APPENDIX REPORT

Project No.	SHT2104053601EW	Radio Specification	WCDMA
Test sample No.	YPHT21040536002	Model No.	Star8vm
Start test date	2021/5/27	Finish date	2021/5/27
Temperature	26.2°C	Humidity	35%
Test Engineer	Jiongsheng.Feng	Auditor	Xiaodong Zhao

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	23.77	33	PASS
Band II	9400	23.84	33	PASS
Band II	9538	23.94	33	PASS
Band V	4132	23.48	38.5	PASS
Band V	4182	23.24	38.5	PASS
Band V	4233	23.37	38.5	PASS

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band II	9262	HSDPA_Sub1	22.47	33	PASS
Band II	9262	HSDPA_Sub2	21.99	33	PASS
Band II	9262	HSDPA_Sub3	22.01	33	PASS
Band II	9262	HSDPA_Sub4	21.99	33	PASS
Band II	9400	HSDPA_Sub1	22.65	33	PASS
Band II	9400	HSDPA_Sub2	22.14	33	PASS
Band II	9400	HSDPA_Sub3	22.15	33	PASS
Band II	9400	HSDPA_Sub4	22.18	33	PASS
Band II	9538	HSDPA_Sub1	22.80	33	PASS
Band II	9538	HSDPA_Sub2	22.19	33	PASS
Band II	9538	HSDPA_Sub3	22.22	33	PASS
Band II	9538	HSDPA_Sub4	22.21	33	PASS
Band V	4132	HSDPA_Sub1	22.38	38.5	PASS
Band V	4132	HSDPA_Sub2	21.88	38.5	PASS
Band V	4132	HSDPA_Sub3	21.94	38.5	PASS
Band V	4132	HSDPA_Sub4	21.89	38.5	PASS
Band V	4182	HSDPA_Sub1	22.17	38.5	PASS
Band V	4182	HSDPA_Sub2	21.69	38.5	PASS
Band V	4182	HSDPA_Sub3	21.72	38.5	PASS
Band V	4182	HSDPA_Sub4	21.69	38.5	PASS
Band V	4233	HSDPA_Sub1	22.42	38.5	PASS
Band V	4233	HSDPA_Sub2	21.96	38.5	PASS
Band V	4233	HSDPA_Sub3	22.00	38.5	PASS
Band V	4233	HSDPA_Sub4	21.94	38.5	PASS

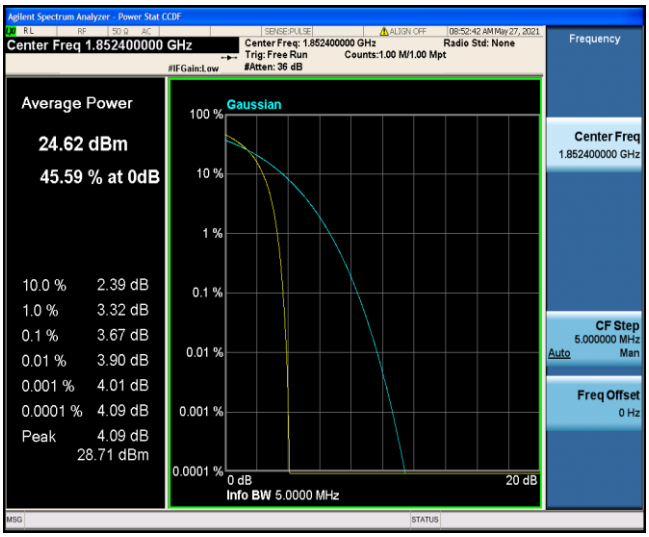
Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band II	9262	HSUPA_Sub1	20.43	33	PASS
Band II	9262	HSUPA_Sub2	20.98	33	PASS
Band II	9262	HSUPA_Sub3	21.57	33	PASS
Band II	9262	HSUPA_Sub4	20.55	33	PASS
Band II	9262	HSUPA_Sub5	22.54	33	PASS
Band II	9400	HSUPA_Sub1	20.73	33	PASS
Band II	9400	HSUPA_Sub2	21.31	33	PASS
Band II	9400	HSUPA_Sub3	21.76	33	PASS
Band II	9400	HSUPA_Sub4	20.77	33	PASS
Band II	9400	HSUPA_Sub5	22.78	33	PASS
Band II	9538	HSUPA_Sub1	20.86	33	PASS
Band II	9538	HSUPA_Sub2	21.37	33	PASS
Band II	9538	HSUPA_Sub3	21.85	33	PASS
Band II	9538	HSUPA_Sub4	20.89	33	PASS
Band II	9538	HSUPA_Sub5	22.92	33	PASS
Band V	4132	HSUPA_Sub1	20.49	38.5	PASS
Band V	4132	HSUPA_Sub2	20.90	38.5	PASS
Band V	4132	HSUPA_Sub3	21.43	38.5	PASS
Band V	4132	HSUPA_Sub4	20.51	38.5	PASS
Band V	4132	HSUPA_Sub5	22.46	38.5	PASS
Band V	4182	HSUPA_Sub1	20.19	38.5	PASS
Band V	4182	HSUPA_Sub2	20.61	38.5	PASS
Band V	4182	HSUPA_Sub3	21.16	38.5	PASS
Band V	4182	HSUPA_Sub4	20.19	38.5	PASS
Band V	4182	HSUPA_Sub5	22.17	38.5	PASS
Band V	4233	HSUPA_Sub1	20.44	38.5	PASS
Band V	4233	HSUPA_Sub2	20.80	38.5	PASS
Band V	4233	HSUPA_Sub3	21.37	38.5	PASS
Band V	4233	HSUPA_Sub4	20.43	38.5	PASS
Band V	4233	HSUPA_Sub5	22.49	38.5	PASS

