

Appendix for Band 12

Report No.: BCTC2309367965-2E

Applicant: Arize Corporation

Product Name: Smart Hub

Model/Type
reference: ASH120

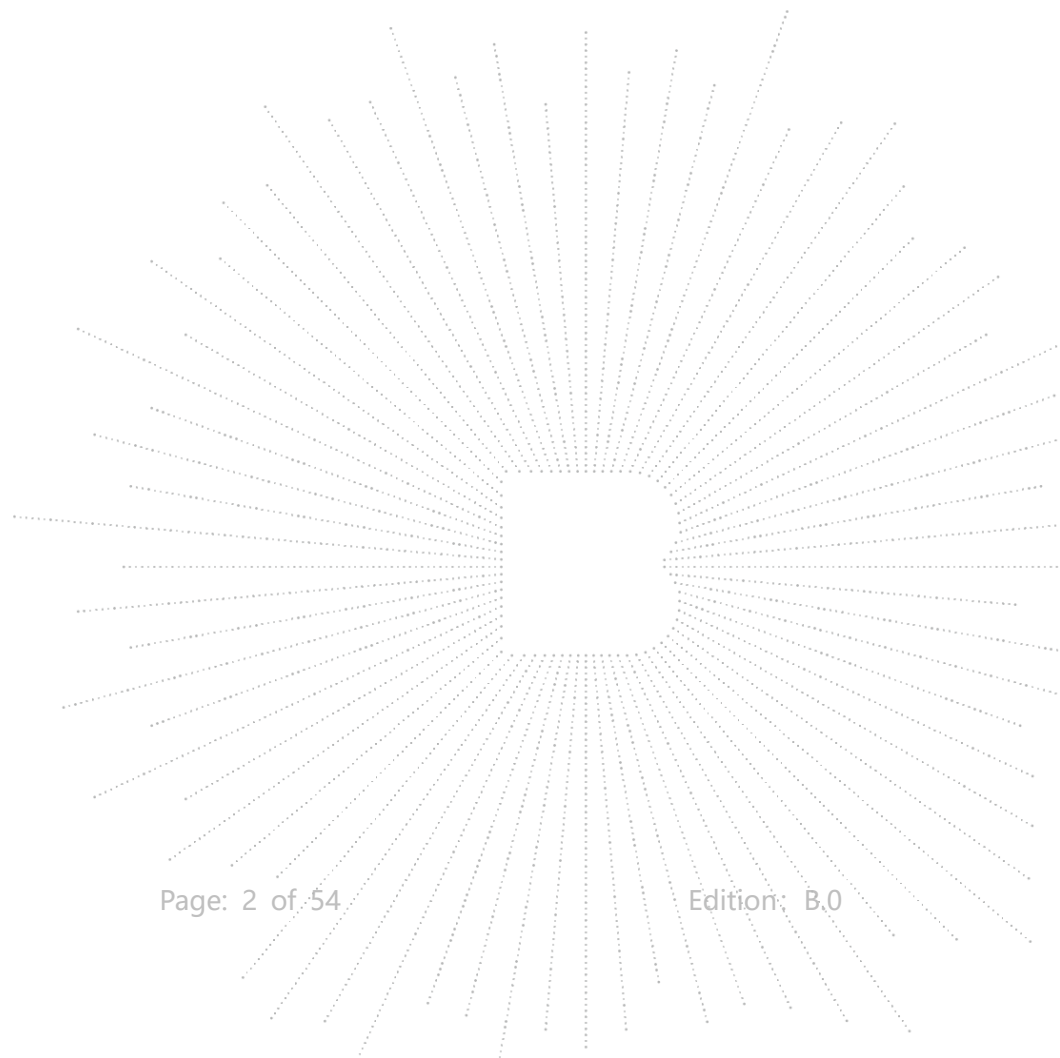
Tested Date: 2023-09-26 to 2023-11-03

Issued Date: 2023-11-03

Shenzhen BCTC Testing Co., Ltd.

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Appendix 1. Conducted output power

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Gain (dBm)	ERP (dBm)	Verdict
Band12	1.4	23017	1	#0	QPSK	22.35	3.64	23.84	PASS
Band12	1.4	23017	1	#Mid	QPSK	22.36	3.64	23.85	PASS
Band12	1.4	23017	1	#Max	QPSK	22.23	3.64	23.72	PASS
Band12	1.4	23017	3	#0	QPSK	22.23	3.64	23.72	PASS
Band12	1.4	23017	3	#Mid	QPSK	22.20	3.64	23.69	PASS
Band12	1.4	23017	3	#Max	QPSK	22.08	3.64	23.57	PASS
Band12	1.4	23017	6	#0	QPSK	21.44	3.64	22.93	PASS
Band12	1.4	23017	1	#0	16QAM	21.33	3.64	22.82	PASS
Band12	1.4	23017	1	#Mid	16QAM	21.31	3.64	22.80	PASS
Band12	1.4	23017	1	#Max	16QAM	21.24	3.64	22.73	PASS
Band12	1.4	23017	3	#0	16QAM	21.13	3.64	22.62	PASS
Band12	1.4	23017	3	#Mid	16QAM	21.09	3.64	22.58	PASS
Band12	1.4	23017	3	#Max	16QAM	21.03	3.64	22.52	PASS
Band12	1.4	23017	6	#0	16QAM	20.26	3.64	21.75	PASS
Band12	1.4	23095	1	#0	QPSK	21.99	3.64	23.48	PASS
Band12	1.4	23095	1	#Mid	QPSK	22.20	3.64	23.69	PASS
Band12	1.4	23095	1	#Max	QPSK	22.15	3.64	23.64	PASS
Band12	1.4	23095	3	#0	QPSK	22.08	3.64	23.57	PASS
Band12	1.4	23095	3	#Mid	QPSK	22.18	3.64	23.67	PASS
Band12	1.4	23095	3	#Max	QPSK	22.23	3.64	23.72	PASS
Band12	1.4	23095	6	#0	QPSK	21.11	3.64	22.60	PASS
Band12	1.4	23095	1	#0	16QAM	20.84	3.64	22.33	PASS
Band12	1.4	23095	1	#Mid	16QAM	20.93	3.64	22.42	PASS
Band12	1.4	23095	1	#Max	16QAM	20.96	3.64	22.45	PASS
Band12	1.4	23095	3	#0	16QAM	21.06	3.64	22.55	PASS
Band12	1.4	23095	3	#Mid	16QAM	20.92	3.64	22.41	PASS
Band12	1.4	23095	3	#Max	16QAM	20.76	3.64	22.25	PASS
Band12	1.4	23095	6	#0	16QAM	20.15	3.64	21.64	PASS
Band12	1.4	23173	1	#0	QPSK	22.20	3.64	23.69	PASS
Band12	1.4	23173	1	#Mid	QPSK	22.22	3.64	23.71	PASS
Band12	1.4	23173	1	#Max	QPSK	22.19	3.64	23.68	PASS
Band12	1.4	23173	3	#0	QPSK	22.16	3.64	23.65	PASS
Band12	1.4	23173	3	#Mid	QPSK	22.27	3.64	23.76	PASS
Band12	1.4	23173	3	#Max	QPSK	22.34	3.64	23.83	PASS
Band12	1.4	23173	6	#0	QPSK	21.39	3.64	22.88	PASS
Band12	1.4	23173	1	#0	16QAM	21.17	3.64	22.66	PASS
Band12	1.4	23173	1	#Mid	16QAM	21.12	3.64	22.61	PASS

Band12	1.4	23173	1	#Max	16QAM	21.12	3.64	22.61	PASS
Band12	1.4	23173	3	#0	16QAM	21.33	3.64	22.82	PASS
Band12	1.4	23173	3	#Mid	16QAM	21.42	3.64	22.91	PASS
Band12	1.4	23173	3	#Max	16QAM	21.37	3.64	22.86	PASS
Band12	1.4	23173	6	#0	16QAM	20.22	3.64	21.71	PASS
Band12	3	23025	1	#0	QPSK	22.19	3.64	23.68	PASS
Band12	3	23025	1	#Mid	QPSK	22.24	3.64	23.73	PASS
Band12	3	23025	1	#Max	QPSK	22.19	3.64	23.68	PASS
Band12	3	23025	8	#0	QPSK	21.38	3.64	22.87	PASS
Band12	3	23025	8	#Mid	QPSK	21.27	3.64	22.76	PASS
Band12	3	23025	8	#Max	QPSK	21.21	3.64	22.70	PASS
Band12	3	23025	15	#0	QPSK	21.19	3.64	22.68	PASS
Band12	3	23025	1	#0	16QAM	21.52	3.64	23.01	PASS
Band12	3	23025	1	#Mid	16QAM	21.44	3.64	22.93	PASS
Band12	3	23025	1	#Max	16QAM	21.34	3.64	22.83	PASS
Band12	3	23025	8	#0	16QAM	20.20	3.64	21.69	PASS
Band12	3	23025	8	#Mid	16QAM	20.15	3.64	21.64	PASS
Band12	3	23025	8	#Max	16QAM	19.81	3.64	21.30	PASS
Band12	3	23025	15	#0	16QAM	20.15	3.64	21.64	PASS
Band12	3	23095	1	#0	QPSK	22.02	3.64	23.51	PASS
Band12	3	23095	1	#Mid	QPSK	22.34	3.64	23.83	PASS
Band12	3	23095	1	#Max	QPSK	21.93	3.64	23.42	PASS
Band12	3	23095	8	#0	QPSK	21.20	3.64	22.69	PASS
Band12	3	23095	8	#Mid	QPSK	21.15	3.64	22.64	PASS
Band12	3	23095	8	#Max	QPSK	21.20	3.64	22.69	PASS
Band12	3	23095	15	#0	QPSK	21.22	3.64	22.71	PASS
Band12	3	23095	1	#0	16QAM	20.79	3.64	22.28	PASS
Band12	3	23095	1	#Mid	16QAM	20.85	3.64	22.34	PASS
Band12	3	23095	1	#Max	16QAM	20.76	3.64	22.25	PASS
Band12	3	23095	8	#0	16QAM	19.94	3.64	21.43	PASS
Band12	3	23095	8	#Mid	16QAM	19.97	3.64	21.46	PASS
Band12	3	23095	8	#Max	16QAM	20.01	3.64	21.50	PASS
Band12	3	23095	15	#0	16QAM	20.08	3.64	21.57	PASS
Band12	3	23165	1	#0	QPSK	22.13	3.64	23.62	PASS
Band12	3	23165	1	#Mid	QPSK	22.24	3.64	23.73	PASS
Band12	3	23165	1	#Max	QPSK	22.31	3.64	23.80	PASS
Band12	3	23165	8	#0	QPSK	21.18	3.64	22.67	PASS
Band12	3	23165	8	#Mid	QPSK	21.26	3.64	22.75	PASS
Band12	3	23165	8	#Max	QPSK	21.25	3.64	22.74	PASS
Band12	3	23165	15	#0	QPSK	21.19	3.64	22.68	PASS
Band12	3	23165	1	#0	16QAM	20.90	3.64	22.39	PASS
Band12	3	23165	1	#Mid	16QAM	21.07	3.64	22.56	PASS

Band12	3	23165	1	#Max	16QAM	21.16	3.64	22.65	PASS
Band12	3	23165	8	#0	16QAM	19.92	3.64	21.41	PASS
Band12	3	23165	8	#Mid	16QAM	20.27	3.64	21.76	PASS
Band12	3	23165	8	#Max	16QAM	20.33	3.64	21.82	PASS
Band12	3	23165	15	#0	16QAM	20.08	3.64	21.57	PASS
Band12	5	23035	1	#0	QPSK	22.04	3.64	23.53	PASS
Band12	5	23035	1	#Mid	QPSK	22.53	3.64	24.02	PASS
Band12	5	23035	1	#Max	QPSK	22.04	3.64	23.53	PASS
Band12	5	23035	12	#0	QPSK	21.12	3.64	22.61	PASS
Band12	5	23035	12	#Mid	QPSK	21.14	3.64	22.63	PASS
Band12	5	23035	12	#Max	QPSK	20.99	3.64	22.48	PASS
Band12	5	23035	25	#0	QPSK	21.12	3.64	22.61	PASS
Band12	5	23035	1	#0	16QAM	21.18	3.64	22.67	PASS
Band12	5	23035	1	#Mid	16QAM	21.07	3.64	22.56	PASS
Band12	5	23035	1	#Max	16QAM	21.05	3.64	22.54	PASS
Band12	5	23035	12	#0	16QAM	19.80	3.64	21.29	PASS
Band12	5	23035	12	#Mid	16QAM	19.97	3.64	21.46	PASS
Band12	5	23035	12	#Max	16QAM	19.81	3.64	21.30	PASS
Band12	5	23035	25	#0	16QAM	20.18	3.64	21.67	PASS
Band12	5	23095	1	#0	QPSK	21.93	3.64	23.42	PASS
Band12	5	23095	1	#Mid	QPSK	22.46	3.64	23.95	PASS
Band12	5	23095	1	#Max	QPSK	22.04	3.64	23.53	PASS
Band12	5	23095	12	#0	QPSK	21.11	3.64	22.60	PASS
Band12	5	23095	12	#Mid	QPSK	21.19	3.64	22.68	PASS
Band12	5	23095	12	#Max	QPSK	21.25	3.64	22.74	PASS
Band12	5	23095	25	#0	QPSK	21.10	3.64	22.59	PASS
Band12	5	23095	1	#0	16QAM	21.01	3.64	22.50	PASS
Band12	5	23095	1	#Mid	16QAM	21.20	3.64	22.69	PASS
Band12	5	23095	1	#Max	16QAM	20.93	3.64	22.42	PASS
Band12	5	23095	12	#0	16QAM	19.78	3.64	21.27	PASS
Band12	5	23095	12	#Mid	16QAM	20.05	3.64	21.54	PASS
Band12	5	23095	12	#Max	16QAM	20.02	3.64	21.51	PASS
Band12	5	23095	25	#0	16QAM	19.98	3.64	21.47	PASS
Band12	5	23155	1	#0	QPSK	22.08	3.64	23.57	PASS
Band12	5	23155	1	#Mid	QPSK	22.22	3.64	23.71	PASS
Band12	5	23155	1	#Max	QPSK	22.21	3.64	23.70	PASS
Band12	5	23155	12	#0	QPSK	21.12	3.64	22.61	PASS
Band12	5	23155	12	#Mid	QPSK	21.15	3.64	22.64	PASS
Band12	5	23155	12	#Max	QPSK	21.25	3.64	22.74	PASS
Band12	5	23155	25	#0	QPSK	21.08	3.64	22.57	PASS
Band12	5	23155	1	#0	16QAM	21.19	3.64	22.68	PASS
Band12	5	23155	1	#Mid	16QAM	21.06	3.64	22.55	PASS

Band12	5	23155	1	#Max	16QAM	21.04	3.64	22.53	PASS
Band12	5	23155	12	#0	16QAM	20.06	3.64	21.55	PASS
Band12	5	23155	12	#Mid	16QAM	20.07	3.64	21.56	PASS
Band12	5	23155	12	#Max	16QAM	20.19	3.64	21.68	PASS
Band12	5	23155	25	#0	16QAM	20.03	3.64	21.52	PASS
Band12	10	23060	1	#0	QPSK	22.02	3.64	23.51	PASS
Band12	10	23060	1	#Mid	QPSK	21.99	3.64	23.48	PASS
Band12	10	23060	1	#Max	QPSK	21.85	3.64	23.34	PASS
Band12	10	23060	25	#0	QPSK	21.08	3.64	22.57	PASS
Band12	10	23060	25	#Mid	QPSK	21.21	3.64	22.70	PASS
Band12	10	23060	25	#Max	QPSK	21.13	3.64	22.62	PASS
Band12	10	23060	50	#0	QPSK	21.09	3.64	22.58	PASS
Band12	10	23095	1	#0	QPSK	21.99	3.64	23.48	PASS
Band12	10	23095	1	#Mid	QPSK	22.32	3.64	23.81	PASS
Band12	10	23095	1	#Max	QPSK	21.96	3.64	23.45	PASS
Band12	10	23095	25	#0	QPSK	21.24	3.64	22.73	PASS
Band12	10	23095	25	#Mid	QPSK	21.24	3.64	22.73	PASS
Band12	10	23095	25	#Max	QPSK	21.12	3.64	22.61	PASS
Band12	10	23095	50	#0	QPSK	21.12	3.64	22.61	PASS
Band12	10	23130	1	#0	QPSK	22.07	3.64	23.56	PASS
Band12	10	23130	1	#Mid	QPSK	22.53	3.64	24.02	PASS
Band12	10	23130	1	#Max	QPSK	21.96	3.64	23.45	PASS
Band12	10	23130	25	#0	QPSK	21.36	3.64	22.85	PASS
Band12	10	23130	25	#Mid	QPSK	21.23	3.64	22.72	PASS
Band12	10	23130	25	#Max	QPSK	21.19	3.64	22.68	PASS
Band12	10	23130	50	#0	QPSK	21.35	3.64	22.84	PASS

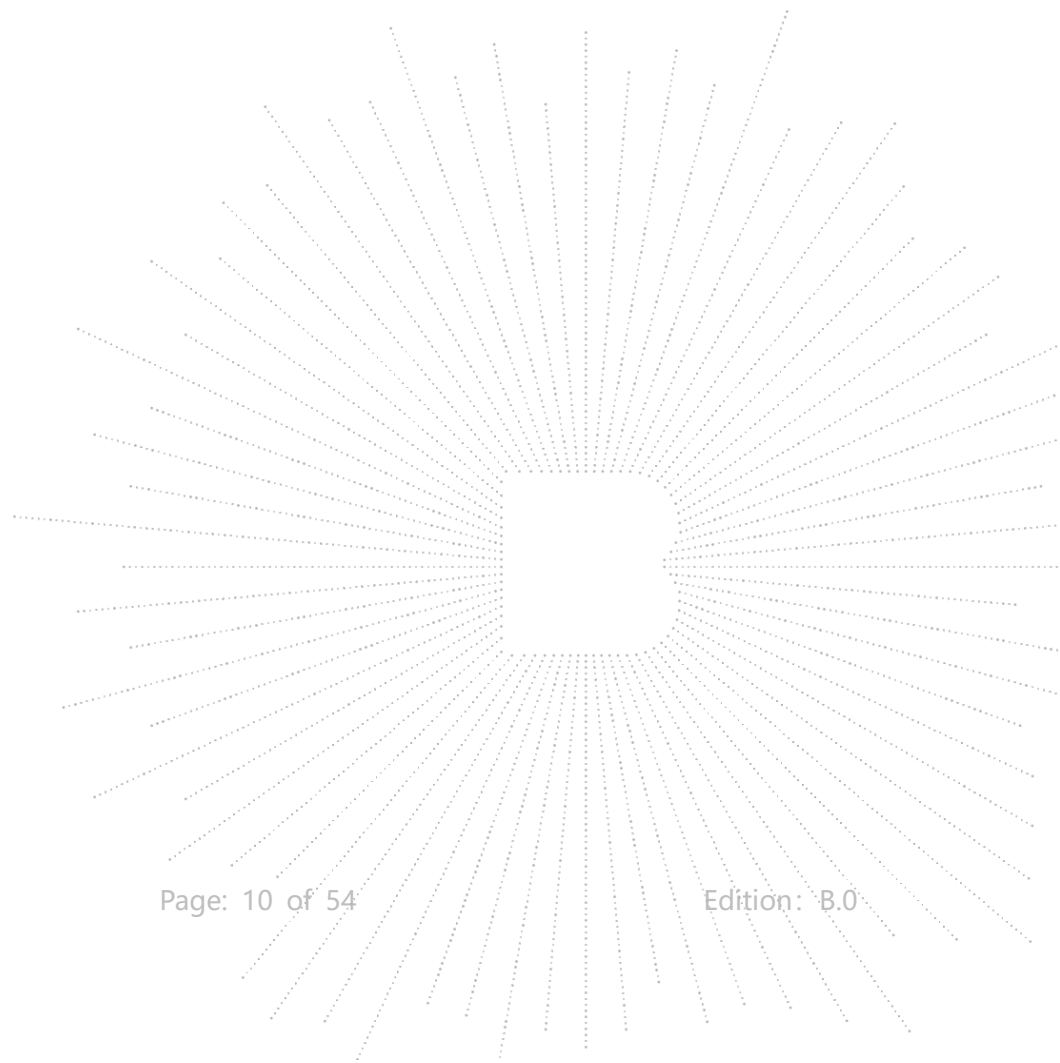
Appendix 2. Frequency stability

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Voltage (Vdc)	Temperature (C)	Result (Hz)	Result (ppm)	Low Limit (ppm)	High Limit (ppm)	Verdict
Band1 2	1.4	23017	6	#0	QPSK	LV	NT	-0.64	-0.001	-2.5	2.5	PASS
Band1 2	1.4	23017	6	#0	QPSK	NV	NT	-1.33	-0.002	-2.5	2.5	PASS
Band1 2	1.4	23017	6	#0	QPSK	HV	NT	-0.94	-0.001	-2.5	2.5	PASS
Band1 2	1.4	23017	6	#0	16QAM	LV	NT	-1.14	-0.002	-2.5	2.5	PASS
Band1 2	1.4	23017	6	#0	16QAM	NV	NT	-1.66	-0.002	-2.5	2.5	PASS
Band1 2	1.4	23017	6	#0	16QAM	HV	NT	-0.30	0.000	-2.5	2.5	PASS
Band1 2	1.4	23095	6	#0	QPSK	LV	NT	-0.87	-0.001	-2.5	2.5	PASS
Band1 2	1.4	23095	6	#0	QPSK	NV	NT	-1.76	-0.002	-2.5	2.5	PASS
Band1 2	1.4	23095	6	#0	QPSK	HV	NT	-1.32	-0.002	-2.5	2.5	PASS
Band1 2	1.4	23095	6	#0	16QAM	LV	NT	-1.03	-0.001	-2.5	2.5	PASS
Band1 2	1.4	23095	6	#0	16QAM	NV	NT	-0.39	-0.001	-2.5	2.5	PASS
Band1 2	1.4	23095	6	#0	16QAM	HV	NT	-1.22	-0.002	-2.5	2.5	PASS
Band1 2	1.4	23173	6	#0	QPSK	LV	NT	-0.59	-0.001	-2.5	2.5	PASS
Band1 2	1.4	23173	6	#0	QPSK	NV	NT	-1.00	-0.001	-2.5	2.5	PASS
Band1 2	1.4	23173	6	#0	QPSK	HV	NT	-1.04	-0.001	-2.5	2.5	PASS
Band1 2	1.4	23173	6	#0	16QAM	LV	NT	-1.95	-0.003	-2.5	2.5	PASS
Band1 2	1.4	23173	6	#0	16QAM	NV	NT	-0.99	-0.001	-2.5	2.5	PASS
Band1	1.4	23173	6	#0	16QAM	HV	NT	-1.95	-0.00	-2.5	2.5	PASS

2									3			
Band1 2	3	23025	15	#0	QPSK	LV	NT	-3.55	-0.00 5	-2.5	2.5	PASS
Band1 2	3	23025	15	#0	QPSK	NV	NT	-3.26	-0.00 5	-2.5	2.5	PASS
Band1 2	3	23025	15	#0	QPSK	HV	NT	-3.09	-0.00 4	-2.5	2.5	PASS
Band1 2	3	23025	15	#0	16QAM	LV	NT	-3.79	-0.00 5	-2.5	2.5	PASS
Band1 2	3	23025	15	#0	16QAM	NV	NT	-3.85	-0.00 5	-2.5	2.5	PASS
Band1 2	3	23025	15	#0	16QAM	HV	NT	-3.72	-0.00 5	-2.5	2.5	PASS
Band1 2	3	23095	15	#0	QPSK	LV	NT	-1.00	-0.00 1	-2.5	2.5	PASS
Band1 2	3	23095	15	#0	QPSK	NV	NT	-1.93	-0.00 3	-2.5	2.5	PASS
Band1 2	3	23095	15	#0	QPSK	HV	NT	-1.34	-0.00 2	-2.5	2.5	PASS
Band1 2	3	23095	15	#0	16QAM	LV	NT	-1.40	-0.00 2	-2.5	2.5	PASS
Band1 2	3	23095	15	#0	16QAM	NV	NT	-0.17	0.000	-2.5	2.5	PASS
Band1 2	3	23095	15	#0	16QAM	HV	NT	-2.09	-0.00 3	-2.5	2.5	PASS
Band1 2	3	23165	15	#0	QPSK	LV	NT	-0.76	-0.00 1	-2.5	2.5	PASS
Band1 2	3	23165	15	#0	QPSK	NV	NT	-0.59	-0.00 1	-2.5	2.5	PASS
Band1 2	3	23165	15	#0	QPSK	HV	NT	-0.24	0.000	-2.5	2.5	PASS
Band1 2	3	23165	15	#0	16QAM	LV	NT	-0.62	-0.00 1	-2.5	2.5	PASS
Band1 2	3	23165	15	#0	16QAM	NV	NT	-0.24	0.000	-2.5	2.5	PASS
Band1 2	3	23165	15	#0	16QAM	HV	NT	-0.69	-0.00 1	-2.5	2.5	PASS
Band1 2	5	23035	25	#0	QPSK	LV	NT	-1.42	-0.00 2	-2.5	2.5	PASS
Band1 2	5	23035	25	#0	QPSK	NV	NT	-1.26	-0.00 2	-2.5	2.5	PASS
Band1 2	5	23035	25	#0	QPSK	HV	NT	-1.00	-0.00 1	-2.5	2.5	PASS

Band1 2	5	23035	25	#0	16QAM	LV	NT	-0.50	-0.00 1	-2.5	2.5	PASS
Band1 2	5	23035	25	#0	16QAM	NV	NT	-1.46	-0.00 2	-2.5	2.5	PASS
Band1 2	5	23035	25	#0	16QAM	HV	NT	-0.47	-0.00 1	-2.5	2.5	PASS
Band1 2	5	23095	25	#0	QPSK	LV	NT	-0.27	0.000	-2.5	2.5	PASS
Band1 2	5	23095	25	#0	QPSK	NV	NT	-2.09	-0.00 3	-2.5	2.5	PASS
Band1 2	5	23095	25	#0	QPSK	HV	NT	-1.46	-0.00 2	-2.5	2.5	PASS
Band1 2	5	23095	25	#0	16QAM	LV	NT	-1.23	-0.00 2	-2.5	2.5	PASS
Band1 2	5	23095	25	#0	16QAM	NV	NT	0.16	0.000	-2.5	2.5	PASS
Band1 2	5	23095	25	#0	16QAM	HV	NT	-1.57	-0.00 2	-2.5	2.5	PASS
Band1 2	5	23155	25	#0	QPSK	LV	NT	-0.49	-0.00 1	-2.5	2.5	PASS
Band1 2	5	23155	25	#0	QPSK	NV	NT	-0.26	0.000	-2.5	2.5	PASS
Band1 2	5	23155	25	#0	QPSK	HV	NT	-0.76	-0.00 1	-2.5	2.5	PASS
Band1 2	5	23155	25	#0	16QAM	LV	NT	-0.89	-0.00 1	-2.5	2.5	PASS
Band1 2	5	23155	25	#0	16QAM	NV	NT	-0.80	-0.00 1	-2.5	2.5	PASS
Band1 2	5	23155	25	#0	16QAM	HV	NT	-0.79	-0.00 1	-2.5	2.5	PASS
Band1 2	10	23060	50	#0	QPSK	LV	NT	-0.11	0.000	-2.5	2.5	PASS
Band1 2	10	23060	50	#0	QPSK	NV	NT	-0.72	-0.00 1	-2.5	2.5	PASS
Band1 2	10	23060	50	#0	QPSK	HV	NT	-0.40	-0.00 1	-2.5	2.5	PASS
Band1 2	10	23095	50	#0	QPSK	LV	NT	-0.23	0.000	-2.5	2.5	PASS
Band1 2	10	23095	50	#0	QPSK	NV	NT	-0.94	-0.00 1	-2.5	2.5	PASS
Band1 2	10	23095	50	#0	QPSK	HV	NT	-1.34	-0.00 2	-2.5	2.5	PASS
Band1	10	23130	50	#0	QPSK	LV	NT	-1.33	-0.00	-2.5	2.5	PASS

2									2			
Band1	10	23130	50	#0	QPSK	NV	NT	-1.67	-0.00	-2.5	2.5	PASS
2									2			
Band1	10	23130	50	#0	QPSK	HV	NT	-2.16	-0.00	-2.5	2.5	PASS
2									3			

