

## APPENDIX A – TEST DATA OF CONDUCTED EMISSION

### LTE Band 2

#### 1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1850.7	18607	1.4	1	0	20.88
				1	5	20.86
				3	2	20.04
				6	0	20.02
	1880	18900		1	0	21.06
				1	5	20.92
				3	2	20.07
				6	0	19.93
	1909.3	19193		1	0	21.05
				1	5	20.98
				3	2	20.23
				6	0	20.16
16QAM	1850.7	18607	1.4	1	0	19.93
				1	5	19.83
				3	2	19.02
				6	0	18.98
	1880	18900		1	0	20.09
				1	5	20.13
				3	2	19.20
				6	0	19.13
	1909.3	19193		1	0	20.12
				1	5	20.10
				3	2	19.23
				6	0	19.19

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1851.5	18615	3	1	0	20.92
				1	14	20.90
				8	4	20.05
				15	0	20.01
	1880	18900		1	0	21.02
				1	14	20.90
				8	4	20.05
				15	0	19.98
	1908.5	19185		1	0	21.04
				1	14	20.99
				8	4	20.16
				15	0	20.19
16QAM	1851.5	18615	3	1	0	19.89
				1	14	19.91
				8	4	19.08
				15	0	19.08
	1880	18900		1	0	20.15
				1	14	20.07
				8	4	19.11
				15	0	19.09
	1908.5	19185		1	0	20.09
				1	14	20.03
				8	4	19.28
				15	0	19.22

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1852.5	18625	5	1	0	20.90
				1	24	20.90
				12	6	20.10
				25	0	20.11
	1880	18900		1	0	21.08
				1	24	21.01
				12	6	20.15
				25	0	20.03
	1907.5	19175		1	0	21.07
				1	24	21.02
				12	6	20.29
				25	0	20.27
16QAM	1852.5	18625	5	1	0	19.96
				1	24	19.87
				12	6	19.15
				25	0	19.10
	1880	18900		1	0	20.22
				1	24	20.16
				12	6	19.19
				25	0	19.15
	1907.5	19175		1	0	20.22
				1	24	20.18
				12	6	19.29
				25	0	19.25

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1855	18650	10	1	0	21.05
				1	49	21.07
				24	12	20.25
				50	0	20.15
	1880	18900		1	0	21.14
				1	49	21.05
				24	12	20.16
				50	0	20.10
	1905	19150		1	0	21.18
				1	49	21.14
				24	12	20.32
				50	0	20.25
16QAM	1855	18650	10	1	0	20.09
				1	49	20.05
				24	12	19.17
				50	0	19.16
	1880	18900		1	0	20.26
				1	49	20.19
				24	12	19.32
				50	0	19.24
	1905	19150		1	0	20.20
				1	49	20.21
				24	12	19.37
				50	0	19.34

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1857.5	18675	15	1	0	21.02
				1	74	21.05
				40	18	20.18
				75	0	20.11
	1880	18900		1	0	21.21
				1	74	21.06
				40	18	20.18
				75	0	20.17
	1902.5	19125		1	0	21.22
				1	74	21.13
				40	18	20.33
				75	0	20.31
16QAM	1857.5	18675	15	1	0	20.14
				1	74	20.01
				40	18	19.14
				75	0	19.15
	1880	18900		1	0	20.27
				1	74	20.21
				40	18	19.37
				75	0	19.25
	1902.5	19125		1	0	20.27
				1	74	20.20
				40	18	19.42
				75	0	19.36

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1860	18700	20	1	0	21.17
				1	99	21.15
				50	25	20.33
				100	0	20.25
	1880	18900		1	0	21.28
				1	99	21.16
				50	25	20.29
				100	0	20.22
	1900	19100		1	0	21.33
				1	99	21.28
				50	25	20.47
				100	0	20.41
16QAM	1860	18700	20	1	0	20.19
				1	99	20.14
				50	25	19.29
				100	0	19.28
	1880	18900		1	0	20.38
				1	99	20.35
				50	25	19.42
				100	0	19.38
	1900	19100		1	0	20.36
				1	99	20.34
				50	25	19.48
				100	0	19.46

## 2 Occupied Bandwidth

Test result

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)			
						QPSK		16-QAM	
2	1850.7	18607	1.4	6	0	1.0785	Fig.1	1.0783	Fig.2
	1880.0	18900		6	0	1.0782	Fig.3	1.0794	Fig.4
	1909.3	19193		6	0	1.0807	Fig.5	1.0822	Fig.6
	1851.5	18615	3	15	0	2.6988	Fig.7	2.7001	Fig.8
	1880.0	18900		15	0	2.7019	Fig.9	2.7013	Fig.10
	1908.5	19185		15	0	2.7054	Fig.11	2.7013	Fig.12
	1852.5	18625	5	25	0	4.4739	Fig.13	4.4709	Fig.14
	1880.0	18900		25	0	4.4688	Fig.15	4.4746	Fig.16
	1907.5	19175		25	0	4.4750	Fig.17	4.4719	Fig.18
	1855	18650	10	50	0	8.9121	Fig.19	8.9158	Fig.20
	1880	18900		50	0	8.9159	Fig.21	8.9213	Fig.22
	1905	19150		50	0	8.9133	Fig.23	8.9277	Fig.24
	1857.5	18675	15	75	0	13.393	Fig.25	13.402	Fig.26
	1880.0	18900		75	0	13.411	Fig.27	13.349	Fig.28
	1902.5	19125		75	0	13.405	Fig.29	13.385	Fig.30
	1860	18700	20	100	0	17.792	Fig.31	17.804	Fig.32
1880	18900	100		0	17.833	Fig.33	17.822	Fig.34	
1900	19100	100		0	17.798	Fig.35	17.826	Fig.36	

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)			
						QPSK		16-QAM	
2	1850.7	18607	1.4	6	0	1.296	Fig.1	1.285	Fig.2
	1880.0	18900		6	0	1.293	Fig.3	1.294	Fig.4
	1909.3	19193		6	0	1.373	Fig.5	1.369	Fig.6
	1851.5	18615	3	15	0	2.979	Fig.7	3.009	Fig.8
	1880.0	18900		15	0	2.992	Fig.9	3.008	Fig.10
	1908.5	19185		15	0	3.001	Fig.11	2.986	Fig.12
	1852.5	18625	5	25	0	4.996	Fig.13	4.964	Fig.14
	1880.0	18900		25	0	4.975	Fig.15	4.931	Fig.16
	1907.5	19175		25	0	4.947	Fig.17	4.897	Fig.18
	1855	18650	10	50	0	9.688	Fig.19	9.719	Fig.20
	1880	18900		50	0	9.806	Fig.21	9.598	Fig.22
	1905	19150		50	0	9.699	Fig.23	9.725	Fig.24
	1857.5	18675	15	75	0	14.41	Fig.25	14.40	Fig.26
	1880.0	18900		75	0	14.42	Fig.27	14.32	Fig.28
	1902.5	19125		75	0	14.43	Fig.29	14.32	Fig.30
	1860	18700	20	100	0	19.09	Fig.31	19.10	Fig.32
1880	18900	100		0	19.23	Fig.33	18.93	Fig.34	
1900	19100	100		0	18.98	Fig.35	19.05	Fig.36	

