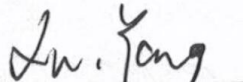


APPENDIX REPORT

Project No.	SHT2308070101EW	Radio Specification	WCDMA
Test sample No.	YPHT23080701001_01	Model No.	ENGY Pro 24
Start test date	2023-09-01	Finish date	2023-09-13
Temperature	23.5℃	Humidity	49%
Test Engineer	Xiaodong Zhao	Auditor	

Appendix clause	Test item	Result
A	Conducted Output Power	Pass
B	Peak-to-Average Ratio	Pass
C	26 dB Bandwidth and Occupied Bandwidth	Pass
D	Band edge	Pass
E	Conducted Spurious Emission	Pass
F	Frequency Stability	Pass
G	ERP and EIRP	Pass

8.1 Appendix A: Conducted Output Power

Test Result

Band	Channel	Power(dBm)	Limit(dBm)	Verdict
Band II	9262	22.95	33	PASS
Band II	9400	23.02	33	PASS
Band II	9538	22.73	33	PASS
Band V	4132	23.03	38.5	PASS
Band V	4182	22.99	38.5	PASS
Band V	4233	22.56	38.5	PASS

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band II	9262	HSDPA_Sub1	22.00	33	PASS
Band II	9262	HSDPA_Sub2	21.55	33	PASS
Band II	9262	HSDPA_Sub3	21.57	33	PASS
Band II	9262	HSDPA_Sub4	21.56	33	PASS
Band II	9400	HSDPA_Sub1	22.17	33	PASS
Band II	9400	HSDPA_Sub2	21.68	33	PASS
Band II	9400	HSDPA_Sub3	21.70	33	PASS
Band II	9400	HSDPA_Sub4	21.68	33	PASS
Band II	9538	HSDPA_Sub1	22.25	33	PASS
Band II	9538	HSDPA_Sub2	21.77	33	PASS
Band II	9538	HSDPA_Sub3	21.78	33	PASS
Band II	9538	HSDPA_Sub4	21.79	33	PASS
Band V	4132	HSDPA_Sub1	21.75	38.5	PASS
Band V	4132	HSDPA_Sub2	21.31	38.5	PASS
Band V	4132	HSDPA_Sub3	21.34	38.5	PASS
Band V	4132	HSDPA_Sub4	21.33	38.5	PASS
Band V	4182	HSDPA_Sub1	21.69	38.5	PASS
Band V	4182	HSDPA_Sub2	21.25	38.5	PASS
Band V	4182	HSDPA_Sub3	21.27	38.5	PASS
Band V	4182	HSDPA_Sub4	21.24	38.5	PASS
Band V	4233	HSDPA_Sub1	21.37	38.5	PASS
Band V	4233	HSDPA_Sub2	20.88	38.5	PASS
Band V	4233	HSDPA_Sub3	20.90	38.5	PASS
Band V	4233	HSDPA_Sub4	20.87	38.5	PASS

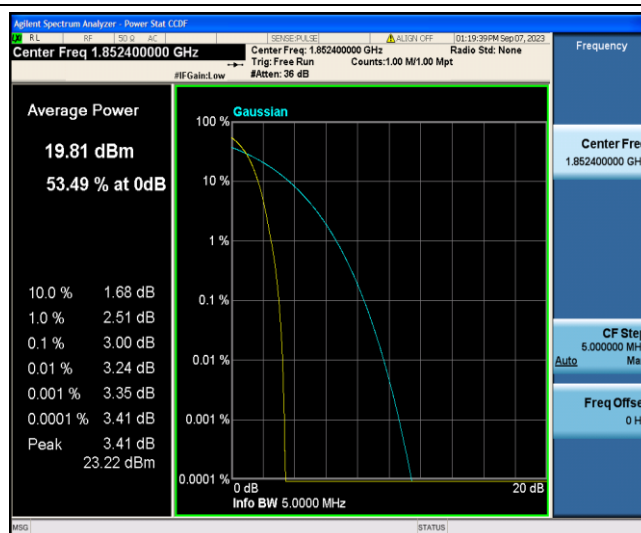
Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band II	9262	HSUPA_Sub1	19.99	33	PASS
Band II	9262	HSUPA_Sub2	20.51	33	PASS
Band II	9262	HSUPA_Sub3	21.01	33	PASS
Band II	9262	HSUPA_Sub4	20.06	33	PASS
Band II	9262	HSUPA_Sub5	21.94	33	PASS
Band II	9400	HSUPA_Sub1	20.15	33	PASS
Band II	9400	HSUPA_Sub2	20.69	33	PASS
Band II	9400	HSUPA_Sub3	21.17	33	PASS
Band II	9400	HSUPA_Sub4	20.15	33	PASS
Band II	9400	HSUPA_Sub5	22.09	33	PASS
Band II	9538	HSUPA_Sub1	20.23	33	PASS
Band II	9538	HSUPA_Sub2	20.76	33	PASS
Band II	9538	HSUPA_Sub3	21.32	33	PASS
Band II	9538	HSUPA_Sub4	20.24	33	PASS
Band II	9538	HSUPA_Sub5	22.19	33	PASS
Band V	4132	HSUPA_Sub1	19.83	38.5	PASS
Band V	4132	HSUPA_Sub2	20.25	38.5	PASS
Band V	4132	HSUPA_Sub3	20.78	38.5	PASS
Band V	4132	HSUPA_Sub4	19.88	38.5	PASS
Band V	4132	HSUPA_Sub5	21.82	38.5	PASS
Band V	4182	HSUPA_Sub1	19.77	38.5	PASS
Band V	4182	HSUPA_Sub2	20.19	38.5	PASS
Band V	4182	HSUPA_Sub3	20.73	38.5	PASS
Band V	4182	HSUPA_Sub4	19.79	38.5	PASS
Band V	4182	HSUPA_Sub5	21.72	38.5	PASS
Band V	4233	HSUPA_Sub1	19.36	38.5	PASS
Band V	4233	HSUPA_Sub2	19.81	38.5	PASS
Band V	4233	HSUPA_Sub3	20.30	38.5	PASS
Band V	4233	HSUPA_Sub4	19.41	38.5	PASS
Band V	4233	HSUPA_Sub5	21.35	38.5	PASS

