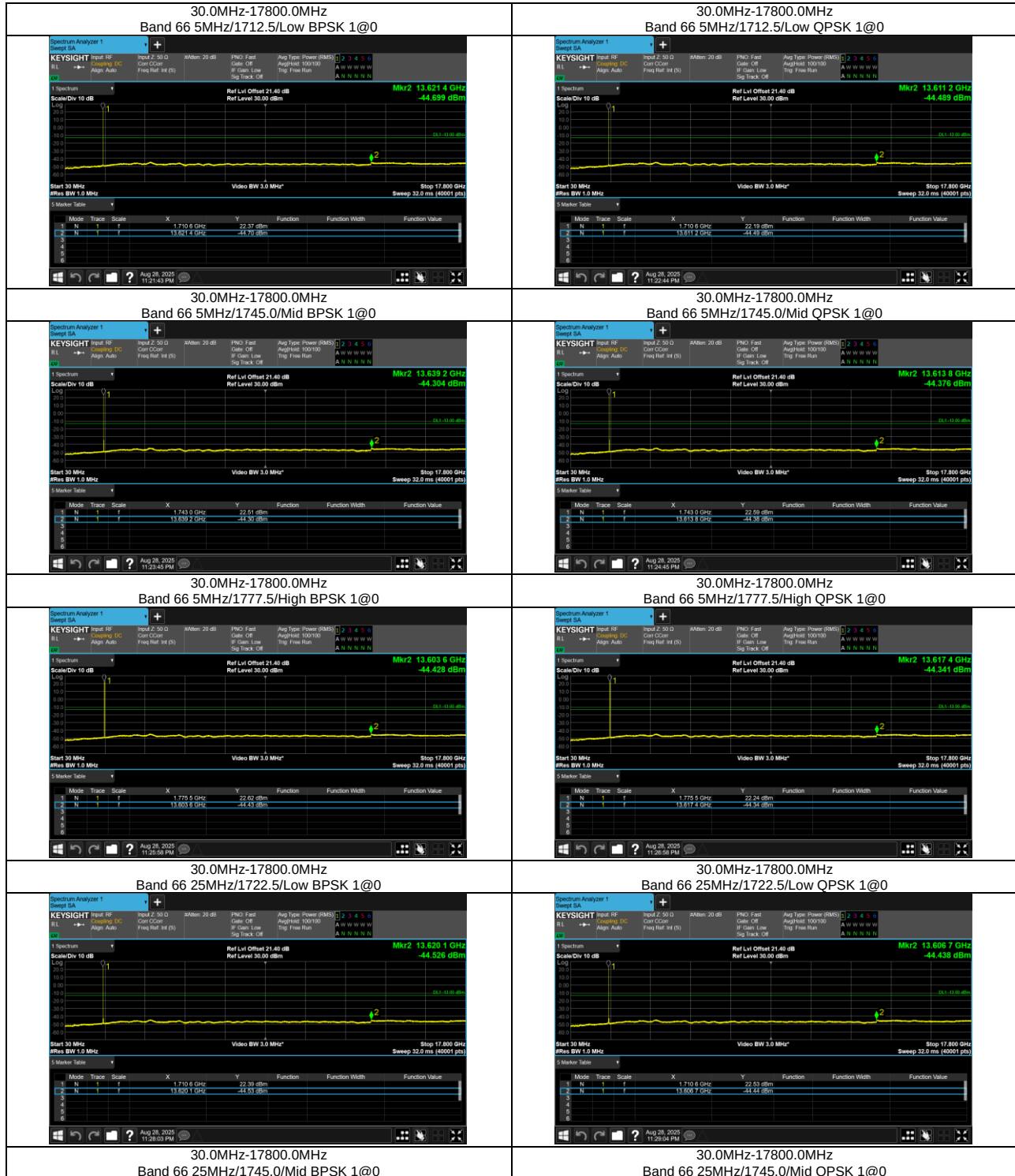
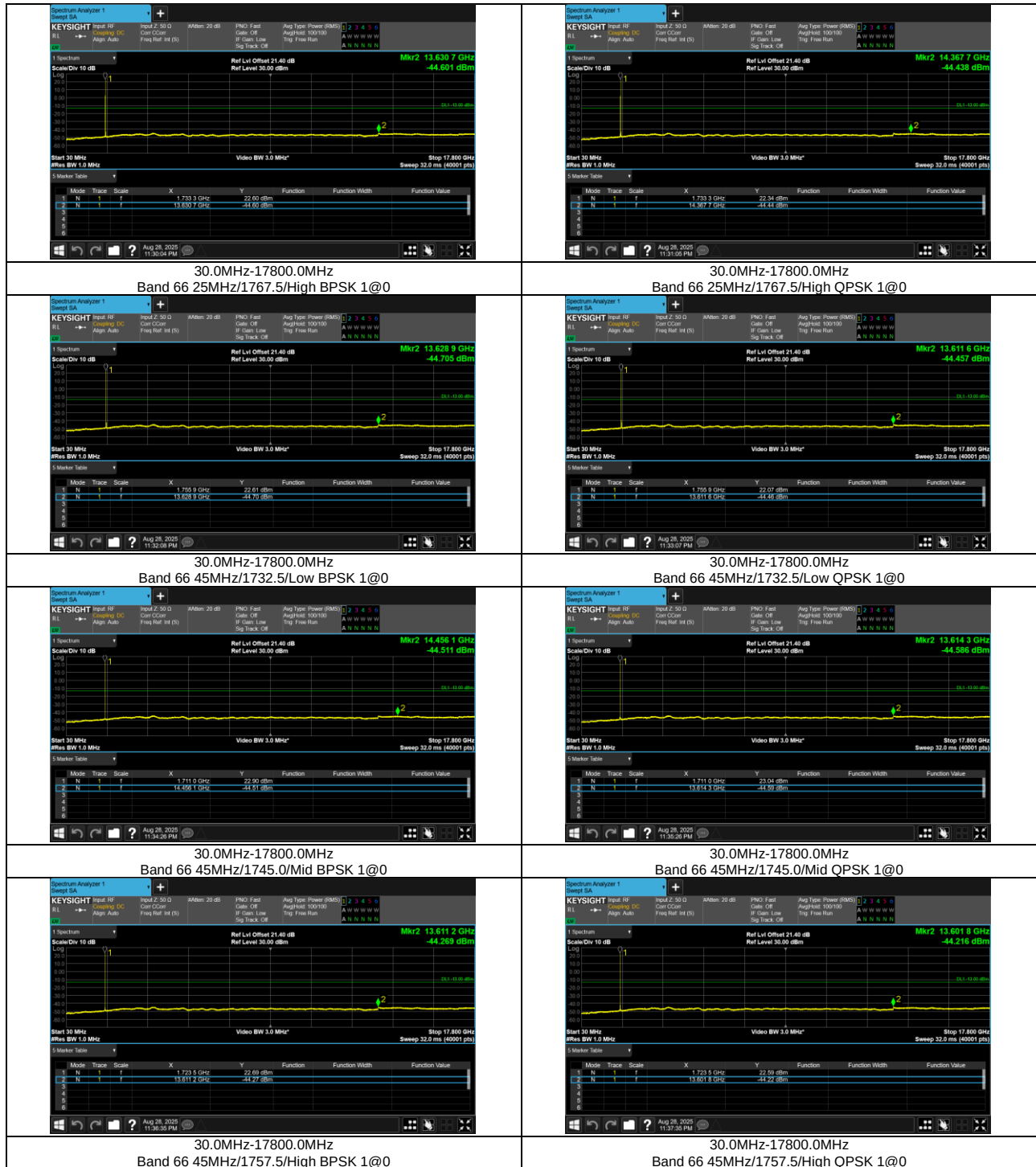
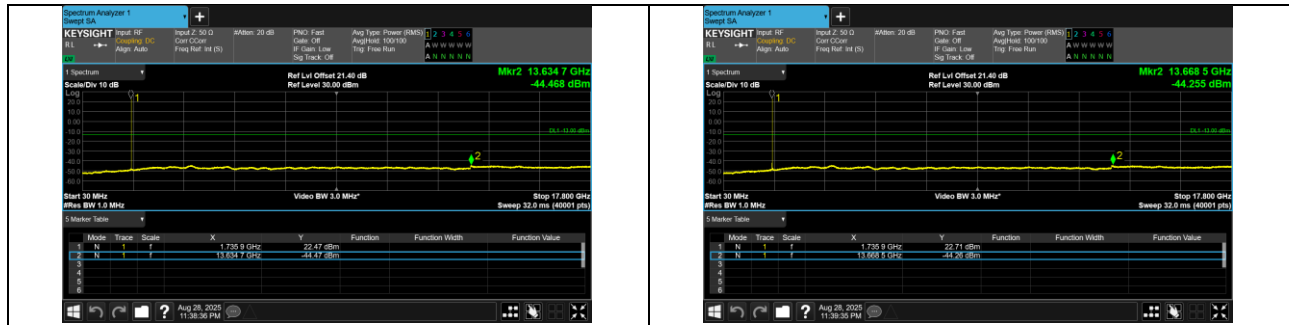




