

# 1. Effective (Isotropic) Radiated Power Output Data

## 1.1 Test Result

### 1.1.1 B17\_5MHz\_ERP

Band: 17 / Bandwidth: 5MHz / NTNV										
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	706.5	1	0	21.38	-1.23	18	<=34.77	Pass		
			13	21.40	-1.23	18.02	<=34.77	Pass		
			24	21.42	-1.23	18.04	<=34.77	Pass		
		12	0	20.45	-1.23	17.07	<=34.77	Pass		
			6	20.51	-1.23	17.13	<=34.77	Pass		
			13	20.49	-1.23	17.11	<=34.77	Pass		
		25	0	20.60	-1.23	17.22	<=34.77	Pass		
		710	1	0	21.58	-1.23	18.2	<=34.77	Pass	
				13	21.47	-1.23	18.09	<=34.77	Pass	
	24			21.50	-1.23	18.12	<=34.77	Pass		
	12		0	20.45	-1.23	17.07	<=34.77	Pass		
			6	20.38	-1.23	17	<=34.77	Pass		
			13	20.49	-1.23	17.11	<=34.77	Pass		
	25	0	20.37	-1.23	16.99	<=34.77	Pass			
	713.5	1	0	21.39	-1.23	18.01	<=34.77	Pass		
			13	21.23	-1.23	17.85	<=34.77	Pass		
			24	21.22	-1.23	17.84	<=34.77	Pass		
		12	0	20.47	-1.23	17.09	<=34.77	Pass		
			6	20.38	-1.23	17	<=34.77	Pass		
			13	20.39	-1.23	17.01	<=34.77	Pass		
		25	0	20.32	-1.23	16.94	<=34.77	Pass		
		16QAM	706.5	1	0	20.95	-1.23	17.57	<=34.77	Pass
					13	20.95	-1.23	17.57	<=34.77	Pass
	24				20.87	-1.23	17.49	<=34.77	Pass	
12	0			19.62	-1.23	16.24	<=34.77	Pass		
	6			19.57	-1.23	16.19	<=34.77	Pass		
	13			19.89	-1.23	16.51	<=34.77	Pass		
25	0			19.54	-1.23	16.16	<=34.77	Pass		
710	1			0	20.02	-1.23	16.64	<=34.77	Pass	
				13	20.00	-1.23	16.62	<=34.77	Pass	
			24	20.05	-1.23	16.67	<=34.77	Pass		
	12		0	19.83	-1.23	16.45	<=34.77	Pass		
			6	19.83	-1.23	16.45	<=34.77	Pass		
			13	19.84	-1.23	16.46	<=34.77	Pass		
25	0		19.90	-1.23	16.52	<=34.77	Pass			
713.5	1		0	20.94	-1.23	17.56	<=34.77	Pass		
			13	20.91	-1.23	17.53	<=34.77	Pass		
			24	20.95	-1.23	17.57	<=34.77	Pass		
	12		0	19.83	-1.23	16.45	<=34.77	Pass		
			6	19.87	-1.23	16.49	<=34.77	Pass		
			13	19.79	-1.23	16.41	<=34.77	Pass		
	25		0	19.88	-1.23	16.5	<=34.77	Pass		

Note1: ERP=Conducted Power+Antenna Gain-2.15

### 1.1.2 B17\_10MHz\_ERP

Band: 17 / Bandwidth: 10MHz / NTNV								
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Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	709	1	0	21.45	-1.23	18.07	<=34.77	Pass		
			25	21.39	-1.23	18.01	<=34.77	Pass		
			49	21.43	-1.23	18.05	<=34.77	Pass		
		25	0	20.47	-1.23	17.09	<=34.77	Pass		
			13	20.45	-1.23	17.07	<=34.77	Pass		
			25	20.53	-1.23	17.15	<=34.77	Pass		
		50	0	20.50	-1.23	17.12	<=34.77	Pass		
		710	1	0	21.47	-1.23	18.09	<=34.77	Pass	
				25	21.50	-1.23	18.12	<=34.77	Pass	
	49			21.34	-1.23	17.96	<=34.77	Pass		
	25		0	20.52	-1.23	17.14	<=34.77	Pass		
			13	20.42	-1.23	17.04	<=34.77	Pass		
			25	20.42	-1.23	17.04	<=34.77	Pass		
	50		0	20.34	-1.23	16.96	<=34.77	Pass		
	711		1	0	21.53	-1.23	18.15	<=34.77	Pass	
				25	21.53	-1.23	18.15	<=34.77	Pass	
		49		21.50	-1.23	18.12	<=34.77	Pass		
		25	0	20.44	-1.23	17.06	<=34.77	Pass		
			13	20.37	-1.23	16.99	<=34.77	Pass		
			25	20.41	-1.23	17.03	<=34.77	Pass		
		50	0	20.46	-1.23	17.08	<=34.77	Pass		
		16QAM	709	1	0	21.36	-1.23	17.98	<=34.77	Pass
					25	21.29	-1.23	17.91	<=34.77	Pass
	49				21.37	-1.23	17.99	<=34.77	Pass	
25	0			19.56	-1.23	16.18	<=34.77	Pass		
	13			19.89	-1.23	16.51	<=34.77	Pass		
	25			19.88	-1.23	16.5	<=34.77	Pass		
50	0			19.77	-1.23	16.39	<=34.77	Pass		
710	1			0	20.69	-1.23	17.31	<=34.77	Pass	
				25	20.56	-1.23	17.18	<=34.77	Pass	
			49	20.57	-1.23	17.19	<=34.77	Pass		
	25		0	20.08	-1.23	16.7	<=34.77	Pass		
			13	20.06	-1.23	16.68	<=34.77	Pass		
			25	20.04	-1.23	16.66	<=34.77	Pass		
	50		0	19.88	-1.23	16.5	<=34.77	Pass		
	711		1	0	21.09	-1.23	17.71	<=34.77	Pass	
				25	20.95	-1.23	17.57	<=34.77	Pass	
49				21.07	-1.23	17.69	<=34.77	Pass		
25			0	19.93	-1.23	16.55	<=34.77	Pass		
			13	19.93	-1.23	16.55	<=34.77	Pass		
			25	19.96	-1.23	16.58	<=34.77	Pass		
50			0	19.92	-1.23	16.54	<=34.77	Pass		

Note1: ERP=Conducted Power+Antenna Gain-2.15

## 2. Frequency Stability

### 2.1 Test Result

#### 2.1.1 B17\_5MHz

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	3.27	3.848	0.0054	-2.5 to 2.5	Pass

					3.85	2.689	0.0038	-2.5 to 2.5	Pass
					4.43	0.486	0.0007	-2.5 to 2.5	Pass
				-30	3.85	-2.332	-0.0033	-2.5 to 2.5	Pass
				-20	3.85	-5.550	-0.0079	-2.5 to 2.5	Pass
				-10	3.85	-4.735	-0.0067	-2.5 to 2.5	Pass
				0	3.85	-4.492	-0.0064	-2.5 to 2.5	Pass
				10	3.85	-4.034	-0.0057	-2.5 to 2.5	Pass
				30	3.85	-4.334	-0.0061	-2.5 to 2.5	Pass
				40	3.85	-4.578	-0.0065	-2.5 to 2.5	Pass
				50	3.85	-4.077	-0.0058	-2.5 to 2.5	Pass
	710	25	0	20	3.27	6.051	0.0085	-2.5 to 2.5	Pass
					3.85	4.878	0.0069	-2.5 to 2.5	Pass
					4.43	3.290	0.0046	-2.5 to 2.5	Pass
				-30	3.85	-0.215	-0.0003	-2.5 to 2.5	Pass
				-20	3.85	0.815	0.0011	-2.5 to 2.5	Pass
				-10	3.85	-0.458	-0.0006	-2.5 to 2.5	Pass
				0	3.85	-3.333	-0.0047	-2.5 to 2.5	Pass
				10	3.85	-4.506	-0.0063	-2.5 to 2.5	Pass
				30	3.85	-4.292	-0.0060	-2.5 to 2.5	Pass
				40	3.85	-3.462	-0.0049	-2.5 to 2.5	Pass
	50	3.85	-2.618	-0.0037	-2.5 to 2.5	Pass			
	713.5	25	0	20	3.27	6.795	0.0095	-2.5 to 2.5	Pass
					3.85	5.307	0.0074	-2.5 to 2.5	Pass
					4.43	3.119	0.0044	-2.5 to 2.5	Pass
				-30	3.85	4.463	0.0063	-2.5 to 2.5	Pass
				-20	3.85	1.874	0.0026	-2.5 to 2.5	Pass
				-10	3.85	3.247	0.0046	-2.5 to 2.5	Pass
				0	3.85	3.133	0.0044	-2.5 to 2.5	Pass
10				3.85	4.048	0.0057	-2.5 to 2.5	Pass	
30				3.85	0.257	0.0004	-2.5 to 2.5	Pass	
40				3.85	2.546	0.0036	-2.5 to 2.5	Pass	
50	3.85	0.758	0.0011	-2.5 to 2.5	Pass				
16QAM	706.5	25	0	20	3.27	-4.578	-0.0065	-2.5 to 2.5	Pass
					3.85	-2.646	-0.0037	-2.5 to 2.5	Pass
					4.43	-1.802	-0.0026	-2.5 to 2.5	Pass
				-30	3.85	-2.332	-0.0033	-2.5 to 2.5	Pass
				-20	3.85	-2.532	-0.0036	-2.5 to 2.5	Pass
				-10	3.85	-0.057	-0.0001	-2.5 to 2.5	Pass
				0	3.85	-1.016	-0.0014	-2.5 to 2.5	Pass
				10	3.85	0.401	0.0006	-2.5 to 2.5	Pass
				30	3.85	-0.644	-0.0009	-2.5 to 2.5	Pass
				40	3.85	0.744	0.0011	-2.5 to 2.5	Pass
	50	3.85	1.116	0.0016	-2.5 to 2.5	Pass			
	710	25	0	20	3.27	-3.576	-0.0050	-2.5 to 2.5	Pass
					3.85	-8.368	-0.0118	-2.5 to 2.5	Pass
					4.43	-6.995	-0.0099	-2.5 to 2.5	Pass
				-30	3.85	-3.934	-0.0055	-2.5 to 2.5	Pass
				-20	3.85	-4.520	-0.0064	-2.5 to 2.5	Pass
				-10	3.85	-3.061	-0.0043	-2.5 to 2.5	Pass
				0	3.85	-5.007	-0.0071	-2.5 to 2.5	Pass
				10	3.85	-6.280	-0.0088	-2.5 to 2.5	Pass
				30	3.85	-4.406	-0.0062	-2.5 to 2.5	Pass
				40	3.85	-6.394	-0.0090	-2.5 to 2.5	Pass
	50	3.85	-5.150	-0.0073	-2.5 to 2.5	Pass			
	713.5	25	0	20	3.27	1.731	0.0024	-2.5 to 2.5	Pass
					3.85	-0.157	-0.0002	-2.5 to 2.5	Pass
					4.43	1.245	0.0017	-2.5 to 2.5	Pass
				-30	3.85	0.358	0.0005	-2.5 to 2.5	Pass
				-20	3.85	1.774	0.0025	-2.5 to 2.5	Pass

				-10	3.85	1.016	0.0014	-2.5 to 2.5	Pass
				0	3.85	1.130	0.0016	-2.5 to 2.5	Pass
				10	3.85	2.046	0.0029	-2.5 to 2.5	Pass
				30	3.85	0.901	0.0013	-2.5 to 2.5	Pass
				40	3.85	1.245	0.0017	-2.5 to 2.5	Pass
				50	3.85	-2.789	-0.0039	-2.5 to 2.5	Pass

### 2.1.2 B17\_10MHz

Band: 17 / Bandwidth: 10MHz										
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict	
		Size	Offset				Result	Limit		
QPSK	709	50	0	20	3.27	-37.265	-0.0526	-2.5 to 2.5	Pass	
					3.85	-30.999	-0.0437	-2.5 to 2.5	Pass	
					4.43	-15.664	-0.0221	-2.5 to 2.5	Pass	
				-30	3.85	-33.288	-0.0470	-2.5 to 2.5	Pass	
					-20	3.85	-29.211	-0.0412	-2.5 to 2.5	Pass
						-10	3.85	-25.978	-0.0366	-2.5 to 2.5
					0	3.85	-23.746	-0.0335	-2.5 to 2.5	Pass
					10	3.85	-4.163	-0.0059	-2.5 to 2.5	Pass
					30	3.85	-28.996	-0.0409	-2.5 to 2.5	Pass
					40	3.85	-35.849	-0.0506	-2.5 to 2.5	Pass
					50	3.85	-23.246	-0.0328	-2.5 to 2.5	Pass
					710	50	0	20	3.27	5.879
	3.85	3.119	0.0044	-2.5 to 2.5					Pass	
	4.43	2.346	0.0033	-2.5 to 2.5					Pass	
	-30	3.85	-3.762	-0.0053				-2.5 to 2.5	Pass	
		-20	3.85	-0.758				-0.0011	-2.5 to 2.5	Pass
			-10	3.85				2.232	0.0031	-2.5 to 2.5
		0	3.85	1.702				0.0024	-2.5 to 2.5	Pass
		10	3.85	1.459				0.0021	-2.5 to 2.5	Pass
		30	3.85	-0.157				-0.0002	-2.5 to 2.5	Pass
		40	3.85	-2.589				-0.0036	-2.5 to 2.5	Pass
		50	3.85	-2.403				-0.0034	-2.5 to 2.5	Pass
		711	50	0				20	3.27	6.437
	3.85				6.738	0.0095	-2.5 to 2.5		Pass	
	4.43				5.622	0.0079	-2.5 to 2.5		Pass	
	-30				3.85	4.034	0.0057	-2.5 to 2.5	Pass	
					-20	3.85	5.093	0.0072	-2.5 to 2.5	Pass
						-10	3.85	4.635	0.0065	-2.5 to 2.5
					0	3.85	2.546	0.0036	-2.5 to 2.5	Pass
					10	3.85	2.418	0.0034	-2.5 to 2.5	Pass
30					3.85	4.520	0.0064	-2.5 to 2.5	Pass	
40					3.85	6.037	0.0085	-2.5 to 2.5	Pass	
50					3.85	4.792	0.0067	-2.5 to 2.5	Pass	
16QAM					709	50	0	20	3.27	-43.087
	3.85	-10.457	-0.0147	-2.5 to 2.5					Pass	
	4.43	-21.915	-0.0309	-2.5 to 2.5					Pass	
	-30	3.85	-29.125	-0.0411				-2.5 to 2.5	Pass	
		-20	3.85	-35.648				-0.0503	-2.5 to 2.5	Pass
			-10	3.85				-42.329	-0.0597	-2.5 to 2.5
		0	3.85	-49.868				-0.0703	-2.5 to 2.5	Pass
		10	3.85	1.273				0.0018	-2.5 to 2.5	Pass
		30	3.85	-5.980				-0.0084	-2.5 to 2.5	Pass
		40	3.85	-9.642				-0.0136	-2.5 to 2.5	Pass
		50	3.85	-13.475				-0.0190	-2.5 to 2.5	Pass
		710	50	0				20	3.27	-2.532

					3.85	-2.146	-0.0030	-2.5 to 2.5	Pass	
					4.43	-2.675	-0.0038	-2.5 to 2.5	Pass	
				-30	3.85	-3.390	-0.0048	-2.5 to 2.5	Pass	
				-20	3.85	-4.463	-0.0063	-2.5 to 2.5	Pass	
				-10	3.85	-3.247	-0.0046	-2.5 to 2.5	Pass	
				0	3.85	-3.133	-0.0044	-2.5 to 2.5	Pass	
				10	3.85	-0.587	-0.0008	-2.5 to 2.5	Pass	
				30	3.85	-0.973	-0.0014	-2.5 to 2.5	Pass	
				40	3.85	-2.518	-0.0035	-2.5 to 2.5	Pass	
	50	3.85	-3.190	-0.0045	-2.5 to 2.5	Pass				
	711	50	0	20		3.27	4.520	0.0064	-2.5 to 2.5	Pass
						3.85	4.978	0.0070	-2.5 to 2.5	Pass
						4.43	6.208	0.0087	-2.5 to 2.5	Pass
				-30	3.85	5.064	0.0071	-2.5 to 2.5	Pass	
				-20	3.85	5.093	0.0072	-2.5 to 2.5	Pass	
				-10	3.85	5.622	0.0079	-2.5 to 2.5	Pass	
				0	3.85	5.894	0.0083	-2.5 to 2.5	Pass	
				10	3.85	6.280	0.0088	-2.5 to 2.5	Pass	
30				3.85	5.808	0.0082	-2.5 to 2.5	Pass		
40	3.85	3.662	0.0052	-2.5 to 2.5	Pass					
50	3.85	5.121	0.0072	-2.5 to 2.5	Pass					

### 3. Modulation Characteristics

#### 3.1 Test Result

##### 3.1.1 B17\_5MHz

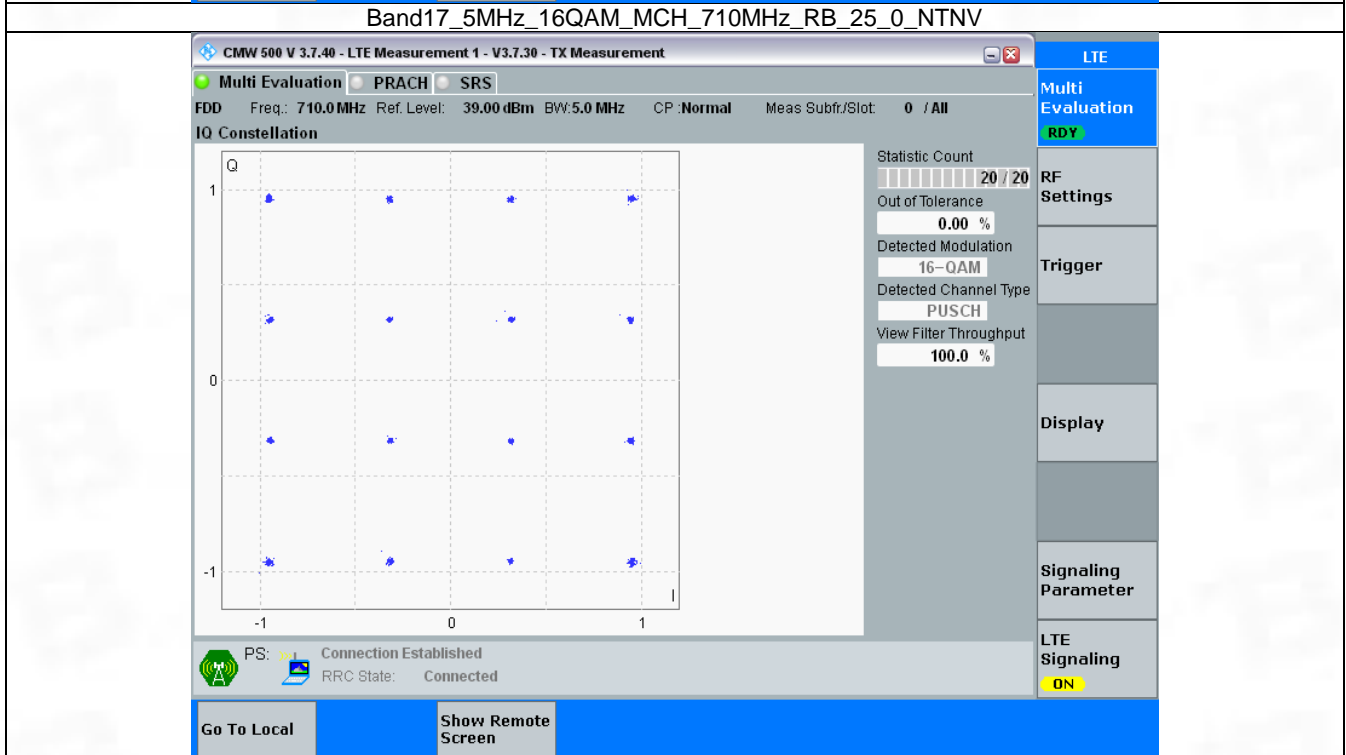
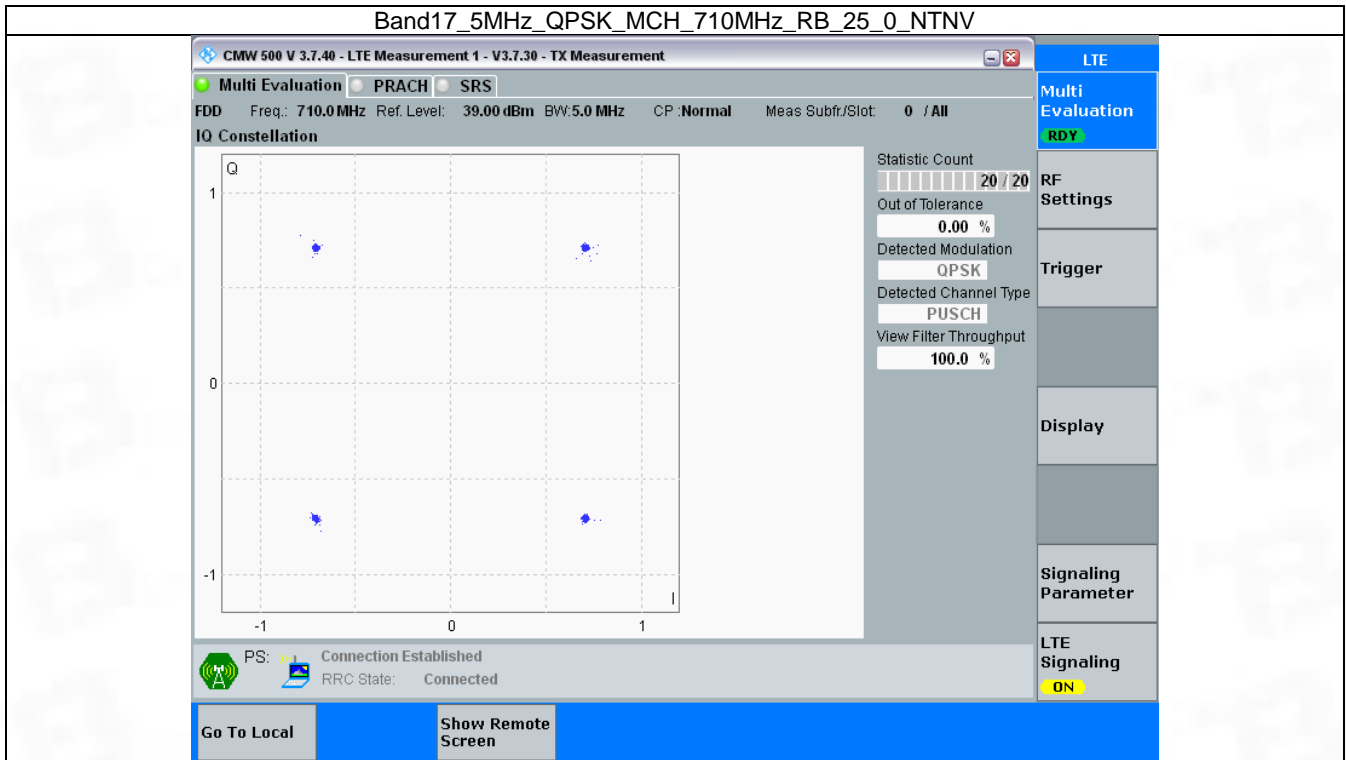
Band: 17 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	710	25	0	Refer To Test Graph		Pass
16QAM	710	25	0	Refer To Test Graph		Pass

