

Appendix B WCDMA_RF Test Data

Appendix B1: Peak-to-Average Ratio

Test Result (WCDMA)

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band2	9262	2.97	13	PASS
Band2	9400	2.97	13	PASS
Band2	9538	2.99	13	PASS
Band4	1312	3.09	13	PASS
Band4	1413	3.04	13	PASS
Band4	1513	3.06	13	PASS
Band5	4132	2.95	13	PASS
Band5	4182	3.07	13	PASS
Band5	4233	3.03	13	PASS

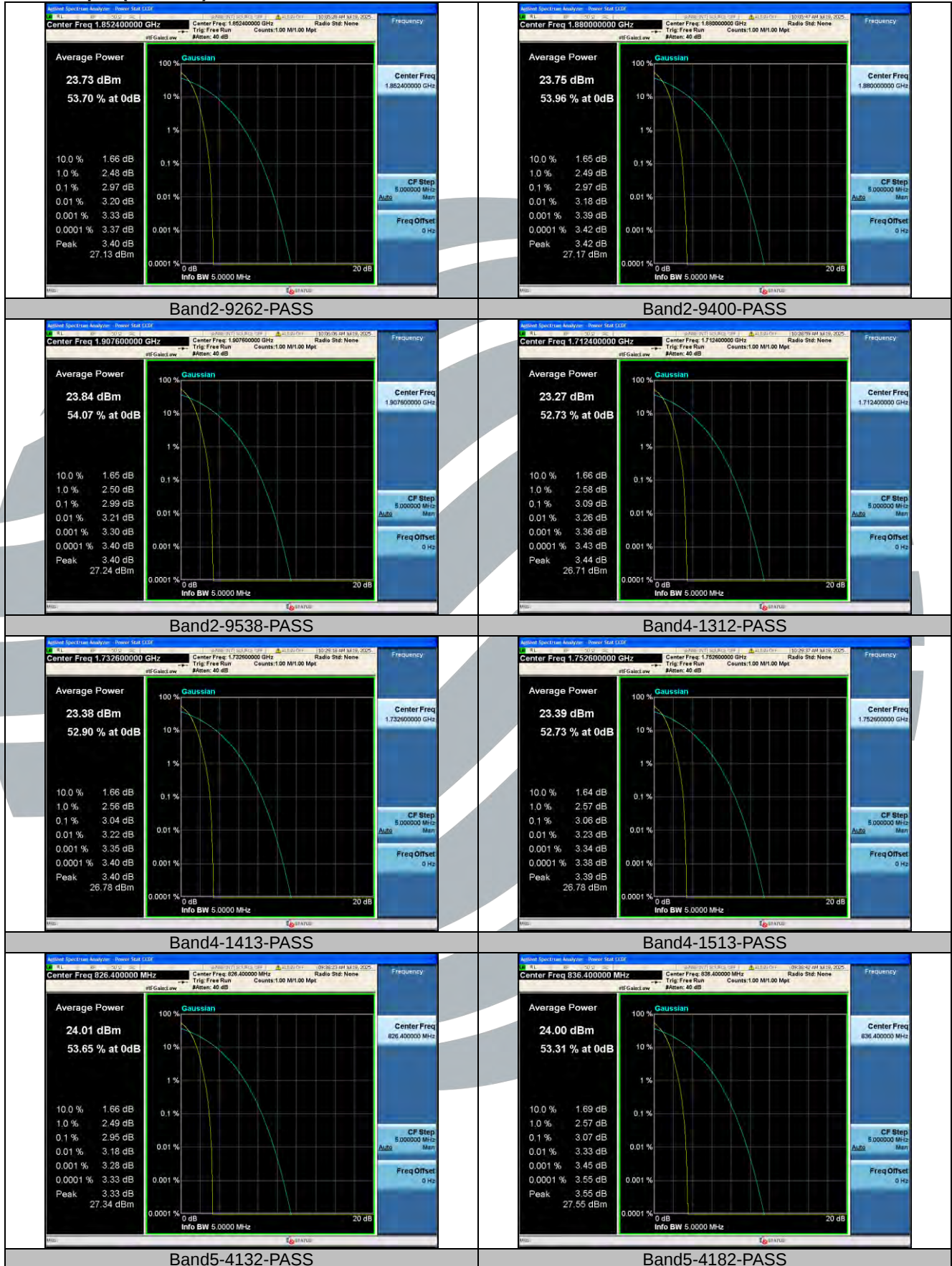
Test Result (HSDPA)

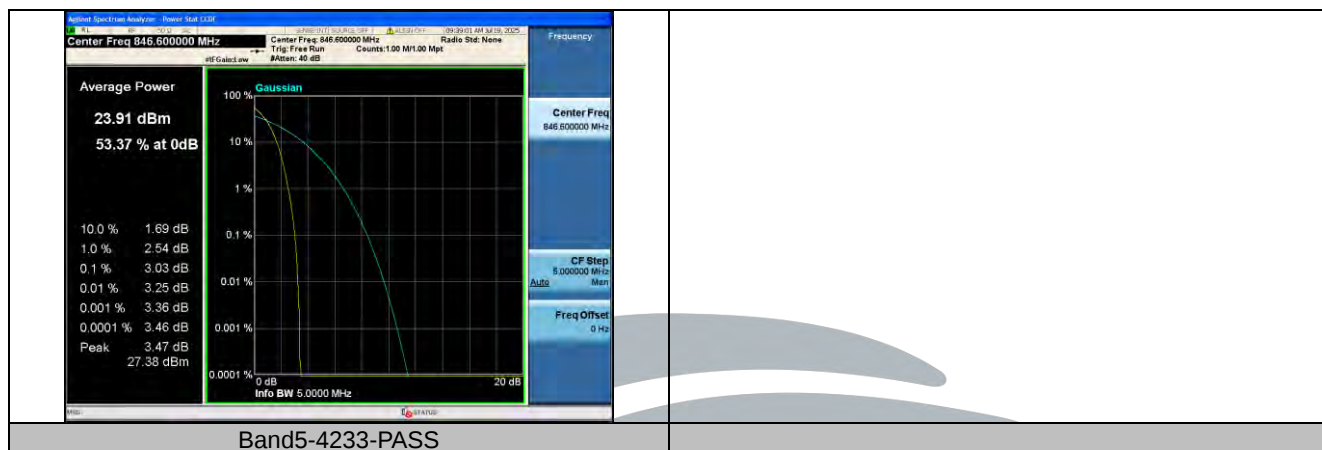
Band	Channel	Sub Test	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band2	9262	1	3.04	13	PASS
Band2	9400	1	3.06	13	PASS
Band2	9538	1	3.08	13	PASS
Band4	1312	1	3.14	13	PASS
Band4	1413	1	3.08	13	PASS
Band4	1513	1	3.1	13	PASS
Band5	4132	1	3.08	13	PASS
Band5	4182	1	3.17	13	PASS
Band5	4233	1	3.12	13	PASS

Test Result (HSUPA)

Band	Channel	Sub Test	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band2	9262	1	4.4	13	PASS
Band2	9400	1	4.38	13	PASS
Band2	9538	1	4.38	13	PASS
Band4	1312	1	4.41	13	PASS
Band4	1413	1	4.35	13	PASS
Band4	1513	1	4.4	13	PASS
Band5	4132	1	4.41	13	PASS
Band5	4182	1	4.51	13	PASS
Band5	4233	1	4.44	13	PASS

Test Graphs(WCDMA)





Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6th, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, China

Tel: +86-755-28230888

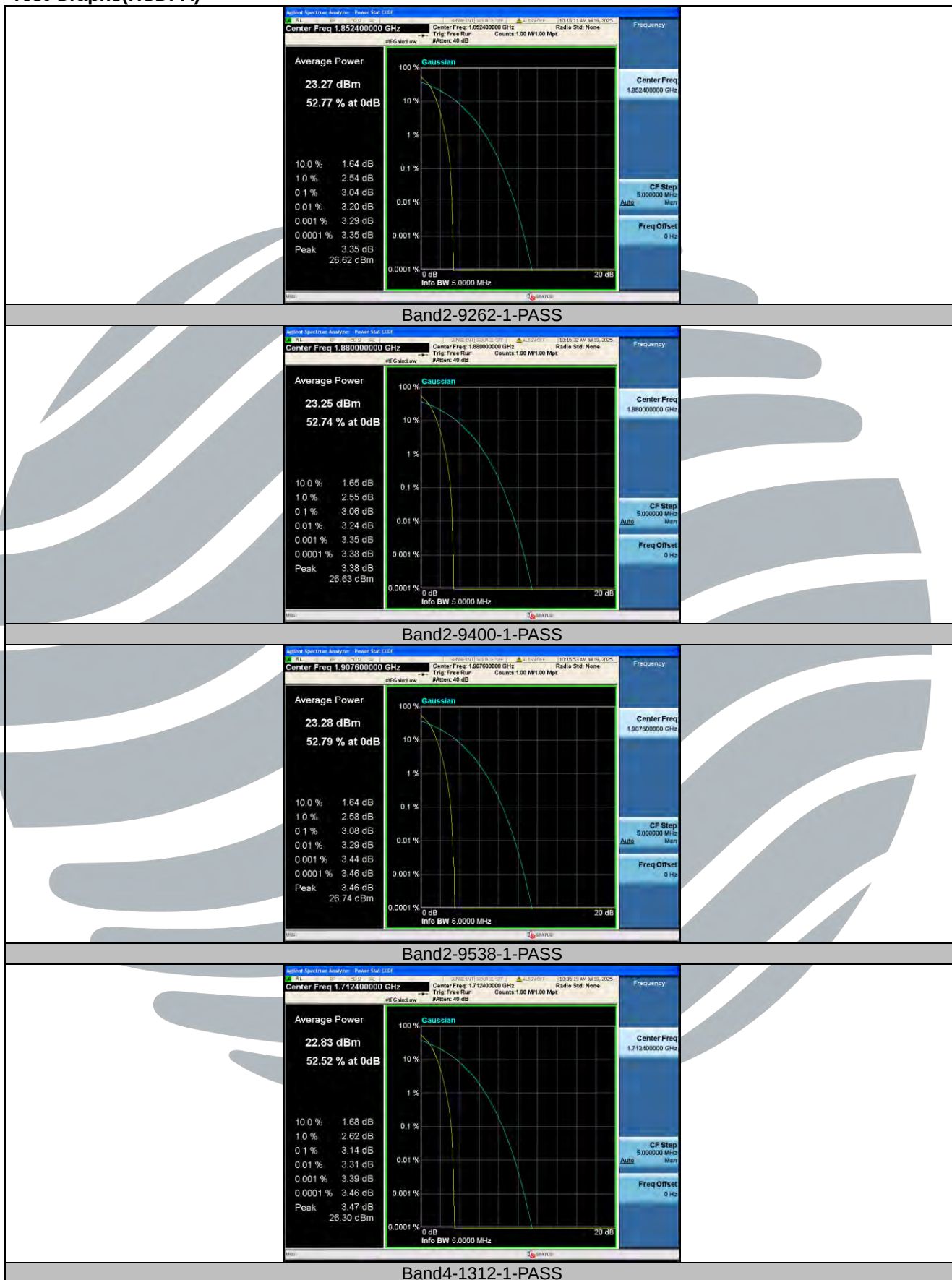
Fax: +86-755-28230886

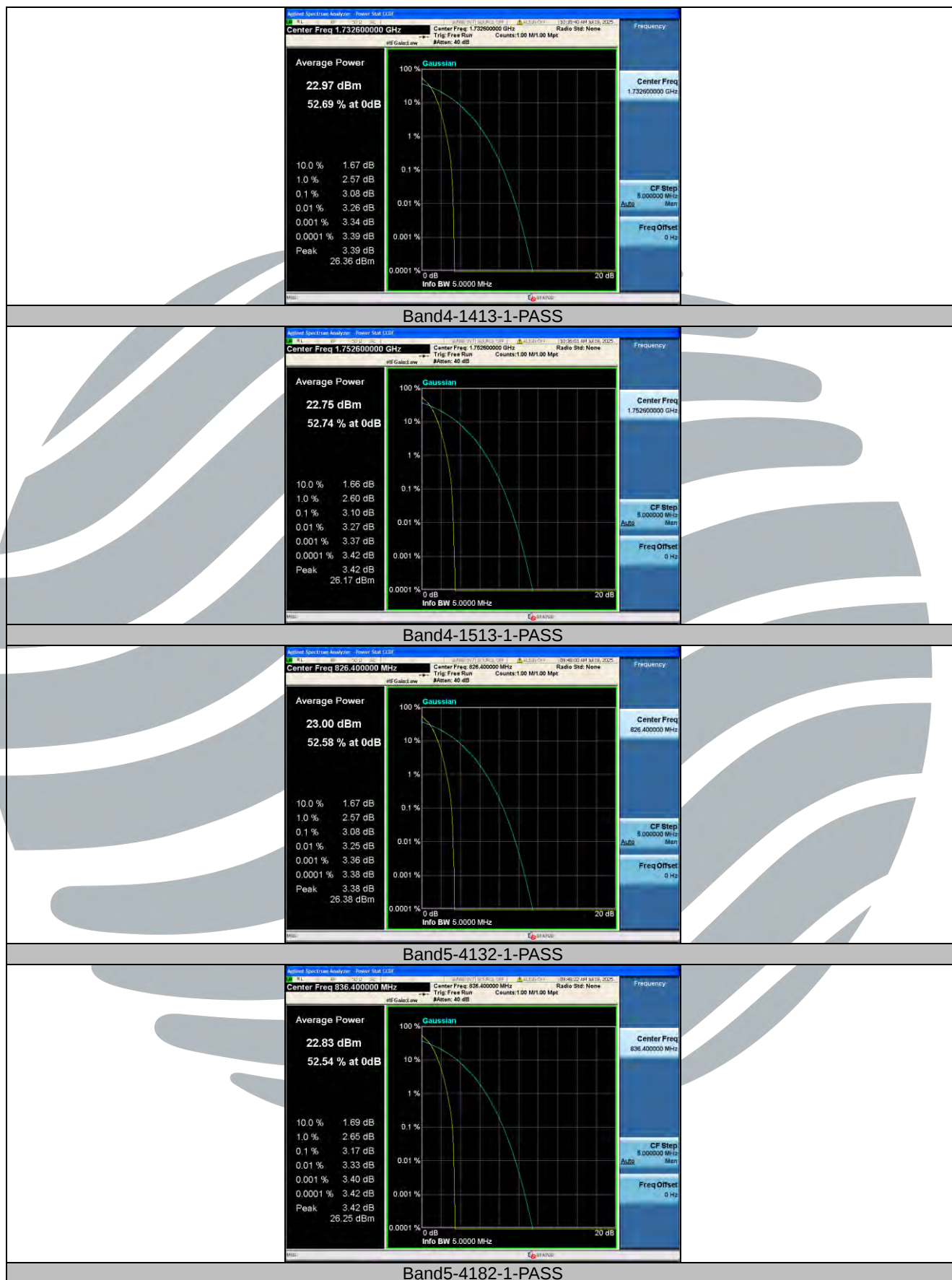
E-mail: info@uttlab.com

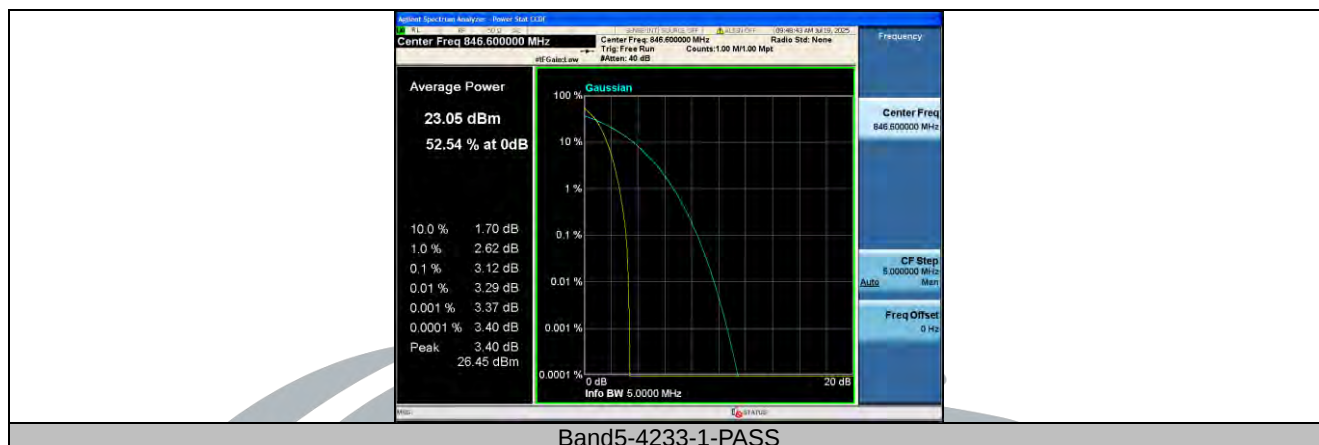
<http://www.uttlab.com>

UTTR-RF-FCC23G-V1.1

Test Graphs(HSDPA)

