



## **Appendix Test Data for LTE\_band\_7**

# 1. Effective (Isotropic) Radiated Power Output Data

## 1.1 Test Result

### 1.1.1 B7\_5MHz\_EIRP

Band: 7 / Bandwidth: 5MHz / NTNV										
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	2502.5	1	0	23.87	1.40	25.27	<=33.01	Pass		
			13	23.99	1.40	25.39	<=33.01	Pass		
			24	23.66	1.40	25.06	<=33.01	Pass		
		12	0	22.46	1.40	23.86	<=33.01	Pass		
			6	22.45	1.40	23.85	<=33.01	Pass		
			13	22.46	1.40	23.86	<=33.01	Pass		
		25	0	22.39	1.40	23.79	<=33.01	Pass		
		2535	1	0	23.34	1.40	24.74	<=33.01	Pass	
				13	23.39	1.40	24.79	<=33.01	Pass	
	24			23.32	1.40	24.72	<=33.01	Pass		
	12		0	22.37	1.40	23.77	<=33.01	Pass		
			6	22.40	1.40	23.80	<=33.01	Pass		
			13	22.35	1.40	23.75	<=33.01	Pass		
	25		0	22.37	1.40	23.77	<=33.01	Pass		
	2567.5		1	0	23.13	1.40	24.53	<=33.01	Pass	
				13	23.26	1.40	24.66	<=33.01	Pass	
		24		23.15	1.40	24.55	<=33.01	Pass		
		12	0	22.20	1.40	23.60	<=33.01	Pass		
			6	22.25	1.40	23.65	<=33.01	Pass		
			13	22.21	1.40	23.61	<=33.01	Pass		
		25	0	22.19	1.40	23.59	<=33.01	Pass		
		16QAM	2502.5	1	0	22.41	1.40	23.81	<=33.01	Pass
					13	22.52	1.40	23.92	<=33.01	Pass
	24				22.47	1.40	23.87	<=33.01	Pass	
12	0			21.34	1.40	22.74	<=33.01	Pass		
	6			21.42	1.40	22.82	<=33.01	Pass		
	13			21.45	1.40	22.85	<=33.01	Pass		
25	0			21.42	1.40	22.82	<=33.01	Pass		
2535	1			0	22.54	1.40	23.94	<=33.01	Pass	
				13	22.64	1.40	24.04	<=33.01	Pass	
			24	22.51	1.40	23.91	<=33.01	Pass		
	12		0	21.37	1.40	22.77	<=33.01	Pass		
			6	21.43	1.40	22.83	<=33.01	Pass		
			13	21.37	1.40	22.77	<=33.01	Pass		
	25		0	21.38	1.40	22.78	<=33.01	Pass		
	2567.5		1	0	21.99	1.40	23.39	<=33.01	Pass	
				13	22.09	1.40	23.49	<=33.01	Pass	
24				21.97	1.40	23.37	<=33.01	Pass		
12			0	21.17	1.40	22.57	<=33.01	Pass		
			6	21.23	1.40	22.63	<=33.01	Pass		
			13	21.20	1.40	22.60	<=33.01	Pass		
25			0	21.23	1.40	22.63	<=33.01	Pass		

Note1: EIRP=Conducted Power+Antenna Gain

**1.1.2 B7\_10MHz\_EIRP**

Band: 7 / Bandwidth: 10MHz / NTN									
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)		Verdict	
		Size	Offset			Result	Limit		
QPSK	2505	1	0	23.41	1.40	24.81	<=33.01	Pass	
			25	23.61	1.40	25.01	<=33.01	Pass	
			49	23.54	1.40	24.94	<=33.01	Pass	
		25	0	22.42	1.40	23.82	<=33.01	Pass	
			13	22.49	1.40	23.89	<=33.01	Pass	
			25	22.54	1.40	23.94	<=33.01	Pass	
		50	0	22.46	1.40	23.86	<=33.01	Pass	
		2535	1	0	23.44	1.40	24.84	<=33.01	Pass
				25	23.60	1.40	25.00	<=33.01	Pass
	49			23.44	1.40	24.84	<=33.01	Pass	
	25		0	22.43	1.40	23.83	<=33.01	Pass	
			13	22.44	1.40	23.84	<=33.01	Pass	
			25	22.46	1.40	23.86	<=33.01	Pass	
	50		0	22.43	1.40	23.83	<=33.01	Pass	
	2565		1	0	23.22	1.40	24.62	<=33.01	Pass
				25	23.38	1.40	24.78	<=33.01	Pass
		49		23.25	1.40	24.65	<=33.01	Pass	
		25	0	22.26	1.40	23.66	<=33.01	Pass	
			13	22.23	1.40	23.63	<=33.01	Pass	
			25	22.28	1.40	23.68	<=33.01	Pass	
	50	0	22.26	1.40	23.66	<=33.01	Pass		
	16QAM	2505	1	0	22.91	1.40	24.31	<=33.01	Pass
				25	23.09	1.40	24.49	<=33.01	Pass
				49	23.00	1.40	24.40	<=33.01	Pass
25			0	21.49	1.40	22.89	<=33.01	Pass	
			13	21.53	1.40	22.93	<=33.01	Pass	
			25	21.63	1.40	23.03	<=33.01	Pass	
50			0	21.50	1.40	22.90	<=33.01	Pass	
2535			1	0	22.42	1.40	23.82	<=33.01	Pass
				25	22.57	1.40	23.97	<=33.01	Pass
		49		22.37	1.40	23.77	<=33.01	Pass	
		25	0	21.52	1.40	22.92	<=33.01	Pass	
			13	21.51	1.40	22.91	<=33.01	Pass	
			25	21.55	1.40	22.95	<=33.01	Pass	
		50	0	21.46	1.40	22.86	<=33.01	Pass	
		2565	1	0	22.34	1.40	23.74	<=33.01	Pass
				25	22.48	1.40	23.88	<=33.01	Pass
49				22.34	1.40	23.74	<=33.01	Pass	
25			0	21.31	1.40	22.71	<=33.01	Pass	
			13	21.28	1.40	22.68	<=33.01	Pass	
			25	21.32	1.40	22.72	<=33.01	Pass	
50		0	21.27	1.40	22.67	<=33.01	Pass		

Note1: EIRP=Conducted Power+Antenna Gain

**1.1.3 B7\_15MHz\_EIRP**

Band: 7 / Bandwidth: 15MHz / NTN										
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	2507.5	1	0	23.37	1.40	24.77	<=33.01	Pass		
			38	23.52	1.40	24.92	<=33.01	Pass		
			74	23.41	1.40	24.81	<=33.01	Pass		
		36	0	22.43	1.40	23.83	<=33.01	Pass		
			18	22.56	1.40	23.96	<=33.01	Pass		
			39	22.61	1.40	24.01	<=33.01	Pass		
		75	0	22.55	1.40	23.95	<=33.01	Pass		
		2535	1	0	23.36	1.40	24.76	<=33.01	Pass	
				38	23.44	1.40	24.84	<=33.01	Pass	
	74			23.28	1.40	24.68	<=33.01	Pass		
	36		0	22.46	1.40	23.86	<=33.01	Pass		
			18	22.49	1.40	23.89	<=33.01	Pass		
			39	22.49	1.40	23.89	<=33.01	Pass		
	75		0	22.49	1.40	23.89	<=33.01	Pass		
	2562.5		1	0	23.15	1.40	24.55	<=33.01	Pass	
				38	23.29	1.40	24.69	<=33.01	Pass	
		74		23.18	1.40	24.58	<=33.01	Pass		
		36	0	22.37	1.40	23.77	<=33.01	Pass		
			18	22.33	1.40	23.73	<=33.01	Pass		
			39	22.38	1.40	23.78	<=33.01	Pass		
		75	0	22.33	1.40	23.73	<=33.01	Pass		
		16QAM	2507.5	1	0	22.67	1.40	24.07	<=33.01	Pass
					38	22.80	1.40	24.20	<=33.01	Pass
	74				22.71	1.40	24.11	<=33.01	Pass	
36	0			21.41	1.40	22.81	<=33.01	Pass		
	18			21.53	1.40	22.93	<=33.01	Pass		
	39			21.56	1.40	22.96	<=33.01	Pass		
75	0			21.52	1.40	22.92	<=33.01	Pass		
2535	1			0	22.46	1.40	23.86	<=33.01	Pass	
				38	22.56	1.40	23.96	<=33.01	Pass	
			74	22.40	1.40	23.80	<=33.01	Pass		
	36		0	21.44	1.40	22.84	<=33.01	Pass		
			18	21.50	1.40	22.90	<=33.01	Pass		
			39	21.48	1.40	22.88	<=33.01	Pass		
	75		0	21.50	1.40	22.90	<=33.01	Pass		
	2562.5		1	0	22.62	1.40	24.02	<=33.01	Pass	
				38	22.72	1.40	24.12	<=33.01	Pass	
74				22.56	1.40	23.96	<=33.01	Pass		
36			0	21.37	1.40	22.77	<=33.01	Pass		
			18	21.34	1.40	22.74	<=33.01	Pass		
			39	21.36	1.40	22.76	<=33.01	Pass		
75			0	21.34	1.40	22.74	<=33.01	Pass		

Note1: EIRP=Conducted Power+Antenna Gain

**1.1.4 B7\_20MHz\_EIRP**

Band: 7 / Bandwidth: 20MHz / NTN										
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	2510	1	0	23.16	1.40	24.56	<=33.01	Pass		
			50	23.64	1.40	25.04	<=33.01	Pass		
			99	23.23	1.40	24.63	<=33.01	Pass		
		50	0	22.32	1.40	23.72	<=33.01	Pass		
			25	22.45	1.40	23.85	<=33.01	Pass		
			50	22.46	1.40	23.86	<=33.01	Pass		
		100	0	22.42	1.40	23.82	<=33.01	Pass		
		2535	1	0	23.19	1.40	24.59	<=33.01	Pass	
				50	23.59	1.40	24.99	<=33.01	Pass	
	99			23.13	1.40	24.53	<=33.01	Pass		
	50		0	22.34	1.40	23.74	<=33.01	Pass		
			25	22.40	1.40	23.80	<=33.01	Pass		
			50	22.41	1.40	23.81	<=33.01	Pass		
	100		0	22.42	1.40	23.82	<=33.01	Pass		
	2560		1	0	23.04	1.40	24.44	<=33.01	Pass	
				50	23.41	1.40	24.81	<=33.01	Pass	
		99		23.06	1.40	24.46	<=33.01	Pass		
		50	0	22.27	1.40	23.67	<=33.01	Pass		
			25	22.26	1.40	23.66	<=33.01	Pass		
			50	22.23	1.40	23.63	<=33.01	Pass		
		100	0	22.28	1.40	23.68	<=33.01	Pass		
		16QAM	2510	1	0	22.64	1.40	24.04	<=33.01	Pass
					50	23.09	1.40	24.49	<=33.01	Pass
	99				22.73	1.40	24.13	<=33.01	Pass	
50	0			21.32	1.40	22.72	<=33.01	Pass		
	25			21.49	1.40	22.89	<=33.01	Pass		
	50			21.50	1.40	22.90	<=33.01	Pass		
100	0			21.46	1.40	22.86	<=33.01	Pass		
2535	1			0	22.31	1.40	23.71	<=33.01	Pass	
				50	22.67	1.40	24.07	<=33.01	Pass	
			99	22.24	1.40	23.64	<=33.01	Pass		
	50		0	21.38	1.40	22.78	<=33.01	Pass		
			25	21.41	1.40	22.81	<=33.01	Pass		
			50	21.41	1.40	22.81	<=33.01	Pass		
	100		0	21.43	1.40	22.83	<=33.01	Pass		
	2560		1	0	22.24	1.40	23.64	<=33.01	Pass	
				50	22.65	1.40	24.05	<=33.01	Pass	
99				22.22	1.40	23.62	<=33.01	Pass		
50			0	21.29	1.40	22.69	<=33.01	Pass		
			25	21.27	1.40	22.67	<=33.01	Pass		
			50	21.23	1.40	22.63	<=33.01	Pass		
100			0	21.30	1.40	22.70	<=33.01	Pass		

Note1: EIRP=Conducted Power+Antenna Gain

## 2. Frequency Stability

### 2.1 Test Result

#### 2.1.1 B7\_5MHz

Band: 7 / Bandwidth: 5MHz										
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict	
		Size	Offset				Result	Limit		
QPSK	2502.5	25	0	20	3.27	-1.788	-0.0007	-2.5 to 2.5	Pass	
					3.85	-7.367	-0.0029	-2.5 to 2.5	Pass	
					4.43	-13.862	-0.0055	-2.5 to 2.5	Pass	
				-30	3.85	3.905	0.0016	-2.5 to 2.5	Pass	
					-20	3.85	-3.190	-0.0013	-2.5 to 2.5	Pass
						-10	3.85	-12.102	-0.0048	-2.5 to 2.5
				0	3.85	-3.519	-0.0014	-2.5 to 2.5	Pass	
					10	3.85	-2.260	-0.0009	-2.5 to 2.5	Pass
				30	3.85	-13.990	-0.0056	-2.5 to 2.5	Pass	
	40	3.85	0.315	0.0001	-2.5 to 2.5	Pass				
	50	3.85	-9.284	-0.0037	-2.5 to 2.5	Pass				
	2535	25	0	20	3.27	-8.497	-0.0034	-2.5 to 2.5	Pass	
					3.85	-7.768	-0.0031	-2.5 to 2.5	Pass	
					4.43	-1.531	-0.0006	-2.5 to 2.5	Pass	
				-30	3.85	-12.932	-0.0051	-2.5 to 2.5	Pass	
					-20	3.85	-10.586	-0.0042	-2.5 to 2.5	Pass
						-10	3.85	-3.448	-0.0014	-2.5 to 2.5
				0	3.85	-9.999	-0.0039	-2.5 to 2.5	Pass	
					10	3.85	-3.347	-0.0013	-2.5 to 2.5	Pass
				30	3.85	-1.044	-0.0004	-2.5 to 2.5	Pass	
	40	3.85	-6.051	-0.0024	-2.5 to 2.5	Pass				
	50	3.85	-1.817	-0.0007	-2.5 to 2.5	Pass				
	2567.5	25	0	20	3.27	-9.427	-0.0037	-2.5 to 2.5	Pass	
					3.85	-5.665	-0.0022	-2.5 to 2.5	Pass	
					4.43	-2.489	-0.0010	-2.5 to 2.5	Pass	
				-30	3.85	-7.768	-0.0030	-2.5 to 2.5	Pass	
					-20	3.85	-3.061	-0.0012	-2.5 to 2.5	Pass
-10						3.85	-3.777	-0.0015	-2.5 to 2.5	Pass
0				3.85	-4.849	-0.0019	-2.5 to 2.5	Pass		
				10	3.85	-3.819	-0.0015	-2.5 to 2.5	Pass	
30				3.85	0.329	0.0001	-2.5 to 2.5	Pass		
40	3.85	-2.160	-0.0008	-2.5 to 2.5	Pass					
50	3.85	-3.819	-0.0015	-2.5 to 2.5	Pass					
16QAM	2502.5	25	0	20	3.27	-1.645	-0.0007	-2.5 to 2.5	Pass	
					3.85	4.463	0.0018	-2.5 to 2.5	Pass	
					4.43	-7.567	-0.0030	-2.5 to 2.5	Pass	
				-30	3.85	-12.560	-0.0050	-2.5 to 2.5	Pass	
					-20	3.85	-0.529	-0.0002	-2.5 to 2.5	Pass
						-10	3.85	-1.001	-0.0004	-2.5 to 2.5
				0	3.85	-12.102	-0.0048	-2.5 to 2.5	Pass	
					10	3.85	-3.762	-0.0015	-2.5 to 2.5	Pass
				30	3.85	-4.606	-0.0018	-2.5 to 2.5	Pass	
	40	3.85	-5.779	-0.0023	-2.5 to 2.5	Pass				
	50	3.85	-10.214	-0.0041	-2.5 to 2.5	Pass				
	2535	25	0	20	3.27	3.605	0.0014	-2.5 to 2.5	Pass	
					3.85	-3.920	-0.0015	-2.5 to 2.5	Pass	
					4.43	3.791	0.0015	-2.5 to 2.5	Pass	
				-30	3.85	2.174	0.0009	-2.5 to 2.5	Pass	
-20					3.85	1.903	0.0008	-2.5 to 2.5	Pass	
-10				3.85	0.257	0.0001	-2.5 to 2.5	Pass		

