

1. Effective (Isotropic) Radiated Power Output Data

1.1 B17_5MHz_ERP

1.1.1 Test Result

Band: 17 / Bandwidth: 5MHz / NTVN								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	706.5	1	0	22.08	-1.10	18.83	<=34.77	Pass
			13	22.19	-1.10	18.94	<=34.77	Pass
			24	22.08	-1.10	18.83	<=34.77	Pass
		12	0	21.13	-1.10	17.88	<=34.77	Pass
			6	21.25	-1.10	18.00	<=34.77	Pass
			13	21.32	-1.10	18.07	<=34.77	Pass
		25	0	21.24	-1.10	17.99	<=34.77	Pass
	710	1	0	22.00	-1.10	18.75	<=34.77	Pass
			13	22.15	-1.10	18.90	<=34.77	Pass
			24	21.96	-1.10	18.71	<=34.77	Pass
		12	0	21.12	-1.10	17.87	<=34.77	Pass
			6	21.23	-1.10	17.98	<=34.77	Pass
			13	21.10	-1.10	17.85	<=34.77	Pass
		25	0	21.12	-1.10	17.87	<=34.77	Pass
	713.5	1	0	21.99	-1.10	18.74	<=34.77	Pass
			13	22.18	-1.10	18.93	<=34.77	Pass
			24	22.01	-1.10	18.76	<=34.77	Pass
		12	0	21.32	-1.10	18.07	<=34.77	Pass
			6	21.24	-1.10	17.99	<=34.77	Pass
			13	21.24	-1.10	17.99	<=34.77	Pass
		25	0	21.23	-1.10	17.98	<=34.77	Pass
16QAM	706.5	1	0	20.99	-1.10	17.74	<=34.77	Pass
			13	21.20	-1.10	17.95	<=34.77	Pass
			24	21.04	-1.10	17.79	<=34.77	Pass
		12	0	20.18	-1.10	16.93	<=34.77	Pass
			6	20.27	-1.10	17.02	<=34.77	Pass
			13	20.35	-1.10	17.10	<=34.77	Pass
		25	0	20.28	-1.10	17.03	<=34.77	Pass
	710	1	0	21.40	-1.10	18.15	<=34.77	Pass
			13	21.55	-1.10	18.30	<=34.77	Pass
			24	21.37	-1.10	18.12	<=34.77	Pass
		12	0	20.20	-1.10	16.95	<=34.77	Pass
			6	20.31	-1.10	17.06	<=34.77	Pass
			13	20.18	-1.10	16.93	<=34.77	Pass
		25	0	20.13	-1.10	16.88	<=34.77	Pass
	713.5	1	0	21.23	-1.10	17.98	<=34.77	Pass
			13	21.37	-1.10	18.12	<=34.77	Pass
			24	21.20	-1.10	17.95	<=34.77	Pass
		12	0	20.32	-1.10	17.07	<=34.77	Pass
6			20.25	-1.10	17.00	<=34.77	Pass	
13			20.23	-1.10	16.98	<=34.77	Pass	
25		0	20.31	-1.10	17.06	<=34.77	Pass	
Note1: ERP=Conducted Power+Antenna Gain-2.15								

1.2 B17_10MHz_ERP

1.2.1 Test Result

Band: 17 / Bandwidth: 10MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	709	1	0	22.03	-1.10	18.78	<=34.77	Pass
			25	22.21	-1.10	18.96	<=34.77	Pass
			49	22.08	-1.10	18.83	<=34.77	Pass
		25	0	21.01	-1.10	17.76	<=34.77	Pass
			13	21.24	-1.10	17.99	<=34.77	Pass
			25	21.05	-1.10	17.80	<=34.77	Pass
		50	0	21.11	-1.10	17.86	<=34.77	Pass
	710	1	0	22.02	-1.10	18.77	<=34.77	Pass
			25	22.19	-1.10	18.94	<=34.77	Pass
			49	22.05	-1.10	18.80	<=34.77	Pass
		25	0	20.99	-1.10	17.74	<=34.77	Pass
			13	21.20	-1.10	17.95	<=34.77	Pass
			25	20.99	-1.10	17.74	<=34.77	Pass
		50	0	21.01	-1.10	17.76	<=34.77	Pass
	711	1	0	22.11	-1.10	18.86	<=34.77	Pass
			25	22.19	-1.10	18.94	<=34.77	Pass
			49	22.12	-1.10	18.87	<=34.77	Pass
		25	0	21.09	-1.10	17.84	<=34.77	Pass
			13	21.19	-1.10	17.94	<=34.77	Pass
			25	21.05	-1.10	17.80	<=34.77	Pass
		50	0	21.08	-1.10	17.83	<=34.77	Pass
16QAM	709	1	0	21.72	-1.10	18.47	<=34.77	Pass
			25	21.95	-1.10	18.70	<=34.77	Pass
			49	21.77	-1.10	18.52	<=34.77	Pass
		25	0	20.16	-1.10	16.91	<=34.77	Pass
			13	20.33	-1.10	17.08	<=34.77	Pass
			25	20.18	-1.10	16.93	<=34.77	Pass
		50	0	20.16	-1.10	16.91	<=34.77	Pass
	710	1	0	21.32	-1.10	18.07	<=34.77	Pass
			25	21.44	-1.10	18.19	<=34.77	Pass
			49	21.29	-1.10	18.04	<=34.77	Pass
		25	0	20.10	-1.10	16.85	<=34.77	Pass
			13	20.27	-1.10	17.02	<=34.77	Pass
			25	20.10	-1.10	16.85	<=34.77	Pass
		50	0	20.08	-1.10	16.83	<=34.77	Pass
	711	1	0	21.22	-1.10	17.97	<=34.77	Pass
			25	21.29	-1.10	18.04	<=34.77	Pass
			49	21.17	-1.10	17.92	<=34.77	Pass
		25	0	20.24	-1.10	16.99	<=34.77	Pass
13			20.33	-1.10	17.08	<=34.77	Pass	
25			20.17	-1.10	16.92	<=34.77	Pass	
50		0	20.12	-1.10	16.87	<=34.77	Pass	
Note1: ERP=Conducted Power+Antenna Gain-2.15								

2. Frequency Stability

2.1 B17_5MHz

2.1.1 Test Result

Band: 17 / Bandwidth: 5MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	

QPSK	706.5	25	0	20	3.6	-10.071	-0.0143	-2.5 to 2.5	Pass
					3.85	-6.995	-0.0099	-2.5 to 2.5	Pass
					4.4	-6.623	-0.0094	-2.5 to 2.5	Pass
				-30	3.85	-6.938	-0.0098	-2.5 to 2.5	Pass
				-20	3.85	-6.638	-0.0094	-2.5 to 2.5	Pass
				-10	3.85	-8.354	-0.0118	-2.5 to 2.5	Pass
				0	3.85	-7.081	-0.0100	-2.5 to 2.5	Pass
				10	3.85	-5.922	-0.0084	-2.5 to 2.5	Pass
				30	3.85	-8.683	-0.0123	-2.5 to 2.5	Pass
				40	3.85	-5.035	-0.0071	-2.5 to 2.5	Pass
				50	3.85	-6.509	-0.0092	-2.5 to 2.5	Pass
	710	25	0	20	3.6	-7.110	-0.0100	-2.5 to 2.5	Pass
					3.85	-3.648	-0.0051	-2.5 to 2.5	Pass
					4.4	-4.449	-0.0063	-2.5 to 2.5	Pass
				-30	3.85	-4.077	-0.0057	-2.5 to 2.5	Pass
				-20	3.85	-2.289	-0.0032	-2.5 to 2.5	Pass
				-10	3.85	-4.005	-0.0056	-2.5 to 2.5	Pass
				0	3.85	-3.219	-0.0045	-2.5 to 2.5	Pass
				10	3.85	-7.424	-0.0105	-2.5 to 2.5	Pass
				30	3.85	-5.994	-0.0084	-2.5 to 2.5	Pass
				40	3.85	-6.437	-0.0091	-2.5 to 2.5	Pass
				50	3.85	-9.441	-0.0133	-2.5 to 2.5	Pass
	713.5	25	0	20	3.6	-1.545	-0.0022	-2.5 to 2.5	Pass
					3.85	-9.098	-0.0128	-2.5 to 2.5	Pass
					4.4	-7.997	-0.0112	-2.5 to 2.5	Pass
				-30	3.85	-4.377	-0.0061	-2.5 to 2.5	Pass
				-20	3.85	-2.732	-0.0038	-2.5 to 2.5	Pass
				-10	3.85	-5.894	-0.0083	-2.5 to 2.5	Pass
				0	3.85	-6.065	-0.0085	-2.5 to 2.5	Pass
				10	3.85	-9.613	-0.0135	-2.5 to 2.5	Pass
				30	3.85	-9.227	-0.0129	-2.5 to 2.5	Pass
40				3.85	-2.174	-0.0030	-2.5 to 2.5	Pass	
50				3.85	-4.778	-0.0067	-2.5 to 2.5	Pass	
16QAM	706.5	25	0	20	3.6	-8.712	-0.0123	-2.5 to 2.5	Pass
					3.85	-6.809	-0.0096	-2.5 to 2.5	Pass
					4.4	-6.309	-0.0089	-2.5 to 2.5	Pass
				-30	3.85	-11.015	-0.0156	-2.5 to 2.5	Pass
				-20	3.85	-8.497	-0.0120	-2.5 to 2.5	Pass
				-10	3.85	-5.765	-0.0082	-2.5 to 2.5	Pass
				0	3.85	-9.770	-0.0138	-2.5 to 2.5	Pass
				10	3.85	-5.822	-0.0082	-2.5 to 2.5	Pass
				30	3.85	-11.745	-0.0166	-2.5 to 2.5	Pass
				40	3.85	-5.078	-0.0072	-2.5 to 2.5	Pass
				50	3.85	-9.813	-0.0139	-2.5 to 2.5	Pass
	710	25	0	20	3.6	-4.950	-0.0070	-2.5 to 2.5	Pass
					3.85	-7.238	-0.0102	-2.5 to 2.5	Pass
					4.4	-10.228	-0.0144	-2.5 to 2.5	Pass
				-30	3.85	-7.796	-0.0110	-2.5 to 2.5	Pass
				-20	3.85	-5.708	-0.0080	-2.5 to 2.5	Pass
				-10	3.85	-2.904	-0.0041	-2.5 to 2.5	Pass
				0	3.85	-2.618	-0.0037	-2.5 to 2.5	Pass
				10	3.85	-9.613	-0.0135	-2.5 to 2.5	Pass
				30	3.85	-3.133	-0.0044	-2.5 to 2.5	Pass
				40	3.85	-8.340	-0.0117	-2.5 to 2.5	Pass
				50	3.85	-8.025	-0.0113	-2.5 to 2.5	Pass
713.5	25	0	20	3.6	-7.768	-0.0109	-2.5 to 2.5	Pass	
				3.85	-0.472	-0.0007	-2.5 to 2.5	Pass	
				4.4	-6.795	-0.0095	-2.5 to 2.5	Pass	
			-30	3.85	-5.665	-0.0079	-2.5 to 2.5	Pass	

				-20	3.85	-9.956	-0.0140	-2.5 to 2.5	Pass
				-10	3.85	-8.912	-0.0125	-2.5 to 2.5	Pass
				0	3.85	-12.002	-0.0168	-2.5 to 2.5	Pass
				10	3.85	-10.757	-0.0151	-2.5 to 2.5	Pass
				30	3.85	-5.536	-0.0078	-2.5 to 2.5	Pass
				40	3.85	-5.937	-0.0083	-2.5 to 2.5	Pass
				50	3.85	-5.879	-0.0082	-2.5 to 2.5	Pass

