

AppendixA: Effective (Isotropic) Radiated Power Output Data

Test Result(WCDMA)

Band	Type	Channel	Average Power (dBm)	Antenna Gain (dBi)	ERP/EIRP(dBm)	ERP/EIRP Limit (dBm)
Band2	Voice	9262	23.80	0.29	24.09	33.00
Band2	RMC	9262	23.81	0.29	24.10	33.00
Band2	Voice	9400	23.74	0.29	24.03	33.00
Band2	RMC	9400	23.72	0.29	24.01	33.00
Band2	Voice	9538	23.54	0.29	23.83	33.00
Band2	RMC	9538	23.52	0.29	23.81	33.00
Band5	Voice	4132	22.93	-0.21	20.57	38.45
Band5	RMC	4132	22.97	-0.21	20.61	38.45
Band5	Voice	4183	22.89	-0.21	20.53	38.45
Band5	RMC	4183	22.55	-0.21	20.19	38.45
Band5	Voice	4233	22.88	-0.21	20.52	38.45
Band5	RMC	4233	22.88	-0.21	20.52	38.45
Band4	Voice	1312	22.18	0.32	22.50	30.00
Band4	RMC	1312	22.28	0.32	22.60	30.00
Band4	Voice	1413	22.73	0.32	23.05	30.00
Band4	RMC	1413	22.71	0.32	23.03	30.00
Band4	Voice	1513	22.43	0.32	22.75	30.00
Band4	RMC	1513	22.24	0.32	22.56	30.00

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). (For WCDMA Band 2)

ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For WCDMA Band 5)

Test Result(HSDPA)

Band	Type	Channel	SubTest	Average Power (dBm)	Antenna Gain (dBi)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)
Band2	HSDPA	9262	1	22.94	0.29	23.23	33.00
Band2	HSDPA	9262	2	22.77	0.29	23.06	33.00
Band2	HSDPA	9262	3	22.38	0.29	22.67	33.00
Band2	HSDPA	9262	4	22.58	0.29	22.87	33.00
Band2	HSDPA	9400	1	23.13	0.29	23.42	33.00

Band2	HSDPA	9400	2	22.81	0.29	23.10	33.00
Band2	HSDPA	9400	3	22.66	0.29	22.95	33.00
Band2	HSDPA	9400	4	22.64	0.29	22.93	33.00
Band2	HSDPA	9538	1	22.71	0.29	23.00	33.00
Band2	HSDPA	9538	2	22.56	0.29	22.85	33.00
Band2	HSDPA	9538	3	22.35	0.29	22.64	33.00
Band2	HSDPA	9538	4	22.39	0.29	22.68	33.00
Band5	HSDPA	4132	1	22.13	-0.21	19.77	38.45
Band5	HSDPA	4132	2	21.98	-0.21	19.62	38.45
Band5	HSDPA	4132	3	21.57	-0.21	19.21	38.45
Band5	HSDPA	4132	4	21.6	-0.21	19.24	38.45
Band5	HSDPA	4183	1	22.23	-0.21	19.87	38.45
Band5	HSDPA	4183	2	21.93	-0.21	19.57	38.45
Band5	HSDPA	4183	3	21.52	-0.21	19.16	38.45
Band5	HSDPA	4183	4	21.58	-0.21	19.22	38.45
Band5	HSDPA	4233	1	22.05	-0.21	19.69	38.45
Band5	HSDPA	4233	2	21.87	-0.21	19.51	38.45
Band5	HSDPA	4233	3	21.61	-0.21	19.25	38.45
Band5	HSDPA	4233	4	21.6	-0.21	19.24	38.45
Band4	HSDPA	1312	1	21.72	0.32	22.04	30.00
Band4	HSDPA	1312	2	21.64	0.32	21.96	30.00
Band4	HSDPA	1312	3	21.62	0.32	21.94	30.00
Band4	HSDPA	1312	4	21.8	0.32	22.12	30.00
Band4	HSDPA	1413	1	22.06	0.32	22.38	30.00
Band4	HSDPA	1413	2	22.1	0.32	22.42	30.00
Band4	HSDPA	1413	3	22.12	0.32	22.44	30.00
Band4	HSDPA	1413	4	22.09	0.32	22.41	30.00
Band4	HSDPA	1513	1	21.95	0.32	22.27	30.00
Band4	HSDPA	1513	2	21.93	0.32	22.25	30.00
Band4	HSDPA	1513	3	21.88	0.32	22.20	30.00
Band4	HSDPA	1513	4	21.85	0.32	22.17	30.00
<p>Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). (For WCDMA Band 2)</p> <p>ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For WCDMA Band 5)</p>							

Test Result(HSUPA)

Band	Type	Channel	SubTest	Average Power (dBm)	Antenna Gain (dBi)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)
Band2	HSUPA	9262	1	20.67	0.29	20.96	33.00
Band2	HSUPA	9262	2	21.21	0.29	21.50	33.00
Band2	HSUPA	9262	3	20.66	0.29	20.95	33.00
Band2	HSUPA	9262	4	21.02	0.29	21.31	33.00
Band2	HSUPA	9262	5	23.15	0.29	23.44	33.00
Band2	HSUPA	9400	1	20.79	0.29	21.08	33.00
Band2	HSUPA	9400	2	21.29	0.29	21.58	33.00
Band2	HSUPA	9400	3	20.78	0.29	21.07	33.00
Band2	HSUPA	9400	4	21.12	0.29	21.41	33.00
Band2	HSUPA	9400	5	23.19	0.29	23.48	33.00
Band2	HSUPA	9538	1	20.60	0.29	20.89	33.00
Band2	HSUPA	9538	2	21.02	0.29	21.31	33.00
Band2	HSUPA	9538	3	20.56	0.29	20.85	33.00
Band2	HSUPA	9538	4	20.82	0.29	21.11	33.00
Band2	HSUPA	9538	5	23.00	0.29	23.29	33.00
Band5	HSUPA	4132	1	20.75	-0.21	18.39	38.45
Band5	HSUPA	4132	2	20.97	-0.21	18.61	38.45
Band5	HSUPA	4132	3	20.39	-0.21	18.03	38.45
Band5	HSUPA	4132	4	20.49	-0.21	18.13	38.45
Band5	HSUPA	4132	5	22.48	-0.21	20.12	38.45
Band5	HSUPA	4183	1	20.78	-0.21	18.42	38.45
Band5	HSUPA	4183	2	20.90	-0.21	18.54	38.45
Band5	HSUPA	4183	3	20.47	-0.21	18.11	38.45
Band5	HSUPA	4183	4	20.17	-0.21	17.81	38.45
Band5	HSUPA	4183	5	22.65	-0.21	20.29	38.45
Band5	HSUPA	4233	1	20.77	-0.21	18.41	38.45
Band5	HSUPA	4233	2	20.95	-0.21	18.59	38.45
Band5	HSUPA	4233	3	20.47	-0.21	18.11	38.45
Band5	HSUPA	4233	4	20.37	-0.21	18.01	38.45
Band5	HSUPA	4233	5	22.61	-0.21	20.25	38.45
Band4	HSUPA	1312	1	21.29	0.32	21.61	30.00

