

APPENDIX REPORT

Project No.	SHT2111020903EW	Radio Specification	WCDMA
Test sample No.	YPHT21061170008	Model No.	BX6100
Start test date	2021-11-12	Finish date	2021-11-12
Temperature	23.6° C	Humidity	32%
Test Engineer	Jiongsheng.Feng	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
G	ERP and EIRP	PASS

8.1 Appendix A: Conducted Output Power

Test Result

Band	Channel	Power(dBm)	Limit(dBm)	Verdict
Band II	9262	20.97	33	PASS
Band II	9400	21.24	33	PASS
Band II	9538	21.46	33	PASS
Band V	4132	22.23	38.5	PASS
Band V	4182	22.81	38.5	PASS
Band V	4233	22.36	38.5	PASS

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band II	9262	HSDPA_Sub1	20.12	33	PASS
Band II	9262	HSDPA_Sub2	19.60	33	PASS
Band II	9262	HSDPA_Sub3	19.63	33	PASS
Band II	9262	HSDPA_Sub4	19.62	33	PASS
Band II	9400	HSDPA_Sub1	20.37	33	PASS
Band II	9400	HSDPA_Sub2	19.87	33	PASS
Band II	9400	HSDPA_Sub3	19.87	33	PASS
Band II	9400	HSDPA_Sub4	19.86	33	PASS
Band II	9538	HSDPA_Sub1	20.58	33	PASS
Band II	9538	HSDPA_Sub2	20.63	33	PASS
Band II	9538	HSDPA_Sub3	20.07	33	PASS
Band II	9538	HSDPA_Sub4	20.03	33	PASS
Band V	4132	HSDPA_Sub1	21.30	38.5	PASS
Band V	4132	HSDPA_Sub2	20.77	38.5	PASS
Band V	4132	HSDPA_Sub3	20.80	38.5	PASS
Band V	4132	HSDPA_Sub4	20.74	38.5	PASS
Band V	4182	HSDPA_Sub1	21.83	38.5	PASS
Band V	4182	HSDPA_Sub2	21.29	38.5	PASS
Band V	4182	HSDPA_Sub3	21.32	38.5	PASS
Band V	4182	HSDPA_Sub4	21.31	38.5	PASS
Band V	4233	HSDPA_Sub1	21.44	38.5	PASS
Band V	4233	HSDPA_Sub2	20.91	38.5	PASS
Band V	4233	HSDPA_Sub3	20.89	38.5	PASS
Band V	4233	HSDPA_Sub4	20.88	38.5	PASS

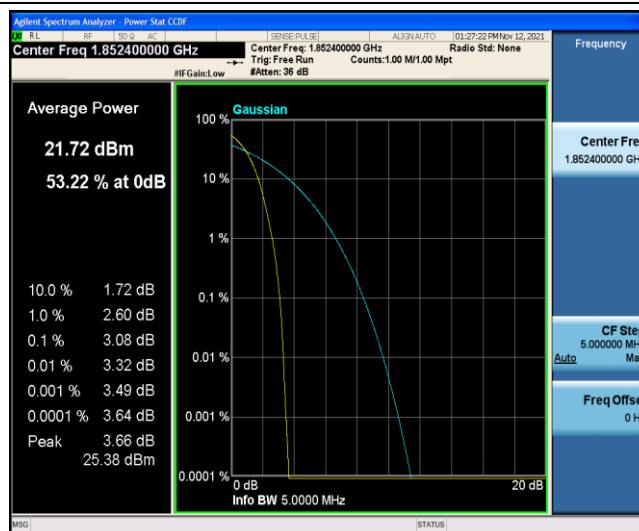
Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band II	9262	HSUPA_Sub1	18.14	33	PASS
Band II	9262	HSUPA_Sub2	18.66	33	PASS
Band II	9262	HSUPA_Sub3	19.16	33	PASS
Band II	9262	HSUPA_Sub4	18.16	33	PASS
Band II	9262	HSUPA_Sub5	20.14	33	PASS
Band II	9400	HSUPA_Sub1	18.40	33	PASS
Band II	9400	HSUPA_Sub2	18.92	33	PASS
Band II	9400	HSUPA_Sub3	19.42	33	PASS
Band II	9400	HSUPA_Sub4	18.39	33	PASS
Band II	9400	HSUPA_Sub5	20.38	33	PASS
Band II	9538	HSUPA_Sub1	18.57	33	PASS
Band II	9538	HSUPA_Sub2	19.09	33	PASS
Band II	9538	HSUPA_Sub3	19.64	33	PASS
Band II	9538	HSUPA_Sub4	18.63	33	PASS
Band II	9538	HSUPA_Sub5	20.59	33	PASS
Band V	4132	HSUPA_Sub1	19.31	38.5	PASS
Band V	4132	HSUPA_Sub2	19.71	38.5	PASS
Band V	4132	HSUPA_Sub3	20.26	38.5	PASS
Band V	4132	HSUPA_Sub4	19.34	38.5	PASS
Band V	4132	HSUPA_Sub5	21.32	38.5	PASS
Band V	4182	HSUPA_Sub1	19.82	38.5	PASS
Band V	4182	HSUPA_Sub2	20.26	38.5	PASS
Band V	4182	HSUPA_Sub3	20.77	38.5	PASS
Band V	4182	HSUPA_Sub4	19.87	38.5	PASS
Band V	4182	HSUPA_Sub5	21.83	38.5	PASS
Band V	4233	HSUPA_Sub1	19.44	38.5	PASS
Band V	4233	HSUPA_Sub2	19.86	38.5	PASS
Band V	4233	HSUPA_Sub3	20.39	38.5	PASS
Band V	4233	HSUPA_Sub4	19.44	38.5	PASS
Band V	4233	HSUPA_Sub5	21.38	38.5	PASS

