

APPENDIX REPORT

Project No.	SHT2105011002EW	Radio Specification	WCDMA
Test sample No.	YPHT21050110003	Model No.	S020
Start test date	2021-06-28	Finish date	2021-06-30
Temperature	25.8°C	Humidity	35%
Test Engineer	Weiyang Xiang	Auditor	Xiaodong Zhu

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

8.1 Appendix A: Conducted Output Power

Test Result

Band	Channel	Power(dBm)	Limit(dBm)	Verdict
Band II	9262	22.29	33	PASS
Band II	9400	22.28	33	PASS
Band II	9538	22.23	33	PASS
Band IV	1312	22.35	30	PASS
Band IV	1413	22.23	30	PASS
Band IV	1513	22.02	30	PASS
Band V	4132	22.87	38.5	PASS
Band V	4182	22.89	38.5	PASS
Band V	4233	22.76	38.5	PASS

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band II	9262	HSDPA_Sub1	20.70	33	PASS
Band II	9262	HSDPA_Sub2	20.16	33	PASS
Band II	9262	HSDPA_Sub3	20.15	33	PASS
Band II	9262	HSDPA_Sub4	20.14	33	PASS
Band II	9400	HSDPA_Sub1	21.35	33	PASS
Band II	9400	HSDPA_Sub2	20.85	33	PASS
Band II	9400	HSDPA_Sub3	20.86	33	PASS
Band II	9400	HSDPA_Sub4	20.92	33	PASS
Band II	9538	HSDPA_Sub1	21.31	33	PASS
Band II	9538	HSDPA_Sub2	20.79	33	PASS
Band II	9538	HSDPA_Sub3	20.78	33	PASS
Band II	9538	HSDPA_Sub4	20.80	33	PASS
Band IV	1312	HSDPA_Sub1	21.60	30	PASS
Band IV	1312	HSDPA_Sub2	21.04	30	PASS
Band IV	1312	HSDPA_Sub3	21.05	30	PASS
Band IV	1312	HSDPA_Sub4	21.03	30	PASS
Band IV	1413	HSDPA_Sub1	21.41	30	PASS
Band IV	1413	HSDPA_Sub2	20.86	30	PASS
Band IV	1413	HSDPA_Sub3	20.88	30	PASS
Band IV	1413	HSDPA_Sub4	20.89	30	PASS
Band IV	1513	HSDPA_Sub1	21.23	30	PASS
Band IV	1513	HSDPA_Sub2	20.67	30	PASS
Band IV	1513	HSDPA_Sub3	20.68	30	PASS
Band IV	1513	HSDPA_Sub4	20.66	30	PASS
Band V	4132	HSDPA_Sub1	21.97	38.5	PASS
Band V	4132	HSDPA_Sub2	21.44	38.5	PASS
Band V	4132	HSDPA_Sub3	21.47	38.5	PASS

Band V	4132	HSDPA_Sub4	21.47	38.5	PASS
Band V	4182	HSDPA_Sub1	22.08	38.5	PASS
Band V	4182	HSDPA_Sub2	21.57	38.5	PASS
Band V	4182	HSDPA_Sub3	21.59	38.5	PASS
Band V	4182	HSDPA_Sub4	21.54	38.5	PASS
Band V	4233	HSDPA_Sub1	21.89	38.5	PASS
Band V	4233	HSDPA_Sub2	21.38	38.5	PASS
Band V	4233	HSDPA_Sub3	21.41	38.5	PASS
Band V	4233	HSDPA_Sub4	21.39	38.5	PASS

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band II	9262	HSUPA_Sub1	19.27	33	PASS
Band II	9262	HSUPA_Sub2	19.80	33	PASS
Band II	9262	HSUPA_Sub3	20.28	33	PASS
Band II	9262	HSUPA_Sub4	19.34	33	PASS
Band II	9262	HSUPA_Sub5	21.26	33	PASS
Band II	9400	HSUPA_Sub1	19.26	33	PASS
Band II	9400	HSUPA_Sub2	19.73	33	PASS
Band II	9400	HSUPA_Sub3	20.23	33	PASS
Band II	9400	HSUPA_Sub4	19.32	33	PASS
Band II	9400	HSUPA_Sub5	21.24	33	PASS
Band II	9538	HSUPA_Sub1	19.20	33	PASS
Band II	9538	HSUPA_Sub2	19.66	33	PASS
Band II	9538	HSUPA_Sub3	20.18	33	PASS
Band II	9538	HSUPA_Sub4	19.24	33	PASS
Band II	9538	HSUPA_Sub5	21.14	33	PASS
Band IV	1312	HSUPA_Sub1	19.42	30	PASS
Band IV	1312	HSUPA_Sub2	19.94	30	PASS
Band IV	1312	HSUPA_Sub3	20.47	30	PASS
Band IV	1312	HSUPA_Sub4	19.49	30	PASS
Band IV	1312	HSUPA_Sub5	21.45	30	PASS
Band IV	1413	HSUPA_Sub1	19.30	30	PASS
Band IV	1413	HSUPA_Sub2	19.81	30	PASS
Band IV	1413	HSUPA_Sub3	20.28	30	PASS
Band IV	1413	HSUPA_Sub4	19.38	30	PASS
Band IV	1413	HSUPA_Sub5	21.32	30	PASS
Band IV	1513	HSUPA_Sub1	19.10	30	PASS
Band IV	1513	HSUPA_Sub2	19.60	30	PASS
Band IV	1513	HSUPA_Sub3	20.08	30	PASS
Band IV	1513	HSUPA_Sub4	19.11	30	PASS
Band IV	1513	HSUPA_Sub5	21.14	30	PASS
Band V	4132	HSUPA_Sub1	19.90	38.5	PASS
Band V	4132	HSUPA_Sub2	20.39	38.5	PASS
Band V	4132	HSUPA_Sub3	20.91	38.5	PASS
Band V	4132	HSUPA_Sub4	19.92	38.5	PASS
Band V	4132	HSUPA_Sub5	21.91	38.5	PASS
Band V	4182	HSUPA_Sub1	20.08	38.5	PASS
Band V	4182	HSUPA_Sub2	20.53	38.5	PASS
Band V	4182	HSUPA_Sub3	21.06	38.5	PASS
Band V	4182	HSUPA_Sub4	20.04	38.5	PASS
Band V	4182	HSUPA_Sub5	22.02	38.5	PASS
Band V	4233	HSUPA_Sub1	19.81	38.5	PASS

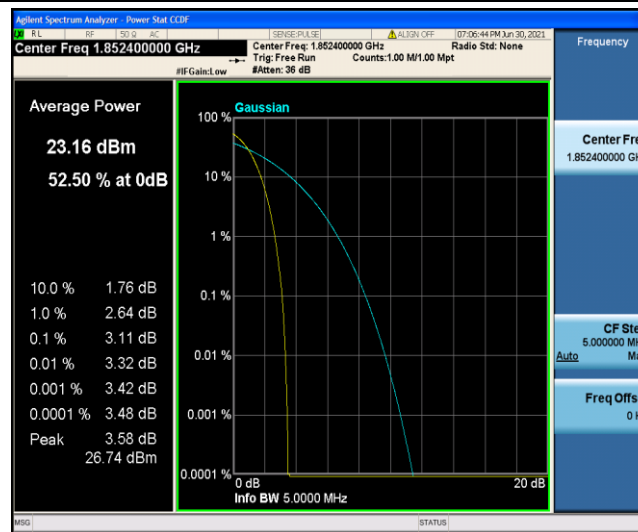
Band V	4233	HSUPA_Sub2	20.34	38.5	PASS
Band V	4233	HSUPA_Sub3	20.81	38.5	PASS
Band V	4233	HSUPA_Sub4	19.83	38.5	PASS
Band V	4233	HSUPA_Sub5	21.81	38.5	PASS

