

Appendix for Band 38

Report No.: BCTC2504135595-3E

Applicant: Shanghai TUGE Data Technologies Co., Ltd.

Product Name: Smart IoT 4G Router

Test Model: TR40

Tested Date: 2025-04-03 to 2025-05-16

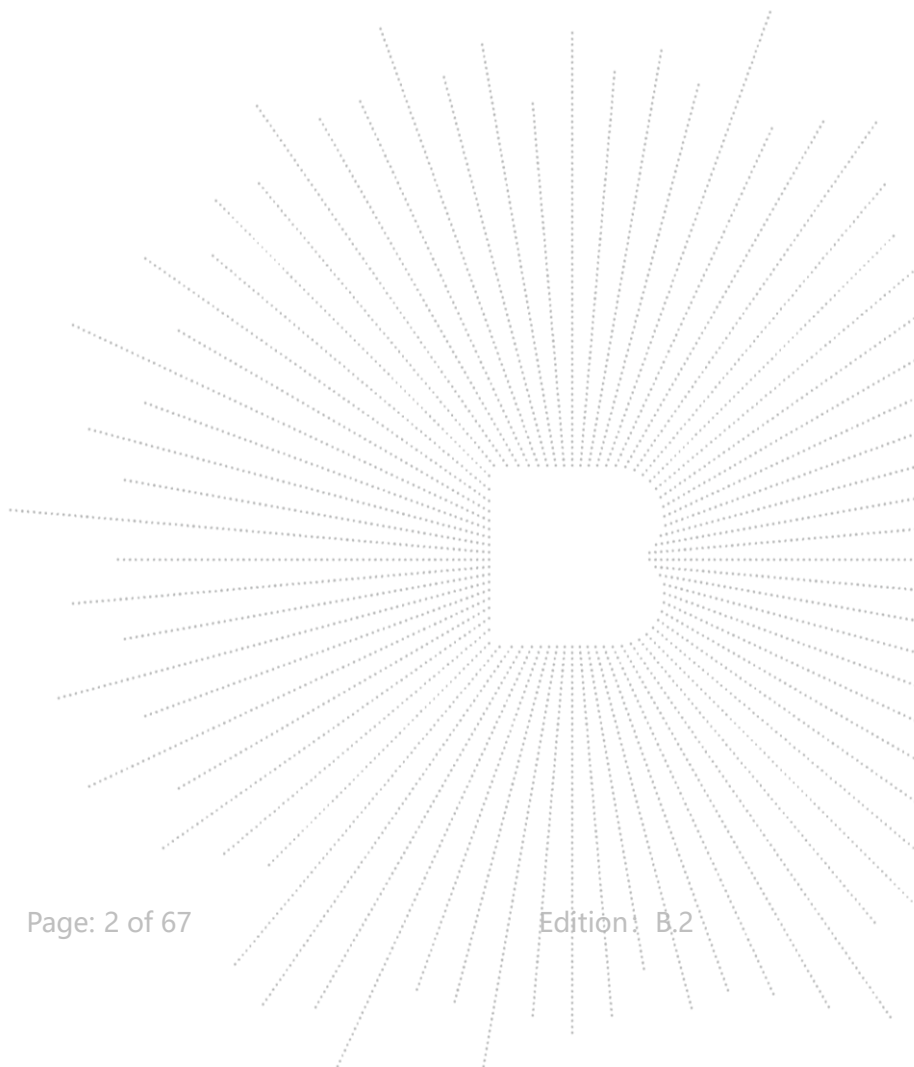
Issued Date: 2025-05-22

Shenzhen BCTC Testing Co., Ltd.



Contents

Appendix 1. Conducted output power	3
Appendix 2. Frequency stability	7
Appendix 3. Peak-to-Average Ratio	20
Appendix 4. Occupied bandwidth	33
Appendix 5. Band edge	46
Appendix 6. Out-of-band emissions	55



Appendix 1. Conducted output power

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Verdict
Band38	5	37775	1	#0	QPSK	23.65	PASS
Band38	5	37775	1	#Mid	QPSK	23.76	PASS
Band38	5	37775	1	#Max	QPSK	23.68	PASS
Band38	5	37775	12	#0	QPSK	22.75	PASS
Band38	5	37775	12	#Mid	QPSK	22.70	PASS
Band38	5	37775	12	#Max	QPSK	22.77	PASS
Band38	5	37775	25	#0	QPSK	22.77	PASS
Band38	5	37775	1	#0	16QAM	22.39	PASS
Band38	5	37775	1	#Mid	16QAM	22.17	PASS
Band38	5	37775	1	#Max	16QAM	22.35	PASS
Band38	5	37775	12	#0	16QAM	22.74	PASS
Band38	5	37775	12	#Mid	16QAM	22.49	PASS
Band38	5	37775	12	#Max	16QAM	22.51	PASS
Band38	5	37775	25	#0	16QAM	22.65	PASS
Band38	5	38000	1	#0	QPSK	23.76	PASS
Band38	5	38000	1	#Mid	QPSK	23.80	PASS
Band38	5	38000	1	#Max	QPSK	23.87	PASS
Band38	5	38000	12	#0	QPSK	22.83	PASS
Band38	5	38000	12	#Mid	QPSK	22.72	PASS
Band38	5	38000	12	#Max	QPSK	22.80	PASS
Band38	5	38000	25	#0	QPSK	22.81	PASS
Band38	5	38000	1	#0	16QAM	22.47	PASS
Band38	5	38000	1	#Mid	16QAM	22.40	PASS
Band38	5	38000	1	#Max	16QAM	22.44	PASS
Band38	5	38000	12	#0	16QAM	21.75	PASS
Band38	5	38000	12	#Mid	16QAM	21.80	PASS
Band38	5	38000	12	#Max	16QAM	21.77	PASS
Band38	5	38000	25	#0	16QAM	22.09	PASS
Band38	5	38225	1	#0	QPSK	23.65	PASS
Band38	5	38225	1	#Mid	QPSK	23.71	PASS
Band38	5	38225	1	#Max	QPSK	23.76	PASS
Band38	5	38225	12	#0	QPSK	22.87	PASS
Band38	5	38225	12	#Mid	QPSK	22.77	PASS
Band38	5	38225	12	#Max	QPSK	22.75	PASS
Band38	5	38225	25	#0	QPSK	22.66	PASS
Band38	5	38225	1	#0	16QAM	22.47	PASS
Band38	5	38225	1	#Mid	16QAM	22.43	PASS
Band38	5	38225	1	#Max	16QAM	22.48	PASS
Band38	5	38225	12	#0	16QAM	21.79	PASS
Band38	5	38225	12	#Mid	16QAM	21.72	PASS

Band38	5	38225	12	#Max	16QAM	21.69	PASS
Band38	5	38225	25	#0	16QAM	21.97	PASS
Band38	10	37800	1	#0	QPSK	23.94	PASS
Band38	10	37800	1	#Mid	QPSK	23.85	PASS
Band38	10	37800	1	#Max	QPSK	23.86	PASS
Band38	10	37800	25	#0	QPSK	22.76	PASS
Band38	10	37800	25	#Mid	QPSK	22.72	PASS
Band38	10	37800	25	#Max	QPSK	22.68	PASS
Band38	10	37800	50	#0	QPSK	22.76	PASS
Band38	10	37800	1	#0	16QAM	23.47	PASS
Band38	10	37800	1	#Mid	16QAM	23.55	PASS
Band38	10	37800	1	#Max	16QAM	23.61	PASS
Band38	10	37800	25	#0	16QAM	21.77	PASS
Band38	10	37800	25	#Mid	16QAM	21.70	PASS
Band38	10	37800	25	#Max	16QAM	21.78	PASS
Band38	10	37800	50	#0	16QAM	21.91	PASS
Band38	10	38000	1	#0	QPSK	23.87	PASS
Band38	10	38000	1	#Mid	QPSK	23.90	PASS
Band38	10	38000	1	#Max	QPSK	23.79	PASS
Band38	10	38000	25	#0	QPSK	22.80	PASS
Band38	10	38000	25	#Mid	QPSK	22.74	PASS
Band38	10	38000	25	#Max	QPSK	22.66	PASS
Band38	10	38000	50	#0	QPSK	22.77	PASS
Band38	10	38000	1	#0	16QAM	22.60	PASS
Band38	10	38000	1	#Mid	16QAM	22.59	PASS
Band38	10	38000	1	#Max	16QAM	22.58	PASS
Band38	10	38000	25	#0	16QAM	21.98	PASS
Band38	10	38000	25	#Mid	16QAM	21.88	PASS
Band38	10	38000	25	#Max	16QAM	21.93	PASS
Band38	10	38000	50	#0	16QAM	21.95	PASS
Band38	10	38200	1	#0	QPSK	23.67	PASS
Band38	10	38200	1	#Mid	QPSK	23.63	PASS
Band38	10	38200	1	#Max	QPSK	23.58	PASS
Band38	10	38200	25	#0	QPSK	22.81	PASS
Band38	10	38200	25	#Mid	QPSK	22.83	PASS
Band38	10	38200	25	#Max	QPSK	22.75	PASS
Band38	10	38200	50	#0	QPSK	22.68	PASS
Band38	10	38200	1	#0	16QAM	23.01	PASS
Band38	10	38200	1	#Mid	16QAM	23.15	PASS
Band38	10	38200	1	#Max	16QAM	23.13	PASS
Band38	10	38200	25	#0	16QAM	22.01	PASS
Band38	10	38200	25	#Mid	16QAM	21.95	PASS
Band38	10	38200	25	#Max	16QAM	22.03	PASS
Band38	10	38200	50	#0	16QAM	21.81	PASS

Band38	15	37825	1	#0	QPSK	23.85	PASS
Band38	15	37825	1	#Mid	QPSK	23.79	PASS
Band38	15	37825	1	#Max	QPSK	23.94	PASS
Band38	15	37825	36	#0	QPSK	22.80	PASS
Band38	15	37825	36	#Mid	QPSK	22.79	PASS
Band38	15	37825	36	#Max	QPSK	22.87	PASS
Band38	15	37825	75	#0	QPSK	22.81	PASS
Band38	15	37825	1	#0	16QAM	23.39	PASS
Band38	15	37825	1	#Mid	16QAM	23.26	PASS
Band38	15	37825	1	#Max	16QAM	23.63	PASS
Band38	15	37825	36	#0	16QAM	21.85	PASS
Band38	15	37825	36	#Mid	16QAM	21.83	PASS
Band38	15	37825	36	#Max	16QAM	21.92	PASS
Band38	15	37825	75	#0	16QAM	21.82	PASS
Band38	15	38000	1	#0	QPSK	23.79	PASS
Band38	15	38000	1	#Mid	QPSK	23.97	PASS
Band38	15	38000	1	#Max	QPSK	23.90	PASS
Band38	15	38000	36	#0	QPSK	22.86	PASS
Band38	15	38000	36	#Mid	QPSK	22.83	PASS
Band38	15	38000	36	#Max	QPSK	22.85	PASS
Band38	15	38000	75	#0	QPSK	22.83	PASS
Band38	15	38000	1	#0	16QAM	22.58	PASS
Band38	15	38000	1	#Mid	16QAM	22.73	PASS
Band38	15	38000	1	#Max	16QAM	22.63	PASS
Band38	15	38000	36	#0	16QAM	21.91	PASS
Band38	15	38000	36	#Mid	16QAM	21.85	PASS
Band38	15	38000	36	#Max	16QAM	21.89	PASS
Band38	15	38000	75	#0	16QAM	21.97	PASS
Band38	15	38175	1	#0	QPSK	23.79	PASS
Band38	15	38175	1	#Mid	QPSK	23.84	PASS
Band38	15	38175	1	#Max	QPSK	23.75	PASS
Band38	15	38175	36	#0	QPSK	22.76	PASS
Band38	15	38175	36	#Mid	QPSK	22.75	PASS
Band38	15	38175	36	#Max	QPSK	22.83	PASS
Band38	15	38175	75	#0	QPSK	22.76	PASS
Band38	15	38175	1	#0	16QAM	22.93	PASS
Band38	15	38175	1	#Mid	16QAM	22.97	PASS
Band38	15	38175	1	#Max	16QAM	22.88	PASS
Band38	15	38175	36	#0	16QAM	21.94	PASS
Band38	15	38175	36	#Mid	16QAM	21.90	PASS
Band38	15	38175	36	#Max	16QAM	21.94	PASS
Band38	15	38175	75	#0	16QAM	21.88	PASS
Band38	20	37850	1	#0	QPSK	23.74	PASS
Band38	20	37850	1	#Mid	QPSK	23.80	PASS

Band38	20	37850	1	#Max	QPSK	23.69	PASS
Band38	20	37850	50	#0	QPSK	22.79	PASS
Band38	20	37850	50	#Mid	QPSK	22.83	PASS
Band38	20	37850	50	#Max	QPSK	22.74	PASS
Band38	20	37850	100	#0	QPSK	22.68	PASS
Band38	20	37850	1	#0	16QAM	22.86	PASS
Band38	20	37850	1	#Mid	16QAM	22.88	PASS
Band38	20	37850	1	#Max	16QAM	22.84	PASS
Band38	20	37850	50	#0	16QAM	21.92	PASS
Band38	20	37850	50	#Mid	16QAM	22.11	PASS
Band38	20	37850	50	#Max	16QAM	22.14	PASS
Band38	20	37850	100	#0	16QAM	21.85	PASS
Band38	20	38000	1	#0	QPSK	23.82	PASS
Band38	20	38000	1	#Mid	QPSK	23.80	PASS
Band38	20	38000	1	#Max	QPSK	23.85	PASS
Band38	20	38000	50	#0	QPSK	22.82	PASS
Band38	20	38000	50	#Mid	QPSK	22.80	PASS
Band38	20	38000	50	#Max	QPSK	22.66	PASS
Band38	20	38000	100	#0	QPSK	22.65	PASS
Band38	20	38000	1	#0	16QAM	21.98	PASS
Band38	20	38000	1	#Mid	16QAM	22.05	PASS
Band38	20	38000	1	#Max	16QAM	21.92	PASS
Band38	20	38000	50	#0	16QAM	21.82	PASS
Band38	20	38000	50	#Mid	16QAM	21.93	PASS
Band38	20	38000	50	#Max	16QAM	21.83	PASS
Band38	20	38000	100	#0	16QAM	21.82	PASS
Band38	20	38150	1	#0	QPSK	23.87	PASS
Band38	20	38150	1	#Mid	QPSK	23.90	PASS
Band38	20	38150	1	#Max	QPSK	23.83	PASS
Band38	20	38150	50	#0	QPSK	22.78	PASS
Band38	20	38150	50	#Mid	QPSK	22.80	PASS
Band38	20	38150	50	#Max	QPSK	22.70	PASS
Band38	20	38150	100	#0	QPSK	22.64	PASS
Band38	20	38150	1	#0	16QAM	22.96	PASS
Band38	20	38150	1	#Mid	16QAM	23.15	PASS
Band38	20	38150	1	#Max	16QAM	23.05	PASS
Band38	20	38150	50	#0	16QAM	21.94	PASS
Band38	20	38150	50	#Mid	16QAM	21.83	PASS
Band38	20	38150	50	#Max	16QAM	21.85	PASS
Band38	20	38150	100	#0	16QAM	21.77	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
Band 38	5	37775	25	#0	QPSK	LV	NT	-32.67	-0.013	-2.5	2.5	PASS
Band 38	5	37775	25	#0	QPSK	NV	NT	-5.84	-0.002	-2.5	2.5	PASS
Band 38	5	37775	25	#0	QPSK	HV	NT	-36.72	-0.014	-2.5	2.5	PASS
Band 38	5	37775	25	#0	16QAM	LV	NT	-32.11	-0.012	-2.5	2.5	PASS
Band 38	5	37775	25	#0	16QAM	NV	NT	-23.10	-0.009	-2.5	2.5	PASS
Band 38	5	37775	25	#0	16QAM	HV	NT	-15.81	-0.006	-2.5	2.5	PASS
Band 38	5	38000	25	#0	QPSK	LV	NT	-33.73	-0.013	-2.5	2.5	PASS
Band 38	5	38000	25	#0	QPSK	NV	NT	-30.07	-0.012	-2.5	2.5	PASS
Band 38	5	38000	25	#0	QPSK	HV	NT	-4.09	-0.002	-2.5	2.5	PASS
Band 38	5	38000	25	#0	16QAM	LV	NT	-38.78	-0.015	-2.5	2.5	PASS
Band 38	5	38000	25	#0	16QAM	NV	NT	-23.75	-0.009	-2.5	2.5	PASS
Band 38	5	38000	25	#0	16QAM	HV	NT	-16.05	-0.006	-2.5	2.5	PASS
Band 38	5	38225	25	#0	QPSK	LV	NT	-29.27	-0.001	-2.5	2.5	PASS
Band 38	5	38225	25	#0	QPSK	NV	NT	-19.20	-0.007	-2.5	2.5	PASS
Band 38	5	38225	25	#0	QPSK	HV	NT	-31.14	-0.012	-2.5	2.5	PASS
Band 38	5	38225	25	#0	16QAM	LV	NT	-18.24	-0.007	-2.5	2.5	PASS
Band 38	5	38225	25	#0	16QAM	NV	NT	-27.44	-0.010	-2.5	2.5	PASS
Band 38	5	38225	25	#0	16QAM	HV	NT	0.26	0.000	-2.5	2.5	PASS



Band 38	10	37800	50	#0	QPSK	LV	NT	18.67	0.007	-2.5	2.5	PASS
Band 38	10	37800	50	#0	QPSK	NV	NT	-15.35	-0.006	-2.5	2.5	PASS
Band 38	10	37800	50	#0	QPSK	HV	NT	-42.30	-0.016	-2.5	2.5	PASS
Band 38	10	37800	50	#0	16QAM	LV	NT	-23.22	-0.009	-2.5	2.5	PASS
Band 38	10	37800	50	#0	16QAM	NV	NT	-17.91	-0.007	-2.5	2.5	PASS
Band 38	10	37800	50	#0	16QAM	HV	NT	-31.50	-0.012	-2.5	2.5	PASS
Band 38	10	38000	50	#0	QPSK	LV	NT	-26.78	-0.010	-2.5	2.5	PASS
Band 38	10	38000	50	#0	QPSK	NV	NT	-33.99	-0.013	-2.5	2.5	PASS
Band 38	10	38000	50	#0	QPSK	HV	NT	-19.67	-0.008	-2.5	2.5	PASS
Band 38	10	38000	50	#0	16QAM	LV	NT	-31.36	-0.012	-2.5	2.5	PASS
Band 38	10	38000	50	#0	16QAM	NV	NT	-29.08	-0.011	-2.5	2.5	PASS
Band 38	10	38000	50	#0	16QAM	HV	NT	-8.74	-0.003	-2.5	2.5	PASS
Band 38	10	38200	50	#0	QPSK	LV	NT	-27.42	-0.010	-2.5	2.5	PASS
Band 38	10	38200	50	#0	QPSK	NV	NT	-36.18	-0.014	-2.5	2.5	PASS
Band 38	10	38200	50	#0	QPSK	HV	NT	-32.49	-0.012	-2.5	2.5	PASS
Band 38	10	38200	50	#0	16QAM	LV	NT	-10.66	-0.004	-2.5	2.5	PASS
Band 38	10	38200	50	#0	16QAM	NV	NT	-33.26	-0.013	-2.5	2.5	PASS
Band 38	10	38200	50	#0	16QAM	HV	NT	-10.91	-0.004	-2.5	2.5	PASS
Band 38	15	37825	75	#0	QPSK	LV	NT	19.37	0.008	-2.5	2.5	PASS
Band 38	15	37825	75	#0	QPSK	NV	NT	-26.09	-0.010	-2.5	2.5	PASS
Band 38	15	37825	75	#0	QPSK	HV	NT	-30.03	-0.012	-2.5	2.5	PASS
Band 38	15	37825	75	#0	16QAM	LV	NT	-20.94	-0.008	-2.5	2.5	PASS



Band 38	15	37825	75	#0	16QAM	NV	NT	-11.96	-0.005	-2.5	2.5	PASS
Band 38	15	37825	75	#0	16QAM	HV	NT	-33.70	-0.013	-2.5	2.5	PASS
Band 38	15	38000	75	#0	QPSK	LV	NT	-34.05	-0.013	-2.5	2.5	PASS
Band 38	15	38000	75	#0	QPSK	NV	NT	-14.12	-0.005	-2.5	2.5	PASS
Band 38	15	38000	75	#0	QPSK	HV	NT	-14.51	-0.006	-2.5	2.5	PASS
Band 38	15	38000	75	#0	16QAM	LV	NT	-27.45	-0.011	-2.5	2.5	PASS
Band 38	15	38000	75	#0	16QAM	NV	NT	-32.69	-0.013	-2.5	2.5	PASS
Band 38	15	38000	75	#0	16QAM	HV	NT	-37.81	-0.015	-2.5	2.5	PASS
Band 38	15	38175	75	#0	QPSK	LV	NT	-33.00	-0.013	-2.5	2.5	PASS
Band 38	15	38175	75	#0	QPSK	NV	NT	-28.14	-0.011	-2.5	2.5	PASS
Band 38	15	38175	75	#0	QPSK	HV	NT	-23.92	-0.009	-2.5	2.5	PASS
Band 38	15	38175	75	#0	16QAM	LV	NT	-23.45	-0.009	-2.5	2.5	PASS
Band 38	15	38175	75	#0	16QAM	NV	NT	-28.91	-0.011	-2.5	2.5	PASS
Band 38	15	38175	75	#0	16QAM	HV	NT	-35.53	-0.014	-2.5	2.5	PASS
Band 38	20	37850	100	#0	QPSK	LV	NT	13.26	0.005	-2.5	2.5	PASS
Band 38	20	37850	100	#0	QPSK	NV	NT	-30.81	-0.012	-2.5	2.5	PASS
Band 38	20	37850	100	#0	QPSK	HV	NT	-12.49	-0.005	-2.5	2.5	PASS
Band 38	20	37850	100	#0	16QAM	LV	NT	-28.12	-0.011	-2.5	2.5	PASS
Band 38	20	37850	100	#0	16QAM	NV	NT	-31.47	-0.012	-2.5	2.5	PASS
Band 38	20	37850	100	#0	16QAM	HV	NT	-28.95	-0.011	-2.5	2.5	PASS
Band 38	20	38000	100	#0	QPSK	LV	NT	-33.85	-0.013	-2.5	2.5	PASS
Band 38	20	38000	100	#0	QPSK	NV	NT	-12.97	-0.005	-2.5	2.5	PASS

Band 38	20	38000	100	#0	QPSK	HV	NT	-34.10	-0.013	-2.5	2.5	PASS
Band 38	20	38000	100	#0	16QAM	LV	NT	-22.04	-0.008	-2.5	2.5	PASS
Band 38	20	38000	100	#0	16QAM	NV	NT	-27.95	-0.011	-2.5	2.5	PASS
Band 38	20	38000	100	#0	16QAM	HV	NT	-26.71	-0.010	-2.5	2.5	PASS
Band 38	20	38150	100	#0	QPSK	LV	NT	-29.81	-0.011	-2.5	2.5	PASS
Band 38	20	38150	100	#0	QPSK	NV	NT	-27.28	-0.010	-2.5	2.5	PASS
Band 38	20	38150	100	#0	QPSK	HV	NT	-28.15	-0.011	-2.5	2.5	PASS
Band 38	20	38150	100	#0	16QAM	LV	NT	-19.17	-0.007	-2.5	2.5	PASS
Band 38	20	38150	100	#0	16QAM	NV	NT	-34.58	-0.013	-2.5	2.5	PASS
Band 38	20	38150	100	#0	16QAM	HV	NT	-19.11	-0.007	-2.5	2.5	PASS

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
Band 38	5	37775	25	#0	QPSK	NV	-30	19.18	0.007	-2.5	2.5	PASS
Band 38	5	37775	25	#0	QPSK	NV	-20	14.73	0.006	-2.5	2.5	PASS
Band 38	5	37775	25	#0	QPSK	NV	0	12.96	0.005	-2.5	2.5	PASS
Band 38	5	37775	25	#0	QPSK	NV	10	13.43	0.005	-2.5	2.5	PASS
Band 38	5	37775	25	#0	QPSK	NV	20	13.43	0.005	-2.5	2.5	PASS
Band 38	5	37775	25	#0	QPSK	NV	30	13.96	0.005	-2.5	2.5	PASS
Band 38	5	37775	25	#0	QPSK	NV	40	13.69	0.005	-2.5	2.5	PASS
Band 38	5	37775	25	#0	QPSK	NV	50	11.74	0.005	-2.5	2.5	PASS
Band 38	5	37775	25	#0	16QAM	NV	-30	10.31	0.004	-2.5	2.5	PASS



Band 38	5	37775	25	#0	16QAM	NV	-20	9.73	0.00 4	-2.5	2.5	PAS S
Band 38	5	37775	25	#0	16QAM	NV	0	8.73	0.00 3	-2.5	2.5	PAS S
Band 38	5	37775	25	#0	16QAM	NV	10	6.87	0.00 3	-2.5	2.5	PAS S
Band 38	5	37775	25	#0	16QAM	NV	20	7.72	0.00 3	-2.5	2.5	PAS S
Band 38	5	37775	25	#0	16QAM	NV	30	7.47	0.00 3	-2.5	2.5	PAS S
Band 38	5	37775	25	#0	16QAM	NV	40	7.81	0.00 3	-2.5	2.5	PAS S
Band 38	5	37775	25	#0	16QAM	NV	50	7.52	0.00 3	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	QPSK	NV	-30	3.59	0.00 1	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	QPSK	NV	-20	1.57	0.00 1	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	QPSK	NV	0	-1.5 7	-0.0 01	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	QPSK	NV	10	-2.8 3	-0.0 01	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	QPSK	NV	20	-6.6 2	-0.0 03	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	QPSK	NV	30	-10. 69	-0.0 04	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	QPSK	NV	40	-13. 62	-0.0 05	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	QPSK	NV	50	-18. 40	-0.0 07	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	16QAM	NV	-30	-21. 72	-0.0 08	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	16QAM	NV	-20	-26. 18	-0.0 10	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	16QAM	NV	0	-28. 91	-0.01 1	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	16QAM	NV	10	-30. 87	-0.0 12	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	16QAM	NV	20	-32. 56	-0.0 13	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	16QAM	NV	30	-32. 01	-0.0 12	-2.5	2.5	PAS S
Band 38	5	38000	25	#0	16QAM	NV	40	-32. 92	-0.0 13	-2.5	2.5	PAS S



Band 38	5	38000	25	#0	16QAM	NV	50	-33.53	-0.013	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	QPSK	NV	-30	-34.98	-0.013	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	QPSK	NV	-20	-38.87	-0.015	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	QPSK	NV	0	-39.81	-0.015	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	QPSK	NV	10	-41.69	-0.016	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	QPSK	NV	20	-44.45	-0.017	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	QPSK	NV	30	-44.93	-0.017	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	QPSK	NV	40	-48.19	-0.018	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	QPSK	NV	50	-10.96	-0.004	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	16QAM	NV	-30	-4.88	-0.002	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	16QAM	NV	-20	-6.05	-0.002	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	16QAM	NV	0	-5.36	-0.002	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	16QAM	NV	10	-7.75	-0.003	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	16QAM	NV	20	-7.57	-0.003	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	16QAM	NV	30	-8.74	-0.003	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	16QAM	NV	40	-7.65	-0.003	-2.5	2.5	PAS S
Band 38	5	38225	25	#0	16QAM	NV	50	-7.30	-0.003	-2.5	2.5	PAS S
Band 38	10	37800	50	#0	QPSK	NV	-30	31.09	0.012	-2.5	2.5	PAS S
Band 38	10	37800	50	#0	QPSK	NV	-20	28.52	0.011	-2.5	2.5	PAS S
Band 38	10	37800	50	#0	QPSK	NV	0	26.18	0.010	-2.5	2.5	PAS S
Band 38	10	37800	50	#0	QPSK	NV	10	24.98	0.010	-2.5	2.5	PAS S
Band 38	10	37800	50	#0	QPSK	NV	20	22.77	0.009	-2.5	2.5	PAS S



Band 38	10	37800	50	#0	QPSK	NV	30	20.26	0.008	-2.5	2.5	PASS
Band 38	10	37800	50	#0	QPSK	NV	40	18.51	0.007	-2.5	2.5	PASS
Band 38	10	37800	50	#0	QPSK	NV	50	16.45	0.006	-2.5	2.5	PASS
Band 38	10	37800	50	#0	16QAM	NV	-30	12.83	0.005	-2.5	2.5	PASS
Band 38	10	37800	50	#0	16QAM	NV	-20	12.25	0.005	-2.5	2.5	PASS
Band 38	10	37800	50	#0	16QAM	NV	0	9.76	0.004	-2.5	2.5	PASS
Band 38	10	37800	50	#0	16QAM	NV	10	9.34	0.004	-2.5	2.5	PASS
Band 38	10	37800	50	#0	16QAM	NV	20	6.35	0.002	-2.5	2.5	PASS
Band 38	10	37800	50	#0	16QAM	NV	30	5.29	0.002	-2.5	2.5	PASS
Band 38	10	37800	50	#0	16QAM	NV	40	4.43	0.002	-2.5	2.5	PASS
Band 38	10	37800	50	#0	16QAM	NV	50	4.68	0.002	-2.5	2.5	PASS
Band 38	10	38000	50	#0	QPSK	NV	-30	4.42	0.002	-2.5	2.5	PASS
Band 38	10	38000	50	#0	QPSK	NV	-20	2.02	0.001	-2.5	2.5	PASS
Band 38	10	38000	50	#0	QPSK	NV	0	0.10	0.000	-2.5	2.5	PASS
Band 38	10	38000	50	#0	QPSK	NV	10	-1.49	-0.001	-2.5	2.5	PASS
Band 38	10	38000	50	#0	QPSK	NV	20	-5.19	-0.002	-2.5	2.5	PASS
Band 38	10	38000	50	#0	QPSK	NV	30	-7.68	-0.003	-2.5	2.5	PASS
Band 38	10	38000	50	#0	QPSK	NV	40	-11.33	-0.004	-2.5	2.5	PASS
Band 38	10	38000	50	#0	QPSK	NV	50	-15.05	-0.006	-2.5	2.5	PASS
Band 38	10	38000	50	#0	16QAM	NV	-30	-17.65	-0.007	-2.5	2.5	PASS
Band 38	10	38000	50	#0	16QAM	NV	-20	-18.28	-0.007	-2.5	2.5	PASS
Band 38	10	38000	50	#0	16QAM	NV	0	-20.30	-0.008	-2.5	2.5	PASS



Band 38	10	38000	50	#0	16QAM	NV	10	-21.54	-0.008	-2.5	2.5	PASS
Band 38	10	38000	50	#0	16QAM	NV	20	-22.53	-0.009	-2.5	2.5	PASS
Band 38	10	38000	50	#0	16QAM	NV	30	-22.39	-0.009	-2.5	2.5	PASS
Band 38	10	38000	50	#0	16QAM	NV	40	-20.90	-0.008	-2.5	2.5	PASS
Band 38	10	38000	50	#0	16QAM	NV	50	-22.04	-0.008	-2.5	2.5	PASS
Band 38	10	38200	50	#0	QPSK	NV	-30	-21.73	-0.008	-2.5	2.5	PASS
Band 38	10	38200	50	#0	QPSK	NV	-20	-22.20	-0.008	-2.5	2.5	PASS
Band 38	10	38200	50	#0	QPSK	NV	0	-22.16	-0.008	-2.5	2.5	PASS
Band 38	10	38200	50	#0	QPSK	NV	10	-25.19	-0.010	-2.5	2.5	PASS
Band 38	10	38200	50	#0	QPSK	NV	20	-28.12	-0.011	-2.5	2.5	PASS
Band 38	10	38200	50	#0	QPSK	NV	30	-30.07	-0.011	-2.5	2.5	PASS
Band 38	10	38200	50	#0	QPSK	NV	40	-33.36	-0.013	-2.5	2.5	PASS
Band 38	10	38200	50	#0	QPSK	NV	50	-36.68	-0.014	-2.5	2.5	PASS
Band 38	10	38200	50	#0	16QAM	NV	-30	-39.41	-0.015	-2.5	2.5	PASS
Band 38	10	38200	50	#0	16QAM	NV	-20	-42.39	-0.016	-2.5	2.5	PASS
Band 38	10	38200	50	#0	16QAM	NV	0	-43.06	-0.016	-2.5	2.5	PASS
Band 38	10	38200	50	#0	16QAM	NV	10	-44.35	-0.017	-2.5	2.5	PASS
Band 38	10	38200	50	#0	16QAM	NV	20	-45.88	-0.018	-2.5	2.5	PASS
Band 38	10	38200	50	#0	16QAM	NV	30	-46.29	-0.018	-2.5	2.5	PASS
Band 38	10	38200	50	#0	16QAM	NV	40	-45.93	-0.018	-2.5	2.5	PASS
Band 38	10	38200	50	#0	16QAM	NV	50	-46.83	-0.018	-2.5	2.5	PASS
Band 38	15	37825	75	#0	QPSK	NV	-30	35.19	0.014	-2.5	2.5	PASS



Band 38	15	37825	75	#0	QPSK	NV	-20	28.98	0.011	-2.5	2.5	PASS
Band 38	15	37825	75	#0	QPSK	NV	0	24.75	0.010	-2.5	2.5	PASS
Band 38	15	37825	75	#0	QPSK	NV	10	23.17	0.009	-2.5	2.5	PASS
Band 38	15	37825	75	#0	QPSK	NV	20	22.22	0.009	-2.5	2.5	PASS
Band 38	15	37825	75	#0	QPSK	NV	30	19.35	0.008	-2.5	2.5	PASS
Band 38	15	37825	75	#0	QPSK	NV	40	13.83	0.005	-2.5	2.5	PASS
Band 38	15	37825	75	#0	QPSK	NV	50	5.36	0.002	-2.5	2.5	PASS
Band 38	15	37825	75	#0	16QAM	NV	-30	-2.88	-0.001	-2.5	2.5	PASS
Band 38	15	37825	75	#0	16QAM	NV	-20	-5.41	-0.002	-2.5	2.5	PASS
Band 38	15	37825	75	#0	16QAM	NV	0	-7.31	-0.003	-2.5	2.5	PASS
Band 38	15	37825	75	#0	16QAM	NV	10	-7.90	-0.003	-2.5	2.5	PASS
Band 38	15	37825	75	#0	16QAM	NV	20	-4.96	-0.002	-2.5	2.5	PASS
Band 38	15	37825	75	#0	16QAM	NV	30	-5.11	-0.002	-2.5	2.5	PASS
Band 38	15	37825	75	#0	16QAM	NV	40	-7.77	-0.003	-2.5	2.5	PASS
Band 38	15	37825	75	#0	16QAM	NV	50	-7.82	-0.003	-2.5	2.5	PASS
Band 38	15	38000	75	#0	QPSK	NV	-30	-8.27	-0.003	-2.5	2.5	PASS
Band 38	15	38000	75	#0	QPSK	NV	-20	-14.32	-0.006	-2.5	2.5	PASS
Band 38	15	38000	75	#0	QPSK	NV	0	-19.27	-0.007	-2.5	2.5	PASS
Band 38	15	38000	75	#0	QPSK	NV	10	-23.56	-0.009	-2.5	2.5	PASS
Band 38	15	38000	75	#0	QPSK	NV	20	-28.22	-0.011	-2.5	2.5	PASS
Band 38	15	38000	75	#0	QPSK	NV	30	-34.25	-0.013	-2.5	2.5	PASS
Band 38	15	38000	75	#0	QPSK	NV	40	-39.64	-0.015	-2.5	2.5	PASS



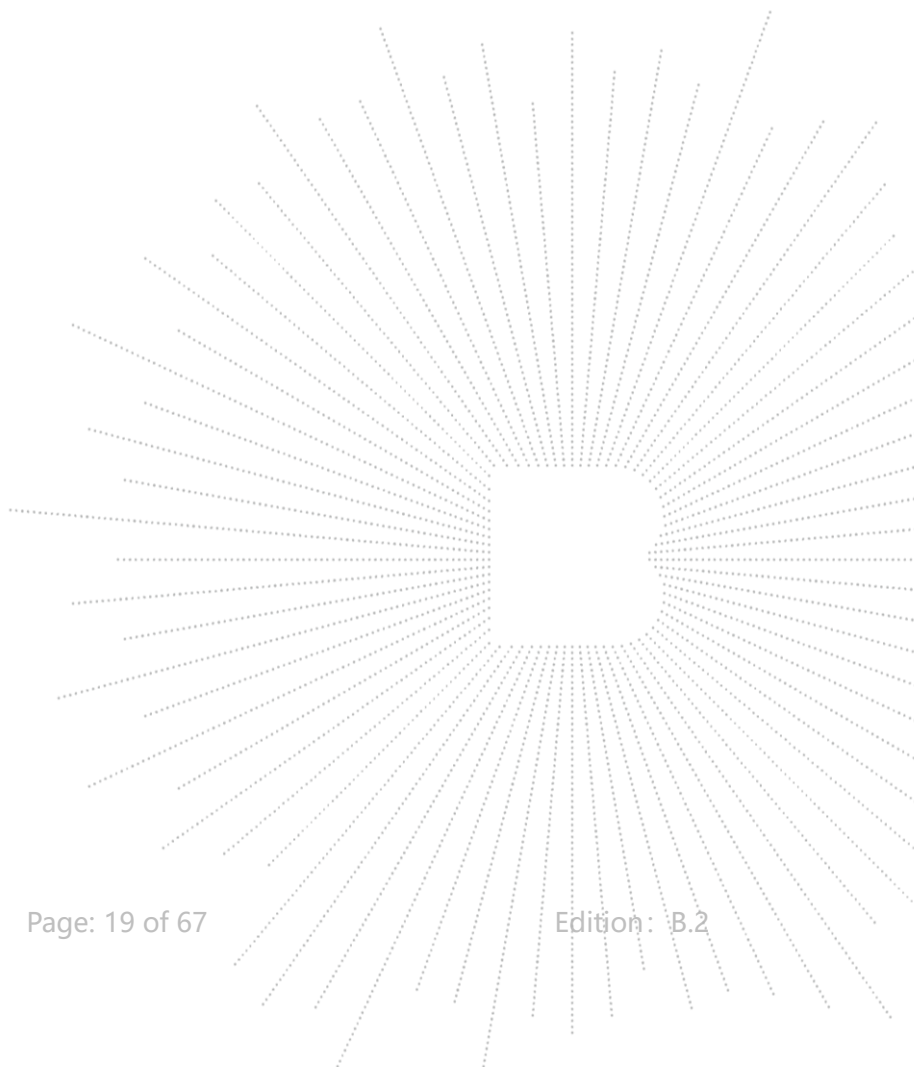
Band 38	15	38000	75	#0	QPSK	NV	50	-44.39	-0.017	-2.5	2.5	PASS
Band 38	15	38000	75	#0	16QAM	NV	-30	-8.70	-0.003	-2.5	2.5	PASS
Band 38	15	38000	75	#0	16QAM	NV	-20	-6.48	-0.002	-2.5	2.5	PASS
Band 38	15	38000	75	#0	16QAM	NV	0	-6.37	-0.002	-2.5	2.5	PASS
Band 38	15	38000	75	#0	16QAM	NV	10	-6.32	-0.002	-2.5	2.5	PASS
Band 38	15	38000	75	#0	16QAM	NV	20	-7.55	-0.003	-2.5	2.5	PASS
Band 38	15	38000	75	#0	16QAM	NV	30	-10.20	-0.004	-2.5	2.5	PASS
Band 38	15	38000	75	#0	16QAM	NV	40	-10.37	-0.004	-2.5	2.5	PASS
Band 38	15	38000	75	#0	16QAM	NV	50	-10.20	-0.004	-2.5	2.5	PASS
Band 38	15	38175	75	#0	QPSK	NV	-30	-10.41	-0.004	-2.5	2.5	PASS
Band 38	15	38175	75	#0	QPSK	NV	-20	-13.85	-0.005	-2.5	2.5	PASS
Band 38	15	38175	75	#0	QPSK	NV	0	-18.25	-0.007	-2.5	2.5	PASS
Band 38	15	38175	75	#0	QPSK	NV	10	-22.07	-0.008	-2.5	2.5	PASS
Band 38	15	38175	75	#0	QPSK	NV	20	-24.36	-0.009	-2.5	2.5	PASS
Band 38	15	38175	75	#0	QPSK	NV	30	-26.35	-0.010	-2.5	2.5	PASS
Band 38	15	38175	75	#0	QPSK	NV	40	-30.67	-0.012	-2.5	2.5	PASS
Band 38	15	38175	75	#0	QPSK	NV	50	-34.25	-0.013	-2.5	2.5	PASS
Band 38	15	38175	75	#0	16QAM	NV	-30	-38.41	-0.015	-2.5	2.5	PASS
Band 38	15	38175	75	#0	16QAM	NV	-20	-41.14	-0.016	-2.5	2.5	PASS
Band 38	15	38175	75	#0	16QAM	NV	0	-42.63	-0.016	-2.5	2.5	PASS
Band 38	15	38175	75	#0	16QAM	NV	10	-44.26	-0.017	-2.5	2.5	PASS
Band 38	15	38175	75	#0	16QAM	NV	20	-43.43	-0.017	-2.5	2.5	PASS



