Appendix for Band 4

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)	EIRP (dBm)	EIRP Limit (dBm)	Verdict
Band4	1.4	19957	1	#0	QPSK	21.81	1.32	23.13	37	PASS
Band4	1.4	19957	1	#Mid	QPSK	21.96	1.32	23.28	37	PASS
Band4	1.4	19957	1	#Max	QPSK	21.70	1.32	23.02	37	PASS
Band4	1.4	19957	3	#0	QPSK	21.72	1.32	23.04	37	PASS
Band4	1.4	19957	3	#Mid	QPSK	21.74	1.32	23.06	37	PASS
Band4	1.4	19957	3	#Max	QPSK	21.80	1.32	23.12	37	PASS
Band4	1.4	19957	6	#0	QPSK	20.71	1.32	22.03	37	PASS
Band4	1.4	19957	1	#0	16QAM	20.53	1.32	21.85	37	PASS
Band4	1.4	19957	1	#Mid	16QAM	20.46	1.32	21.78	37	PASS
Band4	1.4	19957	1	#Max	16QAM	20.40	1.32	21.72	37	PASS
Band4	1.4	19957	3	#0	16QAM	20.77	1.32	22.09	37	PASS
Band4	1.4	19957	3	#Mid	16QAM	21.01	1.32	22.33	37	PASS
Band4	1.4	19957	3	#Max	16QAM	20.86	1.32	22.18	37	PASS
Band4	1.4	19957	6	#0	16QAM	19.78	1.32	21.10	37	PASS
Band4	1.4	20175	1	#0	QPSK	21.68	1.32	23.00	37	PASS
Band4	1.4	20175	1	#Mid	QPSK	21.90	1.32	23.22	37	PASS
Band4	1.4	20175	1	#Max	QPSK	21.74	1.32	23.06	37	PASS
Band4	1.4	20175	3	#0	QPSK	21.72	1.32	23.04	37	PASS
Band4	1.4	20175	3	#Mid	QPSK	21.77	1.32	23.09	37	PASS
Band4	1.4	20175	3	#Max	QPSK	21.78	1.32	23.10	37	PASS
Band4	1.4	20175	6	#0	QPSK	20.77	1.32	22.09	37	PASS
Band4	1.4	20175	1	#0	16QAM	20.42	1.32	21.74	37	PASS
Band4	1.4	20175	1	#Mid	16QAM	20.65	1.32	21.97	37	PASS
Band4	1.4	20175	1	#Max	16QAM	20.54	1.32	21.86	37	PASS
Band4	1.4	20175	3	#0	16QAM	20.79	1.32	22.11	37	PASS
Band4	1.4	20175	3	#Mid	16QAM	20.86	1.32	22.18	37	PASS
Band4	1.4	20175	3	#Max	16QAM	20.88	1.32	22.20	37	PASS
Band4	1.4	20175	6	#0	16QAM	19.75	1.32	21.07	37	PASS
Band4	1.4	20393	1	#0	QPSK	21.72	1.32	23.04	37	PASS
Band4	1.4	20393	1	#Mid	QPSK	21.95	1.32	23.27	37	PASS
Band4	1.4	20393	1	#Max	QPSK	21.84	1.32	23.16	37	PASS
Band4	1.4	20393	3	#0	QPSK	21.78	1.32	23.10	37	PASS
Band4	1.4	20393	3	#Mid	QPSK	21.78	1.32	23.10	37	PASS
Band4	1.4	20393	3	#Max	QPSK	21.76	1.32	23.08	37	PASS
Band4	1.4	20393	6	#0	QPSK	20.87	1.32	22.19	37	PASS
Band4	1.4	20393	1	#0	16QAM	21.10	1.32	22.42	37	PASS
Band4	1.4	20393	1	#Mid	16QAM	20.74	1.32	22.06	37	PASS

Band4	1.4	20393	1	#Max	16QAM	20.67	1.32	21.99	37	PASS
Band4	1.4	20393	3	#0	16QAM	20.62	1.32	21.94	37	PASS
Band4	1.4	20393	3	#Mid	16QAM	20.62	1.32	21.94	37	PASS
Band4	1.4	20393	3	#Max	16QAM	20.60	1.32	21.92	37	PASS
Band4	1.4	20393	6	#0	16QAM	19.96	1.32	21.28	37	PASS
Band4	3	19965	1	#0	QPSK	21.81	1.32	23.13	37	PASS
Band4	3	19965	1	#Mid	QPSK	21.66	1.32	22.98	37	PASS
Band4	3	19965	1	#Max	QPSK	21.67	1.32	22.99	37	PASS
Band4	3	19965	8	#0	QPSK	20.78	1.32	22.10	37	PASS
Band4	3	19965	8	#Mid	QPSK	20.80	1.32	22.12	37	PASS
Band4	3	19965	8	#Max	QPSK	20.79	1.32	22.11	37	PASS
Band4	3	19965	15	#0	QPSK	20.79	1.32	22.11	37	PASS
Band4	3	19965	1	#0	16QAM	21.32	1.32	22.64	37	PASS
Band4	3	19965	1	#Mid	16QAM	21.51	1.32	22.83	37	PASS
Band4	3	19965	1	#Max	16QAM	21.50	1.32	22.82	37	PASS
Band4	3	19965	8	#0	16QAM	19.69	1.32	21.01	37	PASS
Band4	3	19965	8	#Mid	16QAM	19.63	1.32	20.95	37	PASS
Band4	3	19965	8	#Max	16QAM	19.61	1.32	20.93	37	PASS
Band4	3	19965	15	#0	16QAM	19.84	1.32	21.16	37	PASS
Band4	3	20175	1	#0	QPSK	21.72	1.32	23.04	37	PASS
Band4	3	20175	1	#Mid	QPSK	21.82	1.32	23.14	37	PASS
Band4	3	20175	1	#Max	QPSK	21.80	1.32	23.12	37	PASS
Band4	3	20175	8	#0	QPSK	20.75	1.32	22.07	37	PASS
Band4	3	20175	8	#Mid	QPSK	20.85	1.32	22.17	37	PASS
Band4	3	20175	8	#Max	QPSK	20.90	1.32	22.22	37	PASS
Band4	3	20175	15	#0	QPSK	20.85	1.32	22.17	37	PASS
Band4	3	20175	1	#0	16QAM	20.61	1.32	21.93	37	PASS
Band4	3	20175	1	#Mid	16QAM	20.81	1.32	22.13	37	PASS
Band4	3	20175	1	#Max	16QAM	20.36	1.32	21.68	37	PASS
Band4	3	20175	8	#0	16QAM	19.58	1.32	20.90	37	PASS
Band4	3	20175	8	#Mid	16QAM	19.69	1.32	21.01	37	PASS
Band4	3	20175	8	#Max	16QAM	19.74	1.32	21.06	37	PASS
Band4	3	20175	15	#0	16QAM	19.72	1.32	21.04	37	PASS
Band4	3	20385	1	#0	QPSK	21.57	1.32	22.89	37	PASS
Band4	3	20385	1	#Mid	QPSK	21.78	1.32	23.10	37	PASS
Band4	3	20385	1	#Max	QPSK	21.79	1.32	23.11	37	PASS
Band4	3	20385	8	#0	QPSK	20.76	1.32	22.08	37	PASS
Band4	3	20385	8	#Mid	QPSK	20.77	1.32	22.09	37	PASS
Band4	3	20385	8	#Max	QPSK	20.73	1.32	22.05	37	PASS
Band4	3	20385	15	#0	QPSK	20.75	1.32	22.07	37	PASS
Band4	3	20385	1	#0	16QAM	20.38	1.32	21.70	37	PASS
Band4	3	20385	1	#Mid	16QAM	20.30	1.32	21.62	37	PASS

Band4	3	20385	1	#Max	16QAM	20.23	1.32	21.55	37	PASS
Band4	3	20385	8	#0	16QAM	19.44	1.32	20.76	37	PASS
Band4	3	20385	8	#Mid	16QAM	19.46	1.32	20.78	37	PASS
Band4	3	20385	8	#Max	16QAM	19.39	1.32	20.71	37	PASS
Band4	3	20385	15	#0	16QAM	19.69	1.32	21.01	37	PASS
Band4	5	19975	1	#0	QPSK	21.69	1.32	23.01	37	PASS
Band4	5	19975	1	#Mid	QPSK	21.86	1.32	23.18	37	PASS
Band4	5	19975	1	#Max	QPSK	21.76	1.32	23.08	37	PASS
Band4	5	19975	12	#0	QPSK	20.70	1.32	22.02	37	PASS
Band4	5	19975	12	#Mid	QPSK	20.79	1.32	22.11	37	PASS
Band4	5	19975	12	#Max	QPSK	20.73	1.32	22.05	37	PASS
Band4	5	19975	25	#0	QPSK	20.73	1.32	22.05	37	PASS
Band4	5	19975	1	#0	16QAM	20.90	1.32	22.22	37	PASS
Band4	5	19975	1	#Mid	16QAM	20.95	1.32	22.27	37	PASS
Band4	5	19975	1	#Max	16QAM	20.83	1.32	22.15	37	PASS
Band4	5	19975	12	#0	16QAM	19.62	1.32	20.94	37	PASS
Band4	5	19975	12	#Mid	16QAM	19.60	1.32	20.92	37	PASS
Band4	5	19975	12	#Max	16QAM	19.57	1.32	20.89	37	PASS
Band4	5	19975	25	#0	16QAM	19.82	1.32	21.14	37	PASS
Band4	5	20175	1	#0	QPSK	21.55	1.32	22.87	37	PASS
Band4	5	20175	1	#Mid	QPSK	21.65	1.32	22.97	37	PASS
Band4	5	20175	1	#Max	QPSK	21.81	1.32	23.13	37	PASS
Band4	5	20175	12	#0	QPSK	20.85	1.32	22.17	37	PASS
Band4	5	20175	12	#Mid	QPSK	20.82	1.32	22.14	37	PASS
Band4	5	20175	12	#Max	QPSK	20.90	1.32	22.22	37	PASS
Band4	5	20175	25	#0	QPSK	20.80	1.32	22.12	37	PASS
Band4	5	20175	1	#0	16QAM	20.69	1.32	22.01	37	PASS
Band4	5	20175	1	#Mid	16QAM	20.78	1.32	22.10	37	PASS
Band4	5	20175	1	#Max	16QAM	20.70	1.32	22.02	37	PASS
Band4	5	20175	12	#0	16QAM	19.40	1.32	20.72	37	PASS
Band4	5	20175	12	#Mid	16QAM	19.50	1.32	20.82	37	PASS
Band4	5	20175	12	#Max	16QAM	19.56	1.32	20.88	37	PASS
Band4	5	20175	25	#0	16QAM	19.72	1.32	21.04	37	PASS
Band4	5	20375	1	#0	QPSK	21.68	1.32	23.00	37	PASS
Band4	5	20375	1	#Mid	QPSK	21.93	1.32	23.25	37	PASS
Band4	5	20375	1	#Max	QPSK	22.01	1.32	23.33	37	PASS
Band4	5	20375	12	#0	QPSK	20.92	1.32	22.24	37	PASS
Band4	5	20375	12	#Mid	QPSK	20.85	1.32	22.17	37	PASS
Band4	5	20375	12	#Max	QPSK	20.86	1.32	22.18	37	PASS
Band4	5	20375	25	#0	QPSK	20.94	1.32	22.26	37	PASS
Band4	5	20375	1	#0	16QAM	20.83	1.32	22.15	37	PASS
Band4	5	20375	1	#Mid	16QAM	20.45	1.32	21.77	37	PASS

Band4	5	20375	1	#Max	16QAM	20.71	1.32	22.03	37	PASS
Band4	5	20375	12	#0	16QAM	19.91	1.32	21.23	37	PASS
Band4	5	20375	12	#Mid	16QAM	19.85	1.32	21.17	37	PASS
Band4	5	20375	12	#Max	16QAM	19.85	1.32	21.17	37	PASS
Band4	5	20375	25	#0	16QAM	19.88	1.32	21.20	37	PASS
Band4	10	20000	1	#0	QPSK	21.88	1.32	23.20	37	PASS
Band4	10	20000	1	#Mid	QPSK	21.80	1.32	23.12	37	PASS
Band4	10	20000	1	#Max	QPSK	21.55	1.32	22.87	37	PASS
Band4	10	20000	25	#0	QPSK	20.79	1.32	22.11	37	PASS
Band4	10	20000	25	#Mid	QPSK	20.79	1.32	22.11	37	PASS
Band4	10	20000	25	#Max	QPSK	20.71	1.32	22.03	37	PASS
Band4	10	20000	50	#0	QPSK	20.76	1.32	22.08	37	PASS
Band4	10	20175	1	#0	QPSK	21.53	1.32	22.85	37	PASS
Band4	10	20175	1	#Mid	QPSK	21.76	1.32	23.08	37	PASS
Band4	10	20175	1	#Max	QPSK	21.74	1.32	23.06	37	PASS
Band4	10	20175	25	#0	QPSK	20.76	1.32	22.08	37	PASS
Band4	10	20175	25	#Mid	QPSK	20.87	1.32	22.19	37	PASS
Band4	10	20175	25	#Max	QPSK	20.99	1.32	22.31	37	PASS
Band4	10	20175	50	#0	QPSK	20.81	1.32	22.13	37	PASS
Band4	10	20350	1	#0	QPSK	21.94	1.32	23.26	37	PASS
Band4	10	20350	1	#Mid	QPSK	22.21	1.32	23.53	37	PASS
Band4	10	20350	1	#Max	QPSK	21.95	1.32	23.27	37	PASS
Band4	10	20350	25	#0	QPSK	20.98	1.32	22.30	37	PASS
Band4	10	20350	25	#Mid	QPSK	20.96	1.32	22.28	37	PASS
Band4	10	20350	25	#Max	QPSK	20.79	1.32	22.11	37	PASS
Band4	10	20350	50	#0	QPSK	20.86	1.32	22.18	37	PASS
Band4	15	20025	1	#0	QPSK	21.79	1.32	23.11	37	PASS
Band4	15	20025	1	#Mid	QPSK	21.89	1.32	23.21	37	PASS
Band4	15	20025	1	#Max	QPSK	21.50	1.32	22.82	37	PASS
Band4	15	20025	36	#0	QPSK	20.72	1.32	22.04	37	PASS
Band4	15	20025	36	#Mid	QPSK	20.79	1.32	22.11	37	PASS
Band4	15	20025	36	#Max	QPSK	20.49	1.32	21.81	37	PASS
Band4	15	20175	1	#0	QPSK	21.54	1.32	22.86	37	PASS
Band4	15	20175	1	#Mid	QPSK	21.85	1.32	23.17	37	PASS
Band4	15	20175	1	#Max	QPSK	21.87	1.32	23.19	37	PASS
Band4	15	20175	36	#0	QPSK	20.72	1.32	22.04	37	PASS
Band4	15	20175	36	#Mid	QPSK	20.90	1.32	22.22	37	PASS
Band4	15	20175	36	#Max	QPSK	20.98	1.32	22.30	37	PASS
Band4	15	20325	1	#0	QPSK	21.80	1.32	23.12	37	PASS
Band4	15	20325	1	#Mid	QPSK	21.88	1.32	23.20	37	PASS
Band4	15	20325	1	#Max	QPSK	21.68	1.32	23.00	37	PASS
Band4	15	20325	36	#0	QPSK	20.97	1.32	22.29	37	PASS

Band4	15	20325	36	#Mid	QPSK	20.95	1.32	22.27	37	PASS
Band4	15	20325	36	#Max	QPSK	20.86	1.32	22.18	37	PASS
Band4	20	20050	1	#0	QPSK	21.46	1.32	22.78	37	PASS
Band4	20	20050	1	#Mid	QPSK	21.73	1.32	23.05	37	PASS
Band4	20	20050	1	#Max	QPSK	21.53	1.32	22.85	37	PASS
Band4	20	20050	50	#0	QPSK	20.73	1.32	22.05	37	PASS
Band4	20	20050	50	#Mid	QPSK	20.64	1.32	21.96	37	PASS
Band4	20	20050	50	#Max	QPSK	20.57	1.32	21.89	37	PASS
Band4	20	20175	1	#0	QPSK	21.72	1.32	23.04	37	PASS
Band4	20	20175	1	#Mid	QPSK	22.23	1.32	23.55	37	PASS
Band4	20	20175	1	#Max	QPSK	21.99	1.32	23.31	37	PASS
Band4	20	20175	50	#0	QPSK	20.69	1.32	22.01	37	PASS
Band4	20	20175	50	#Mid	QPSK	20.91	1.32	22.23	37	PASS
Band4	20	20175	50	#Max	QPSK	20.90	1.32	22.22	37	PASS
Band4	20	20300	1	#0	QPSK	21.79	1.32	23.11	37	PASS
Band4	20	20300	1	#Mid	QPSK	22.00	1.32	23.32	37	PASS
Band4	20	20300	1	#Max	QPSK	21.71	1.32	23.03	37	PASS
Band4	20	20300	50	#0	QPSK	21.05	1.32	22.37	37	PASS
Band4	20	20300	50	#Mid	QPSK	21.00	1.32	22.32	37	PASS
Band4	20	20300	50	#Max	QPSK	20.78	1.32	22.10	37	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 4	1.4	19957	6	#0	QPSK	LV	NT	0.14	0.000	-2.5	2.5	PASS
Band 4	1.4	19957	6	#0	QPSK	NV	NT	1.32	0.001	-2.5	2.5	PASS
Band 4	1.4	19957	6	#0	QPSK	HV	NT	1.03	0.001	-2.5	2.5	PASS
Band 4	1.4	19957	6	#0	16QAM	LV	NT	0.62	0.000	-2.5	2.5	PASS
Band 4	1.4	19957	6	#0	16QAM	NV	NT	1.06	0.001	-2.5	2.5	PASS
Band 4	1.4	19957	6	#0	16QAM	HV	NT	0.21	0.000	-2.5	2.5	PASS
Band 4	1.4	20175	6	#0	QPSK	LV	NT	0.04	0.000	-2.5	2.5	PASS
Band 4	1.4	20175	6	#0	QPSK	NV	NT	0.34	0.000	-2.5	2.5	PASS
Band 4	1.4	20175	6	#0	QPSK	HV	NT	-0.31	0.000	-2.5	2.5	PASS
Band 4	1.4	20175	6	#0	16QAM	LV	NT	0.86	0.000	-2.5	2.5	PASS
Band 4	1.4	20175	6	#0	16QAM	NV	NT	-0.50	0.000	-2.5	2.5	PASS
Band 4	1.4	20175	6	#0	16QAM	HV	NT	-0.34	0.000	-2.5	2.5	PASS
Band 4	1.4	20393	6	#0	QPSK	LV	NT	-2.56	-0.001	-2.5	2.5	PASS
Band 4	1.4	20393	6	#0	QPSK	NV	NT	0.00	0.000	-2.5	2.5	PASS
Band 4	1.4	20393	6	#0	QPSK	HV	NT	0.00	0.000	-2.5	2.5	PASS
Band 4	1.4	20393	6	#0	16QAM	LV	NT	0.00	0.000	-2.5	2.5	PASS
Band 4	1.4	20393	6	#0	16QAM	NV	NT	0.00	0.000	-2.5	2.5	PASS
Band	1.4	20393	6	#0	16QAM	HV	NT	0.00	0.000	-2.5	2.5	PASS

