

APPENDIX B WCDMA RF TEST DATA

A.1 DPEAK-TO-AVERAGE RATIO

Test Result(WCDMA)

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band2	9262	3.09	13	PASS
Band2	9400	3.02	13	PASS
Band2	9538	3.03	13	PASS
Band4	1312	3.08	13	PASS
Band4	1413	2.96	13	PASS
Band4	1513	3.08	13	PASS
Band5	4132	2.91	13	PASS
Band5	4182	3.14	13	PASS
Band5	4233	3.09	13	PASS

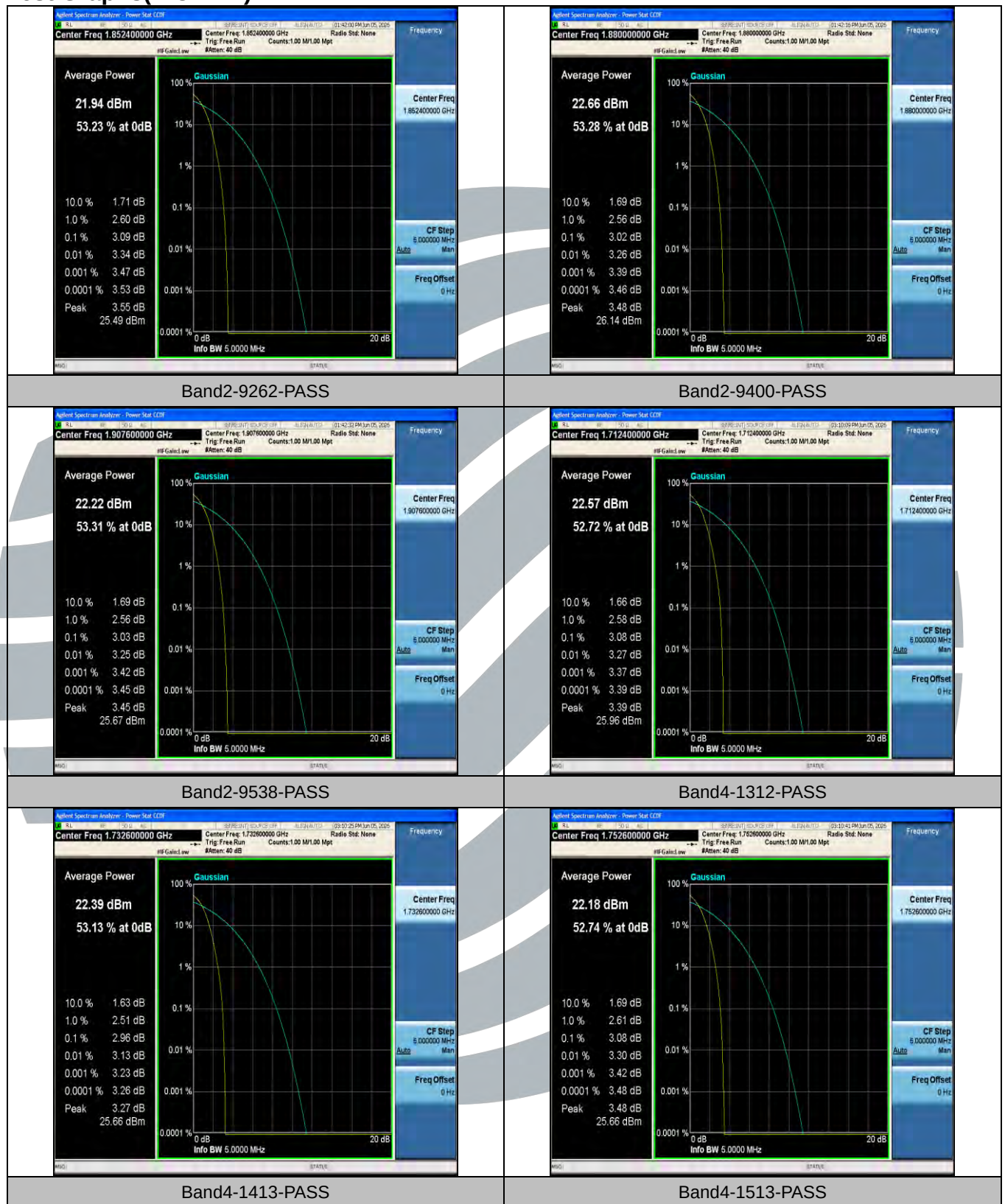
Test Result(HSDPA)

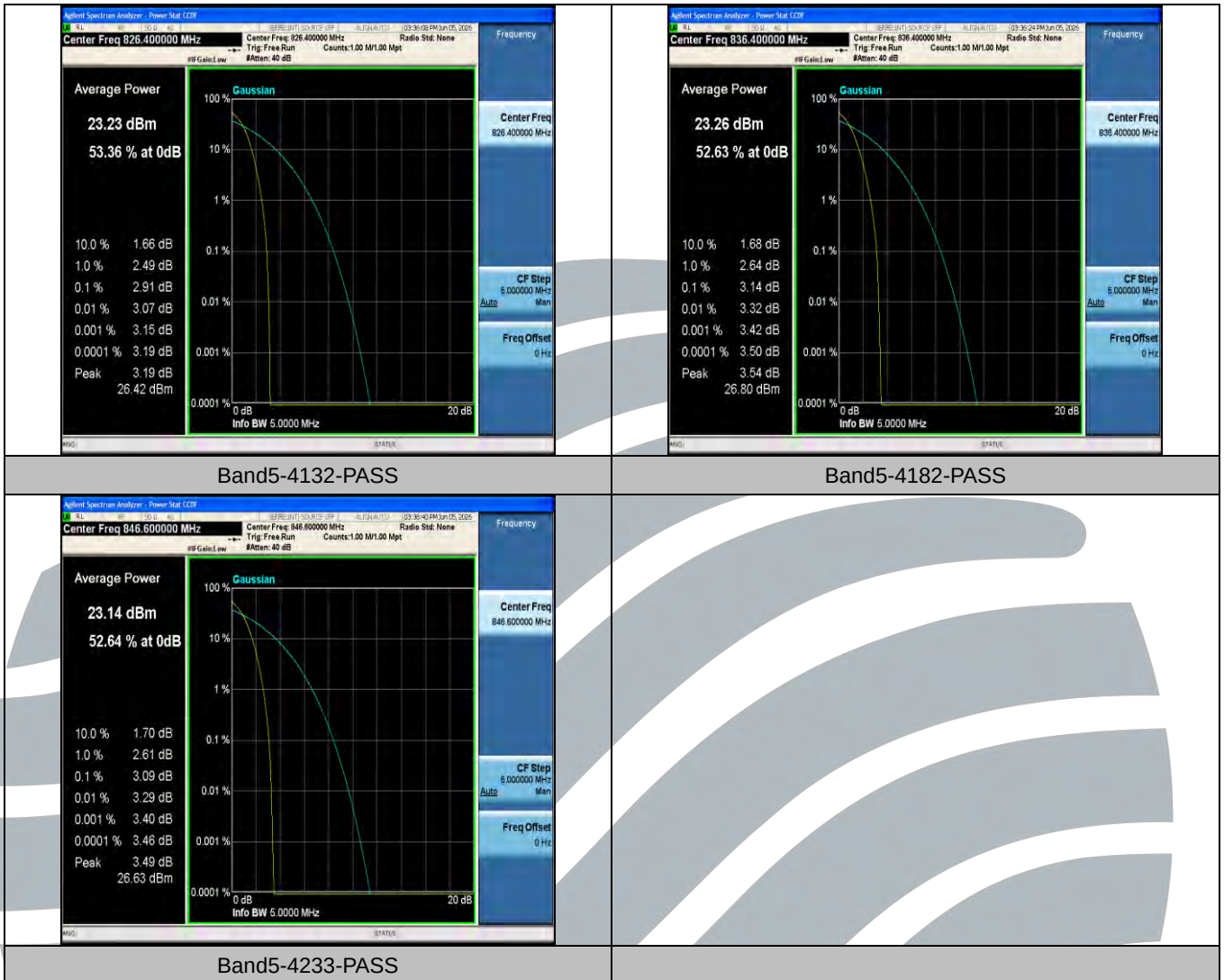
Band	Channel	SubTest	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band2	9262	1	3.18	13	PASS
Band2	9400	1	3.16	13	PASS
Band2	9538	1	3.17	13	PASS
Band4	1312	1	3.11	13	PASS
Band4	1413	1	3.05	13	PASS
Band4	1513	1	3.12	13	PASS
Band5	4132	1	3.08	13	PASS
Band5	4182	1	3.2	13	PASS
Band5	4233	1	3.17	13	PASS

Test Result(HSUPA)

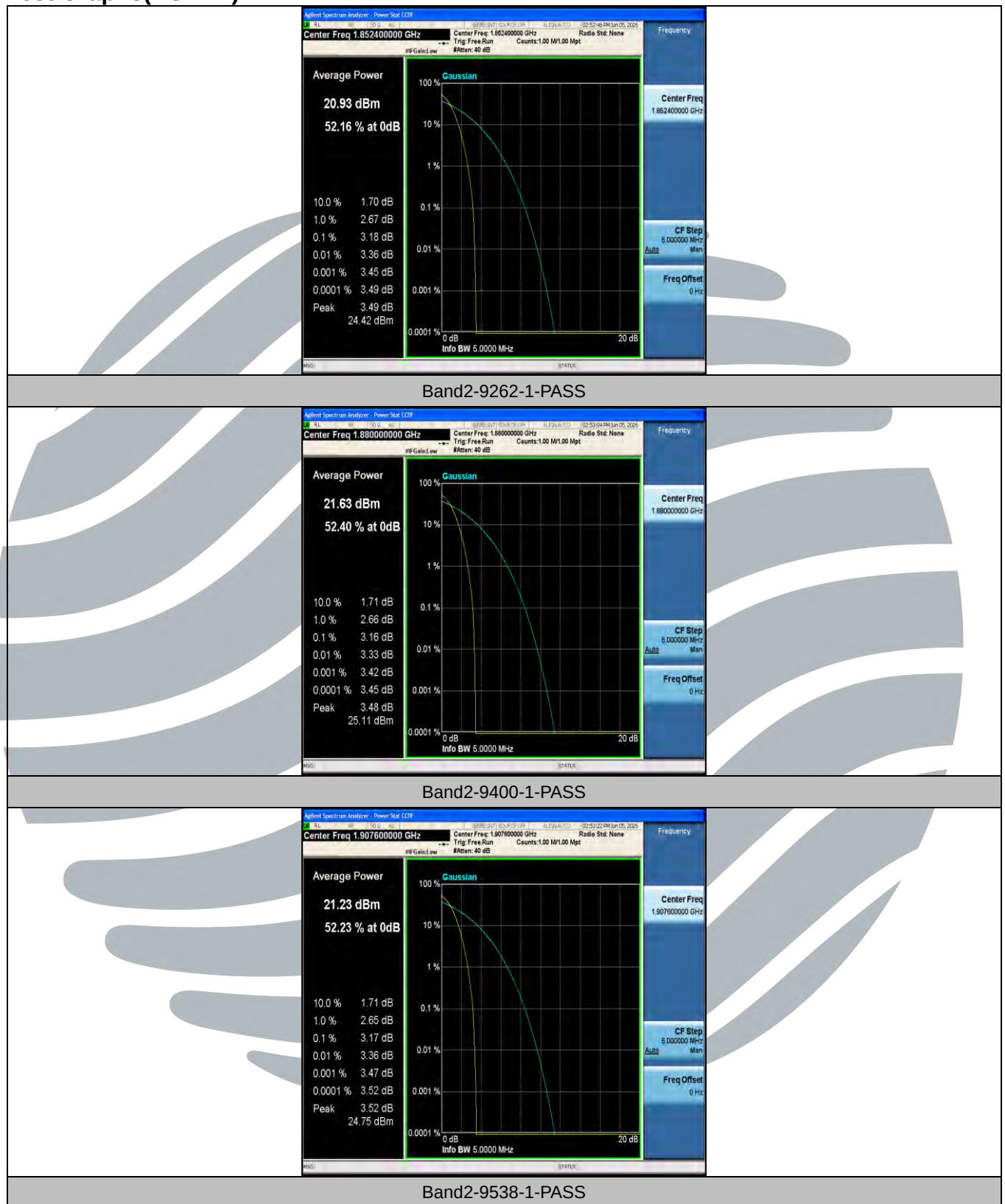
Band	Channel	SubTest	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band2	9262	1	4.53	13	PASS
Band2	9400	1	4.52	13	PASS
Band2	9538	1	4.54	13	PASS
Band4	1312	1	4.47	13	PASS
Band4	1413	1	4.43	13	PASS
Band4	1513	1	4.46	13	PASS
Band5	4132	1	4.54	13	PASS
Band5	4182	1	4.6	13	PASS
Band5	4233	1	4.59	13	PASS

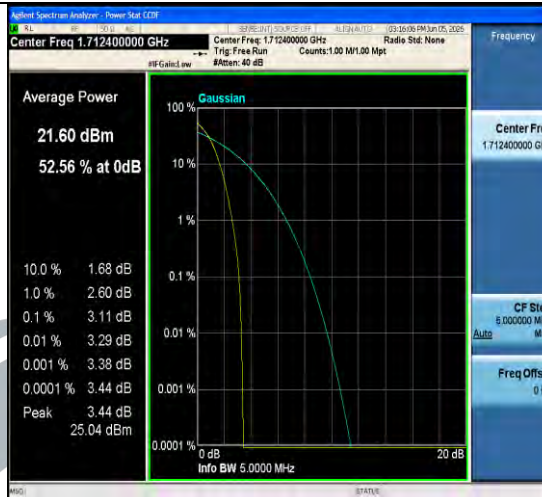
Test Graphs(WCDMA)





Test Graphs(HSDPA)





