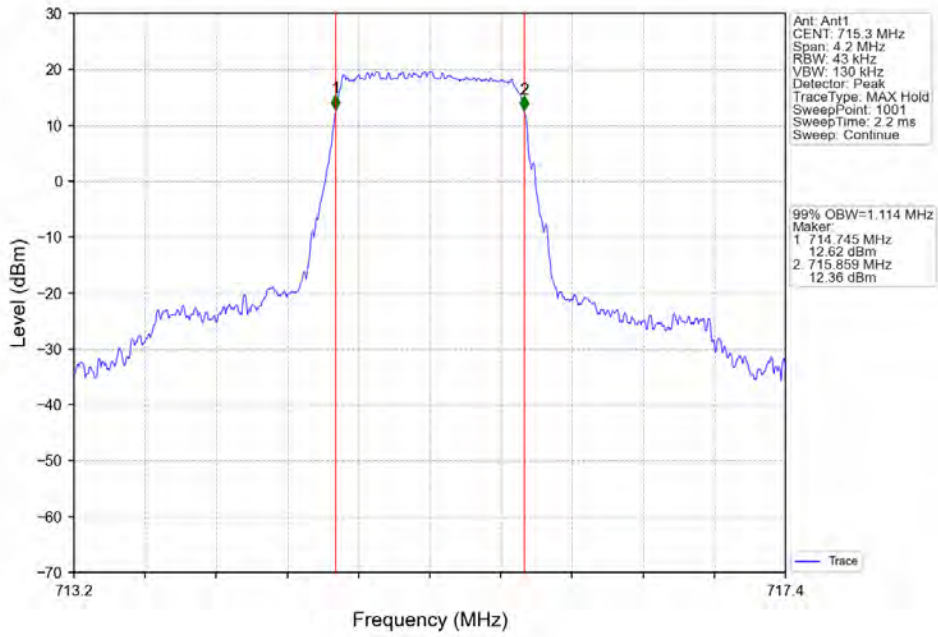
#### 4.1.1 Test Result

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	1.105	/	Pass
		707.5	6	0	1.121	/	Pass
		715.3	6	0	1.114	/	Pass
	16QAM	699.7	6	0	1.121	/	Pass
		707.5	6	0	1.110	/	Pass
		715.3	6	0	1.104	/	Pass
3	QPSK	700.5	15	0	2.727	/	Pass
		707.5	15	0	2.728	/	Pass
		714.5	15	0	2.718	/	Pass
	16QAM	700.5	15	0	2.716	/	Pass
		707.5	15	0	2.719	/	Pass
		714.5	15	0	2.716	/	Pass
5	QPSK	701.5	25	0	4.566	/	Pass
		707.5	25	0	4.555	/	Pass
		713.5	25	0	4.575	/	Pass
	16QAM	701.5	25	0	4.583	/	Pass
		707.5	25	0	4.581	/	Pass
		713.5	25	0	4.567	/	Pass
10	QPSK	704	50	0	9.091	/	Pass
		707.5	50	0	9.046	/	Pass
		711	50	0	9.114	/	Pass
	16QAM	704	50	0	9.079	/	Pass
		707.5	50	0	9.058	/	Pass
		711	50	0	9.086	/	Pass

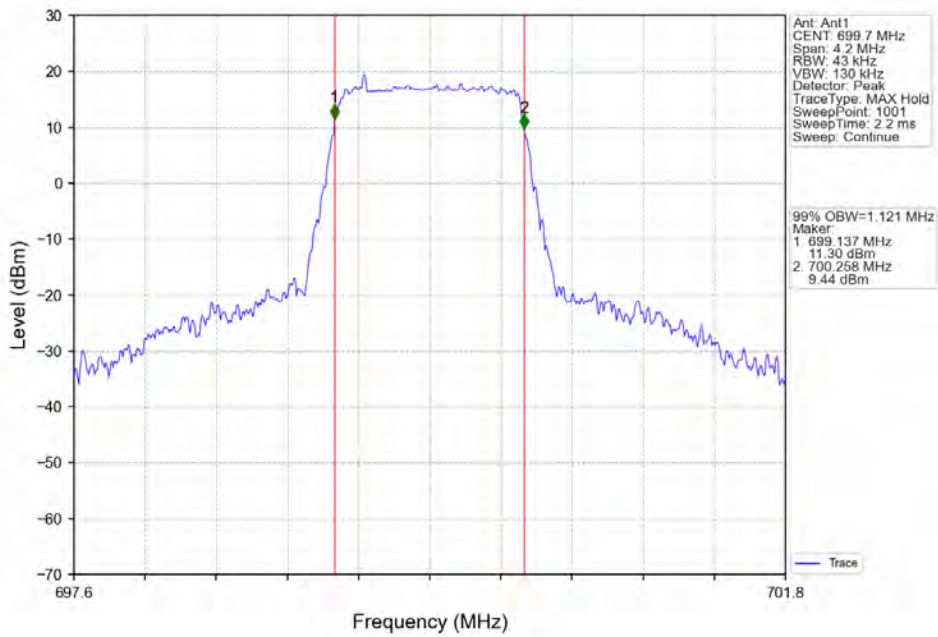
### 4.1.2 Test Graph



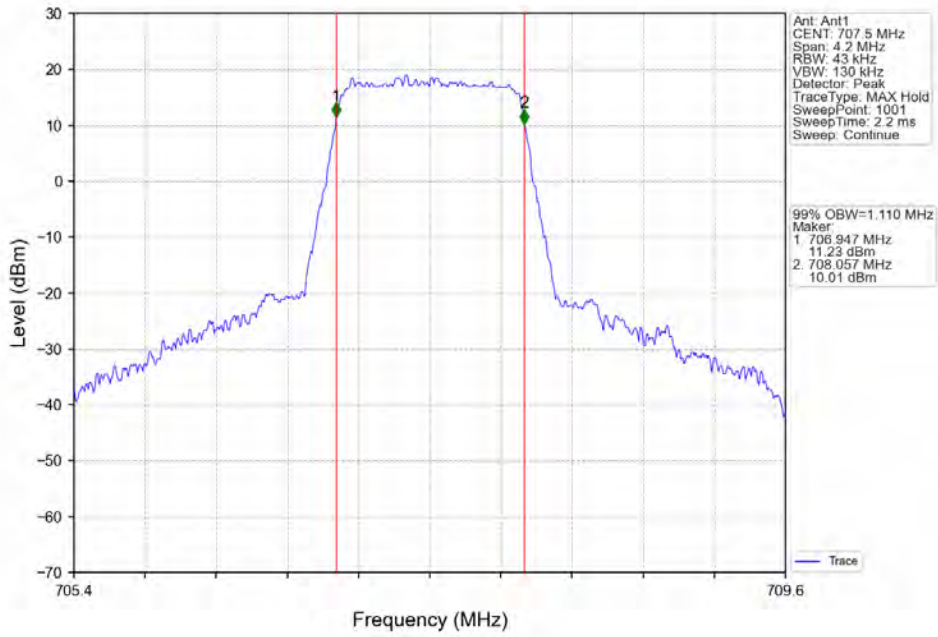
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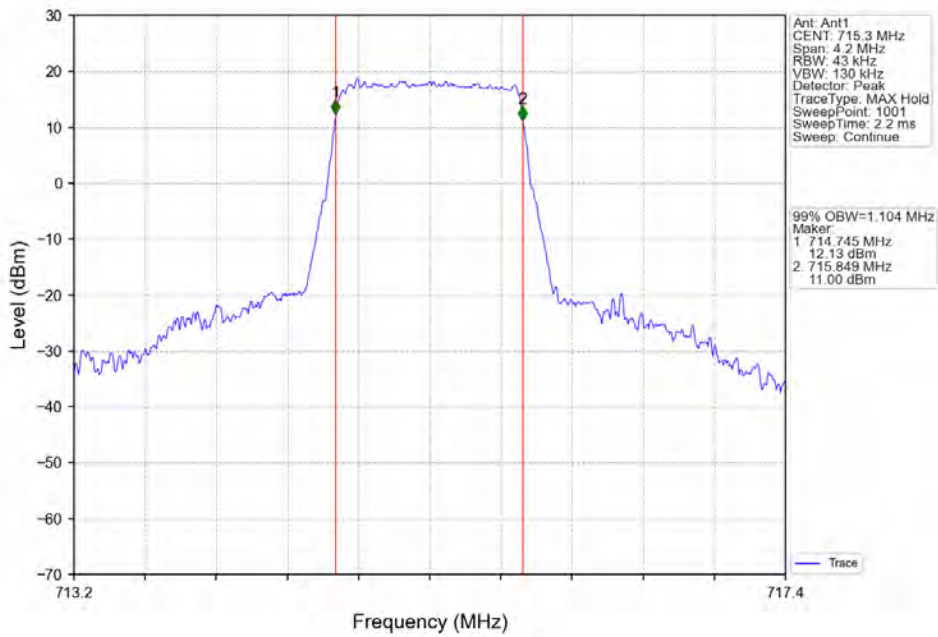
Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_6\_0\_NTNV



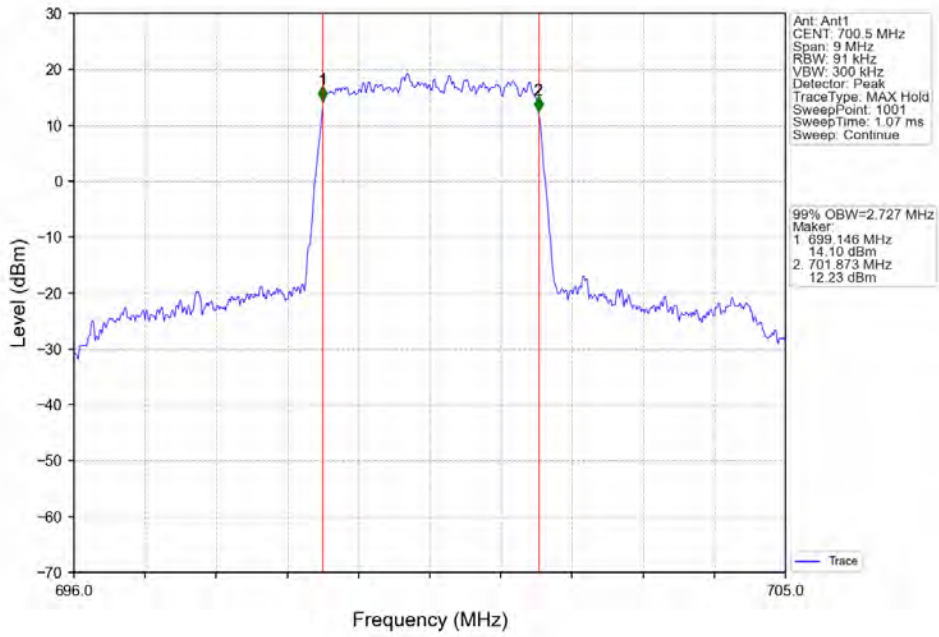
Band12\_1.4MHz\_16QAM\_MCH\_707.5MHz\_RB\_6\_0\_NTNV



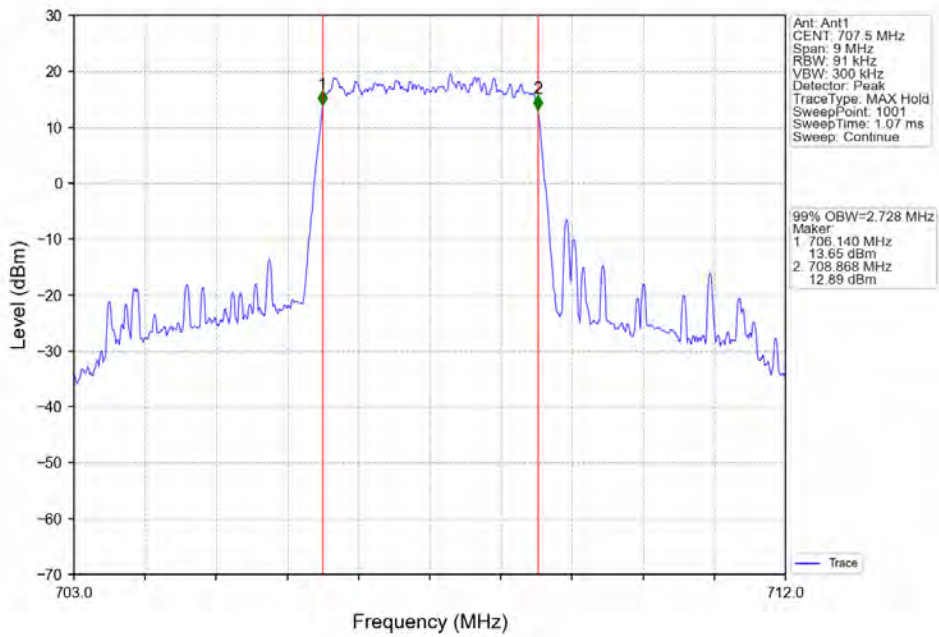
Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_6\_0\_NTNV



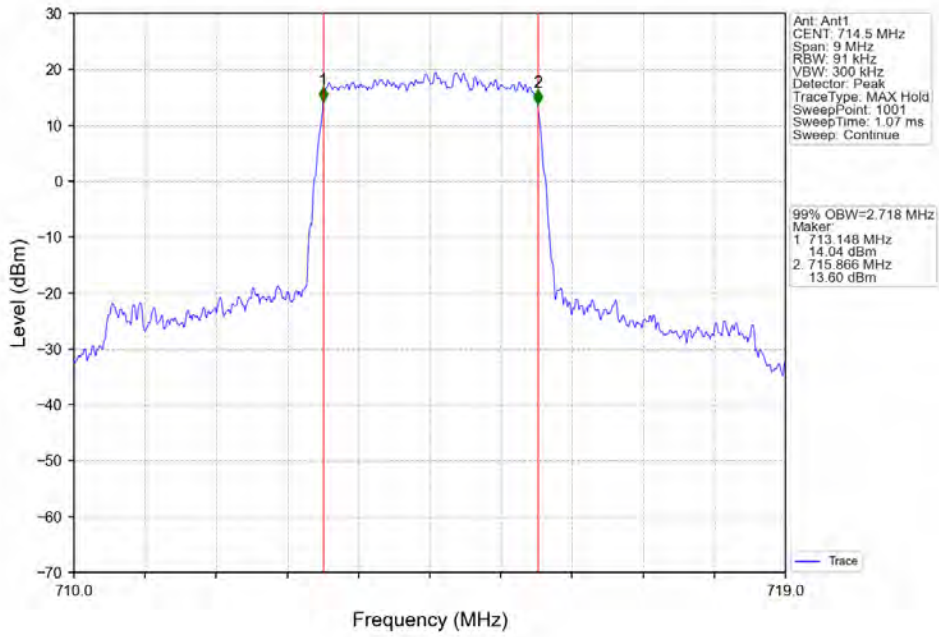
Band12\_3MHz\_QPSK\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



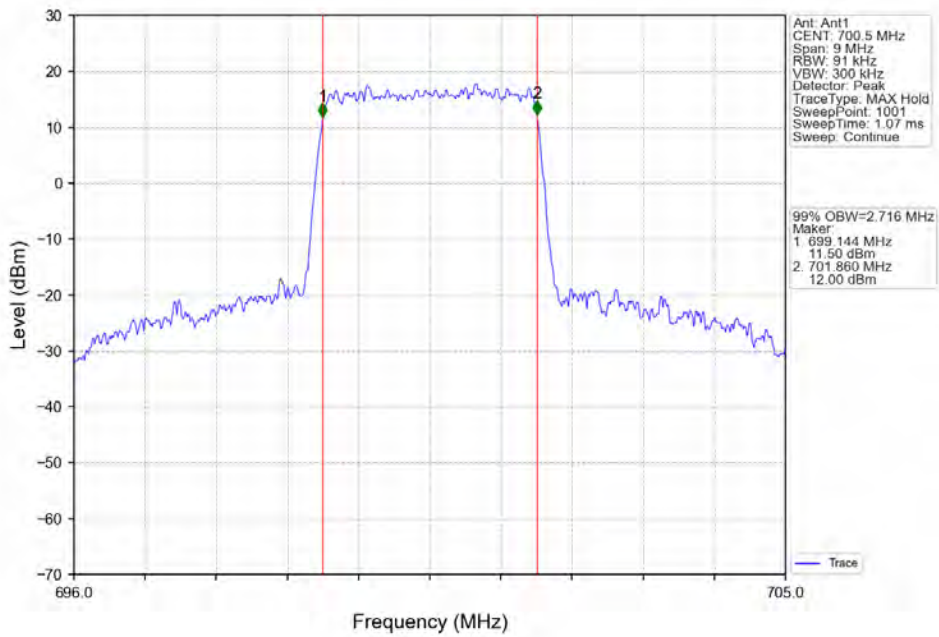
Band12\_3MHz\_QPSK\_MCH\_707.5MHz\_RB\_15\_0\_NTNV



Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_15\_0\_NTNV

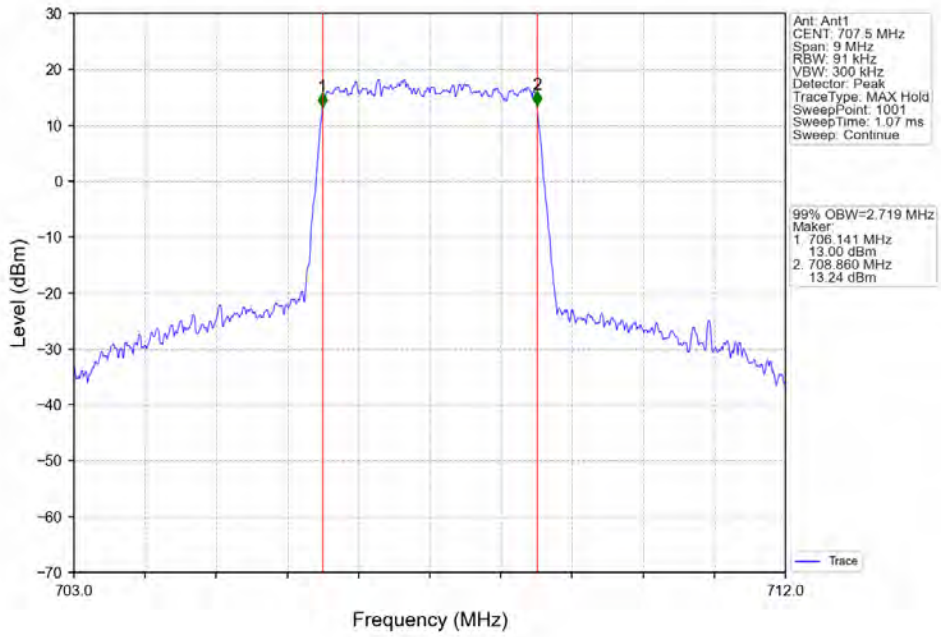


Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_15\_0\_NTNV

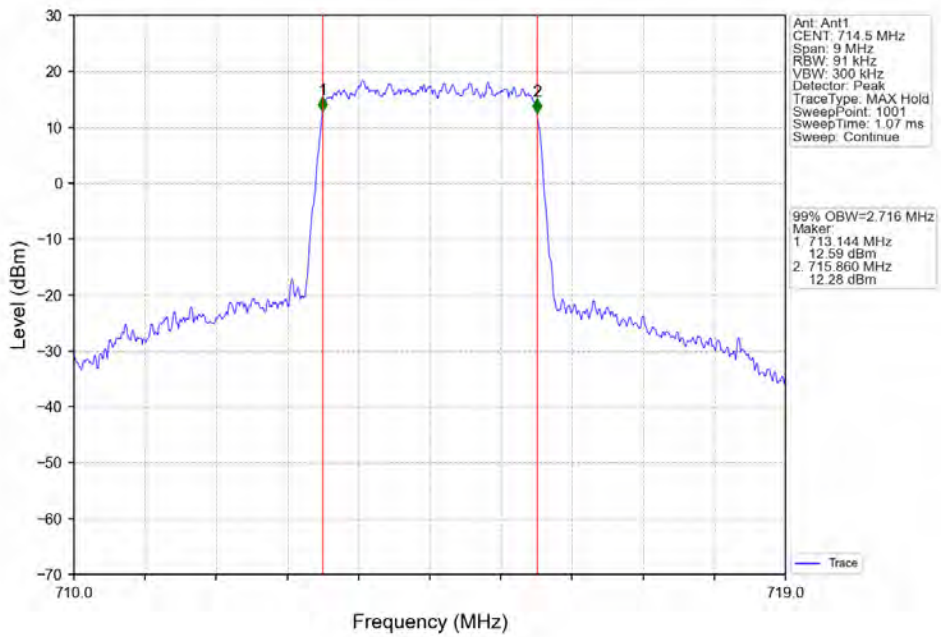




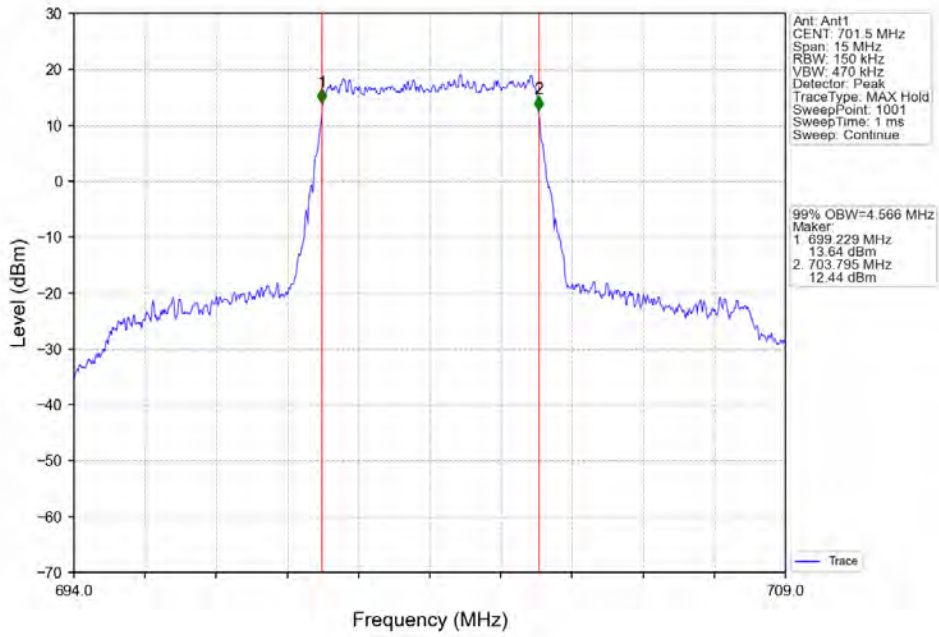
Band12\_3MHz\_16QAM\_MCH\_707.5MHz\_RB\_15\_0\_NTNV



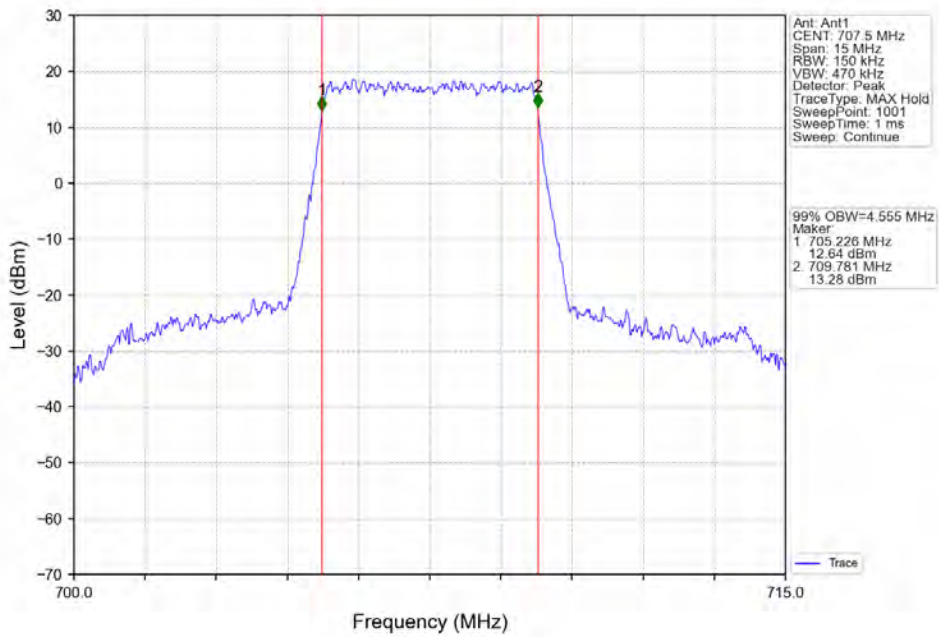
Band12\_3MHz\_16QAM\_HCH\_714.5MHz\_RB\_15\_0\_NTNV



Band12\_5MHz\_QPSK\_LCH\_701.5MHz\_RB\_25\_0\_NTNV

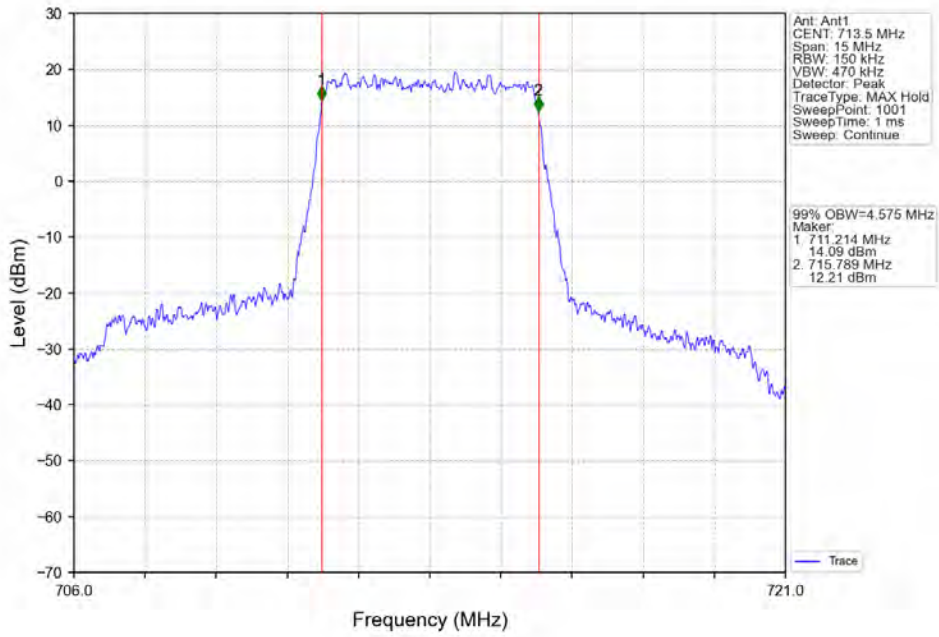


Band12\_5MHz\_QPSK\_MCH\_707.5MHz\_RB\_25\_0\_NTNV

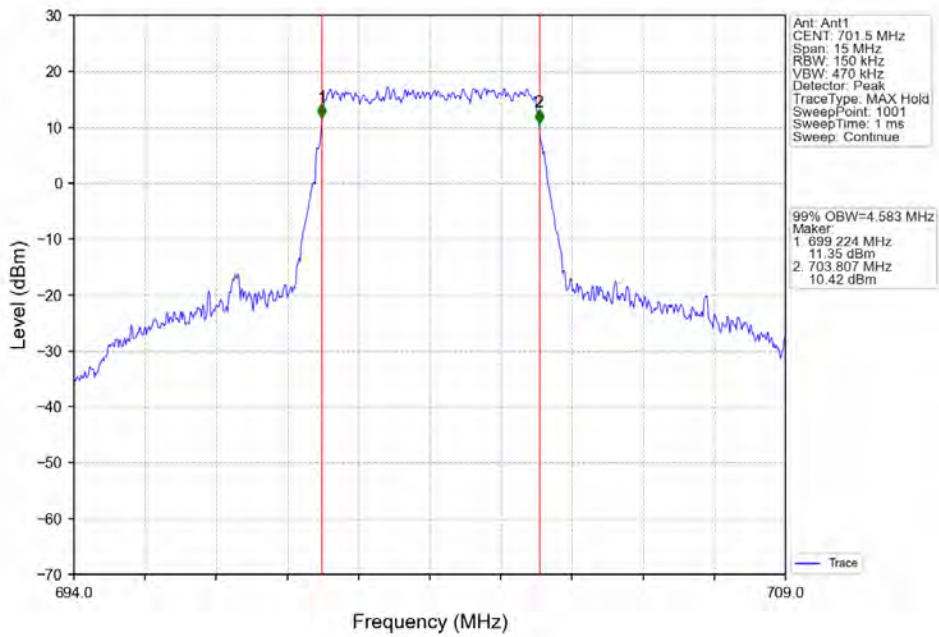




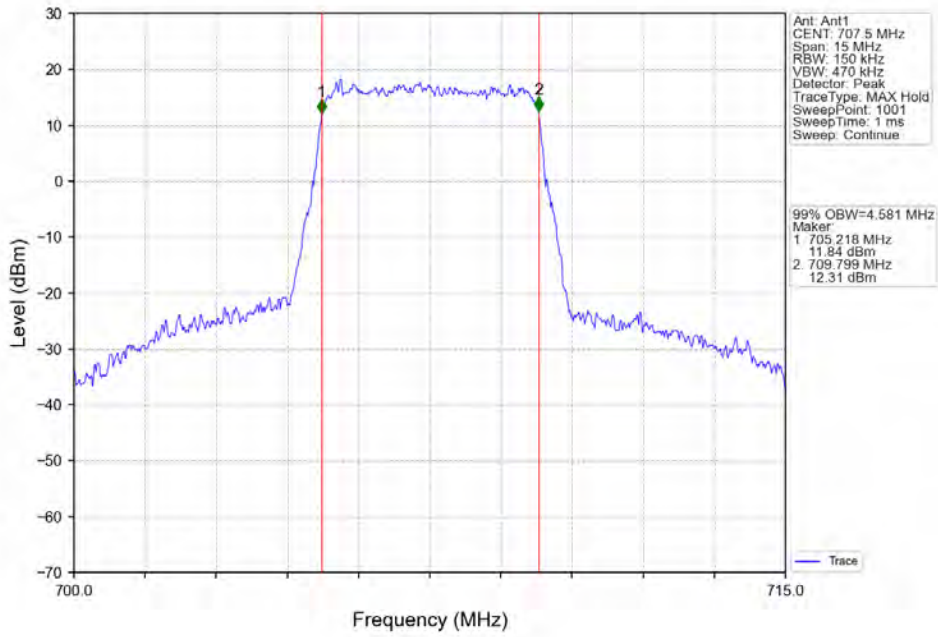
Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



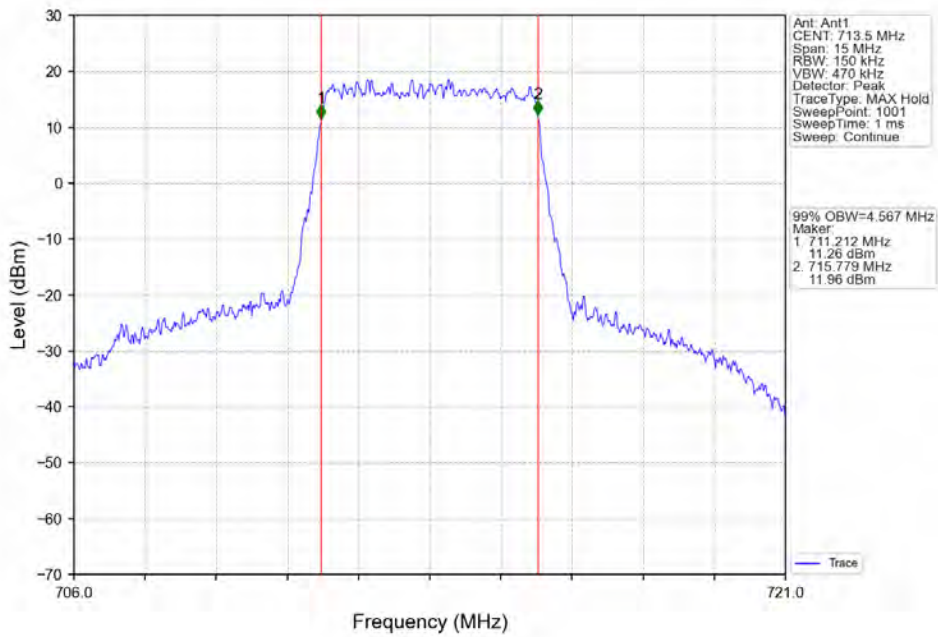
Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



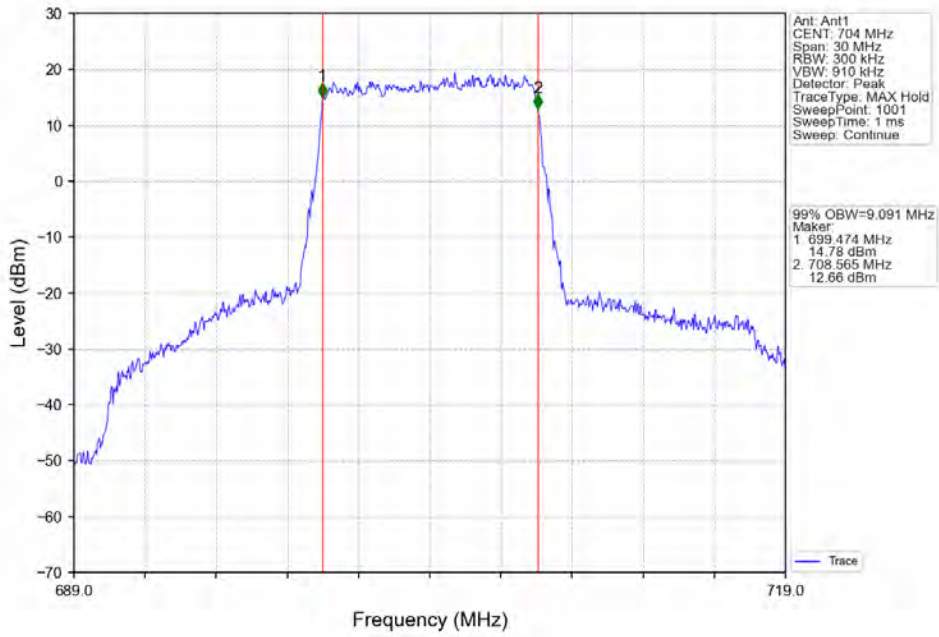
Band12\_5MHz\_16QAM\_MCH\_707.5MHz\_RB\_25\_0\_NTNV



