

Appendix-A LTE Band 13

Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	23.57	20.72	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#12	23.68	20.83	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#24	23.65	20.8	34.77	PASS
Band13	5MHz	QPSK	23205	25RB#0	22.9	20.05	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#0	22.91	20.06	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#12	22.78	19.93	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#24	22.97	20.12	34.77	PASS
Band13	5MHz	16QAM	23205	25RB#0	21.99	19.14	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#0	21.82	18.97	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#12	22.1	19.25	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#24	22.01	19.16	34.77	PASS
Band13	5MHz	64QAM	23205	25RB#0	20.87	18.02	34.77	PASS
Band13	5MHz	256QAM	23205	1RB#0	18.92	16.07	34.77	PASS
Band13	5MHz	256QAM	23205	1RB#12	19.03	16.18	34.77	PASS
Band13	5MHz	256QAM	23205	1RB#24	18.5	15.65	34.77	PASS
Band13	5MHz	256QAM	23205	25RB#0	18.88	16.03	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#0	23.63	20.78	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.72	20.87	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#24	23.63	20.78	34.77	PASS
Band13	5MHz	QPSK	23230	25RB#0	22.99	20.14	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#0	22.95	20.1	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#12	22.88	20.03	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#24	23.16	20.31	34.77	PASS
Band13	5MHz	16QAM	23230	25RB#0	21.99	19.14	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#0	21.98	19.13	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#12	22.02	19.17	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#24	22	19.15	34.77	PASS
Band13	5MHz	64QAM	23230	25RB#0	20.85	18	34.77	PASS
Band13	5MHz	256QAM	23230	1RB#0	18.86	16.01	34.77	PASS
Band13	5MHz	256QAM	23230	1RB#12	18.79	15.94	34.77	PASS
Band13	5MHz	256QAM	23230	1RB#24	18.8	15.95	34.77	PASS
Band13	5MHz	256QAM	23230	25RB#0	18.91	16.06	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#0	23.65	20.8	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#12	23.65	20.8	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#24	23.49	20.64	34.77	PASS
Band13	5MHz	QPSK	23255	25RB#0	22.85	20	34.77	PASS