Band 38	15	38175	75	#0	16QAM	NV	30	-43.44	-0.017	-2.5	2.5	PAS S
Band 38	15	38175	75	#0	16QAM	NV	40	-41.99	-0.016	-2.5	2.5	PAS S
Band 38	15	38175	75	#0	16QAM	NV	50	-40.28	-0.015	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	QPSK	NV	-30	27.38	0.011	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	QPSK	NV	-20	20.74	0.008	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	QPSK	NV	0	18.65	0.007	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	QPSK	NV	10	12.30	0.005	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	QPSK	NV	20	5.81	0.002	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	QPSK	NV	30	-0.01	0.000	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	QPSK	NV	40	-5.21	-0.002	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	QPSK	NV	50	-11.72	-0.005	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	16QAM	NV	-30	-17.95	-0.007	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	16QAM	NV	-20	-17.28	-0.007	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	16QAM	NV	0	-18.73	-0.007	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	16QAM	NV	10	-19.60	-0.008	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	16QAM	NV	20	-22.79	-0.009	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	16QAM	NV	30	-23.89	-0.009	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	16QAM	NV	40	-23.17	-0.009	-2.5	2.5	PAS S
Band 38	20	37850	100	#0	16QAM	NV	50	-21.94	-0.009	-2.5	2.5	PAS S
Band 38	20	38000	100	#0	QPSK	NV	-30	-20.99	-0.008	-2.5	2.5	PAS S
Band 38	20	38000	100	#0	QPSK	NV	-20	-22.89	-0.009	-2.5	2.5	PAS S
Band 38	20	38000	100	#0	QPSK	NV	0	-24.48	-0.009	-2.5	2.5	PAS S

Band 38	20	38000	100	#0	QPSK	NV	10	-27.47	-0.011	-2.5	2.5	PASS
Band 38	20	38000	100	#0	QPSK	NV	20	-30.00	-0.012	-2.5	2.5	PASS
Band 38	20	38000	100	#0	QPSK	NV	30	-34.32	-0.013	-2.5	2.5	PASS
Band 38	20	38000	100	#0	QPSK	NV	40	-38.14	-0.015	-2.5	2.5	PASS
Band 38	20	38000	100	#0	QPSK	NV	50	-45.13	-0.017	-2.5	2.5	PASS
Band 38	20	38000	100	#0	16QAM	NV	-30	-2.17	-0.001	-2.5	2.5	PASS
Band 38	20	38000	100	#0	16QAM	NV	-20	-0.97	0.000	-2.5	2.5	PASS
Band 38	20	38000	100	#0	16QAM	NV	0	-1.65	-0.001	-2.5	2.5	PASS
Band 38	20	38000	100	#0	16QAM	NV	10	-1.23	0.000	-2.5	2.5	PASS
Band 38	20	38000	100	#0	16QAM	NV	20	-2.03	-0.001	-2.5	2.5	PASS
Band 38	20	38000	100	#0	16QAM	NV	30	-1.23	0.000	-2.5	2.5	PASS
Band 38	20	38000	100	#0	16QAM	NV	40	-0.33	0.000	-2.5	2.5	PASS
Band 38	20	38000	100	#0	16QAM	NV	50	1.85	0.001	-2.5	2.5	PASS
Band 38	20	38150	100	#0	QPSK	NV	-30	1.95	0.001	-2.5	2.5	PASS
Band 38	20	38150	100	#0	QPSK	NV	-20	-1.13	0.000	-2.5	2.5	PASS
Band 38	20	38150	100	#0	QPSK	NV	0	-3.06	-0.001	-2.5	2.5	PASS
Band 38	20	38150	100	#0	QPSK	NV	10	-5.19	-0.002	-2.5	2.5	PASS
Band 38	20	38150	100	#0	QPSK	NV	20	-9.34	-0.004	-2.5	2.5	PASS
Band 38	20	38150	100	#0	QPSK	NV	30	-14.58	-0.006	-2.5	2.5	PASS
Band 38	20	38150	100	#0	QPSK	NV	40	-20.77	-0.008	-2.5	2.5	PASS
Band 38	20	38150	100	#0	QPSK	NV	50	-24.63	-0.009	-2.5	2.5	PASS
Band 38	20	38150	100	#0	16QAM	NV	-30	-30.37	-0.012	-2.5	2.5	PASS

Band 38	20	38150	10 0	#0	16QAM	NV	-20	-30. 00	-0.01 1	-2.5	2.5	PAS S
Band 38	20	38150	10 0	#0	16QAM	NV	0	-29. 15	-0.01 1	-2.5	2.5	PAS S
Band 38	20	38150	10 0	#0	16QAM	NV	10	-28. 90	-0.01 1	-2.5	2.5	PAS S
Band 38	20	38150	10 0	#0	16QAM	NV	20	-26. 92	-0.0 10	-2.5	2.5	PAS S
Band 38	20	38150	10 0	#0	16QAM	NV	30	-24. 58	-0.0 09	-2.5	2.5	PAS S
Band 38	20	38150	10 0	#0	16QAM	NV	40	-20. 74	-0.0 08	-2.5	2.5	PAS S
Band 38	20	38150	10 0	#0	16QAM	NV	50	-18. 47	-0.0 07	-2.5	2.5	PAS S

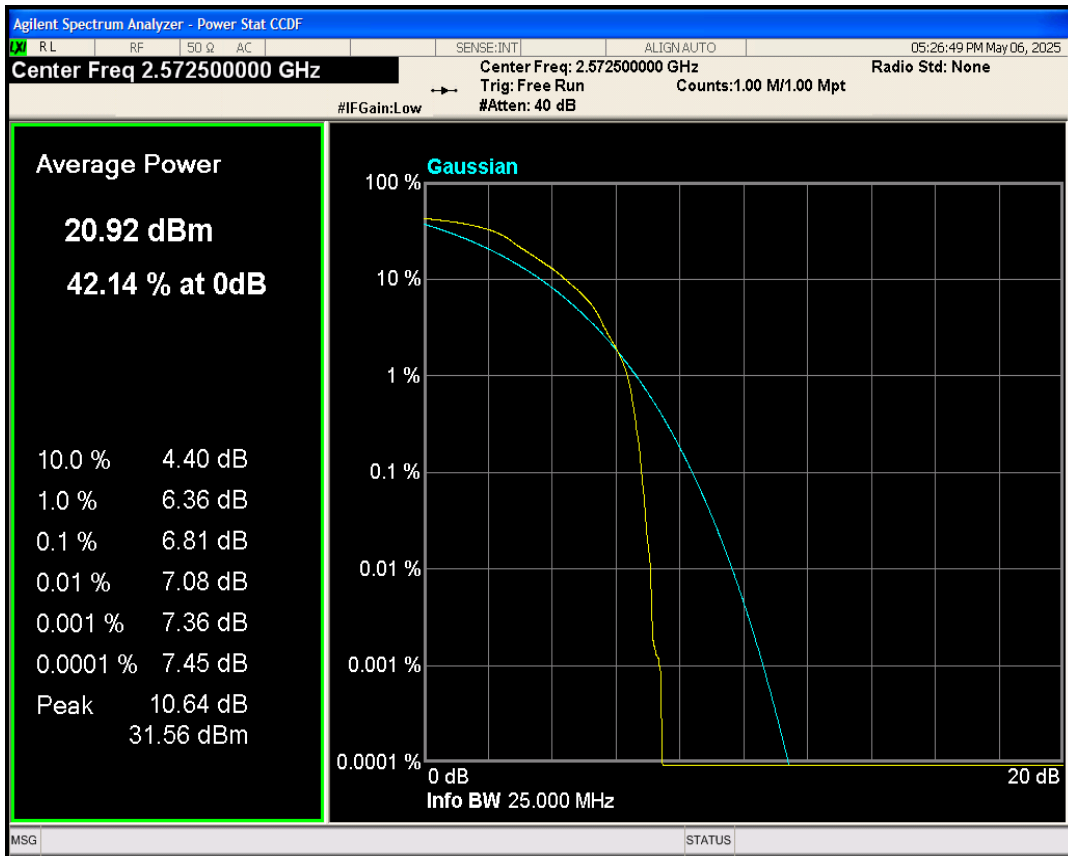


Appendix 3. Peak-to-Average Ratio

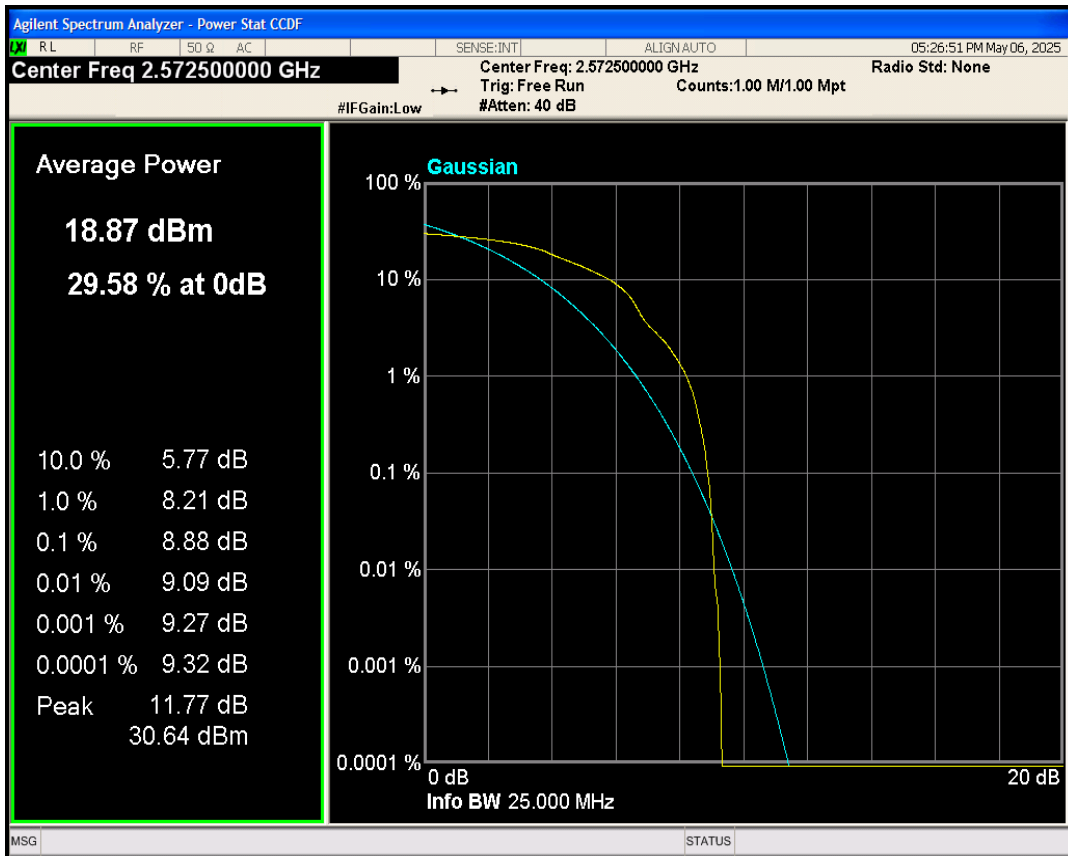
Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Result (dB)	high Limit (dB)	Verdict
Band38	5	37775	1	#0	QPSK	6.81	13	PASS
Band38	5	37775	1	#0	16QAM	8.88	13	PASS
Band38	5	38000	1	#0	QPSK	7.33	13	PASS
Band38	5	38000	1	#0	16QAM	8.73	13	PASS
Band38	5	38225	1	#0	QPSK	9.00	13	PASS
Band38	5	38225	1	#0	16QAM	7.44	13	PASS
Band38	10	37800	1	#0	QPSK	9.01	13	PASS
Band38	10	37800	1	#0	16QAM	8.19	13	PASS
Band38	10	38000	1	#0	QPSK	8.05	13	PASS
Band38	10	38000	1	#0	16QAM	8.83	13	PASS
Band38	10	38200	1	#0	QPSK	7.86	13	PASS
Band38	10	38200	1	#0	16QAM	9.80	13	PASS
Band38	15	37825	1	#0	QPSK	8.45	13	PASS
Band38	15	37825	1	#0	16QAM	7.90	13	PASS
Band38	15	38000	1	#0	QPSK	8.50	13	PASS
Band38	15	38000	1	#0	16QAM	9.57	13	PASS
Band38	15	38175	1	#0	QPSK	9.81	13	PASS
Band38	15	38175	1	#0	16QAM	9.88	13	PASS
Band38	20	37850	1	#0	QPSK	6.74	13	PASS
Band38	20	37850	1	#0	16QAM	10.88	13	PASS
Band38	20	38000	1	#0	QPSK	8.32	13	PASS
Band38	20	38000	1	#0	16QAM	8.22	13	PASS
Band38	20	38150	1	#0	QPSK	9.76	13	PASS
Band38	20	38150	1	#0	16QAM	8.82	13	PASS



