

Appendix R: Test Data for E-UTRA Band 41

Product Name: Smart Phone

Test Model: ULTRA S26

Environmental Conditions

Temperature:	24.3°C
Relative Humidity:	53.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

R.1 Conducted Output Power Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Power(dBm)	Verdict
Band41(2535-2655)	5MHz	QPSK	40065	1RB#0	24.54	PASS
Band41(2535-2655)	5MHz	QPSK	40065	1RB#12	24.40	PASS
Band41(2535-2655)	5MHz	QPSK	40065	1RB#24	24.57	PASS
Band41(2535-2655)	5MHz	QPSK	40065	12RB#0	24.34	PASS
Band41(2535-2655)	5MHz	QPSK	40065	12RB#6	24.47	PASS
Band41(2535-2655)	5MHz	QPSK	40065	12RB#13	24.47	PASS
Band41(2535-2655)	5MHz	QPSK	40065	25RB#0	24.52	PASS
Band41(2535-2655)	5MHz	16QAM	40065	1RB#0	24.70	PASS
Band41(2535-2655)	5MHz	16QAM	40065	1RB#12	24.15	PASS
Band41(2535-2655)	5MHz	16QAM	40065	1RB#24	24.79	PASS
Band41(2535-2655)	5MHz	16QAM	40065	12RB#0	22.82	PASS
Band41(2535-2655)	5MHz	16QAM	40065	12RB#6	22.99	PASS
Band41(2535-2655)	5MHz	16QAM	40065	12RB#13	22.81	PASS
Band41(2535-2655)	5MHz	16QAM	40065	25RB#0	22.95	PASS
Band41(2535-2655)	5MHz	QPSK	40640	1RB#0	24.50	PASS
Band41(2535-2655)	5MHz	QPSK	40640	1RB#12	24.23	PASS
Band41(2535-2655)	5MHz	QPSK	40640	1RB#24	24.42	PASS
Band41(2535-2655)	5MHz	QPSK	40640	12RB#0	24.29	PASS
Band41(2535-2655)	5MHz	QPSK	40640	12RB#6	24.20	PASS
Band41(2535-2655)	5MHz	QPSK	40640	12RB#13	24.31	PASS
Band41(2535-2655)	5MHz	QPSK	40640	25RB#0	24.26	PASS
Band41(2535-2655)	5MHz	16QAM	40640	1RB#0	25.13	PASS
Band41(2535-2655)	5MHz	16QAM	40640	1RB#12	23.94	PASS
Band41(2535-2655)	5MHz	16QAM	40640	1RB#24	25.19	PASS
Band41(2535-2655)	5MHz	16QAM	40640	12RB#0	22.67	PASS
Band41(2535-2655)	5MHz	16QAM	40640	12RB#6	22.77	PASS
Band41(2535-2655)	5MHz	16QAM	40640	12RB#13	22.74	PASS
Band41(2535-2655)	5MHz	16QAM	40640	25RB#0	22.85	PASS
Band41(2535-2655)	5MHz	QPSK	41215	1RB#0	24.35	PASS
Band41(2535-2655)	5MHz	QPSK	41215	1RB#12	24.27	PASS
Band41(2535-2655)	5MHz	QPSK	41215	1RB#24	24.35	PASS
Band41(2535-2655)	5MHz	QPSK	41215	12RB#0	24.15	PASS
Band41(2535-2655)	5MHz	QPSK	41215	12RB#6	24.27	PASS
Band41(2535-2655)	5MHz	QPSK	41215	12RB#13	24.27	PASS
Band41(2535-2655)	5MHz	QPSK	41215	25RB#0	24.13	PASS

Band41(2535-2655)	5MHz	16QAM	41215	1RB#0	24.20	PASS
Band41(2535-2655)	5MHz	16QAM	41215	1RB#12	24.03	PASS
Band41(2535-2655)	5MHz	16QAM	41215	1RB#24	24.42	PASS
Band41(2535-2655)	5MHz	16QAM	41215	12RB#0	22.80	PASS
Band41(2535-2655)	5MHz	16QAM	41215	12RB#6	22.77	PASS
Band41(2535-2655)	5MHz	16QAM	41215	12RB#13	22.90	PASS
Band41(2535-2655)	5MHz	16QAM	41215	25RB#0	22.79	PASS
Band41(2535-2655)	10MHz	QPSK	40090	1RB#0	24.45	PASS
Band41(2535-2655)	10MHz	QPSK	40090	1RB#24	24.68	PASS
Band41(2535-2655)	10MHz	QPSK	40090	1RB#49	24.58	PASS
Band41(2535-2655)	10MHz	QPSK	40090	25RB#0	24.38	PASS
Band41(2535-2655)	10MHz	QPSK	40090	25RB#12	24.44	PASS
Band41(2535-2655)	10MHz	QPSK	40090	25RB#25	24.49	PASS
Band41(2535-2655)	10MHz	QPSK	40090	50RB#0	24.33	PASS
Band41(2535-2655)	10MHz	16QAM	40090	1RB#0	24.40	PASS
Band41(2535-2655)	10MHz	16QAM	40090	1RB#24	25.35	PASS
Band41(2535-2655)	10MHz	16QAM	40090	1RB#49	24.42	PASS
Band41(2535-2655)	10MHz	16QAM	40090	25RB#0	22.94	PASS
Band41(2535-2655)	10MHz	16QAM	40090	25RB#12	23.13	PASS
Band41(2535-2655)	10MHz	16QAM	40090	25RB#25	23.01	PASS
Band41(2535-2655)	10MHz	16QAM	40090	50RB#0	23.06	PASS
Band41(2535-2655)	10MHz	QPSK	40640	1RB#0	24.52	PASS
Band41(2535-2655)	10MHz	QPSK	40640	1RB#24	24.47	PASS
Band41(2535-2655)	10MHz	QPSK	40640	1RB#49	24.38	PASS
Band41(2535-2655)	10MHz	QPSK	40640	25RB#0	24.24	PASS
Band41(2535-2655)	10MHz	QPSK	40640	25RB#12	24.25	PASS
Band41(2535-2655)	10MHz	QPSK	40640	25RB#25	24.29	PASS
Band41(2535-2655)	10MHz	QPSK	40640	50RB#0	24.28	PASS
Band41(2535-2655)	10MHz	16QAM	40640	1RB#0	24.05	PASS
Band41(2535-2655)	10MHz	16QAM	40640	1RB#24	24.52	PASS
Band41(2535-2655)	10MHz	16QAM	40640	1RB#49	24.21	PASS
Band41(2535-2655)	10MHz	16QAM	40640	25RB#0	22.97	PASS
Band41(2535-2655)	10MHz	16QAM	40640	25RB#12	22.81	PASS
Band41(2535-2655)	10MHz	16QAM	40640	25RB#25	23.02	PASS
Band41(2535-2655)	10MHz	16QAM	40640	50RB#0	22.81	PASS
Band41(2535-2655)	10MHz	QPSK	41190	1RB#0	24.26	PASS
Band41(2535-2655)	10MHz	QPSK	41190	1RB#24	24.25	PASS
Band41(2535-2655)	10MHz	QPSK	41190	1RB#49	24.62	PASS
Band41(2535-2655)	10MHz	QPSK	41190	25RB#0	24.05	PASS
Band41(2535-2655)	10MHz	QPSK	41190	25RB#12	24.13	PASS
Band41(2535-2655)	10MHz	QPSK	41190	25RB#25	24.30	PASS

Band41(2535-2655)	10MHz	QPSK	41190	50RB#0	24.18	PASS
Band41(2535-2655)	10MHz	16QAM	41190	1RB#0	24.48	PASS
Band41(2535-2655)	10MHz	16QAM	41190	1RB#24	23.85	PASS
Band41(2535-2655)	10MHz	16QAM	41190	1RB#49	24.69	PASS
Band41(2535-2655)	10MHz	16QAM	41190	25RB#0	22.74	PASS
Band41(2535-2655)	10MHz	16QAM	41190	25RB#12	22.83	PASS
Band41(2535-2655)	10MHz	16QAM	41190	25RB#25	22.86	PASS
Band41(2535-2655)	10MHz	16QAM	41190	50RB#0	22.81	PASS
Band41(2535-2655)	15MHz	QPSK	40115	1RB#0	24.47	PASS
Band41(2535-2655)	15MHz	QPSK	40115	1RB#38	24.69	PASS
Band41(2535-2655)	15MHz	QPSK	40115	1RB#74	24.44	PASS
Band41(2535-2655)	15MHz	QPSK	40115	38RB#0	24.38	PASS
Band41(2535-2655)	15MHz	QPSK	40115	38RB#18	24.45	PASS
Band41(2535-2655)	15MHz	QPSK	40115	38RB#37	24.44	PASS
Band41(2535-2655)	15MHz	QPSK	40115	75RB#0	24.36	PASS
Band41(2535-2655)	15MHz	16QAM	40115	1RB#0	24.37	PASS
Band41(2535-2655)	15MHz	16QAM	40115	1RB#38	25.29	PASS
Band41(2535-2655)	15MHz	16QAM	40115	1RB#74	24.50	PASS
Band41(2535-2655)	15MHz	16QAM	40115	38RB#0	22.94	PASS
Band41(2535-2655)	15MHz	16QAM	40115	38RB#18	22.92	PASS
Band41(2535-2655)	15MHz	16QAM	40115	38RB#37	22.98	PASS
Band41(2535-2655)	15MHz	16QAM	40115	75RB#0	23.02	PASS
Band41(2535-2655)	15MHz	QPSK	40640	1RB#0	24.46	PASS
Band41(2535-2655)	15MHz	QPSK	40640	1RB#38	24.49	PASS
Band41(2535-2655)	15MHz	QPSK	40640	1RB#74	24.58	PASS
Band41(2535-2655)	15MHz	QPSK	40640	38RB#0	24.30	PASS
Band41(2535-2655)	15MHz	QPSK	40640	38RB#18	24.25	PASS
Band41(2535-2655)	15MHz	QPSK	40640	38RB#37	24.28	PASS
Band41(2535-2655)	15MHz	QPSK	40640	75RB#0	24.28	PASS
Band41(2535-2655)	15MHz	16QAM	40640	1RB#0	23.46	PASS
Band41(2535-2655)	15MHz	16QAM	40640	1RB#38	24.26	PASS
Band41(2535-2655)	15MHz	16QAM	40640	1RB#74	23.23	PASS
Band41(2535-2655)	15MHz	16QAM	40640	38RB#0	22.83	PASS
Band41(2535-2655)	15MHz	16QAM	40640	38RB#18	22.78	PASS
Band41(2535-2655)	15MHz	16QAM	40640	38RB#37	22.74	PASS
Band41(2535-2655)	15MHz	16QAM	40640	75RB#0	22.83	PASS
Band41(2535-2655)	15MHz	QPSK	41165	1RB#0	24.07	PASS
Band41(2535-2655)	15MHz	QPSK	41165	1RB#38	24.48	PASS
Band41(2535-2655)	15MHz	QPSK	41165	1RB#74	24.75	PASS
Band41(2535-2655)	15MHz	QPSK	41165	38RB#0	23.82	PASS
Band41(2535-2655)	15MHz	QPSK	41165	38RB#18	23.96	PASS

Band41(2535-2655)	15MHz	QPSK	41165	38RB#37	24.16	PASS
Band41(2535-2655)	15MHz	QPSK	41165	75RB#0	24.02	PASS
Band41(2535-2655)	15MHz	16QAM	41165	1RB#0	24.14	PASS
Band41(2535-2655)	15MHz	16QAM	41165	1RB#38	23.97	PASS
Band41(2535-2655)	15MHz	16QAM	41165	1RB#74	24.71	PASS
Band41(2535-2655)	15MHz	16QAM	41165	38RB#0	22.42	PASS
Band41(2535-2655)	15MHz	16QAM	41165	38RB#18	22.59	PASS
Band41(2535-2655)	15MHz	16QAM	41165	38RB#37	22.77	PASS
Band41(2535-2655)	15MHz	16QAM	41165	75RB#0	22.71	PASS
Band41(2535-2655)	20MHz	QPSK	40140	1RB#0	24.59	PASS
Band41(2535-2655)	20MHz	QPSK	40140	1RB#49	24.55	PASS
Band41(2535-2655)	20MHz	QPSK	40140	1RB#99	24.56	PASS
Band41(2535-2655)	20MHz	QPSK	40140	50RB#0	24.39	PASS
Band41(2535-2655)	20MHz	QPSK	40140	50RB#25	24.22	PASS
Band41(2535-2655)	20MHz	QPSK	40140	50RB#50	24.37	PASS
Band41(2535-2655)	20MHz	QPSK	40140	100RB#0	24.32	PASS
Band41(2535-2655)	20MHz	16QAM	40140	1RB#0	24.55	PASS
Band41(2535-2655)	20MHz	16QAM	40140	1RB#49	23.91	PASS
Band41(2535-2655)	20MHz	16QAM	40140	1RB#99	24.63	PASS
Band41(2535-2655)	20MHz	16QAM	40140	50RB#0	23.08	PASS
Band41(2535-2655)	20MHz	16QAM	40140	50RB#25	22.93	PASS
Band41(2535-2655)	20MHz	16QAM	40140	50RB#50	23.09	PASS
Band41(2535-2655)	20MHz	16QAM	40140	100RB#0	22.87	PASS
Band41(2535-2655)	20MHz	QPSK	40640	1RB#0	24.52	PASS
Band41(2535-2655)	20MHz	QPSK	40640	1RB#49	24.55	PASS
Band41(2535-2655)	20MHz	QPSK	40640	1RB#99	24.87	PASS
Band41(2535-2655)	20MHz	QPSK	40640	50RB#0	24.17	PASS
Band41(2535-2655)	20MHz	QPSK	40640	50RB#25	24.13	PASS
Band41(2535-2655)	20MHz	QPSK	40640	50RB#50	24.31	PASS
Band41(2535-2655)	20MHz	QPSK	40640	100RB#0	24.23	PASS
Band41(2535-2655)	20MHz	16QAM	40640	1RB#0	24.20	PASS
Band41(2535-2655)	20MHz	16QAM	40640	1RB#49	23.87	PASS
Band41(2535-2655)	20MHz	16QAM	40640	1RB#99	24.45	PASS
Band41(2535-2655)	20MHz	16QAM	40640	50RB#0	22.80	PASS
Band41(2535-2655)	20MHz	16QAM	40640	50RB#25	22.87	PASS
Band41(2535-2655)	20MHz	16QAM	40640	50RB#50	23.01	PASS
Band41(2535-2655)	20MHz	16QAM	40640	100RB#0	22.76	PASS
Band41(2535-2655)	20MHz	QPSK	41140	1RB#0	23.86	PASS
Band41(2535-2655)	20MHz	QPSK	41140	1RB#49	24.19	PASS
Band41(2535-2655)	20MHz	QPSK	41140	1RB#99	24.71	PASS
Band41(2535-2655)	20MHz	QPSK	41140	50RB#0	23.84	PASS