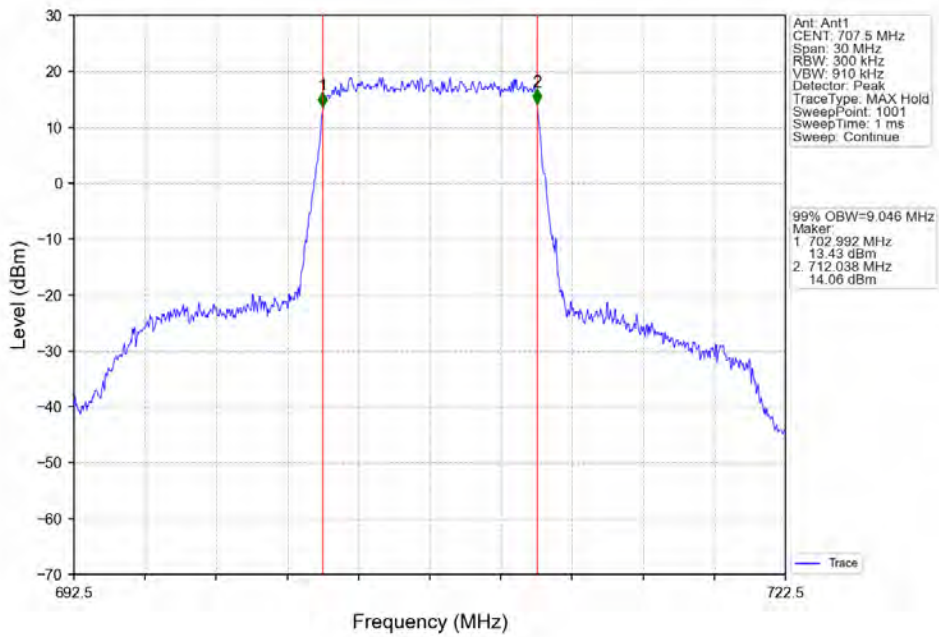
Band12\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



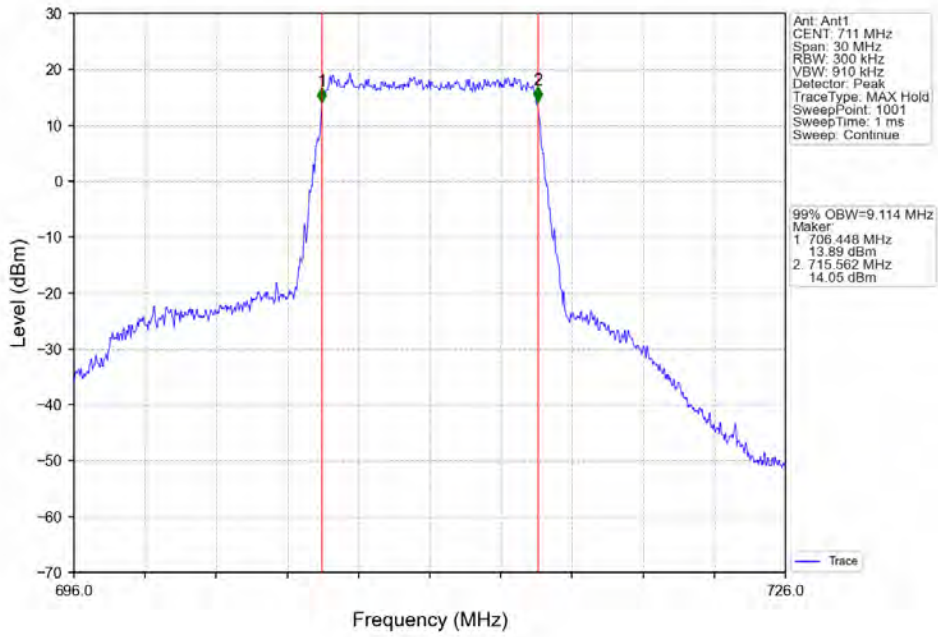
Band12\_10MHz\_QPSK\_LCH\_704MHz\_RB\_50\_0\_NTNV



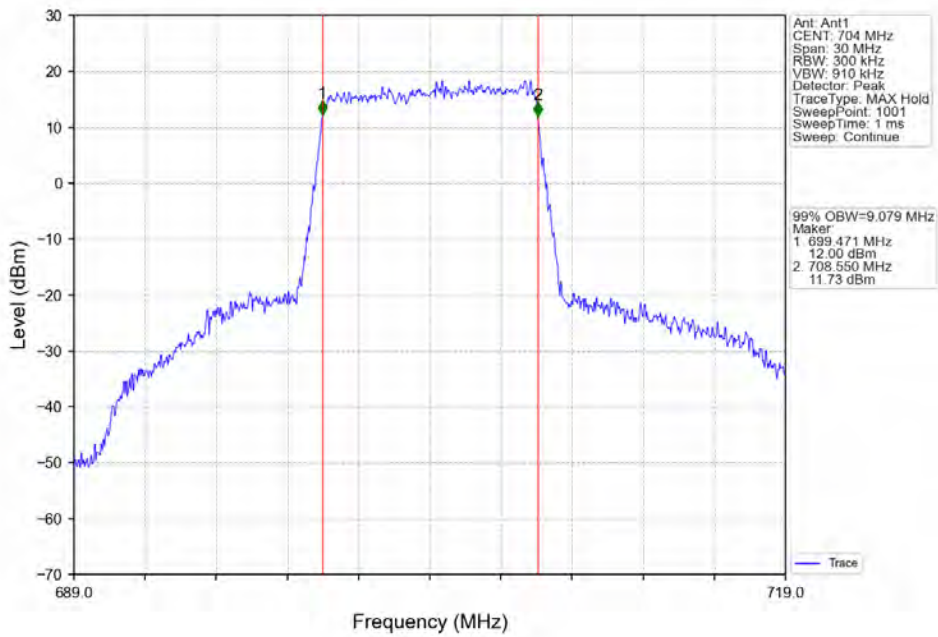
Band12\_10MHz\_QPSK\_MCH\_707.5MHz\_RB\_50\_0\_NTNV



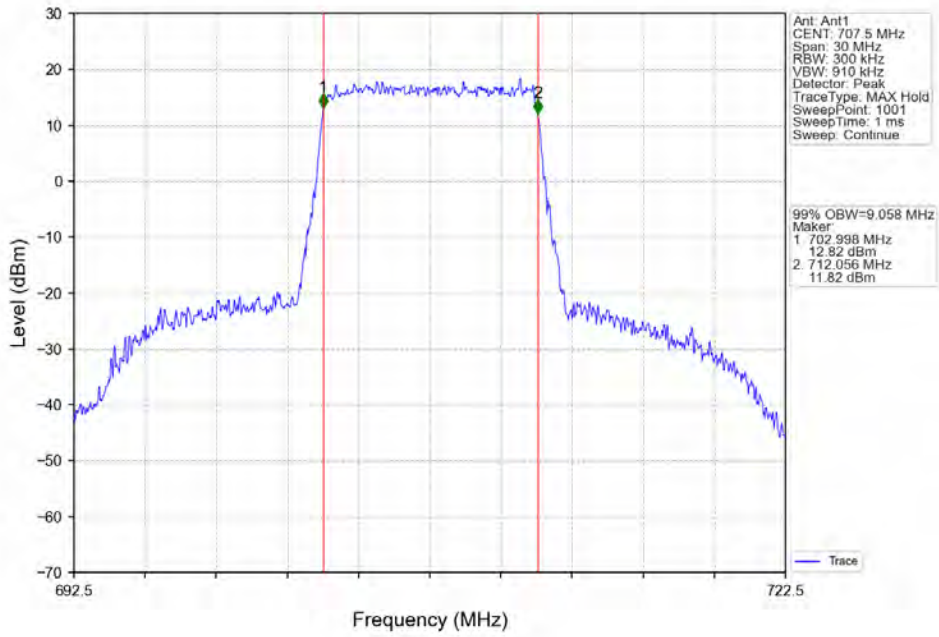
Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



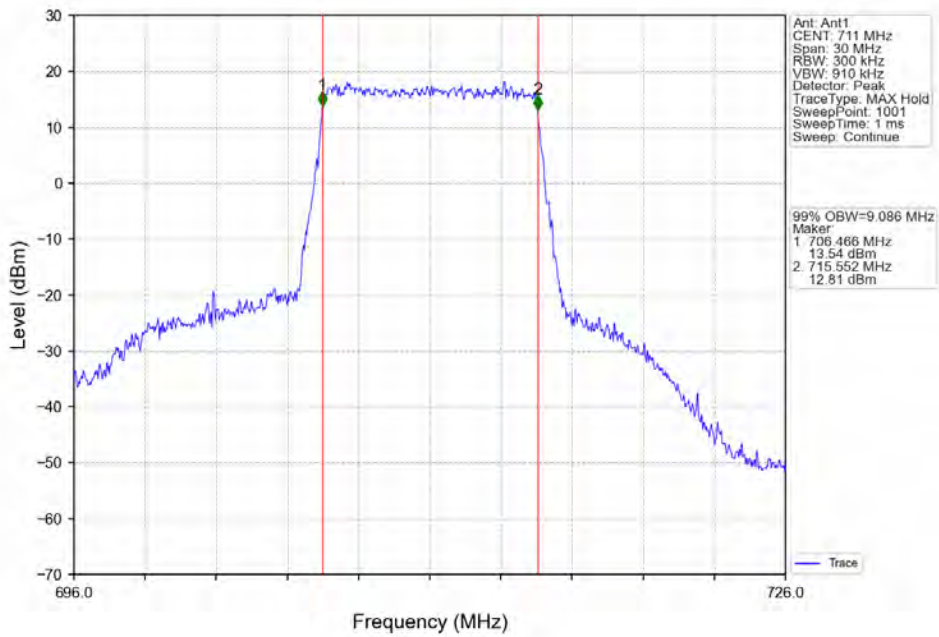
Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_50\_0\_NTNV



Band12\_10MHz\_16QAM\_MCH\_707.5MHz\_RB\_50\_0\_NTNV



Band12\_10MHz\_16QAM\_HCH\_711MHz\_RB\_50\_0\_NTNV



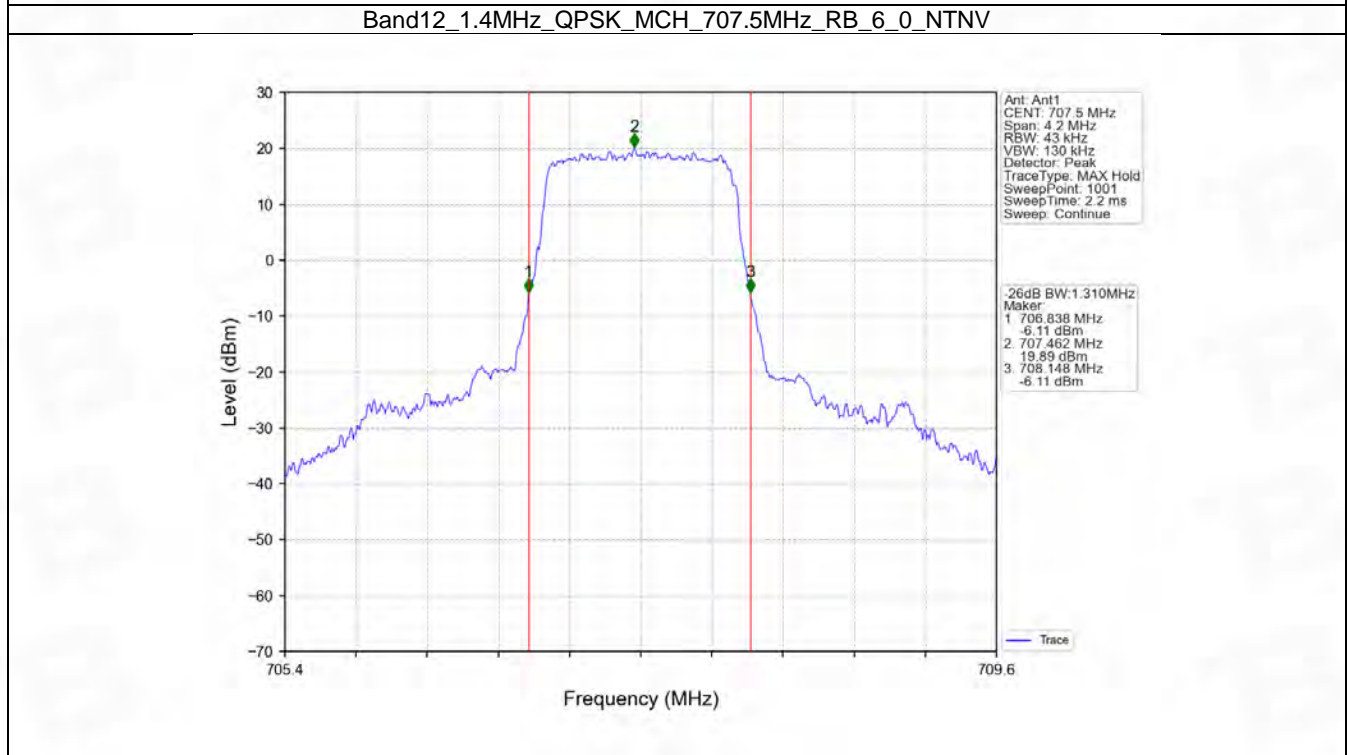
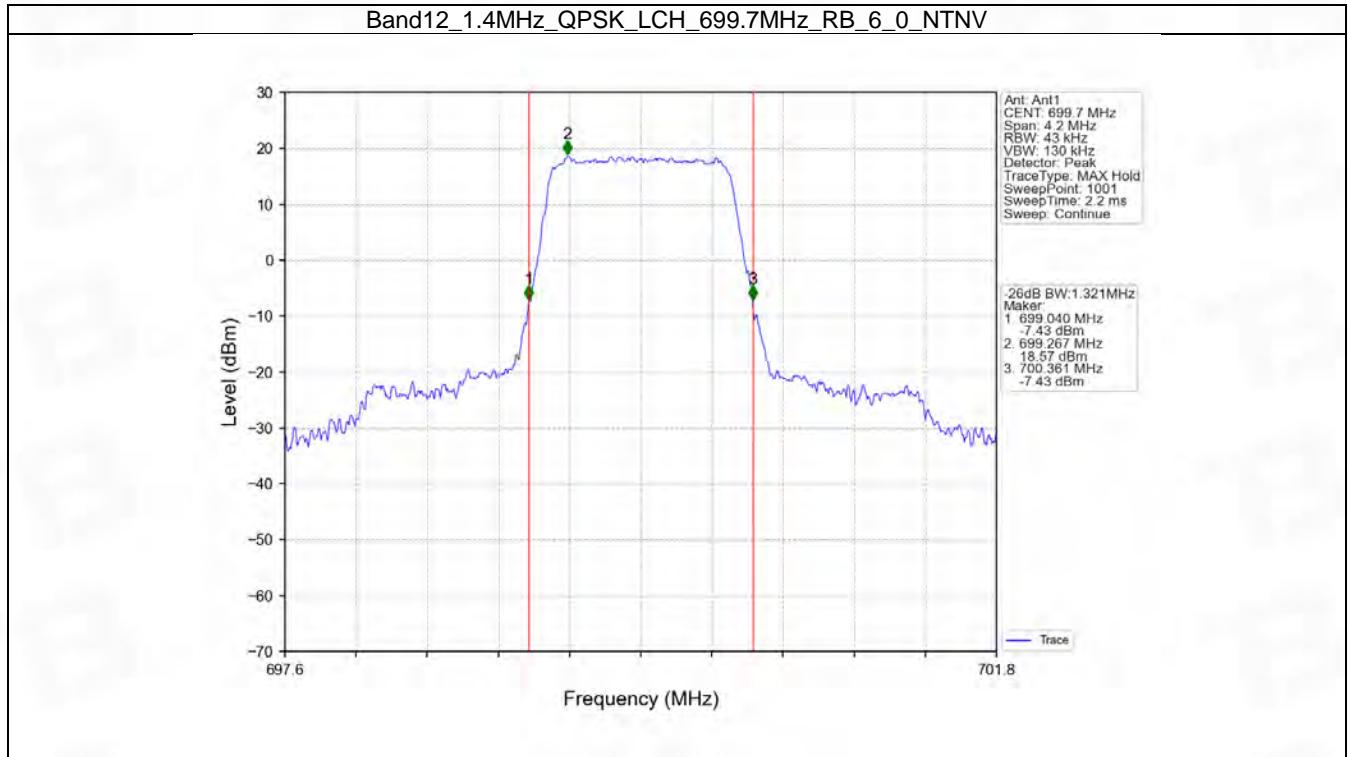
## 4.2 Band12\_XDB

### 4.2.1 Test Result

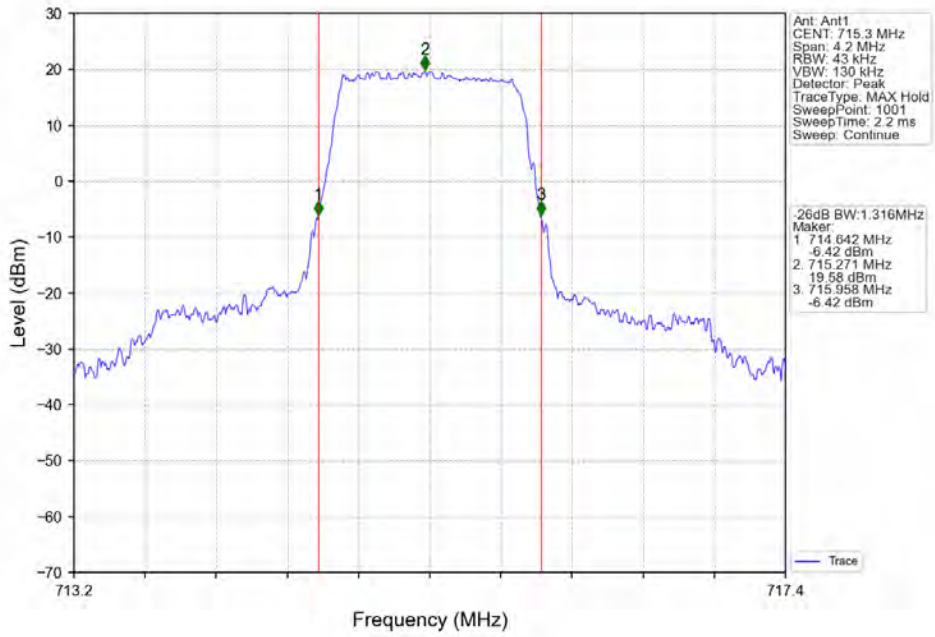
Band: 12 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	699.7	6	0	1.321	/	Pass
		707.5	6	0	1.310	/	Pass
		715.3	6	0	1.316	/	Pass
	16QAM	699.7	6	0	1.331	/	Pass
		707.5	6	0	1.324	/	Pass
		715.3	6	0	1.307	/	Pass
3	QPSK	700.5	15	0	2.992	/	Pass
		707.5	15	0	3.005	/	Pass
		714.5	15	0	2.986	/	Pass
	16QAM	700.5	15	0	2.994	/	Pass
		707.5	15	0	2.996	/	Pass
		714.5	15	0	2.989	/	Pass
5	QPSK	701.5	25	0	5.287	/	Pass
		707.5	25	0	5.277	/	Pass
		713.5	25	0	5.220	/	Pass
	16QAM	701.5	25	0	5.349	/	Pass
		707.5	25	0	5.309	/	Pass
		713.5	25	0	5.256	/	Pass
10	QPSK	704	50	0	10.309	/	Pass
		707.5	50	0	10.184	/	Pass
		711	50	0	10.227	/	Pass
	16QAM	704	50	0	10.187	/	Pass
		707.5	50	0	10.146	/	Pass
		711	50	0	10.340	/	Pass



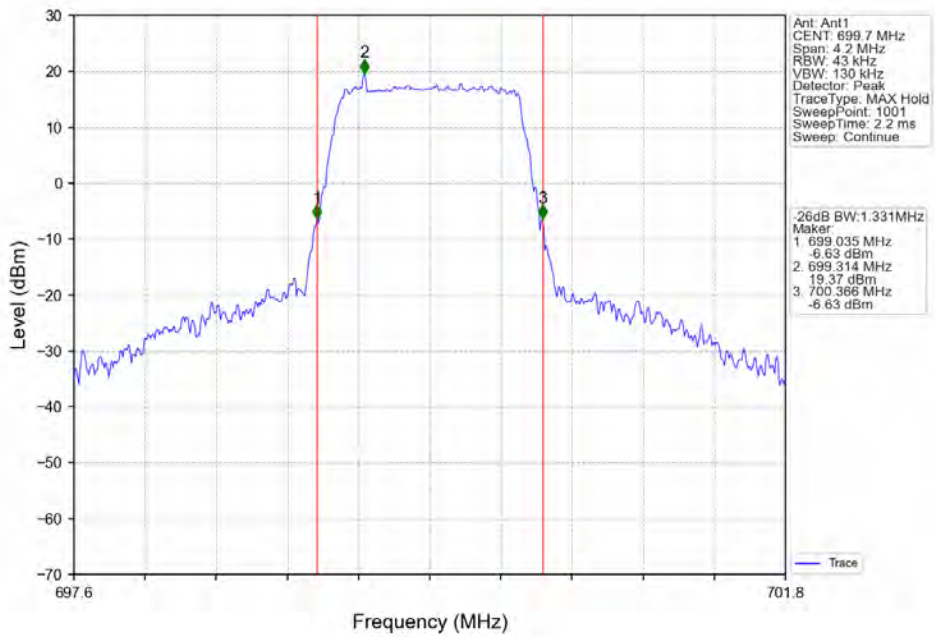
## 4.2.2 Test Graph



Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_6\_0\_NTV

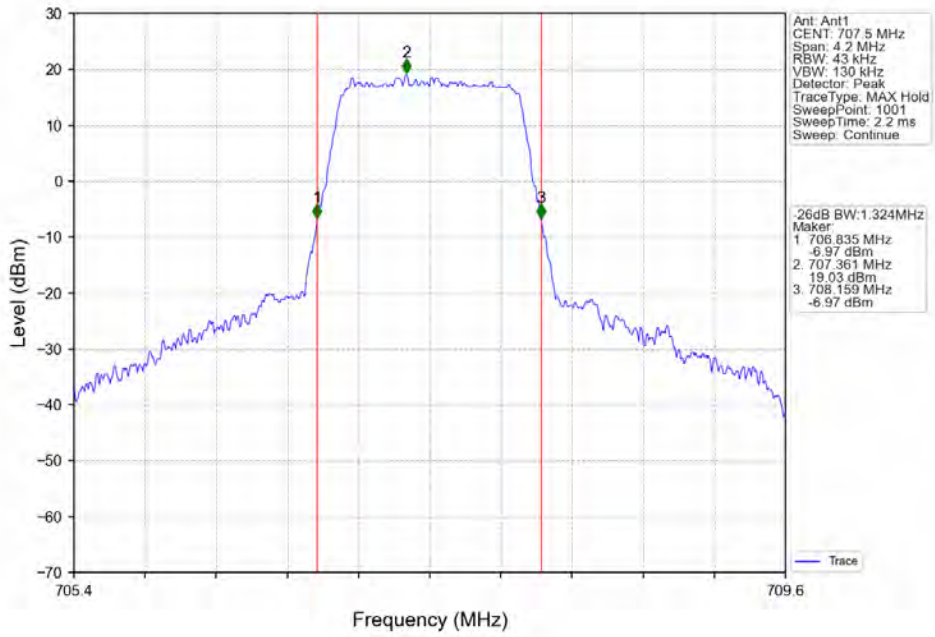


Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_6\_0\_NTV

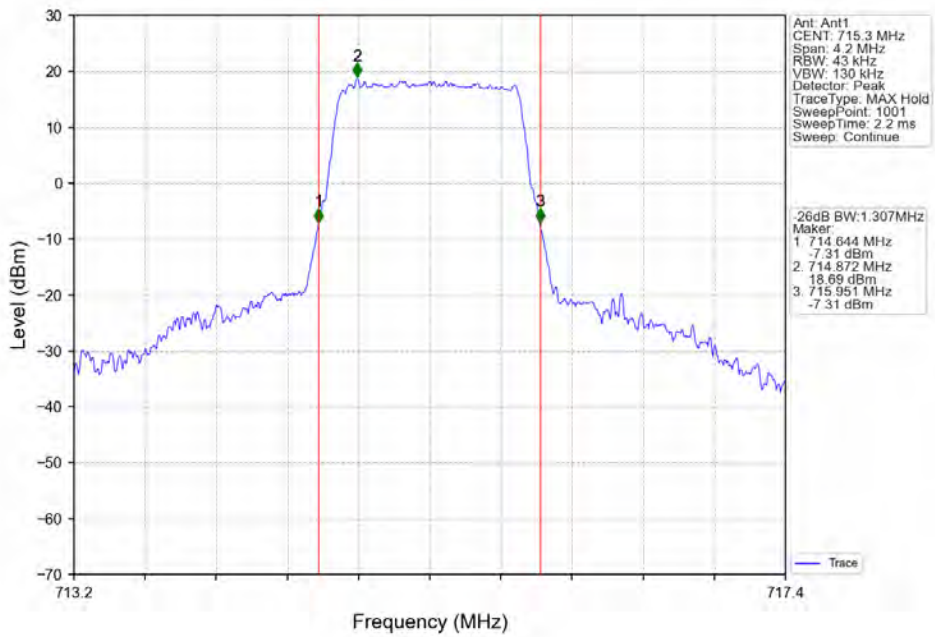




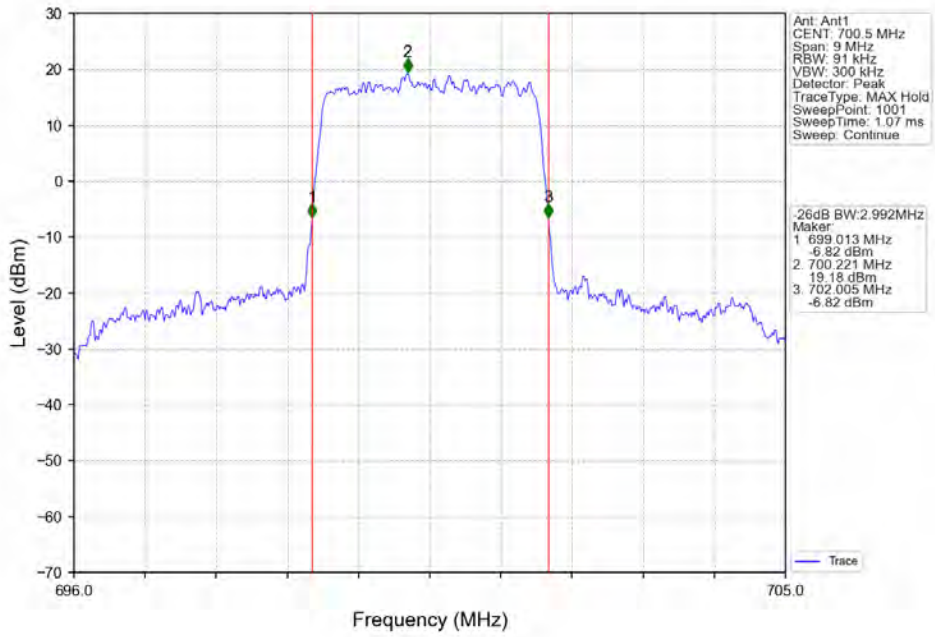
Band12\_1.4MHz\_16QAM\_MCH\_707.5MHz\_RB\_6\_0\_NTNV



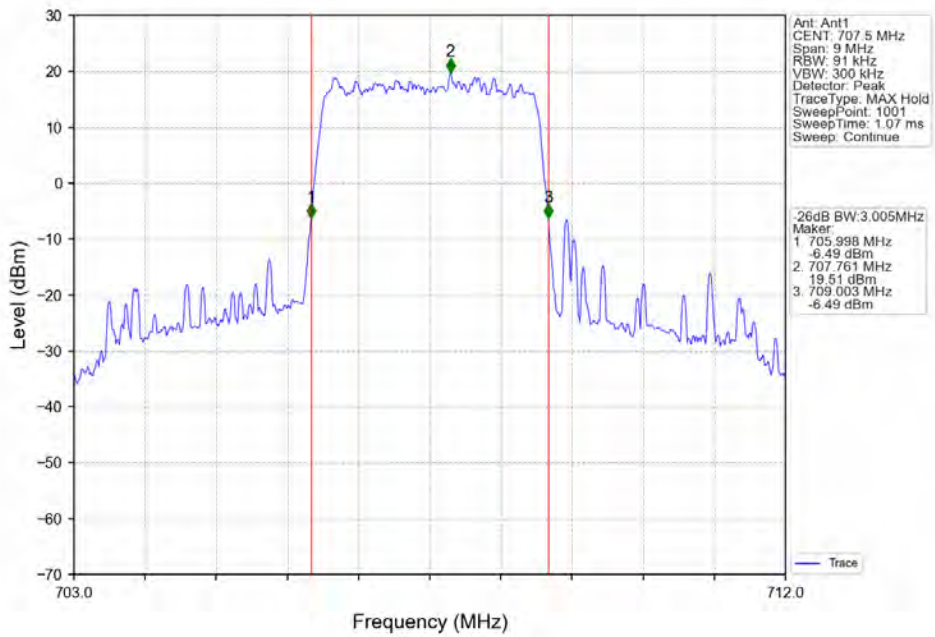
Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_6\_0\_NTNV



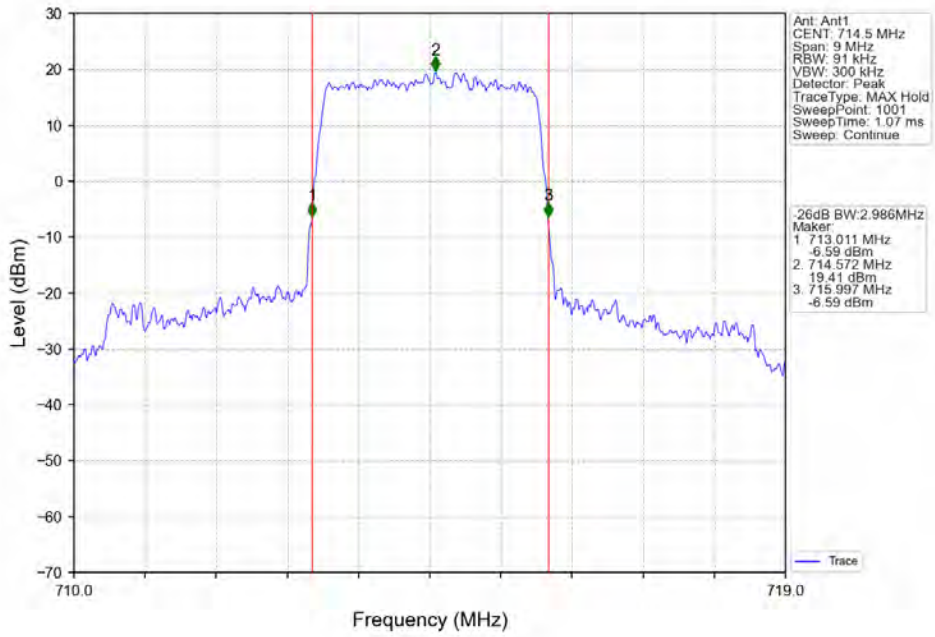
Band12\_3MHz\_QPSK\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



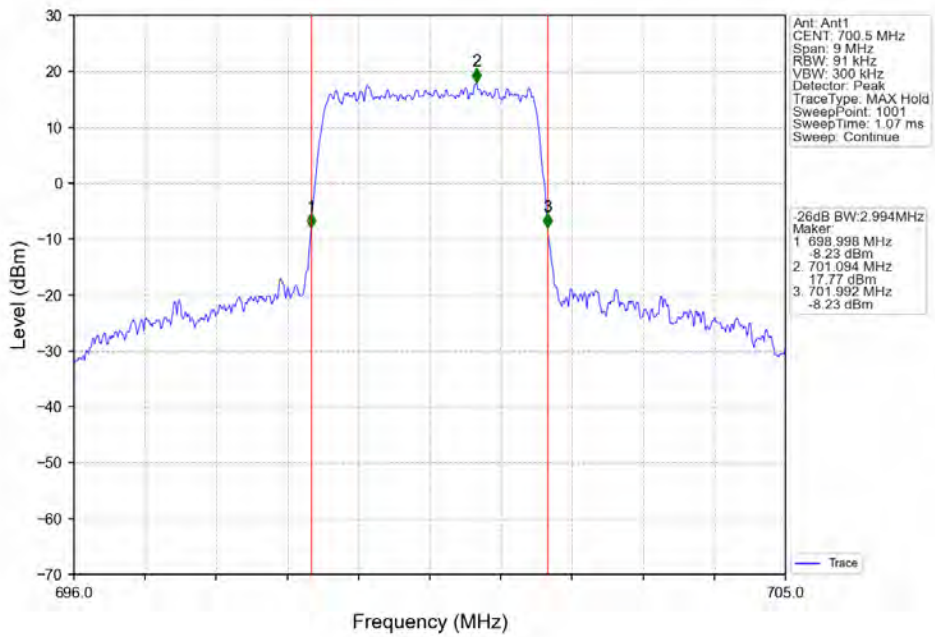
Band12\_3MHz\_QPSK\_MCH\_707.5MHz\_RB\_15\_0\_NTNV



