

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 B12_1.4MHz_ERP

Band: 12 / Bandwidth: 1.4MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	699.7	1	0	24.62	2.89	25.36	<=34.77	Pass
			2	24.72	2.89	25.46	<=34.77	Pass
			5	24.86	2.89	25.60	<=34.77	Pass
		3	0	24.69	2.89	25.43	<=34.77	Pass
			2	24.67	2.89	25.41	<=34.77	Pass
			3	24.59	2.89	25.33	<=34.77	Pass
		6	0	23.77	2.89	24.51	<=34.77	Pass
	707.5	1	0	24.47	2.89	25.21	<=34.77	Pass
			2	24.64	2.89	25.38	<=34.77	Pass
			5	24.66	2.89	25.40	<=34.77	Pass
		3	0	24.72	2.89	25.46	<=34.77	Pass
			2	24.78	2.89	25.52	<=34.77	Pass
			3	24.73	2.89	25.47	<=34.77	Pass
		6	0	23.61	2.89	24.35	<=34.77	Pass
	715.3	1	0	24.73	2.89	25.47	<=34.77	Pass
			2	24.66	2.89	25.40	<=34.77	Pass
			5	24.67	2.89	25.41	<=34.77	Pass
		3	0	24.71	2.89	25.45	<=34.77	Pass
			2	24.59	2.89	25.33	<=34.77	Pass
			3	24.61	2.89	25.35	<=34.77	Pass
		6	0	23.63	2.89	24.37	<=34.77	Pass
16QAM	699.7	1	0	23.87	2.89	24.61	<=34.77	Pass
			2	23.90	2.89	24.64	<=34.77	Pass
			5	23.97	2.89	24.71	<=34.77	Pass
		3	0	23.79	2.89	24.53	<=34.77	Pass
			2	23.70	2.89	24.44	<=34.77	Pass
			3	23.79	2.89	24.53	<=34.77	Pass
		6	0	23.35	2.89	24.09	<=34.77	Pass
	707.5	1	0	23.62	2.89	24.36	<=34.77	Pass
			2	23.63	2.89	24.37	<=34.77	Pass
			5	23.61	2.89	24.35	<=34.77	Pass
		3	0	23.33	2.89	24.07	<=34.77	Pass
			2	23.41	2.89	24.15	<=34.77	Pass
			3	23.39	2.89	24.13	<=34.77	Pass
		6	0	23.14	2.89	23.88	<=34.77	Pass
	715.3	1	0	23.25	2.89	23.99	<=34.77	Pass
			2	23.12	2.89	23.86	<=34.77	Pass
			5	23.21	2.89	23.95	<=34.77	Pass
		3	0	23.47	2.89	24.21	<=34.77	Pass
			2	23.37	2.89	24.11	<=34.77	Pass
			3	23.38	2.89	24.12	<=34.77	Pass
		6	0	22.68	2.89	23.42	<=34.77	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

1.1.2 B12_3MHz_ERP

Band: 12 / Bandwidth: 3MHz / NTN								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	700.5	1	0	24.54	2.89	25.28	<=34.77	Pass
			7	24.67	2.89	25.41	<=34.77	Pass
			14	22.72	2.89	23.46	<=34.77	Pass
		8	0	22.17	2.89	22.91	<=34.77	Pass
			4	22.15	2.89	22.89	<=34.77	Pass
			7	21.70	2.89	22.44	<=34.77	Pass
		15	0	22.19	2.89	22.93	<=34.77	Pass
	707.5	1	0	22.60	2.89	23.34	<=34.77	Pass
			7	23.13	2.89	23.87	<=34.77	Pass
			14	23.22	2.89	23.96	<=34.77	Pass
		8	0	21.55	2.89	22.29	<=34.77	Pass
			4	22.10	2.89	22.84	<=34.77	Pass
			7	22.07	2.89	22.81	<=34.77	Pass
		15	0	22.22	2.89	22.96	<=34.77	Pass
	714.5	1	0	22.84	2.89	23.58	<=34.77	Pass
			7	22.88	2.89	23.62	<=34.77	Pass
			14	22.69	2.89	23.43	<=34.77	Pass
		8	0	21.77	2.89	22.51	<=34.77	Pass
			4	21.62	2.89	22.36	<=34.77	Pass
			7	22.11	2.89	22.85	<=34.77	Pass
		15	0	21.67	2.89	22.41	<=34.77	Pass
16QAM	700.5	1	0	22.18	2.89	22.92	<=34.77	Pass
			7	22.09	2.89	22.83	<=34.77	Pass
			14	21.76	2.89	22.50	<=34.77	Pass
		8	0	21.30	2.89	22.04	<=34.77	Pass
			4	21.29	2.89	22.03	<=34.77	Pass
			7	20.76	2.89	21.50	<=34.77	Pass
		15	0	21.16	2.89	21.90	<=34.77	Pass
	707.5	1	0	21.18	2.89	21.92	<=34.77	Pass
			7	21.77	2.89	22.51	<=34.77	Pass
			14	21.75	2.89	22.49	<=34.77	Pass
		8	0	20.50	2.89	21.24	<=34.77	Pass
			4	21.29	2.89	22.03	<=34.77	Pass
			7	21.26	2.89	22.00	<=34.77	Pass
		15	0	21.14	2.89	21.88	<=34.77	Pass
	714.5	1	0	21.88	2.89	22.62	<=34.77	Pass
			7	21.96	2.89	22.70	<=34.77	Pass
			14	22.52	2.89	23.26	<=34.77	Pass
		8	0	20.55	2.89	21.29	<=34.77	Pass
			4	20.56	2.89	21.30	<=34.77	Pass
			7	21.20	2.89	21.94	<=34.77	Pass
		15	0	20.53	2.89	21.27	<=34.77	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

1.1.3 B12_5MHz_ERP

Band: 12 / Bandwidth: 5MHz / NTV										
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	701.5	1	0	23.15	2.89	23.89	<=34.77	Pass		
			13	22.79	2.89	23.53	<=34.77	Pass		
			24	22.68	2.89	23.42	<=34.77	Pass		
		12	0	22.13	2.89	22.87	<=34.77	Pass		
			6	21.86	2.89	22.60	<=34.77	Pass		
			13	21.75	2.89	22.49	<=34.77	Pass		
		25	0	21.77	2.89	22.51	<=34.77	Pass		
		707.5	1	0	22.51	2.89	23.25	<=34.77	Pass	
				13	23.01	2.89	23.75	<=34.77	Pass	
	24			23.05	2.89	23.79	<=34.77	Pass		
	12		0	21.44	2.89	22.18	<=34.77	Pass		
			6	22.11	2.89	22.85	<=34.77	Pass		
			13	22.16	2.89	22.90	<=34.77	Pass		
	25	0	22.14	2.89	22.88	<=34.77	Pass			
	713.5	1	0	23.11	2.89	23.85	<=34.77	Pass		
			13	22.76	2.89	23.50	<=34.77	Pass		
			24	22.73	2.89	23.47	<=34.77	Pass		
		12	0	22.12	2.89	22.86	<=34.77	Pass		
			6	21.82	2.89	22.56	<=34.77	Pass		
			13	21.78	2.89	22.52	<=34.77	Pass		
		25	0	21.77	2.89	22.51	<=34.77	Pass		
		16QAM	701.5	1	0	21.31	2.89	22.05	<=34.77	Pass
					13	20.95	2.89	21.69	<=34.77	Pass
	24				20.94	2.89	21.68	<=34.77	Pass	
12	0			21.04	2.89	21.78	<=34.77	Pass		
	6			20.68	2.89	21.42	<=34.77	Pass		
	13			20.64	2.89	21.38	<=34.77	Pass		
25	0			20.74	2.89	21.48	<=34.77	Pass		
707.5	1		0	21.52	2.89	22.26	<=34.77	Pass		
			13	21.77	2.89	22.51	<=34.77	Pass		
			24	22.15	2.89	22.89	<=34.77	Pass		
	12		0	20.33	2.89	21.07	<=34.77	Pass		
			6	21.09	2.89	21.83	<=34.77	Pass		
			13	21.10	2.89	21.84	<=34.77	Pass		
25	0		21.12	2.89	21.86	<=34.77	Pass			
713.5	1		0	22.05	2.89	22.79	<=34.77	Pass		
			13	21.64	2.89	22.38	<=34.77	Pass		
			24	22.04	2.89	22.78	<=34.77	Pass		
	12		0	21.04	2.89	21.78	<=34.77	Pass		
			6	20.70	2.89	21.44	<=34.77	Pass		
			13	20.66	2.89	21.40	<=34.77	Pass		
	25		0	20.71	2.89	21.45	<=34.77	Pass		
	Note1: ERP=Conducted Power+Antenna Gain-2.15									

1.1.4 B12_10MHz_ERP

Band: 12 / Bandwidth: 10MHz / NTNV										
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict		
		Size	Offset			Result	Limit			
QPSK	704	1	0	23.13	2.89	23.87	<=34.77	Pass		
			25	22.58	2.89	23.32	<=34.77	Pass		
			49	23.12	2.89	23.86	<=34.77	Pass		
		25	0	21.62	2.89	22.36	<=34.77	Pass		
			13	21.53	2.89	22.27	<=34.77	Pass		
			25	21.58	2.89	22.32	<=34.77	Pass		
		50	0	21.58	2.89	22.32	<=34.77	Pass		
		707.5	1	0	22.53	2.89	23.27	<=34.77	Pass	
				25	23.11	2.89	23.85	<=34.77	Pass	
	49			23.13	2.89	23.87	<=34.77	Pass		
	25		0	21.51	2.89	22.25	<=34.77	Pass		
			13	22.16	2.89	22.90	<=34.77	Pass		
			25	22.14	2.89	22.88	<=34.77	Pass		
	50		0	22.16	2.89	22.90	<=34.77	Pass		
	711		1	0	22.58	2.89	23.32	<=34.77	Pass	
				25	23.08	2.89	23.82	<=34.77	Pass	
		49		22.65	2.89	23.39	<=34.77	Pass		
		25	0	22.10	2.89	22.84	<=34.77	Pass		
			13	22.09	2.89	22.83	<=34.77	Pass		
			25	21.86	2.89	22.60	<=34.77	Pass		
		50	0	22.33	2.89	23.07	<=34.77	Pass		
		16QAM	704	1	0	22.16	2.89	22.90	<=34.77	Pass
					25	21.55	2.89	22.29	<=34.77	Pass
	49				22.17	2.89	22.91	<=34.77	Pass	
25	0			20.57	2.89	21.31	<=34.77	Pass		
	13			20.61	2.89	21.35	<=34.77	Pass		
	25			20.43	2.89	21.17	<=34.77	Pass		
50	0			20.55	2.89	21.29	<=34.77	Pass		
707.5	1			0	21.29	2.89	22.03	<=34.77	Pass	
				25	21.73	2.89	22.47	<=34.77	Pass	
			49	21.82	2.89	22.56	<=34.77	Pass		
	25		0	20.71	2.89	21.45	<=34.77	Pass		
			13	21.24	2.89	21.98	<=34.77	Pass		
			25	21.34	2.89	22.08	<=34.77	Pass		
	50		0	21.16	2.89	21.90	<=34.77	Pass		
	711		1	0	21.55	2.89	22.29	<=34.77	Pass	
				25	22.25	2.89	22.99	<=34.77	Pass	
49				22.21	2.89	22.95	<=34.77	Pass		
25			0	21.11	2.89	21.85	<=34.77	Pass		
			13	21.20	2.89	21.94	<=34.77	Pass		
			25	20.62	2.89	21.36	<=34.77	Pass		
50			0	21.18	2.89	21.92	<=34.77	Pass		
Note1: ERP=Conducted Power+Antenna Gain-2.15										

2. Frequency Stability

2.1 Test Result

2.1.1 B12_1.4MHz

Band: 12 / Bandwidth: 1.4MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	699.7	6	0	20	3.06	-16.966	-0.0242	-2.5 to 2.5	Pass
					3.60	-41.728	-0.0596	-2.5 to 2.5	Pass
					4.14	-6.123	-0.0088	-2.5 to 2.5	Pass
				-30	3.60	-6.924	-0.0099	-2.5 to 2.5	Pass
				-20	3.60	-38.280	-0.0547	-2.5 to 2.5	Pass
				-10	3.60	-14.062	-0.0201	-2.5 to 2.5	Pass
				0	3.60	-33.045	-0.0472	-2.5 to 2.5	Pass
				10	3.60	-48.094	-0.0687	-2.5 to 2.5	Pass
				30	3.60	-5.236	-0.0075	-2.5 to 2.5	Pass
				40	3.60	-14.277	-0.0204	-2.5 to 2.5	Pass
				50	3.60	-18.883	-0.0270	-2.5 to 2.5	Pass
	707.5	6	0	20	3.06	14.634	0.0207	-2.5 to 2.5	Pass
					3.60	2.475	0.0035	-2.5 to 2.5	Pass
					4.14	-4.849	-0.0069	-2.5 to 2.5	Pass
				-30	3.60	-8.998	-0.0127	-2.5 to 2.5	Pass
				-20	3.60	-11.244	-0.0159	-2.5 to 2.5	Pass
				-10	3.60	-12.717	-0.0180	-2.5 to 2.5	Pass
				0	3.60	-14.634	-0.0207	-2.5 to 2.5	Pass
				10	3.60	-17.095	-0.0242	-2.5 to 2.5	Pass
				30	3.60	-19.369	-0.0274	-2.5 to 2.5	Pass
				40	3.60	-20.514	-0.0290	-2.5 to 2.5	Pass
				50	3.60	-19.255	-0.0272	-2.5 to 2.5	Pass
	715.3	6	0	20	3.06	48.809	0.0682	-2.5 to 2.5	Pass
					3.60	39.082	0.0546	-2.5 to 2.5	Pass
					4.14	20.943	0.0293	-2.5 to 2.5	Pass
				-30	3.60	5.736	0.0080	-2.5 to 2.5	Pass
				-20	3.60	-5.693	-0.0080	-2.5 to 2.5	Pass
				-10	3.60	-14.734	-0.0206	-2.5 to 2.5	Pass
				0	3.60	-22.316	-0.0312	-2.5 to 2.5	Pass
				10	3.60	-27.723	-0.0388	-2.5 to 2.5	Pass
				30	3.60	-33.188	-0.0464	-2.5 to 2.5	Pass
				40	3.60	-38.338	-0.0536	-2.5 to 2.5	Pass
16QAM	699.7	6	0	20	3.06	-22.602	-0.0323	-2.5 to 2.5	Pass
					3.60	-20.342	-0.0291	-2.5 to 2.5	Pass
					4.14	-17.753	-0.0254	-2.5 to 2.5	Pass
				-30	3.60	-15.435	-0.0221	-2.5 to 2.5	Pass
				-20	3.60	-12.889	-0.0184	-2.5 to 2.5	Pass
				-10	3.60	-8.883	-0.0127	-2.5 to 2.5	Pass
				0	3.60	-6.738	-0.0096	-2.5 to 2.5	Pass
				10	3.60	-7.138	-0.0102	-2.5 to 2.5	Pass
				30	3.60	-6.909	-0.0099	-2.5 to 2.5	Pass
				40	3.60	-5.279	-0.0075	-2.5 to 2.5	Pass
				50	3.60	-4.420	-0.0063	-2.5 to 2.5	Pass
	707.5	6	0	20	3.06	-18.353	-0.0259	-2.5 to 2.5	Pass
					3.60	-11.129	-0.0157	-2.5 to 2.5	Pass
					4.14	-7.195	-0.0102	-2.5 to 2.5	Pass
				-30	3.60	-3.476	-0.0049	-2.5 to 2.5	Pass
				-20	3.60	0.658	0.0009	-2.5 to 2.5	Pass
				-10	3.60	2.861	0.0040	-2.5 to 2.5	Pass