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Band 4	3	19965	15	#0	QPSK	LV	NT	-0.86	-0.001	-2.5	2.5	PASS
Band 4	3	19965	15	#0	QPSK	NV	NT	0.59	0.000	-2.5	2.5	PASS
Band 4	3	19965	15	#0	QPSK	HV	NT	-1.10	-0.001	-2.5	2.5	PASS
Band 4	3	19965	15	#0	16QAM	LV	NT	0.37	0.000	-2.5	2.5	PASS
Band 4	3	19965	15	#0	16QAM	NV	NT	0.09	0.000	-2.5	2.5	PASS
Band 4	3	19965	15	#0	16QAM	HV	NT	0.36	0.000	-2.5	2.5	PASS
Band 4	3	20175	15	#0	QPSK	LV	NT	0.31	0.000	-2.5	2.5	PASS
Band 4	3	20175	15	#0	QPSK	NV	NT	0.40	0.000	-2.5	2.5	PASS
Band 4	3	20175	15	#0	QPSK	HV	NT	-0.26	0.000	-2.5	2.5	PASS
Band 4	3	20175	15	#0	16QAM	LV	NT	0.80	0.000	-2.5	2.5	PASS
Band 4	3	20175	15	#0	16QAM	NV	NT	0.43	0.000	-2.5	2.5	PASS
Band 4	3	20175	15	#0	16QAM	HV	NT	0.83	0.000	-2.5	2.5	PASS
Band 4	3	20385	15	#0	QPSK	LV	NT	-0.01	0.000	-2.5	2.5	PASS
Band 4	3	20385	15	#0	QPSK	NV	NT	-0.84	0.000	-2.5	2.5	PASS
Band 4	3	20385	15	#0	QPSK	HV	NT	-1.79	-0.001	-2.5	2.5	PASS
Band 4	3	20385	15	#0	16QAM	LV	NT	-2.15	-0.001	-2.5	2.5	PASS
Band 4	3	20385	15	#0	16QAM	NV	NT	-0.21	0.000	-2.5	2.5	PASS
Band 4	3	20385	15	#0	16QAM	HV	NT	-1.27	-0.001	-2.5	2.5	PASS
Band 4	5	19975	25	#0	QPSK	LV	NT	1.99	0.001	-2.5	2.5	PASS
Band 4	5	19975	25	#0	QPSK	NV	NT	1.19	0.001	-2.5	2.5	PASS
Band 4	5	19975	25	#0	QPSK	HV	NT	0.92	0.001	-2.5	2.5	PASS

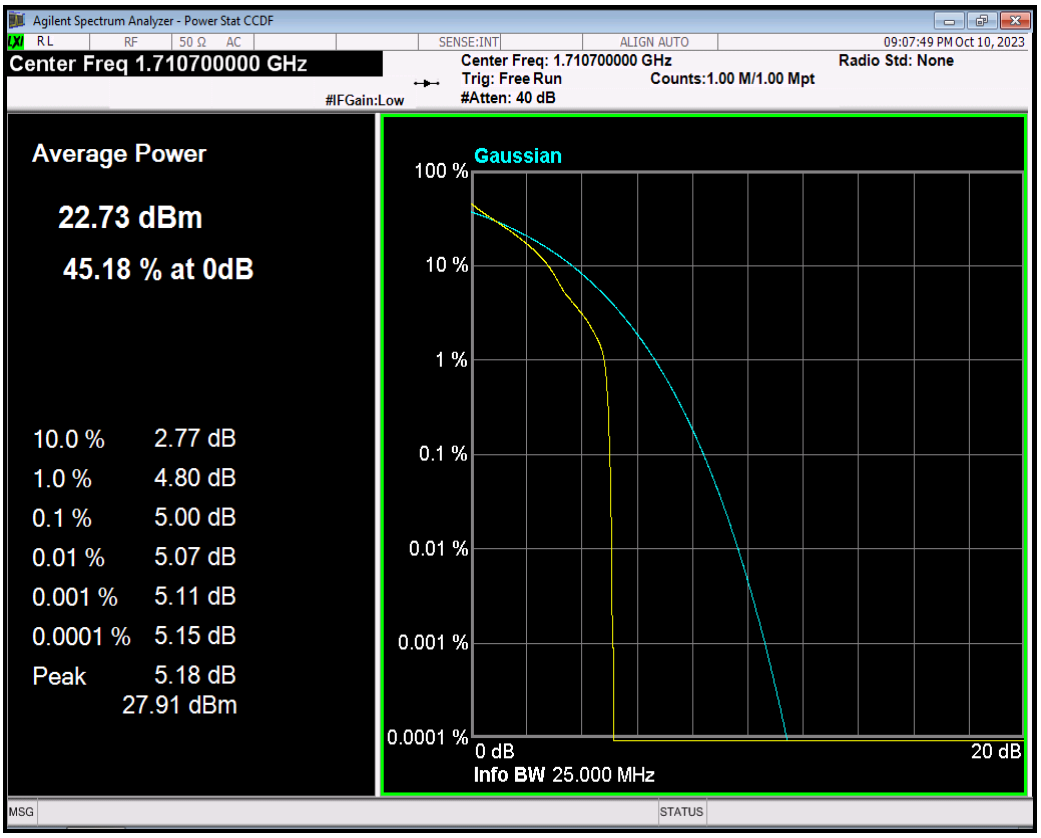
Band 4	5	19975	25	#0	16QAM	LV	NT	1.97	0.001	-2.5	2.5	PASS
Band 4	5	19975	25	#0	16QAM	NV	NT	0.89	0.001	-2.5	2.5	PASS
Band 4	5	19975	25	#0	16QAM	HV	NT	1.23	0.001	-2.5	2.5	PASS
Band 4	5	20175	25	#0	QPSK	LV	NT	0.50	0.000	-2.5	2.5	PASS
Band 4	5	20175	25	#0	QPSK	NV	NT	-0.26	0.000	-2.5	2.5	PASS
Band 4	5	20175	25	#0	QPSK	HV	NT	-0.27	0.000	-2.5	2.5	PASS
Band 4	5	20175	25	#0	16QAM	LV	NT	0.26	0.000	-2.5	2.5	PASS
Band 4	5	20175	25	#0	16QAM	NV	NT	0.16	0.000	-2.5	2.5	PASS
Band 4	5	20175	25	#0	16QAM	HV	NT	1.30	0.001	-2.5	2.5	PASS
Band 4	5	20375	25	#0	QPSK	LV	NT	-4.08	-0.002	-2.5	2.5	PASS
Band 4	5	20375	25	#0	QPSK	NV	NT	-2.82	-0.002	-2.5	2.5	PASS
Band 4	5	20375	25	#0	QPSK	HV	NT	-3.02	-0.002	-2.5	2.5	PASS
Band 4	5	20375	25	#0	16QAM	LV	NT	-3.32	-0.002	-2.5	2.5	PASS
Band 4	5	20375	25	#0	16QAM	NV	NT	-3.00	-0.002	-2.5	2.5	PASS
Band 4	5	20375	25	#0	16QAM	HV	NT	-2.88	-0.002	-2.5	2.5	PASS
Band 4	10	20000	50	#0	QPSK	LV	NT	-4.21	-0.002	-2.5	2.5	PASS
Band 4	10	20000	50	#0	QPSK	NV	NT	-4.45	-0.003	-2.5	2.5	PASS
Band 4	10	20000	50	#0	QPSK	HV	NT	-3.16	-0.002	-2.5	2.5	PASS
Band 4	10	20175	50	#0	QPSK	LV	NT	-0.30	0.000	-2.5	2.5	PASS
Band 4	10	20175	50	#0	QPSK	NV	NT	-0.13	0.000	-2.5	2.5	PASS
Band 4	10	20175	50	#0	QPSK	HV	NT	0.00	0.000	-2.5	2.5	PASS
Band	10	20350	50	#0	QPSK	LV	NT	1.36	0.001	-2.5	2.5	PASS

4												
Band 4	10	20350	50	#0	QPSK	NV	NT	0.09	0.000	-2.5	2.5	PASS
Band 4	10	20350	50	#0	QPSK	HV	NT	1.09	0.001	-2.5	2.5	PASS
Band 4	15	20025	75	#0	QPSK	LV	NT	-0.93	-0.001	-2.5	2.5	PASS
Band 4	15	20025	75	#0	QPSK	NV	NT	-0.54	0.000	-2.5	2.5	PASS
Band 4	15	20025	75	#0	QPSK	HV	NT	-0.06	0.000	-2.5	2.5	PASS
Band 4	15	20175	75	#0	QPSK	LV	NT	0.20	0.000	-2.5	2.5	PASS
Band 4	15	20175	75	#0	QPSK	NV	NT	-0.20	0.000	-2.5	2.5	PASS
Band 4	15	20175	75	#0	QPSK	HV	NT	0.39	0.000	-2.5	2.5	PASS
Band 4	15	20325	75	#0	QPSK	LV	NT	-0.03	0.000	-2.5	2.5	PASS
Band 4	15	20325	75	#0	QPSK	NV	NT	-0.79	0.000	-2.5	2.5	PASS
Band 4	15	20325	75	#0	QPSK	HV	NT	0.39	0.000	-2.5	2.5	PASS
Band 4	20	20050	100	#0	QPSK	LV	NT	-0.04	0.000	-2.5	2.5	PASS
Band 4	20	20050	100	#0	QPSK	NV	NT	0.59	0.000	-2.5	2.5	PASS
Band 4	20	20050	100	#0	QPSK	HV	NT	0.96	0.001	-2.5	2.5	PASS
Band 4	20	20175	100	#0	QPSK	LV	NT	-0.11	0.000	-2.5	2.5	PASS
Band 4	20	20175	100	#0	QPSK	NV	NT	-0.09	0.000	-2.5	2.5	PASS
Band 4	20	20175	100	#0	QPSK	HV	NT	-0.26	0.000	-2.5	2.5	PASS
Band 4	20	20300	100	#0	QPSK	LV	NT	-3.66	-0.002	-2.5	2.5	PASS
Band 4	20	20300	100	#0	QPSK	NV	NT	-3.26	-0.002	-2.5	2.5	PASS
Band 4	20	20300	100	#0	QPSK	HV	NT	0.00	0.000	-2.5	2.5	PASS

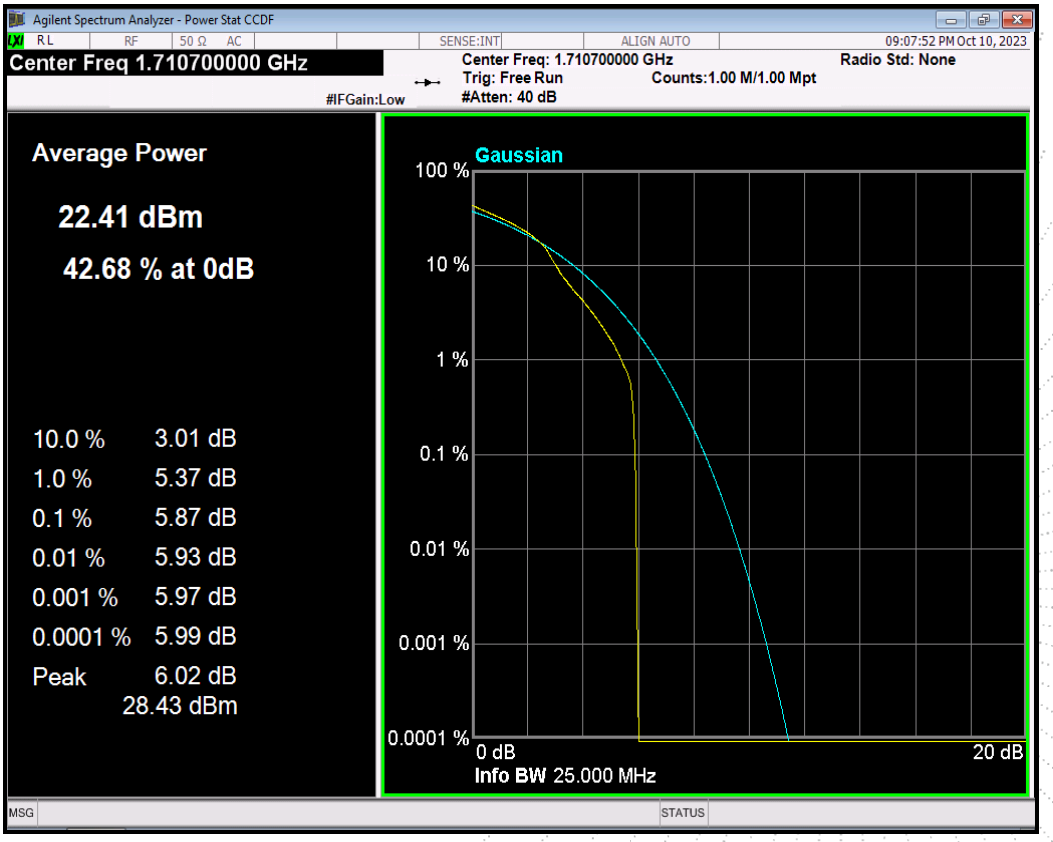
Appendix 3. Peak-to-Average Ratio

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Result (dB)	high Limit (dB)	Verdict
Band4	1.4	19957	1	#0	QPSK	5.00	13	PASS
Band4	1.4	19957	1	#0	16QAM	5.87	13	PASS
Band4	1.4	20175	1	#0	QPSK	5.02	13	PASS
Band4	1.4	20175	1	#0	16QAM	6.00	13	PASS
Band4	1.4	20393	1	#0	QPSK	4.58	13	PASS
Band4	1.4	20393	1	#0	16QAM	5.46	13	PASS
Band4	3	19965	1	#0	QPSK	4.99	13	PASS
Band4	3	19965	1	#0	16QAM	5.87	13	PASS
Band4	3	20175	1	#0	QPSK	5.11	13	PASS
Band4	3	20175	1	#0	16QAM	6.09	13	PASS
Band4	3	20385	1	#0	QPSK	4.51	13	PASS
Band4	3	20385	1	#0	16QAM	5.40	13	PASS
Band4	5	19975	1	#0	QPSK	4.91	13	PASS
Band4	5	19975	1	#0	16QAM	5.98	13	PASS
Band4	5	20175	1	#0	QPSK	5.10	13	PASS
Band4	5	20175	1	#0	16QAM	6.00	13	PASS
Band4	5	20375	1	#0	QPSK	4.39	13	PASS
Band4	5	20375	1	#0	16QAM	5.13	13	PASS
Band4	10	20000	1	#0	QPSK	4.91	13	PASS
Band4	10	20175	1	#0	QPSK	5.13	13	PASS
Band4	10	20350	1	#0	QPSK	4.61	13	PASS
Band4	15	20025	1	#0	QPSK	4.90	13	PASS
Band4	15	20175	1	#0	QPSK	5.08	13	PASS
Band4	15	20325	1	#0	QPSK	4.43	13	PASS
Band4	20	20050	1	#0	QPSK	4.91	13	PASS
Band4	20	20175	1	#0	QPSK	4.98	13	PASS
Band4	20	20300	1	#0	QPSK	4.31	13	PASS

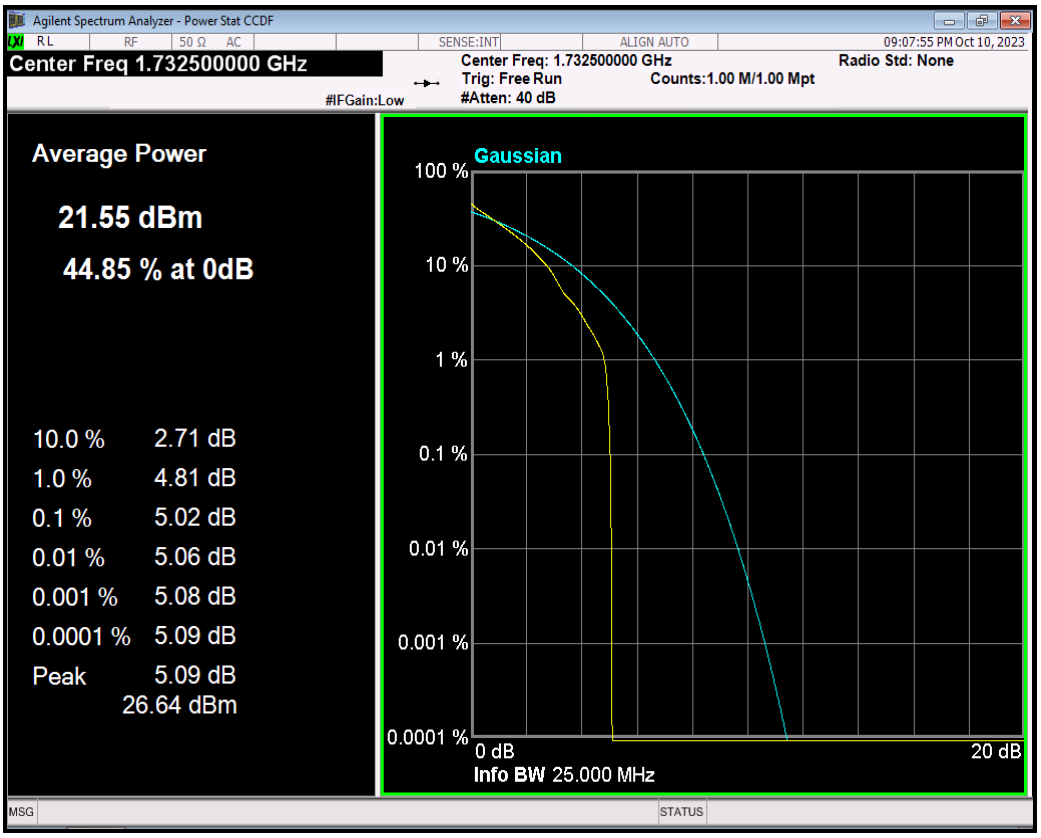
Band4 QPSK BW=1.4MHz Channel=19957 RB Size=1 Position=#0



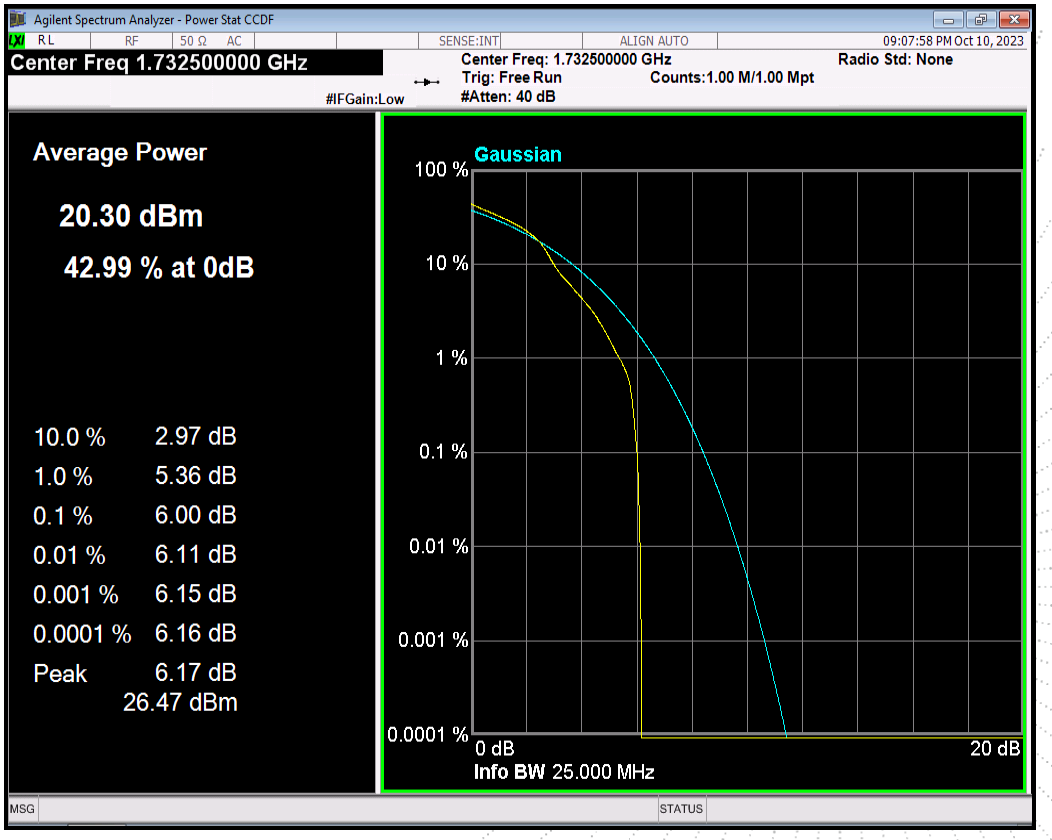
Band4 16QAM BW=1.4MHz Channel=19957 RB Size=1 Position=#0