##### 3.1.2 B17\_10MHz

Band: 17 / Bandwidth: 10MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	710	50	0	Refer To Test Graph		Pass
16QAM	710	50	0	Refer To Test Graph		Pass

### 3.2 Test Graph

#### 3.2.1 B17\_5MHz



### 3.2.2 B17\_10MHz

**Band17\_10MHz\_QPSK\_MCH\_710MHz\_RB\_50\_0\_NTNV**

CMW 500 V 3.7.40 - LTE Measurement 1 - V3.7.30 - TX Measurement

Multi Evaluation PRACH SRS

FDD Freq.: 710.0 MHz Ref. Level: 38.90 dBm BW: 10.0 MHz CP: Normal Meas Subfr./Slot: 0 / All

IQ Constellation

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: QPSK  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

**Band17\_10MHz\_16QAM\_MCH\_710MHz\_RB\_50\_0\_NTNV**

CMW 500 V 3.7.40 - LTE Measurement 1 - V3.7.30 - TX Measurement

Multi Evaluation PRACH SRS

FDD Freq.: 710.0 MHz Ref. Level: 38.90 dBm BW: 10.0 MHz CP: Normal Meas Subfr./Slot: 0 / All

IQ Constellation

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: 16-QAM  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

## 4. 99% & 26dB Bandwidth

### 4.1 Test Result

#### 4.1.1 Band17\_OBW

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	4.560	/	Pass
		710	25	0	4.564	/	Pass
		713.5	25	0	4.537	/	Pass
	16QAM	706.5	25	0	4.545	/	Pass
		710	25	0	4.549	/	Pass
		713.5	25	0	4.559	/	Pass
10	QPSK	709	50	0	9.085	/	Pass
		710	50	0	9.051	/	Pass
		711	50	0	9.057	/	Pass
	16QAM	709	50	0	9.067	/	Pass
		710	50	0	9.062	/	Pass
		711	50	0	9.063	/	Pass

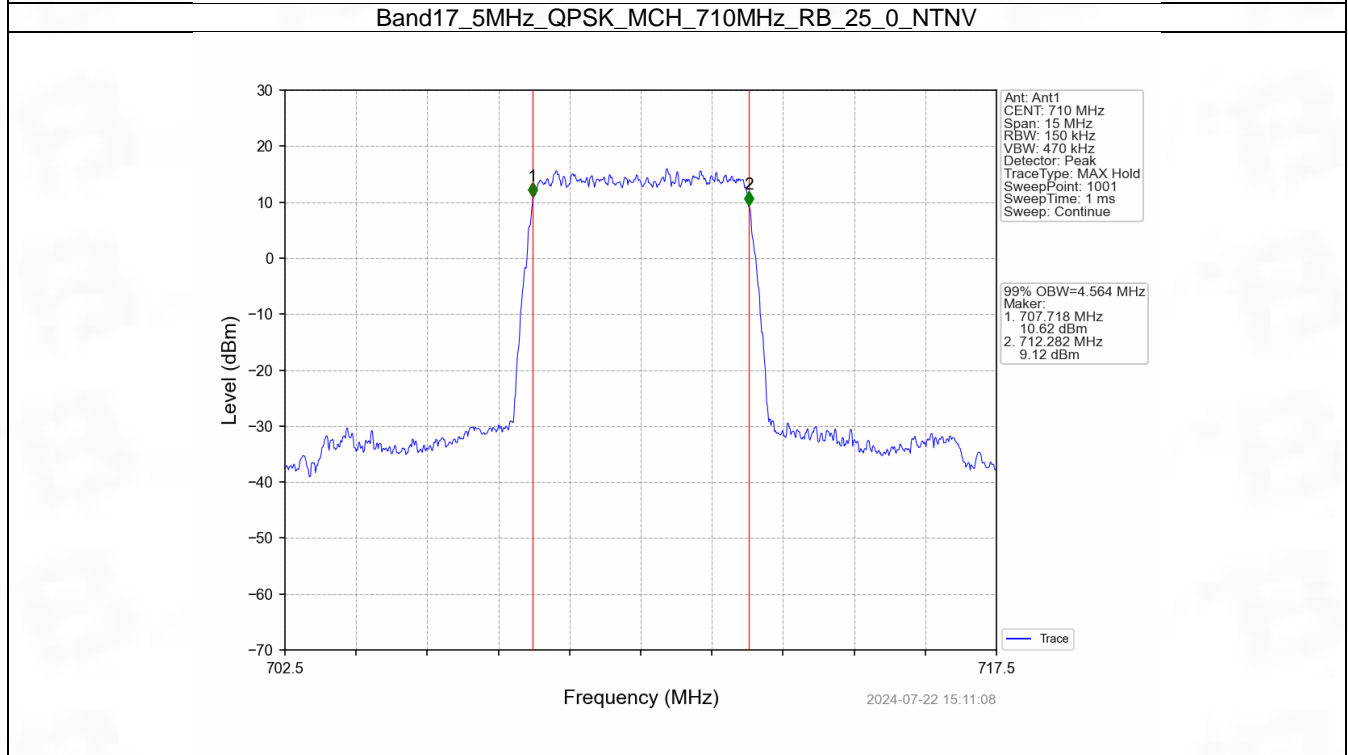
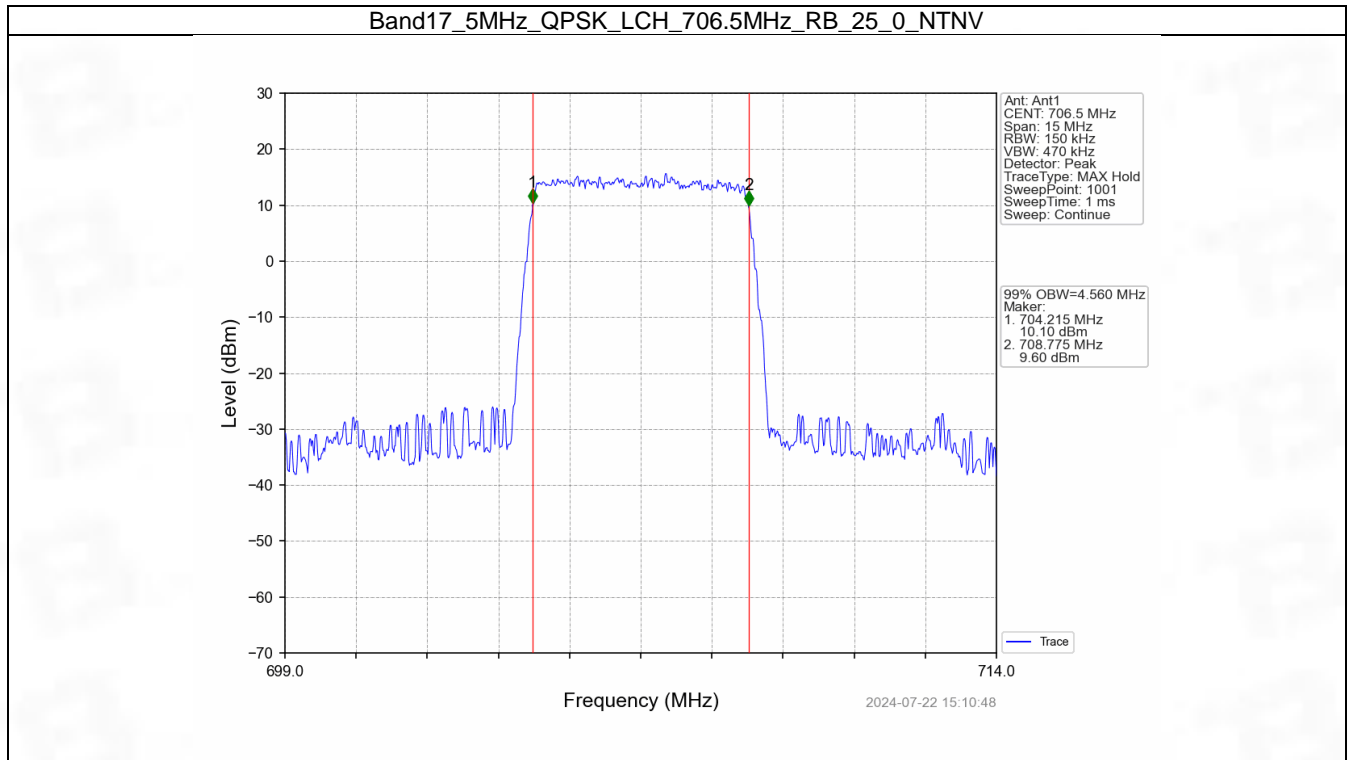
#### 4.1.2 Band17\_XDB

Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	706.5	25	0	5.057	/	Pass
		710	25	0	5.055	/	Pass
		713.5	25	0	5.036	/	Pass
	16QAM	706.5	25	0	5.073	/	Pass
		710	25	0	5.078	/	Pass
		713.5	25	0	5.093	/	Pass
10	QPSK	709	50	0	10.052	/	Pass
		710	50	0	10.067	/	Pass
		711	50	0	10.096	/	Pass
	16QAM	709	50	0	10.144	/	Pass
		710	50	0	10.009	/	Pass
		711	50	0	10.091	/	Pass

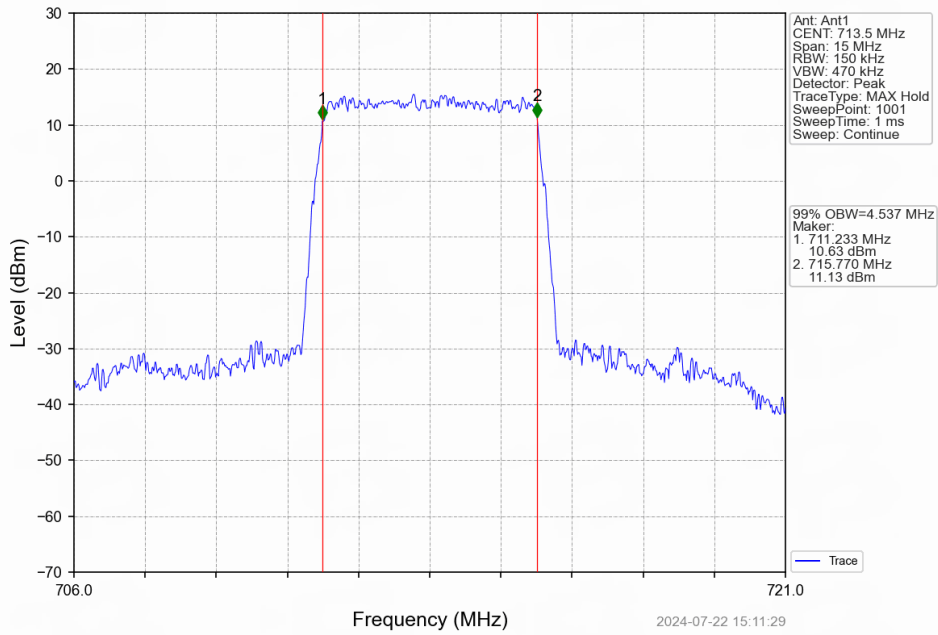


## 4.2 Test Graph

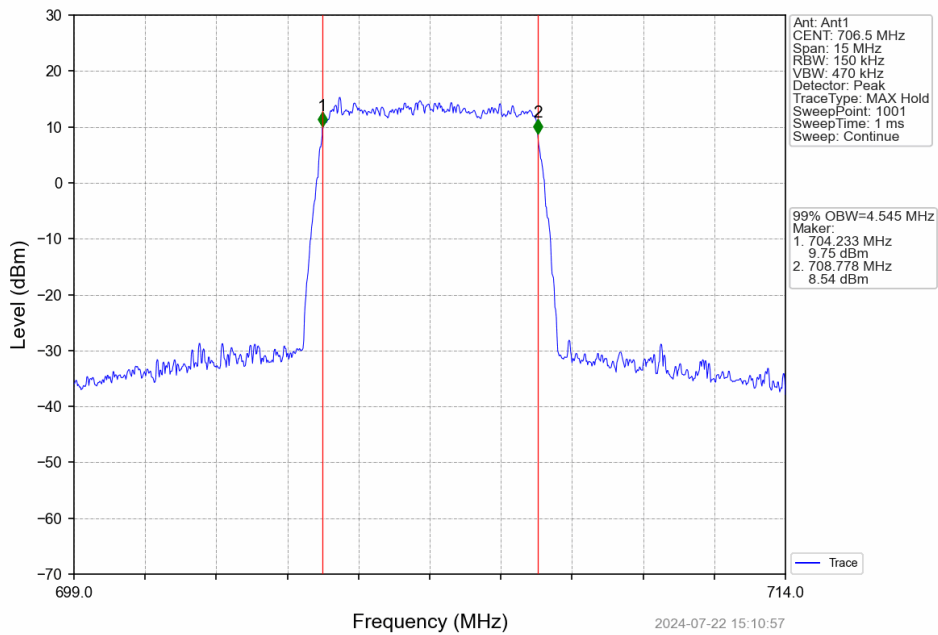
### 4.2.1 Band17\_OBW



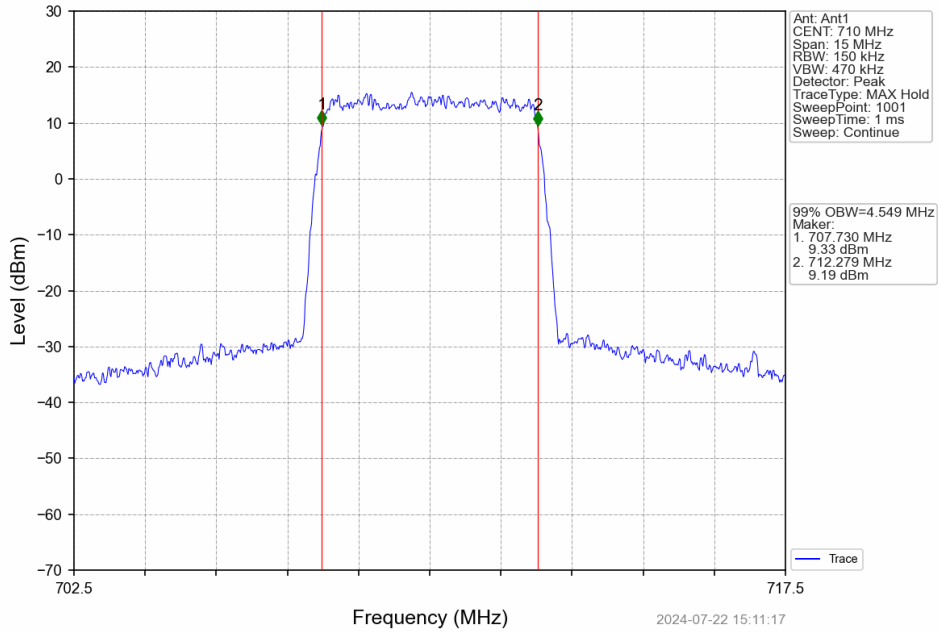
Band17\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



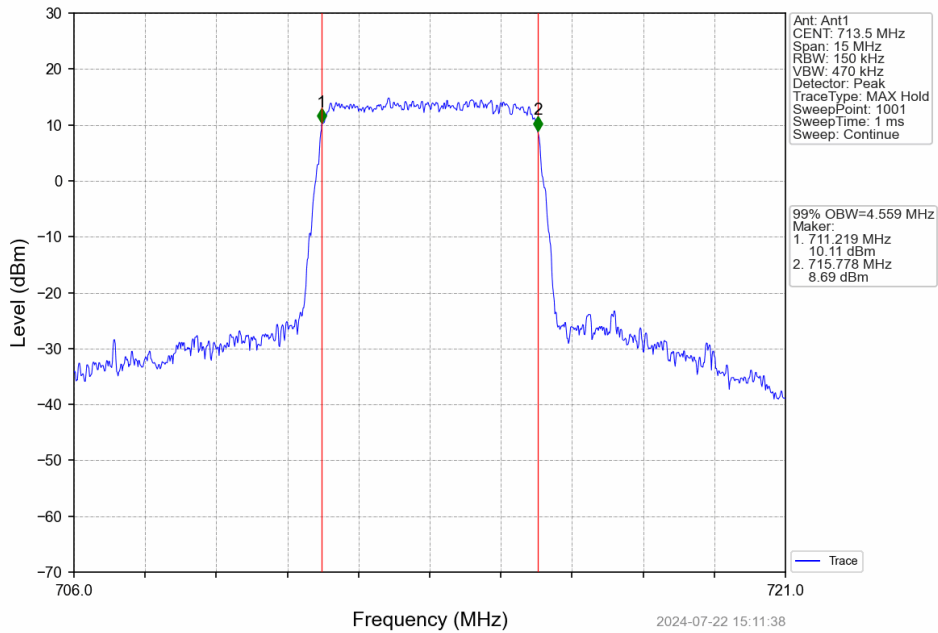
Band17\_5MHz\_16QAM\_LCH\_706.5MHz\_RB\_25\_0\_NTNV



