

1. Effective (Isotropic) Radiated Power Output Data

1.1 B12_1.4MHz_ERP(ANT31)

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	23.53	-6.00	15.38	<=34.77	Pass		
			2	23.56	-6.00	15.41	<=34.77	Pass		
			5	23.59	-6.00	15.44	<=34.77	Pass		
		3	0	23.60	-6.00	15.45	<=34.77	Pass		
			2	23.62	-6.00	15.47	<=34.77	Pass		
			3	23.61	-6.00	15.46	<=34.77	Pass		
		6	0	22.66	-6.00	14.51	<=34.77	Pass		
		707.5	1	0	23.29	-6.00	15.14	<=34.77	Pass	
				2	23.27	-6.00	15.12	<=34.77	Pass	
	5			23.24	-6.00	15.09	<=34.77	Pass		
	3		0	23.27	-6.00	15.12	<=34.77	Pass		
			2	23.37	-6.00	15.22	<=34.77	Pass		
			3	23.37	-6.00	15.22	<=34.77	Pass		
	6		0	22.33	-6.00	14.18	<=34.77	Pass		
	715.3		1	0	23.44	-6.00	15.29	<=34.77	Pass	
				2	23.42	-6.00	15.27	<=34.77	Pass	
		5		23.56	-6.00	15.41	<=34.77	Pass		
		3	0	23.57	-6.00	15.42	<=34.77	Pass		
			2	23.59	-6.00	15.44	<=34.77	Pass		
			3	23.65	-6.00	15.50	<=34.77	Pass		
		6	0	22.58	-6.00	14.43	<=34.77	Pass		
		16QAM	699.7	1	0	22.82	-6.00	14.67	<=34.77	Pass
					2	22.80	-6.00	14.65	<=34.77	Pass
	5				22.81	-6.00	14.66	<=34.77	Pass	
3	0			22.62	-6.00	14.47	<=34.77	Pass		
	2			22.63	-6.00	14.48	<=34.77	Pass		
	3			22.64	-6.00	14.49	<=34.77	Pass		
6	0			21.63	-6.00	13.48	<=34.77	Pass		
707.5	1			0	22.37	-6.00	14.22	<=34.77	Pass	
				2	22.36	-6.00	14.21	<=34.77	Pass	
			5	22.37	-6.00	14.22	<=34.77	Pass		
	3		0	22.38	-6.00	14.23	<=34.77	Pass		
			2	22.37	-6.00	14.22	<=34.77	Pass		
			3	22.39	-6.00	14.24	<=34.77	Pass		
	6		0	21.22	-6.00	13.07	<=34.77	Pass		
	715.3		1	0	22.56	-6.00	14.41	<=34.77	Pass	
				2	22.53	-6.00	14.38	<=34.77	Pass	
5				22.69	-6.00	14.54	<=34.77	Pass		
3			0	22.74	-6.00	14.59	<=34.77	Pass		
			2	22.76	-6.00	14.61	<=34.77	Pass		
			3	22.84	-6.00	14.69	<=34.77	Pass		
6			0	21.57	-6.00	13.42	<=34.77	Pass		
64QAM			699.7	1	0	21.66	-6.00	13.51	<=34.77	Pass
					2	21.69	-6.00	13.54	<=34.77	Pass
	5				21.67	-6.00	13.52	<=34.77	Pass	
	3	0		21.81	-6.00	13.66	<=34.77	Pass		
		2		21.81	-6.00	13.66	<=34.77	Pass		
		3		21.77	-6.00	13.62	<=34.77	Pass		
	6	0		20.81	-6.00	12.66	<=34.77	Pass		

	707.5	1	0	21.22	-6.00	13.07	<=34.77	Pass
			2	21.17	-6.00	13.02	<=34.77	Pass
			5	21.20	-6.00	13.05	<=34.77	Pass
		3	0	21.25	-6.00	13.10	<=34.77	Pass
			2	21.23	-6.00	13.08	<=34.77	Pass
			3	21.25	-6.00	13.10	<=34.77	Pass
	6	0	20.35	-6.00	12.20	<=34.77	Pass	
	715.3	1	0	21.87	-6.00	13.72	<=34.77	Pass
			2	21.97	-6.00	13.82	<=34.77	Pass
			5	22.05	-6.00	13.90	<=34.77	Pass
		3	0	21.77	-6.00	13.62	<=34.77	Pass
			2	21.78	-6.00	13.63	<=34.77	Pass
			3	21.86	-6.00	13.71	<=34.77	Pass
		6	0	20.53	-6.00	12.38	<=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 / NTN										
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	700.5	1	0	23.64	-6.00	15.49	<=34.77	Pass		
			7	23.61	-6.00	15.46	<=34.77	Pass		
			14	23.56	-6.00	15.41	<=34.77	Pass		
		8	0	22.63	-6.00	14.48	<=34.77	Pass		
			4	22.58	-6.00	14.43	<=34.77	Pass		
			7	22.58	-6.00	14.43	<=34.77	Pass		
		15	0	22.59	-6.00	14.44	<=34.77	Pass		
		707.5	1	0	23.30	-6.00	15.15	<=34.77	Pass	
				7	23.33	-6.00	15.18	<=34.77	Pass	
	14			23.25	-6.00	15.10	<=34.77	Pass		
	8		0	22.36	-6.00	14.21	<=34.77	Pass		
			4	22.33	-6.00	14.18	<=34.77	Pass		
			7	22.32	-6.00	14.17	<=34.77	Pass		
	15		0	22.33	-6.00	14.18	<=34.77	Pass		
	714.5		1	0	23.40	-6.00	15.25	<=34.77	Pass	
				7	23.51	-6.00	15.36	<=34.77	Pass	
		14		23.66	-6.00	15.51	<=34.77	Pass		
		8	0	22.49	-6.00	14.34	<=34.77	Pass		
			4	22.49	-6.00	14.34	<=34.77	Pass		
			7	22.52	-6.00	14.37	<=34.77	Pass		
		15	0	22.53	-6.00	14.38	<=34.77	Pass		
		16QAM	700.5	1	0	23.13	-6.00	14.98	<=34.77	Pass
					7	23.16	-6.00	15.01	<=34.77	Pass
	14				23.05	-6.00	14.90	<=34.77	Pass	
8	0			21.78	-6.00	13.63	<=34.77	Pass		
	4			21.75	-6.00	13.60	<=34.77	Pass		
	7			21.74	-6.00	13.59	<=34.77	Pass		
15	0			21.67	-6.00	13.52	<=34.77	Pass		
707.5	1			0	22.54	-6.00	14.39	<=34.77	Pass	
				7	22.51	-6.00	14.36	<=34.77	Pass	
			14	22.45	-6.00	14.30	<=34.77	Pass		
	8		0	21.33	-6.00	13.18	<=34.77	Pass		
			4	21.32	-6.00	13.17	<=34.77	Pass		
			7	21.29	-6.00	13.14	<=34.77	Pass		

64QAM	714.5	15	0	21.29	-6.00	13.14	<=34.77	Pass	
			1	0	22.45	-6.00	14.30	<=34.77	Pass
				7	22.59	-6.00	14.44	<=34.77	Pass
		14		22.72	-6.00	14.57	<=34.77	Pass	
		8	0	21.54	-6.00	13.39	<=34.77	Pass	
			4	21.58	-6.00	13.43	<=34.77	Pass	
	7		21.60	-6.00	13.45	<=34.77	Pass		
	15	0	21.56	-6.00	13.41	<=34.77	Pass		
	700.5	700.5	1	0	21.83	-6.00	13.68	<=34.77	Pass
				7	21.90	-6.00	13.75	<=34.77	Pass
				14	21.82	-6.00	13.67	<=34.77	Pass
			8	0	20.77	-6.00	12.62	<=34.77	Pass
				4	20.72	-6.00	12.57	<=34.77	Pass
				7	20.70	-6.00	12.55	<=34.77	Pass
		15	0	20.56	-6.00	12.41	<=34.77	Pass	
707.5		1	0	21.44	-6.00	13.29	<=34.77	Pass	
			7	21.40	-6.00	13.25	<=34.77	Pass	
			14	21.35	-6.00	13.20	<=34.77	Pass	
		8	0	20.25	-6.00	12.10	<=34.77	Pass	
			4	20.21	-6.00	12.06	<=34.77	Pass	
			7	20.16	-6.00	12.01	<=34.77	Pass	
15		0	20.43	-6.00	12.28	<=34.77	Pass		
714.5		1	0	21.27	-6.00	13.12	<=34.77	Pass	
			7	21.42	-6.00	13.27	<=34.77	Pass	
			14	21.41	-6.00	13.26	<=34.77	Pass	
		8	0	20.48	-6.00	12.33	<=34.77	Pass	
	4		20.47	-6.00	12.32	<=34.77	Pass		
	7		20.50	-6.00	12.35	<=34.77	Pass		
15	0	20.48	-6.00	12.33	<=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	23.76	-6.00	15.61	<=34.77	Pass	
			13	23.67	-6.00	15.52	<=34.77	Pass	
			24	23.59	-6.00	15.44	<=34.77	Pass	
		12	0	22.66	-6.00	14.51	<=34.77	Pass	
			6	22.63	-6.00	14.48	<=34.77	Pass	
			13	22.61	-6.00	14.46	<=34.77	Pass	
		25	0	22.68	-6.00	14.53	<=34.77	Pass	
		707.5	1	0	23.47	-6.00	15.32	<=34.77	Pass
				13	23.37	-6.00	15.22	<=34.77	Pass
	24			23.37	-6.00	15.22	<=34.77	Pass	
	12		0	22.43	-6.00	14.28	<=34.77	Pass	
			6	22.41	-6.00	14.26	<=34.77	Pass	
			13	22.37	-6.00	14.22	<=34.77	Pass	
	25	0	22.44	-6.00	14.29	<=34.77	Pass		
	713.5	1	0	23.41	-6.00	15.26	<=34.77	Pass	
			13	23.53	-6.00	15.38	<=34.77	Pass	
			24	23.80	-6.00	15.65	<=34.77	Pass	
		12	0	22.42	-6.00	14.27	<=34.77	Pass	
			6	22.45	-6.00	14.30	<=34.77	Pass	

16QAM	701.5	1	13	22.55	-6.00	14.40	<=34.77	Pass	
			25	0	22.52	-6.00	14.37	<=34.77	Pass
			0	22.55	-6.00	14.40	<=34.77	Pass	
		12	13	22.46	-6.00	14.31	<=34.77	Pass	
			24	22.39	-6.00	14.24	<=34.77	Pass	
			0	21.70	-6.00	13.55	<=34.77	Pass	
		25	6	21.68	-6.00	13.53	<=34.77	Pass	
			13	21.62	-6.00	13.47	<=34.77	Pass	
			0	21.69	-6.00	13.54	<=34.77	Pass	
	707.5	1	0	22.74	-6.00	14.59	<=34.77	Pass	
			13	22.60	-6.00	14.45	<=34.77	Pass	
			24	22.59	-6.00	14.44	<=34.77	Pass	
		12	0	21.50	-6.00	13.35	<=34.77	Pass	
			6	21.44	-6.00	13.29	<=34.77	Pass	
			13	21.39	-6.00	13.24	<=34.77	Pass	
		25	0	21.41	-6.00	13.26	<=34.77	Pass	
			0	22.45	-6.00	14.30	<=34.77	Pass	
			13	22.54	-6.00	14.39	<=34.77	Pass	
	713.5	1	24	22.80	-6.00	14.65	<=34.77	Pass	
			0	21.45	-6.00	13.30	<=34.77	Pass	
			6	21.49	-6.00	13.34	<=34.77	Pass	
		12	13	21.58	-6.00	13.43	<=34.77	Pass	
			0	21.52	-6.00	13.37	<=34.77	Pass	
			0	21.68	-6.00	13.53	<=34.77	Pass	
		64QAM	701.5	1	13	21.58	-6.00	13.43	<=34.77
24					21.50	-6.00	13.35	<=34.77	Pass
0					20.64	-6.00	12.49	<=34.77	Pass
12	6			20.61	-6.00	12.46	<=34.77	Pass	
	13			20.56	-6.00	12.41	<=34.77	Pass	
	0			20.66	-6.00	12.51	<=34.77	Pass	
707.5	1			0	21.65	-6.00	13.50	<=34.77	Pass
				13	21.51	-6.00	13.36	<=34.77	Pass
				24	21.48	-6.00	13.33	<=34.77	Pass
	12	0	20.45	-6.00	12.30	<=34.77	Pass		
		6	20.43	-6.00	12.28	<=34.77	Pass		
		13	20.36	-6.00	12.21	<=34.77	Pass		
	25	0	20.44	-6.00	12.29	<=34.77	Pass		
		0	21.55	-6.00	13.40	<=34.77	Pass		
		13	21.67	-6.00	13.52	<=34.77	Pass		
713.5	1	24	21.93	-6.00	13.78	<=34.77	Pass		
		0	20.55	-6.00	12.40	<=34.77	Pass		
		6	20.57	-6.00	12.42	<=34.77	Pass		
	12	13	20.63	-6.00	12.48	<=34.77	Pass		
		0	20.41	-6.00	12.26	<=34.77	Pass		
		0	21.65	-6.00	13.50	<=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 / NTV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	704	1	0	23.71	-6.00	15.56	<=34.77	Pass
			25	23.49	-6.00	15.34	<=34.77	Pass
			49	23.36	-6.00	15.21	<=34.77	Pass
		25	0	22.65	-6.00	14.50	<=34.77	Pass

	707.5	50	13	22.57	-6.00	14.42	<=34.77	Pass	
			25	22.48	-6.00	14.33	<=34.77	Pass	
			0	22.56	-6.00	14.41	<=34.77	Pass	
		1	0	23.57	-6.00	15.42	<=34.77	Pass	
			25	23.37	-6.00	15.22	<=34.77	Pass	
			49	23.38	-6.00	15.23	<=34.77	Pass	
		25	0	22.51	-6.00	14.36	<=34.77	Pass	
			13	22.42	-6.00	14.27	<=34.77	Pass	
			25	22.40	-6.00	14.25	<=34.77	Pass	
	50	0	22.47	-6.00	14.32	<=34.77	Pass		
	711	1	0	23.43	-6.00	15.28	<=34.77	Pass	
			25	23.37	-6.00	15.22	<=34.77	Pass	
			49	23.69	-6.00	15.54	<=34.77	Pass	
		25	0	22.38	-6.00	14.23	<=34.77	Pass	
			13	22.41	-6.00	14.26	<=34.77	Pass	
			25	22.49	-6.00	14.34	<=34.77	Pass	
		50	0	22.45	-6.00	14.30	<=34.77	Pass	
		16QAM	704	1	0	23.24	-6.00	15.09	<=34.77
25					23.09	-6.00	14.94	<=34.77	Pass
49	22.88				-6.00	14.73	<=34.77	Pass	
25	0			21.68	-6.00	13.53	<=34.77	Pass	
	13			21.62	-6.00	13.47	<=34.77	Pass	
	25			21.50	-6.00	13.35	<=34.77	Pass	
50	0		21.56	-6.00	13.41	<=34.77	Pass		
707.5	1		0	22.77	-6.00	14.62	<=34.77	Pass	
			25	22.54	-6.00	14.39	<=34.77	Pass	
			49	22.57	-6.00	14.42	<=34.77	Pass	
	25		0	21.51	-6.00	13.36	<=34.77	Pass	
			13	21.42	-6.00	13.27	<=34.77	Pass	
			25	21.39	-6.00	13.24	<=34.77	Pass	
50	0		21.44	-6.00	13.29	<=34.77	Pass		
711	1		0	22.44	-6.00	14.29	<=34.77	Pass	
			25	22.40	-6.00	14.25	<=34.77	Pass	
			49	22.77	-6.00	14.62	<=34.77	Pass	
	25		0	21.46	-6.00	13.31	<=34.77	Pass	
		13	21.49	-6.00	13.34	<=34.77	Pass		
		25	21.55	-6.00	13.40	<=34.77	Pass		
50	0	21.43	-6.00	13.28	<=34.77	Pass			
64QAM	704	1	0	21.97	-6.00	13.82	<=34.77	Pass	
			25	21.80	-6.00	13.65	<=34.77	Pass	
			49	21.59	-6.00	13.44	<=34.77	Pass	
		25	0	20.65	-6.00	12.50	<=34.77	Pass	
			13	20.58	-6.00	12.43	<=34.77	Pass	
			25	20.47	-6.00	12.32	<=34.77	Pass	
	50	0	20.57	-6.00	12.42	<=34.77	Pass		
	707.5	1	0	21.69	-6.00	13.54	<=34.77	Pass	
			25	21.47	-6.00	13.32	<=34.77	Pass	
			49	21.45	-6.00	13.30	<=34.77	Pass	
		25	0	20.58	-6.00	12.43	<=34.77	Pass	
			13	20.47	-6.00	12.32	<=34.77	Pass	
			25	20.45	-6.00	12.30	<=34.77	Pass	
	50	0	20.44	-6.00	12.29	<=34.77	Pass		
	711	1	0	21.31	-6.00	13.16	<=34.77	Pass	
			25	21.26	-6.00	13.11	<=34.77	Pass	
			49	21.50	-6.00	13.35	<=34.77	Pass	
		25	0	20.45	-6.00	12.30	<=34.77	Pass	
13			20.44	-6.00	12.29	<=34.77	Pass		
25			20.49	-6.00	12.34	<=34.77	Pass		
50	0	20.45	-6.00	12.30	<=34.77	Pass			

Note1: ERP=Conducted Power+Antenna Gain-2.15

2. Frequency Stability

2.1 B12_10MHz

2.1.1 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	3.7	-4.000	-0.0057	/	Pass
					3.91	-2.100	-0.0030	/	Pass
					4.4	-7.200	-0.0102	/	Pass
				-30	3.91	-6.200	-0.0088	/	Pass
				-20	3.91	-0.600	-0.0009	/	Pass
				-10	3.91	-5.600	-0.0080	/	Pass
				0	3.91	-6.100	-0.0087	/	Pass
				10	3.91	-3.300	-0.0047	/	Pass
				30	3.91	-3.600	-0.0051	/	Pass
	40	3.91	-3.300	-0.0047	/	Pass			
	50	3.91	-2.700	-0.0038	/	Pass			
	707.5	50	0	20	3.7	-3.400	-0.0048	/	Pass
					3.91	-1.400	-0.0020	/	Pass
					4.4	-2.400	-0.0034	/	Pass
				-30	3.91	0.600	0.0008	/	Pass
				-20	3.91	-2.900	-0.0041	/	Pass
				-10	3.91	-1.400	-0.0020	/	Pass
				0	3.91	-0.300	-0.0004	/	Pass
				10	3.91	-6.000	-0.0085	/	Pass
				30	3.91	-6.100	-0.0086	/	Pass
	40	3.91	-2.700	-0.0038	/	Pass			
	50	3.91	-1.300	-0.0018	/	Pass			
	711	50	0	20	3.7	-3.800	-0.0053	/	Pass
					3.91	-1.100	-0.0015	/	Pass
					4.4	-0.900	-0.0013	/	Pass
				-30	3.91	-3.600	-0.0051	/	Pass
				-20	3.91	-4.000	-0.0056	/	Pass
-10				3.91	-3.800	-0.0053	/	Pass	
0				3.91	0.700	0.0010	/	Pass	
10				3.91	-2.300	-0.0032	/	Pass	
30				3.91	0.900	0.0013	/	Pass	
40	3.91	-0.700	-0.0010	/	Pass				
50	3.91	-2.800	-0.0039	/	Pass				

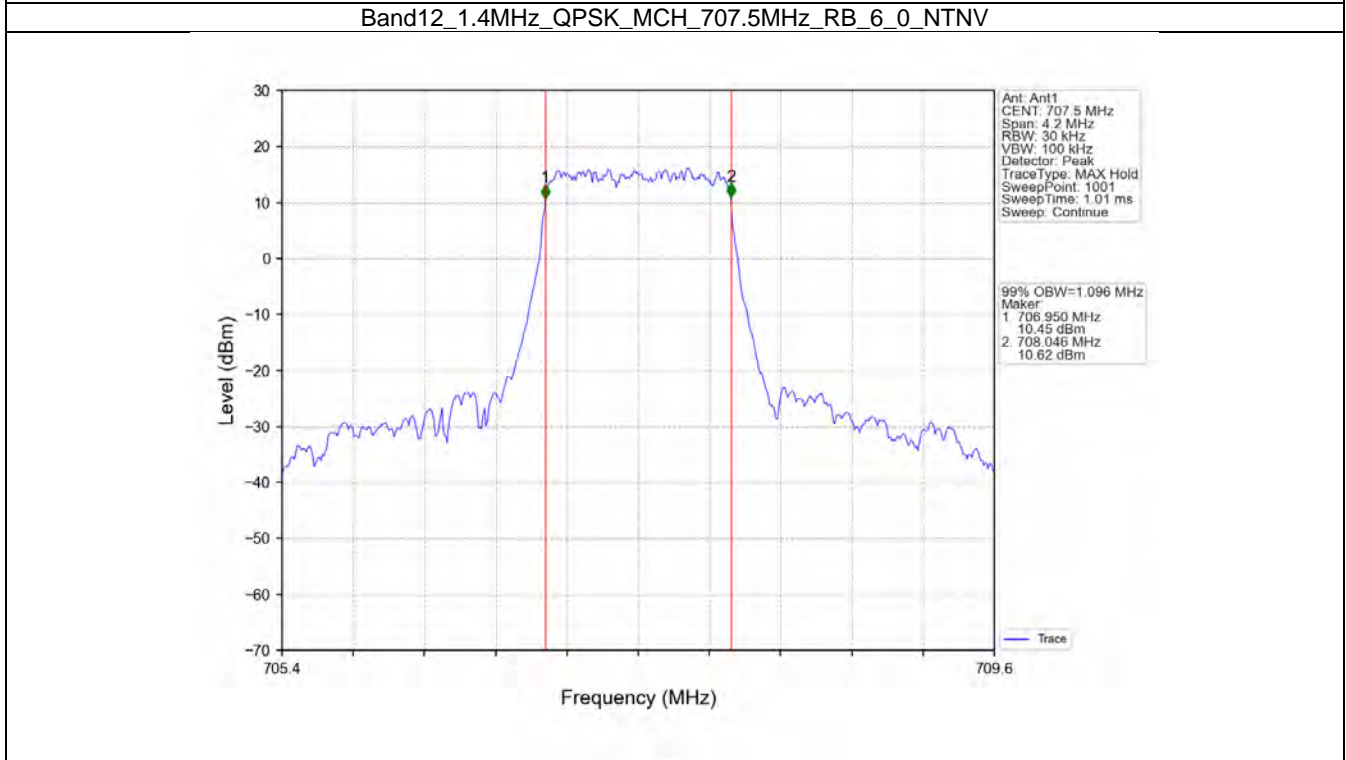
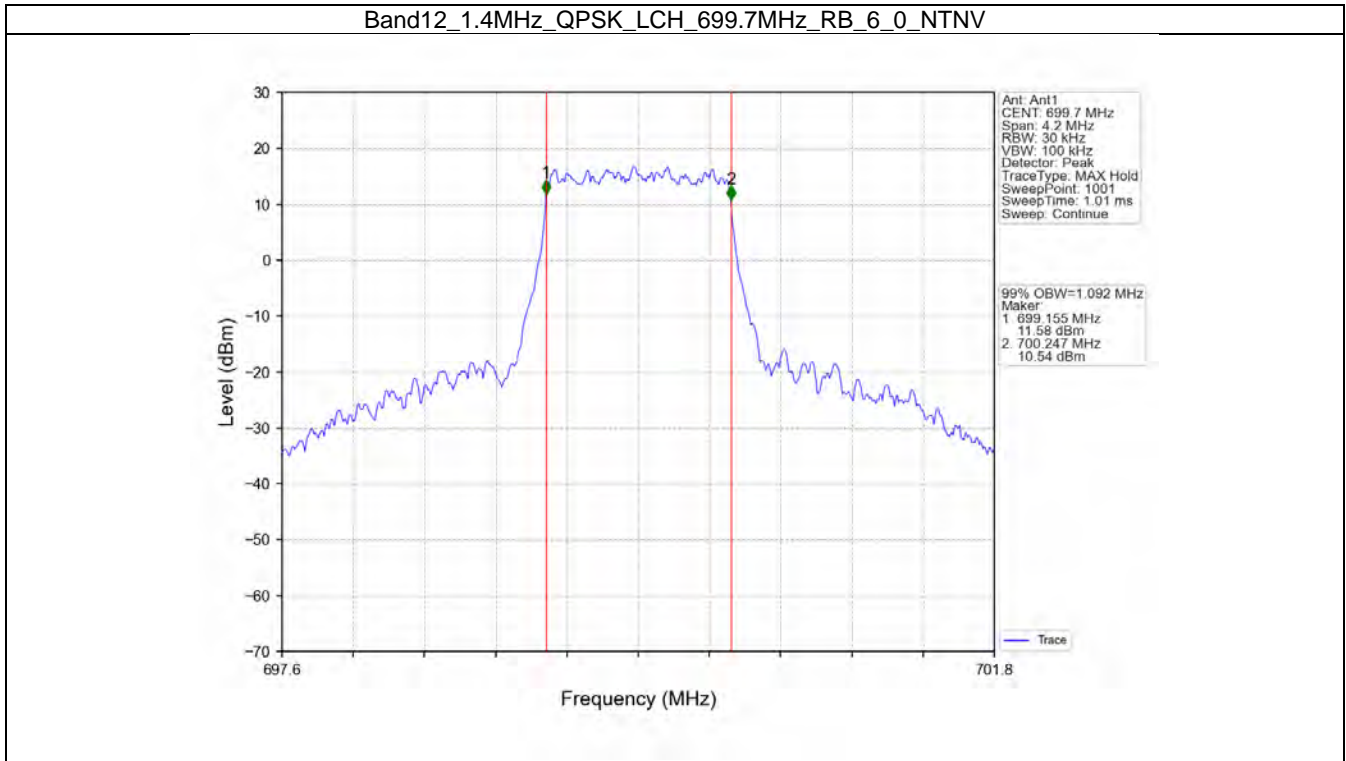
3. 99% & 26dB Bandwidth

3.1 Band12_OBW

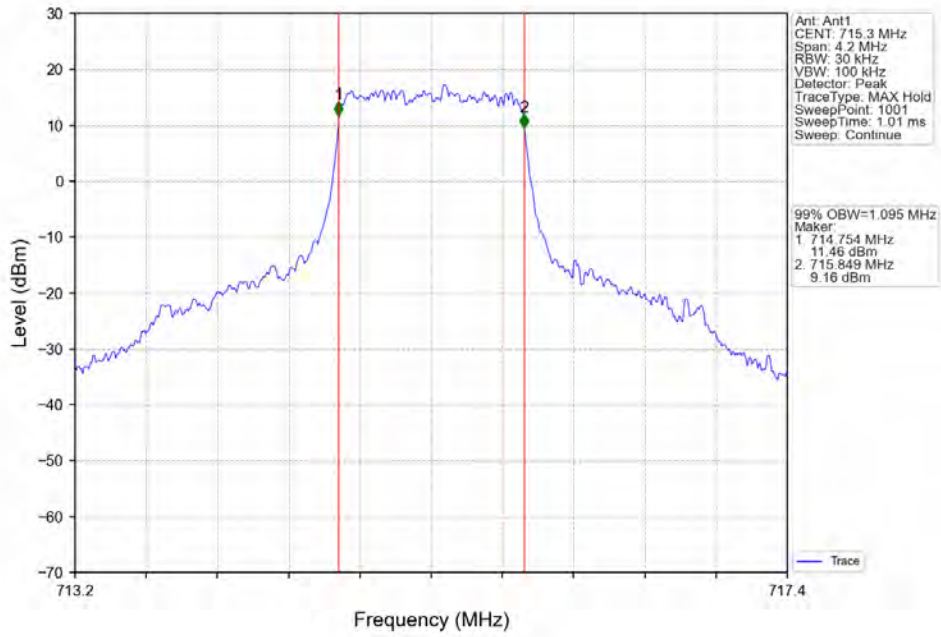
3.1.1 Test Result

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	1.092	/	Pass
		707.5	6	0	1.096	/	Pass
		715.3	6	0	1.095	/	Pass
	16QAM	699.7	6	0	1.101	/	Pass
		707.5	6	0	1.093	/	Pass
		715.3	6	0	1.099	/	Pass
	64QAM	699.7	6	0	1.101	/	Pass
		707.5	6	0	1.100	/	Pass
		715.3	6	0	1.094	/	Pass
3	QPSK	700.5	15	0	2.736	/	Pass
		707.5	15	0	2.715	/	Pass
		714.5	15	0	2.724	/	Pass
	16QAM	700.5	15	0	2.719	/	Pass
		707.5	15	0	2.719	/	Pass
		714.5	15	0	2.726	/	Pass
	64QAM	700.5	15	0	2.722	/	Pass
		707.5	15	0	2.727	/	Pass
		714.5	15	0	2.724	/	Pass
5	QPSK	701.5	25	0	4.514	/	Pass
		707.5	25	0	4.499	/	Pass
		713.5	25	0	4.500	/	Pass
	16QAM	701.5	25	0	4.499	/	Pass
		707.5	25	0	4.497	/	Pass
		713.5	25	0	4.506	/	Pass
	64QAM	701.5	25	0	4.514	/	Pass
		707.5	25	0	4.508	/	Pass
		713.5	25	0	4.497	/	Pass
10	QPSK	704	50	0	8.996	/	Pass
		707.5	50	0	8.974	/	Pass
		711	50	0	9.009	/	Pass
	16QAM	704	50	0	8.985	/	Pass
		707.5	50	0	8.968	/	Pass
		711	50	0	8.949	/	Pass
	64QAM	704	50	0	8.978	/	Pass
		707.5	50	0	8.984	/	Pass
		711	50	0	8.989	/	Pass

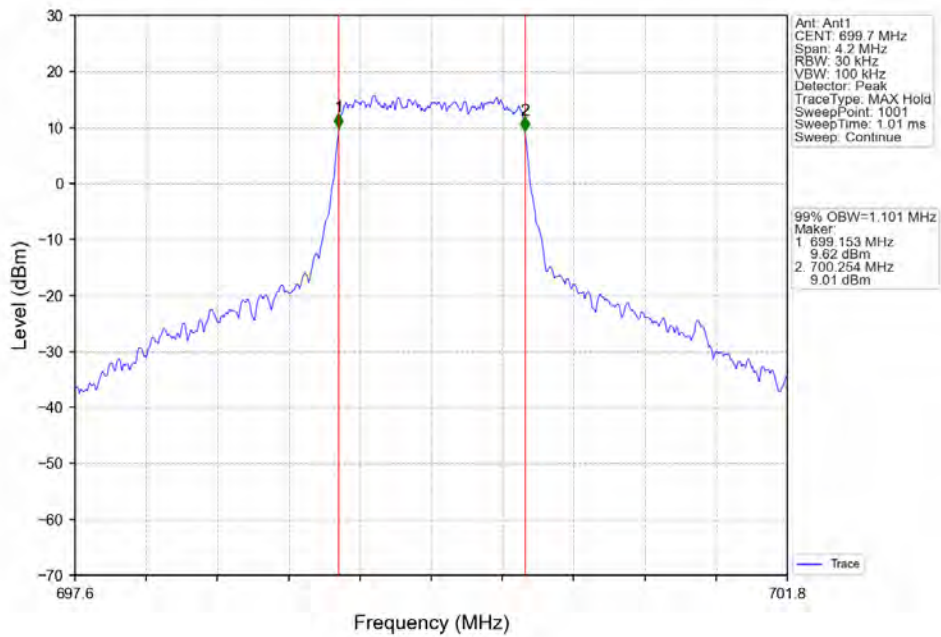
3.1.2 Test Graph



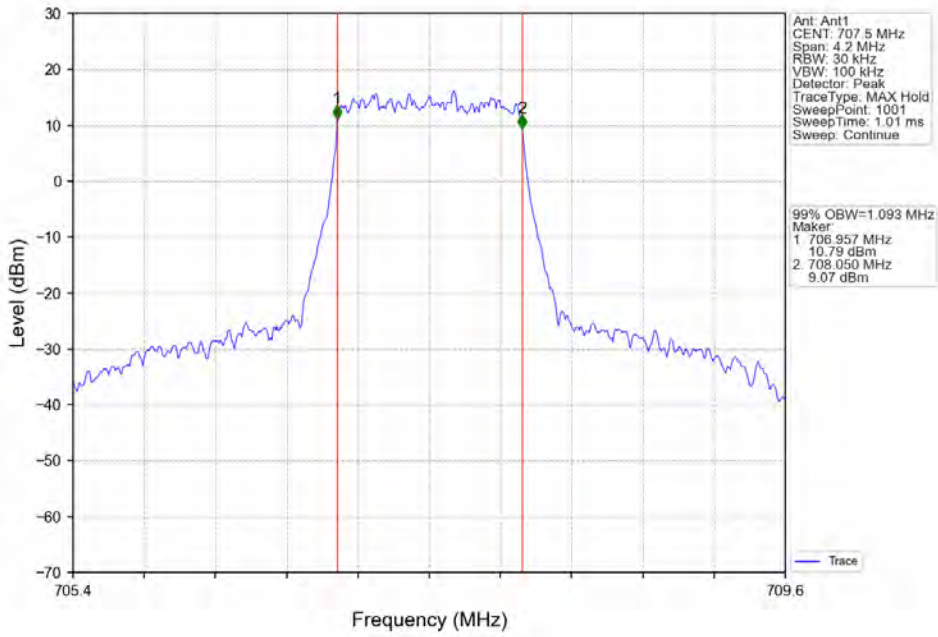
Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