				0	3.60	6.380	0.0090	-2.5 to 2.5	Pass
				10	3.60	7.768	0.0110	-2.5 to 2.5	Pass
				30	3.60	10.414	0.0147	-2.5 to 2.5	Pass
				40	3.60	14.148	0.0200	-2.5 to 2.5	Pass
				50	3.60	14.992	0.0212	-2.5 to 2.5	Pass
	715.3	6	0	20	3.06	-44.646	-0.0624	-2.5 to 2.5	Pass
					3.60	-37.265	-0.0521	-2.5 to 2.5	Pass
					4.14	-28.739	-0.0402	-2.5 to 2.5	Pass
				-30	3.60	-22.674	-0.0317	-2.5 to 2.5	Pass
				-20	3.60	-16.866	-0.0236	-2.5 to 2.5	Pass
				-10	3.60	-11.730	-0.0164	-2.5 to 2.5	Pass
				0	3.60	-8.469	-0.0118	-2.5 to 2.5	Pass
				10	3.60	-5.679	-0.0079	-2.5 to 2.5	Pass
				30	3.60	-3.748	-0.0052	-2.5 to 2.5	Pass
				40	3.60	-0.443	-0.0006	-2.5 to 2.5	Pass
				50	3.60	0.758	0.0011	-2.5 to 2.5	Pass

2.1.2 B12_3MHz

Band: 12 / Bandwidth: 3MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	700.5	15	0	20	3.06	-36.721	-0.0524	-2.5 to 2.5	Pass
					3.60	-21.443	-0.0306	-2.5 to 2.5	Pass
					4.14	-35.205	-0.0503	-2.5 to 2.5	Pass
				-30	3.60	-22.287	-0.0318	-2.5 to 2.5	Pass
				-20	3.60	-43.030	-0.0614	-2.5 to 2.5	Pass
				-10	3.60	-46.263	-0.0660	-2.5 to 2.5	Pass
				0	3.60	-37.394	-0.0534	-2.5 to 2.5	Pass
				10	3.60	-23.561	-0.0336	-2.5 to 2.5	Pass
				30	3.60	-3.576	-0.0051	-2.5 to 2.5	Pass
				40	3.60	-27.695	-0.0395	-2.5 to 2.5	Pass
	707.5	15	0	20	3.06	-47.250	-0.0675	-2.5 to 2.5	Pass
					3.60	10.929	0.0154	-2.5 to 2.5	Pass
					3.60	18.325	0.0259	-2.5 to 2.5	Pass
				-30	4.14	11.072	0.0156	-2.5 to 2.5	Pass
					3.60	4.263	0.0060	-2.5 to 2.5	Pass
					3.60	-1.674	-0.0024	-2.5 to 2.5	Pass
				-20	3.60	-3.076	-0.0043	-2.5 to 2.5	Pass
				-10	3.60	-7.539	-0.0107	-2.5 to 2.5	Pass
				0	3.60	-10.958	-0.0155	-2.5 to 2.5	Pass
				10	3.60	-11.530	-0.0163	-2.5 to 2.5	Pass
	714.5	15	0	20	3.60	-12.517	-0.0177	-2.5 to 2.5	Pass
					3.60	-15.106	-0.0214	-2.5 to 2.5	Pass
					3.06	2.046	0.0029	-2.5 to 2.5	Pass
				-30	3.60	-13.289	-0.0186	-2.5 to 2.5	Pass
					4.14	-33.102	-0.0463	-2.5 to 2.5	Pass
					3.60	-47.779	-0.0669	-2.5 to 2.5	Pass
				-20	3.60	-8.440	-0.0118	-2.5 to 2.5	Pass
				-10	3.60	-15.764	-0.0221	-2.5 to 2.5	Pass
				0	3.60	-22.931	-0.0321	-2.5 to 2.5	Pass
				10	3.60	-26.250	-0.0367	-2.5 to 2.5	Pass
16QAM	700.5	15	0	20	3.60	-29.669	-0.0415	-2.5 to 2.5	Pass
					3.60	-34.218	-0.0479	-2.5 to 2.5	Pass
					3.60	-39.654	-0.0555	-2.5 to 2.5	Pass
				40	3.60	-17.266	-0.0246	-2.5 to 2.5	Pass
				20	3.60	-30.212	-0.0431	-2.5 to 2.5	Pass
					4.14	-41.642	-0.0594	-2.5 to 2.5	Pass

				-30	3.60	-6.523	-0.0093	-2.5 to 2.5	Pass
				-20	3.60	-15.249	-0.0218	-2.5 to 2.5	Pass
				-10	3.60	-23.503	-0.0336	-2.5 to 2.5	Pass
				0	3.60	-33.360	-0.0476	-2.5 to 2.5	Pass
				10	3.60	-40.584	-0.0579	-2.5 to 2.5	Pass
				30	3.60	-45.133	-0.0644	-2.5 to 2.5	Pass
				40	3.60	1.187	0.0017	-2.5 to 2.5	Pass
				50	3.60	-6.051	-0.0086	-2.5 to 2.5	Pass
	707.5	15	0	20	3.06	-17.424	-0.0246	-2.5 to 2.5	Pass
					3.60	-18.210	-0.0257	-2.5 to 2.5	Pass
					4.14	-19.526	-0.0276	-2.5 to 2.5	Pass
				-30	3.60	-20.742	-0.0293	-2.5 to 2.5	Pass
				-20	3.60	-21.057	-0.0298	-2.5 to 2.5	Pass
				-10	3.60	-21.744	-0.0307	-2.5 to 2.5	Pass
				0	3.60	-24.233	-0.0343	-2.5 to 2.5	Pass
				10	3.60	-23.804	-0.0336	-2.5 to 2.5	Pass
				30	3.60	-24.419	-0.0345	-2.5 to 2.5	Pass
				40	3.60	-22.917	-0.0324	-2.5 to 2.5	Pass
				50	3.60	-23.475	-0.0332	-2.5 to 2.5	Pass
	714.5	15	0	20	3.06	-45.176	-0.0632	-2.5 to 2.5	Pass
					3.60	-4.692	-0.0066	-2.5 to 2.5	Pass
					4.14	-7.010	-0.0098	-2.5 to 2.5	Pass
				-30	3.60	-10.400	-0.0146	-2.5 to 2.5	Pass
				-20	3.60	-13.132	-0.0184	-2.5 to 2.5	Pass
				-10	3.60	-16.451	-0.0230	-2.5 to 2.5	Pass
				0	3.60	-17.853	-0.0250	-2.5 to 2.5	Pass
				10	3.60	-20.843	-0.0292	-2.5 to 2.5	Pass
				30	3.60	-22.445	-0.0314	-2.5 to 2.5	Pass
				40	3.60	-24.505	-0.0343	-2.5 to 2.5	Pass
				50	3.60	-26.522	-0.0371	-2.5 to 2.5	Pass

2.1.3 B12_5MHz

Band: 12 / Bandwidth: 5MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	701.5	25	0	20	3.06	13.776	0.0196	-2.5 to 2.5	Pass
					3.60	-32.945	-0.0470	-2.5 to 2.5	Pass
					4.14	-33.746	-0.0481	-2.5 to 2.5	Pass
				-30	3.60	-20.585	-0.0293	-2.5 to 2.5	Pass
				-20	3.60	-44.146	-0.0629	-2.5 to 2.5	Pass
				-10	3.60	-8.154	-0.0116	-2.5 to 2.5	Pass
				0	3.60	-21.129	-0.0301	-2.5 to 2.5	Pass
				10	3.60	-33.274	-0.0474	-2.5 to 2.5	Pass
				30	3.60	-40.197	-0.0573	-2.5 to 2.5	Pass
				40	3.60	-47.078	-0.0671	-2.5 to 2.5	Pass
				50	3.60	-7.539	-0.0107	-2.5 to 2.5	Pass
	707.5	25	0	20	3.06	7.625	0.0108	-2.5 to 2.5	Pass
					3.60	5.765	0.0081	-2.5 to 2.5	Pass
					4.14	-7.038	-0.0099	-2.5 to 2.5	Pass
				-30	3.60	-15.979	-0.0226	-2.5 to 2.5	Pass
				-20	3.60	-23.174	-0.0328	-2.5 to 2.5	Pass
				-10	3.60	-28.009	-0.0396	-2.5 to 2.5	Pass
				0	3.60	-31.729	-0.0448	-2.5 to 2.5	Pass
				10	3.60	-33.875	-0.0479	-2.5 to 2.5	Pass
				30	3.60	-36.421	-0.0515	-2.5 to 2.5	Pass
				40	3.60	-36.278	-0.0513	-2.5 to 2.5	Pass
				50	3.60	-35.806	-0.0506	-2.5 to 2.5	Pass

	713.5	25	0	20	3.06	20.342	0.0285	-2.5 to 2.5	Pass
					3.60	-17.409	-0.0244	-2.5 to 2.5	Pass
					4.14	-44.131	-0.0619	-2.5 to 2.5	Pass
				-30	3.60	-15.378	-0.0216	-2.5 to 2.5	Pass
				-20	3.60	-34.676	-0.0486	-2.5 to 2.5	Pass
				-10	3.60	-43.731	-0.0613	-2.5 to 2.5	Pass
				0	3.60	2.861	0.0040	-2.5 to 2.5	Pass
				10	3.60	-2.260	-0.0032	-2.5 to 2.5	Pass
				30	3.60	-7.281	-0.0102	-2.5 to 2.5	Pass
				40	3.60	-14.377	-0.0201	-2.5 to 2.5	Pass
				50	3.60	-18.511	-0.0259	-2.5 to 2.5	Pass
16QAM	701.5	25	0	20	3.06	-9.871	-0.0141	-2.5 to 2.5	Pass
					3.60	-4.435	-0.0063	-2.5 to 2.5	Pass
					4.14	1.788	0.0025	-2.5 to 2.5	Pass
				-30	3.60	6.008	0.0086	-2.5 to 2.5	Pass
				-20	3.60	9.913	0.0141	-2.5 to 2.5	Pass
				-10	3.60	13.647	0.0195	-2.5 to 2.5	Pass
				0	3.60	15.664	0.0223	-2.5 to 2.5	Pass
				10	3.60	16.608	0.0237	-2.5 to 2.5	Pass
				30	3.60	17.495	0.0249	-2.5 to 2.5	Pass
				40	3.60	18.454	0.0263	-2.5 to 2.5	Pass
				50	3.60	19.169	0.0273	-2.5 to 2.5	Pass
	707.5	25	0	20	3.06	-35.248	-0.0498	-2.5 to 2.5	Pass
					3.60	-30.184	-0.0427	-2.5 to 2.5	Pass
					4.14	-25.749	-0.0364	-2.5 to 2.5	Pass
				-30	3.60	-21.729	-0.0307	-2.5 to 2.5	Pass
				-20	3.60	-19.484	-0.0275	-2.5 to 2.5	Pass
				-10	3.60	-17.624	-0.0249	-2.5 to 2.5	Pass
				0	3.60	-15.593	-0.0220	-2.5 to 2.5	Pass
				10	3.60	-19.097	-0.0270	-2.5 to 2.5	Pass
				30	3.60	-16.780	-0.0237	-2.5 to 2.5	Pass
				40	3.60	-14.262	-0.0202	-2.5 to 2.5	Pass
				50	3.60	-9.842	-0.0139	-2.5 to 2.5	Pass
	713.5	25	0	20	3.06	-25.005	-0.0350	-2.5 to 2.5	Pass
					3.60	-16.637	-0.0233	-2.5 to 2.5	Pass
					4.14	-8.769	-0.0123	-2.5 to 2.5	Pass
				-30	3.60	-1.416	-0.0020	-2.5 to 2.5	Pass
				-20	3.60	3.419	0.0048	-2.5 to 2.5	Pass
				-10	3.60	7.997	0.0112	-2.5 to 2.5	Pass
				0	3.60	11.759	0.0165	-2.5 to 2.5	Pass
				10	3.60	14.520	0.0204	-2.5 to 2.5	Pass
				30	3.60	16.079	0.0225	-2.5 to 2.5	Pass
				40	3.60	18.196	0.0255	-2.5 to 2.5	Pass
				50	3.60	17.796	0.0249	-2.5 to 2.5	Pass

2.1.4 B12_10MHz

Band: 12 / Bandwidth: 10MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	704	50	0	20	3.06	-2.861	-0.0041	-2.5 to 2.5	Pass
					3.60	-39.697	-0.0564	-2.5 to 2.5	Pass
					4.14	-35.477	-0.0504	-2.5 to 2.5	Pass
				-30	3.60	-17.180	-0.0244	-2.5 to 2.5	Pass
				-20	3.60	-32.816	-0.0466	-2.5 to 2.5	Pass
				-10	3.60	-44.160	-0.0627	-2.5 to 2.5	Pass
				0	3.60	-3.490	-0.0050	-2.5 to 2.5	Pass
				10	3.60	-8.726	-0.0124	-2.5 to 2.5	Pass