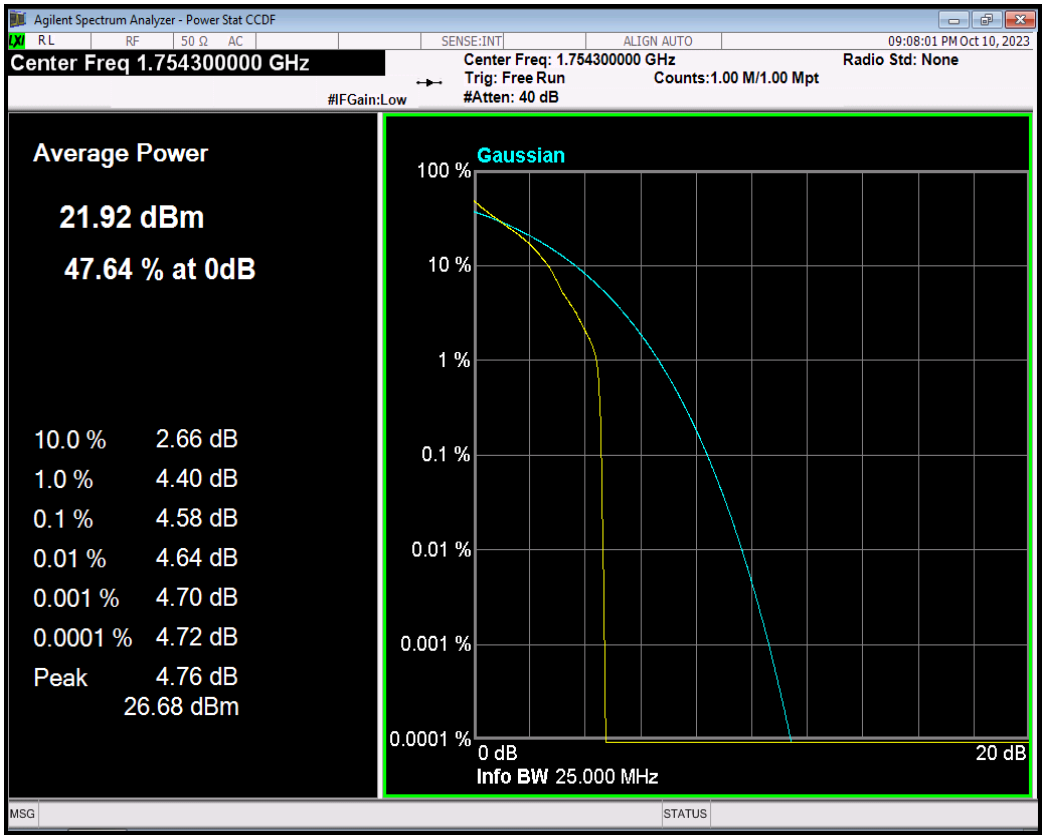
Band4 QPSK BW=1.4MHz Channel=20175 RB Size=1 Position=#0



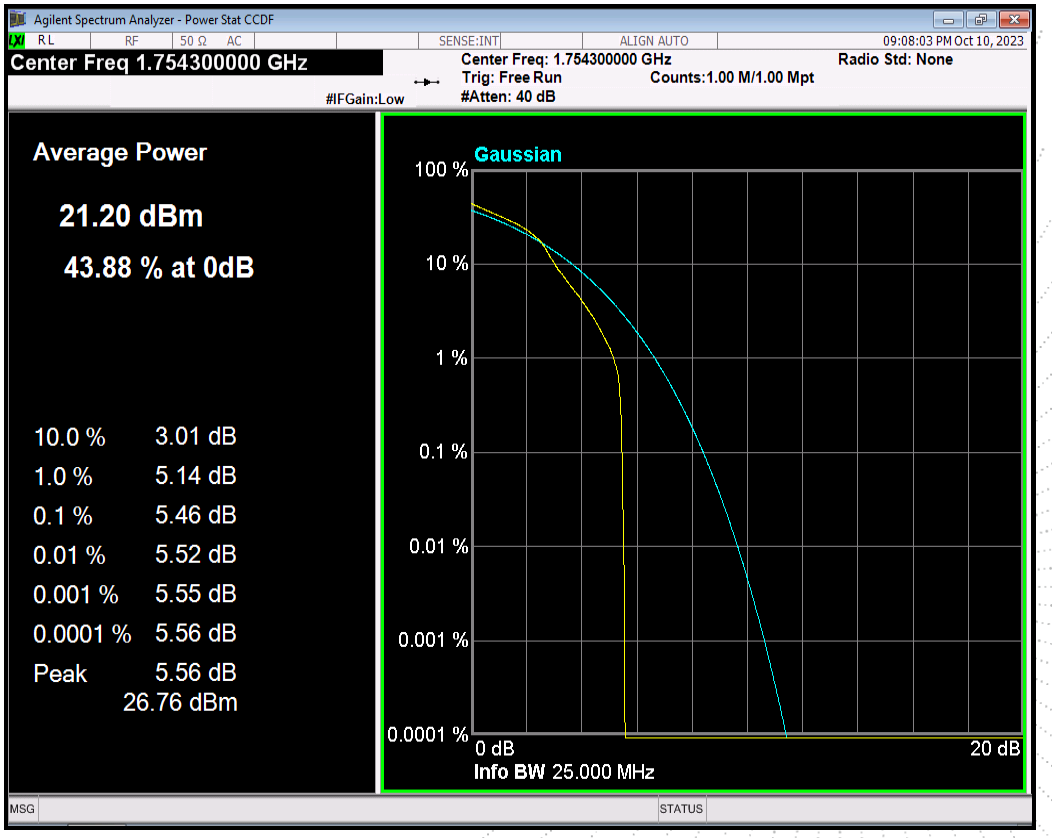
Band4 16QAM BW=1.4MHz Channel=20175 RB Size=1 Position=#0



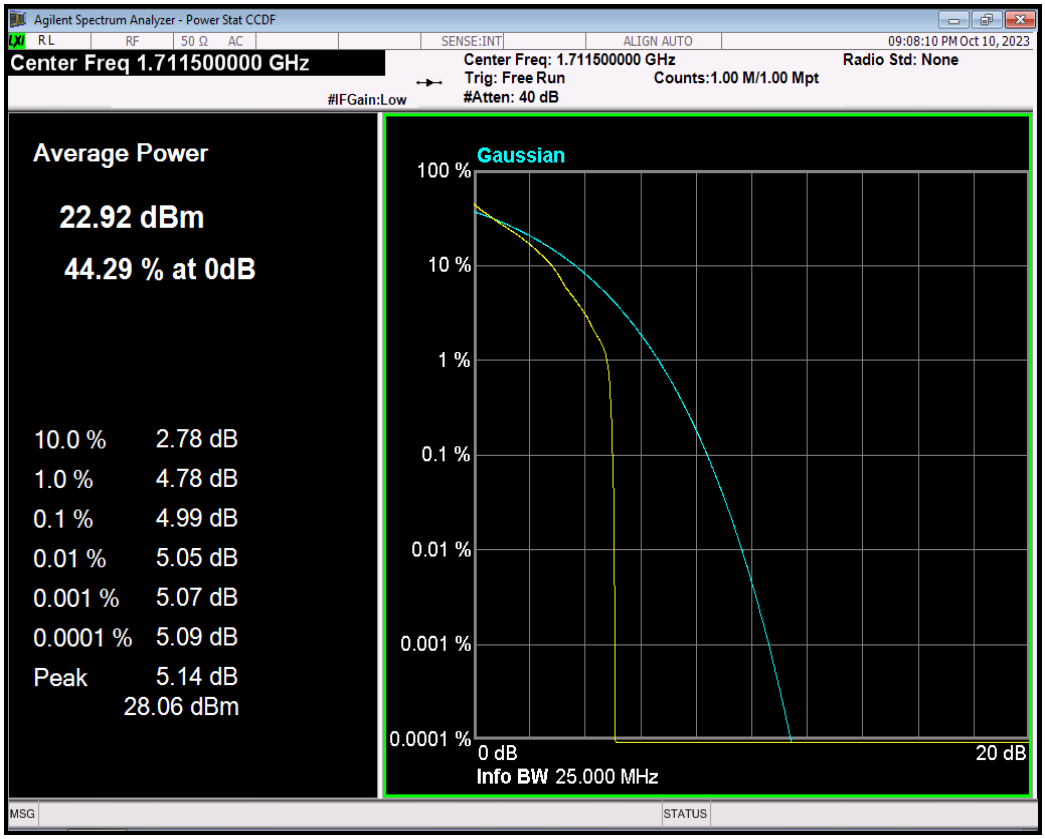
Band4 QPSK BW=1.4MHz Channel=20393 RB Size=1 Position=#0



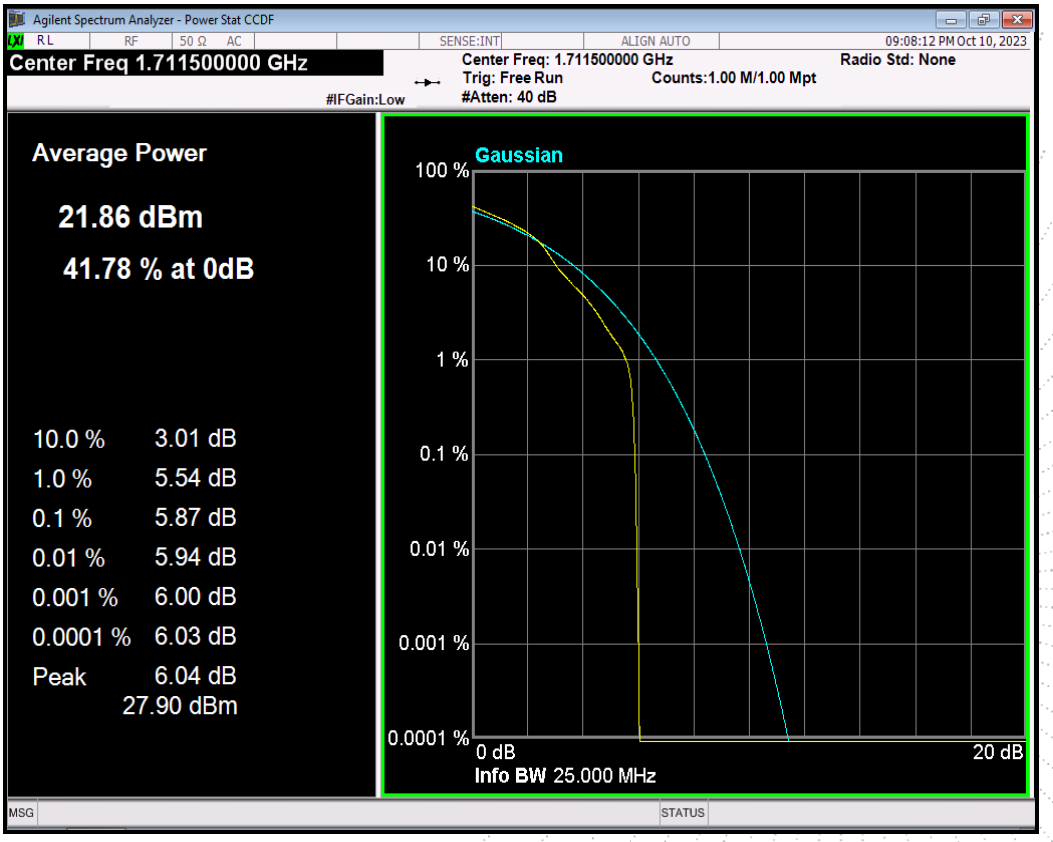
Band4 16QAM BW=1.4MHz Channel=20393 RB Size=1 Position=#0



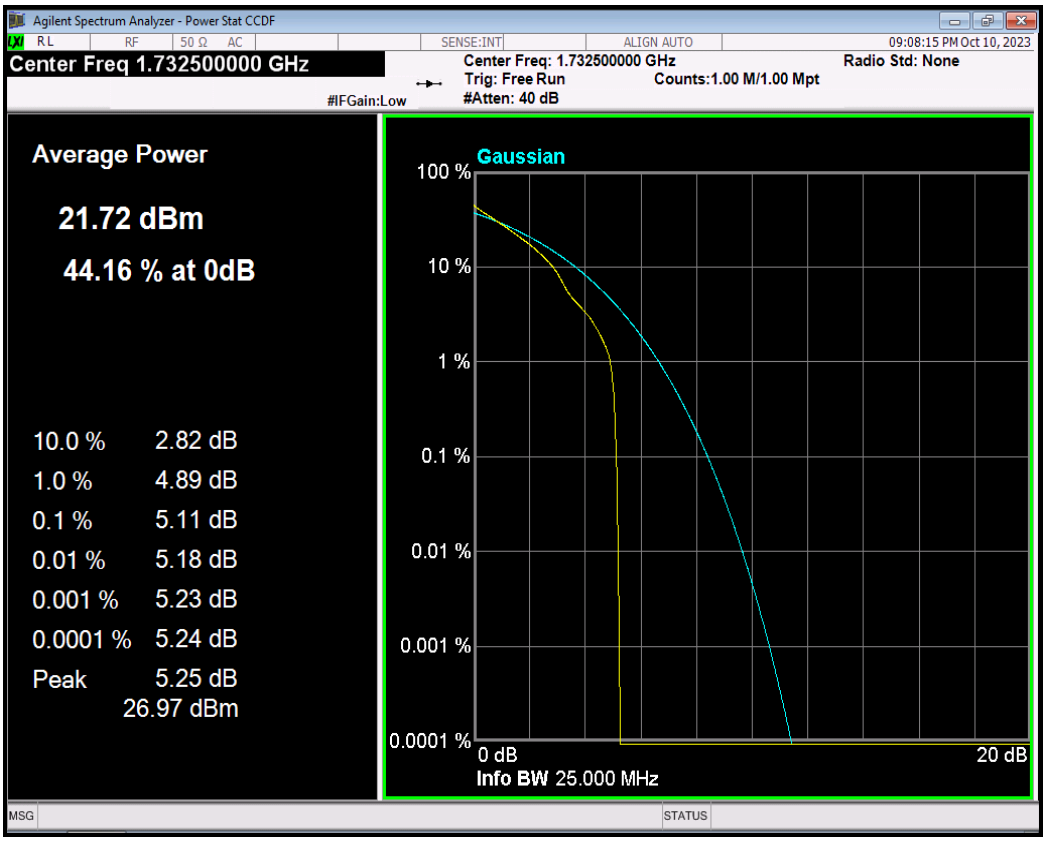
Band4 QPSK BW=3MHz Channel=19965 RB Size=1 Position=#0



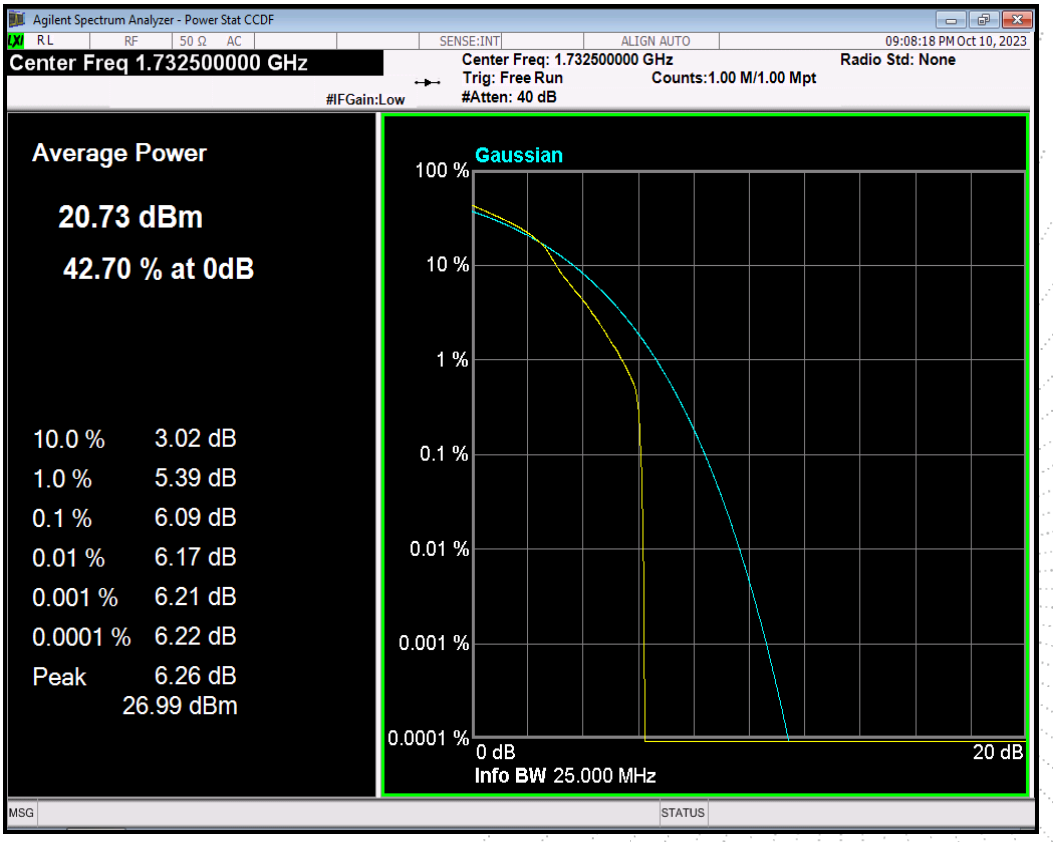
Band4 16QAM BW=3MHz Channel=19965 RB Size=1 Position=#0



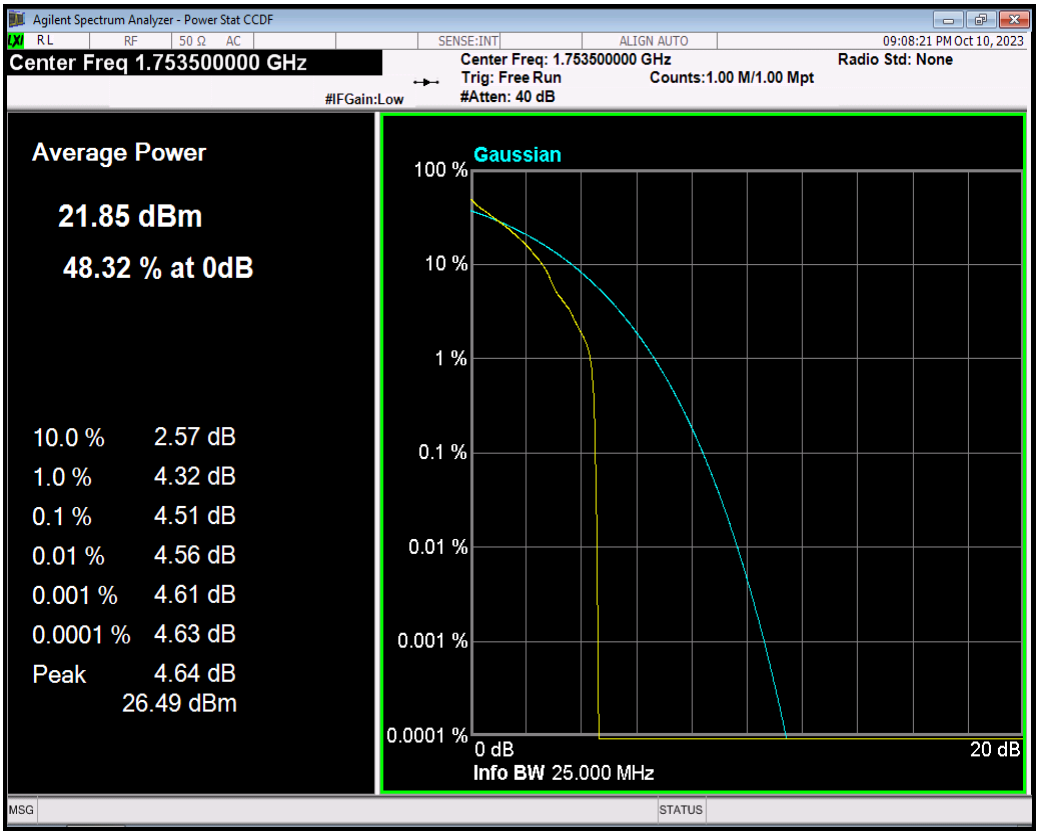
Band4 QPSK BW=3MHz Channel=20175 RB Size=1 Position=#0