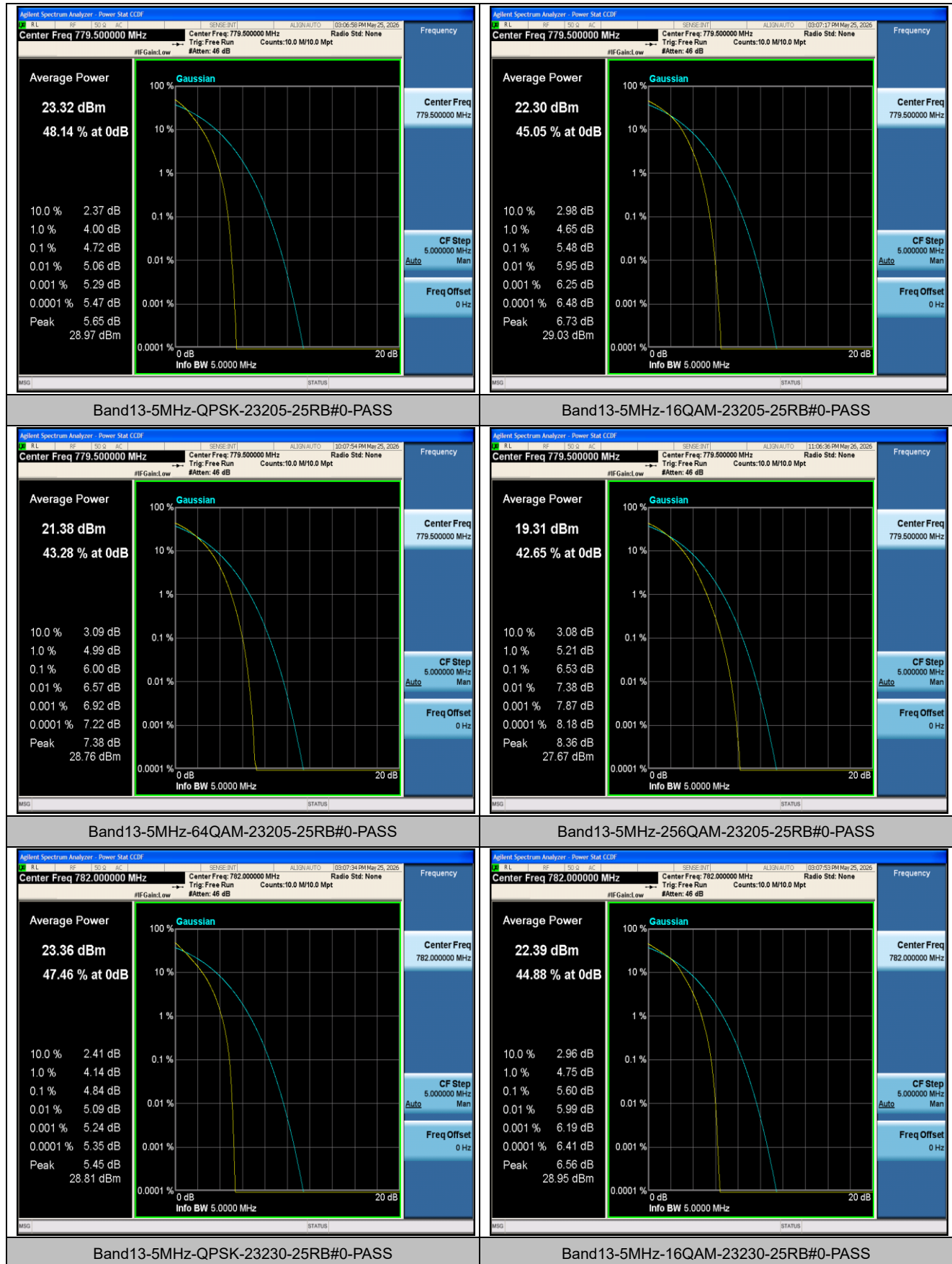
Band13	5MHz	16QAM	23255	1RB#0	22.94	20.09	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#12	22.86	20.01	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#24	22.89	20.04	34.77	PASS
Band13	5MHz	16QAM	23255	25RB#0	21.92	19.07	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#0	21.96	19.11	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#12	22.06	19.21	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#24	21.96	19.11	34.77	PASS
Band13	5MHz	64QAM	23255	25RB#0	20.72	17.87	34.77	PASS
Band13	5MHz	256QAM	23255	1RB#0	18.91	16.06	34.77	PASS
Band13	5MHz	256QAM	23255	1RB#12	18.83	15.98	34.77	PASS
Band13	5MHz	256QAM	23255	1RB#24	18.94	16.09	34.77	PASS
Band13	5MHz	256QAM	23255	25RB#0	18.74	15.89	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#0	23.69	20.84	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#24	23.72	20.87	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#49	23.43	20.58	34.77	PASS
Band13	10MHz	QPSK	23230	50RB#0	23.27	20.42	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#0	22.93	20.08	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#24	22.69	19.84	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#49	22.84	19.99	34.77	PASS
Band13	10MHz	16QAM	23230	50RB#0	22.14	19.29	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#0	22.18	19.33	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#24	22.24	19.39	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#49	21.73	18.88	34.77	PASS
Band13	10MHz	64QAM	23230	50RB#0	21.13	18.28	34.77	PASS
Band13	10MHz	256QAM	23230	1RB#0	19.29	16.44	34.77	PASS
Band13	10MHz	256QAM	23230	1RB#24	19.12	16.27	34.77	PASS
Band13	10MHz	256QAM	23230	1RB#49	19.02	16.17	34.77	PASS
Band13	10MHz	256QAM	23230	50RB#0	18.89	16.04	34.77	PASS