				30	3.60	-13.447	-0.0191	-2.5 to 2.5	Pass
				40	3.60	-18.711	-0.0266	-2.5 to 2.5	Pass
				50	3.60	-21.758	-0.0309	-2.5 to 2.5	Pass
	707.5	50	0	20	3.06	7.424	0.0105	-2.5 to 2.5	Pass
					3.60	-23.890	-0.0338	-2.5 to 2.5	Pass
					4.14	-4.392	-0.0062	-2.5 to 2.5	Pass
				-30	3.60	-19.612	-0.0277	-2.5 to 2.5	Pass
				-20	3.60	-27.480	-0.0388	-2.5 to 2.5	Pass
				-10	3.60	-30.541	-0.0432	-2.5 to 2.5	Pass
				0	3.60	-34.275	-0.0484	-2.5 to 2.5	Pass
				10	3.60	-38.223	-0.0540	-2.5 to 2.5	Pass
				30	3.60	-42.257	-0.0597	-2.5 to 2.5	Pass
				40	3.60	-4.134	-0.0058	-2.5 to 2.5	Pass
				50	3.60	-7.896	-0.0112	-2.5 to 2.5	Pass
	711	50	0	20	3.06	7.682	0.0108	-2.5 to 2.5	Pass
					3.60	-28.496	-0.0401	-2.5 to 2.5	Pass
					4.14	-8.011	-0.0113	-2.5 to 2.5	Pass
				-30	3.60	-23.017	-0.0324	-2.5 to 2.5	Pass
				-20	3.60	-35.563	-0.0500	-2.5 to 2.5	Pass
				-10	3.60	-42.429	-0.0597	-2.5 to 2.5	Pass
				0	3.60	-47.336	-0.0666	-2.5 to 2.5	Pass
				10	3.60	-48.437	-0.0681	-2.5 to 2.5	Pass
				30	3.60	-2.275	-0.0032	-2.5 to 2.5	Pass
				40	3.60	-3.462	-0.0049	-2.5 to 2.5	Pass
				50	3.60	-5.307	-0.0075	-2.5 to 2.5	Pass
16QAM	704	50	0	20	3.06	-18.954	-0.0269	-2.5 to 2.5	Pass
					3.60	-4.134	-0.0059	-2.5 to 2.5	Pass
					4.14	9.356	0.0133	-2.5 to 2.5	Pass
				-30	3.60	19.426	0.0276	-2.5 to 2.5	Pass
				-20	3.60	25.806	0.0367	-2.5 to 2.5	Pass
				-10	3.60	28.081	0.0399	-2.5 to 2.5	Pass
				0	3.60	30.069	0.0427	-2.5 to 2.5	Pass
				10	3.60	31.929	0.0454	-2.5 to 2.5	Pass
				30	3.60	36.035	0.0512	-2.5 to 2.5	Pass
				40	3.60	39.053	0.0555	-2.5 to 2.5	Pass
				50	3.60	38.424	0.0546	-2.5 to 2.5	Pass
	707.5	50	0	20	3.06	-5.336	-0.0075	-2.5 to 2.5	Pass
					3.60	4.892	0.0069	-2.5 to 2.5	Pass
					4.14	11.415	0.0161	-2.5 to 2.5	Pass
				-30	3.60	15.850	0.0224	-2.5 to 2.5	Pass
				-20	3.60	20.456	0.0289	-2.5 to 2.5	Pass
				-10	3.60	21.129	0.0299	-2.5 to 2.5	Pass
				0	3.60	22.144	0.0313	-2.5 to 2.5	Pass
				10	3.60	23.775	0.0336	-2.5 to 2.5	Pass
				30	3.60	26.321	0.0372	-2.5 to 2.5	Pass
				40	3.60	27.051	0.0382	-2.5 to 2.5	Pass
				50	3.60	26.021	0.0368	-2.5 to 2.5	Pass
	711	50	0	20	3.06	0.000	0.0000	-2.5 to 2.5	Pass
					3.60	9.441	0.0133	-2.5 to 2.5	Pass
					4.14	15.621	0.0220	-2.5 to 2.5	Pass
				-30	3.60	18.525	0.0261	-2.5 to 2.5	Pass
				-20	3.60	22.044	0.0310	-2.5 to 2.5	Pass
				-10	3.60	24.133	0.0339	-2.5 to 2.5	Pass
				0	3.60	26.064	0.0367	-2.5 to 2.5	Pass
				10	3.60	27.251	0.0383	-2.5 to 2.5	Pass
				30	3.60	29.540	0.0415	-2.5 to 2.5	Pass
				40	3.60	28.996	0.0408	-2.5 to 2.5	Pass
				50	3.60	31.142	0.0438	-2.5 to 2.5	Pass

3. Modulation Characteristics

3.1 Test Result

3.1.1 B12_1.4MHz

Band: 12 / Bandwidth: 1.4MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	707.5	6	0	Refer To Test Graph		Pass
16QAM	707.5	6	0	Refer To Test Graph		Pass

3.1.2 B12_3MHz

Band: 12 / Bandwidth: 3MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	707.5	15	0	Refer To Test Graph		Pass
16QAM	707.5	15	0	Refer To Test Graph		Pass

3.1.3 B12_5MHz

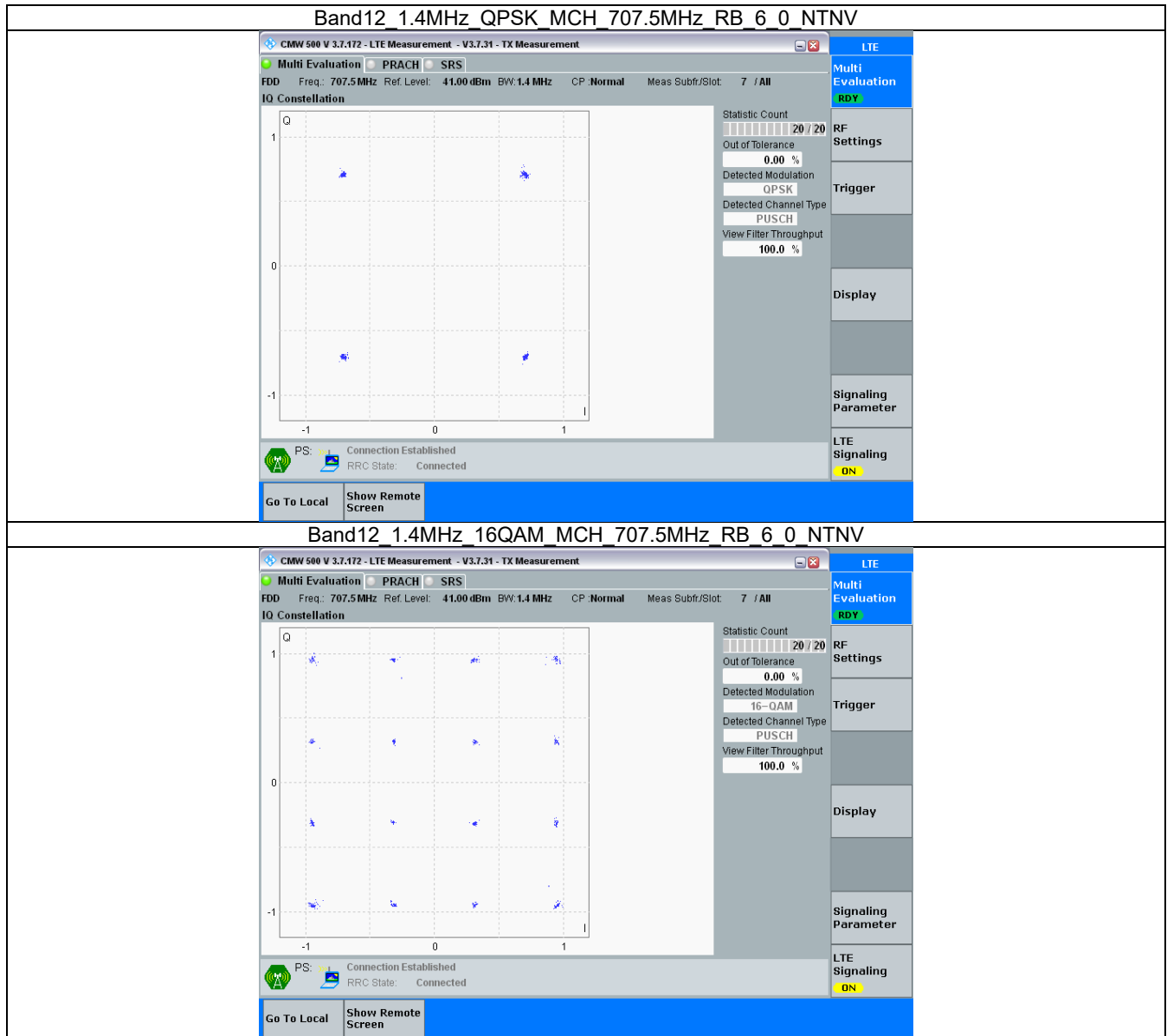
Band: 12 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	707.5	25	0	Refer To Test Graph		Pass
16QAM	707.5	25	0	Refer To Test Graph		Pass

3.1.4 B12_10MHz

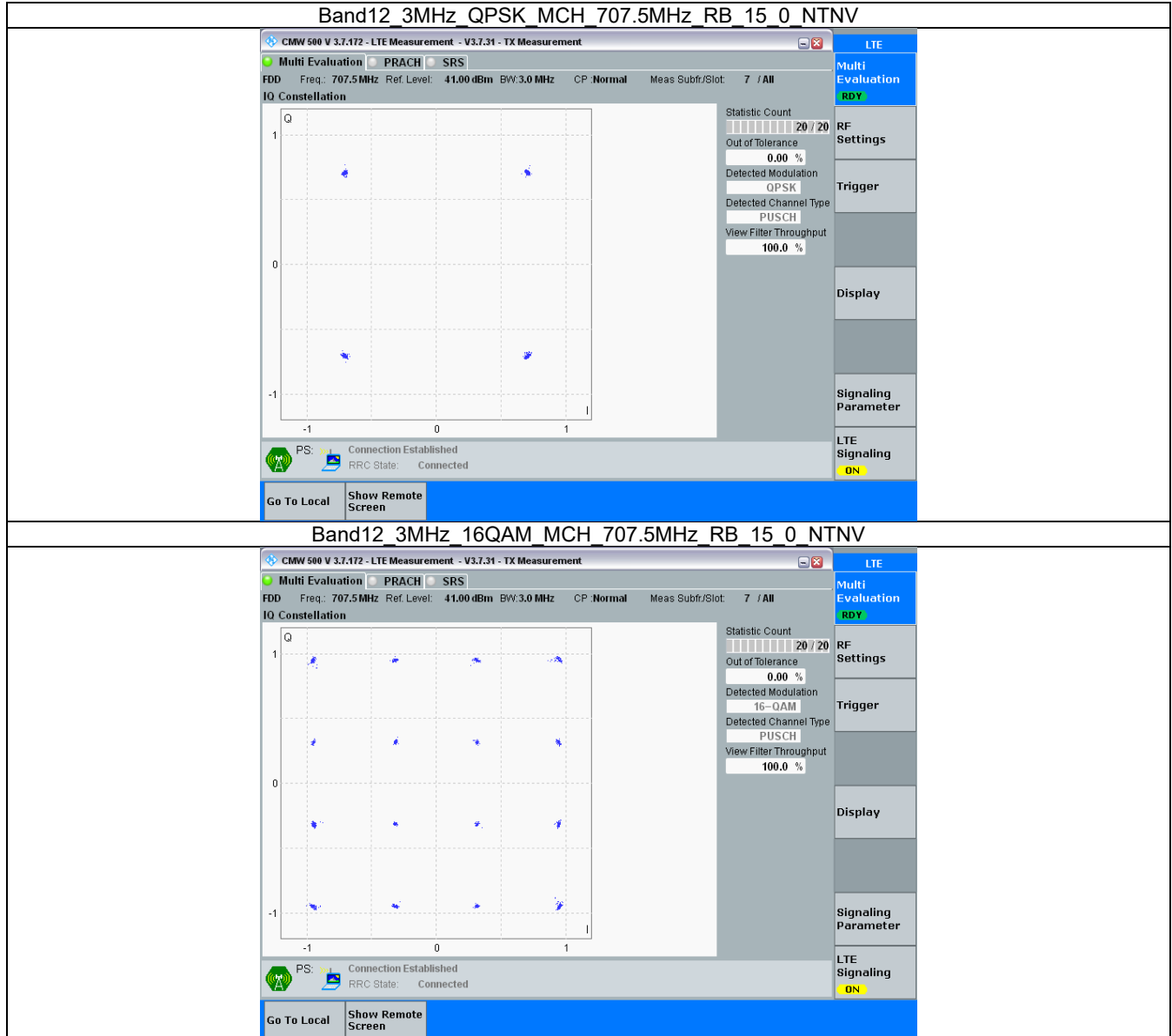
Band: 12 / Bandwidth: 10MHz / NTVN						
Modulation	Frequency (MHz)	RB Allocation		Modulation Characteristics		Verdict
		Size	Offset	Result	Limit	
QPSK	707.5	50	0	Refer To Test Graph		Pass
16QAM	707.5	50	0	Refer To Test Graph		Pass

