

Appendix F

LTE BAND48

CONDUCTED OUTPUT POWER AND E.I.R.P.

CONDUCTED OUTPUT POWER (dBm)

LTE band 48:

LTE Band 48 (Ant7)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55340	55990	56640
		Frequency (MHz)		3560	3625	3690
20M	QPSK	1	0	22.61	22.89	23.13
		1	50	22.62	22.78	22.98
		1	99	22.55	22.69	22.98
		50	0	21.62	21.96	22.09
		50	25	21.68	21.87	22.05
		50	50	21.70	21.87	22.13
		100	0	21.56	22.00	22.19
	16QAM	1	0	21.21	21.55	21.74
		1	50	21.62	21.75	22.04
		1	99	21.58	21.95	22.08
		50	0	20.57	20.95	21.12
		50	25	20.61	20.94	21.18
		50	50	20.68	20.95	21.15
		100	0	20.56	21.05	21.16
	64QAM	1	0	20.41	20.73	20.92
		1	50	20.36	20.65	20.86
		1	99	20.49	20.51	20.87
		50	0	19.37	19.84	19.93
		50	25	19.39	19.61	19.91
		50	50	19.39	19.74	19.91
		100	0	19.40	19.61	19.91
	256QAM	1	0	17.58	17.82	18.07
		1	50	17.53	17.98	18.13
		1	99	17.72	17.93	18.22
		50	0	17.54	17.98	18.15
		50	25	17.60	17.85	18.01
		50	50	17.58	17.84	18.09
		100	0	17.51	17.82	18.10

BW	MCS Index	Channel		55315	55990	56665
		Frequency (MHz)		3557.5	3625	3692.5
15M	QPSK	1	0	22.50	22.82	23.04
		1	37	22.52	22.66	22.85
		1	74	22.48	22.63	22.92
		36	0	21.61	21.81	22.03
		36	19	21.69	21.77	21.99
		36	39	21.62	21.83	22.03
		75	0	21.53	21.91	22.16
	16QAM	1	0	21.18	21.48	21.68
		1	37	21.53	21.74	21.98
		1	74	21.49	21.92	21.96
		36	0	20.44	20.81	21.11
		36	19	20.50	20.84	21.17
		36	39	20.66	20.86	21.04
		75	0	20.55	20.97	21.09
	64QAM	1	0	20.33	20.60	20.89
		1	37	20.21	20.64	20.78
		1	74	20.36	20.49	20.82
		36	0	19.34	19.79	19.86
		36	19	19.34	19.53	19.80
		36	39	19.27	19.72	19.77
		75	0	19.28	19.49	19.76
	256QAM	1	0	17.54	17.72	17.93
		1	37	17.51	17.96	18.08
		1	74	17.62	17.88	18.13
		36	0	17.50	17.97	18.07
		36	19	17.55	17.72	17.96
		36	39	17.50	17.78	17.94
		75	0	17.49	17.72	18.01

BW	MCS Index	Channel		55290	55990	56690
		Frequency (MHz)		3555	3625	3695
10M	QPSK	1	0	22.59	22.82	23.07
		1	24	22.54	22.63	22.85
		1	49	22.49	22.65	22.90
		25	0	21.59	21.86	21.96
		25	12	21.66	21.75	21.96
		25	25	21.60	21.72	22.11
		50	0	21.54	21.96	22.18
	16QAM	1	0	21.10	21.53	21.59
		1	24	21.53	21.67	21.94
		1	49	21.52	21.88	21.97
		25	0	20.54	20.93	21.07
		25	12	20.50	20.81	21.04
		25	25	20.60	20.83	21.13
		50	0	20.44	20.95	21.10
	64QAM	1	0	20.37	20.68	20.78
		1	24	20.25	20.57	20.81
		1	49	20.42	20.45	20.83
		25	0	19.33	19.80	19.80
		25	12	19.33	19.54	19.77
		25	25	19.36	19.62	19.79
		50	0	19.34	19.56	19.76
	256QAM	1	0	17.53	17.78	17.92
		1	24	17.46	17.92	18.06
		1	49	17.58	17.80	18.12
		25	0	17.51	17.93	18.08
		25	12	17.51	17.71	17.86
		25	25	17.55	17.77	18.02
		50	0	17.36	17.67	17.96

BW	MCS Index	Channel		55265	55990	56715
		Frequency (MHz)		3552.5	3625	3697.5
5M	QPSK	1	0	22.59	22.74	23.06
		1	12	22.48	22.66	22.84
		1	24	22.54	22.62	22.86
		12	0	21.47	21.83	22.07
		12	6	21.66	21.72	21.91
		12	13	21.58	21.86	22.06
		25	0	21.54	21.98	22.05
	16QAM	1	0	21.16	21.54	21.62
		1	12	21.51	21.61	21.94
		1	24	21.50	21.86	22.01
		12	0	20.54	20.94	21.10
		12	6	20.56	20.90	21.06
		12	13	20.65	20.83	21.02
		25	0	20.50	20.95	21.04
	64QAM	1	0	20.31	20.61	20.91
		1	12	20.31	20.63	20.71
		1	24	20.38	20.43	20.78
		12	0	19.32	19.80	19.81
		12	6	19.32	19.53	19.84
		12	13	19.25	19.69	19.87
		25	0	19.39	19.49	19.77
	256QAM	1	0	17.49	17.77	17.95
		1	12	17.41	17.94	17.98
		1	24	17.67	17.80	18.09
		12	0	17.51	17.91	18.06
		12	6	17.50	17.80	17.94
		12	13	17.57	17.70	18.01
		25	0	17.39	17.71	18.04

EIRP
LTE Band 48

LTE B48 5M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55265	3552.5	22.59	-0.5	22.09	161.81	23
55990	3625	0	-0.5	-0.5	0.89	23
56715	3697.5	23.06	-0.5	22.56	180.3	23

LTE B48 5M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55265	3552.5	21.51	-0.5	21.01	126.18	23
55990	3625	0	-0.5	-0.5	0.89	23
56715	3697.5	22.01	-0.5	21.51	141.58	23

LTE B48 5M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55265	3552.5	20.38	-0.5	19.88	97.27	23
55990	3625	0	-0.5	-0.5	0.89	23
56715	3697.5	20.91	-0.5	20.41	109.9	23

LTE B48 5M 256QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55265	3552.5	17.67	-0.5	17.17	52.12	23
55990	3625	0	-0.5	-0.5	0.89	23
56715	3697.5	18.09	-0.5	17.59	57.41	23