Band4-1312-1-PASS



Band4-1413-1-PASS



Band4-1513-1-PASS



Band5-4132-1-PASS

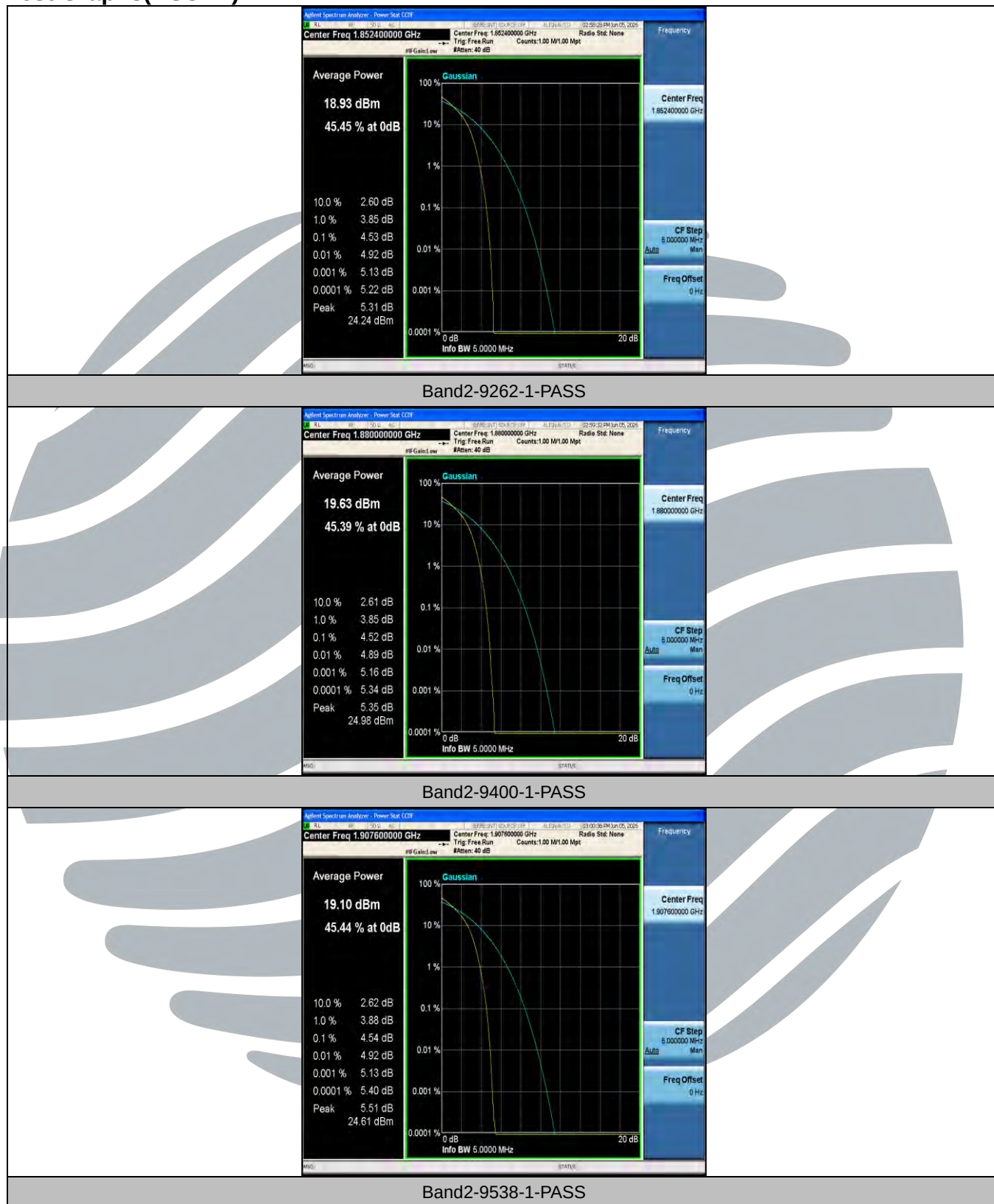


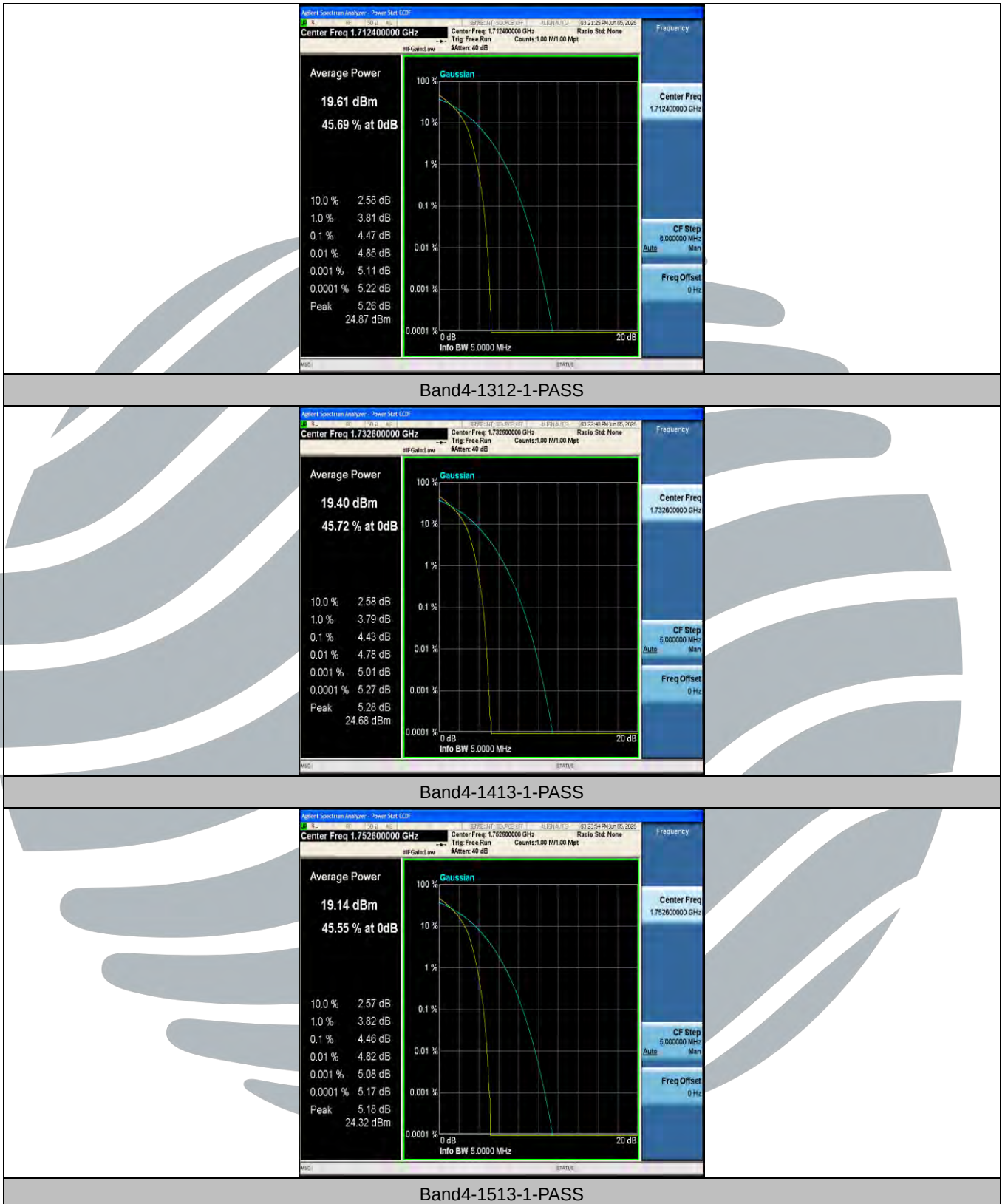
Band5-4182-1-PASS

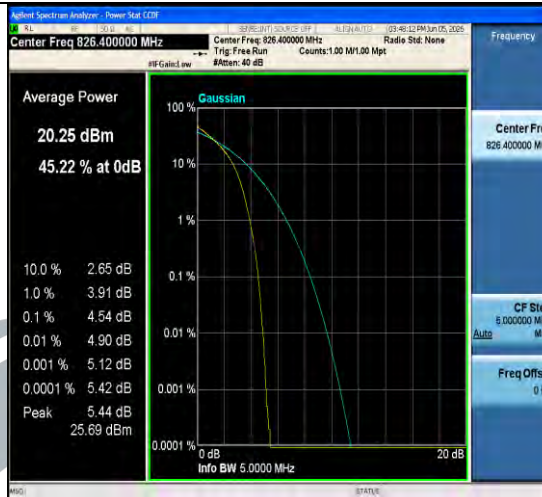


Band5-4233-1-PASS

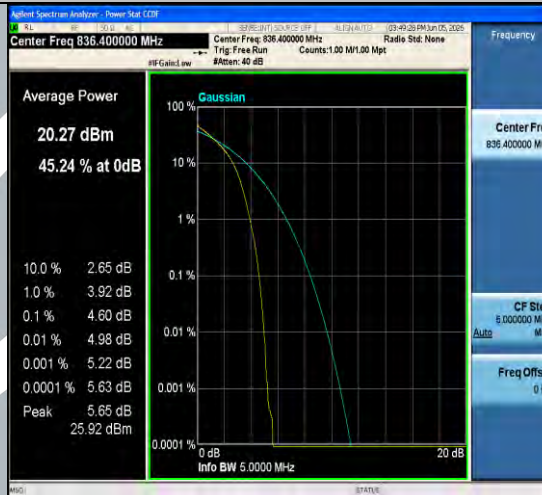
Test Graphs(HSUPA)







Band5-4132-1-PASS



Band5-4182-1-PASS



Band5-4233-1-PASS

A.2 26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result(WCDMA)

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band2	9262	4.1440	4.688	---	PASS
Band2	9400	4.1454	4.684	---	PASS
Band2	9538	4.1487	4.692	---	PASS
Band4	1312	4.1487	4.697	---	PASS
Band4	1413	4.1435	4.699	---	PASS
Band4	1513	4.1494	4.692	---	PASS
Band5	4132	4.1541	4.698	---	PASS
Band5	4182	4.1451	4.688	---	PASS
Band5	4233	4.1467	4.688	---	PASS

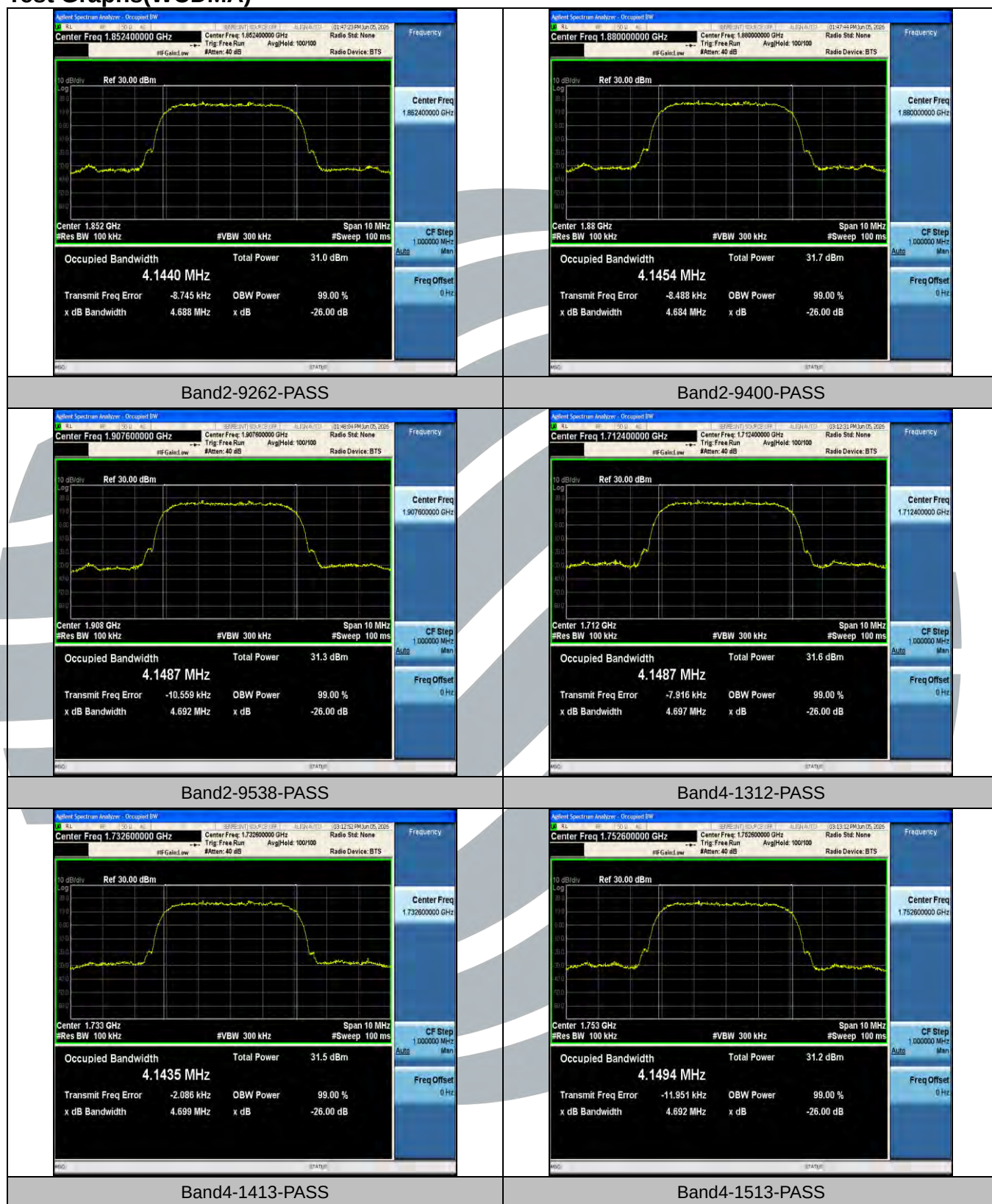
Test Result(HSDPA)

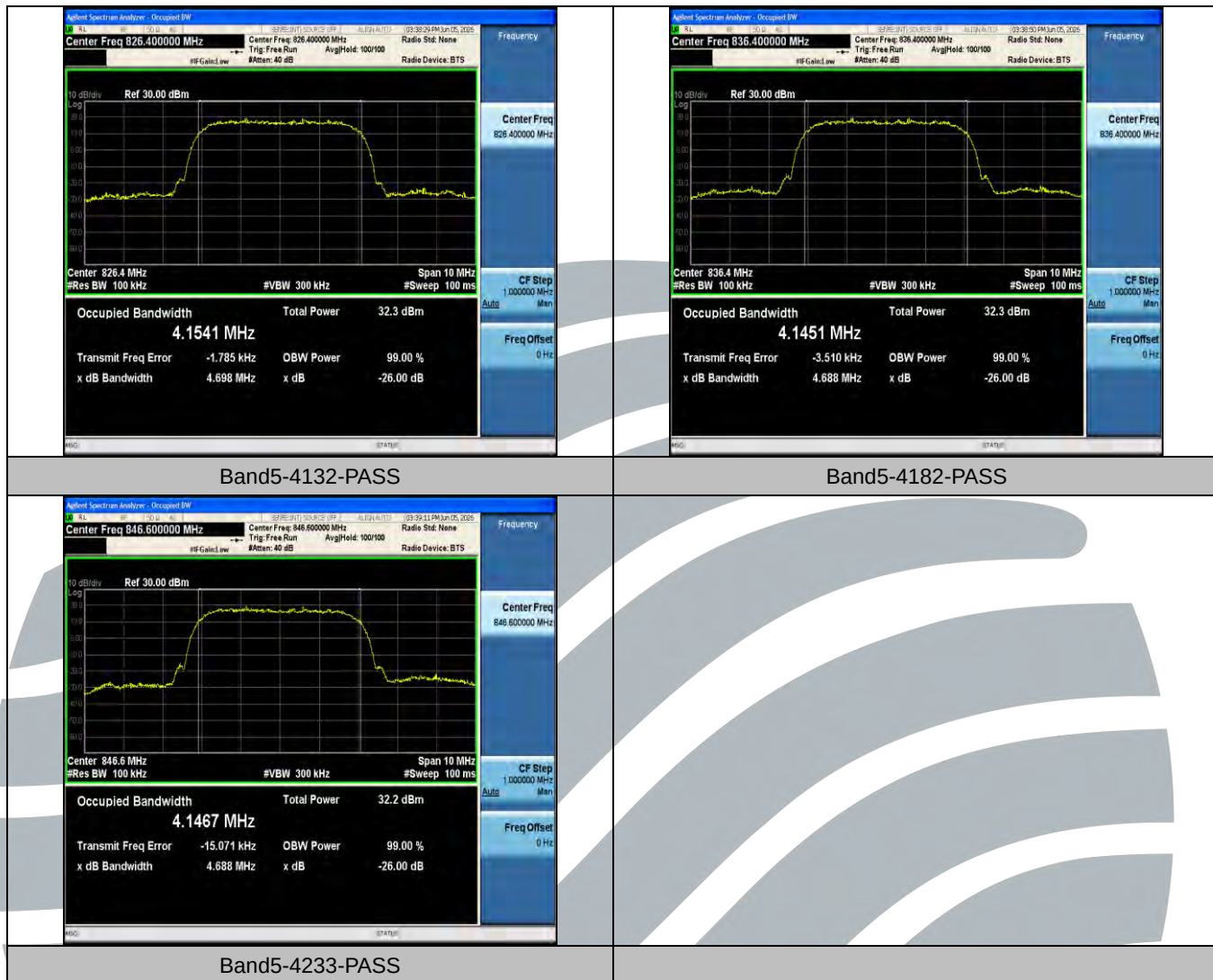
Band	Channel	SubTest	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band2	9262	1	4.1555	4.691	---	PASS
Band2	9400	1	4.1493	4.685	---	PASS
Band2	9538	1	4.1492	4.692	---	PASS
Band4	1312	1	4.1478	4.698	---	PASS
Band4	1413	1	4.1531	4.706	---	PASS
Band4	1513	1	4.1535	4.694	---	PASS
Band5	4132	1	4.1503	4.691	---	PASS
Band5	4182	1	4.1475	4.690	---	PASS
Band5	4233	1	4.1475	4.689	---	PASS

Test Result(HSUPA)

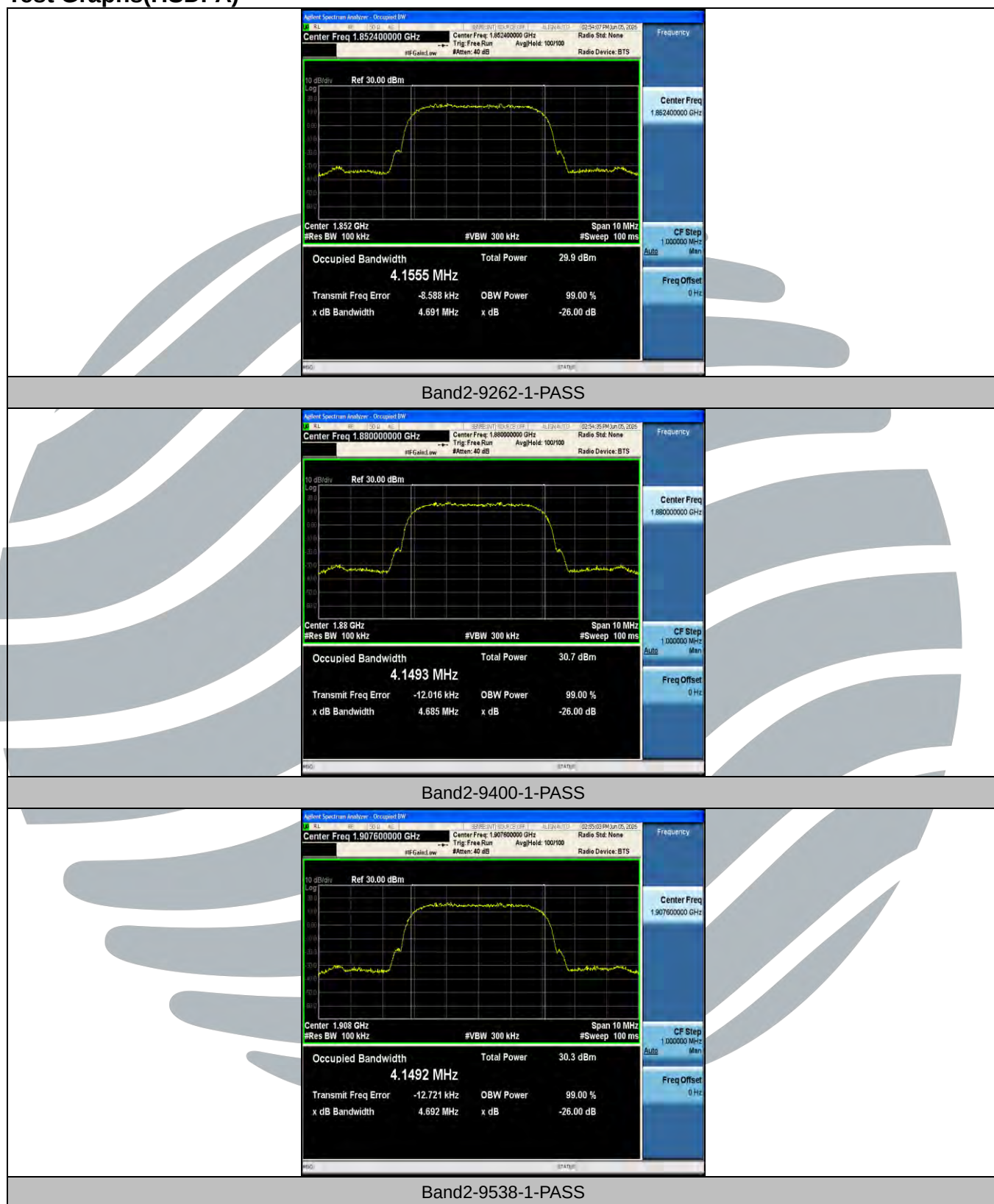
Band	Channel	SubTest	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band2	9262	1	4.1650	4.707	---	PASS
Band2	9400	1	4.1573	4.685	---	PASS
Band2	9538	1	4.1760	4.699	---	PASS
Band4	1312	1	4.1730	4.702	---	PASS
Band4	1413	1	4.1703	4.701	---	PASS
Band4	1513	1	4.1635	4.723	---	PASS
Band5	4132	1	4.1739	4.706	---	PASS
Band5	4182	1	4.1693	4.687	---	PASS
Band5	4233	1	4.1626	4.711	---	PASS