8.2 Appendix B: Peak-to-Average Ratio

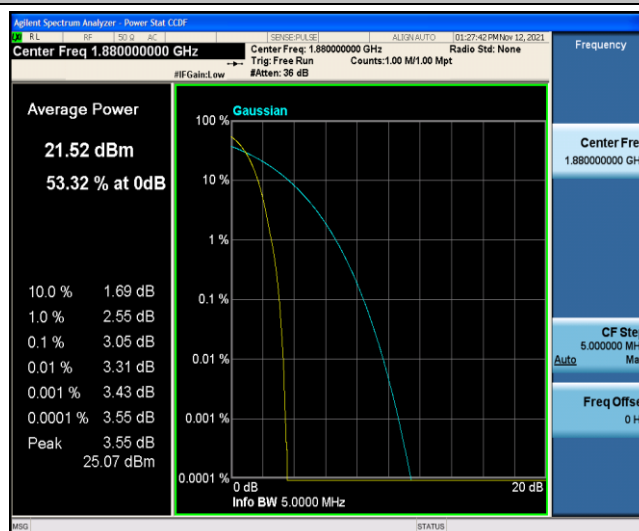
Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band II	9262	3.08	13	PASS
Band II	9400	3.05	13	PASS
Band II	9538	3.03	13	PASS
Band V	4132	3.02	13	PASS
Band V	4182	3.05	13	PASS
Band V	4233	2.92	13	PASS