3.2 Test Graph

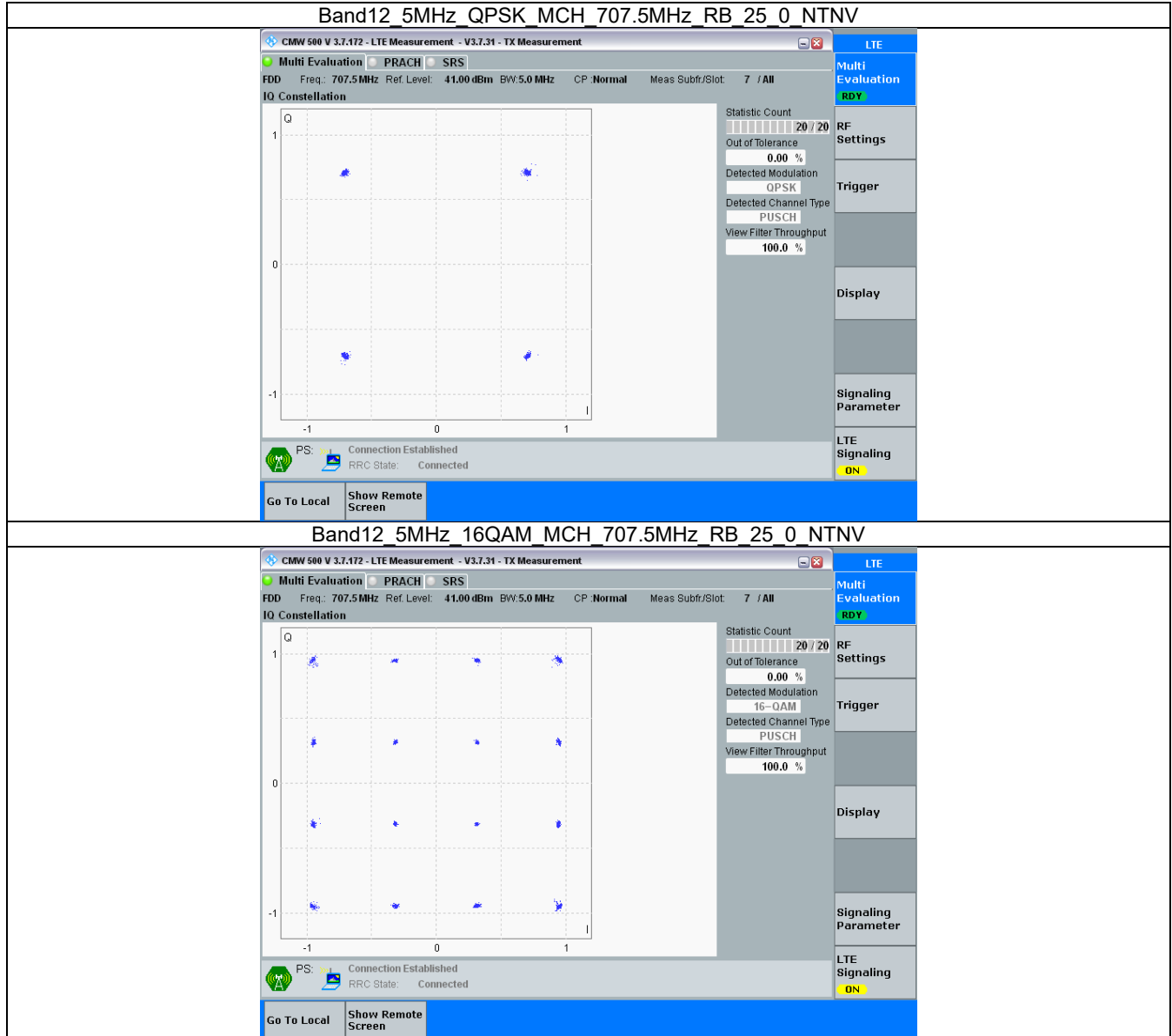
3.2.1 B12_1.4MHz



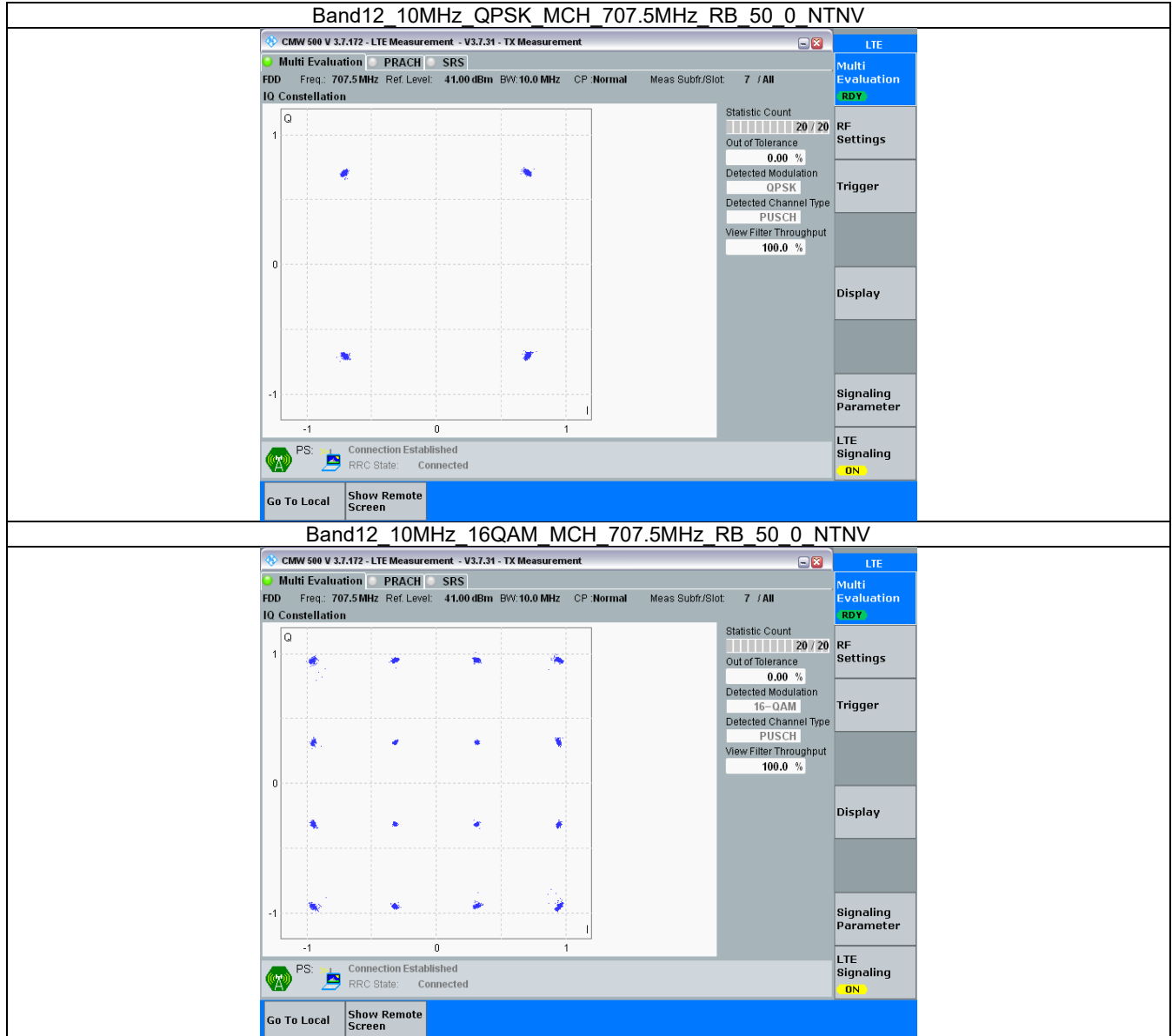
3.2.2 B12_3MHz



3.2.3 B12_5MHz



3.2.4 B12_10MHz



4. 99% & 26dB Bandwidth

4.1 Test Result

4.1.1 Band12_OBW

Band: 12 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	699.7	6	0	1.114	/	Pass
		707.5	6	0	1.112	/	Pass
		715.3	6	0	1.117	/	Pass
	16QAM	699.7	6	0	1.113	/	Pass
		707.5	6	0	1.111	/	Pass
		715.3	6	0	1.121	/	Pass
3	QPSK	700.5	15	0	2.760	/	Pass
		707.5	15	0	2.761	/	Pass
		714.5	15	0	2.742	/	Pass
	16QAM	700.5	15	0	2.753	/	Pass
		707.5	15	0	2.762	/	Pass
		714.5	15	0	2.747	/	Pass
5	QPSK	701.5	25	0	4.564	/	Pass
		707.5	25	0	4.540	/	Pass
		713.5	25	0	4.563	/	Pass
	16QAM	701.5	25	0	4.527	/	Pass
		707.5	25	0	4.555	/	Pass
		713.5	25	0	4.574	/	Pass
10	QPSK	704	50	0	9.082	/	Pass
		707.5	50	0	9.080	/	Pass
		711	50	0	9.065	/	Pass
	16QAM	704	50	0	9.081	/	Pass
		707.5	50	0	9.060	/	Pass
		711	50	0	9.080	/	Pass

4.1.2 Band12_XDB

Band: 12 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	699.7	6	0	1.265	/	Pass
		707.5	6	0	1.277	/	Pass
		715.3	6	0	1.295	/	Pass
	16QAM	699.7	6	0	1.268	/	Pass
		707.5	6	0	1.262	/	Pass
		715.3	6	0	1.271	/	Pass
3	QPSK	700.5	15	0	3.096	/	Pass
		707.5	15	0	3.078	/	Pass
		714.5	15	0	3.107	/	Pass
	16QAM	700.5	15	0	3.106	/	Pass
		707.5	15	0	3.081	/	Pass
		714.5	15	0	3.082	/	Pass
5	QPSK	701.5	25	0	5.050	/	Pass
		707.5	25	0	5.025	/	Pass
		713.5	25	0	5.072	/	Pass



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	16QAM	701.5	25	0	5.053	/	Pass
		707.5	25	0	5.053	/	Pass
		713.5	25	0	5.050	/	Pass
10	QPSK	704	50	0	10.027	/	Pass
		707.5	50	0	10.043	/	Pass
		711	50	0	10.067	/	Pass
	16QAM	704	50	0	10.083	/	Pass
		707.5	50	0	10.061	/	Pass
		711	50	0	10.108	/	Pass

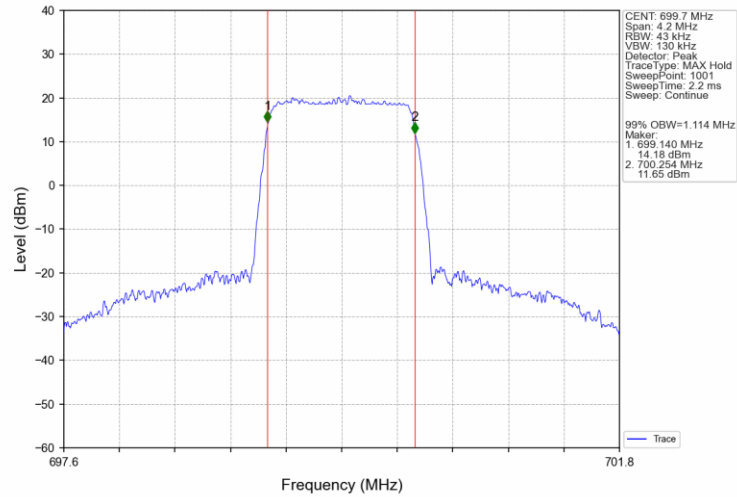


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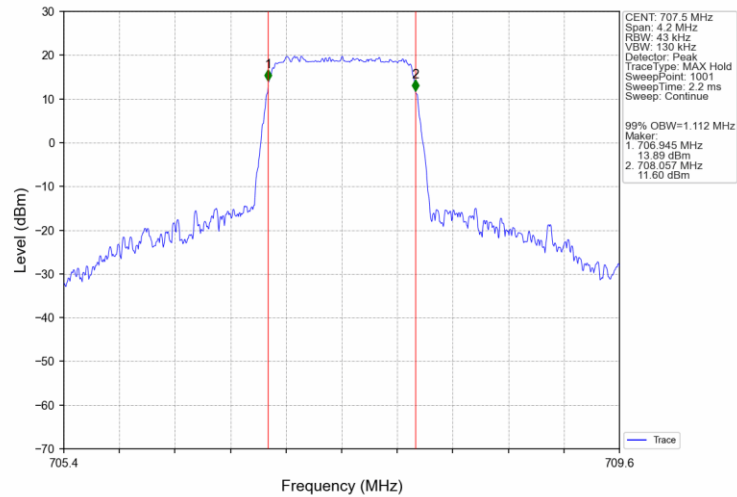
4.2 Test Graph

4.2.1 Band12_OBW

Band12_1.4MHz_QPSK_LCH_699.7MHz_RB_6_0_NTNV



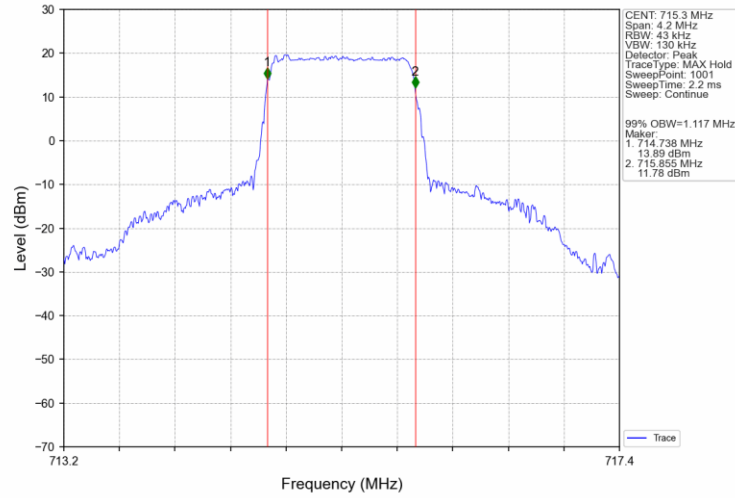
Band12_1.4MHz_QPSK_MCH_707.5MHz_RB_6_0_NTNV



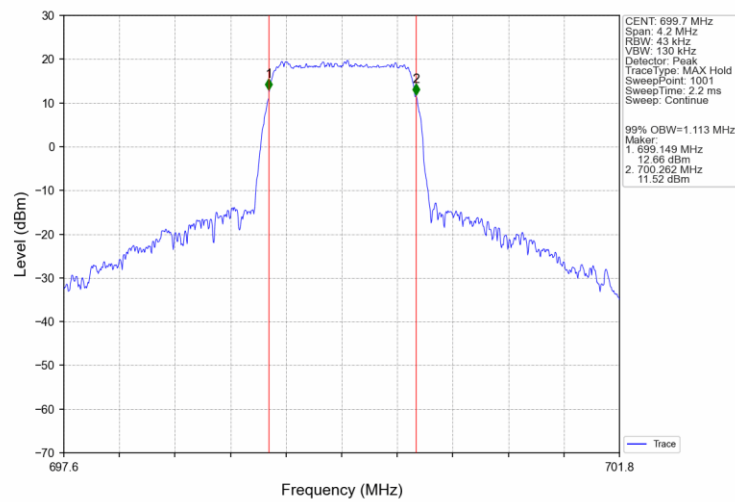


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Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



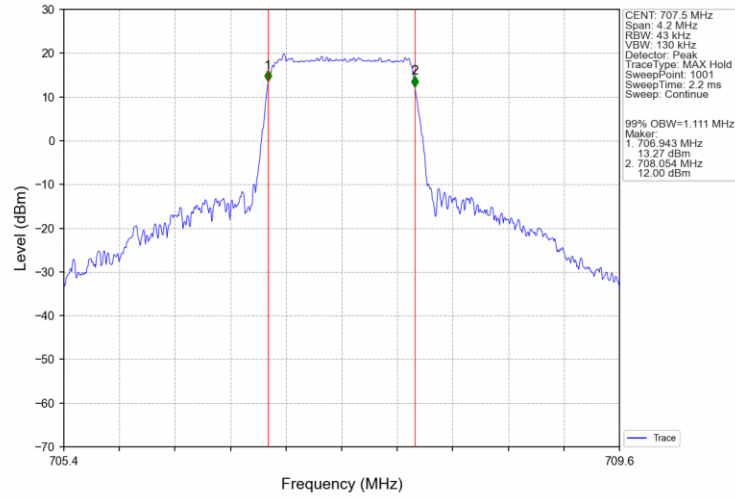
Band12_1.4MHz_16QAM_LCH_699.7MHz_RB_6_0_NTNV



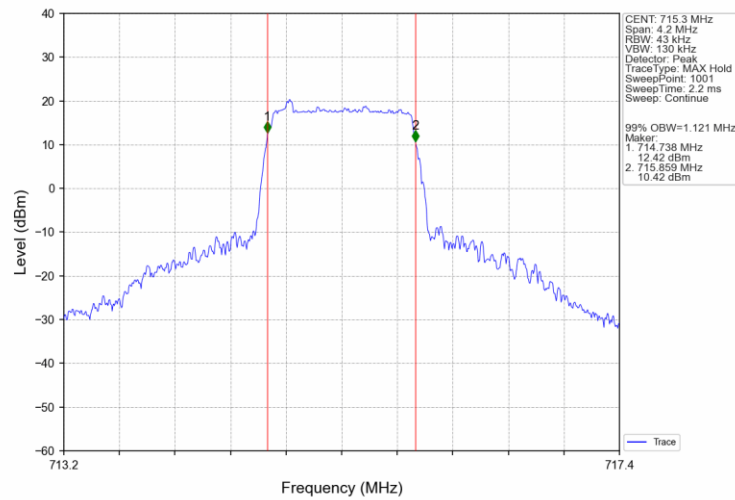


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Band12_1.4MHz_16QAM_MCH_707.5MHz_RB_6_0_NTNV



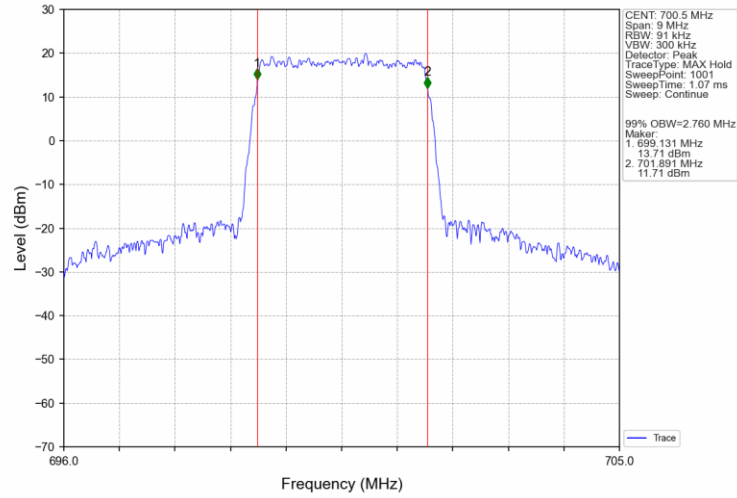
Band12_1.4MHz_16QAM_HCH_715.3MHz_RB_6_0_NTNV



