

## 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	23.84	-0.31	21.38	<=34.77	Pass		
			2	23.89	-0.31	21.43	<=34.77	Pass		
			5	24.11	-0.31	21.65	<=34.77	Pass		
		3	0	23.95	-0.31	21.49	<=34.77	Pass		
			2	24.06	-0.31	21.60	<=34.77	Pass		
			3	24.08	-0.31	21.62	<=34.77	Pass		
		6	0	23.00	-0.31	20.54	<=34.77	Pass		
		707.5	1	0	23.60	-0.31	21.14	<=34.77	Pass	
				2	23.60	-0.31	21.14	<=34.77	Pass	
	5			23.64	-0.31	21.18	<=34.77	Pass		
	3		0	23.73	-0.31	21.27	<=34.77	Pass		
			2	23.69	-0.31	21.23	<=34.77	Pass		
			3	23.66	-0.31	21.20	<=34.77	Pass		
	6	0	22.72	-0.31	20.26	<=34.77	Pass			
	715.3	1	0	23.57	-0.31	21.11	<=34.77	Pass		
			2	23.54	-0.31	21.08	<=34.77	Pass		
			5	23.57	-0.31	21.11	<=34.77	Pass		
		3	0	23.61	-0.31	21.15	<=34.77	Pass		
			2	23.65	-0.31	21.19	<=34.77	Pass		
			3	23.62	-0.31	21.16	<=34.77	Pass		
		6	0	22.70	-0.31	20.24	<=34.77	Pass		
		16QAM	699.7	1	0	23.19	-0.31	20.73	<=34.77	Pass
					2	23.22	-0.31	20.76	<=34.77	Pass
	5				23.30	-0.31	20.84	<=34.77	Pass	
3	0			23.01	-0.31	20.55	<=34.77	Pass		
	2			23.11	-0.31	20.65	<=34.77	Pass		
	3			22.97	-0.31	20.51	<=34.77	Pass		
6	0			21.47	-0.31	19.01	<=34.77	Pass		
707.5	1			0	22.70	-0.31	20.24	<=34.77	Pass	
				2	22.66	-0.31	20.20	<=34.77	Pass	
			5	22.71	-0.31	20.25	<=34.77	Pass		
	3		0	22.84	-0.31	20.38	<=34.77	Pass		
			2	22.84	-0.31	20.38	<=34.77	Pass		
			3	22.84	-0.31	20.38	<=34.77	Pass		
6	0		21.72	-0.31	19.26	<=34.77	Pass			
715.3	1		0	22.82	-0.31	20.36	<=34.77	Pass		
			2	22.80	-0.31	20.34	<=34.77	Pass		
			5	22.81	-0.31	20.35	<=34.77	Pass		
	3		0	22.56	-0.31	20.10	<=34.77	Pass		
			2	22.60	-0.31	20.14	<=34.77	Pass		
			3	22.61	-0.31	20.15	<=34.77	Pass		
	6		0	21.73	-0.31	19.27	<=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 / NTNV										
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dbi)	ERP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	700.5	1	0	23.44	-0.31	20.98	<=34.77	Pass		
			7	23.67	-0.31	21.21	<=34.77	Pass		
			14	23.65	-0.31	21.19	<=34.77	Pass		
		8	0	22.52	-0.31	20.06	<=34.77	Pass		
			4	22.63	-0.31	20.17	<=34.77	Pass		
			7	22.65	-0.31	20.19	<=34.77	Pass		
		15	0	22.61	-0.31	20.15	<=34.77	Pass		
		707.5	1	0	23.65	-0.31	21.19	<=34.77	Pass	
				7	23.64	-0.31	21.18	<=34.77	Pass	
	14			23.62	-0.31	21.16	<=34.77	Pass		
	8		0	22.68	-0.31	20.22	<=34.77	Pass		
			4	22.69	-0.31	20.23	<=34.77	Pass		
			7	22.69	-0.31	20.23	<=34.77	Pass		
	15		0	22.70	-0.31	20.24	<=34.77	Pass		
	714.5		1	0	23.67	-0.31	21.21	<=34.77	Pass	
				7	23.66	-0.31	21.20	<=34.77	Pass	
		14		23.65	-0.31	21.19	<=34.77	Pass		
		8	0	22.70	-0.31	20.24	<=34.77	Pass		
			4	22.62	-0.31	20.16	<=34.77	Pass		
			7	22.65	-0.31	20.19	<=34.77	Pass		
		15	0	22.68	-0.31	20.22	<=34.77	Pass		
		16QAM	700.5	1	0	23.02	-0.31	20.56	<=34.77	Pass
					7	23.21	-0.31	20.75	<=34.77	Pass
	14				23.20	-0.31	20.74	<=34.77	Pass	
8	0			21.73	-0.31	19.27	<=34.77	Pass		
	4			21.82	-0.31	19.36	<=34.77	Pass		
	7			21.79	-0.31	19.33	<=34.77	Pass		
15	0			21.68	-0.31	19.22	<=34.77	Pass		
707.5	1			0	22.91	-0.31	20.45	<=34.77	Pass	
				7	22.89	-0.31	20.43	<=34.77	Pass	
			14	22.87	-0.31	20.41	<=34.77	Pass		
	8		0	21.67	-0.31	19.21	<=34.77	Pass		
			4	21.70	-0.31	19.24	<=34.77	Pass		
			7	21.64	-0.31	19.18	<=34.77	Pass		
	15		0	21.62	-0.31	19.16	<=34.77	Pass		
	714.5		1	0	22.76	-0.31	20.30	<=34.77	Pass	
				7	22.75	-0.31	20.29	<=34.77	Pass	
14				22.71	-0.31	20.25	<=34.77	Pass		
8			0	21.77	-0.31	19.31	<=34.77	Pass		
			4	21.72	-0.31	19.26	<=34.77	Pass		
			7	21.70	-0.31	19.24	<=34.77	Pass		
15			0	21.73	-0.31	19.27	<=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 / NTNV
-----------------------------------

Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dbi)	ERP (dBm)		Verdict	
		Size	Offset			Result	Limit		
QPSK	701.5	1	0	23.71	-0.31	21.25	<=34.77	Pass	
			13	23.88	-0.31	21.42	<=34.77	Pass	
			24	23.94	-0.31	21.48	<=34.77	Pass	
		12	0	22.61	-0.31	20.15	<=34.77	Pass	
			6	22.70	-0.31	20.24	<=34.77	Pass	
			13	22.65	-0.31	20.19	<=34.77	Pass	
		25	0	22.65	-0.31	20.19	<=34.77	Pass	
		707.5	1	0	23.74	-0.31	21.28	<=34.77	Pass
				13	23.74	-0.31	21.28	<=34.77	Pass
	24			23.77	-0.31	21.31	<=34.77	Pass	
	12		0	22.73	-0.31	20.27	<=34.77	Pass	
			6	22.72	-0.31	20.26	<=34.77	Pass	
			13	22.71	-0.31	20.25	<=34.77	Pass	
	25		0	22.72	-0.31	20.26	<=34.77	Pass	
	713.5		1	0	23.77	-0.31	21.31	<=34.77	Pass
				13	23.71	-0.31	21.25	<=34.77	Pass
		24		23.78	-0.31	21.32	<=34.77	Pass	
		12	0	22.72	-0.31	20.26	<=34.77	Pass	
			6	22.67	-0.31	20.21	<=34.77	Pass	
			13	22.52	-0.31	20.06	<=34.77	Pass	
	25	0	22.63	-0.31	20.17	<=34.77	Pass		
	16QAM	701.5	1	0	22.43	-0.31	19.97	<=34.77	Pass
				13	22.56	-0.31	20.10	<=34.77	Pass
				24	22.63	-0.31	20.17	<=34.77	Pass
12			0	21.61	-0.31	19.15	<=34.77	Pass	
			6	21.69	-0.31	19.23	<=34.77	Pass	
			13	21.68	-0.31	19.22	<=34.77	Pass	
25			0	21.68	-0.31	19.22	<=34.77	Pass	
707.5			1	0	23.07	-0.31	20.61	<=34.77	Pass
				13	22.99	-0.31	20.53	<=34.77	Pass
		24		23.00	-0.31	20.54	<=34.77	Pass	
		12	0	21.76	-0.31	19.30	<=34.77	Pass	
			6	21.75	-0.31	19.29	<=34.77	Pass	
			13	21.72	-0.31	19.26	<=34.77	Pass	
		25	0	21.70	-0.31	19.24	<=34.77	Pass	
		713.5	1	0	22.80	-0.31	20.34	<=34.77	Pass
				13	22.74	-0.31	20.28	<=34.77	Pass
24				22.77	-0.31	20.31	<=34.77	Pass	
12			0	21.67	-0.31	19.21	<=34.77	Pass	
			6	21.65	-0.31	19.19	<=34.77	Pass	
			13	21.52	-0.31	19.06	<=34.77	Pass	
25		0	21.64	-0.31	19.18	<=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	23.60	-0.31	21.14	<=34.77	Pass
			25	23.71	-0.31	21.25	<=34.77	Pass

16QAM	707.5	25	49	23.80	-0.31	21.34	<=34.77	Pass		
			0	22.63	-0.31	20.17	<=34.77	Pass		
			13	22.70	-0.31	20.24	<=34.77	Pass		
			25	22.71	-0.31	20.25	<=34.77	Pass		
		50	0	22.69	-0.31	20.23	<=34.77	Pass		
			1	0	23.66	-0.31	21.20	<=34.77	Pass	
				25	23.67	-0.31	21.21	<=34.77	Pass	
		49		23.75	-0.31	21.29	<=34.77	Pass		
		711	25	0	22.77	-0.31	20.31	<=34.77	Pass	
	13			22.67	-0.31	20.21	<=34.77	Pass		
	25			22.76	-0.31	20.30	<=34.77	Pass		
	50		0	22.81	-0.31	20.35	<=34.77	Pass		
			1	0	23.75	-0.31	21.29	<=34.77	Pass	
				25	23.69	-0.31	21.23	<=34.77	Pass	
	49	23.76		-0.31	21.30	<=34.77	Pass			
	16QAM	704	1	0	23.18	-0.31	20.72	<=34.77	Pass	
				25	23.18	-0.31	20.72	<=34.77	Pass	
				49	23.32	-0.31	20.86	<=34.77	Pass	
			25	0	21.66	-0.31	19.20	<=34.77	Pass	
				13	21.78	-0.31	19.32	<=34.77	Pass	
				25	21.77	-0.31	19.31	<=34.77	Pass	
			50	0	21.68	-0.31	19.22	<=34.77	Pass	
				1	0	22.88	-0.31	20.42	<=34.77	Pass
					25	22.84	-0.31	20.38	<=34.77	Pass
		49	22.95		-0.31	20.49	<=34.77	Pass		
		707.5	25	0	21.77	-0.31	19.31	<=34.77	Pass	
				13	21.72	-0.31	19.26	<=34.77	Pass	
25				21.78	-0.31	19.32	<=34.77	Pass		
50			0	21.77	-0.31	19.31	<=34.77	Pass		
			1	0	22.79	-0.31	20.33	<=34.77	Pass	
				25	22.71	-0.31	20.25	<=34.77	Pass	
49		22.79		-0.31	20.33	<=34.77	Pass			
711		25	0	21.76	-0.31	19.30	<=34.77	Pass		
			13	21.79	-0.31	19.33	<=34.77	Pass		
			25	21.73	-0.31	19.27	<=34.77	Pass		
		50	0	21.68	-0.31	19.22	<=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	-0.0003	-2.5 to 2.5	Pass
	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
						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
						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
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
				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					

	707.5	15	0	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
				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			
	50	3.85	-1.173	-0.0017	-2.5 to 2.5	Pass			
	714.5	15	0	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	
								-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								
		707.5	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			
	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						
	711	50	0	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	Pass			
					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

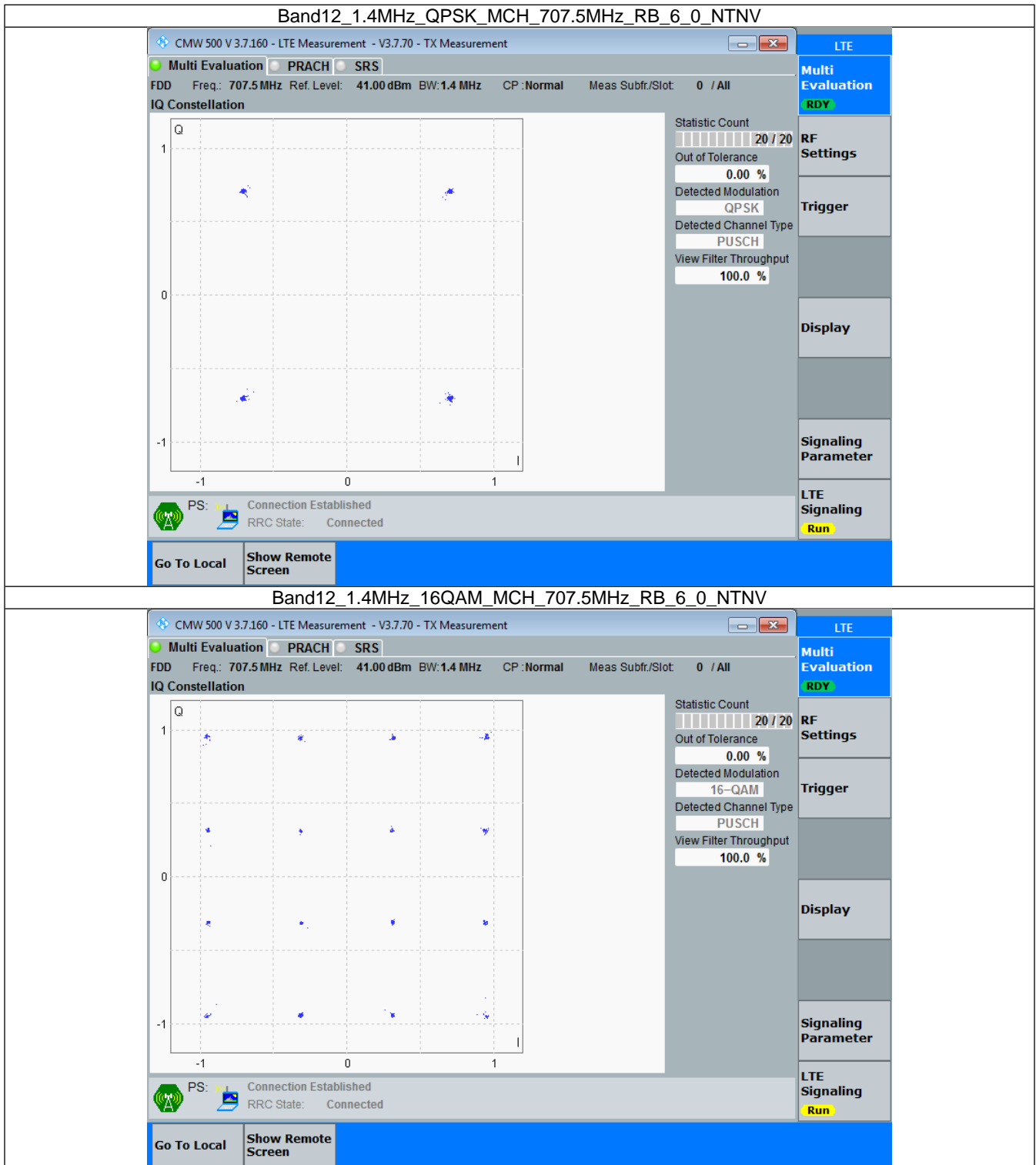
### 3. Modulation Characteristics

#### 3.1 B12\_1.4MHz

##### 3.1.1 Test Result

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

### 3.1.2 Test Graph

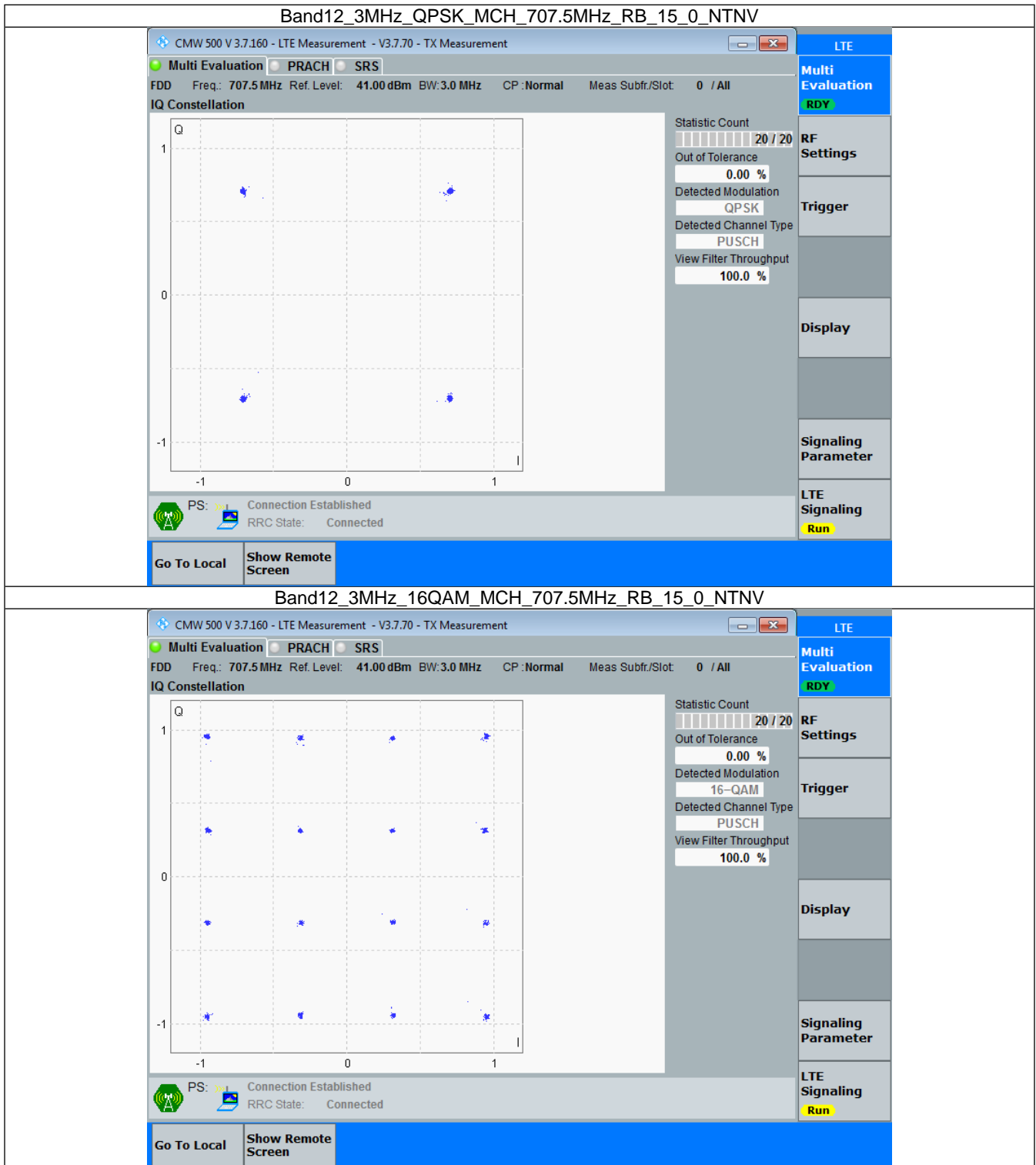


## 3.2 B12\_3MHz

### 3.2.1 Test Result

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

### 3.2.2 Test Graph

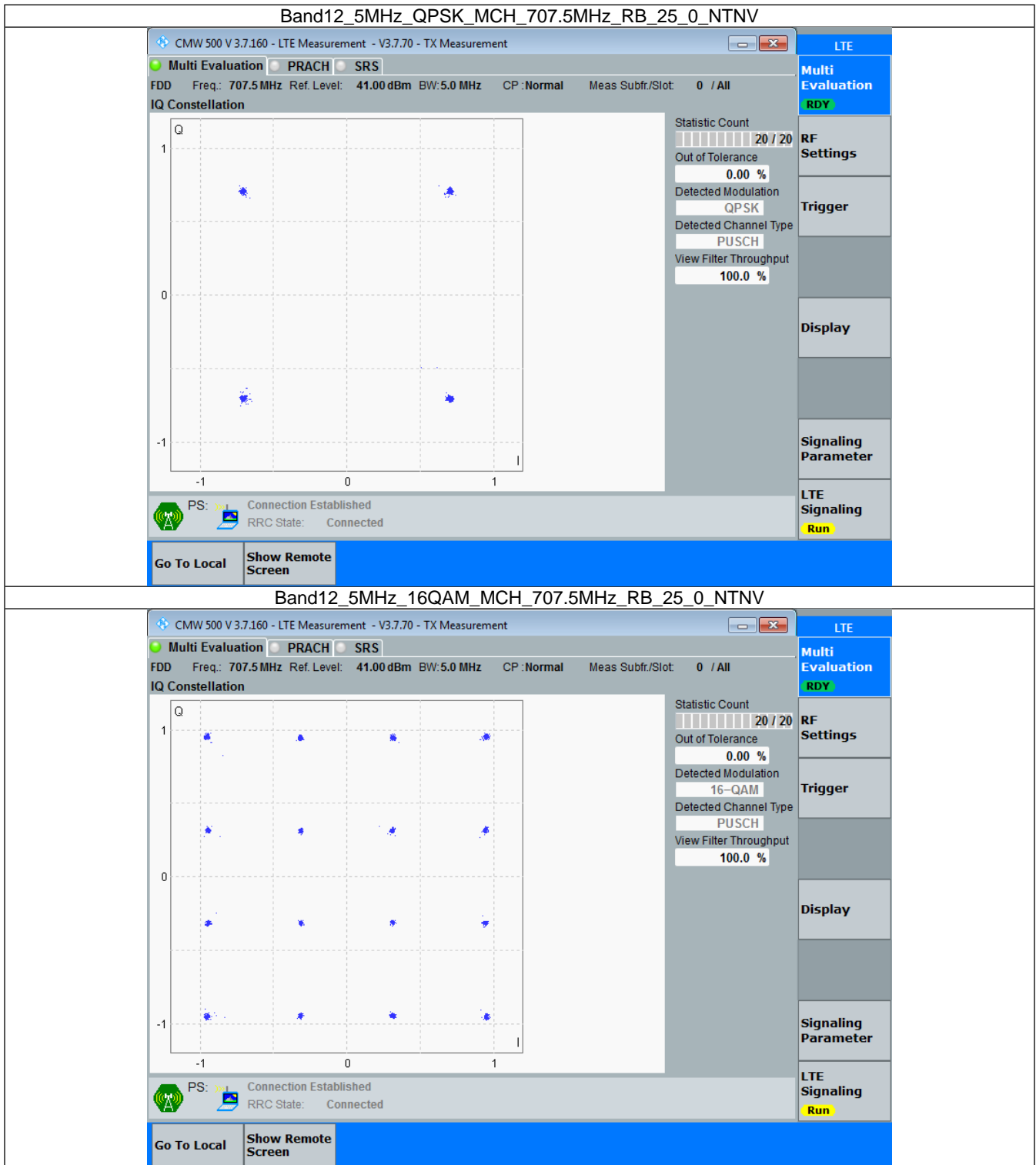


### 3.3 B12\_5MHz

#### 3.3.1 Test Result

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

### 3.3.2 Test Graph



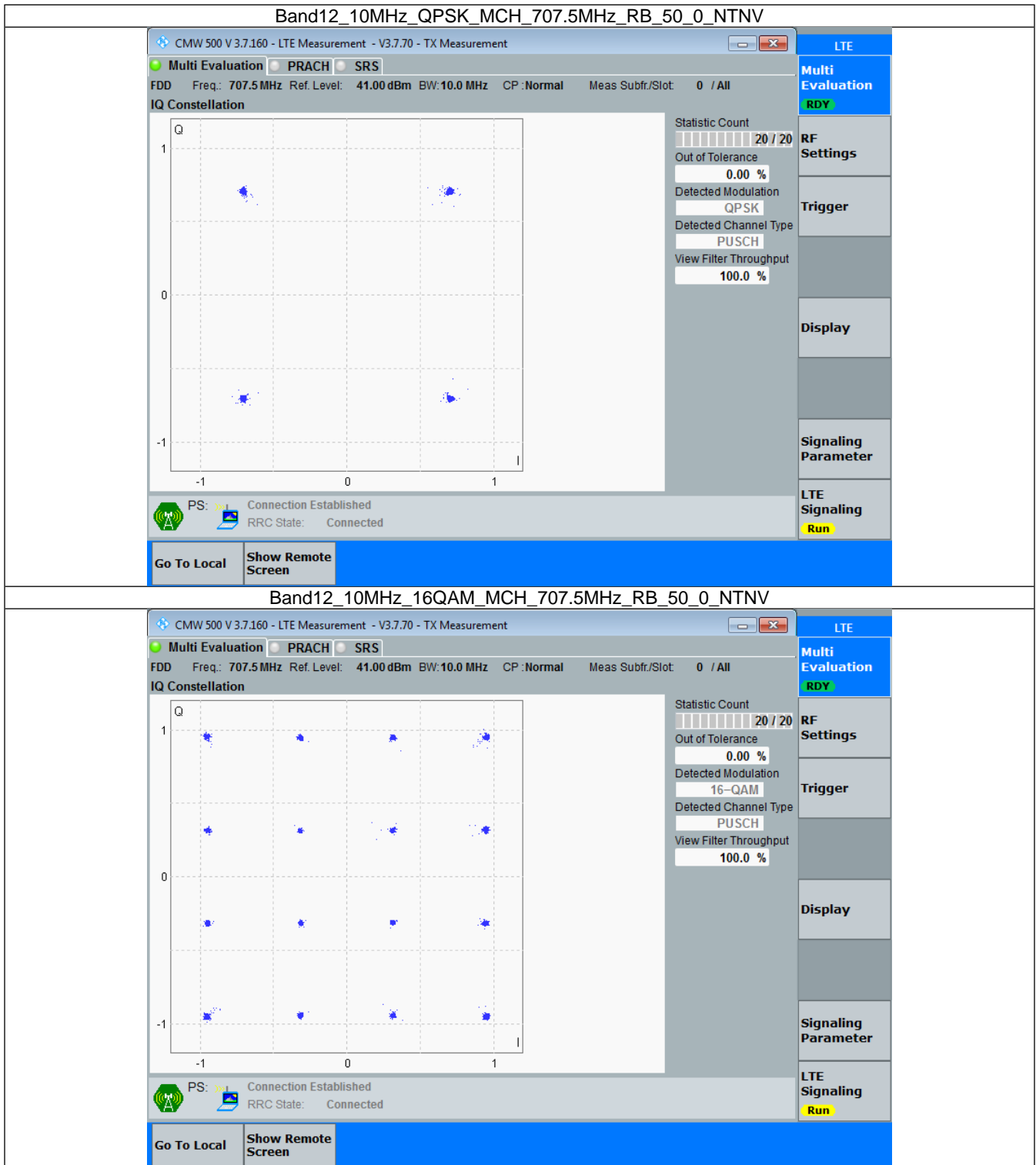
### 3.4 B12\_10MHz

#### 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



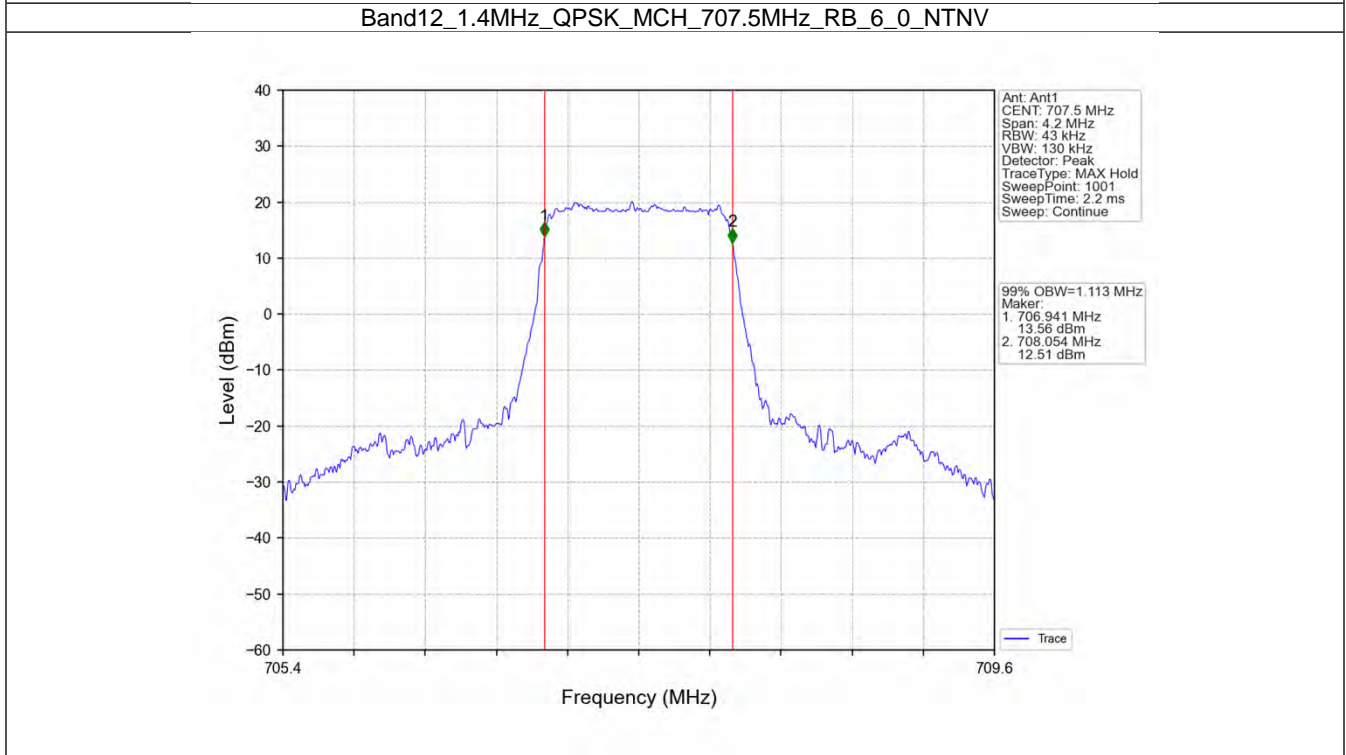
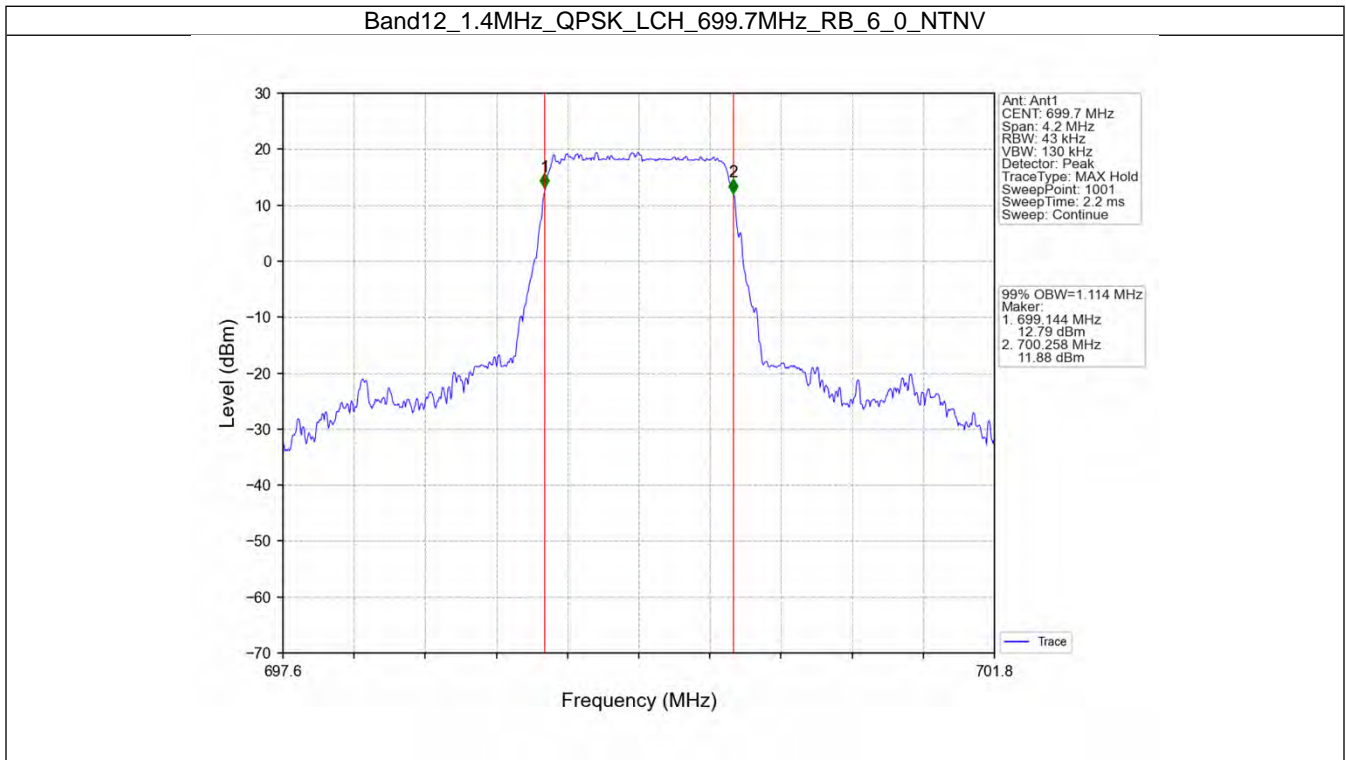
## 4. 99% & 26dB Bandwidth

### 4.1 Band12\_OBW

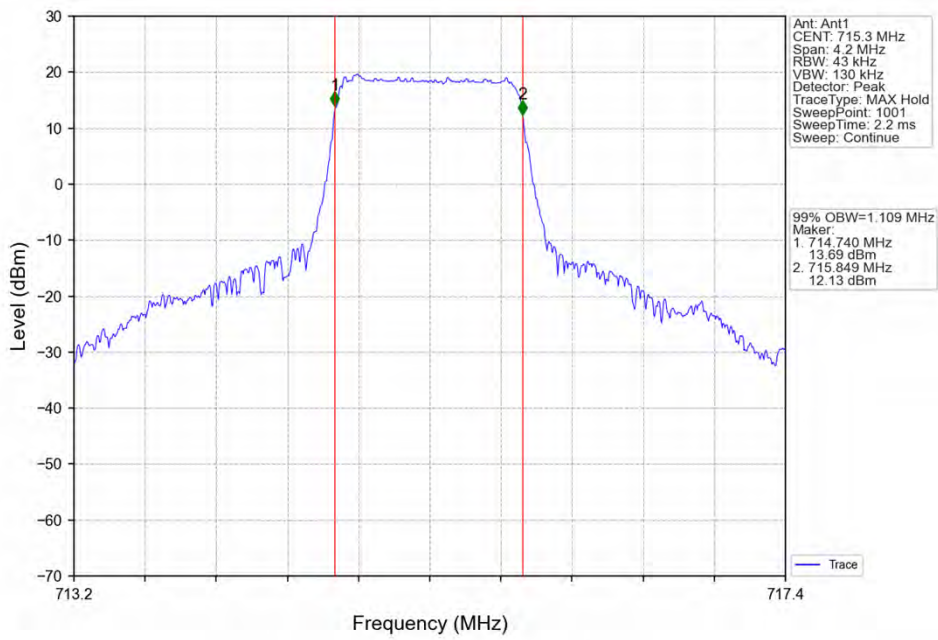
#### 4.1.1 Test Result

Band: 12 / NTNV						
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)	Verdict
			Size	Offset	Result	
1.4	QPSK	699.7	6	0	1.114	Pass
		707.5	6	0	1.113	Pass
		715.3	6	0	1.109	Pass
	16QAM	699.7	6	0	1.109	Pass
		707.5	6	0	1.116	Pass
		715.3	6	0	1.114	Pass
3	QPSK	700.5	15	0	2.733	Pass
		707.5	15	0	2.749	Pass
		714.5	15	0	2.739	Pass
	16QAM	700.5	15	0	2.725	Pass
		707.5	15	0	2.729	Pass
		714.5	15	0	2.723	Pass
5	QPSK	701.5	25	0	4.550	Pass
		707.5	25	0	4.543	Pass
		713.5	25	0	4.527	Pass
	16QAM	701.5	25	0	4.525	Pass
		707.5	25	0	4.568	Pass
		713.5	25	0	4.545	Pass
10	QPSK	704	50	0	9.077	Pass
		707.5	50	0	9.041	Pass
		711	50	0	9.052	Pass
	16QAM	704	50	0	9.083	Pass
		707.5	50	0	9.072	Pass
		711	50	0	9.035	Pass

