

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 2

1 RF Power Output

PRF Power Output						
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1850.7	18607	1.4	1	0	23.63
				1	5	23.63
				3	2	22.74
				6	0	22.71
	1880	18900		1	0	23.67
				1	5	23.67
				3	2	22.78
				6	0	22.74
	1909.3	19193		1	0	23.64
				1	5	23.60
				3	2	22.74
				6	0	22.72
16QAM	1850.7	18607	1.4	1	0	23.06
				1	5	23.06
				3	2	21.73
				6	0	21.74
	1880	18900		1	0	23.16
				1	5	23.17
				3	2	21.76
				6	0	21.78
	1909.3	19193		1	0	23.12
				1	5	23.11
				3	2	21.72
				6	0	21.71
64QAM	1850.7	18607	1.4	1	0	22.76
				1	5	22.67
				3	2	21.77
				6	0	21.71
	1880	18900		1	0	22.81
				1	5	22.79
				3	2	21.85
				6	0	21.78
	1909.3	19193		1	0	22.77
				1	5	22.70
				3	2	21.82
				6	0	21.78

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1851.5	18615	3	1	0	23.63
				1	14	23.54
				8	4	22.70
				15	0	22.69
	1880	18900		1	0	23.69
				1	14	23.67
				8	4	22.73
				15	0	22.71
	1908.5	19185		1	0	23.60
				1	14	23.61
				8	4	22.74
				15	0	22.72
16QAM	1851.5	18615	3	1	0	23.04
				1	14	23.01
				8	4	21.72
				15	0	21.66
	1880	18900		1	0	23.15
				1	14	23.14
				8	4	21.72
				15	0	21.69
	1908.5	19185		1	0	23.05
				1	14	23.02
				8	4	21.68
				15	0	21.63
64QAM	1851.5	18615	3	1	0	22.68
				1	14	22.63
				8	4	21.76
				15	0	21.73
	1880	18900		1	0	22.77
				1	14	22.77
				8	4	21.79
				15	0	21.78
	1908.5	19185		1	0	22.75
				1	14	22.70
				8	4	21.76
				15	0	21.72

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1852.5	18625	5	1	0	23.63
				1	24	23.59
				12	6	22.77
				25	0	22.69
	1880	18900		1	0	23.74
				1	24	23.66
				12	6	22.81
				25	0	22.78
	1907.5	19175		1	0	23.67
				1	24	23.61
				12	6	22.79
				25	0	22.73
16QAM	1852.5	18625	5	1	0	23.12
				1	24	23.05
				12	6	21.74
				25	0	21.69
	1880	18900		1	0	23.22
				1	24	23.13
				12	6	21.80
				25	0	21.78
	1907.5	19175		1	0	23.11
				1	24	23.08
				12	6	21.75
				25	0	21.71
64QAM	1852.5	18625	5	1	0	22.75
				1	24	22.67
				12	6	21.81
				25	0	21.75
	1880	18900		1	0	22.81
				1	24	22.76
				12	6	21.83
				25	0	21.83
	1907.5	19175		1	0	22.74
				1	24	22.75
				12	6	21.84
				25	0	21.69

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1855	18650	10	1	0	23.61
				1	49	23.61
				24	12	22.75
				50	0	22.65
	1880	18900		1	0	23.64
				1	49	23.62
				24	12	22.75
				50	0	22.71
	1905	19150		1	0	23.58
				1	49	23.55
				24	12	22.74
				50	0	22.64
16QAM	1855	18650	10	1	0	23.03
				1	49	23.02
				24	12	21.74
				50	0	21.69
	1880	18900		1	0	23.09
				1	49	23.15
				24	12	21.70
				50	0	21.66
	1905	19150		1	0	23.08
				1	49	23.05
				24	12	21.69
				50	0	21.60
64QAM	1855	18650	10	1	0	22.68
				1	49	22.60
				24	12	21.79
				50	0	21.74
	1880	18900		1	0	22.79
				1	49	22.73
				24	12	21.75
				50	0	21.73
	1905	19150		1	0	22.67
				1	49	22.65
				24	12	21.79
				50	0	21.70

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1857.5	18675	15	1	0	23.63
				1	74	23.60
				40	18	22.72
				75	0	22.68
	1880	18900		1	0	23.69
				1	74	23.70
				40	18	22.78
				75	0	22.76
	1902.5	19125		1	0	23.65
				1	74	23.63
				40	18	22.77
				75	0	22.74
16QAM	1857.5	18675	15	1	0	23.09
				1	74	23.02
				40	18	21.67
				75	0	21.71
	1880	18900		1	0	23.19
				1	74	23.19
				40	18	21.79
				75	0	21.77
	1902.5	19125		1	0	23.06
				1	74	23.05
				40	18	21.74
				75	0	21.67
64QAM	1857.5	18675	15	1	0	22.67
				1	74	22.65
				40	18	21.82
				75	0	21.70
	1880	18900		1	0	22.76
				1	74	22.82
				40	18	21.80
				75	0	21.83
	1902.5	19125		1	0	22.79
				1	74	22.66
				40	18	21.81
				75	0	21.80

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1860	18700	20	1	0	23.73
				1	99	23.69
				50	25	22.83
				100	0	22.79
	1880	18900		1	0	23.79
				1	99	23.77
				50	25	22.87
				100	0	22.84
	1900	19100		1	0	23.74
				1	99	23.72
				50	25	22.86
				100	0	22.82
16QAM	1860	18700	20	1	0	23.18
				1	99	23.14
				50	25	21.82
				100	0	21.80
	1880	18900		1	0	23.27
				1	99	23.24
				50	25	21.88
				100	0	21.84
	1900	19100		1	0	23.21
				1	99	23.17
				50	25	21.81
				100	0	21.77
64QAM	1860	18700	20	1	0	22.82
				1	99	22.77
				50	25	21.87
				100	0	21.83
	1880	18900		1	0	22.89
				1	99	22.87
				50	25	21.93
				100	0	21.90
	1900	19100		1	0	22.85
				1	99	22.81
				50	25	21.89
				100	0	21.85

2 Occupied Bandwidth

Test result

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)					
						QPSK		16-QAM		64-QAM	
2	1850.7	18607	1.4	6	0	1.0810	Fig.1	1.0810	Fig.2	1.0793	Fig.3
	1880.0	18900		6	0	1.0806	Fig.4	1.0810	Fig.5	1.0812	Fig.6
	1909.3	19193		6	0	1.0802	Fig.7	1.0808	Fig.8	1.0819	Fig.9
	1851.5	18615	3	15	0	2.6832	Fig.10	2.6800	Fig.11	2.6821	Fig.12
	1880.0	18900		15	0	2.6799	Fig.13	2.6853	Fig.14	2.6847	Fig.15
	1908.5	19185		15	0	2.6826	Fig.16	2.6822	Fig.17	2.6832	Fig.18
	1852.5	18625	5	25	0	4.4741	Fig.19	4.4738	Fig.20	4.4723	Fig.21
	1880.0	18900		25	0	4.4716	Fig.22	4.4710	Fig.23	4.4738	Fig.24
	1907.5	19175		25	0	4.4739	Fig.25	4.4688	Fig.26	4.4702	Fig.27
	1855	18650	10	50	0	8.9506	Fig.28	8.9350	Fig.29	8.9408	Fig.30
	1880	18900		50	0	8.9549	Fig.31	8.9530	Fig.32	8.9447	Fig.33
	1905	19150		50	0	8.9437	Fig.34	8.9433	Fig.35	8.9487	Fig.36
	1857.5	18675	15	75	0	13.418	Fig.37	13.436	Fig.38	13.424	Fig.39
	1880.0	18900		75	0	13.463	Fig.40	13.477	Fig.41	13.430	Fig.42
	1902.5	19125		75	0	13.440	Fig.43	13.432	Fig.44	13.401	Fig.45
	1860	18700	20	100	0	17.892	Fig.46	17.888	Fig.47	17.910	Fig.48
	1880	18900		100	0	17.934	Fig.49	17.931	Fig.50	17.941	Fig.51
	1900	19100		100	0	17.864	Fig.52	17.878	Fig.53	17.850	Fig.54

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
2	1850.7	18607	1.4	6	0	1.226	Fig.1	1.251	Fig.2	1.214	Fig.3
	1880.0	18900		6	0	1.263	Fig.4	1.262	Fig.5	1.262	Fig.6
	1909.3	19193		6	0	1.269	Fig.7	1.228	Fig.8	1.257	Fig.9
	1851.5	18615	3	15	0	2.995	Fig.10	2.969	Fig.11	2.987	Fig.12
	1880.0	18900		15	0	2.994	Fig.13	2.984	Fig.14	2.976	Fig.15
	1908.5	19185		15	0	2.994	Fig.16	2.987	Fig.17	2.985	Fig.18
	1852.5	18625	5	25	0	5.126	Fig.19	5.129	Fig.20	5.079	Fig.21
	1880.0	18900		25	0	5.059	Fig.22	5.158	Fig.23	5.048	Fig.24
	1907.5	19175		25	0	5.136	Fig.25	5.009	Fig.26	5.143	Fig.27
	1855	18650	10	50	0	9.918	Fig.28	9.879	Fig.29	9.834	Fig.30
	1880	18900		50	0	9.909	Fig.31	9.885	Fig.32	9.903	Fig.33
	1905	19150		50	0	9.869	Fig.34	9.793	Fig.35	9.811	Fig.36
	1857.5	18675	15	75	0	14.80	Fig.37	14.83	Fig.38	14.79	Fig.39
	1880.0	18900		75	0	14.82	Fig.40	14.67	Fig.41	14.76	Fig.42
	1902.5	19125		75	0	14.80	Fig.43	14.73	Fig.44	14.72	Fig.45
	1860	18700	20	100	0	19.45	Fig.46	19.47	Fig.47	19.48	Fig.48
	1880	18900		100	0	19.68	Fig.49	19.70	Fig.50	19.76	Fig.51
	1900	19100		100	0	19.31	Fig.52	19.41	Fig.53	19.51	Fig.54