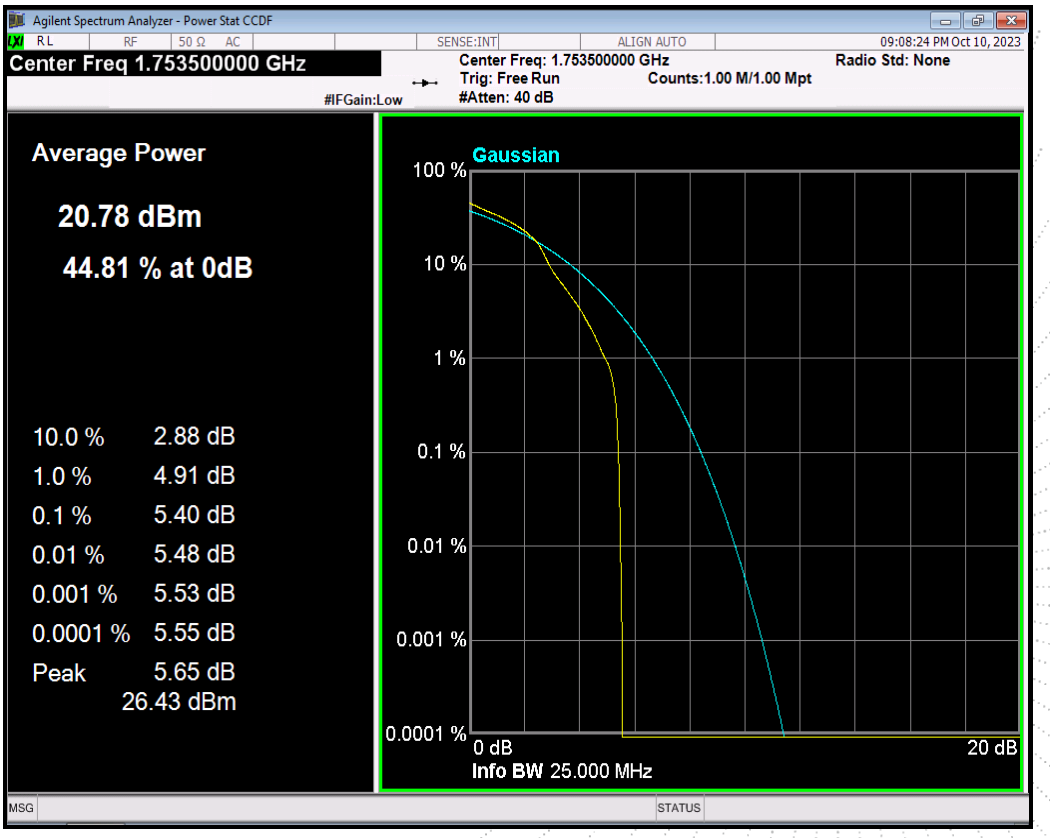
Band4 16QAM BW=3MHz Channel=20175 RB Size=1 Position=#0



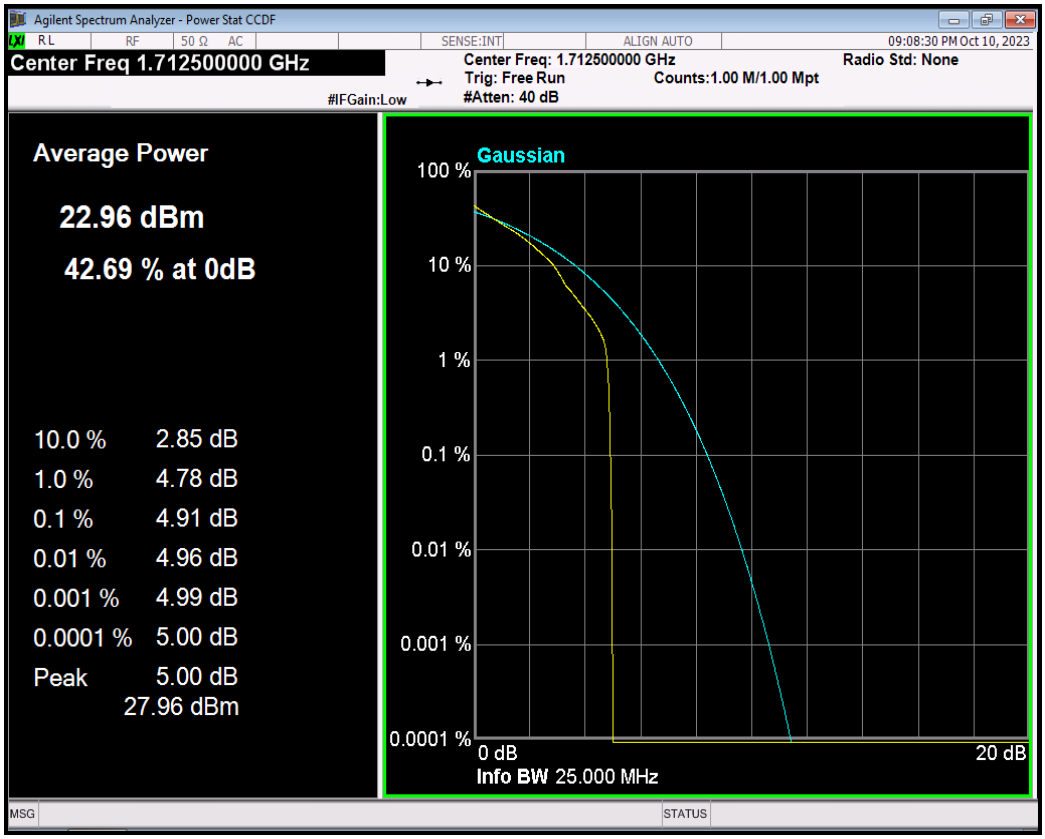
Band4 QPSK BW=3MHz Channel=20385 RB Size=1 Position=#0



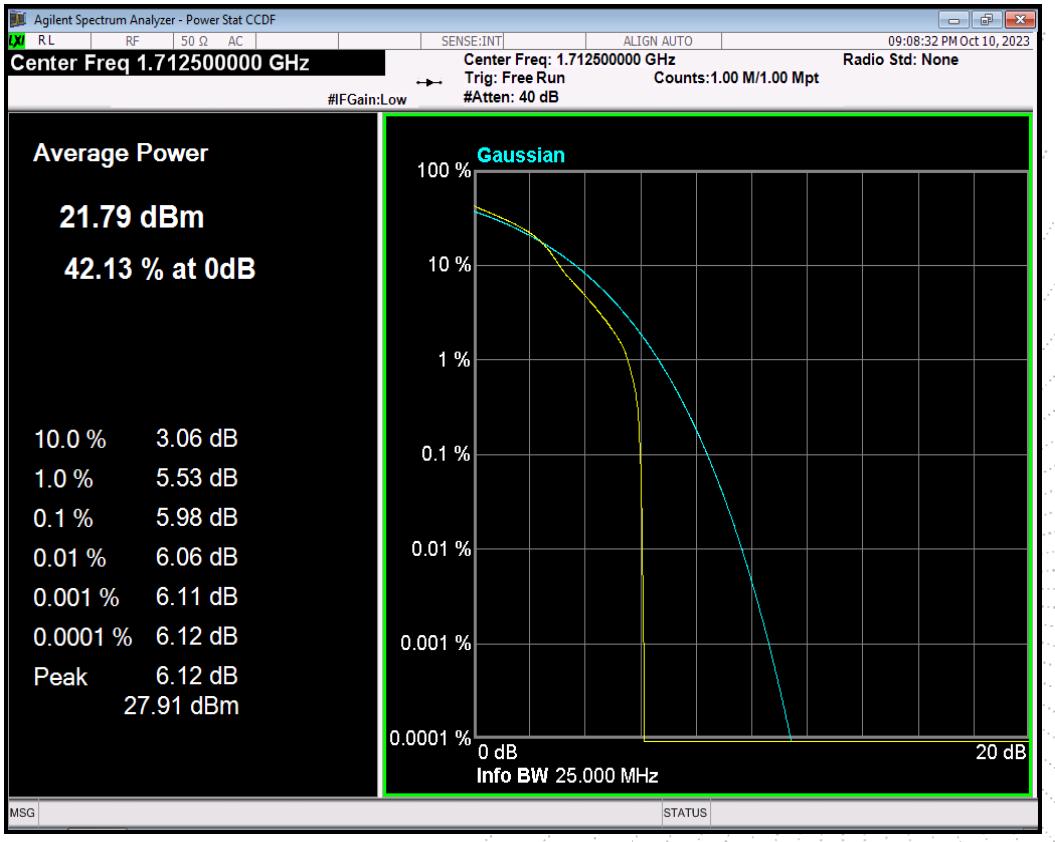
Band4 16QAM BW=3MHz Channel=20385 RB Size=1 Position=#0



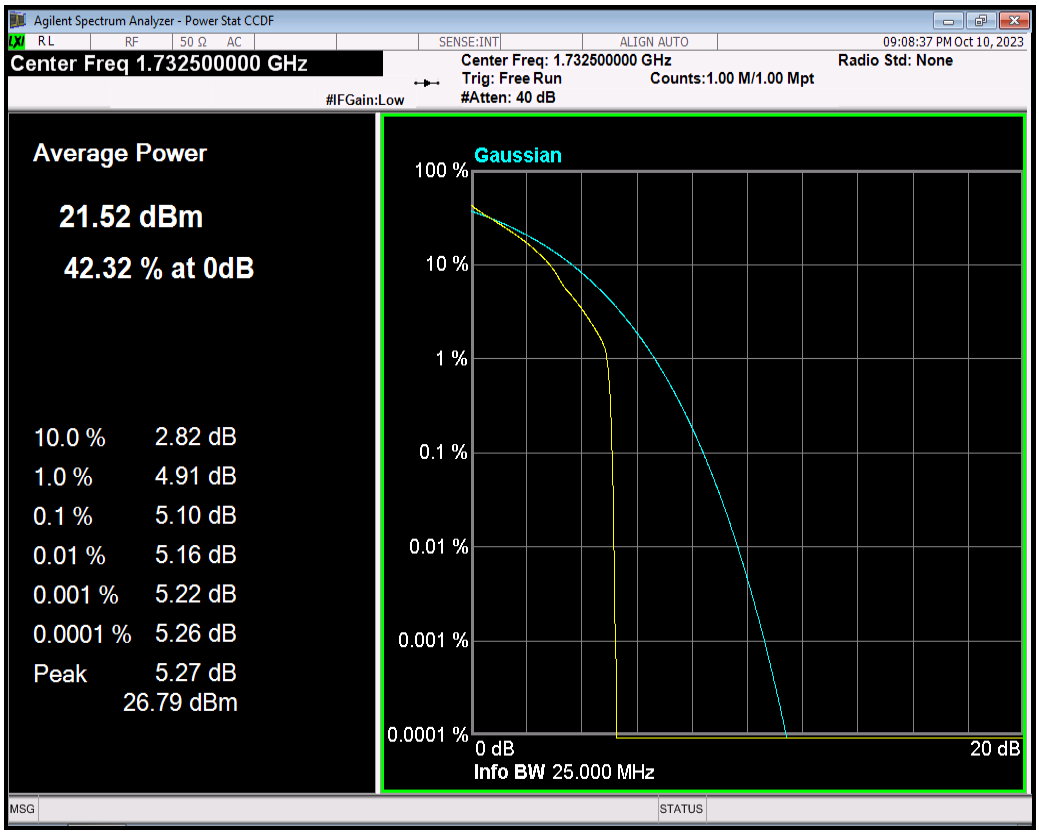
Band4 QPSK BW=5MHz Channel=19975 RB Size=1 Position=#0



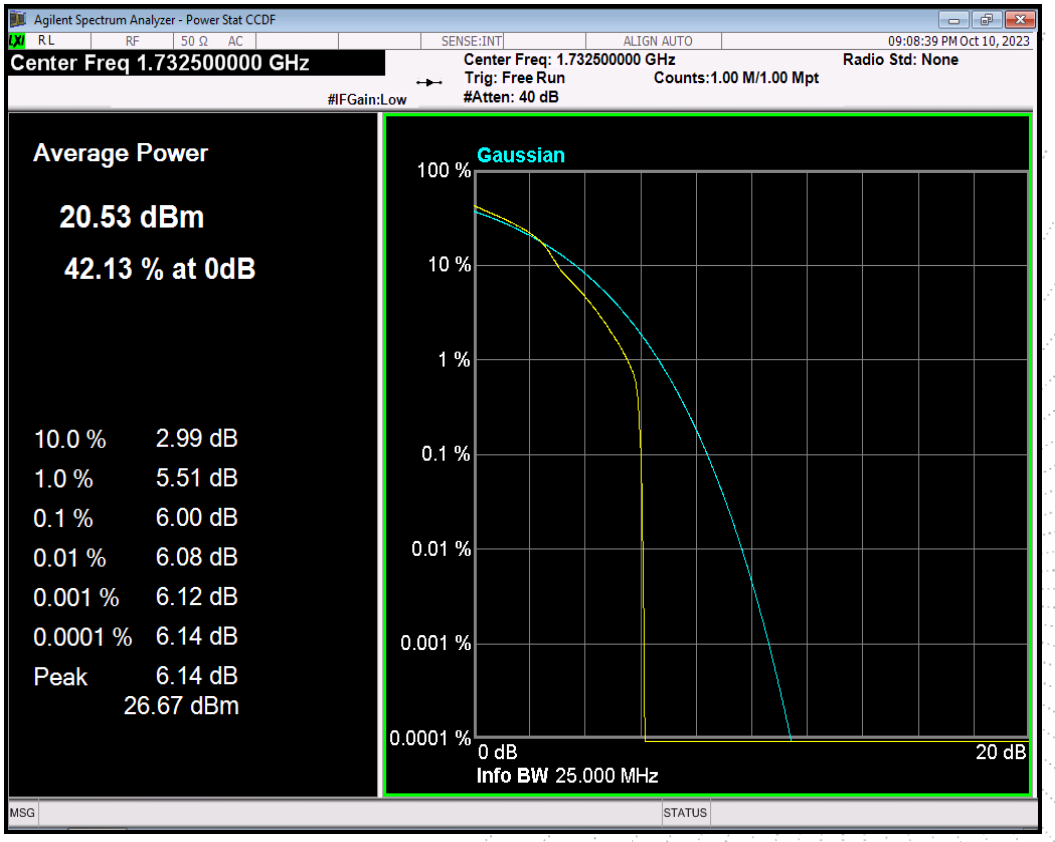
Band4 16QAM BW=5MHz Channel=19975 RB Size=1 Position=#0



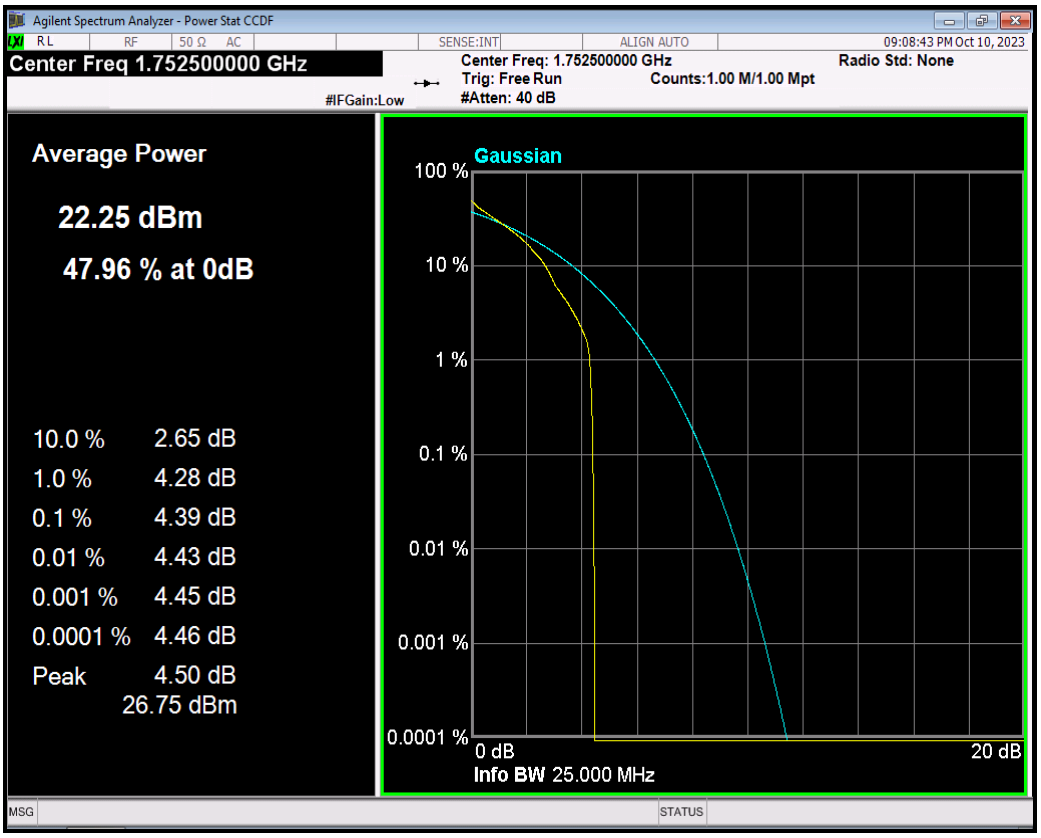
Band4 QPSK BW=5MHz Channel=20175 RB Size=1 Position=#0



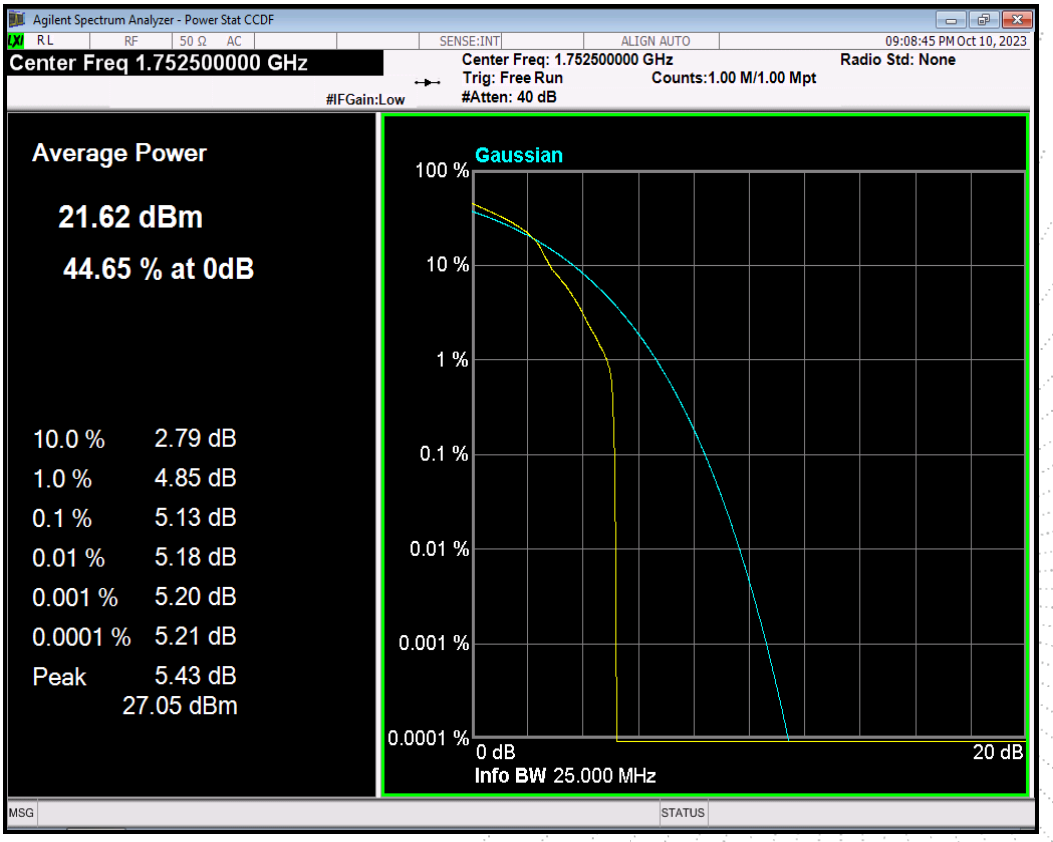
Band4 16QAM BW=5MHz Channel=20175 RB Size=1 Position=#0



