

# 1. Effective (Isotropic) Radiated Power Output Data

## 1.1 B12\_1.4MHz\_ERP

### 1.1.1 Test Result

Band: 12 / Bandwidth: 1.4MHz / NTN										
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	699.7	1	0	22.50	0.42	20.77	<=34.77	Pass		
			2	22.59	0.42	20.86	<=34.77	Pass		
			5	22.48	0.42	20.75	<=34.77	Pass		
		3	0	22.48	0.42	20.75	<=34.77	Pass		
			2	22.52	0.42	20.79	<=34.77	Pass		
			3	22.51	0.42	20.78	<=34.77	Pass		
		6	0	21.50	0.42	19.77	<=34.77	Pass		
		707.5	1	0	22.62	0.42	20.89	<=34.77	Pass	
				2	22.76	0.42	21.03	<=34.77	Pass	
	5			22.61	0.42	20.88	<=34.77	Pass		
	3		0	22.59	0.42	20.86	<=34.77	Pass		
			2	22.65	0.42	20.92	<=34.77	Pass		
			3	22.56	0.42	20.83	<=34.77	Pass		
	6		0	21.68	0.42	19.95	<=34.77	Pass		
	715.3		1	0	22.67	0.42	20.94	<=34.77	Pass	
				2	22.79	0.42	21.06	<=34.77	Pass	
		5		22.72	0.42	20.99	<=34.77	Pass		
		3	0	22.62	0.42	20.89	<=34.77	Pass		
			2	22.60	0.42	20.87	<=34.77	Pass		
			3	22.46	0.42	20.73	<=34.77	Pass		
		6	0	21.36	0.42	19.63	<=34.77	Pass		
		16QAM	699.7	1	0	21.38	0.42	19.65	<=34.77	Pass
					2	21.49	0.42	19.76	<=34.77	Pass
	5				21.46	0.42	19.73	<=34.77	Pass	
3	0			21.50	0.42	19.77	<=34.77	Pass		
	2			21.51	0.42	19.78	<=34.77	Pass		
	3			21.51	0.42	19.78	<=34.77	Pass		
6	0			20.40	0.42	18.67	<=34.77	Pass		
707.5	1			0	21.63	0.42	19.90	<=34.77	Pass	
				2	21.77	0.42	20.04	<=34.77	Pass	
			5	21.63	0.42	19.90	<=34.77	Pass		
	3		0	21.49	0.42	19.76	<=34.77	Pass		
			2	21.53	0.42	19.80	<=34.77	Pass		
			3	21.49	0.42	19.76	<=34.77	Pass		
	6		0	20.54	0.42	18.81	<=34.77	Pass		
	715.3		1	0	21.17	0.42	19.44	<=34.77	Pass	
				2	21.25	0.42	19.52	<=34.77	Pass	
5				21.07	0.42	19.34	<=34.77	Pass		
3			0	21.39	0.42	19.66	<=34.77	Pass		
			2	21.42	0.42	19.69	<=34.77	Pass		
			3	21.31	0.42	19.58	<=34.77	Pass		
6			0	20.23	0.42	18.50	<=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	22.64	0.42	20.91	<=34.77	Pass		
			7	22.75	0.42	21.02	<=34.77	Pass		
			14	22.66	0.42	20.93	<=34.77	Pass		
		8	0	21.59	0.42	19.86	<=34.77	Pass		
			4	21.61	0.42	19.88	<=34.77	Pass		
			7	21.56	0.42	19.83	<=34.77	Pass		
		15	0	21.56	0.42	19.83	<=34.77	Pass		
		707.5	1	0	22.71	0.42	20.98	<=34.77	Pass	
				7	22.86	0.42	21.13	<=34.77	Pass	
	14			22.74	0.42	21.01	<=34.77	Pass		
	8		0	21.69	0.42	19.96	<=34.77	Pass		
			4	21.76	0.42	20.03	<=34.77	Pass		
			7	21.77	0.42	20.04	<=34.77	Pass		
	15		0	21.66	0.42	19.93	<=34.77	Pass		
	714.5		1	0	22.77	0.42	21.04	<=34.77	Pass	
				7	22.95	0.42	21.22	<=34.77	Pass	
		14		22.85	0.42	21.12	<=34.77	Pass		
		8	0	21.46	0.42	19.73	<=34.77	Pass		
			4	21.63	0.42	19.90	<=34.77	Pass		
			7	21.36	0.42	19.63	<=34.77	Pass		
		15	0	21.27	0.42	19.54	<=34.77	Pass		
		16QAM	700.5	1	0	21.53	0.42	19.80	<=34.77	Pass
					7	21.71	0.42	19.98	<=34.77	Pass
	14				21.62	0.42	19.89	<=34.77	Pass	
8	0			20.59	0.42	18.86	<=34.77	Pass		
	4			20.62	0.42	18.89	<=34.77	Pass		
	7			20.57	0.42	18.84	<=34.77	Pass		
15	0			20.56	0.42	18.83	<=34.77	Pass		
707.5	1			0	21.72	0.42	19.99	<=34.77	Pass	
				7	21.89	0.42	20.16	<=34.77	Pass	
			14	21.77	0.42	20.04	<=34.77	Pass		
	8		0	20.56	0.42	18.83	<=34.77	Pass		
			4	20.63	0.42	18.90	<=34.77	Pass		
			7	20.63	0.42	18.90	<=34.77	Pass		
	15		0	20.57	0.42	18.84	<=34.77	Pass		
	714.5		1	0	21.73	0.42	20.00	<=34.77	Pass	
				7	21.80	0.42	20.07	<=34.77	Pass	
14				21.58	0.42	19.85	<=34.77	Pass		
8			0	20.37	0.42	18.64	<=34.77	Pass		
			4	20.43	0.42	18.70	<=34.77	Pass		
			7	20.36	0.42	18.63	<=34.77	Pass		
15			0	20.33	0.42	18.60	<=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
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Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	701.5	1	0	22.38	0.42	20.65	<=34.77	Pass		
			13	22.57	0.42	20.84	<=34.77	Pass		
			24	22.52	0.42	20.79	<=34.77	Pass		
		12	0	21.50	0.42	19.77	<=34.77	Pass		
			6	21.52	0.42	19.79	<=34.77	Pass		
			13	21.35	0.42	19.62	<=34.77	Pass		
		25	0	21.45	0.42	19.72	<=34.77	Pass		
		707.5	1	0	22.47	0.42	20.74	<=34.77	Pass	
				13	22.70	0.42	20.97	<=34.77	Pass	
	24			22.57	0.42	20.84	<=34.77	Pass		
	12		0	21.45	0.42	19.72	<=34.77	Pass		
			6	21.59	0.42	19.86	<=34.77	Pass		
			13	21.69	0.42	19.96	<=34.77	Pass		
	25		0	21.59	0.42	19.86	<=34.77	Pass		
	713.5		1	0	22.51	0.42	20.78	<=34.77	Pass	
				13	22.71	0.42	20.98	<=34.77	Pass	
		24		22.50	0.42	20.77	<=34.77	Pass		
		12	0	21.53	0.42	19.80	<=34.77	Pass		
			6	21.46	0.42	19.73	<=34.77	Pass		
			13	21.20	0.42	19.47	<=34.77	Pass		
		25	0	21.27	0.42	19.54	<=34.77	Pass		
		16QAM	701.5	1	0	21.39	0.42	19.66	<=34.77	Pass
					13	21.65	0.42	19.92	<=34.77	Pass
	24				21.51	0.42	19.78	<=34.77	Pass	
12	0			20.51	0.42	18.78	<=34.77	Pass		
	6			20.51	0.42	18.78	<=34.77	Pass		
	13			20.36	0.42	18.63	<=34.77	Pass		
25	0			20.48	0.42	18.75	<=34.77	Pass		
707.5	1			0	21.62	0.42	19.89	<=34.77	Pass	
				13	21.77	0.42	20.04	<=34.77	Pass	
			24	21.66	0.42	19.93	<=34.77	Pass		
	12		0	20.48	0.42	18.75	<=34.77	Pass		
			6	20.52	0.42	18.79	<=34.77	Pass		
			13	20.65	0.42	18.92	<=34.77	Pass		
	25		0	20.51	0.42	18.78	<=34.77	Pass		
	713.5		1	0	21.00	0.42	19.27	<=34.77	Pass	
				13	21.14	0.42	19.41	<=34.77	Pass	
24				20.89	0.42	19.16	<=34.77	Pass		
12			0	20.24	0.42	18.51	<=34.77	Pass		
			6	20.27	0.42	18.54	<=34.77	Pass		
			13	20.13	0.42	18.40	<=34.77	Pass		
25			0	20.21	0.42	18.48	<=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	22.44	0.42	20.71	<=34.77	Pass
			25	22.83	0.42	21.10	<=34.77	Pass

		25	49	22.69	0.42	20.96	<=34.77	Pass		
			0	21.86	0.42	20.13	<=34.77	Pass		
			13	21.64	0.42	19.91	<=34.77	Pass		
			25	21.74	0.42	20.01	<=34.77	Pass		
			50	21.81	0.42	20.08	<=34.77	Pass		
	707.5	1	25	0	22.46	0.42	20.73	<=34.77	Pass	
				25	22.85	0.42	21.12	<=34.77	Pass	
				49	22.63	0.42	20.90	<=34.77	Pass	
		25	25	0	21.53	0.42	19.80	<=34.77	Pass	
				13	21.63	0.42	19.90	<=34.77	Pass	
				25	21.67	0.42	19.94	<=34.77	Pass	
		50	21.64	0.42	19.91	<=34.77	Pass			
		711	1	25	0	22.58	0.42	20.85	<=34.77	Pass
					25	22.84	0.42	21.11	<=34.77	Pass
	49				22.68	0.42	20.95	<=34.77	Pass	
	25		25	0	21.12	0.42	19.39	<=34.77	Pass	
				13	21.60	0.42	19.87	<=34.77	Pass	
				25	21.39	0.42	19.66	<=34.77	Pass	
	50		21.33	0.42	19.60	<=34.77	Pass			
	16QAM		704	1	0	21.36	0.42	19.63	<=34.77	Pass
					25	21.74	0.42	20.01	<=34.77	Pass
		49			21.53	0.42	19.80	<=34.77	Pass	
		25		25	0	20.88	0.42	19.15	<=34.77	Pass
					13	20.66	0.42	18.93	<=34.77	Pass
					25	20.76	0.42	19.03	<=34.77	Pass
		50		20.79	0.42	19.06	<=34.77	Pass		
		707.5		1	25	0	21.58	0.42	19.85	<=34.77
25						21.82	0.42	20.09	<=34.77	Pass
49			21.59			0.42	19.86	<=34.77	Pass	
25			25	0	20.40	0.42	18.67	<=34.77	Pass	
				13	20.58	0.42	18.85	<=34.77	Pass	
				25	20.60	0.42	18.87	<=34.77	Pass	
50			20.62	0.42	18.89	<=34.77	Pass			
711			1	25	0	21.59	0.42	19.86	<=34.77	Pass
					25	22.00	0.42	20.27	<=34.77	Pass
		49			21.88	0.42	20.15	<=34.77	Pass	
		25	25	0	20.10	0.42	18.37	<=34.77	Pass	
				13	20.53	0.42	18.80	<=34.77	Pass	
				25	20.44	0.42	18.71	<=34.77	Pass	
		50	20.28	0.42	18.55	<=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	-21.815	-0.0312	-2.5 to 2.5	Pass				
									3.85	12.660	0.0181	-2.5 to 2.5	Pass
									4.43	-12.903	-0.0184	-2.5 to 2.5	Pass

				-30	3.85	-11.487	-0.0164	-2.5 to 2.5	Pass			
				-20	3.85	-7.925	-0.0113	-2.5 to 2.5	Pass			
				-10	3.85	-13.046	-0.0186	-2.5 to 2.5	Pass			
				0	3.85	-9.956	-0.0142	-2.5 to 2.5	Pass			
				10	3.85	-5.565	-0.0080	-2.5 to 2.5	Pass			
				30	3.85	-10.543	-0.0151	-2.5 to 2.5	Pass			
				40	3.85	-3.905	-0.0056	-2.5 to 2.5	Pass			
	50	3.85	-6.795	-0.0097	-2.5 to 2.5	Pass						
	707.5	6	0	20	3.27	-7.553	-0.0107	-2.5 to 2.5	Pass			
					3.85	-7.081	-0.0100	-2.5 to 2.5	Pass			
					4.43	-6.366	-0.0090	-2.5 to 2.5	Pass			
				-30	3.85	-3.605	-0.0051	-2.5 to 2.5	Pass			
				-20	3.85	-8.497	-0.0120	-2.5 to 2.5	Pass			
				-10	3.85	-7.653	-0.0108	-2.5 to 2.5	Pass			
				0	3.85	-9.770	-0.0138	-2.5 to 2.5	Pass			
				10	3.85	-6.065	-0.0086	-2.5 to 2.5	Pass			
				30	3.85	-4.606	-0.0065	-2.5 to 2.5	Pass			
				40	3.85	-4.420	-0.0062	-2.5 to 2.5	Pass			
				50	3.85	-5.565	-0.0079	-2.5 to 2.5	Pass			
				715.3	6	0	20	3.27	-1.574	-0.0022	-2.5 to 2.5	Pass
								3.85	-4.807	-0.0067	-2.5 to 2.5	Pass
								4.43	-9.642	-0.0135	-2.5 to 2.5	Pass
	-30	3.85	-6.051				-0.0085	-2.5 to 2.5	Pass			
	-20	3.85	-10.157				-0.0142	-2.5 to 2.5	Pass			
	-10	3.85	-10.128				-0.0142	-2.5 to 2.5	Pass			
	0	3.85	-6.967				-0.0097	-2.5 to 2.5	Pass			
	10	3.85	-3.819				-0.0053	-2.5 to 2.5	Pass			
30	3.85	-4.449	-0.0062				-2.5 to 2.5	Pass				
40	3.85	-2.475	-0.0035				-2.5 to 2.5	Pass				
50	3.85	-9.198	-0.0129				-2.5 to 2.5	Pass				
16QAM	699.7	6	0	20	3.27	-10.085	-0.0144	-2.5 to 2.5	Pass			
					3.85	-5.064	-0.0072	-2.5 to 2.5	Pass			
					4.43	-10.772	-0.0154	-2.5 to 2.5	Pass			
				-30	3.85	-6.351	-0.0091	-2.5 to 2.5	Pass			
				-20	3.85	-7.968	-0.0114	-2.5 to 2.5	Pass			
				-10	3.85	3.934	0.0056	-2.5 to 2.5	Pass			
				0	3.85	-3.161	-0.0045	-2.5 to 2.5	Pass			
				10	3.85	-1.173	-0.0017	-2.5 to 2.5	Pass			
				30	3.85	0.300	0.0004	-2.5 to 2.5	Pass			
				40	3.85	-0.801	-0.0011	-2.5 to 2.5	Pass			
				50	3.85	-7.954	-0.0114	-2.5 to 2.5	Pass			
				707.5	6	0	20	3.27	-5.879	-0.0083	-2.5 to 2.5	Pass
								3.85	-8.140	-0.0115	-2.5 to 2.5	Pass
								4.43	-14.749	-0.0208	-2.5 to 2.5	Pass
	-30	3.85	-10.786				-0.0152	-2.5 to 2.5	Pass			
	-20	3.85	-9.241				-0.0131	-2.5 to 2.5	Pass			
	-10	3.85	-5.336				-0.0075	-2.5 to 2.5	Pass			
	0	3.85	2.604				0.0037	-2.5 to 2.5	Pass			
	10	3.85	-2.918				-0.0041	-2.5 to 2.5	Pass			
	30	3.85	-5.894				-0.0083	-2.5 to 2.5	Pass			
	40	3.85	-12.288				-0.0174	-2.5 to 2.5	Pass			
	50	3.85	-6.237				-0.0088	-2.5 to 2.5	Pass			
	715.3	6	0				20	3.27	-8.740	-0.0122	-2.5 to 2.5	Pass
								3.85	-11.358	-0.0159	-2.5 to 2.5	Pass
				4.43	-4.206	-0.0059		-2.5 to 2.5	Pass			
				-30	3.85	-4.220	-0.0059	-2.5 to 2.5	Pass			
	-20	3.85	-5.479	-0.0077	-2.5 to 2.5	Pass						

				-10	3.85	-10.614	-0.0148	-2.5 to 2.5	Pass
				0	3.85	-6.123	-0.0086	-2.5 to 2.5	Pass
				10	3.85	-5.908	-0.0083	-2.5 to 2.5	Pass
				30	3.85	-5.178	-0.0072	-2.5 to 2.5	Pass
				40	3.85	-4.792	-0.0067	-2.5 to 2.5	Pass
				50	3.85	0.730	0.0010	-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	-6.552	-0.0094	-2.5 to 2.5	Pass
					3.85	-7.081	-0.0101	-2.5 to 2.5	Pass
					4.43	-8.898	-0.0127	-2.5 to 2.5	Pass
				-30	3.85	-8.740	-0.0125	-2.5 to 2.5	Pass
				-20	3.85	-9.599	-0.0137	-2.5 to 2.5	Pass
				-10	3.85	-7.396	-0.0106	-2.5 to 2.5	Pass
				0	3.85	-5.722	-0.0082	-2.5 to 2.5	Pass
				10	3.85	-7.181	-0.0103	-2.5 to 2.5	Pass
				30	3.85	-4.749	-0.0068	-2.5 to 2.5	Pass
				40	3.85	-18.511	-0.0264	-2.5 to 2.5	Pass
	50	3.85	-7.324	-0.0105	-2.5 to 2.5	Pass			
	707.5	15	0	20	3.27	-4.907	-0.0069	-2.5 to 2.5	Pass
					3.85	-7.768	-0.0110	-2.5 to 2.5	Pass
					4.43	-6.309	-0.0089	-2.5 to 2.5	Pass
				-30	3.85	-5.021	-0.0071	-2.5 to 2.5	Pass
				-20	3.85	-7.081	-0.0100	-2.5 to 2.5	Pass
				-10	3.85	-11.644	-0.0165	-2.5 to 2.5	Pass
				0	3.85	-7.281	-0.0103	-2.5 to 2.5	Pass
				10	3.85	-3.133	-0.0044	-2.5 to 2.5	Pass
				30	3.85	-4.177	-0.0059	-2.5 to 2.5	Pass
				40	3.85	-8.512	-0.0120	-2.5 to 2.5	Pass
	50	3.85	-7.625	-0.0108	-2.5 to 2.5	Pass			
	714.5	15	0	20	3.27	-6.552	-0.0092	-2.5 to 2.5	Pass
					3.85	-9.155	-0.0128	-2.5 to 2.5	Pass
					4.43	-2.632	-0.0037	-2.5 to 2.5	Pass
				-30	3.85	-5.264	-0.0074	-2.5 to 2.5	Pass
				-20	3.85	-13.375	-0.0187	-2.5 to 2.5	Pass
				-10	3.85	-8.054	-0.0113	-2.5 to 2.5	Pass
				0	3.85	-7.210	-0.0101	-2.5 to 2.5	Pass
				10	3.85	-9.327	-0.0131	-2.5 to 2.5	Pass
30				3.85	-12.474	-0.0175	-2.5 to 2.5	Pass	
40				3.85	-9.928	-0.0139	-2.5 to 2.5	Pass	
50	3.85	-6.208	-0.0087	-2.5 to 2.5	Pass				
16QAM	700.5	15	0	20	3.27	-8.397	-0.0120	-2.5 to 2.5	Pass
					3.85	-3.719	-0.0053	-2.5 to 2.5	Pass
					4.43	-4.907	-0.0070	-2.5 to 2.5	Pass
				-30	3.85	-1.030	-0.0015	-2.5 to 2.5	Pass
				-20	3.85	-7.024	-0.0100	-2.5 to 2.5	Pass
				-10	3.85	-9.341	-0.0133	-2.5 to 2.5	Pass
				0	3.85	-4.148	-0.0059	-2.5 to 2.5	Pass
10	3.85	-10.214	-0.0146	-2.5 to 2.5	Pass				

	707.5	15	0	30	3.85	-5.865	-0.0084	-2.5 to 2.5	Pass
				40	3.85	-12.760	-0.0182	-2.5 to 2.5	Pass
				50	3.85	-3.977	-0.0057	-2.5 to 2.5	Pass
				20	3.27	-5.207	-0.0074	-2.5 to 2.5	Pass
					3.85	-6.194	-0.0088	-2.5 to 2.5	Pass
					4.43	-6.723	-0.0095	-2.5 to 2.5	Pass
				-30	3.85	-6.866	-0.0097	-2.5 to 2.5	Pass
				-20	3.85	-11.830	-0.0167	-2.5 to 2.5	Pass
				-10	3.85	-6.695	-0.0095	-2.5 to 2.5	Pass
				0	3.85	-2.217	-0.0031	-2.5 to 2.5	Pass
				10	3.85	-5.150	-0.0073	-2.5 to 2.5	Pass
				30	3.85	-6.294	-0.0089	-2.5 to 2.5	Pass
	40	3.85	-7.997	-0.0113	-2.5 to 2.5	Pass			
	50	3.85	-5.193	-0.0073	-2.5 to 2.5	Pass			
	714.5	15	0	20	3.27	-11.444	-0.0160	-2.5 to 2.5	Pass
					3.85	-11.129	-0.0156	-2.5 to 2.5	Pass
					4.43	-11.730	-0.0164	-2.5 to 2.5	Pass
				-30	3.85	-2.618	-0.0037	-2.5 to 2.5	Pass
				-20	3.85	-3.934	-0.0055	-2.5 to 2.5	Pass
				-10	3.85	-10.529	-0.0147	-2.5 to 2.5	Pass
				0	3.85	-2.146	-0.0030	-2.5 to 2.5	Pass
				10	3.85	-2.303	-0.0032	-2.5 to 2.5	Pass
				30	3.85	-3.891	-0.0054	-2.5 to 2.5	Pass
				40	3.85	-6.809	-0.0095	-2.5 to 2.5	Pass
50				3.85	-10.743	-0.0150	-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	-2.046	-0.0029	-2.5 to 2.5	Pass
					3.85	-5.035	-0.0072	-2.5 to 2.5	Pass
					4.43	-7.238	-0.0103	-2.5 to 2.5	Pass
				-30	3.85	-6.738	-0.0096	-2.5 to 2.5	Pass
				-20	3.85	-6.967	-0.0099	-2.5 to 2.5	Pass
				-10	3.85	-8.669	-0.0124	-2.5 to 2.5	Pass
				0	3.85	-6.237	-0.0089	-2.5 to 2.5	Pass
				10	3.85	-6.337	-0.0090	-2.5 to 2.5	Pass
				30	3.85	-5.250	-0.0075	-2.5 to 2.5	Pass
				40	3.85	-3.991	-0.0057	-2.5 to 2.5	Pass
				50	3.85	-6.795	-0.0097	-2.5 to 2.5	Pass
				707.5	25	0	20	3.27	-5.579
	3.85	-5.622	-0.0079					-2.5 to 2.5	Pass
	4.43	-7.467	-0.0106					-2.5 to 2.5	Pass
	-30	3.85	-3.676				-0.0052	-2.5 to 2.5	Pass
	-20	3.85	-4.048				-0.0057	-2.5 to 2.5	Pass
	-10	3.85	-7.367				-0.0104	-2.5 to 2.5	Pass
	0	3.85	-2.618				-0.0037	-2.5 to 2.5	Pass
	10	3.85	-2.275				-0.0032	-2.5 to 2.5	Pass
	30	3.85	-2.203				-0.0031	-2.5 to 2.5	Pass
	40	3.85	-5.007				-0.0071	-2.5 to 2.5	Pass
	50	3.85	-2.489				-0.0035	-2.5 to 2.5	Pass

	713.5	25	0	20	3.27	-5.708	-0.0080	-2.5 to 2.5	Pass	
					3.85	-6.166	-0.0086	-2.5 to 2.5	Pass	
					4.43	-6.237	-0.0087	-2.5 to 2.5	Pass	
				-30	3.85	-7.024	-0.0098	-2.5 to 2.5	Pass	
					-20	3.85	-6.466	-0.0091	-2.5 to 2.5	Pass
						-10	3.85	-6.423	-0.0090	-2.5 to 2.5
				0	3.85	-4.377	-0.0061	-2.5 to 2.5	Pass	
					10	3.85	-5.679	-0.0080	-2.5 to 2.5	Pass
					30	3.85	-3.805	-0.0053	-2.5 to 2.5	Pass
40	3.85	-8.225	-0.0115	-2.5 to 2.5	Pass					
	50	3.85	-9.313	-0.0131	-2.5 to 2.5	Pass				
	20	3.27	-9.212	-0.0131	-2.5 to 2.5	Pass				
3.85		-5.679	-0.0081	-2.5 to 2.5	Pass					
4.43		-2.804	-0.0040	-2.5 to 2.5	Pass					
-30	3.85	-8.612	-0.0123	-2.5 to 2.5	Pass					
	-20	3.85	-10.929	-0.0156	-2.5 to 2.5	Pass				
		-10	3.85	-6.666	-0.0095	-2.5 to 2.5	Pass			
0	3.85	-8.254	-0.0118	-2.5 to 2.5	Pass					
	10	3.85	-9.513	-0.0136	-2.5 to 2.5	Pass				
	30	3.85	-5.794	-0.0083	-2.5 to 2.5	Pass				
40	3.85	-5.765	-0.0082	-2.5 to 2.5	Pass					
	50	3.85	-9.398	-0.0134	-2.5 to 2.5	Pass				
	20	3.27	-4.792	-0.0068	-2.5 to 2.5	Pass				
3.85		-5.136	-0.0073	-2.5 to 2.5	Pass					
4.43		-4.835	-0.0068	-2.5 to 2.5	Pass					
-30	3.85	-8.168	-0.0115	-2.5 to 2.5	Pass					
	-20	3.85	-3.619	-0.0051	-2.5 to 2.5	Pass				
		-10	3.85	-4.835	-0.0068	-2.5 to 2.5	Pass			
0	3.85	-8.025	-0.0113	-2.5 to 2.5	Pass					
	10	3.85	-1.745	-0.0025	-2.5 to 2.5	Pass				
	30	3.85	-5.851	-0.0083	-2.5 to 2.5	Pass				
40	3.85	-3.963	-0.0056	-2.5 to 2.5	Pass					
	50	3.85	-8.440	-0.0119	-2.5 to 2.5	Pass				
	20	3.27	-7.839	-0.0110	-2.5 to 2.5	Pass				
3.85		-11.287	-0.0158	-2.5 to 2.5	Pass					
4.43		-9.141	-0.0128	-2.5 to 2.5	Pass					
-30	3.85	-7.367	-0.0103	-2.5 to 2.5	Pass					
	-20	3.85	-14.119	-0.0198	-2.5 to 2.5	Pass				
		-10	3.85	-11.873	-0.0166	-2.5 to 2.5	Pass			
0	3.85	-3.948	-0.0055	-2.5 to 2.5	Pass					
	10	3.85	-6.981	-0.0098	-2.5 to 2.5	Pass				
	30	3.85	-3.705	-0.0052	-2.5 to 2.5	Pass				
40	3.85	-8.025	-0.0112	-2.5 to 2.5	Pass					
	50	3.85	-6.037	-0.0085	-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	-2.732	-0.0039	-2.5 to 2.5	Pass
					3.85	-5.622	-0.0080	-2.5 to 2.5	Pass
					4.43	-4.878	-0.0069	-2.5 to 2.5	Pass



				-30	3.85	-5.708	-0.0081	-2.5 to 2.5	Pass			
				-20	3.85	-3.691	-0.0052	-2.5 to 2.5	Pass			
				-10	3.85	-9.270	-0.0132	-2.5 to 2.5	Pass			
				0	3.85	-6.337	-0.0090	-2.5 to 2.5	Pass			
				10	3.85	-3.891	-0.0055	-2.5 to 2.5	Pass			
				30	3.85	-6.137	-0.0087	-2.5 to 2.5	Pass			
				40	3.85	-6.723	-0.0095	-2.5 to 2.5	Pass			
	50	3.85	-7.381	-0.0105	-2.5 to 2.5	Pass						
	707.5	50	0	20	3.27	-6.166	-0.0087	-2.5 to 2.5	Pass			
					3.85	-7.567	-0.0107	-2.5 to 2.5	Pass			
					4.43	-8.540	-0.0121	-2.5 to 2.5	Pass			
				-30	3.85	-4.563	-0.0064	-2.5 to 2.5	Pass			
				-20	3.85	-4.992	-0.0071	-2.5 to 2.5	Pass			
				-10	3.85	-6.137	-0.0087	-2.5 to 2.5	Pass			
				0	3.85	-7.281	-0.0103	-2.5 to 2.5	Pass			
				10	3.85	-4.449	-0.0063	-2.5 to 2.5	Pass			
				30	3.85	-7.381	-0.0104	-2.5 to 2.5	Pass			
				40	3.85	-2.575	-0.0036	-2.5 to 2.5	Pass			
				50	3.85	-3.905	-0.0055	-2.5 to 2.5	Pass			
				711	50	0	20	3.27	-8.268	-0.0116	-2.5 to 2.5	Pass
								3.85	-5.794	-0.0081	-2.5 to 2.5	Pass
								4.43	-6.895	-0.0097	-2.5 to 2.5	Pass
	-30	3.85	-9.112				-0.0128	-2.5 to 2.5	Pass			
	-20	3.85	-6.351				-0.0089	-2.5 to 2.5	Pass			
	-10	3.85	-6.194				-0.0087	-2.5 to 2.5	Pass			
	0	3.85	-3.462				-0.0049	-2.5 to 2.5	Pass			
	10	3.85	-4.106				-0.0058	-2.5 to 2.5	Pass			
30	3.85	-2.518	-0.0035				-2.5 to 2.5	Pass				
40	3.85	-1.631	-0.0023				-2.5 to 2.5	Pass				
50	3.85	-7.095	-0.0100				-2.5 to 2.5	Pass				
16QAM	704	50	0	20	3.27	-6.738	-0.0096	-2.5 to 2.5	Pass			
					3.85	-3.405	-0.0048	-2.5 to 2.5	Pass			
					4.43	-10.929	-0.0155	-2.5 to 2.5	Pass			
				-30	3.85	-10.786	-0.0153	-2.5 to 2.5	Pass			
				-20	3.85	-7.911	-0.0112	-2.5 to 2.5	Pass			
				-10	3.85	-4.678	-0.0066	-2.5 to 2.5	Pass			
				0	3.85	-2.346	-0.0033	-2.5 to 2.5	Pass			
				10	3.85	-4.449	-0.0063	-2.5 to 2.5	Pass			
				30	3.85	-4.478	-0.0064	-2.5 to 2.5	Pass			
				40	3.85	-3.462	-0.0049	-2.5 to 2.5	Pass			
				50	3.85	-6.166	-0.0088	-2.5 to 2.5	Pass			
				707.5	50	0	20	3.27	-4.449	-0.0063	-2.5 to 2.5	Pass
								3.85	-4.406	-0.0062	-2.5 to 2.5	Pass
								4.43	-6.151	-0.0087	-2.5 to 2.5	Pass
	-30	3.85	-4.835				-0.0068	-2.5 to 2.5	Pass			
	-20	3.85	-3.748				-0.0053	-2.5 to 2.5	Pass			
	-10	3.85	-5.565				-0.0079	-2.5 to 2.5	Pass			
	0	3.85	-8.111				-0.0115	-2.5 to 2.5	Pass			
	10	3.85	-5.136				-0.0073	-2.5 to 2.5	Pass			
	30	3.85	-3.834				-0.0054	-2.5 to 2.5	Pass			
	40	3.85	-5.007				-0.0071	-2.5 to 2.5	Pass			
	50	3.85	-7.868				-0.0111	-2.5 to 2.5	Pass			
	711	50	0	20	3.27	-4.506	-0.0063	-2.5 to 2.5	Pass			
					3.85	-5.679	-0.0080	-2.5 to 2.5	Pass			
					4.43	-5.765	-0.0081	-2.5 to 2.5	Pass			
				-30	3.85	-3.304	-0.0046	-2.5 to 2.5	Pass			
				-20	3.85	-8.283	-0.0116	-2.5 to 2.5	Pass			

				-10	3.85	-5.407	-0.0076	-2.5 to 2.5	Pass
				0	3.85	-1.488	-0.0021	-2.5 to 2.5	Pass
				10	3.85	-5.293	-0.0074	-2.5 to 2.5	Pass
				30	3.85	-5.322	-0.0075	-2.5 to 2.5	Pass
				40	3.85	-5.178	-0.0073	-2.5 to 2.5	Pass
				50	3.85	-6.623	-0.0093	-2.5 to 2.5	Pass

