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	23.14
				1	5	23.10
				3	2	22.29
				6	0	22.16
	1880	18900		1	0	23.18
				1	5	23.11
				3	2	22.31
				6	0	22.23
	1909.3	19193		1	0	23.35
				1	5	23.23
				3	2	22.40
				6	0	22.33
16QAM	1850.7	18607	1.4	1	0	21.96
				1	5	21.78
				3	2	20.99
				6	0	20.96
	1880	18900		1	0	21.93
				1	5	21.82
				3	2	21.06
				6	0	20.94
	1909.3	19193		1	0	22.16
				1	5	21.95
				3	2	21.22
				6	0	21.18
64QAM	1850.7	18607	1.4	1	0	21.87
				1	5	21.85
				3	2	21.01
				6	0	21.02
	1880	18900		1	0	21.98
				1	5	21.86
				3	2	21.03
				6	0	21.03
	1909.3	19193		1	0	22.09
				1	5	22.03
				3	2	21.18
				6	0	21.12

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1851.5	18615	3	1	0	23.20
				1	14	23.04
				8	4	22.22
				15	0	22.25
	1880	18900		1	0	23.22
				1	14	23.11
				8	4	22.32
				15	0	22.27
	1908.5	19185		1	0	23.31
				1	14	23.22
				8	4	22.43
				15	0	22.36
16QAM	1851.5	18615	3	1	0	21.92
				1	14	21.82
				8	4	21.04
				15	0	20.92
	1880	18900		1	0	22.00
				1	14	21.92
				8	4	21.10
				15	0	20.98
	1908.5	19185		1	0	22.16
				1	14	22.03
				8	4	21.19
				15	0	21.19
64QAM	1851.5	18615	3	1	0	21.92
				1	14	21.83
				8	4	21.01
				15	0	20.97
	1880	18900		1	0	22.00
				1	14	21.89
				8	4	21.09
				15	0	21.05
	1908.5	19185		1	0	22.07
				1	14	21.98
				8	4	21.22
				15	0	21.13

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1852.5	18625	5	1	0	23.25
				1	24	23.12
				12	6	22.29
				25	0	22.29
	1880	18900		1	0	23.24
				1	24	23.24
				12	6	22.32
				25	0	22.35
	1907.5	19175		1	0	23.47
				1	24	23.38
				12	6	22.47
				25	0	22.48
16QAM	1852.5	18625	5	1	0	21.97
				1	24	21.94
				12	6	21.01
				25	0	20.96
	1880	18900		1	0	22.04
				1	24	21.86
				12	6	21.16
				25	0	21.01
	1907.5	19175		1	0	22.24
				1	24	22.09
				12	6	21.24
				25	0	21.27
64QAM	1852.5	18625	5	1	0	21.88
				1	24	21.85
				12	6	21.08
				25	0	20.99
	1880	18900		1	0	22.10
				1	24	21.95
				12	6	21.15
				25	0	21.03
	1907.5	19175		1	0	22.06
				1	24	22.08
				12	6	21.30
				25	0	21.16

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1855	18650	10	1	0	23.32
				1	49	23.21
				24	12	22.42
				50	0	22.32
	1880	18900		1	0	23.37
				1	49	23.24
				24	12	22.42
				50	0	22.43
	1905	19150		1	0	23.44
				1	49	23.39
				24	12	22.54
				50	0	22.54
16QAM	1855	18650	10	1	0	22.09
				1	49	22.01
				24	12	21.15
				50	0	21.12
	1880	18900		1	0	22.13
				1	49	21.97
				24	12	21.20
				50	0	21.10
	1905	19150		1	0	22.22
				1	49	22.13
				24	12	21.31
				50	0	21.30
64QAM	1855	18650	10	1	0	21.98
				1	49	21.94
				24	12	21.09
				50	0	21.11
	1880	18900		1	0	22.09
				1	49	22.03
				24	12	21.15
				50	0	21.12
	1905	19150		1	0	22.23
				1	49	22.17
				24	12	21.32
				50	0	21.26

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1857.5	18675	15	1	0	23.34
				1	74	23.21
				40	18	22.47
				75	0	22.31
	1880	18900		1	0	23.40
				1	74	23.28
				40	18	22.49
				75	0	22.46
	1902.5	19125		1	0	23.53
				1	74	23.38
				40	18	22.64
				75	0	22.56
16QAM	1857.5	18675	15	1	0	22.07
				1	74	22.02
				40	18	21.16
				75	0	21.12
	1880	18900		1	0	22.07
				1	74	22.02
				40	18	21.24
				75	0	21.18
	1902.5	19125		1	0	22.34
				1	74	22.14
				40	18	21.33
				75	0	21.28
64QAM	1857.5	18675	15	1	0	22.08
				1	74	22.04
				40	18	21.19
				75	0	21.17
	1880	18900		1	0	22.12
				1	74	22.04
				40	18	21.24
				75	0	21.12
	1902.5	19125		1	0	22.21
				1	74	22.13
				40	18	21.38
				75	0	21.30