8.2 Appendix B: Peak-to-Average Ratio

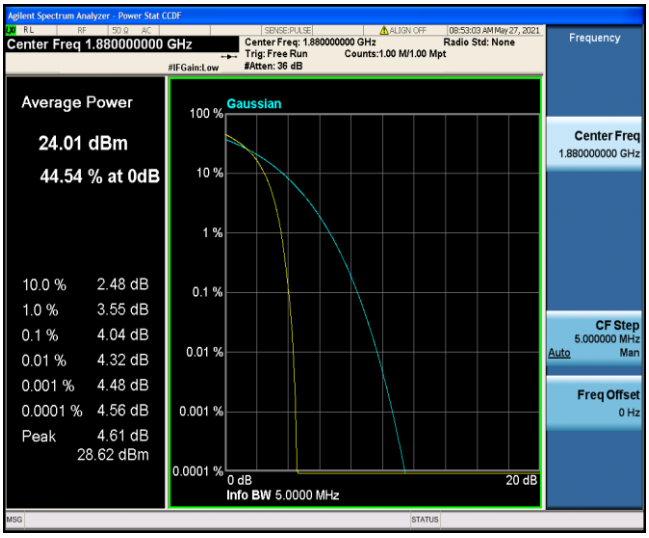
Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band II	9262	3.67	13	PASS
Band II	9400	4.04	13	PASS
Band II	9538	3.59	13	PASS
Band V	4132	4.15	13	PASS
Band V	4182	3.92	13	PASS
Band V	4233	4.09	13	PASS