LTE B48 10M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55290	3555	22.59	-0.5	22.09	161.81	23
55990	3625	0	-0.5	-0.5	0.89	23
56690	3695	23.07	-0.5	22.57	180.72	23

LTE B48 10M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55290	3555	21.53	-0.5	21.03	126.77	23
55990	3625	0	-0.5	-0.5	0.89	23
56690	3695	21.97	-0.5	21.47	140.28	23

LTE B48 10M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55290	3555	20.42	-0.5	19.92	98.17	23
55990	3625	0	-0.5	-0.5	0.89	23
56690	3695	20.83	-0.5	20.33	107.89	23

LTE B48 10M 256QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55290	3555	17.58	-0.5	17.08	51.05	23
55990	3625	0	-0.5	-0.5	0.89	23
56690	3695	18.12	-0.5	17.62	57.81	23

LTE B48 15M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55315	3557.5	22.52	-0.5	22.02	159.22	23
55990	3625	0	-0.5	-0.5	0.89	23
56665	3692.5	23.04	-0.5	22.54	179.47	23

LTE B48 15M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55315	3557.5	21.53	-0.5	21.03	126.77	23
55990	3625	0	-0.5	-0.5	0.89	23
56665	3692.5	21.98	-0.5	21.48	140.6	23

LTE B48 15M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55315	3557.5	20.36	-0.5	19.86	96.83	23
55990	3625	0	-0.5	-0.5	0.89	23
56665	3692.5	20.89	-0.5	20.39	109.4	23

LTE B48 15M 256QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55315	3557.5	17.62	-0.5	17.12	51.52	23
55990	3625	0	-0.5	-0.5	0.89	23
56665	3692.5	18.13	-0.5	17.63	57.94	23

LTE B48 20M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55340	3560	22.62	-0.5	22.12	162.93	23
55990	3625	0	-0.5	-0.5	0.89	23
56640	3690	23.13	-0.5	22.63	183.23	23

LTE B48 20M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55340	3560	21.62	-0.5	21.12	129.42	23
55990	3625	0	-0.5	-0.5	0.89	23
56640	3690	22.08	-0.5	21.58	143.88	23

LTE B48 20M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55340	3560	20.49	-0.5	19.99	99.77	23
55990	3625	0	-0.5	-0.5	0.89	23
56640	3690	20.92	-0.5	20.42	110.15	23

LTE B48 20M 256QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)	EIRP (mW)	Lmit (dBm/10Mhz)
55340	3560	17.72	-0.5	17.22	52.72	23
55990	3625	0	-0.5	-0.5	0.89	23
56640	3690	18.22	-0.5	17.72	59.16	23

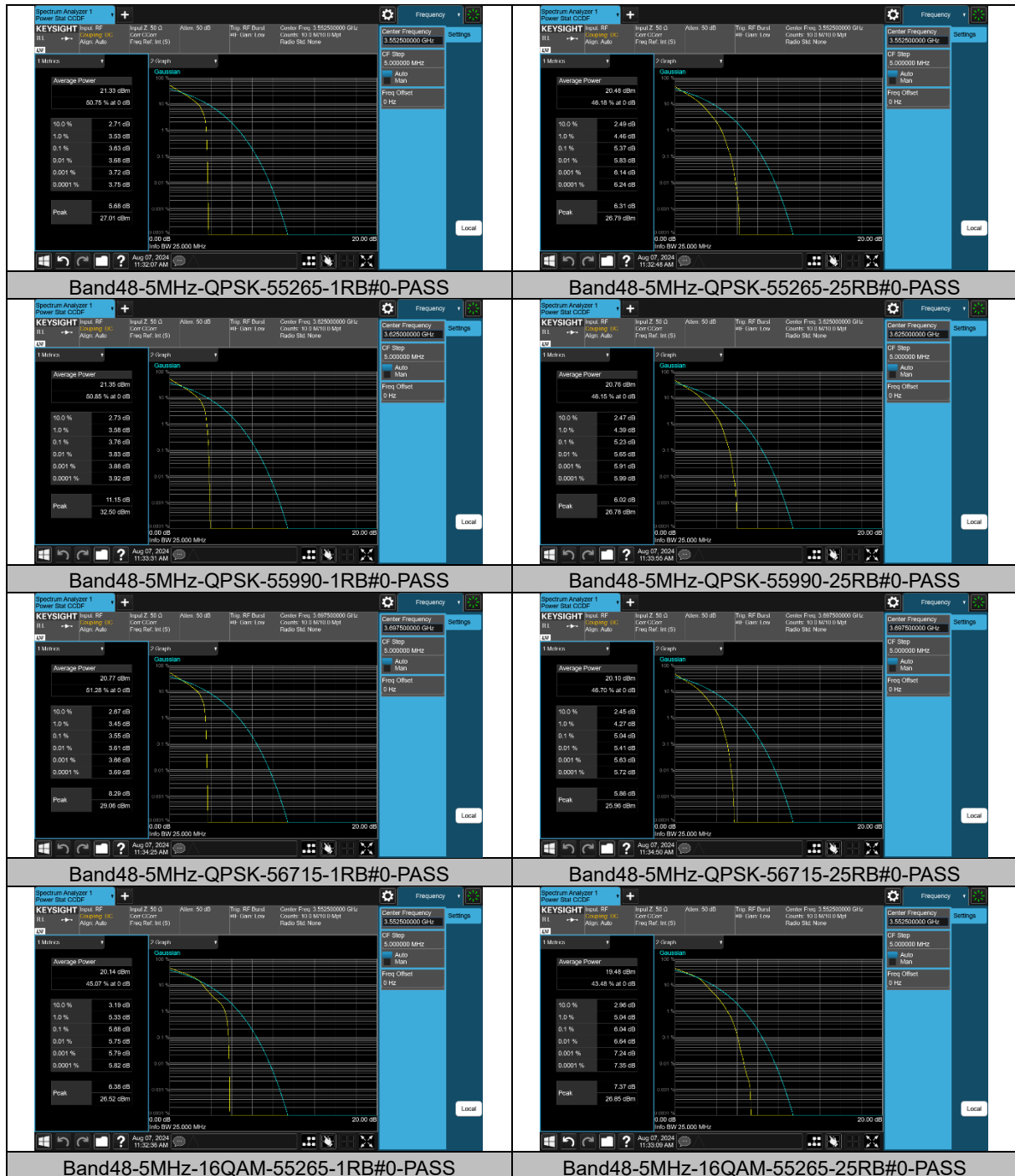
REMARKS: ERP Output Power (dBm) = EIRP (dBm) -2.15(dB).