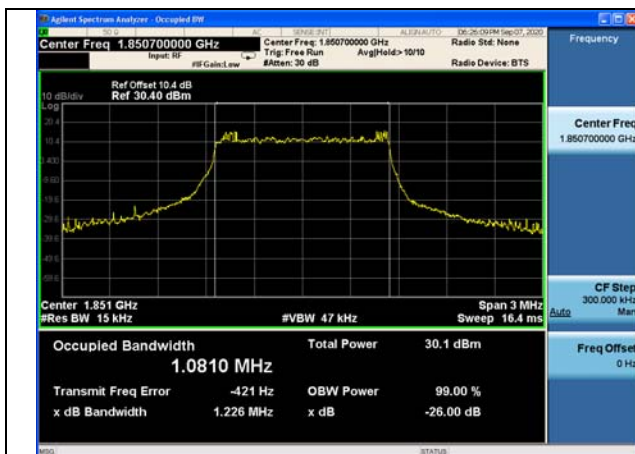


Fig.1

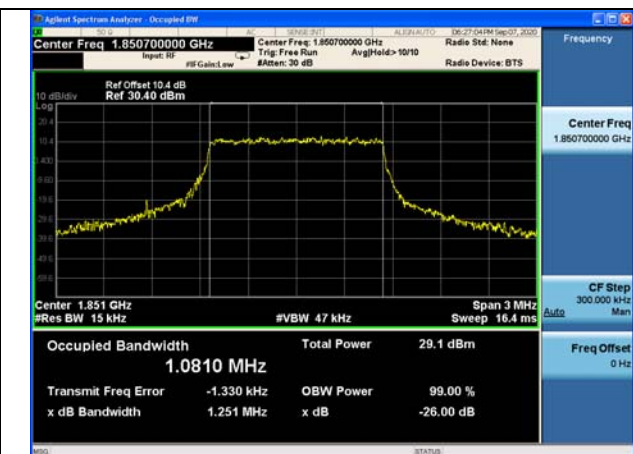


Fig.2

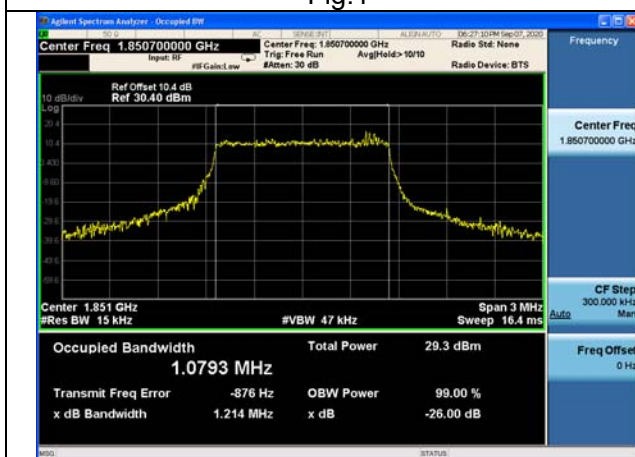


Fig.3

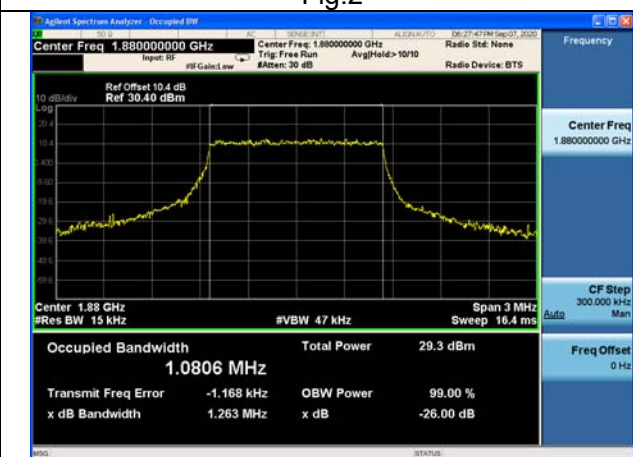


Fig.4

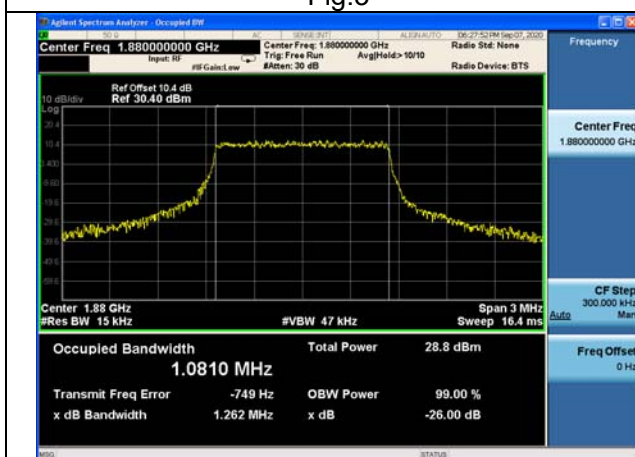


Fig.5

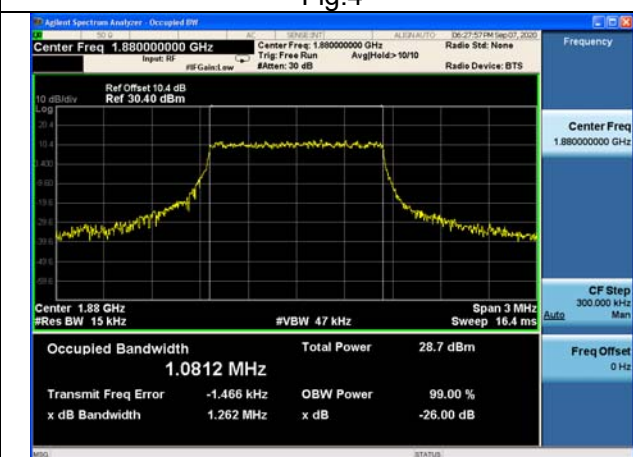


Fig.6

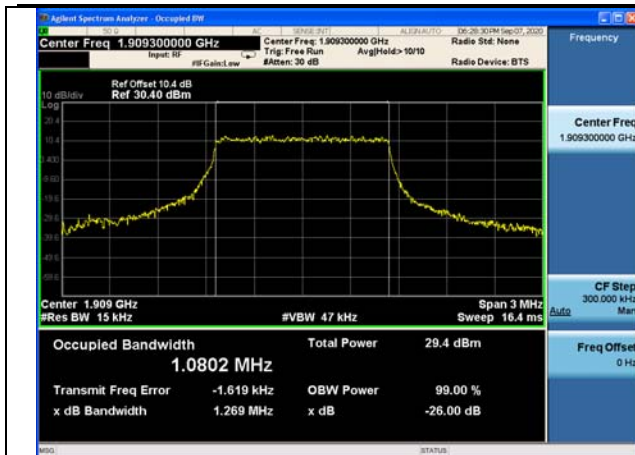


Fig.7

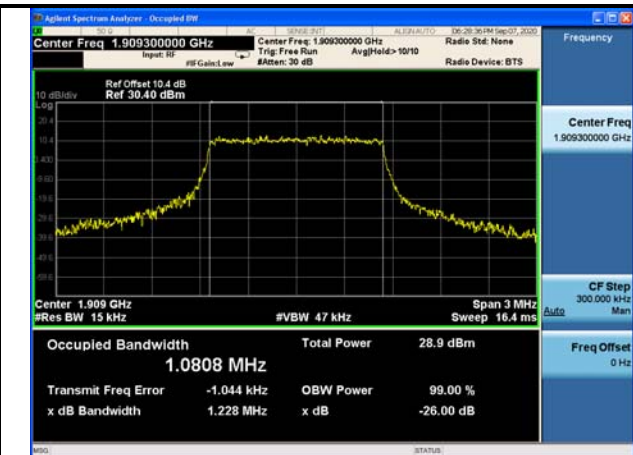


Fig.8

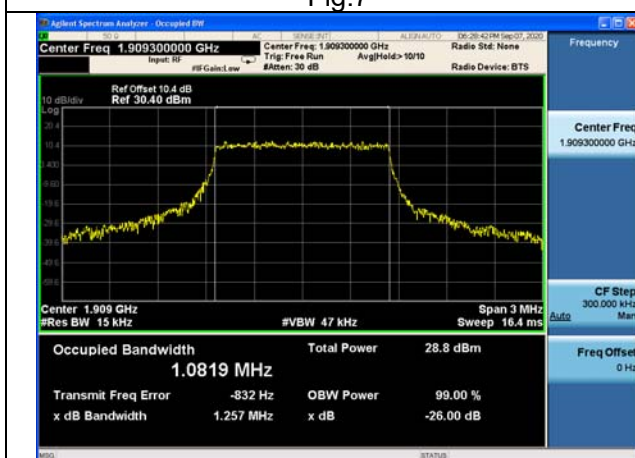


Fig.9

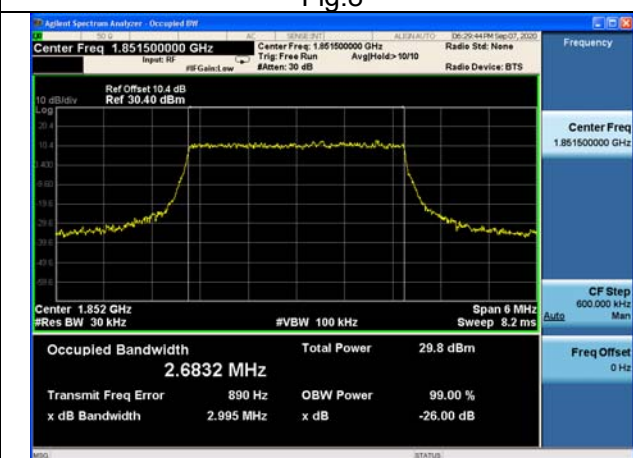


Fig.10

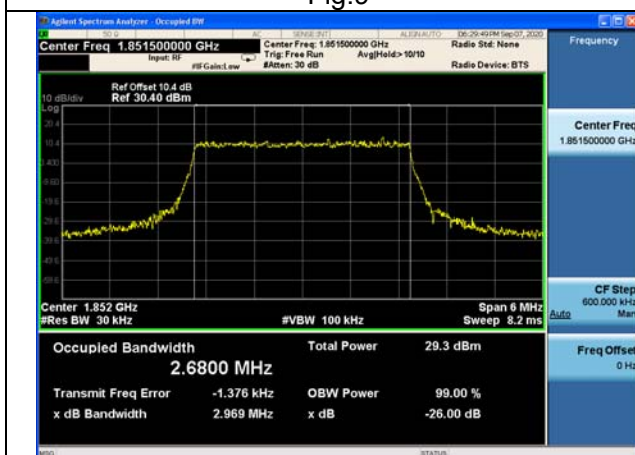


Fig.11

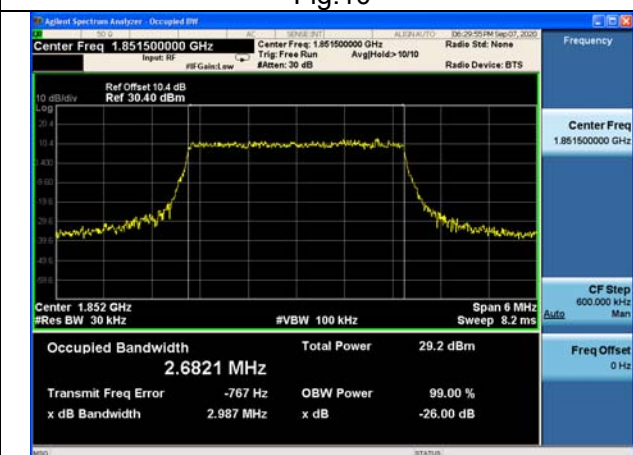


Fig.12

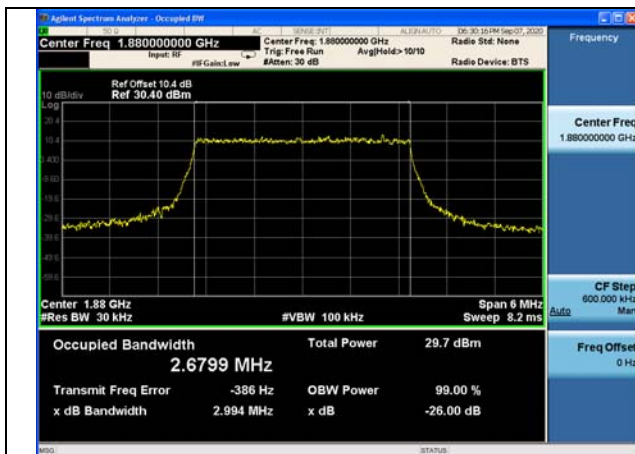


Fig.13

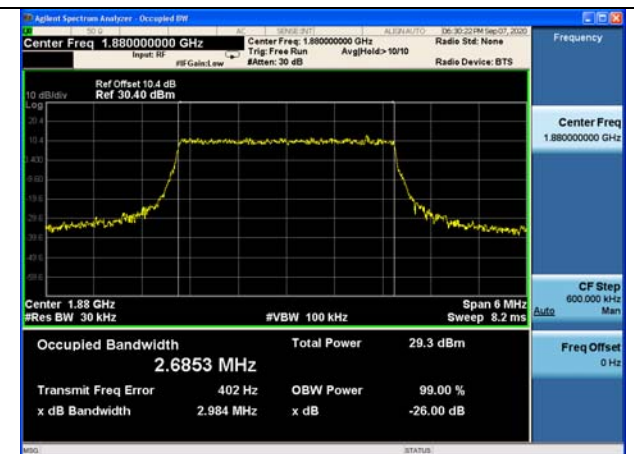


Fig.14