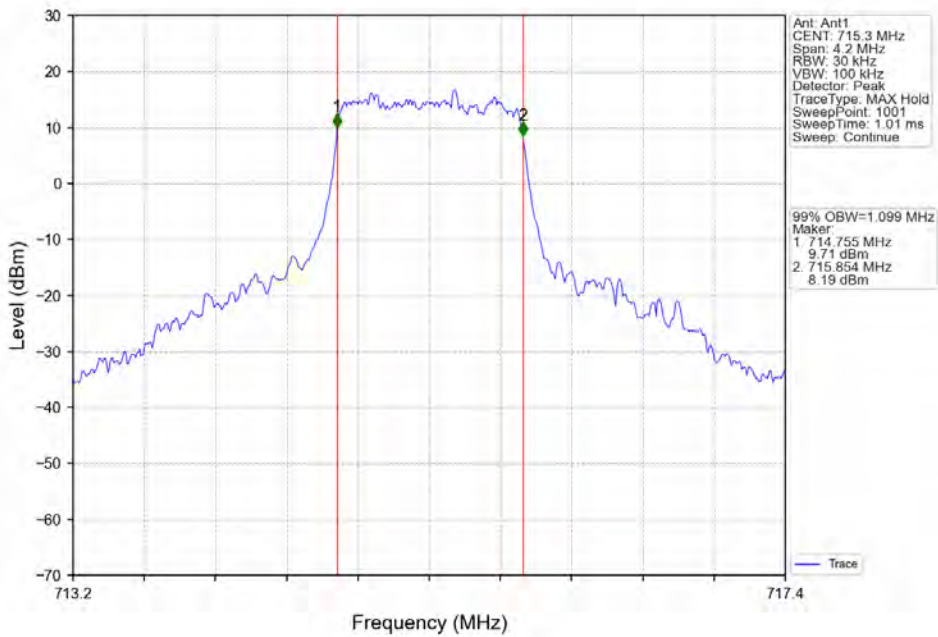
Band12_1.4MHz_16QAM_LCH_699.7MHz_RB_6_0_NTNV



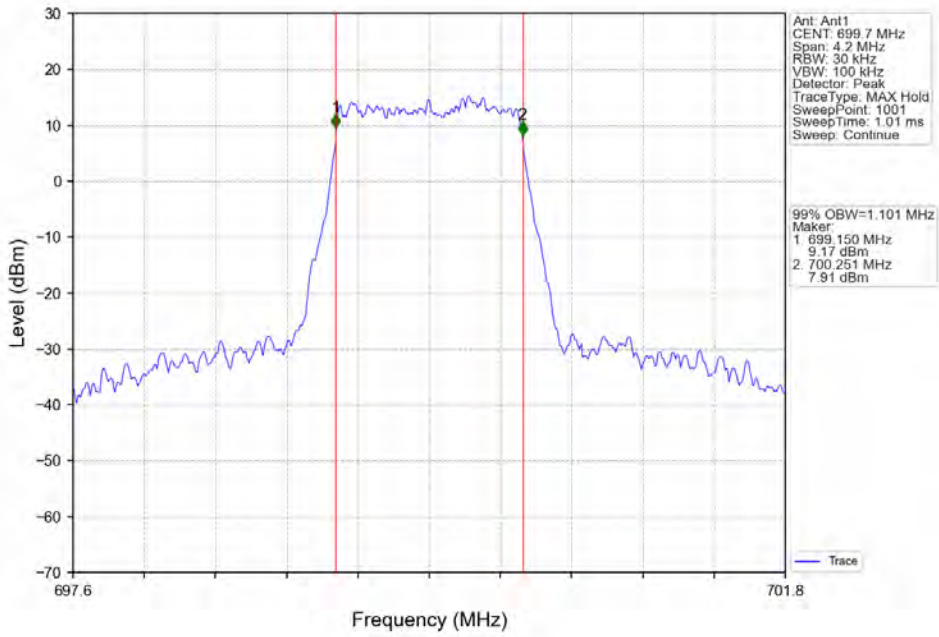
Band12_1.4MHz_16QAM_MCH_707.5MHz_RB_6_0_NTNV



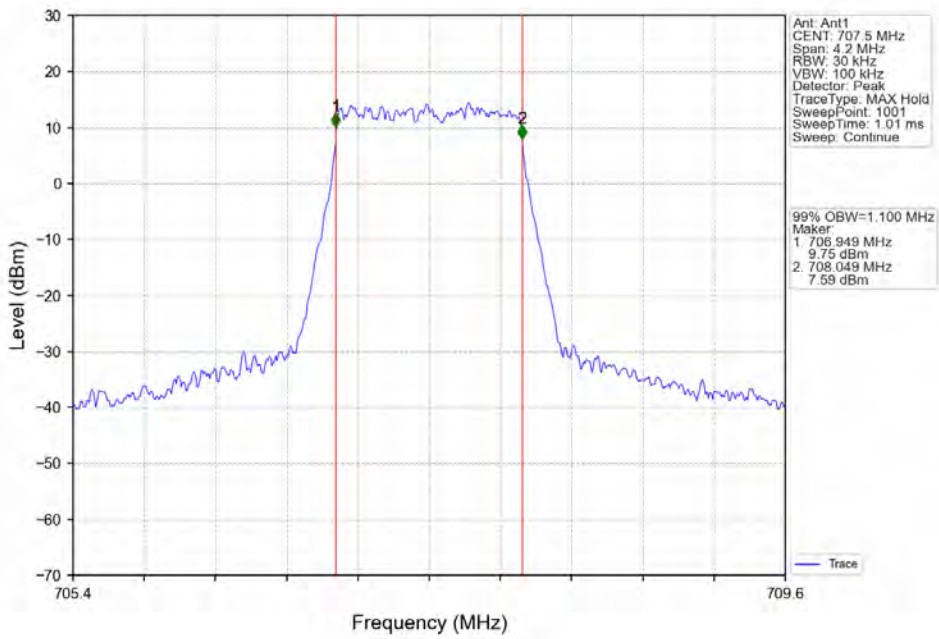
Band12_1.4MHz_16QAM_HCH_715.3MHz_RB_6_0_NTNV



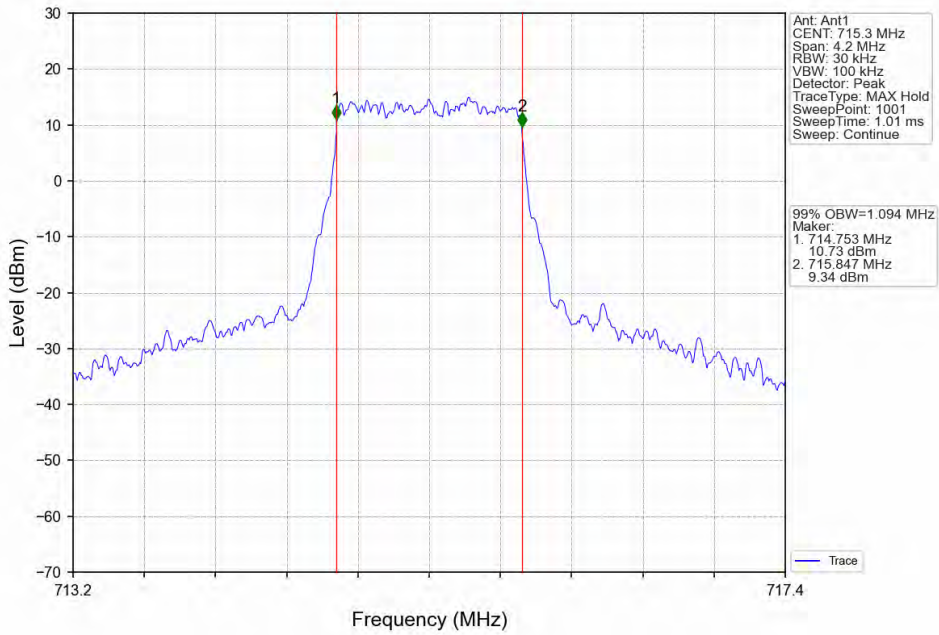
Band12_1.4MHz_64QAM_LCH_699.7MHz_RB_6_0_NTNV



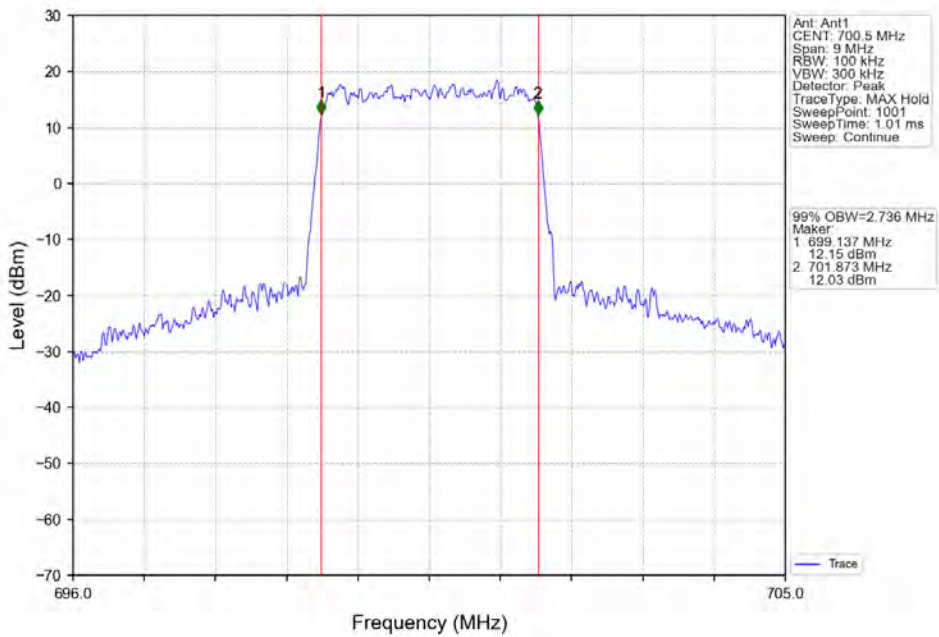
Band12_1.4MHz_64QAM_MCH_707.5MHz_RB_6_0_NTNV



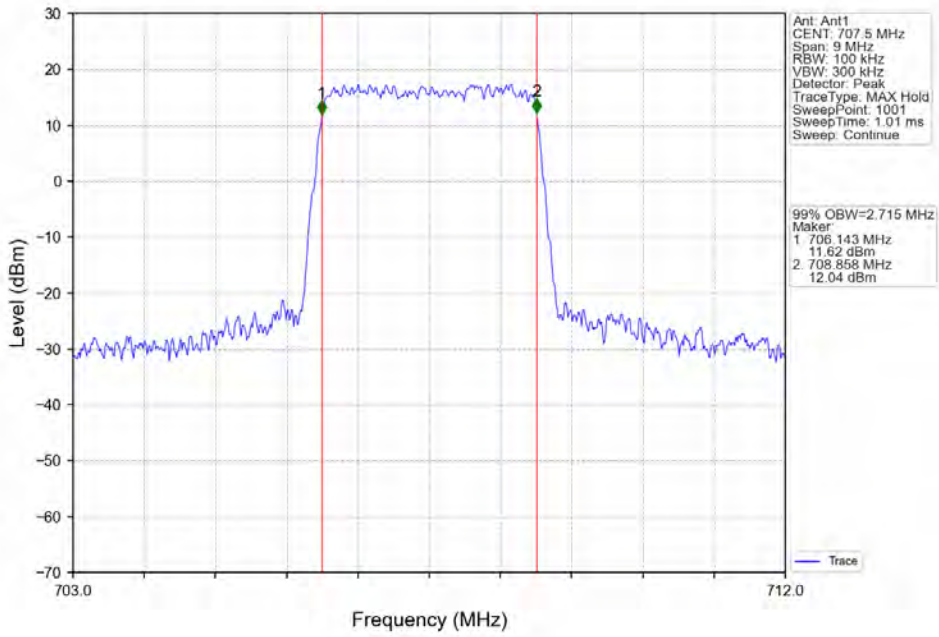
Band12_1.4MHz_64QAM_HCH_715.3MHz_RB_6_0_NTNV



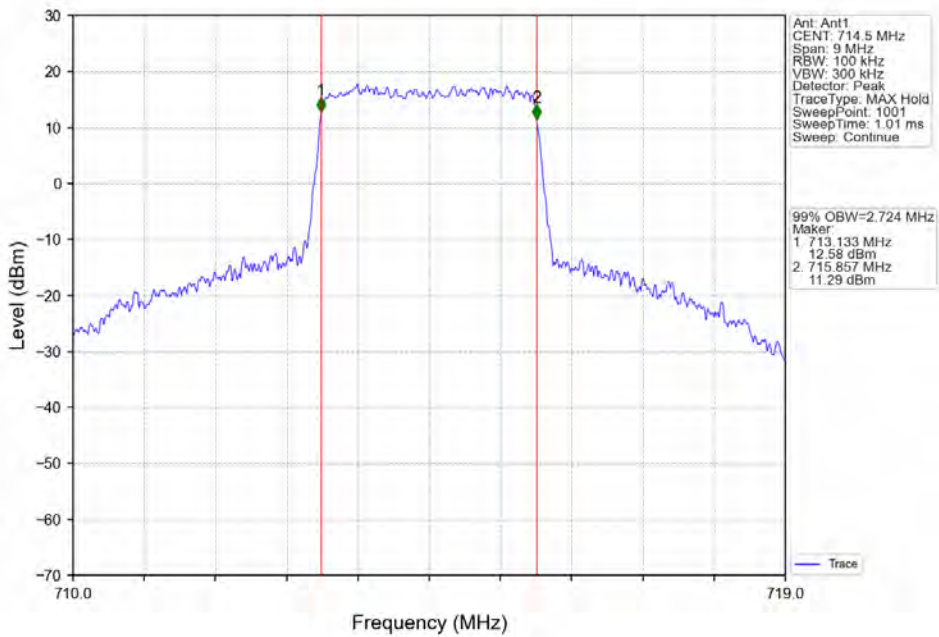
Band12_3MHz_QPSK_LCH_700.5MHz_RB_15_0_NTNV



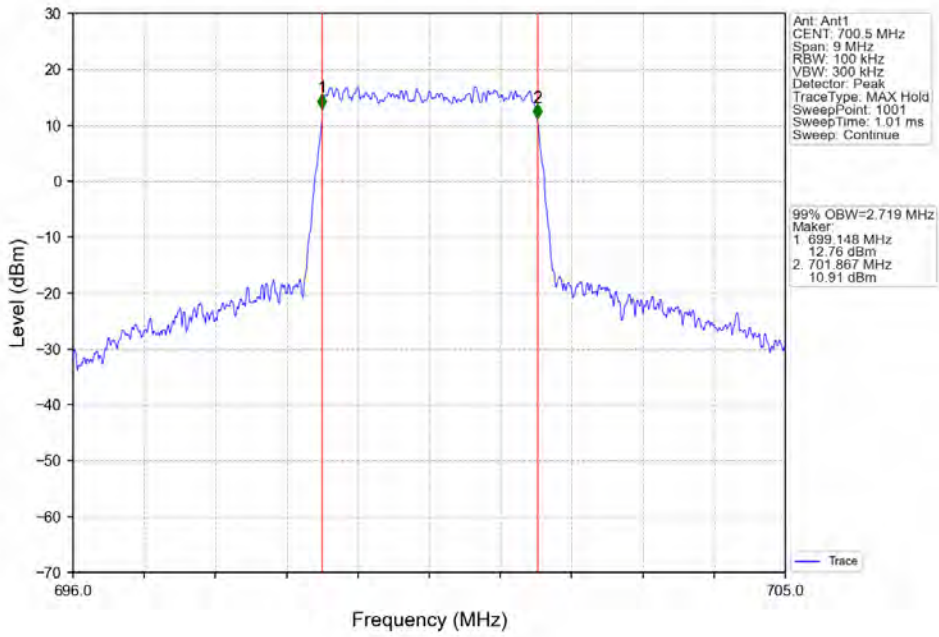
Band12_3MHz_QPSK_MCH_707.5MHz_RB_15_0_NTNV



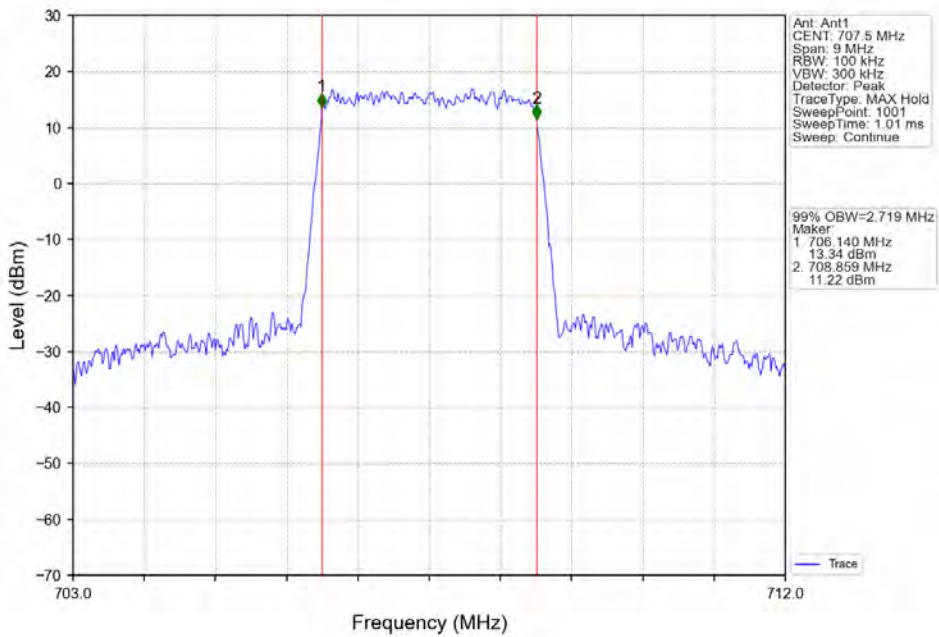
Band12_3MHz_QPSK_HCH_714.5MHz_RB_15_0_NTNV



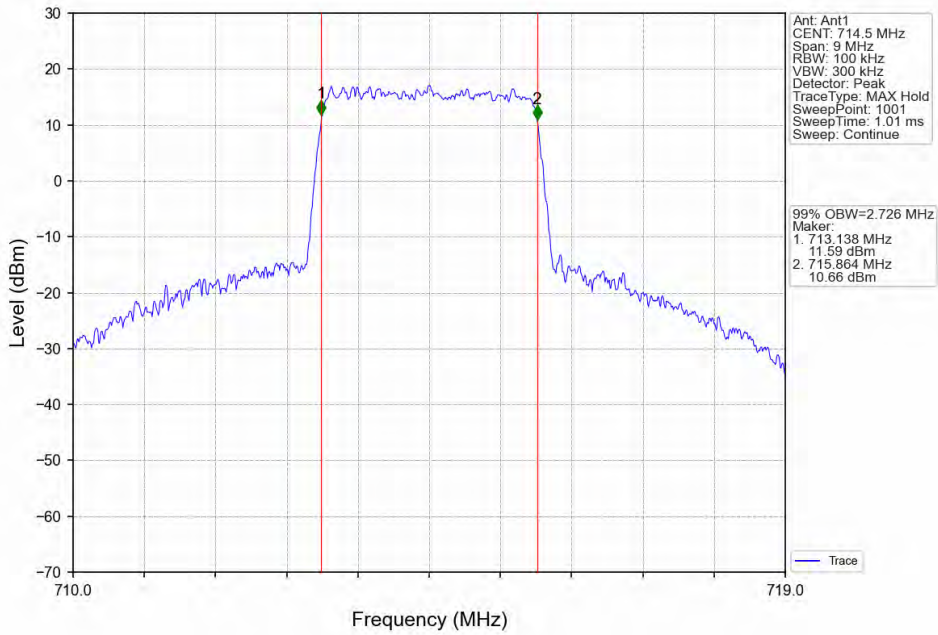
Band12_3MHz_16QAM_LCH_700.5MHz_RB_15_0_NTNV



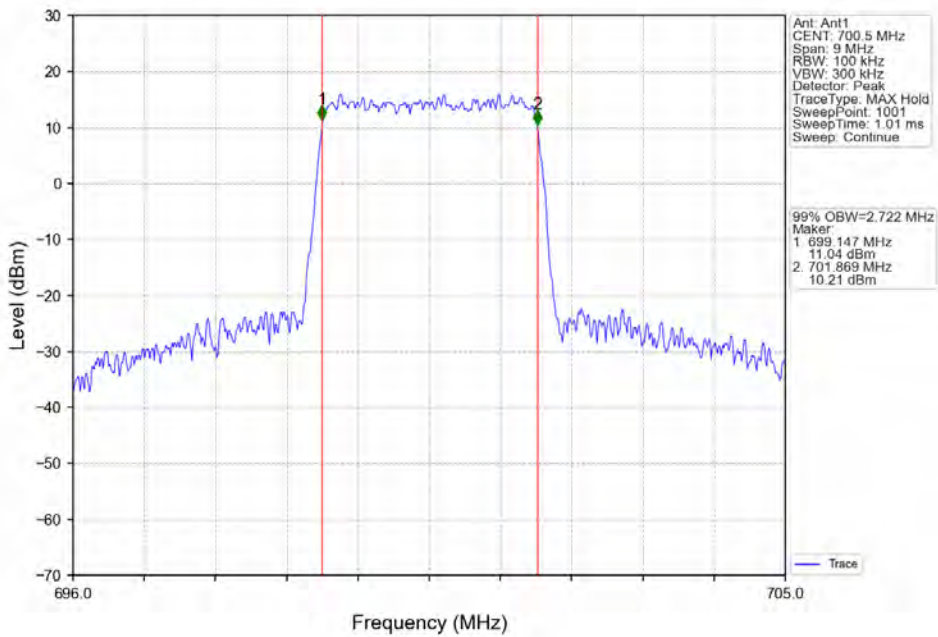
Band12_3MHz_16QAM_MCH_707.5MHz_RB_15_0_NTNV



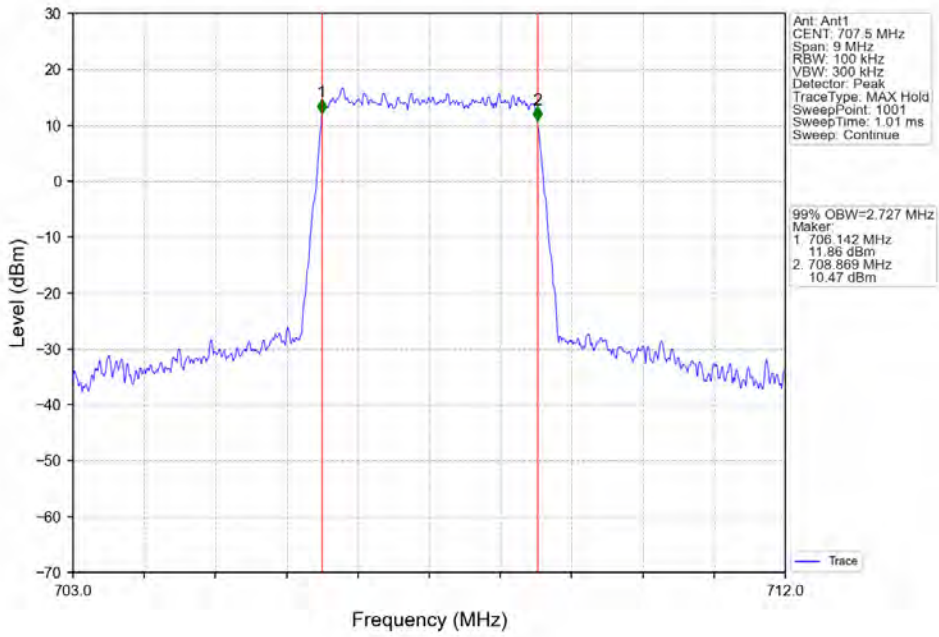
Band12_3MHz_16QAM_HCH_714.5MHz_RB_15_0_NTNV



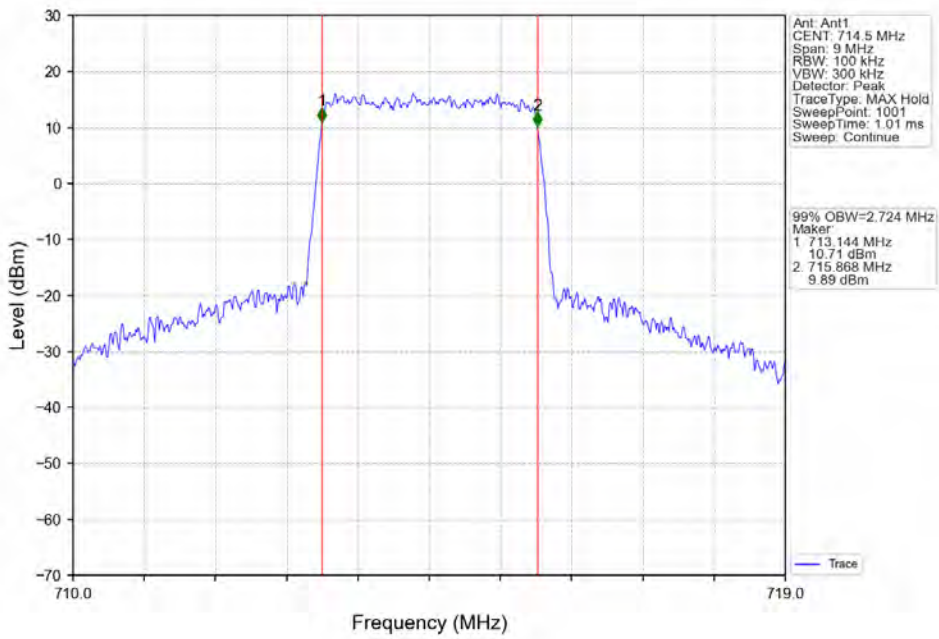
Band12_3MHz_64QAM_LCH_700.5MHz_RB_15_0_NTNV



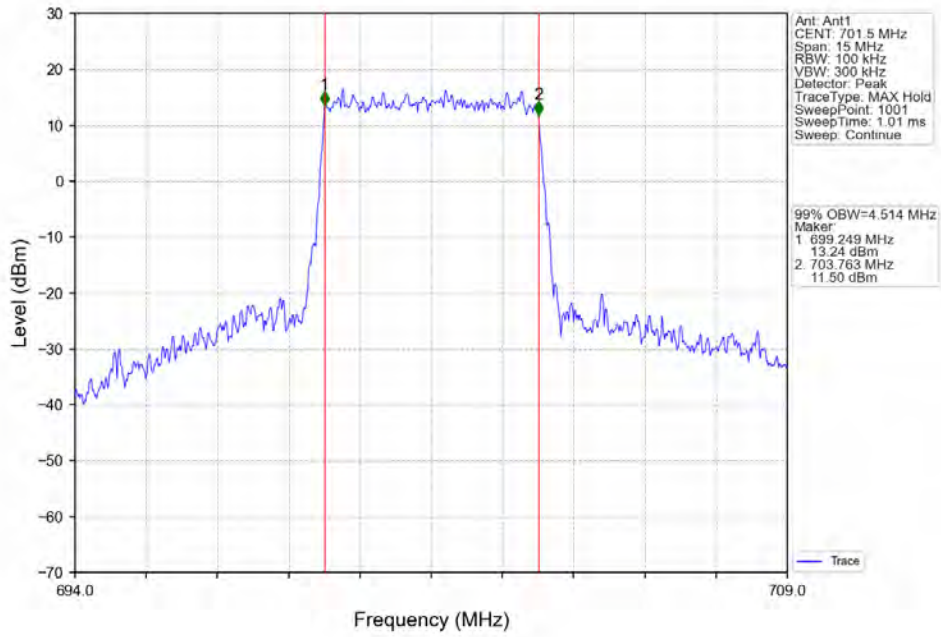
Band12_3MHz_64QAM_MCH_707.5MHz_RB_15_0_NTNV



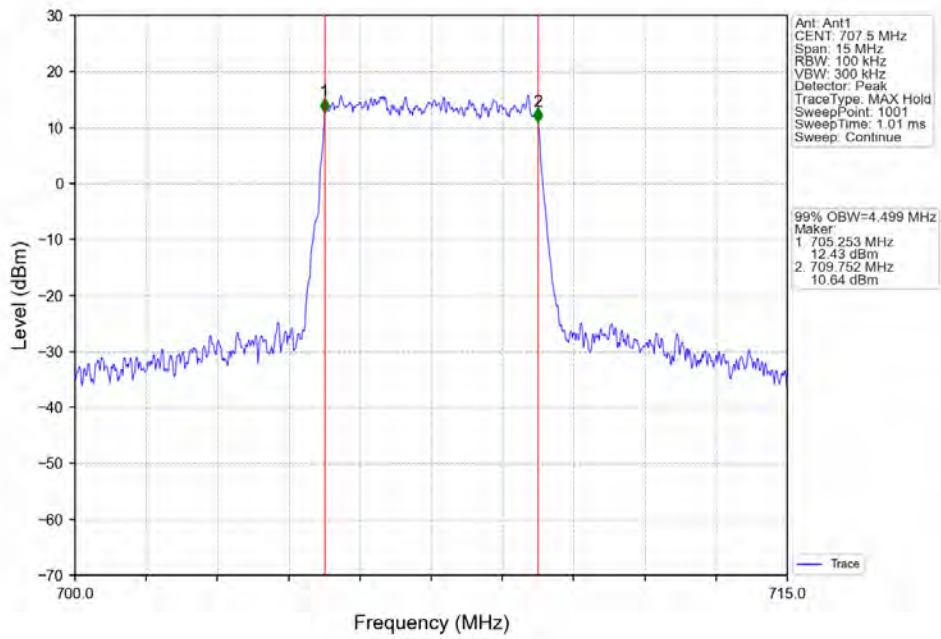
Band12_3MHz_64QAM_HCH_714.5MHz_RB_15_0_NTNV