Band41(2535-2655)	20MHz	QPSK	41140	50RB#25	23.84	PASS
Band41(2535-2655)	20MHz	QPSK	41140	50RB#50	24.03	PASS
Band41(2535-2655)	20MHz	QPSK	41140	100RB#0	23.80	PASS
Band41(2535-2655)	20MHz	16QAM	41140	1RB#0	22.99	PASS
Band41(2535-2655)	20MHz	16QAM	41140	1RB#49	23.46	PASS
Band41(2535-2655)	20MHz	16QAM	41140	1RB#99	23.97	PASS
Band41(2535-2655)	20MHz	16QAM	41140	50RB#0	22.29	PASS
Band41(2535-2655)	20MHz	16QAM	41140	50RB#25	22.34	PASS
Band41(2535-2655)	20MHz	16QAM	41140	50RB#50	22.77	PASS
Band41(2535-2655)	20MHz	16QAM	41140	100RB#0	22.48	PASS

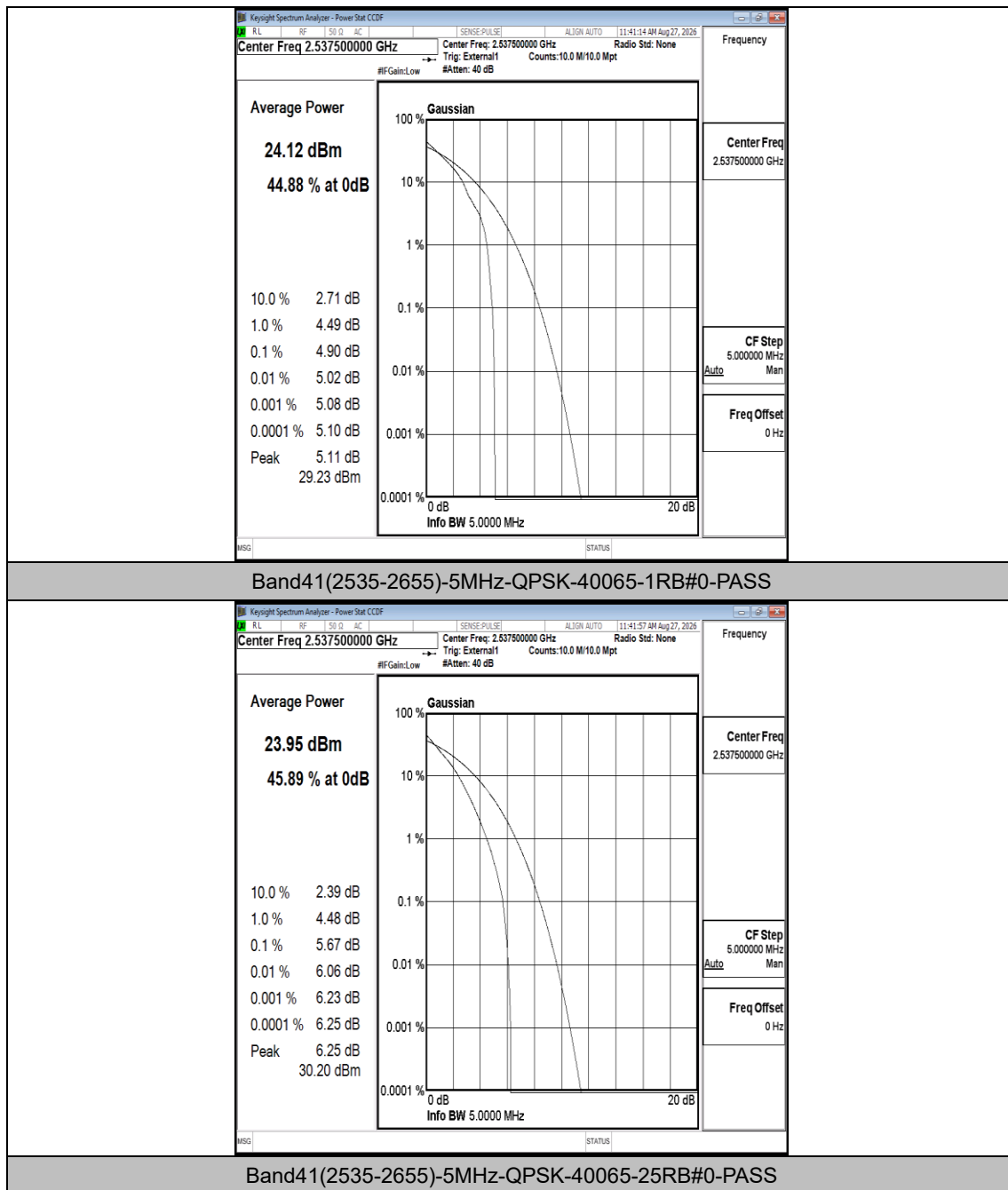
R.2 Peak-to-Average Ratio(CCDF)

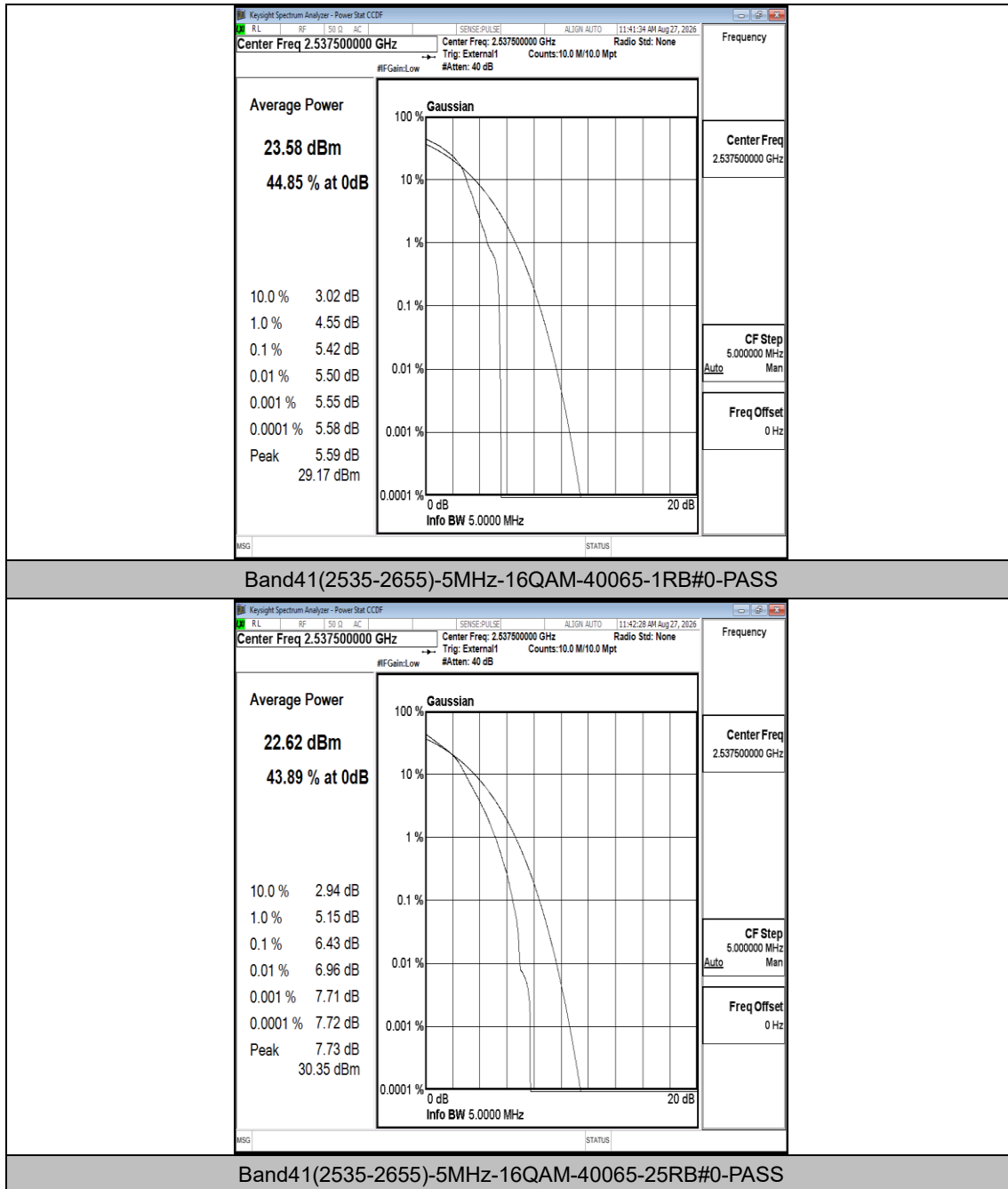
Test Result

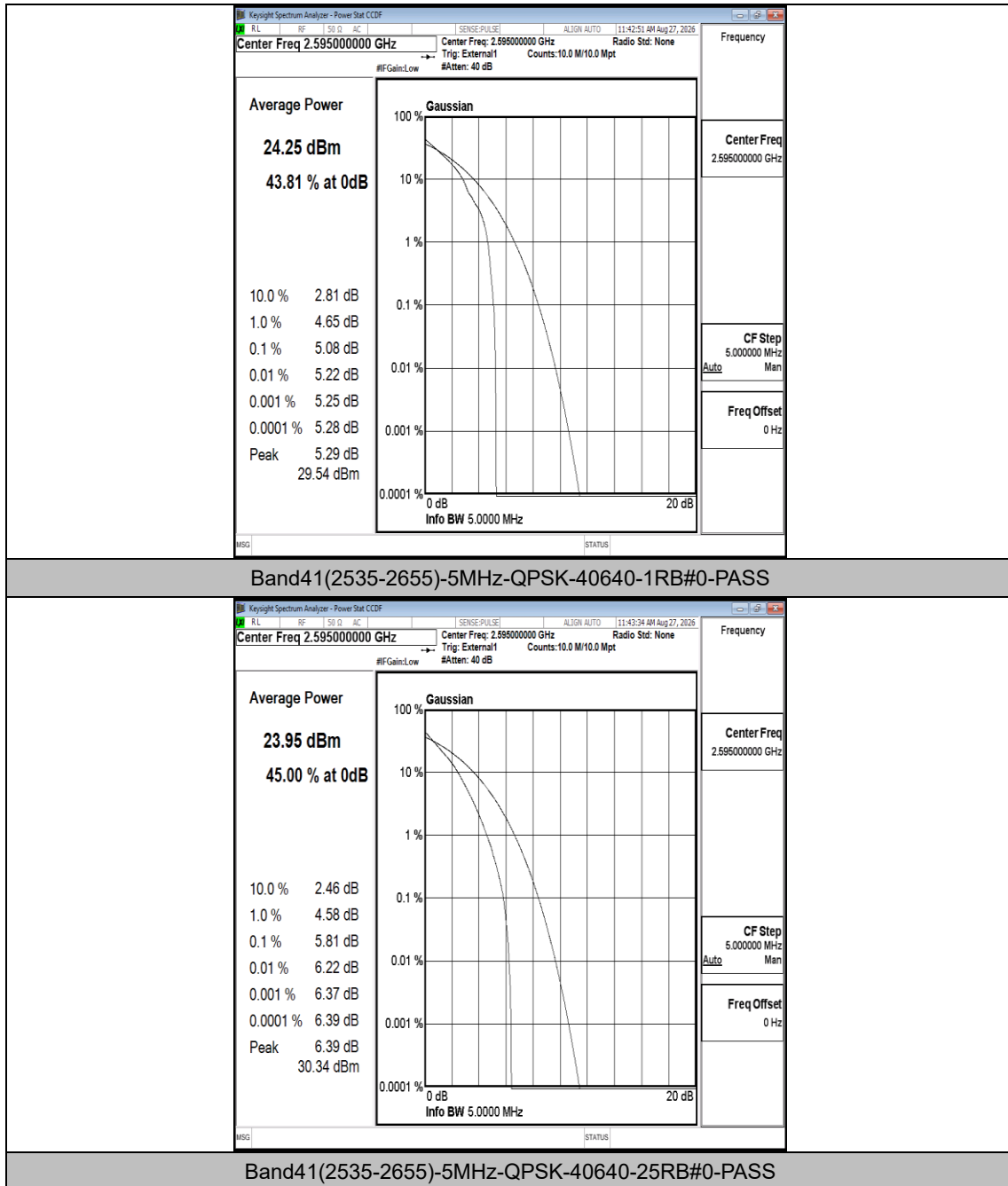
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band41(2535-2655)	5MHz	QPSK	40065	1RB#0	4.90	13	PASS
Band41(2535-2655)	5MHz	QPSK	40065	25RB#0	5.67	13	PASS
Band41(2535-2655)	5MHz	16QAM	40065	1RB#0	5.42	13	PASS
Band41(2535-2655)	5MHz	16QAM	40065	25RB#0	6.43	13	PASS
Band41(2535-2655)	5MHz	QPSK	40640	1RB#0	5.08	13	PASS
Band41(2535-2655)	5MHz	QPSK	40640	25RB#0	5.81	13	PASS
Band41(2535-2655)	5MHz	16QAM	40640	1RB#0	5.61	13	PASS
Band41(2535-2655)	5MHz	16QAM	40640	25RB#0	6.62	13	PASS
Band41(2535-2655)	5MHz	QPSK	41215	1RB#0	4.97	13	PASS
Band41(2535-2655)	5MHz	QPSK	41215	25RB#0	5.67	13	PASS
Band41(2535-2655)	5MHz	16QAM	41215	1RB#0	5.50	13	PASS
Band41(2535-2655)	5MHz	16QAM	41215	25RB#0	6.42	13	PASS
Band41(2535-2655)	10MHz	QPSK	40090	1RB#0	5.43	13	PASS
Band41(2535-2655)	10MHz	QPSK	40090	50RB#0	5.70	13	PASS
Band41(2535-2655)	10MHz	16QAM	40090	1RB#0	5.72	13	PASS
Band41(2535-2655)	10MHz	16QAM	40090	50RB#0	6.44	13	PASS
Band41(2535-2655)	10MHz	QPSK	40640	1RB#0	5.82	13	PASS
Band41(2535-2655)	10MHz	QPSK	40640	50RB#0	5.77	13	PASS
Band41(2535-2655)	10MHz	16QAM	40640	1RB#0	5.97	13	PASS
Band41(2535-2655)	10MHz	16QAM	40640	50RB#0	6.62	13	PASS
Band41(2535-2655)	10MHz	QPSK	41190	1RB#0	5.86	13	PASS
Band41(2535-2655)	10MHz	QPSK	41190	50RB#0	5.65	13	PASS
Band41(2535-2655)	10MHz	16QAM	41190	1RB#0	5.99	13	PASS
Band41(2535-2655)	10MHz	16QAM	41190	50RB#0	6.43	13	PASS
Band41(2535-2655)	15MHz	QPSK	40115	1RB#0	5.45	13	PASS
Band41(2535-2655)	15MHz	QPSK	40115	75RB#0	5.91	13	PASS
Band41(2535-2655)	15MHz	16QAM	40115	1RB#0	5.71	13	PASS
Band41(2535-2655)	15MHz	16QAM	40115	75RB#0	6.59	13	PASS
Band41(2535-2655)	15MHz	QPSK	40640	1RB#0	5.85	13	PASS
Band41(2535-2655)	15MHz	QPSK	40640	75RB#0	6.01	13	PASS
Band41(2535-2655)	15MHz	16QAM	40640	1RB#0	5.99	13	PASS
Band41(2535-2655)	15MHz	16QAM	40640	75RB#0	6.69	13	PASS
Band41(2535-2655)	15MHz	QPSK	41165	1RB#0	6.02	13	PASS
Band41(2535-2655)	15MHz	QPSK	41165	75RB#0	5.99	13	PASS
Band41(2535-2655)	15MHz	16QAM	41165	1RB#0	6.19	13	PASS