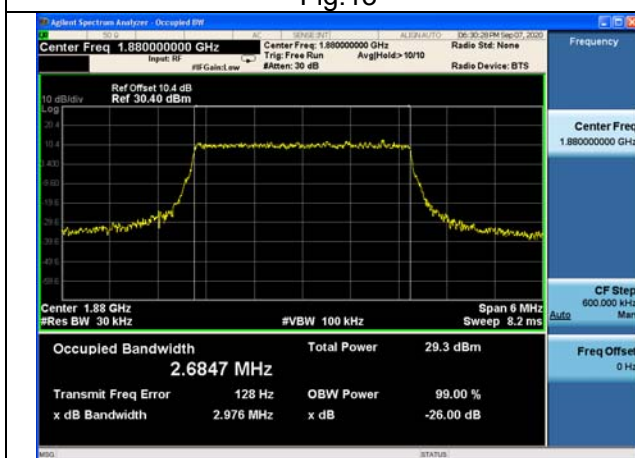


Fig.15

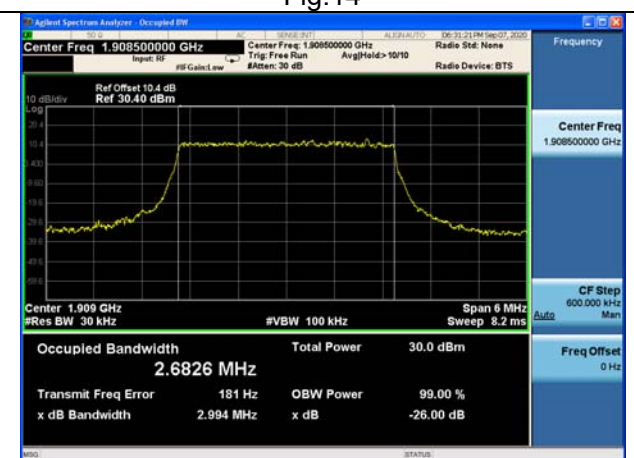


Fig.16

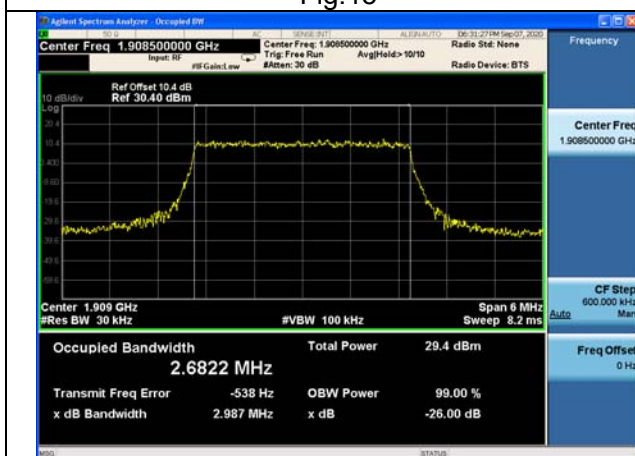


Fig.17

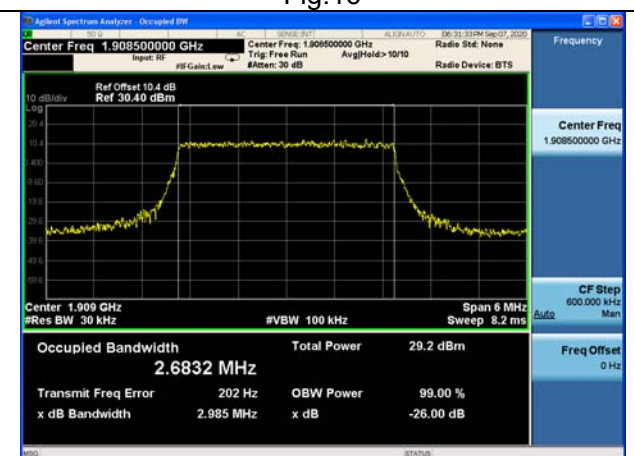


Fig.18

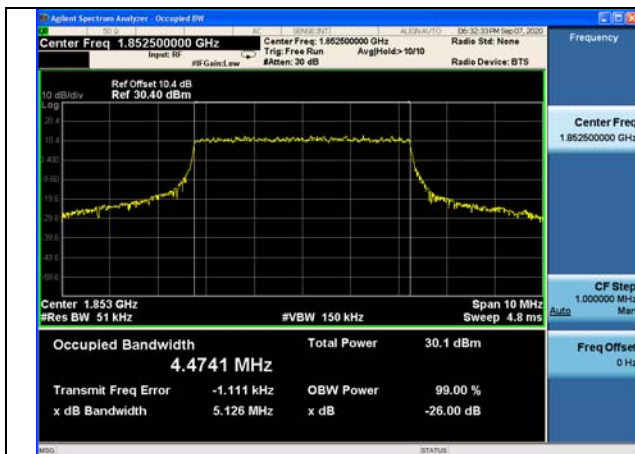


Fig.19

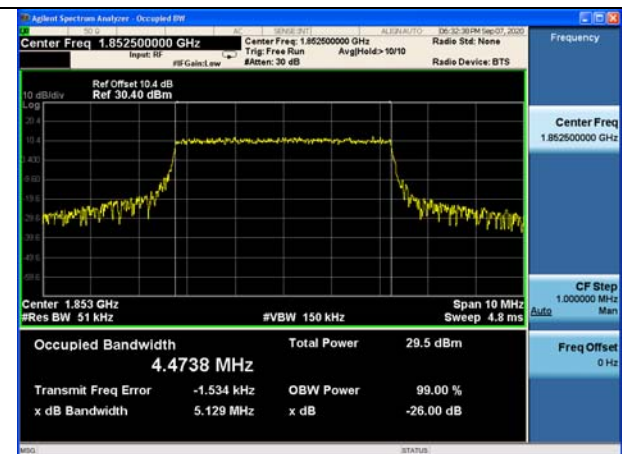


Fig.20

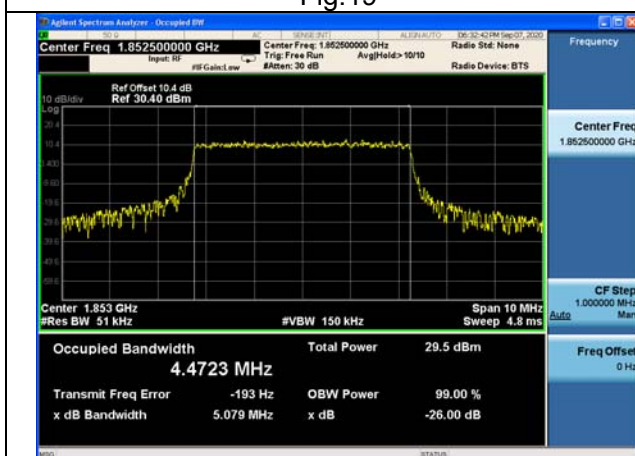


Fig.21

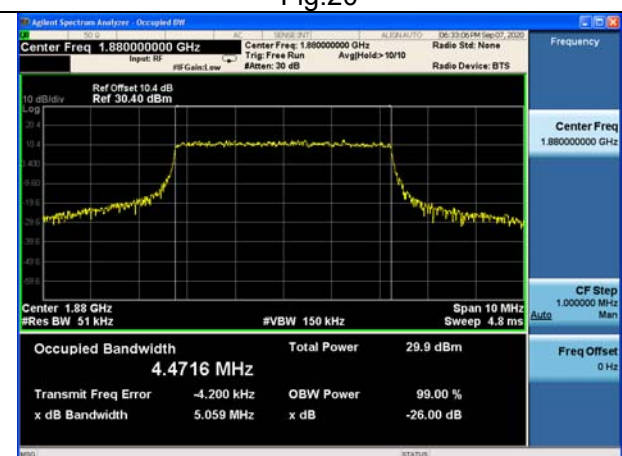


Fig.22

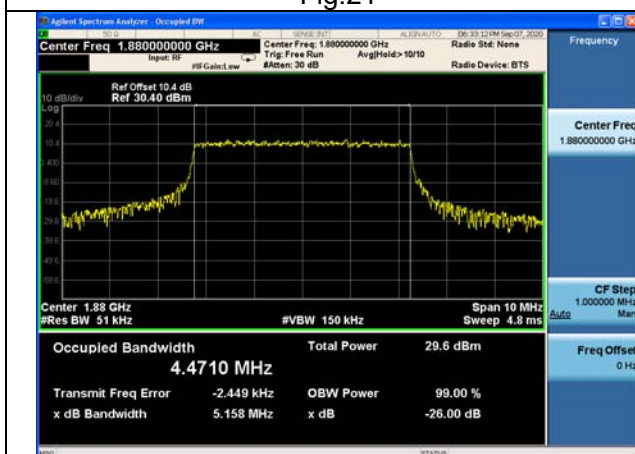


Fig.23

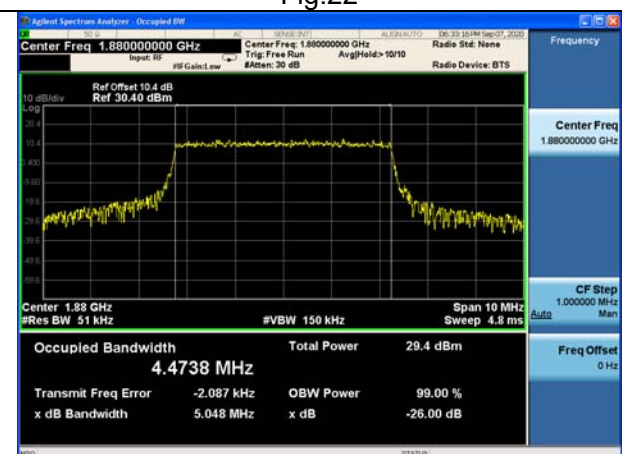


Fig.24

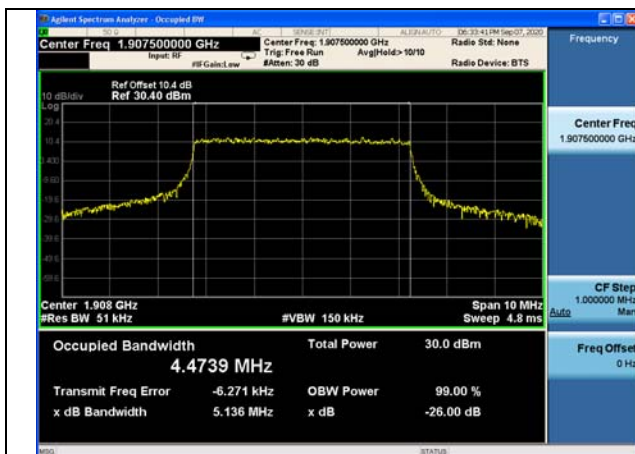


Fig.25

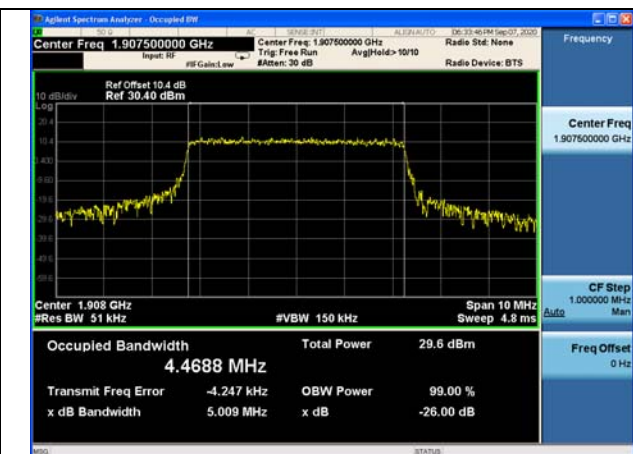


Fig.26

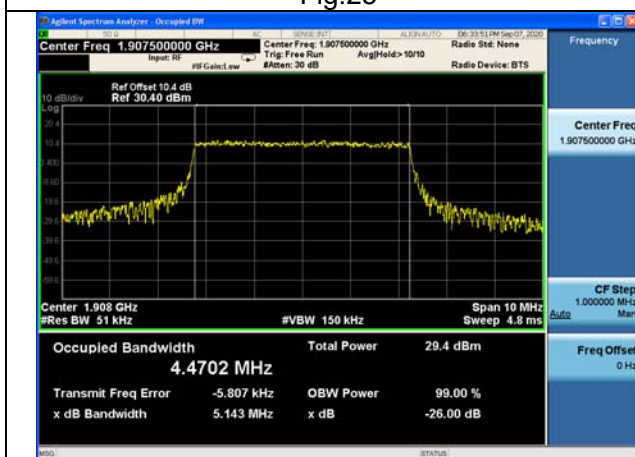


Fig.27

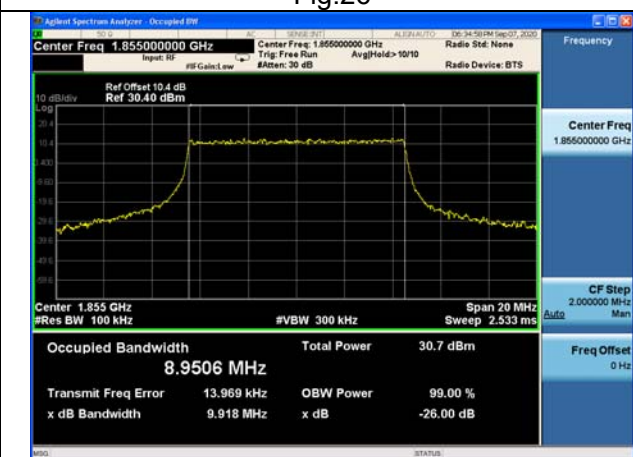


Fig.28