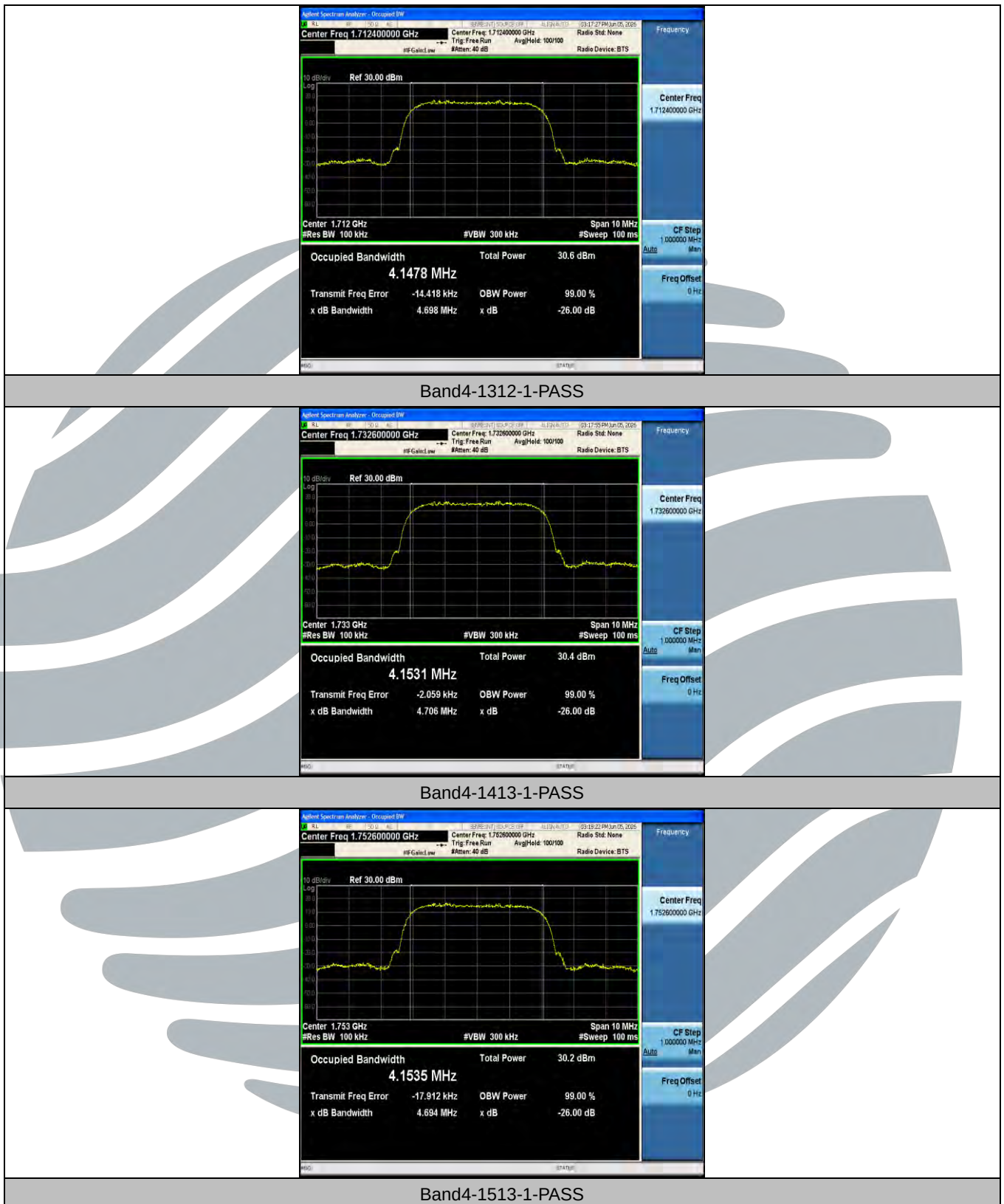
Test Graphs(WCDMA)

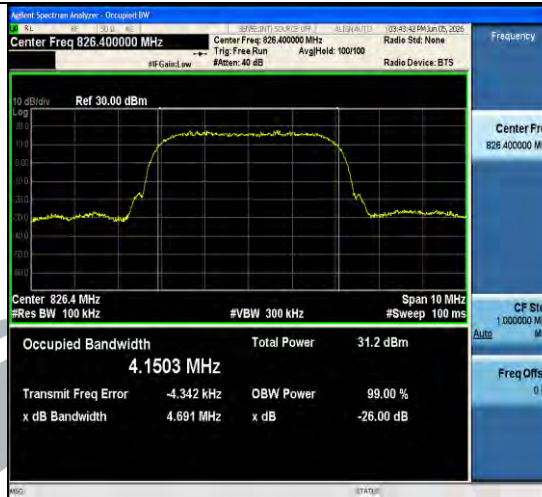




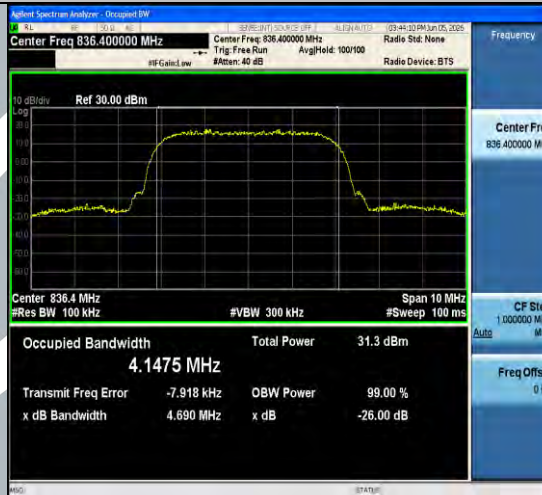
Test Graphs(HSDPA)







Band5-4132-1-PASS

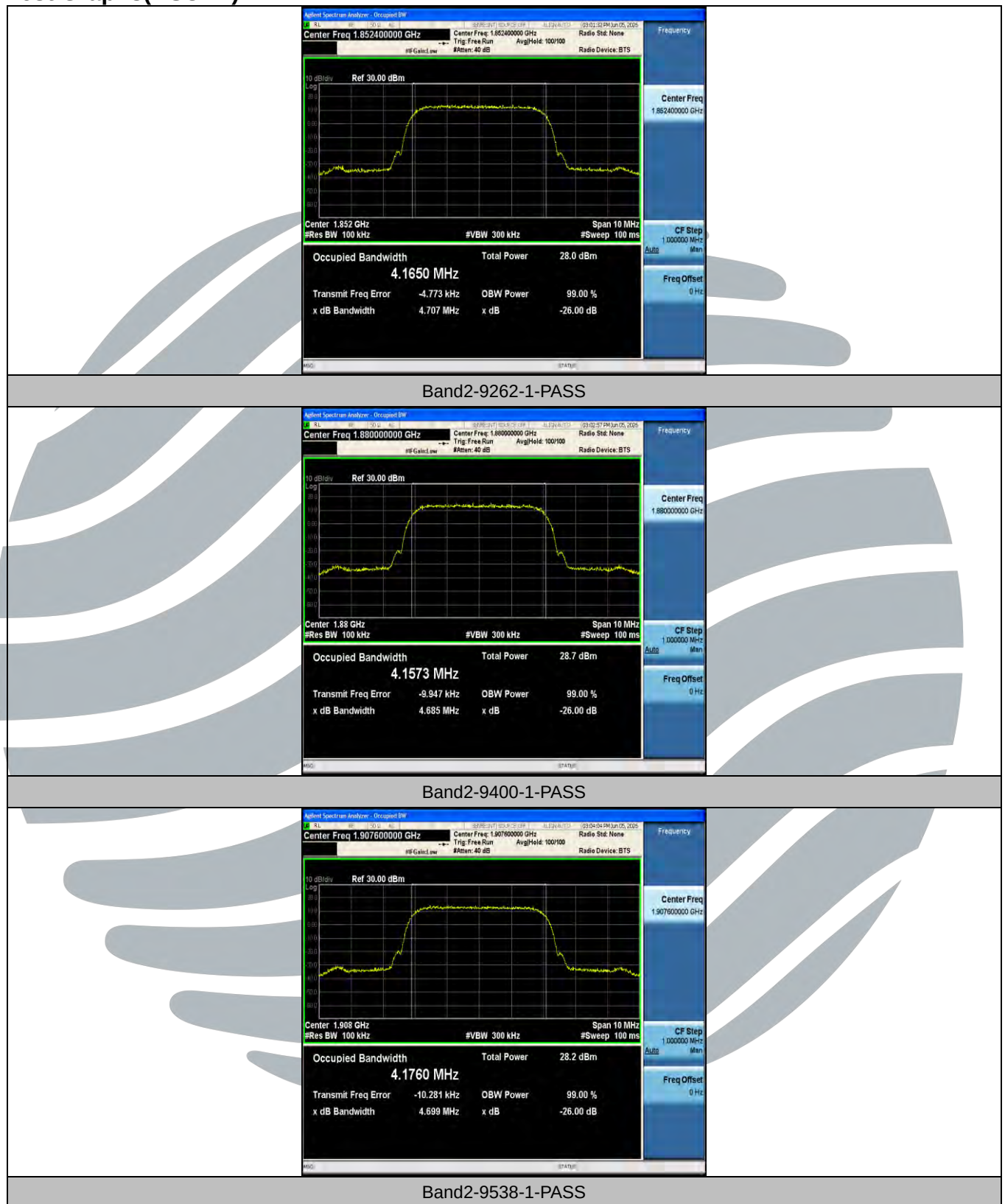


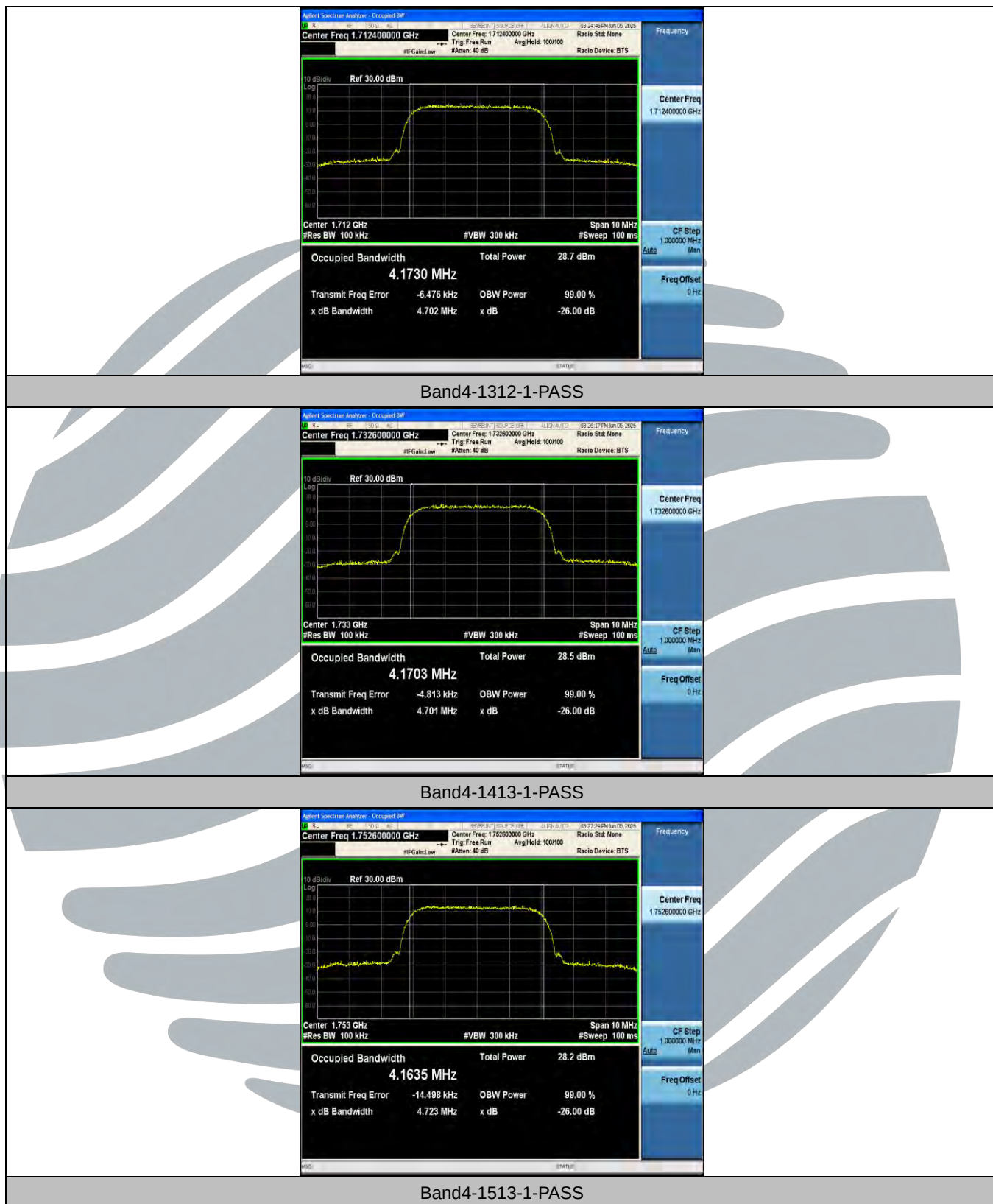
Band5-4182-1-PASS



Band5-4233-1-PASS

Test Graphs(HSUPA)







Band5-4132-1-PASS



Band5-4182-1-PASS



Band5-4233-1-PASS

A.3 BAND EDGE

Test Result(WCDMA)

Band	Channel	Frequency (MHz)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	1849.87	-28.38	-13	PASS
Band2	9538	1910.11	-29.25	-13	PASS
Band4	1312	1709.87	-28.34	-13	PASS
Band4	1513	1755.15	-30.67	-13	PASS
Band5	4132	823.89	-28.87	-13	PASS
Band5	4233	849.09	-28.27	-13	PASS

