

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	23.53
				1	5	23.35
				3	2	22.55
				6	0	22.34
	1880	18900		1	0	23.69
				1	5	23.57
				3	2	22.49
				6	0	22.58
	1909.3	19193		1	0	23.35
				1	5	23.35
				3	2	22.42
				6	0	22.36
16QAM	1850.7	18607	1.4	1	0	22.44
				1	5	22.48
				3	2	21.50
				6	0	21.41
	1880	18900		1	0	22.18
				1	5	22.31
				3	2	21.60
				6	0	21.59
	1909.3	19193		1	0	22.85
				1	5	22.10
				3	2	21.43
				6	0	21.40
64QAM	1850.7	18607	1.4	1	0	22.15
				1	5	21.95
				3	2	21.37
				6	0	21.37
	1880	18900		1	0	22.12
				1	5	21.67
				3	2	21.49
				6	0	21.52
	1909.3	19193		1	0	21.79
				1	5	21.67
				3	2	21.44
				6	0	21.34

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1851.5	18615	3	1	0	23.49
				1	14	23.30
				8	4	22.51
				15	0	22.44
	1880	18900		1	0	23.76
				1	14	23.57
				8	4	22.57
				15	0	22.53
	1908.5	19185		1	0	23.31
				1	14	23.32
				8	4	22.40
				15	0	22.33
16QAM	1851.5	18615	3	1	0	22.47
				1	14	22.43
				8	4	21.55
				15	0	21.45
	1880	18900		1	0	22.20
				1	14	22.22
				8	4	21.67
				15	0	21.54
	1908.5	19185		1	0	22.78
				1	14	22.08
				8	4	21.40
				15	0	21.37
64QAM	1851.5	18615	3	1	0	22.13
				1	14	21.91
				8	4	21.45
				15	0	21.41
	1880	18900		1	0	22.08
				1	14	21.68
				8	4	21.46
				15	0	21.51
	1908.5	19185		1	0	21.83
				1	14	21.65
				8	4	21.47
				15	0	21.40

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1852.5	18625	5	1	0	23.60
				1	24	23.42
				12	6	22.53
				25	0	22.37
	1880	18900		1	0	23.77
				1	24	23.60
				12	6	22.53
				25	0	22.61
	1907.5	19175		1	0	23.31
				1	24	23.44
				12	6	22.43
				25	0	22.34
16QAM	1852.5	18625	5	1	0	22.41
				1	24	22.51
				12	6	21.57
				25	0	21.44
	1880	18900		1	0	22.17
				1	24	22.24
				12	6	21.64
				25	0	21.56
	1907.5	19175		1	0	22.76
				1	24	22.10
				12	6	21.40
				25	0	21.33
64QAM	1852.5	18625	5	1	0	22.05
				1	24	21.96
				12	6	21.47
				25	0	21.42
	1880	18900		1	0	22.16
				1	24	21.79
				12	6	21.48
				25	0	21.51
	1907.5	19175		1	0	21.85
				1	24	21.73
				12	6	21.40
				25	0	21.37

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1855	18650	10	1	0	23.63
				1	49	23.40
				24	12	22.61
				50	0	22.40
	1880	18900		1	0	23.66
				1	49	23.57
				24	12	22.60
				50	0	22.53
	1905	19150		1	0	23.25
				1	49	23.39
				24	12	22.38
				50	0	22.32
16QAM	1855	18650	10	1	0	22.42
				1	49	22.44
				24	12	21.49
				50	0	21.44
	1880	18900		1	0	22.21
				1	49	22.20
				24	12	21.66
				50	0	21.55
	1905	19150		1	0	22.74
				1	49	22.09
				24	12	21.37
				50	0	21.32
64QAM	1855	18650	10	1	0	22.12
				1	49	21.94
				24	12	21.45
				50	0	21.36
	1880	18900		1	0	22.06
				1	49	21.71
				24	12	21.52
				50	0	21.56
	1905	19150		1	0	21.78
				1	49	21.70
				24	12	21.45
				50	0	21.47

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1857.5	18675	15	1	0	23.54
				1	74	23.32
				40	18	22.58
				75	0	22.39
	1880	18900		1	0	23.67
				1	74	23.57
				40	18	22.61
				75	0	22.52
	1902.5	19125		1	0	23.25
				1	74	23.43
				40	18	22.36
				75	0	22.42
16QAM	1857.5	18675	15	1	0	22.43
				1	74	22.53
				40	18	21.45
				75	0	21.40
	1880	18900		1	0	22.12
				1	74	22.21
				40	18	21.68
				75	0	21.62
	1902.5	19125		1	0	22.78
				1	74	22.05
				40	18	21.32
				75	0	21.26
64QAM	1857.5	18675	15	1	0	22.09
				1	74	21.93
				40	18	21.49
				75	0	21.42
	1880	18900		1	0	22.08
				1	74	21.65
				40	18	21.59
				75	0	21.49
	1902.5	19125		1	0	21.92
				1	74	21.71
				40	18	21.49
				75	0	21.42

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1860	18700	20	1	0	23.63
				1	99	23.43
				50	25	22.62
				100	0	22.47
	1880	18900		1	0	23.79
				1	99	23.61
				50	25	22.62
				100	0	22.65
	1900	19100		1	0	23.39
				1	99	23.47
				50	25	22.47
				100	0	22.43
16QAM	1860	18700	20	1	0	22.49
				1	99	22.55
				50	25	21.57
				100	0	21.53
	1880	18900		1	0	22.22
				1	99	22.34
				50	25	21.73
				100	0	21.67
	1900	19100		1	0	22.87
				1	99	22.15
				50	25	21.47
				100	0	21.41
64QAM	1860	18700	20	1	0	22.16
				1	99	22.05
				50	25	21.51
				100	0	21.45
	1880	18900		1	0	22.19
				1	99	21.79
				50	25	21.61
				100	0	21.57
	1900	19100		1	0	21.93
				1	99	21.76
				50	25	21.54
				100	0	21.48

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	1.0848	Fig.1	1.0868	Fig.2	1.0857	Fig.3
	1880.0	18900		6	0	1.0853	Fig.4	1.0848	Fig.5	1.0770	Fig.6
	1909.3	19193		6	0	1.0822	Fig.7	1.0814	Fig.8	1.0815	Fig.9
	1851.5	18615	3	15	0	2.6920	Fig.10	2.6920	Fig.11	2.6907	Fig.12
	1880.0	18900		15	0	2.6924	Fig.13	2.6971	Fig.14	2.6930	Fig.15
	1908.5	19185	5	15	0	2.6925	Fig.16	2.6958	Fig.17	2.6928	Fig.18
	1852.5	18625		25	0	4.4855	Fig.19	4.4653	Fig.20	4.4808	Fig.21
	1880.0	18900		25	0	4.4804	Fig.22	4.4757	Fig.23	4.4795	Fig.24
	1907.5	19175	10	25	0	4.4857	Fig.25	4.4833	Fig.26	4.4774	Fig.27
	1855	18650		50	0	8.9121	Fig.52	8.9158	Fig.53	8.9210	Fig.54
	1880	18900	15	50	0	8.9217	Fig.28	8.9434	Fig.29	8.9408	Fig.30
	1905	19150		50	0	8.9542	Fig.31	8.9282	Fig.32	8.9473	Fig.33
	1857.5	18675		75	0	13.443	Fig.34	13.426	Fig.35	13.385	Fig.36
	1880.0	18900	20	75	0	13.352	Fig.37	13.368	Fig.38	13.395	Fig.39
	1902.5	19125		75	0	13.394	Fig.40	13.406	Fig.41	13.377	Fig.42
	1860	18700	20	100	0	17.839	Fig.43	17.853	Fig.44	17.809	Fig.45
1880	18900	100		0	17.834	Fig.46	17.854	Fig.47	17.812	Fig.48	
1900	19100	100		0	17.862	Fig.49	17.872	Fig.50	17.842	Fig.51	

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	1.307	Fig.1	1.303	Fig.2	1.295	Fig.3
	1880.0	18900		6	0	1.261	Fig.4	1.267	Fig.5	1.271	Fig.6
	1909.3	19193		6	0	1.249	Fig.7	1.255	Fig.8	1.264	Fig.9
	1851.5	18615	3	15	0	3.007	Fig.10	2.999	Fig.11	2.968	Fig.12
	1880.0	18900		15	0	2.987	Fig.13	2.958	Fig.14	2.984	Fig.15
	1908.5	19185	5	15	0	2.985	Fig.16	2.945	Fig.17	2.938	Fig.18
	1852.5	18625		25	0	4.994	Fig.19	4.921	Fig.20	4.997	Fig.21
	1880.0	18900		25	0	4.937	Fig.22	4.990	Fig.23	4.967	Fig.24
	1907.5	19175	10	25	0	4.958	Fig.25	4.895	Fig.26	4.954	Fig.27
	1855	18650		50	0	9.688	Fig.52	9.719	Fig.53	9.639	Fig.54
	1880	18900	15	50	0	9.850	Fig.28	9.672	Fig.29	9.623	Fig.30
	1905	19150		50	0	9.594	Fig.31	9.644	Fig.32	9.687	Fig.33
	1857.5	18675		75	0	14.49	Fig.34	14.50	Fig.35	14.34	Fig.36
	1880.0	18900	20	75	0	14.34	Fig.37	14.47	Fig.38	14.51	Fig.39
	1902.5	19125		75	0	14.49	Fig.40	14.22	Fig.41	14.39	Fig.42
	1860	18700	20	100	0	19.23	Fig.43	18.96	Fig.44	19.26	Fig.45
1880	18900	100		0	19.07	Fig.46	18.92	Fig.47	19.16	Fig.48	
1900	19100	100		0	19.24	Fig.49	19.16	Fig.50	19.23	Fig.51	