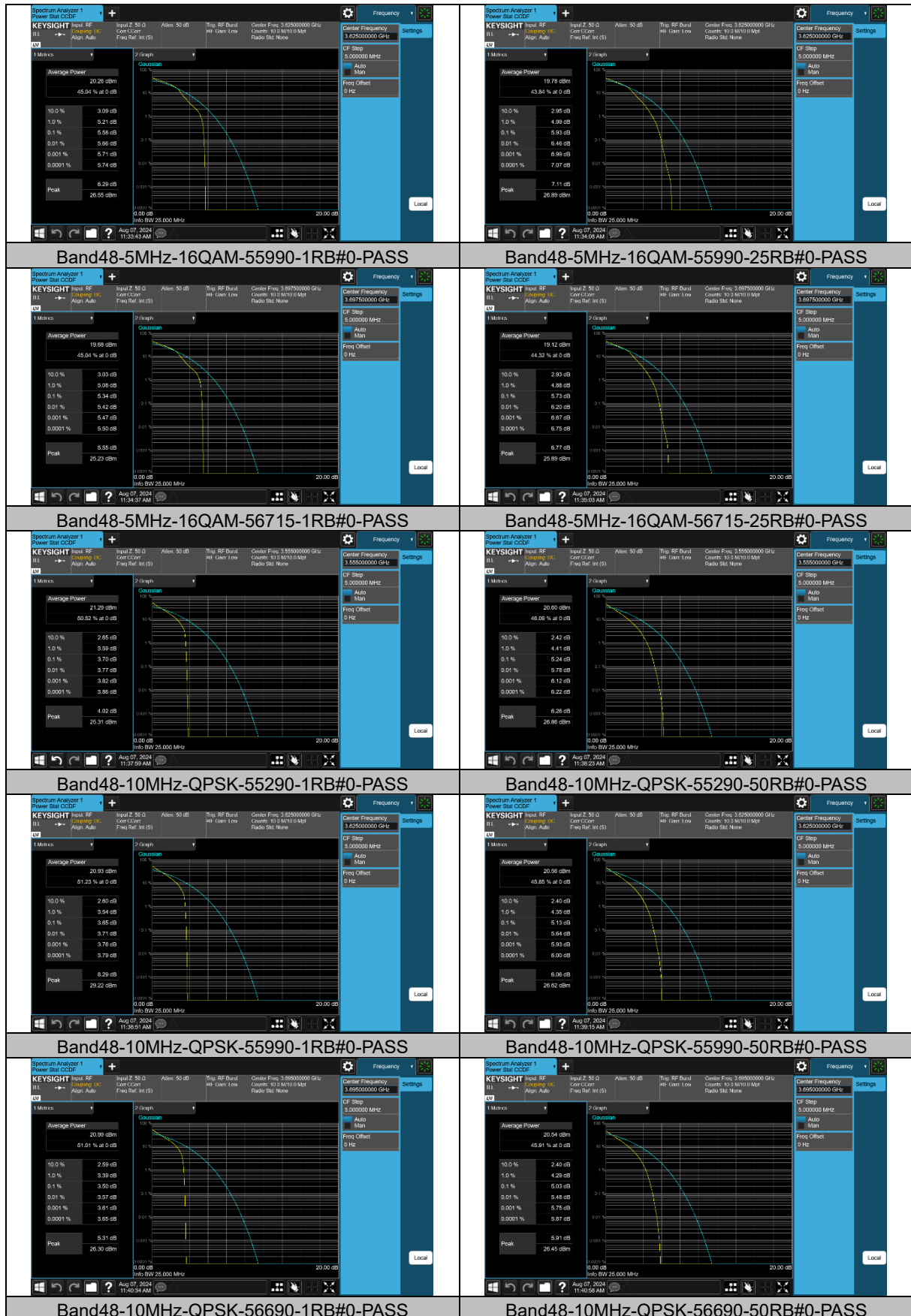
PEAK-TO-AVERAGE RATIO(CCDF) TEST RESULT

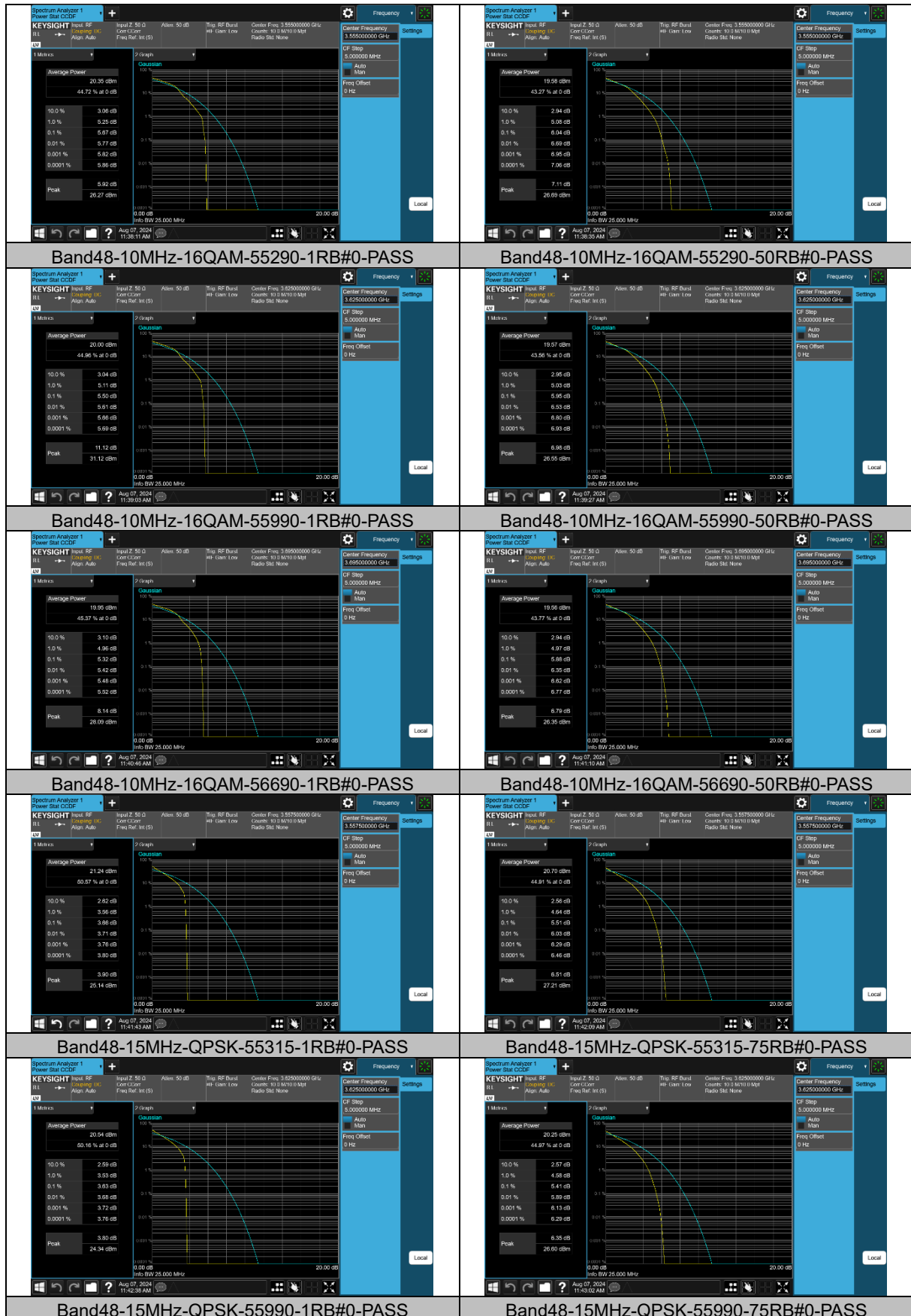
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band48	5MHz	QPSK	55265	1RB#0	3.63	13	PASS
Band48	5MHz	QPSK	55265	25RB#0	5.37	13	PASS
Band48	5MHz	QPSK	55990	1RB#0	3.76	13	PASS
Band48	5MHz	QPSK	55990	25RB#0	5.23	13	PASS
Band48	5MHz	QPSK	56715	1RB#0	3.55	13	PASS
Band48	5MHz	QPSK	56715	25RB#0	5.04	13	PASS
Band48	5MHz	16QAM	55265	1RB#0	5.68	13	PASS
Band48	5MHz	16QAM	55265	25RB#0	6.04	13	PASS
Band48	5MHz	16QAM	55990	1RB#0	5.58	13	PASS
Band48	5MHz	16QAM	55990	25RB#0	5.93	13	PASS
Band48	5MHz	16QAM	56715	1RB#0	5.34	13	PASS
Band48	5MHz	16QAM	56715	25RB#0	5.73	13	PASS
Band48	10MHz	QPSK	55290	1RB#0	3.70	13	PASS
Band48	10MHz	QPSK	55290	50RB#0	5.24	13	PASS
Band48	10MHz	QPSK	55990	1RB#0	3.65	13	PASS
Band48	10MHz	QPSK	55990	50RB#0	5.13	13	PASS
Band48	10MHz	QPSK	56690	1RB#0	3.50	13	PASS
Band48	10MHz	QPSK	56690	50RB#0	5.03	13	PASS
Band48	10MHz	16QAM	55290	1RB#0	5.67	13	PASS
Band48	10MHz	16QAM	55290	50RB#0	6.04	13	PASS