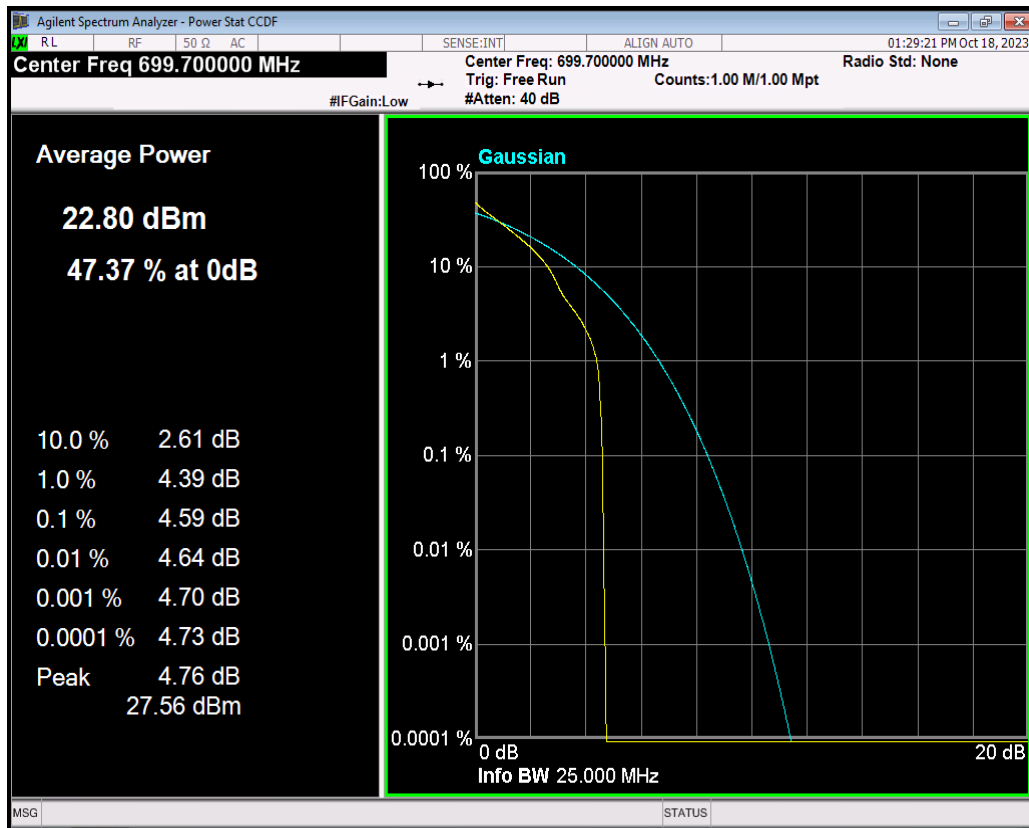


Appendix 3. Peak-to-Average Ratio

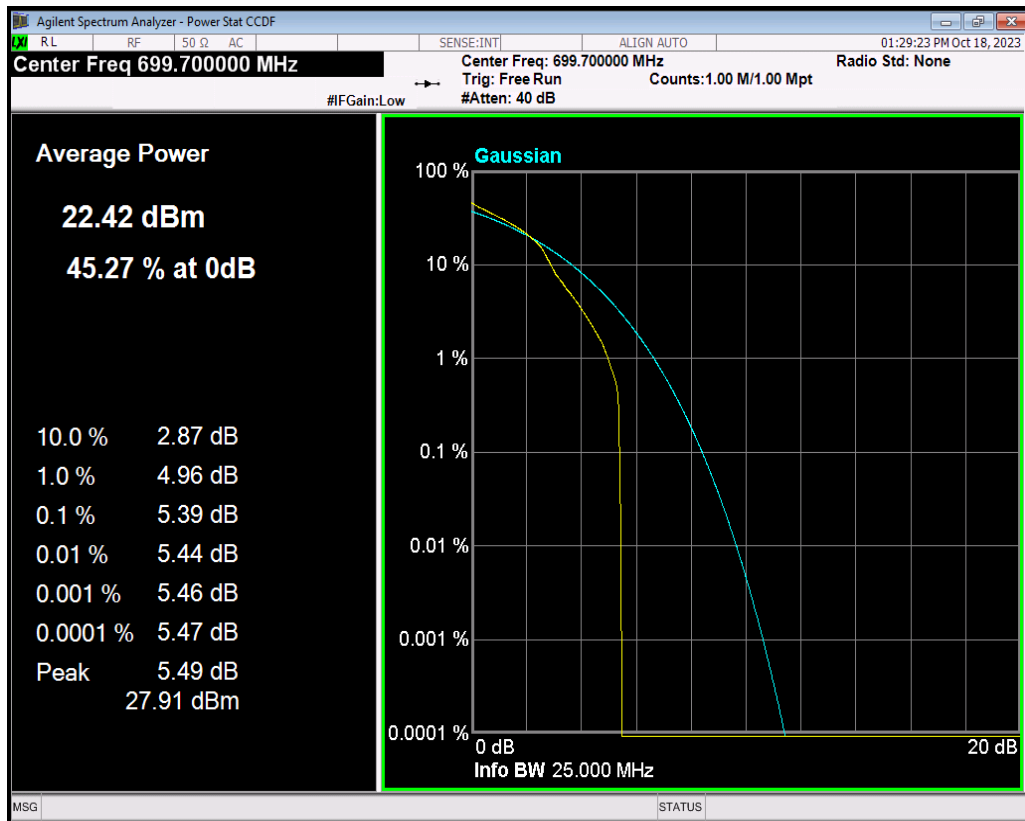
Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Result (dB)	high Limit (dB)	Verdict
Band12	1.4	23017	1	#0	QPSK	4.59	13	PASS
Band12	1.4	23017	1	#0	16QAM	5.39	13	PASS
Band12	1.4	23095	1	#0	QPSK	4.04	13	PASS
Band12	1.4	23095	1	#0	16QAM	4.94	13	PASS
Band12	1.4	23173	1	#0	QPSK	3.80	13	PASS
Band12	1.4	23173	1	#0	16QAM	4.75	13	PASS
Band12	3	23025	1	#0	QPSK	4.55	13	PASS
Band12	3	23025	1	#0	16QAM	5.23	13	PASS
Band12	3	23095	1	#0	QPSK	4.17	13	PASS
Band12	3	23095	1	#0	16QAM	5.01	13	PASS
Band12	3	23165	1	#0	QPSK	4.80	13	PASS
Band12	3	23165	1	#0	16QAM	5.69	13	PASS
Band12	5	23035	1	#0	QPSK	4.53	13	PASS
Band12	5	23035	1	#0	16QAM	5.50	13	PASS
Band12	5	23095	1	#0	QPSK	4.47	13	PASS
Band12	5	23095	1	#0	16QAM	5.22	13	PASS
Band12	5	23155	1	#0	QPSK	4.43	13	PASS
Band12	5	23155	1	#0	16QAM	5.23	13	PASS
Band12	10	23060	1	#0	QPSK	4.54	13	PASS
Band12	10	23095	1	#0	QPSK	4.53	13	PASS
Band12	10	23130	1	#0	QPSK	4.10	13	PASS



Band12 QPSK BW=1.4MHz Channel=23017 RB Size=1 Position=#0

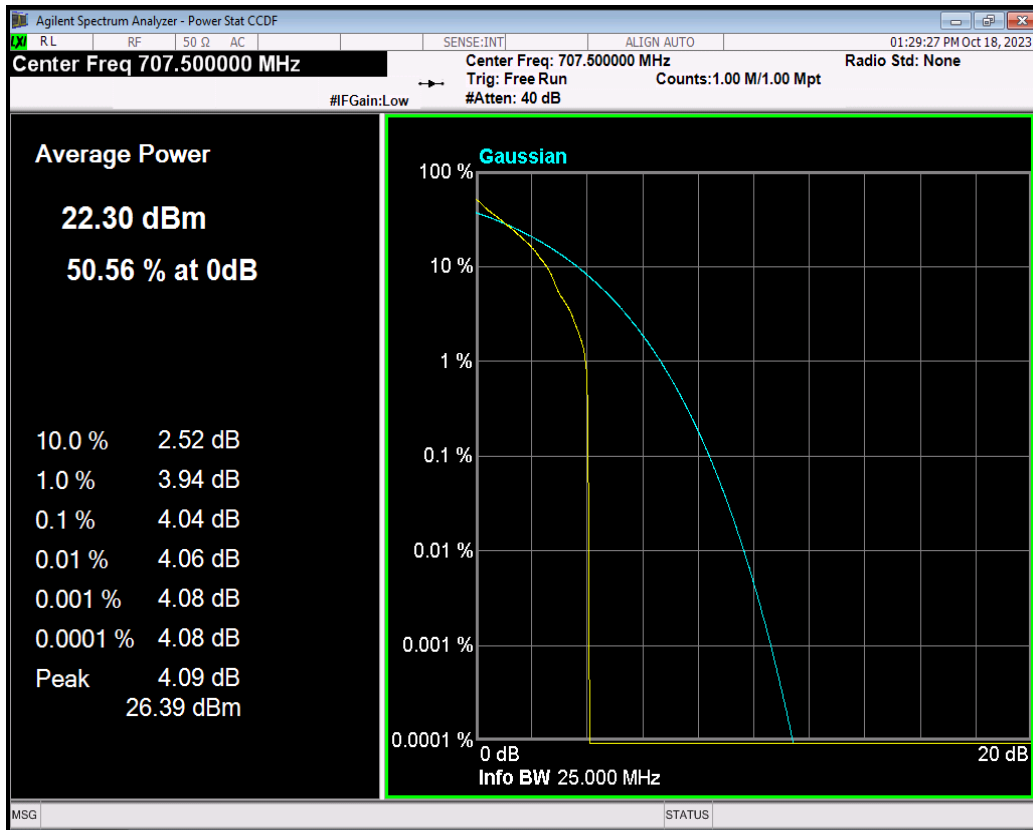


Band12 16QAM BW=1.4MHz Channel=23017 RB Size=1 Position=#0

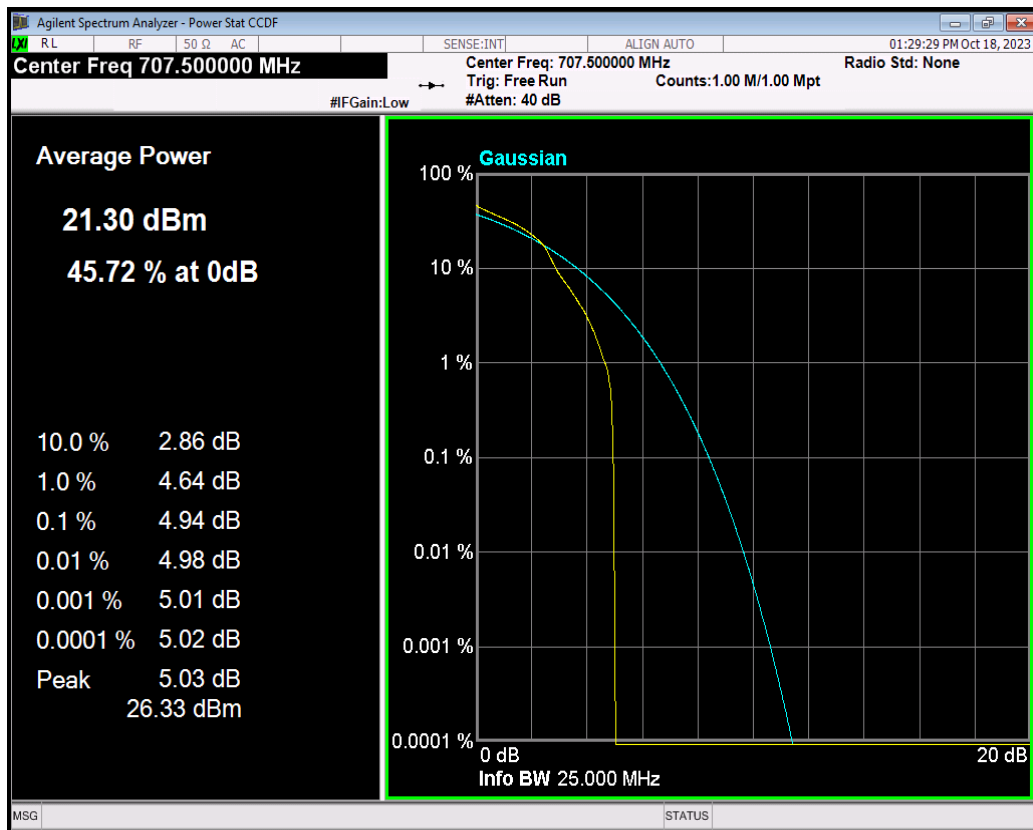




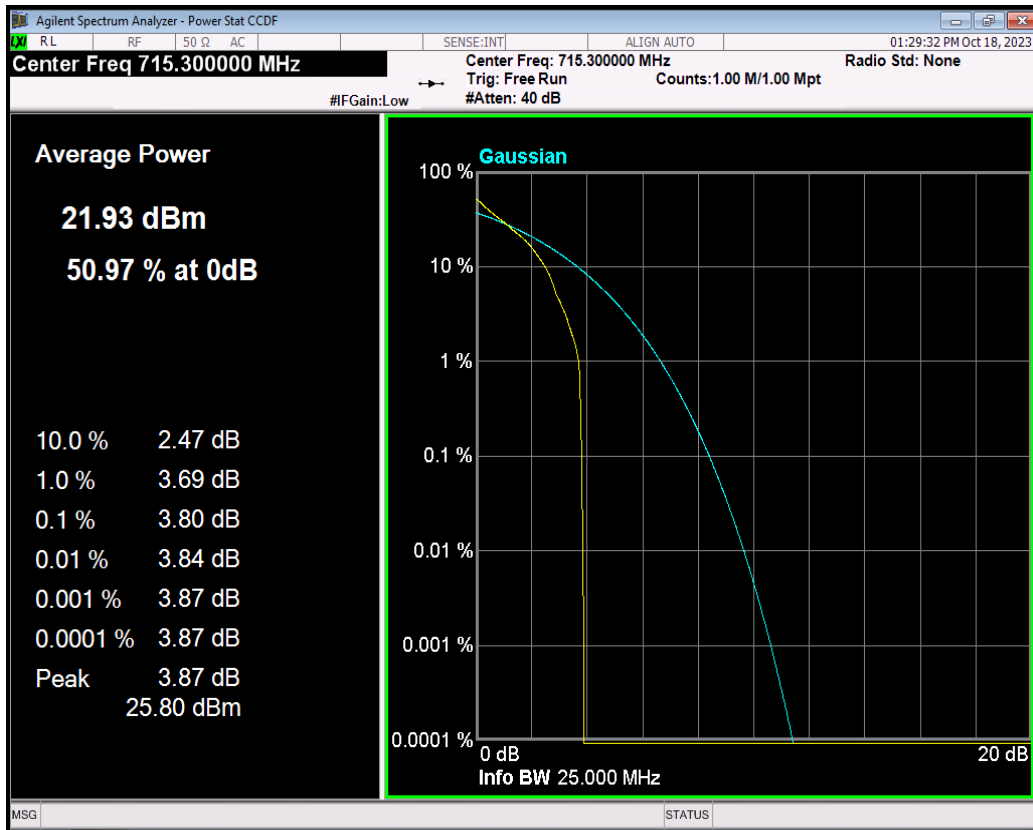
Band12 QPSK BW=1.4MHz Channel=23095 RB Size=1 Position=#0



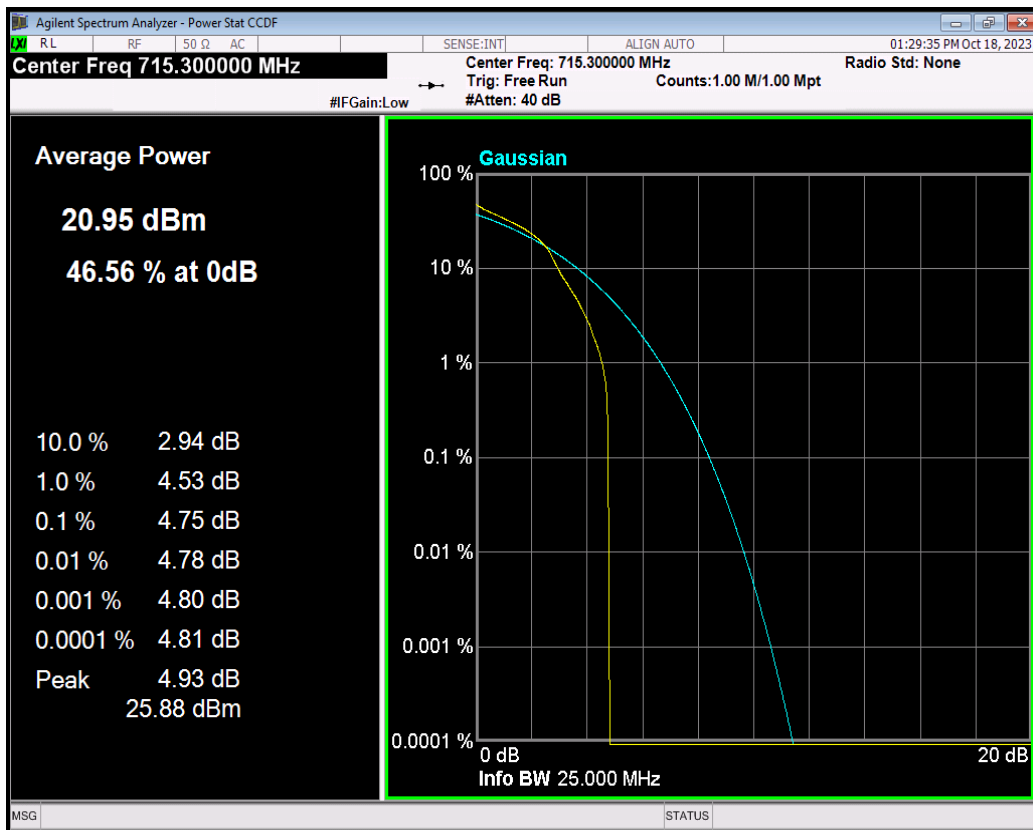
Band12 16QAM BW=1.4MHz Channel=23095 RB Size=1 Position=#0



Band12 QPSK BW=1.4MHz Channel=23173 RB Size=1 Position=#0

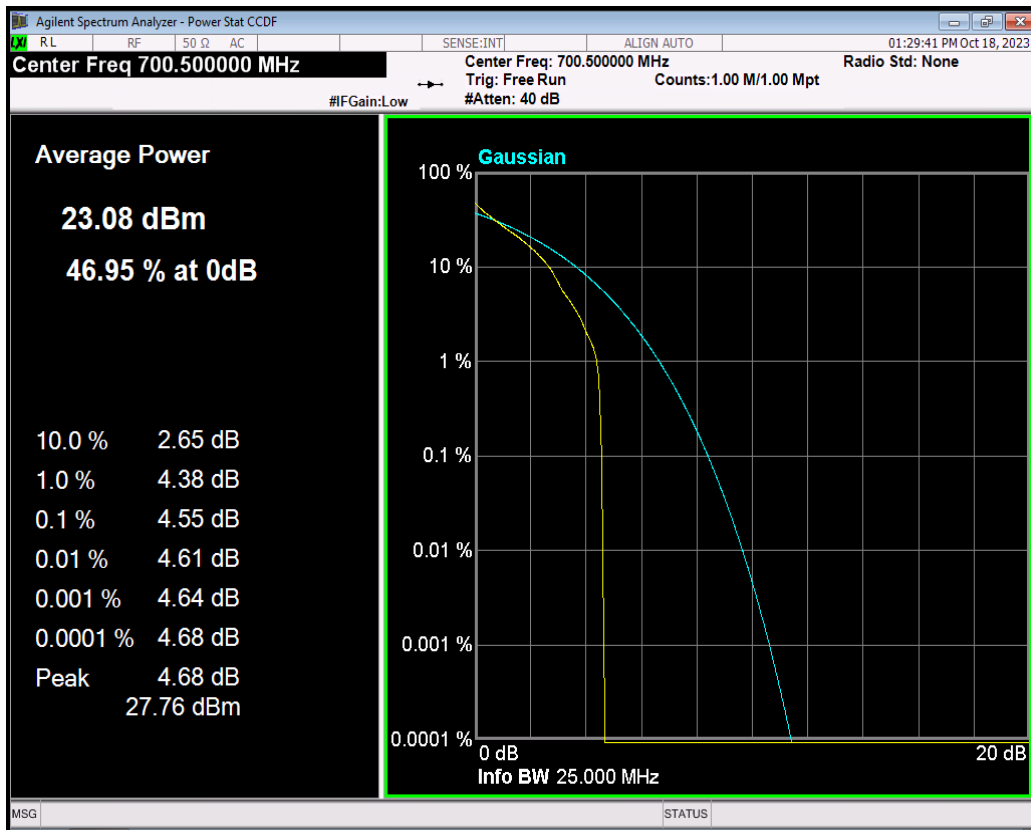


Band12 16QAM BW=1.4MHz Channel=23173 RB Size=1 Position=#0

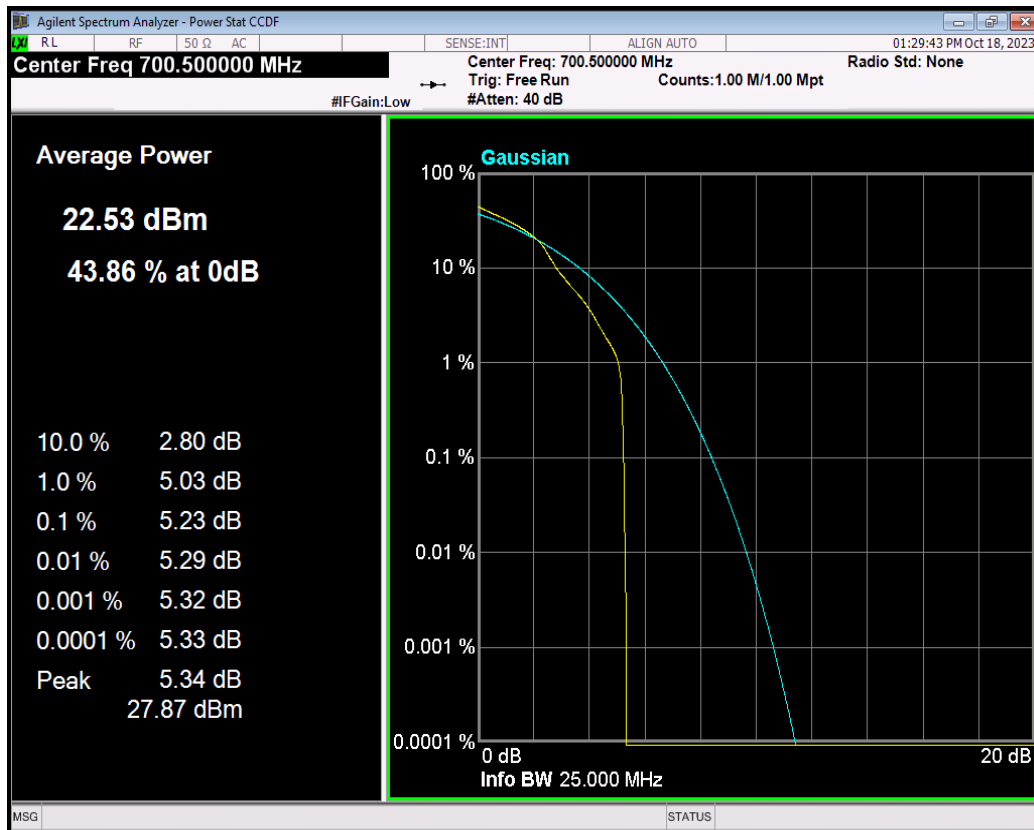




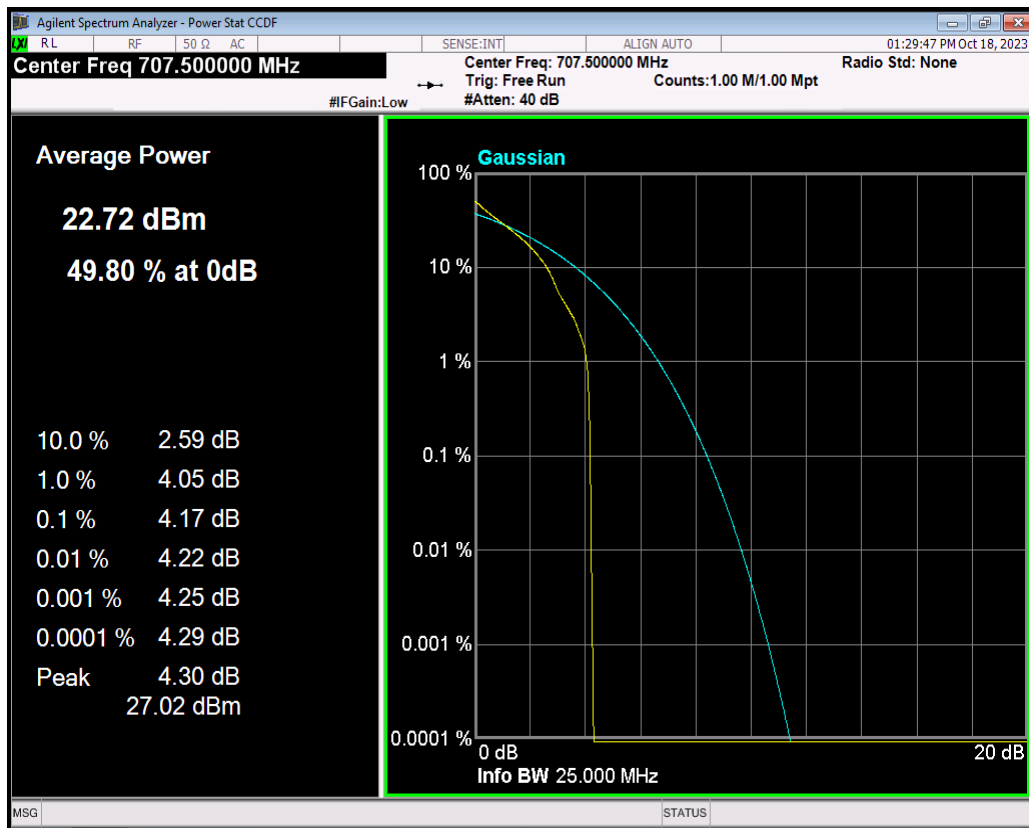
Band12 QPSK BW=3MHz Channel=23025 RB Size=1 Position=#0



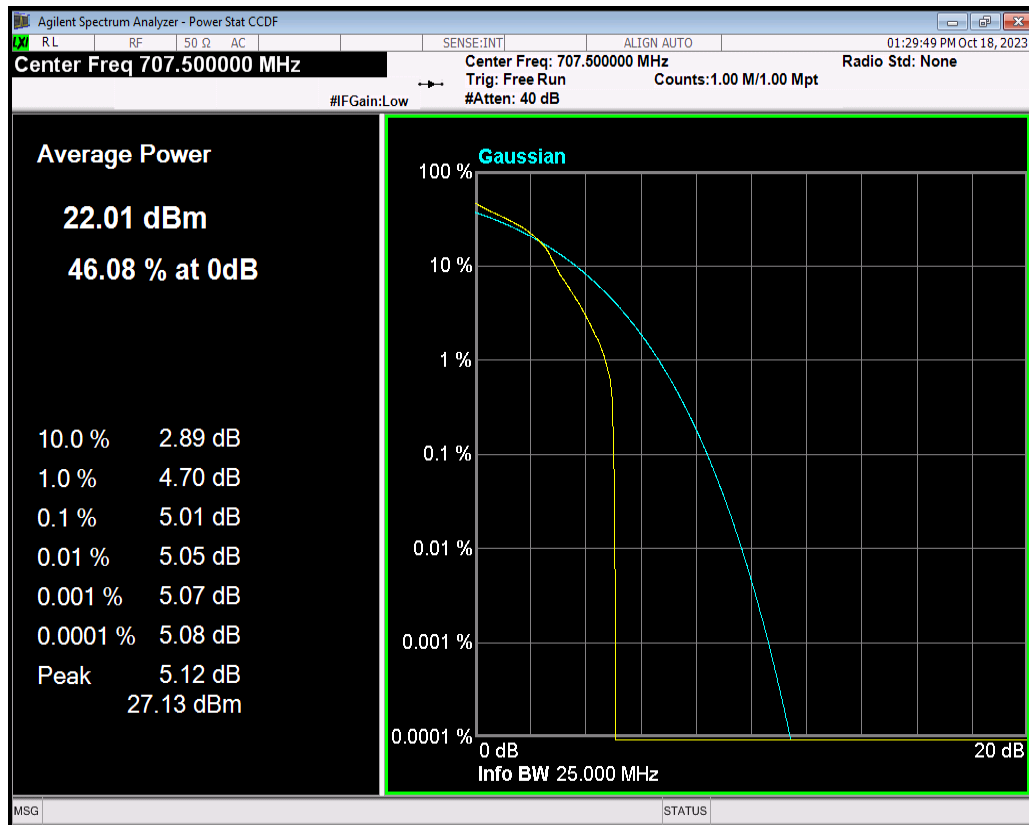
Band12 16QAM BW=3MHz Channel=23025 RB Size=1 Position=#0



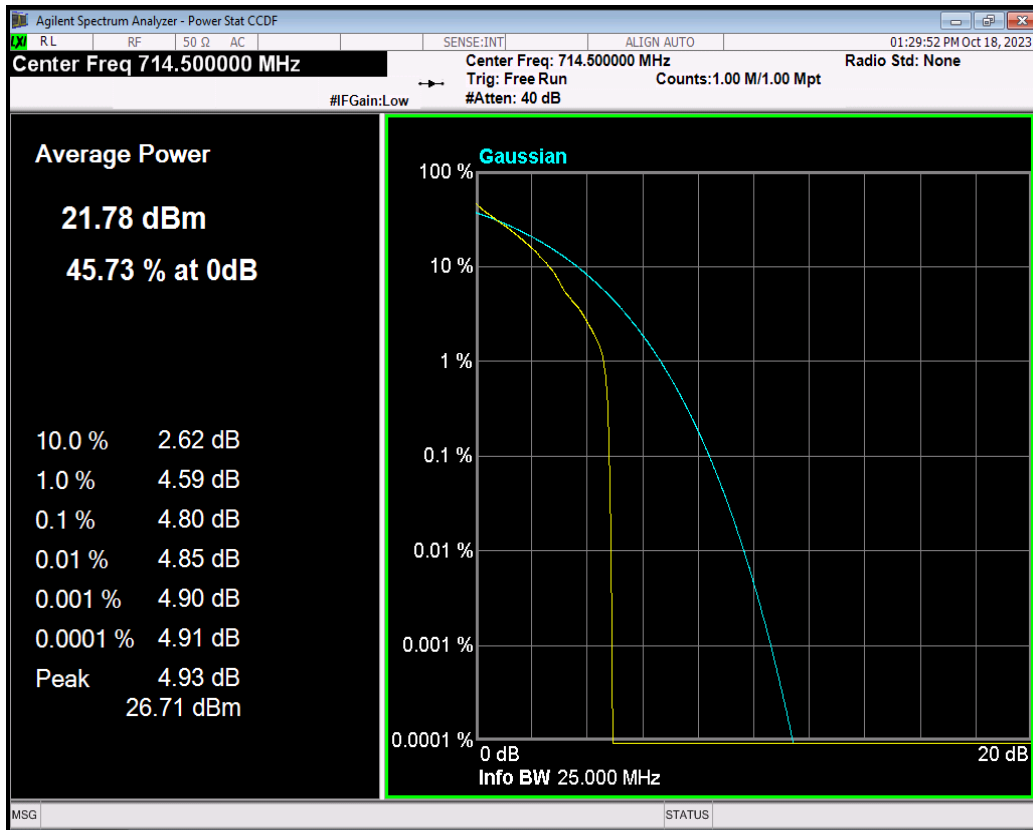
Band12 QPSK BW=3MHz Channel=23095 RB Size=1 Position=#0



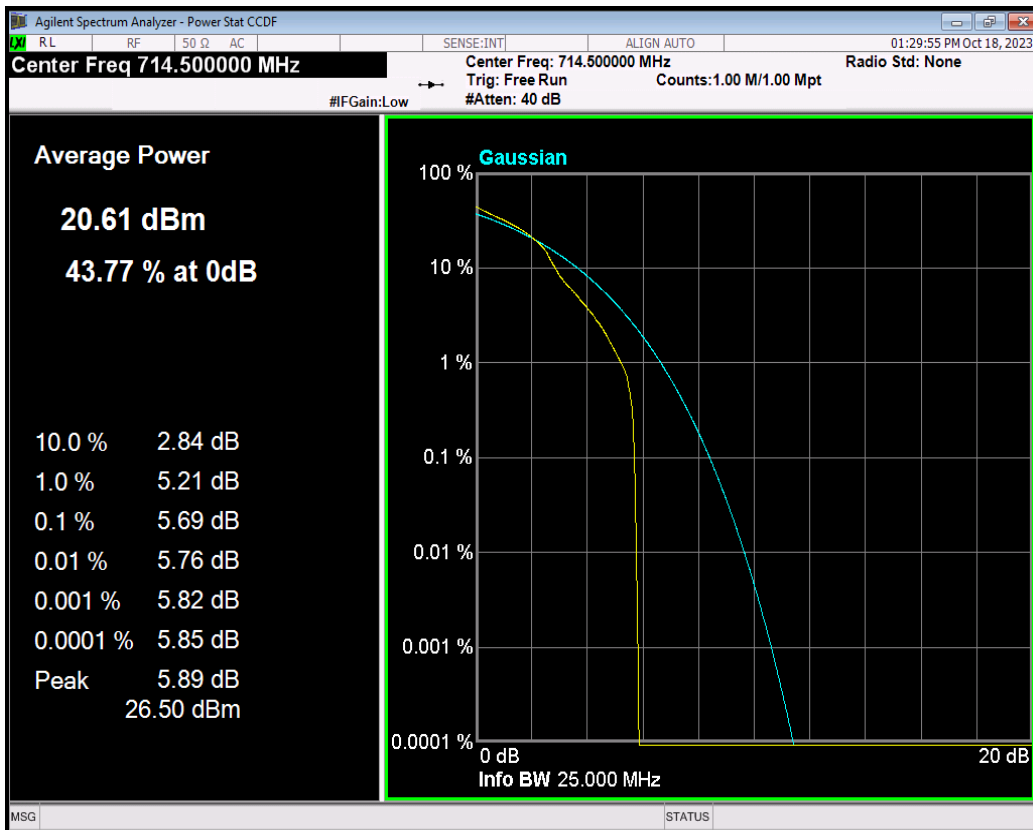
Band12 16QAM BW=3MHz Channel=23095 RB Size=1 Position=#0