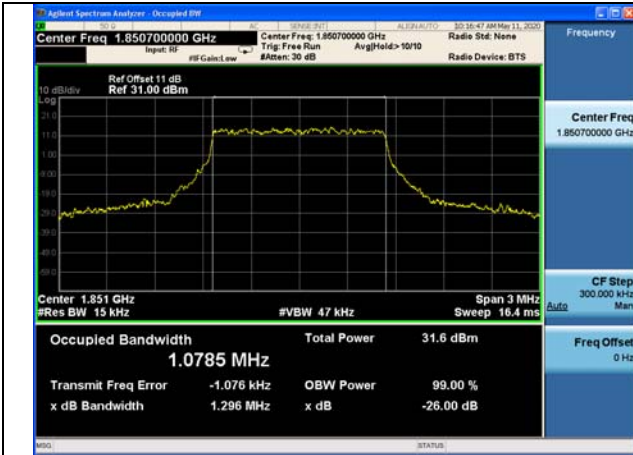


Fig.1



Fig.2

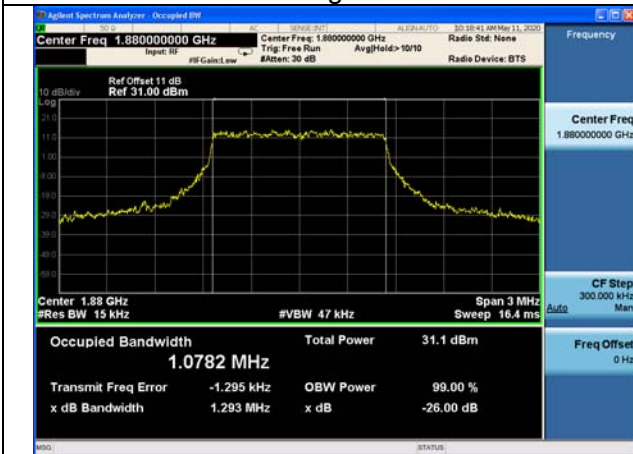


Fig.3

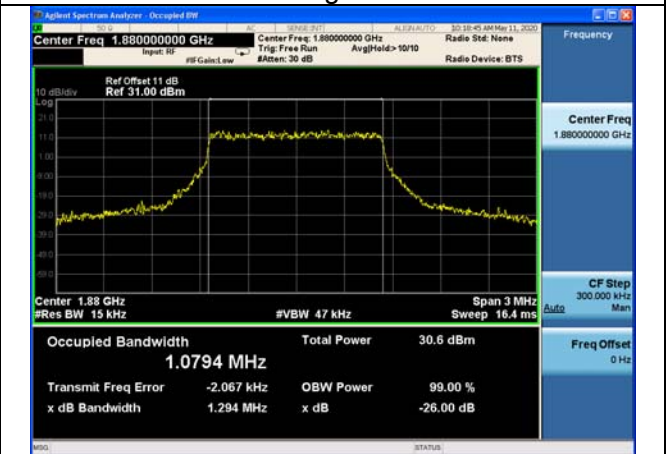


Fig.4

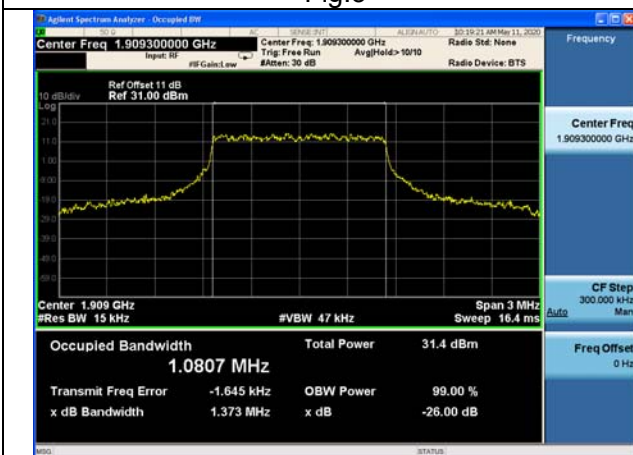


Fig.5



Fig.6





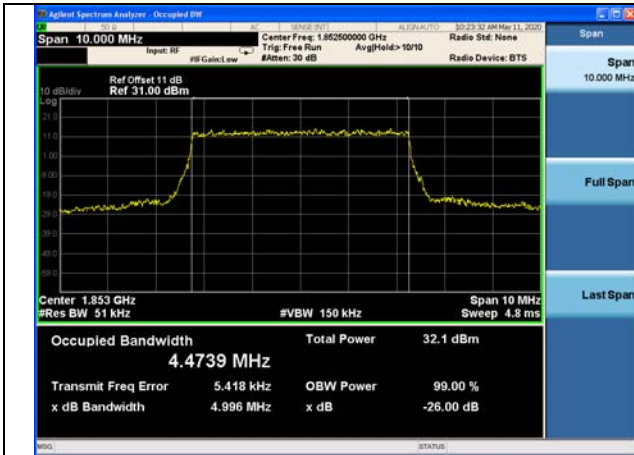


Fig.13



Fig.14

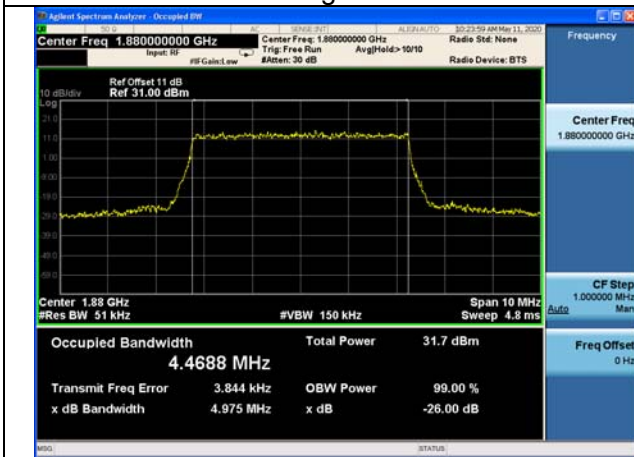


Fig.15

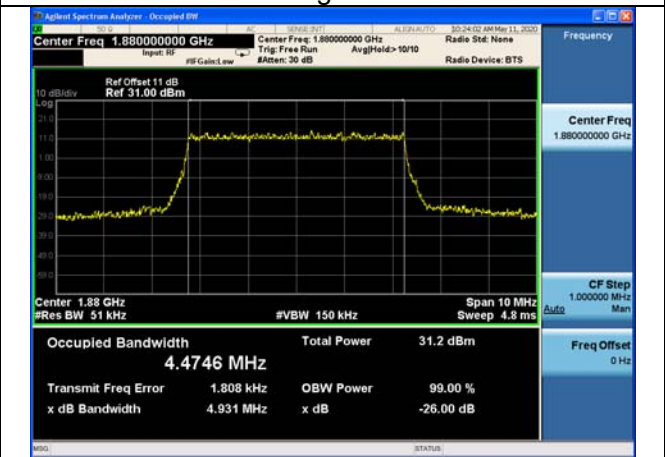