8.2 Appendix B: Peak-to-Average Ratio

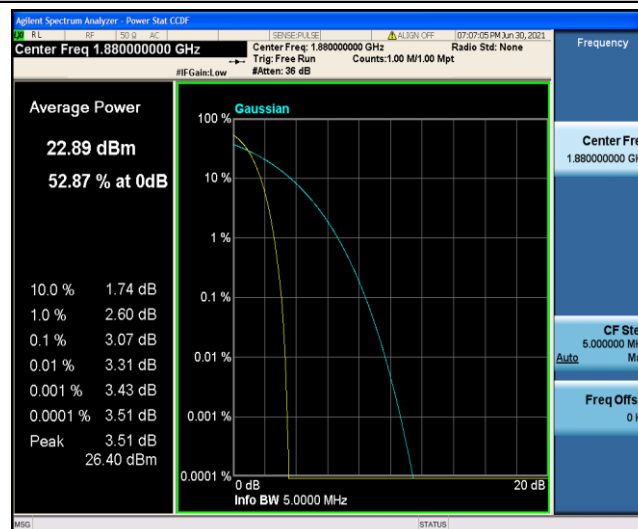
Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band II	9262	3.11	13	PASS
Band II	9400	3.07	13	PASS
Band II	9538	3.08	13	PASS
Band IV	1312	2.98	13	PASS
Band IV	1413	2.89	13	PASS
Band IV	1513	2.97	13	PASS
Band V	4132	2.93	13	PASS
Band V	4182	2.89	13	PASS
Band V	4233	2.92	13	PASS