Test Graphs









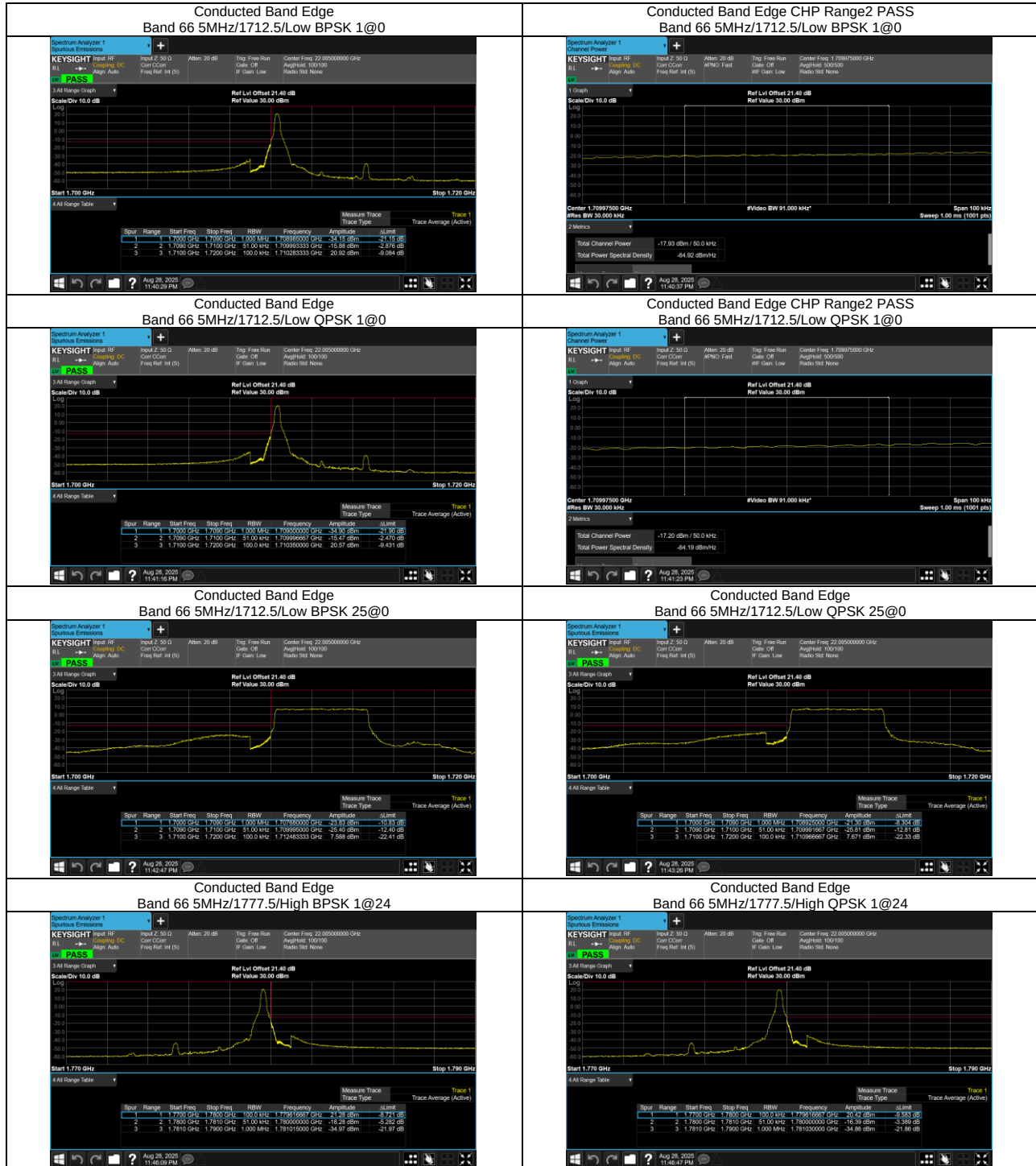
Conducted Band Edge

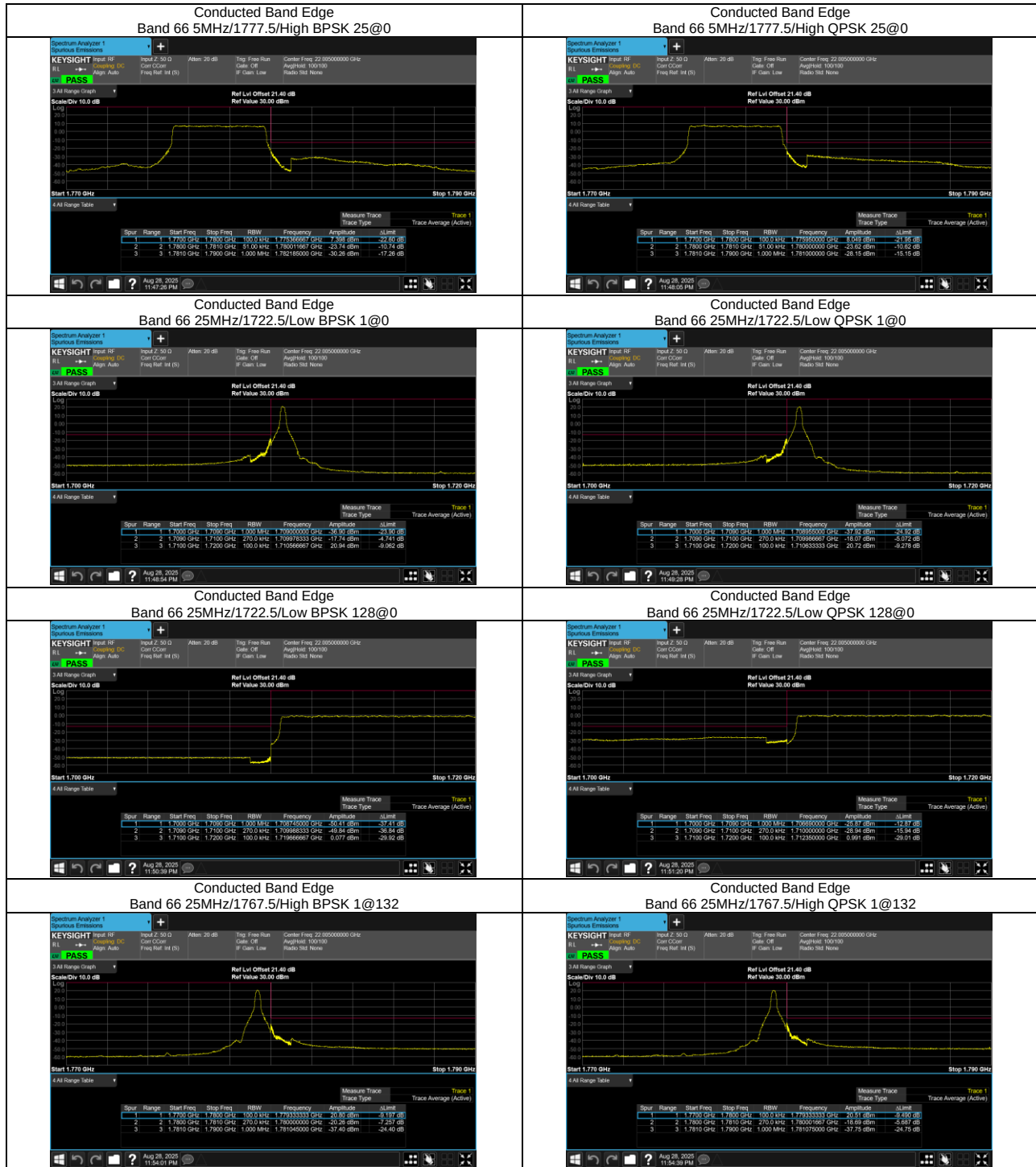
Test Result

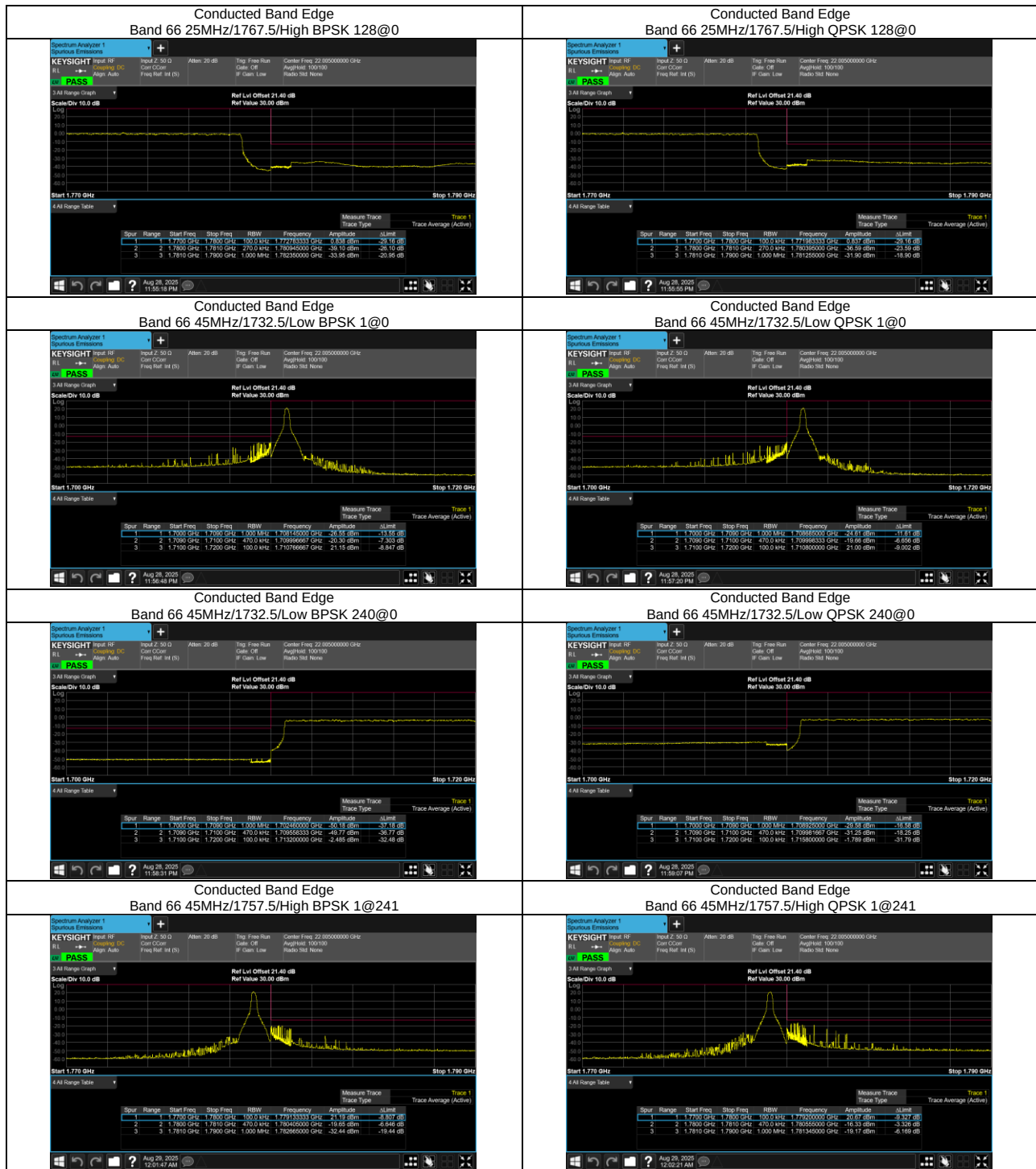
NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Result	Verdict
66	15	5	342500	1712.5	DFT-s-OFDM BPSK	1@0	see graph	PASS
66	15	5	342500	1712.5	DFT-s-OFDM QPSK	1@0	see graph	PASS
66	15	5	342500	1712.5	DFT-s-OFDM BPSK	25@0	see graph	PASS
66	15	5	342500	1712.5	DFT-s-OFDM QPSK	25@0	see graph	PASS
66	15	5	355500	1777.5	DFT-s-OFDM BPSK	1@24	see graph	PASS
66	15	5	355500	1777.5	DFT-s-OFDM QPSK	1@24	see graph	PASS
66	15	5	355500	1777.5	DFT-s-OFDM BPSK	25@0	see graph	PASS
66	15	5	355500	1777.5	DFT-s-OFDM QPSK	25@0	see graph	PASS
66	15	25	344500	1722.5	DFT-s-OFDM BPSK	1@0	see graph	PASS
66	15	25	344500	1722.5	DFT-s-OFDM QPSK	1@0	see graph	PASS
66	15	25	344500	1722.5	DFT-s-OFDM BPSK	128@0	see graph	PASS
66	15	25	344500	1722.5	DFT-s-OFDM QPSK	128@0	see graph	PASS
66	15	25	353500	1767.5	DFT-s-OFDM BPSK	1@132	see graph	PASS
66	15	25	353500	1767.5	DFT-s-OFDM QPSK	1@132	see graph	PASS
66	15	25	353500	1767.5	DFT-s-OFDM BPSK	128@0	see graph	PASS
66	15	25	353500	1767.5	DFT-s-OFDM QPSK	128@0	see graph	PASS
66	15	45	346500	1732.5	DFT-s-OFDM BPSK	1@0	see graph	PASS
66	15	45	346500	1732.5	DFT-s-OFDM QPSK	1@0	see graph	PASS
66	15	45	346500	1732.5	DFT-s-OFDM BPSK	240@0	see graph	PASS
66	15	45	346500	1732.5	DFT-s-OFDM QPSK	240@0	see graph	PASS
66	15	45	351500	1757.5	DFT-s-OFDM BPSK	1@241	see graph	PASS
66	15	45	351500	1757.5	DFT-s-OFDM QPSK	1@241	see graph	PASS
