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	22.28
				1	5	22.37
				3	2	21.72
				6	0	21.63
	1880	18900		1	0	22.29
				1	5	22.20
				3	2	21.85
				6	0	21.62
	1909.3	19193		1	0	22.14
				1	5	22.27
				3	2	21.79
				6	0	21.67
16QAM	1850.7	18607	1.4	1	0	21.25
				1	5	21.24
				3	2	20.83
				6	0	20.59
	1880	18900		1	0	21.34
				1	5	21.24
				3	2	20.83
				6	0	20.74
	1909.3	19193		1	0	21.60
				1	5	21.74
				3	2	20.66
				6	0	20.64
64QAM	1850.7	18607	1.4	1	0	21.57
				1	5	21.50
				3	2	20.75
				6	0	20.51
	1880	18900		1	0	21.21
				1	5	21.27
				3	2	20.68
				6	0	20.70
	1909.3	19193		1	0	21.29
				1	5	21.19
				3	2	20.75
				6	0	20.59

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1851.5	18615	3	1	0	22.40
				1	14	22.32
				8	4	21.72
				15	0	21.68
	1880	18900		1	0	22.23
				1	14	22.29
				8	4	21.70
				15	0	21.57
	1908.5	19185		1	0	22.13
				1	14	22.31
				8	4	21.77
				15	0	21.59
16QAM	1851.5	18615	3	1	0	21.33
				1	14	21.24
				8	4	20.67
				15	0	20.49
	1880	18900		1	0	21.35
				1	14	21.29
				8	4	20.82
				15	0	20.66
	1908.5	19185		1	0	21.70
				1	14	21.57
				8	4	20.81
				15	0	20.61
64QAM	1851.5	18615	3	1	0	21.46
				1	14	21.56
				8	4	20.79
				15	0	20.66
	1880	18900		1	0	21.18
				1	14	21.15
				8	4	20.72
				15	0	20.66
	1908.5	19185		1	0	21.17
				1	14	21.24
				8	4	20.76
				15	0	20.72

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1852.5	18625	5	1	0	22.12
				1	24	22.05
				12	6	21.16
				25	0	21.19
	1880	18900		1	0	22.03
				1	24	21.97
				12	6	21.22
				25	0	21.28
	1907.5	19175		1	0	21.91
				1	24	21.90
				12	6	21.14
				25	0	21.27
16QAM	1852.5	18625	5	1	0	21.17
				1	24	21.21
				12	6	20.30
				25	0	20.26
	1880	18900		1	0	21.36
				1	24	21.41
				12	6	20.48
				25	0	20.38
	1907.5	19175		1	0	21.27
				1	24	21.22
				12	6	20.33
				25	0	20.35
64QAM	1852.5	18625	5	1	0	21.13
				1	24	21.10
				12	6	20.23
				25	0	20.24
	1880	18900		1	0	21.40
				1	24	21.39
				12	6	20.46
				25	0	20.28
	1907.5	19175		1	0	21.22
				1	24	21.11
				12	6	20.33
				25	0	20.34

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1855	18650	10	1	0	22.29
				1	49	22.25
				24	12	21.73
				50	0	21.55
	1880	18900		1	0	22.23
				1	49	22.17
				24	12	21.73
				50	0	21.57
	1905	19150		1	0	22.28
				1	49	22.20
				24	12	21.68
				50	0	21.67
16QAM	1855	18650	10	1	0	21.33
				1	49	21.23
				24	12	20.84
				50	0	20.50
	1880	18900		1	0	21.34
				1	49	21.34
				24	12	20.74
				50	0	20.74
	1905	19150		1	0	21.65
				1	49	21.70
				24	12	20.77
				50	0	20.75
64QAM	1855	18650	10	1	0	21.57
				1	49	21.46
				24	12	20.78
				50	0	20.56
	1880	18900		1	0	21.20
				1	49	21.15
				24	12	20.80
				50	0	20.62
	1905	19150		1	0	21.25
				1	49	21.30
				24	12	20.63
				50	0	20.57

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1857.5	18675	15	1	0	22.06
				1	74	22.07
				40	18	21.16
				75	0	21.15
	1880	18900		1	0	22.12
				1	74	21.98
				40	18	21.29
				75	0	21.28
	1902.5	19125		1	0	22.01
				1	74	21.92
				40	18	21.14
				75	0	21.28
16QAM	1857.5	18675	15	1	0	21.15
				1	74	21.19
				40	18	20.33
				75	0	20.30
	1880	18900		1	0	21.41
				1	74	21.32
				40	18	20.42
				75	0	20.38
	1902.5	19125		1	0	21.27
				1	74	21.20
				40	18	20.40
				75	0	20.32
64QAM	1857.5	18675	15	1	0	21.15
				1	74	21.22
				40	18	20.30
				75	0	20.20
	1880	18900		1	0	21.41
				1	74	21.33
				40	18	20.38
				75	0	20.32
	1902.5	19125		1	0	21.23
				1	74	21.21
				40	18	20.36
				75	0	20.38

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1860	18700	20	1	0	22.40
				1	99	22.25
				50	25	21.61
				100	0	21.61
	1880	18900		1	0	22.26
				1	99	22.24
				50	25	21.85
				100	0	21.56
	1900	19100		1	0	22.22
				1	99	22.27
				50	25	21.69
				100	0	21.60
16QAM	1860	18700	20	1	0	21.22
				1	99	21.25
				50	25	20.85
				100	0	20.48
	1880	18900		1	0	21.29
				1	99	21.34
				50	25	20.80
				100	0	20.66
	1900	19100		1	0	21.62
				1	99	21.64
				50	25	20.74
				100	0	20.72
64QAM	1860	18700	20	1	0	21.59
				1	99	21.58
				50	25	20.77
				100	0	20.53
	1880	18900		1	0	21.18
				1	99	21.28
				50	25	20.68
				100	0	20.60
	1900	19100		1	0	21.15
				1	99	21.21
				50	25	20.76
				100	0	20.57

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	1.0794	Fig.1	1.0802	Fig.2	1.0800	Fig.3
	1880.0	18900		6	0	1.0789	Fig.4	1.0771	Fig.5	1.0770	Fig.6
	1909.3	19193		6	0	1.0760	Fig.7	1.0779	Fig.8	1.0758	Fig.9
	1851.5	18615	3	15	0	2.6751	Fig.10	2.6839	Fig.11	2.6911	Fig.12
	1880.0	18900		15	0	2.6787	Fig.13	2.6842	Fig.14	2.6879	Fig.15
	1908.5	19185		15	0	2.6812	Fig.16	2.6823	Fig.17	2.6839	Fig.18
	1852.5	18625	5	25	0	4.4638	Fig.19	4.4635	Fig.20	4.4815	Fig.21
	1880.0	18900		25	0	4.4694	Fig.22	4.4795	Fig.23	4.4553	Fig.24
	1907.5	19175		25	0	4.4655	Fig.25	4.4765	Fig.26	4.4793	Fig.27
	1855	18650	10	50	0	8.9407	Fig.28	8.9271	Fig.29	8.9318	Fig.30
	1880	18900		50	0	8.9310	Fig.31	8.9229	Fig.32	8.9393	Fig.33
	1905	19150		50	0	8.9553	Fig.34	8.9278	Fig.35	8.9339	Fig.36
	1857.5	18675	15	75	0	13.412	Fig.37	13.388	Fig.38	13.367	Fig.39
	1880.0	18900		75	0	13.436	Fig.40	13.422	Fig.41	13.390	Fig.42
	1902.5	19125		75	0	13.397	Fig.43	13.405	Fig.44	13.413	Fig.45
	1860	18700	20	100	0	17.832	Fig.46	17.823	Fig.47	17.809	Fig.48
	1880	18900		100	0	17.893	Fig.49	17.833	Fig.50	17.894	Fig.51
	1900	19100		100	0	17.851	Fig.52	17.866	Fig.53	17.845	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	1.246	Fig.1	1.245	Fig.2	1.231	Fig.3
	1880.0	18900		6	0	1.222	Fig.4	1.245	Fig.5	1.244	Fig.6
	1909.3	19193		6	0	1.235	Fig.7	1.232	Fig.8	1.247	Fig.9
	1851.5	18615	3	15	0	2.892	Fig.10	2.876	Fig.11	2.871	Fig.12
	1880.0	18900		15	0	2.851	Fig.13	2.889	Fig.14	2.886	Fig.15
	1908.5	19185		15	0	2.877	Fig.16	2.862	Fig.17	2.889	Fig.18
	1852.5	18625	5	25	0	4.846	Fig.19	4.794	Fig.20	4.801	Fig.21
	1880.0	18900		25	0	4.845	Fig.22	4.860	Fig.23	4.806	Fig.24
	1907.5	19175		25	0	4.868	Fig.25	4.779	Fig.26	4.872	Fig.27
	1855	18650	10	50	0	9.602	Fig.28	9.433	Fig.29	9.620	Fig.30
	1880	18900		50	0	9.569	Fig.31	9.546	Fig.32	9.561	Fig.33
	1905	19150		50	0	9.859	Fig.34	9.813	Fig.35	9.597	Fig.36
	1857.5	18675	15	75	0	14.33	Fig.37	14.34	Fig.38	14.17	Fig.39
	1880.0	18900		75	0	14.21	Fig.40	14.08	Fig.41	14.31	Fig.42
	1902.5	19125		75	0	14.29	Fig.43	14.24	Fig.44	14.19	Fig.45
	1860	18700	20	100	0	18.91	Fig.46	18.87	Fig.47	18.92	Fig.48
	1880	18900		100	0	19.06	Fig.49	18.89	Fig.50	18.81	Fig.51
	1900	19100		100	0	18.98	Fig.52	18.93	Fig.53	18.92	Fig.54