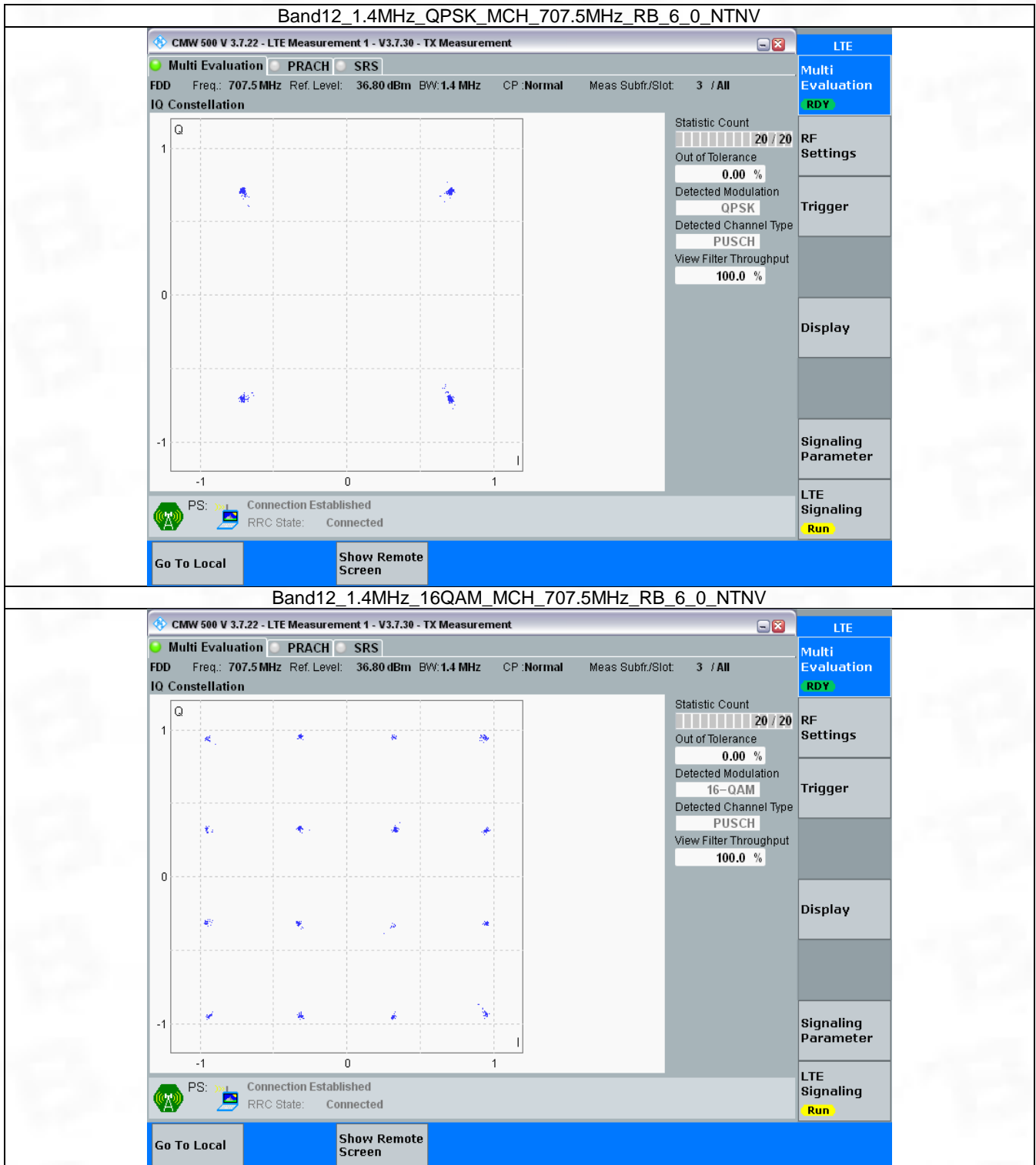
### 3. Modulation Characteristics

#### 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

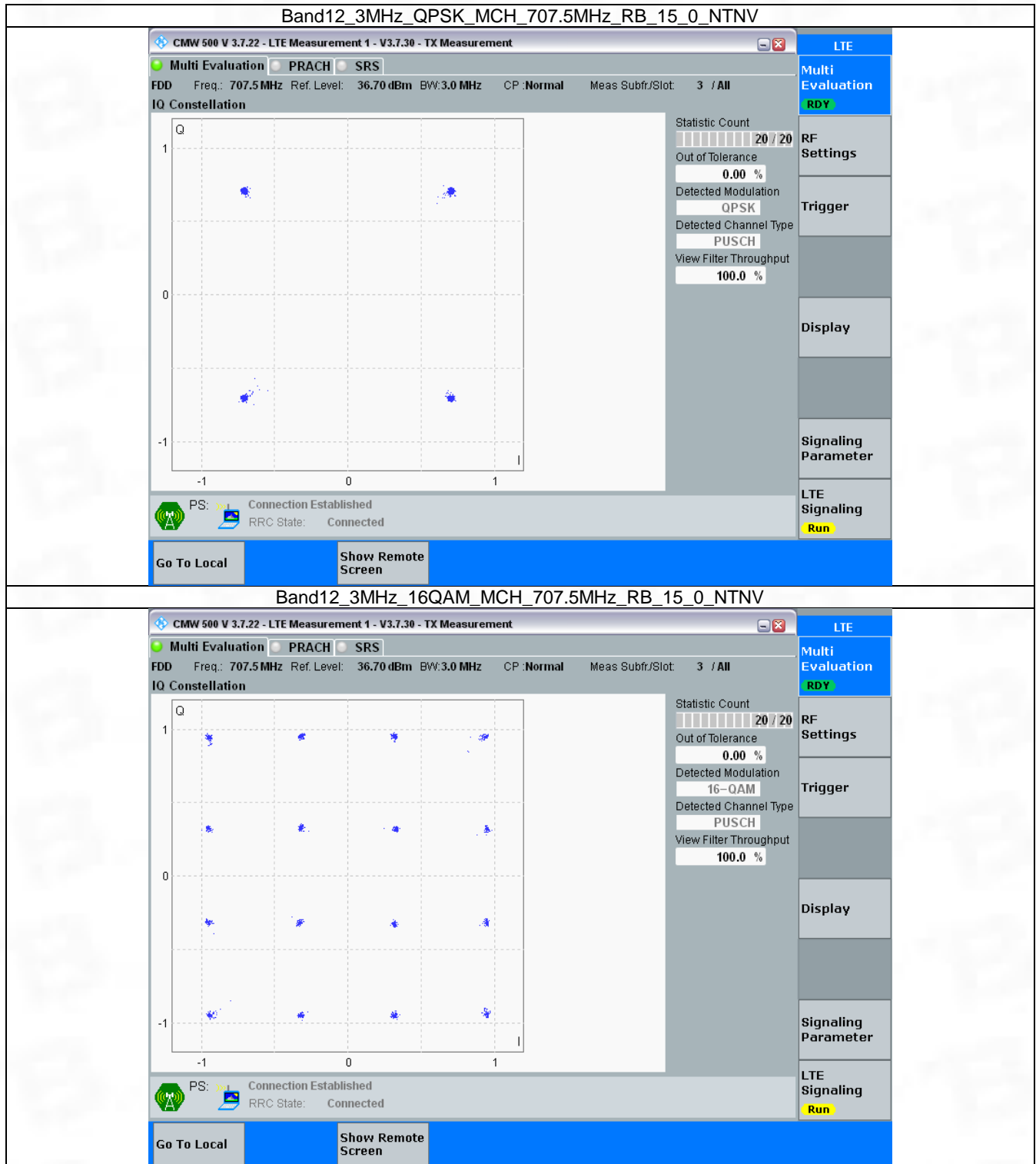


## 3.2 B12\_3MHz

### 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

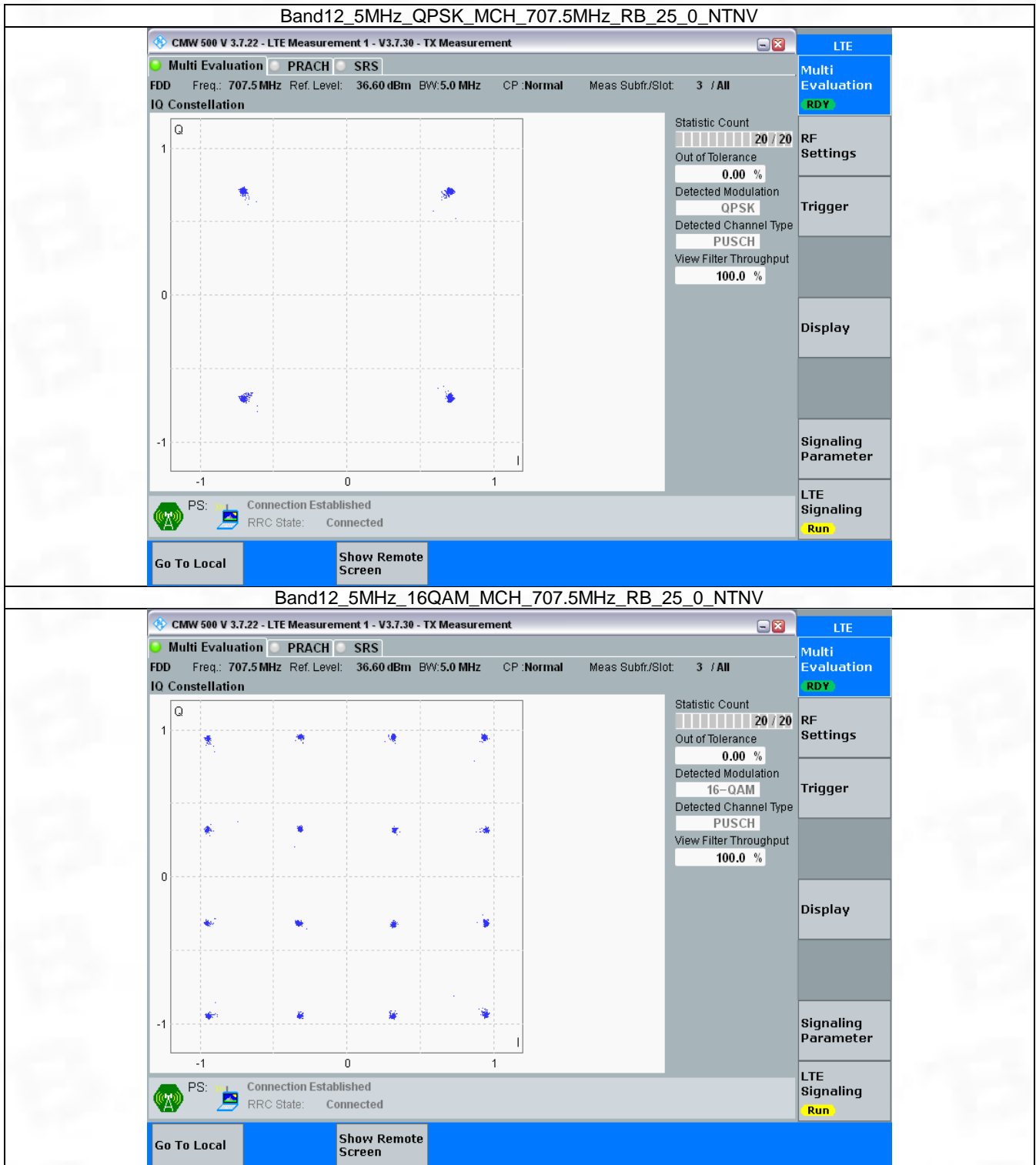


### 3.3 B12\_5MHz

#### 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



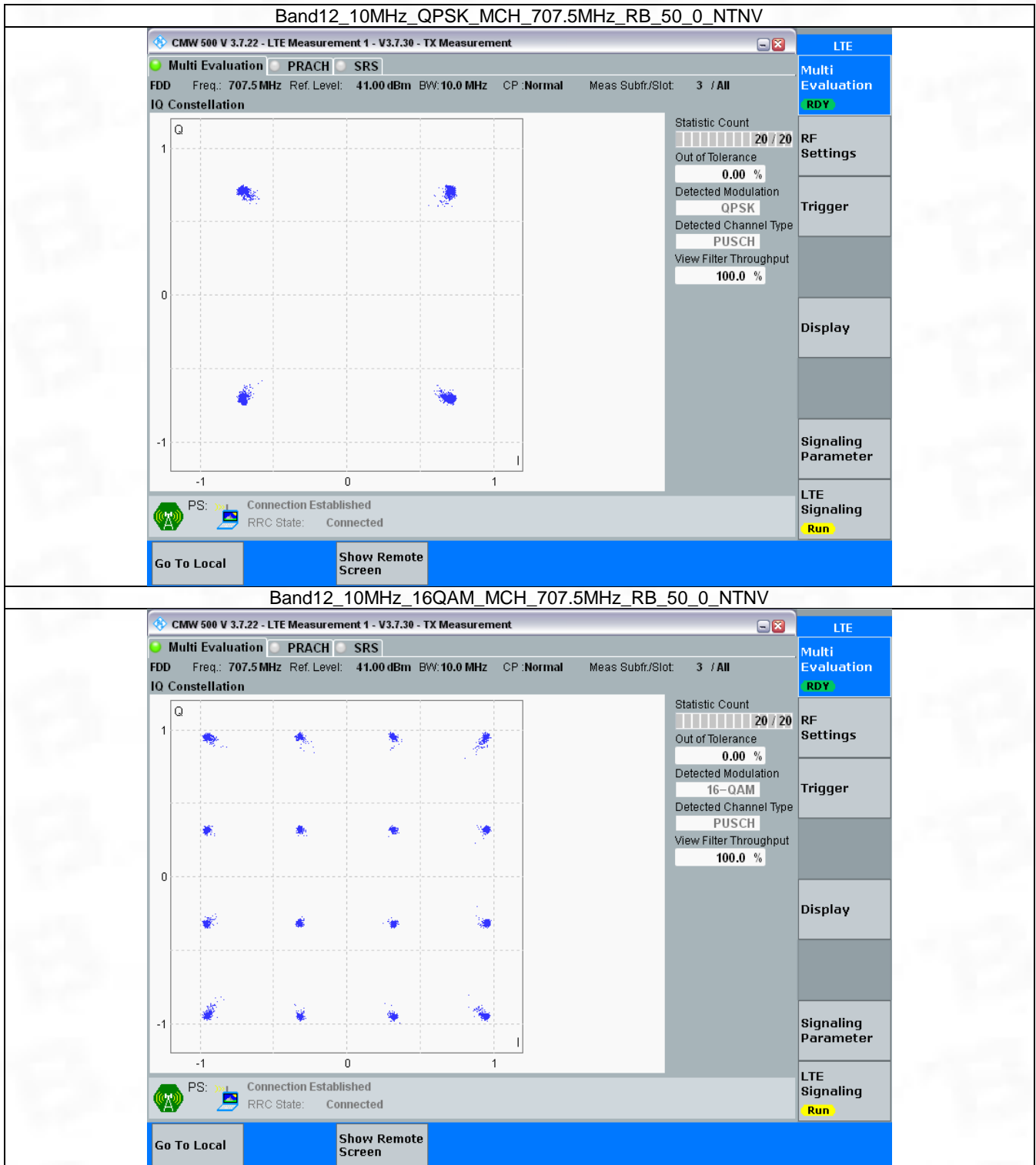
### 3.4 B12\_10MHz

#### 3.4.1 Test Result

Band: 12 / Bandwidth: 10MHz / NTV						
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



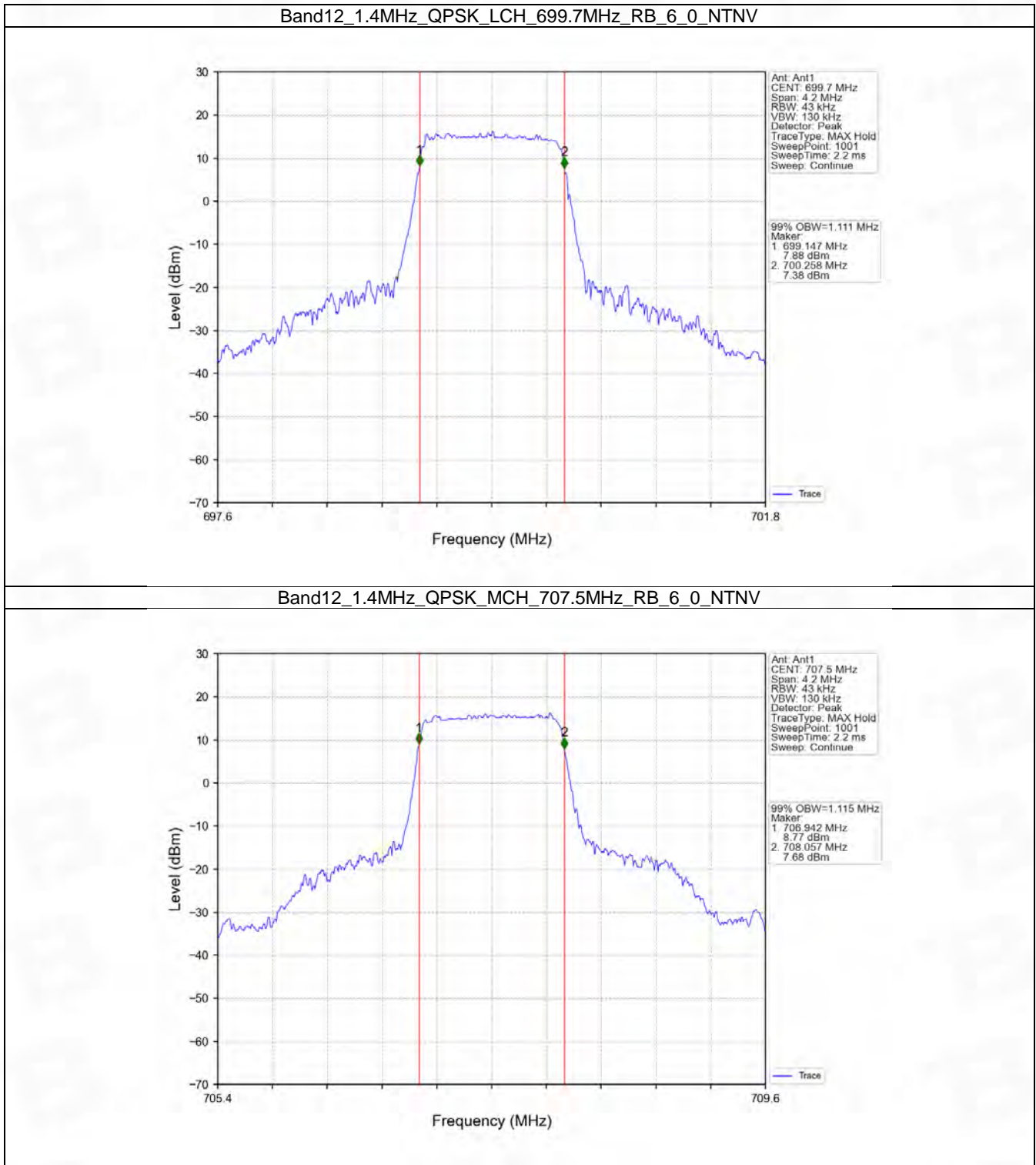
## 4. 99% & 26dB Bandwidth

### 4.1 Band12\_OBW

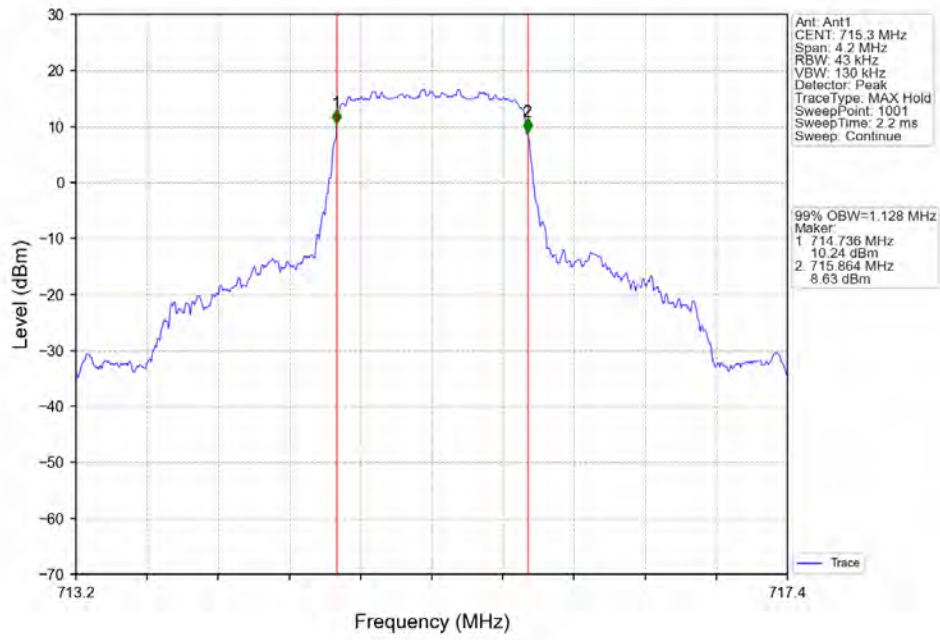
#### 4.1.1 Test Result

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	1.111	/	Pass
		707.5	6	0	1.115	/	Pass
		715.3	6	0	1.128	/	Pass
	16QAM	699.7	6	0	1.105	/	Pass
		707.5	6	0	1.121	/	Pass
		715.3	6	0	1.106	/	Pass
3	QPSK	700.5	15	0	2.727	/	Pass
		707.5	15	0	2.727	/	Pass
		714.5	15	0	2.727	/	Pass
	16QAM	700.5	15	0	2.716	/	Pass
		707.5	15	0	2.726	/	Pass
		714.5	15	0	2.723	/	Pass
5	QPSK	701.5	25	0	4.563	/	Pass
		707.5	25	0	4.559	/	Pass
		713.5	25	0	4.606	/	Pass
	16QAM	701.5	25	0	4.585	/	Pass
		707.5	25	0	4.591	/	Pass
		713.5	25	0	4.568	/	Pass
10	QPSK	704	50	0	9.156	/	Pass
		707.5	50	0	9.035	/	Pass
		711	50	0	9.050	/	Pass
	16QAM	704	50	0	9.137	/	Pass
		707.5	50	0	9.066	/	Pass
		711	50	0	9.003	/	Pass

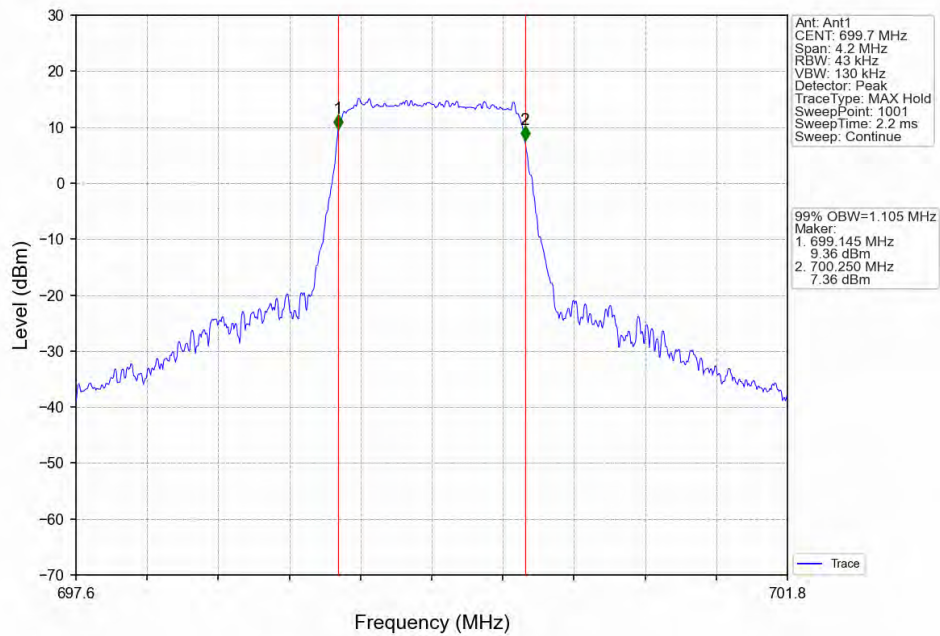
### 4.1.2 Test Graph



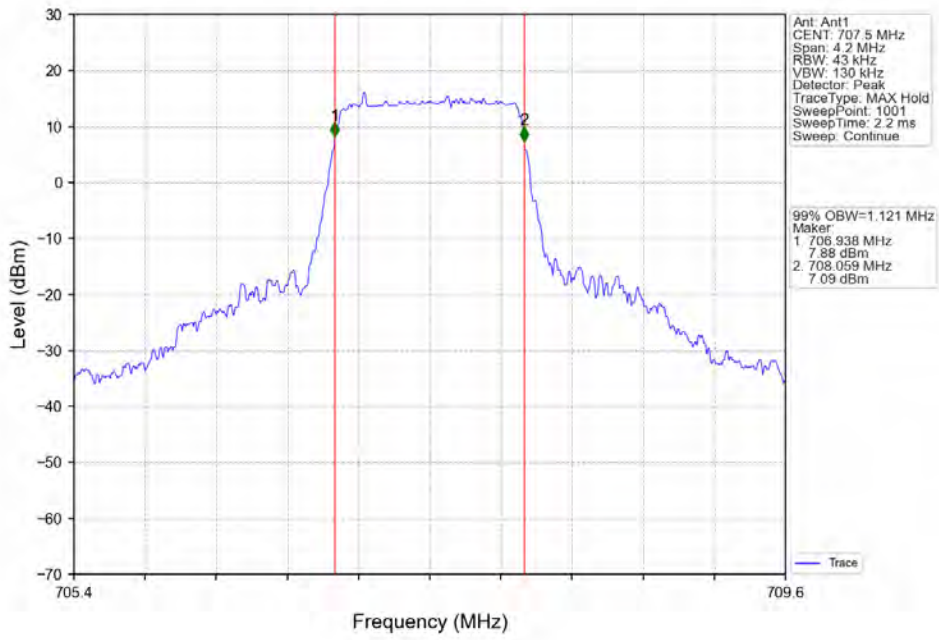
Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_6\_0\_NTNV



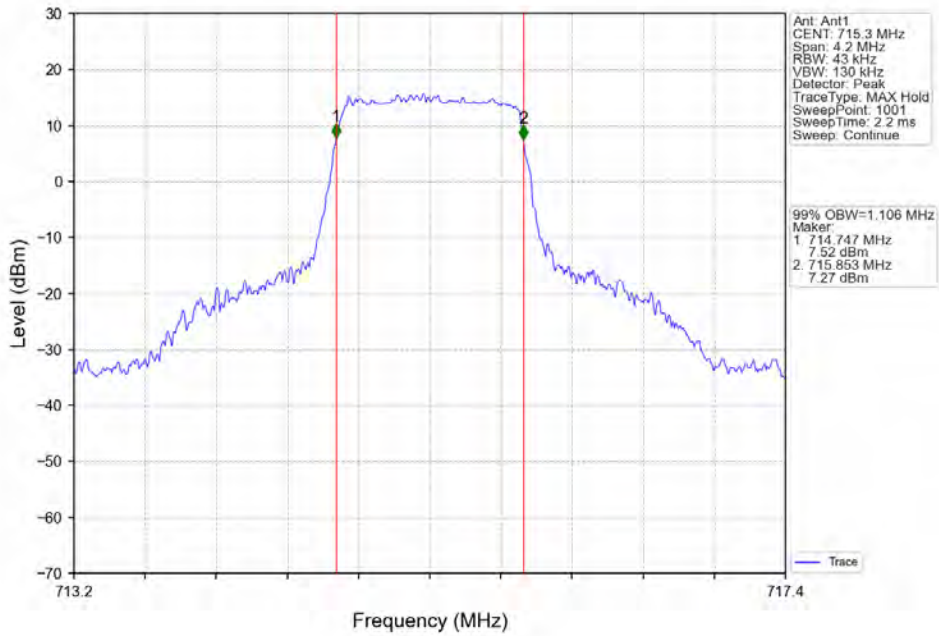
Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_6\_0\_NTNV



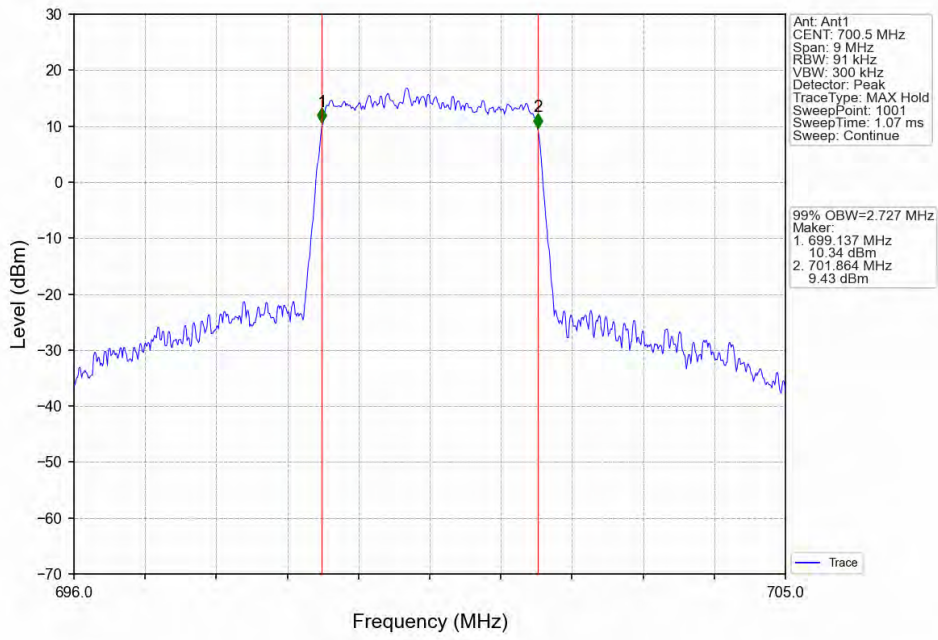
Band12\_1.4MHz\_16QAM\_MCH\_707.5MHz\_RB\_6\_0\_NTNV



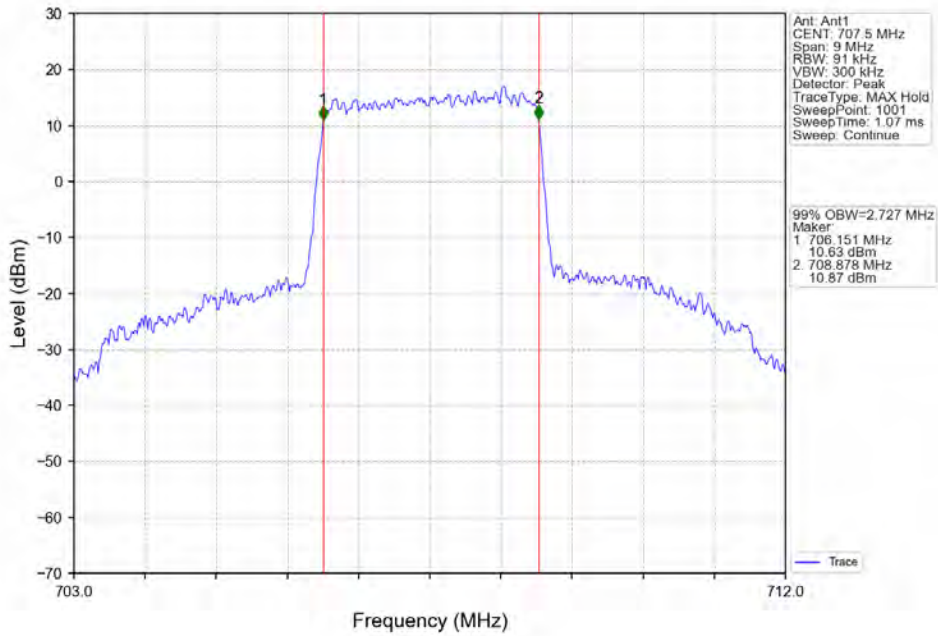
Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_6\_0\_NTNV



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

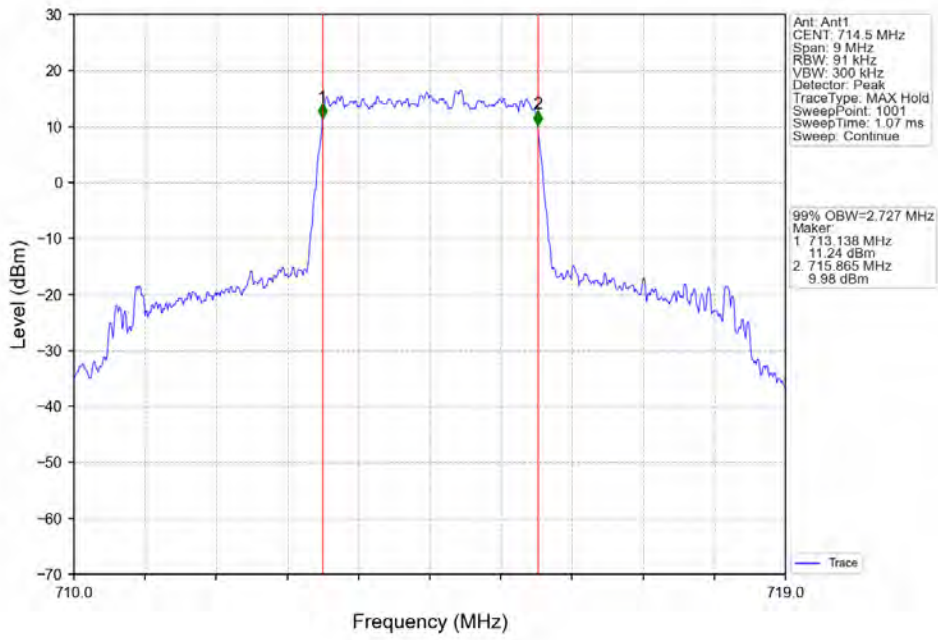


Band12\_3MHz\_QPSK\_MCH\_707.5MHz\_RB\_15\_0\_NTNV

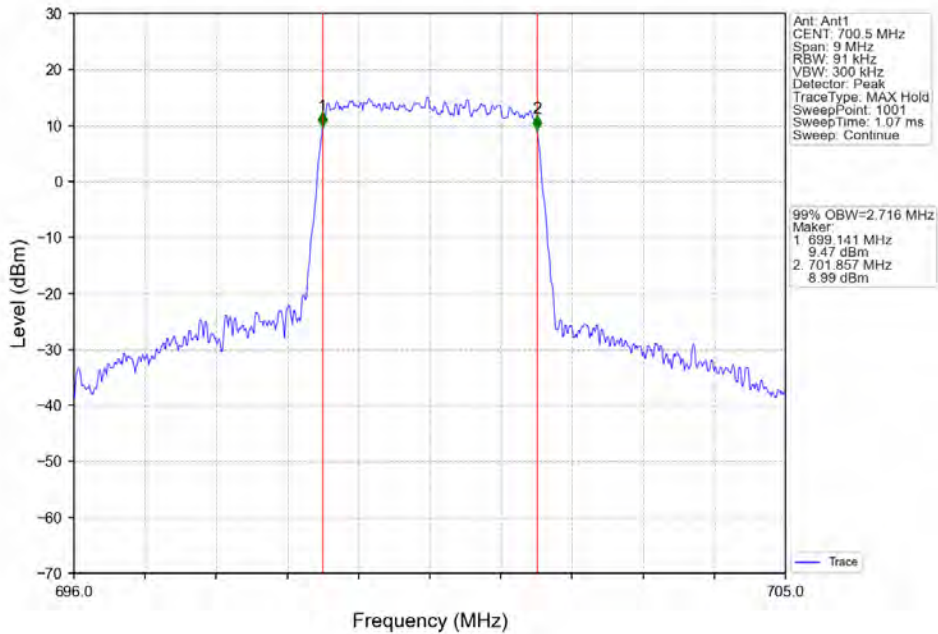




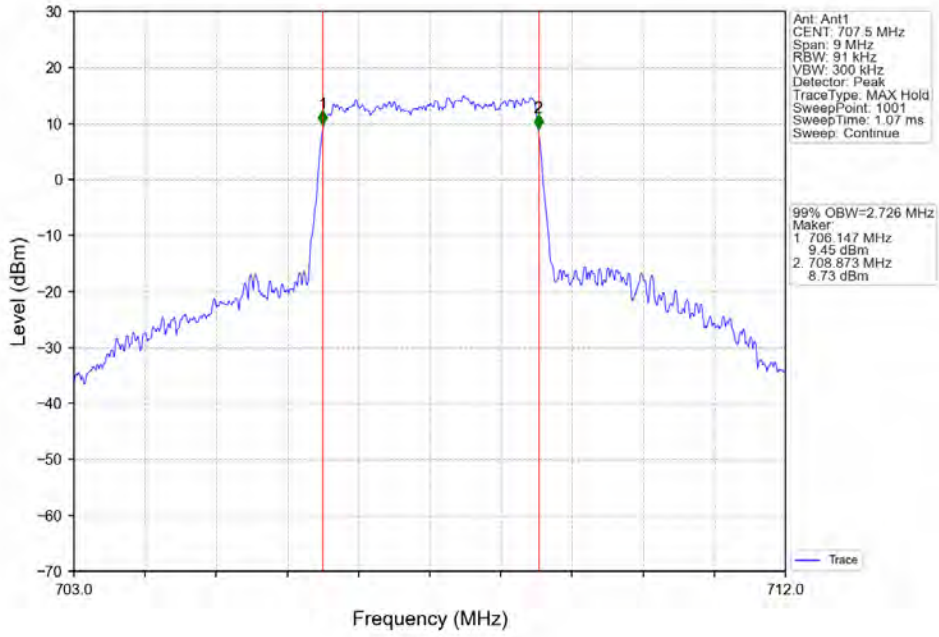
Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_15\_0\_NTNV



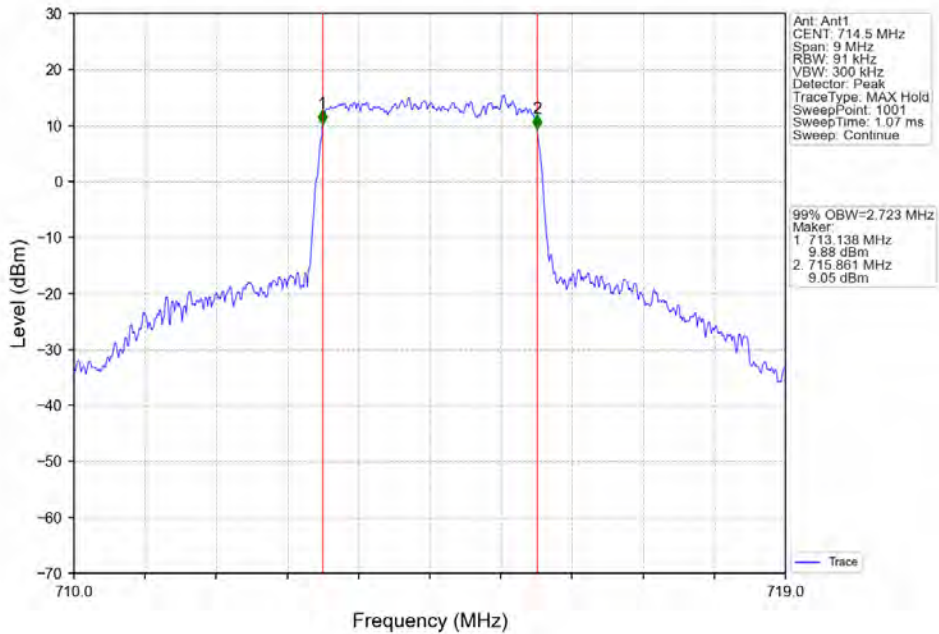
Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



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

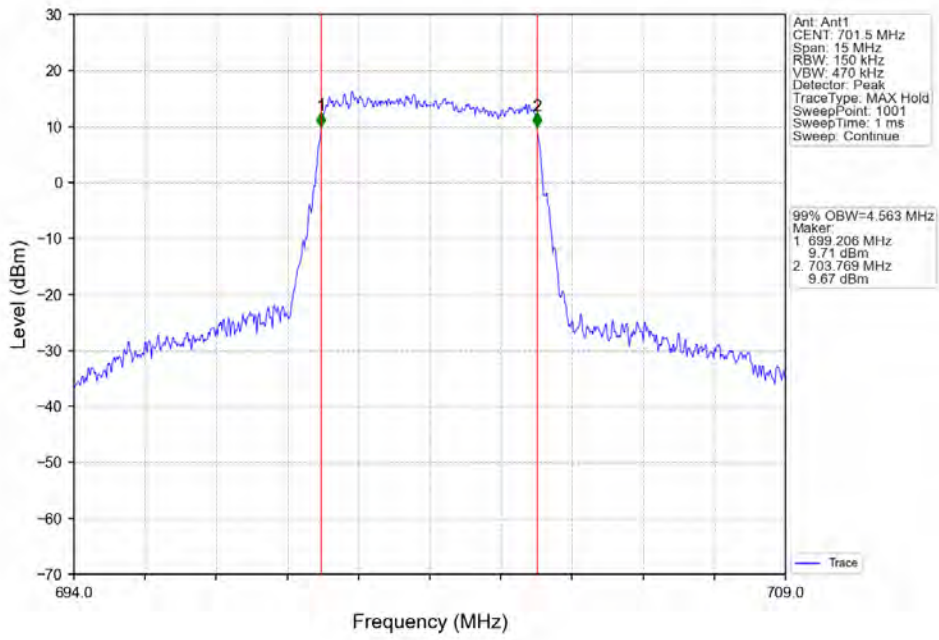


Band12\_3MHz\_16QAM\_HCH\_714.5MHz\_RB\_15\_0\_NTNV

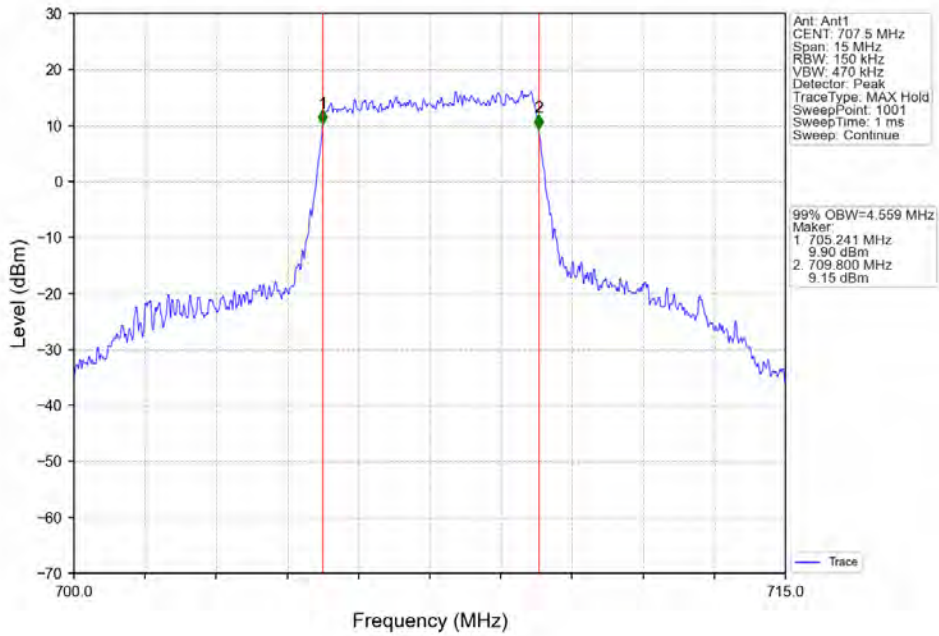




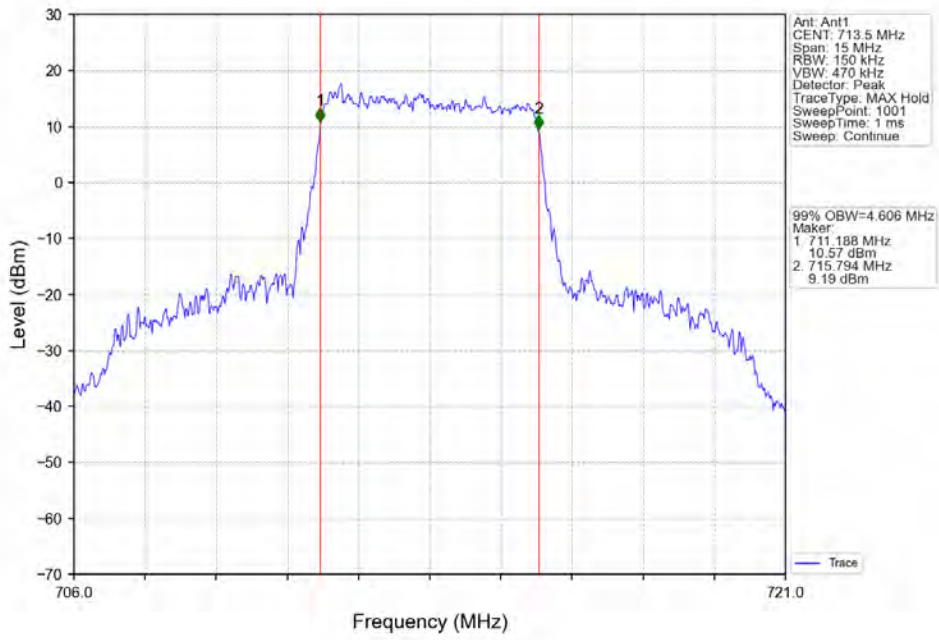
Band12\_5MHz\_QPSK\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