66	15	45	351500	1757.5	DFT-s-OFDM BPSK	240@0	see graph	PASS
66	15	45	351500	1757.5	DFT-s-OFDM QPSK	240@0	see graph	PASS



Test Graphs











FR1 n66A PA (Reference Designator) (Ant.4)

+ LTE Band 7 (Ant.8)

Frequency Stability

Test Result

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	0.0047	PASS	NV
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	0.0032	PASS	LV
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	0.0051	PASS	HV
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	0.0000	PASS	-30℃
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	0.0067	PASS	-20℃
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	0.0055	PASS	-10℃
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	0.0047	PASS	0℃
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	0.0033	PASS	10℃
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	0.0056	PASS	20℃
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	0.0054	PASS	30℃
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	0.0035	PASS	40℃
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	0.0042	PASS	50℃

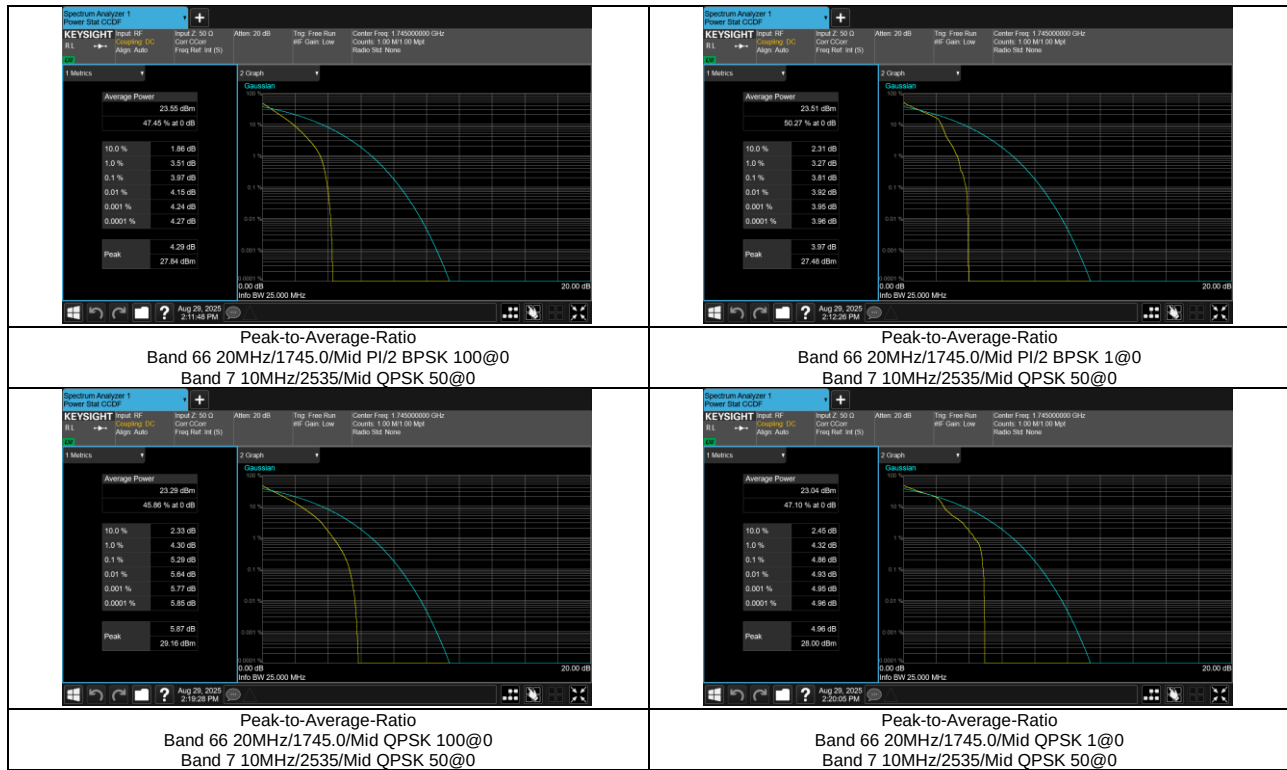
Peak to Average Ratio

Test Result

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Result	Verdict
66	15	20	429000	1745.0	DFT-s-OFDM PI/2 BPSK	100@0	3.97	13
66	15	20	429000	1745.0	DFT-s-OFDM PI/2 BPSK	1@0	3.81	13
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	100@0	5.29	13
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	1@0	4.86	13