Band4	HSUPA	1312	2	21.48	0.32	21.80	30.00
Band4	HSUPA	1312	3	21.05	0.32	21.37	30.00
Band4	HSUPA	1312	4	21.29	0.32	21.61	30.00
Band4	HSUPA	1312	5	21.77	0.32	22.09	30.00
Band4	HSUPA	1413	1	21.75	0.32	22.07	30.00
Band4	HSUPA	1413	2	21.98	0.32	22.30	30.00
Band4	HSUPA	1413	3	21.45	0.32	21.77	30.00
Band4	HSUPA	1413	4	21.75	0.32	22.07	30.00
Band4	HSUPA	1413	5	22.23	0.32	22.55	30.00
Band4	HSUPA	1513	1	21.67	0.32	21.99	30.00
Band4	HSUPA	1513	2	21.72	0.32	22.04	30.00
Band4	HSUPA	1513	3	21.23	0.32	21.55	30.00
Band4	HSUPA	1513	4	21.49	0.32	21.81	30.00
Band4	HSUPA	1513	5	22.01	0.32	22.33	30.00

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). (For Band2)

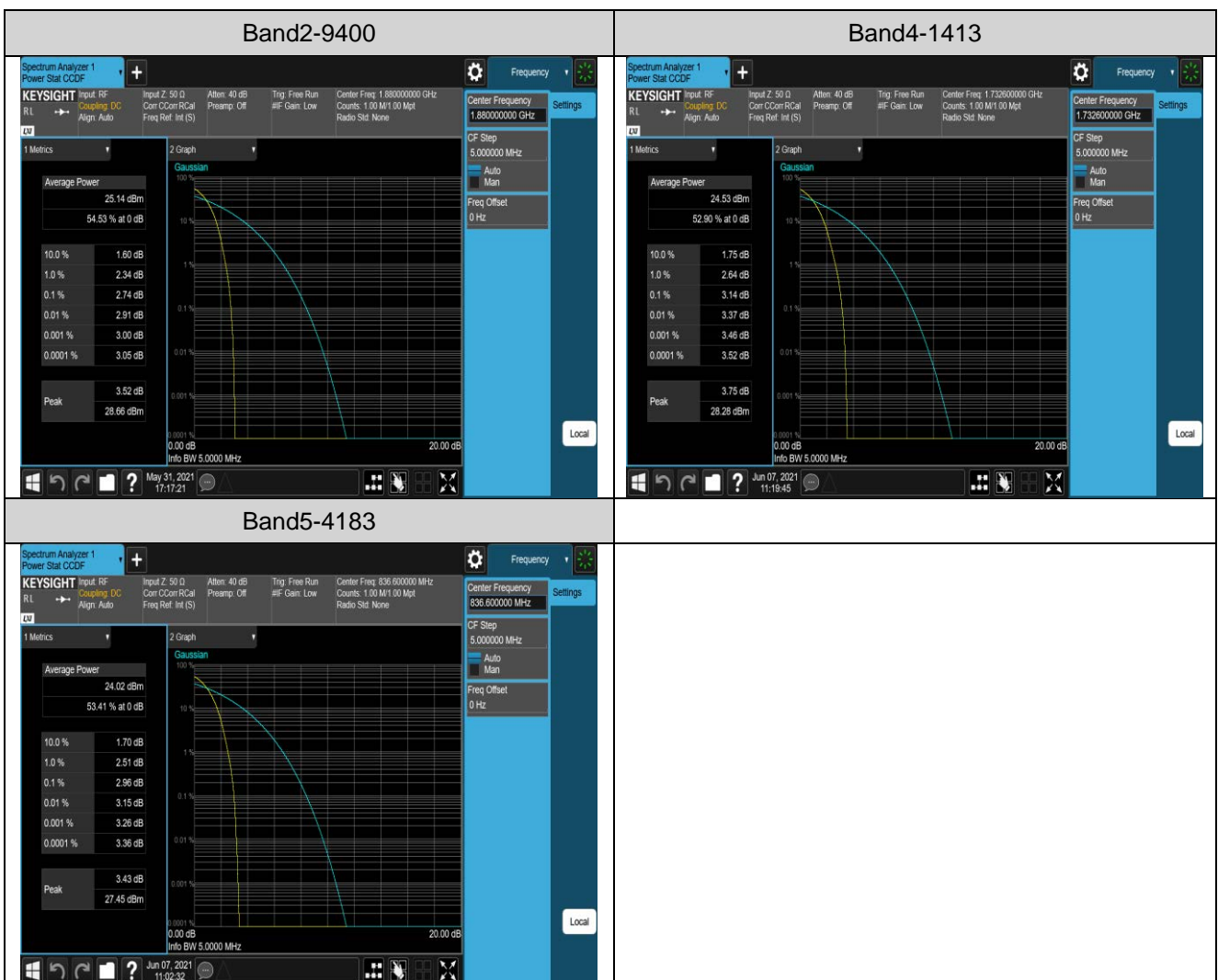
ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For Band5)

Appendix B: Peak-to-Average Ratio

Test Result(WCDMA)

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band2	9400	2.74	13	PASS
Band4	1413	3.14	13	PASS
Band5	4183	2.96	13	PASS

Test Graphs(WCDMA)