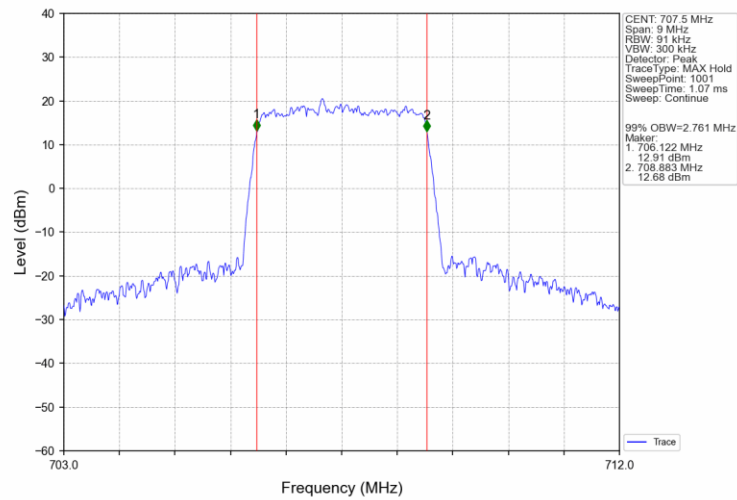


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Band12_3MHz_QPSK_LCH_700.5MHz_RB_15_0_NTNV



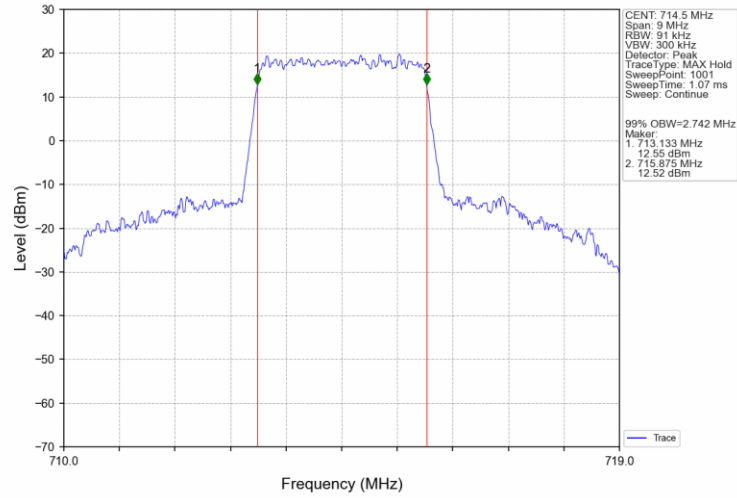
Band12_3MHz_QPSK_MCH_707.5MHz_RB_15_0_NTNV



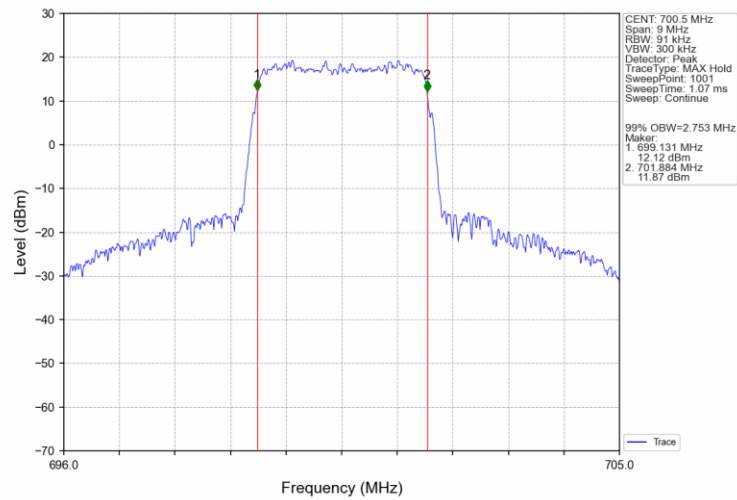


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Band12_3MHz_QPSK_HCH_714.5MHz_RB_15_0_NTNV



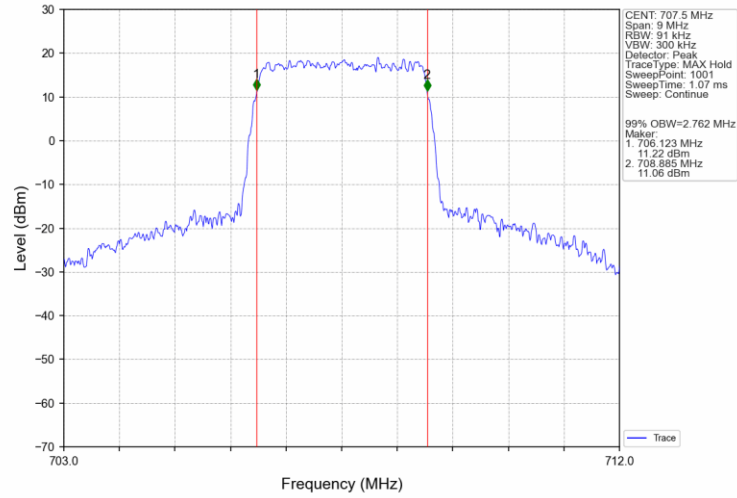
Band12_3MHz_16QAM_LCH_700.5MHz_RB_15_0_NTNV



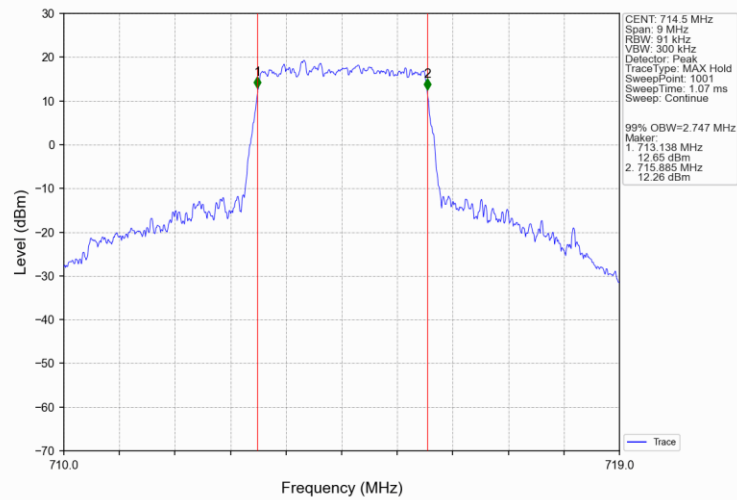


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Band12_3MHz_16QAM_MCH_707.5MHz_RB_15_0_NTNV



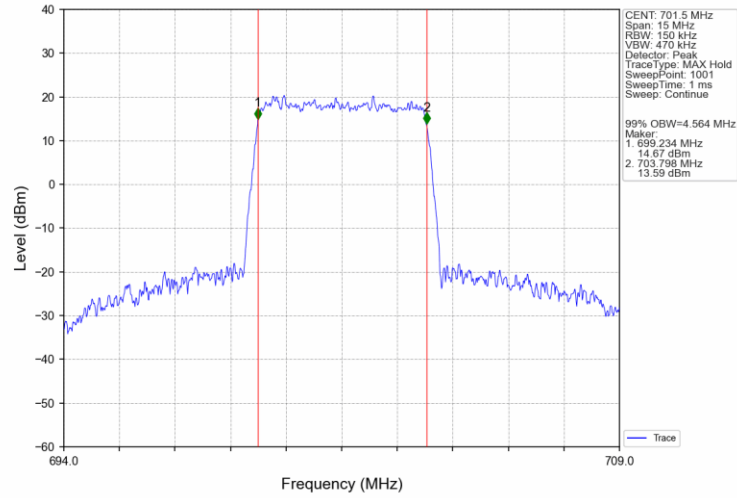
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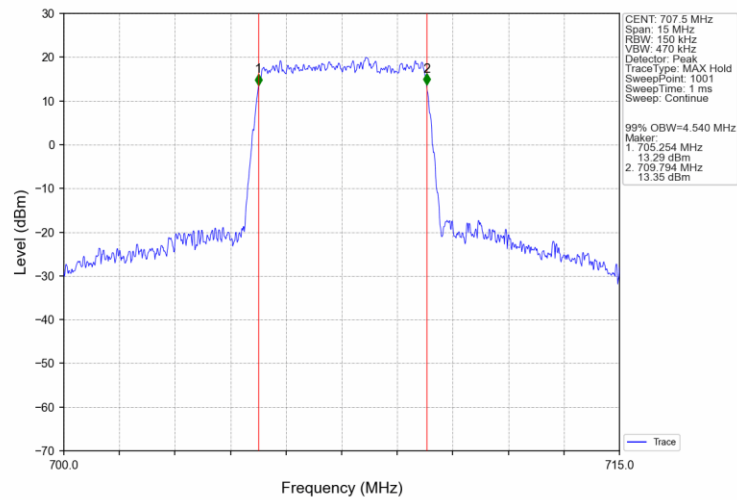


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Band12_5MHz_QPSK_LCH_701.5MHz_RB_25_0_NTNV



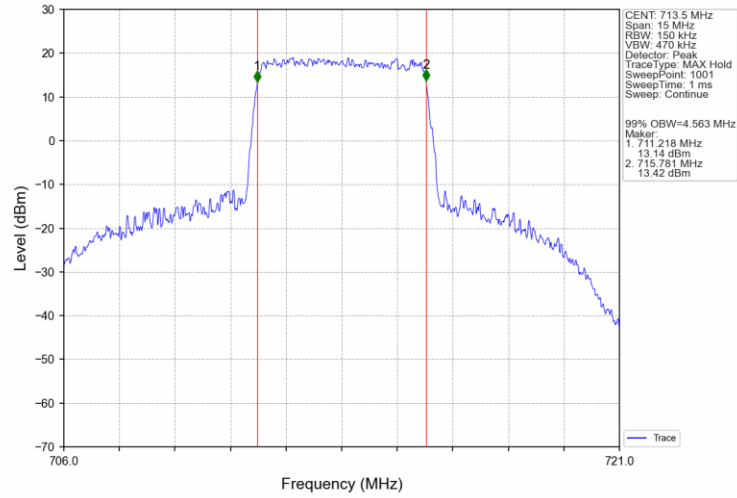
Band12_5MHz_QPSK_MCH_707.5MHz_RB_25_0_NTNV



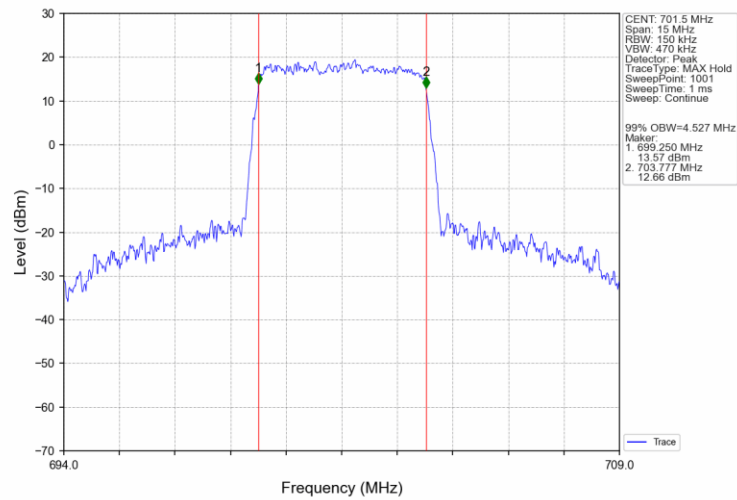


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Band12_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



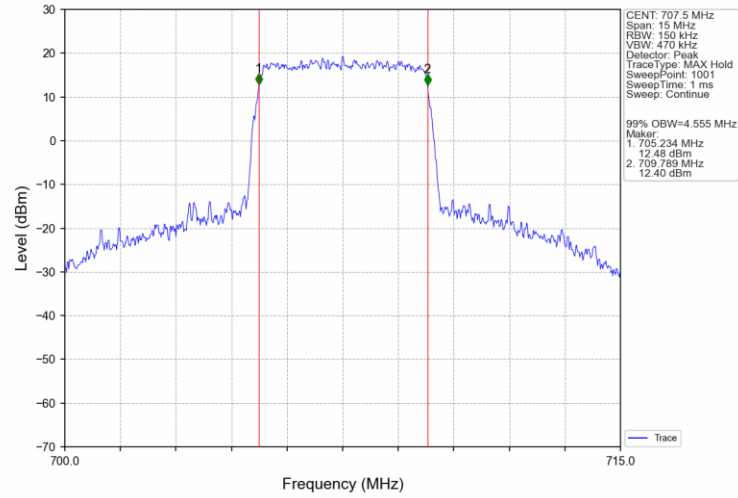
Band12_5MHz_16QAM_LCH_701.5MHz_RB_25_0_NTNV



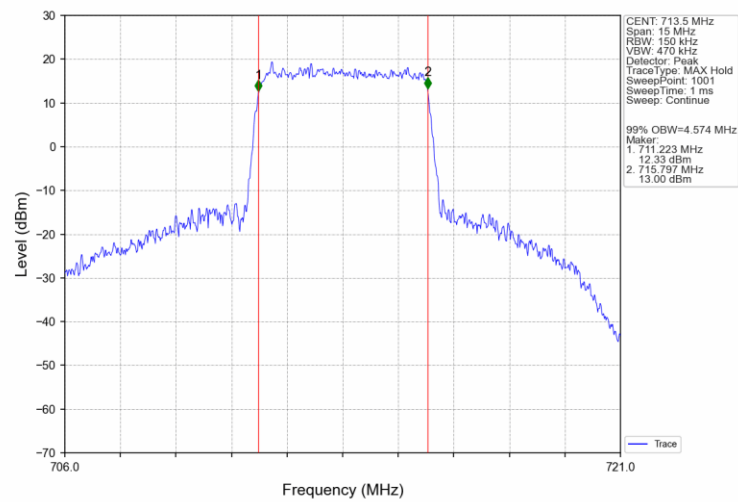


250515148FW6

Band12_5MHz_16QAM_MCH_707.5MHz_RB_25_0_NTNV



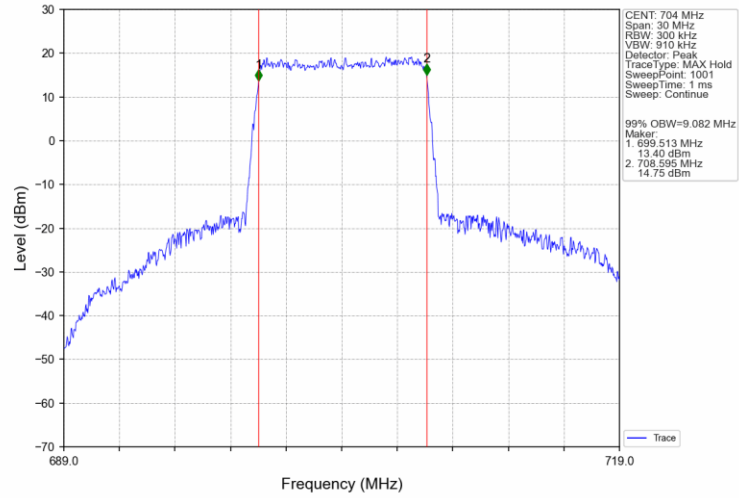
Band12_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