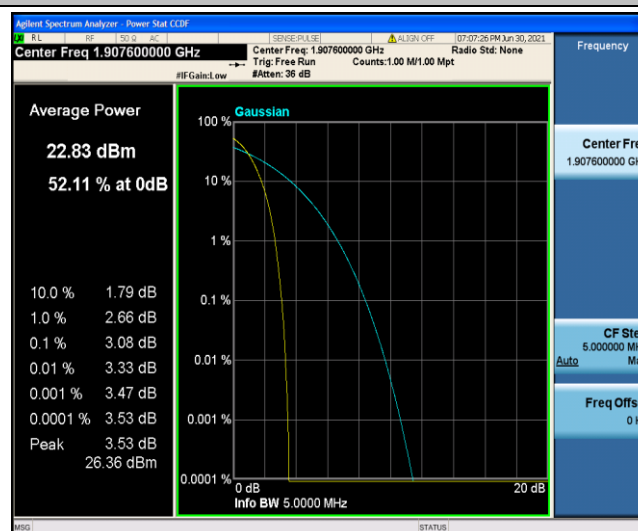
Test Graphs



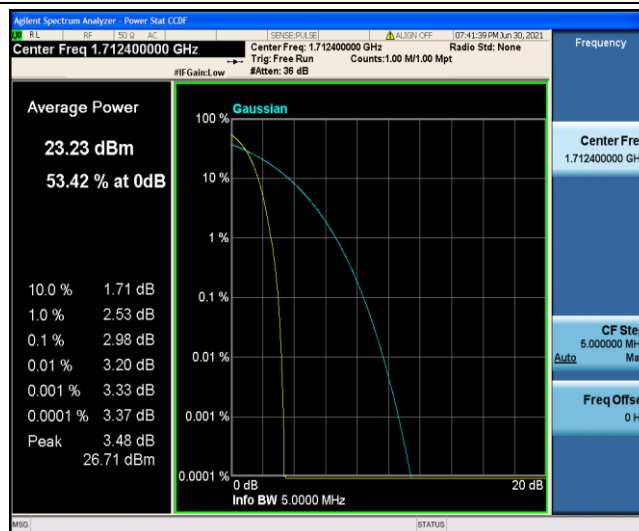
Band II_9262



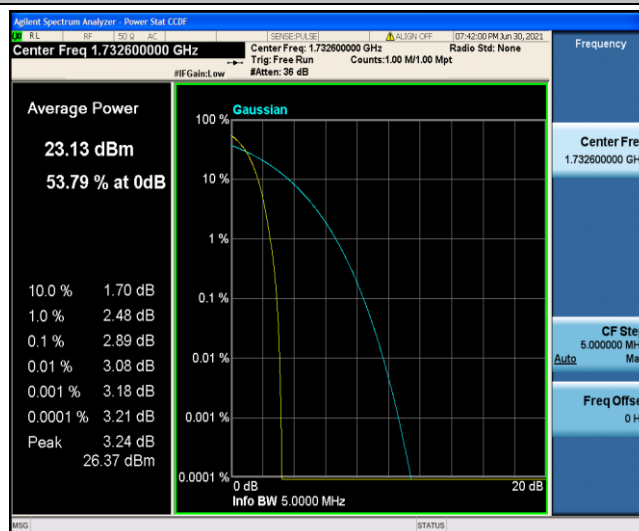
Band II_9400



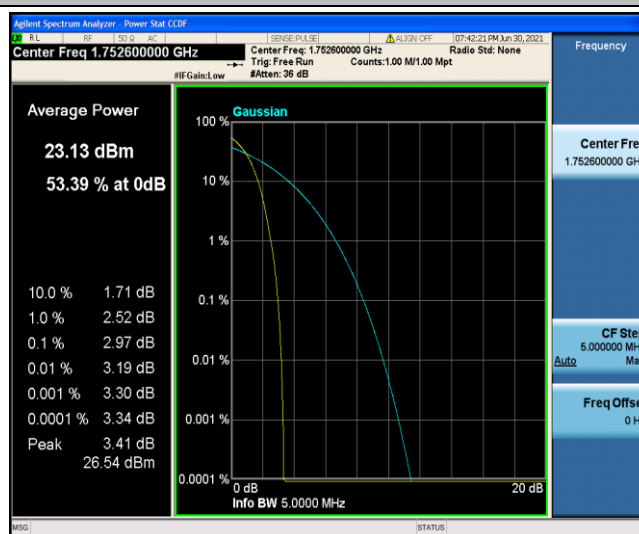
Band II_9538



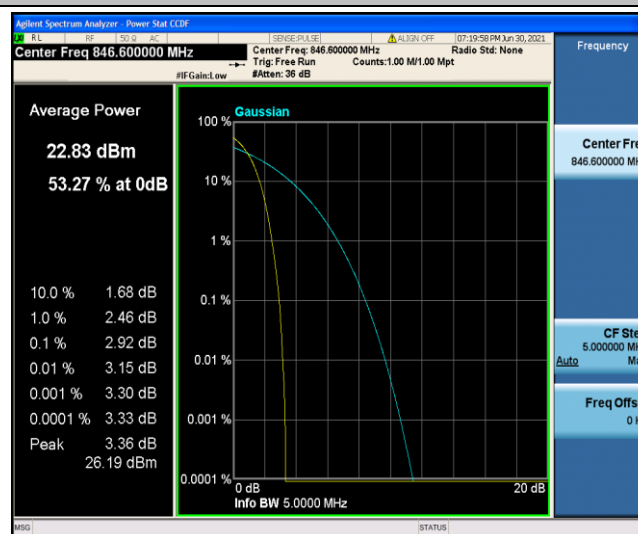
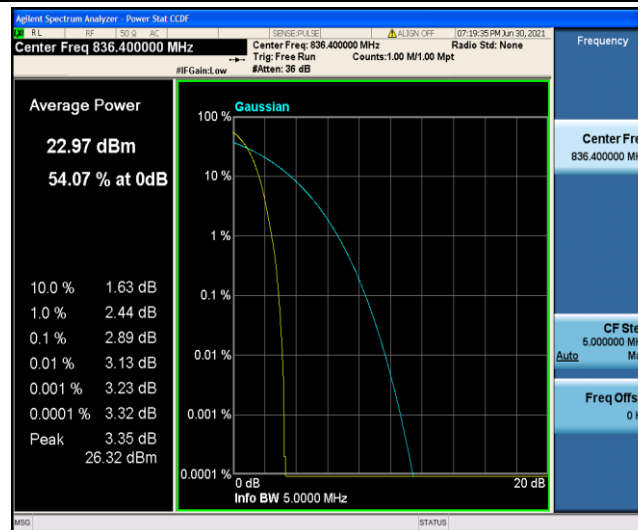
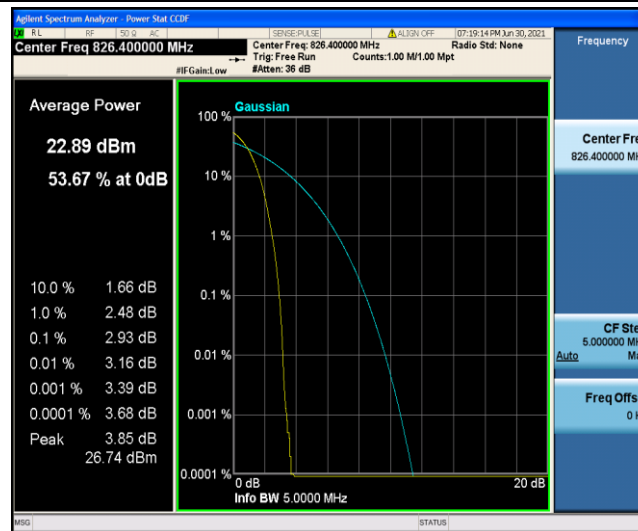
Band IV_1312



Band IV_1413



Band IV_1513

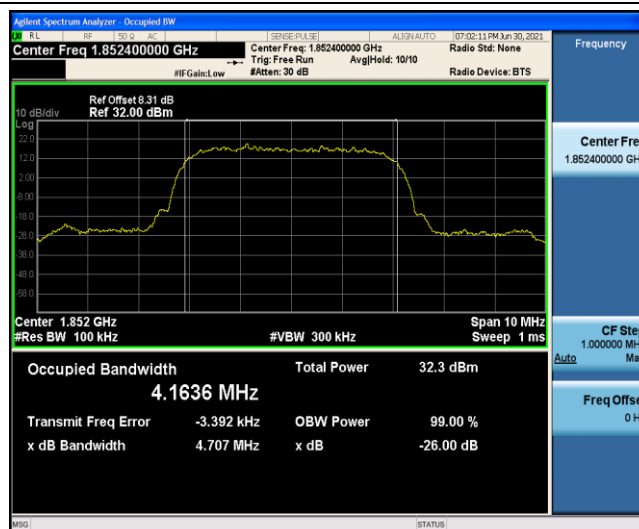


8.3 Appendix C: 26dB Bandwidth and Occupied Bandwidth

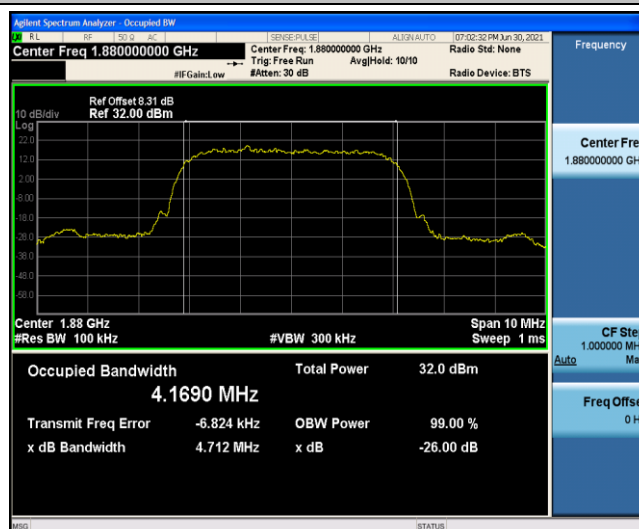
Test Result

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
Band II	9262	4163.6	4707	---	PASS
Band II	9400	4169.0	4712	---	PASS
Band II	9538	4169.4	4711	---	PASS
Band IV	1312	4184.2	4709	---	PASS
Band IV	1413	4177.6	4739	---	PASS
Band IV	1513	4172.2	4724	---	PASS
Band V	4132	4170.3	4728	---	PASS
Band V	4182	4166.2	4727	---	PASS
Band V	4233	4182.3	4744	---	PASS