8.2 Appendix B: Peak-to-Average Ratio

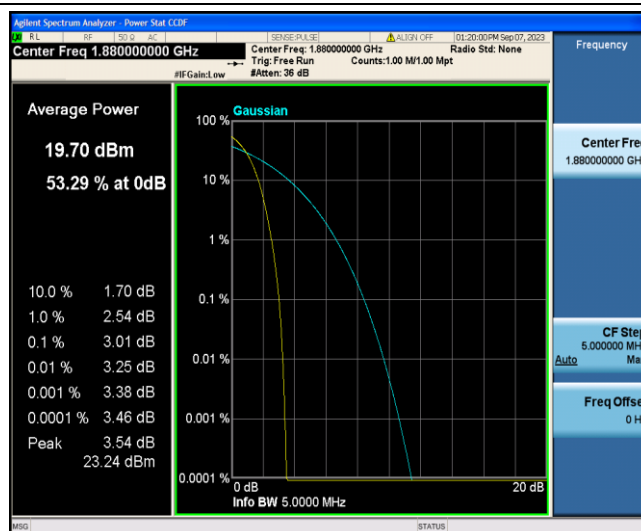
Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band II	9262	3.00	13	PASS
Band II	9400	3.01	13	PASS
Band II	9538	3.00	13	PASS
Band V	4132	3.06	13	PASS
Band V	4182	2.96	13	PASS
Band V	4233	2.95	13	PASS