				0	3.85	-0.215	-0.0001	-2.5 to 2.5	Pass
				10	3.85	-0.429	-0.0002	-2.5 to 2.5	Pass
				30	3.85	-0.515	-0.0002	-2.5 to 2.5	Pass
				40	3.85	-8.183	-0.0032	-2.5 to 2.5	Pass
				50	3.85	-7.467	-0.0029	-2.5 to 2.5	Pass
	2567.5	25	0	20	3.27	-2.604	-0.0010	-2.5 to 2.5	Pass
					3.85	-0.386	-0.0002	-2.5 to 2.5	Pass
					4.43	-3.405	-0.0013	-2.5 to 2.5	Pass
				-30	3.85	-4.964	-0.0019	-2.5 to 2.5	Pass
				-20	3.85	-1.688	-0.0007	-2.5 to 2.5	Pass
				-10	3.85	-2.575	-0.0010	-2.5 to 2.5	Pass
				0	3.85	-6.223	-0.0024	-2.5 to 2.5	Pass
				10	3.85	-1.988	-0.0008	-2.5 to 2.5	Pass
				30	3.85	-4.191	-0.0016	-2.5 to 2.5	Pass
				40	3.85	-6.037	-0.0024	-2.5 to 2.5	Pass
				50	3.85	-5.007	-0.0020	-2.5 to 2.5	Pass

2.1.2 B7\_10MHz

Band: 7 / Bandwidth: 10MHz												
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict			
		Size	Offset				Result	Limit				
QPSK	2505	50	0	20	3.27	-10.843	-0.0043	-2.5 to 2.5	Pass			
					3.85	-1.616	-0.0006	-2.5 to 2.5	Pass			
					4.43	-1.502	-0.0006	-2.5 to 2.5	Pass			
				-30	3.85	-3.262	-0.0013	-2.5 to 2.5	Pass			
				-20	3.85	-0.472	-0.0002	-2.5 to 2.5	Pass			
				-10	3.85	-8.955	-0.0036	-2.5 to 2.5	Pass			
				0	3.85	-3.061	-0.0012	-2.5 to 2.5	Pass			
				10	3.85	3.247	0.0013	-2.5 to 2.5	Pass			
				30	3.85	-5.336	-0.0021	-2.5 to 2.5	Pass			
				40	3.85	-2.847	-0.0011	-2.5 to 2.5	Pass			
				50	3.85	-3.276	-0.0013	-2.5 to 2.5	Pass			
				2535	50	0	20	3.27	-0.615	-0.0002	-2.5 to 2.5	Pass
								3.85	-2.675	-0.0011	-2.5 to 2.5	Pass
								4.43	0.529	0.0002	-2.5 to 2.5	Pass
							-30	3.85	1.273	0.0005	-2.5 to 2.5	Pass
	-20	3.85	2.975				0.0012	-2.5 to 2.5	Pass			
	-10	3.85	3.276				0.0013	-2.5 to 2.5	Pass			
	0	3.85	-6.180				-0.0024	-2.5 to 2.5	Pass			
	10	3.85	0.200				0.0001	-2.5 to 2.5	Pass			
	30	3.85	-4.435				-0.0017	-2.5 to 2.5	Pass			
	2565	50	0	20	3.27	-6.380	-0.0025	-2.5 to 2.5	Pass			
					3.85	-4.191	-0.0016	-2.5 to 2.5	Pass			
					4.43	-3.362	-0.0013	-2.5 to 2.5	Pass			
				-30	3.85	-10.500	-0.0041	-2.5 to 2.5	Pass			
				-20	3.85	-7.582	-0.0030	-2.5 to 2.5	Pass			
				-10	3.85	-6.323	-0.0025	-2.5 to 2.5	Pass			
				0	3.85	-9.670	-0.0038	-2.5 to 2.5	Pass			
				10	3.85	-4.234	-0.0017	-2.5 to 2.5	Pass			
				30	3.85	-3.161	-0.0012	-2.5 to 2.5	Pass			
	16QAM	2505	50	0	20	3.27	-1.202	-0.0005	-2.5 to 2.5	Pass		
3.85						-1.717	-0.0007	-2.5 to 2.5	Pass			
4.43						-1.287	-0.0005	-2.5 to 2.5	Pass			

				-30	3.85	3.161	0.0013	-2.5 to 2.5	Pass
				-20	3.85	0.272	0.0001	-2.5 to 2.5	Pass
				-10	3.85	-4.377	-0.0017	-2.5 to 2.5	Pass
				0	3.85	0.157	0.0001	-2.5 to 2.5	Pass
				10	3.85	-10.514	-0.0042	-2.5 to 2.5	Pass
				30	3.85	-9.170	-0.0037	-2.5 to 2.5	Pass
				40	3.85	1.745	0.0007	-2.5 to 2.5	Pass
				50	3.85	1.059	0.0004	-2.5 to 2.5	Pass
	2535	50	0	20	3.27	-0.272	-0.0001	-2.5 to 2.5	Pass
					3.85	-5.965	-0.0024	-2.5 to 2.5	Pass
					4.43	1.373	0.0005	-2.5 to 2.5	Pass
				-30	3.85	-5.922	-0.0023	-2.5 to 2.5	Pass
				-20	3.85	-1.016	-0.0004	-2.5 to 2.5	Pass
				-10	3.85	-9.127	-0.0036	-2.5 to 2.5	Pass
				0	3.85	-5.622	-0.0022	-2.5 to 2.5	Pass
				10	3.85	-4.077	-0.0016	-2.5 to 2.5	Pass
	2565	50	0	20	3.27	1.731	0.0007	-2.5 to 2.5	Pass
					3.85	-3.018	-0.0012	-2.5 to 2.5	Pass
					4.43	4.134	0.0016	-2.5 to 2.5	Pass
				-30	3.85	-6.166	-0.0024	-2.5 to 2.5	Pass
				-20	3.85	-3.161	-0.0012	-2.5 to 2.5	Pass
				-10	3.85	-6.437	-0.0025	-2.5 to 2.5	Pass
				0	3.85	-2.904	-0.0011	-2.5 to 2.5	Pass
				10	3.85	-4.506	-0.0018	-2.5 to 2.5	Pass
	30	3.85	0.887	0.0003	-2.5 to 2.5	Pass			
	40	3.85	-2.089	-0.0008	-2.5 to 2.5	Pass			
	50	3.85	-6.738	-0.0026	-2.5 to 2.5	Pass			

### 2.1.3 B7\_15MHz

Band: 7 / Bandwidth: 15MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	2507.5	75	0	20	3.27	-11.258	-0.0045	-2.5 to 2.5	Pass
					3.85	-6.080	-0.0024	-2.5 to 2.5	Pass
					4.43	-1.974	-0.0008	-2.5 to 2.5	Pass
				-30	3.85	-10.858	-0.0043	-2.5 to 2.5	Pass
				-20	3.85	-7.067	-0.0028	-2.5 to 2.5	Pass
				-10	3.85	-8.569	-0.0034	-2.5 to 2.5	Pass
				0	3.85	-10.614	-0.0042	-2.5 to 2.5	Pass
				10	3.85	-3.748	-0.0015	-2.5 to 2.5	Pass
				30	3.85	-14.534	-0.0058	-2.5 to 2.5	Pass
				40	3.85	-5.035	-0.0020	-2.5 to 2.5	Pass
				50	3.85	-13.833	-0.0055	-2.5 to 2.5	Pass
				2535	75	0	20	3.27	-5.965
	3.85	-0.801	-0.0003					-2.5 to 2.5	Pass
	4.43	3.562	0.0014					-2.5 to 2.5	Pass
	-30	3.85	-3.576				-0.0014	-2.5 to 2.5	Pass
	-20	3.85	-4.034				-0.0016	-2.5 to 2.5	Pass
	-10	3.85	0.930				0.0004	-2.5 to 2.5	Pass
	0	3.85	-2.074				-0.0008	-2.5 to 2.5	Pass
	10	3.85	2.031				0.0008	-2.5 to 2.5	Pass
	30	3.85	6.351				0.0025	-2.5 to 2.5	Pass
	40	3.85	-0.916				-0.0004	-2.5 to 2.5	Pass
	50	3.85	2.389				0.0009	-2.5 to 2.5	Pass

	2562.5	75	0	20	3.27	-4.735	-0.0018	-2.5 to 2.5	Pass	
					3.85	-5.350	-0.0021	-2.5 to 2.5	Pass	
					4.43	5.250	0.0020	-2.5 to 2.5	Pass	
				-30	3.85	5.307	0.0021	-2.5 to 2.5	Pass	
					-20	3.85	-3.562	-0.0014	-2.5 to 2.5	Pass
					-10	3.85	-3.548	-0.0014	-2.5 to 2.5	Pass
				0	3.85	-2.990	-0.0012	-2.5 to 2.5	Pass	
					10	3.85	-4.406	-0.0017	-2.5 to 2.5	Pass
					30	3.85	-2.146	-0.0008	-2.5 to 2.5	Pass
				40	3.85	-2.904	-0.0011	-2.5 to 2.5	Pass	
					50	3.85	-9.341	-0.0036	-2.5 to 2.5	Pass
				16QAM	2507.5	75	0	20	3.27	-8.354
3.85	-4.950	-0.0020	-2.5 to 2.5						Pass	
4.43	-11.158	-0.0044	-2.5 to 2.5						Pass	
-30	3.85	-4.377	-0.0017					-2.5 to 2.5	Pass	
	-20	3.85	0.572					0.0002	-2.5 to 2.5	Pass
	-10	3.85	-8.826					-0.0035	-2.5 to 2.5	Pass
0	3.85	-5.379	-0.0021					-2.5 to 2.5	Pass	
	10	3.85	-2.990					-0.0012	-2.5 to 2.5	Pass
	30	3.85	-5.279					-0.0021	-2.5 to 2.5	Pass
40	3.85	-9.184	-0.0037					-2.5 to 2.5	Pass	
	50	3.85	-6.237					-0.0025	-2.5 to 2.5	Pass
2535	75	0	20					3.27	-4.535	-0.0018
					3.85	5.236	0.0021	-2.5 to 2.5	Pass	
					4.43	2.832	0.0011	-2.5 to 2.5	Pass	
			-30		3.85	4.106	0.0016	-2.5 to 2.5	Pass	
					-20	3.85	6.008	0.0024	-2.5 to 2.5	Pass
					-10	3.85	2.203	0.0009	-2.5 to 2.5	Pass
			0		3.85	-0.358	-0.0001	-2.5 to 2.5	Pass	
					10	3.85	0.744	0.0003	-2.5 to 2.5	Pass
					30	3.85	-6.280	-0.0025	-2.5 to 2.5	Pass
			40		3.85	-0.601	-0.0002	-2.5 to 2.5	Pass	
					50	3.85	-1.874	-0.0007	-2.5 to 2.5	Pass
			2562.5		75	0	20	3.27	-3.705	-0.0014
3.85	-4.864	-0.0019						-2.5 to 2.5	Pass	
4.43	-3.333	-0.0013		-2.5 to 2.5				Pass		
-30	3.85	-2.761		-0.0011			-2.5 to 2.5	Pass		
	-20	3.85		0.458			0.0002	-2.5 to 2.5	Pass	
	-10	3.85		-7.796			-0.0030	-2.5 to 2.5	Pass	
0	3.85	6.180		0.0024			-2.5 to 2.5	Pass		
	10	3.85		-1.345			-0.0005	-2.5 to 2.5	Pass	
	30	3.85		-2.189			-0.0009	-2.5 to 2.5	Pass	
40	3.85	-1.960		-0.0008			-2.5 to 2.5	Pass		
	50	3.85		-7.052			-0.0028	-2.5 to 2.5	Pass	

### 2.1.4 B7\_20MHz

Band: 7 / Bandwidth: 20MHz										
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict	
		Size	Offset				Result	Limit		
QPSK	2510	100	0	20	3.27	-7.768	-0.0031	-2.5 to 2.5	Pass	
					3.85	-3.633	-0.0014	-2.5 to 2.5	Pass	
					4.43	-15.106	-0.0060	-2.5 to 2.5	Pass	
				-30	3.85	0.229	0.0001	-2.5 to 2.5	Pass	
					-20	3.85	-10.629	-0.0042	-2.5 to 2.5	Pass
					-10	3.85	0.916	0.0004	-2.5 to 2.5	Pass
				0	3.85	-6.995	-0.0028	-2.5 to 2.5	Pass	
					10	3.85	-10.386	-0.0041	-2.5 to 2.5	Pass

	2535	100	0	30	3.85	-0.157	-0.0001	-2.5 to 2.5	Pass	
				40	3.85	-0.286	-0.0001	-2.5 to 2.5	Pass	
				50	3.85	-1.931	-0.0008	-2.5 to 2.5	Pass	
				20	3.27	1.760	0.0007	-2.5 to 2.5	Pass	
					3.85	1.945	0.0008	-2.5 to 2.5	Pass	
					4.43	2.217	0.0009	-2.5 to 2.5	Pass	
				-30	3.85	3.691	0.0015	-2.5 to 2.5	Pass	
				-20	3.85	-4.692	-0.0019	-2.5 to 2.5	Pass	
				-10	3.85	-4.606	-0.0018	-2.5 to 2.5	Pass	
	0	3.85	-0.358	-0.0001	-2.5 to 2.5	Pass				
	10	3.85	1.016	0.0004	-2.5 to 2.5	Pass				
	30	3.85	-5.593	-0.0022	-2.5 to 2.5	Pass				
	40	3.85	0.515	0.0002	-2.5 to 2.5	Pass				
	50	3.85	1.960	0.0008	-2.5 to 2.5	Pass				
	2560	100	0	20	3.27	-16.608	-0.0065	-2.5 to 2.5	Pass	
					3.85	0.229	0.0001	-2.5 to 2.5	Pass	
					4.43	-13.461	-0.0053	-2.5 to 2.5	Pass	
				-30	3.85	-8.740	-0.0034	-2.5 to 2.5	Pass	
				-20	3.85	-12.002	-0.0047	-2.5 to 2.5	Pass	
				-10	3.85	-6.351	-0.0025	-2.5 to 2.5	Pass	
				0	3.85	-5.107	-0.0020	-2.5 to 2.5	Pass	
				10	3.85	-11.501	-0.0045	-2.5 to 2.5	Pass	
				30	3.85	-11.745	-0.0046	-2.5 to 2.5	Pass	
				40	3.85	-8.640	-0.0034	-2.5 to 2.5	Pass	
				50	3.85	-4.749	-0.0019	-2.5 to 2.5	Pass	
	16QAM	2510	100	0	20	3.27	-9.527	-0.0038	-2.5 to 2.5	Pass
						3.85	-0.458	-0.0002	-2.5 to 2.5	Pass
4.43						-11.015	-0.0044	-2.5 to 2.5	Pass	
-30					3.85	-7.081	-0.0028	-2.5 to 2.5	Pass	
-20					3.85	-3.519	-0.0014	-2.5 to 2.5	Pass	
-10					3.85	-12.460	-0.0050	-2.5 to 2.5	Pass	
0					3.85	1.159	0.0005	-2.5 to 2.5	Pass	
10					3.85	-1.874	-0.0007	-2.5 to 2.5	Pass	
30					3.85	3.619	0.0014	-2.5 to 2.5	Pass	
40					3.85	-5.193	-0.0021	-2.5 to 2.5	Pass	
50					3.85	-3.920	-0.0016	-2.5 to 2.5	Pass	
2535		100	0	20	3.27	-6.022	-0.0024	-2.5 to 2.5	Pass	
					3.85	-2.346	-0.0009	-2.5 to 2.5	Pass	
					4.43	5.393	0.0021	-2.5 to 2.5	Pass	
				-30	3.85	2.017	0.0008	-2.5 to 2.5	Pass	
				-20	3.85	-4.635	-0.0018	-2.5 to 2.5	Pass	
				-10	3.85	-4.106	-0.0016	-2.5 to 2.5	Pass	
				0	3.85	-3.076	-0.0012	-2.5 to 2.5	Pass	
				10	3.85	2.332	0.0009	-2.5 to 2.5	Pass	
				30	3.85	-5.221	-0.0021	-2.5 to 2.5	Pass	
				40	3.85	-4.492	-0.0018	-2.5 to 2.5	Pass	
				50	3.85	8.082	0.0032	-2.5 to 2.5	Pass	
2560		100	0	20	3.27	-15.893	-0.0062	-2.5 to 2.5	Pass	
					3.85	1.774	0.0007	-2.5 to 2.5	Pass	
					4.43	-14.949	-0.0058	-2.5 to 2.5	Pass	
				-30	3.85	-2.904	-0.0011	-2.5 to 2.5	Pass	
				-20	3.85	-9.885	-0.0039	-2.5 to 2.5	Pass	
	-10			3.85	-11.401	-0.0045	-2.5 to 2.5	Pass		
	0			3.85	-5.250	-0.0021	-2.5 to 2.5	Pass		
	10			3.85	-6.595	-0.0026	-2.5 to 2.5	Pass		
	30			3.85	-10.371	-0.0041	-2.5 to 2.5	Pass		
	40			3.85	-9.656	-0.0038	-2.5 to 2.5	Pass		
	50			3.85	-19.312	-0.0075	-2.5 to 2.5	Pass		