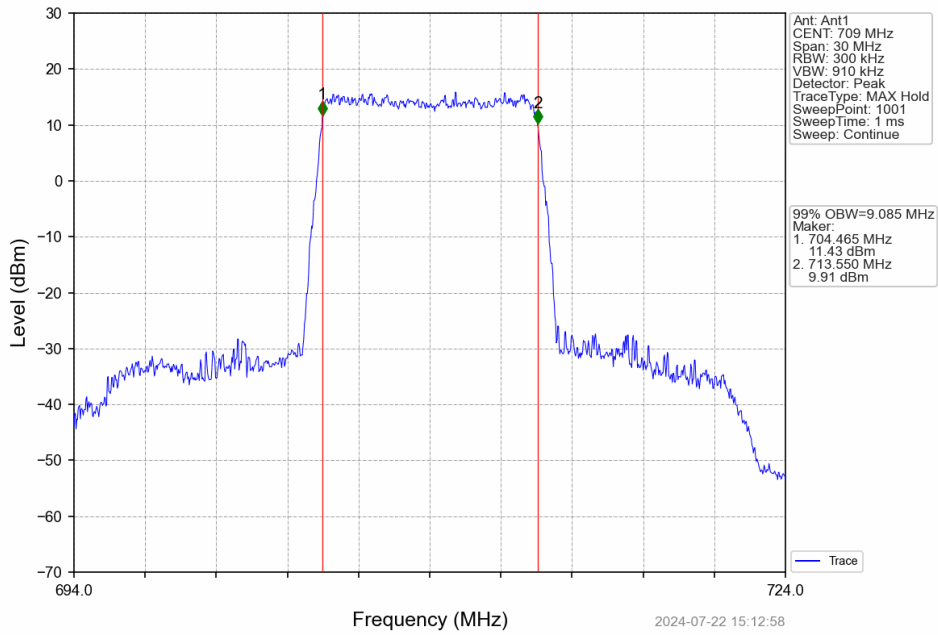
Band17\_5MHz\_16QAM\_MCH\_710MHz\_RB\_25\_0\_NTNV



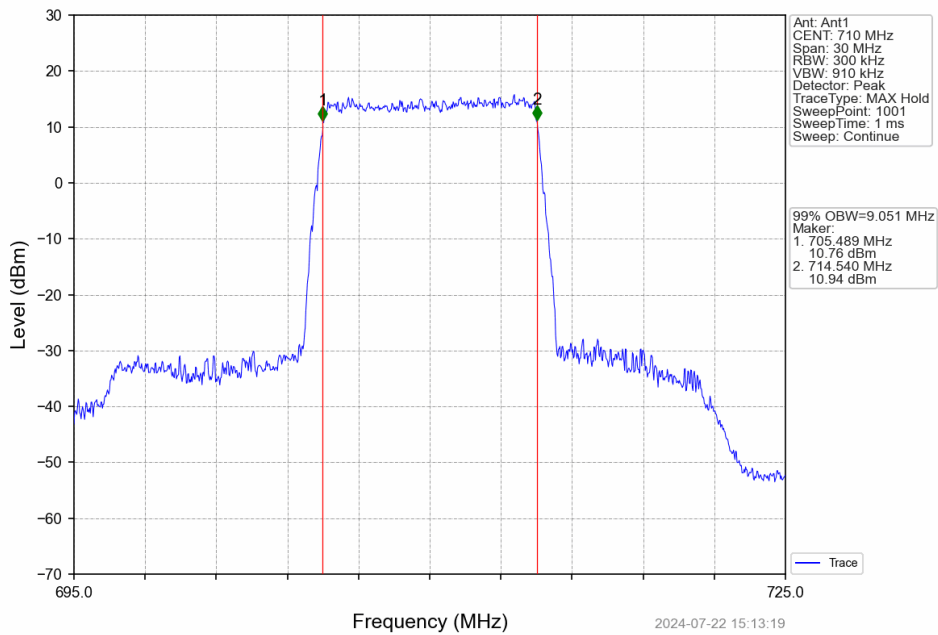
Band17\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



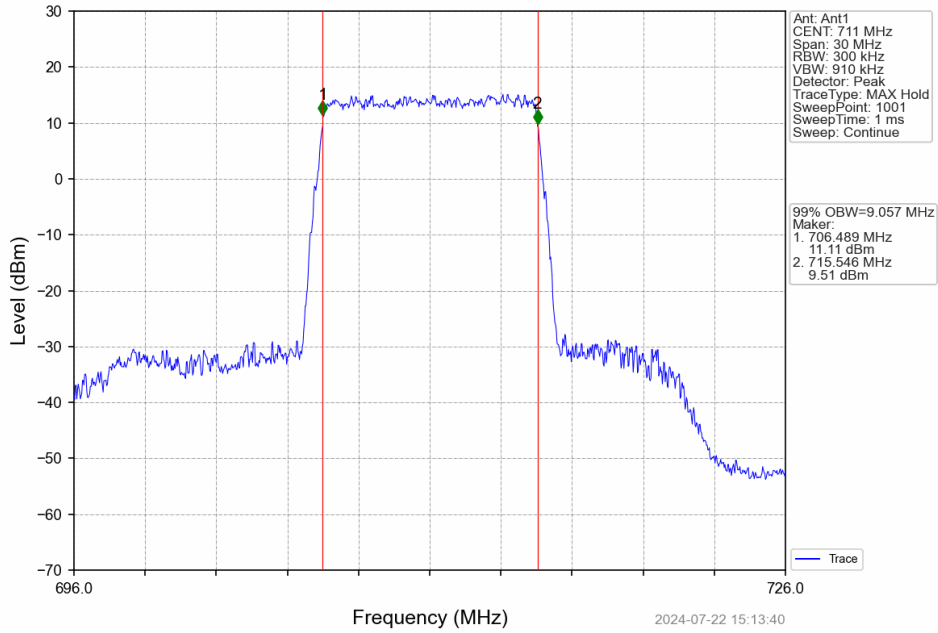
Band17\_10MHz\_QPSK\_LCH\_709MHz\_RB\_50\_0\_NTNV



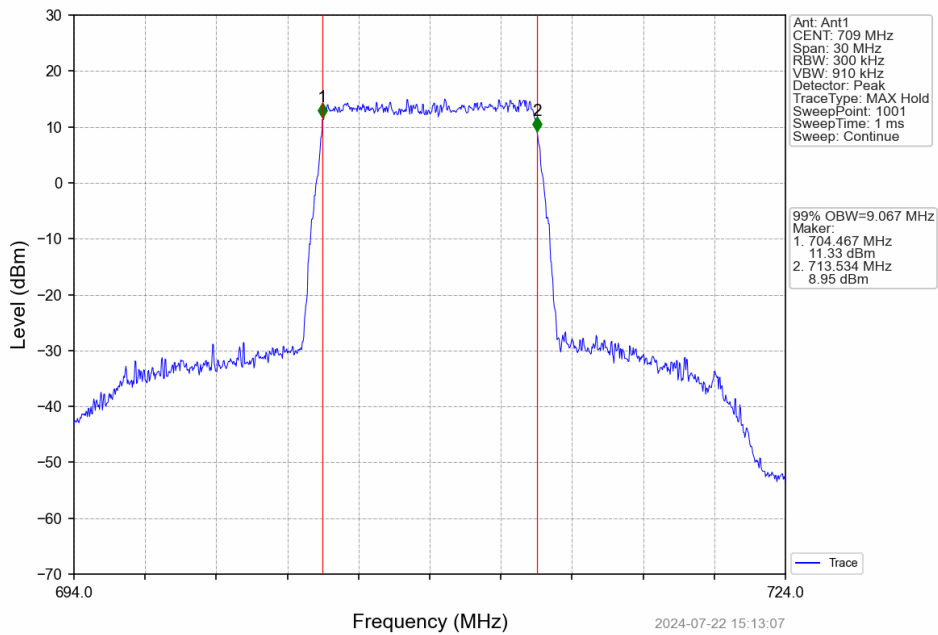
Band17\_10MHz\_QPSK\_MCH\_710MHz\_RB\_50\_0\_NTNV



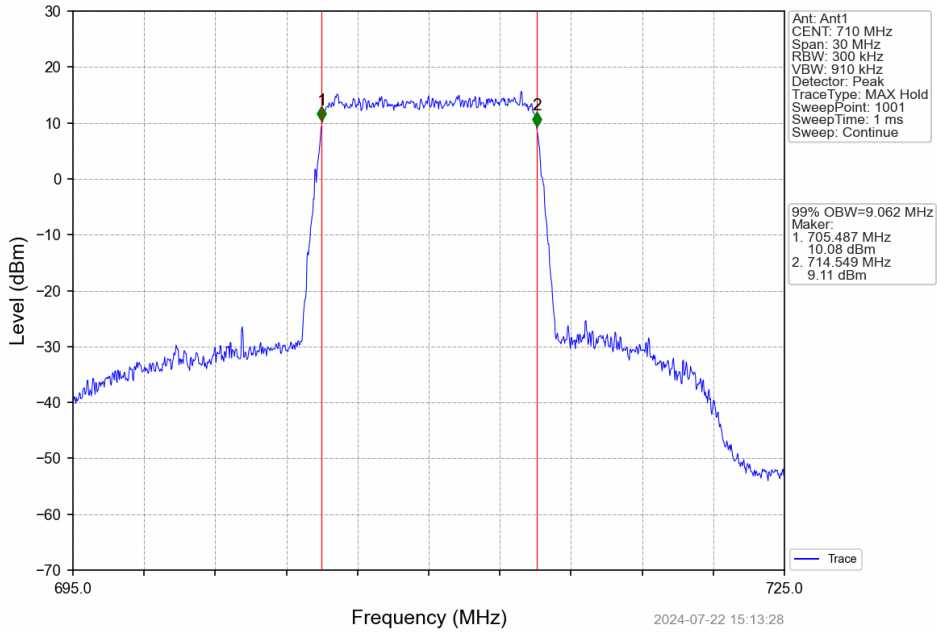
Band17\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



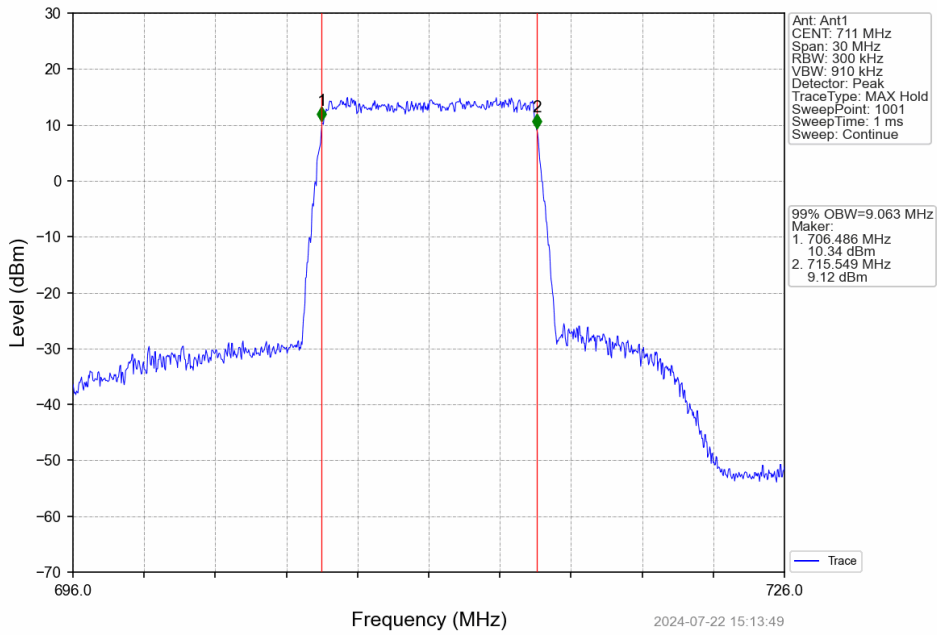
Band17\_10MHz\_16QAM\_LCH\_709MHz\_RB\_50\_0\_NTNV



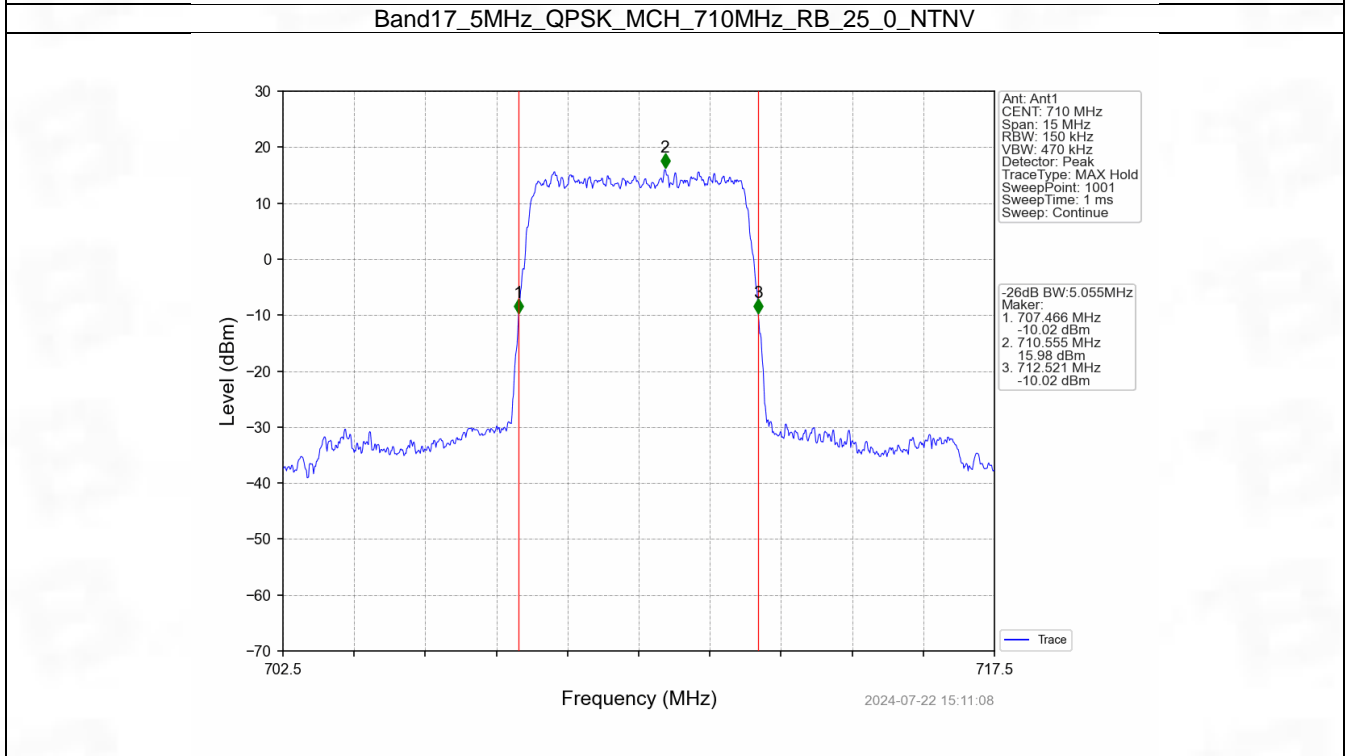
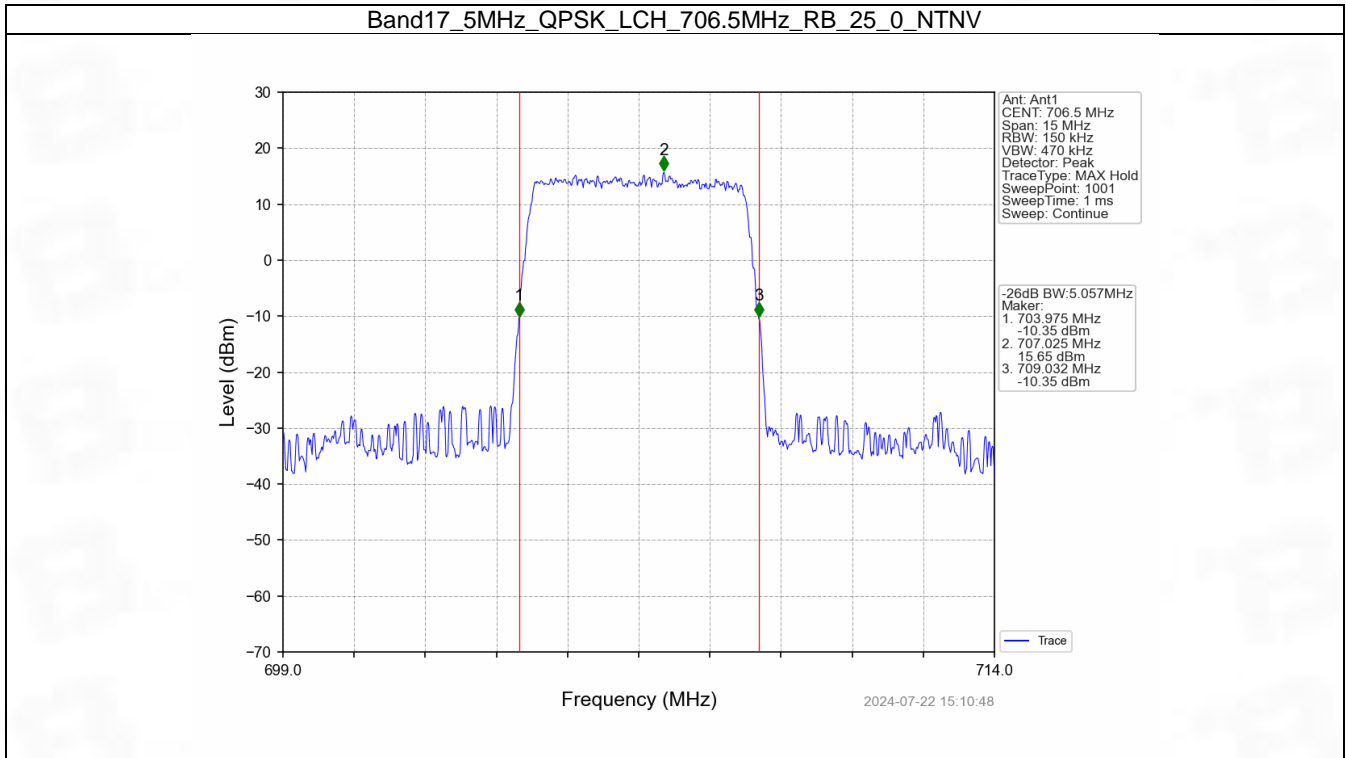
Band17\_10MHz\_16QAM\_MCH\_710MHz\_RB\_50\_0\_NTNV



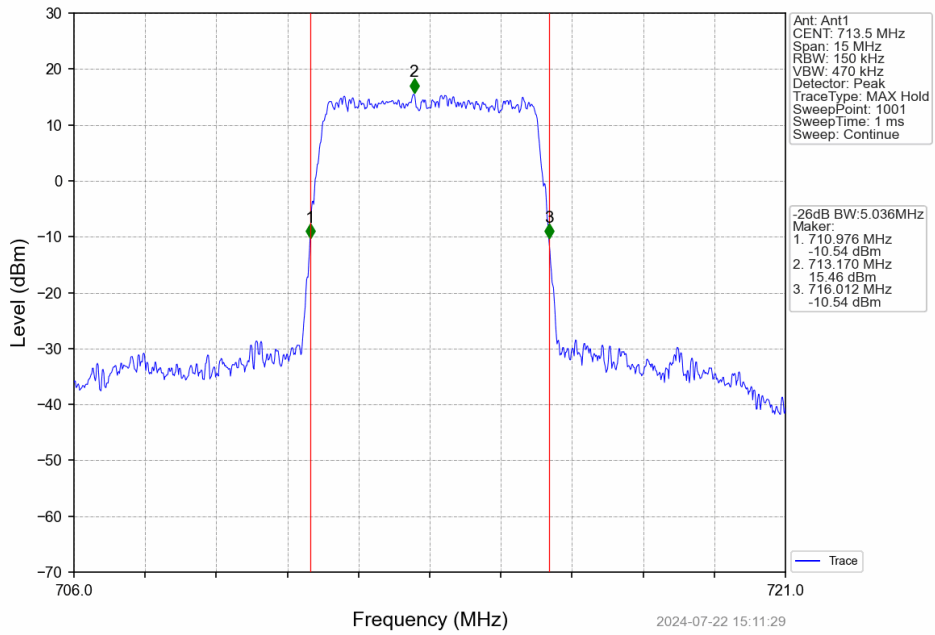
Band17\_10MHz\_16QAM\_HCH\_711MHz\_RB\_50\_0\_NTNV