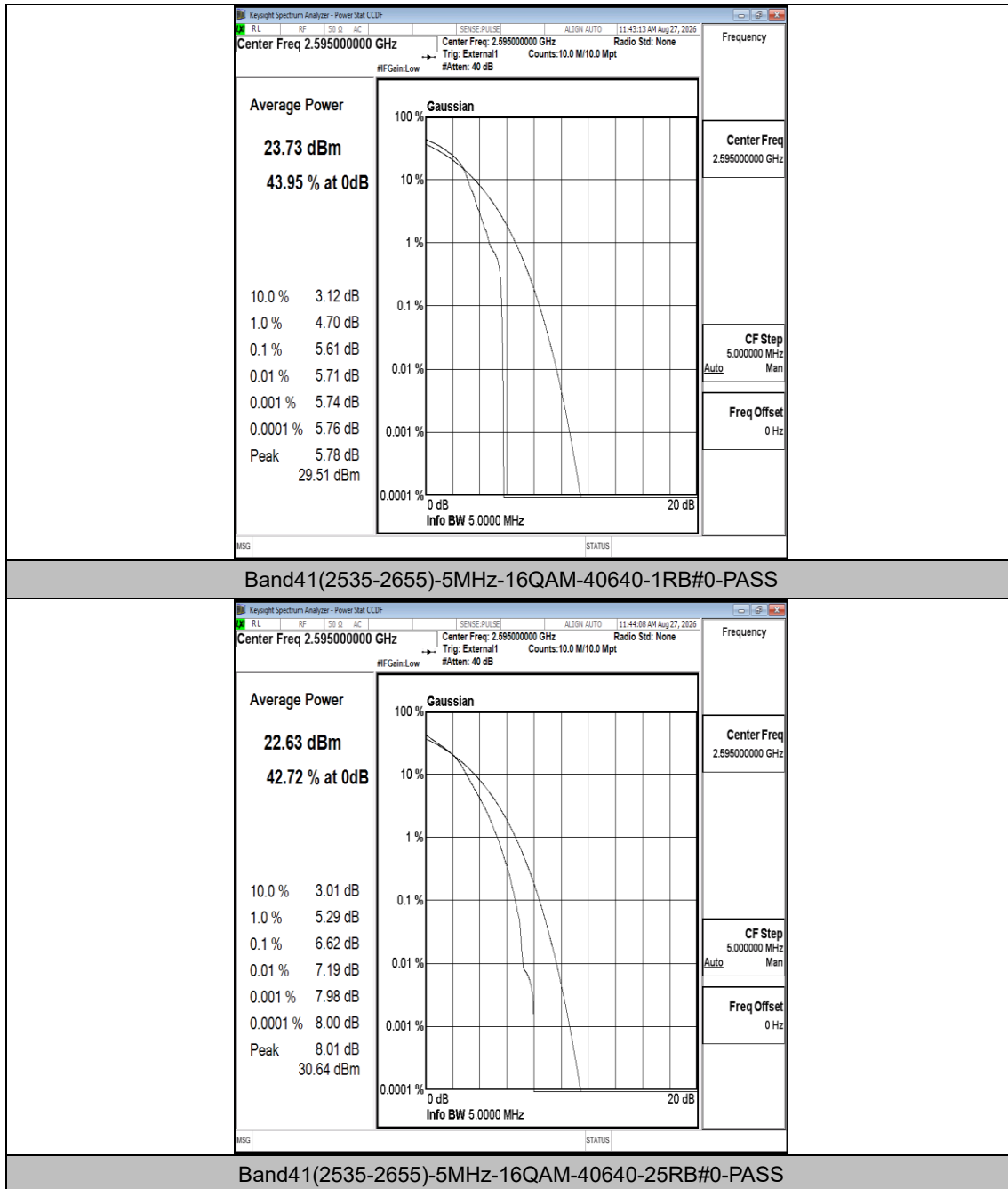
Band41(2535-2655)	15MHz	16QAM	41165	75RB#0	6.50	13	PASS
Band41(2535-2655)	20MHz	QPSK	40140	1RB#0	4.95	13	PASS
Band41(2535-2655)	20MHz	QPSK	40140	100RB#0	5.65	13	PASS
Band41(2535-2655)	20MHz	16QAM	40140	1RB#0	5.34	13	PASS
Band41(2535-2655)	20MHz	16QAM	40140	100RB#0	6.52	13	PASS
Band41(2535-2655)	20MHz	QPSK	40640	1RB#0	5.09	13	PASS
Band41(2535-2655)	20MHz	QPSK	40640	100RB#0	5.65	13	PASS
Band41(2535-2655)	20MHz	16QAM	40640	1RB#0	5.54	13	PASS
Band41(2535-2655)	20MHz	16QAM	40640	100RB#0	6.59	13	PASS
Band41(2535-2655)	20MHz	QPSK	41140	1RB#0	5.89	13	PASS
Band41(2535-2655)	20MHz	QPSK	41140	100RB#0	5.76	13	PASS
Band41(2535-2655)	20MHz	16QAM	41140	1RB#0	5.86	13	PASS
Band41(2535-2655)	20MHz	16QAM	41140	100RB#0	6.60	13	PASS