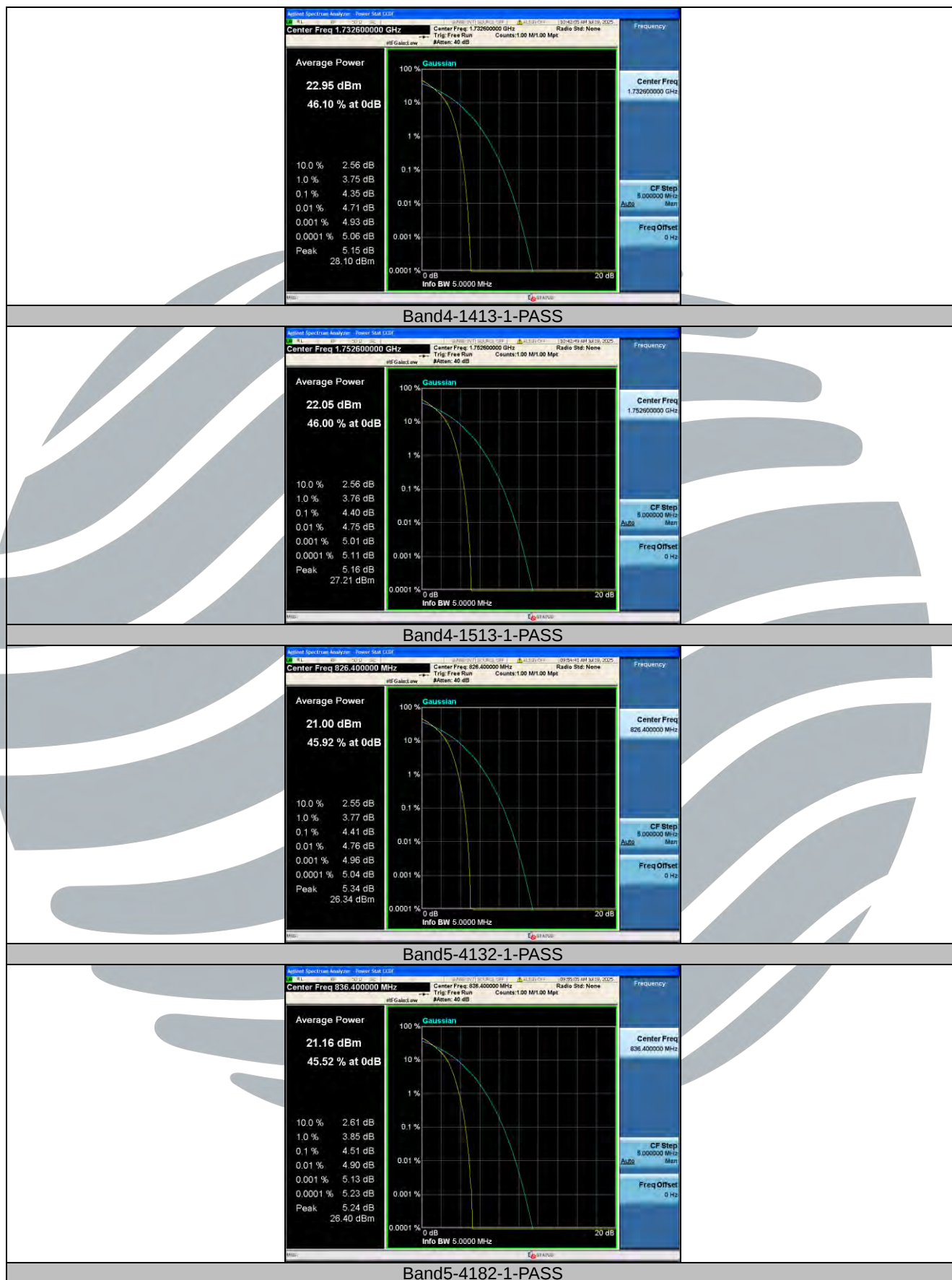


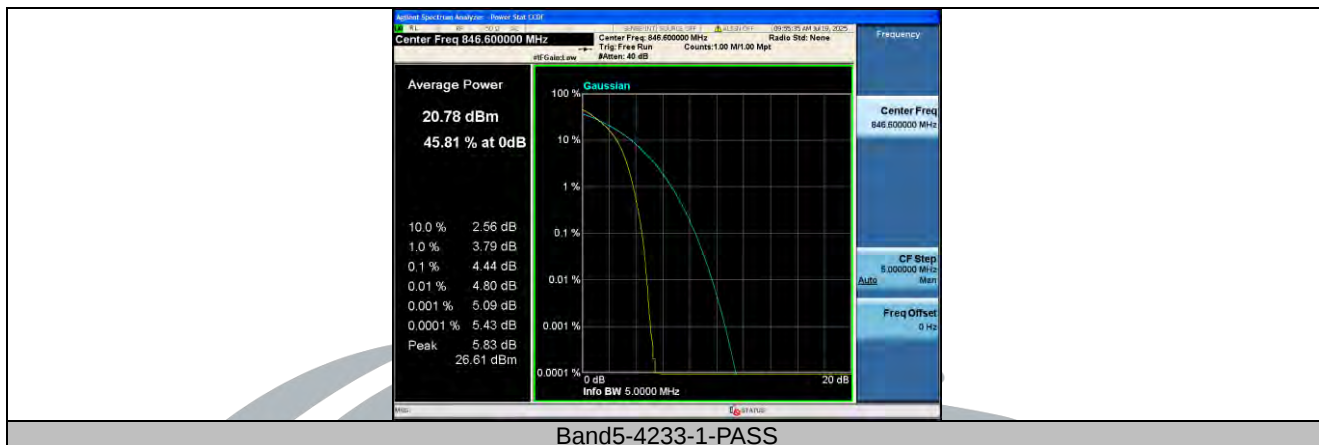




Test Graphs(HSUPA)







Appendix B2: 26dB Bandwidth and Occupied Bandwidth

Test Result(WCDMA)

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band2	9262	4.1441	4.679	---	PASS
Band2	9400	4.1451	4.668	---	PASS
Band2	9538	4.1410	4.671	---	PASS
Band4	1312	4.1442	4.663	---	PASS
Band4	1413	4.1454	4.665	---	PASS
Band4	1513	4.1409	4.664	---	PASS
Band5	4132	4.1456	4.674	---	PASS
Band5	4182	4.1454	4.667	---	PASS
Band5	4233	4.1429	4.667	---	PASS

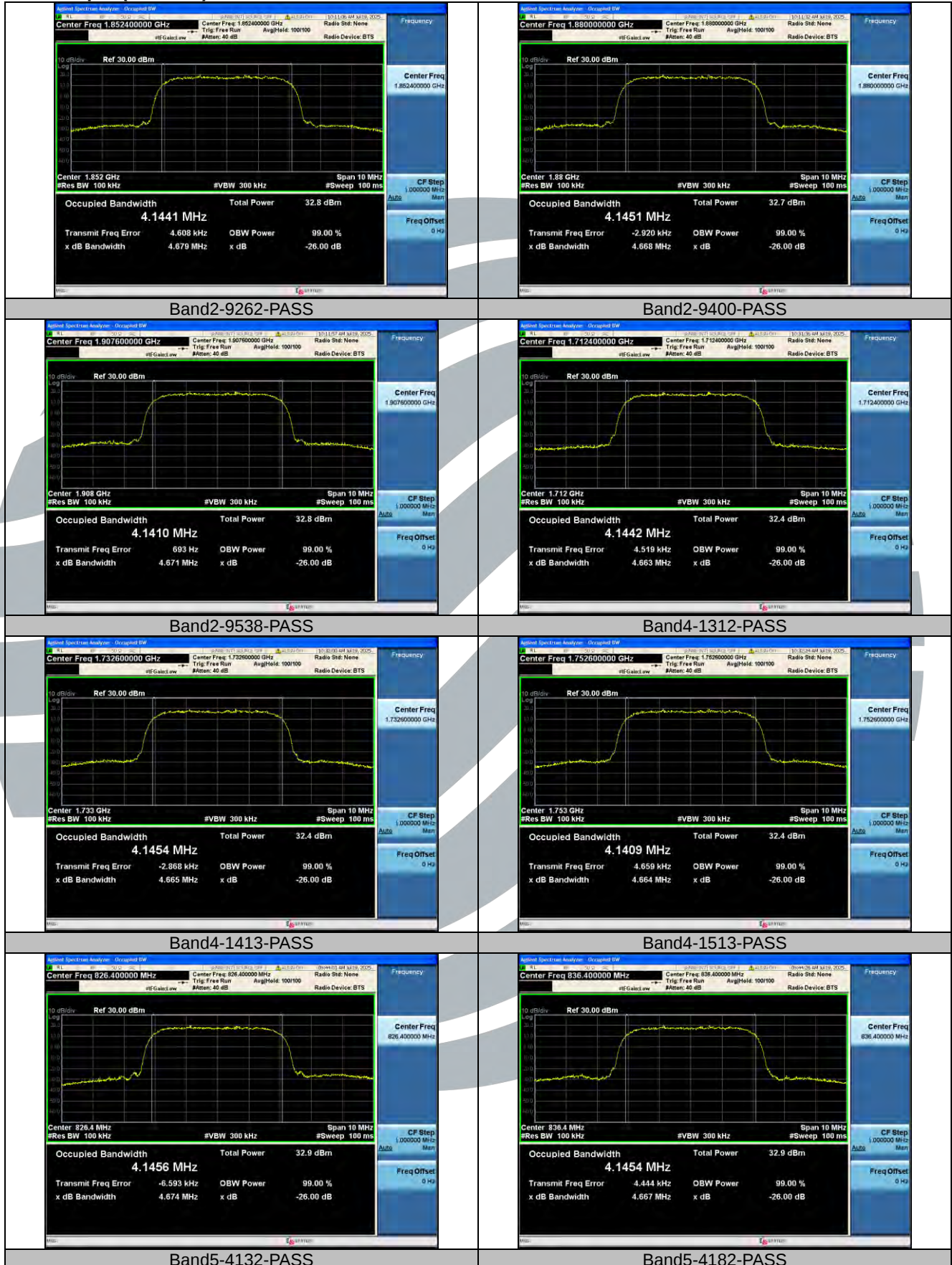
Test Result(HSDPA)

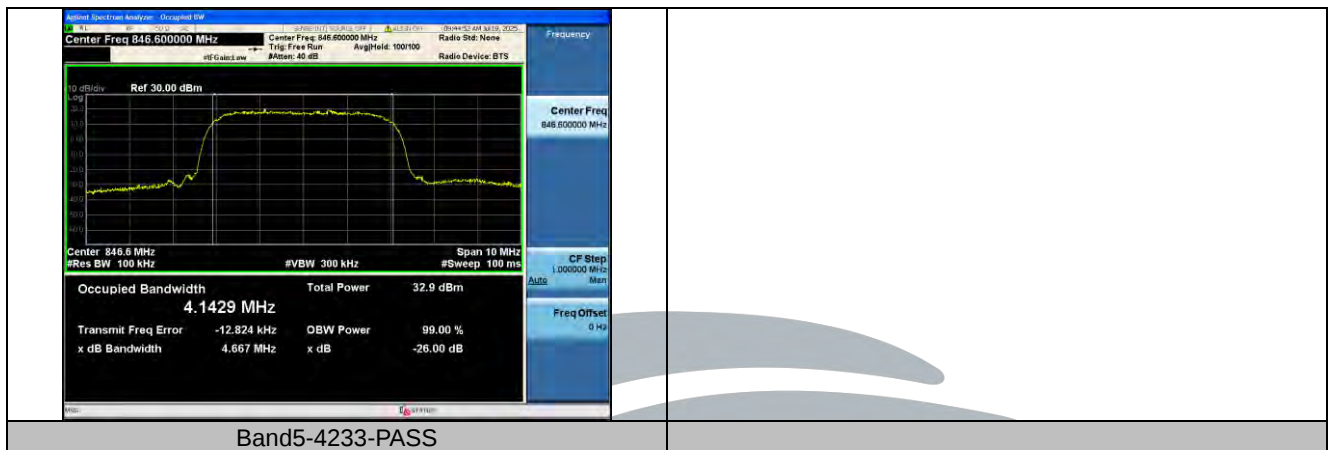
Band	Channel	Sub Test	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band2	9262	1	4.1527	4.679	---	PASS
Band2	9400	1	4.1508	4.683	---	PASS
Band2	9538	1	4.1394	4.666	---	PASS
Band4	1312	1	4.1456	4.676	---	PASS
Band4	1413	1	4.1505	4.680	---	PASS
Band4	1513	1	4.1457	4.678	---	PASS
Band5	4132	1	4.1467	4.683	---	PASS
Band5	4182	1	4.1456	4.660	---	PASS
Band5	4233	1	4.1443	4.675	---	PASS

Test Result(HSUPA)

Band	Channel	Sub Test	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band2	9262	1	4.1582	4.683	---	PASS
Band2	9400	1	4.1722	4.674	---	PASS
Band2	9538	1	4.1581	4.679	---	PASS
Band4	1312	1	4.1684	4.675	---	PASS
Band4	1413	1	4.1615	4.682	---	PASS
Band4	1513	1	4.1657	4.669	---	PASS
Band5	4132	1	4.1668	4.690	---	PASS
Band5	4182	1	4.1693	4.675	---	PASS
Band5	4233	1	4.1599	4.666	---	PASS

Test Graphs(WCDMA)





Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6th, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, China