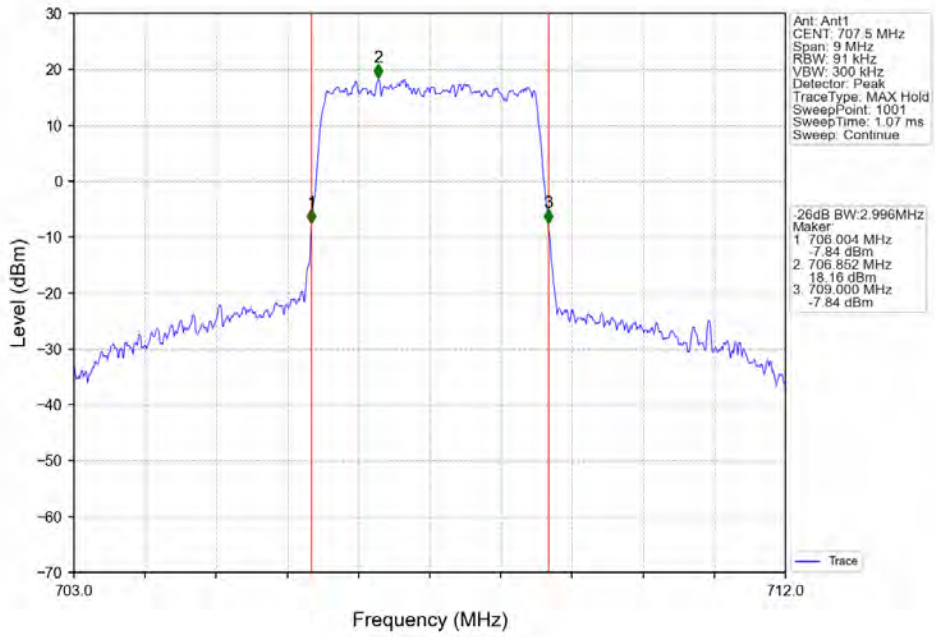
Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_15\_0\_NTNV



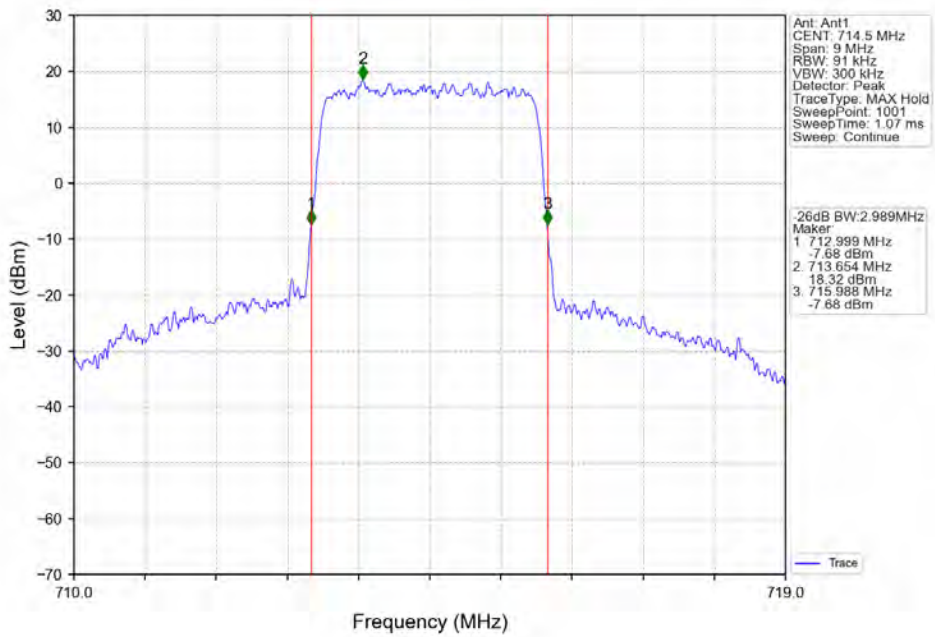
Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



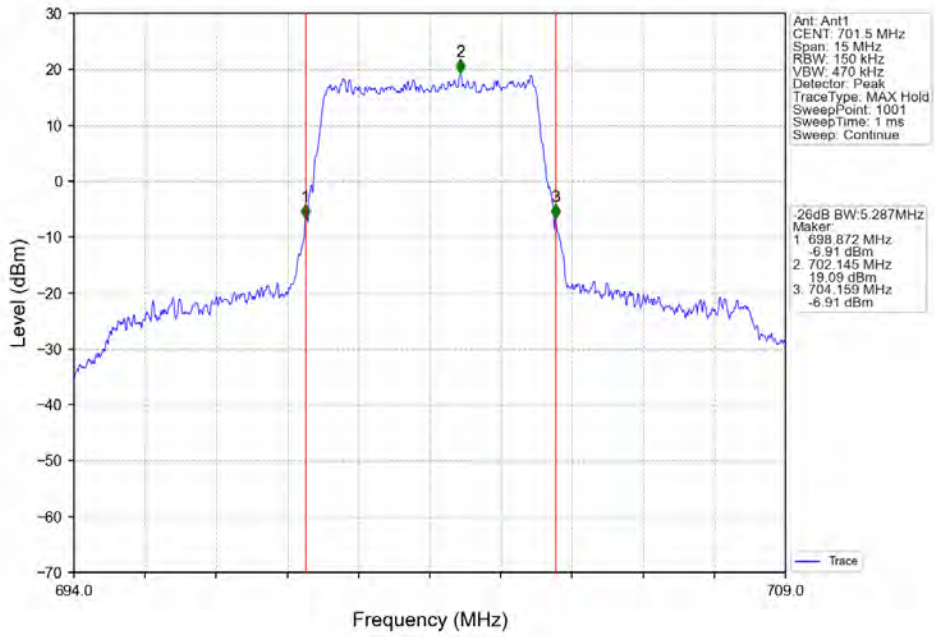
Band12\_3MHz\_16QAM\_MCH\_707.5MHz\_RB\_15\_0\_NTNV



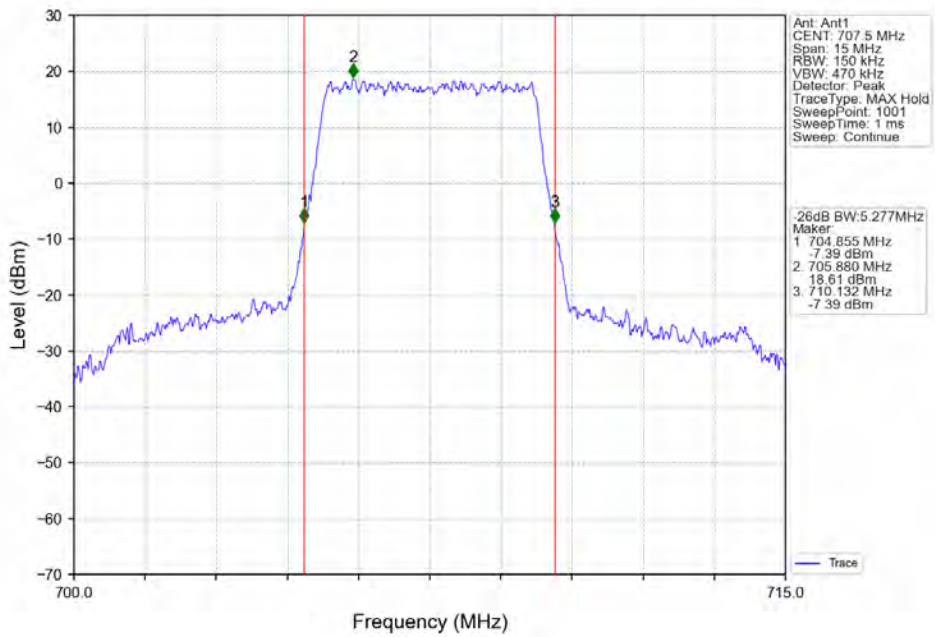
Band12\_3MHz\_16QAM\_HCH\_714.5MHz\_RB\_15\_0\_NTNV



Band12\_5MHz\_QPSK\_LCH\_701.5MHz\_RB\_25\_0\_NTNV

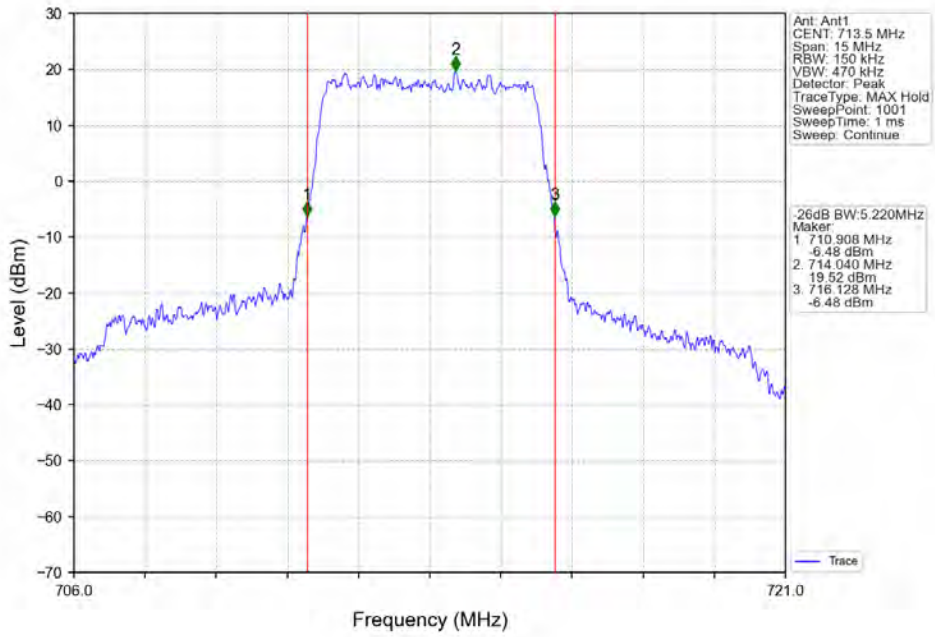


Band12\_5MHz\_QPSK\_MCH\_707.5MHz\_RB\_25\_0\_NTNV

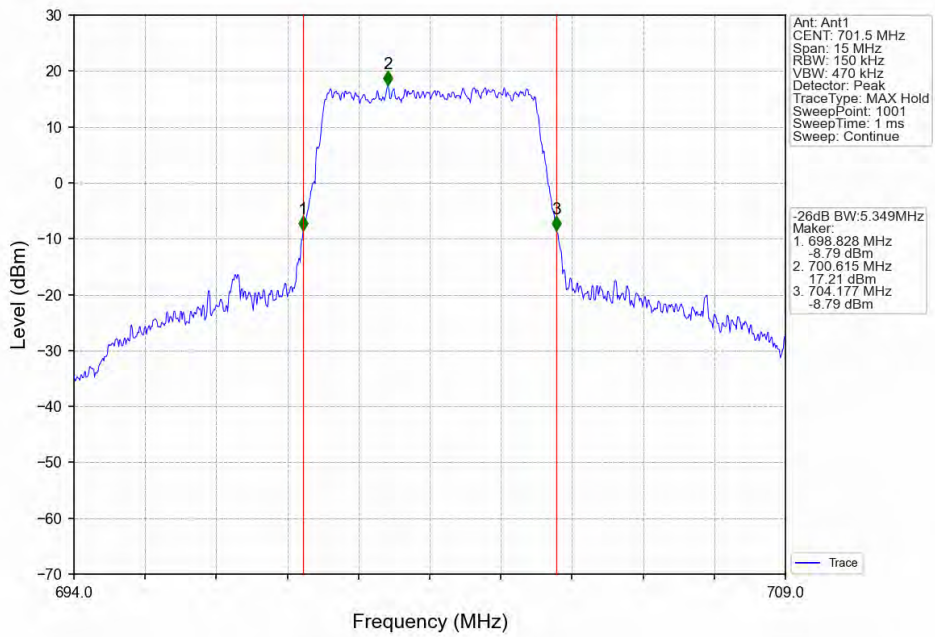




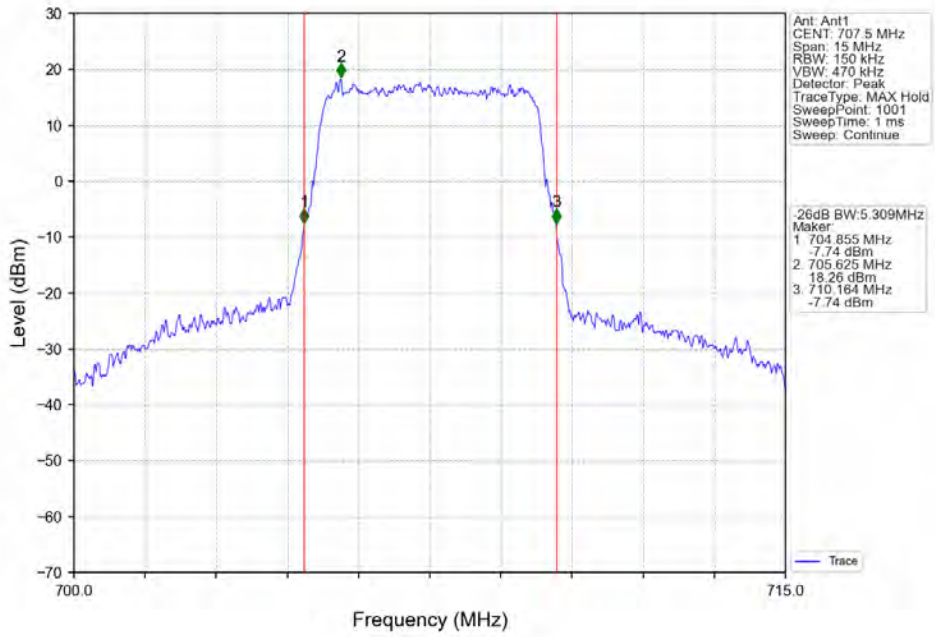
Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



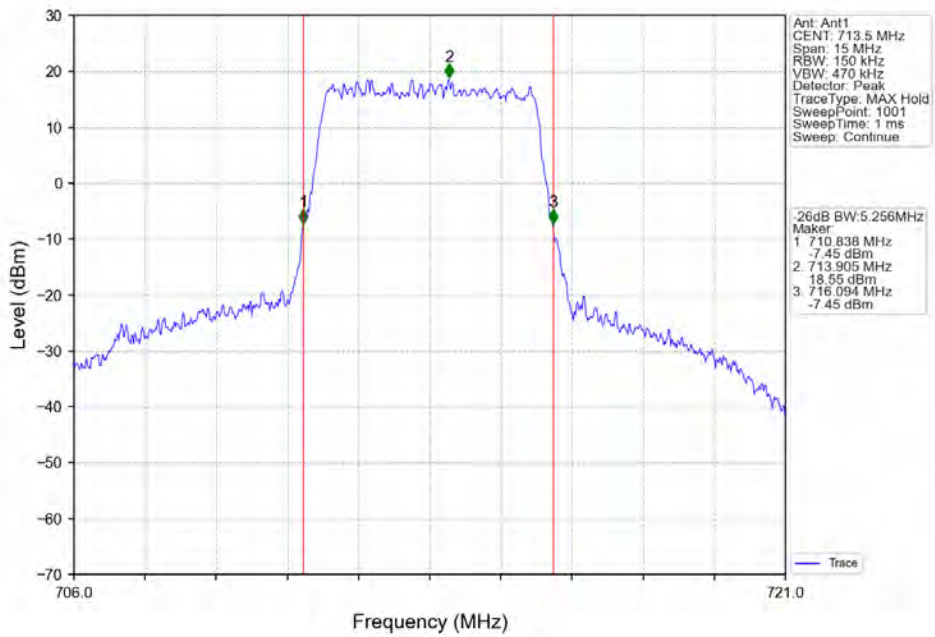
Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



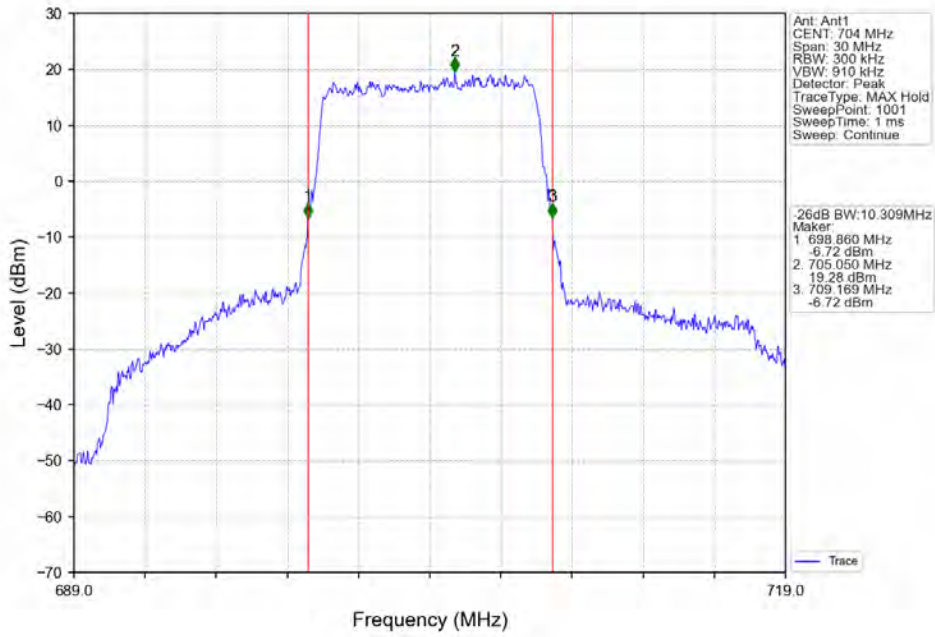
Band12\_5MHz\_16QAM\_MCH\_707.5MHz\_RB\_25\_0\_NTNV



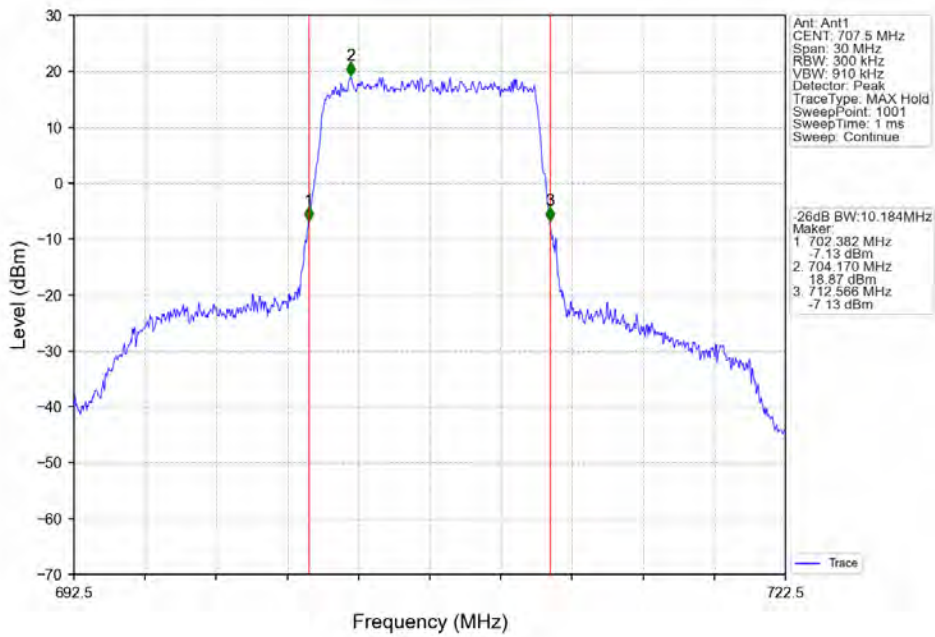
Band12\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



Band12\_10MHz\_QPSK\_LCH\_704MHz\_RB\_50\_0\_NTNV

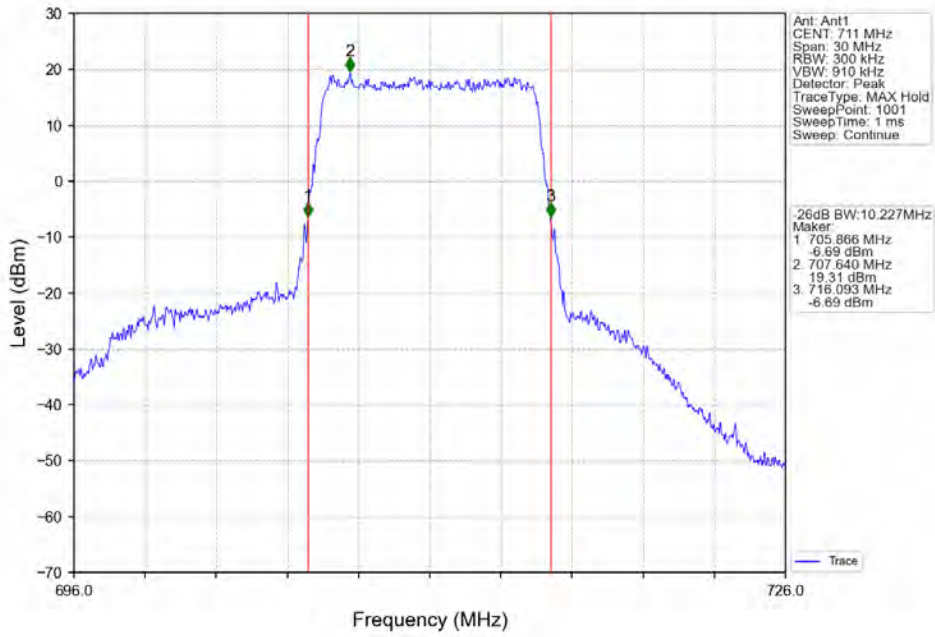


Band12\_10MHz\_QPSK\_MCH\_707.5MHz\_RB\_50\_0\_NTNV

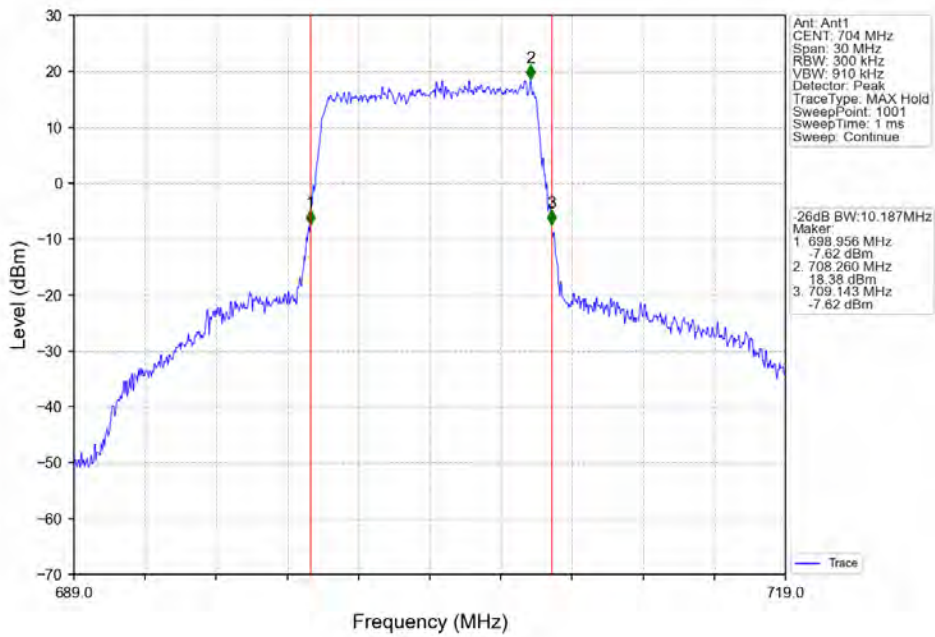




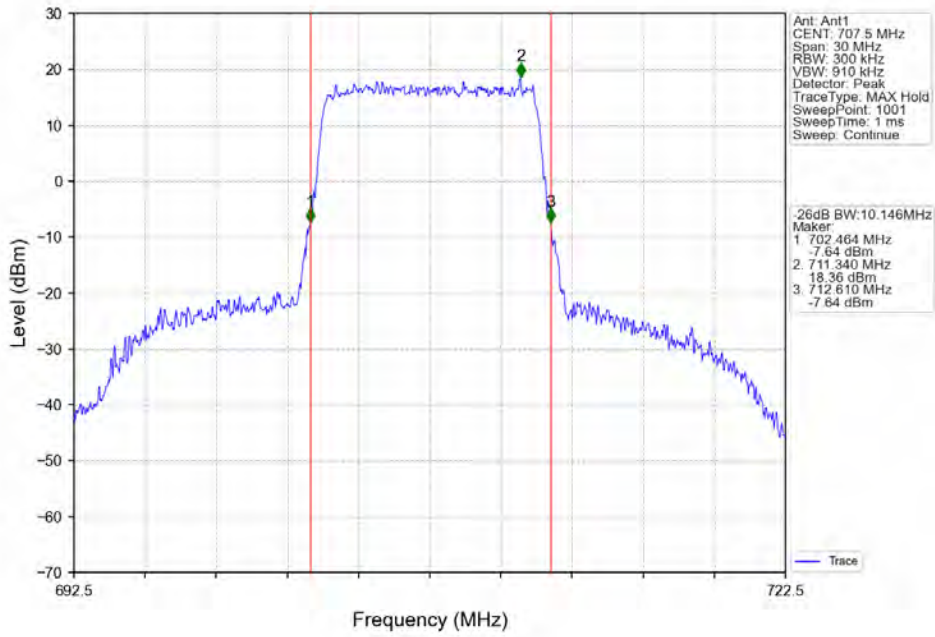
Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



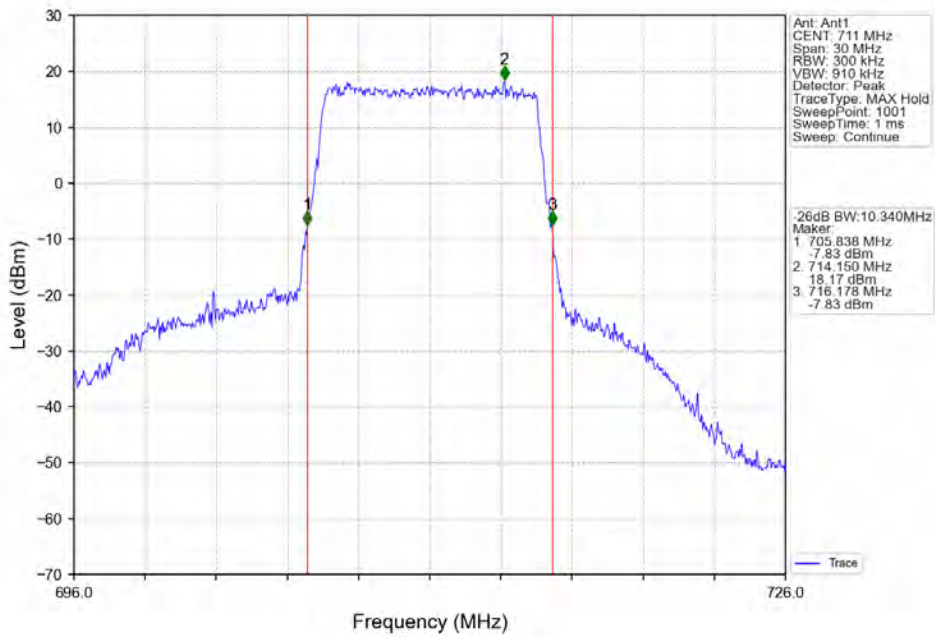
Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_50\_0\_NTNV



Band12\_10MHz\_16QAM\_MCH\_707.5MHz\_RB\_50\_0\_NTNV



Band12\_10MHz\_16QAM\_HCH\_711MHz\_RB\_50\_0\_NTNV



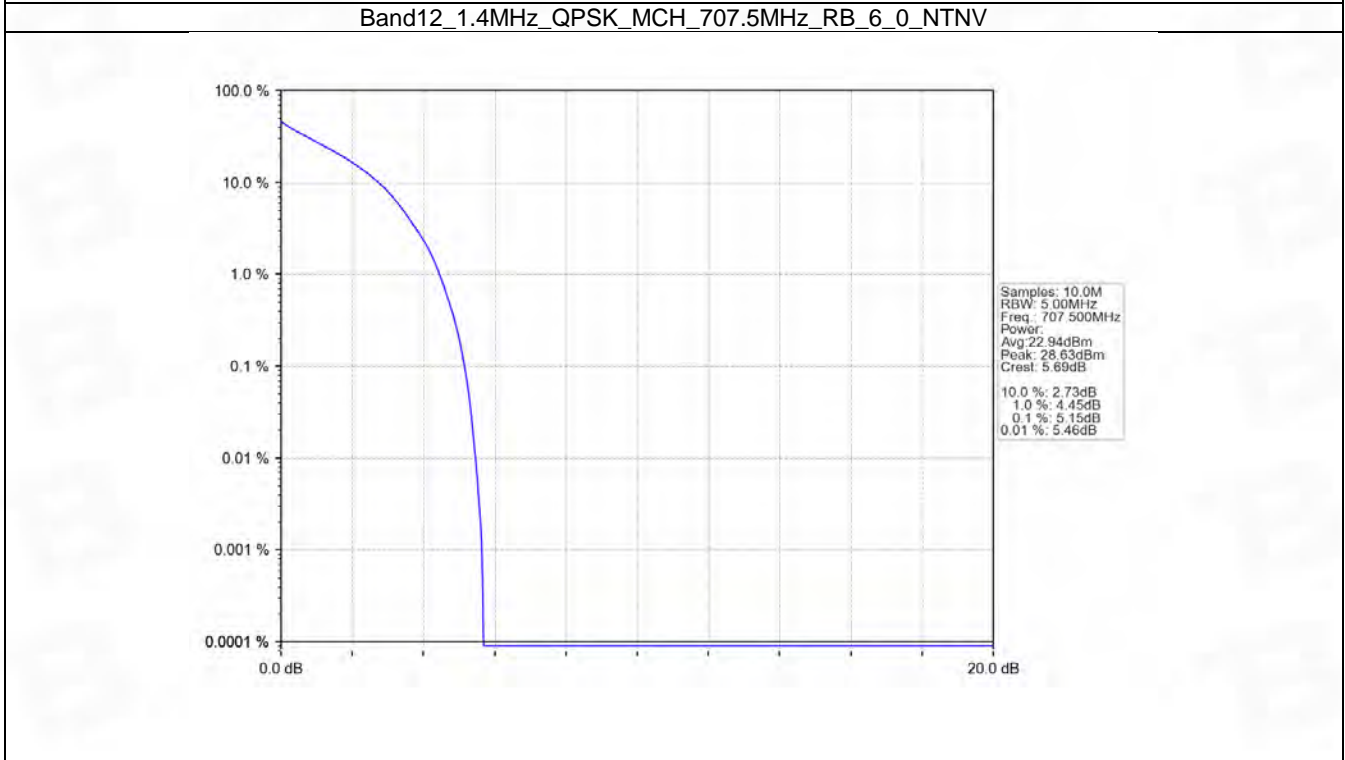
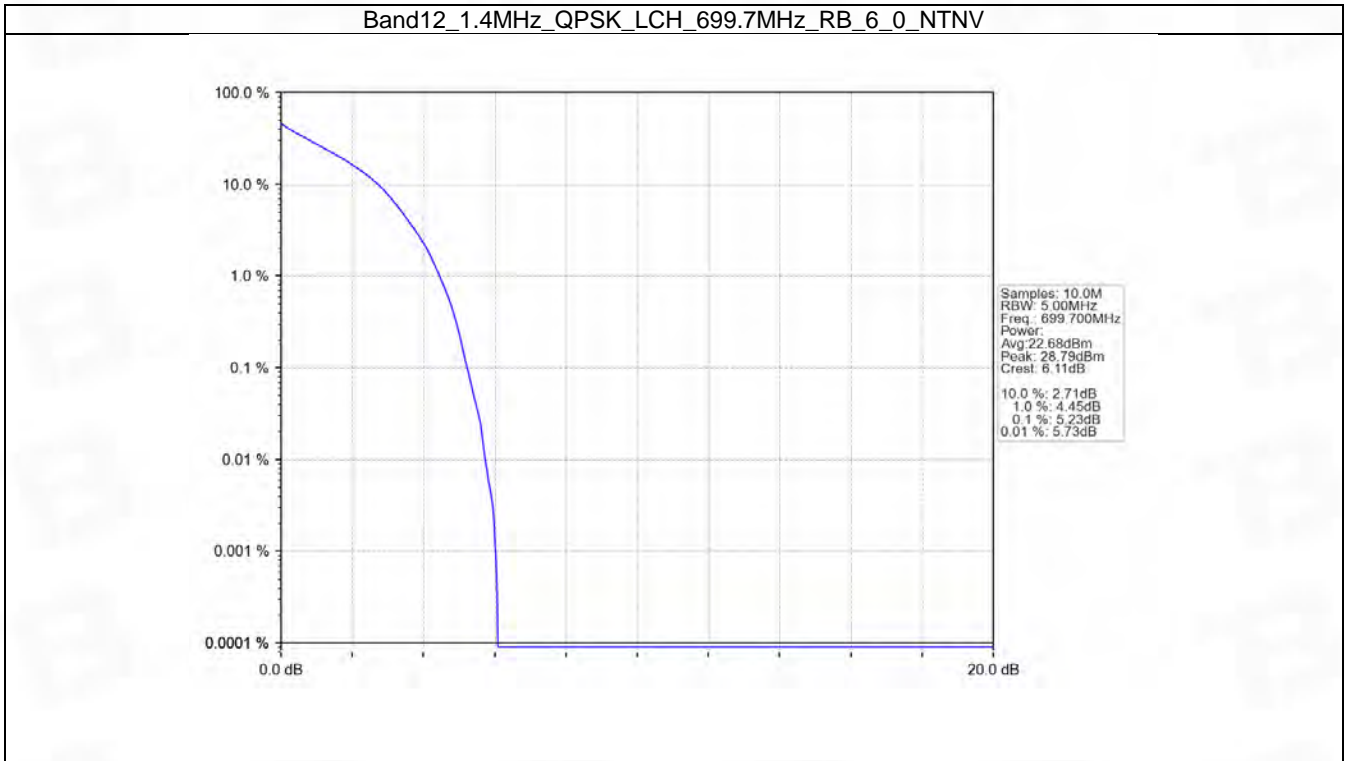
## 5. Peak-Average Ratio