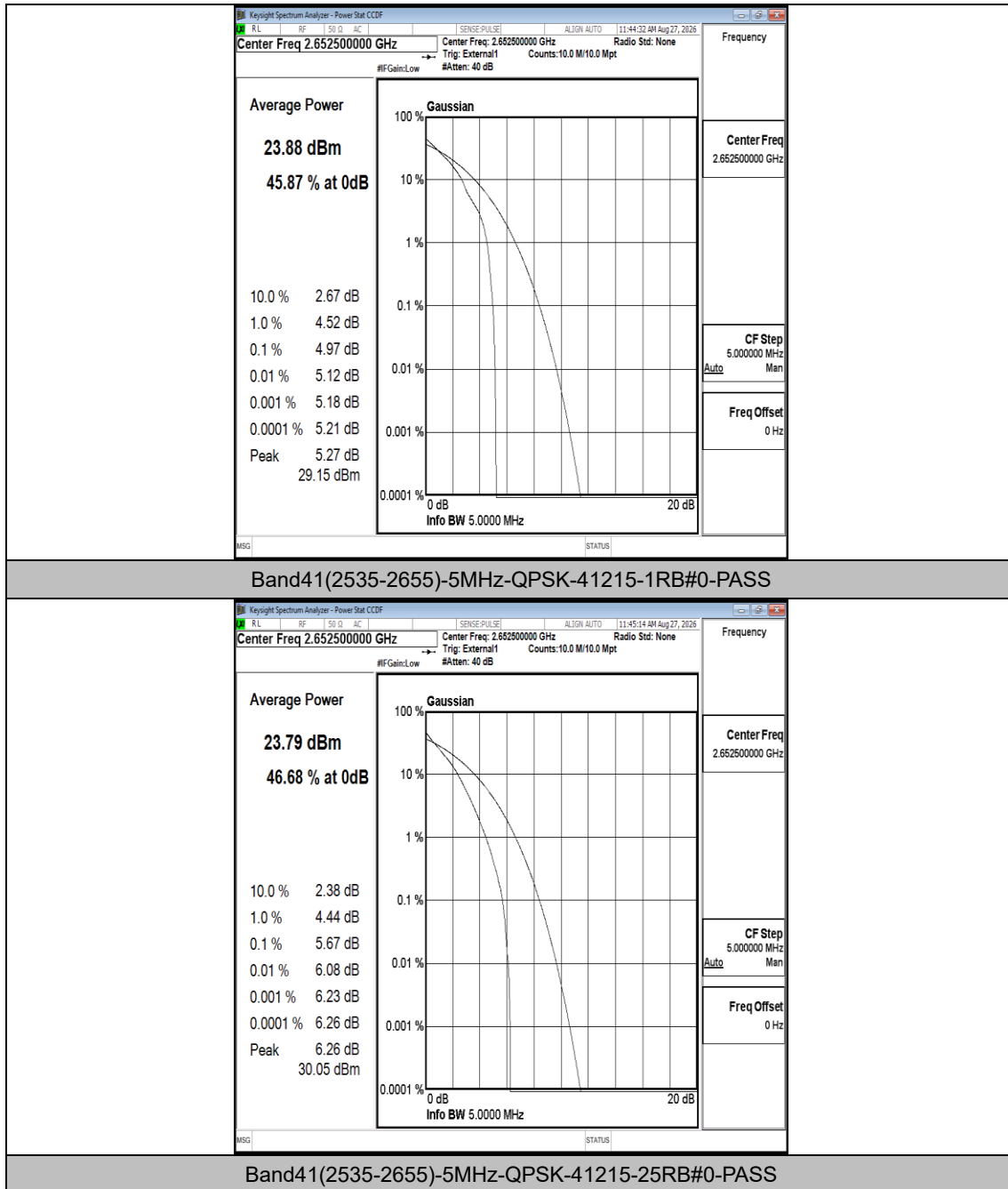
Test Graphs

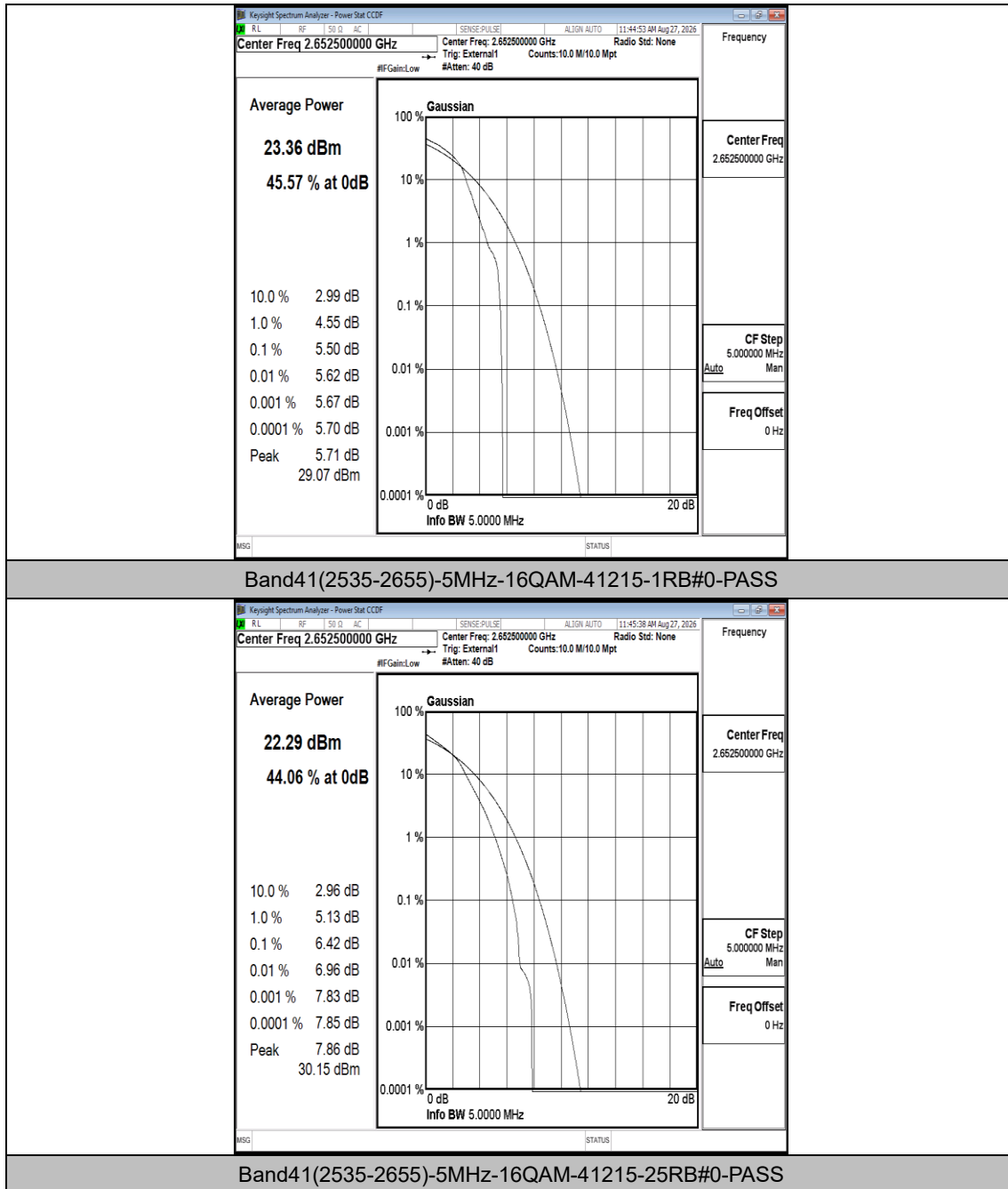


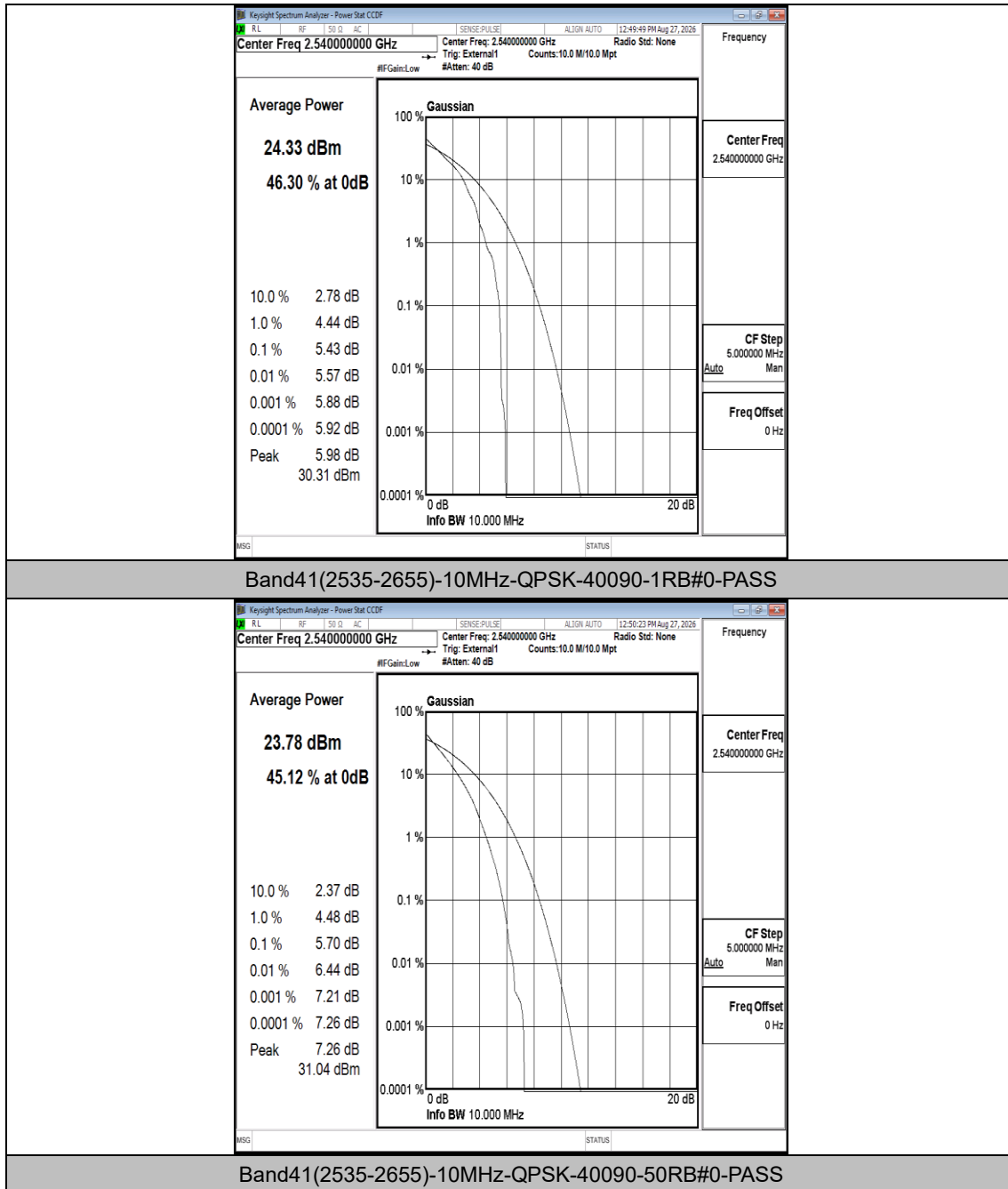


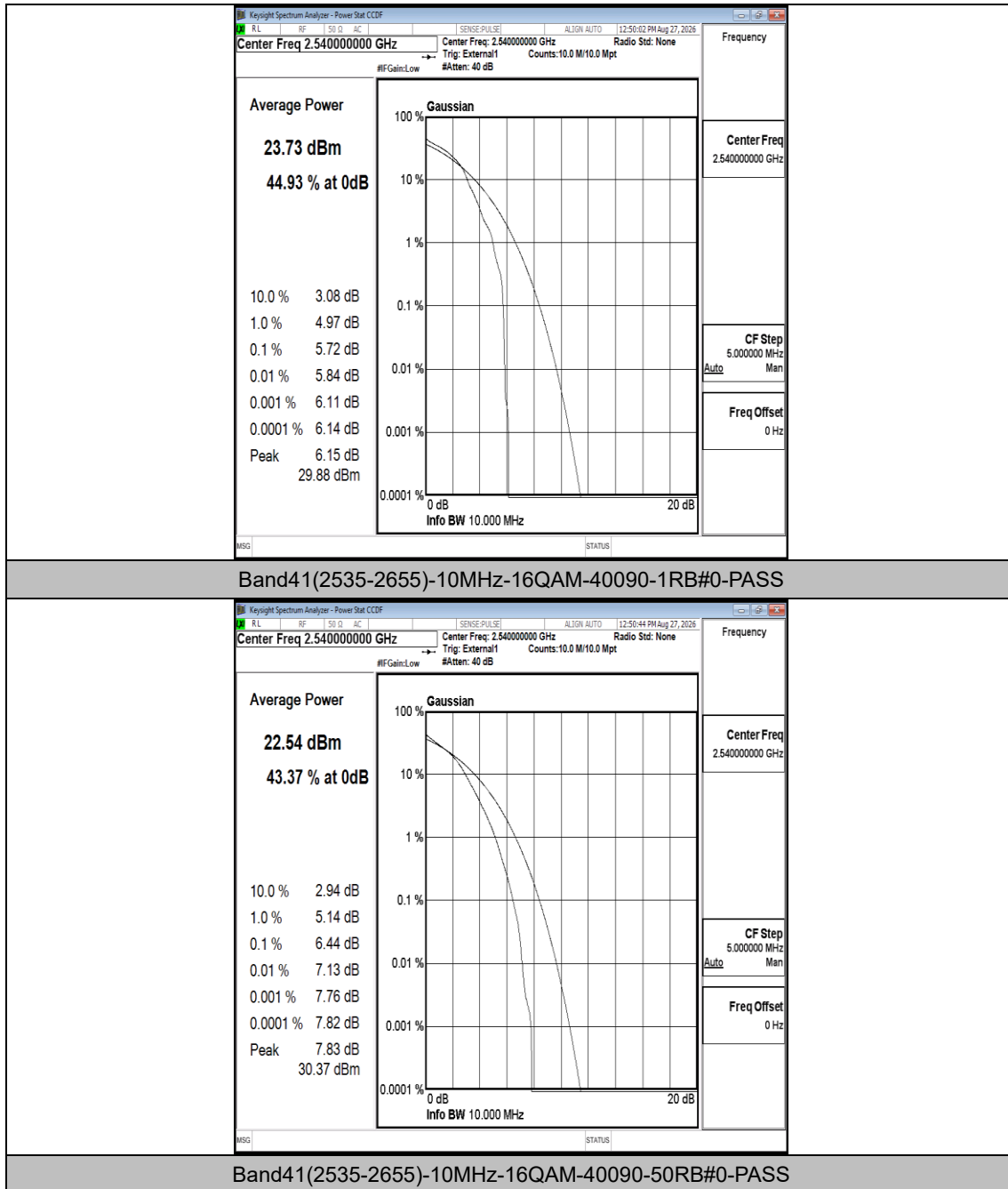


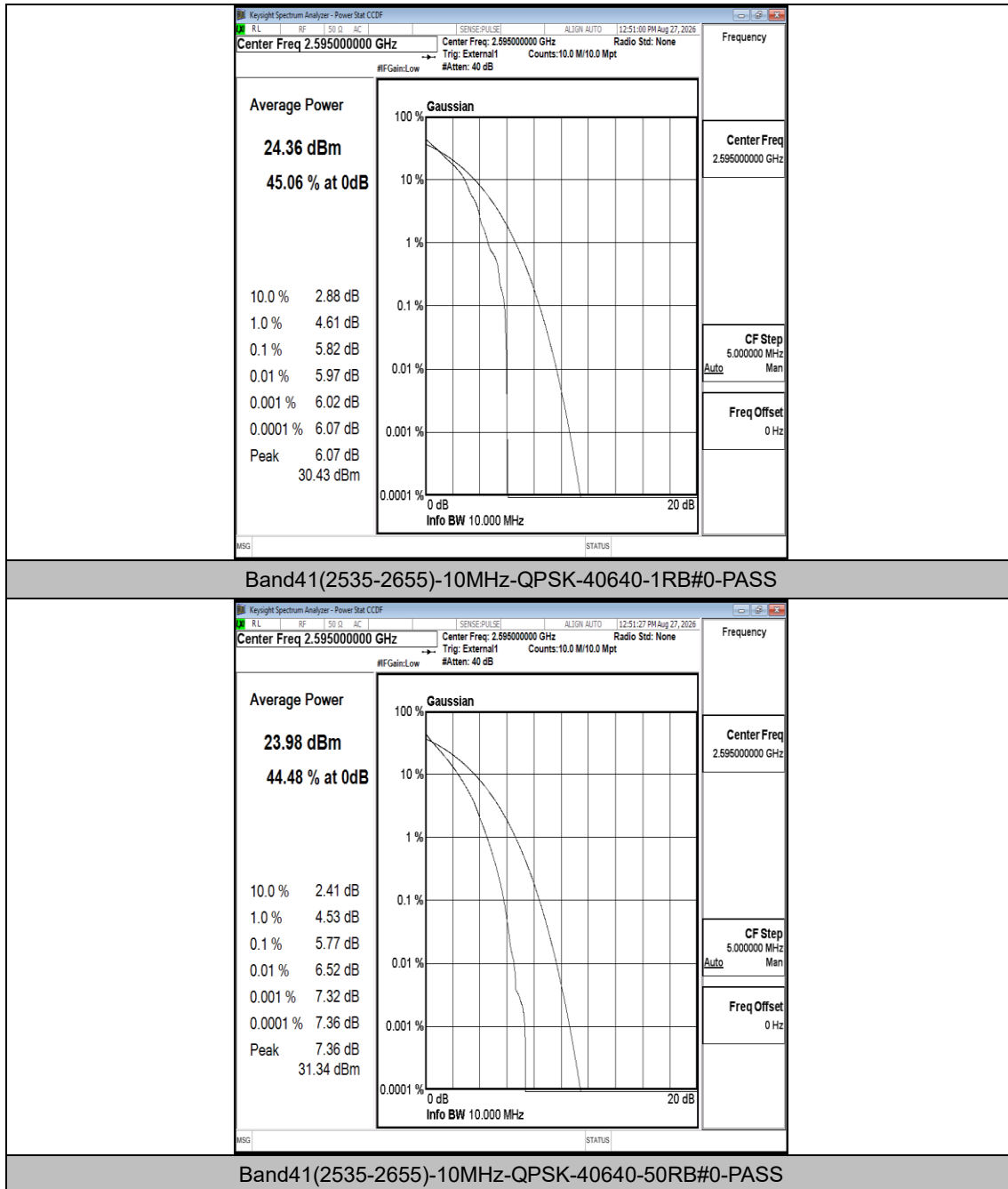


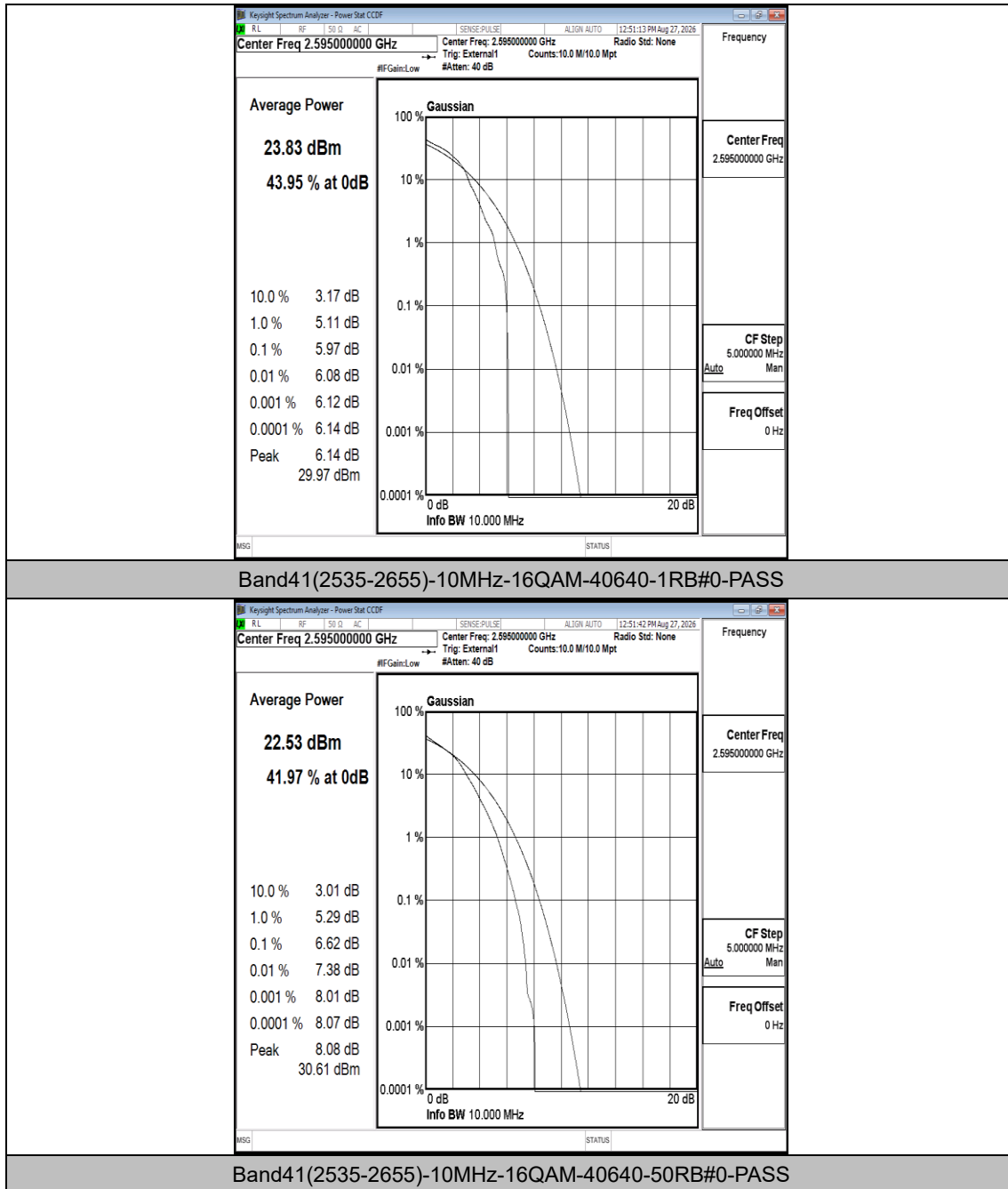


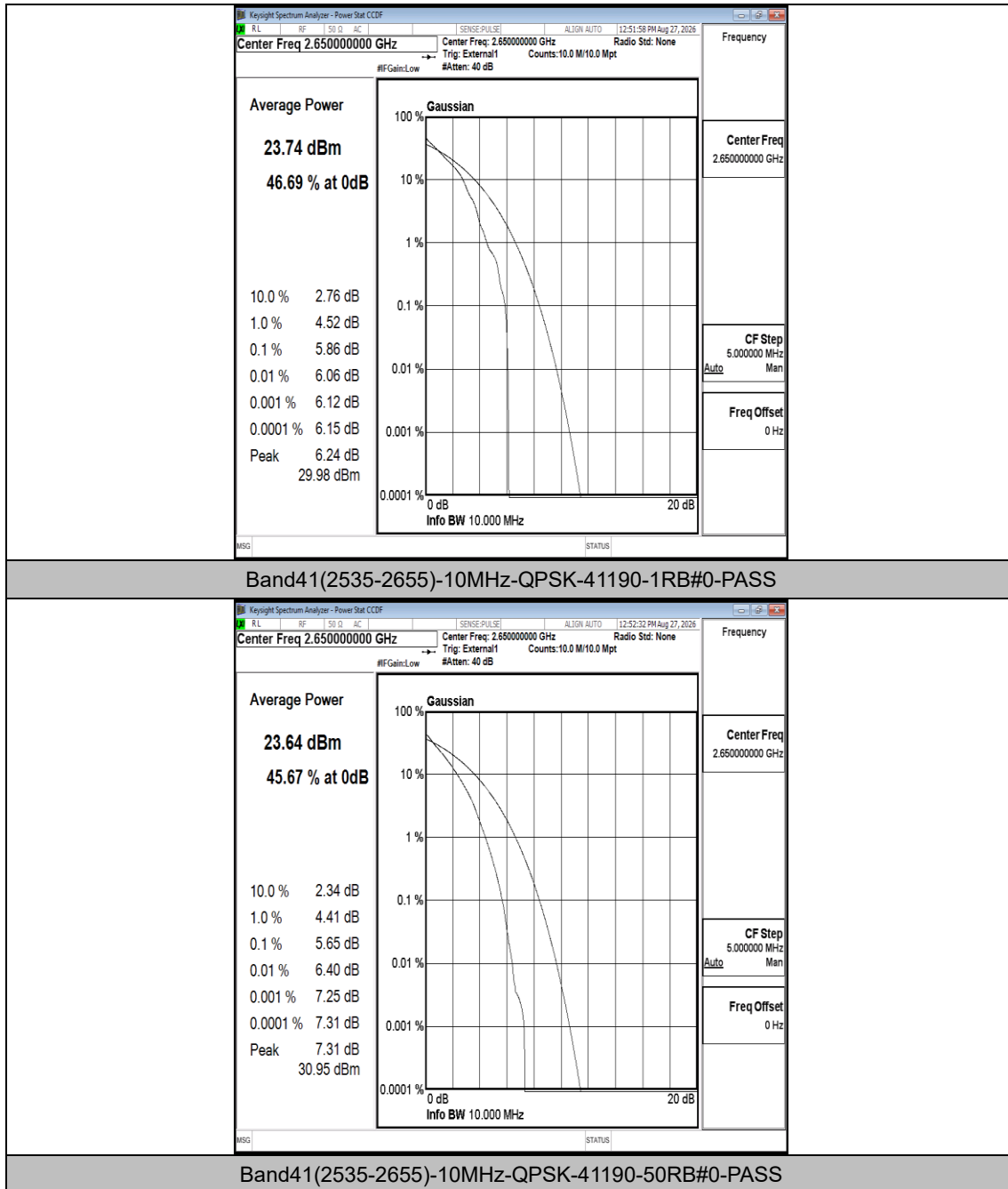


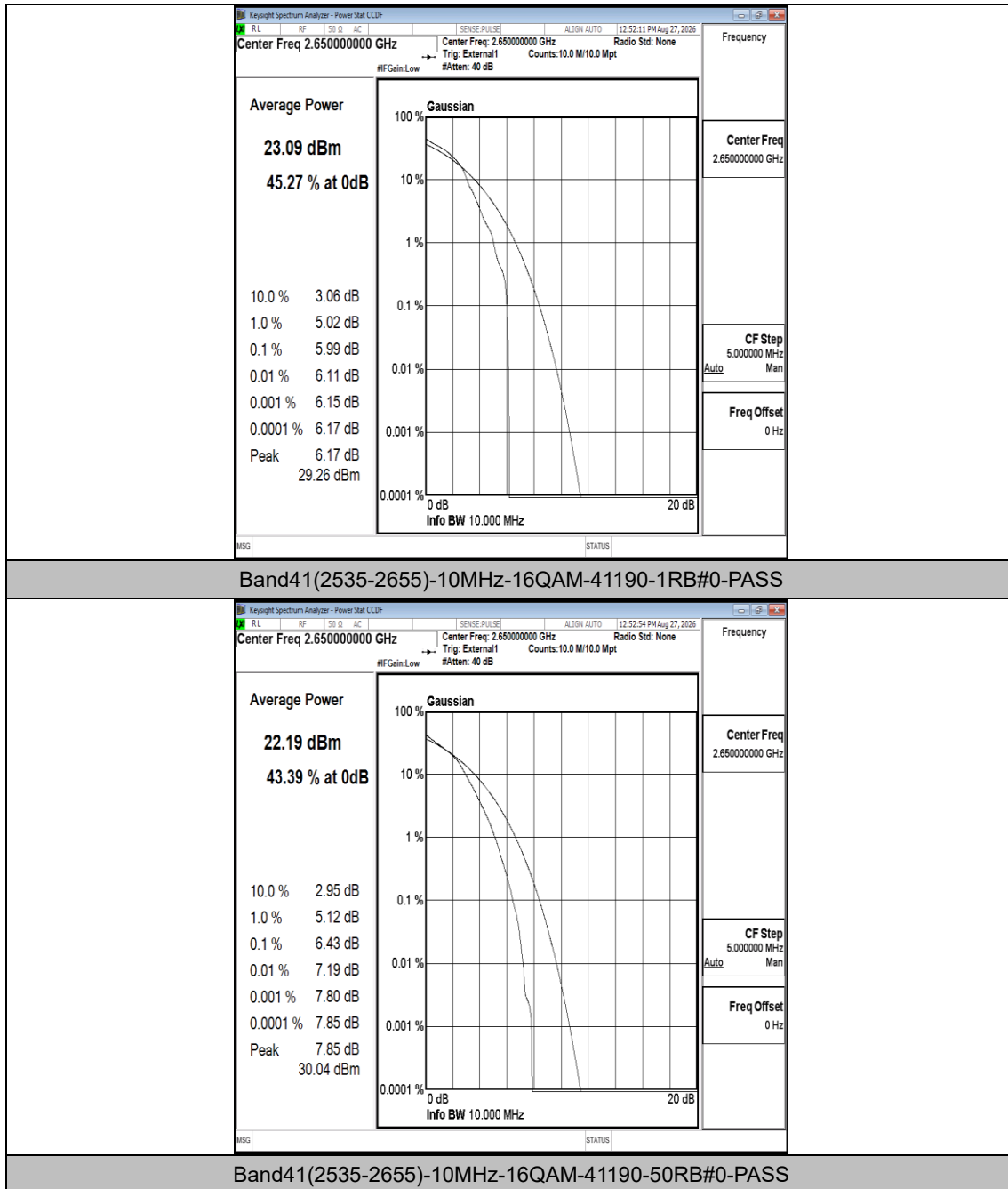


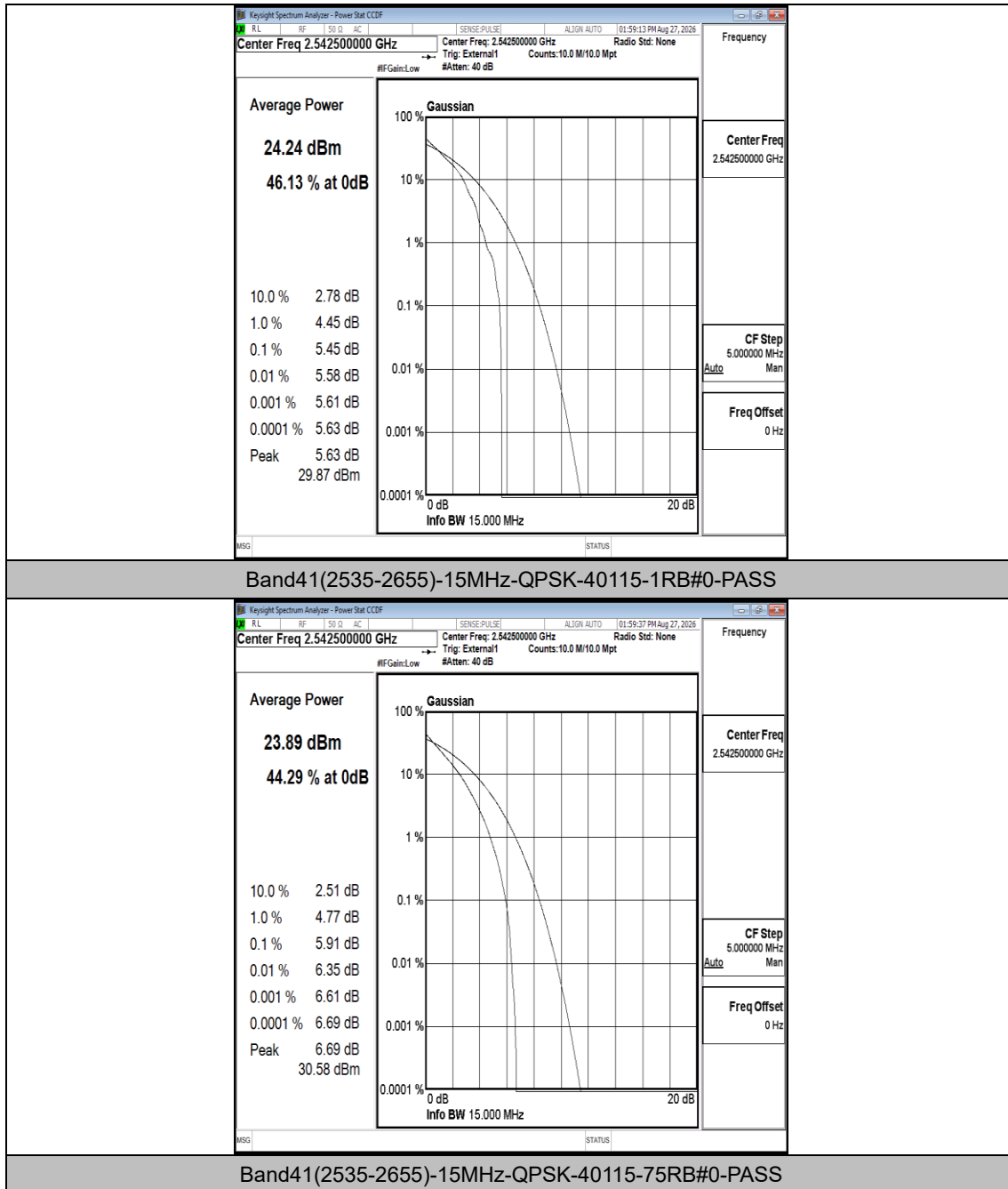


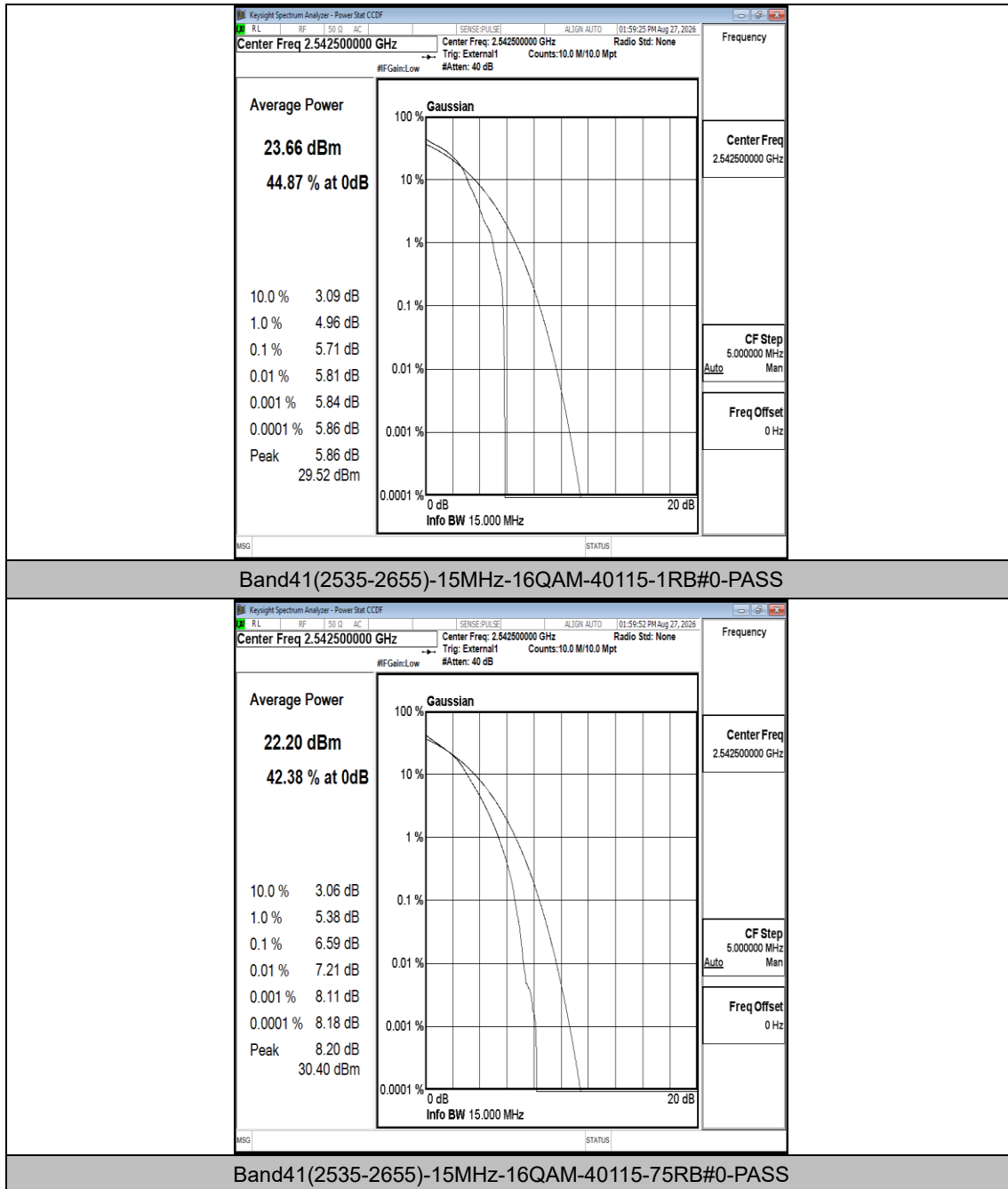


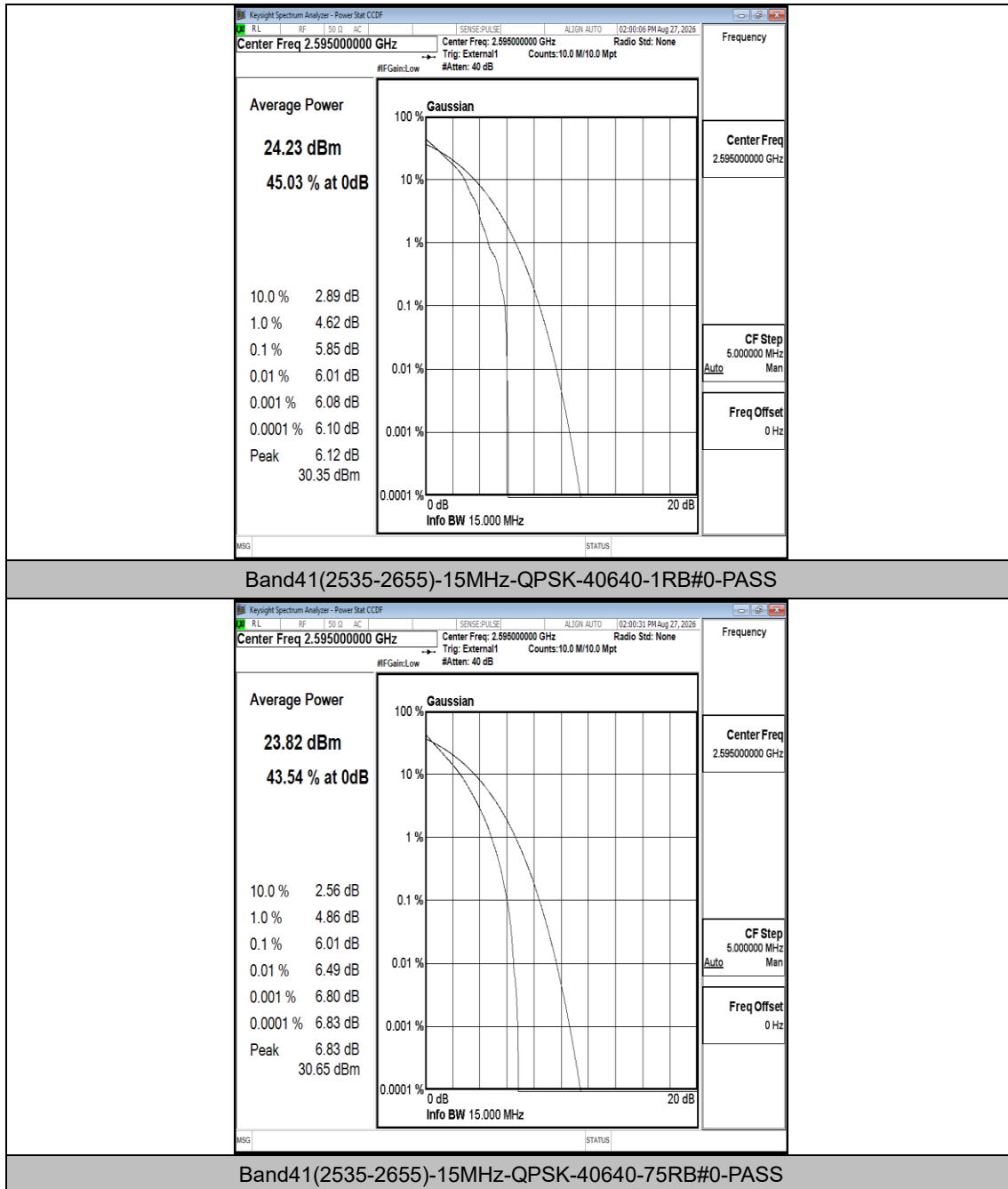