Band48	10MHz	16QAM	55990	1RB#0	5.50	13	PASS
Band48	10MHz	16QAM	55990	50RB#0	5.95	13	PASS
Band48	10MHz	16QAM	56690	1RB#0	5.32	13	PASS
Band48	10MHz	16QAM	56690	50RB#0	5.88	13	PASS
Band48	15MHz	QPSK	55315	1RB#0	3.66	13	PASS
Band48	15MHz	QPSK	55315	75RB#0	5.51	13	PASS
Band48	15MHz	QPSK	55990	1RB#0	3.63	13	PASS
Band48	15MHz	QPSK	55990	75RB#0	5.41	13	PASS
Band48	15MHz	QPSK	56665	1RB#0	3.58	13	PASS
Band48	15MHz	QPSK	56665	75RB#0	5.27	13	PASS
Band48	15MHz	16QAM	55315	1RB#0	5.70	13	PASS
Band48	15MHz	16QAM	55315	75RB#0	6.22	13	PASS
Band48	15MHz	16QAM	55990	1RB#0	5.51	13	PASS
Band48	15MHz	16QAM	55990	75RB#0	6.14	13	PASS
Band48	15MHz	16QAM	56665	1RB#0	5.43	13	PASS
Band48	15MHz	16QAM	56665	75RB#0	6.01	13	PASS
Band48	20MHz	QPSK	55340	1RB#0	3.59	13	PASS
Band48	20MHz	QPSK	55340	100RB#0	5.28	13	PASS
Band48	20MHz	QPSK	55990	1RB#0	3.73	13	PASS
Band48	20MHz	QPSK	55990	100RB#0	5.19	13	PASS
Band48	20MHz	QPSK	56640	1RB#0	3.51	13	PASS
Band48	20MHz	QPSK	56640	100RB#0	5.06	13	PASS
Band48	20MHz	16QAM	55340	1RB#0	5.50	13	PASS
Band48	20MHz	16QAM	55340	100RB#0	6.05	13	PASS