### 5.1 B12\_1.4MHz

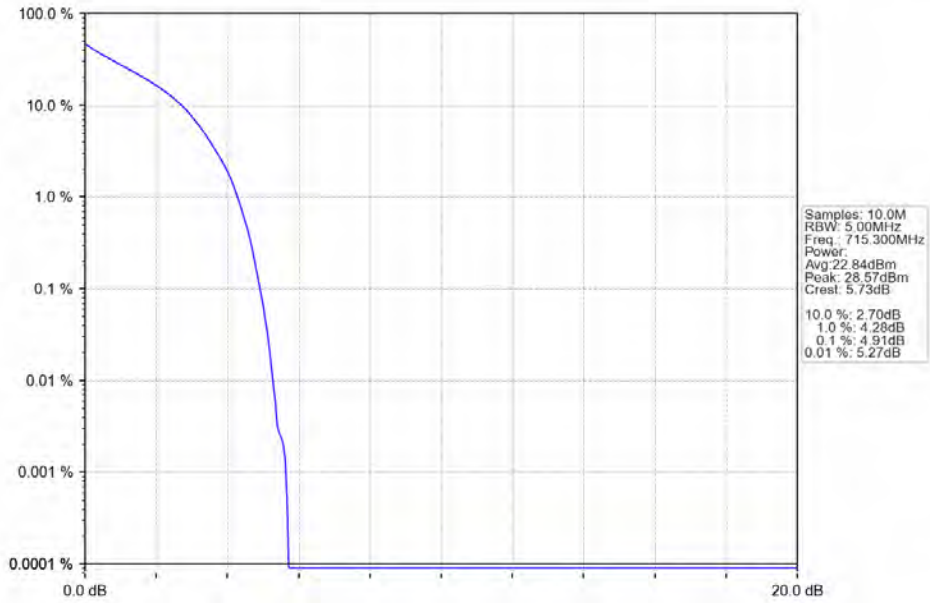
#### 5.1.1 Test Result

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	5.23	<=13	Pass
	707.5	6	0	5.15	<=13	Pass
	715.3	6	0	4.91	<=13	Pass
16QAM	699.7	6	0	6.08	<=13	Pass
	707.5	6	0	5.99	<=13	Pass
	715.3	6	0	5.70	<=13	Pass

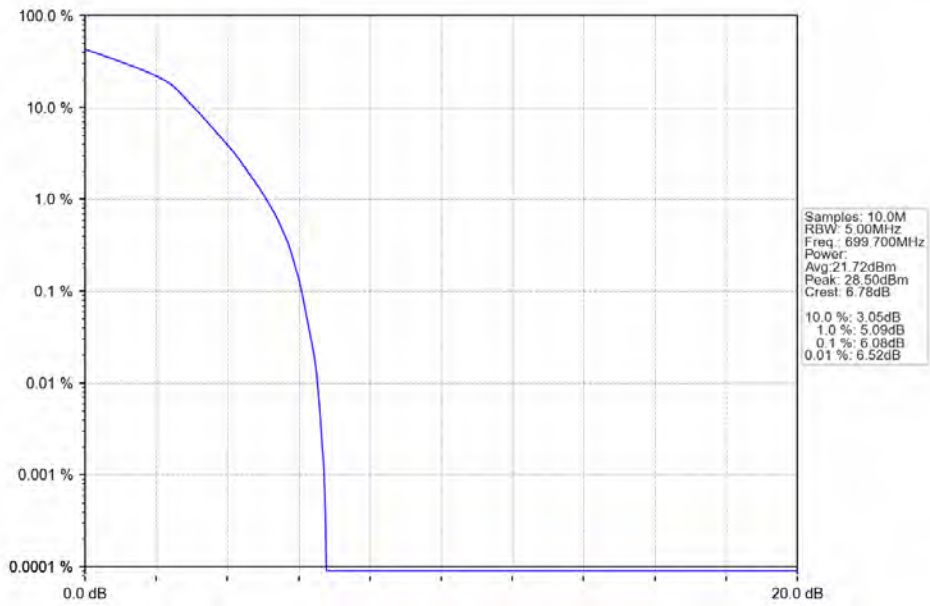
### 5.1.2 Test Graph



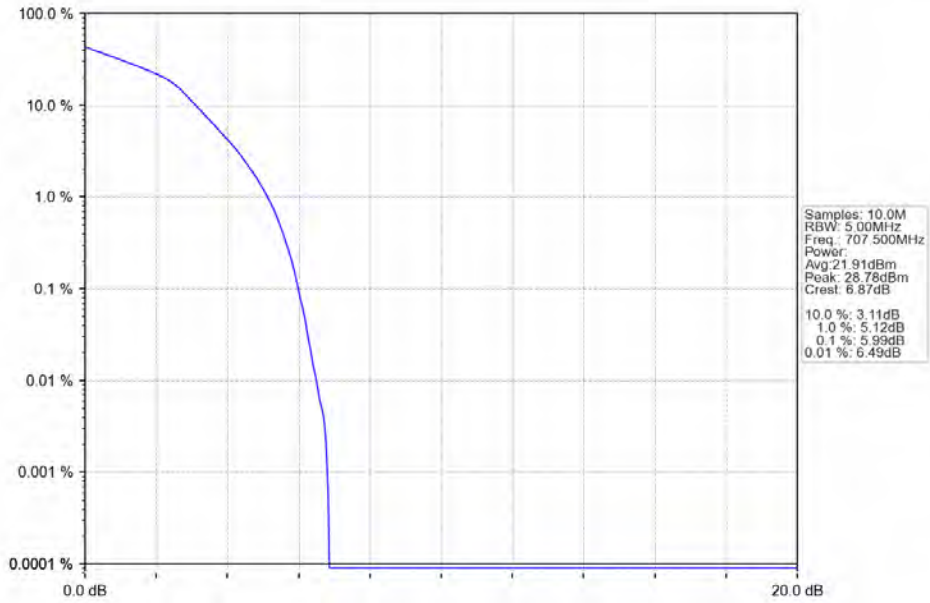
Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_6\_0\_NTV



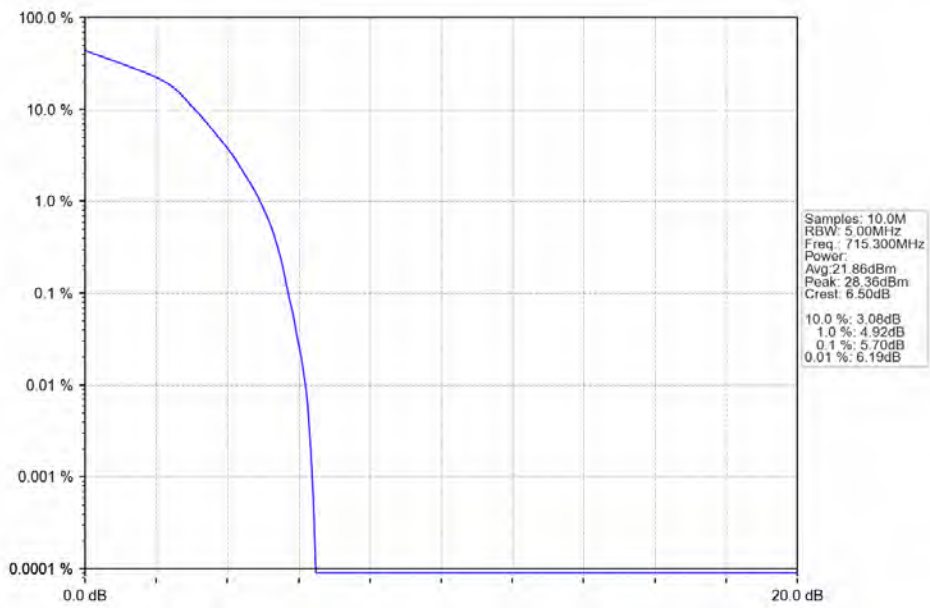
Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_6\_0\_NTV



Band12\_1.4MHz\_16QAM\_MCH\_707.5MHz\_RB\_6\_0\_NTNV



Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_6\_0\_NTNV

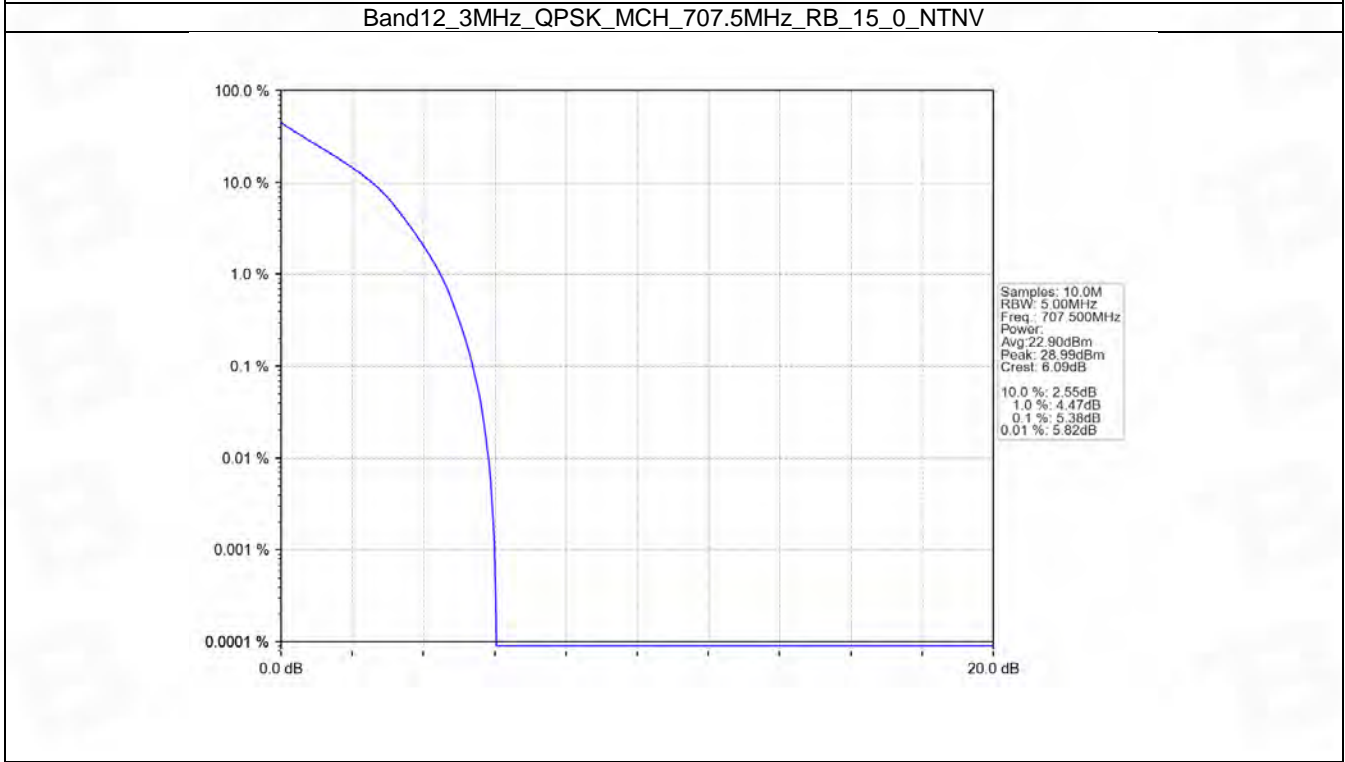
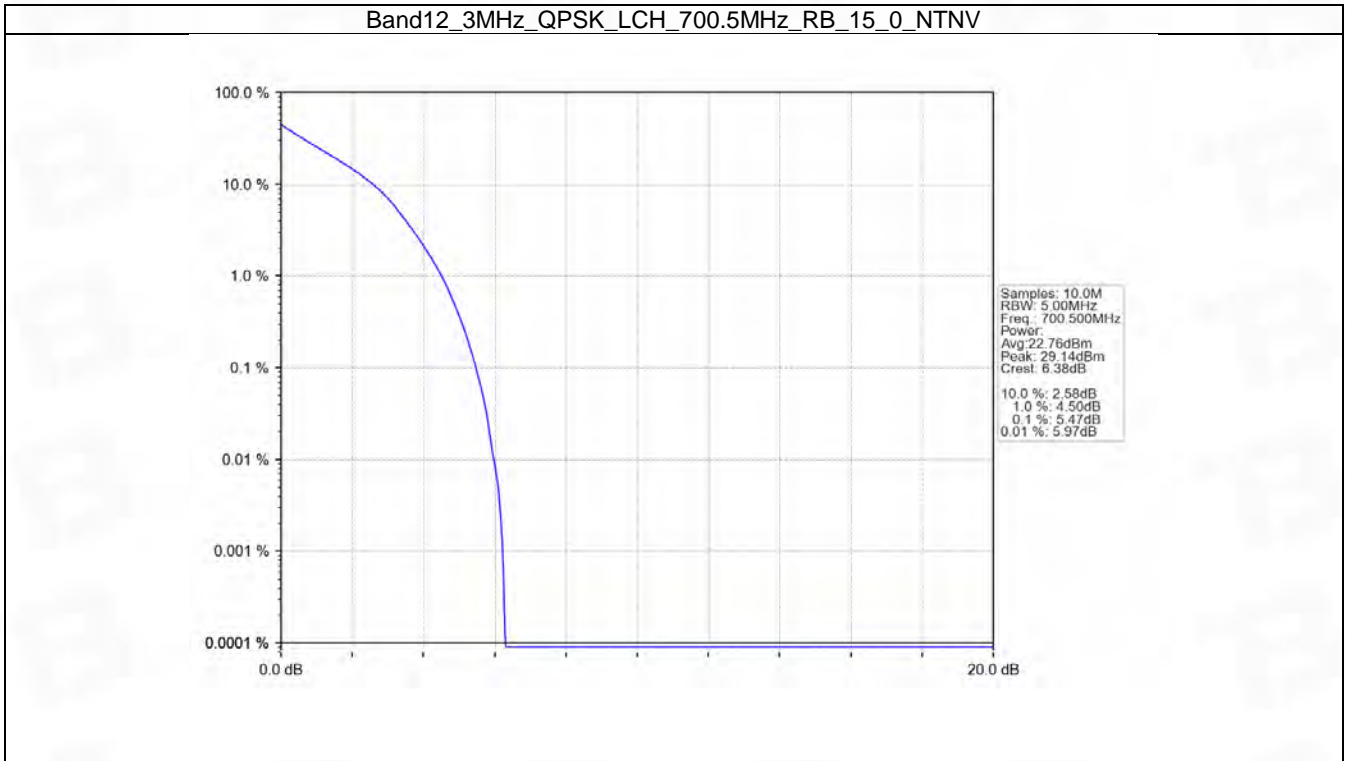


## 5.2 B12\_3MHz

### 5.2.1 Test Result

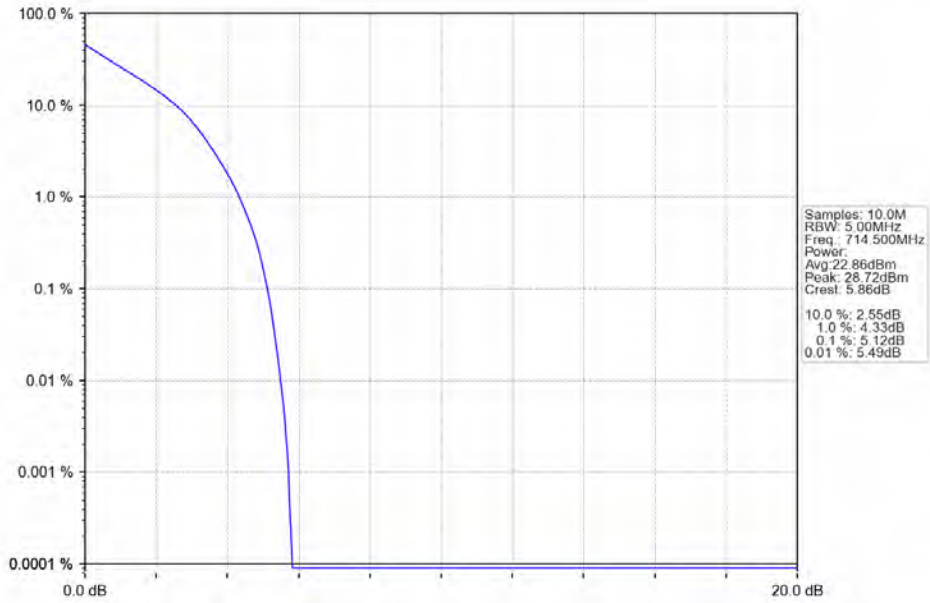
Band: 12 / Bandwidth: 3MHz / NTN						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	700.5	15	0	5.47	<=13	Pass
	707.5	15	0	5.38	<=13	Pass
	714.5	15	0	5.12	<=13	Pass
16QAM	700.5	15	0	6.25	<=13	Pass
	707.5	15	0	6.22	<=13	Pass
	714.5	15	0	5.96	<=13	Pass

### 5.2.2 Test Graph

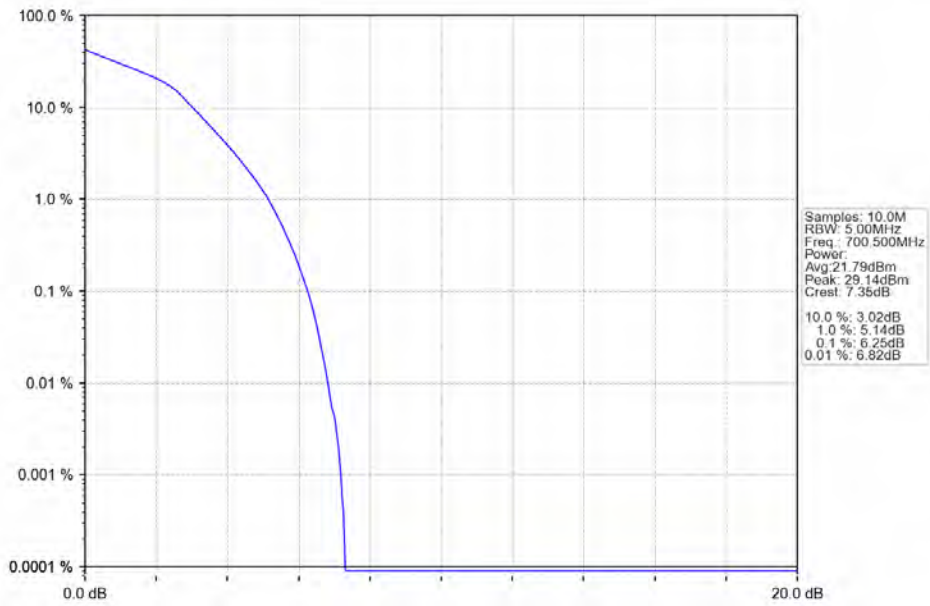




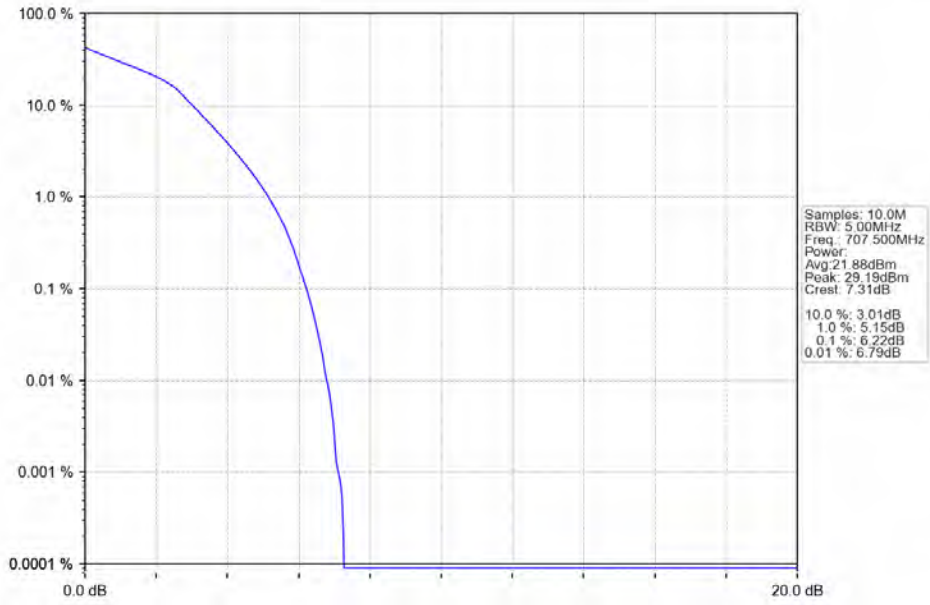
Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_15\_0\_NTNV



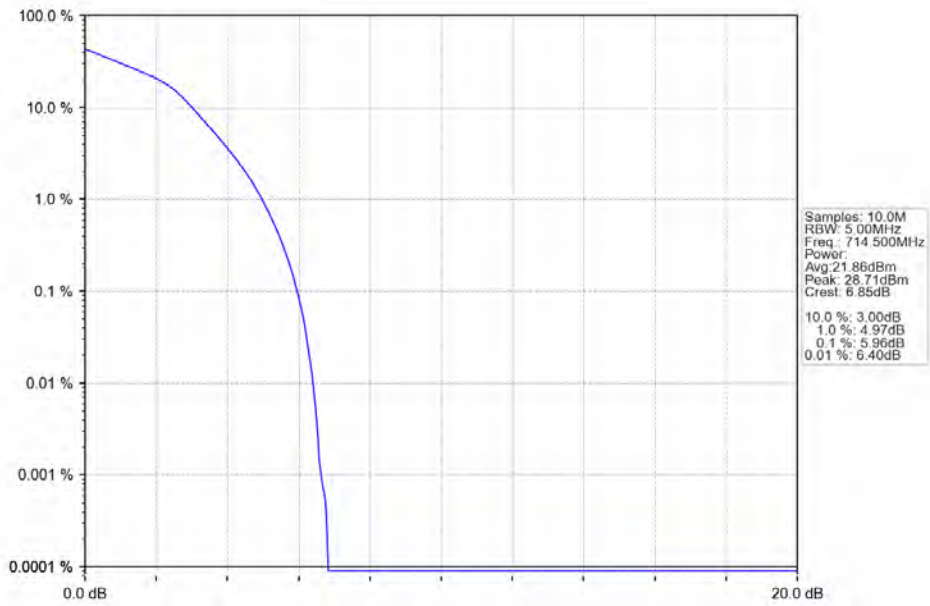
Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



Band12\_3MHz\_16QAM\_MCH\_707.5MHz\_RB\_15\_0\_NTNV



Band12\_3MHz\_16QAM\_HCH\_714.5MHz\_RB\_15\_0\_NTNV

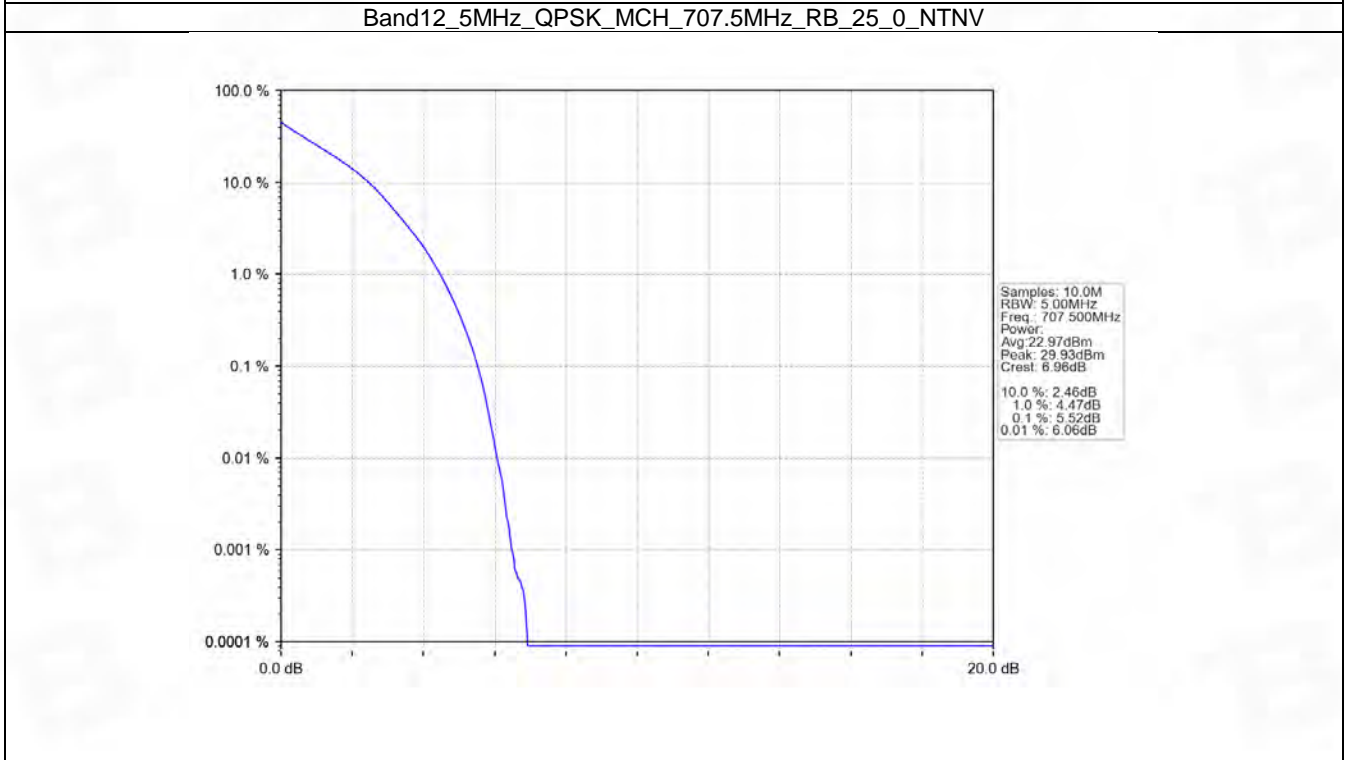
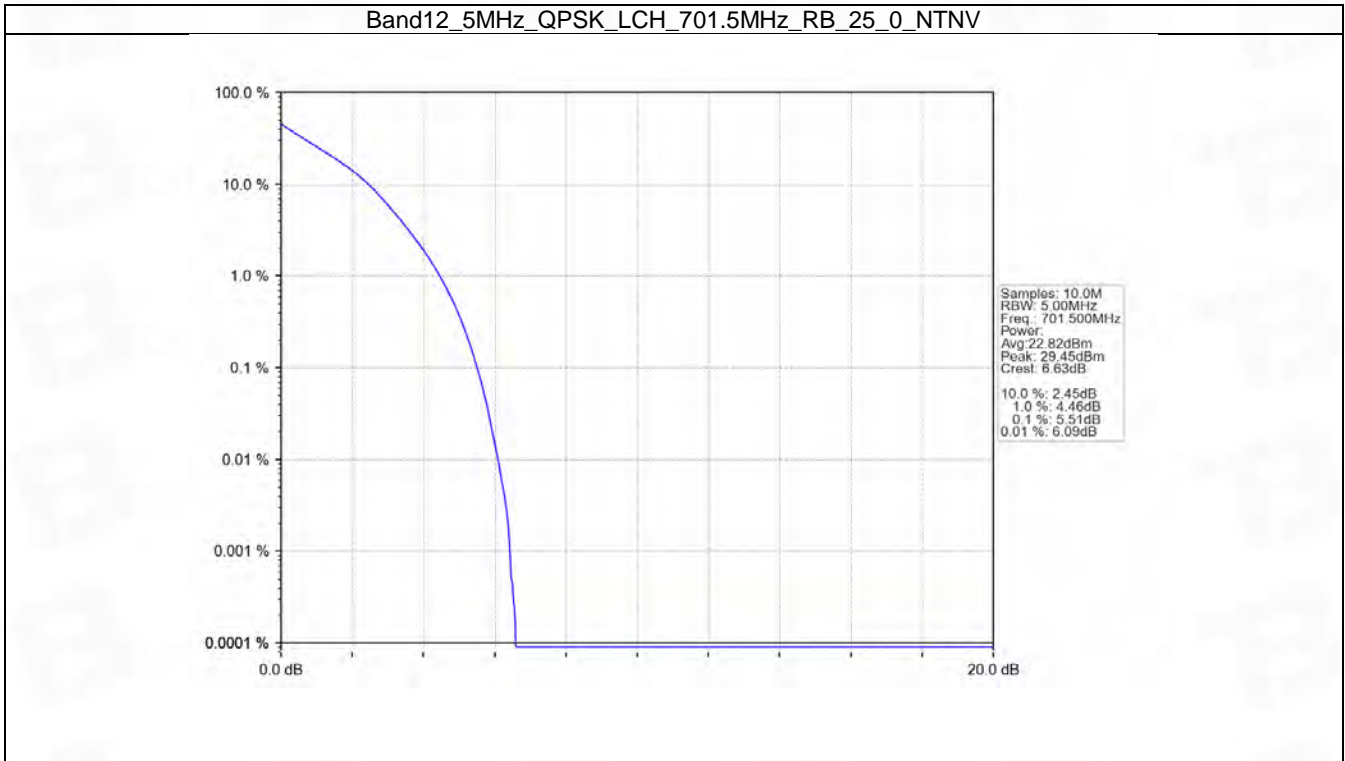


## 5.3 B12\_5MHz

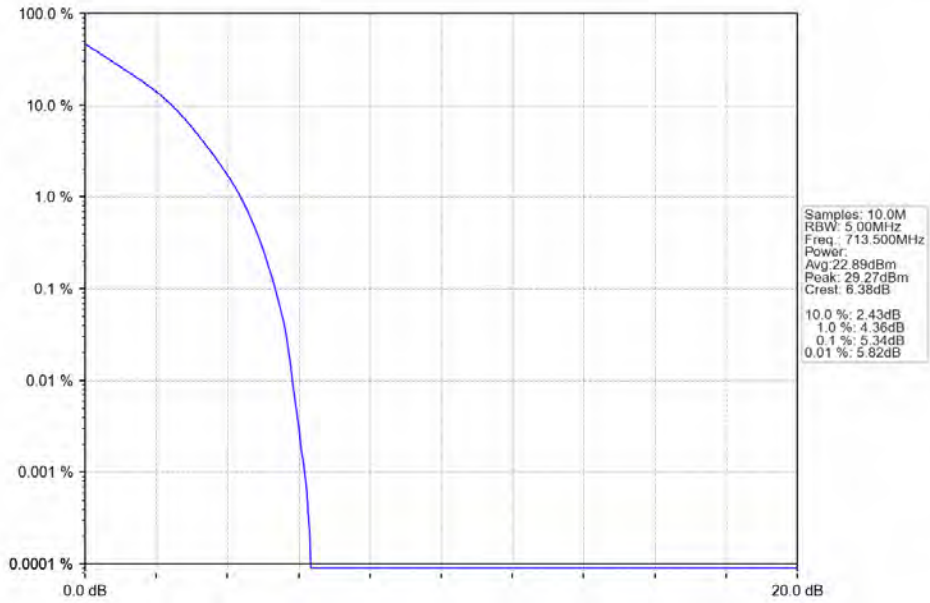
### 5.3.1 Test Result

Band: 12 / Bandwidth: 5MHz / NTN						
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	5.52	<=13	Pass
	713.5	25	0	5.34	<=13	Pass
16QAM	701.5	25	0	6.21	<=13	Pass
	707.5	25	0	6.25	<=13	Pass
	713.5	25	0	6.09	<=13	Pass

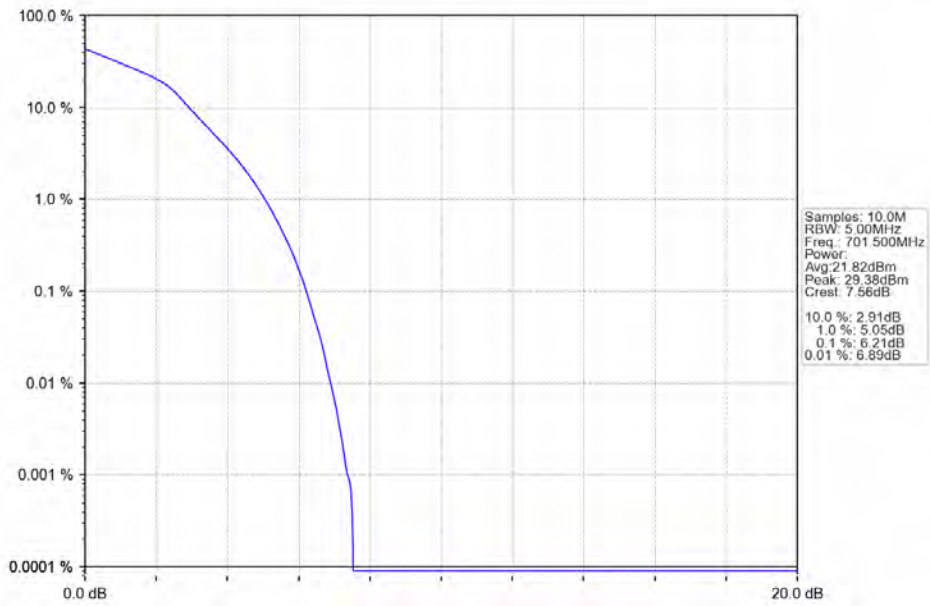
### 5.3.2 Test Graph



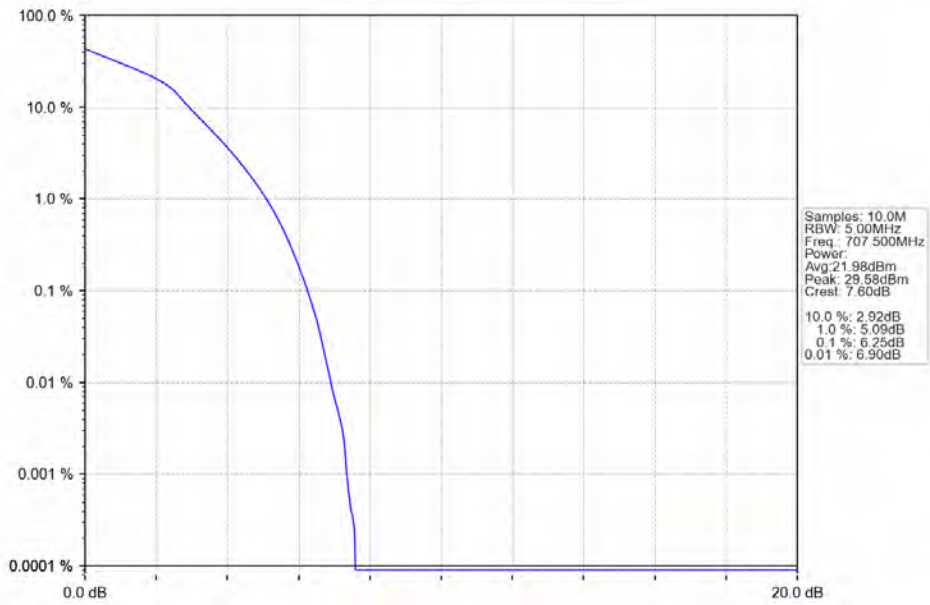
Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