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1860	18700	20	1	0	23.44
				1	99	23.35
				50	25	22.53
				100	0	22.46
	1880	18900		1	0	23.48
				1	99	23.38
				50	25	22.59
				100	0	22.52
	1900	19100		1	0	23.62
				1	99	23.53
				50	25	22.71
				100	0	22.64
16QAM	1860	18700	20	1	0	22.18
				1	99	22.09
				50	25	21.27
				100	0	21.21
	1880	18900		1	0	22.21
				1	99	22.12
				50	25	21.31
				100	0	21.23
	1900	19100		1	0	22.40
				1	99	22.24
				50	25	21.47
				100	0	21.42
64QAM	1860	18700	20	1	0	22.14
				1	99	22.09
				50	25	21.25
				100	0	21.24
	1880	18900		1	0	22.25
				1	99	22.15
				50	25	21.33
				100	0	21.25
	1900	19100		1	0	22.33
				1	99	22.26
				50	25	21.47
				100	0	21.41

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	1.0832	Fig.1	1.0813	Fig.2	1.0780	Fig.3
	1880.0	18900		6	0	1.0821	Fig.4	1.0818	Fig.5	1.0849	Fig.6
	1909.3	19193		6	0	1.0832	Fig.7	1.0785	Fig.8	1.0799	Fig.9
	1851.5	18615	3	15	0	2.6791	Fig.10	2.6823	Fig.11	2.6828	Fig.12
	1880.0	18900		15	0	2.6794	Fig.13	2.6790	Fig.14	2.6739	Fig.15
	1908.5	19185		15	0	2.6786	Fig.16	2.6841	Fig.17	2.6745	Fig.18
	1852.5	18625	5	25	0	4.4772	Fig.19	4.4631	Fig.20	4.4790	Fig.21
	1880.0	18900		25	0	4.4742	Fig.22	4.4795	Fig.23	4.4778	Fig.24
	1907.5	19175		25	0	4.4751	Fig.25	4.4679	Fig.26	4.4742	Fig.27
	1855	18650	10	50	0	8.9248	Fig.28	8.9405	Fig.29	8.9442	Fig.30
	1880	18900		50	0	8.9422	Fig.31	8.9281	Fig.32	8.9217	Fig.33
	1905	19150		50	0	8.9383	Fig.34	8.9192	Fig.35	8.9021	Fig.36
	1857.5	18675	15	75	0	13.410	Fig.37	13.357	Fig.38	13.400	Fig.39
	1880.0	18900		75	0	13.429	Fig.40	13.375	Fig.41	13.394	Fig.42
	1902.5	19125		75	0	13.420	Fig.43	13.390	Fig.44	13.430	Fig.45
	1860	18700	20	100	0	17.811	Fig.46	17.812	Fig.47	17.804	Fig.48
	1880	18900		100	0	17.816	Fig.49	17.838	Fig.50	17.832	Fig.51
	1900	19100		100	0	17.831	Fig.52	17.838	Fig.53	17.801	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	1.266	Fig.1	1.243	Fig.2	1.253	Fig.3
	1880.0	18900		6	0	1.264	Fig.4	1.254	Fig.5	1.266	Fig.6
	1909.3	19193		6	0	1.263	Fig.7	1.244	Fig.8	1.250	Fig.9
	1851.5	18615	3	15	0	2,930	Fig.10	2.928	Fig.11	2.933	Fig.12
	1880.0	18900		15	0	2.940	Fig.13	2.926	Fig.14	2.915	Fig.15
	1908.5	19185		15	0	2.942	Fig.16	2.927	Fig.17	2.910	Fig.18
	1852.5	18625	5	25	0	4.956	Fig.19	4.946	Fig.20	4.906	Fig.21
	1880.0	18900		25	0	4.939	Fig.22	4.914	Fig.23	4.946	Fig.24
	1907.5	19175		25	0	4.933	Fig.25	4.953	Fig.26	4.920	Fig.27
	1855	18650	10	50	0	9.719	Fig.28	9.730	Fig.29	9.742	Fig.30
	1880	18900		50	0	9.746	Fig.31	9.606	Fig.32	9.641	Fig.33
	1905	19150		50	0	9.696	Fig.34	9.646	Fig.35	9.532	Fig.36
	1857.5	18675	15	75	0	14.47	Fig.37	14.41	Fig.38	14.37	Fig.39
	1880.0	18900		75	0	14.51	Fig.40	14.33	Fig.41	14.39	Fig.42
	1902.5	19125		75	0	14.50	Fig.43	14.40	Fig.44	14.37	Fig.45
	1860	18700	20	100	0	18.93	Fig.46	19.11	Fig.47	18.98	Fig.48
	1880	18900		100	0	19.04	Fig.49	19.06	Fig.50	19.10	Fig.51
	1900	19100		100	0	18.99	Fig.52	19.03	Fig.53	18.94	Fig.54