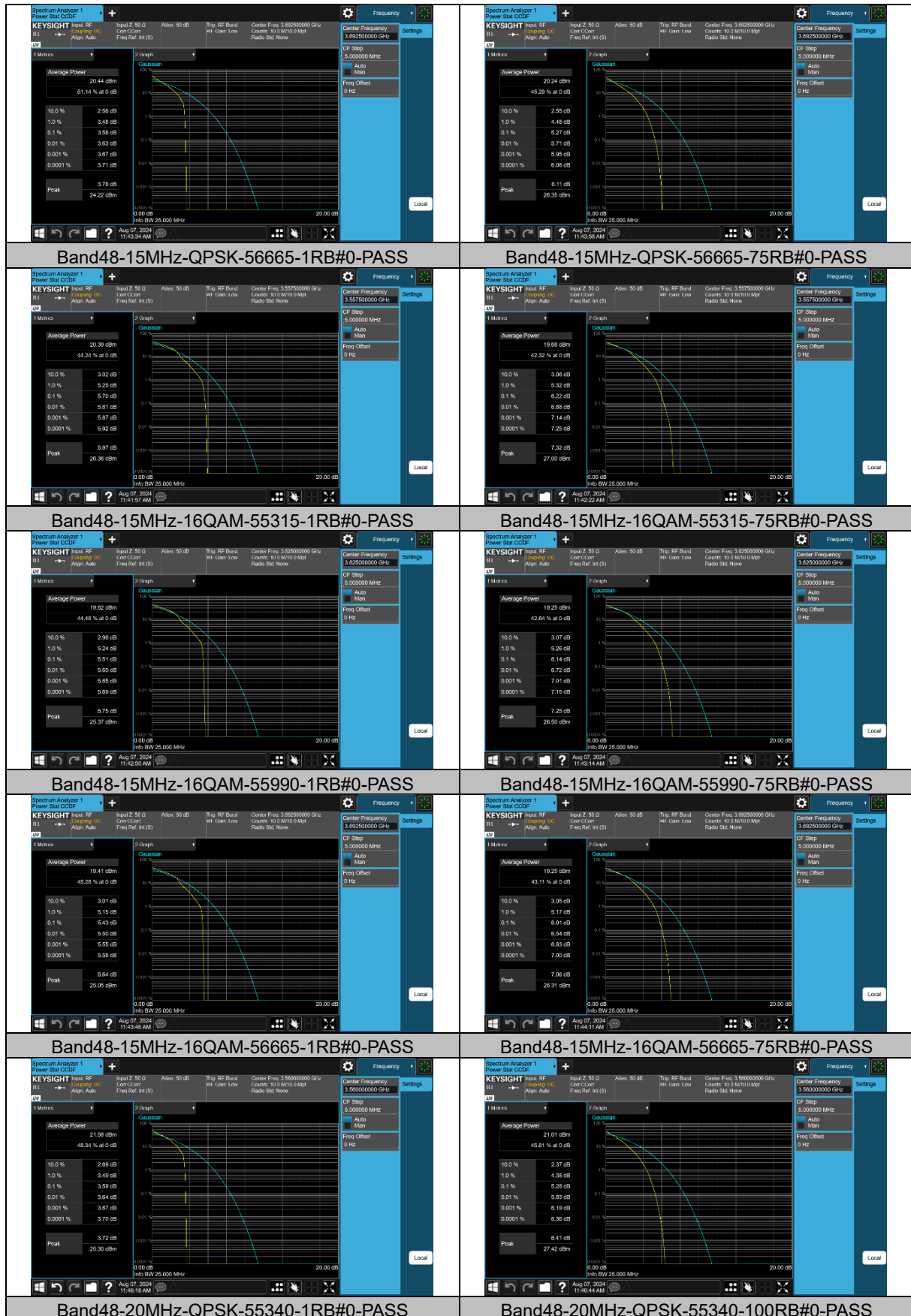
Band48	20MHz	16QAM	55990	1RB#0	5.55	13	PASS
Band48	20MHz	16QAM	55990	100RB#0	5.98	13	PASS
Band48	20MHz	16QAM	56640	1RB#0	5.29	13	PASS
Band48	20MHz	16QAM	56640	100RB#0	5.88	13	PASS