### 3. Modulation Characteristics

#### 3.1 Test Result

##### 3.1.1 B7\_5MHz

Band: 7 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	2535	25	0	Refer To Test Graph		Pass
16QAM	2535	25	0	Refer To Test Graph		Pass

##### 3.1.2 B7\_10MHz

Band: 7 / Bandwidth: 10MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	2535	50	0	Refer To Test Graph		Pass
16QAM	2535	50	0	Refer To Test Graph		Pass

##### 3.1.3 B7\_15MHz

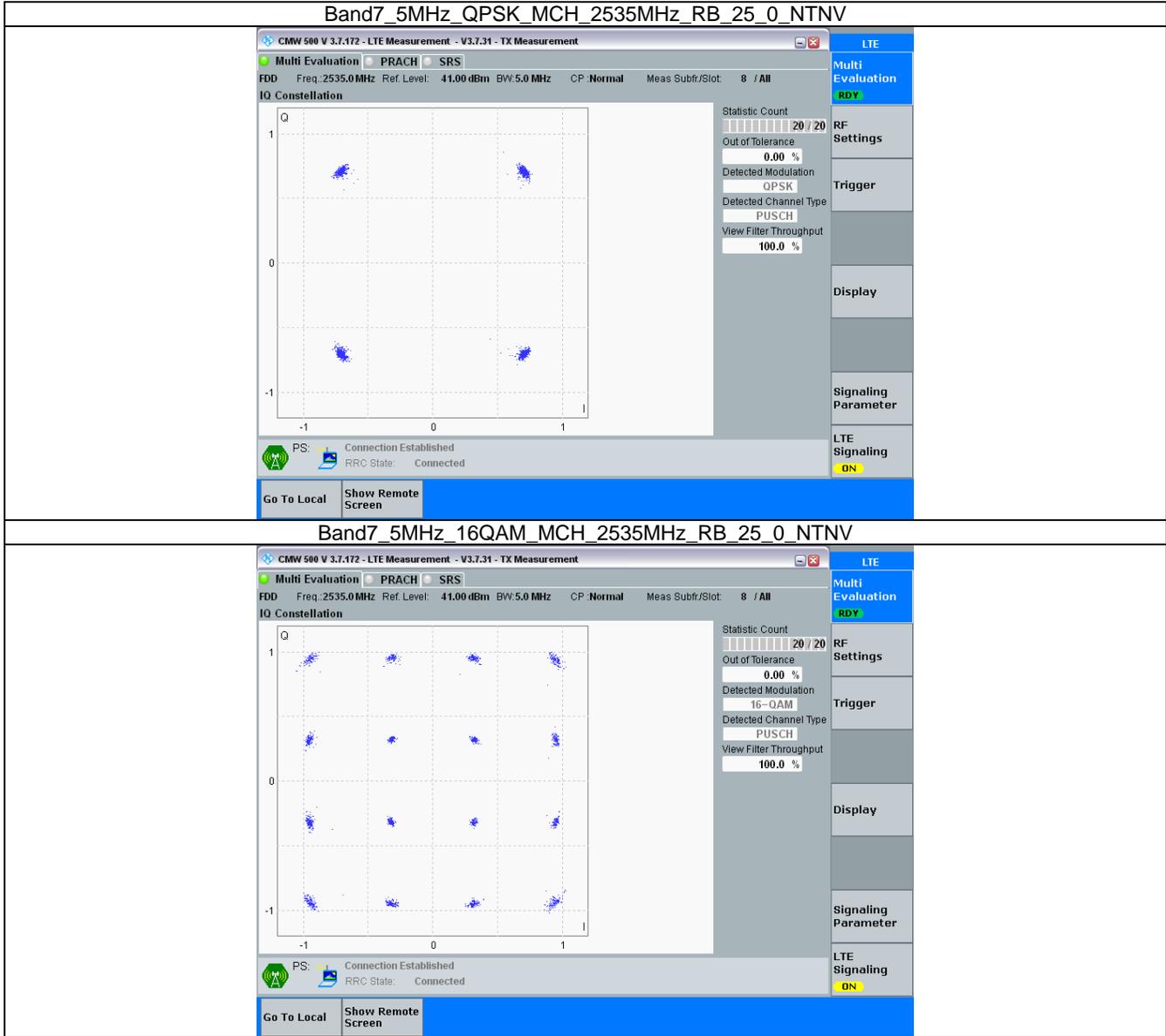
Band: 7 / Bandwidth: 15MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	2535	75	0	Refer To Test Graph		Pass
16QAM	2535	75	0	Refer To Test Graph		Pass

##### 3.1.4 B7\_20MHz

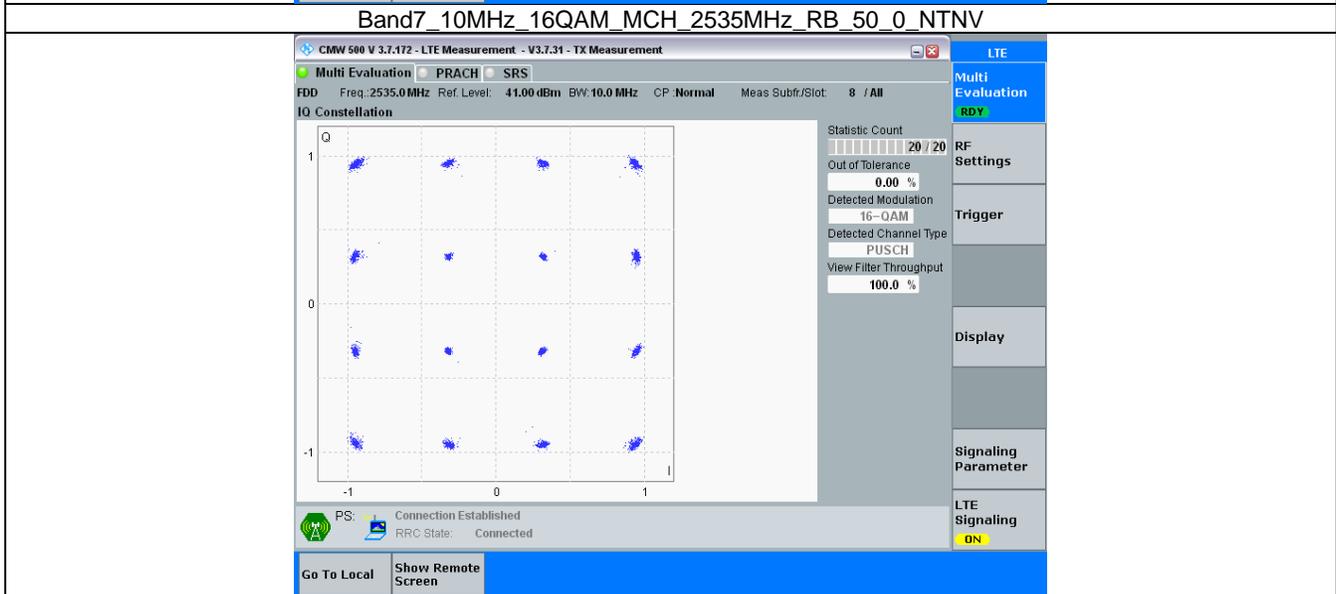
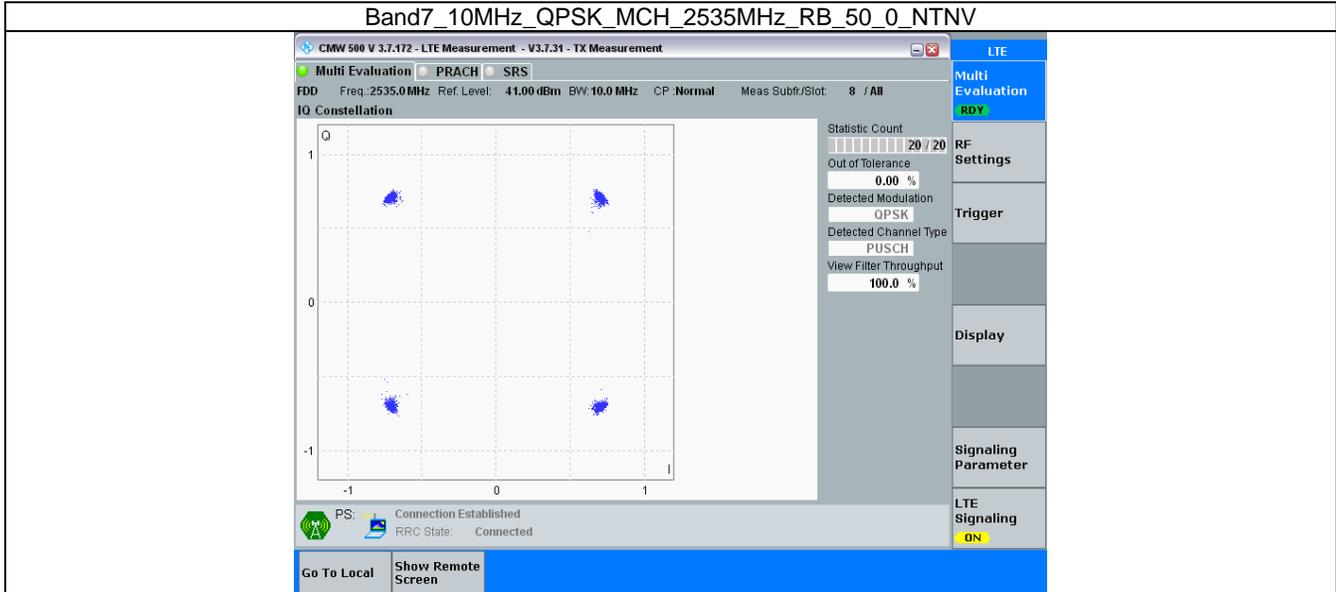
Band: 7 / Bandwidth: 20MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	2535	100	0	Refer To Test Graph		Pass
16QAM	2535	100	0	Refer To Test Graph		Pass

### 3.2 Test Graph

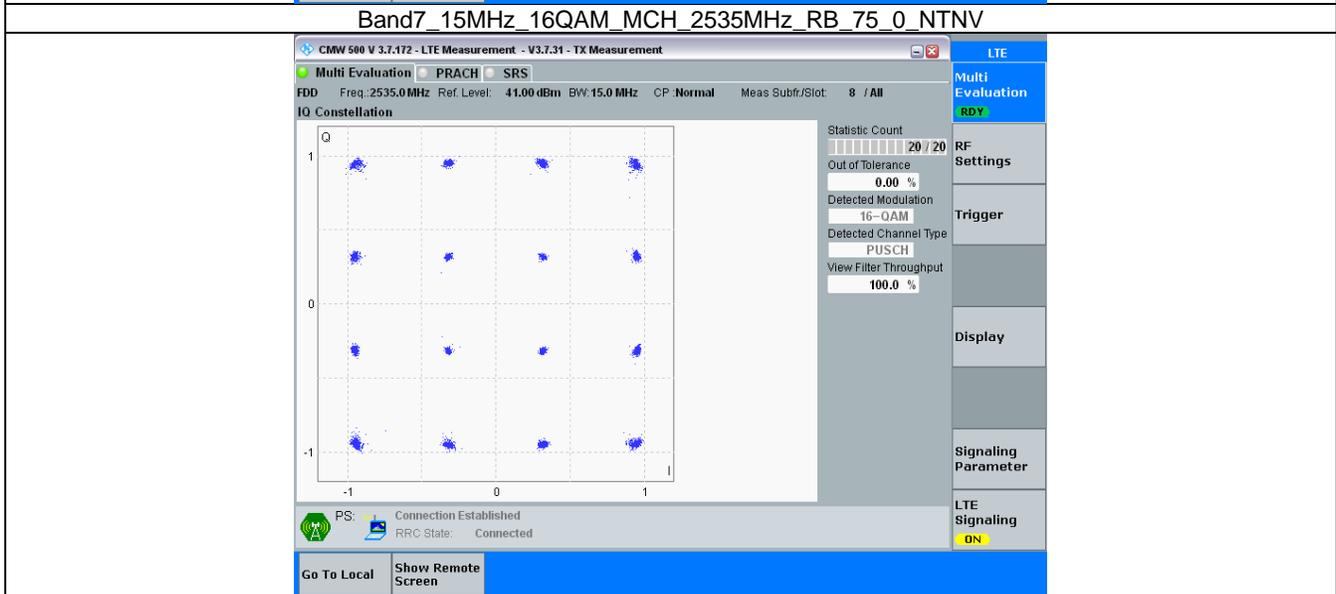
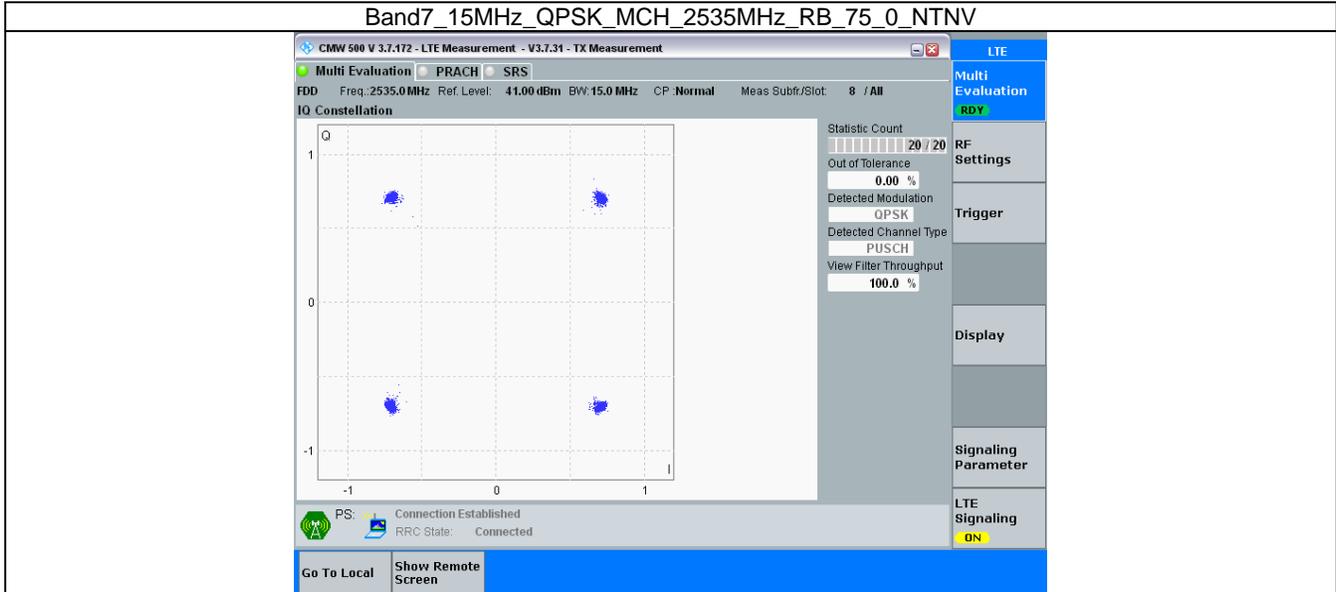
#### 3.2.1 B7\_5MHz