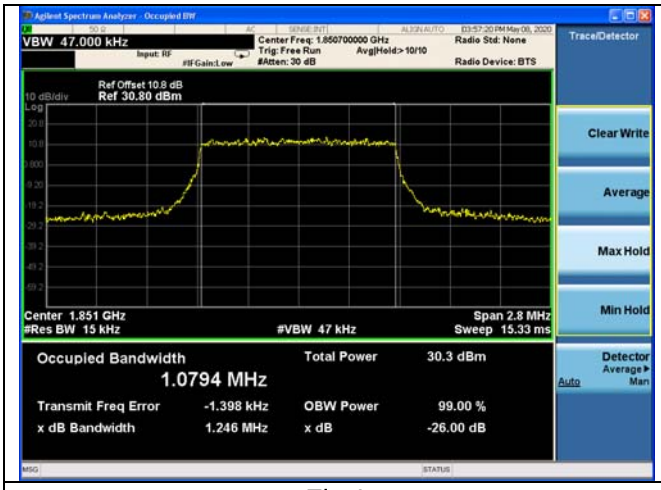


Fig.1

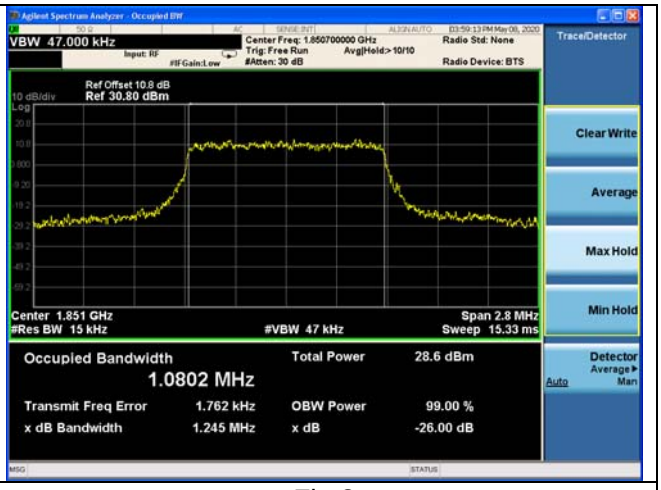


Fig.2

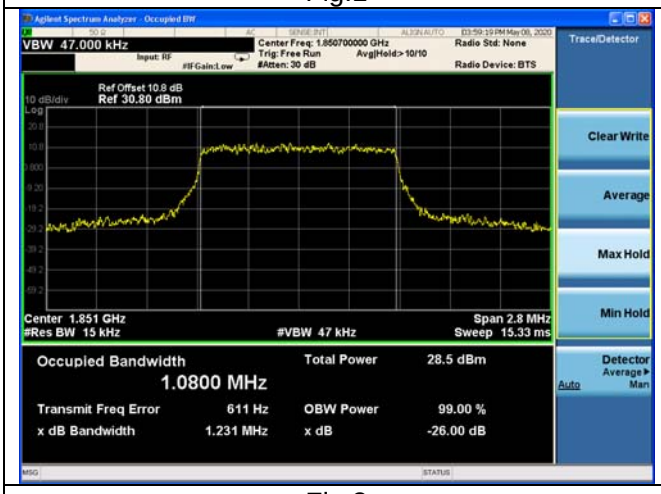


Fig.3

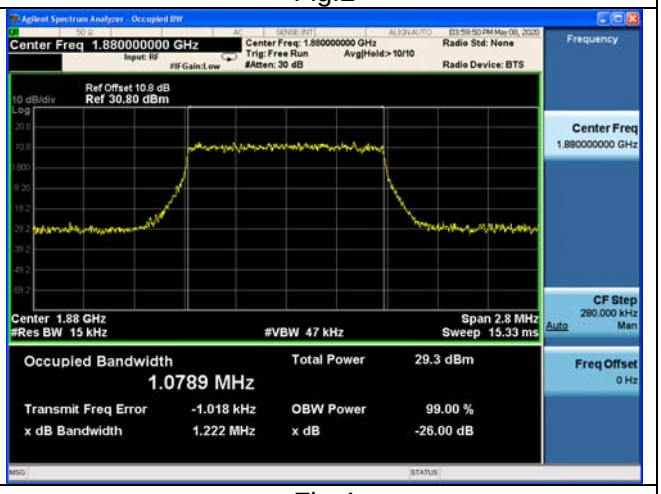


Fig.4

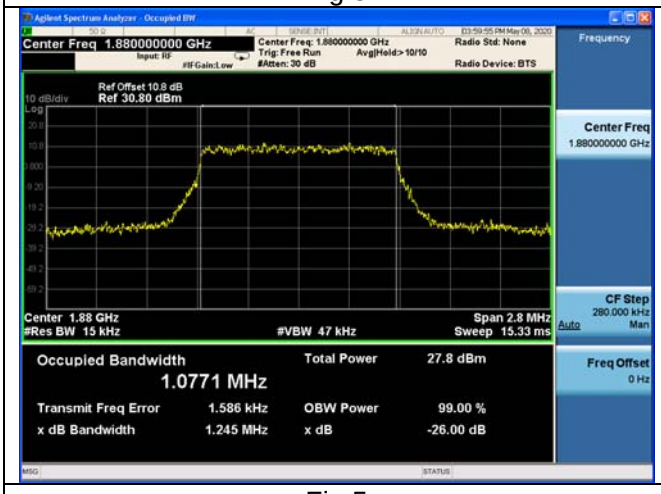


Fig.5

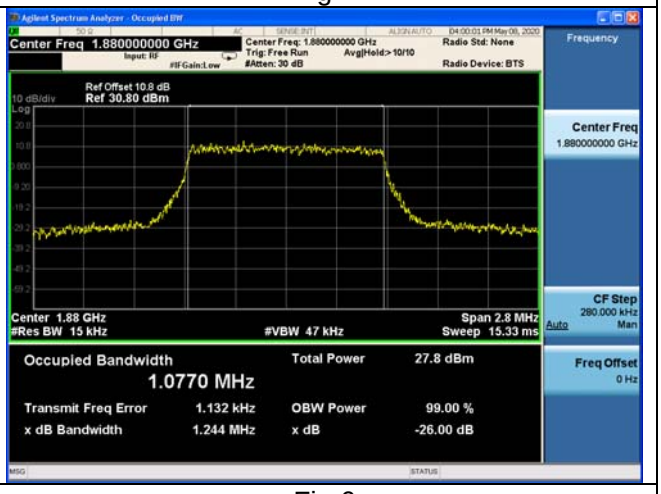


Fig.6

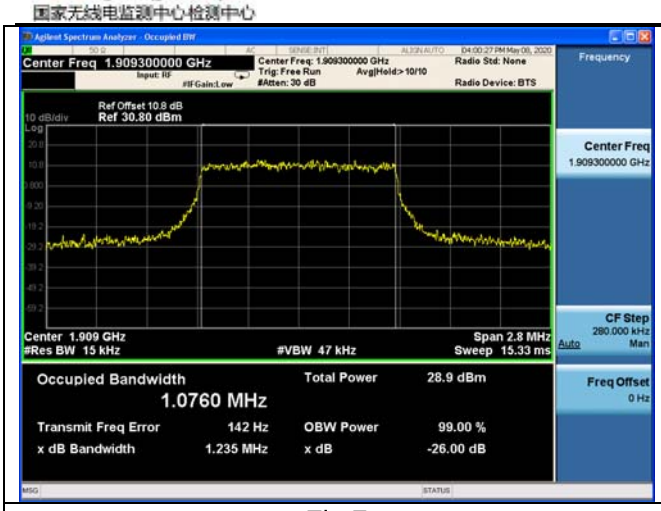


Fig.7

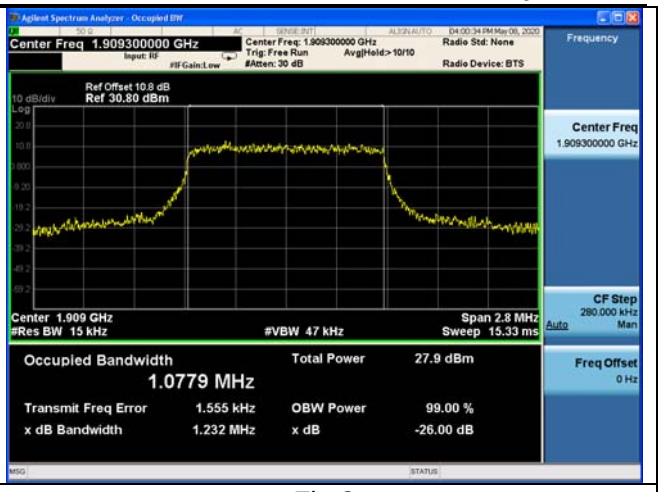