Test Graphs





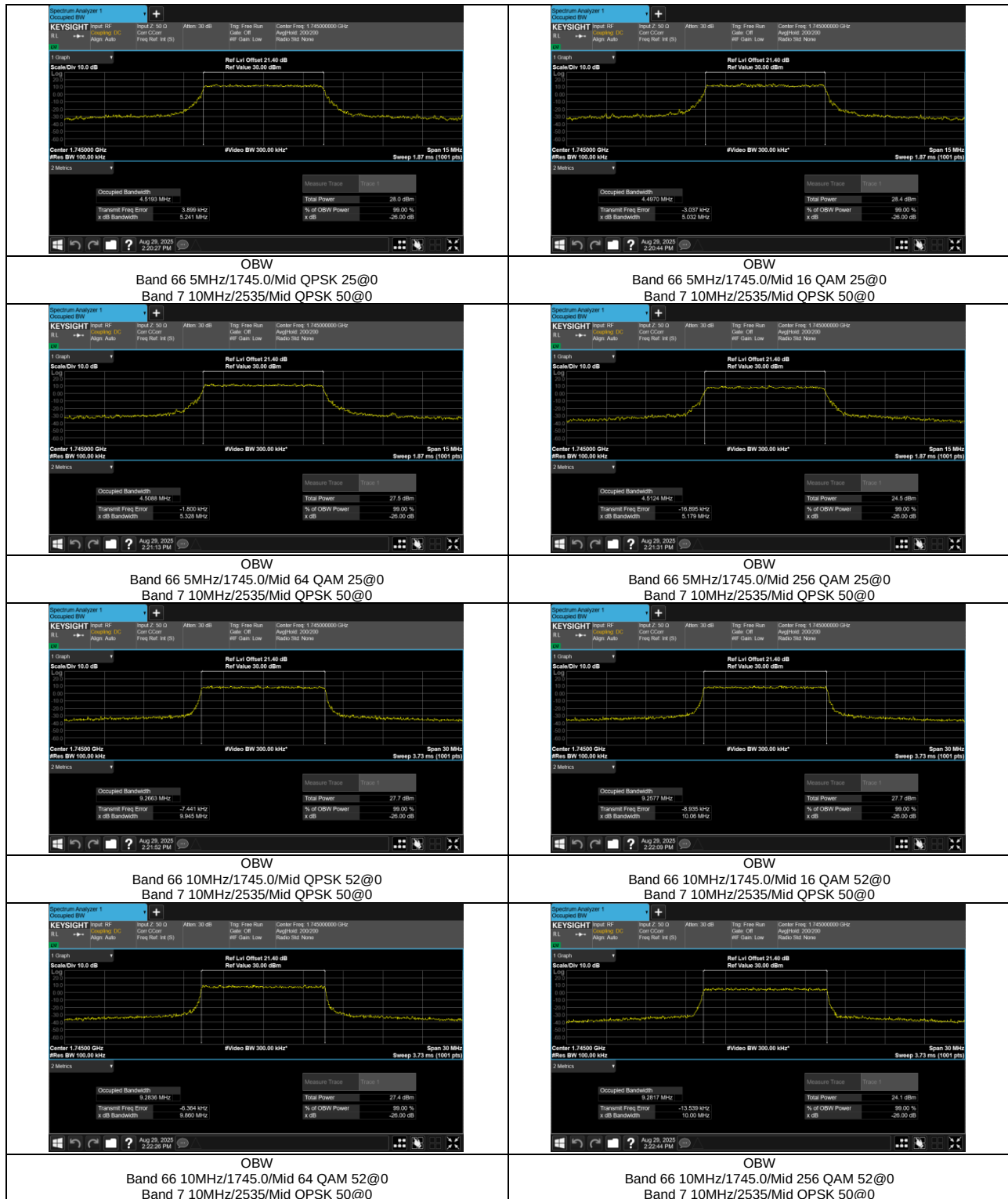
Occupied Bandwidth

Test Result

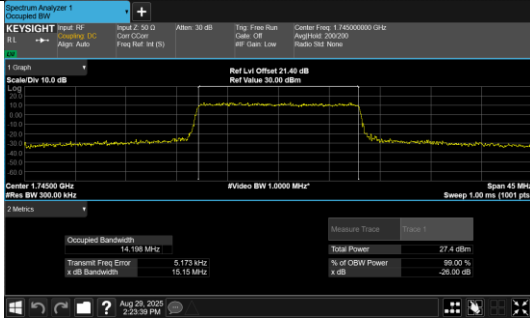
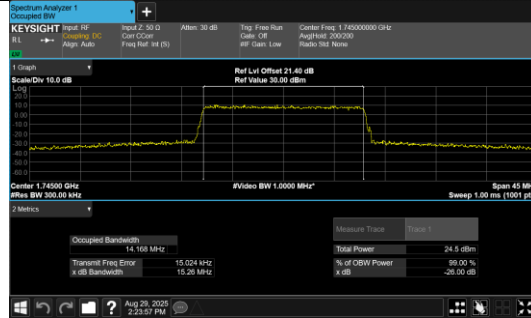
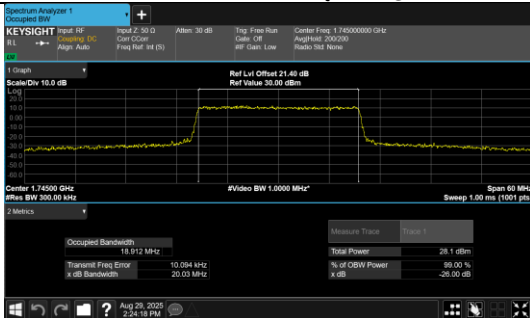
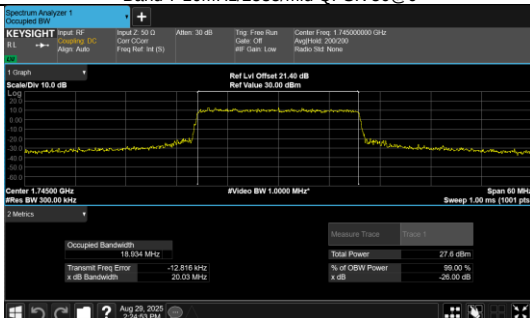
NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	OBW(MHz)	26dB OBW(MHz)
66	15	5	429000	1745.0	CP-OFDM QPSK	25@0	4.5193	5.241
66	15	5	429000	1745.0	CP-OFDM 16 QAM	25@0	4.497	5.032
66	15	5	429000	1745.0	CP-OFDM 64 QAM	25@0	4.5088	5.328
66	15	5	429000	1745.0	CP-OFDM 256 QAM	25@0	4.5124	5.179
66	15	10	429000	1745.0	CP-OFDM QPSK	52@0	9.2663	9.945
66	15	10	429000	1745.0	CP-OFDM 16 QAM	52@0	9.2577	10.06
66	15	10	429000	1745.0	CP-OFDM 64 QAM	52@0	9.2836	9.86
66	15	10	429000	1745.0	CP-OFDM 256 QAM	52@0	9.2817	10.0
66	15	15	429000	1745.0	CP-OFDM QPSK	79@0	14.158	15.09
66	15	15	429000	1745.0	CP-OFDM 16 QAM	79@0	14.134	15.21
66	15	15	429000	1745.0	CP-OFDM 64 QAM	79@0	14.198	15.15
66	15	15	429000	1745.0	CP-OFDM 256 QAM	79@0	14.168	15.26
66	15	20	429000	1745.0	CP-OFDM QPSK	106@0	18.912	20.03
66	15	20	429000	1745.0	CP-OFDM 16 QAM	106@0	18.997	19.89
66	15	20	429000	1745.0	CP-OFDM 64 QAM	106@0	18.934	20.03
66	15	20	429000	1745.0	CP-OFDM 256 QAM	106@0	19.042	20.07
66	15	25	429000	1745.0	CP-OFDM QPSK	133@0	23.724	24.77
66	15	25	429000	1745.0	CP-OFDM 16 QAM	133@0	23.745	24.88
66	15	25	429000	1745.0	CP-OFDM 64 QAM	133@0	23.776	24.75
66	15	25	429000	1745.0	CP-OFDM 256 QAM	133@0	23.818	24.87
66	15	30	429000	1745.0	CP-OFDM QPSK	160@0	28.593	29.7
66	15	30	429000	1745.0	CP-OFDM 16 QAM	160@0	28.542	29.75
66	15	30	429000	1745.0	CP-OFDM 64 QAM	160@0	28.533	29.67
66	15	30	429000	1745.0	CP-OFDM 256 QAM	160@0	28.586	29.8
66	15	40	429000	1745.0	CP-OFDM QPSK	216@0	38.858	41.16
66	15	40	429000	1745.0	CP-OFDM 16 QAM	216@0	38.882	41.09
66	15	40	429000	1745.0	CP-OFDM 64 QAM	216@0	38.872	41.11
66	15	40	429000	1745.0	CP-OFDM 256 QAM	216@0	38.874	41.07