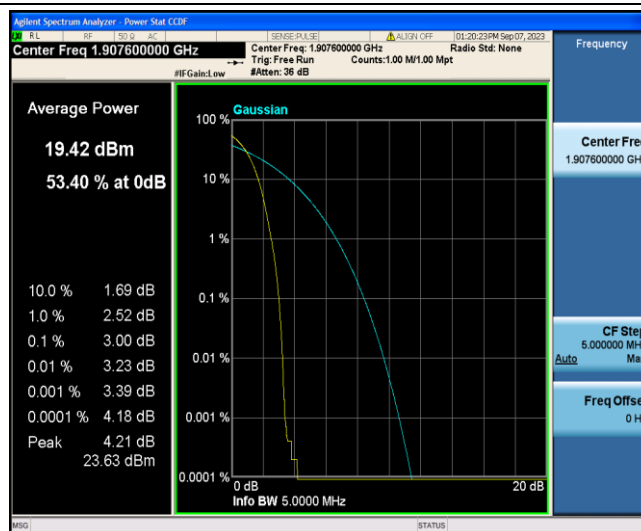
Test Graphs



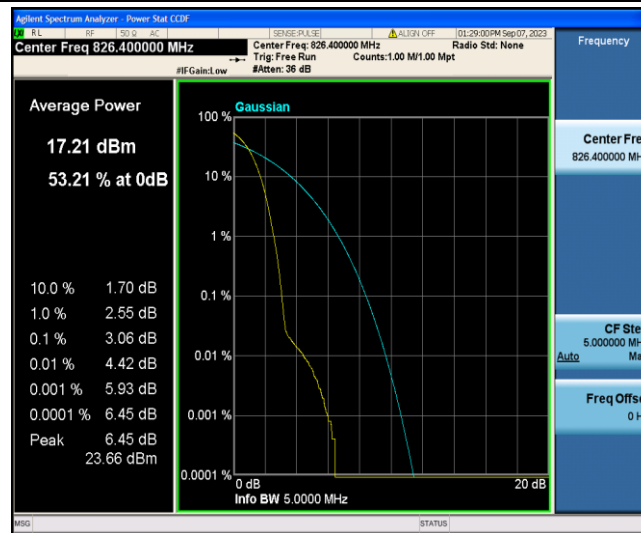
Band II_9262



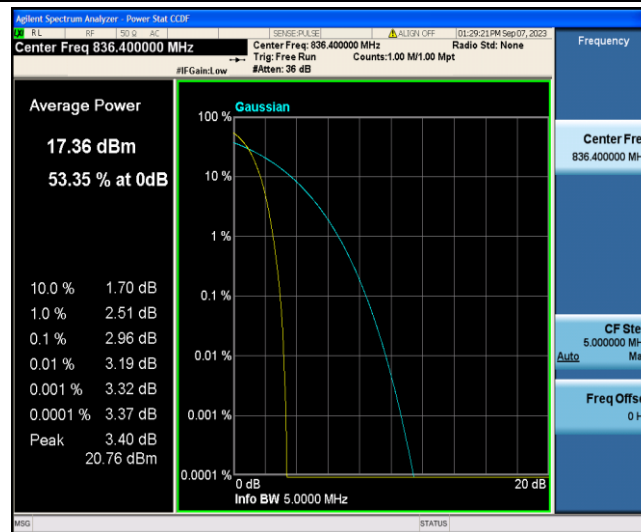
Band II_9400



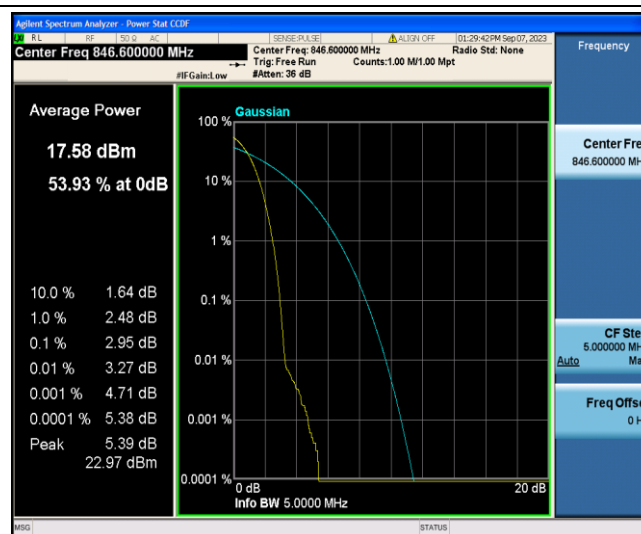
Band II_9538



Band V_4132



Band V_4182



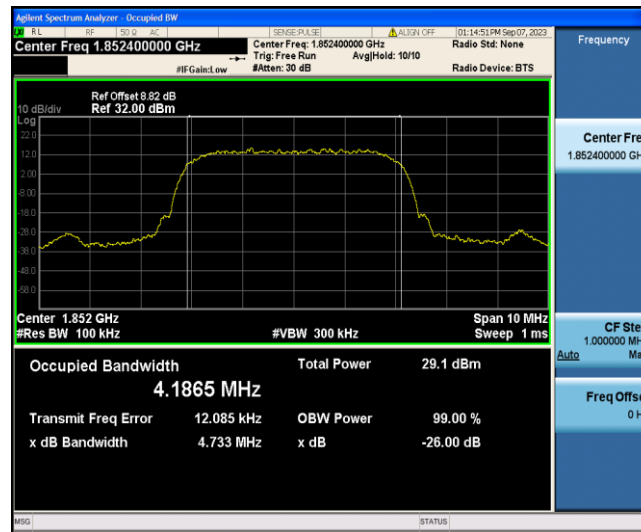
Band V_4233

8.3 Appendix C: 26dB Bandwidth and Occupied Bandwidth

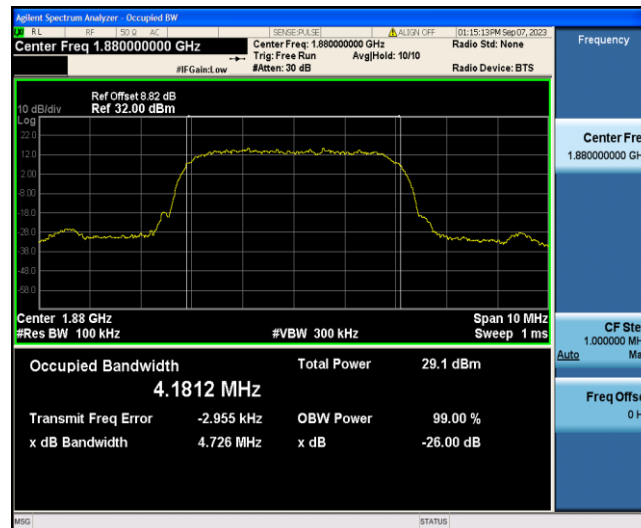
Test Result

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
Band II	9262	4186.5	4733	---	PASS
Band II	9400	4181.2	4726	---	PASS
Band II	9538	4167.0	4724	---	PASS
Band V	4132	4192.9	4714	---	PASS
Band V	4182	4168.5	4718	---	PASS
Band V	4233	4158.4	4727	---	PASS