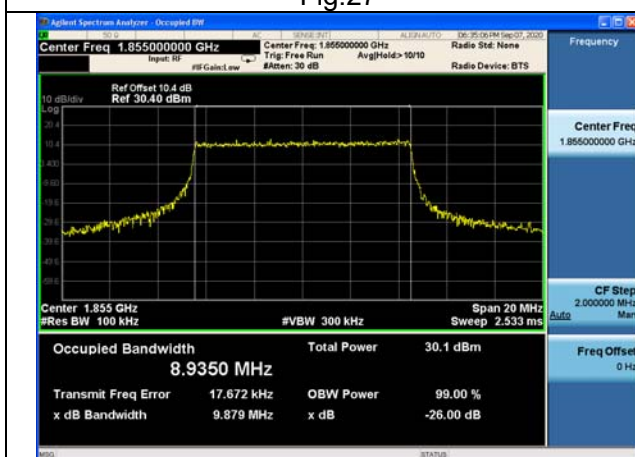


Fig.29

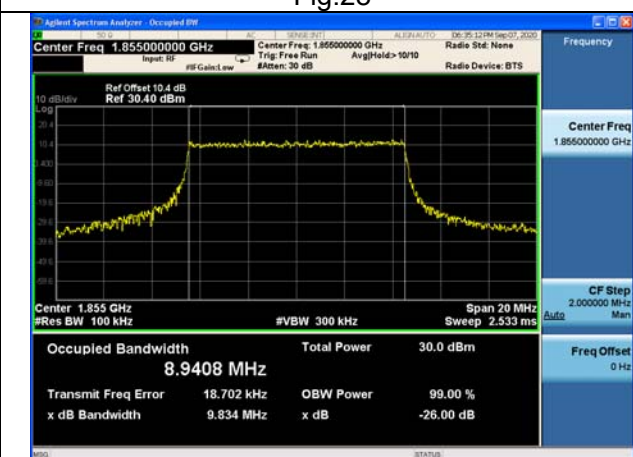


Fig.30

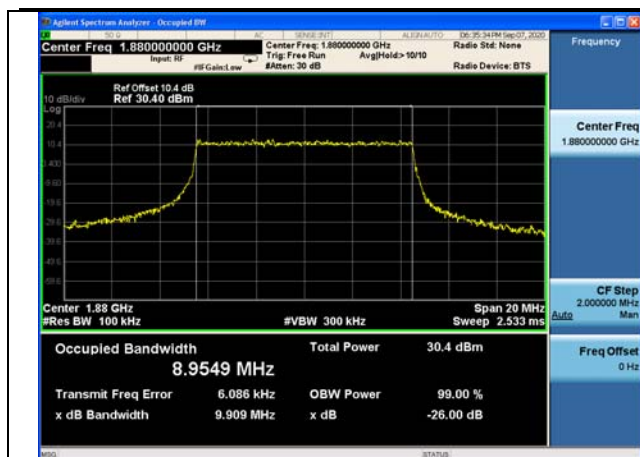


Fig.31

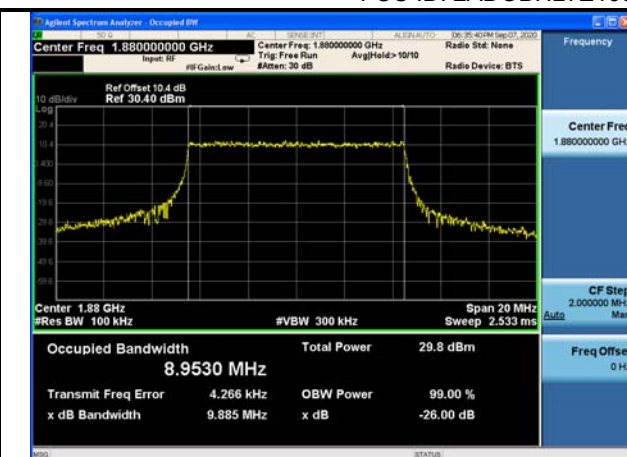


Fig.32

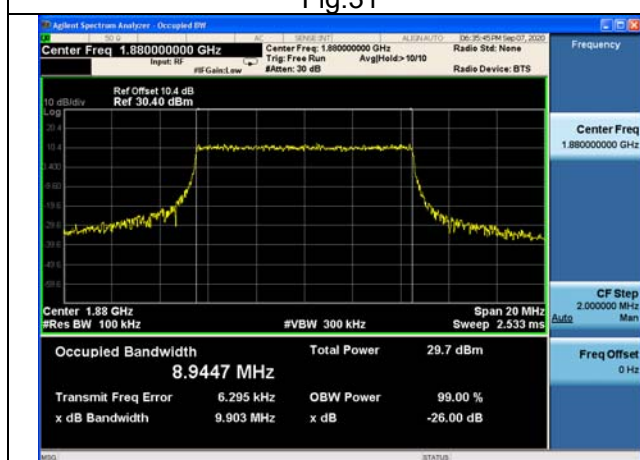


Fig.33

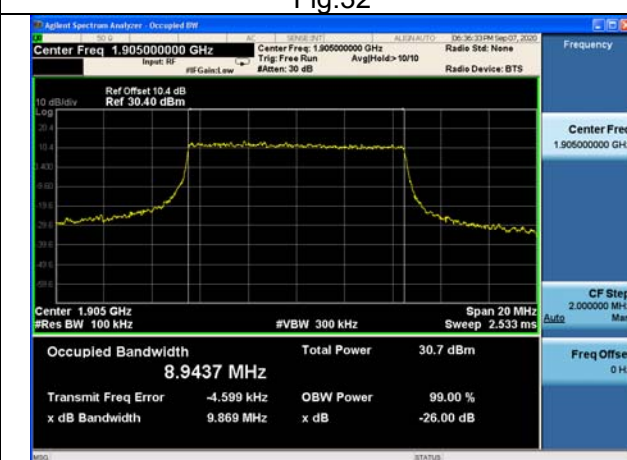


Fig.34



Fig.35

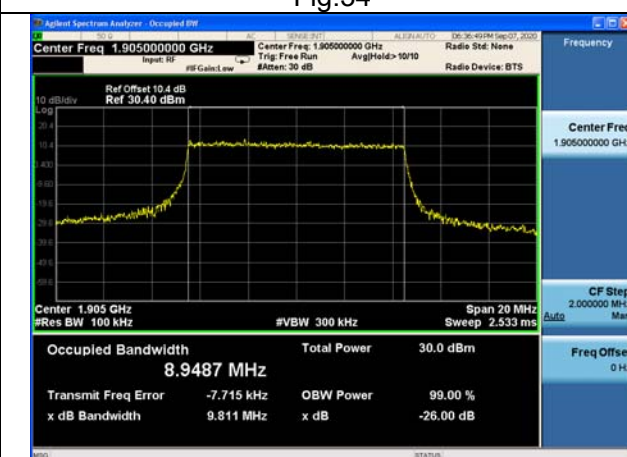


Fig.36

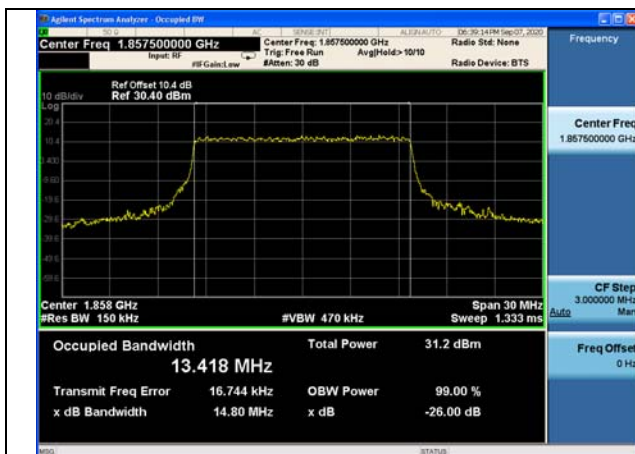


Fig.37

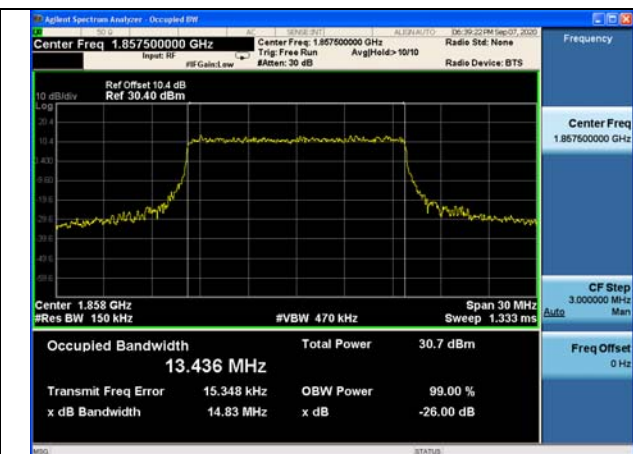


Fig.38

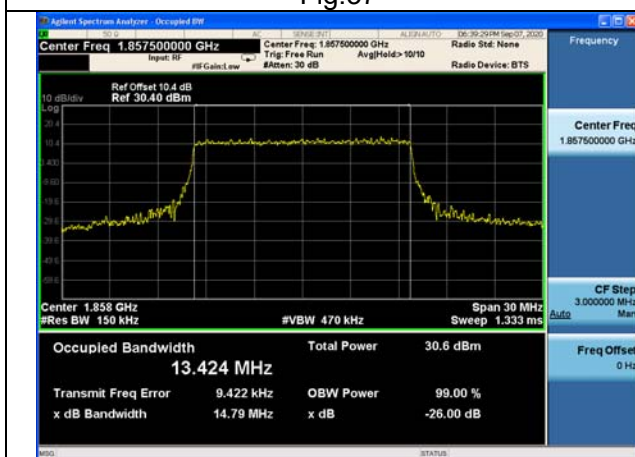


Fig.39

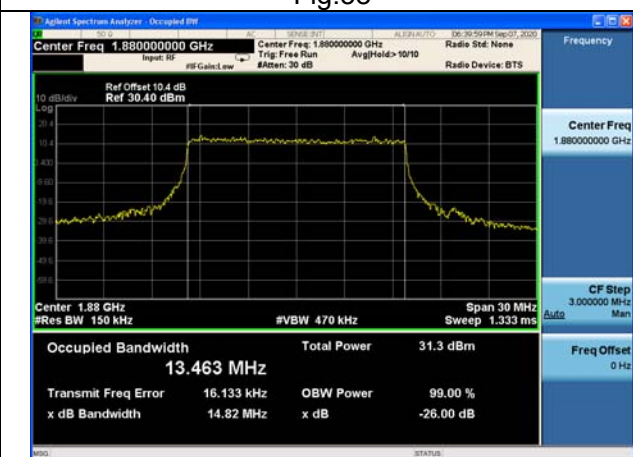


Fig.40

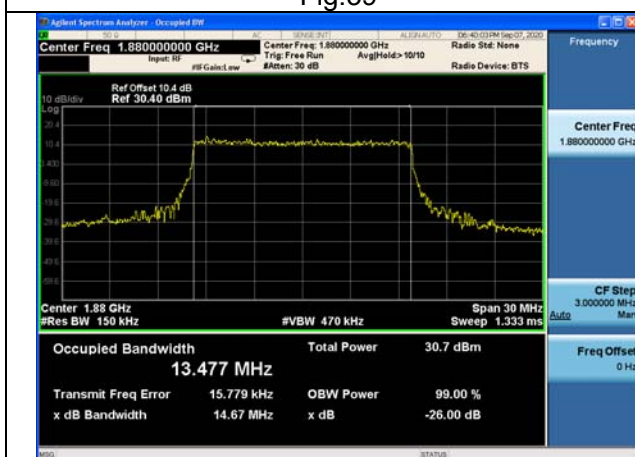


Fig.41

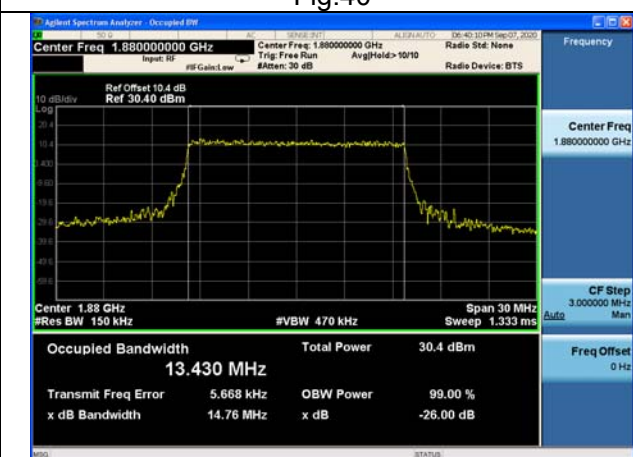


Fig.42

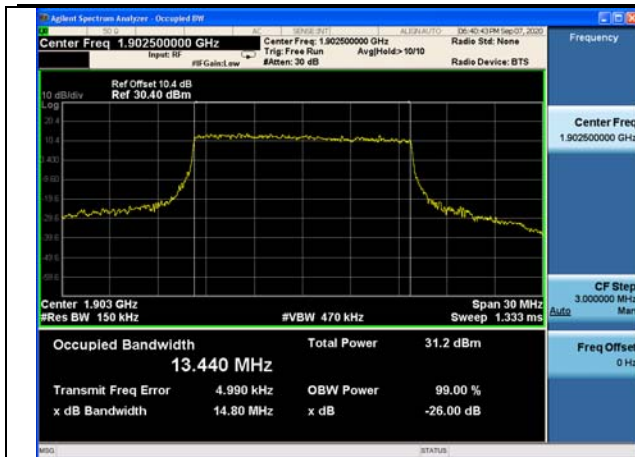


Fig.43