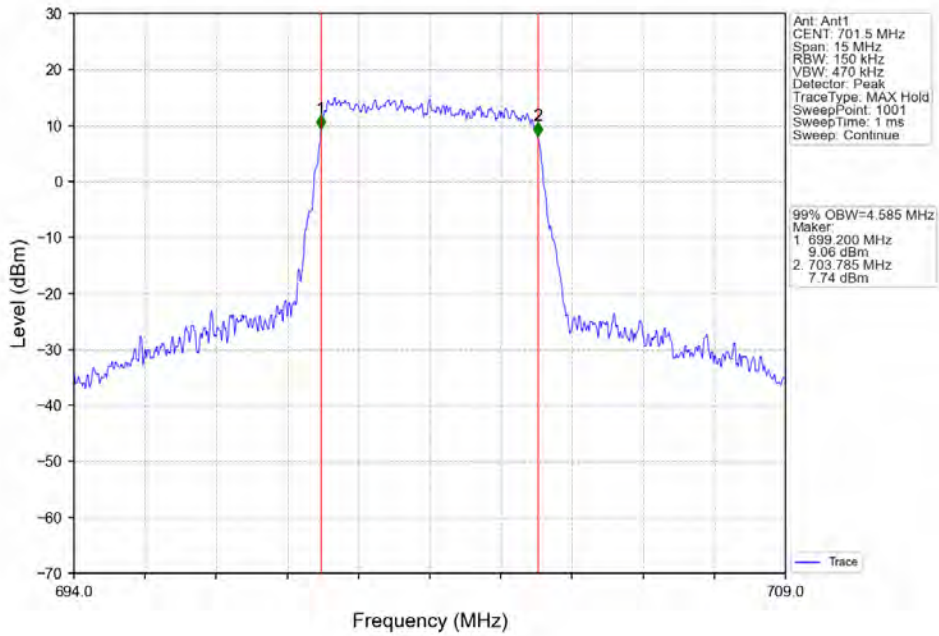
Band12\_5MHz\_QPSK\_MCH\_707.5MHz\_RB\_25\_0\_NTNV



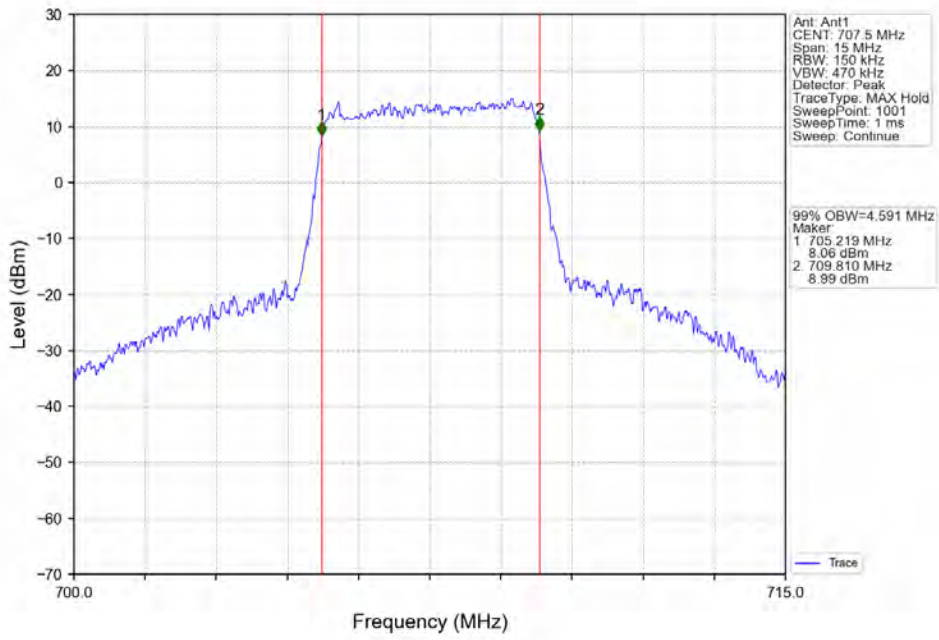
Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



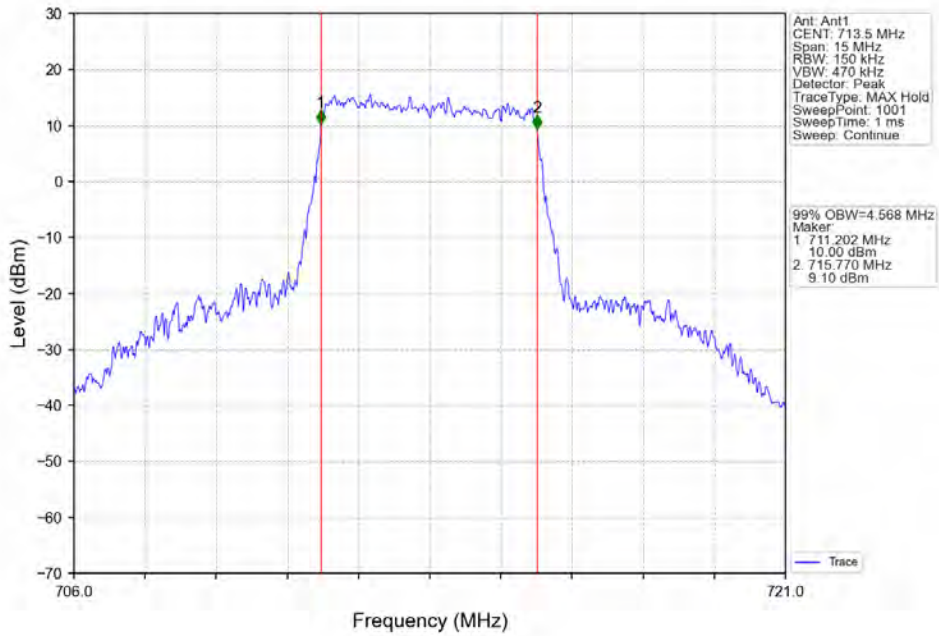
Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



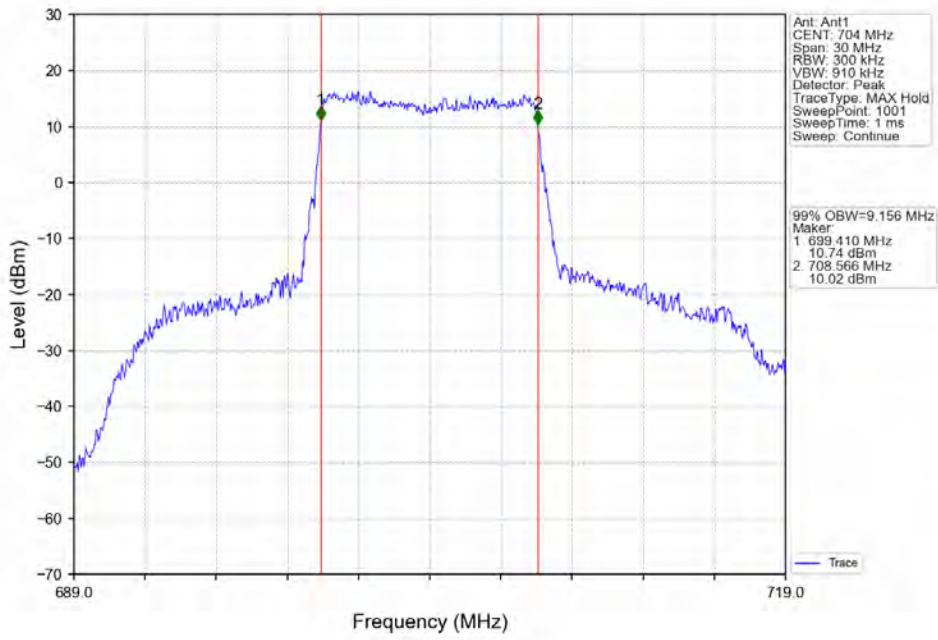
Band12\_5MHz\_16QAM\_MCH\_707.5MHz\_RB\_25\_0\_NTNV



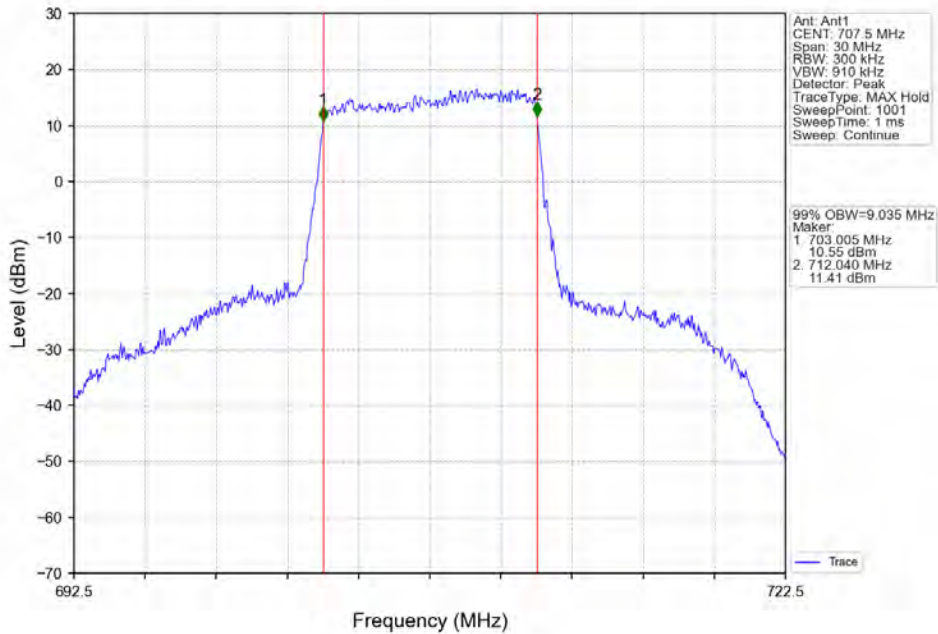
Band12\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



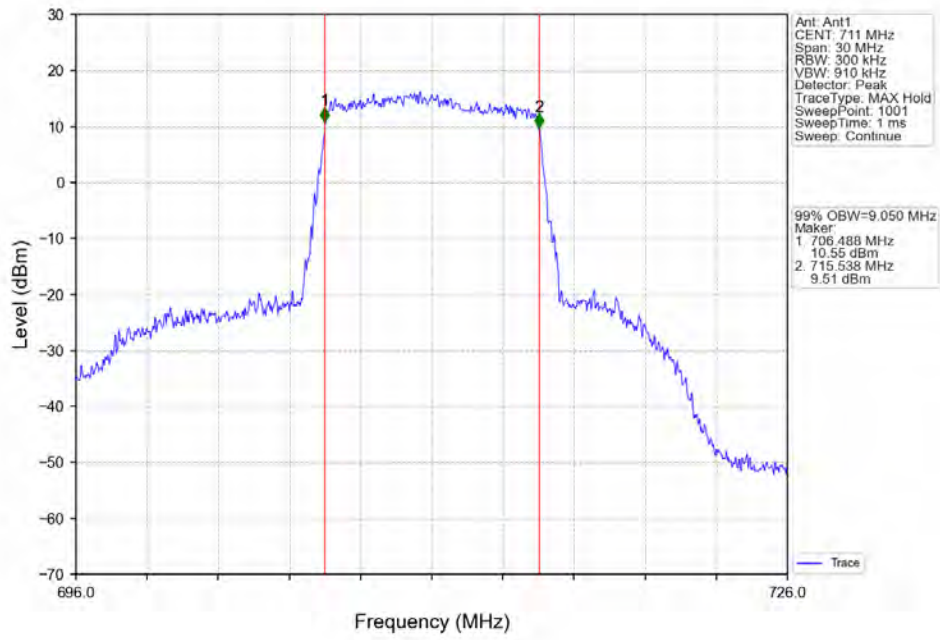
Band12\_10MHz\_QPSK\_LCH\_704MHz\_RB\_50\_0\_NTNV



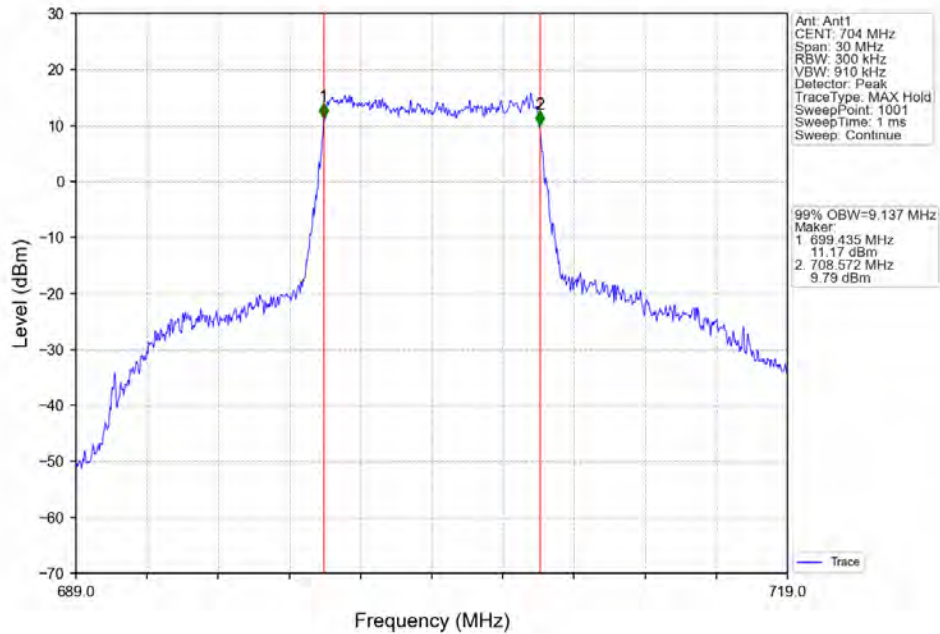
Band12\_10MHz\_QPSK\_MCH\_707.5MHz\_RB\_50\_0\_NTNV



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

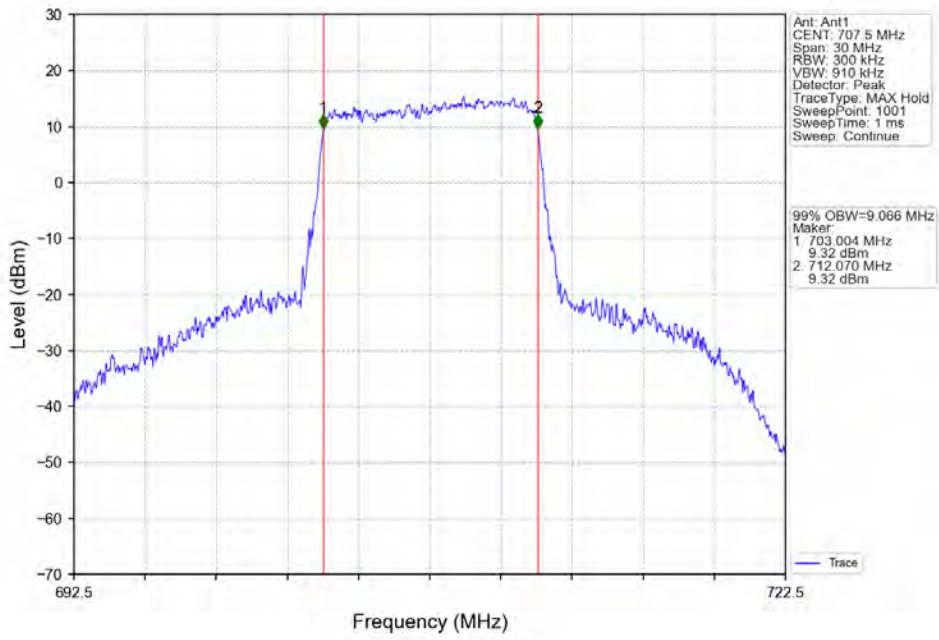


Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_50\_0\_NTNV

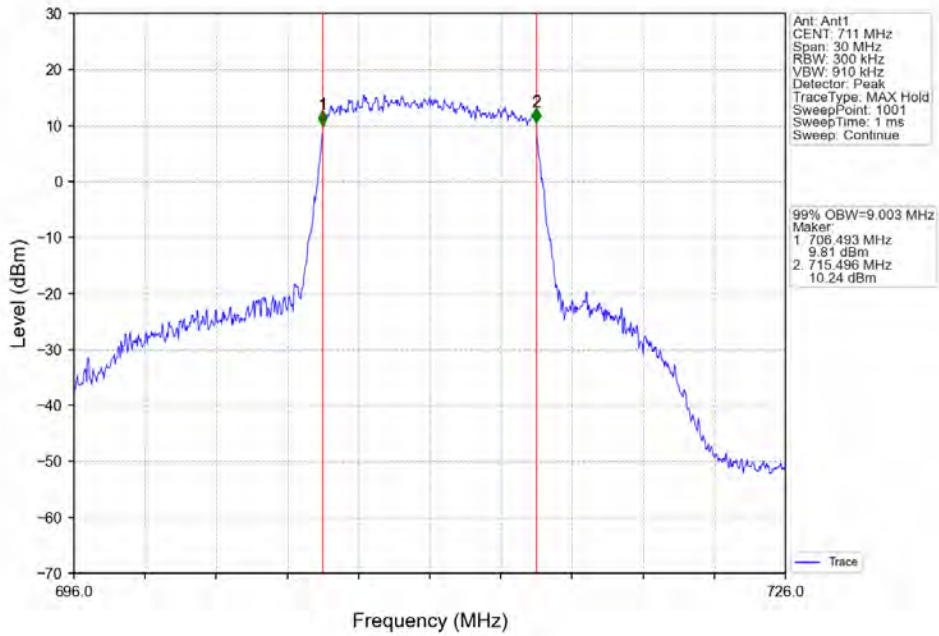




Band12\_10MHz\_16QAM\_MCH\_707.5MHz\_RB\_50\_0\_NTNV



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

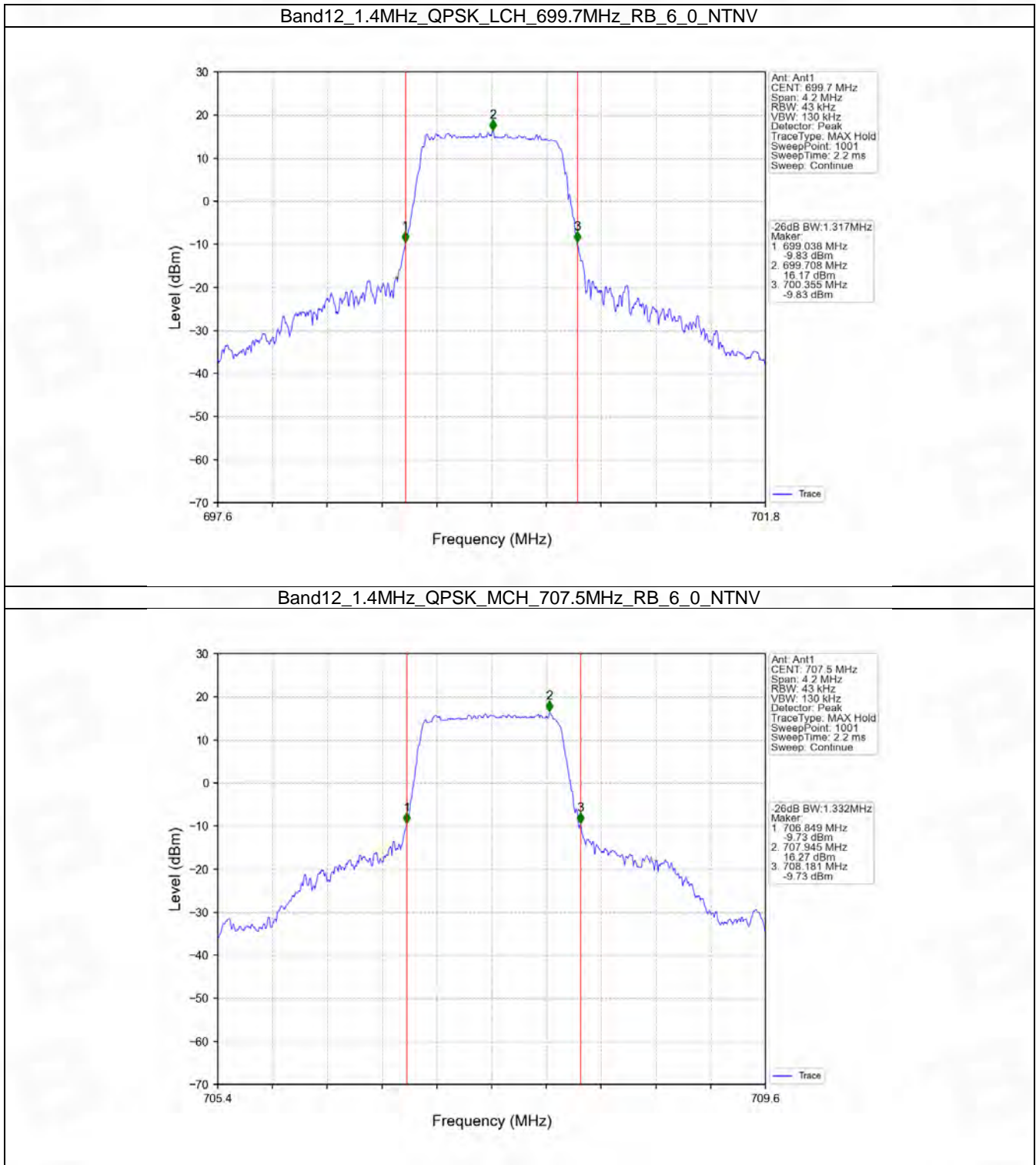


## 4.2 Band12\_XDB

### 4.2.1 Test Result

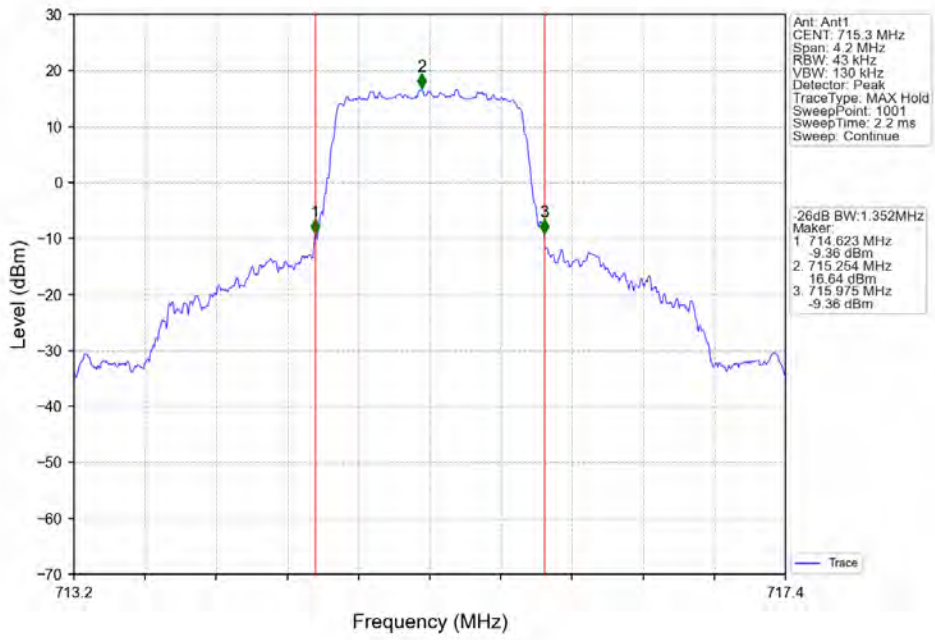
Band: 12 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	699.7	6	0	1.317	/	Pass
		707.5	6	0	1.332	/	Pass
		715.3	6	0	1.352	/	Pass
	16QAM	699.7	6	0	1.298	/	Pass
		707.5	6	0	1.329	/	Pass
		715.3	6	0	1.328	/	Pass
3	QPSK	700.5	15	0	2.985	/	Pass
		707.5	15	0	2.973	/	Pass
		714.5	15	0	3.009	/	Pass
	16QAM	700.5	15	0	2.998	/	Pass
		707.5	15	0	3.014	/	Pass
		714.5	15	0	2.980	/	Pass
5	QPSK	701.5	25	0	5.164	/	Pass
		707.5	25	0	5.232	/	Pass
		713.5	25	0	5.331	/	Pass
	16QAM	701.5	25	0	5.281	/	Pass
		707.5	25	0	5.299	/	Pass
		713.5	25	0	5.281	/	Pass
10	QPSK	704	50	0	10.439	/	Pass
		707.5	50	0	10.180	/	Pass
		711	50	0	10.293	/	Pass
	16QAM	704	50	0	10.336	/	Pass
		707.5	50	0	10.233	/	Pass
		711	50	0	10.203	/	Pass

### 4.2.2 Test Graph

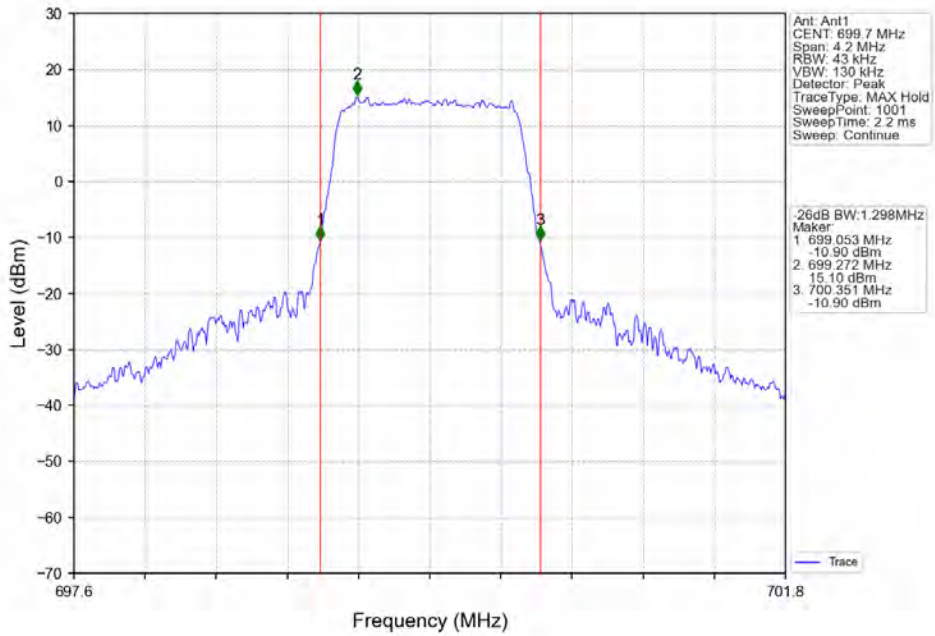




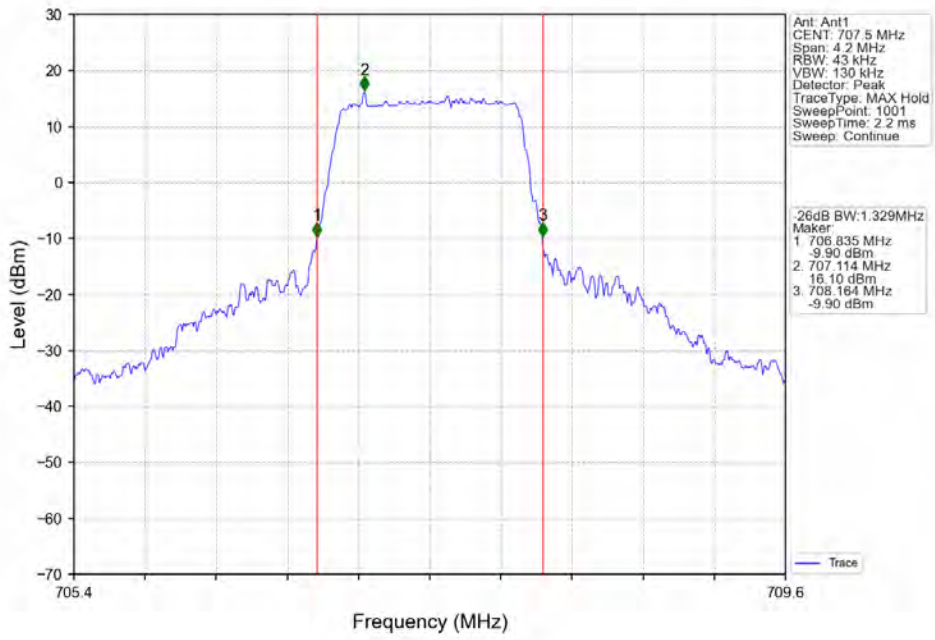
Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_6\_0\_NTNV



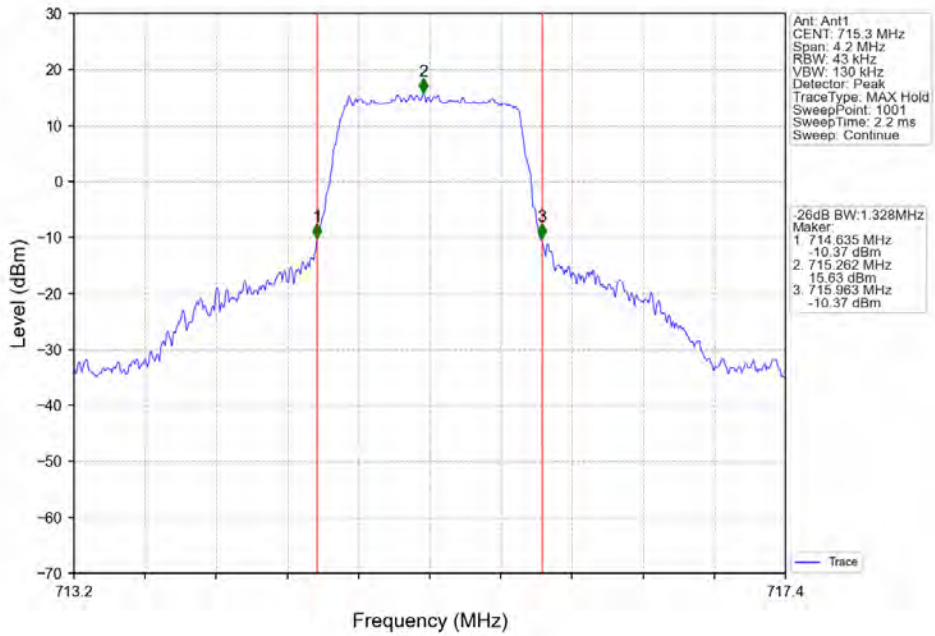
Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_6\_0\_NTNV



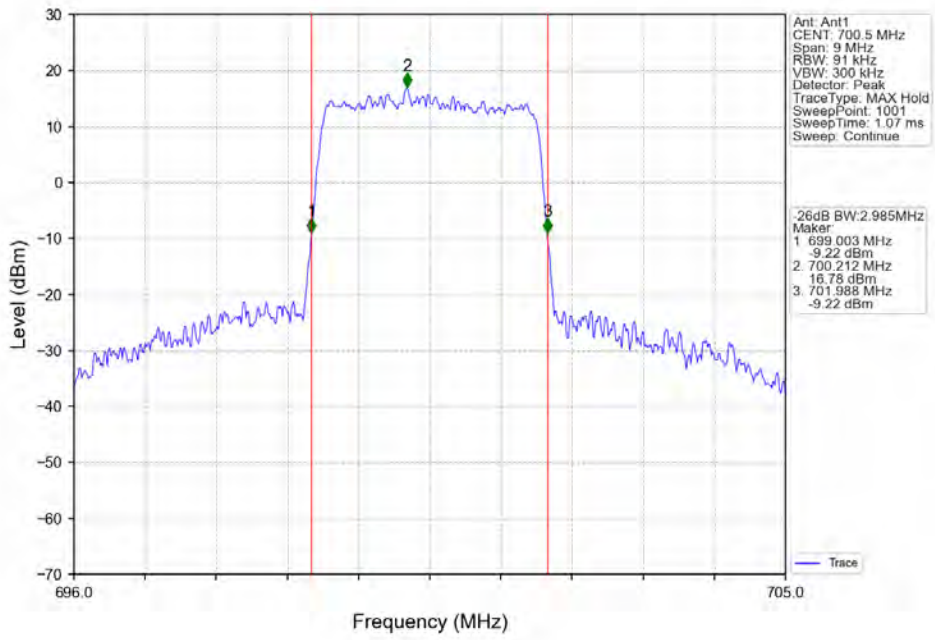
Band12\_1.4MHz\_16QAM\_MCH\_707.5MHz\_RB\_6\_0\_NTNV



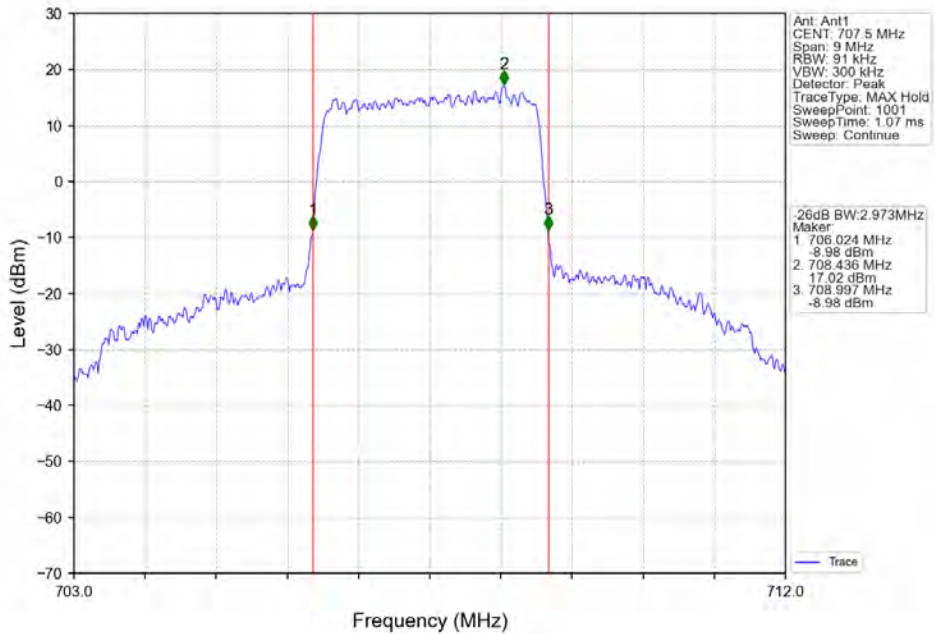
Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_6\_0\_NTNV



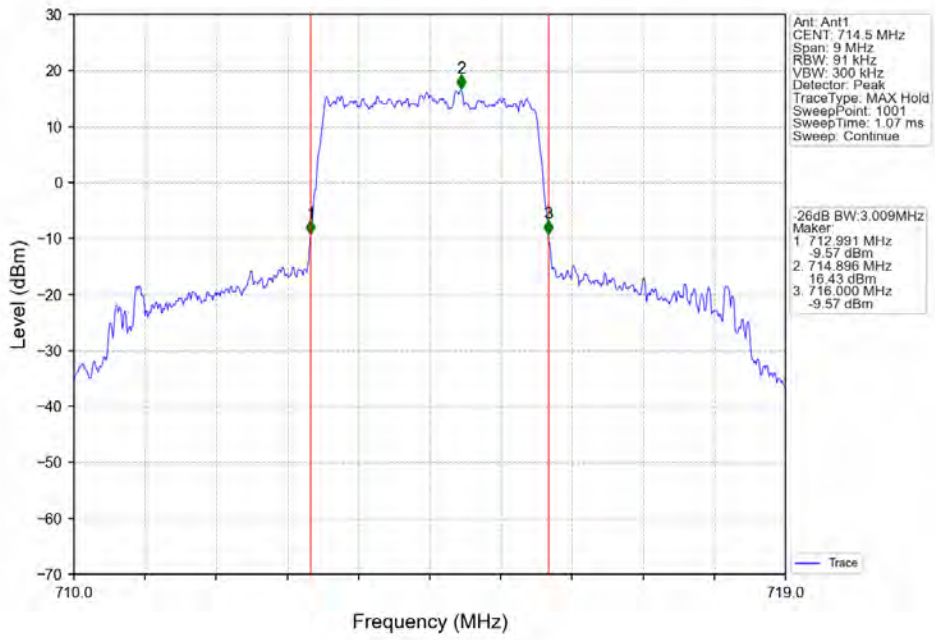
Band12\_3MHz\_QPSK\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



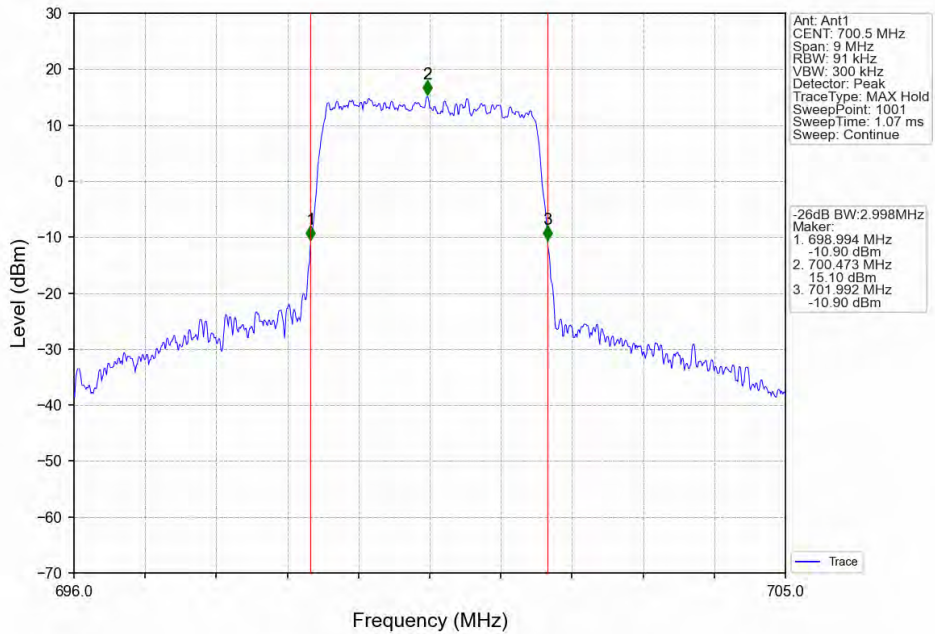
Band12\_3MHz\_QPSK\_MCH\_707.5MHz\_RB\_15\_0\_NTNV