Band12 QPSK BW=3MHz Channel=23165 RB Size=1 Position=#0

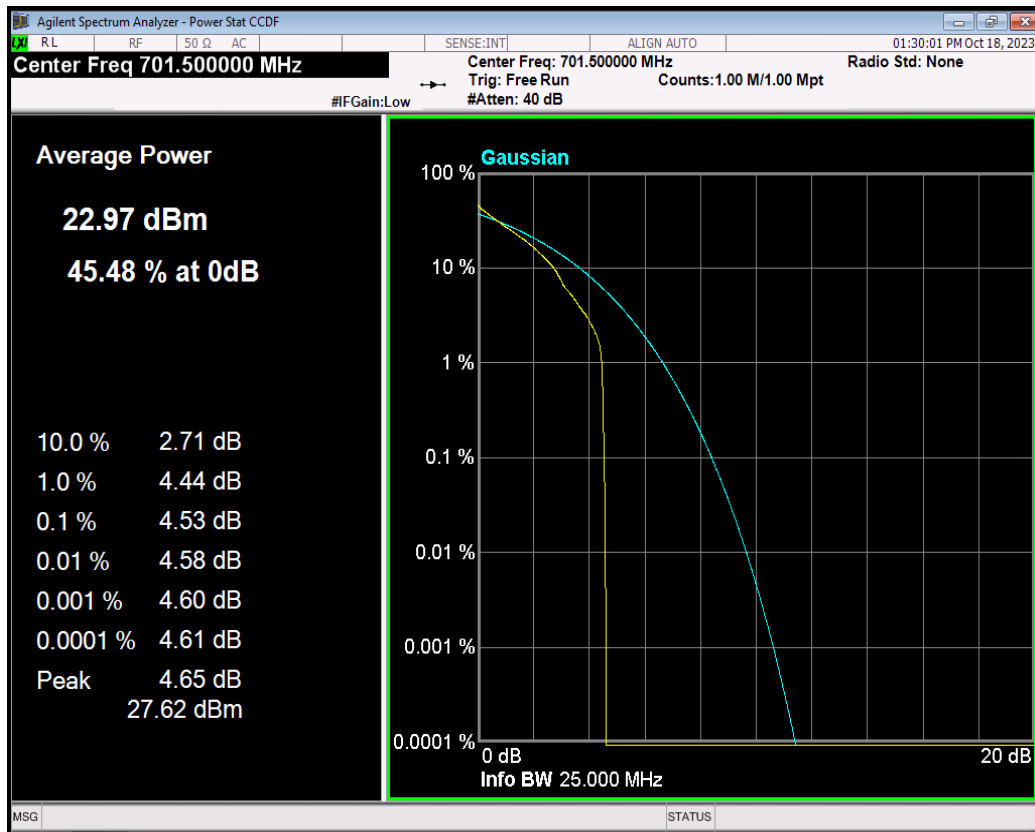


Band12 16QAM BW=3MHz Channel=23165 RB Size=1 Position=#0

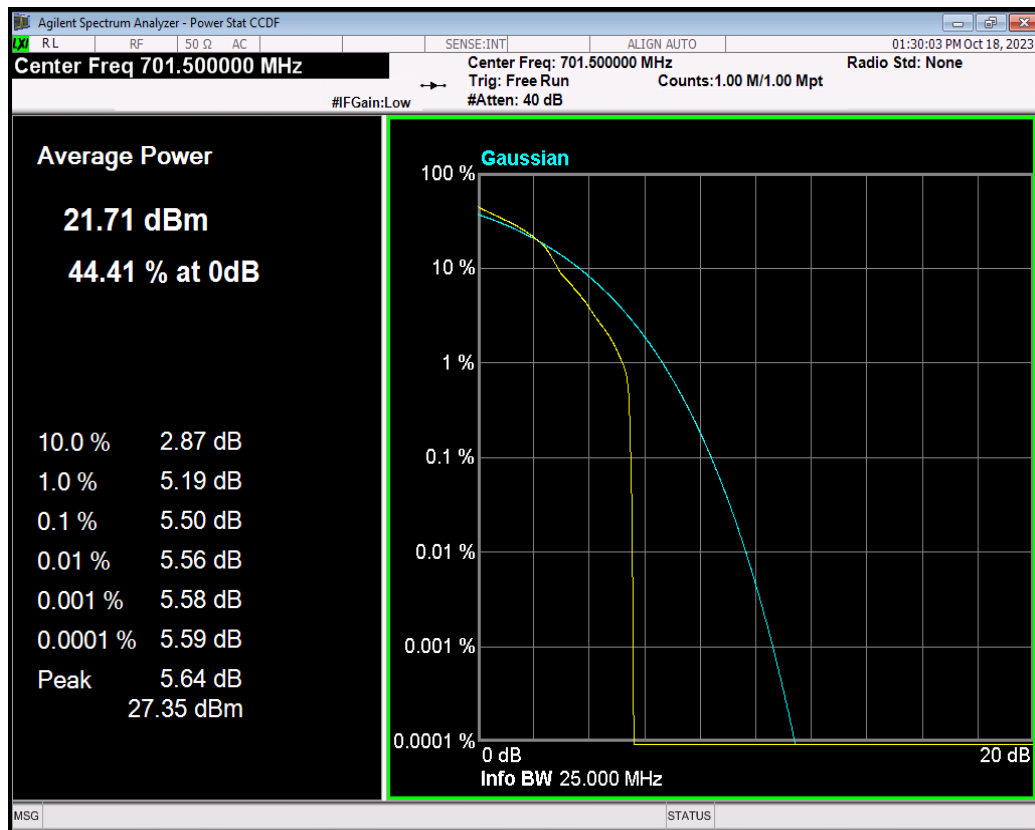




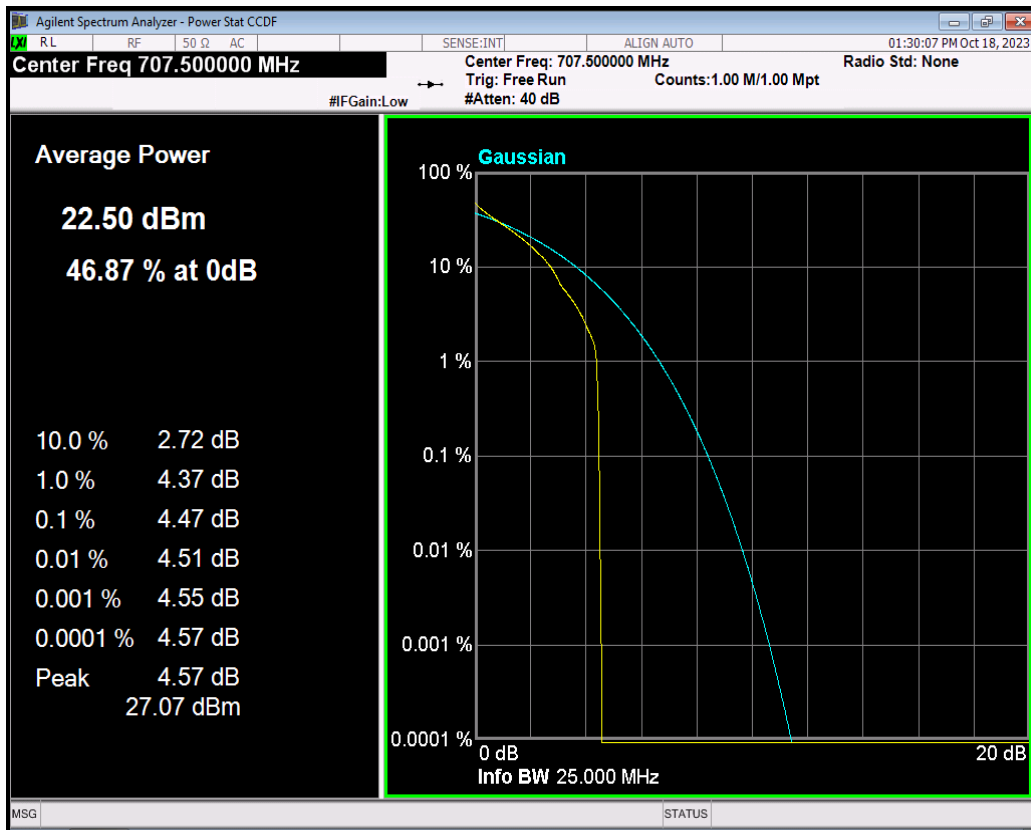
Band12 QPSK BW=5MHz Channel=23035 RB Size=1 Position=#0



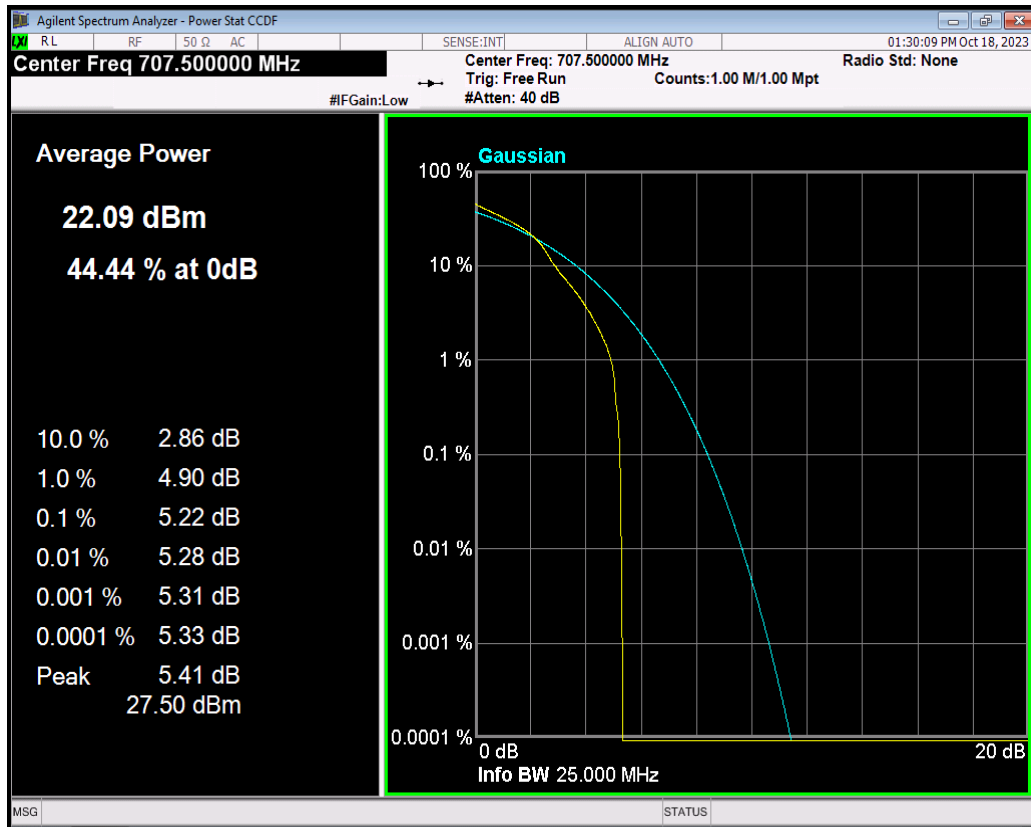
Band12 16QAM BW=5MHz Channel=23035 RB Size=1 Position=#0



Band12 QPSK BW=5MHz Channel=23095 RB Size=1 Position=#0

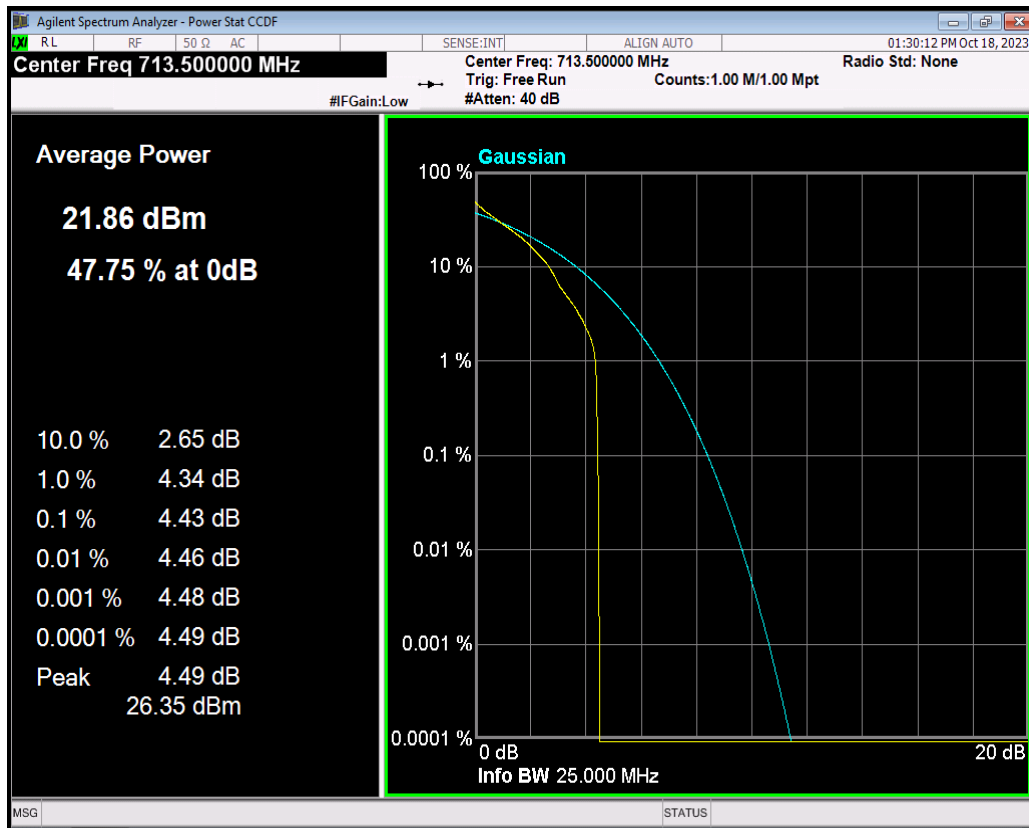


Band12 16QAM BW=5MHz Channel=23095 RB Size=1 Position=#0

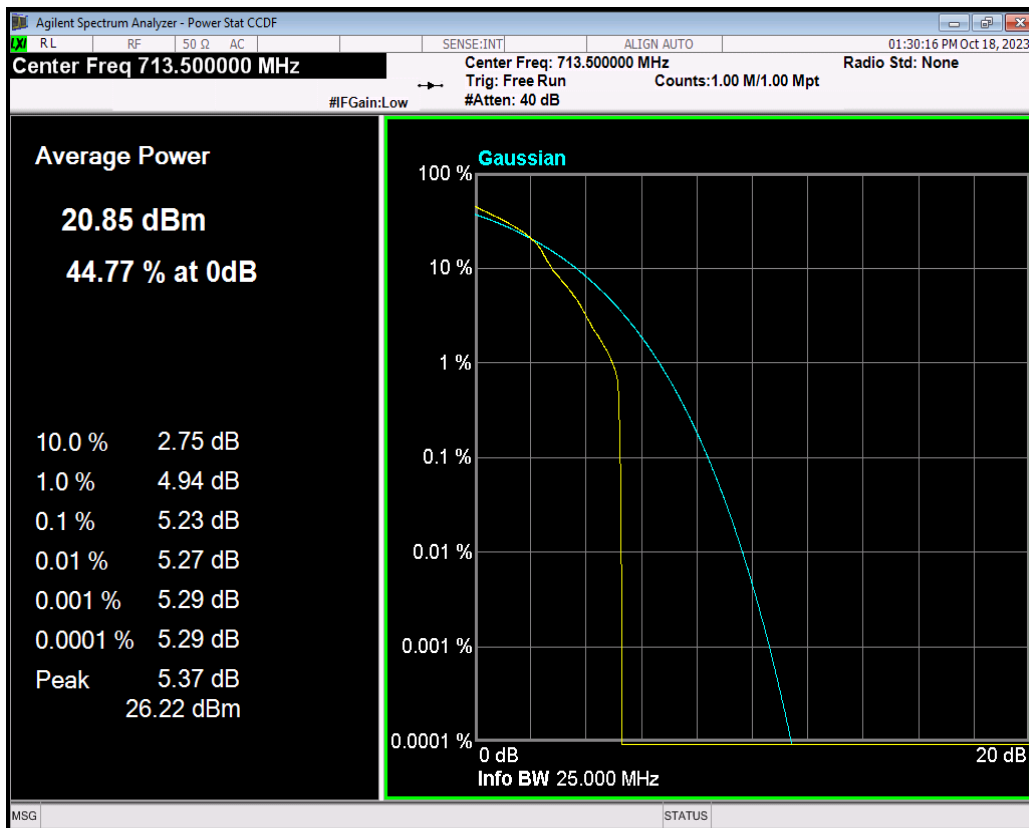




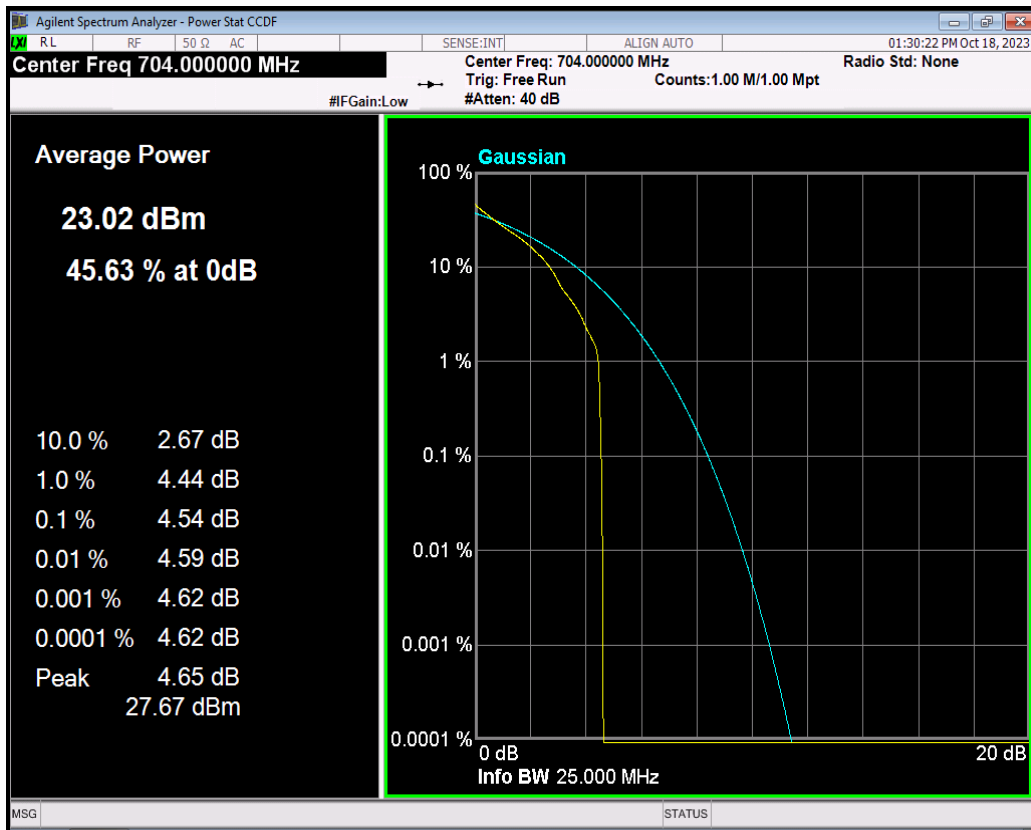
Band12 QPSK BW=5MHz Channel=23155 RB Size=1 Position=#0



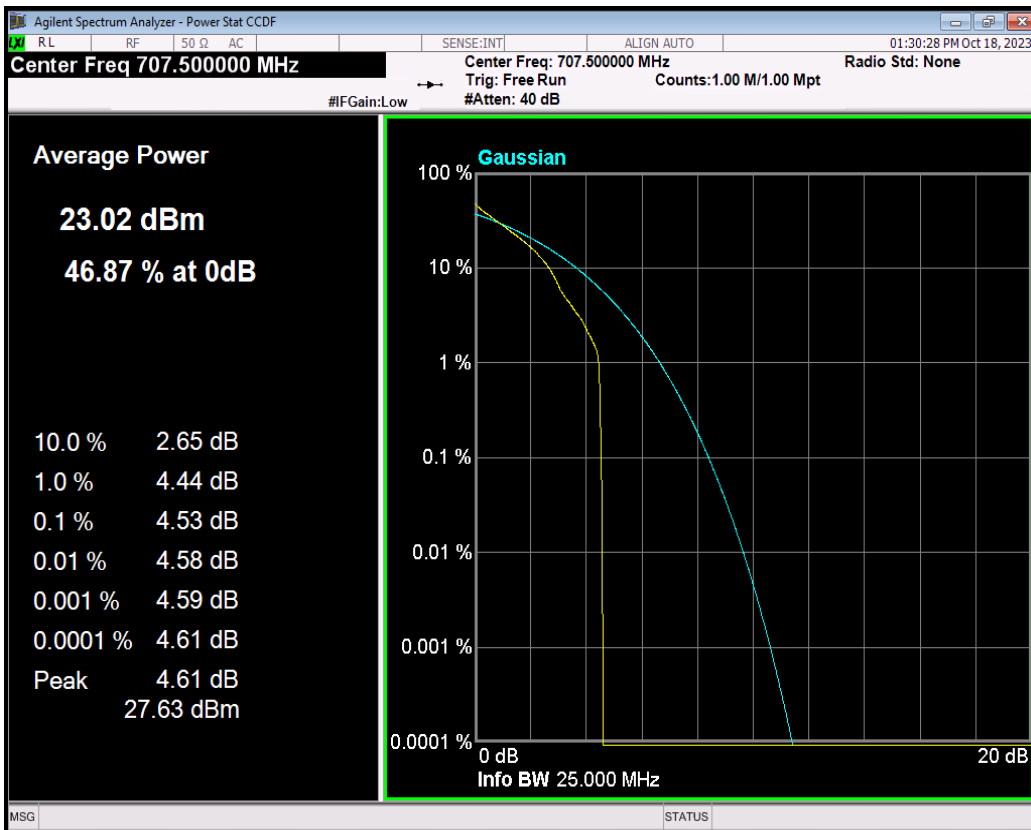
Band12 16QAM BW=5MHz Channel=23155 RB Size=1 Position=#0



Band12 QPSK BW=10MHz Channel=23060 RB Size=1 Position=#0

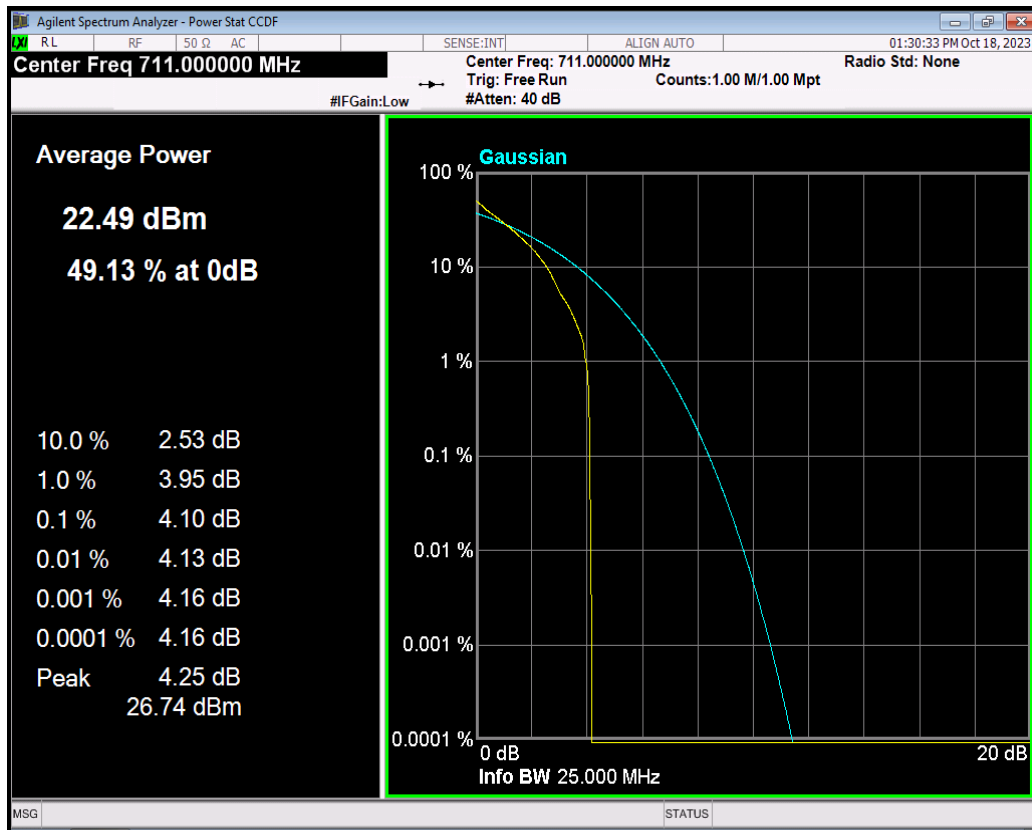


Band12 QPSK BW=10MHz Channel=23095 RB Size=1 Position=#0





Band12 QPSK BW=10MHz Channel=23130 RB Size=1 Position=#0

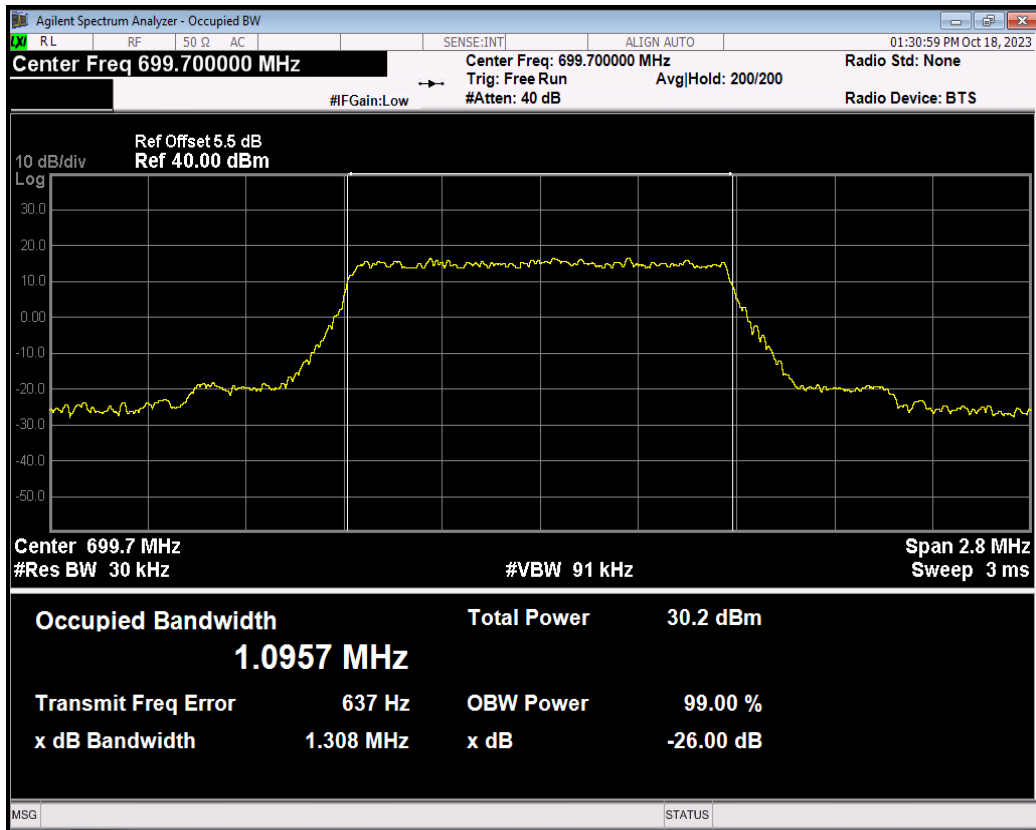


Appendix 4. Occupied bandwidth

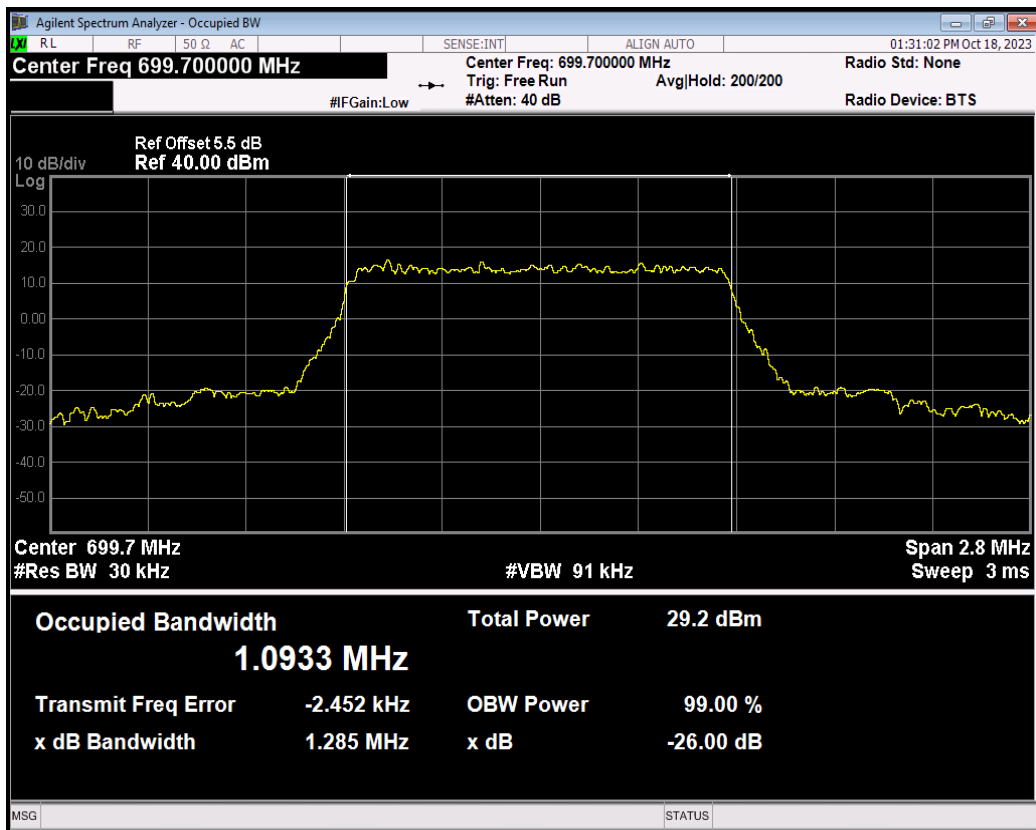
Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	99% OBW (MHz)	-26dB EBW (MHz)	Verdict
Band12	1.4	23017	6	#0	QPSK	1.096	1.308	PASS
Band12	1.4	23017	6	#0	16QAM	1.093	1.285	PASS
Band12	1.4	23095	6	#0	QPSK	1.108	1.284	PASS
Band12	1.4	23095	6	#0	16QAM	1.096	1.276	PASS
Band12	1.4	23173	6	#0	QPSK	1.099	1.301	PASS
Band12	1.4	23173	6	#0	16QAM	1.098	1.307	PASS
Band12	3	23025	15	#0	QPSK	2.702	2.977	PASS
Band12	3	23025	15	#0	16QAM	2.695	2.971	PASS
Band12	3	23095	15	#0	QPSK	2.695	2.941	PASS
Band12	3	23095	15	#0	16QAM	2.700	2.972	PASS
Band12	3	23165	15	#0	QPSK	2.711	3.022	PASS
Band12	3	23165	15	#0	16QAM	2.697	2.997	PASS
Band12	5	23035	25	#0	QPSK	4.521	4.944	PASS
Band12	5	23035	25	#0	16QAM	4.503	5.015	PASS
Band12	5	23095	25	#0	QPSK	4.515	4.987	PASS
Band12	5	23095	25	#0	16QAM	4.520	5.035	PASS
Band12	5	23155	25	#0	QPSK	4.519	4.981	PASS
Band12	5	23155	25	#0	16QAM	4.531	4.989	PASS
Band12	10	23060	50	#0	QPSK	8.987	9.850	PASS
Band12	10	23095	50	#0	QPSK	8.931	9.737	PASS
Band12	10	23130	50	#0	QPSK	8.947	9.658	PASS