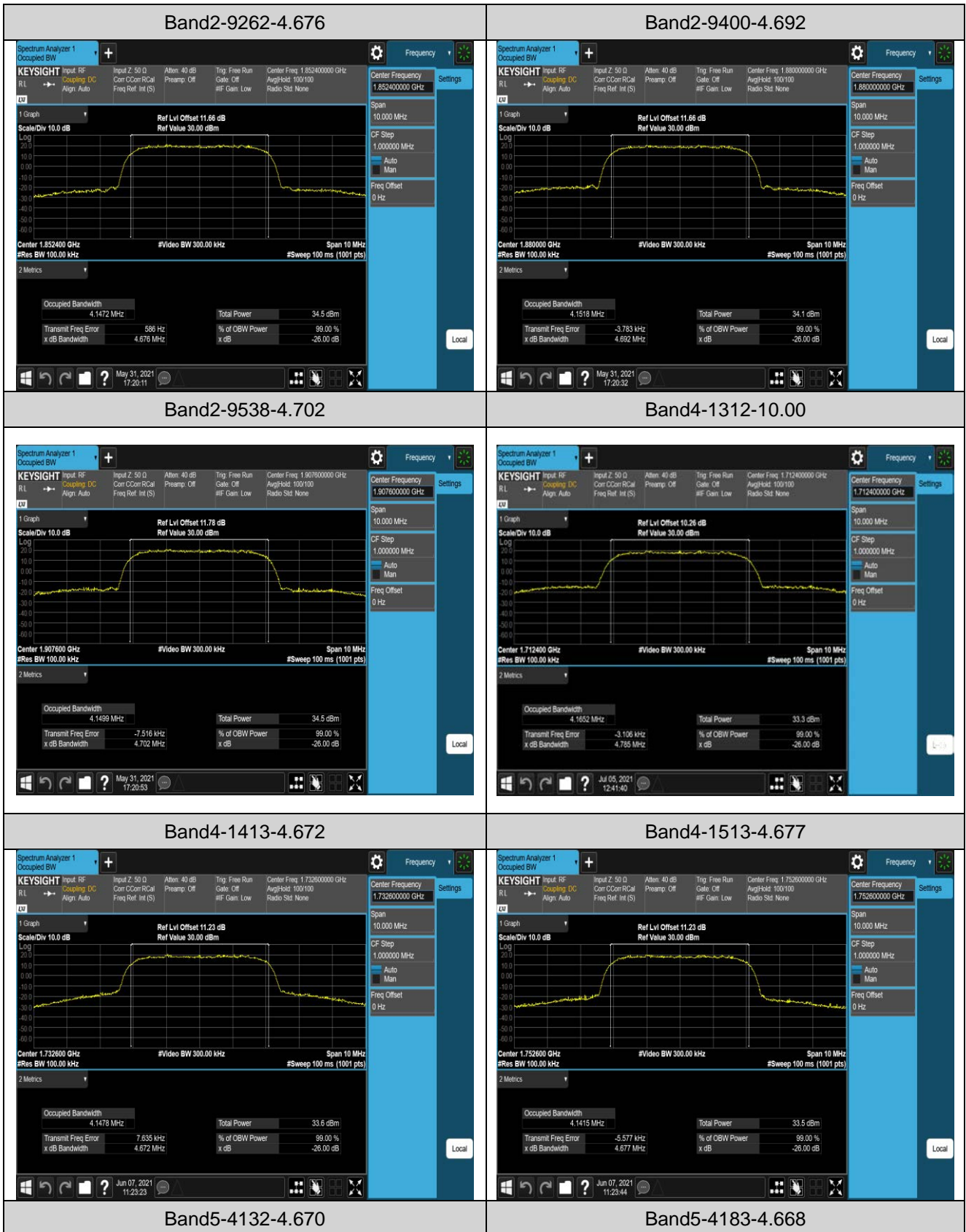


AppendixC:26dB Bandwidth andOccupied Bandwidth

Test Result(WCDMA)

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(kHz)	Verdict
Band2	9262	4.1472	4.676	---	PASS
Band2	9400	4.1518	4.692	---	PASS
Band2	9538	4.1499	4.702	---	PASS
Band4	1312	4.1652	4.785	---	PASS
Band4	1413	4.1478	4.672	---	PASS
Band4	1513	4.1415	4.677	---	PASS
Band5	4132	4.1440	4.670	---	PASS
Band5	4183	4.1437	4.668	---	PASS
Band5	4233	4.1487	4.680	---	PASS

Test Graphs(WCDMA)





AppendixD:Band Edge

Test Result(WCDMA)

Band	Channel	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band2	9262	1850.00	-20.18	-13	PASS
Band2	9538	1910.00	-18.51	-13	PASS
Band4	1312	1710.00	-23.01	-13	PASS
Band4	1513	1755.00	-23.76	-13	PASS
Band5	4132	821.13	-51.38	-13	PASS
Band5	4233	849.00	-23.12	-13	PASS

Test Graphs(WCDMA)