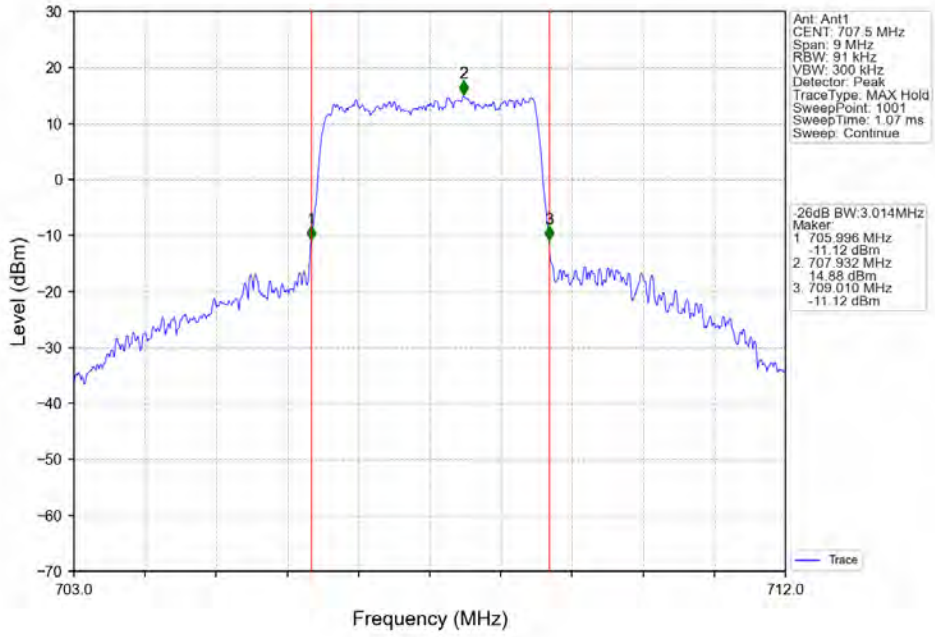
Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_15\_0\_NTNV



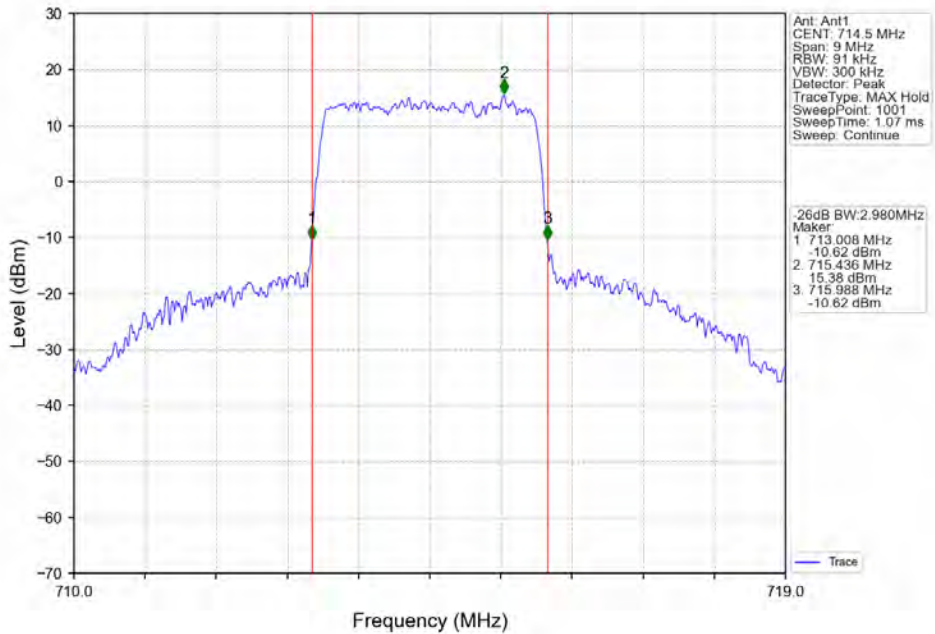
Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



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

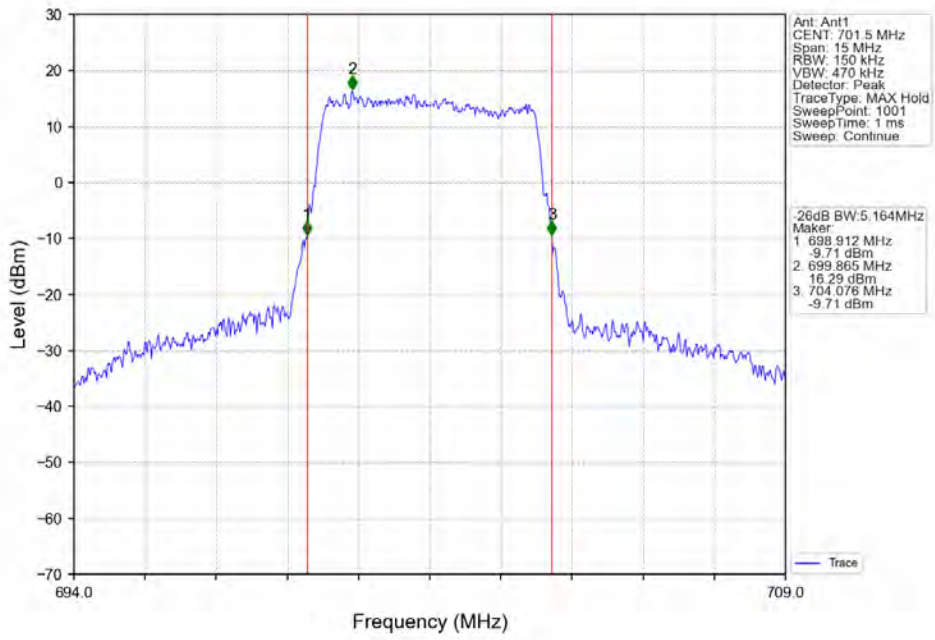


Band12\_3MHz\_16QAM\_HCH\_714.5MHz\_RB\_15\_0\_NTNV

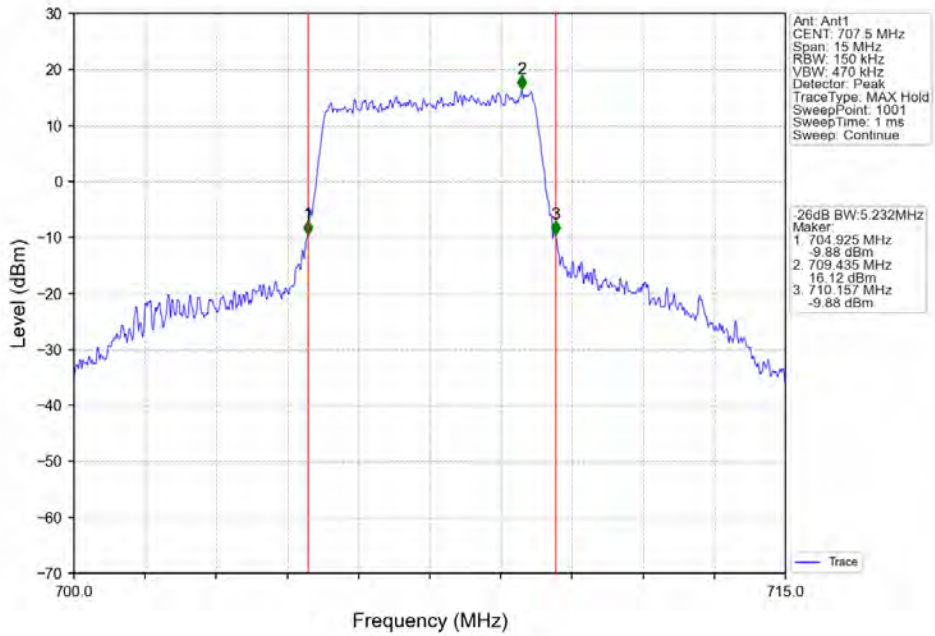




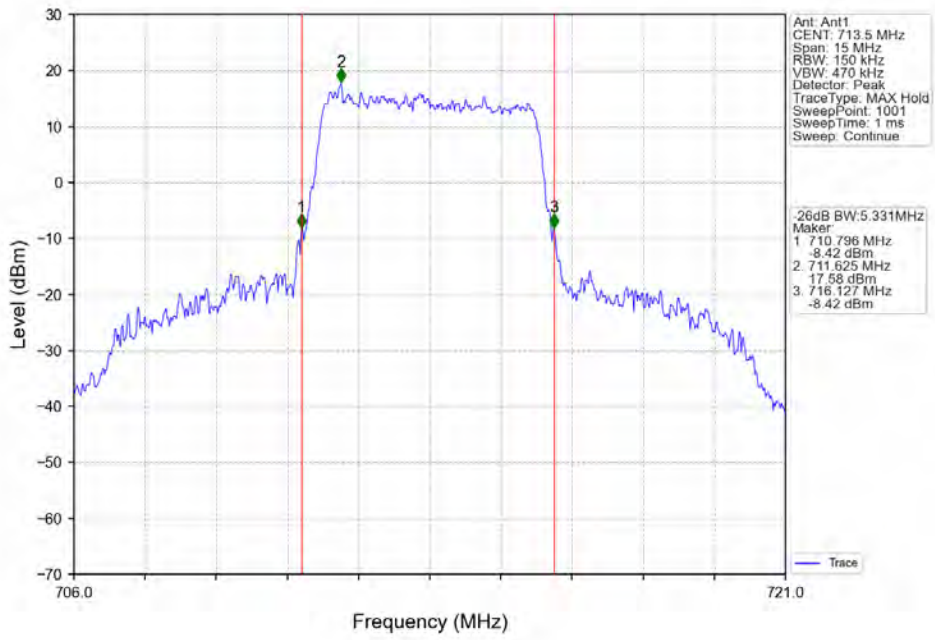
Band12\_5MHz\_QPSK\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



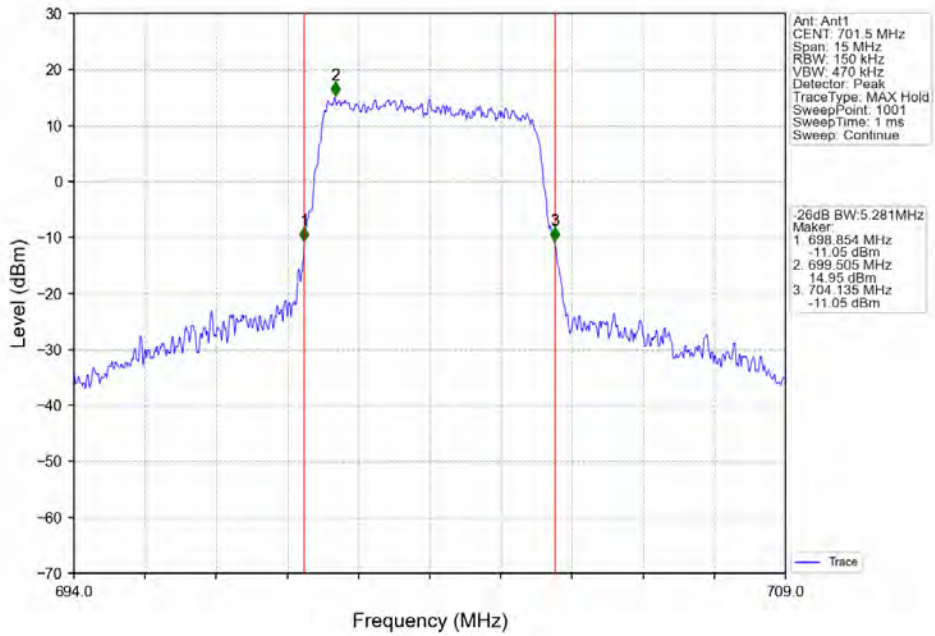
Band12\_5MHz\_QPSK\_MCH\_707.5MHz\_RB\_25\_0\_NTNV



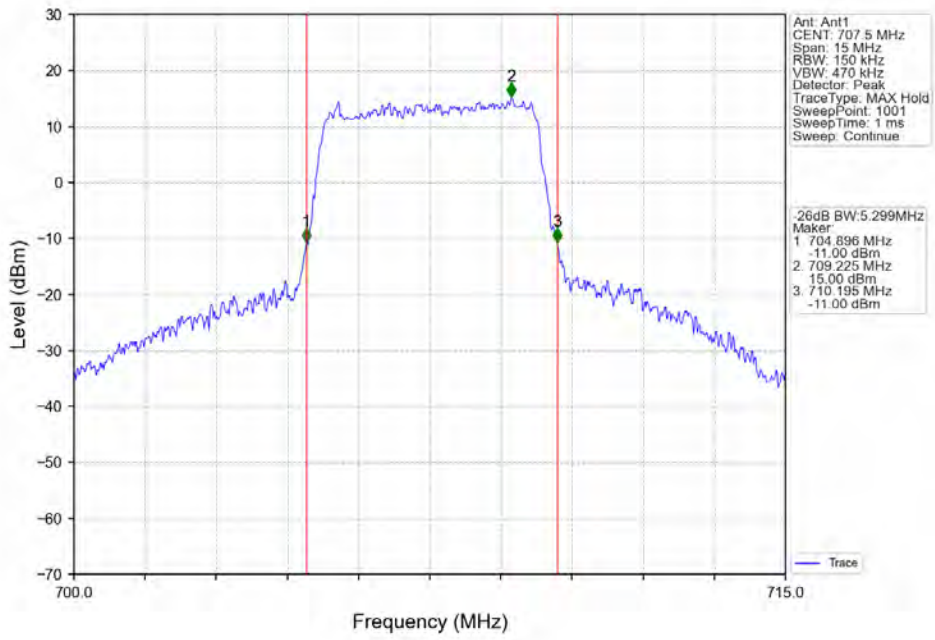
Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



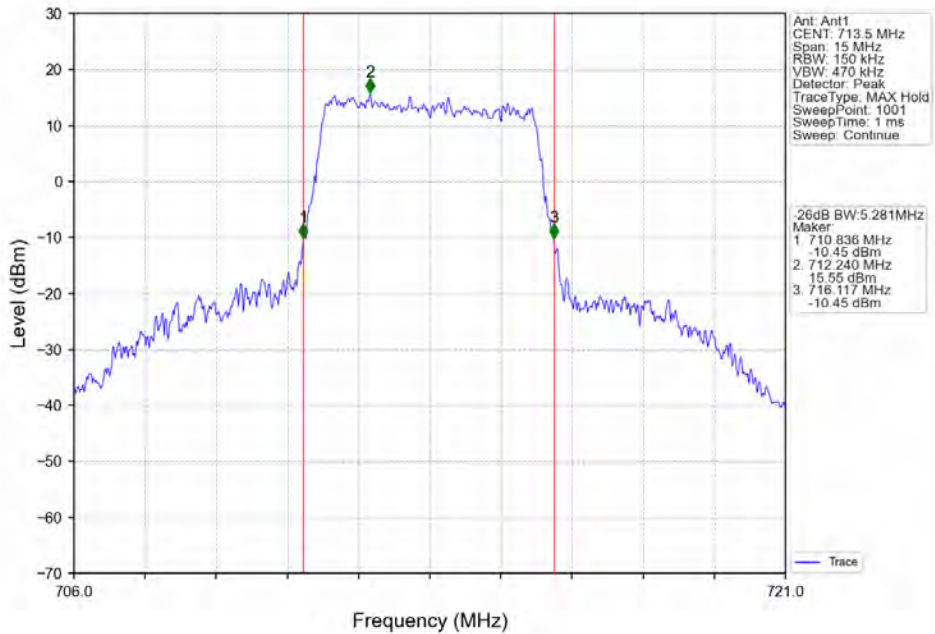
Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



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

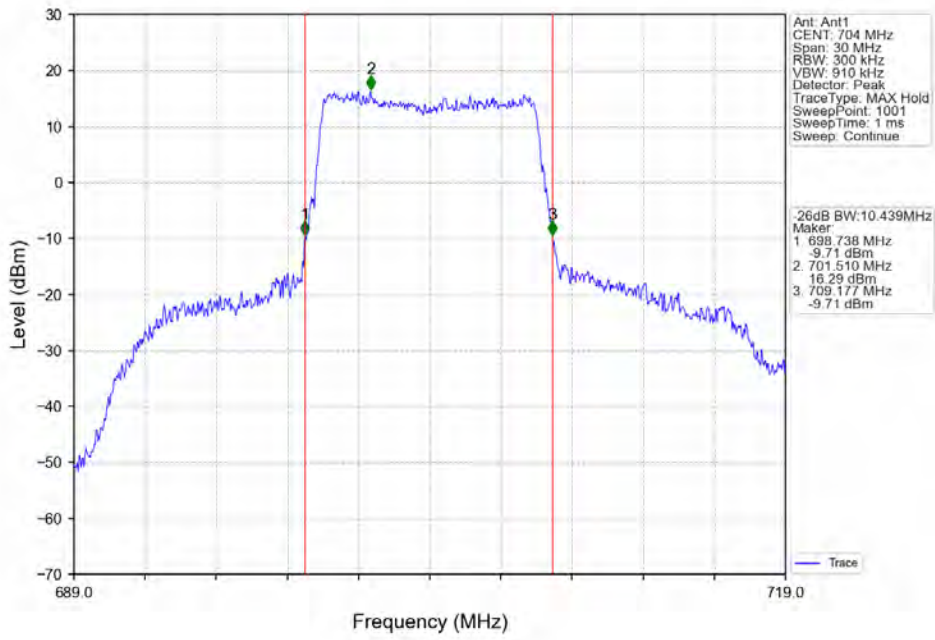


Band12\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_25\_0\_NTNV

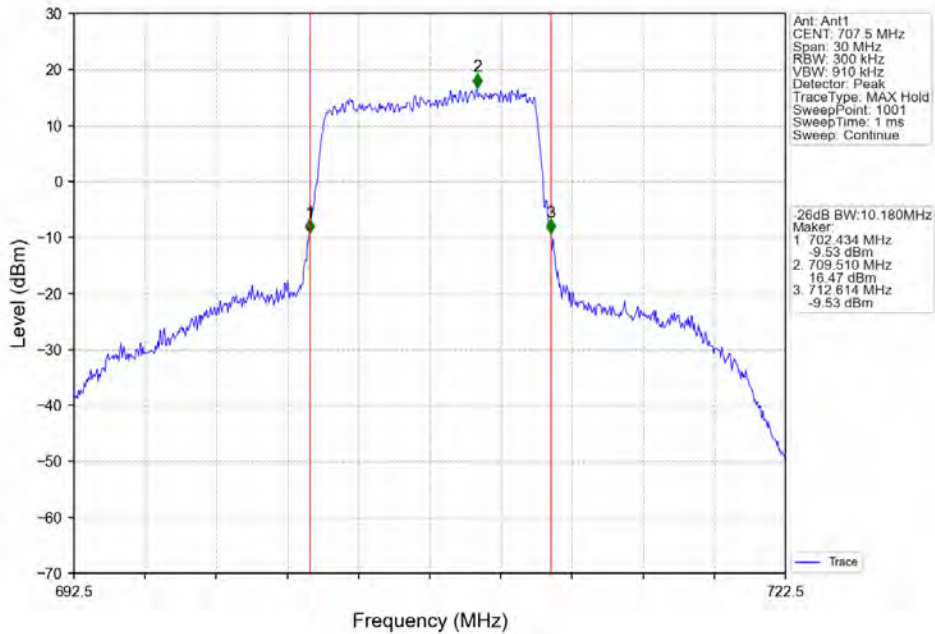




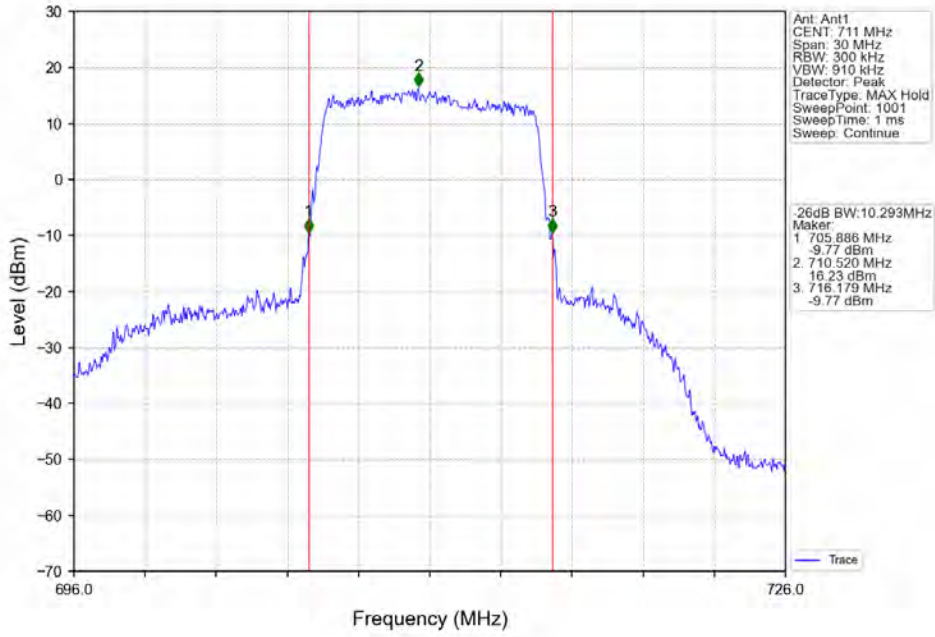
Band12\_10MHz\_QPSK\_LCH\_704MHz\_RB\_50\_0\_NTNV



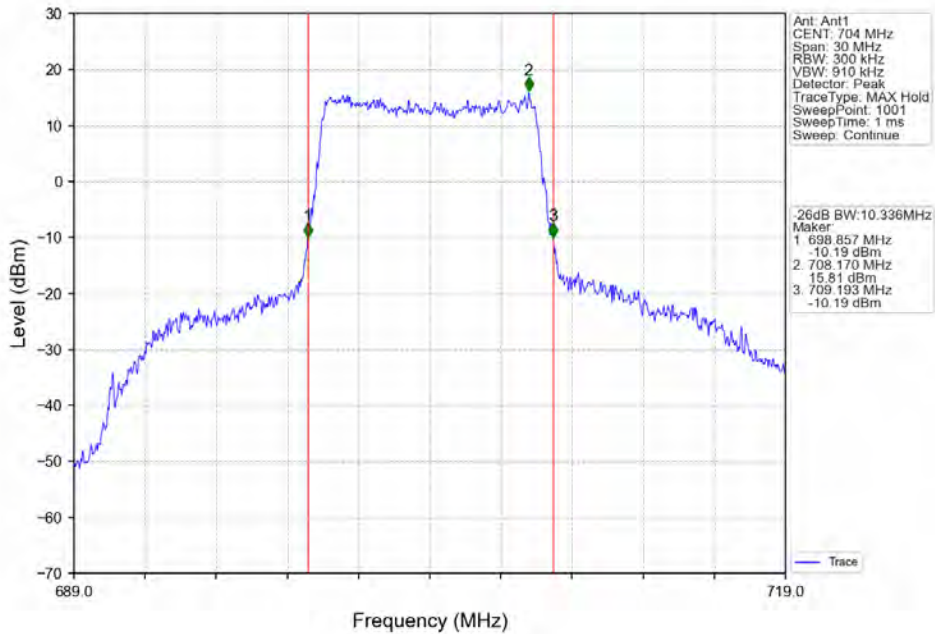
Band12\_10MHz\_QPSK\_MCH\_707.5MHz\_RB\_50\_0\_NTNV



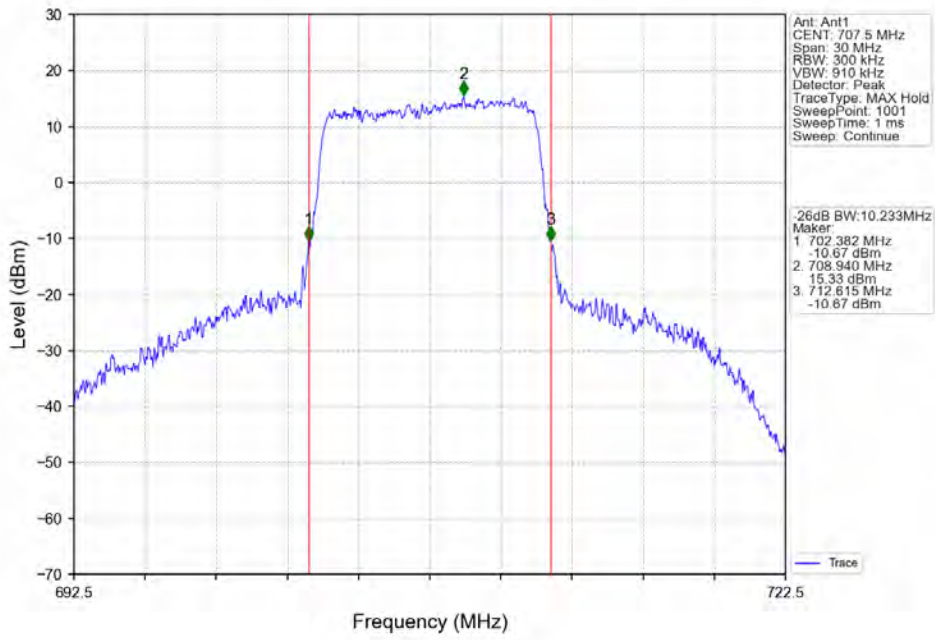
Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



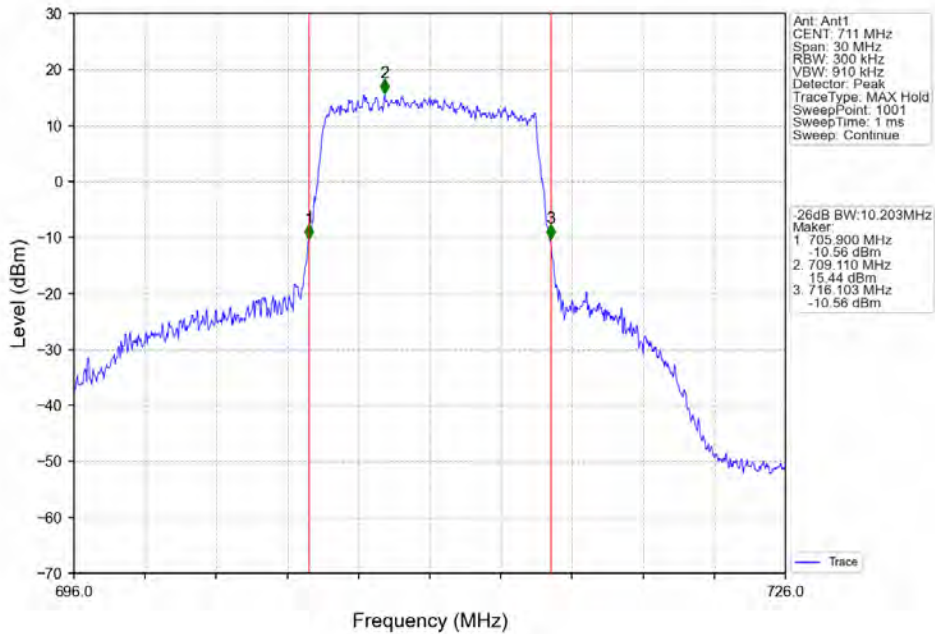
Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_50\_0\_NTNV



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



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



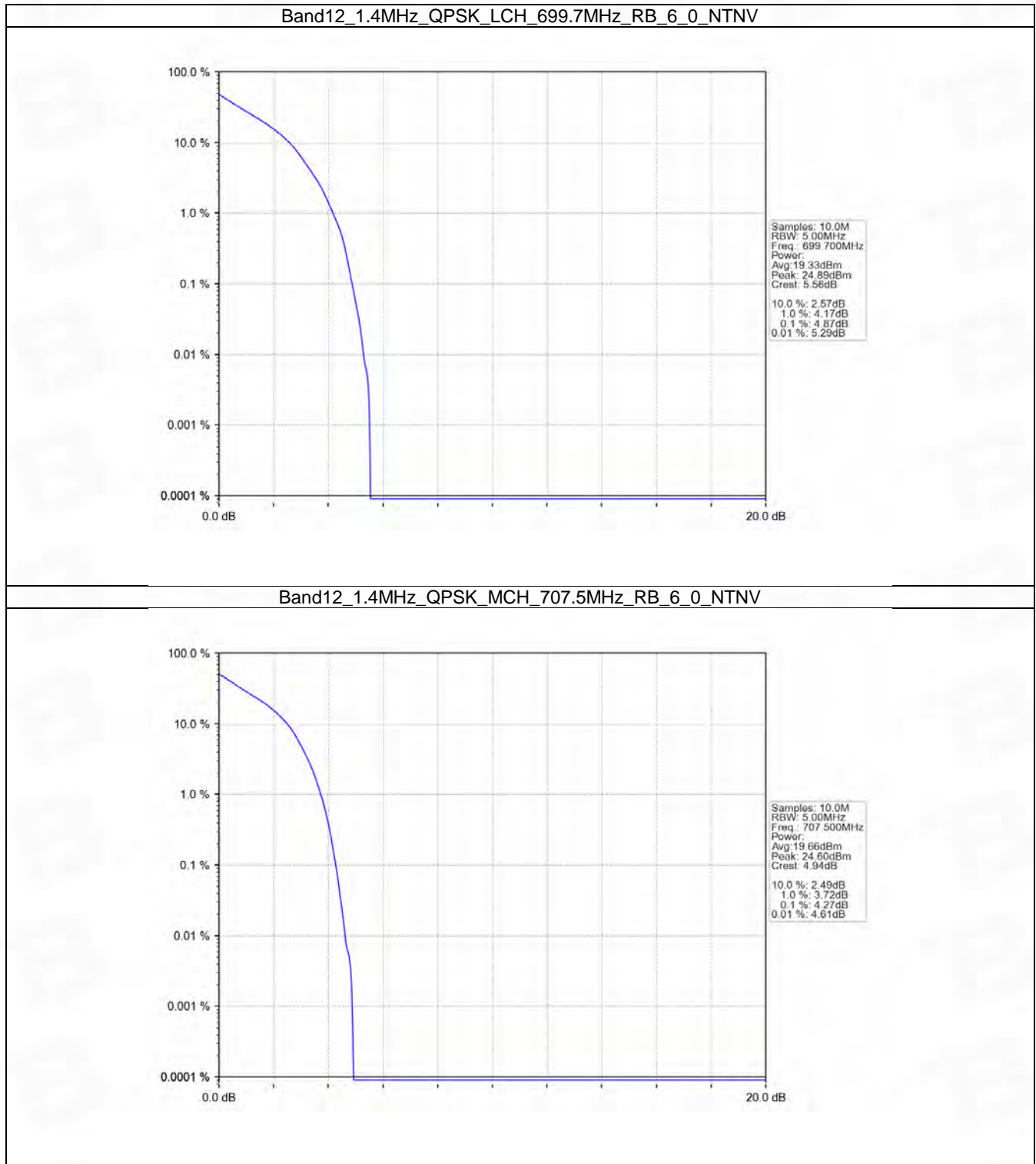
## 5. Peak-Average Ratio

### 5.1 B12\_1.4MHz

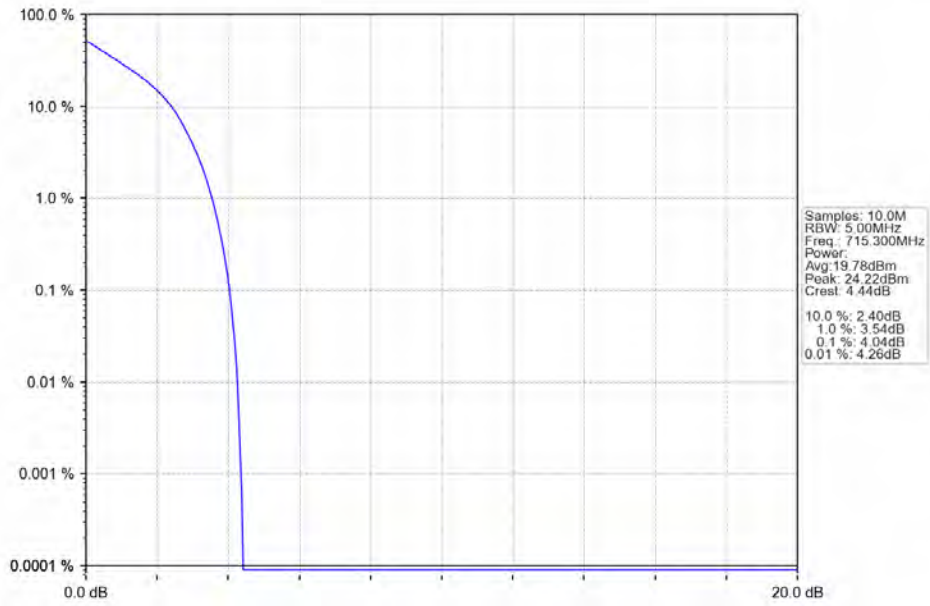
#### 5.1.1 Test Result

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	4.87	<=13	Pass
	707.5	6	0	4.27	<=13	Pass
	715.3	6	0	4.04	<=13	Pass
16QAM	699.7	6	0	5.76	<=13	Pass
	707.5	6	0	5.15	<=13	Pass
	715.3	6	0	5.01	<=13	Pass

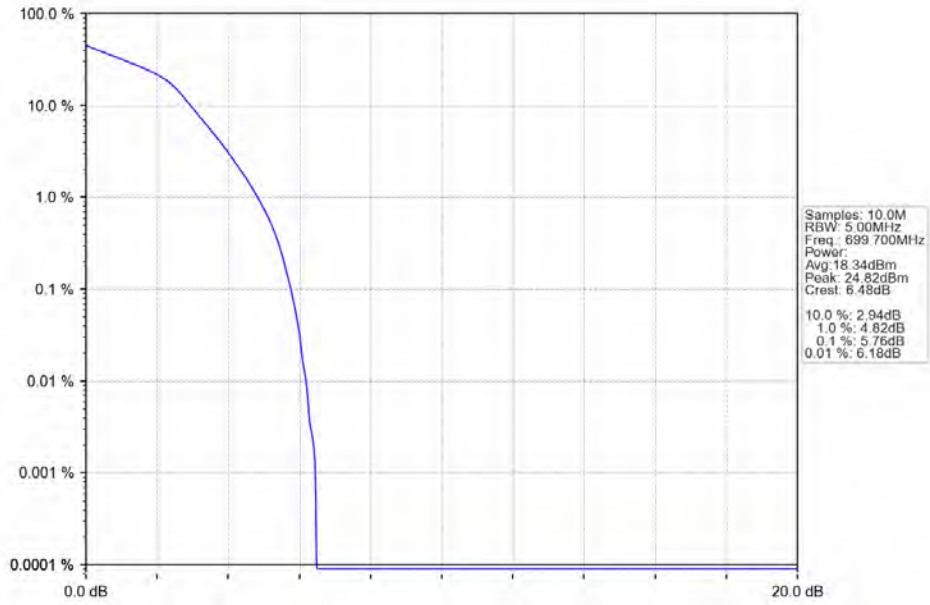
### 5.1.2 Test Graph



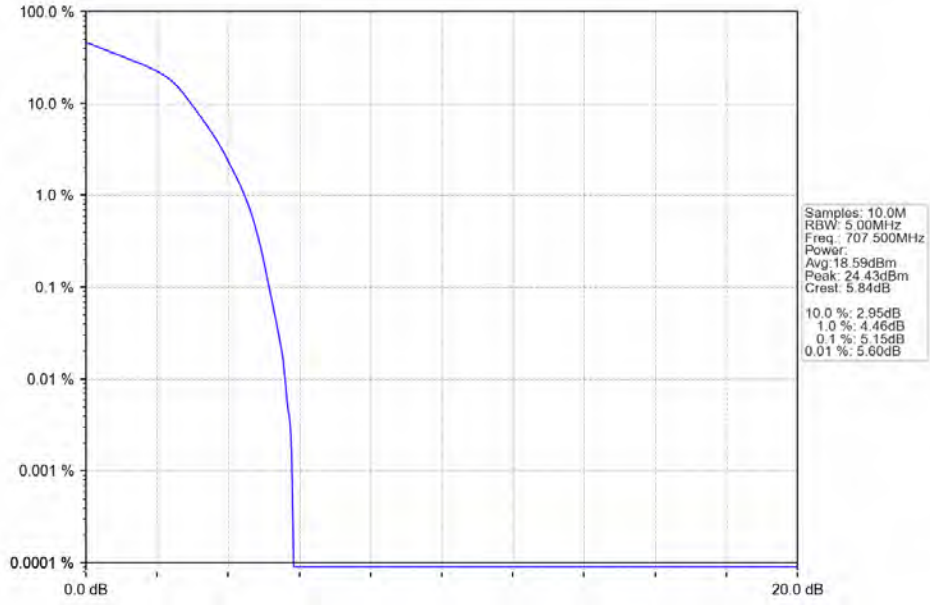
Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_6\_0\_NTNV



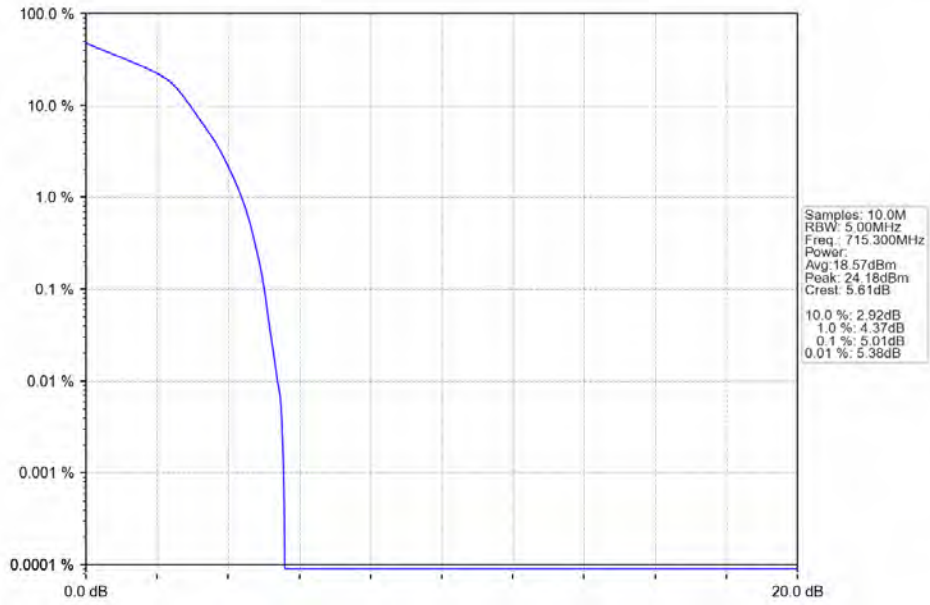
Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_6\_0\_NTNV