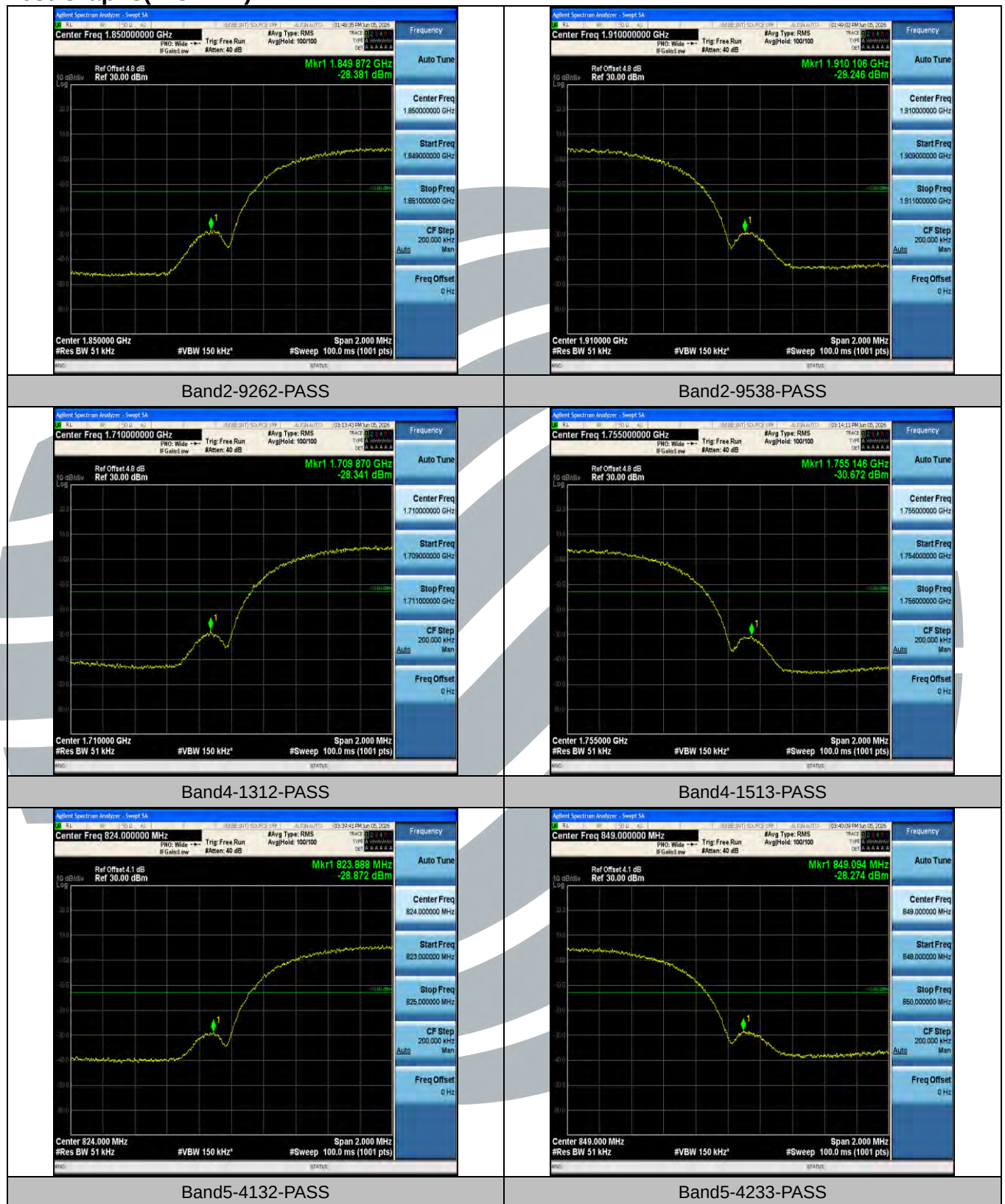
Test Result(HSDPA)

Band	Channel	SubTest	Frequency (MHz)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	1	1849.86	-29.09	-13	PASS
Band2	9538	1	1910.14	-29.75	-13	PASS
Band4	1312	1	1709.86	-29.66	-13	PASS
Band4	1513	1	1755.12	-30.91	-13	PASS
Band5	4132	1	823.89	-27.53	-13	PASS
Band5	4233	1	849.15	-28.45	-13	PASS

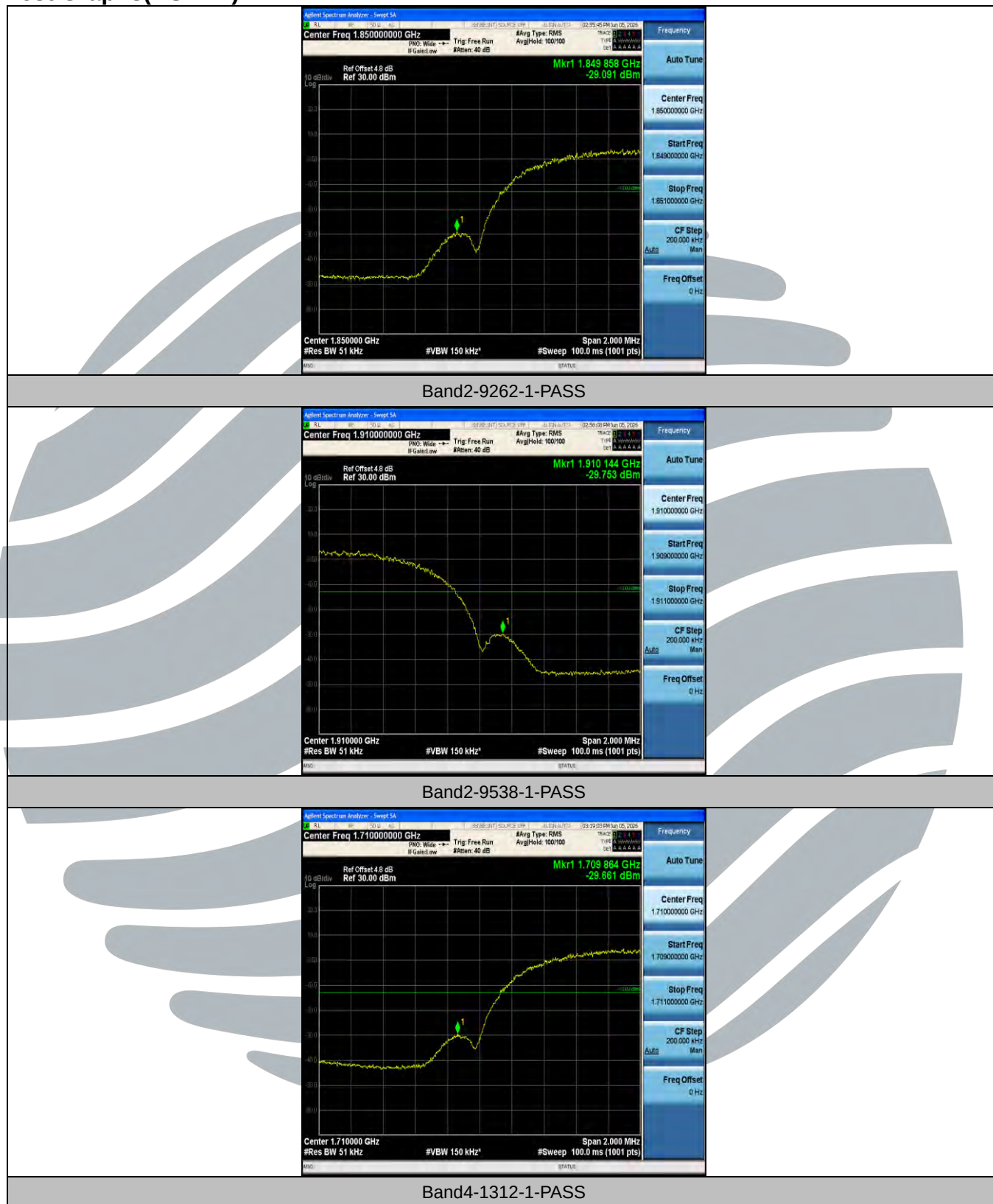
Test Result(HSUPA)

Band	Channel	SubTest	Frequency (MHz)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	1	1849.87	-32.11	-13	PASS
Band2	9538	1	1910.12	-32.35	-13	PASS
Band4	1312	1	1709.88	-30.90	-13	PASS
Band4	1513	1	1755.13	-33.12	-13	PASS
Band5	4132	1	823.88	-28.69	-13	PASS
Band5	4233	1	849.12	-30.13	-13	PASS

Test Graphs(WCDMA)



Test Graphs(HSDPA)





Band4-1513-1-PASS



Band5-4132-1-PASS



Band5-4233-1-PASS

Test Graphs(HSUPA)



Band2-9262-1-PASS



Band2-9538-1-PASS



Band4-1312-1-PASS



Band4-1513-1-PASS



Band5-4132-1-PASS



Band5-4233-1-PASS

A.4 CONDUCTED SPURIOUSEMISSION

Test Result(WCDMA)

Band	Channel	Frequency Range	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	30~1000MHz	893.98	-50.59	-13	PASS
Band2	9262	1000~3000MHz	2745.5	-47.12	-13	PASS
Band2	9262	1000~30000MHz	25141	-37.32	-13	PASS
Band2	9262	3000~20000MHz	18923.9	-40.58	-13	PASS
Band2	9400	30~1000MHz	903.1	-50.71	-13	PASS
Band2	9400	1000~3000MHz	2788.35	-46.88	-13	PASS
Band2	9400	1000~30000MHz	25958.7	-37.8	-13	PASS
Band2	9400	3000~20000MHz	18929.85	-40.83	-13	PASS
Band2	9538	30~1000MHz	900.19	-50.96	-13	PASS
Band2	9538	1000~3000MHz	2726.25	-46.94	-13	PASS
Band2	9538	3000~20000MHz	16583.85	-40.97	-13	PASS
Band4	1312	30~1000MHz	909.11	-50.88	-13	PASS
Band4	1312	1000~3000MHz	2761.85	-46.46	-13	PASS
Band4	1312	3000~20000MHz	18939.63	-40.35	-13	PASS
Band4	1413	30~1000MHz	883.02	-50.92	-13	PASS
Band4	1413	1000~3000MHz	2660.65	-46.47	-13	PASS
Band4	1413	3000~20000MHz	19050.13	-40.7	-13	PASS
Band4	1513	30~1000MHz	941.8	-50.93	-13	PASS
Band4	1513	1000~3000MHz	2749.3	-46.57	-13	PASS
Band4	1513	3000~20000MHz	18914.13	-40.57	-13	PASS
Band5	4132	30~1000MHz	931.32	-58.06	-13	PASS
Band5	4132	1000~10000MHz	5742.55	-47.13	-13	PASS
Band5	4182	30~1000MHz	432.26	-58.31	-13	PASS
Band5	4182	1000~10000MHz	5844.25	-46.97	-13	PASS
Band5	4233	30~1000MHz	459.23	-58.69	-13	PASS
Band5	4233	1000~10000MHz	5778.1	-47.27	-13	PASS

Test Result(HSDPA)

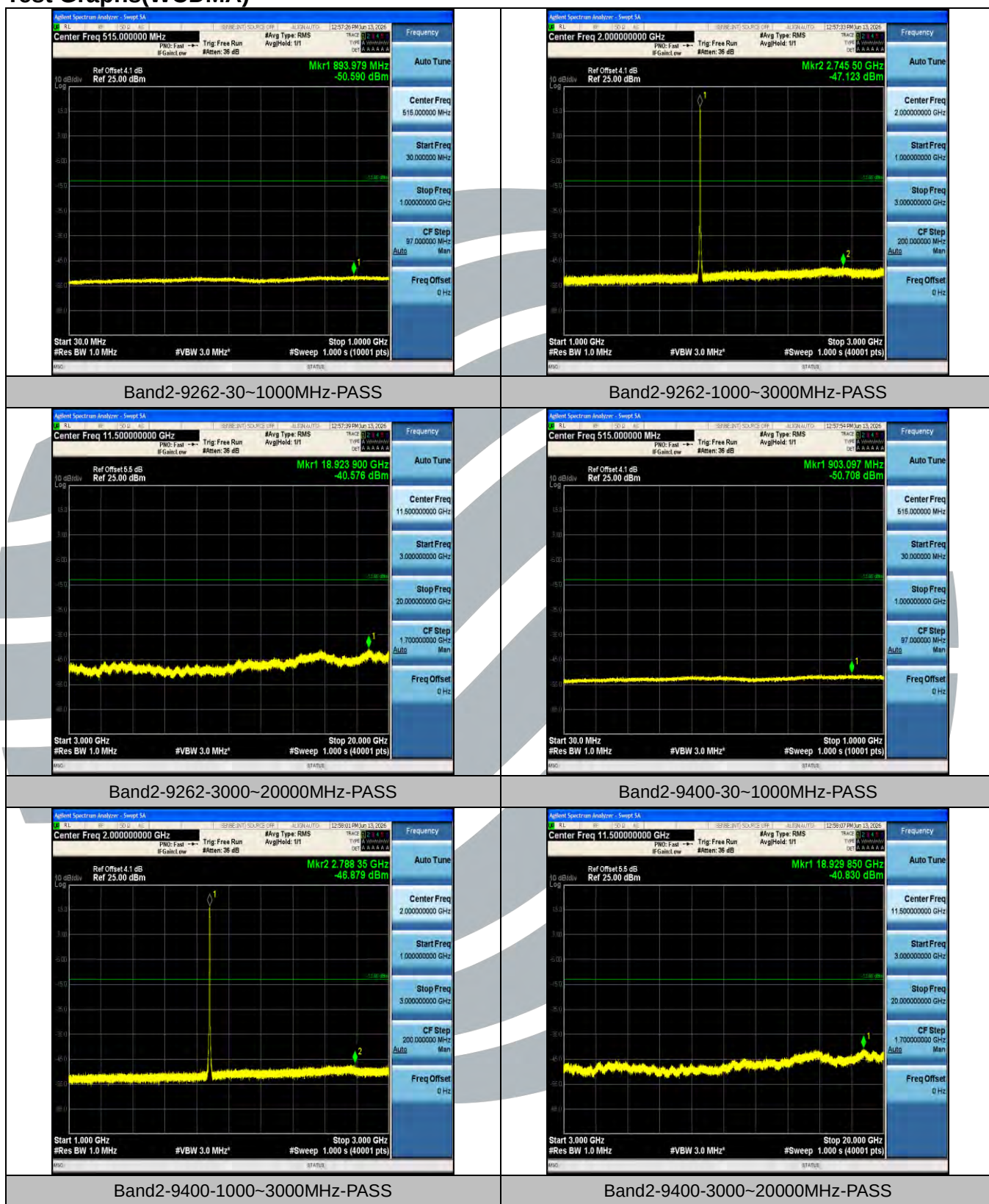
Band	Channel	SubTest	Frequency Range	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	1	30~1000MHz	911.44	-50.79	-13	PASS
Band2	9262	1	1000~3000MHz	2721.5	-46.35	-13	PASS
Band2	9262	1	3000~20000MHz	18971.93	-39.92	-13	PASS
Band2	9400	1	30~1000MHz	836.94	-50.86	-13	PASS
Band2	9400	1	1000~3000MHz	2706.7	-46.83	-13	PASS
Band2	9400	1	3000~20000MHz	18974.05	-40.51	-13	PASS
Band2	9538	1	30~1000MHz	910.95	-50.76	-13	PASS
Band2	9538	1	1000~3000MHz	2737.7	-46.38	-13	PASS
Band2	9538	1	3000~20000MHz	19031.85	-40.56	-13	PASS
Band4	1312	1	30~1000MHz	918.91	-50.73	-13	PASS
Band4	1312	1	1000~3000MHz	2759.15	-46.48	-13	PASS
Band4	1312	1	3000~20000MHz	18957.05	-39.84	-13	PASS
Band4	1413	1	30~1000MHz	927.25	-50.75	-13	PASS
Band4	1413	1	1000~3000MHz	2747	-46.59	-13	PASS
Band4	1413	1	3000~20000MHz	19007.2	-40.4	-13	PASS
Band4	1513	1	30~1000MHz	903	-50.83	-13	PASS
Band4	1513	1	1000~3000MHz	2756.25	-46.72	-13	PASS
Band4	1513	1	3000~20000MHz	19004.23	-40.35	-13	PASS
Band5	4132	1	30~1000MHz	958.48	-59.06	-13	PASS
Band5	4132	1	1000~10000MHz	5810.05	-46.88	-13	PASS
Band5	4182	1	30~1000MHz	949.37	-58.6	-13	PASS

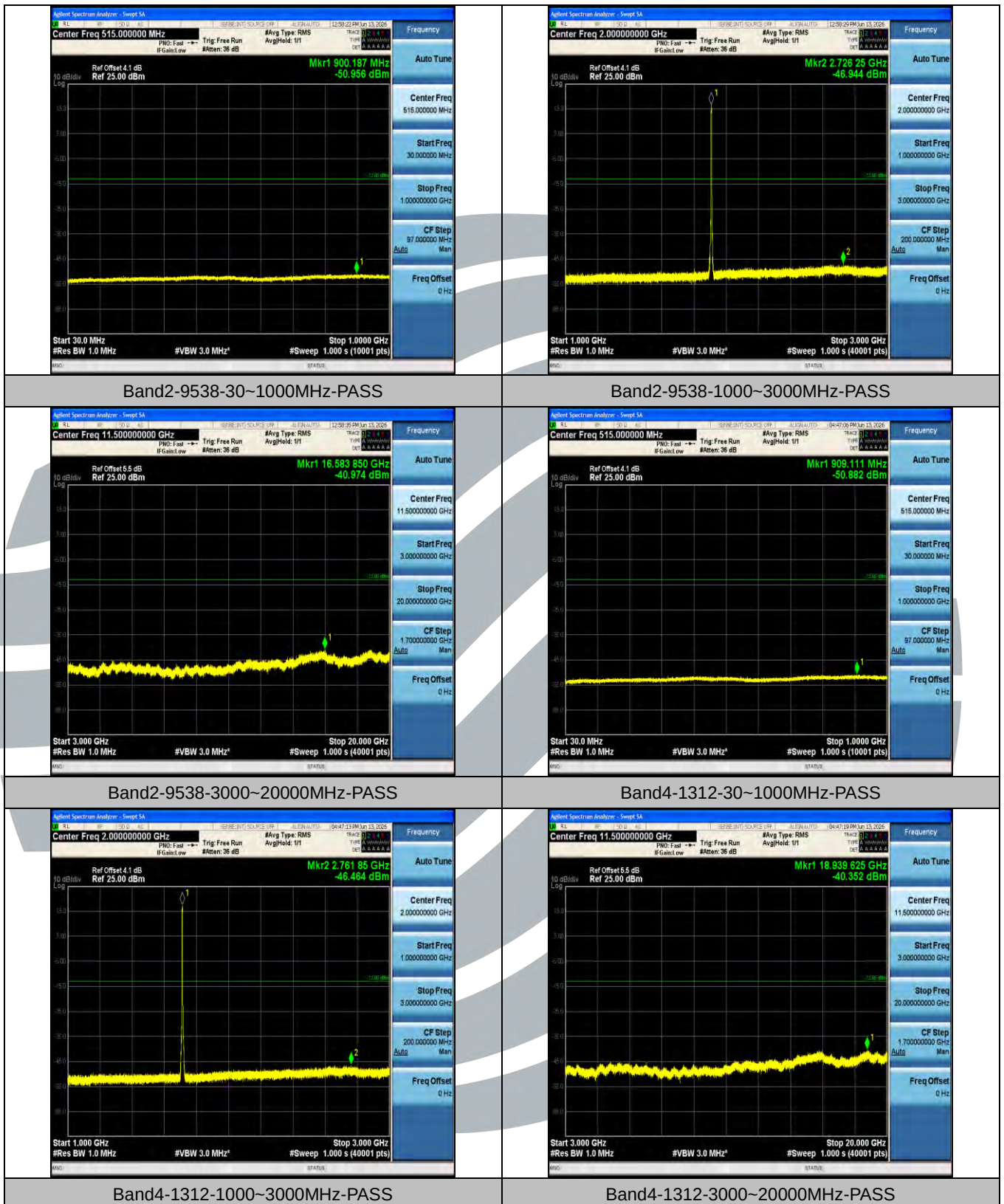
Band	Channel	SubTest	Frequency Range	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band5	4182	1	1000~10000MHz	2624.95	-46.99	-13	PASS
Band5	4233	1	30~1000MHz	978.56	-59.1	-13	PASS
Band5	4233	1	1000~10000MHz	5401.45	-47.06	-13	PASS