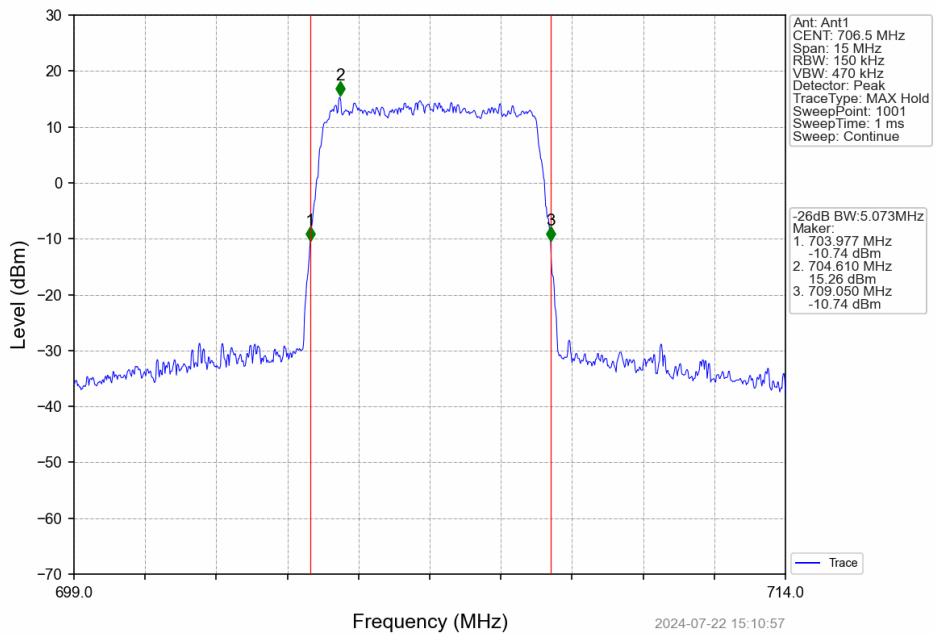
### 4.2.2 Band17\_XDB



Band17\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV

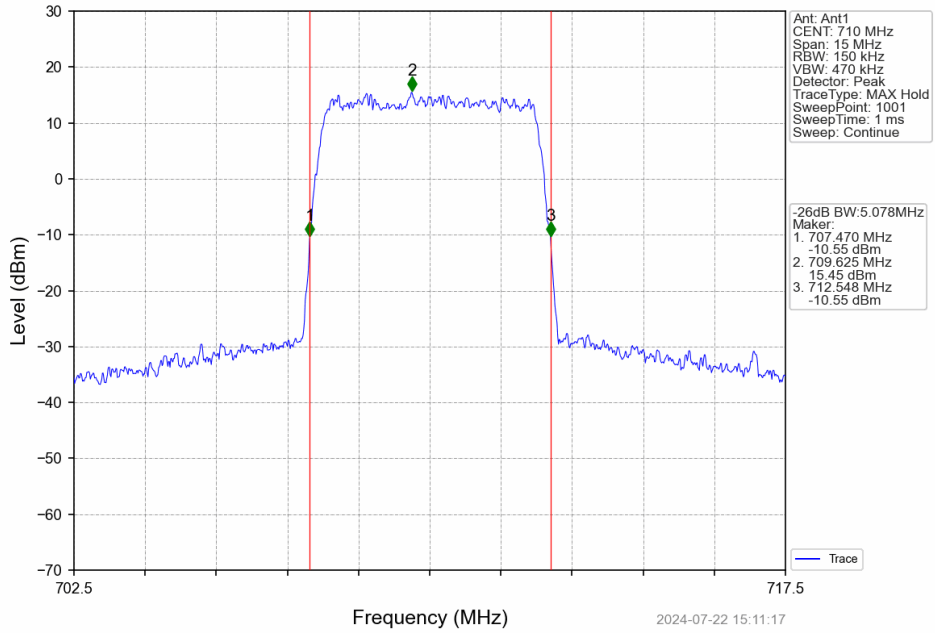


Band17\_5MHz\_16QAM\_LCH\_706.5MHz\_RB\_25\_0\_NTNV

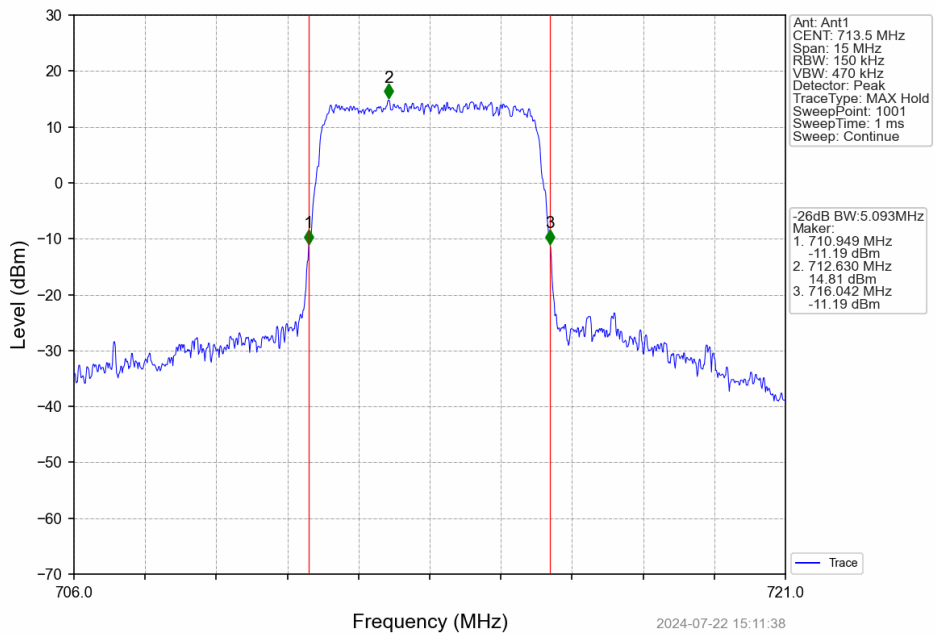




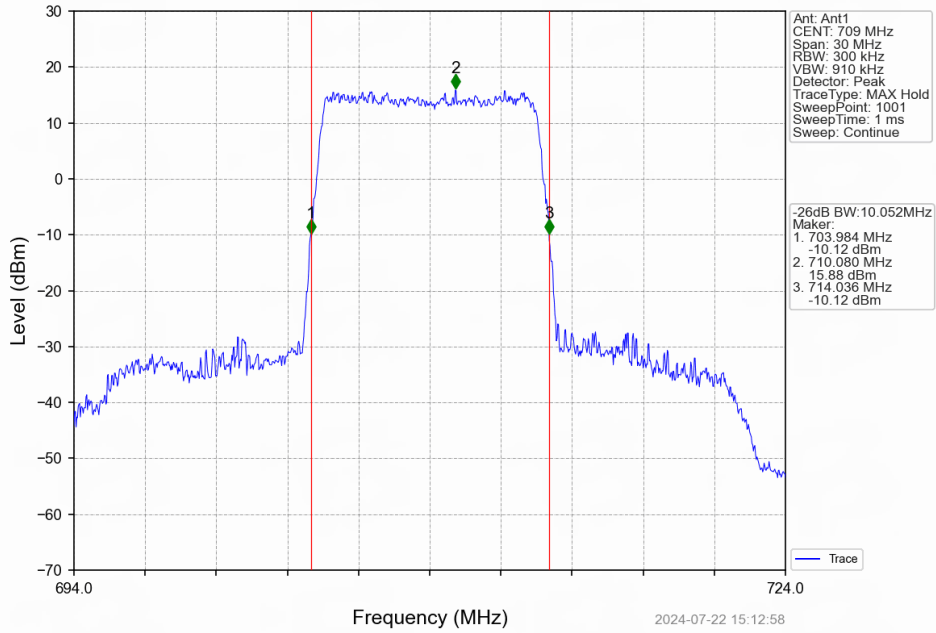
Band17\_5MHz\_16QAM\_MCH\_710MHz\_RB\_25\_0\_NTNV



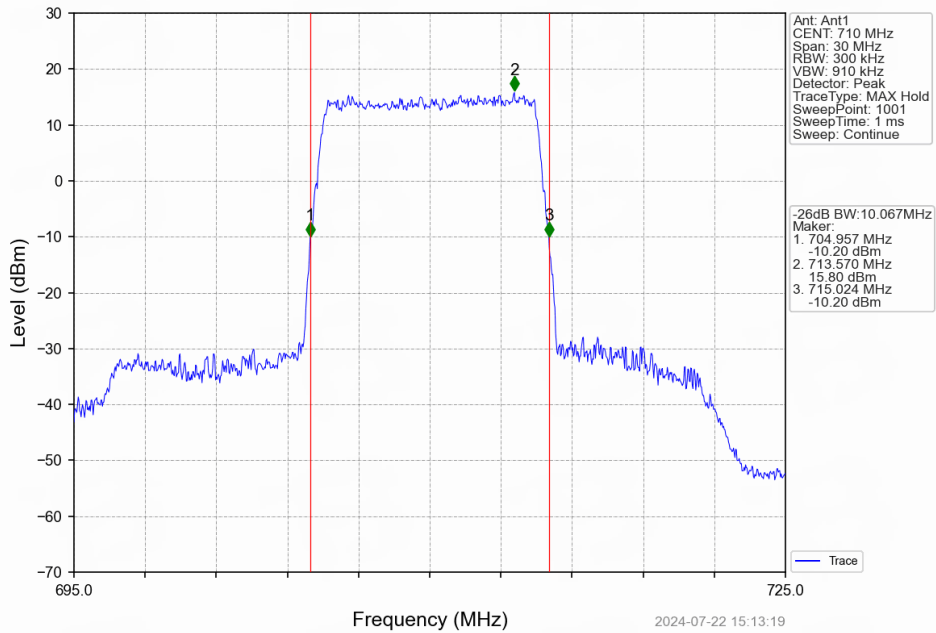
Band17\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



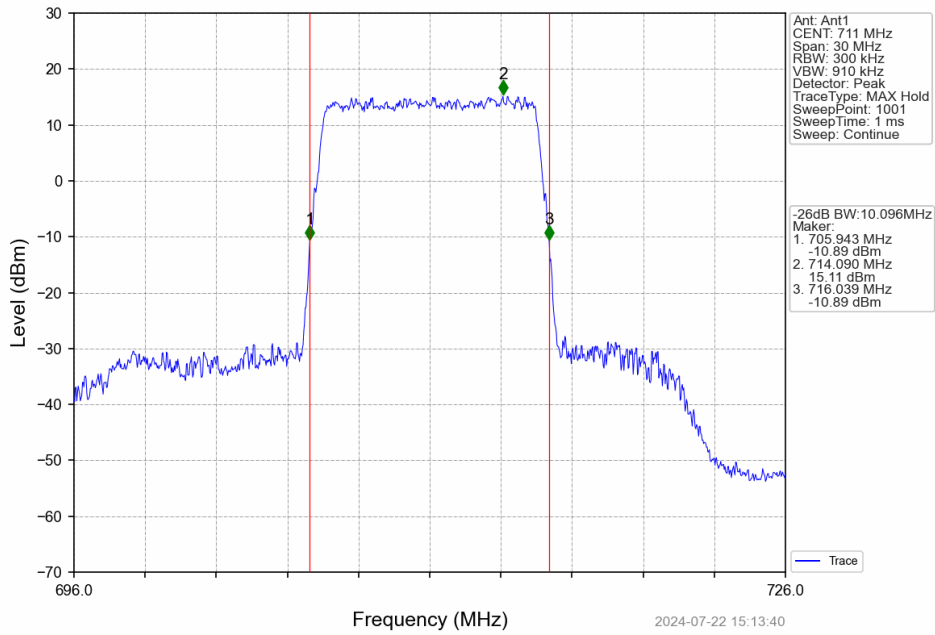
Band17\_10MHz\_QPSK\_LCH\_709MHz\_RB\_50\_0\_NTNV



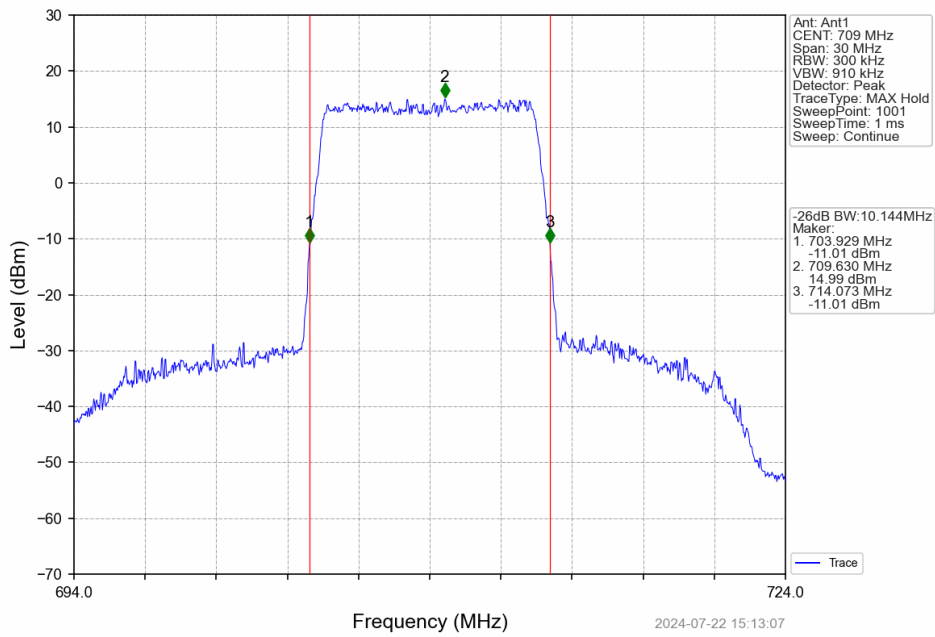
Band17\_10MHz\_QPSK\_MCH\_710MHz\_RB\_50\_0\_NTNV



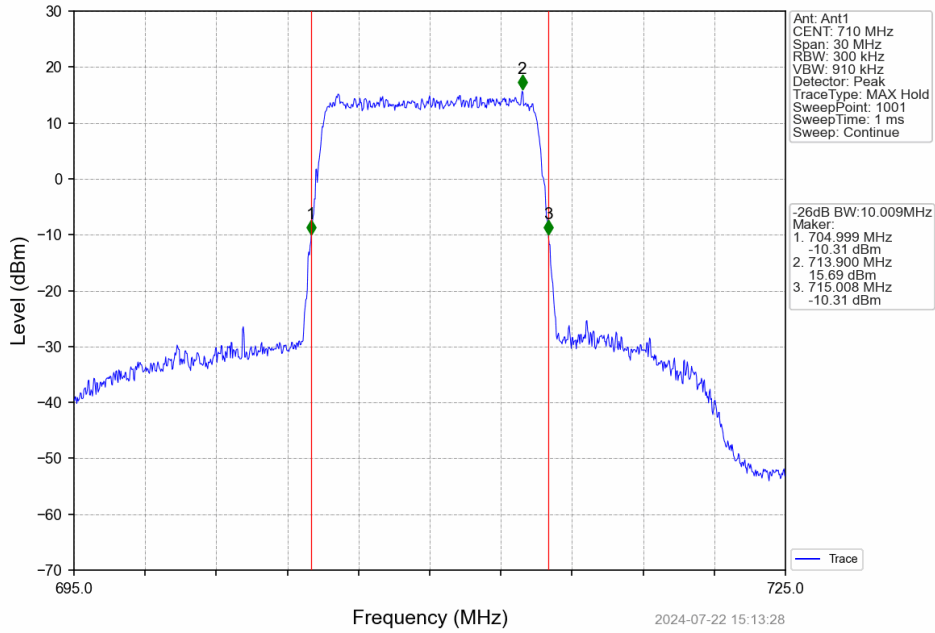
Band17\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



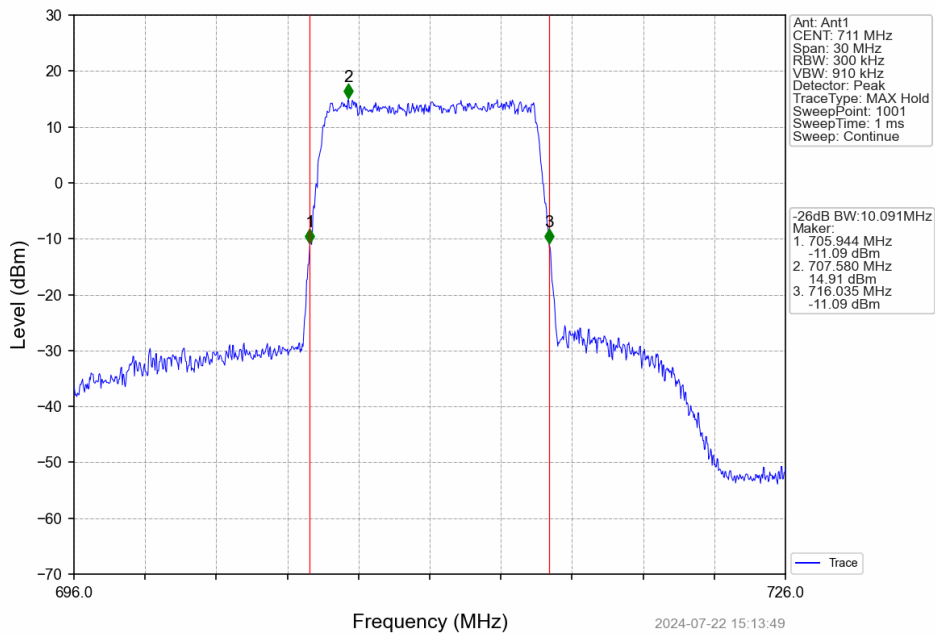
Band17\_10MHz\_16QAM\_LCH\_709MHz\_RB\_50\_0\_NTNV