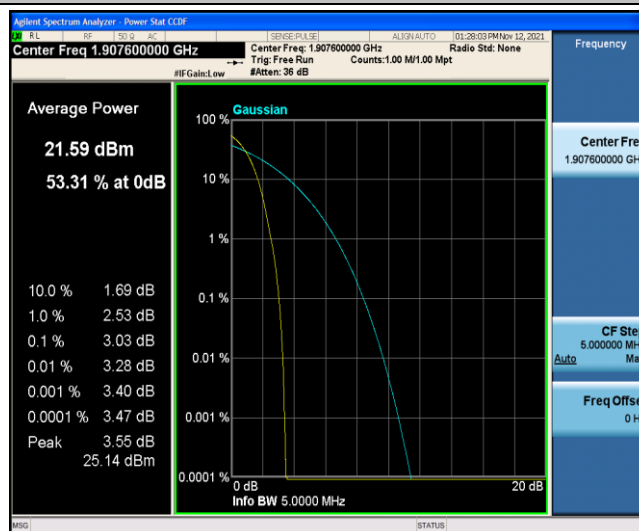
Test Graphs



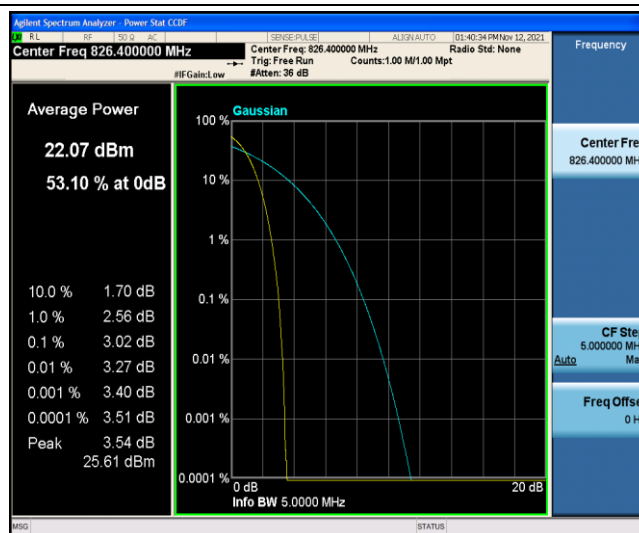
Band II_9262



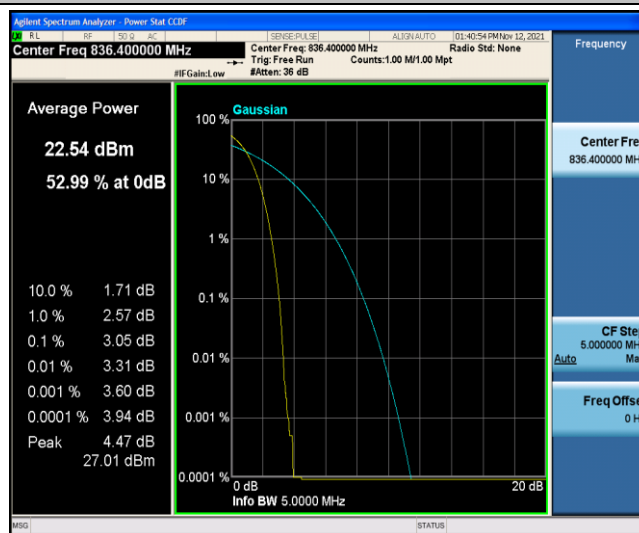
Band II_9400



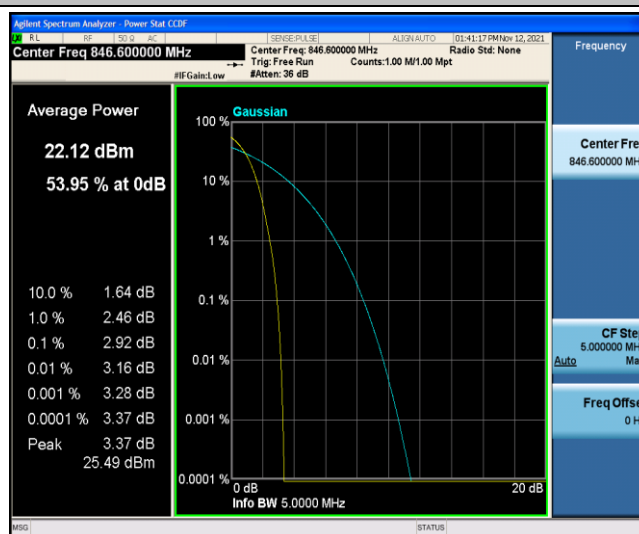
Band II_9538



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	4180.0	4742	---	PASS
Band II	9400	4170.9	4724	---	PASS
Band II	9538	4180.2	4735	---	PASS
Band V	4132	4184.3	4715	---	PASS
Band V	4182	4173.0	4712	---	PASS
Band V	4233	4187.0	4727	---	PASS

Agilent Spectrum Analyzer - Occupied BW

File Edit View Window Help
 Units: dBm Scale: dBm/Hz

REFERENCE: 10/24/23 10:23 AM Nov 12, 2021
 Center Freq: 1.852400000 GHz
 Radio Std: None
 #F Gain: Low #Atten: 30 dB Avg/Hold: 10/10 Radio Device: BTS

10 dB/div
 Ref Offset 7.92 dB
 Ref 32.00 dBm

Center Freq: 1.852400000 GHz
 Radio Std: None
 #F Gain: Low #Atten: 30 dB Avg/Hold: 10/10 Radio Device: BTS

Center Freq: 1.852400000 GHz
 Radio Std: None

Center Freq: 1.852 GHz
 #Res BW 100 kHz #VBW 300 kHz Span 10 MHz Sweep 1 ms

Occupied Bandwidth: 4.1800 MHz
 Total Power: 31.0 dBm

Transmit Freq Error: 9.896 kHz
 OBW Power: 99.00 %
 x dB Bandwidth: 4.742 MHz
 x dB: -26.00 dB

CF Stop: 1.000000 MHz
 Auto: Ma
 Freq Offset: 0 Hz

MSG STATUS

Agilent Spectrum Analyzer - Occupied BW

Center Freq 1.980000000 GHz

Trig: Free Run

Avg/Hold: 10/10

Radio Std: None

#F Gain: Low

#Atten: 30 dB

Radio Device: BTS

Ref Offset 7.92 dB

Ref 32.00 dBm

Center Freq 1.980000000 GHz

Span 10 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1 ms

Occupied Bandwidth

4.1709 MHz

Total Power

30.7 dBm

Transmit Freq Error

7.264 kHz

OBW Power

99.00 %

x dB Bandwidth

4.724 MHz

x dB

-26.00 dB

Frequency

Center Freq

1.980000000 GHz

CF Ste

1.0000000 MHz

Auto

Ma

Freq Offset

0 Hz

MSO

STATUS

Agilent Spectrum Analyzer - Occupied BW

Freq: 1.907600000 GHz
 Span: 10 MHz
 Res BW: 100 kHz
 #VBW: 300 kHz
 Sweep: 1 ms

Center Freq: 1.907600000 GHz
 Radio Std: None
 Trig: Free Run
 Avg/Hold: 10/10
 #F Gain: 1.00
 #Atten: 30 dB
 Radio Device: BTS