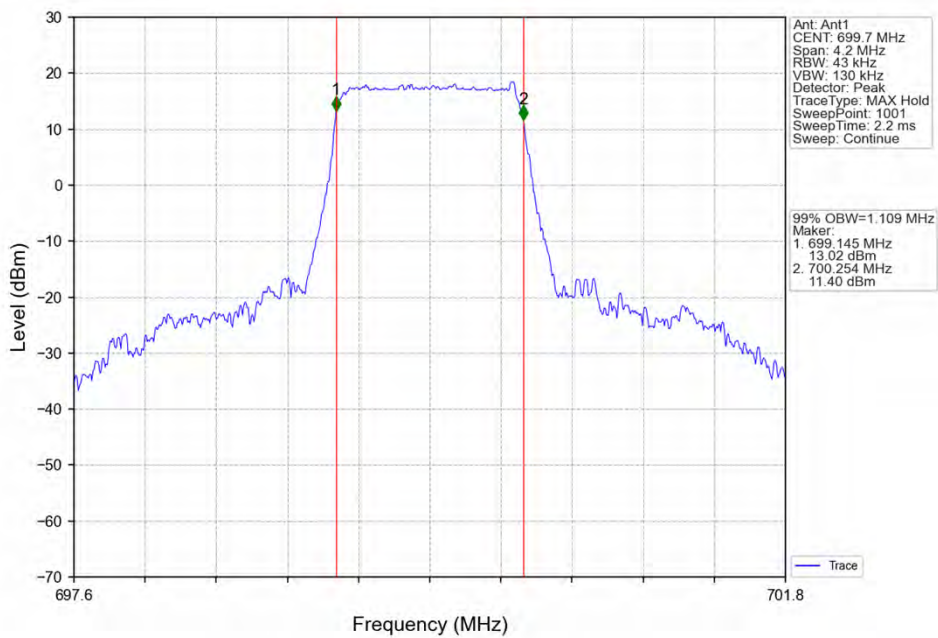
### 4.1.2 Test Graph



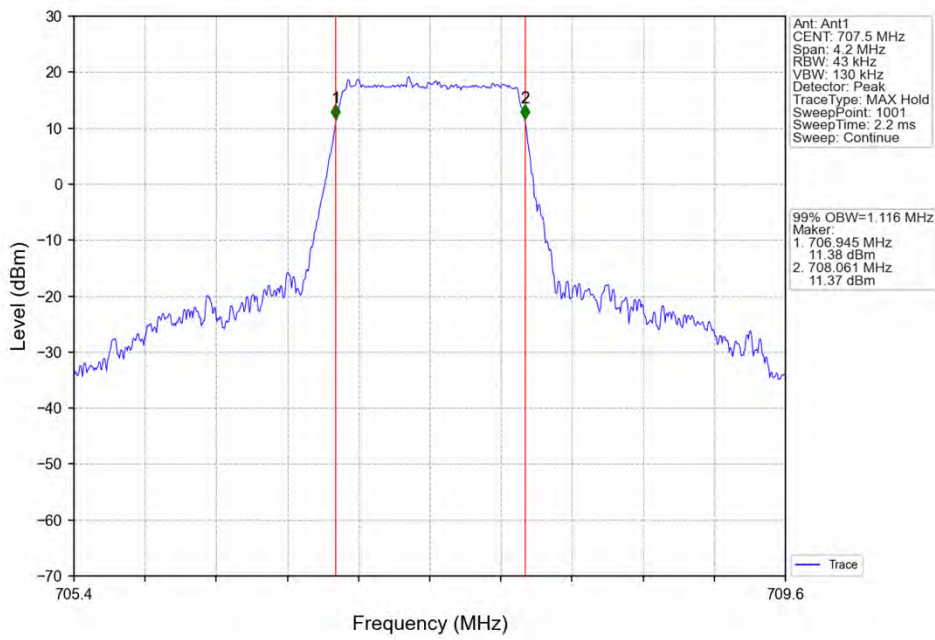
Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_6\_0\_NTNV



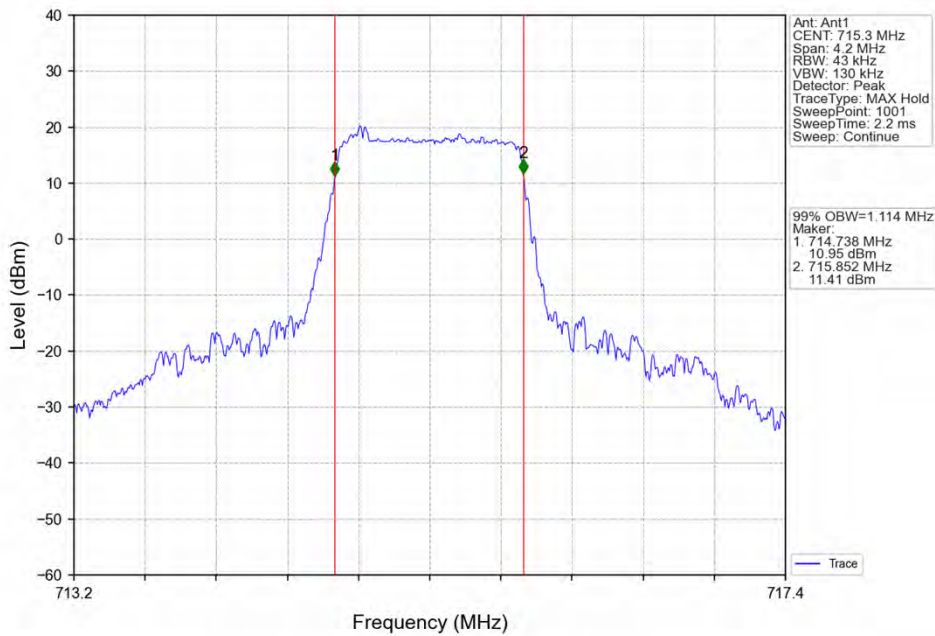
Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_6\_0\_NTNV



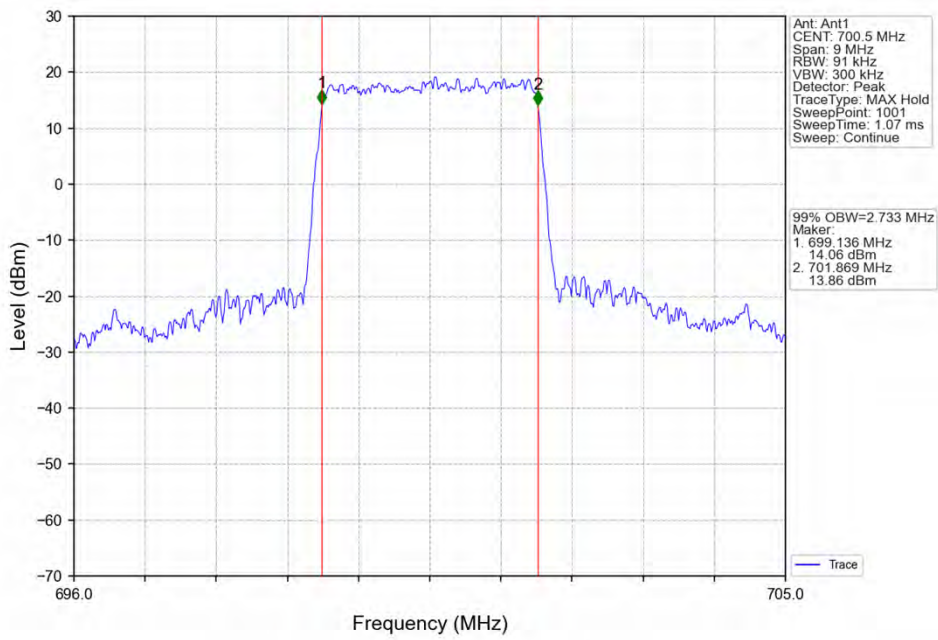
Band12\_1.4MHz\_16QAM\_MCH\_707.5MHz\_RB\_6\_0\_NTNV



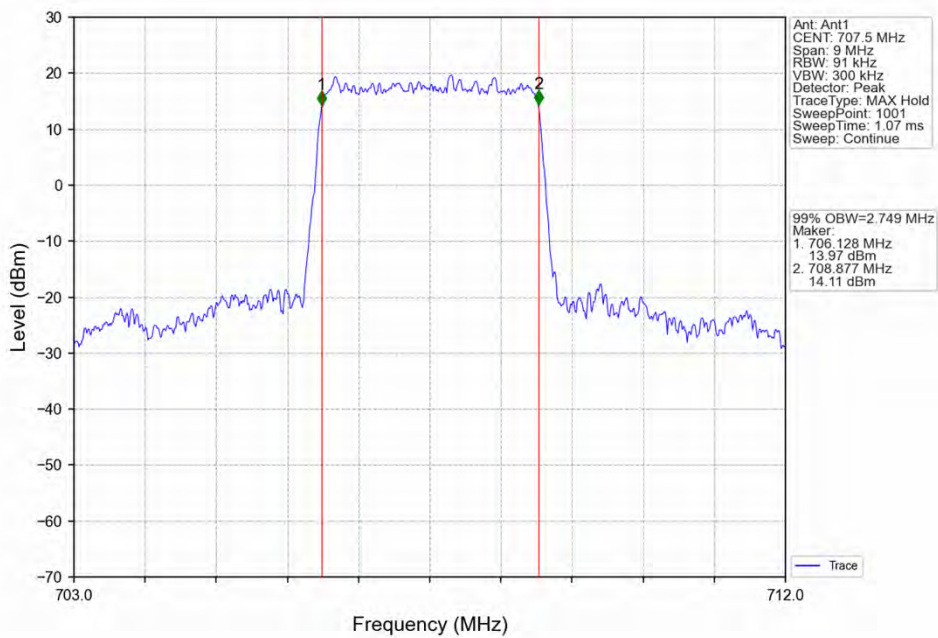
Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_6\_0\_NTNV



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

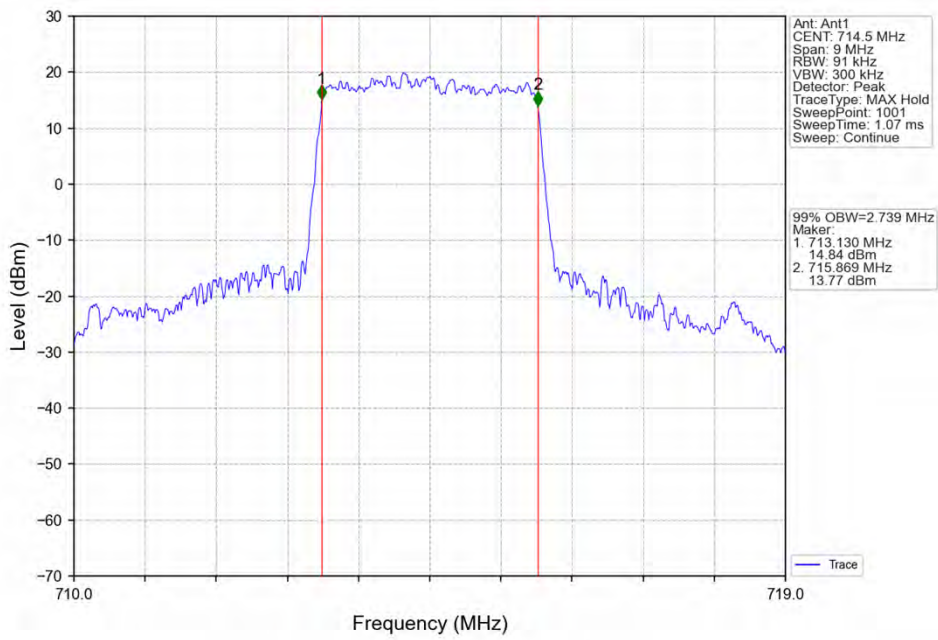


Band12\_3MHz\_QPSK\_MCH\_707.5MHz\_RB\_15\_0\_NTNV

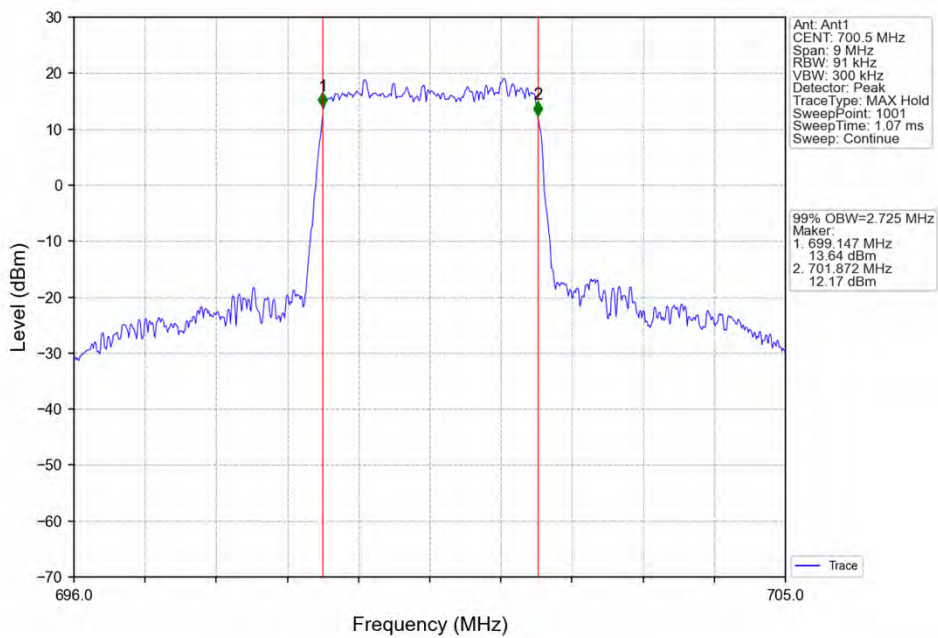




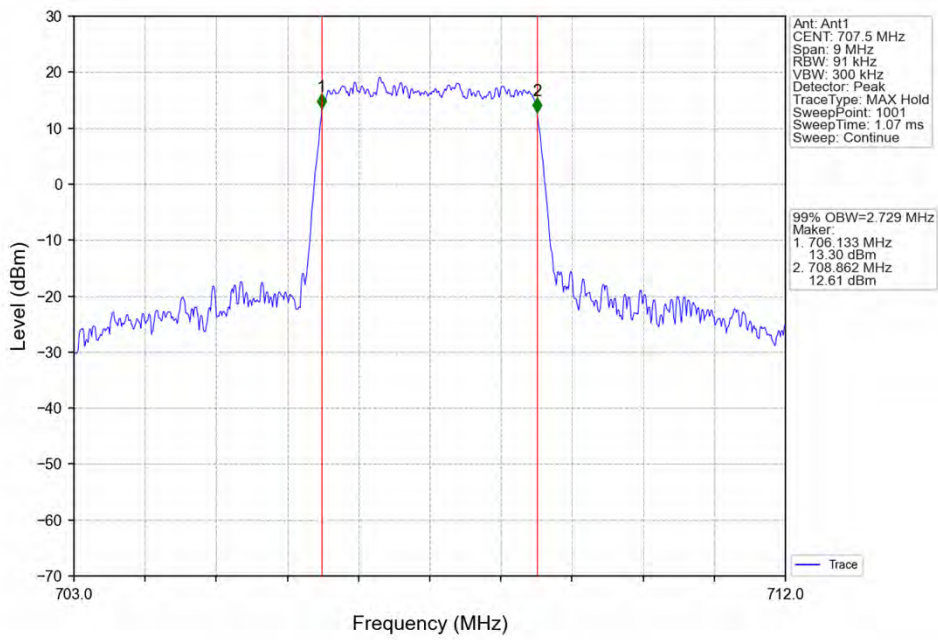
Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_15\_0\_NTNV



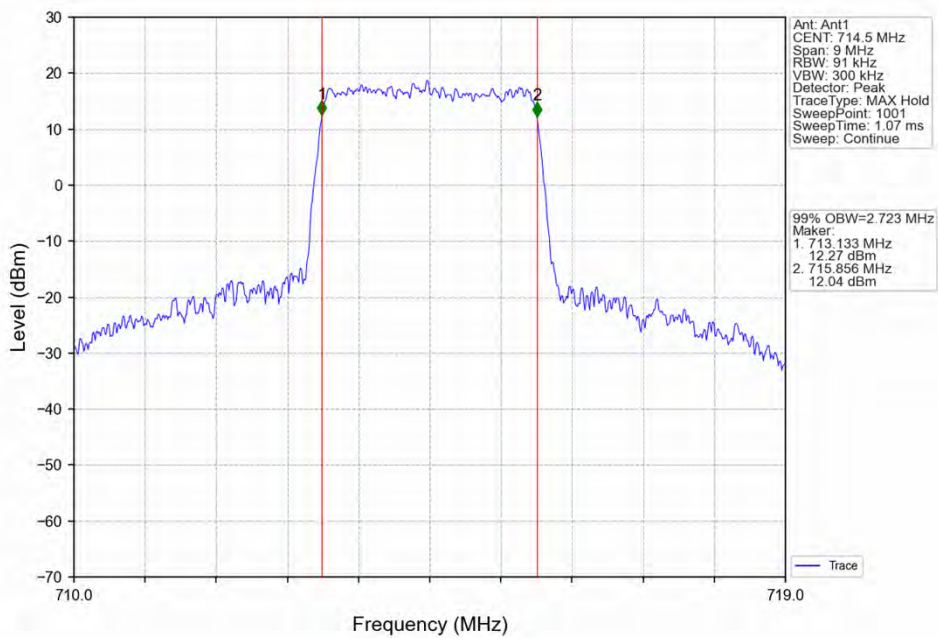
Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



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

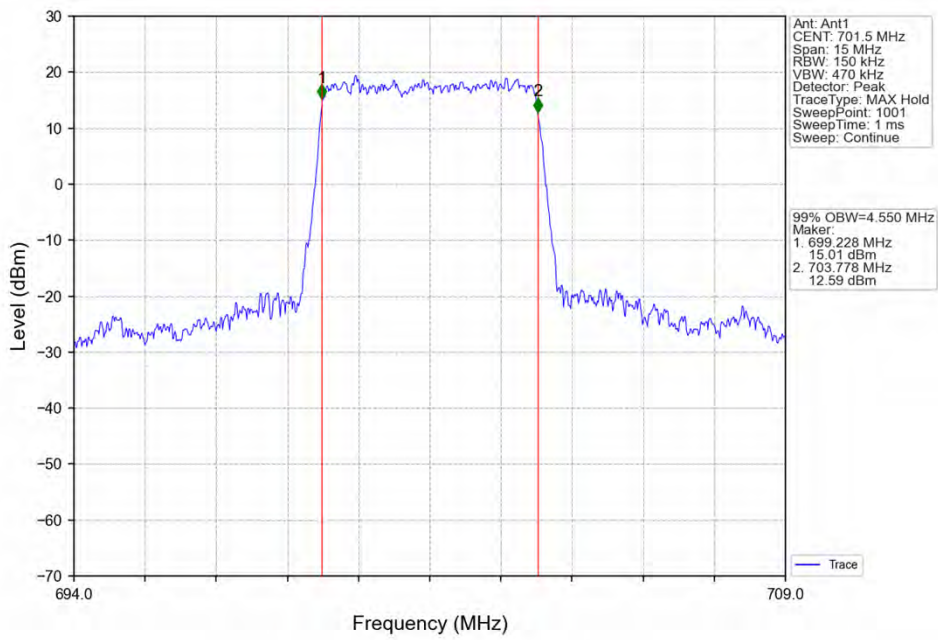


Band12\_3MHz\_16QAM\_HCH\_714.5MHz\_RB\_15\_0\_NTNV

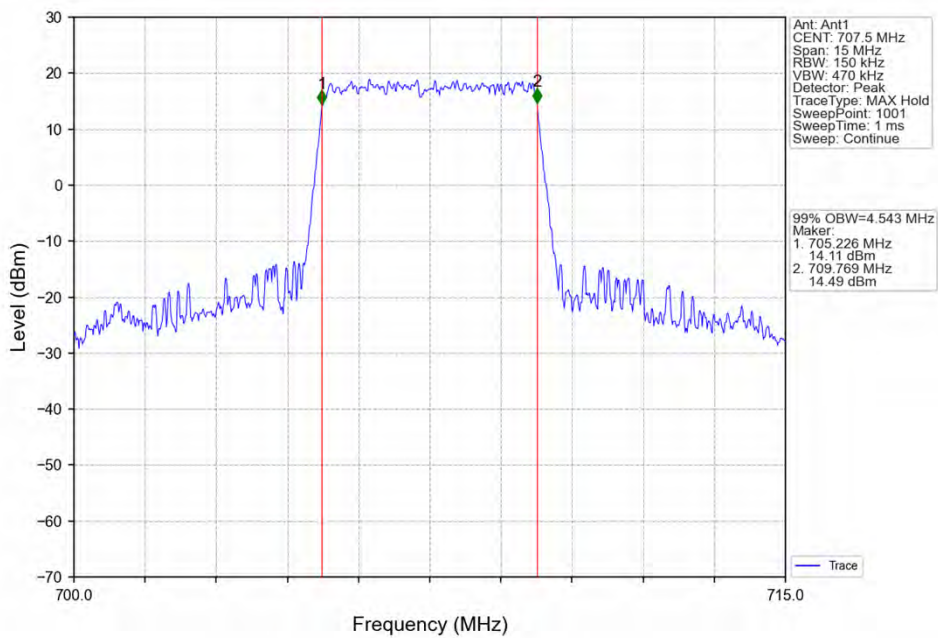




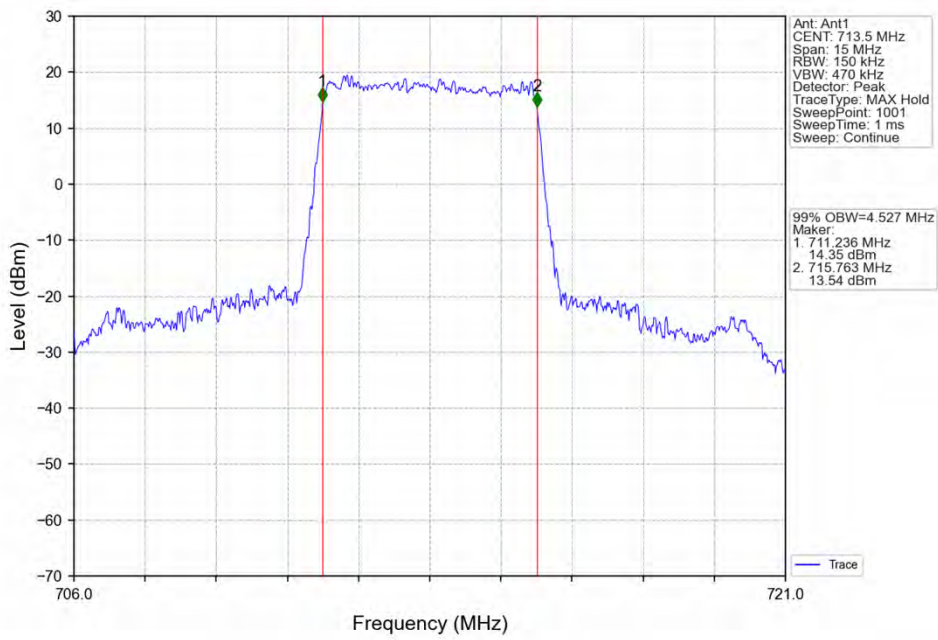
Band12\_5MHz\_QPSK\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



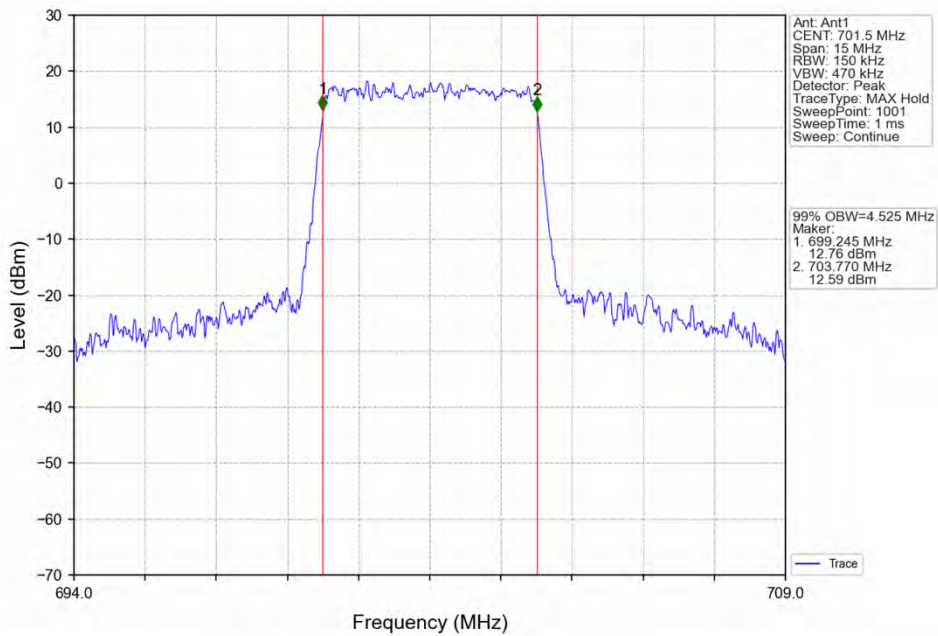
Band12\_5MHz\_QPSK\_MCH\_707.5MHz\_RB\_25\_0\_NTNV



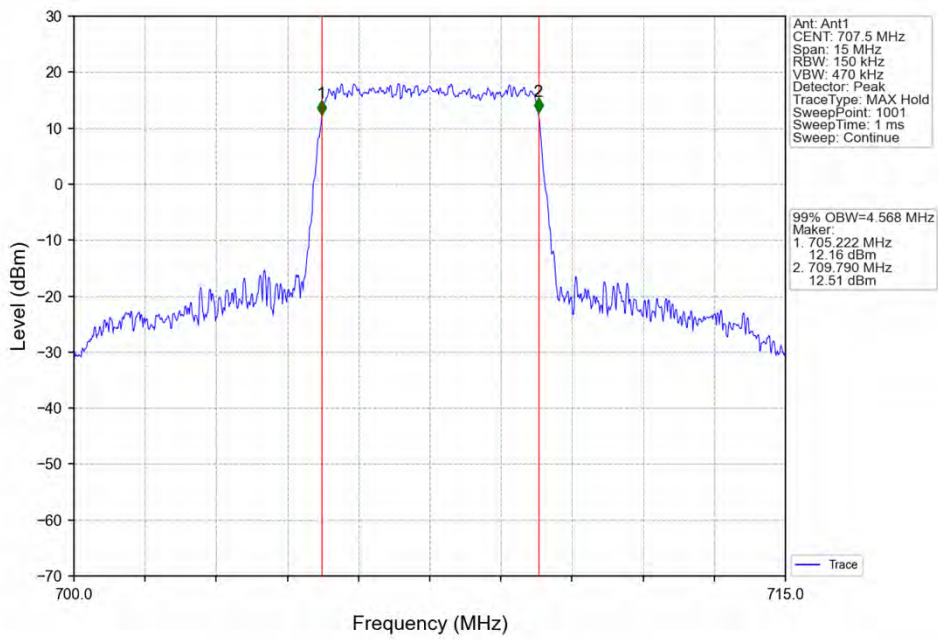
Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



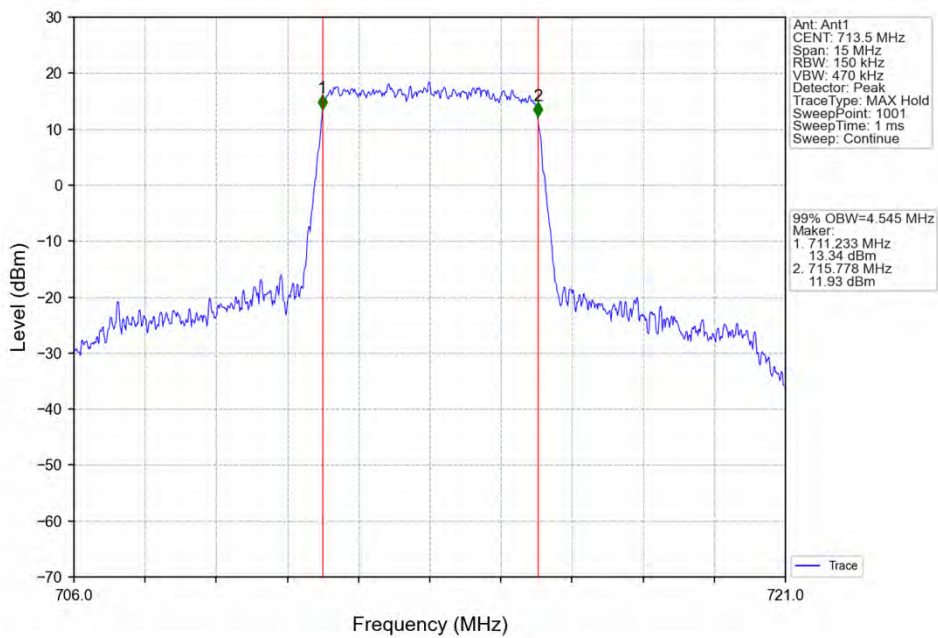
Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



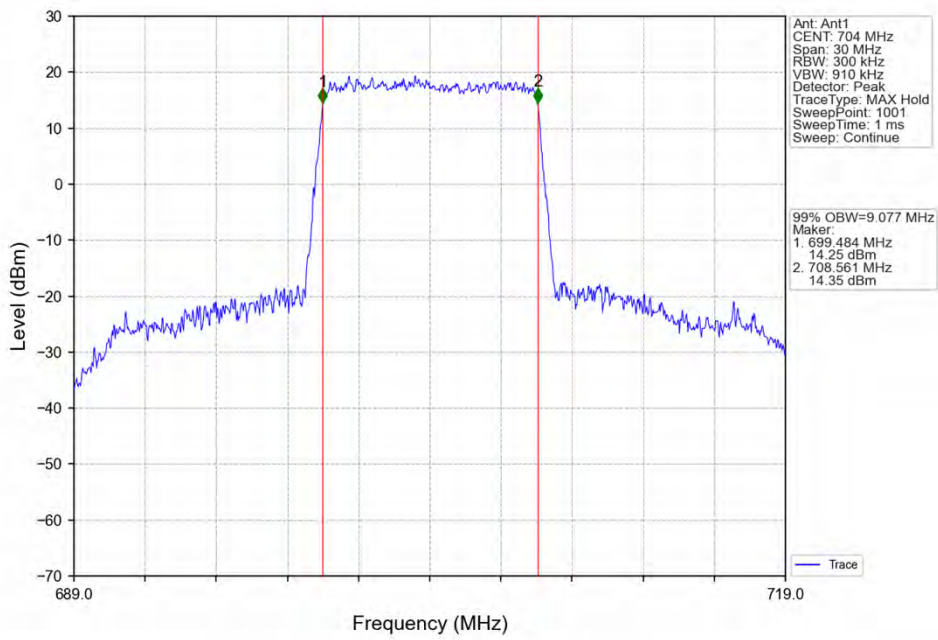
Band12\_5MHz\_16QAM\_MCH\_707.5MHz\_RB\_25\_0\_NTNV



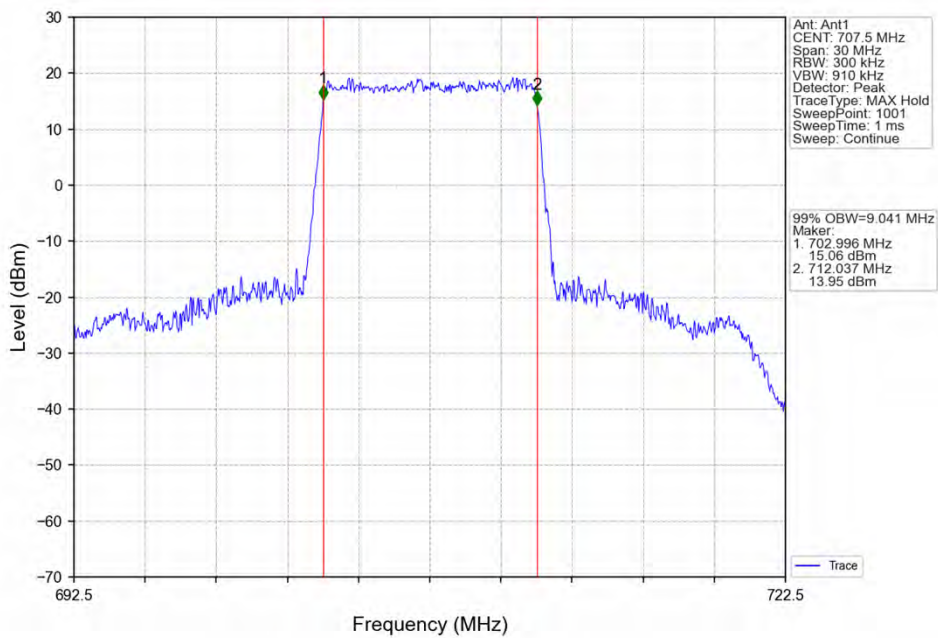
Band12\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