Fig.16

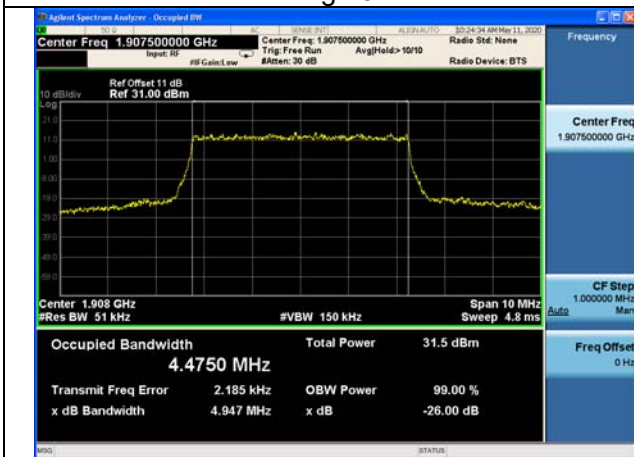


Fig.17

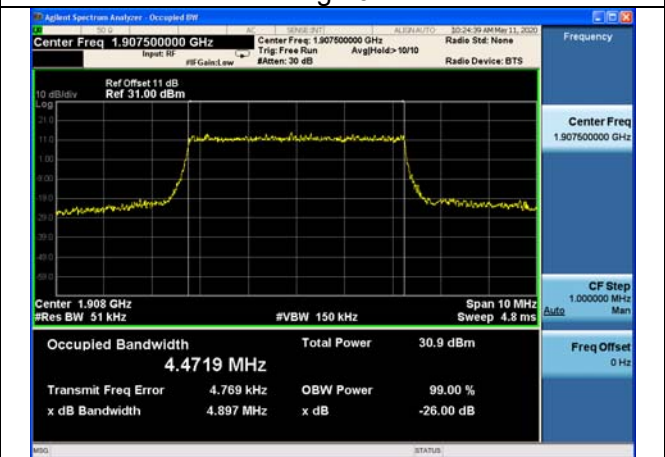


Fig.18

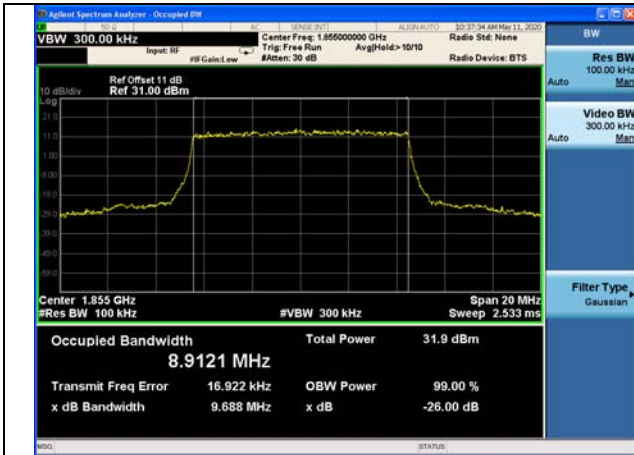


Fig.19



Fig.20

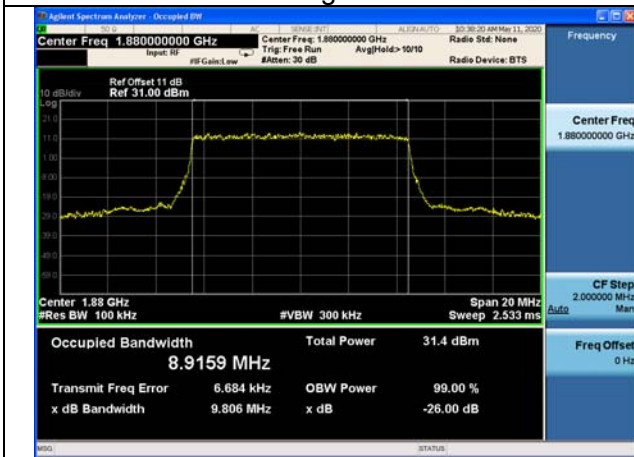


Fig.21

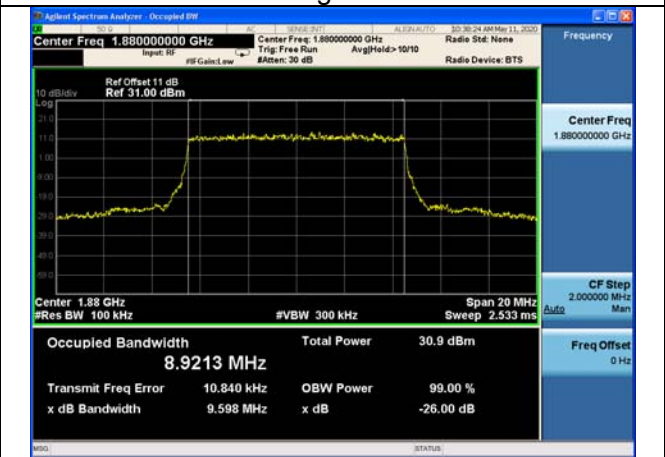


Fig.22

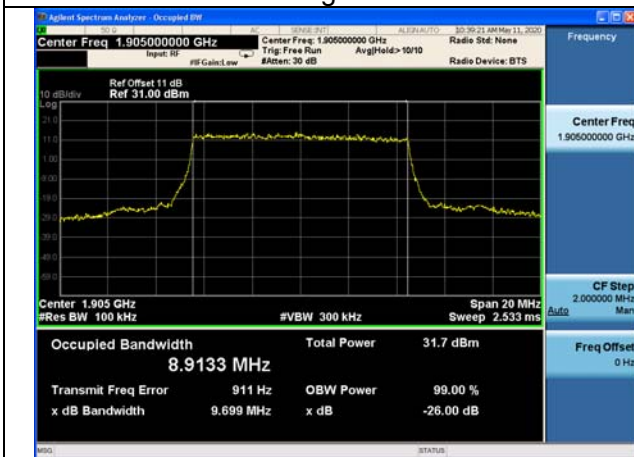


Fig.23

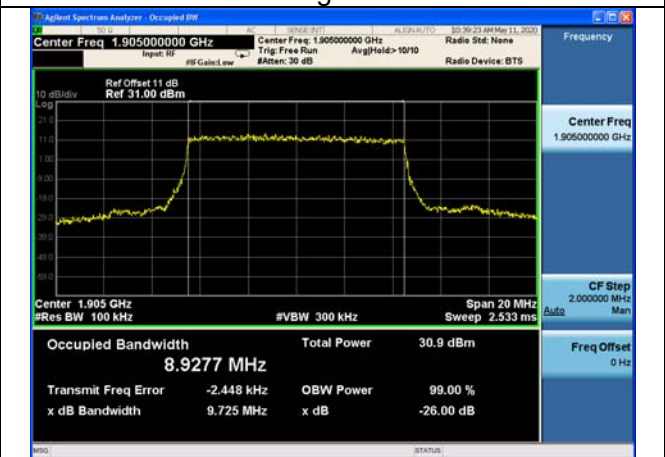