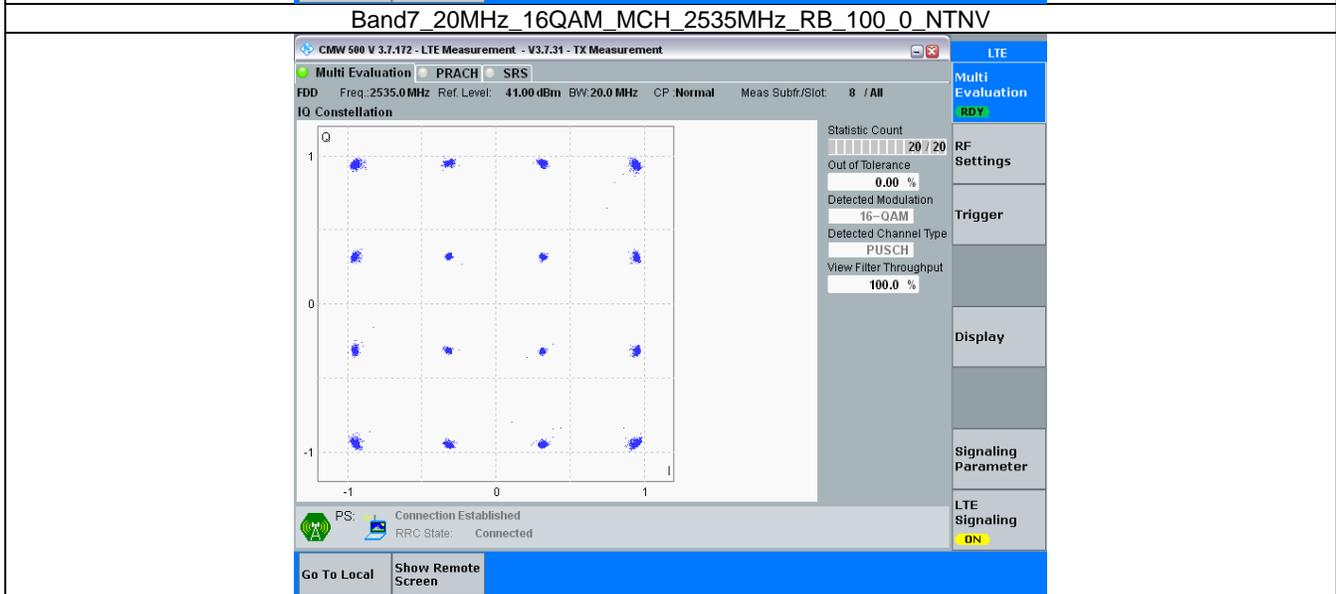
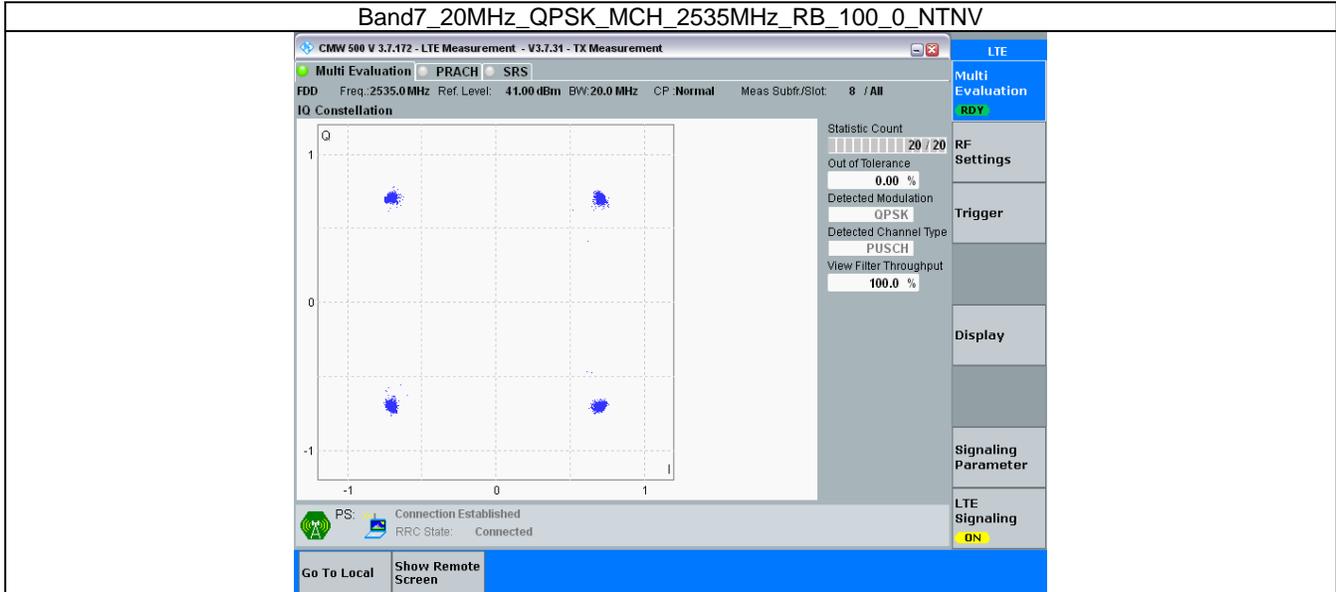
### 3.2.2 B7\_10MHz



### 3.2.3 B7\_15MHz



### 3.2.4 B7\_20MHz



## 4. 99% & 26dB Bandwidth

### 4.1 Test Result

#### 4.1.1 Band7\_OBW

Band: 7 / NTN							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	2502.5	25	0	4.529	/	Pass
		2535	25	0	4.549	/	Pass
		2567.5	25	0	4.549	/	Pass
	16QAM	2502.5	25	0	4.551	/	Pass
		2535	25	0	4.554	/	Pass
		2567.5	25	0	4.528	/	Pass
10	QPSK	2505	50	0	9.071	/	Pass
		2535	50	0	9.048	/	Pass
		2565	50	0	9.076	/	Pass
	16QAM	2505	50	0	9.052	/	Pass
		2535	50	0	9.045	/	Pass
		2565	50	0	9.039	/	Pass
15	QPSK	2507.5	75	0	13.563	/	Pass
		2535	75	0	13.613	/	Pass
		2562.5	75	0	13.581	/	Pass
	16QAM	2507.5	75	0	13.574	/	Pass
		2535	75	0	13.618	/	Pass
		2562.5	75	0	13.612	/	Pass
20	QPSK	2510	100	0	18.056	/	Pass
		2535	100	0	18.146	/	Pass
		2560	100	0	18.129	/	Pass
	16QAM	2510	100	0	18.056	/	Pass
		2535	100	0	18.091	/	Pass
		2560	100	0	18.188	/	Pass

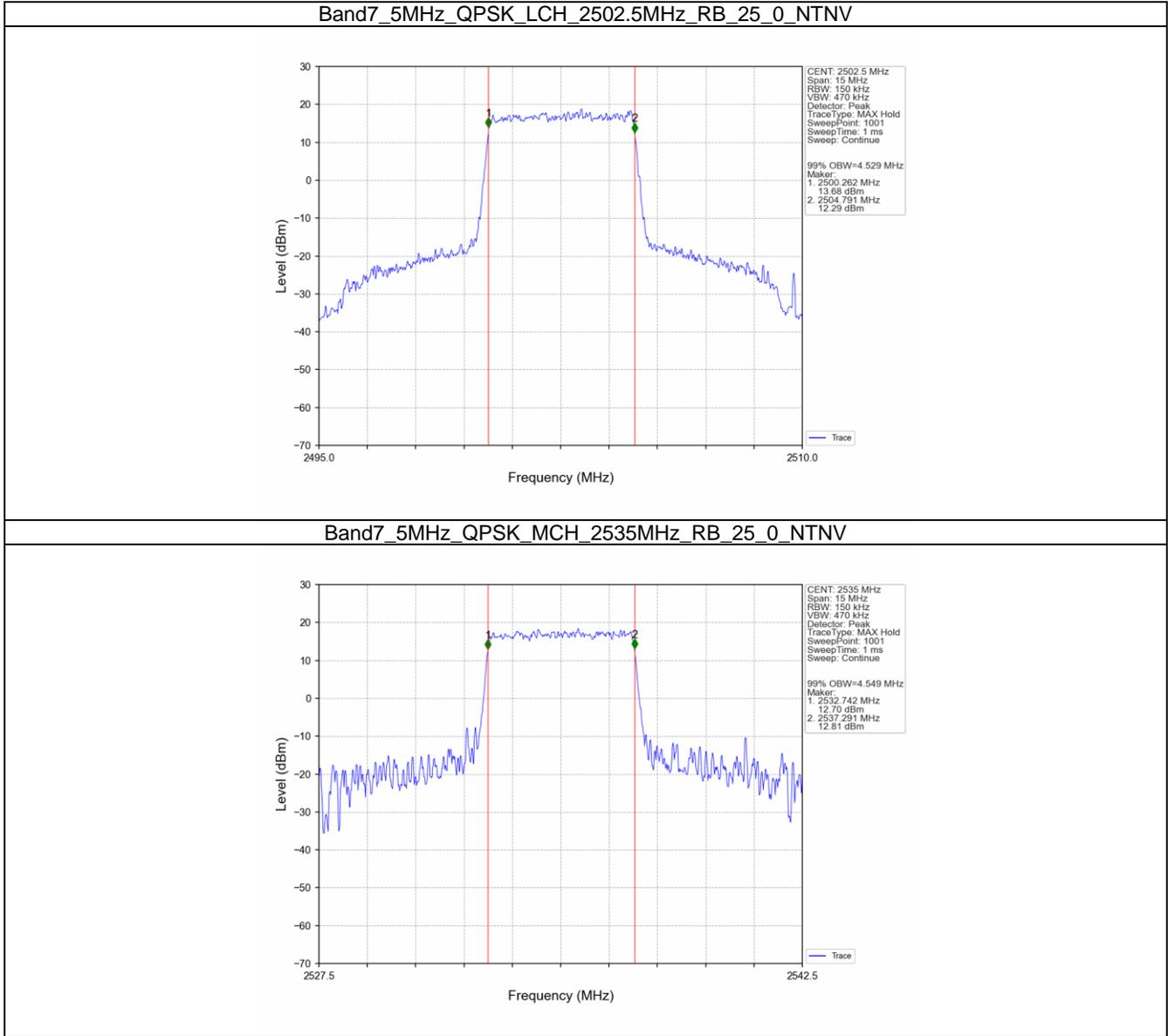
#### 4.1.2 Band7\_XDB

Band: 7 / NTN							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	2502.5	25	0	5.002	/	Pass
		2535	25	0	5.042	/	Pass
		2567.5	25	0	4.998	/	Pass
	16QAM	2502.5	25	0	5.283	/	Pass
		2535	25	0	5.035	/	Pass
		2567.5	25	0	5.001	/	Pass
10	QPSK	2505	50	0	9.927	/	Pass
		2535	50	0	9.979	/	Pass
		2565	50	0	10.418	/	Pass
	16QAM	2505	50	0	9.944	/	Pass
		2535	50	0	9.899	/	Pass
		2565	50	0	9.926	/	Pass
15	QPSK	2507.5	75	0	14.952	/	Pass
		2535	75	0	15.342	/	Pass
		2562.5	75	0	15.862	/	Pass

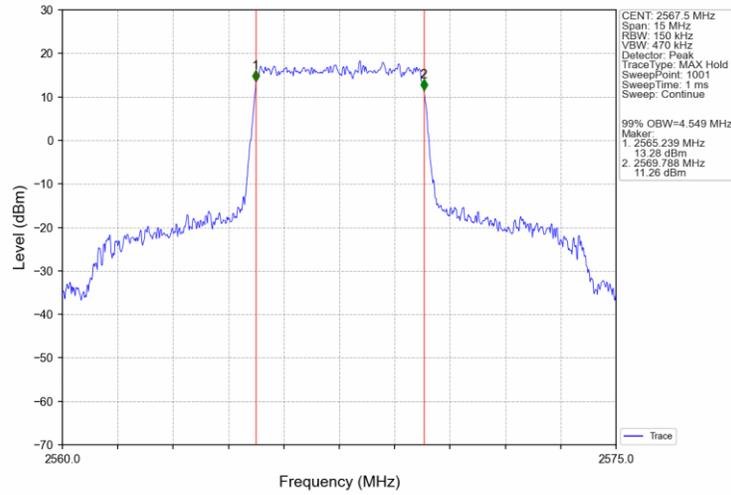
	16QAM	2507.5	75	0	14.844	/	Pass
		2535	75	0	14.848	/	Pass
		2562.5	75	0	14.980	/	Pass
20	QPSK	2510	100	0	20.369	/	Pass
		2535	100	0	19.741	/	Pass
		2560	100	0	19.600	/	Pass
	16QAM	2510	100	0	19.708	/	Pass
		2535	100	0	19.780	/	Pass
		2560	100	0	19.641	/	Pass

## 4.2 Test Graph

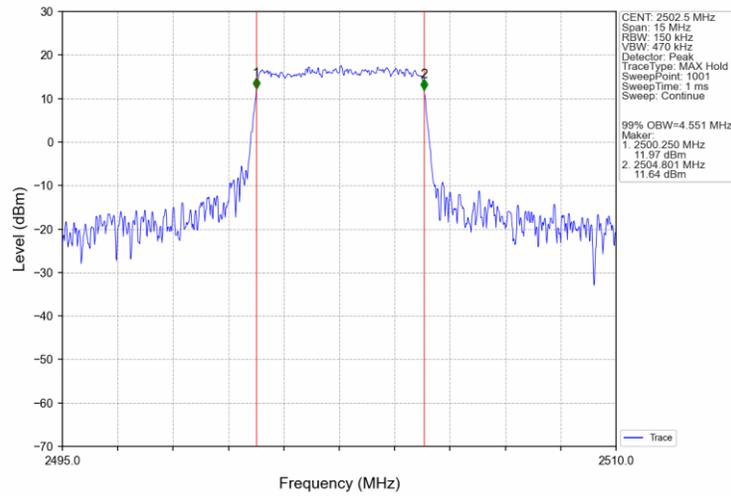
### 4.2.1 Band7\_OBW



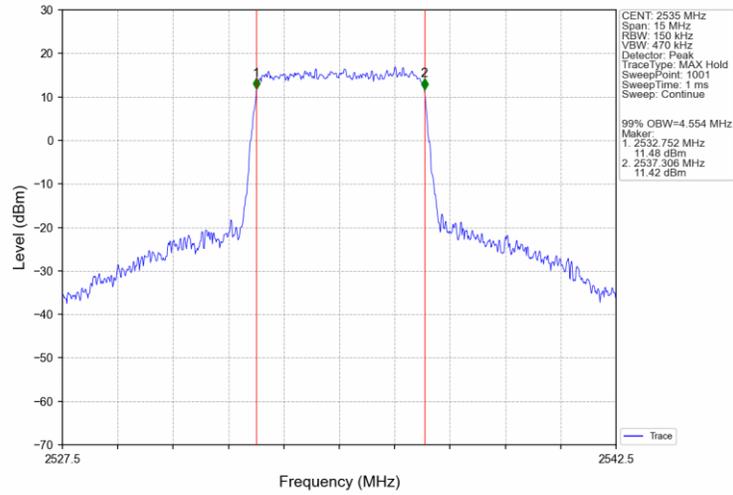
Band7\_5MHz\_QPSK\_HCH\_2567.5MHz\_RB\_25\_0\_NTNV