Fig.1

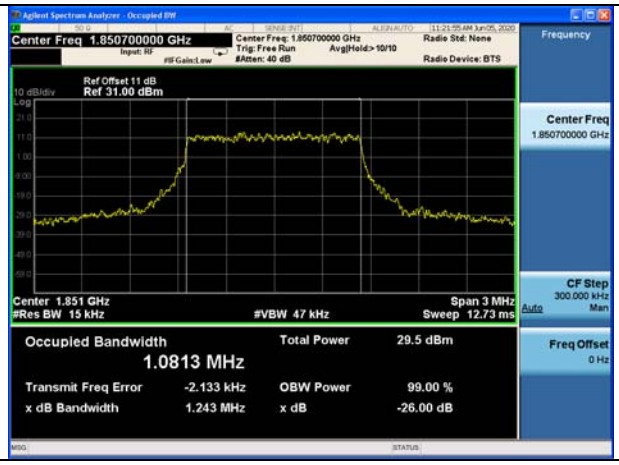

Fig.2

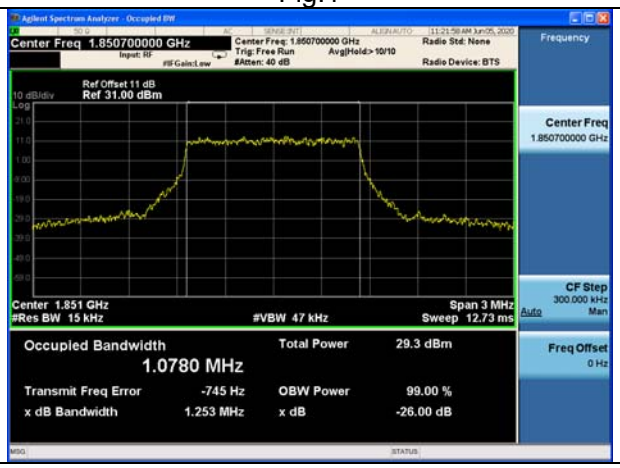

Fig.3

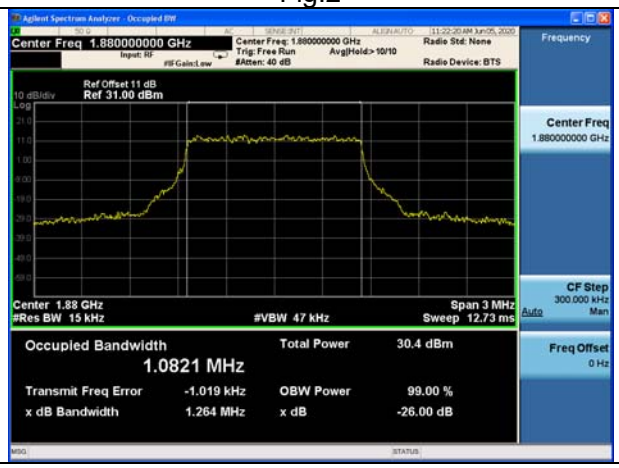

Fig.4

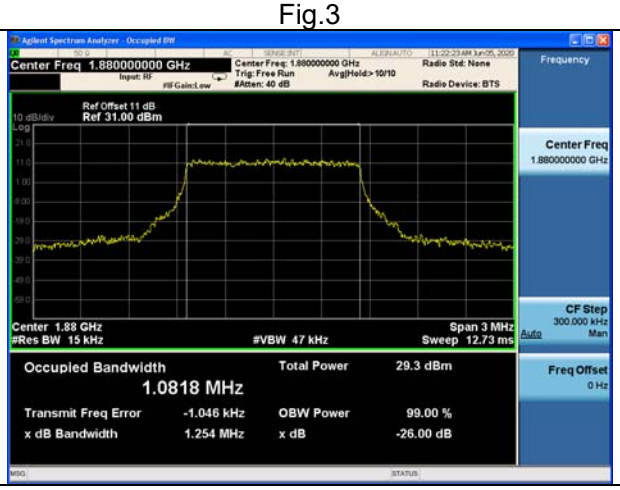

Fig.5

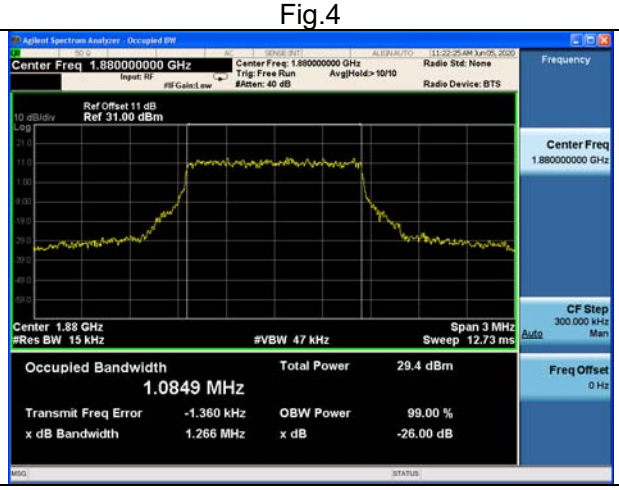

Fig.6

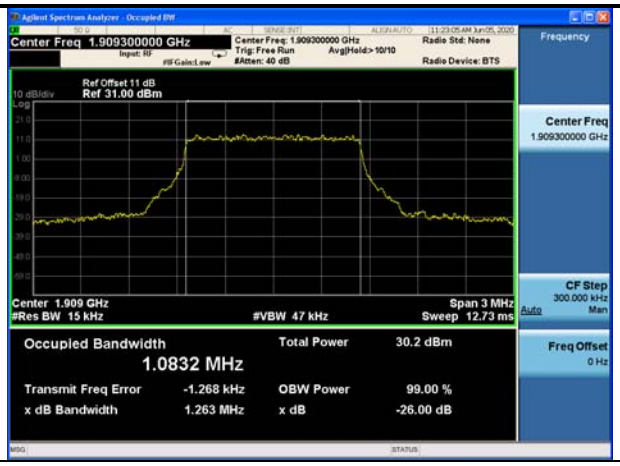