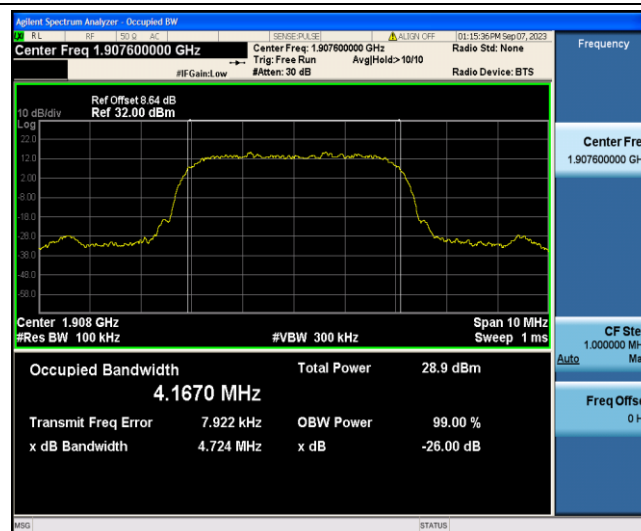
Test Graphs



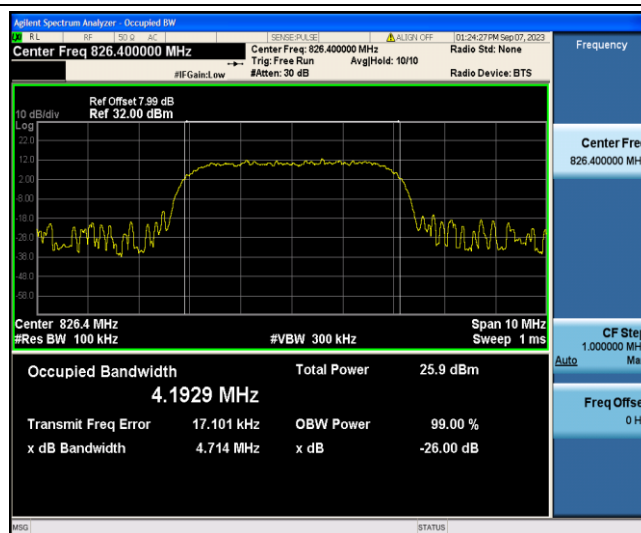
Band II_9262



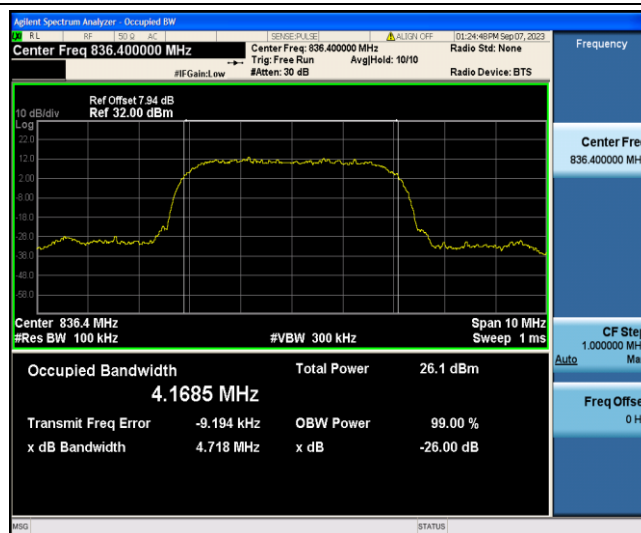
Band II_9400



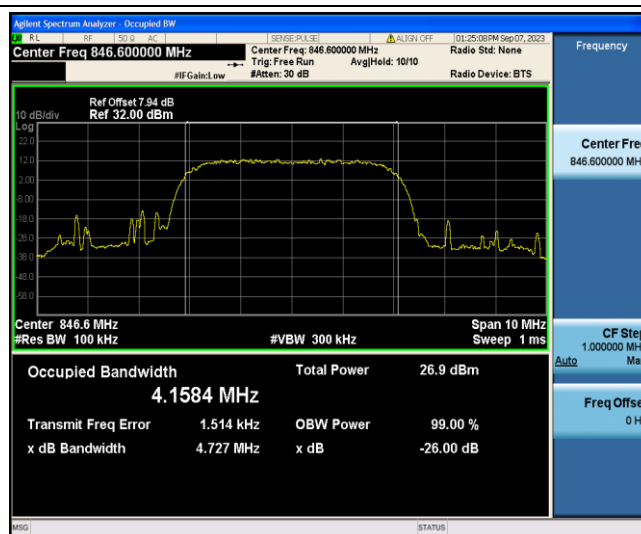
Band II_9538



Band V_4132



Band V_4182



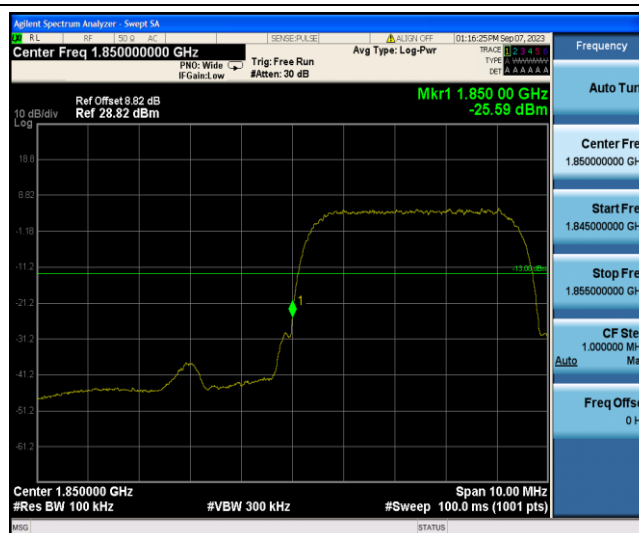
Band V_4233

8.4 Appendix D: Band Edge

Test Result

Band	Channel	Value(dBm)	Limit(dBm)	Verdict
Band II	9262	-25.59	-13	PASS
Band II	9538	-25.61	-13	PASS
Band V	4132	-28.86	-13	PASS
Band V	4233	-28.67	-13	PASS