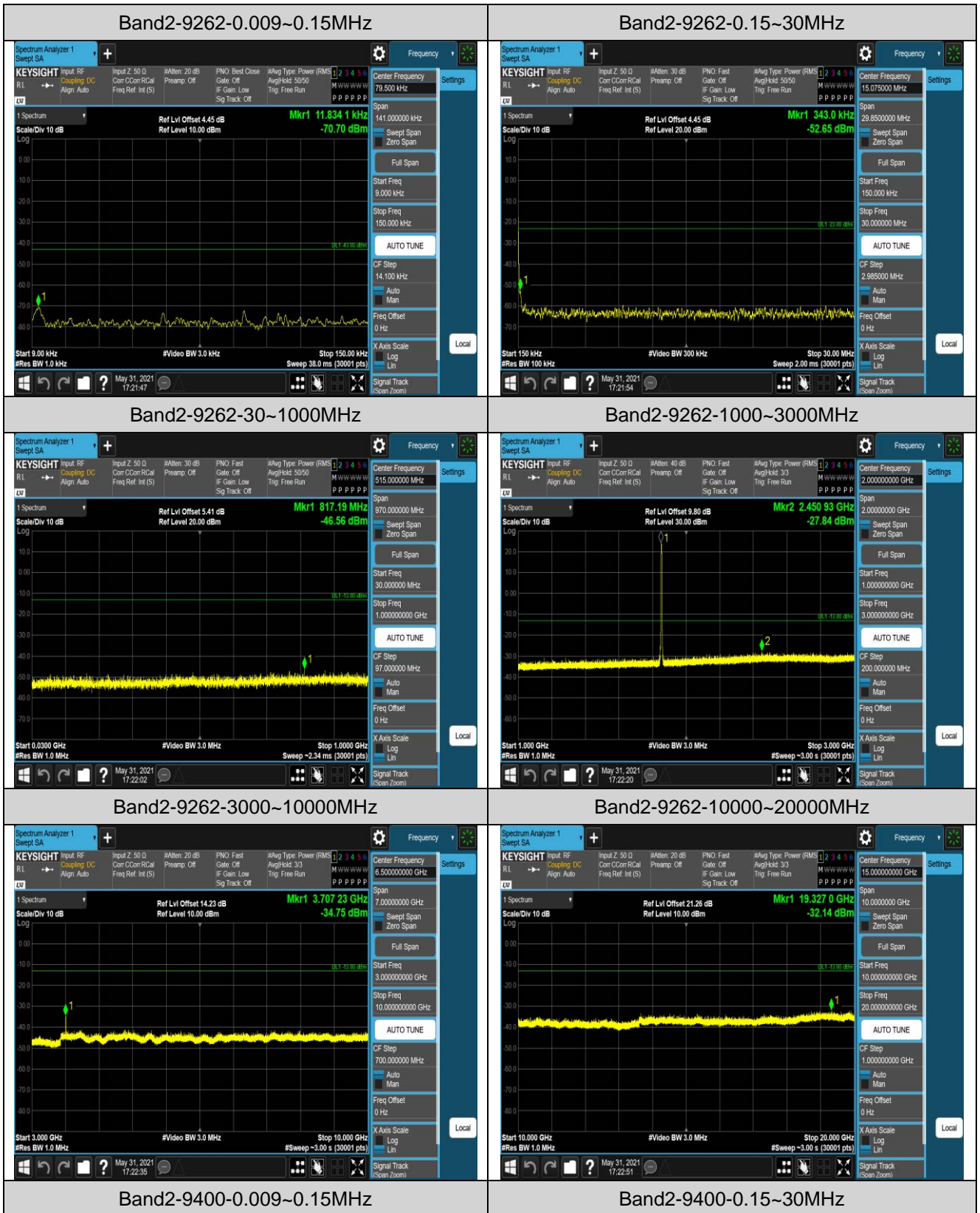
Appendix E: Conducted Spurious Emission

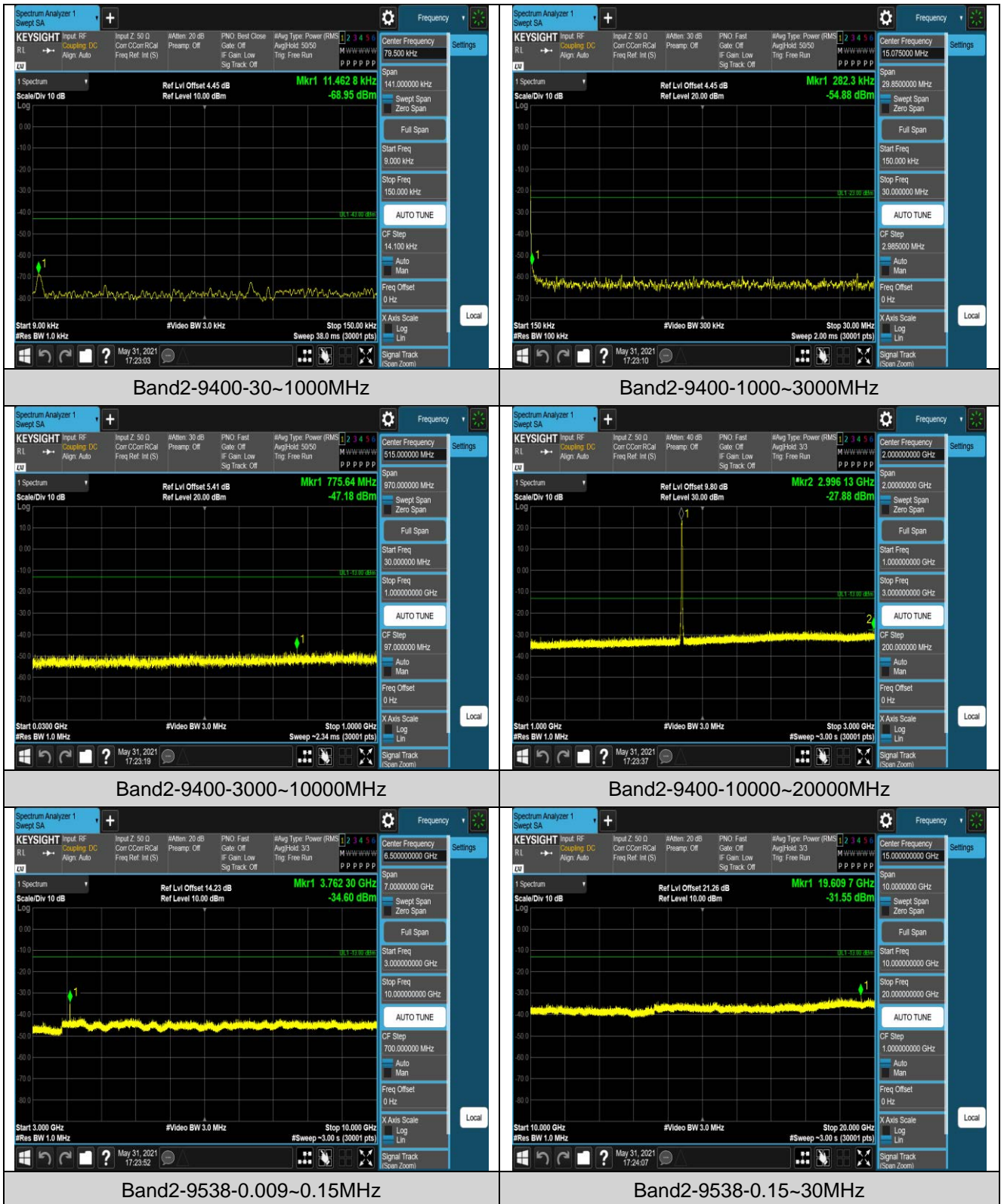
Test Result (WCDMA)

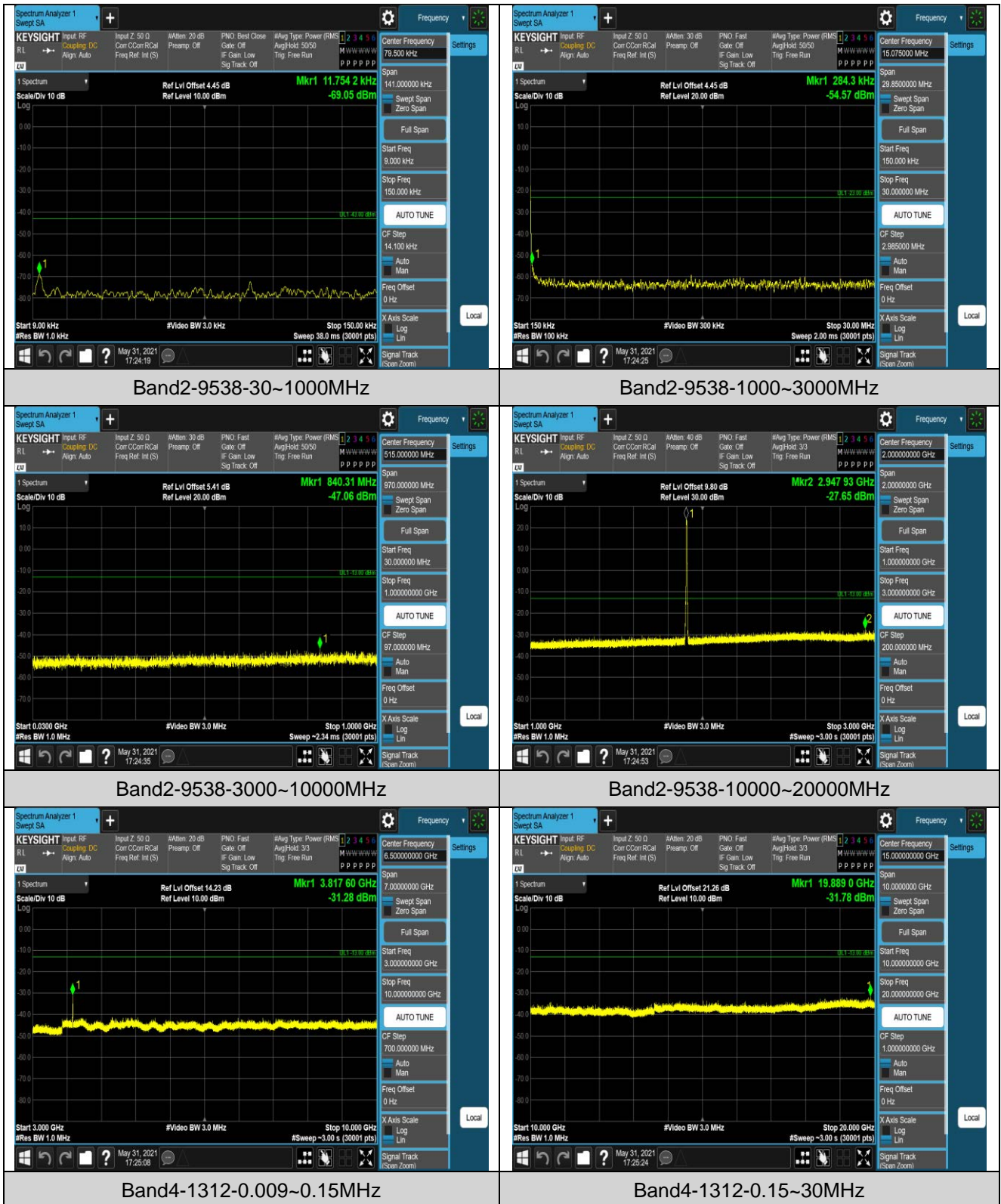
Band	Channel	Frequency Range (MHz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	0.009~0.15MHz	0.01	-70.7	-43	PASS
Band2	9262	0.15~30MHz	0.34	-52.65	-23	PASS
Band2	9262	30~1000MHz	817.19	-46.56	-13	PASS
Band2	9262	1000~3000MHz	2450.93	-27.84	-13	PASS
Band2	9262	3000~10000MHz	3707.23	-34.75	-13	PASS
Band2	9262	10000~20000MHz	19327	-32.14	-13	PASS
Band2	9400	0.009~0.15MHz	0.01	-68.95	-43	PASS
Band2	9400	0.15~30MHz	0.28	-54.88	-23	PASS
Band2	9400	30~1000MHz	775.64	-47.18	-13	PASS
Band2	9400	1000~3000MHz	2996.13	-27.88	-13	PASS
Band2	9400	3000~10000MHz	3762.3	-34.6	-13	PASS
Band2	9400	10000~20000MHz	19609.67	-31.55	-13	PASS
Band2	9538	0.009~0.15MHz	0.01	-69.05	-43	PASS
Band2	9538	0.15~30MHz	0.28	-54.57	-23	PASS
Band2	9538	30~1000MHz	840.31	-47.06	-13	PASS
Band2	9538	1000~3000MHz	2947.93	-27.65	-13	PASS
Band2	9538	3000~10000MHz	3817.6	-31.28	-13	PASS
Band2	9538	10000~20000MHz	19889	-31.78	-13	PASS
Band4	1312	0.009~0.15MHz	0.01	-69.94	-43	PASS
Band4	1312	0.15~30MHz	0.29	-55.39	-23	PASS
Band4	1312	30~1000MHz	770.01	-46.16	-13	PASS
Band4	1312	1000~3000MHz	2562.8	-27.75	-13	PASS
Band4	1312	3000~10000MHz	3423.03	-40.53	-13	PASS
Band4	1312	10000~20000MHz	19946.33	-32.37	-13	PASS
Band4	1413	0.009~0.15MHz	0.01	-71.6	-43	PASS
Band4	1413	0.15~30MHz	0.28	-54.78	-23	PASS
Band4	1413	30~1000MHz	893.69	-47.2	-13	PASS
Band4	1413	1000~3000MHz	2964.67	-27.51	-13	PASS
Band4	1413	3000~10000MHz	3462.93	-39.23	-13	PASS
Band4	1413	10000~20000MHz	19353	-31.67	-13	PASS
Band4	1513	0.009~0.15MHz	0.01	-71.31	-43	PASS