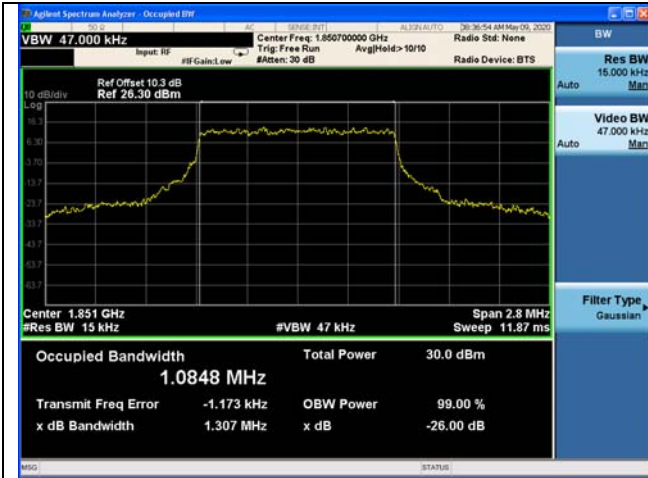


Fig.1



Fig.2

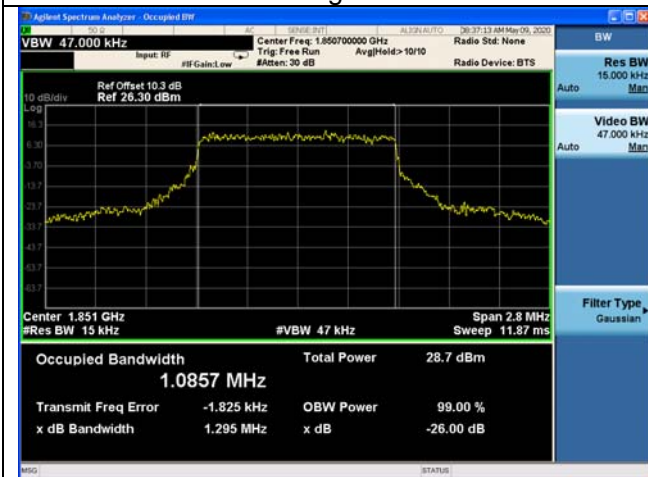


Fig.3

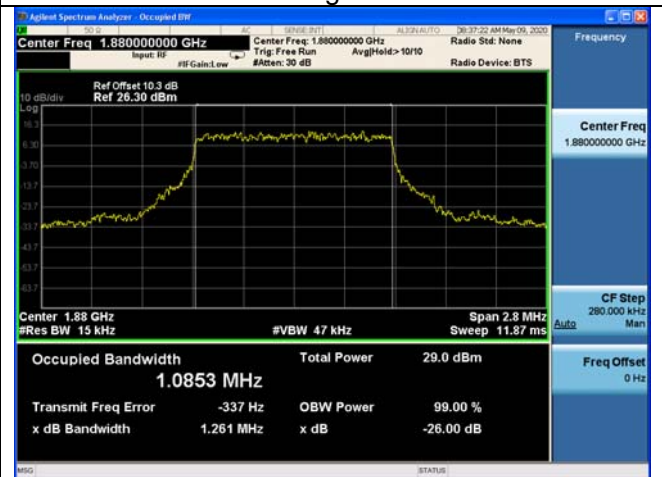


Fig.4

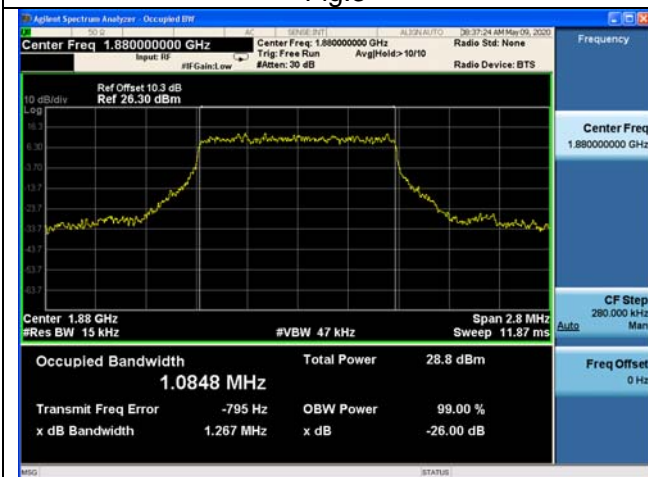


Fig.5

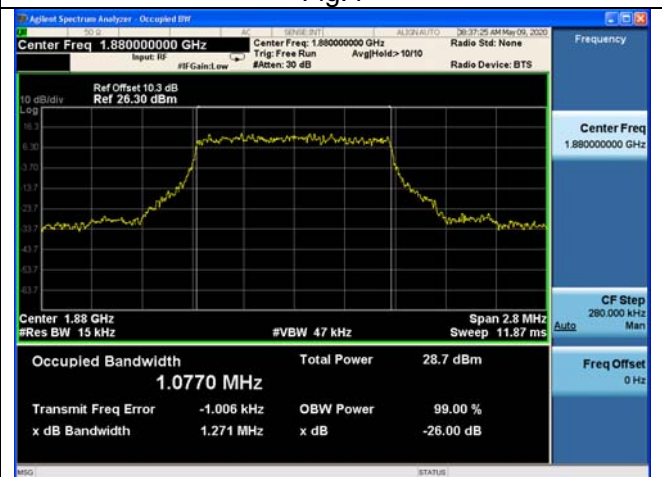


Fig.6

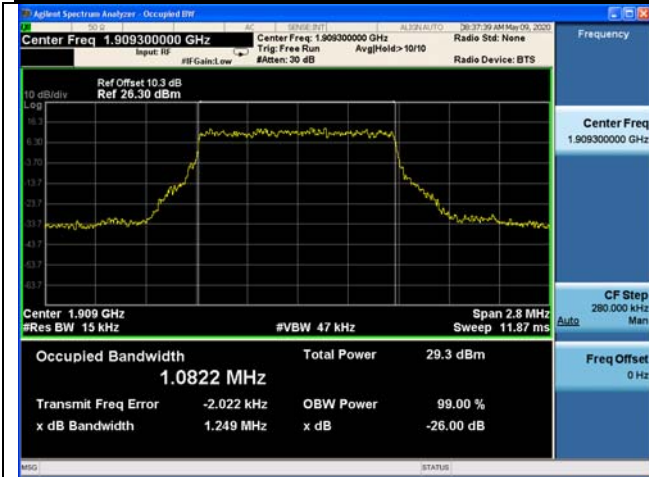


Fig.7

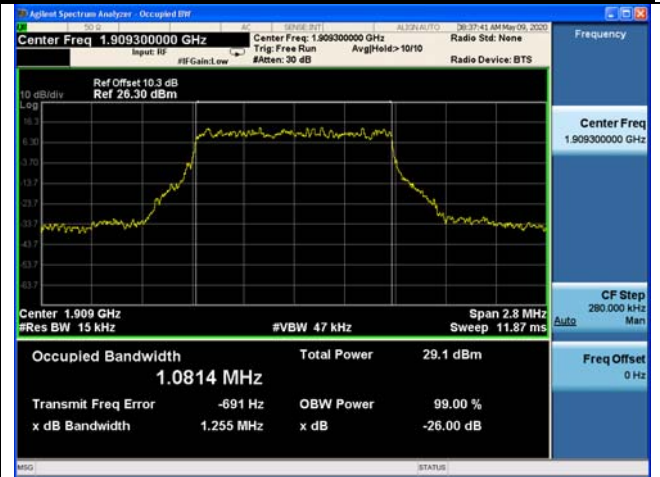


Fig.8

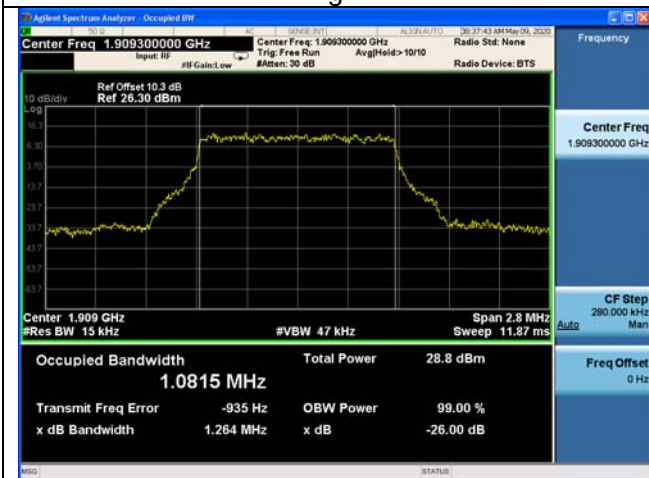


Fig.9

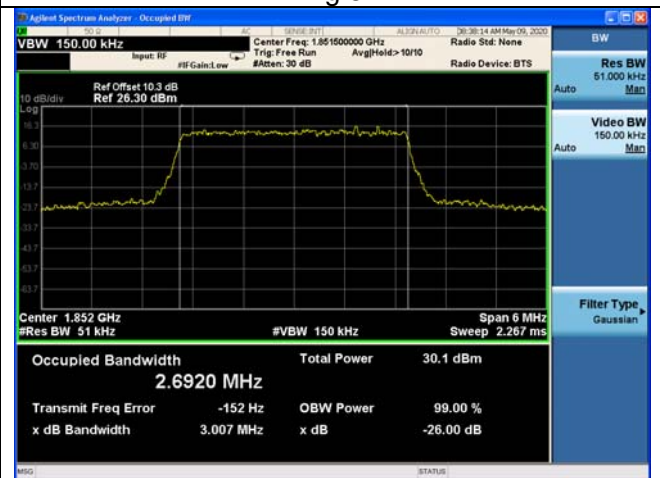


Fig.10

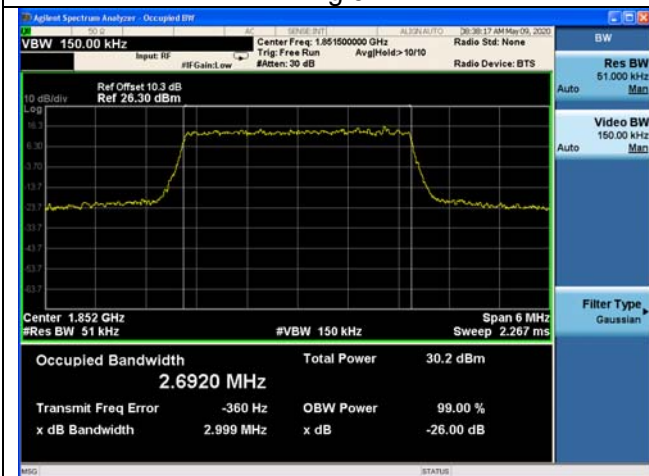


Fig.11

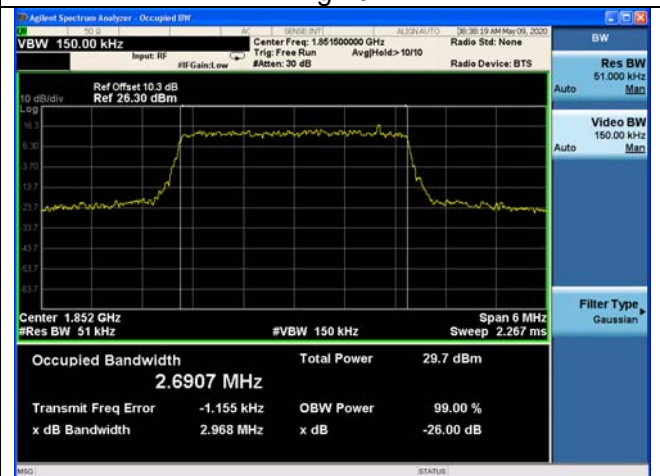


Fig.12

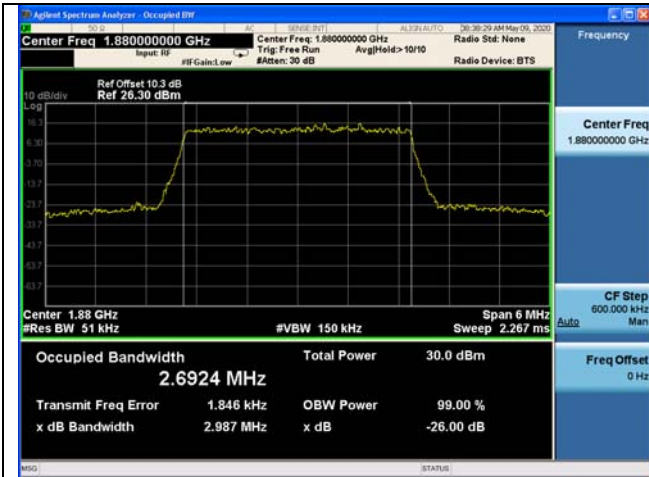


Fig.13

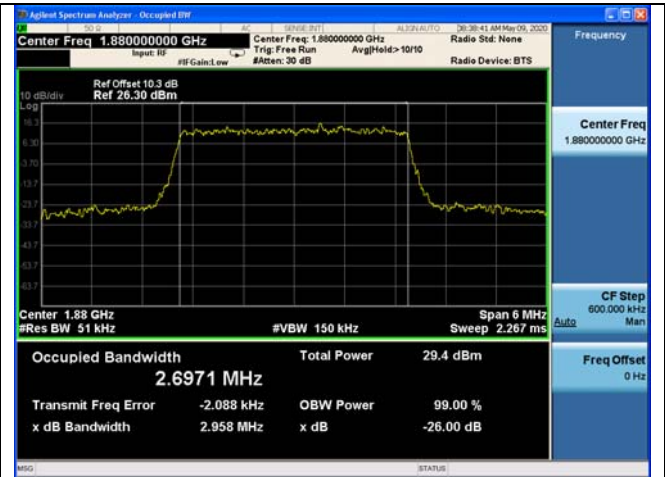