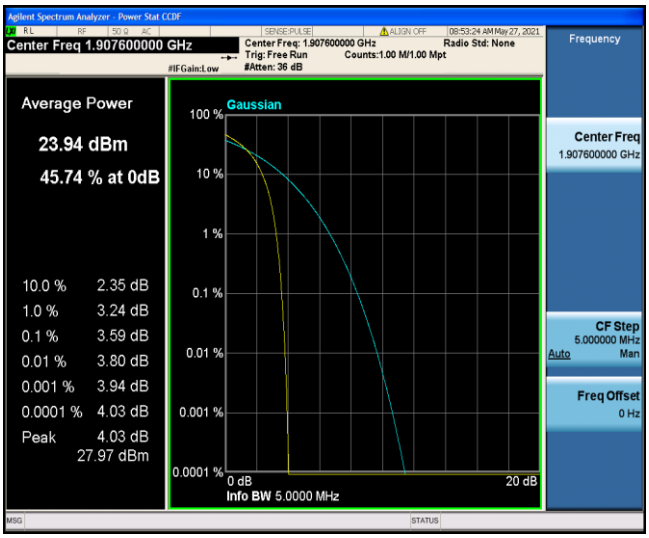
Test Graphs



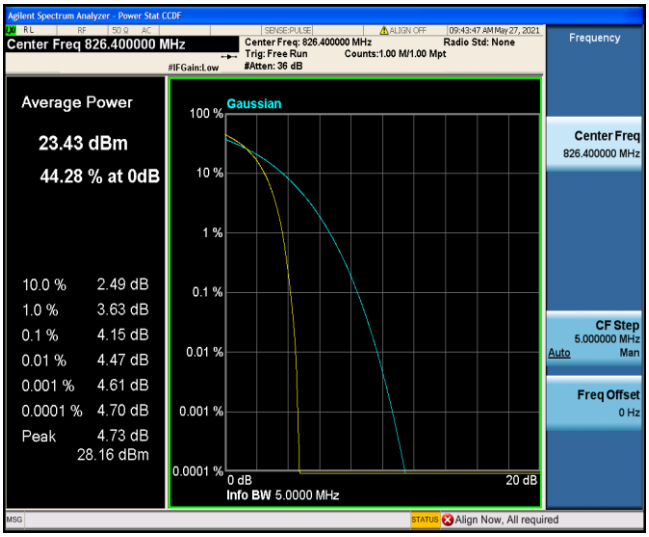
Band II_9262



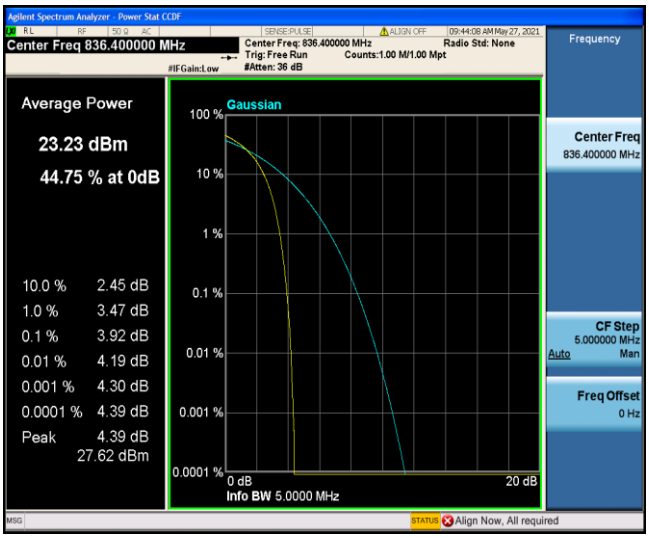
Band II_9400



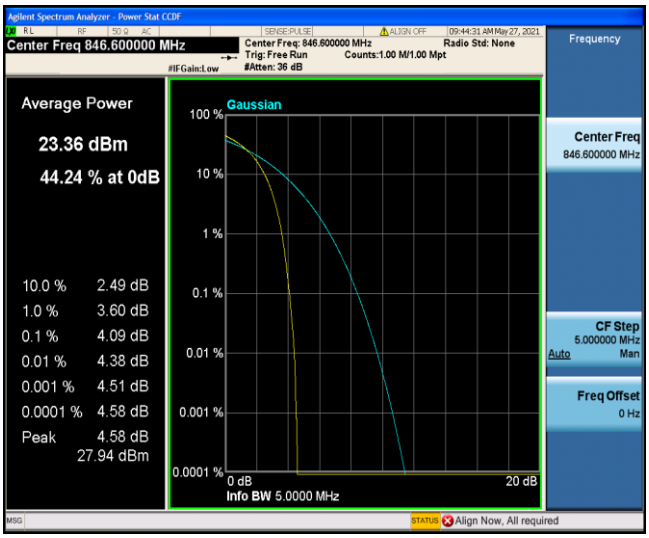
Band II_9538



Band V_4132



Band V_4182



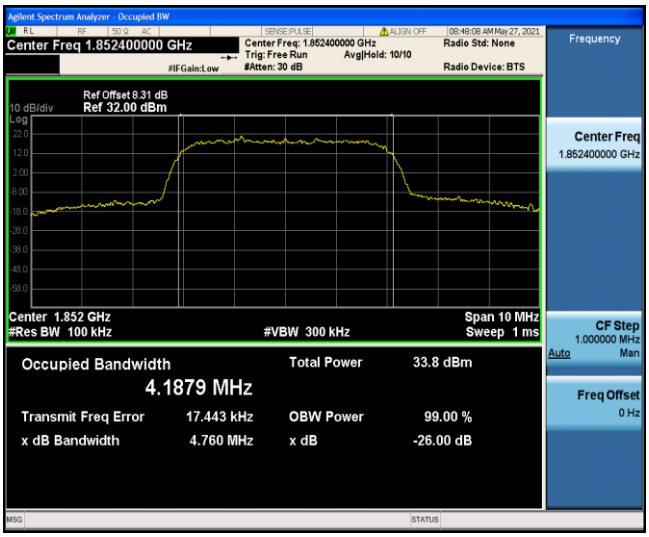
Band V_4233

8.3 Appendix C: 26dB Bandwidth and Occupied Bandwidth

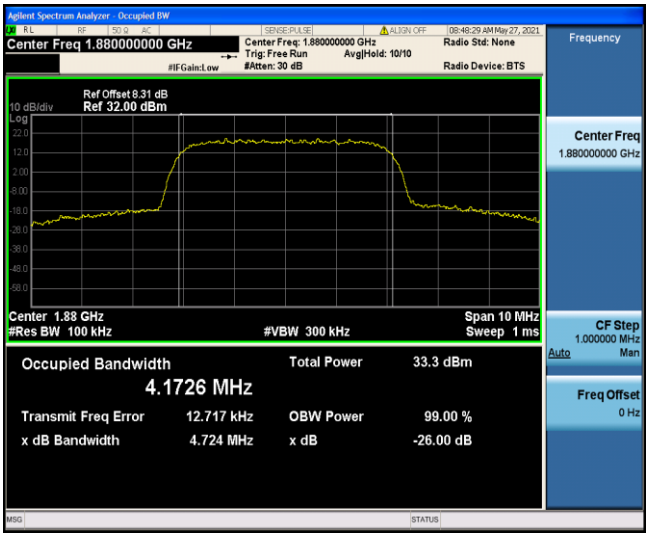
Test Result

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
Band II	9262	4187.9	4760	---	PASS
Band II	9400	4172.6	4724	---	PASS
Band II	9538	4179.9	4746	---	PASS
Band V	4132	4164.8	4699	---	PASS
Band V	4182	4151.1	4714	---	PASS
Band V	4233	4168.5	4716	---	PASS