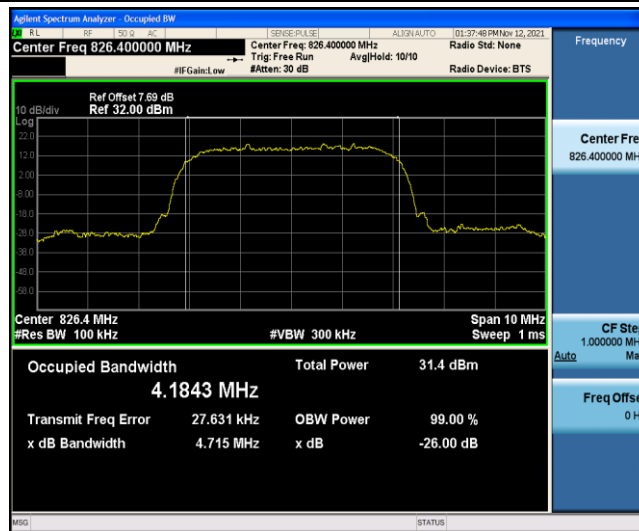
Ref Offset: 7.94 dB
 Ref: 32.00 dBm

Occupied Bandwidth: 4.1802 MHz
 Total Power: 30.6 dBm

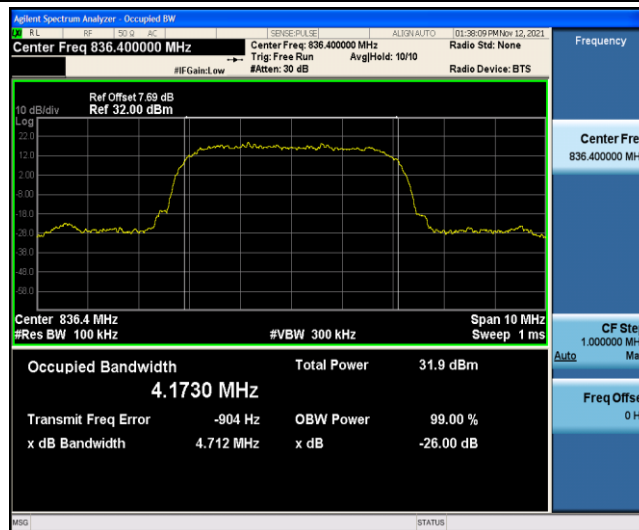
Transmit Freq Error: 9.074 kHz
 OBW Power: 99.00 %

x dB Bandwidth: 4.735 MHz
 x dB: -26.00 dB

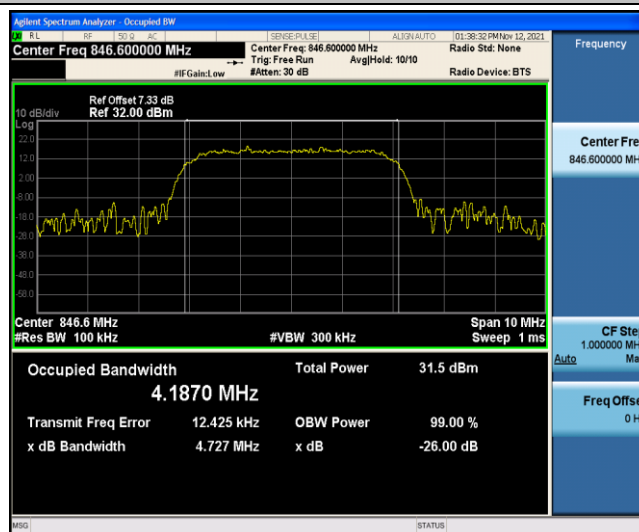
Frequency: 1.907600000 GHz
 Center Freq: 1.907600000 GHz
 CF Step: 1.000000 MHz
 Auto: Ma
 Freq Offset: 0 Hz



Band V_4132



Band V_4182



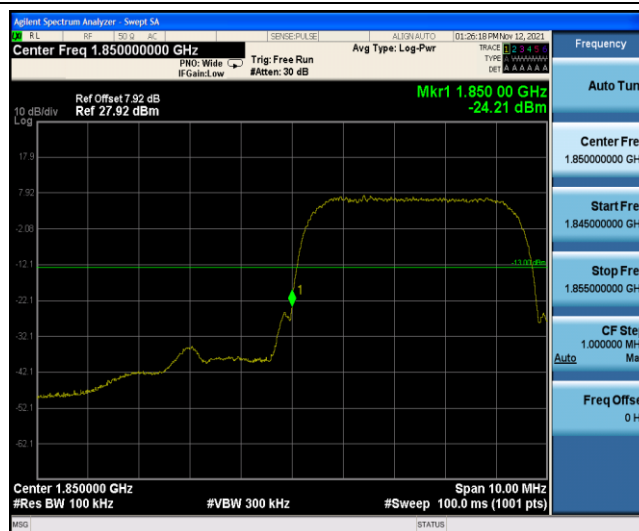
Band V_4233

8.4 Appendix D: Band Edge

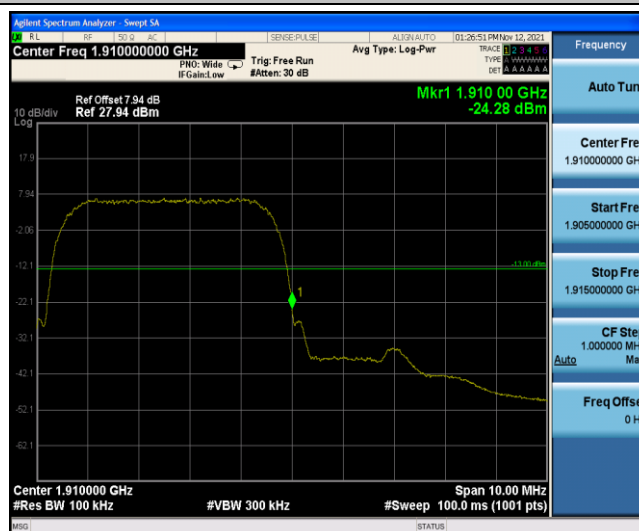
Test Result

Band	Channel	Value(dBm)	Limit(dBm)	Verdict
Band II	9262	-24.21	-13	PASS
Band II	9538	-24.28	-13	PASS
Band V	4132	-24.15	-13	PASS
Band V	4233	-21.91	-13	PASS