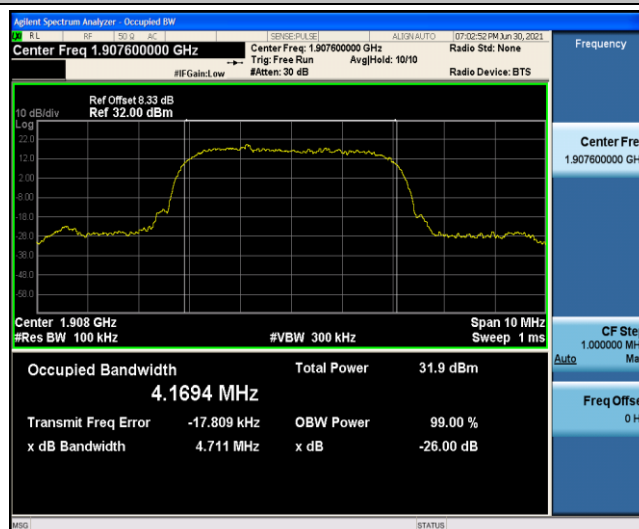
Test Graphs



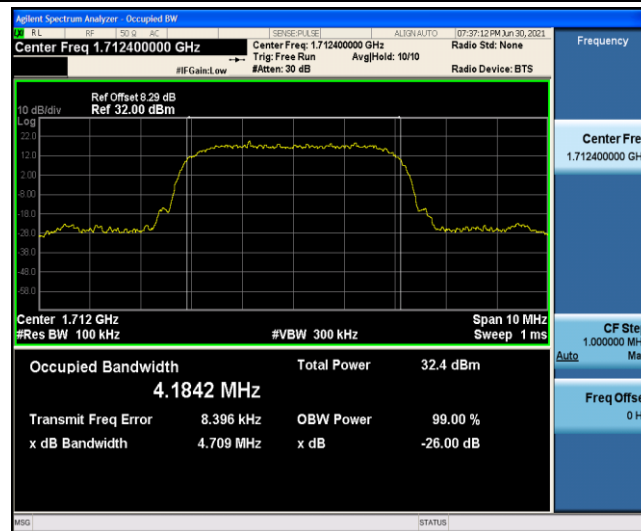
Band II_9262



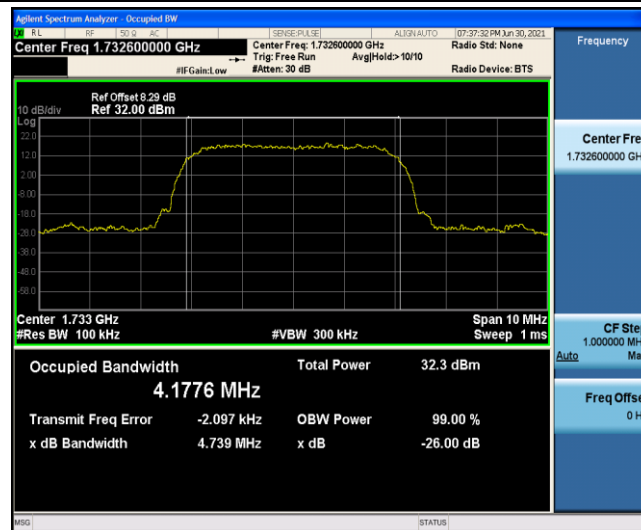
Band II_9400



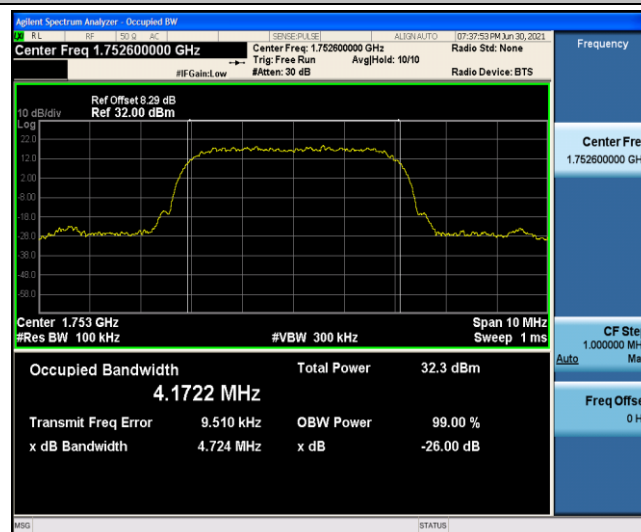
Band II_9538



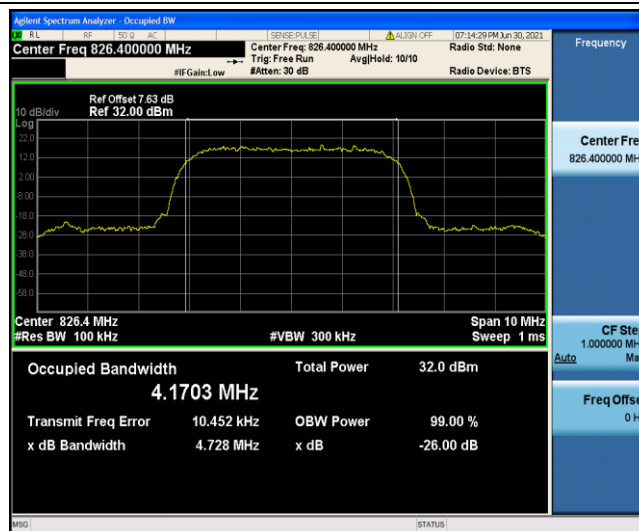
Band IV_1312



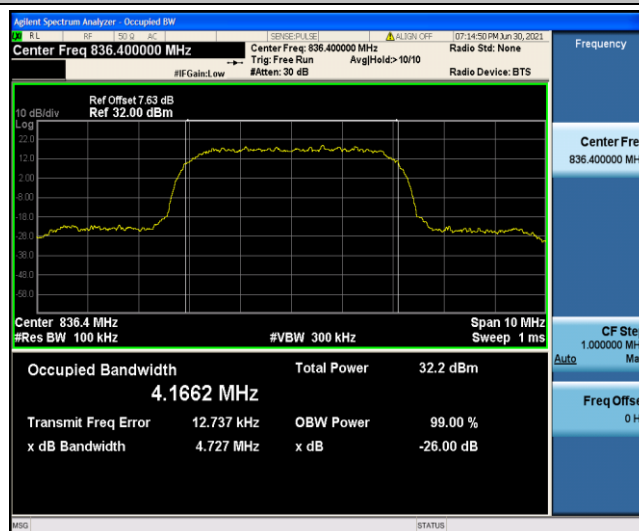
Band IV_1413



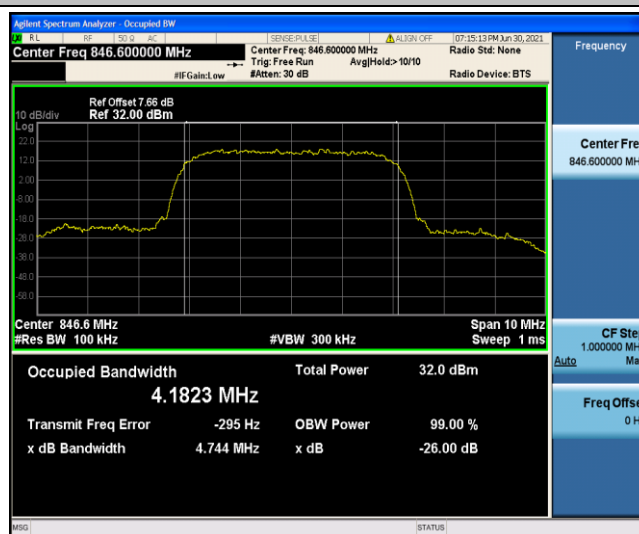
Band IV_1513



Band V_4132



Band V_4182



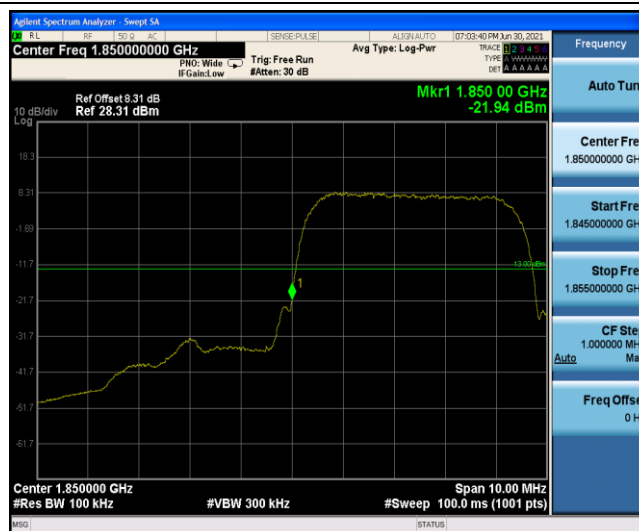
Band V_4233

8.4 Appendix D: Band Edge

Test Result

Band	Channel	Value(dBm)	Limit(dBm)	Verdict
Band II	9262	-21.94	-13	PASS
Band II	9538	-23.57	-13	PASS
Band IV	1312	-22.43	-13	PASS
Band IV	1513	-22.60	-13	PASS
Band V	4132	-22.08	-13	PASS
Band V	4233	-21.71	-13	PASS