Fig.14

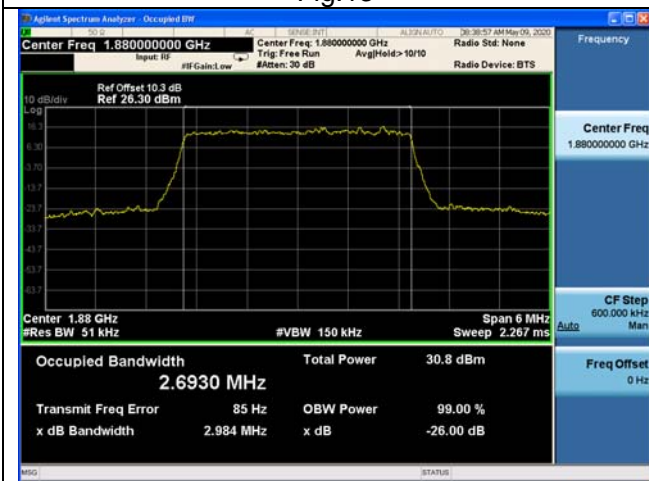


Fig.15



Fig.16

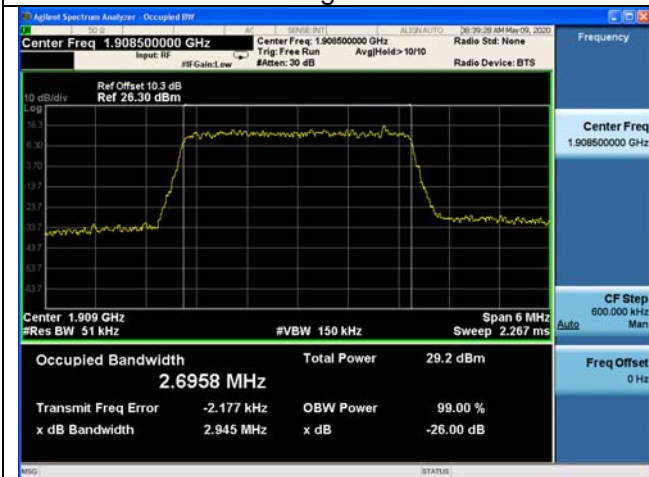


Fig.17

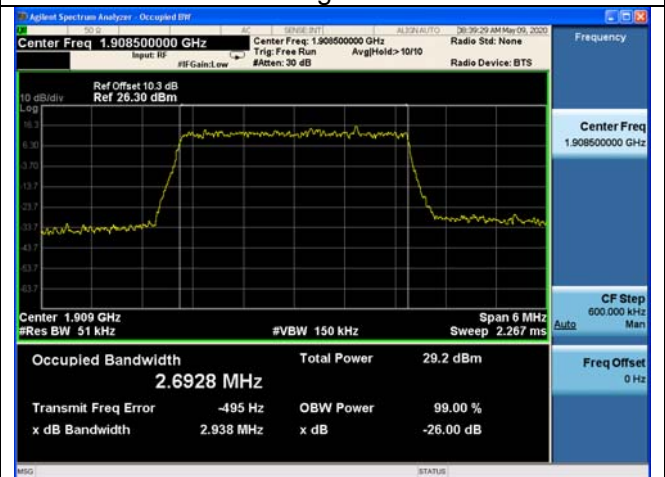


Fig.18

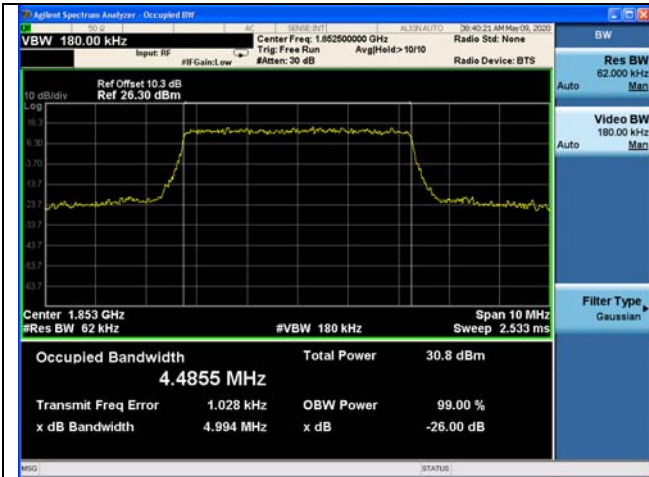


Fig.19



Fig.20

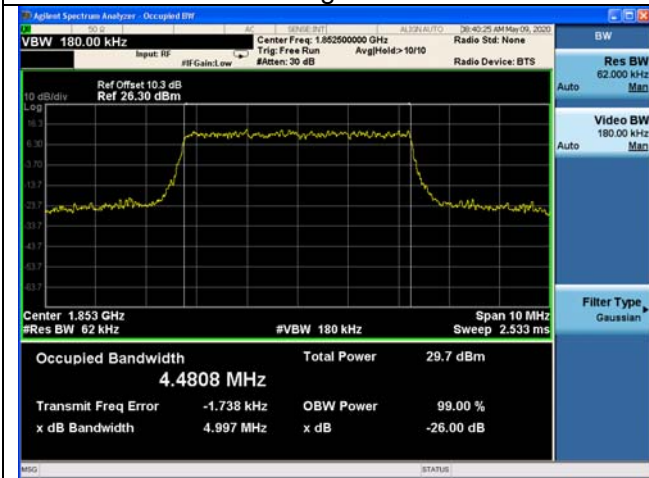


Fig.21



Fig.22



Fig.23



Fig.24

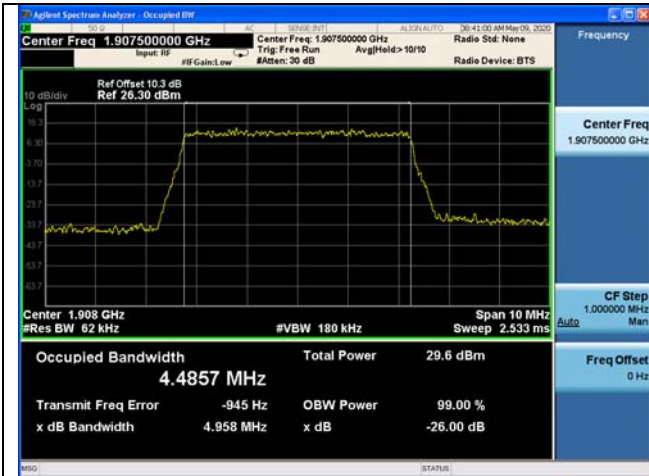


Fig.25



Fig.26

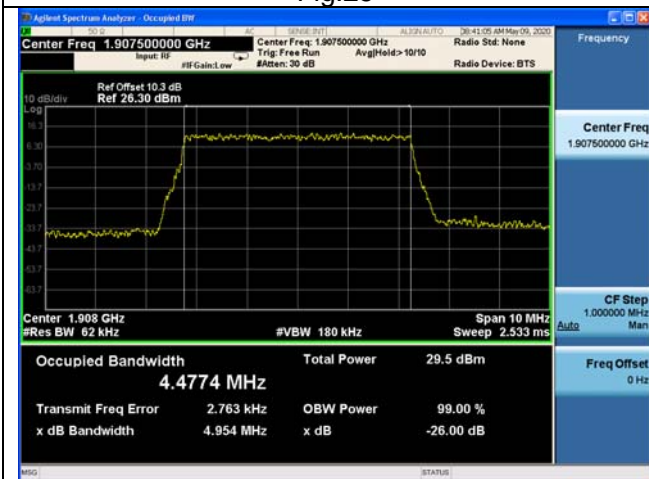


Fig.27

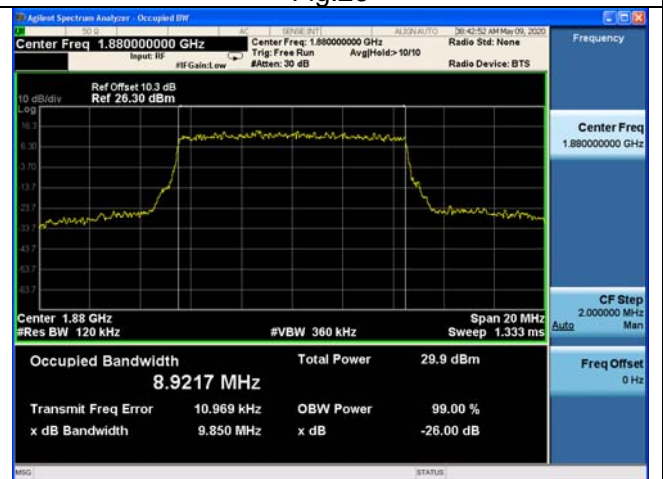


Fig.28

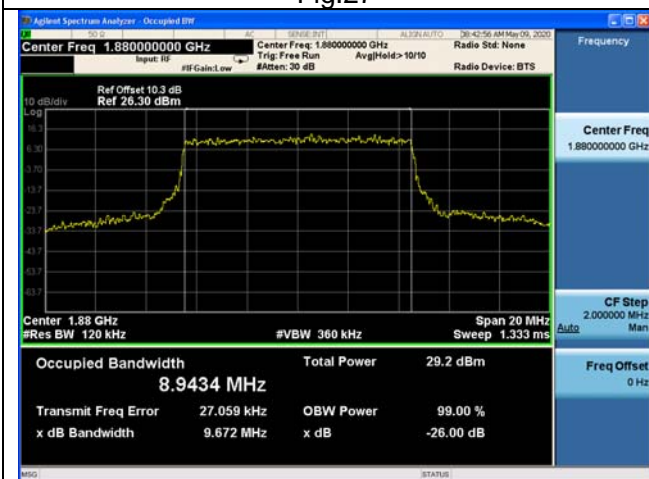


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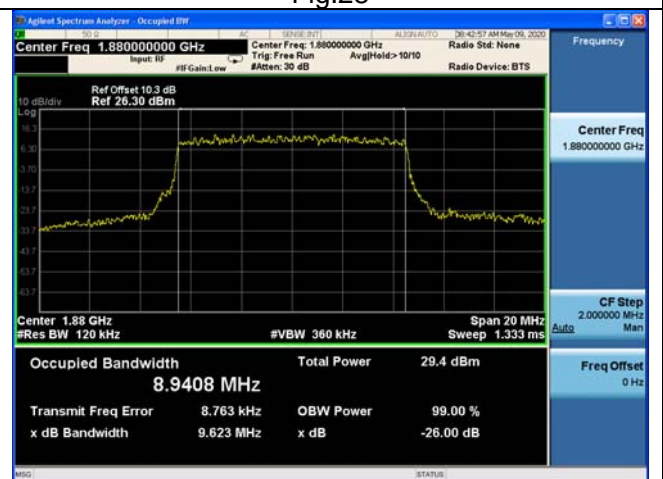