Band38 QPSK BW=5MHz Channel=37775 RB Size=1 Position=#0

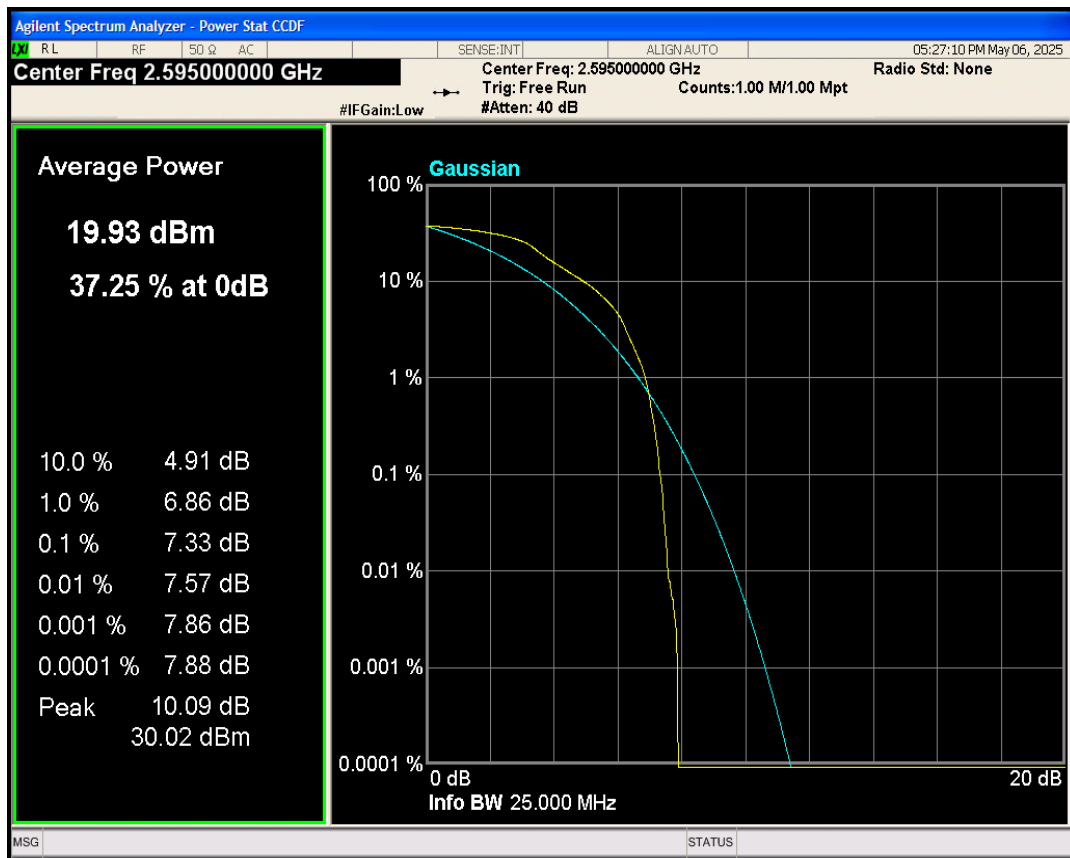


Band38 16QAM BW=5MHz Channel=37775 RB Size=1 Position=#0

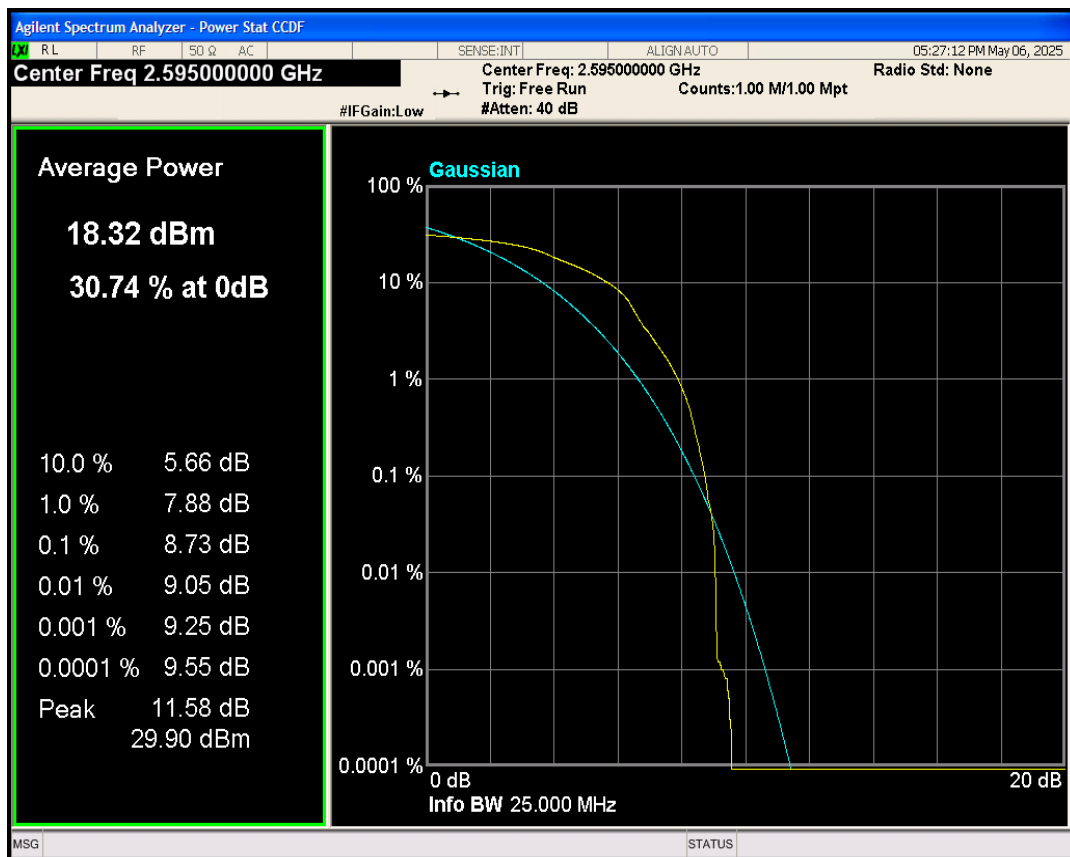




Band38 QPSK BW=5MHz Channel=38000 RB Size=1 Position=#0

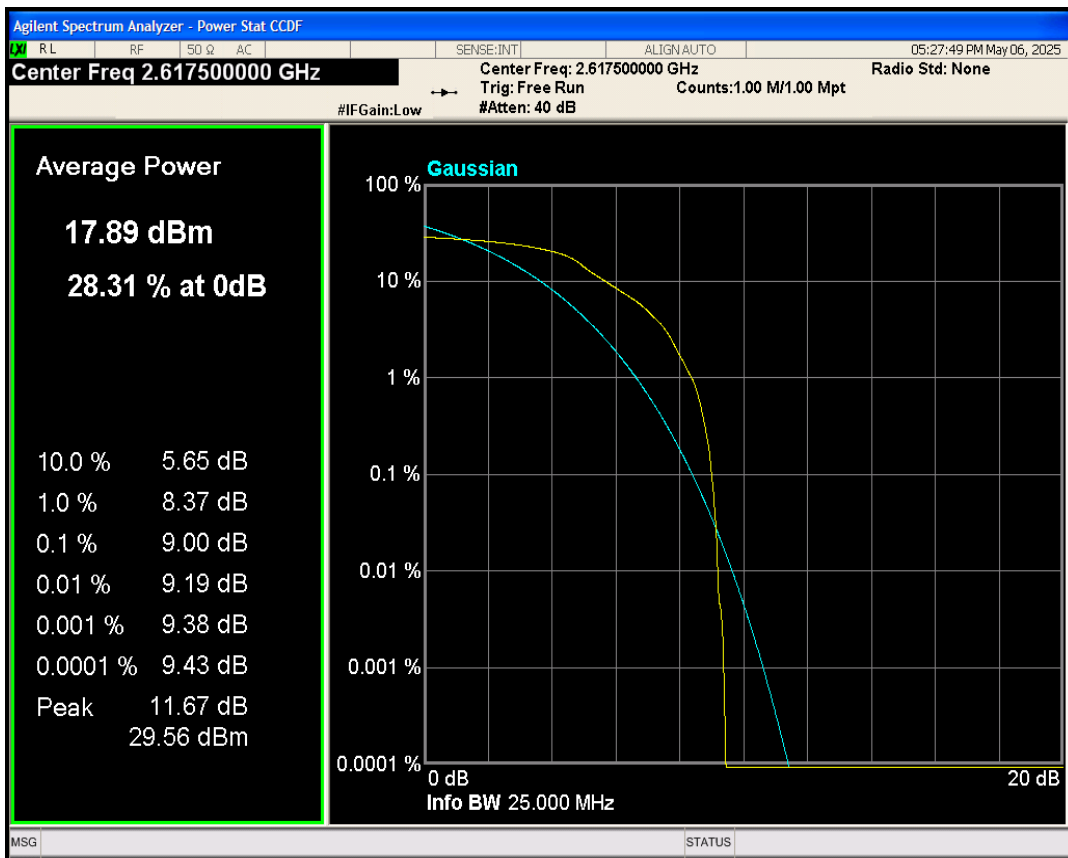


Band38 16QAM BW=5MHz Channel=38000 RB Size=1 Position=#0

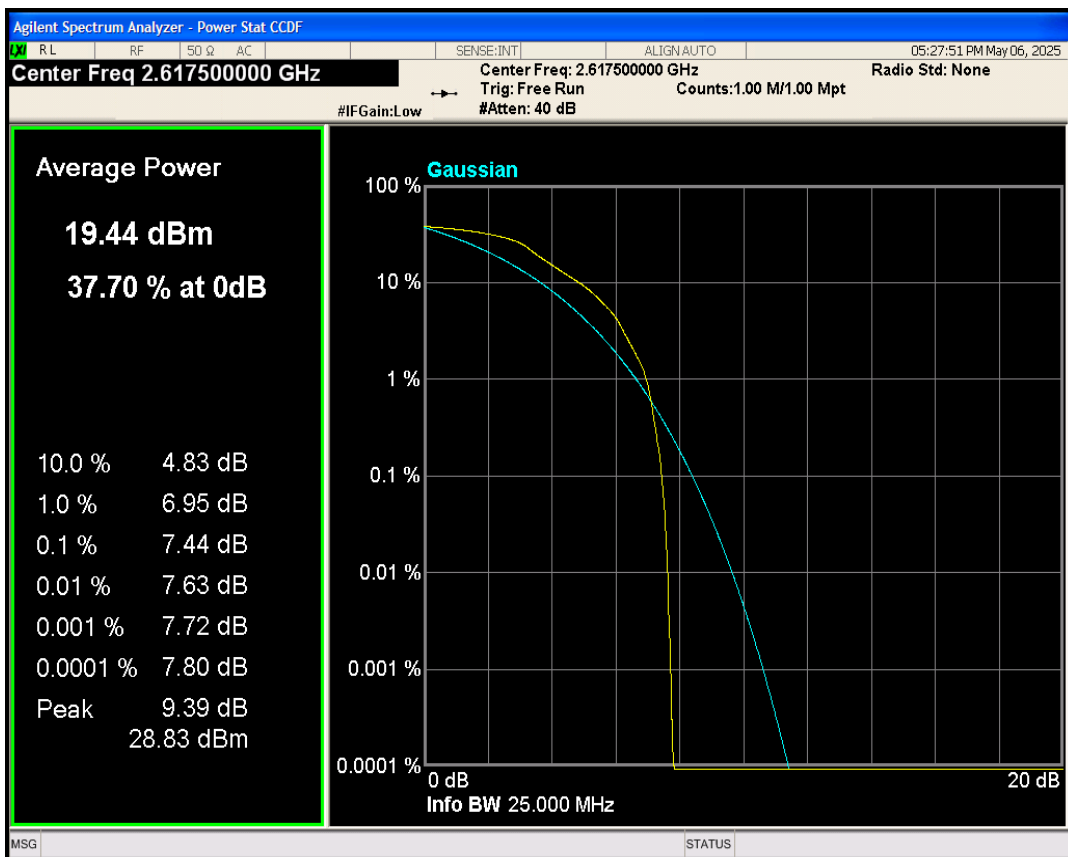




Band38 QPSK BW=5MHz Channel=38225 RB Size=1 Position=#0

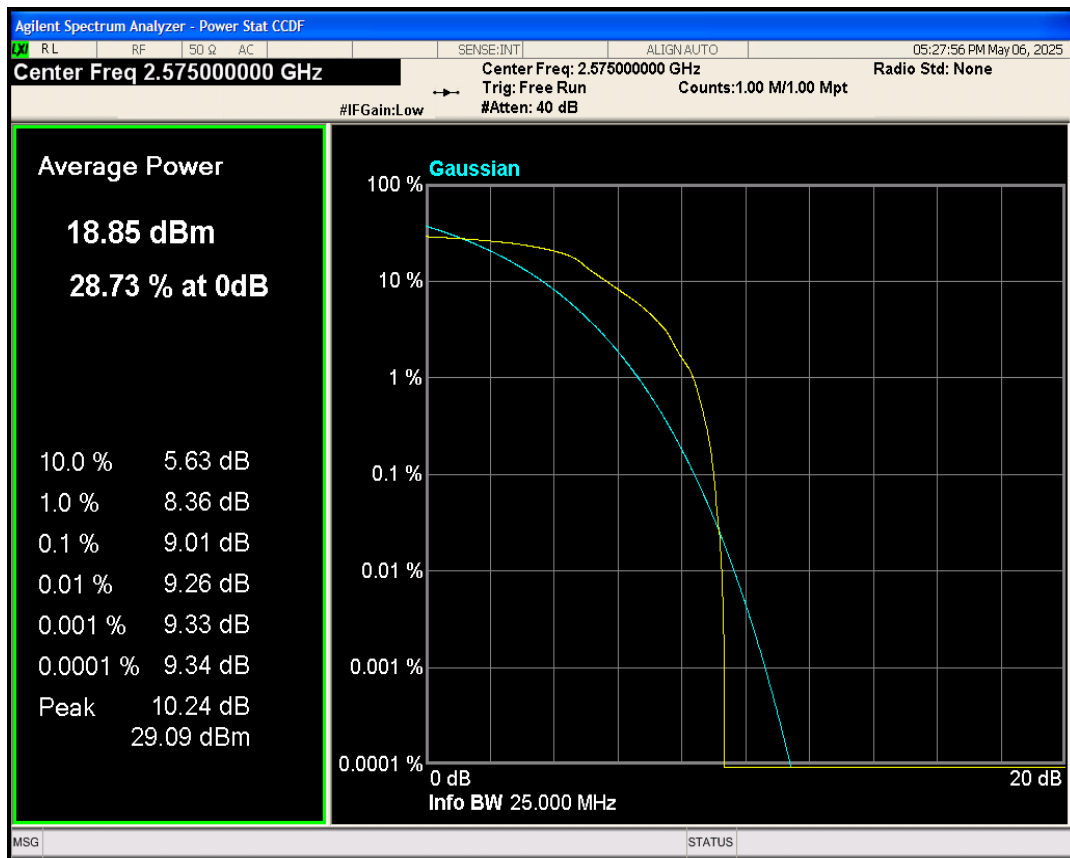


Band38 16QAM BW=5MHz Channel=38225 RB Size=1 Position=#0

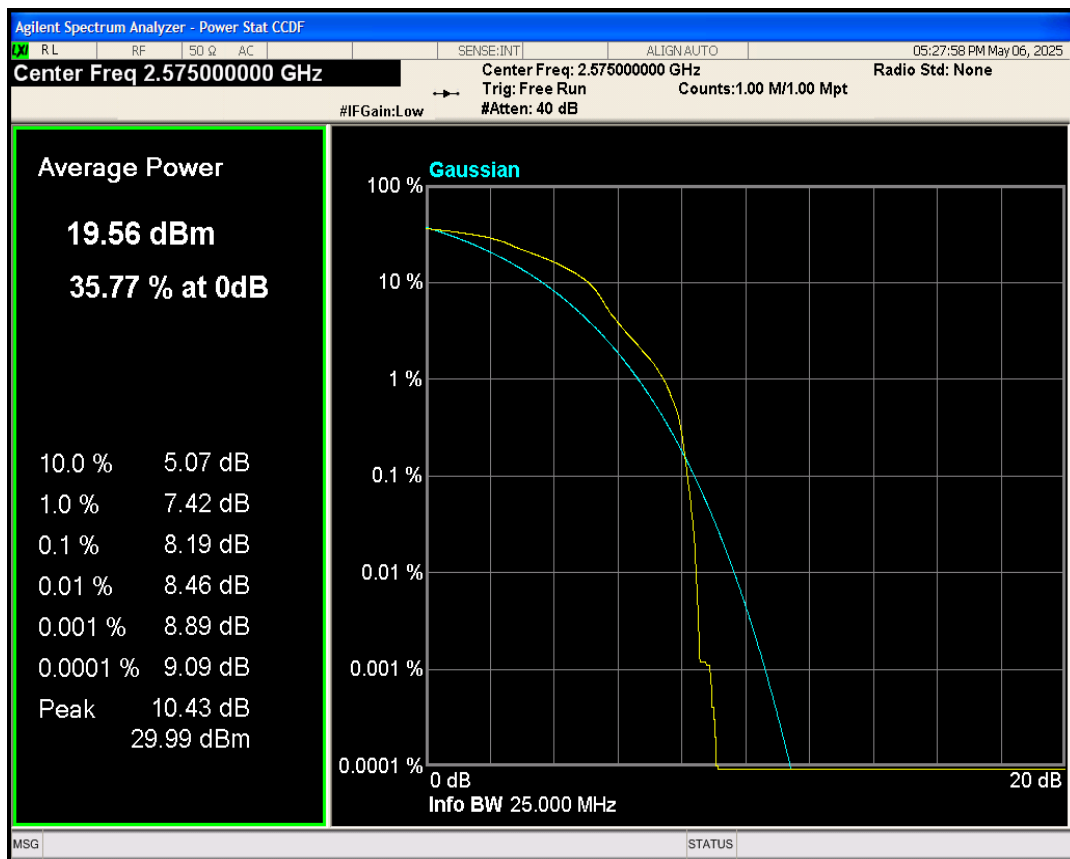




Band38 QPSK BW=10MHz Channel=37800 RB Size=1 Position=#0

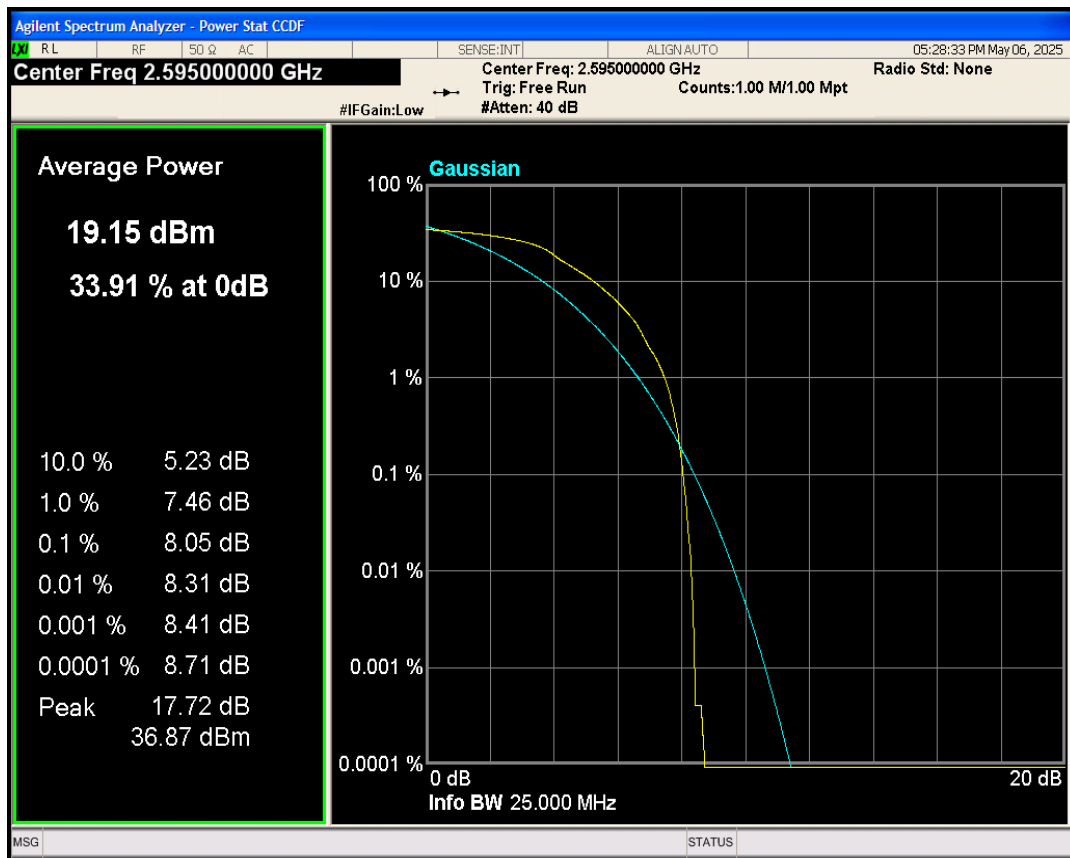


Band38 16QAM BW=10MHz Channel=37800 RB Size=1 Position=#0

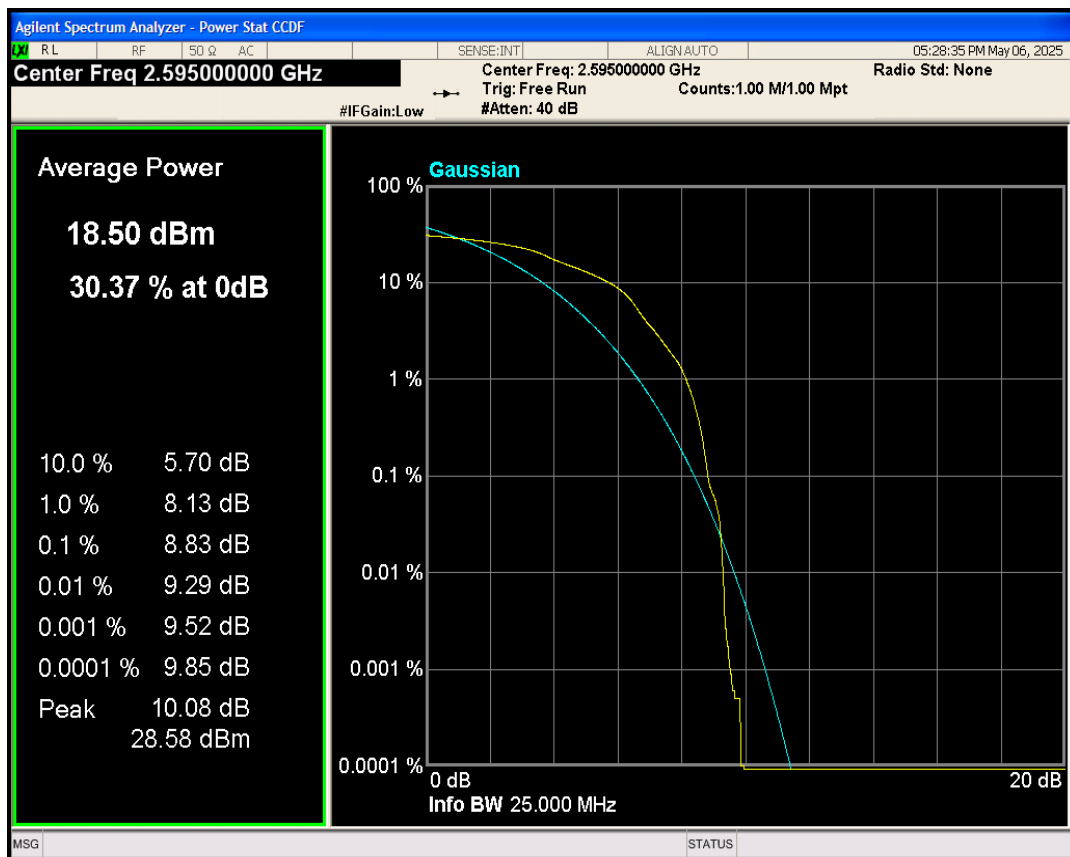




Band38 QPSK BW=10MHz Channel=38000 RB Size=1 Position=#0

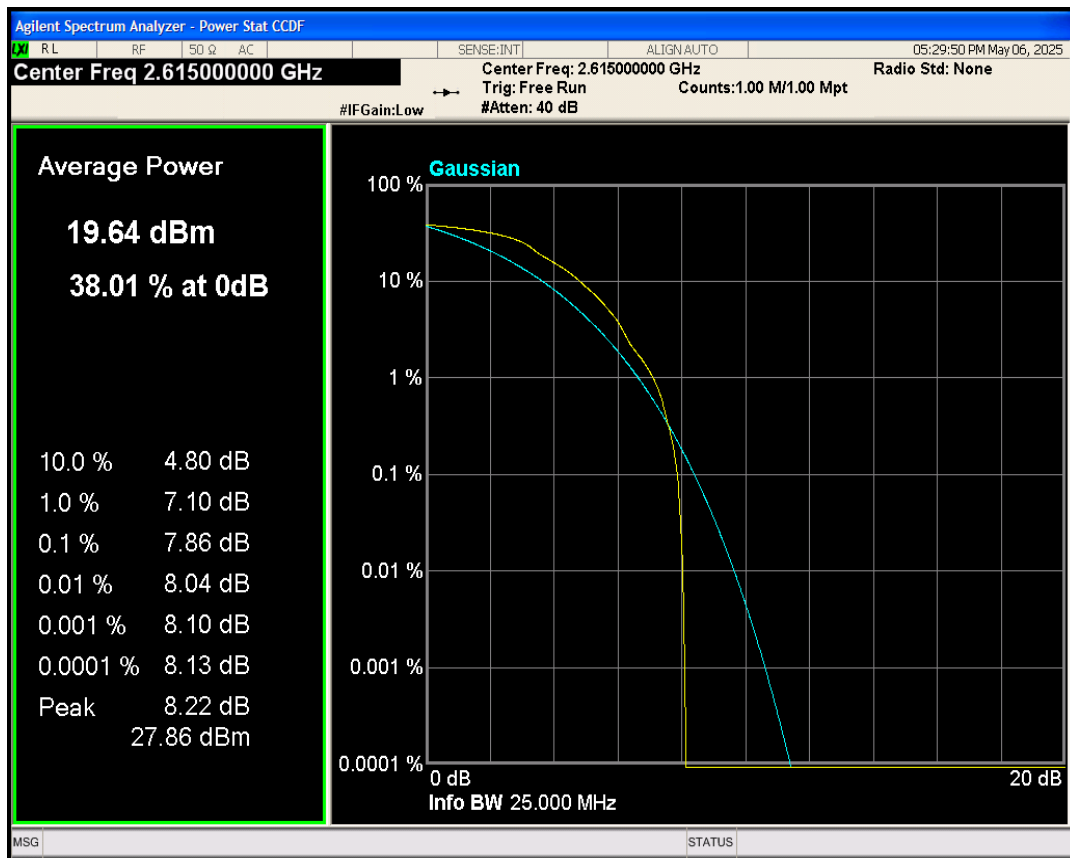


Band38 16QAM BW=10MHz Channel=38000 RB Size=1 Position=#0

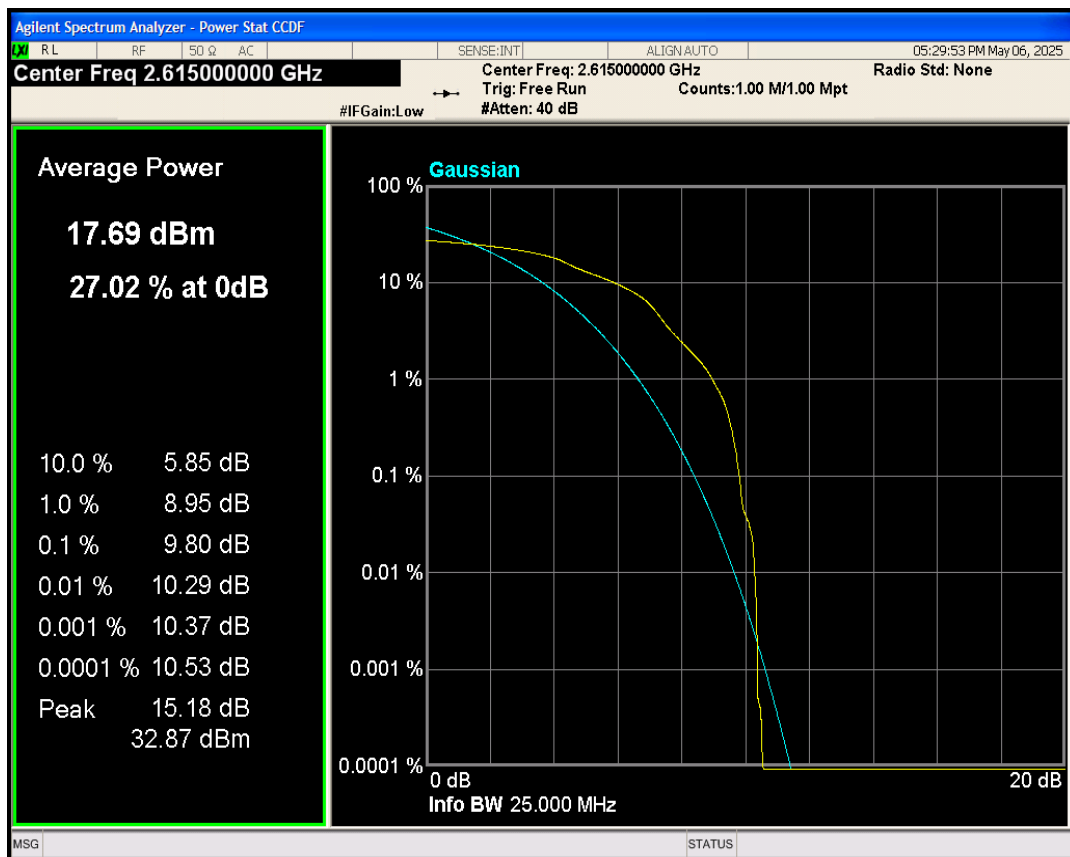




Band38 QPSK BW=10MHz Channel=38200 RB Size=1 Position=#0

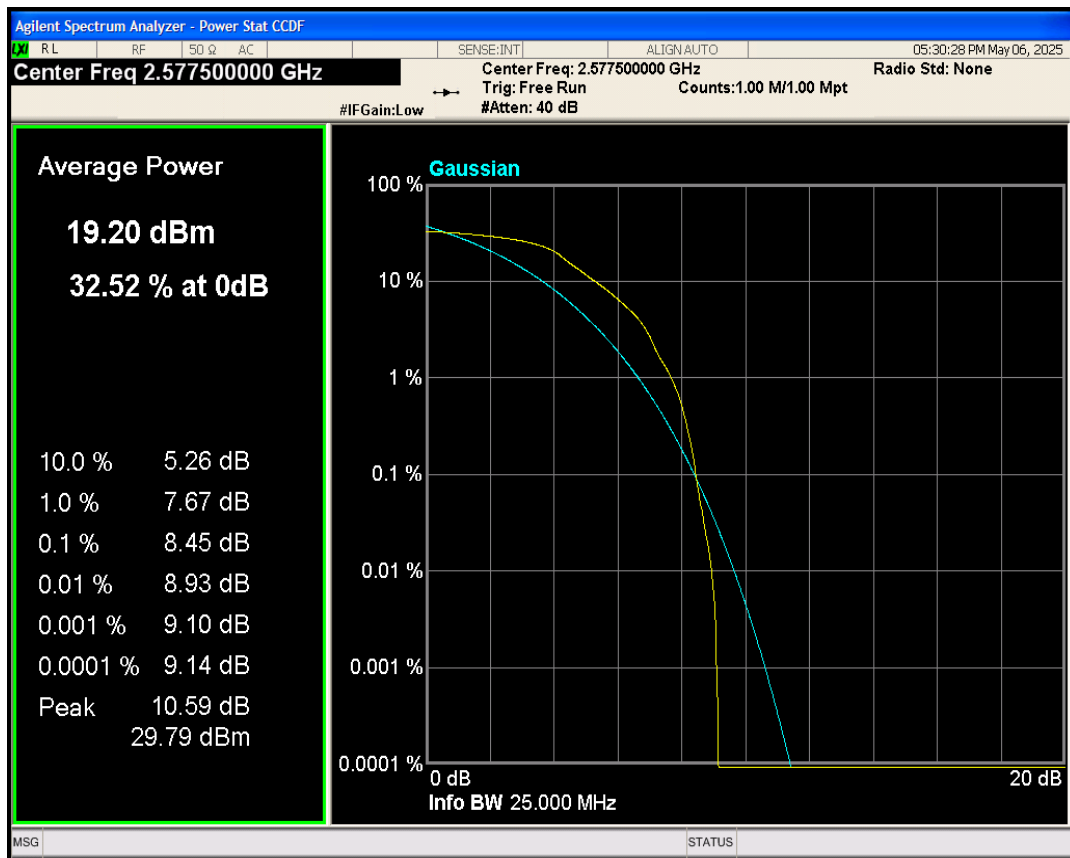


Band38 16QAM BW=10MHz Channel=38200 RB Size=1 Position=#0

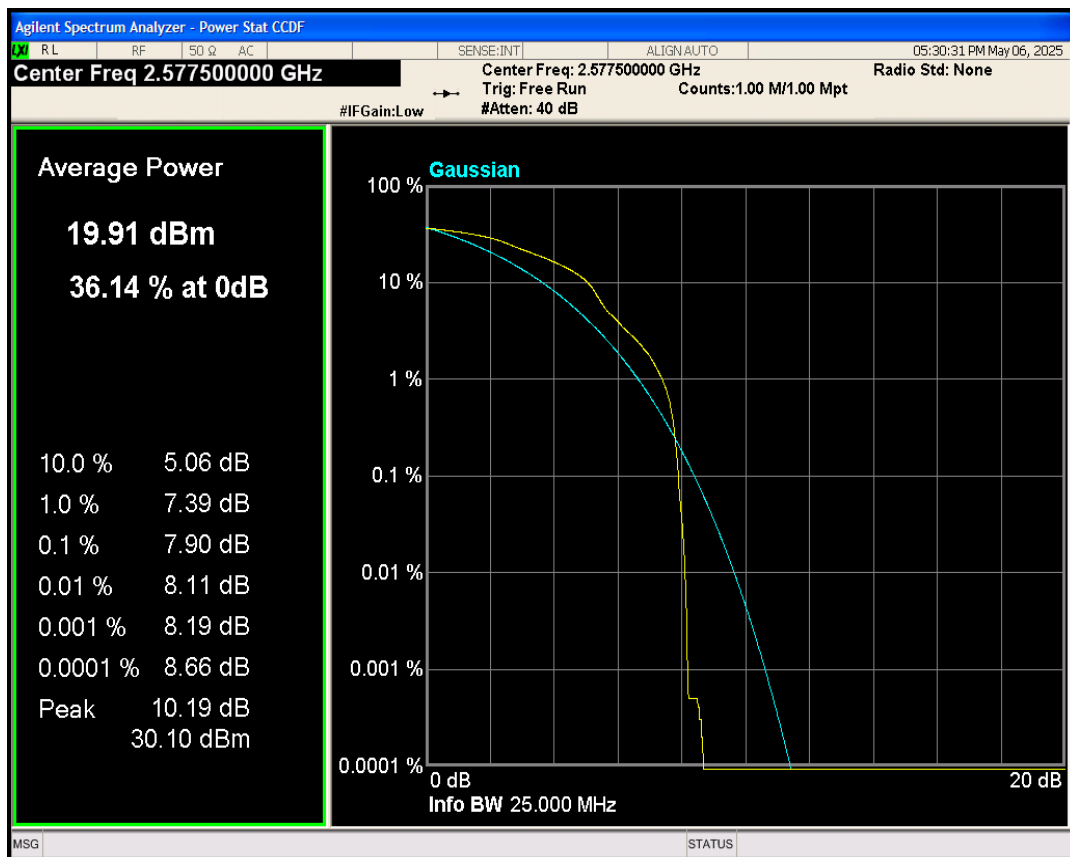




Band38 QPSK BW=15MHz Channel=37825 RB Size=1 Position=#0

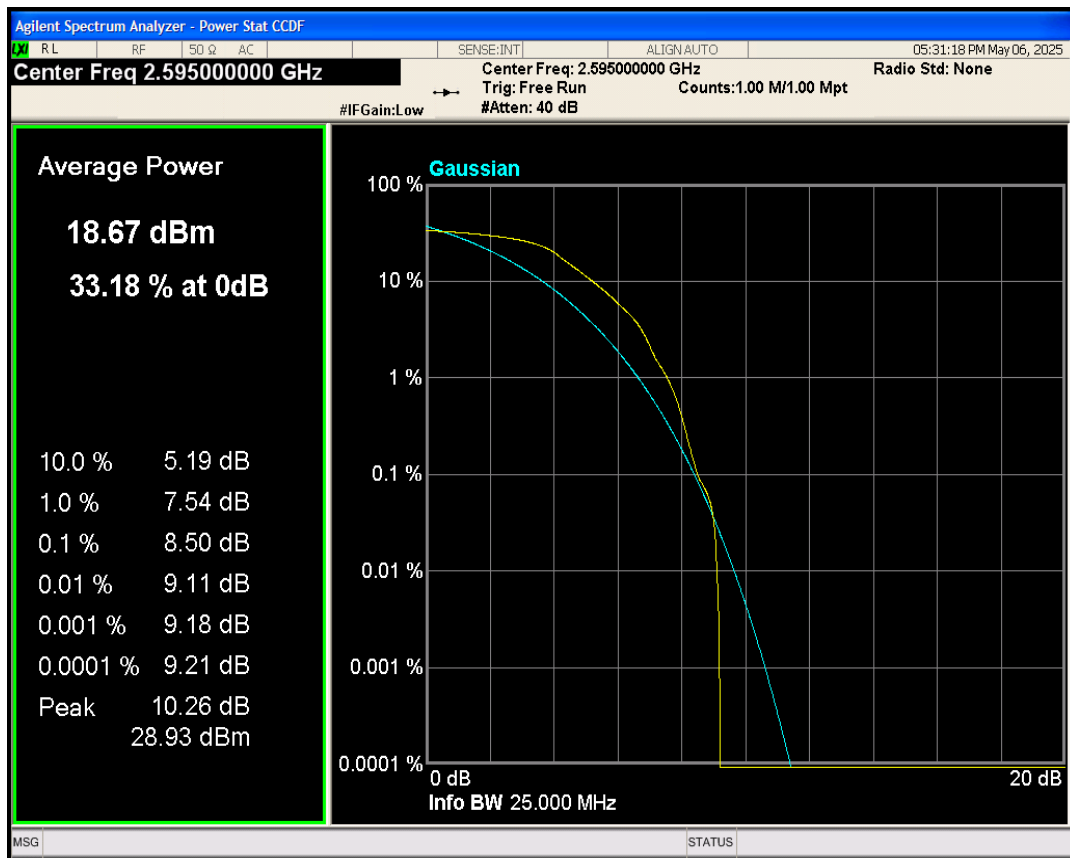


Band38 16QAM BW=15MHz Channel=37825 RB Size=1 Position=#0

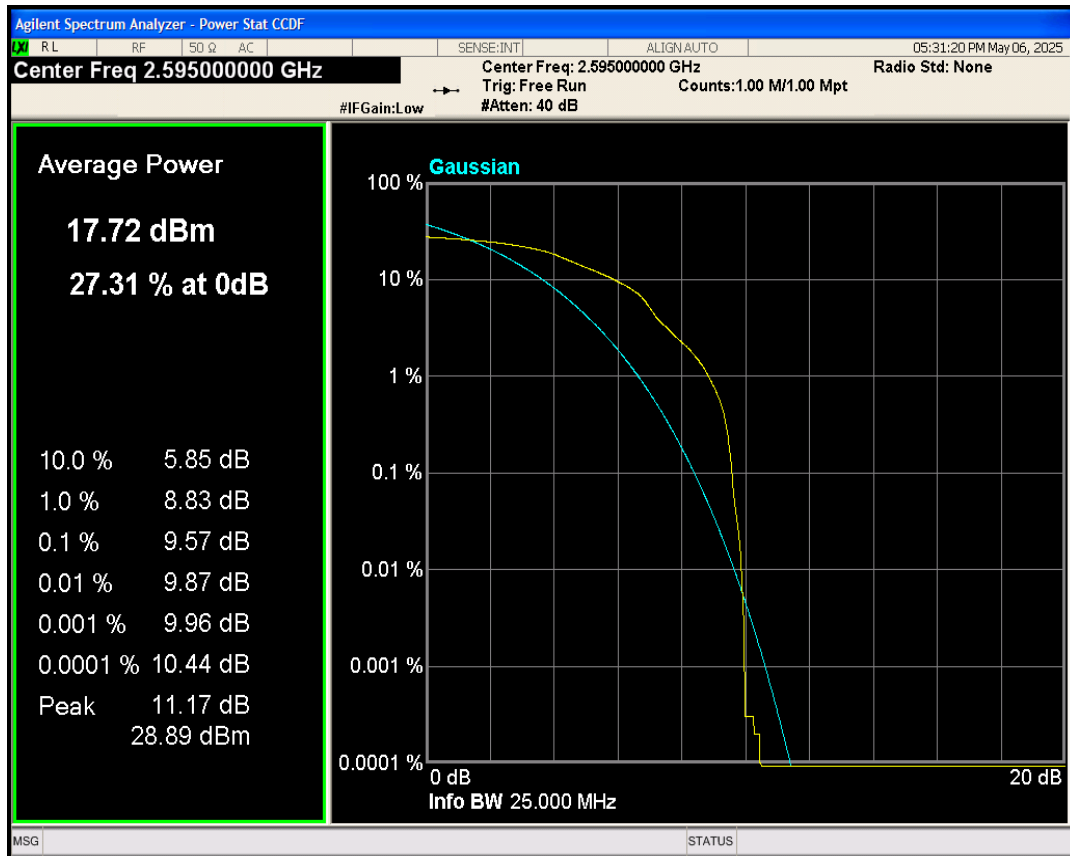




Band38 QPSK BW=15MHz Channel=38000 RB Size=1 Position=#0

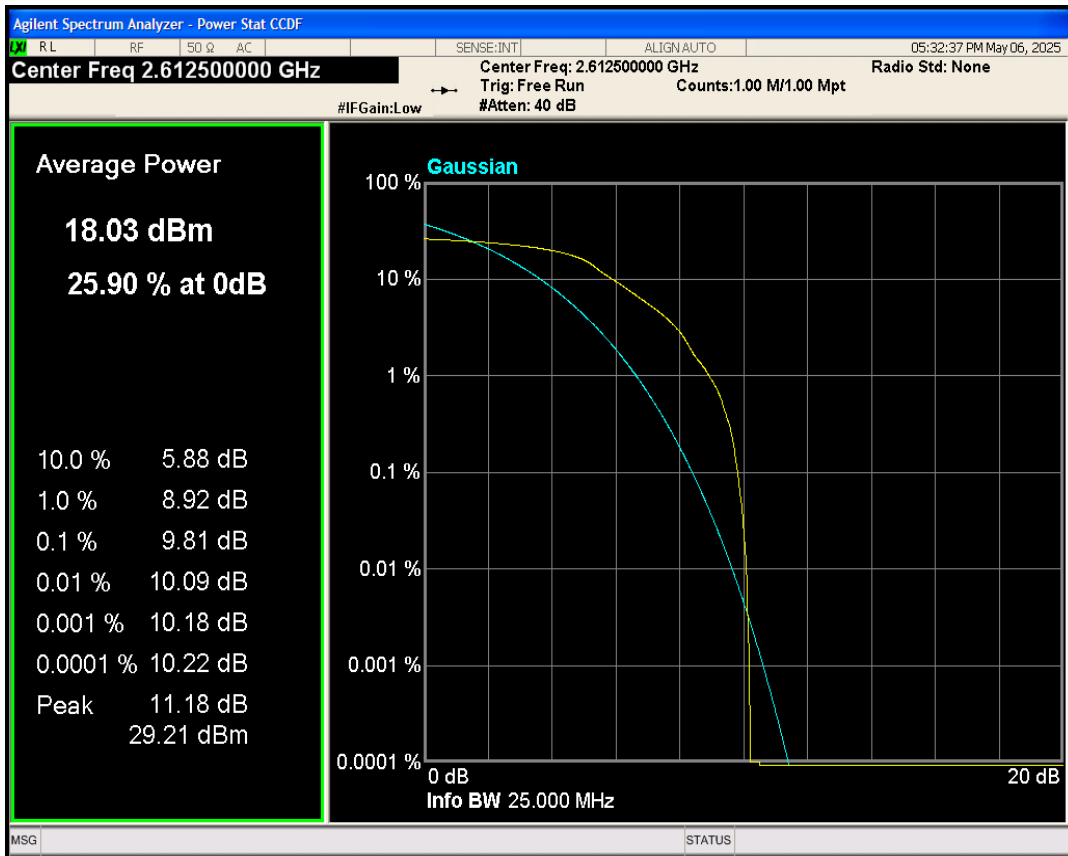


Band38 16QAM BW=15MHz Channel=38000 RB Size=1 Position=#0

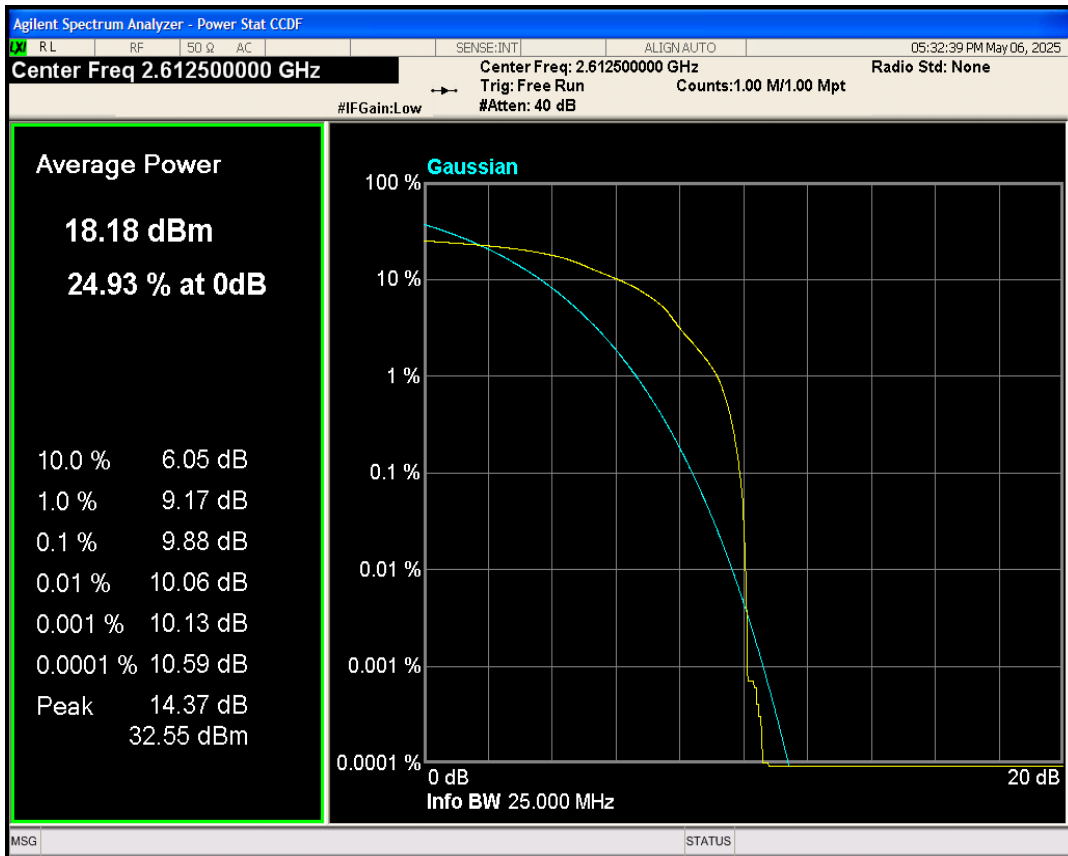




Band38 QPSK BW=15MHz Channel=38175 RB Size=1 Position=#0

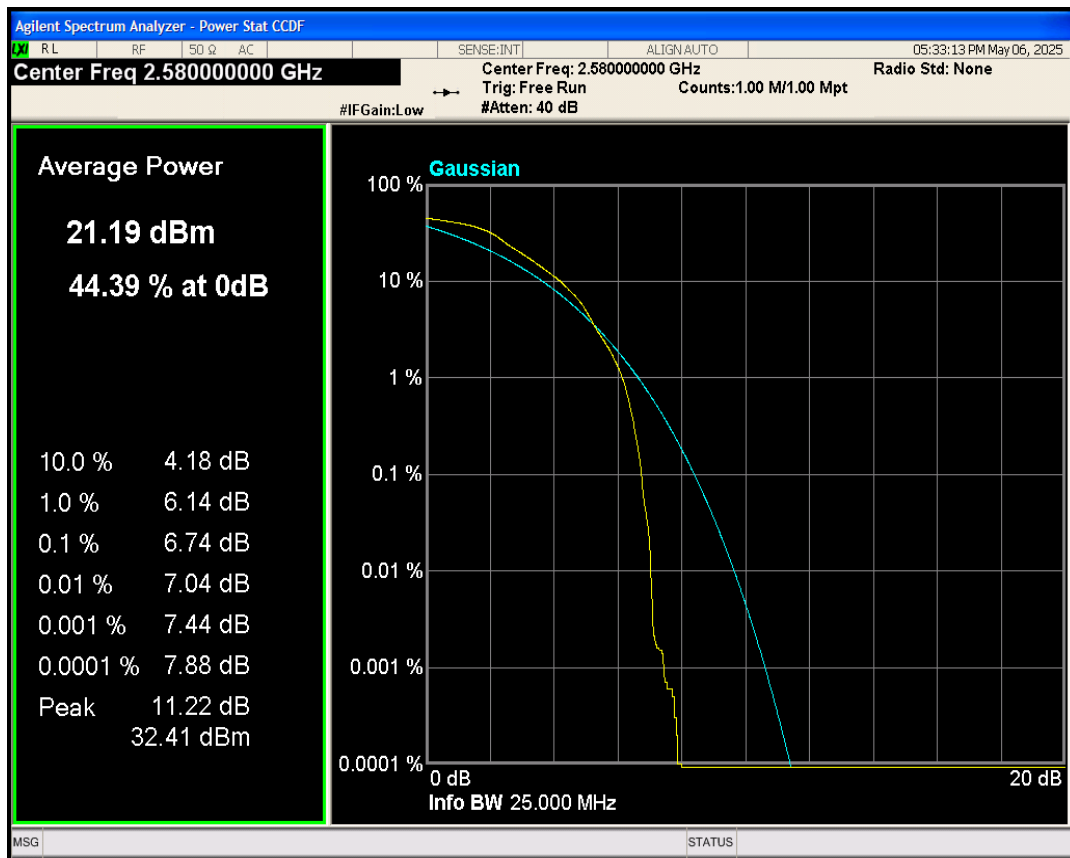


Band38 16QAM BW=15MHz Channel=38175 RB Size=1 Position=#0

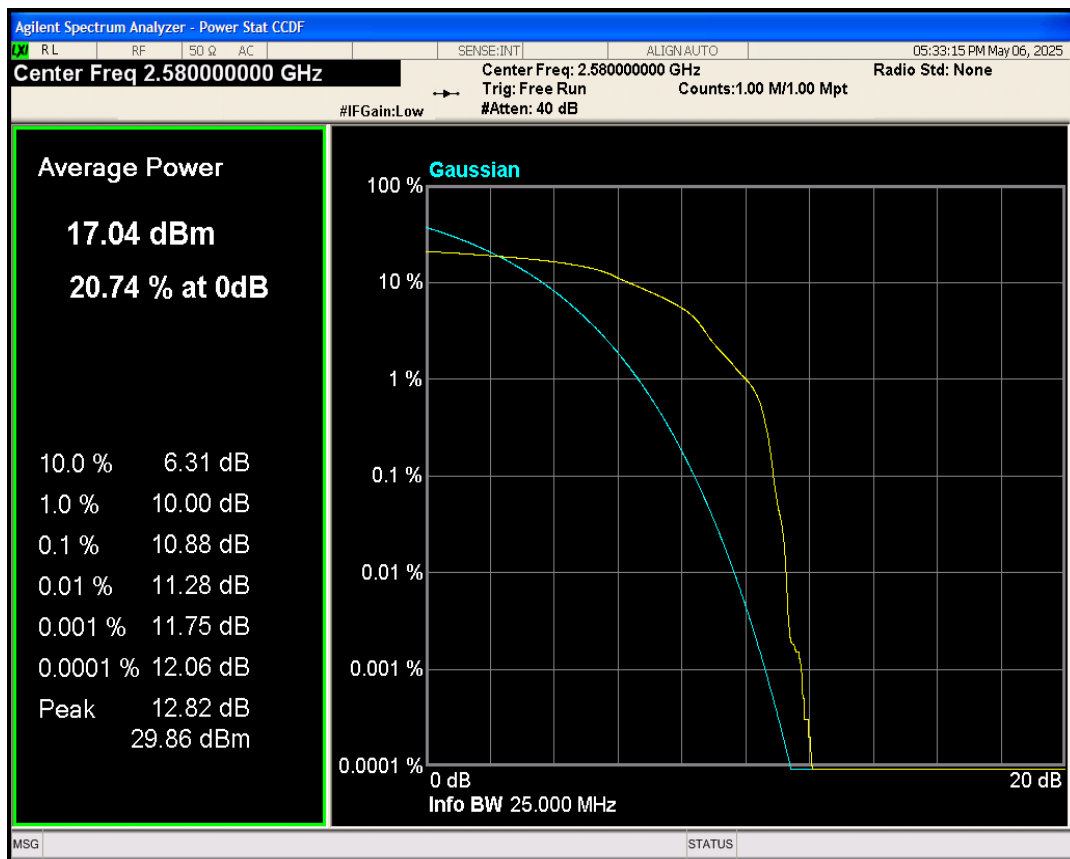