Test Graphs



Band II_9262



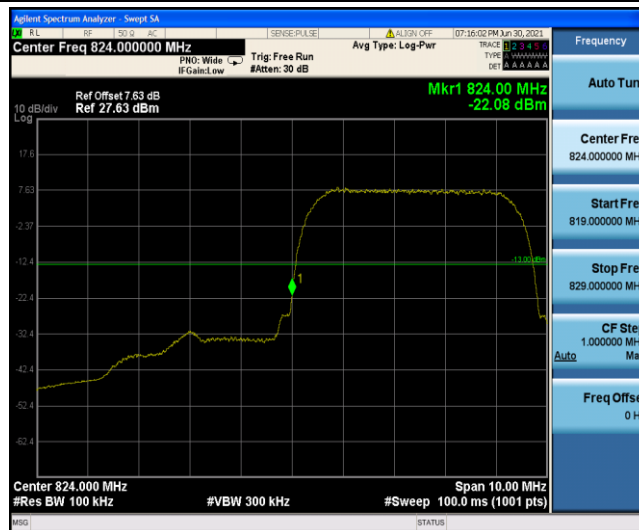
Band II_9538



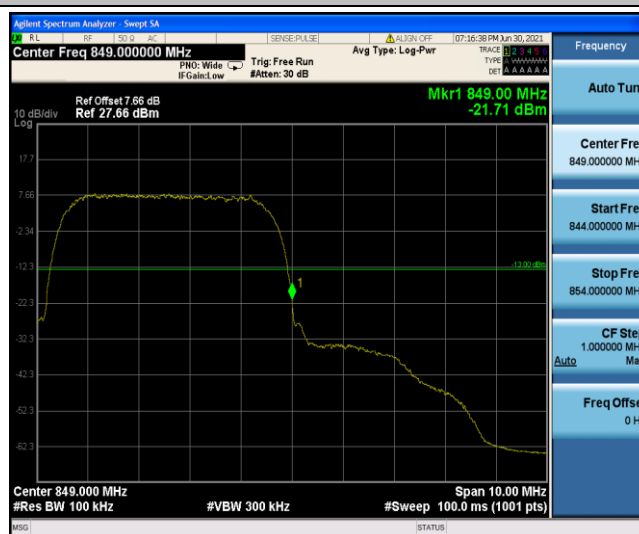
Band IV_1312



Band IV_1513



Band V_4132



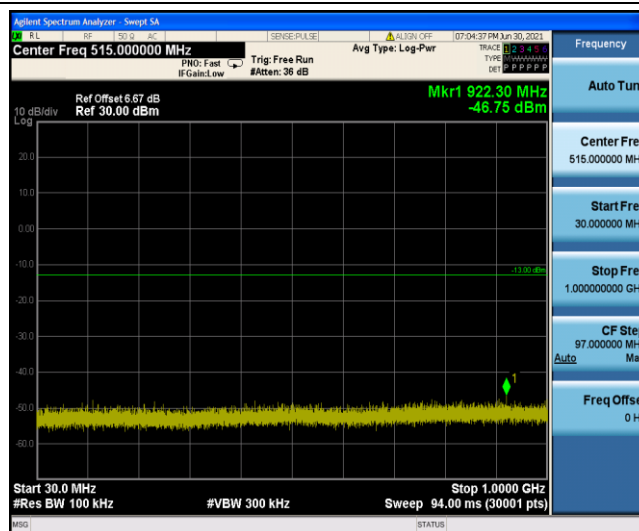
Band V_4233

8.5 Appendix E: Conducted Spurious Emission

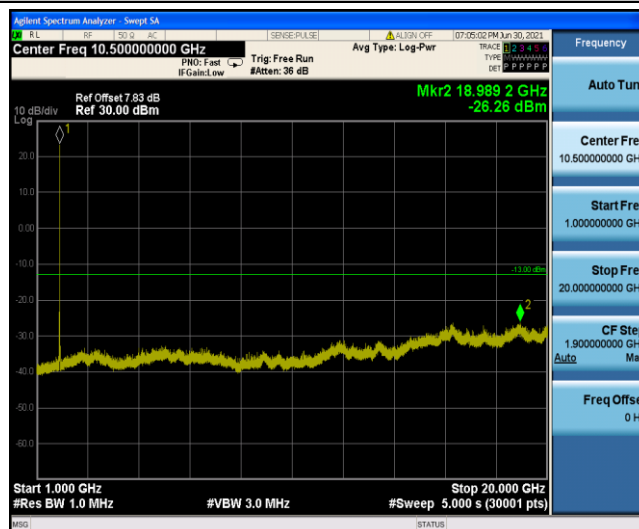
Test Result

Band	Channel	Frequency Rang(Mhz)	Value(dBm)	Limit(dBm)	Verdict
Band II	9262	30~1000	-46.75	-13	PASS
Band II	9262	1000~20000	-26.26	-13	PASS
Band II	9400	30~1000	-47.10	-13	PASS
Band II	9400	1000~20000	-26.12	-13	PASS
Band II	9538	30~1000	-46.72	-13	PASS
Band II	9538	1000~20000	-25.96	-13	PASS
Band IV	1312	30~1000	-46.59	-13	PASS
Band IV	1312	1000~20000	-26.39	-13	PASS
Band IV	1413	30~1000	-47.28	-13	PASS
Band IV	1413	1000~20000	-25.08	-13	PASS
Band IV	1513	30~1000	-46.37	-13	PASS
Band IV	1513	1000~20000	-26.03	-13	PASS
Band V	4132	30~1000	-47.03	-13	PASS
Band V	4132	1000~10000	-32.59	-13	PASS
Band V	4182	30~1000	-47.39	-13	PASS
Band V	4182	1000~10000	-32.43	-13	PASS
Band V	4233	30~1000	-46.46	-13	PASS
Band V	4233	1000~10000	-32.32	-13	PASS