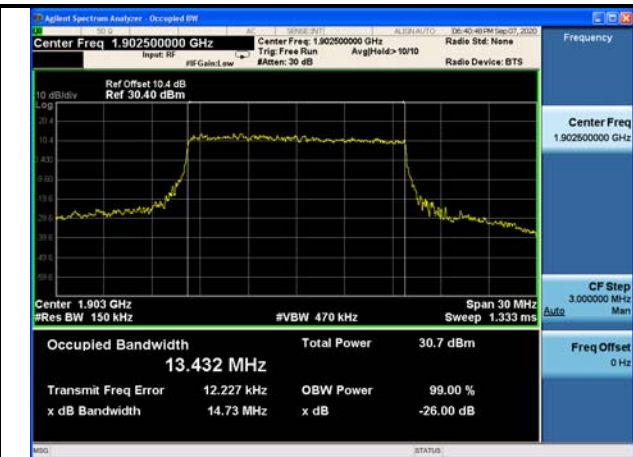


Fig.44

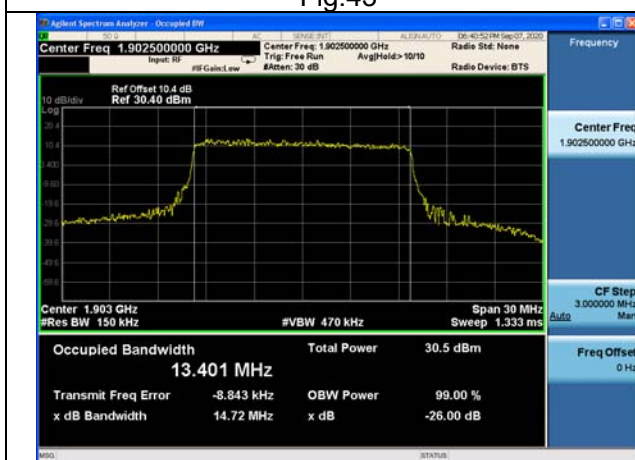


Fig.45

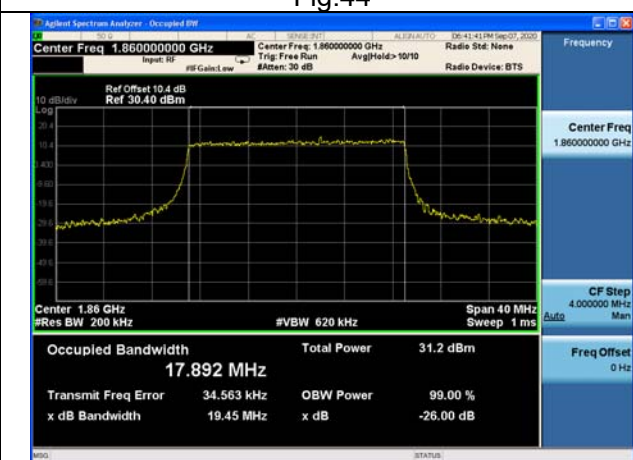


Fig.46

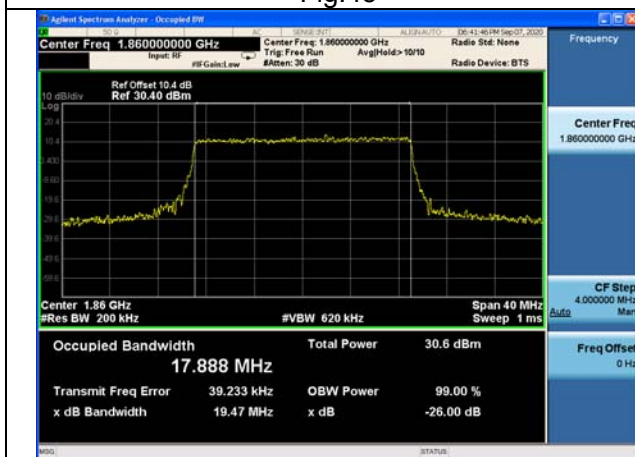


Fig.47

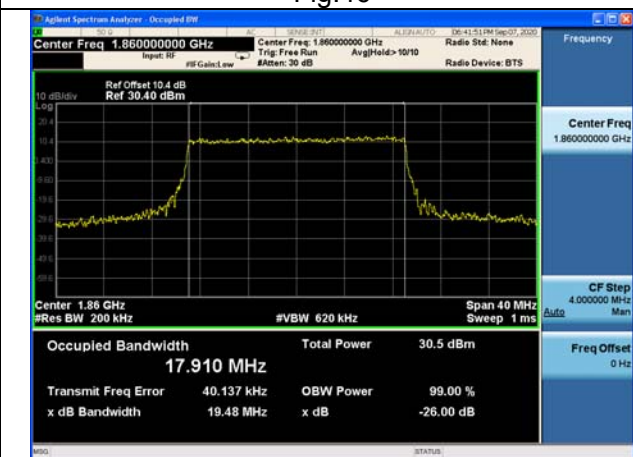


Fig.48

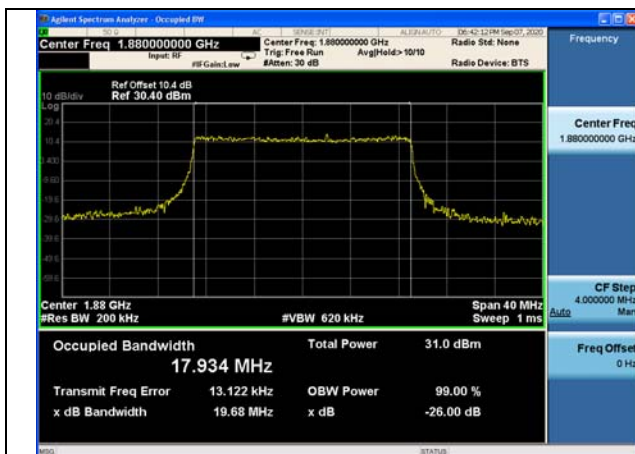


Fig.49

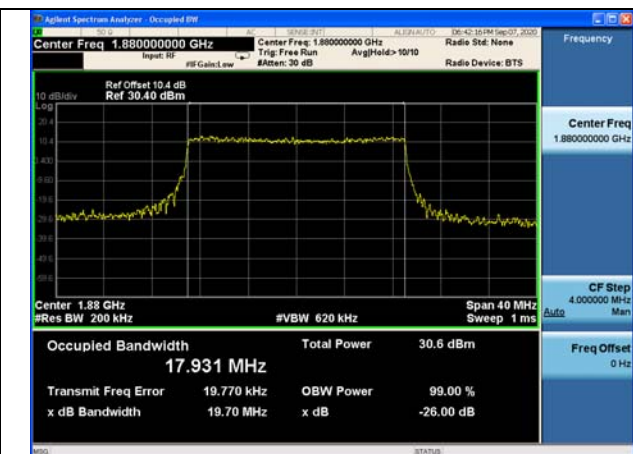


Fig.50

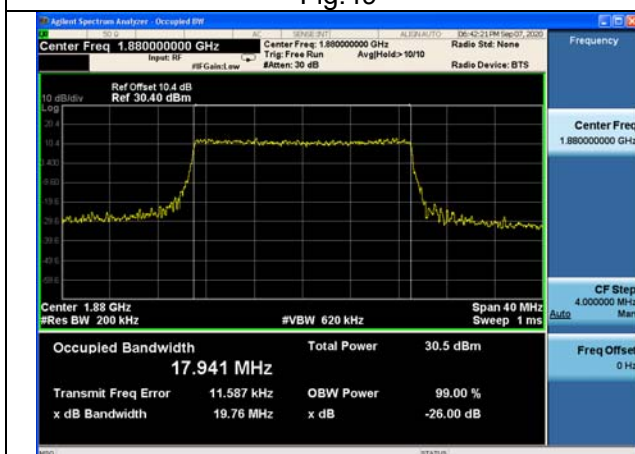


Fig.51



Fig.52

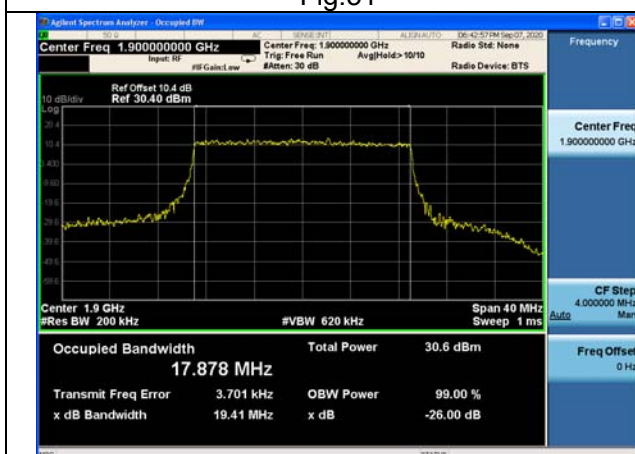


Fig.53



Fig.54

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
2	1880.0	18900	1.4	1	0	Fig.1	Fig.2	Fig.3
			3	1	0	Fig.4	Fig.5	Fig.6
			5	1	0	Fig.7	Fig.8	Fig.9
			10	1	0	Fig.10	Fig.11	Fig.12
			15	1	0	Fig.13	Fig.14	Fig.15
			20	1	0	Fig.16	Fig.17	Fig.18