Fig.30

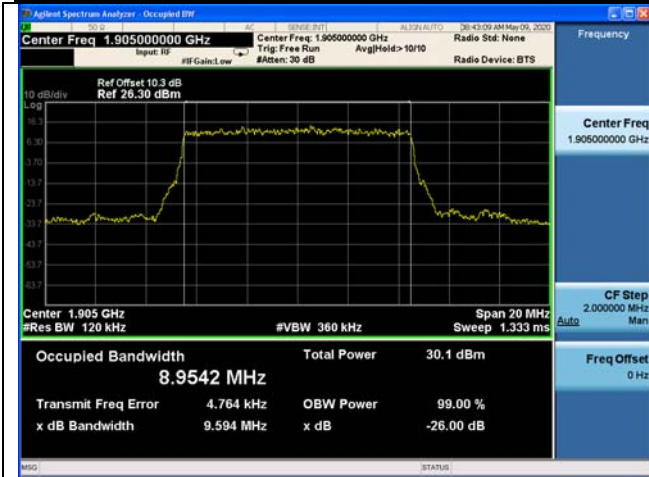


Fig.31

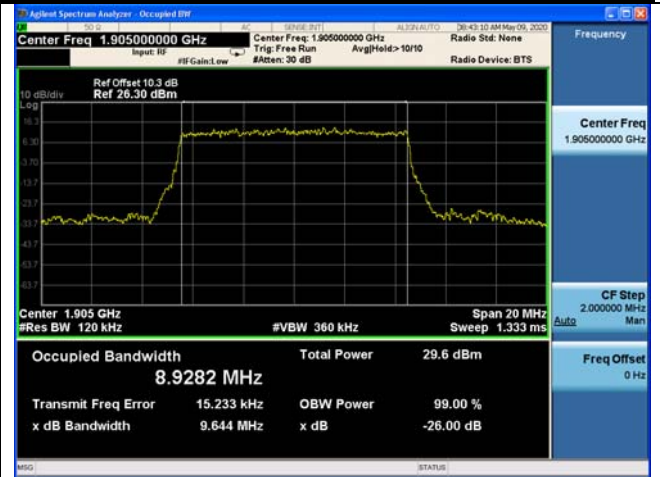


Fig.32

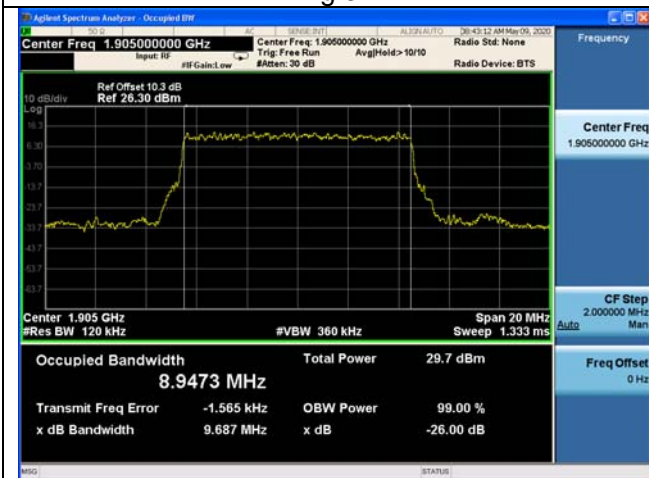


Fig.33

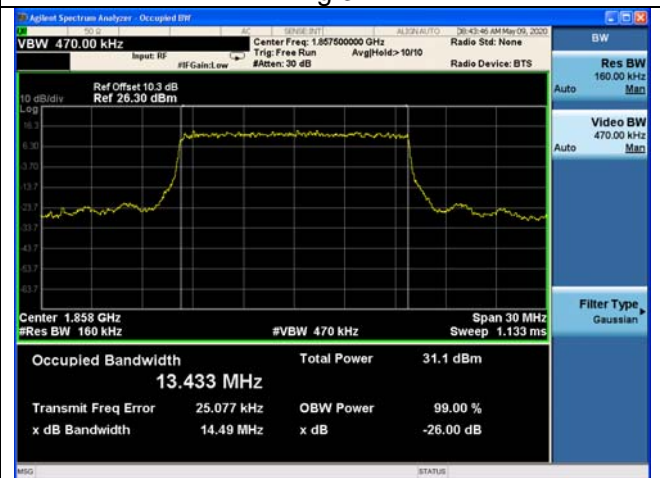


Fig.34

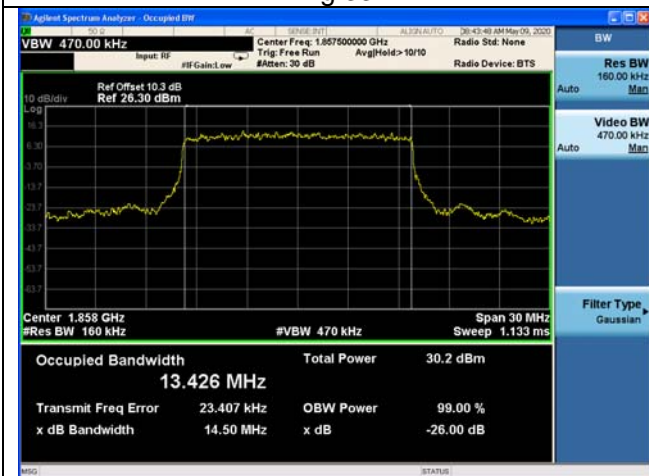


Fig.35

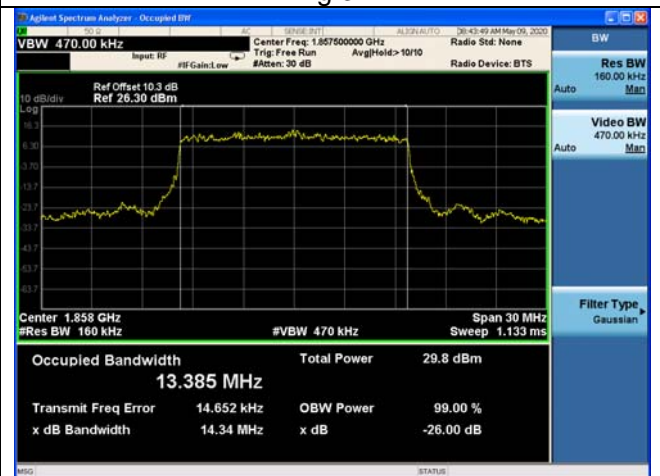


Fig.36

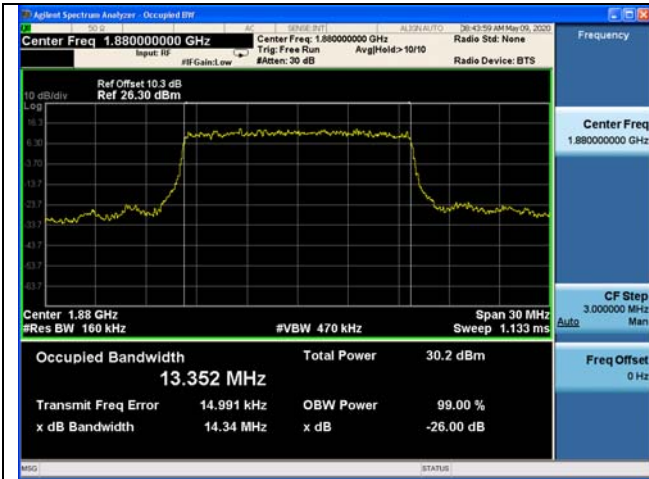


Fig.37



Fig.38

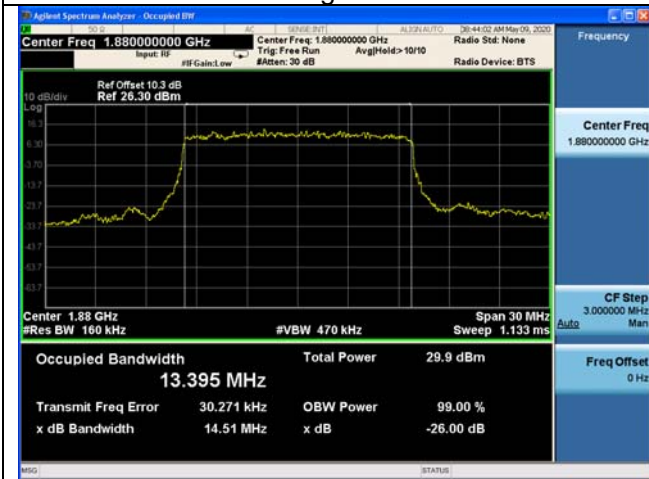


Fig.39

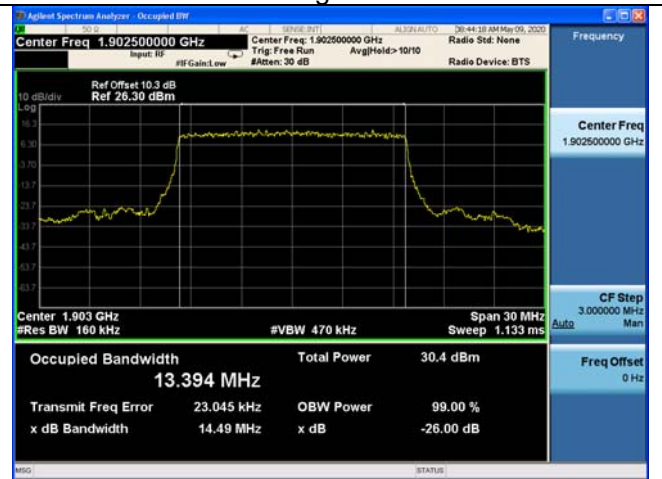


Fig.40

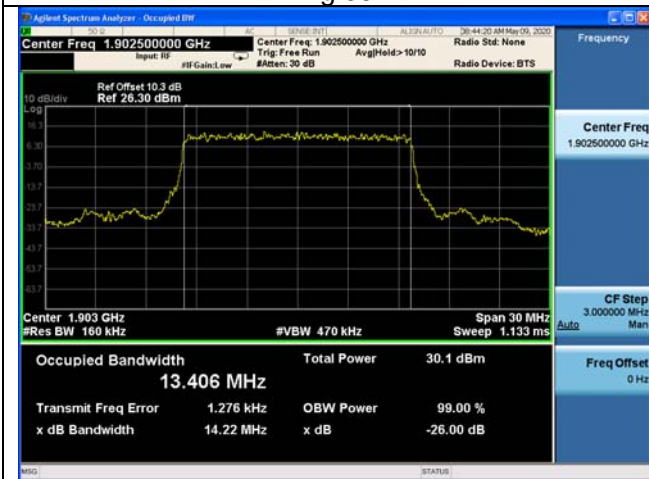


Fig.41



Fig.42