Fig.7

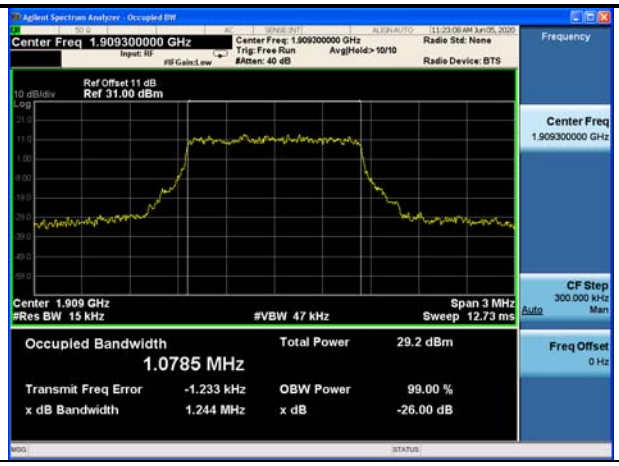

Fig.8

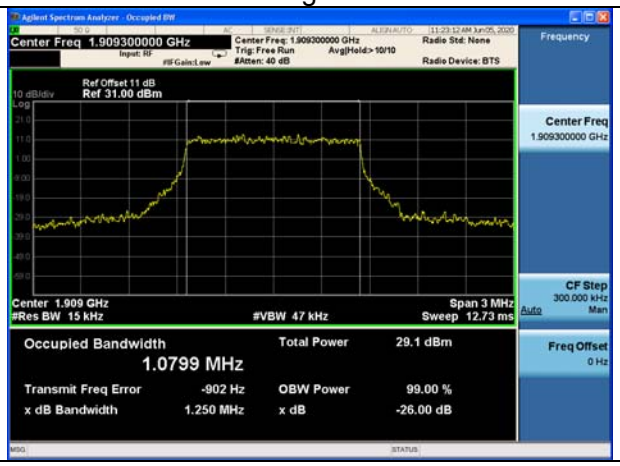

Fig.9

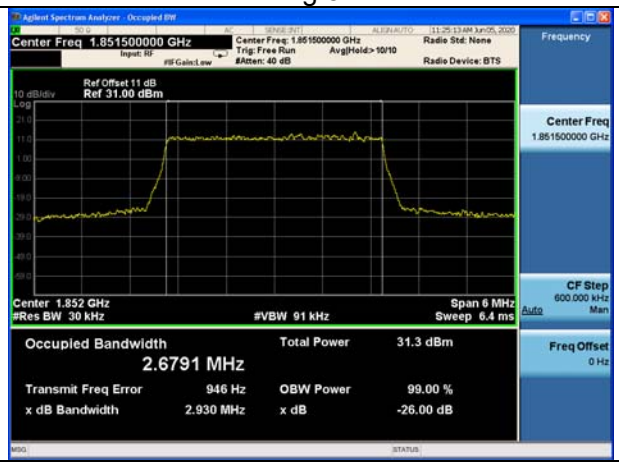

Fig.10

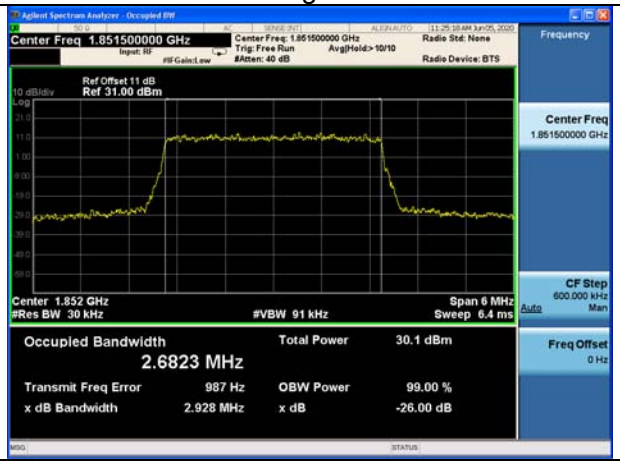

Fig.11

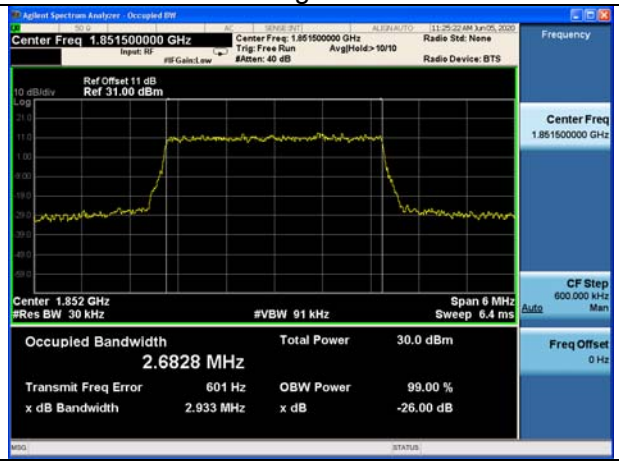

Fig.12