Tel: +86-755-28230888

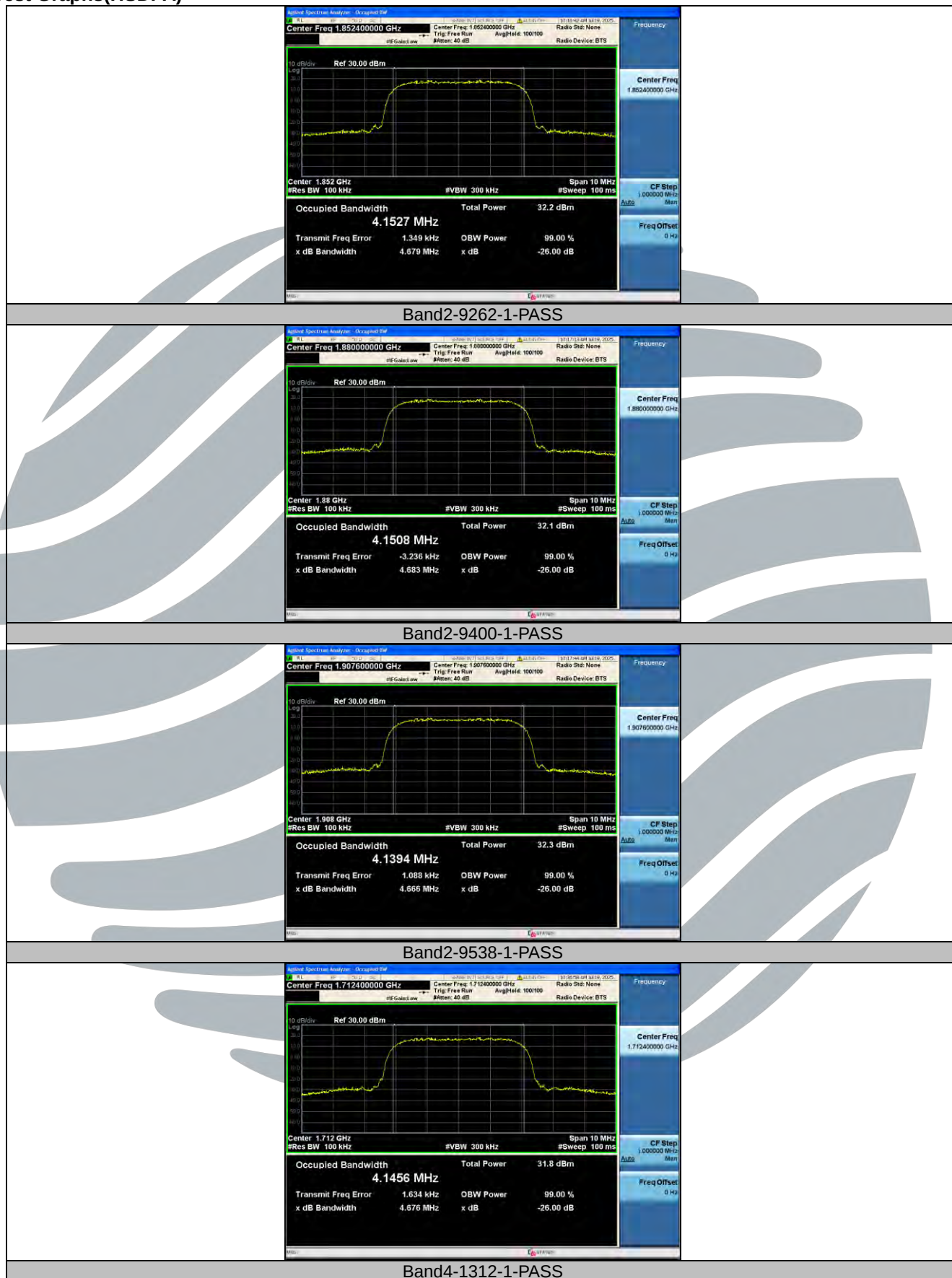
Fax: +86-755-28230886

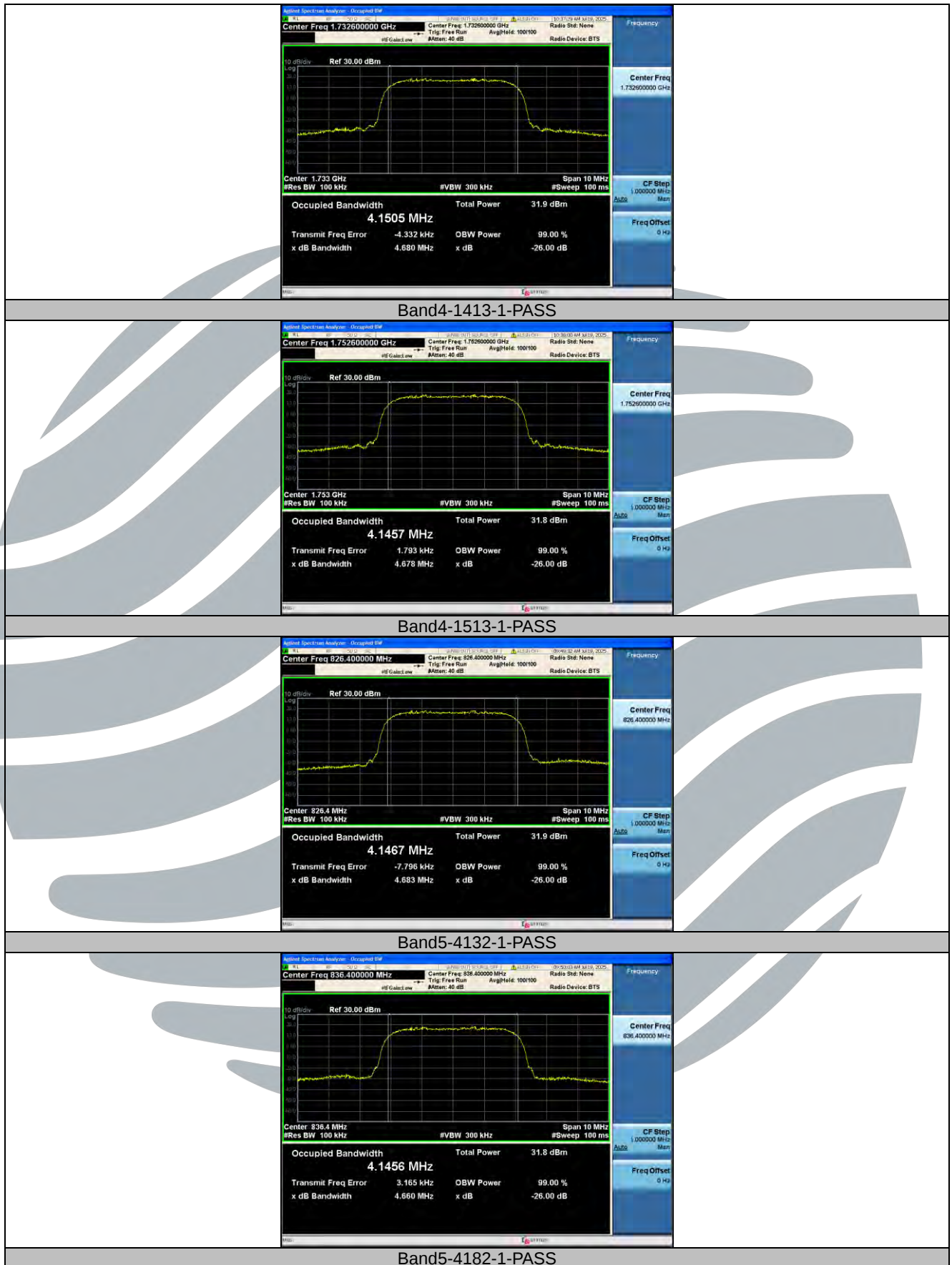
E-mail: info@uttlab.com

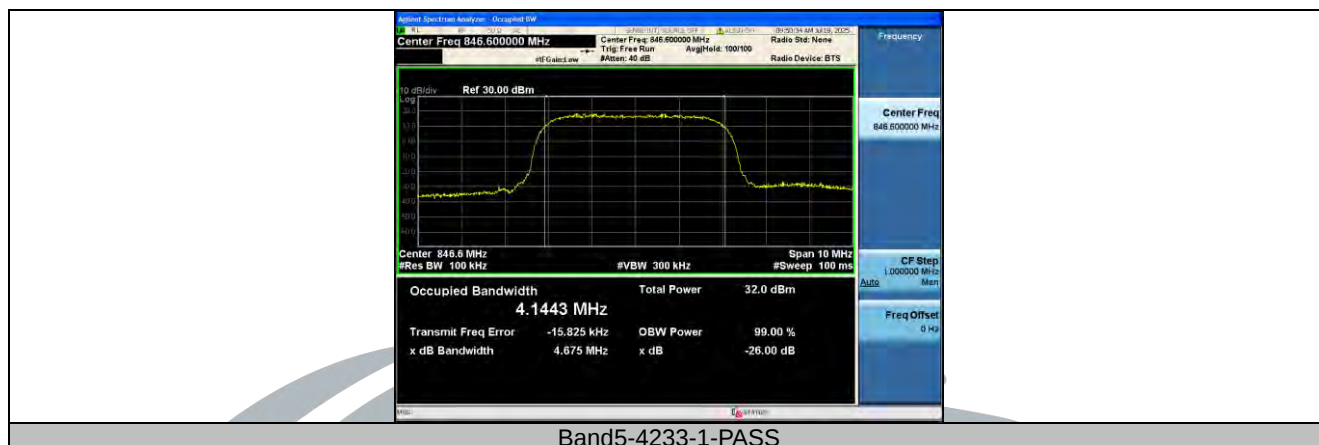
<http://www.uttlab.com>

UTTR-RF-FCC23G-V1.1

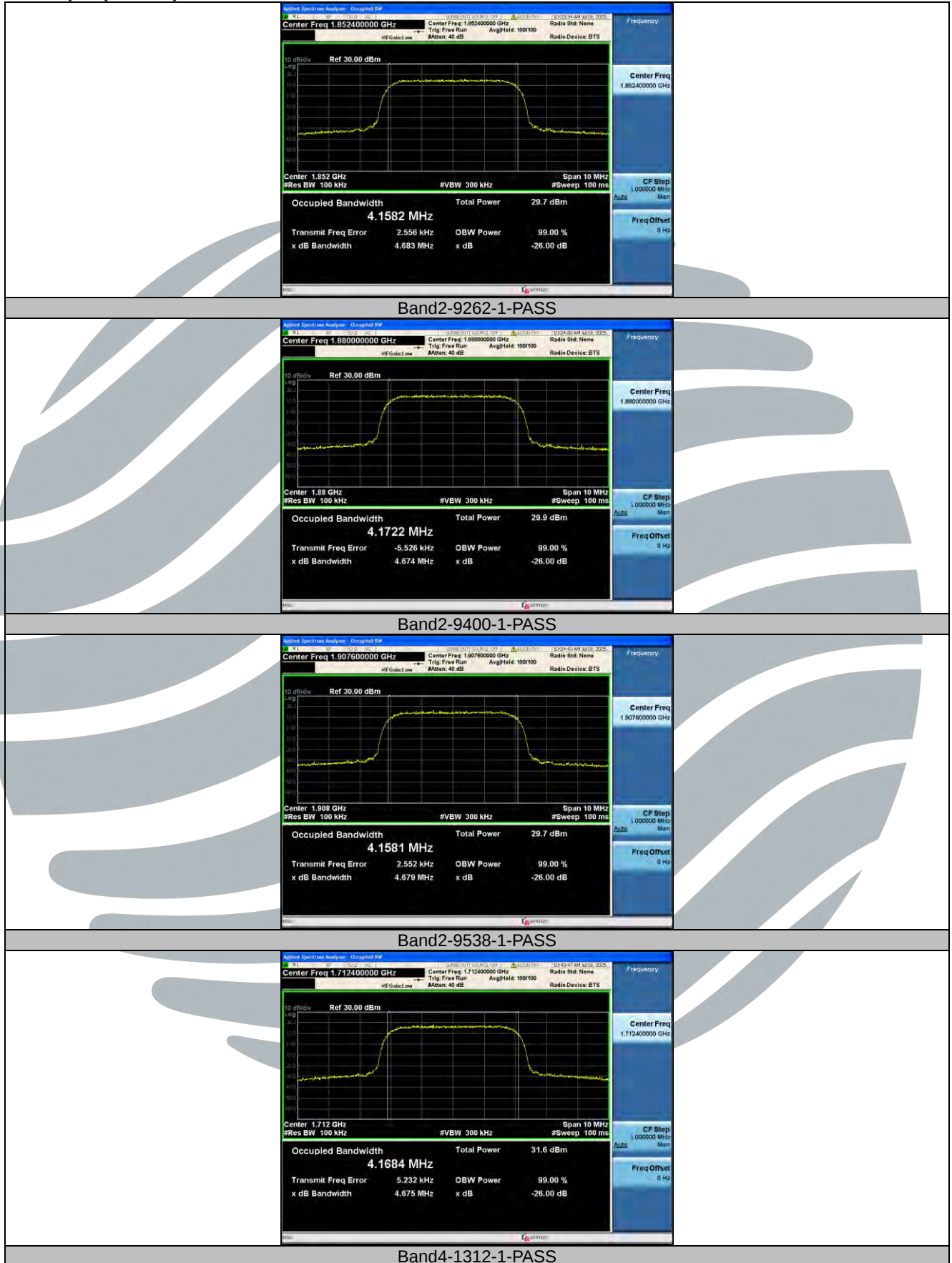
Test Graphs(HSDPA)

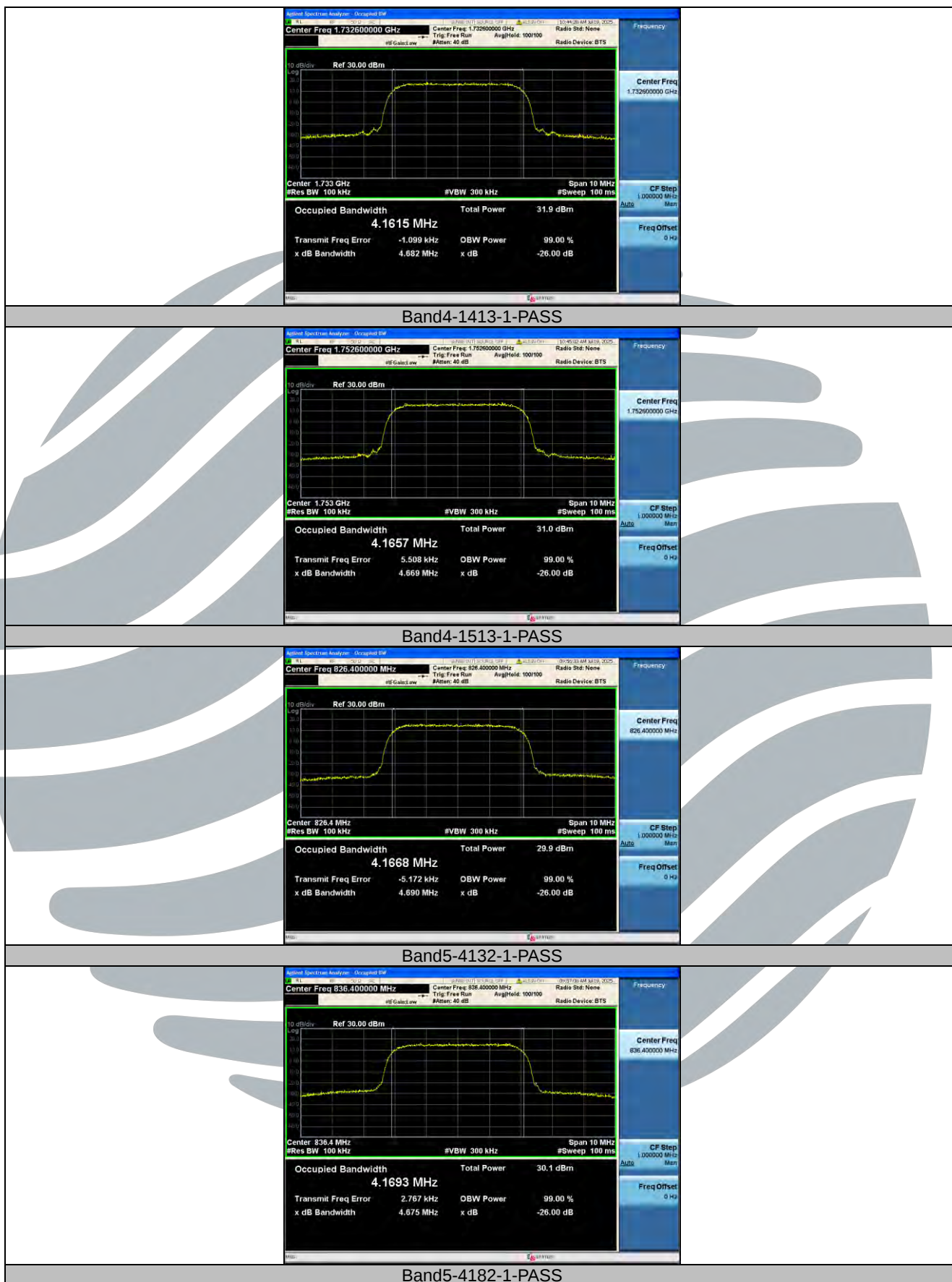


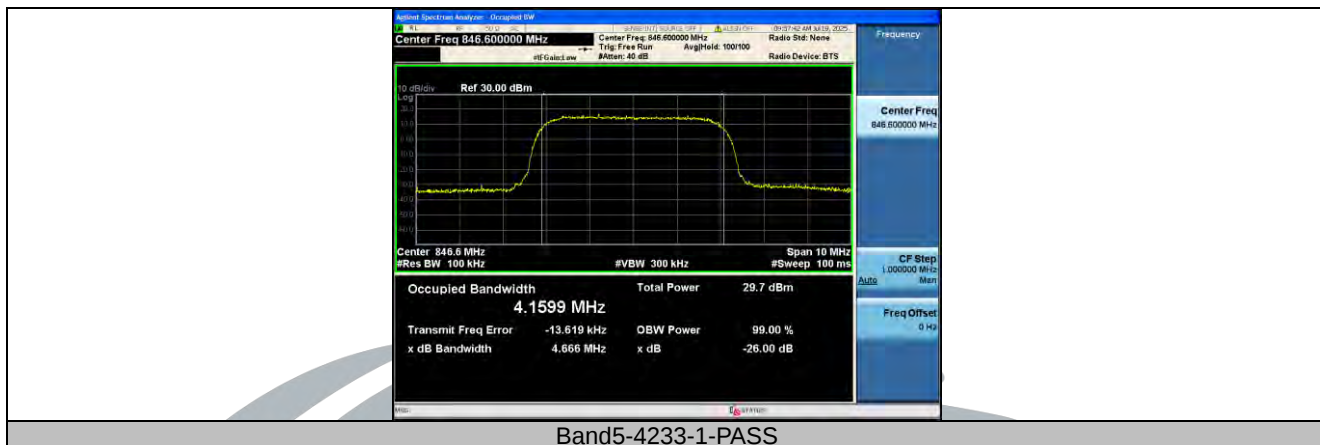




Test Graphs(HSUPA)