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



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





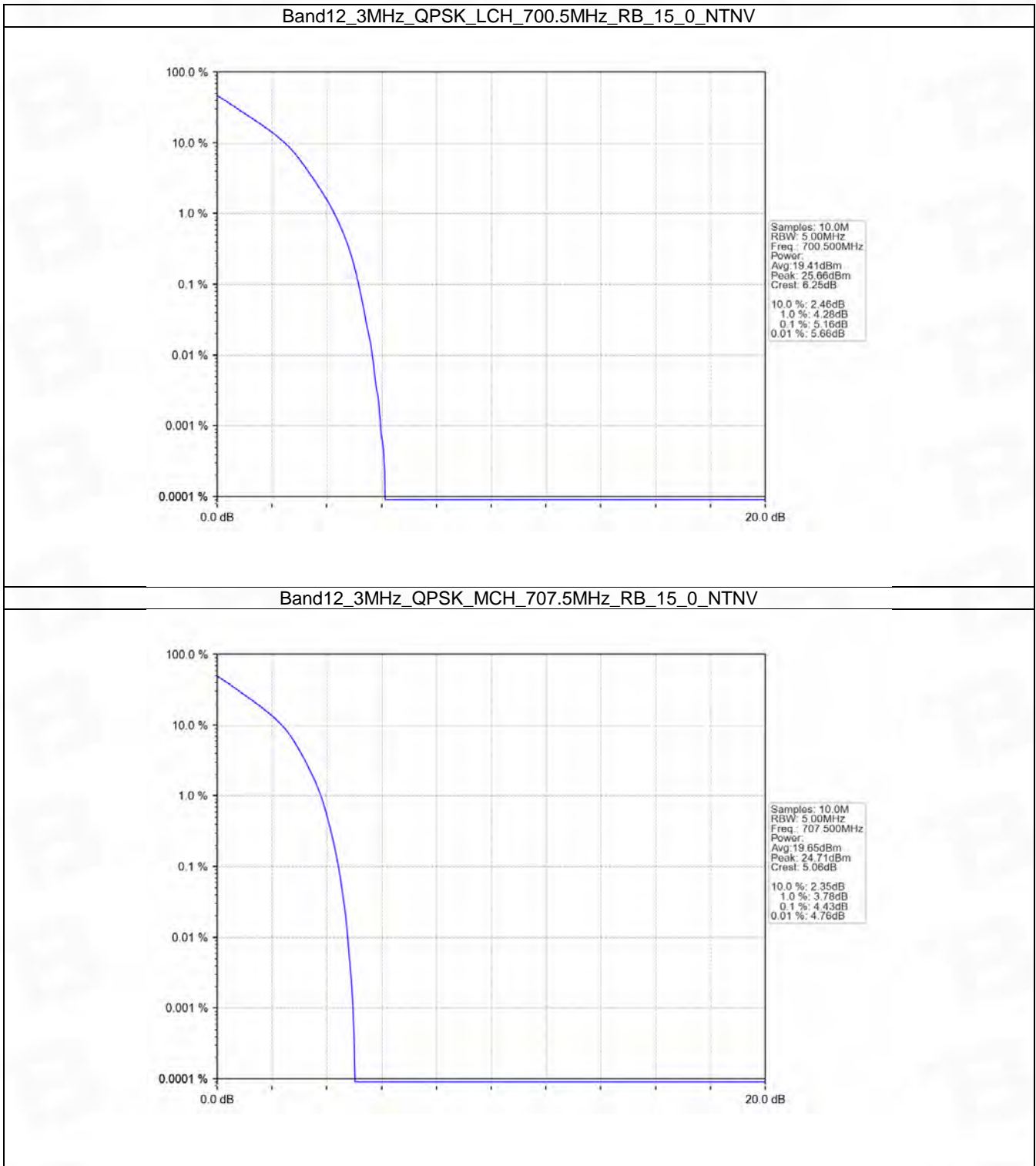
## 5.2 B12\_3MHz

### 5.2.1 Test Result

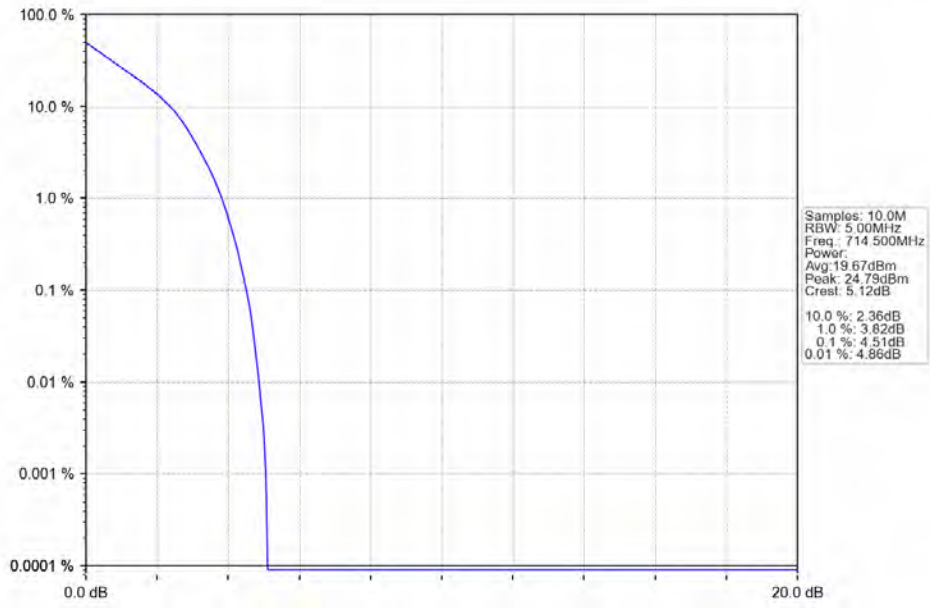
Band: 12 / Bandwidth: 3MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	700.5	15	0	5.16	<=13	Pass
	707.5	15	0	4.43	<=13	Pass
	714.5	15	0	4.51	<=13	Pass
16QAM	700.5	15	0	5.99	<=13	Pass
	707.5	15	0	5.33	<=13	Pass
	714.5	15	0	5.41	<=13	Pass



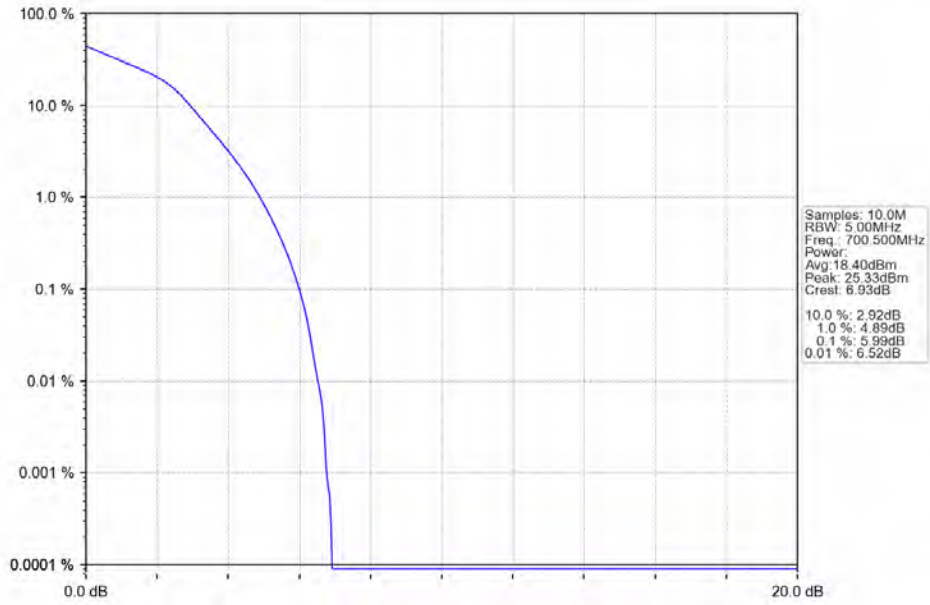
### 5.2.2 Test Graph



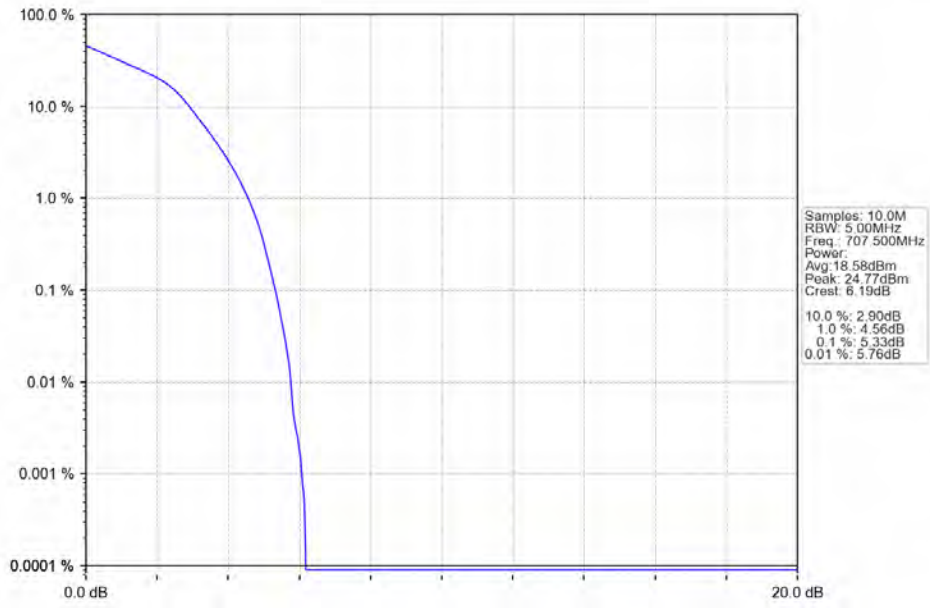
Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_15\_0\_NTNV



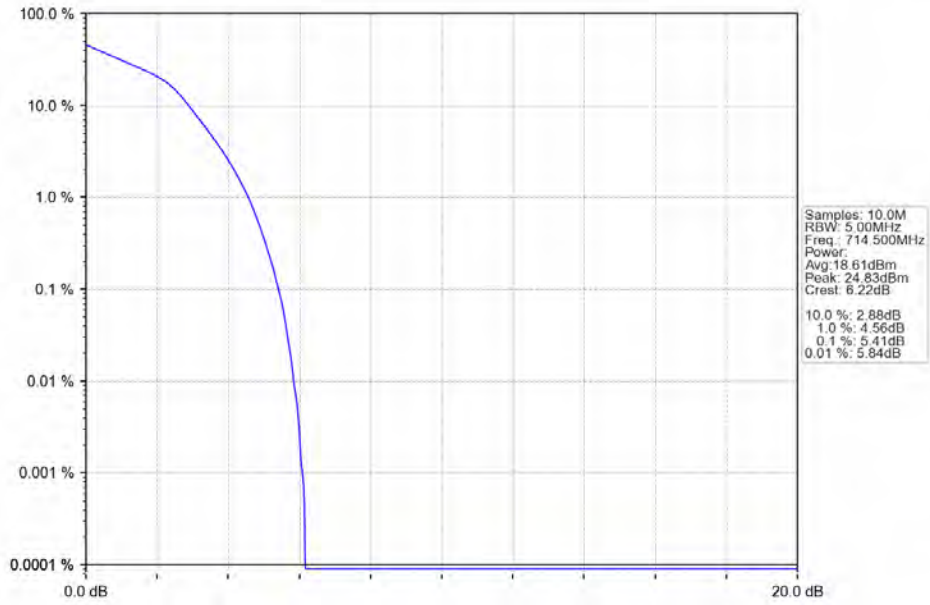
Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



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



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

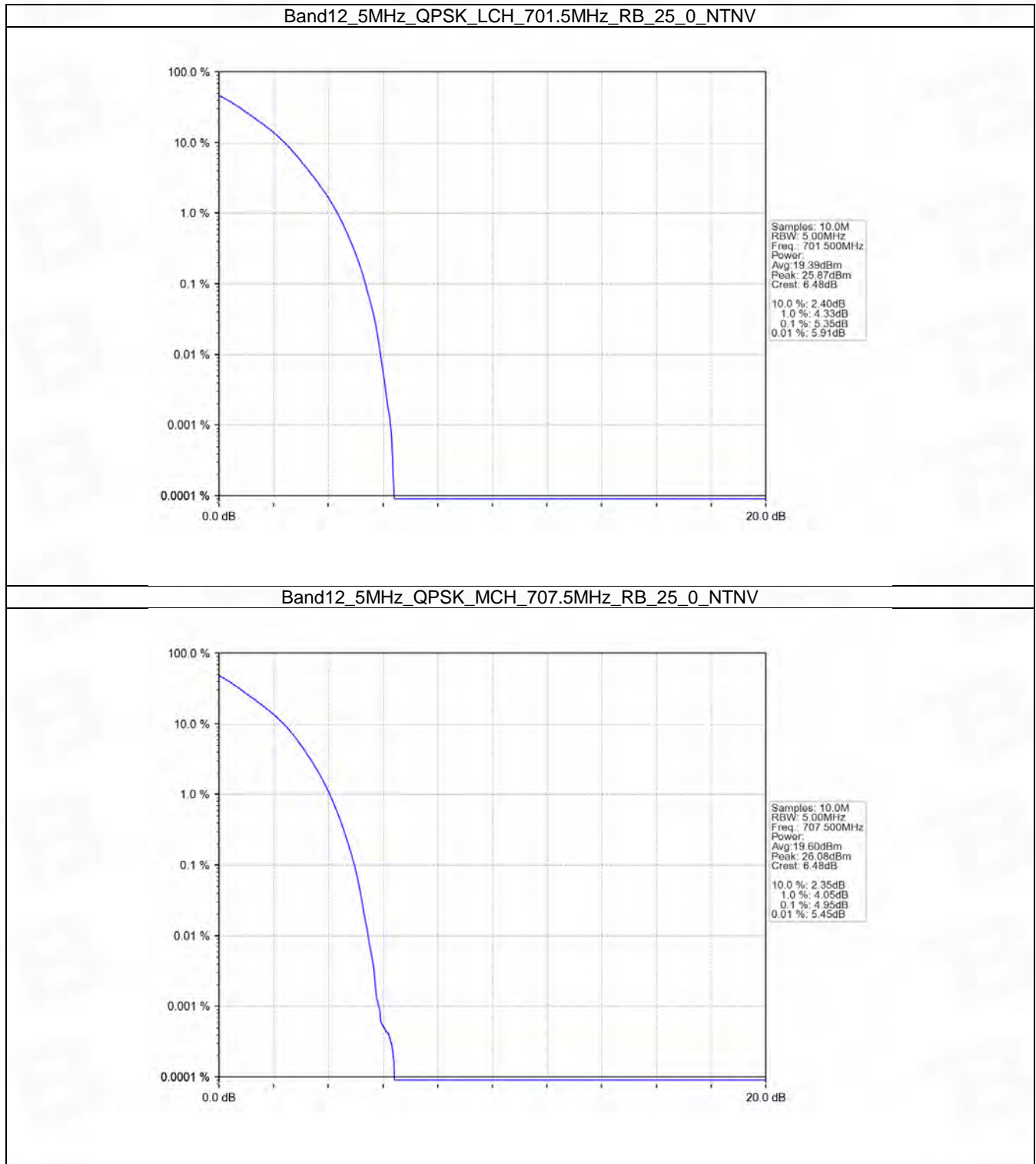


## 5.3 B12\_5MHz

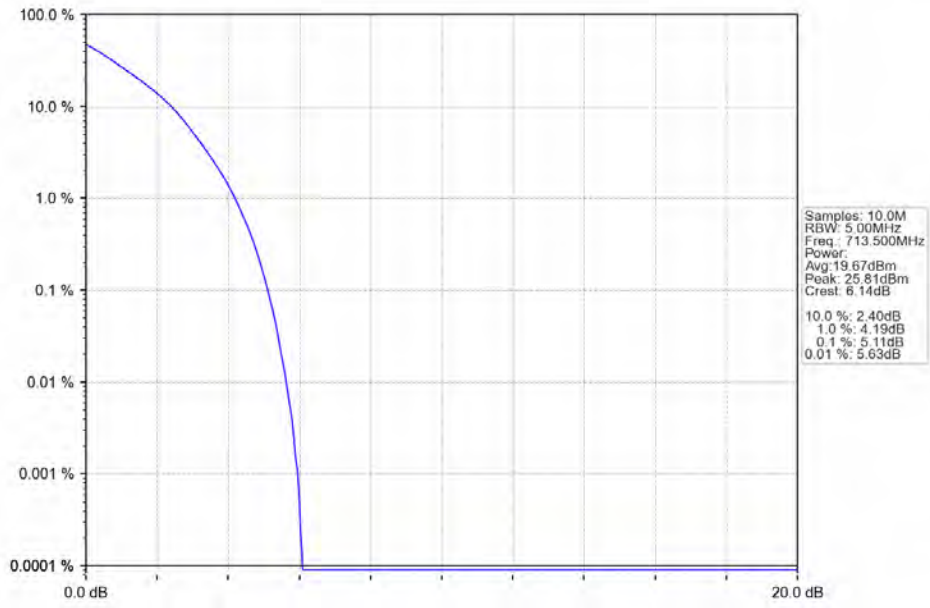
### 5.3.1 Test Result

Band: 12 / Bandwidth: 5MHz / NTVN						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	701.5	25	0	5.35	<=13	Pass
	707.5	25	0	4.95	<=13	Pass
	713.5	25	0	5.11	<=13	Pass
16QAM	701.5	25	0	6.12	<=13	Pass
	707.5	25	0	5.66	<=13	Pass
	713.5	25	0	5.87	<=13	Pass

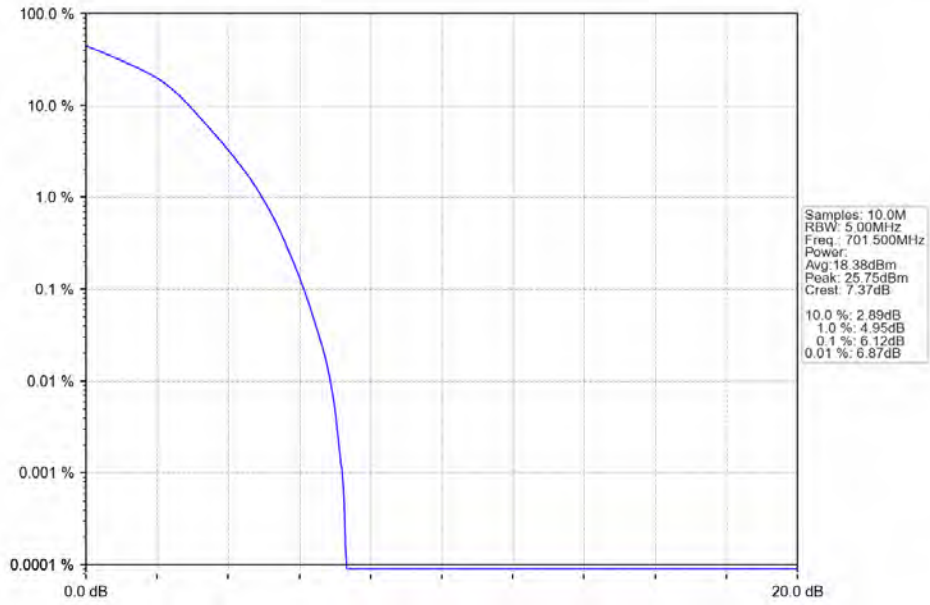
### 5.3.2 Test Graph



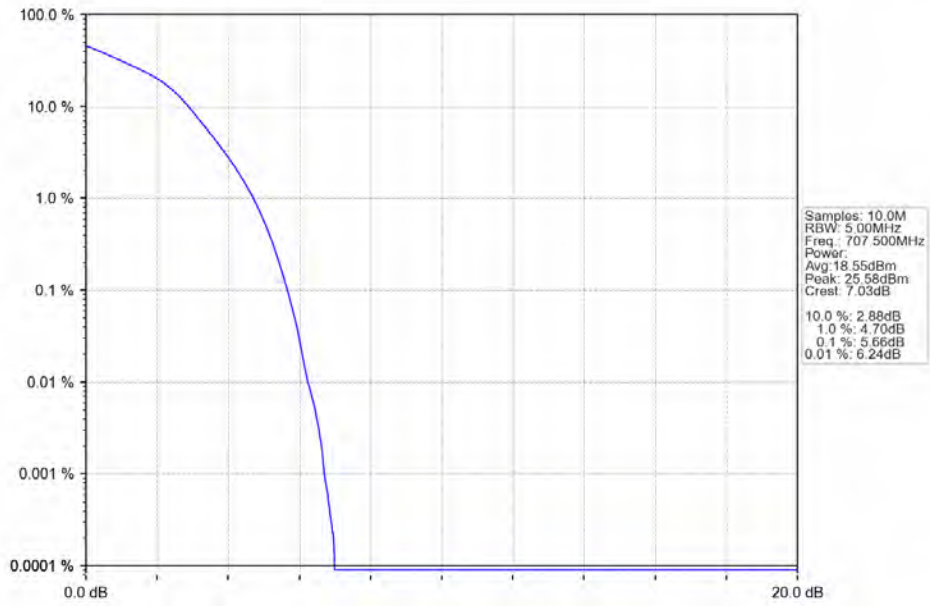
Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



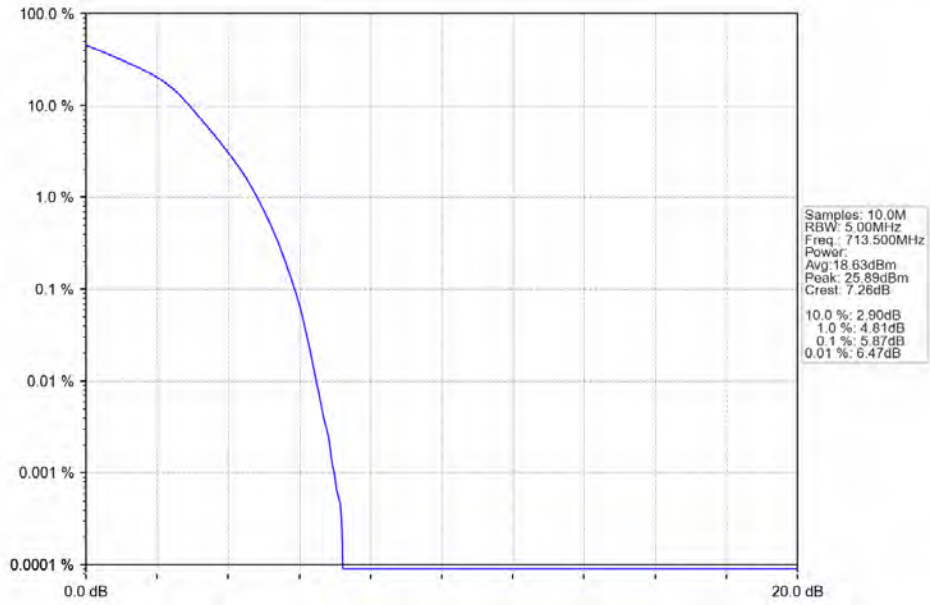
Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_25\_0\_NTNV



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



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



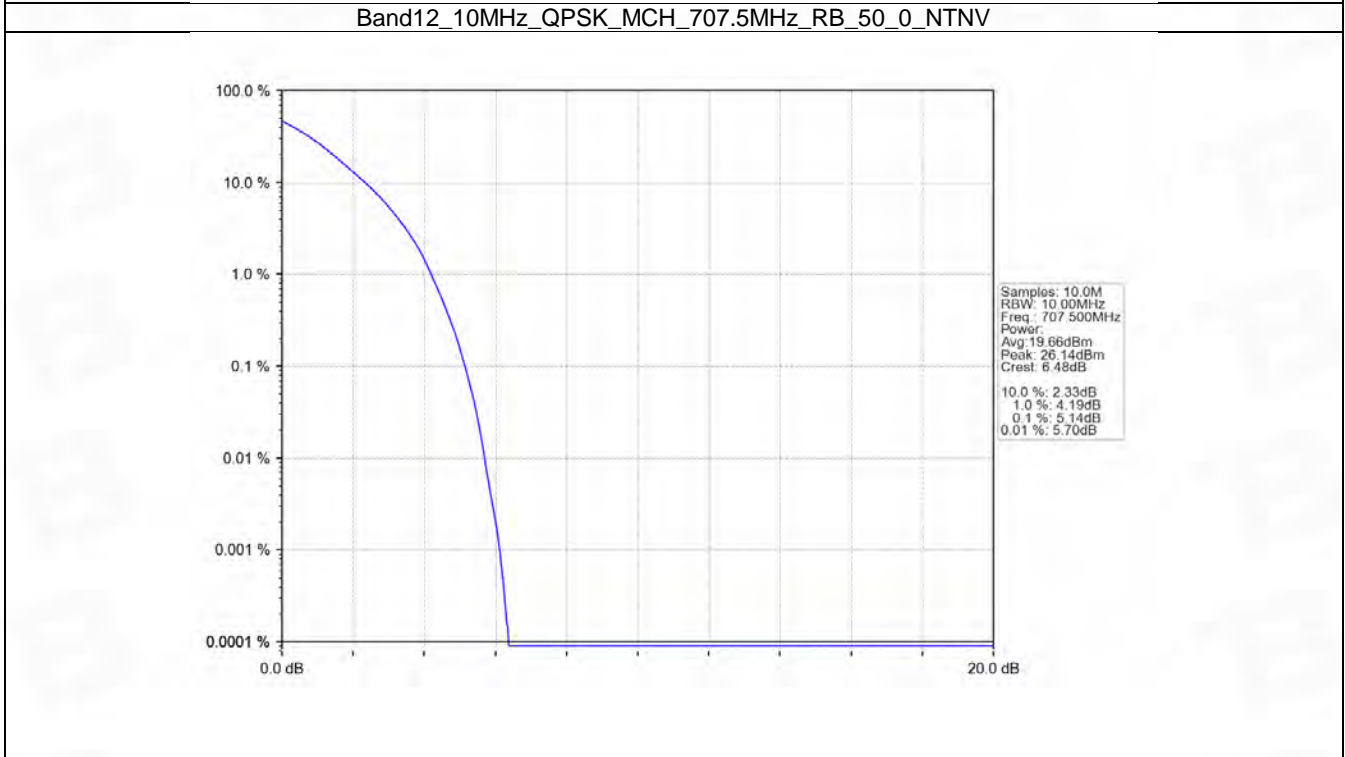
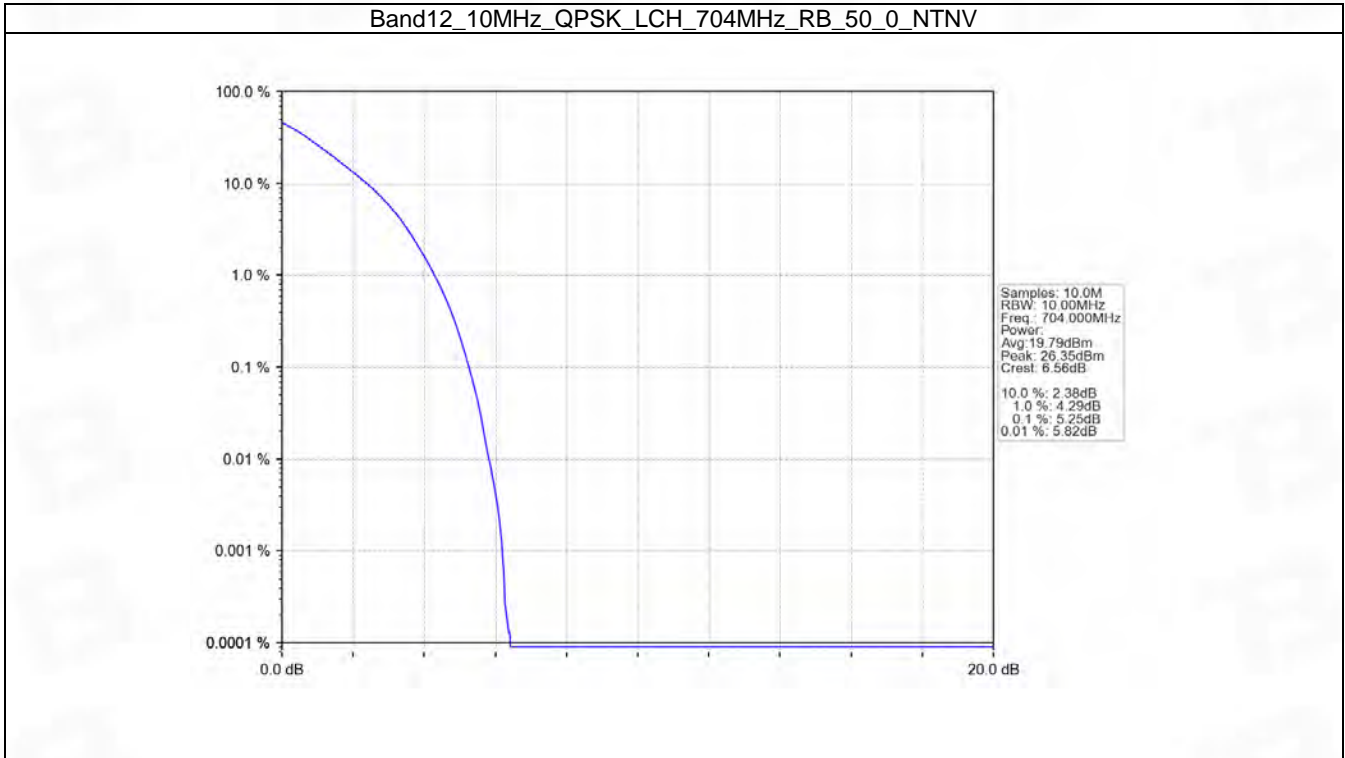
## 5.4 B12\_10MHz

### 5.4.1 Test Result

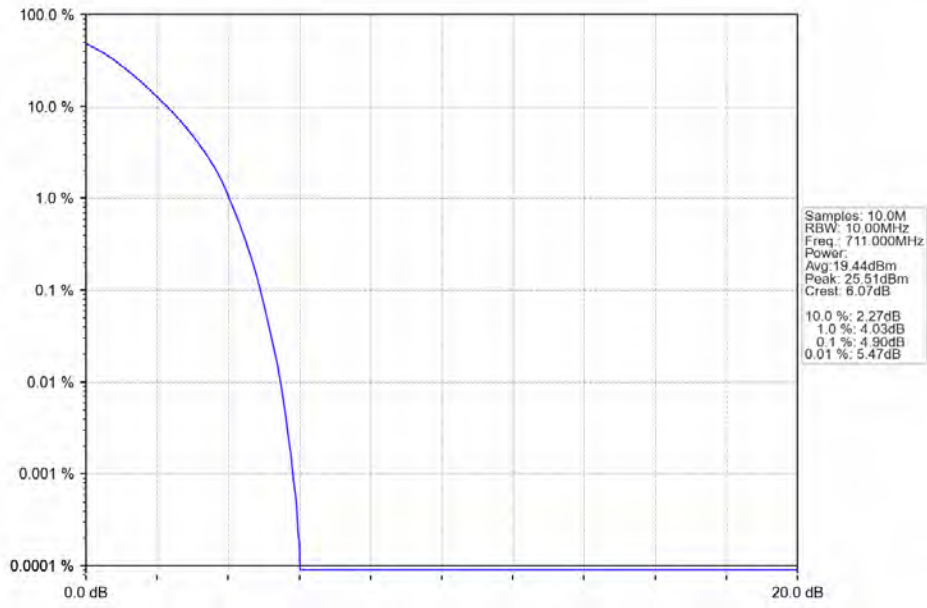
Band: 12 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	704	50	0	5.25	<=13	Pass
	707.5	50	0	5.14	<=13	Pass
	711	50	0	4.90	<=13	Pass
16QAM	704	50	0	6.00	<=13	Pass
	707.5	50	0	5.91	<=13	Pass
	711	50	0	5.76	<=13	Pass



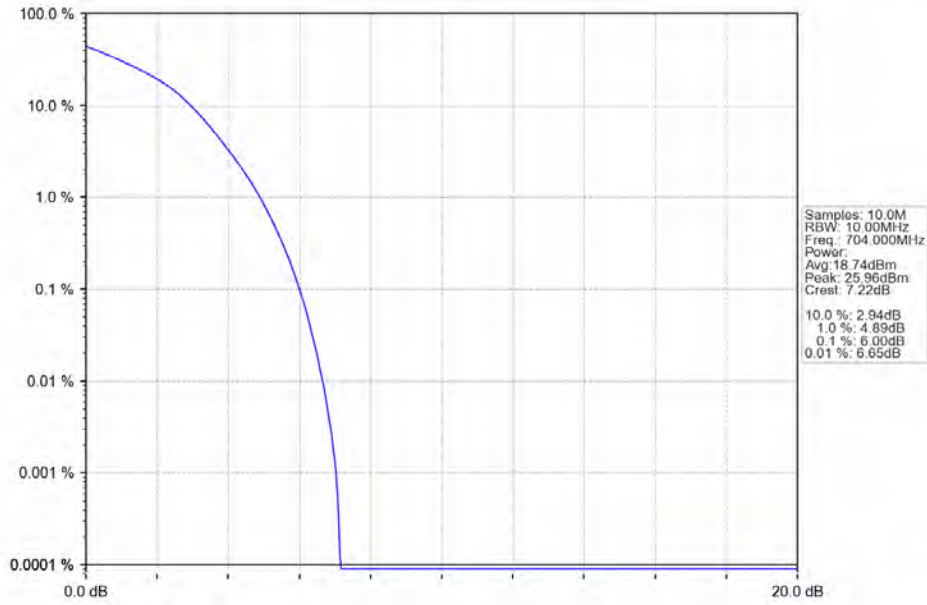
### 5.4.2 Test Graph



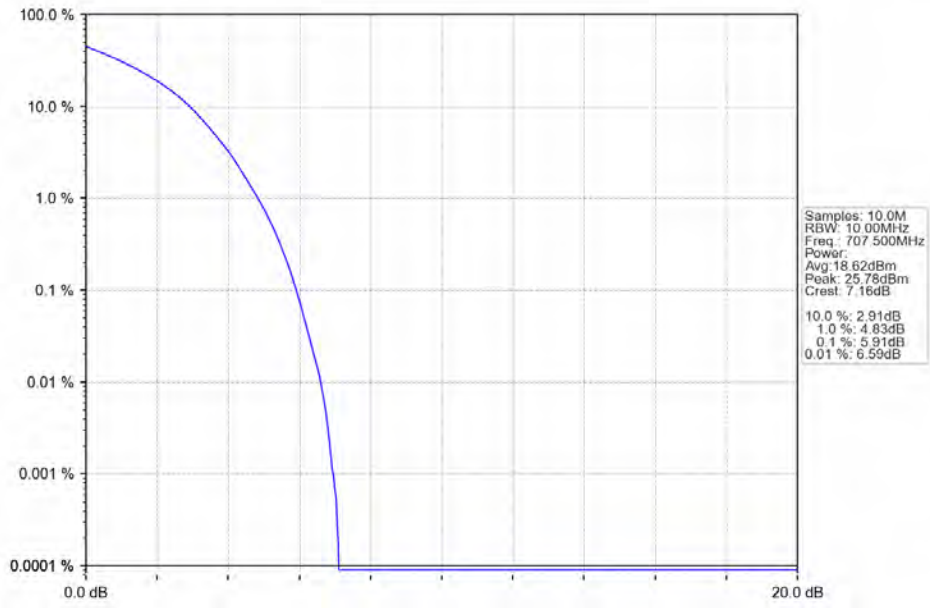
Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



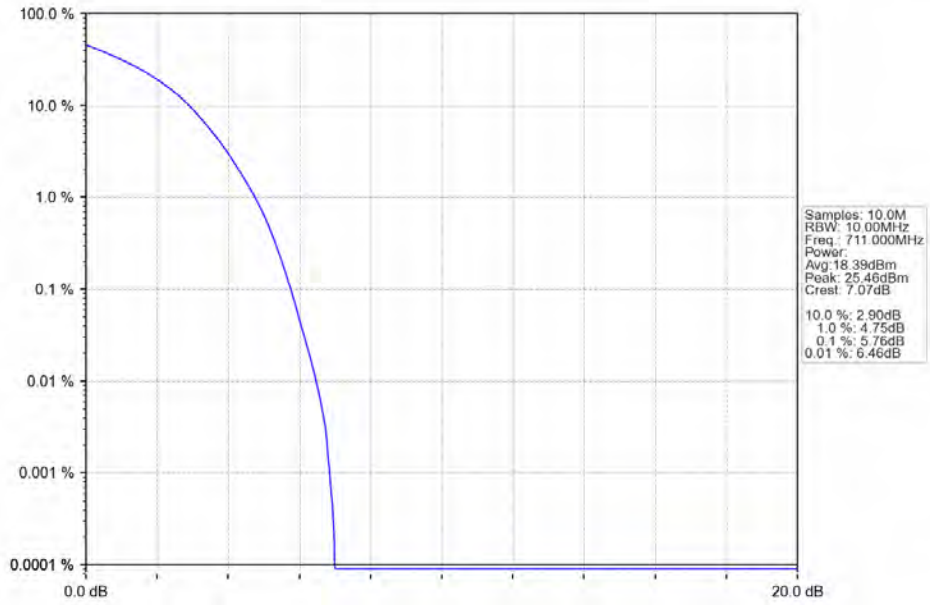
Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_50\_0\_NTNV