Fig.24

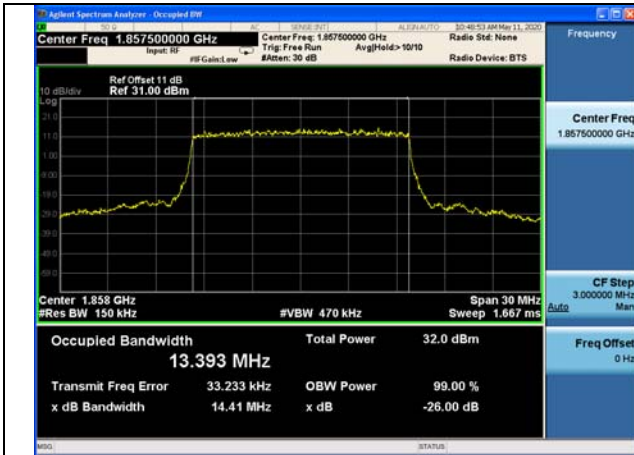


Fig.25



Fig.26

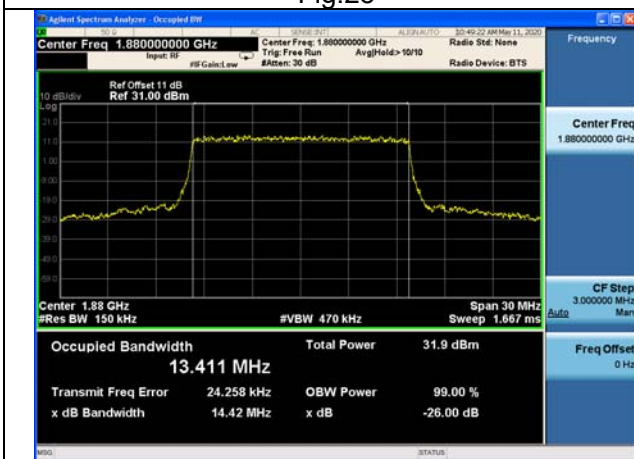


Fig.27

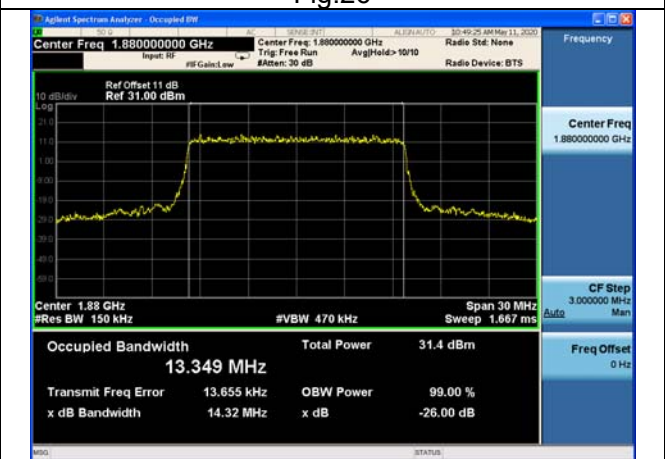


Fig.28

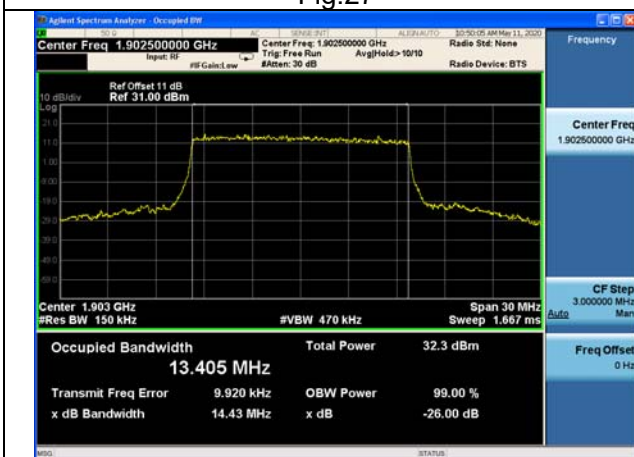


Fig.29

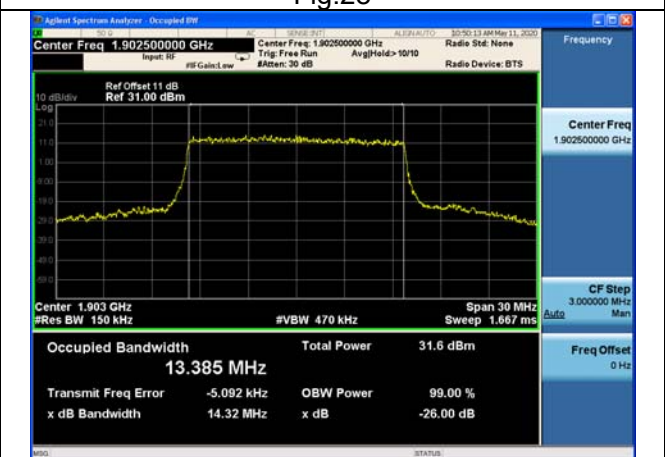


Fig.30

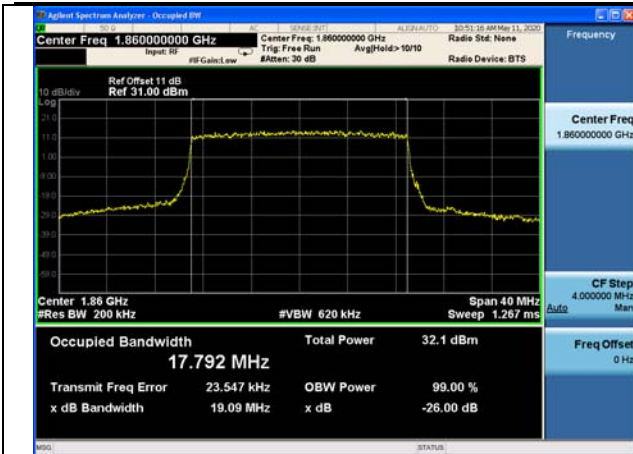


Fig.31



Fig.32