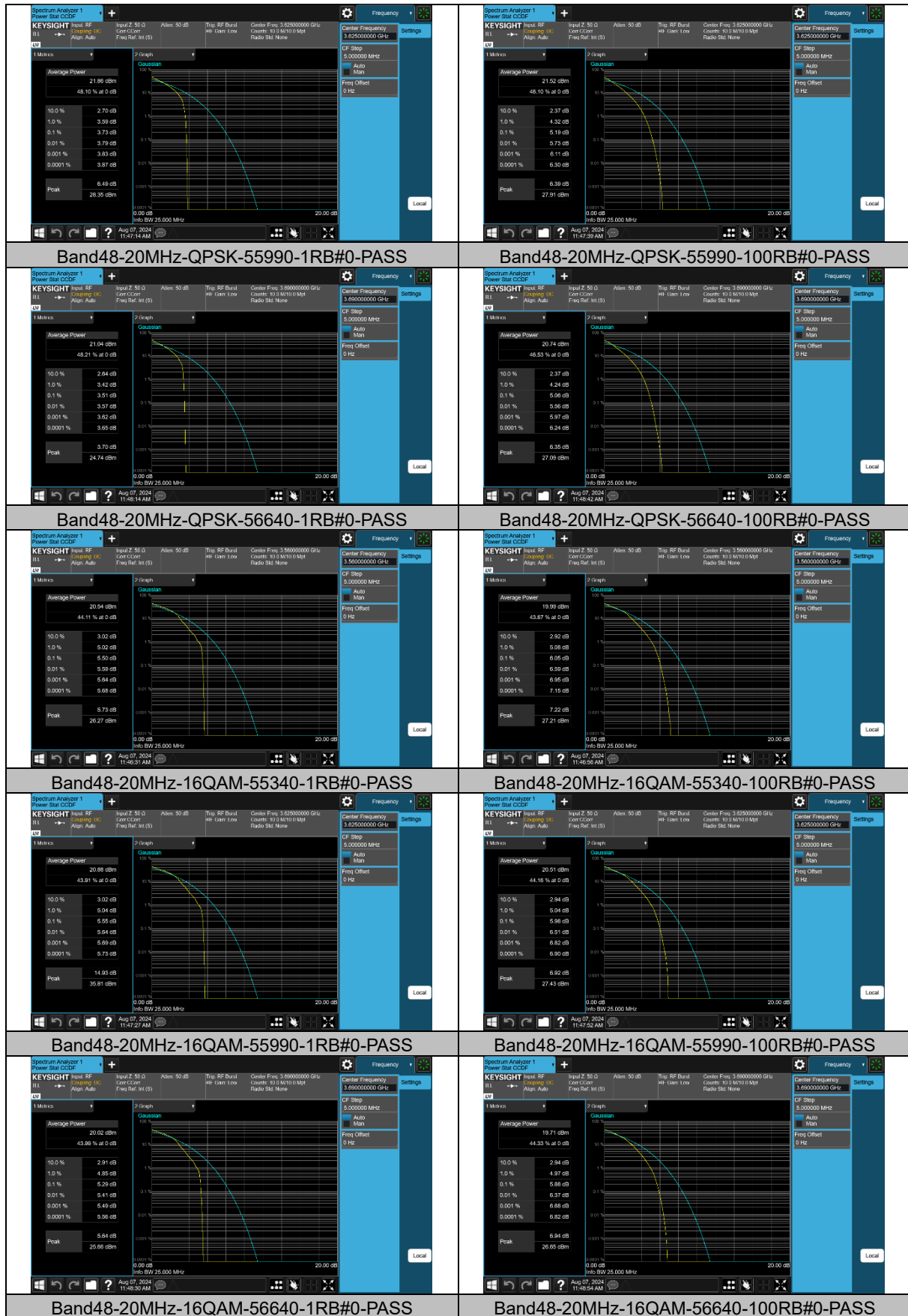
TEST GRAPHS







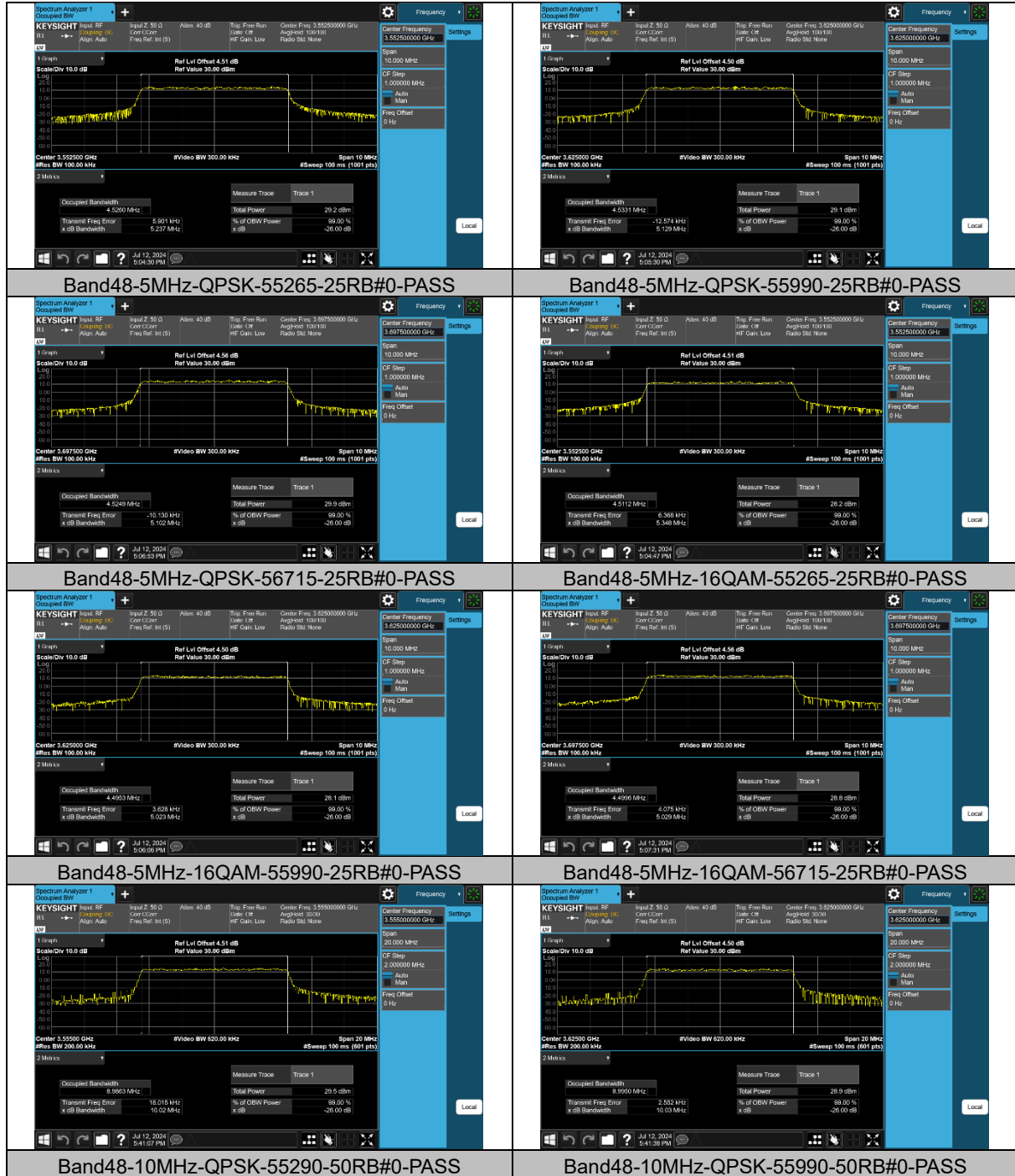


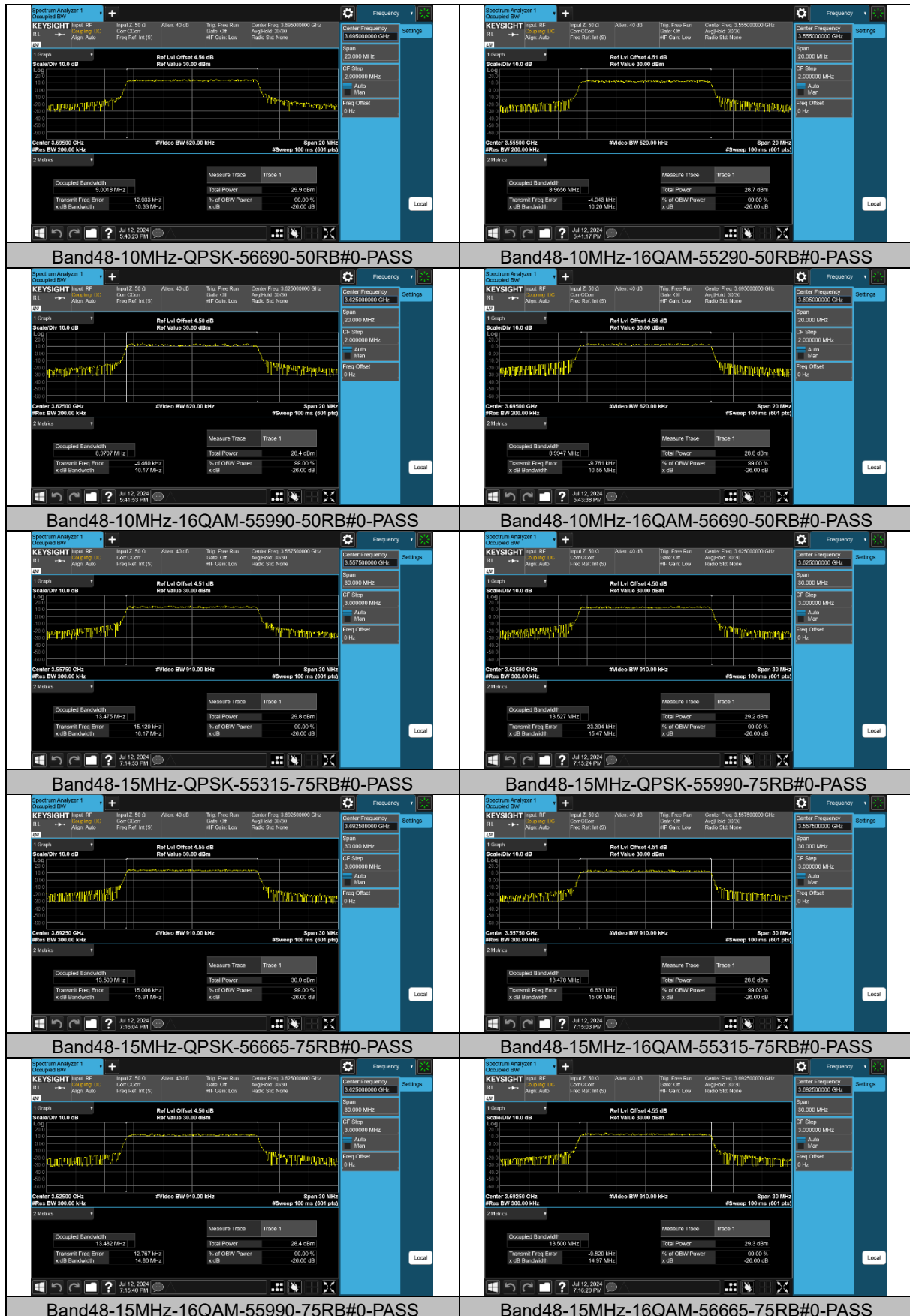


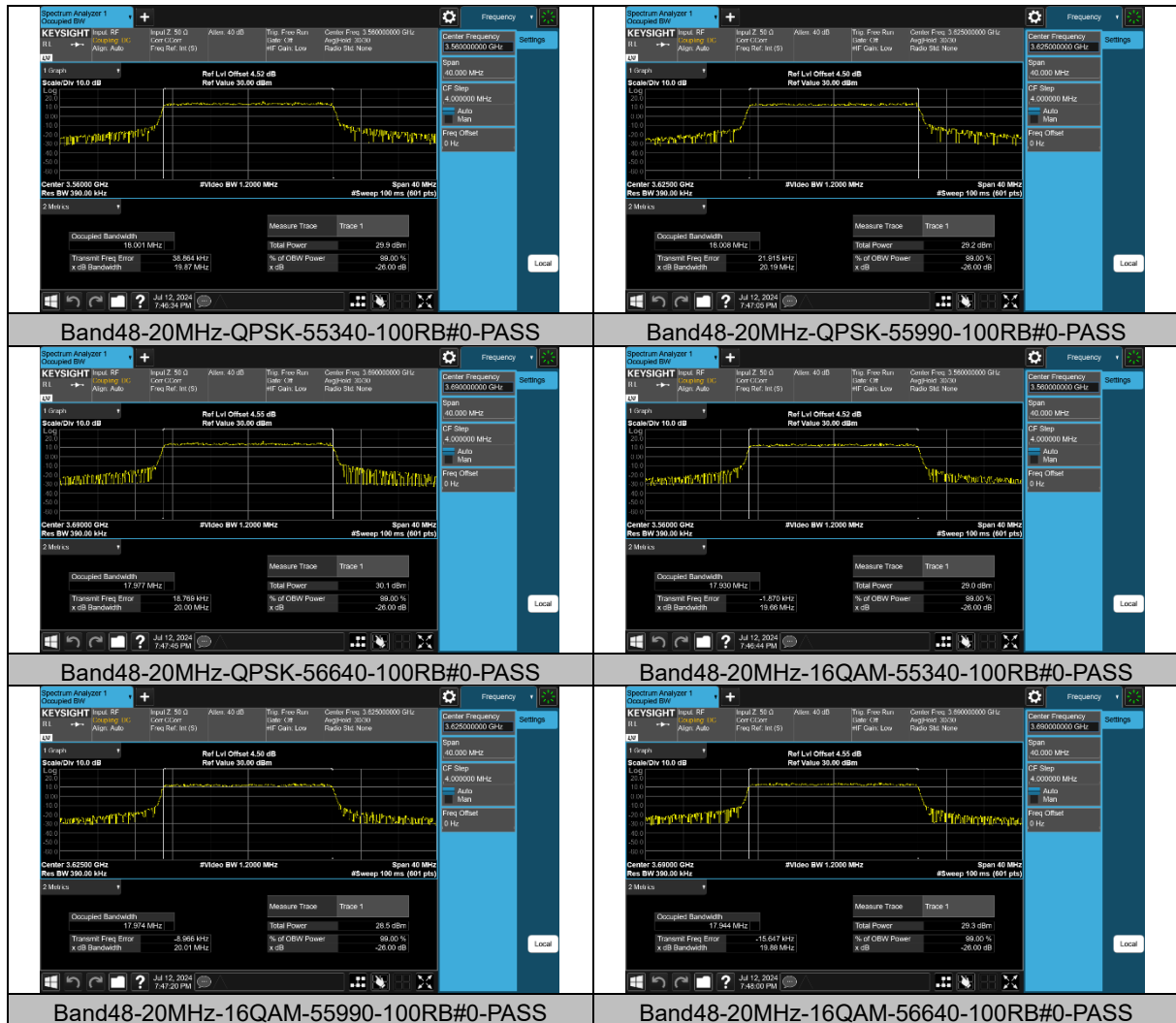
26DB BANDWIDTH AND OCCUPIED BANDWIDTH TEST RESULT

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band48	5MHz	QPSK	55265	25RB#0	4.5260	5.237	PASS
Band48	5MHz	QPSK	55990	25RB#0	4.5331	5.129	PASS
Band48	5MHz	QPSK	56715	25RB#0	4.5249	5.102	PASS
Band48	5MHz	16QAM	55265	25RB#0	4.5112	5.348	PASS
Band48	5MHz	16QAM	55990	25RB#0	4.4953	5.023	PASS
Band48	5MHz	16QAM	56715	25RB#0	4.4996	5.029	PASS
Band48	10MHz	QPSK	55290	50RB#0	8.9863	10.02	PASS
Band48	10MHz	QPSK	55990	50RB#0	8.9950	10.03	PASS
Band48	10MHz	QPSK	56690	50RB#0	9.0018	10.33	PASS