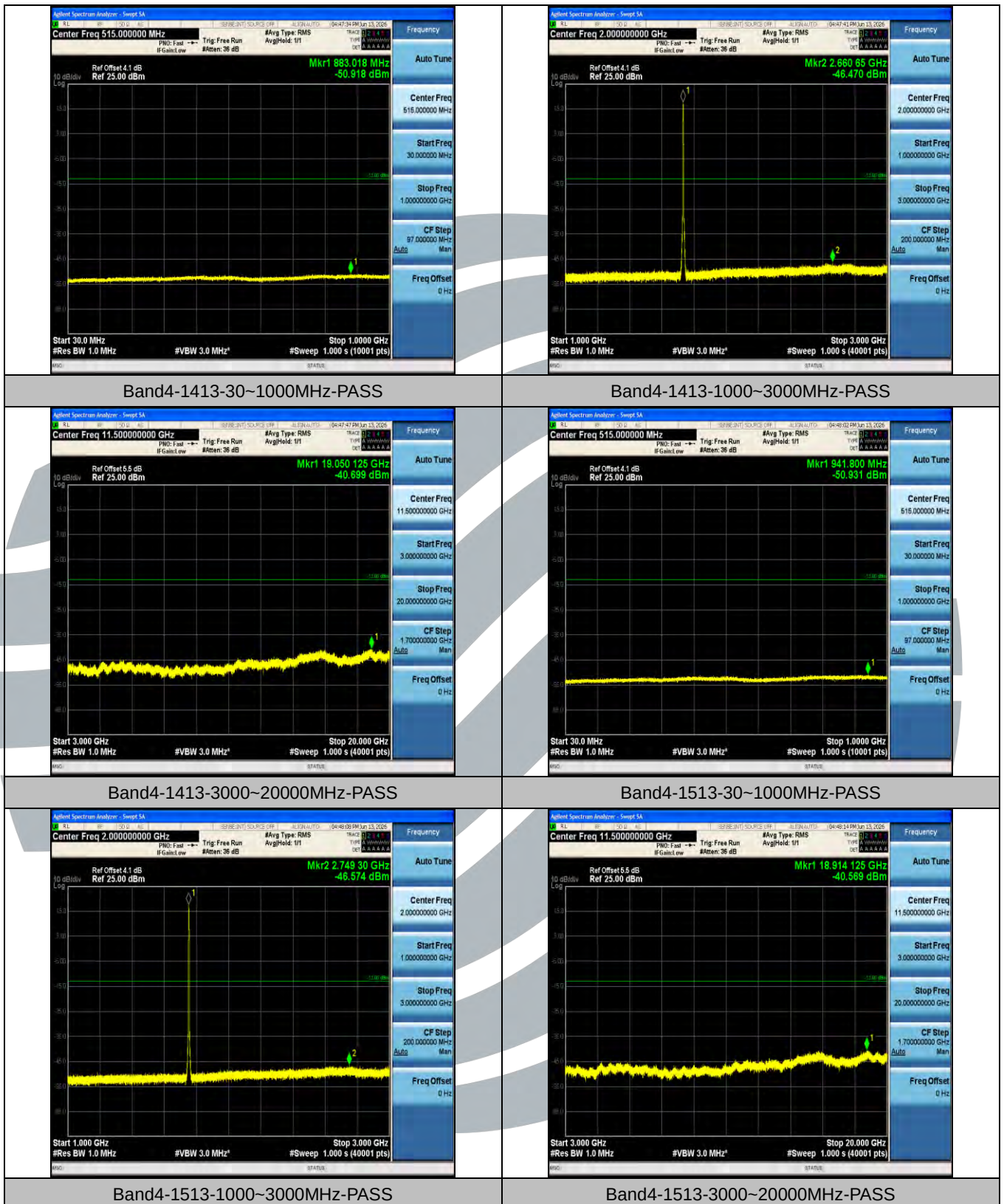
Test Result(HSUPA)

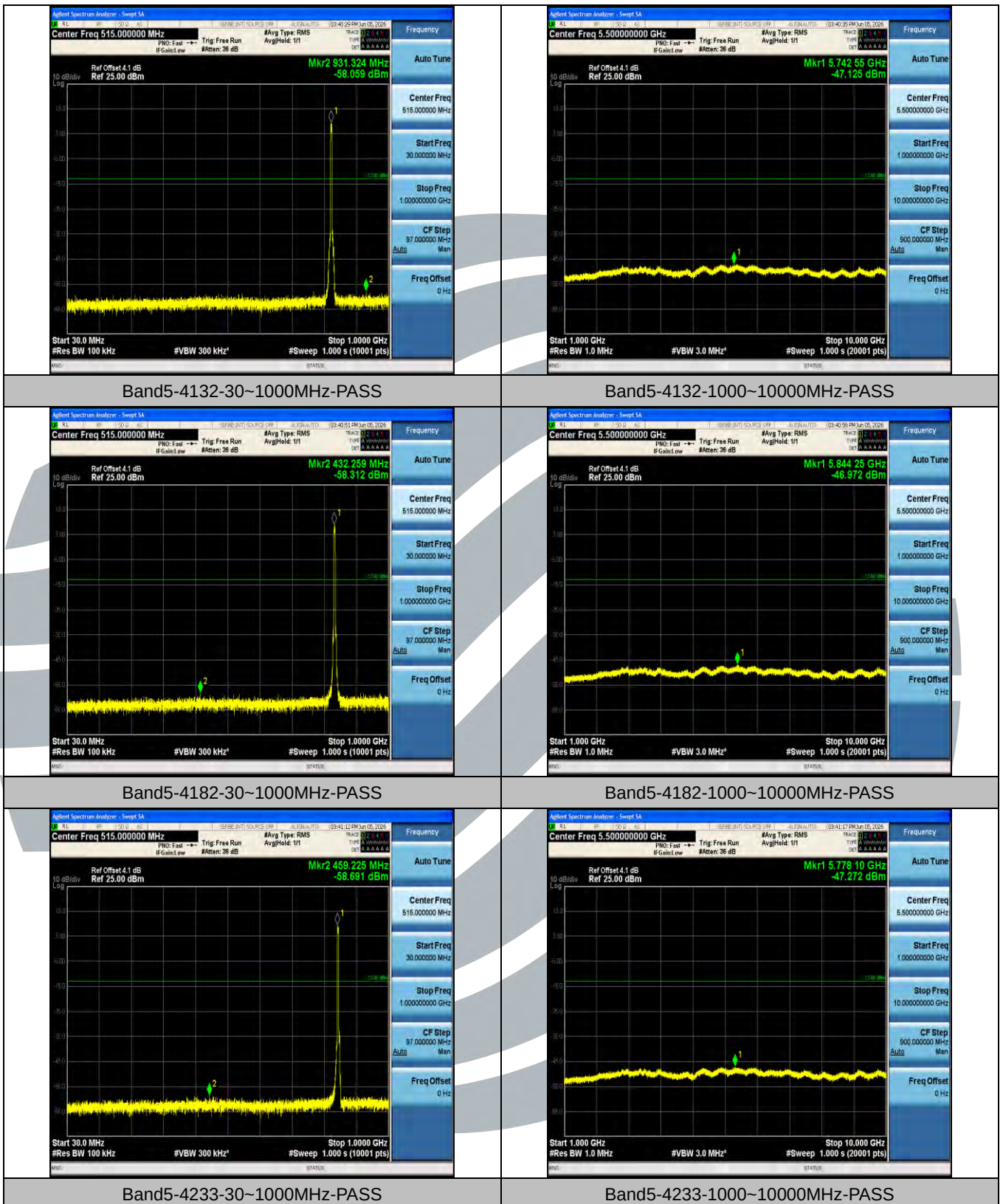
Band	Channel	SubTest	Frequency Range	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	1	30~1000MHz	960.04	-50.9	-13	PASS
Band2	9262	1	1000~3000MHz	2780.8	-46.33	-13	PASS
Band2	9262	1	3000~20000MHz	18913.28	-40.19	-13	PASS
Band2	9400	1	30~1000MHz	892.04	-50.83	-13	PASS
Band2	9400	1	1000~3000MHz	2634.15	-46.47	-13	PASS
Band2	9400	1	3000~20000MHz	18957.05	-40.16	-13	PASS
Band2	9538	1	30~1000MHz	929.87	-50.61	-13	PASS
Band2	9538	1	1000~3000MHz	2623.9	-46.48	-13	PASS
Band2	9538	1	3000~20000MHz	18972.35	-40.33	-13	PASS
Band4	1312	1	30~1000MHz	899.12	-50.89	-13	PASS
Band4	1312	1	1000~3000MHz	2709.15	-46.06	-13	PASS
Band4	1312	1	3000~20000MHz	18937.93	-40.39	-13	PASS
Band4	1413	1	30~1000MHz	884.67	-50.64	-13	PASS
Band4	1413	1	1000~3000MHz	2731.1	-46.71	-13	PASS
Band4	1413	1	3000~20000MHz	18947.7	-40.22	-13	PASS
Band4	1513	1	30~1000MHz	936.17	-50.84	-13	PASS
Band4	1513	1	1000~3000MHz	2960.1	-46.58	-13	PASS
Band4	1513	1	3000~20000MHz	19051.83	-40.31	-13	PASS
Band5	4132	1	30~1000MHz	988.07	-58.06	-13	PASS
Band5	4132	1	1000~10000MHz	5451.4	-47.07	-13	PASS
Band5	4182	1	30~1000MHz	721.51	-58.99	-13	PASS
Band5	4182	1	1000~10000MHz	2629	-47.09	-13	PASS
Band5	4233	1	30~1000MHz	965.08	-58.99	-13	PASS
Band5	4233	1	1000~10000MHz	2766.25	-47.12	-13	PASS

Test Graphs(WCDMA)