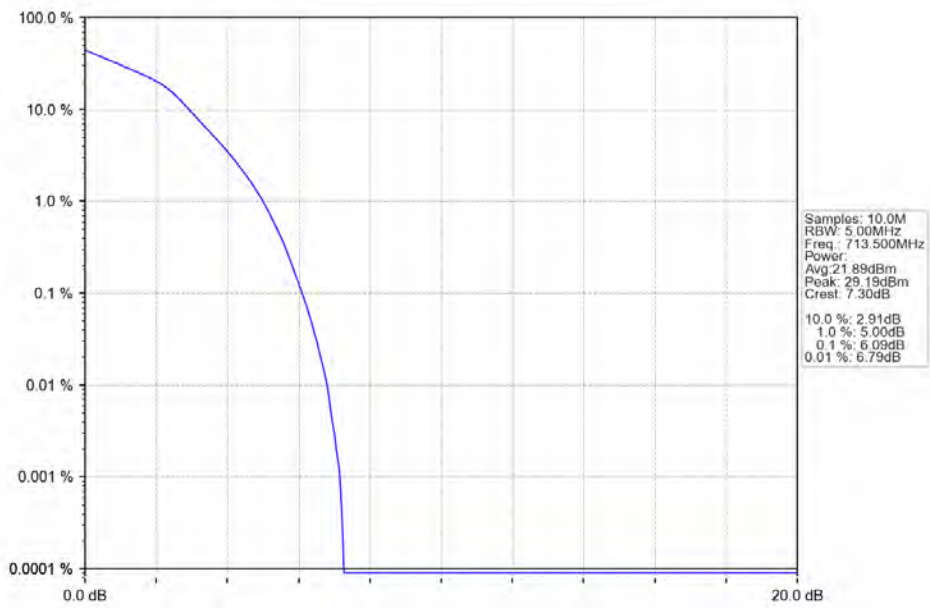
Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



Band12\_5MHz\_16QAM\_MCH\_707.5MHz\_RB\_25\_0\_NTNV



Band12\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_25\_0\_NTNV

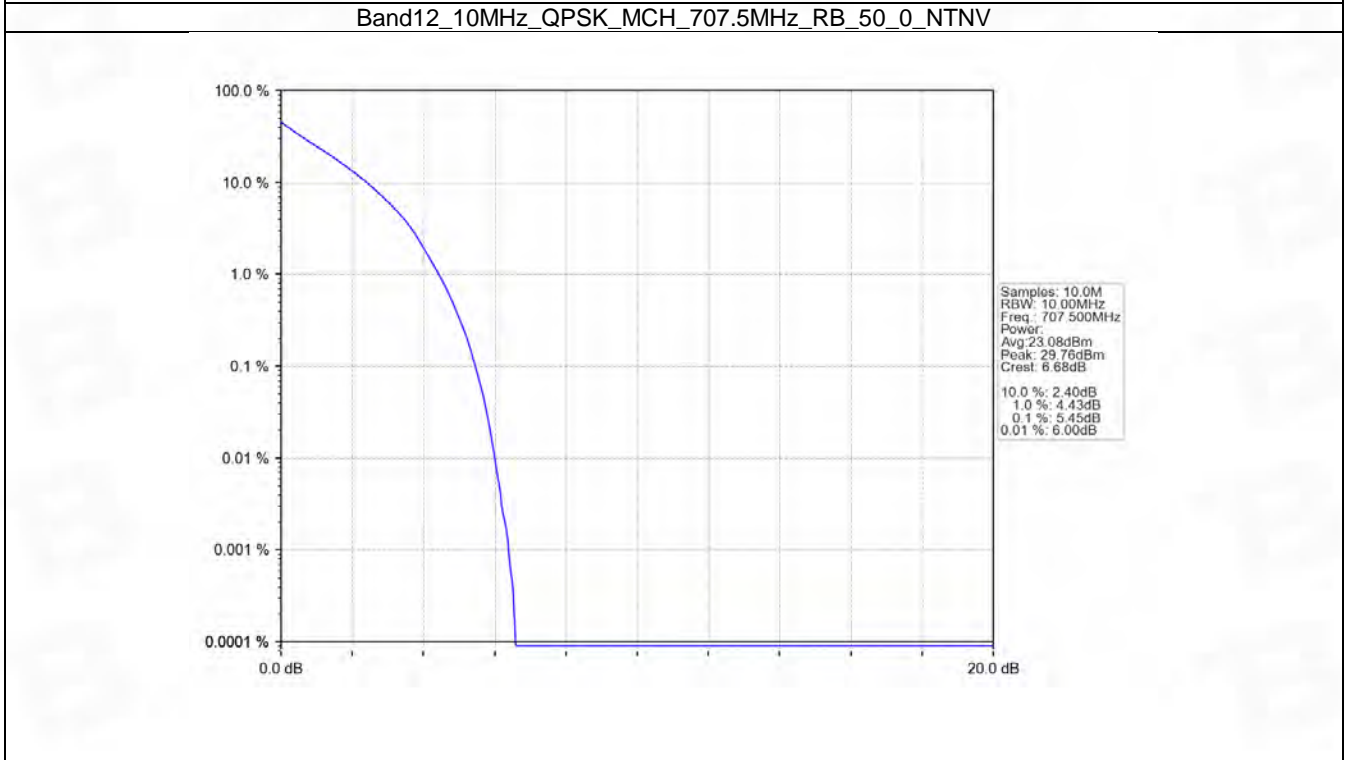
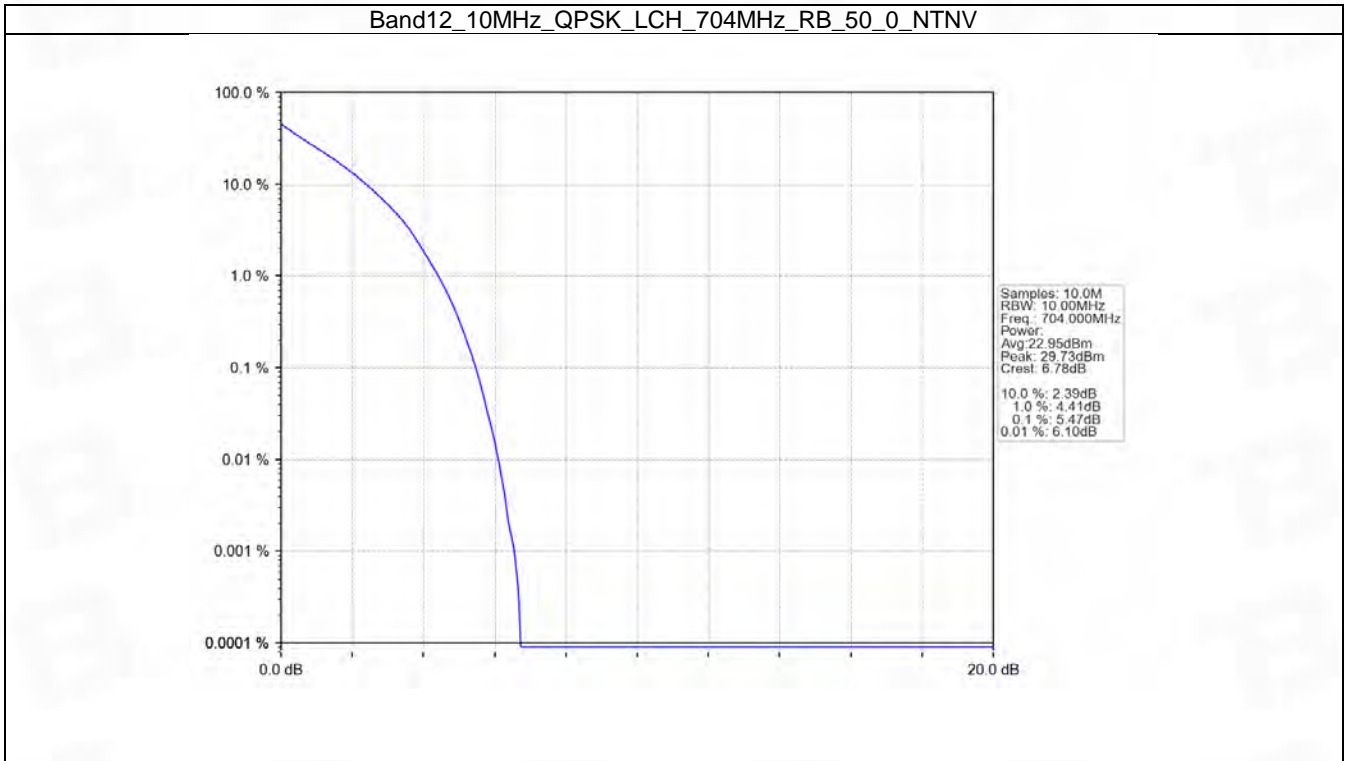


## 5.4 B12\_10MHz

### 5.4.1 Test Result

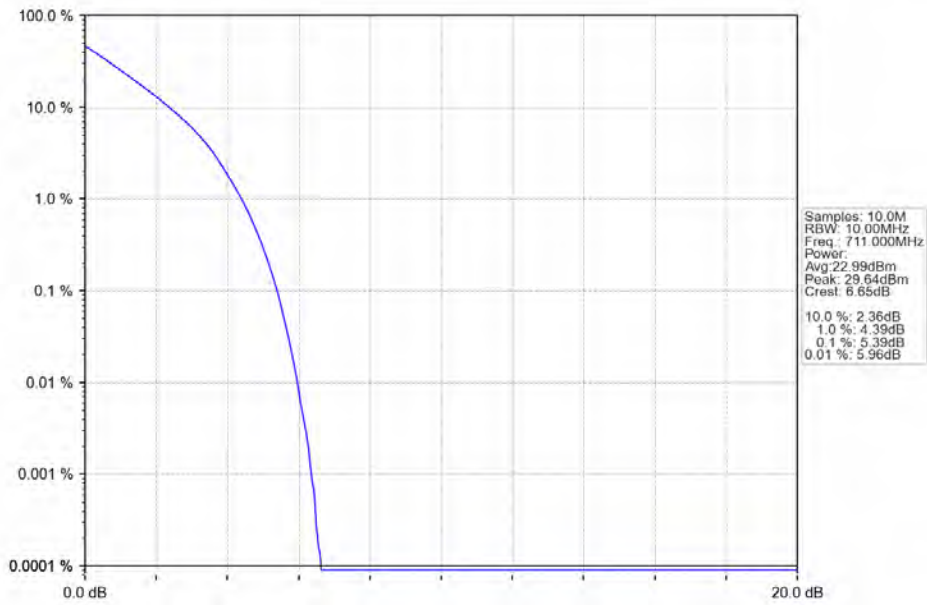
Band: 12 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	704	50	0	5.47	<=13	Pass
	707.5	50	0	5.45	<=13	Pass
	711	50	0	5.39	<=13	Pass
16QAM	704	50	0	6.23	<=13	Pass
	707.5	50	0	6.25	<=13	Pass
	711	50	0	6.20	<=13	Pass

### 5.4.2 Test Graph

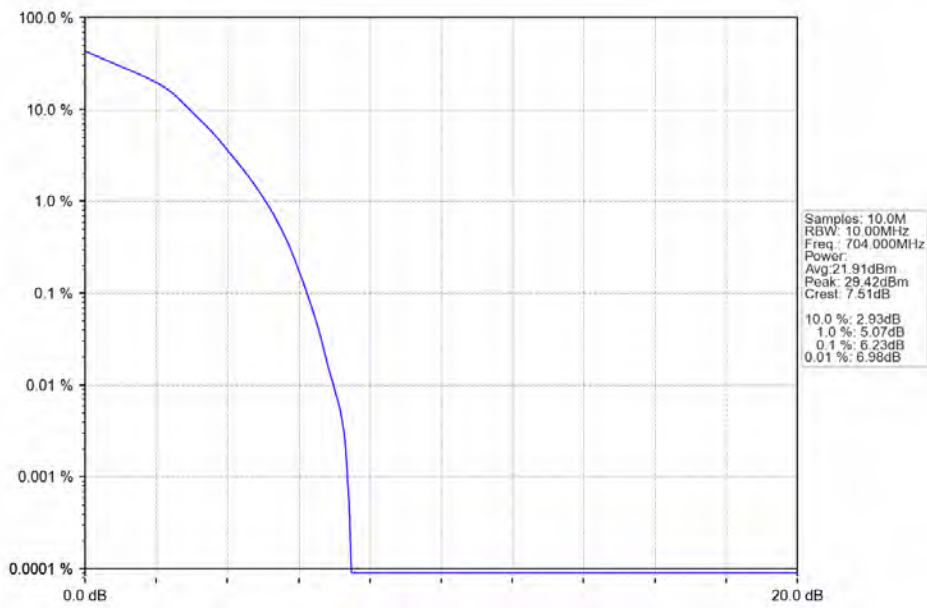




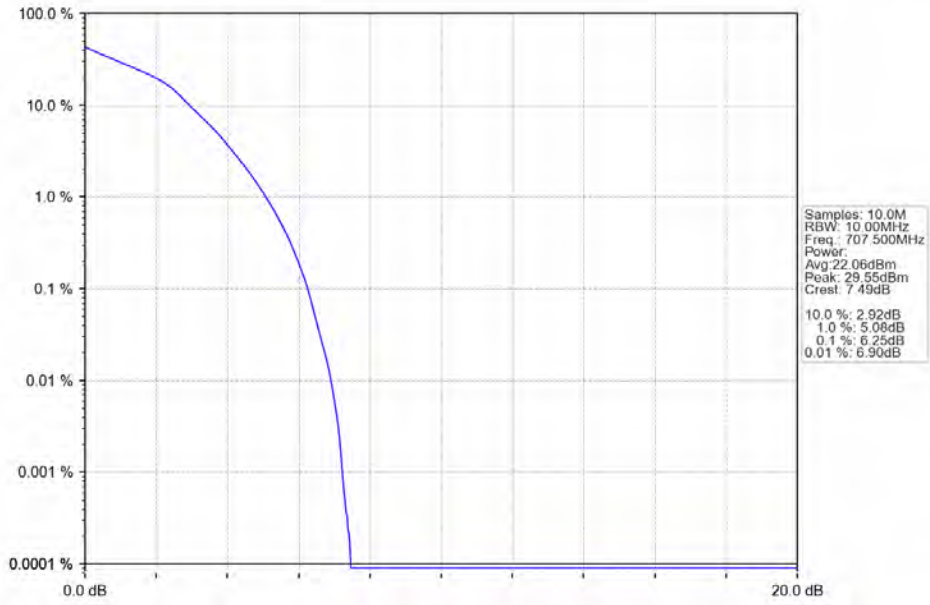
Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



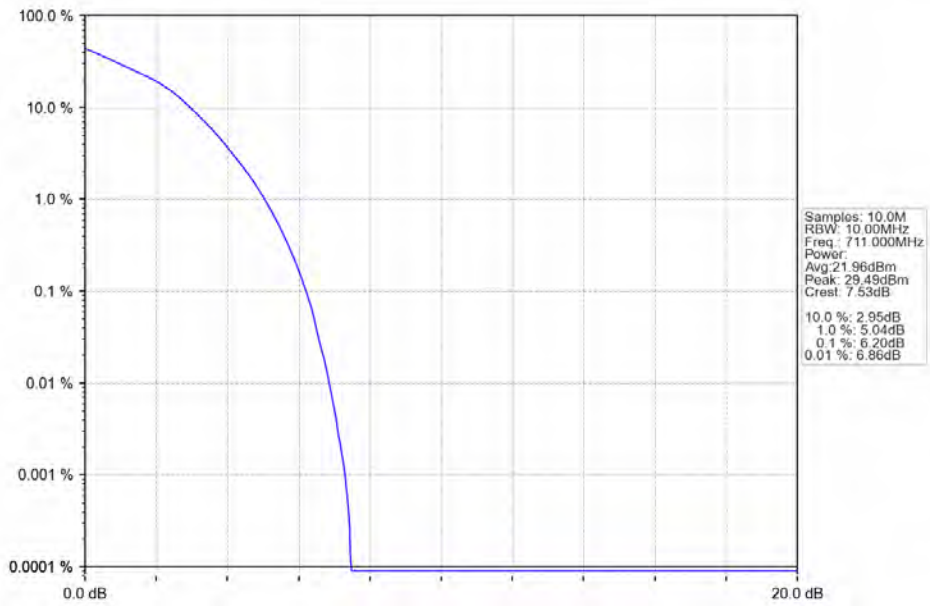
Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_50\_0\_NTNV



Band12\_10MHz\_16QAM\_MCH\_707.5MHz\_RB\_50\_0\_NTNV



Band12\_10MHz\_16QAM\_HCH\_711MHz\_RB\_50\_0\_NTNV



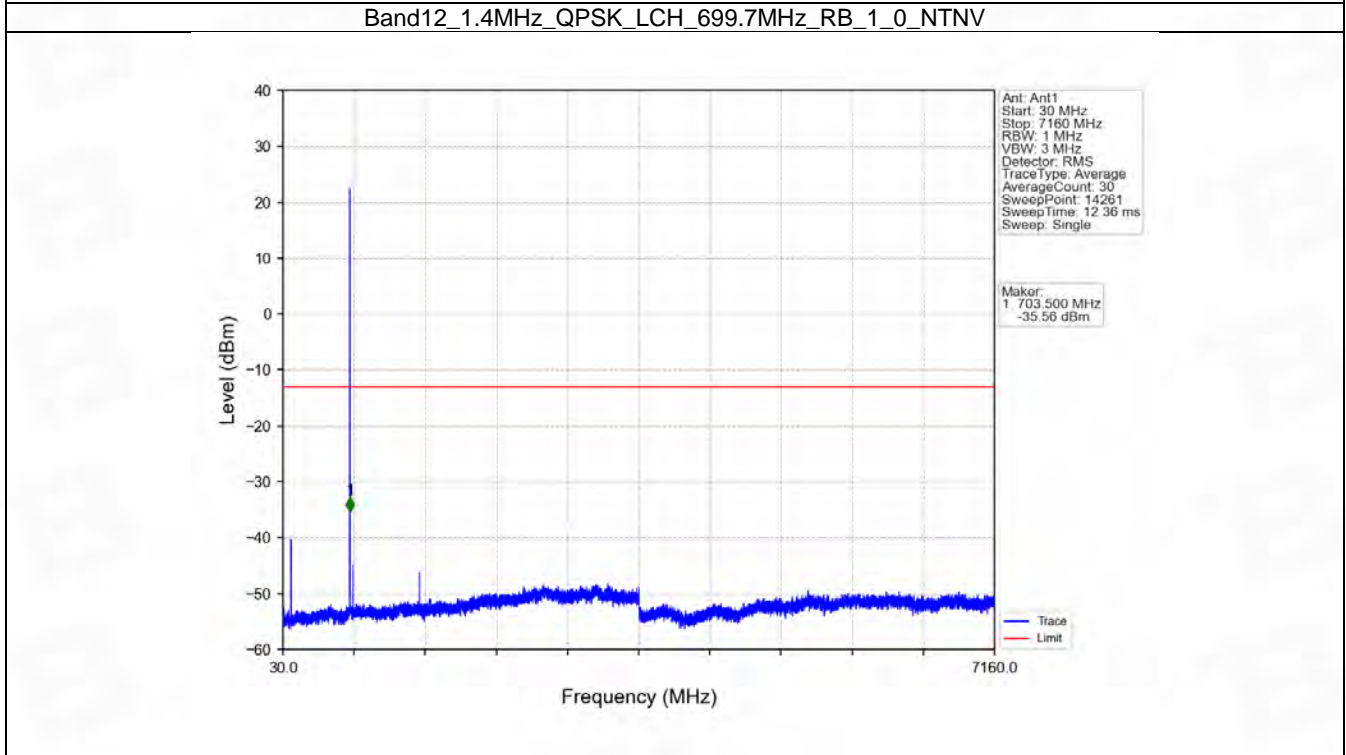
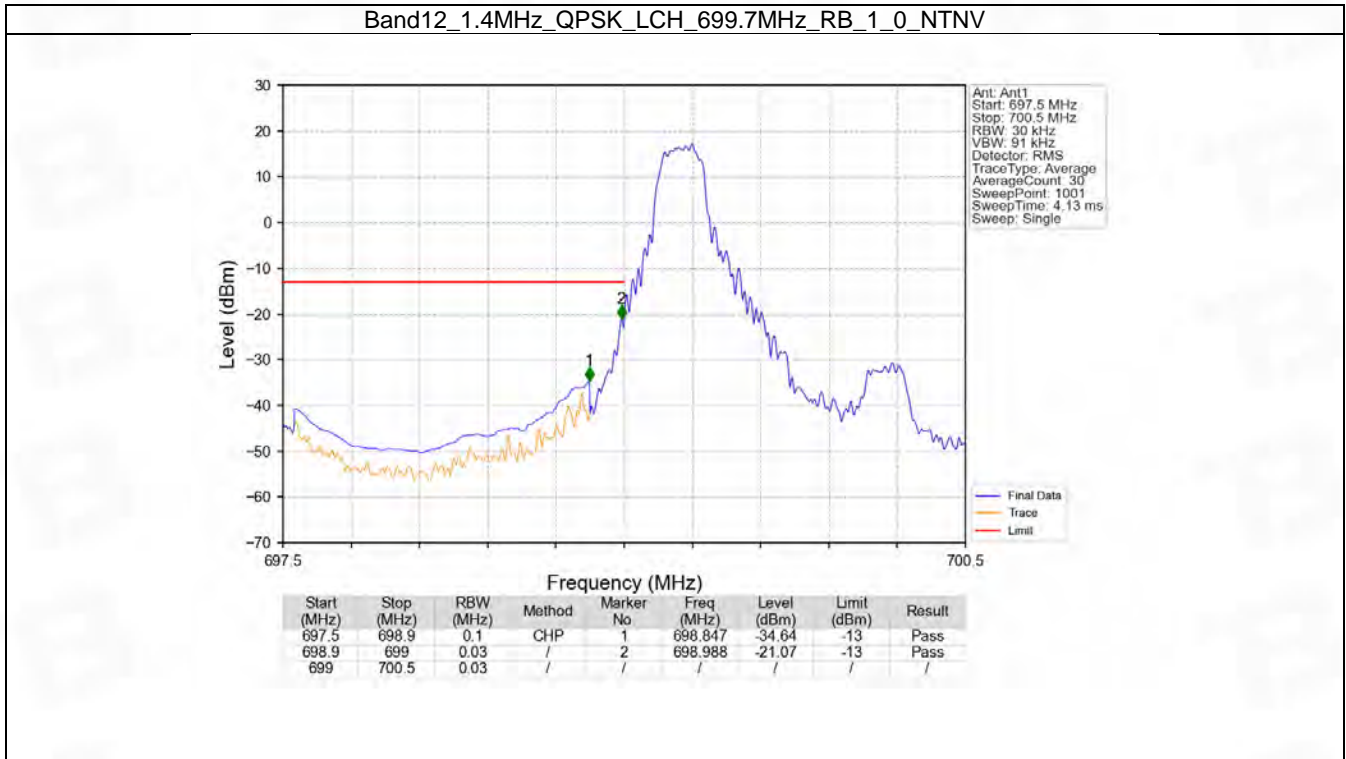
## 6. Spurious Emission

### 6.1 B12\_1.4MHz

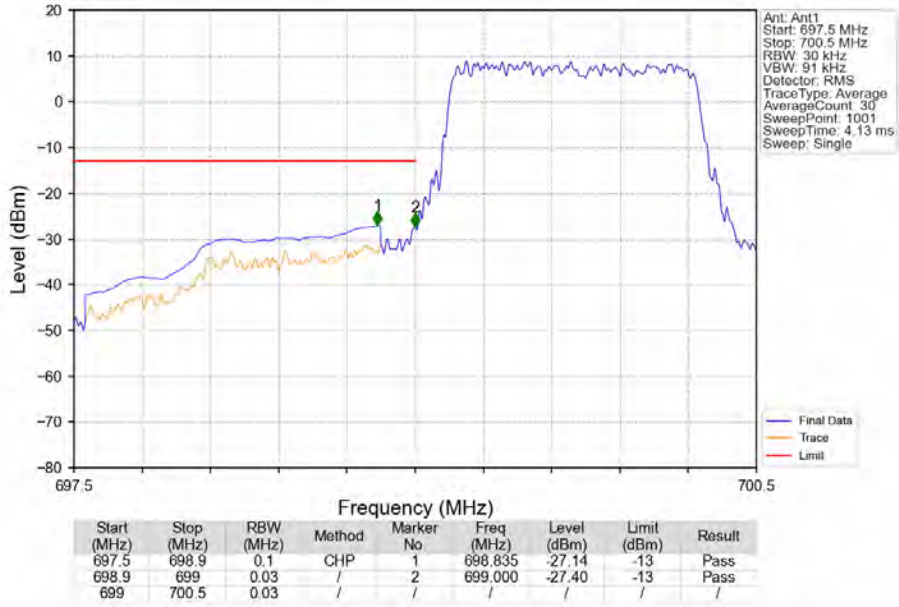
#### 6.1.1 Test Result

Band: 12 / Bandwidth: 1.4MHz / NTN						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	699.7	1	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
	715.3	1	0	Refer To Test Graph		Pass
		1	5	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
16QAM	699.7	1	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
	715.3	1	0	Refer To Test Graph		Pass
		1	5	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass

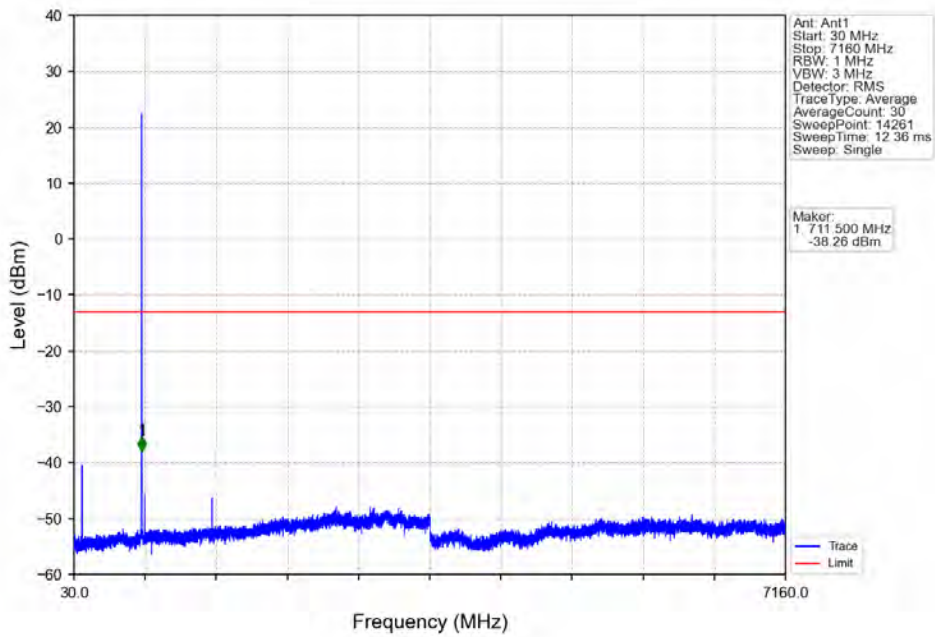
### 6.1.2 Test Graph



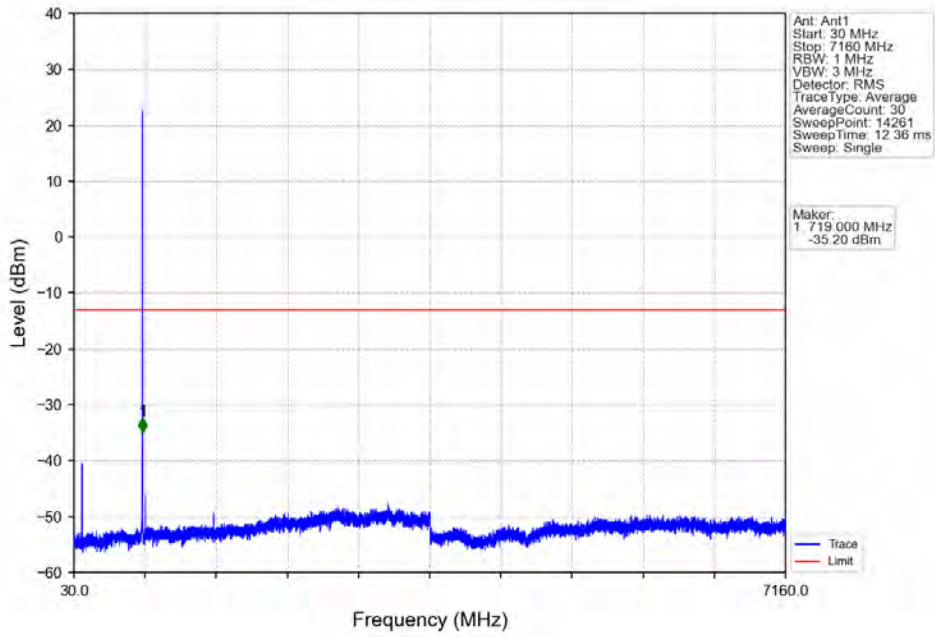
Band12\_1.4MHz\_QPSK\_LCH\_699.7MHz\_RB\_6\_0\_NTNV



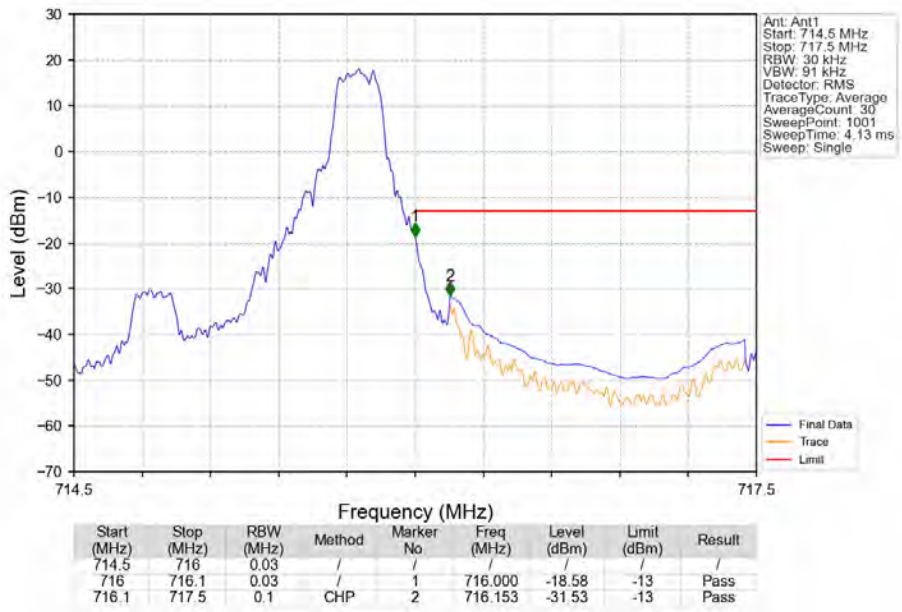
Band12\_1.4MHz\_QPSK\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_1\_0\_NTNV