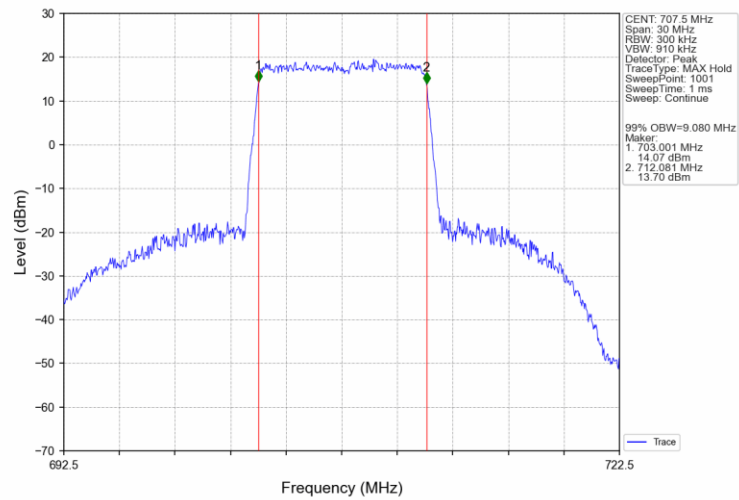


250515148FW6

Band12_10MHz_QPSK_LCH_704MHz_RB_50_0_NTNV



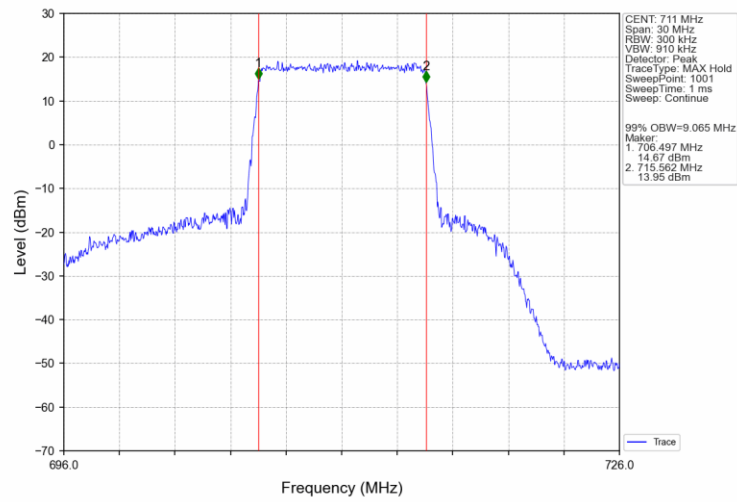
Band12_10MHz_QPSK_MCH_707.5MHz_RB_50_0_NTNV



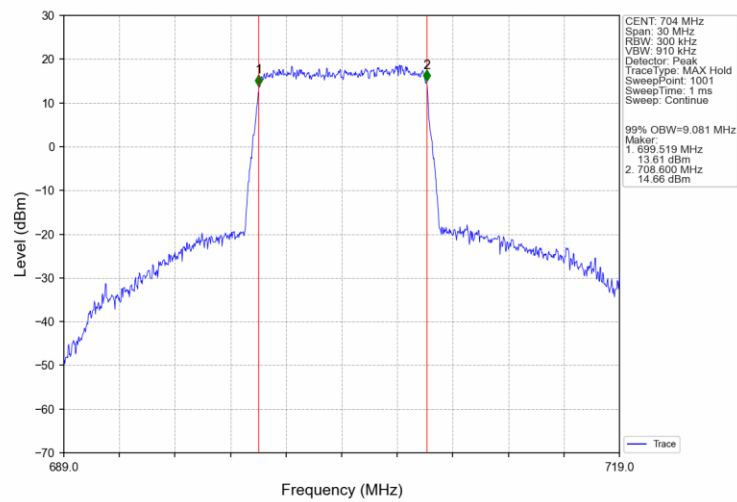


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Band12_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



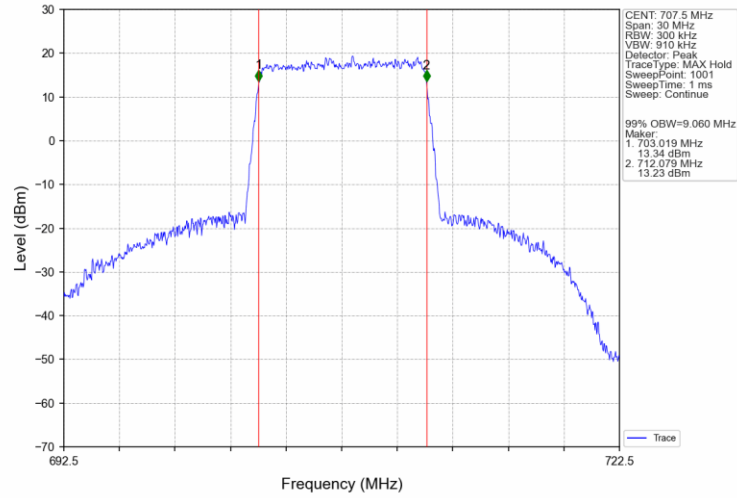
Band12_10MHz_16QAM_LCH_704MHz_RB_50_0_NTNV



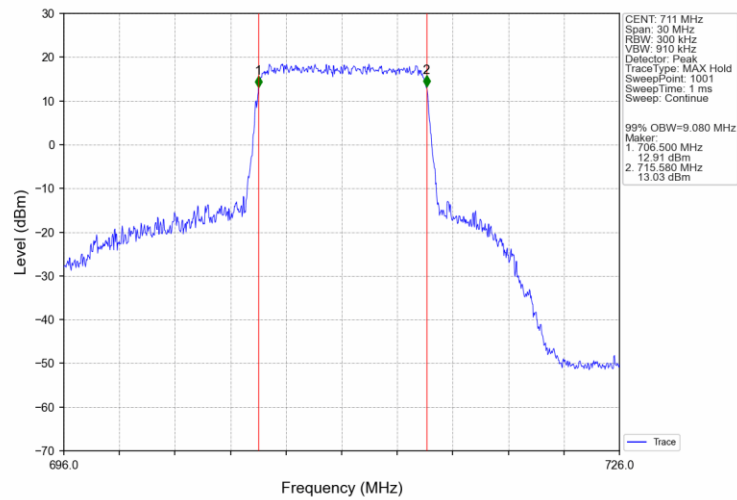


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Band12_10MHz_16QAM_MCH_707.5MHz_RB_50_0_NTNV

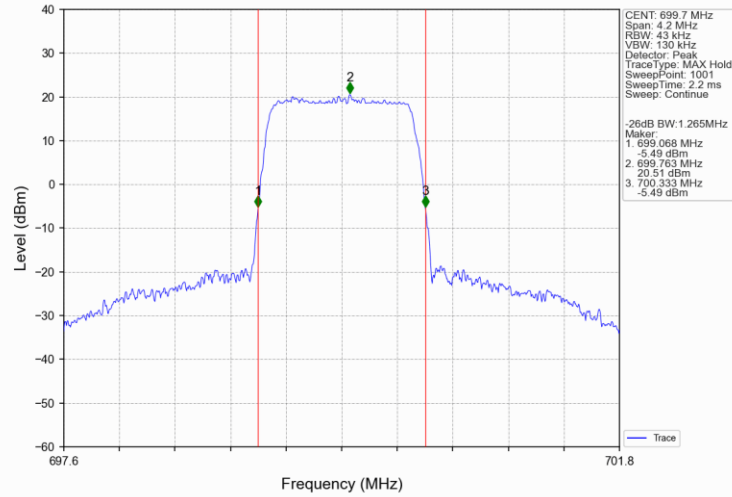


Band12_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV

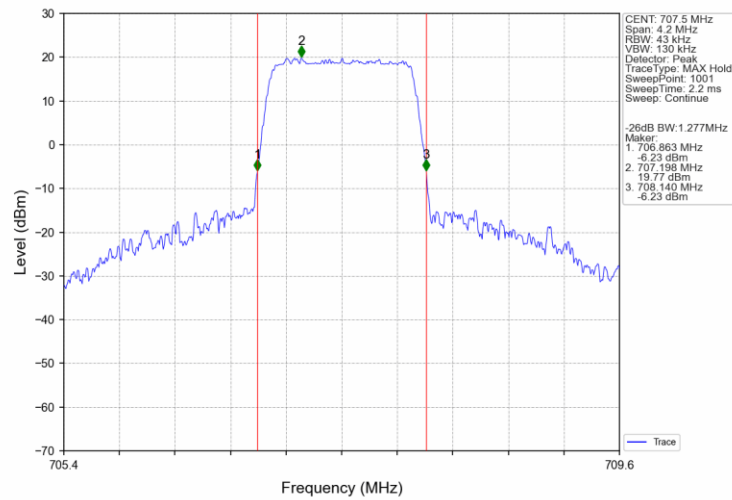


4.2.2 Band12_XDB

Band12_1.4MHz_QPSK_LCH_699.7MHz_RB_6_0_NTNV



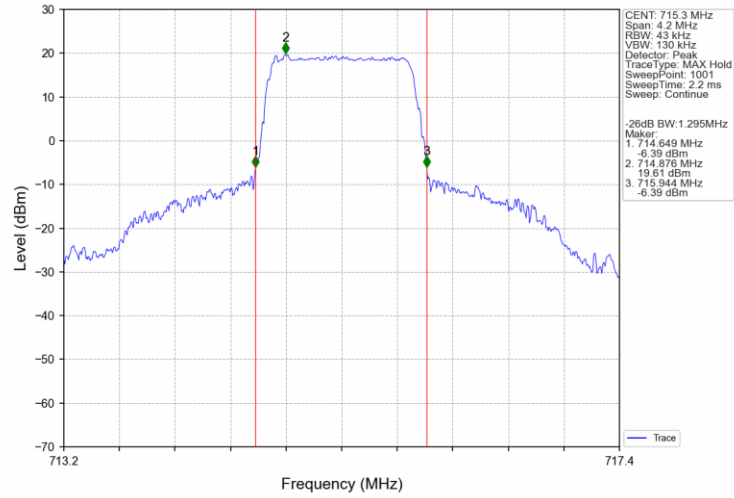
Band12_1.4MHz_QPSK_MCH_707.5MHz_RB_6_0_NTNV



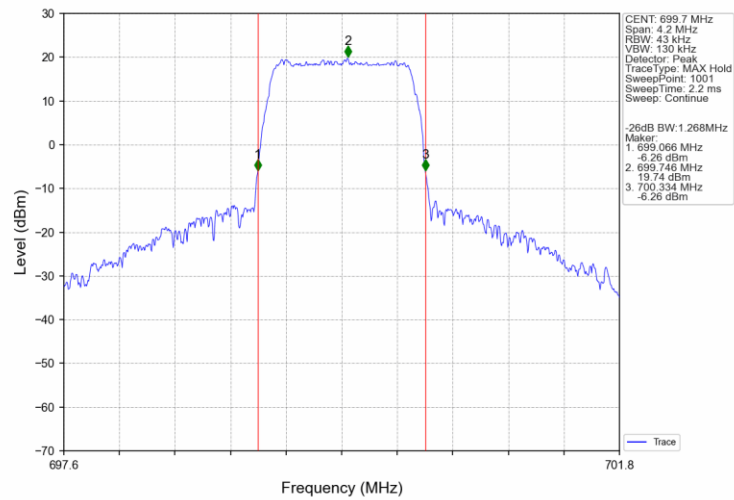


250515148FW6

Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



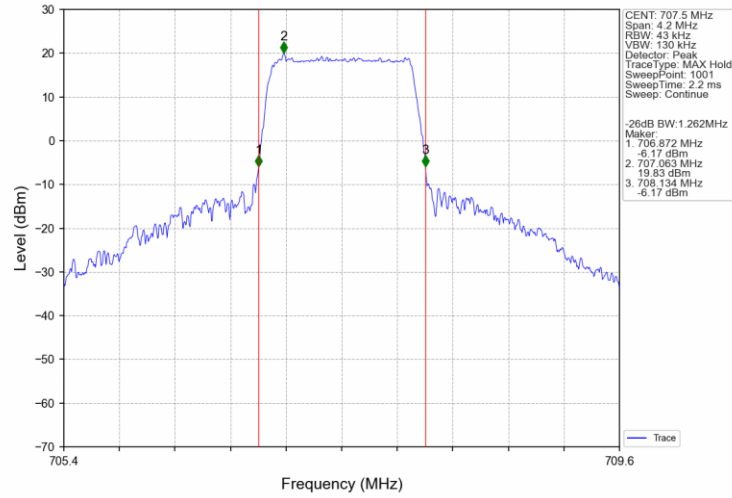
Band12_1.4MHz_16QAM_LCH_699.7MHz_RB_6_0_NTNV



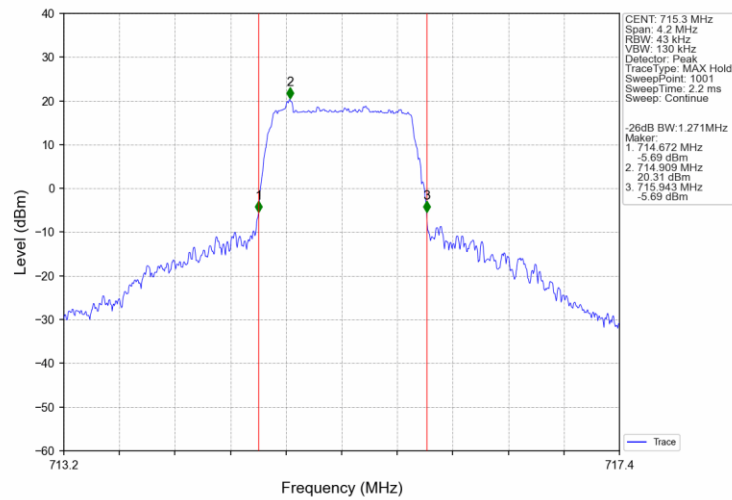


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Band12_1.4MHz_16QAM_MCH_707.5MHz_RB_6_0_NTNV