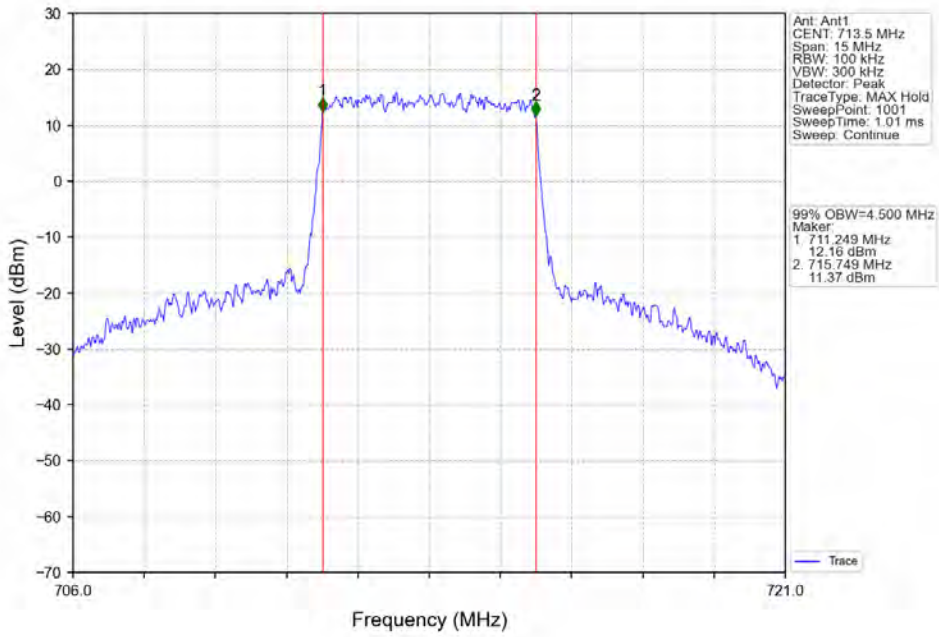
Band12_5MHz_QPSK_LCH_701.5MHz_RB_25_0_NTNV



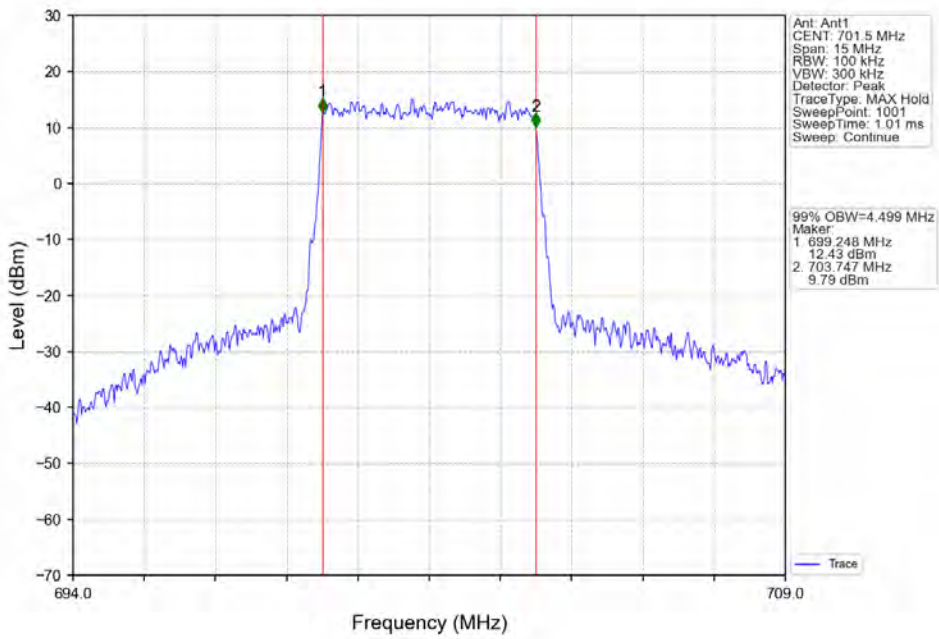
Band12_5MHz_QPSK_MCH_707.5MHz_RB_25_0_NTNV



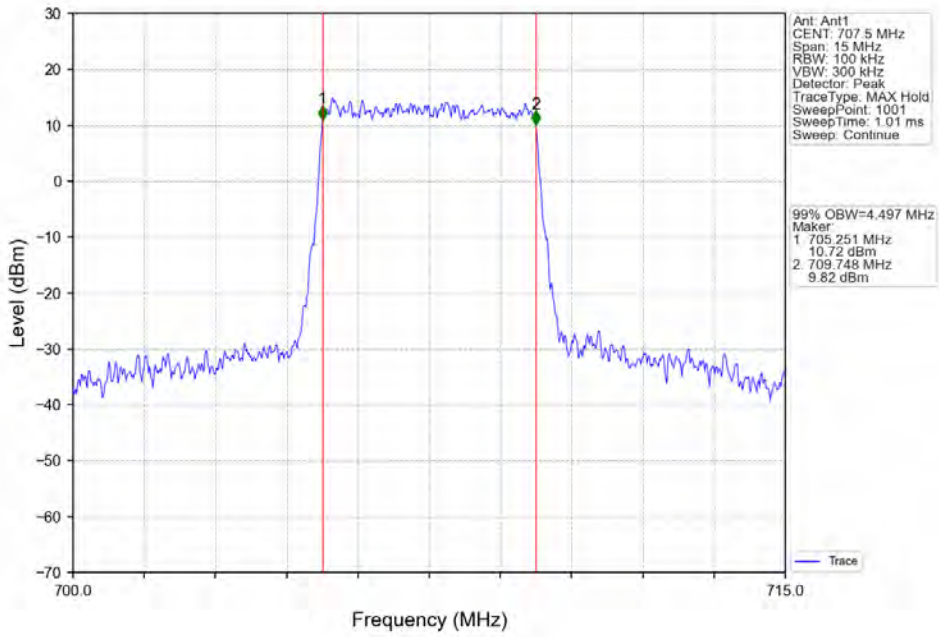
Band12_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



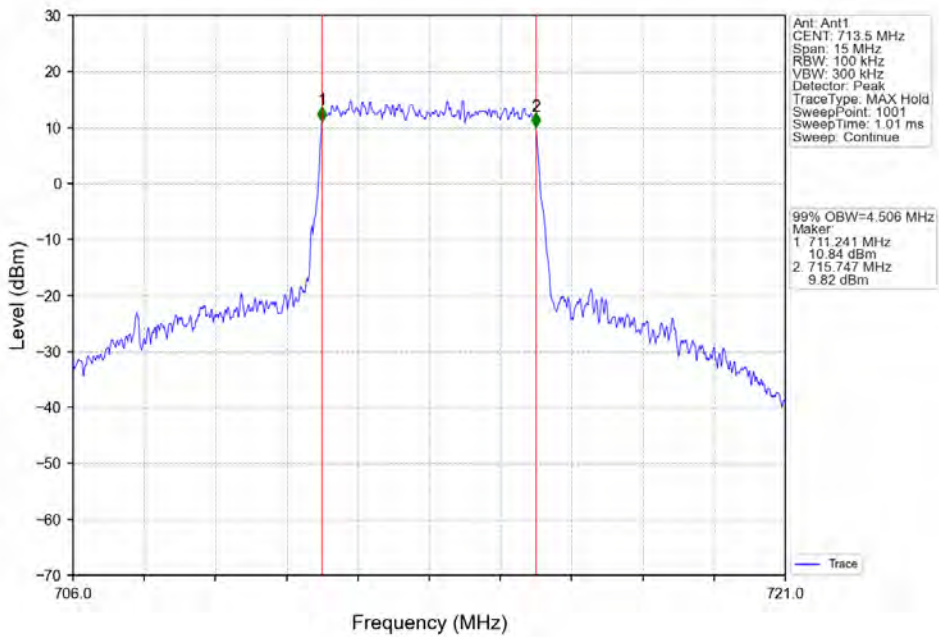
Band12_5MHz_16QAM_LCH_701.5MHz_RB_25_0_NTNV



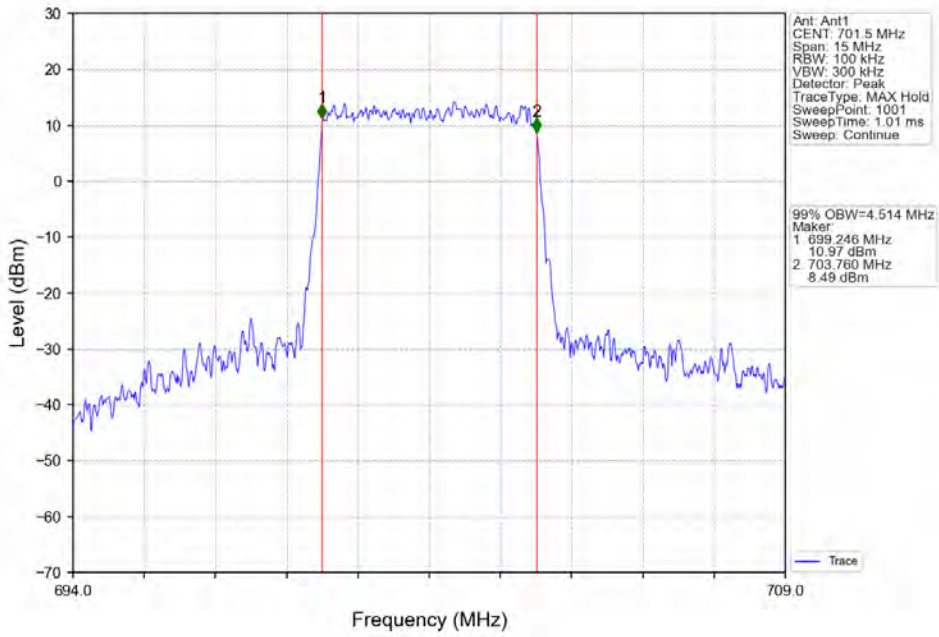
Band12_5MHz_16QAM_MCH_707.5MHz_RB_25_0_NTNV



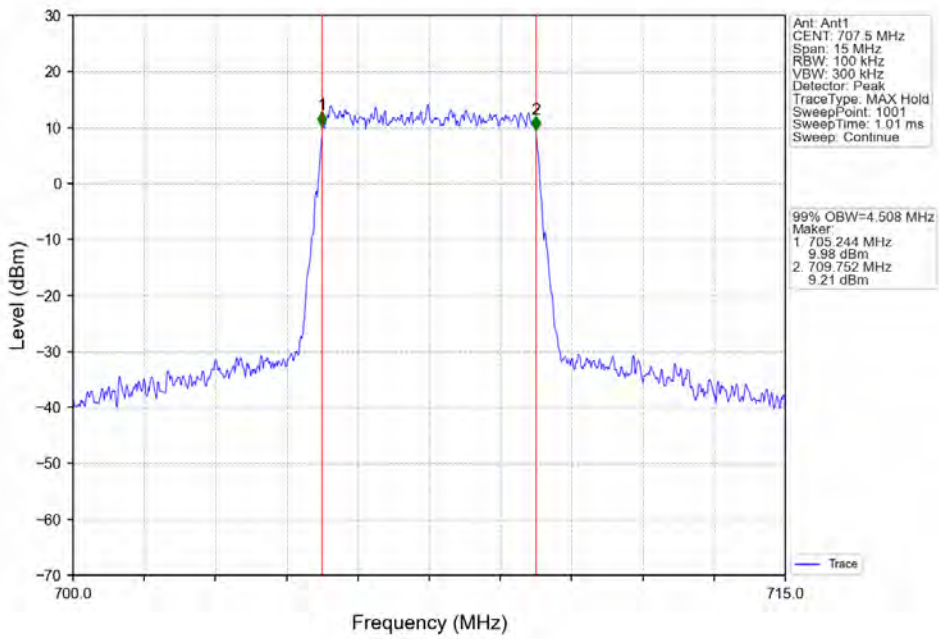
Band12_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



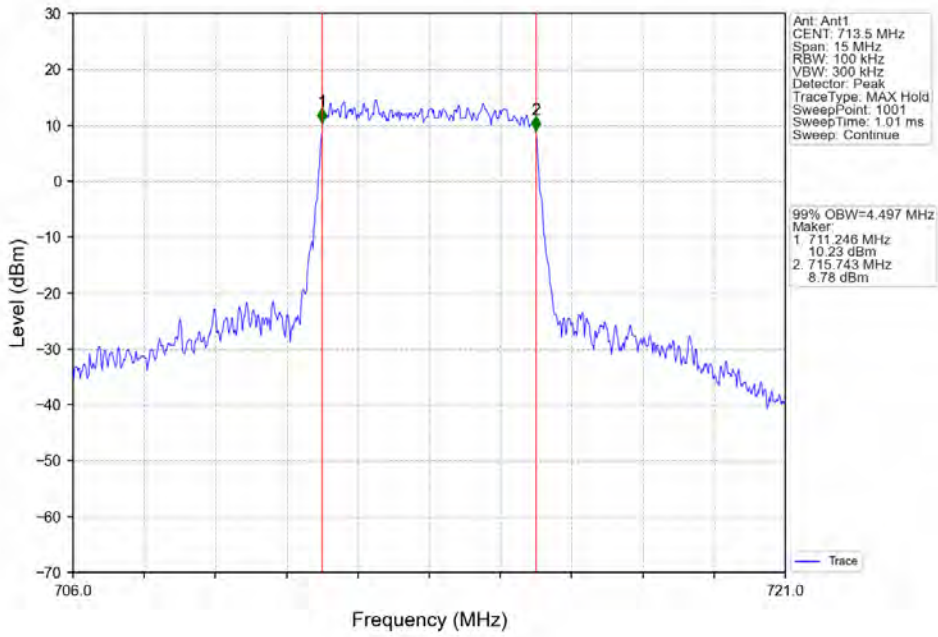
Band12_5MHz_64QAM_LCH_701.5MHz_RB_25_0_NTNV



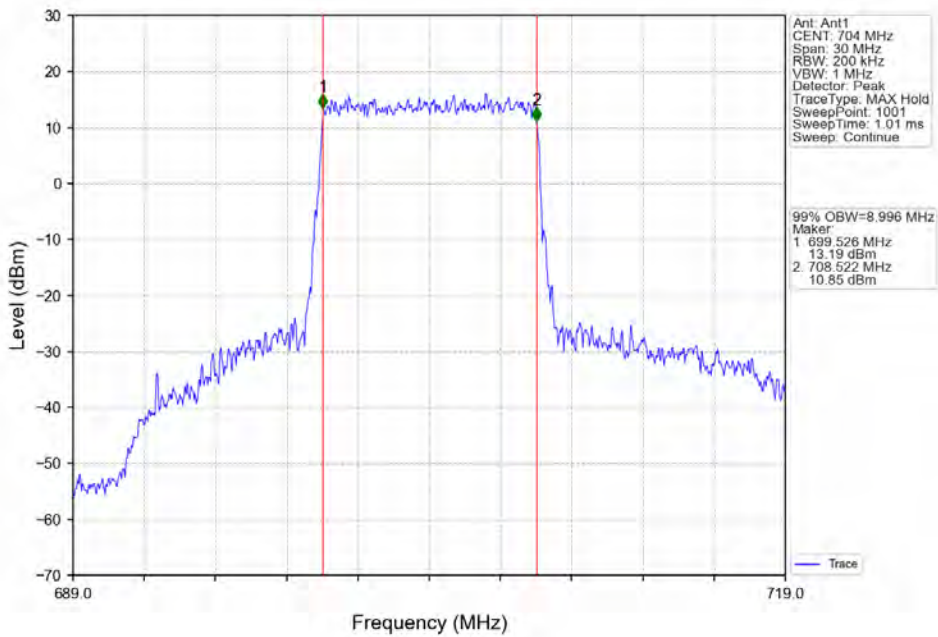
Band12_5MHz_64QAM_MCH_707.5MHz_RB_25_0_NTNV



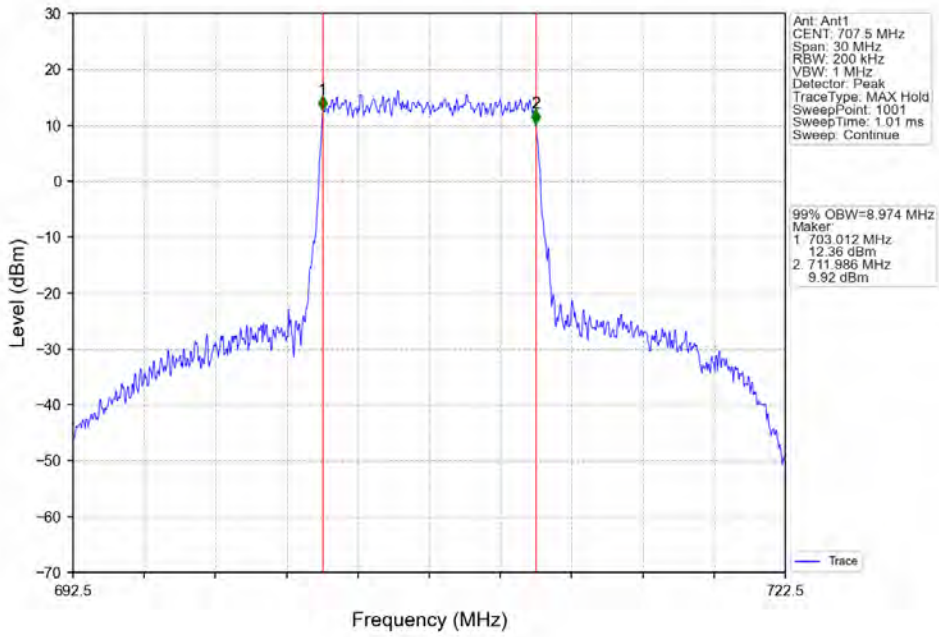
Band12_5MHz_64QAM_HCH_713.5MHz_RB_25_0_NTNV



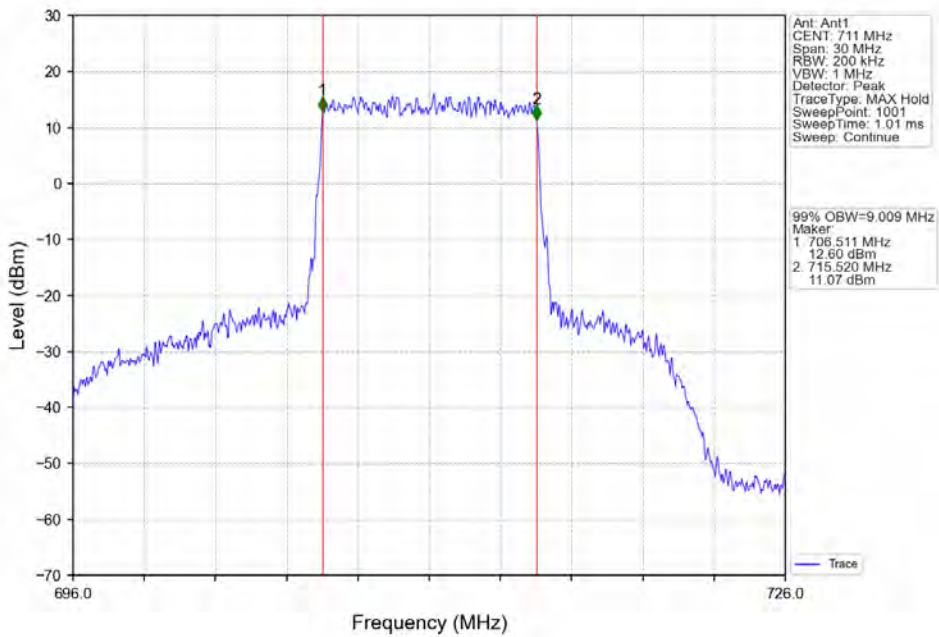
Band12_10MHz_QPSK_LCH_704MHz_RB_50_0_NTNV



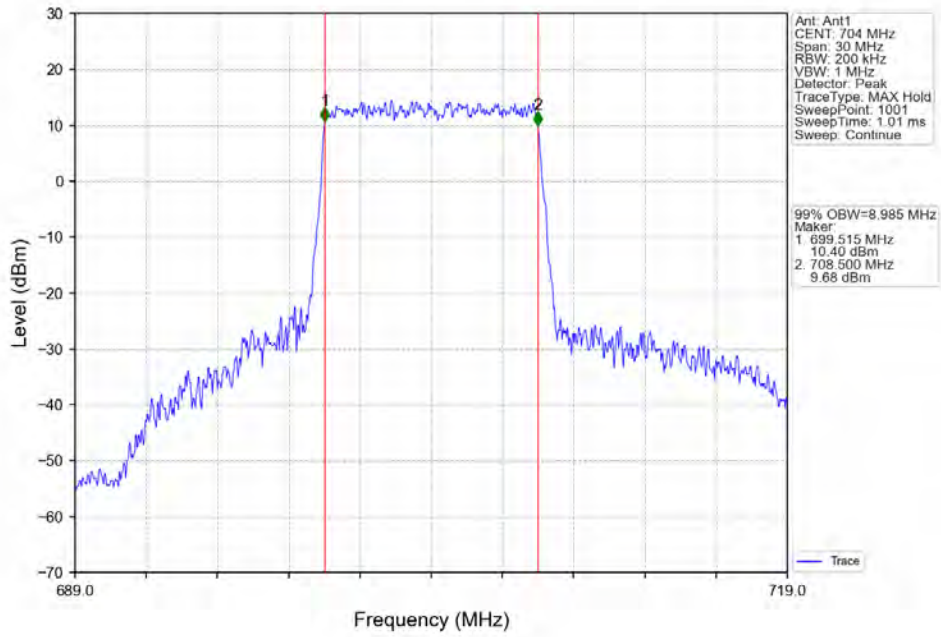
Band12_10MHz_QPSK_MCH_707.5MHz_RB_50_0_NTNV



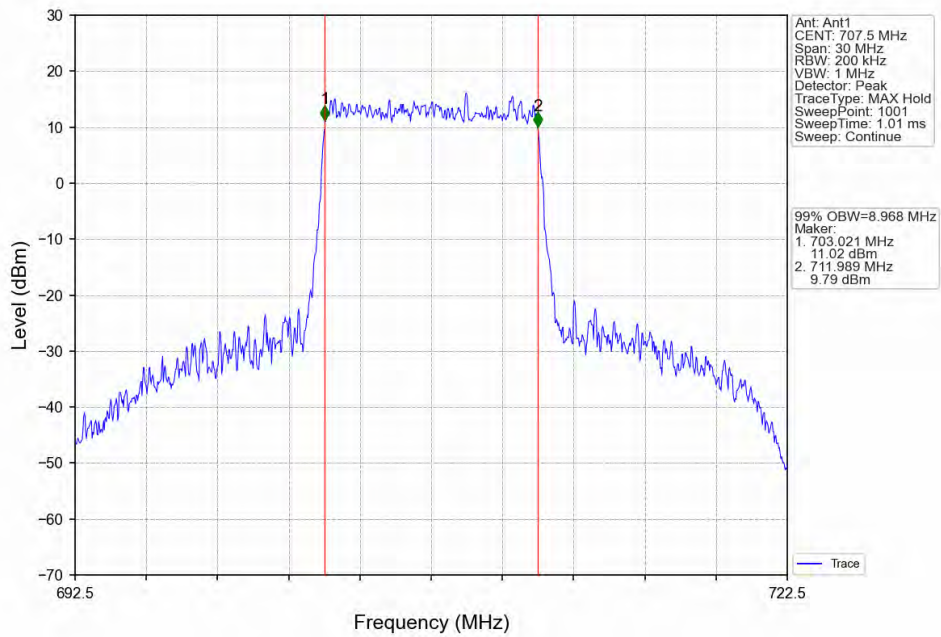
Band12_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



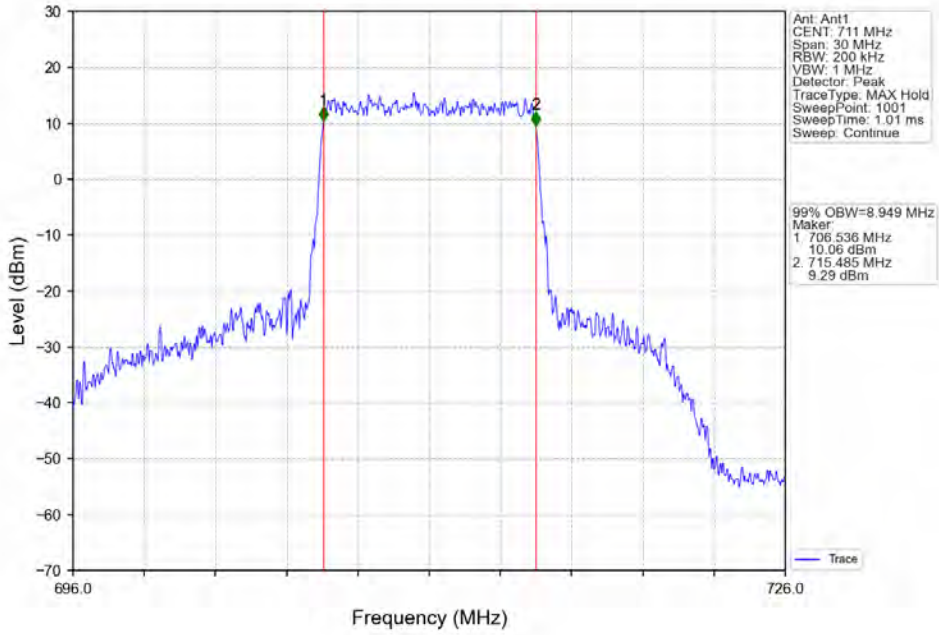
Band12_10MHz_16QAM_LCH_704MHz_RB_50_0_NTNV



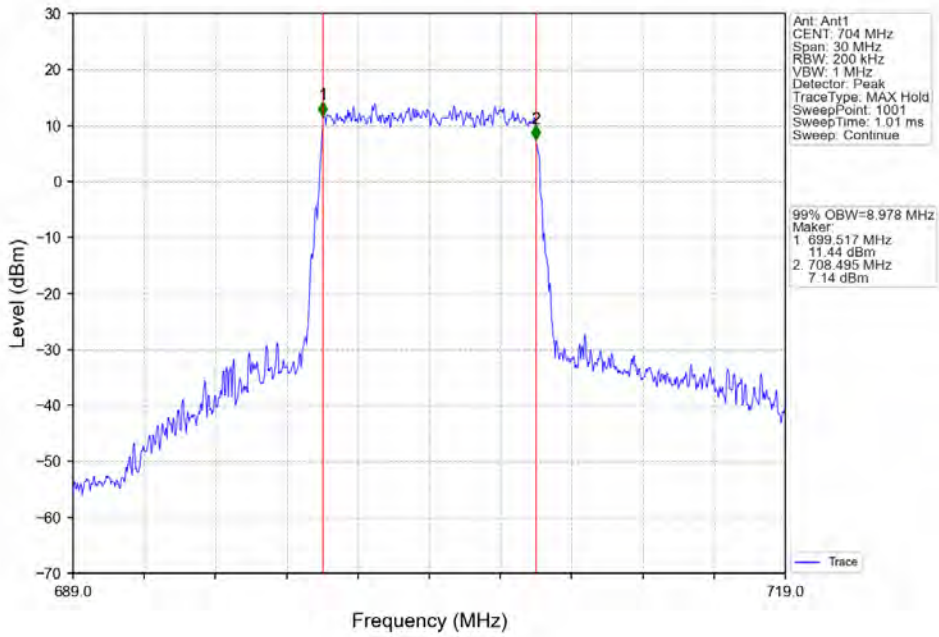
Band12_10MHz_16QAM_MCH_707.5MHz_RB_50_0_NTNV



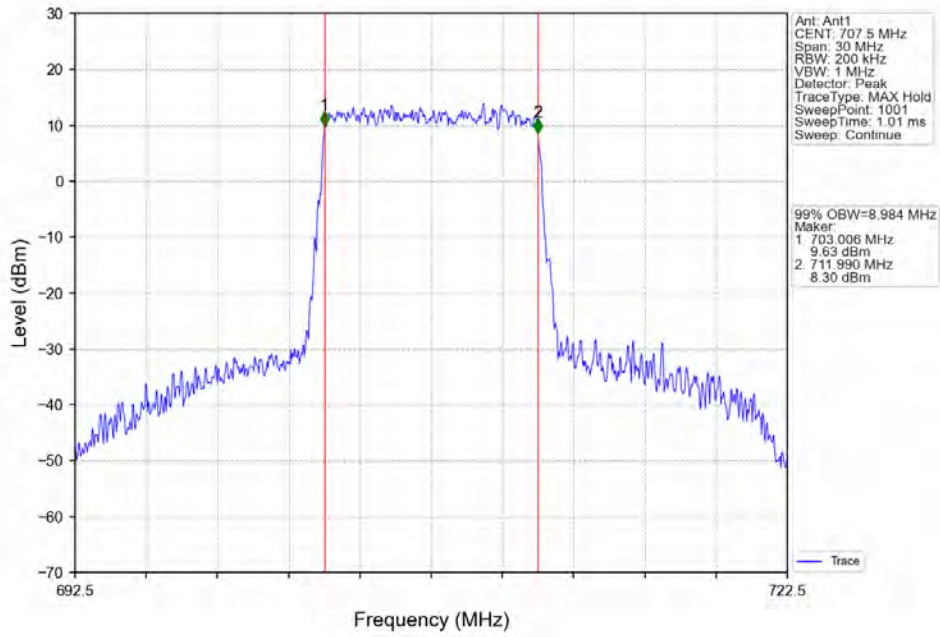
Band12_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV



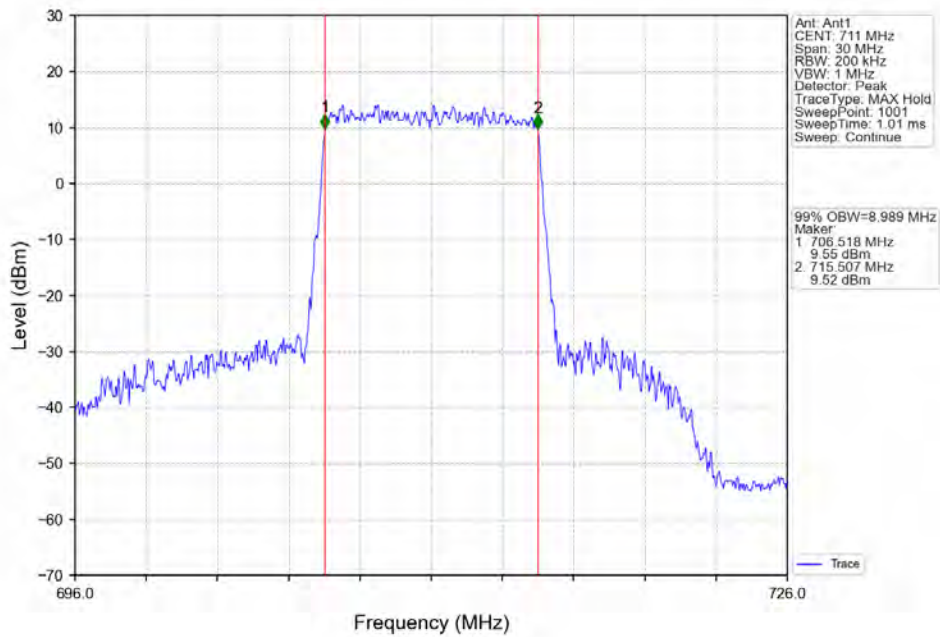
Band12_10MHz_64QAM_LCH_704MHz_RB_50_0_NTNV