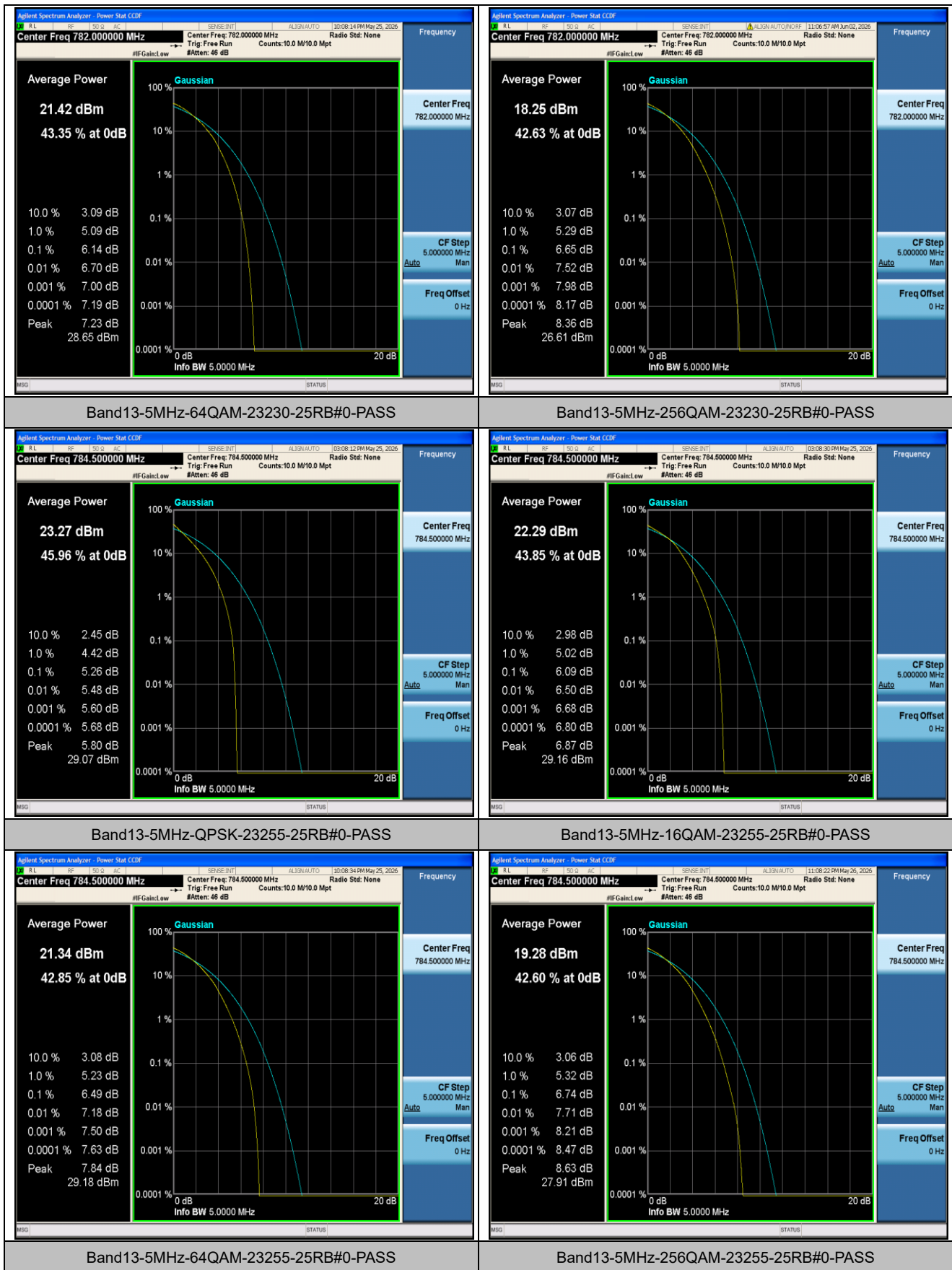
Peak-to-Average Ratio(CCDF)

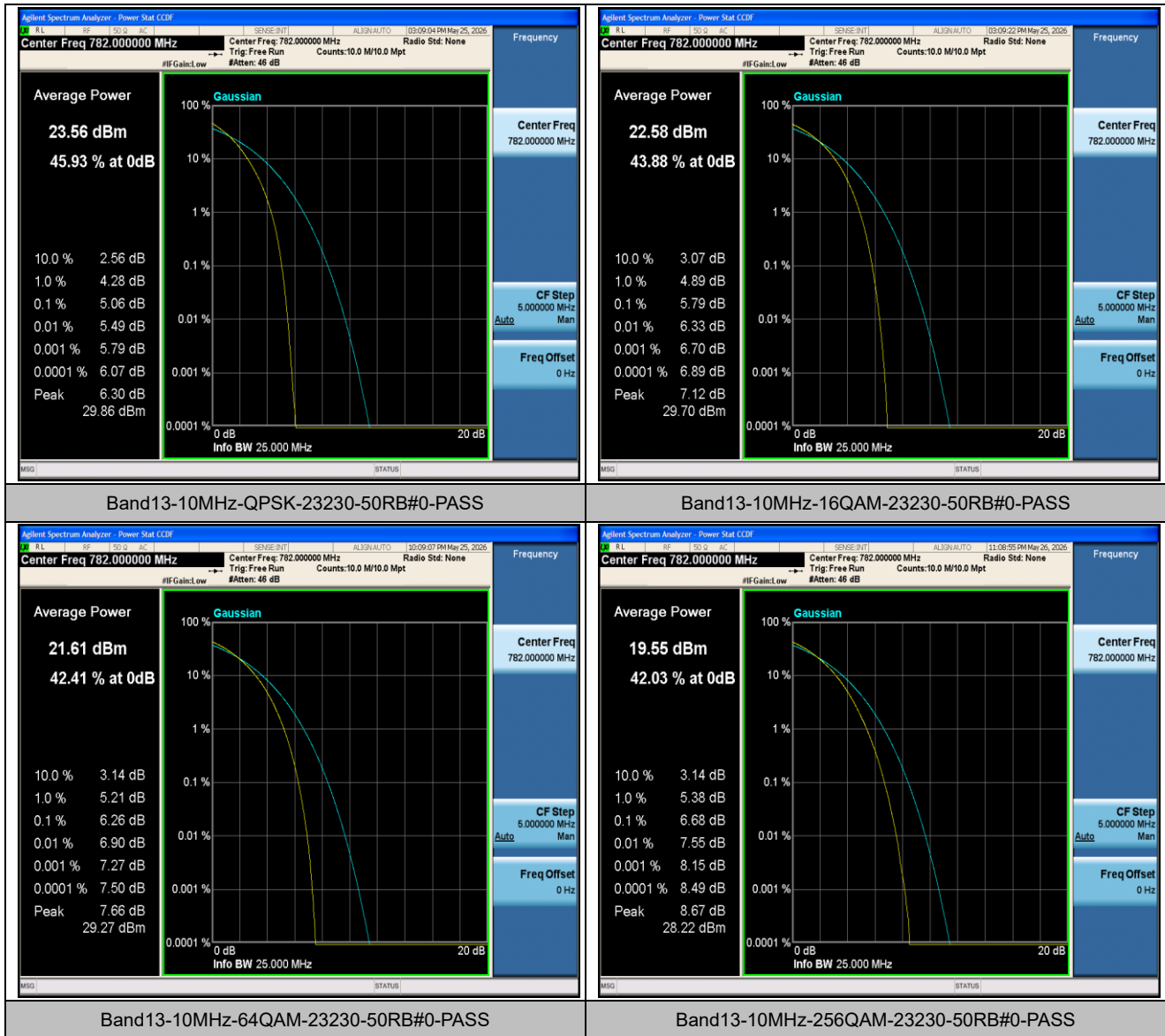
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.72	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	5.48	13	PASS
Band13	5MHz	64QAM	23205	25RB#0	6.00	13	PASS
Band13	5MHz	256QAM	23205	25RB#0	6.53	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.84	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	5.60	13	PASS
Band13	5MHz	64QAM	23230	25RB#0	6.14	13	PASS
Band13	5MHz	256QAM	23230	25RB#0	6.65	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.26	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.09	13	PASS
Band13	5MHz	64QAM	23255	25RB#0	6.49	13	PASS
Band13	5MHz	256QAM	23255	25RB#0	6.74	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.06	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	5.79	13	PASS
Band13	10MHz	64QAM	23230	50RB#0	6.26	13	PASS
Band13	10MHz	256QAM	23230	50RB#0	6.68	13	PASS