Appendix B3: Band Edge

Test Result(WCDMA)

Band	Channel	Frequency (MHz)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	1850.00	-32.86	-13	PASS
Band2	9538	1910.00	-33.44	-13	PASS
Band4	1312	1709.93	-31.78	-13	PASS
Band4	1513	1755.07	-32.26	-13	PASS
Band5	4132	824.00	-33.23	-13	PASS
Band5	4233	849.06	-31.59	-13	PASS

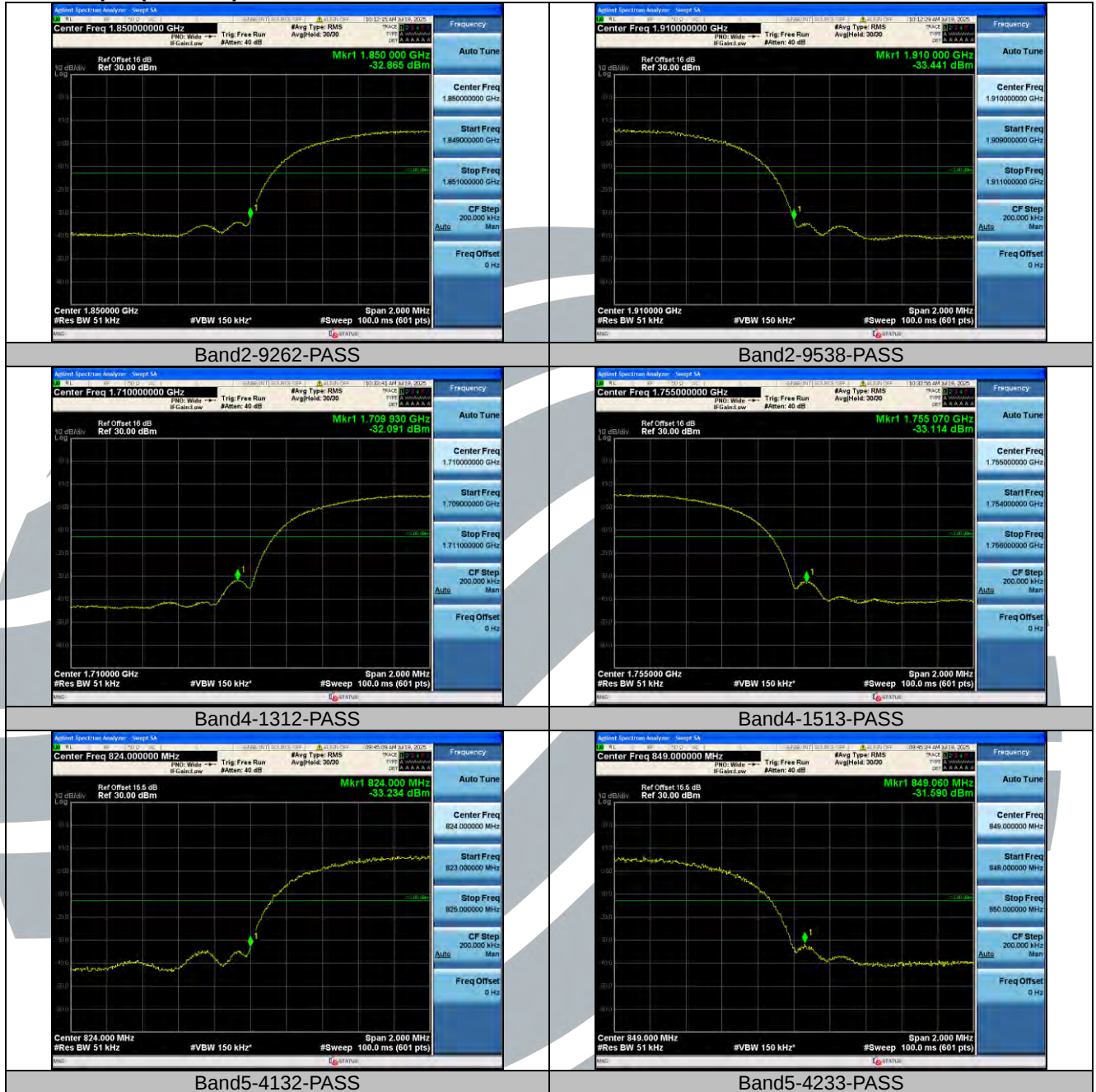
Test Result(HSDPA)

Band	Channel	Sub Test	Frequency (MHz)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	1	1850.00	-33.30	-13	PASS
Band2	9538	1	1910.00	-33.42	-13	PASS
Band4	1312	1	1709.92	-32.48	-13	PASS
Band4	1513	1	1755.07	-34.07	-13	PASS
Band5	4132	1	823.94	-33.07	-13	PASS
Band5	4233	1	849.07	-32.37	-13	PASS

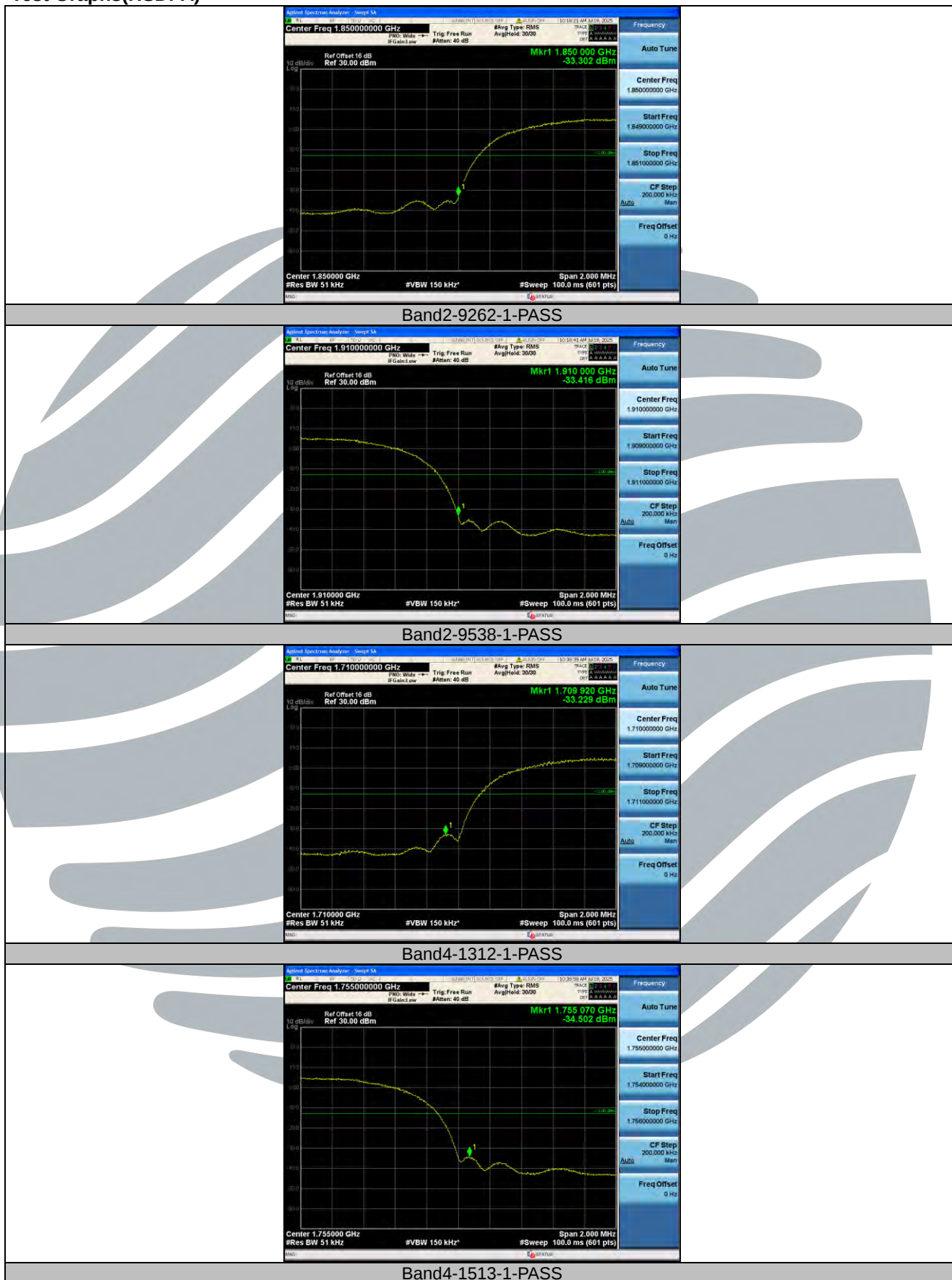
Test Result(HSUPA)

Band	Channel	Sub Test	Frequency (MHz)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	1	1849.93	-35.32	-13	PASS
Band2	9538	1	1910.06	-35.56	-13	PASS
Band4	1312	1	1709.92	-33.53	-13	PASS
Band4	1513	1	1755.00	-34.51	-13	PASS
Band5	4132	1	823.92	-34.96	-13	PASS
Band5	4233	1	849.06	-35.23	-13	PASS

Test Graphs(WCDMA)



Test Graphs(HSDPA)



Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6th, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, China