Band12 QPSK BW=1.4MHz Channel=23017 RB Size=6 Position=#0

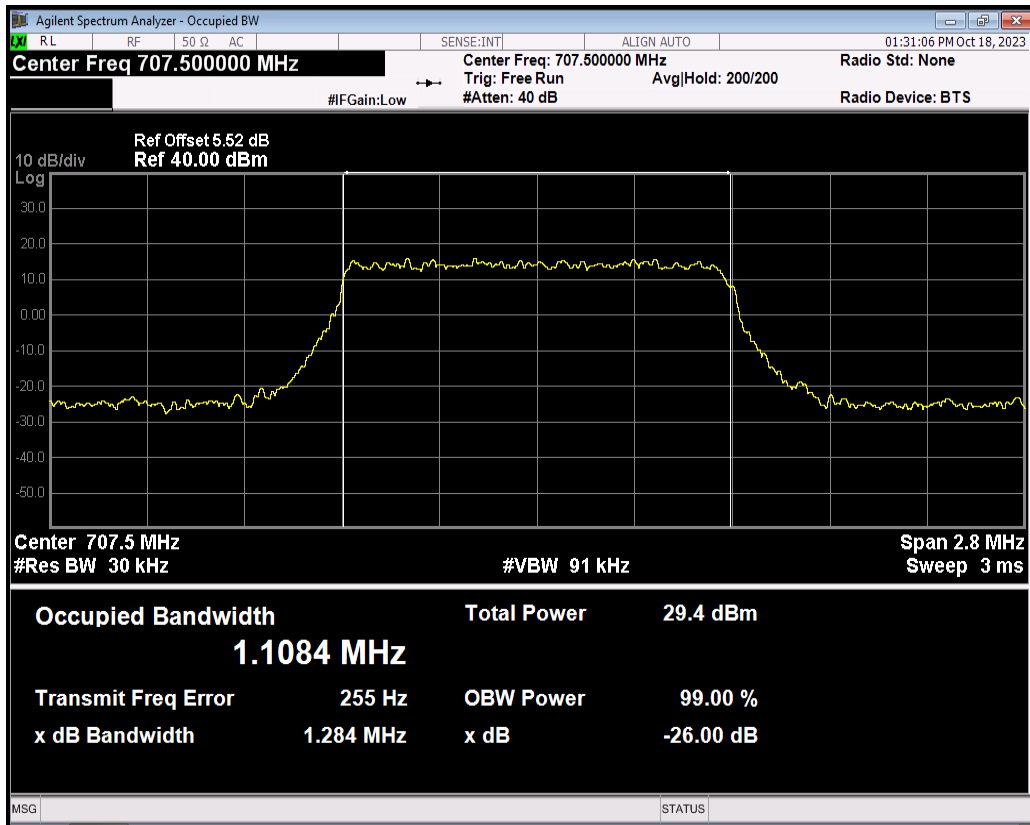


Band12 16QAM BW=1.4MHz Channel=23017 RB Size=6 Position=#0

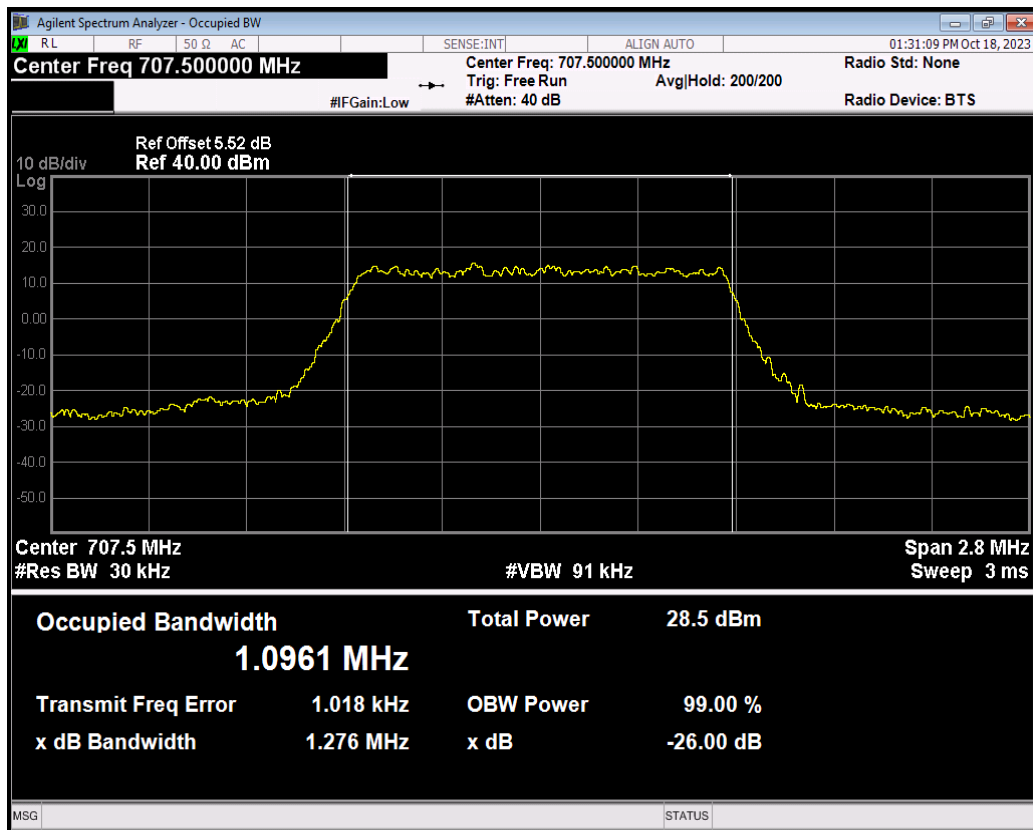




Band12 QPSK BW=1.4MHz Channel=23095 RB Size=6 Position=#0

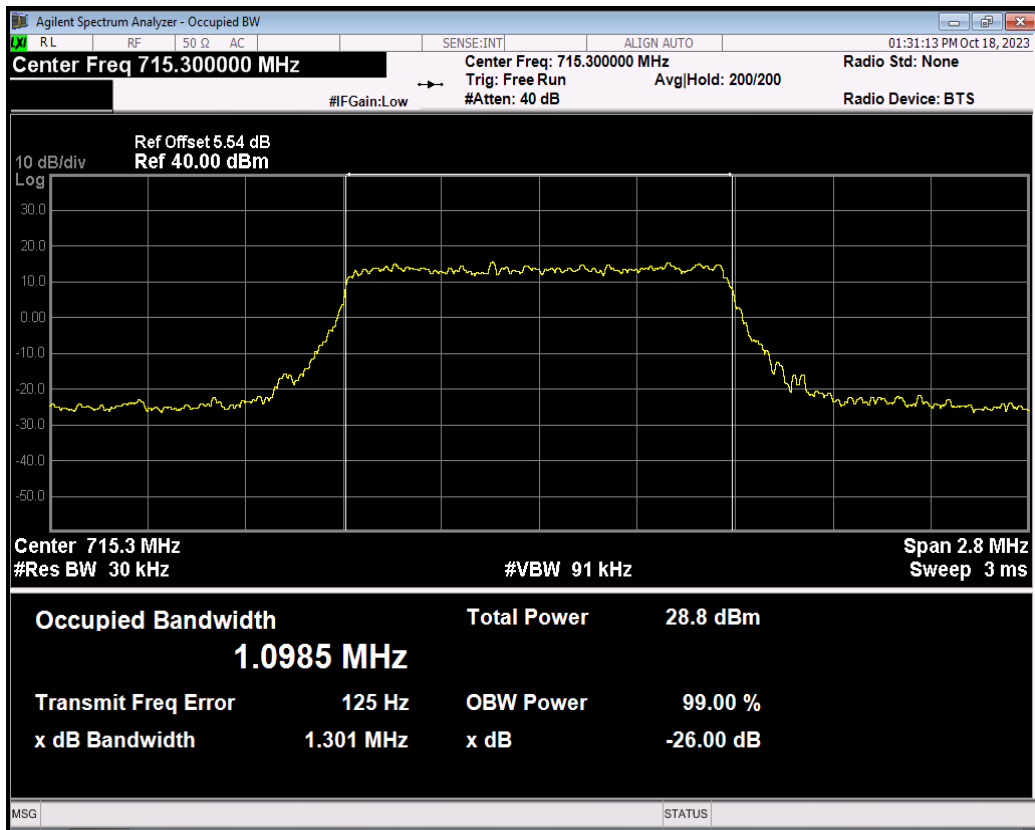


Band12 16QAM BW=1.4MHz Channel=23095 RB Size=6 Position=#0

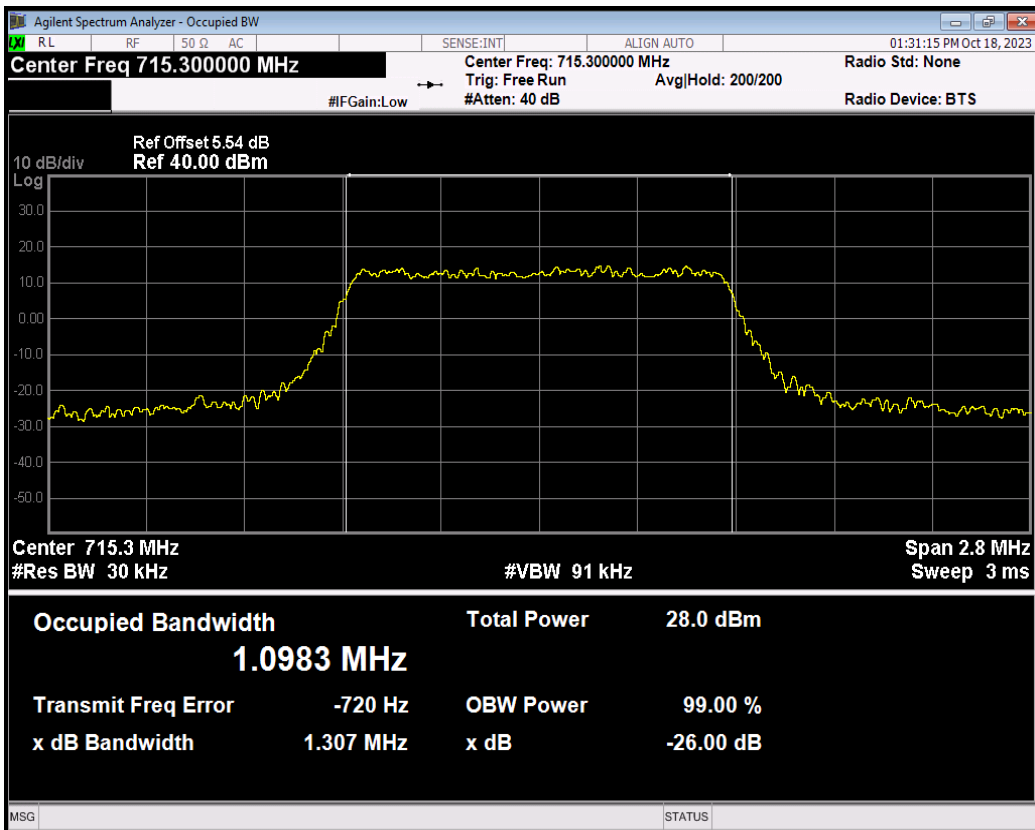




Band12 QPSK BW=1.4MHz Channel=23173 RB Size=6 Position=#0

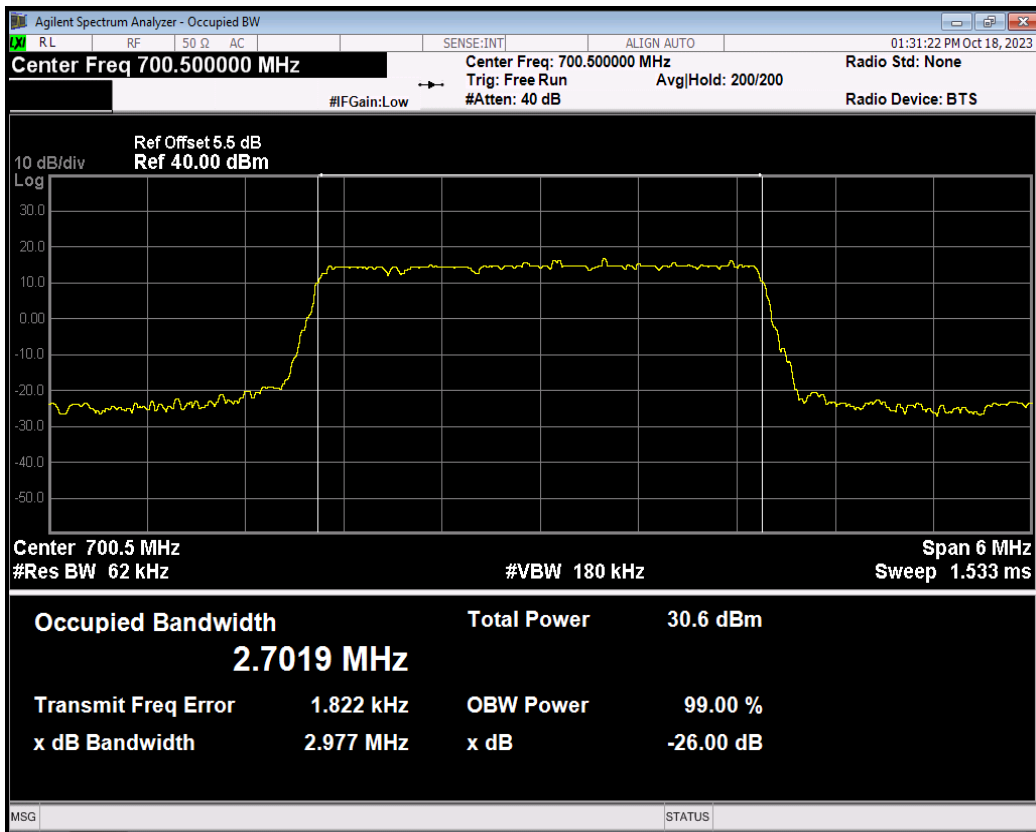


Band12 16QAM BW=1.4MHz Channel=23173 RB Size=6 Position=#0

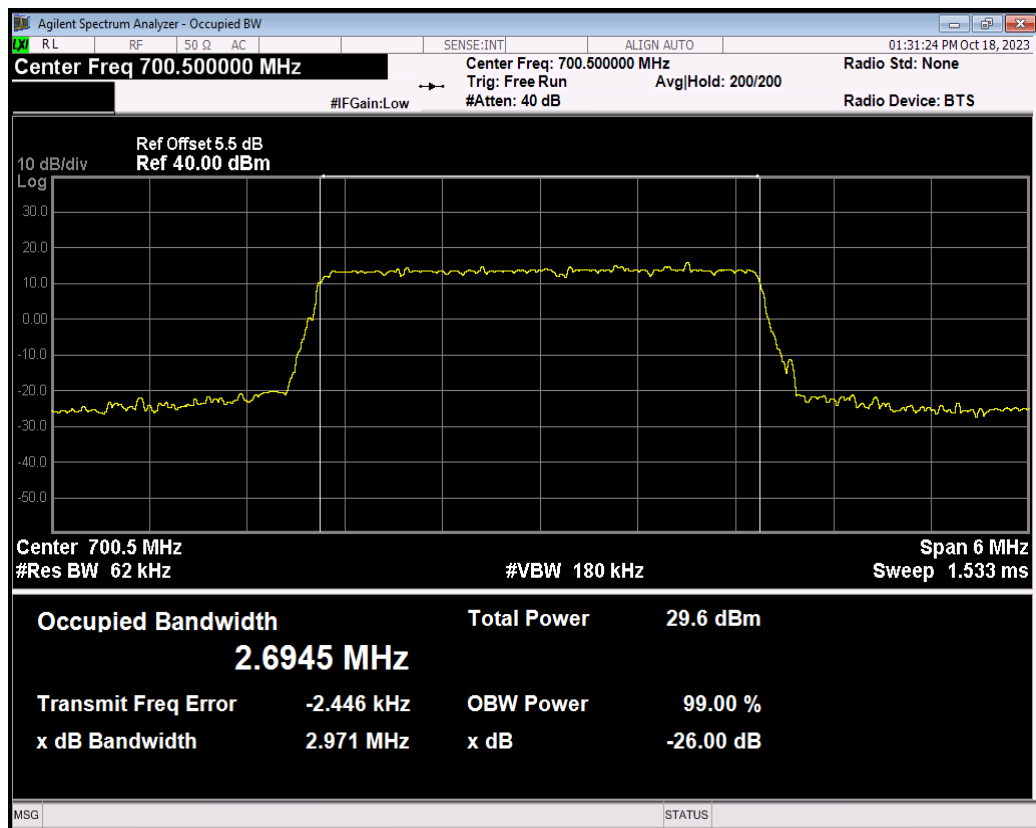




Band12 QPSK BW=3MHz Channel=23025 RB Size=15 Position=#0

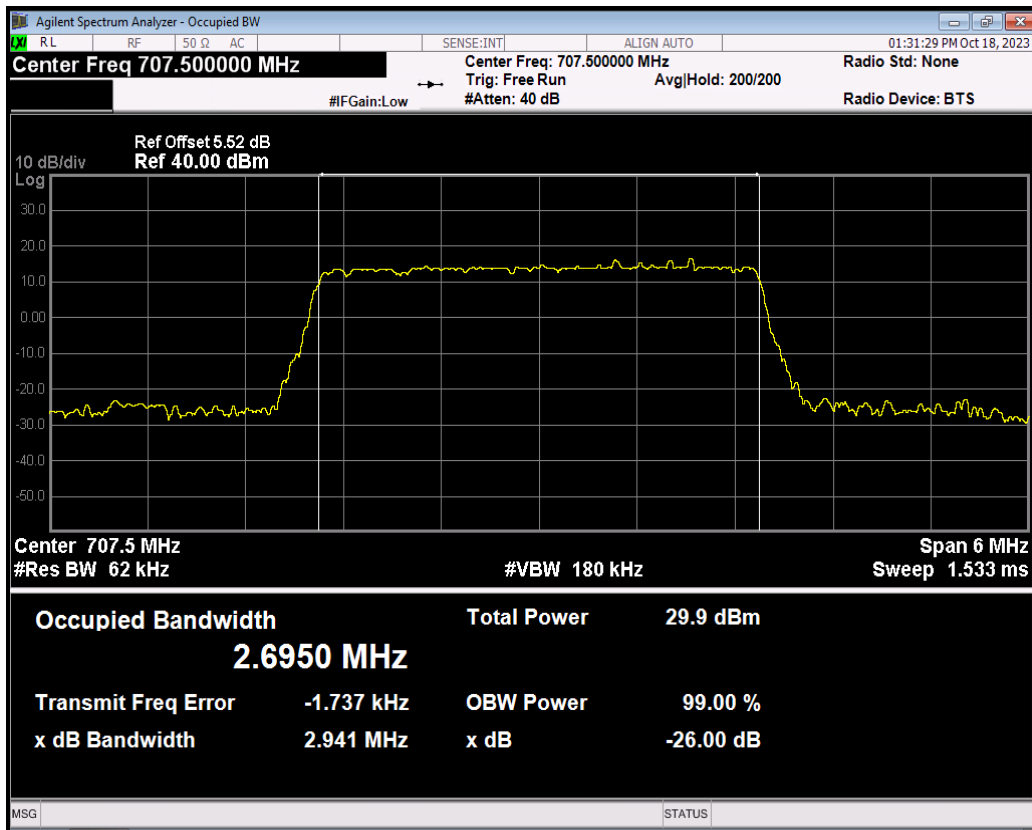


Band12 16QAM BW=3MHz Channel=23025 RB Size=15 Position=#0

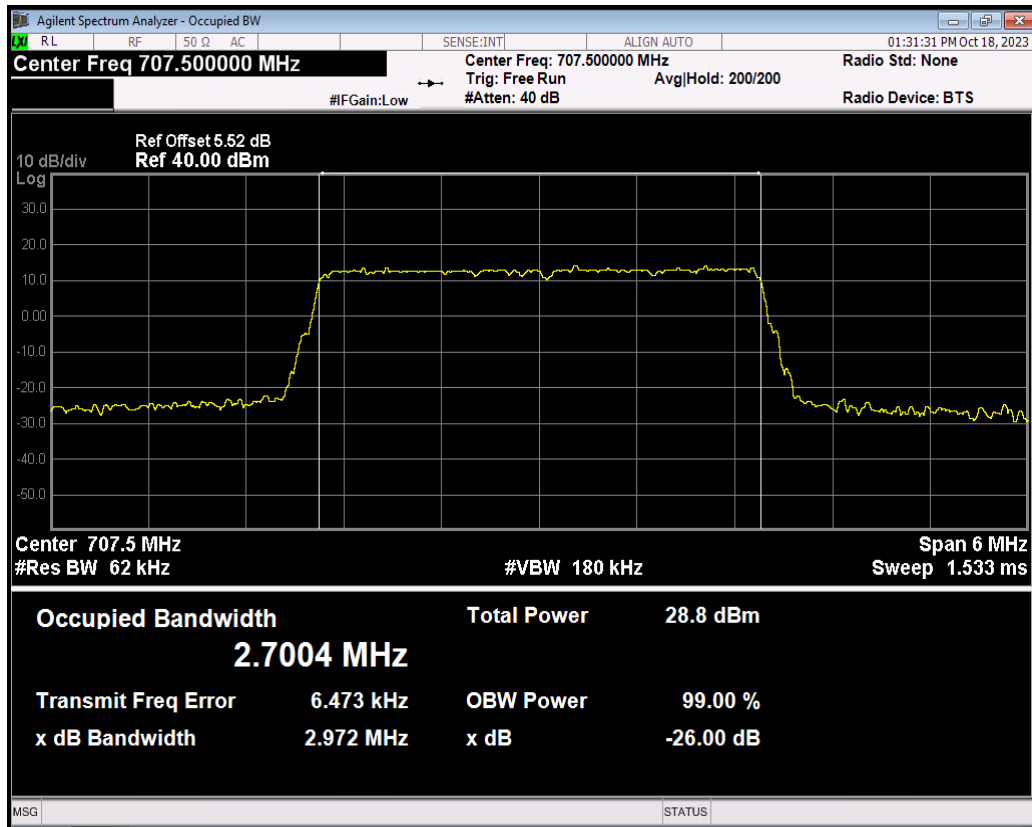




Band12 QPSK BW=3MHz Channel=23095 RB Size=15 Position=#0

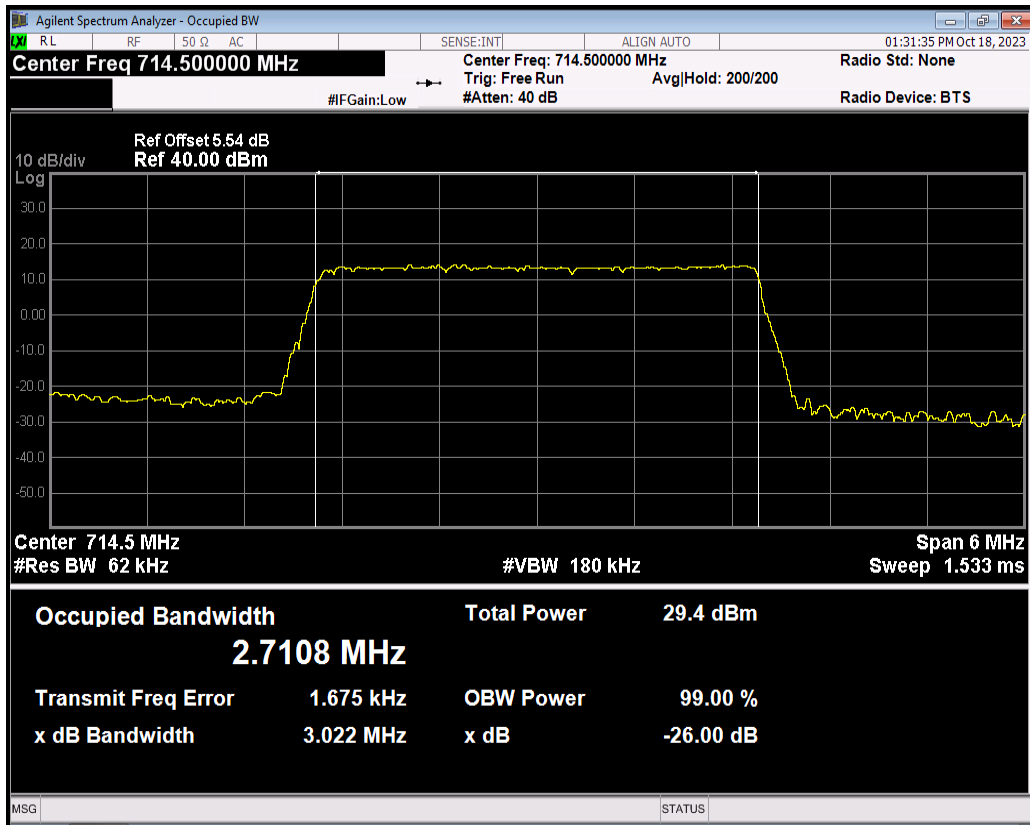


Band12 16QAM BW=3MHz Channel=23095 RB Size=15 Position=#0

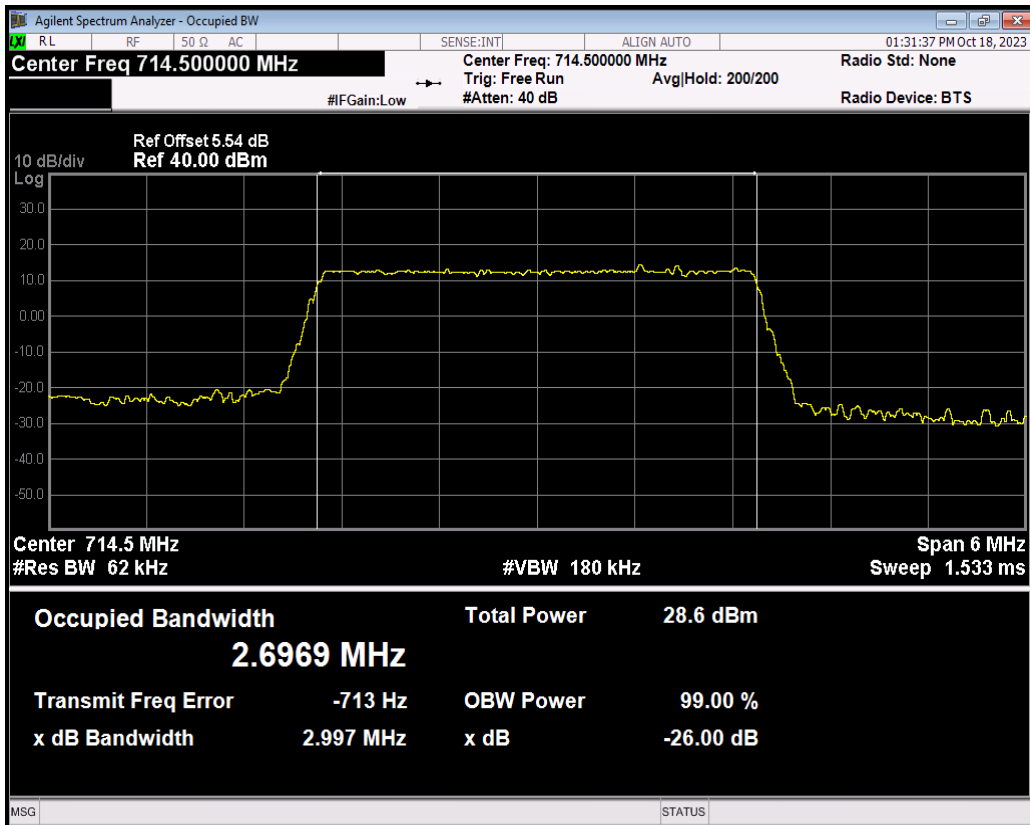




Band12 QPSK BW=3MHz Channel=23165 RB Size=15 Position=#0

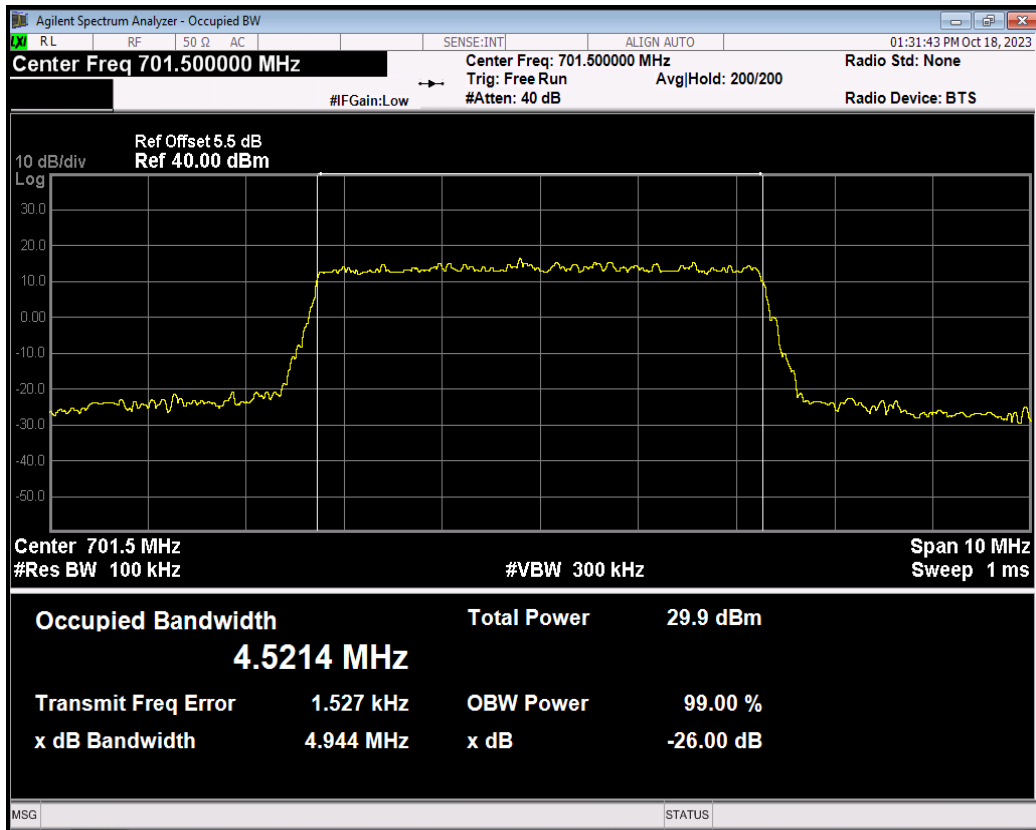


Band12 16QAM BW=3MHz Channel=23165 RB Size=15 Position=#0

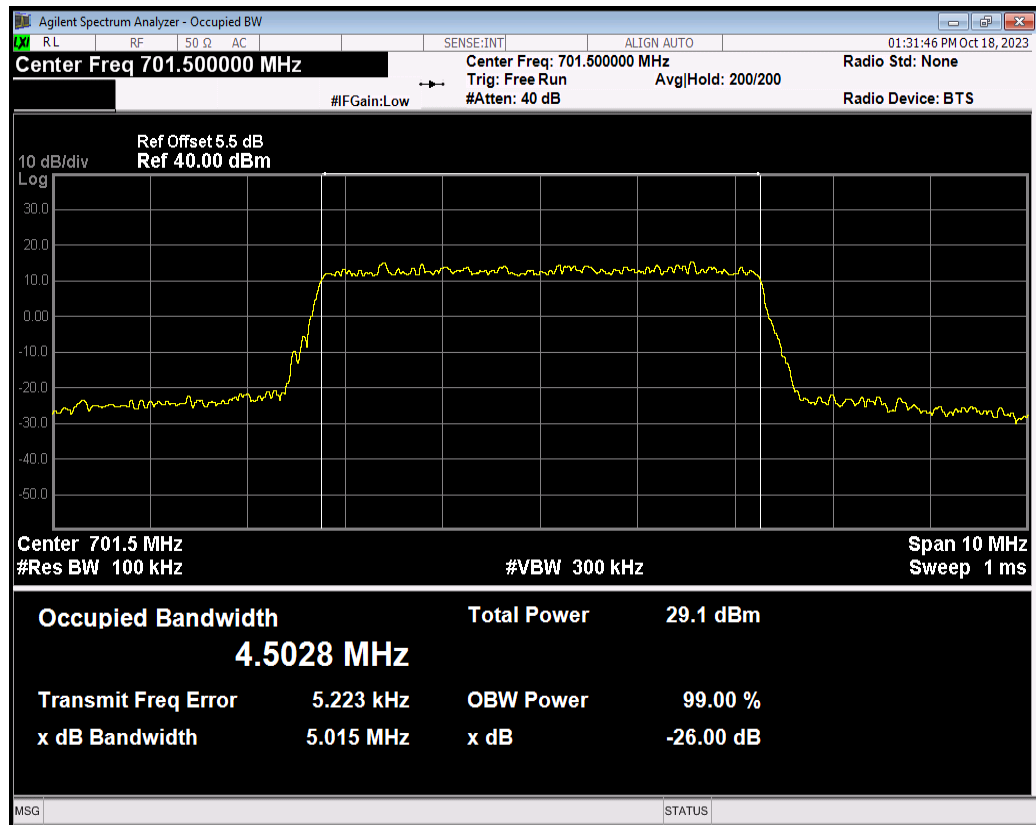




Band12 QPSK BW=5MHz Channel=23035 RB Size=25 Position=#0

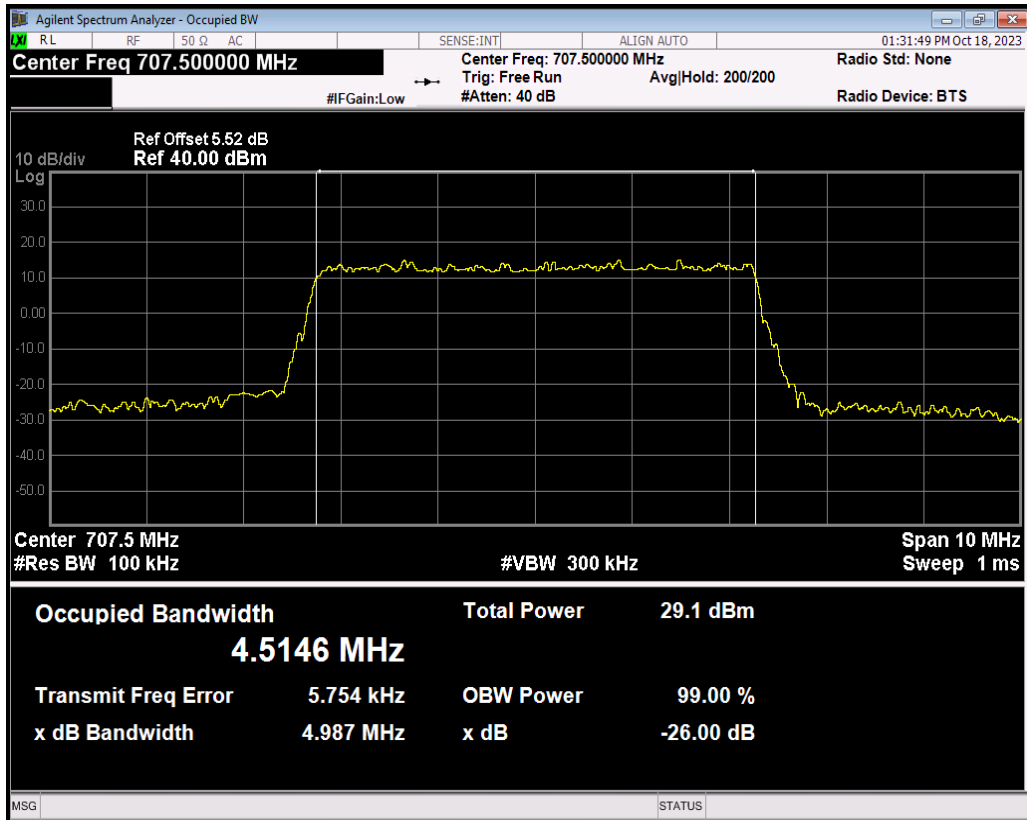


Band12 16QAM BW=5MHz Channel=23035 RB Size=25 Position=#0

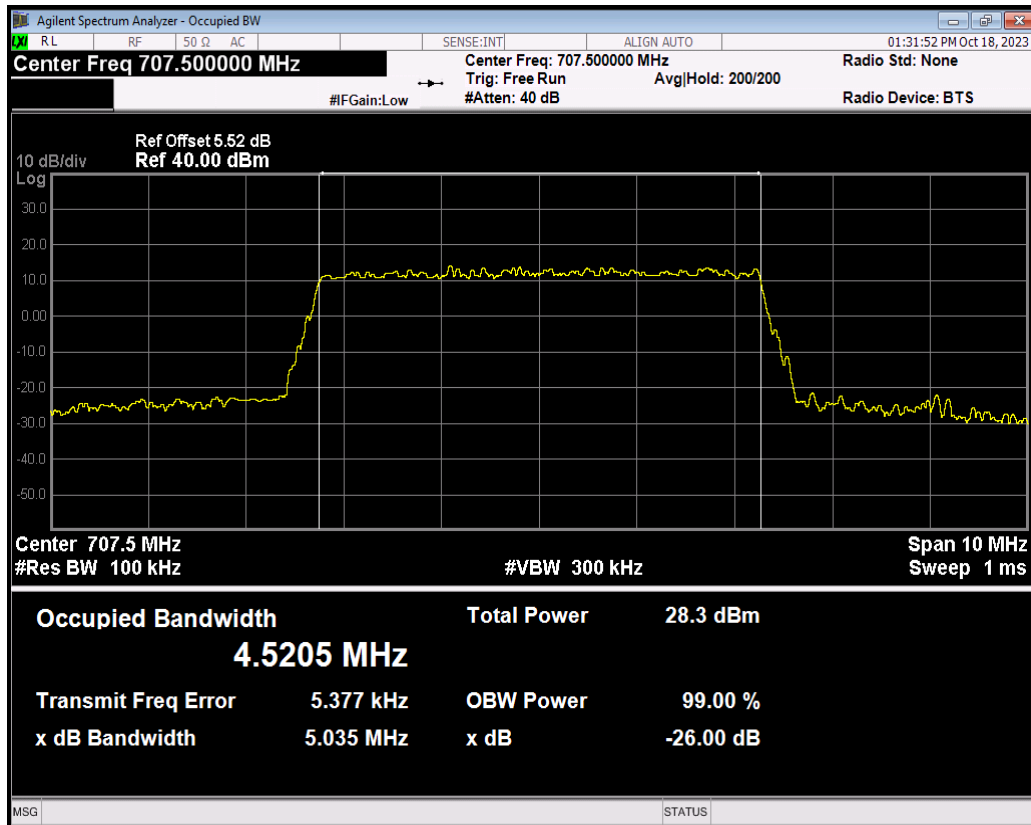