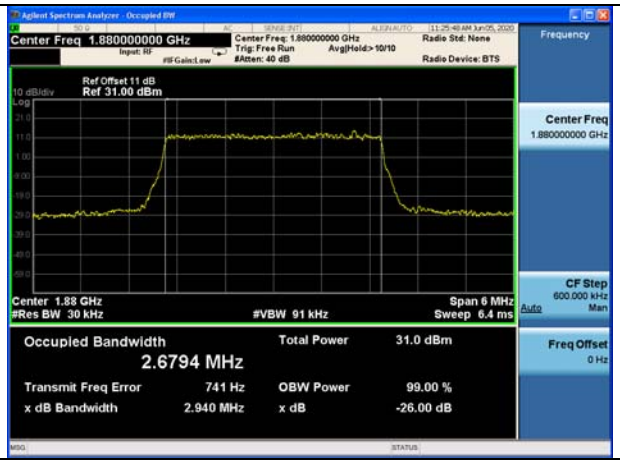

Fig.13

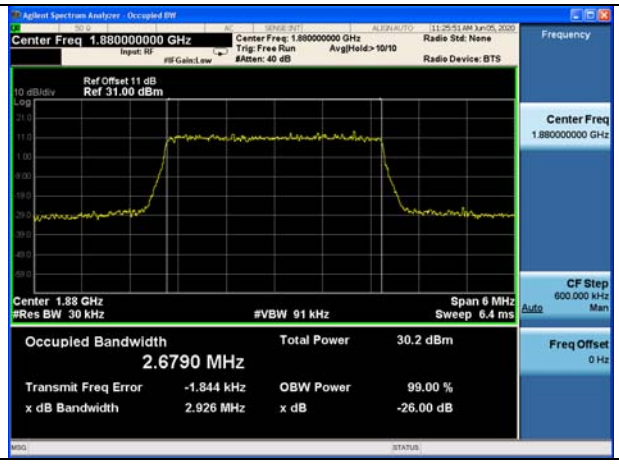

Fig.14

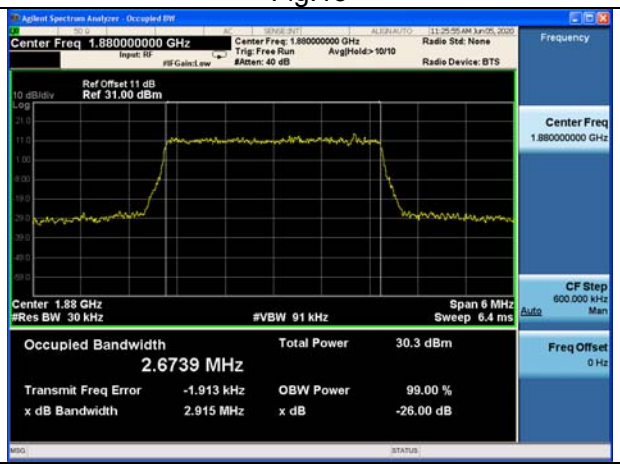

Fig.15

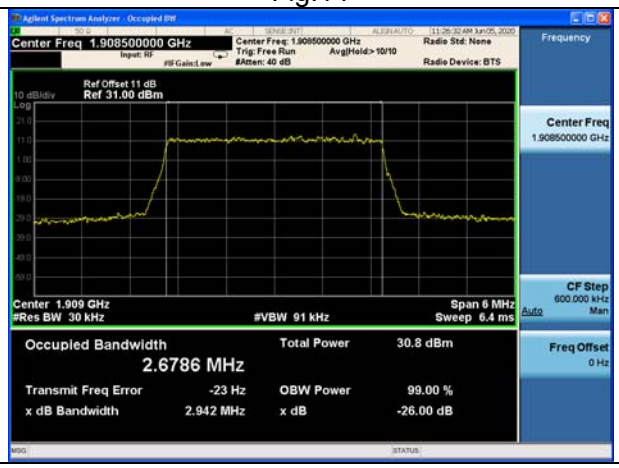

Fig.16

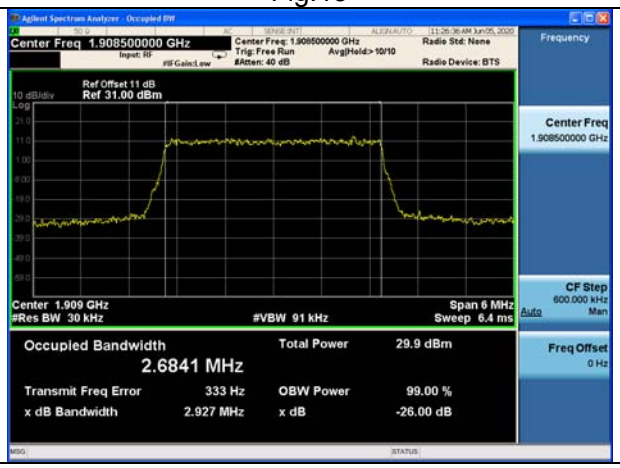

Fig.17

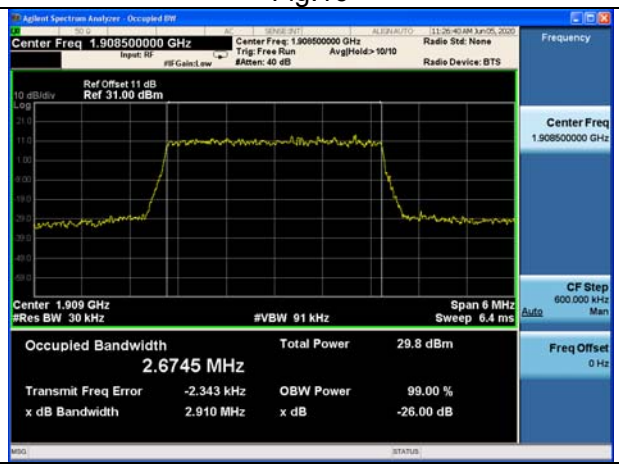