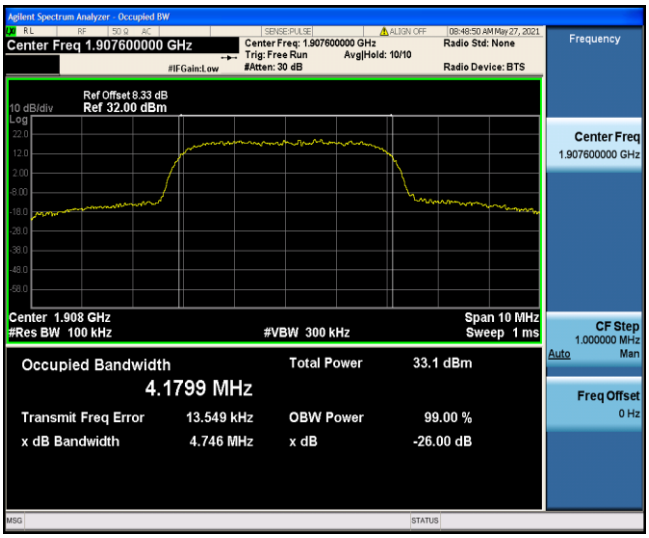
Test Graphs



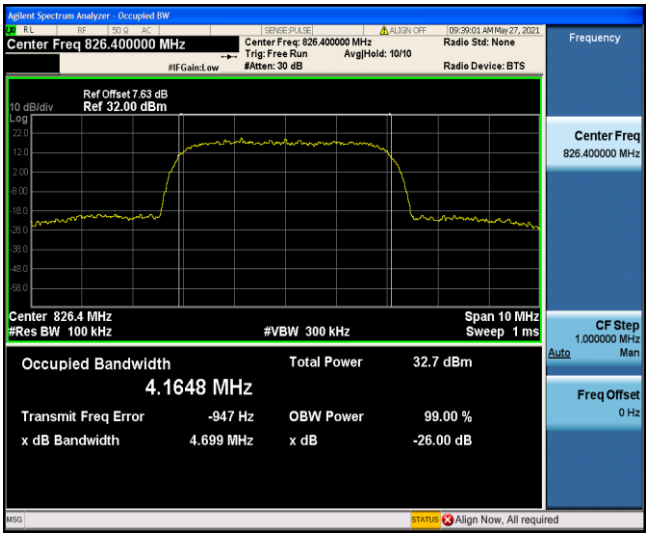
Band II_9262



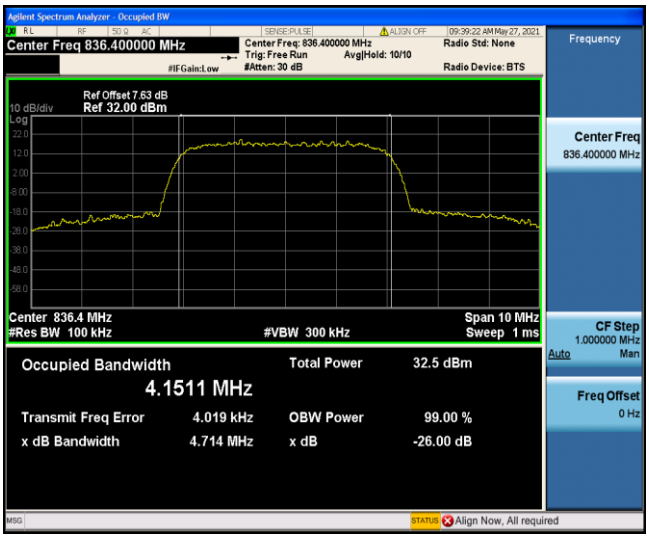
Band II_9400



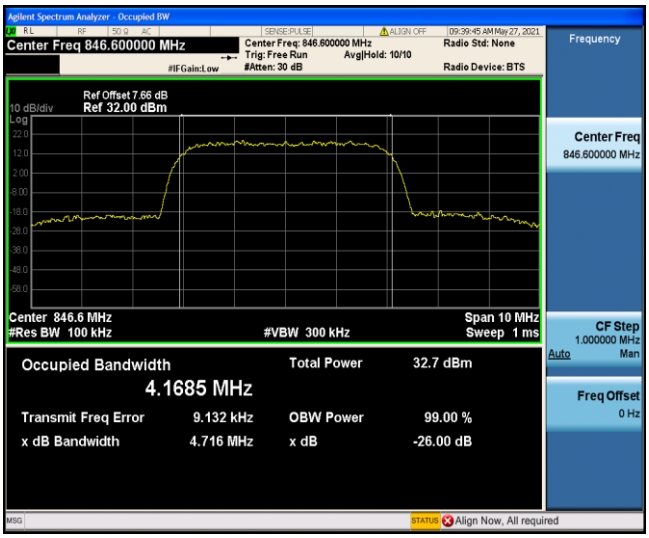
Band II_9538



Band V_4132



Band V_4182



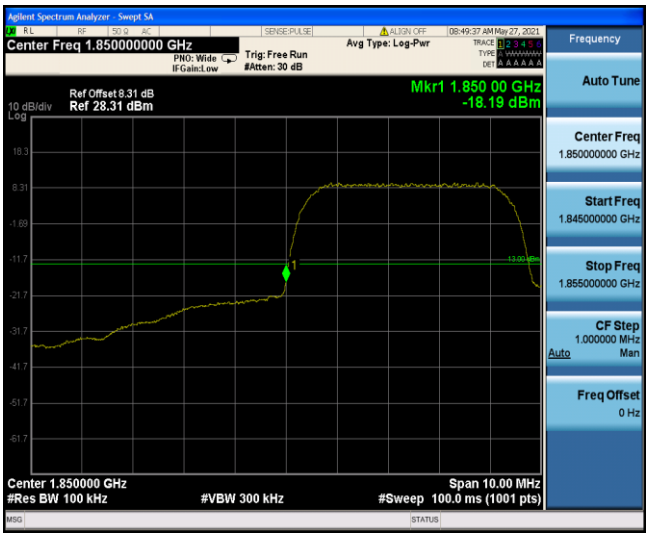
Band V_4233

8.4 Appendix D: Band Edge

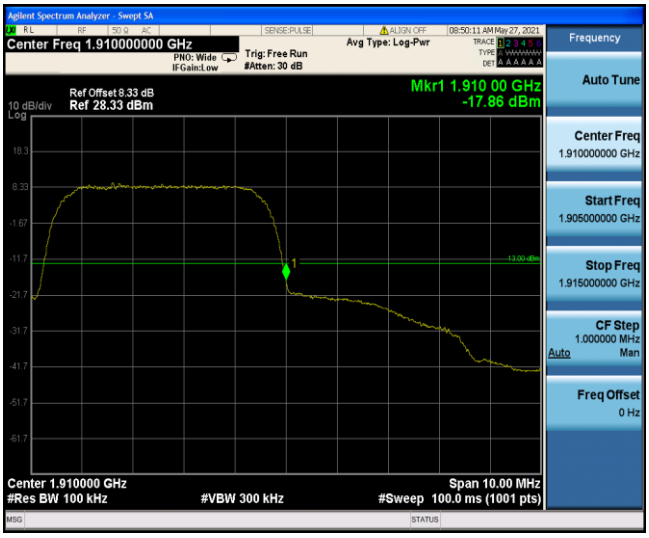
Test Result

Band	Channel	Value(dBm)	Limit(dBm)	Verdict
Band II	9262	-18.19	-13	PASS
Band II	9538	-17.86	-13	PASS
Band V	4132	-21.94	-13	PASS
Band V	4233	-22.53	-13	PASS