Band12 QPSK BW=5MHz Channel=23095 RB Size=25 Position=#0

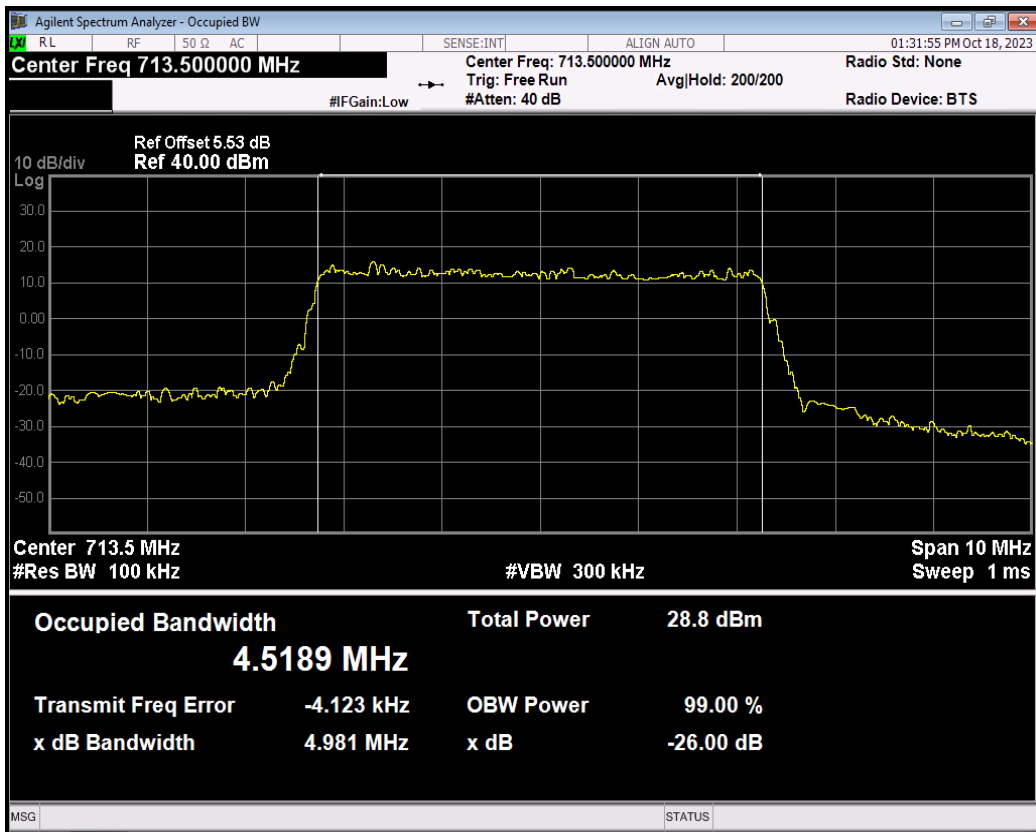


Band12 16QAM BW=5MHz Channel=23095 RB Size=25 Position=#0

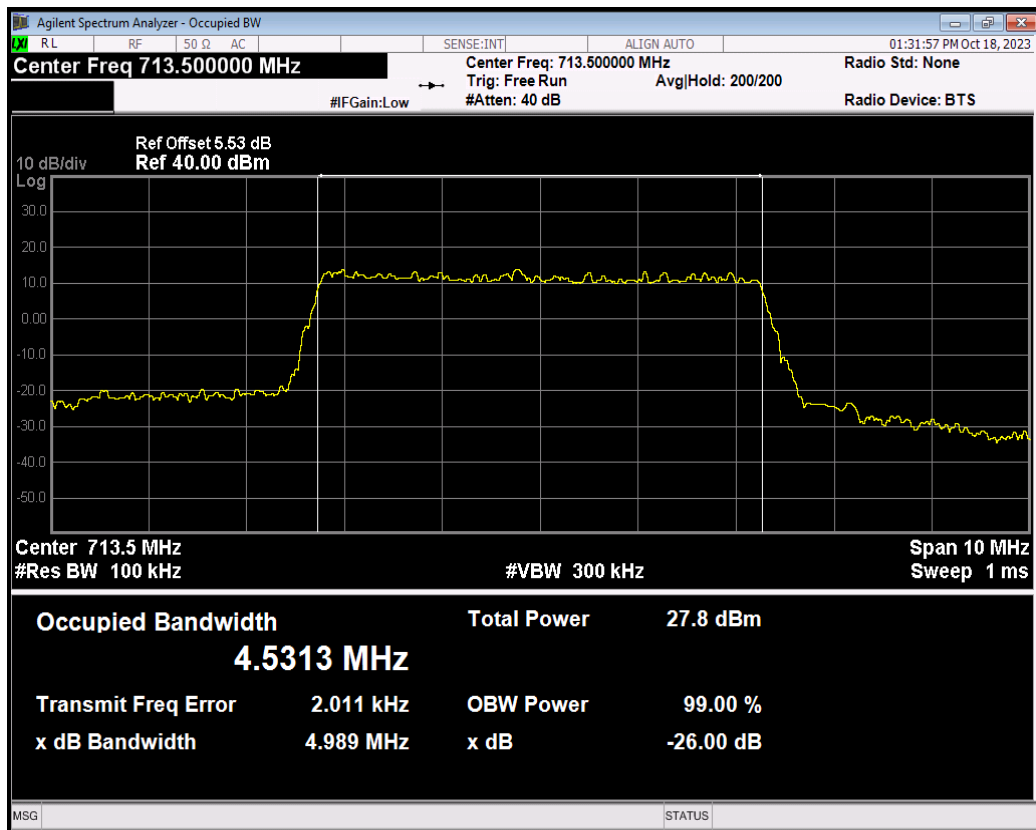




Band12 QPSK BW=5MHz Channel=23155 RB Size=25 Position=#0

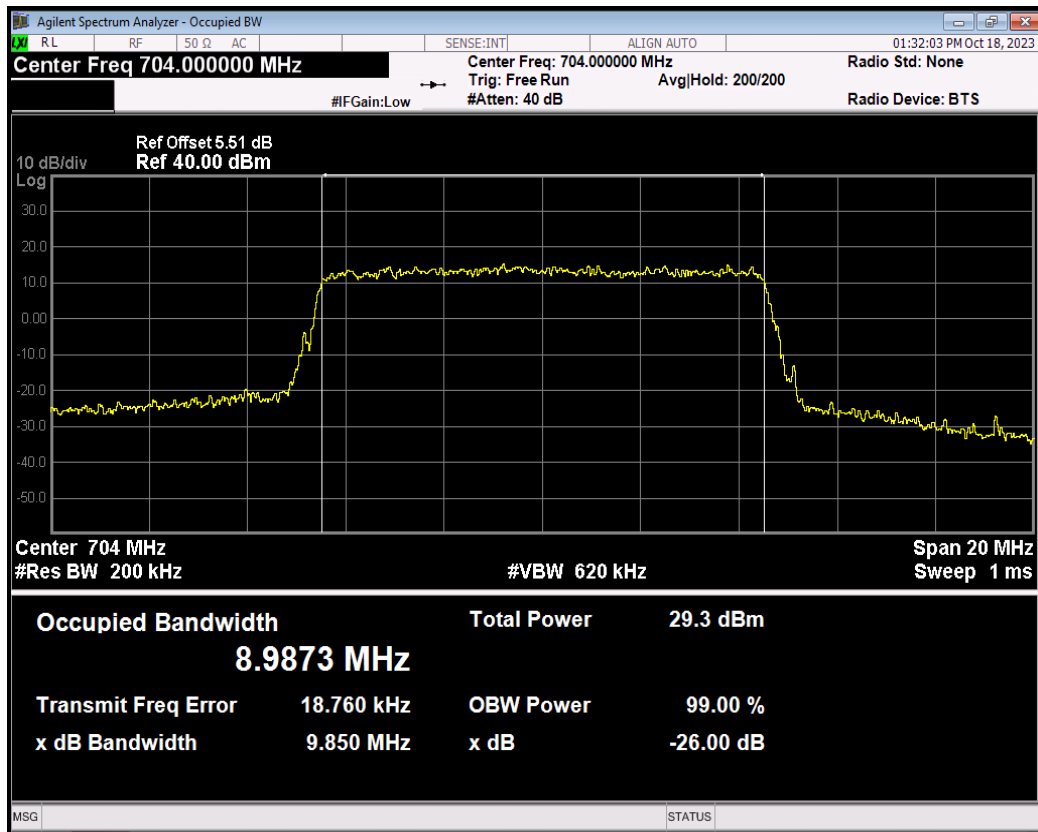


Band12 16QAM BW=5MHz Channel=23155 RB Size=25 Position=#0

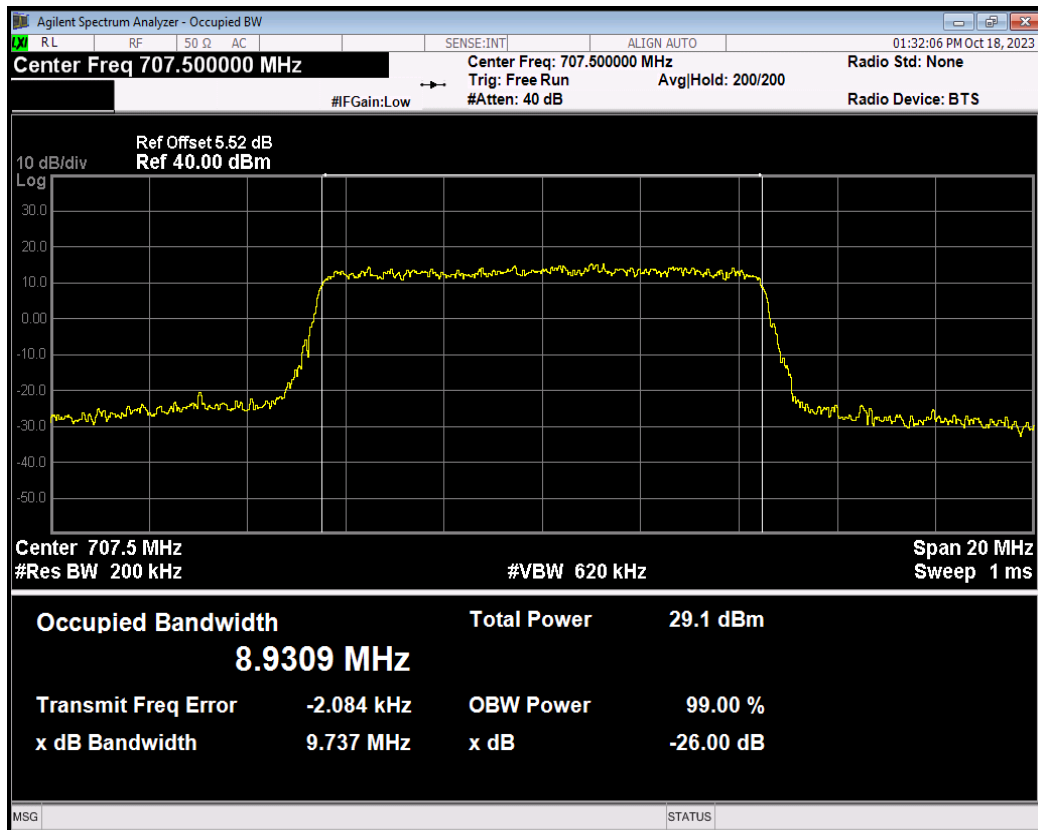




Band12 QPSK BW=10MHz Channel=23060 RB Size=50 Position=#0

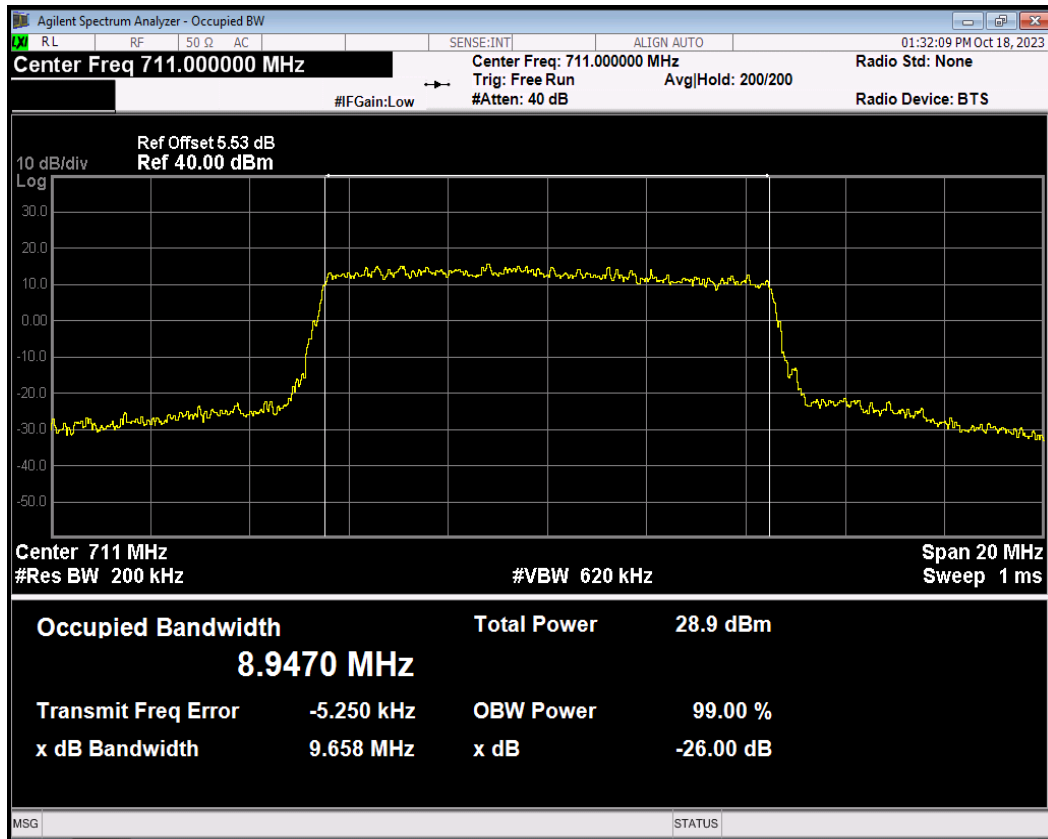


Band12 QPSK BW=10MHz Channel=23095 RB Size=50 Position=#0





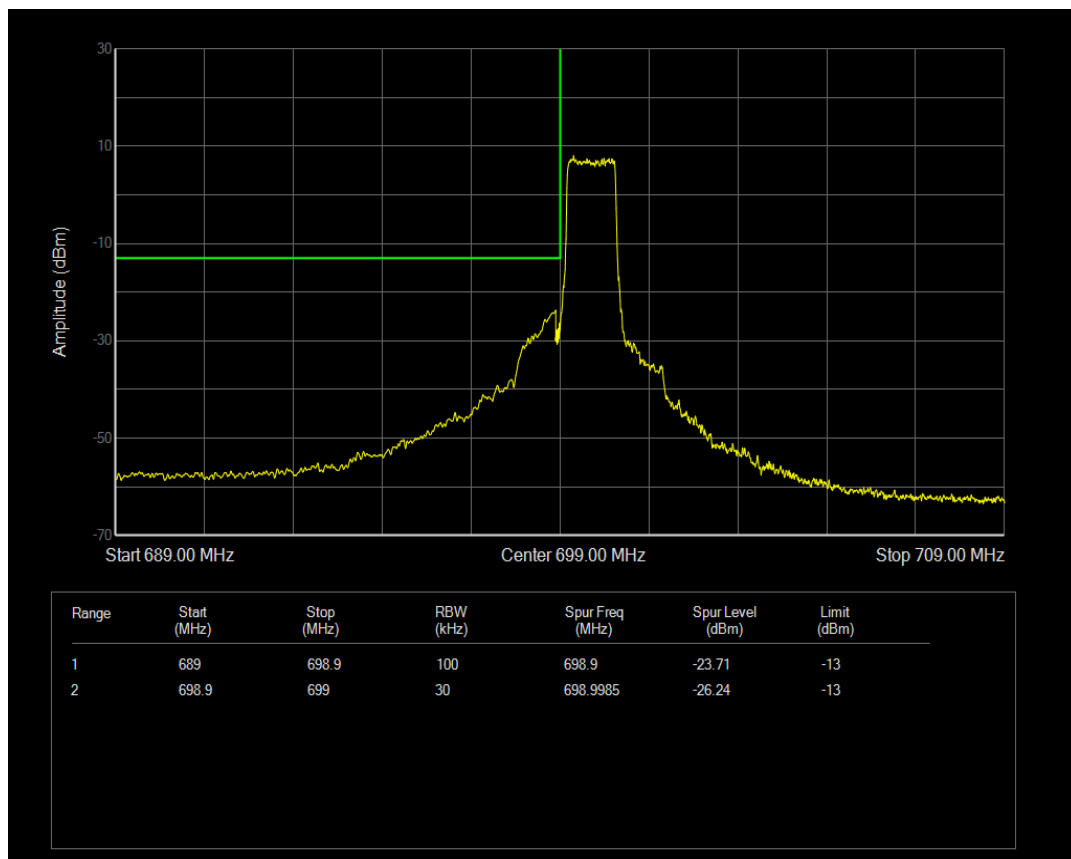
Band12 QPSK BW=10MHz Channel=23130 RB Size=50 Position=#0



Appendix 5. Band edge

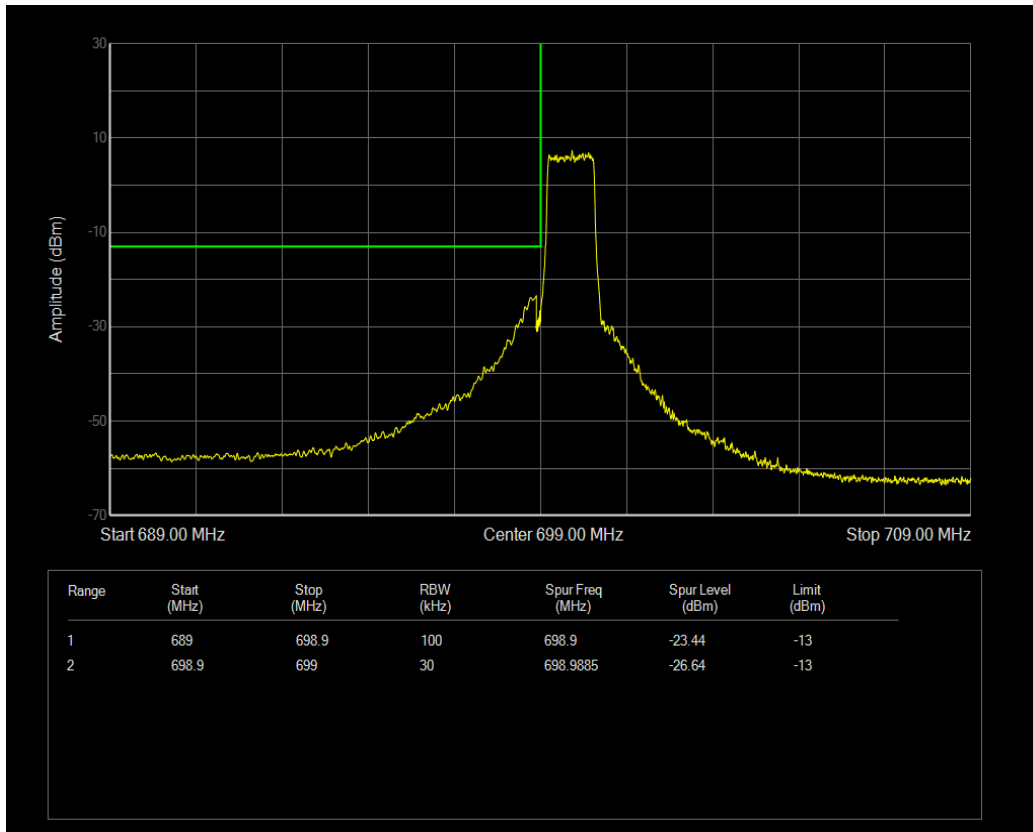
Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
Band12	1.4	23017	6	#0	QPSK	698.90	-23.71	-13	PASS
Band12	1.4	23017	6	#0	16QAM	698.90	-23.44	-13	PASS
Band12	1.4	23173	6	#0	QPSK	716.23	-23.99	-13	PASS
Band12	1.4	23173	6	#0	16QAM	716.26	-25.37	-13	PASS
Band12	3	23025	15	#0	QPSK	699.00	-26.30	-13	PASS
Band12	3	23025	15	#0	16QAM	698.89	-27.05	-13	PASS
Band12	3	23165	15	#0	QPSK	716.01	-29.88	-13	PASS
Band12	3	23165	15	#0	16QAM	716.01	-30.42	-13	PASS
Band12	5	23035	25	#0	QPSK	698.90	-29.27	-13	PASS
Band12	5	23035	25	#0	16QAM	698.90	-29.43	-13	PASS
Band12	5	23155	25	#0	QPSK	716.11	-32.27	-13	PASS
Band12	5	23155	25	#0	16QAM	716.11	-31.81	-13	PASS
Band12	10	23060	50	#0	QPSK	698.90	-31.77	-13	PASS
Band12	10	23130	50	#0	QPSK	716.36	-32.49	-13	PASS