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



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



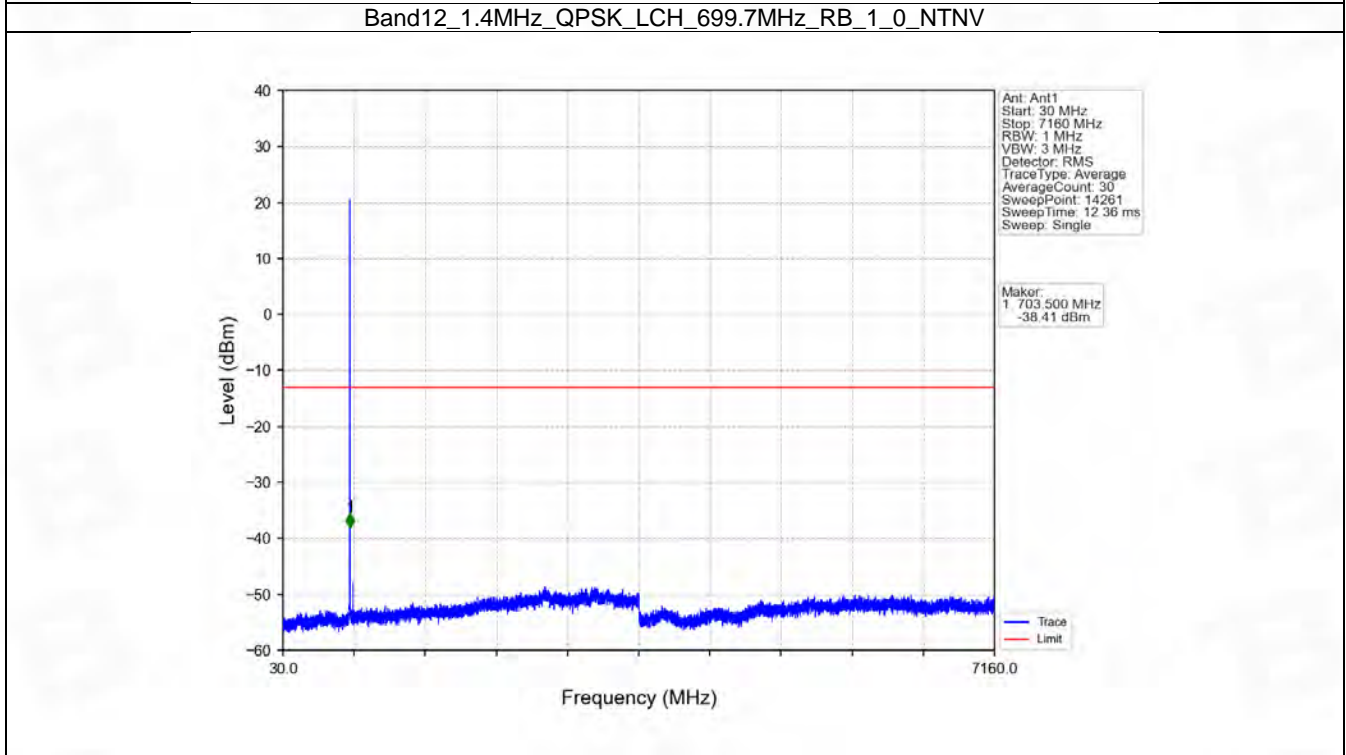
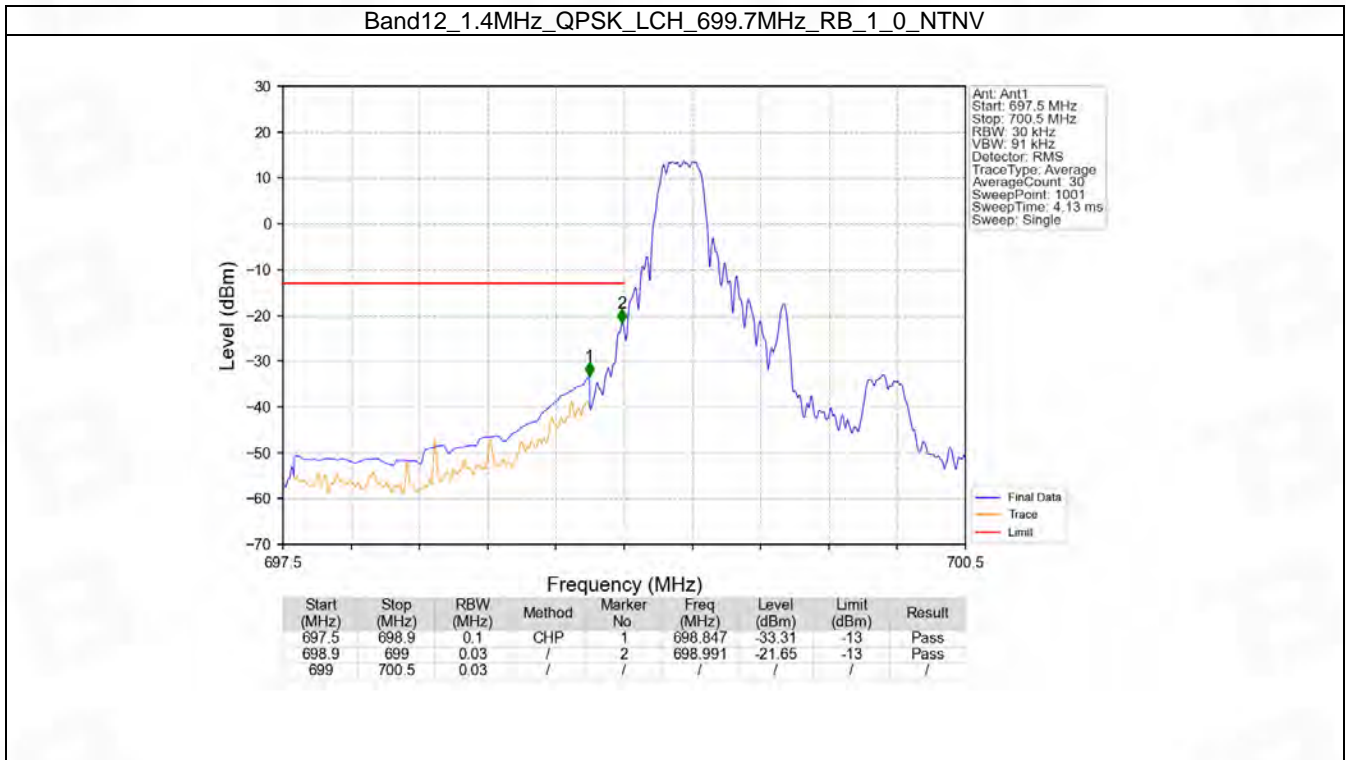
## 6. Spurious Emission

### 6.1 B12\_1.4MHz

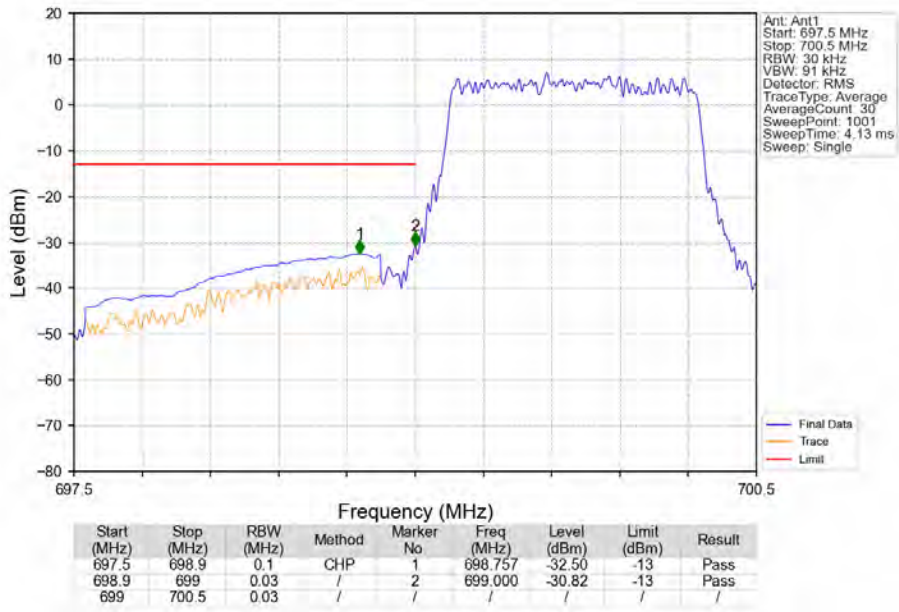
#### 6.1.1 Test Result

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
			5	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
			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
			5	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
			0	Refer To Test Graph		Pass

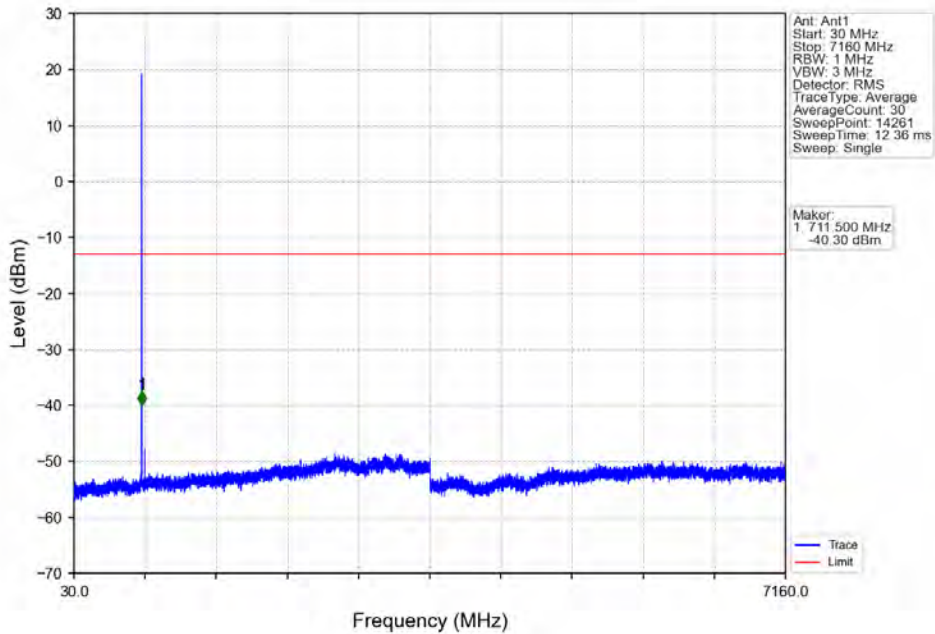
### 6.1.2 Test Graph



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

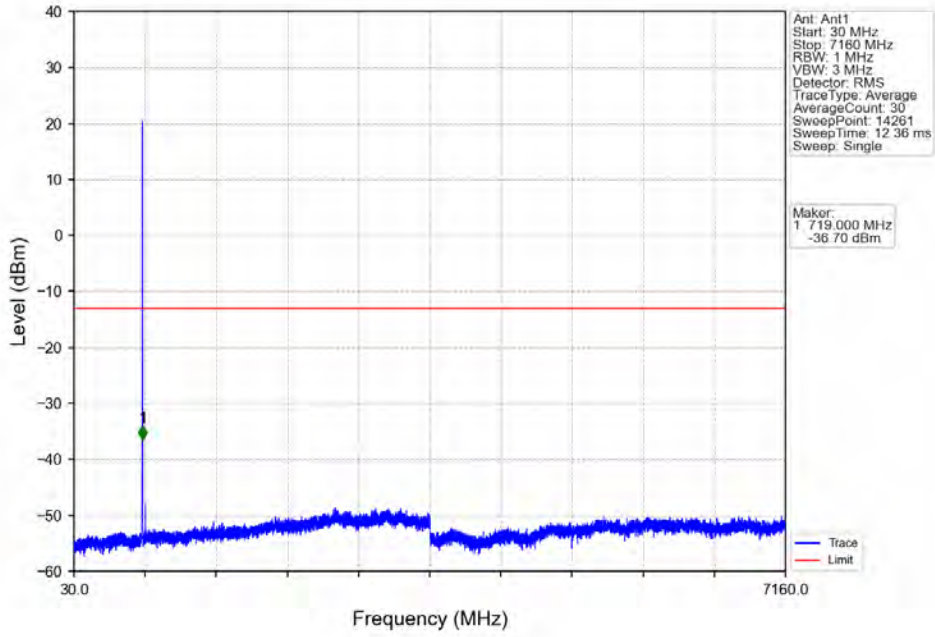


Band12\_1.4MHz\_QPSK\_MCH\_707.5MHz\_RB\_1\_0\_NTNV

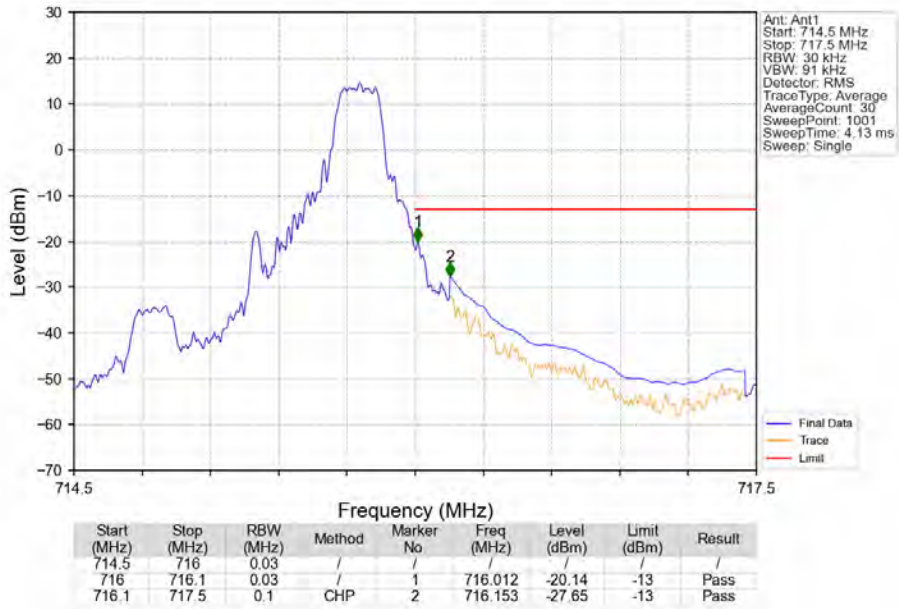




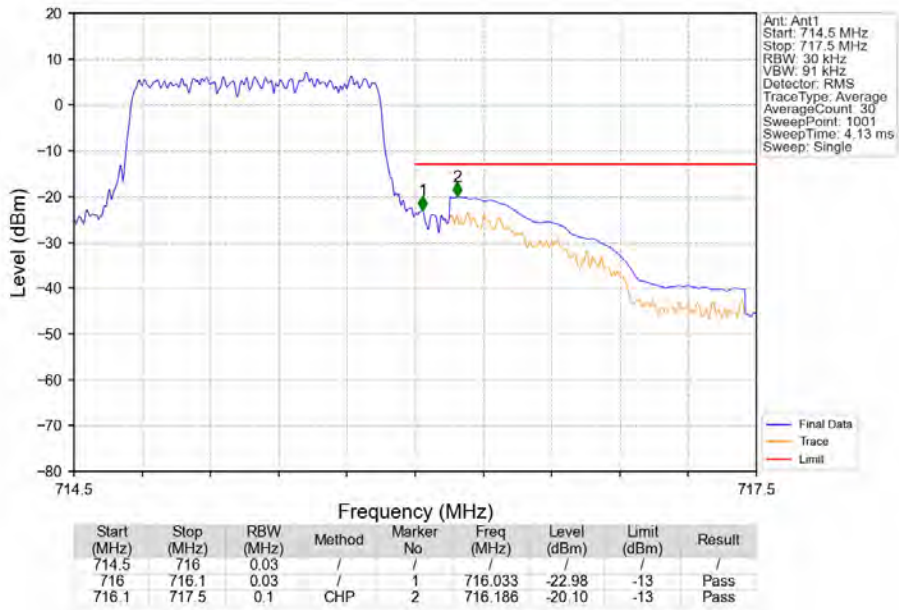
Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_1\_0\_NTNV



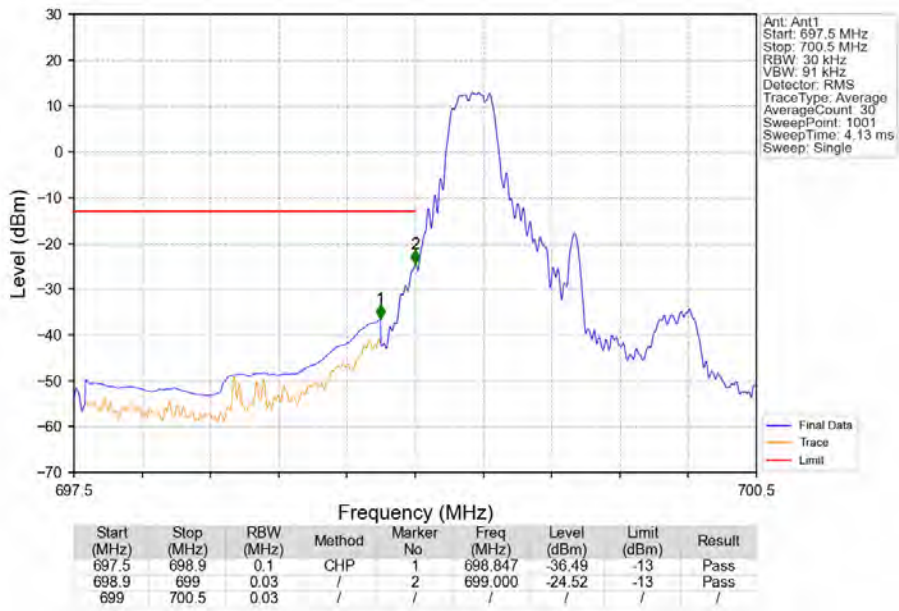
Band12\_1.4MHz\_QPSK\_HCH\_715.3MHz\_RB\_1\_5\_NTNV



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

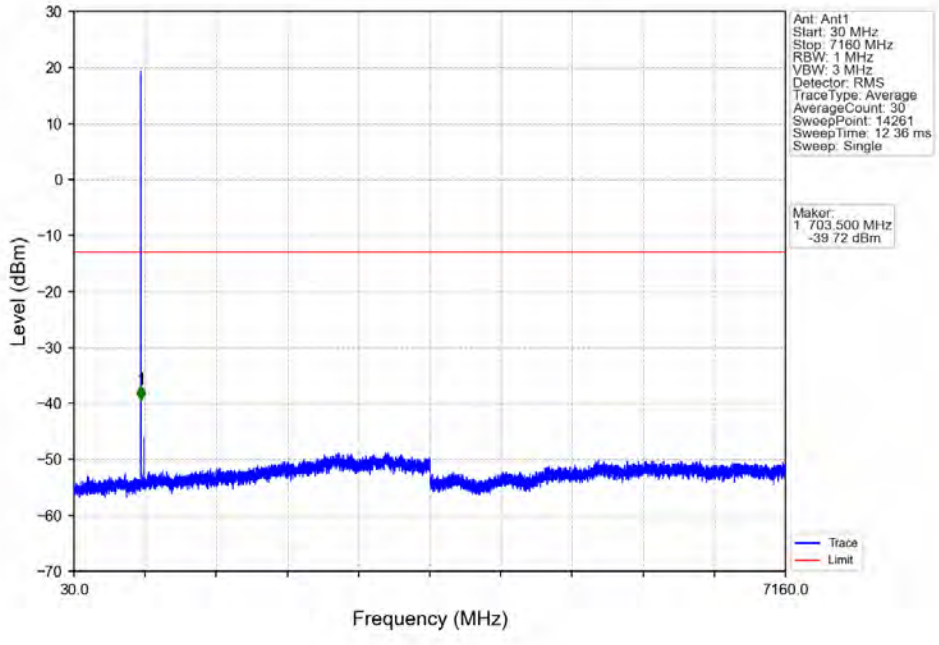


Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_1\_0\_NTNV

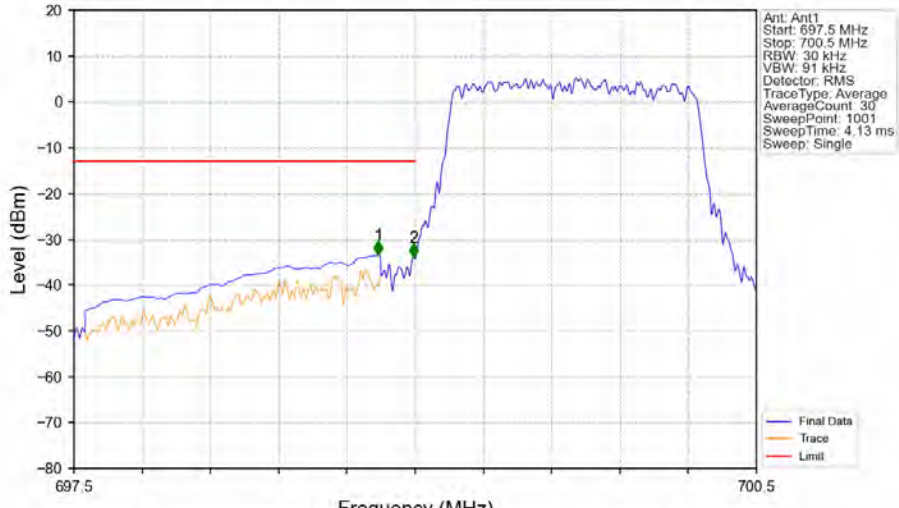




Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_1\_0\_NTNV

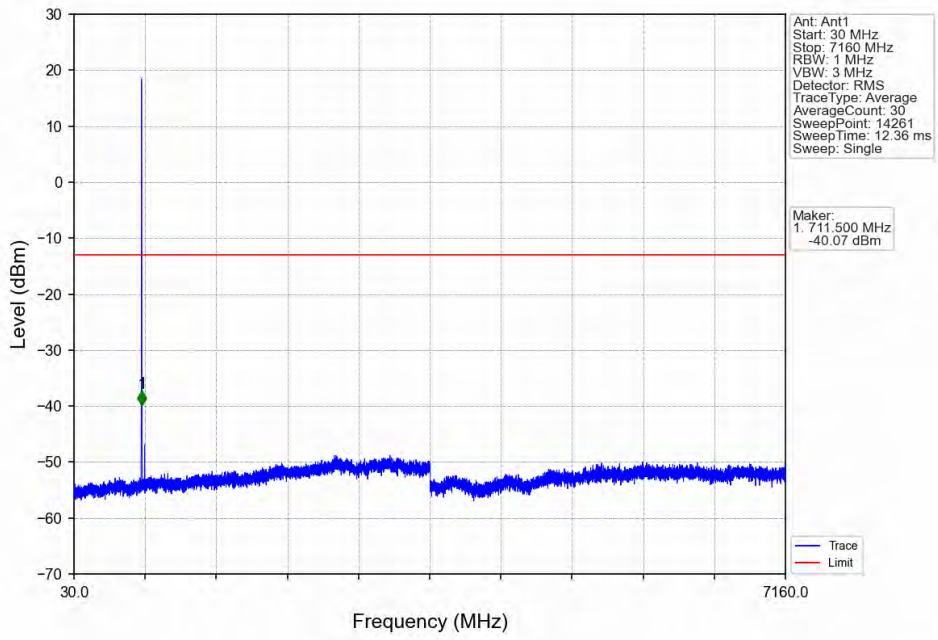


Band12\_1.4MHz\_16QAM\_LCH\_699.7MHz\_RB\_6\_0\_NTNV

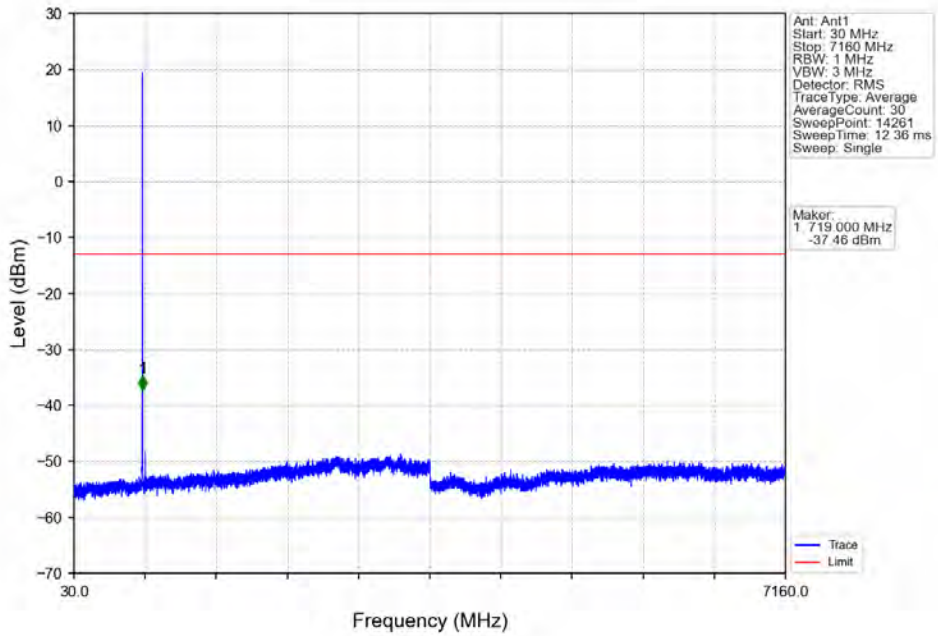


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
697.5	698.9	0.1	CHP	1	698.838	-33.40	-13	Pass
698.9	699	0.03	/	2	698.994	-33.92	-13	Pass
699	700.5	0.03	/	/	/	/	/	/

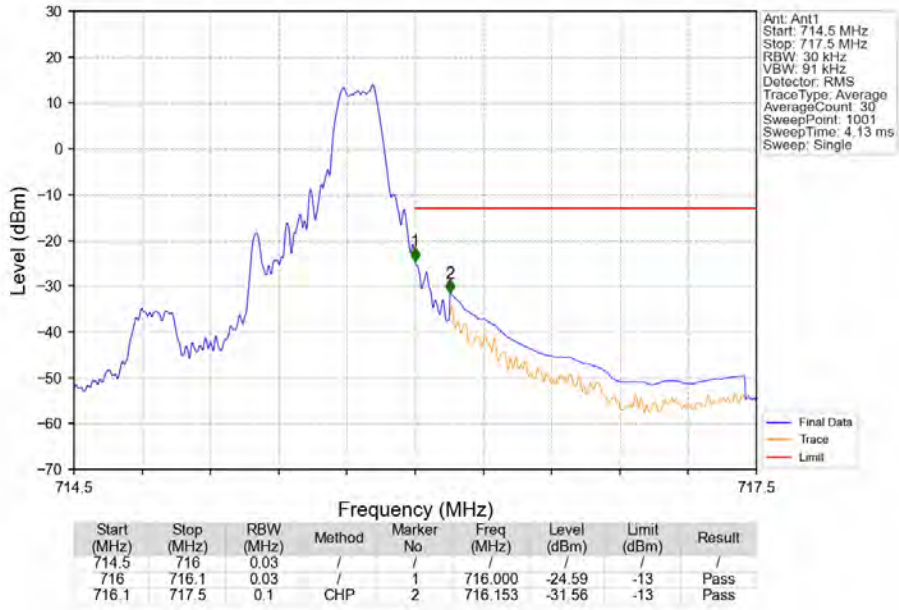
Band12\_1.4MHz\_16QAM\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



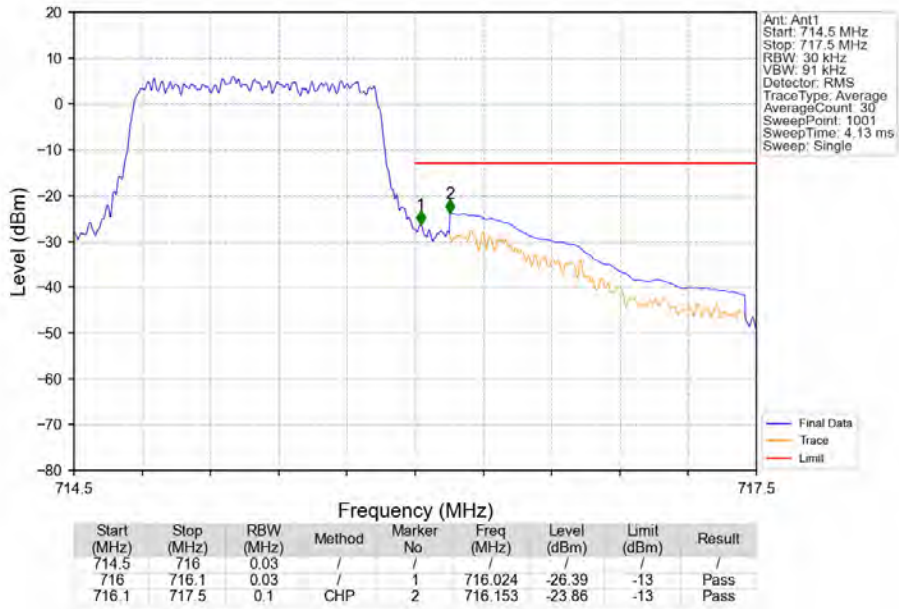
Band12\_1.4MHz\_16QAM\_HCH\_715.3MHz\_RB\_1\_0\_NTNV



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



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

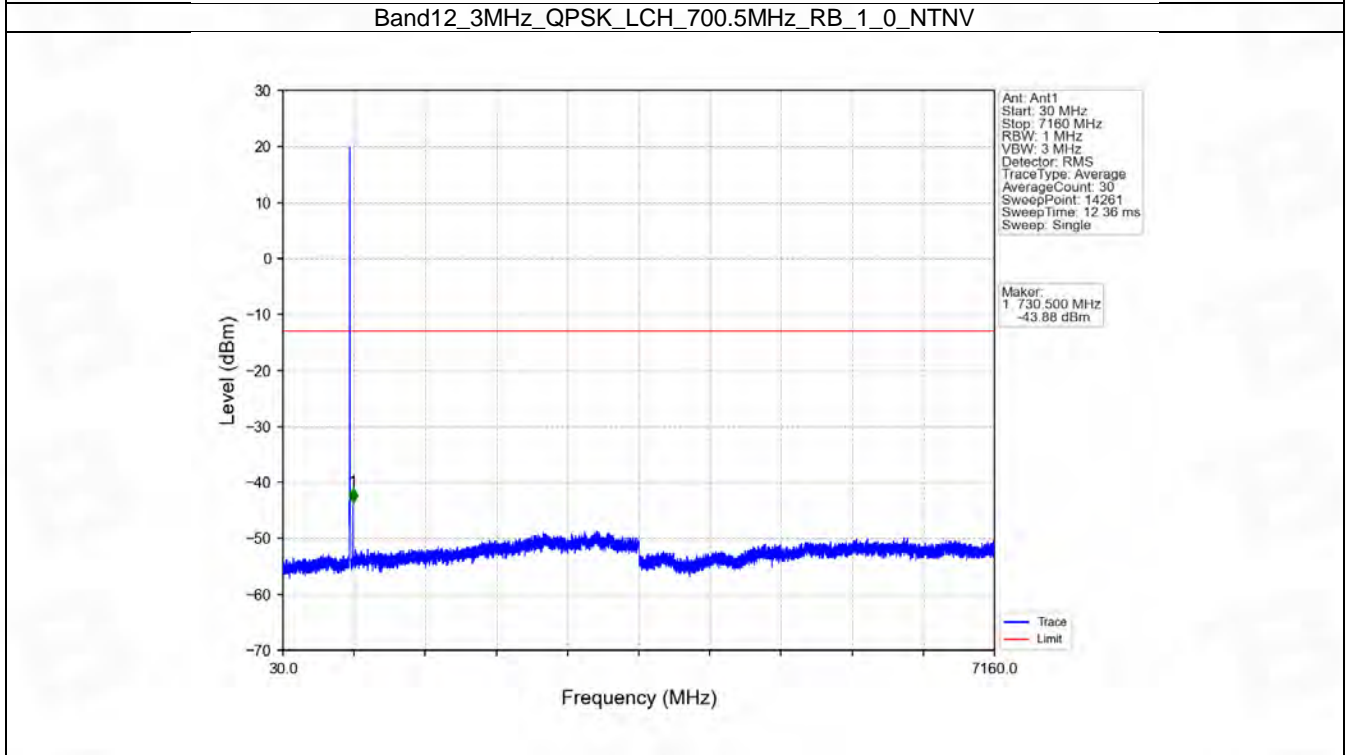
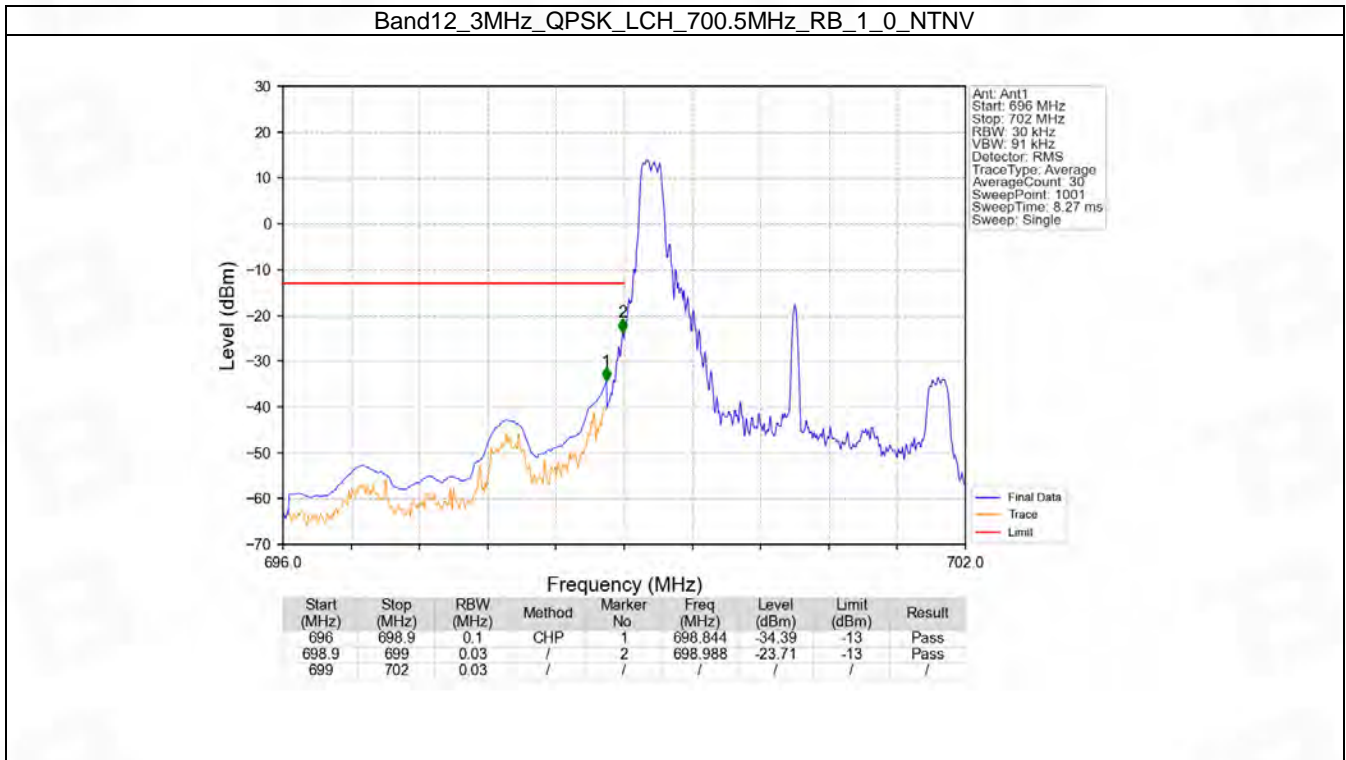


## 6.2 B12\_3MHz

### 6.2.1 Test Result

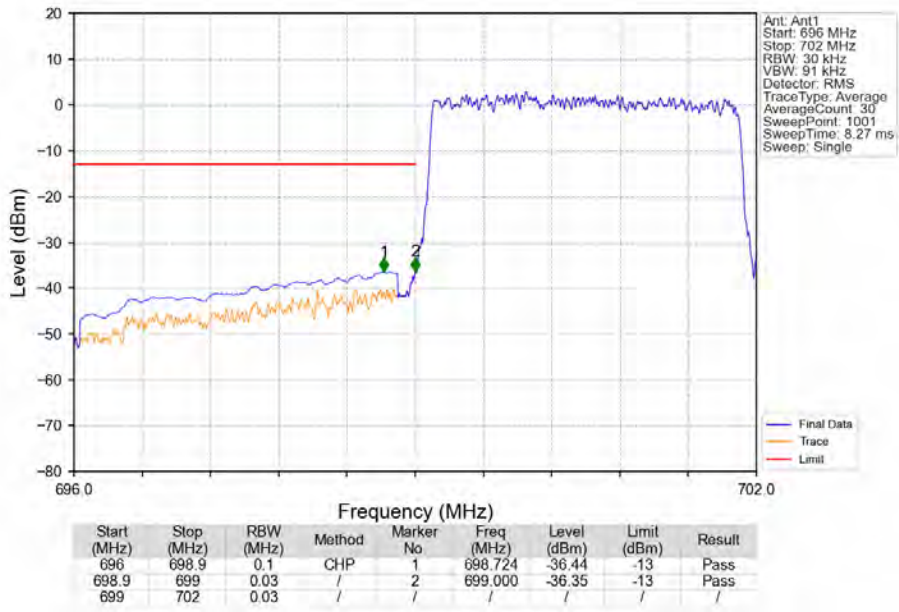
Band: 12 / Bandwidth: 3MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	700.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	714.5	1	0	Refer To Test Graph		Pass
		1	0	Refer To Test Graph		Pass
			14	Refer To Test Graph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

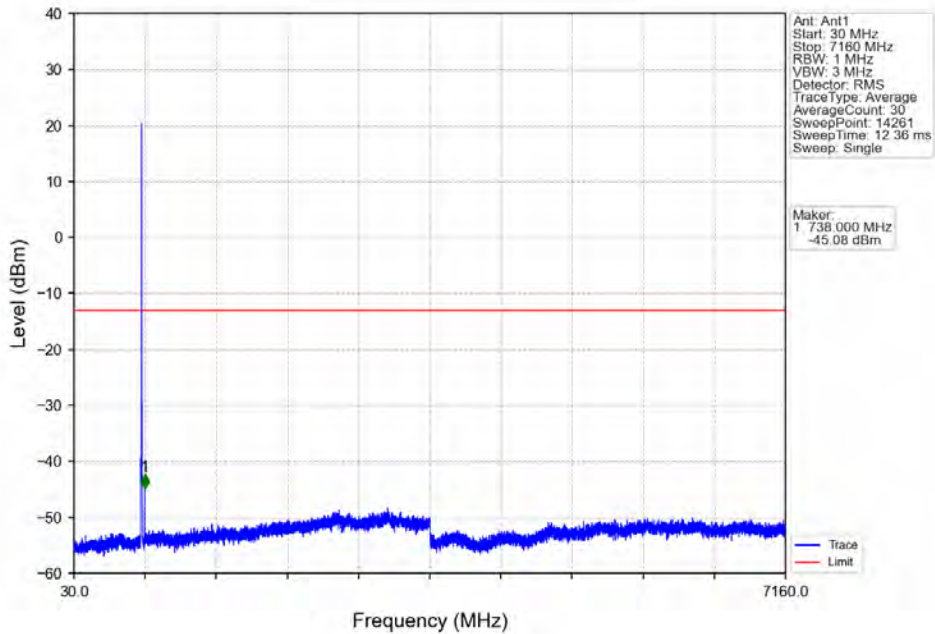




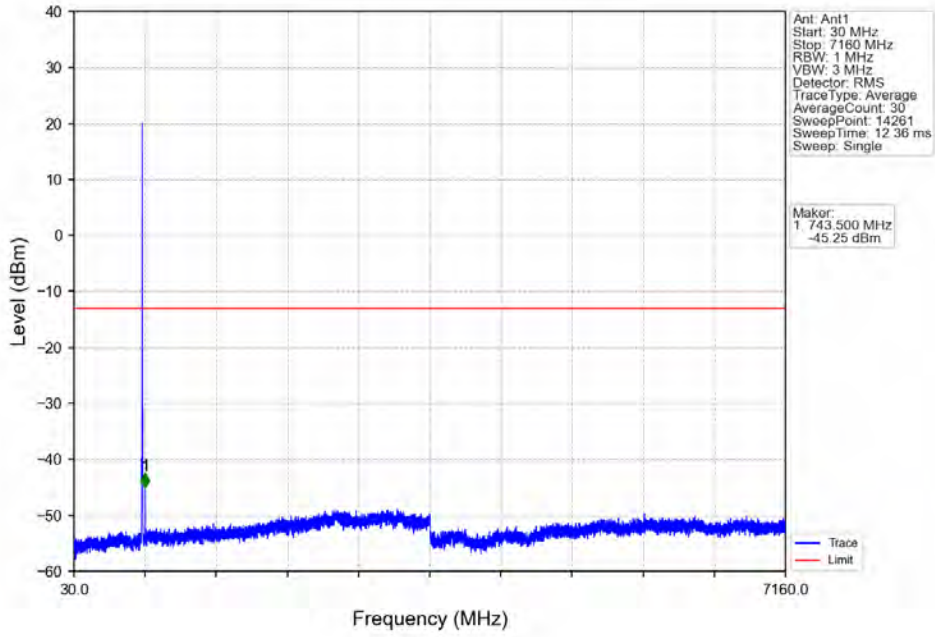
Band12\_3MHz\_QPSK\_LCH\_700.5MHz\_RB\_15\_0\_NTNV