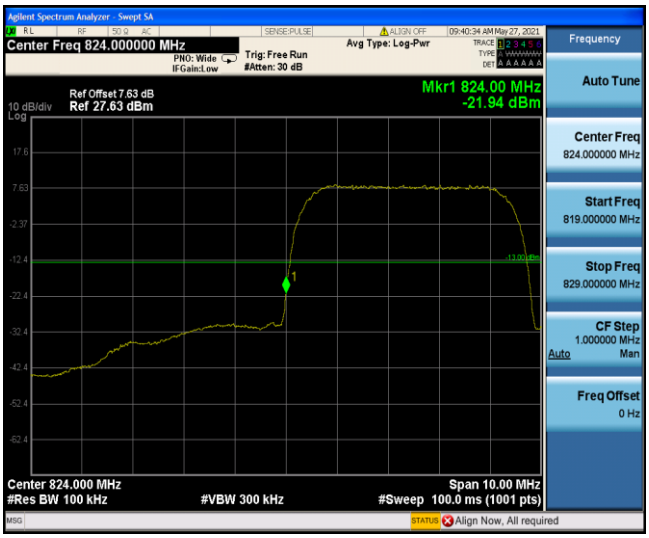
Test Graphs



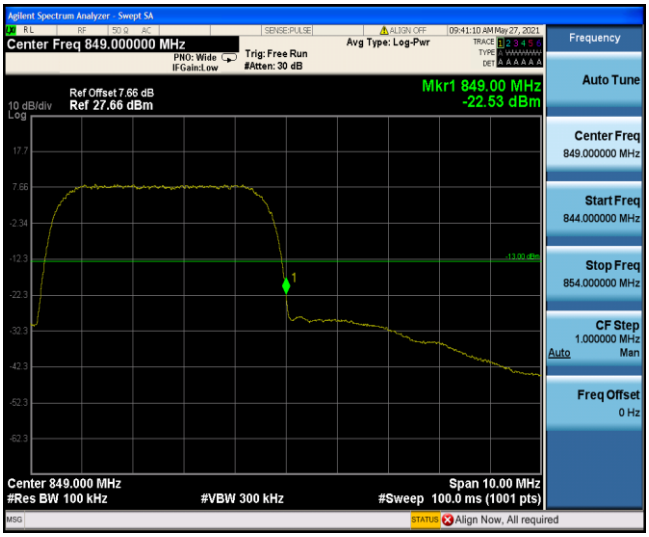
Band II_9262



Band II_9538



Band V_4132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Center Freq 849.000000 MHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
09:41:10 AM May 27, 2021
Ref Offset 7.66 dB
10 dB/div
Ref 27.66 dBm
Log
Mkr1 849.00 MHz
-22.53 dBm
Center 849.000 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 10.00 MHz
#Sweep 100.0 ms (1001 pts)
Align Now, All required
Frequency
Auto Tune
Center Freq
849.000000 MHz
Start Freq
844.000000 MHz
Stop Freq
854.000000 MHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz

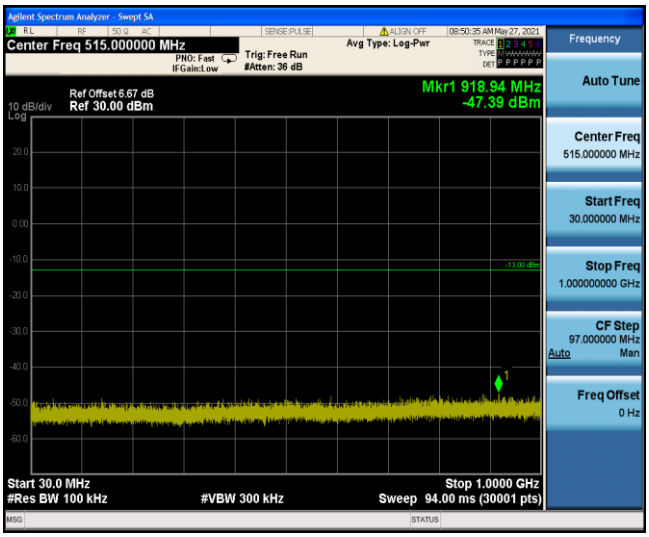
Band V_4233

8.5 Appendix E: Conducted Spurious Emission

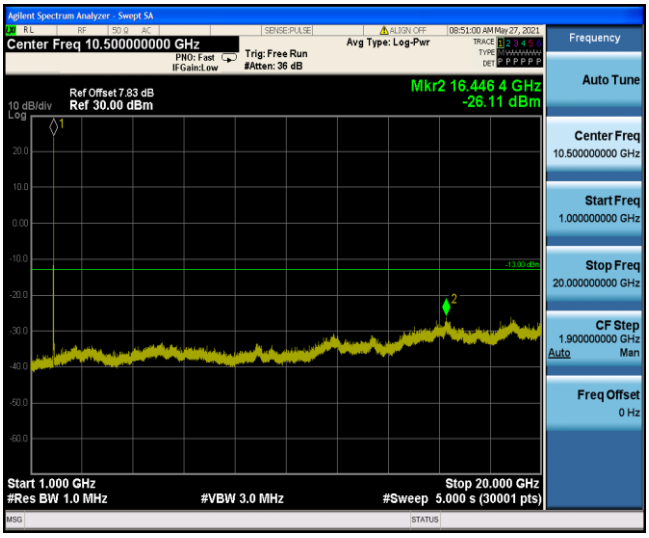
Test Result

Band	Channel	Frequency Rang(Mhz)	Value(dBm)	Limit(dBm)	Verdict
Band II	9262	30~1000	-47.39	-13	PASS
Band II	9262	1000~20000	-26.11	-13	PASS
Band II	9400	30~1000	-46.79	-13	PASS
Band II	9400	1000~20000	-26.48	-13	PASS
Band II	9538	30~1000	-47.08	-13	PASS
Band II	9538	1000~20000	-26.78	-13	PASS
Band V	4132	30~1000	-47.63	-13	PASS
Band V	4132	1000~10000	-33.18	-13	PASS
Band V	4182	30~1000	-47.36	-13	PASS
Band V	4182	1000~10000	-33.03	-13	PASS
Band V	4233	30~1000	-47.89	-13	PASS
Band V	4233	1000~10000	-32.98	-13	PASS