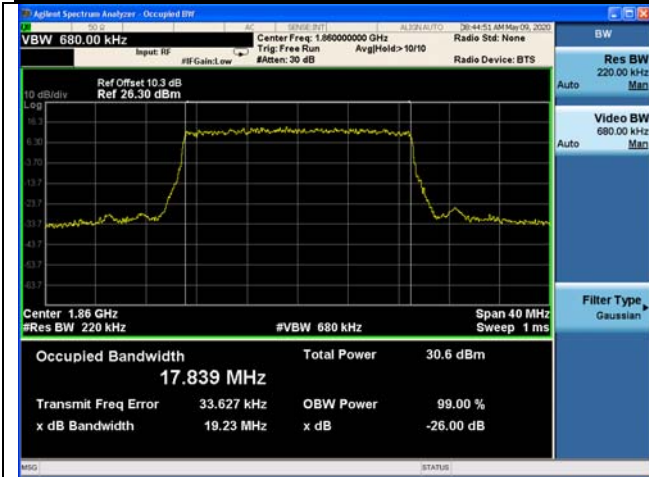


Fig.43



Fig.44

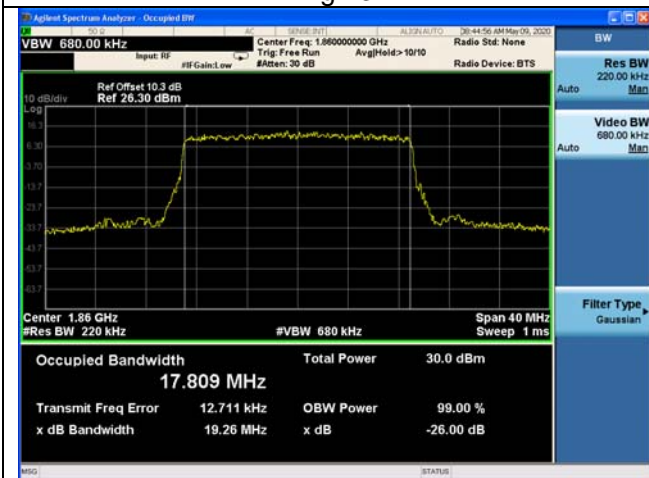


Fig.45

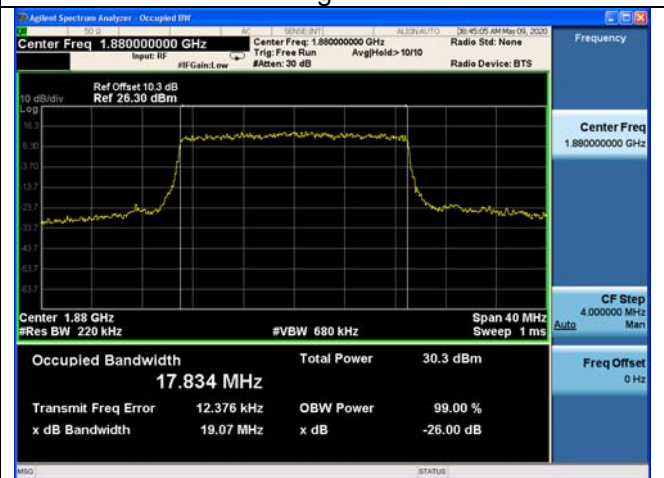


Fig.46

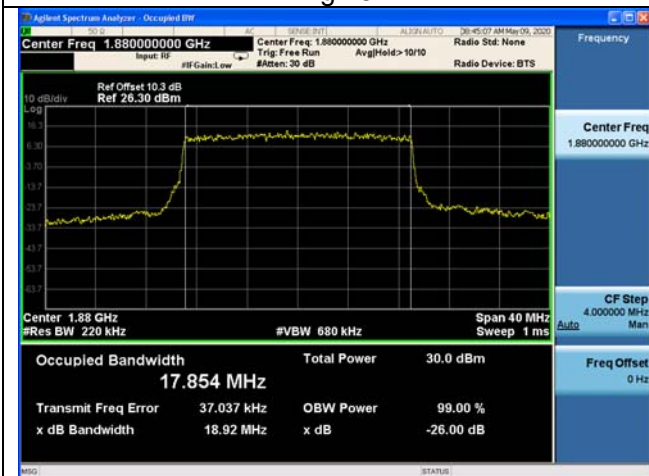


Fig.47

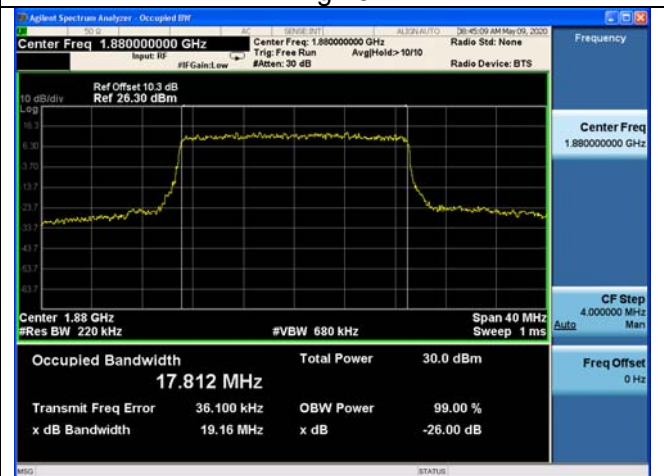


Fig.48



Fig.49



Fig.50



Fig.51



Fig.52

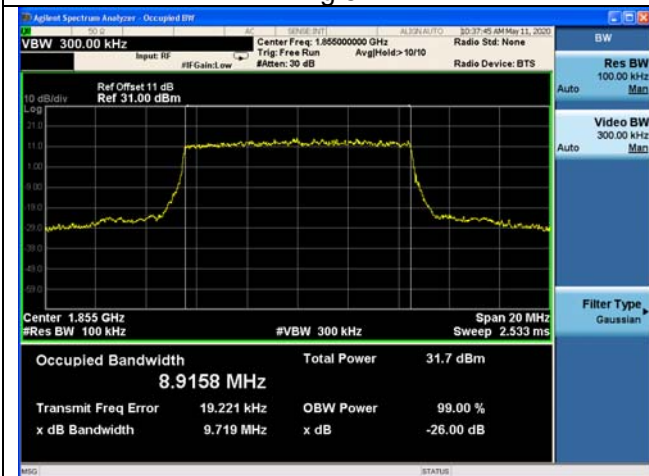


Fig.53

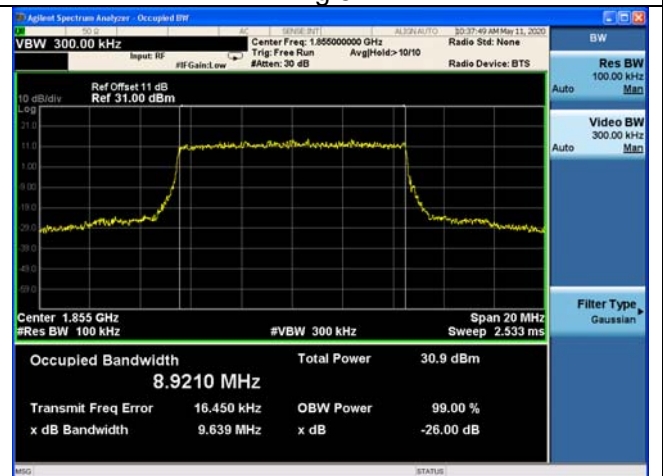


Fig.54

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

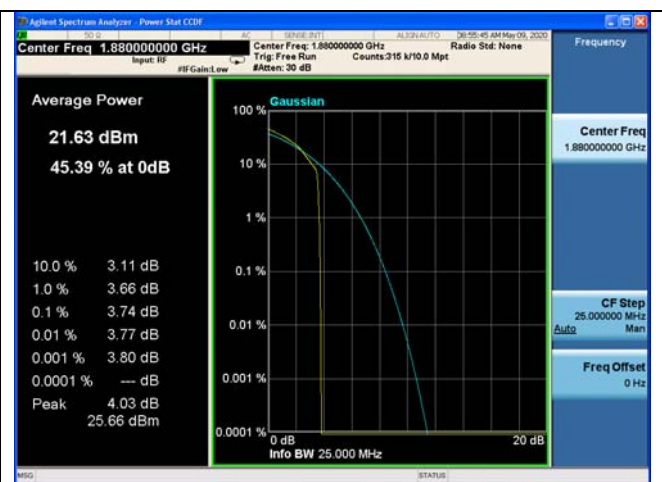


Fig.2

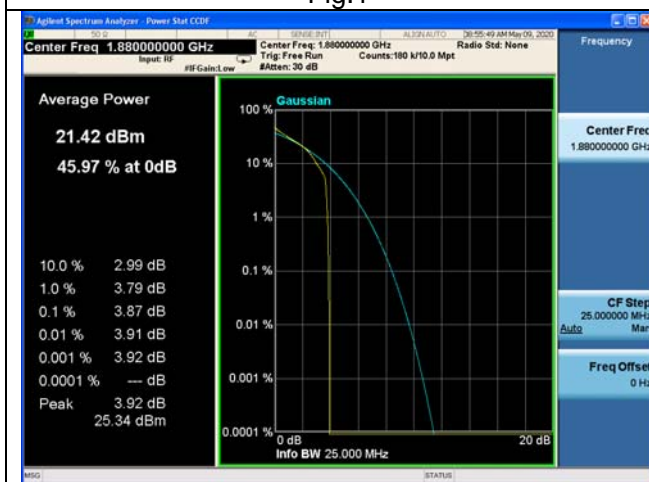


Fig.3