Band38 QPSK BW=20MHz Channel=37850 RB Size=1 Position=#0

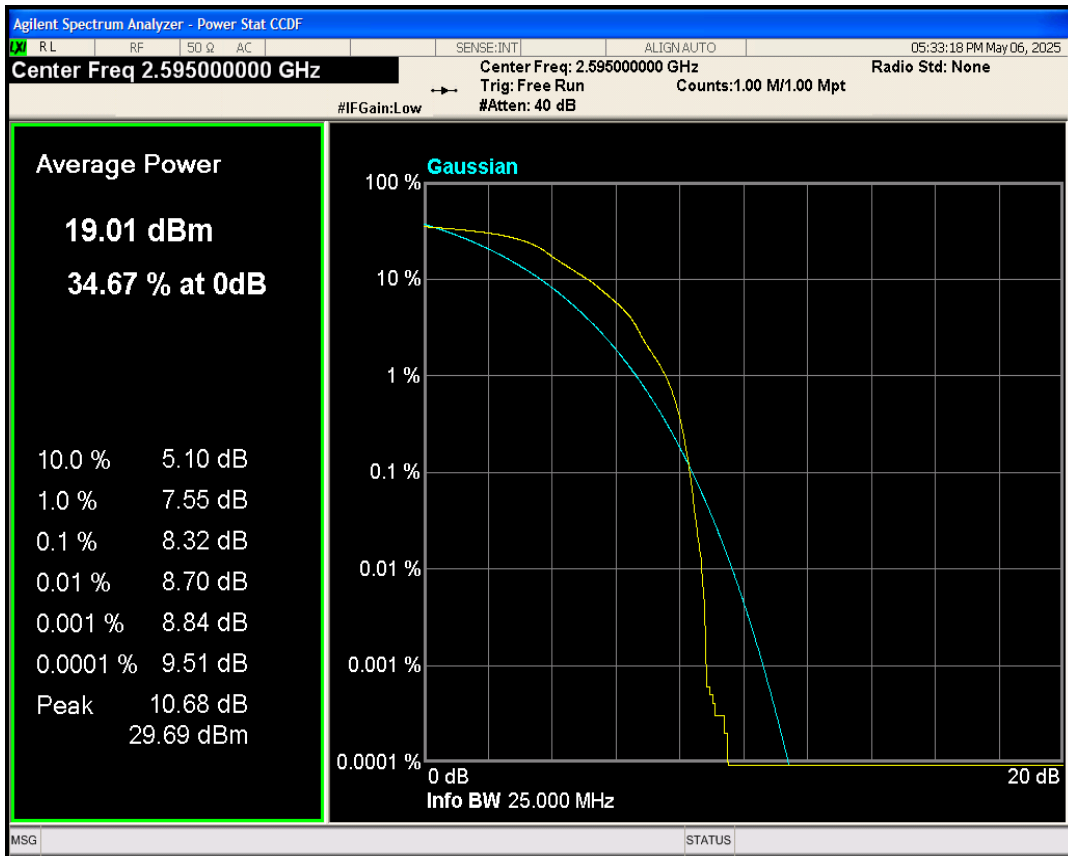


Band38 16QAM BW=20MHz Channel=37850 RB Size=1 Position=#0

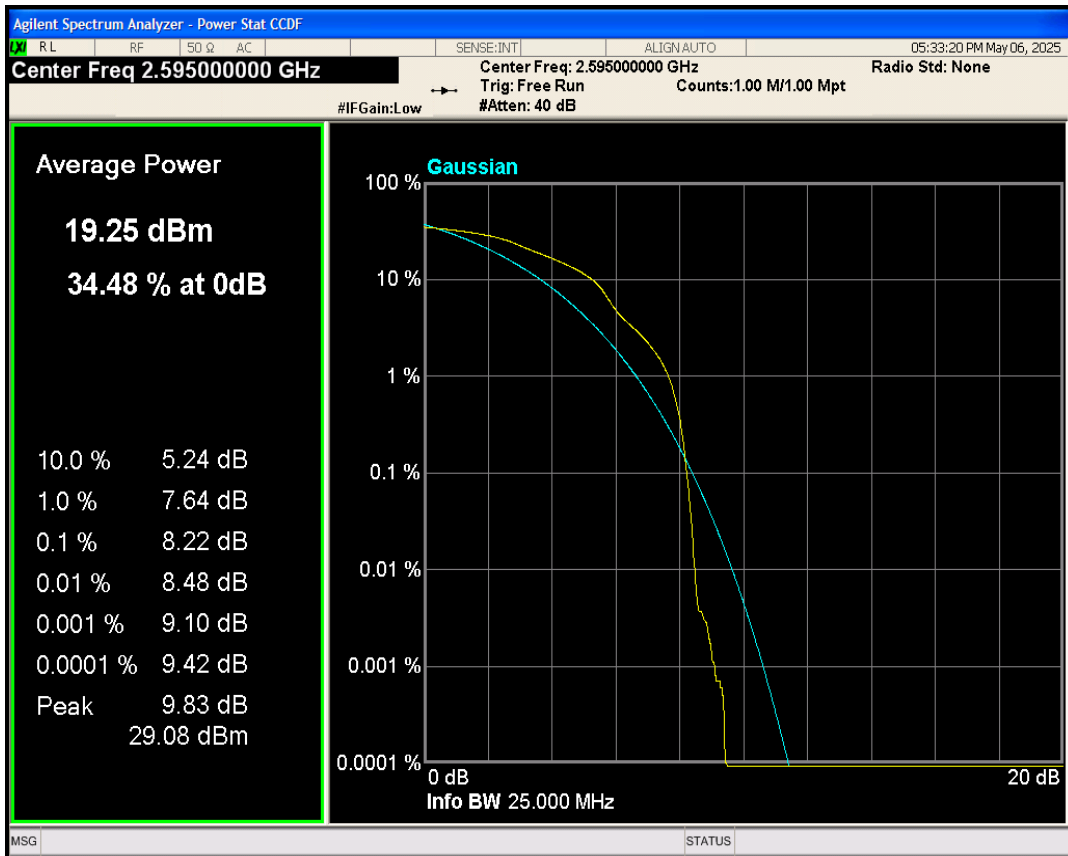




Band38 QPSK BW=20MHz Channel=38000 RB Size=1 Position=#0

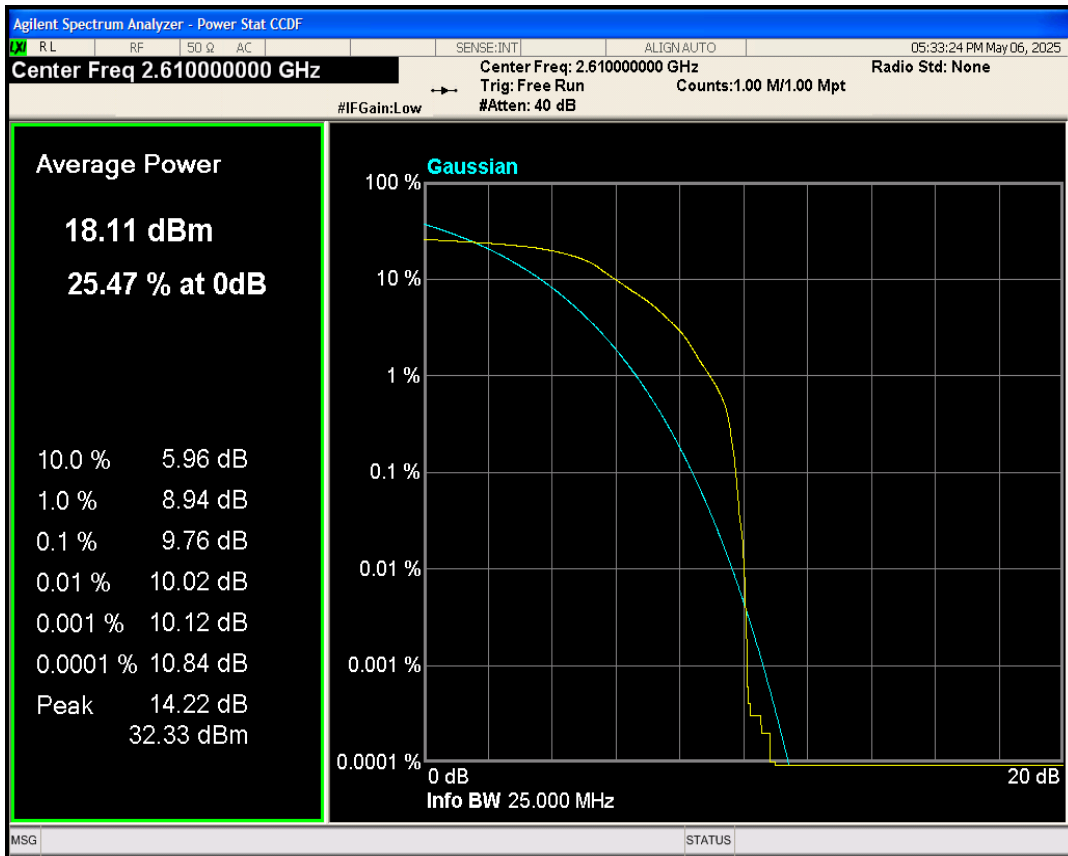


Band38 16QAM BW=20MHz Channel=38000 RB Size=1 Position=#0

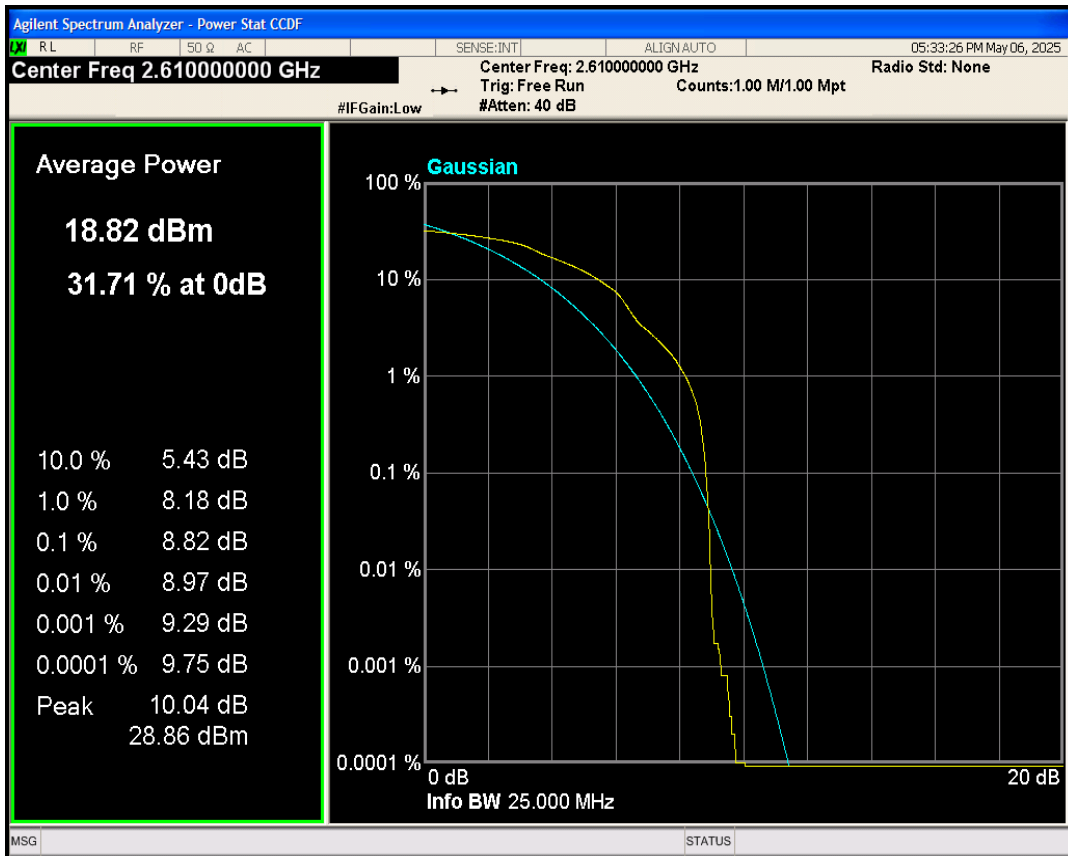




Band38 QPSK BW=20MHz Channel=38150 RB Size=1 Position=#0



Band38 16QAM BW=20MHz Channel=38150 RB Size=1 Position=#0

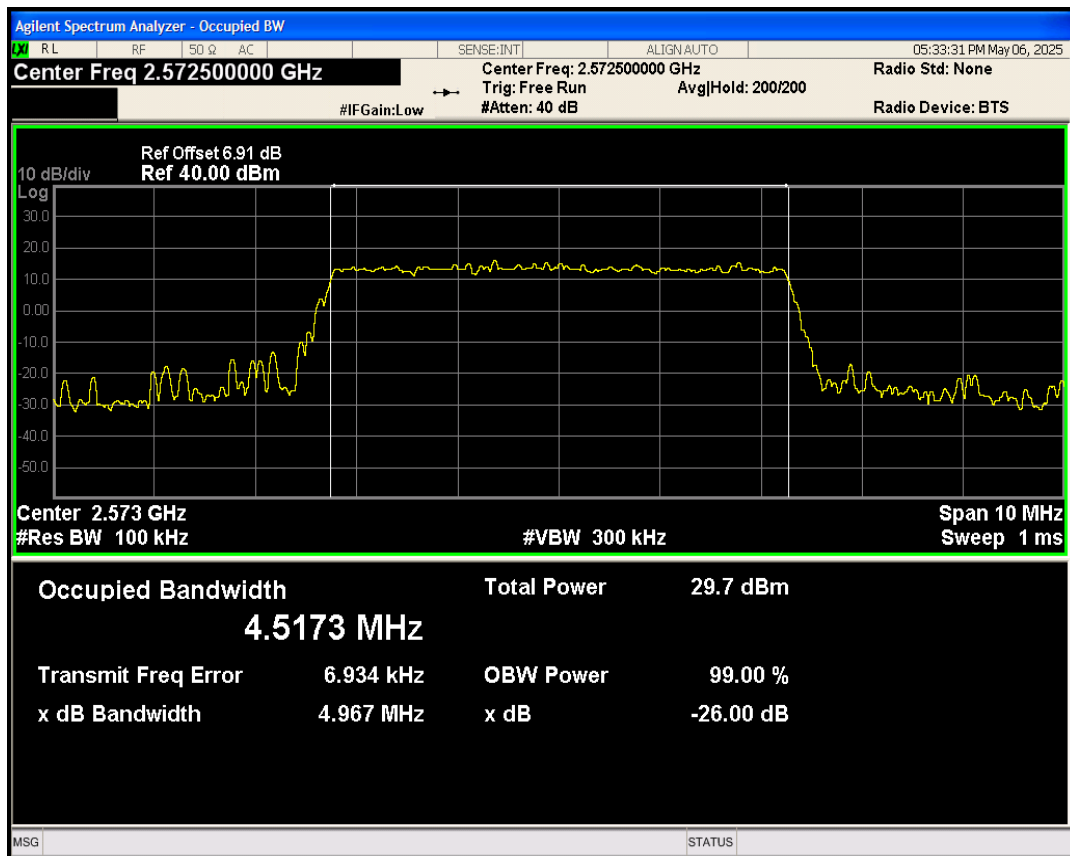


Appendix 4. Occupied bandwidth

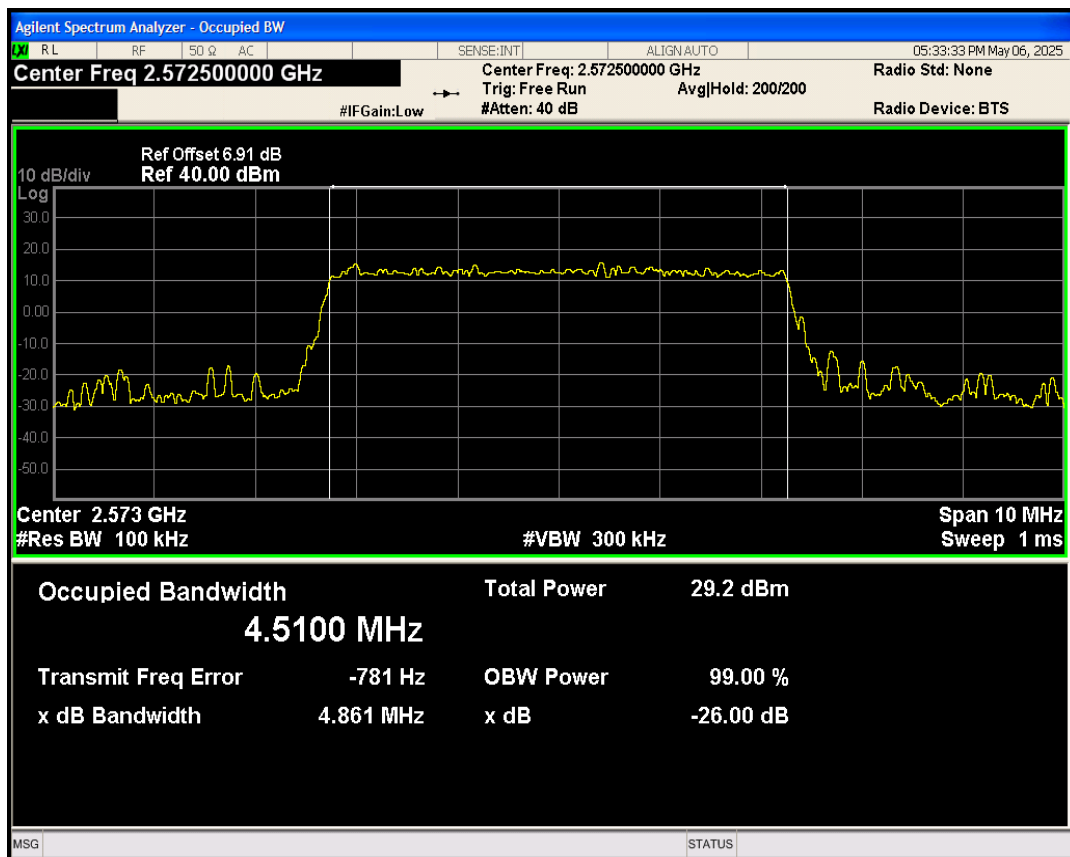
Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	99% OBW (MHz)	-26dB EBW (MHz)	Verdict
Band38	5	37775	25	#0	QPSK	4.517	4.967	PASS
Band38	5	37775	25	#0	16QAM	4.510	4.861	PASS
Band38	5	38000	25	#0	QPSK	4.506	4.874	PASS
Band38	5	38000	25	#0	16QAM	4.480	5.023	PASS
Band38	5	38225	25	#0	QPSK	4.513	4.908	PASS
Band38	5	38225	25	#0	16QAM	4.492	4.899	PASS
Band38	10	37800	50	#0	QPSK	8.977	9.859	PASS
Band38	10	37800	50	#0	16QAM	8.993	9.630	PASS
Band38	10	38000	50	#0	QPSK	8.968	10.135	PASS
Band38	10	38000	50	#0	16QAM	8.987	9.827	PASS
Band38	10	38200	50	#0	QPSK	9.011	9.696	PASS
Band38	10	38200	50	#0	16QAM	9.001	9.889	PASS
Band38	15	37825	75	#0	QPSK	13.506	14.764	PASS
Band38	15	37825	75	#0	16QAM	13.503	14.583	PASS
Band38	15	38000	75	#0	QPSK	13.459	14.465	PASS
Band38	15	38000	75	#0	16QAM	13.445	15.237	PASS
Band38	15	38175	75	#0	QPSK	13.449	15.215	PASS
Band38	15	38175	75	#0	16QAM	13.468	15.288	PASS
Band38	20	37850	100	#0	QPSK	18.031	19.598	PASS
Band38	20	37850	100	#0	16QAM	17.965	19.568	PASS
Band38	20	38000	100	#0	QPSK	17.928	19.722	PASS
Band38	20	38000	100	#0	16QAM	17.947	19.180	PASS
Band38	20	38150	100	#0	QPSK	18.056	19.386	PASS
Band38	20	38150	100	#0	16QAM	17.959	19.680	PASS