Fig.18

Fig.19

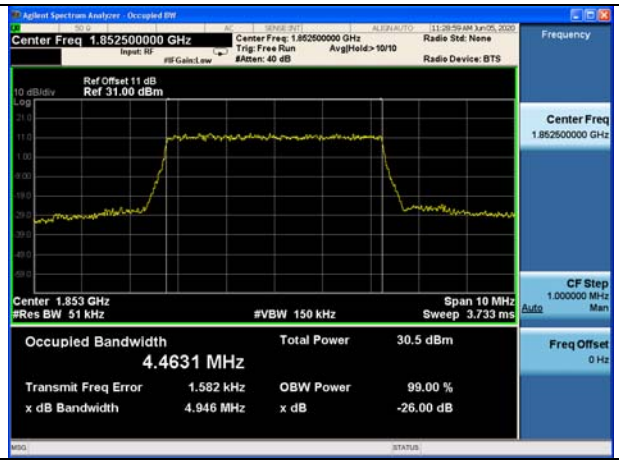

Fig.20

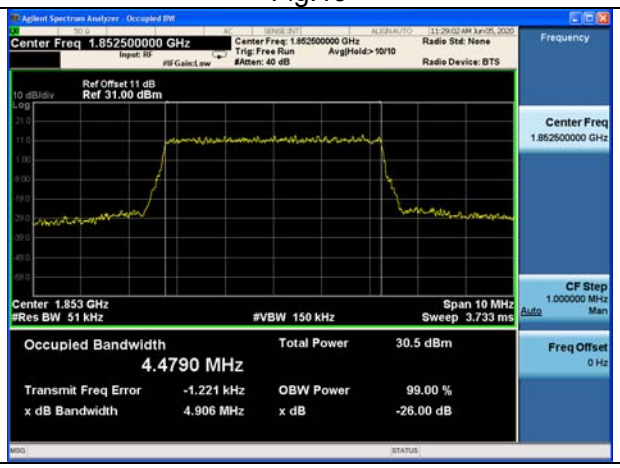

Fig.21

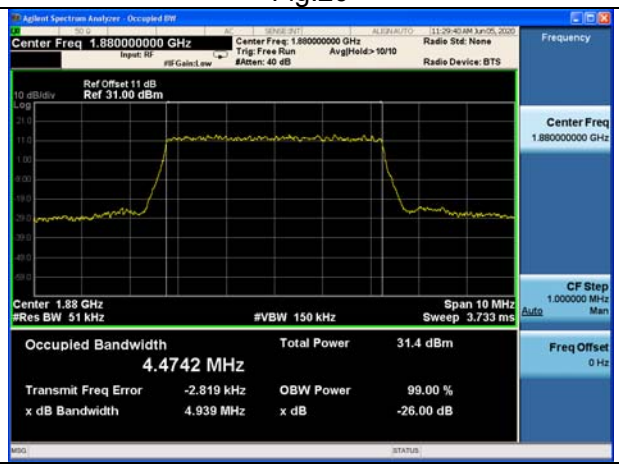

Fig.22

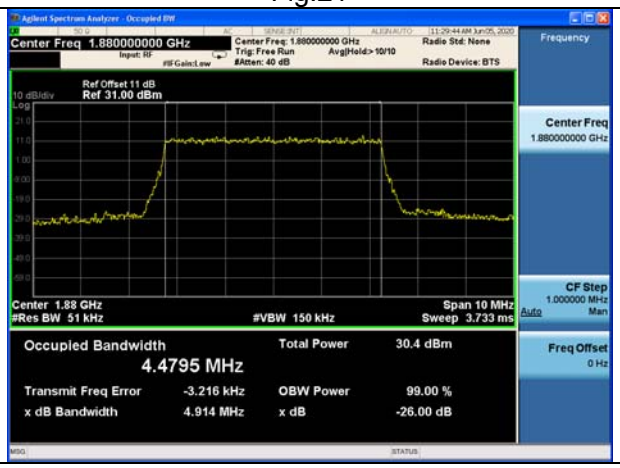

Fig.23

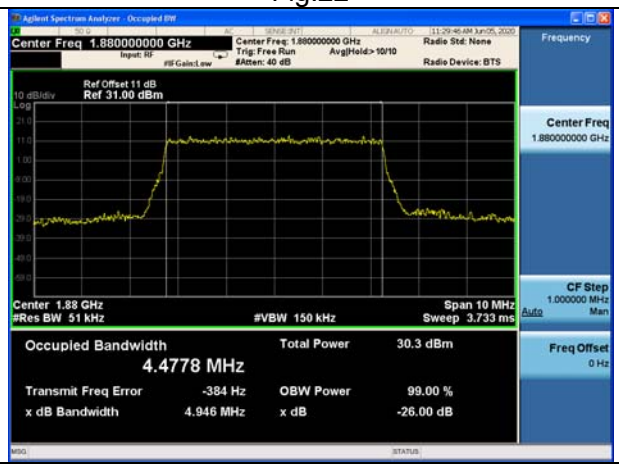

Fig.24