Band48	10MHz	16QAM	55290	50RB#0	8.9656	10.26	PASS
Band48	10MHz	16QAM	55990	50RB#0	8.9707	10.17	PASS
Band48	10MHz	16QAM	56690	50RB#0	8.9947	10.55	PASS
Band48	15MHz	QPSK	55315	75RB#0	13.475	16.17	PASS
Band48	15MHz	QPSK	55990	75RB#0	13.527	15.47	PASS
Band48	15MHz	QPSK	56665	75RB#0	13.509	15.91	PASS
Band48	15MHz	16QAM	55315	75RB#0	13.478	15.06	PASS
Band48	15MHz	16QAM	55990	75RB#0	13.482	14.86	PASS
Band48	15MHz	16QAM	56665	75RB#0	13.500	14.97	PASS
Band48	20MHz	QPSK	55340	100RB#0	18.001	19.87	PASS
Band48	20MHz	QPSK	55990	100RB#0	18.008	20.19	PASS
Band48	20MHz	QPSK	56640	100RB#0	17.977	20.00	PASS
Band48	20MHz	16QAM	55340	100RB#0	17.930	19.66	PASS
Band48	20MHz	16QAM	55990	100RB#0	17.974	20.01	PASS
Band48	20MHz	16QAM	56640	100RB#0	17.944	19.88	PASS