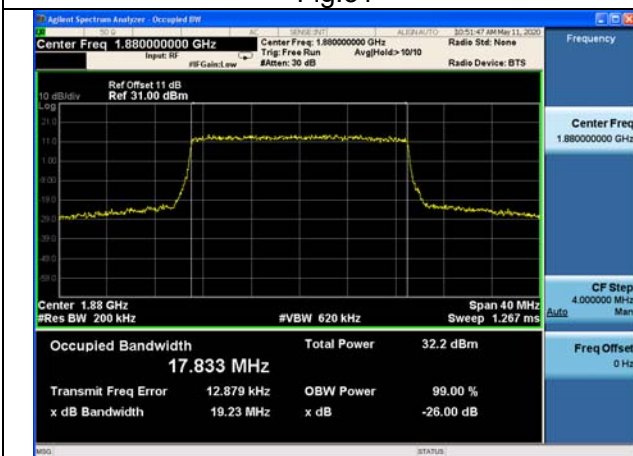


Fig.33

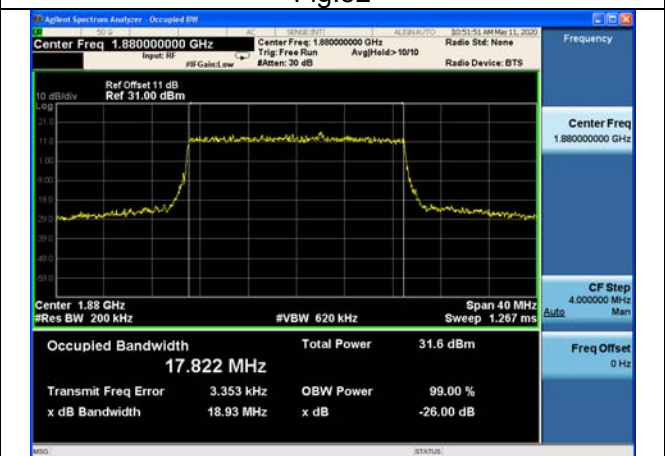


Fig.34

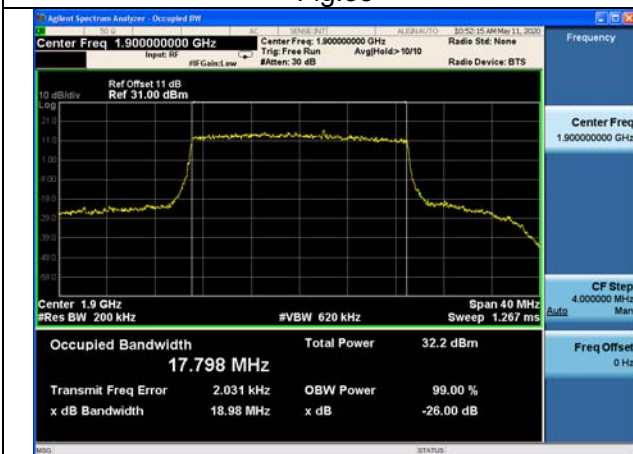


Fig.35



Fig.36

### 3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM
2	1880.0	18900	1.4	1	0	Fig.1	Fig.2
			3	1	0	Fig.3	Fig.4
			5	1	0	Fig.5	Fig.6
			10	1	0	Fig.7	Fig.8
			15	1	0	Fig.9	Fig.10
			20	1	0	Fig.11	Fig.12