Band17\_10MHz\_16QAM\_MCH\_710MHz\_RB\_50\_0\_NTNV



Band17\_10MHz\_16QAM\_HCH\_711MHz\_RB\_50\_0\_NTNV



## 5. Peak-Average Ratio

### 5.1 Test Result

#### 5.1.1 B17\_5MHz

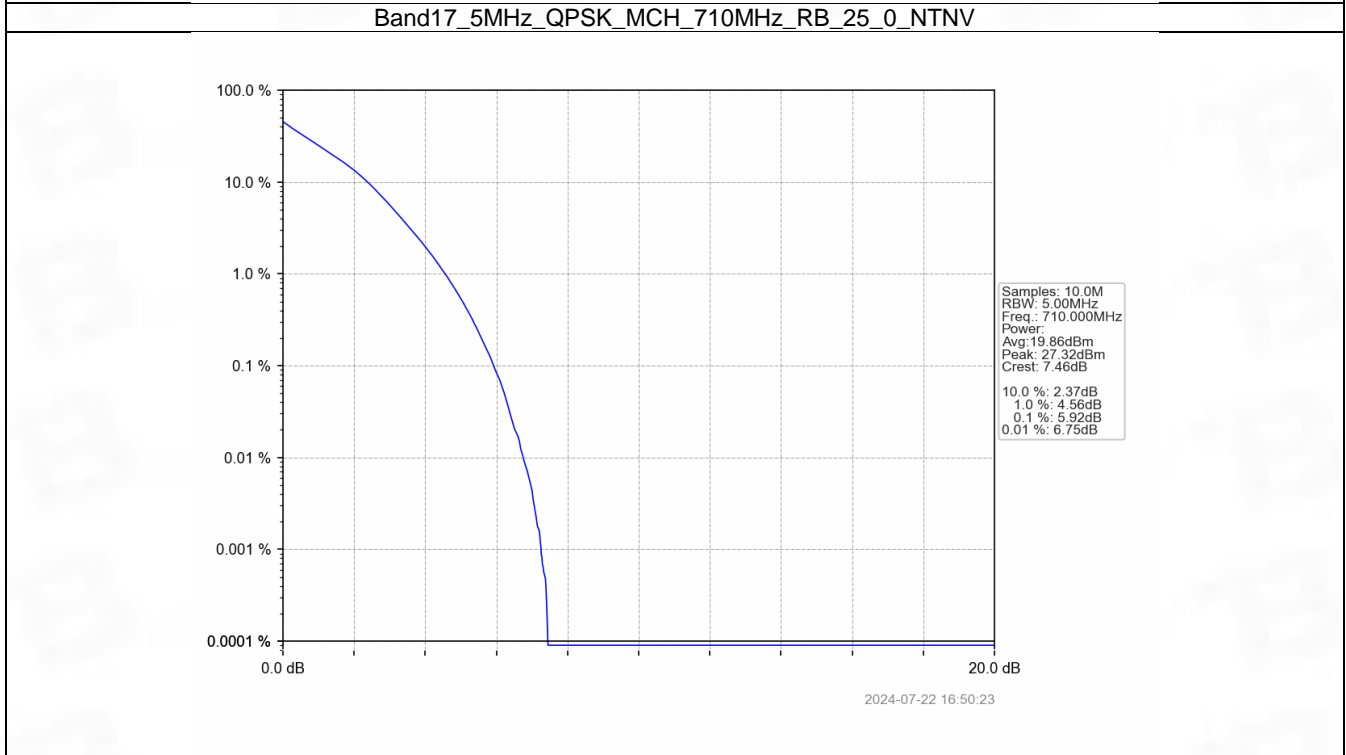
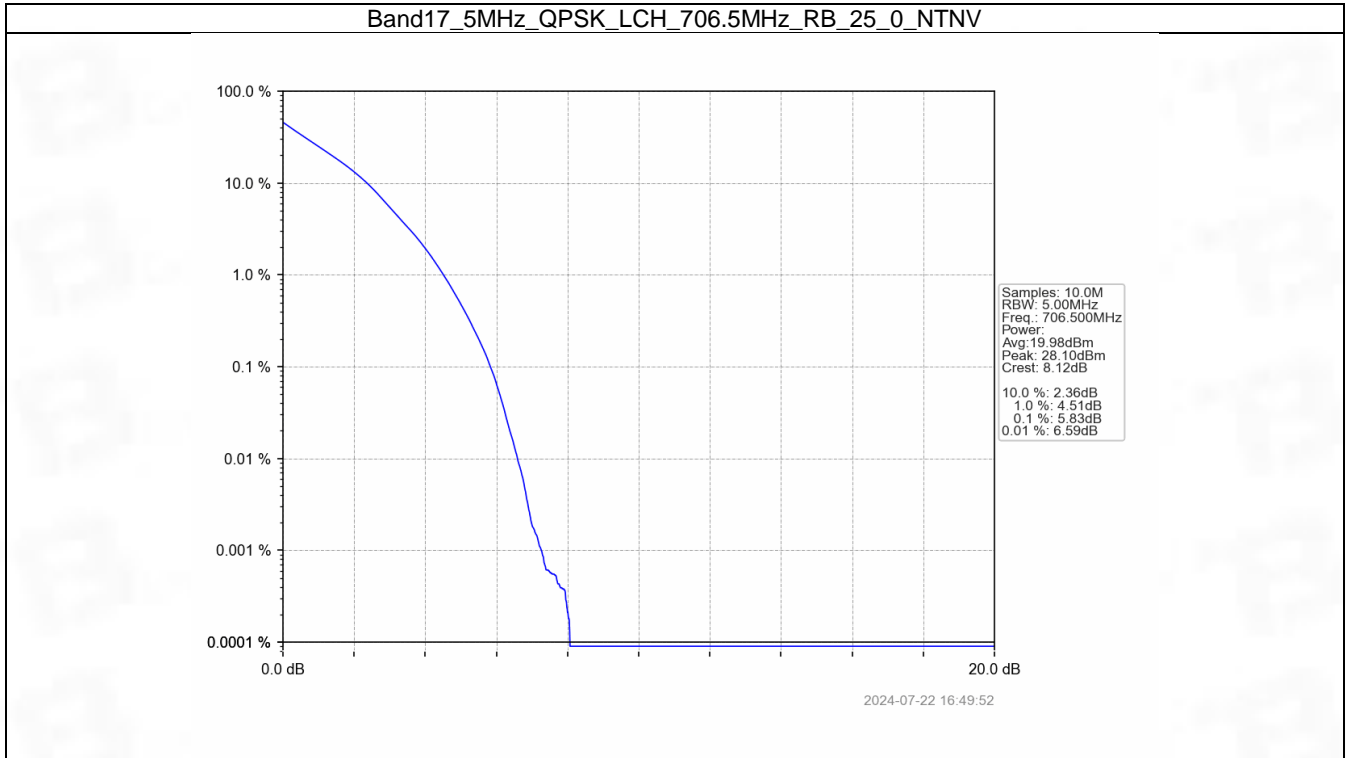
Band: 17 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	706.5	25	0	5.83	<=13	Pass
	710	25	0	5.92	<=13	Pass
	713.5	25	0	5.73	<=13	Pass
16QAM	706.5	25	0	6.51	<=13	Pass
	710	25	0	6.57	<=13	Pass
	713.5	25	0	6.47	<=13	Pass

#### 5.1.2 B17\_10MHz

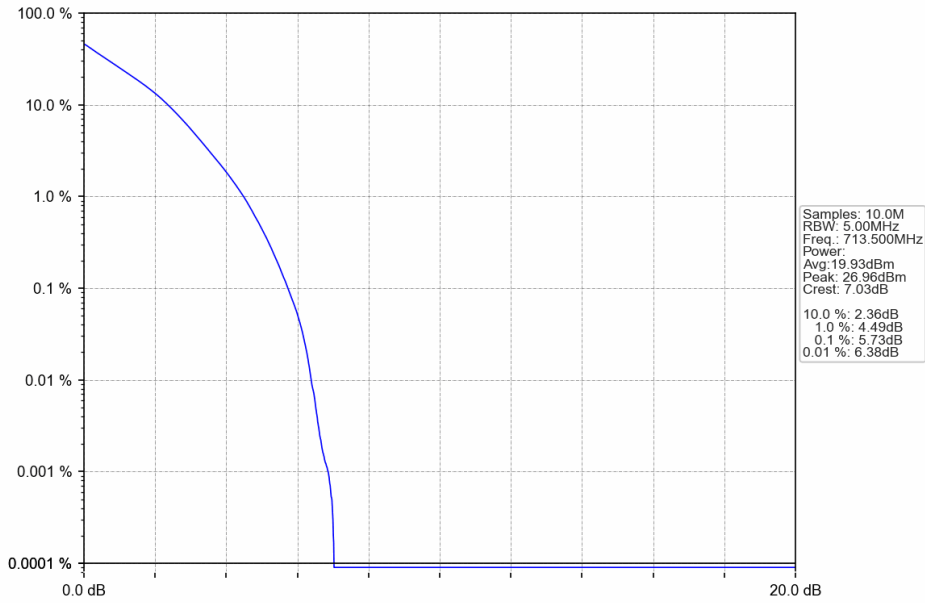
Band: 17 / Bandwidth: 10MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	709	50	0	5.91	<=13	Pass
	710	50	0	5.90	<=13	Pass
	711	50	0	5.82	<=13	Pass
16QAM	709	50	0	6.61	<=13	Pass
	710	50	0	6.56	<=13	Pass
	711	50	0	6.53	<=13	Pass

## 5.2 Test Graph

### 5.2.1 B17\_5MHz

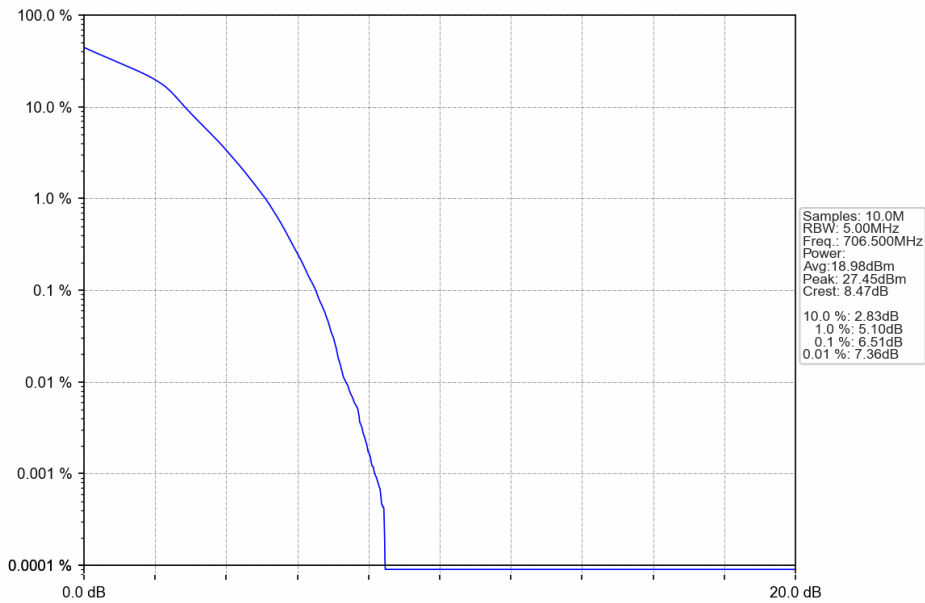


Band17\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



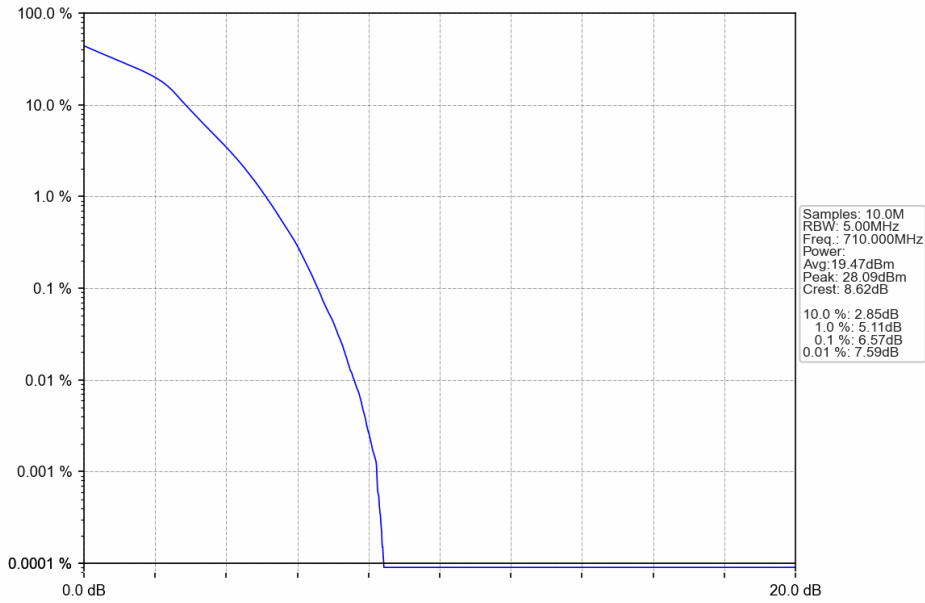
2024-07-22 16:50:54

Band17\_5MHz\_16QAM\_LCH\_706.5MHz\_RB\_25\_0\_NTNV



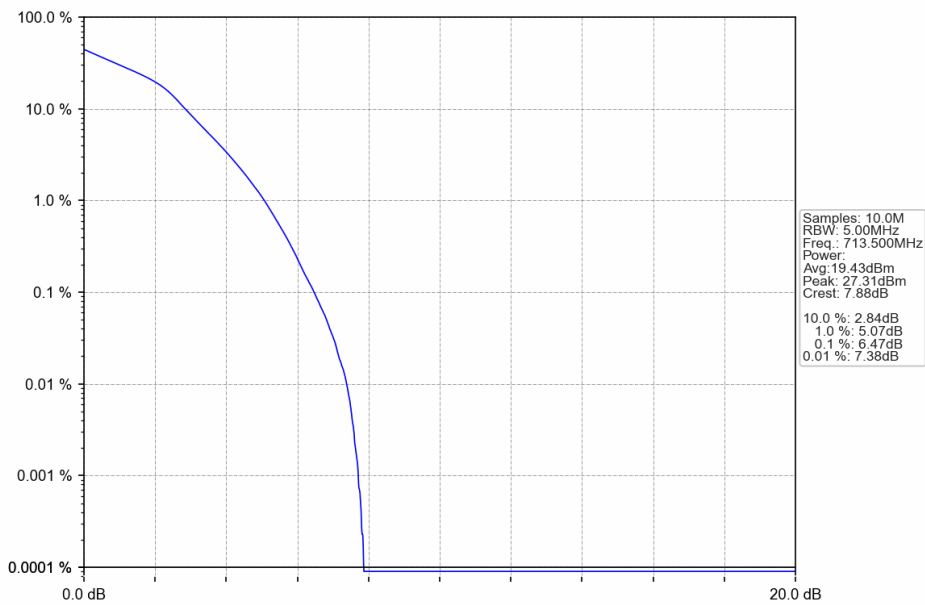
2024-07-22 16:50:06

Band17\_5MHz\_16QAM\_MCH\_710MHz\_RB\_25\_0\_NTNV



2024-07-22 16:50:38

Band17\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_25\_0\_NTNV

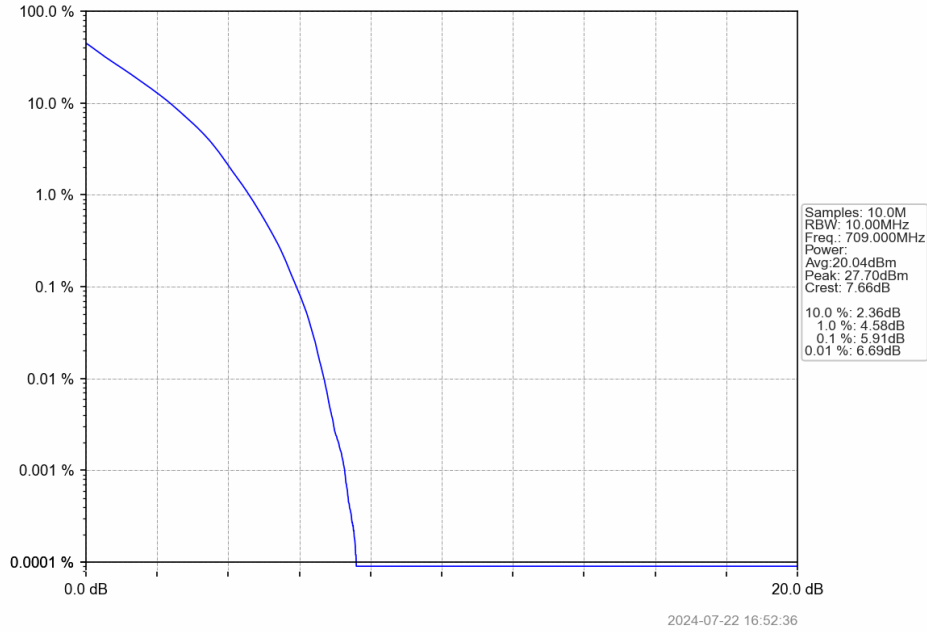


2024-07-22 16:51:07

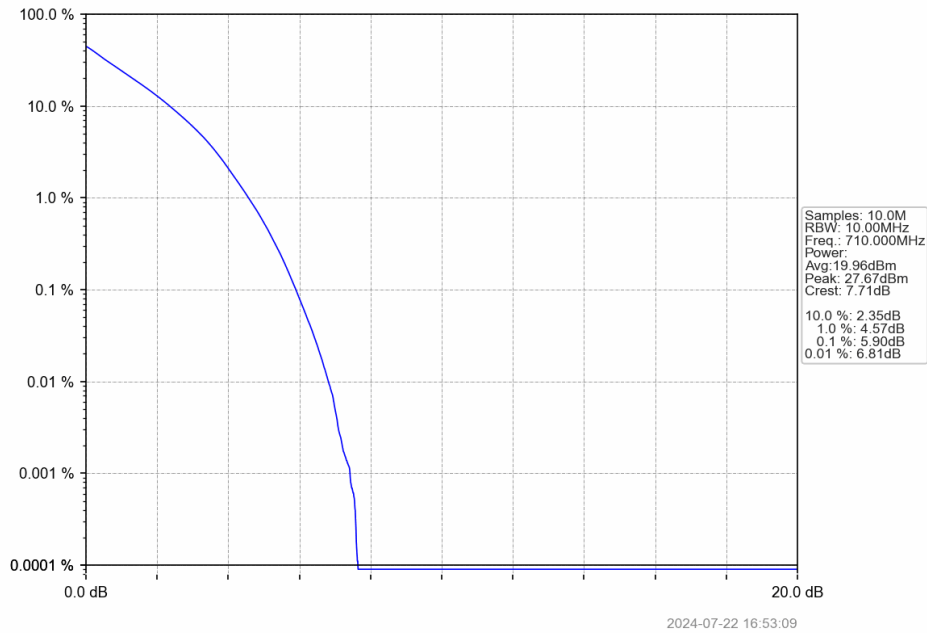


### 5.2.2 B17\_10MHz

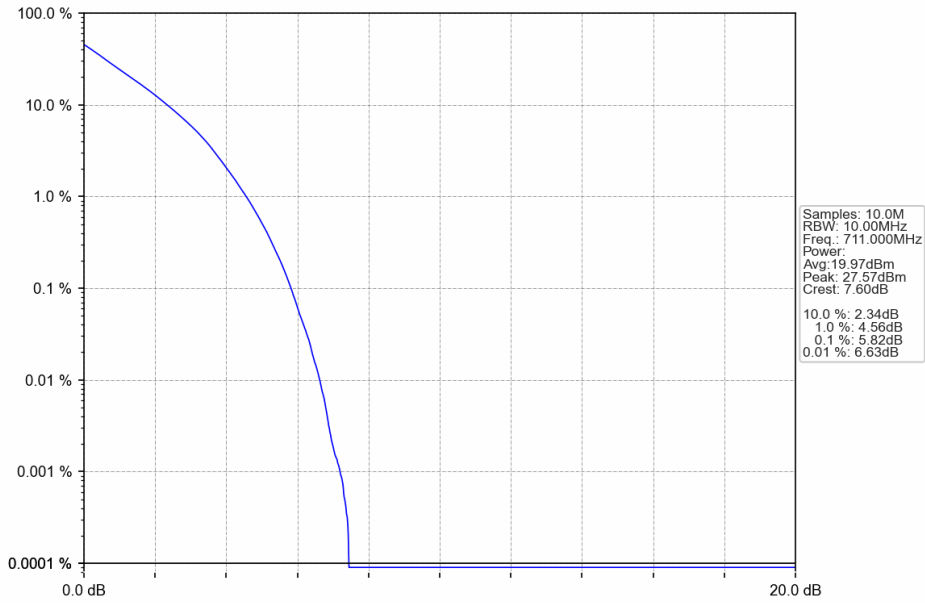
Band17\_10MHz\_QPSK\_LCH\_709MHz\_RB\_50\_0\_NTNV