Band38 QPSK BW=5MHz Channel=37775 RB Size=25 Position=#0

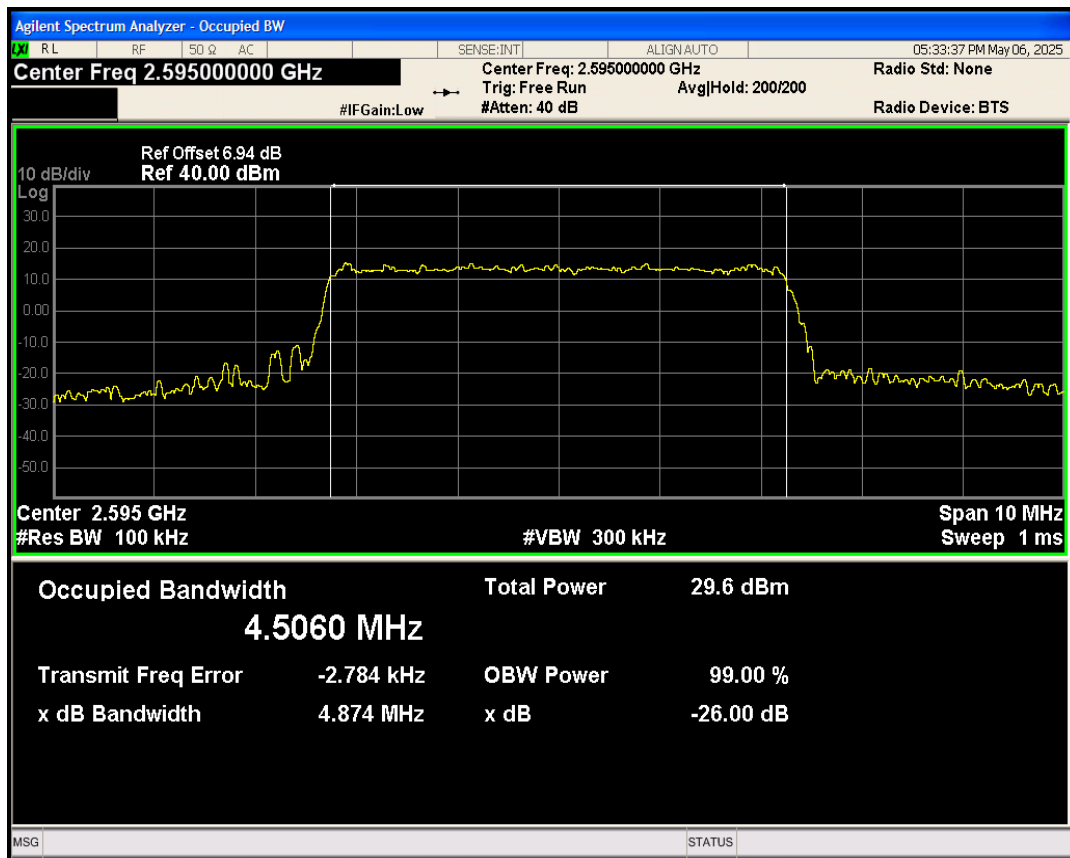


Band38 16QAM BW=5MHz Channel=37775 RB Size=25 Position=#0

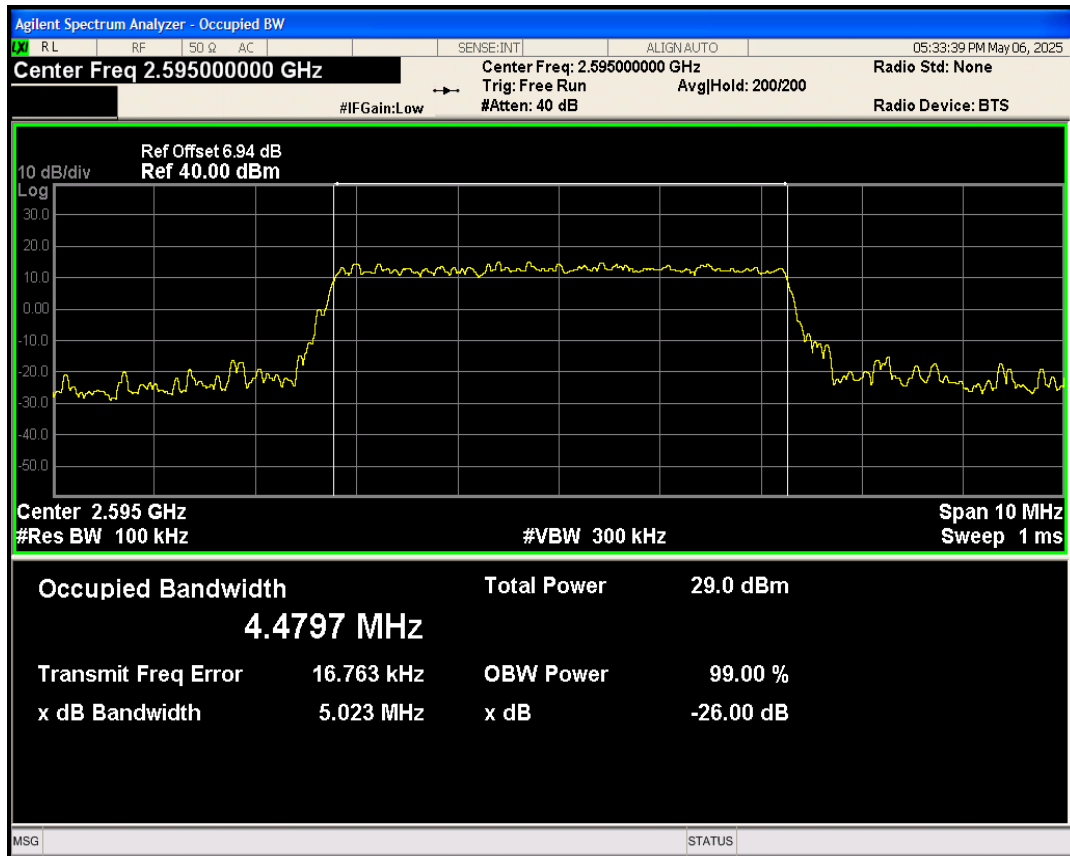




Band38 QPSK BW=5MHz Channel=38000 RB Size=25 Position=#0

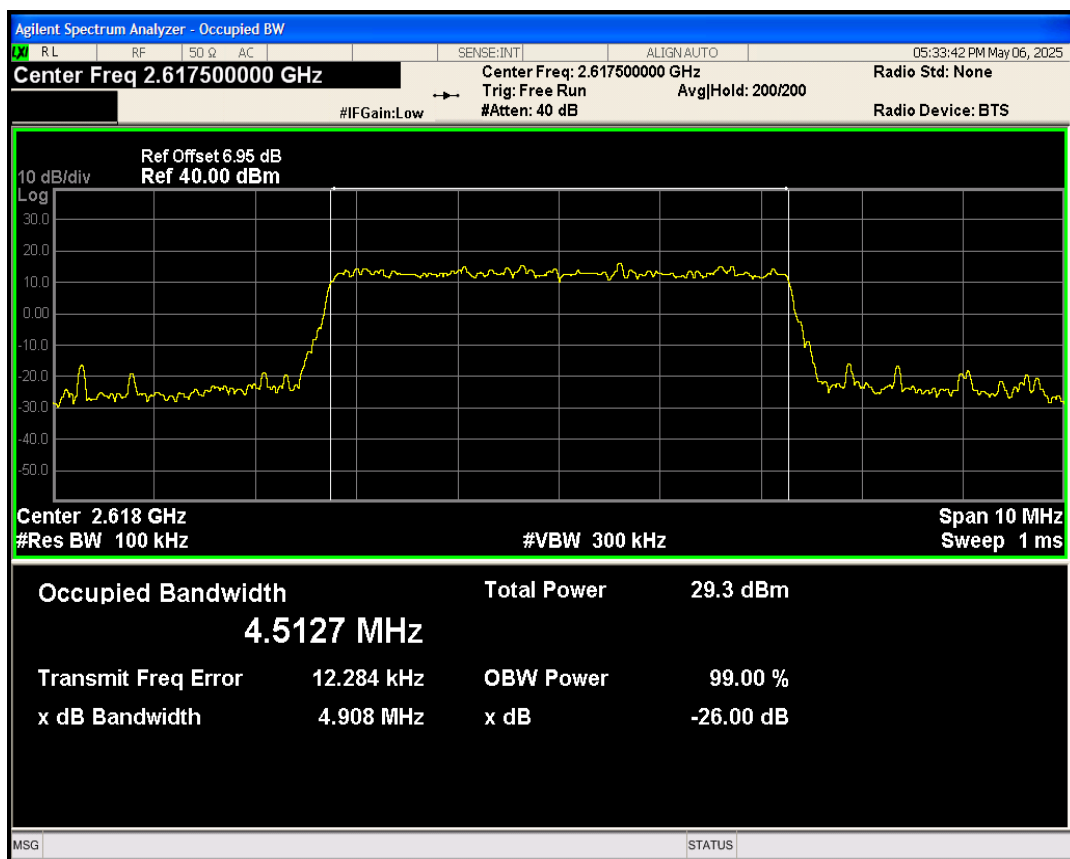


Band38 16QAM BW=5MHz Channel=38000 RB Size=25 Position=#0

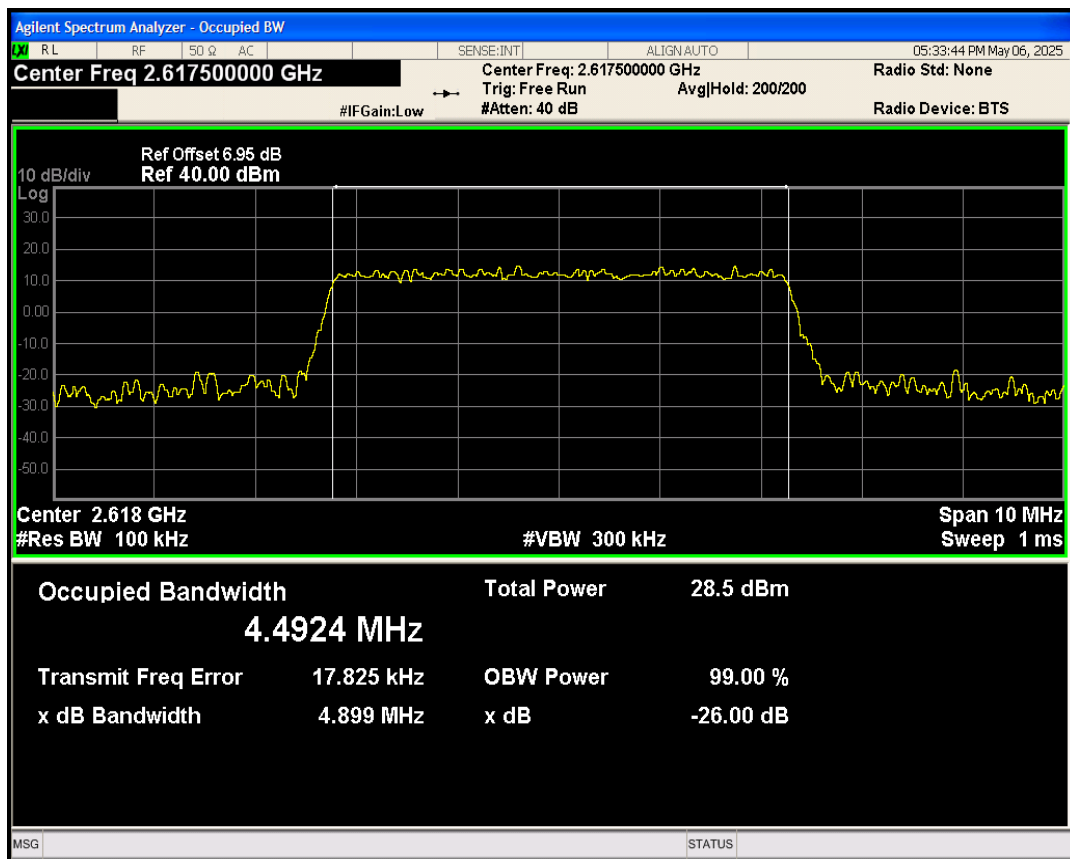




Band38 QPSK BW=5MHz Channel=38225 RB Size=25 Position=#0

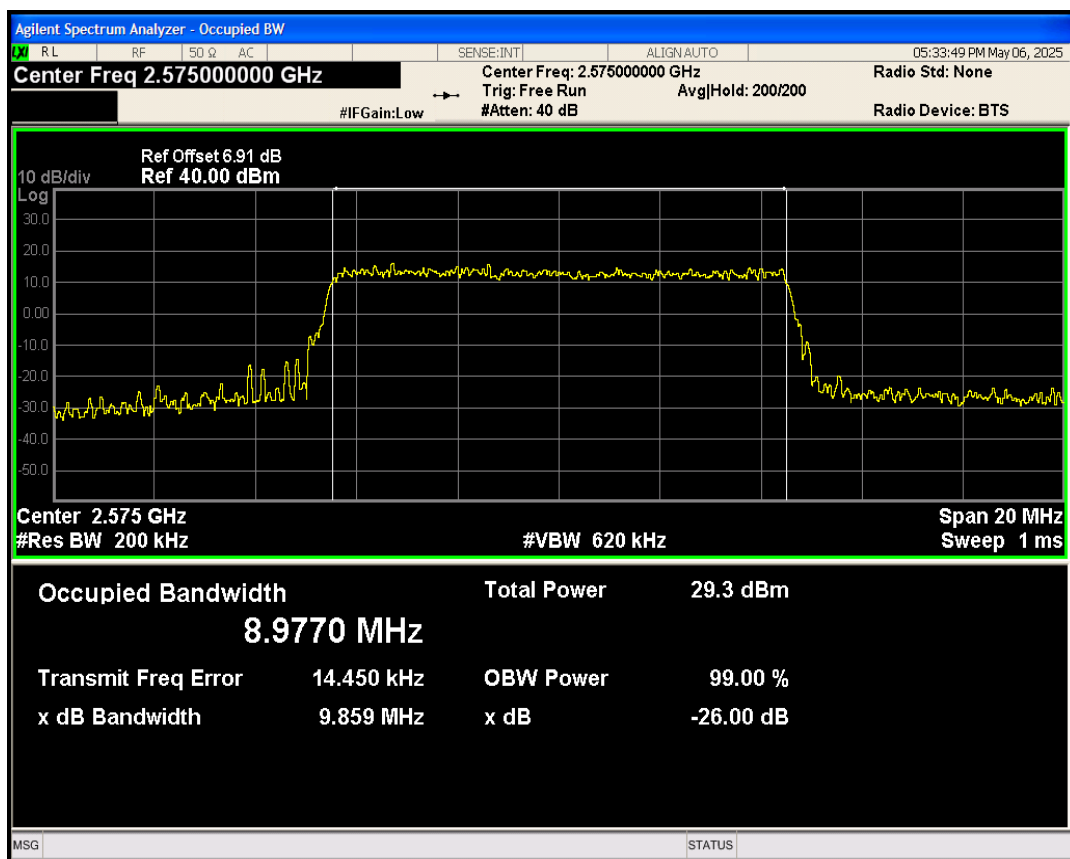


Band38 16QAM BW=5MHz Channel=38225 RB Size=25 Position=#0

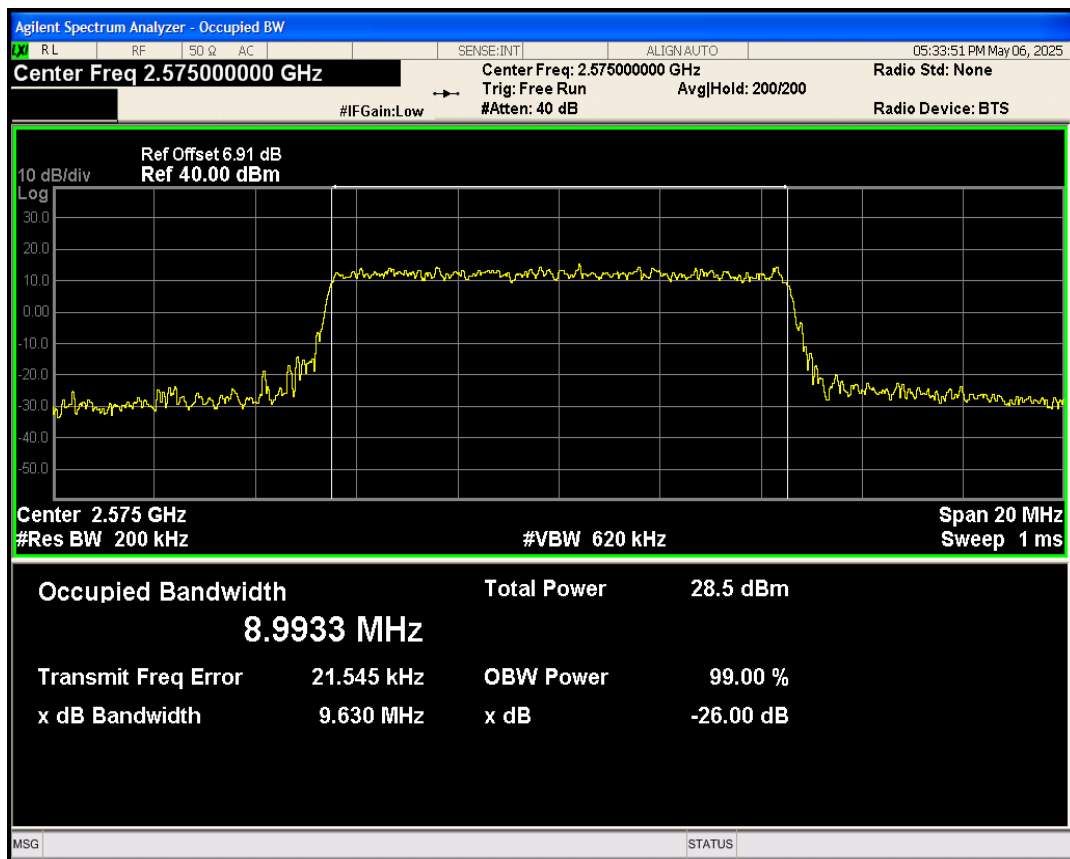




Band38 QPSK BW=10MHz Channel=37800 RB Size=50 Position=#0

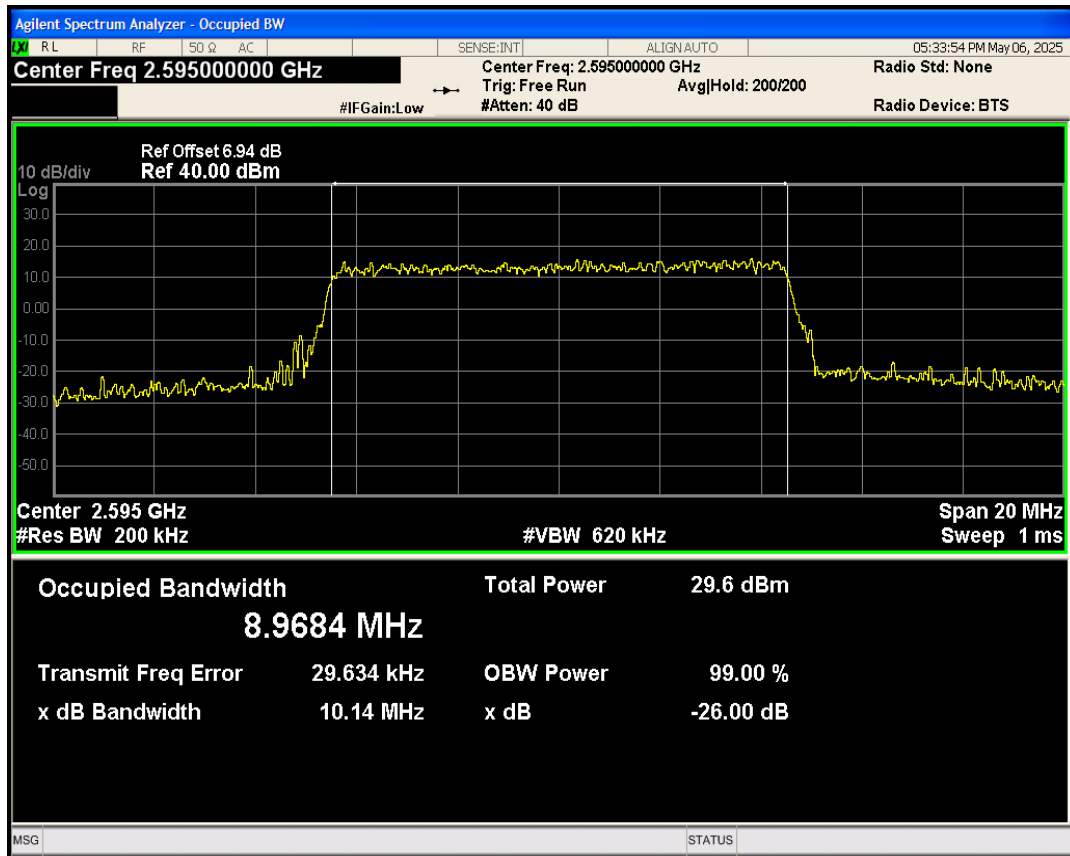


Band38 16QAM BW=10MHz Channel=37800 RB Size=50 Position=#0

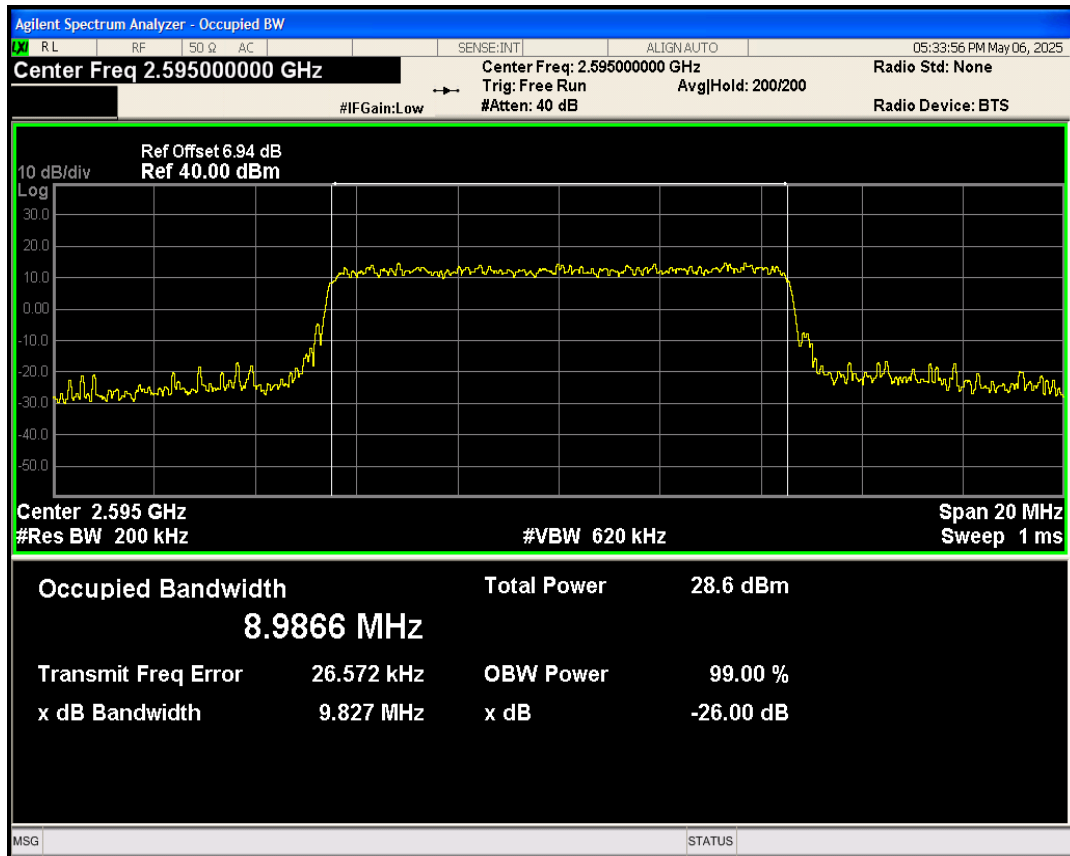




Band38 QPSK BW=10MHz Channel=38000 RB Size=50 Position=#0

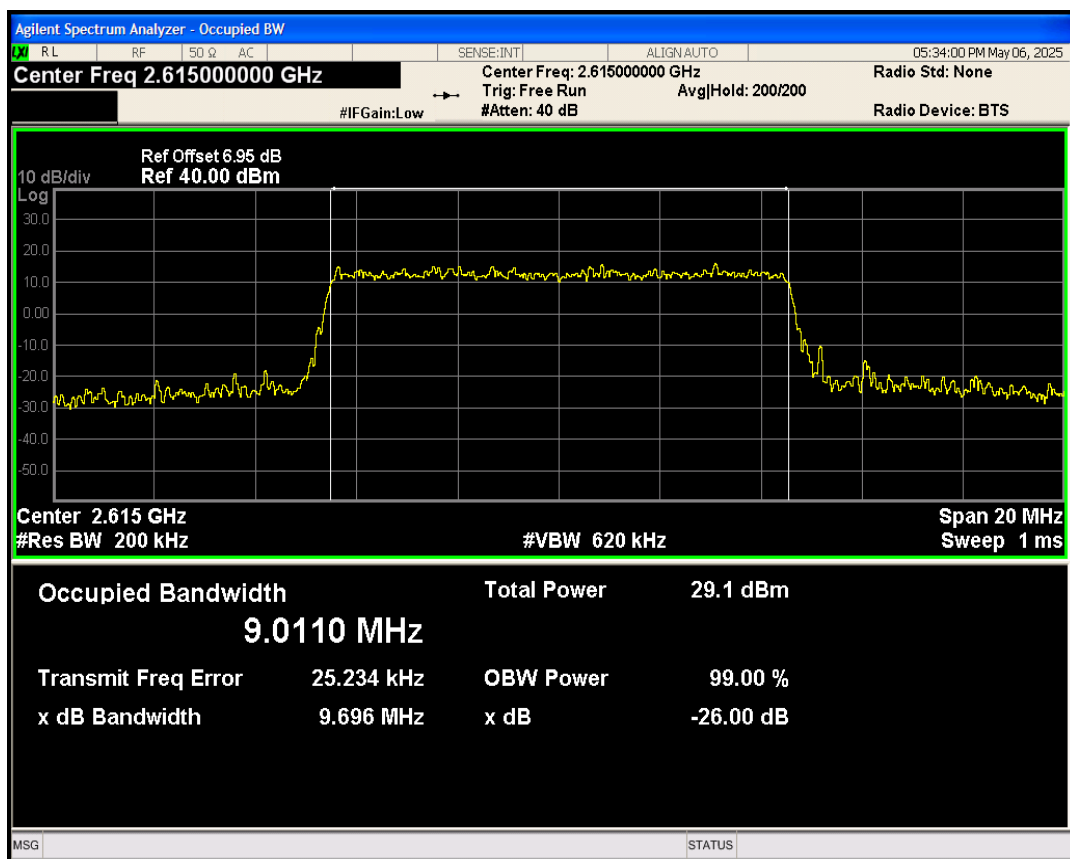


Band38 16QAM BW=10MHz Channel=38000 RB Size=50 Position=#0

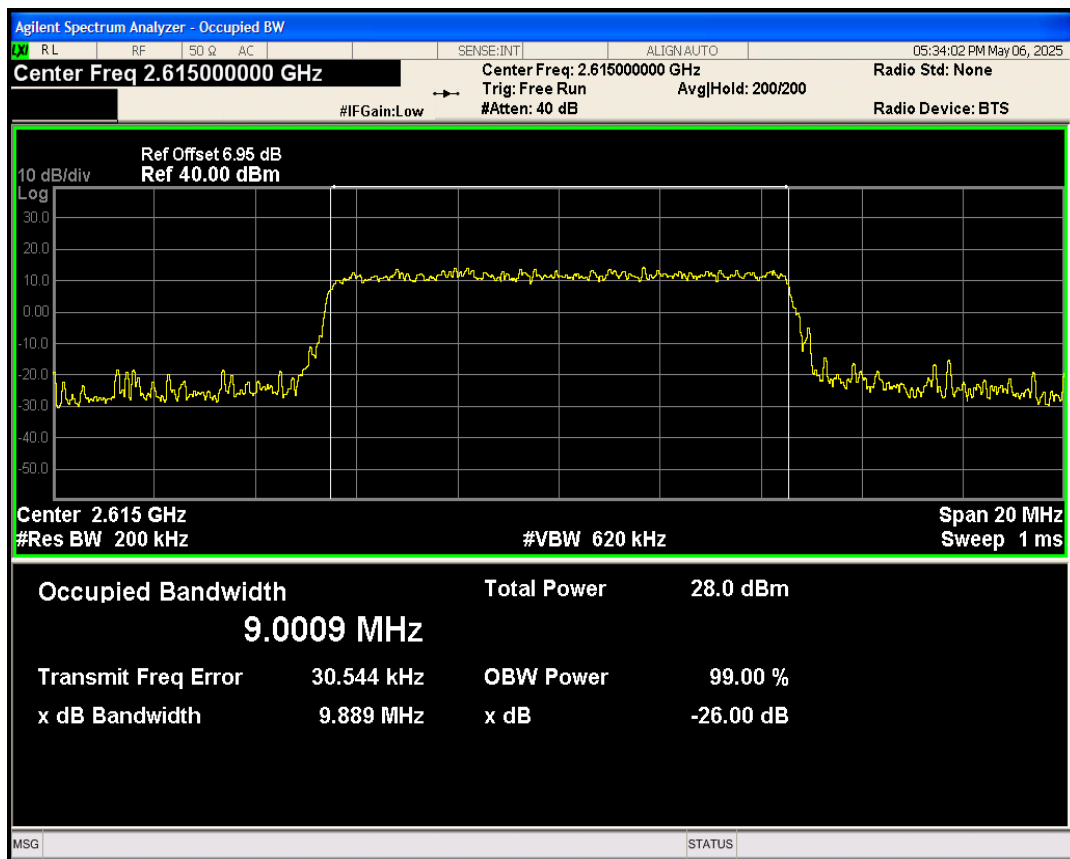




Band38 QPSK BW=10MHz Channel=38200 RB Size=50 Position=#0

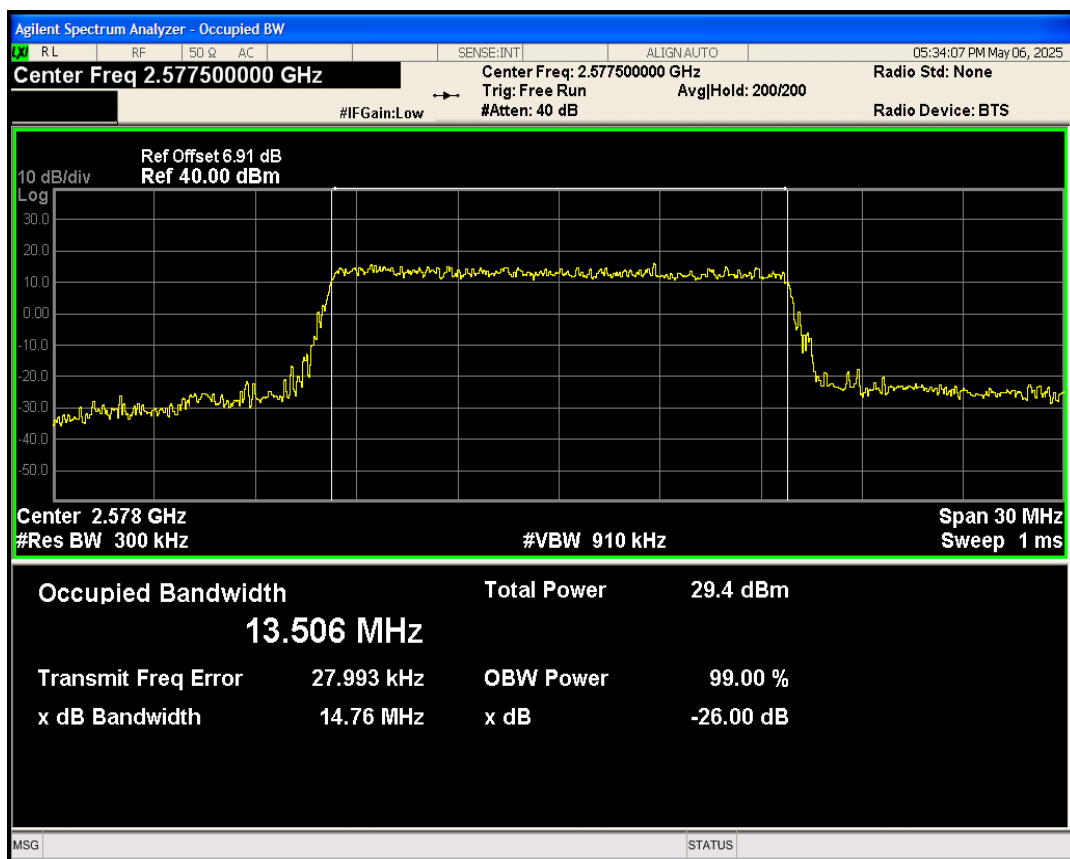


Band38 16QAM BW=10MHz Channel=38200 RB Size=50 Position=#0

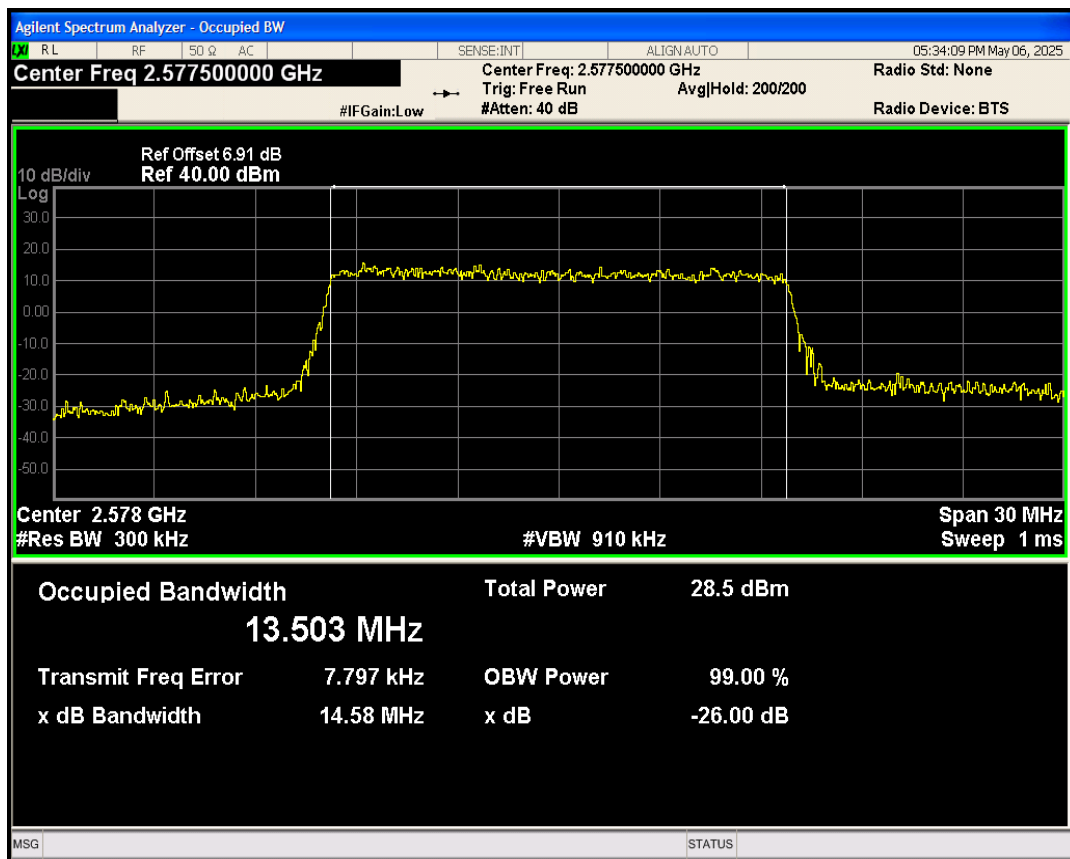




Band38 QPSK BW=15MHz Channel=37825 RB Size=75 Position=#0

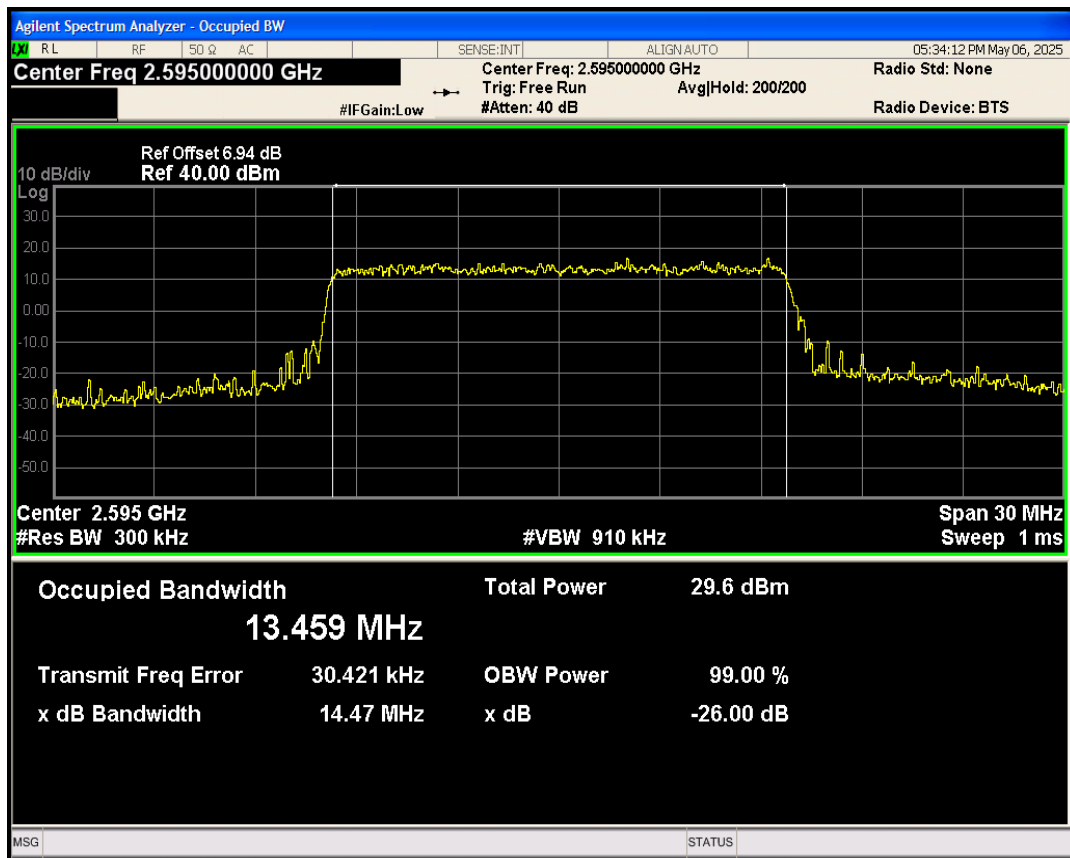


Band38 16QAM BW=15MHz Channel=37825 RB Size=75 Position=#0

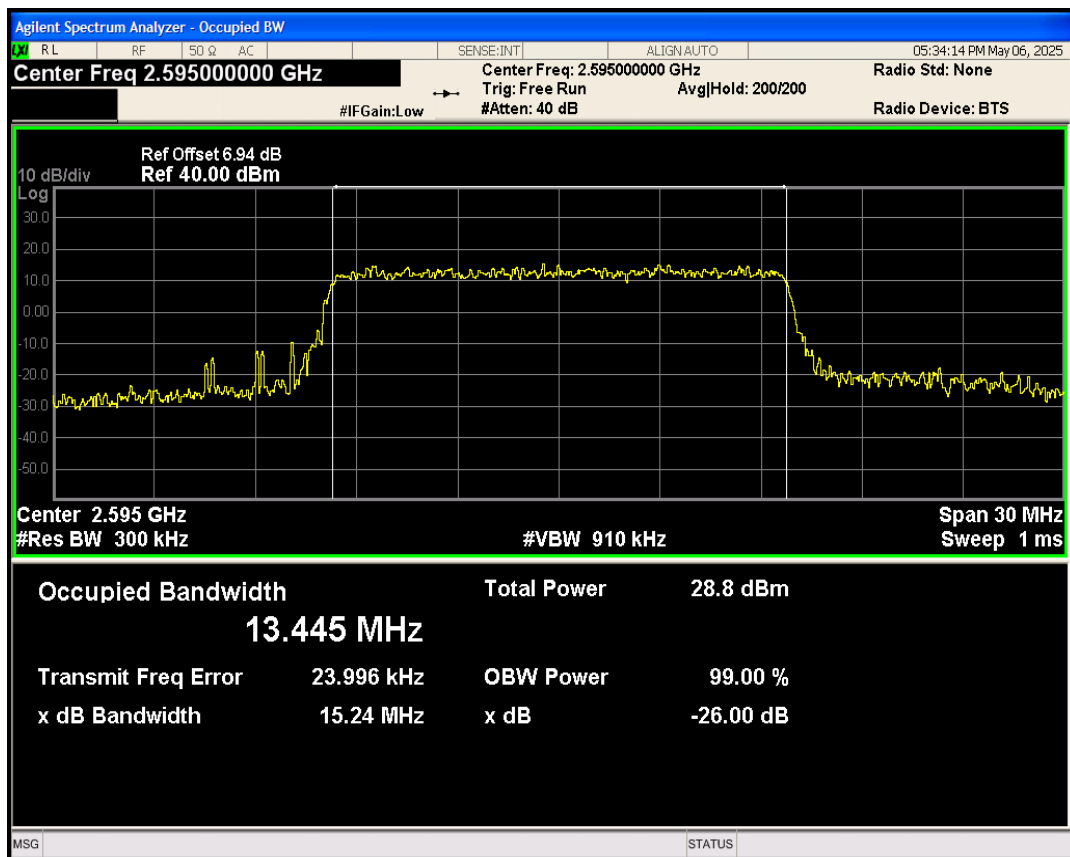




Band38 QPSK BW=15MHz Channel=38000 RB Size=75 Position=#0

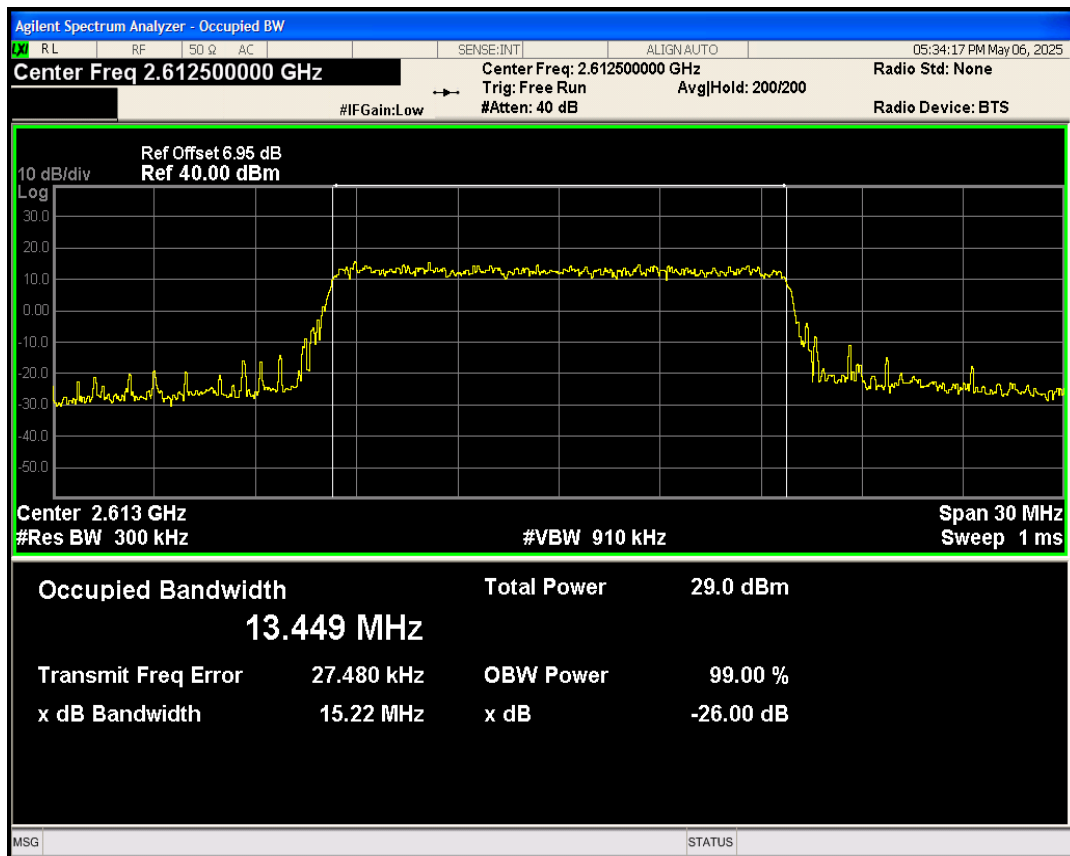


Band38 16QAM BW=15MHz Channel=38000 RB Size=75 Position=#0

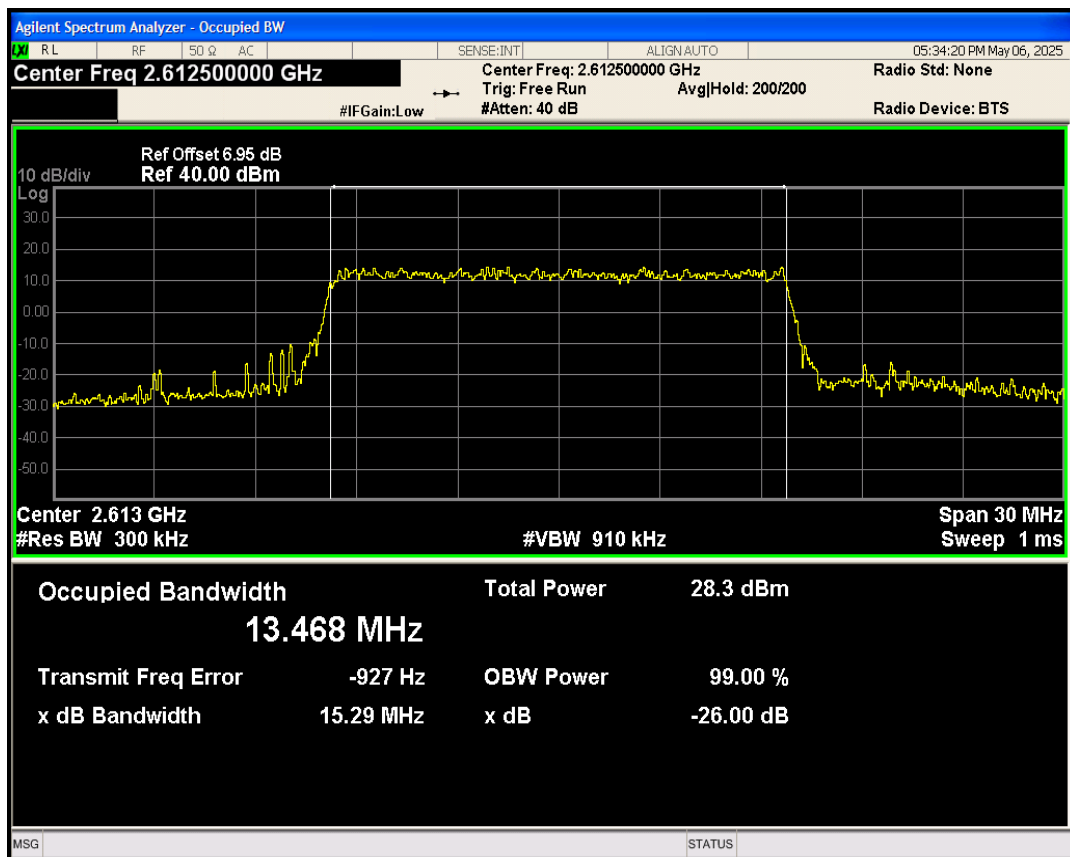




Band38 QPSK BW=15MHz Channel=38175 RB Size=75 Position=#0