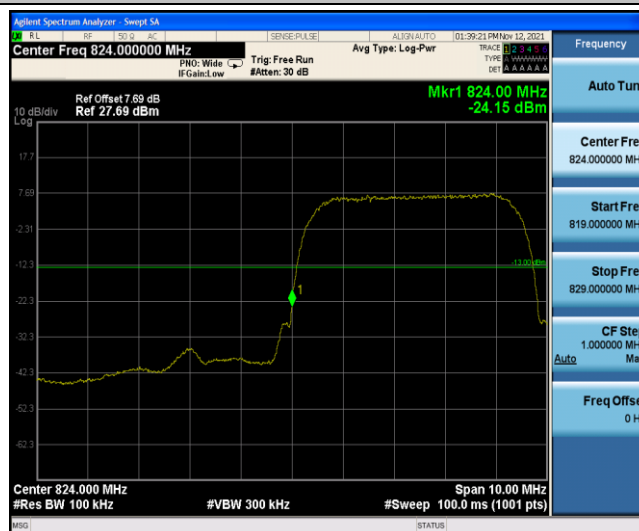
Test Graphs



Band II_9262



Band II_9538



Band V_4132



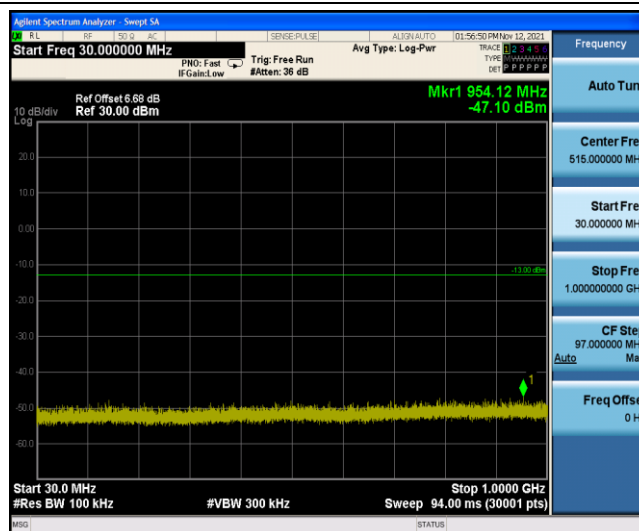
Band V_4233

8.5 Appendix E: Conducted Spurious Emission

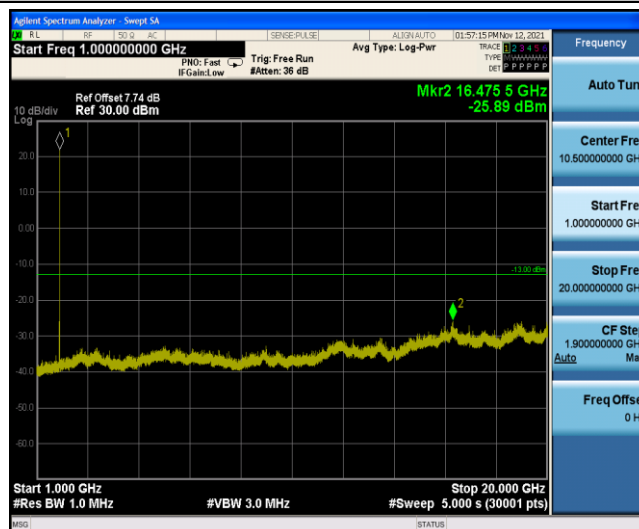
Test Result

Band	Channel	Frequency Rang(Mhz)	Value(dBm)	Limit(dBm)	Verdict
Band II	9262	30~1000	-47.10	-13	PASS
Band II	9262	1000~20000	-25.89	-13	PASS
Band II	9400	30~1000	-46.81	-13	PASS
Band II	9400	1000~20000	-26.48	-13	PASS
Band II	9538	30~1000	-47.02	-13	PASS
Band II	9538	1000~20000	-25.83	-13	PASS
Band V	4132	30~1000	-46.30	-13	PASS
Band V	4132	1000~10000	-32.67	-13	PASS
Band V	4182	30~1000	-47.20	-13	PASS
Band V	4182	1000~10000	-32.87	-13	PASS
Band V	4233	30~1000	-46.94	-13	PASS
Band V	4233	1000~10000	-32.40	-13	PASS