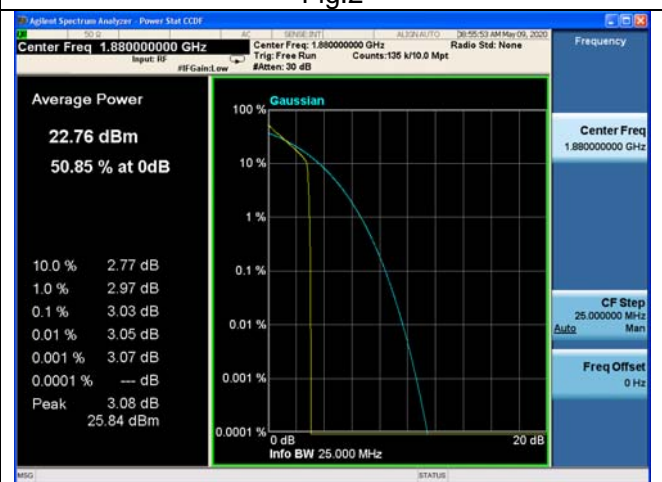


Fig.4

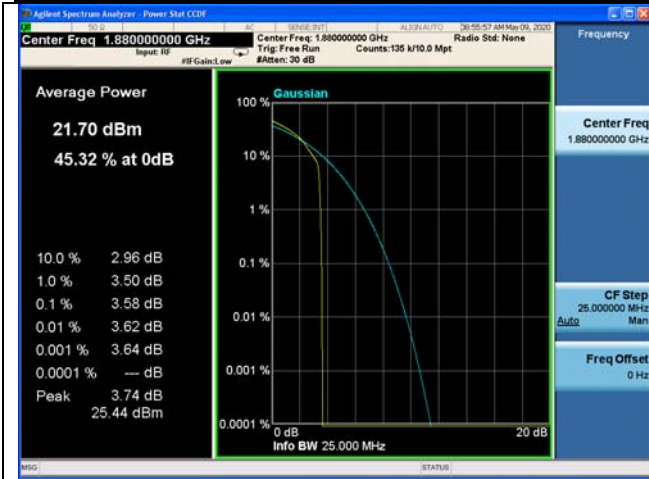


Fig.5

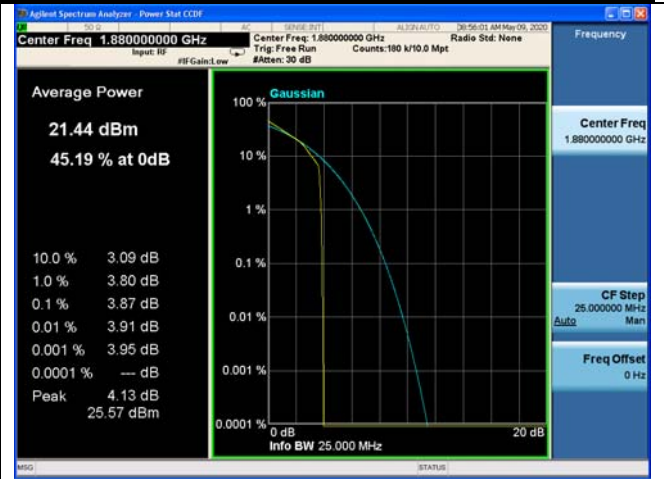


Fig.6

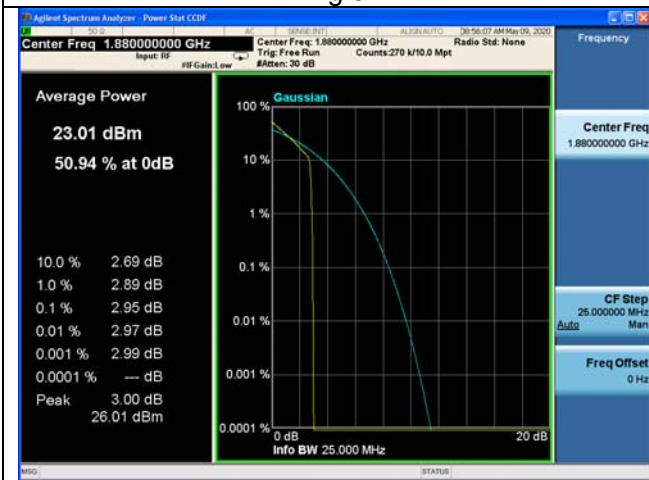


Fig.7

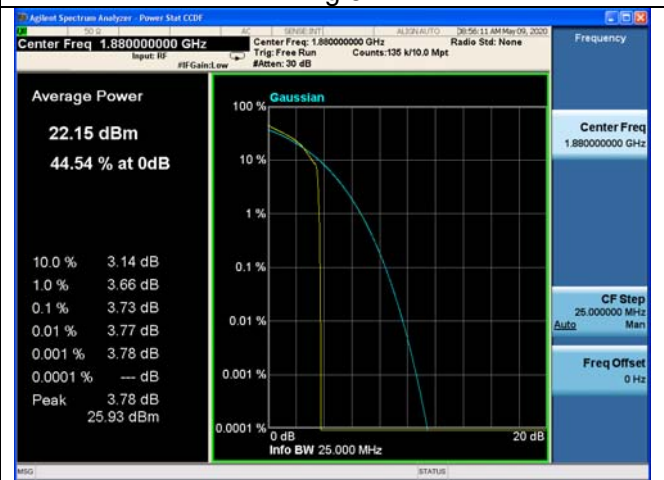


Fig.8



Fig.9



Fig.10



Fig.11



Fig.12

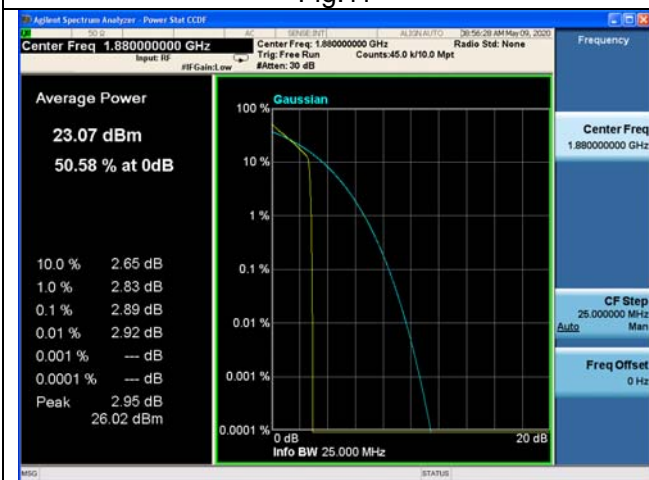


Fig.13



Fig.14

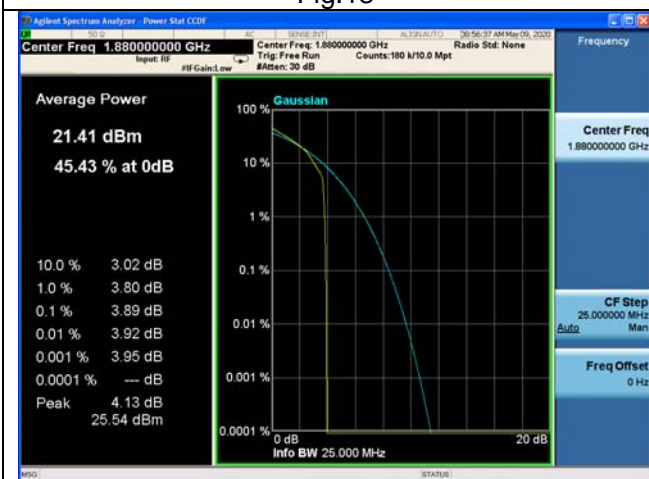


Fig.15

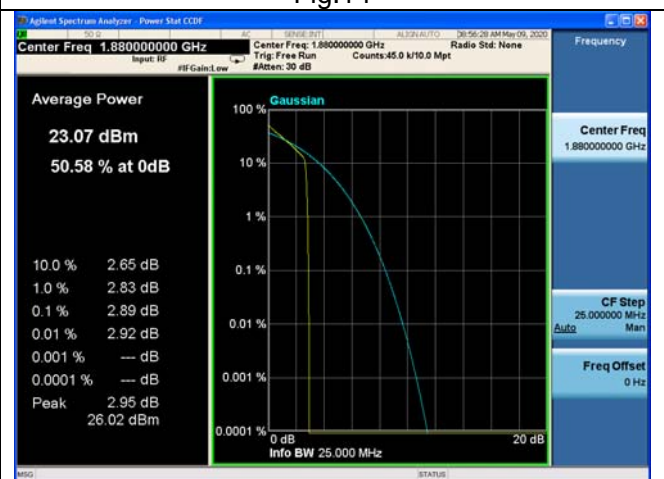


Fig.16



Fig.17

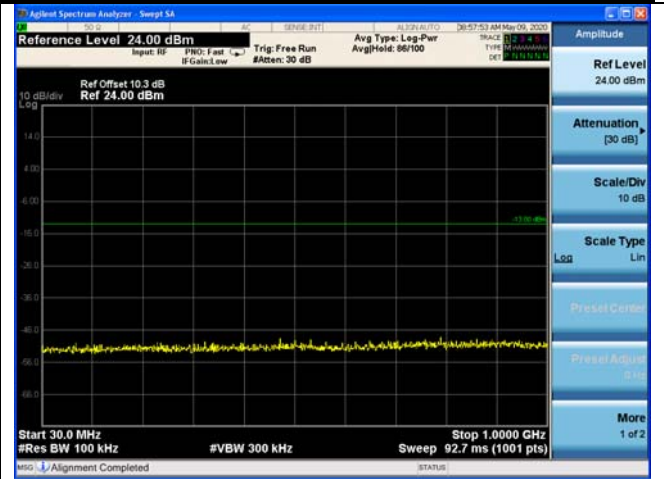
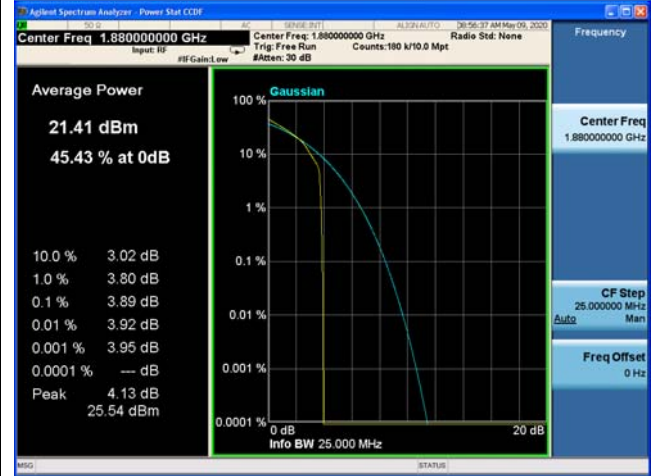