Fig.1



Fig.2



Fig.3



Fig.4



Fig.5



Fig.6

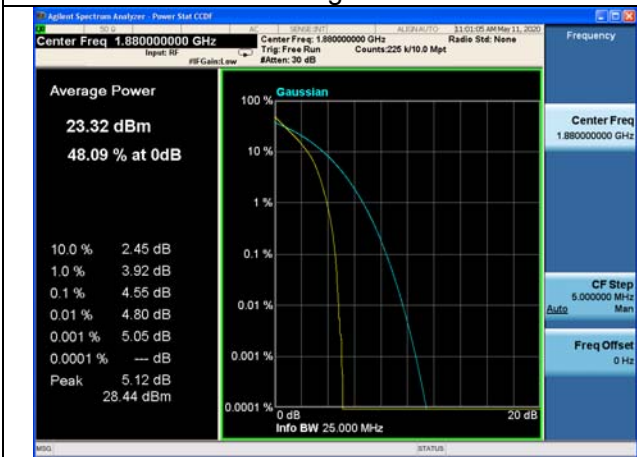


Fig.7

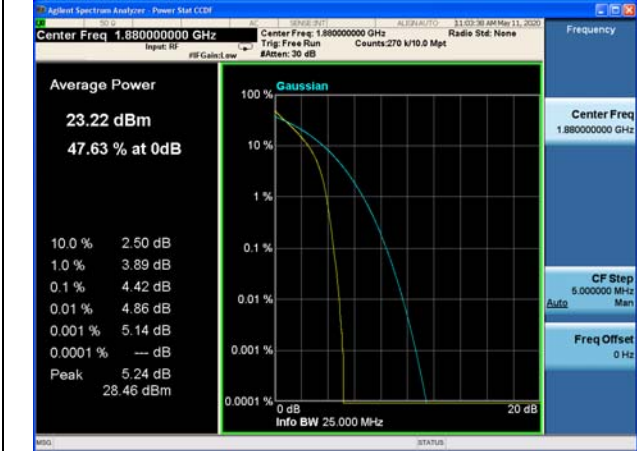


Fig.8

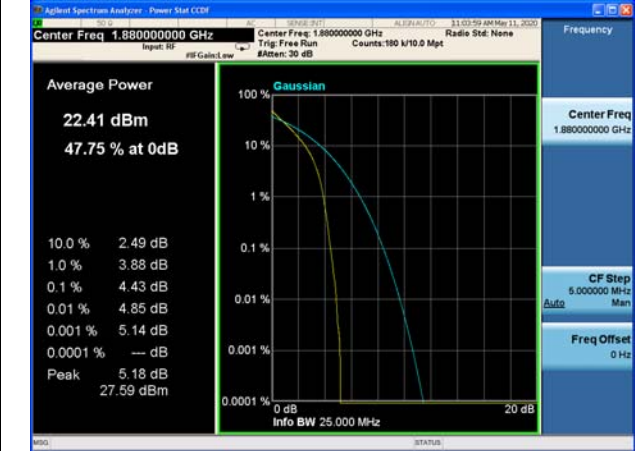


Fig.9



Fig.10



Fig.11

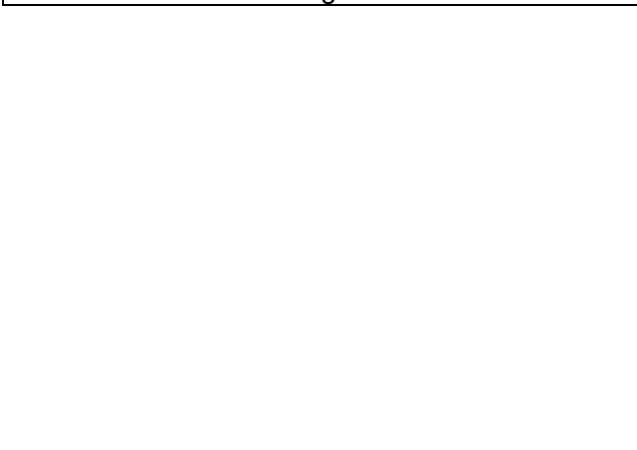
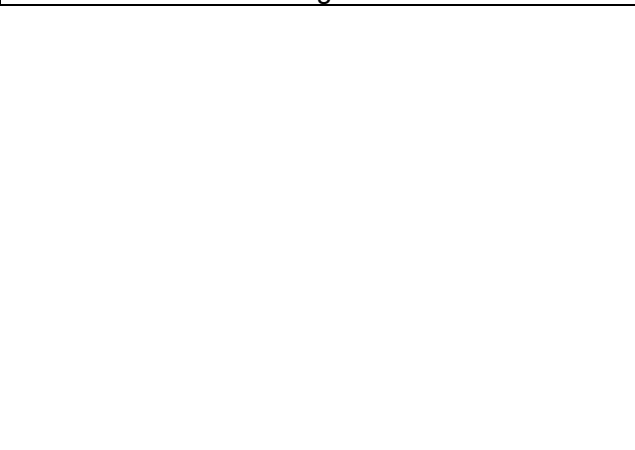


Fig.12





#### 4 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
2	1860	18700	20	1	0	Fig.1-2
	1880	18900	20	1	0	Fig.3-4
	1900	19100	20	1	0	Fig.5-6

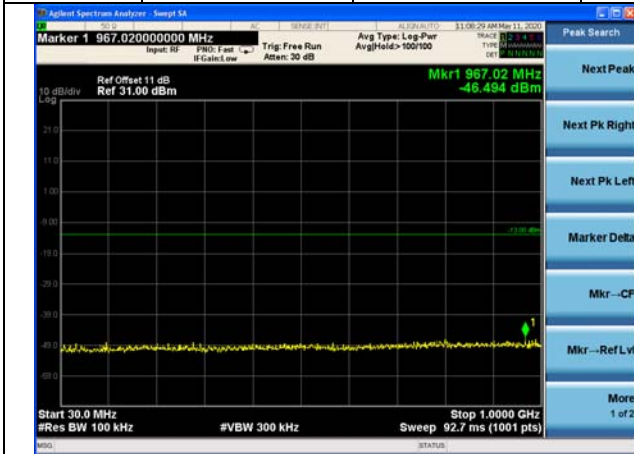


Fig.1



Fig.2

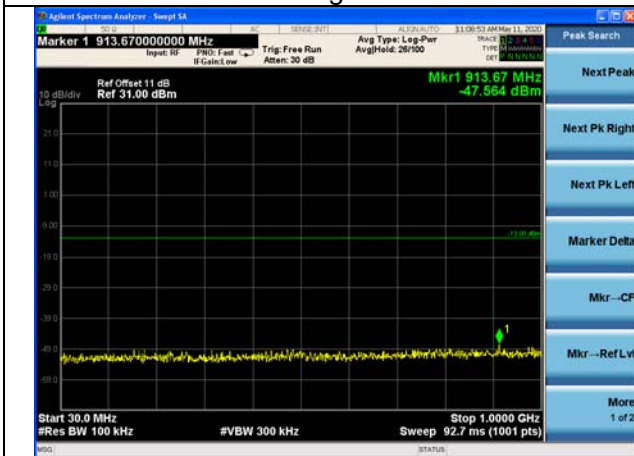


Fig3



Fig4

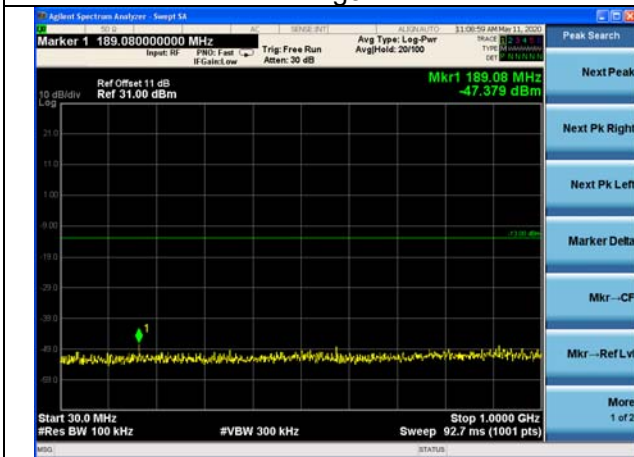


Fig5



Fig6

**5 Band Edges Compliance**  
Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
2	1850.7	18607	1.4	1	0	Fig.1
				6	0	Fig.2
	1909.3	19193		1	5	Fig.3
				6	0	Fig.4
	1851.5	18615	3	1	0	Fig.5
				15	0	Fig.6
	1908.5	19185		1	14	Fig.7
				15	0	Fig.8
	1852.5	18625	5	1	0	Fig.9
				25	0	Fig.10
	1907.5	19175		1	24	Fig.11
				25	0	Fig.12
	1855	18650	10	1	0	Fig.13
				50	0	Fig.14
	1905	19150		1	49	Fig.15
				50	0	Fig.16
1857.5	18675	15	1	0	Fig.17	
			75	0	Fig.18	
1902.5	19125		1	74	Fig.19	
			75	0	Fig.20	
1860	18700	20	1	0	Fig.21	
			100	0	Fig.22	
1900	19100		1	99	Fig.23	
			100	0	Fig.24	