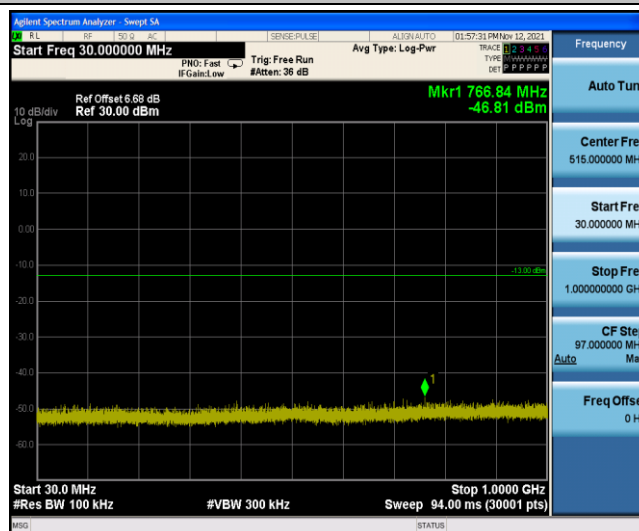
Test Graphs



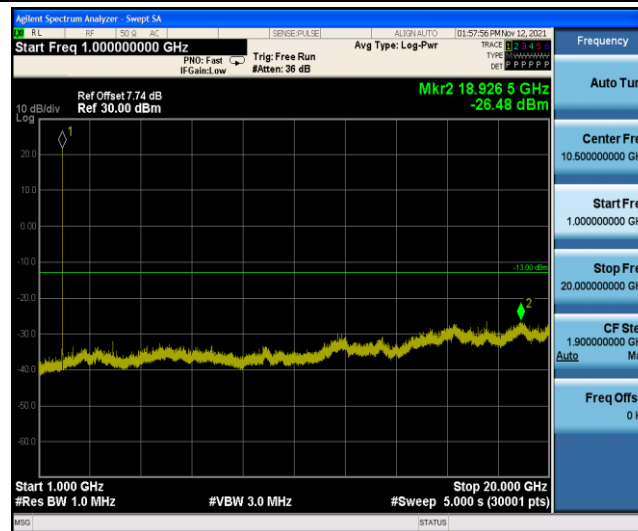
Band II_9262



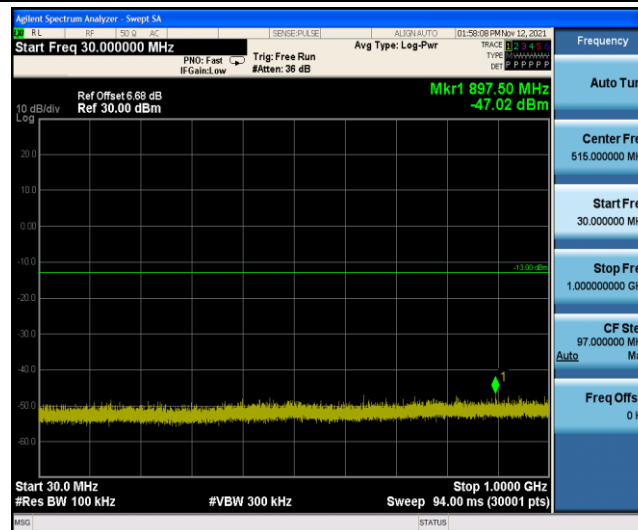
Band II_9262



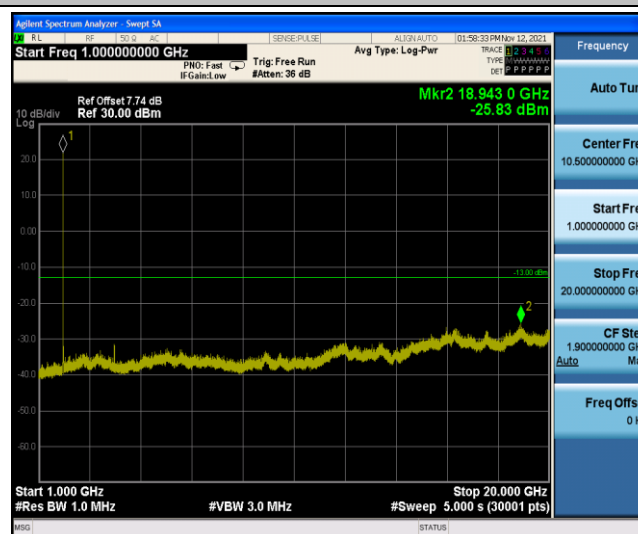
Band II_9400



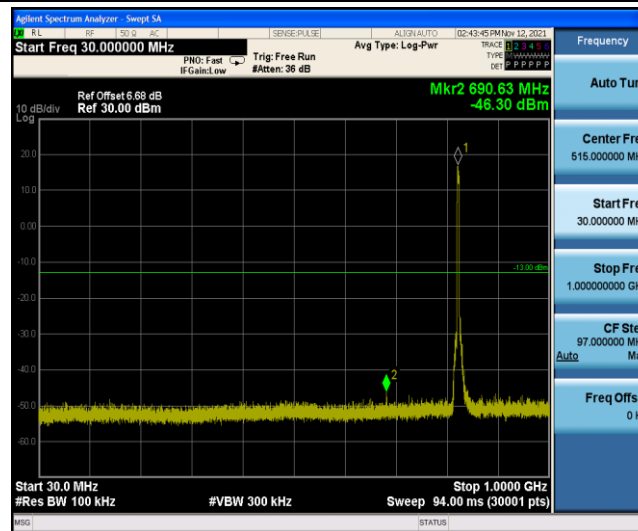
Band II_9400



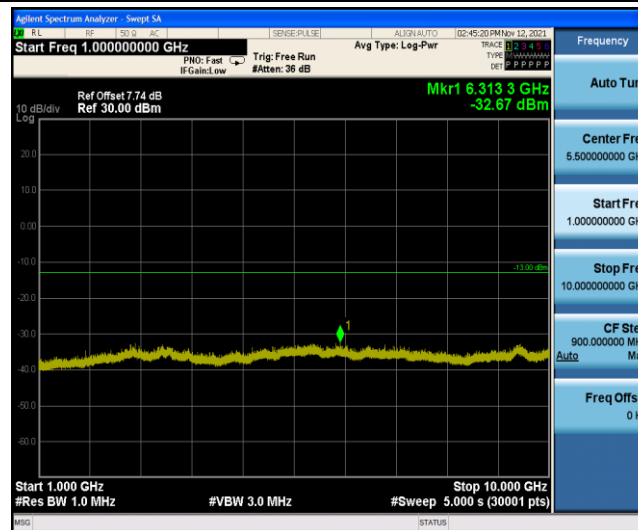
Band II_9538



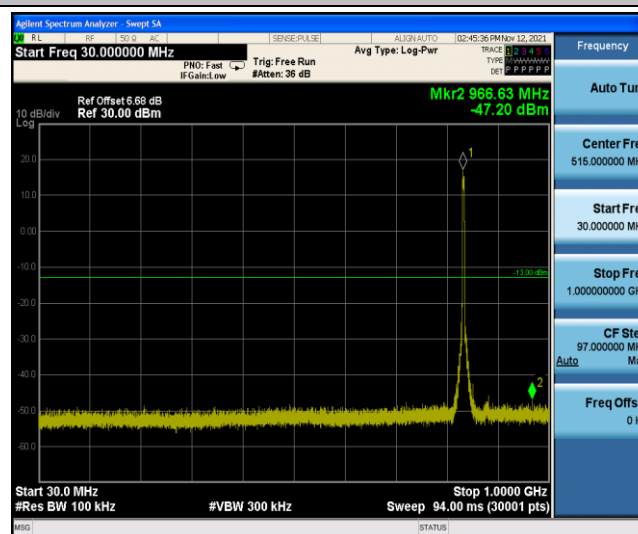
Band II_9538



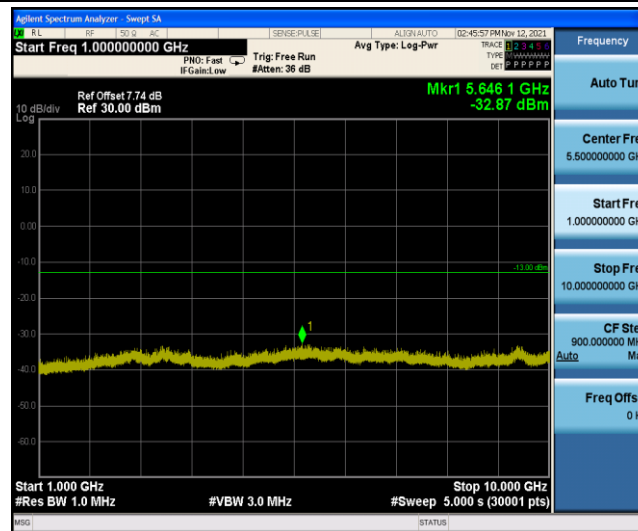
Band V_4132



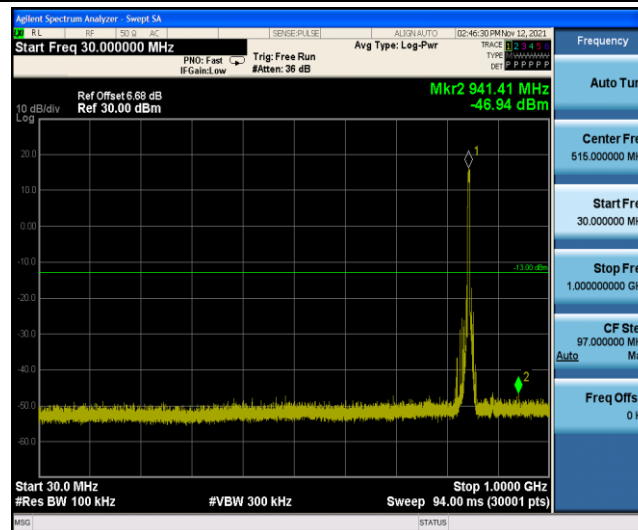
Band V_4132



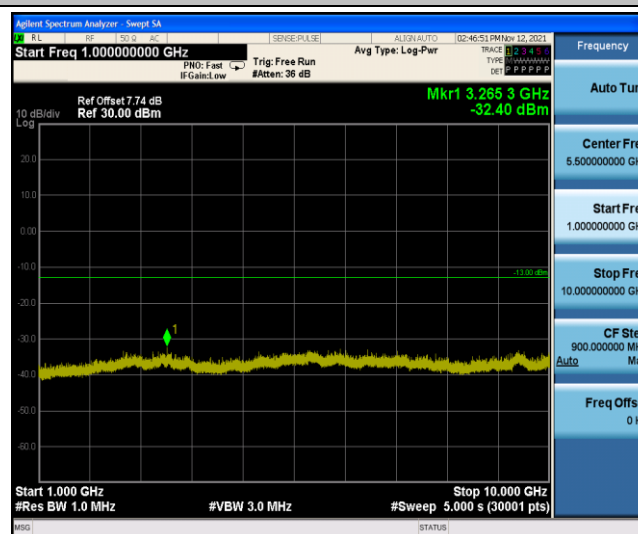
Band V_4182



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	-14.49	-0.007822	2.5	PASS
Band II	9262	VN	TN	-6.93	-0.003741	2.5	PASS
Band II	9262	VH	TN	-2.46	-0.001328	2.5	PASS
Band II	9400	VL	TN	-12.04	-0.006404	2.5	PASS
Band II	9400	VN	TN	-4.55	-0.002420	2.5	PASS
Band II	9400	VH	TN	-11.70	-0.006223	2.5	PASS
Band II	9538	VL	TN	-7.94	-0.004162	2.5	PASS
Band II	9538	VN	TN	-8.50	-0.004456	2.5	PASS
Band II	9538	VH	TN	-8.27	-0.004335	2.5	PASS
Band V	4132	VL	TN	-11.32	-0.013698	2.5	PASS
Band V	4132	VN	TN	-6.28	-0.007599	2.5	PASS
Band V	4132	VH	TN	-10.04	-0.012149	2.5	PASS
Band V	4182	VL	TN	-9.40	-0.011239	2.5	PASS
Band V	4182	VN	TN	-5.61	-0.006707	2.5	PASS
Band V	4182	VH	TN	-13.57	-0.016224	2.5	PASS
Band V	4233	VL	TN	-5.87	-0.006934	2.5	PASS
Band V	4233	VN	TN	-7.04	-0.008316	2.5	PASS
Band V	4233	VH	TN	-4.03	-0.004760	2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band II	9262	VN	-30	-9.35	-0.005048	2.5	PASS