Band12 QPSK BW=1.4MHz Channel=23017 RB Size=6 Position=#0

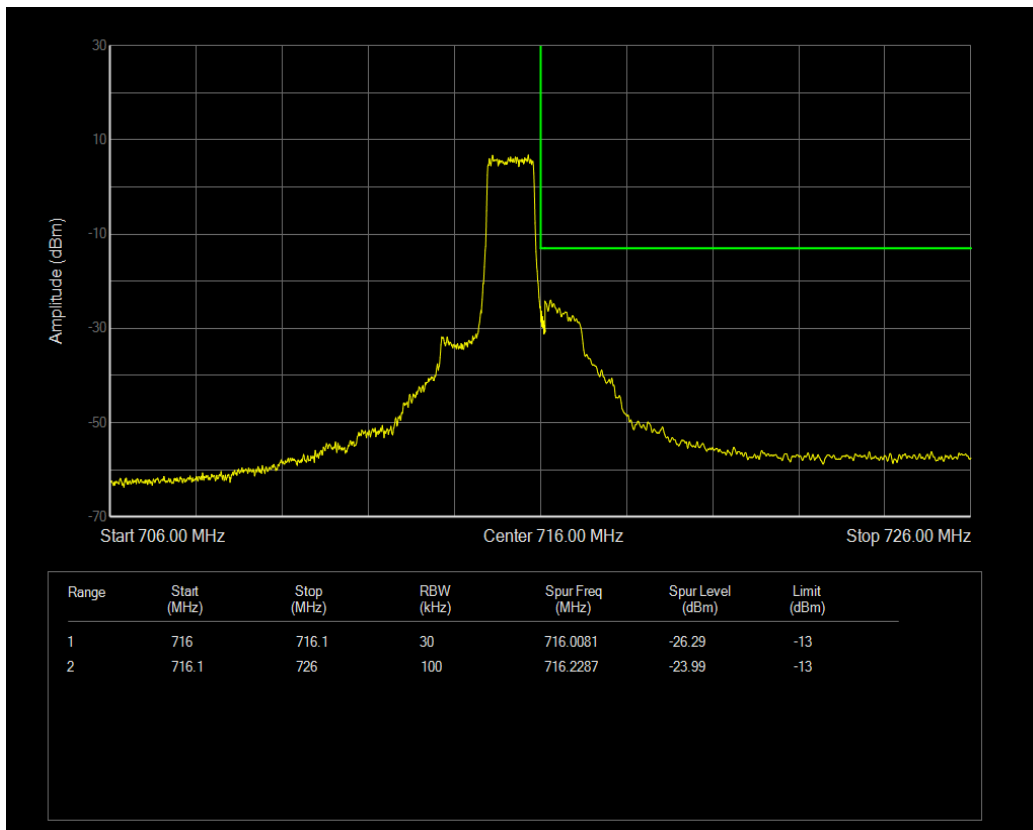




Band12 16QAM BW=1.4MHz Channel=23017 RB Size=6 Position=#0

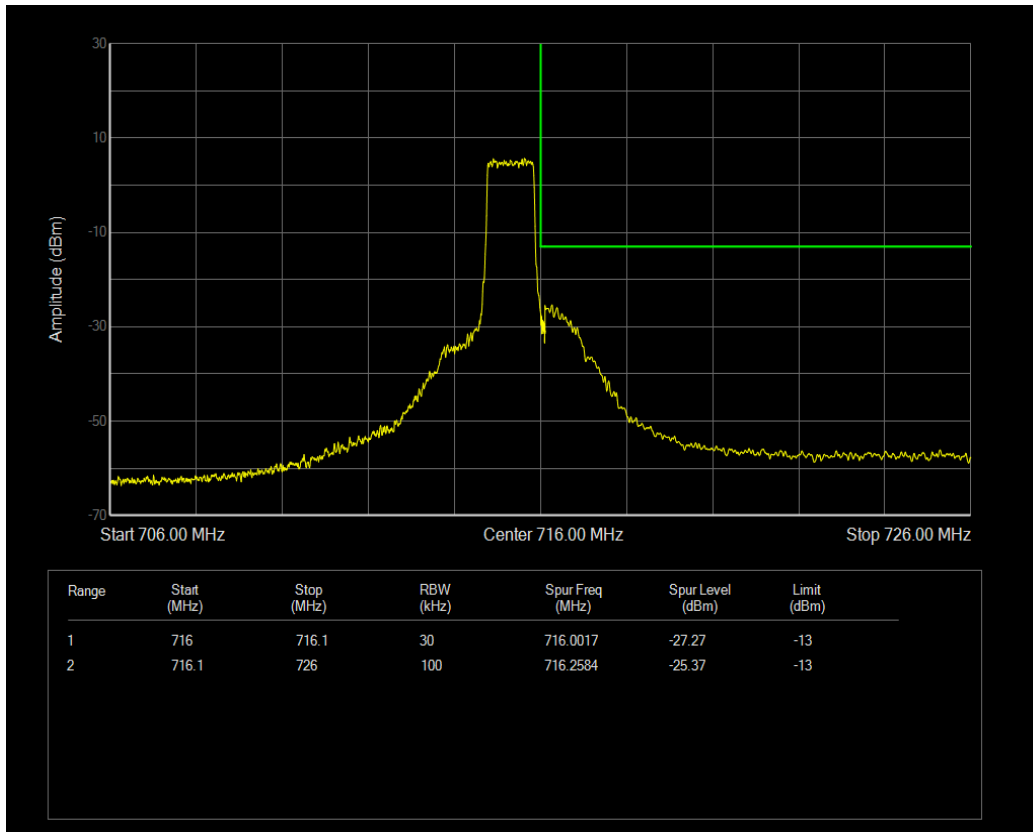


Band12 QPSK BW=1.4MHz Channel=23173 RB Size=6 Position=#0

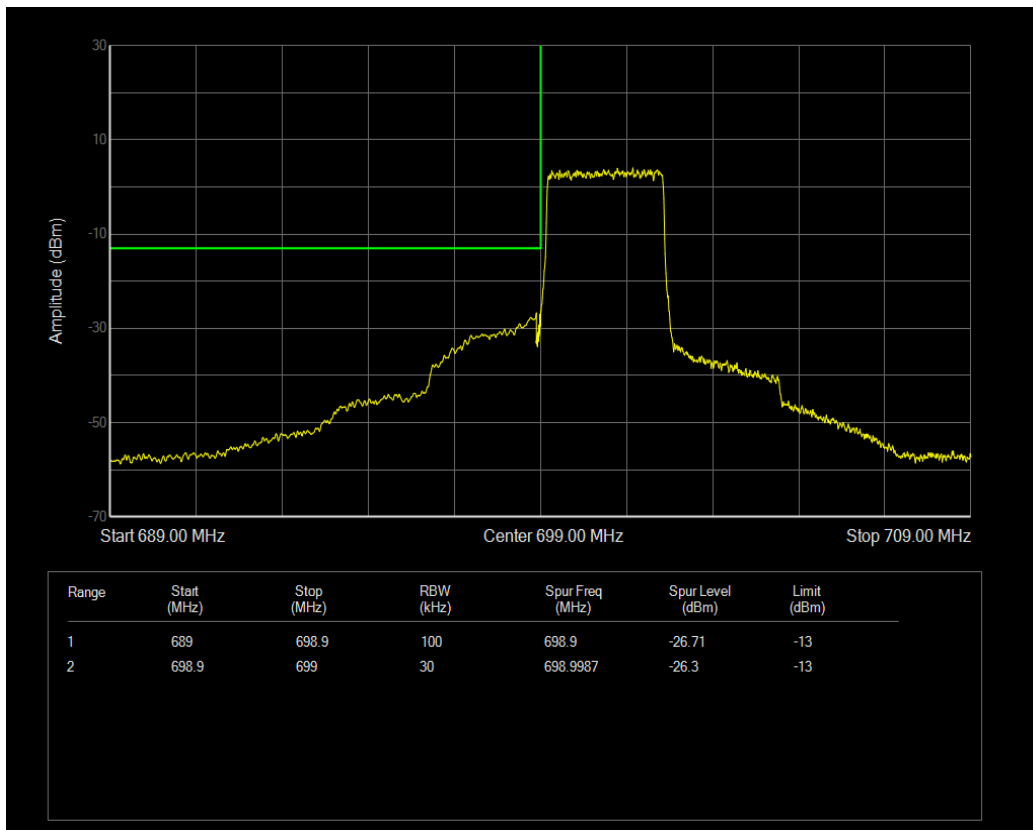




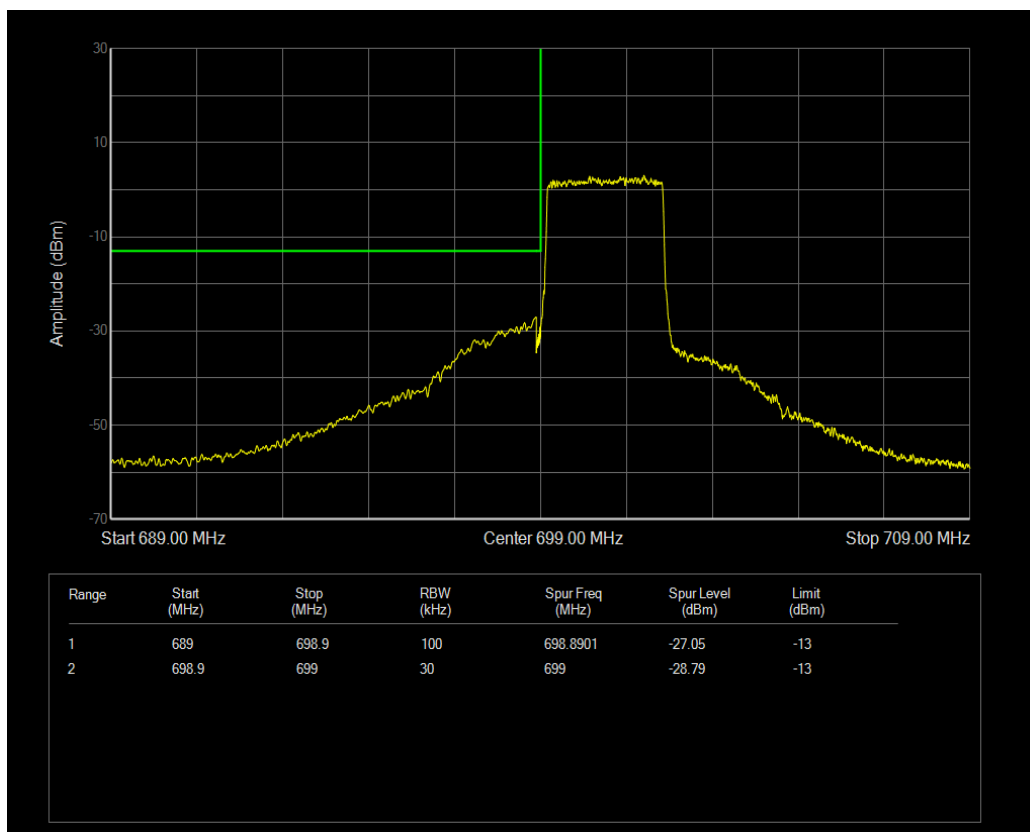
Band12 16QAM BW=1.4MHz Channel=23173 RB Size=6 Position=#0



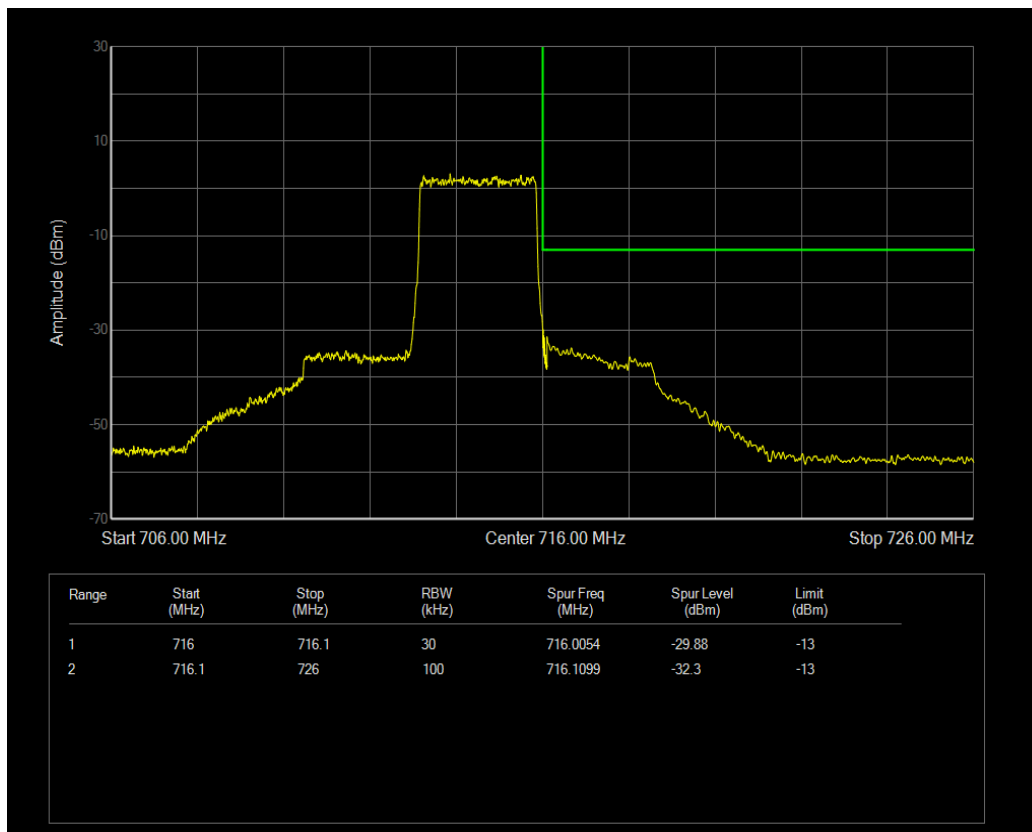
Band12 QPSK BW=3MHz Channel=23025 RB Size=15 Position=#0



Band12 16QAM BW=3MHz Channel=23025 RB Size=15 Position=#0

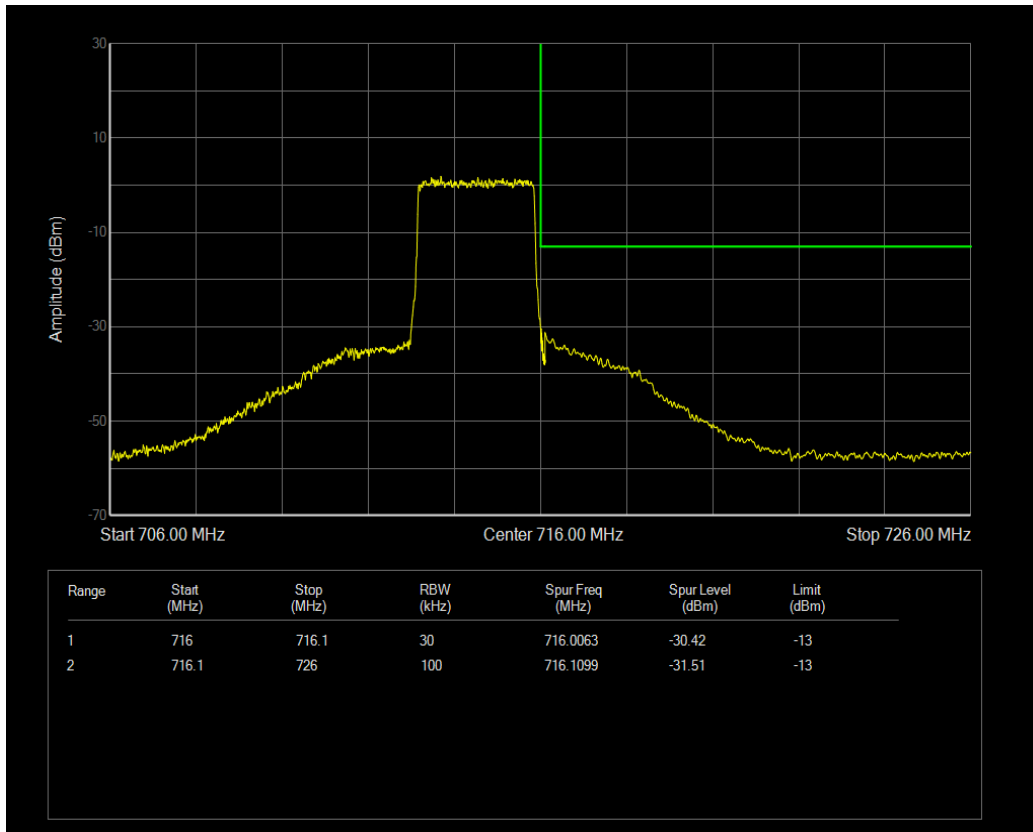


Band12 QPSK BW=3MHz Channel=23165 RB Size=15 Position=#0

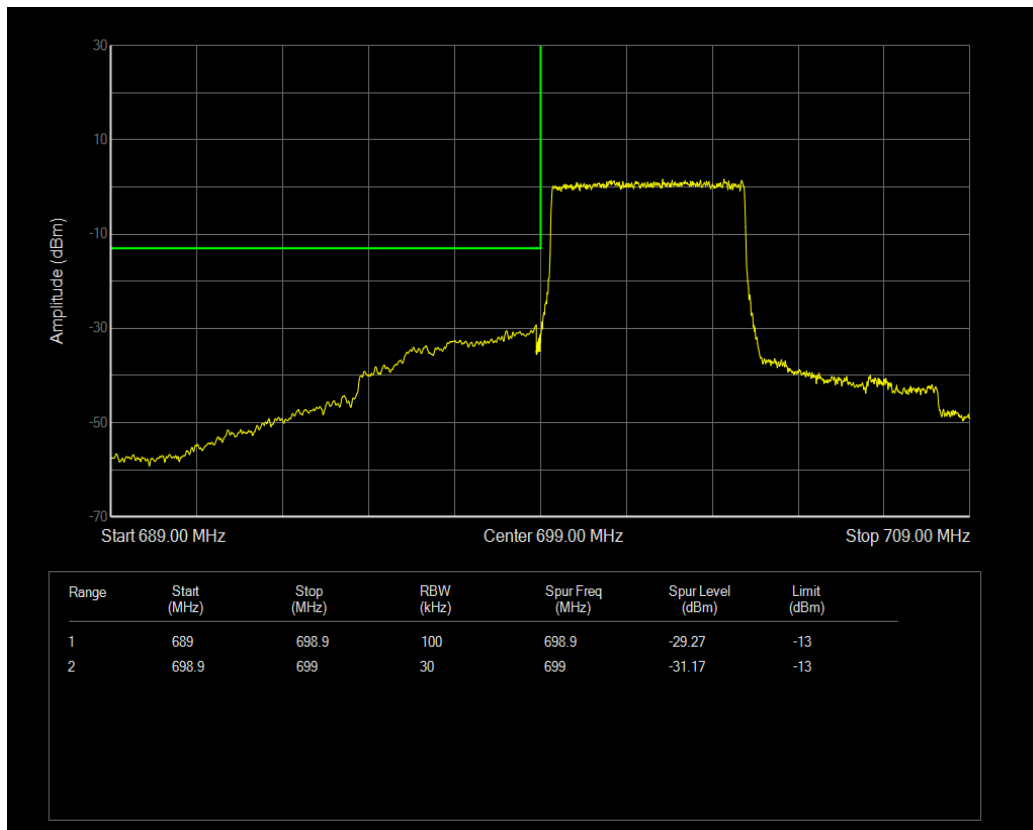




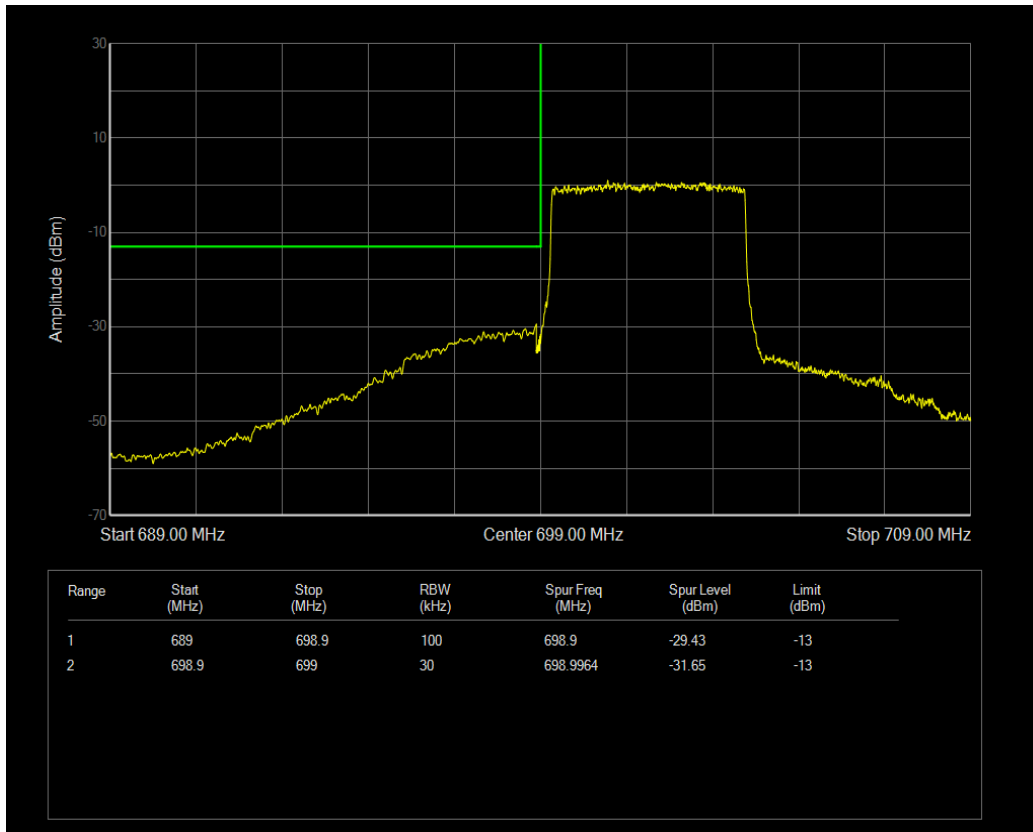
Band12 16QAM BW=3MHz Channel=23165 RB Size=15 Position=#0



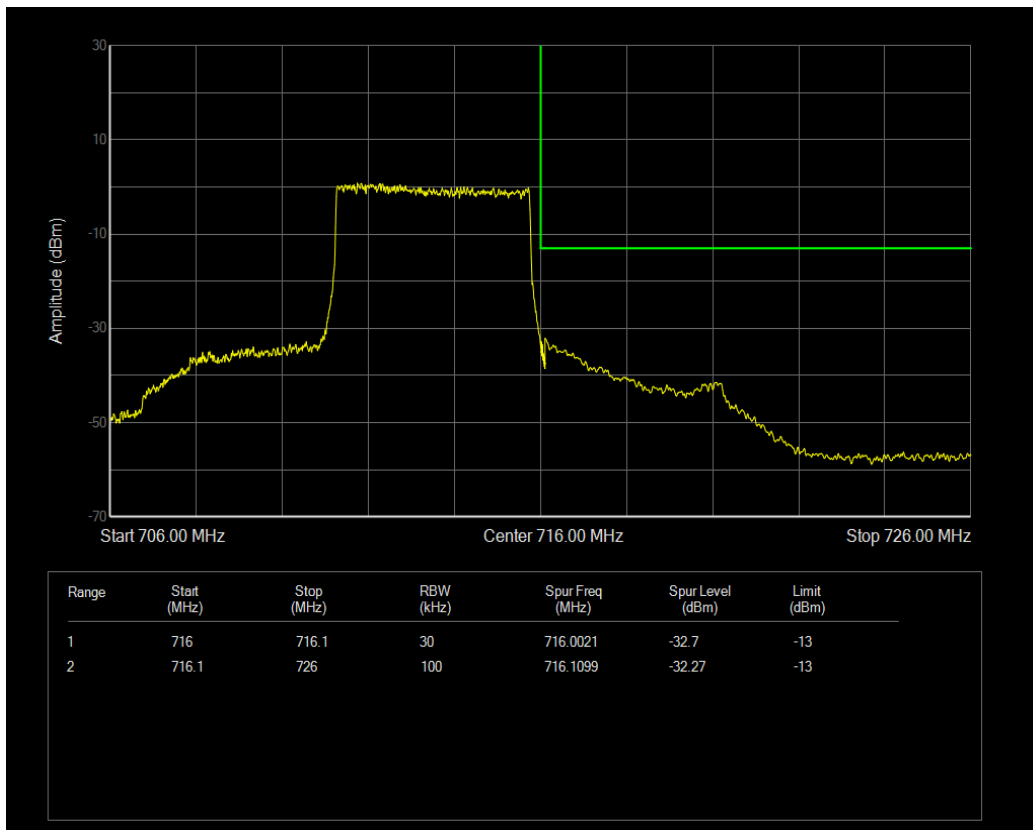
Band12 QPSK BW=5MHz Channel=23035 RB Size=25 Position=#0



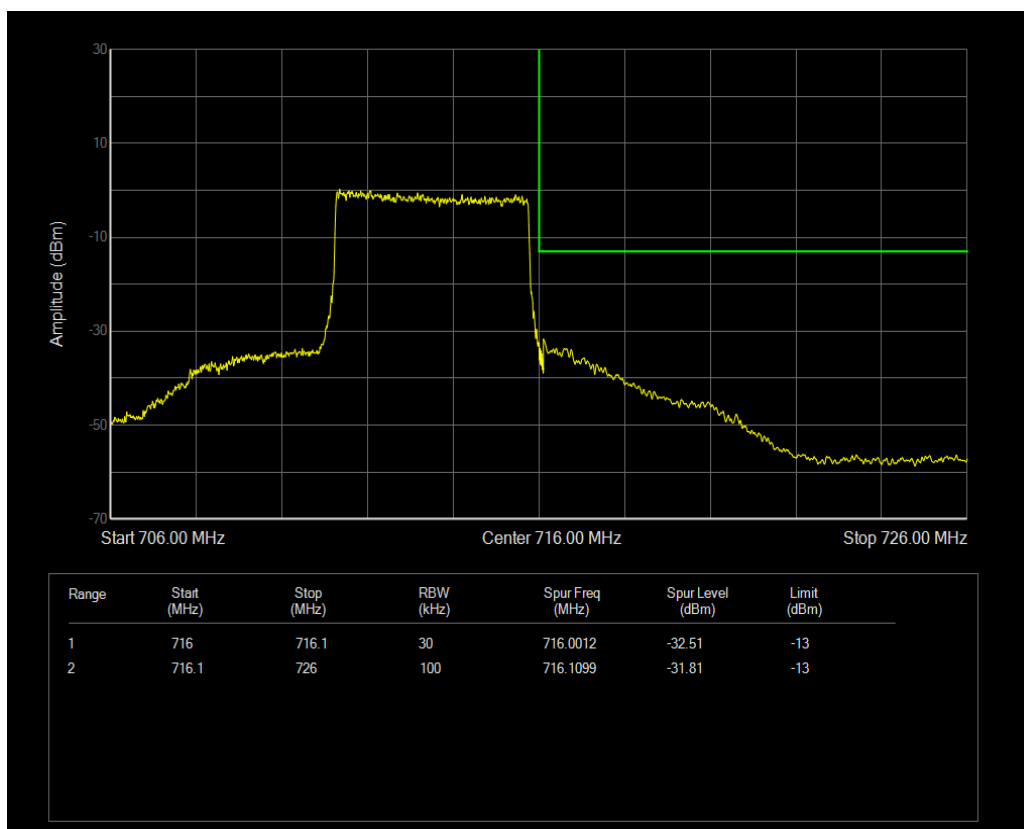
Band12 16QAM BW=5MHz Channel=23035 RB Size=25 Position=#0



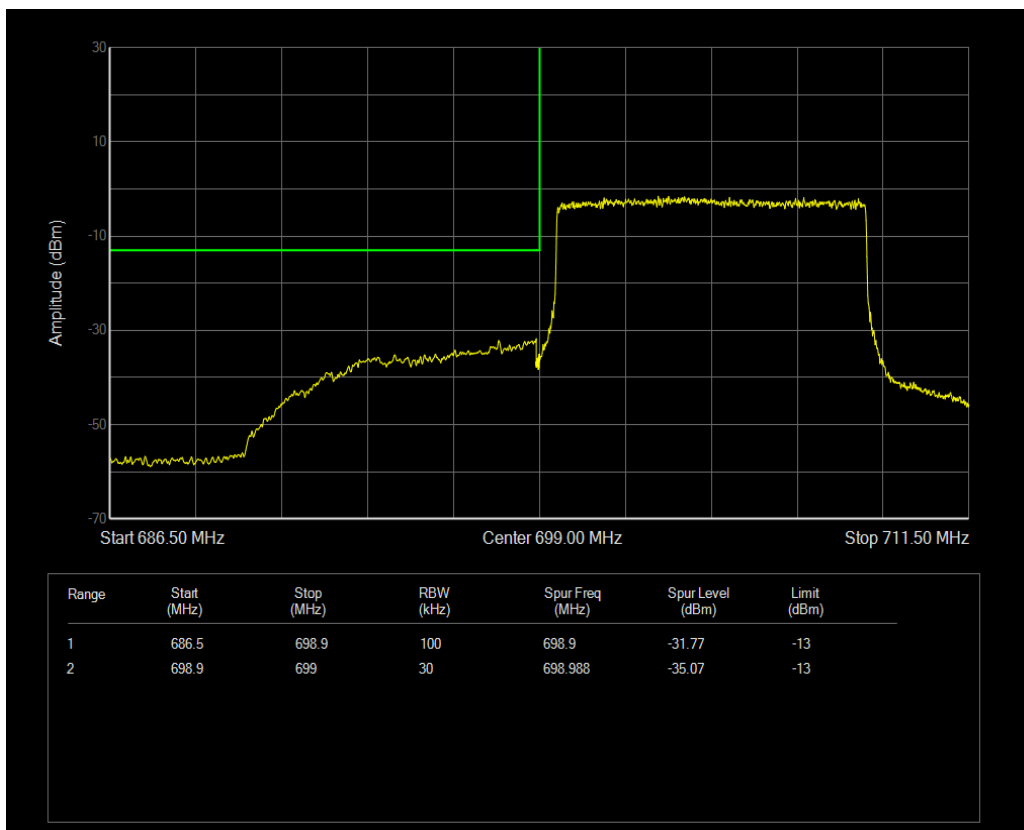
Band12 QPSK BW=5MHz Channel=23155 RB Size=25 Position=#0