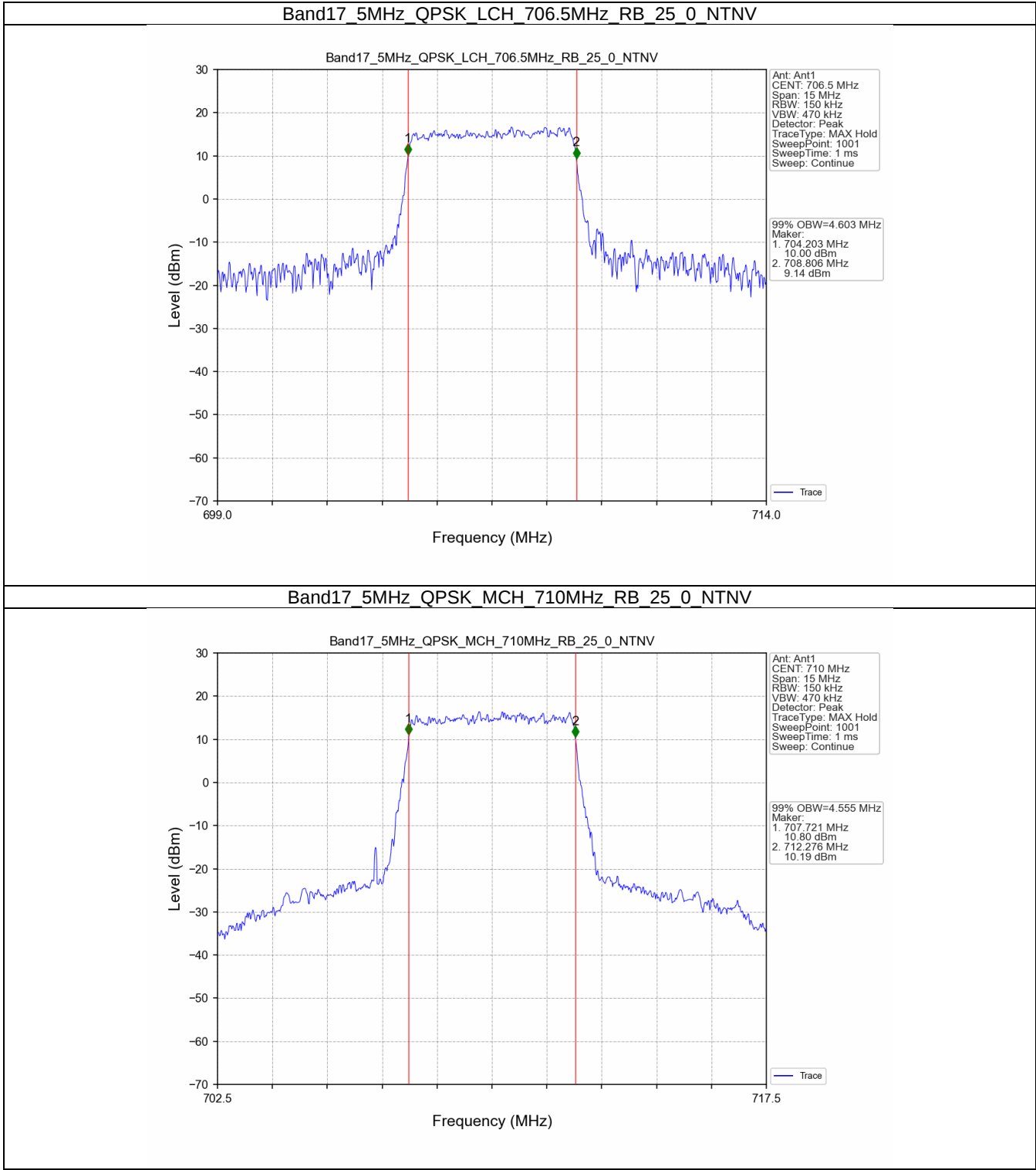
3. 99% & 26dB Bandwidth

3.1 Band17_OBW

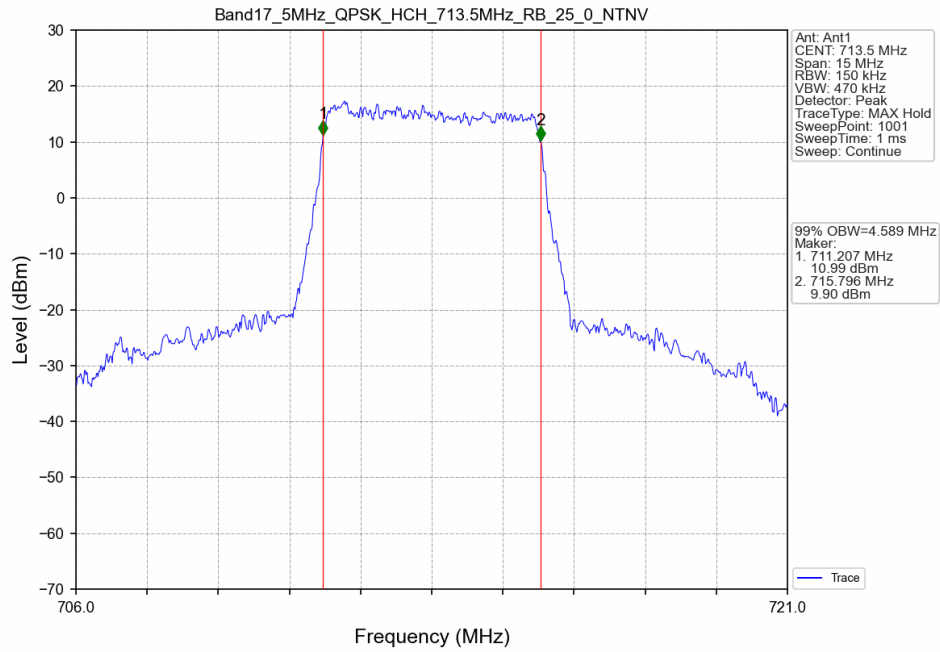
3.1.1 Test Result

Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	706.5	25	0	4.603	/	Pass
		710	25	0	4.555	/	Pass
		713.5	25	0	4.589	/	Pass
	16QAM	706.5	25	0	4.628	/	Pass
		710	25	0	4.576	/	Pass
		713.5	25	0	4.570	/	Pass
10	QPSK	709	50	0	9.060	/	Pass
		710	50	0	9.018	/	Pass
		711	50	0	9.053	/	Pass
	16QAM	709	50	0	9.046	/	Pass
		710	50	0	9.022	/	Pass
		711	50	0	9.052	/	Pass

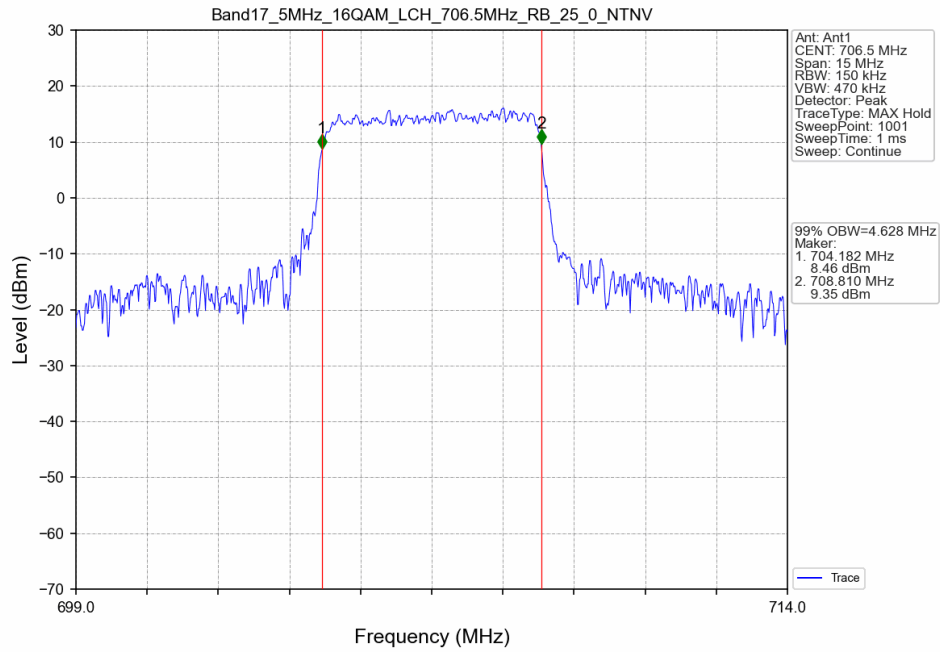
3.1.2 Test Graph



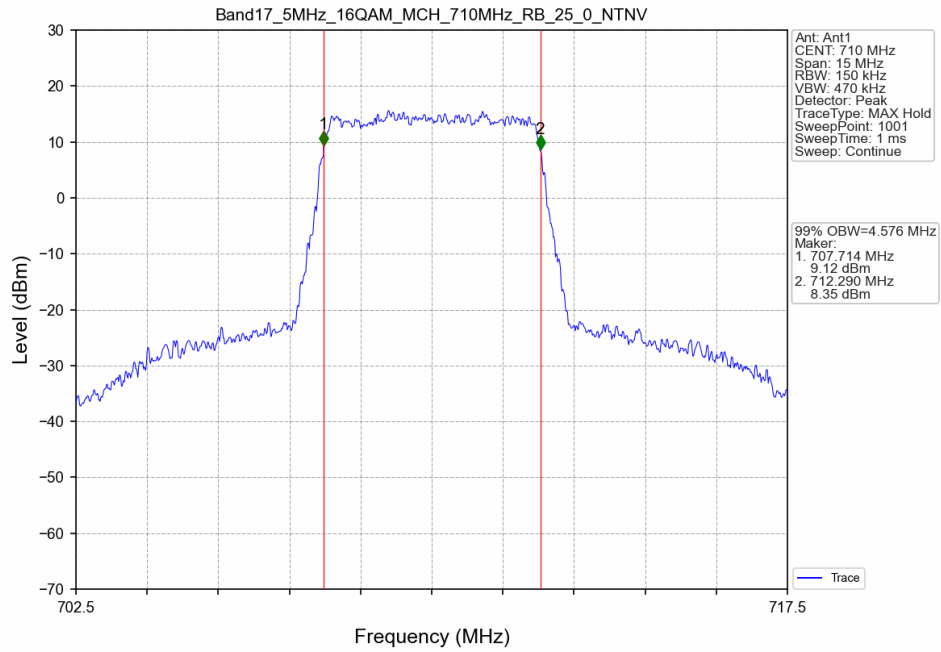
Band17 5MHz QPSK HCH 713.5MHz RB 25 0 NTN



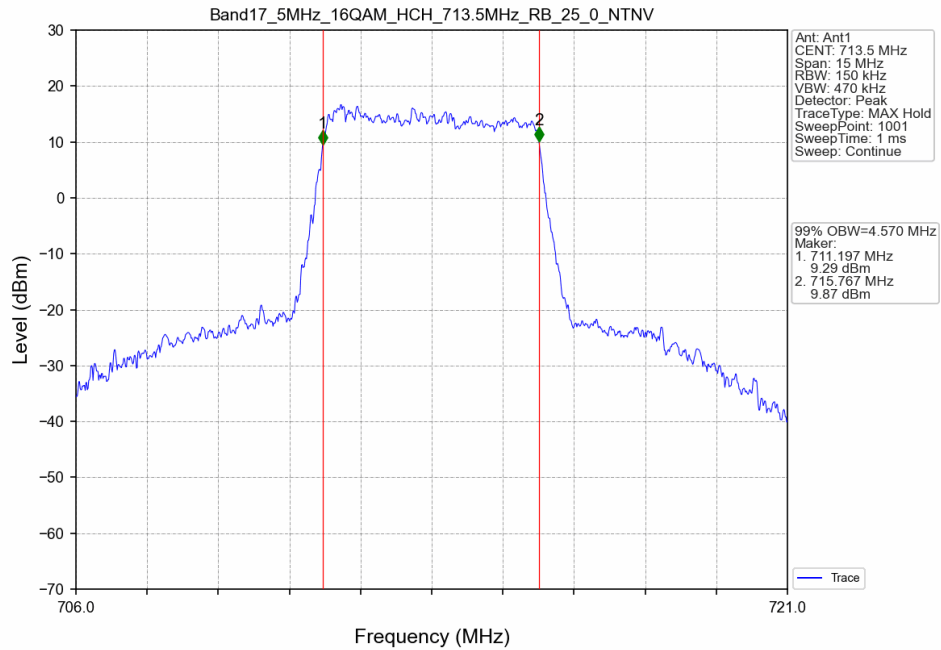
Band17 5MHz 16QAM LCH 706.5MHz RB 25 0 NTN



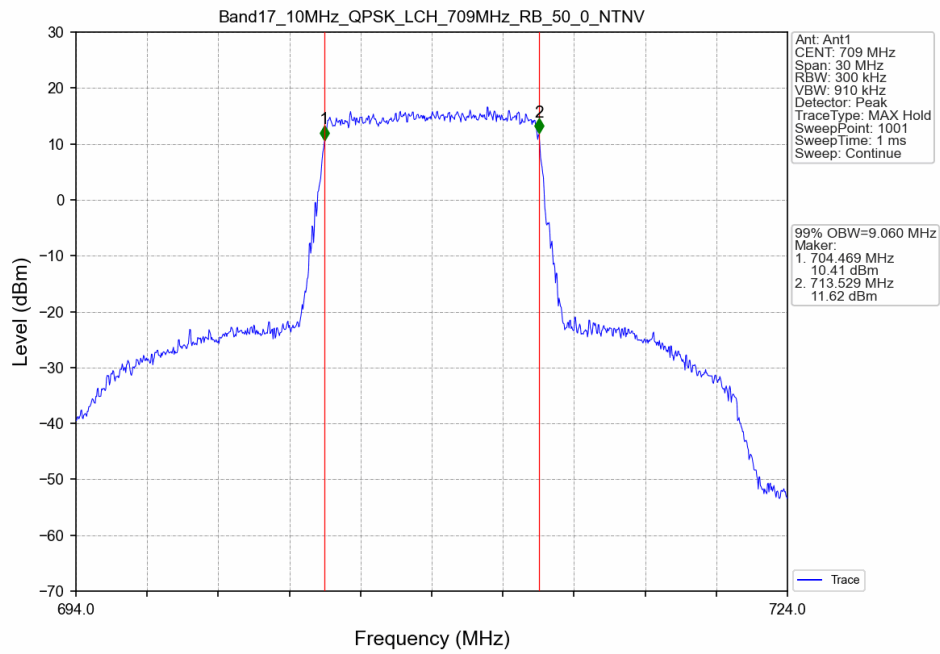
Band17 5MHz 16QAM MCH 710MHz RB 25 0 NTV