Band17\_10MHz\_QPSK\_MCH\_710MHz\_RB\_50\_0\_NTNV

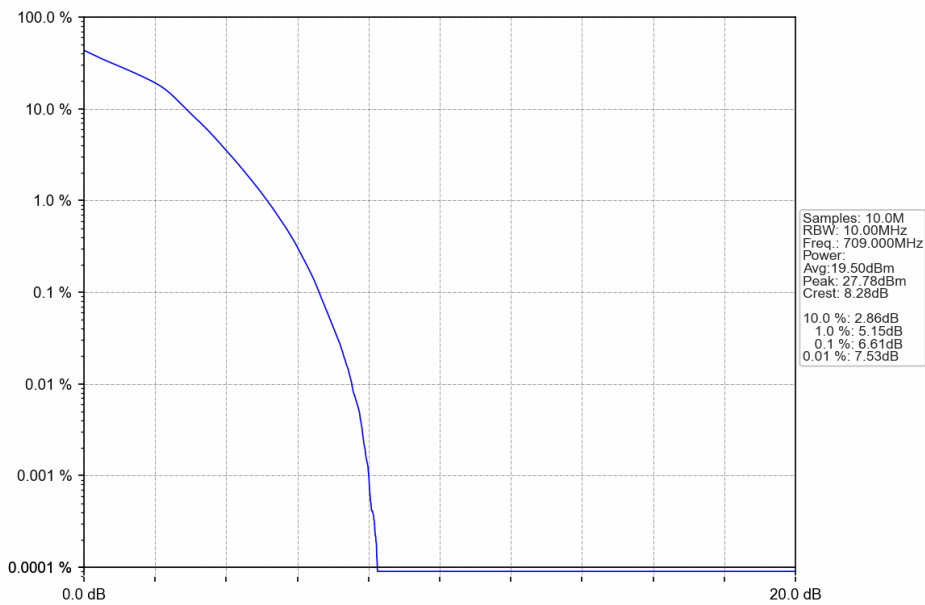


Band17\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



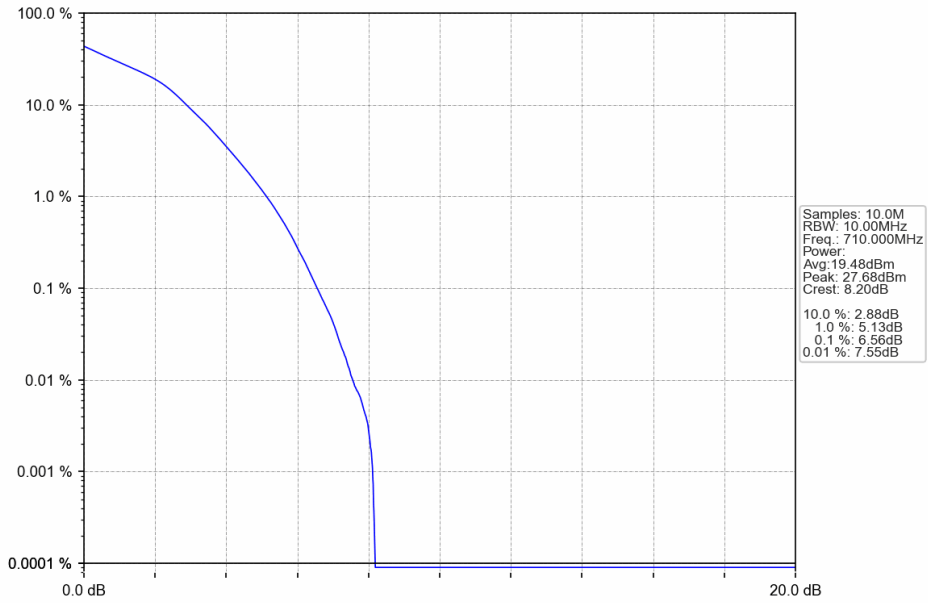
2024-07-22 16:53:42

Band17\_10MHz\_16QAM\_LCH\_709MHz\_RB\_50\_0\_NTNV



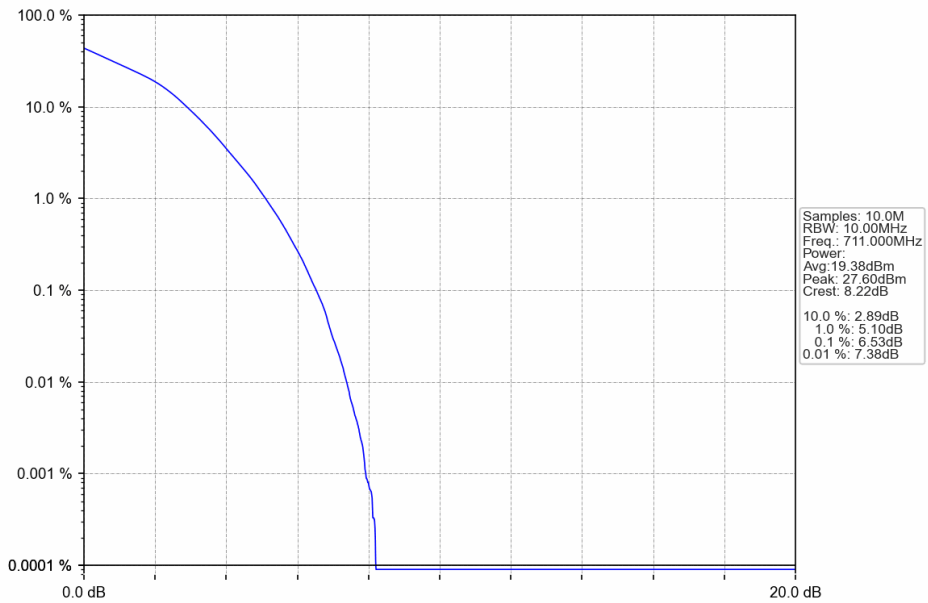
2024-07-22 16:52:51

Band17\_10MHz\_16QAM\_MCH\_710MHz\_RB\_50\_0\_NTNV



2024-07-22 16:53:24

Band17\_10MHz\_16QAM\_HCH\_711MHz\_RB\_50\_0\_NTNV



2024-07-22 16:53:57

## 6. Spurious Emission

### 6.1 Test Result

#### 6.1.1 B17\_5MHz

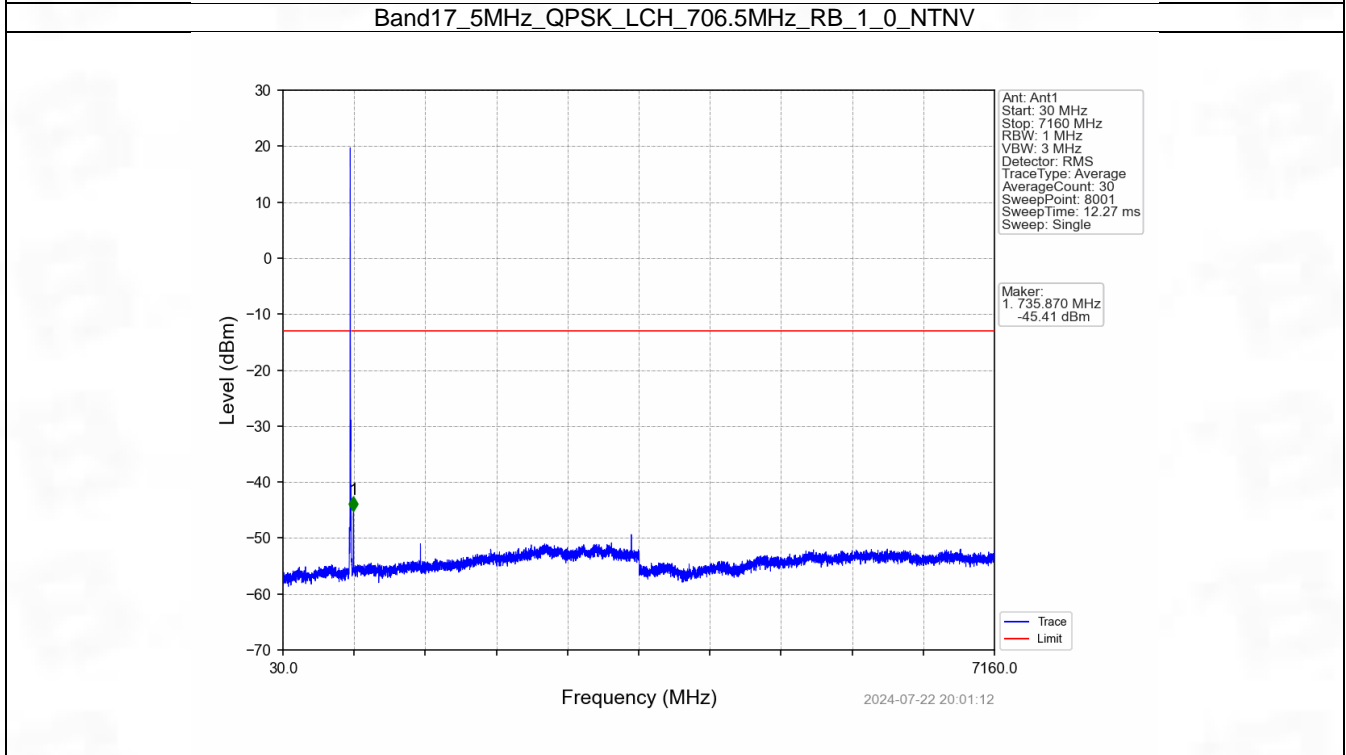
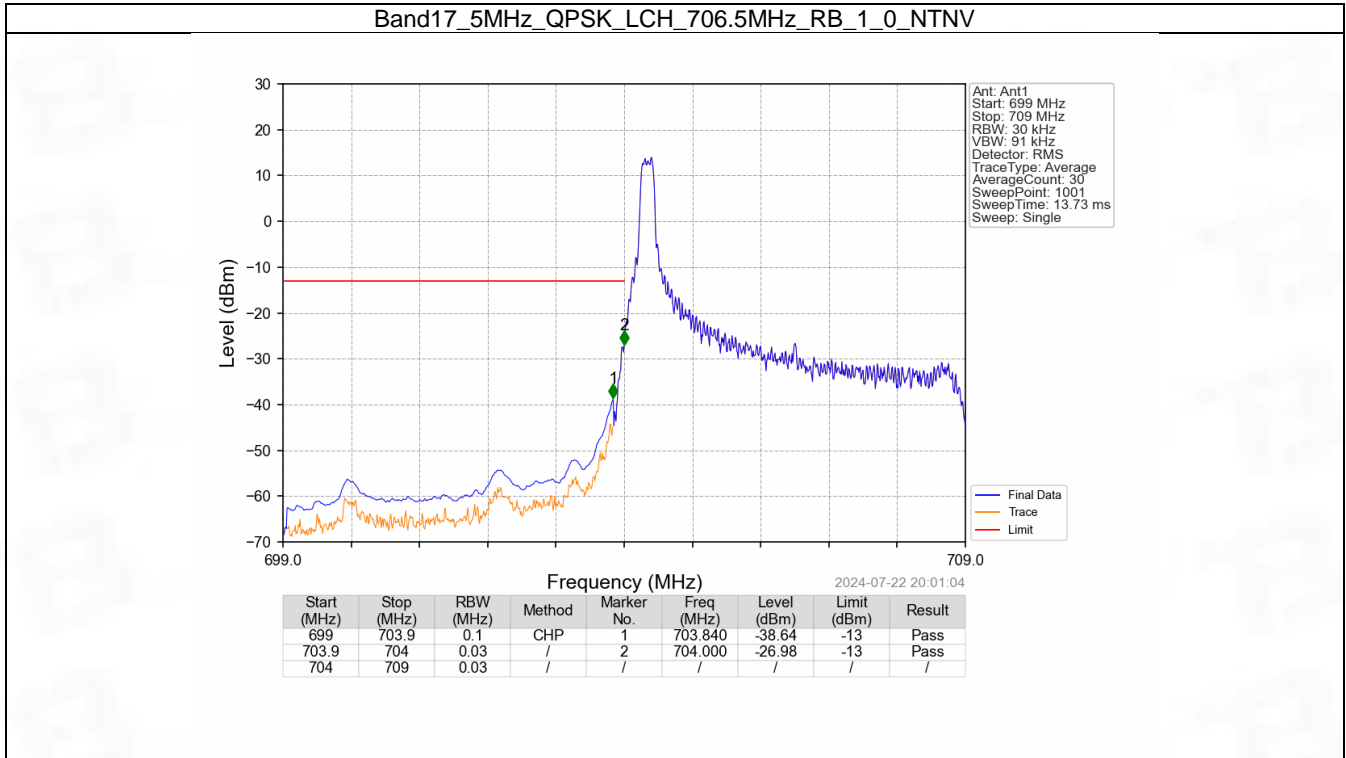
Band: 17 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	706.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	713.5	1	0	Refer To Test Graph		Pass
		1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
16QAM	706.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	713.5	1	0	Refer To Test Graph		Pass
		1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass

#### 6.1.2 B17\_10MHz

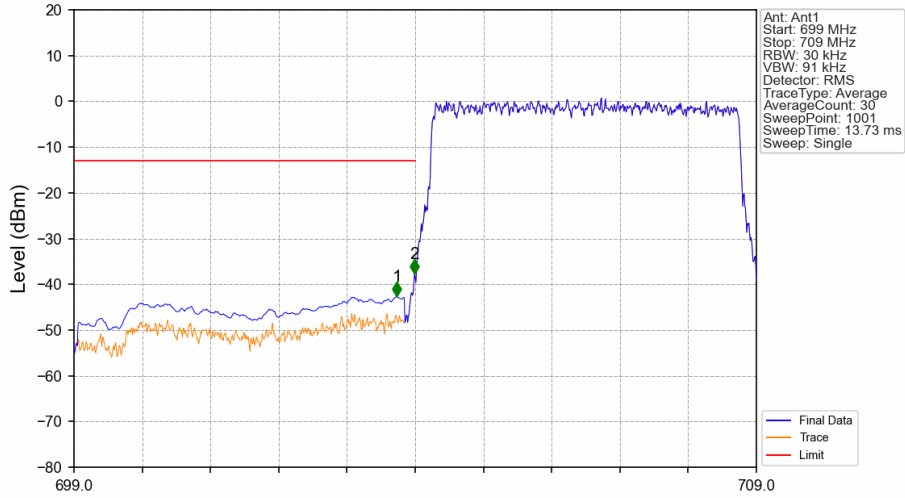
Band: 17 / Bandwidth: 10MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	709	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	711	1	0	Refer To Test Graph		Pass
		1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
16QAM	709	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	711	1	0	Refer To Test Graph		Pass
		1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

## 6.2 Test Graph

### 6.2.1 B17\_5MHz



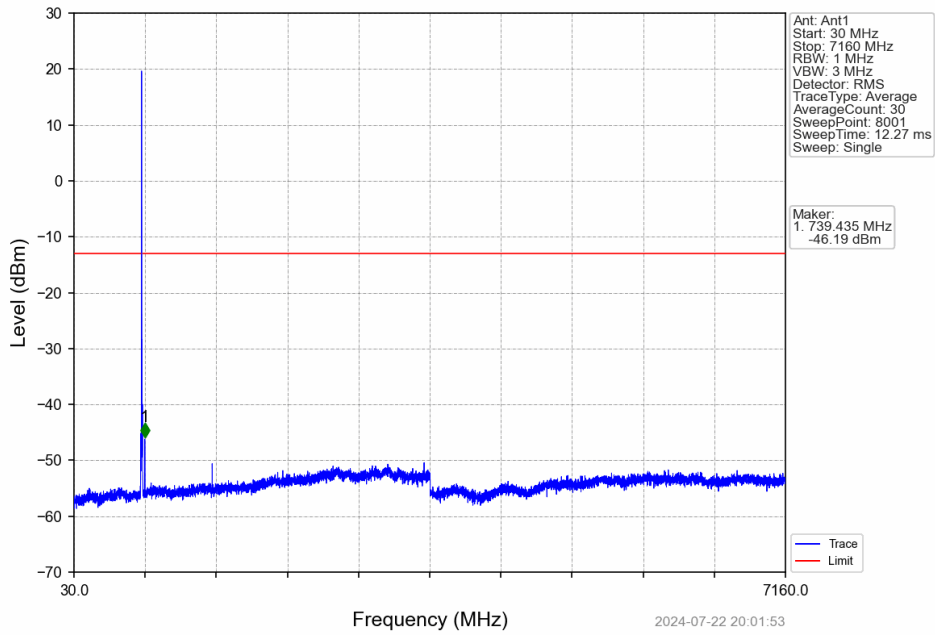
Band17\_5MHz\_QPSK\_LCH\_706.5MHz\_RB\_25\_0\_NTNV



2024-07-22 20:01:19

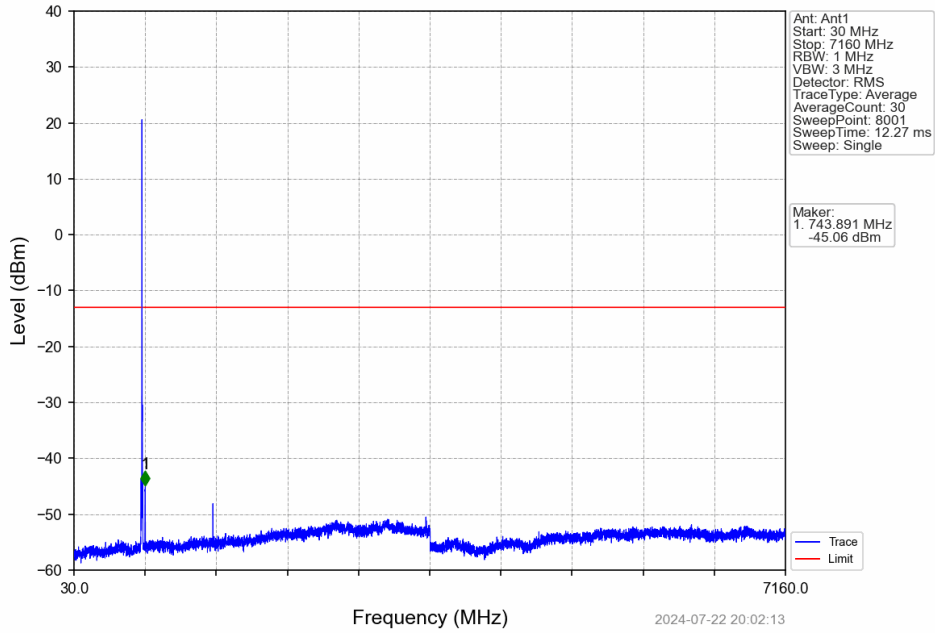
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.730	-42.69	-13	Pass
703.9	704	0.03	/	2	703.990	-37.72	-13	Pass
704	709	0.03	/	/	/	/	/	/

Band17\_5MHz\_QPSK\_MCH\_710MHz\_RB\_1\_0\_NTNV

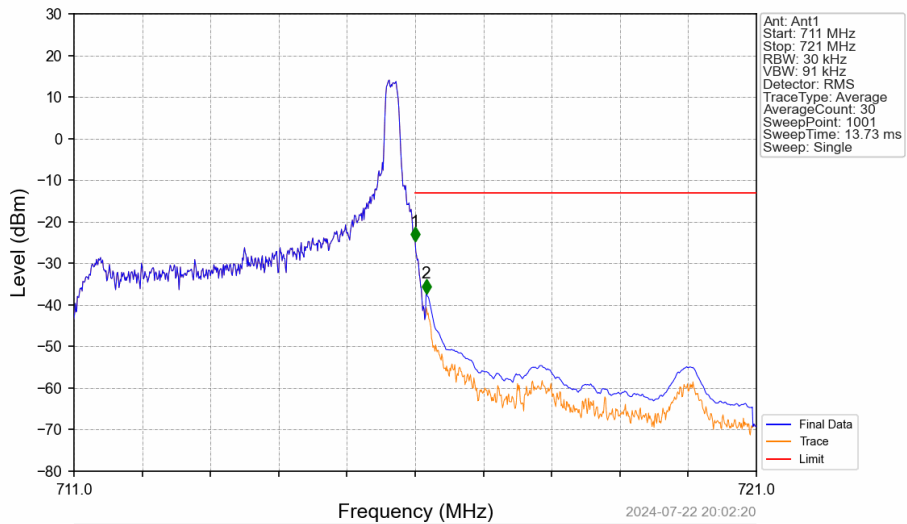


2024-07-22 20:01:53

Band17\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_1\_0\_NTNV

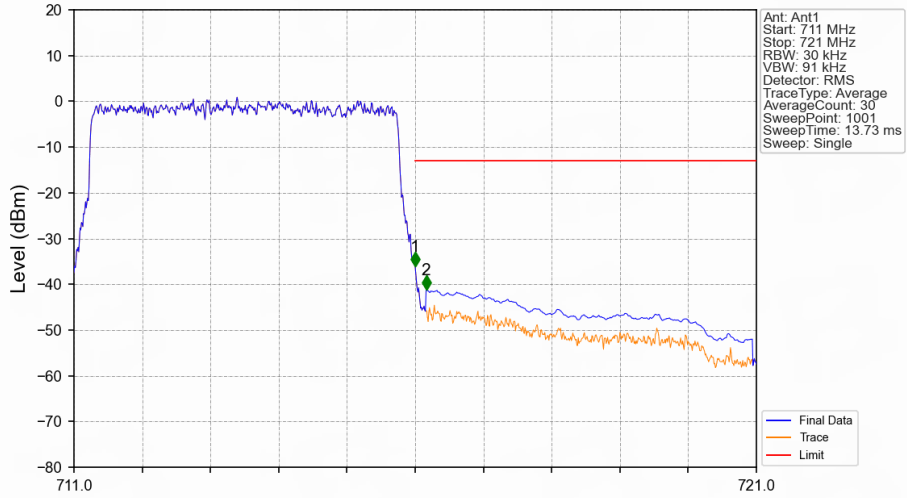


Band17\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_1\_24\_NTNV



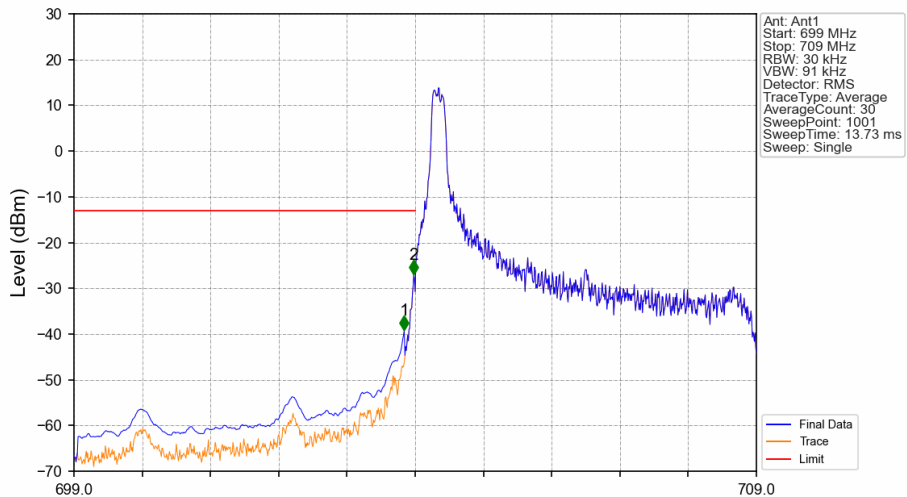
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	1	716.000	-24.79	-13	Pass
716.1	721	0.1	CHP	2	716.160	-37.23	-13	Pass