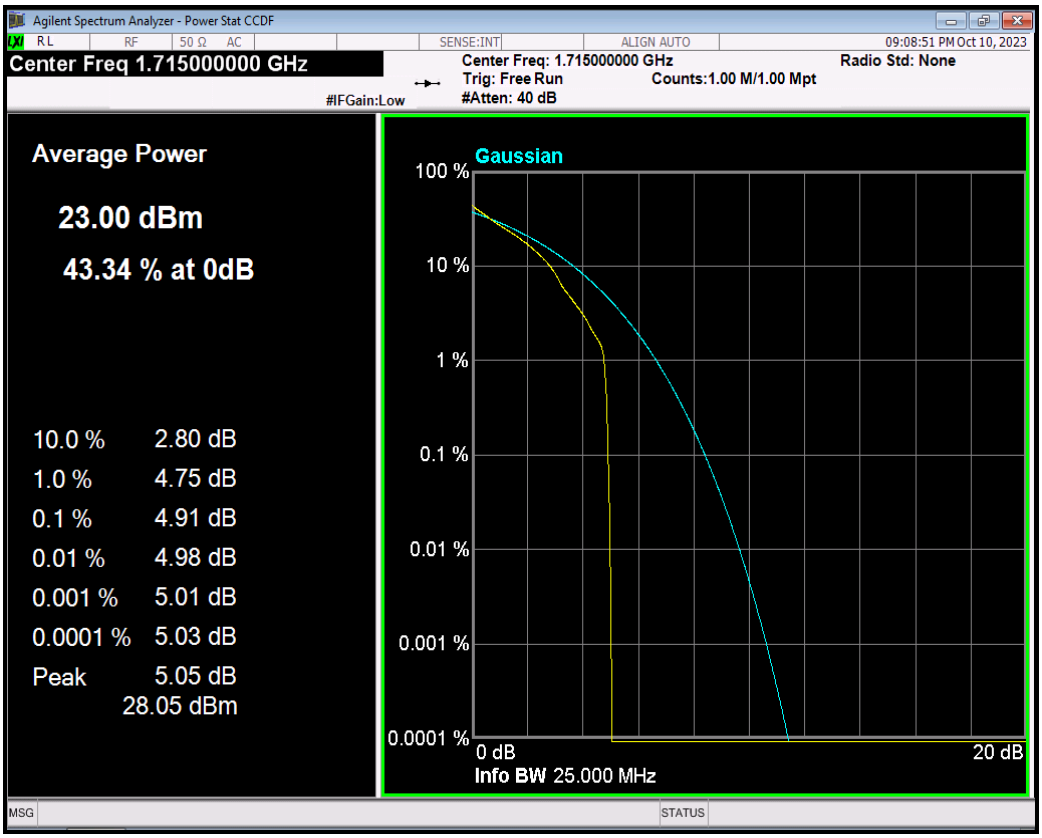
Band4 QPSK BW=5MHz Channel=20375 RB Size=1 Position=#0



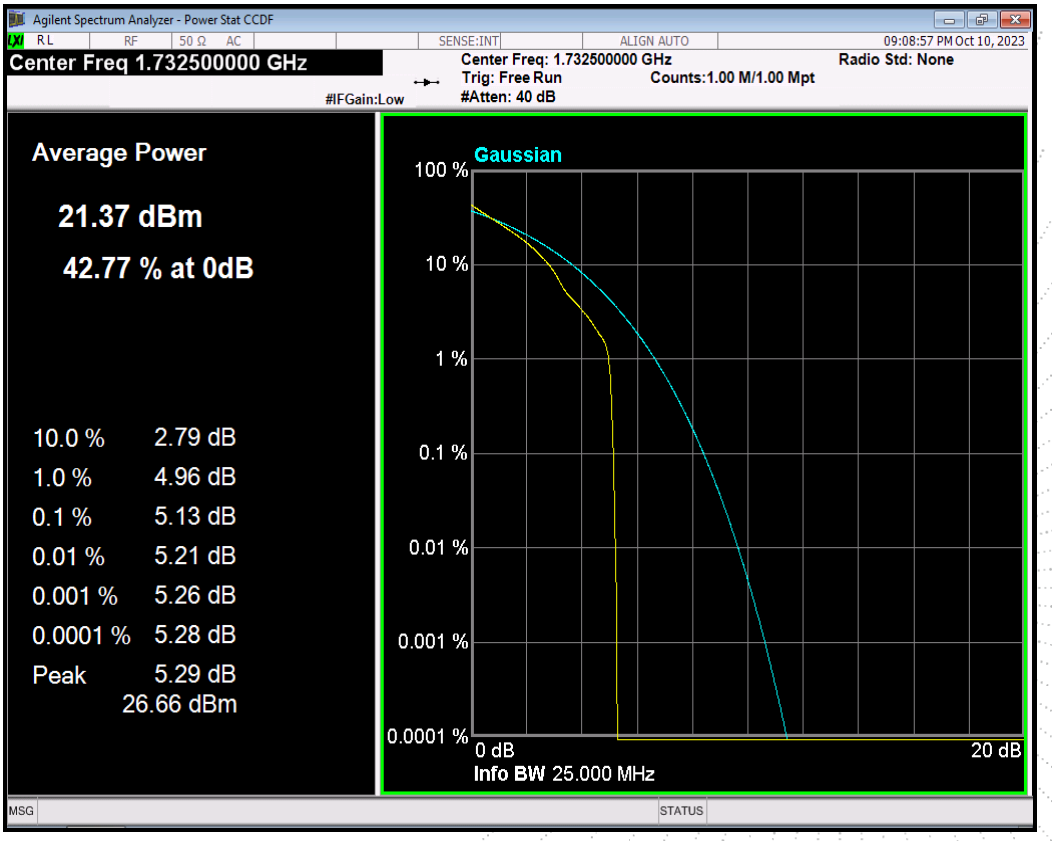
Band4 16QAM BW=5MHz Channel=20375 RB Size=1 Position=#0



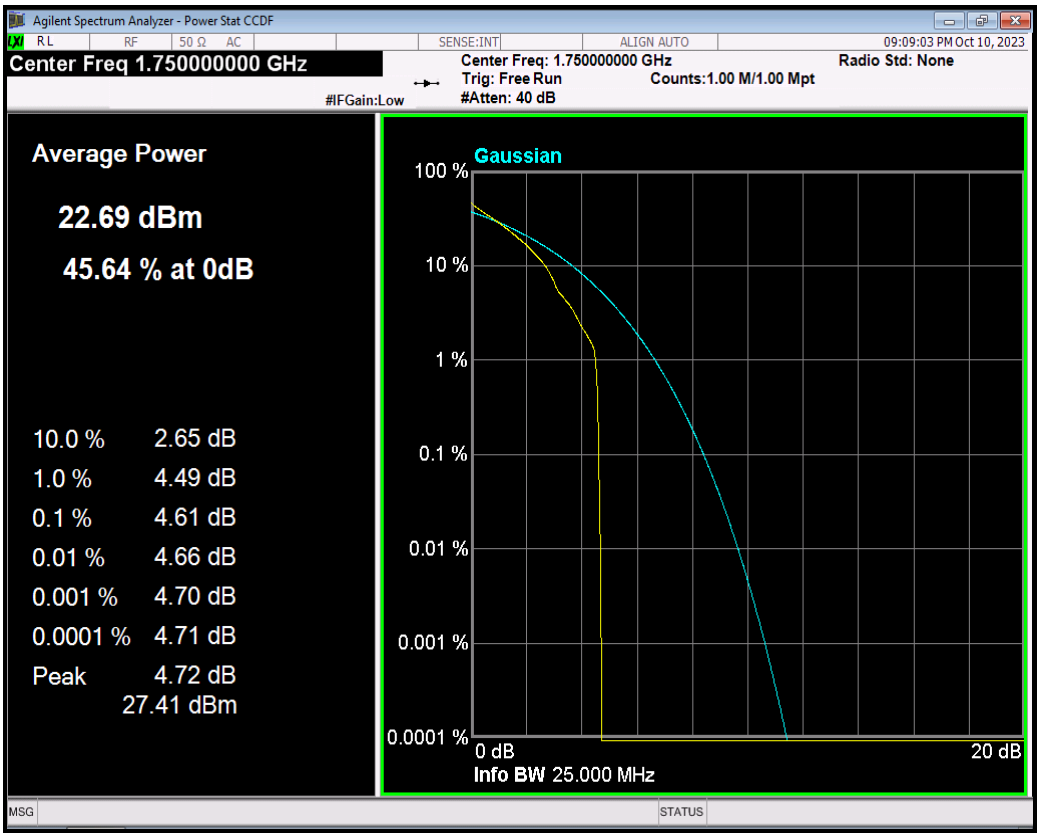
Band4 QPSK BW=10MHz Channel=20000 RB Size=1 Position=#0



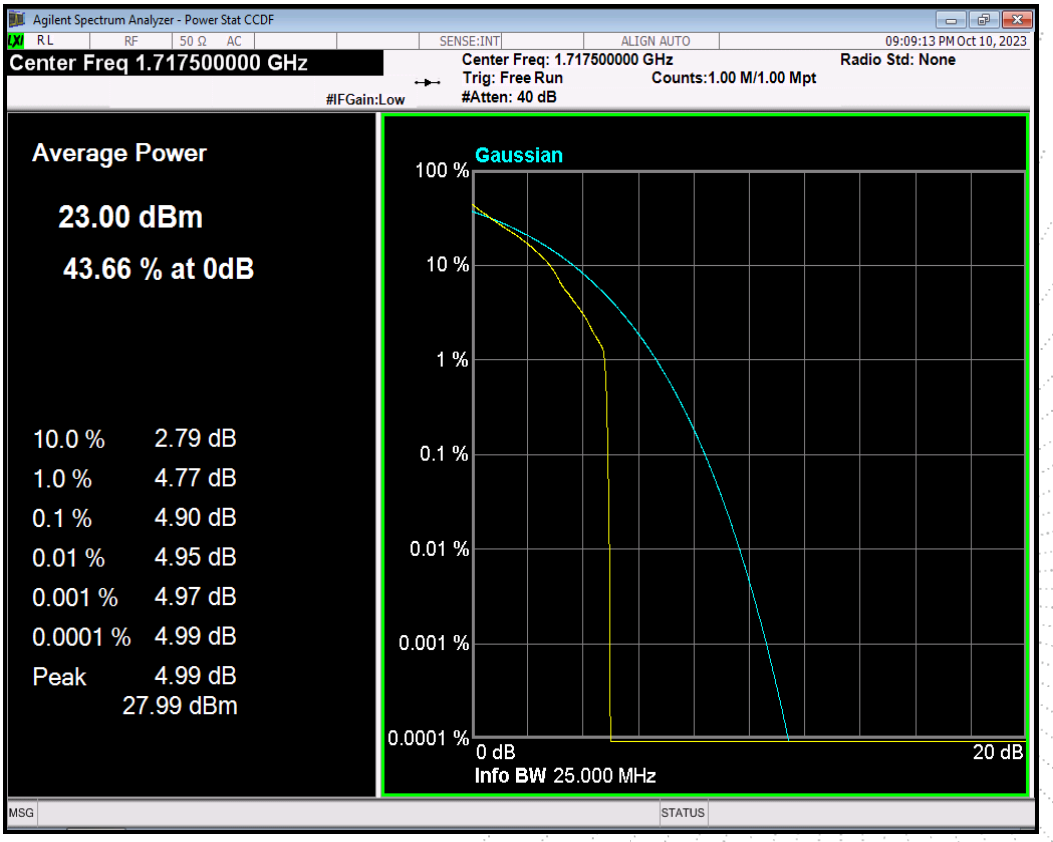
Band4 QPSK BW=10MHz Channel=20175 RB Size=1 Position=#0



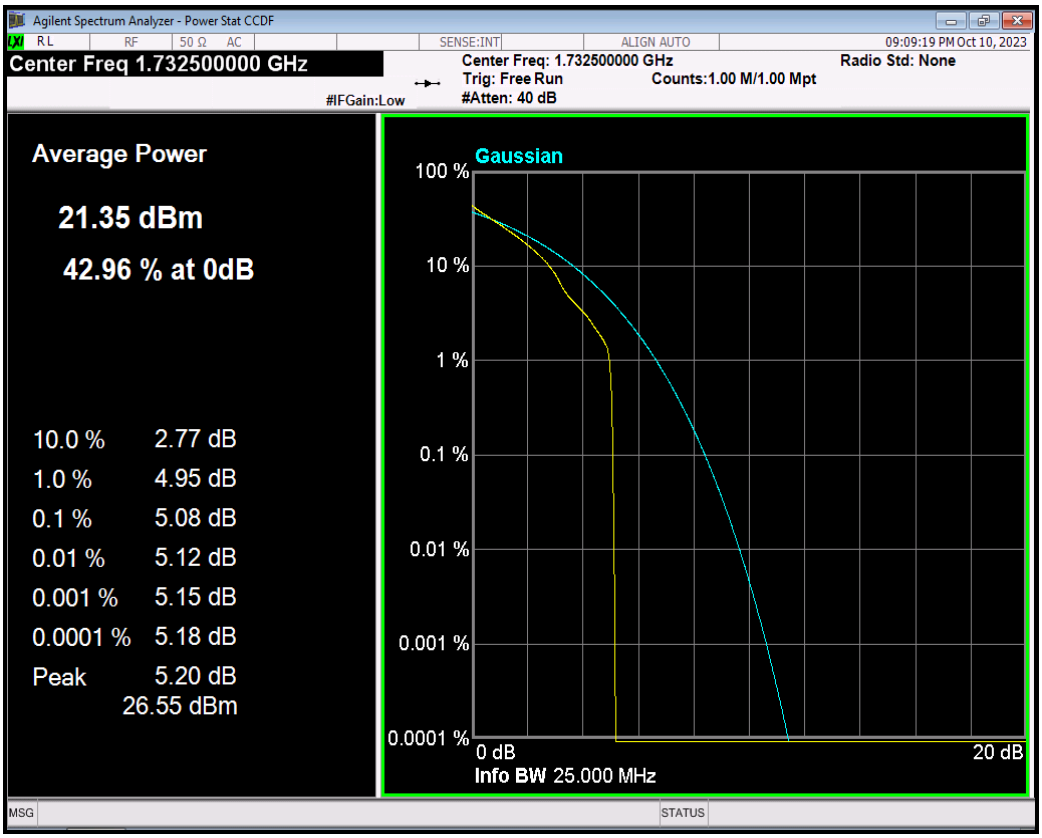
Band4 QPSK BW=10MHz Channel=20350 RB Size=1 Position=#0



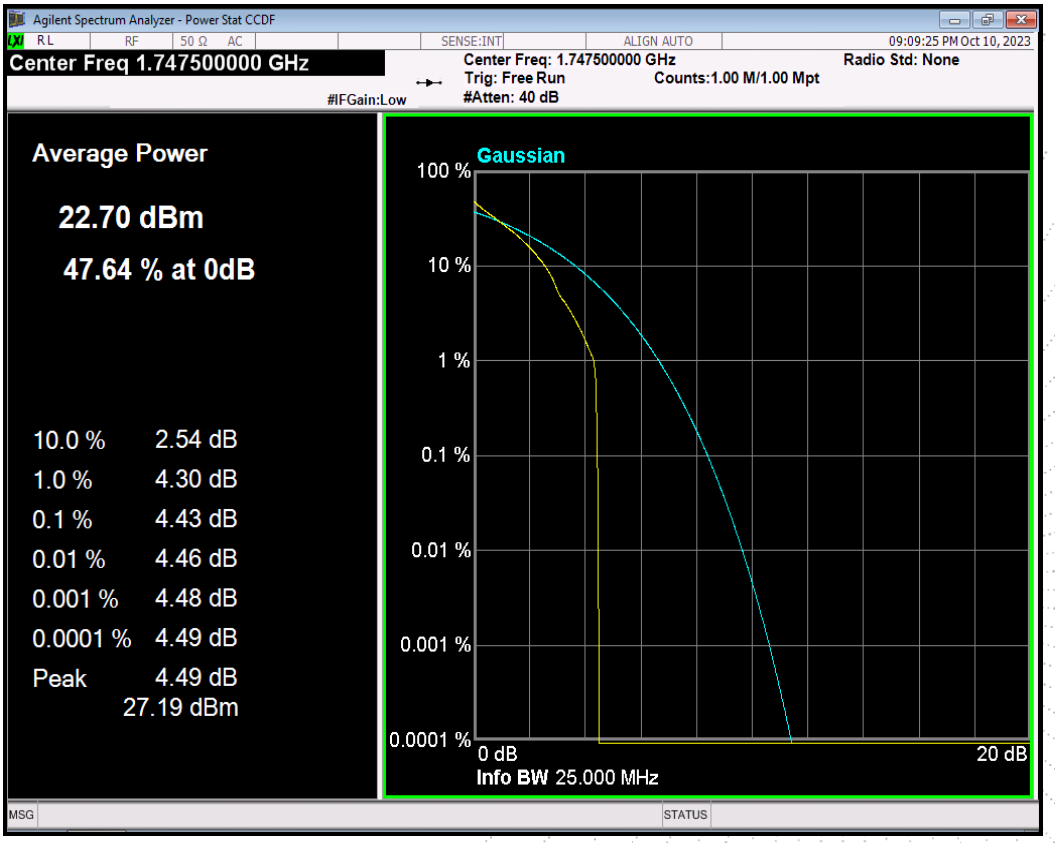
Band4 QPSK BW=15MHz Channel=20025 RB Size=1 Position=#0



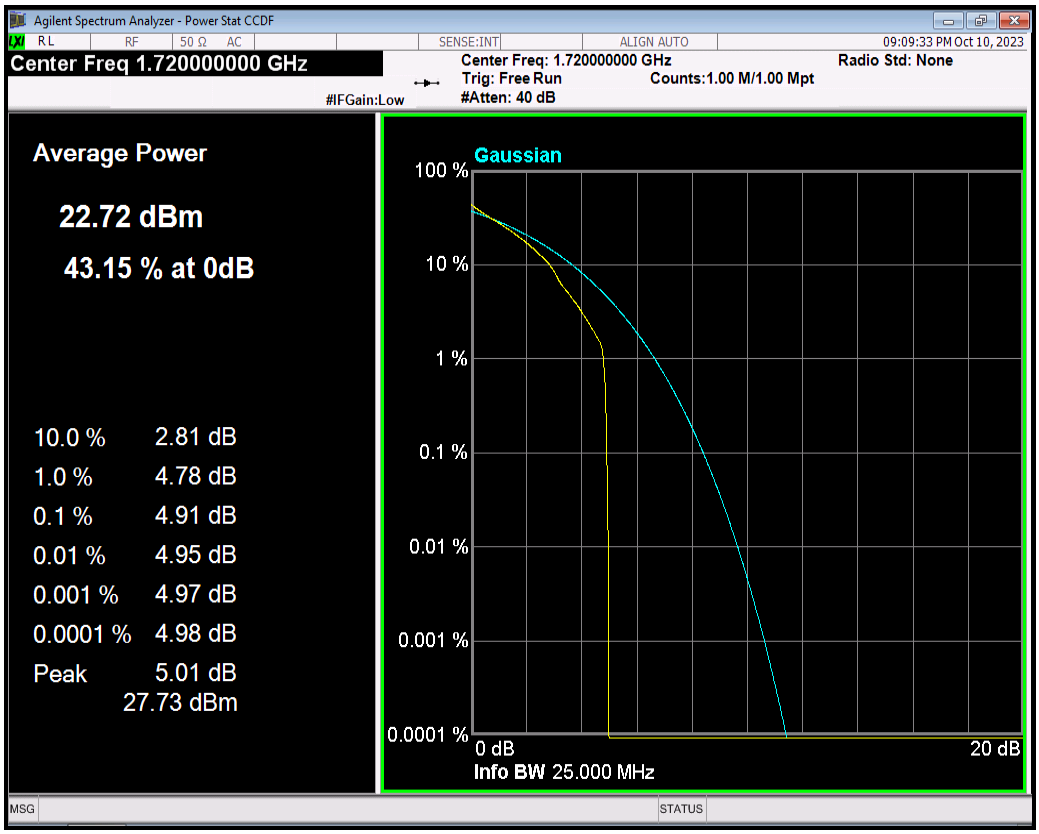
Band4 QPSK BW=15MHz Channel=20175 RB Size=1 Position=#0