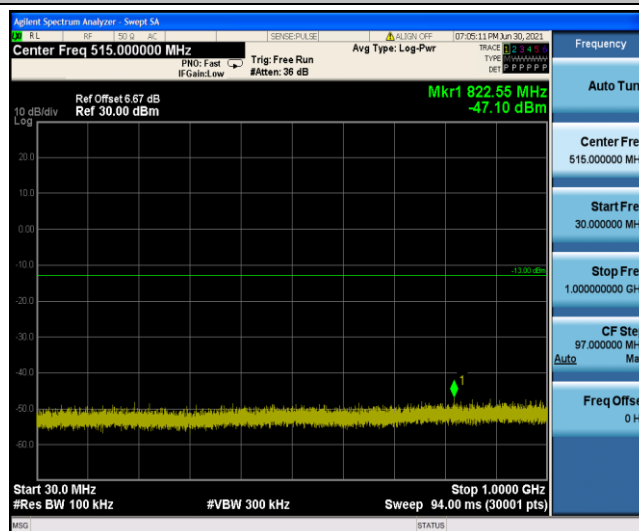
Test Graphs



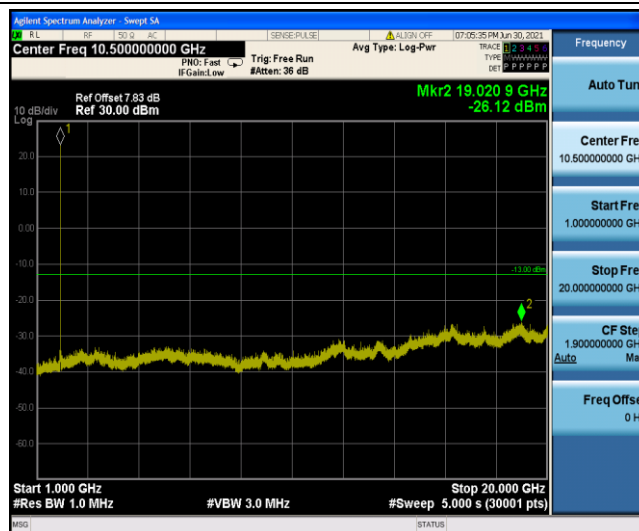
Band II_9262



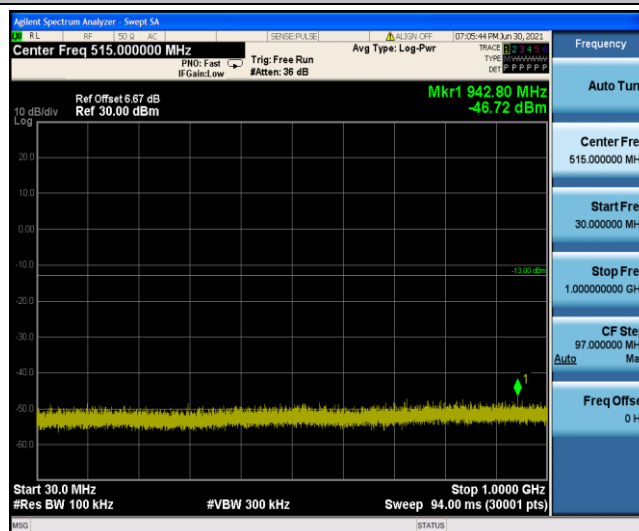
Band II_9262



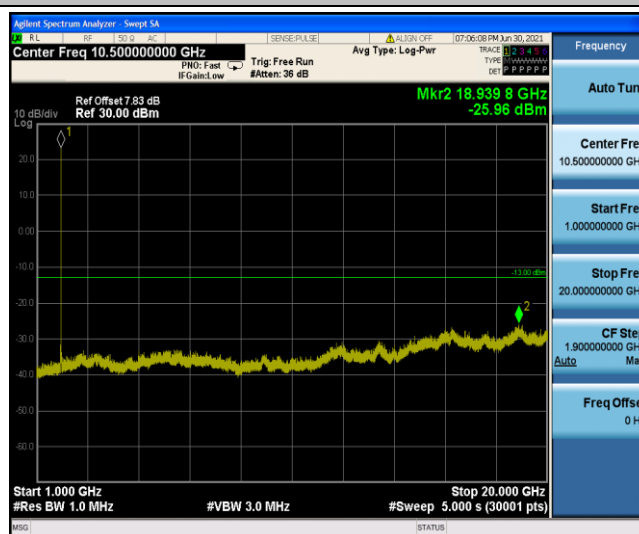
Band II_9400



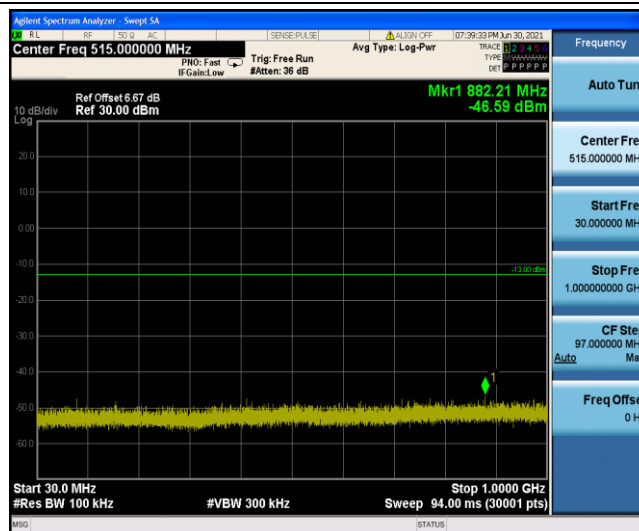
Band II_9400



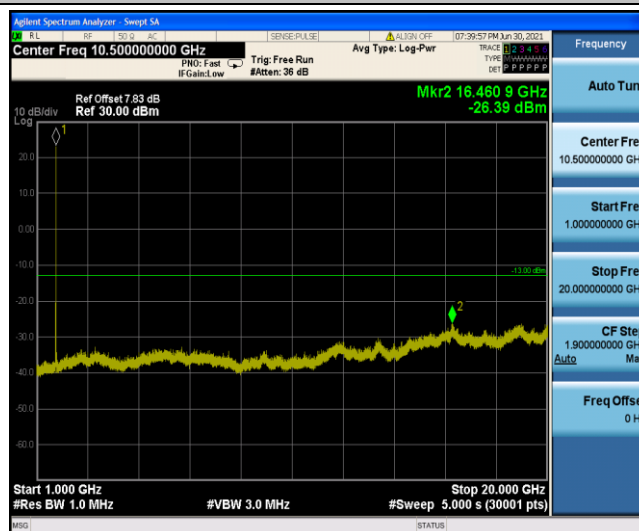
Band II_9538



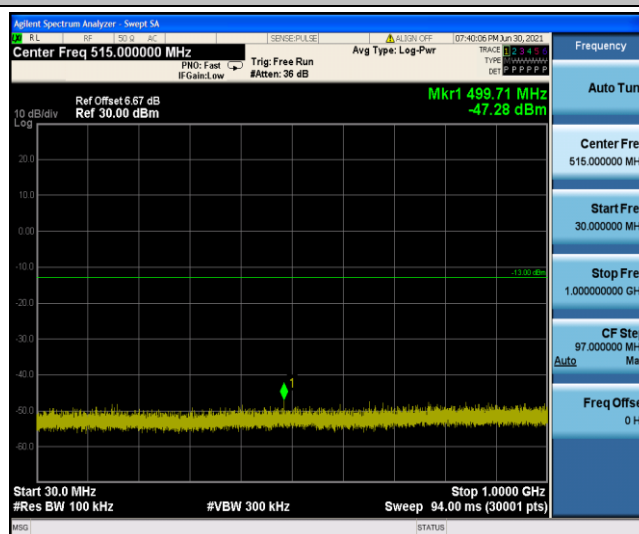
Band II_9538



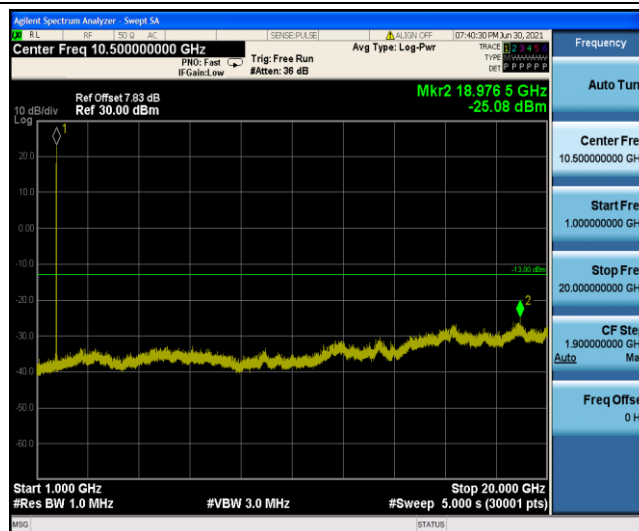
Band IV_1312



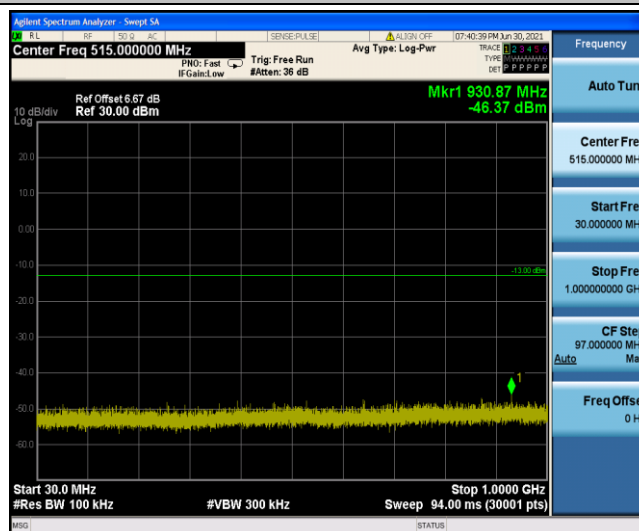
Band IV_1312



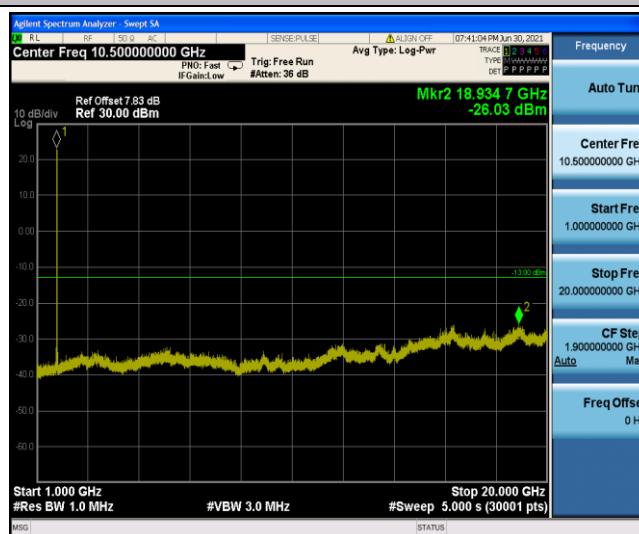
Band IV_1413



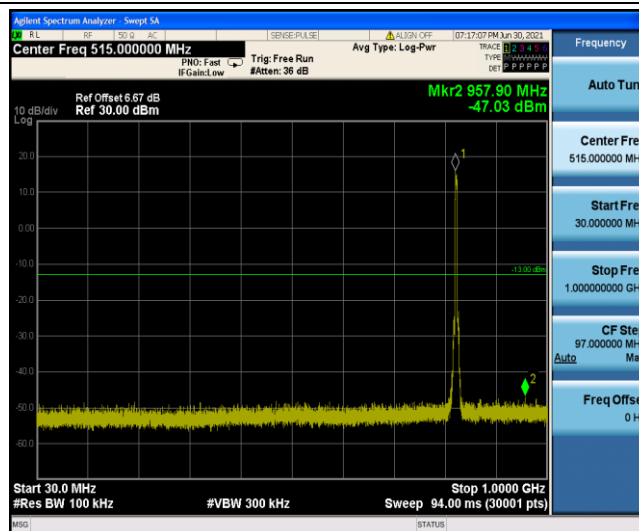
Band IV_1413



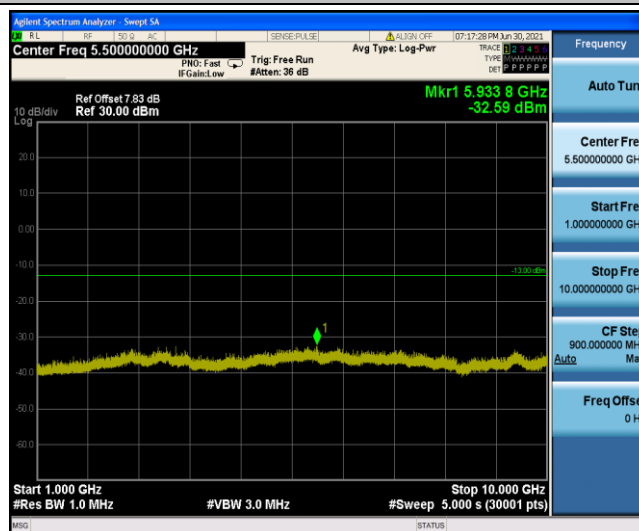
Band IV_1513



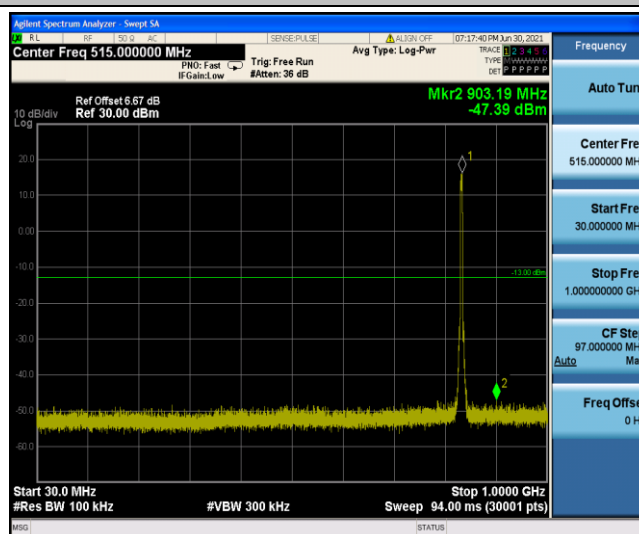
Band IV_1513



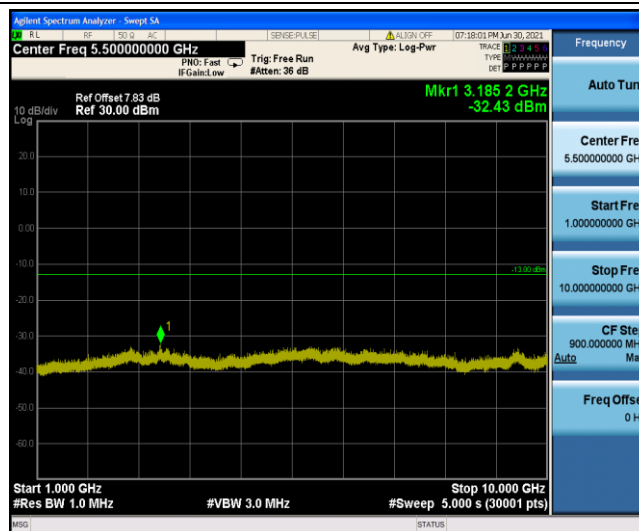
Band V_4132



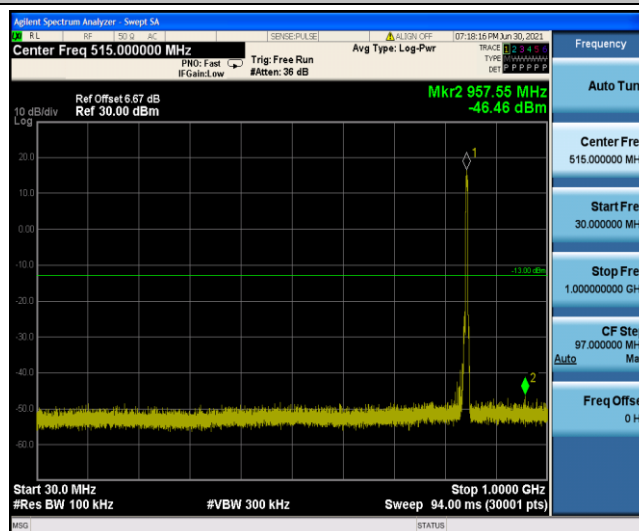
Band V_4132



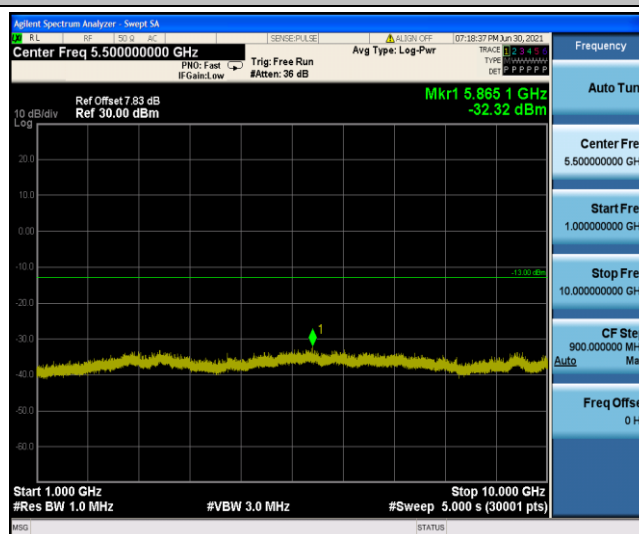
Band V_4182



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	-14.33	-0.007736	2.5	PASS
Band II	9262	VN	TN	-16.39	-0.008848	2.5	PASS
Band II	9262	VH	TN	-11.87	-0.006408	2.5	PASS
Band II	9400	VL	TN	0.82	0.000436	2.5	PASS
Band II	9400	VN	TN	28.26	0.015032	2.5	PASS
Band II	9400	VH	TN	-8.58	-0.004564	2.5	PASS
Band II	9538	VL	TN	-12.11	-0.006348	2.5	PASS
Band II	9538	VN	TN	-14.58	-0.007643	2.5	PASS
Band II	9538	VH	TN	-16.87	-0.008844	2.5	PASS
Band IV	1312	VL	TN	-12.40	-0.007241	2.5	PASS
Band IV	1312	VN	TN	-11.37	-0.006640	2.5	PASS
Band IV	1312	VH	TN	-8.19	-0.004783	2.5	PASS
Band IV	1413	VL	TN	-14.83	-0.008559	2.5	PASS
Band IV	1413	VN	TN	-12.61	-0.007278	2.5	PASS
Band IV	1413	VH	TN	-13.41	-0.007740	2.5	PASS
Band IV	1513	VL	TN	-5.74	-0.003275	2.5	PASS
Band IV	1513	VN	TN	-8.85	-0.005050	2.5	PASS
Band IV	1513	VH	TN	-8.70	-0.004964	2.5	PASS
Band V	4132	VL	TN	-11.92	-0.014424	2.5	PASS
Band V	4132	VN	TN	-13.55	-0.016396	2.5	PASS
Band V	4132	VH	TN	-7.18	-0.008688	2.5	PASS
Band V	4182	VL	TN	-12.22	-0.014610	2.5	PASS
Band V	4182	VN	TN	-10.09	-0.012064	2.5	PASS