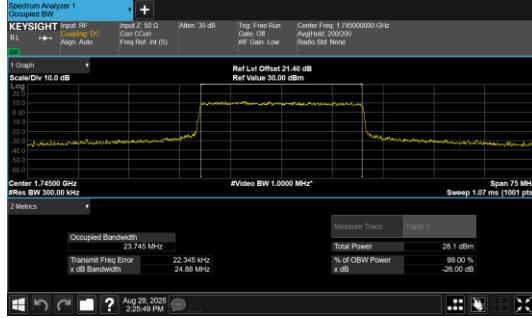
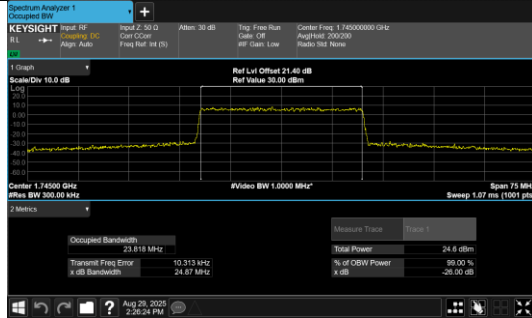
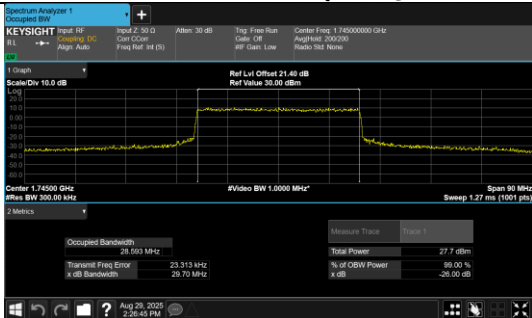
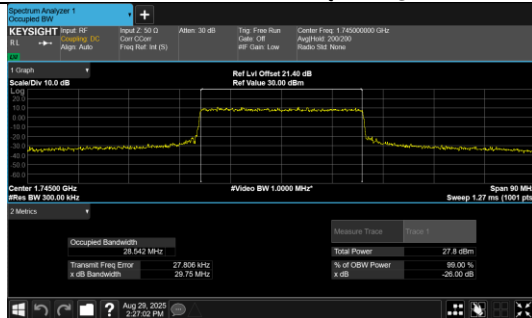
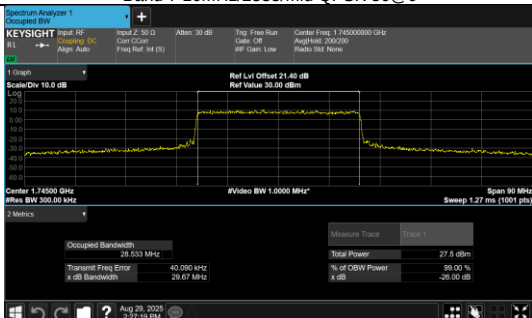
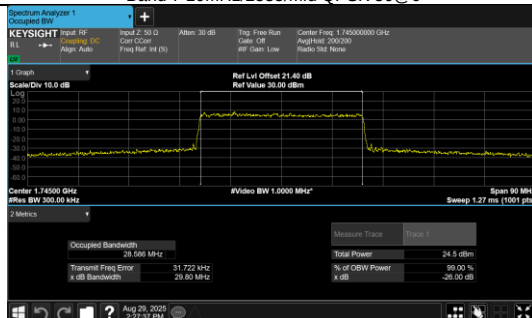
Test Graphs



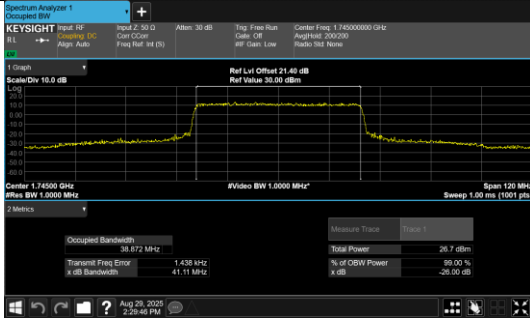
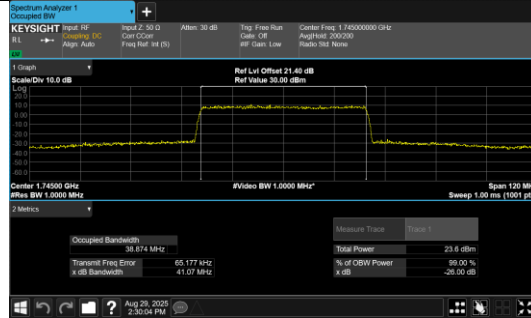


	
OBW Band 66 15MHz/1745.0/Mid QPSK 79@0 Band 7 10MHz/2535/Mid QPSK 50@0	OBW Band 66 15MHz/1745.0/Mid 16 QAM 79@0 Band 7 10MHz/2535/Mid QPSK 50@0
	
OBW Band 66 15MHz/1745.0/Mid 64 QAM 79@0 Band 7 10MHz/2535/Mid QPSK 50@0	OBW Band 66 15MHz/1745.0/Mid 256 QAM 79@0 Band 7 10MHz/2535/Mid QPSK 50@0
	
OBW Band 66 20MHz/1745.0/Mid QPSK 106@0 Band 7 10MHz/2535/Mid QPSK 50@0	OBW Band 66 15MHz/1745.0/Mid 256 QAM 79@0 Band 7 10MHz/2535/Mid QPSK 50@0
	
OBW Band 66 20MHz/1745.0/Mid 64 QAM 106@0 Band 7 10MHz/2535/Mid QPSK 50@0	OBW Band 66 20MHz/1745.0/Mid 256 QAM 106@0 Band 7 10MHz/2535/Mid QPSK 50@0



	
OBW Band 66 25MHz/1745.0/Mid QPSK 133@0 Band 7 10MHz/2535/Mid QPSK 50@0	OBW Band 66 25MHz/1745.0/Mid 16 QAM 133@0 Band 7 10MHz/2535/Mid QPSK 50@0
	
OBW Band 66 25MHz/1745.0/Mid 64 QAM 133@0 Band 7 10MHz/2535/Mid QPSK 50@0	OBW Band 66 25MHz/1745.0/Mid 256 QAM 133@0 Band 7 10MHz/2535/Mid QPSK 50@0
	
OBW Band 66 30MHz/1745.0/Mid QPSK 160@0 Band 7 10MHz/2535/Mid QPSK 50@0	OBW Band 66 30MHz/1745.0/Mid 16 QAM 160@0 Band 7 10MHz/2535/Mid QPSK 50@0
	
OBW Band 66 30MHz/1745.0/Mid 64 QAM 160@0 Band 7 10MHz/2535/Mid QPSK 50@0	OBW Band 66 30MHz/1745.0/Mid 256 QAM 160@0 Band 7 10MHz/2535/Mid QPSK 50@0



	
OBW Band 66 40MHz/1745.0/Mid QPSK 216@0 Band 7 10MHz/2535/Mid QPSK 50@0	OBW Band 66 40MHz/1745.0/Mid 16 QAM 216@0 Band 7 10MHz/2535/Mid QPSK 50@0
	
OBW Band 66 40MHz/1745.0/Mid 64 QAM 216@0 Band 7 10MHz/2535/Mid QPSK 50@0	OBW Band 66 40MHz/1745.0/Mid 256 QAM 216@0 Band 7 10MHz/2535/Mid QPSK 50@0