Test Graphs





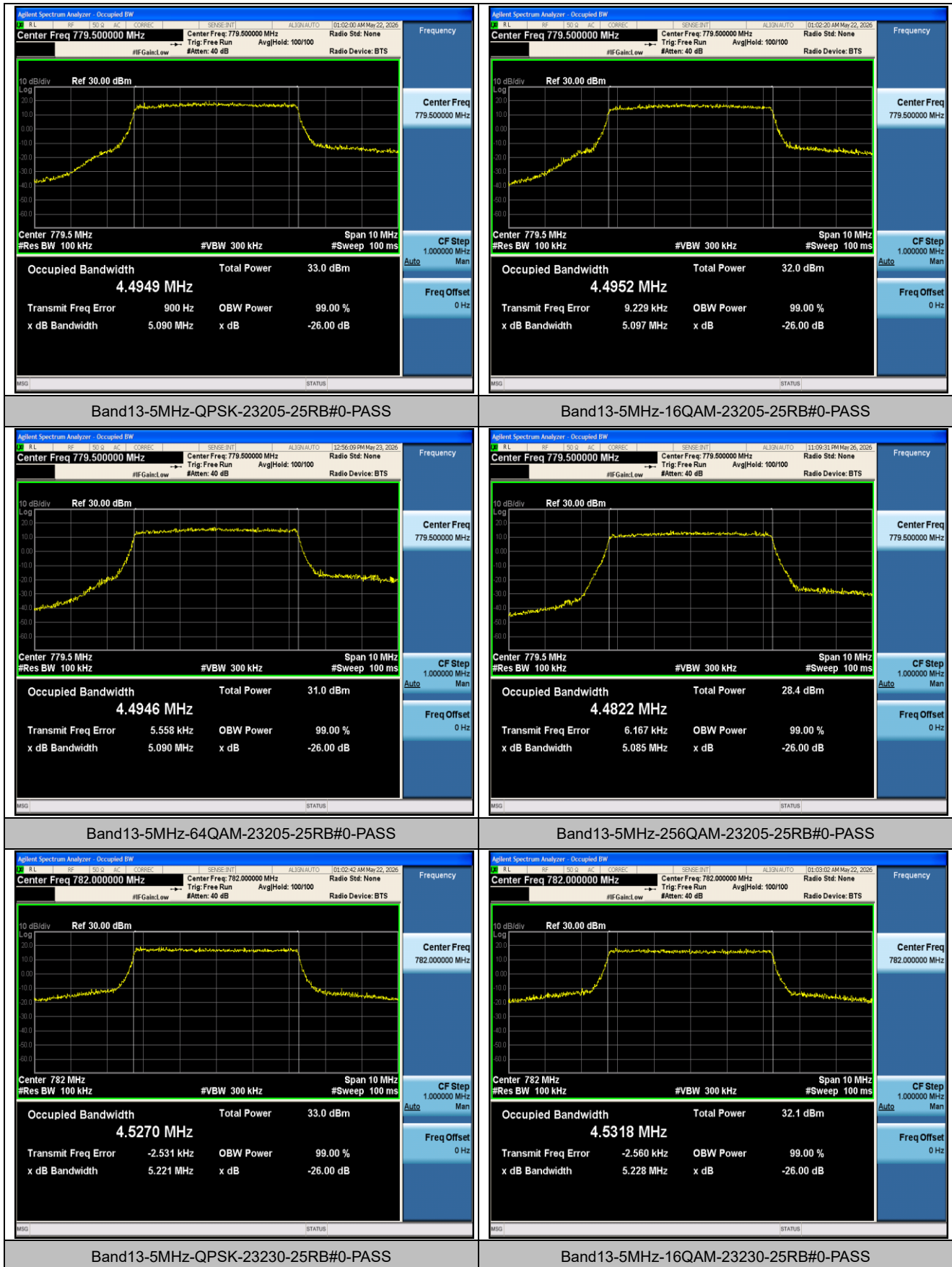


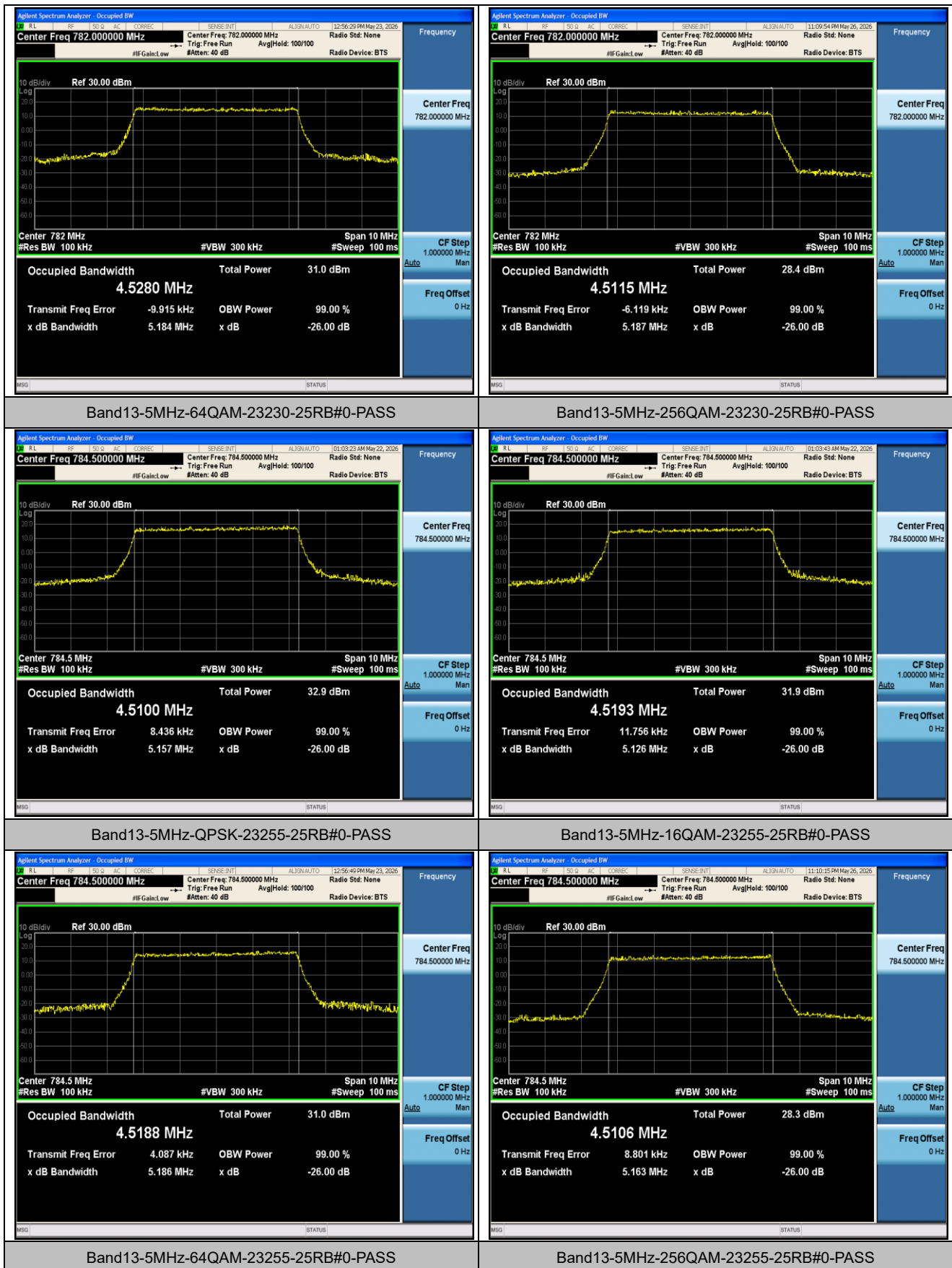
26dB Bandwidth and Occupied Bandwidth

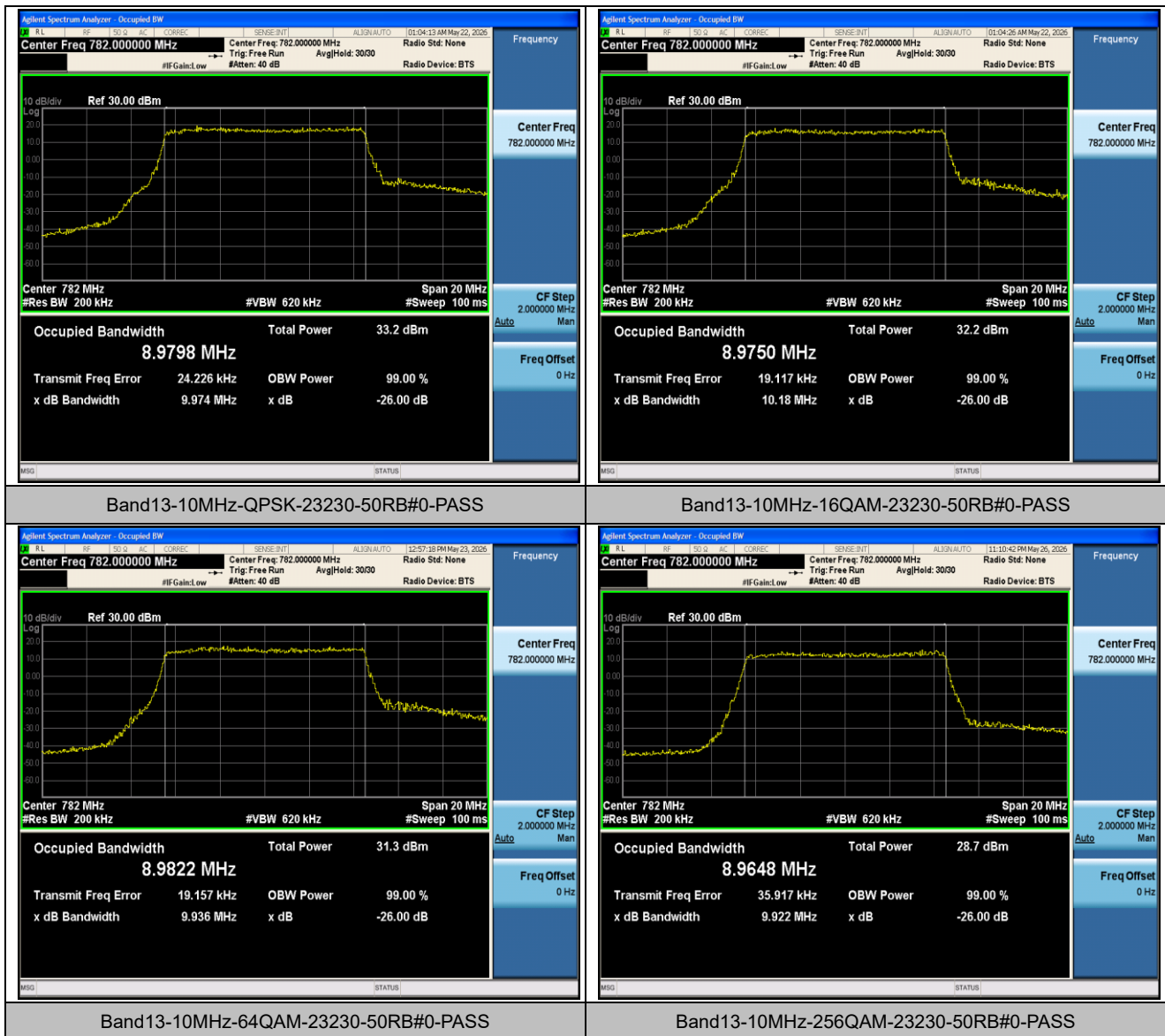
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.4949	5.090	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.4952	5.097	PASS
Band13	5MHz	64QAM	23205	25RB#0	4.4946	5.090	PASS
Band13	5MHz	256QAM	23205	25RB#0	4.4822	5.085	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5270	5.221	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5318	5.228	PASS
Band13	5MHz	64QAM	23230	25RB#0	4.5280	5.184	PASS
Band13	5MHz	256QAM	23230	25RB#0	4.5115	5.187	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5100	5.157	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5193	5.126	PASS
Band13	5MHz	64QAM	23255	25RB#0	4.5188	5.186	PASS
Band13	5MHz	256QAM	23255	25RB#0	4.5106	5.163	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.9798	9.974	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9750	10.18	PASS
Band13	10MHz	64QAM	23230	50RB#0	8.9822	9.936	PASS
Band13	10MHz	256QAM	23230	50RB#0	8.9648	9.922	PASS