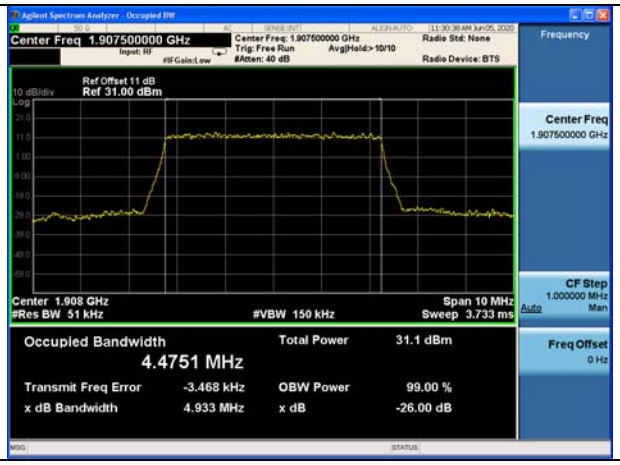

Fig.25

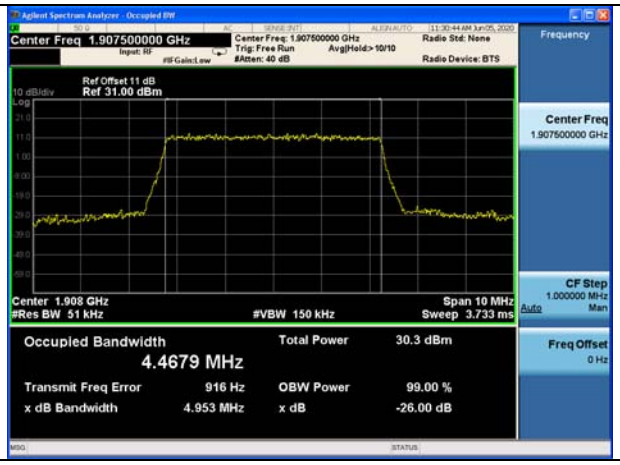

Fig.26

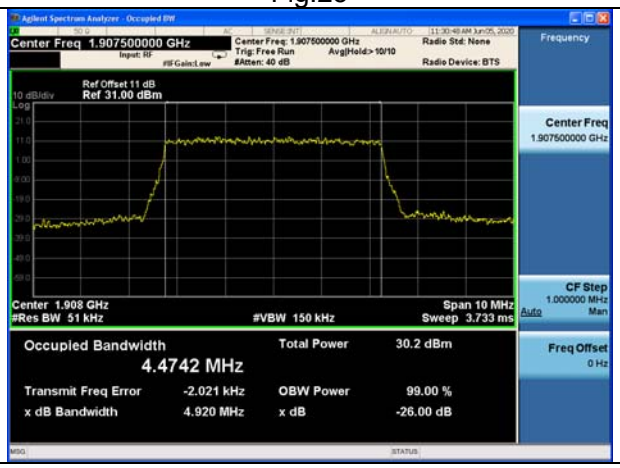

Fig.27

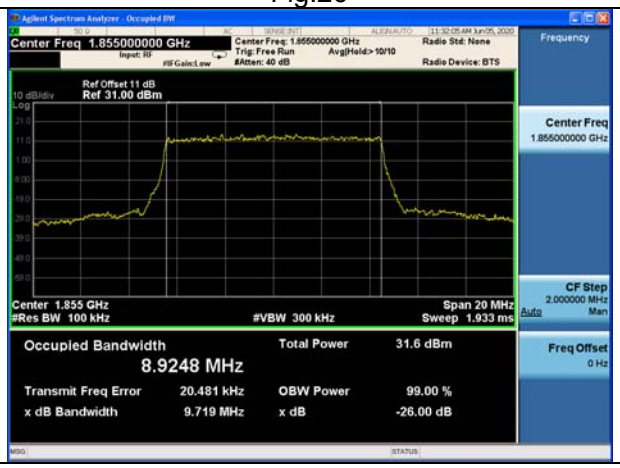

Fig.28

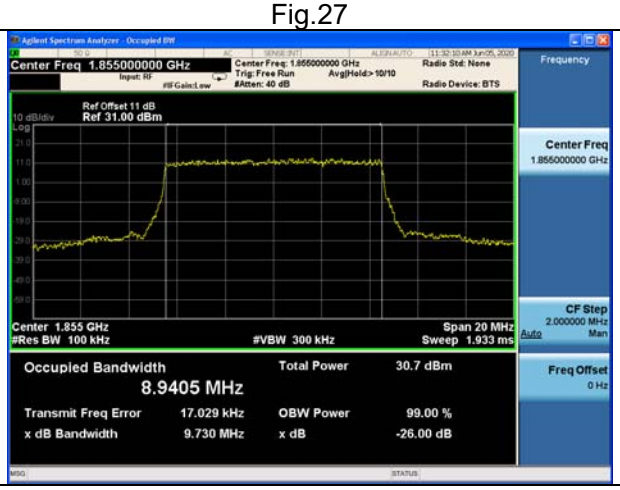

Fig.29

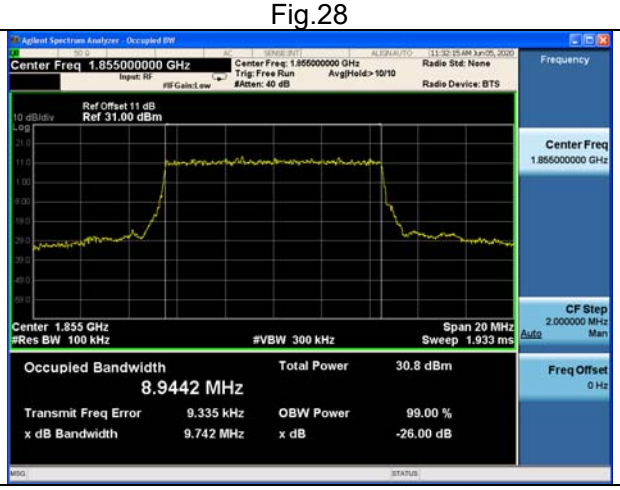