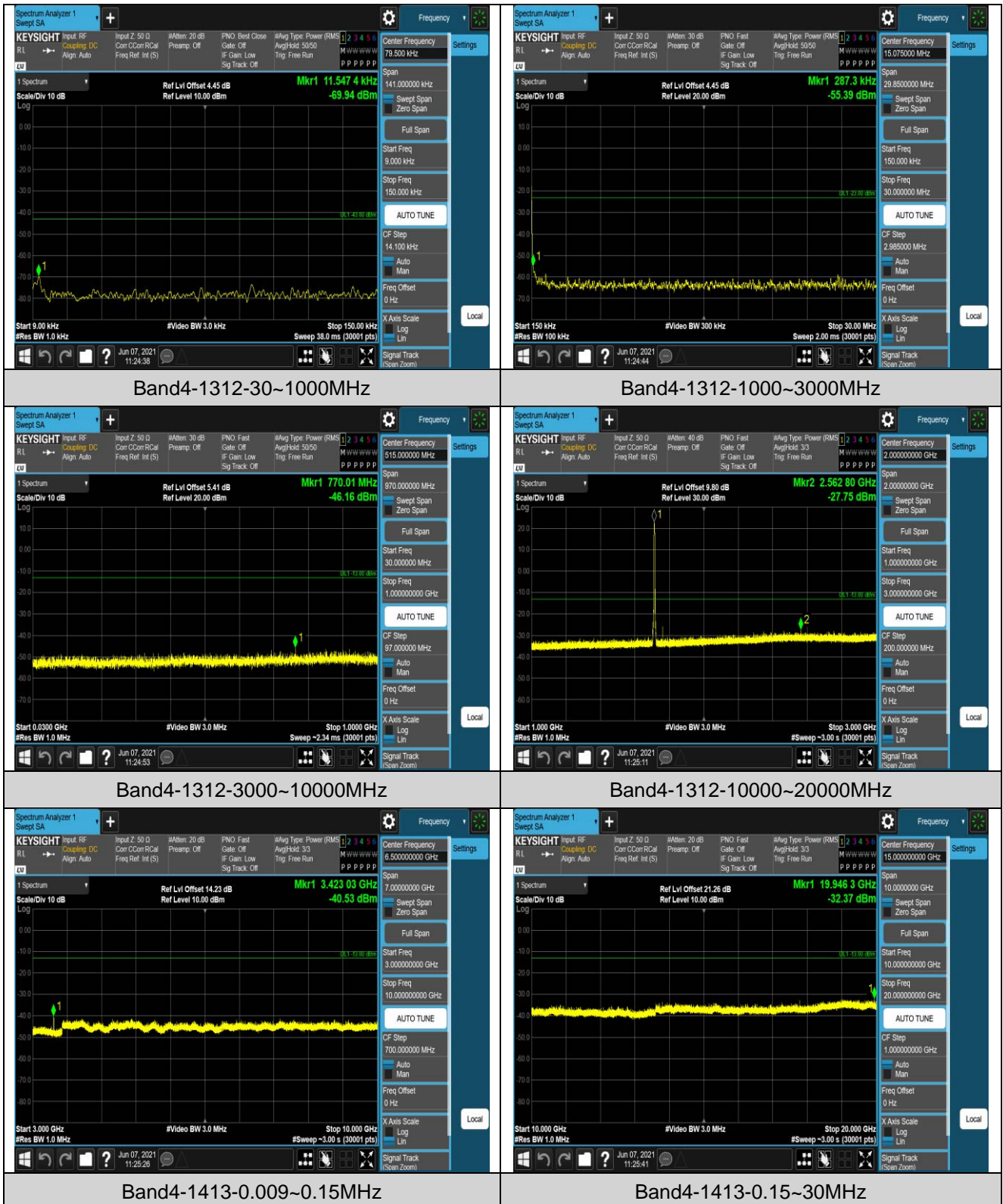
Band4	1513	0.15~30MHz	0.28	-53.9	-23	PASS
Band4	1513	30~1000MHz	926.02	-46.06	-13	PASS
Band4	1513	1000~3000MHz	2533.93	-27.65	-13	PASS
Band4	1513	3000~10000MHz	4336.07	-41.29	-13	PASS
Band4	1513	10000~20000MHz	19030.67	-32.18	-13	PASS
Band5	4132	0.009~0.15MHz	0.01	-72.2	-33	PASS
Band5	4132	0.15~30MHz	0.28	-55.04	-13	PASS
Band5	4132	30~1000MHz	947.75	-36.97	-13	PASS
Band5	4132	1000~3000MHz	2479.33	-36.07	-13	PASS
Band5	4132	3000~10000MHz	3300.77	-35.61	-13	PASS
Band5	4132	10000~18000MHz	14185.87	-40.36	-13	PASS
Band5	4183	0.009~0.15MHz	0.01	-72.47	-33	PASS
Band5	4183	0.15~30MHz	0.32	-54.72	-13	PASS
Band5	4183	30~1000MHz	449.01	-36.69	-13	PASS
Band5	4183	1000~3000MHz	2506.87	-34.91	-13	PASS
Band5	4183	3000~10000MHz	3343.23	-33.57	-13	PASS
Band5	4183	10000~18000MHz	17684	-41.66	-13	PASS
Band5	4233	0.009~0.15MHz	0.01	-71.11	-33	PASS
Band5	4233	0.15~30MHz	0.28	-54.11	-13	PASS
Band5	4233	30~1000MHz	739.49	-37.13	-13	PASS
Band5	4233	1000~3000MHz	2537.67	-35.65	-13	PASS
Band5	4233	3000~10000MHz	3391.3	-32.91	-13	PASS
Band5	4233	10000~18000MHz	14627.47	-40.8	-13	PASS