Band V	4182	VH	TN	-9.32	-0.011143	2.5	PASS
Band V	4233	VL	TN	-5.11	-0.006036	2.5	PASS
Band V	4233	VN	TN	-6.08	-0.007182	2.5	PASS
Band V	4233	VH	TN	-10.87	-0.012840	2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band II	9262	VN	-30	-16.03	-0.008654	2.5	PASS
Band II	9262	VN	-20	-20.10	-0.010851	2.5	PASS
Band II	9262	VN	-10	-15.09	-0.008146	2.5	PASS
Band II	9262	VN	0	-9.82	-0.005301	2.5	PASS
Band II	9262	VN	10	-11.34	-0.006122	2.5	PASS
Band II	9262	VN	20	-18.18	-0.009814	2.5	PASS
Band II	9262	VN	30	-17.19	-0.009280	2.5	PASS
Band II	9262	VN	40	-13.87	-0.007488	2.5	PASS
Band II	9262	VN	50	-14.11	-0.007617	2.5	PASS
Band II	9400	VN	-30	-13.18	-0.007011	2.5	PASS
Band II	9400	VN	-20	-33.09	-0.017601	2.5	PASS
Band II	9400	VN	-10	-10.89	-0.005793	2.5	PASS
Band II	9400	VN	0	-12.42	-0.006606	2.5	PASS
Band II	9400	VN	10	-33.92	-0.018043	2.5	PASS
Band II	9400	VN	20	5.86	0.003117	2.5	PASS
Band II	9400	VN	30	-16.04	-0.008532	2.5	PASS
Band II	9400	VN	40	-15.25	-0.008112	2.5	PASS
Band II	9400	VN	50	-11.39	-0.006059	2.5	PASS
Band II	9538	VN	-30	-18.45	-0.009672	2.5	PASS
Band II	9538	VN	-20	-19.18	-0.010055	2.5	PASS
Band II	9538	VN	-10	-13.46	-0.007056	2.5	PASS
Band II	9538	VN	0	-15.74	-0.008251	2.5	PASS
Band II	9538	VN	10	-15.11	-0.007921	2.5	PASS
Band II	9538	VN	20	-13.76	-0.007213	2.5	PASS
Band II	9538	VN	30	-19.58	-0.010264	2.5	PASS
Band II	9538	VN	40	-11.29	-0.005918	2.5	PASS
Band II	9538	VN	50	-15.94	-0.008356	2.5	PASS
Band IV	1312	VN	-30	-11.00	-0.006424	2.5	PASS
Band IV	1312	VN	-20	-14.16	-0.008269	2.5	PASS
Band IV	1312	VN	-10	-14.51	-0.008473	2.5	PASS
Band IV	1312	VN	0	-15.58	-0.009098	2.5	PASS
Band IV	1312	VN	10	-10.56	-0.006167	2.5	PASS
Band IV	1312	VN	20	-11.21	-0.006546	2.5	PASS
Band IV	1312	VN	30	-13.26	-0.007744	2.5	PASS
Band IV	1312	VN	40	-13.31	-0.007773	2.5	PASS
Band IV	1312	VN	50	-15.79	-0.009221	2.5	PASS
Band IV	1413	VN	-30	-12.45	-0.007186	2.5	PASS
Band IV	1413	VN	-20	-8.95	-0.005166	2.5	PASS