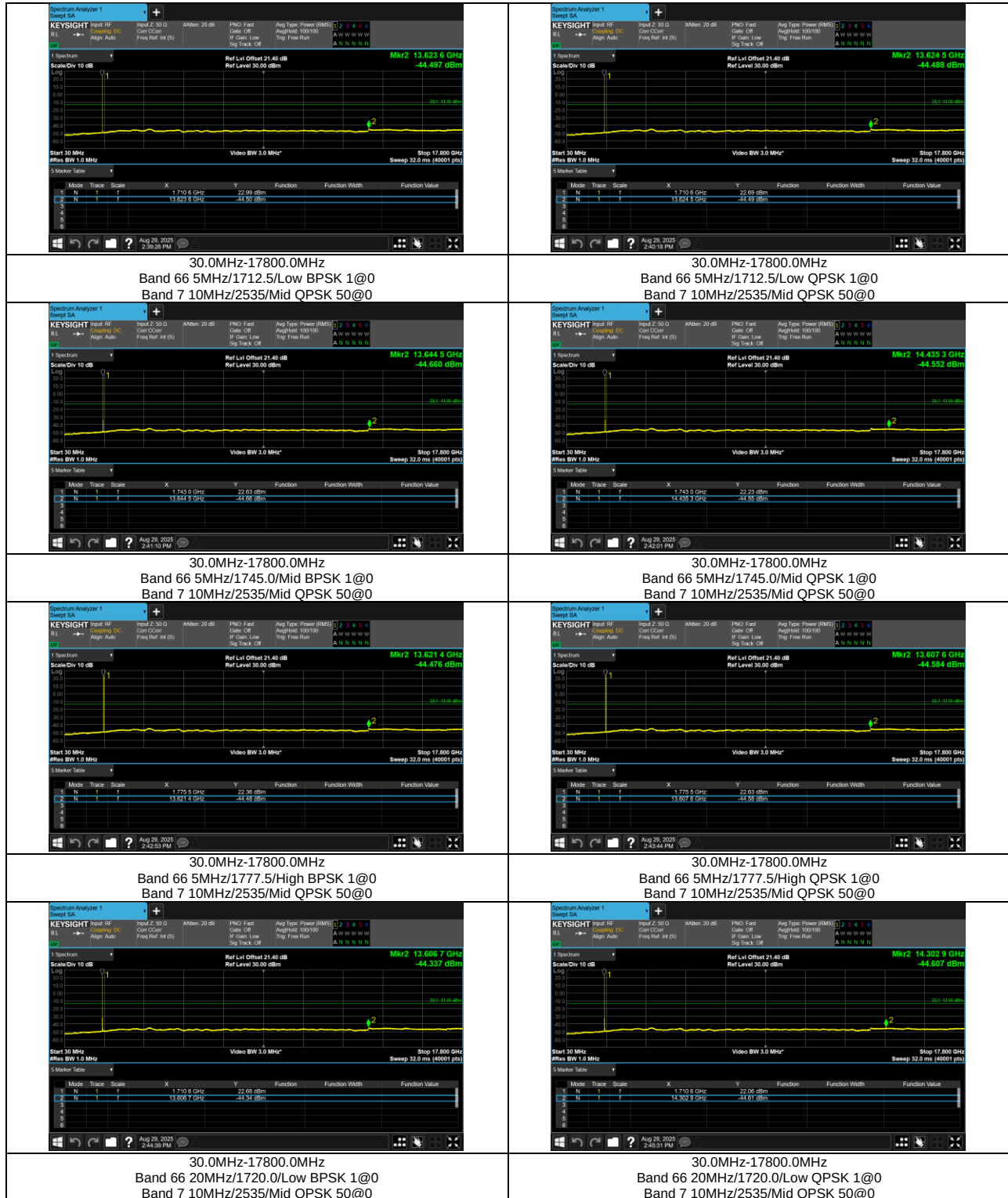
Conducted Spurious Emissions

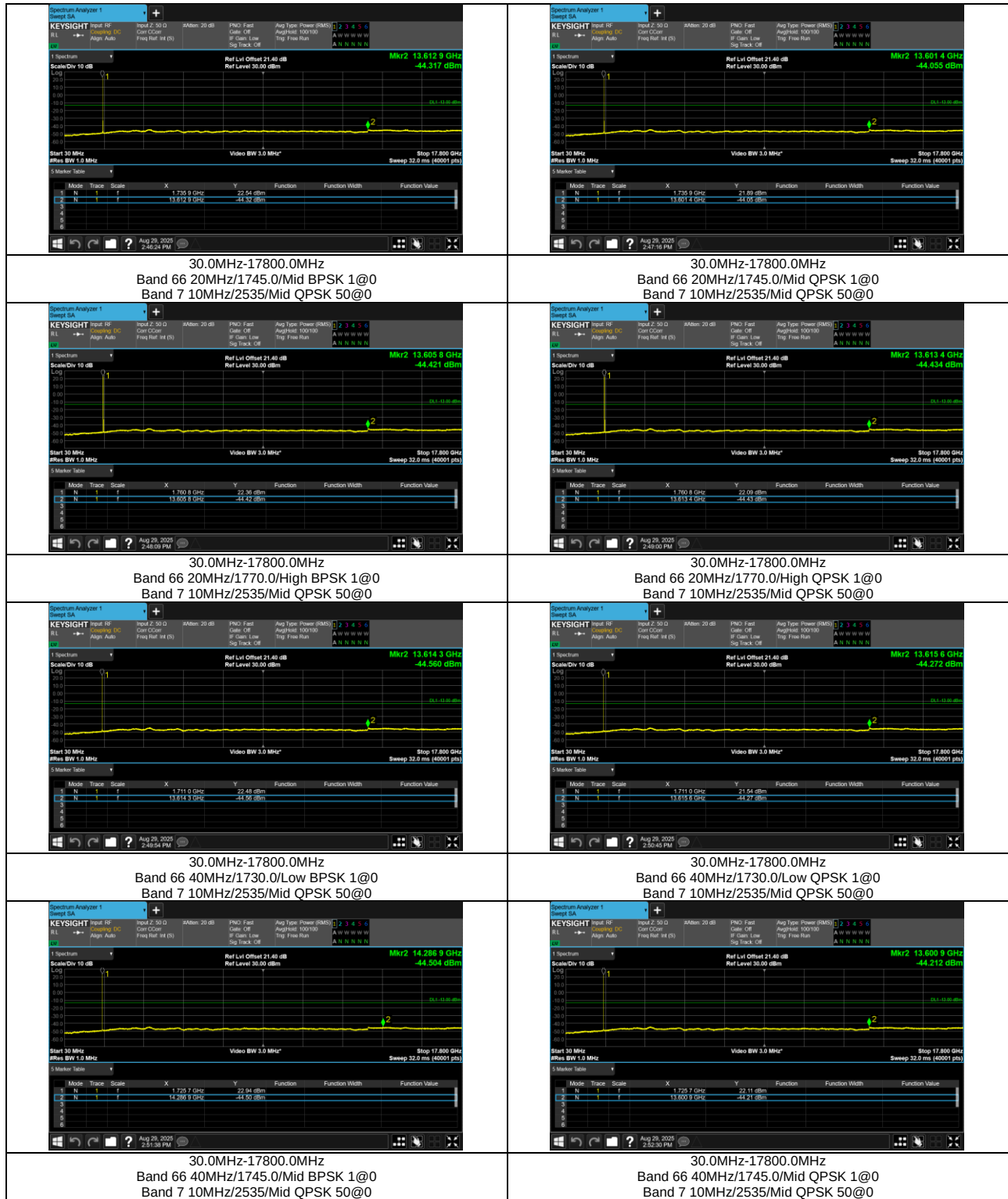
Test Result

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Freq_Range	Result	Limit	Verdict
66	15	5	422500	1712.5	DFT-s-OFDM BPSK	1@0	30.0MHz-17800.0MHz	-44.497	-13	PASS
66	15	5	422500	1712.5	DFT-s-OFDM QPSK	1@0	30.0MHz-17800.0MHz	-44.488	-13	PASS
66	15	5	429000	1745.0	DFT-s-OFDM BPSK	1@0	30.0MHz-17800.0MHz	-44.66	-13	PASS
66	15	5	429000	1745.0	DFT-s-OFDM QPSK	1@0	30.0MHz-17800.0MHz	-44.552	-13	PASS
66	15	5	435500	1777.5	DFT-s-OFDM BPSK	1@0	30.0MHz-17800.0MHz	-44.476	-13	PASS
66	15	5	435500	1777.5	DFT-s-OFDM QPSK	1@0	30.0MHz-17800.0MHz	-44.584	-13	PASS
66	15	20	424000	1720.0	DFT-s-OFDM BPSK	1@0	30.0MHz-17800.0MHz	-44.337	-13	PASS
66	15	20	424000	1720.0	DFT-s-OFDM QPSK	1@0	30.0MHz-17800.0MHz	-44.607	-13	PASS
66	15	20	429000	1745.0	DFT-s-OFDM BPSK	1@0	30.0MHz-17800.0MHz	-44.317	-13	PASS
66	15	20	429000	1745.0	DFT-s-OFDM QPSK	1@0	30.0MHz-17800.0MHz	-44.055	-13	PASS
66	15	20	434000	1770.0	DFT-s-OFDM BPSK	1@0	30.0MHz-17800.0MHz	-44.421	-13	PASS
66	15	20	434000	1770.0	DFT-s-OFDM QPSK	1@0	30.0MHz-17800.0MHz	-44.434	-13	PASS
66	15	40	426000	1730.0	DFT-s-OFDM BPSK	1@0	30.0MHz-17800.0MHz	-44.56	-13	PASS
66	15	40	426000	1730.0	DFT-s-OFDM QPSK	1@0	30.0MHz-17800.0MHz	-44.272	-13	PASS
66	15	40	429000	1745.0	DFT-s-OFDM BPSK	1@0	30.0MHz-17800.0MHz	-44.504	-13	PASS
66	15	40	429000	1745.0	DFT-s-OFDM QPSK	1@0	30.0MHz-17800.0MHz	-44.212	-13	PASS
66	15	40	432000	1760.0	DFT-s-OFDM BPSK	1@0	30.0MHz-17800.0MHz	-44.54	-13	PASS
66	15	40	432000	1760.0	DFT-s-OFDM QPSK	1@0	30.0MHz-17800.0MHz	-44.38	-13	PASS