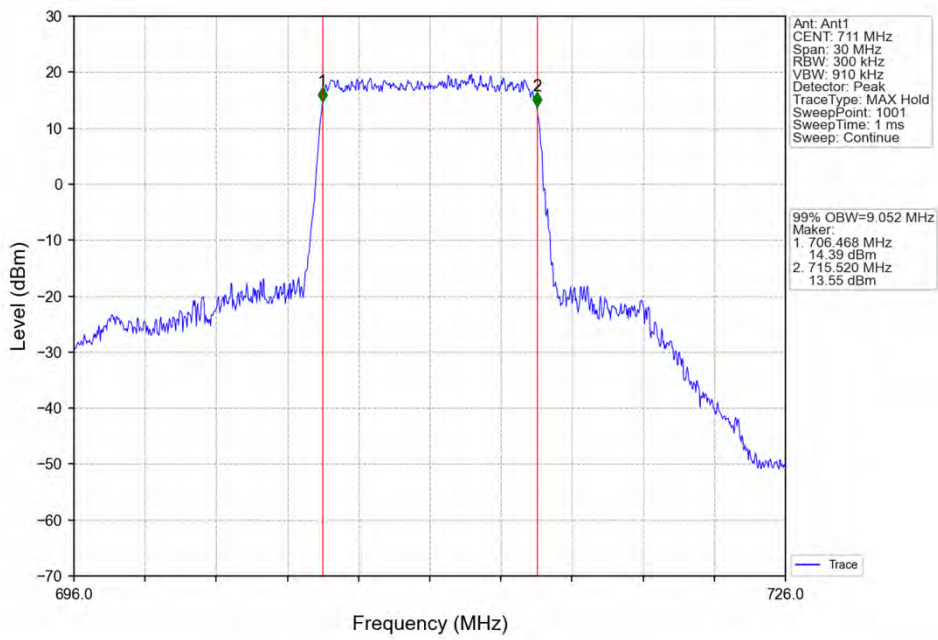
Band12\_10MHz\_QPSK\_LCH\_704MHz\_RB\_50\_0\_NTNV



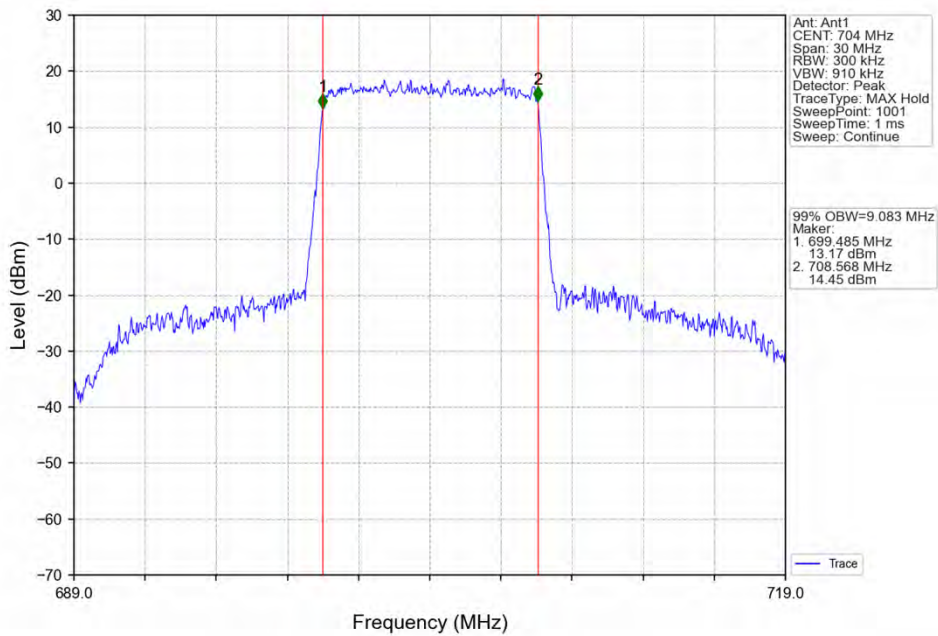
Band12\_10MHz\_QPSK\_MCH\_707.5MHz\_RB\_50\_0\_NTNV



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

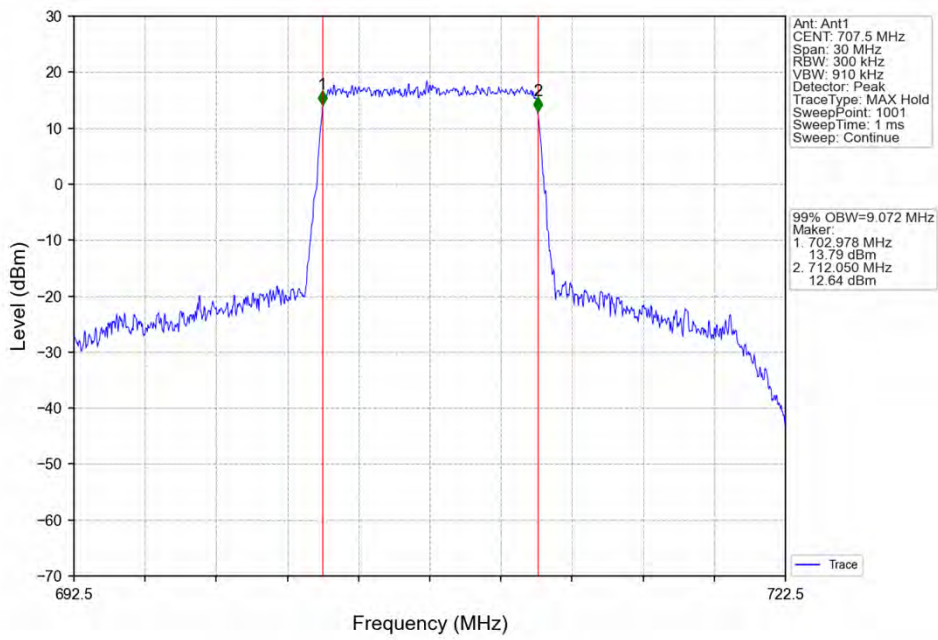


Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_50\_0\_NTNV

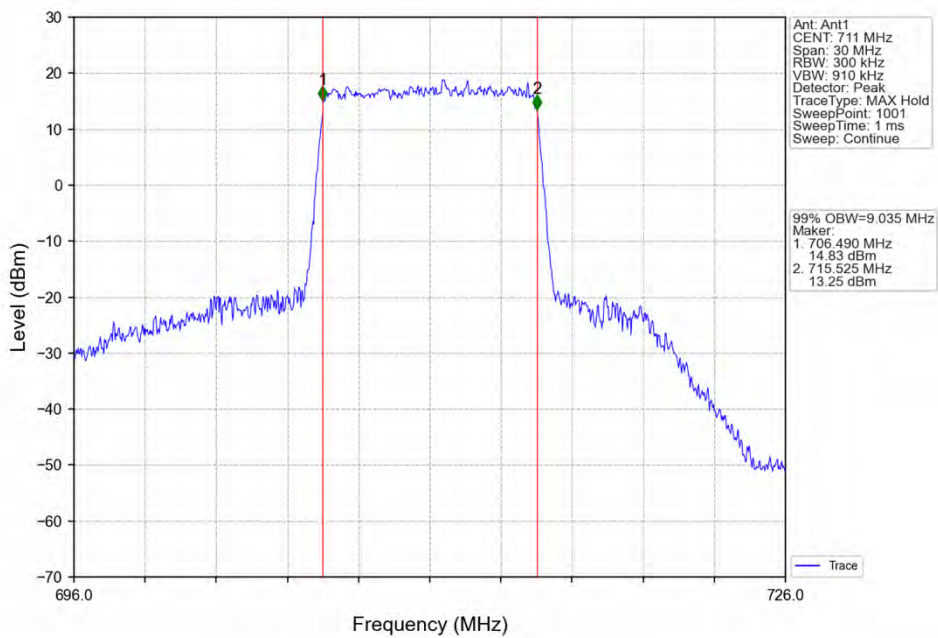




Band12\_10MHz\_16QAM\_MCH\_707.5MHz\_RB\_50\_0\_NTNV



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

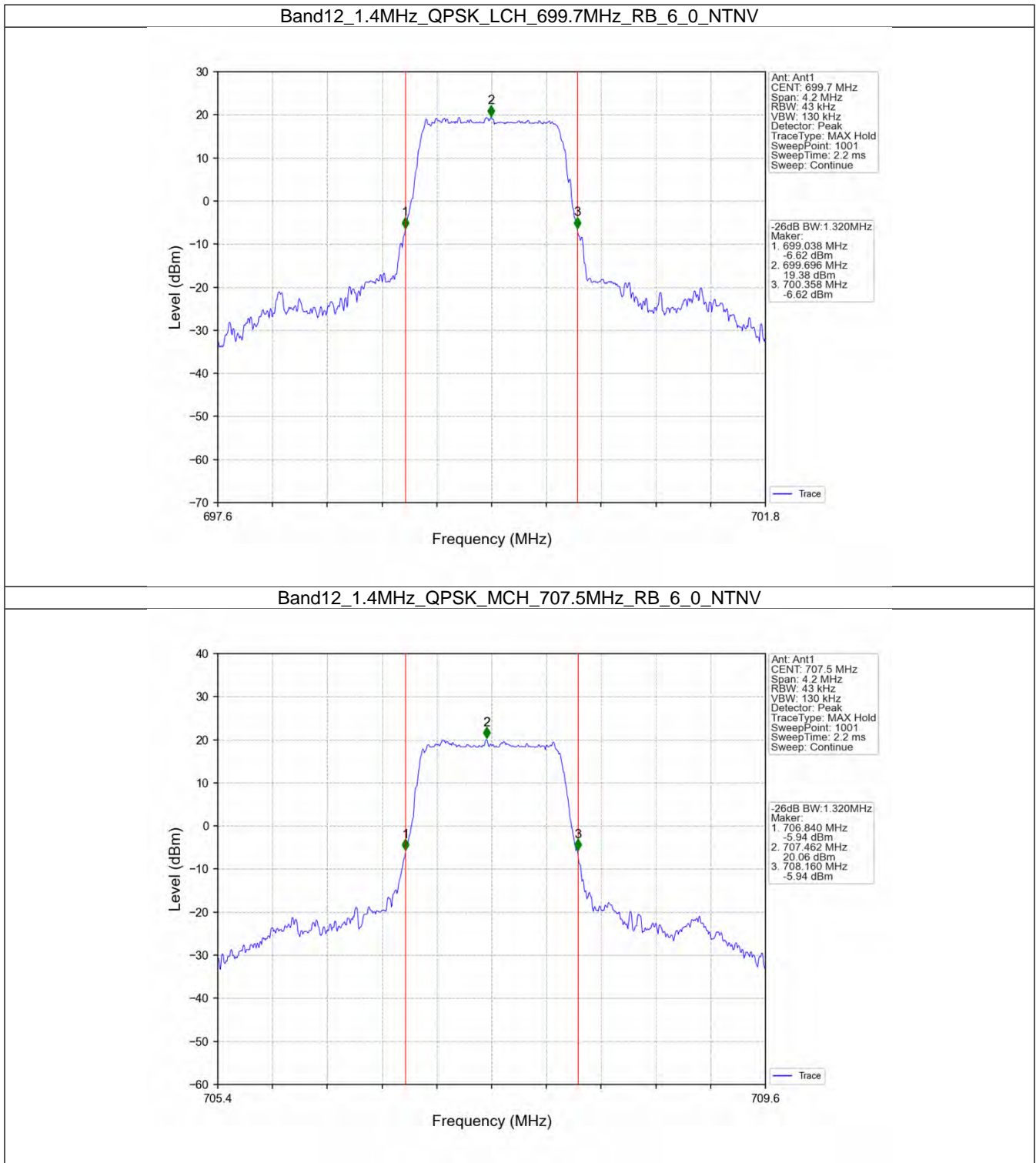


## 4.2 Band12\_XDB

## 4.2.1 Test Result

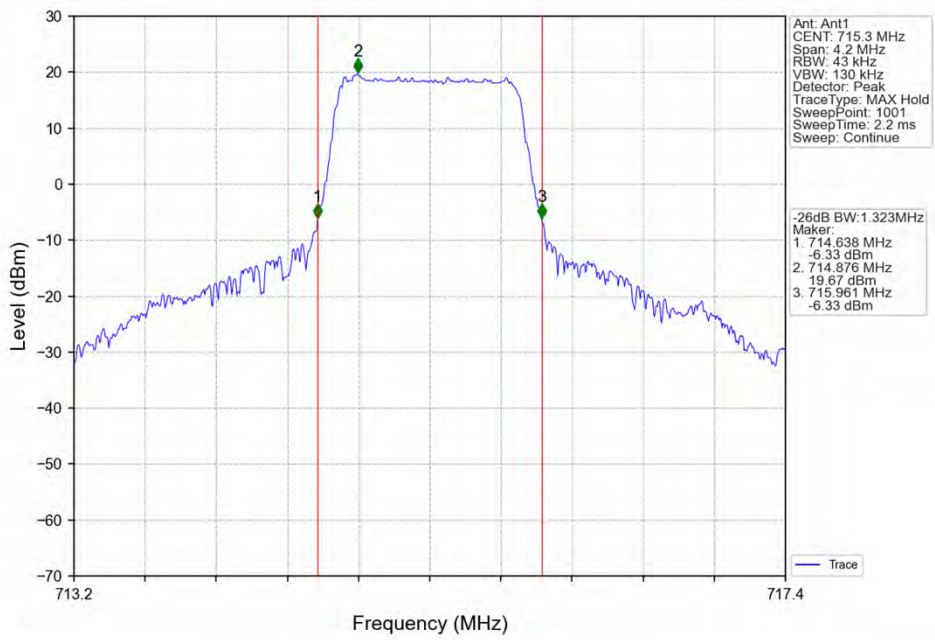
Band: 12 / NTNV						
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)	Verdict
			Size	Offset	Result	
1.4	QPSK	699.7	6	0	1.320	Pass
		707.5	6	0	1.320	Pass
		715.3	6	0	1.323	Pass
	16QAM	699.7	6	0	1.303	Pass
		707.5	6	0	1.341	Pass
		715.3	6	0	1.313	Pass
3	QPSK	700.5	15	0	2.993	Pass
		707.5	15	0	3.005	Pass
		714.5	15	0	3.014	Pass
	16QAM	700.5	15	0	2.981	Pass
		707.5	15	0	3.006	Pass
		714.5	15	0	3.009	Pass
5	QPSK	701.5	25	0	5.020	Pass
		707.5	25	0	5.053	Pass
		713.5	25	0	5.030	Pass
	16QAM	701.5	25	0	5.033	Pass
		707.5	25	0	5.075	Pass
		713.5	25	0	5.089	Pass
10	QPSK	704	50	0	9.974	Pass
		707.5	50	0	10.009	Pass
		711	50	0	9.958	Pass
	16QAM	704	50	0	9.957	Pass
		707.5	50	0	9.935	Pass
		711	50	0	9.890	Pass

### 4.2.2 Test Graph

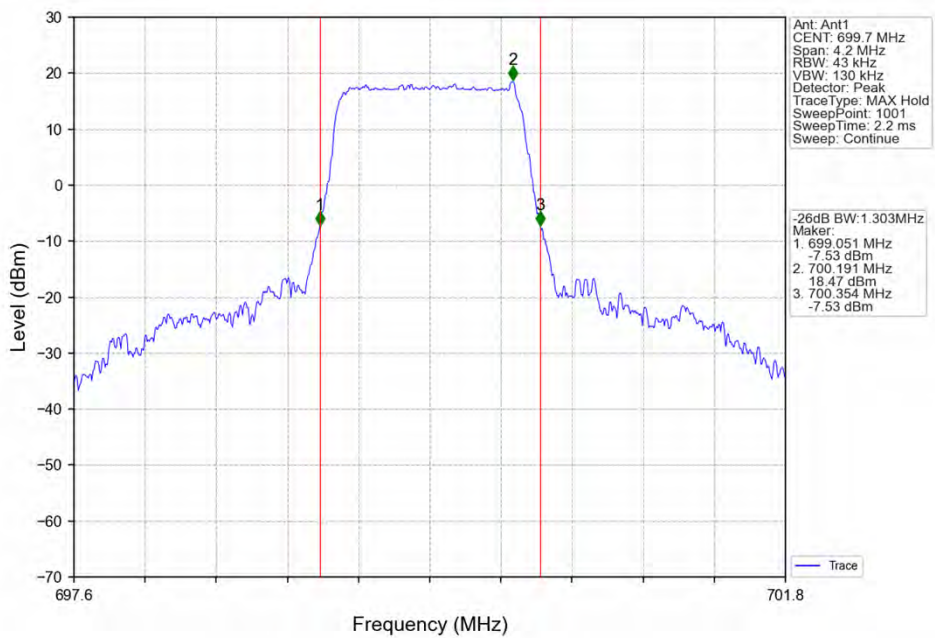




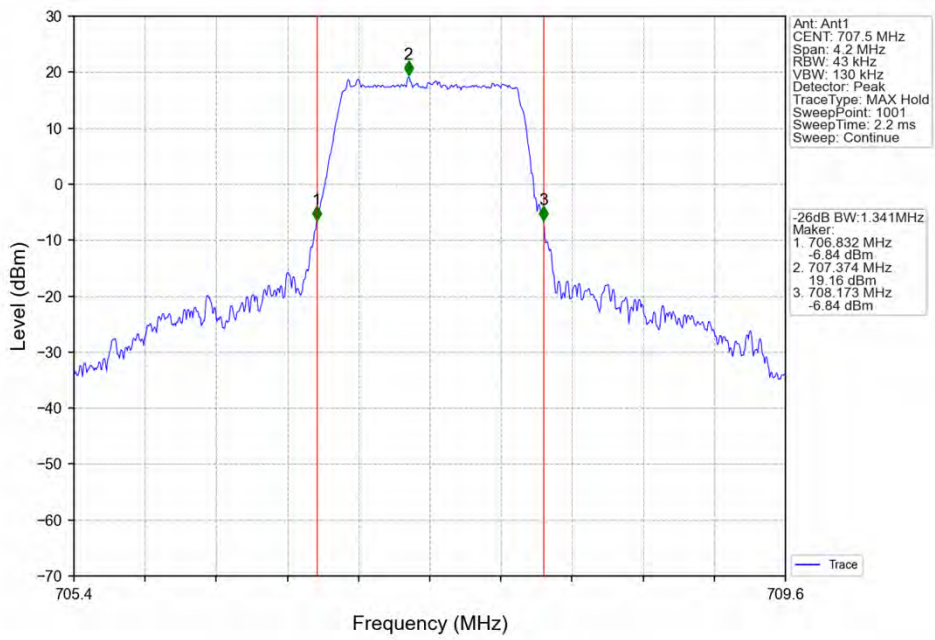
Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_6\_0\_NTNV



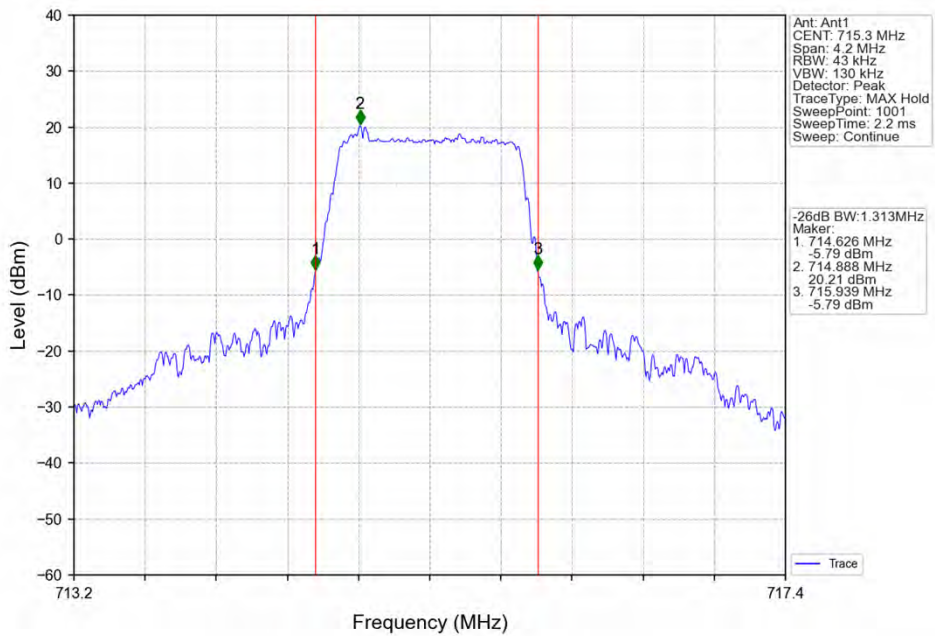
Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_6\_0\_NTNV



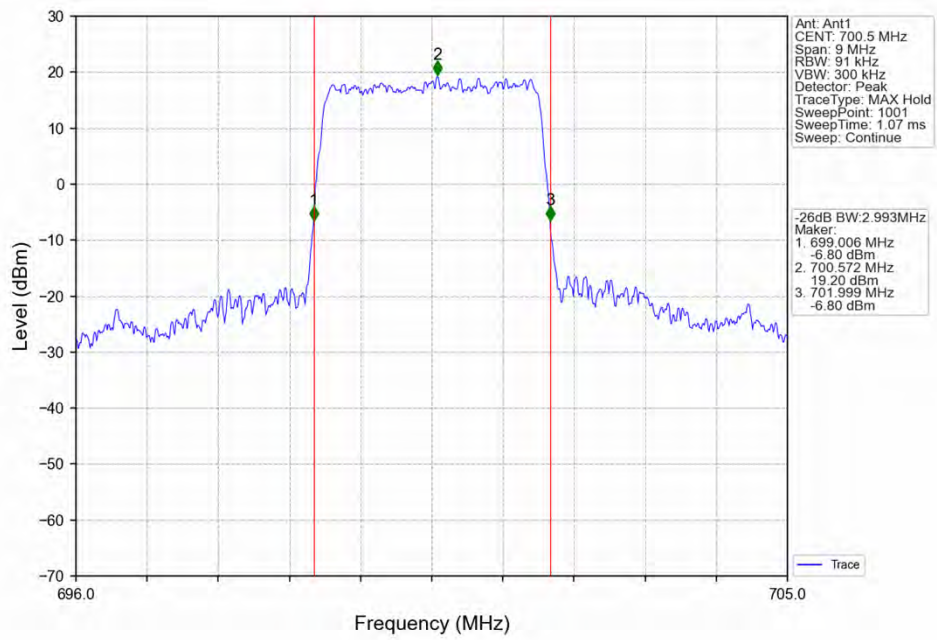
Band12\_1.4MHz\_16QAM\_MCH\_707.5MHz\_RB\_6\_0\_NTNV



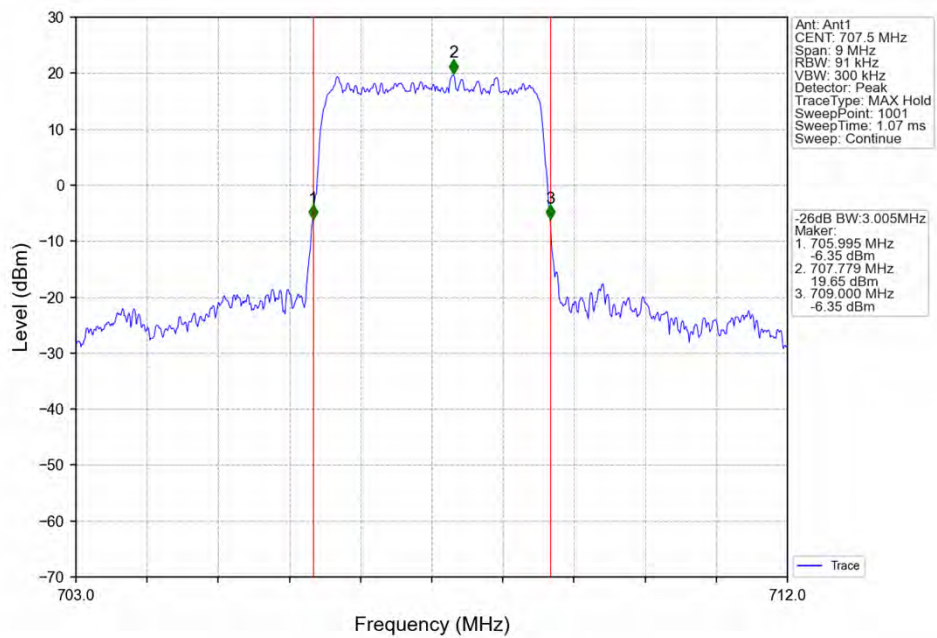
Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_6\_0\_NTNV



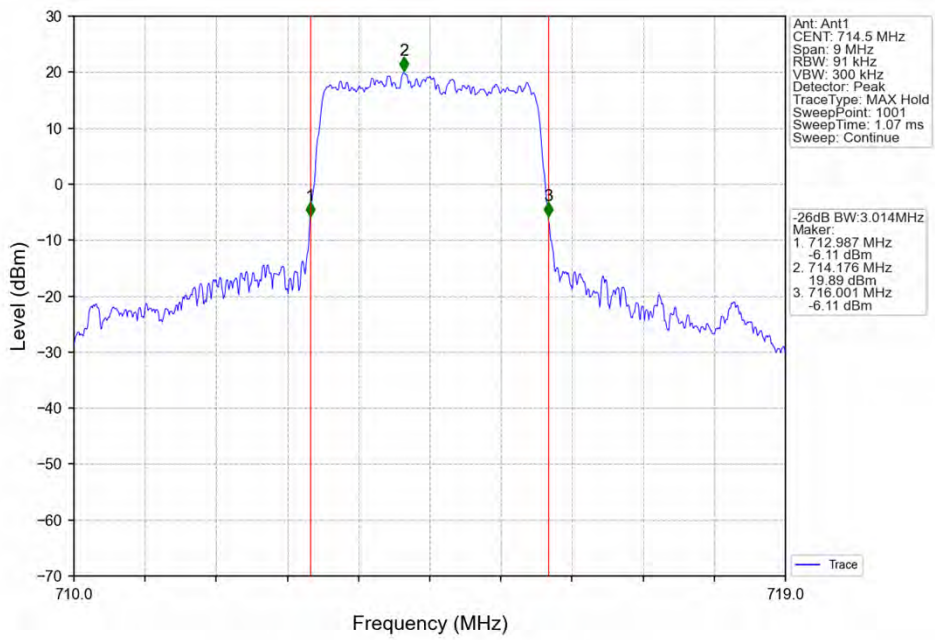
Band12\_3MHz\_QPSK\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



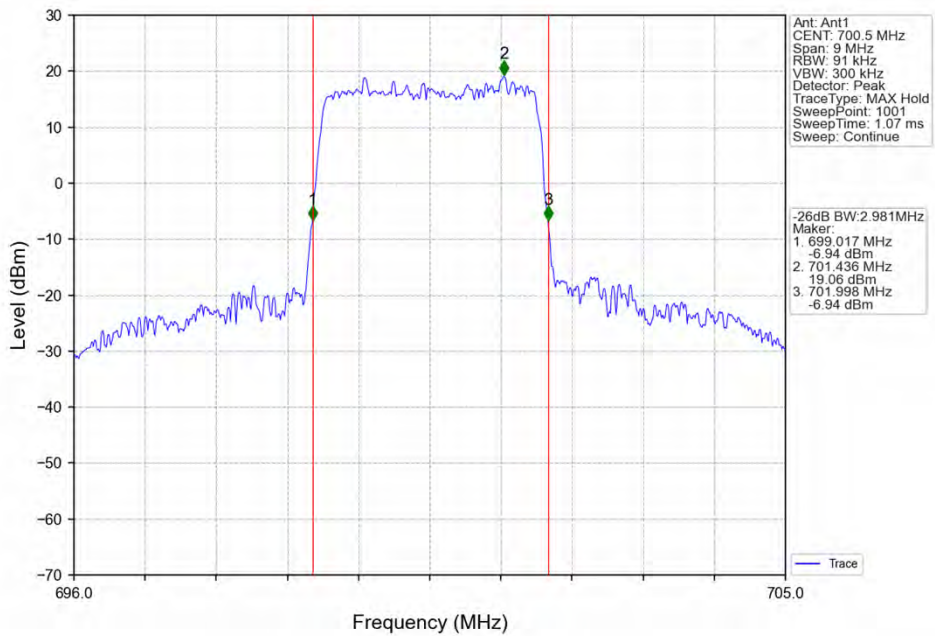
Band12\_3MHz\_QPSK\_MCH\_707.5MHz\_RB\_15\_0\_NTNV



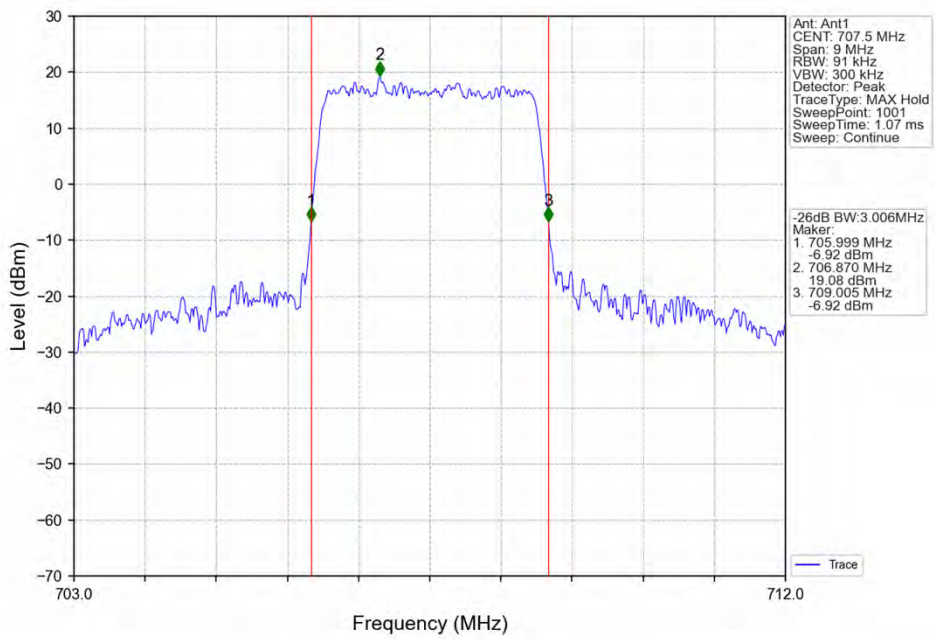
Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_15\_0\_NTNV



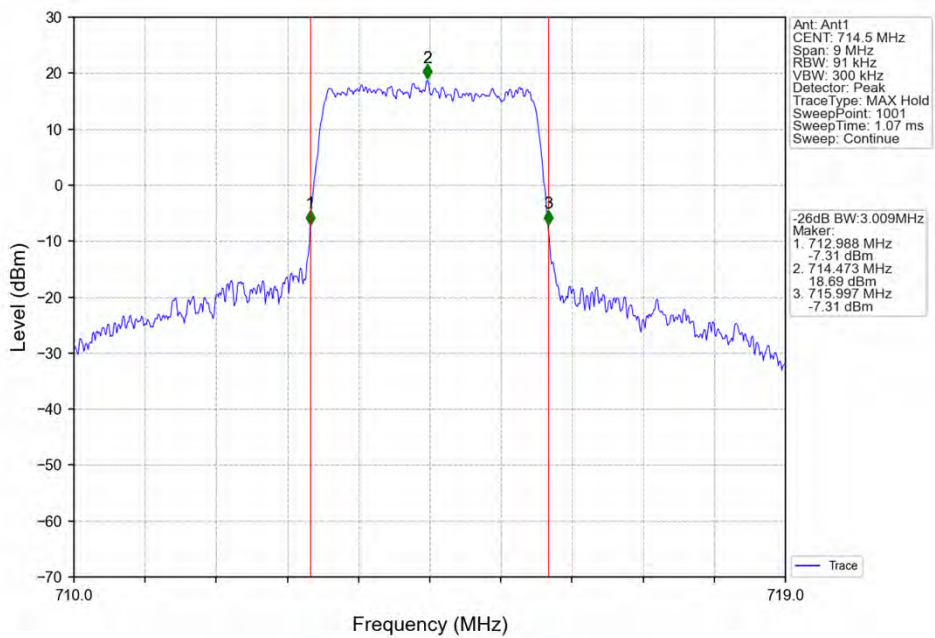
Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



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

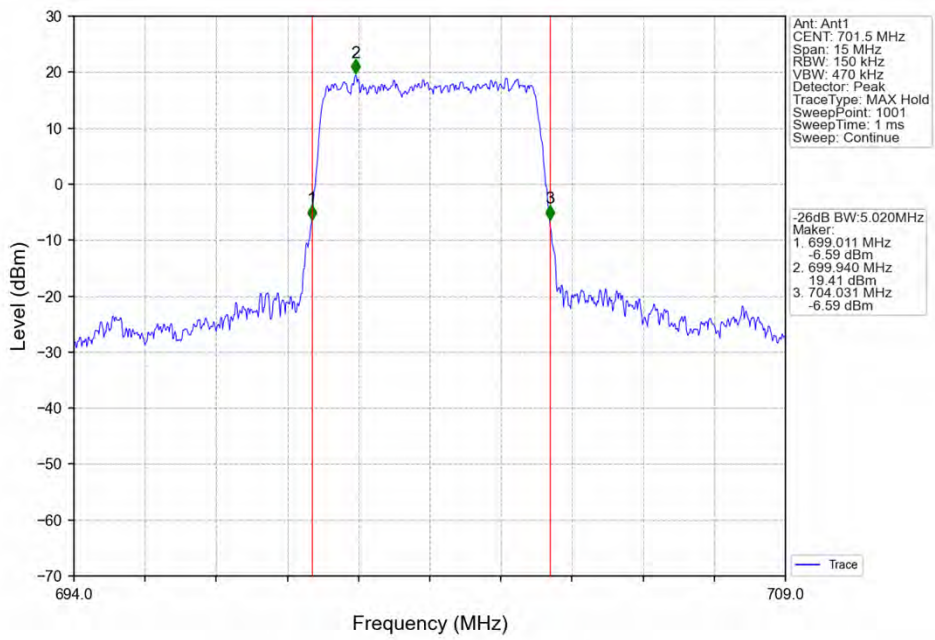


Band12\_3MHz\_16QAM\_HCH\_714.5MHz\_RB\_15\_0\_NTNV

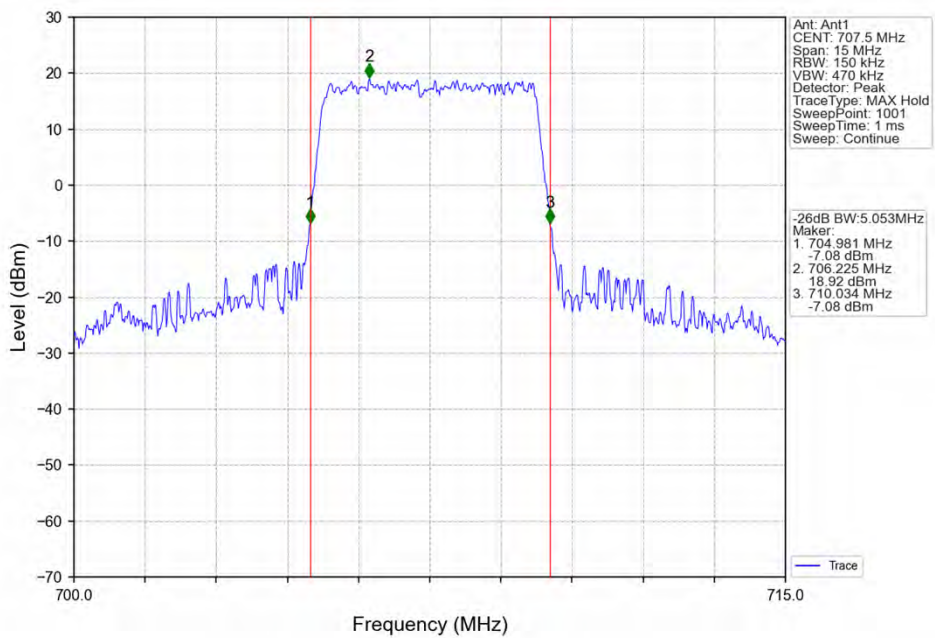




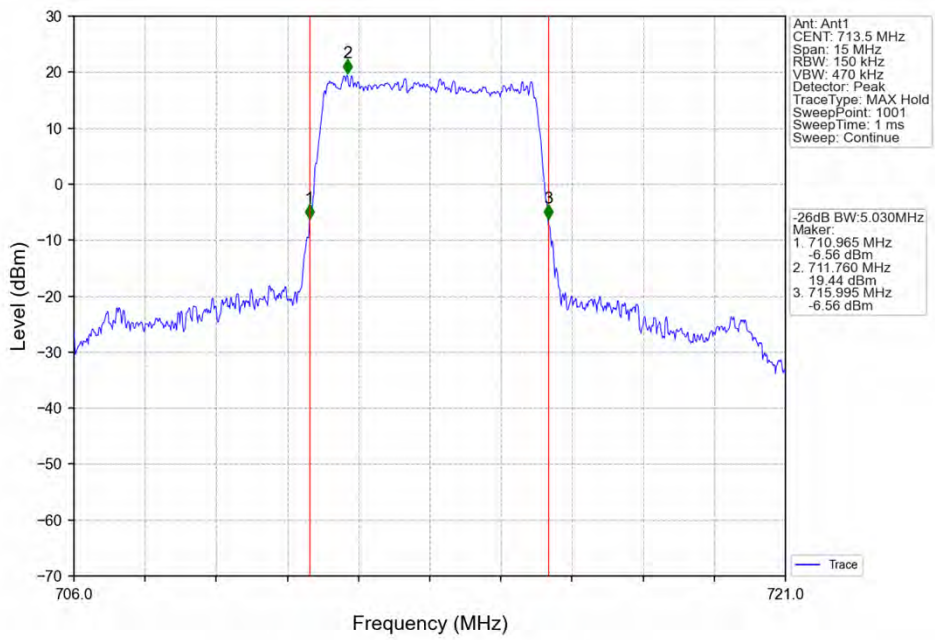
Band12\_5MHz\_QPSK\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