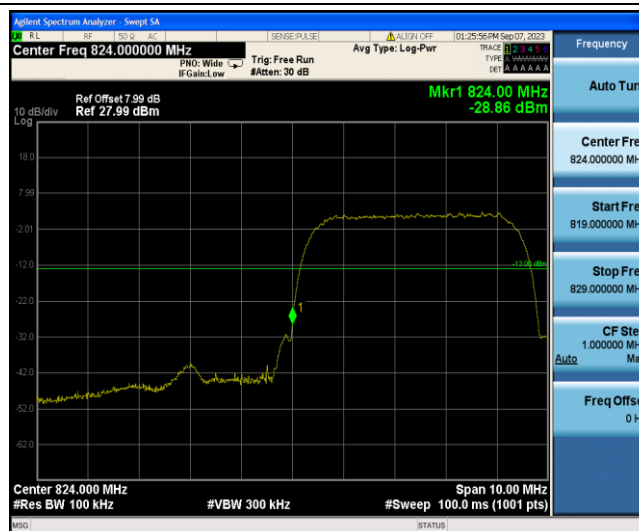
Test Graphs



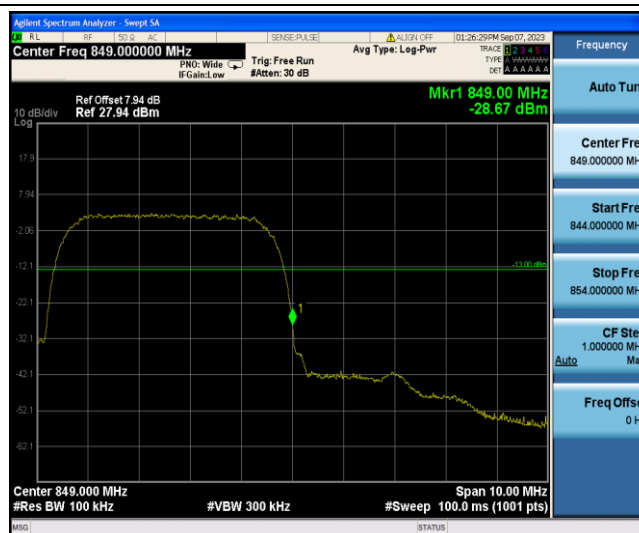
Band II_9262



Band II_9538



Band V_4132



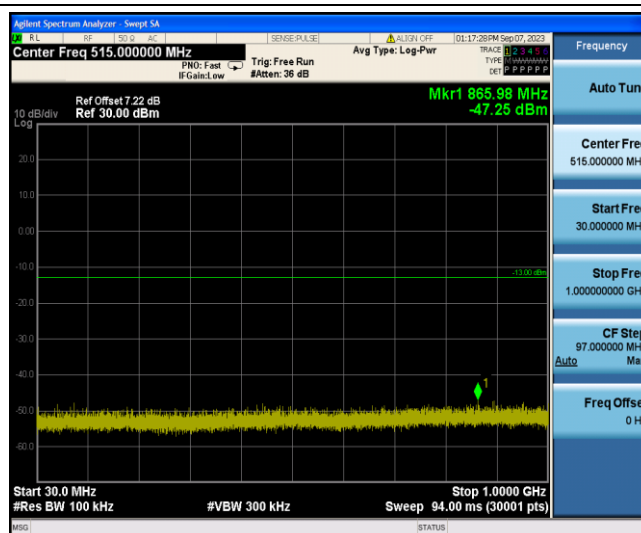
Band V_4233

8.5 Appendix E: Conducted Spurious Emission

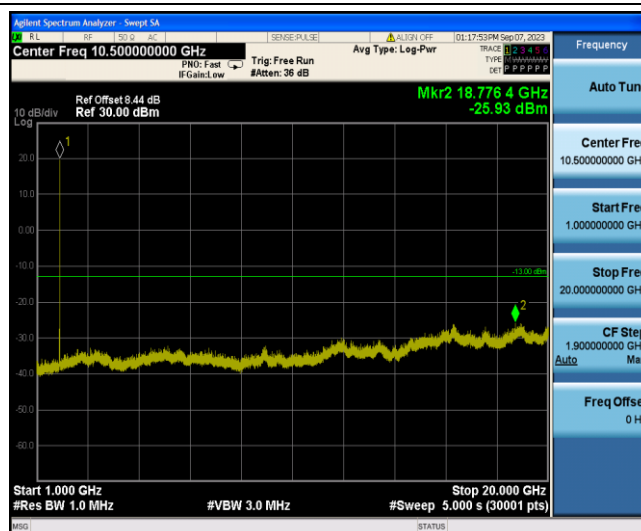
Test Result

Band	Channel	Frequency Rang(Mhz)	Value(dBm)	Limit(dBm)	Verdict
Band II	9262	30~1000	-47.25	-13	PASS
Band II	9262	1000~20000	-25.93	-13	PASS
Band II	9400	30~1000	-47.14	-13	PASS
Band II	9400	1000~20000	-26.23	-13	PASS
Band II	9538	30~1000	-47.38	-13	PASS
Band II	9538	1000~20000	-25.78	-13	PASS
Band V	4132	30~1000	-47.38	-13	PASS
Band V	4132	1000~10000	-32.21	-13	PASS
Band V	4182	30~1000	-47.41	-13	PASS
Band V	4182	1000~10000	-32.12	-13	PASS
Band V	4233	30~1000	-47.11	-13	PASS
Band V	4233	1000~10000	-32.24	-13	PASS