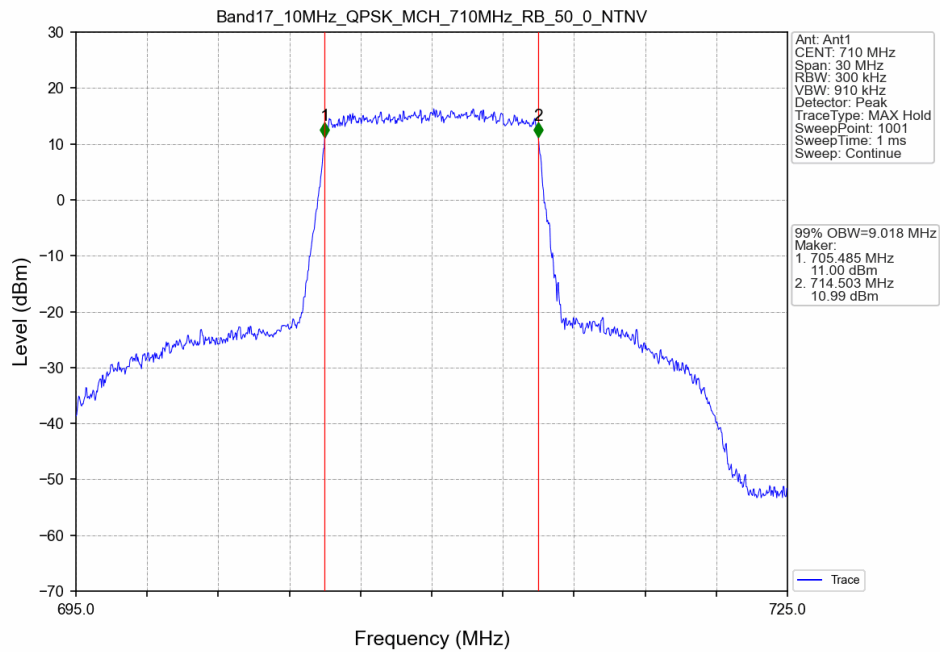
Band17 5MHz 16QAM HCH 713.5MHz RB 25 0 NTV



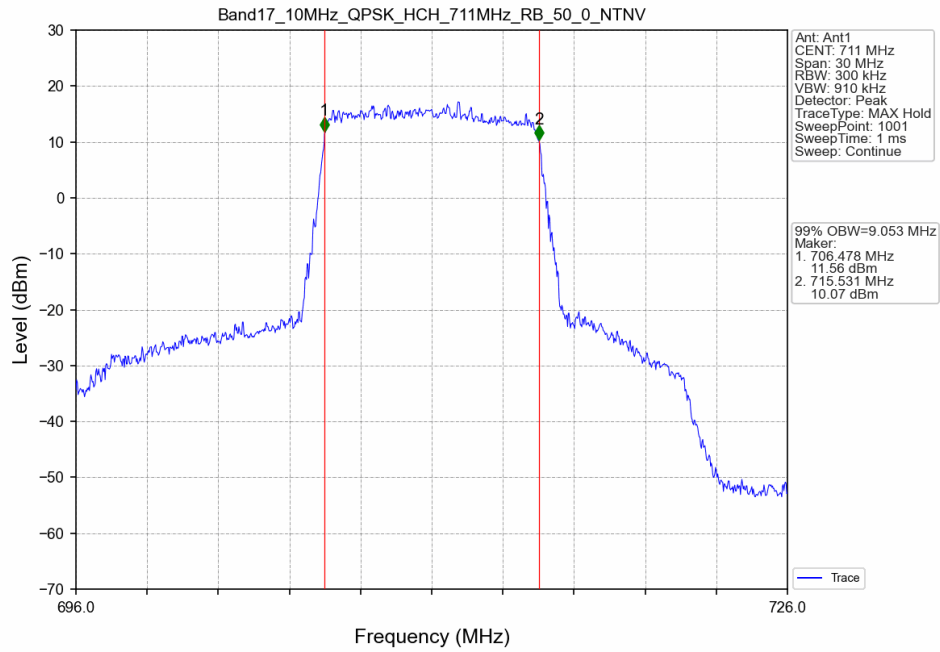
Band17 10MHz QPSK LCH 709MHz RB 50 0 NTN



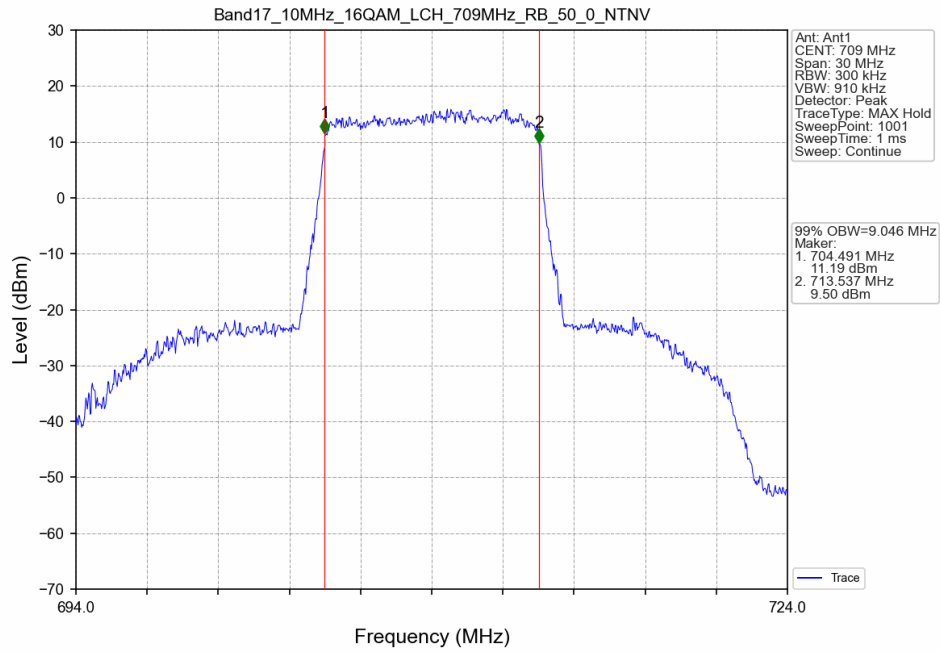
Band17 10MHz QPSK MCH 710MHz RB 50 0 NTN



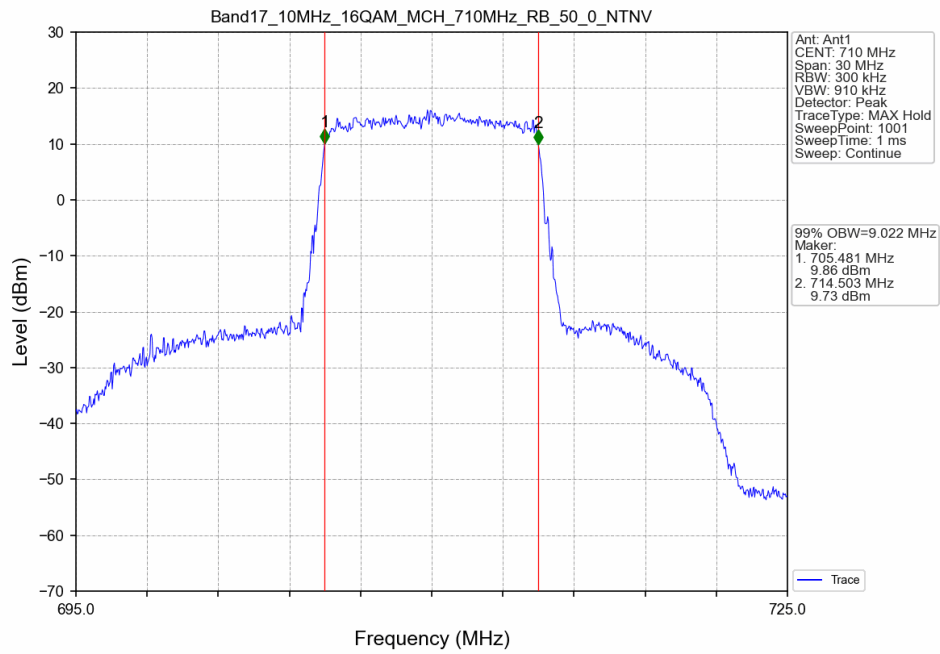
Band17 10MHz QPSK HCH 711MHz RB 50 0 NTN



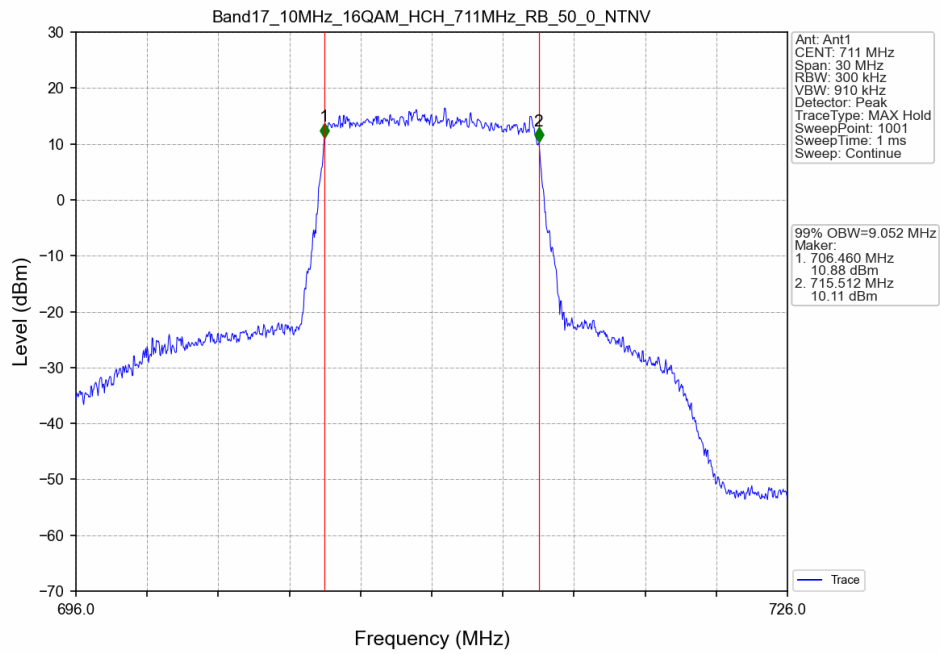
Band17 10MHz 16QAM LCH 709MHz RB 50 0 NTN