Test Graphs









Conducted Band Edge

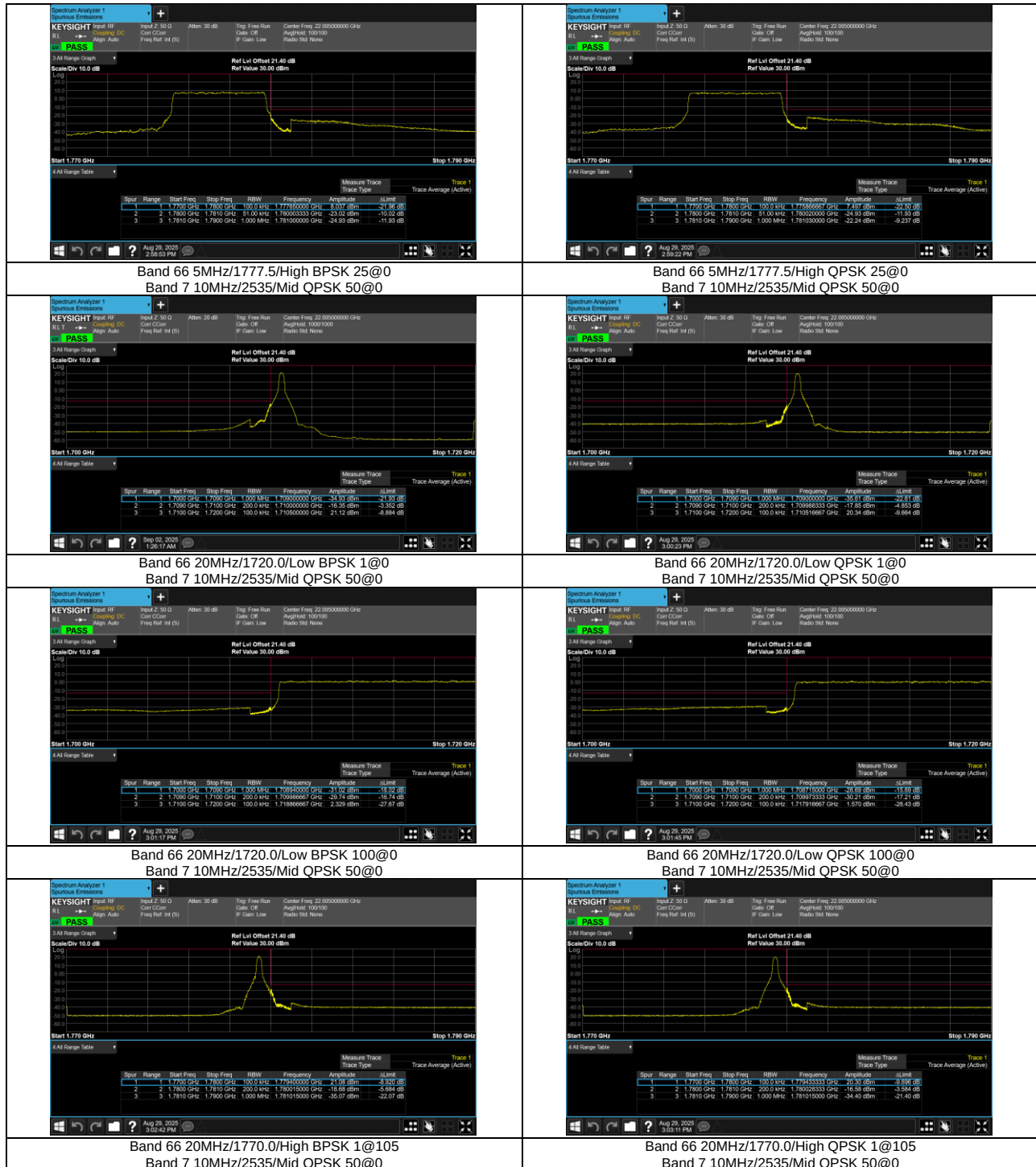
Test Result

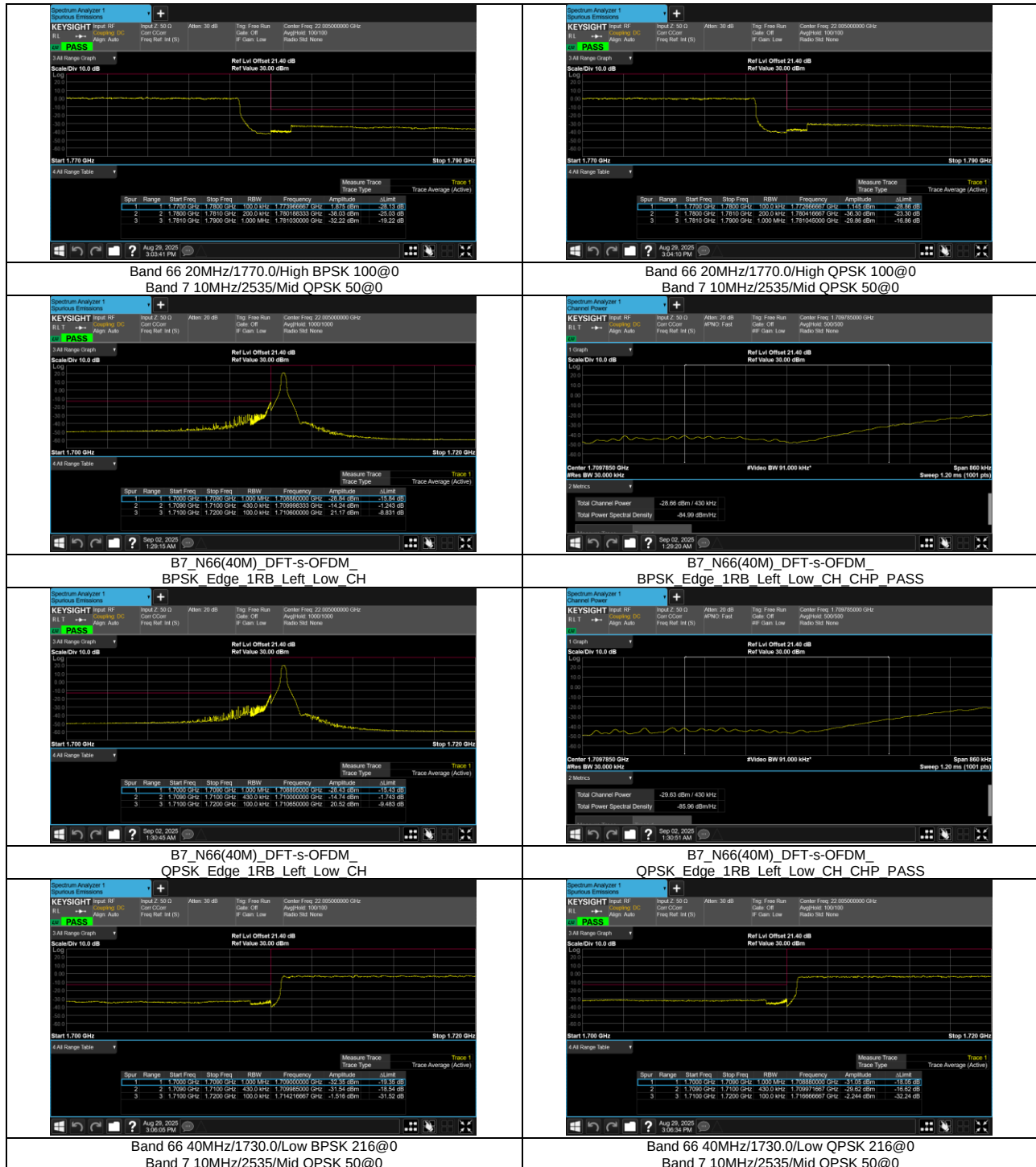
NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Result	Verdict
66	15	5	422500	1712.5	DFT-s-OFDM BPSK	1@0	see graph	PASS
66	15	5	422500	1712.5	DFT-s-OFDM QPSK	1@0	see graph	PASS
66	15	5	422500	1712.5	DFT-s-OFDM BPSK	25@0	see graph	PASS
66	15	5	422500	1712.5	DFT-s-OFDM QPSK	25@0	see graph	PASS
66	15	5	435500	1777.5	DFT-s-OFDM BPSK	1@24	see graph	PASS
66	15	5	435500	1777.5	DFT-s-OFDM QPSK	1@24	see graph	PASS
66	15	5	435500	1777.5	DFT-s-OFDM BPSK	25@0	see graph	PASS
66	15	5	435500	1777.5	DFT-s-OFDM QPSK	25@0	see graph	PASS
66	15	20	424000	1720.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
66	15	20	424000	1720.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
66	15	20	424000	1720.0	DFT-s-OFDM BPSK	100@0	see graph	PASS
66	15	20	424000	1720.0	DFT-s-OFDM QPSK	100@0	see graph	PASS
66	15	20	434000	1770.0	DFT-s-OFDM BPSK	1@105	see graph	PASS
66	15	20	434000	1770.0	DFT-s-OFDM QPSK	1@105	see graph	PASS
66	15	20	434000	1770.0	DFT-s-OFDM BPSK	100@0	see graph	PASS
66	15	20	434000	1770.0	DFT-s-OFDM QPSK	100@0	see graph	PASS
66	15	40	426000	1730.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
66	15	40	426000	1730.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
66	15	40	426000	1730.0	DFT-s-OFDM BPSK	216@0	see graph	PASS
66	15	40	426000	1730.0	DFT-s-OFDM QPSK	216@0	see graph	PASS
66	15	40	432000	1760.0	DFT-s-OFDM BPSK	1@215	see graph	PASS
66	15	40	432000	1760.0	DFT-s-OFDM QPSK	1@215	see graph	PASS
66	15	40	432000	1760.0	DFT-s-OFDM BPSK	216@0	see graph	PASS
66	15	40	432000	1760.0	DFT-s-OFDM QPSK	216@0	see graph	PASS