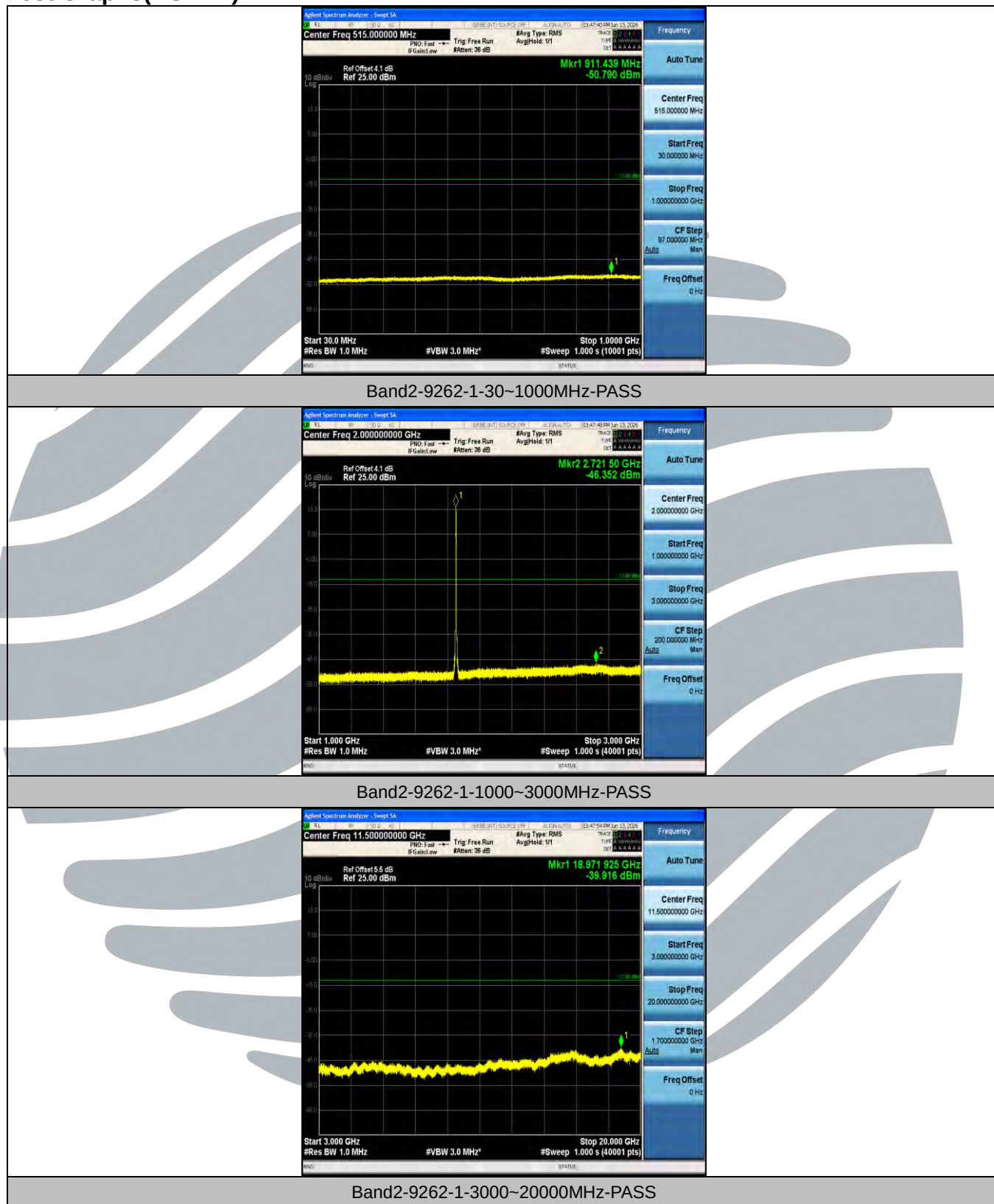


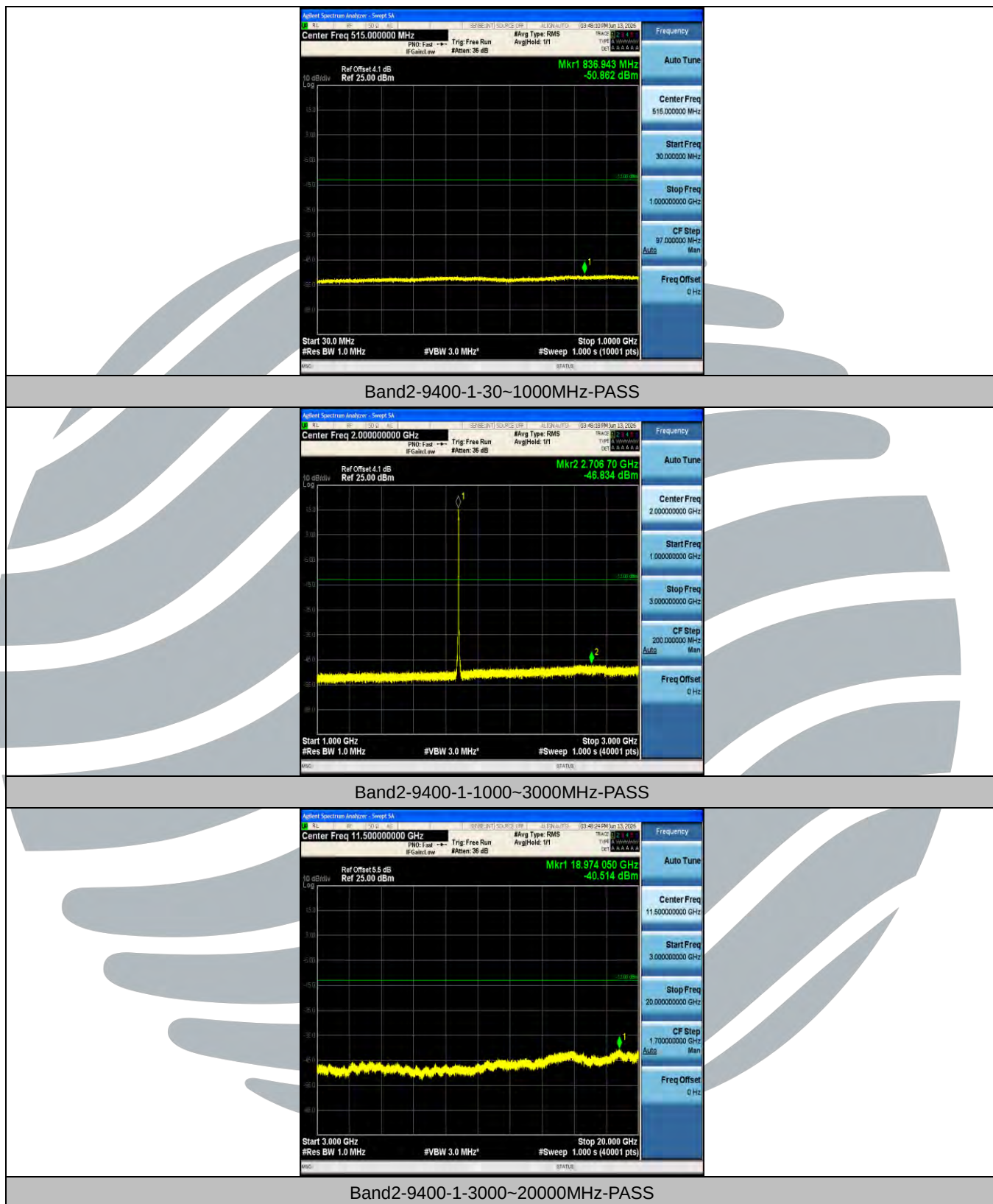


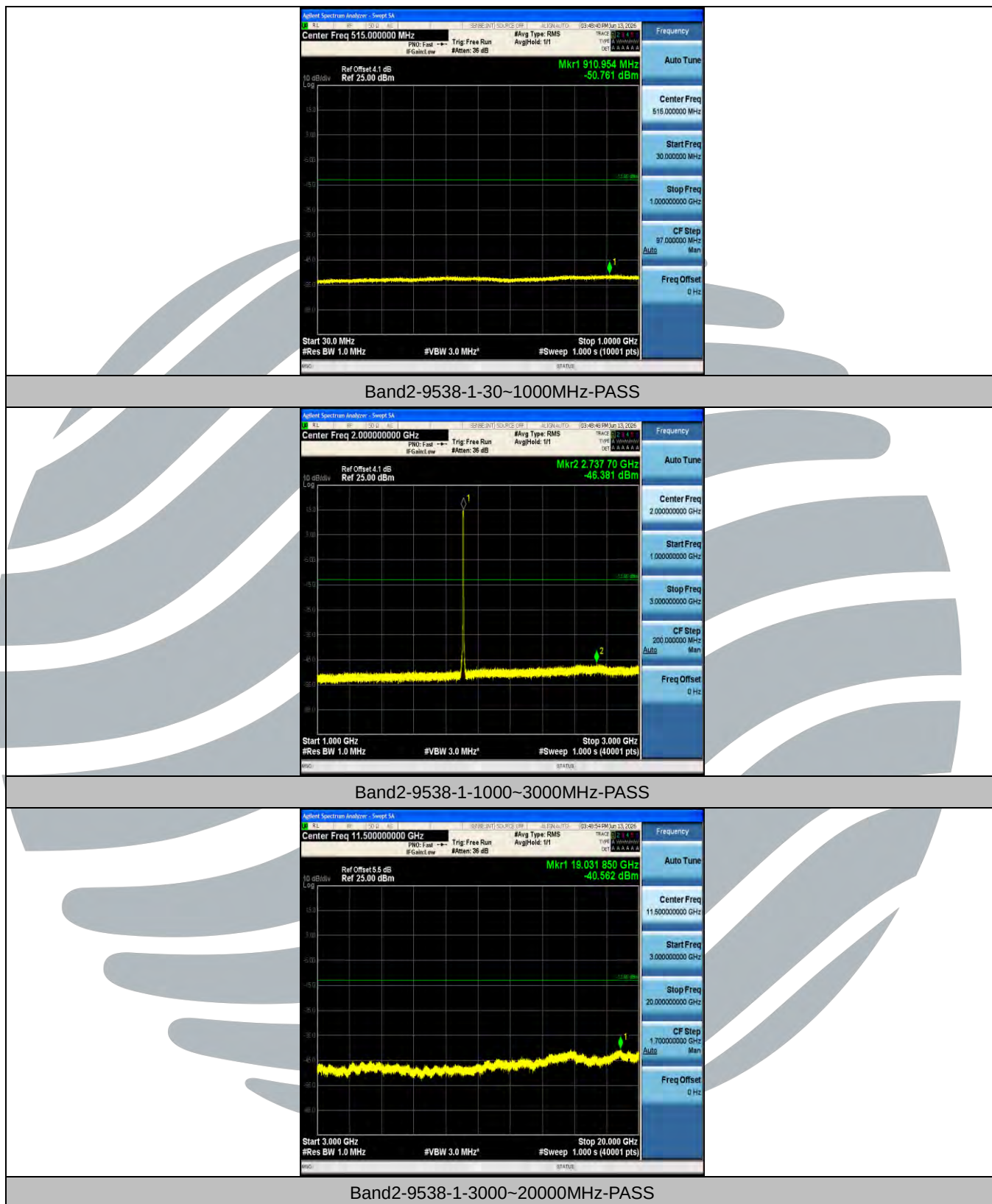


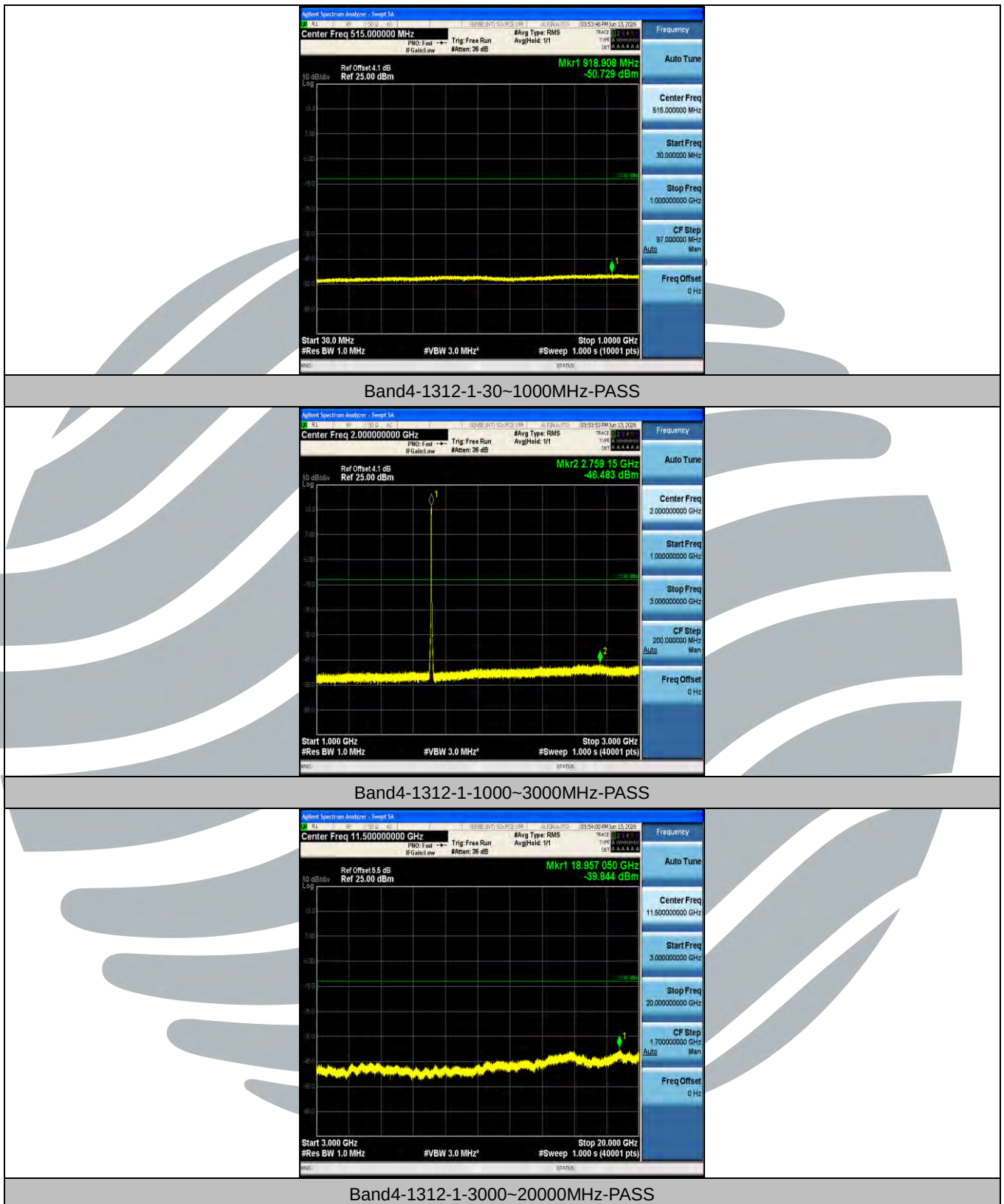


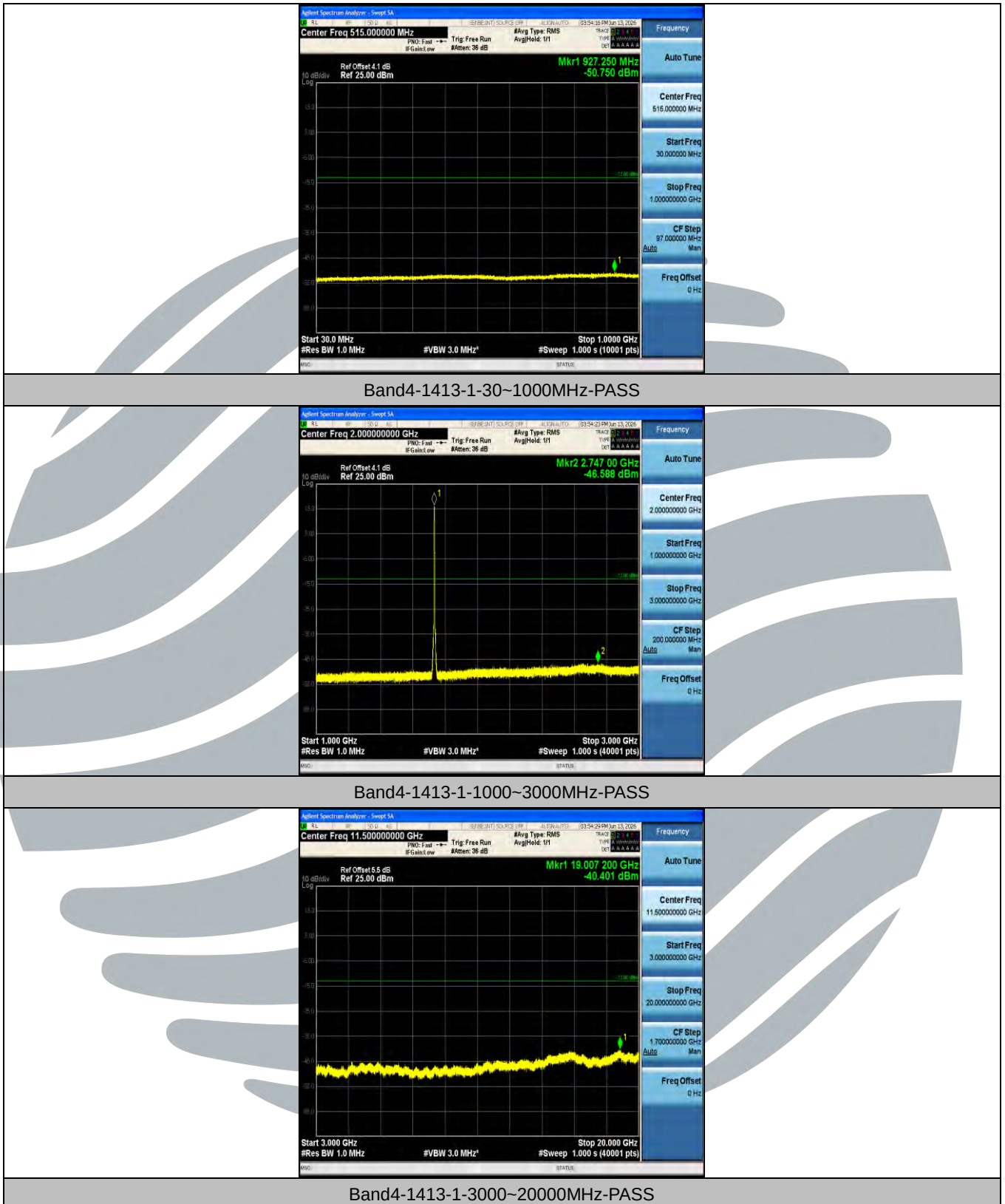
Test Graphs(HSDPA)