Fig.1

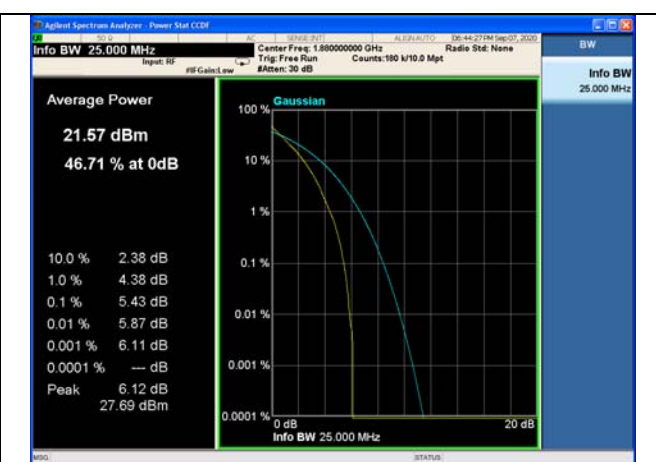


Fig.2

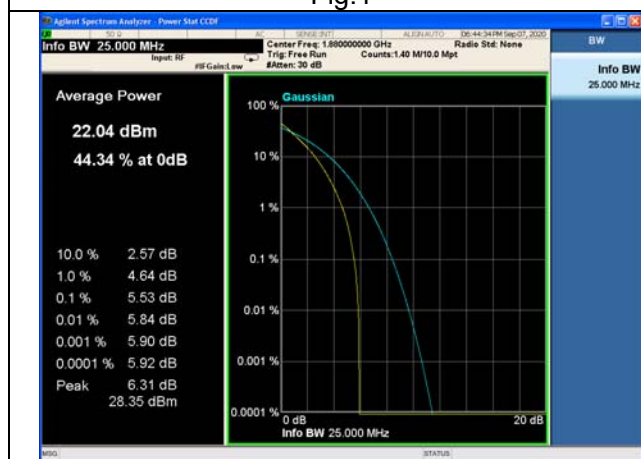


Fig.3



Fig.4



Fig.5

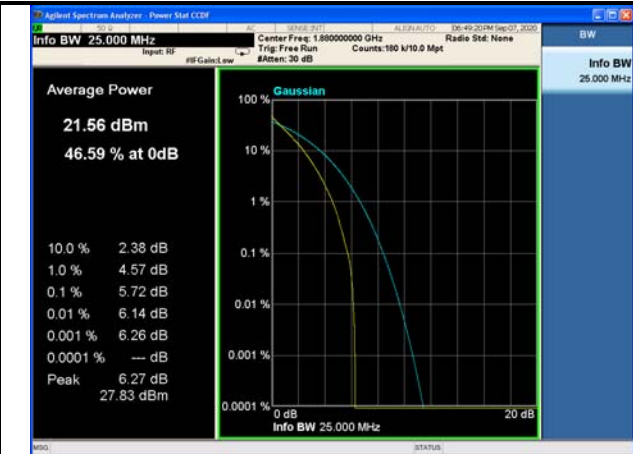


Fig.6



Fig.7



Fig.8



Fig.9



Fig.10

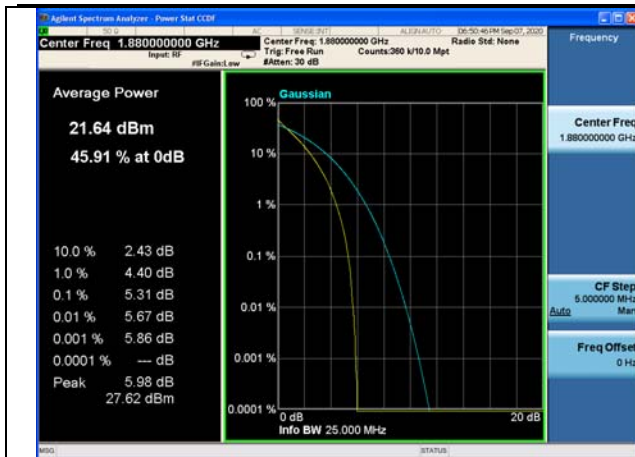


Fig.11



Fig.12



Fig.13



Fig.14



Fig.15



Fig.16



Fig.17

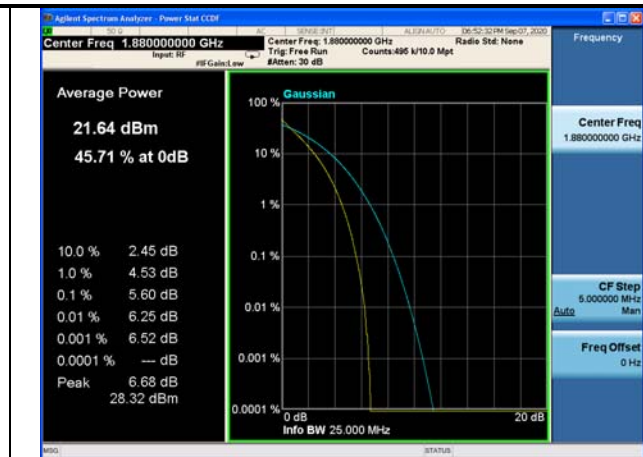


Fig.18

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

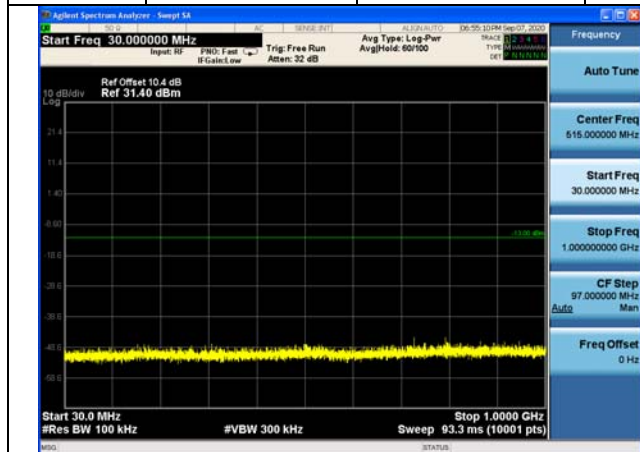


Fig.1

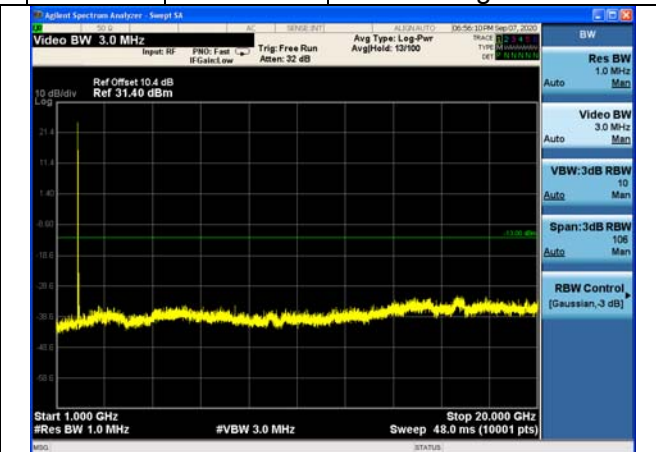


Fig.2

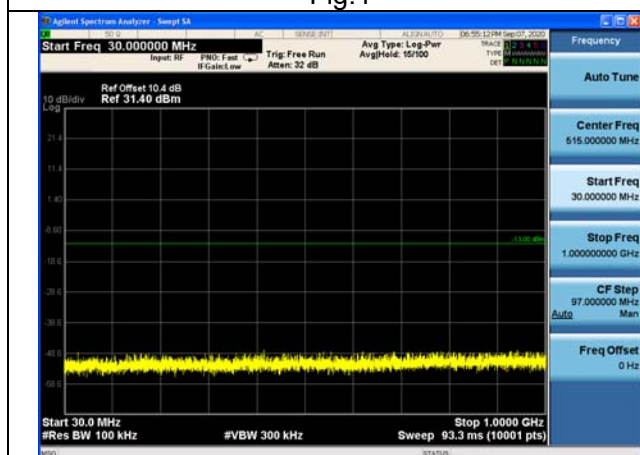


Fig3

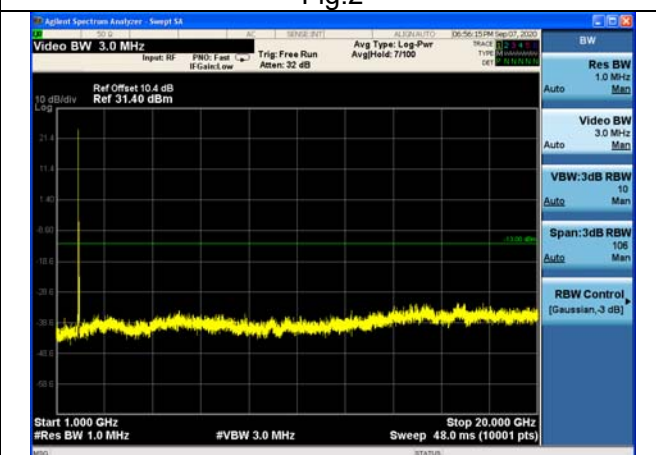


Fig4

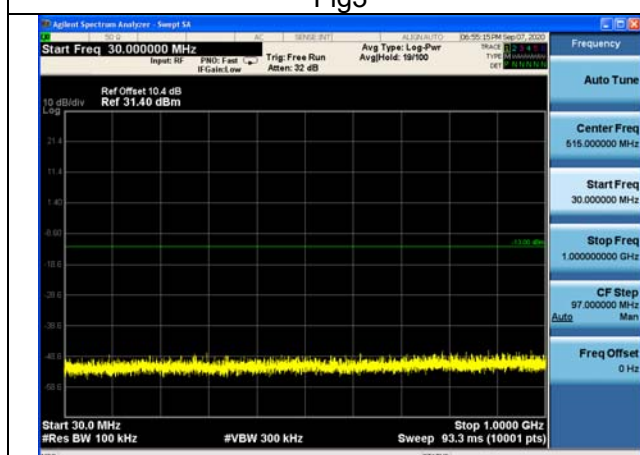


Fig5

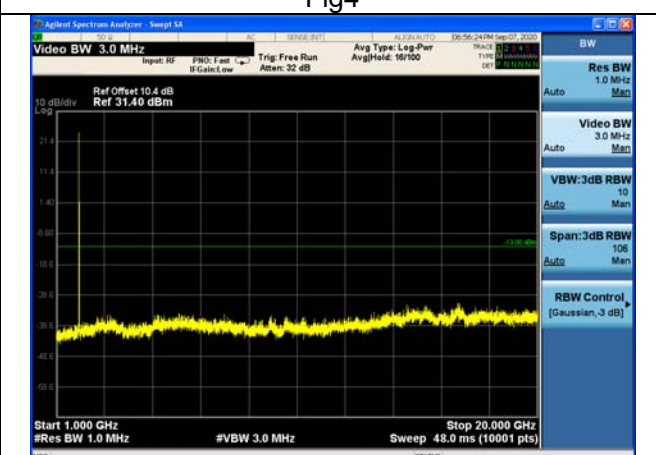


Fig6

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

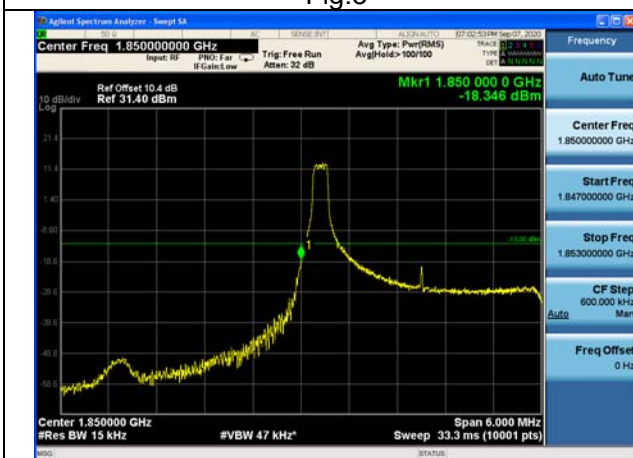


Fig.5

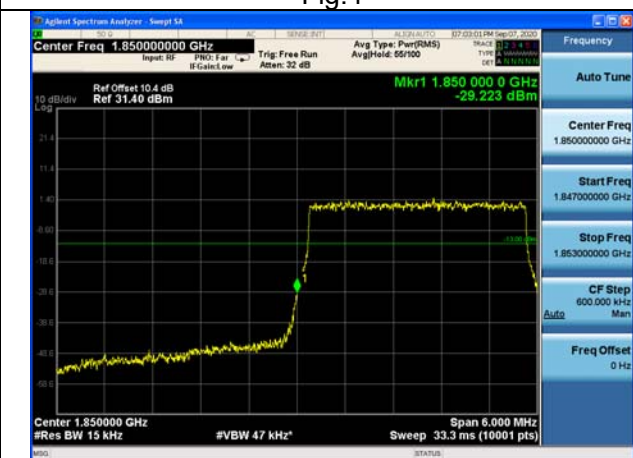


Fig.6

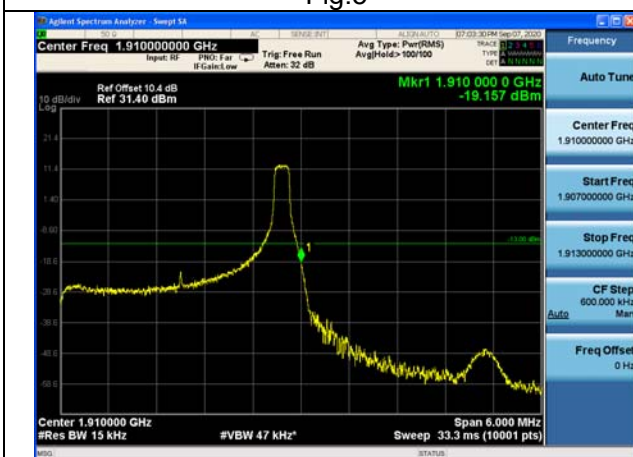


Fig.7



Fig.8