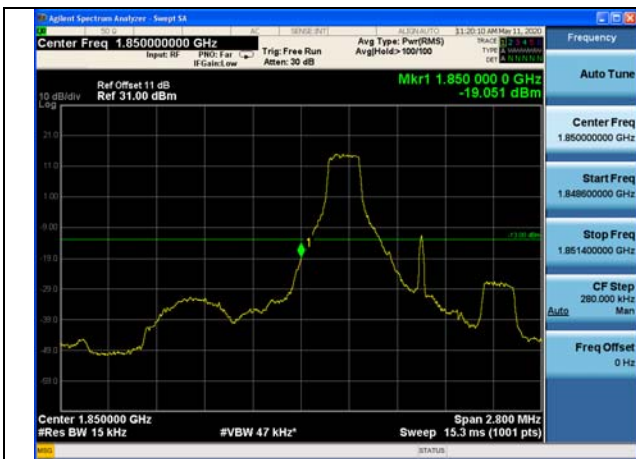


Fig.1



Fig.2



Fig.3



Fig.4

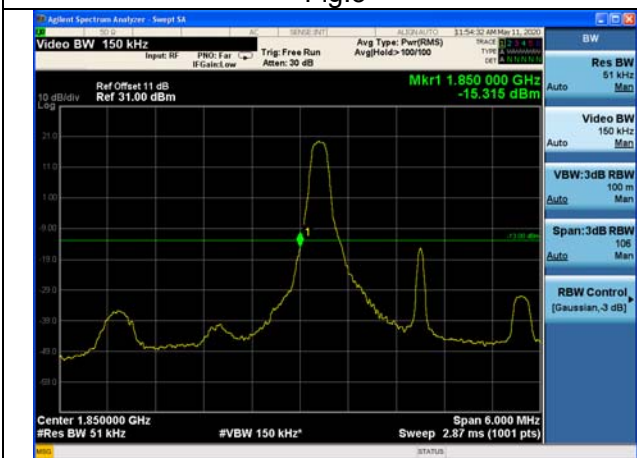


Fig.5

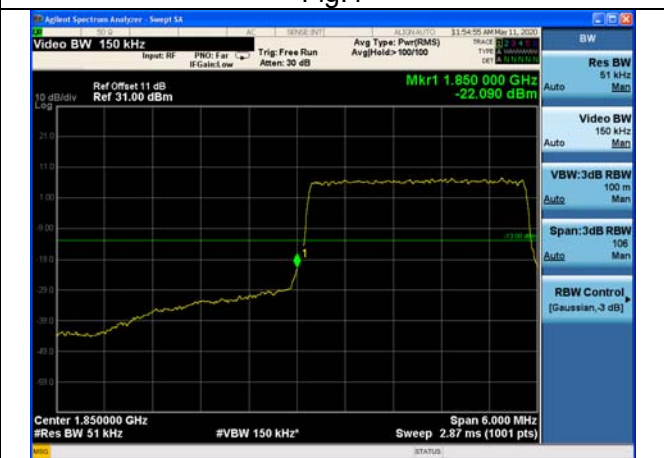


Fig.6

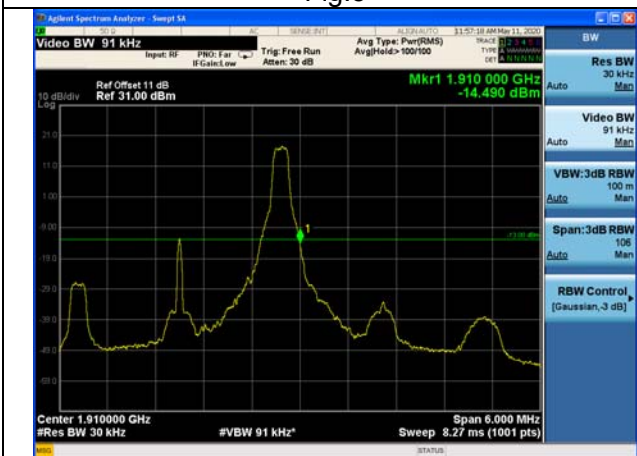


Fig.7



Fig.8

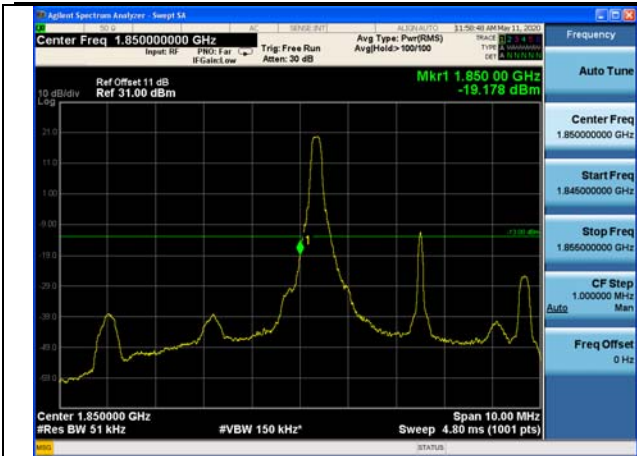


Fig.9



Fig.10

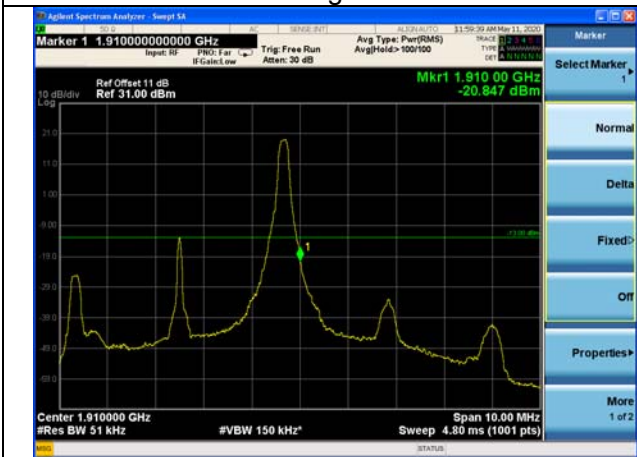


Fig.11



Fig.12

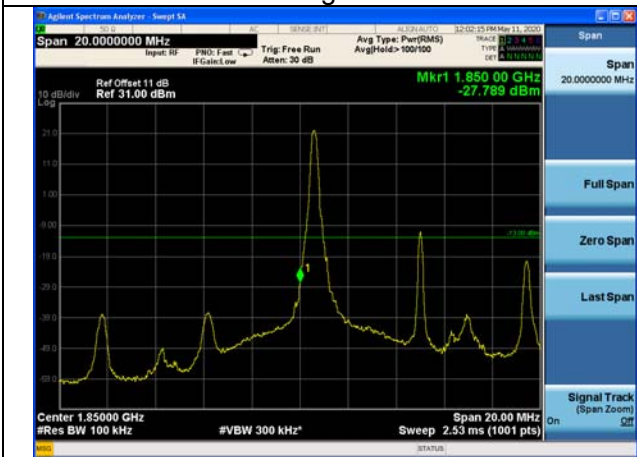


Fig.13



Fig.14

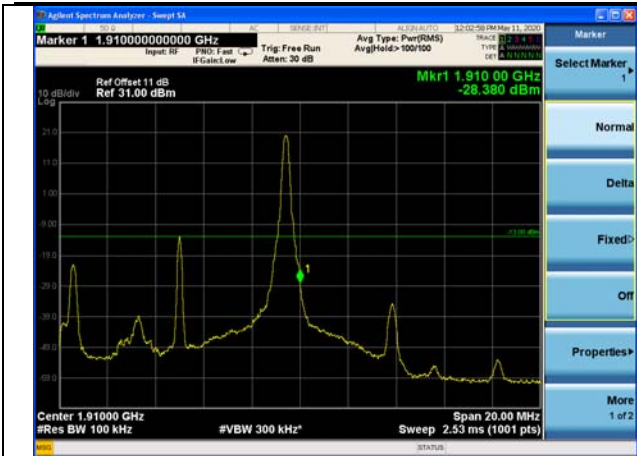


Fig.15



Fig.16

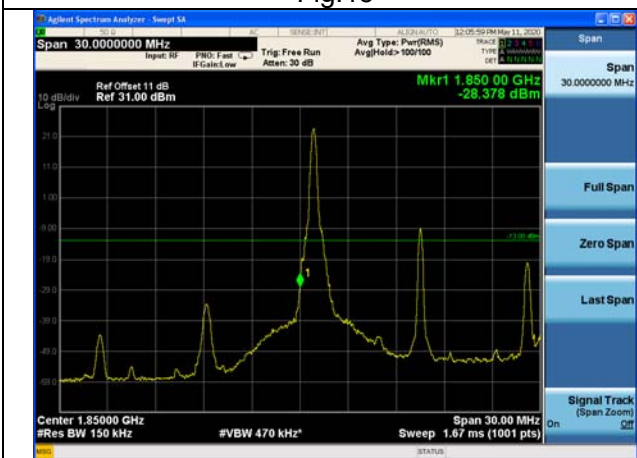


Fig.17



Fig.18



Fig.19



Fig.20

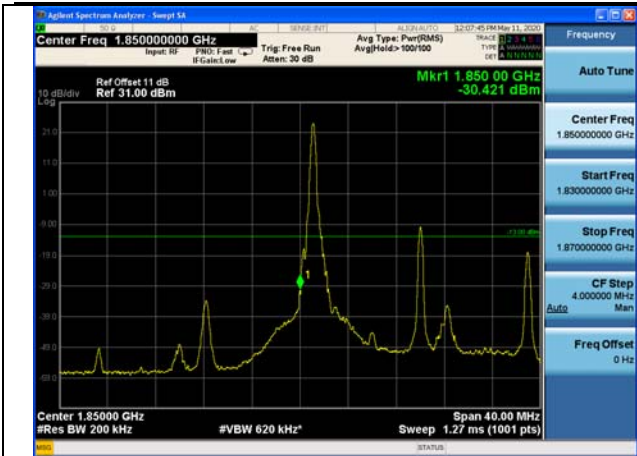


Fig.21



Fig.22

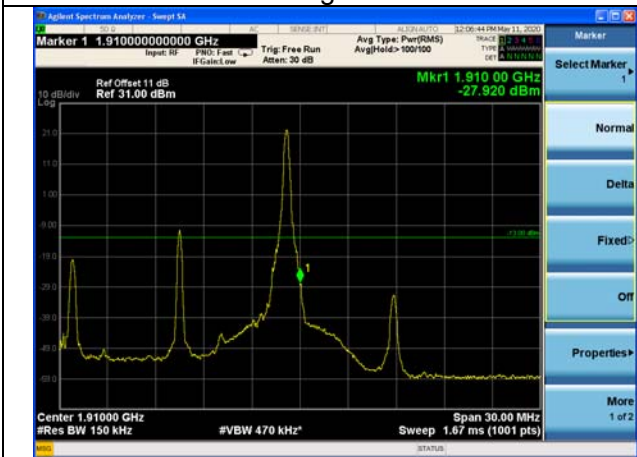


Fig.23



Fig.24

## 6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band2 Low Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	0.012	0.021	-0.021	0.001	0.021	0.008
0	NV	-0.007	0.010	0.014	-0.005	-0.029	-0.006