Fig.18



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

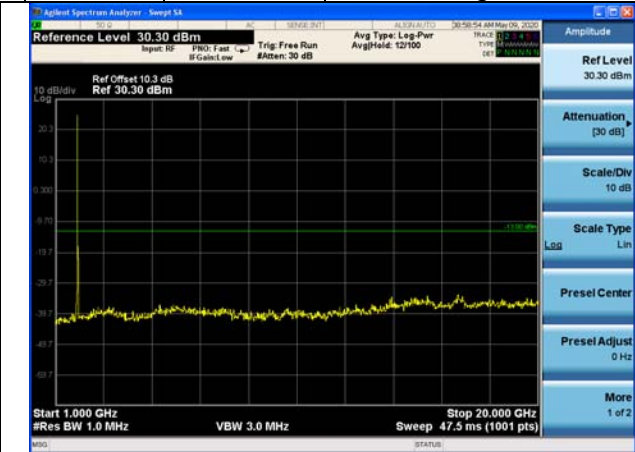


Fig.2

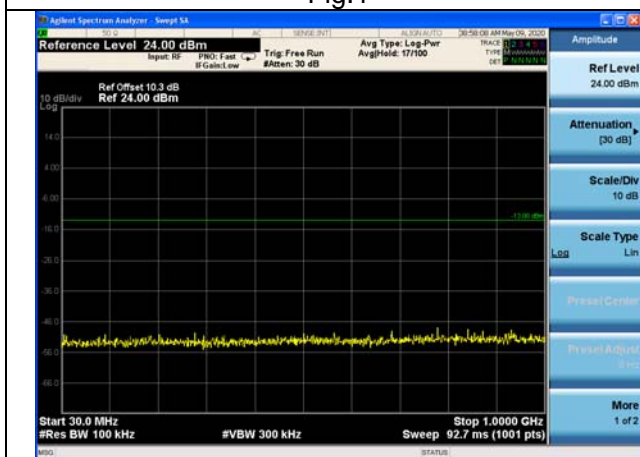


Fig3

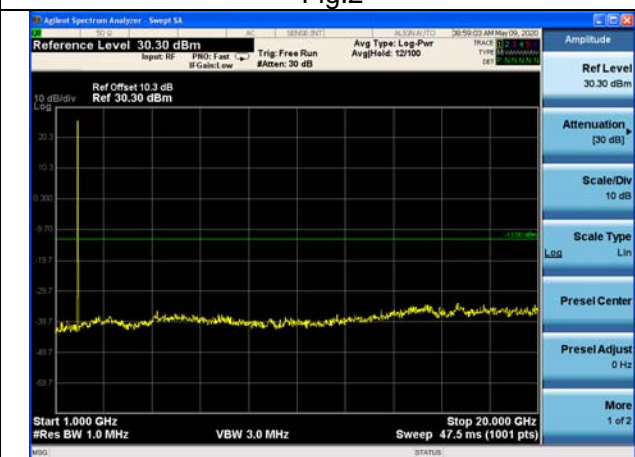


Fig4

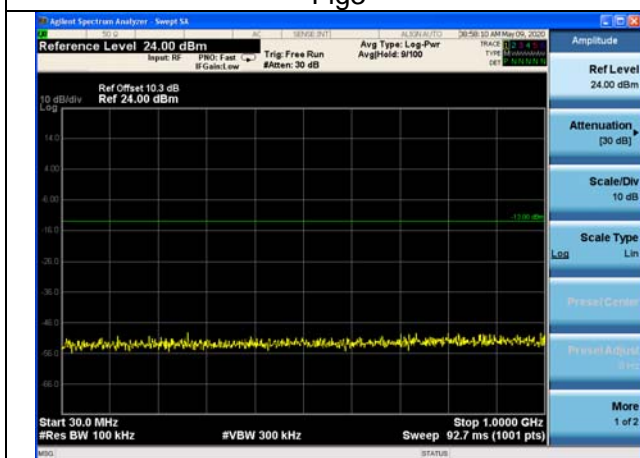


Fig5

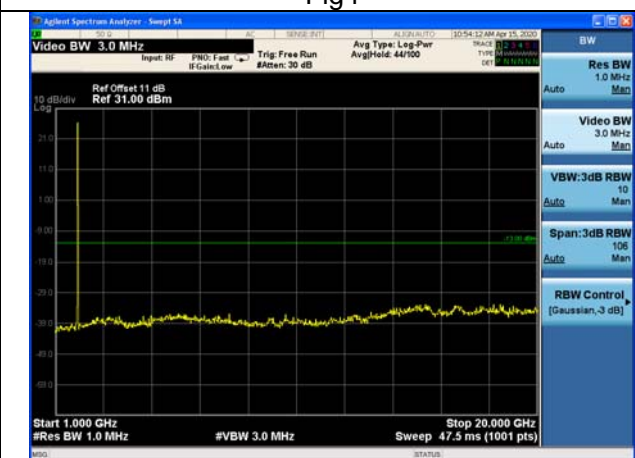


Fig6

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	

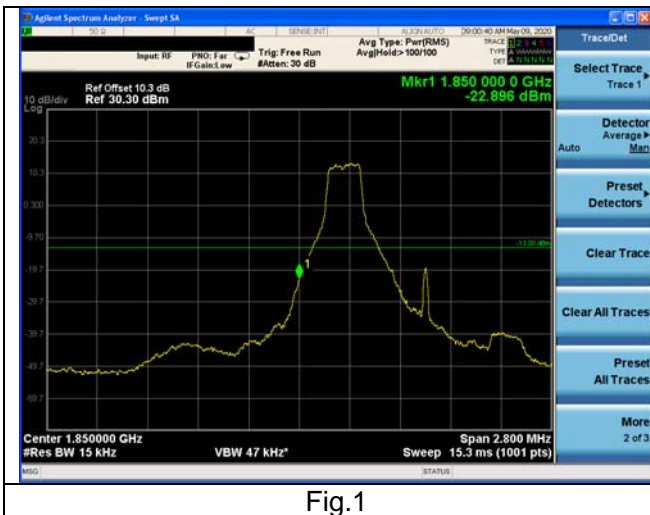


Fig.1



Fig.2

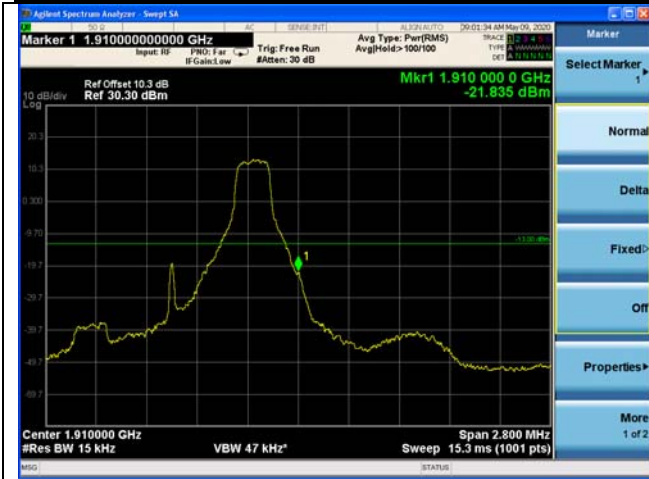


Fig.3



Fig.4

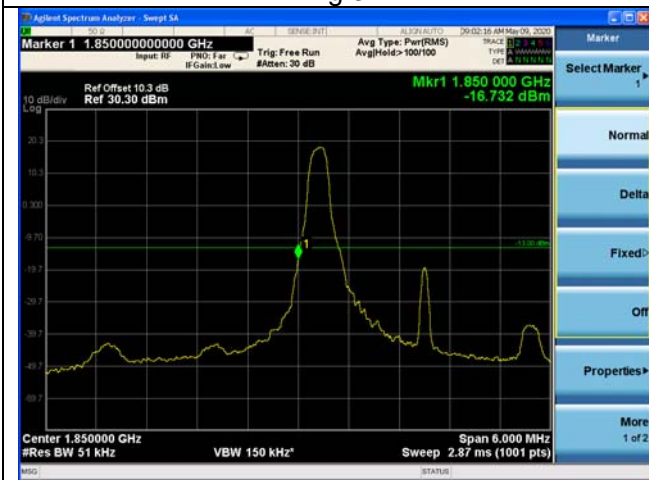


Fig.5



Fig.6

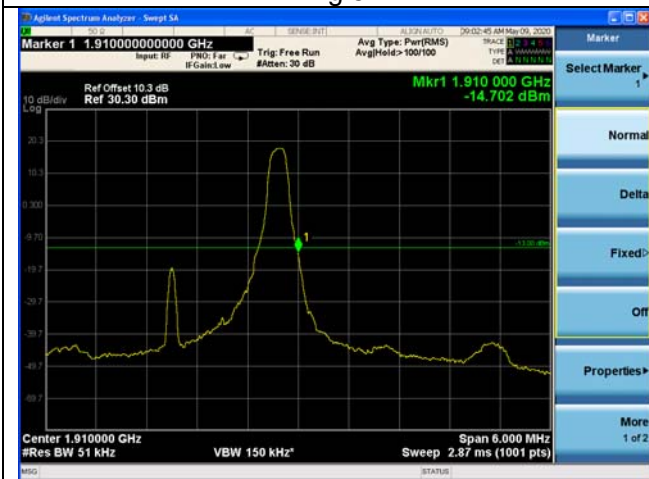


Fig.7



Fig.8

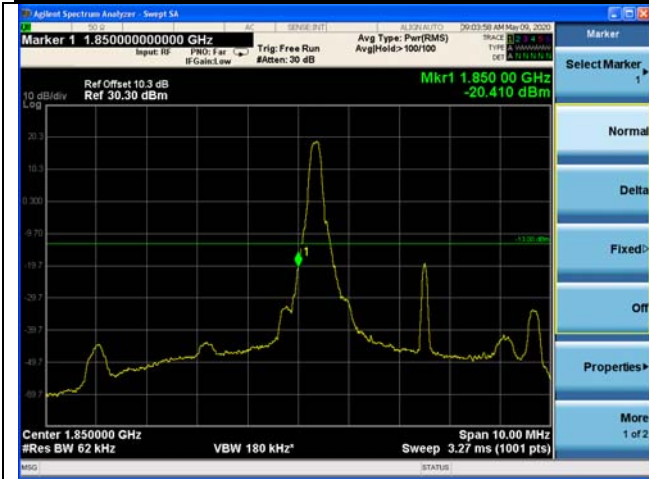


Fig.9



Fig.10

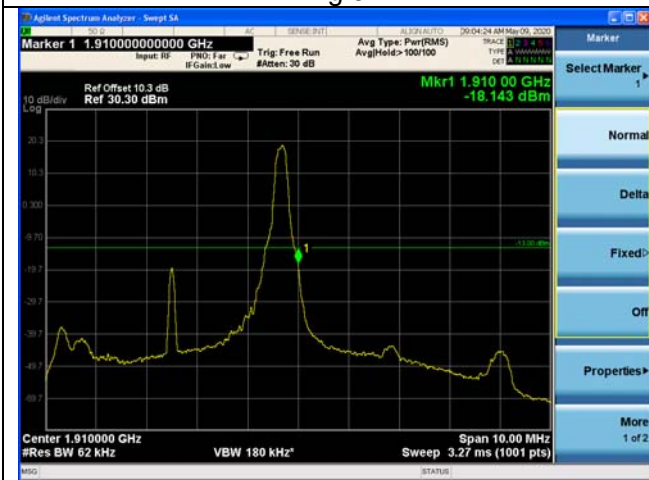


Fig.11



Fig.12

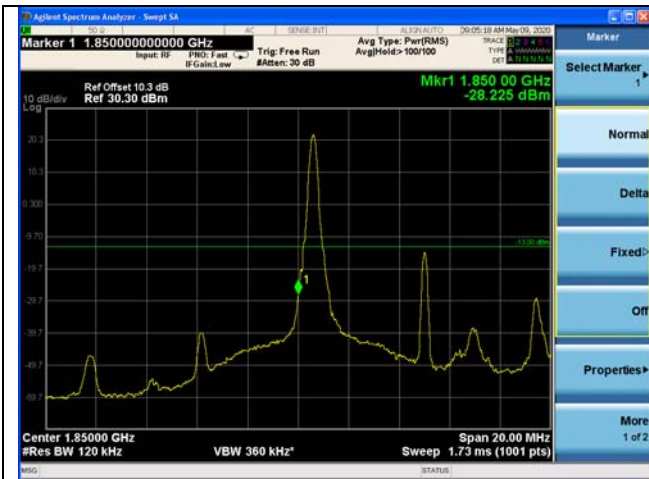


Fig.13

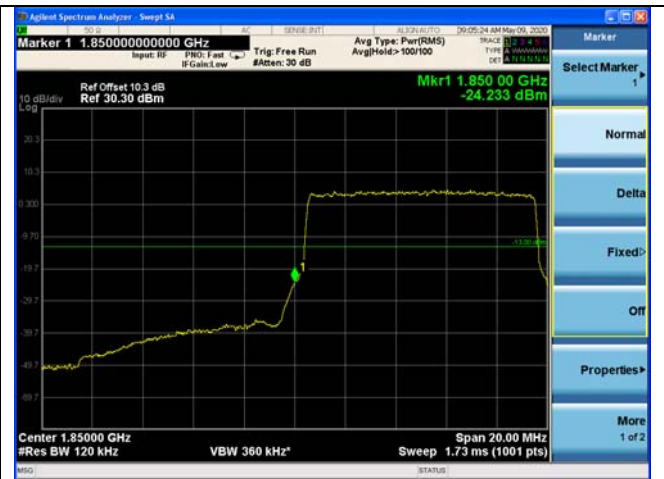


Fig.14



Fig.15



Fig.16

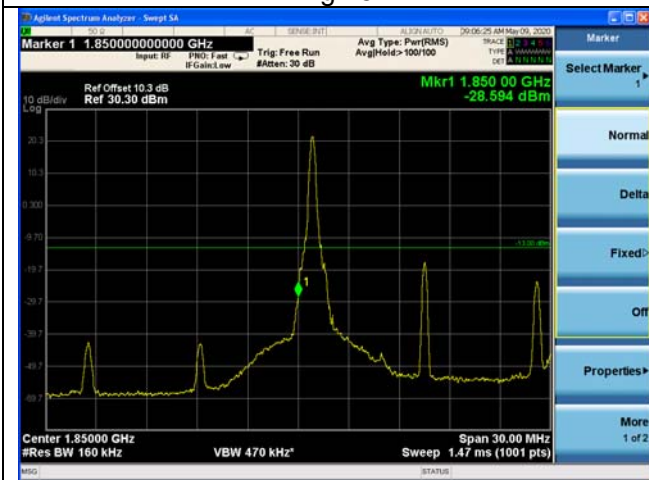


Fig.17



Fig.18

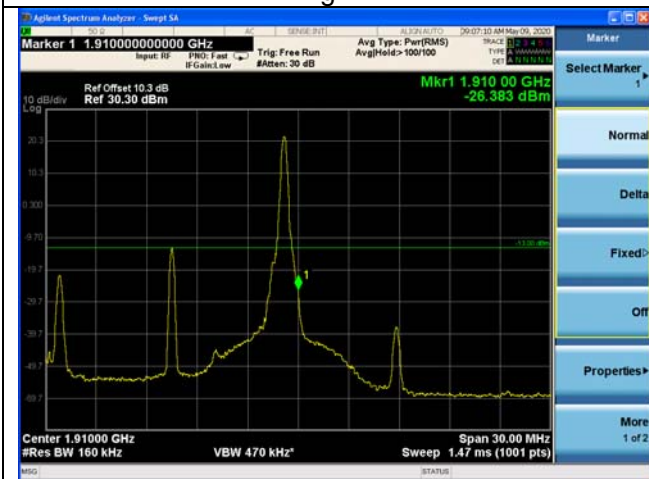


Fig.19



Fig.20

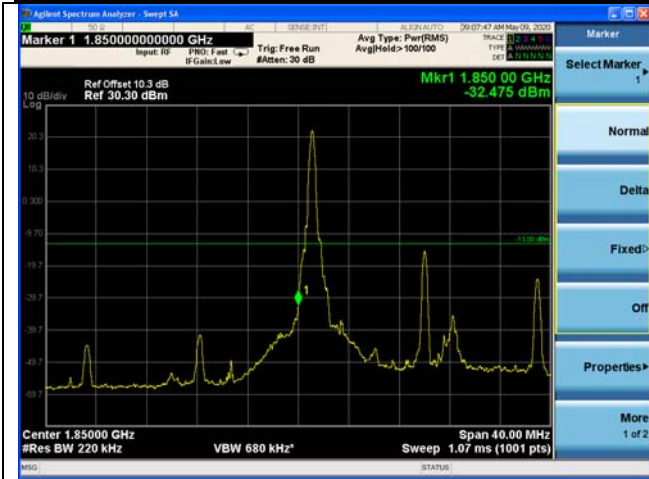


Fig.21



Fig.22

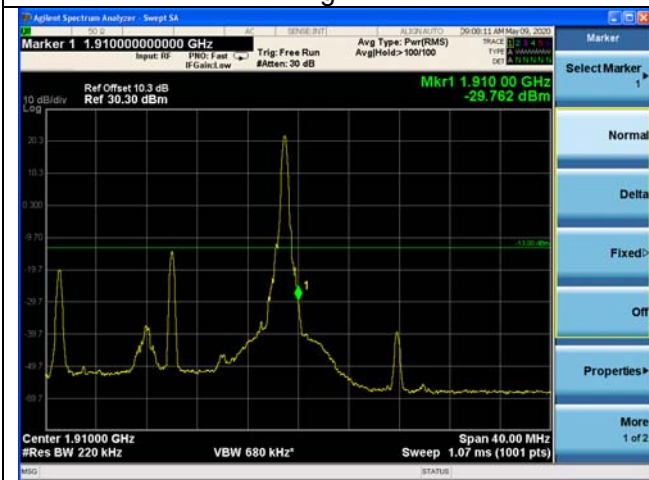


Fig.23



Fig.24