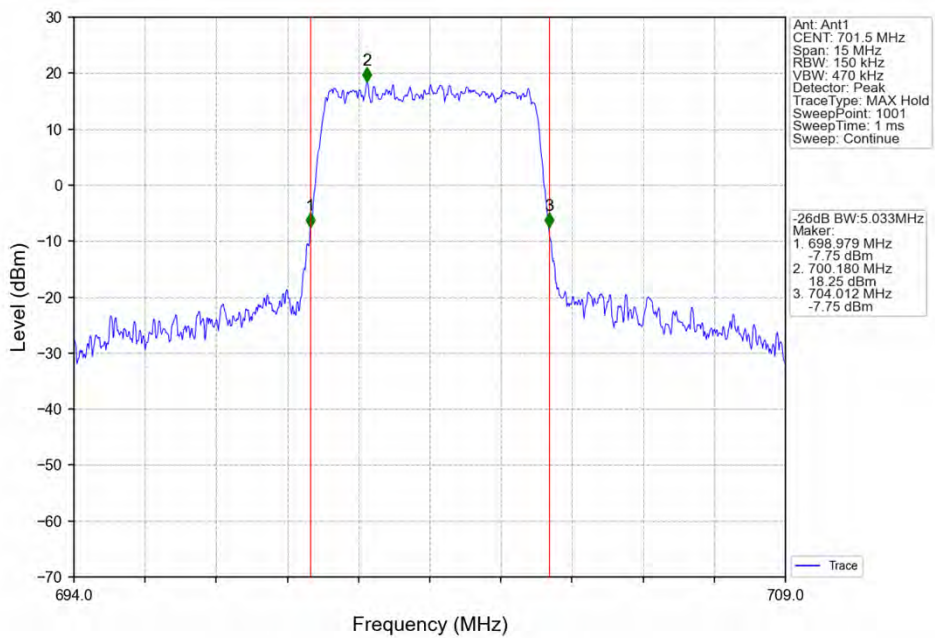
Band12\_5MHz\_QPSK\_MCH\_707.5MHz\_RB\_25\_0\_NTNV



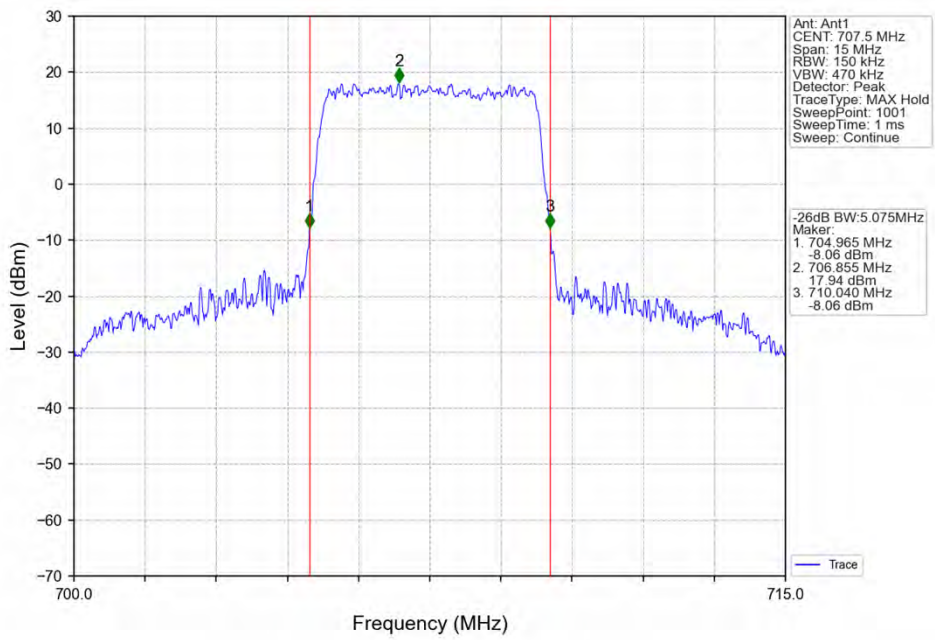
Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



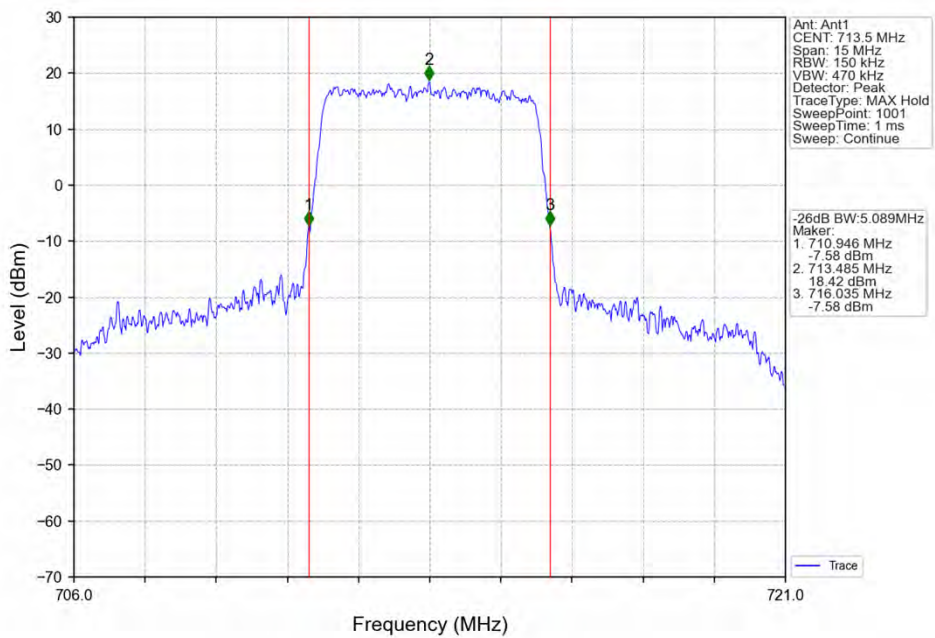
Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



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

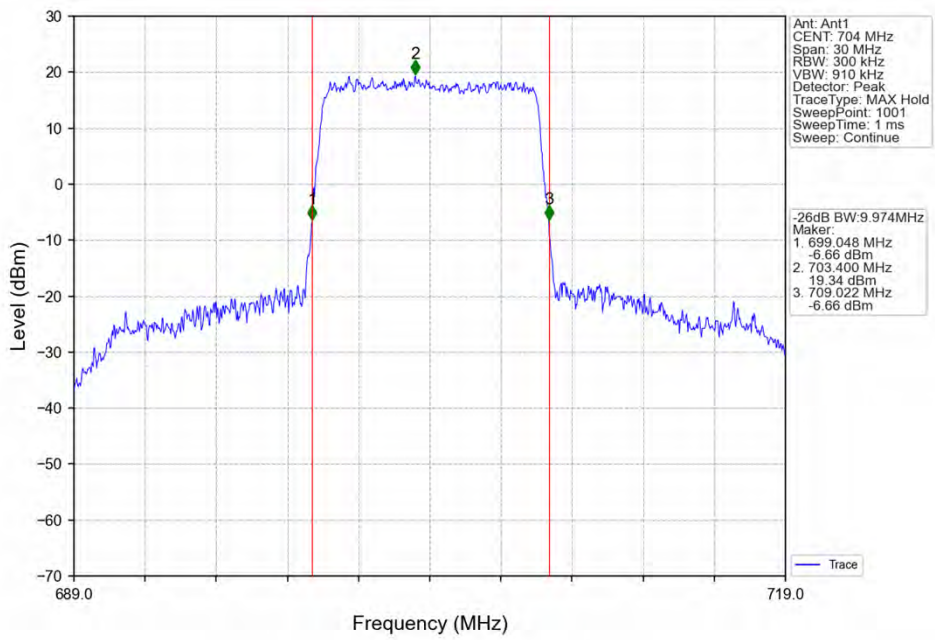


Band12\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_25\_0\_NTNV

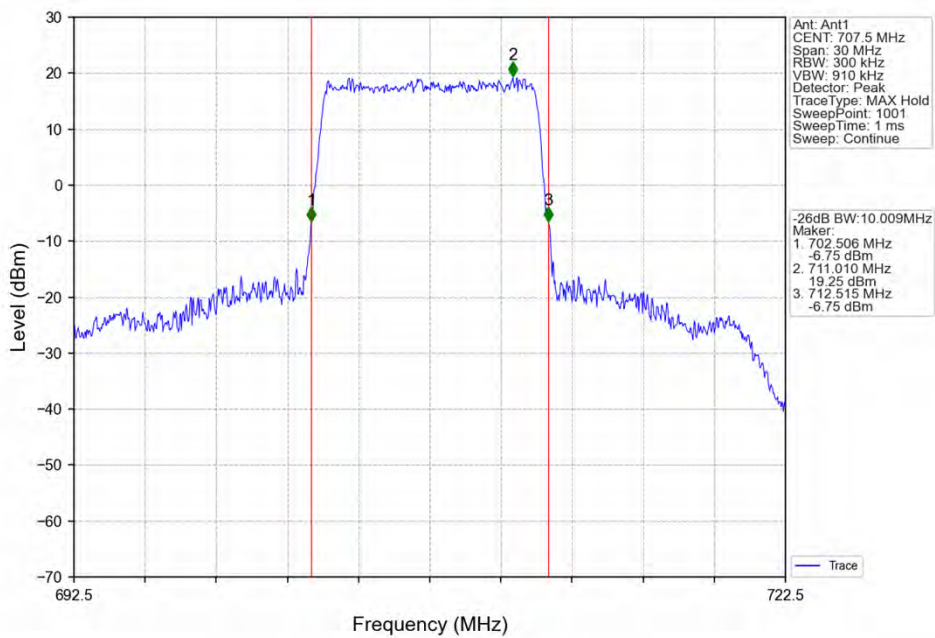




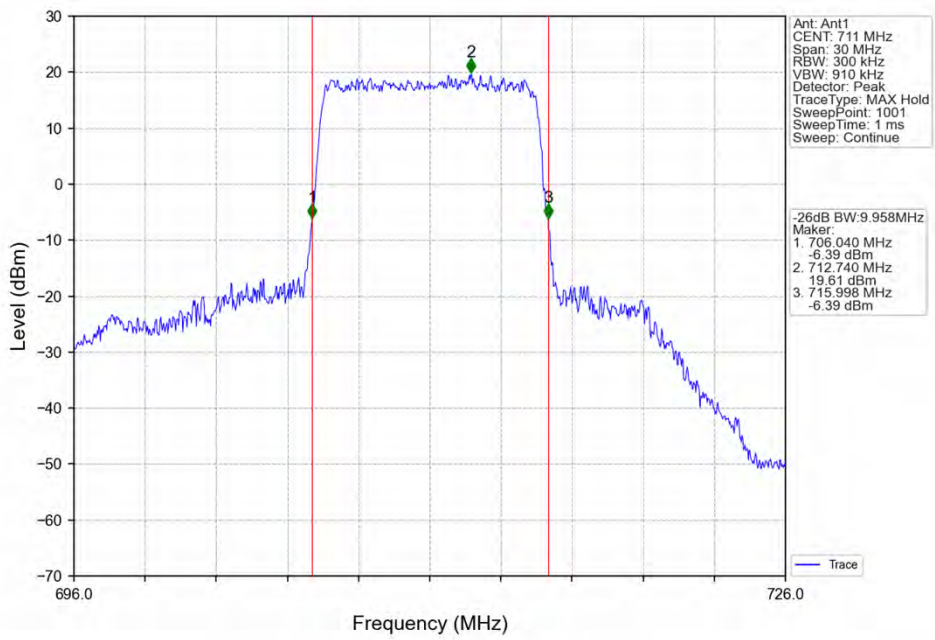
Band12\_10MHz\_QPSK\_LCH\_704MHz\_RB\_50\_0\_NTNV



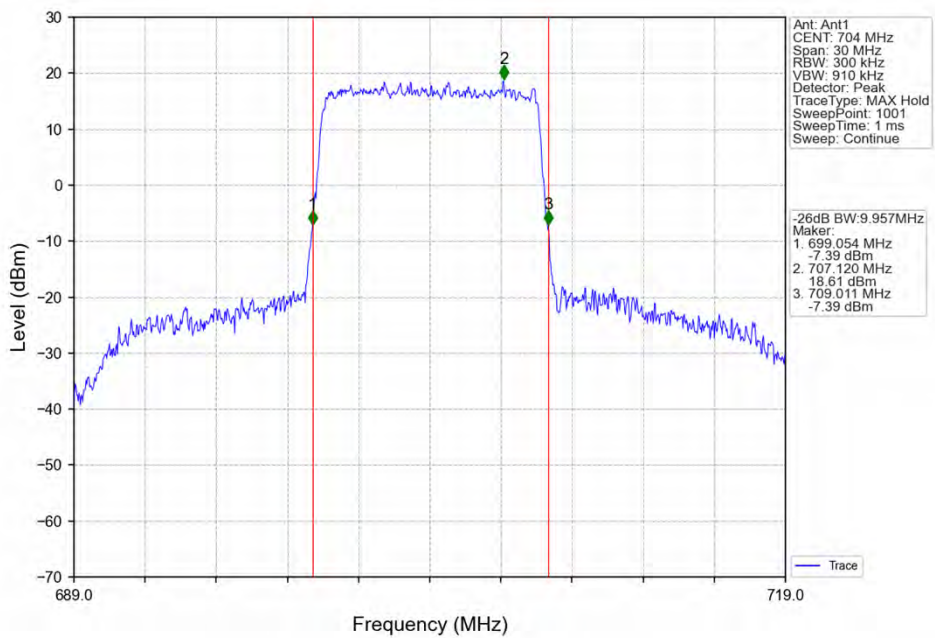
Band12\_10MHz\_QPSK\_MCH\_707.5MHz\_RB\_50\_0\_NTNV



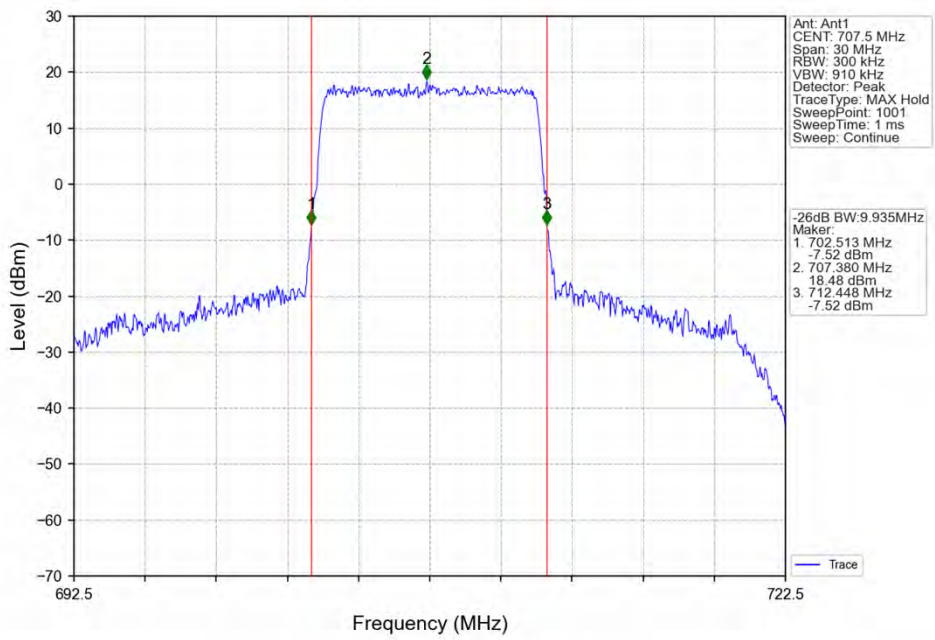
Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



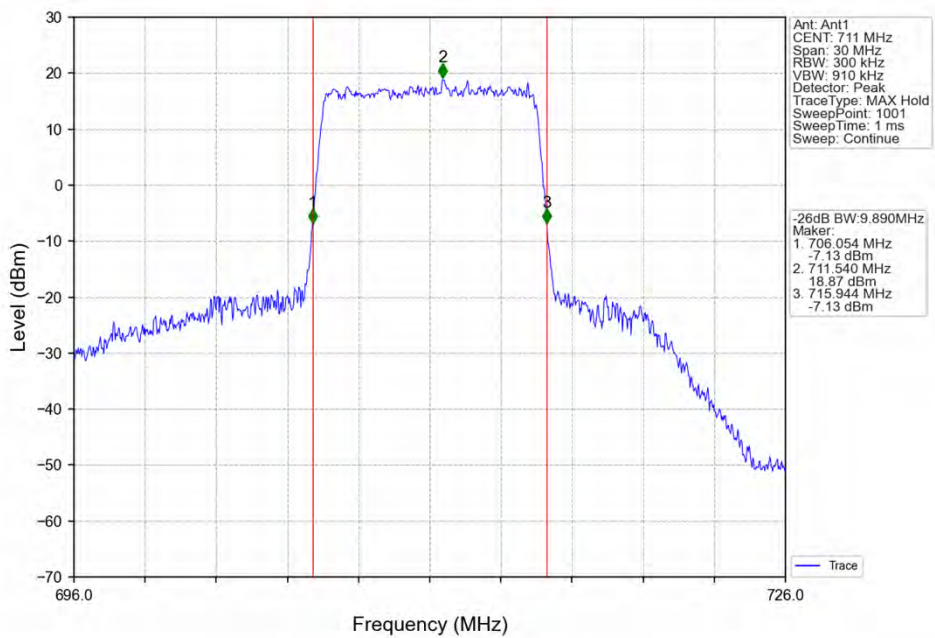
Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_50\_0\_NTNV



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



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



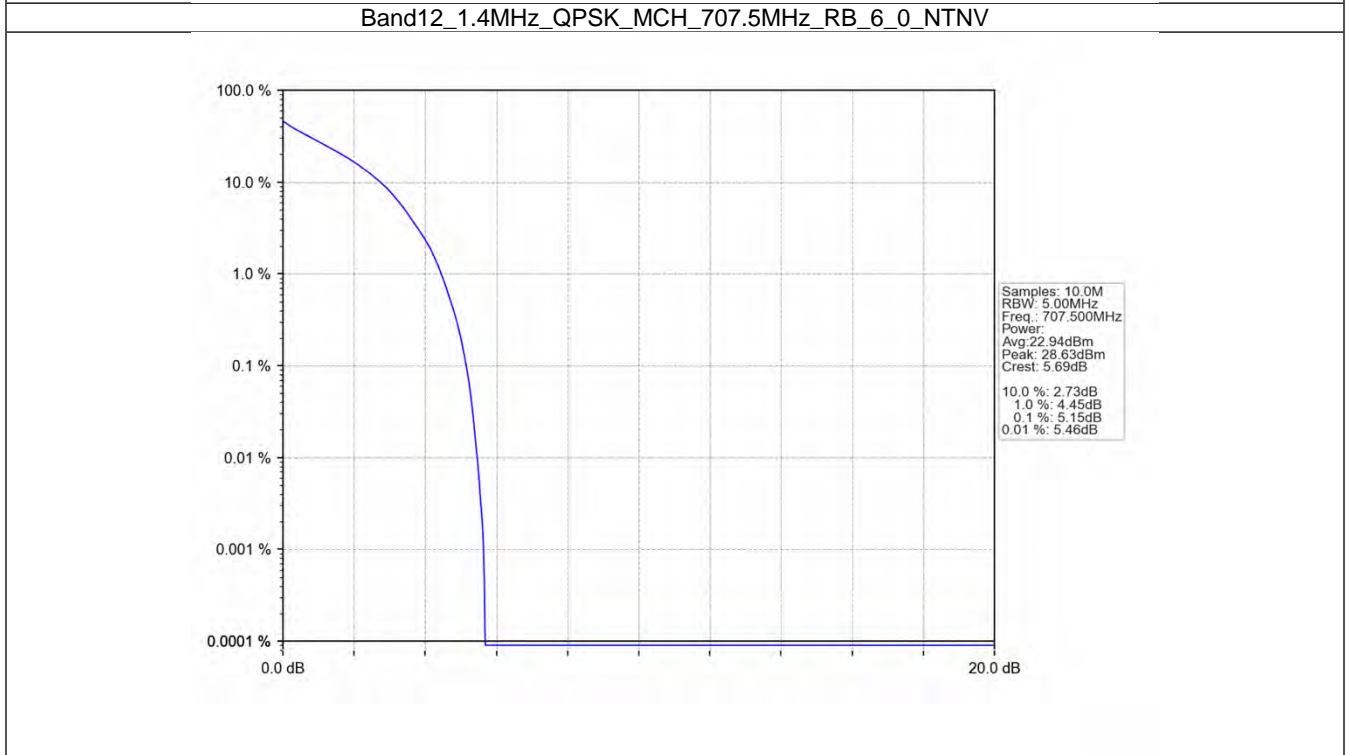
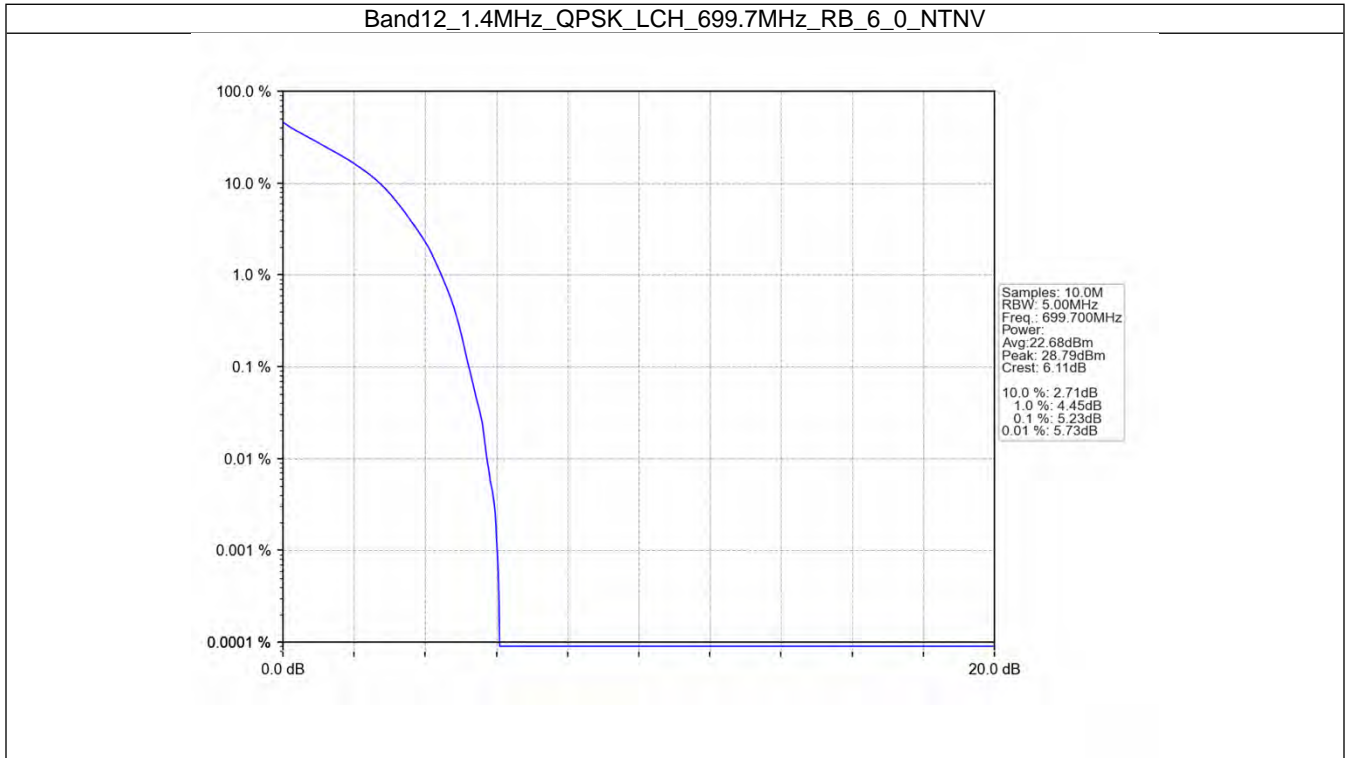
## 5. Peak-Average Ratio

### 5.1 B12\_1.4MHz

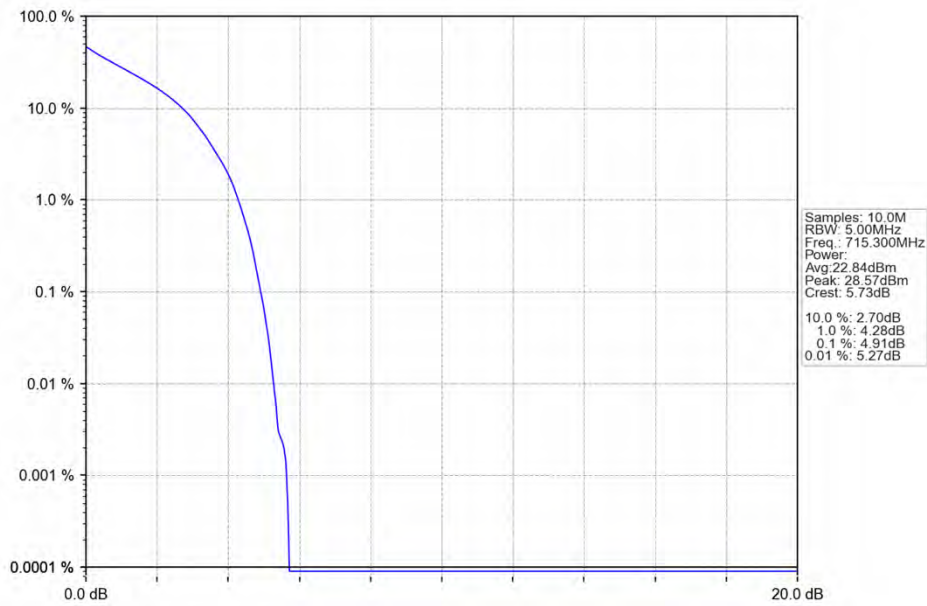
#### 5.1.1 Test Result

Band: 12 / Bandwidth: 1.4MHz / NTN						
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

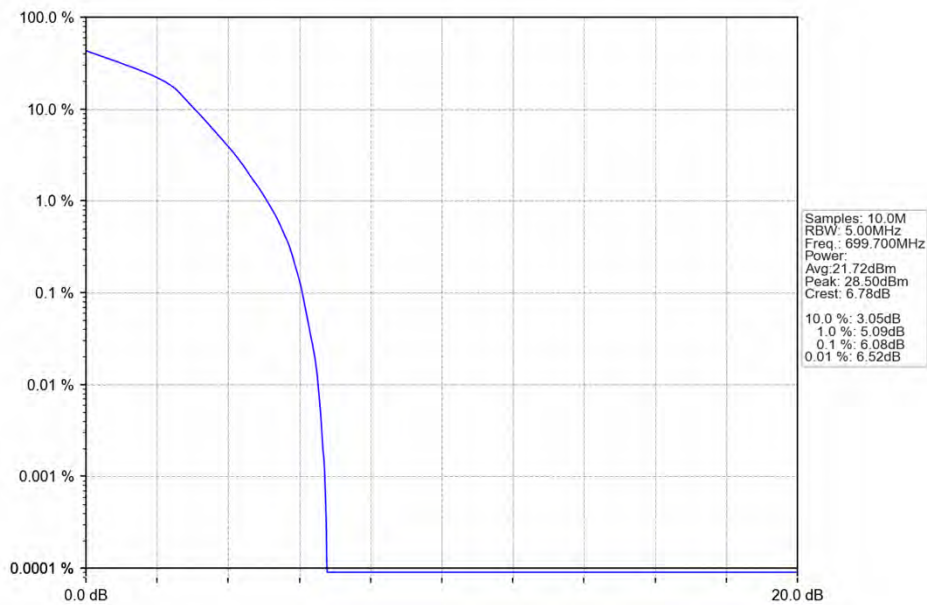
### 5.1.2 Test Graph



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

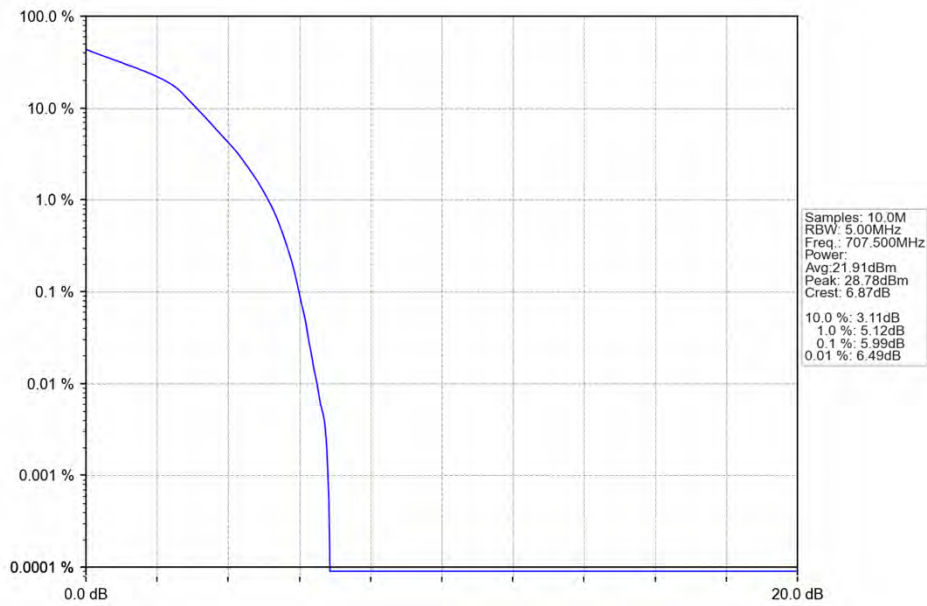


Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_6\_0\_NTNV

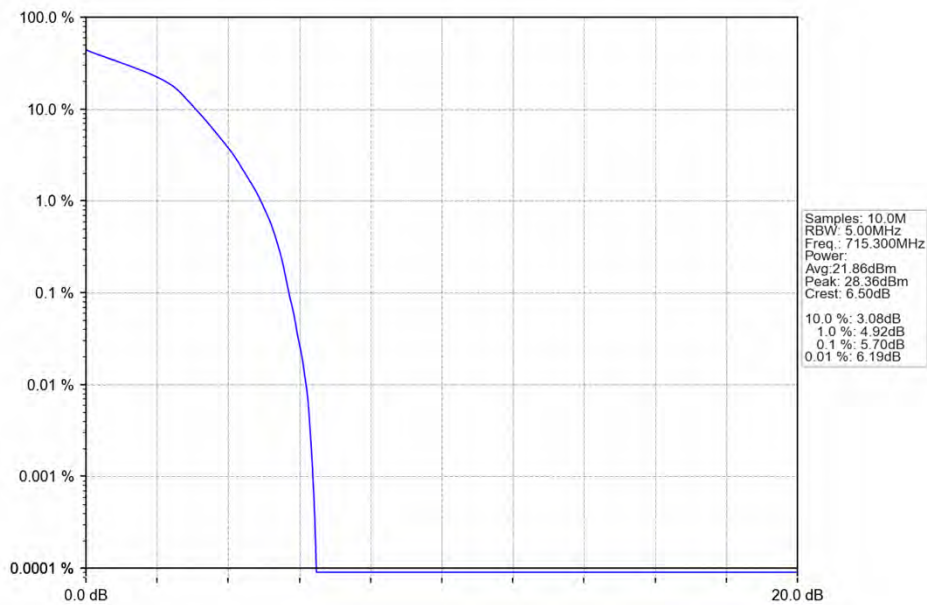




Band12\_1.4MHz\_16QAM\_MCH\_707.5MHz\_RB\_6\_0\_NTNV



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



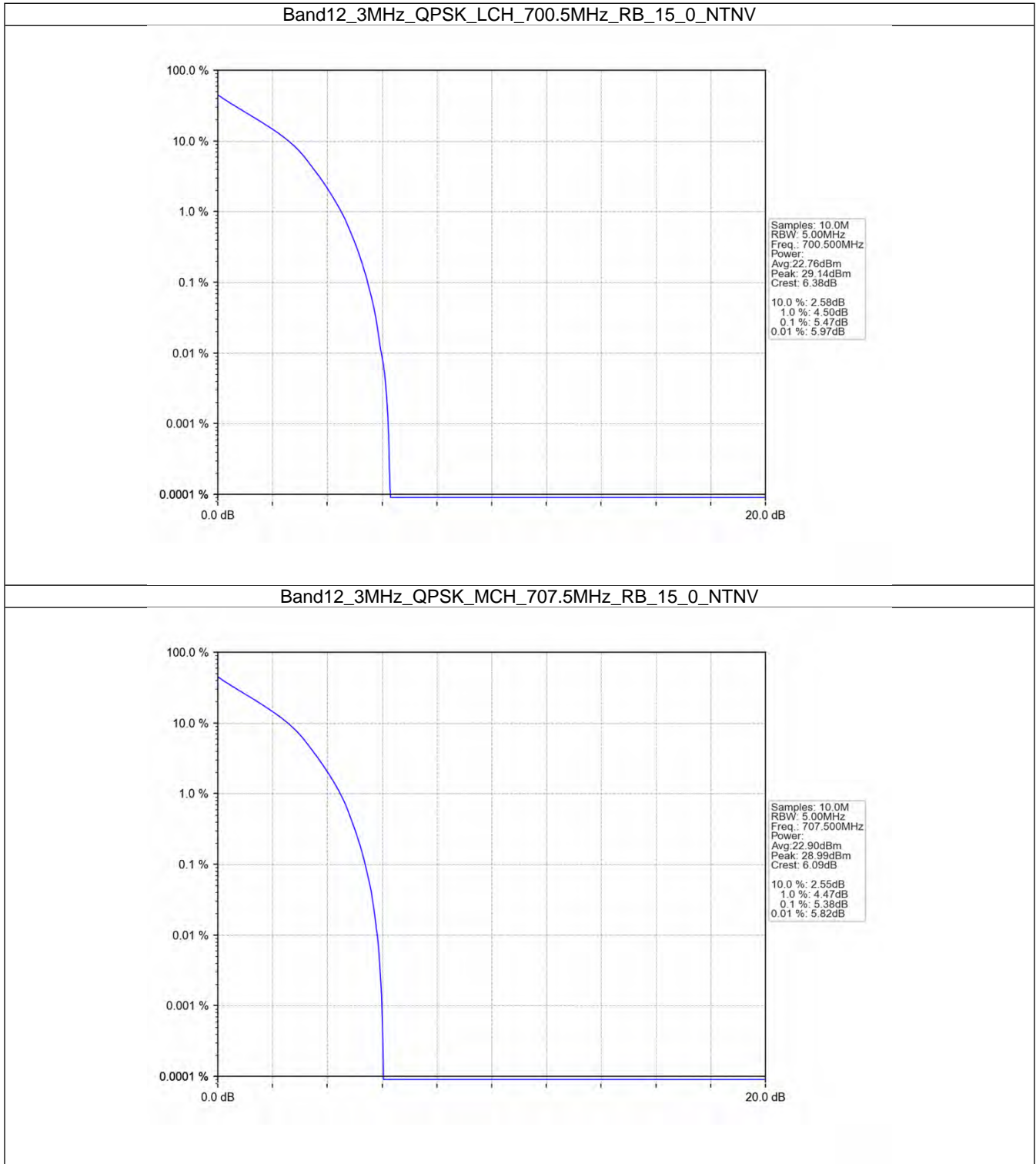
## 5.2 B12\_3MHz

## 5.2.1 Test Result

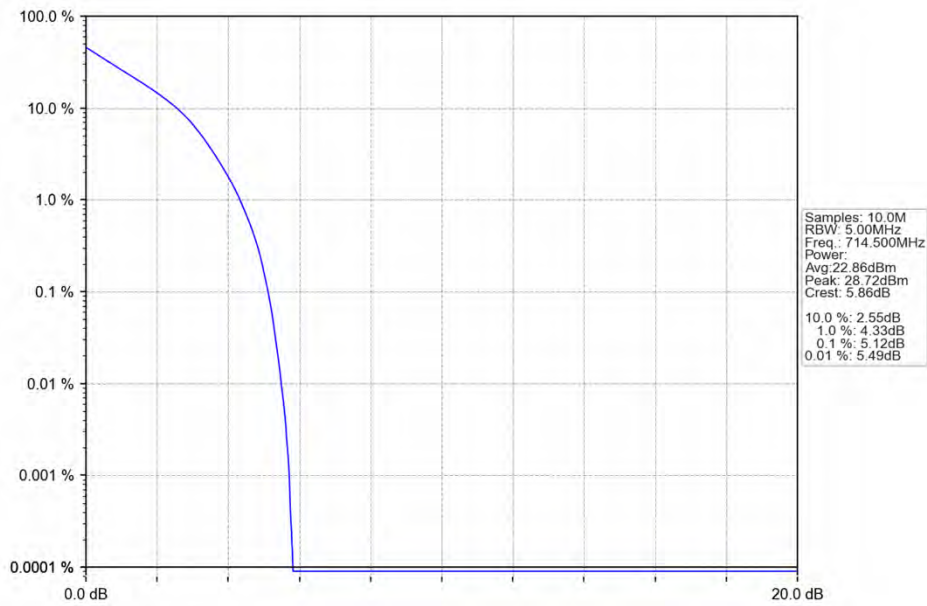
Band: 12 / Bandwidth: 3MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	700.5	15	0	5.47	<=13	Pass
	707.5	15	0	5.38	<=13	Pass
	714.5	15	0	5.12	<=13	Pass
16QAM	700.5	15	0	6.25	<=13	Pass
	707.5	15	0	6.22	<=13	Pass
	714.5	15	0	5.96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