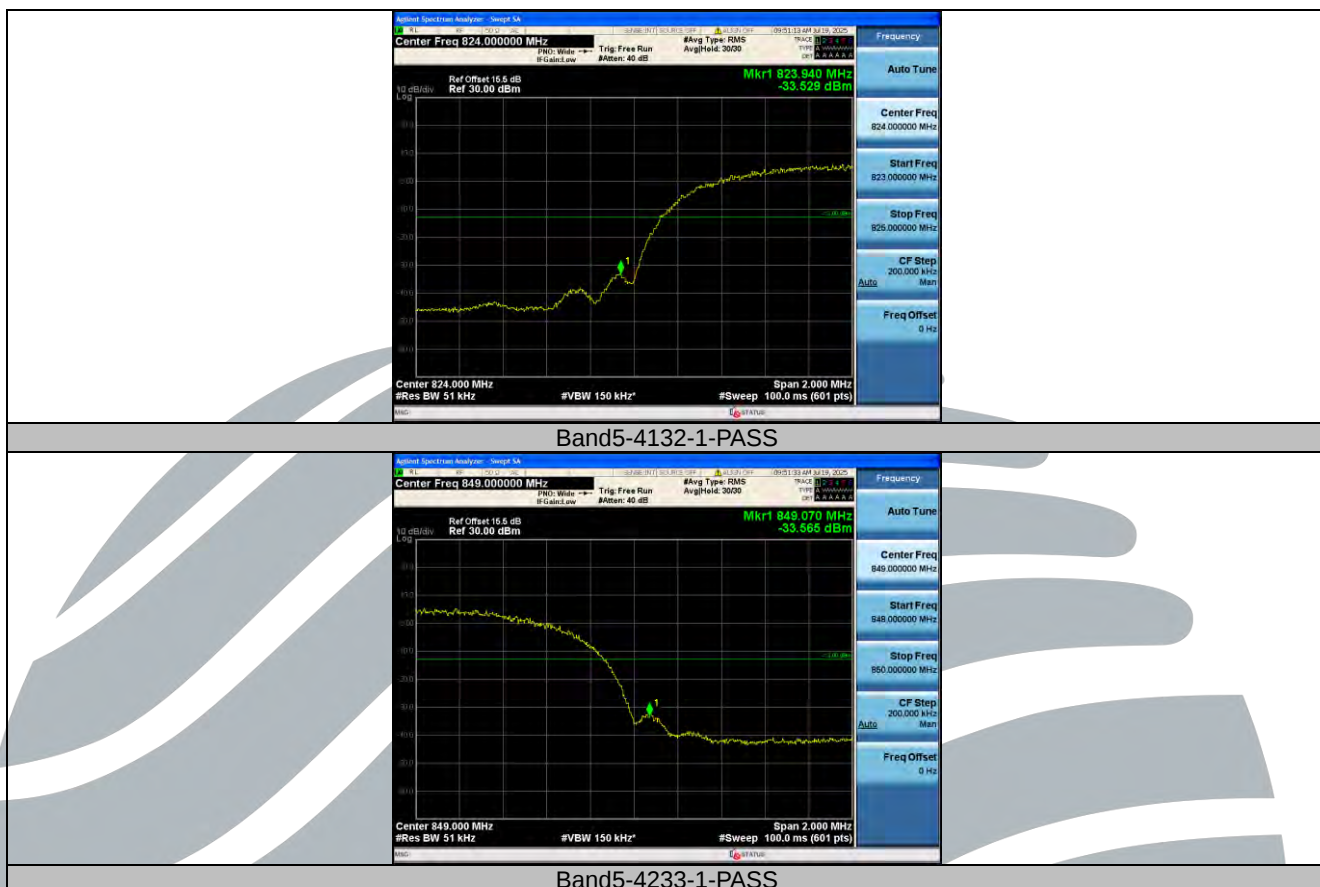
Tel: +86-755-28230888

Fax: +86-755-28230886

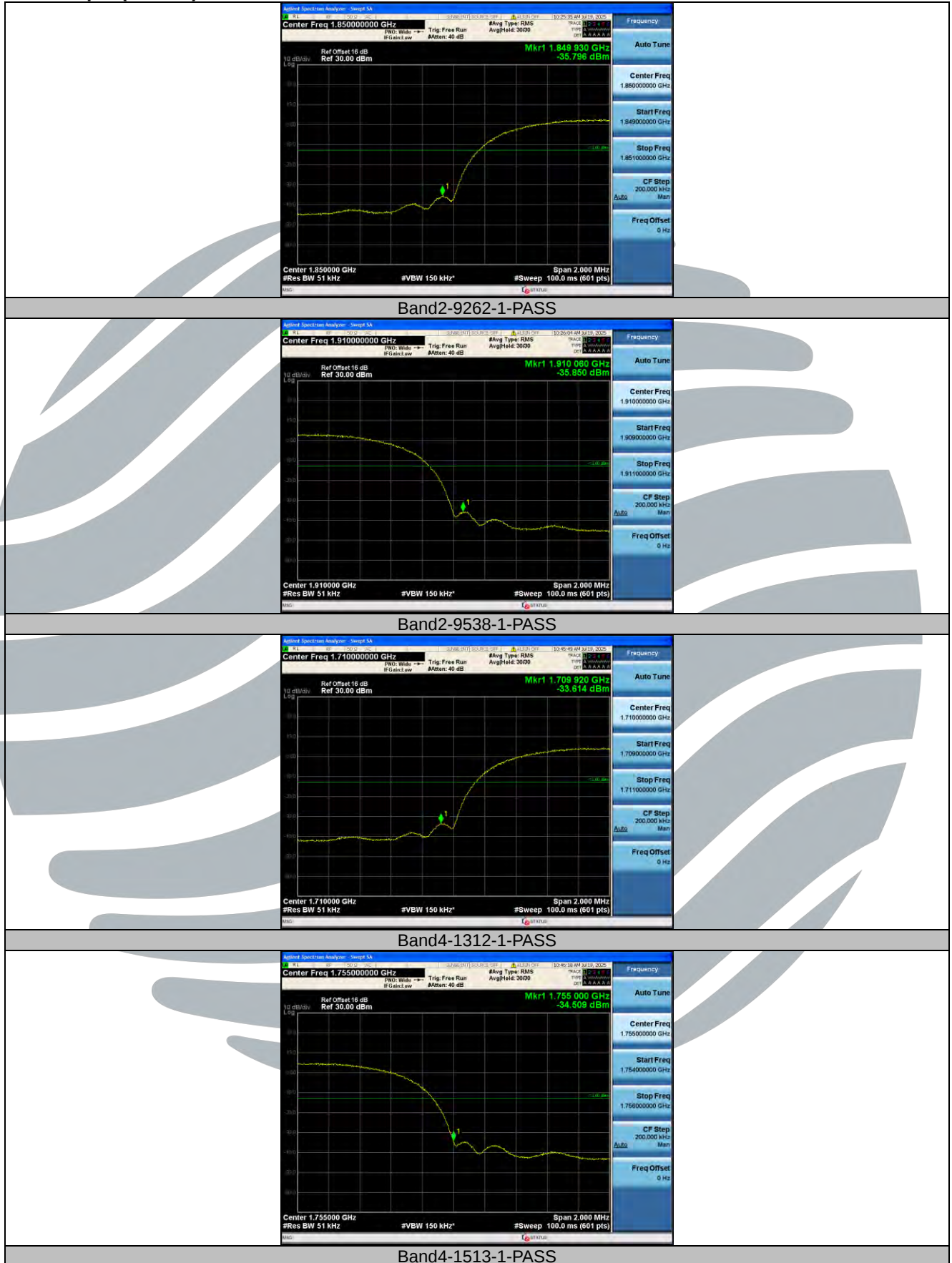
E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC23G-V1.1



Test Graphs(HSUPA)



Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6th, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, China

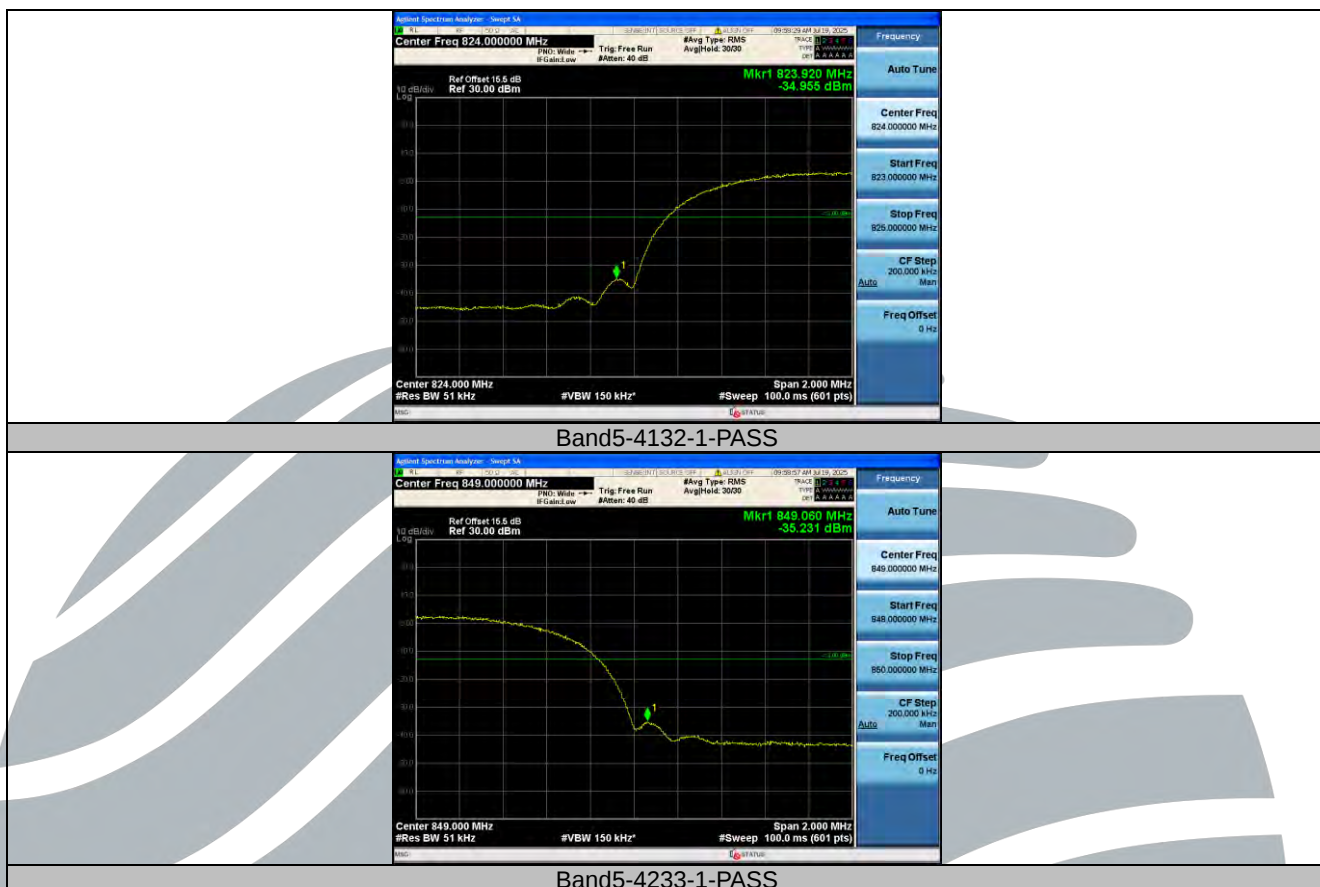
Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC23G-V1.1



Appendix B4: Conducted Spurious Emission

Test Result(WCDMA)

Band	Channel	Frequency Range	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	30~1000MHz	855.96	-33.56	-13	PASS
Band2	9262	1000~20000MHz	19112.23	-27.19	-13	PASS
Band2	9400	30~1000MHz	424.31	-34.63	-13	PASS
Band2	9400	1000~20000MHz	16342.03	-27.03	-13	PASS
Band2	9538	30~1000MHz	865.17	-34.86	-13	PASS
Band2	9538	1000~20000MHz	19113.18	-26.32	-13	PASS
Band4	1312	30~1000MHz	850.14	-34.8	-13	PASS
Band4	1312	1000~20000MHz	16652.68	-27.57	-13	PASS
Band4	1413	30~1000MHz	969.93	-33.69	-13	PASS
Band4	1413	1000~20000MHz	18957.38	-27.15	-13	PASS
Band4	1513	30~1000MHz	770.6	-34.29	-13	PASS
Band4	1513	1000~20000MHz	19082.78	-27.39	-13	PASS
Band5	4132	30~1000MHz	951.02	-45.78	-13	PASS
Band5	4132	1000~10000MHz	3138.85	-32.08	-13	PASS
Band5	4182	30~1000MHz	360.77	-46.07	-13	PASS
Band5	4182	1000~10000MHz	5720.5	-32.03	-13	PASS
Band5	4233	30~1000MHz	957.32	-46.2	-13	PASS
Band5	4233	1000~10000MHz	4912.75	-32.2	-13	PASS

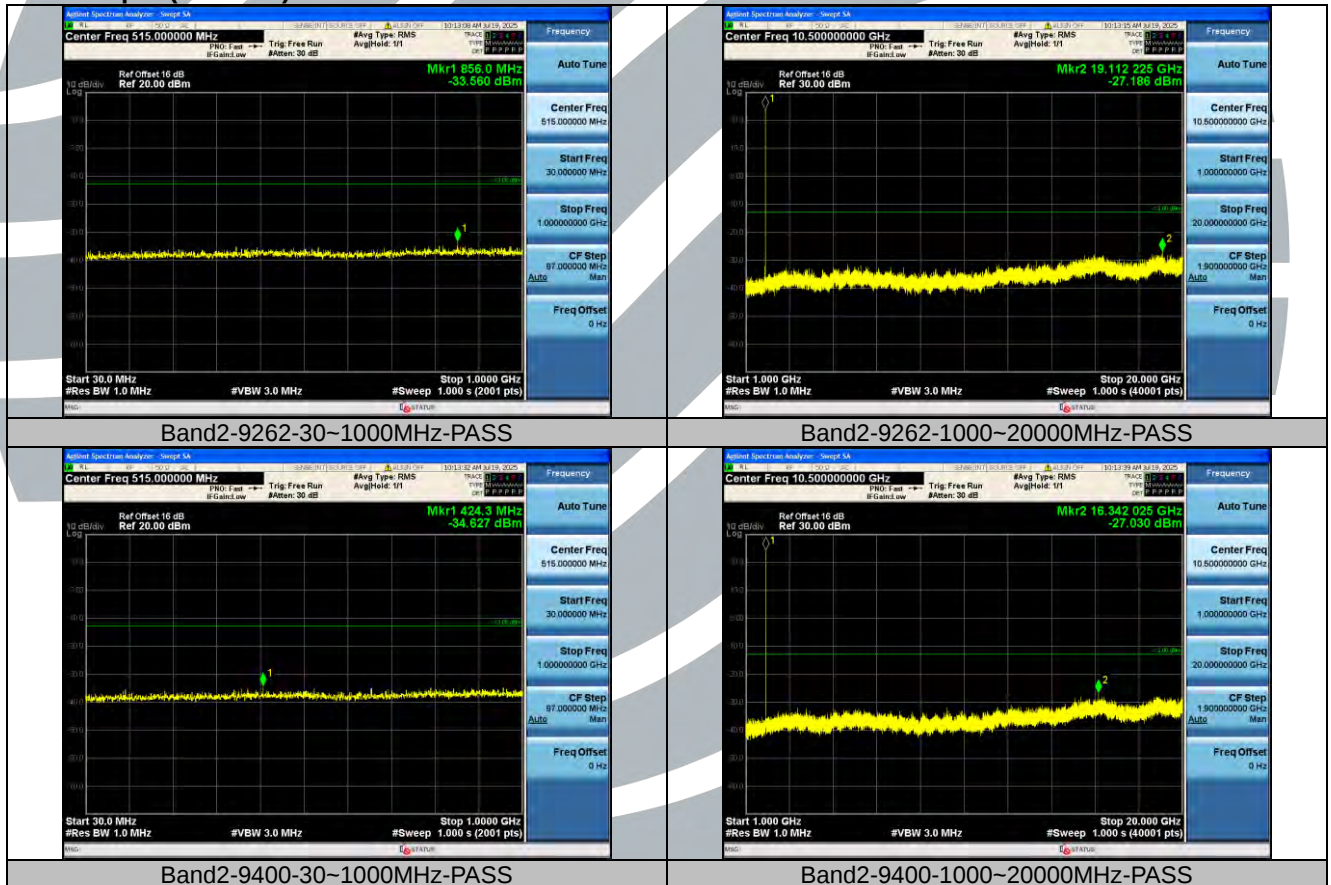
Test Result(HSDPA)

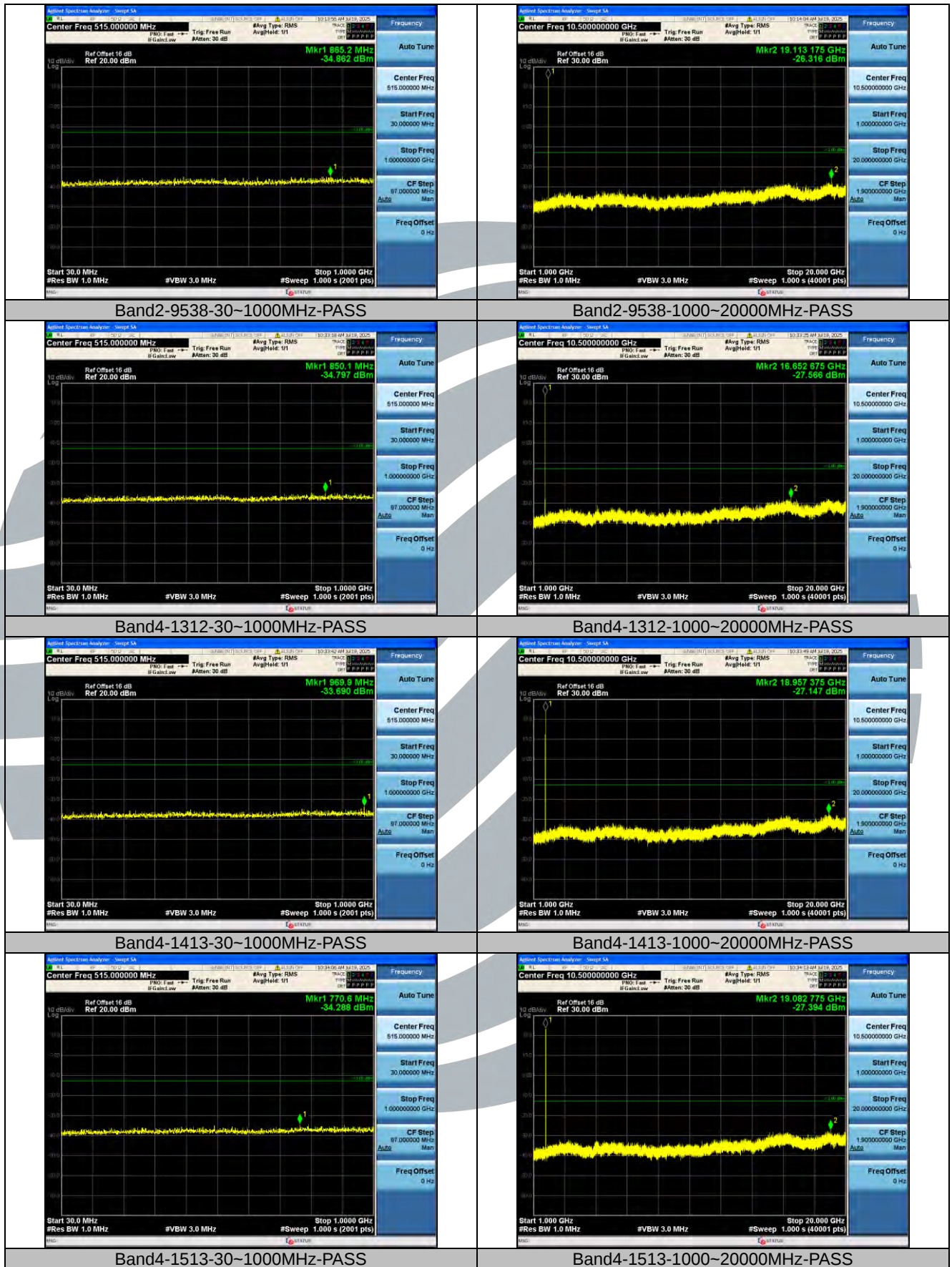
Band	Channel	Sub Test	Frequency Range	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	1	30~1000MHz	420.91	-34.33	-13	PASS
Band2	9262	1	1000~20000MHz	18937.9	-25.82	-13	PASS
Band2	9400	1	30~1000MHz	519.37	-35.23	-13	PASS
Band2	9400	1	1000~20000MHz	16423.73	-27.17	-13	PASS
Band2	9538	1	30~1000MHz	860.32	-34.71	-13	PASS
Band2	9538	1	1000~20000MHz	18892.78	-26.77	-13	PASS
Band4	1312	1	30~1000MHz	393.27	-34.83	-13	PASS
Band4	1312	1	1000~20000MHz	18954.53	-27.64	-13	PASS
Band4	1413	1	30~1000MHz	872.93	-34.53	-13	PASS
Band4	1413	1	1000~20000MHz	18922.23	-26.75	-13	PASS
Band4	1513	1	30~1000MHz	877.78	-34.31	-13	PASS
Band4	1513	1	1000~20000MHz	18959.28	-27.55	-13	PASS
Band5	4132	1	30~1000MHz	413.15	-46.21	-13	PASS
Band5	4132	1	1000~10000MHz	3091.15	-32.31	-13	PASS
Band5	4182	1	30~1000MHz	433.52	-46.31	-13	PASS
Band5	4182	1	1000~10000MHz	5291.2	-31.34	-13	PASS
Band5	4233	1	30~1000MHz	997.58	-45.28	-13	PASS
Band5	4233	1	1000~10000MHz	3610.45	-32.23	-13	PASS