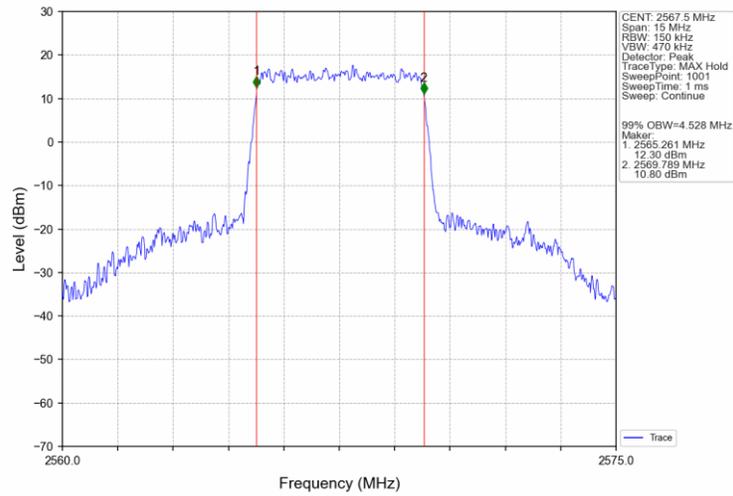
Band7\_5MHz\_16QAM\_LCH\_2502.5MHz\_RB\_25\_0\_NTNV



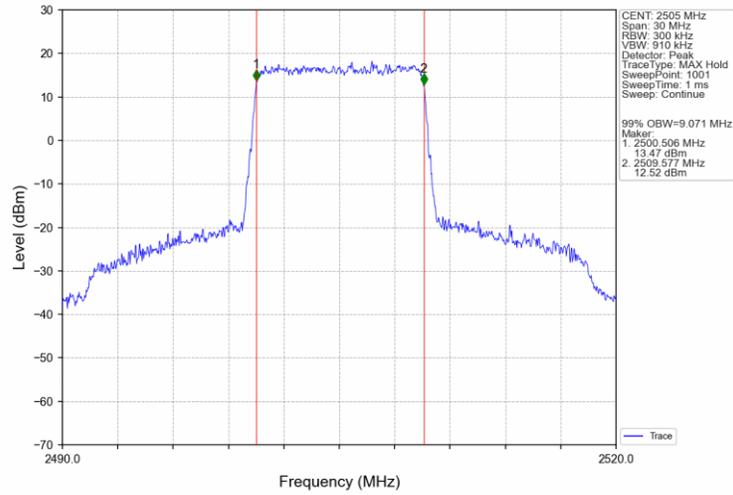
Band7\_5MHz\_16QAM\_MCH\_2535MHz\_RB\_25\_0\_NTNV



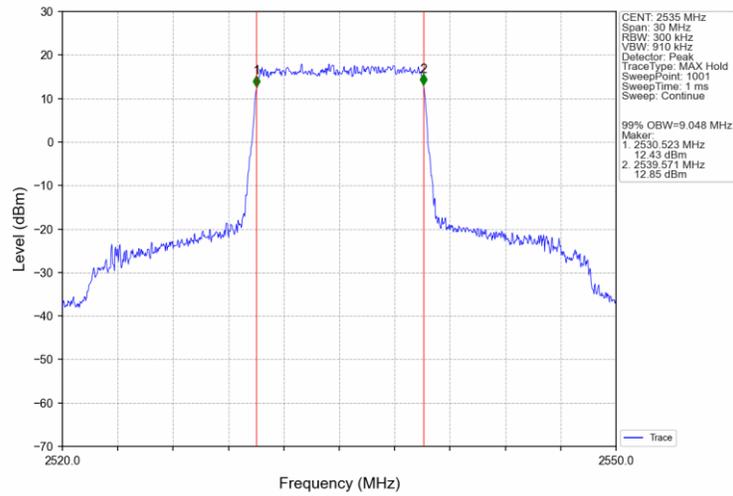
Band7\_5MHz\_16QAM\_HCH\_2567.5MHz\_RB\_25\_0\_NTNV



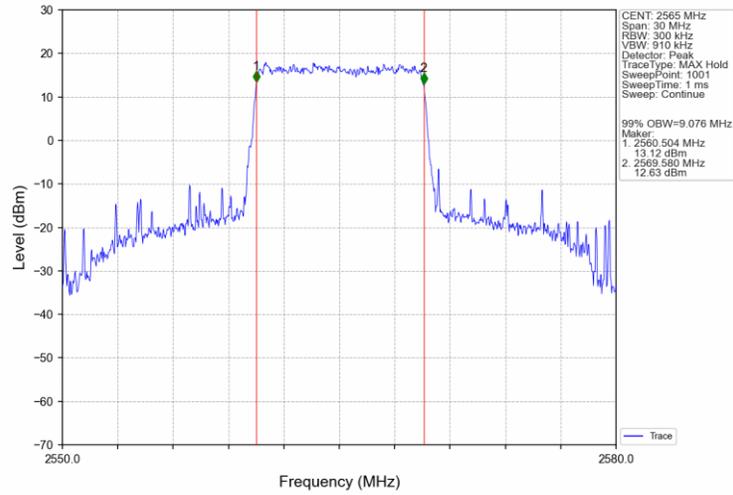
Band7\_10MHz\_QPSK\_LCH\_2505MHz\_RB\_50\_0\_NTNV



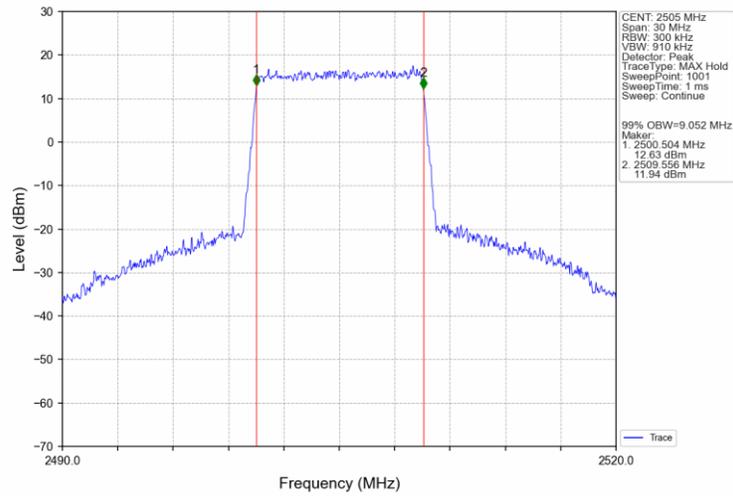
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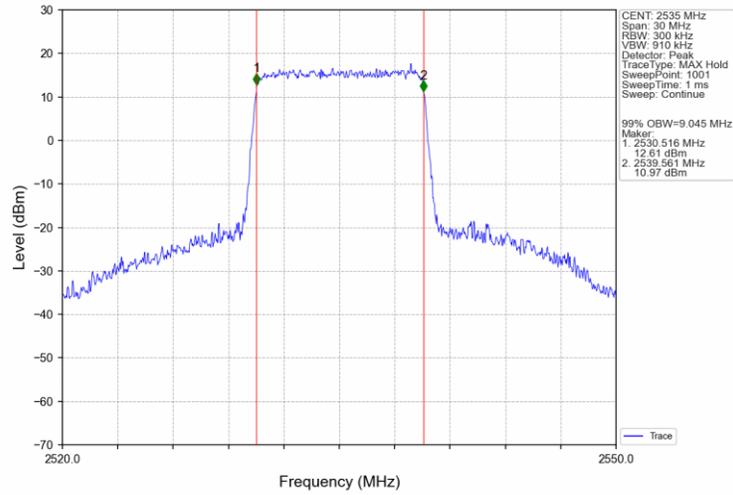
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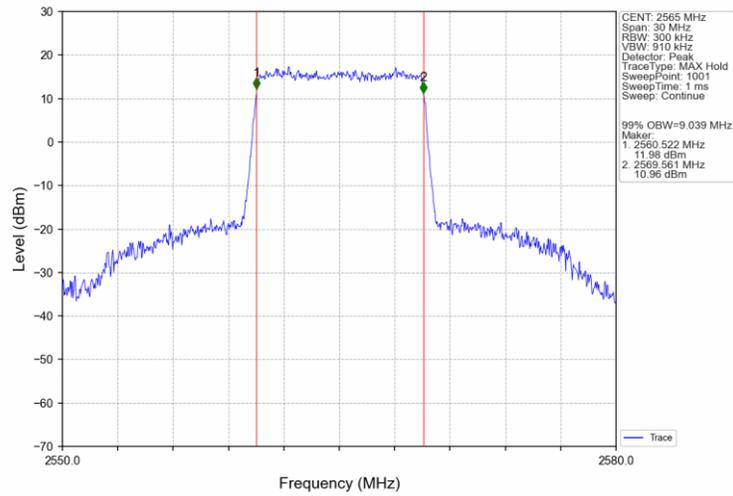
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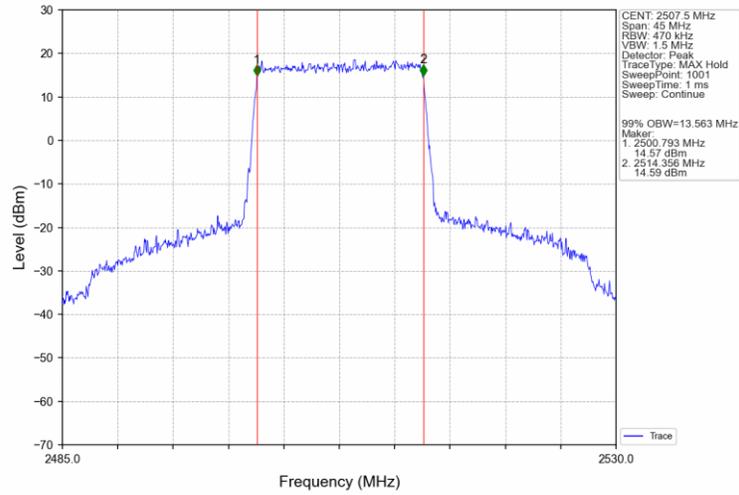
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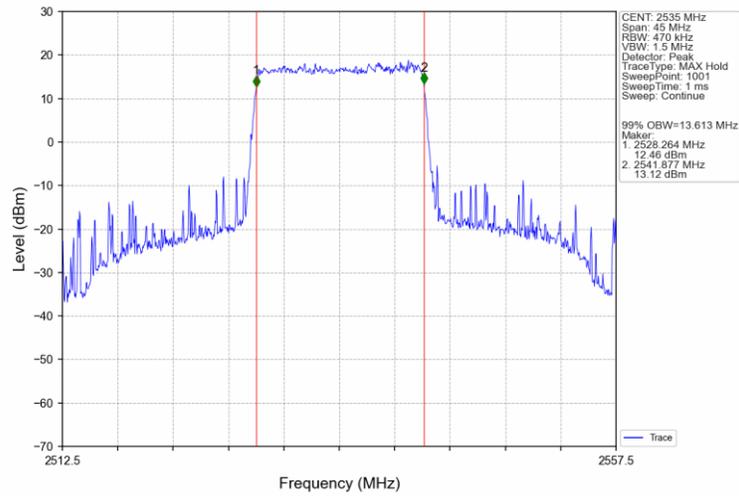
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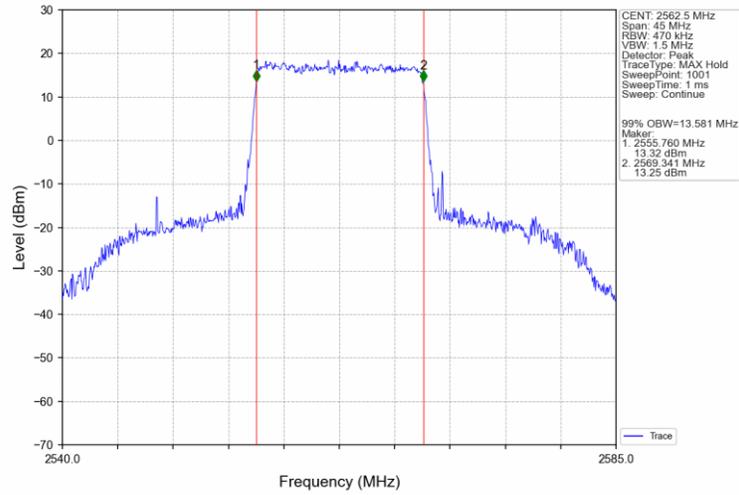
Band7\_15MHz\_QPSK\_LCH\_2507.5MHz\_RB\_75\_0\_NTNV



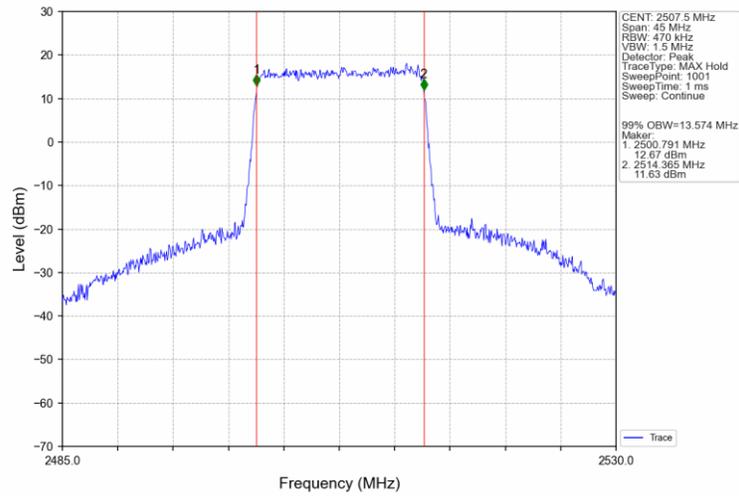
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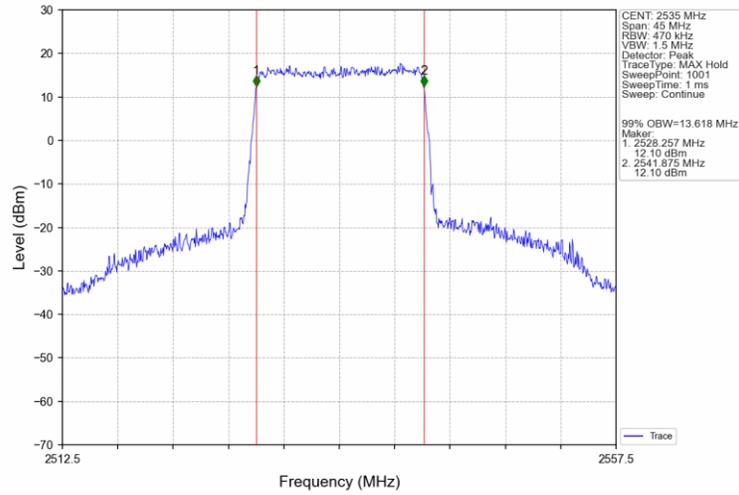
Band7\_15MHz\_QPSK\_HCH\_2562.5MHz\_RB\_75\_0\_NTNV