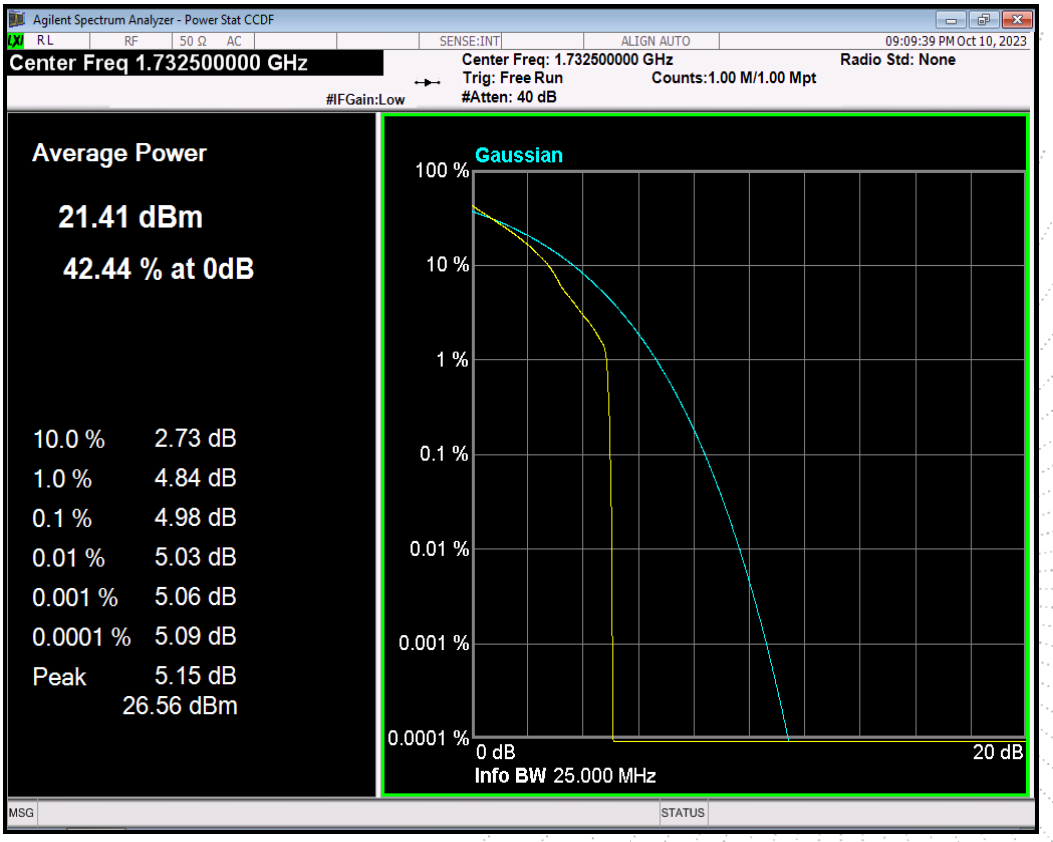
Band4 QPSK BW=15MHz Channel=20325 RB Size=1 Position=#0



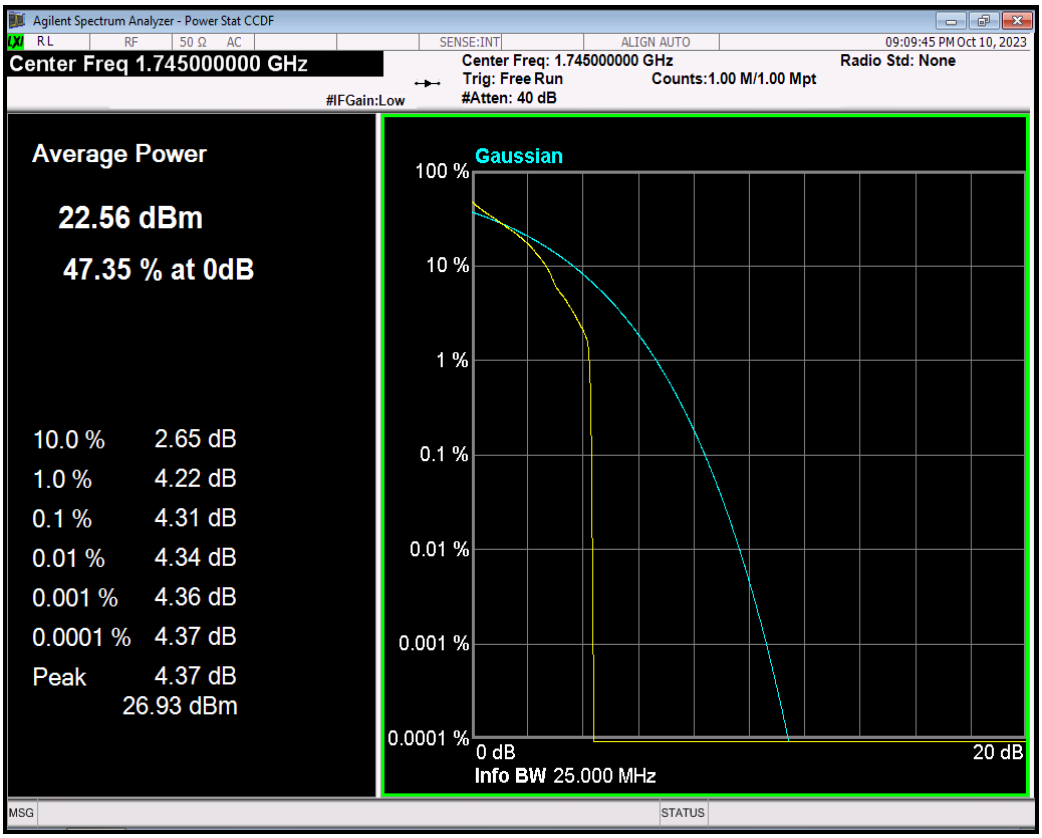
Band4 QPSK BW=20MHz Channel=20050 RB Size=1 Position=#0



Band4 QPSK BW=20MHz Channel=20175 RB Size=1 Position=#0



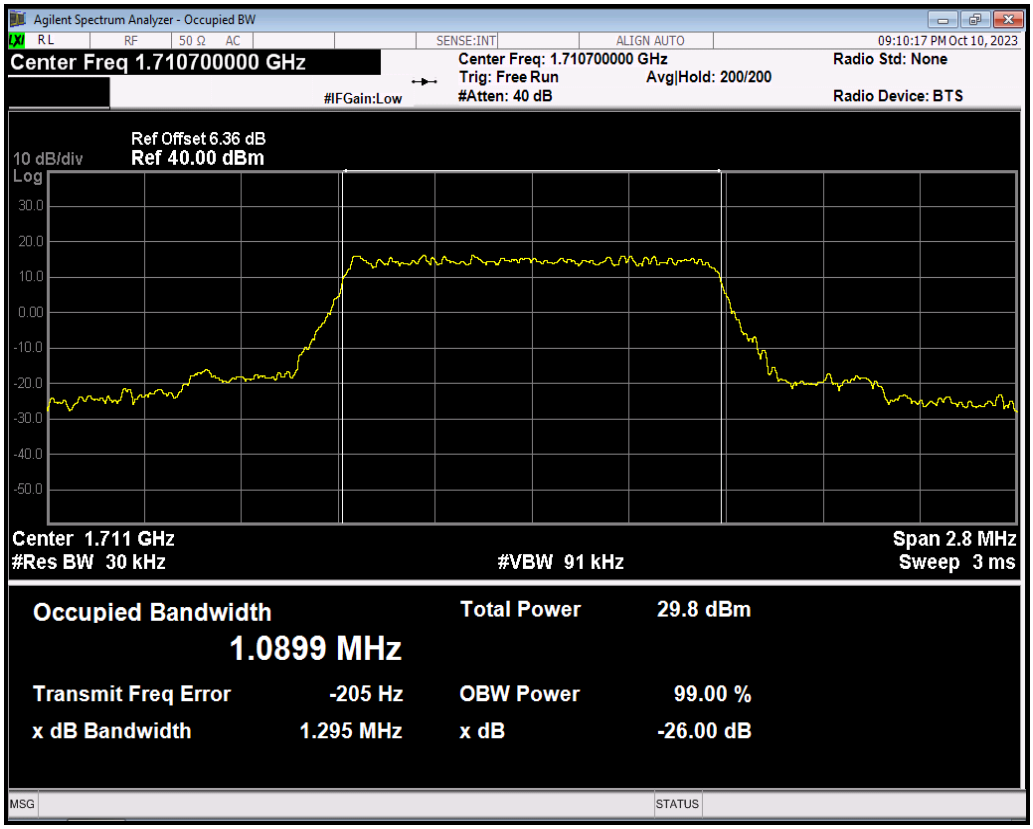
Band4 QPSK BW=20MHz Channel=20300 RB Size=1 Position=#0



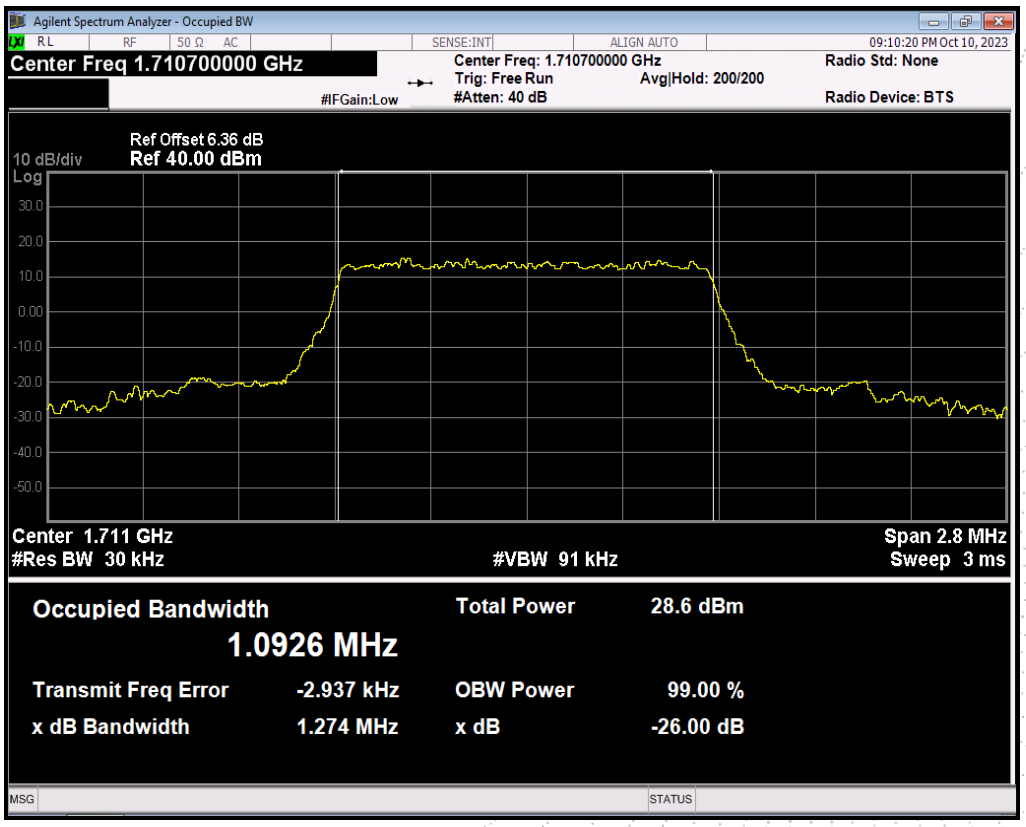
Appendix 4. Occupied bandwidth

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	99% OBW (MHz)	-26dB EBW (MHz)	Verdict
Band4	1.4	19957	6	#0	QPSK	1.090	1.295	PASS
Band4	1.4	19957	6	#0	16QAM	1.093	1.274	PASS
Band4	1.4	20175	6	#0	QPSK	1.097	1.277	PASS
Band4	1.4	20175	6	#0	16QAM	1.100	1.298	PASS
Band4	1.4	20393	6	#0	QPSK	1.094	1.286	PASS
Band4	1.4	20393	6	#0	16QAM	1.102	1.302	PASS
Band4	3	19965	15	#0	QPSK	2.709	2.995	PASS
Band4	3	19965	15	#0	16QAM	2.692	2.960	PASS
Band4	3	20175	15	#0	QPSK	2.708	2.966	PASS
Band4	3	20175	15	#0	16QAM	2.707	2.989	PASS
Band4	3	20385	15	#0	QPSK	2.713	2.978	PASS
Band4	3	20385	15	#0	16QAM	2.696	2.989	PASS
Band4	5	19975	25	#0	QPSK	4.531	4.980	PASS
Band4	5	19975	25	#0	16QAM	4.520	4.980	PASS
Band4	5	20175	25	#0	QPSK	4.510	4.988	PASS
Band4	5	20175	25	#0	16QAM	4.514	5.005	PASS
Band4	5	20375	25	#0	QPSK	4.513	4.987	PASS
Band4	5	20375	25	#0	16QAM	4.526	5.040	PASS
Band4	10	20000	50	#0	QPSK	8.976	9.898	PASS
Band4	10	20175	50	#0	QPSK	8.955	9.779	PASS
Band4	10	20350	50	#0	QPSK	8.943	9.713	PASS
Band4	15	20025	75	#0	QPSK	13.385	14.583	PASS
Band4	15	20175	75	#0	QPSK	13.406	14.426	PASS
Band4	15	20325	75	#0	QPSK	13.417	14.517	PASS
Band4	20	20050	100	#0	QPSK	17.894	19.205	PASS
Band4	20	20175	100	#0	QPSK	17.940	19.308	PASS
Band4	20	20300	100	#0	QPSK	17.903	19.216	PASS

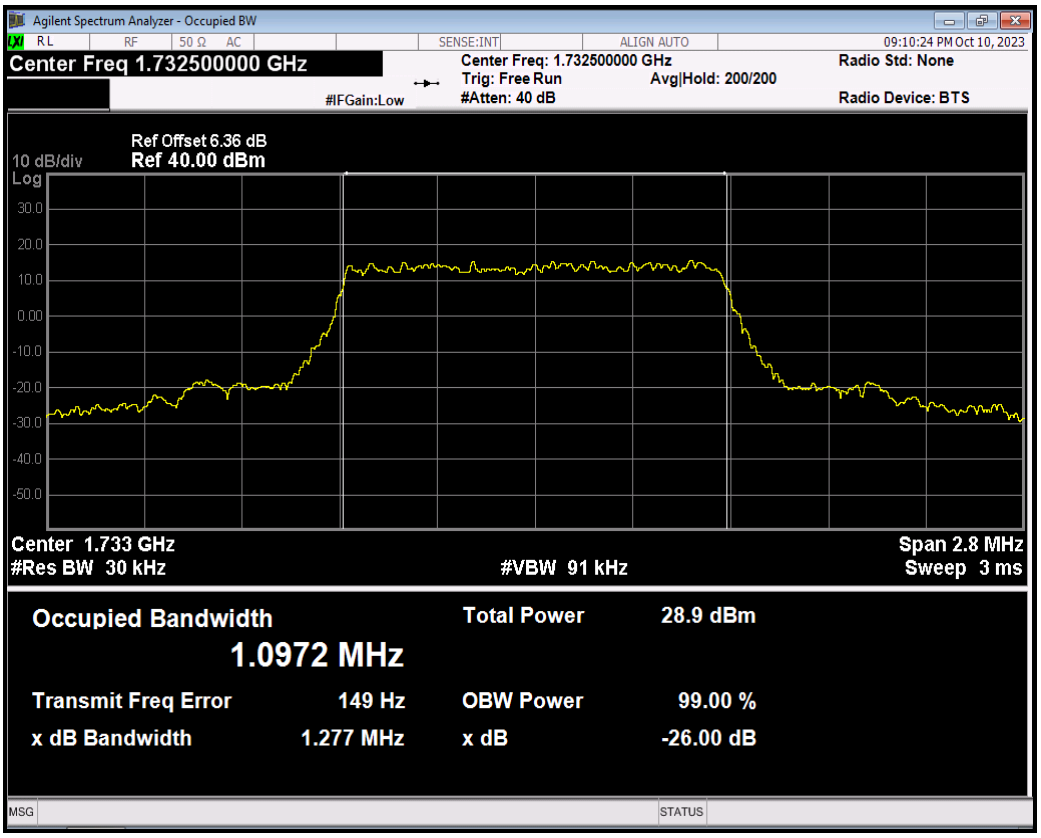
Band4 QPSK BW=1.4MHz Channel=19957 RB Size=6 Position=#0



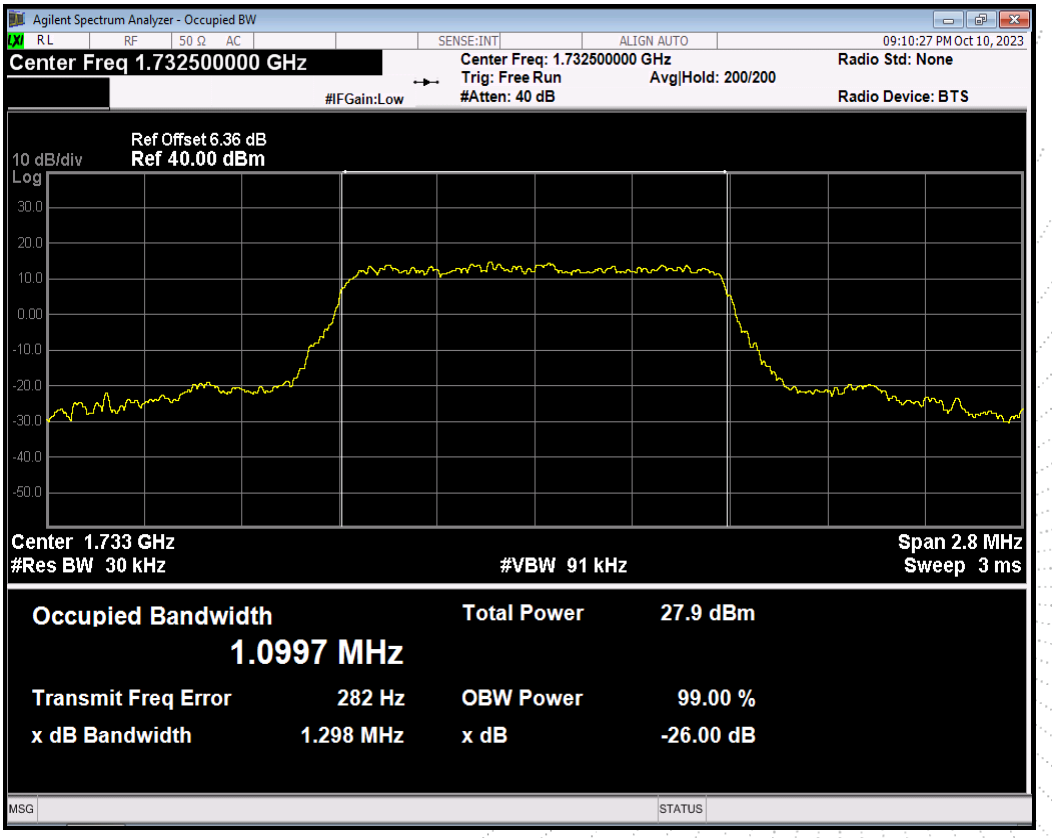
Band4 16QAM BW=1.4MHz Channel=19957 RB Size=6 Position=#0