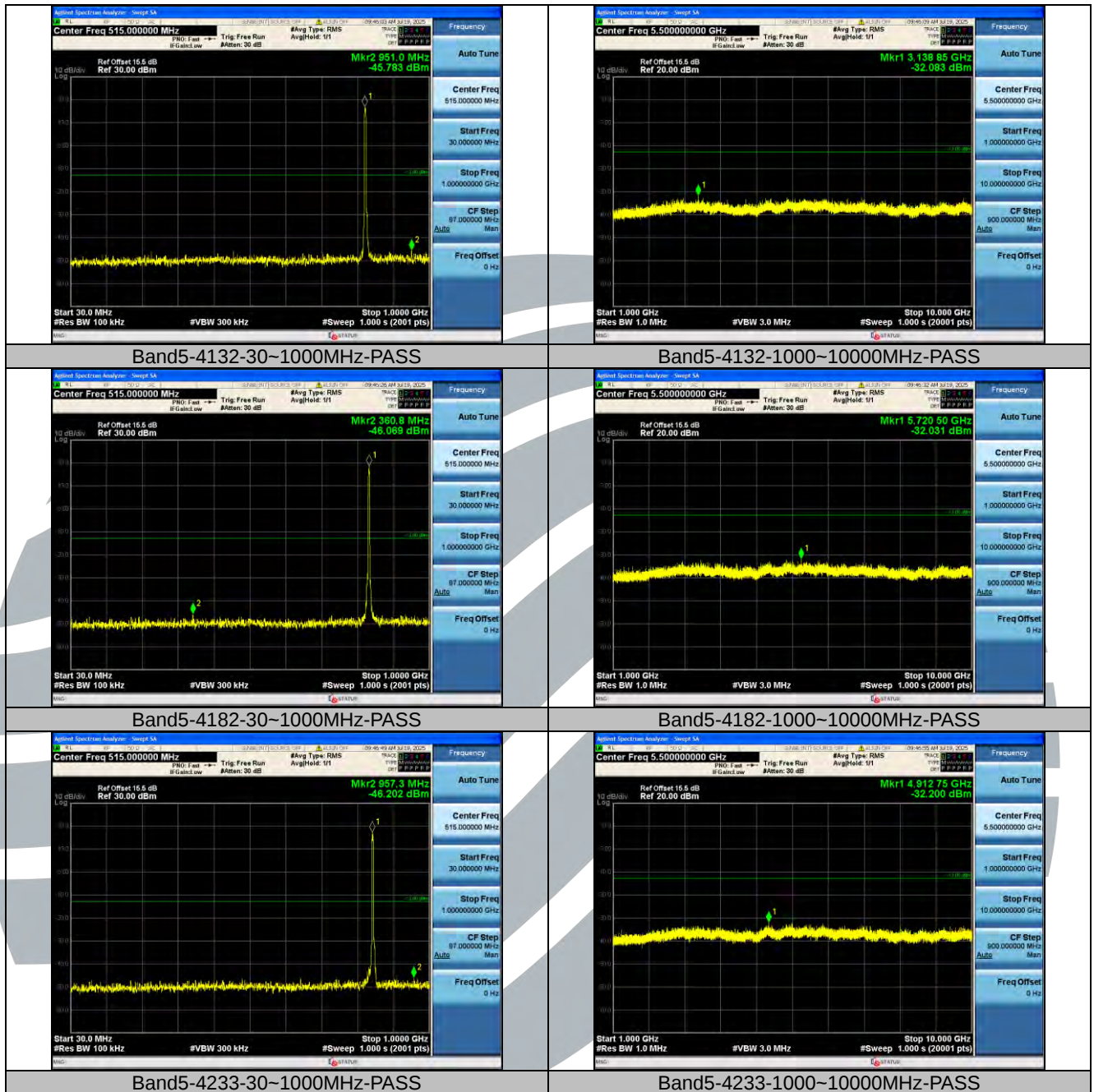
Test Result(HSUPA)

Band	Channel	Sub Test	Frequency Range	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	1	30~1000MHz	884.09	-34.05	-13	PASS
Band2	9262	1	1000~20000MHz	16309.25	-26.6	-13	PASS
Band2	9400	1	30~1000MHz	911.73	-32.95	-13	PASS
Band2	9400	1	1000~20000MHz	19469.9	-27	-13	PASS
Band2	9538	1	30~1000MHz	934.04	-33.88	-13	PASS
Band2	9538	1	1000~20000MHz	18947.4	-27.78	-13	PASS
Band4	1312	1	30~1000MHz	847.71	-34.04	-13	PASS
Band4	1312	1	1000~20000MHz	18969.25	-27.69	-13	PASS
Band4	1413	1	30~1000MHz	907.37	-34.15	-13	PASS
Band4	1413	1	1000~20000MHz	18986.35	-26.89	-13	PASS
Band4	1513	1	30~1000MHz	834.62	-33.93	-13	PASS
Band4	1513	1	1000~20000MHz	18862.85	-27.86	-13	PASS
Band5	4132	1	30~1000MHz	481.05	-46.12	-13	PASS
Band5	4132	1	1000~10000MHz	2984.05	-32.35	-13	PASS
Band5	4182	1	30~1000MHz	385.51	-46.3	-13	PASS
Band5	4182	1	1000~10000MHz	3603.7	-31.86	-13	PASS
Band5	4233	1	30~1000MHz	682.33	-45.92	-13	PASS
Band5	4233	1	1000~10000MHz	6215.05	-31.82	-13	PASS

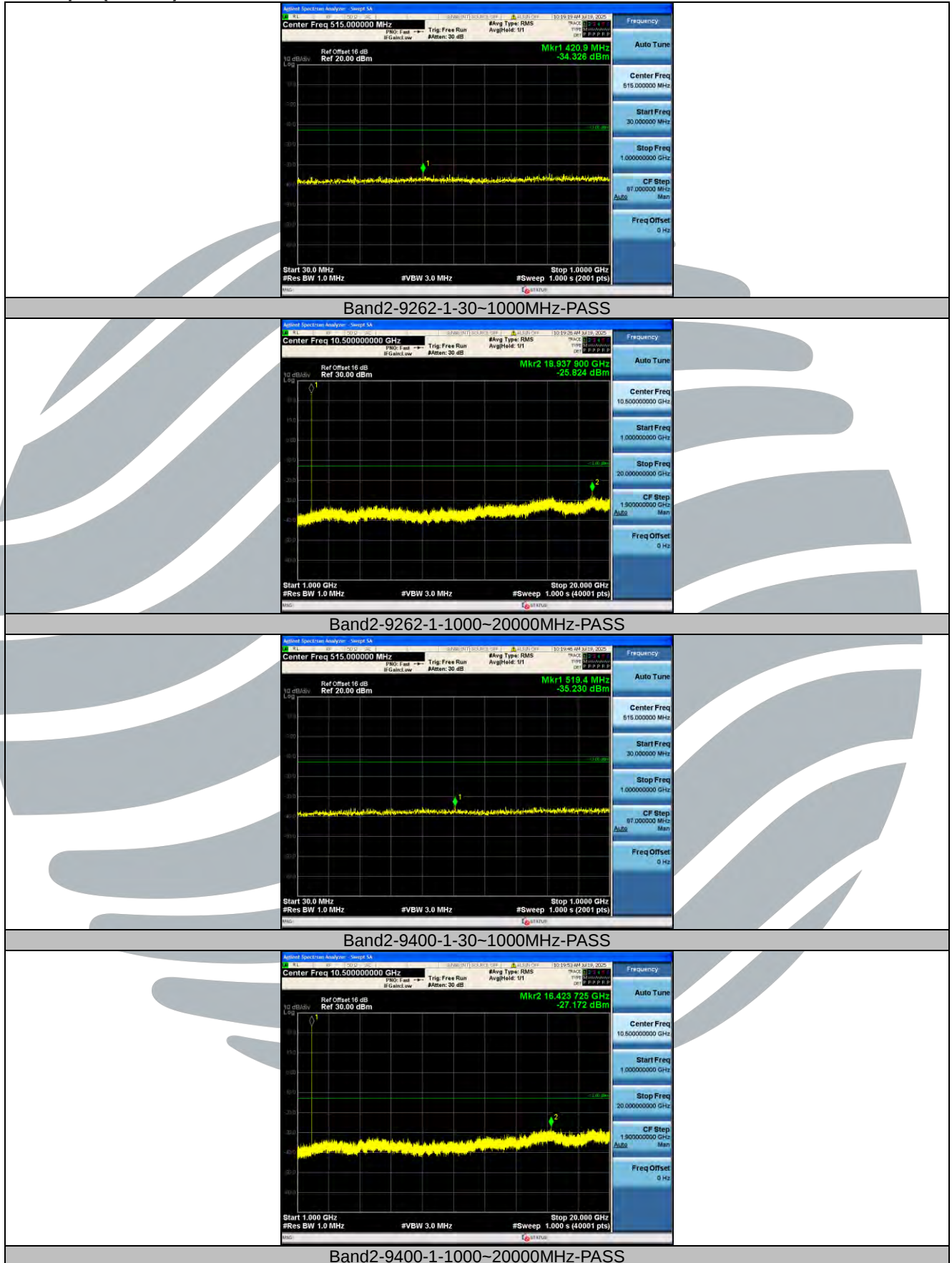
Test Graphs(WCDMA)







Test Graphs(HSDPA)



Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6th, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, China