Fig.8

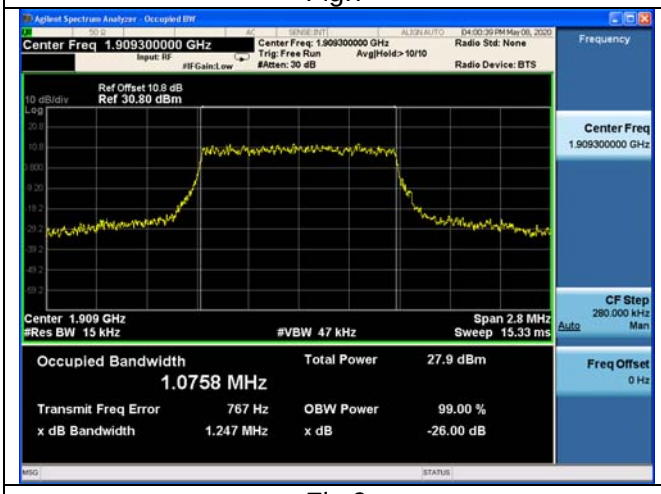


Fig.9

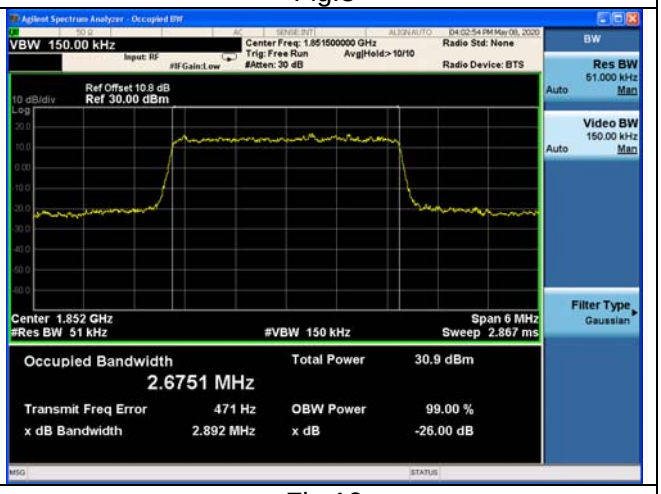


Fig.10

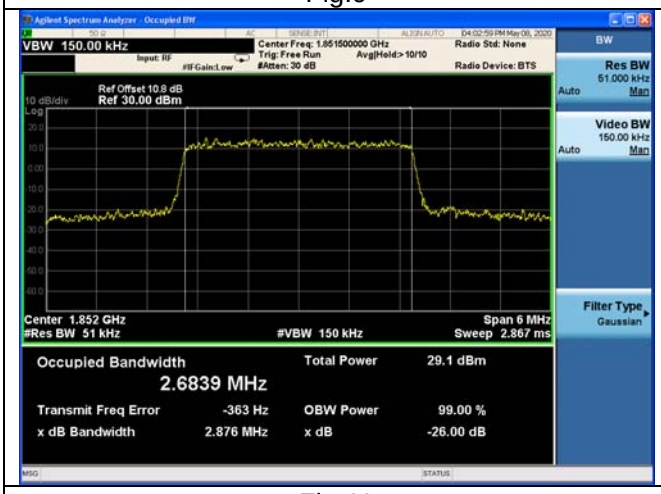


Fig.11

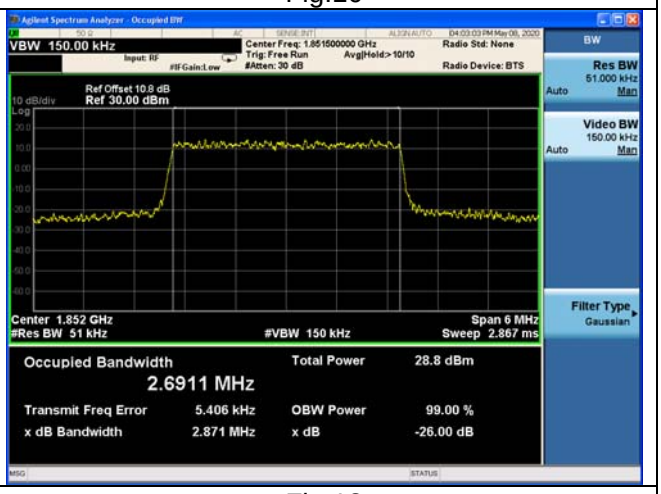


Fig.12

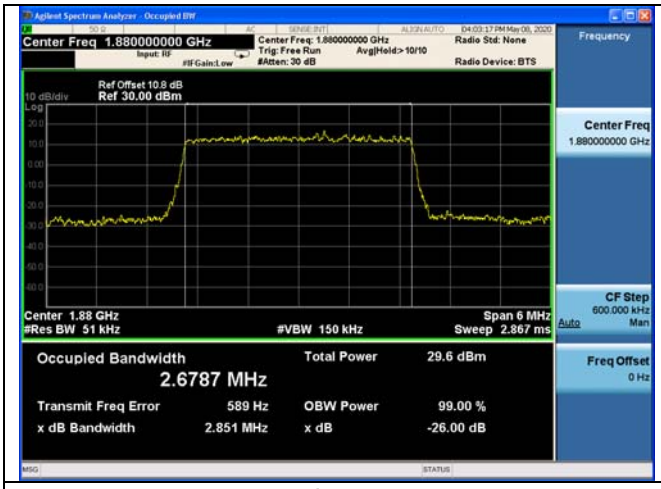
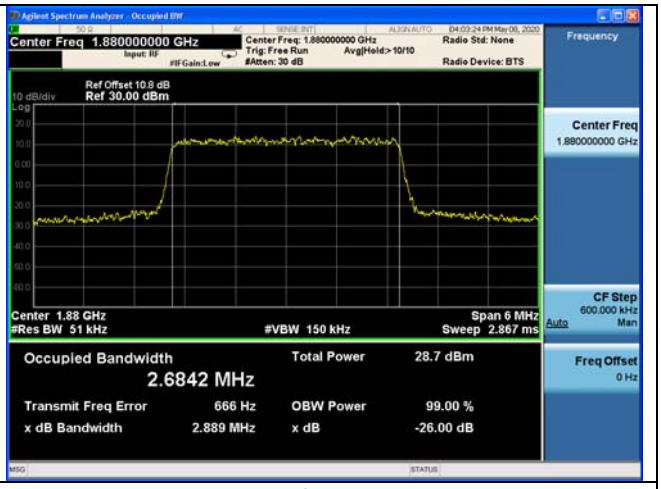


Fig.13



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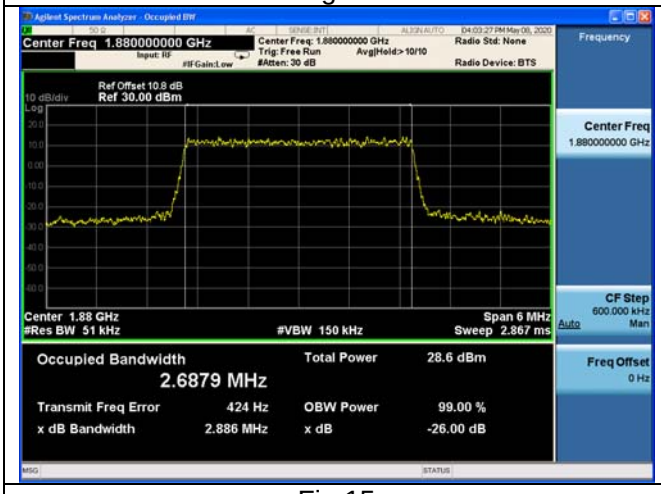