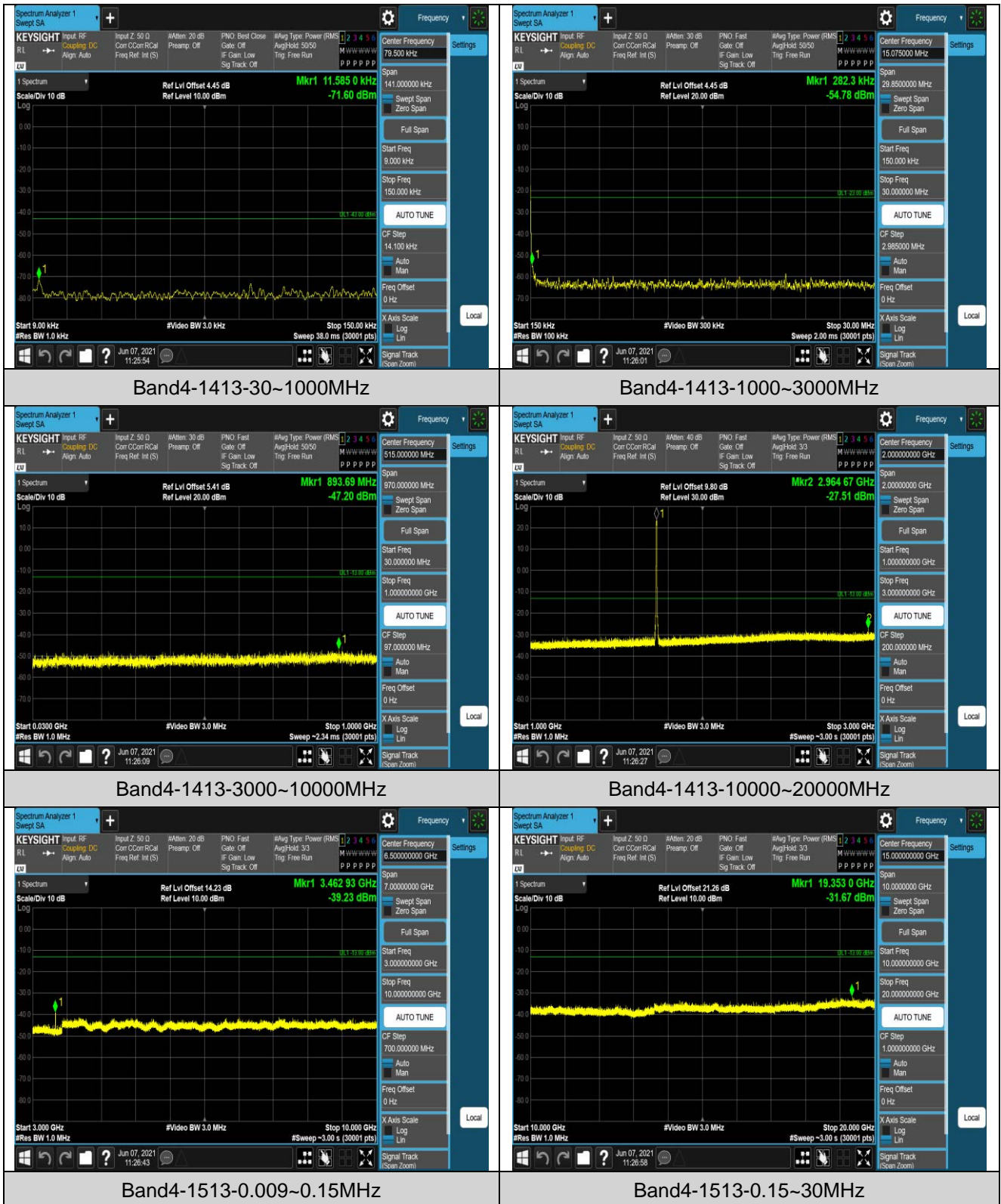
Test Graphs(WCDMA)