Band II	9262	VN	-20	-6.55	-0.003536	2.5	PASS
Band II	9262	VN	-10	-4.20	-0.002267	2.5	PASS
Band II	9262	VN	0	-12.66	-0.006834	2.5	PASS
Band II	9262	VN	10	-10.60	-0.005722	2.5	PASS
Band II	9262	VN	20	-11.43	-0.006170	2.5	PASS
Band II	9262	VN	30	-8.98	-0.004848	2.5	PASS
Band II	9262	VN	40	-5.94	-0.003207	2.5	PASS
Band II	9262	VN	50	-4.16	-0.002246	2.5	PASS
Band II	9400	VN	-30	-8.01	-0.004261	2.5	PASS
Band II	9400	VN	-20	-12.56	-0.006681	2.5	PASS
Band II	9400	VN	-10	-10.90	-0.005798	2.5	PASS
Band II	9400	VN	0	-10.14	-0.005394	2.5	PASS
Band II	9400	VN	10	-6.97	-0.003707	2.5	PASS
Band II	9400	VN	20	-15.75	-0.008378	2.5	PASS
Band II	9400	VN	30	-9.73	-0.005176	2.5	PASS
Band II	9400	VN	40	-9.03	-0.004803	2.5	PASS
Band II	9400	VN	50	-11.43	-0.006080	2.5	PASS
Band II	9538	VN	-30	-11.72	-0.006144	2.5	PASS
Band II	9538	VN	-20	-15.41	-0.008078	2.5	PASS
Band II	9538	VN	-10	-9.06	-0.004749	2.5	PASS
Band II	9538	VN	0	-11.04	-0.005787	2.5	PASS
Band II	9538	VN	10	-13.36	-0.007004	2.5	PASS
Band II	9538	VN	20	-5.33	-0.002794	2.5	PASS
Band II	9538	VN	30	-9.66	-0.005064	2.5	PASS
Band II	9538	VN	40	-7.63	-0.004000	2.5	PASS
Band II	9538	VN	50	-6.53	-0.003423	2.5	PASS
Band V	4132	VN	-30	-4.07	-0.004925	2.5	PASS
Band V	4132	VN	-20	-6.17	-0.007466	2.5	PASS
Band V	4132	VN	-10	-10.35	-0.012524	2.5	PASS
Band V	4132	VN	0	-5.63	-0.006813	2.5	PASS
Band V	4132	VN	10	-7.22	-0.008737	2.5	PASS
Band V	4132	VN	20	-7.35	-0.008894	2.5	PASS