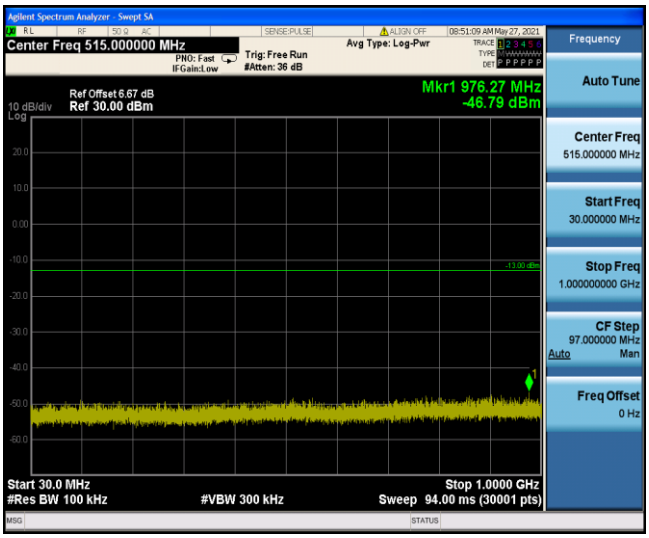
Test Graphs



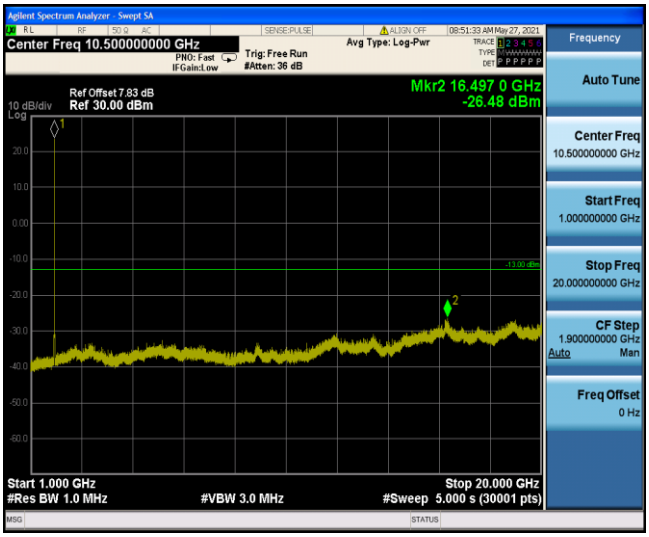
Band II_9262



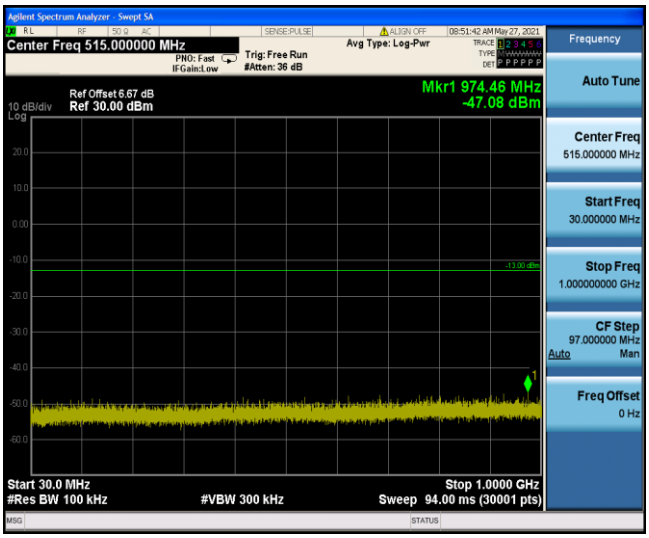
Band II_9262



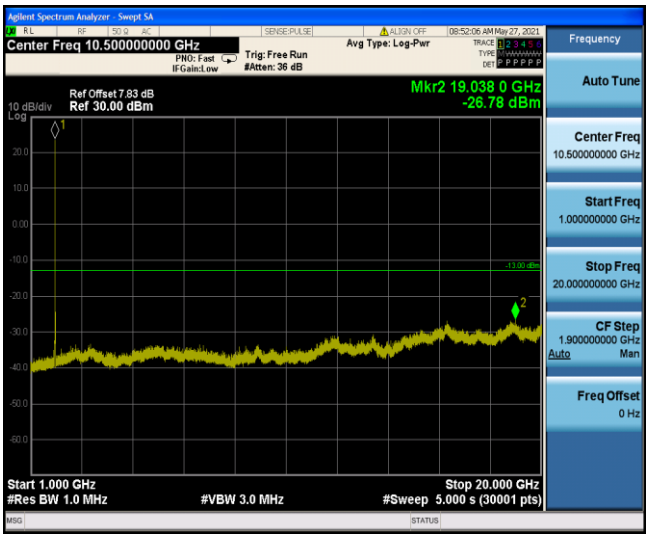
Band II_9400



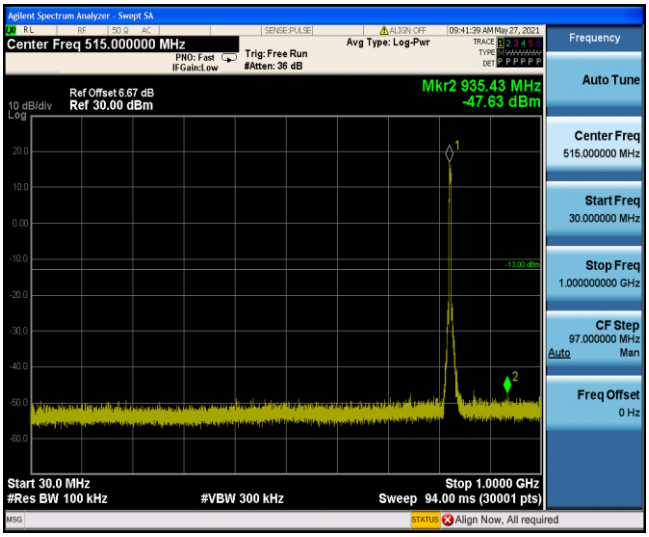
Band II_9400



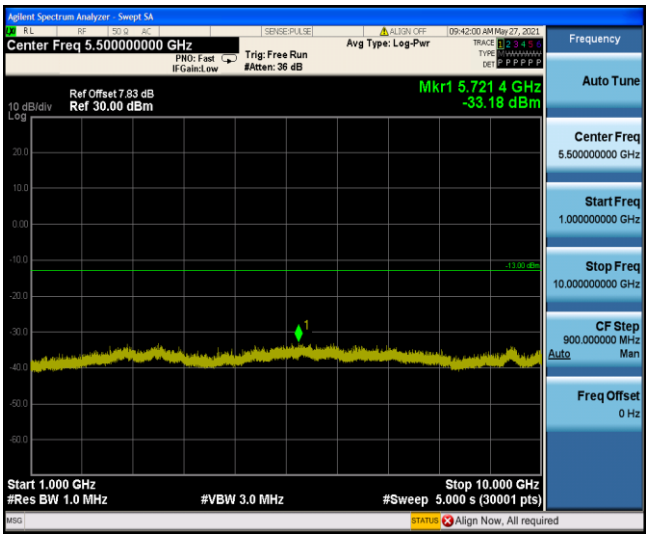
Band II_9538



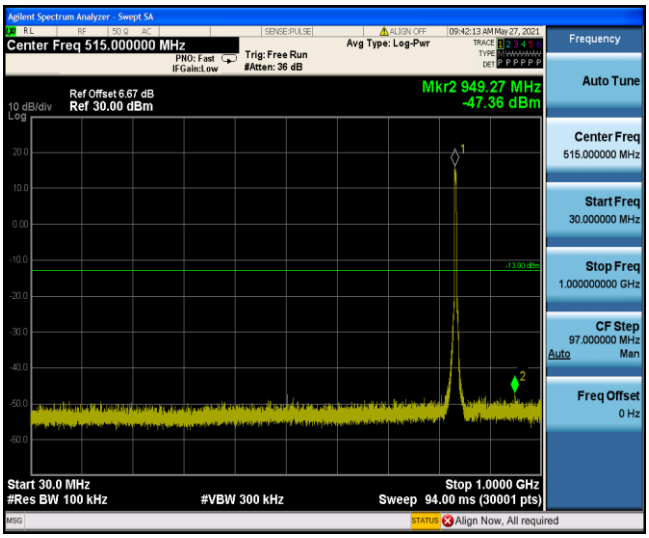
Band II_9538



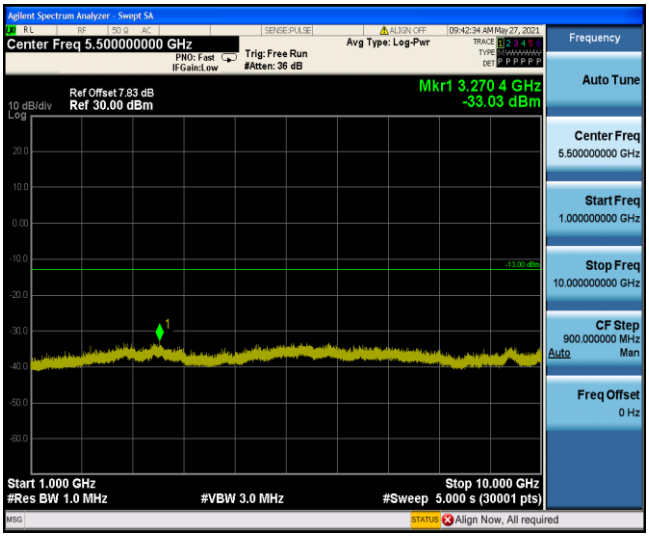
Band V_4132



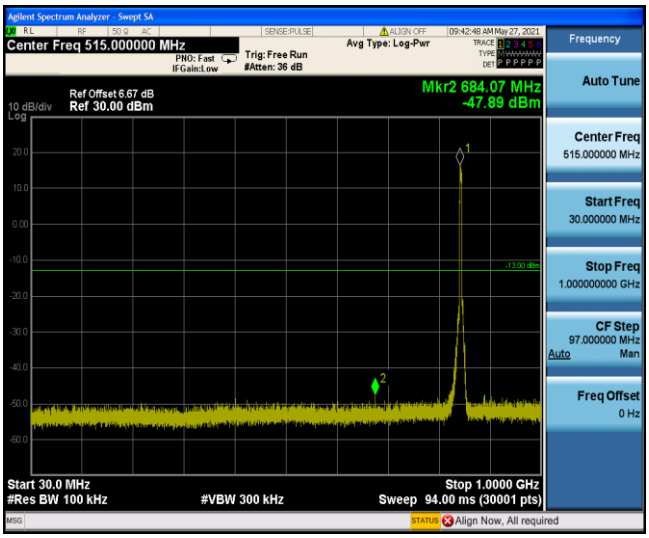
Band V_4132



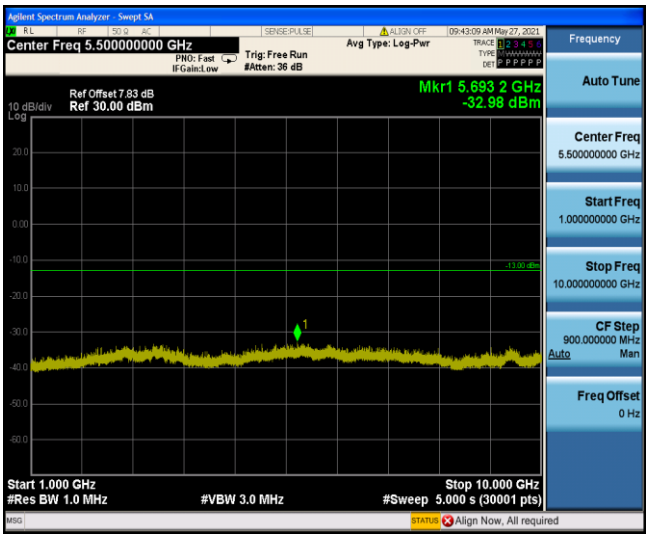
Band V_4182



Band V_4182



Band V_4233



Band V_4233

8.6 Appendix F: Frequency Stability

Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band II	9262	VL	TN	4.74	0.002559	2.5	PASS
Band II	9262	VN	TN	5.42	0.002926	2.5	PASS
Band II	9262	VH	TN	7.62	0.004114	2.5	PASS
Band II	9400	VL	TN	4.60	0.002447	2.5	PASS
Band II	9400	VN	TN	4.84	0.002574	2.5	PASS
Band II	9400	VH	TN	9.57	0.005090	2.5	PASS
Band II	9538	VL	TN	3.28	0.001719	2.5	PASS
Band II	9538	VN	TN	3.58	0.001877	2.5	PASS
Band II	9538	VH	TN	3.64	0.001908	2.5	PASS
Band V	4132	VL	TN	-0.38	-0.000460	2.5	PASS
Band V	4132	VN	TN	-1.66	-0.002009	2.5	PASS
Band V	4132	VH	TN	-1.53	-0.001851	2.5	PASS
Band V	4182	VL	TN	2.73	0.003264	2.5	PASS
Band V	4182	VN	TN	2.32	0.002774	2.5	PASS