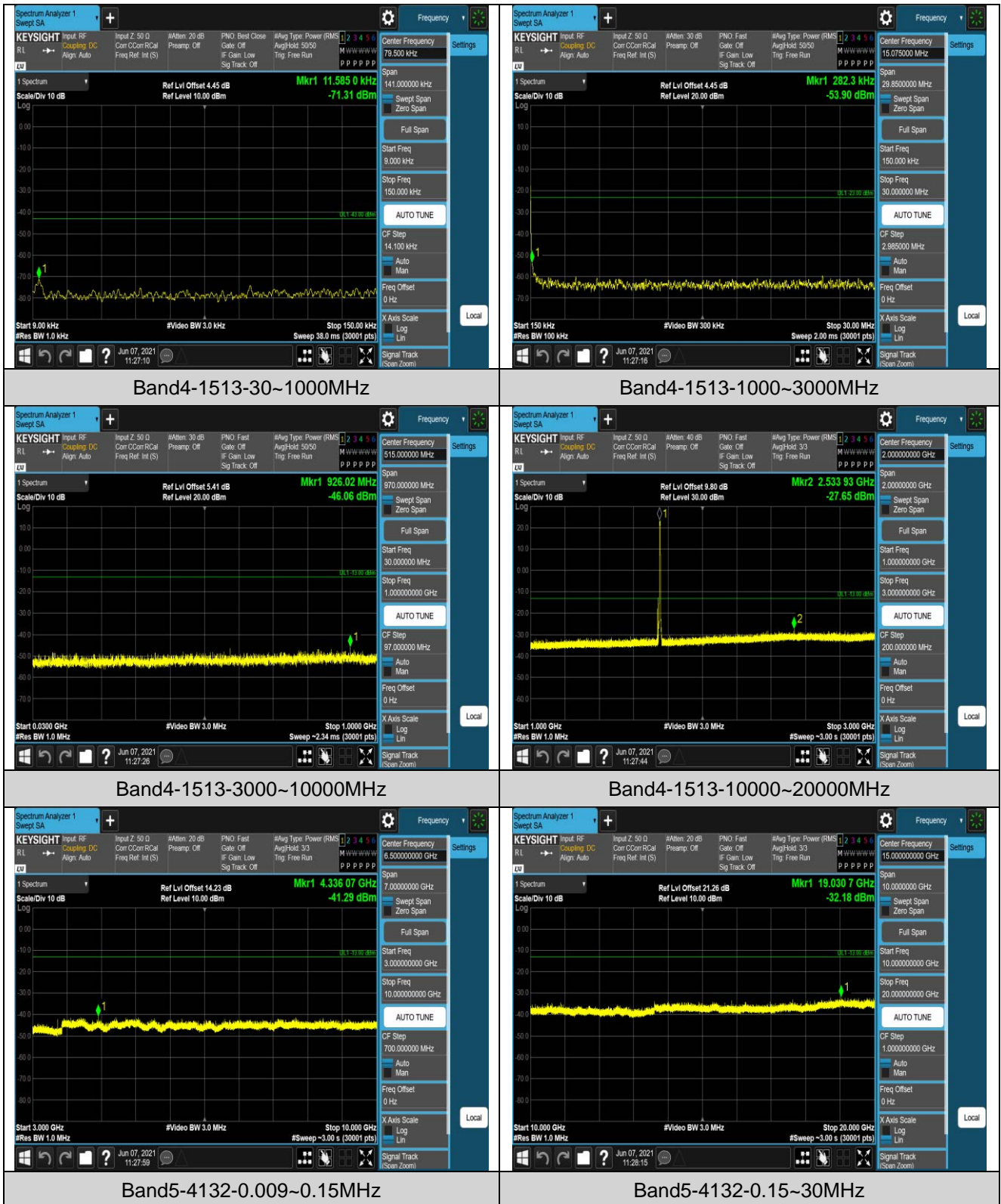


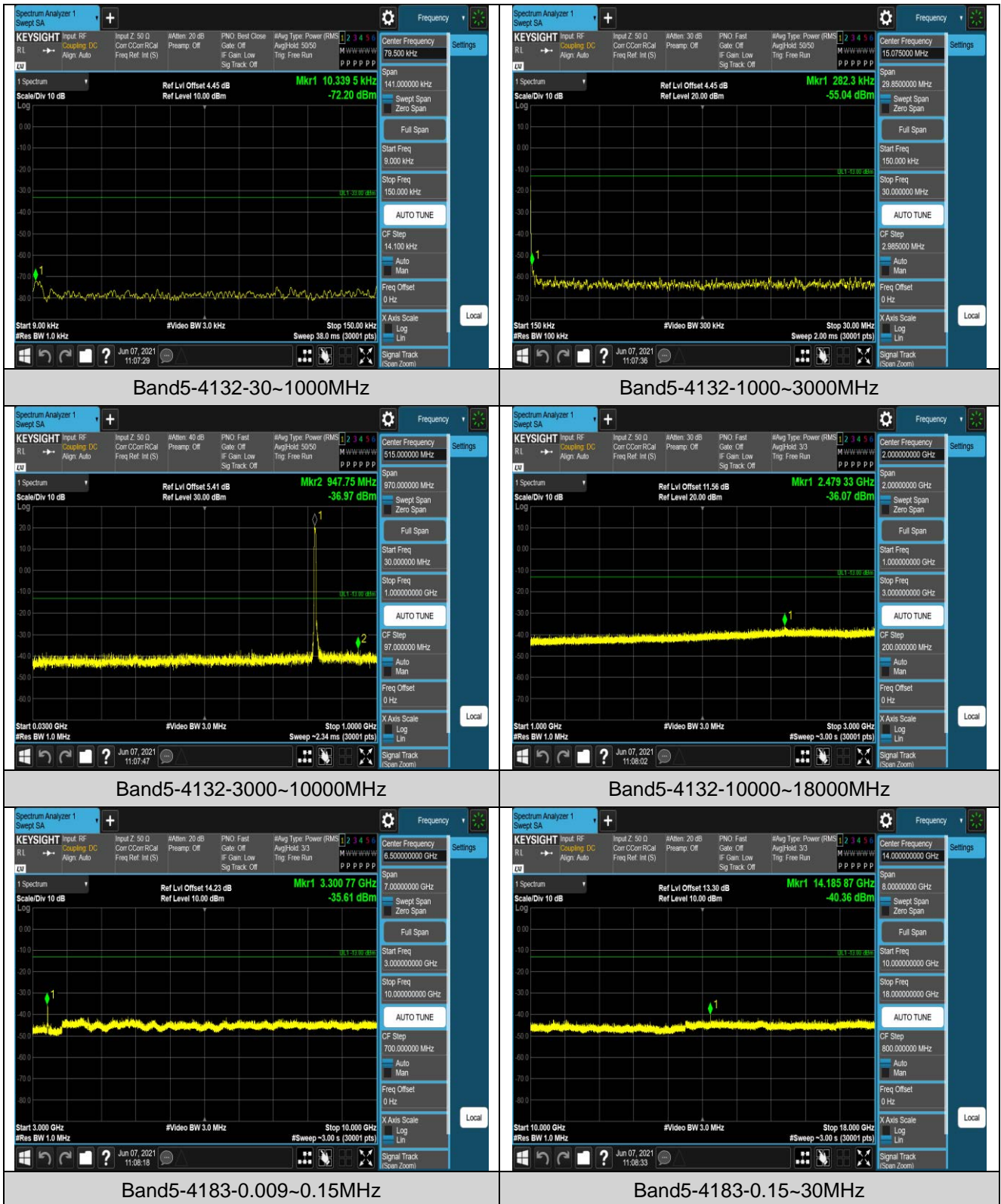


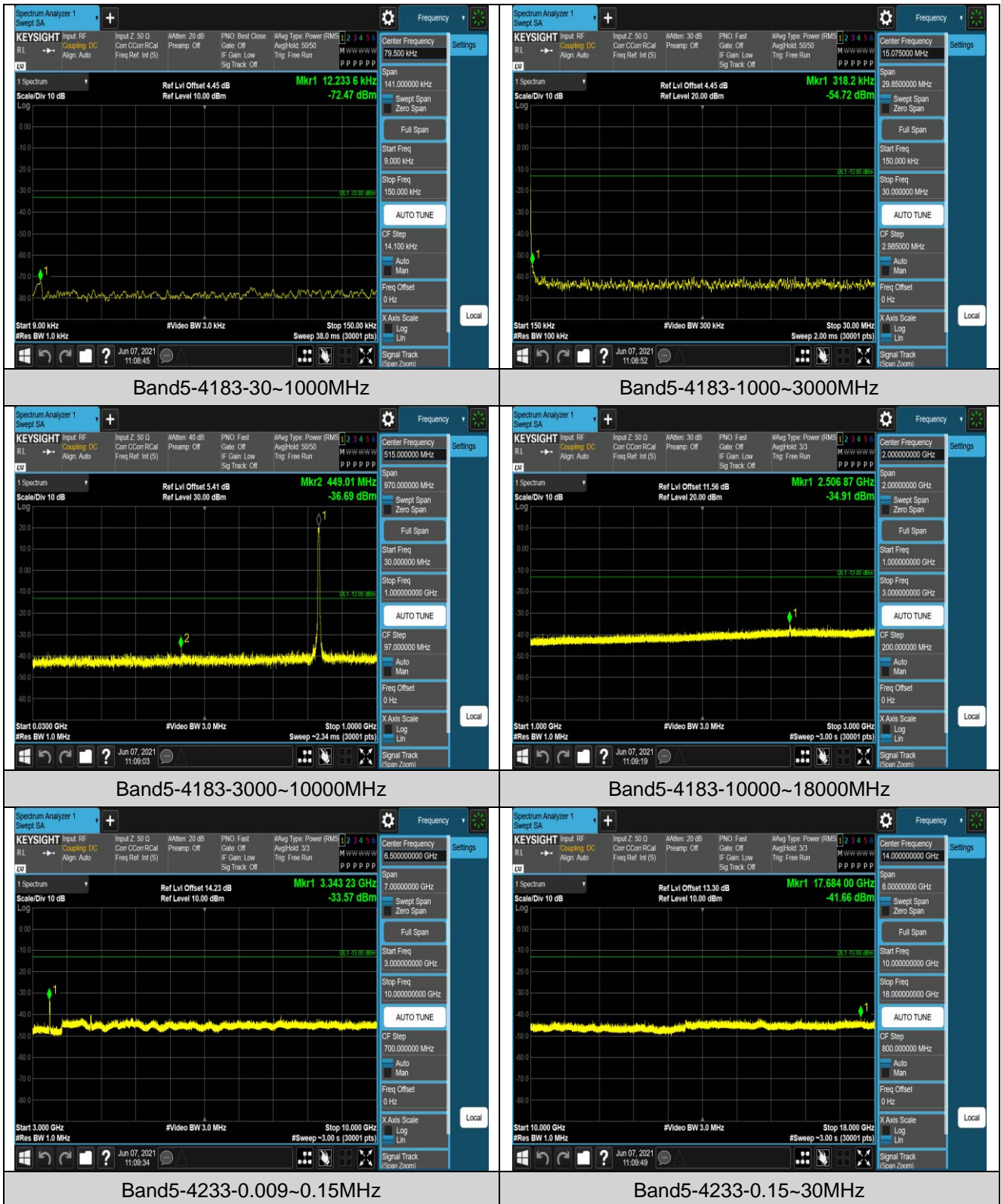


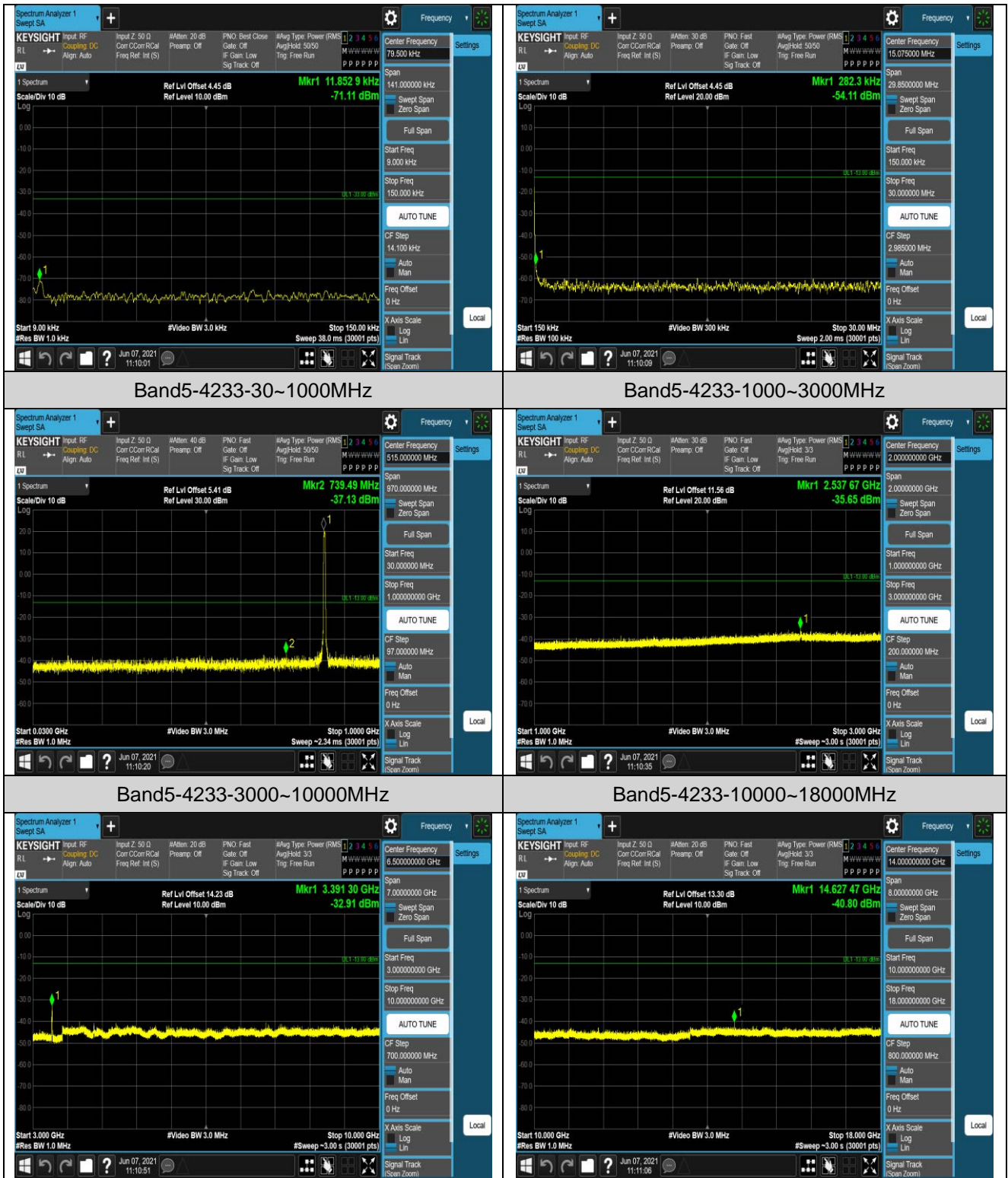












Appendix F: Frequency Stability

Test Result (the worst channel)

Reference Frequency: WCDMA BAND V 12.2k RMC Middle channel=4183 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-0.21	-0.000251	±2.5	Pass
	-20	0.60	0.000717		
	-10	-0.04	-0.000048		
	0	-0.48	-0.000574		
	10	2.05	0.002450		
	20	0.39	0.000466		
	30	-0.45	-0.000538		
	40	-1.12	-0.001339		
	50	1.19	0.001422		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	0.11	0.000131	±2.5	Pass
	3.85	-0.69	-0.000825		
	4.42	-0.28	-0.000335		
<i>Note: Only the worst case shown in the report.</i>					

Reference Frequency: WCDMA BAND II 12.2k RMC Middle Frequency=9400 channel=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-7.05	-0.003750	Within authorized band for BAND II	Pass
	-20	-12.55	-0.006676		
	-10	6.35	0.003378		
	0	2.84	0.001511		
	10	-1.44	-0.000766		
	20	1.40	0.000745		
	30	-10.39	-0.005527		
	40	-6.94	-0.003691		
	50	1.28	0.000681		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	0.54	0.000287	Within authorized band for BAND II	Pass
	3.85	-2.25	-0.001197		
	4.42	1.76	0.000936		
<i>Note: Only the worst case shown in the report.</i>					

Reference Frequency: WCDMA BAND IV 12.2k RMC Middle Frequency=1413 channel=1732.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	2.10	0.001212	Within authorized band for BAND IV	Pass
	-20	2.00	0.001154		
	-10	-0.29	-0.000167		
	0	-5.08	-0.002932		
	10	-0.80	-0.000462		
	20	-6.34	-0.003659		
	30	1.53	0.000883		
	40	9.86	0.005691		
	50	1.46	0.000843		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-2.98	-0.001720	Within authorized band for BAND IV	Pass
	3.85	-0.94	-0.000543		
	4.42	5.69	0.003284		
<i>Note: Only the worst case shown in the report.</i>					