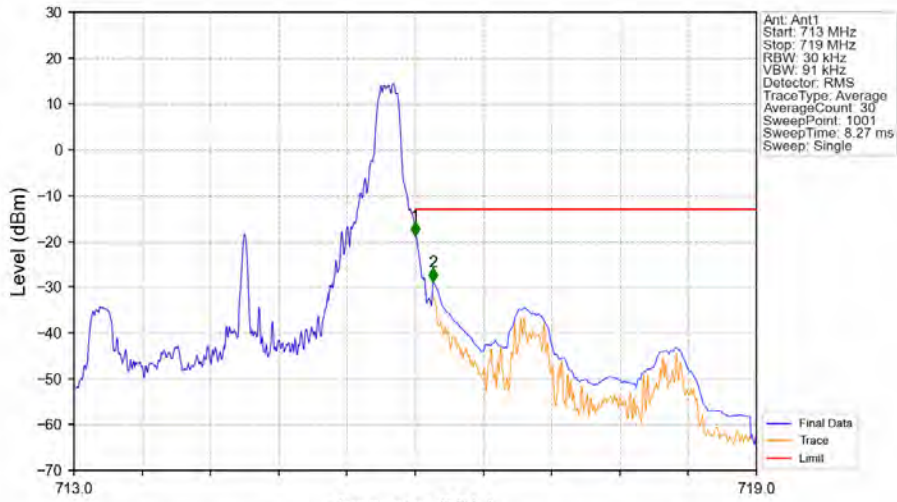
Band12\_3MHz\_QPSK\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



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



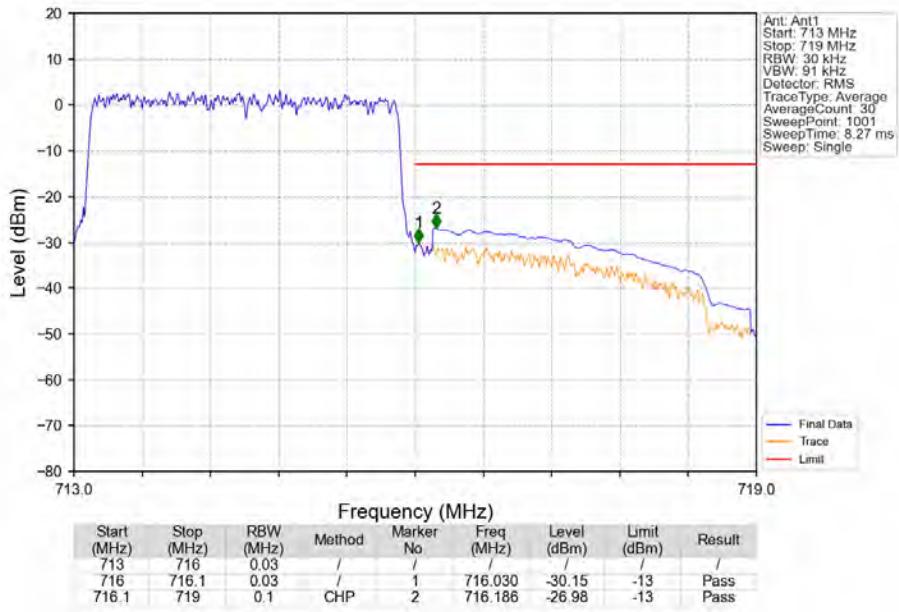
Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_1\_14\_NTNV



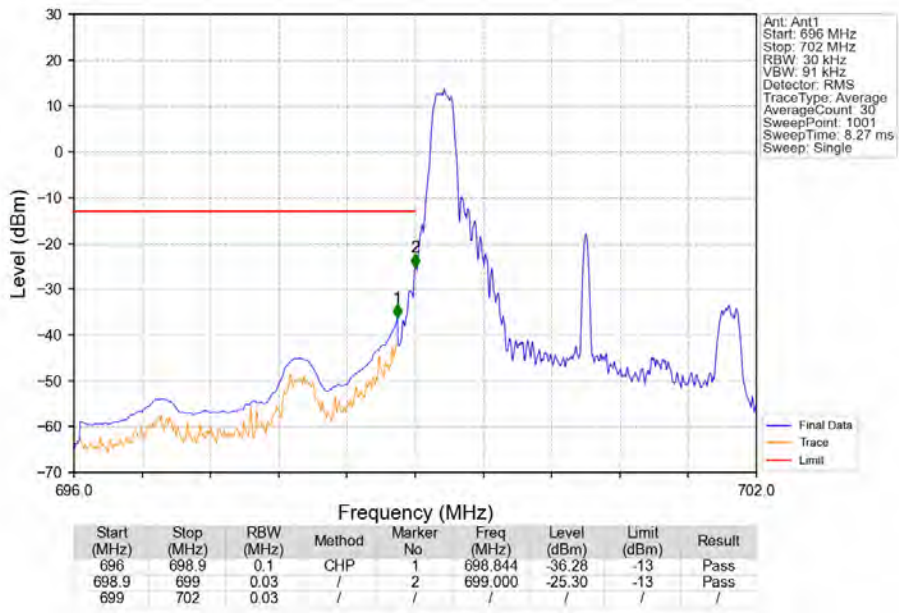
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
713	716	0.03	/	1	716.000	-18.92	-13	Pass
716.1	719	0.1	CHP	2	716.156	-28.85	-13	Pass



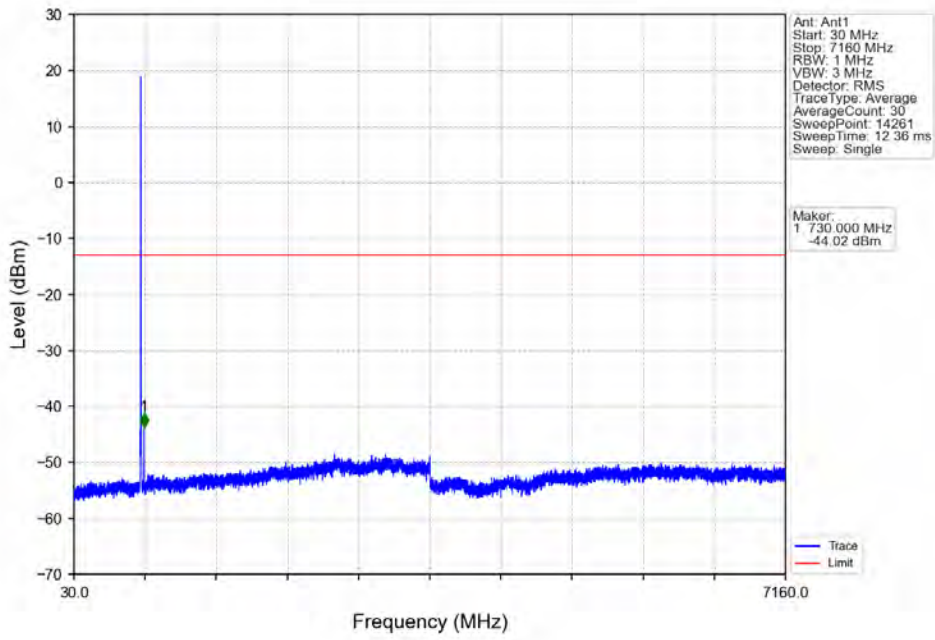
Band12\_3MHz\_QPSK\_HCH\_714.5MHz\_RB\_15\_0\_NTNV



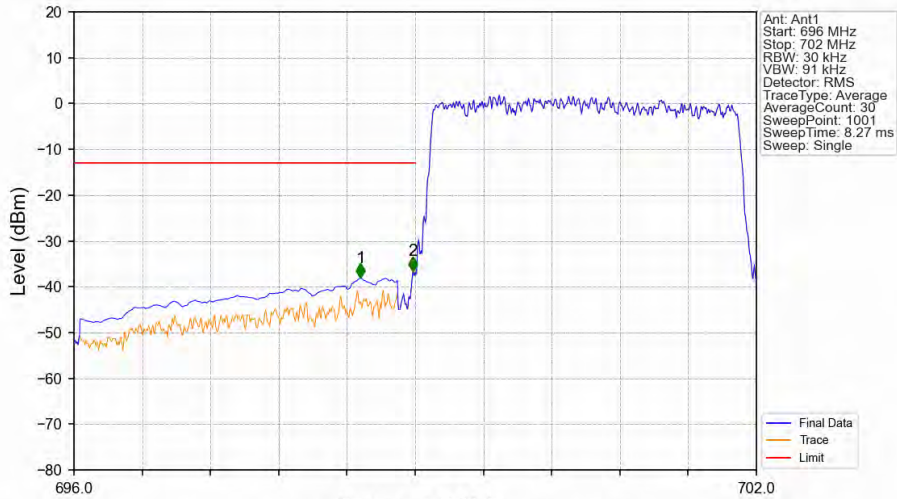
Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_1\_0\_NTNV



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

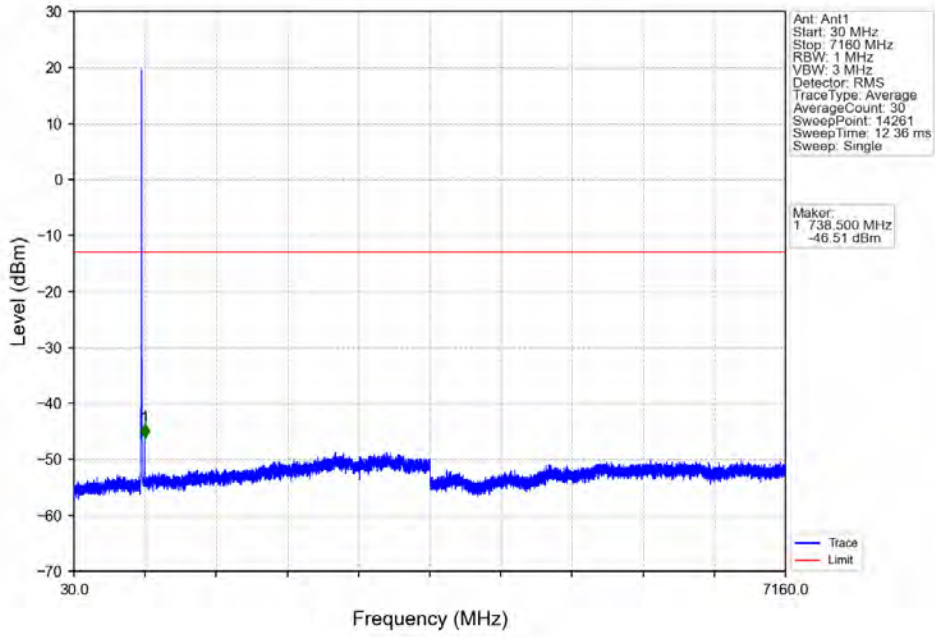


Band12\_3MHz\_16QAM\_LCH\_700.5MHz\_RB\_15\_0\_NTNV

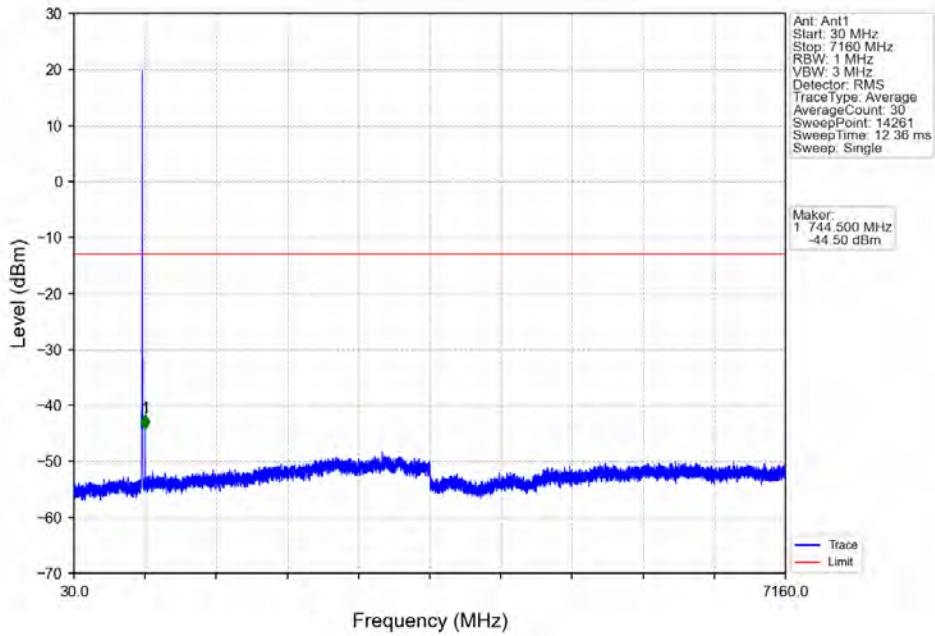


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
696	698.9	0.1	CHP	1	698.520	-38.09	-13	Pass
698.9	699	0.03	/	2	698.982	-36.55	-13	Pass
699	702	0.03	/	/	/	/	/	/

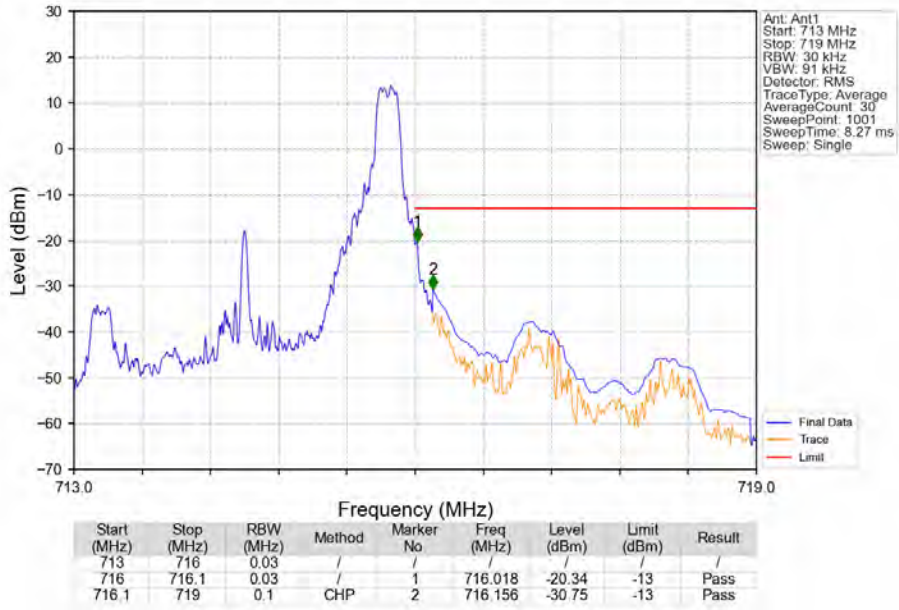
Band12\_3MHz\_16QAM\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



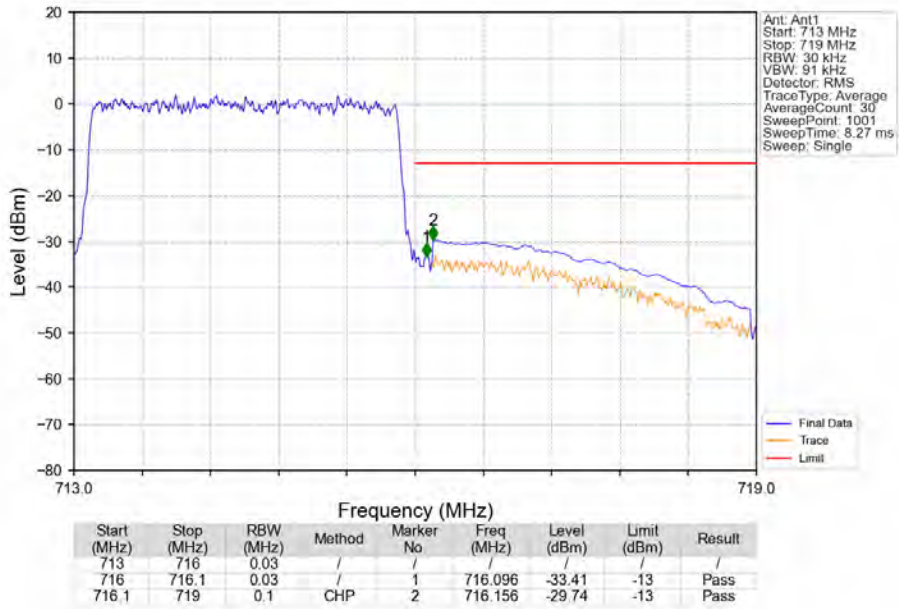
Band12\_3MHz\_16QAM\_HCH\_714.5MHz\_RB\_1\_0\_NTNV



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



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



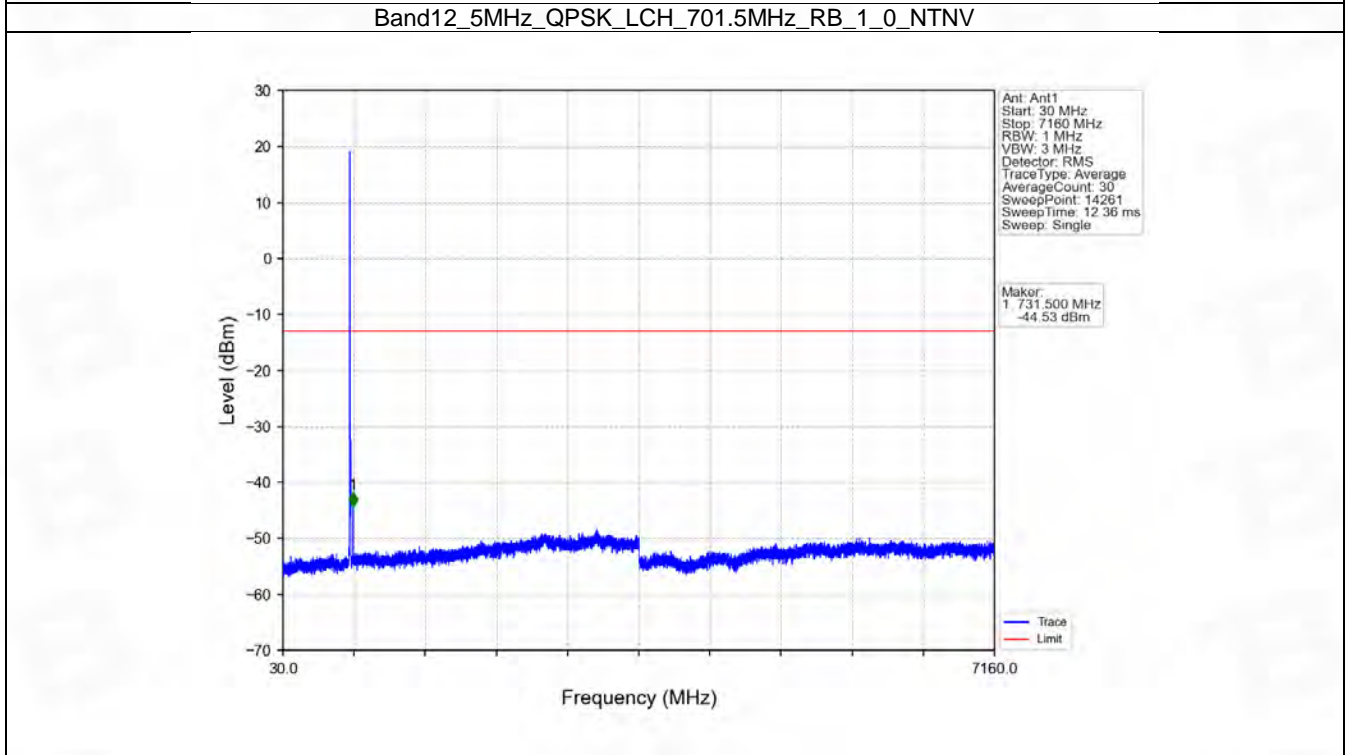
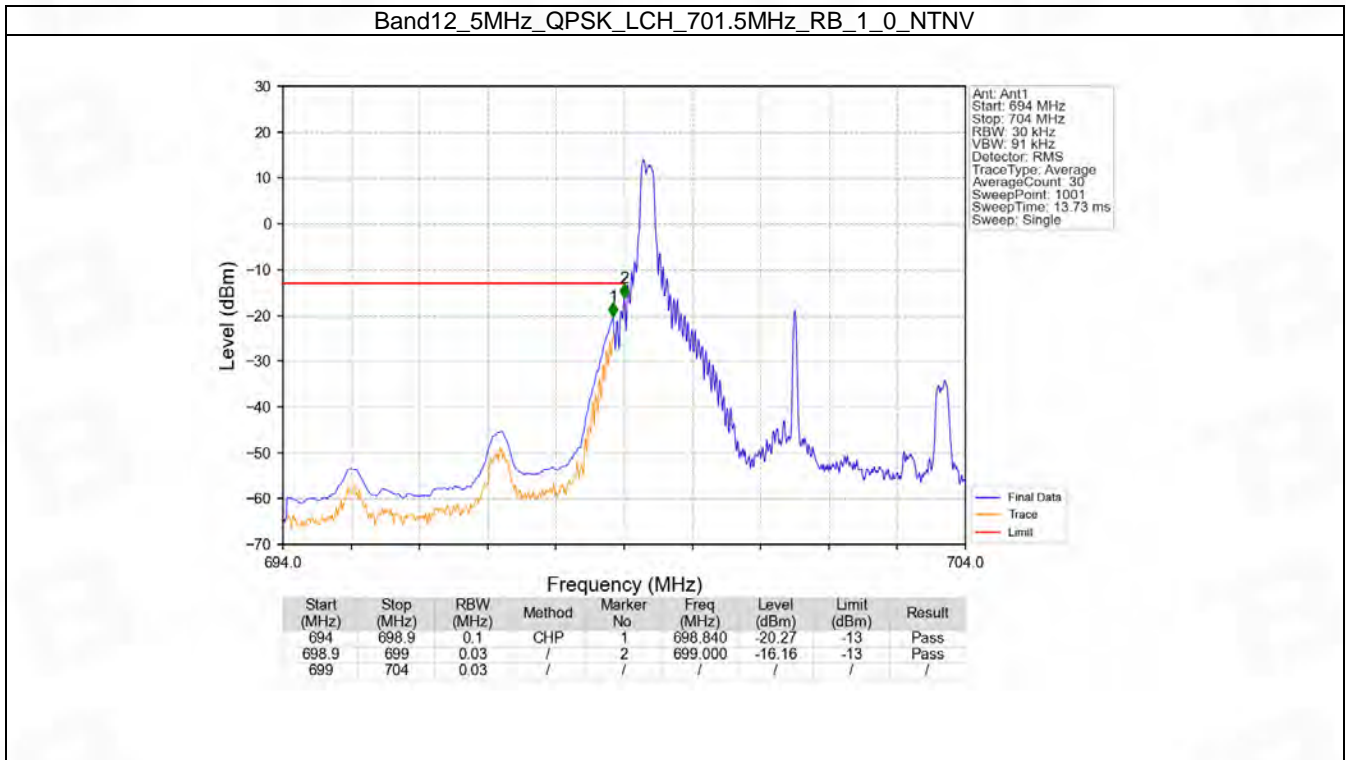
## 6.3 B12\_5MHz

### 6.3.1 Test Result

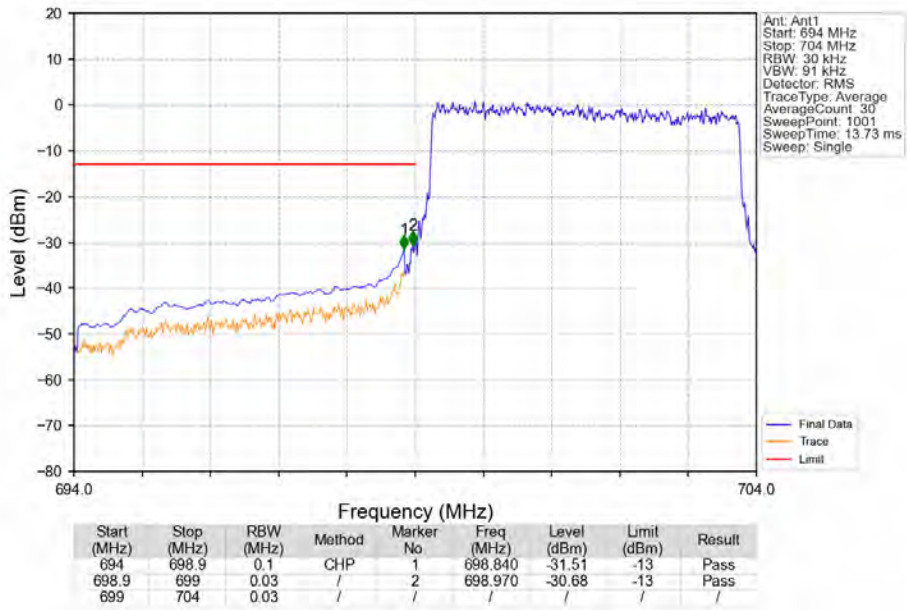
Band: 12 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	701.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	713.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph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



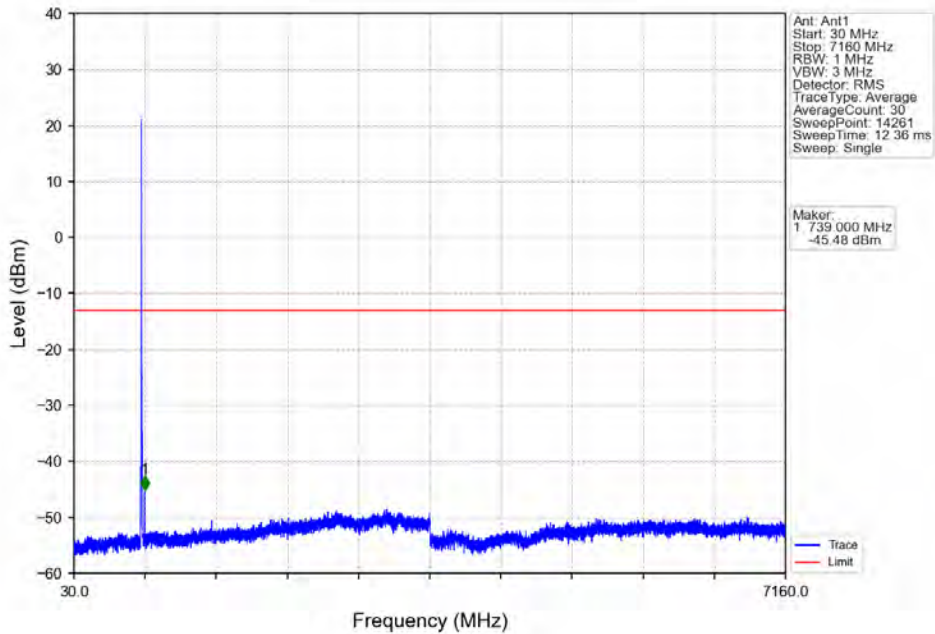
### 6.3.2 Test Graph



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

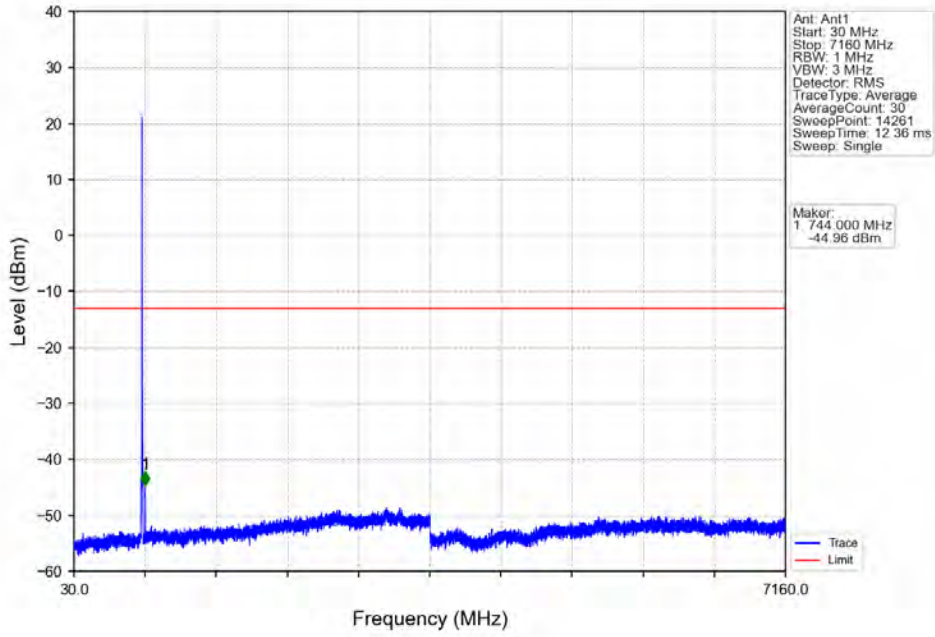


Band12\_5MHz\_QPSK\_MCH\_707.5MHz\_RB\_1\_0\_NTNV

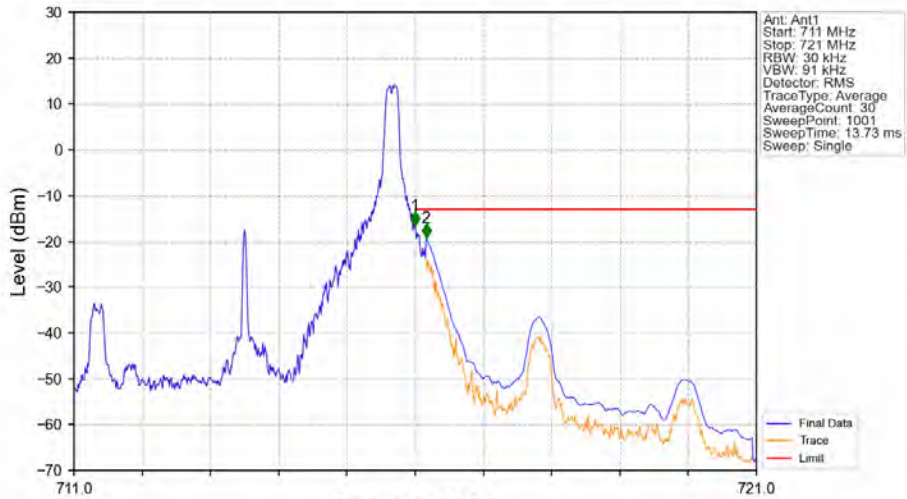




Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_1\_0\_NTNV

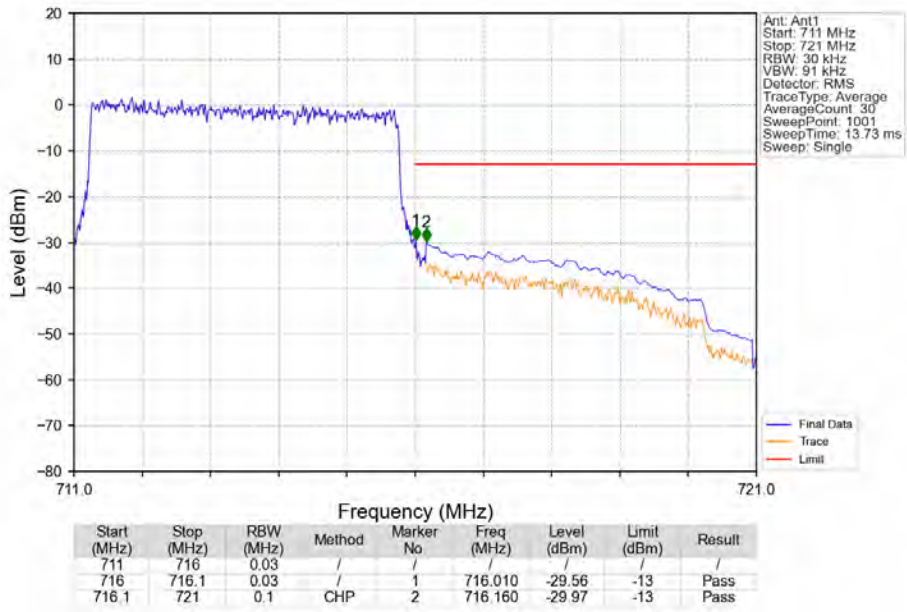


Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_1\_24\_NTNV

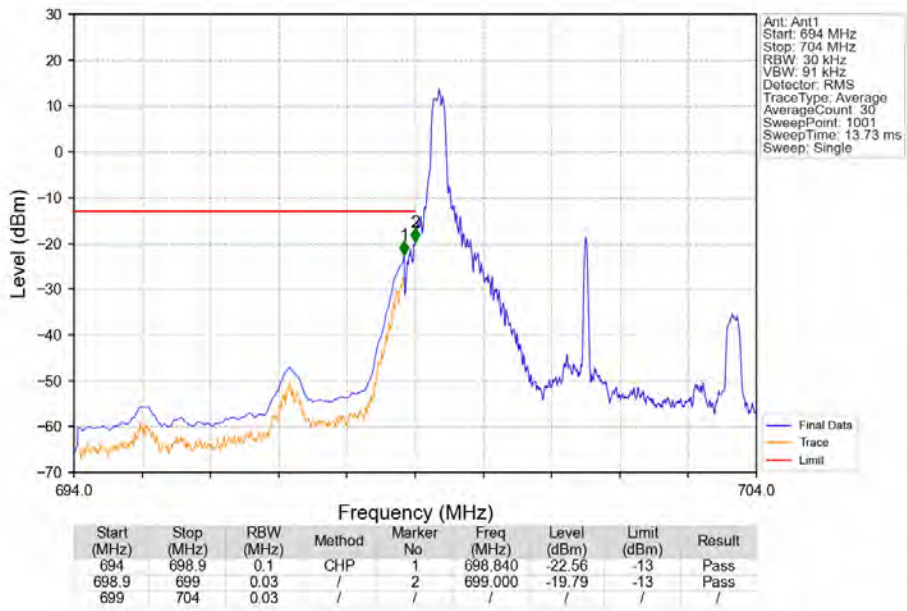


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	1	716.000	-16.54	-13	Pass
716	716.1	0.03	CHP	2	716.160	-19.20	-13	Pass

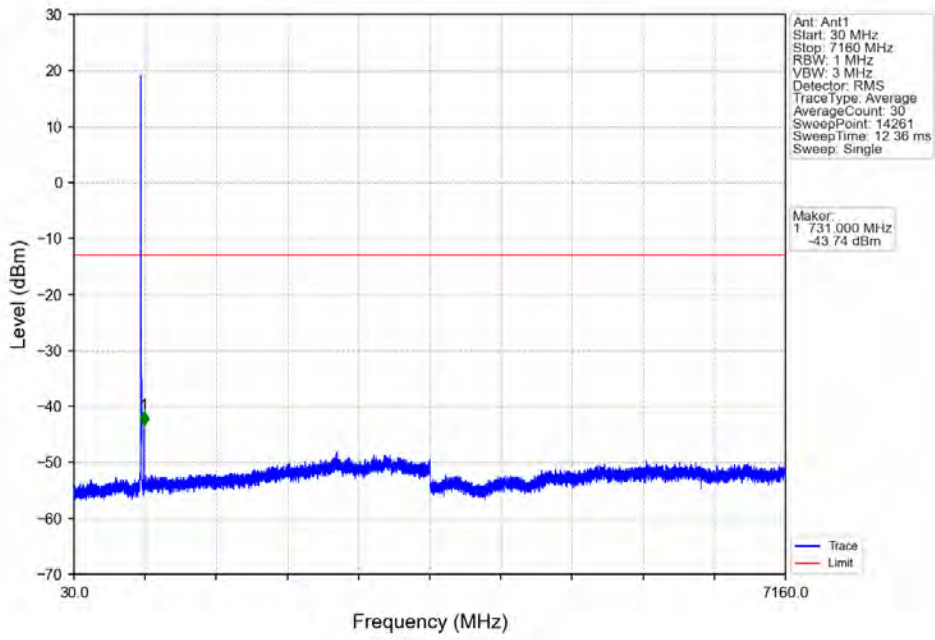
Band12\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



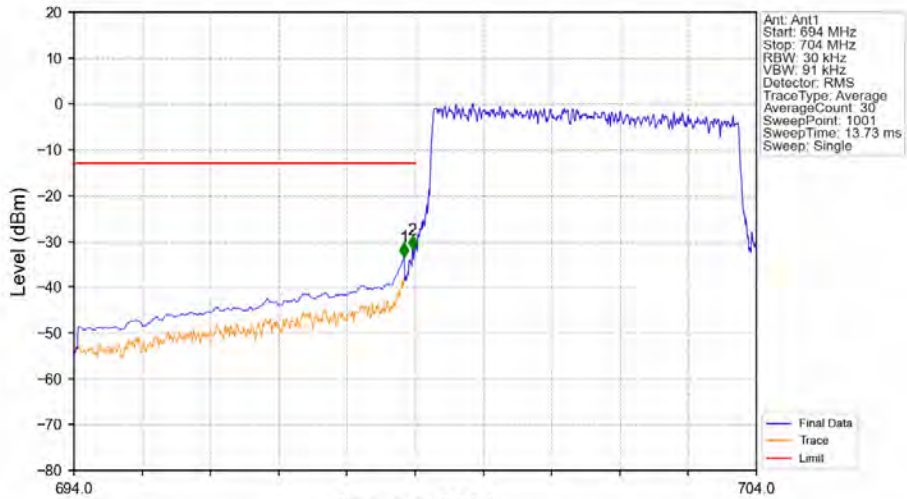
Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_1\_0\_NTNV