Fig.15

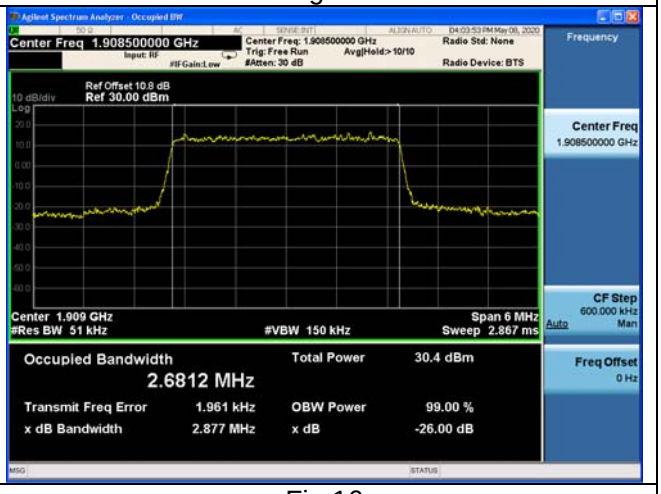

Fig.16

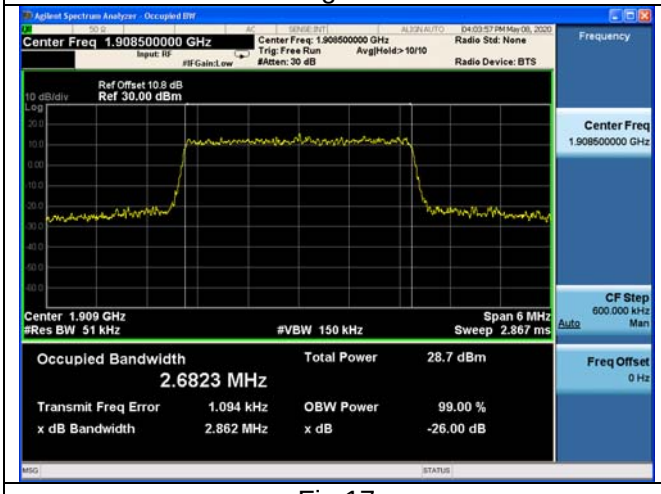

Fig.17

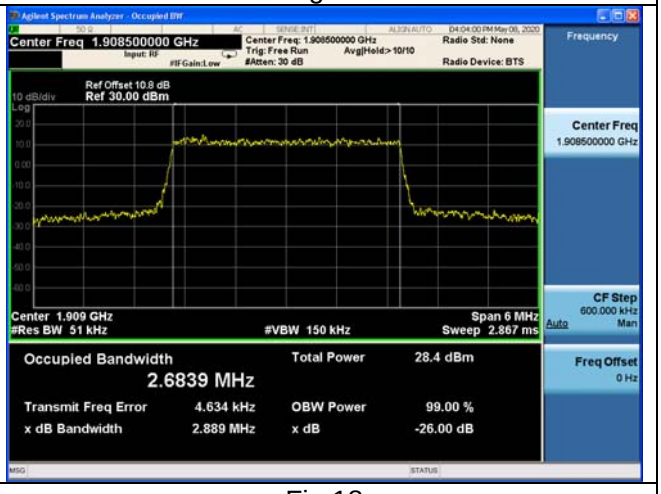

Fig.18

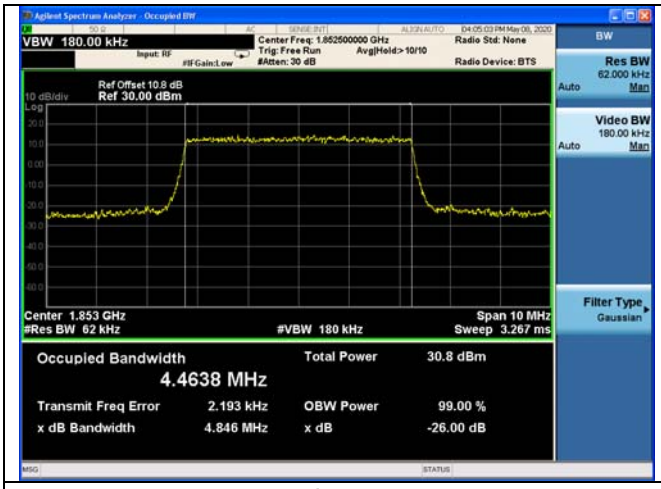

Fig.19

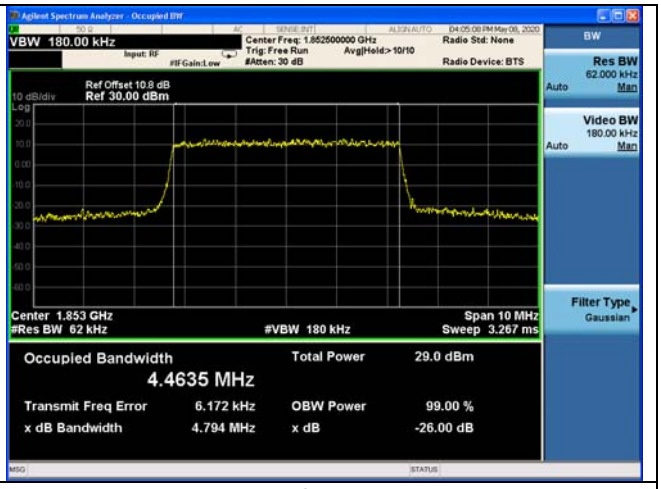

Fig.20

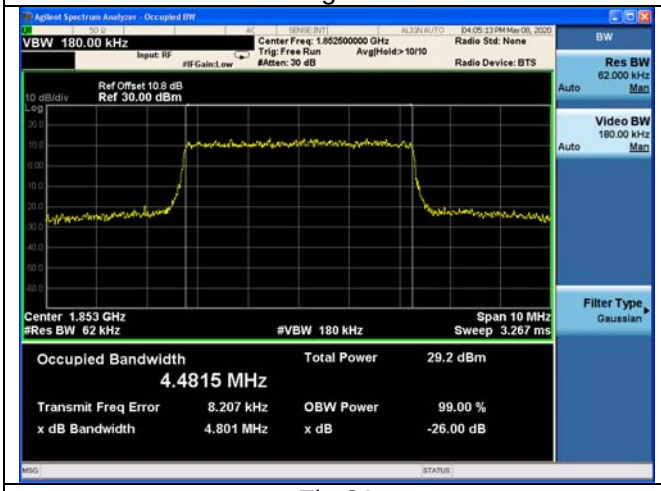

Fig.21

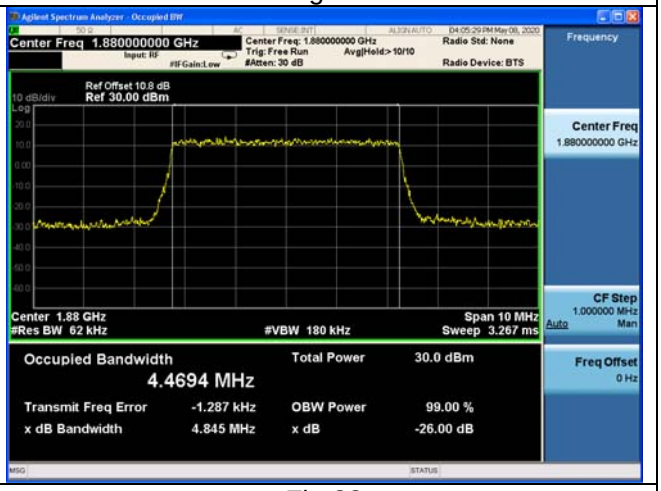

Fig.22

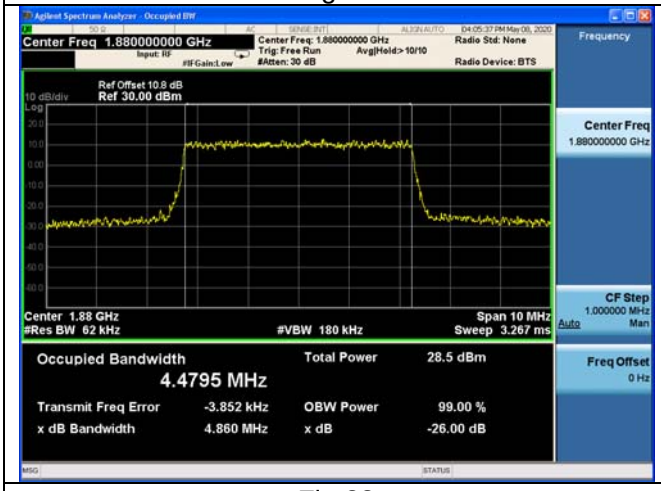

Fig.23

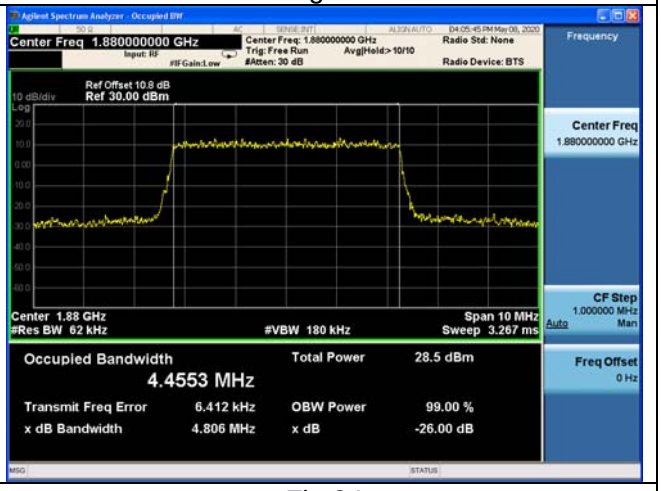

Fig.24

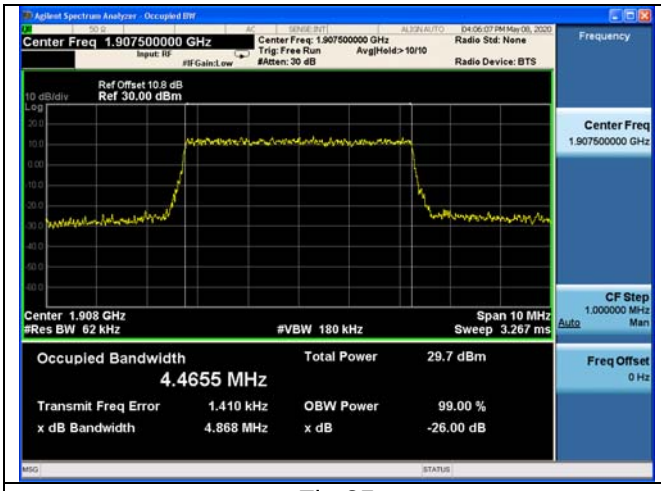

Fig.25

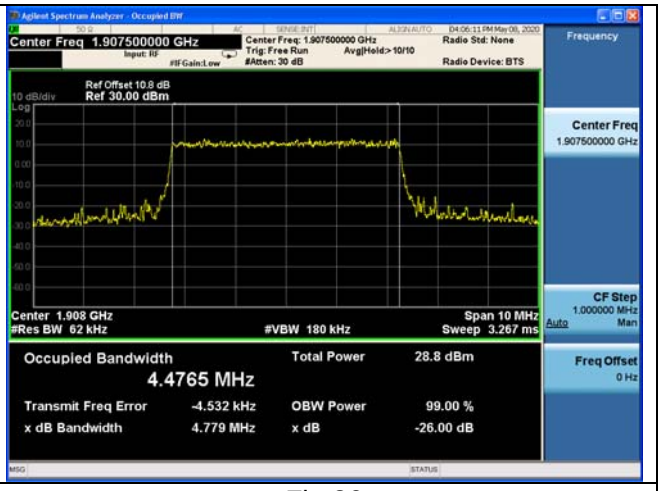

Fig.26

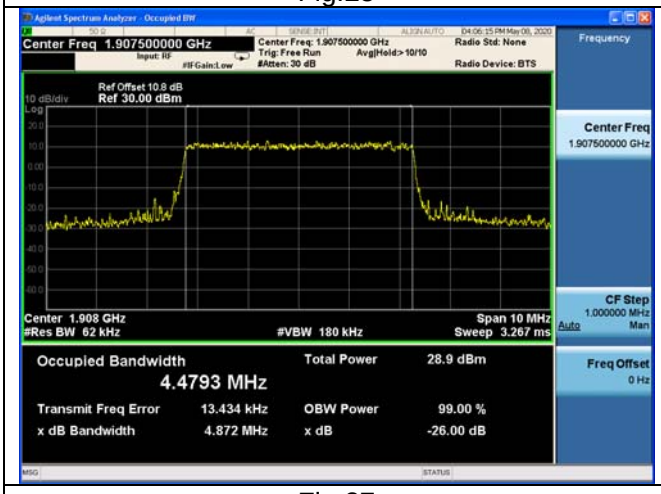

Fig.27

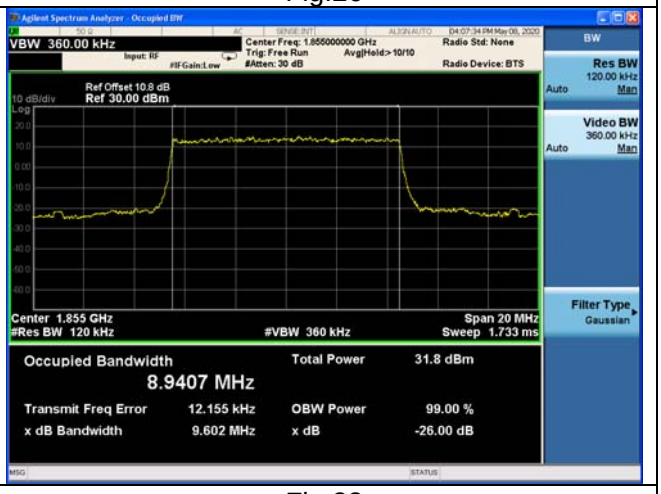

Fig.28

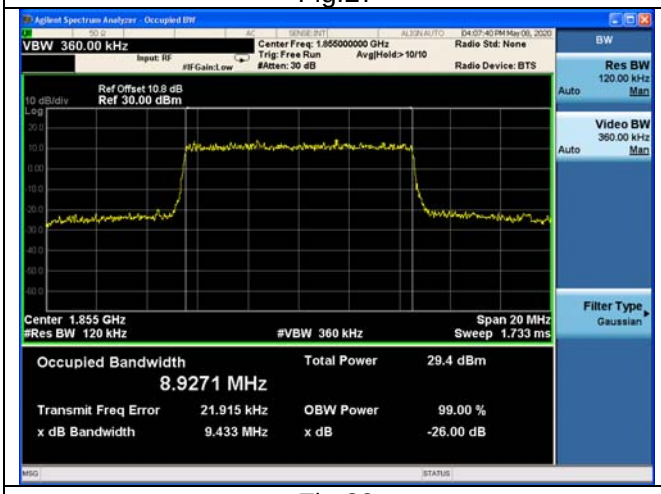

Fig.29

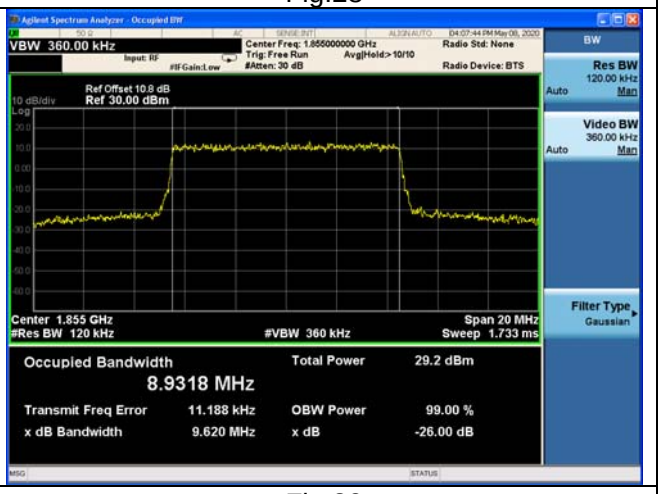

Fig.30

Fig.31