Band12 16QAM BW=5MHz Channel=23155 RB Size=25 Position=#0

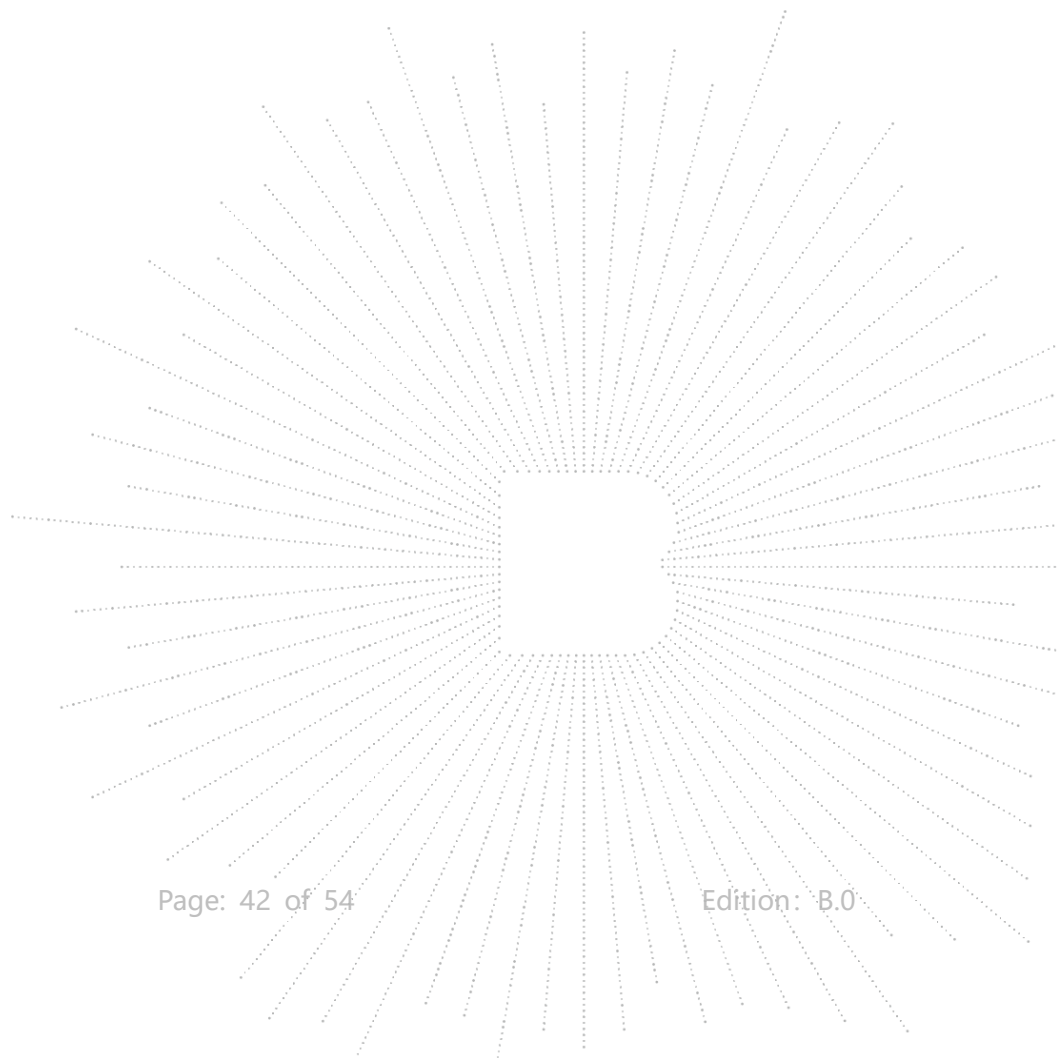
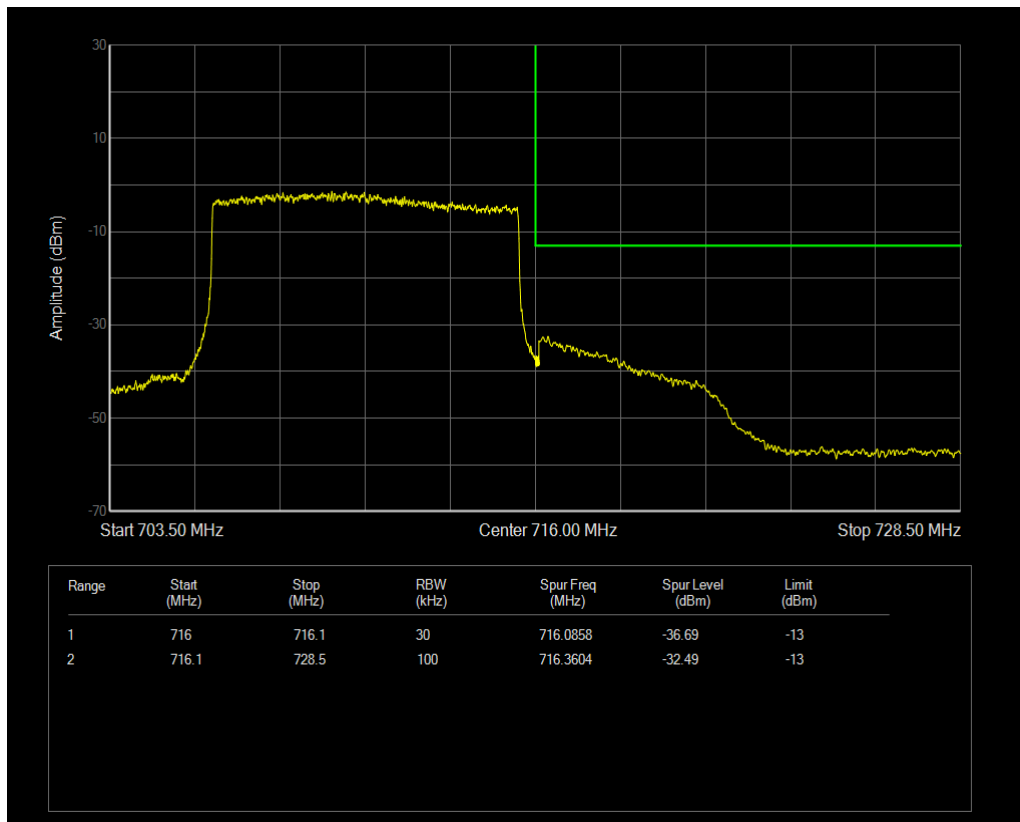


Band12 QPSK BW=10MHz Channel=23060 RB Size=50 Position=#0





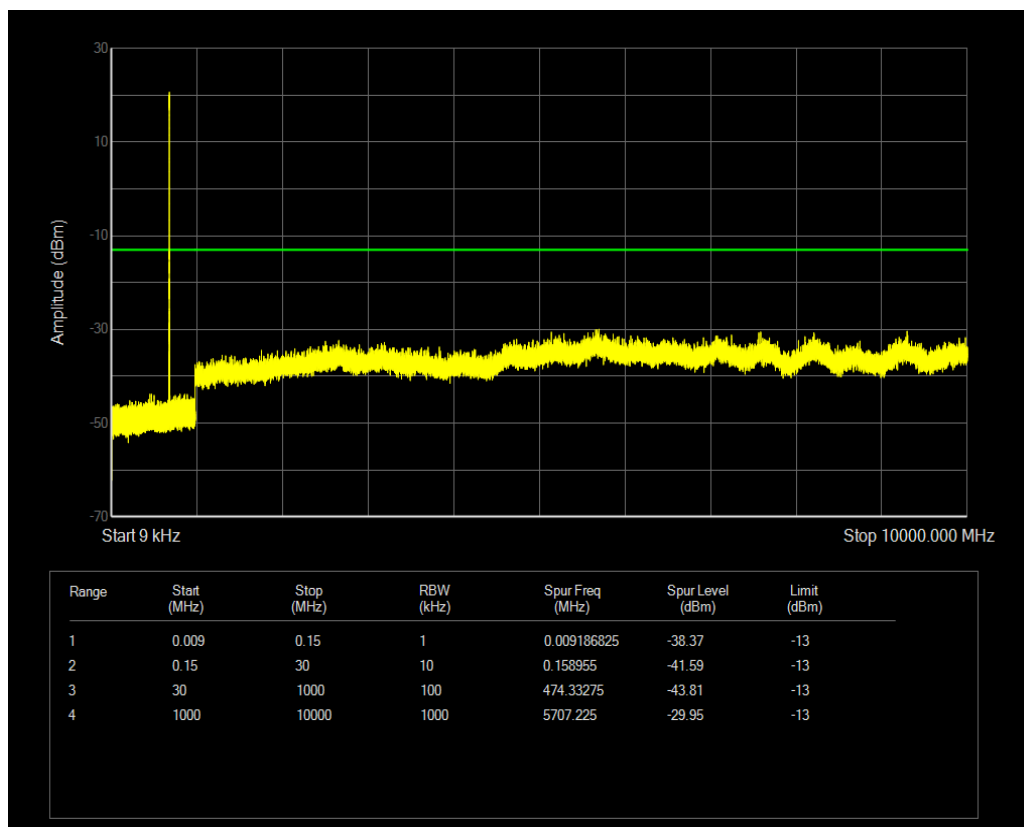
Band12 QPSK BW=10MHz Channel=23130 RB Size=50 Position=#0



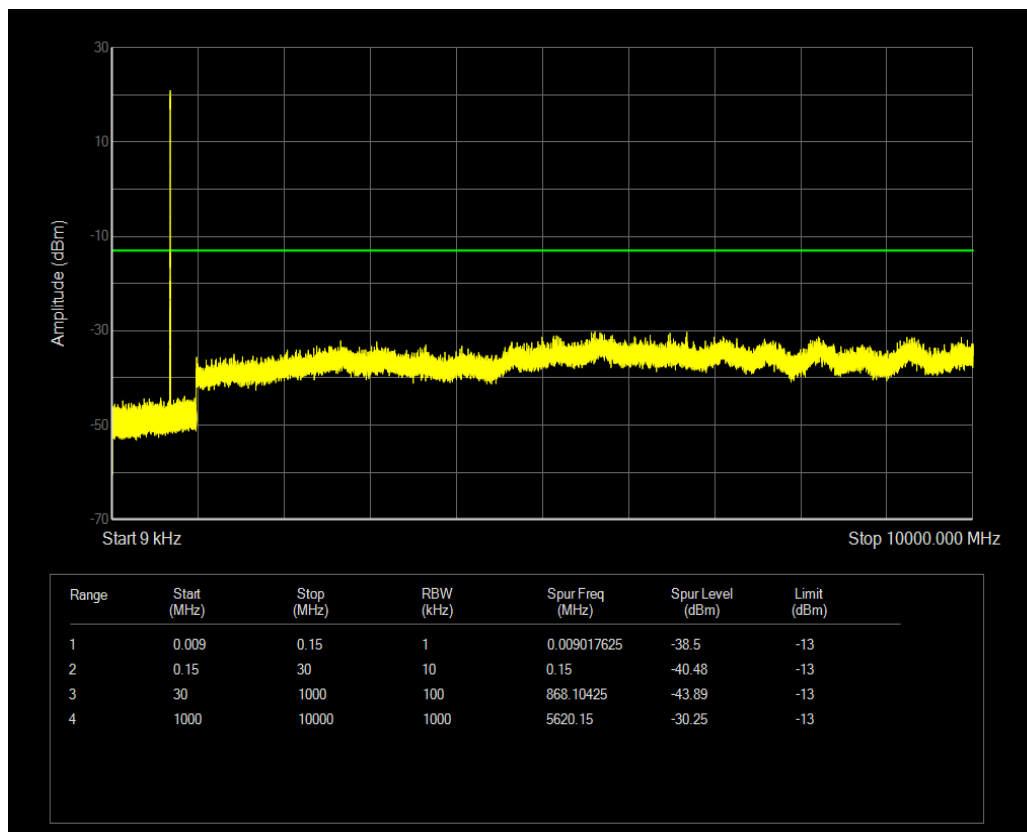
Appendix 6. Out-of-band emissions

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
Band12	1.4	23017	6	#0	QPSK	5707.23	-29.95	-13	PASS
Band12	1.4	23017	6	#0	16QAM	5620.15	-30.25	-13	PASS
Band12	1.4	23095	6	#0	QPSK	5699.58	-29.64	-13	PASS
Band12	1.4	23095	6	#0	16QAM	5660.88	-29.85	-13	PASS
Band12	1.4	23173	6	#0	QPSK	5672.58	-29.25	-13	PASS
Band12	1.4	23173	6	#0	16QAM	5692.60	-30.31	-13	PASS
Band12	3	23025	15	#0	QPSK	5724.78	-29.93	-13	PASS
Band12	3	23025	15	#0	16QAM	5667.40	-30.41	-13	PASS
Band12	3	23095	15	#0	QPSK	5651.20	-30.12	-13	PASS
Band12	3	23095	15	#0	16QAM	5680.00	-30.34	-13	PASS
Band12	3	23165	15	#0	QPSK	5742.55	-30.27	-13	PASS
Band12	3	23165	15	#0	16QAM	5696.65	-29.20	-13	PASS
Band12	5	23035	25	#0	QPSK	5579.88	-29.95	-13	PASS
Band12	5	23035	25	#0	16QAM	5306.73	-30.27	-13	PASS
Band12	5	23095	25	#0	QPSK	5717.80	-29.64	-13	PASS
Band12	5	23095	25	#0	16QAM	9306.33	-29.64	-13	PASS
Band12	5	23155	25	#0	QPSK	5718.93	-29.71	-13	PASS
Band12	5	23155	25	#0	16QAM	5671.45	-28.20	-13	PASS
Band12	10	23060	50	#0	QPSK	5693.95	-29.80	-13	PASS
Band12	10	23095	50	#0	QPSK	5700.70	-29.08	-13	PASS
Band12	10	23130	50	#0	QPSK	5750.65	-29.74	-13	PASS

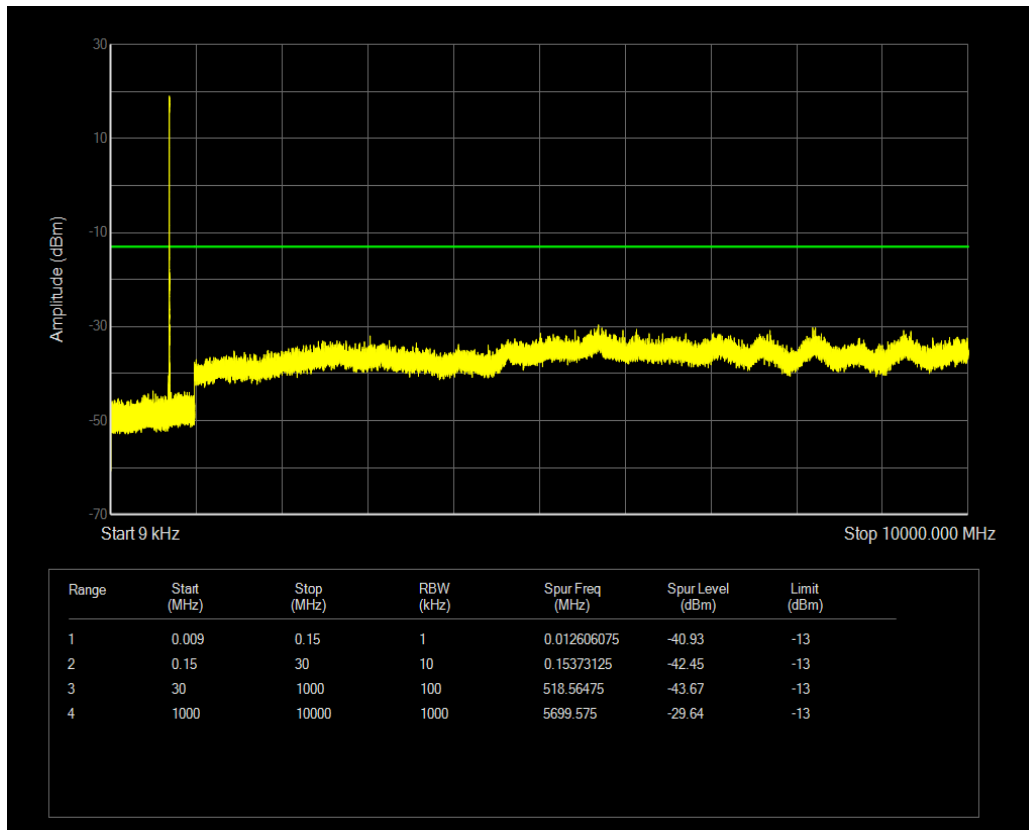
Band12 QPSK BW=1.4MHz Channel=23017 RB Size=6 Position=#0