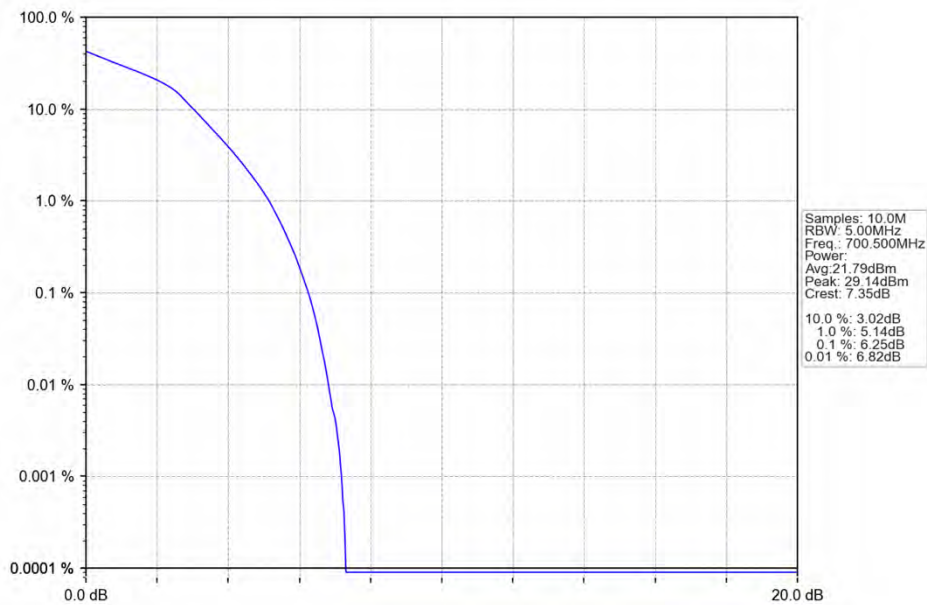
### 5.2.2 Test Graph



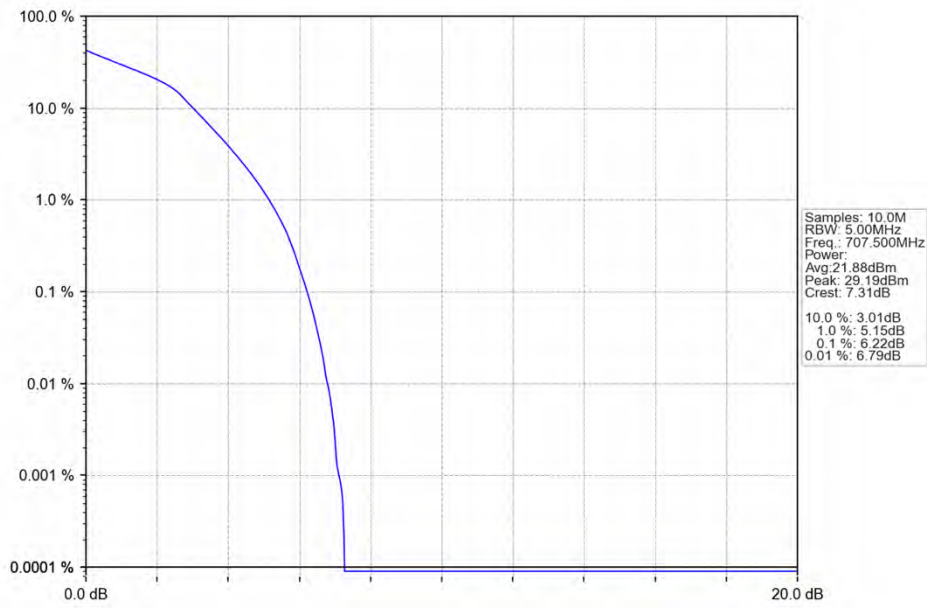
Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_15\_0\_NTNV



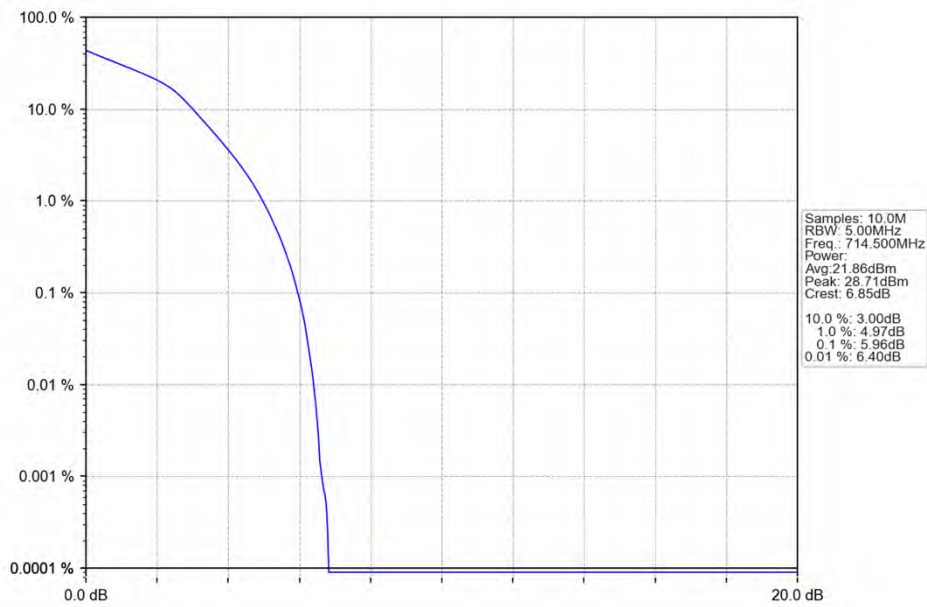
Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



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



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

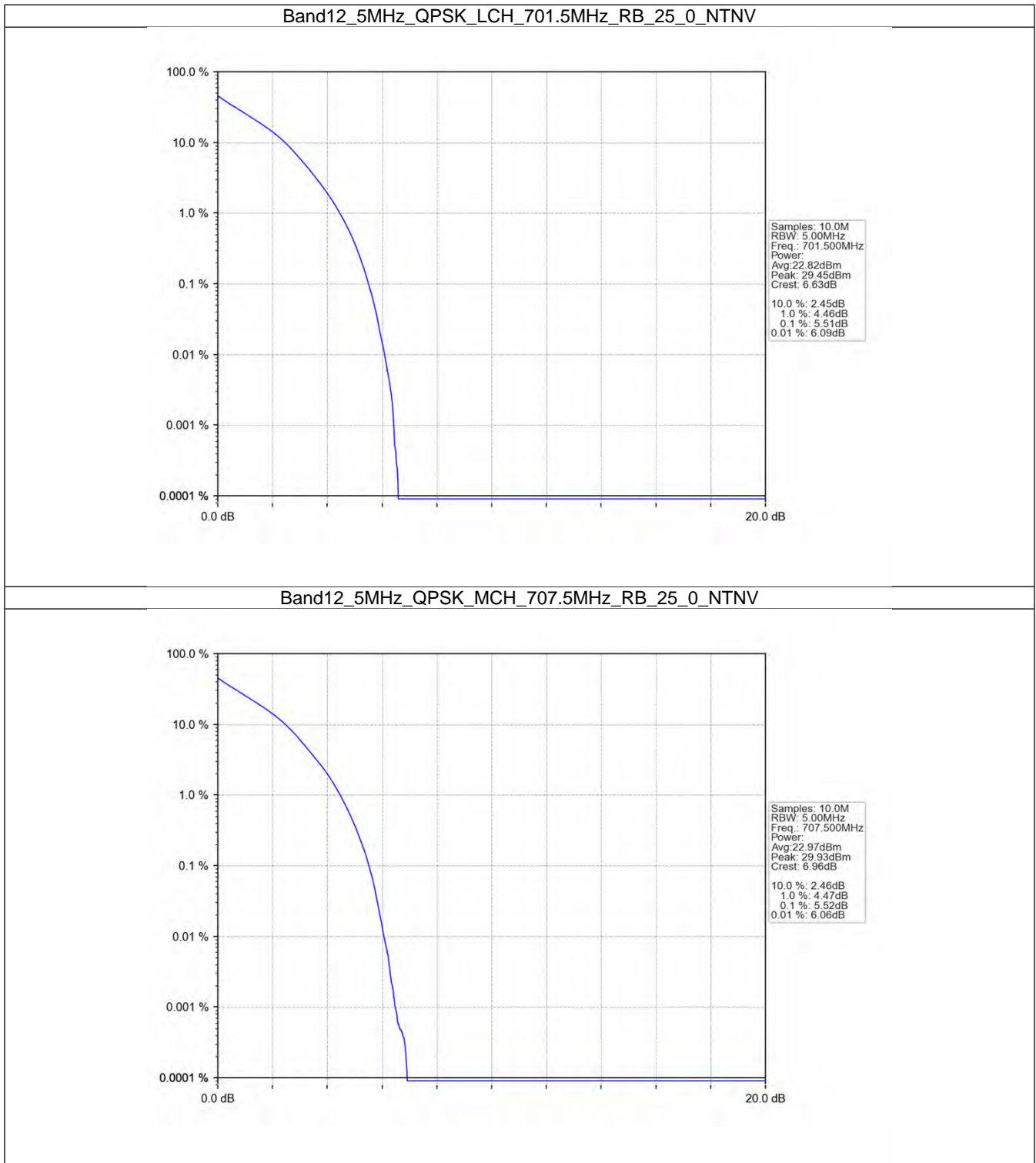


## 5.3 B12\_5MHz

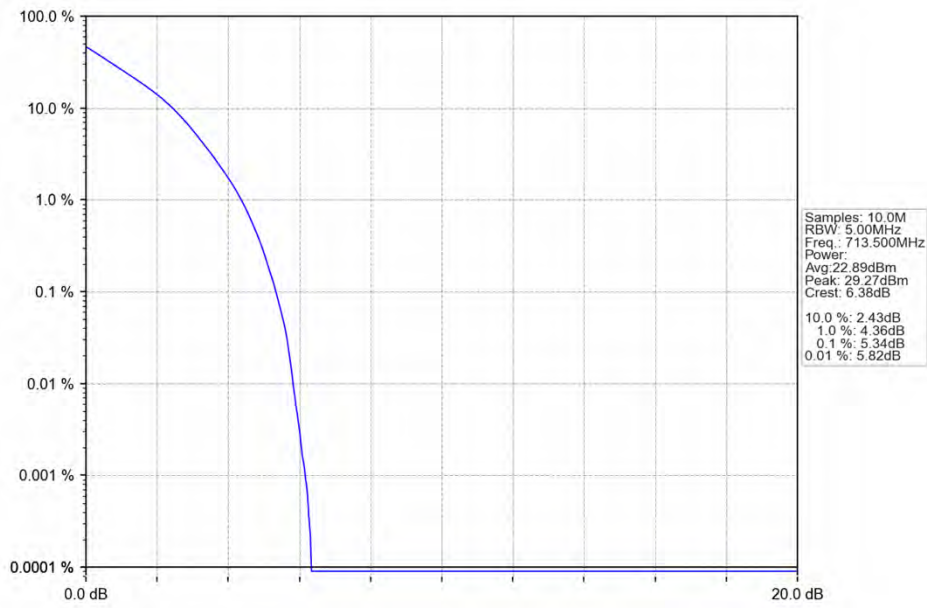
## 5.3.1 Test Result

Band: 12 / Bandwidth: 5MHz / NTV						
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

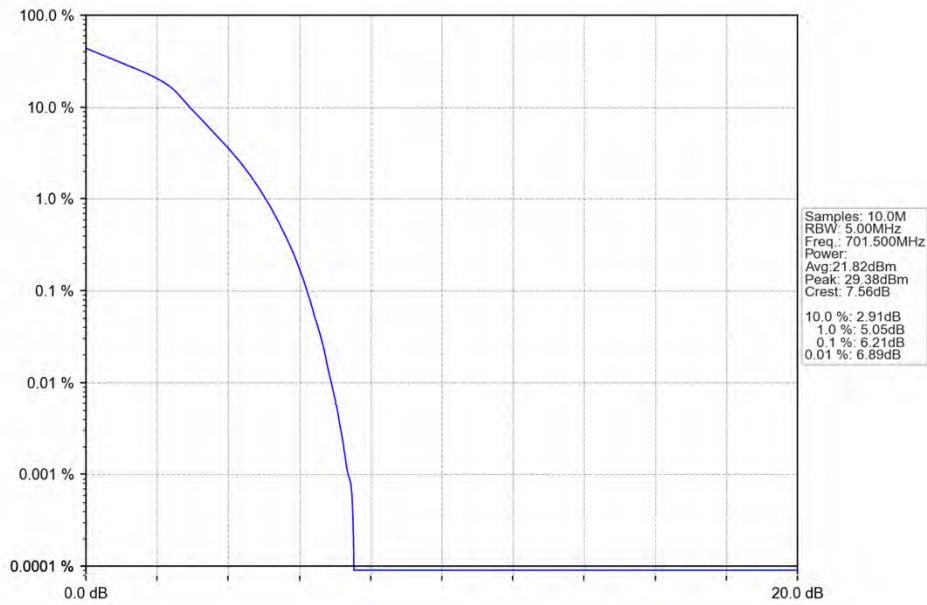
### 5.3.2 Test Graph



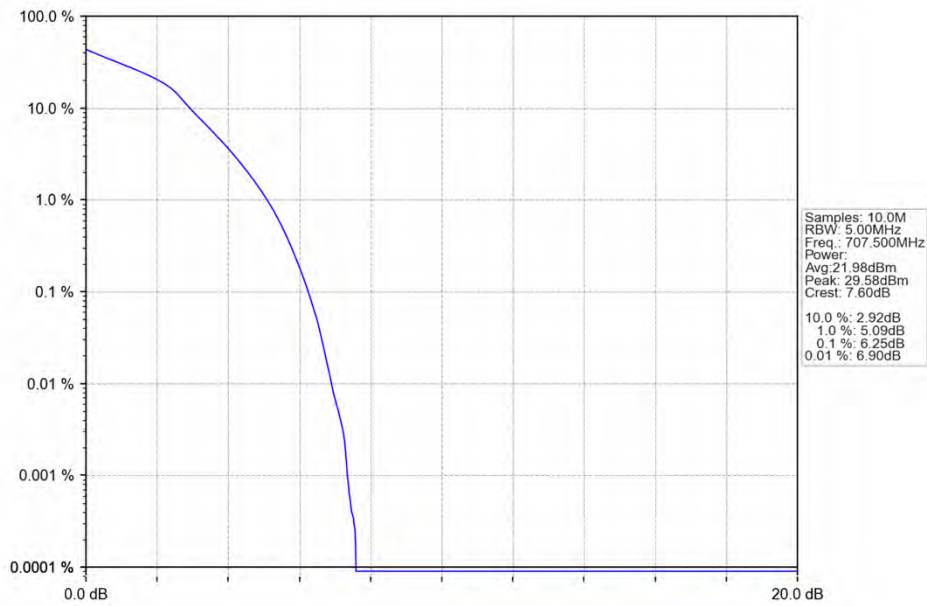
Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



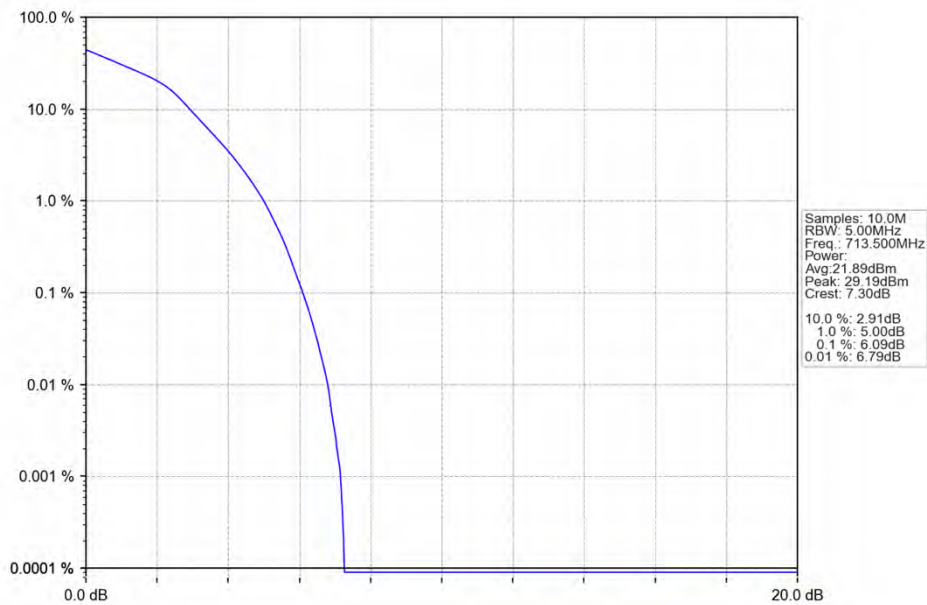
Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



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



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



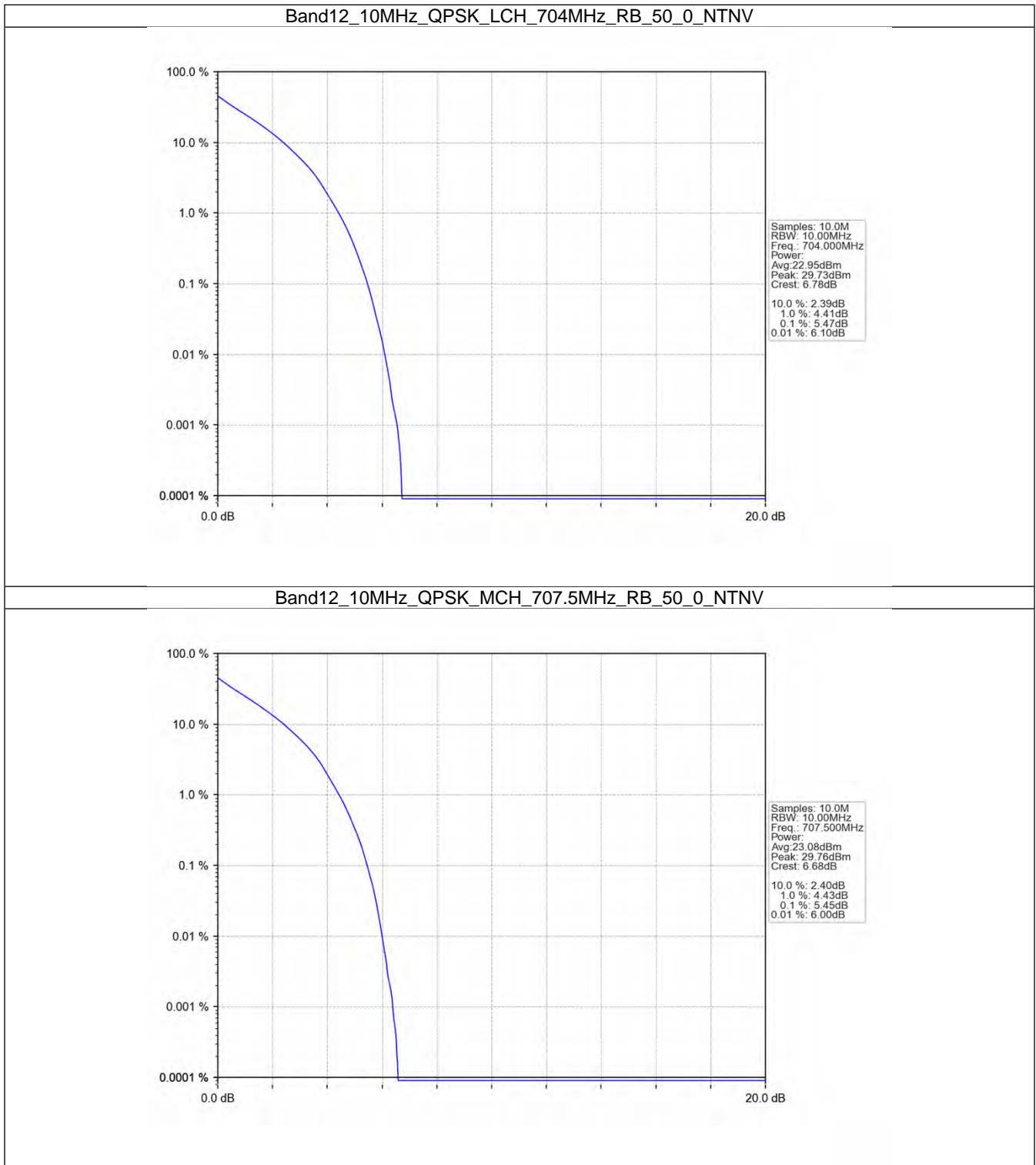


## 5.4 B12\_10MHz

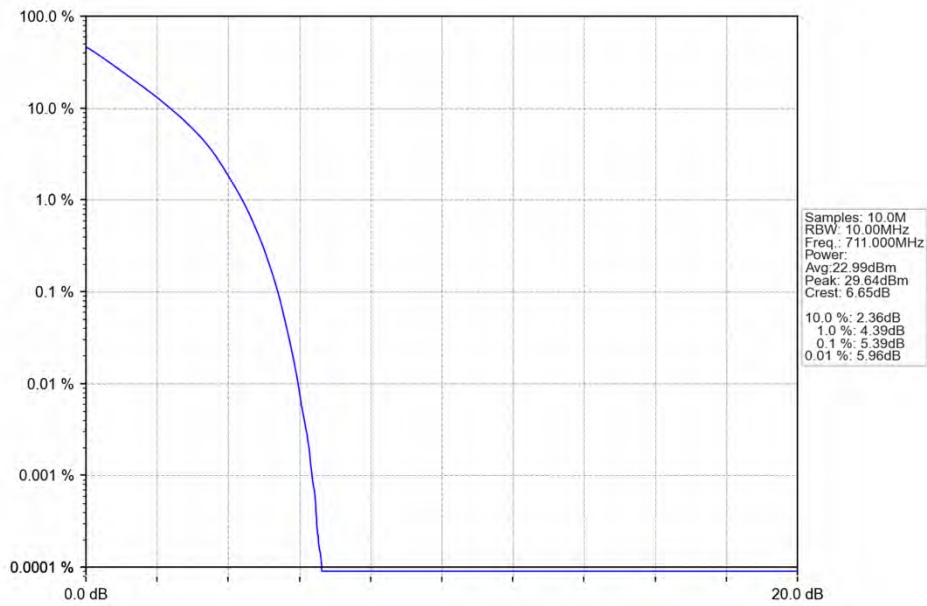
## 5.4.1 Test Result

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

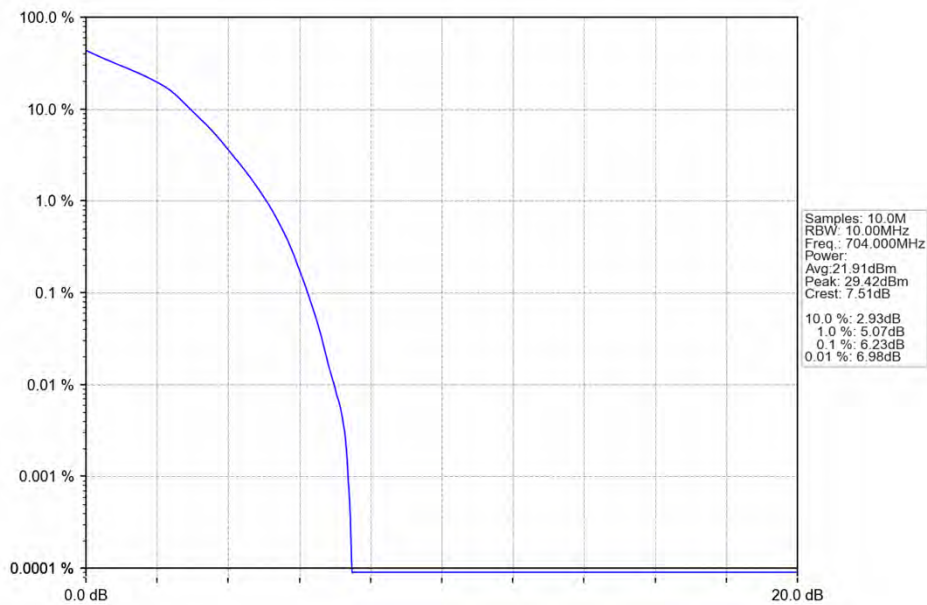
### 5.4.2 Test Graph



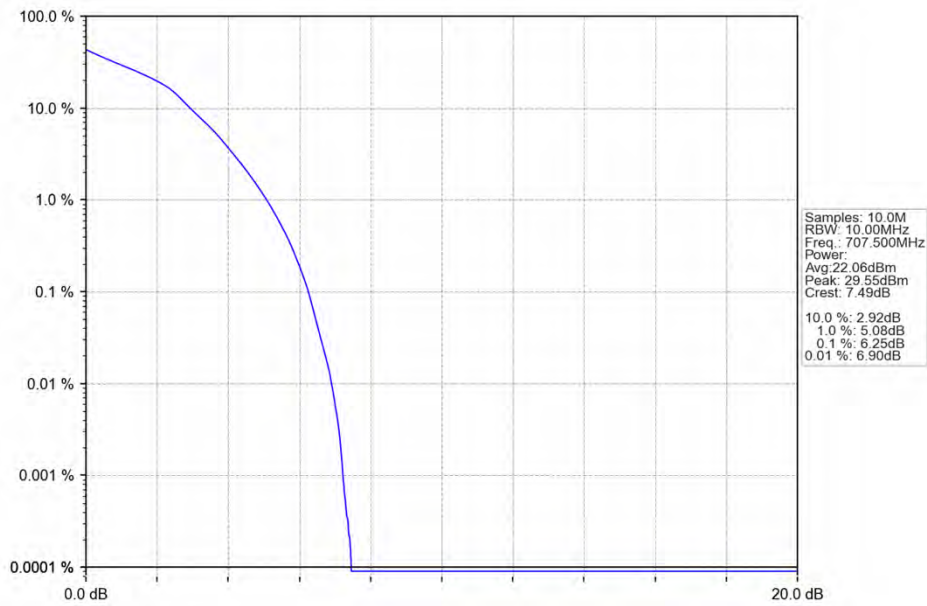
Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



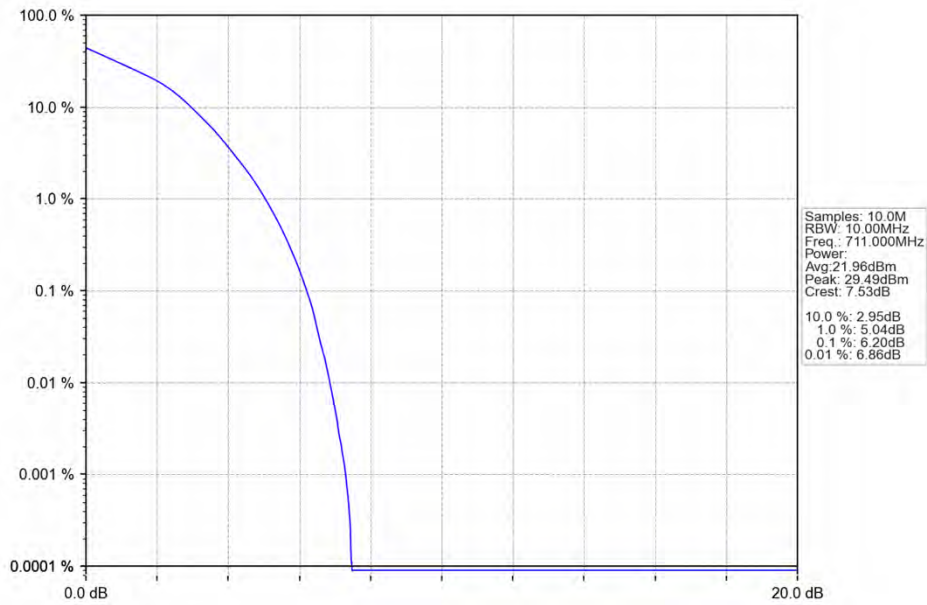
Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_50\_0\_NTNV



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



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



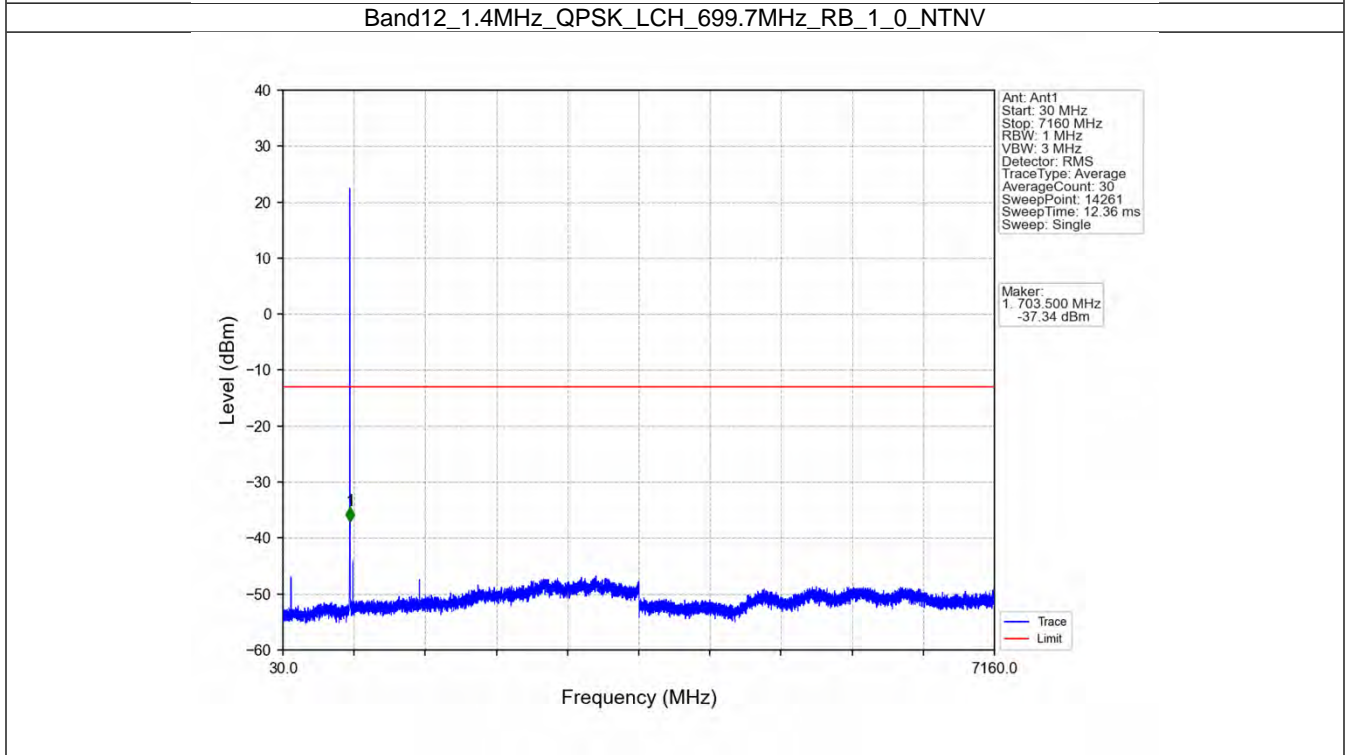
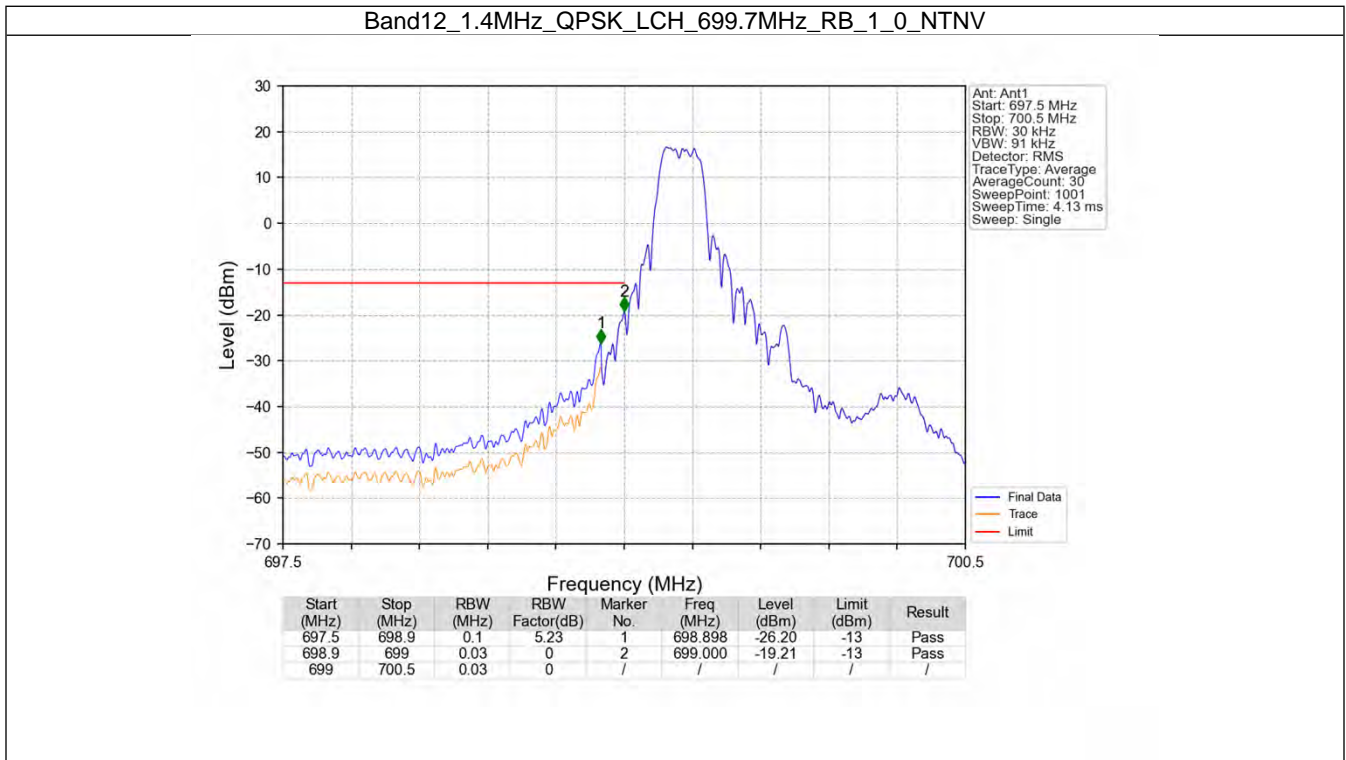
## 6. Spurious Emission