Band V	4182	VH	TN	0.94	0.001124	2.5	PASS
Band V	4233	VL	TN	0.69	0.000815	2.5	PASS
Band V	4233	VN	TN	0.99	0.001169	2.5	PASS
Band V	4233	VH	TN	0.48	0.000567	2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band II	9262	VN	-30	2.57	0.001387	2.5	PASS
Band II	9262	VN	-20	3.79	0.002046	2.5	PASS
Band II	9262	VN	-10	2.51	0.001355	2.5	PASS
Band II	9262	VN	0	7.85	0.004238	2.5	PASS
Band II	9262	VN	10	2.63	0.001420	2.5	PASS
Band II	9262	VN	20	6.91	0.003730	2.5	PASS
Band II	9262	VN	30	5.50	0.002969	2.5	PASS
Band II	9262	VN	40	5.67	0.003061	2.5	PASS
Band II	9262	VN	50	6.45	0.003482	2.5	PASS
Band II	9400	VN	-30	2.49	0.001324	2.5	PASS
Band II	9400	VN	-20	2.59	0.001378	2.5	PASS
Band II	9400	VN	-10	3.55	0.001888	2.5	PASS
Band II	9400	VN	0	4.71	0.002505	2.5	PASS
Band II	9400	VN	10	5.55	0.002952	2.5	PASS
Band II	9400	VN	20	1.65	0.000878	2.5	PASS
Band II	9400	VN	30	8.25	0.004388	2.5	PASS
Band II	9400	VN	40	4.07	0.002165	2.5	PASS
Band II	9400	VN	50	5.39	0.002867	2.5	PASS
Band II	9538	VN	-30	6.02	0.003156	2.5	PASS
Band II	9538	VN	-20	6.68	0.003502	2.5	PASS
Band II	9538	VN	-10	3.05	0.001599	2.5	PASS
Band II	9538	VN	0	6.51	0.003413	2.5	PASS
Band II	9538	VN	10	3.60	0.001887	2.5	PASS
Band II	9538	VN	20	6.64	0.003481	2.5	PASS
Band II	9538	VN	30	5.42	0.002841	2.5	PASS