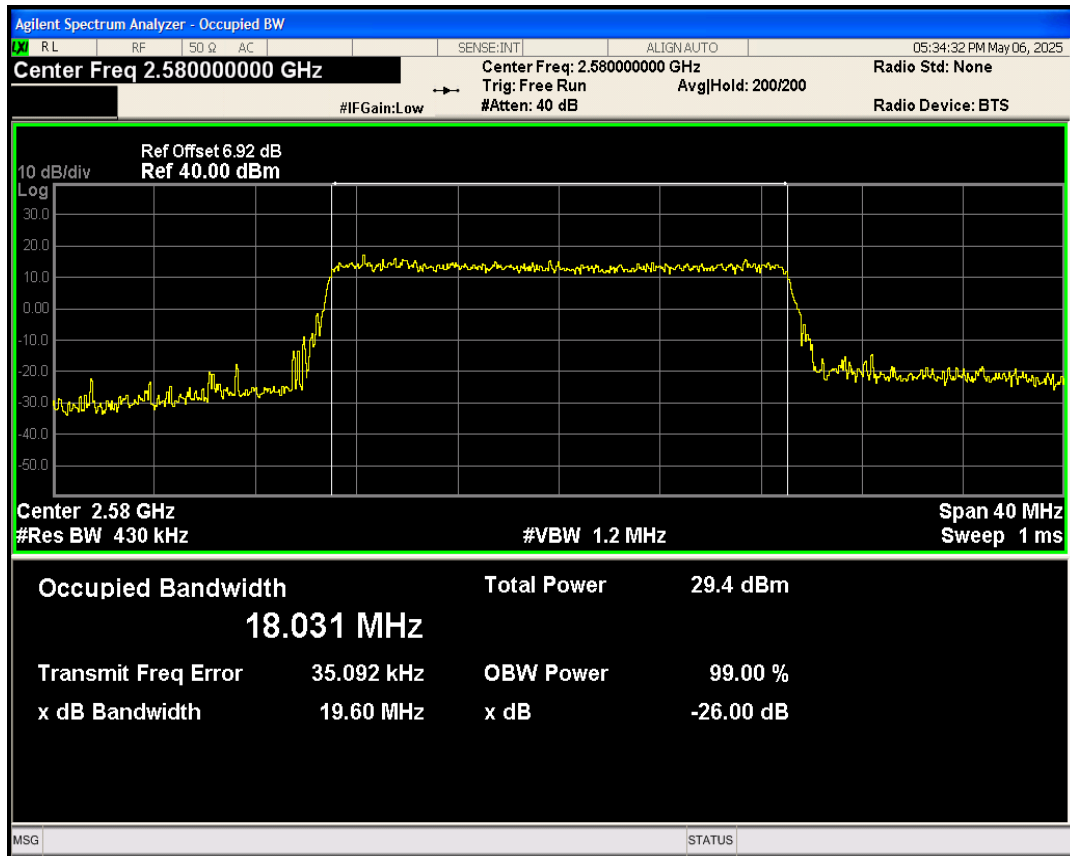


Band38 16QAM BW=15MHz Channel=38175 RB Size=75 Position=#0

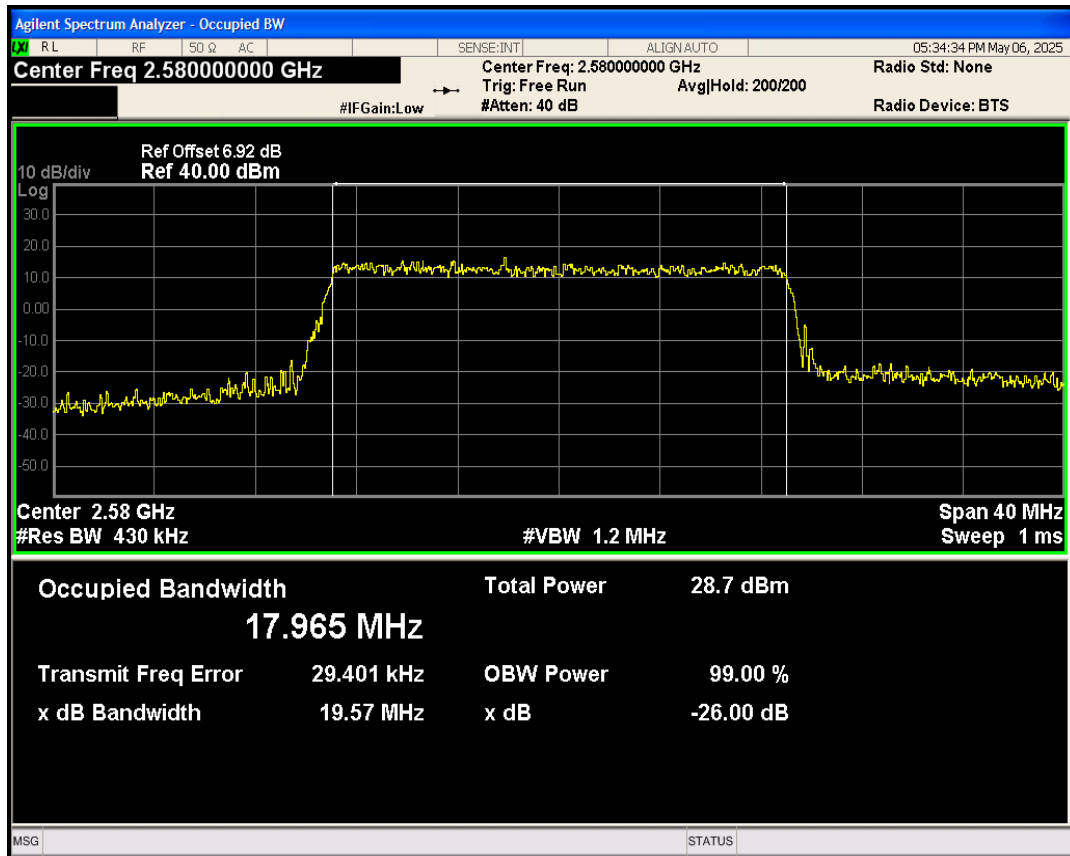




Band38 QPSK BW=20MHz Channel=37850 RB Size=100 Position=#0

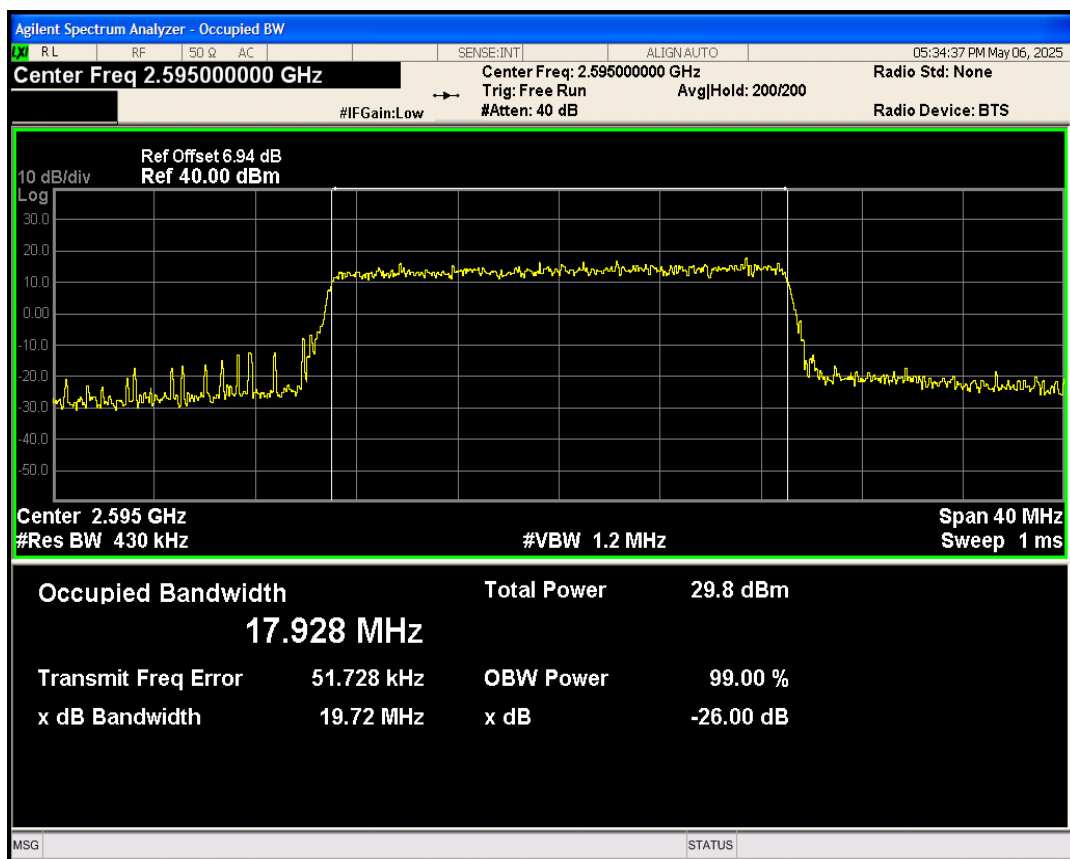


Band38 16QAM BW=20MHz Channel=37850 RB Size=100 Position=#0

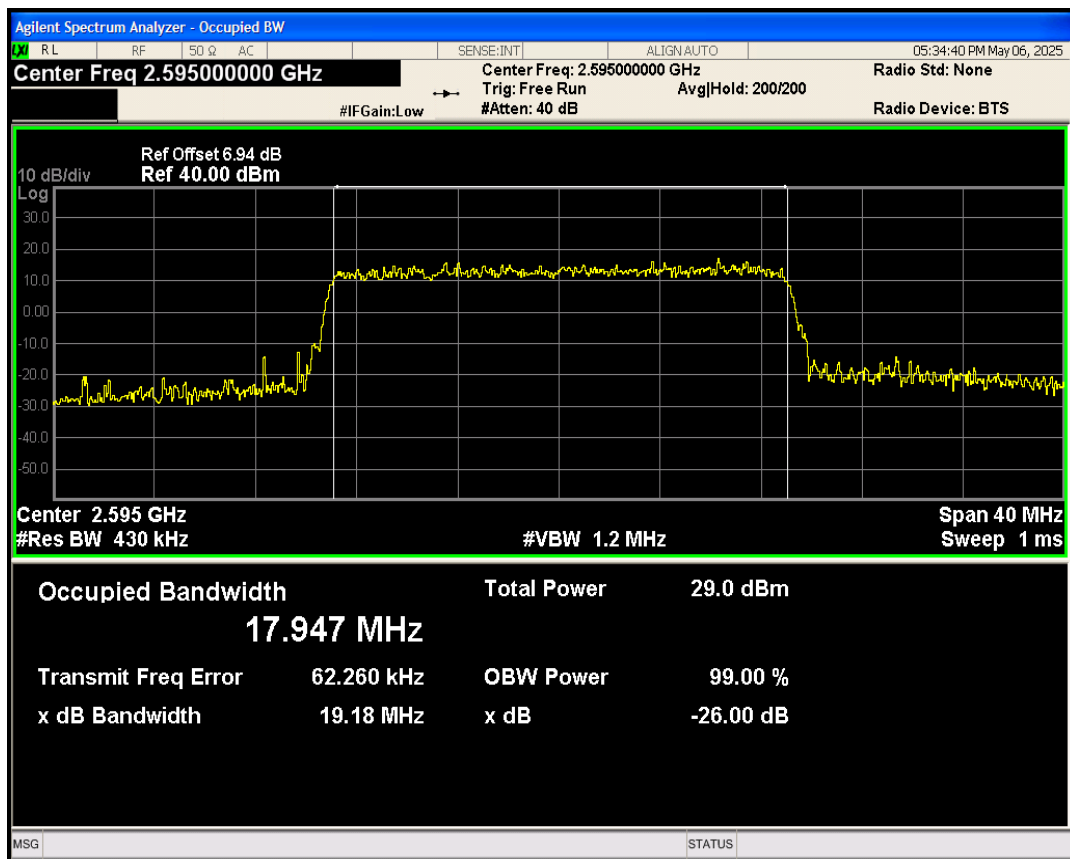




Band38 QPSK BW=20MHz Channel=38000 RB Size=100 Position=#0

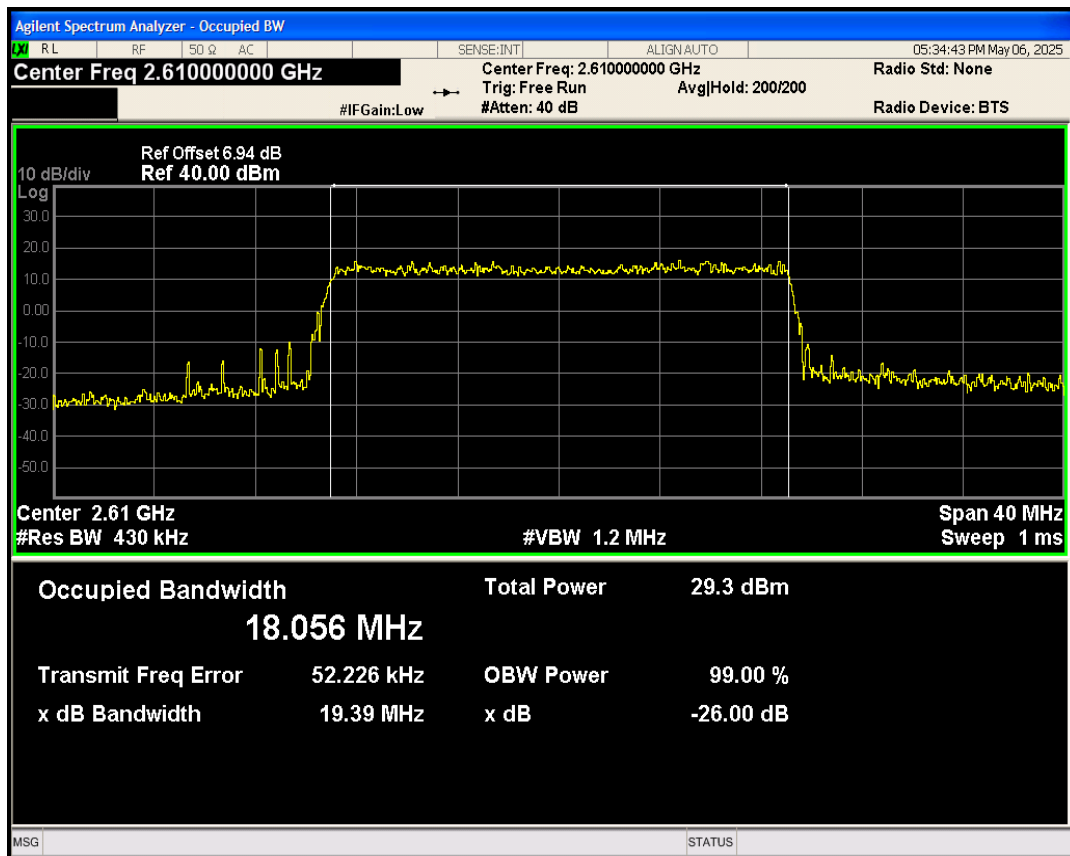


Band38 16QAM BW=20MHz Channel=38000 RB Size=100 Position=#0

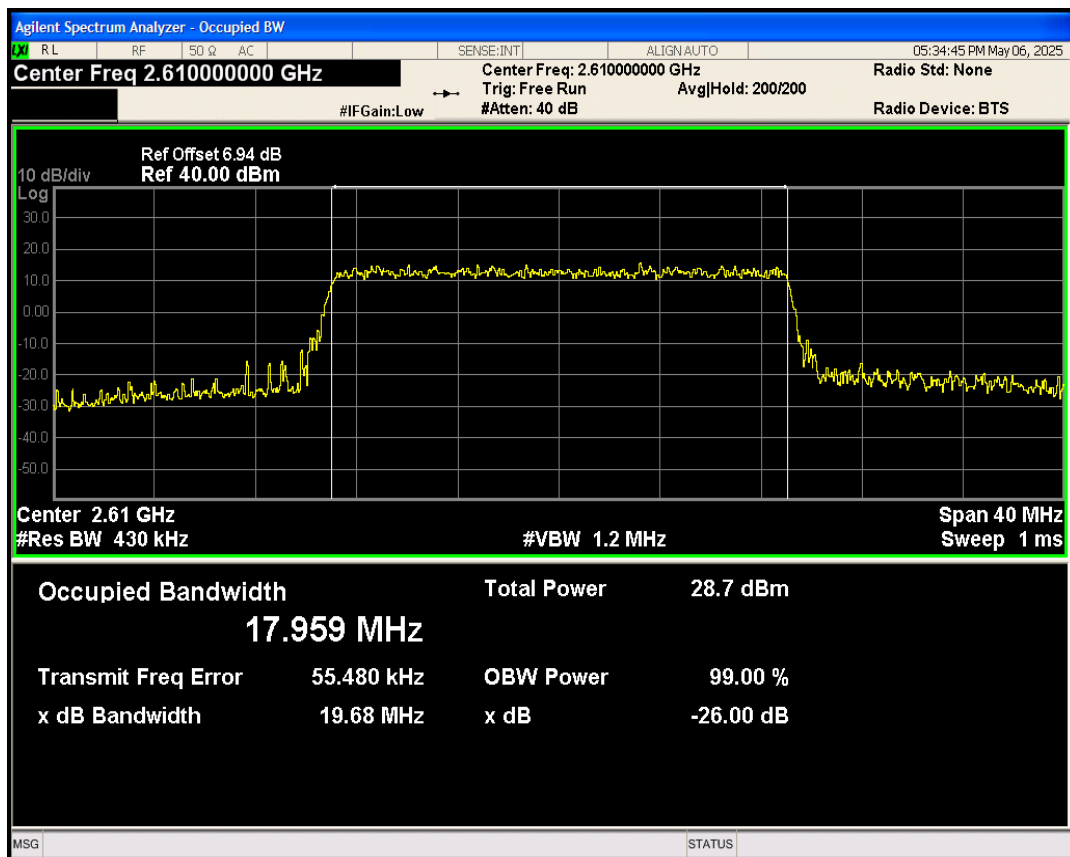




Band38 QPSK BW=20MHz Channel=38150 RB Size=100 Position=#0

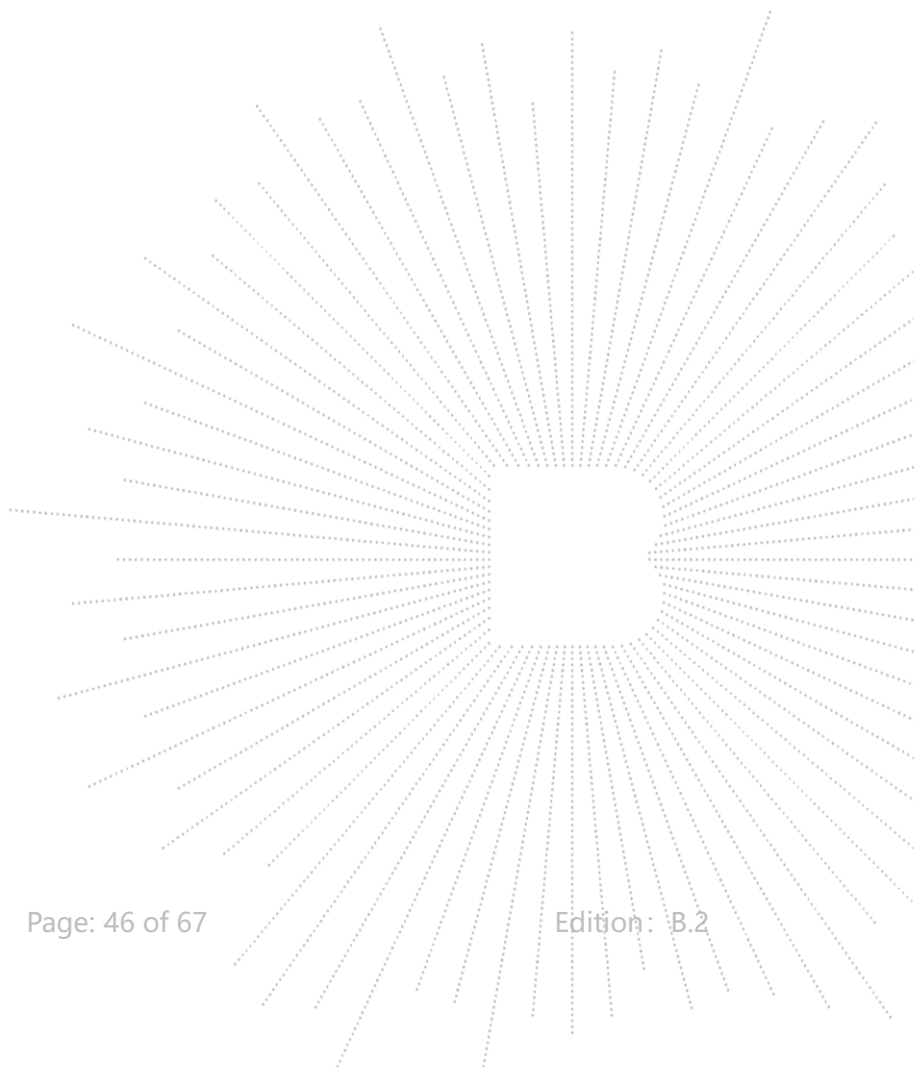


Band38 16QAM BW=20MHz Channel=38150 RB Size=100 Position=#0



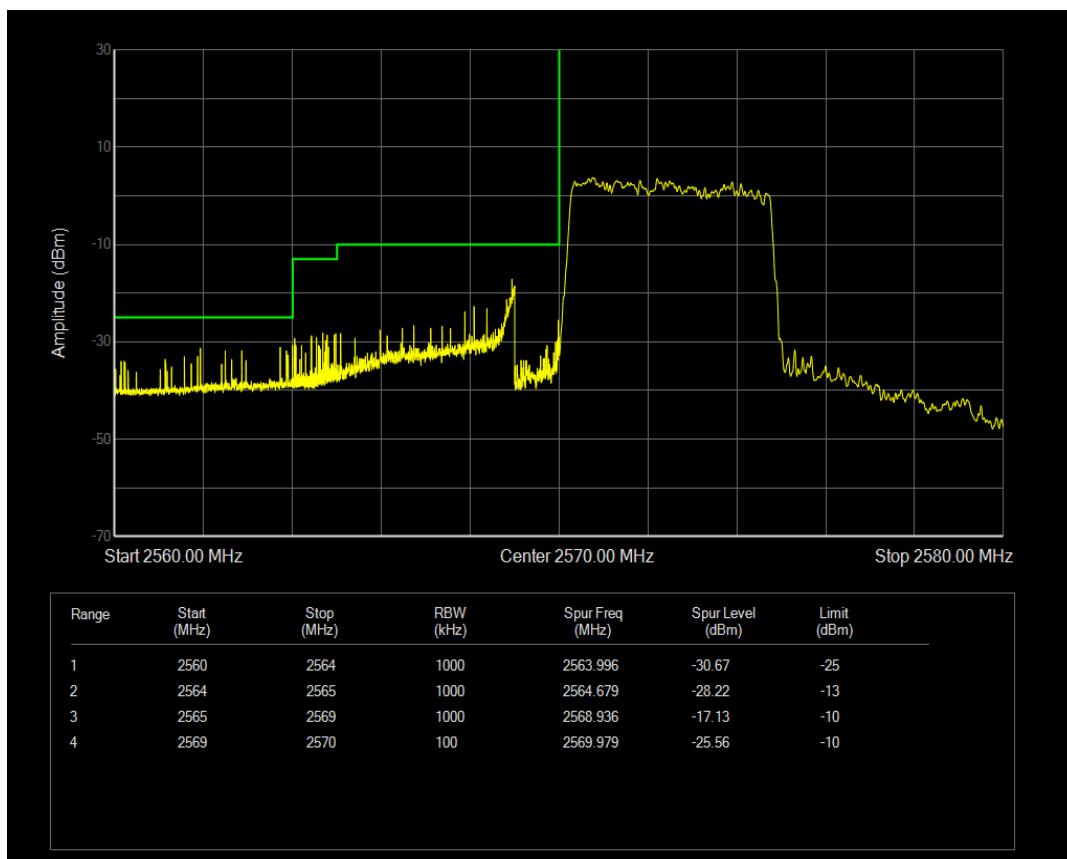
Appendix 5. Band edge

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
Band38	5	37775	25	#0	QPSK	2564.00	-30.67	-25	PASS
Band38	5	37775	25	#0	16QAM	2563.68	-30.72	-25	PASS
Band38	5	38225	25	#0	QPSK	2626.52	-30.36	-25	PASS
Band38	5	38225	25	#0	16QAM	2626.58	-29.69	-25	PASS
Band38	10	37800	50	#0	QPSK	2559.91	-37.30	-25	PASS
Band38	10	37800	50	#0	16QAM	2559.95	-37.52	-25	PASS
Band38	10	38200	50	#0	QPSK	2630.16	-32.91	-25	PASS
Band38	10	38200	50	#0	16QAM	2631.71	-33.15	-25	PASS
Band38	15	37825	75	#0	QPSK	2554.47	-38.89	-25	PASS
Band38	15	37825	75	#0	16QAM	2553.95	-38.53	-25	PASS
Band38	15	38175	75	#0	QPSK	2635.35	-36.27	-25	PASS
Band38	15	38175	75	#0	16QAM	2637.37	-34.73	-25	PASS
Band38	20	37850	100	#0	QPSK	2549.51	-38.40	-25	PASS
Band38	20	37850	100	#0	16QAM	2546.78	-39.30	-25	PASS
Band38	20	38150	100	#0	QPSK	2640.18	-36.41	-25	PASS
Band38	20	38150	100	#0	16QAM	2640.08	-36.54	-25	PASS