### 6.1 B12\_1.4MHz

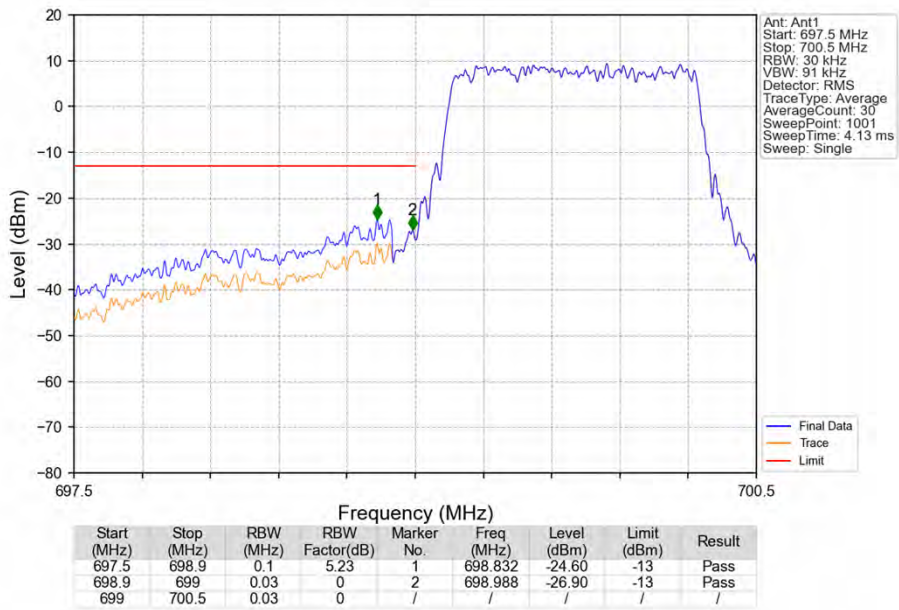
#### 6.1.1 Test Result

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

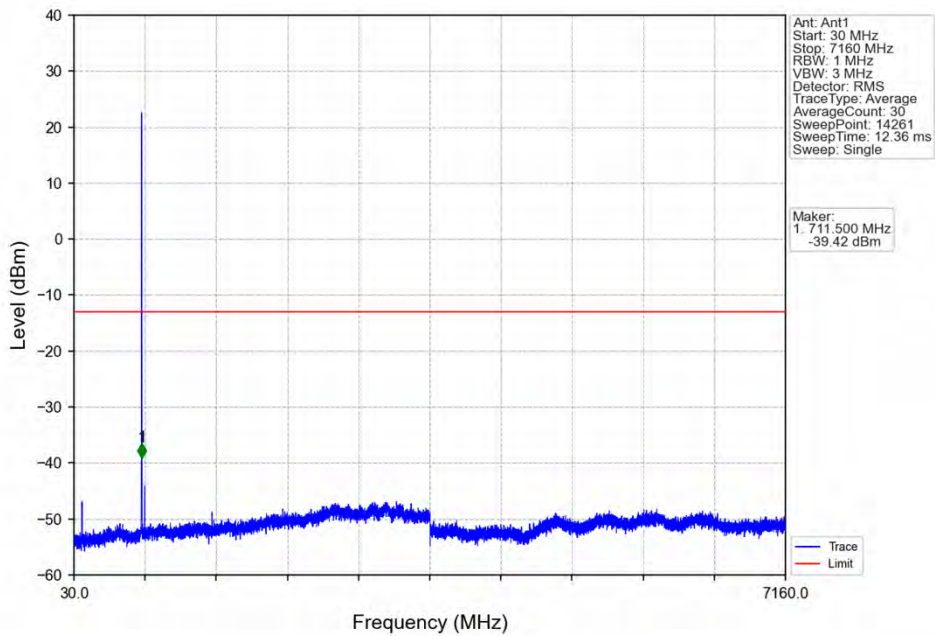
### 6.1.2 Test Graph



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

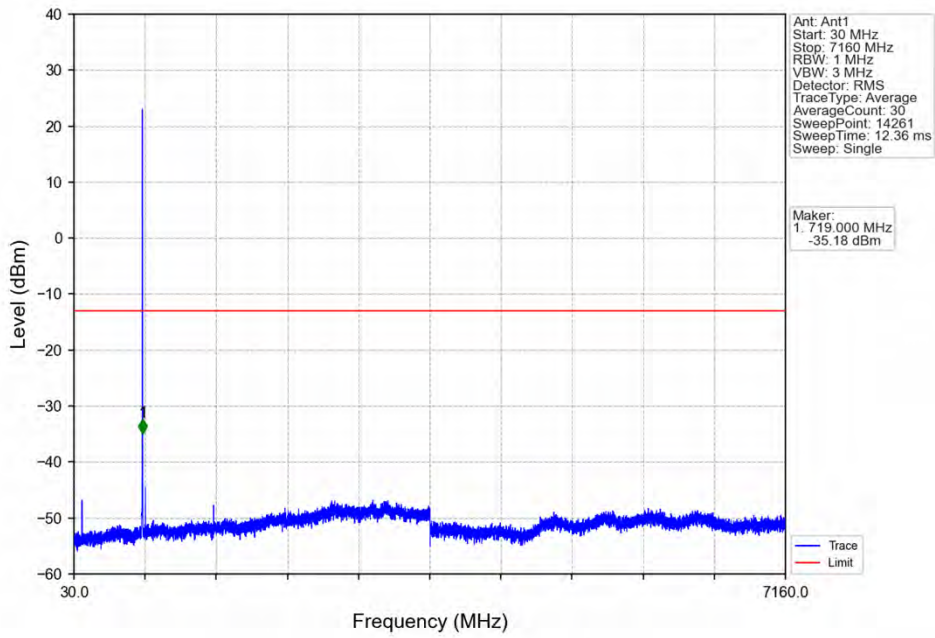


Band12\_1.4MHz\_QPSK\_MCH\_707.5MHz\_RB\_1\_0\_NTNV

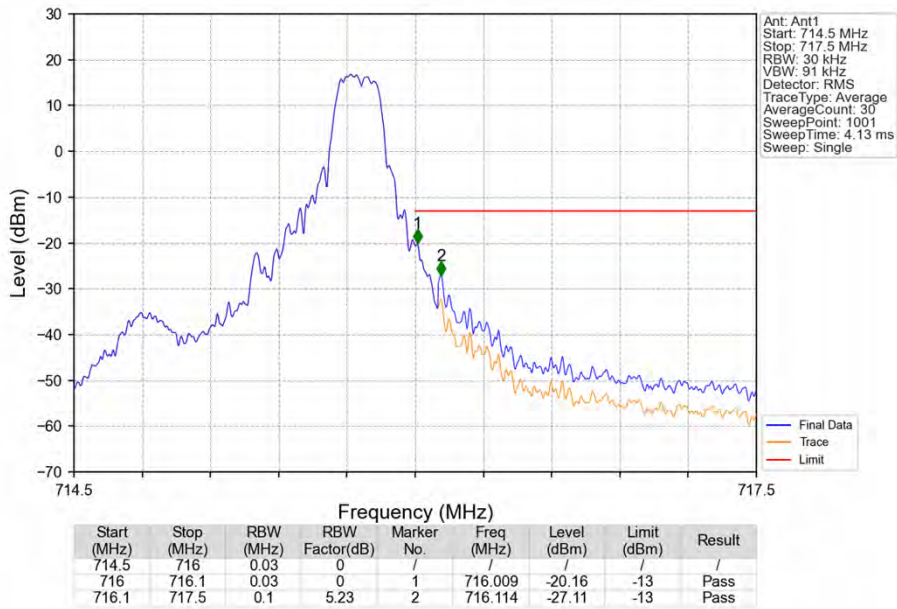




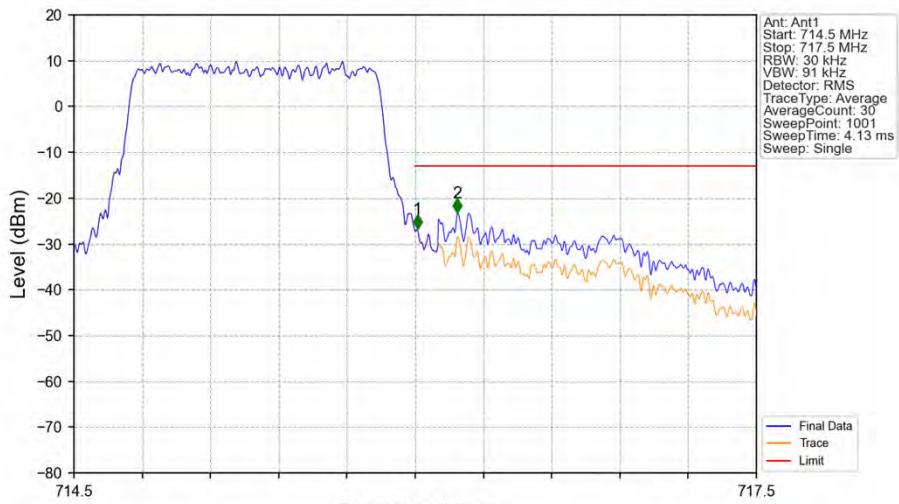
Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_1\_0\_NTNV



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

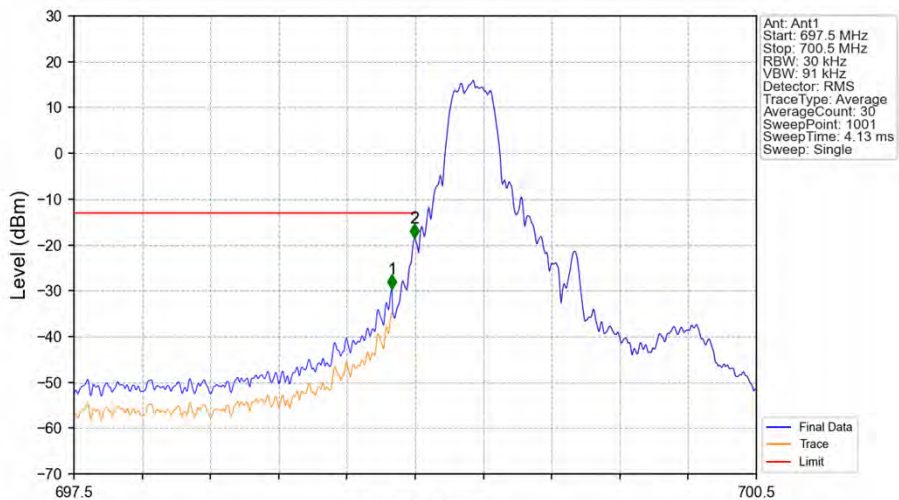


Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_6\_0\_NTNV



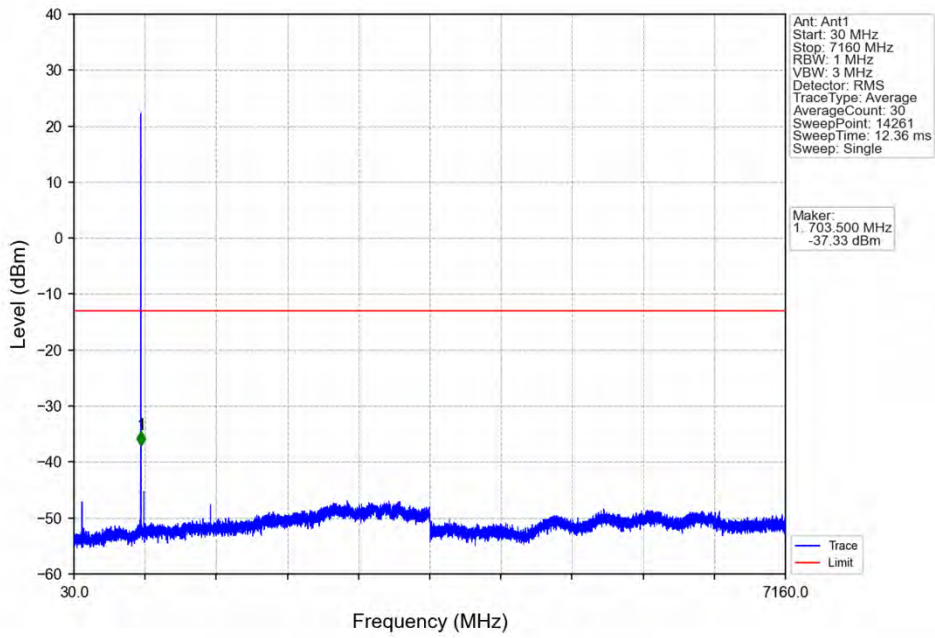
Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
714.5	716	0.03	0	/	/	/	/	/
716	716.1	0.03	0	1	716.009	-26.70	-13	Pass
716.1	717.5	0.1	5.23	2	716.186	-23.18	-13	Pass

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

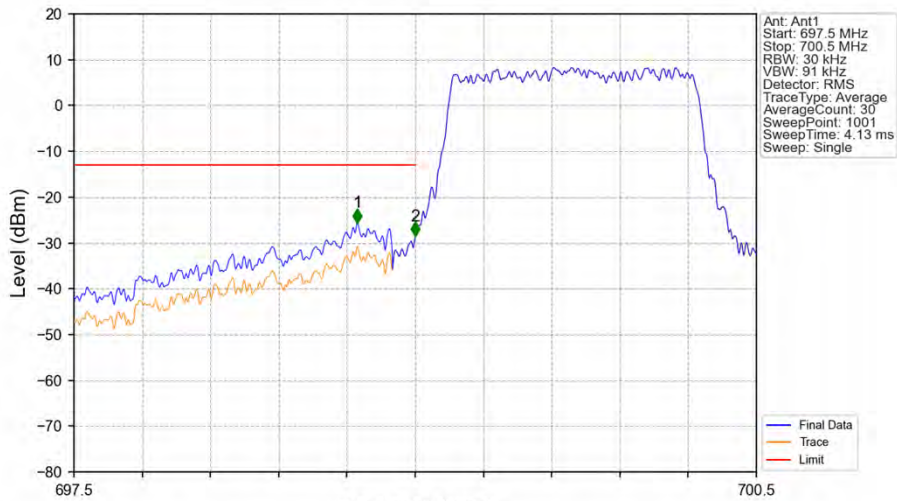


Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
697.5	698.9	0.1	5.23	1	698.898	-29.61	-13	Pass
698.9	699	0.03	0	2	698.997	-18.51	-13	Pass
699	700.5	0.03	0	/	/	/	/	/

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

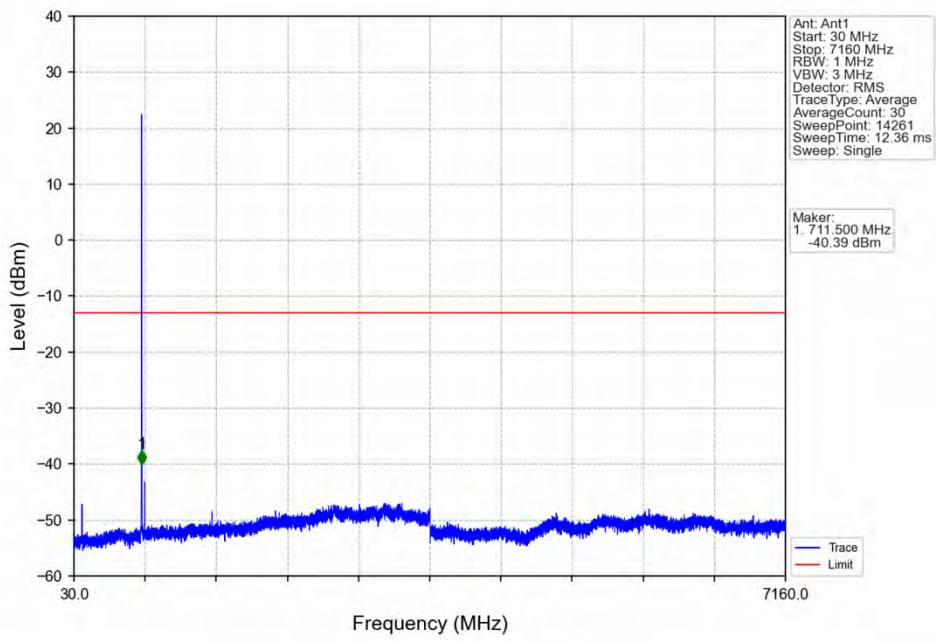


Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_6\_0\_NTNV

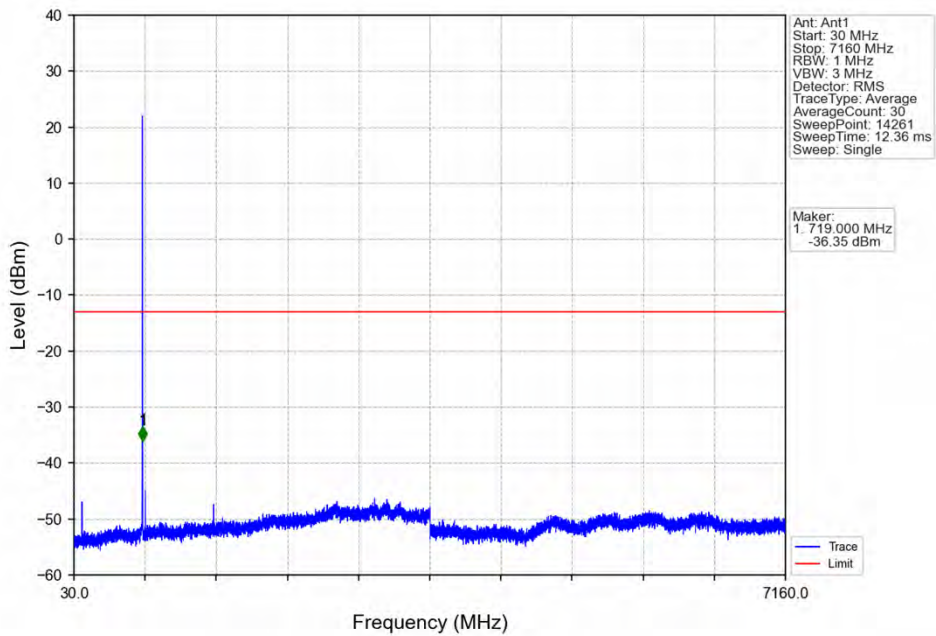


Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
697.5	698.9	0.1	5.23	1	698.745	-25.61	-13	Pass
698.9	699	0.03	0	2	699.000	-28.58	-13	Pass
699	700.5	0.03	0	/	/	/	/	/

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

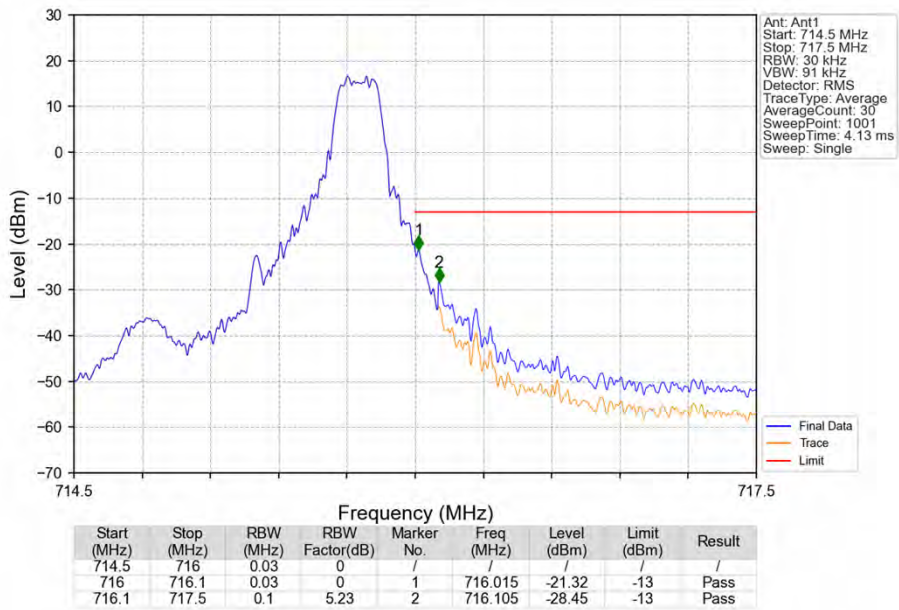


Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_1\_0\_NTNV

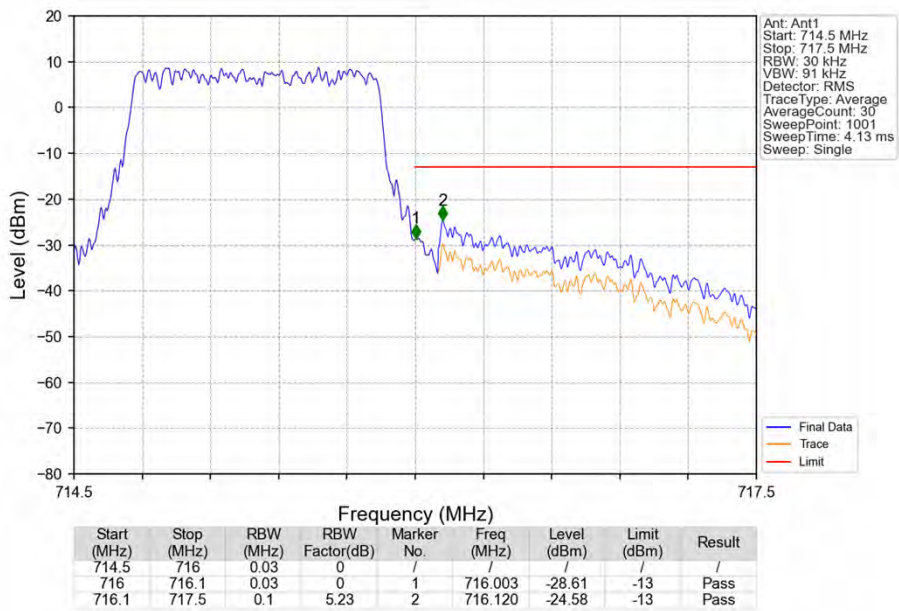




Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_1\_5\_NTNV



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

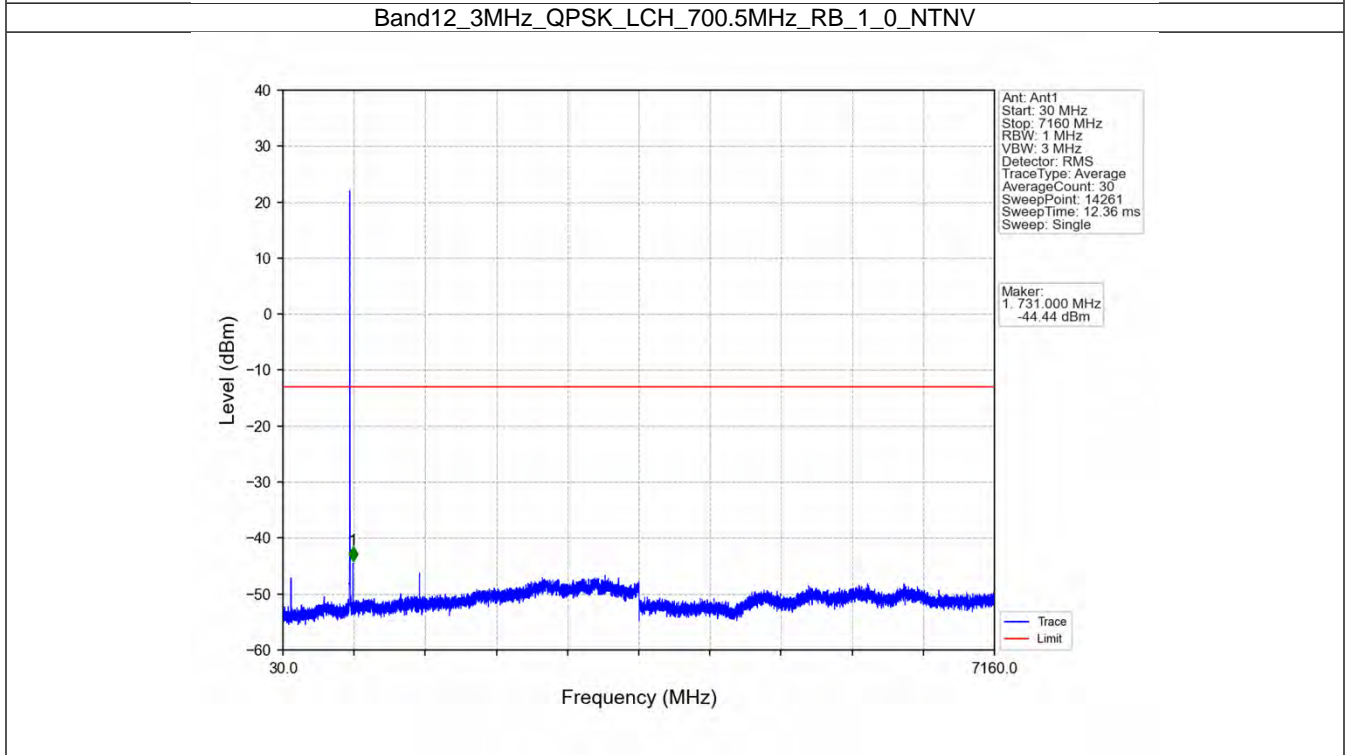
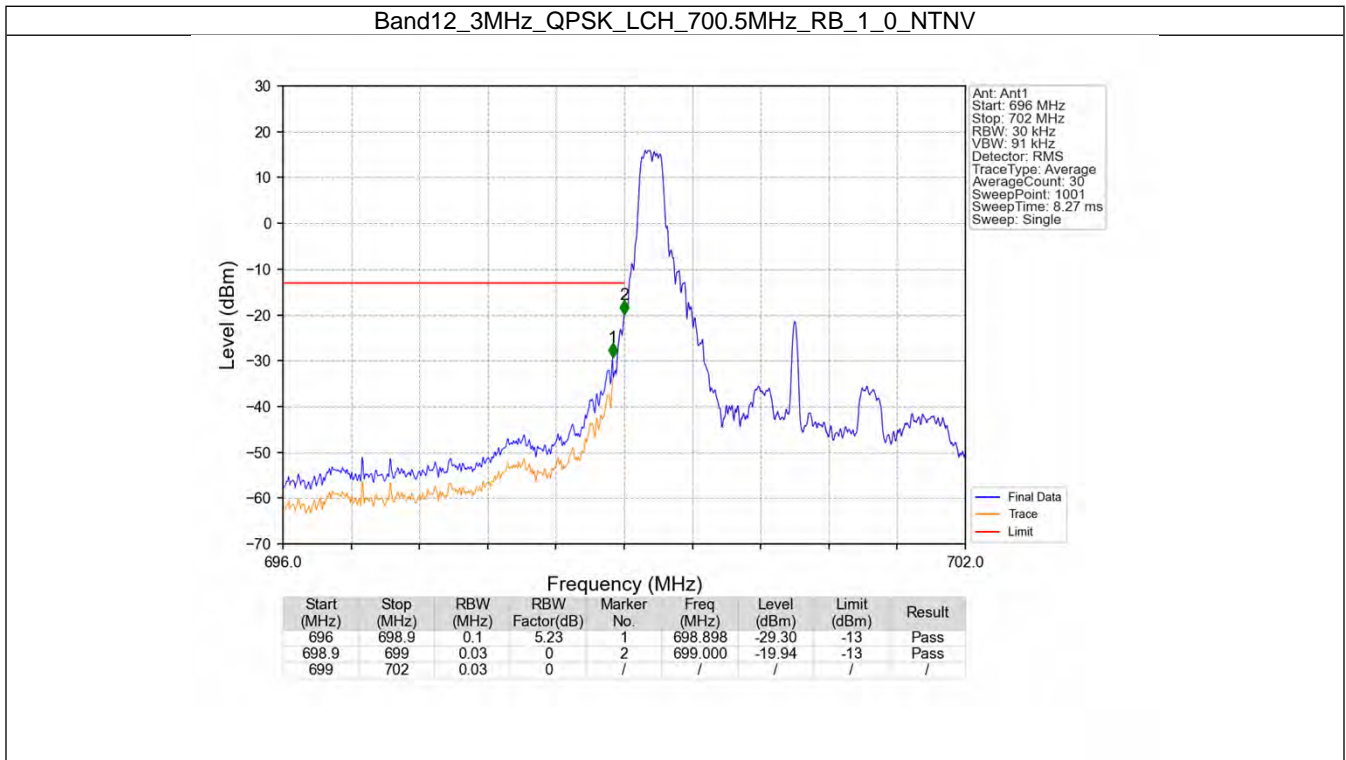


## 6.2 B12\_3MHz

## 6.2.1 Test Result

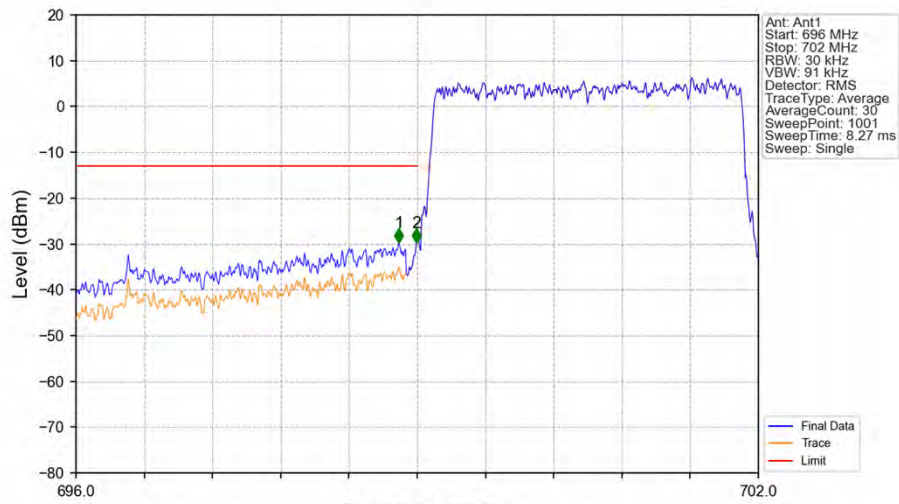
Band: 12 / Bandwidth: 3MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	700.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	714.5	1	0	Refer To Test Graph		Pass
		1	0	Refer To Test Graph		Pass
		1	14	Refer To Test Graph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

### 6.2.2 Test Graph



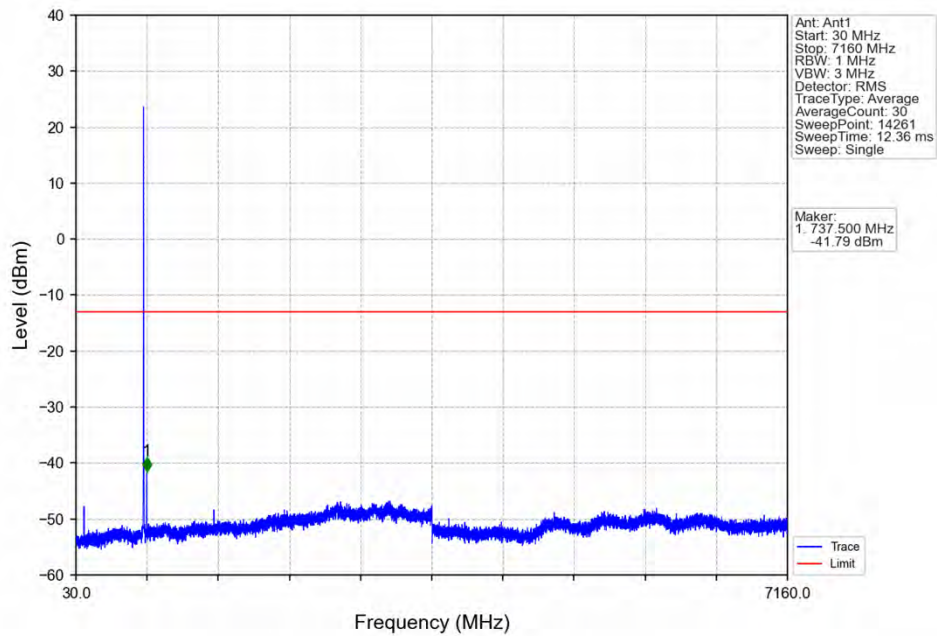


Band12\_3MHz\_QPSK\_LCH\_700.5MHz\_RB\_15\_0\_NTNV

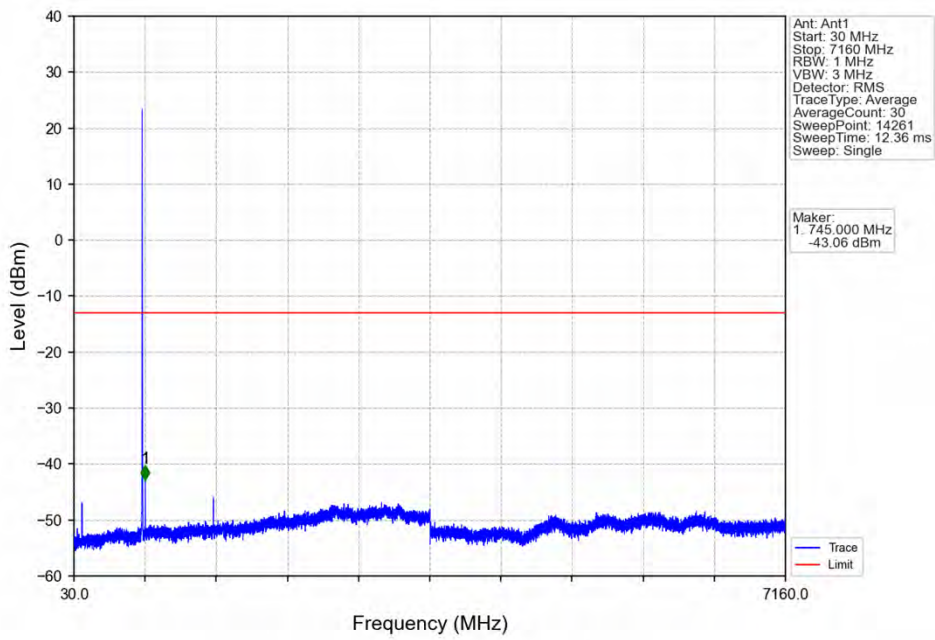


Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
696	698.9	0.1	5.23	1	698.838	-29.74	-13	Pass
698.9	699	0.03	0	2	698.994	-29.79	-13	Pass
699	702	0.03	0	/	/	/	/	/