Band12_10MHz_64QAM_MCH_707.5MHz_RB_50_0_NTNV



Band12_10MHz_64QAM_HCH_711MHz_RB_50_0_NTNV

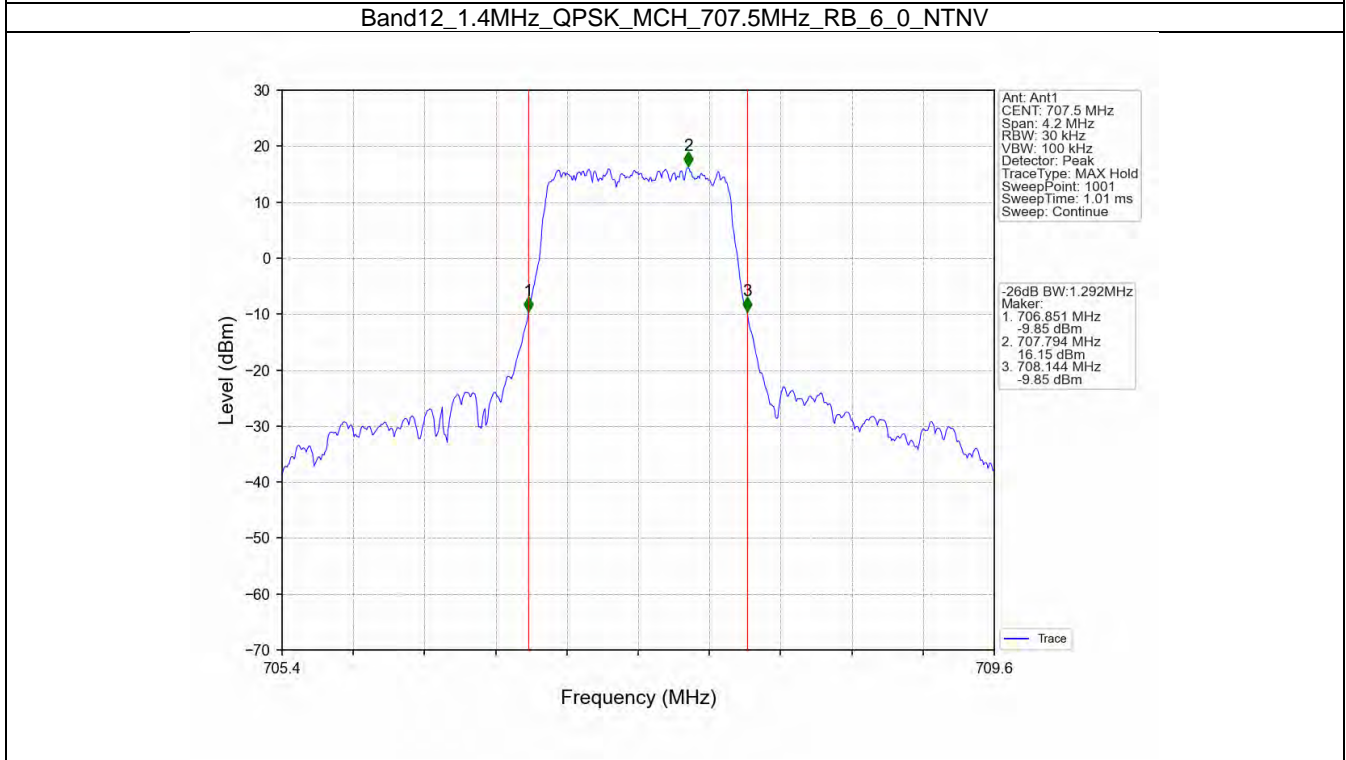
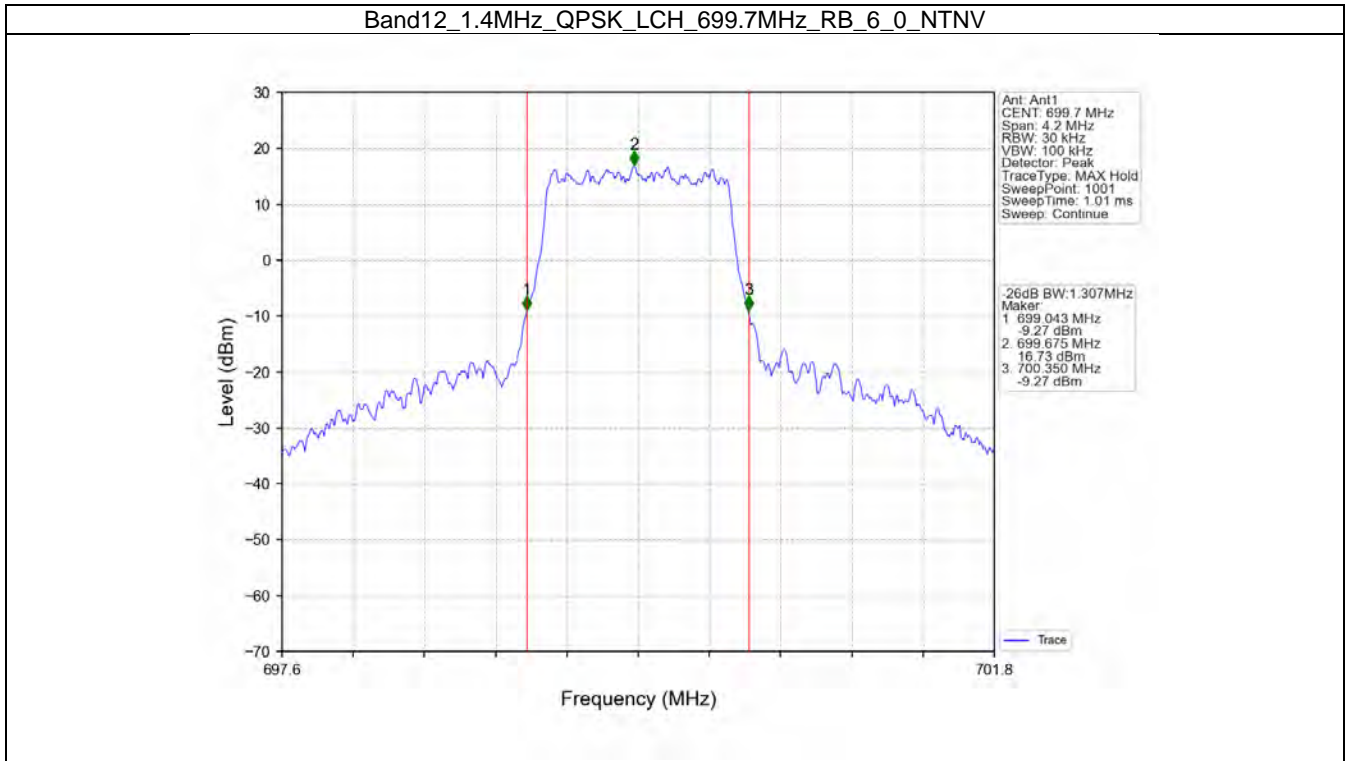


3.2 Band12_XDB

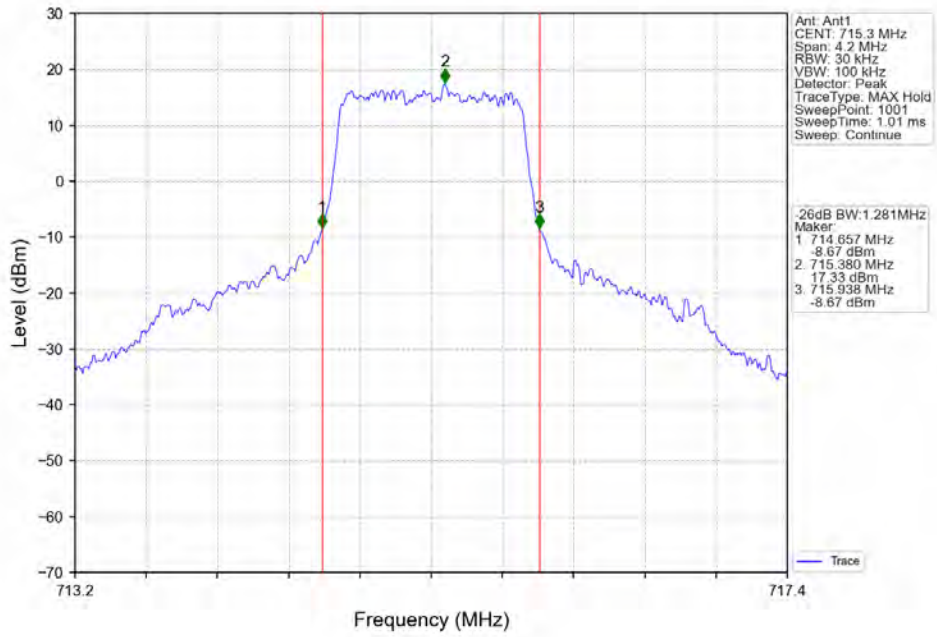
3.2.1 Test Result

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	1.307	/	Pass
		707.5	6	0	1.292	/	Pass
		715.3	6	0	1.281	/	Pass
	16QAM	699.7	6	0	1.296	/	Pass
		707.5	6	0	1.281	/	Pass
		715.3	6	0	1.299	/	Pass
	64QAM	699.7	6	0	1.303	/	Pass
		707.5	6	0	1.317	/	Pass
		715.3	6	0	1.317	/	Pass
3	QPSK	700.5	15	0	3.003	/	Pass
		707.5	15	0	3.022	/	Pass
		714.5	15	0	3.039	/	Pass
	16QAM	700.5	15	0	3.020	/	Pass
		707.5	15	0	3.012	/	Pass
		714.5	15	0	3.015	/	Pass
	64QAM	700.5	15	0	2.995	/	Pass
		707.5	15	0	3.002	/	Pass
		714.5	15	0	3.015	/	Pass
5	QPSK	701.5	25	0	4.921	/	Pass
		707.5	25	0	4.948	/	Pass
		713.5	25	0	4.987	/	Pass
	16QAM	701.5	25	0	4.970	/	Pass
		707.5	25	0	4.957	/	Pass
		713.5	25	0	4.969	/	Pass
	64QAM	701.5	25	0	4.920	/	Pass
		707.5	25	0	4.978	/	Pass
		713.5	25	0	4.939	/	Pass
10	QPSK	704	50	0	9.764	/	Pass
		707.5	50	0	9.645	/	Pass
		711	50	0	9.784	/	Pass
	16QAM	704	50	0	9.765	/	Pass
		707.5	50	0	9.662	/	Pass
		711	50	0	9.772	/	Pass
	64QAM	704	50	0	9.757	/	Pass
		707.5	50	0	9.774	/	Pass
		711	50	0	9.848	/	Pass

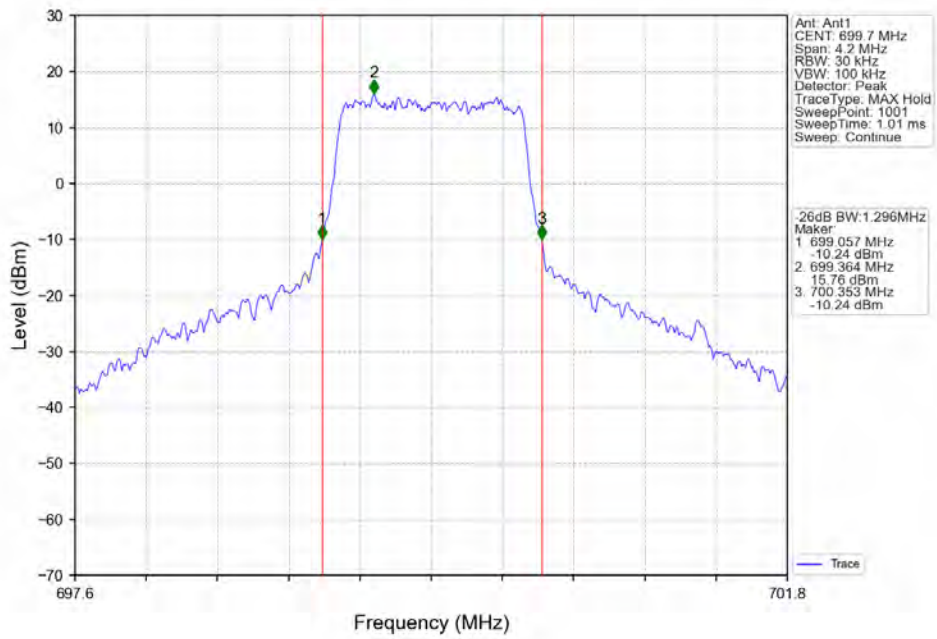
3.2.2 Test Graph



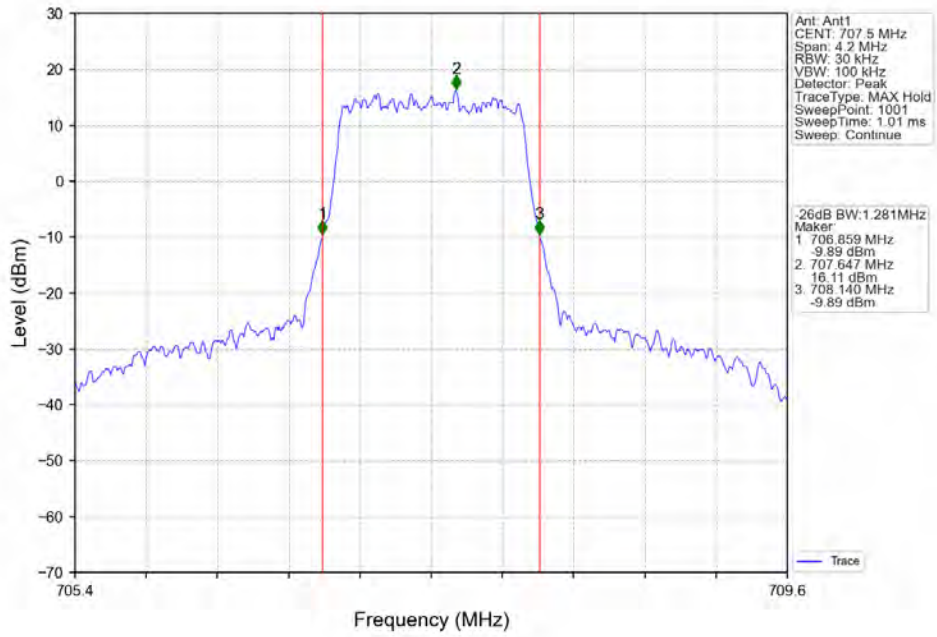
Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



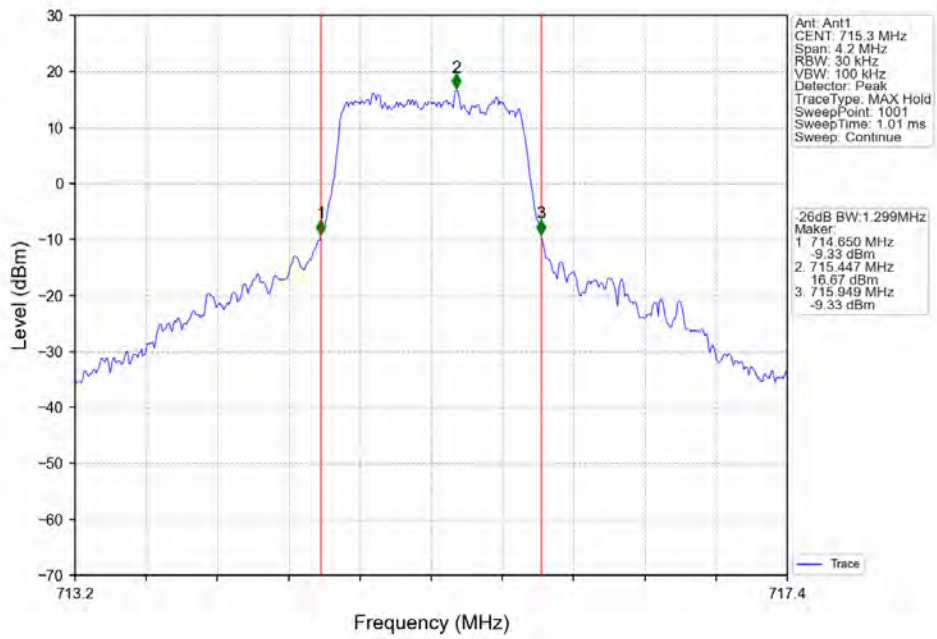
Band12_1.4MHz_16QAM_LCH_699.7MHz_RB_6_0_NTNV



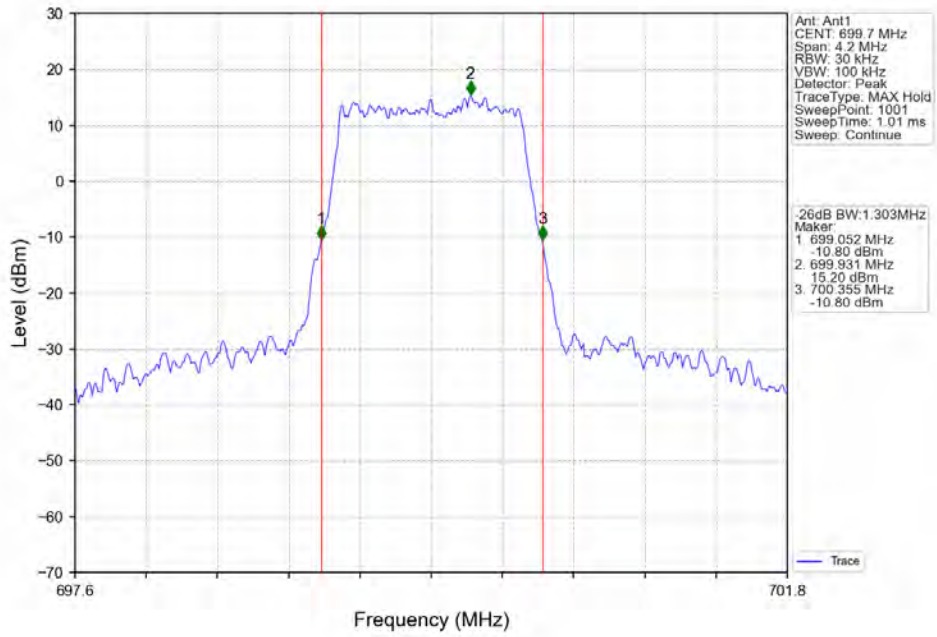
Band12_1.4MHz_16QAM_MCH_707.5MHz_RB_6_0_NTNV



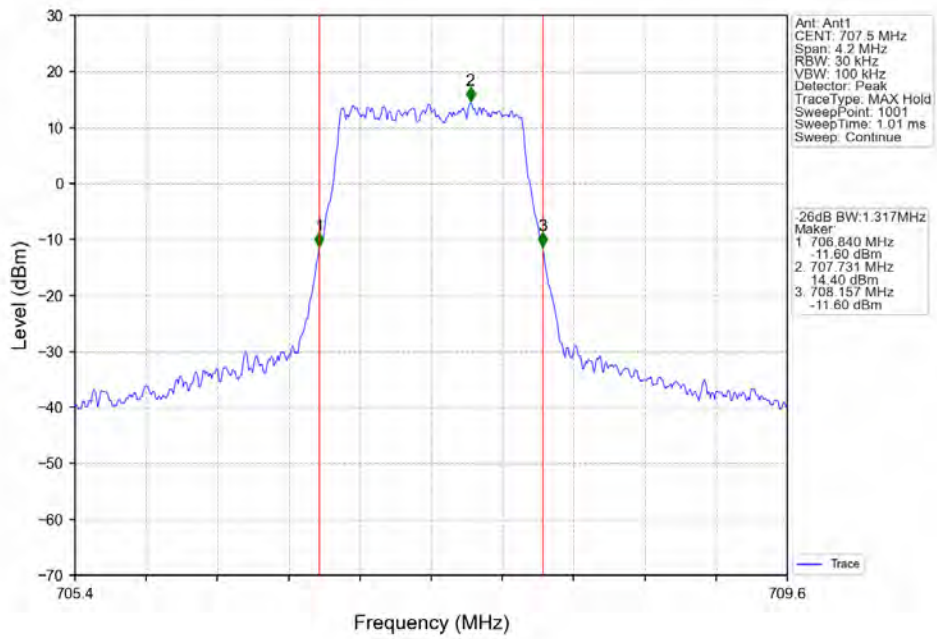
Band12_1.4MHz_16QAM_HCH_715.3MHz_RB_6_0_NTNV



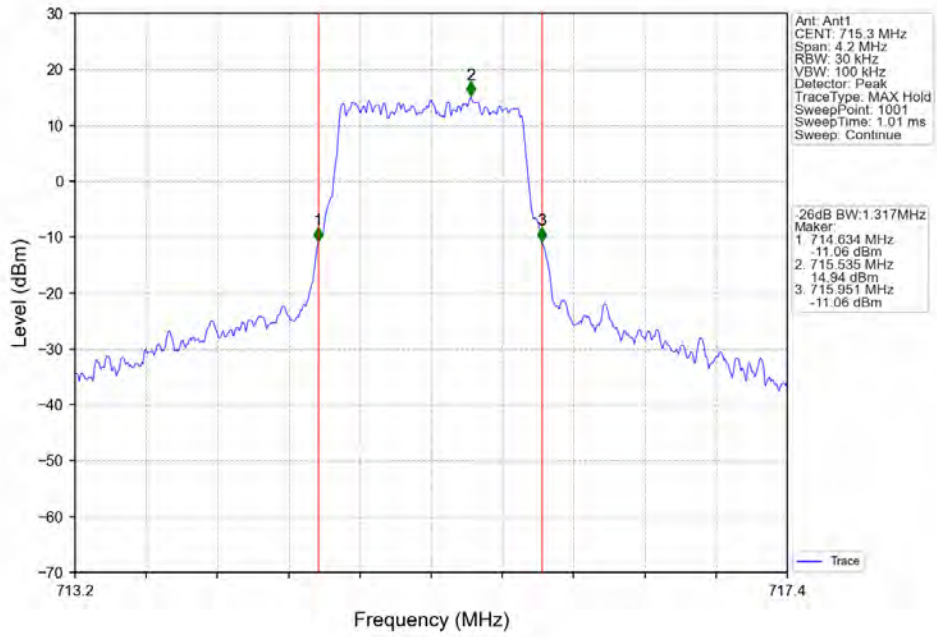
Band12_1.4MHz_64QAM_LCH_699.7MHz_RB_6_0_NTNV



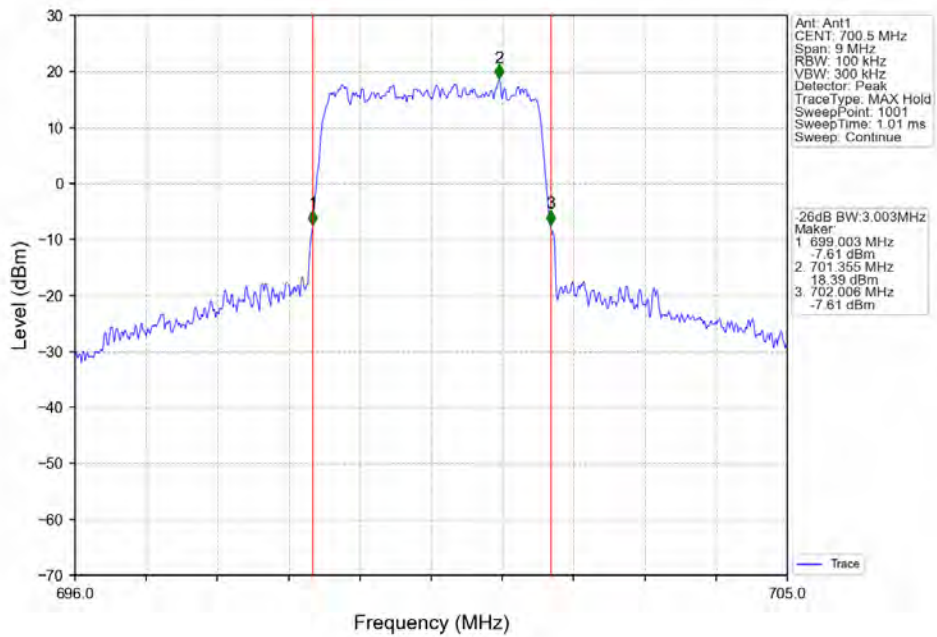
Band12_1.4MHz_64QAM_MCH_707.5MHz_RB_6_0_NTNV



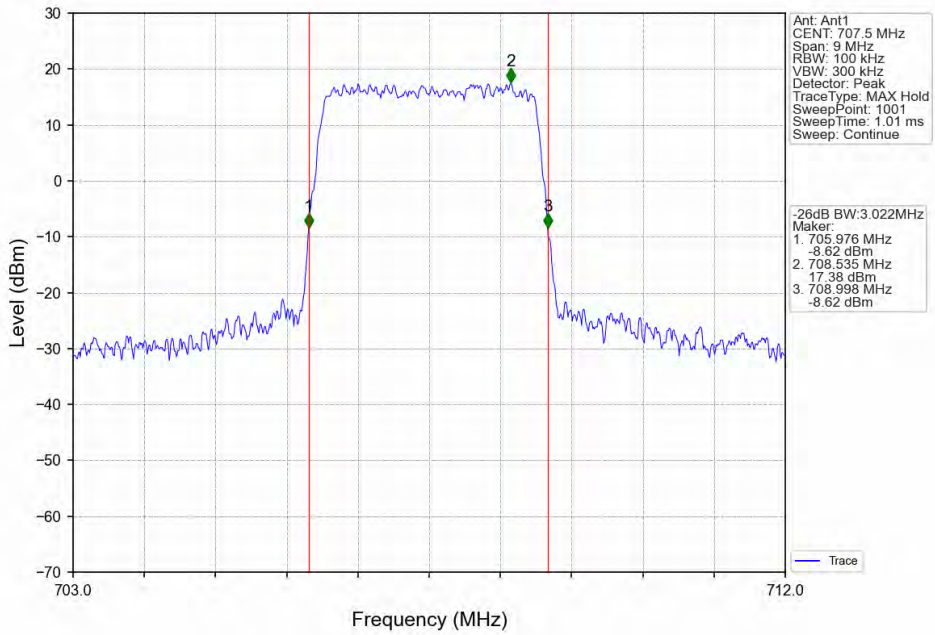
Band12_1.4MHz_64QAM_HCH_715.3MHz_RB_6_0_NTNV



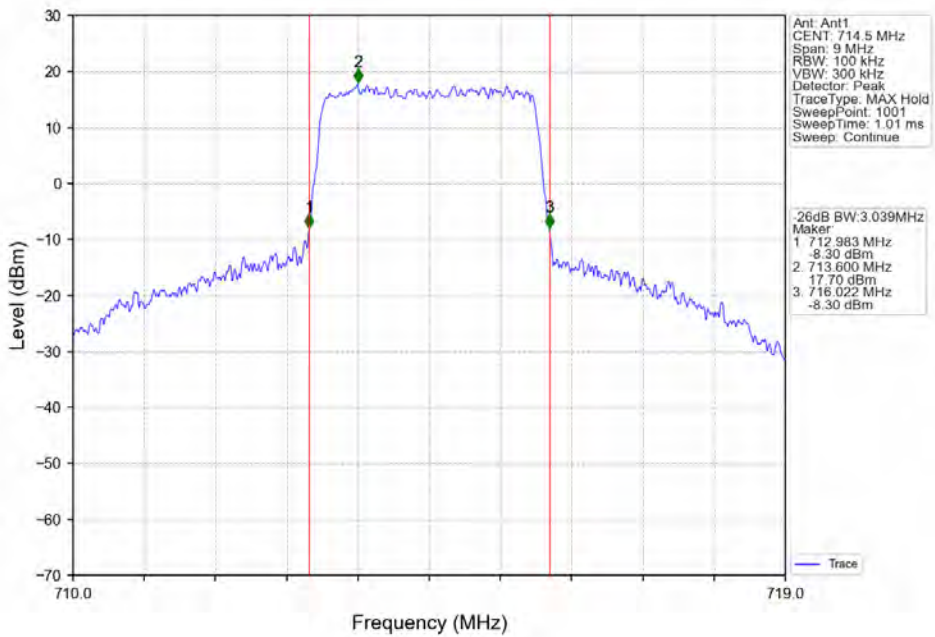
Band12_3MHz_QPSK_LCH_700.5MHz_RB_15_0_NTNV



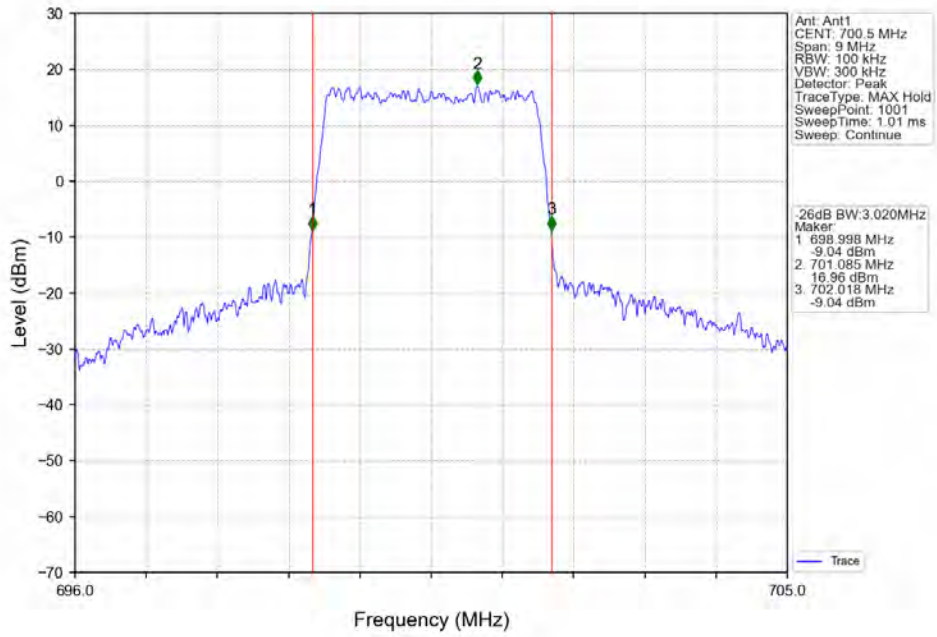
Band12_3MHz_QPSK_MCH_707.5MHz_RB_15_0_NTNV



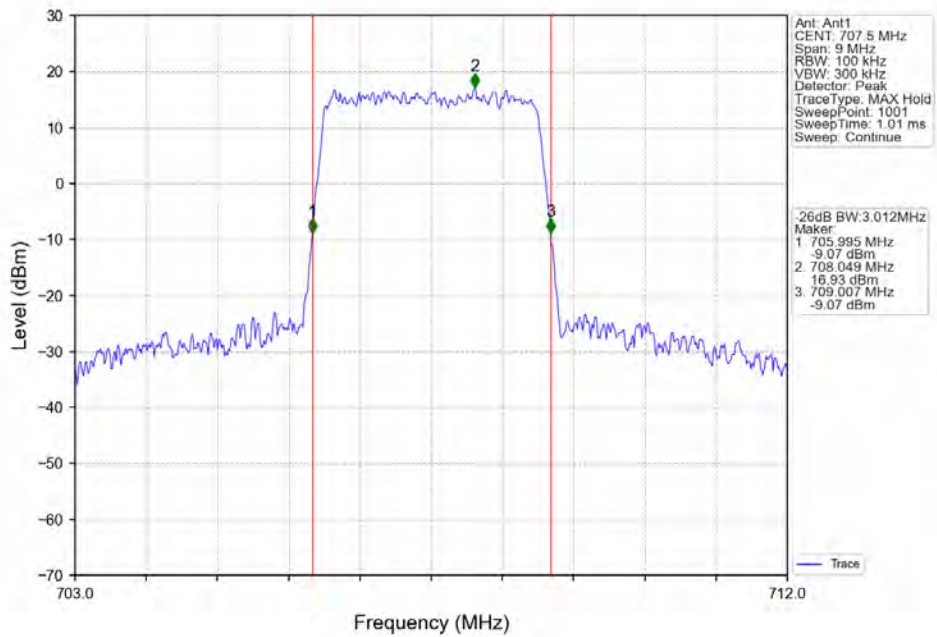
Band12_3MHz_QPSK_HCH_714.5MHz_RB_15_0_NTNV



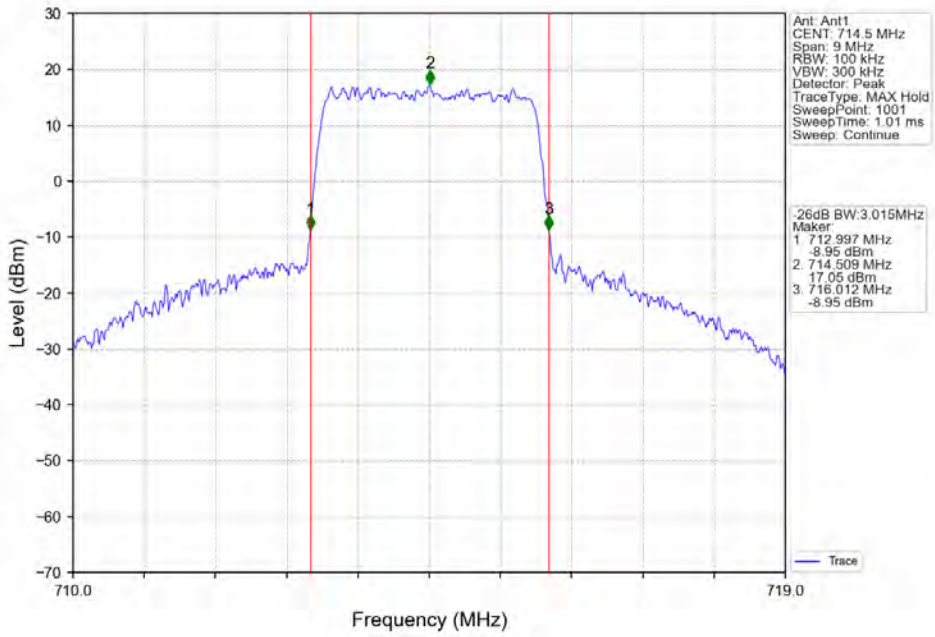
Band12_3MHz_16QAM_LCH_700.5MHz_RB_15_0_NTNV