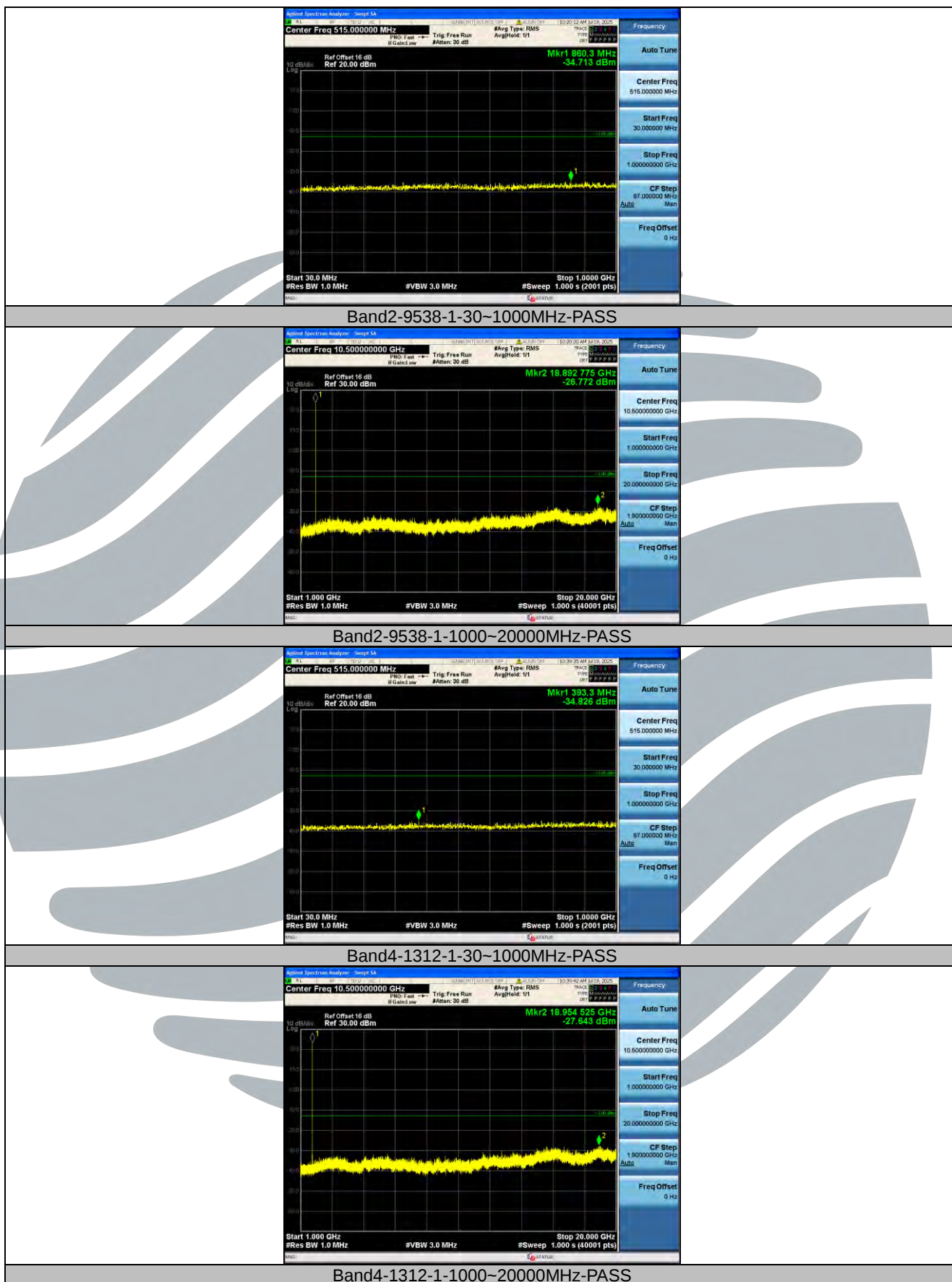
Tel: +86-755-28230888

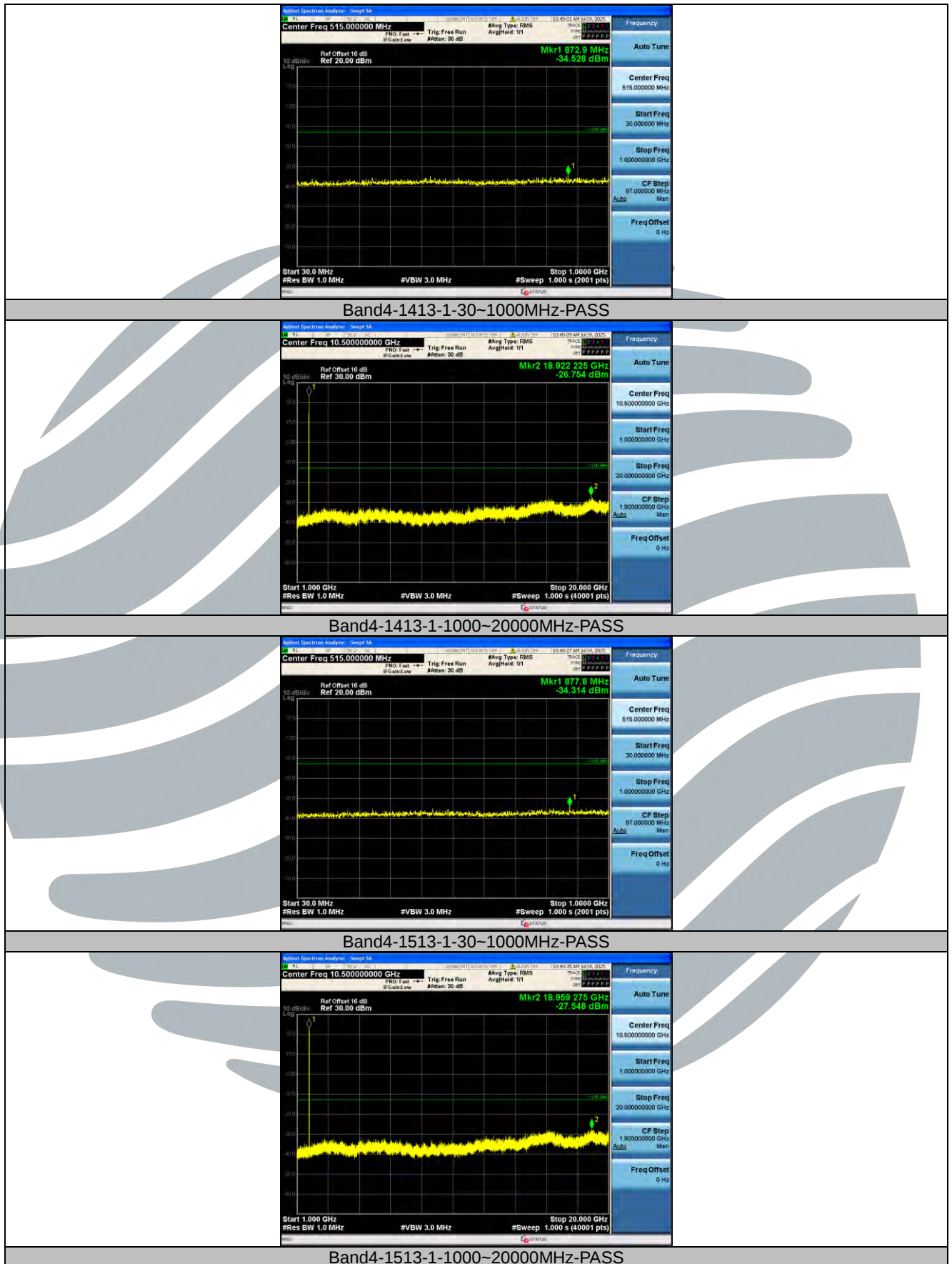
Fax: +86-755-28230886

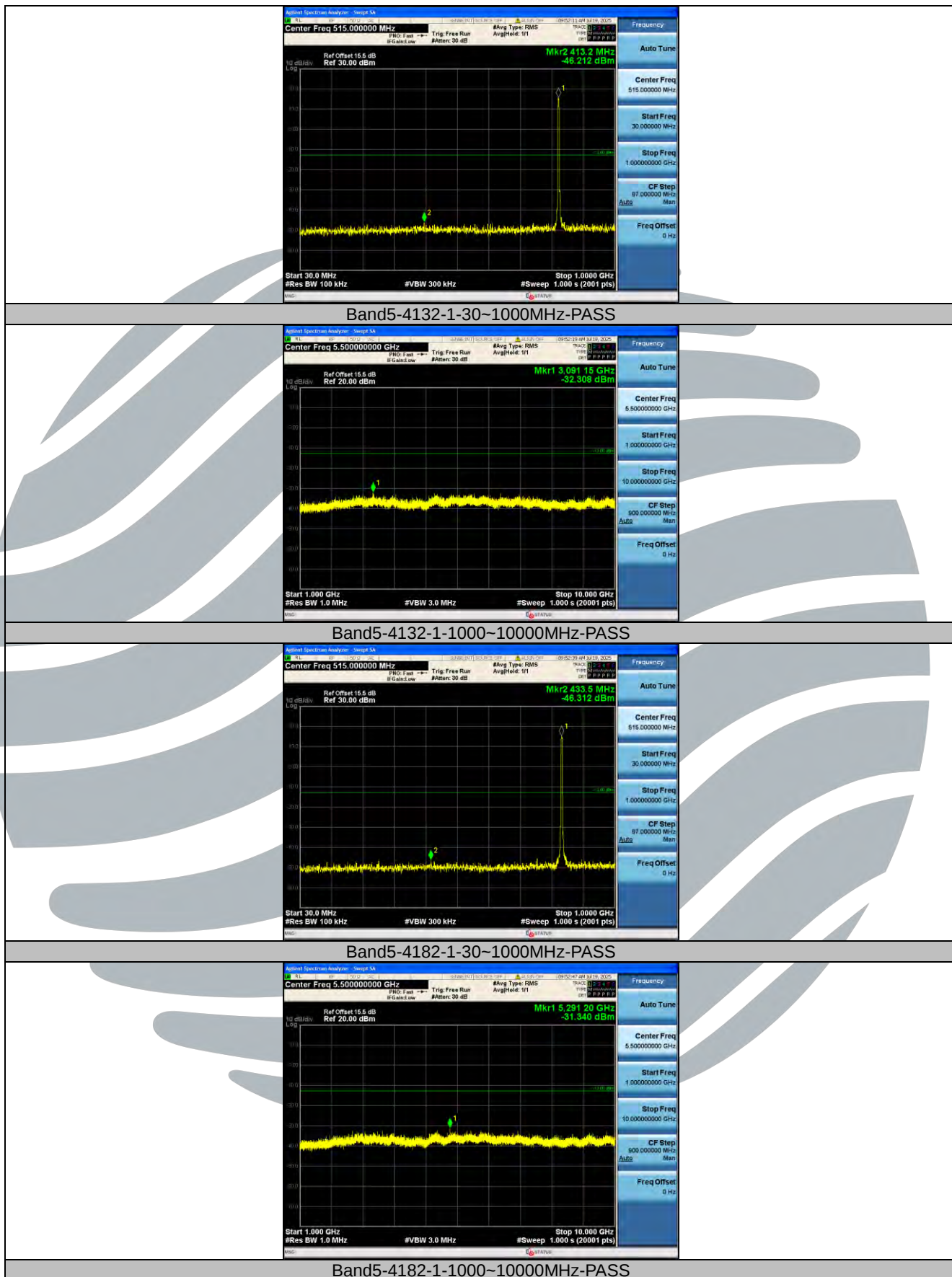
E-mail: info@uttlab.com

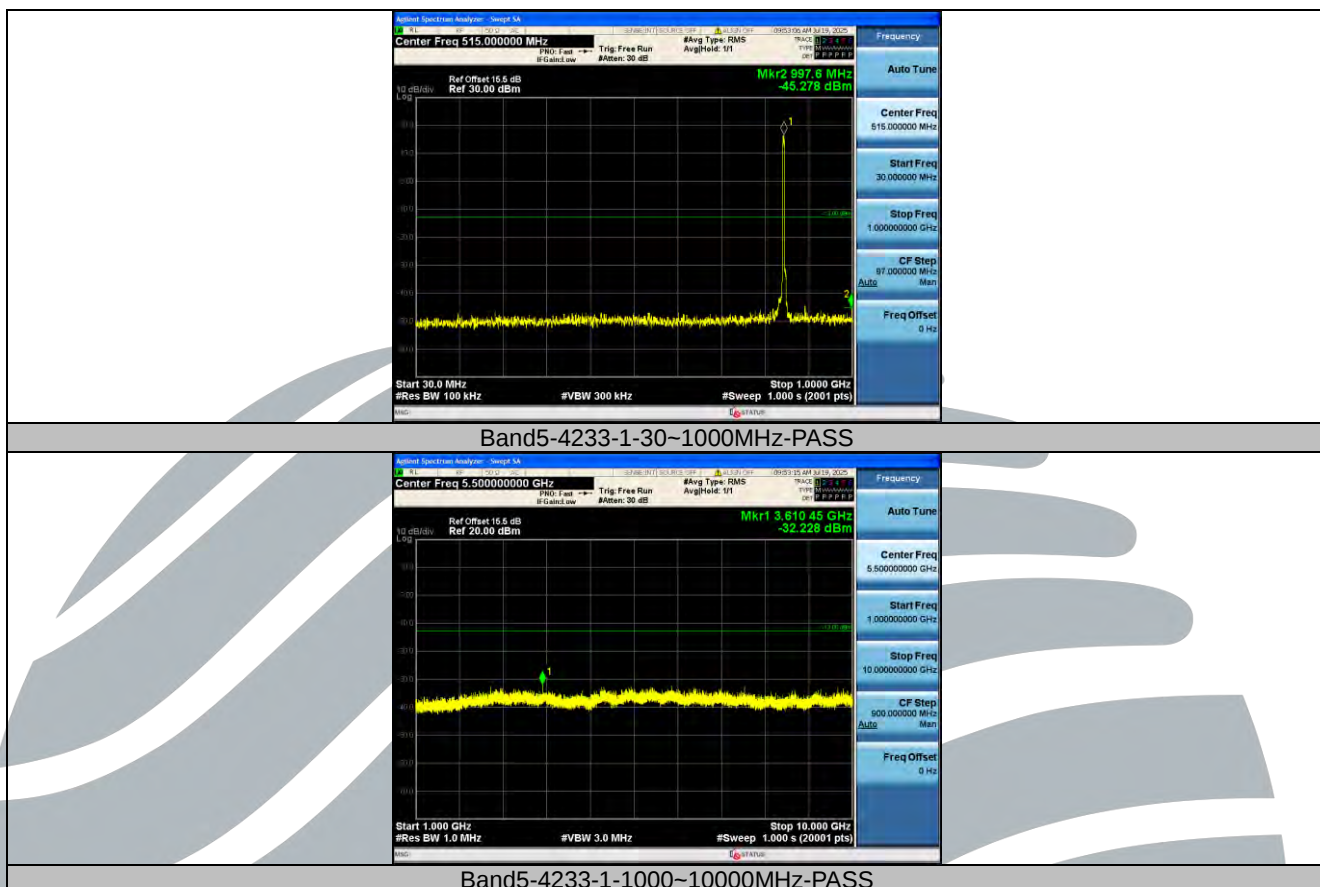
<http://www.uttlab.com>

UTTR-RF-FCC23G-V1.1

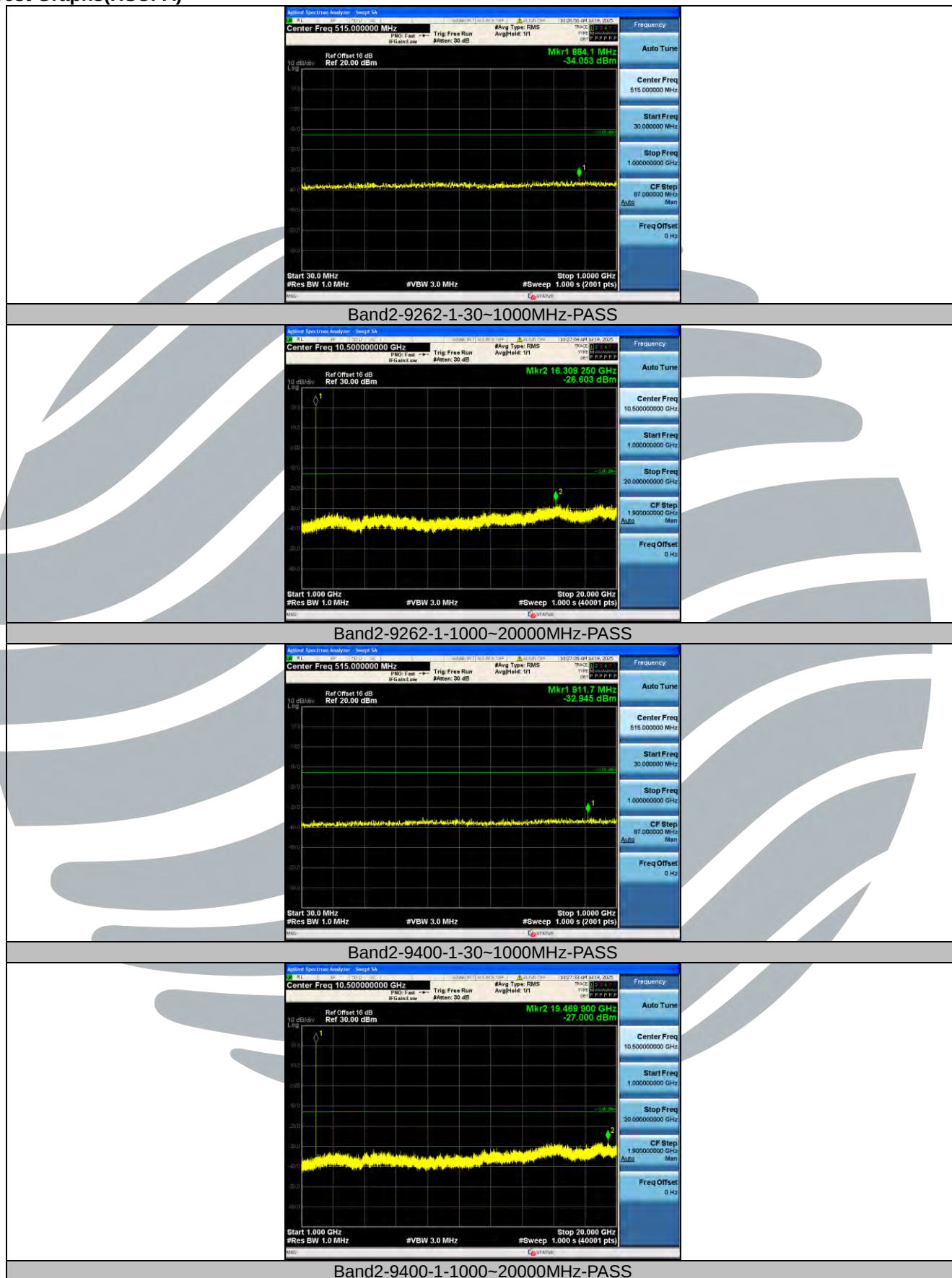


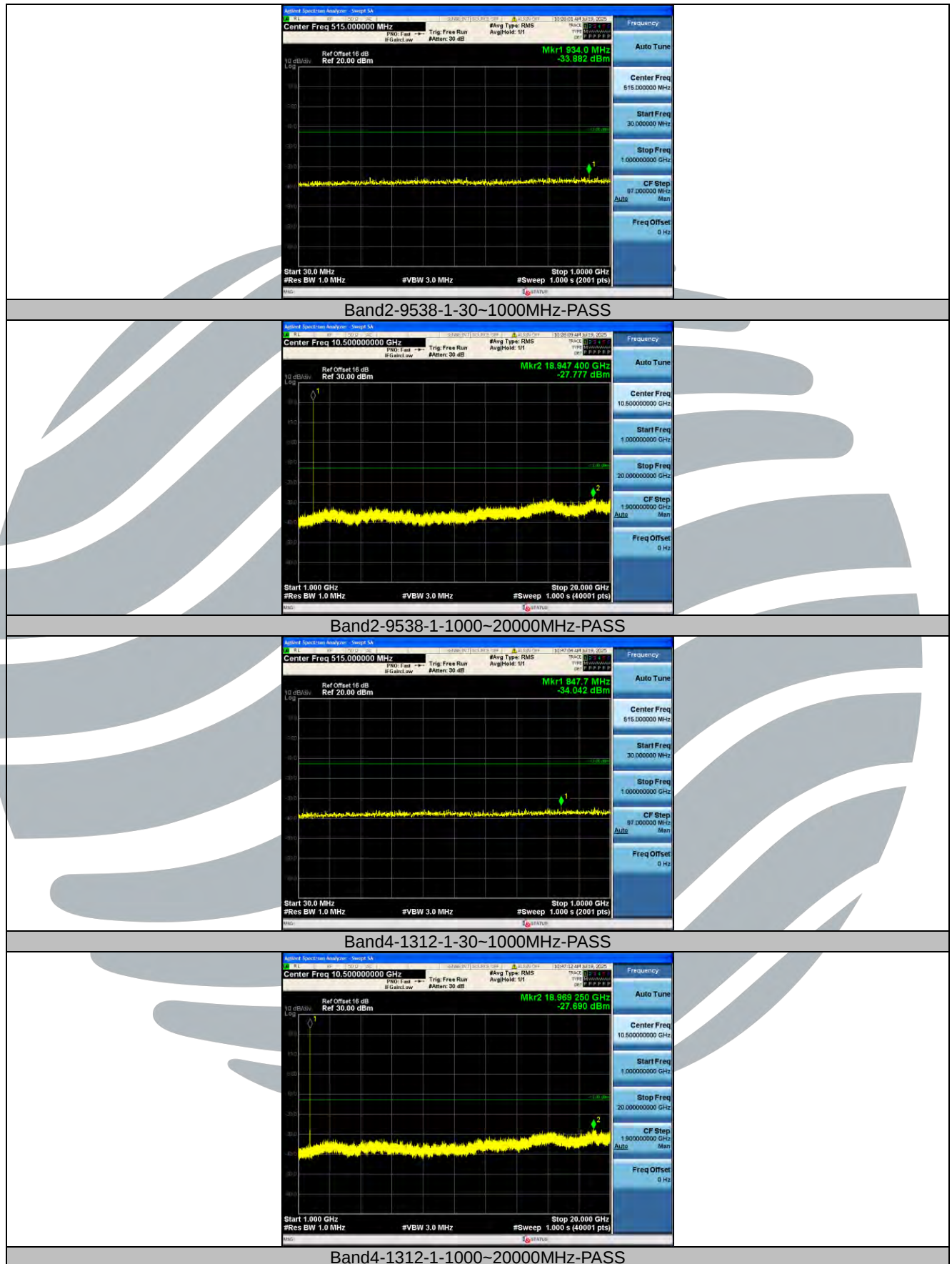


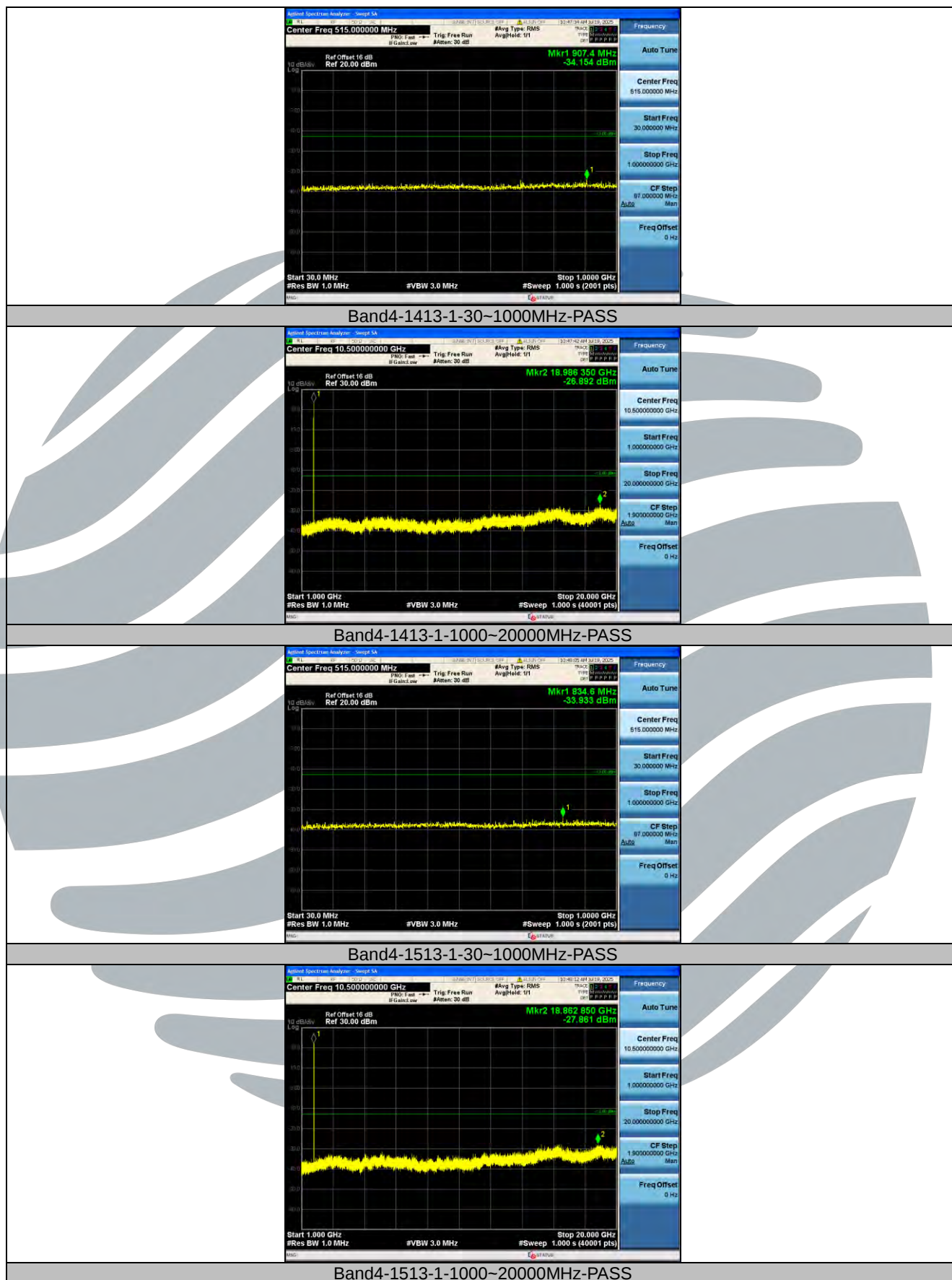


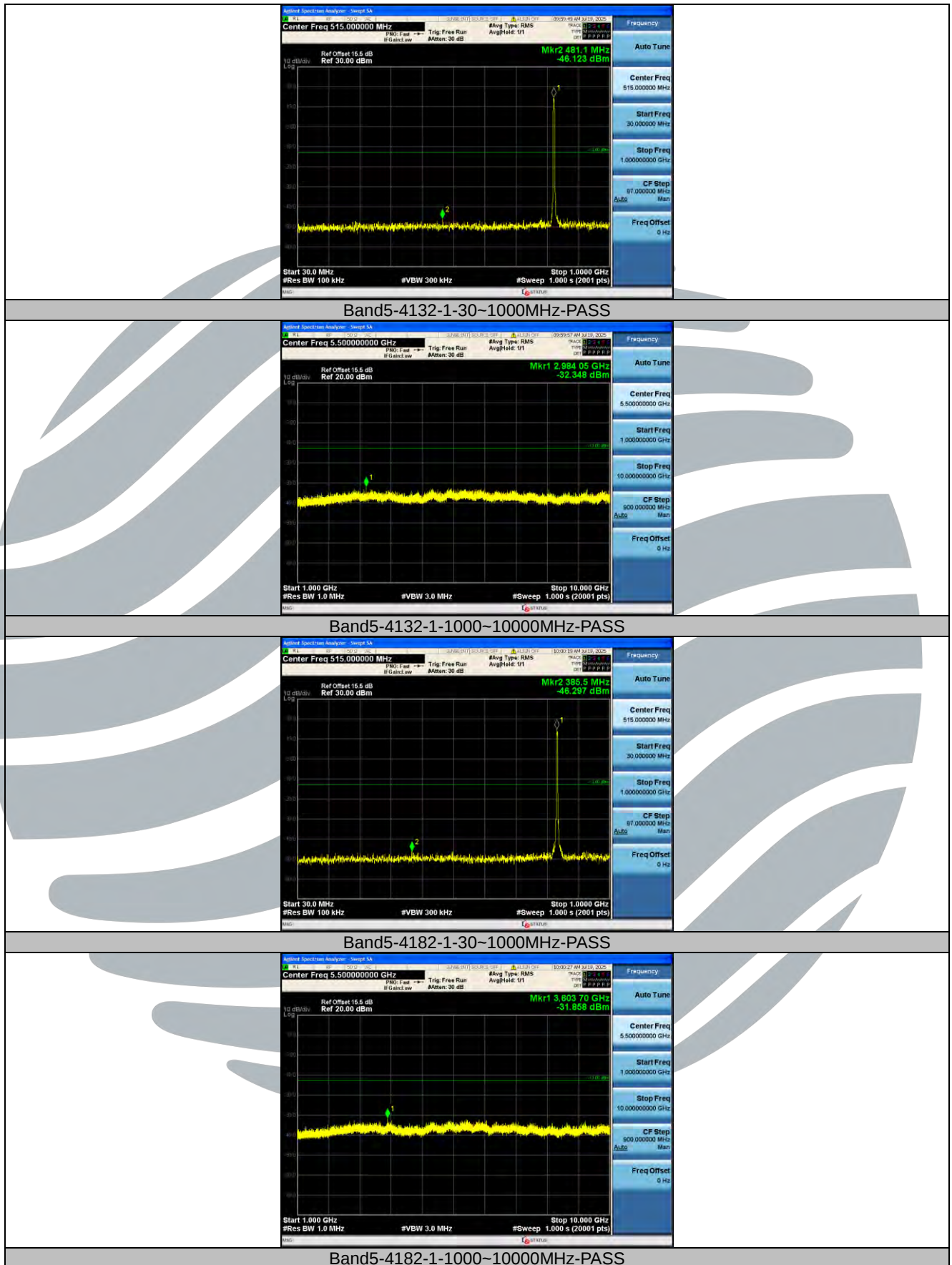


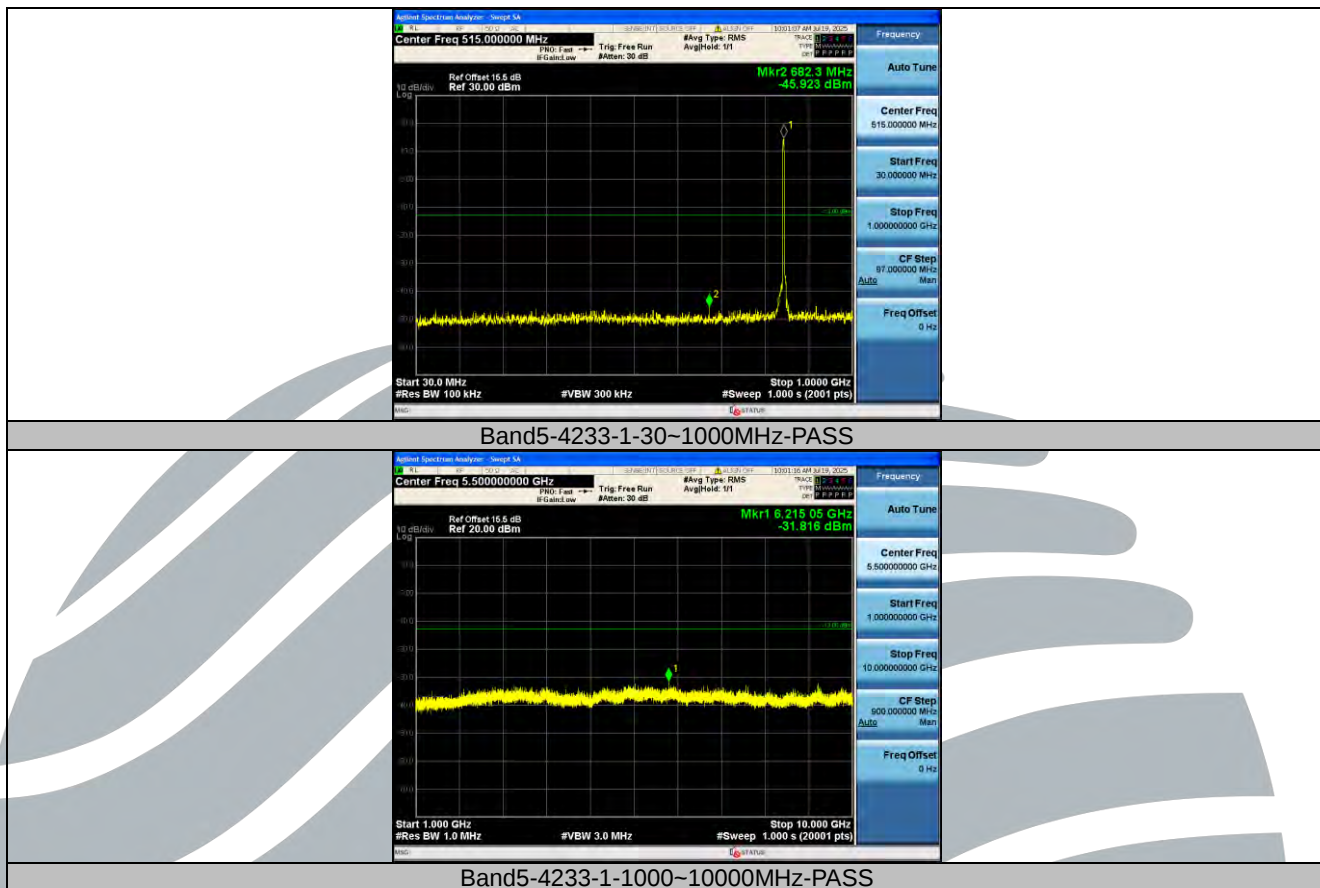
Test Graphs(HSUPA)











Appendix B5: Frequency Stability

Test Result(WCDMA)

Voltage							
Band	Channel	Voltage (Vdc)	Temp. (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9400	VN	NT	0.06	+0.000032	±2.5	PASS
Band2	9400	VL	NT	-1.27	-0.000676	±2.5	PASS
Band2	9400	VH	NT	0.52	+0.000277	±2.5	PASS
Band4	1413	VN	NT	0.32	+0.000185	±2.5	PASS
Band4	1413	VL	NT	6.64	+0.003832	±2.5	PASS
Band4	1413	VH	NT	-2.34	-0.001351	±2.5	PASS
Band5	4182	VN	NT	0.69	+0.000825	±2.5	PASS
Band5	4182	VL	NT	-0.54	-0.000646	±2.5	PASS
Band5	4182	VH	NT	-0.05	-0.000060	±2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Tempe. (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9400	NV	-30	1.00	+0.000532	±2.5	PASS