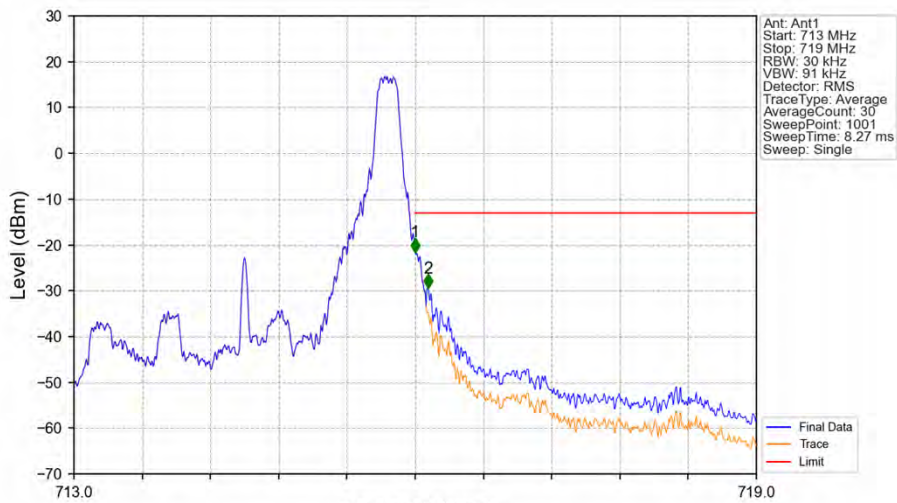
Band12\_3MHz\_QPSK\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



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

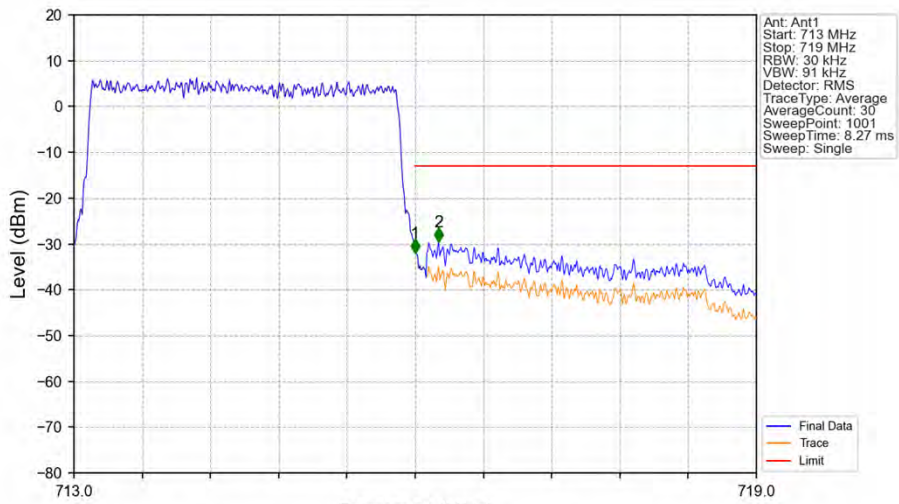


Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_1\_14\_NTNV



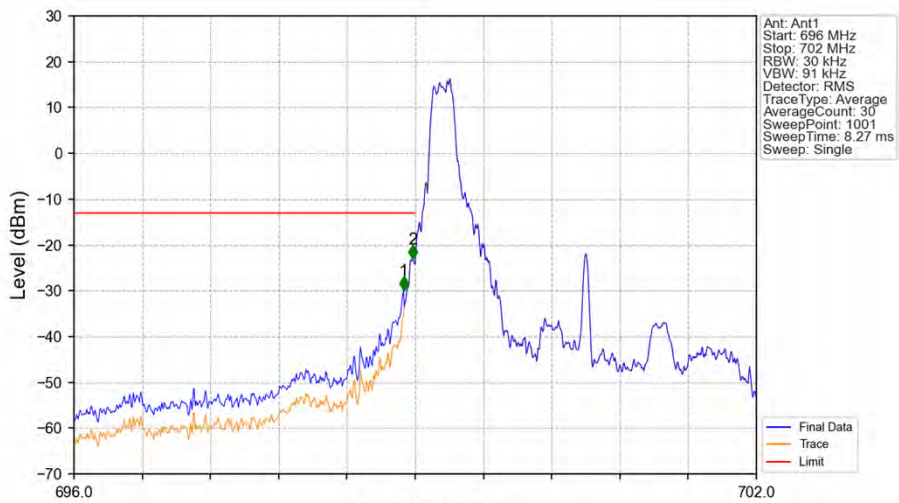
Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
713	716	0.03	0	1	716.000	-21.60	-13	Pass
716.1	719	0.1	5.23	2	716.114	-29.42	-13	Pass

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



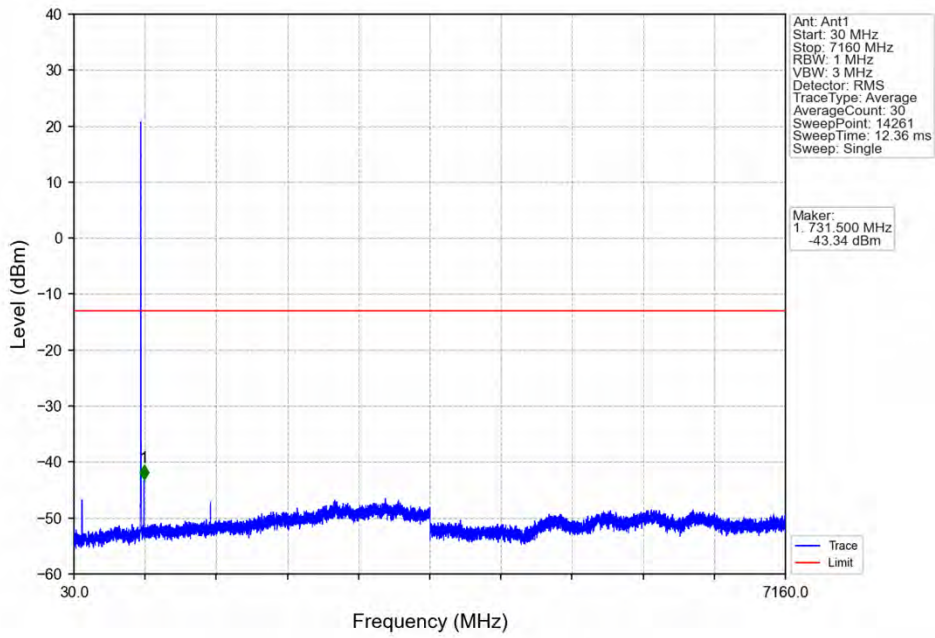
Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
713	716	0.03	0	/	/	/	/	/
716	716.1	0.03	0	1	716.000	-31.98	-13	Pass
716.1	719	0.1	5.23	2	716.204	-29.55	-13	Pass

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

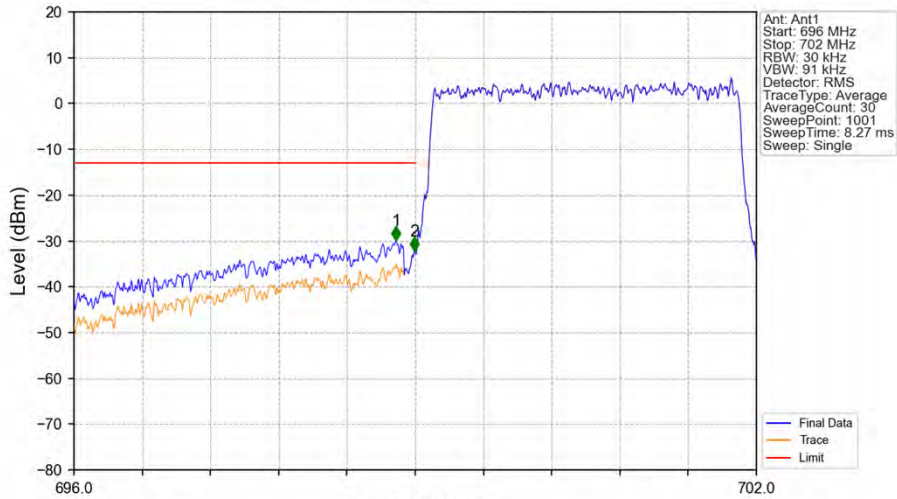


Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
696	698.9	0.1	5.23	1	698.898	-30.02	-13	Pass
698.9	699	0.03	0	2	698.982	-23.09	-13	Pass
699	702	0.03	0	/	/	/	/	/

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



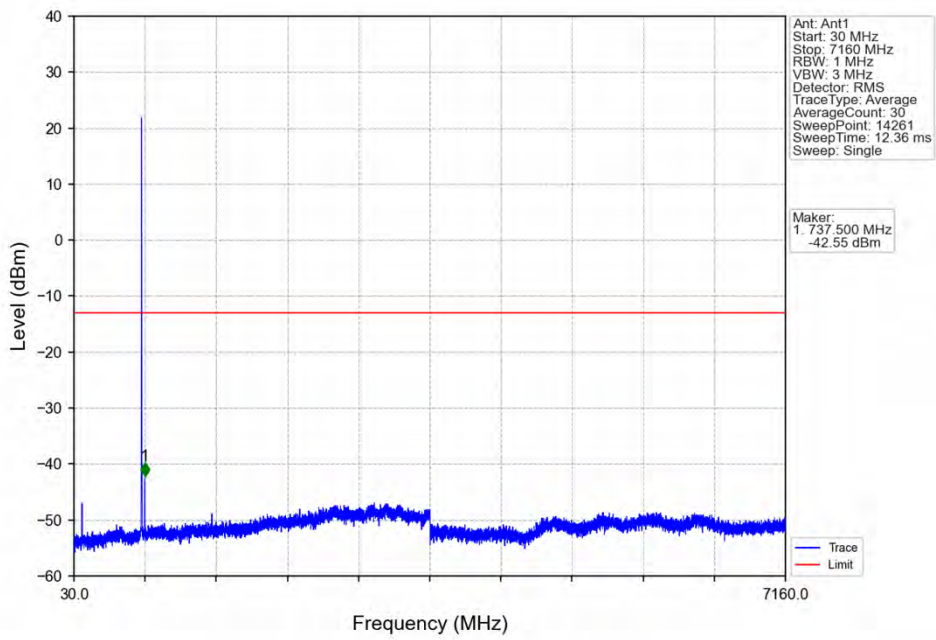
Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



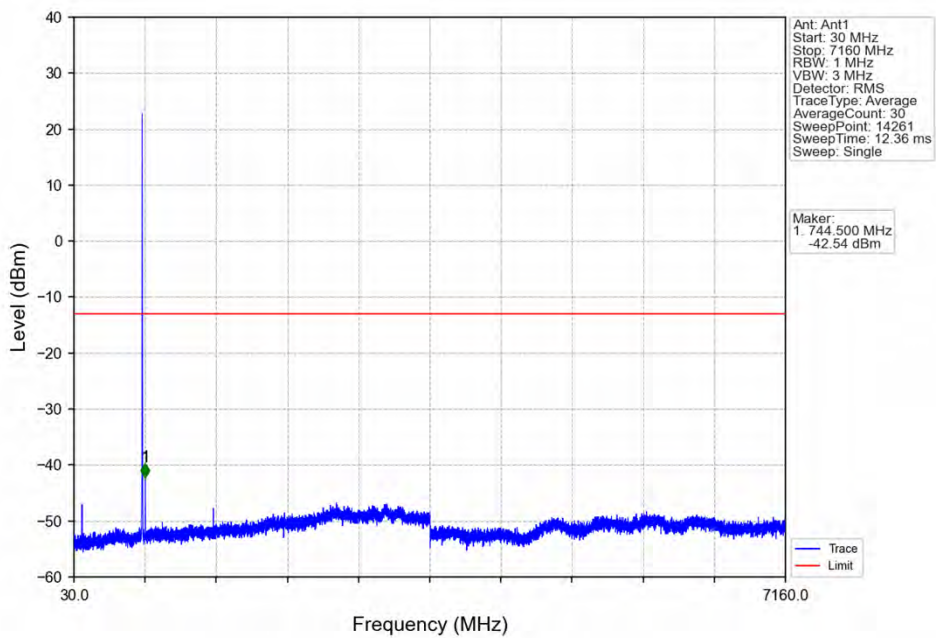
Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
696	698.9	0.1	5.23	1	698.832	-29.86	-13	Pass
698.9	699	0.03	0	2	698.994	-32.27	-13	Pass
699	702	0.03	0	/	/	/	/	/



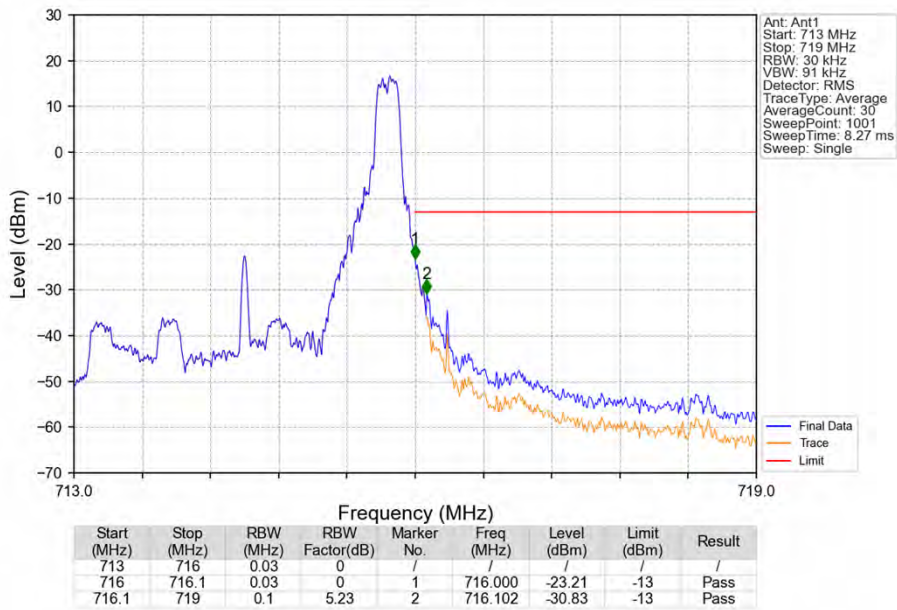
Band12\_3MHz\_16QAM\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



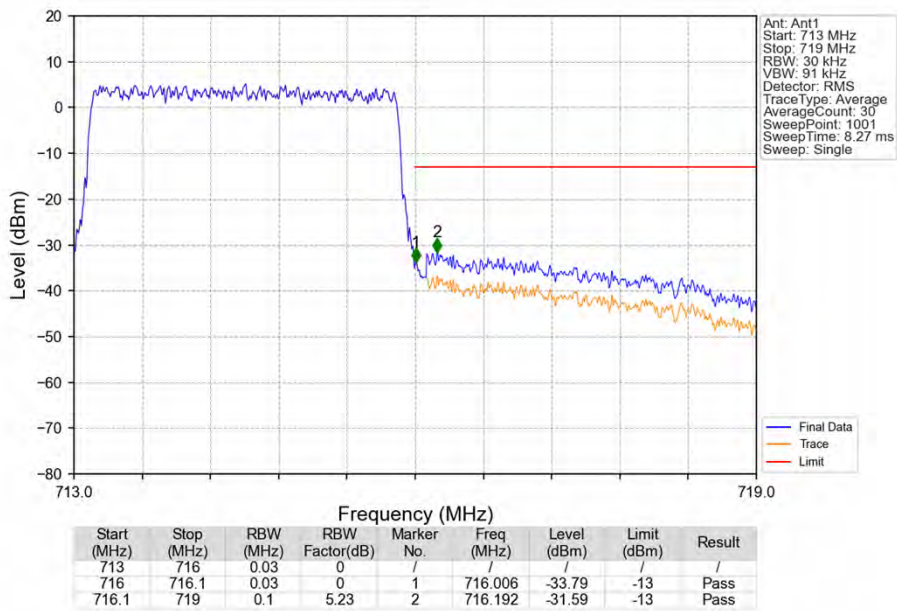
Band12\_3MHz\_16QAM\_HCH\_714.5MHz\_RB\_1\_0\_NTNV



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



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



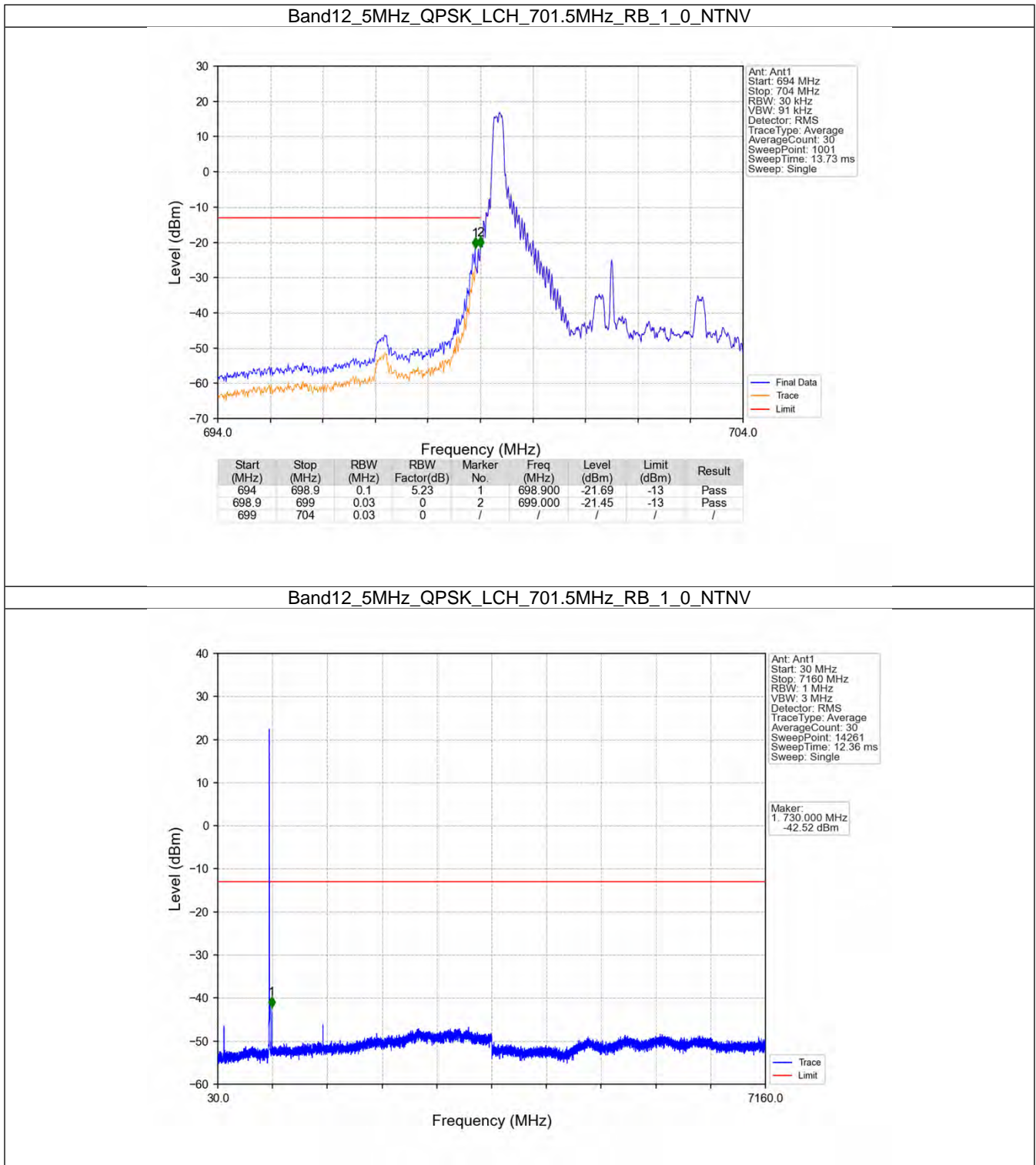
## 6.3 B12\_5MHz

## 6.3.1 Test Result

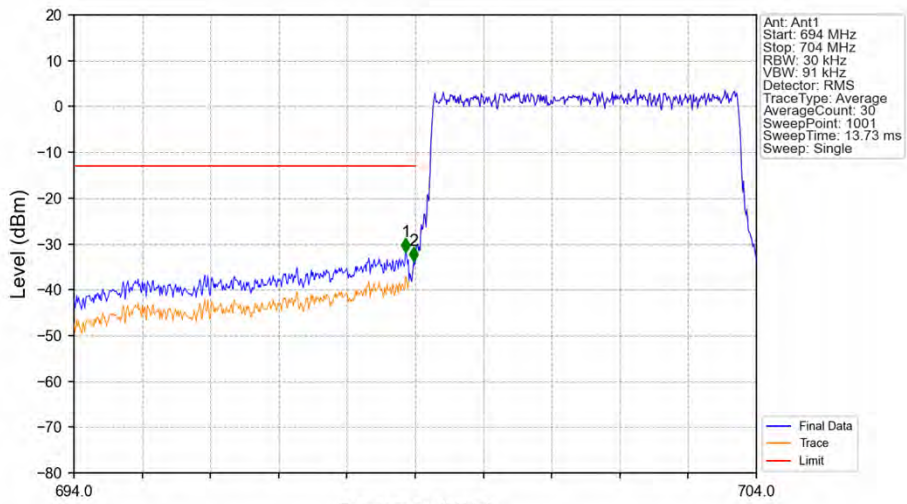
Band: 12 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	701.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	707.5	1	0	Refer To Test Graph		Pass
	713.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test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

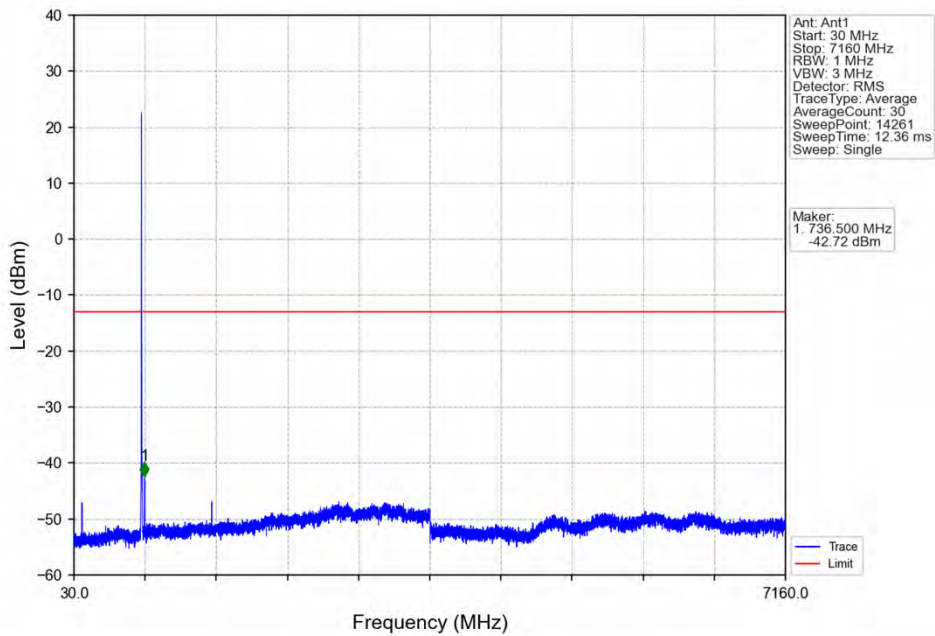


Band12\_5MHz\_QPSK\_LCH\_701.5MHz\_RB\_25\_0\_NTNV

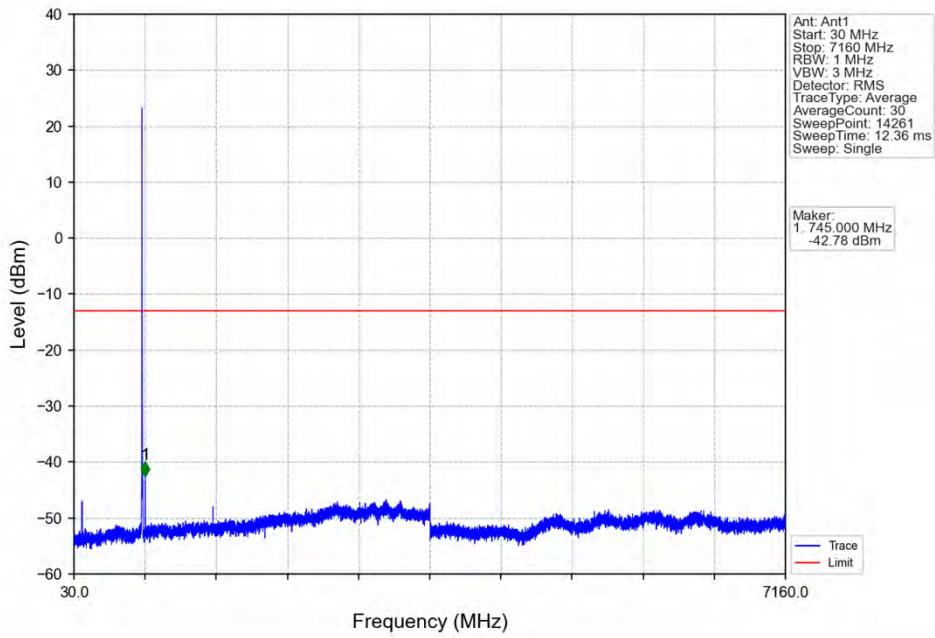


Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	698.9	0.1	5.23	1	698.860	-31.79	-13	Pass
698.9	699	0.03	0	2	698.980	-33.72	-13	Pass
699	704	0.03	0	/	/	/	/	/

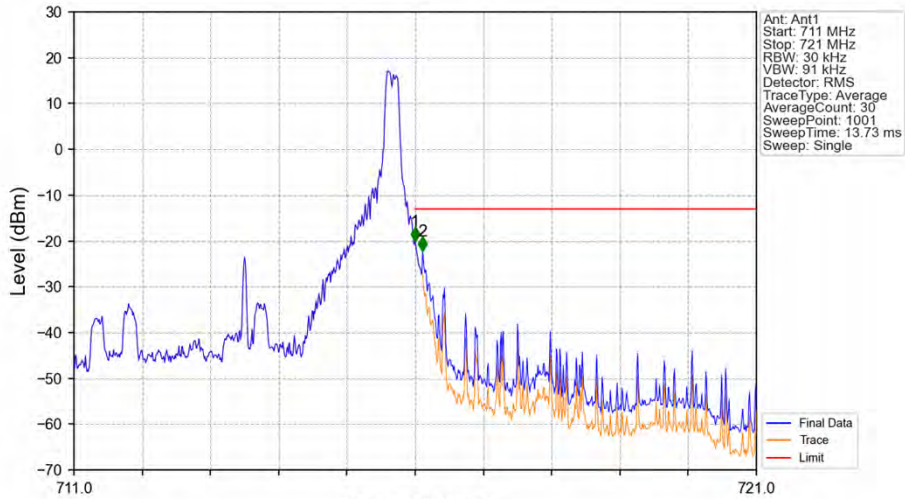
Band12\_5MHz\_QPSK\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



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

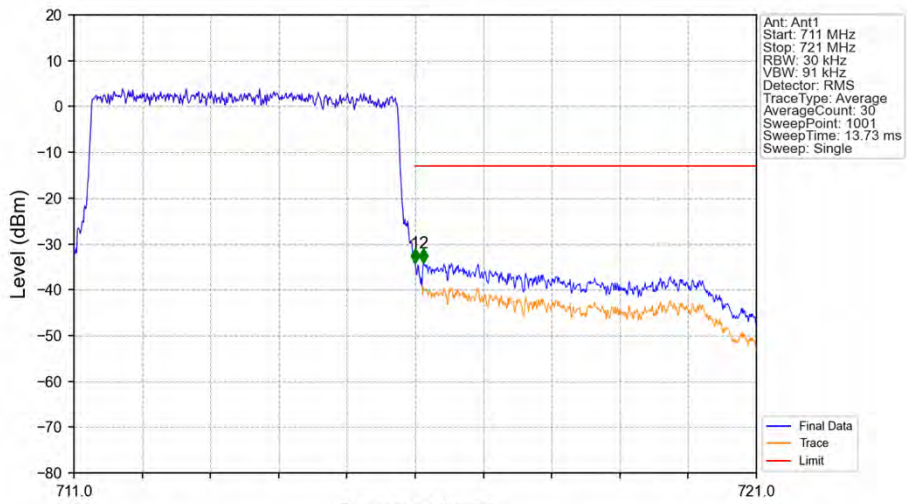


Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_1\_24\_NTNV



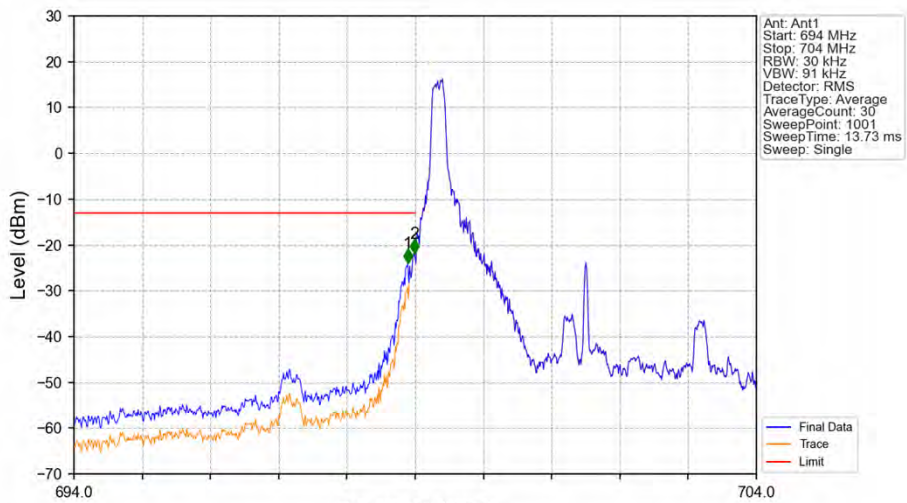
Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	0	1	716.000	-20.10	-13	Pass
716	716.1	0.03	0	1	716.000	-20.10	-13	Pass
716.1	721	0.1	5.23	2	716.110	-22.15	-13	Pass

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



Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	0	/	/	/	/	/
716	716.1	0.03	0	1	716.000	-34.22	-13	Pass
716.1	721	0.1	5.23	2	716.120	-34.13	-13	Pass

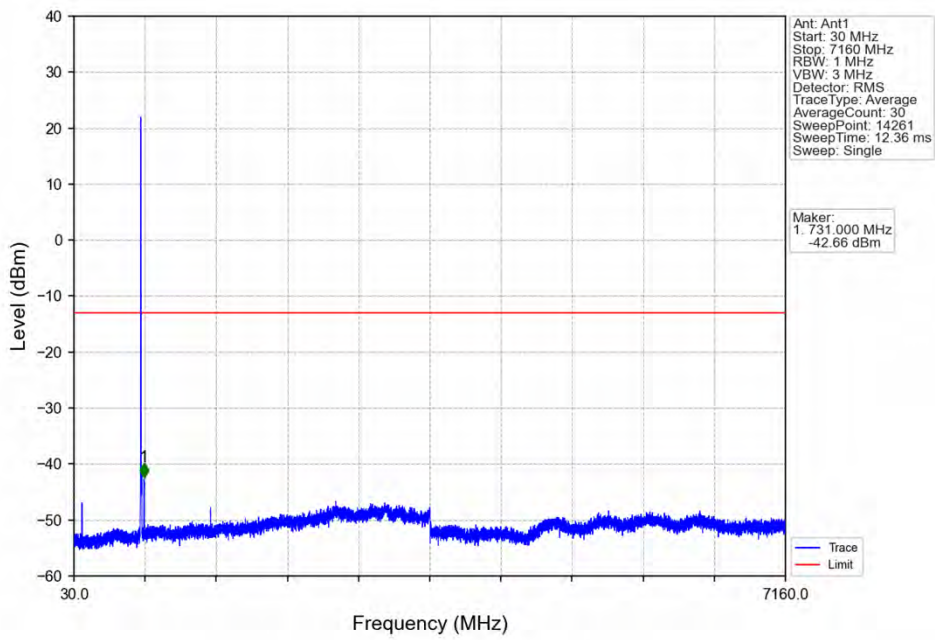
Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_1\_0\_NTNV



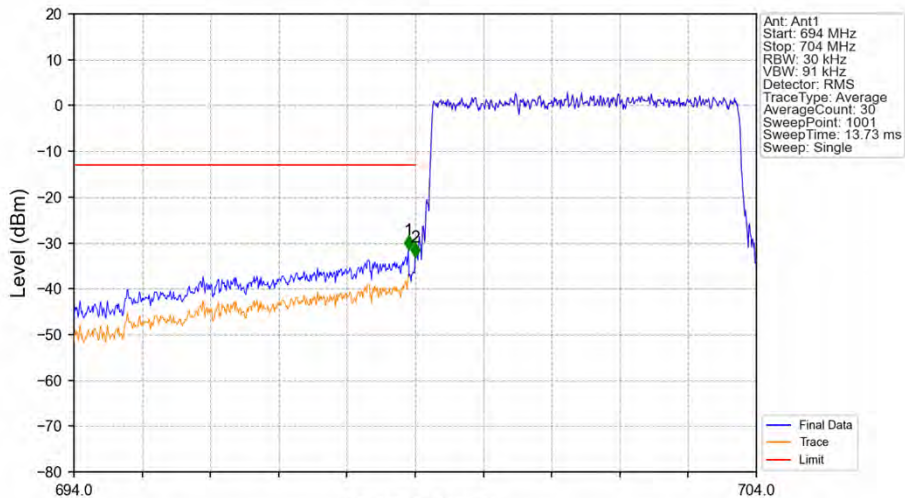
Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	698.9	0.1	5.23	1	698.890	-23.99	-13	Pass
698.9	699	0.03	0	2	698.990	-21.92	-13	Pass
699	704	0.03	0	/	/	/	/	/