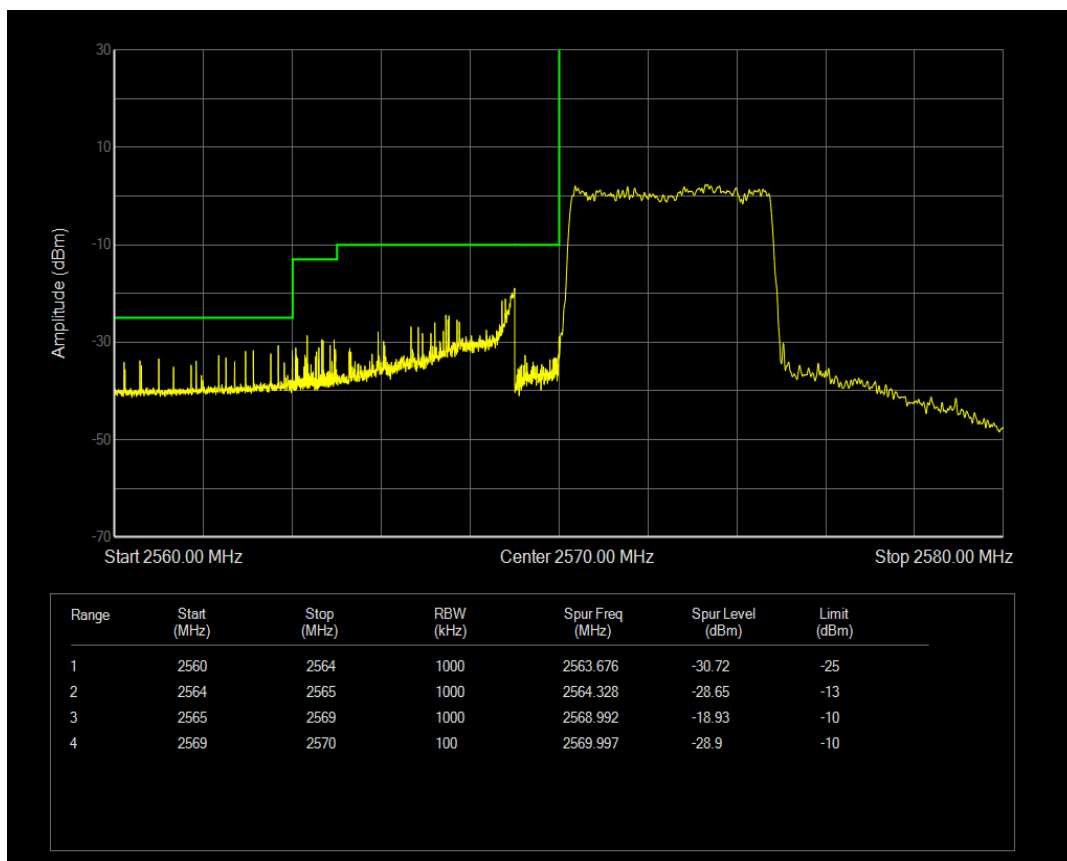




Band38 QPSK BW=5MHz Channel=37775 RB Size=25 Position=#0

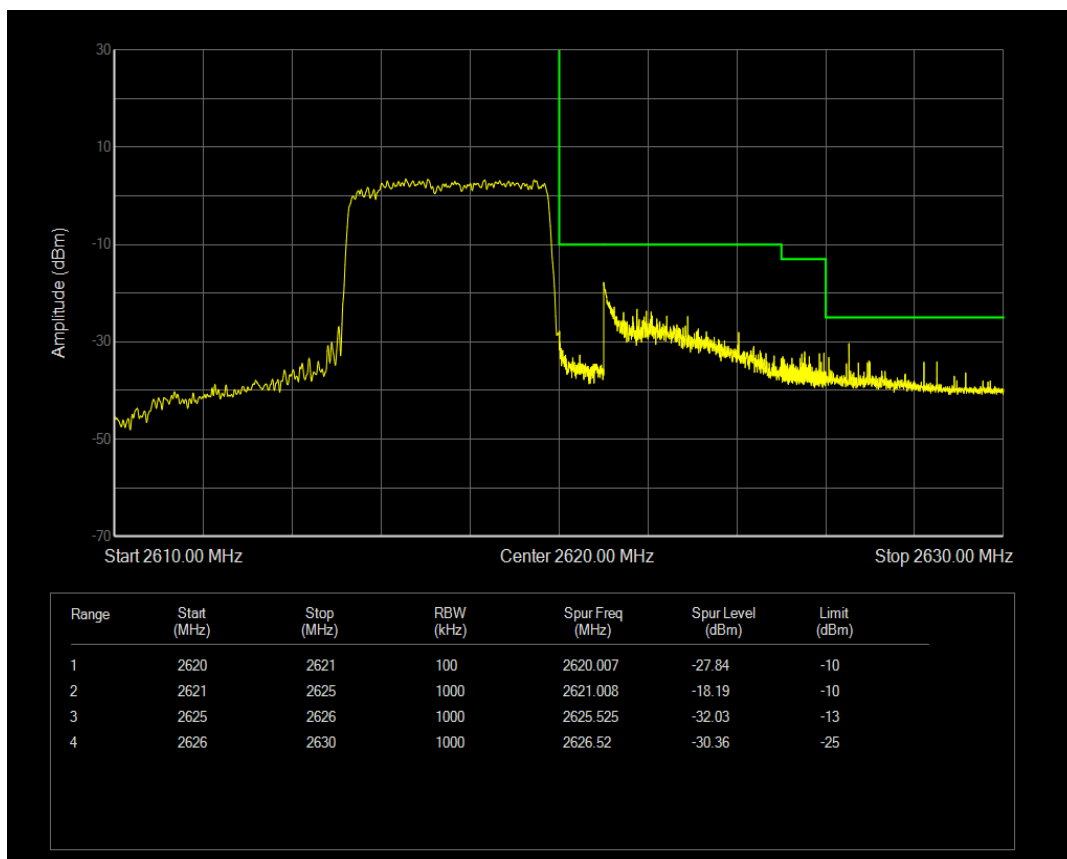


Band38 16QAM BW=5MHz Channel=37775 RB Size=25 Position=#0

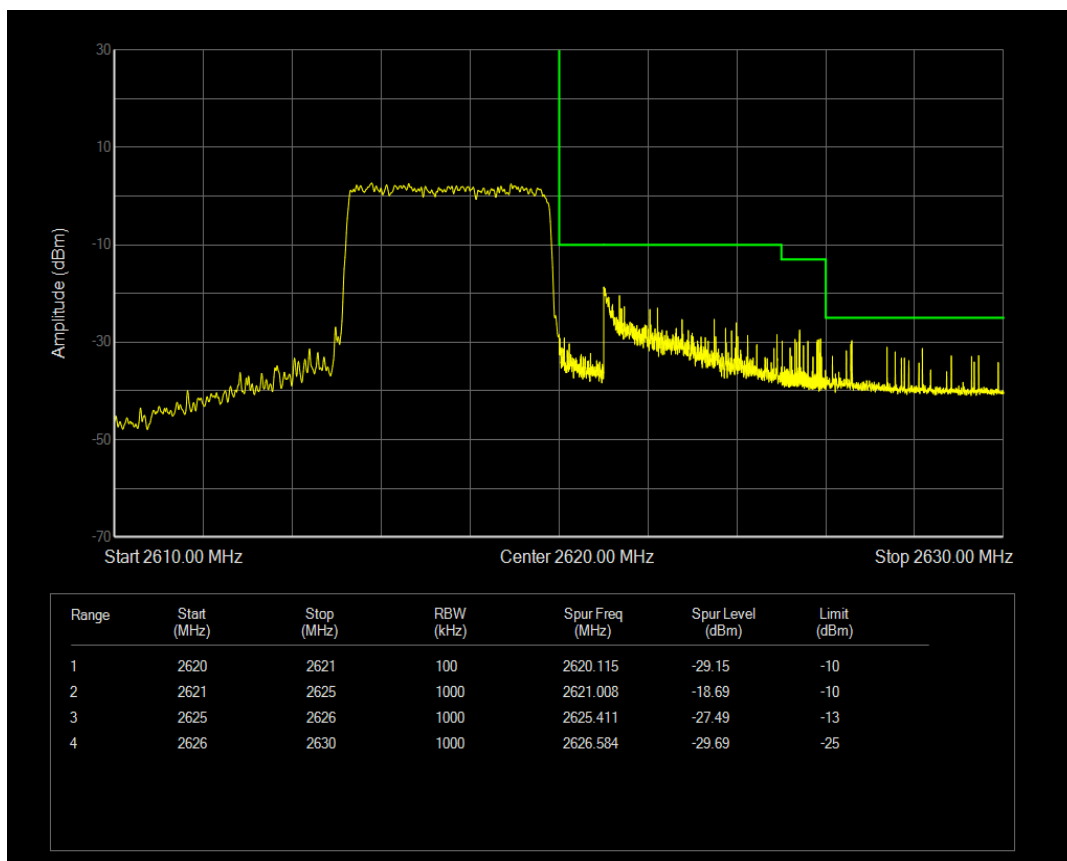




Band38 QPSK BW=5MHz Channel=38225 RB Size=25 Position=#0

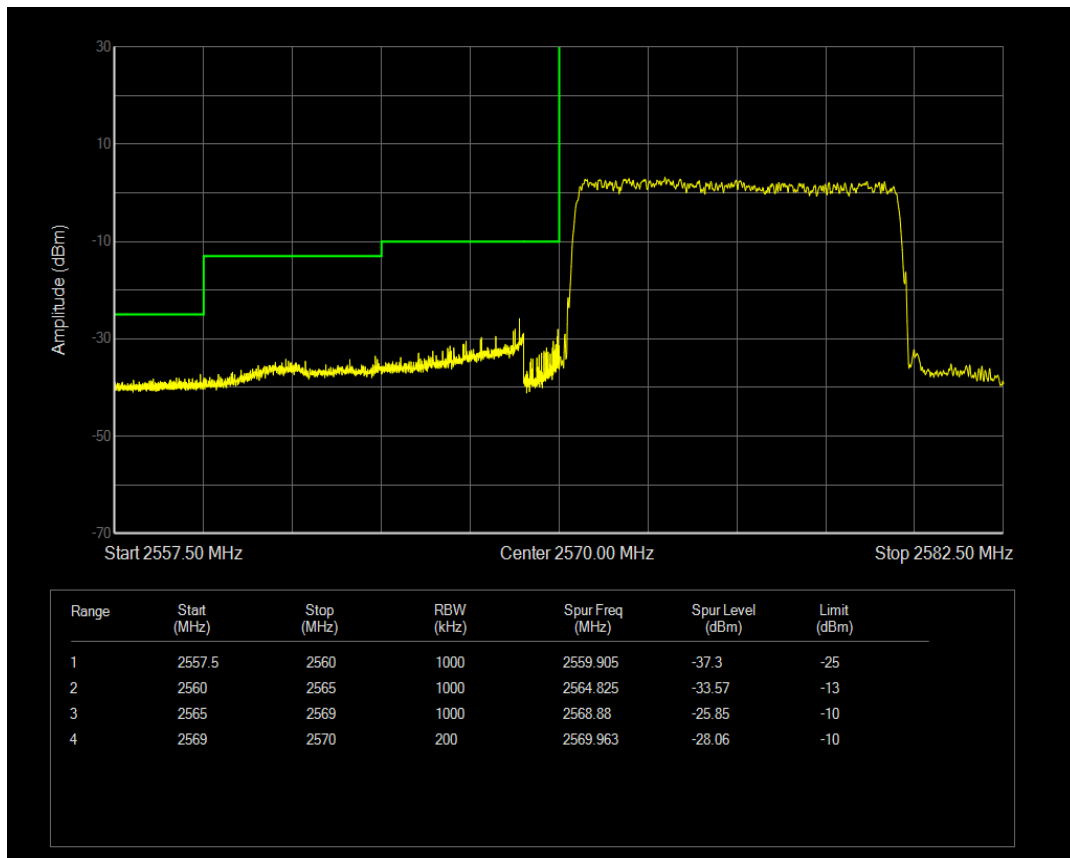


Band38 16QAM BW=5MHz Channel=38225 RB Size=25 Position=#0

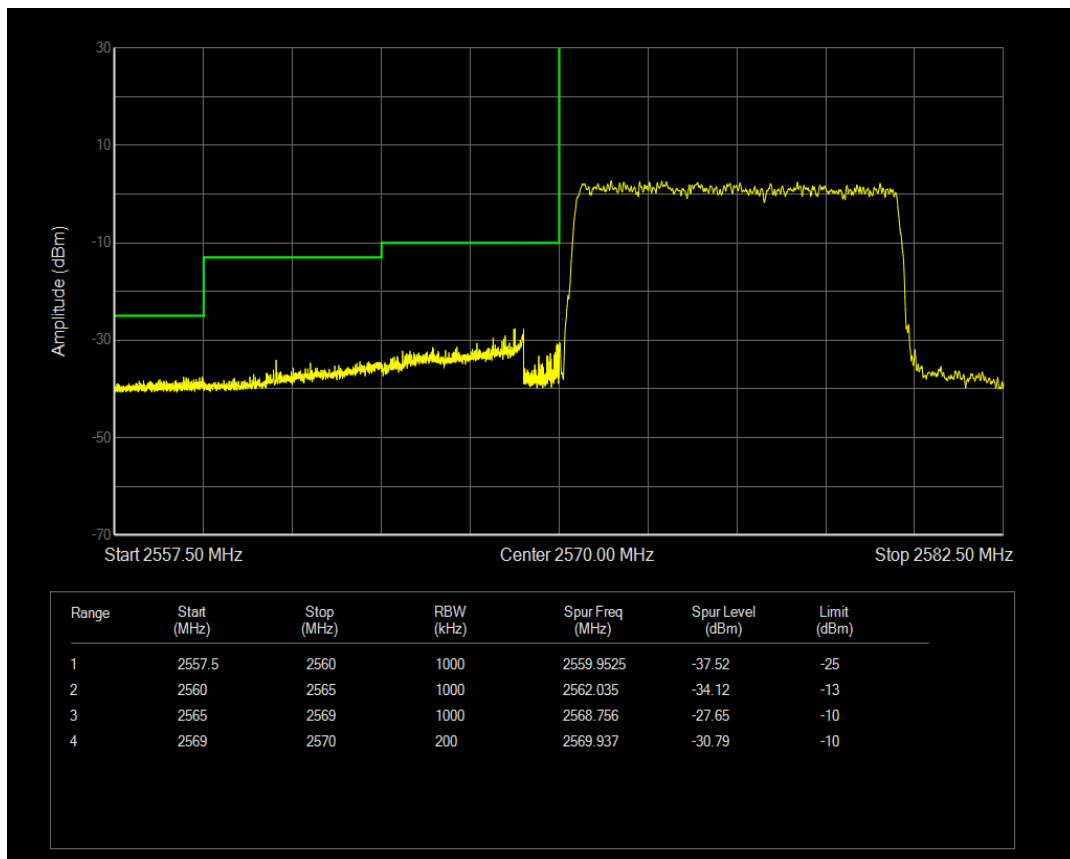




Band38 QPSK BW=10MHz Channel=37800 RB Size=50 Position=#0

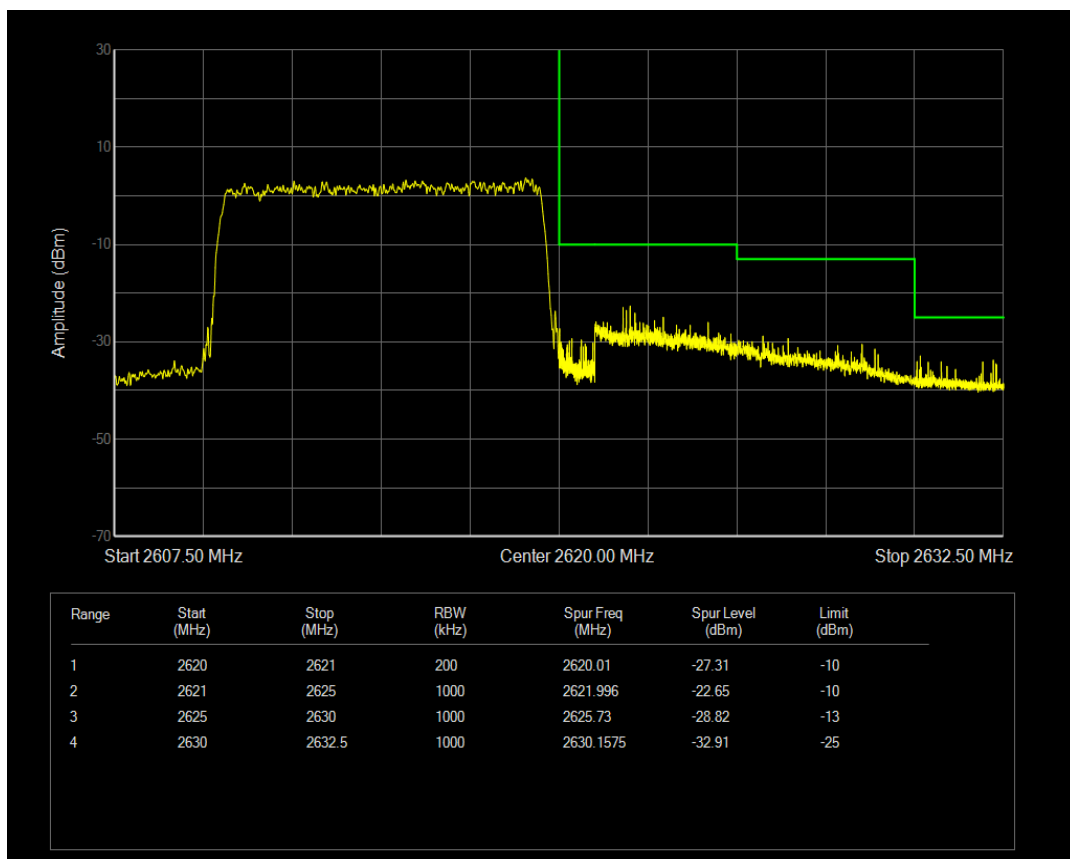


Band38 16QAM BW=10MHz Channel=37800 RB Size=50 Position=#0

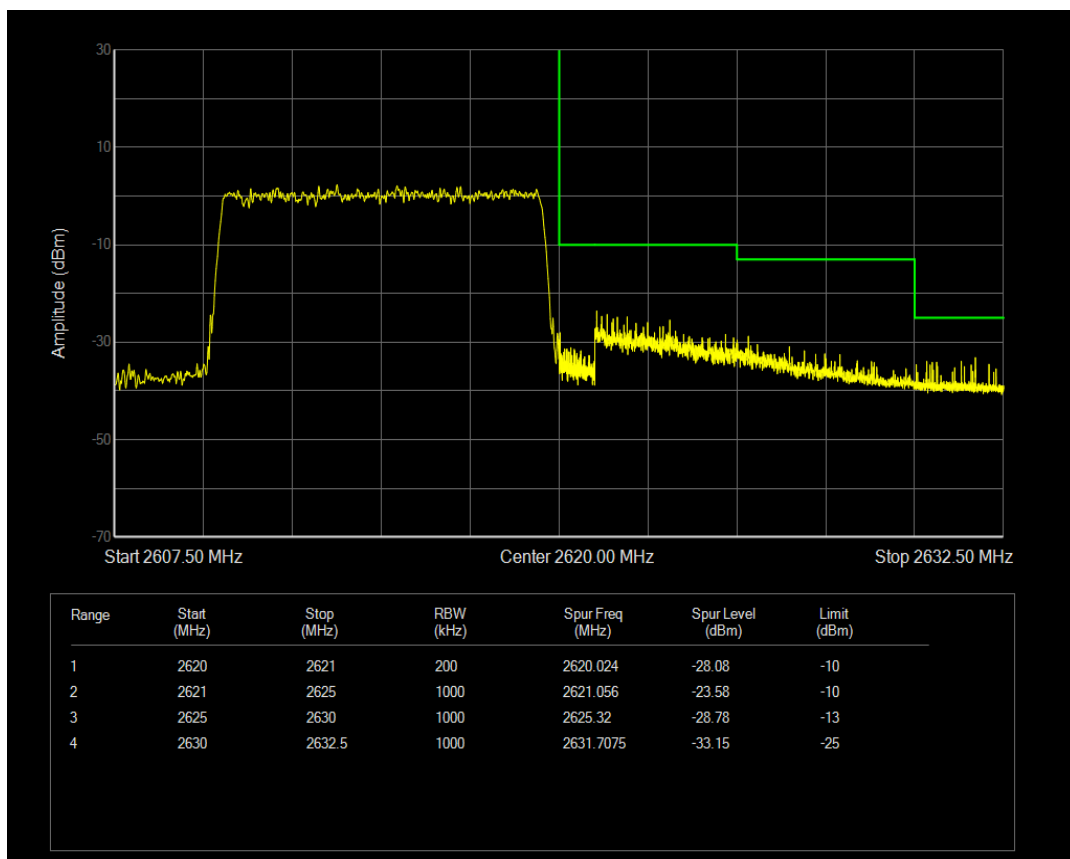




Band38 QPSK BW=10MHz Channel=38200 RB Size=50 Position=#0

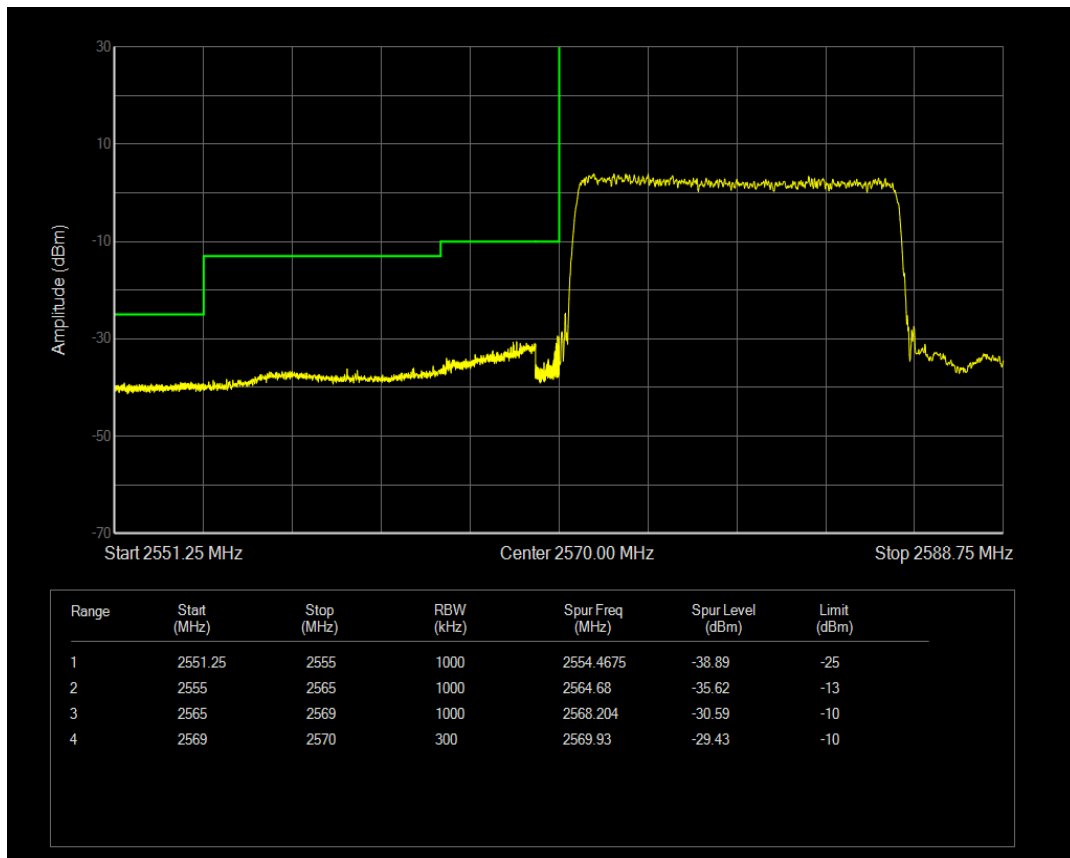


Band38 16QAM BW=10MHz Channel=38200 RB Size=50 Position=#0

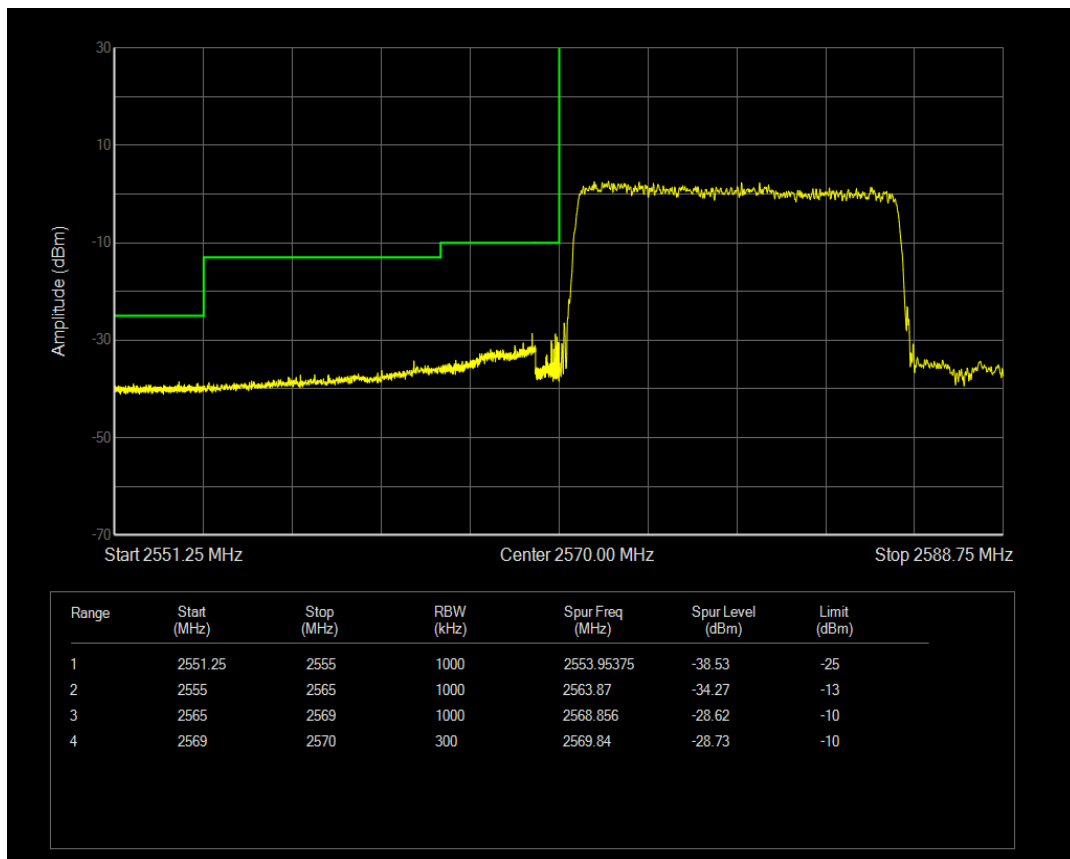




Band38 QPSK BW=15MHz Channel=37825 RB Size=75 Position=#0

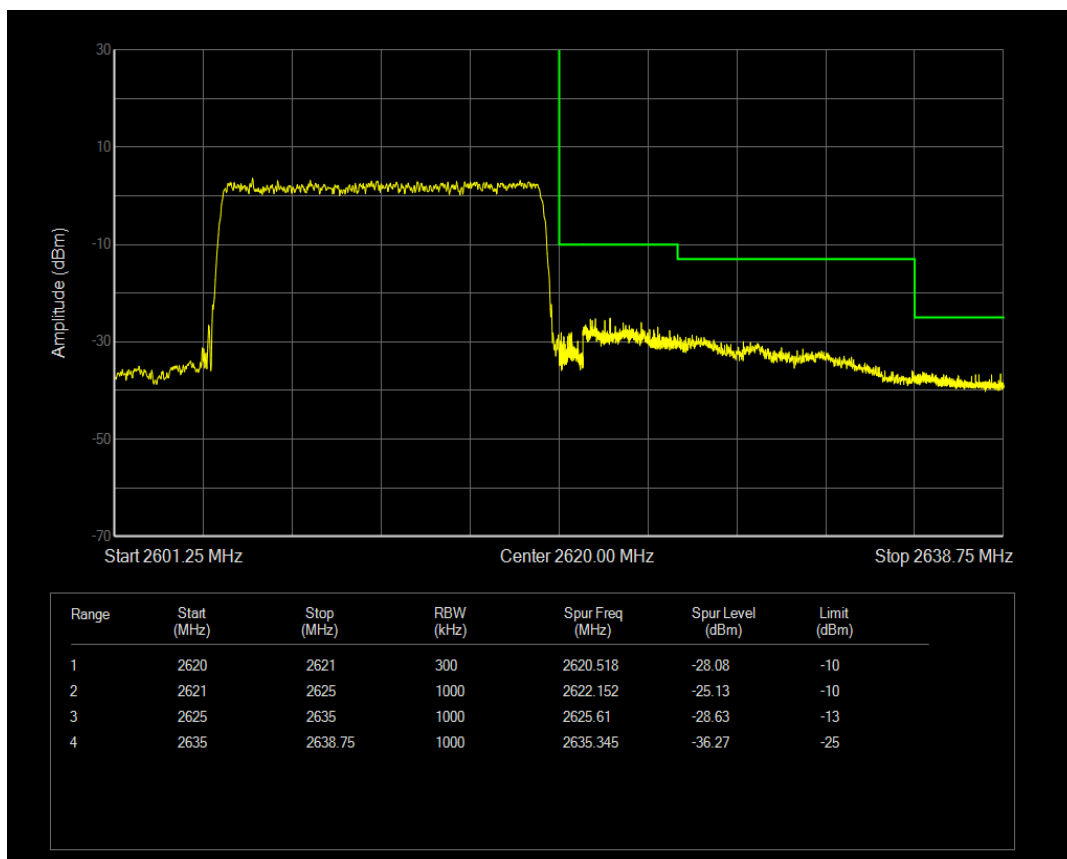


Band38 16QAM BW=15MHz Channel=37825 RB Size=75 Position=#0

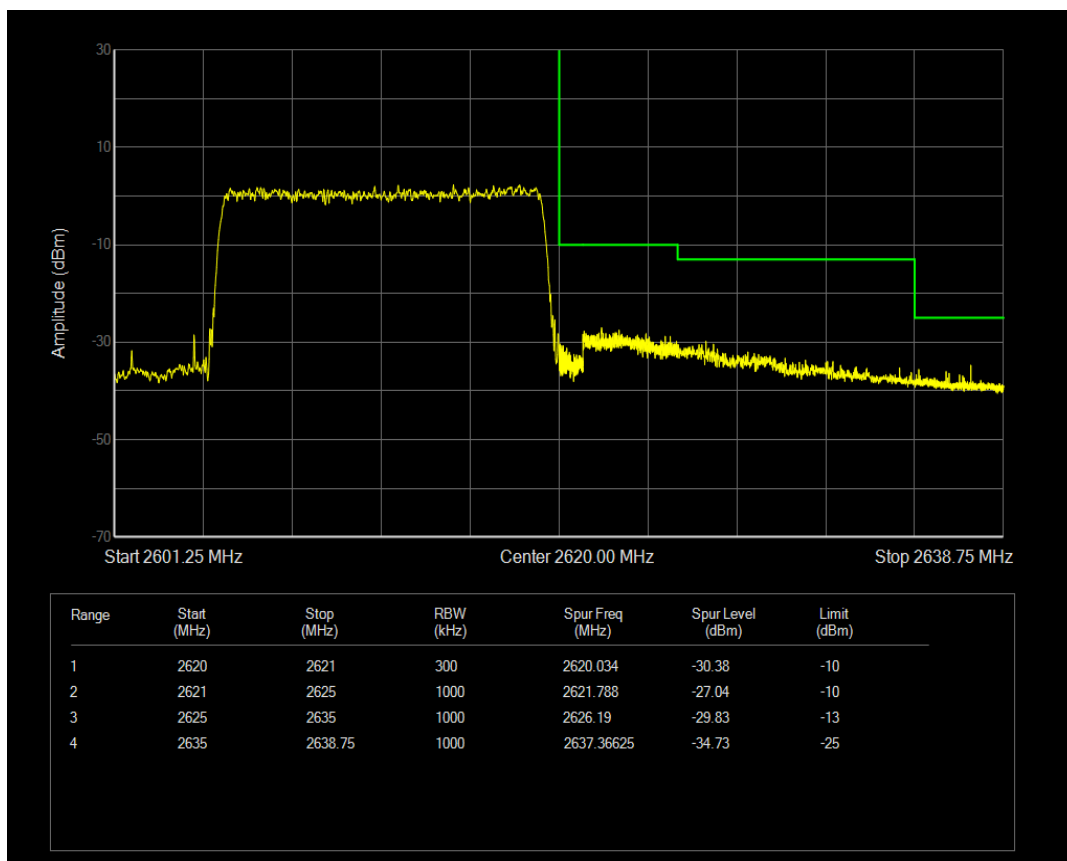




Band38 QPSK BW=15MHz Channel=38175 RB Size=75 Position=#0

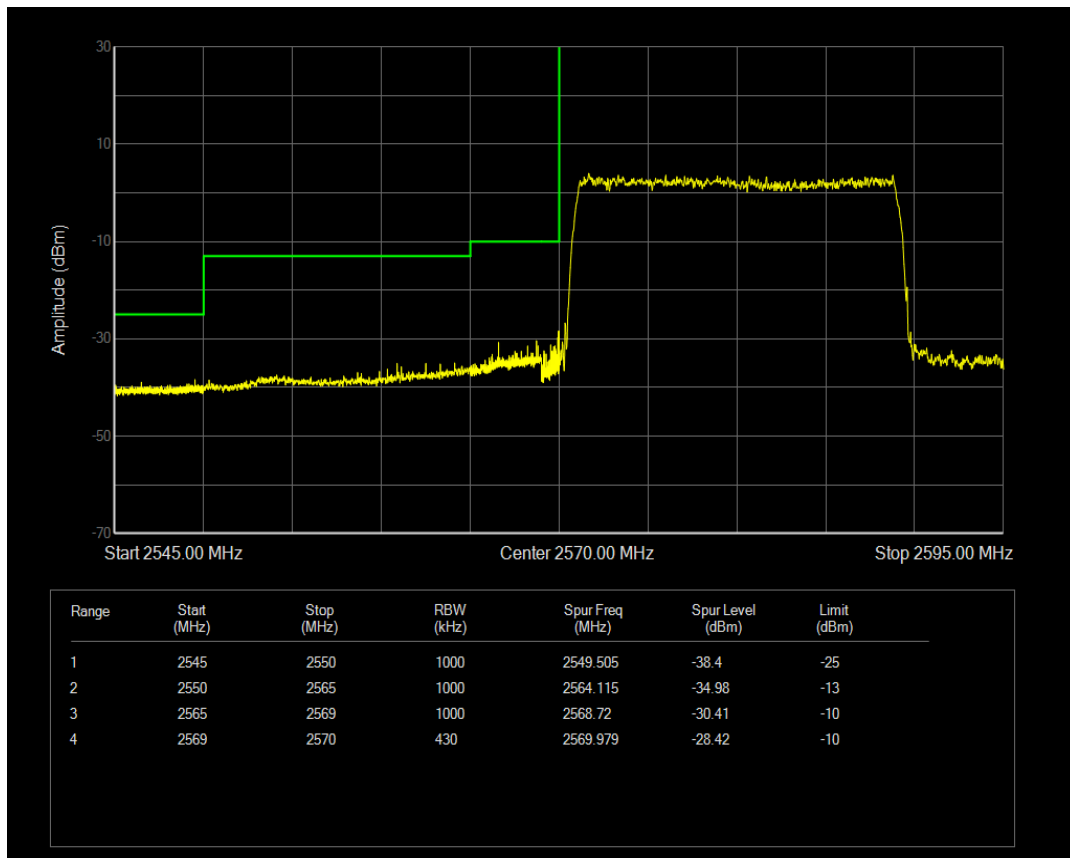


Band38 16QAM BW=15MHz Channel=38175 RB Size=75 Position=#0

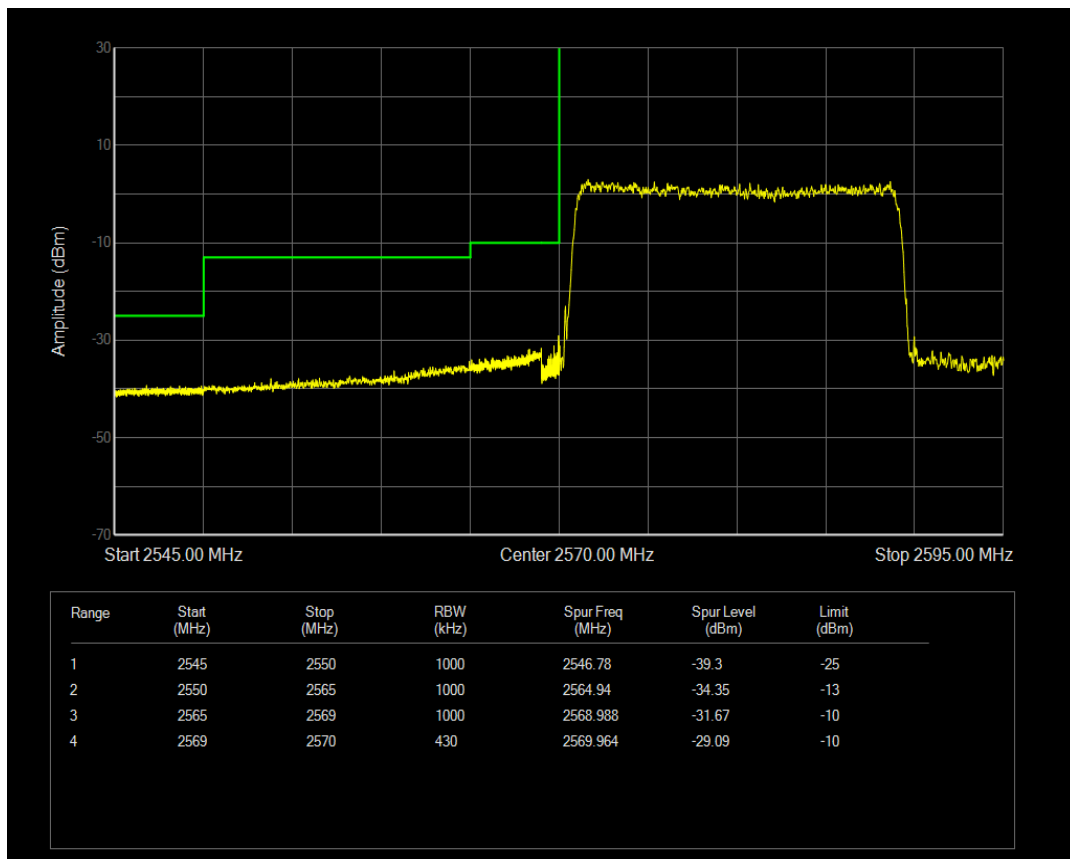




Band38 QPSK BW=20MHz Channel=37850 RB Size=100 Position=#0

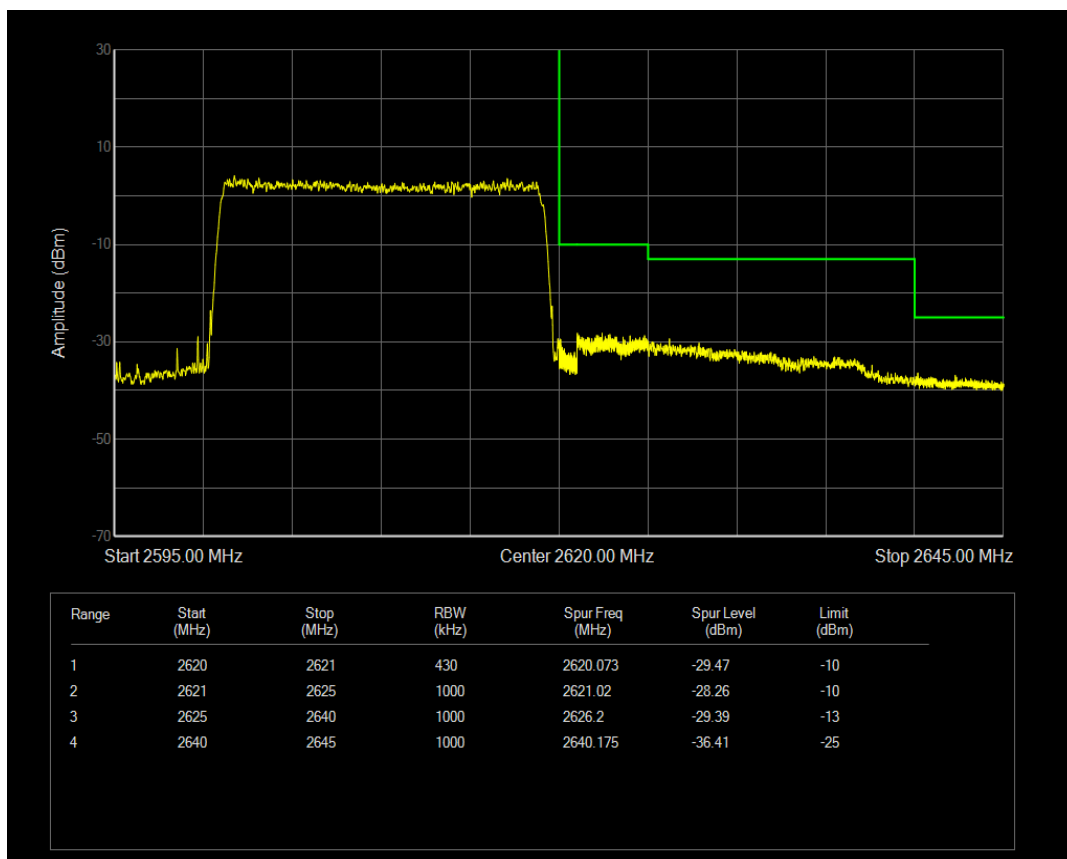


Band38 16QAM BW=20MHz Channel=37850 RB Size=100 Position=#0

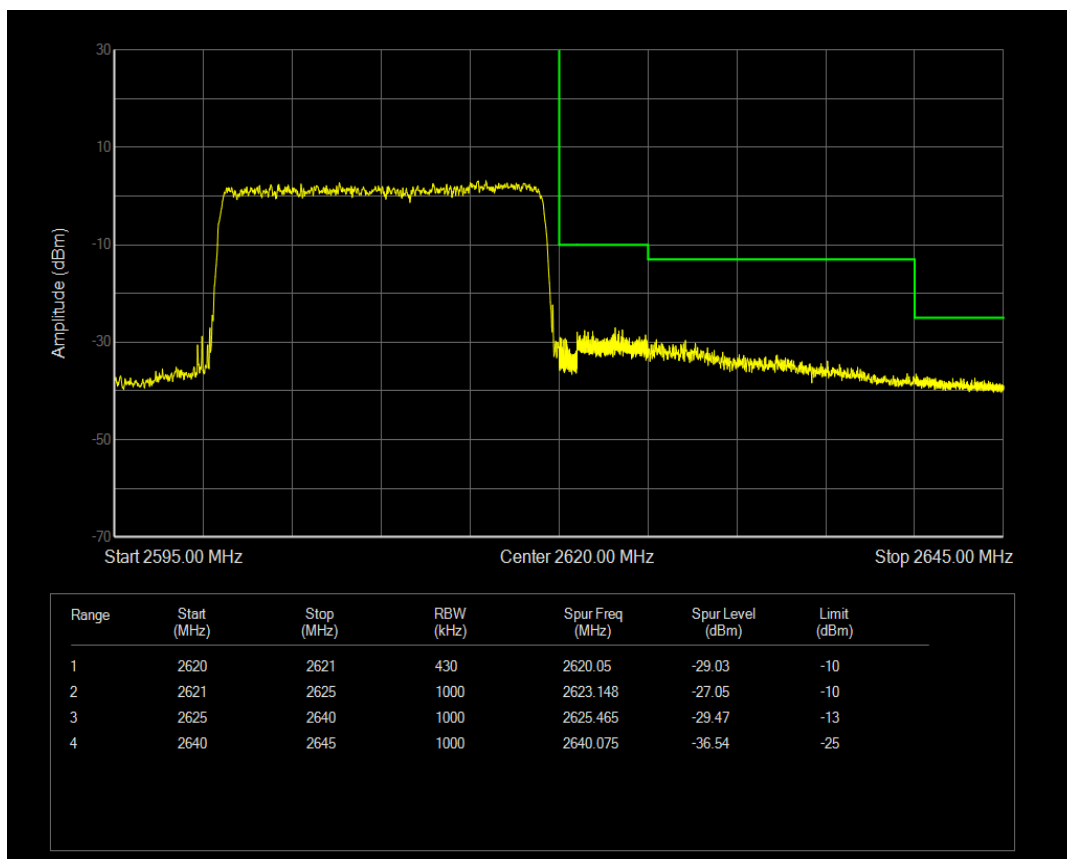




Band38 QPSK BW=20MHz Channel=38150 RB Size=100 Position=#0



Band38 16QAM BW=20MHz Channel=38150 RB Size=100 Position=#0

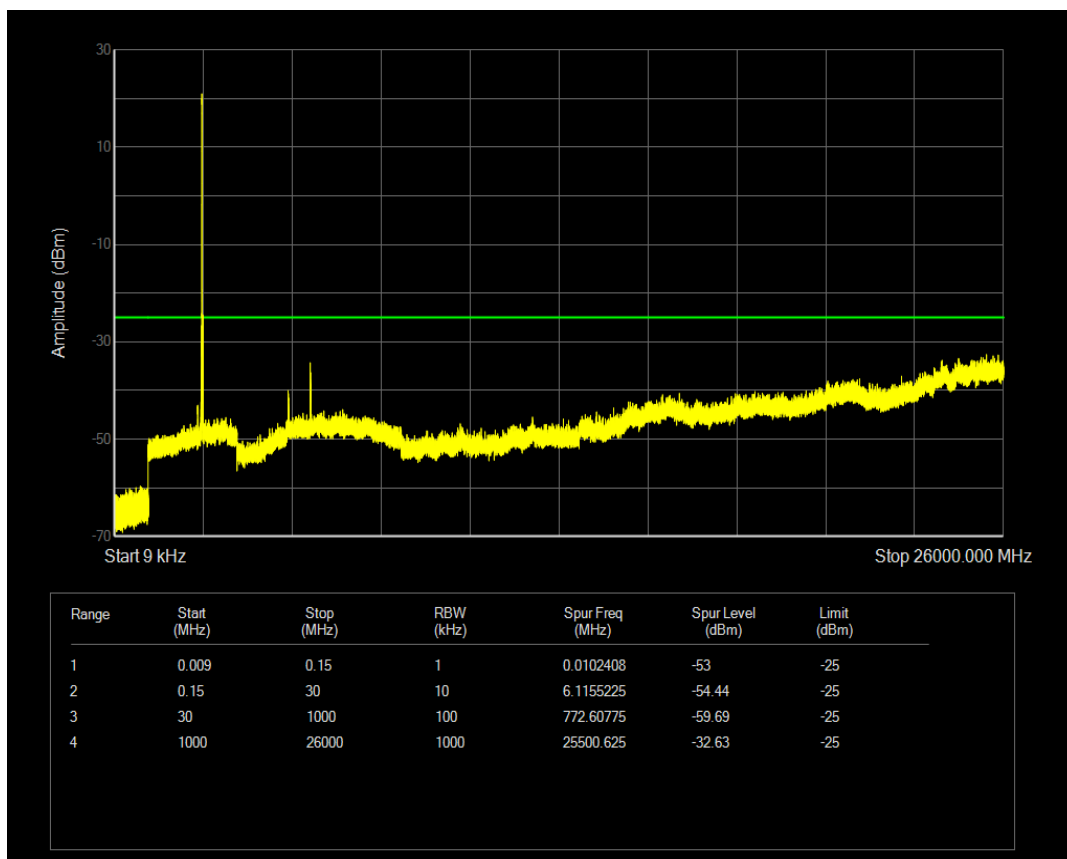


Appendix 6. Out-of-band emissions

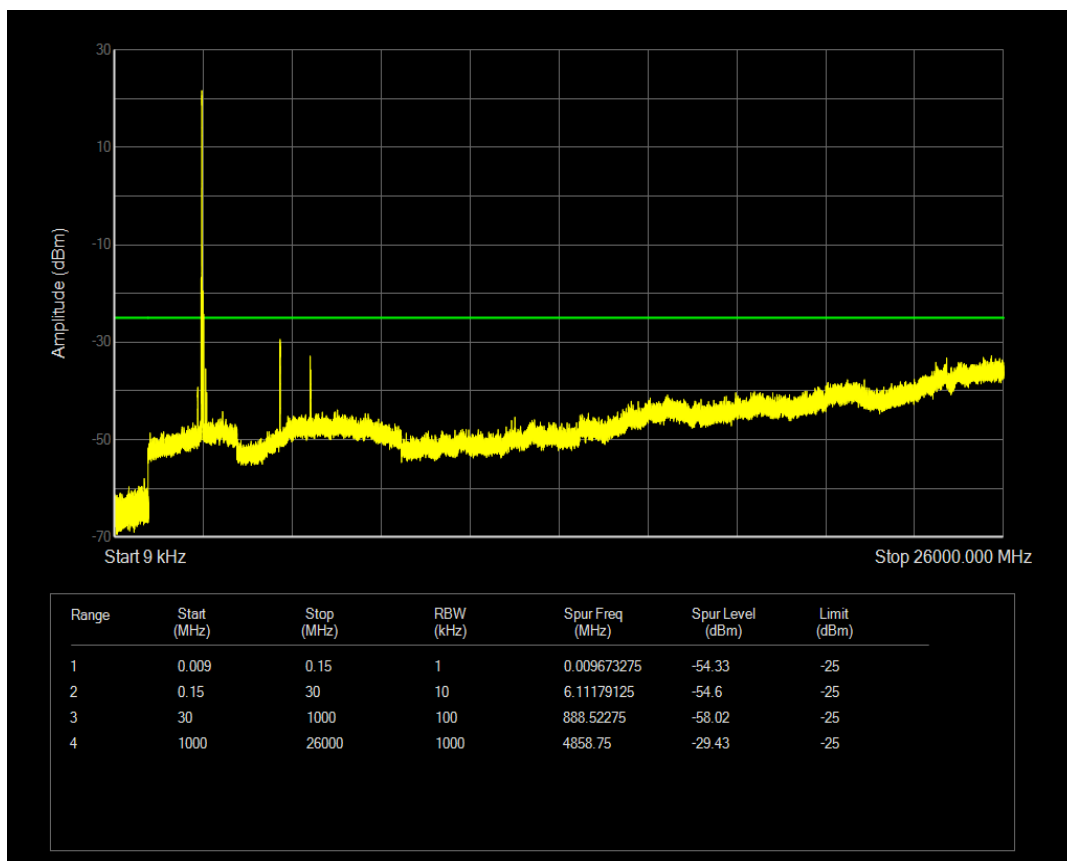
Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
Band38	5	37775	25	#0	QPSK	25500.63	-32.63	-25	PASS
Band38	5	37775	25	#0	16QAM	4858.75	-29.43	-25	PASS
Band38	5	38000	25	#0	QPSK	2531.25	-27.23	-25	PASS
Band38	5	38000	25	#0	16QAM	4859.38	-26.83	-25	PASS
Band38	5	38225	25	#0	QPSK	25906.25	-32.91	-25	PASS
Band38	5	38225	25	#0	16QAM	2673.75	-32.38	-25	PASS
Band38	10	37800	50	#0	QPSK	4858.75	-25.31	-25	PASS
Band38	10	37800	50	#0	16QAM	5508.13	-30.76	-25	PASS
Band38	10	38000	50	#0	QPSK	2666.88	-30.86	-25	PASS
Band38	10	38000	50	#0	16QAM	5508.13	-28.74	-25	PASS
Band38	10	38200	50	#0	QPSK	4861.25	-27.46	-25	PASS
Band38	10	38200	50	#0	16QAM	4860.00	-27.59	-25	PASS
Band38	15	37825	75	#0	QPSK	25311.88	-32.80	-25	PASS
Band38	15	37825	75	#0	16QAM	25504.38	-32.17	-25	PASS
Band38	15	38000	75	#0	QPSK	25951.25	-33.05	-25	PASS
Band38	15	38000	75	#0	16QAM	4860.00	-26.12	-25	PASS
Band38	15	38175	75	#0	QPSK	25345.63	-32.76	-25	PASS
Band38	15	38175	75	#0	16QAM	4851.88	-29.00	-25	PASS
Band38	20	37850	100	#0	QPSK	5508.75	-30.67	-25	PASS
Band38	20	37850	100	#0	16QAM	4859.38	-26.90	-25	PASS
Band38	20	38000	100	#0	QPSK	25653.75	-32.89	-25	PASS
Band38	20	38000	100	#0	16QAM	24295.00	-33.13	-25	PASS
Band38	20	38150	100	#0	QPSK	25745.00	-31.77	-25	PASS
Band38	20	38150	100	#0	16QAM	25718.13	-32.32	-25	PASS