TEST GRAPHS







BAND EDGE TEST RESULT

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band48	5MHz	QPSK	55265	1RB#0	-24.69	PASS
Band48	5MHz	QPSK	55265	1RB#24	-52.79	PASS
Band48	5MHz	QPSK	55265	25RB#0	-36.68	PASS
Band48	5MHz	QPSK	55990	1RB#0	-24.62	PASS
Band48	5MHz	QPSK	55990	1RB#24	-52.53	PASS
Band48	5MHz	QPSK	55990	25RB#0	-52.61	PASS
Band48	5MHz	QPSK	56715	1RB#0	-23.74	PASS
Band48	5MHz	QPSK	56715	1RB#24	-51.91	PASS
Band48	5MHz	QPSK	56715	25RB#0	-52.26	PASS
Band48	5MHz	16QAM	55265	1RB#0	-52.84	PASS
Band48	5MHz	16QAM	55265	1RB#24	-52.78	PASS
Band48	5MHz	16QAM	55265	25RB#0	-36.28	PASS
Band48	5MHz	16QAM	55990	1RB#0	-52.90	PASS
Band48	5MHz	16QAM	55990	1RB#24	-52.96	PASS
Band48	5MHz	16QAM	55990	25RB#0	-52.71	PASS
Band48	5MHz	16QAM	56715	1RB#0	-52.15	PASS
Band48	5MHz	16QAM	56715	1RB#24	-51.81	PASS
Band48	5MHz	16QAM	56715	25RB#0	-52.18	PASS
Band48	10MHz	QPSK	55290	1RB#0	-53.03	PASS
Band48	10MHz	QPSK	55290	1RB#49	-52.67	PASS
Band48	10MHz	QPSK	55290	50RB#0	-45.70	PASS
Band48	10MHz	QPSK	55990	1RB#0	-52.80	PASS
Band48	10MHz	QPSK	55990	1RB#49	-52.80	PASS
Band48	10MHz	QPSK	55990	50RB#0	-52.59	PASS
Band48	10MHz	QPSK	56690	1RB#0	-52.50	PASS
Band48	10MHz	QPSK	56690	1RB#49	-51.88	PASS
Band48	10MHz	QPSK	56690	50RB#0	-46.48	PASS
Band48	10MHz	16QAM	55290	1RB#0	-52.87	PASS
Band48	10MHz	16QAM	55290	1RB#49	-52.63	PASS
Band48	10MHz	16QAM	55290	50RB#0	-46.96	PASS
Band48	10MHz	16QAM	55990	1RB#0	-52.93	PASS
Band48	10MHz	16QAM	55990	1RB#49	-52.38	PASS
Band48	10MHz	16QAM	55990	50RB#0	-52.84	PASS
Band48	10MHz	16QAM	56690	1RB#0	-52.21	PASS
Band48	10MHz	16QAM	56690	1RB#49	-52.01	PASS
Band48	10MHz	16QAM	56690	50RB#0	-47.87	PASS
Band48	15MHz	QPSK	55315	1RB#0	-52.88	PASS
Band48	15MHz	QPSK	55315	1RB#74	-52.81	PASS
Band48	15MHz	QPSK	55315	75RB#0	-41.25	PASS
Band48	15MHz	QPSK	55990	1RB#0	-52.62	PASS
Band48	15MHz	QPSK	55990	1RB#74	-52.65	PASS
Band48	15MHz	QPSK	55990	75RB#0	-52.49	PASS
Band48	15MHz	QPSK	56665	1RB#0	-52.30	PASS
Band48	15MHz	QPSK	56665	1RB#74	-52.06	PASS
Band48	15MHz	QPSK	56665	75RB#0	-42.54	PASS
Band48	15MHz	16QAM	55315	1RB#0	-52.56	PASS

Band48	15MHz	16QAM	55315	1RB#74	-52.92	PASS
Band48	15MHz	16QAM	55315	75RB#0	-41.54	PASS
Band48	15MHz	16QAM	55990	1RB#0	-52.79	PASS
Band48	15MHz	16QAM	55990	1RB#74	-52.69	PASS
Band48	15MHz	16QAM	55990	75RB#0	-52.74	PASS
Band48	15MHz	16QAM	56665	1RB#0	-52.64	PASS
Band48	15MHz	16QAM	56665	1RB#74	-52.19	PASS
Band48	15MHz	16QAM	56665	75RB#0	-42.91	PASS
Band48	20MHz	QPSK	55340	1RB#0	-52.63	PASS
Band48	20MHz	QPSK	55340	1RB#99	-52.74	PASS
Band48	20MHz	QPSK	55340	100RB#0	-43.98	PASS
Band48	20MHz	QPSK	55990	1RB#0	-52.72	PASS
Band48	20MHz	QPSK	55990	1RB#99	-52.83	PASS
Band48	20MHz	QPSK	55990	100RB#0	-52.69	PASS
Band48	20MHz	QPSK	56640	1RB#0	-52.36	PASS
Band48	20MHz	QPSK	56640	1RB#99	-51.94	PASS
Band48	20MHz	QPSK	56640	100RB#0	-44.90	PASS
Band48	20MHz	16QAM	55340	1RB#0	-52.71	PASS
Band48	20MHz	16QAM	55340	1RB#99	-52.80	PASS
Band48	20MHz	16QAM	55340	100RB#0	-43.18	PASS
Band48	20MHz	16QAM	55990	1RB#0	-52.76	PASS
Band48	20MHz	16QAM	55990	1RB#99	-52.60	PASS
Band48	20MHz	16QAM	55990	100RB#0	-52.69	PASS
Band48	20MHz	16QAM	56640	1RB#0	-52.55	PASS
Band48	20MHz	16QAM	56640	1RB#99	-52.14	PASS
Band48	20MHz	16QAM	56640	100RB#0	-44.77	PASS

TEST GRAPHS