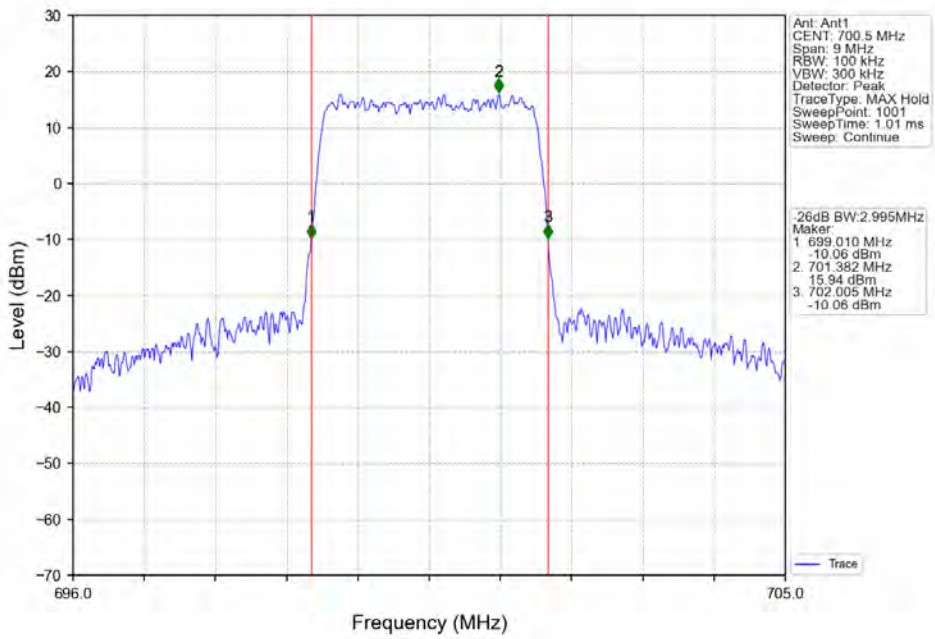
Band12_3MHz_16QAM_MCH_707.5MHz_RB_15_0_NTNV



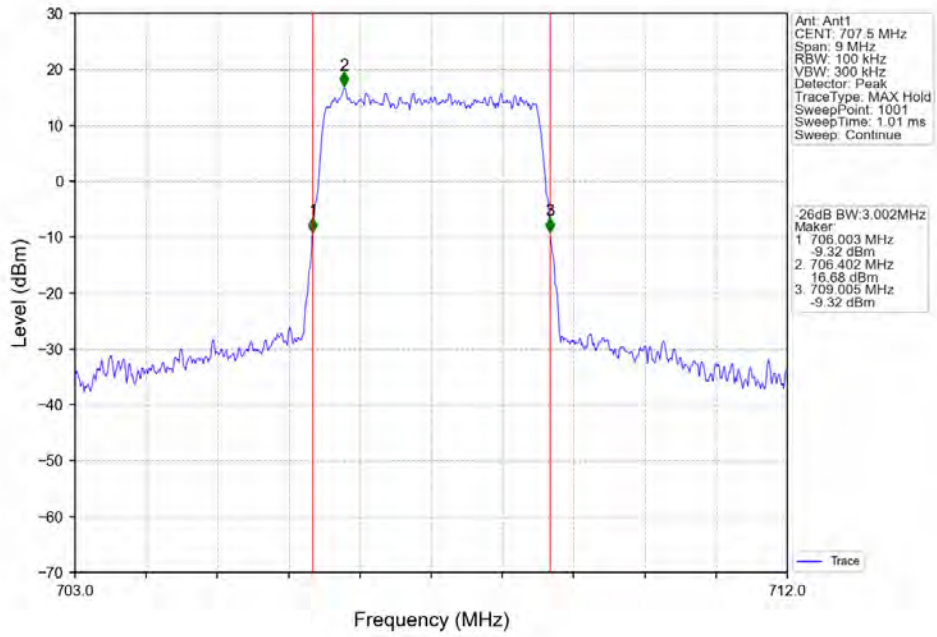
Band12_3MHz_16QAM_HCH_714.5MHz_RB_15_0_NTNV



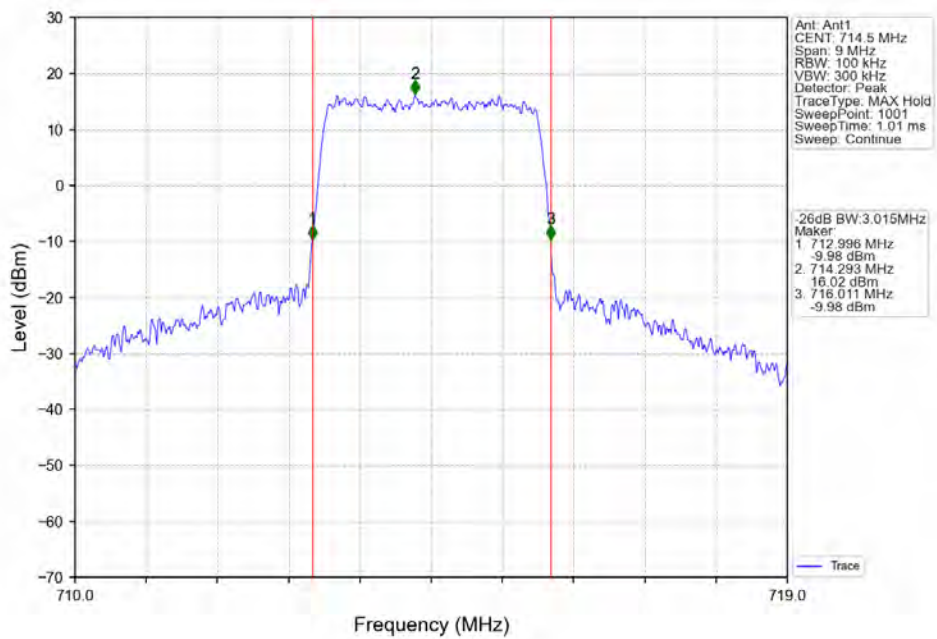
Band12_3MHz_64QAM_LCH_700.5MHz_RB_15_0_NTNV



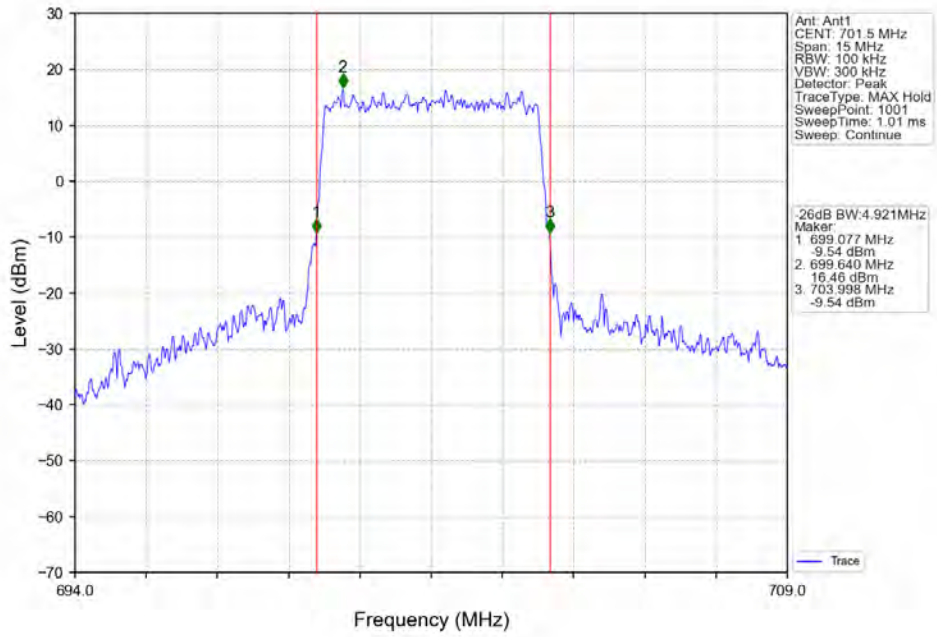
Band12_3MHz_64QAM_MCH_707.5MHz_RB_15_0_NTNV



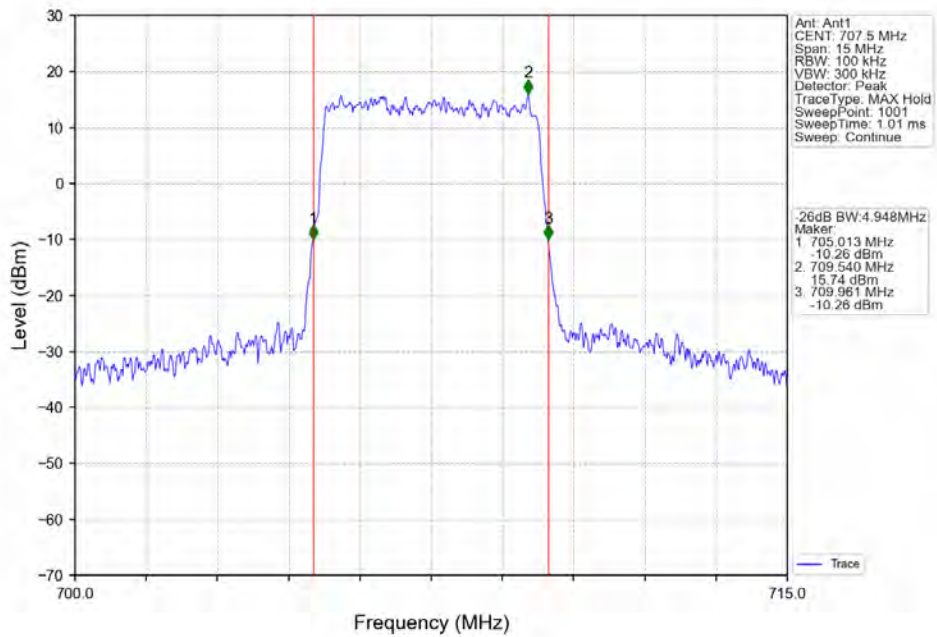
Band12_3MHz_64QAM_HCH_714.5MHz_RB_15_0_NTNV



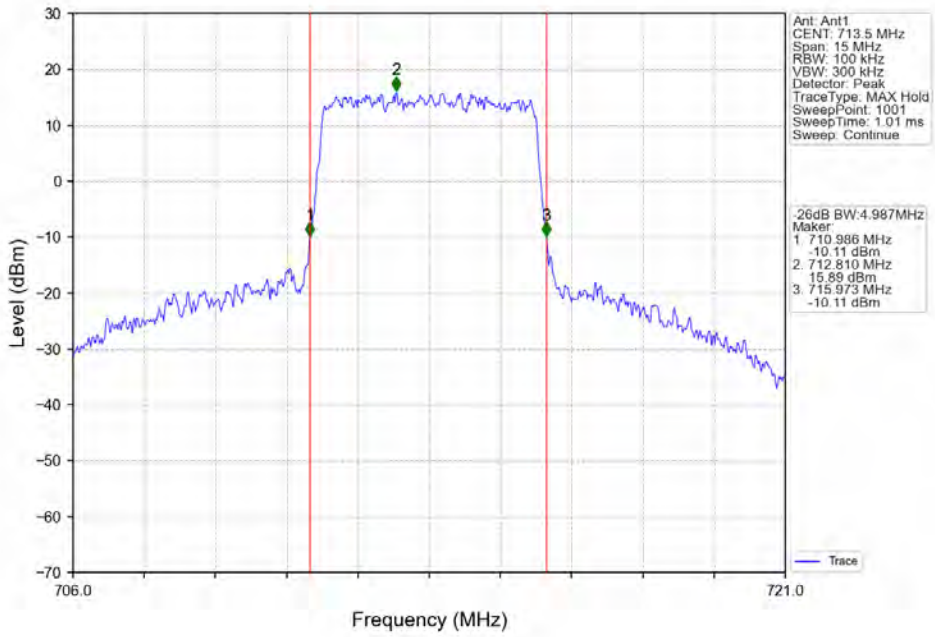
Band12_5MHz_QPSK_LCH_701.5MHz_RB_25_0_NTNV



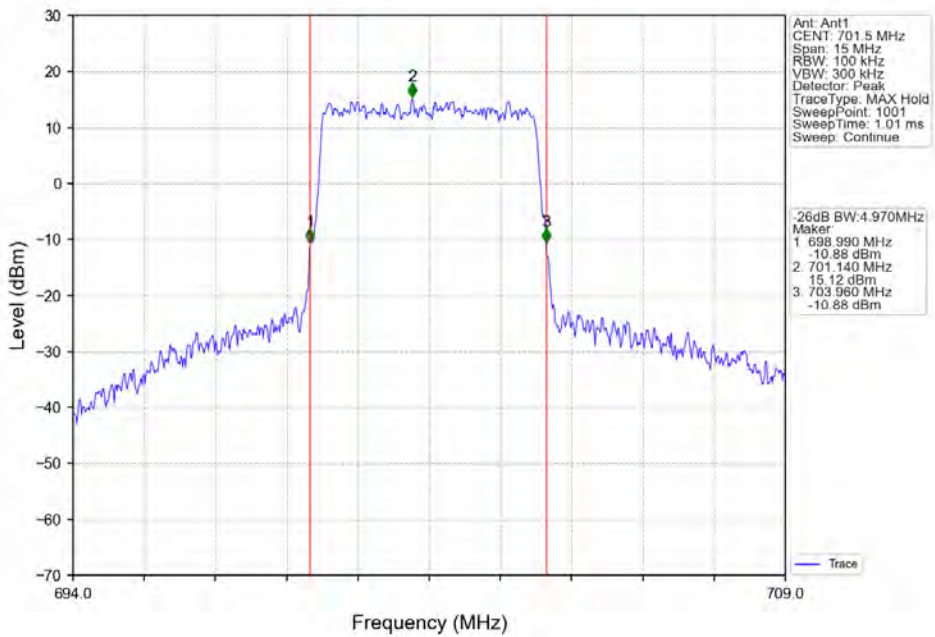
Band12_5MHz_QPSK_MCH_707.5MHz_RB_25_0_NTNV



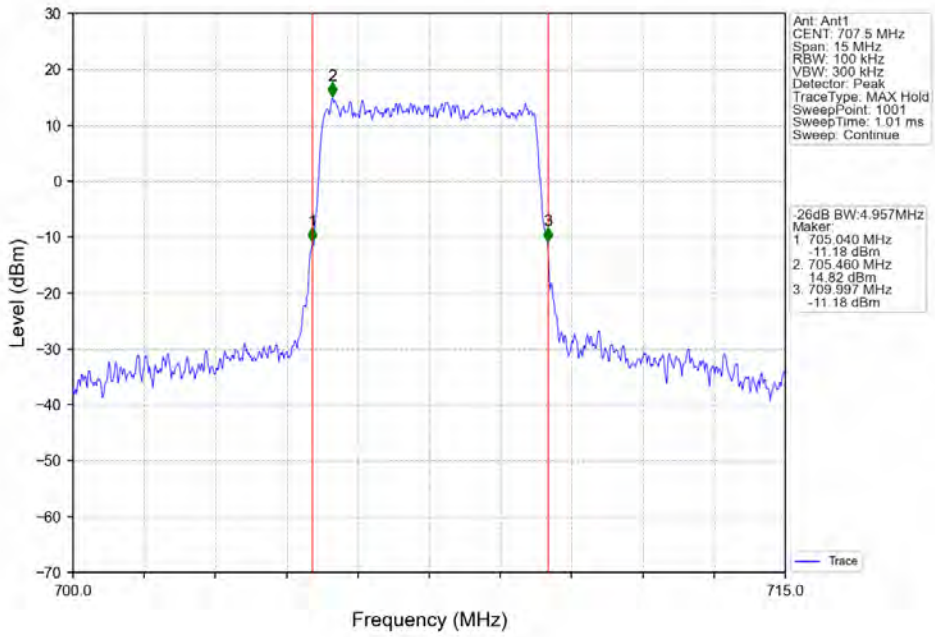
Band12_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



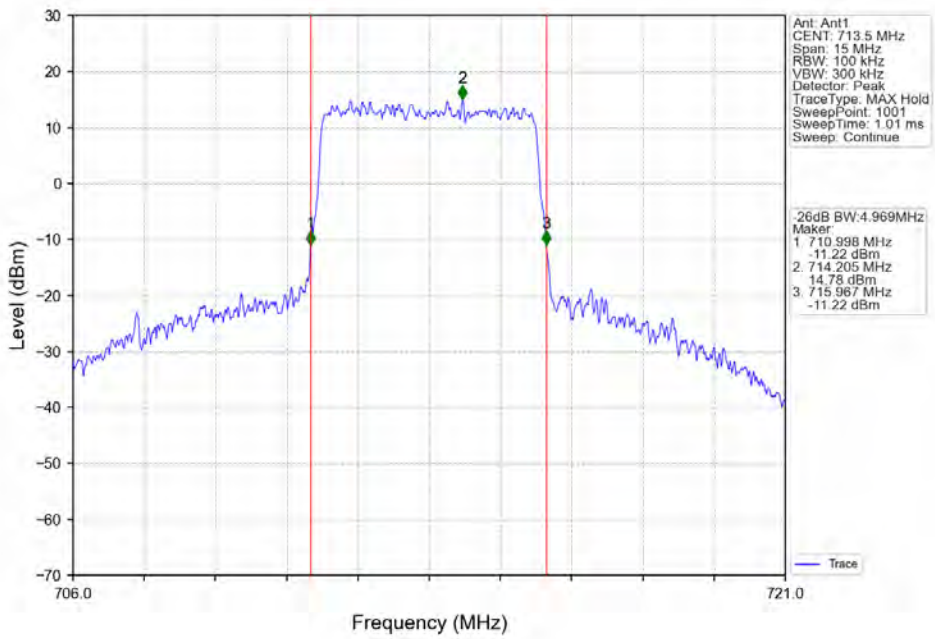
Band12_5MHz_16QAM_LCH_701.5MHz_RB_25_0_NTNV



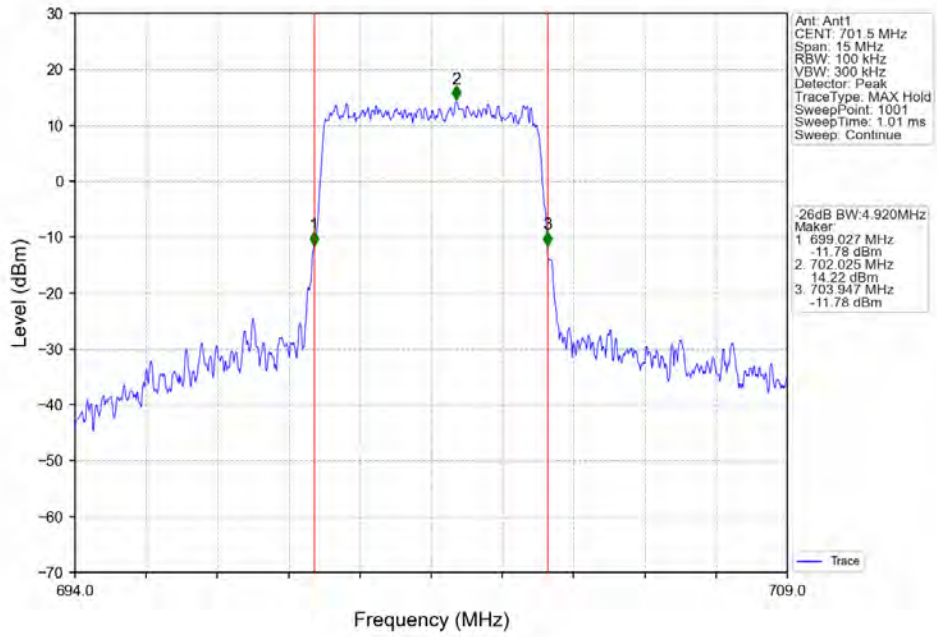
Band12_5MHz_16QAM_MCH_707.5MHz_RB_25_0_NTNV



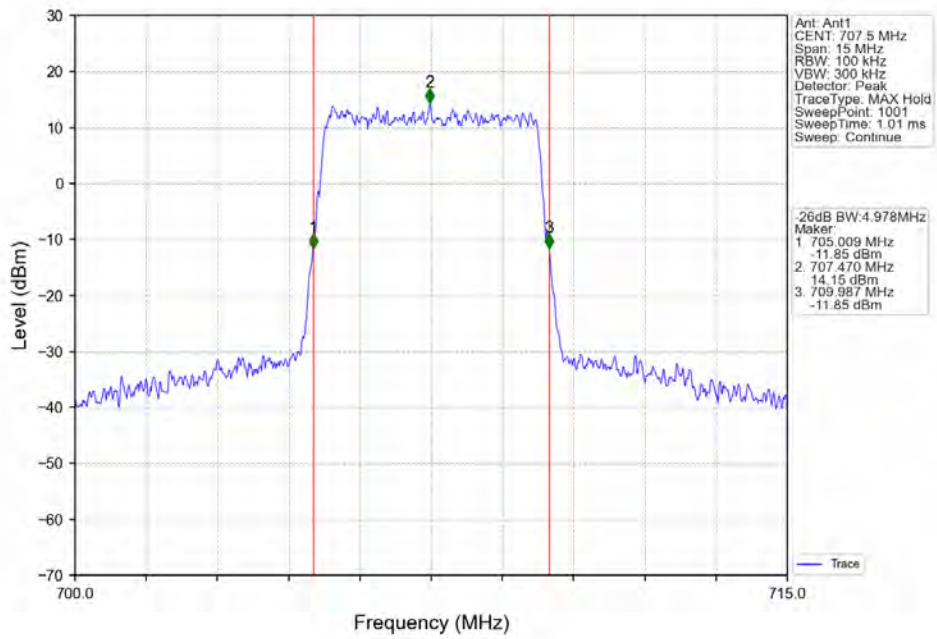
Band12_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



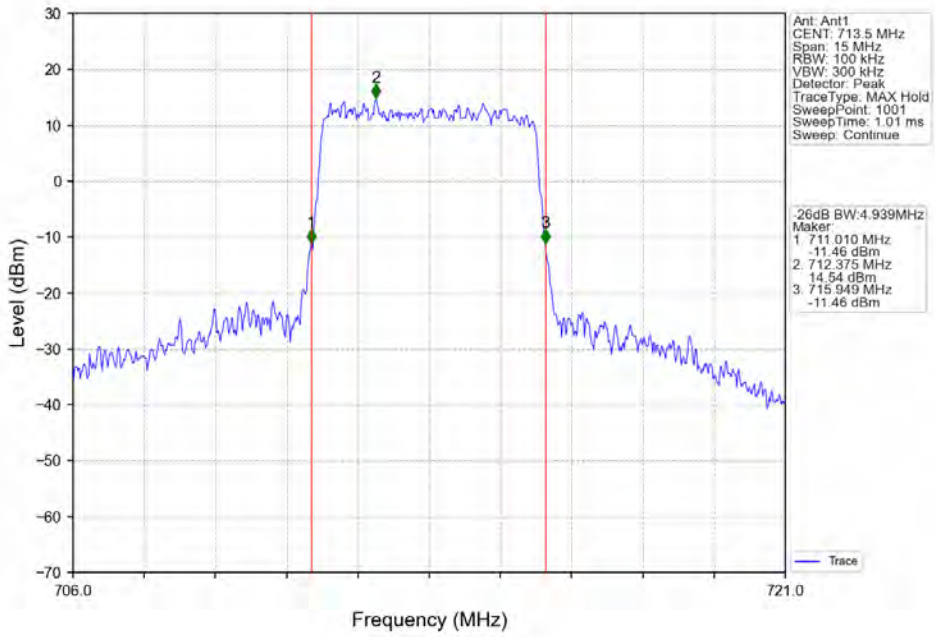
Band12_5MHz_64QAM_LCH_701.5MHz_RB_25_0_NTNV



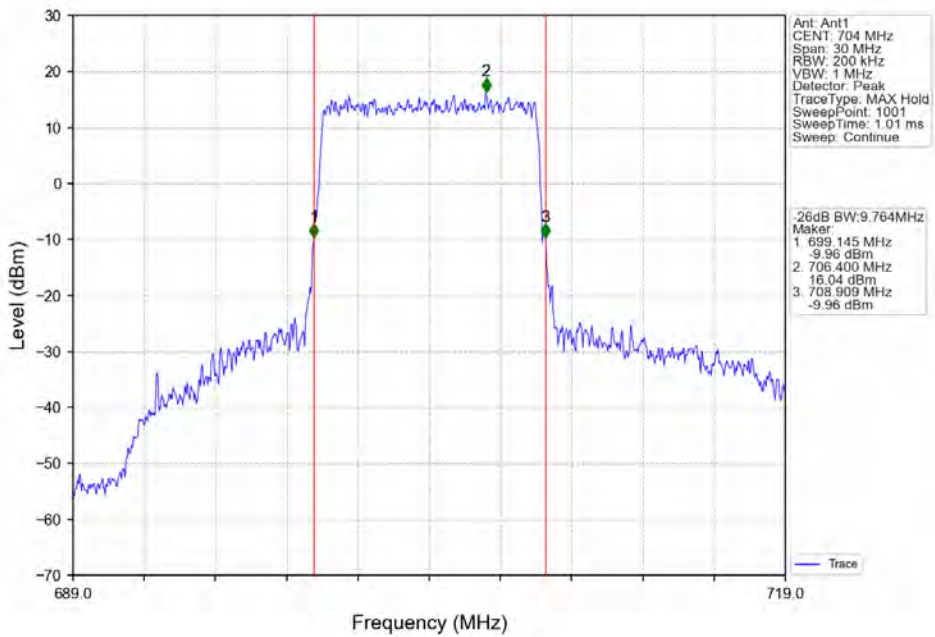
Band12_5MHz_64QAM_MCH_707.5MHz_RB_25_0_NTNV



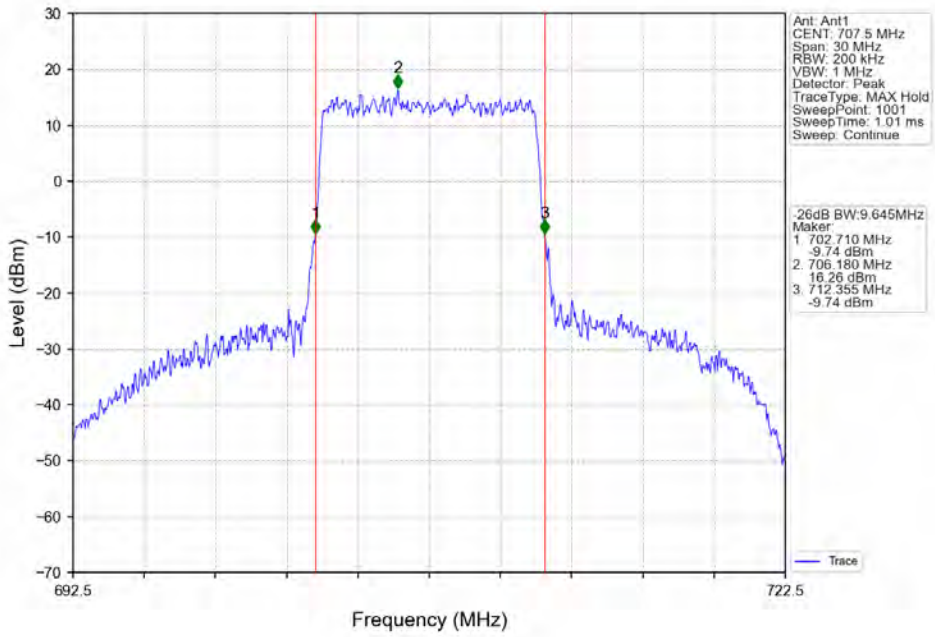
Band12_5MHz_64QAM_HCH_713.5MHz_RB_25_0_NTNV



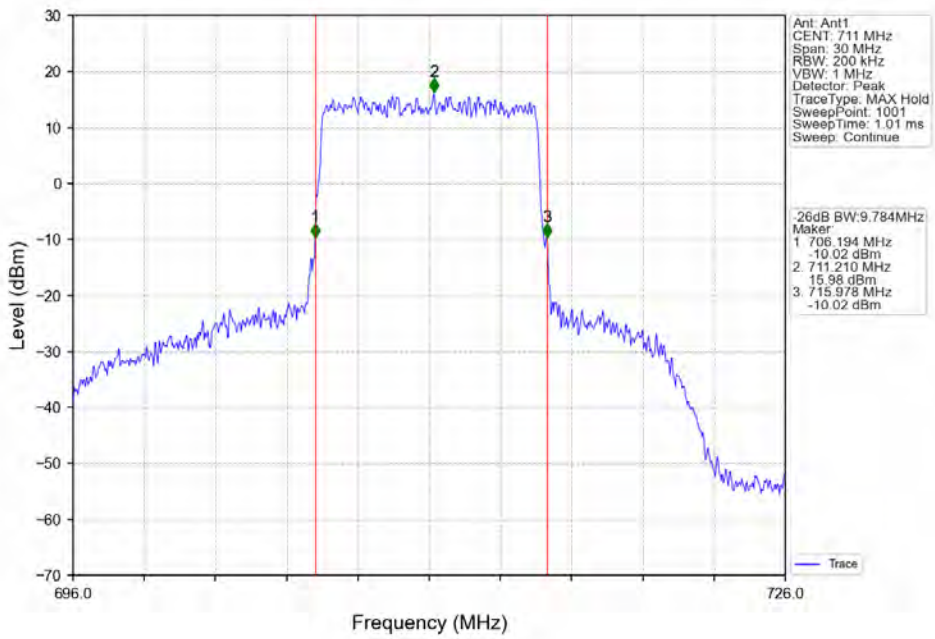
Band12_10MHz_QPSK_LCH_704MHz_RB_50_0_NTNV



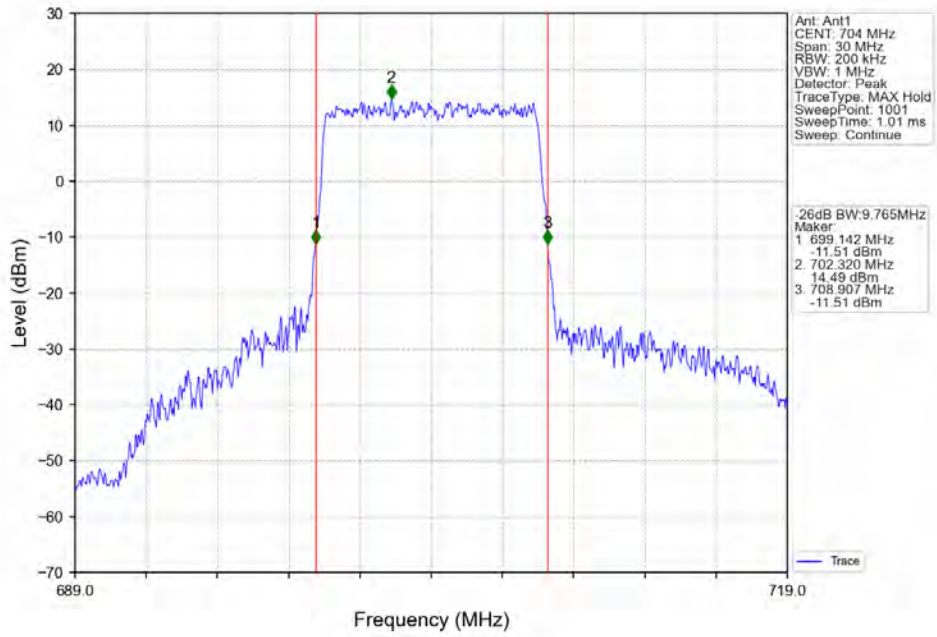
Band12_10MHz_QPSK_MCH_707.5MHz_RB_50_0_NTNV