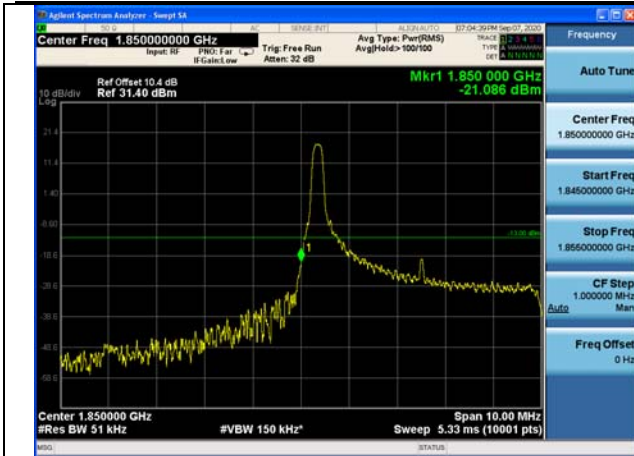


Fig.9

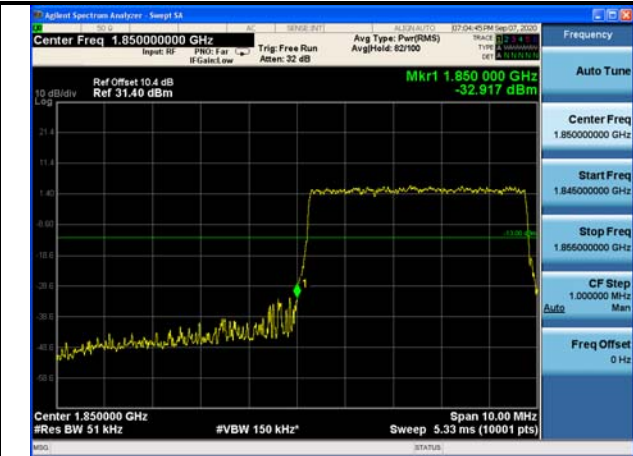


Fig.10

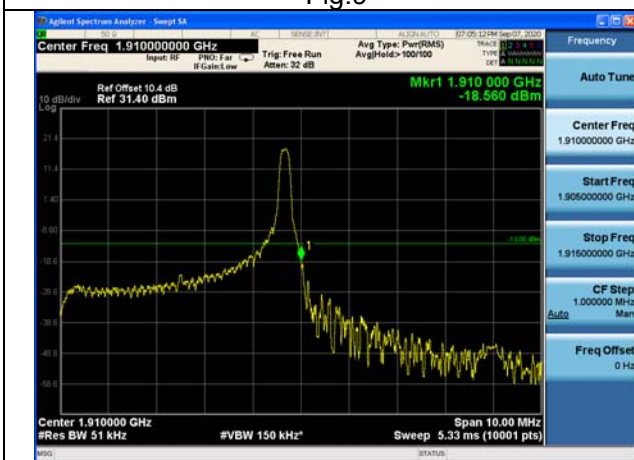


Fig.11

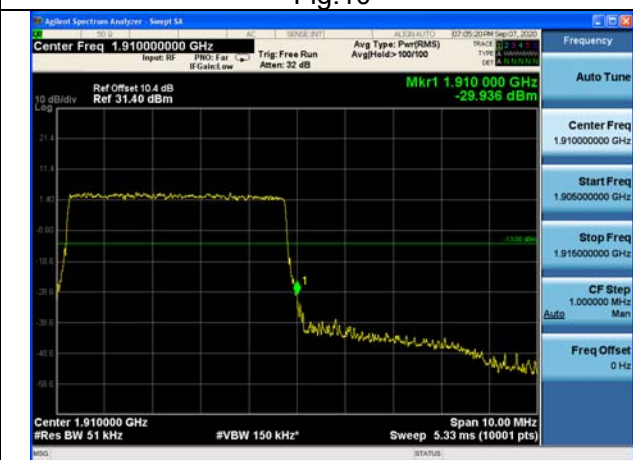


Fig.12

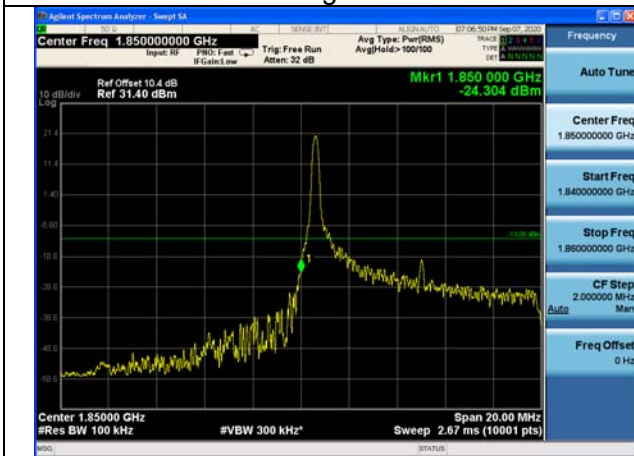


Fig.13

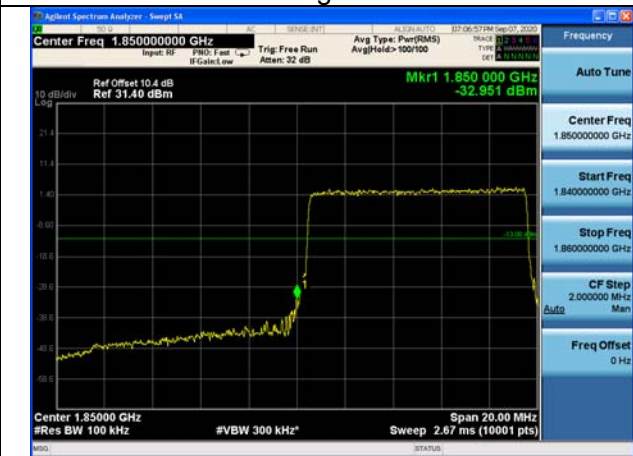


Fig.14

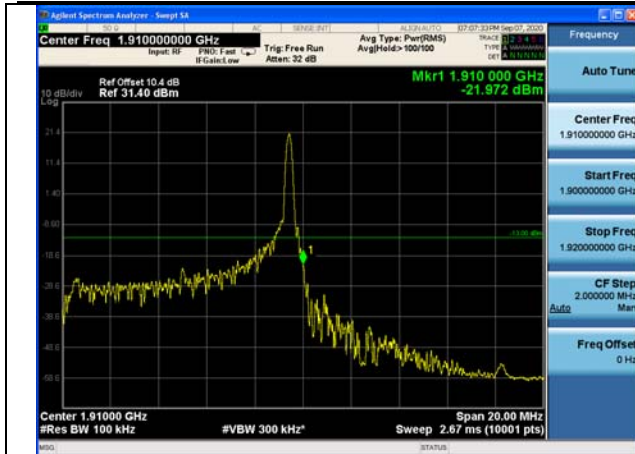


Fig.15



Fig.16

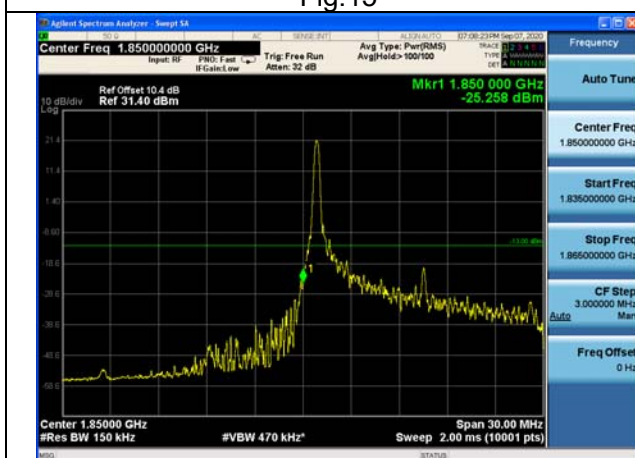


Fig.17

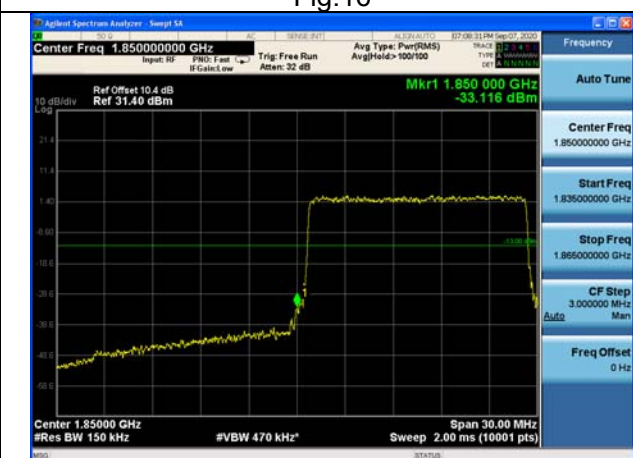


Fig.18

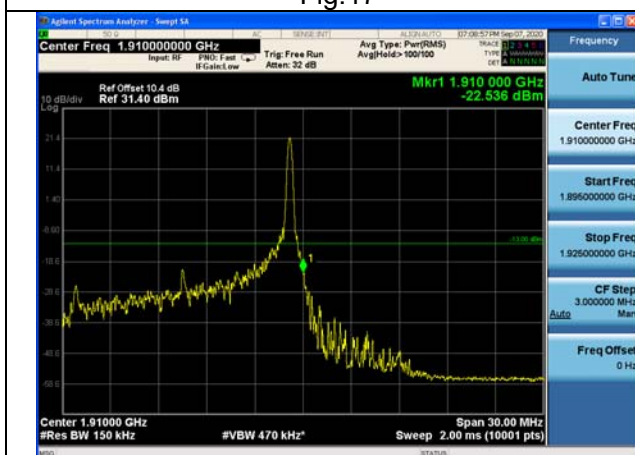


Fig.19



Fig.20

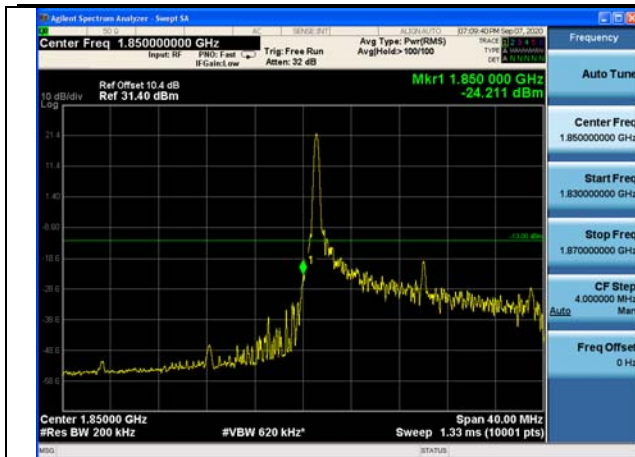


Fig.21

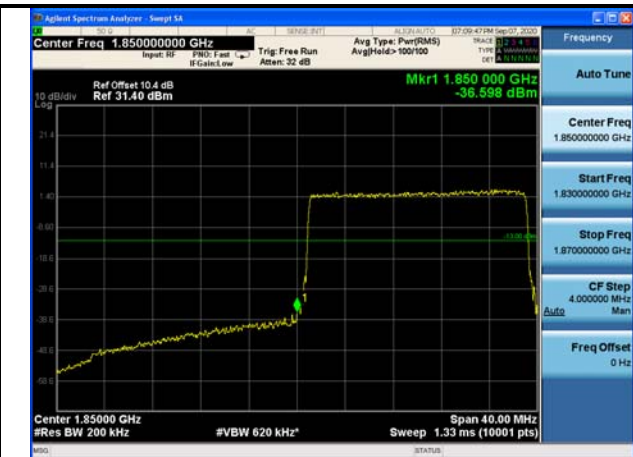


Fig.22

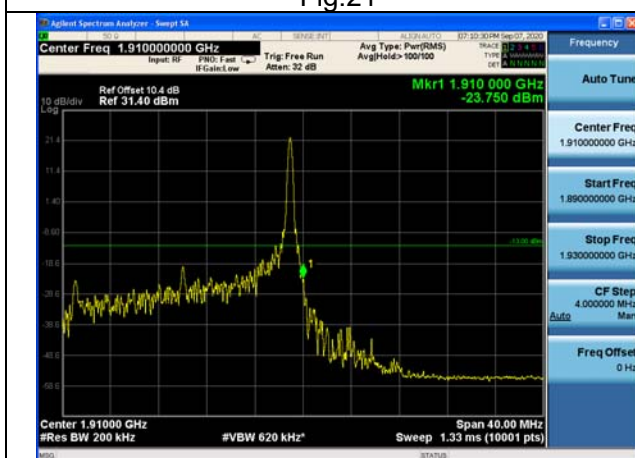


Fig.23



Fig.24

6 Frequency Stability

Test result:

Temperature(°C)	NV	Test Result (ppm) Band2 Low Channel					
		1.4M	3M	5M	10M	15M	20M
-25	NV	0.008	-0.027	-0.011	-0.008	0.009	0.011
-20	NV	0.013	0.022	-0.014	-0.005	-0.008	0.011
-10	NV	0.006	-0.011	0.018	0.017	-0.019	0.012