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band2 Low Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	0.038	-0.055	-0.017	-0.009	0.021	0.087
0	NV	0.085	0.056	0.097	0.000	0.086	0.082
+10	NV	-0.087	0.054	0.076	0.085	-0.001	0.023
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	-0.097	0.010	-0.036	0.047	-0.031	0.025
+40	NV	-0.099	-0.075	-0.009	-0.014	0.053	0.051
+50	NV	-0.023	-0.025	-0.034	-0.019	0.046	-0.065
+55	NV	0.094	-0.029	-0.076	-0.085	0.044	-0.070
+20	LV	0.042	-0.099	-0.081	-0.056	-0.063	0.085
+20	HV	0.100	0.033	-0.062	-0.005	0.047	0.048

Temperature(°C)	Voltage	Test Result (ppm) Band2 High Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	-0.049	0.020	-0.086	0.063	0.042	0.057
0	NV	-0.069	-0.076	0.043	-0.100	0.036	-0.011
+10	NV	-0.033	-0.062	-0.088	0.088	0.046	0.071
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	0.096	-0.087	0.052	0.093	-0.002	0.030
+40	NV	0.069	0.095	0.100	-0.052	0.016	-0.075
+50	NV	0.023	0.094	0.021	0.045	0.036	-0.095
+55	NV	0.063	0.034	-0.060	0.040	-0.068	-0.056
+20	LV	-0.024	-0.089	-0.048	-0.097	-0.057	-0.055
+20	HV	0.071	0.078	0.038	0.020	0.040	-0.067