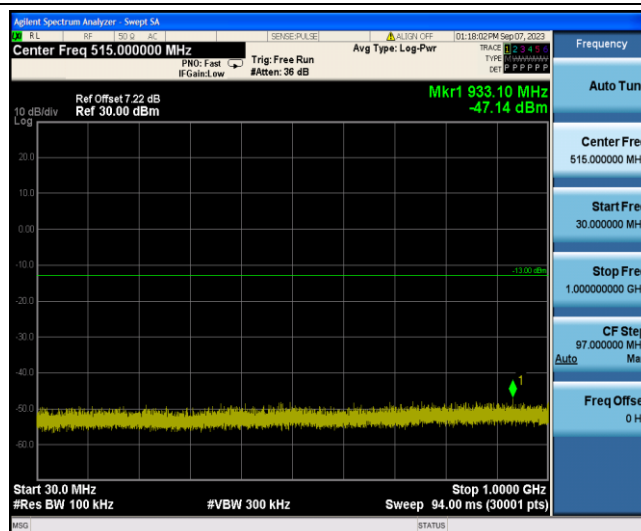
Test Graphs



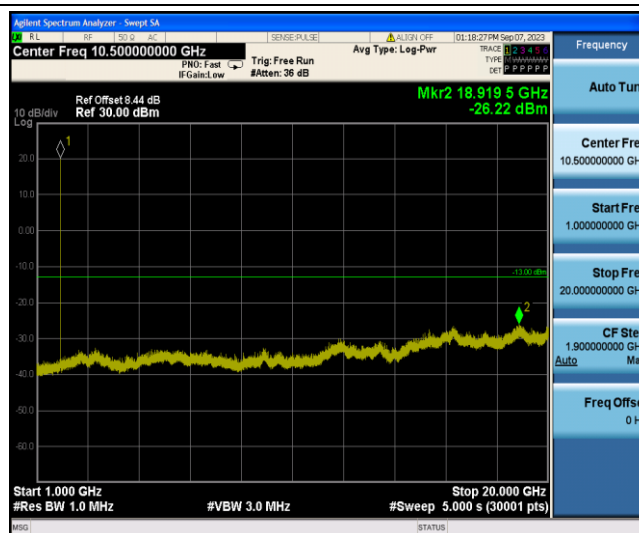
Band II_9262



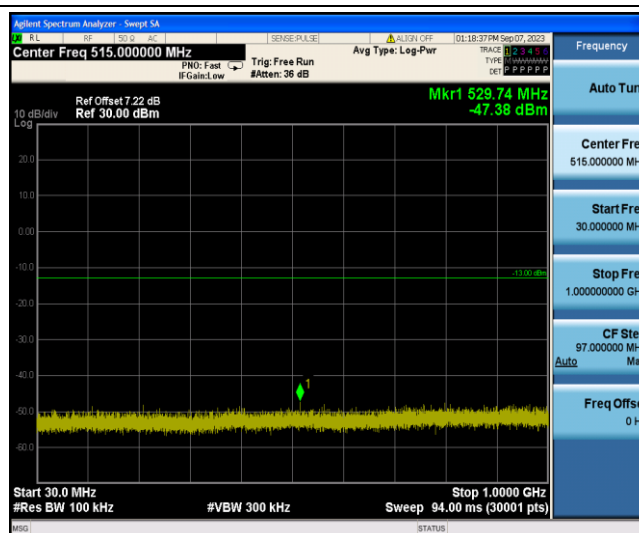
Band II_9262



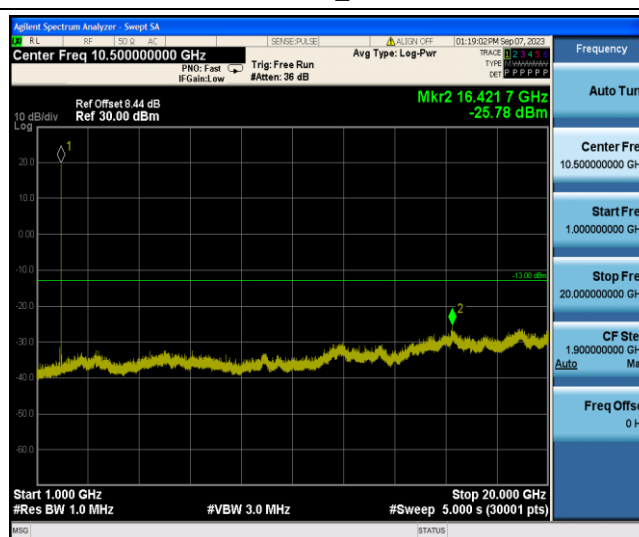
Band II_9400



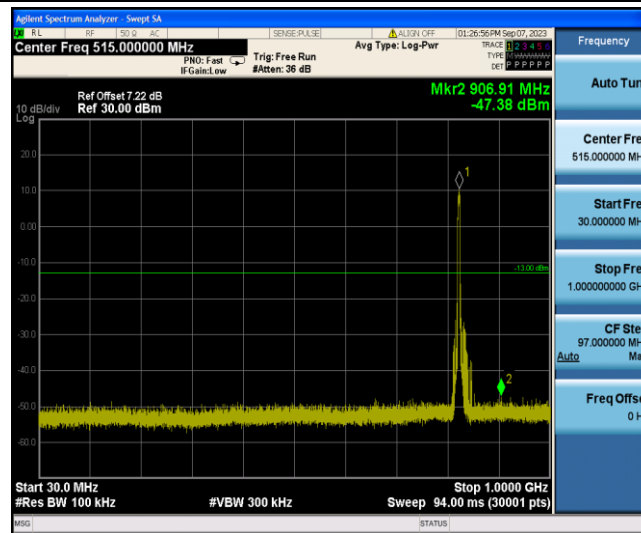
Band II_9400



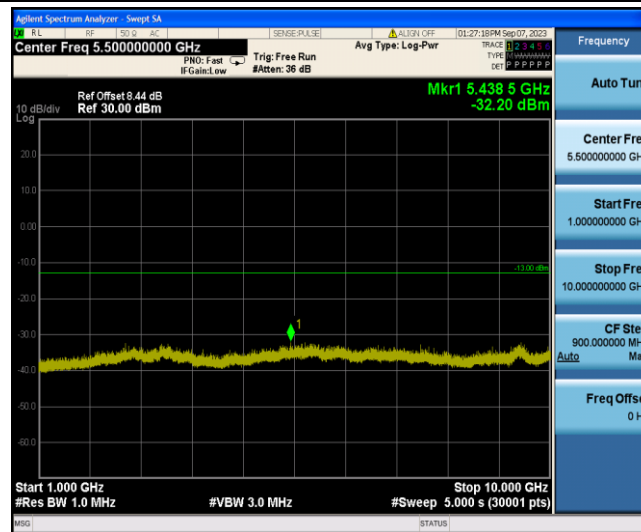
Band II_9538



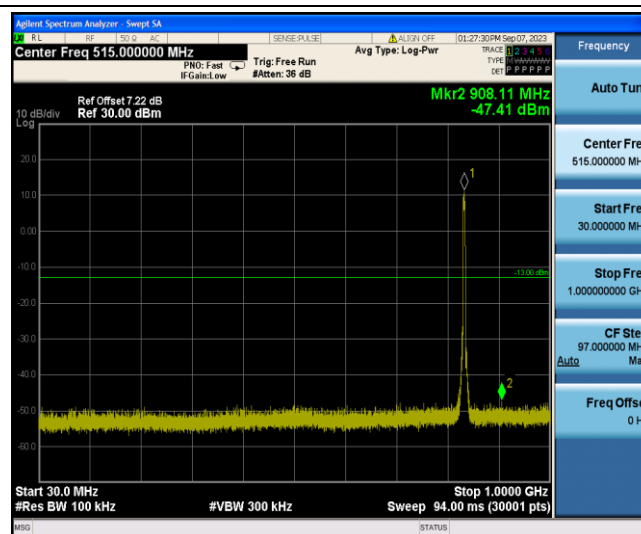
Band II_9538



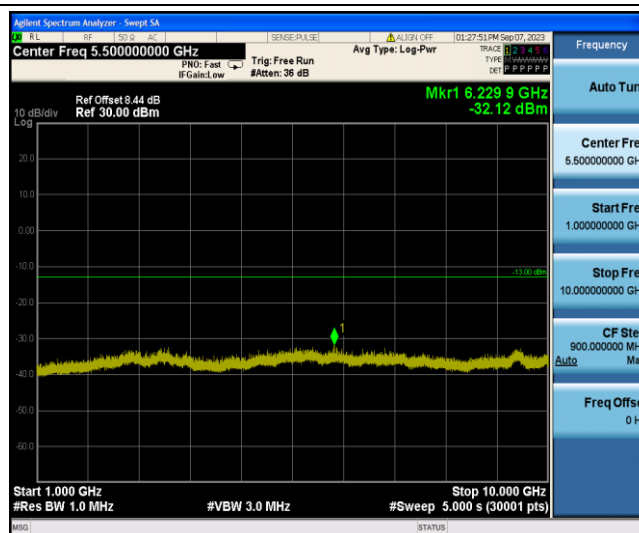
Band V_4132



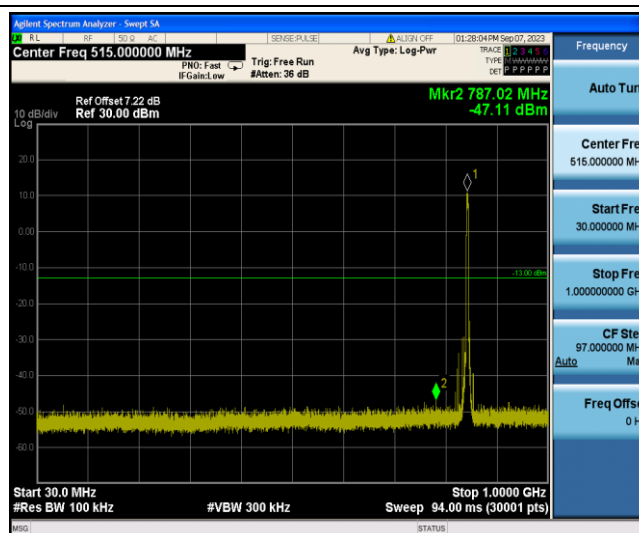
Band V_4132



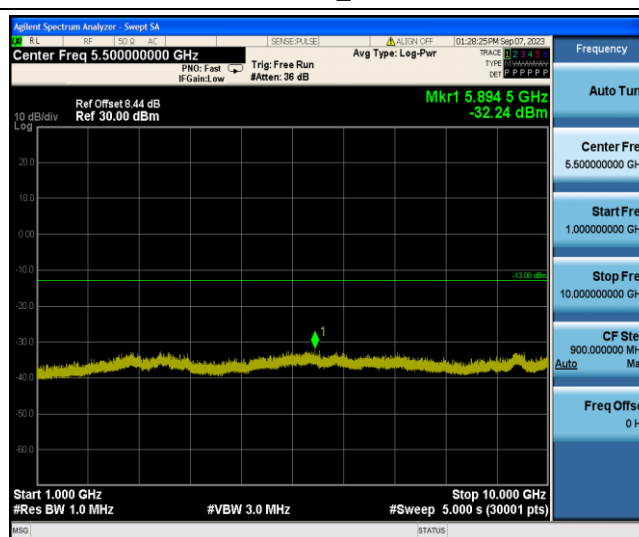
Band V_4182



Band V_4182



Band V_4233



Band V_4233

8.6 Appendix F: Frequency Stability

Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band II	9262	VL	TN	-10.89	-0.005879	2.5	PASS
Band II	9262	VN	TN	-11.19	-0.006041	2.5	PASS
Band II	9262	VH	TN	-15.36	-0.008292	2.5	PASS
Band II	9400	VL	TN	-11.82	-0.006287	2.5	PASS
Band II	9400	VN	TN	-8.42	-0.004479	2.5	PASS
Band II	9400	VH	TN	-11.22	-0.005968	2.5	PASS
Band II	9538	VL	TN	-17.02	-0.008922	2.5	PASS
Band II	9538	VN	TN	-14.37	-0.007533	2.5	PASS
Band II	9538	VH	TN	-15.23	-0.007984	2.5	PASS
Band V	4132	VL	TN	-5.64	-0.006825	2.5	PASS
Band V	4132	VN	TN	-5.53	-0.006692	2.5	PASS
Band V	4132	VH	TN	-7.21	-0.008725	2.5	PASS
Band V	4182	VL	TN	-4.94	-0.005906	2.5	PASS
Band V	4182	VN	TN	-11.27	-0.013474	2.5	PASS
Band V	4182	VH	TN	-10.56	-0.012626	2.5	PASS
Band V	4233	VL	TN	-7.66	-0.009048	2.5	PASS
Band V	4233	VN	TN	-7.12	-0.008410	2.5	PASS