Band17 10MHz 16QAM MCH 710MHz RB 50 0 NTNV



Band17 10MHz 16QAM HCH 711MHz RB 50 0 NTNV

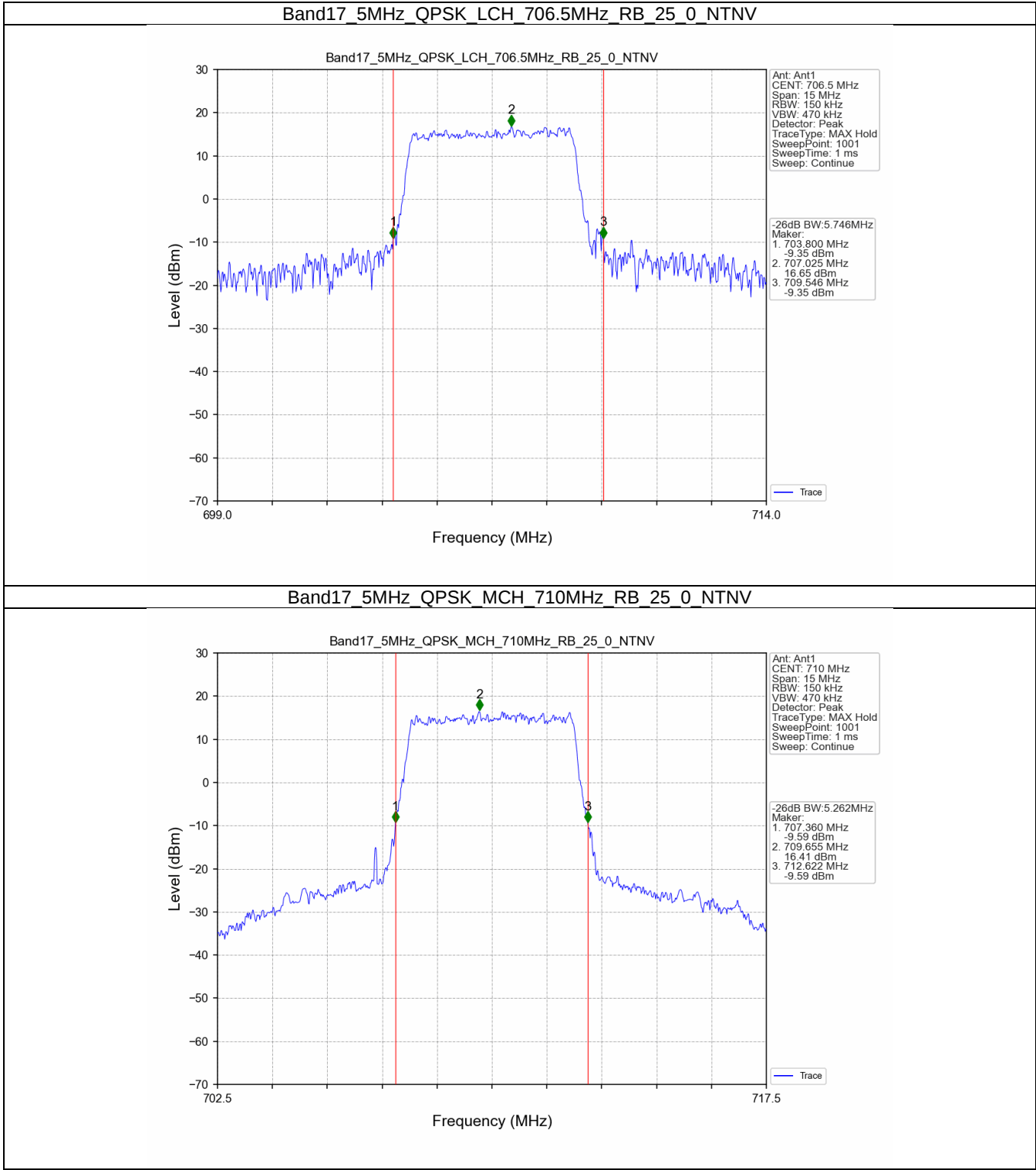


3.2 Band17_XDB

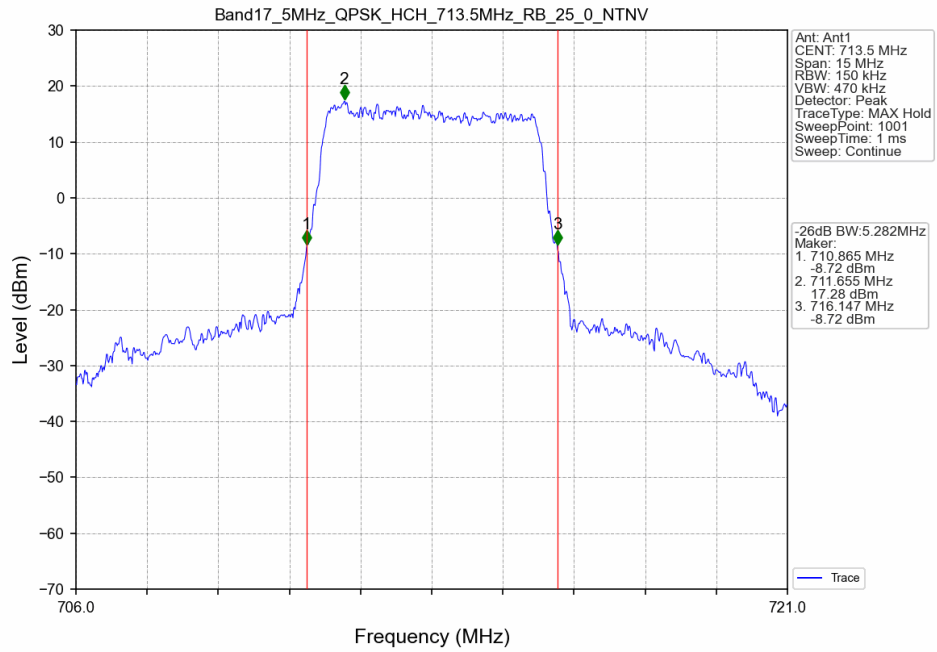
3.2.1 Test Result

Band: 17 / NTN							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	706.5	25	0	5.746	/	Pass
		710	25	0	5.262	/	Pass
		713.5	25	0	5.282	/	Pass
	16QAM	706.5	25	0	5.538	/	Pass
		710	25	0	5.281	/	Pass
		713.5	25	0	5.222	/	Pass
10	QPSK	709	50	0	10.271	/	Pass
		710	50	0	10.221	/	Pass
		711	50	0	10.149	/	Pass
	16QAM	709	50	0	10.186	/	Pass
		710	50	0	10.217	/	Pass
		711	50	0	10.196	/	Pass

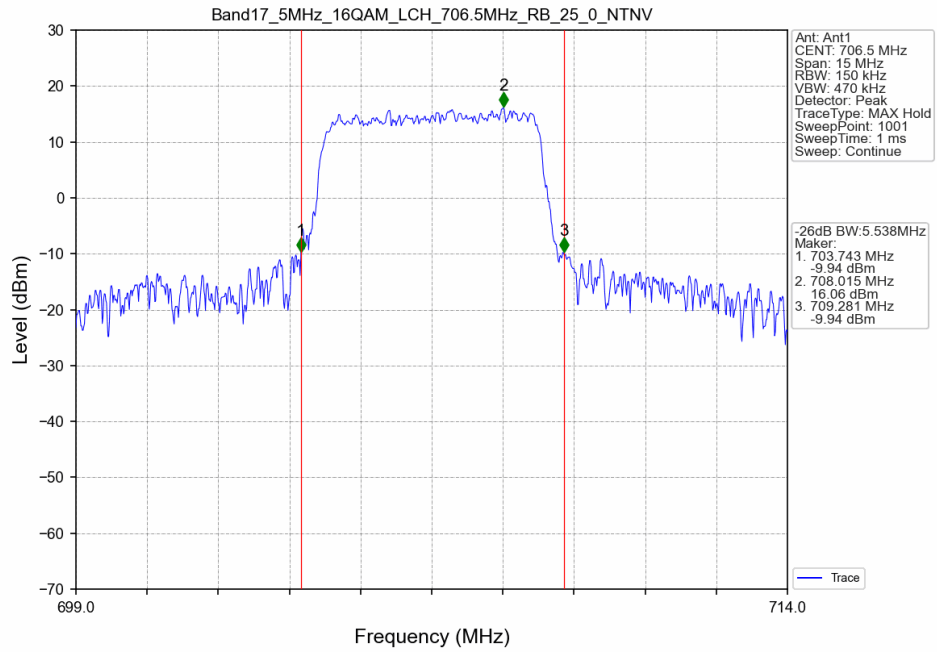
3.2.2 Test Graph



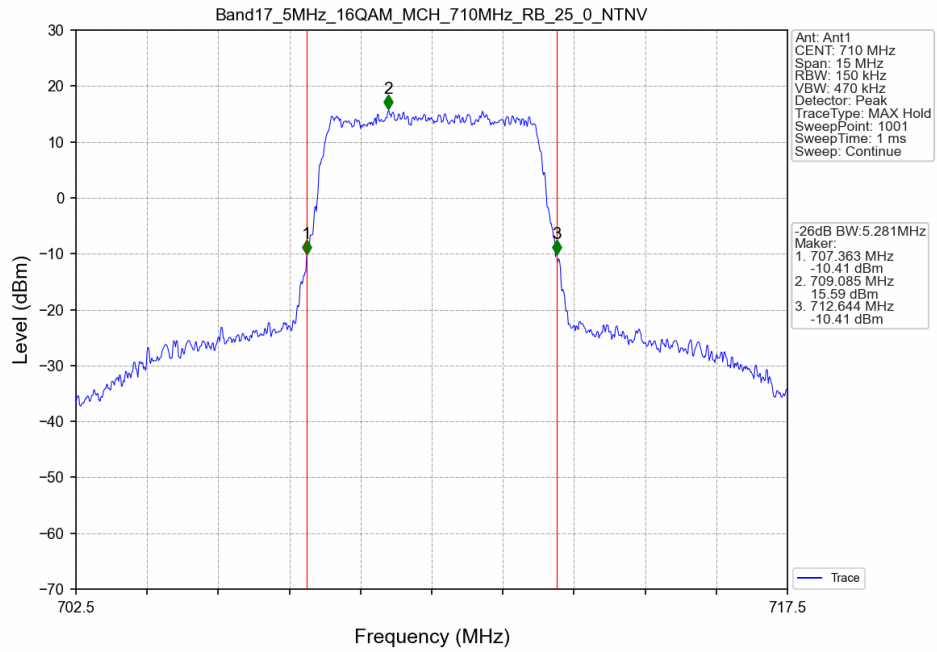
Band17 5MHz QPSK HCH 713.5MHz RB 25 0 NTNV



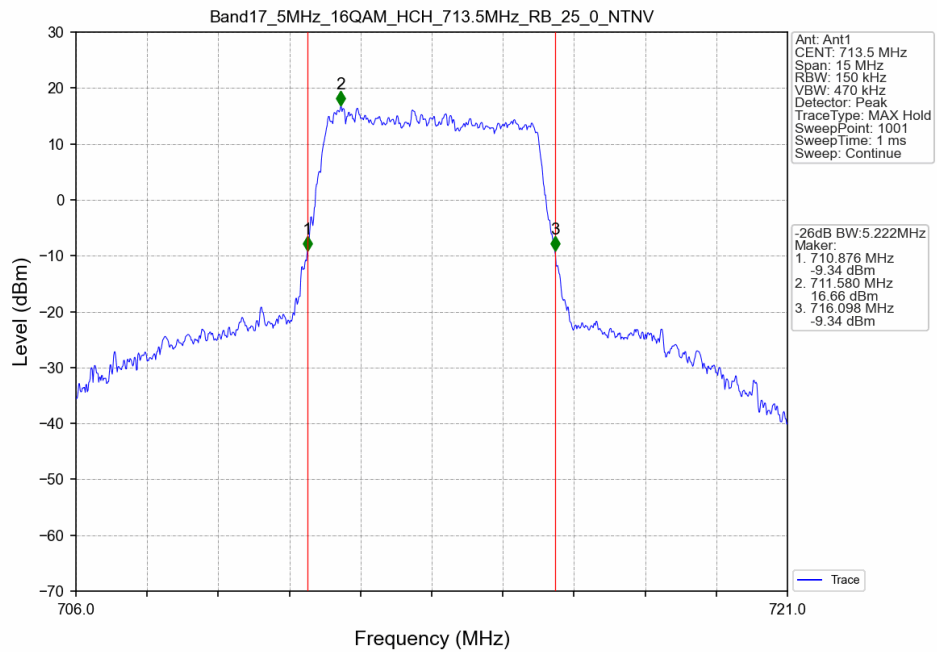
Band17 5MHz 16QAM LCH 706.5MHz RB 25 0 NTNV



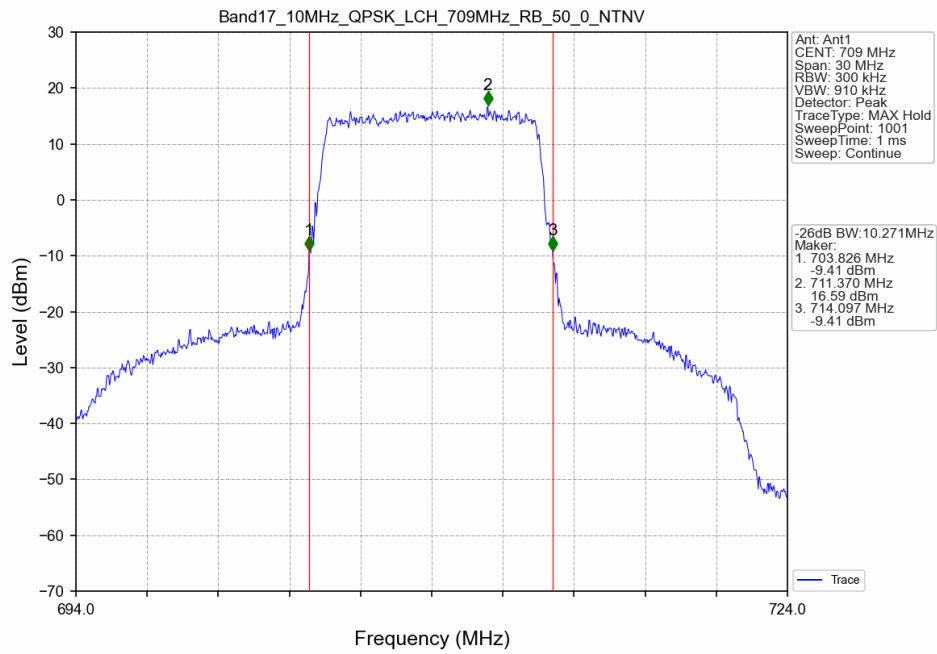
Band17 5MHz 16QAM MCH 710MHz RB 25 0 NTV