Band II	9538	VN	40	4.96	0.002600	2.5	PASS
Band II	9538	VN	50	7.49	0.003926	2.5	PASS
Band V	4132	VN	-30	-1.36	-0.001646	2.5	PASS
Band V	4132	VN	-20	1.10	0.001331	2.5	PASS
Band V	4132	VN	-10	-0.44	-0.000532	2.5	PASS
Band V	4132	VN	0	-0.39	-0.000472	2.5	PASS
Band V	4132	VN	10	-0.42	-0.000508	2.5	PASS
Band V	4132	VN	20	1.09	0.001319	2.5	PASS
Band V	4132	VN	30	-1.24	-0.001500	2.5	PASS
Band V	4132	VN	40	-1.16	-0.001404	2.5	PASS
Band V	4132	VN	50	-1.22	-0.001476	2.5	PASS
Band V	4182	VN	-30	2.80	0.003348	2.5	PASS
Band V	4182	VN	-20	2.05	0.002451	2.5	PASS
Band V	4182	VN	-10	2.50	0.002989	2.5	PASS
Band V	4182	VN	0	-0.01	-0.000012	2.5	PASS
Band V	4182	VN	10	2.73	0.003264	2.5	PASS
Band V	4182	VN	20	2.27	0.002714	2.5	PASS
Band V	4182	VN	30	0.39	0.000466	2.5	PASS
Band V	4182	VN	40	0.52	0.000622	2.5	PASS
Band V	4182	VN	50	2.12	0.002535	2.5	PASS
Band V	4233	VN	-30	0.56	0.000661	2.5	PASS

Band V	4233	VN	-20	0.29	0.000343	2.5	PASS
Band V	4233	VN	-10	1.33	0.001571	2.5	PASS
Band V	4233	VN	0	2.98	0.003520	2.5	PASS
Band V	4233	VN	10	2.42	0.002858	2.5	PASS
Band V	4233	VN	20	1.94	0.002292	2.5	PASS
Band V	4233	VN	30	2.78	0.003284	2.5	PASS
Band V	4233	VN	40	1.77	0.002091	2.5	PASS
Band V	4233	VN	50	2.50	0.002953	2.5	PASS

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