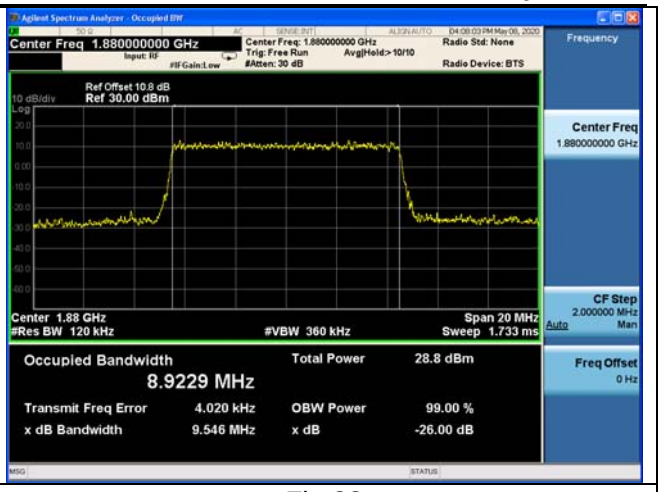

Fig.32

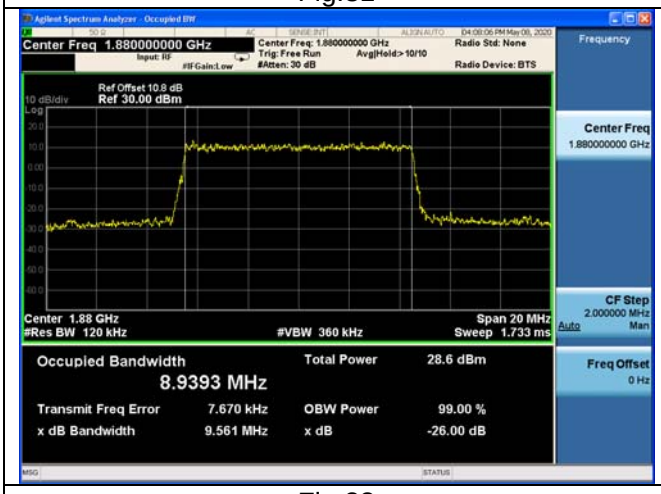

Fig.33

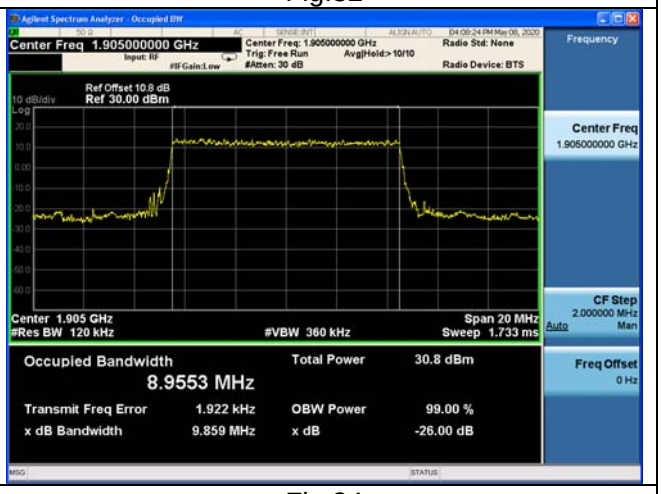

Fig.34

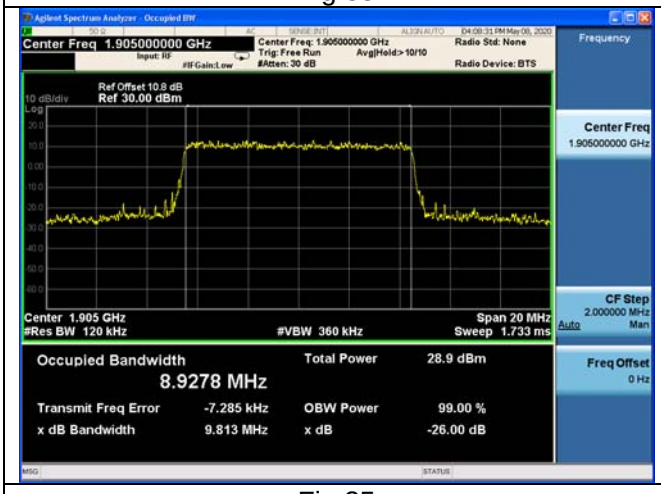

Fig.35

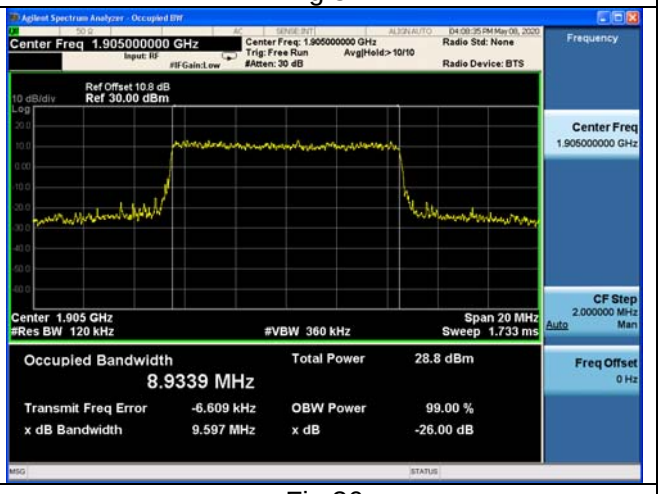

Fig.36

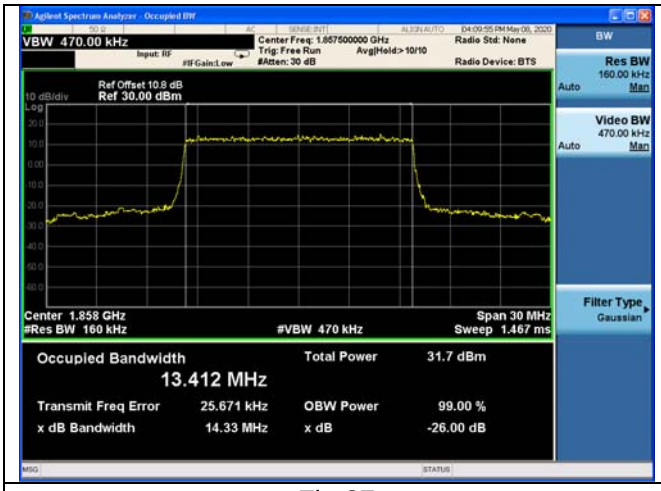

Fig.37

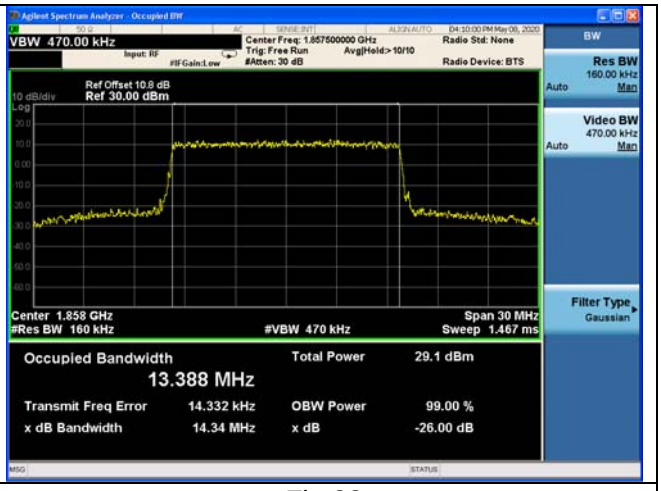

Fig.38

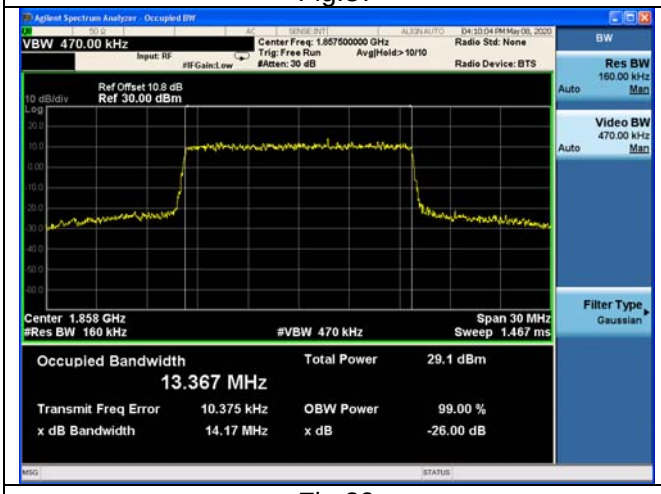

Fig.39

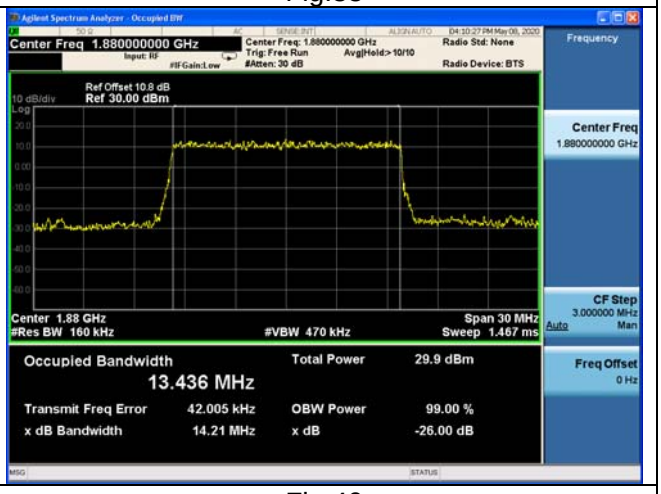

Fig.40

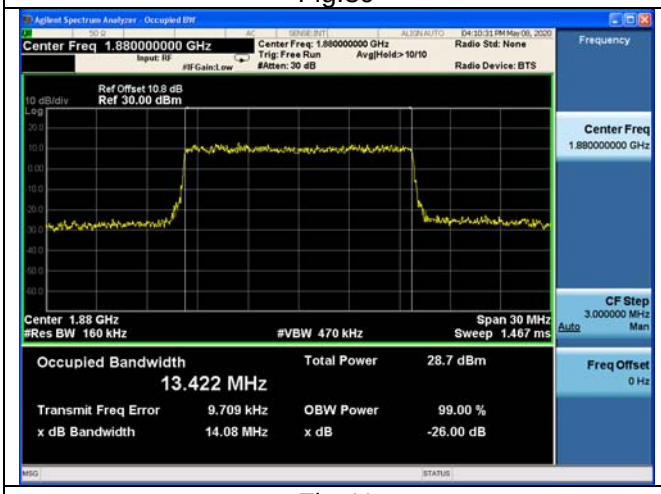

Fig.41

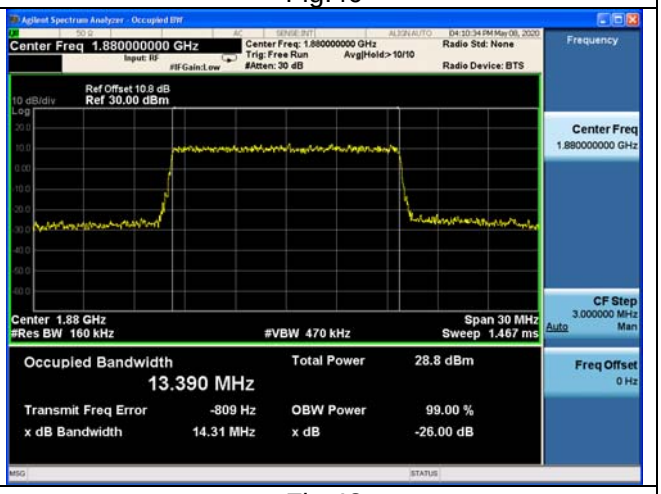

Fig.42

Fig.43

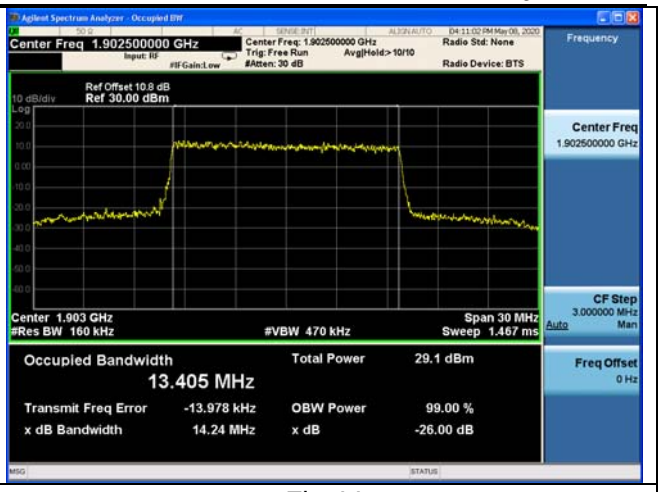

Fig.44

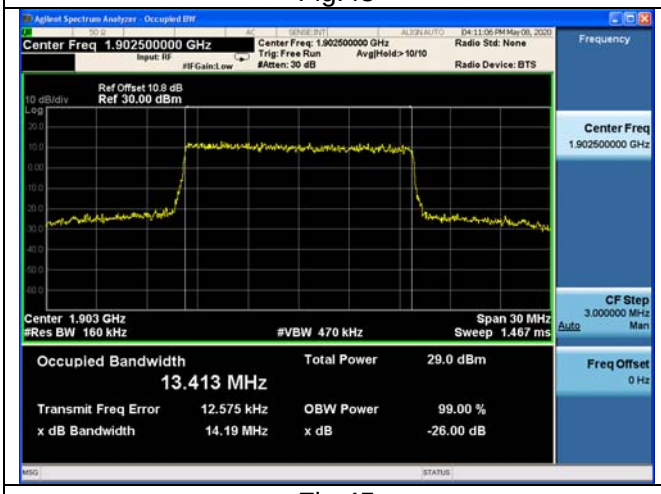

Fig.45

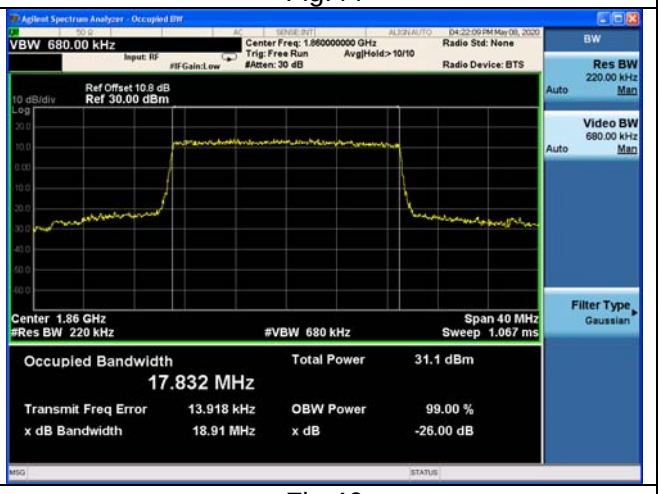

Fig.46

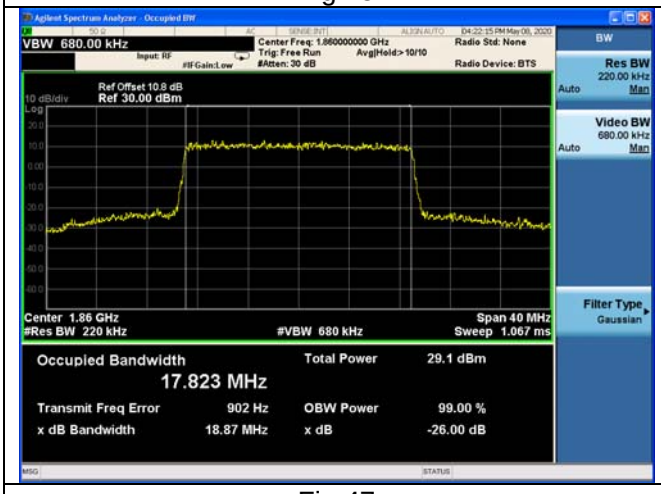

Fig.47

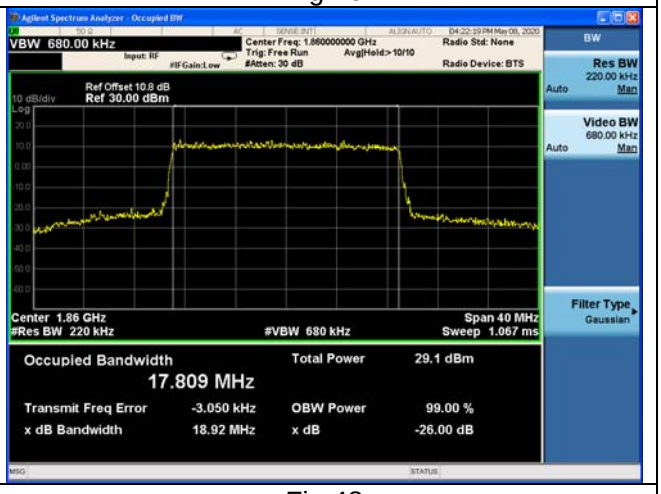