Band V	4233	VH	TN	-5.27	-0.006225	2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band II	9262	VN	-30	-10.00	-0.005398	2.5	PASS
Band II	9262	VN	-20	0.59	0.000319	2.5	PASS
Band II	9262	VN	-10	-14.17	-0.007650	2.5	PASS
Band II	9262	VN	0	3.78	0.002041	2.5	PASS
Band II	9262	VN	10	-10.20	-0.005506	2.5	PASS
Band II	9262	VN	20	-9.16	-0.004945	2.5	PASS
Band II	9262	VN	30	-3.68	-0.001987	2.5	PASS
Band II	9262	VN	40	-7.67	-0.004141	2.5	PASS
Band II	9262	VN	50	-10.63	-0.005739	2.5	PASS
Band II	9400	VN	-30	-11.74	-0.006245	2.5	PASS
Band II	9400	VN	-20	-8.28	-0.004404	2.5	PASS
Band II	9400	VN	-10	-8.10	-0.004309	2.5	PASS
Band II	9400	VN	0	-13.00	-0.006915	2.5	PASS
Band II	9400	VN	10	-3.32	-0.001766	2.5	PASS
Band II	9400	VN	20	-13.05	-0.006941	2.5	PASS
Band II	9400	VN	30	-12.34	-0.006564	2.5	PASS
Band II	9400	VN	40	-10.02	-0.005330	2.5	PASS
Band II	9400	VN	50	-9.92	-0.005277	2.5	PASS
Band II	9538	VN	-30	-13.68	-0.007171	2.5	PASS
Band II	9538	VN	-20	-8.99	-0.004713	2.5	PASS
Band II	9538	VN	-10	-15.97	-0.008372	2.5	PASS
Band II	9538	VN	0	-7.72	-0.004047	2.5	PASS
Band II	9538	VN	10	-10.85	-0.005688	2.5	PASS
Band II	9538	VN	20	-16.76	-0.008786	2.5	PASS
Band II	9538	VN	30	-8.99	-0.004713	2.5	PASS
Band II	9538	VN	40	-9.91	-0.005195	2.5	PASS
Band II	9538	VN	50	-11.81	-0.006191	2.5	PASS
Band V	4132	VN	-30	-8.58	-0.010382	2.5	PASS
Band V	4132	VN	-20	-11.34	-0.013722	2.5	PASS
Band V	4132	VN	-10	-6.72	-0.008132	2.5	PASS
Band V	4132	VN	0	-11.49	-0.013904	2.5	PASS
Band V	4132	VN	10	-7.77	-0.009402	2.5	PASS