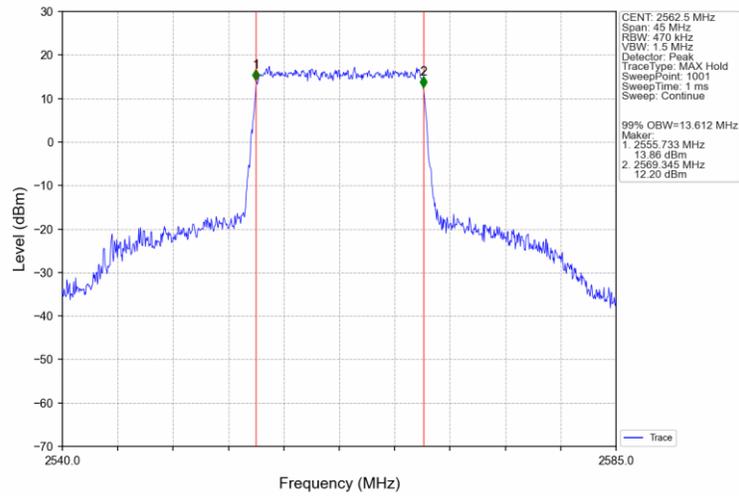
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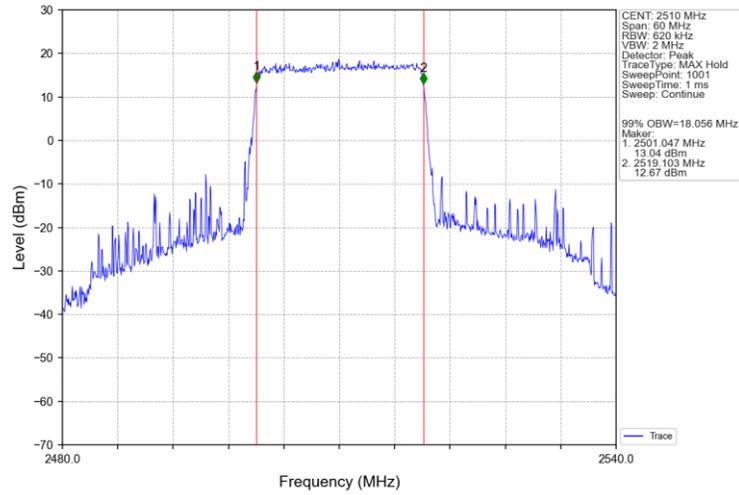
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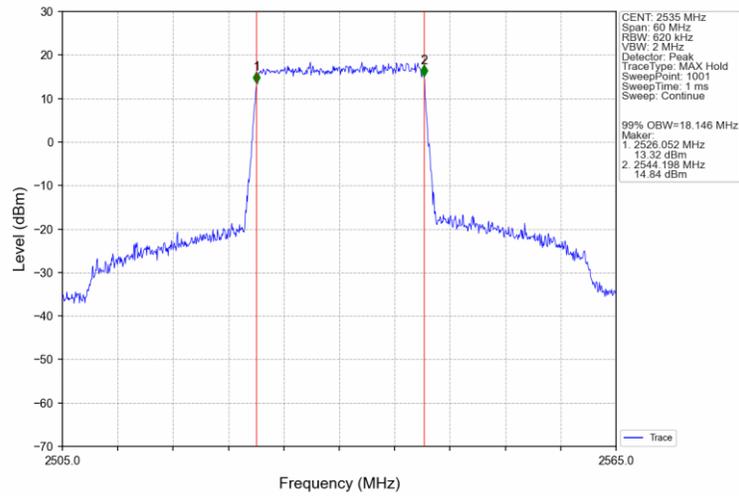
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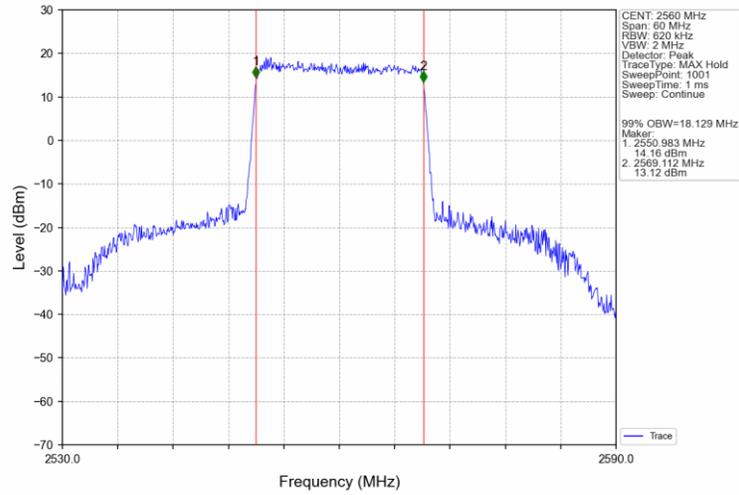
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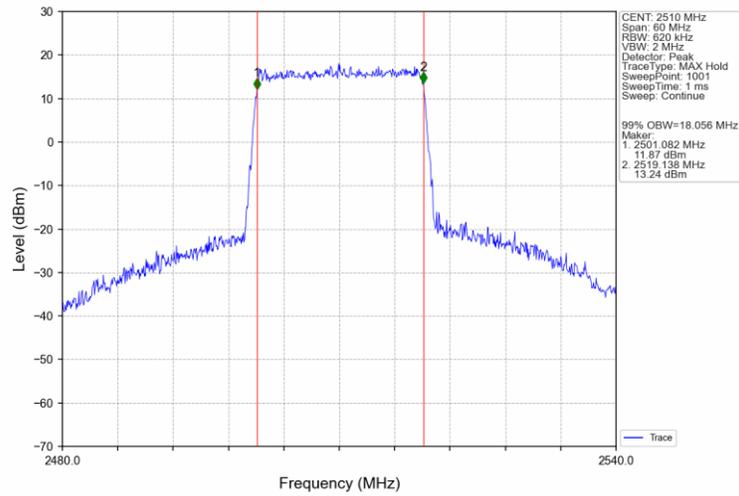
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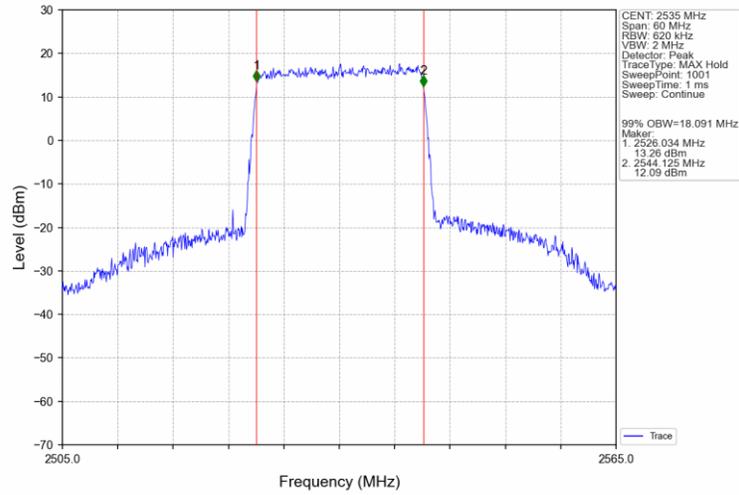
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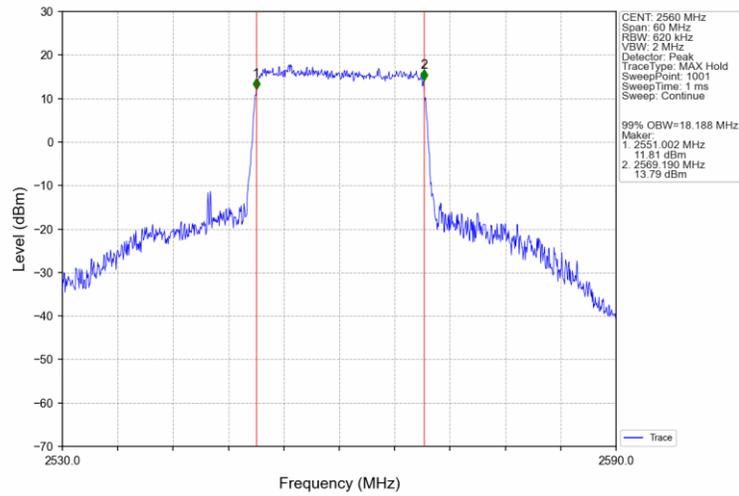
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Band7\_20MHz\_16QAM\_MCH\_2535MHz\_RB\_100\_0\_NTNV

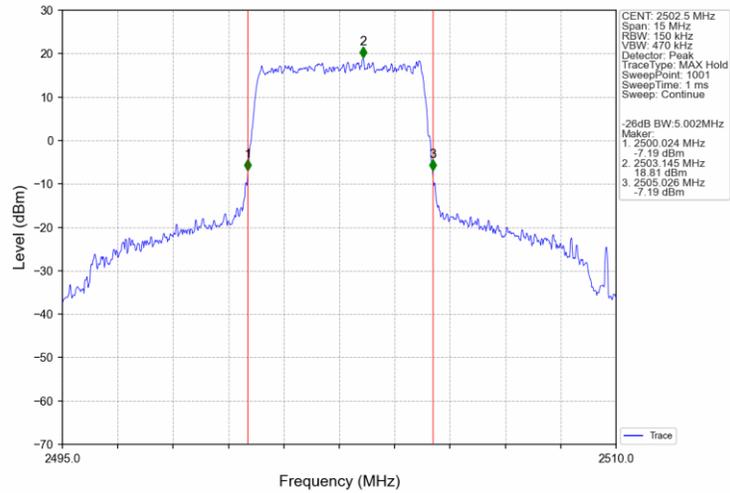


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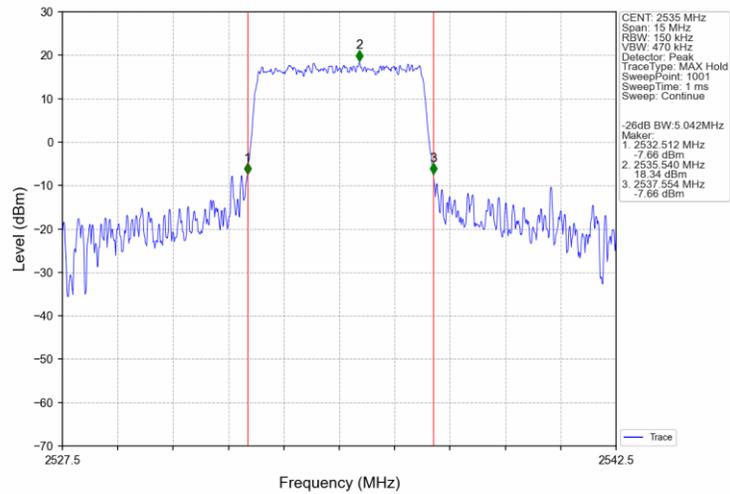


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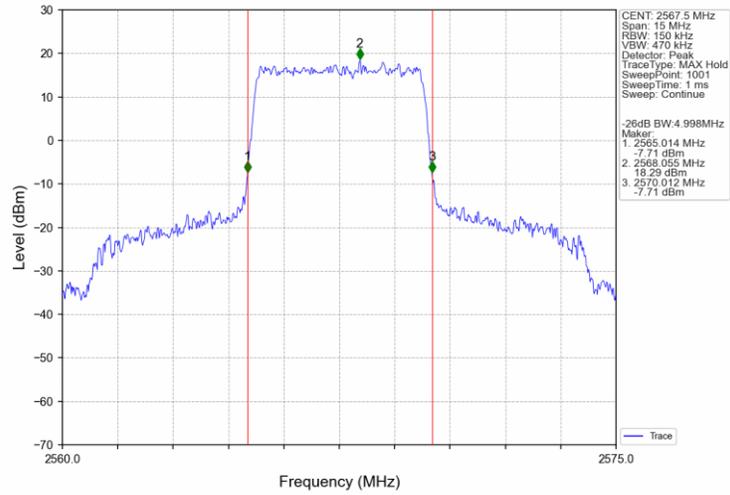
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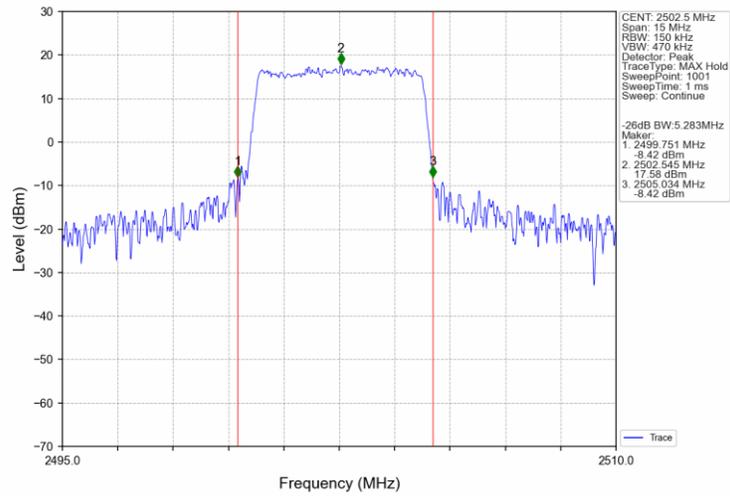
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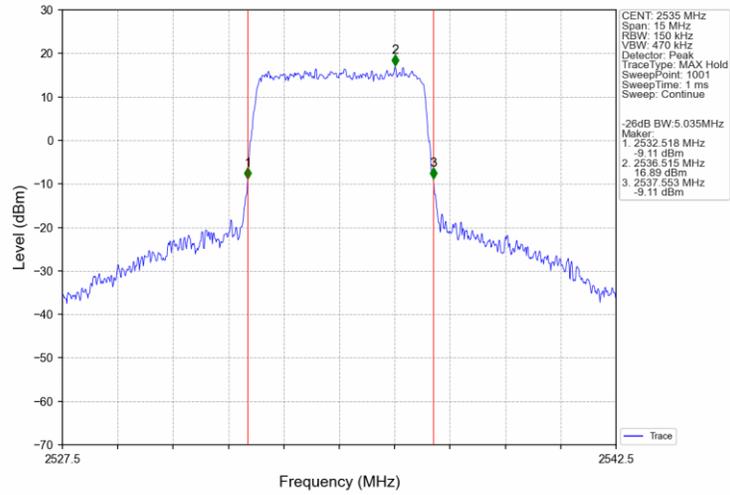
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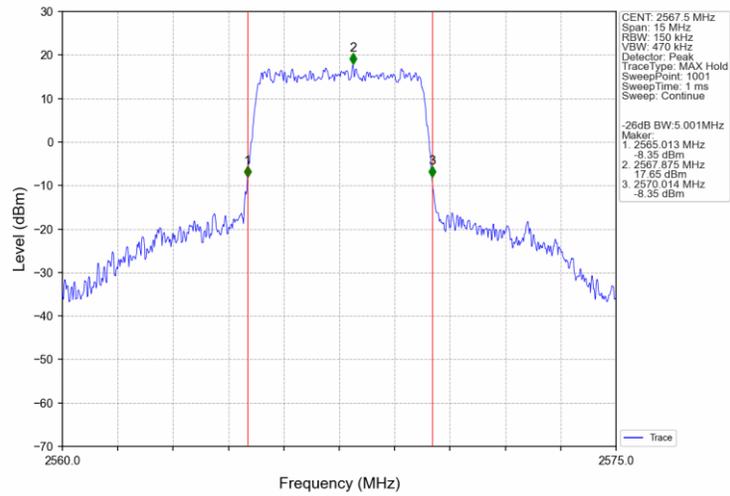
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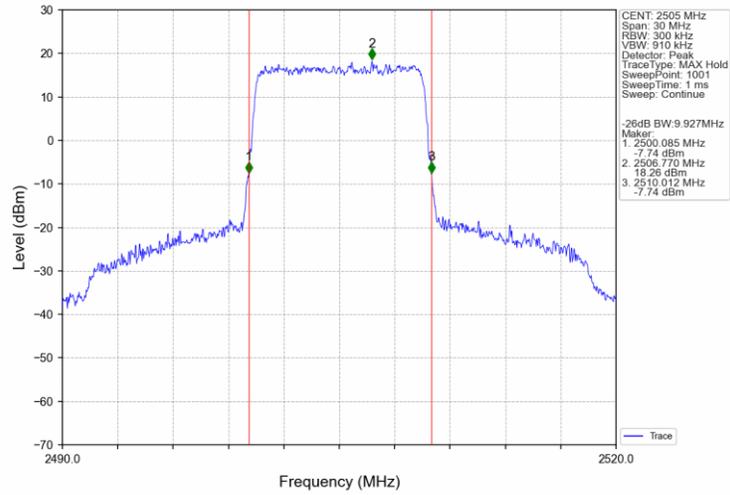
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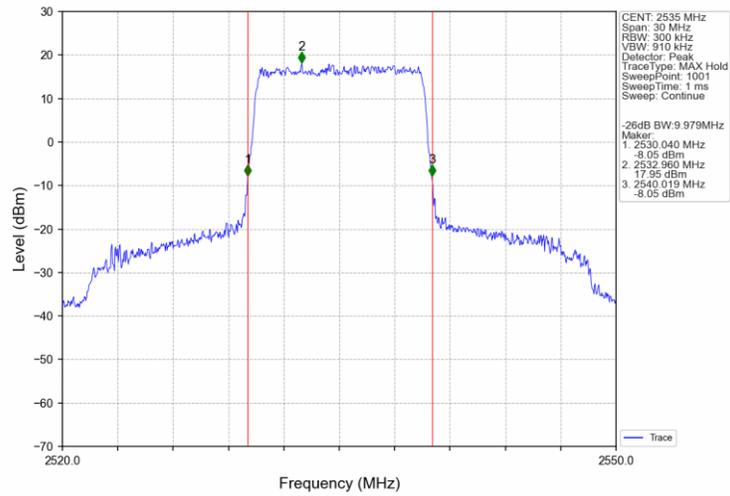
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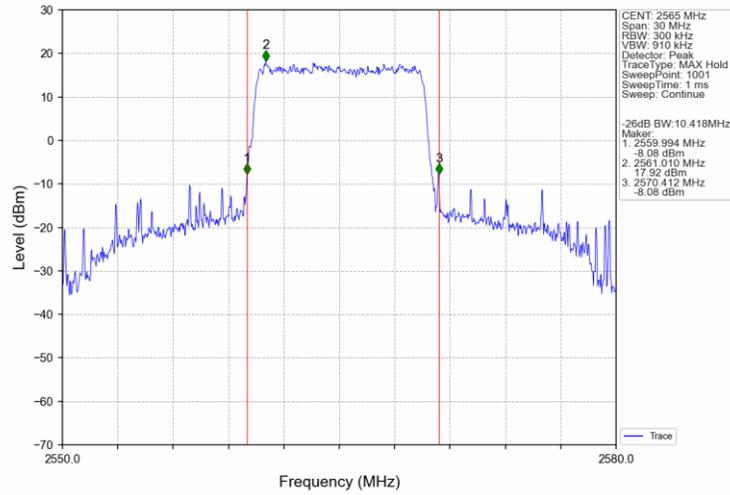
Band7\_10MHz\_QPSK\_LCH\_2505MHz\_RB\_50\_0\_NTNV