Fig.48

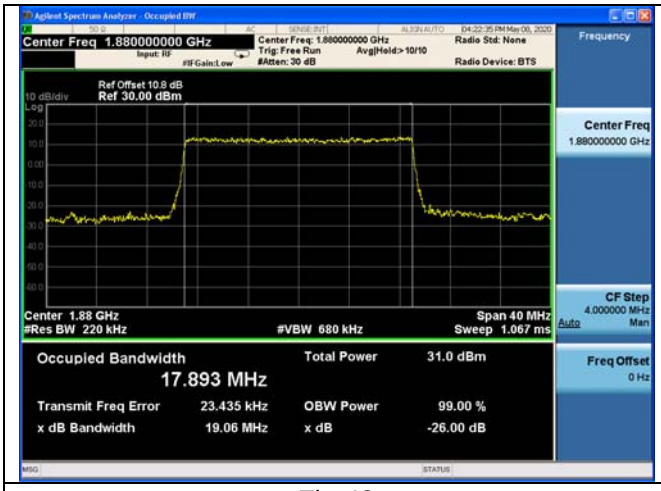

Fig.49

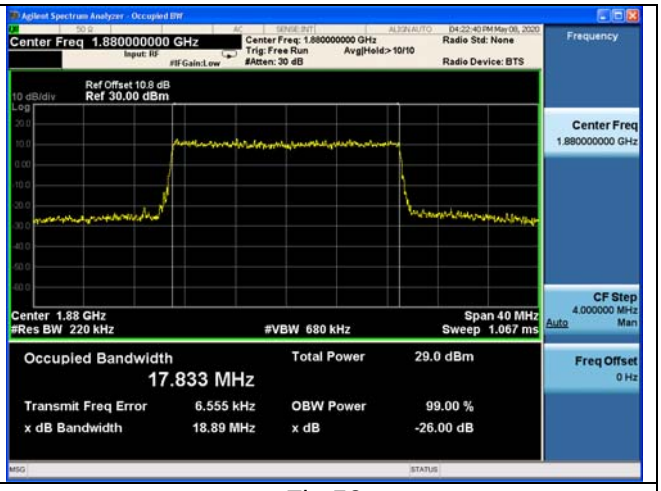

Fig.50

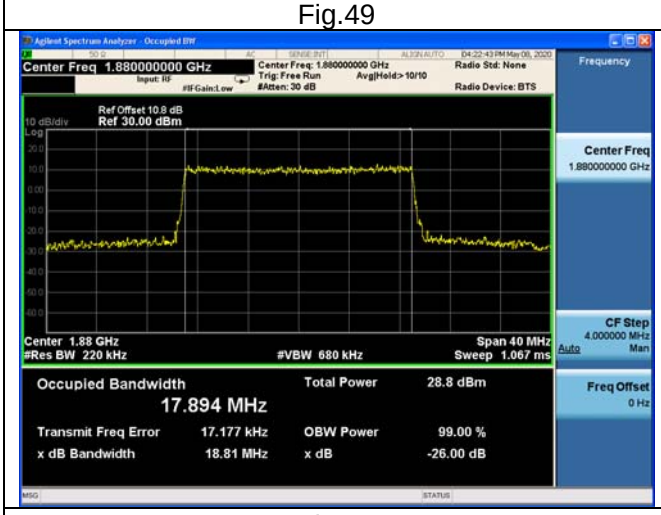

Fig.51

Fig.52

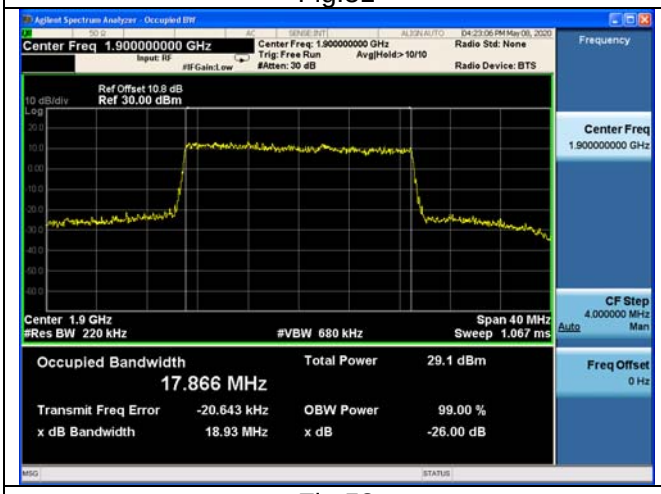

Fig.53

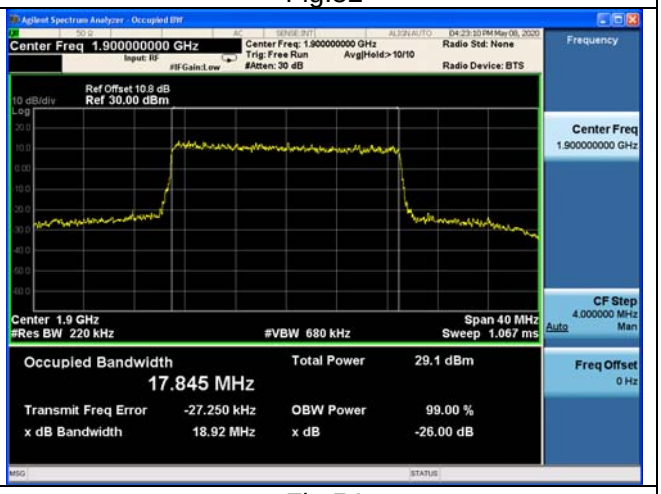

Fig.54

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

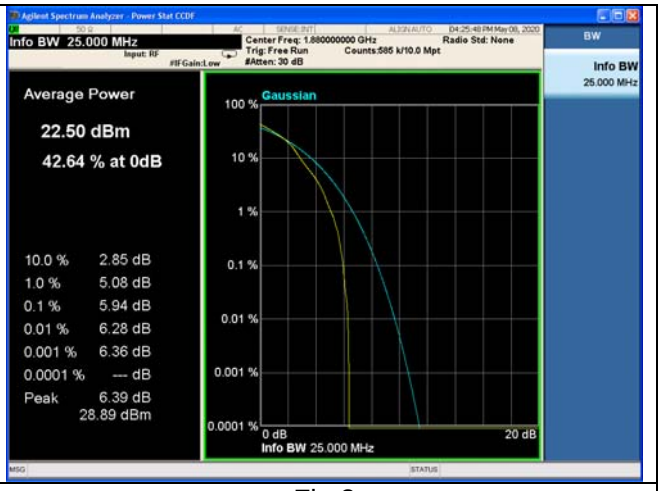

Fig.2

Fig.3

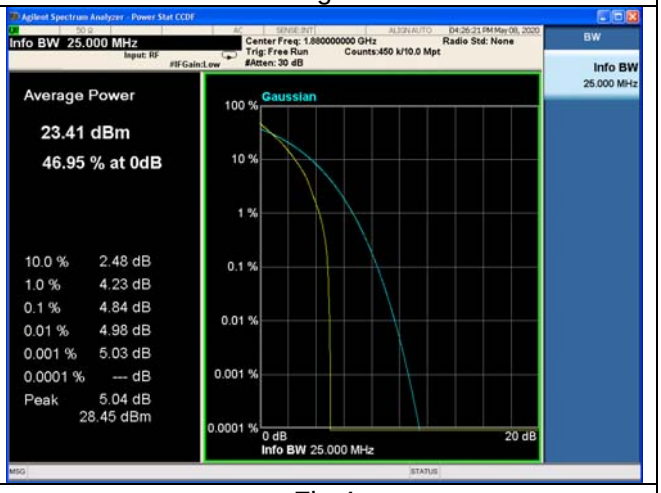

Fig.4

Fig.5

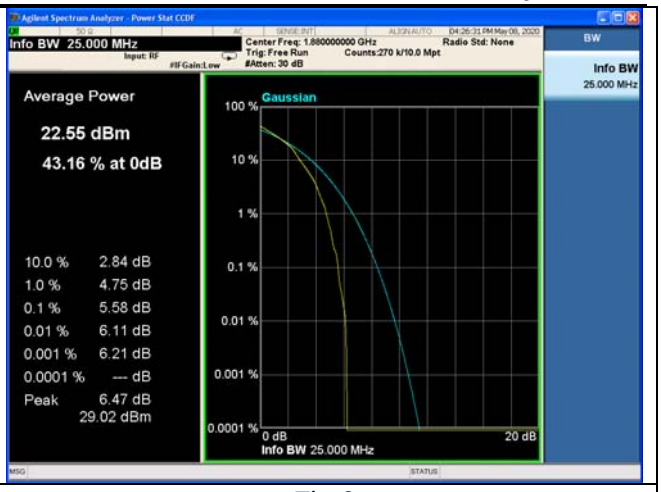

Fig.6

Fig.7

Fig.8

Fig.9

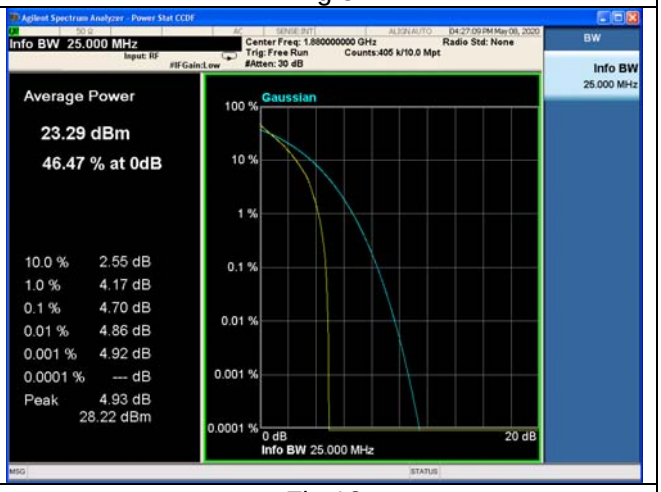

Fig.10

Fig.11

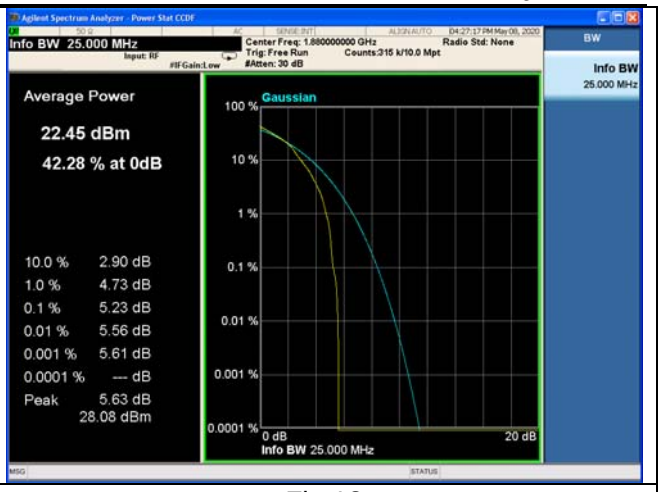

Fig.12

Fig.13

Fig.14

Fig.15

Fig.16


Agilent Spectrum Analyzer - Power Stat CCDF
Info BW 25.000 MHz
Center Freq: 1.880000000 GHz
Trig: Free Run