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

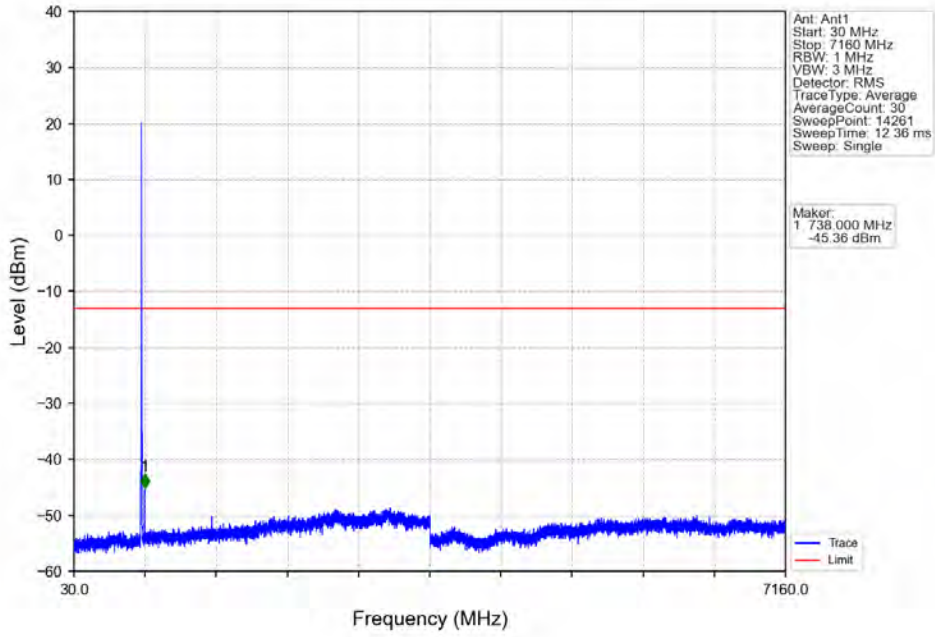


Band12\_5MHz\_16QAM\_LCH\_701.5MHz\_RB\_25\_0\_NTNV

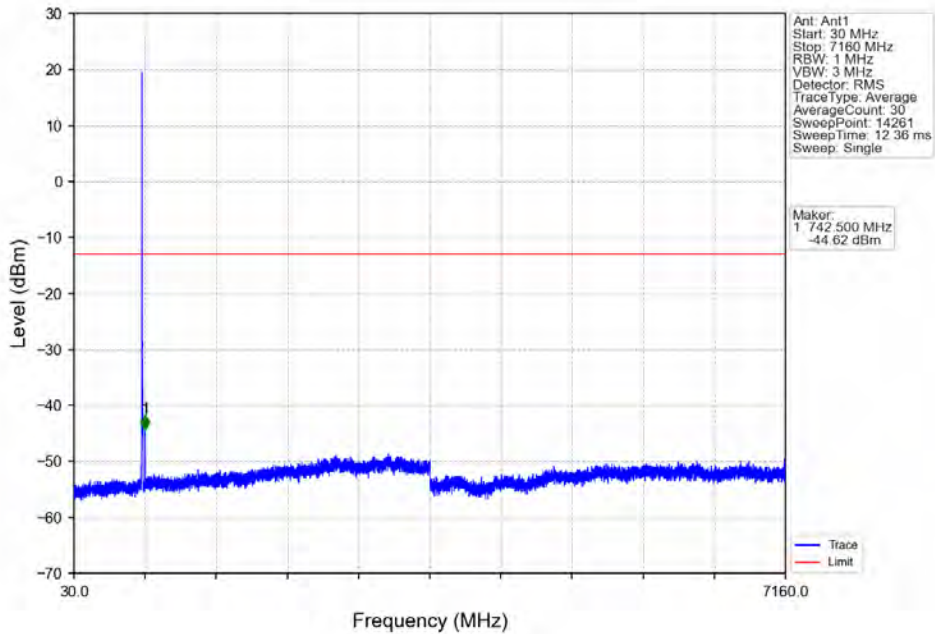


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	698.9	0.1	CHP	1	698.840	-33.48	-13	Pass
698.9	699	0.03	/	2	698.960	-31.89	-13	Pass
699	704	0.03	/	/	/	/	/	/

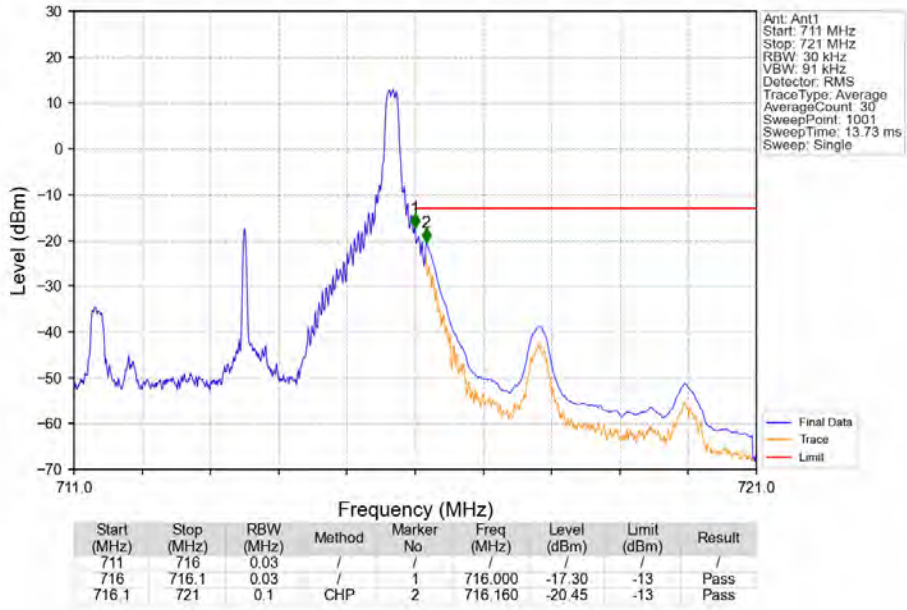
Band12\_5MHz\_16QAM\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



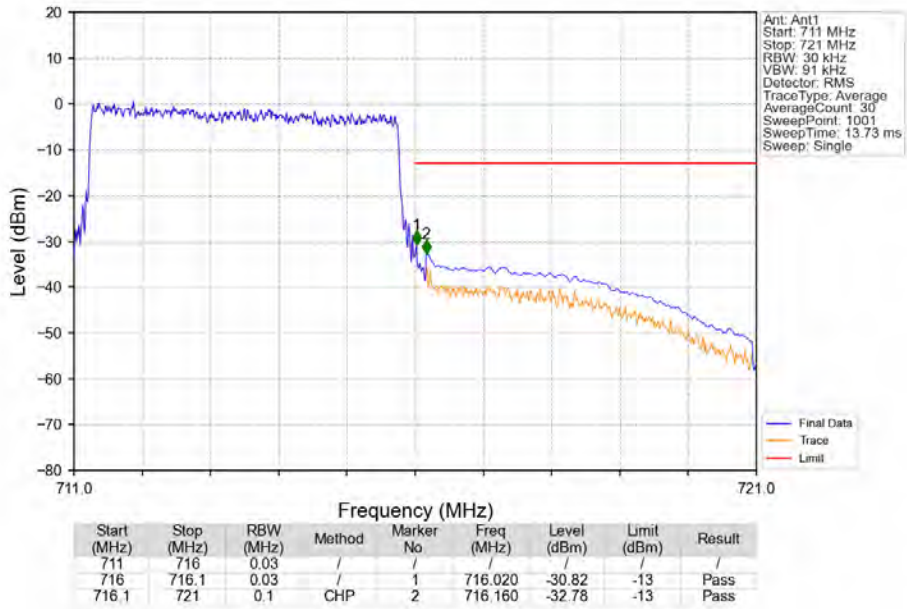
Band12\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_1\_0\_NTNV



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



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



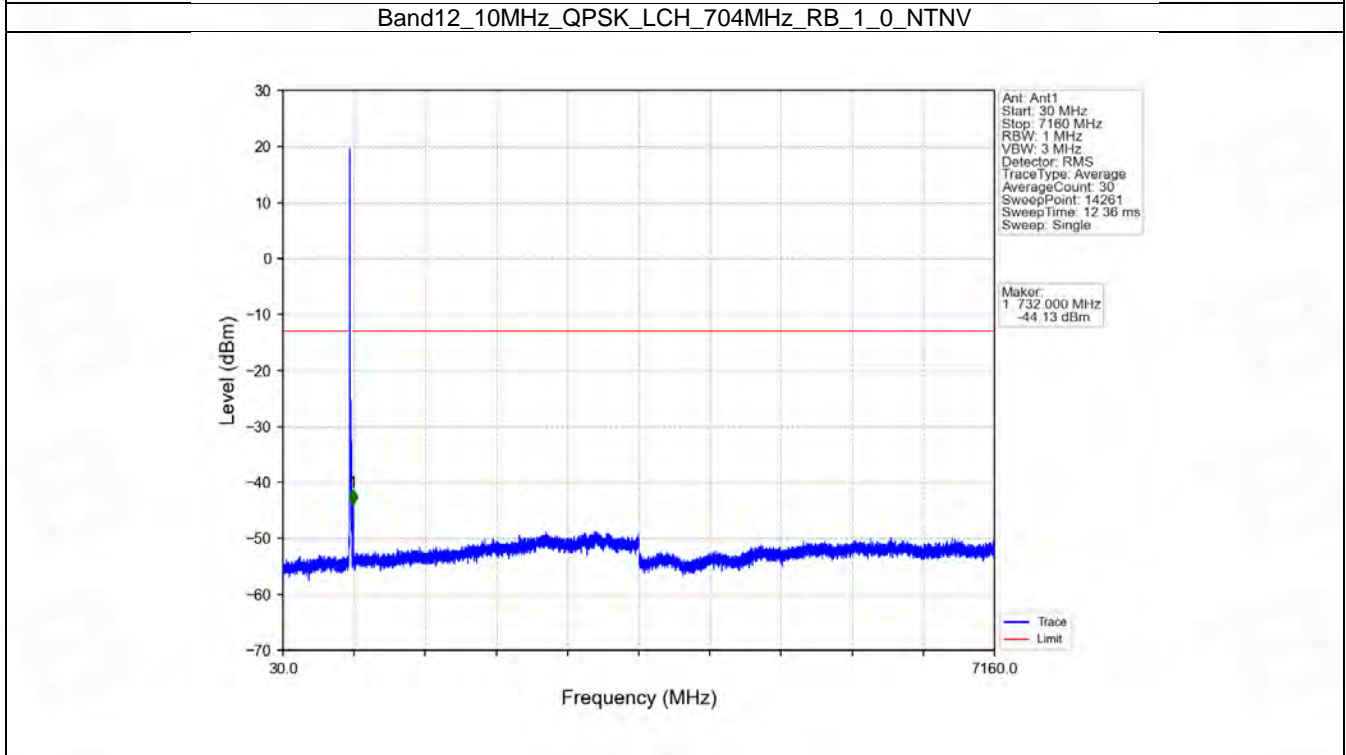
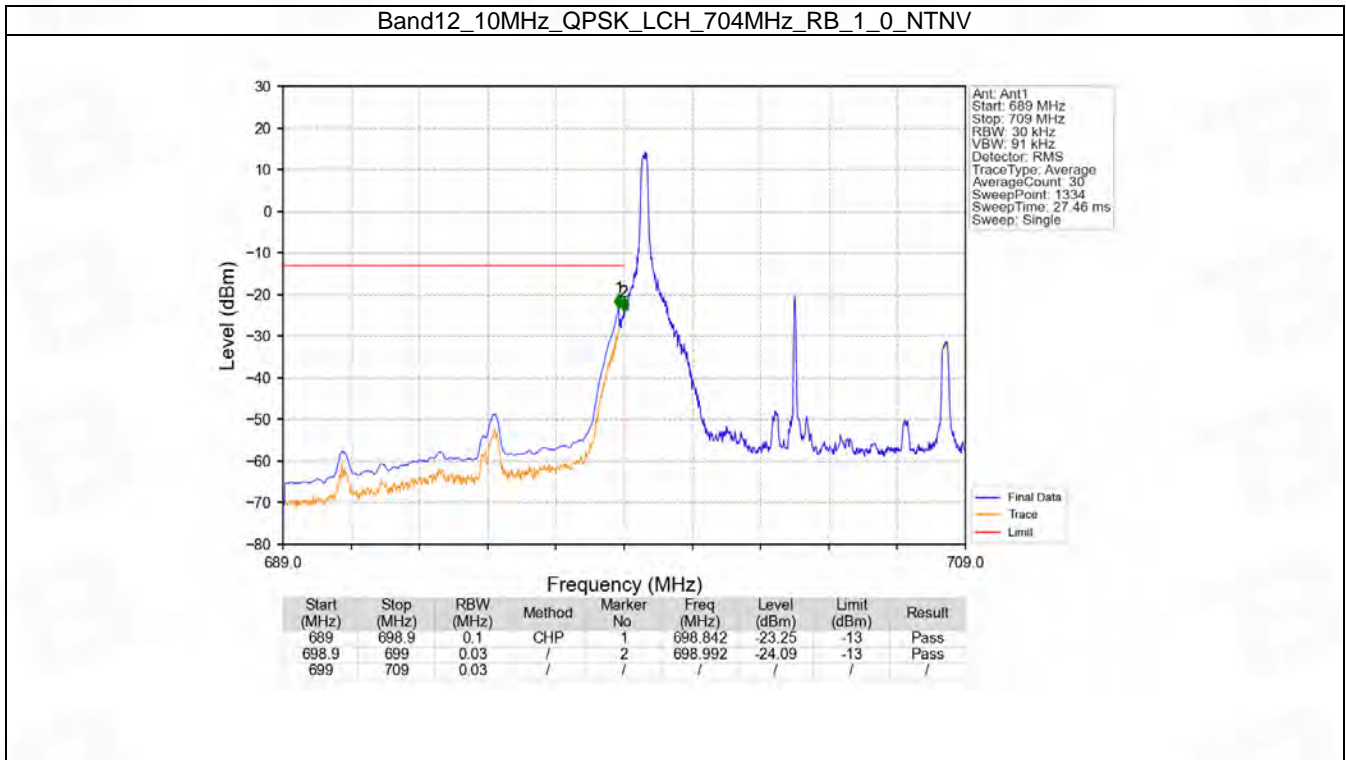


## 6.4 B12\_10MHz

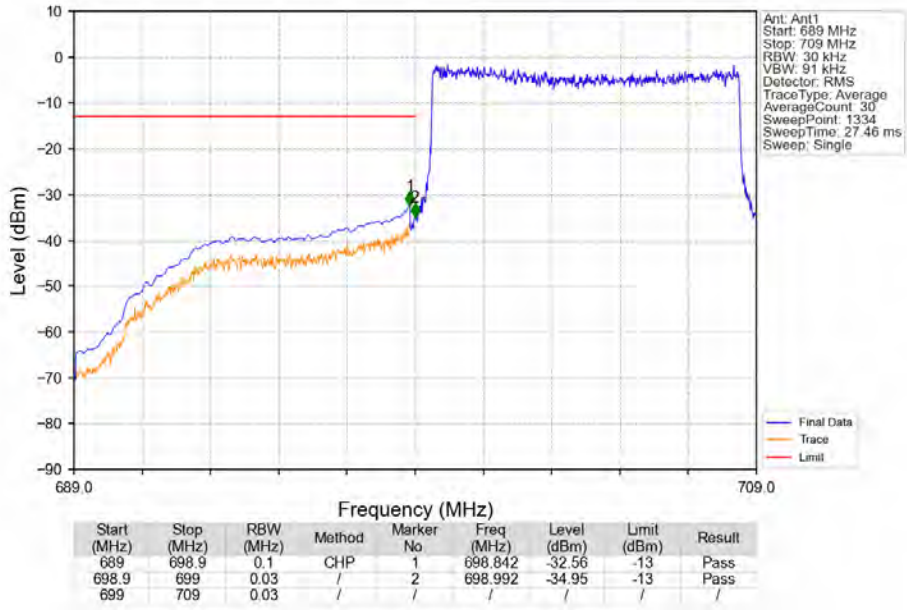
### 6.4.1 Test Result

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
	711	1	0	Refer To Test Graph		Pass
		1	49	Refer To Test Graph		Pass
		50	0	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
	711	1	0	Refer To Test Graph		Pass
		1	49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

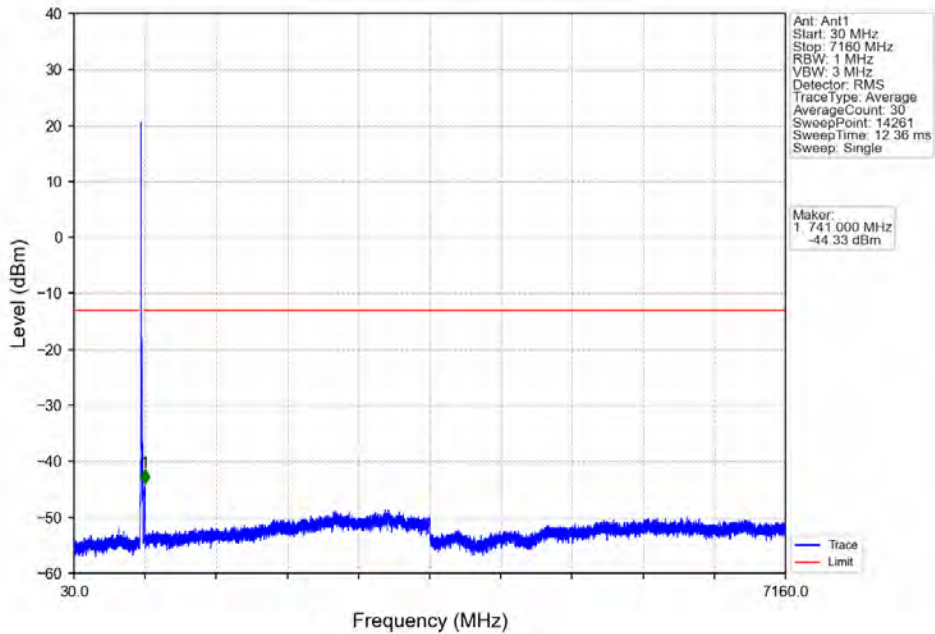
### 6.4.2 Test Graph



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

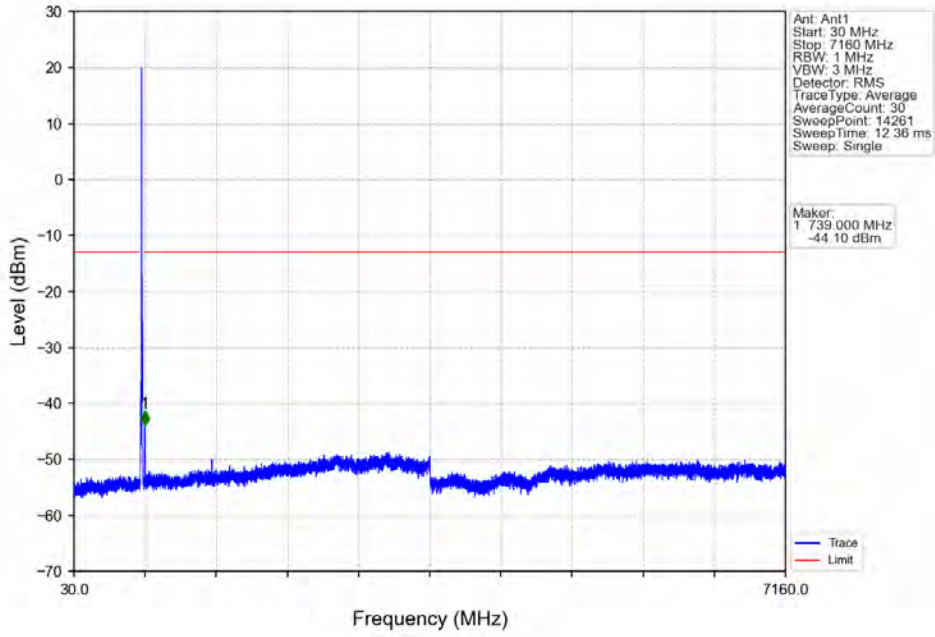


Band12\_10MHz\_QPSK\_MCH\_707.5MHz\_RB\_1\_0\_NTNV

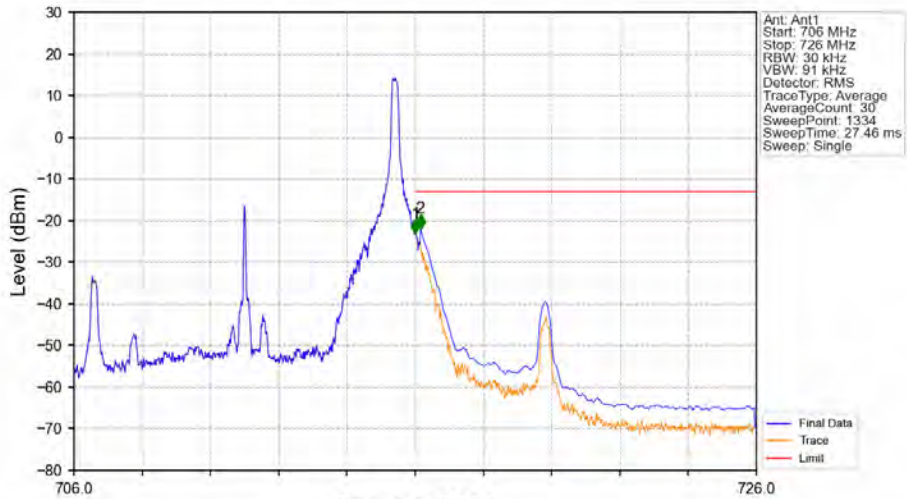




Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_1\_0\_NTNV

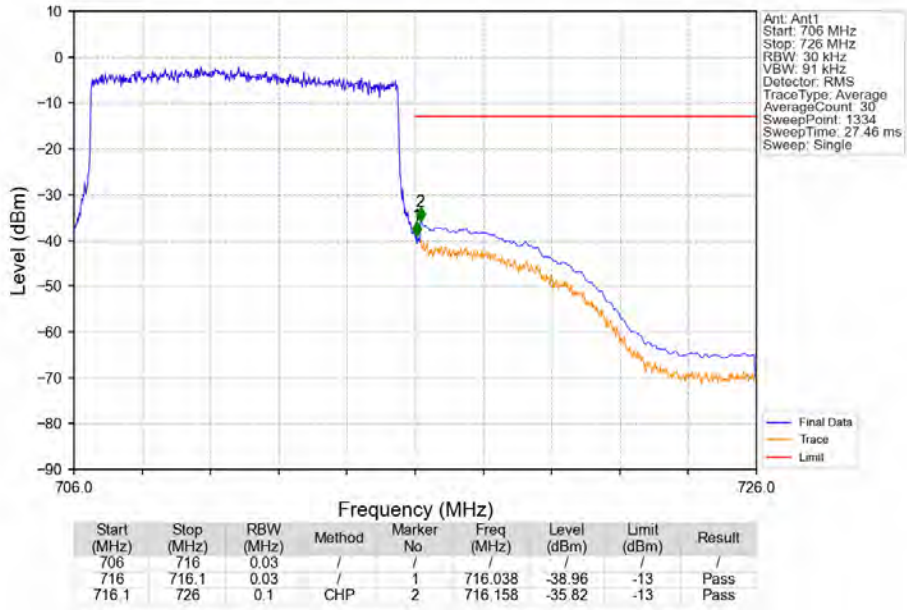


Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_1\_49\_NTNV

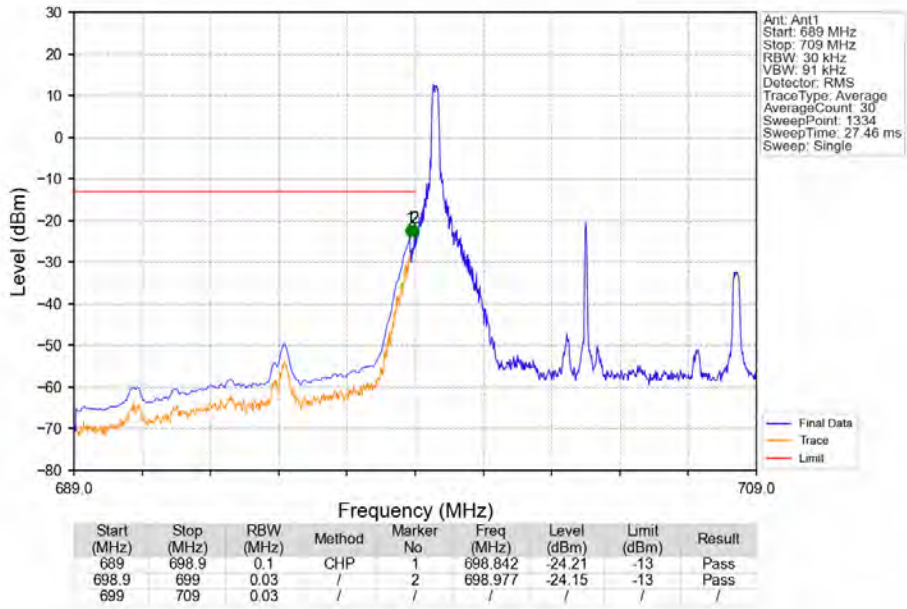


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	/	1	716.008	-23.23	-13	Pass
716	716.1	0.03	/	1	716.008	-23.23	-13	Pass
716.1	726	0.1	CHP	2	716.158	-21.89	-13	Pass

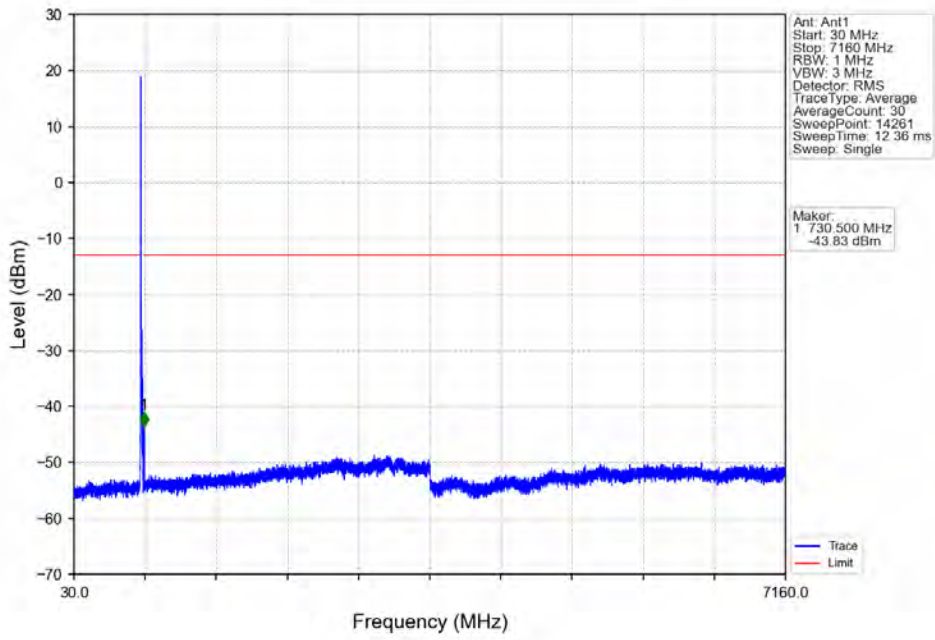
Band12\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



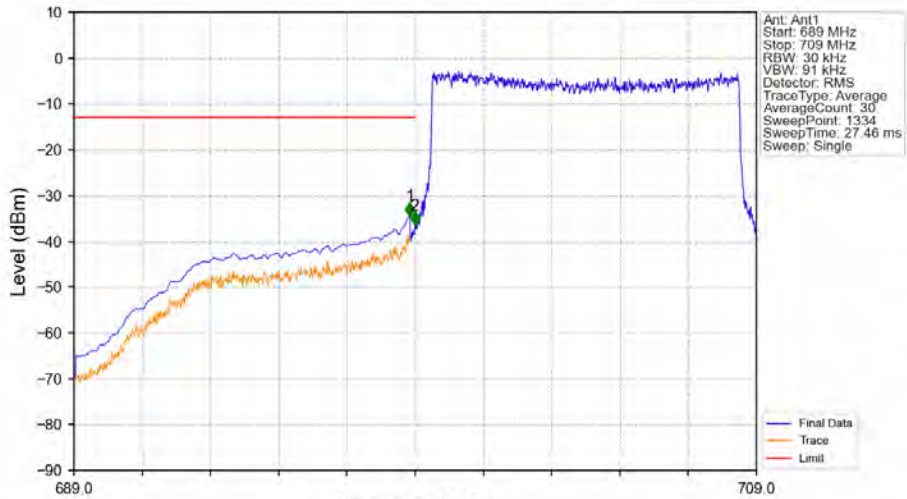
Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_1\_0\_NTNV



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

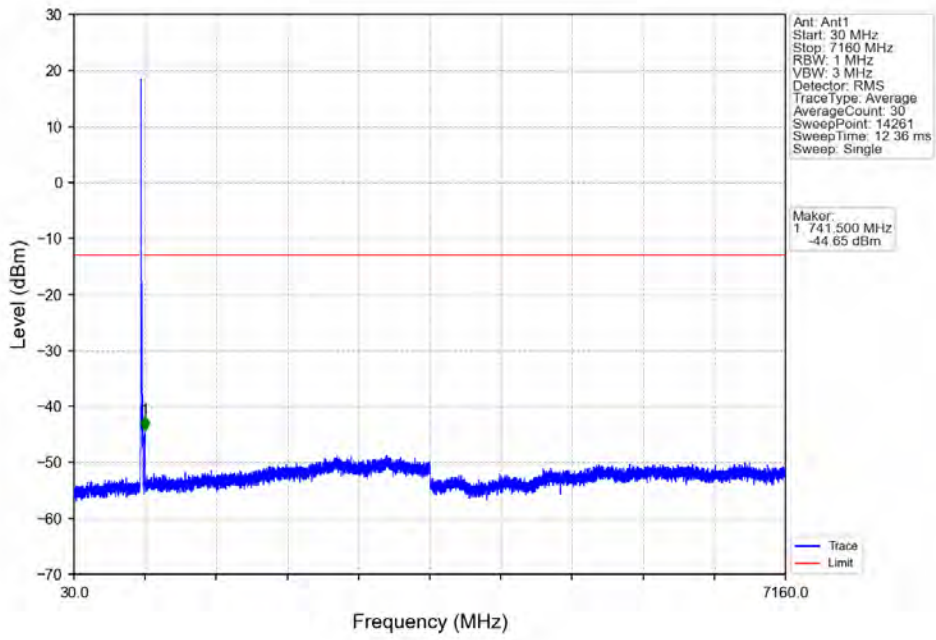


Band12\_10MHz\_16QAM\_LCH\_704MHz\_RB\_50\_0\_NTNV

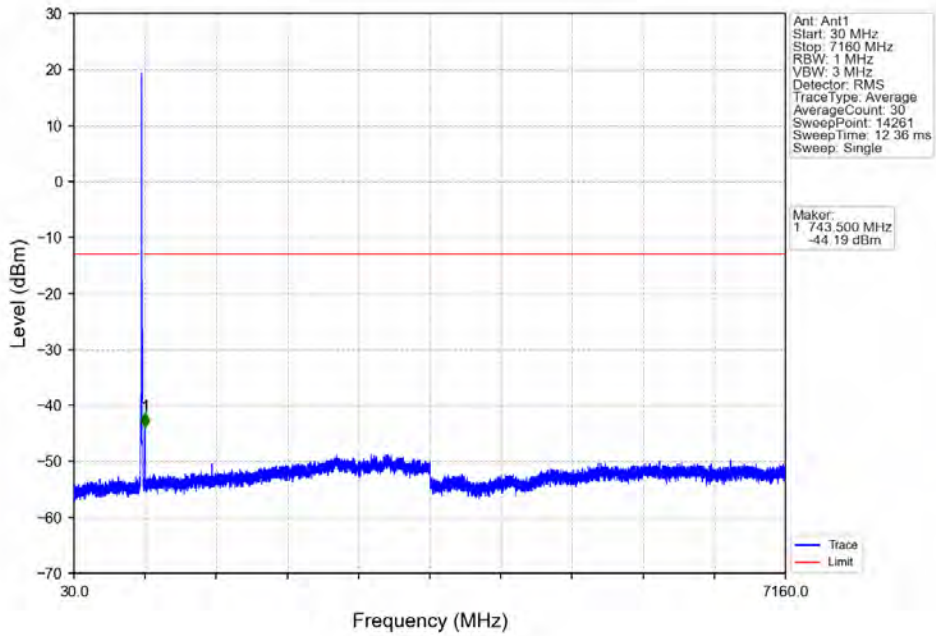


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
689	698.9	0.1	CHP	1	698.842	-34.53	-13	Pass
698.9	699	0.03	/	2	698.992	-36.57	-13	Pass
699	709	0.03	/	/	/	/	/	/

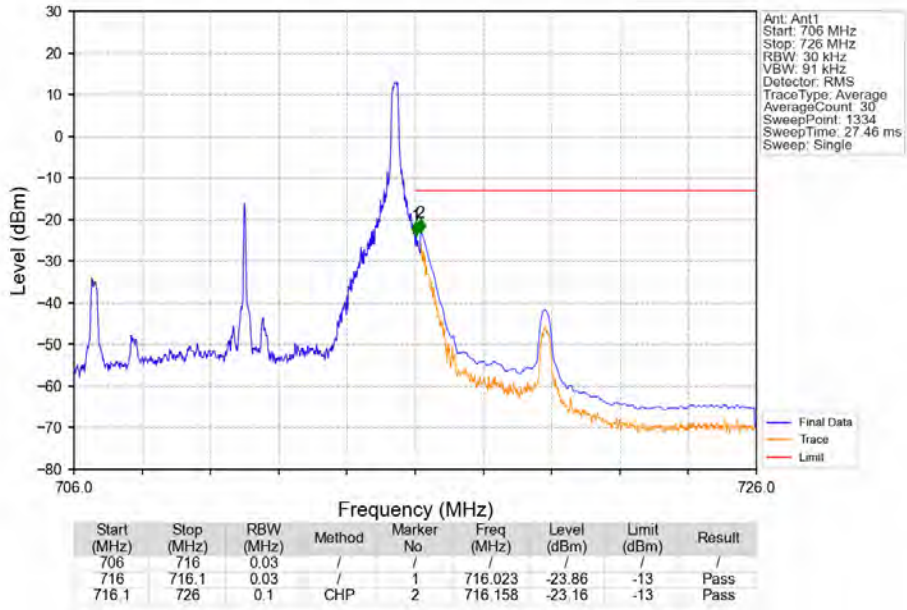
Band12\_10MHz\_16QAM\_MCH\_707.5MHz\_RB\_1\_0\_NTNV



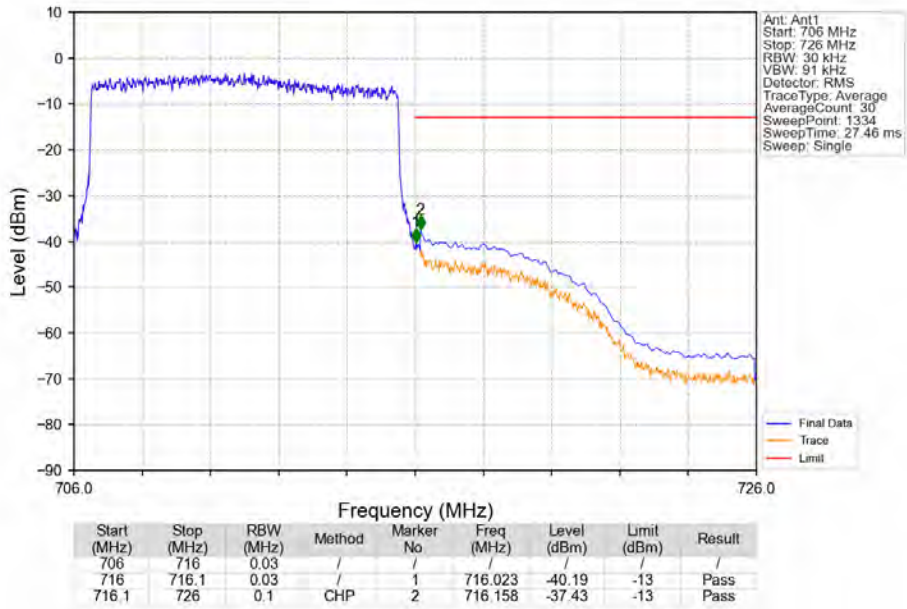
Band12\_10MHz\_16QAM\_HCH\_711MHz\_RB\_1\_0\_NTNV



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



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





## 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	0.1901	0.0312	ppm	1M13G7D	27H	22.79
12	1.4	699.7	715.3	0.1503	0.0208	ppm	1M12W7D	27H	21.77
12	3	700.5	714.5	0.1972	0.0264	ppm	2M73G7D	27H	22.95
12	3	700.5	714.5	0.1545	0.0182	ppm	2M73W7D	27H	21.89
12	5	701.5	713.5	0.1866	0.0131	ppm	4M61G7D	27H	22.71
12	5	701.5	713.5	0.1503	0.0198	ppm	4M59W7D	27H	21.77
12	10	704	711	0.1928	0.0132	ppm	9M16G7D	27H	22.85
12	10	704	711	0.1585	0.0155	ppm	9M14W7D	27H	22.00

### 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	0.1276	0.0312	ppm	1M13G7D	27H	21.06
12	1.4	699.7	715.3	0.1009	0.0208	ppm	1M12W7D	27H	20.04
12	3	700.5	714.5	0.1324	0.0264	ppm	2M73G7D	27H	21.22
12	3	700.5	714.5	0.1038	0.0182	ppm	2M73W7D	27H	20.16
12	5	701.5	713.5	0.1253	0.0131	ppm	4M61G7D	27H	20.98
12	5	701.5	713.5	0.1009	0.0198	ppm	4M59W7D	27H	20.04
12	10	704	711	0.1294	0.0132	ppm	9M16G7D	27H	21.12
12	10	704	711	0.1064	0.0155	ppm	9M14W7D	27H	20.27