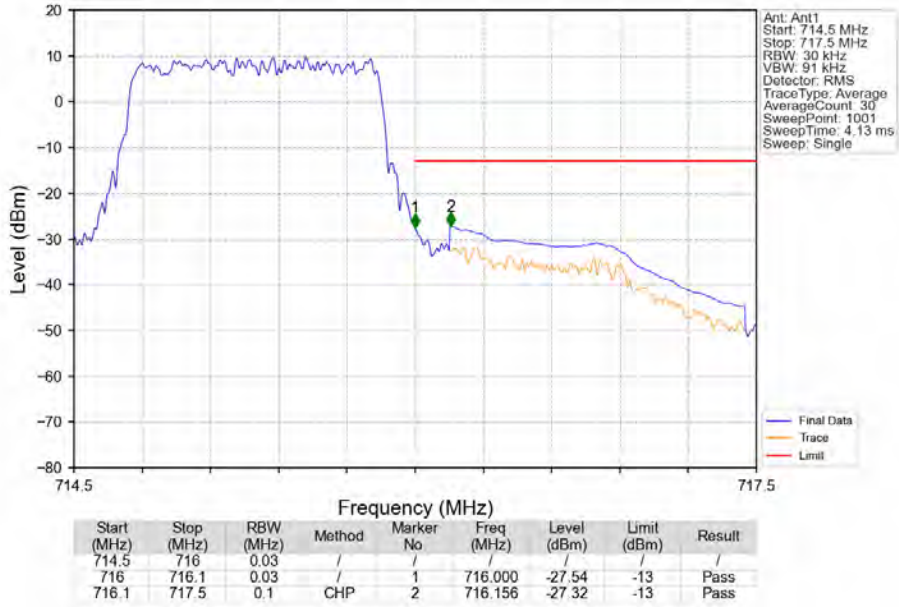


Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_1\_5\_NTNV

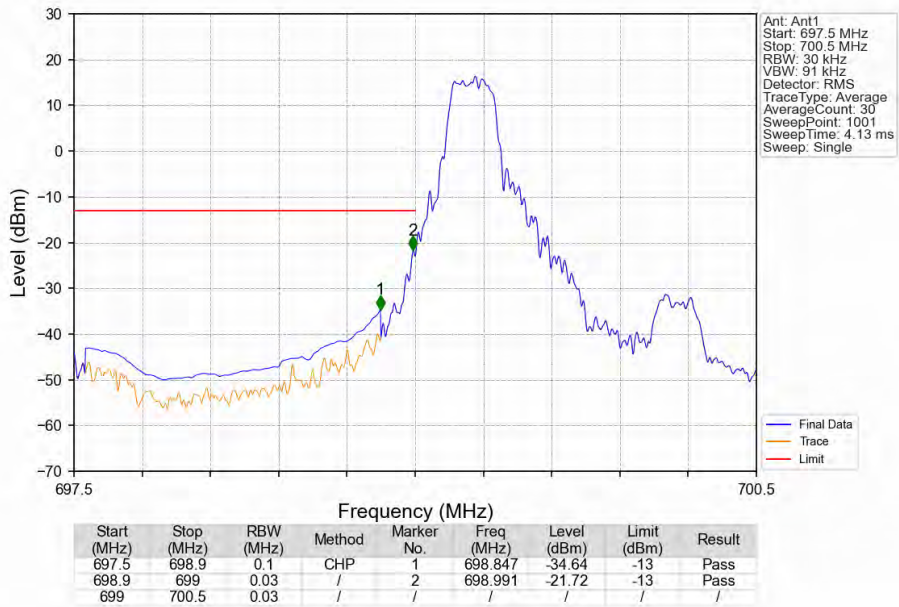




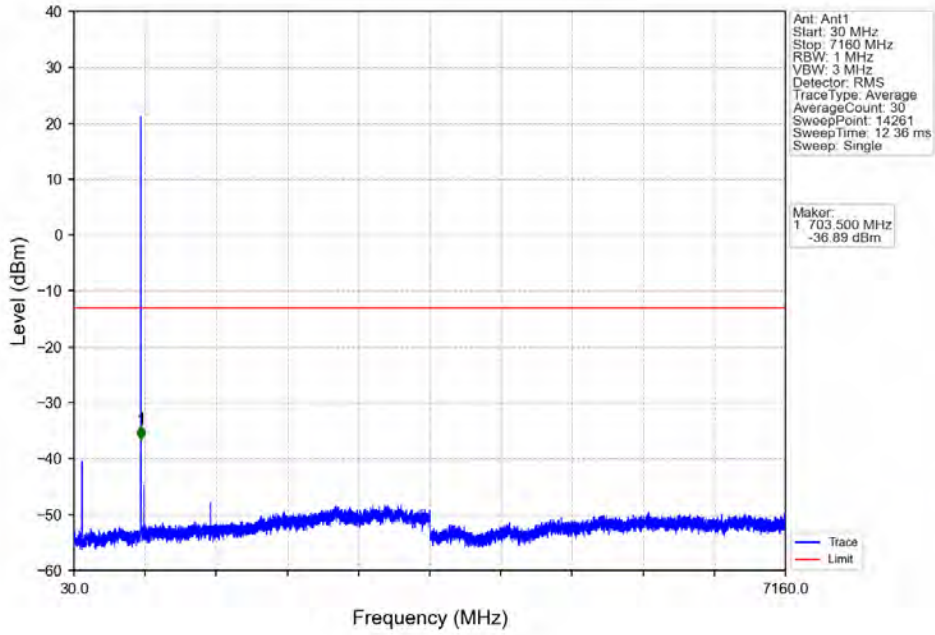
Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_6\_0\_NTV



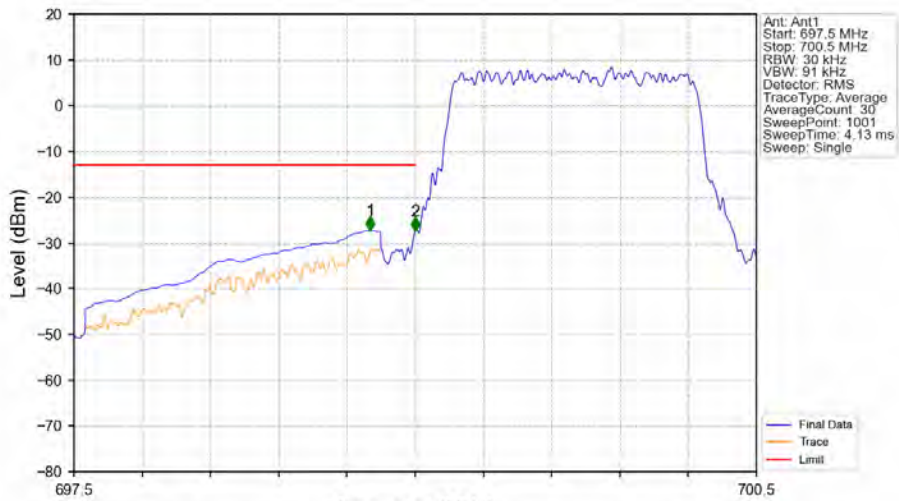
Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_1\_0\_NTV



Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_1\_0\_NTNV



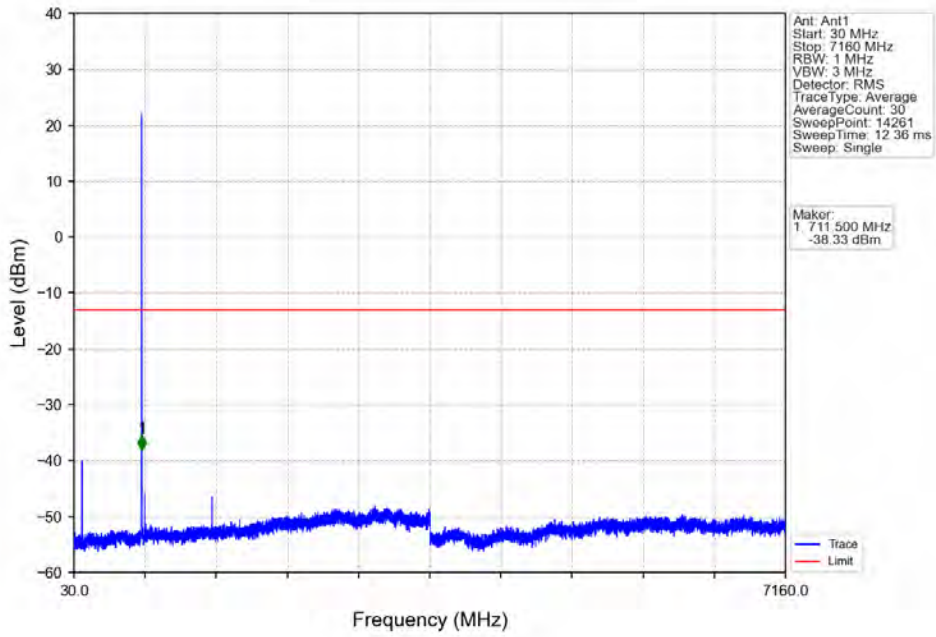
Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_6\_0\_NTNV



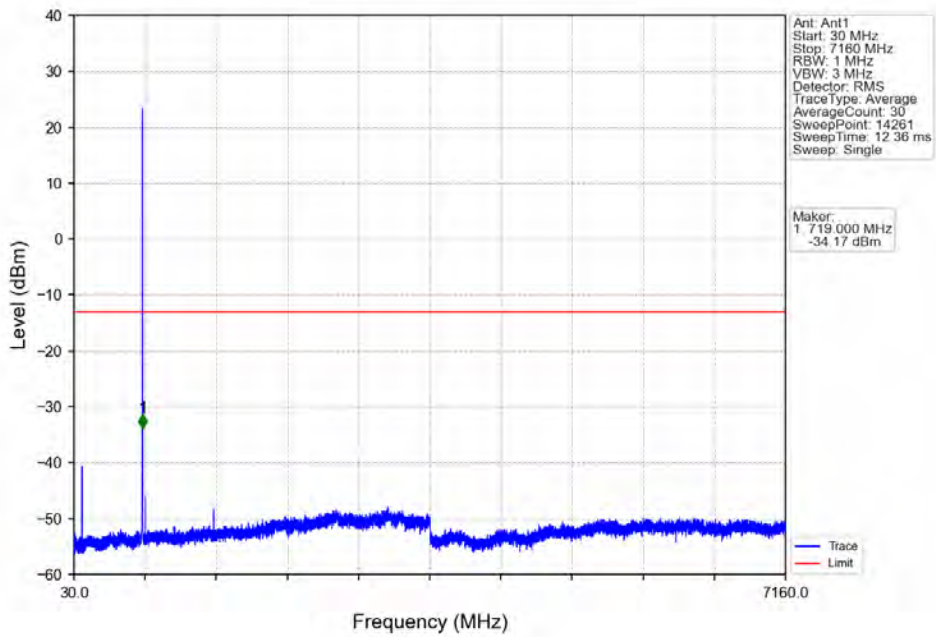
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
697.5	698.9	0.1	CHP	1	698.802	-27.27	-13	Pass
698.9	699	0.03	/	2	699.000	-27.39	-13	Pass
699	700.5	0.03	/	/	/	/	/	/



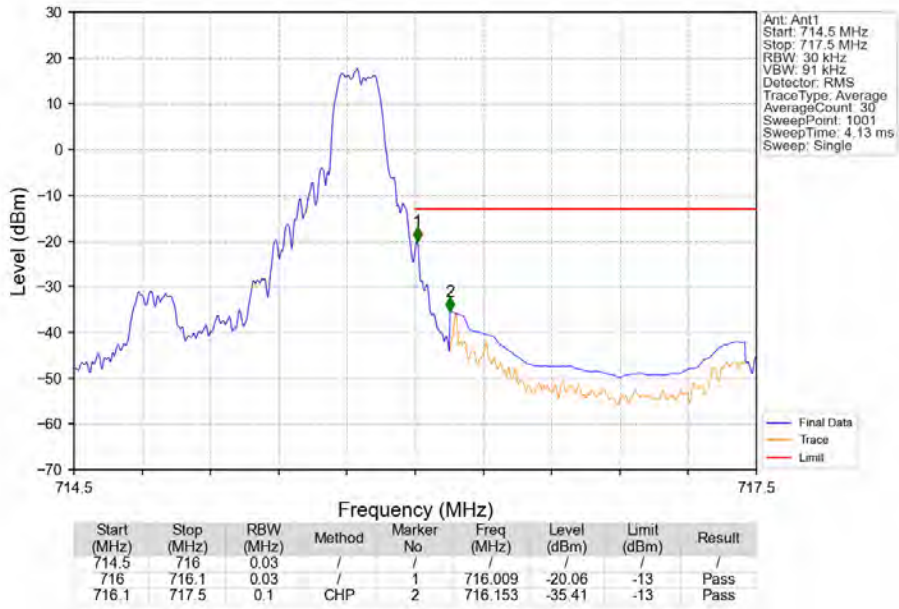
Band12\_1.4MHz\_16QAM\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



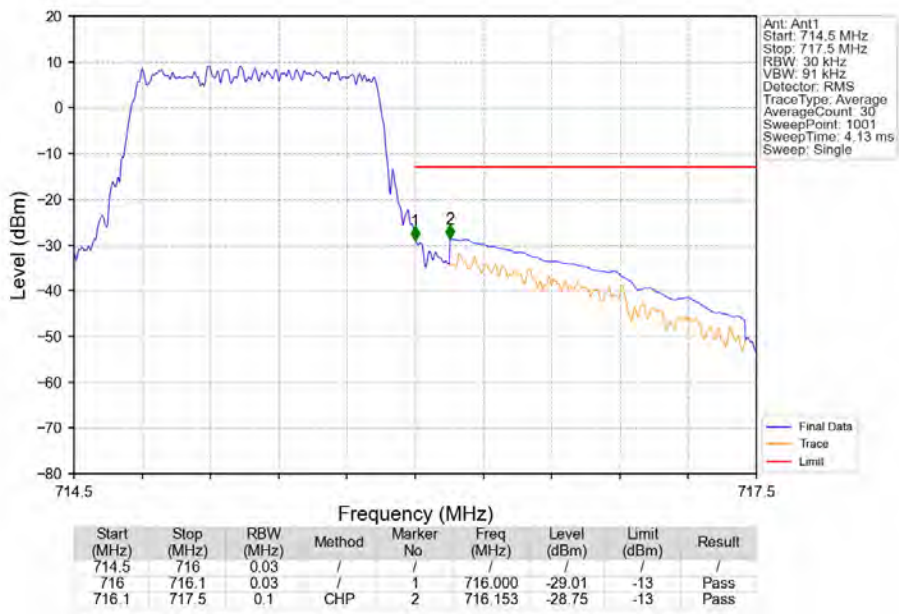
Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_1\_0\_NTNV



Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_1\_5\_NTNV



Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_6\_0\_NTNV

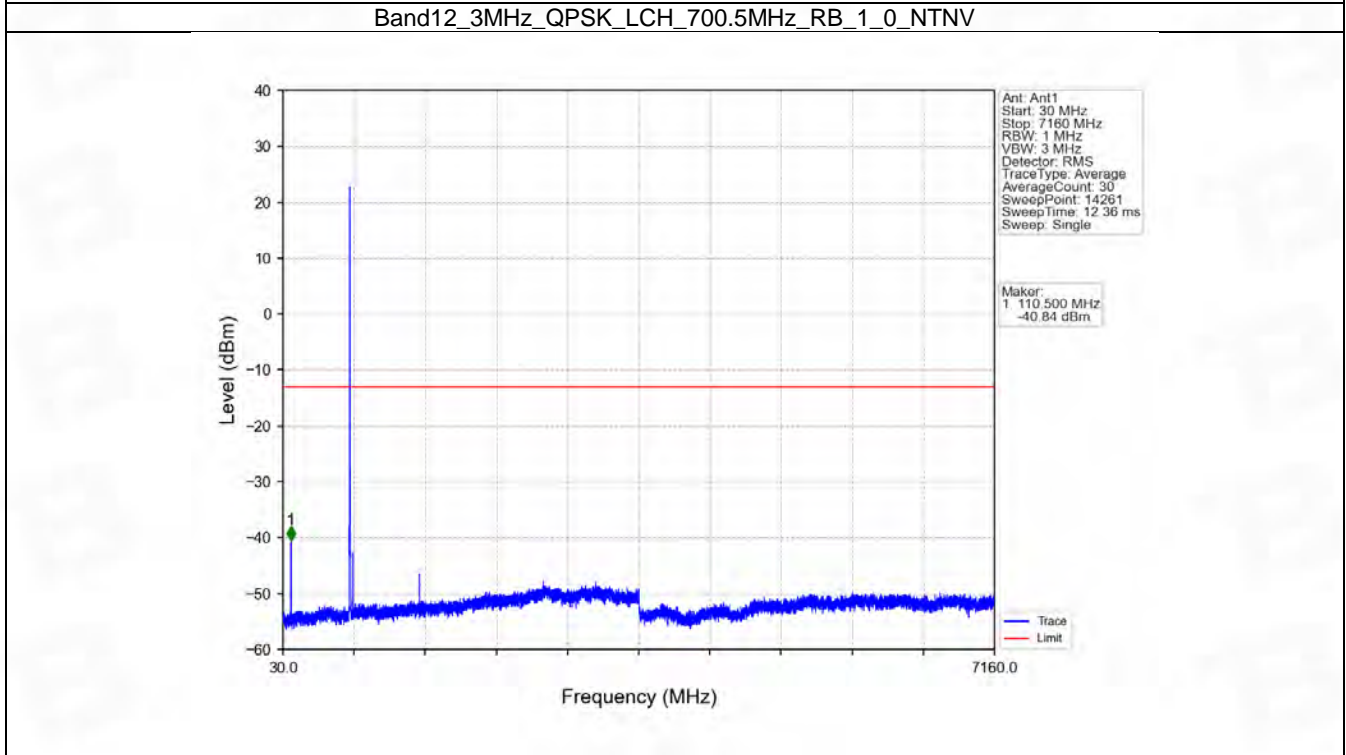
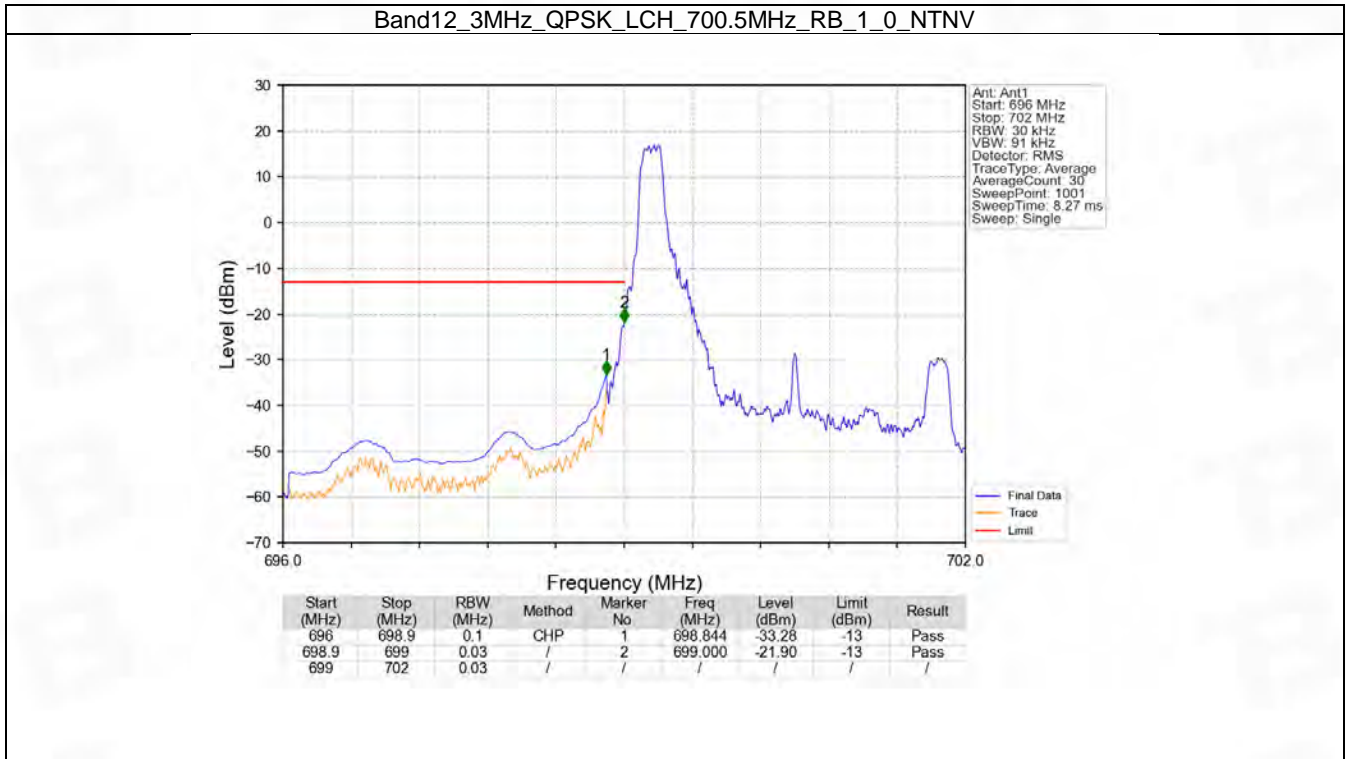


## 6.2 B12\_3MHz

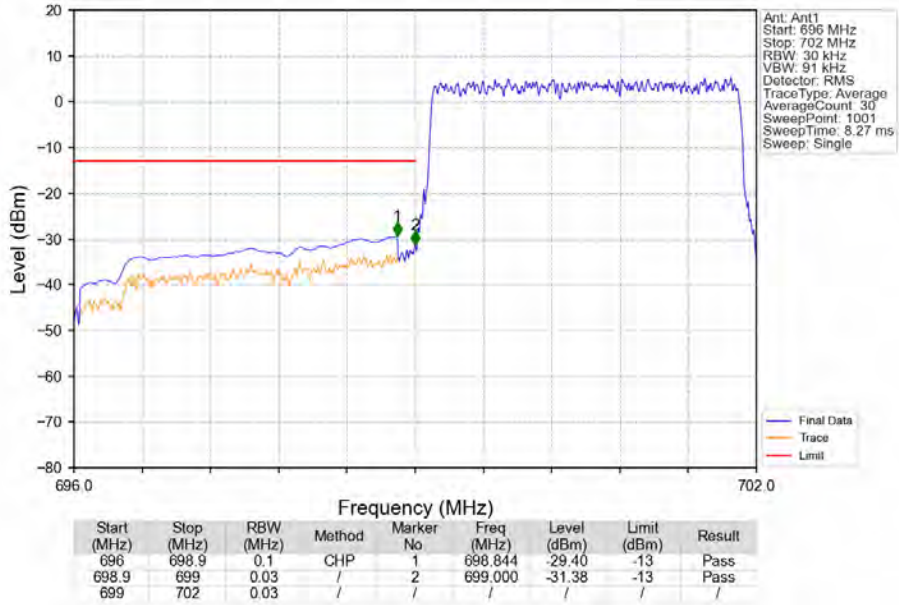
### 6.2.1 Test Result

Band: 12 / Bandwidth: 3MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	700.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	707.5	1	0	Refer To Test Graph		Pass
	714.5	1	0	Refer To Test Graph		Pass
			14	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
16QAM	700.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	707.5	1	0	Refer To Test Graph		Pass
	714.5	1	0	Refer To Test Graph		Pass
			14	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass

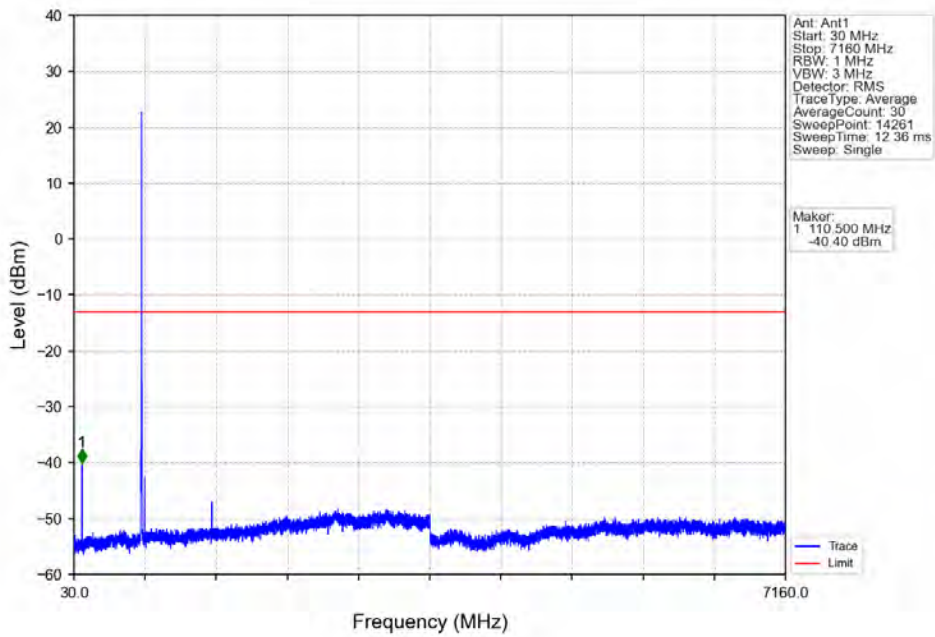
### 6.2.2 Test Graph



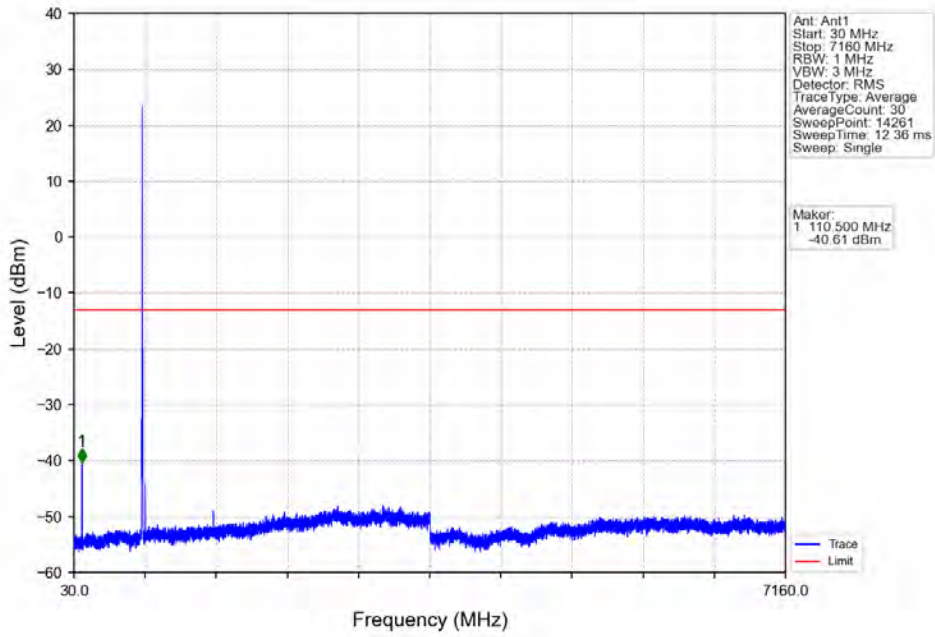
Band12\_3MHz\_QPSK\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



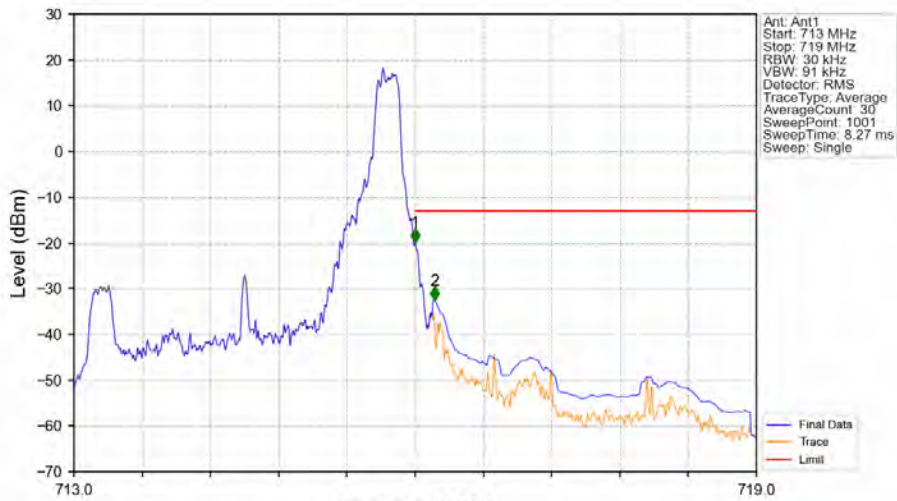
Band12\_3MHz\_QPSK\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_1\_0\_NTNV



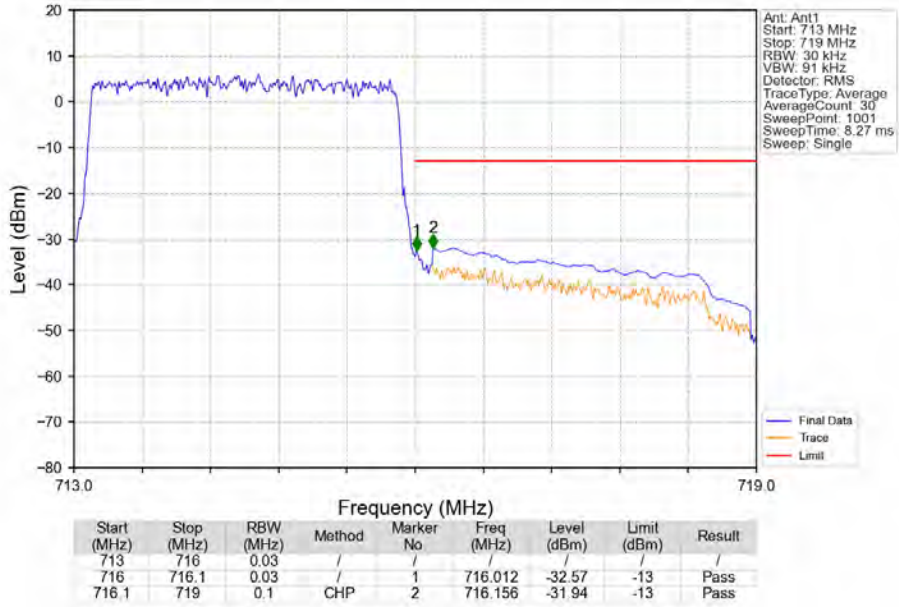
Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_1\_14\_NTNV



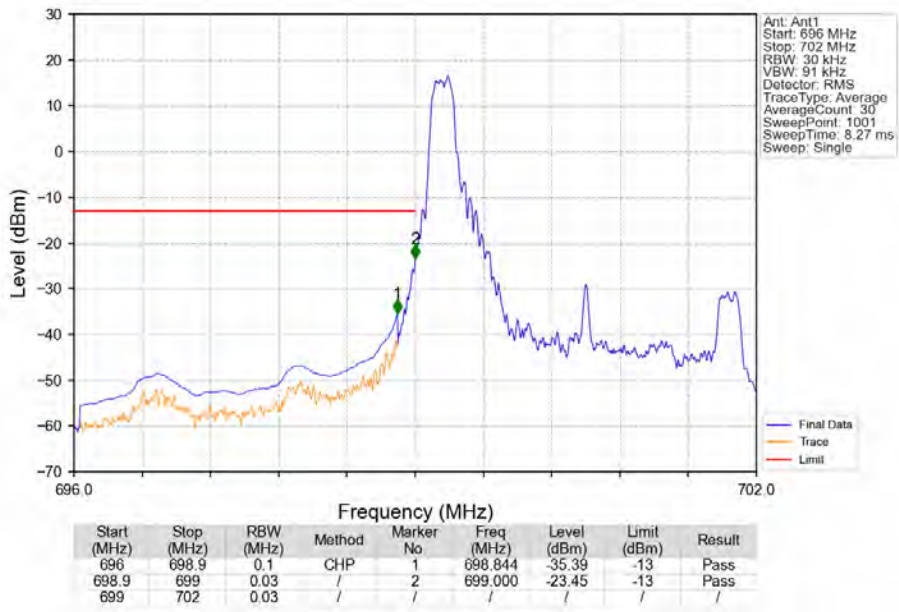
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
713	716	0.03	/	1	716.000	-19.92	-13	Pass
716	716.1	0.03	/	2	716.168	-32.69	-13	Pass
716.1	719	0.1	CHP					



Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_15\_0\_NTNV

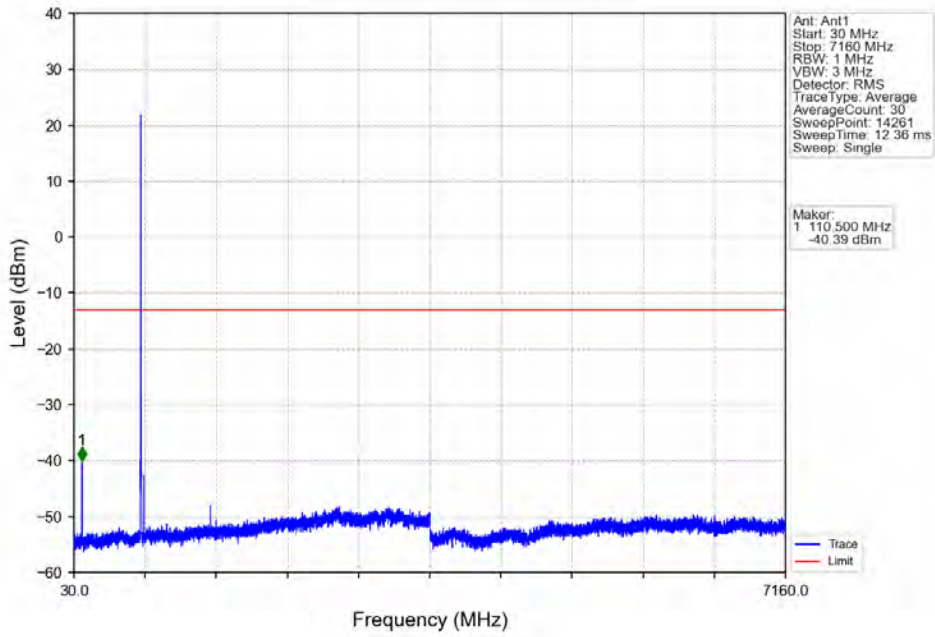


Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_1\_0\_NTNV

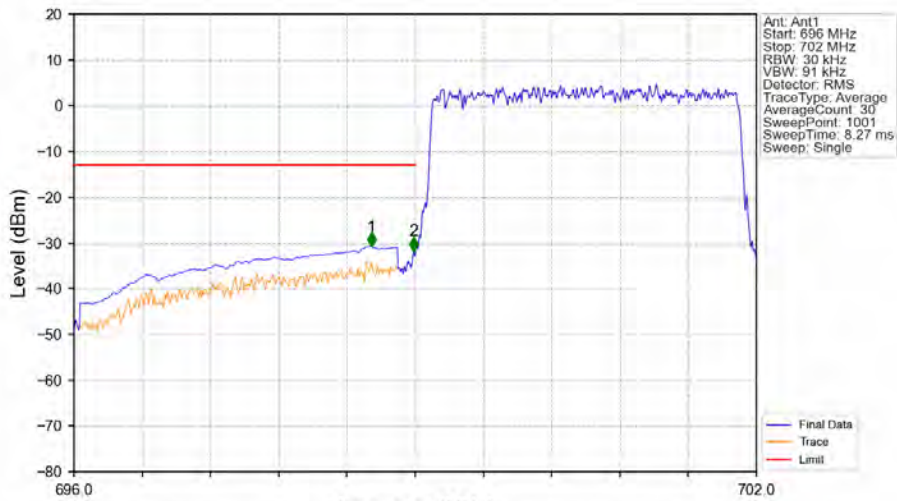




Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_1\_0\_NTNV

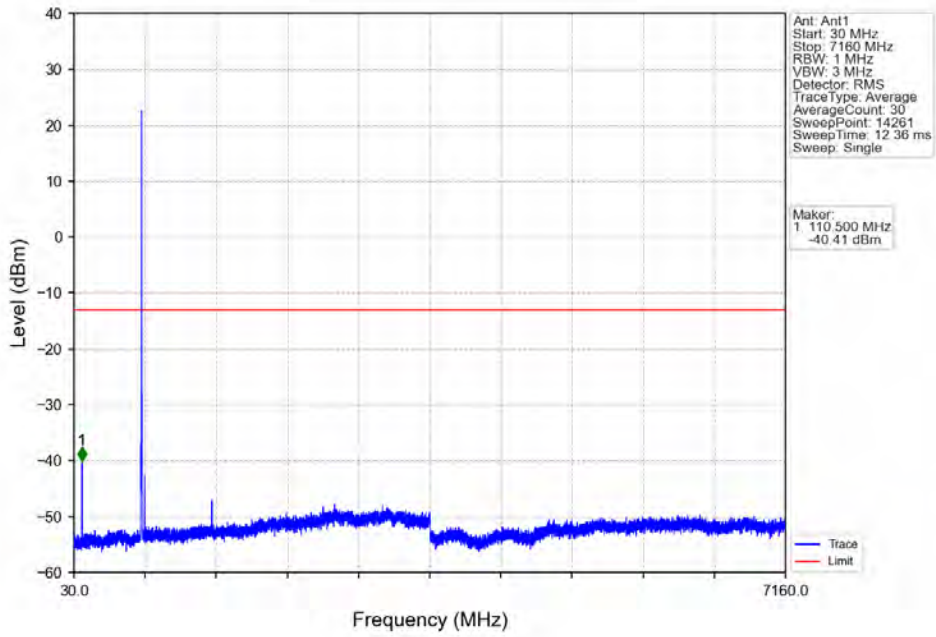


Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_15\_0\_NTNV

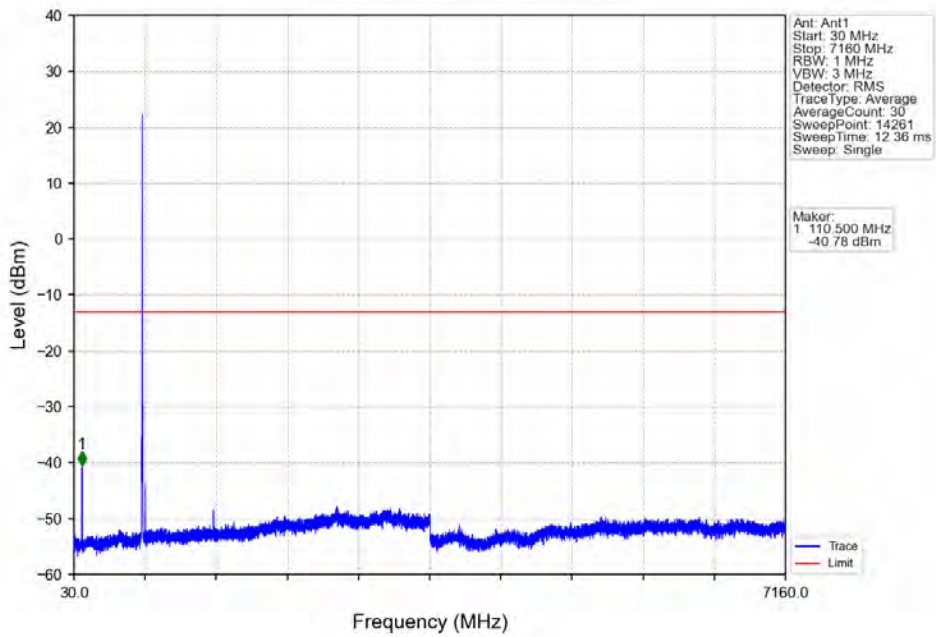


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
696	698.9	0.1	CHP	1	698.616	-30.75	-13	Pass
698.9	699	0.03	/	2	698.988	-31.79	-13	Pass
699	702	0.03	/	/	/	/	/	/

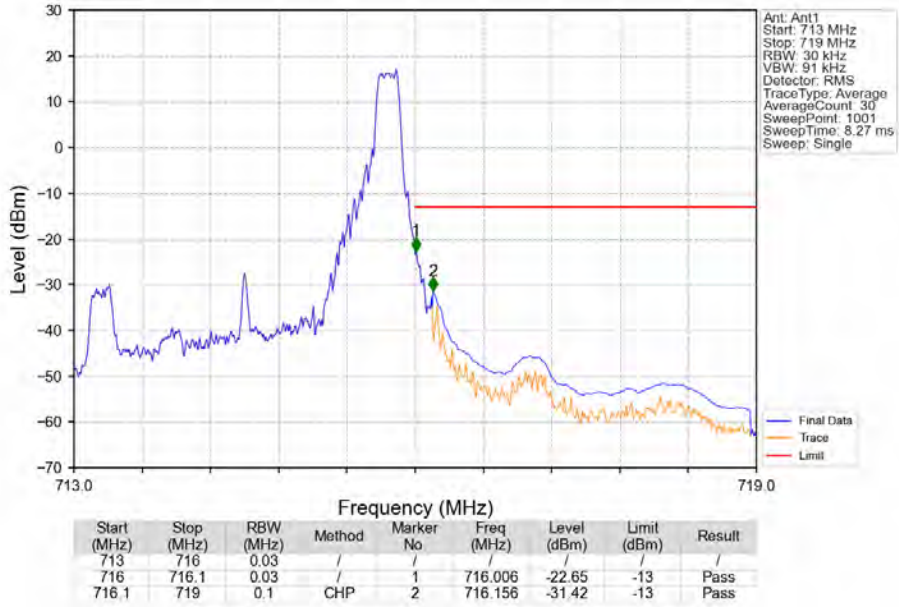
Band12\_3MHz\_16QAM\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



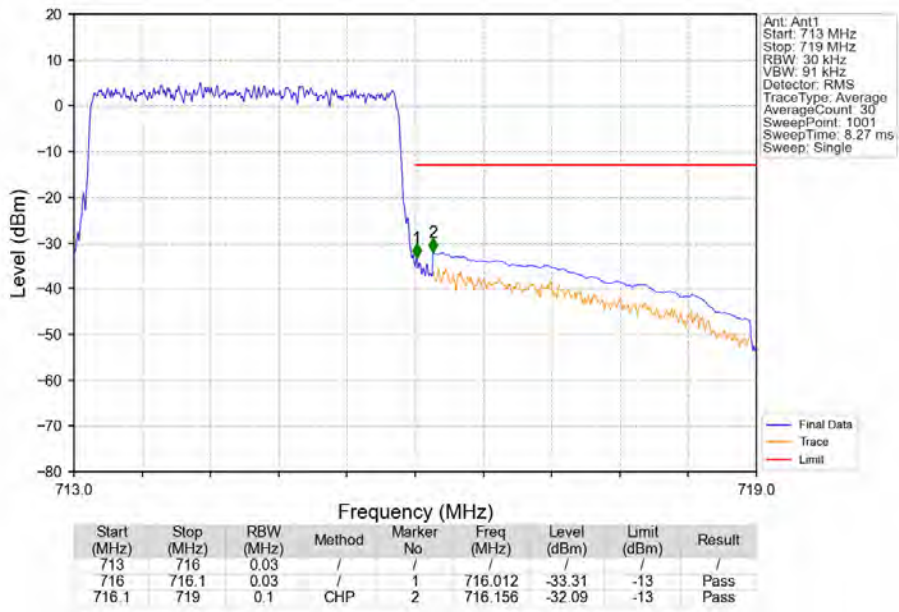
Band12\_3MHz\_16QAM\_HCH\_714.5MHz\_RB\_1\_0\_NTNV



Band12\_3MHz\_16QAM\_HCH\_714.5MHz\_RB\_1\_14\_NTNV



Band12\_3MHz\_16QAM\_HCH\_714.5MHz\_RB\_15\_0\_NTNV

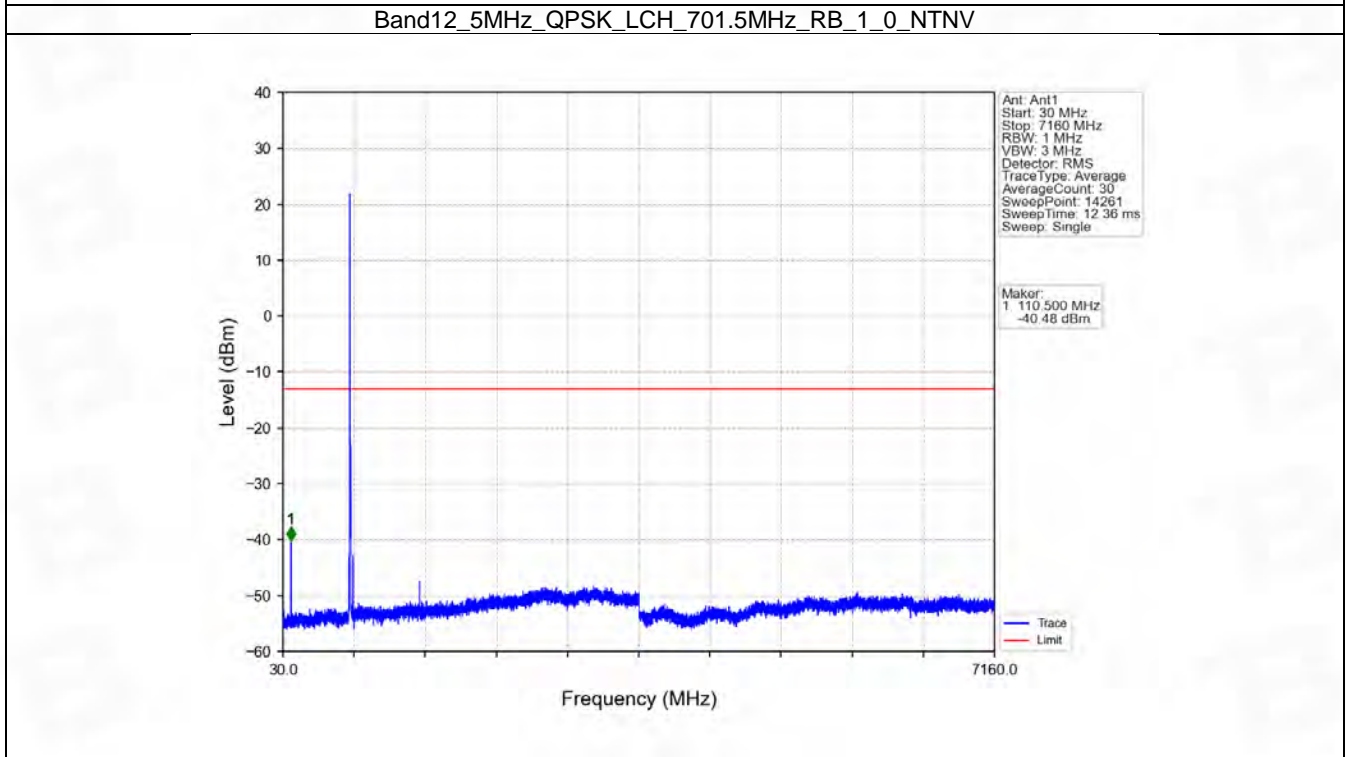
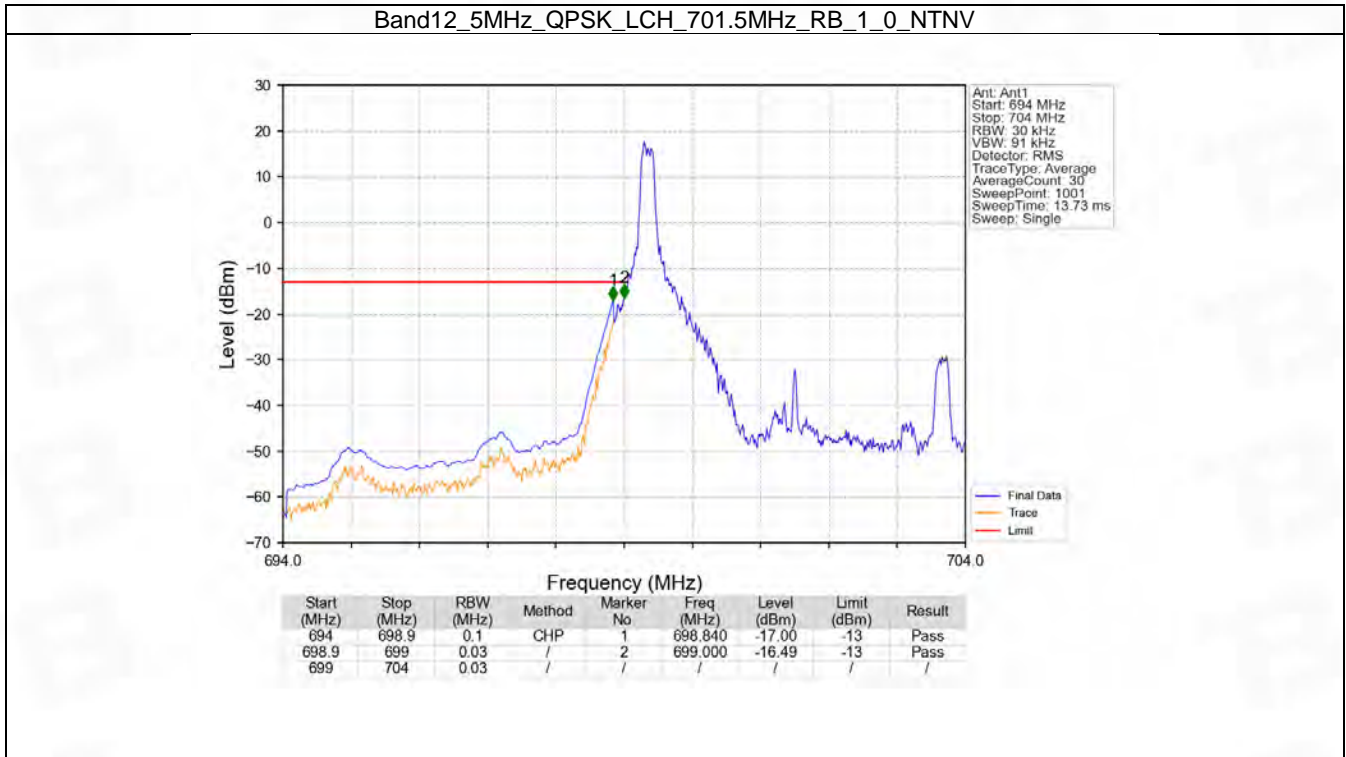


## 6.3 B12\_5MHz

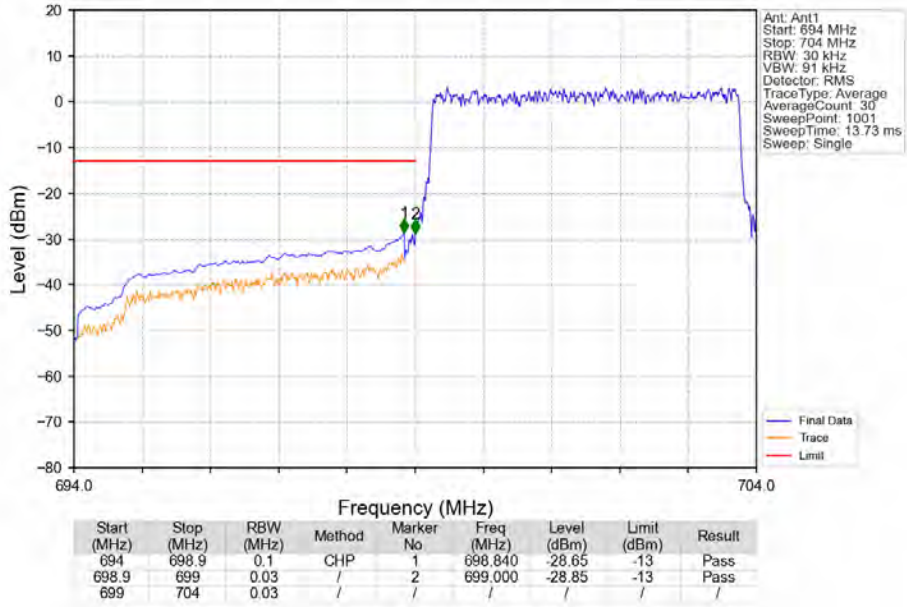
### 6.3.1 Test Result

Band: 12 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	701.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	707.5	1	0	Refer To Test Graph		Pass
	713.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
16QAM	701.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	707.5	1	0	Refer To Test Graph		Pass
	713.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass

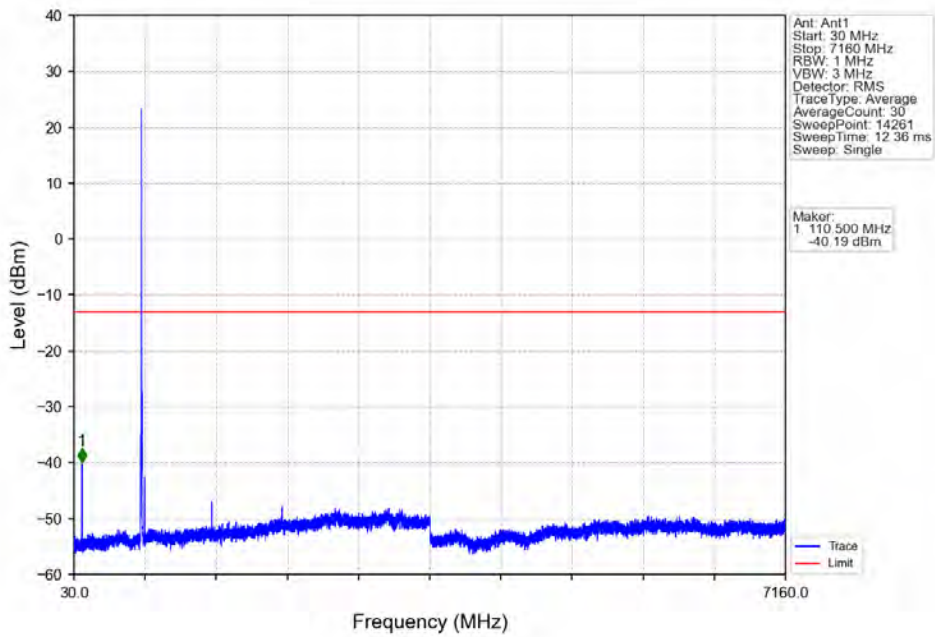
### 6.3.2 Test Graph



Band12\_5MHz\_QPSK\_LCH\_701.5MHz\_RB\_25\_0\_NTNV

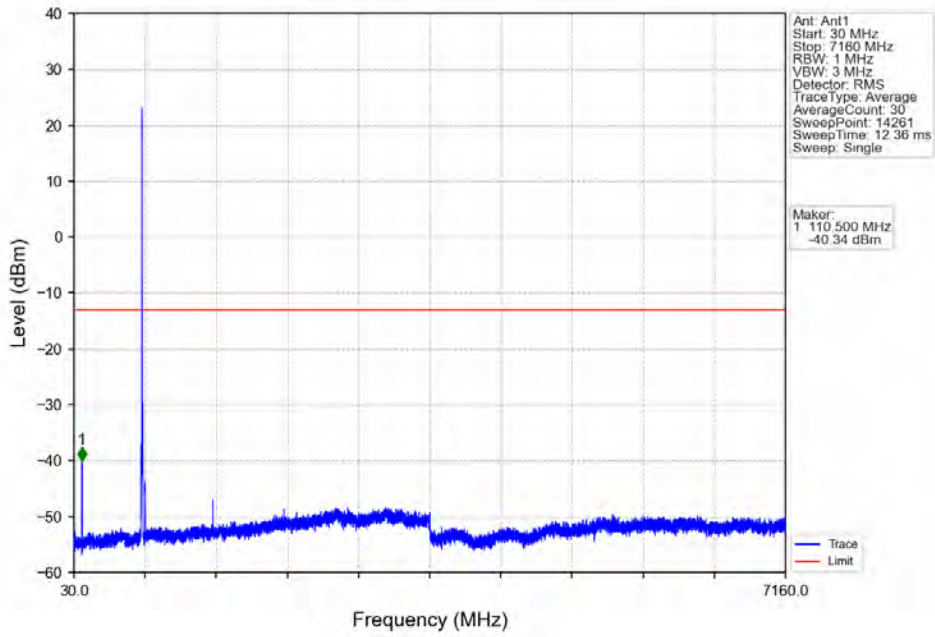


Band12\_5MHz\_QPSK\_MCH\_707.5MHz\_RB\_1\_0\_NTNV

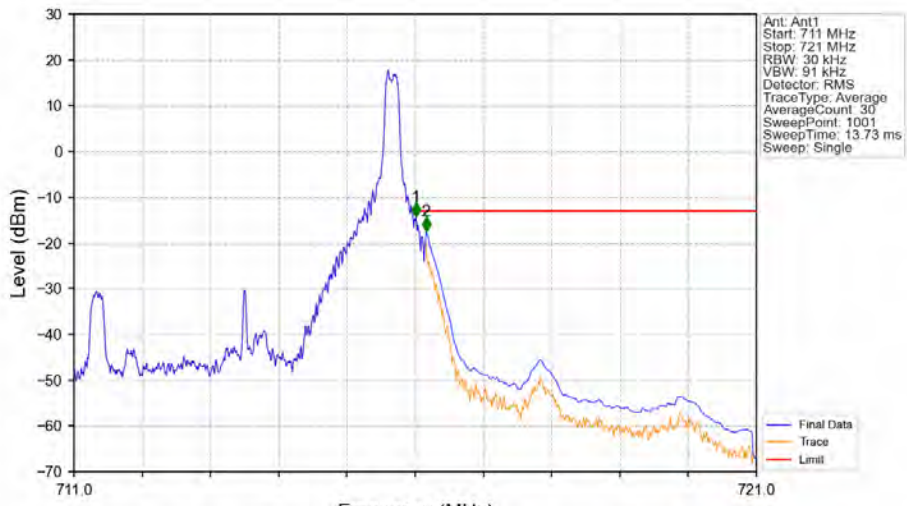




Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_1\_0\_NTNV



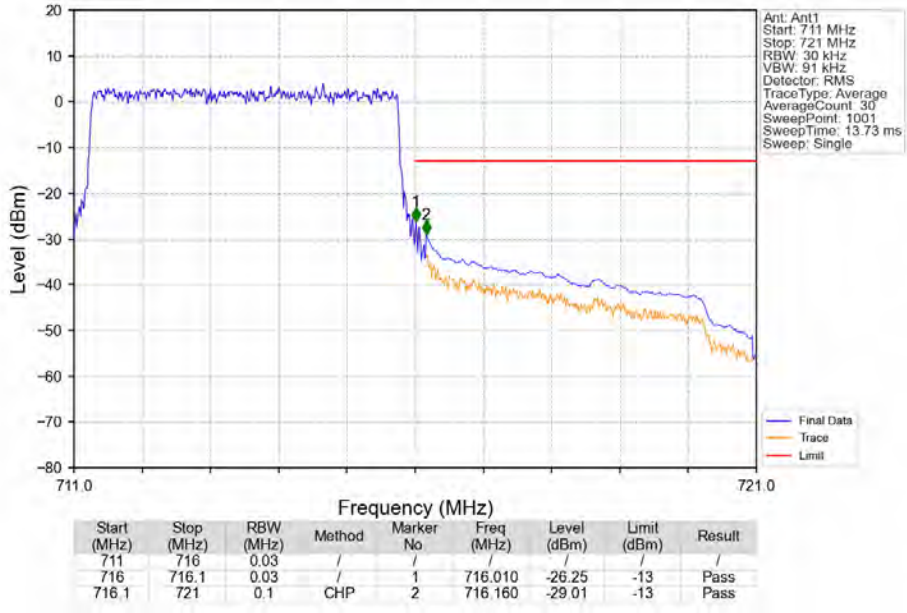
Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_1\_24\_NTNV



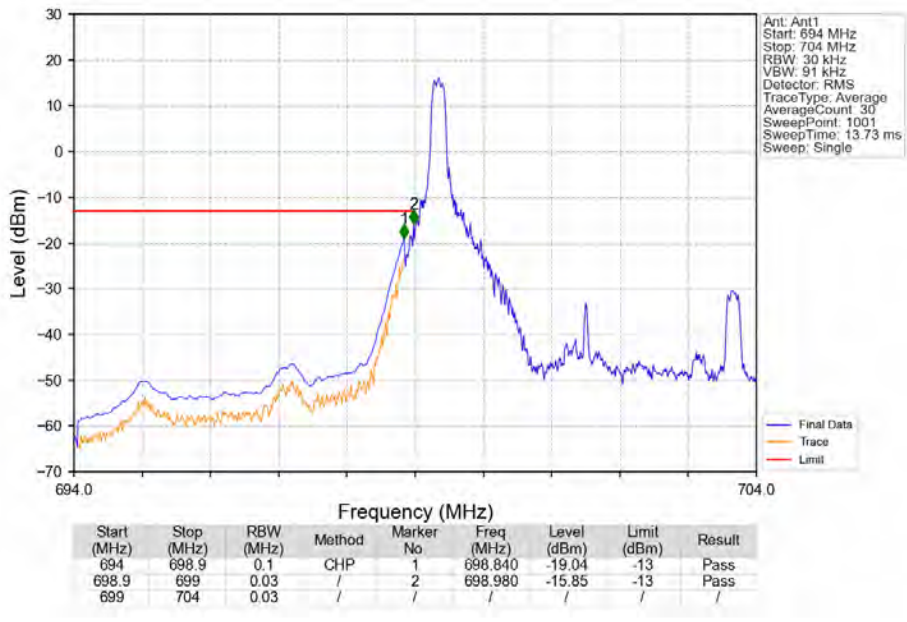
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	1	716.010	-14.35	-13	Pass
716.1	721	0.1	CHP	2	716.160	-17.49	-13	Pass



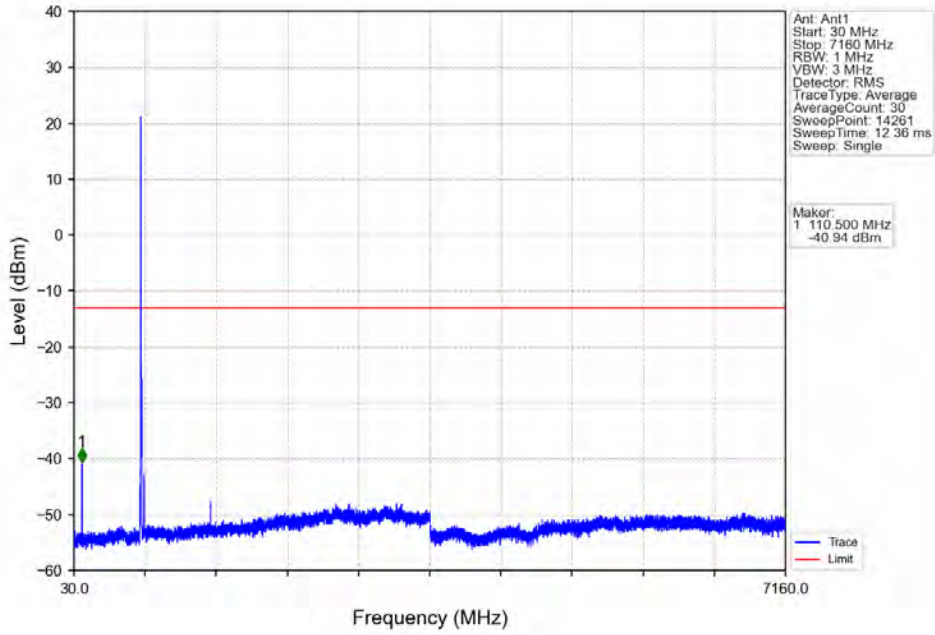
Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



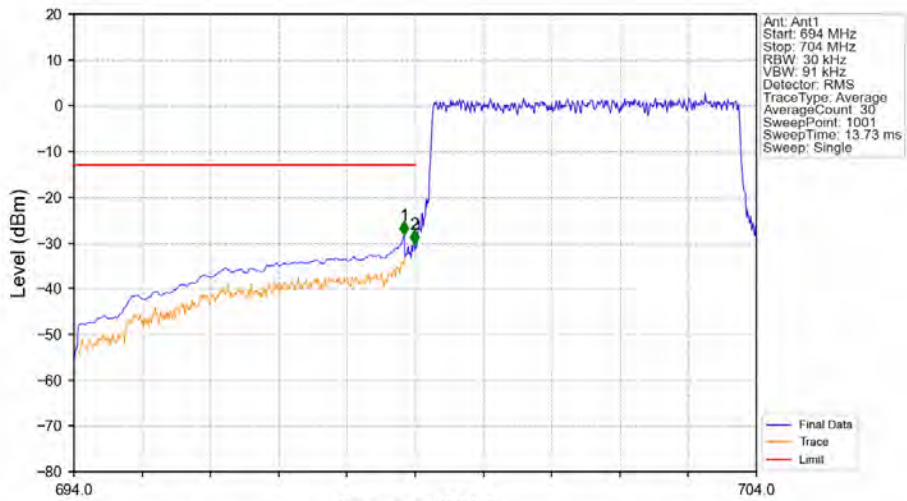
Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_1\_0\_NTNV



Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_1\_0\_NTNV

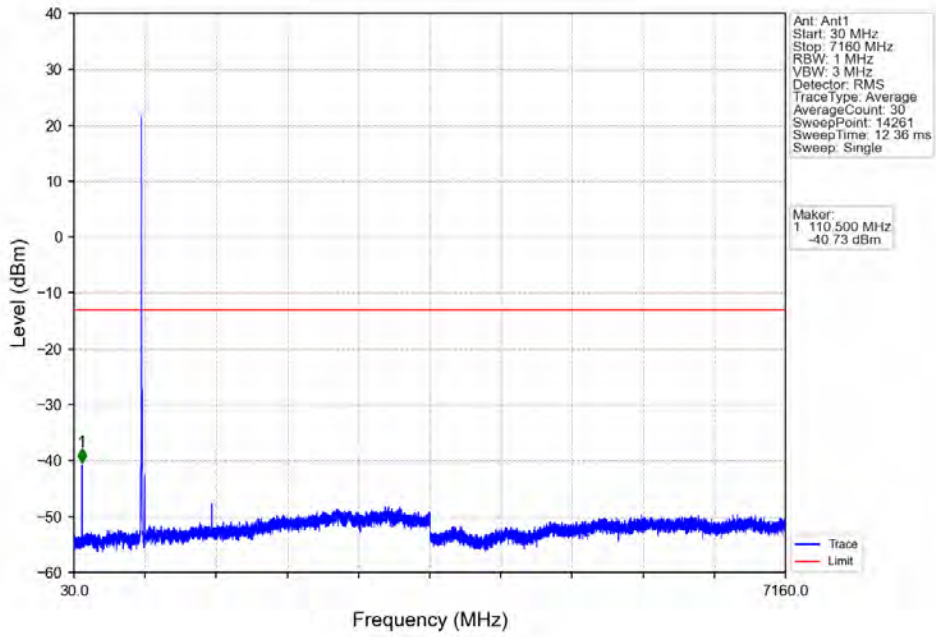


Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_25\_0\_NTNV

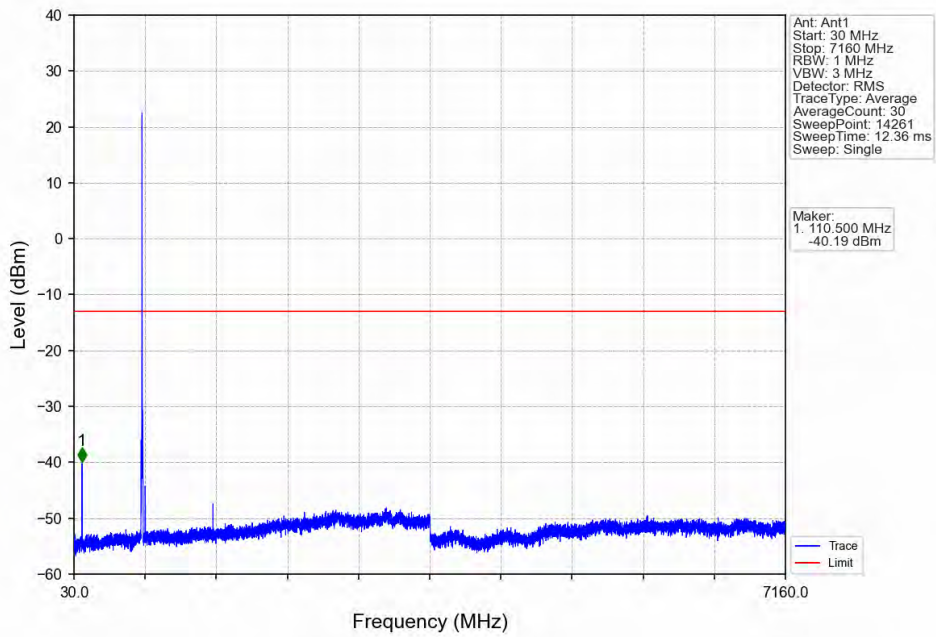


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	698.9	0.1	CHP	1	698.840	-28.34	-13	Pass
698.9	699	0.03	/	2	698.990	-30.33	-13	Pass
699	704	0.03	/	/	/	/	/	/