Band2	9400	NV	-20	-2.10	-0.001117	±2.5	PASS
Band2	9400	NV	-10	-3.27	-0.001739	±2.5	PASS
Band2	9400	NV	0	1.73	+0.000920	±2.5	PASS
Band2	9400	NV	10	-4.08	-0.002170	±2.5	PASS
Band2	9400	NV	20	4.54	+0.002415	±2.5	PASS
Band2	9400	NV	30	-6.12	-0.003255	±2.5	PASS
Band2	9400	NV	40	6.66	+0.003543	±2.5	PASS
Band2	9400	NV	50	-3.10	-0.001649	±2.5	PASS
Band4	1413	NV	-30	3.76	+0.002170	±2.5	PASS
Band4	1413	NV	-20	-4.95	-0.002857	±2.5	PASS
Band4	1413	NV	-10	-4.82	-0.002782	±2.5	PASS
Band4	1413	NV	0	3.23	+0.001864	±2.5	PASS
Band4	1413	NV	10	10.09	+0.005824	±2.5	PASS
Band4	1413	NV	20	0.17	+0.000098	±2.5	PASS
Band4	1413	NV	30	3.23	+0.001864	±2.5	PASS
Band4	1413	NV	40	-5.04	-0.002909	±2.5	PASS
Band4	1413	NV	50	-3.36	-0.001939	±2.5	PASS
Band5	4182	NV	-30	0.92	+0.001100	±2.5	PASS
Band5	4182	NV	-20	0.70	+0.000837	±2.5	PASS
Band5	4182	NV	-10	0.44	+0.000526	±2.5	PASS
Band5	4182	NV	0	-0.52	-0.000622	±2.5	PASS
Band5	4182	NV	10	-0.44	-0.000526	±2.5	PASS
Band5	4182	NV	20	-0.59	-0.000705	±2.5	PASS
Band5	4182	NV	30	-0.43	-0.000514	±2.5	PASS
Band5	4182	NV	40	-0.94	-0.001124	±2.5	PASS
Band5	4182	NV	50	0.89	+0.001064	±2.5	PASS