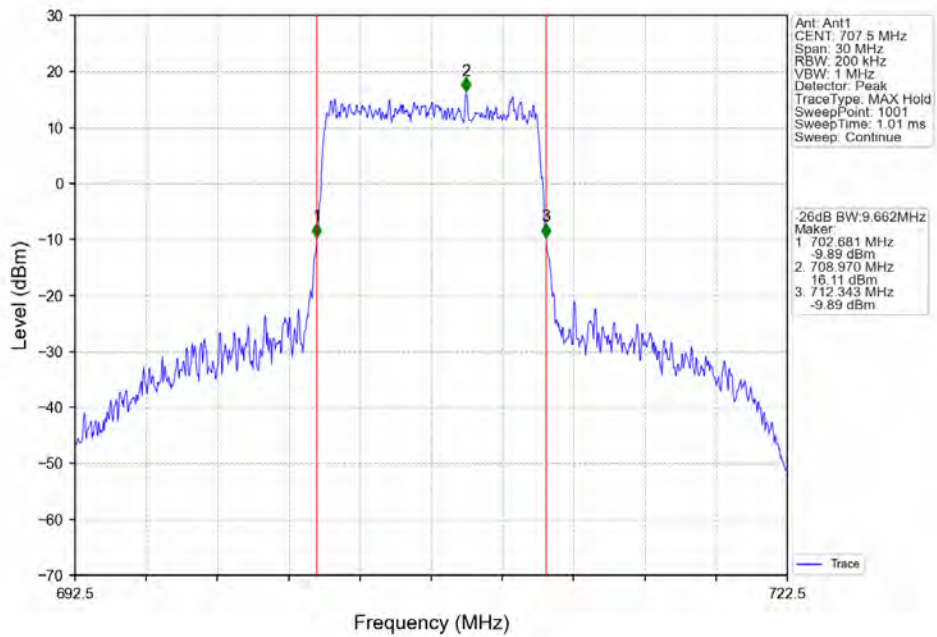
Band12_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



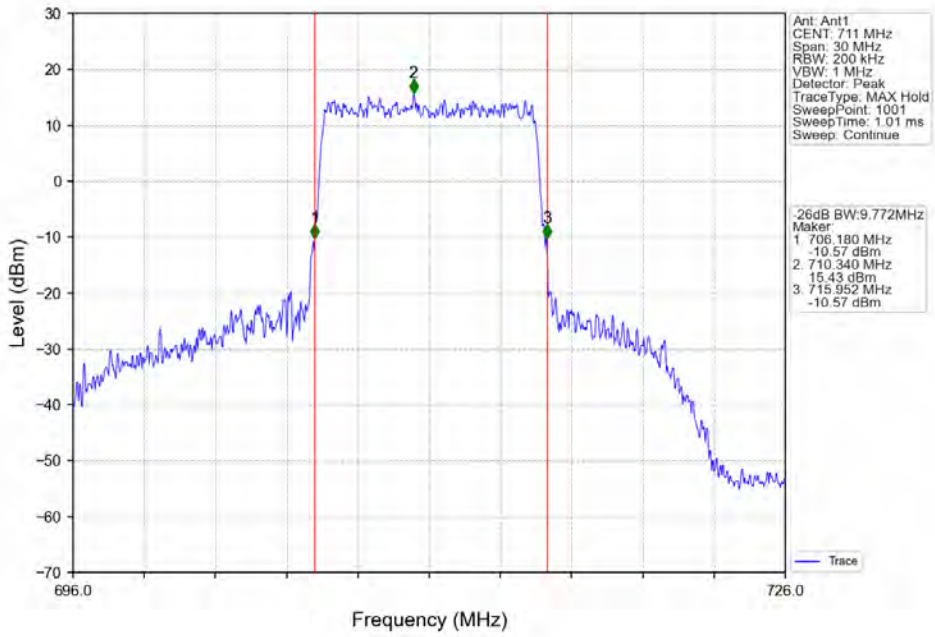
Band12_10MHz_16QAM_LCH_704MHz_RB_50_0_NTNV



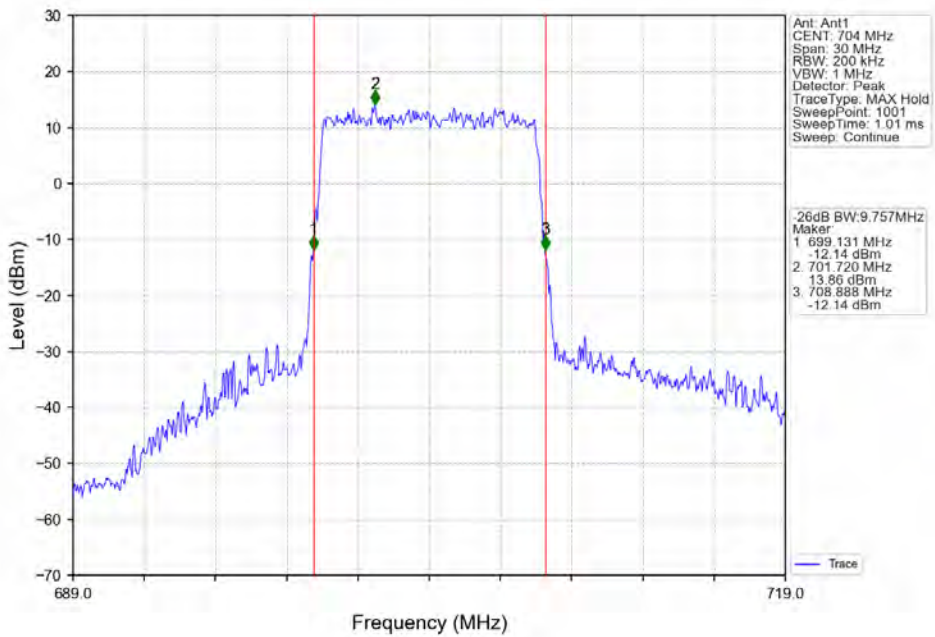
Band12_10MHz_16QAM_MCH_707.5MHz_RB_50_0_NTNV



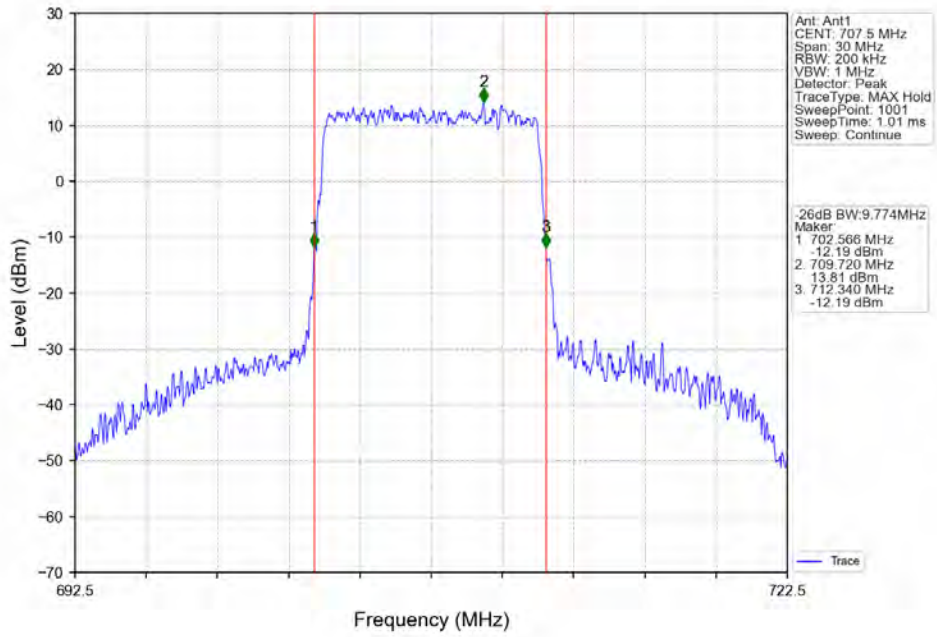
Band12_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV



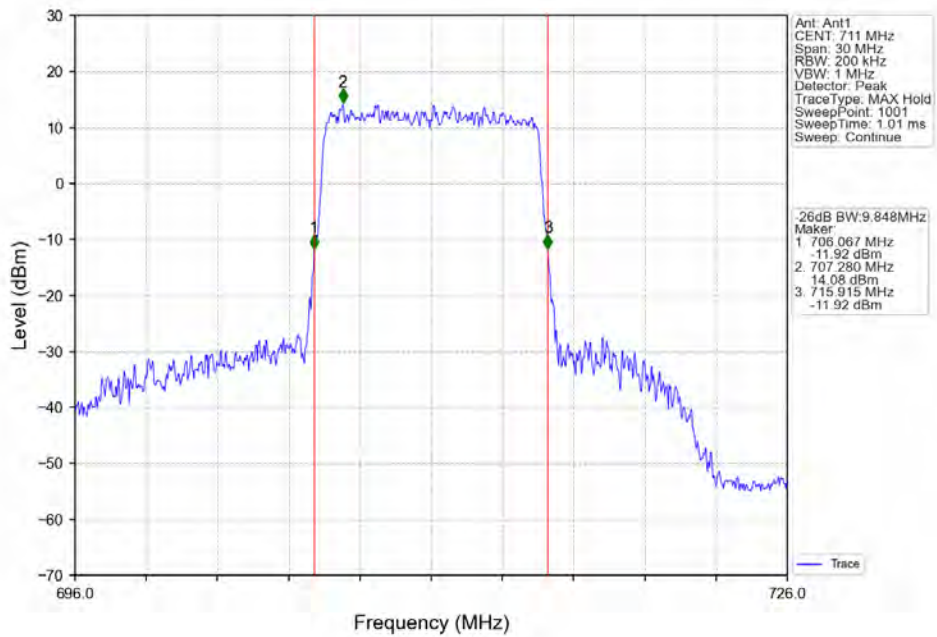
Band12_10MHz_64QAM_LCH_704MHz_RB_50_0_NTNV



Band12_10MHz_64QAM_MCH_707.5MHz_RB_50_0_NTNV



Band12_10MHz_64QAM_HCH_711MHz_RB_50_0_NTNV



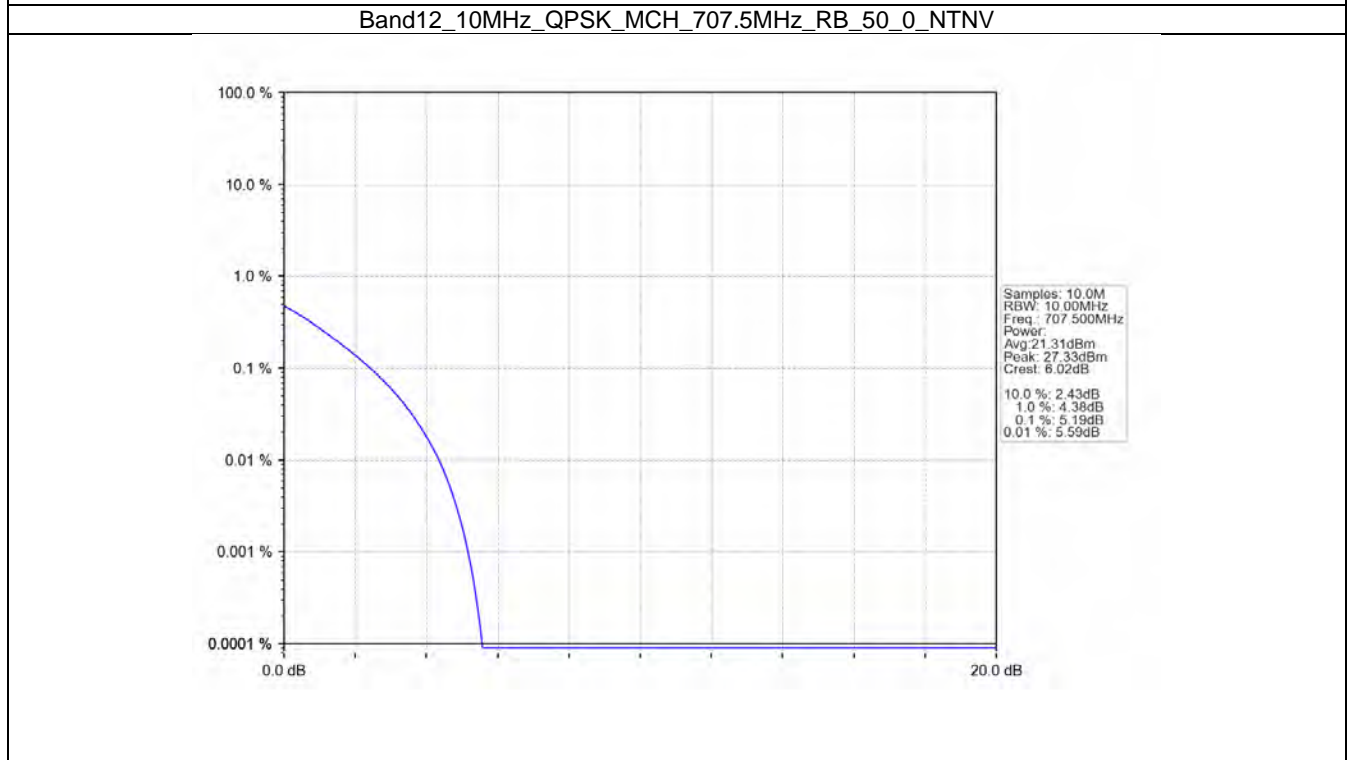
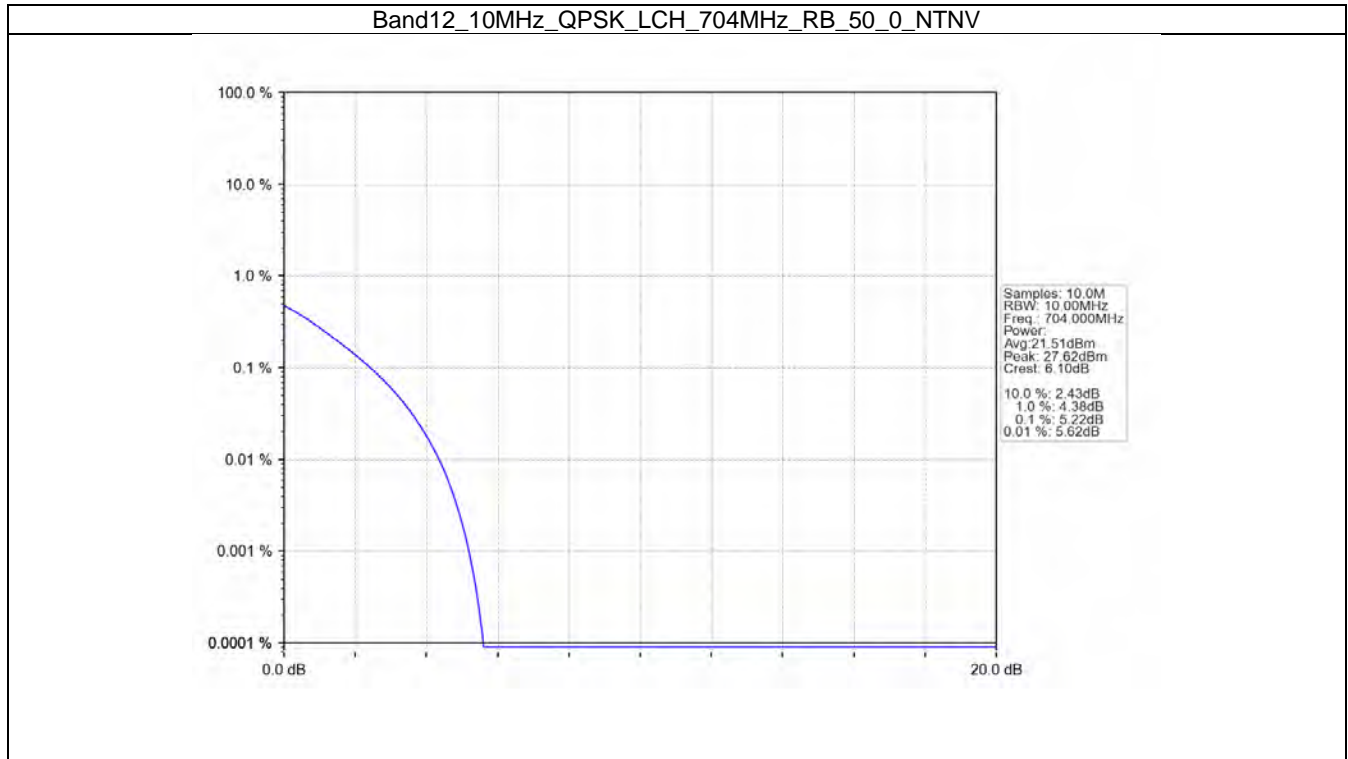
4. Peak-Average Ratio

4.1 B12_10MHz

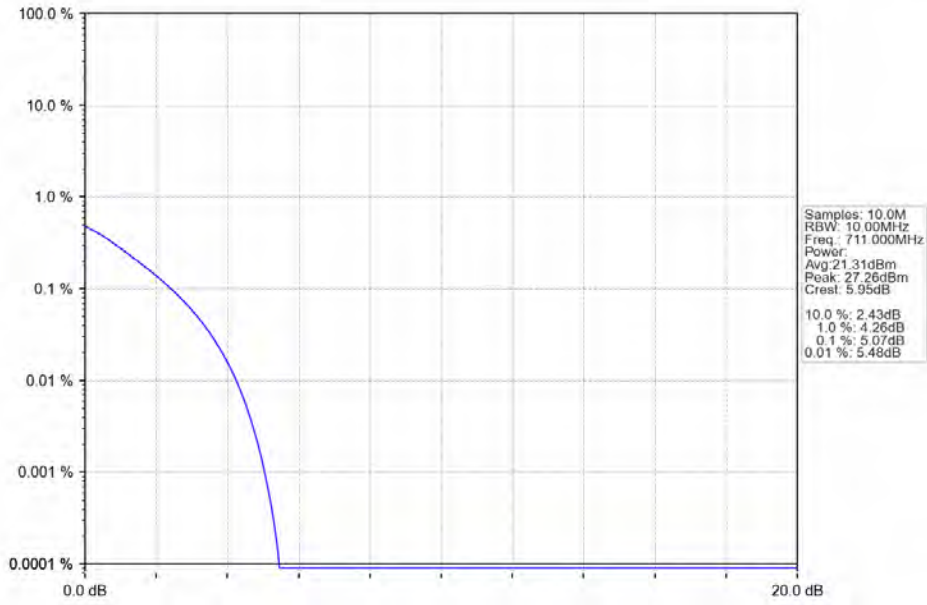
4.1.1 Test Result

Band: 12 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	704	50	0	5.22	<=13	Pass
	707.5	50	0	5.19	<=13	Pass
	711	50	0	5.07	<=13	Pass
16QAM	704	50	0	6.12	<=13	Pass
	707.5	50	0	6.12	<=13	Pass
	711	50	0	5.91	<=13	Pass
64QAM	704	50	0	6.46	<=13	Pass
	707.5	50	0	6.43	<=13	Pass
	711	50	0	6.32	<=13	Pass

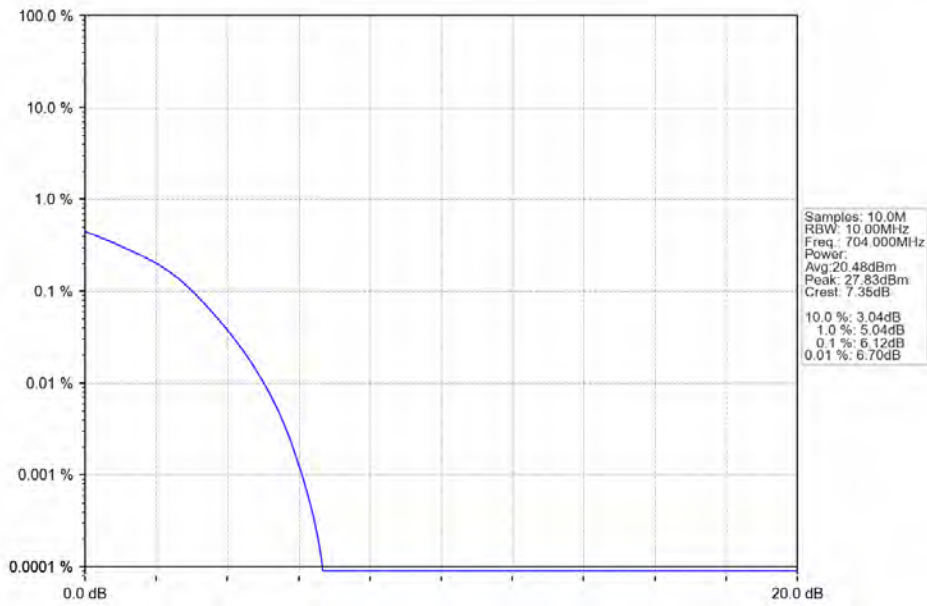
4.1.2 Test Graph



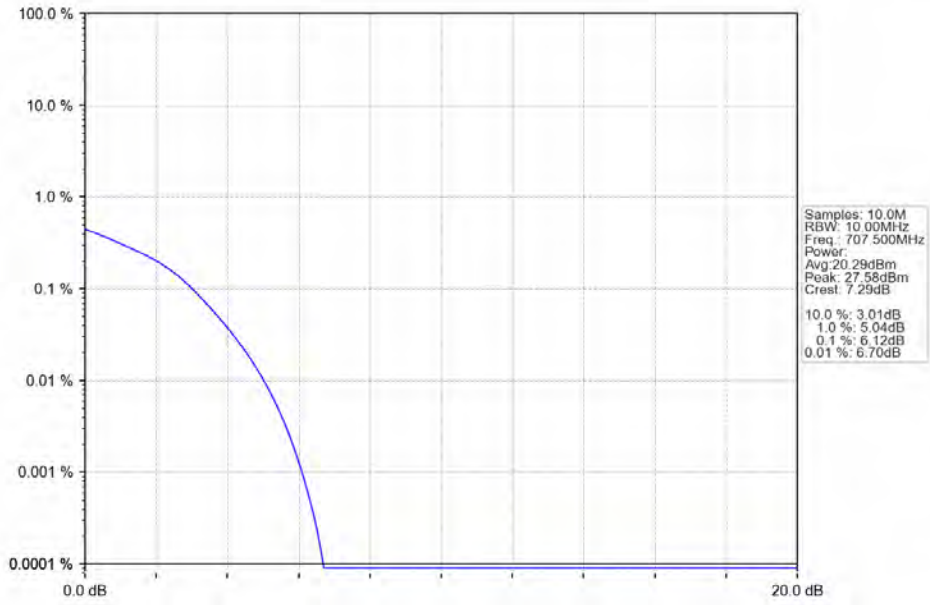
Band12_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



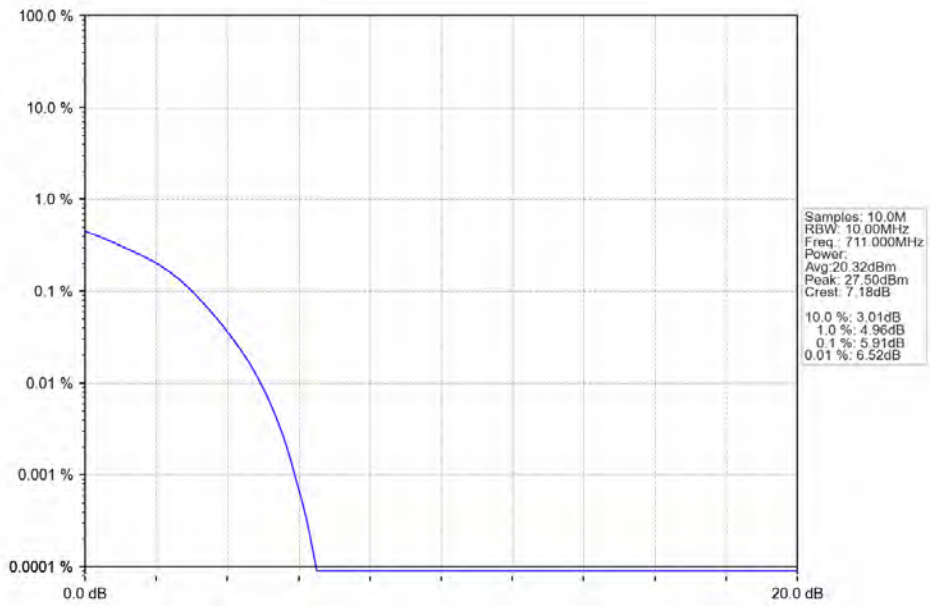
Band12_10MHz_16QAM_LCH_704MHz_RB_50_0_NTNV



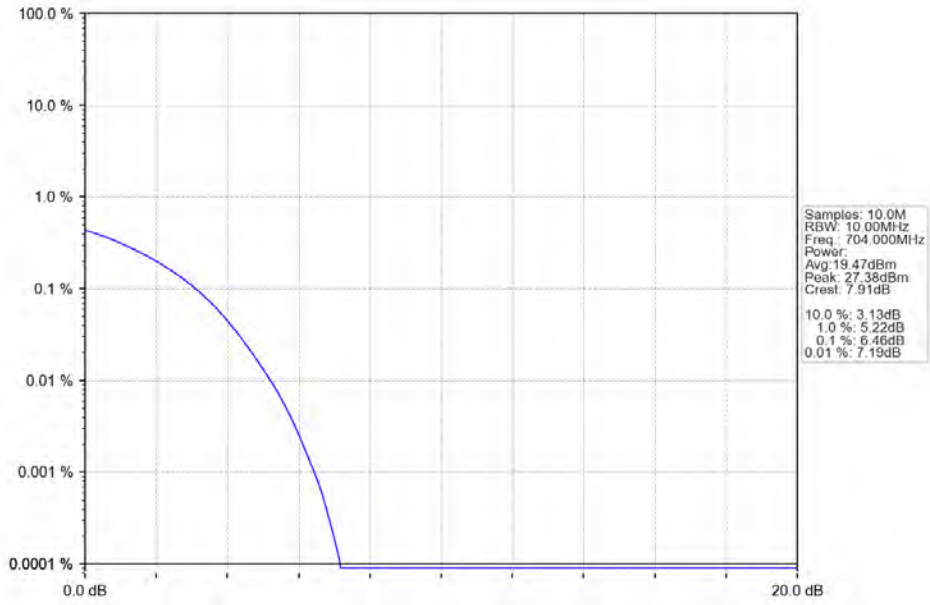
Band12_10MHz_16QAM_MCH_707.5MHz_RB_50_0_NTNV



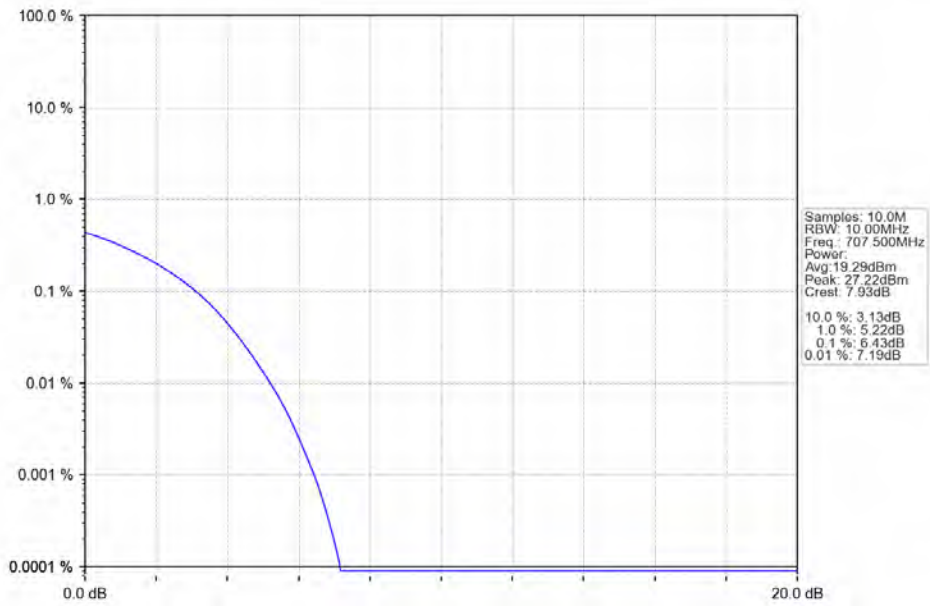
Band12_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV



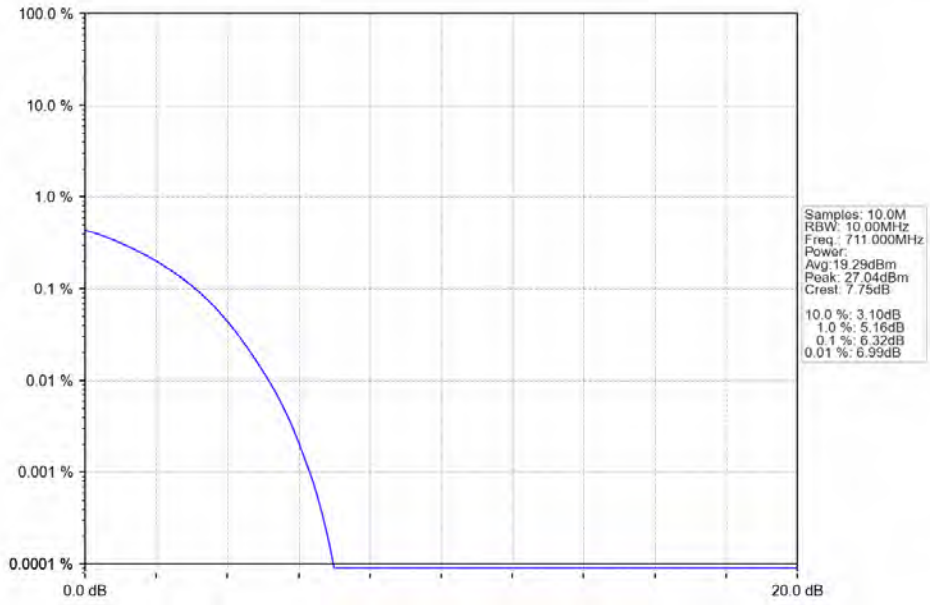
Band12_10MHz_64QAM_LCH_704MHz_RB_50_0_NTNV