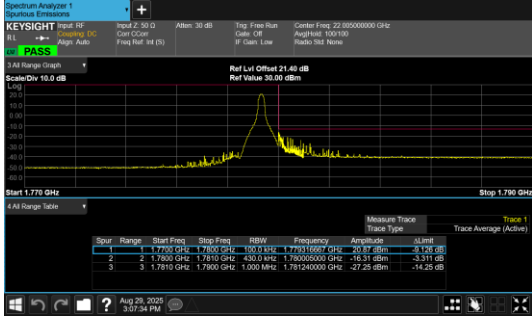
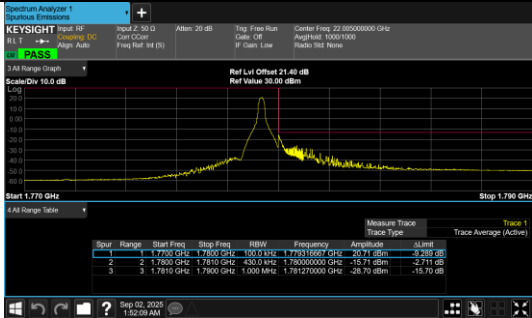
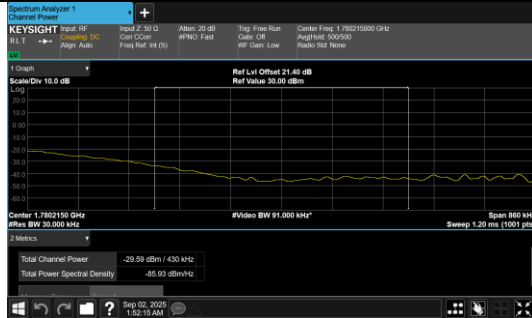
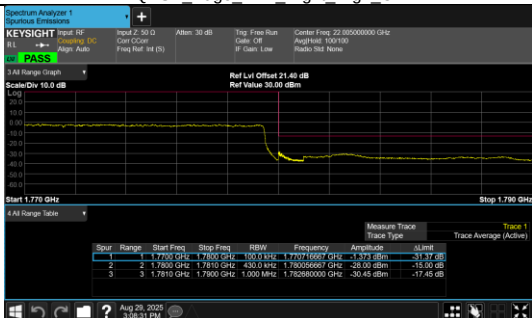
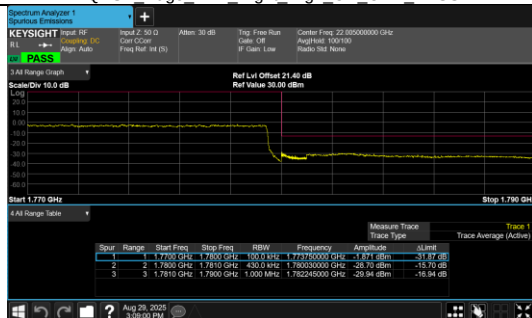
Test Graphs









	
Band 66 40MHz/1760.0/High BPSK 1@215 Band 7 10MHz/2535/Mid QPSK 50@0	
	
B7_N66(40M)_DFT-s-OFDM_ QPSK Edge 1RB Right High CH	
	
Band 66 40MHz/1760.0/High BPSK 216@0 Band 7 10MHz/2535/Mid QPSK 50@0	
B7_N66(40M)_DFT-s-OFDM_ QPSK Edge 1RB Right High CH CHP PASS	
Band 66 40MHz/1760.0/High QPSK 216@0 Band 7 10MHz/2535/Mid QPSK 50@0	



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Jake	Temperature :	21~25°C
		Relative Humidity :	51~53%

Note: Pre-scanned harmonic for the different antenna combinations, we choose the worst antenna mode to perform final test.

n2 SA / NR 40MHz / QPSK(ANT4)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3720	-55.73	-13	-42.73	-67.99	2.64	14.90	H
	5580	-54.63	-13	-41.63	-66.49	2.94	14.80	H
	7455	-53.07	-13	-40.07	-62.84	3.39	13.16	H
	3720	-56.05	-13	-43.05	-68.31	2.64	14.90	V
	5580	-55.48	-13	-42.48	-67.34	2.94	14.80	V
	7455	-52.62	-13	-39.62	-62.39	3.39	13.16	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EN-DC_12A_n2A / LTE 10MHz + NR 20MHz / QPSK (ANT0+4)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3720	-55.41	-13	-42.41	-67.67	2.64	14.90	H
	5580	-55.04	-13	-42.04	-66.90	2.94	14.80	H
	7455	-52.97	-13	-39.97	-62.74	3.39	13.16	H
	3720	-55.79	-13	-42.79	-68.05	2.64	14.90	V
	5580	-55.29	-13	-42.29	-67.15	2.94	14.80	V
	7455	-52.75	-13	-39.75	-62.52	3.39	13.16	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EN-DC_7A_n5A / LTE 20MHz + NR 20MHz / QPSK (ANT8+1)								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1656	-55.72	-13	-42.72	-62.69	1.58	10.70	H
	2480	-53.01	-13	-40.01	-61.26	2.102	12.50	H
	3312	-57.46	-13	-44.46	-66.35	2.856	13.90	H
	1656	-56.32	-13	-43.32	-63.29	1.58	10.70	V
	2480	-50.08	-13	-37.08	-58.33	2.10	12.50	V
	3312	-57.50	-13	-44.50	-66.39	2.86	13.90	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



n26 SA / NR 40MHz / QPSK(ANT1)								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1656	-63.92	-13	-50.92	-70.89	1.58	10.70	H
	2480	-55.12	-13	-42.12	-63.37	2.102	12.50	H
	3312	-58.12	-13	-45.12	-67.01	2.856	13.90	H
	1656	-63.11	-13	-50.11	-70.08	1.58	10.70	V
	2480	-55.24	-13	-42.24	-63.49	2.10	12.50	V
	3312	-57.91	-13	-44.91	-66.80	2.86	13.90	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

N66 SA / NR 45MHz / QPSK(ANT4)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3450	-57.71	-13	-44.71	-68.45	2.604	13.34	H
	5175	-55.08	-13	-42.08	-65.59	3.011	13.52	H
	6900	-54.38	-13	-41.38	-64.58	3.271	13.47	H
	3450	-57.88	-13	-44.88	-68.62	2.604	13.34	V
	5175	-54.99	-13	-41.99	-65.50	3.011	13.52	V
	6900	-54.73	-13	-41.73	-64.93	3.271	13.47	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EN-DC_12A_n66A / LTE 10MHz + NR 45MHz / QPSK (ANT0+4)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3450	-57.43	-13	-44.43	-68.17	2.604	13.34	H
	5175	-54.64	-13	-41.64	-65.15	3.011	13.52	H
	6915	-54.73	-13	-41.73	-64.93	3.271	13.47	H
	3450	-58.18	-13	-45.18	-68.92	2.604	13.34	V
	5175	-54.62	-13	-41.62	-65.13	3.011	13.52	V
	6915	-54.25	-13	-41.25	-64.45	3.271	13.47	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EN-DC_7A_n66A / LTE 20MHz + NR 45MHz / QPSK (ANT8+4) for PA (Reference Designator)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3450	-57.37	-13	-44.37	-68.11	2.604	13.34	H
	5175	-54.70	-13	-41.70	-65.21	3.011	13.52	H
	6915	-54.63	-13	-41.63	-64.83	3.271	13.47	H
	3450	-57.29	-13	-44.29	-68.03	2.604	13.34	V
	5175	-54.78	-13	-41.78	-65.29	3.011	13.52	V
	6915	-54.33	-13	-41.33	-64.53	3.271	13.47	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.