Band38 QPSK BW=5MHz Channel=37775 RB Size=25 Position=#0

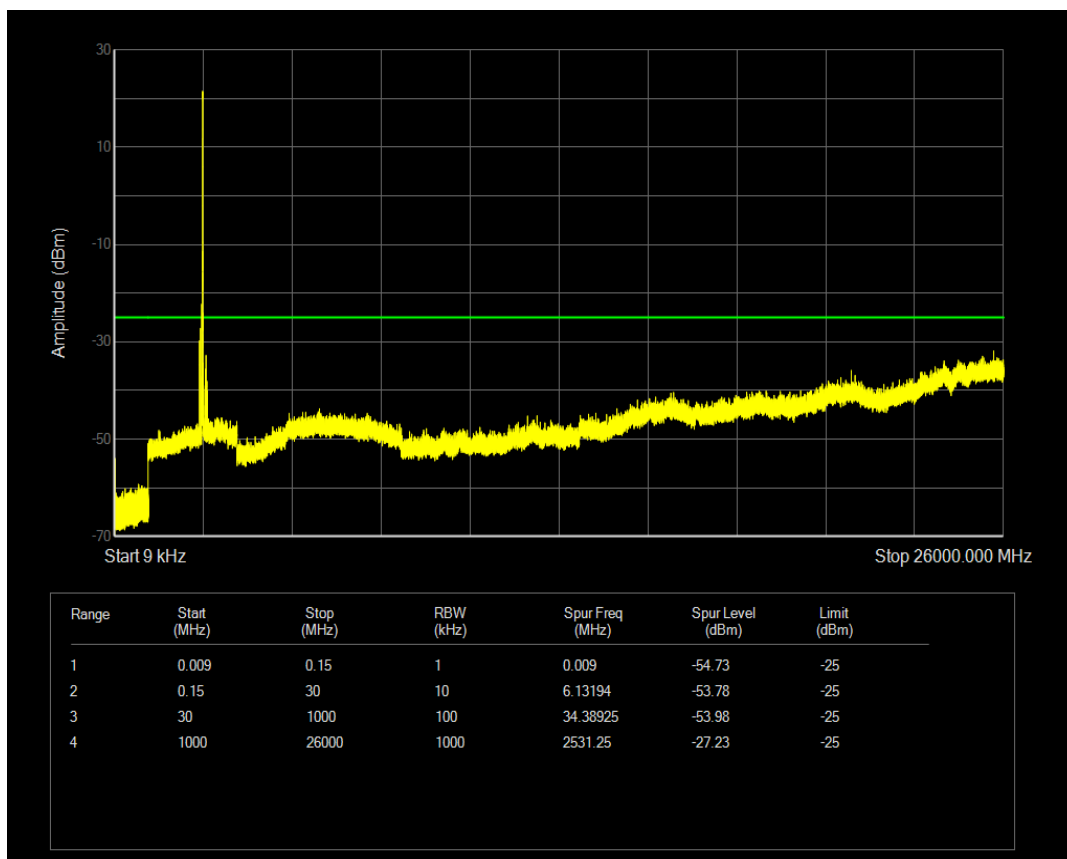


Band38 16QAM BW=5MHz Channel=37775 RB Size=25 Position=#0

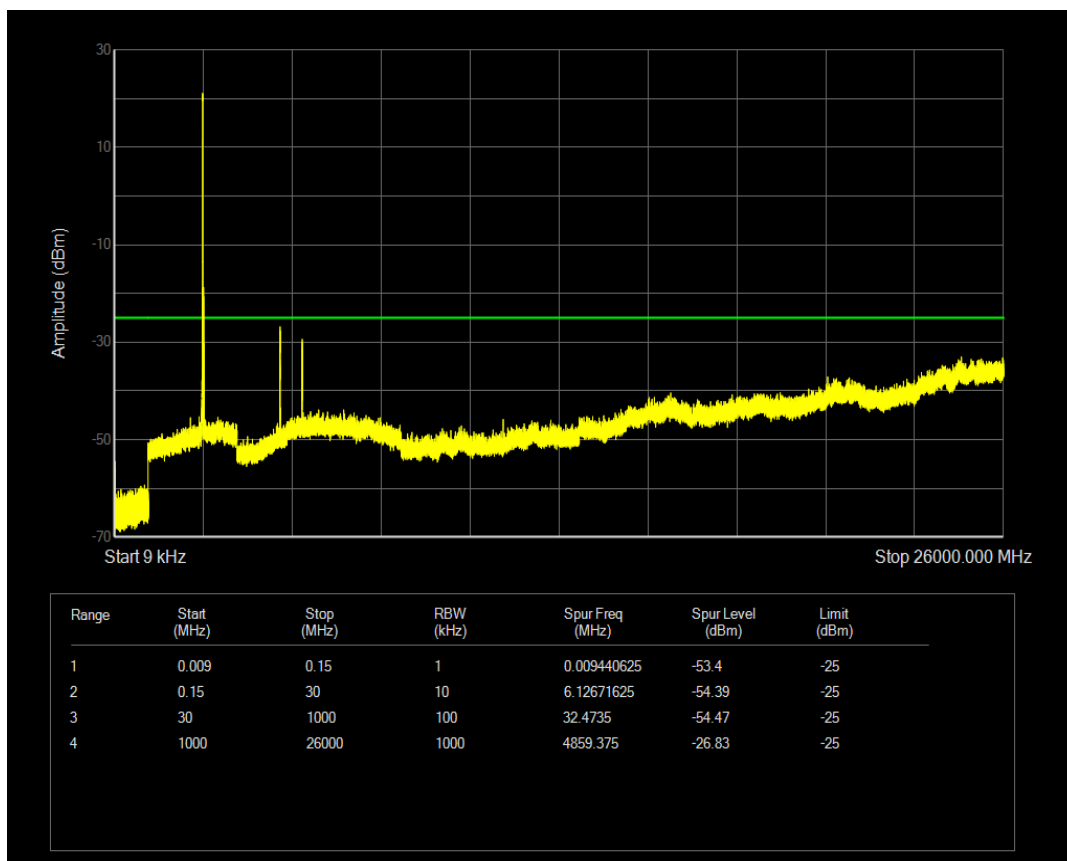




Band38 QPSK BW=5MHz Channel=38000 RB Size=25 Position=#0

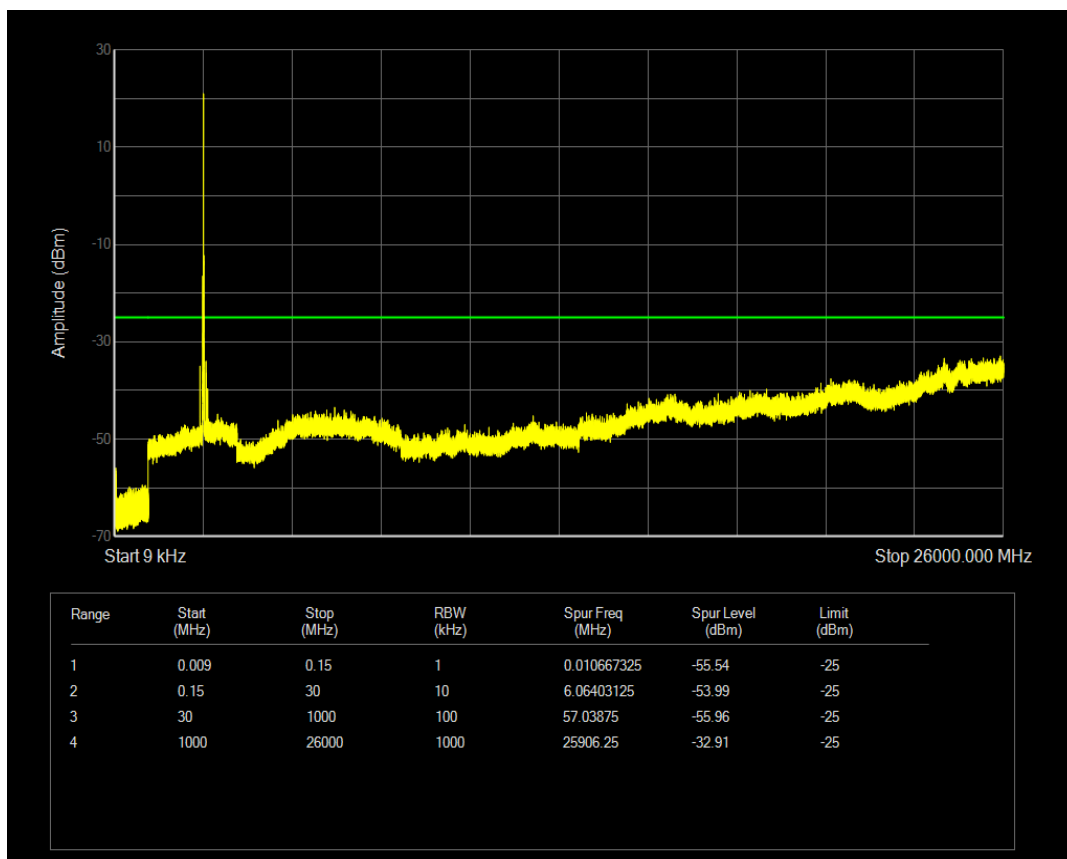


Band38 16QAM BW=5MHz Channel=38000 RB Size=25 Position=#0

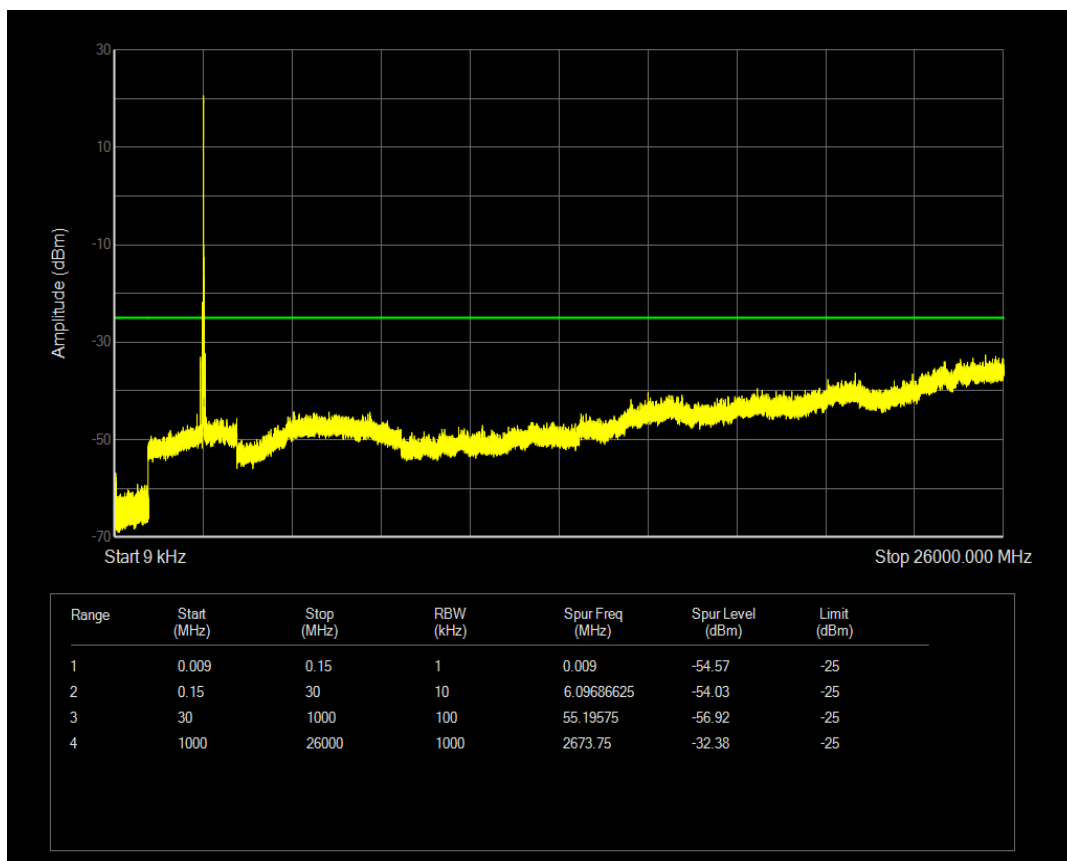




Band38 QPSK BW=5MHz Channel=38225 RB Size=25 Position=#0

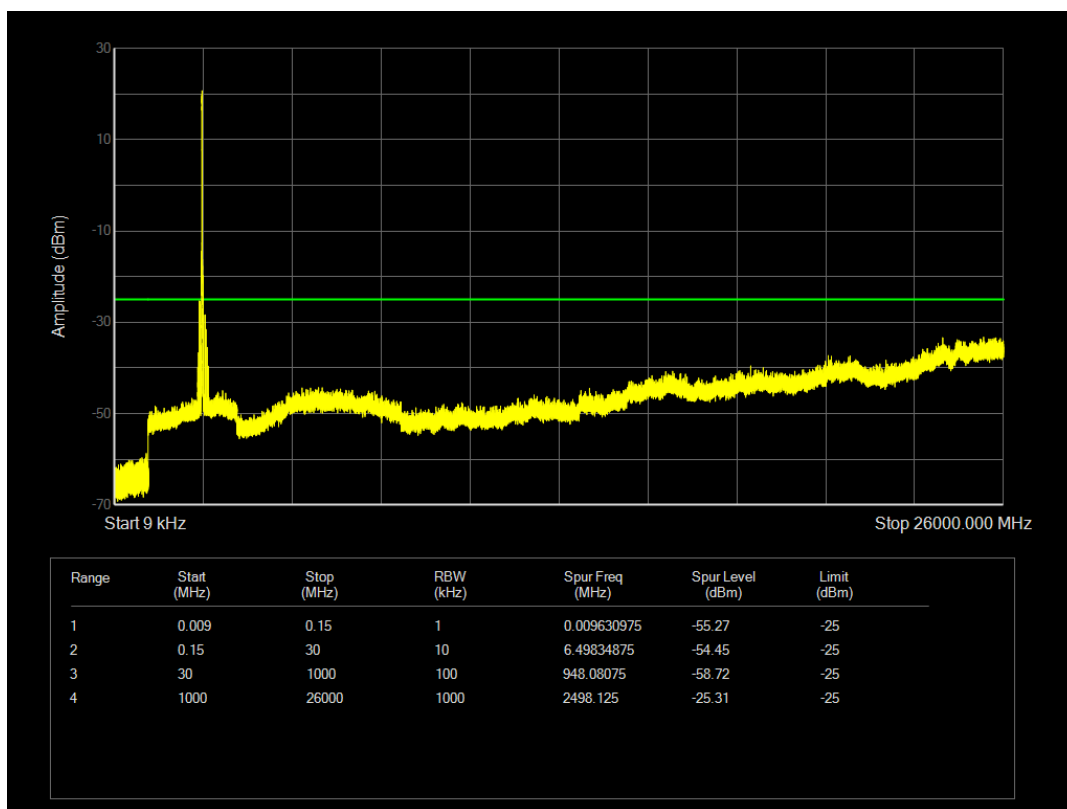


Band38 16QAM BW=5MHz Channel=38225 RB Size=25 Position=#0

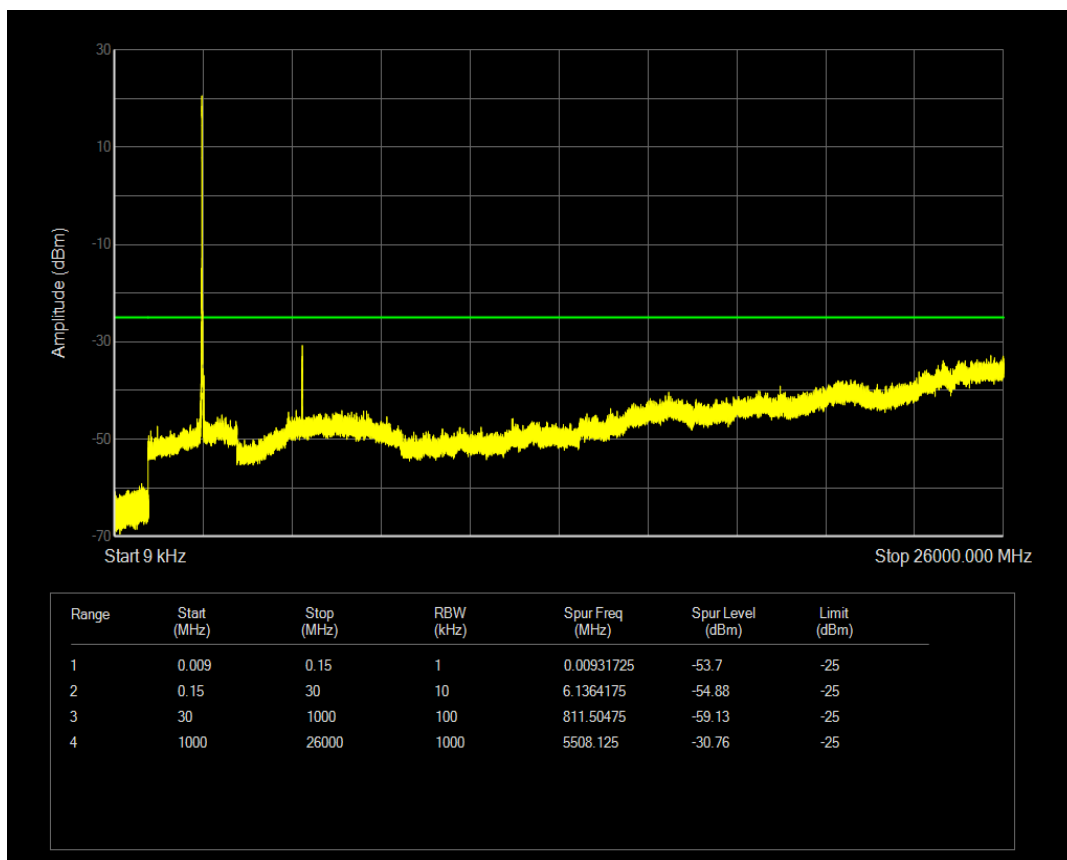




Band38 QPSK BW=10MHz Channel=37800 RB Size=50 Position=#0

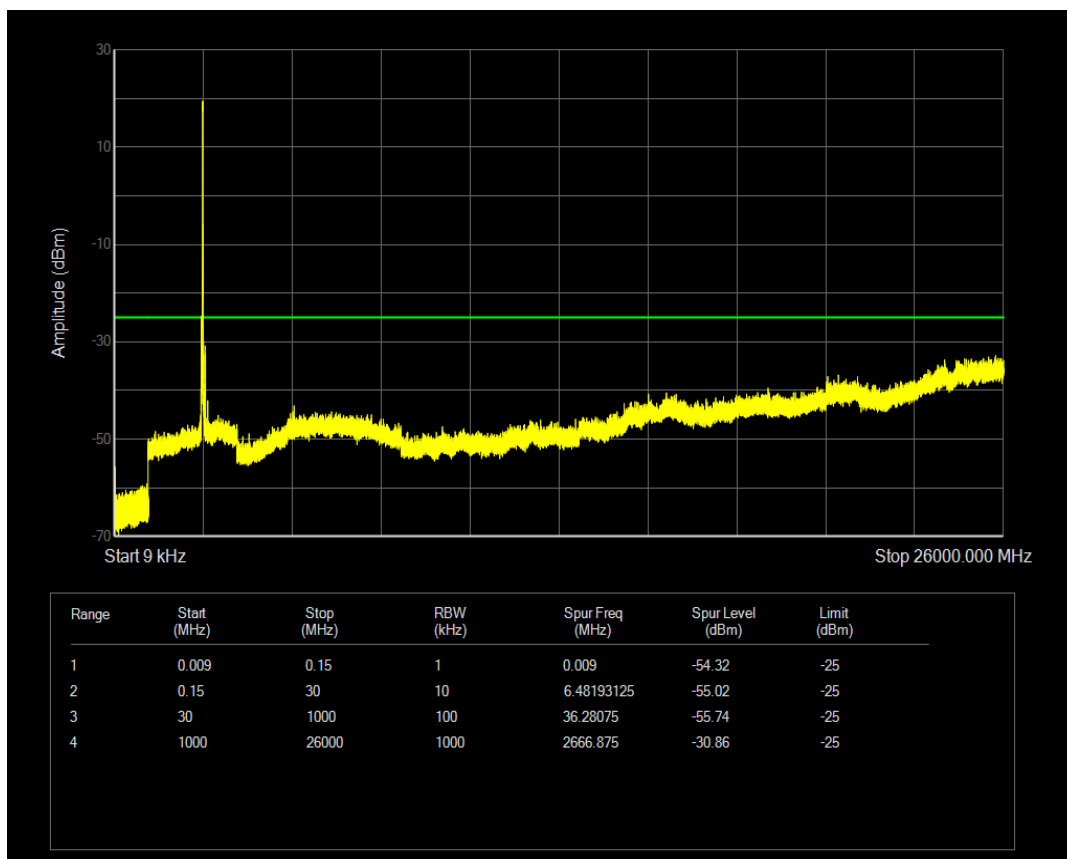


Band38 16QAM BW=10MHz Channel=37800 RB Size=50 Position=#0

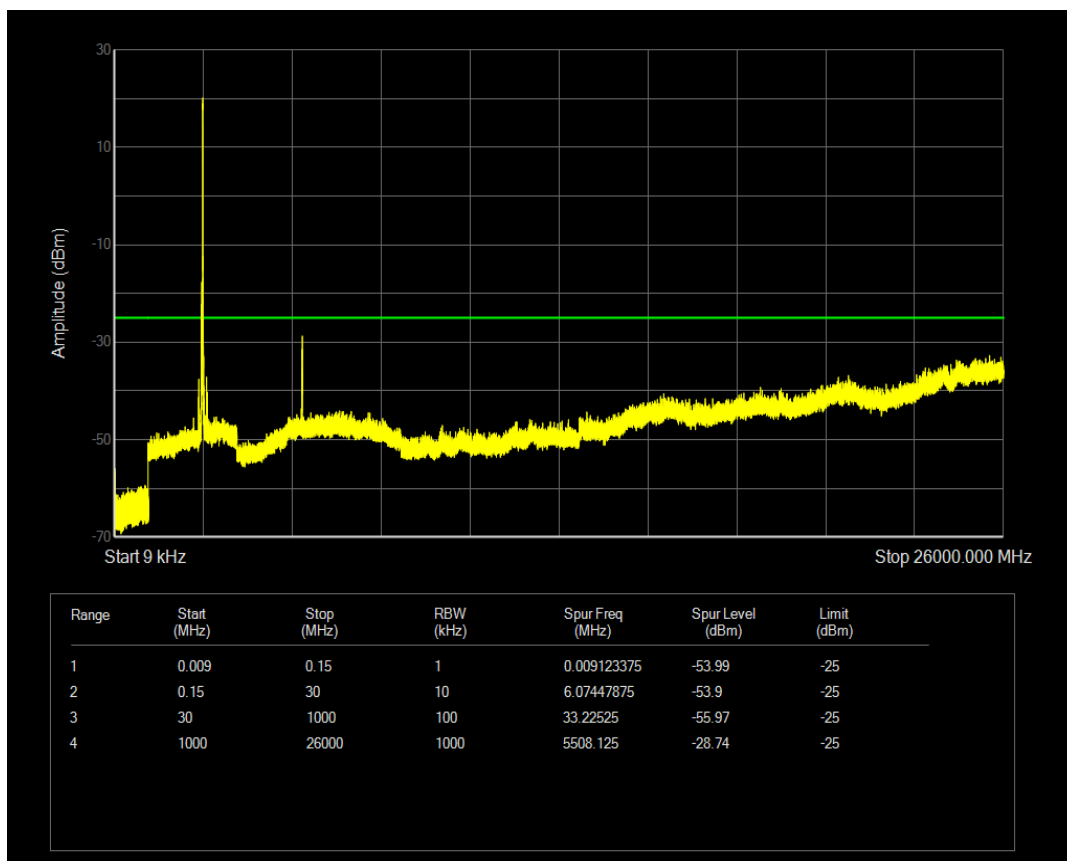




Band38 QPSK BW=10MHz Channel=38000 RB Size=50 Position=#0

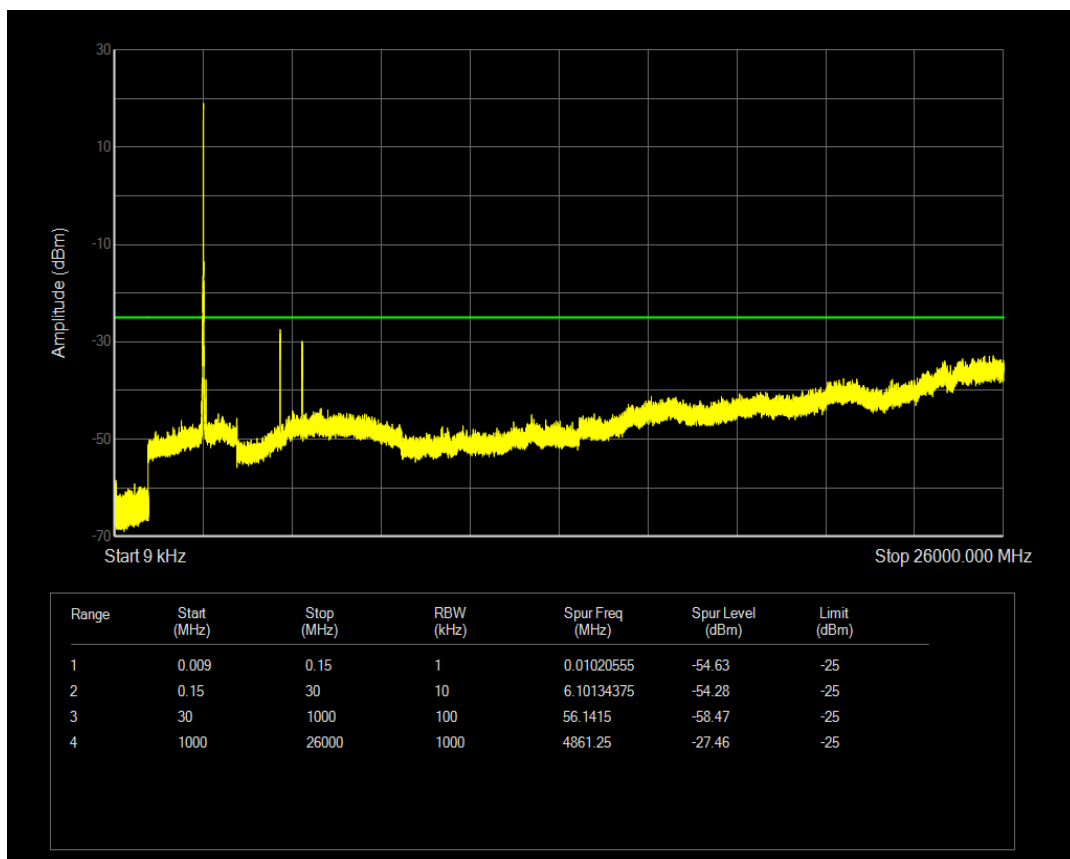


Band38 16QAM BW=10MHz Channel=38000 RB Size=50 Position=#0

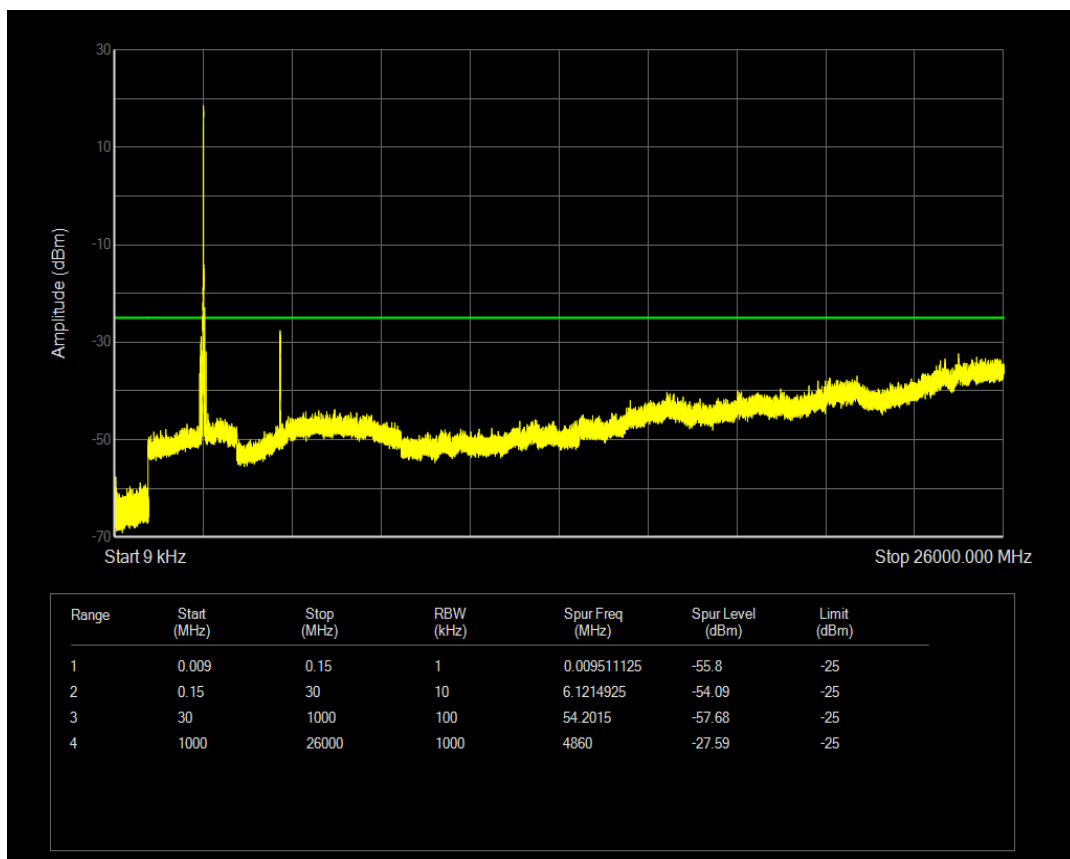




Band38 QPSK BW=10MHz Channel=38200 RB Size=50 Position=#0

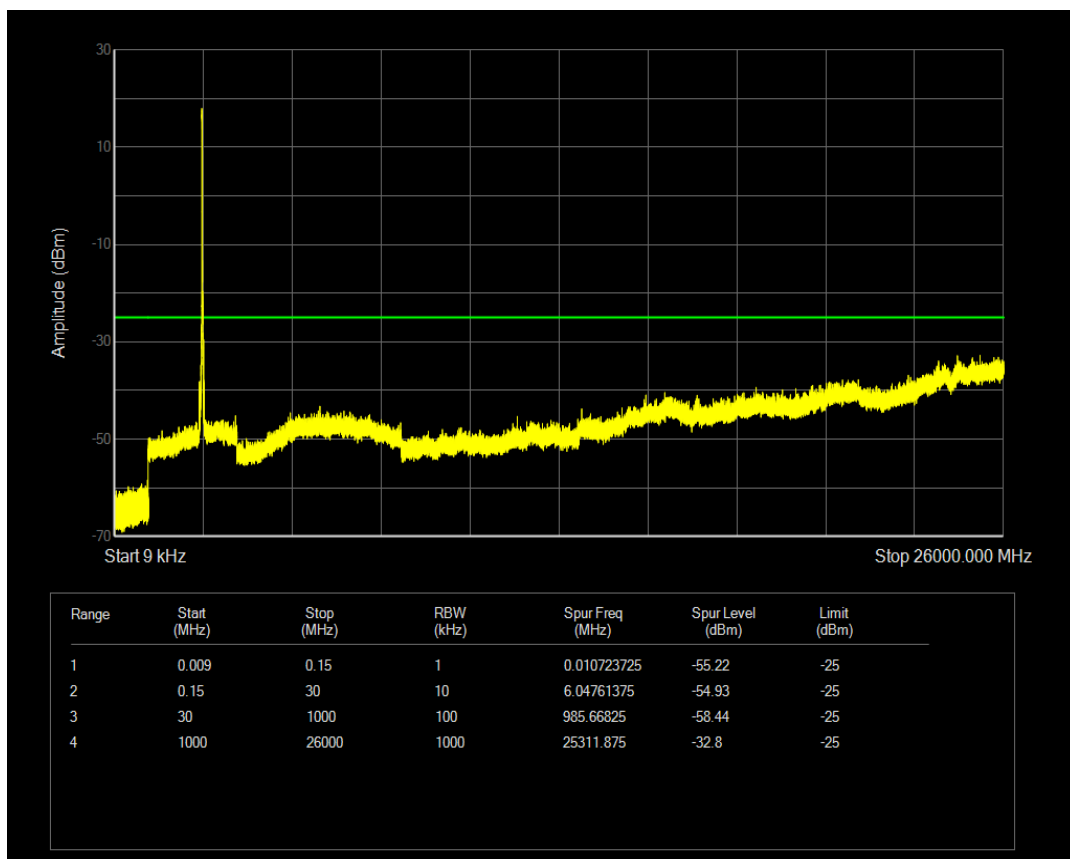


Band38 16QAM BW=10MHz Channel=38200 RB Size=50 Position=#0

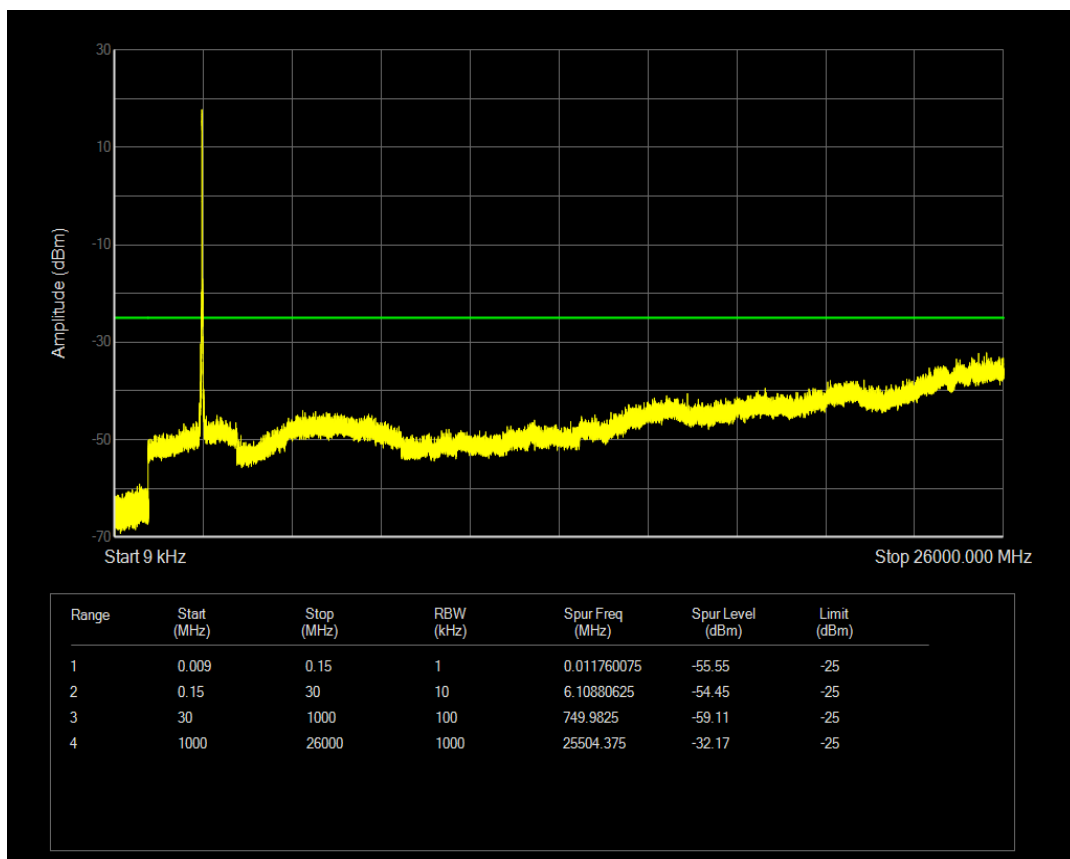




Band38 QPSK BW=15MHz Channel=37825 RB Size=75 Position=#0

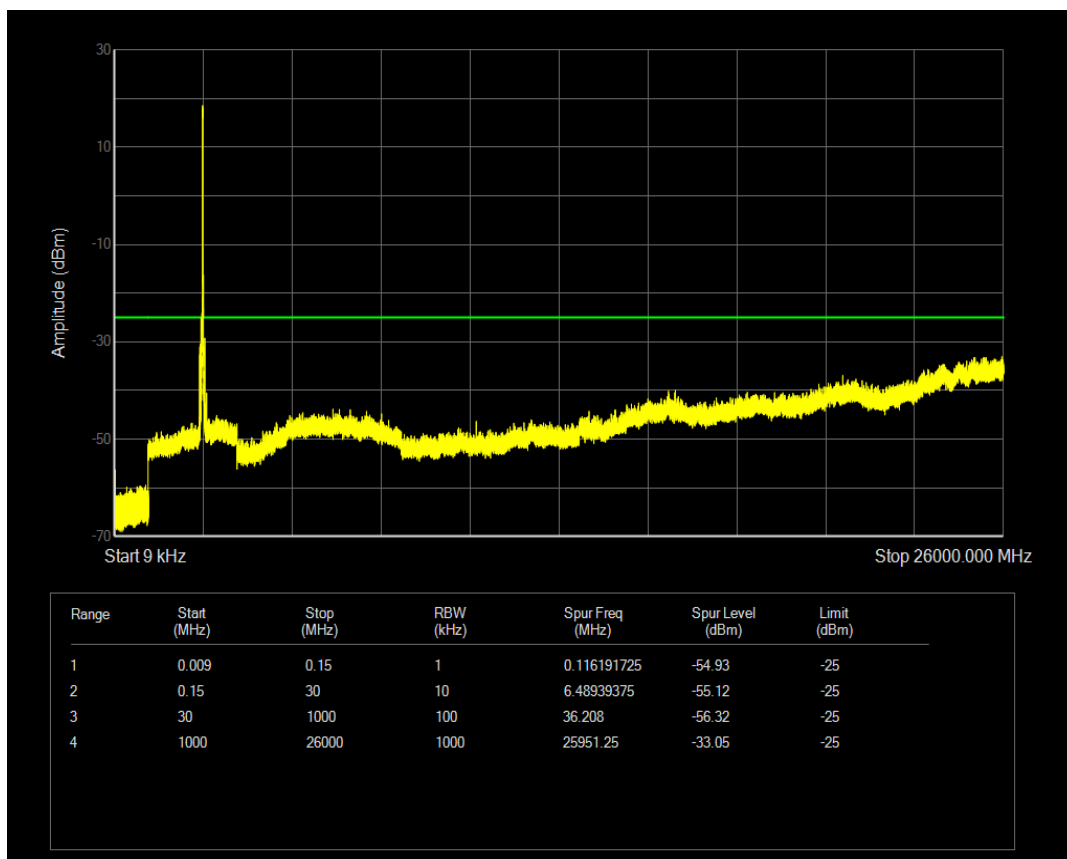


Band38 16QAM BW=15MHz Channel=37825 RB Size=75 Position=#0

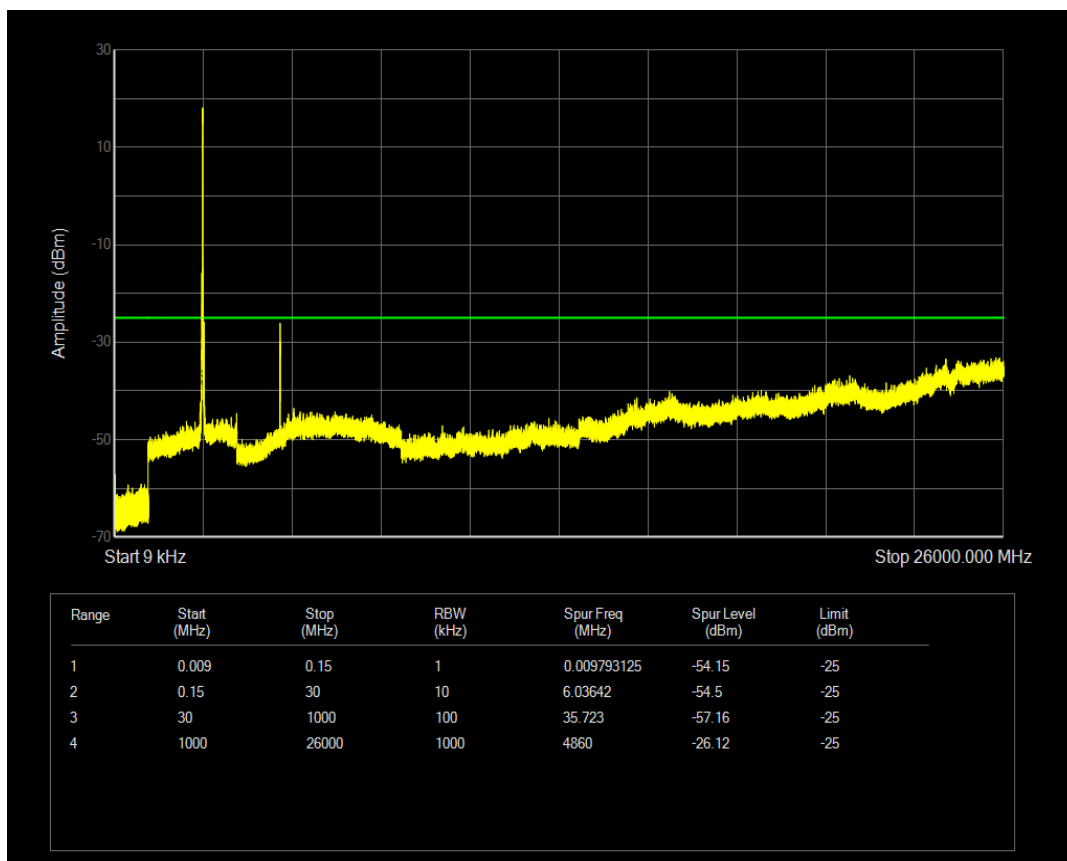




Band38 QPSK BW=15MHz Channel=38000 RB Size=75 Position=#0

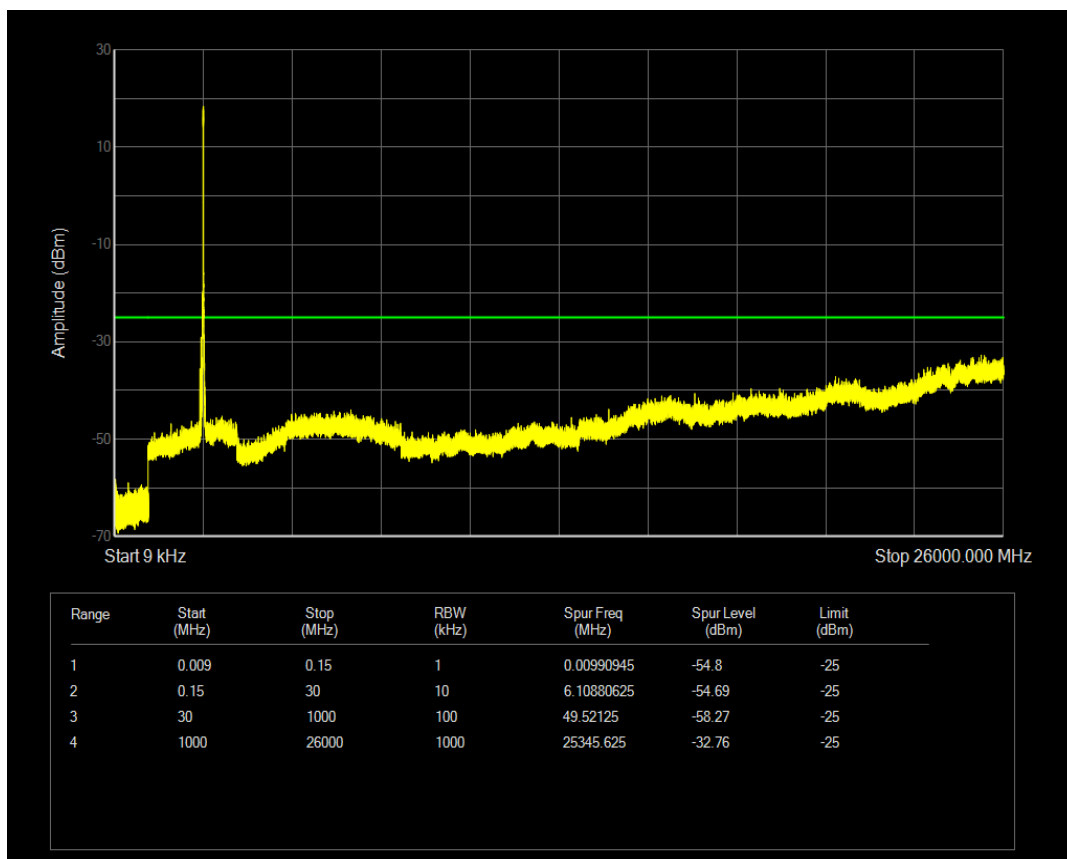


Band38 16QAM BW=15MHz Channel=38000 RB Size=75 Position=#0

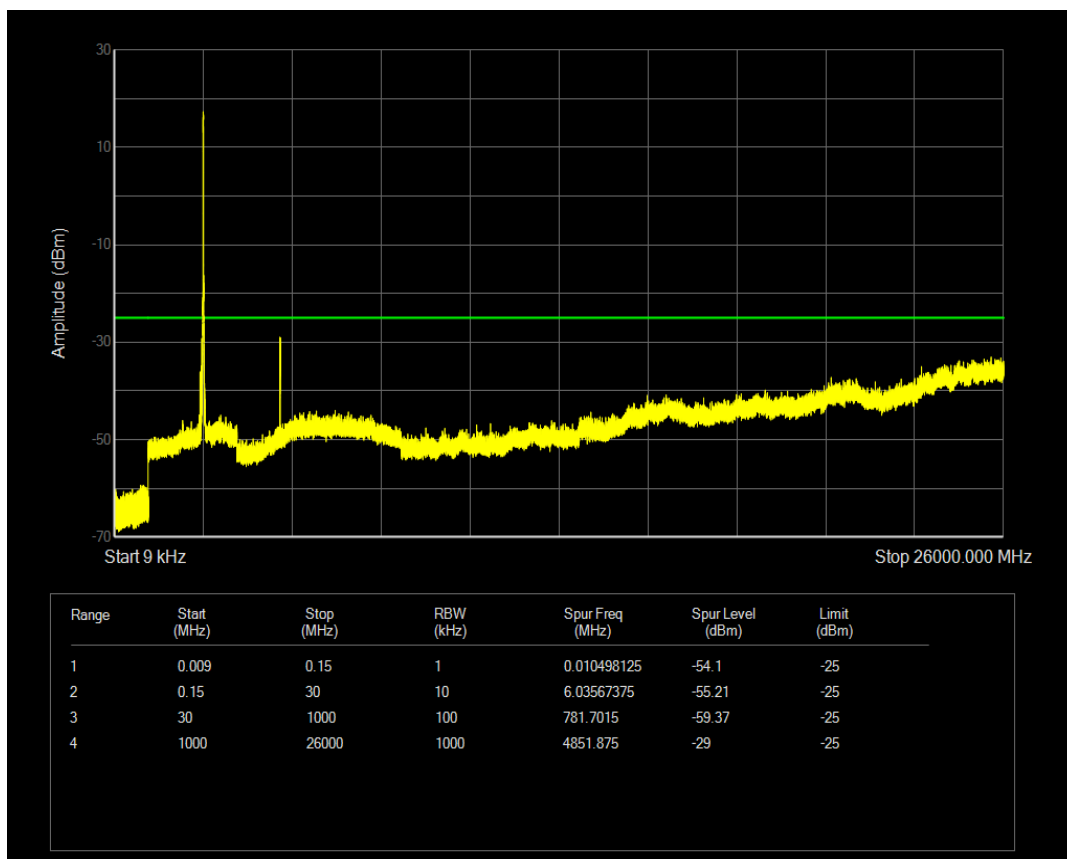




Band38 QPSK BW=15MHz Channel=38175 RB Size=75 Position=#0

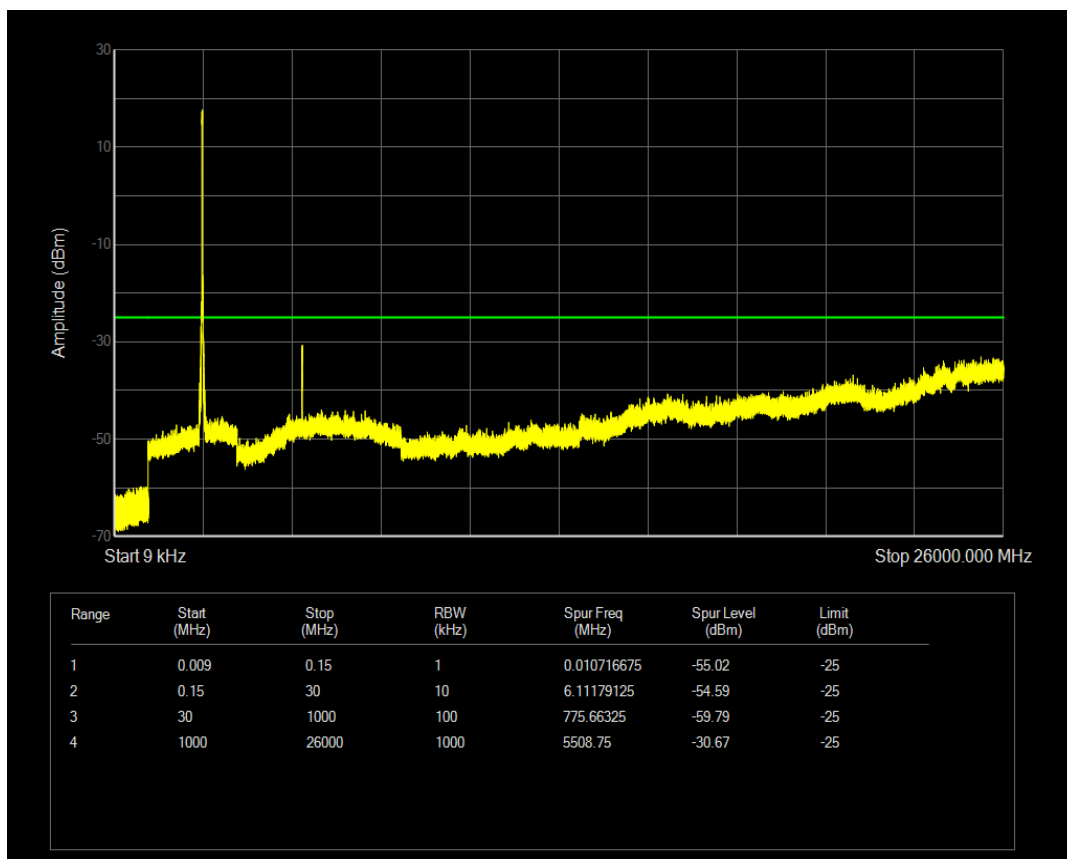


Band38 16QAM BW=15MHz Channel=38175 RB Size=75 Position=#0

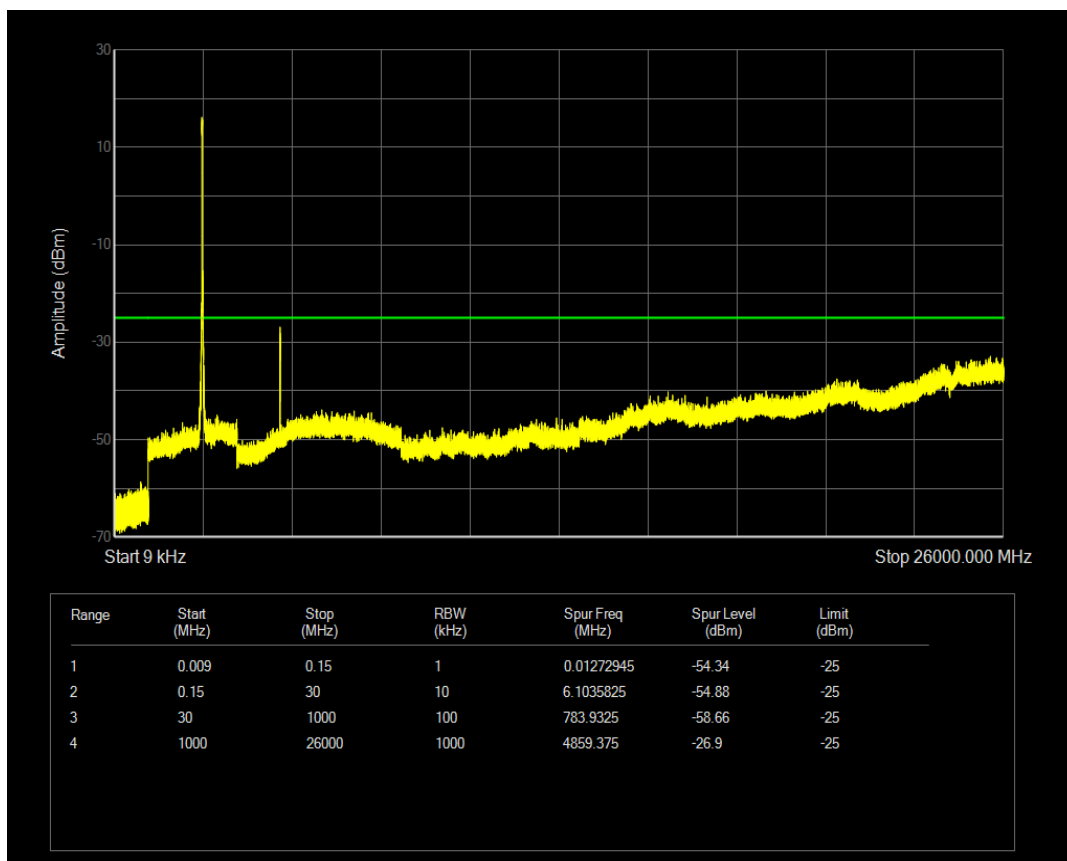




Band38 QPSK BW=20MHz Channel=37850 RB Size=100 Position=#0

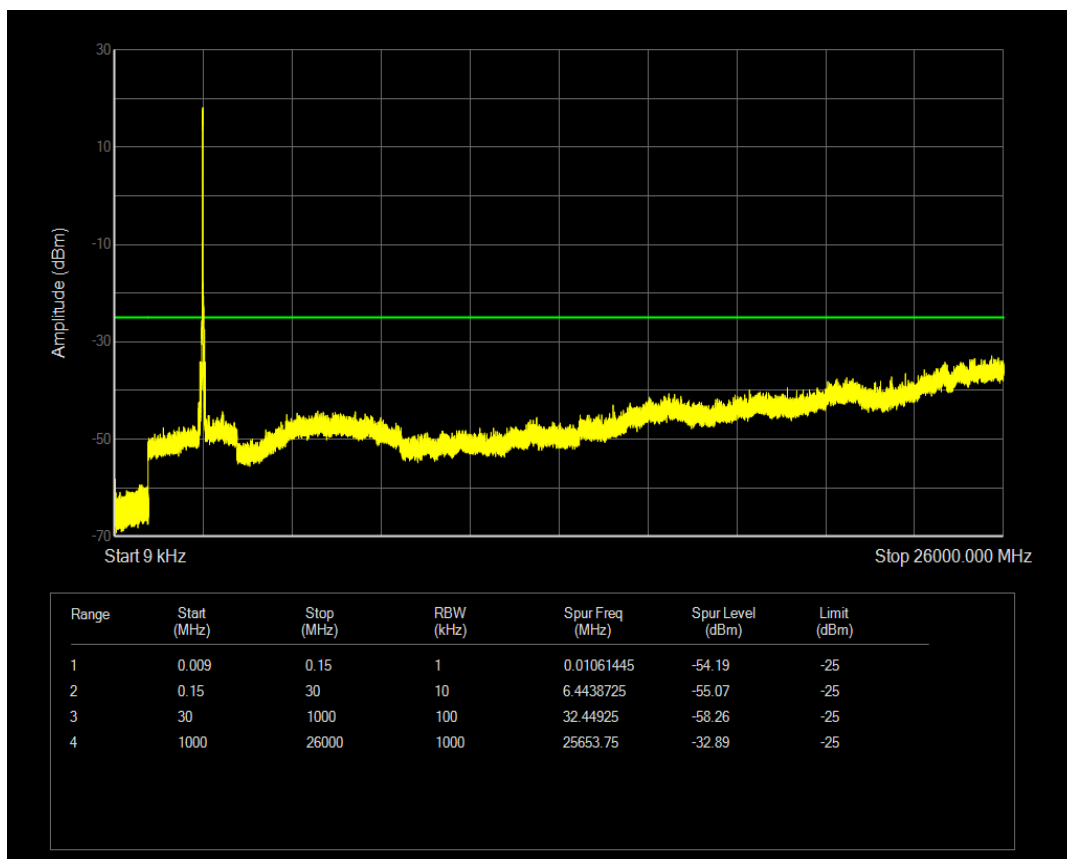


Band38 16QAM BW=20MHz Channel=37850 RB Size=100 Position=#0

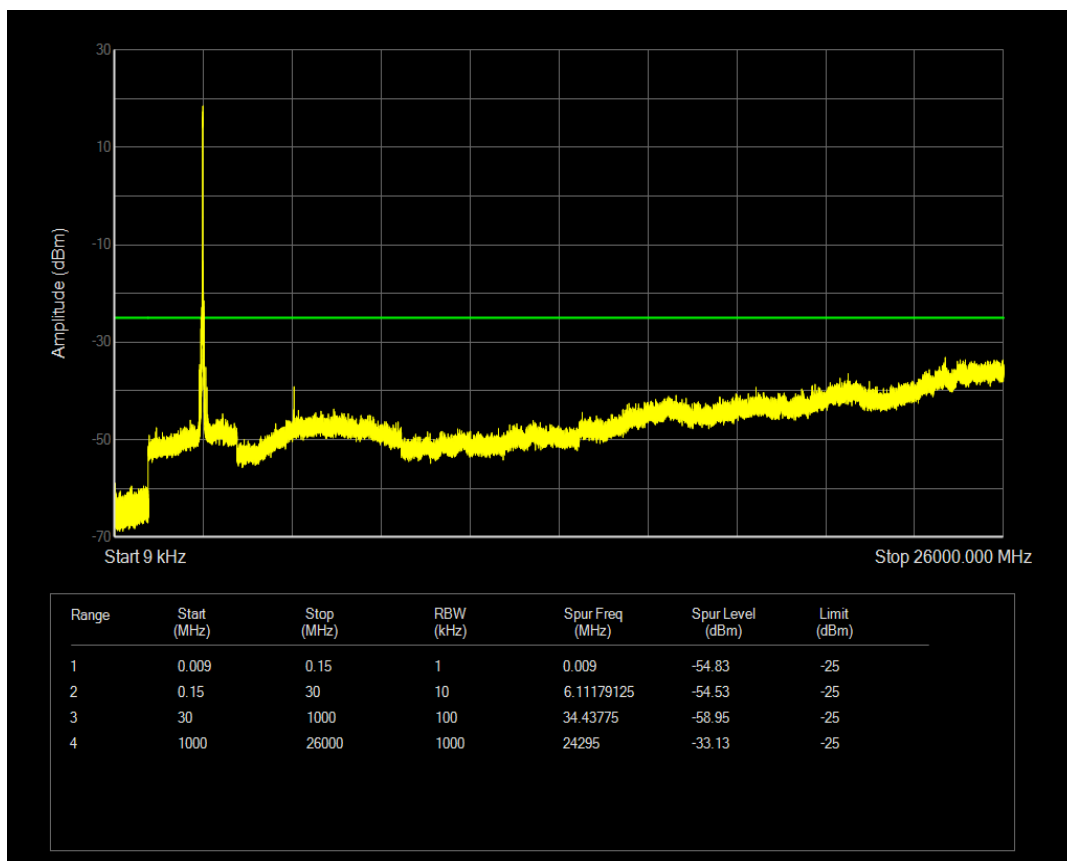




Band38 QPSK BW=20MHz Channel=38000 RB Size=100 Position=#0

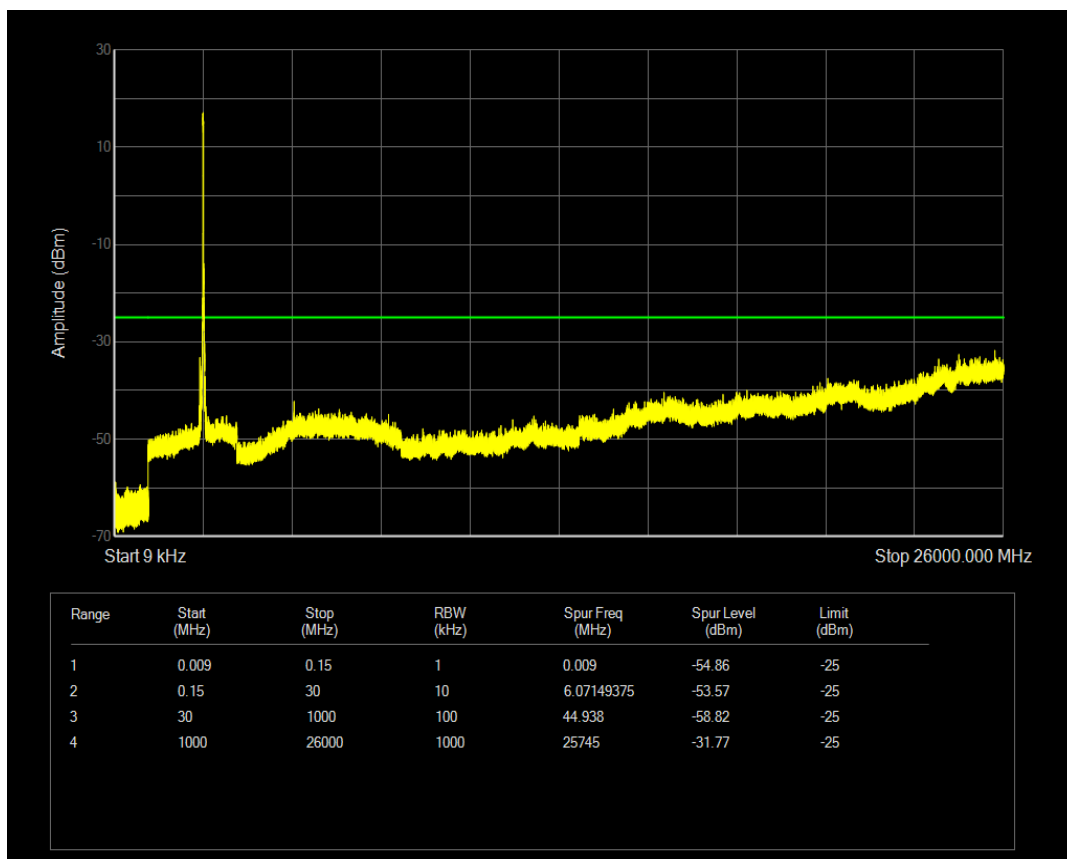


Band38 16QAM BW=20MHz Channel=38000 RB Size=100 Position=#0





Band38 QPSK BW=20MHz Channel=38150 RB Size=100 Position=#0



Band38 16QAM BW=20MHz Channel=38150 RB Size=100 Position=#0