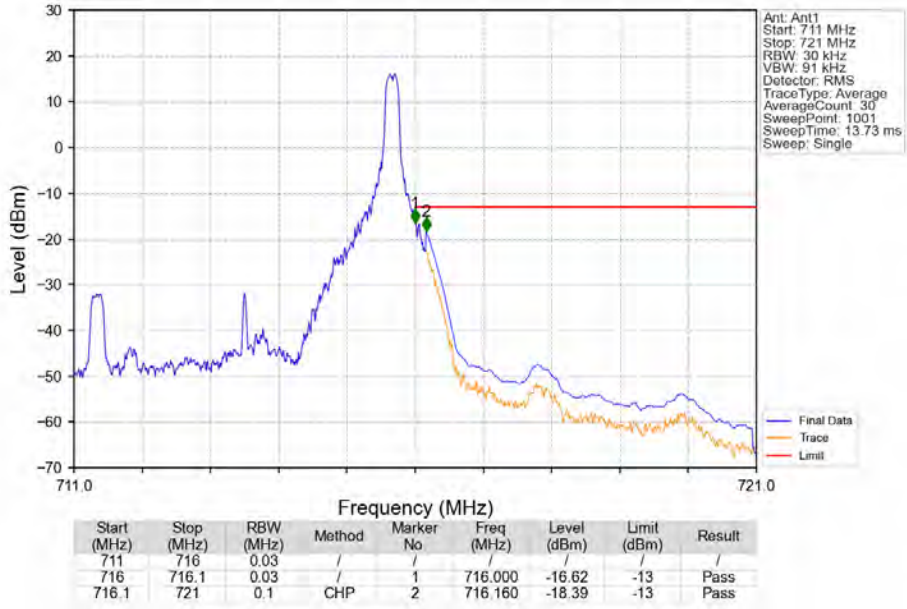
Band12\_5MHz\_16QAM\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



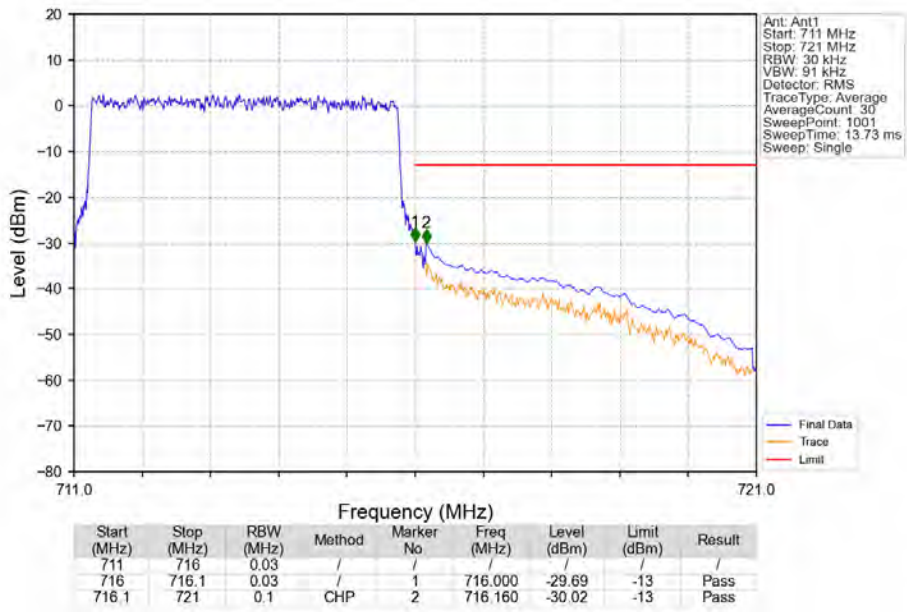
Band12\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_1\_0\_NTNV



Band12\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_1\_24\_NTNV



Band12\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



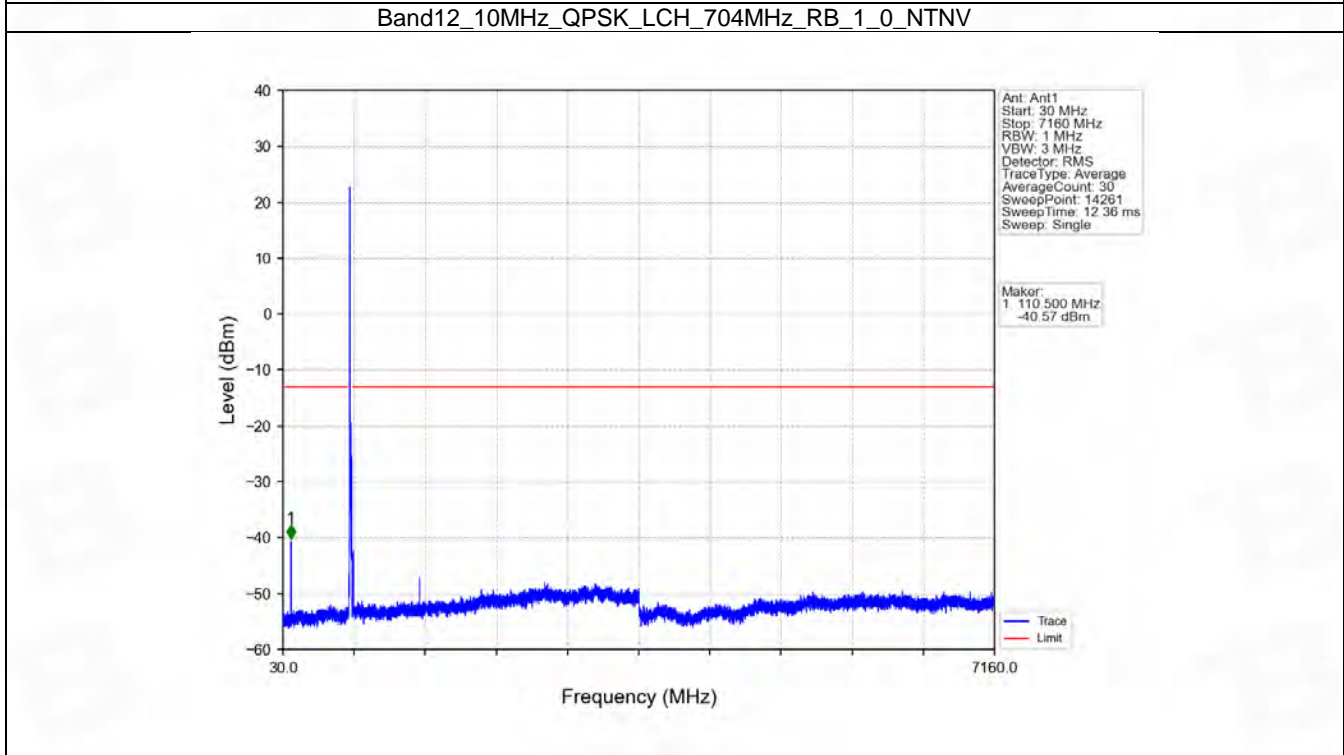
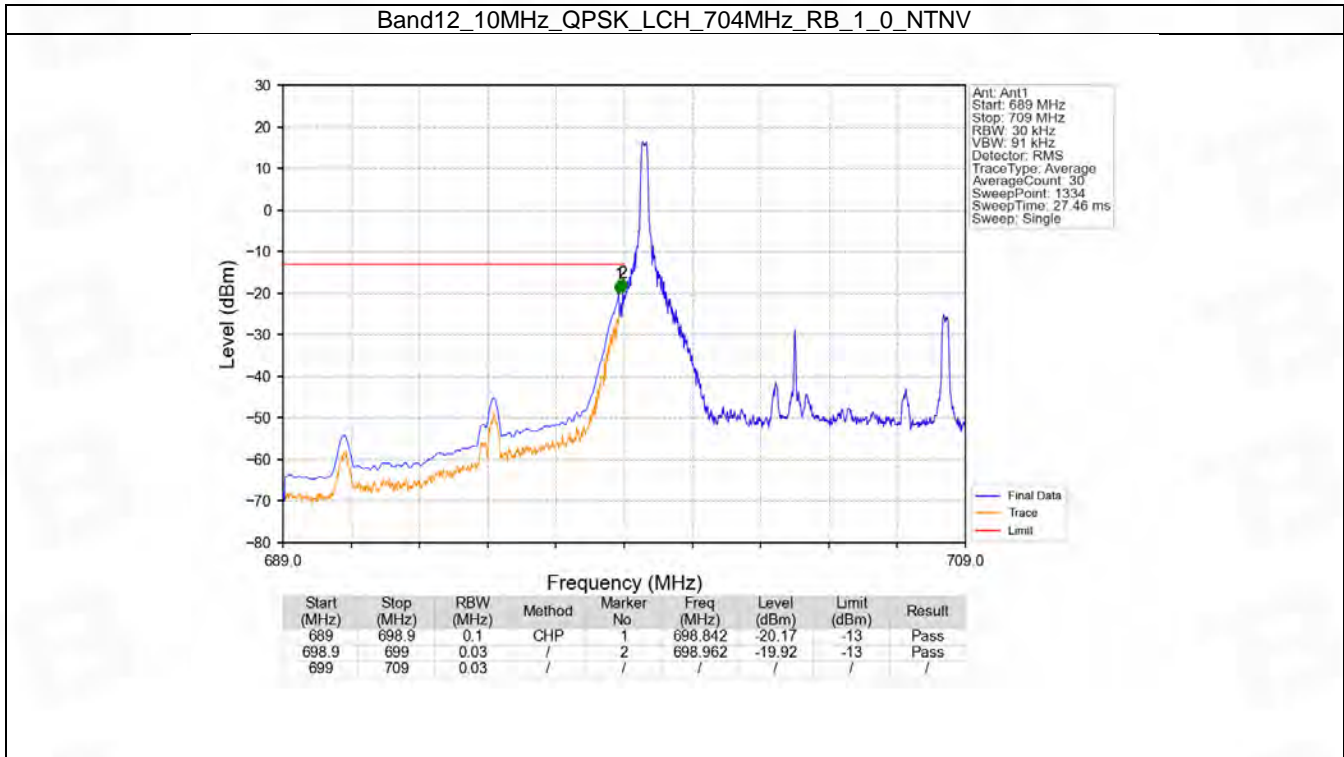
## 6.4 B12\_10MHz

### 6.4.1 Test Result

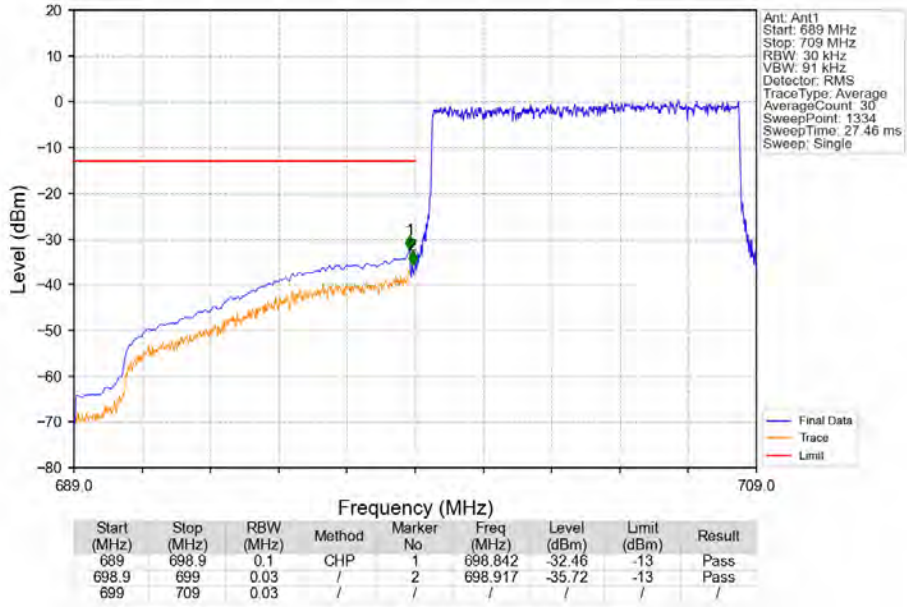
Band: 12 / Bandwidth: 10MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	704	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	707.5	1	0	Refer To Test Graph		Pass
	711	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
16QAM	704	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	707.5	1	0	Refer To Test Graph		Pass
	711	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass



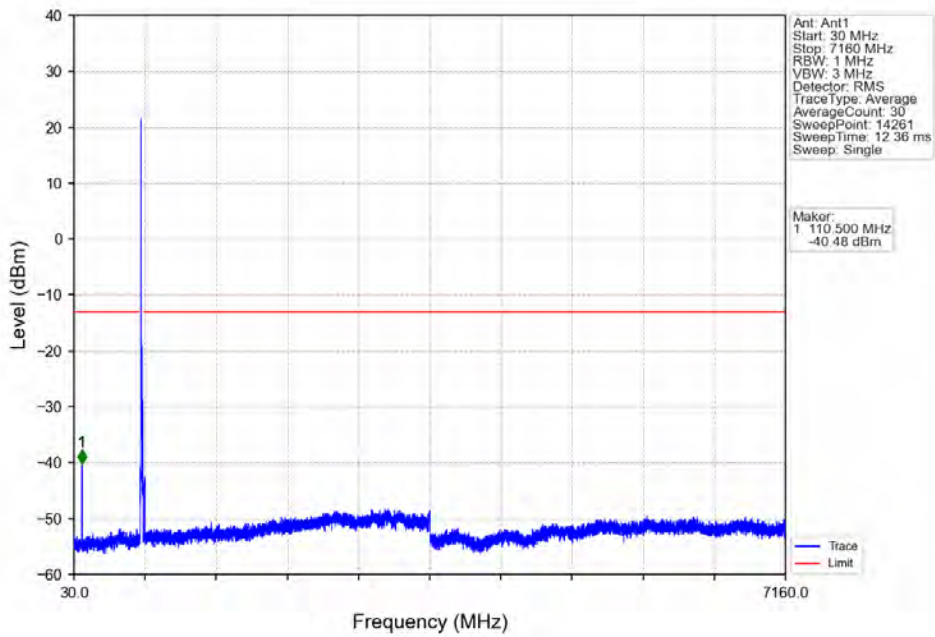
### 6.4.2 Test Graph



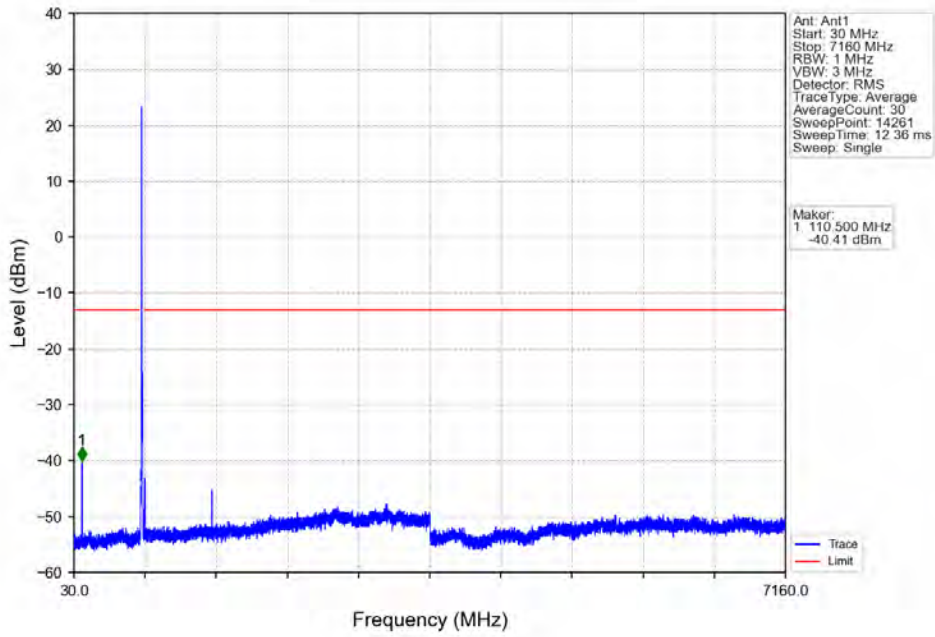
Band12\_10MHz\_QPSK\_LCH\_704MHz\_RB\_50\_0\_NTNV



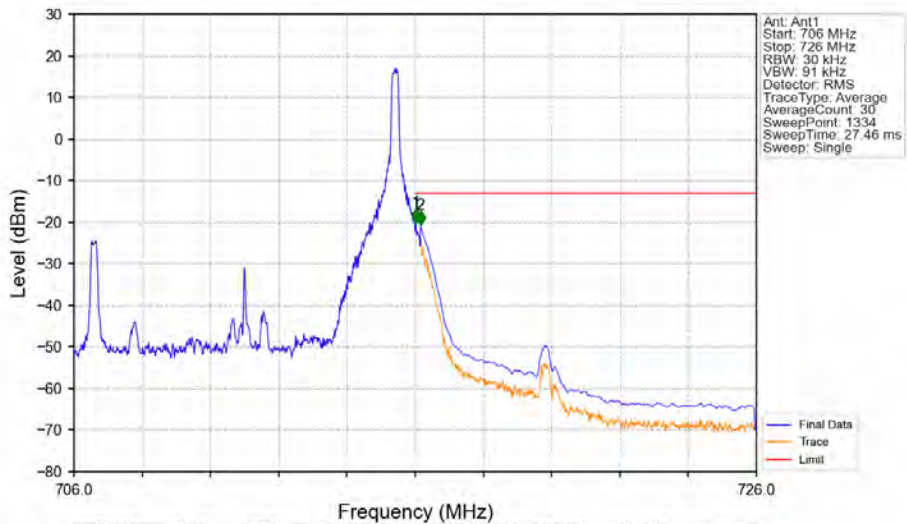
Band12\_10MHz\_QPSK\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_1\_0\_NTNV



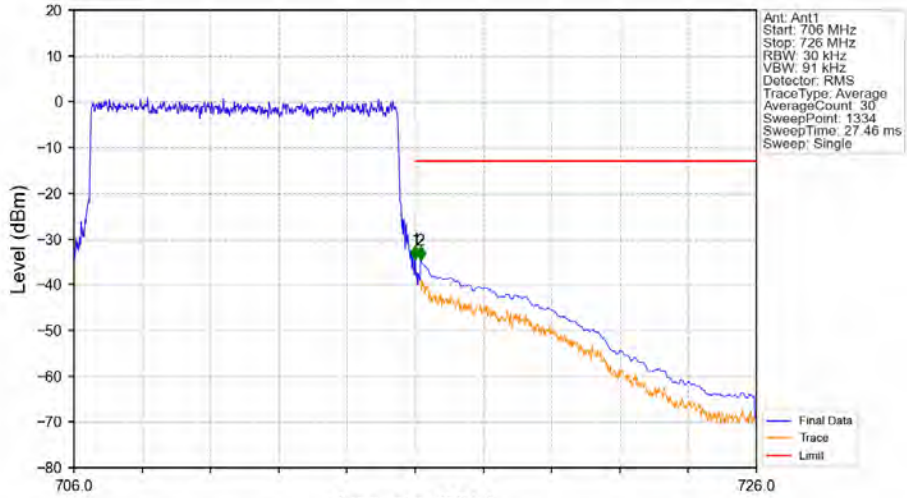
Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_1\_49\_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	/	1	716.023	-19.99	-13	Pass
716	716.1	0.03	/	1	716.023	-19.99	-13	Pass
716.1	726	0.1	CHP	2	716.158	-20.72	-13	Pass

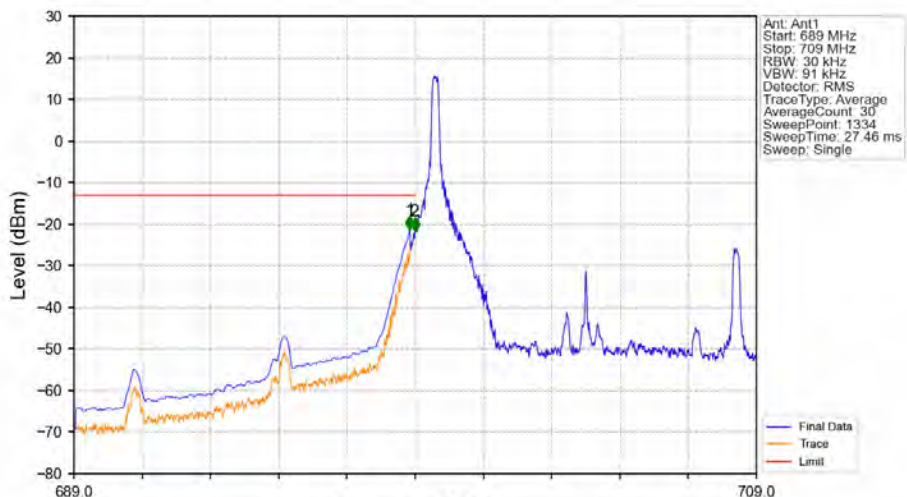


Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



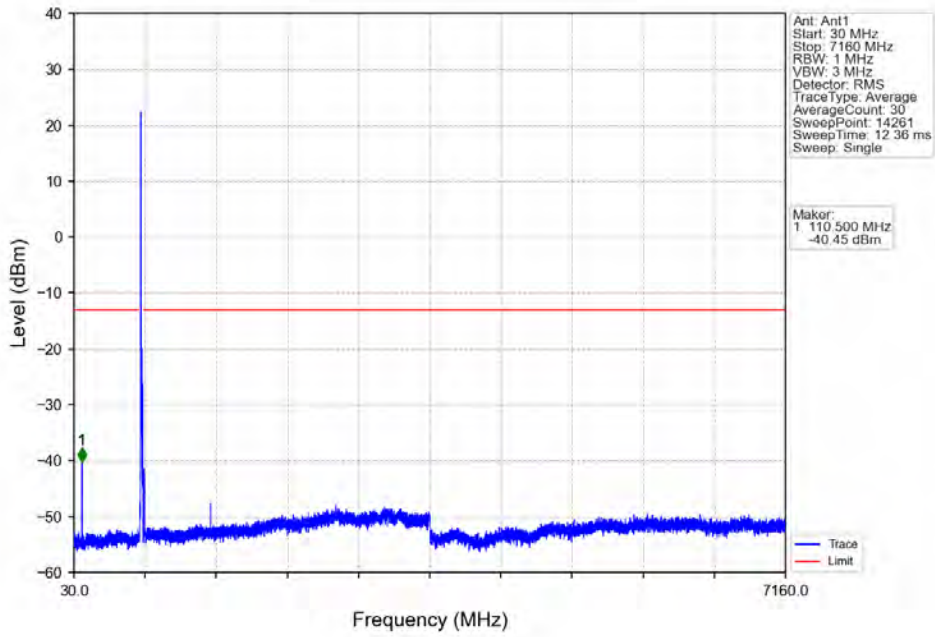
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	/	1	716.008	-34.45	-13	Pass
716.1	726	0.1	CHP	2	716.158	-34.66	-13	Pass

Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_1\_0\_NTNV

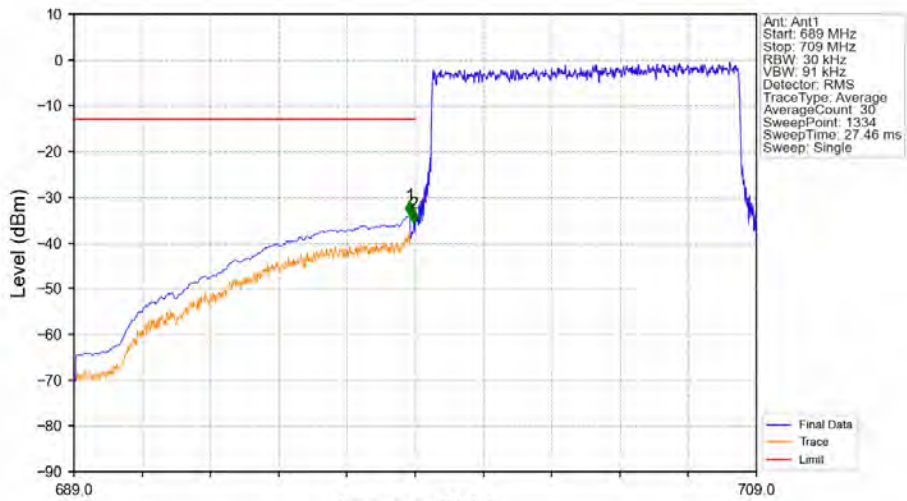


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
689	698.9	0.1	CHP	1	698.842	-21.44	-13	Pass
698.9	699	0.03	/	2	698.992	-21.70	-13	Pass
699	709	0.03	/	/	/	/	/	/

Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_1\_0\_NTNV

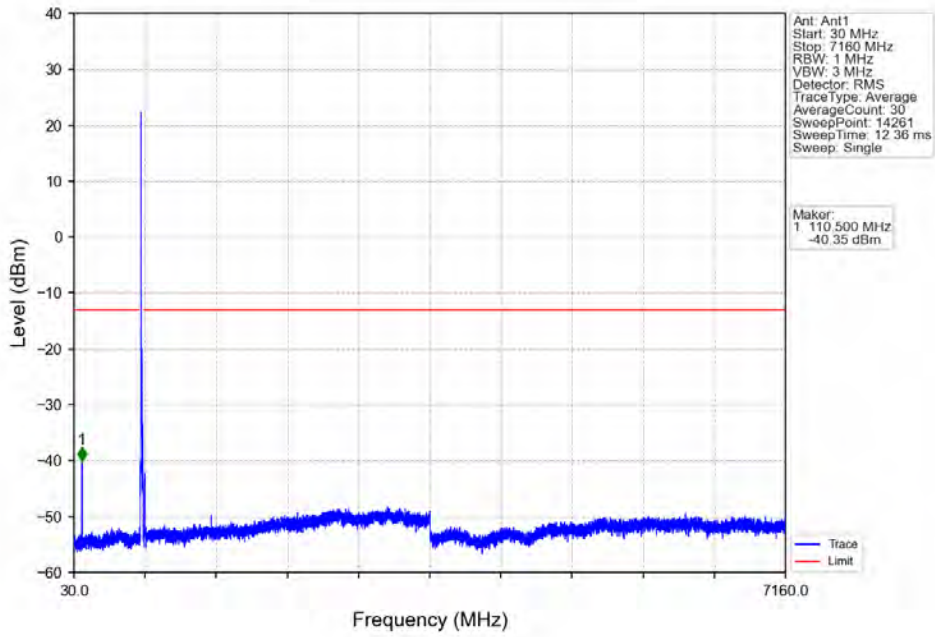


Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_50\_0\_NTNV

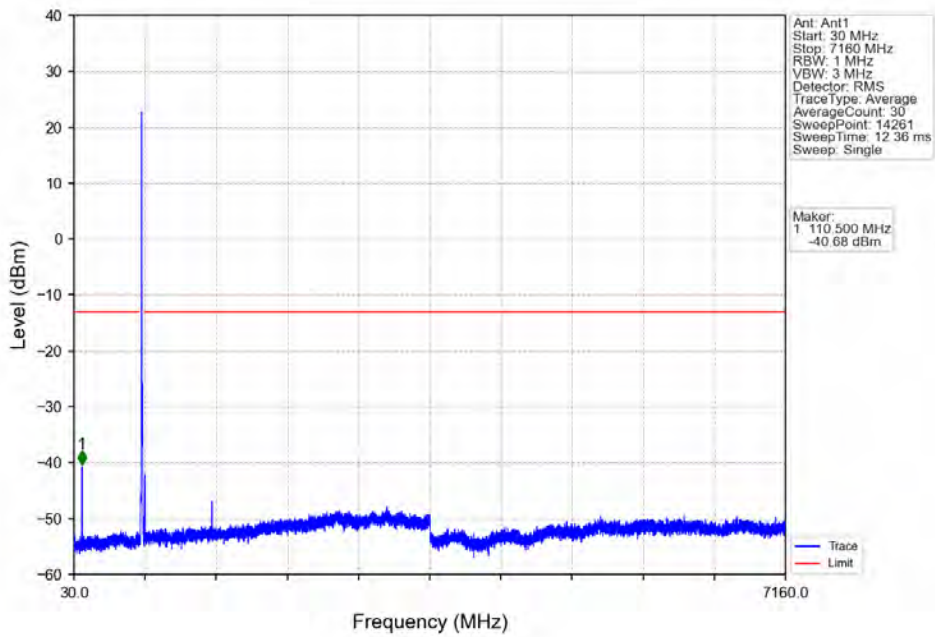


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
689	698.9	0.1	CHP	1	698.842	-33.93	-13	Pass
698.9	699	0.03	/	2	698.962	-35.63	-13	Pass
699	709	0.03	/	/	/	/	/	/

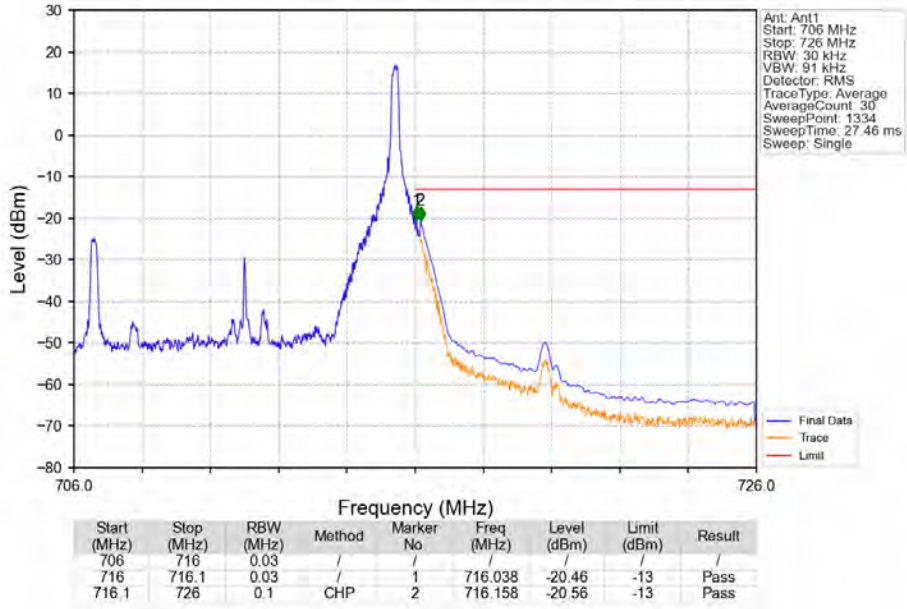
Band12\_10MHz\_16QAM\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



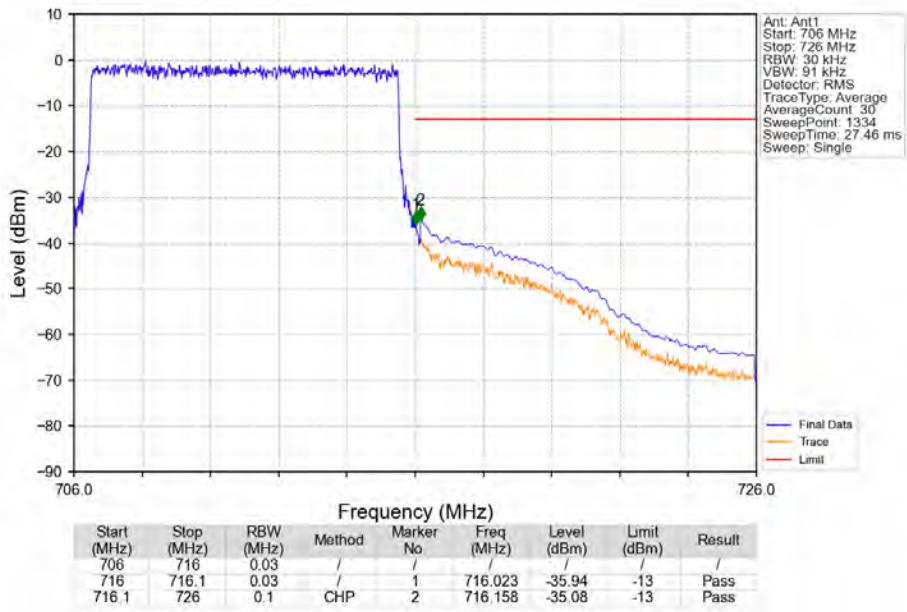
Band12\_10MHz\_16QAM\_HCH\_711MHz\_RB\_1\_0\_NTNV



Band12\_10MHz\_16QAM\_HCH\_711MHz\_RB\_1\_49\_NTV



Band12\_10MHz\_16QAM\_HCH\_711MHz\_RB\_50\_0\_NTV



## 7. Form731

### 7.1 Form731\_Power

#### 7.1.1 Test Result

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
12	1.4	699.7	715.3	0.1871	?	ppm	1M12G7D	27H	22.72
12	1.4	699.7	715.3	0.1500	?	ppm	1M12W7D	27H	21.76
12	3	700.5	714.5	0.1897	?	ppm	2M73G7D	27H	22.78
12	3	700.5	714.5	0.1667	?	ppm	2M72W7D	27H	22.22
12	5	701.5	713.5	0.1637	?	ppm	4M58G7D	27H	22.14
12	5	701.5	713.5	0.1374	?	ppm	4M58W7D	27H	21.38
12	10	704	711	0.1560	?	ppm	9M11G7D	27H	21.93
12	10	704	711	0.1334	?	ppm	9M09W7D	27H	21.25

## 7.2 Form731\_ERP

#### 7.2.1 Test Result

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
12	1.4	699.7	715.3	0.1274	0.0074	ppm	1M11G7D	27H	21.05
12	1.4	699.7	715.3	0.1021	0.0083	ppm	1M12W7D	27H	20.09
12	3	700.5	714.5	0.1291	0.0056	ppm	2M75G7D	27H	21.11
12	3	700.5	714.5	0.1135	0.0045	ppm	2M73W7D	27H	20.55
12	5	701.5	713.5	0.1114	0.0063	ppm	4M55G7D	27H	20.47
12	5	701.5	713.5	0.0935	0.0074	ppm	4M57W7D	27H	19.71
12	10	704	711	0.1062	0.0049	ppm	9M08G7D	27H	20.26
12	10	704	711	0.0908	0.0056	ppm	9M08W7D	27H	19.58