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

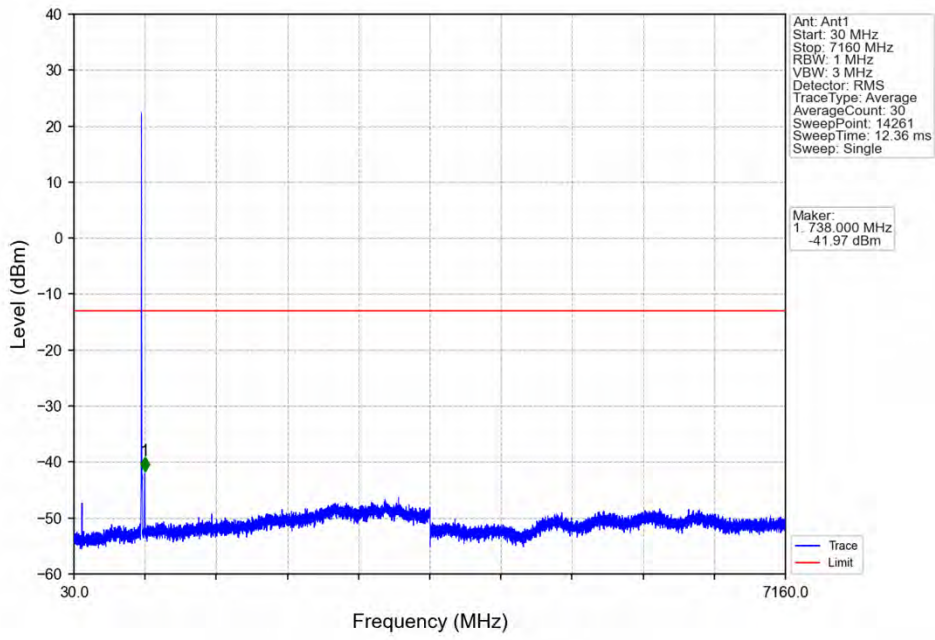


Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_25\_0\_NTNV

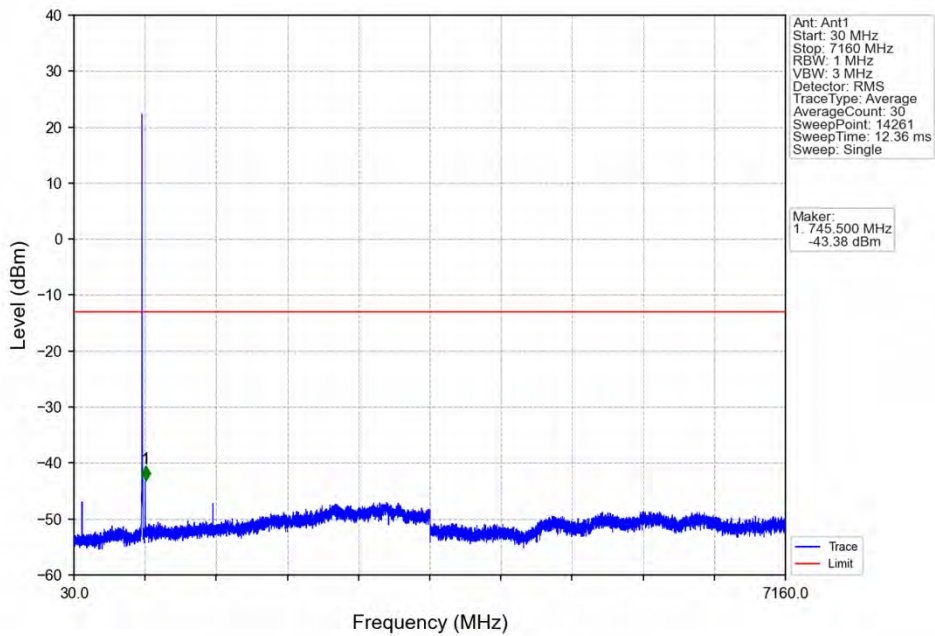


Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	698.9	0.1	5.23	1	698.900	-31.53	-13	Pass
698.9	699	0.03	0	2	699.000	-33.08	-13	Pass
699	704	0.03	0	/	/	/	/	/

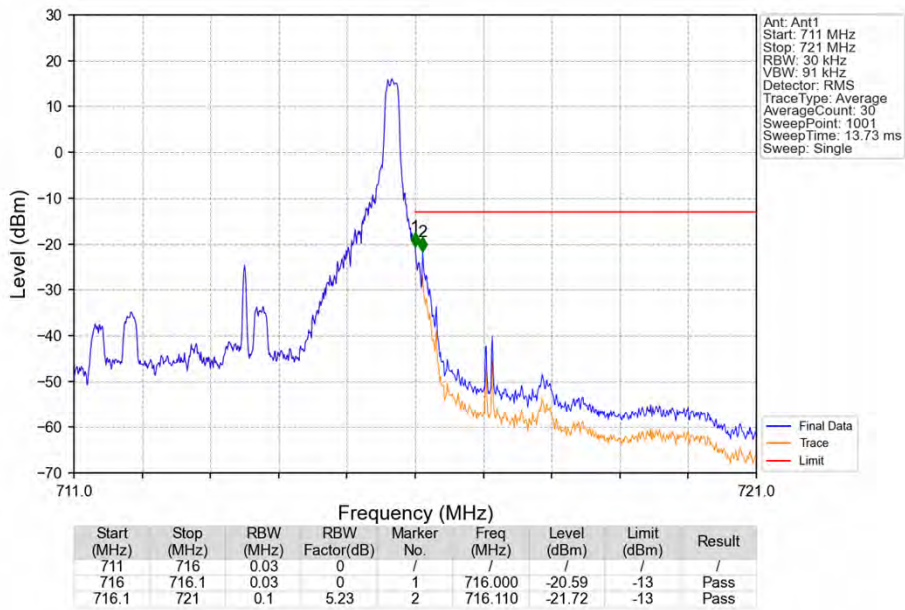
Band12\_5MHz\_16QAM\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



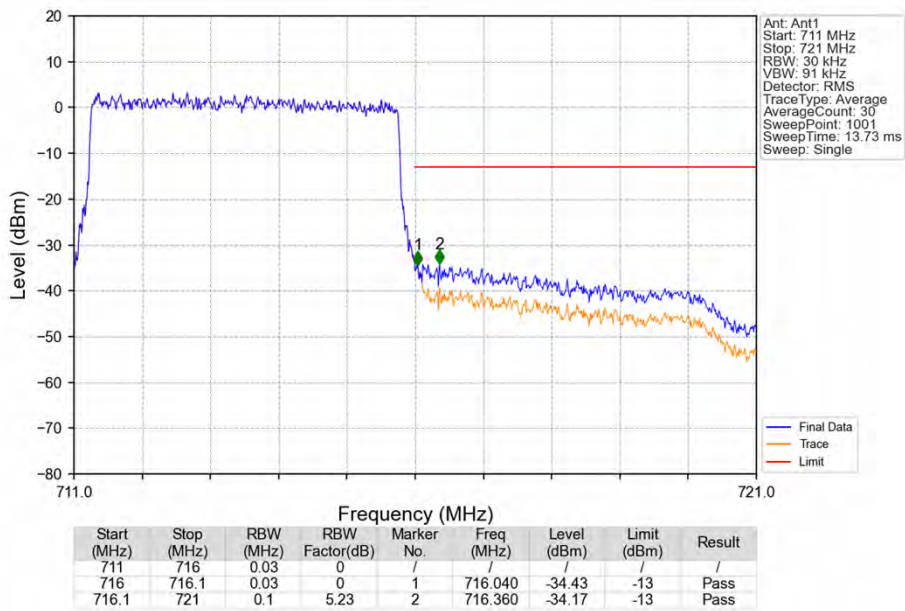
Band12\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_1\_0\_NTNV



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



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



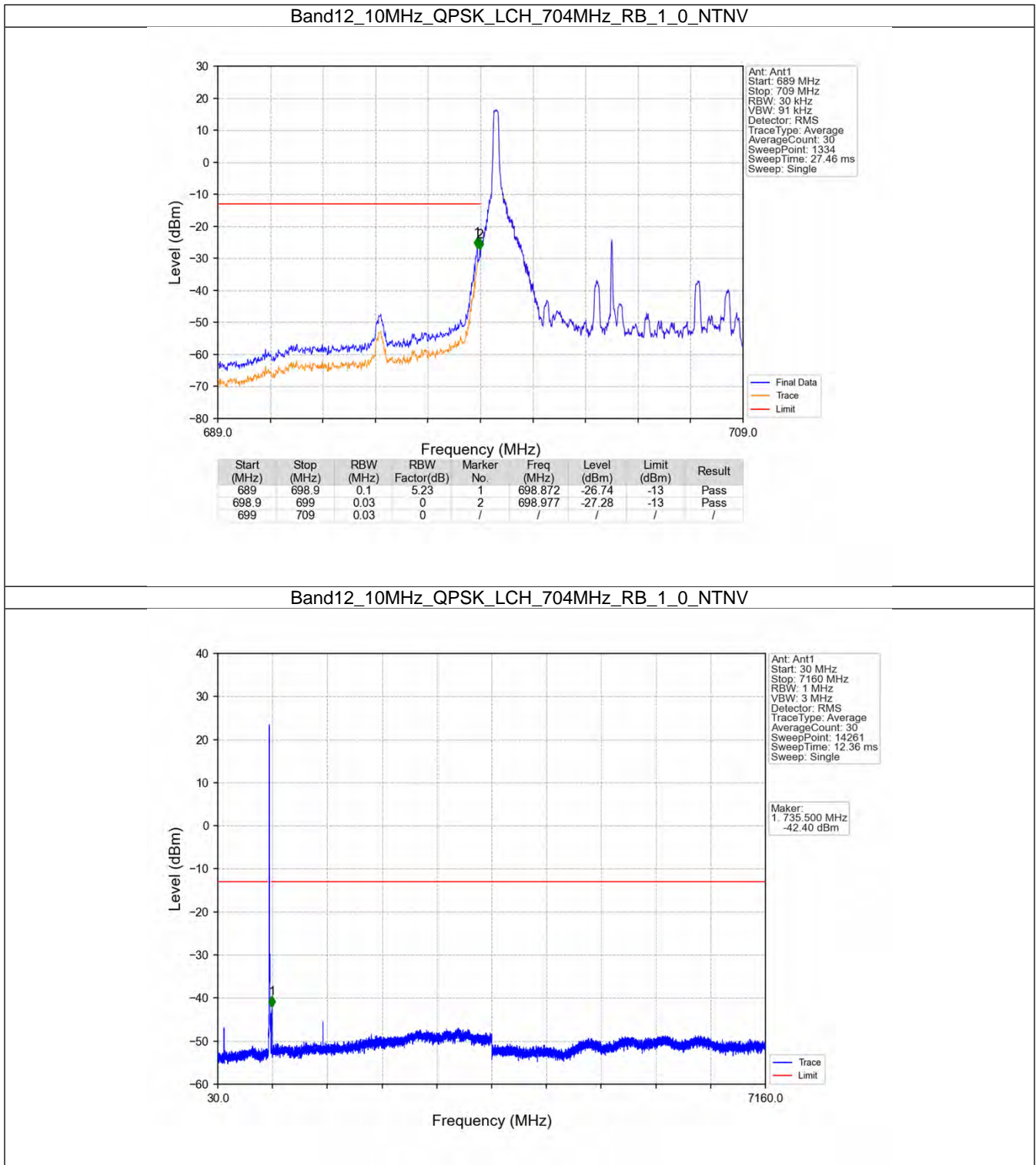


## 6.4 B12\_10MHz

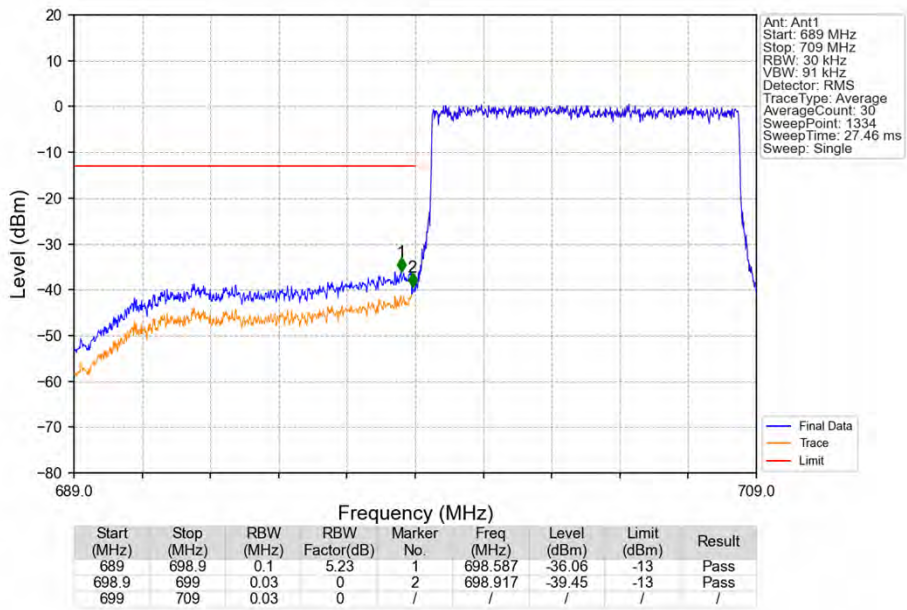
## 6.4.1 Test Result

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	
				49	Refer To Test Graph	
			50	0	Refer To Test Graph	
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	
				49	Refer To Test Graph	
			50	0	Refer To Test Graph	

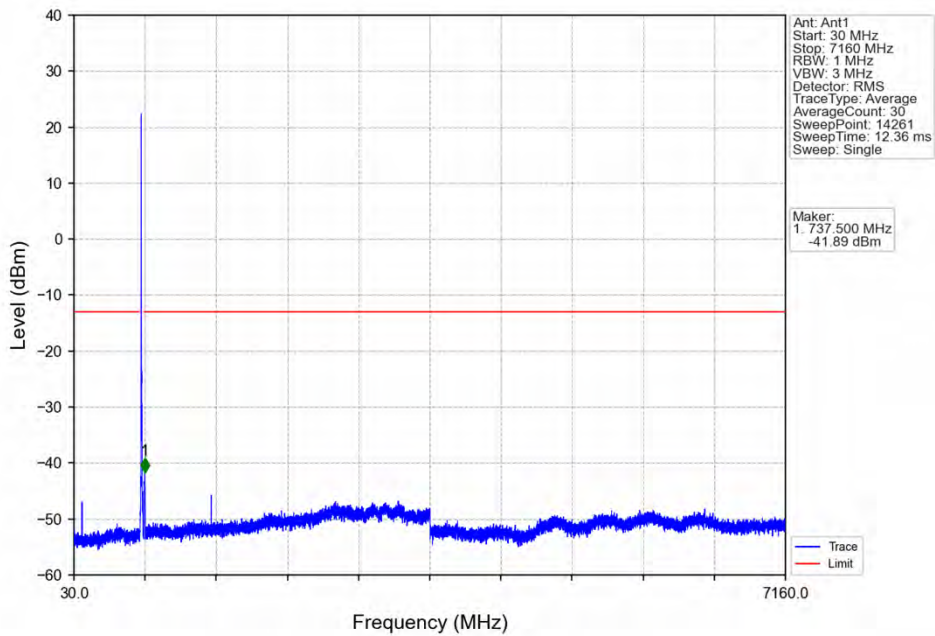
6.4.2 Test Graph



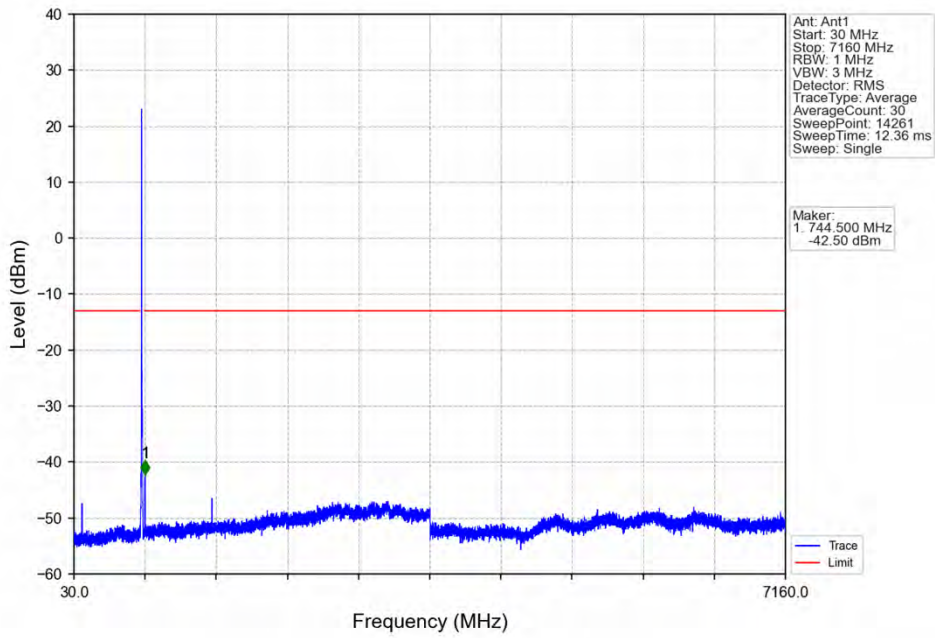
Band12\_10MHz\_QPSK\_LCH\_704MHz\_RB\_50\_0\_NTNV



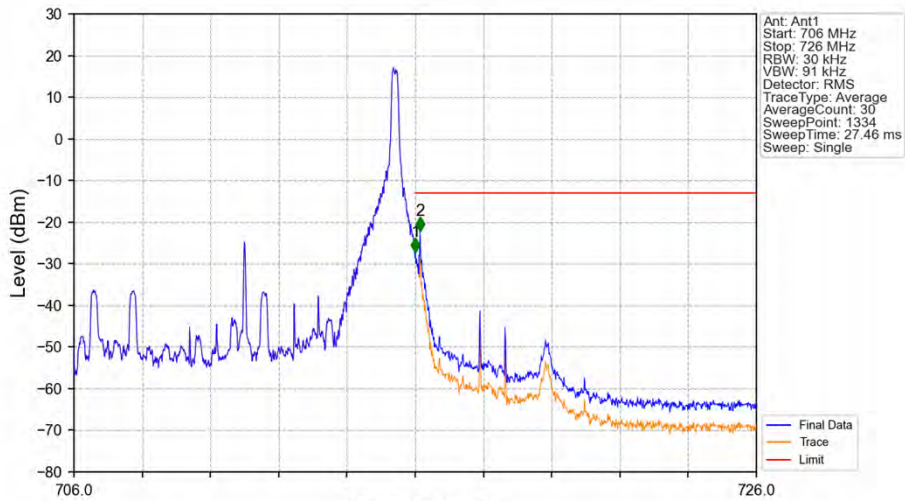
Band12\_10MHz\_QPSK\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



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

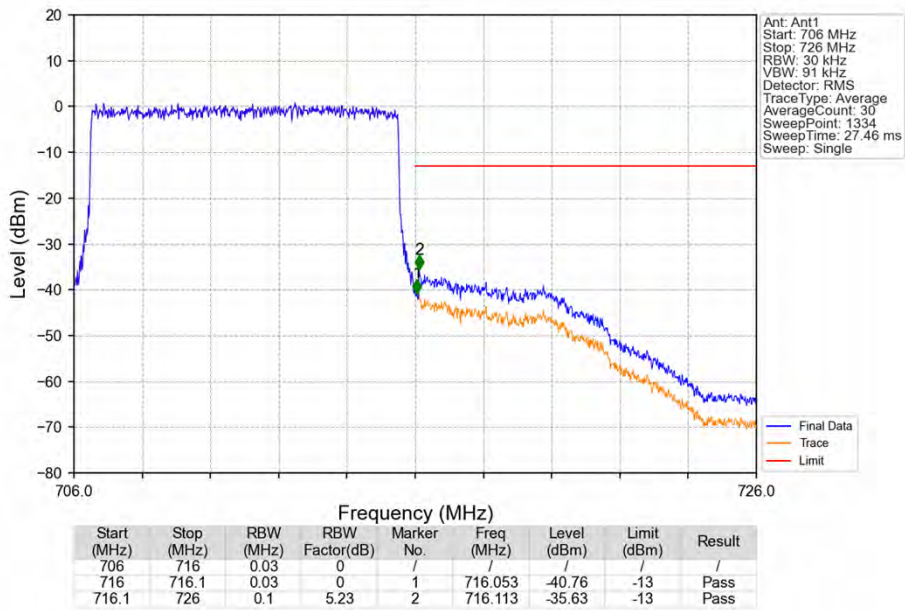


Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_1\_49\_NTNV

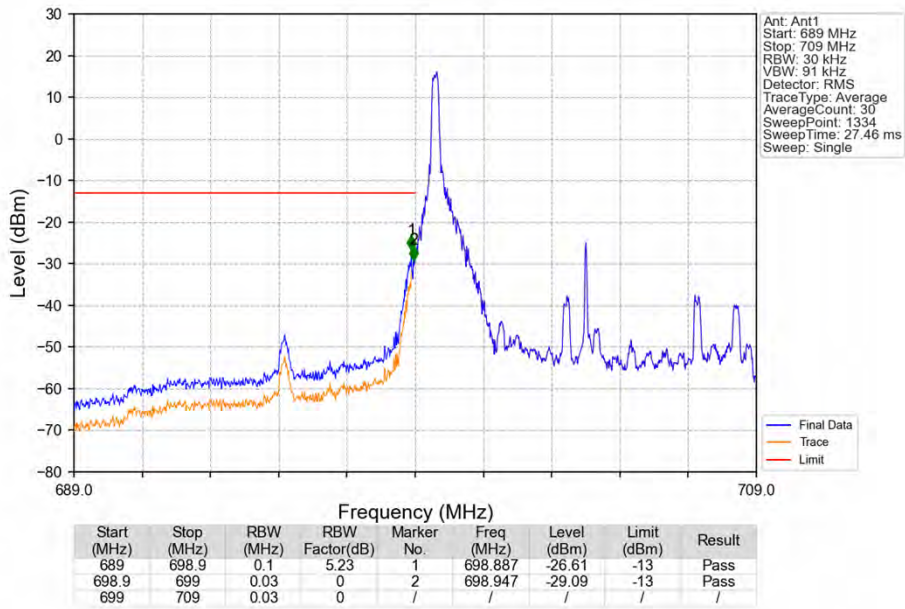


Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	0	1	716.008	-27.15	-13	Pass
716	716.1	0.03	0	2	716.143	-22.12	-13	Pass

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

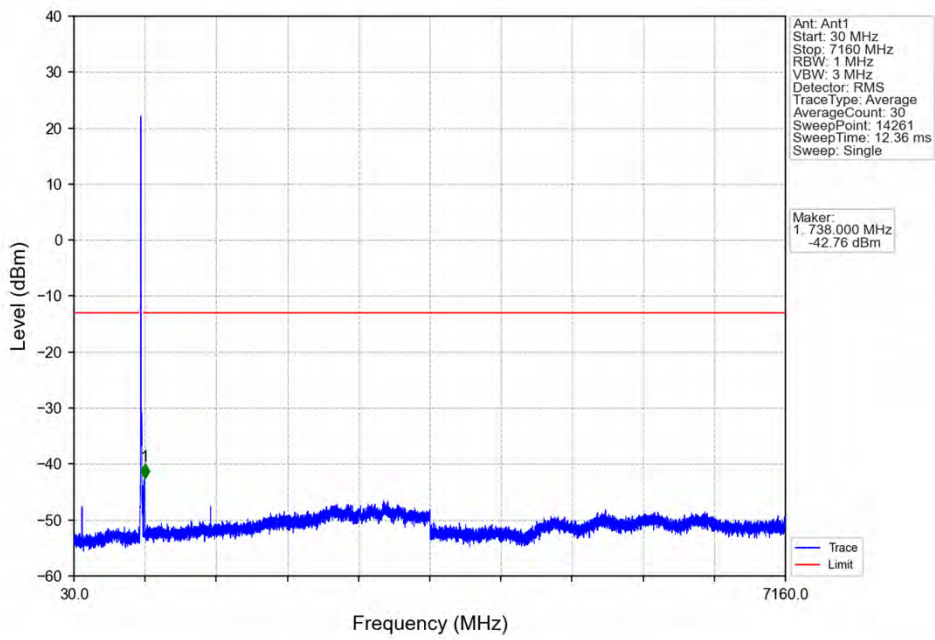


Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_1\_0\_NTNV

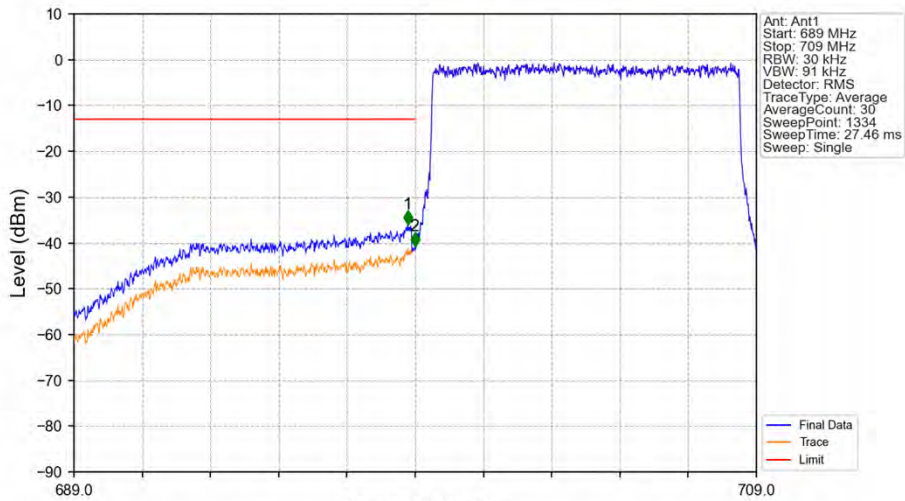




Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_1\_0\_NTNV

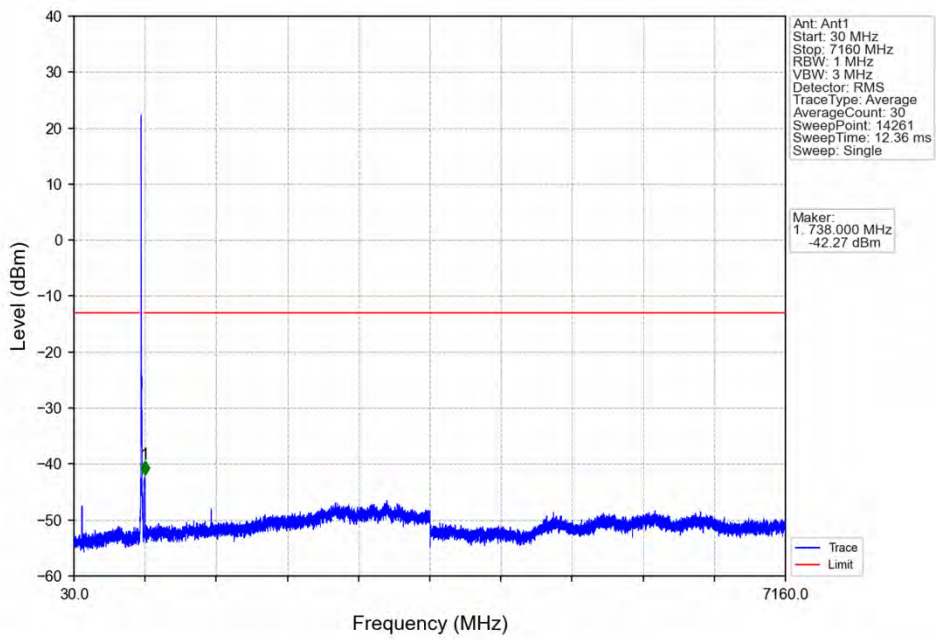


Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_50\_0\_NTNV

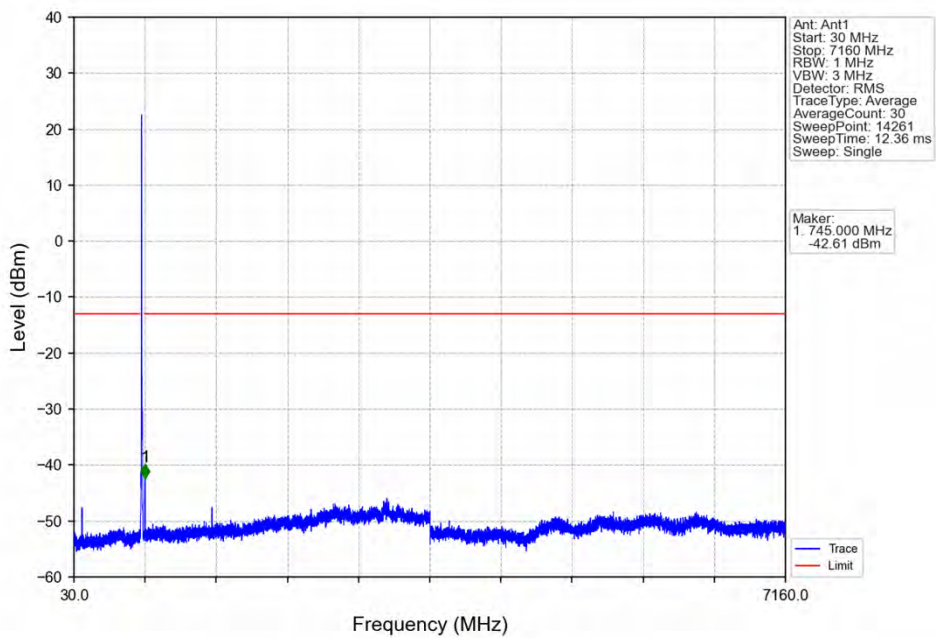


Frequency (MHz)								
Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
689	698.9	0.1	5.23	1	698.782	-35.96	-13	Pass
698.9	699	0.03	0	2	698.992	-40.71	-13	Pass
699	709	0.03	0	/	/	/	/	/

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

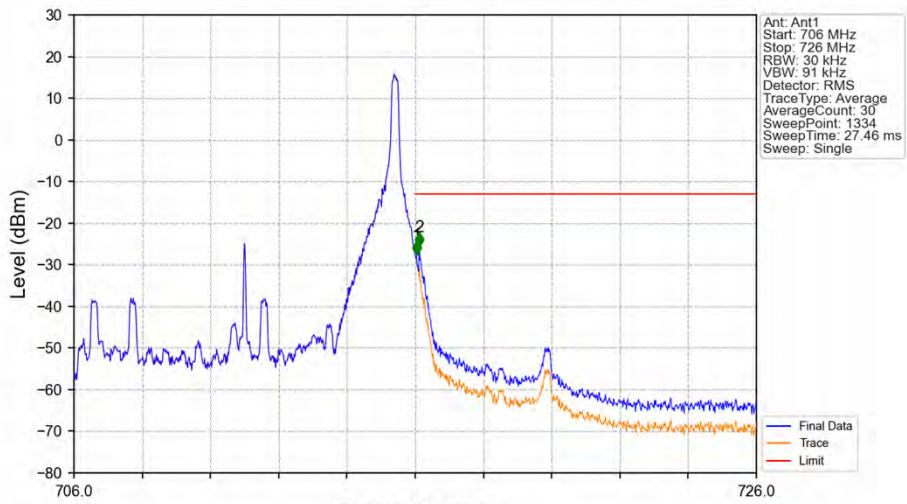


Band12\_10MHz\_16QAM\_HCH\_711MHz\_RB\_1\_0\_NTNV



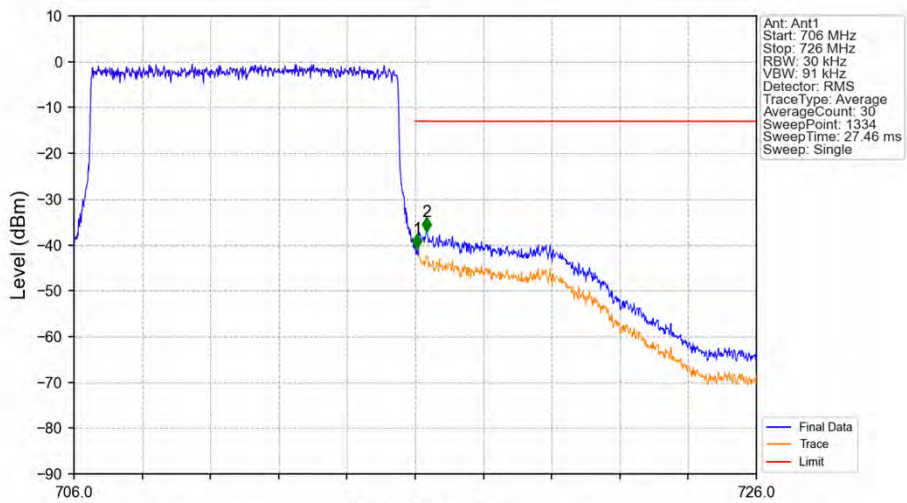


Band12\_10MHz\_16QAM\_HCH\_711MHz\_RB\_1\_49\_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	0	1	716.038	-27.68	-13	Pass
716.1	726	0.1	5.23	2	716.128	-25.73	-13	Pass

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



Start (MHz)	Stop (MHz)	RBW (MHz)	RBW Factor(dB)	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	0	1	716.053	-40.76	-13	Pass
716.1	726	0.1	5.23	2	716.338	-37.14	-13	Pass

## 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	0.2576	0.0074	ppm	1M11G7D	27H	24.11
12	1.4	699.7	715.3	0.2138	0.0083	ppm	1M12W7D	27H	23.30
12	3	700.5	714.5	0.2328	0.0056	ppm	2M75G7D	27H	23.67
12	3	700.5	714.5	0.2094	0.0045	ppm	2M73W7D	27H	23.21
12	5	701.5	713.5	0.2477	0.0063	ppm	4M55G7D	27H	23.94
12	5	701.5	713.5	0.2028	0.0074	ppm	4M57W7D	27H	23.07
12	10	704	711	0.2399	0.0049	ppm	9M08G7D	27H	23.80
12	10	704	711	0.2148	0.0056	ppm	9M08W7D	27H	23.32

### 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	0.1462	0.0074	ppm	1M11G7D	27H	21.65
12	1.4	699.7	715.3	0.1213	0.0083	ppm	1M12W7D	27H	20.84
12	3	700.5	714.5	0.1321	0.0056	ppm	2M75G7D	27H	21.21
12	3	700.5	714.5	0.1189	0.0045	ppm	2M73W7D	27H	20.75
12	5	701.5	713.5	0.1406	0.0063	ppm	4M55G7D	27H	21.48
12	5	701.5	713.5	0.1151	0.0074	ppm	4M57W7D	27H	20.61
12	10	704	711	0.1361	0.0049	ppm	9M08G7D	27H	21.34
12	10	704	711	0.1219	0.0056	ppm	9M08W7D	27H	20.86