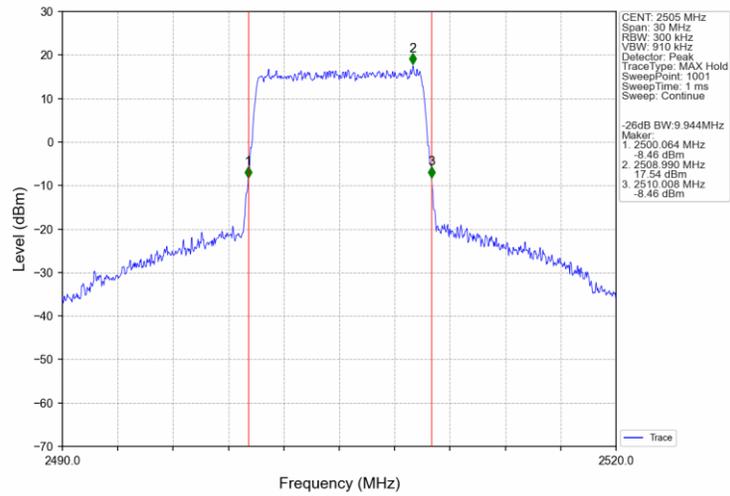
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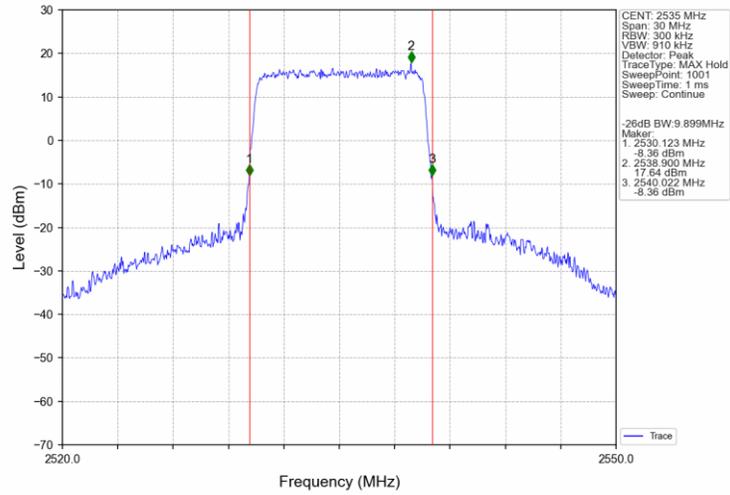
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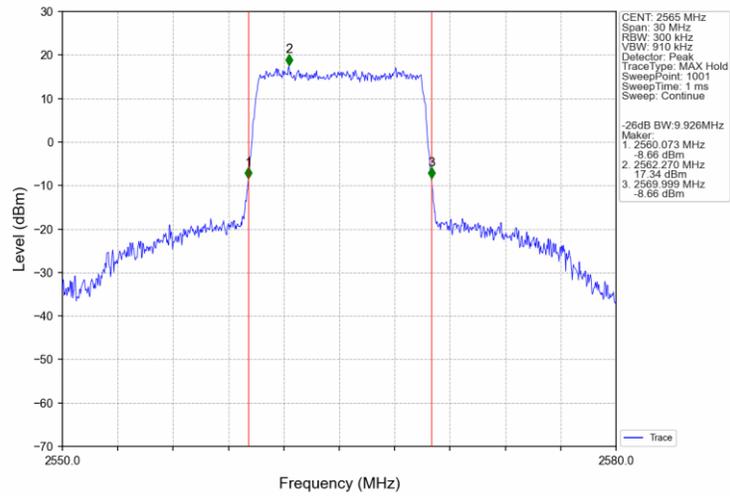
Band7\_10MHz\_16QAM\_LCH\_2505MHz\_RB\_50\_0\_NTNV



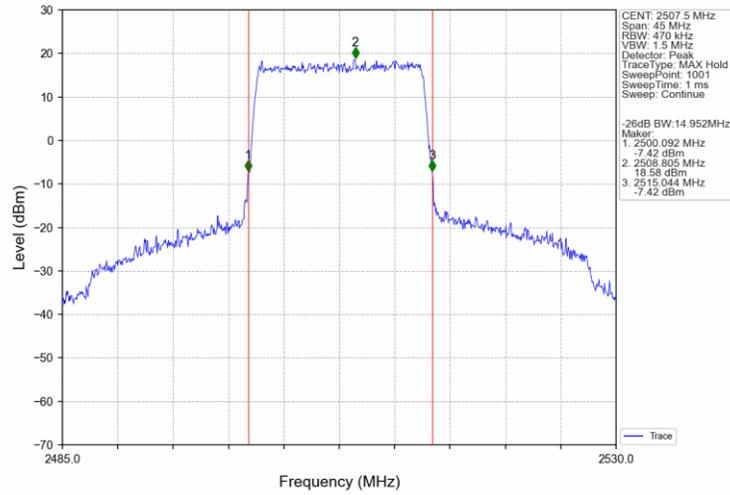
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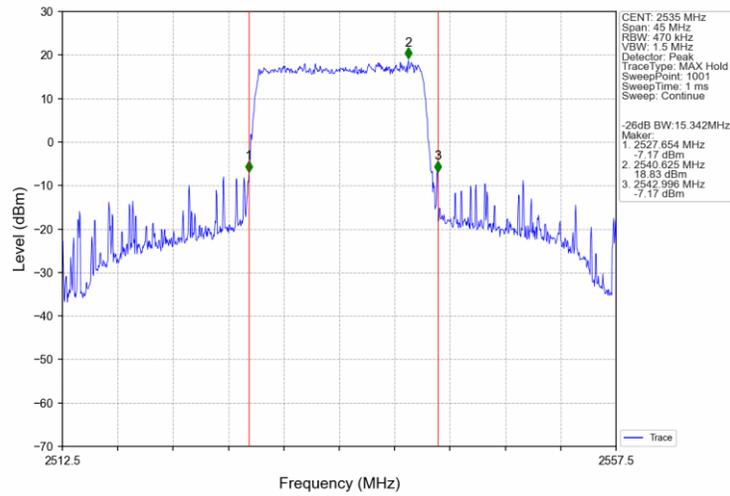
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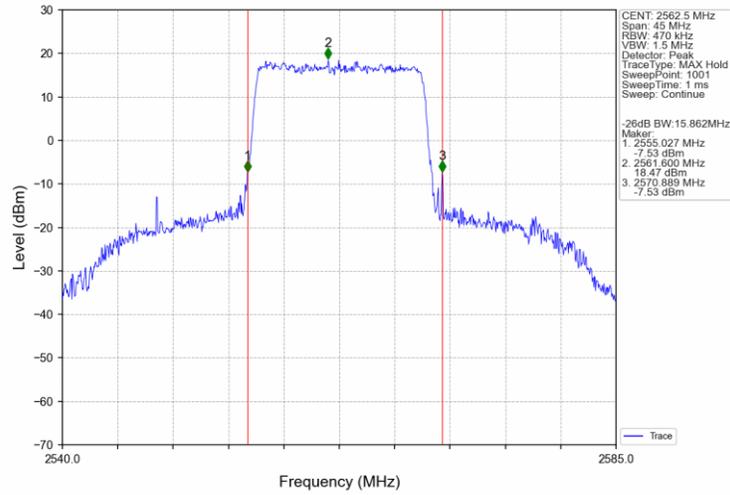
Band7\_15MHz\_QPSK\_LCH\_2507.5MHz\_RB\_75\_0\_NTNV



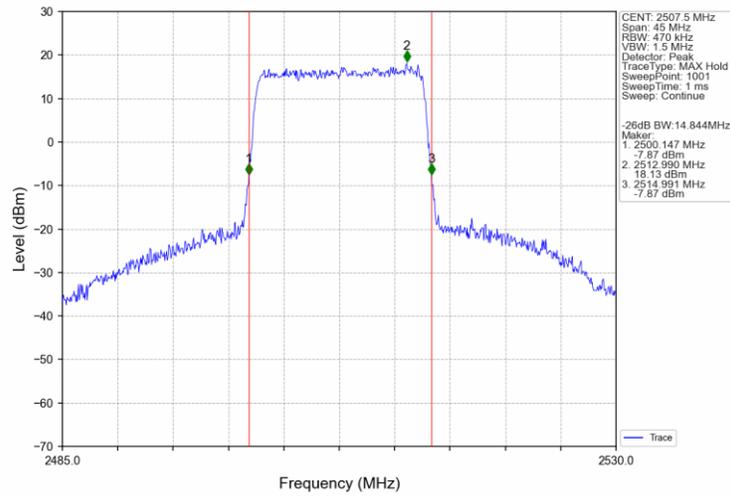
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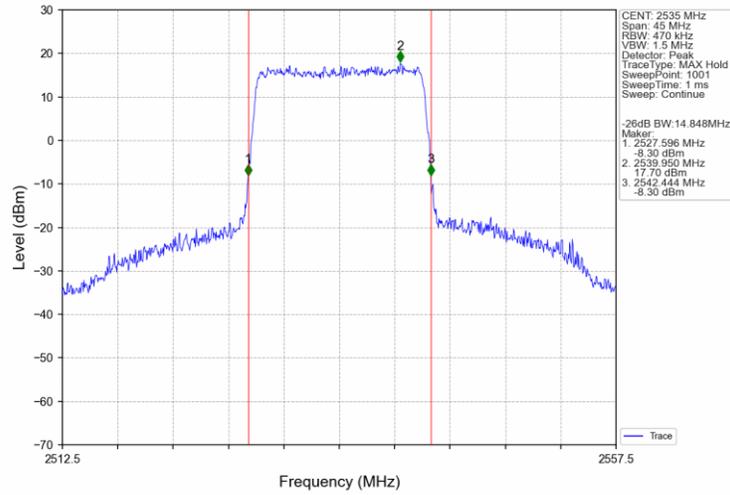
Band7\_15MHz\_QPSK\_HCH\_2562.5MHz\_RB\_75\_0\_NTNV