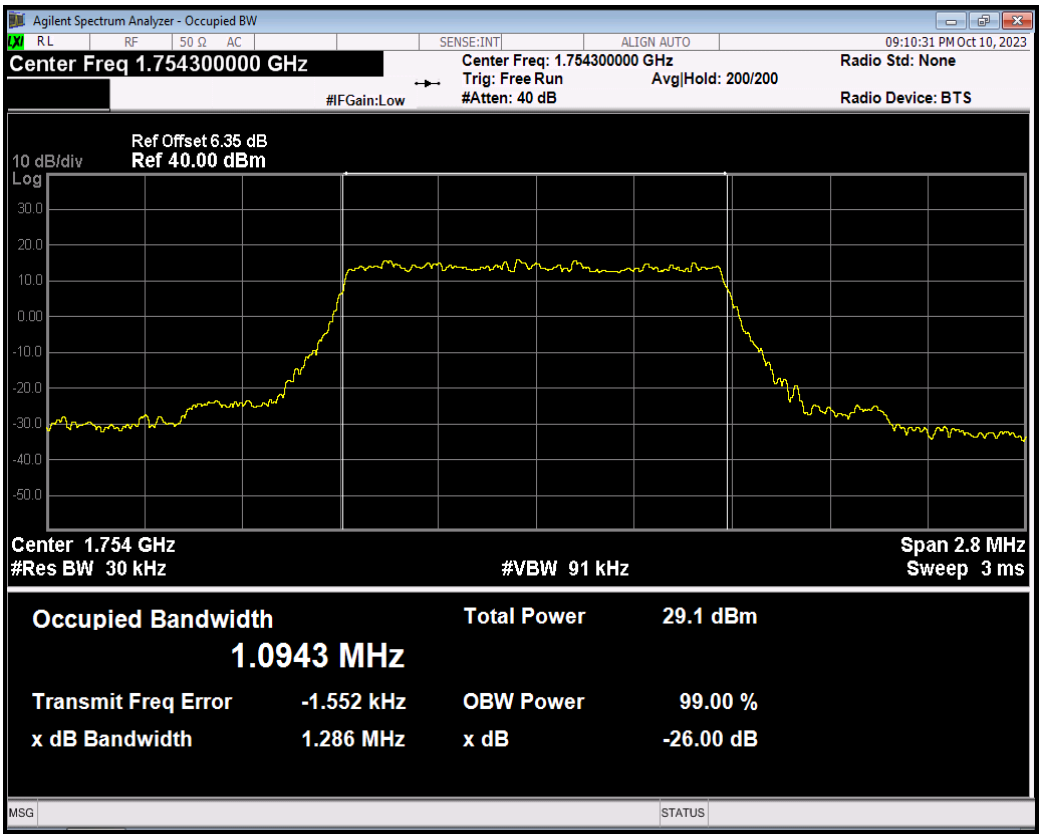
Band4 QPSK BW=1.4MHz Channel=20175 RB Size=6 Position=#0



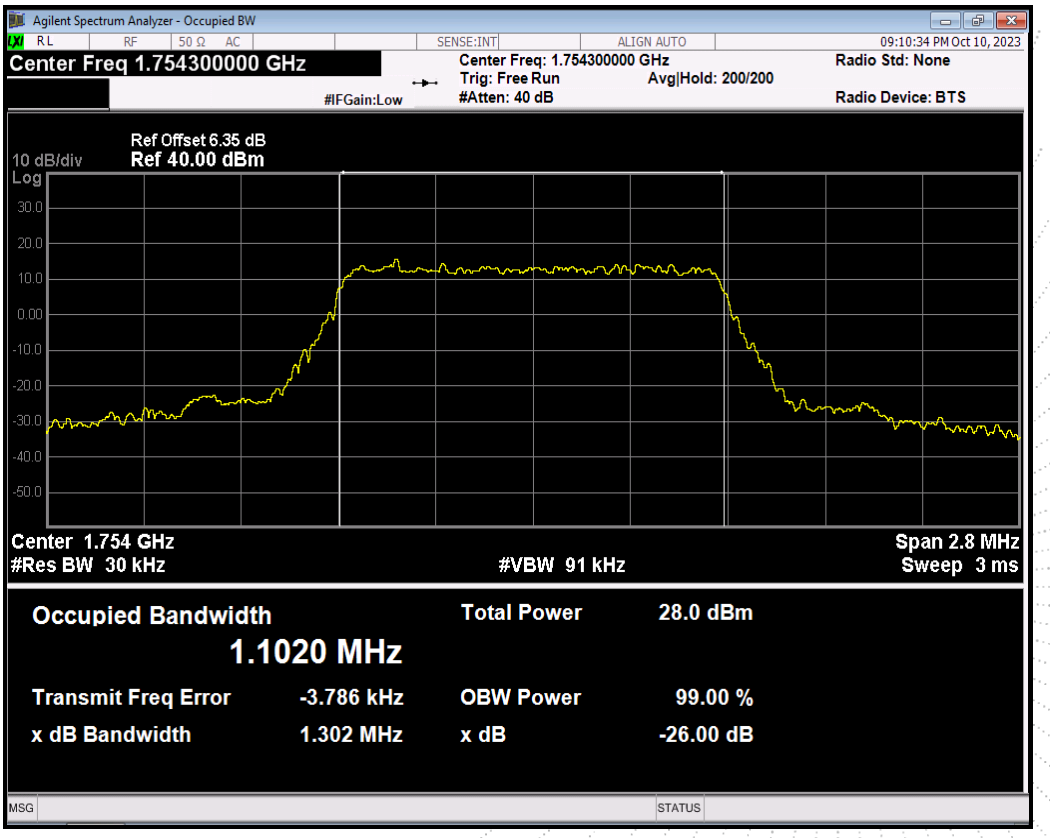
Band4 16QAM BW=1.4MHz Channel=20175 RB Size=6 Position=#0



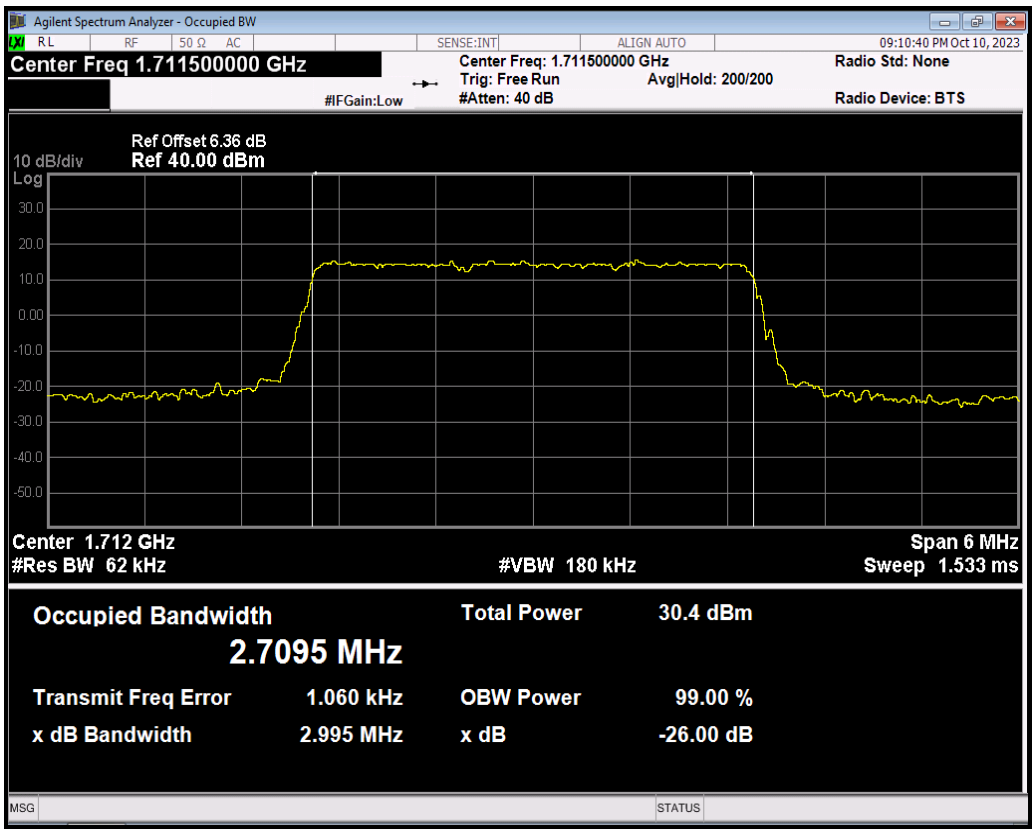
Band4 QPSK BW=1.4MHz Channel=20393 RB Size=6 Position=#0



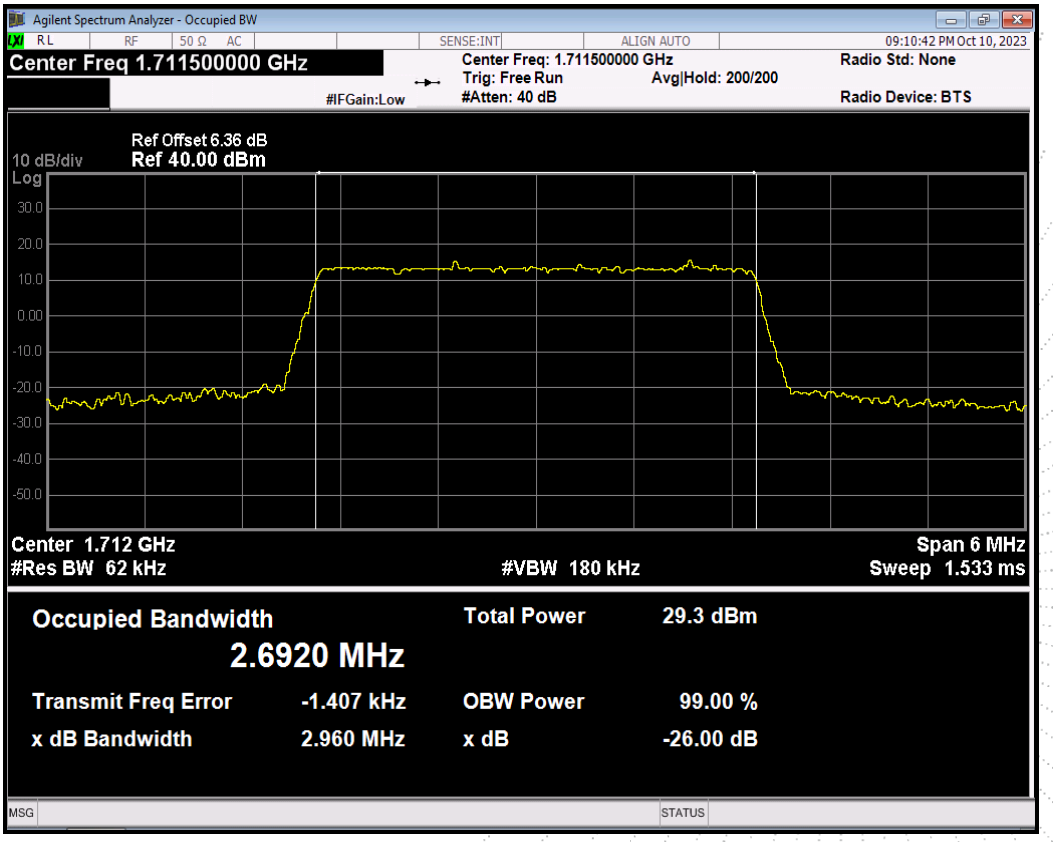
Band4 16QAM BW=1.4MHz Channel=20393 RB Size=6 Position=#0



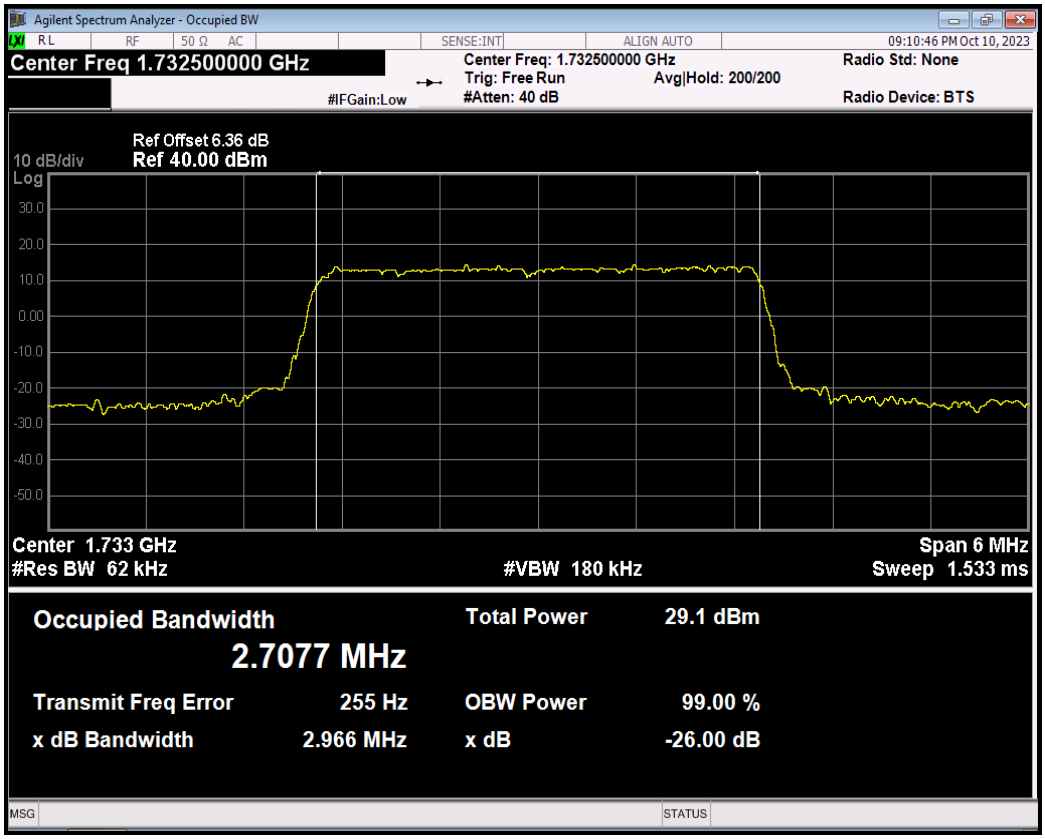
Band4 QPSK BW=3MHz Channel=19965 RB Size=15 Position=#0



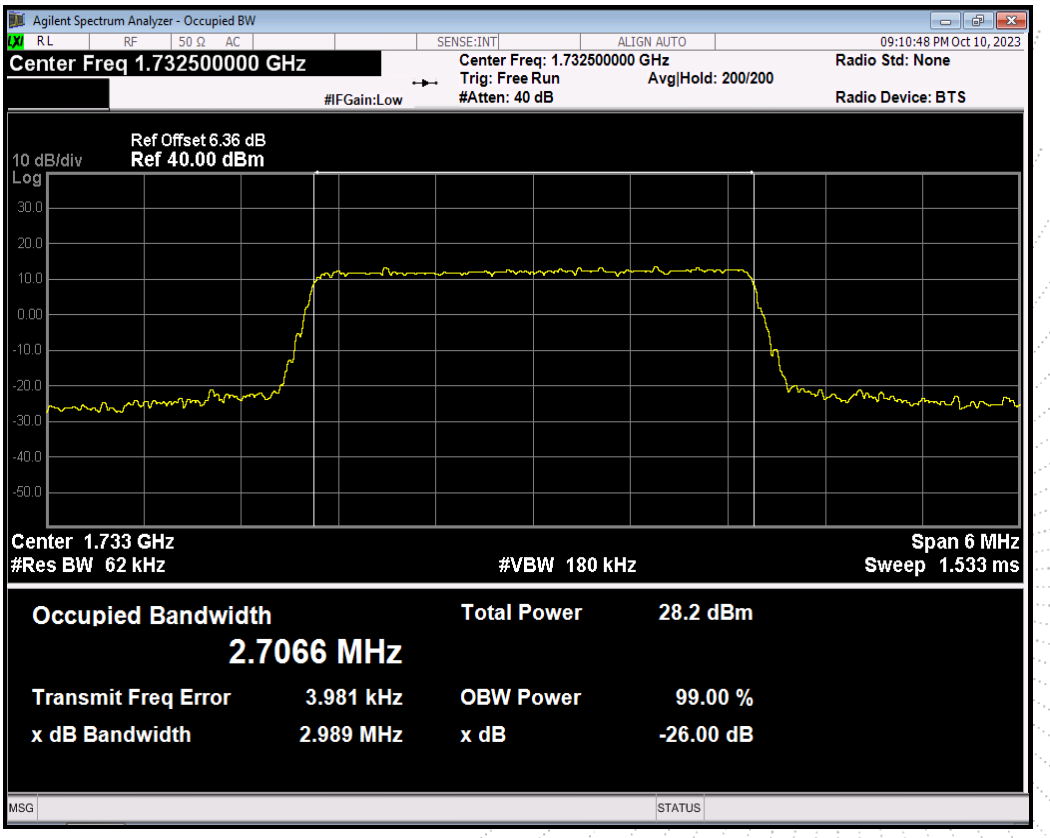
Band4 16QAM BW=3MHz Channel=19965 RB Size=15 Position=#0



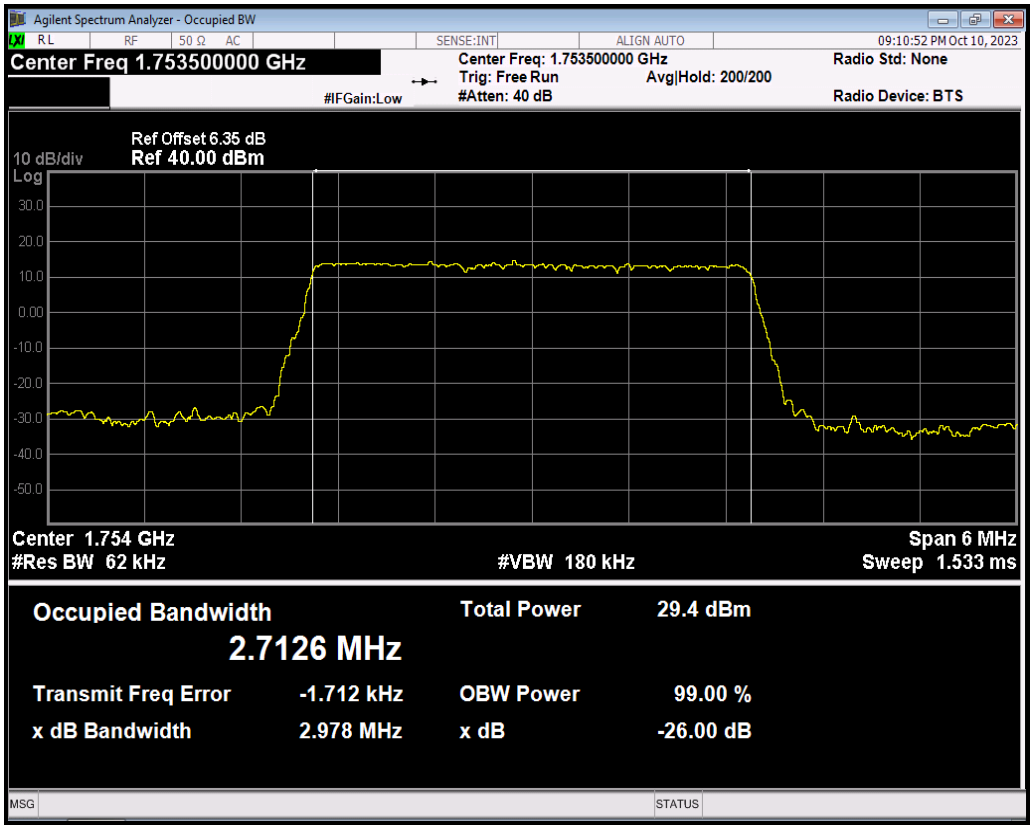
Band4 QPSK BW=3MHz Channel=20175 RB Size=15 Position=#0