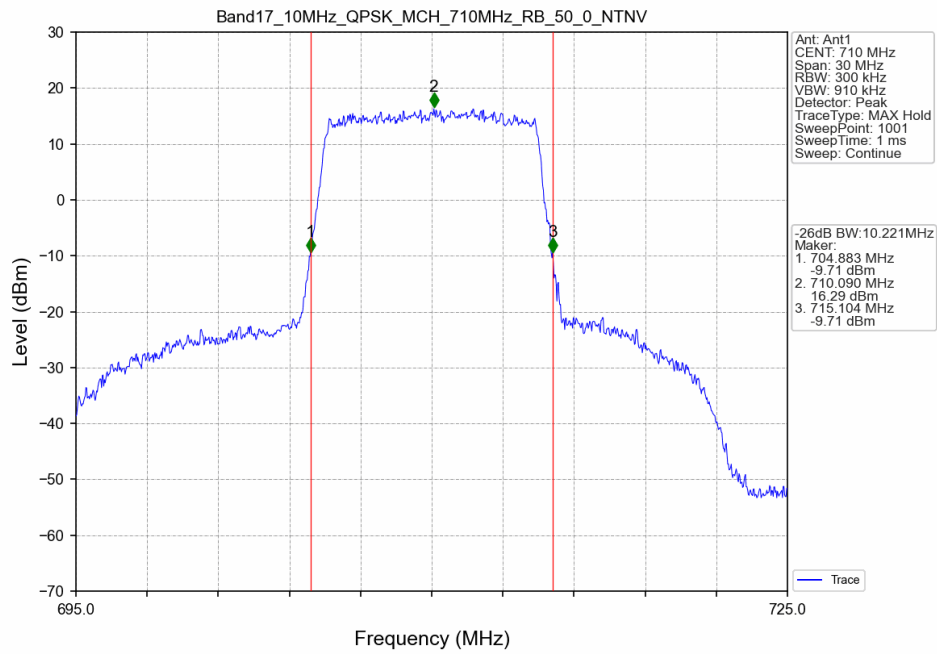
Band17 5MHz 16QAM HCH 713.5MHz RB 25 0 NTV



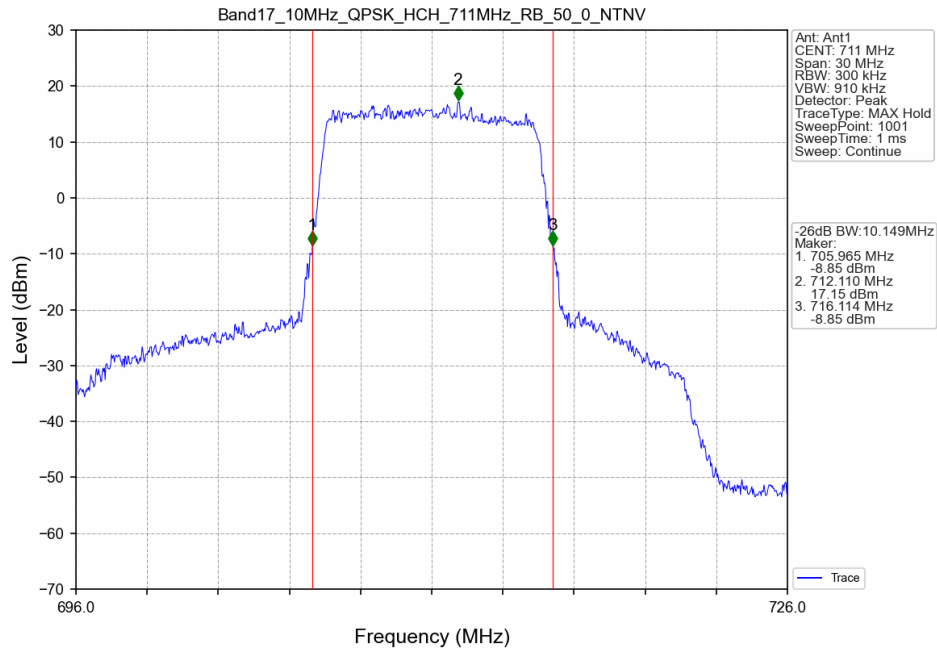
Band17 10MHz QPSK LCH 709MHz RB 50 0 NTN



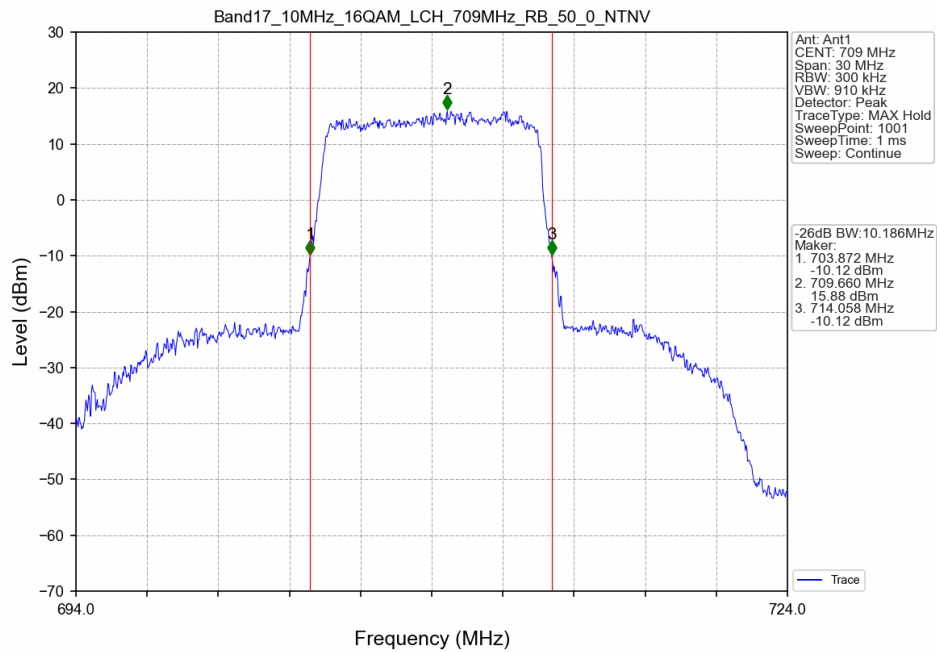
Band17 10MHz QPSK MCH 710MHz RB 50 0 NTN



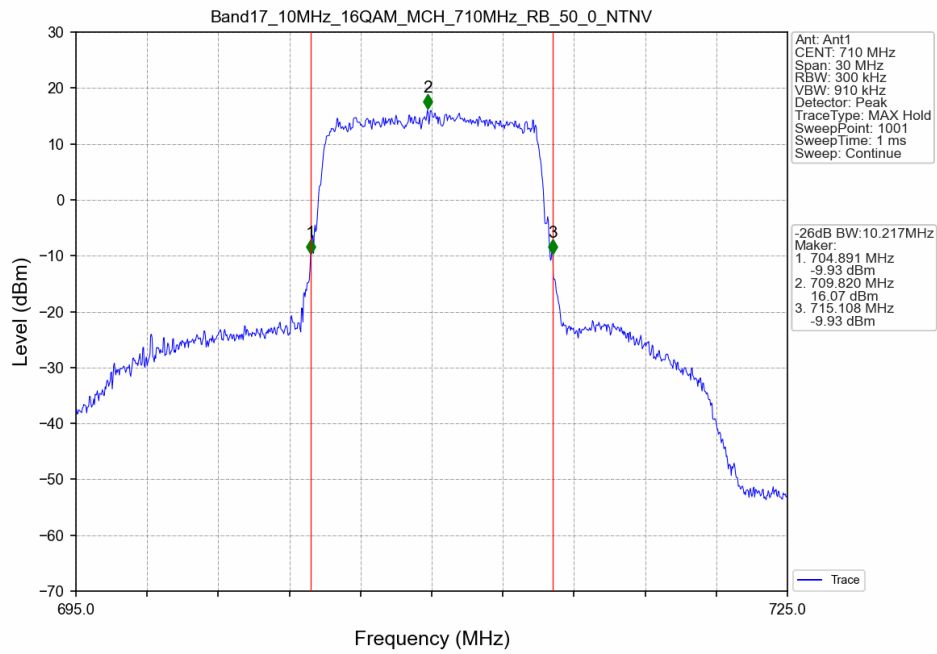
Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



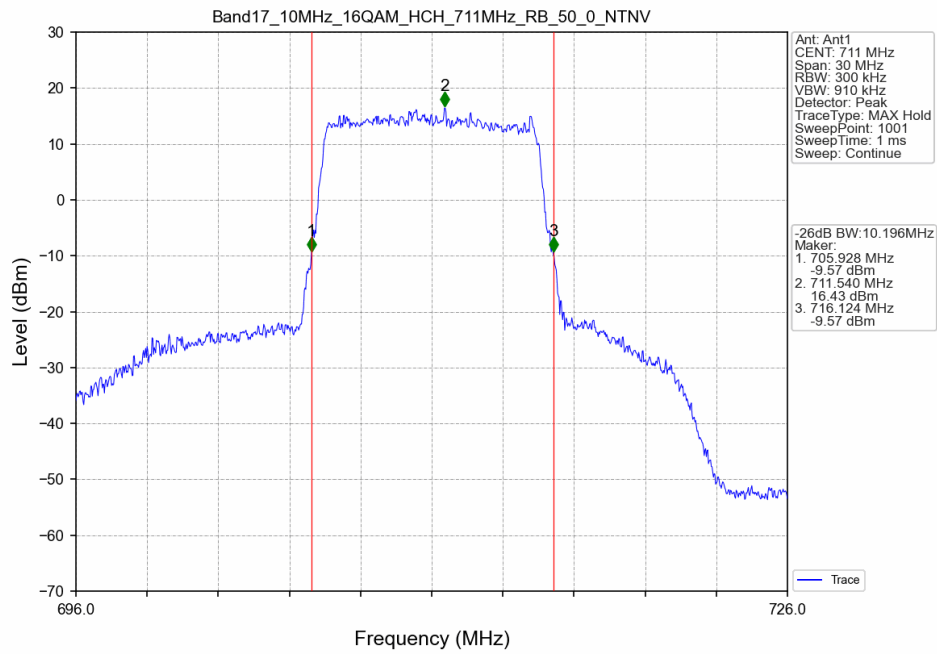
Band17_10MHz_16QAM_LCH_709MHz_RB_50_0_NTNV