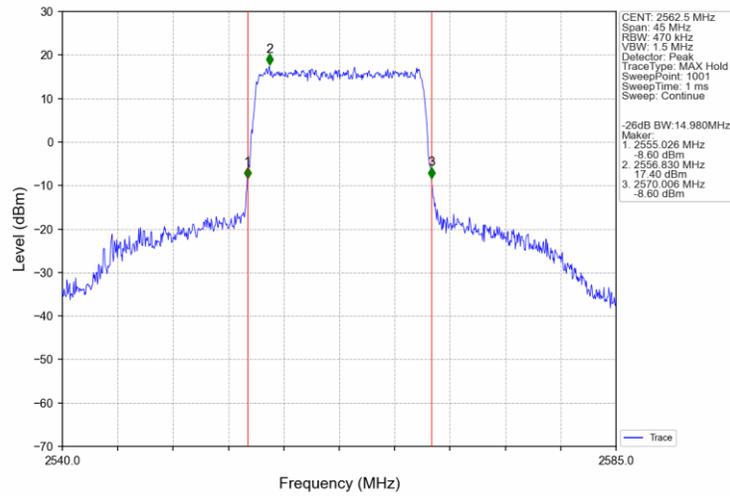
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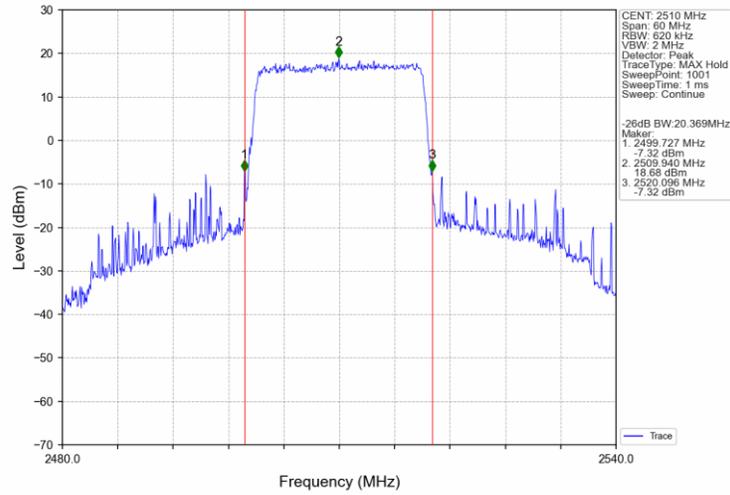
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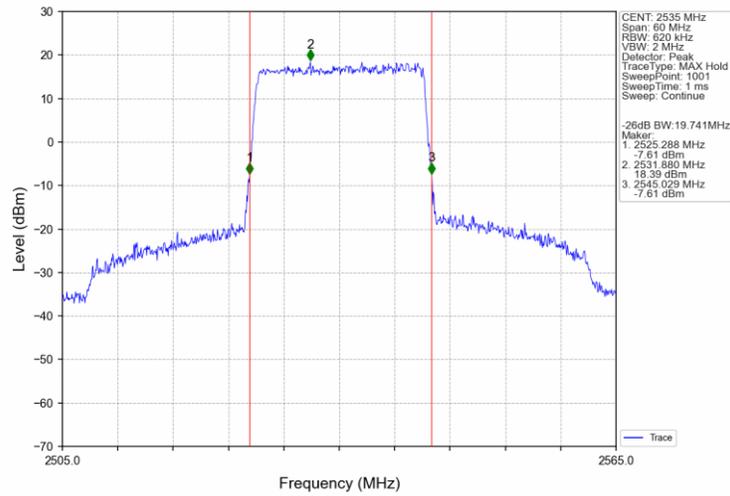
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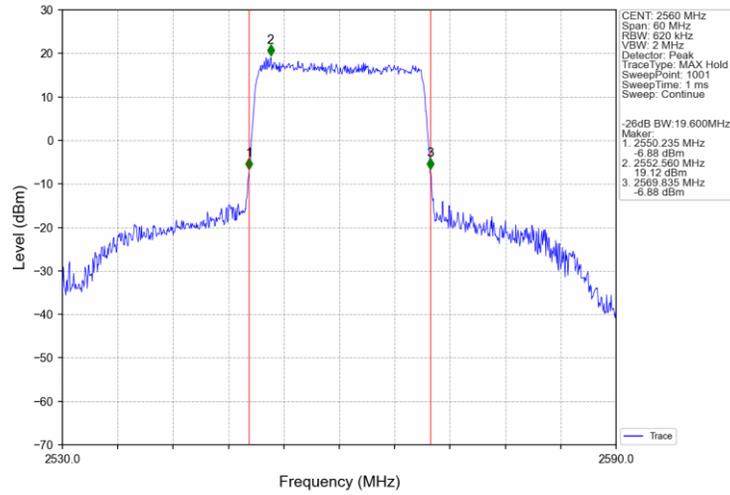
Band7\_20MHz\_QPSK\_LCH\_2510MHz\_RB\_100\_0\_NTNV



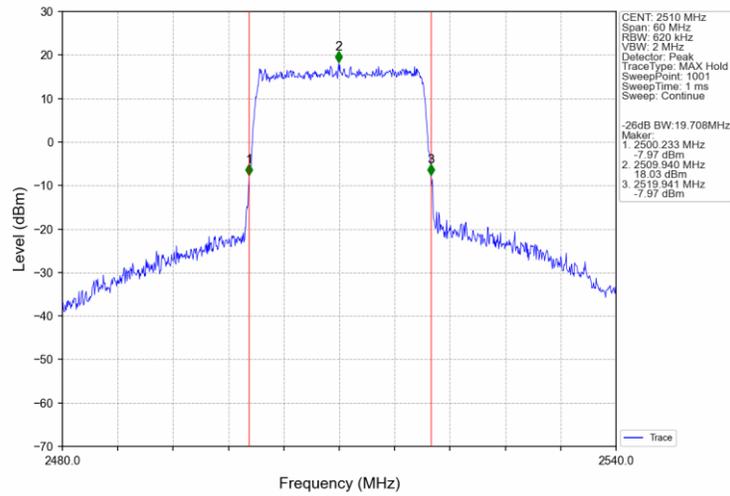
Band7\_20MHz\_QPSK\_MCH\_2535MHz\_RB\_100\_0\_NTNV



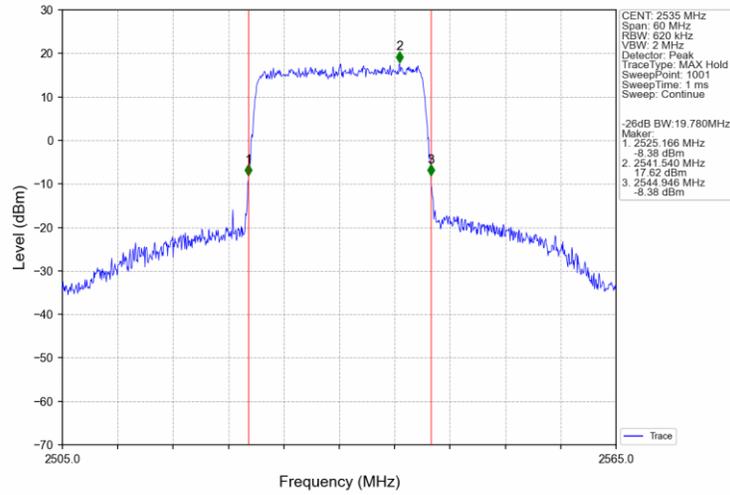
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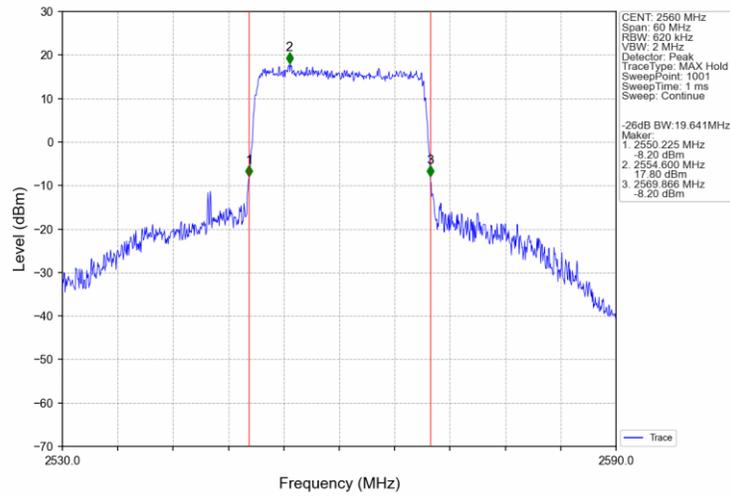
Band7\_20MHz\_16QAM\_LCH\_2510MHz\_RB\_100\_0\_NTNV



Band7\_20MHz\_16QAM\_MCH\_2535MHz\_RB\_100\_0\_NTNV



Band7\_20MHz\_16QAM\_HCH\_2560MHz\_RB\_100\_0\_NTNV



## 5. Peak-Average Ratio

### 5.1 Test Result

#### 5.1.1 B7\_5MHz

Band: 7 / Bandwidth: 5MHz / NTN						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	2502.5	25	0	5.31	<=13	Pass
	2535	25	0	5.36	<=13	Pass
	2567.5	25	0	5.18	<=13	Pass
16QAM	2502.5	25	0	6.04	<=13	Pass
	2535	25	0	6.02	<=13	Pass
	2567.5	25	0	5.83	<=13	Pass

#### 5.1.2 B7\_10MHz

Band: 7 / Bandwidth: 10MHz / NTN						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	2505	50	0	5.33	<=13	Pass
	2535	50	0	5.34	<=13	Pass
	2565	50	0	5.29	<=13	Pass
16QAM	2505	50	0	6.07	<=13	Pass
	2535	50	0	6.07	<=13	Pass
	2565	50	0	5.95	<=13	Pass

#### 5.1.3 B7\_15MHz

Band: 7 / Bandwidth: 15MHz / NTN						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	2507.5	75	0	5.11	<=13	Pass
	2535	75	0	5.09	<=13	Pass
	2562.5	75	0	5.10	<=13	Pass
16QAM	2507.5	75	0	6.05	<=13	Pass
	2535	75	0	6.07	<=13	Pass
	2562.5	75	0	6.05	<=13	Pass

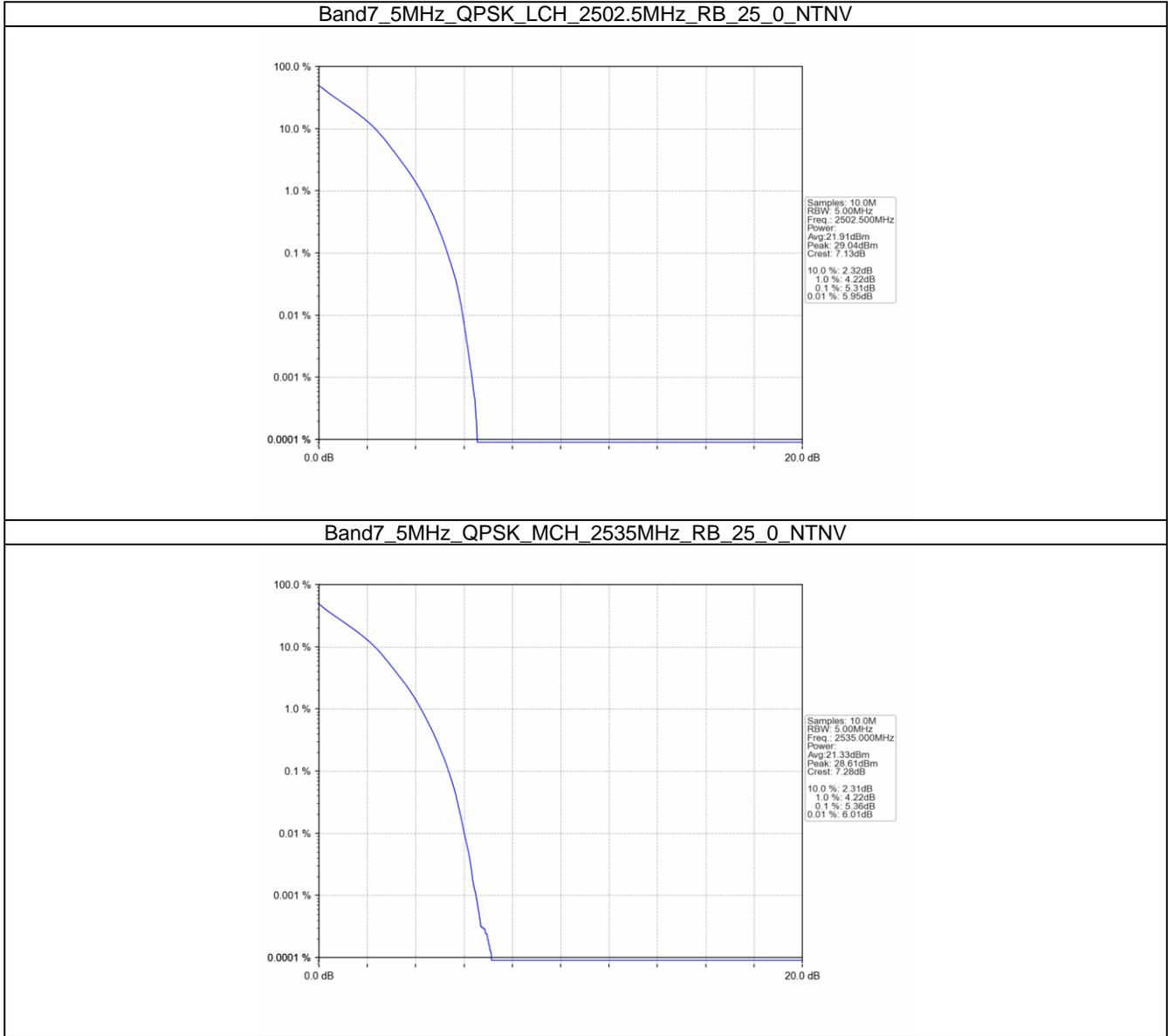
#### 5.1.4 B7\_20MHz

Band: 7 / Bandwidth: 20MHz / NTN						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	2510	100	0	5.66	<=13	Pass
	2535	100	0	5.68	<=13	Pass
	2560	100	0	5.62	<=13	Pass
16QAM	2510	100	0	6.53	<=13	Pass
	2535	100	0	6.52	<=13	Pass
	2560	100	0	6.52	<=13	Pass

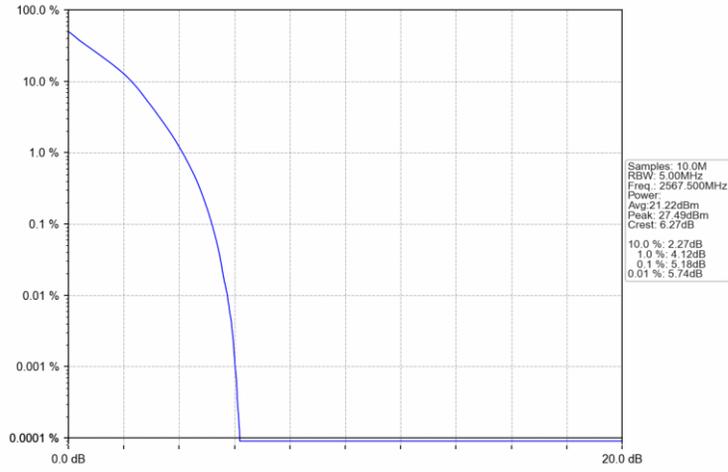


## 5.2 Test Graph

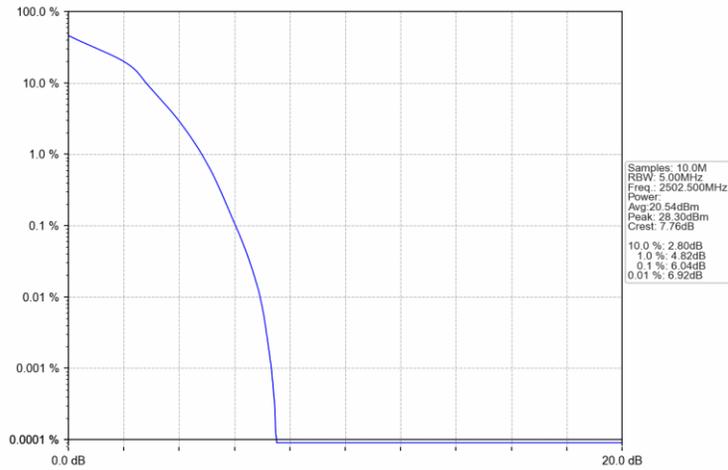
### 5.2.1 B7\_5MHz



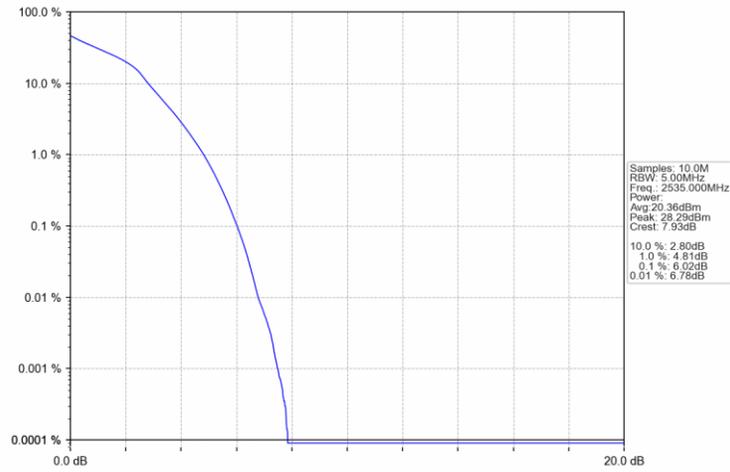
Band7\_5MHz\_QPSK\_HCH\_2567.5MHz\_RB\_25\_0\_NTNV



Band7\_5MHz\_16QAM\_LCH\_2502.5MHz\_RB\_25\_0\_NTNV



Band7\_5MHz\_16QAM\_MCH\_2535MHz\_RB\_25\_0\_NTNV



Band7\_5MHz\_16QAM\_HCH\_2567.5MHz\_RB\_25\_0\_NTNV