Band IV	1413	VN	-10	-12.81	-0.007394	2.5	PASS
Band IV	1413	VN	0	-13.18	-0.007607	2.5	PASS
Band IV	1413	VN	10	-10.02	-0.005783	2.5	PASS
Band IV	1413	VN	20	-13.67	-0.007890	2.5	PASS
Band IV	1413	VN	30	-11.38	-0.006568	2.5	PASS
Band IV	1413	VN	40	-9.99	-0.005766	2.5	PASS
Band IV	1413	VN	50	-8.54	-0.004929	2.5	PASS
Band IV	1513	VN	-30	-7.85	-0.004479	2.5	PASS

Band IV	1513	VN	-20	-9.18	-0.005238	2.5	PASS
Band IV	1513	VN	-10	-10.46	-0.005968	2.5	PASS
Band IV	1513	VN	0	-12.72	-0.007258	2.5	PASS
Band IV	1513	VN	10	-8.13	-0.004639	2.5	PASS
Band IV	1513	VN	20	-11.48	-0.006550	2.5	PASS
Band IV	1513	VN	30	-5.68	-0.003241	2.5	PASS
Band IV	1513	VN	40	-6.46	-0.003686	2.5	PASS
Band IV	1513	VN	50	-9.53	-0.005438	2.5	PASS
Band V	4132	VN	-30	-13.24	-0.016021	2.5	PASS
Band V	4132	VN	-20	-7.86	-0.009511	2.5	PASS
Band V	4132	VN	-10	-11.99	-0.014509	2.5	PASS
Band V	4132	VN	0	-12.99	-0.015719	2.5	PASS
Band V	4132	VN	10	-12.22	-0.014787	2.5	PASS
Band V	4132	VN	20	-13.60	-0.016457	2.5	PASS
Band V	4132	VN	30	-9.55	-0.011556	2.5	PASS
Band V	4132	VN	40	-8.02	-0.009705	2.5	PASS
Band V	4132	VN	50	-12.25	-0.014823	2.5	PASS
Band V	4182	VN	-30	-10.21	-0.012207	2.5	PASS
Band V	4182	VN	-20	-10.09	-0.012064	2.5	PASS
Band V	4182	VN	-10	-11.93	-0.014264	2.5	PASS
Band V	4182	VN	0	-6.07	-0.007257	2.5	PASS
Band V	4182	VN	10	-8.68	-0.010378	2.5	PASS
Band V	4182	VN	20	-12.53	-0.014981	2.5	PASS
Band V	4182	VN	30	-8.14	-0.009732	2.5	PASS
Band V	4182	VN	40	-11.57	-0.013833	2.5	PASS
Band V	4182	VN	50	-13.88	-0.016595	2.5	PASS
Band V	4233	VN	-30	-7.30	-0.008623	2.5	PASS
Band V	4233	VN	-20	-7.41	-0.008753	2.5	PASS
Band V	4233	VN	-10	-5.69	-0.006721	2.5	PASS
Band V	4233	VN	0	-9.72	-0.011481	2.5	PASS
Band V	4233	VN	10	-6.97	-0.008233	2.5	PASS
Band V	4233	VN	20	-12.02	-0.014198	2.5	PASS
Band V	4233	VN	30	-11.94	-0.014103	2.5	PASS
Band V	4233	VN	40	-8.85	-0.010454	2.5	PASS
Band V	4233	VN	50	-7.03	-0.008304	2.5	PASS

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