Counts:360 k/10.0 Mpt
#Atten: 30 dB
Radio Std: None
BW
Info BW
25.000 MHz
Average Power
22.29 dBm
42.85 % at 0dB
10.0 % 2.80 dB
1.0 % 5.05 dB
0.1 % 5.72 dB
0.01 % 6.28 dB
0.001 % 6.51 dB
0.0001 % --- dB
Peak 6.67 dB
28.96 dBm
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0 dB
20 dB
Info BW 25.000 MHz

Fig.17

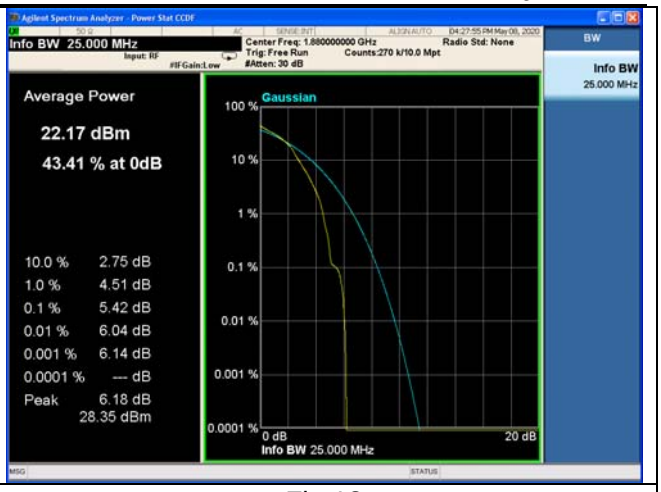
Agilent Spectrum Analyzer - Power Stat CCDF
Info BW 25.000 MHz
Center Freq: 1.880000000 GHz
Trig: Free Run
Counts:270 k/10.0 Mpt
#Atten: 30 dB
Radio Std: None
BW
Info BW
25.000 MHz
Average Power
22.17 dBm
43.41 % at 0dB
10.0 % 2.75 dB
1.0 % 4.51 dB
0.1 % 5.42 dB
0.01 % 6.04 dB
0.001 % 6.14 dB
0.0001 % --- dB
Peak 6.18 dB
28.35 dBm
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0 dB
20 dB
Info BW 25.000 MHz