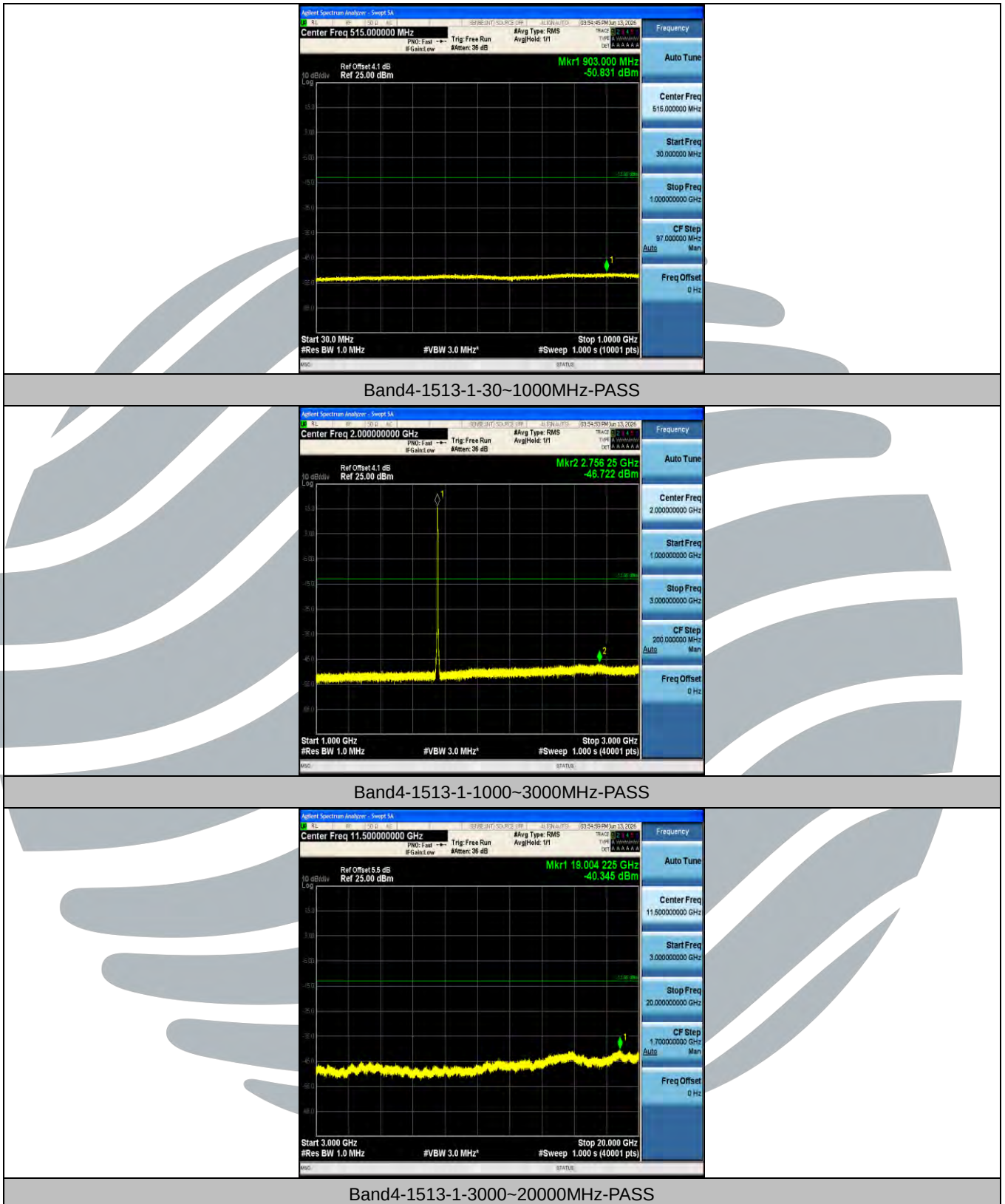


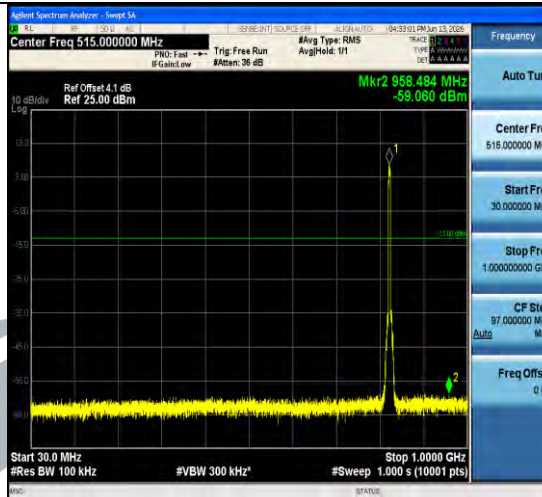








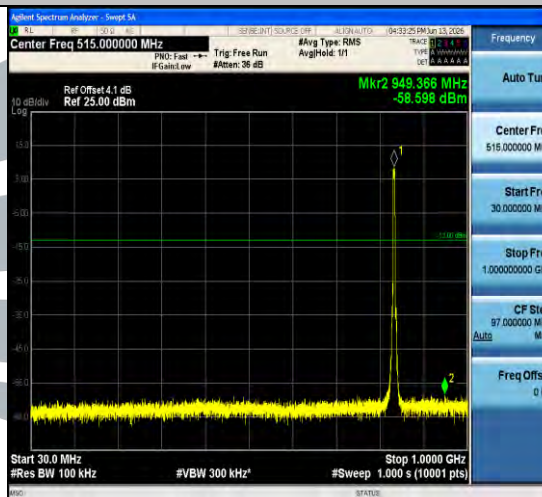




Band5-4132-1-30~1000MHz-PASS



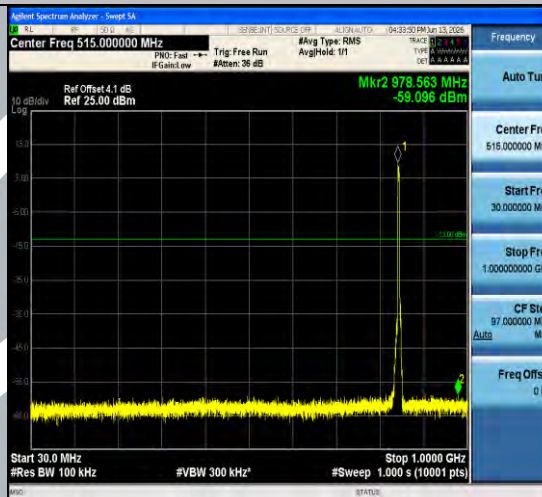
Band5-4132-1-1000~10000MHz-PASS



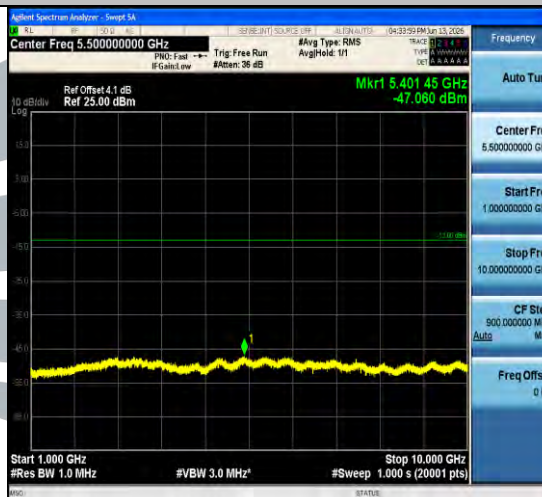
Band5-4182-1-30~1000MHz-PASS



Band5-4182-1-1000~10000MHz-PASS

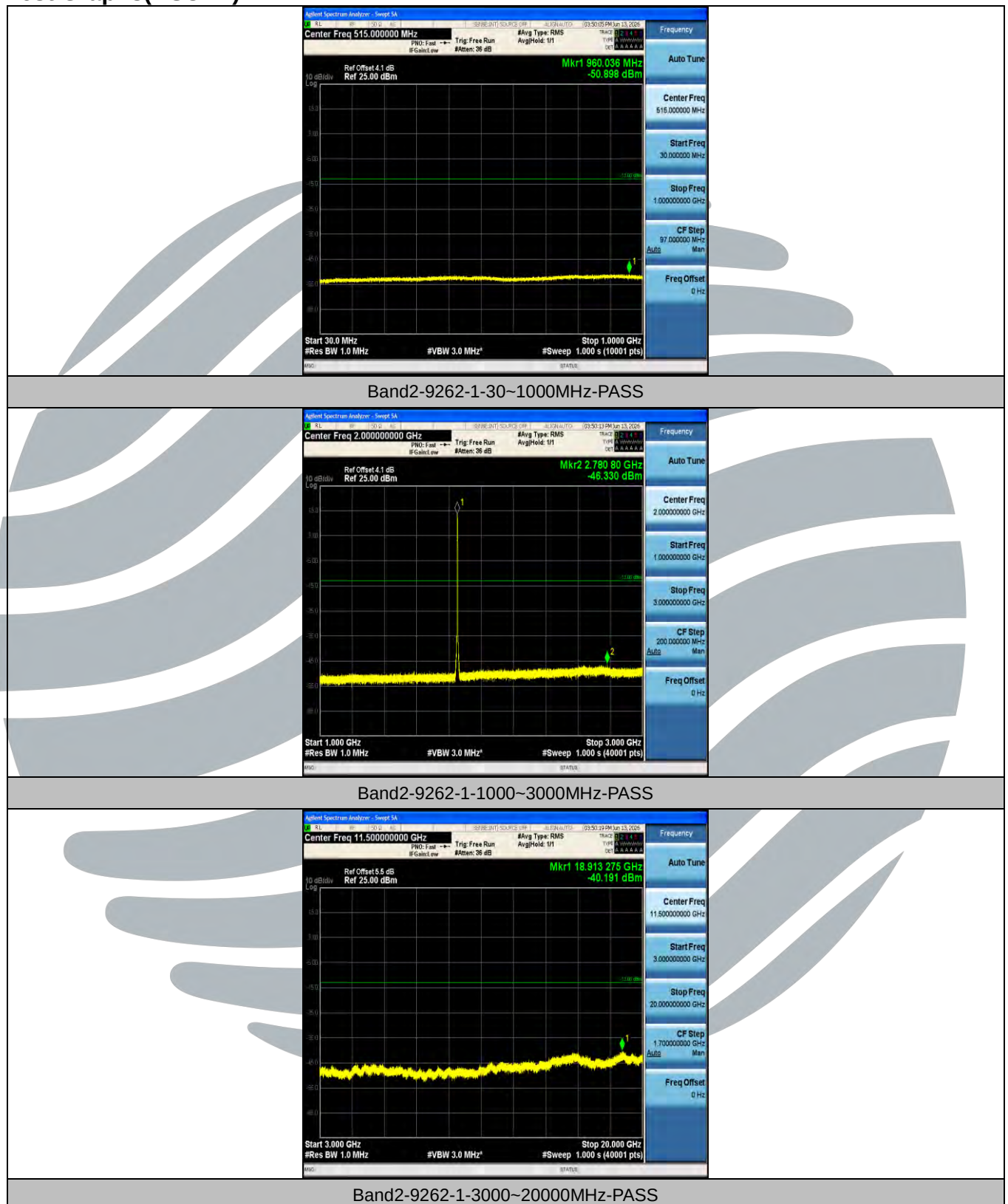


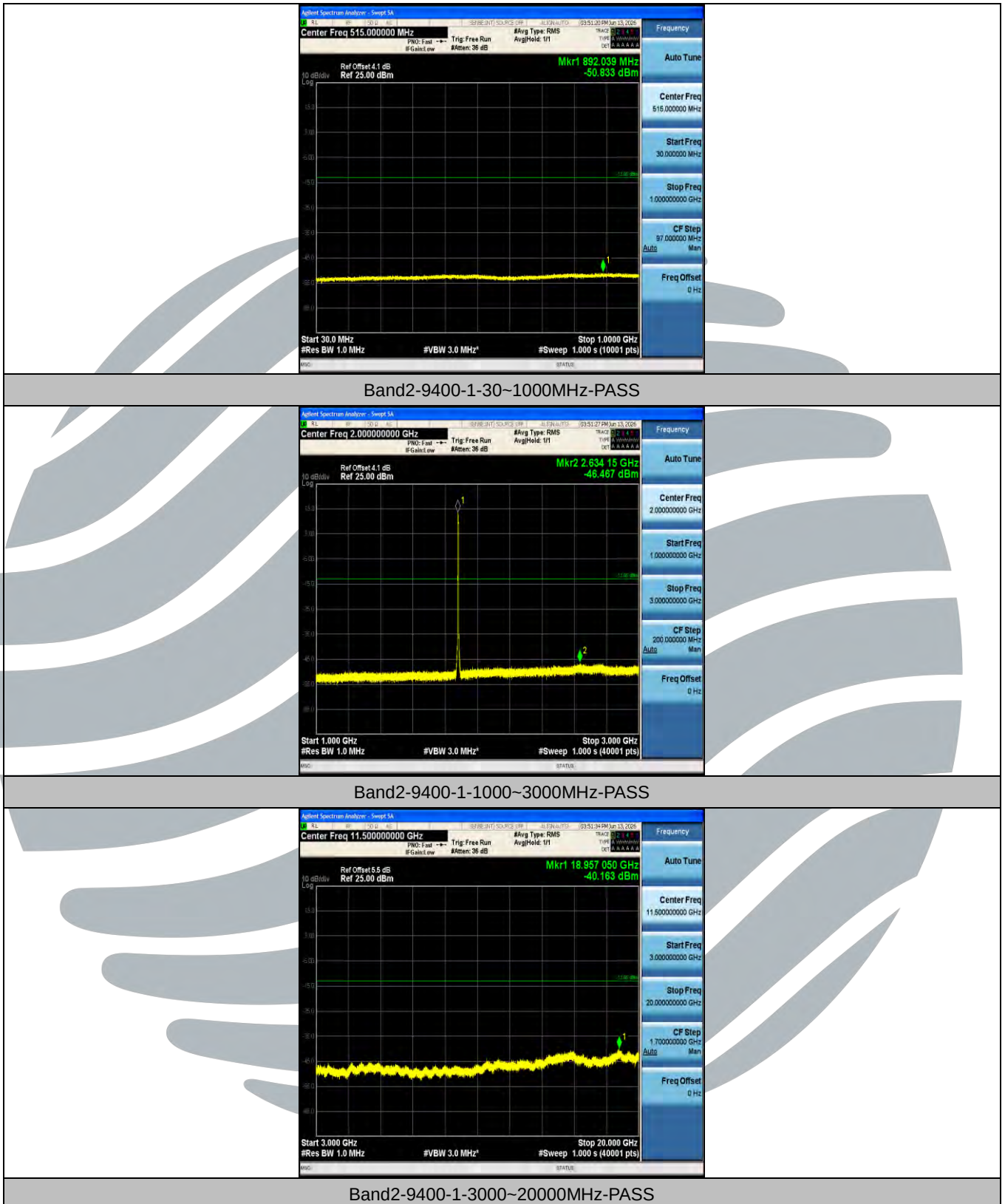
Band5-4233-1-30~1000MHz-PASS

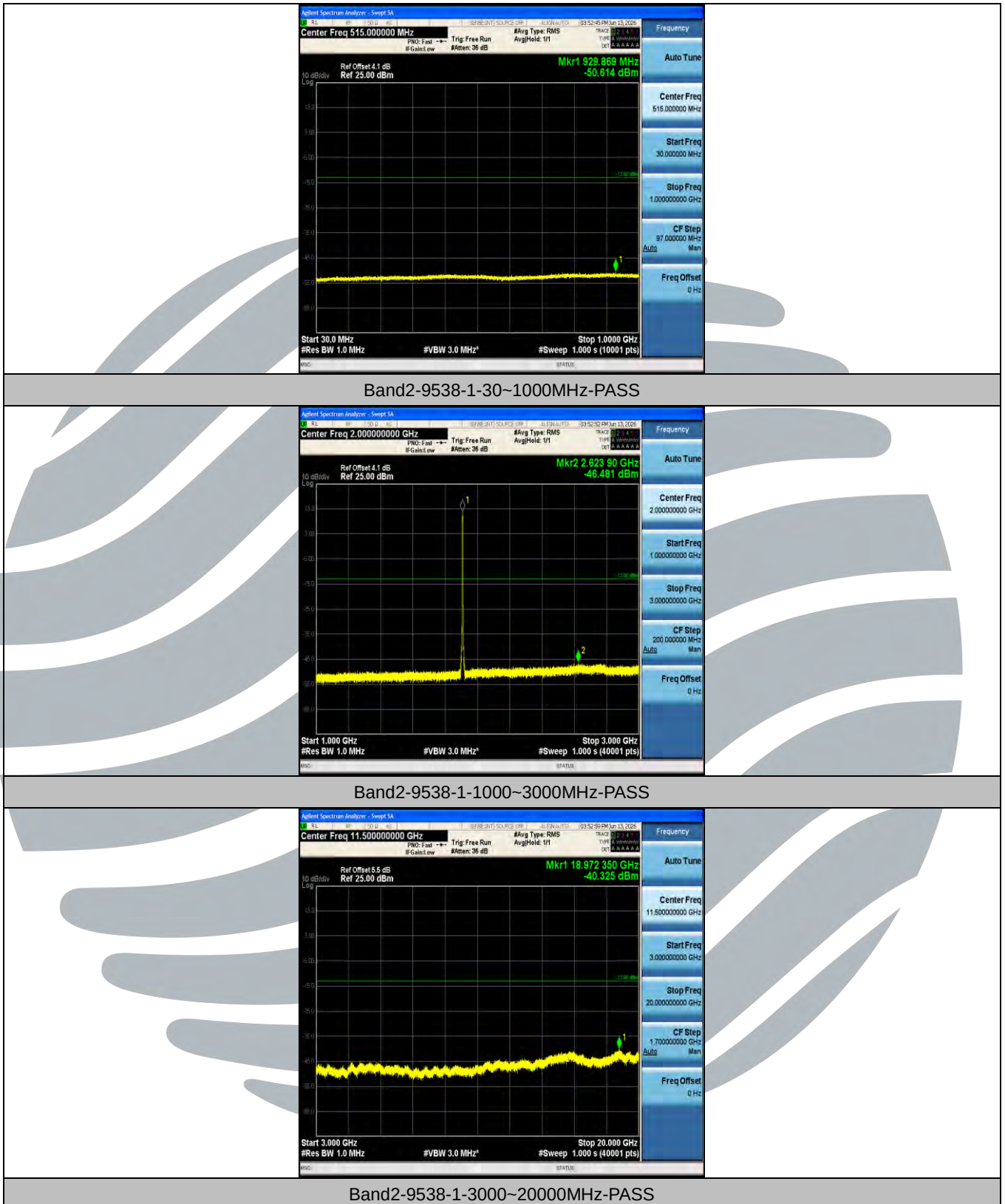


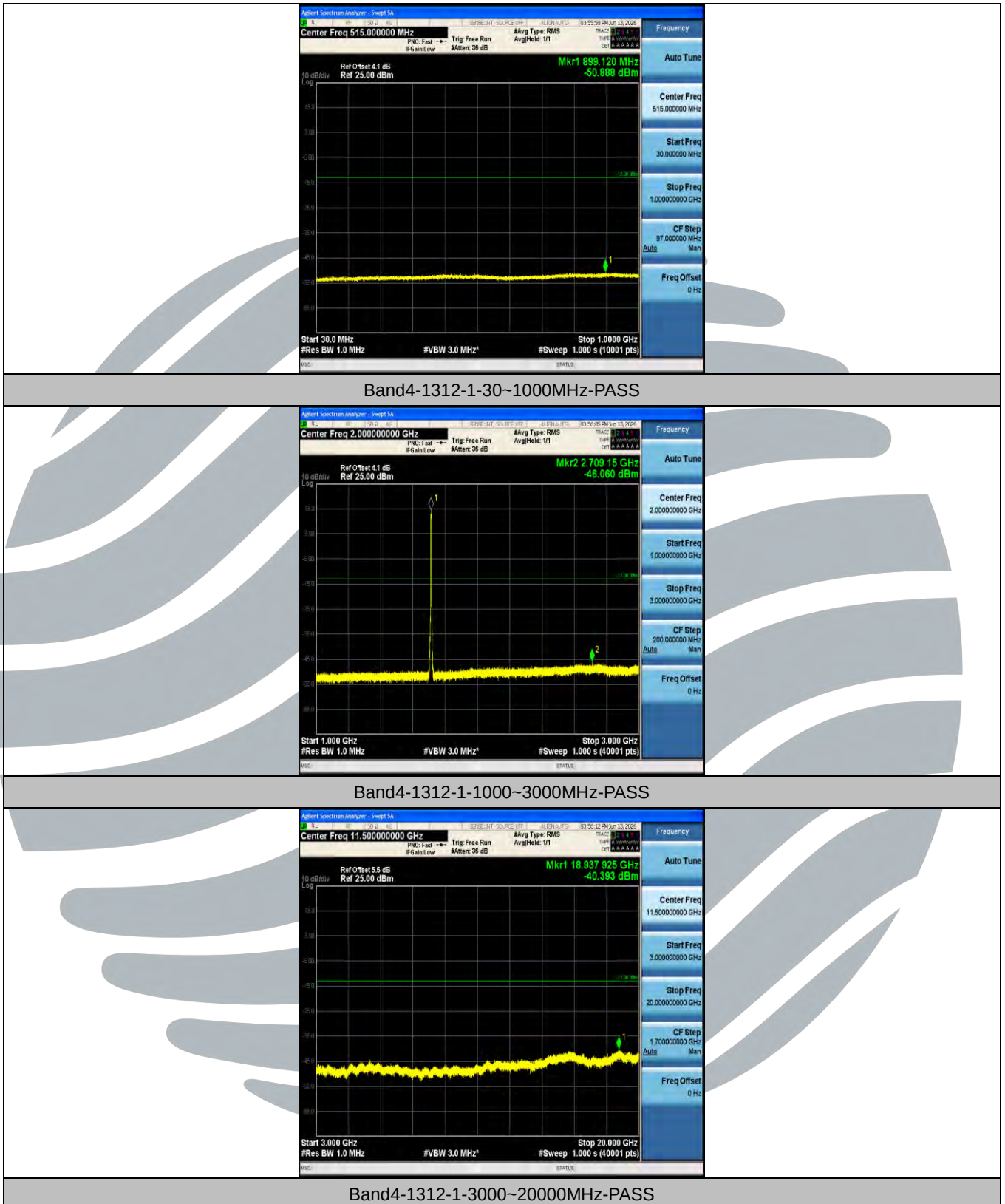
Band5-4233-1-1000~10000MHz-PASS

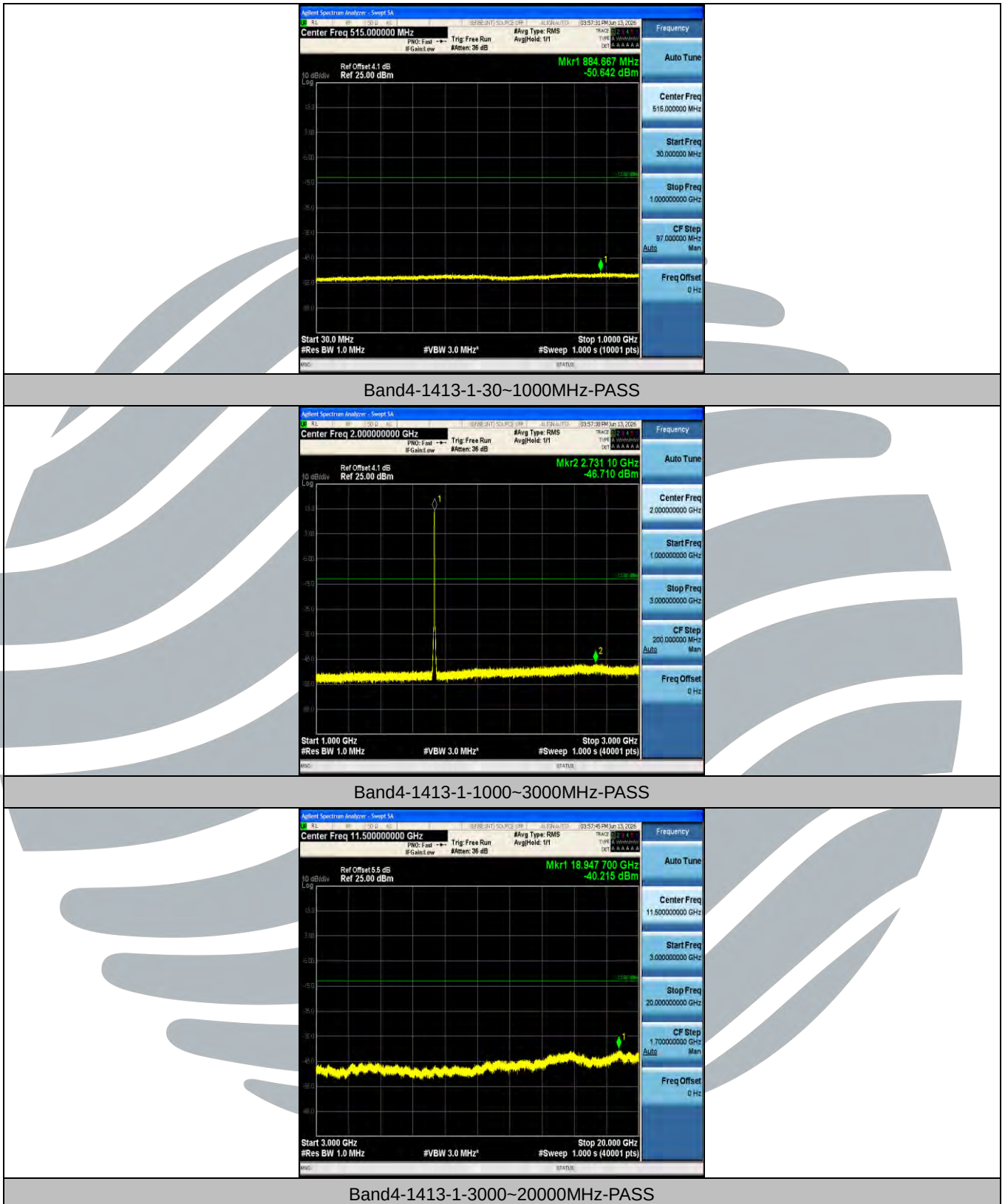
Test Graphs(HSUPA)

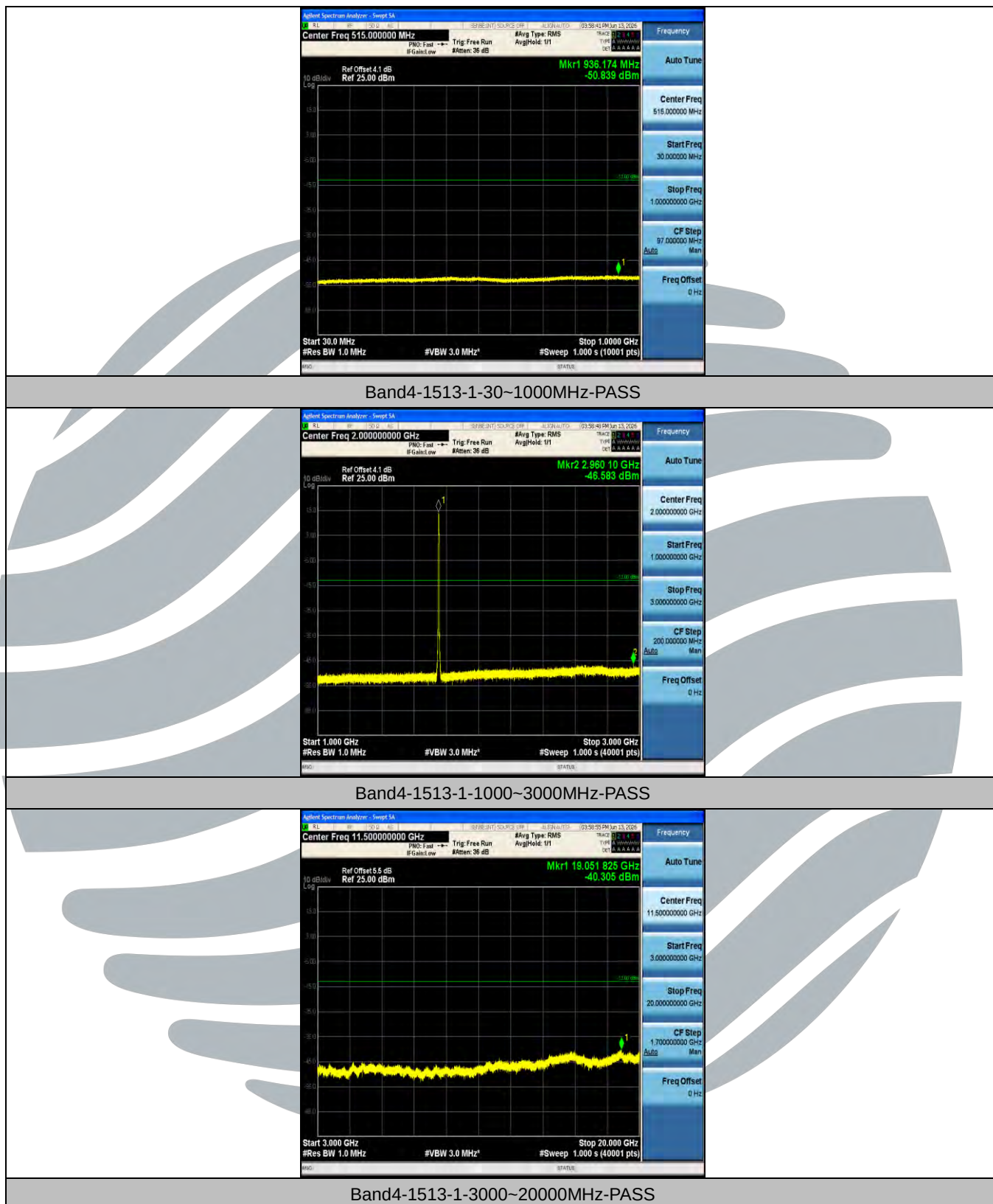


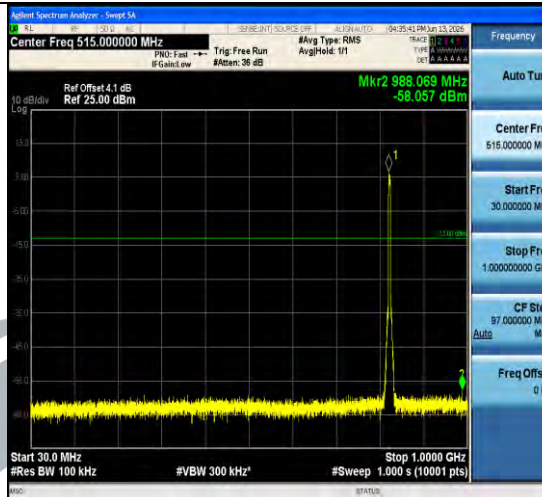








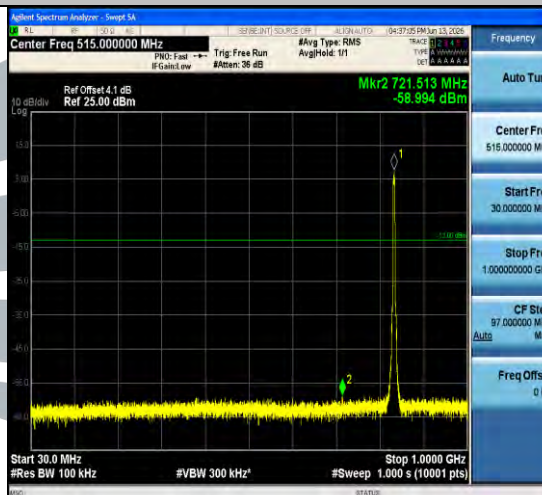




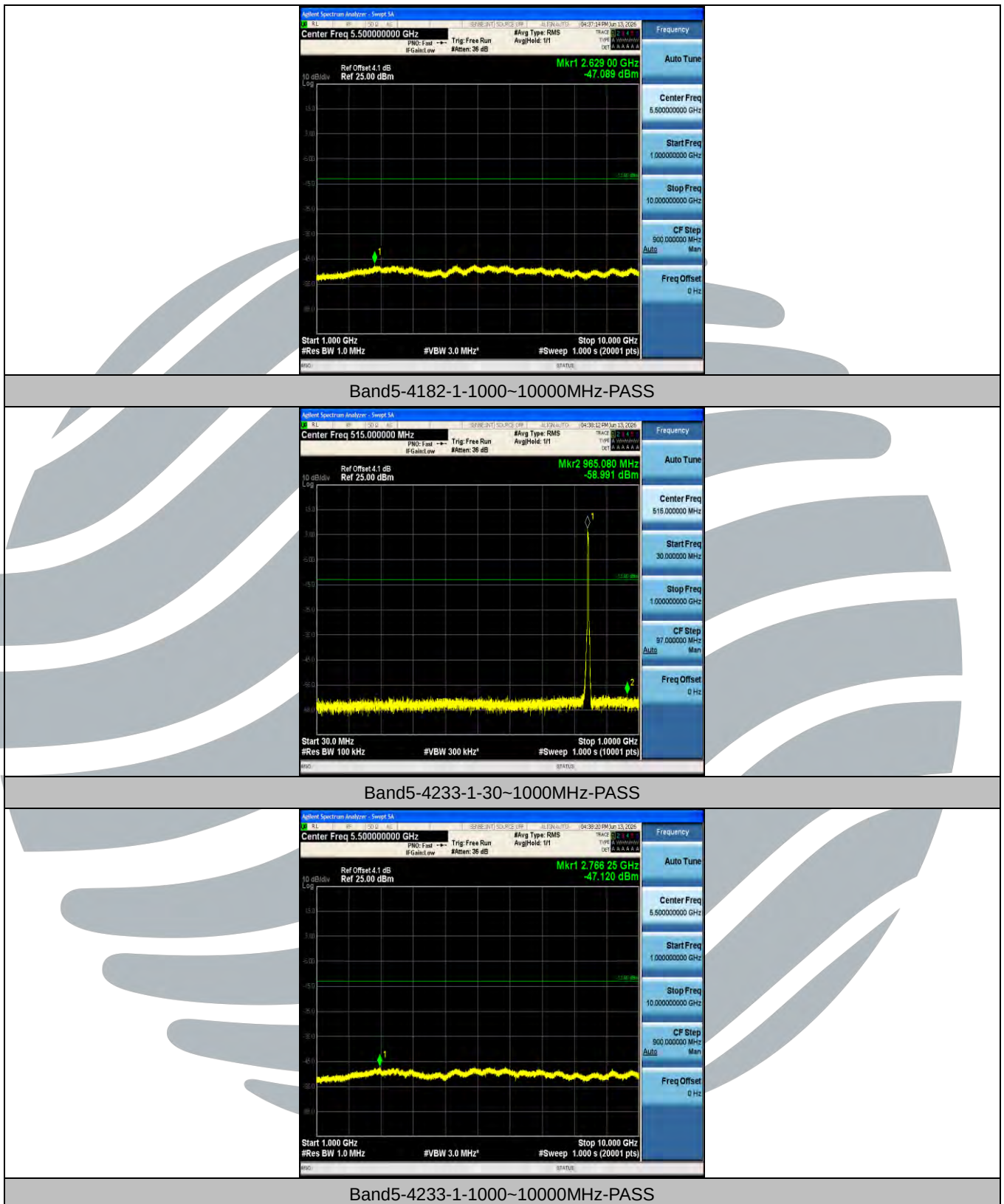
Band5-4132-1-30~1000MHz-PASS



Band5-4132-1-1000~10000MHz-PASS



Band5-4182-1-30~1000MHz-PASS



A.5 FREQUENCY STABILITY

Test Result(WCDMA)

Voltage							
Band	Channel	Voltage (Vdc)	Temp. (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9400	VN	NT	0.87	0.000463	±20	PASS
Band2	9400	VL	NT	1.29	0.000686	±20	PASS
Band2	9400	VH	NT	1.80	0.000957	±20	PASS
Band4	1413	VN	NT	-1.83	-0.001056	±20	PASS
Band4	1413	VL	NT	-2.52	-0.001454	±20	PASS
Band4	1413	VH	NT	-1.26	-0.000727	±20	PASS