Band V	4132	VN	30	-9.04	-0.010939	2.5	PASS
Band V	4132	VN	40	-4.08	-0.004937	2.5	PASS
Band V	4132	VN	50	-5.56	-0.006728	2.5	PASS
Band V	4182	VN	-30	-8.91	-0.010653	2.5	PASS
Band V	4182	VN	-20	-12.31	-0.014718	2.5	PASS
Band V	4182	VN	-10	-5.91	-0.007066	2.5	PASS
Band V	4182	VN	0	-4.96	-0.005930	2.5	PASS
Band V	4182	VN	10	-9.53	-0.011394	2.5	PASS
Band V	4182	VN	20	-9.13	-0.010916	2.5	PASS
Band V	4182	VN	30	-11.77	-0.014072	2.5	PASS
Band V	4182	VN	40	-12.52	-0.014969	2.5	PASS
Band V	4182	VN	50	-8.76	-0.010473	2.5	PASS
Band V	4233	VN	-30	-4.31	-0.005091	2.5	PASS

Band V	4233	VN	-20	-4.37	-0.005162	2.5	PASS
Band V	4233	VN	-10	-10.04	-0.011859	2.5	PASS
Band V	4233	VN	0	-5.69	-0.006721	2.5	PASS
Band V	4233	VN	10	-5.14	-0.006071	2.5	PASS
Band V	4233	VN	20	-3.15	-0.003721	2.5	PASS
Band V	4233	VN	30	-4.67	-0.005516	2.5	PASS
Band V	4233	VN	40	-4.51	-0.005327	2.5	PASS
Band V	4233	VN	50	-5.44	-0.006426	2.5	PASS

8.7 Appendix G: ERP and EIRP

Test Result

FCC

Band	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP		Limit (W)	Verdict
				(dBm)	(W)		
Band II	WCMDA	21.46	-0.50	20.96	0.1247	2	PASS
	HSDPA	20.63	-0.50	20.13	0.1030	2	PASS
	HSUPA	20.59	-0.50	20.09	0.1021	2	PASS

Band	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	ERP		Limit (W)	Verdict
				(dBm)	(W)		
Band V	WCMDA	22.81	-1.00	19.66	0.0925	7	PASS
	HSDPA	21.83	-1.00	18.68	0.0738	7	PASS
	HSUPA	21.83	-1.00	18.68	0.0738	7	PASS

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