Band12_10MHz_64QAM_MCH_707.5MHz_RB_50_0_NTNV



Band12_10MHz_64QAM_HCH_711MHz_RB_50_0_NTV



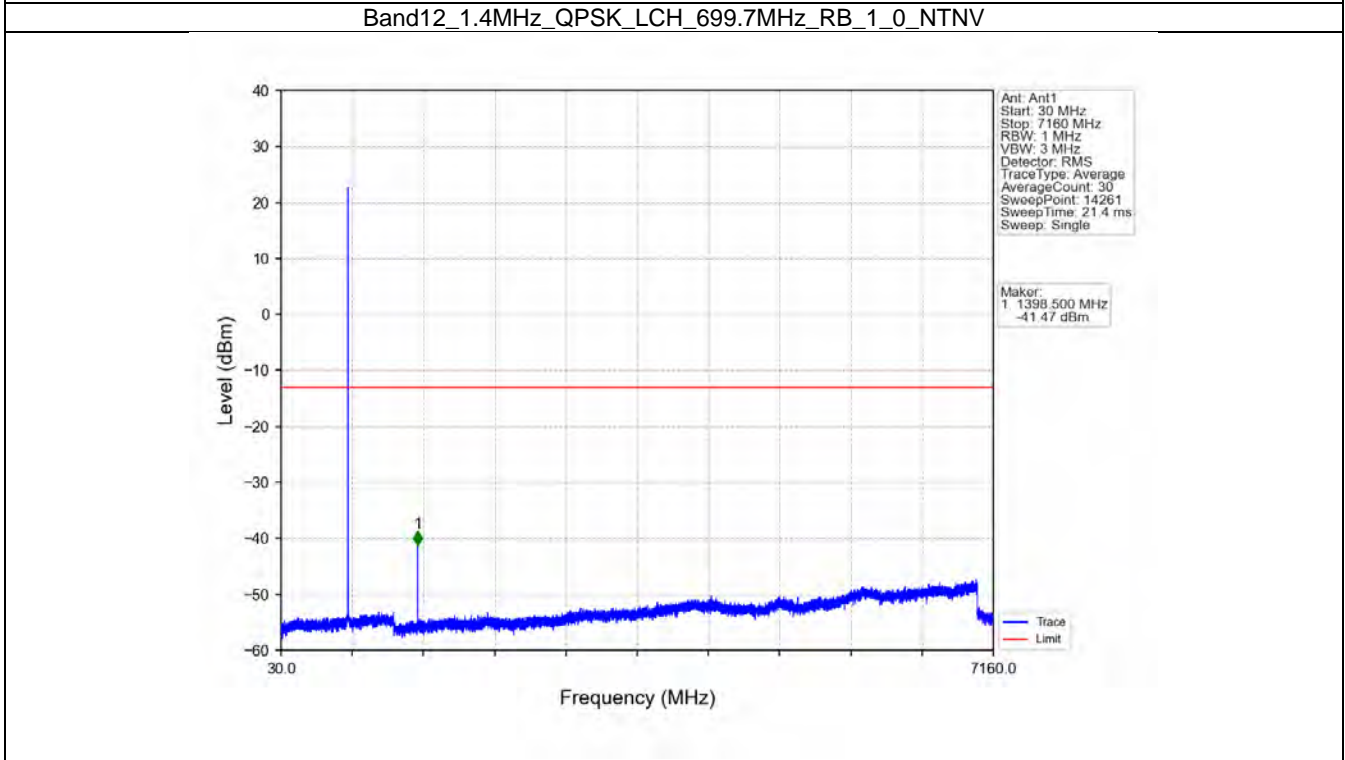
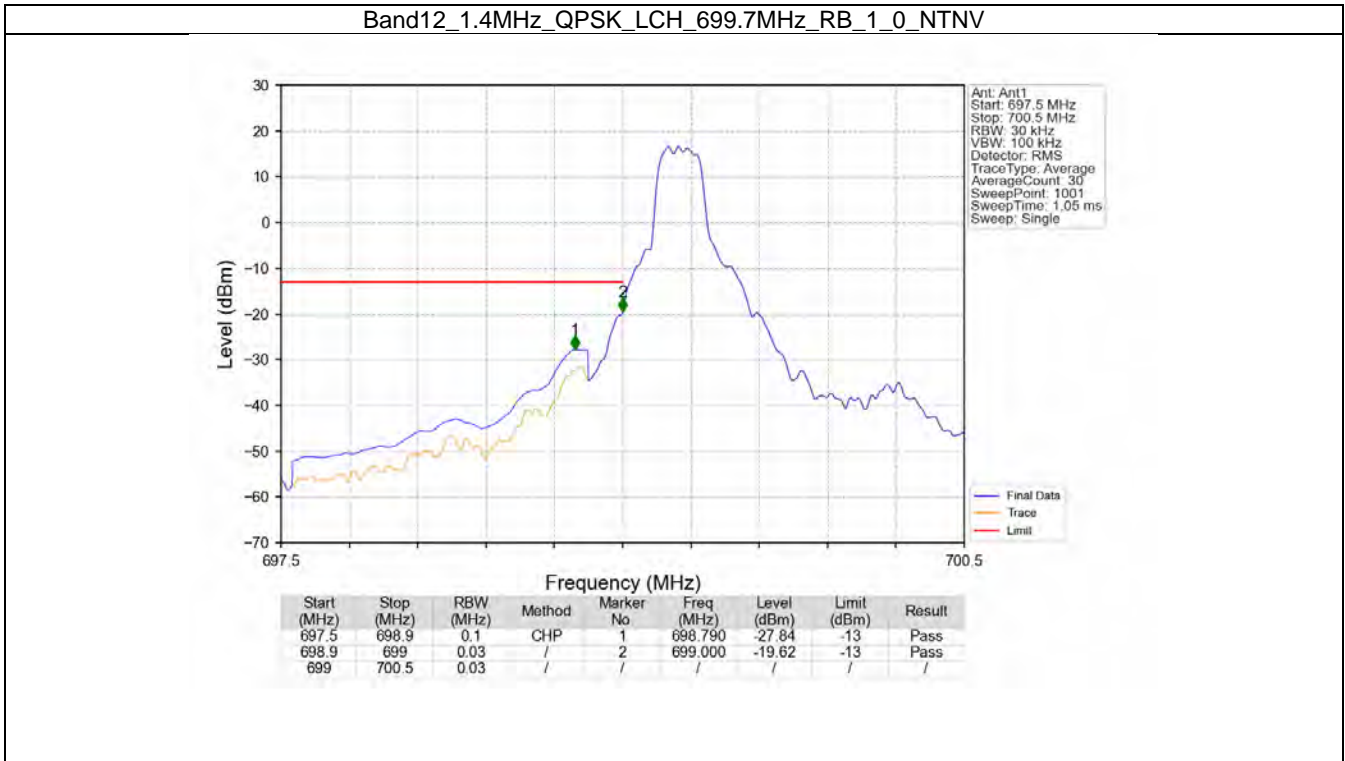
5. Spurious Emission & Band Edges

5.1 B12_1.4MHz

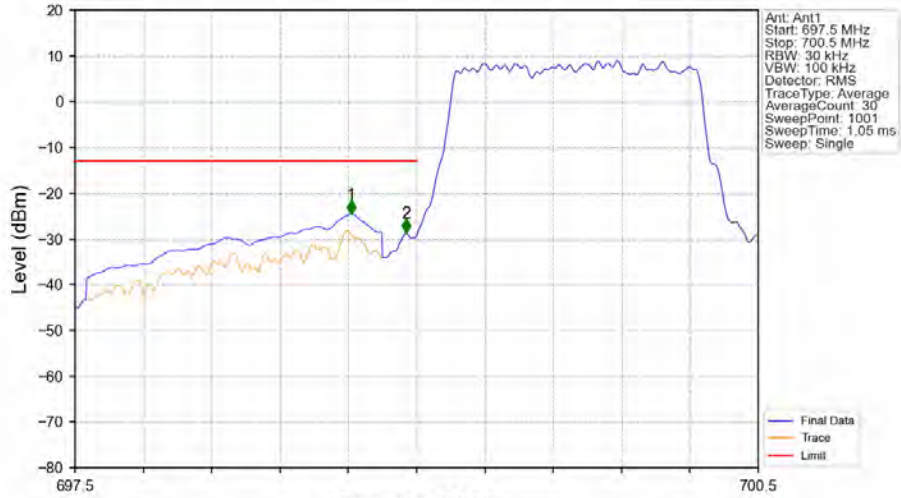
5.1.1 Test Result

Band: 12 / Bandwidth: 1.4MHz / NTNV						
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	
	707.5	1	0	Refer To Test Graph	Pass	
		1	0	Refer To Test Graph	Pass	
	715.3	1	5	Refer To Test Graph	Pass	
		6	0	Refer To Test Graph	Pass	

5.1.2 Test Graph

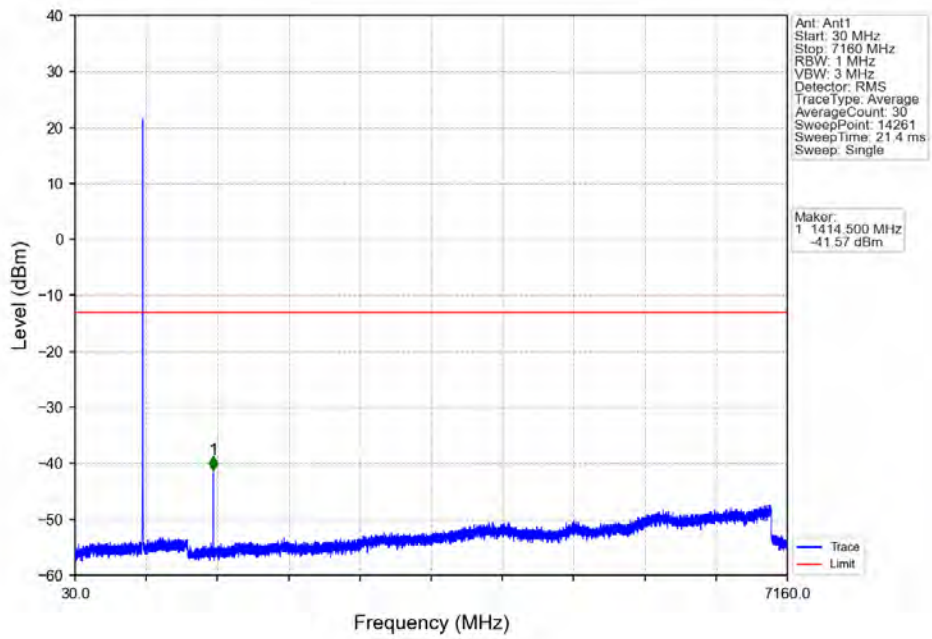


Band12_1.4MHz_QPSK_LCH_699.7MHz_RB_6_0_NTNV

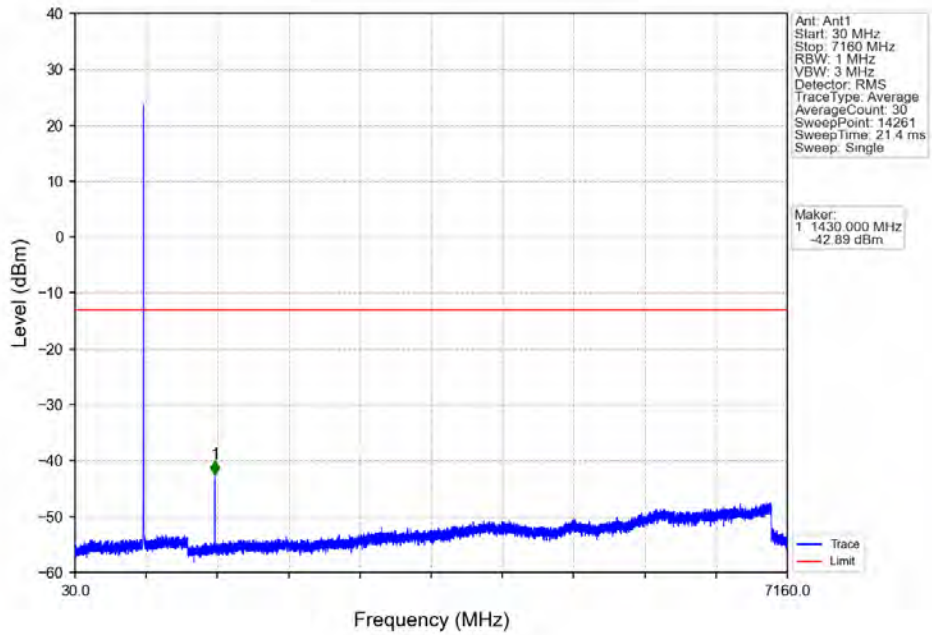


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
697.5	698.9	0.1	CHP	1	698.712	-24.60	-13	Pass
698.9	699	0.03	/	2	698.955	-28.71	-13	Pass
699	700.5	0.03	/	/	/	/	/	/

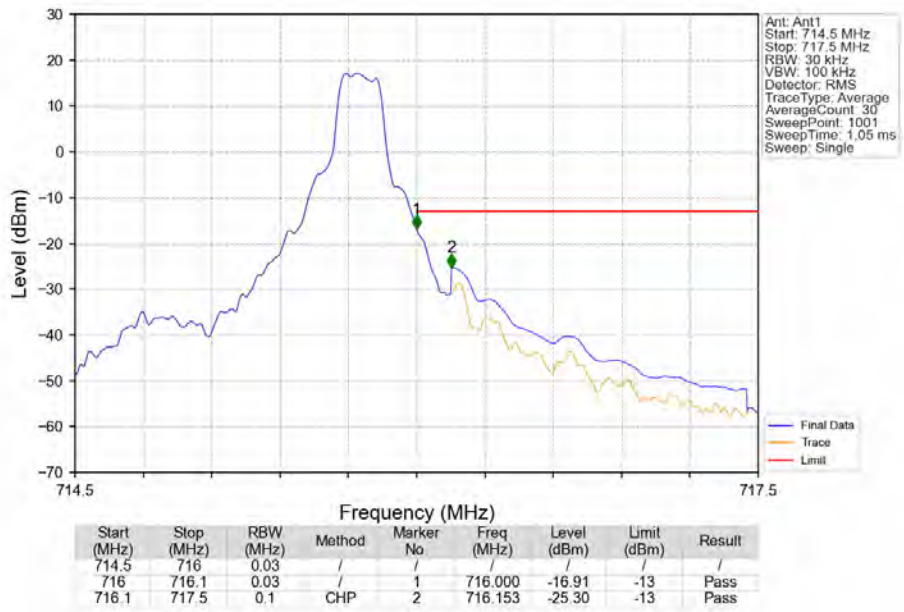
Band12_1.4MHz_QPSK_MCH_707.5MHz_RB_1_0_NTNV



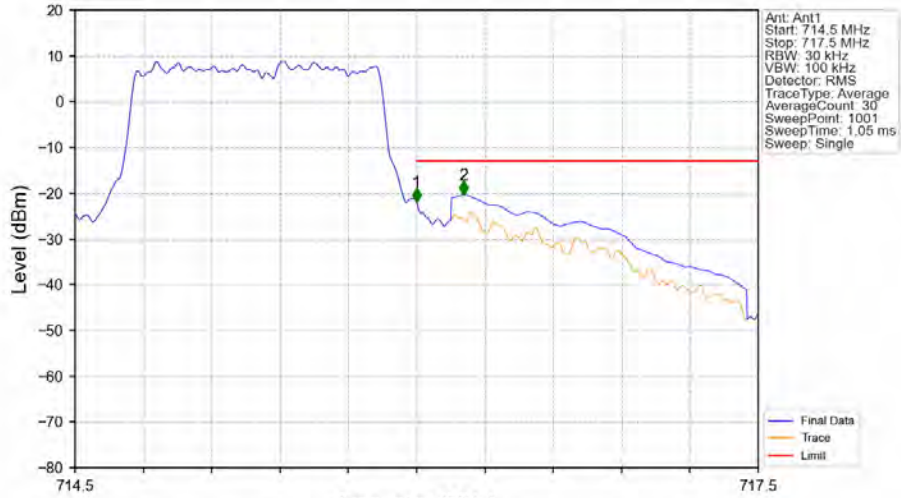
Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_1_0_NTV



Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_1_5_NTV



Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTV



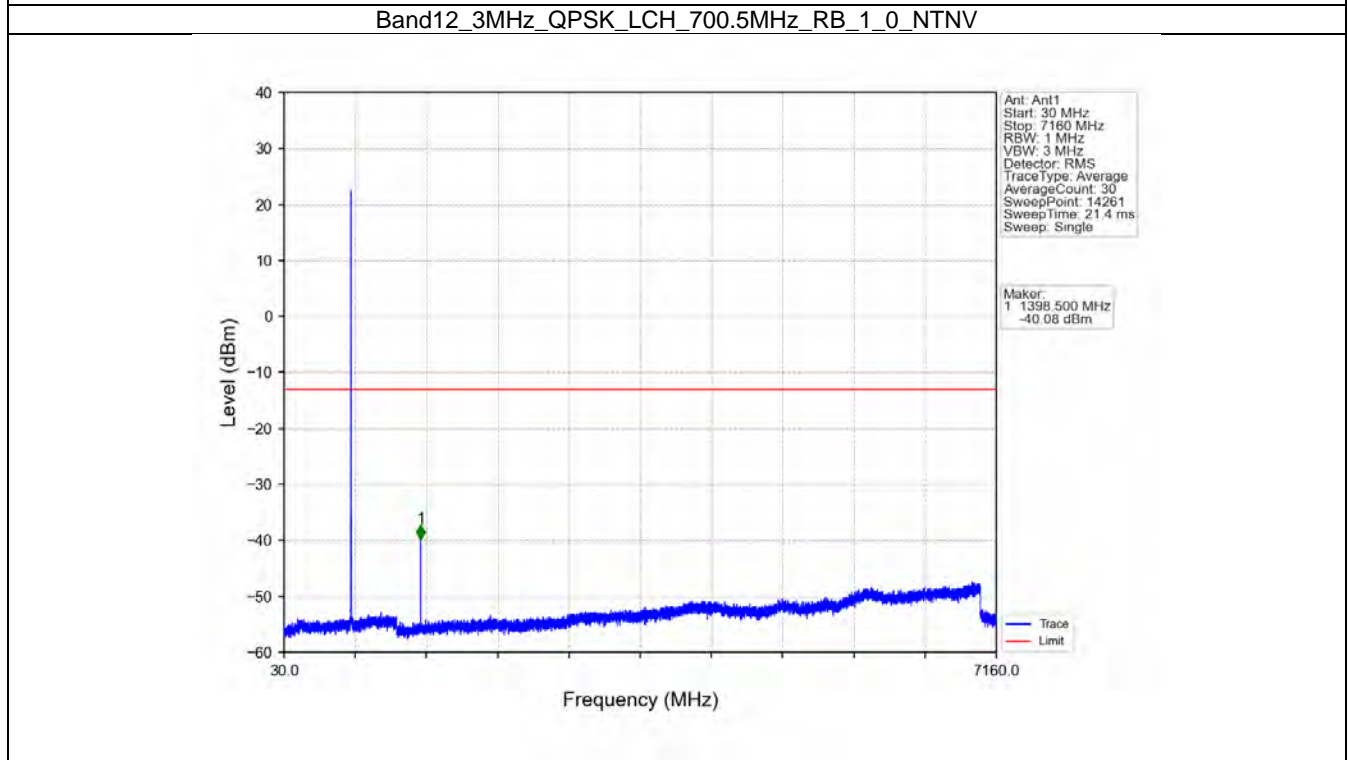
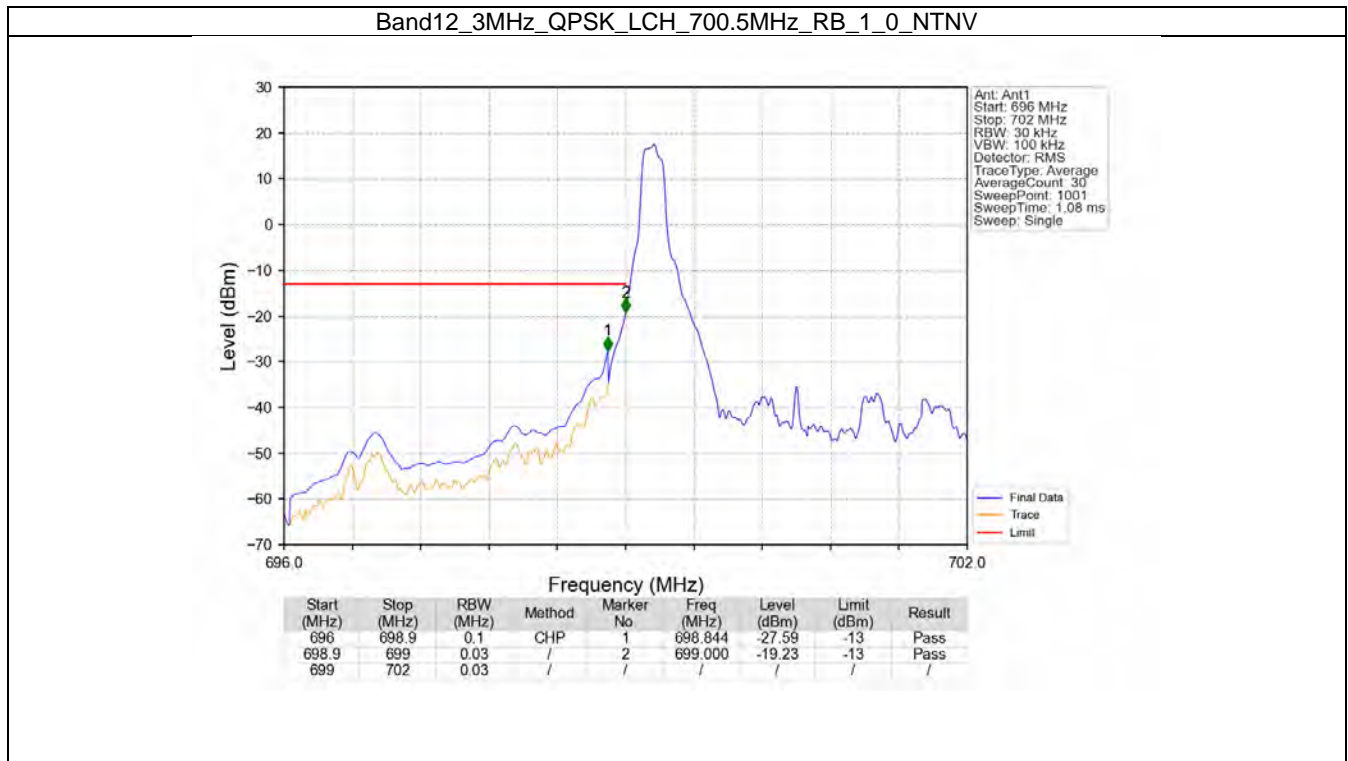
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
714.5	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.000	-21.94	-13	Pass
716.1	717.5	0.1	CHP	2	716.207	-20.38	-13	Pass

5.2 B12_3MHz

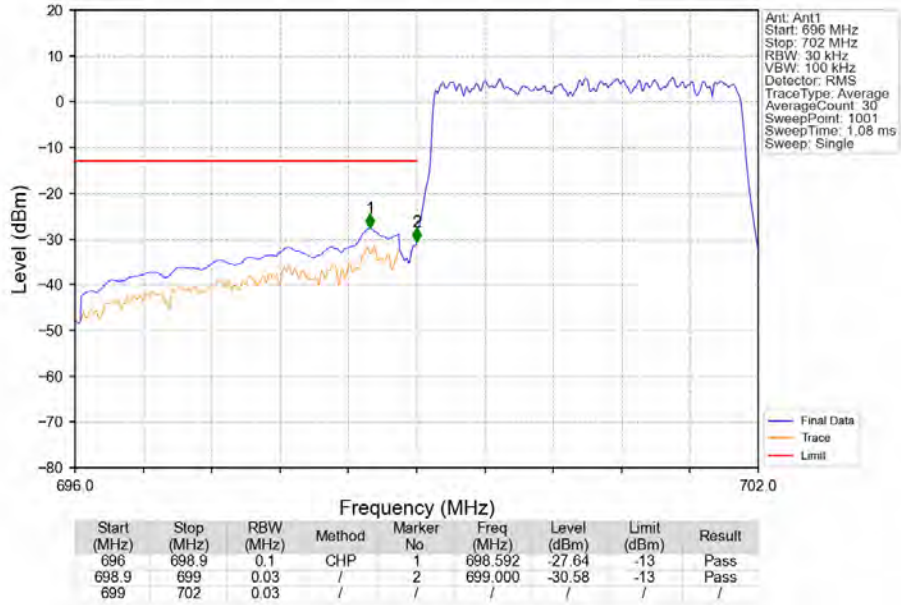
5.2.1 Test Result

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

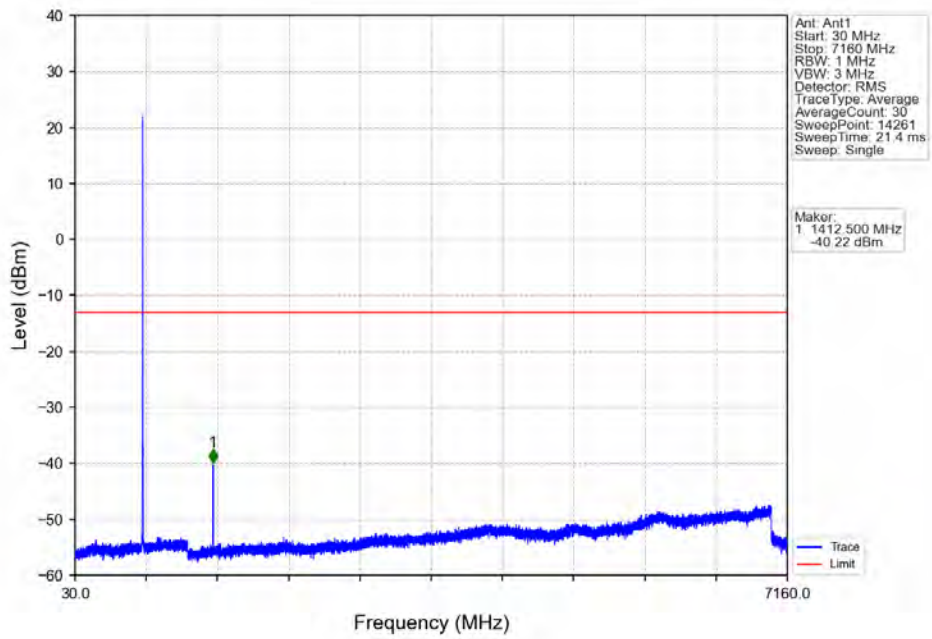
5.2.2 Test Graph



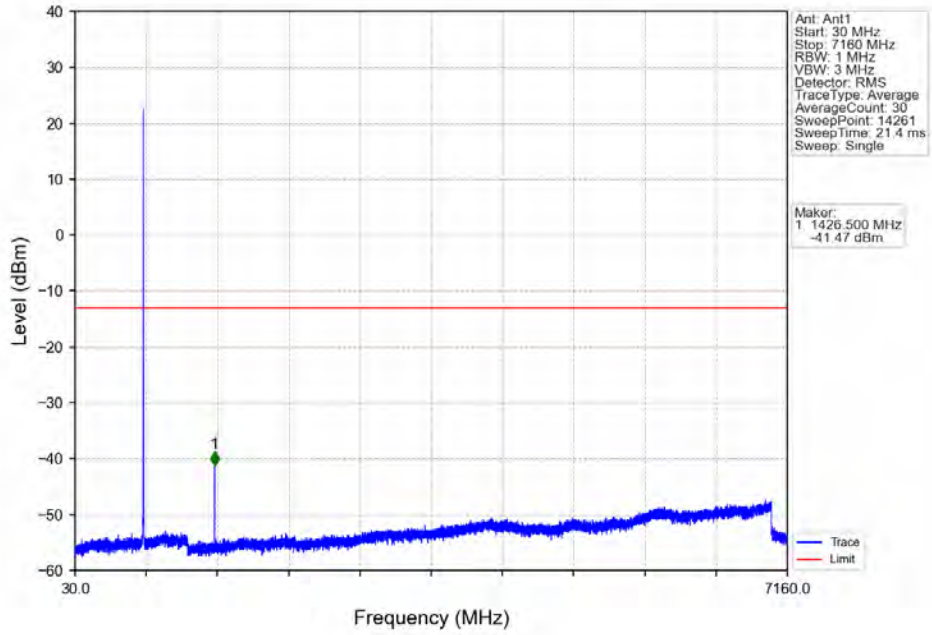
Band12_3MHz_QPSK_LCH_700.5MHz_RB_15_0_NTNV



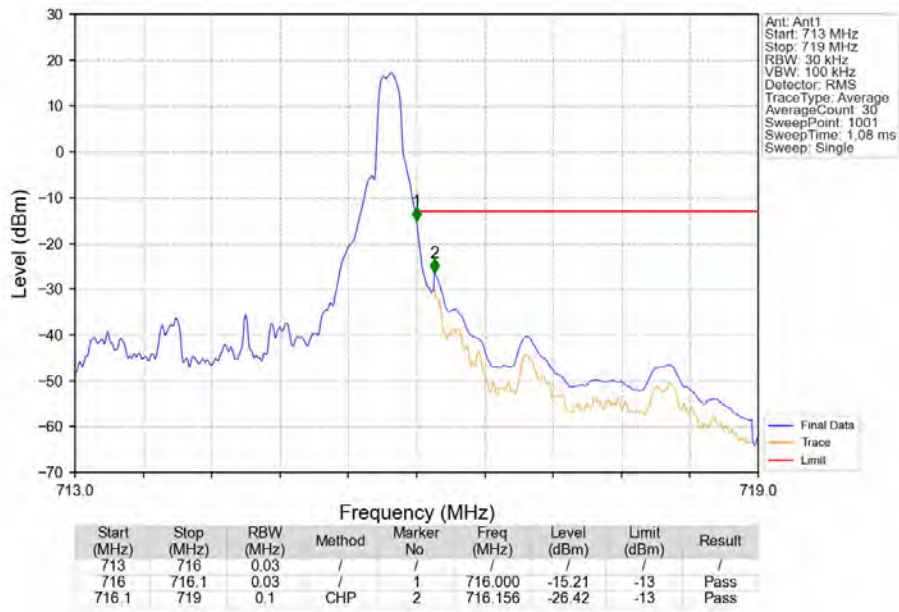
Band12_3MHz_QPSK_MCH_707.5MHz_RB_1_0_NTNV



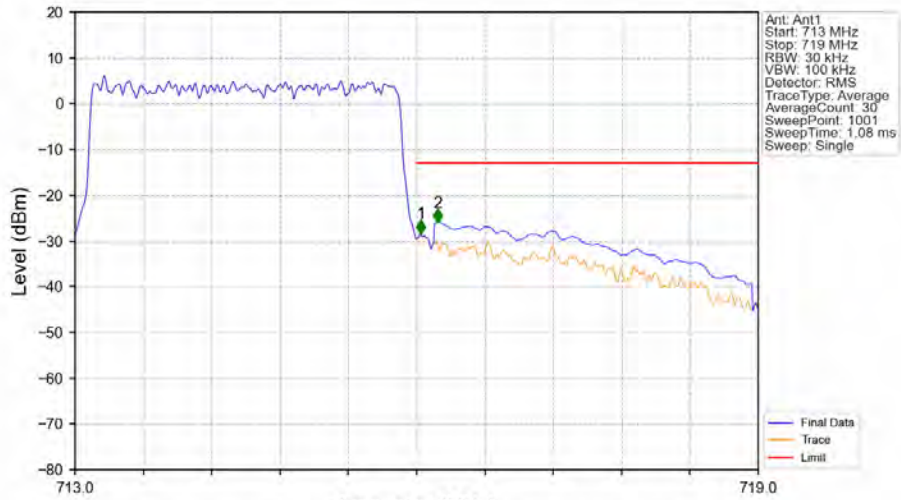
Band12_3MHz_QPSK_HCH_714.5MHz_RB_1_0_NTNV