Band5	4182	VN	NT	0.12	0.000143	±20	PASS
Band5	4182	VL	NT	1.63	0.001949	±20	PASS
Band5	4182	VH	NT	0.57	0.000681	±20	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Tempe. (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9400	NV	-30	2.30	0.001223	±20	PASS
Band2	9400	NV	-20	2.24	0.001191	±20	PASS
Band2	9400	NV	-10	2.47	0.001314	±20	PASS
Band2	9400	NV	0	2.49	0.001324	±20	PASS
Band2	9400	NV	10	2.57	0.001367	±20	PASS
Band2	9400	NV	20	3.00	0.001596	±20	PASS
Band2	9400	NV	30	2.94	0.001564	±20	PASS
Band2	9400	NV	40	2.79	0.001484	±20	PASS
Band2	9400	NV	50	3.11	0.001654	±20	PASS
Band4	1413	NV	-30	-0.21	-0.000121	±20	PASS
Band4	1413	NV	-20	-2.35	-0.001356	±20	PASS
Band4	1413	NV	-10	-1.39	-0.000802	±20	PASS
Band4	1413	NV	0	-0.11	-0.000063	±20	PASS
Band4	1413	NV	10	-1.39	-0.000802	±20	PASS
Band4	1413	NV	20	0.87	0.000502	±20	PASS
Band4	1413	NV	30	-0.92	-0.000531	±20	PASS
Band4	1413	NV	40	-1.22	-0.000704	±20	PASS
Band4	1413	NV	50	0.00	0.000000	±20	PASS
Band5	4182	NV	-30	-0.12	-0.000143	±20	PASS
Band5	4182	NV	-20	-0.19	-0.000227	±20	PASS
Band5	4182	NV	-10	2.09	0.002499	±20	PASS
Band5	4182	NV	0	0.61	0.000729	±20	PASS
Band5	4182	NV	10	-1.06	-0.001267	±20	PASS
Band5	4182	NV	20	-0.24	-0.000287	±20	PASS
Band5	4182	NV	30	0.28	0.000335	±20	PASS
Band5	4182	NV	40	0.24	0.000287	±20	PASS
Band5	4182	NV	50	0.65	0.000777	±20	PASS