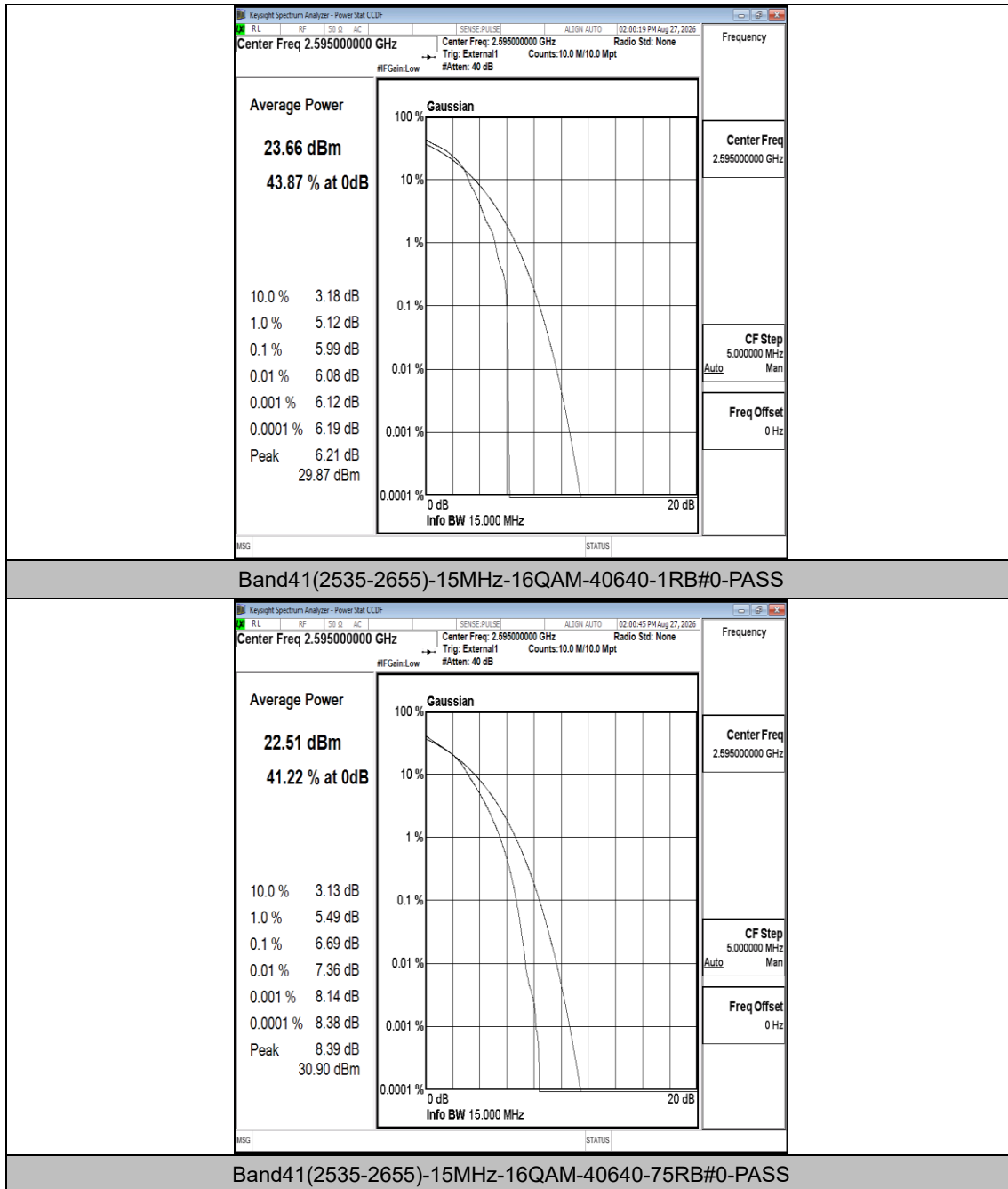


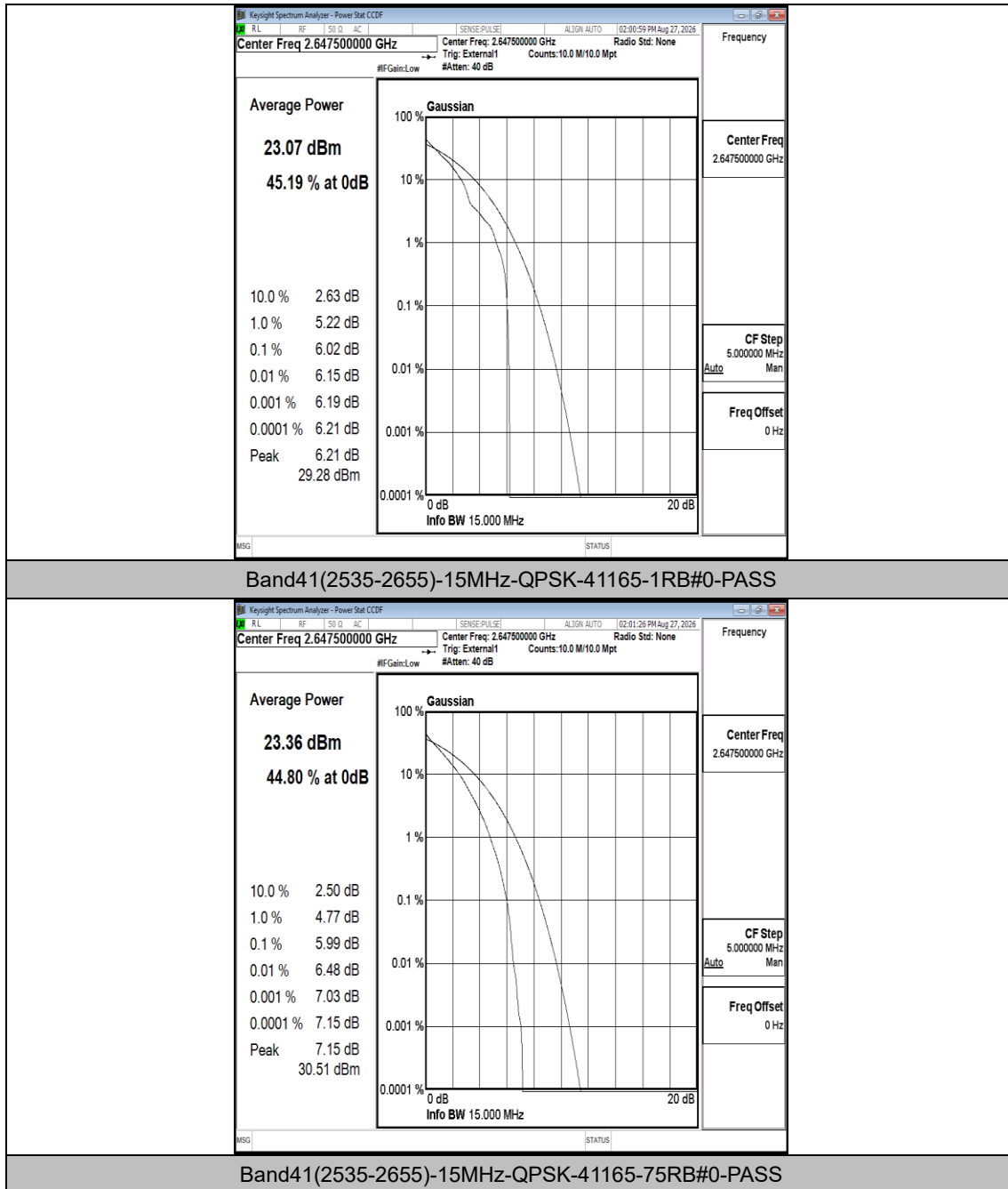


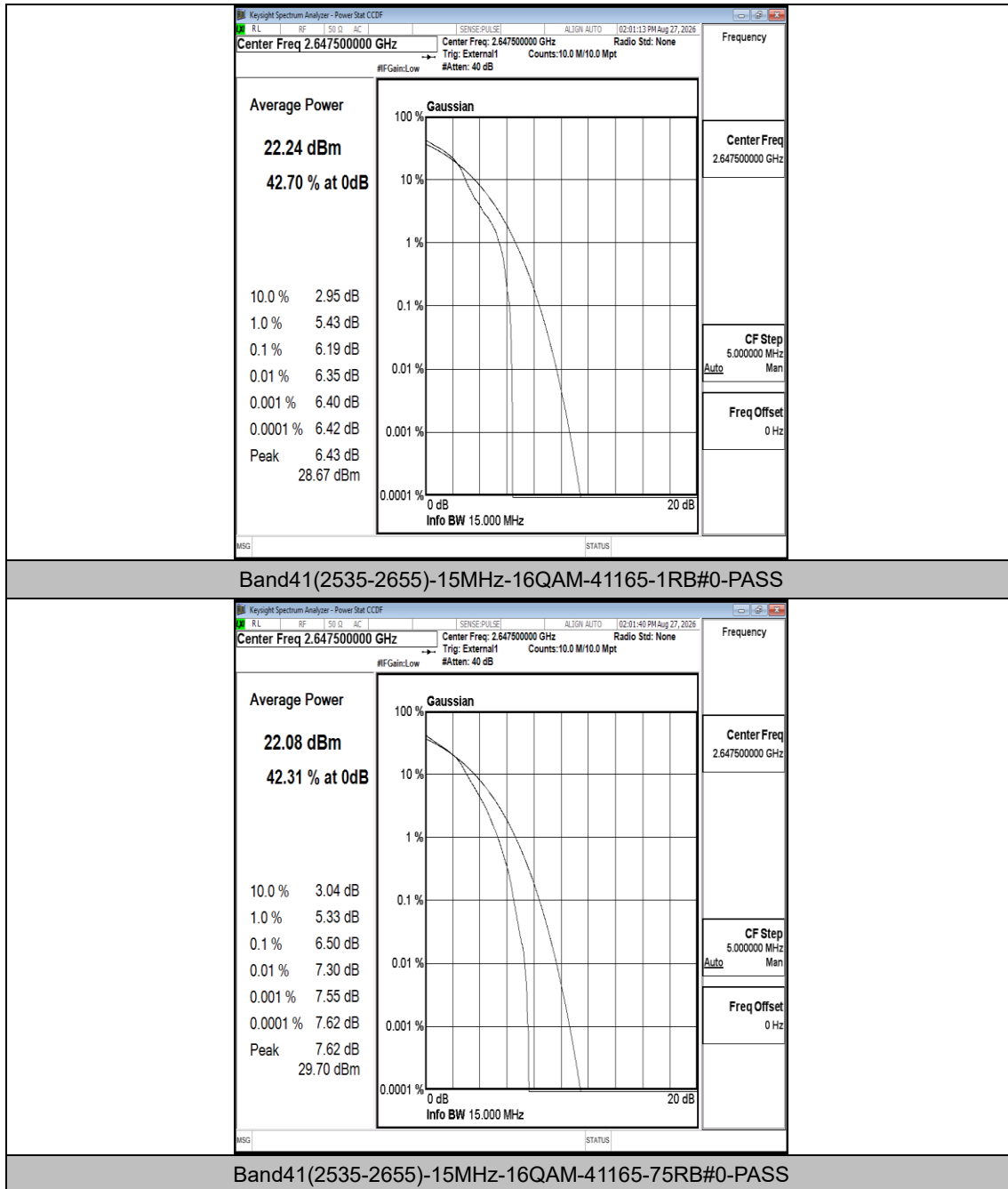


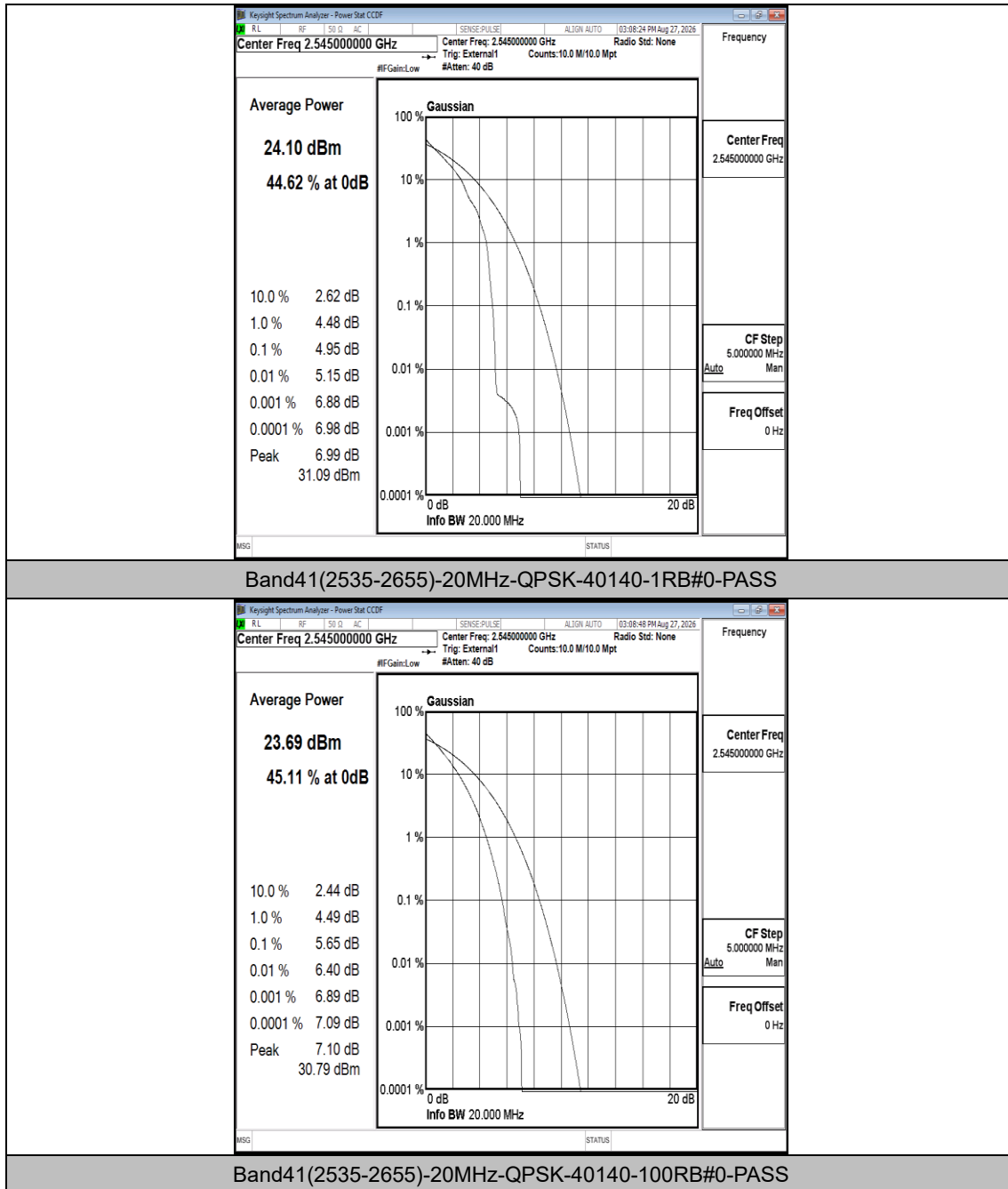


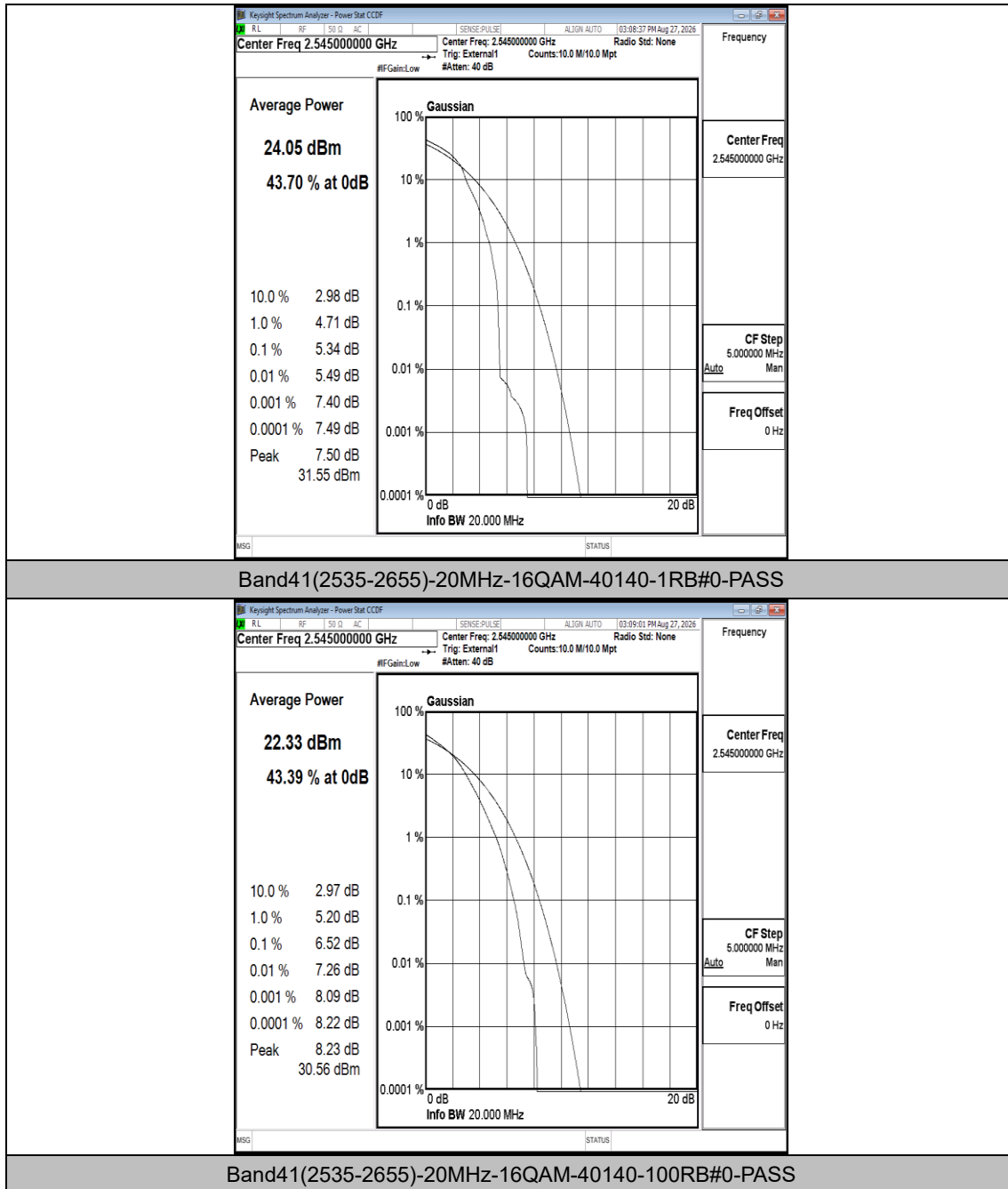


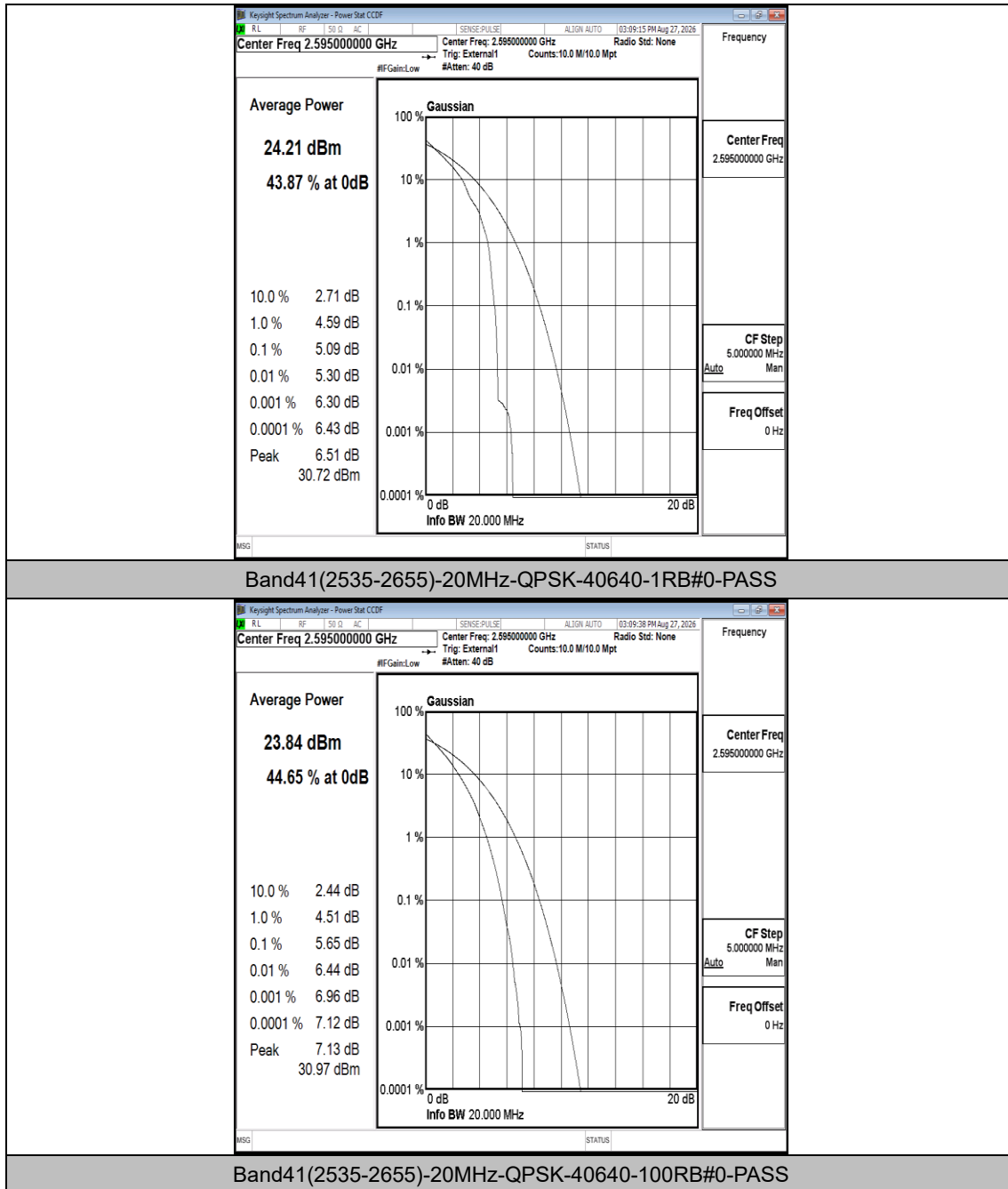


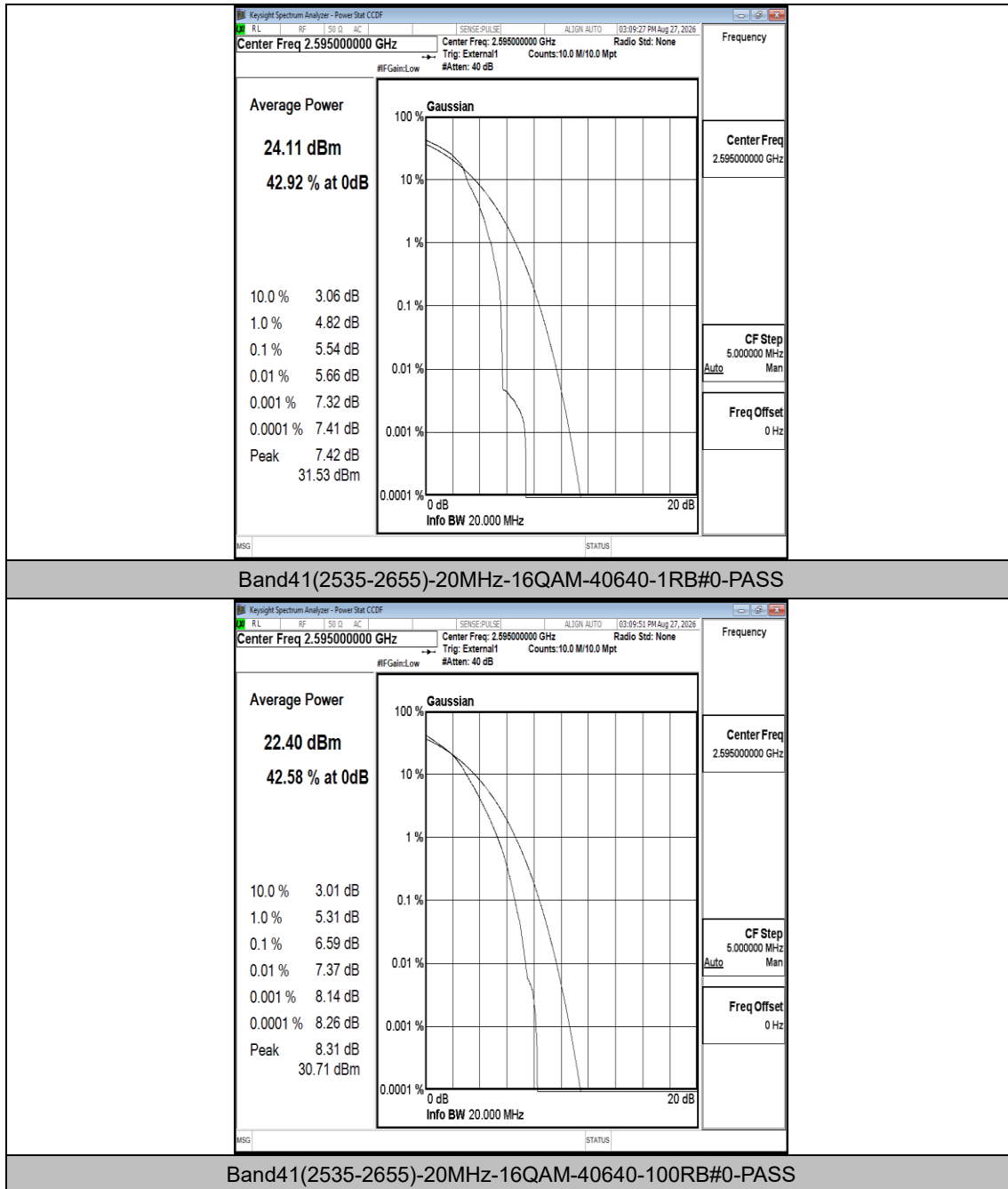


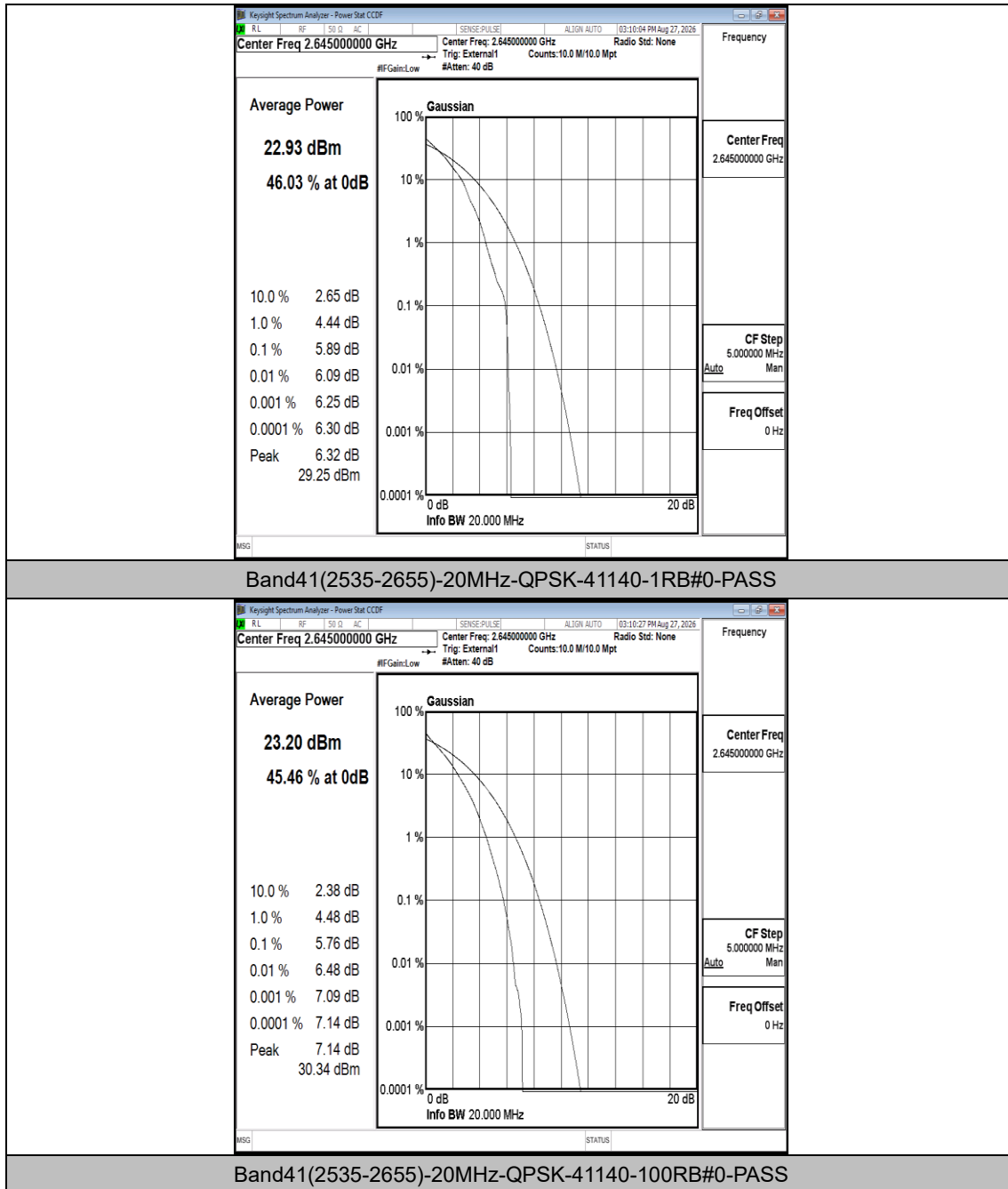


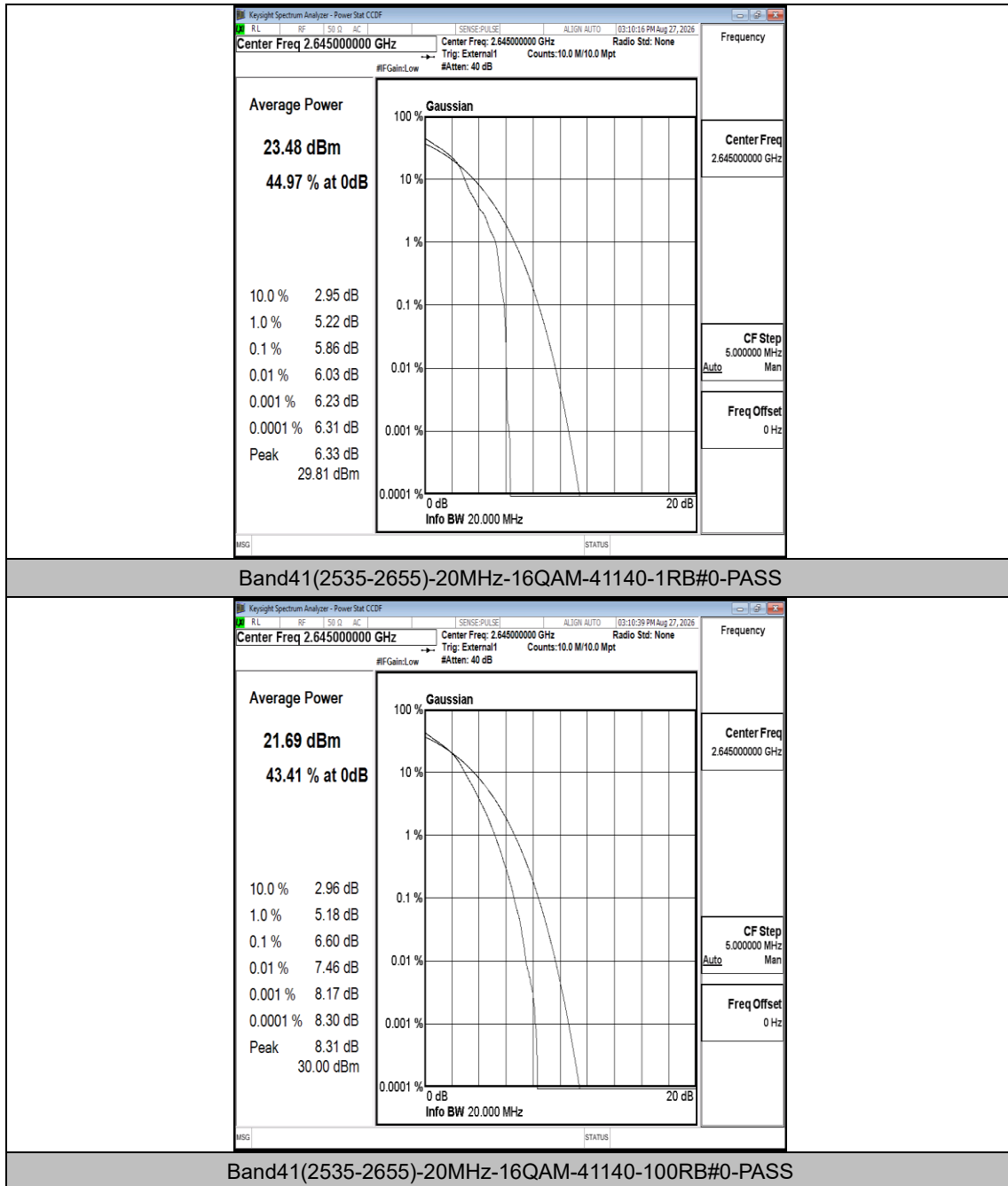












R.3 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band41(2535-2655)	5MHz	QPSK	40065	25RB#0	4.5090	4.941	PASS