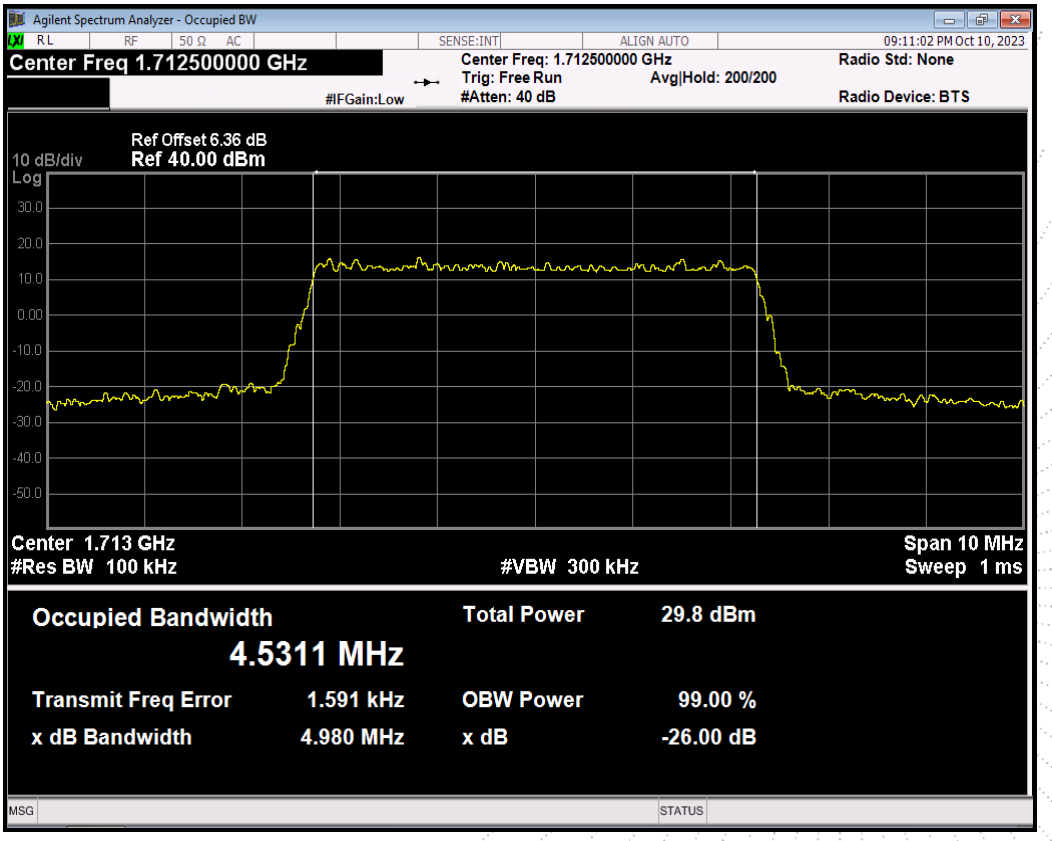
Band4 16QAM BW=3MHz Channel=20175 RB Size=15 Position=#0



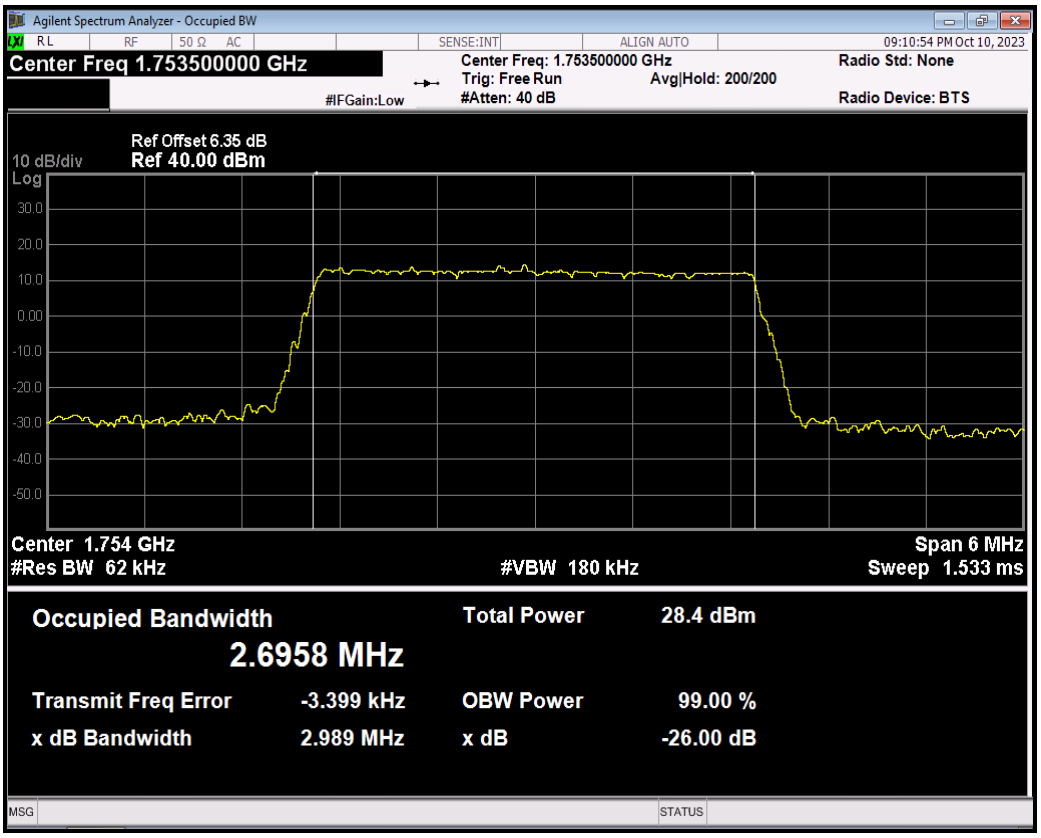
Band4 QPSK BW=3MHz Channel=20385 RB Size=15 Position=#0



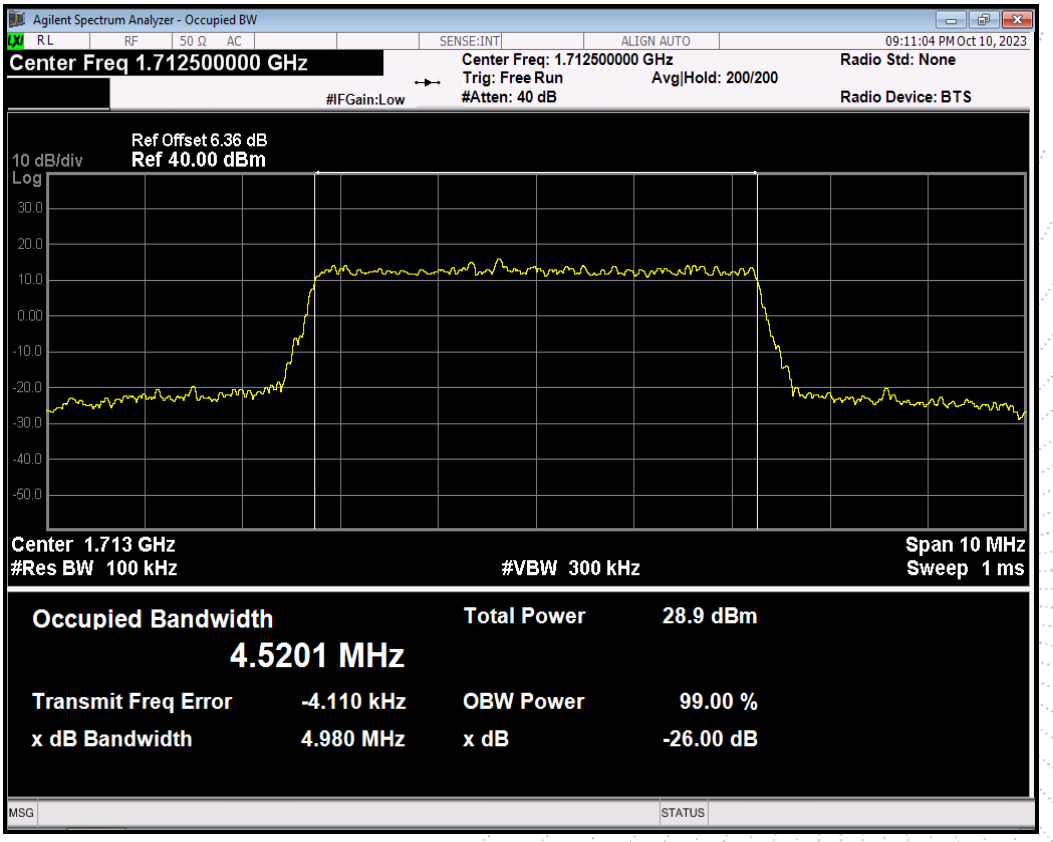
Band4 QPSK BW=5MHz Channel=19975 RB Size=25 Position=#0



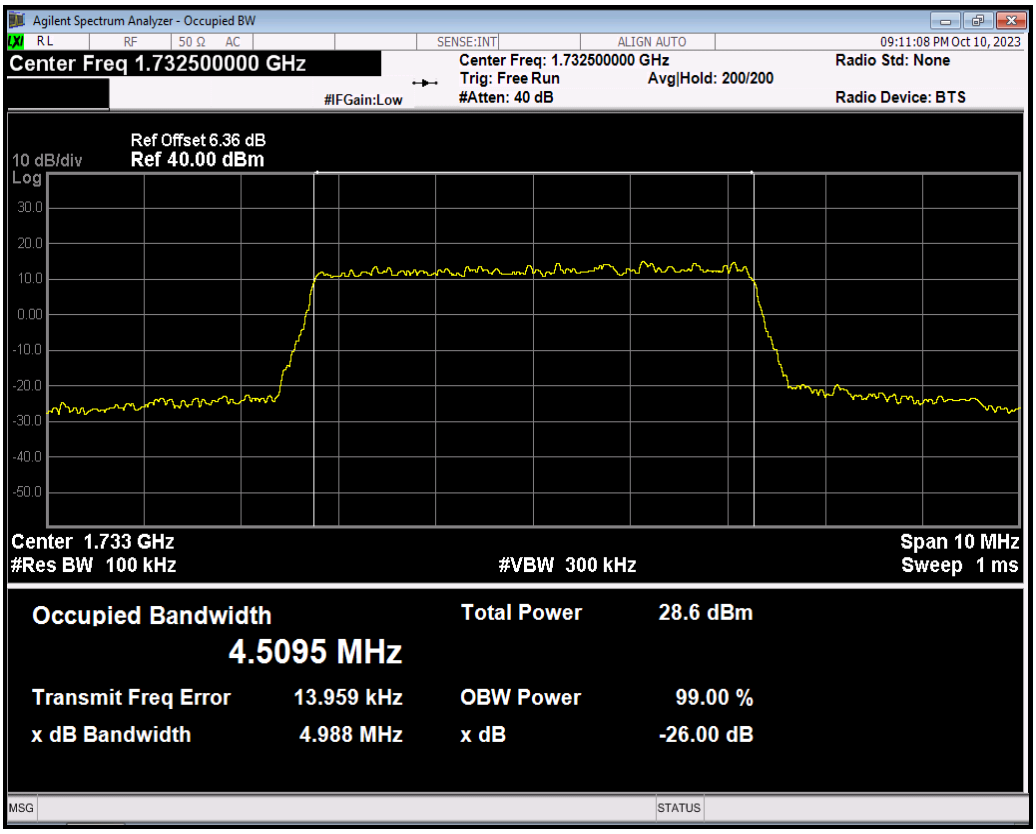
Band4 16QAM BW=3MHz Channel=20385 RB Size=15 Position=#0



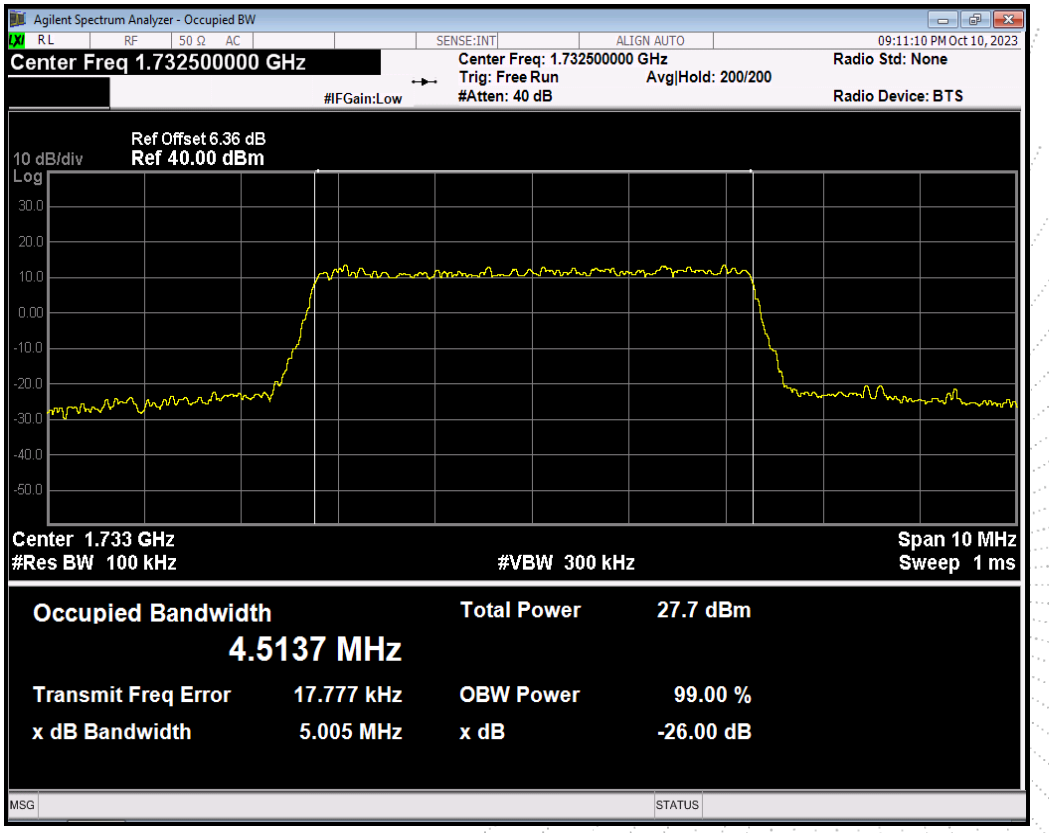
Band4 16QAM BW=5MHz Channel=19975 RB Size=25 Position=#0



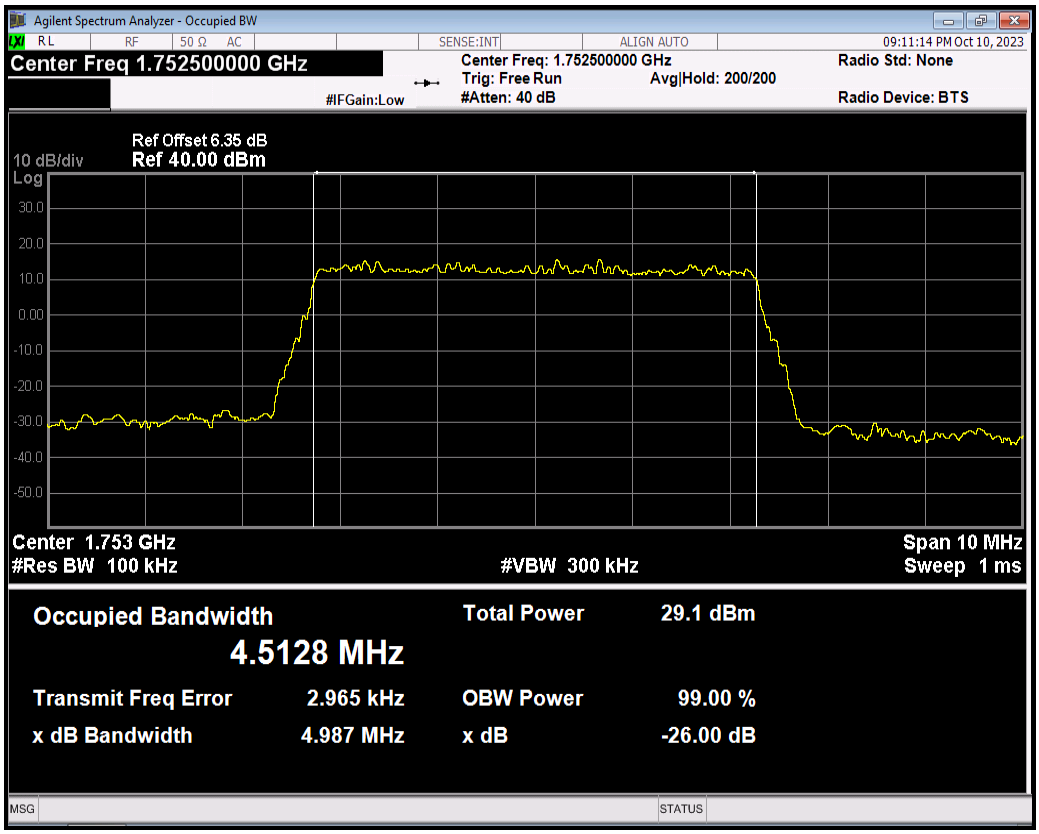
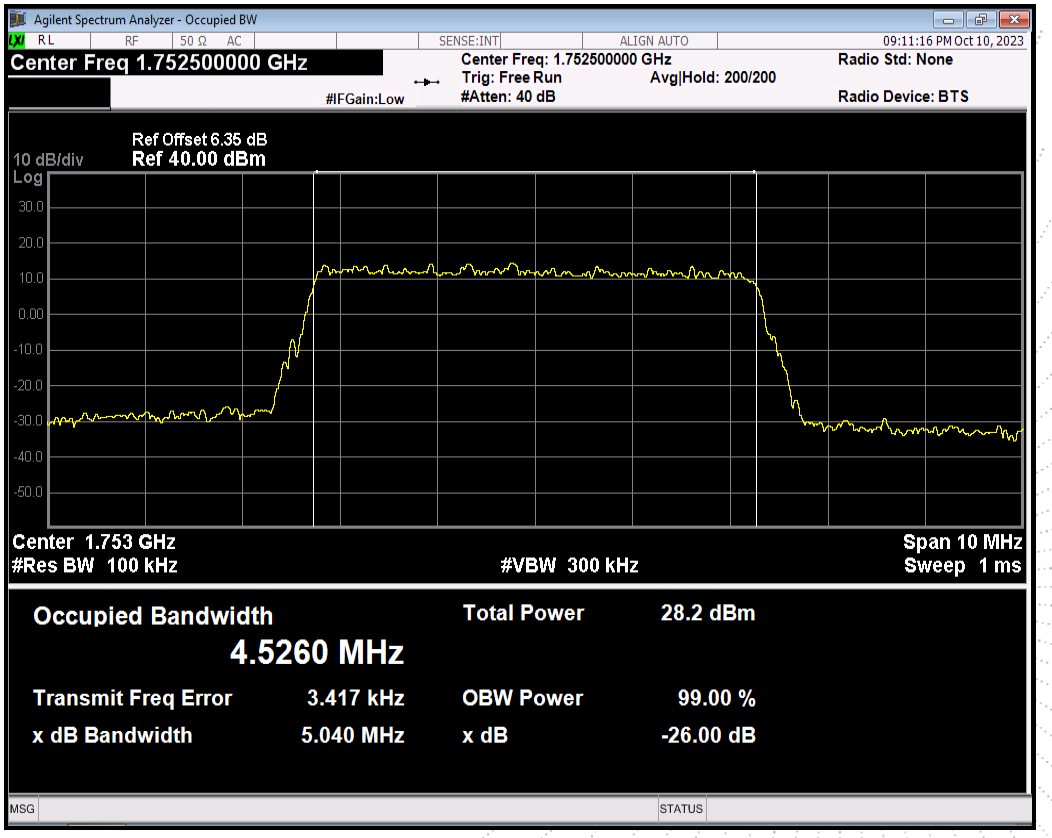
Band4 QPSK BW=5MHz Channel=20175 RB Size=25 Position=#0



Band4 16QAM BW=5MHz Channel=20175 RB Size=25 Position=#0



Band4 QPSK BW=5MHz Channel=20375 RB Size=25 Position=#0



Band4 16QAM BW=5MHz Channel=20375 RB Size=25 Position=#0