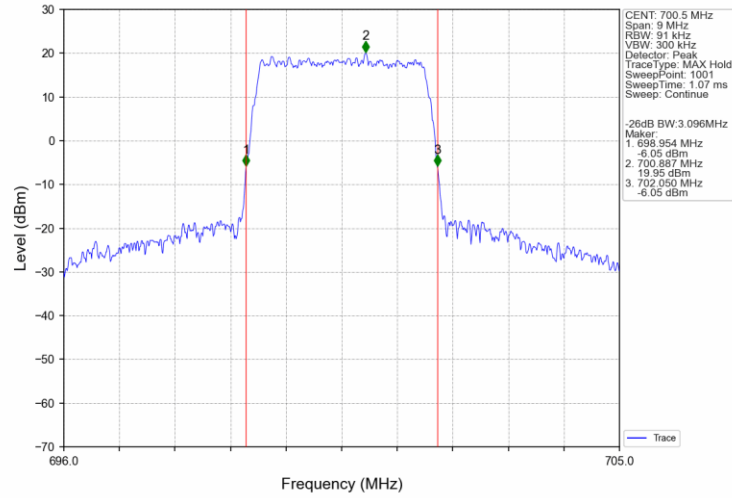
Band12_1.4MHz_16QAM_HCH_715.3MHz_RB_6_0_NTNV



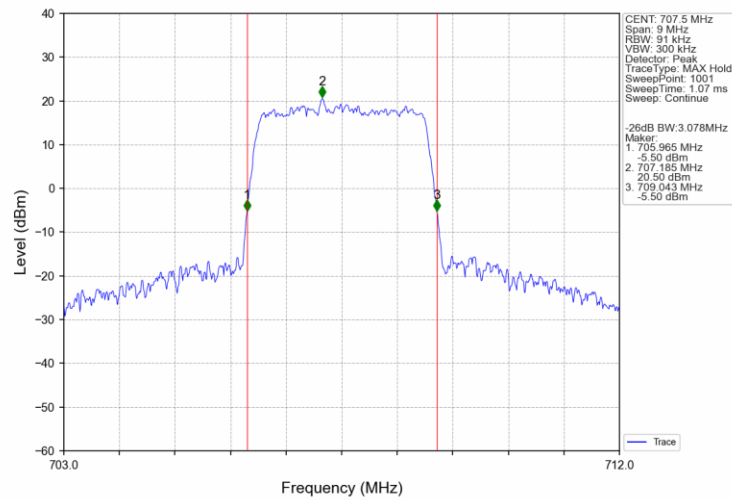


250515148FW6

Band12_3MHz_QPSK_LCH_700.5MHz_RB_15_0_NTNV



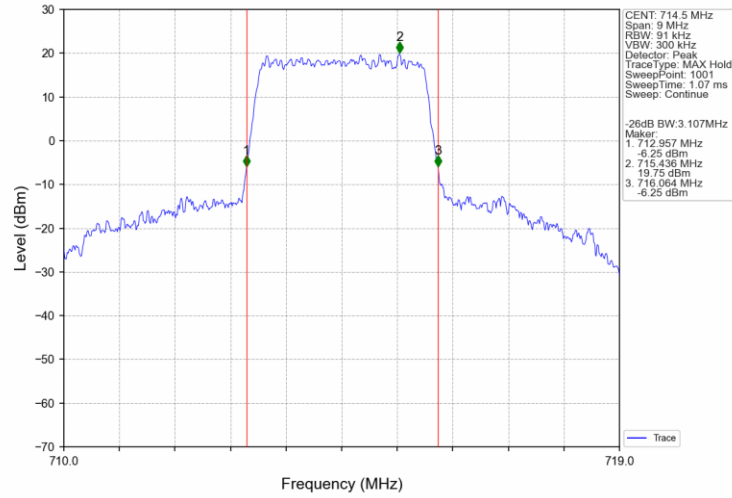
Band12_3MHz_QPSK_MCH_707.5MHz_RB_15_0_NTNV



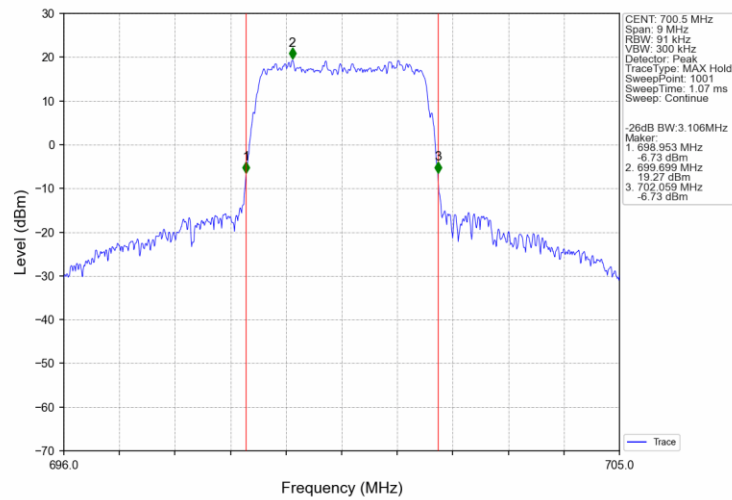


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Band12_3MHz_QPSK_HCH_714.5MHz_RB_15_0_NTNV



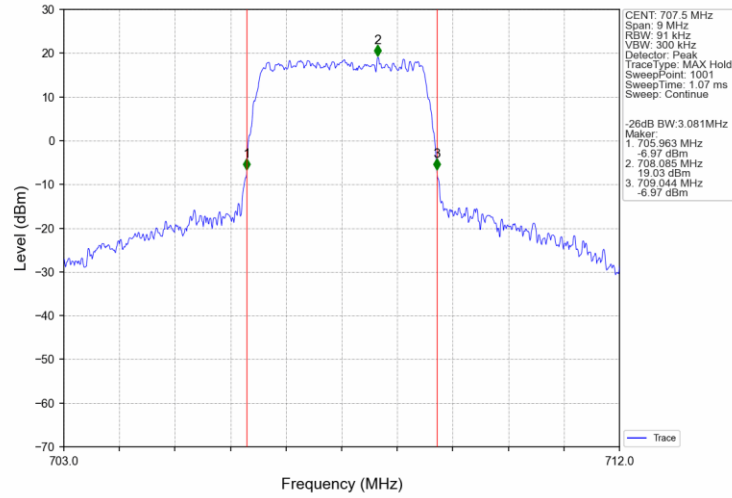
Band12_3MHz_16QAM_LCH_700.5MHz_RB_15_0_NTNV



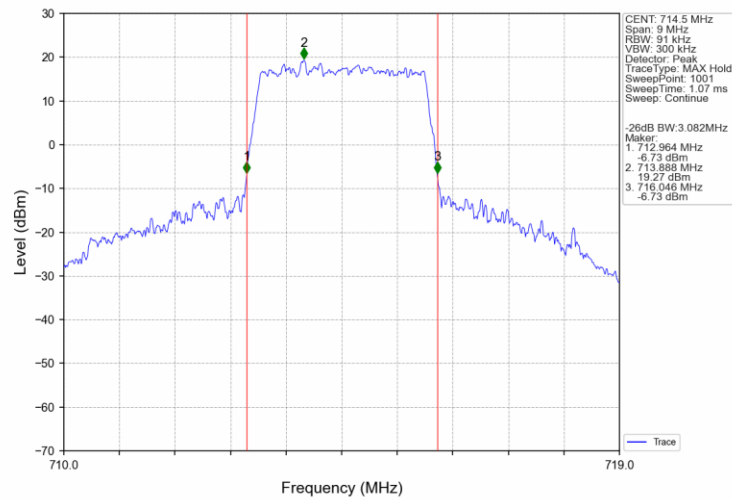


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Band12_3MHz_16QAM_MCH_707.5MHz_RB_15_0_NTNV



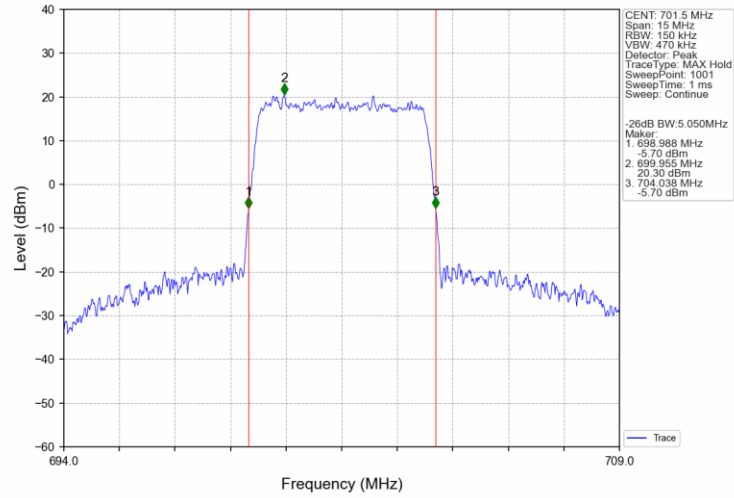
Band12_3MHz_16QAM_HCH_714.5MHz_RB_15_0_NTNV



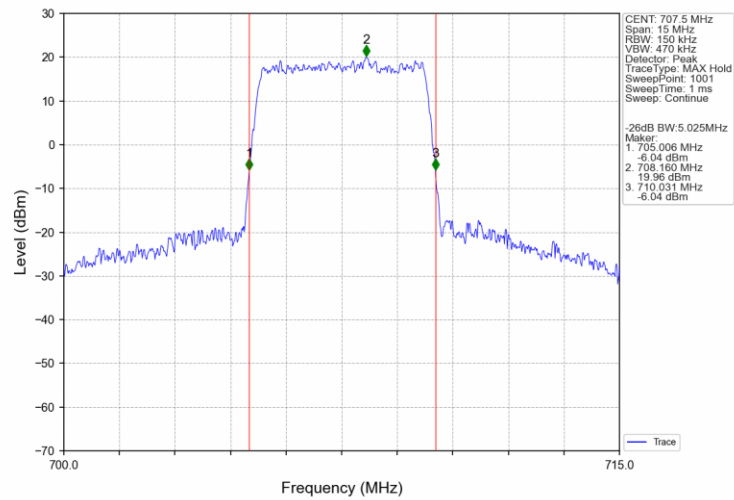


250515148FW6

Band12_5MHz_QPSK_LCH_701.5MHz_RB_25_0_NTNV



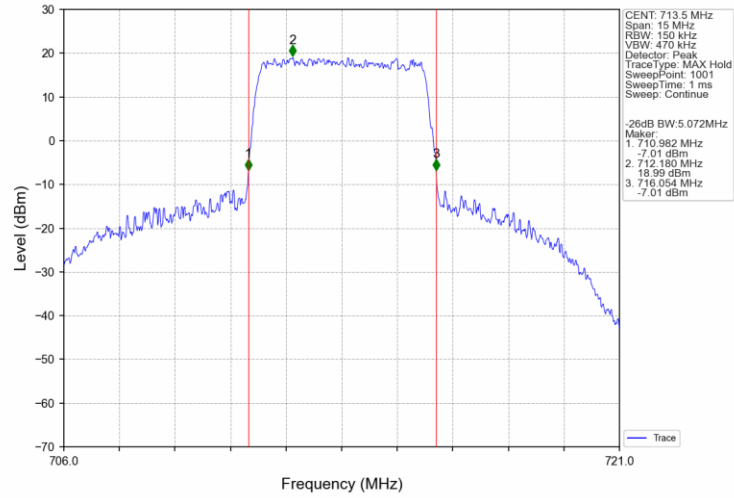
Band12_5MHz_QPSK_MCH_707.5MHz_RB_25_0_NTNV



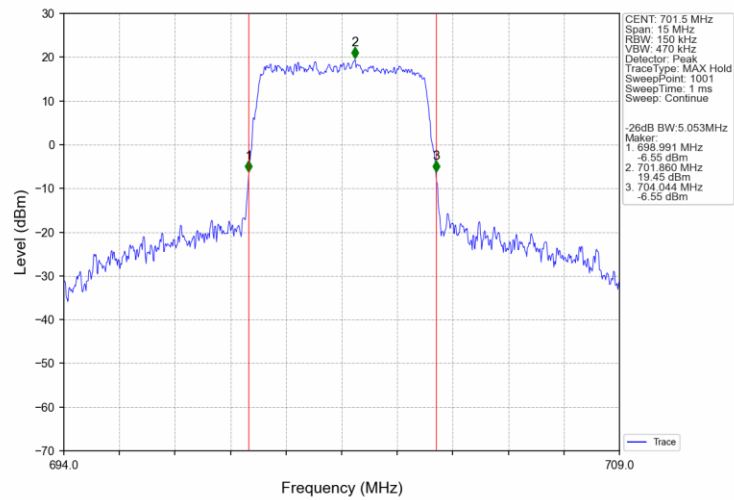


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Band12_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



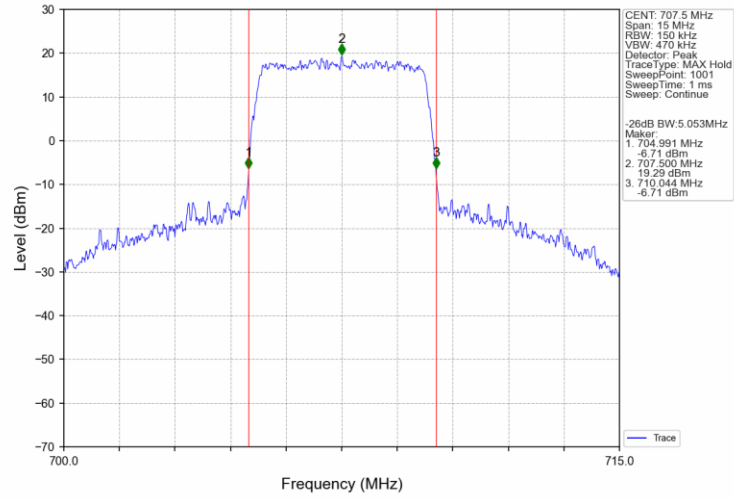
Band12_5MHz_16QAM_LCH_701.5MHz_RB_25_0_NTNV



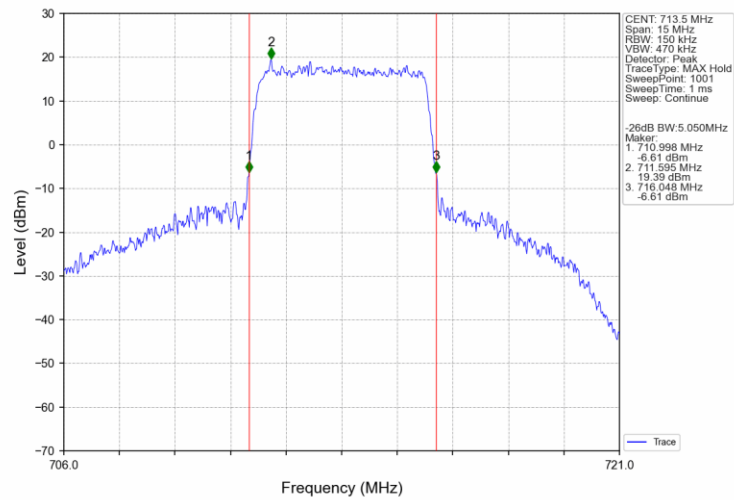


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Band12_5MHz_16QAM_MCH_707.5MHz_RB_25_0_NTNV