Band41(2535-2655)	5MHz	16QAM	40065	25RB#0	4.5003	5.283	PASS
Band41(2535-2655)	5MHz	QPSK	40640	25RB#0	4.5021	4.972	PASS
Band41(2535-2655)	5MHz	16QAM	40640	25RB#0	4.5117	5.283	PASS
Band41(2535-2655)	5MHz	QPSK	41215	25RB#0	4.5061	4.947	PASS
Band41(2535-2655)	5MHz	16QAM	41215	25RB#0	4.5096	5.211	PASS
Band41(2535-2655)	10MHz	QPSK	40090	50RB#0	9.0080	9.859	PASS
Band41(2535-2655)	10MHz	16QAM	40090	50RB#0	8.9920	9.929	PASS
Band41(2535-2655)	10MHz	QPSK	40640	50RB#0	8.9964	9.873	PASS
Band41(2535-2655)	10MHz	16QAM	40640	50RB#0	9.0006	9.931	PASS
Band41(2535-2655)	10MHz	QPSK	41190	50RB#0	8.9879	9.874	PASS
Band41(2535-2655)	10MHz	16QAM	41190	50RB#0	8.9906	9.911	PASS
Band41(2535-2655)	15MHz	QPSK	40115	75RB#0	13.506	14.88	PASS
Band41(2535-2655)	15MHz	16QAM	40115	75RB#0	13.483	14.88	PASS
Band41(2535-2655)	15MHz	QPSK	40640	75RB#0	13.531	15.58	PASS
Band41(2535-2655)	15MHz	16QAM	40640	75RB#0	13.495	14.94	PASS
Band41(2535-2655)	15MHz	QPSK	41165	75RB#0	13.476	15.40	PASS
Band41(2535-2655)	15MHz	16QAM	41165	75RB#0	13.483	14.99	PASS
Band41(2535-2655)	20MHz	QPSK	40140	100RB#0	17.947	19.62	PASS
Band41(2535-2655)	20MHz	16QAM	40140	100RB#0	17.972	19.57	PASS
Band41(2535-2655)	20MHz	QPSK	40640	100RB#0	17.972	19.69	PASS
Band41(2535-2655)	20MHz	16QAM	40640	100RB#0	17.938	19.71	PASS
Band41(2535-2655)	20MHz	QPSK	41140	100RB#0	17.977	19.81	PASS
Band41(2535-2655)	20MHz	16QAM	41140	100RB#0	17.975	19.92	PASS

Test Graphs