Band17 10MHz 16QAM MCH 710MHz RB 50 0 NTV



Band17 10MHz 16QAM HCH 711MHz RB 50 0 NTV



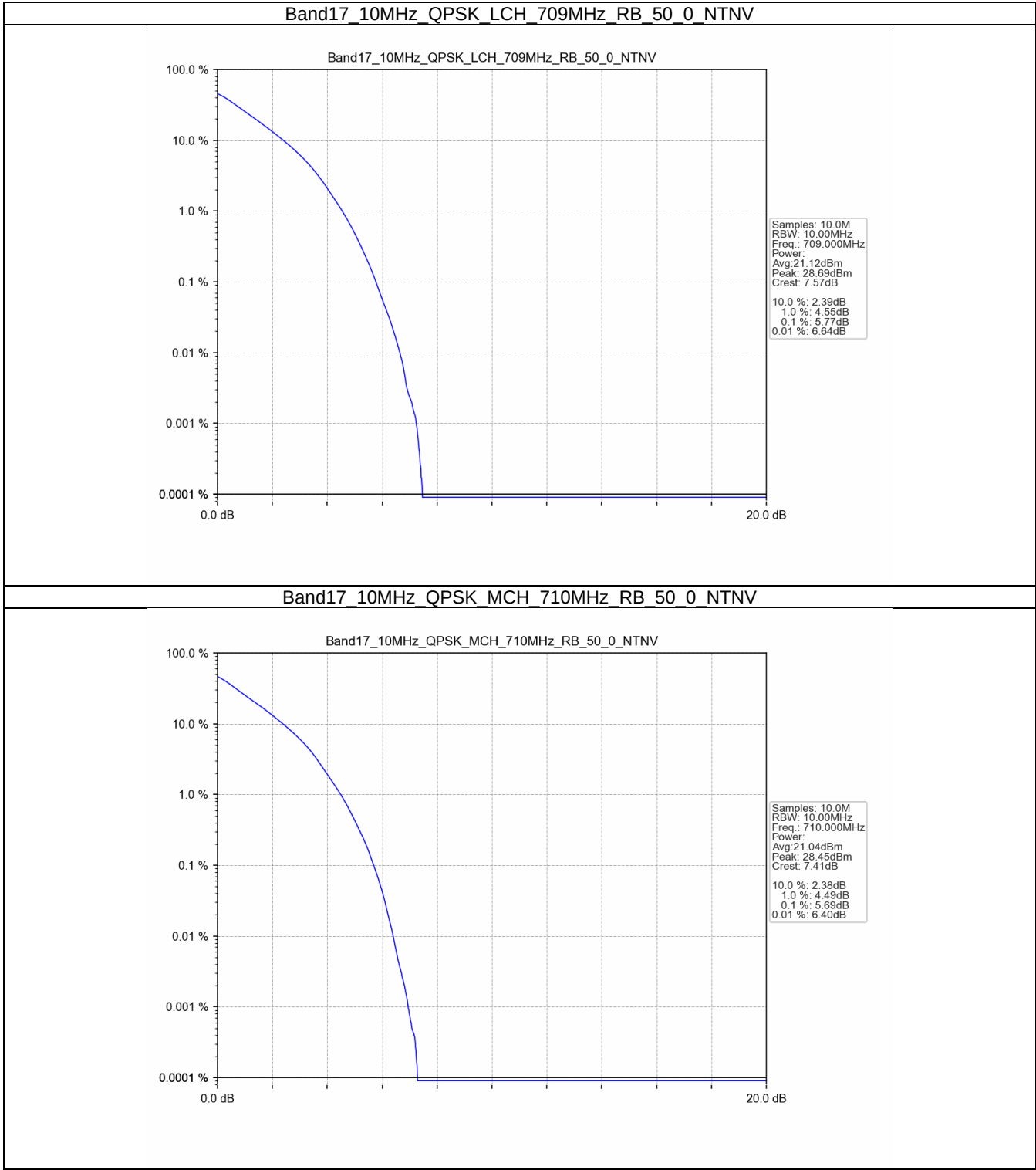
4. Peak-Average Ratio

4.1 B17_10MHz

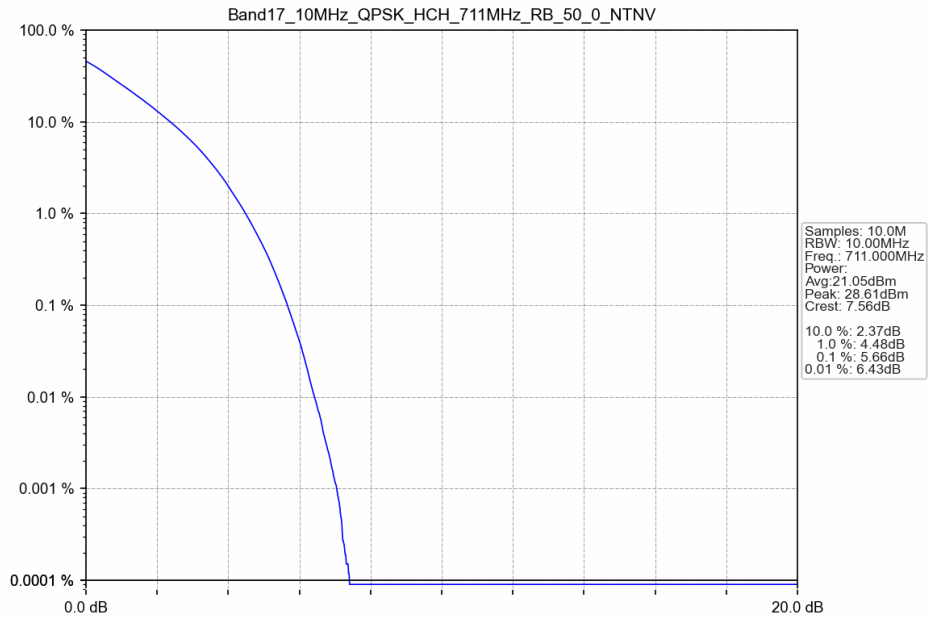
4.1.1 Test Result

Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	709	50	0	5.77	<=13	Pass
	710	50	0	5.69	<=13	Pass
	711	50	0	5.66	<=13	Pass
16QAM	709	50	0	6.54	<=13	Pass
	710	50	0	6.54	<=13	Pass
	711	50	0	6.52	<=13	Pass

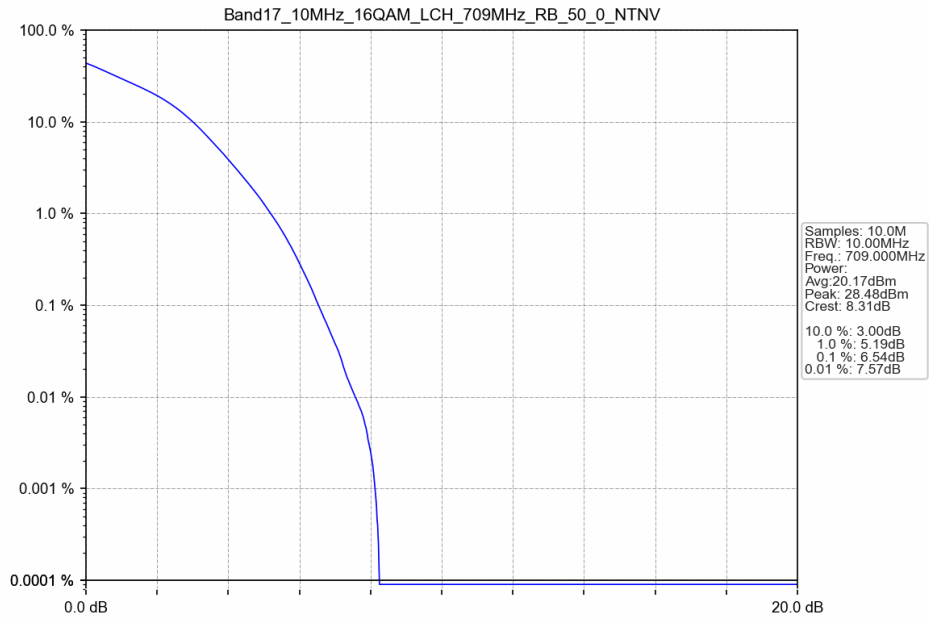
4.1.2 Test Graph



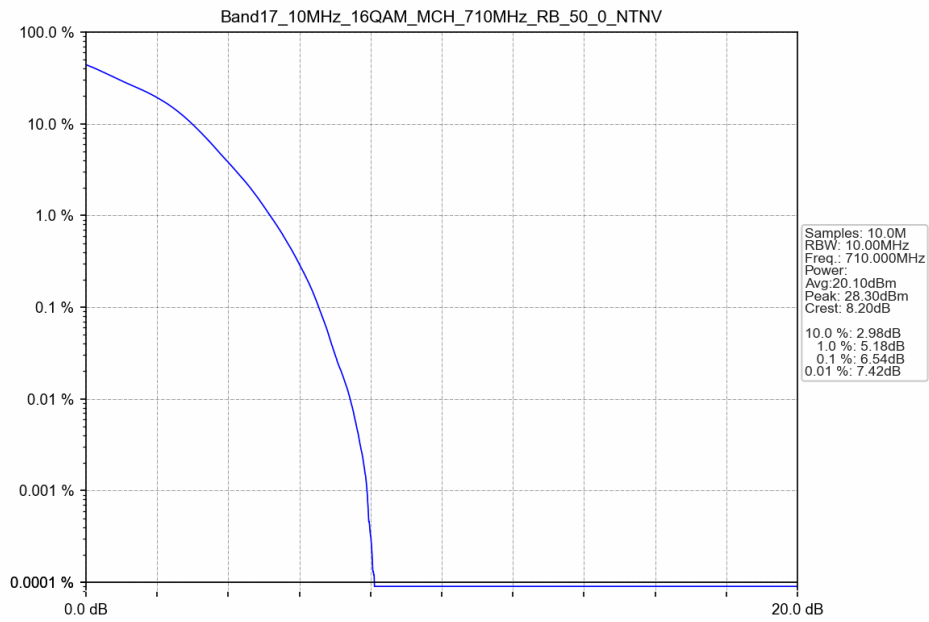
Band17_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



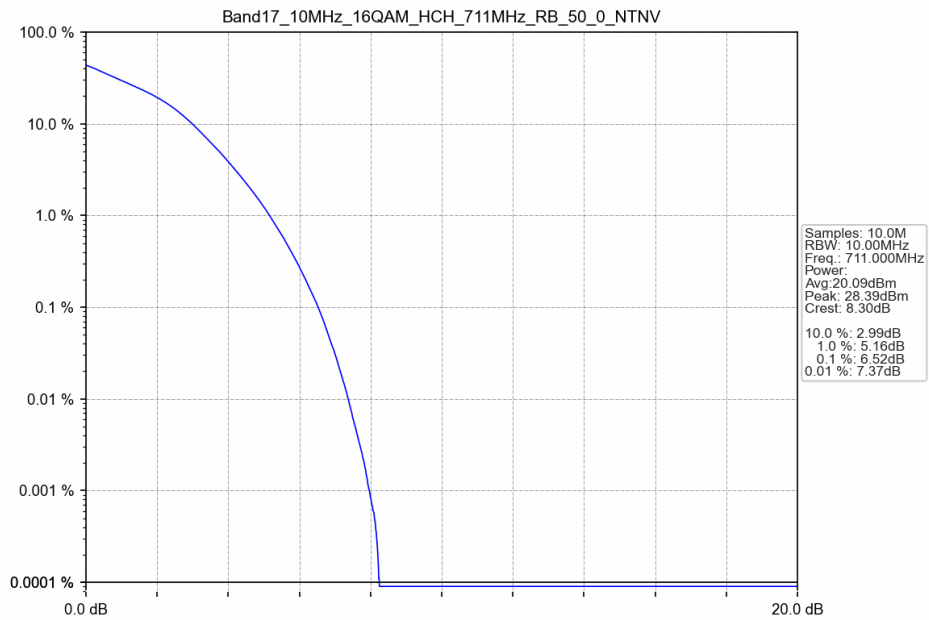
Band17_10MHz_16QAM_LCH_709MHz_RB_50_0_NTNV