Test Graphs

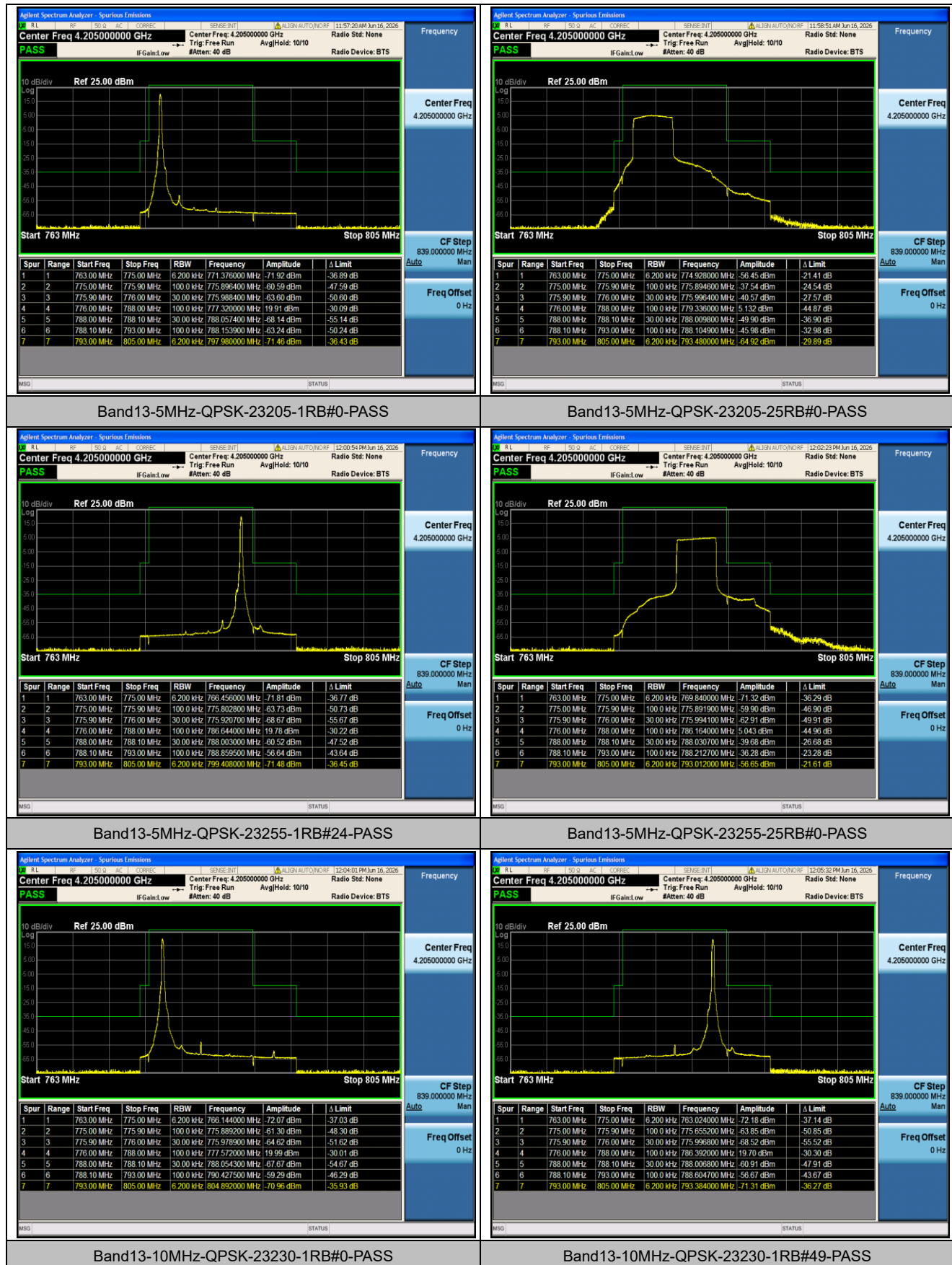


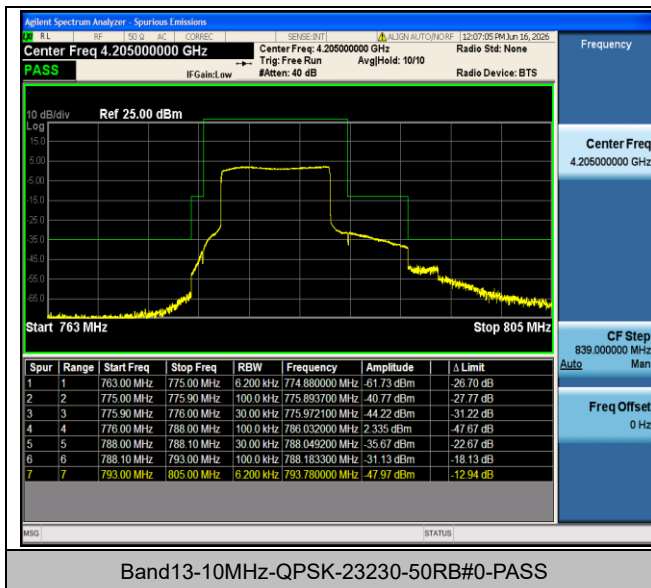




Band Edge

Test Graphs

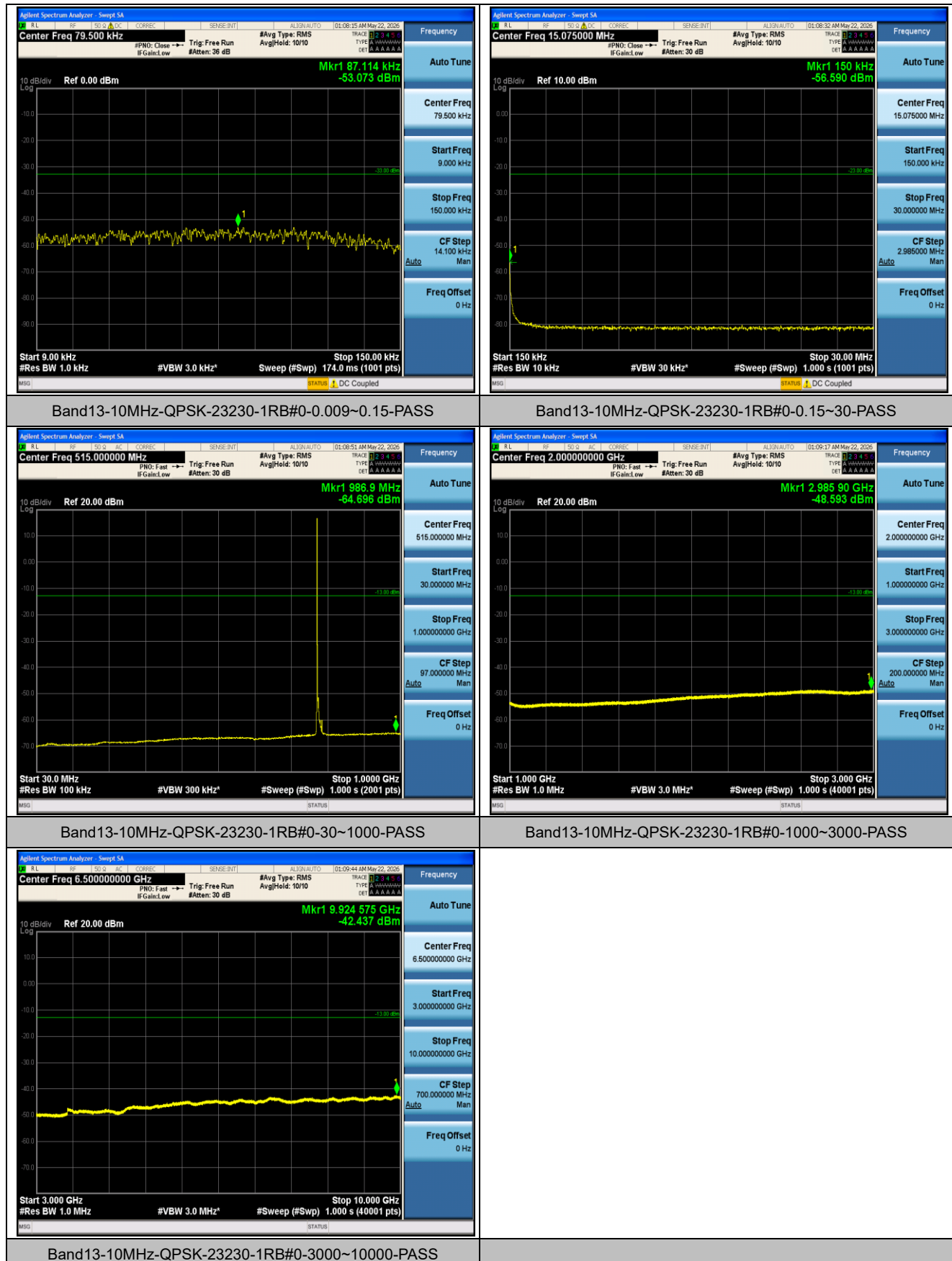




Band13-10MHz-QPSK-23230-50RB#0-PASS

Conducted Spurious Emission

Test Graphs



Frequency Stability

Test Result

Voltage									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band13	10MHz	QPSK	23230	50RB#0	VN	NT	-0.80	-0.001023	PASS
Band13	10MHz	QPSK	23230	50RB#0	VL	NT	-1.30	-0.001662	PASS
Band13	10MHz	QPSK	23230	50RB#0	VH	NT	-1.40	-0.001790	PASS

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band13	10MHz	QPSK	23230	50RB#0	NV	-30	1.40	0.001790	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-20	-1.20	-0.001535	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-10	0.70	0.000895	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	0	-1.40	-0.001790	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	10	-1.20	-0.001535	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	20	-0.10	-0.000128	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	30	0.10	0.000128	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	40	1.40	0.001790	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	50	-1.80	-0.002302	PASS

~The End~