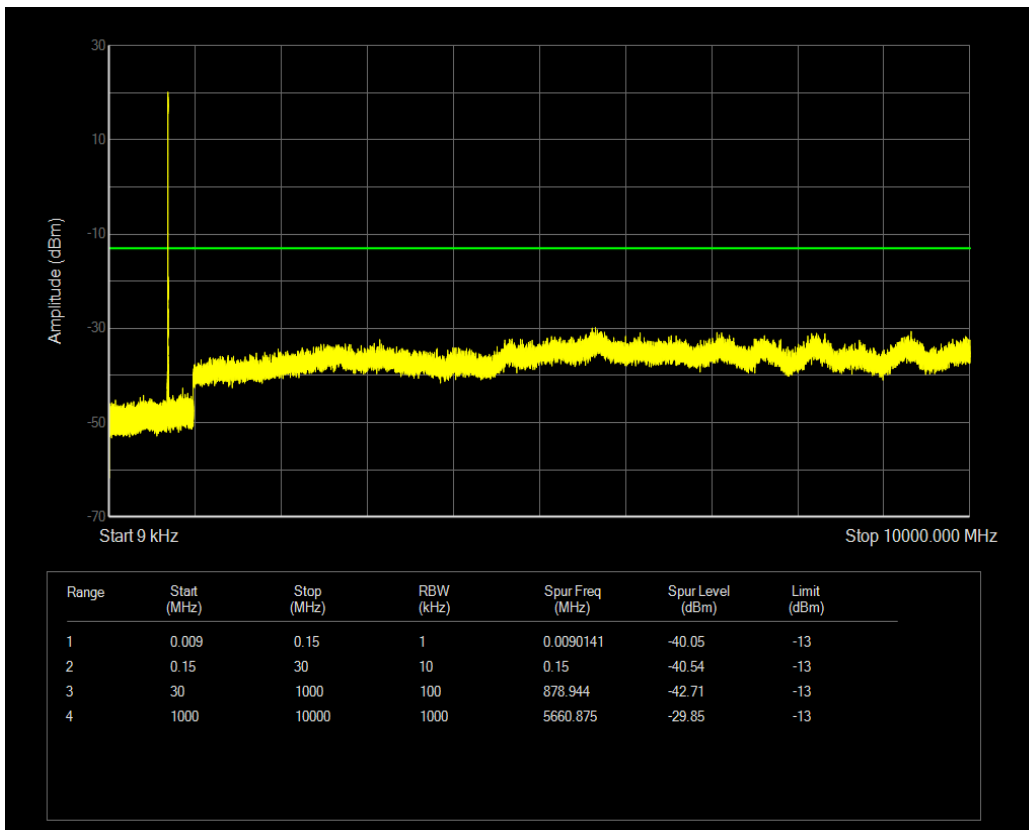
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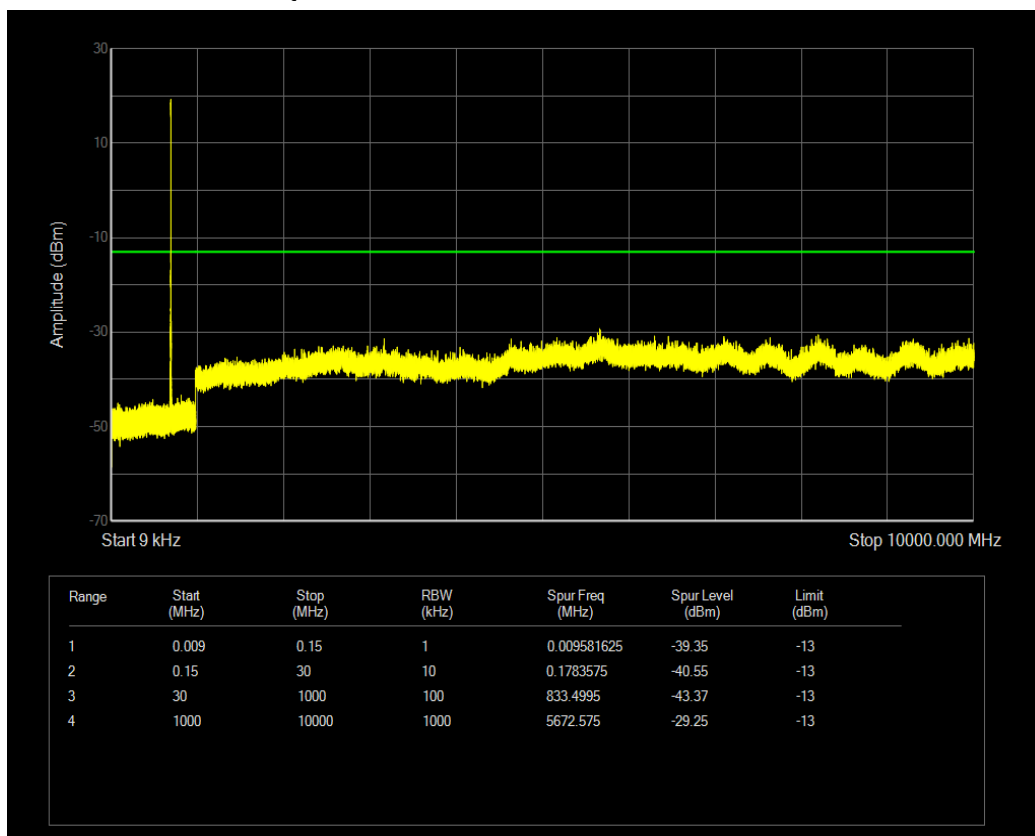
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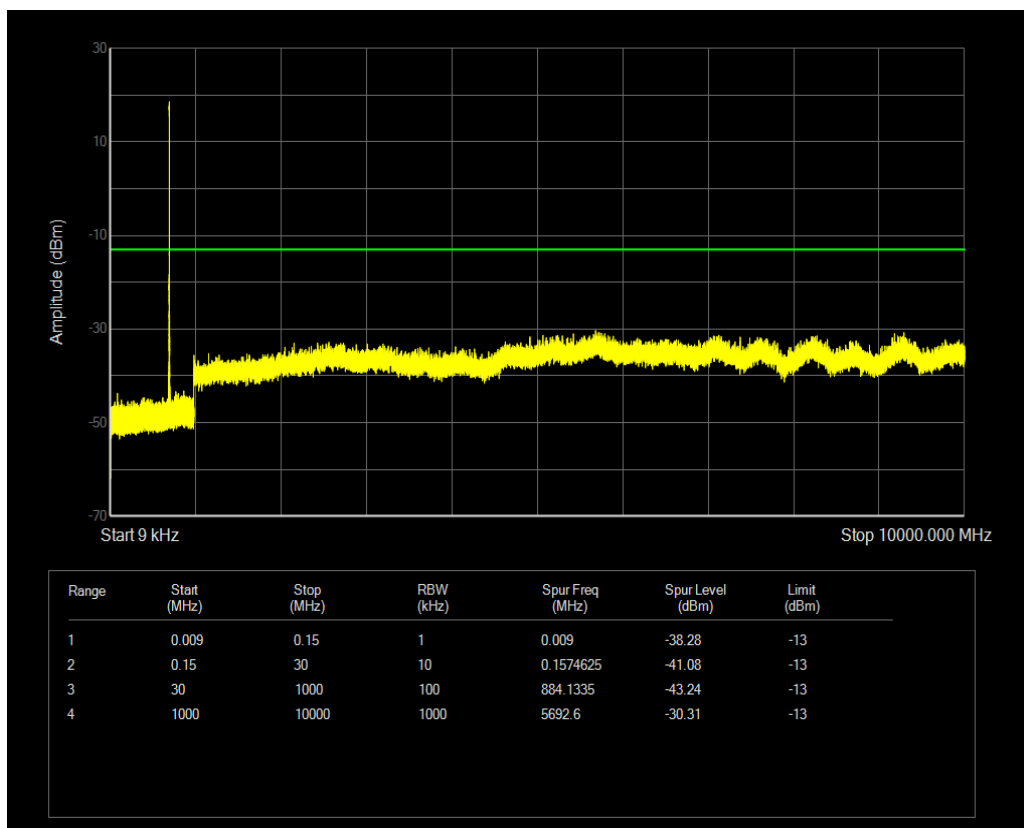
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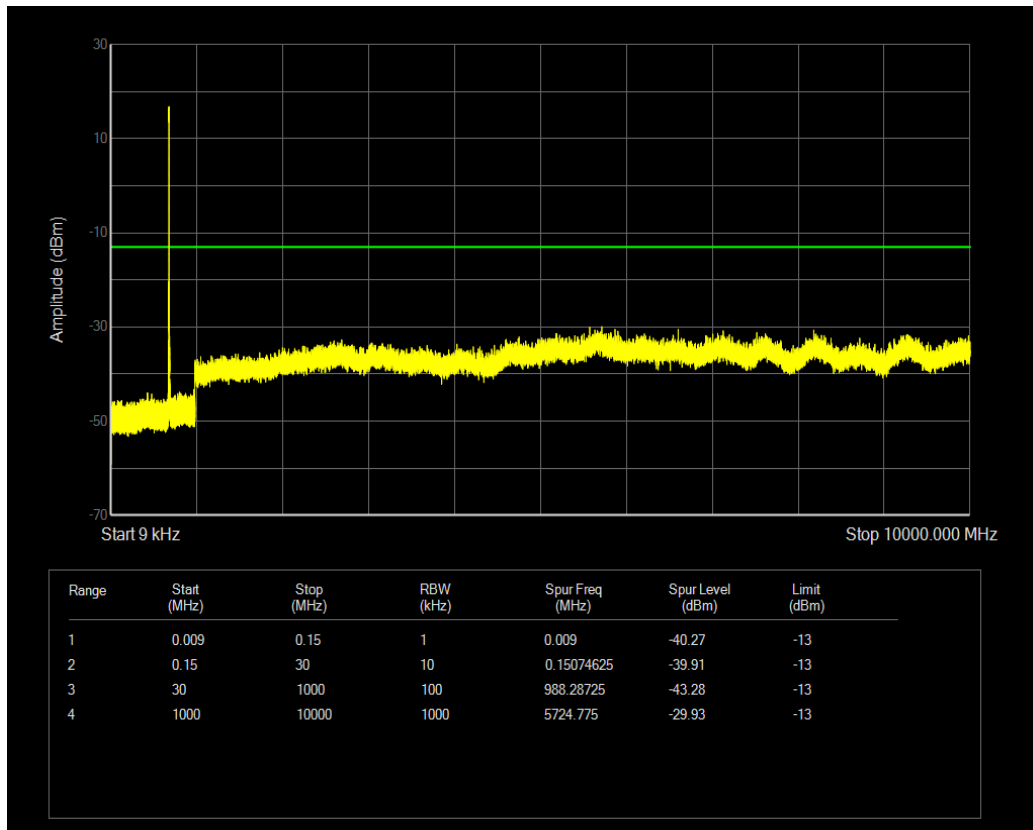
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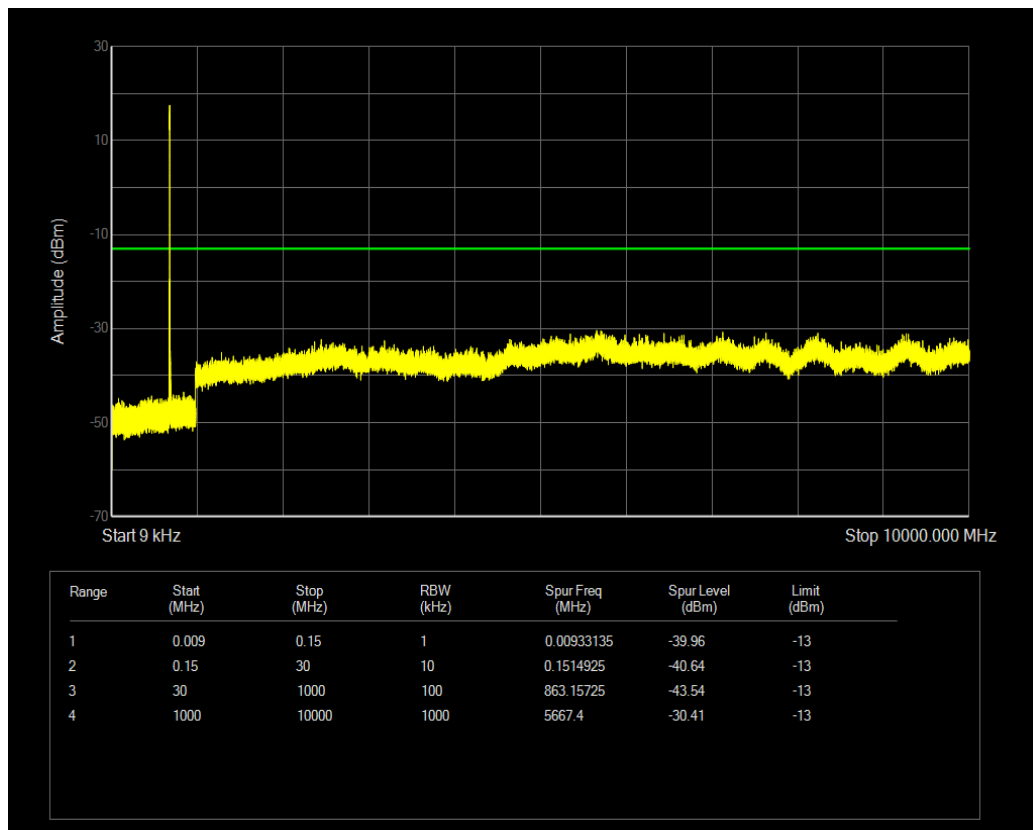
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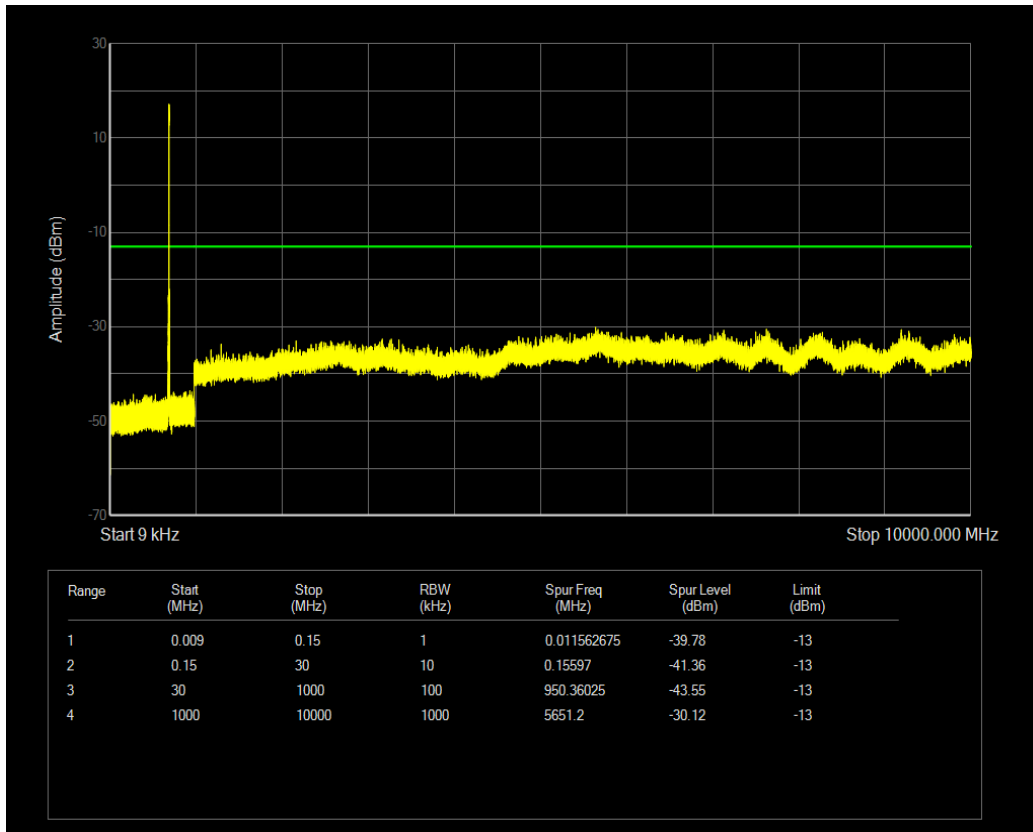
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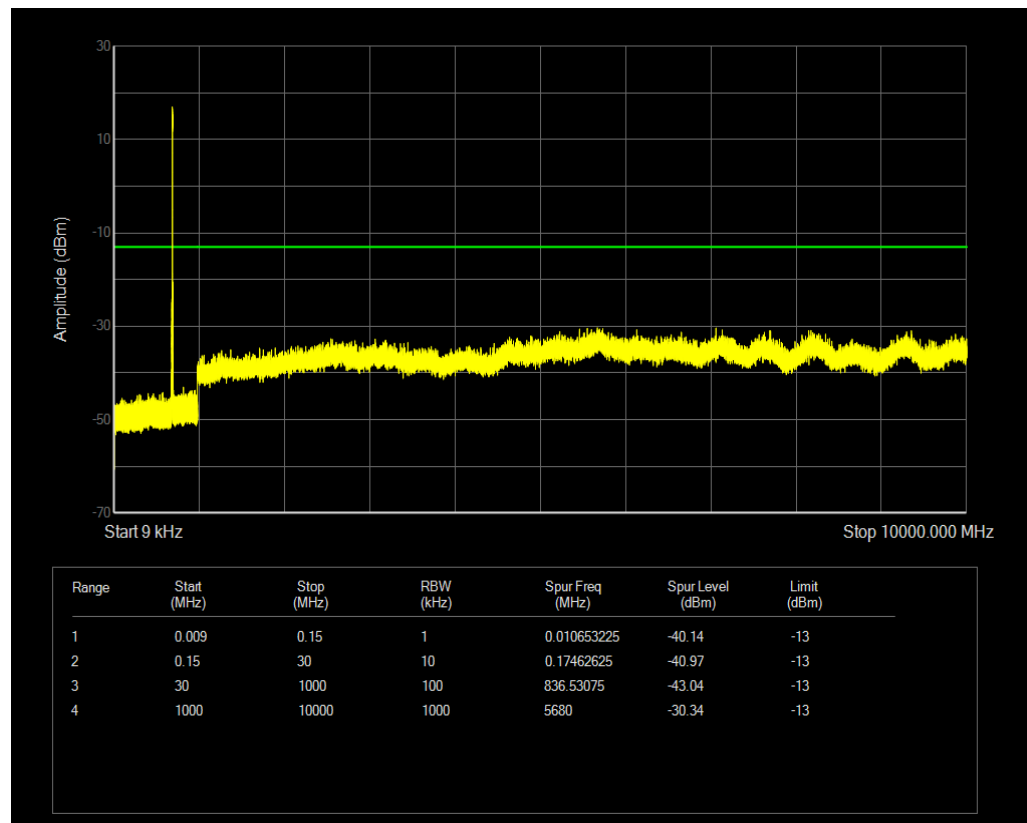
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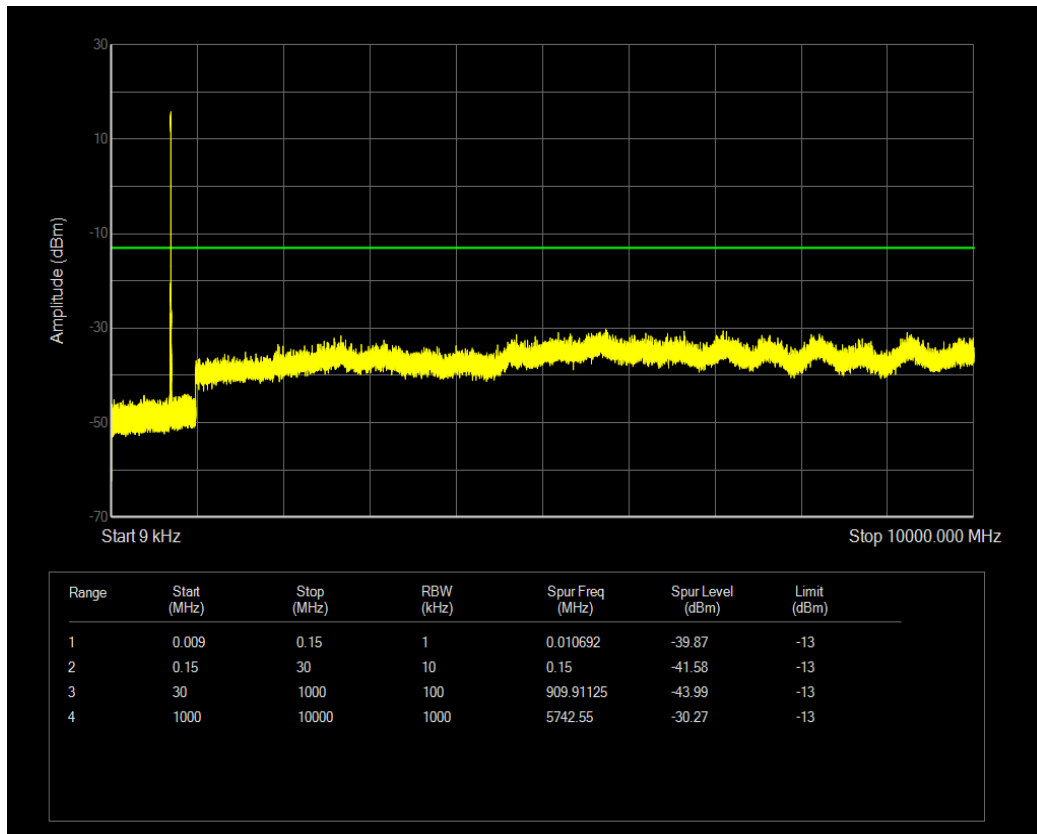
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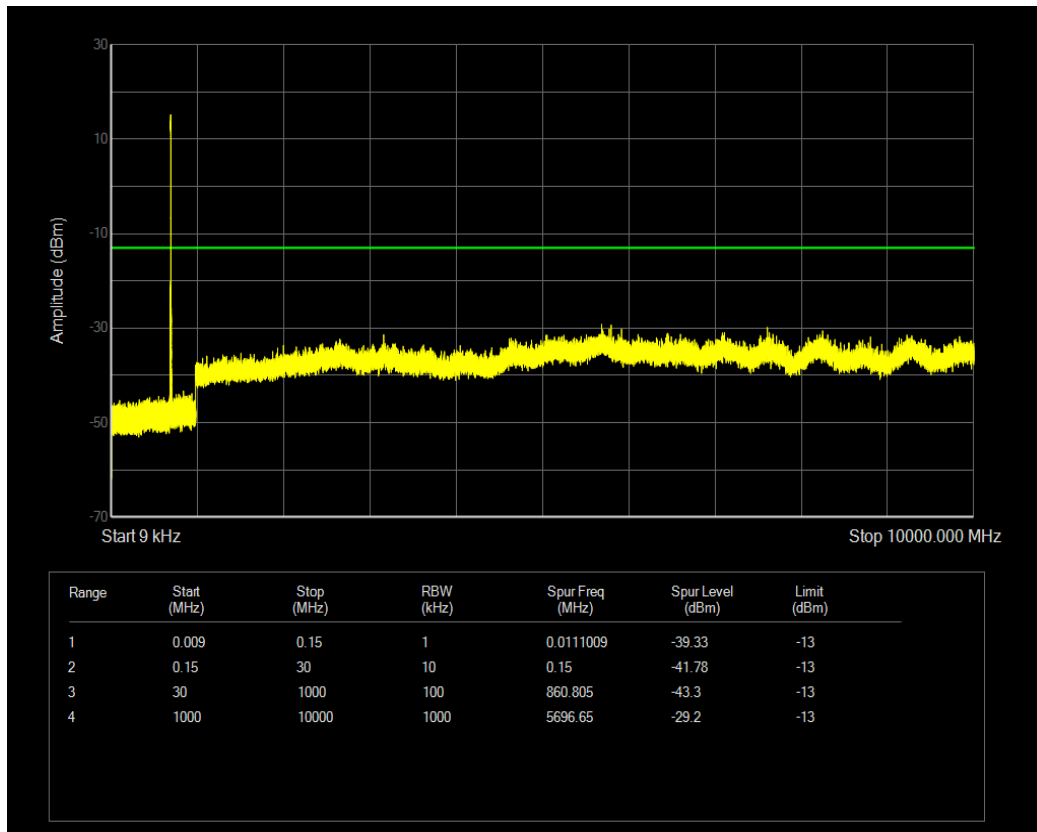
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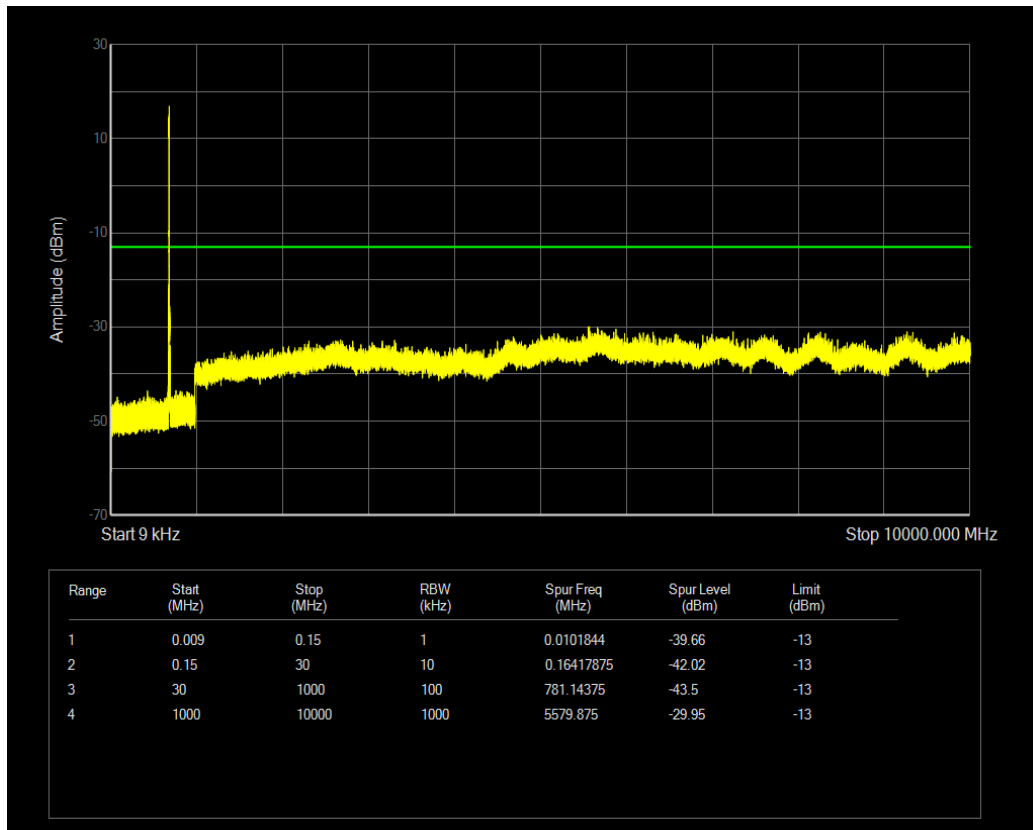
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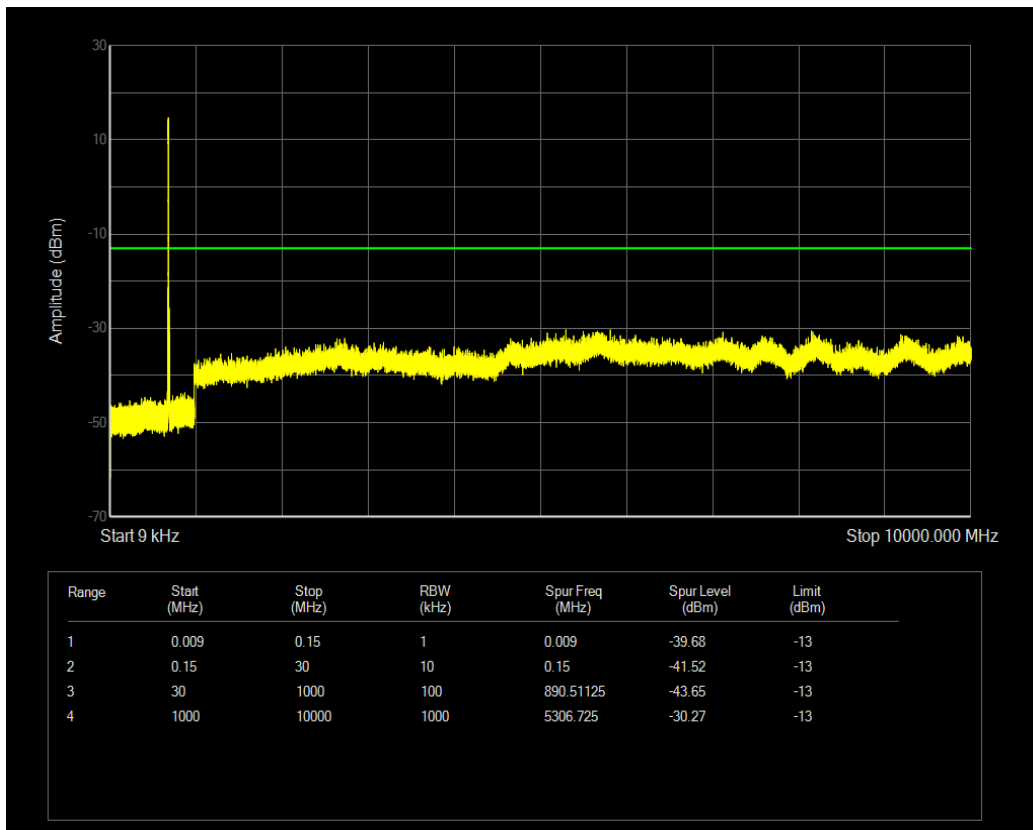
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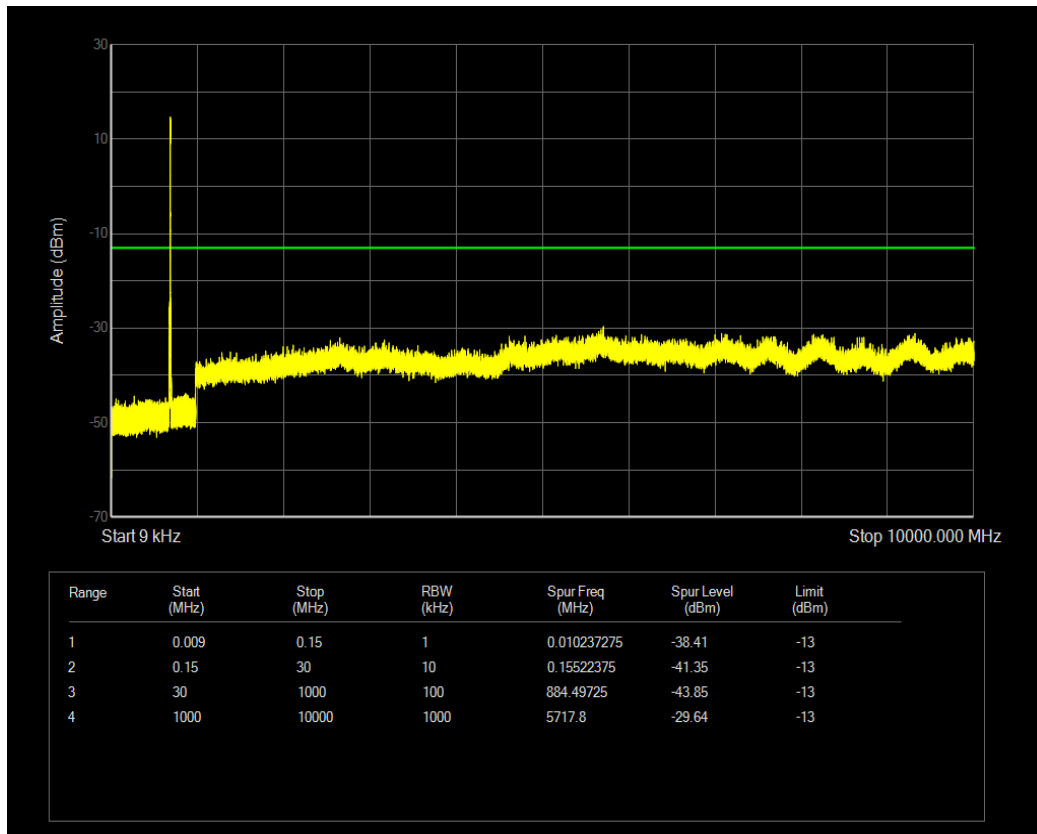
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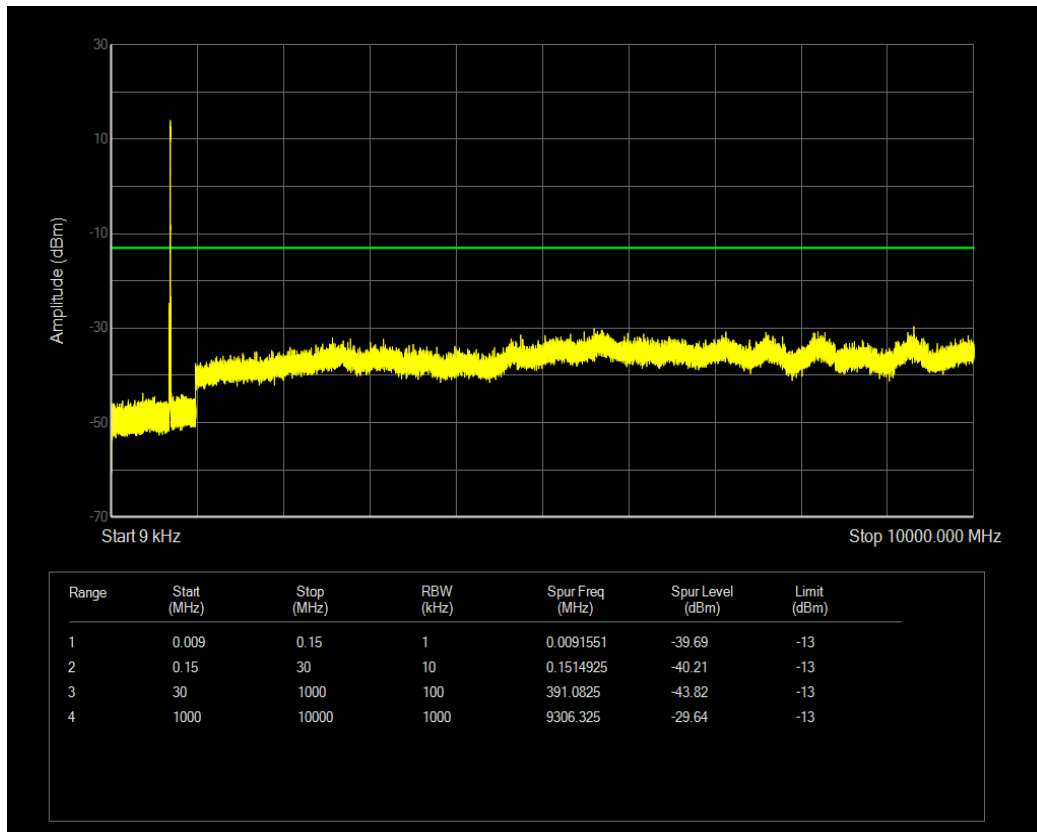
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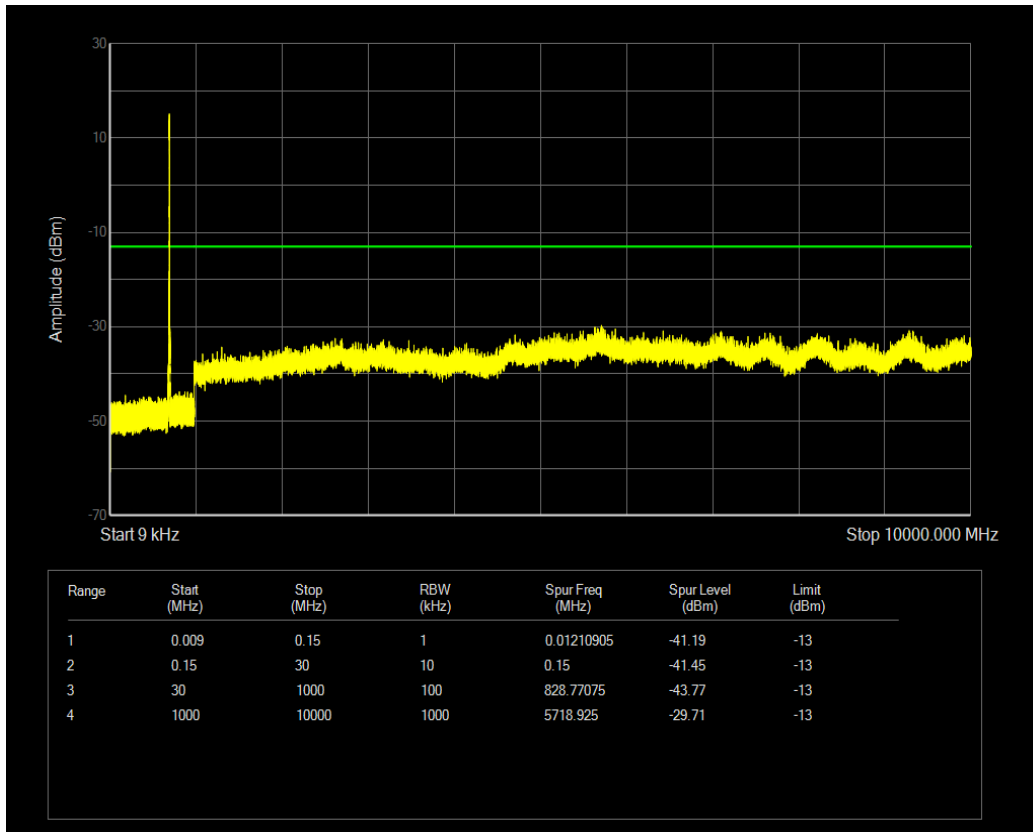
Band12 QPSK BW=5MHz Channel=23095 RB Size=25 Position=#0



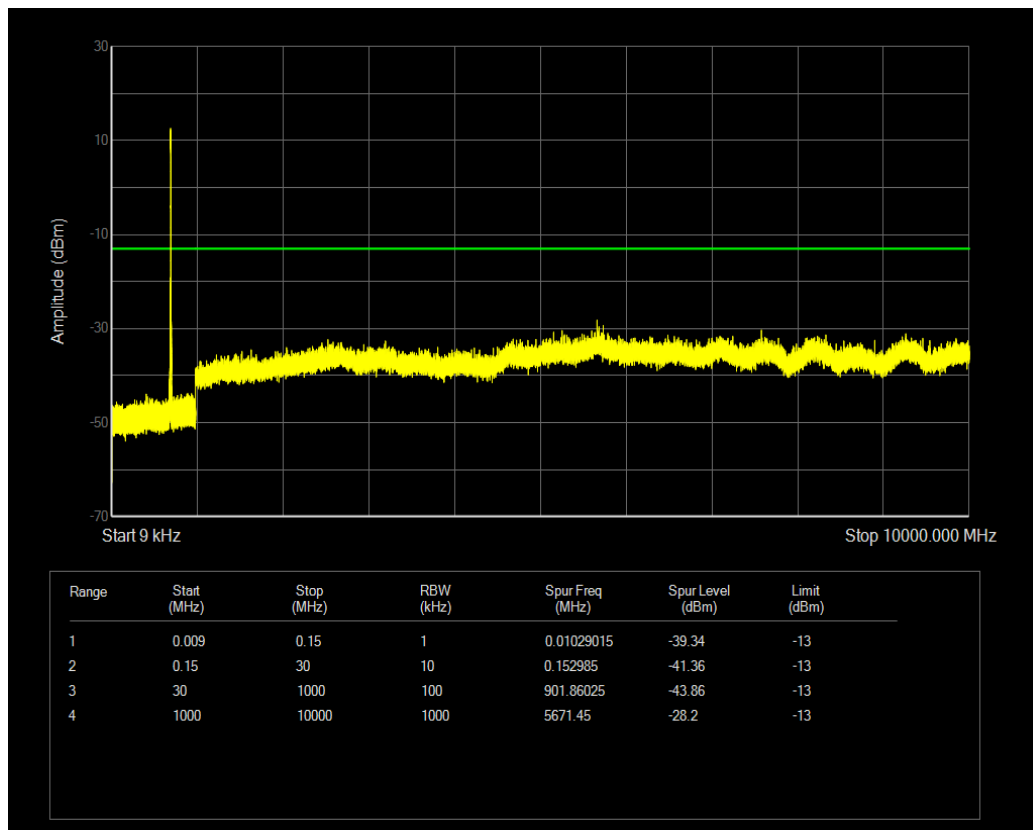
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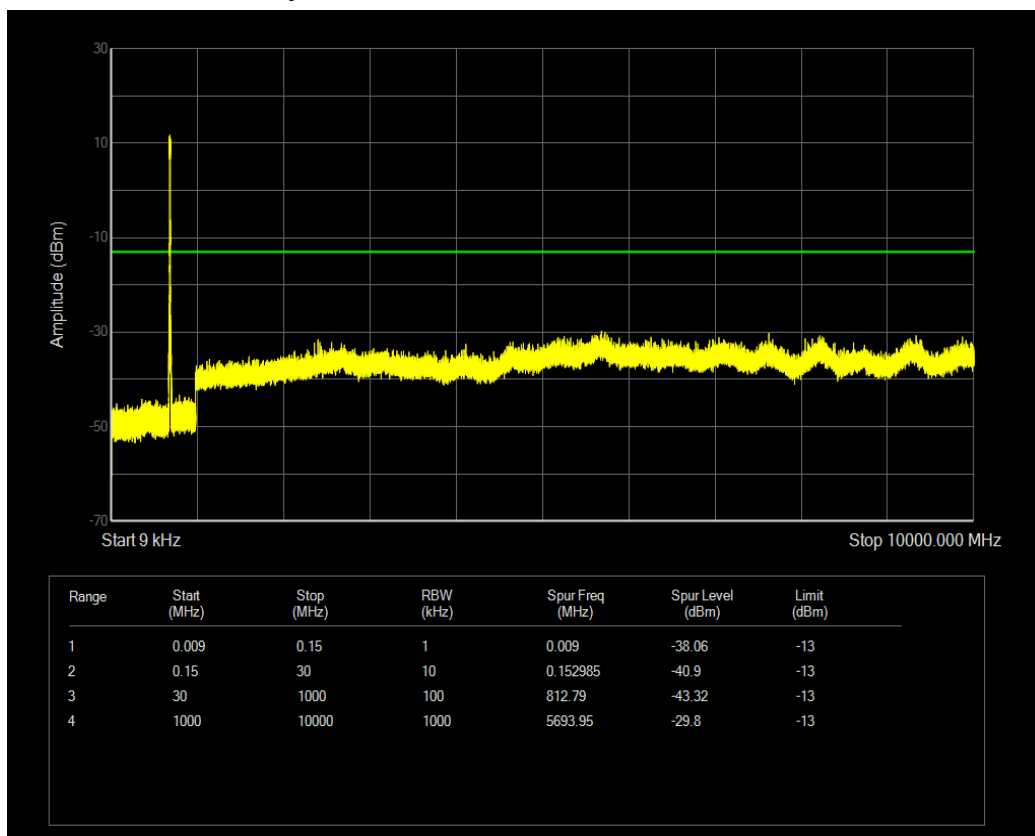
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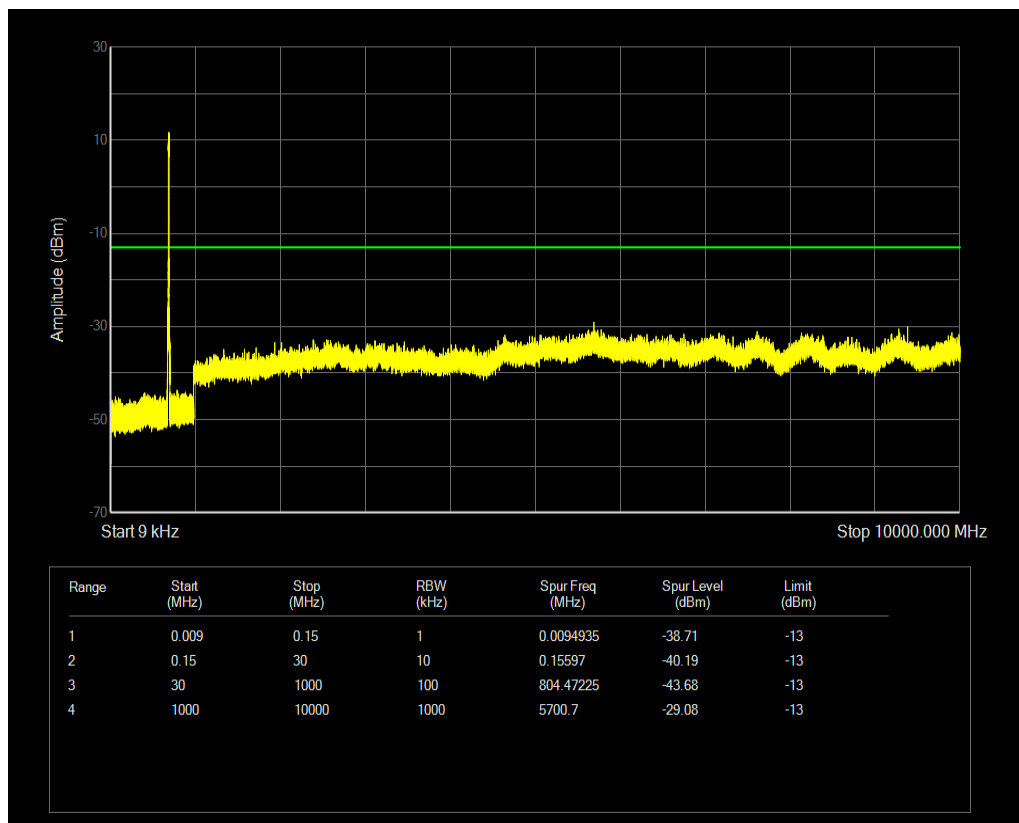
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Band12 QPSK BW=10MHz Channel=23060 RB Size=50 Position=#0



Band12 QPSK BW=10MHz Channel=23095 RB Size=50 Position=#0





Band12 QPSK BW=10MHz Channel=23130 RB Size=50 Position=#0