Band12_3MHz_QPSK_HCH_714.5MHz_RB_1_14_NTNV



Band12_3MHz_QPSK_HCH_714.5MHz_RB_15_0_NTNV



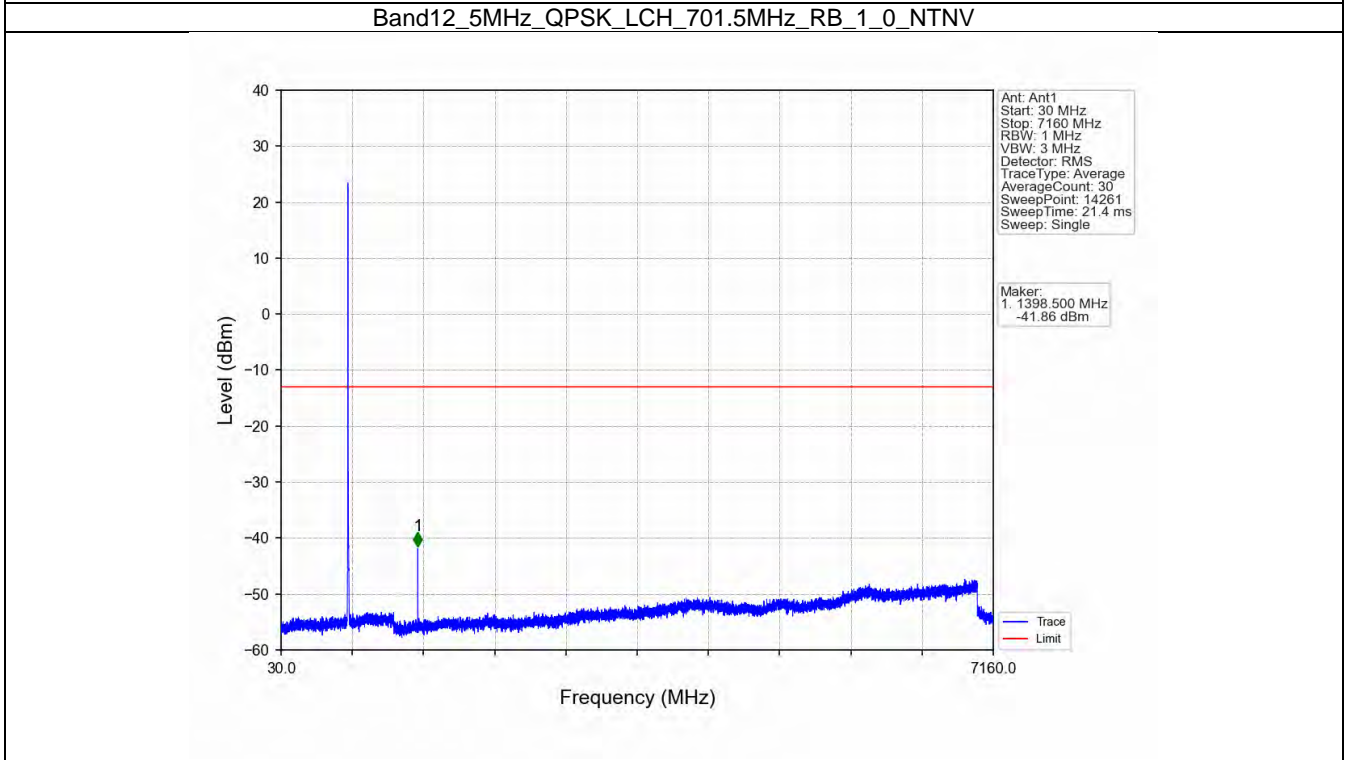
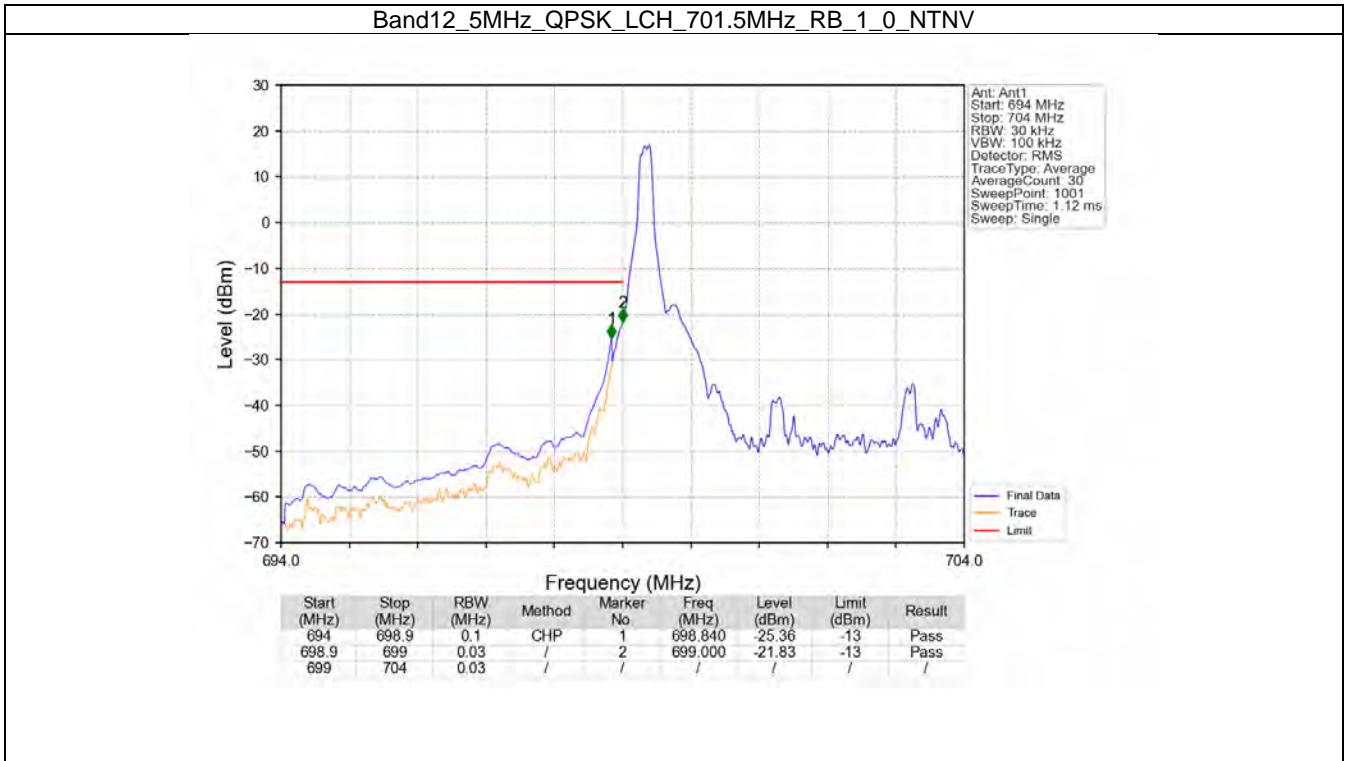
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
713	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.036	-28.44	-13	Pass
716.1	719	0.1	CHP	2	716.186	-26.01	-13	Pass

5.3 B12_5MHz

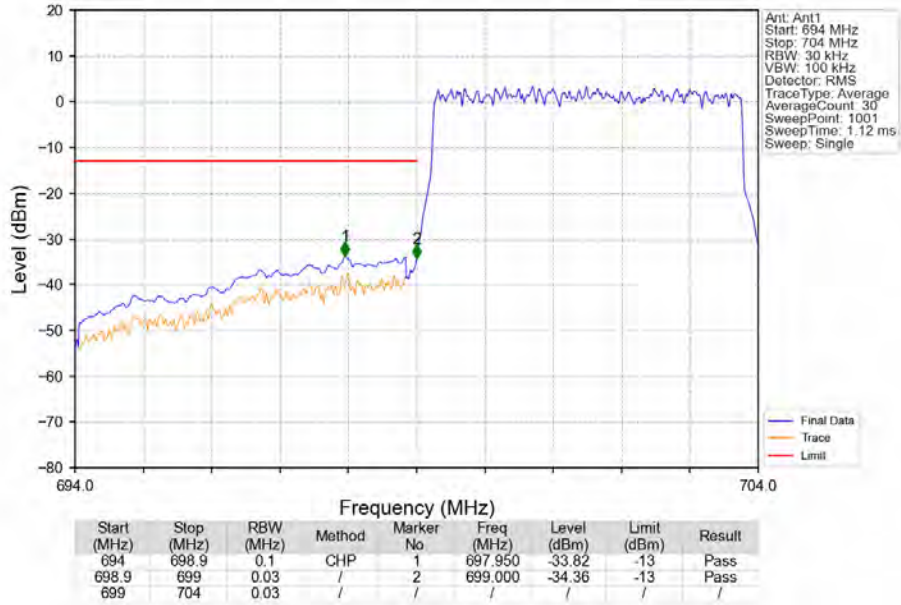
5.3.1 Test Result

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	

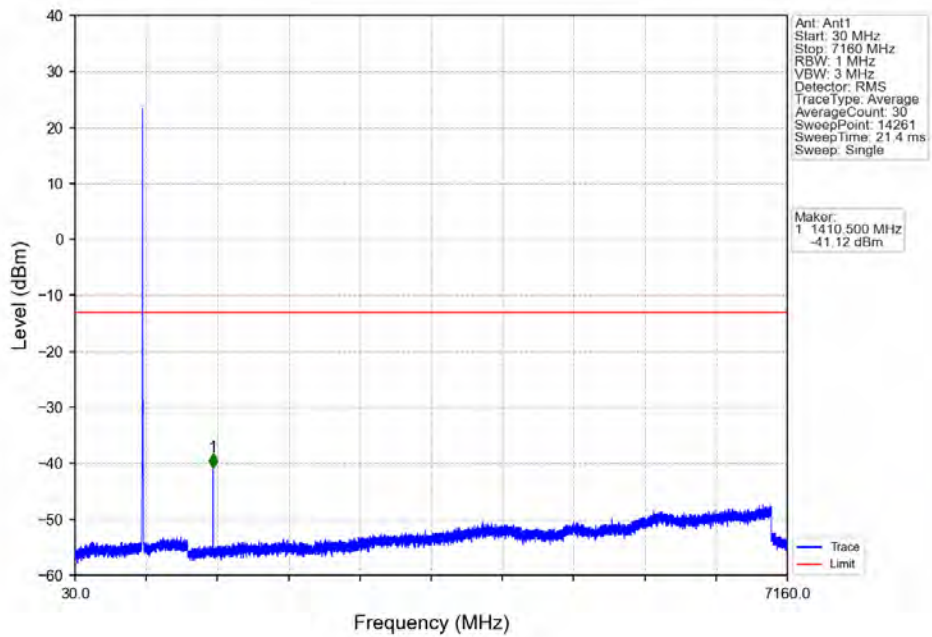
5.3.2 Test Graph



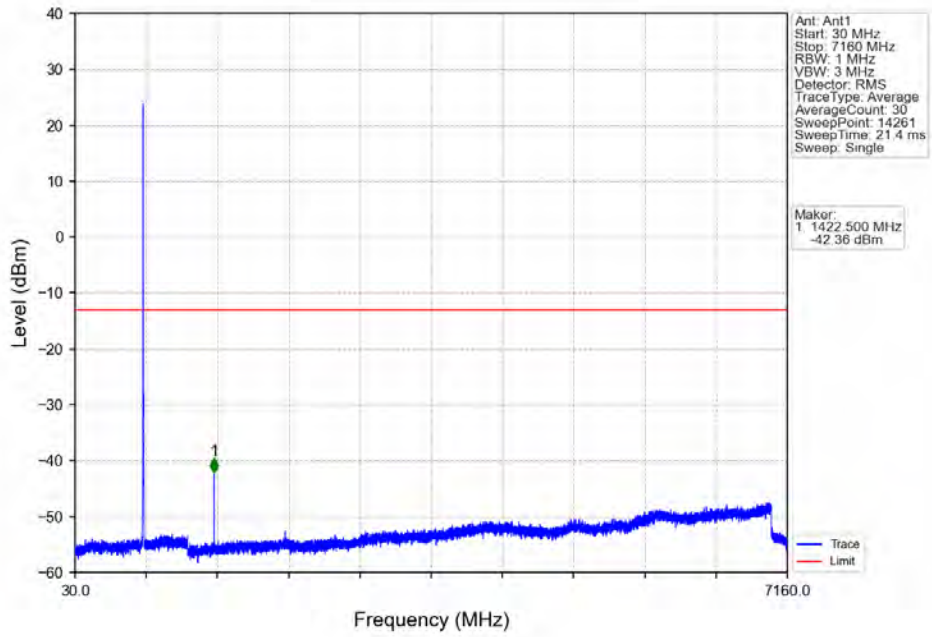
Band12_5MHz_QPSK_LCH_701.5MHz_RB_25_0_NTNV



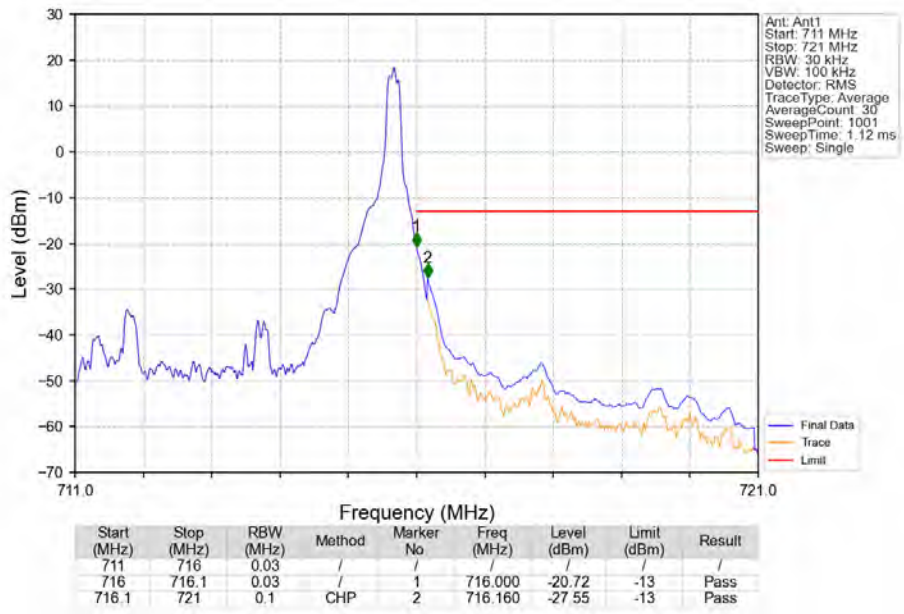
Band12_5MHz_QPSK_MCH_707.5MHz_RB_1_0_NTNV



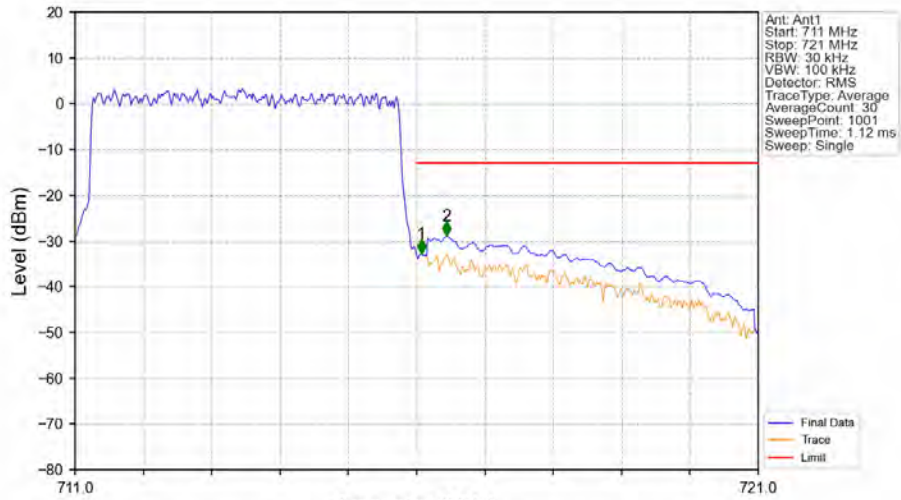
Band12_5MHz_QPSK_HCH_713.5MHz_RB_1_0_NTNV



Band12_5MHz_QPSK_HCH_713.5MHz_RB_1_24_NTNV



Band12_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.070	-32.80	-13	Pass
716.1	721	0.1	CHP	2	716.440	-28.89	-13	Pass

Ant: Ant1
 Start: 711 MHz
 Stop: 721 MHz
 RBW: 30 kHz
 VBW: 100 kHz
 Detector: RMS
 TraceType: Average
 AverageCount: 30
 SweepPoint: 1001
 SweepTime: 1.12 ms
 Sweep: Single

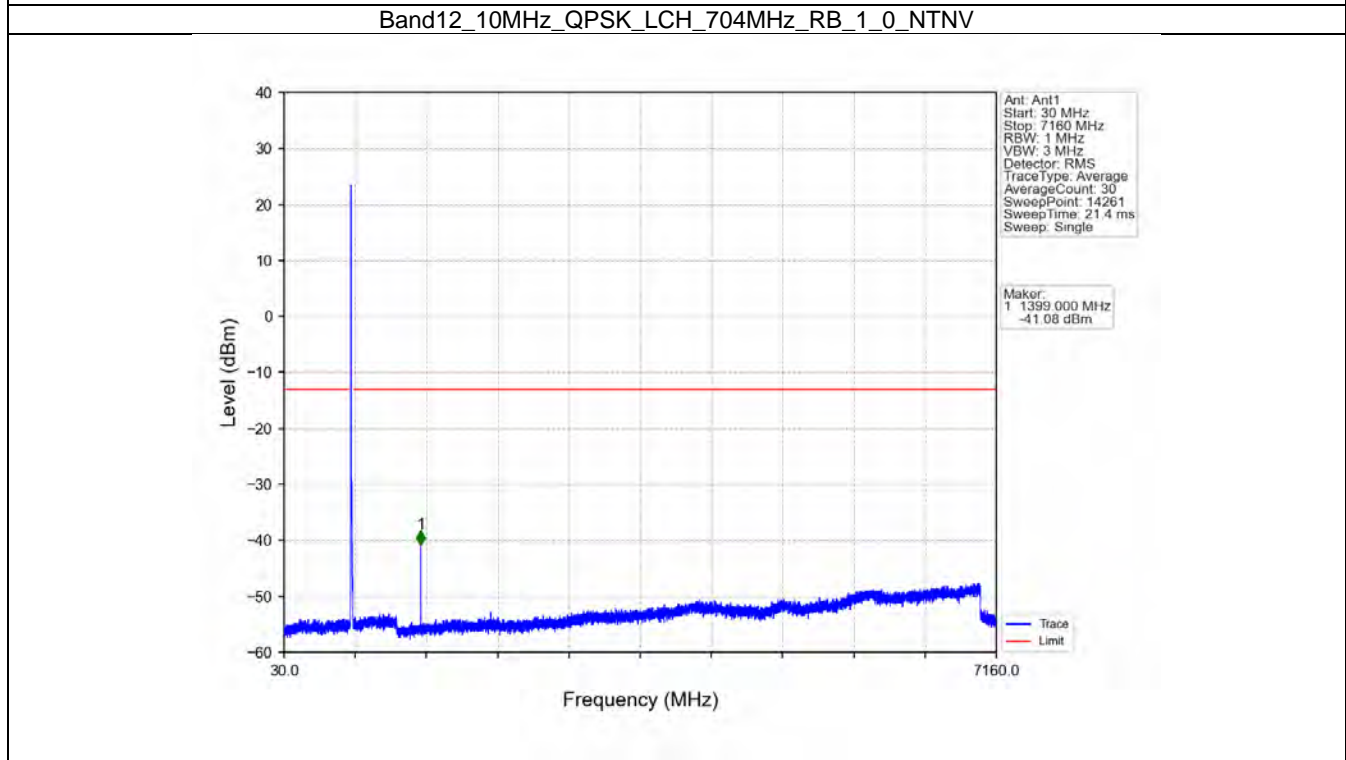
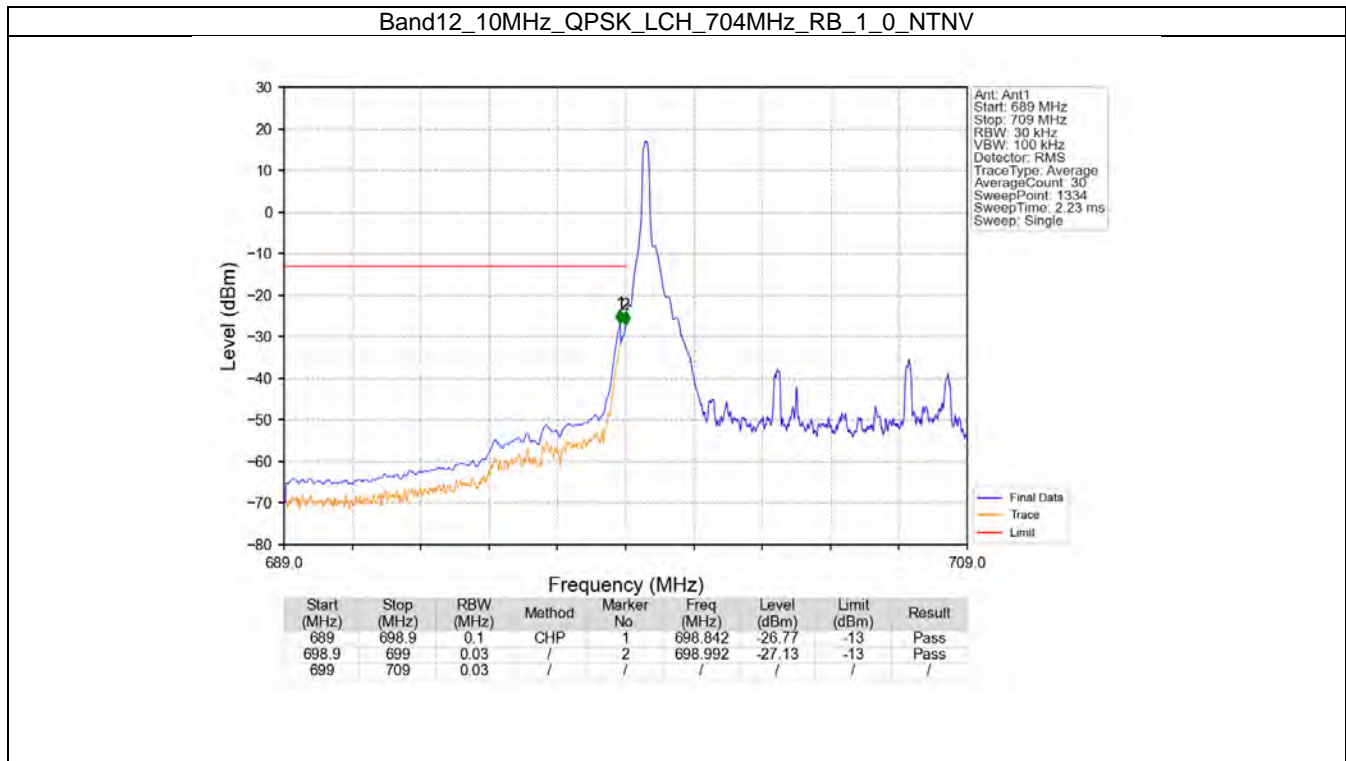
Final Data
 Trace
 Limit

5.4 B12_10MHz

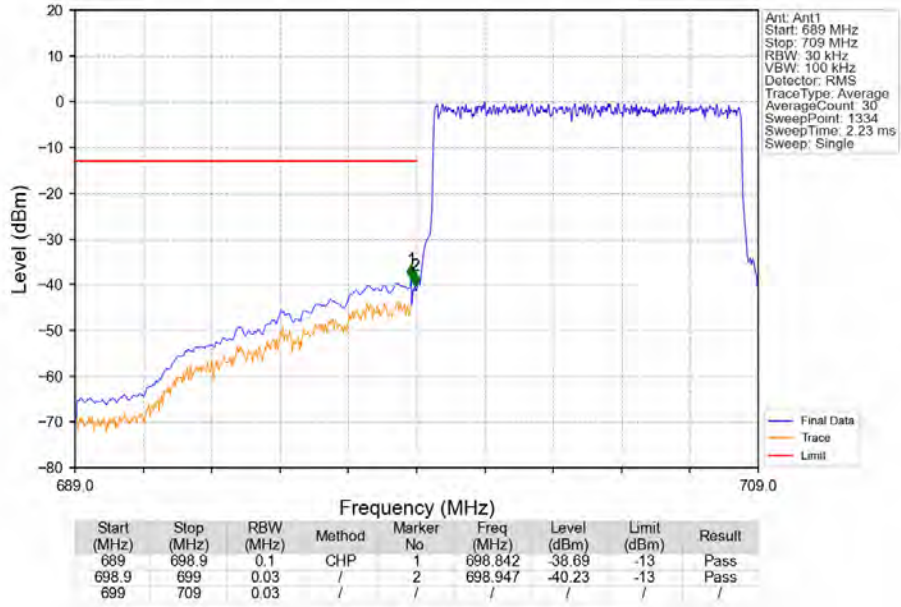
5.4.1 Test Result

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

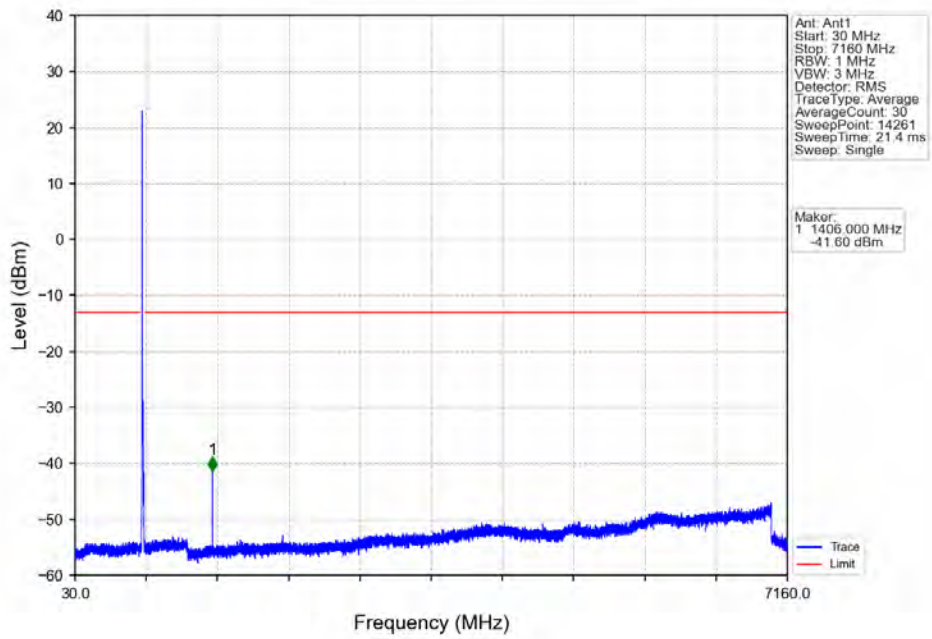
5.4.2 Test Graph



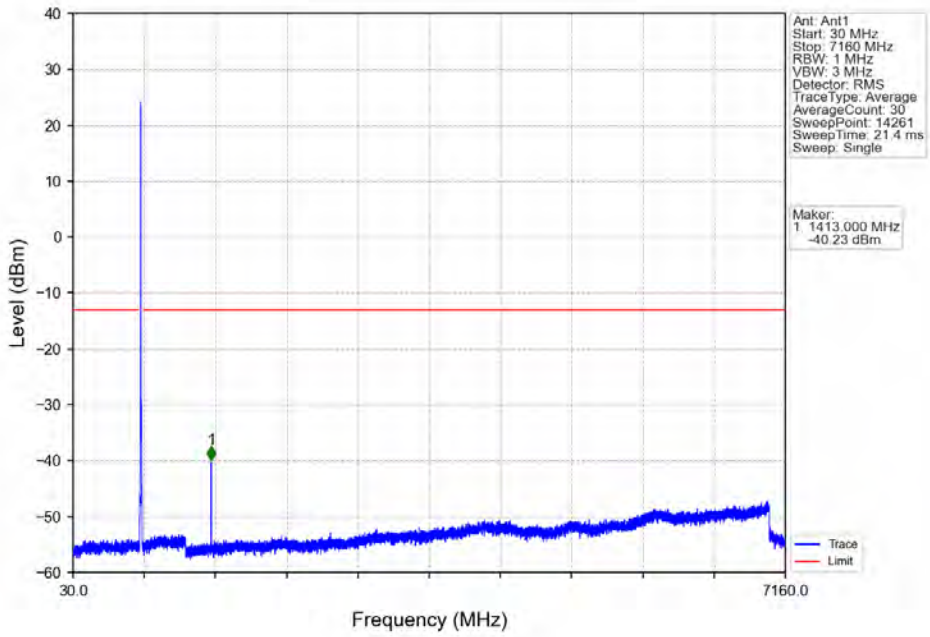
Band12_10MHz_QPSK_LCH_704MHz_RB_50_0_NTNV



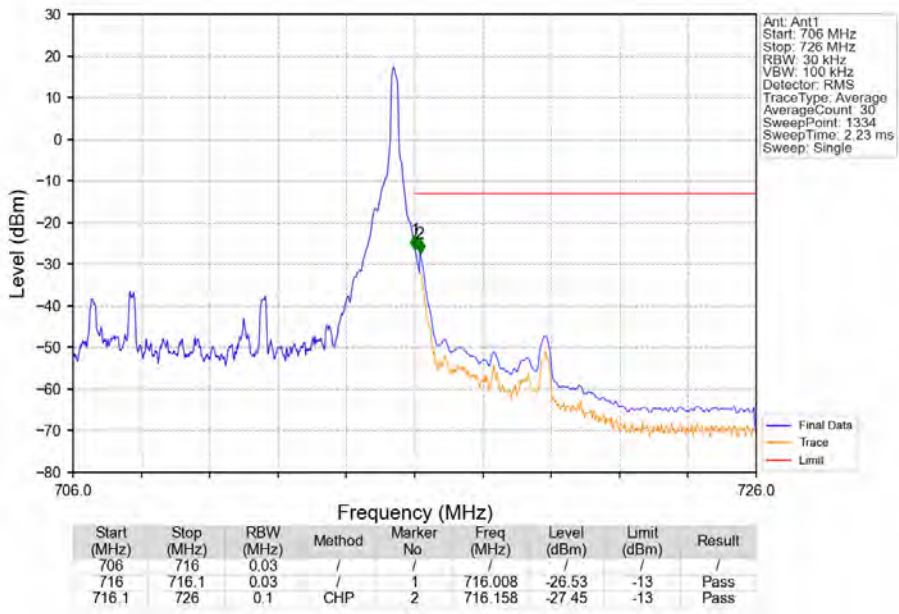
Band12_10MHz_QPSK_MCH_707.5MHz_RB_1_0_NTNV



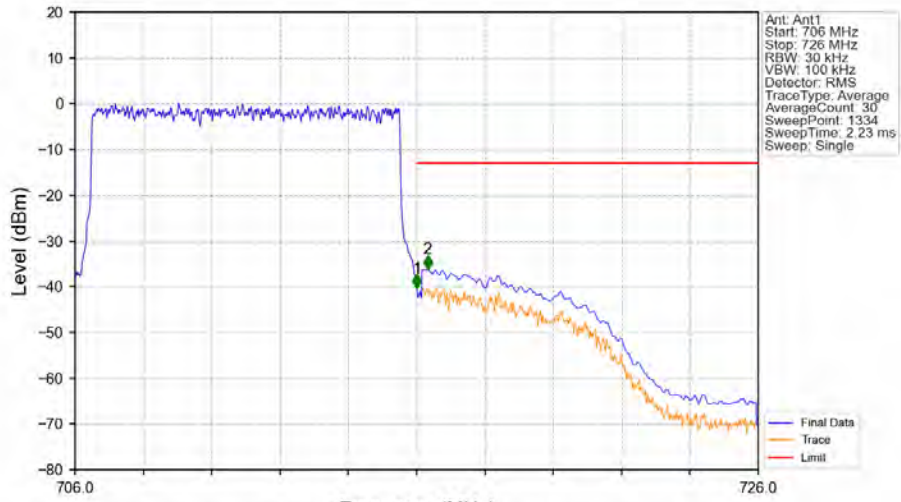
Band12_10MHz_QPSK_HCH_711MHz_RB_1_0_NTNV



Band12_10MHz_QPSK_HCH_711MHz_RB_1_49_NTNV



Band12_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	/	1	716.008	-40.36	-13	Pass
716.1	726	0.1	CHP	2	716.323	-36.19	-13	Pass

6. Field Strength of Spurious Radiation

LTE Band 12 ANT13-Low channel								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1399.0	-64.29	-13	-51.29	-67.06	2.47	5.24	Horizontal	Pass
2098.5	-61.08	-13	-48.08	-63.15	2.79	4.86	Horizontal	Pass
2798.0	-68.43	-13	-55.43	-71.79	3.12	6.48	Horizontal	Pass
1399.0	-66.38	-13	-53.38	-69.15	2.47	5.24	Vertical	Pass
2098.5	-60.32	-13	-47.32	-62.39	2.79	4.86	Vertical	Pass
2798.0	-68.62	-13	-55.62	-71.98	3.12	6.48	Vertical	Pass

LTE Band 12 ANT13-Middle channel								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1406.0	-63.78	-13	-50.78	-66.58	2.48	5.28	Horizontal	Pass
2109.0	-59.33	-13	-46.33	-61.41	2.8	4.88	Horizontal	Pass
2812.0	-68.93	-13	-55.93	-72.32	3.12	6.51	Horizontal	Pass
1406.0	-67.18	-13	-54.18	-69.98	2.48	5.28	Vertical	Pass
2109.0	-57.42	-13	-44.42	-59.5	2.8	4.88	Vertical	Pass
2812.0	-68.62	-13	-55.62	-72.01	3.12	6.51	Vertical	Pass

LTE Band 12 ANT13-High channel								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1413.0	-66.26	-13	-53.26	-69.1	2.49	5.33	Horizontal	Pass
2119.5	-59.77	-13	-46.77	-61.87	2.81	4.91	Horizontal	Pass
2826.0	-68.98	-13	-55.98	-72.39	3.13	6.54	Horizontal	Pass
1413.0	-65.33	-13	-52.33	-68.17	2.49	5.33	Vertical	Pass
2119.5	-58.02	-13	-45.02	-60.12	2.81	4.91	Vertical	Pass
2826.0	-68.55	-13	-55.55	-71.96	3.13	6.54	Vertical	Pass

1) All antennas of RSE are tested, and only the worst data is presented.

---End of Attachment---