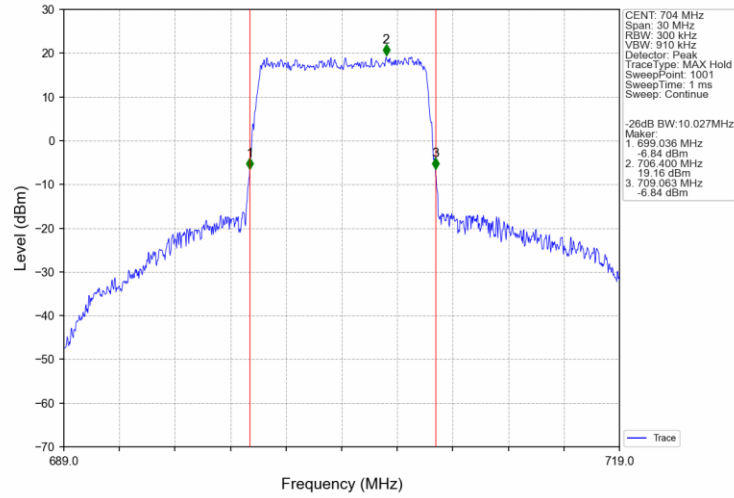
Band12_5MHz_16QAM_HCH_713.5MHz_RB_25_0_NTNV



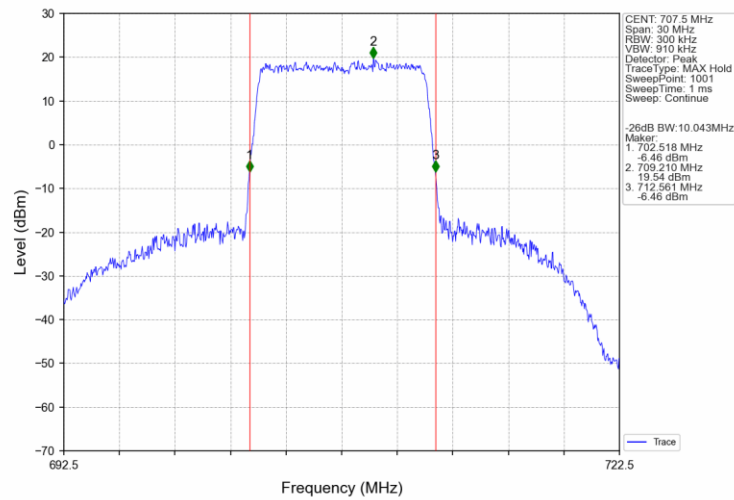


250515148FW6

Band12_10MHz_QPSK_LCH_704MHz_RB_50_0_NTNV



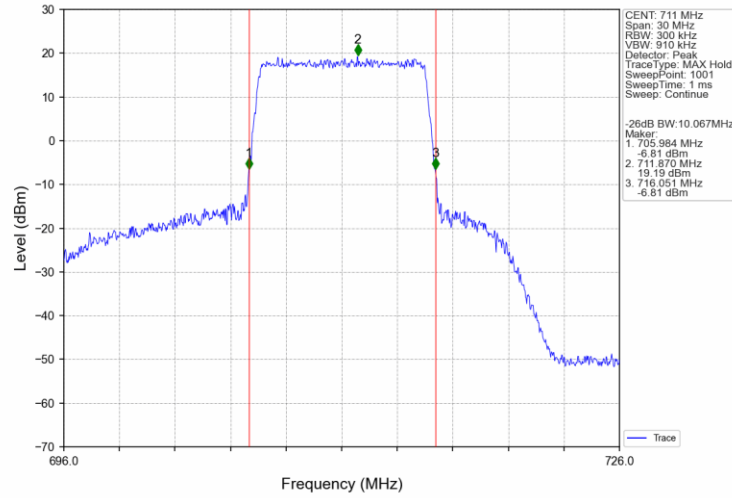
Band12_10MHz_QPSK_MCH_707.5MHz_RB_50_0_NTNV



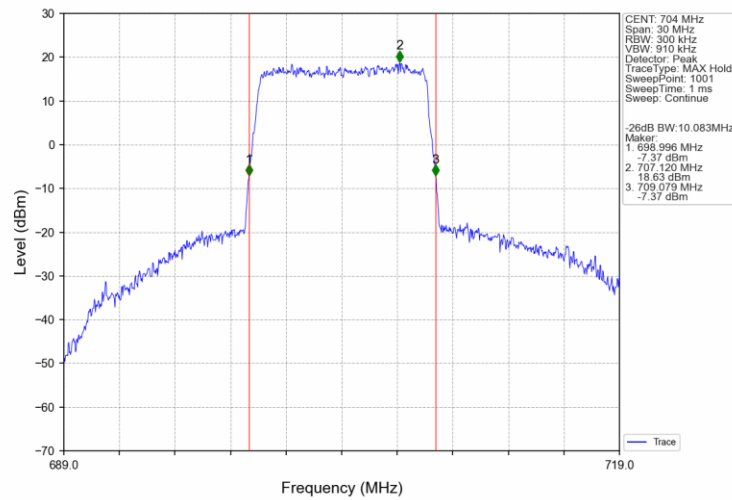


250515148FW6

Band12_10MHz_QPSK_HCH_711MHz_RB_50_0_NTNV



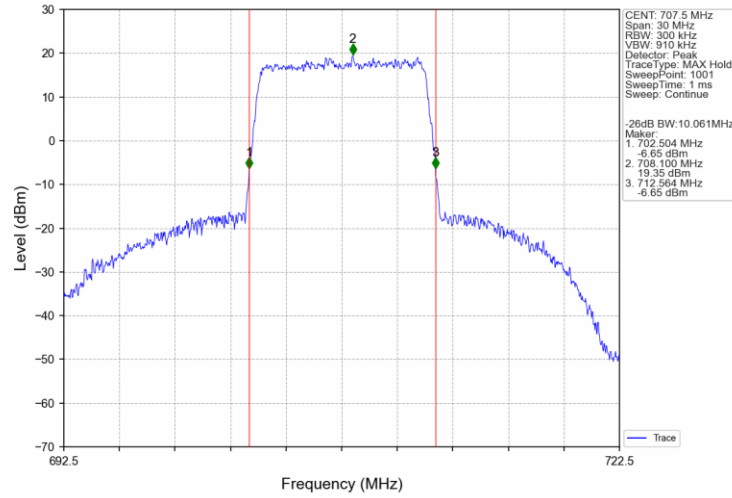
Band12_10MHz_16QAM_LCH_704MHz_RB_50_0_NTNV



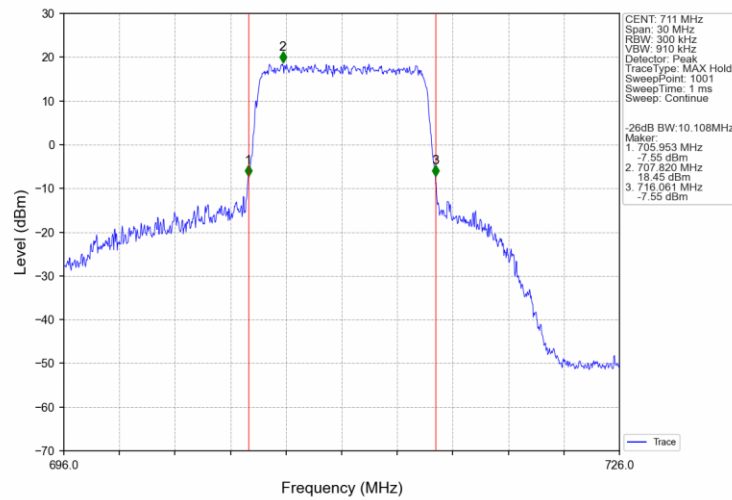


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Band12_10MHz_16QAM_MCH_707.5MHz_RB_50_0_NTNV



Band12_10MHz_16QAM_HCH_711MHz_RB_50_0_NTNV



5. Peak-Average Ratio

5.1 Test Result

5.1.1 B12_1.4MHz

Band: 12 / Bandwidth: 1.4MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	699.7	6	0	5.23	<=13	Pass
	707.5	6	0	4.96	<=13	Pass
	715.3	6	0	3.90	<=13	Pass
16QAM	699.7	6	0	5.75	<=13	Pass
	707.5	6	0	5.52	<=13	Pass
	715.3	6	0	4.89	<=13	Pass

5.1.2 B12_3MHz

Band: 12 / Bandwidth: 3MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	700.5	15	0	5.46	<=13	Pass
	707.5	15	0	5.21	<=13	Pass
	714.5	15	0	4.46	<=13	Pass
16QAM	700.5	15	0	6.12	<=13	Pass
	707.5	15	0	5.75	<=13	Pass
	714.5	15	0	5.46	<=13	Pass

5.1.3 B12_5MHz

Band: 12 / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	701.5	25	0	5.54	<=13	Pass
	707.5	25	0	5.38	<=13	Pass
	713.5	25	0	5.06	<=13	Pass
16QAM	701.5	25	0	6.28	<=13	Pass
	707.5	25	0	5.93	<=13	Pass
	713.5	25	0	5.89	<=13	Pass

5.1.4 B12_10MHz

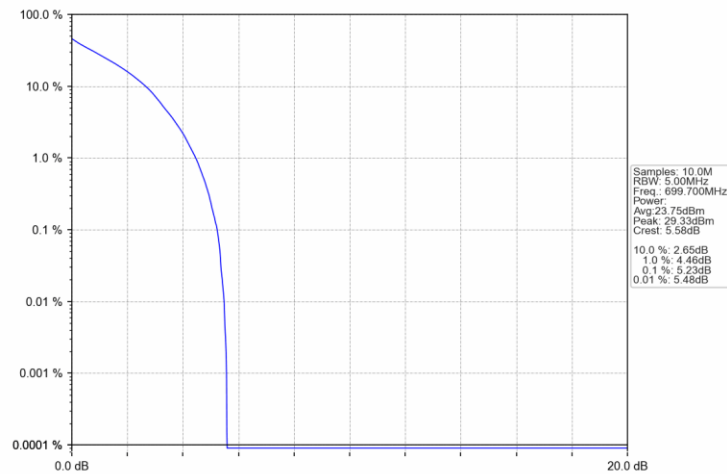
Band: 12 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	704	50	0	5.52	<=13	Pass
	707.5	50	0	5.44	<=13	Pass
	711	50	0	5.28	<=13	Pass
16QAM	704	50	0	6.26	<=13	Pass
	707.5	50	0	6.08	<=13	Pass
	711	50	0	5.97	<=13	Pass



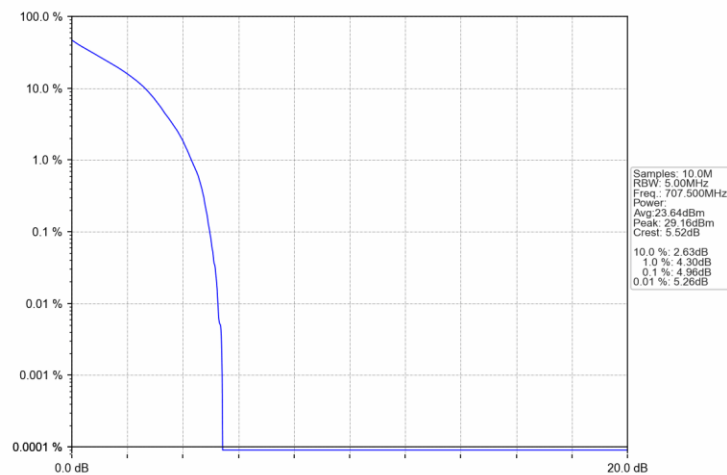
5.2 Test Graph

5.2.1 B12_1.4MHz

Band12_1.4MHz_QPSK_LCH_699.7MHz_RB_6_0_NTNV



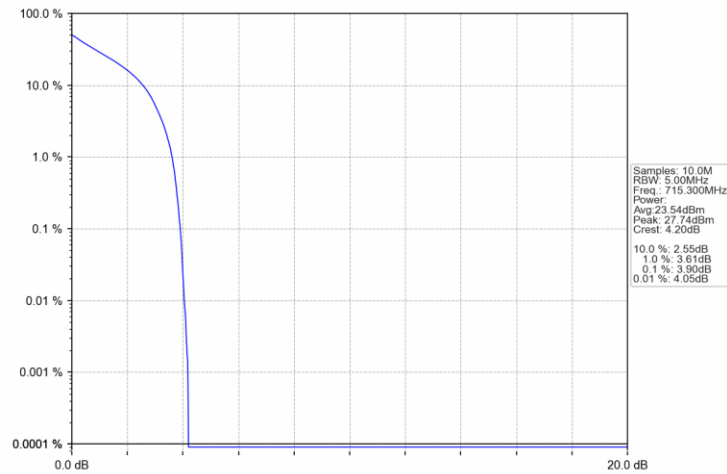
Band12_1.4MHz_QPSK_MCH_707.5MHz_RB_6_0_NTNV



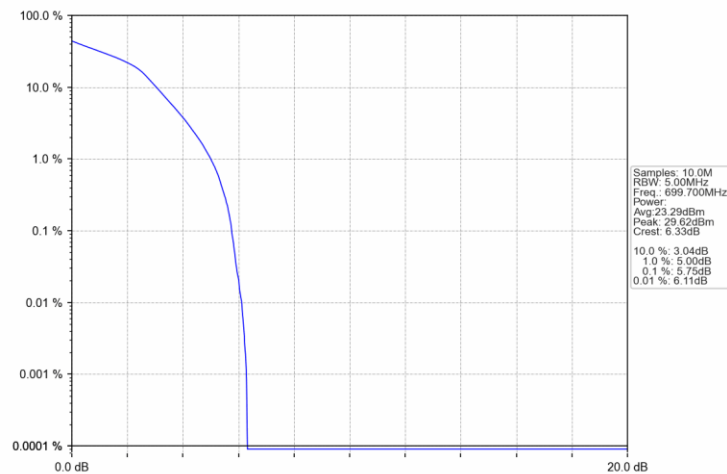


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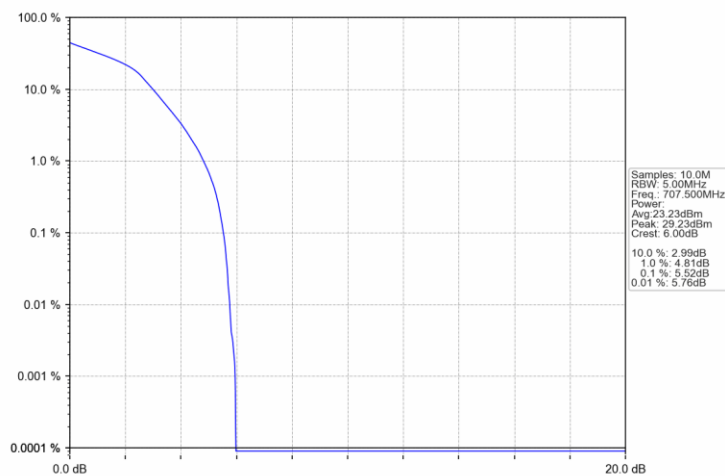
Band12_1.4MHz_QPSK_HCH_715.3MHz_RB_6_0_NTNV



Band12_1.4MHz_16QAM_LCH_699.7MHz_RB_6_0_NTNV



Band12_1.4MHz_16QAM_MCH_707.5MHz_RB_6_0_NTNV



Band12_1.4MHz_16QAM_HCH_715.3MHz_RB_6_0_NTNV