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

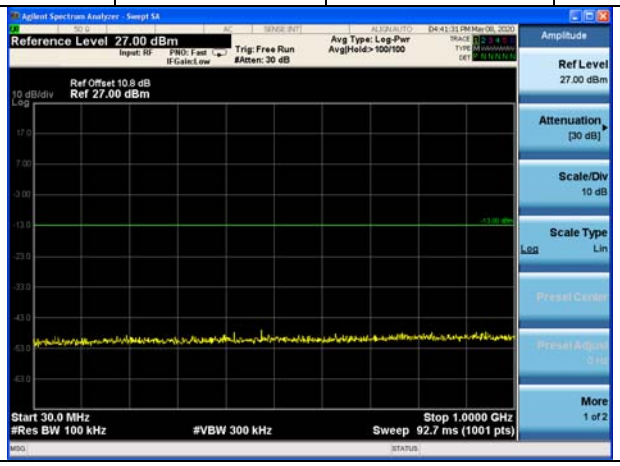

Fig.1

Fig.2

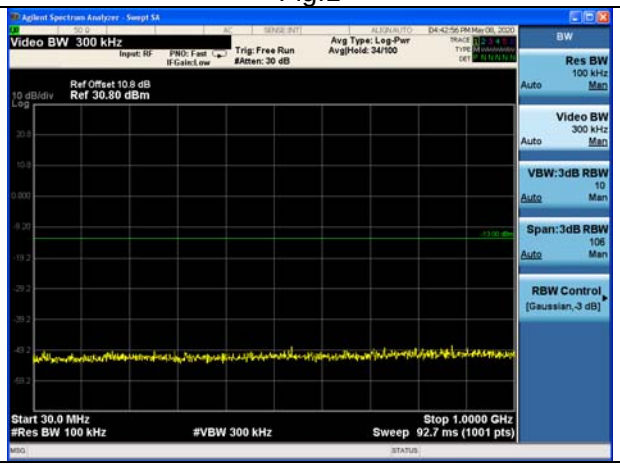

Fig3

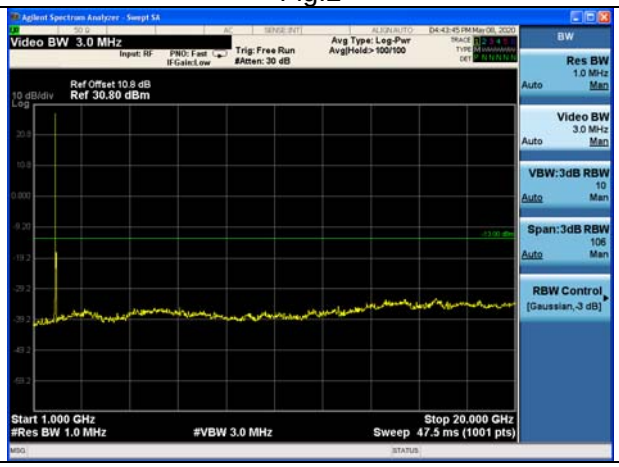

Fig4

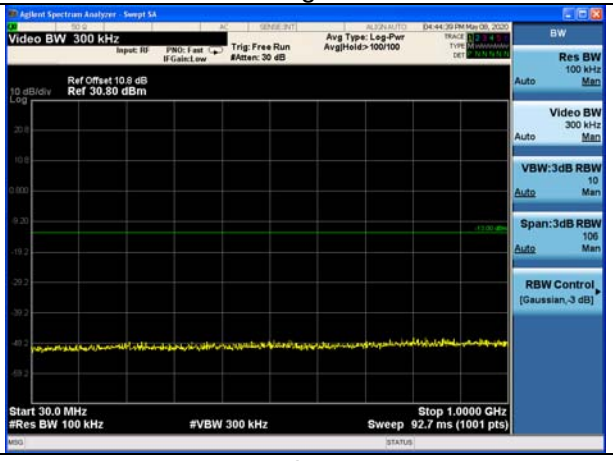

Fig5

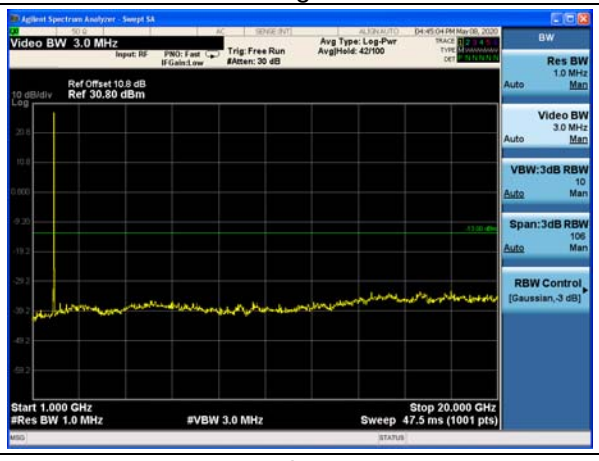

Fig6

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

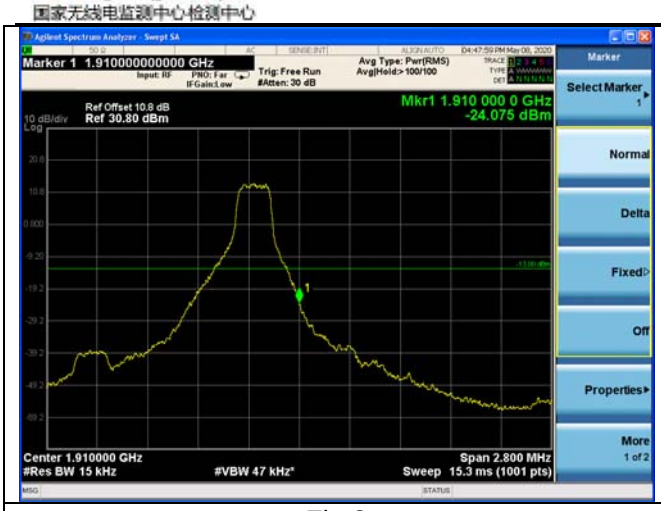

Fig.3

Fig.4

Fig.5

Fig.6

Fig.7

Fig.8

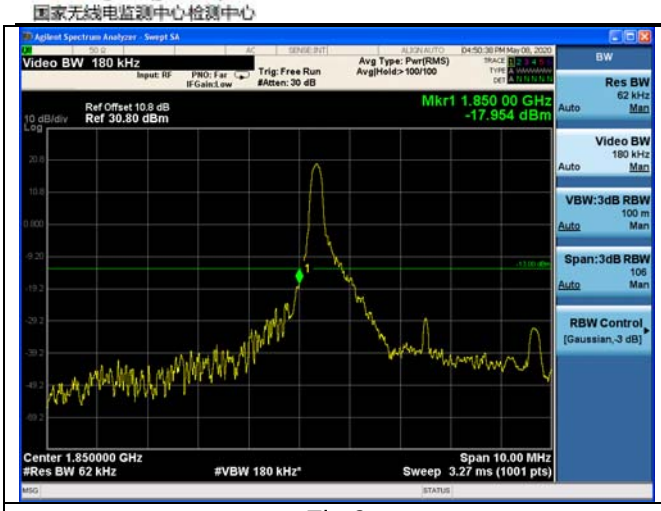

Fig.9

Fig.10

Fig.11

Fig.12

Fig.13

Fig.14

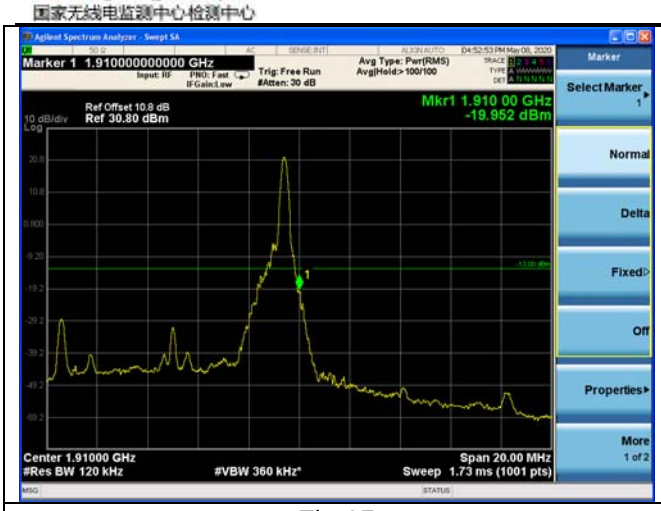

Fig.15

Fig.16

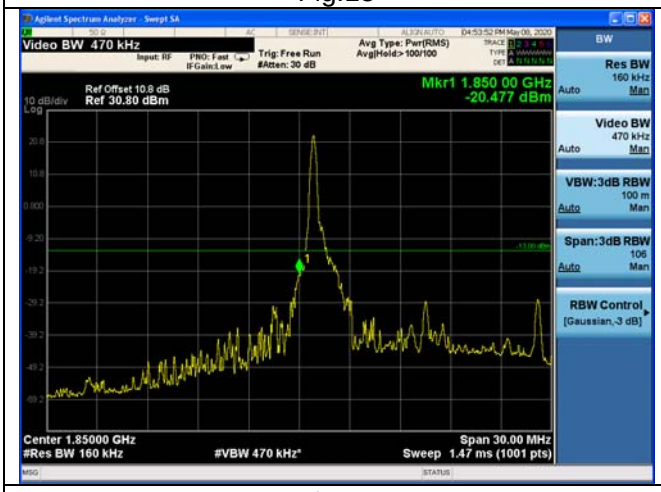

Fig.17

Fig.18

Fig.19

Fig.20

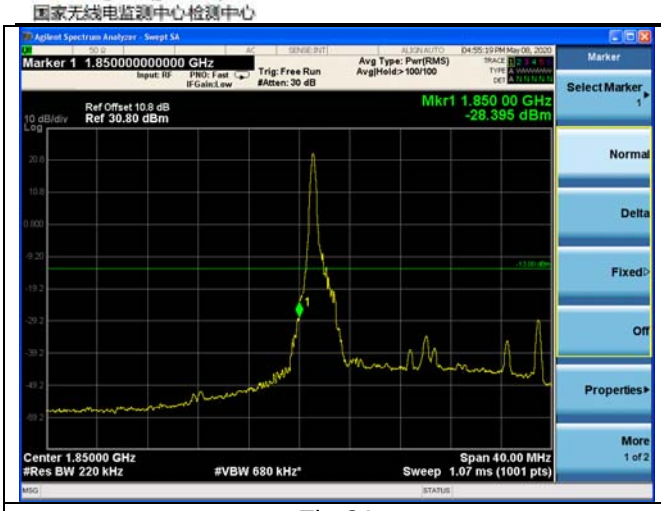

Fig.21

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	0.003	0.066	0.047	-0.027	-0.003	0.065
0	NV	-0.057	-0.051	0.048	0.034	-0.007	0.024
+10	NV	-0.065	-0.065	-0.037	-0.027	0.022	-0.042
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	-0.047	-0.015	0.071	0.006	-0.056	0.029
+40	NV	-0.034	0.028	-0.002	-0.031	-0.003	0.018
+50	NV	-0.006	-0.009	-0.046	0.004	-0.056	0.051
+55	NV	0.044	-0.055	-0.026	0.043	-0.014	-0.039
+20	LV	-0.021	-0.035	-0.047	-0.035	0.028	0.023
+20	HV	0.040	0.009	0.047	-0.016	0.077	-0.021

Temperature(°C)	Voltage	Test Result (ppm) Band2 High Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	-0.001	0.001	0.013	-0.010	0.037	0.058
0	NV	0.062	-0.014	0.033	0.015	-0.069	-0.046
+10	NV	-0.048	-0.040	0.041	-0.044	0.025	0.059
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	-0.007	-0.069	-0.007	-0.004	-0.062	0.060
+40	NV	-0.009	0.025	-0.051	-0.031	-0.048	-0.012
+50	NV	0.057	-0.021	0.035	0.042	-0.068	-0.029
+55	NV	0.032	-0.011	0.015	-0.034	-0.062	-0.029
+20	LV	-0.051	0.009	-0.064	-0.056	-0.037	0.054
+20	HV	-0.052	-0.023	-0.010	0.001	-0.032	-0.040