0	NV	-0.001	0.018	0.019	-0.019	0.007	-0.012
+10	NV	0.004	0.012	0.010	0.013	0.006	0.011
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	0.006	0.008	-0.018	0.010	-0.016	0.013
+40	NV	0.013	-0.016	0.005	-0.003	0.006	0.011
+50	NV	-0.001	0.008	-0.012	-0.001	0.016	0.005
+20	LV	-0.022	-0.021	-0.008	0.011	0.000	0.006
+20	HV	-0.012	0.011	-0.003	0.017	0.001	0.010

Temperature(°C)	Voltage	Test Result (ppm) Band2 High Channel					
		1.4M	3M	5M	10M	15M	20M
-25	NV	0.002	0.019	0.007	0.015	0.009	-0.001
-20	NV	-0.009	-0.008	-0.013	0.022	-0.002	-0.015
-10	NV	-0.008	-0.022	-0.011	0.018	0.023	-0.005
0	NV	0.021	0.013	0.015	-0.008	-0.011	0.001
+10	NV	-0.018	0.008	0.000	0.026	0.010	-0.008
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	0.002	-0.018	0.012	-0.012	-0.012	0.002
+40	NV	-0.020	-0.001	0.011	-0.005	-0.020	-0.005
+50	NV	0.011	-0.015	-0.008	0.005	-0.004	0.003
+20	LV	-0.002	-0.005	0.000	0.011	0.012	0.000
+20	HV	0.018	0.004	-0.009	-0.013	0.014	0.021