Band17 10MHz 16QAM MCH 710MHz RB 50 0 NTNV



Band17 10MHz 16QAM HCH 711MHz RB 50 0 NTNV



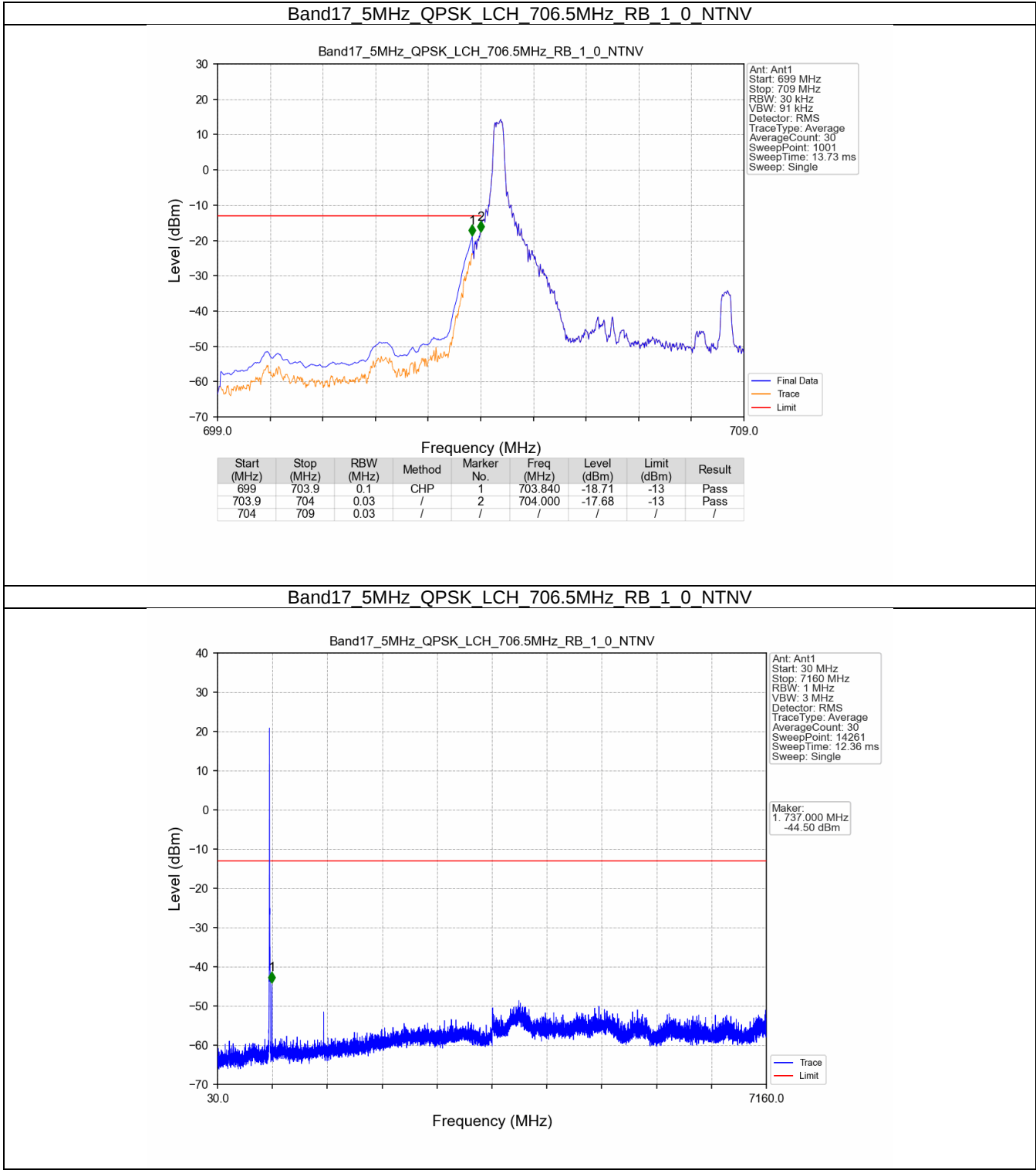
5. Spurious Emission

5.1 B17_5MHz

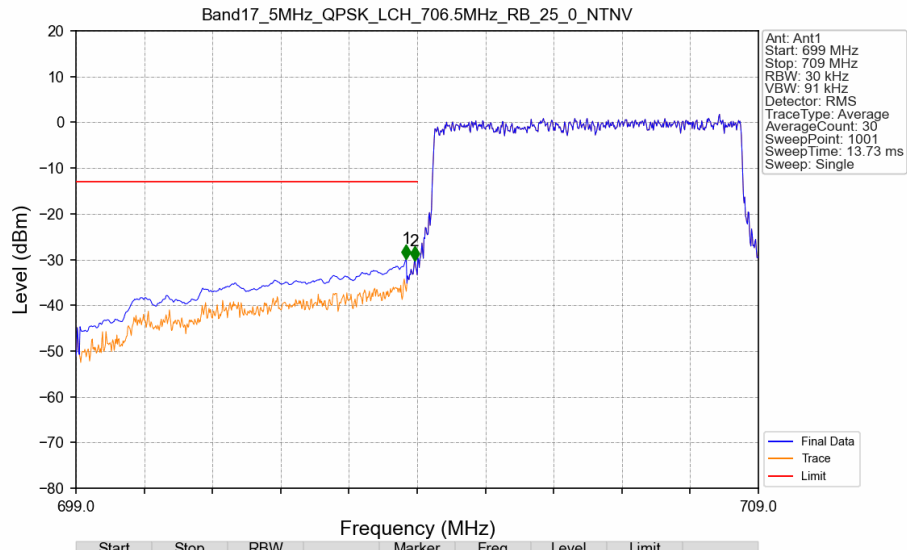
5.1.1 Test Result

Band: 17 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	706.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	710	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

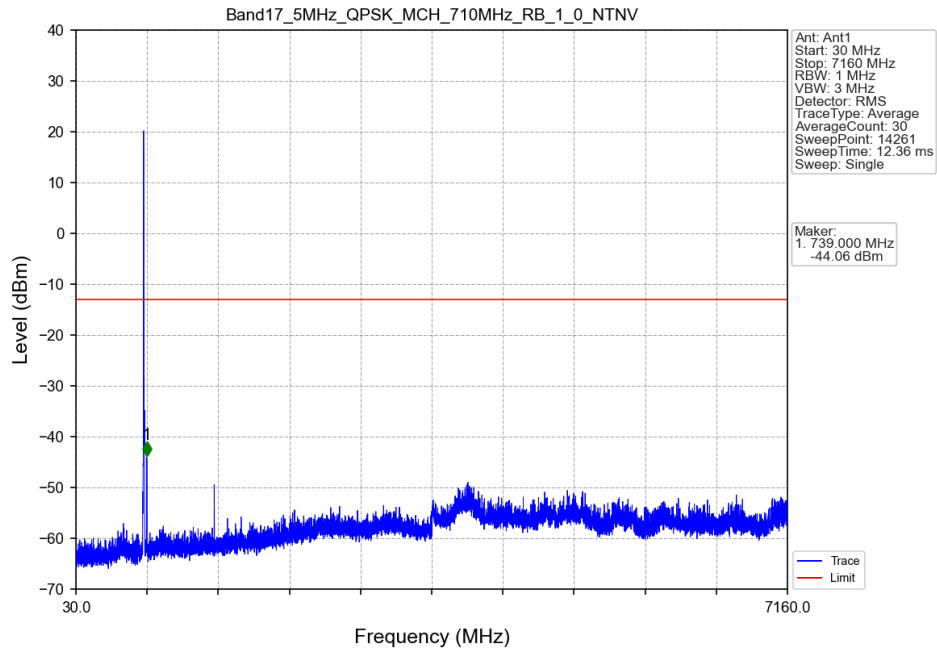
5.1.2 Test Graph



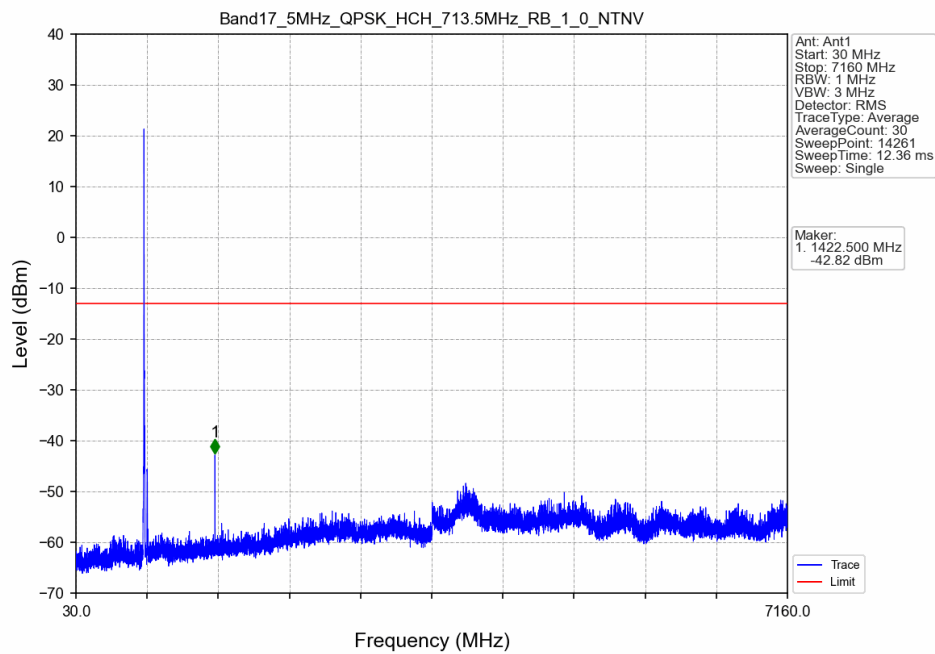
Band17 5MHz QPSK LCH 706.5MHz RB 25 0 NTN



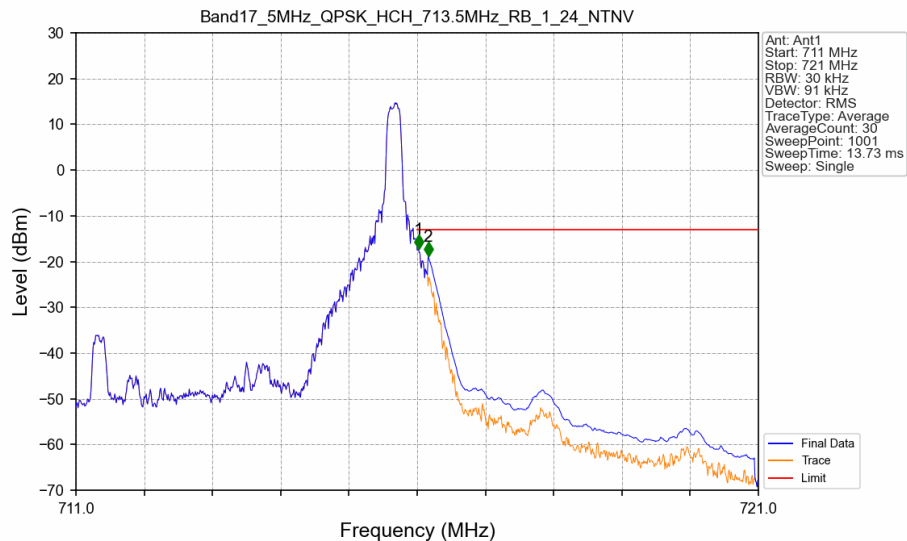
Band17 5MHz QPSK MCH 710MHz RB 1 0 NTN



Band17 5MHz QPSK HCH 713.5MHz RB 1 0 NTN

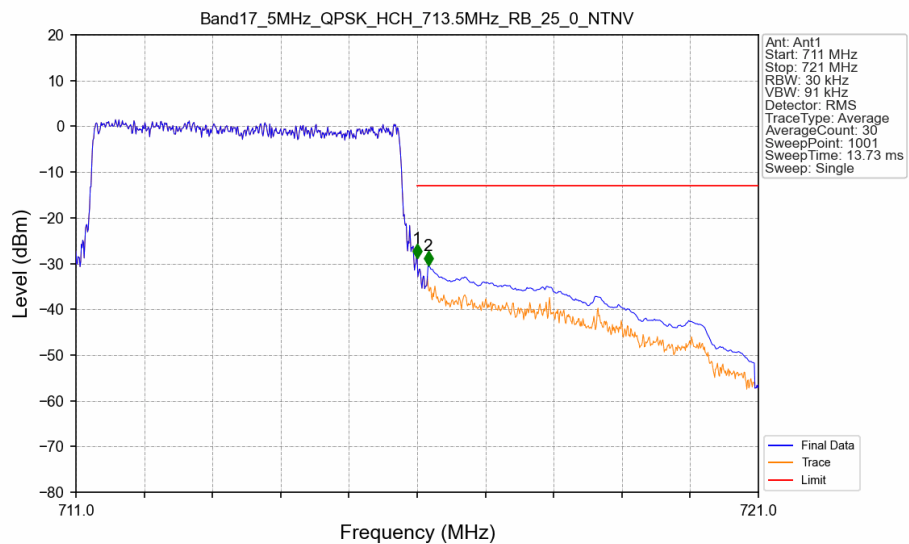


Band17 5MHz QPSK HCH 713.5MHz RB 1 24 NTN



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	1	716.020	-17.32	-13	Pass
716	716.1	0.03	/	2	716.160	-18.90	-13	Pass
716.1	721	0.1	CHP					