Band V	4132	VN	20	-7.07	-0.008555	2.5	PASS
Band V	4132	VN	30	-10.01	-0.012113	2.5	PASS
Band V	4132	VN	40	-13.42	-0.016239	2.5	PASS
Band V	4132	VN	50	-6.75	-0.008168	2.5	PASS
Band V	4182	VN	-30	-6.47	-0.007736	2.5	PASS
Band V	4182	VN	-20	-13.28	-0.015878	2.5	PASS
Band V	4182	VN	-10	-9.05	-0.010820	2.5	PASS
Band V	4182	VN	0	-12.32	-0.014730	2.5	PASS
Band V	4182	VN	10	-7.96	-0.009517	2.5	PASS
Band V	4182	VN	20	-13.75	-0.016440	2.5	PASS
Band V	4182	VN	30	-8.63	-0.010318	2.5	PASS
Band V	4182	VN	40	-11.80	-0.014108	2.5	PASS
Band V	4182	VN	50	-6.39	-0.007640	2.5	PASS
Band V	4233	VN	-30	-4.94	-0.005835	2.5	PASS

Band V	4233	VN	-20	-8.12	-0.009591	2.5	PASS
Band V	4233	VN	-10	-6.04	-0.007134	2.5	PASS
Band V	4233	VN	0	-5.49	-0.006485	2.5	PASS
Band V	4233	VN	10	-3.37	-0.003981	2.5	PASS
Band V	4233	VN	20	-11.49	-0.013572	2.5	PASS
Band V	4233	VN	30	-11.49	-0.013572	2.5	PASS
Band V	4233	VN	40	-11.07	-0.013076	2.5	PASS
Band V	4233	VN	50	-9.24	-0.010914	2.5	PASS

8.7 Appendix G: ERP and EIRP

Test Result

Band	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP		Limit (W)	Verdict
				(dBm)	(W)		
Band II	WCDMA	23.02	-4.60	18.42	0.0695	2	PASS
	HSDPA	22.25	-4.60	17.65	0.0582	2	PASS
	HSUPA	22.19	-4.60	17.59	0.0574	2	PASS

Band	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	ERP		Limit (W)	Verdict
				(dBm)	(W)		
Band V	WCDMA	23.03	-2.80	18.08	0.0643	7	PASS
	HSDPA	21.75	-2.80	16.80	0.0479	7	PASS
	HSUPA	21.82	-2.80	16.87	0.0486	7	PASS

-----End of the Report -----