+10	NV	-0.010	0.033	-0.016	0.013	0.027	0.015
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	-0.016	0.028	-0.019	0.019	-0.021	0.019
+40	NV	-0.012	0.008	0.004	0.005	-0.022	-0.007
+50	NV	0.018	-0.010	-0.009	0.007	0.023	-0.016
+55	NV	-0.002	-0.001	-0.005	-0.007	-0.005	-0.003
+20	LV	0.010	-0.007	0.021	0.012	0.012	-0.007
+20	HV	-0.005	0.022	0.022	-0.004	-0.013	0.031

Temperature(°C)	Voltage	Test Result (ppm) Band2 High Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	-0.020	-0.013	0.010	0.019	0.029	0.032
0	NV	0.004	0.022	0.024	0.007	0.005	-0.005
+10	NV	0.017	-0.009	-0.020	-0.008	0.008	0.013
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	-0.008	0.021	0.003	0.026	0.016	0.011
+40	NV	-0.007	0.003	-0.021	-0.013	0.014	-0.020
+50	NV	-0.004	-0.007	0.024	0.032	-0.014	0.030
+55	NV	0.011	0.019	0.027	-0.019	0.009	-0.021
+20	LV	0.004	0.003	0.020	-0.021	0.029	0.001
+20	HV	0.008	-0.021	-0.009	-0.033	-0.016	0.031