Band17\_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	716.000	-36.11	-13	Pass
716.1	721	0.1	CHP	2	716.160	-41.18	-13	Pass

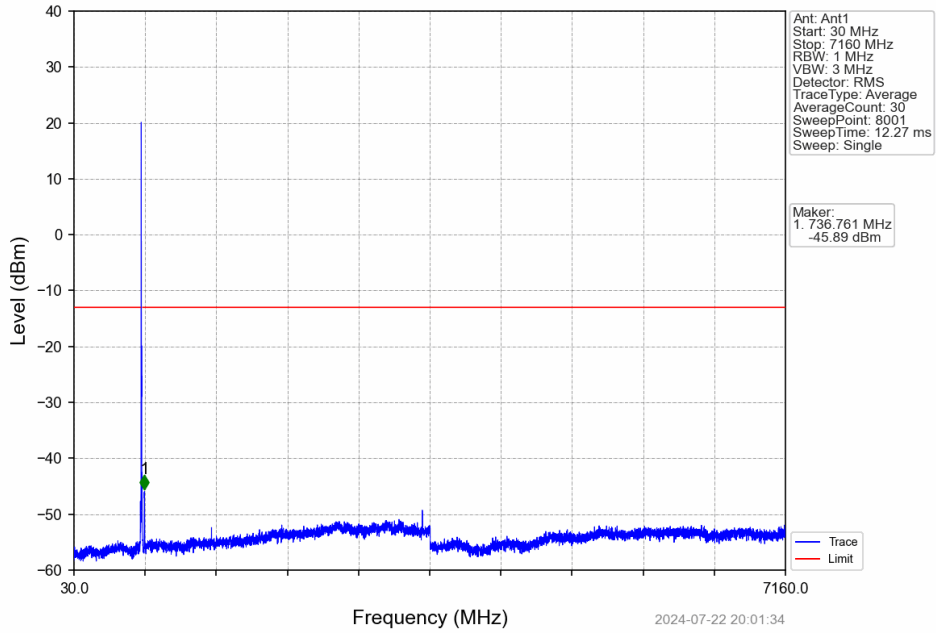
Band17\_5MHz\_16QAM\_LCH\_706.5MHz\_RB\_1\_0\_NTNV



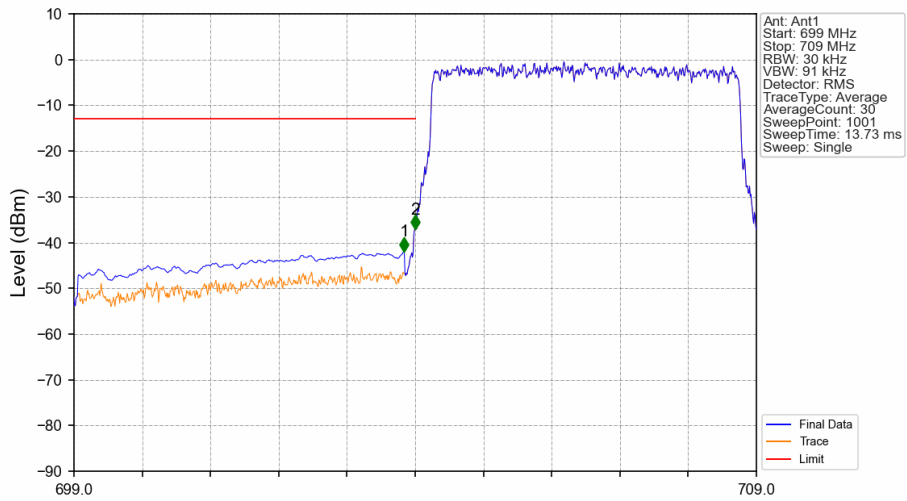
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.840	-39.16	-13	Pass
703.9	704	0.03	/	2	703.980	-26.95	-13	Pass
704	709	0.03	/	/	/	/	/	/



Band17\_5MHz\_16QAM\_LCH\_706.5MHz\_RB\_1\_0\_NTNV

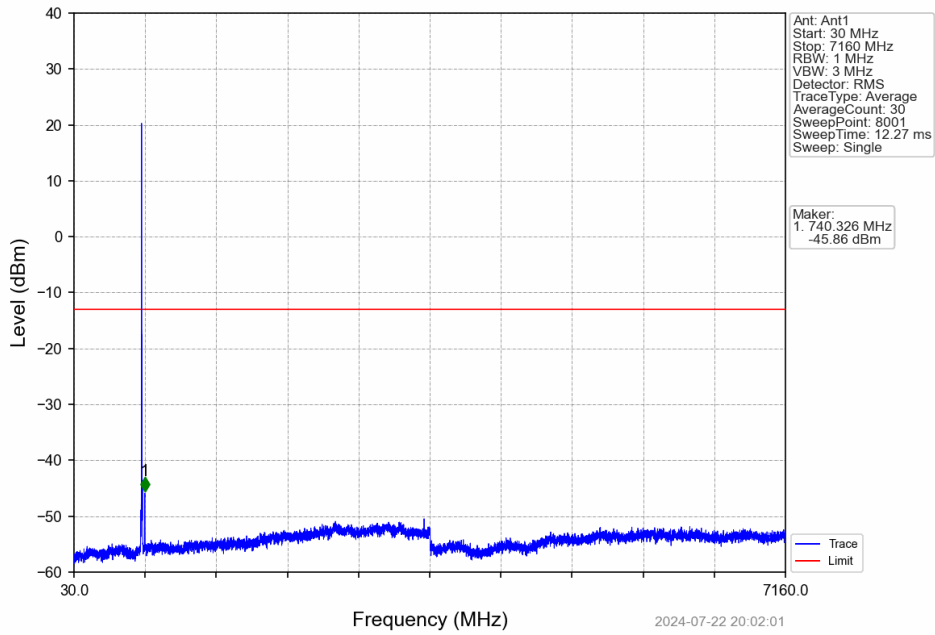


Band17\_5MHz\_16QAM\_LCH\_706.5MHz\_RB\_25\_0\_NTNV

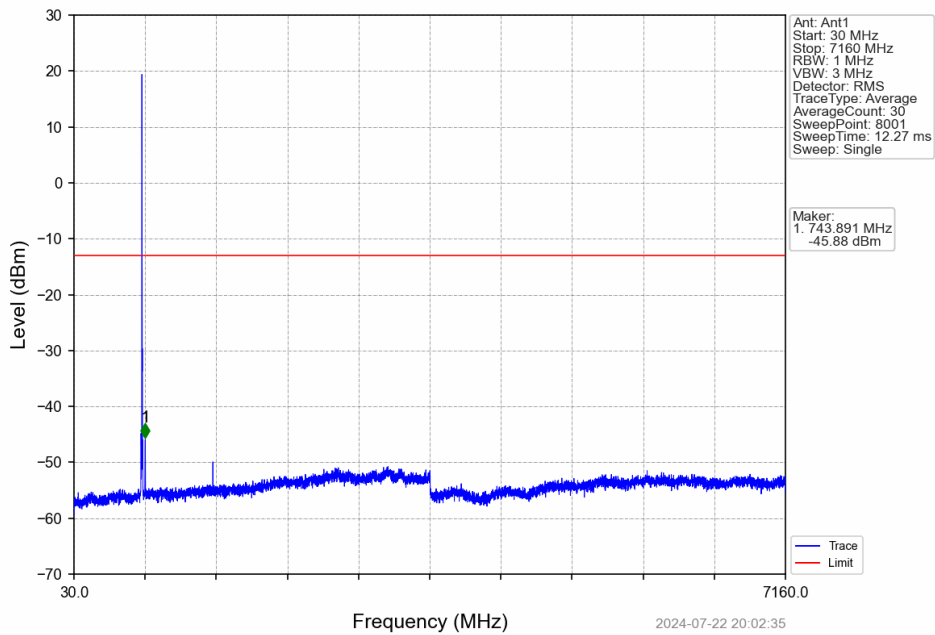


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.840	-41.97	-13	Pass
703.9	704	0.03	/	2	704.000	-37.06	-13	Pass
704	709	0.03	/	/	/	/	/	/

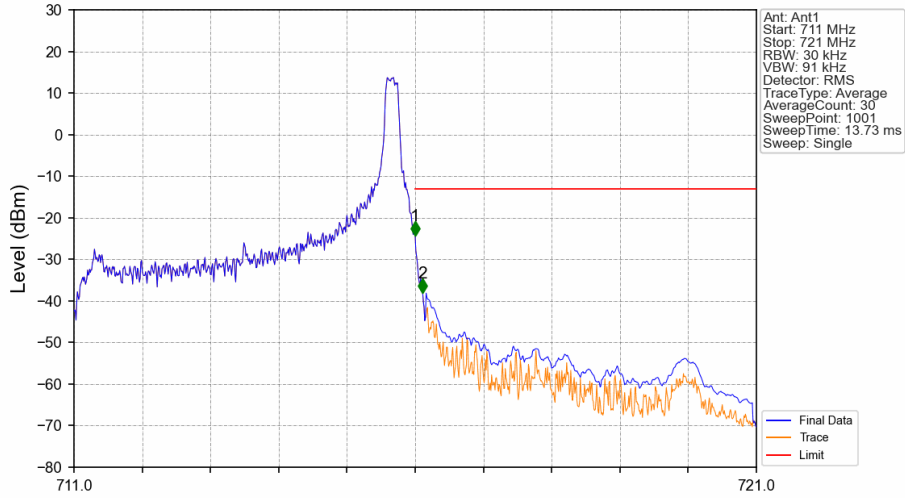
Band17\_5MHz\_16QAM\_MCH\_710MHz\_RB\_1\_0\_NTNV



Band17\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_1\_0\_NTNV



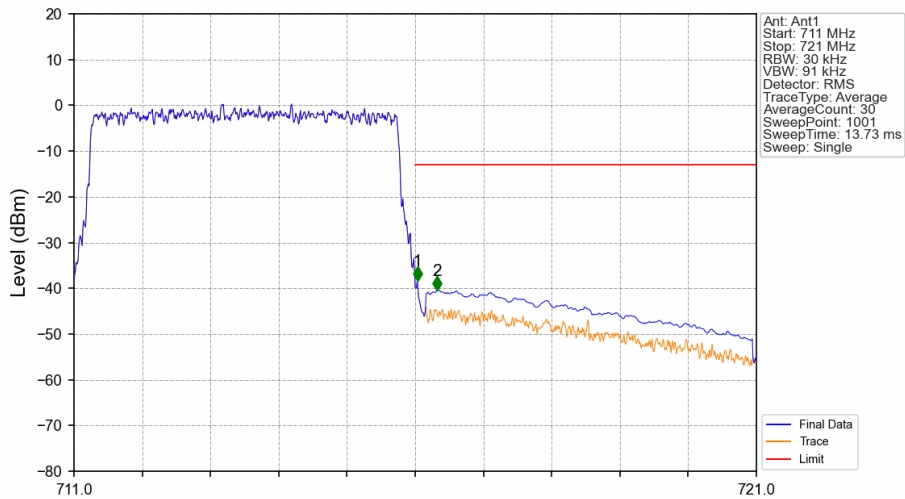
Band17\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_1\_24\_NTNV



2024-07-22 20:02:42

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	-24.34	-13	Pass
716.1	721	0.1	CHP	2	716.110	-38.06	-13	Pass

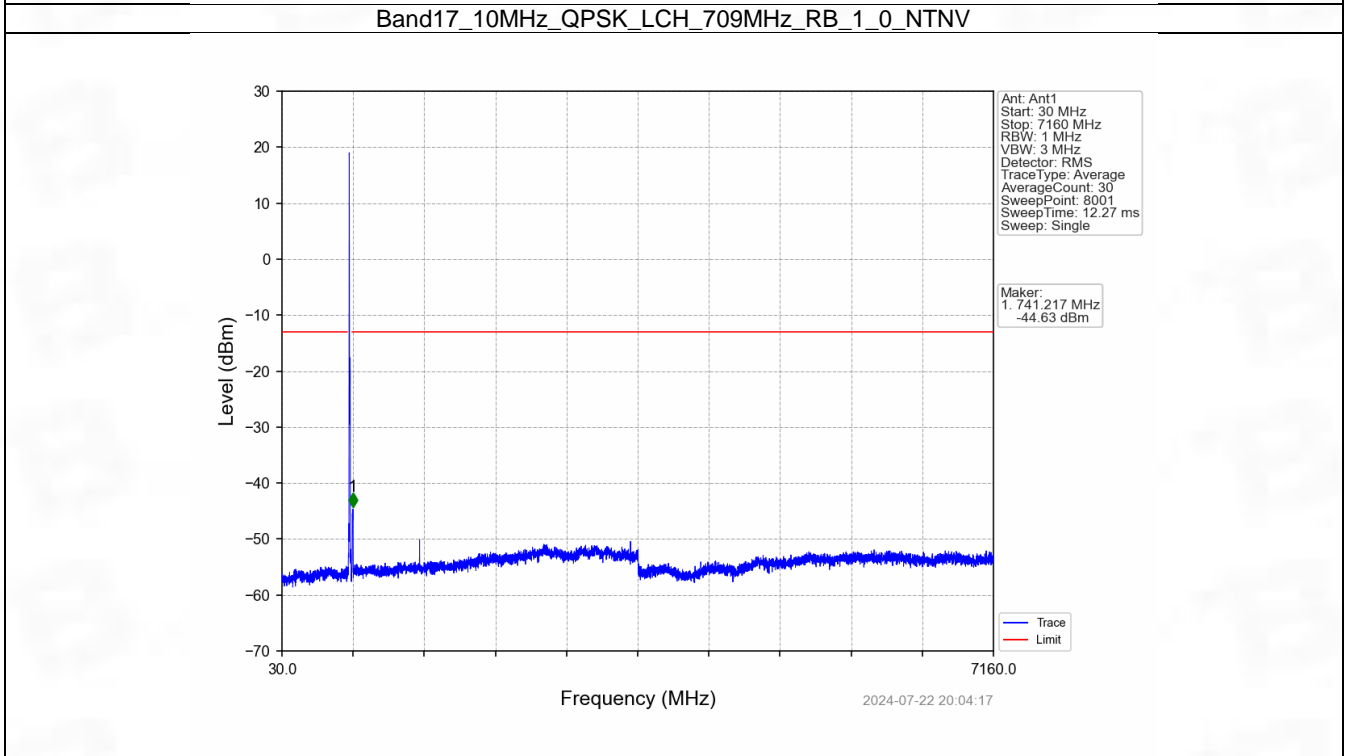
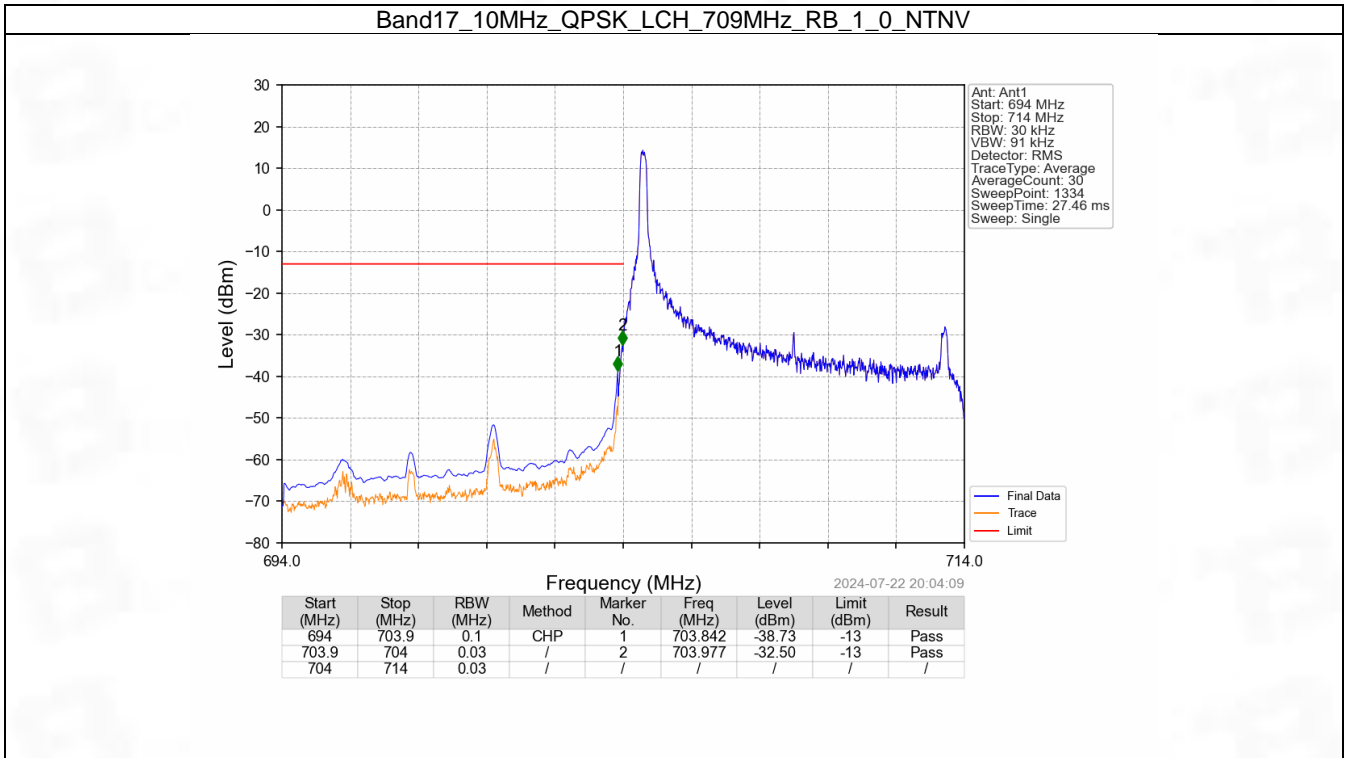
Band17\_5MHz\_16QAM\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



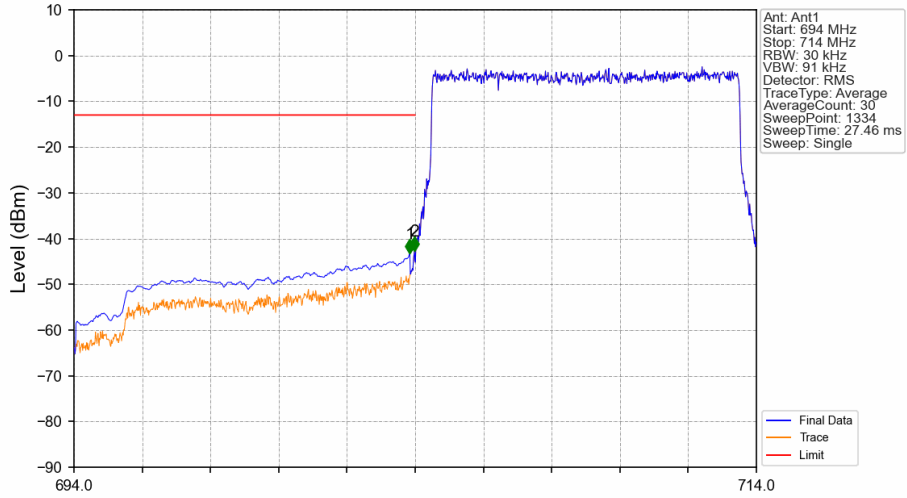
2024-07-22 20:02:48

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	716.030	-38.40	-13	Pass
716.1	721	0.1	CHP	2	716.320	-40.44	-13	Pass

### 6.2.2 B17\_10MHz



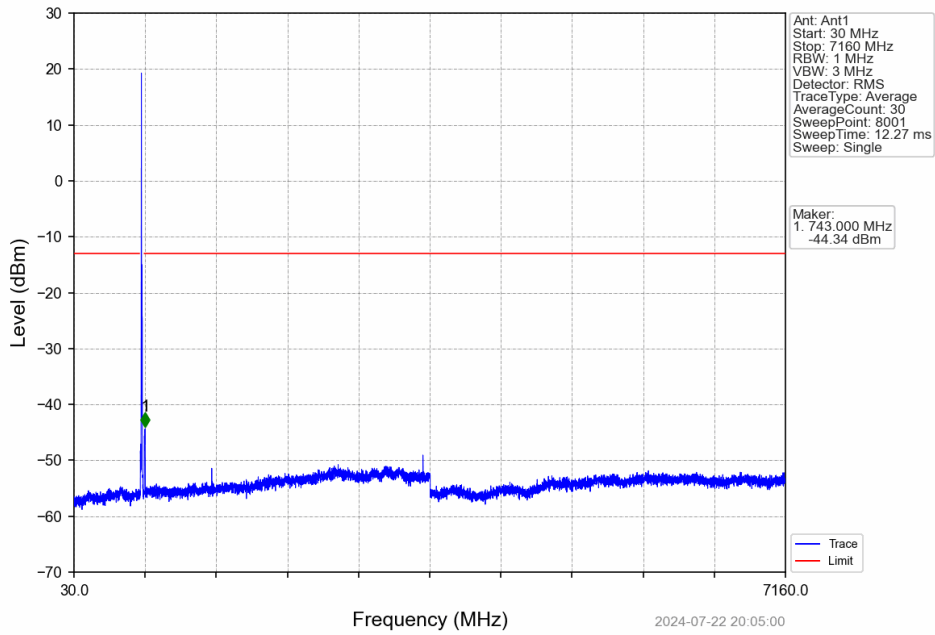
Band17\_10MHz\_QPSK\_LCH\_709MHz\_RB\_50\_0\_NTNV