Band17 5MHz QPSK HCH 713.5MHz RB 25 0 NTN



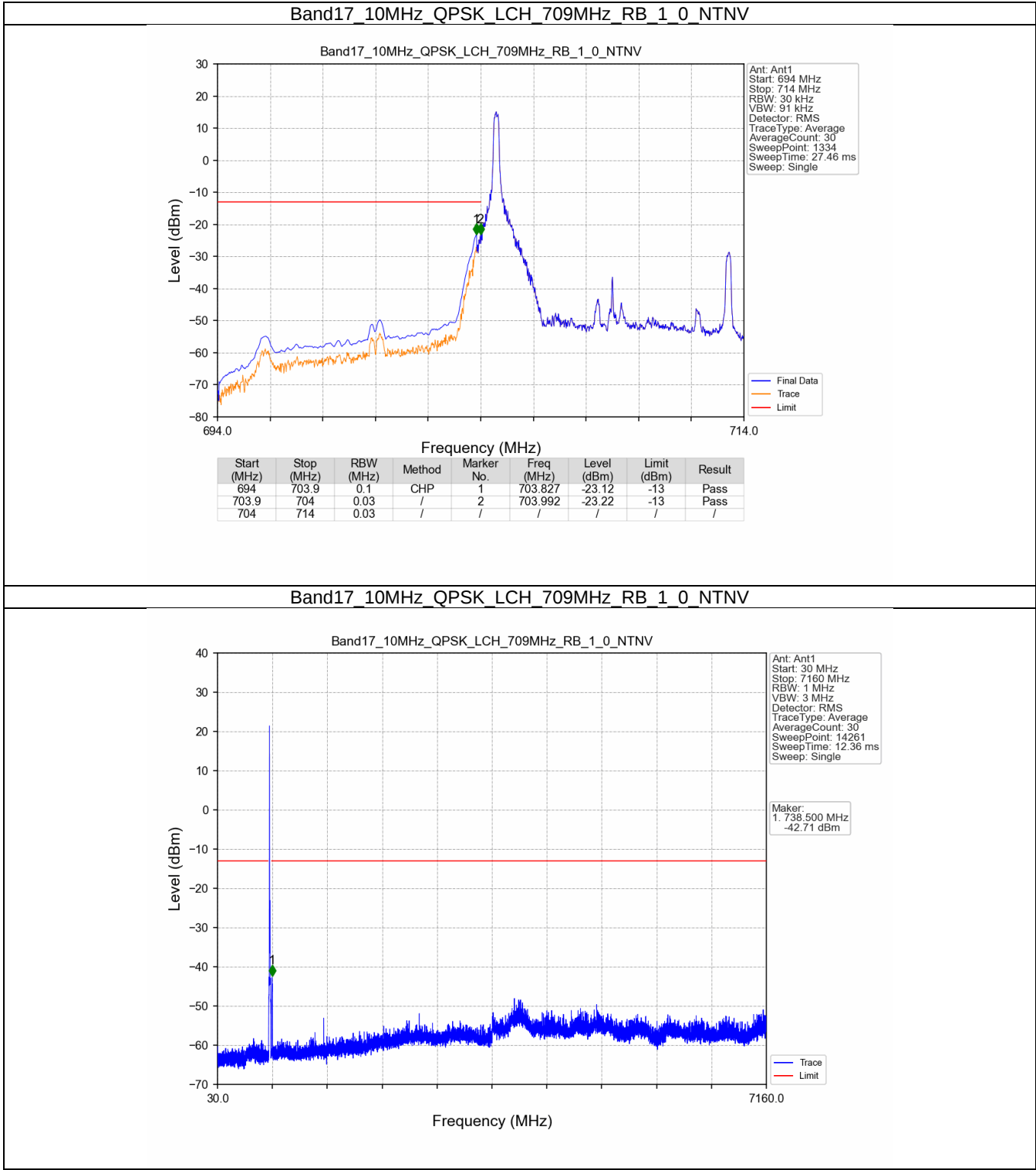
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.000	-28.89	-13	Pass
716.1	721	0.1	CHP	2	716.160	-30.42	-13	Pass

5.2 B17_10MHz

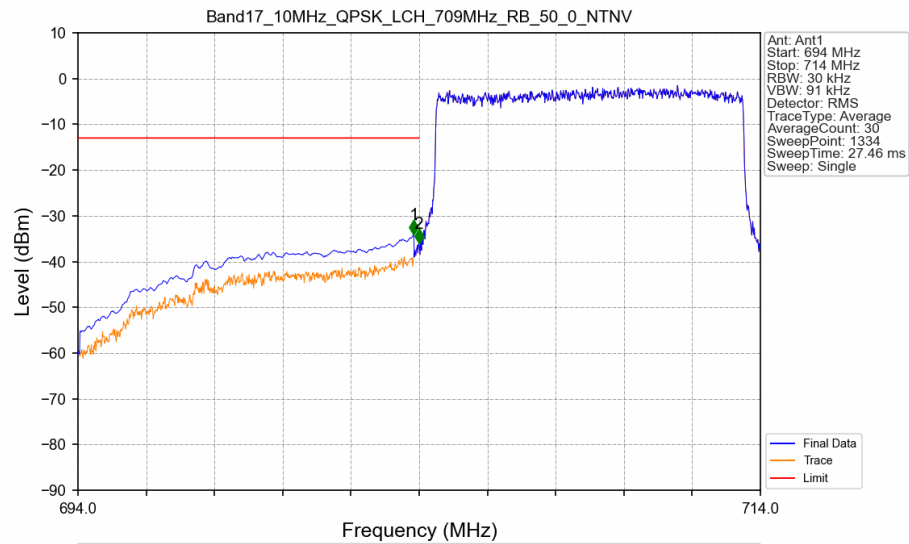
5.2.1 Test Result

Band: 17 / Bandwidth: 10MHz / NTV					
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission	
		Size	Offset	Result	Limit
QPSK	709	1	0	Refer To Test Graph	Pass
		50	0	Refer To Test Graph	Pass
	710	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

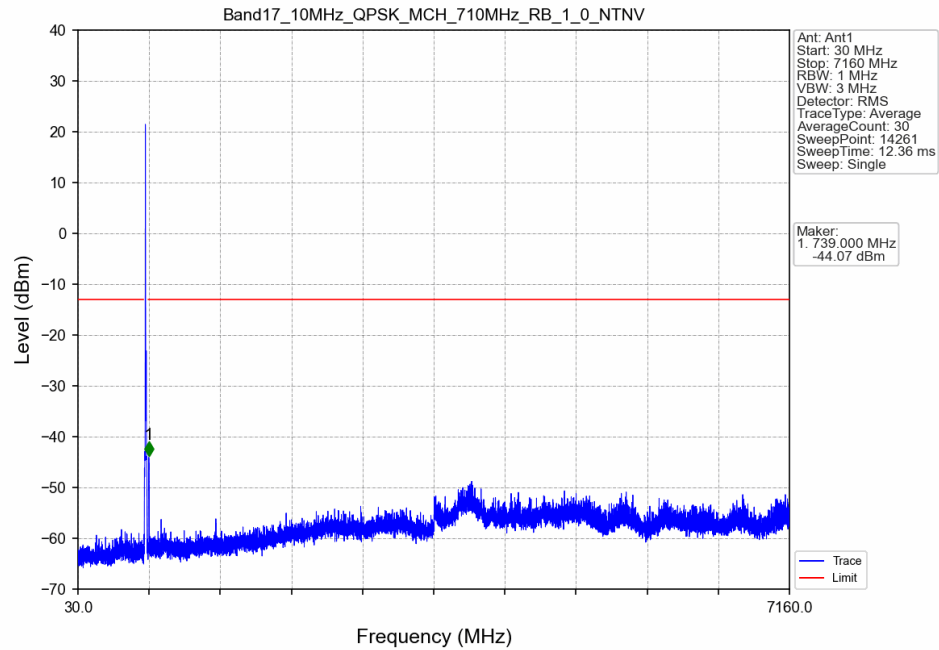
5.2.2 Test Graph



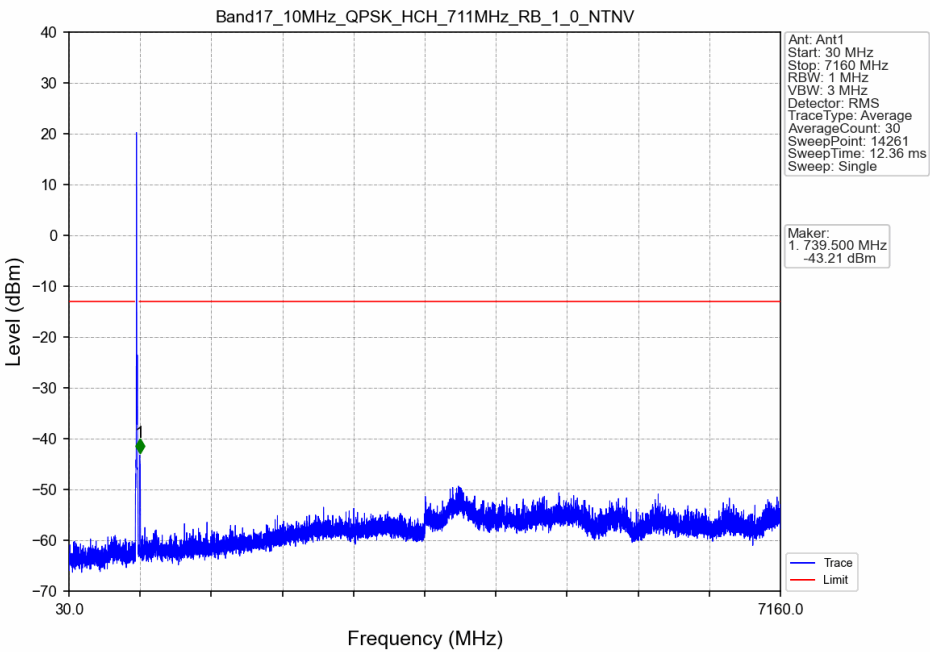
Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV



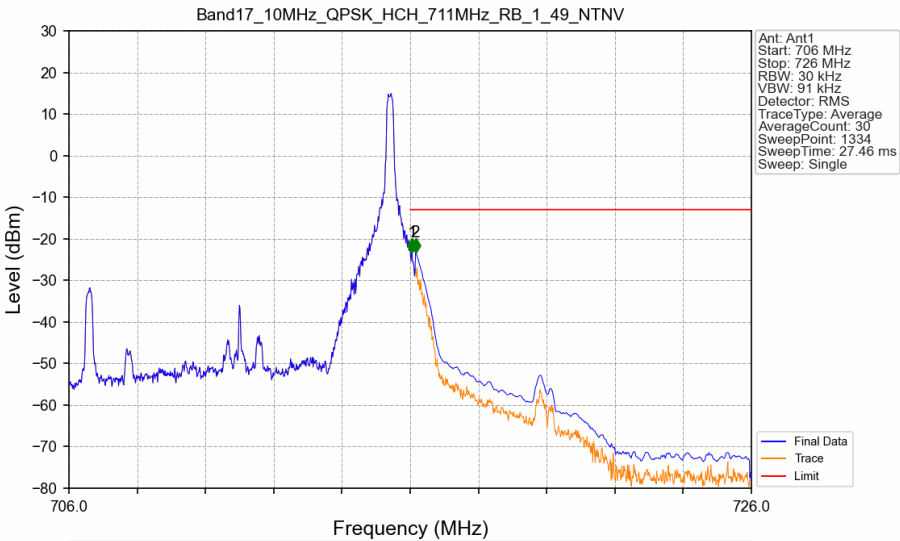
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17 10MHz QPSK HCH 711MHz RB 1 0 NTNV

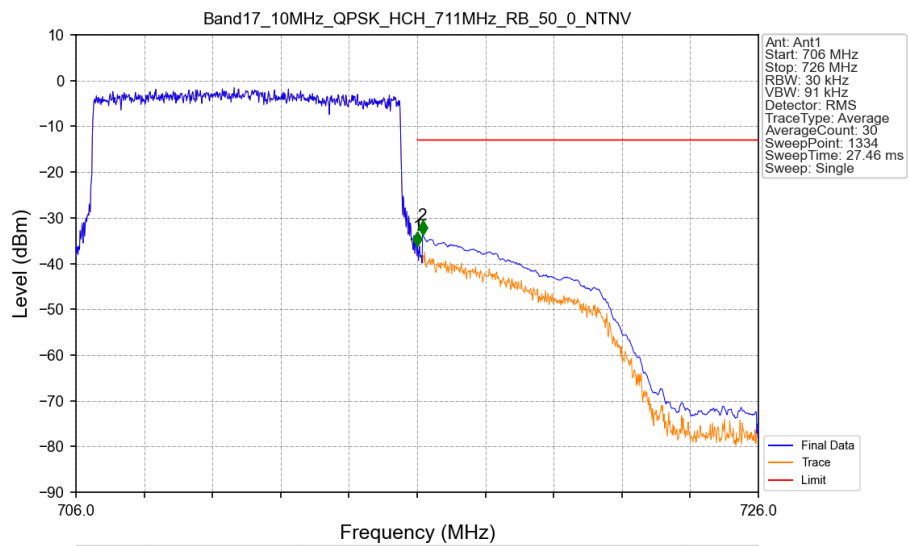


Band17 10MHz QPSK HCH 711MHz RB 1 49 NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	/	1	716.053	-23.28	-13	Pass
716	716.1	0.03	/	1	716.053	-23.28	-13	Pass
716.1	726	0.1	CHP	2	716.158	-23.28	-13	Pass

Band17_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	/	/	/	/	/	/
716	716.1	0.03	/	1	716.008	-36.13	-13	Pass
716.1	726	0.1	CHP	2	716.158	-33.80	-13	Pass