2024-07-22 20:04:25

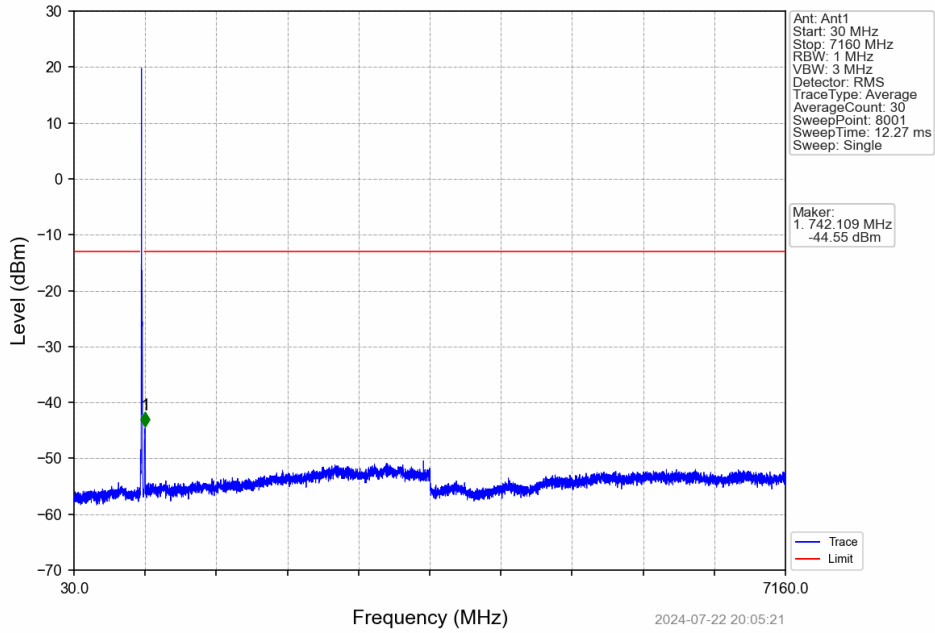
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.842	-43.27	-13	Pass
703.9	704	0.03	/	2	703.977	-42.70	-13	Pass
704	714	0.03	/	/	/	/	/	/

Band17\_10MHz\_QPSK\_MCH\_710MHz\_RB\_1\_0\_NTNV

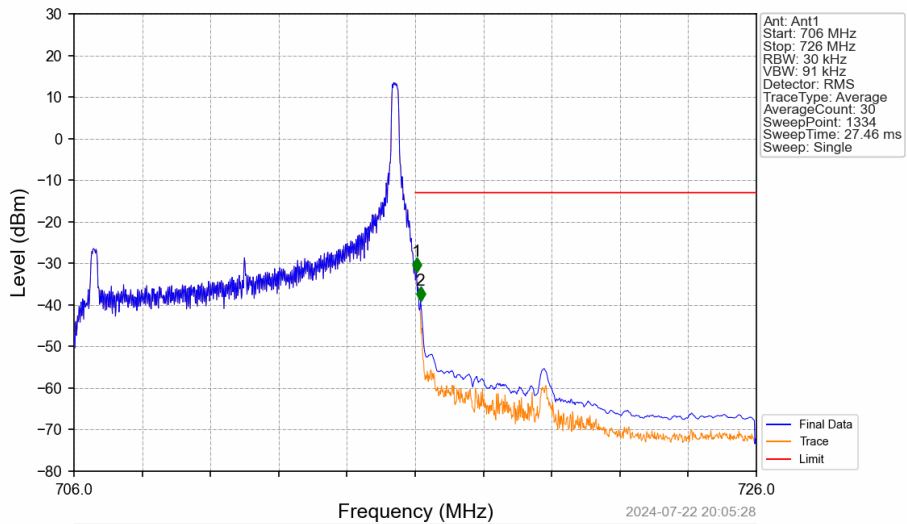


2024-07-22 20:05:00

Band17\_10MHz\_QPSK\_HCH\_711MHz\_RB\_1\_0\_NTNV

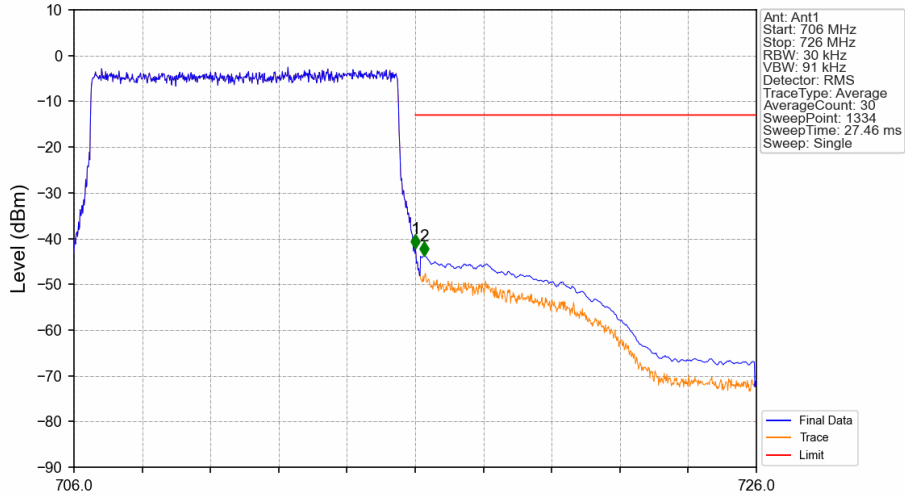


Band17\_10MHz\_QPSK\_HCH\_711MHz\_RB\_1\_49\_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	/	1	716.038	-32.01	-13	Pass
716	716.1	0.03	/	1	716.038	-32.01	-13	Pass
716.1	726	0.1	CHP	2	716.158	-39.00	-13	Pass

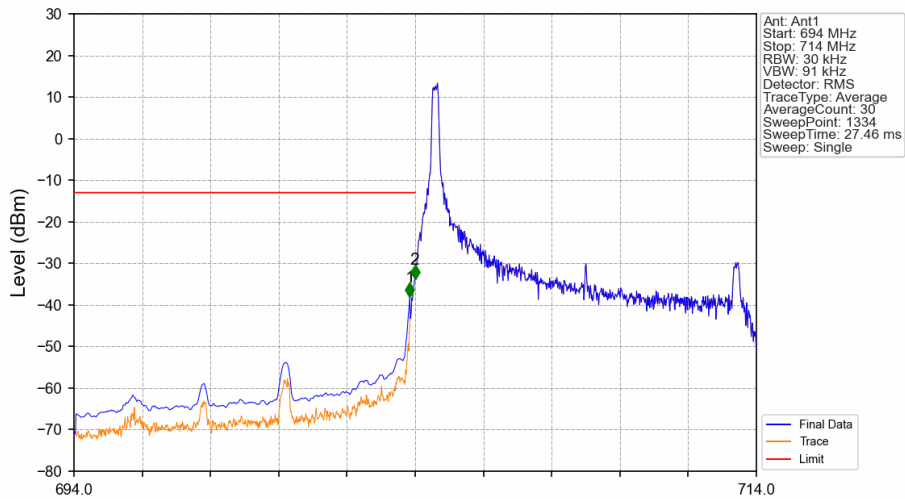
Band17\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



2024-07-22 20:05:35

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	-42.18	-13	Pass
716.1	726	0.1	CHP	2	716.263	-43.75	-13	Pass

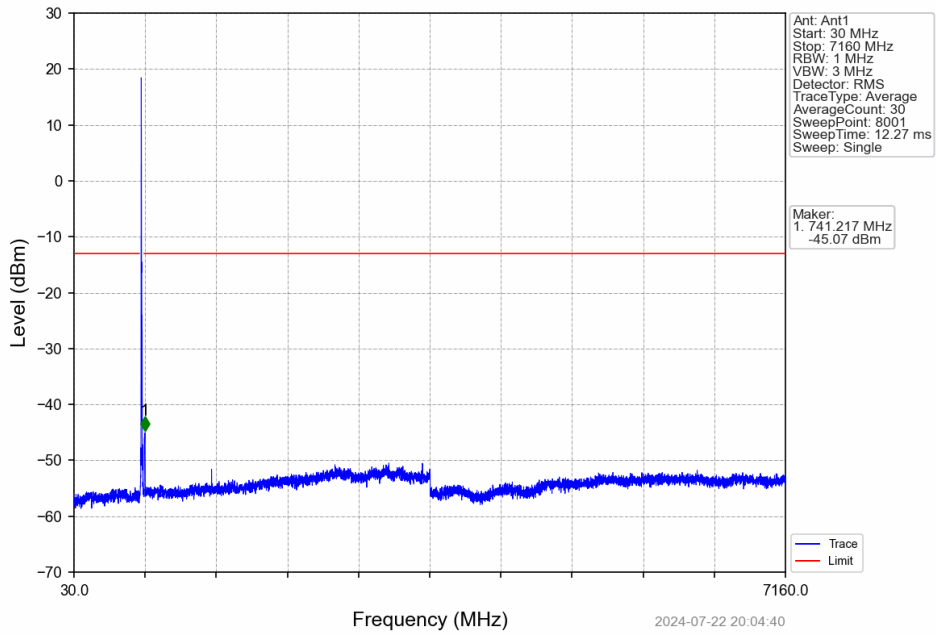
Band17\_10MHz\_16QAM\_LCH\_709MHz\_RB\_1\_0\_NTNV



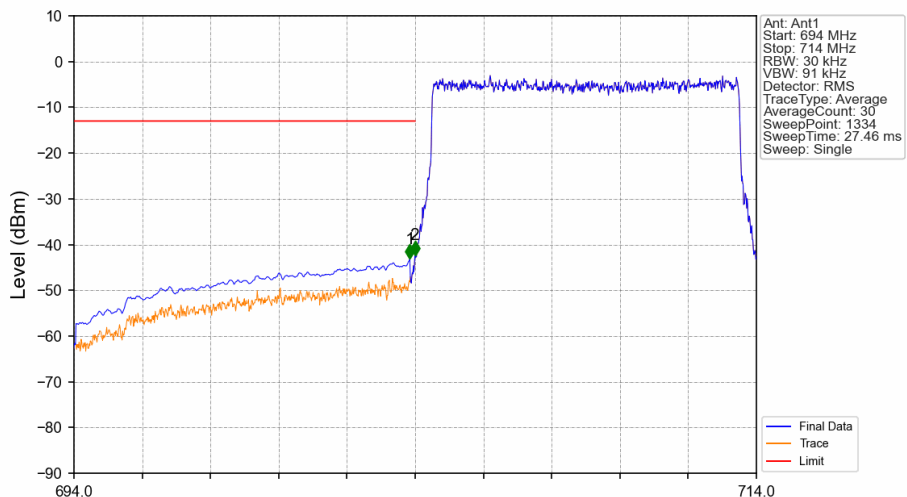
2024-07-22 20:04:32

Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.842	-38.06	-13	Pass
703.9	704	0.03	/	2	703.992	-33.80	-13	Pass
704	714	0.03	/	/	/	/	/	/

Band17\_10MHz\_16QAM\_LCH\_709MHz\_RB\_1\_0\_NTNV



Band17\_10MHz\_16QAM\_LCH\_709MHz\_RB\_50\_0\_NTNV

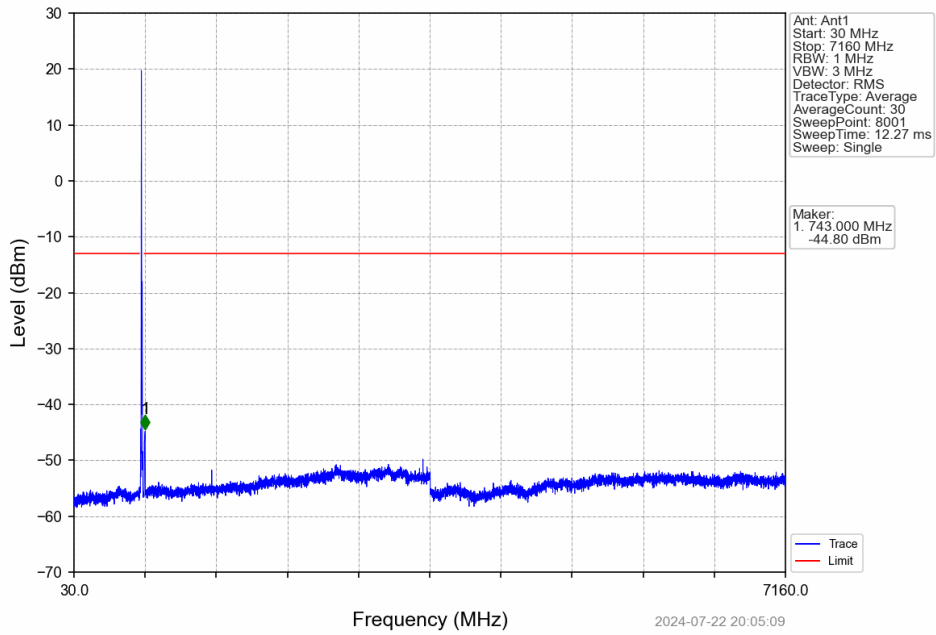


2024-07-22 20:04:48

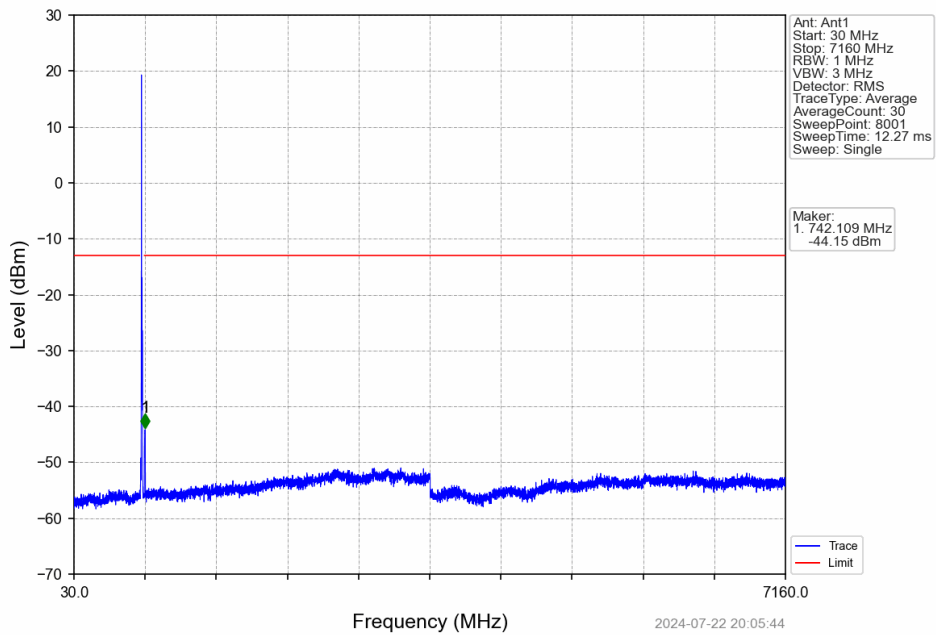
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.842	-43.15	-13	Pass
703.9	704	0.03	/	2	703.992	-42.32	-13	Pass
704	714	0.03	/	/	/	/	/	/



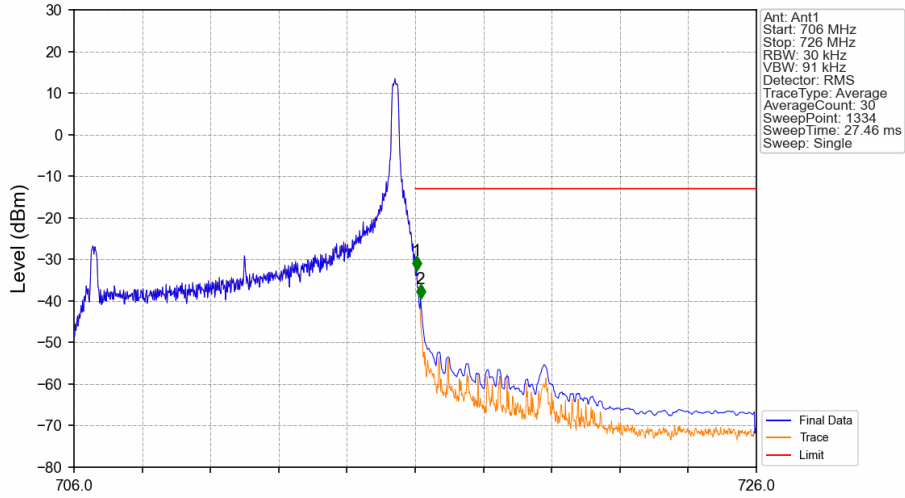
Band17\_10MHz\_16QAM\_MCH\_710MHz\_RB\_1\_0\_NTNV



Band17\_10MHz\_16QAM\_HCH\_711MHz\_RB\_1\_0\_NTNV



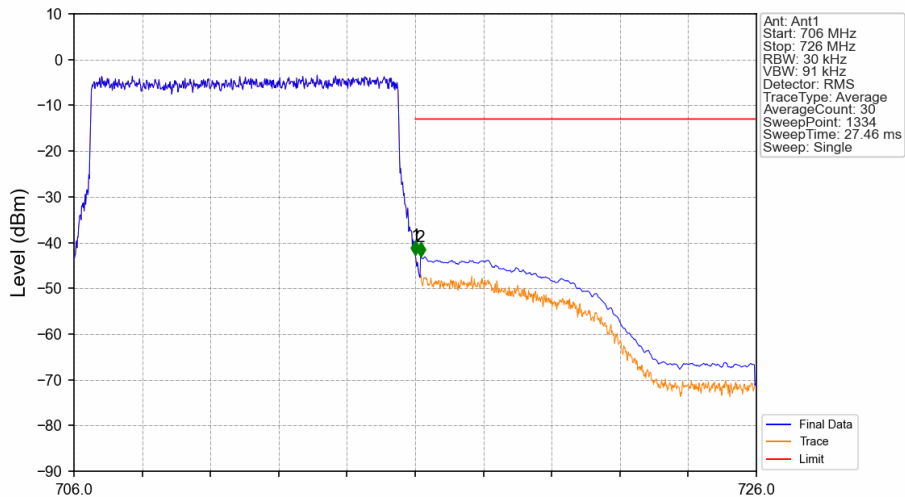
Band17\_10MHz\_16QAM\_HCH\_711MHz\_RB\_1\_49\_NTNV



2024-07-22 20:05:51

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	716.038	-32.63	-13	Pass
716.1	726	0.1	CHP	2	716.158	-39.44	-13	Pass

Band17\_10MHz\_16QAM\_HCH\_711MHz\_RB\_50\_0\_NTNV



2024-07-22 20:05:58

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	-42.75	-13	Pass
716.1	726	0.1	CHP	2	716.158	-43.11	-13	Pass

## 7. Form731

### 7.1 Test Result

#### 7.1.1 Form731\_Power

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
17	5	706.5	713.5	0.1439	0.0095	ppm	4M56G7D	27H	21.58
17	5	706.5	713.5	0.1245	0.0118	ppm	4M56W7D	27H	20.95
17	10	709	711	0.1422	0.0526	ppm	9M09G7D	27H	21.53
17	10	709	711	0.1371	0.0703	ppm	9M07W7D	27H	21.37

#### 7.1.2 Form731\_ERP

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
17	5	706.5	713.5	0.0660	0.0095	ppm	4M56G7D	27H	18.2
17	5	706.5	713.5	0.0571	0.0118	ppm	4M56W7D	27H	17.57
17	10	709	711	0.0653	0.0526	ppm	9M09G7D	27H	18.15
17	10	709	711	0.0629	0.0703	ppm	9M07W7D	27H	17.99