Fig.30

Fig.31

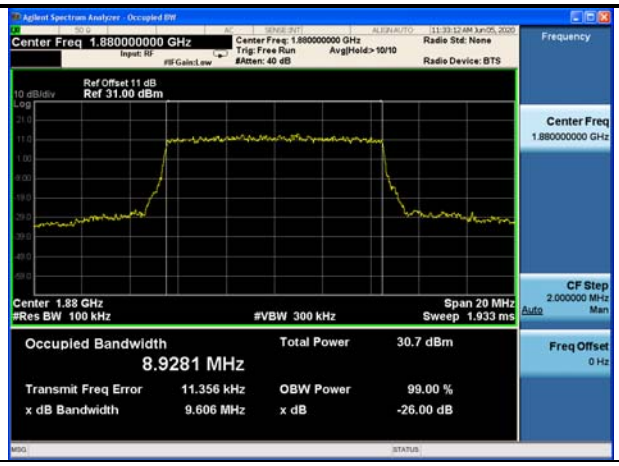

Fig.32

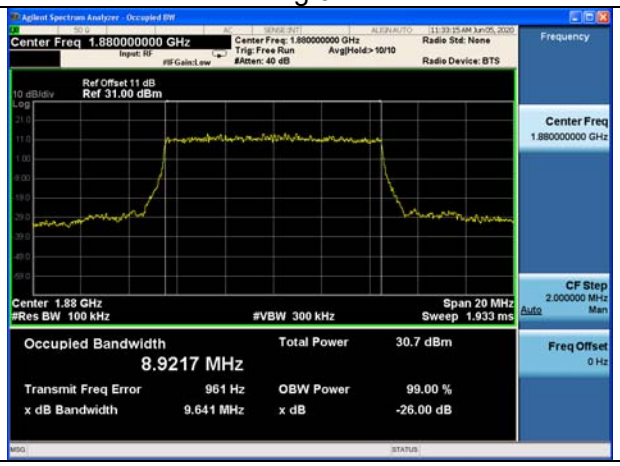

Fig.33

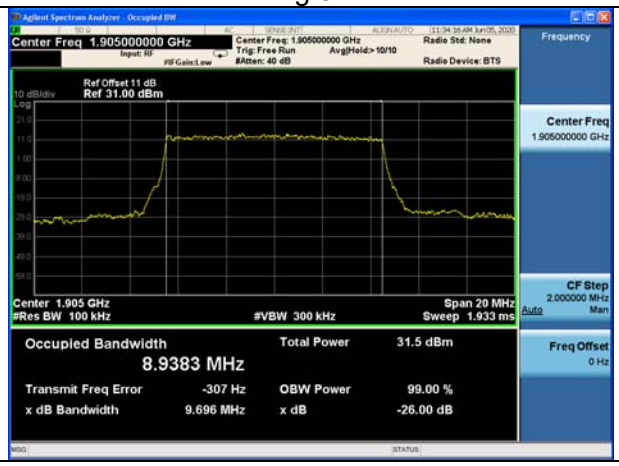

Fig.34

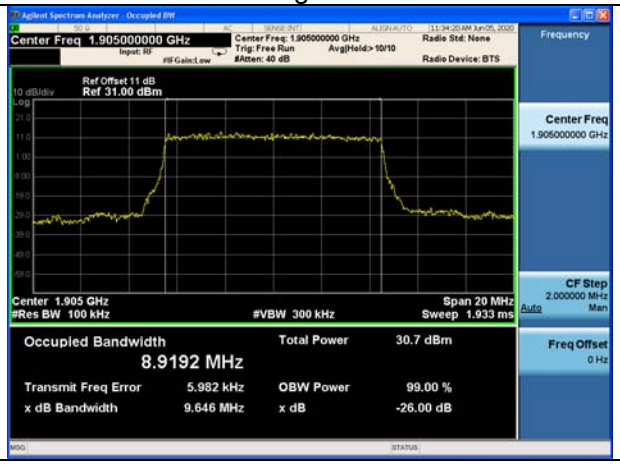

Fig.35

Fig.36

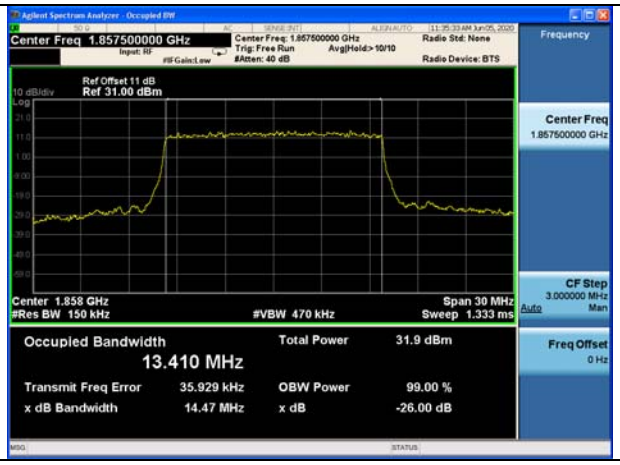

Fig.37

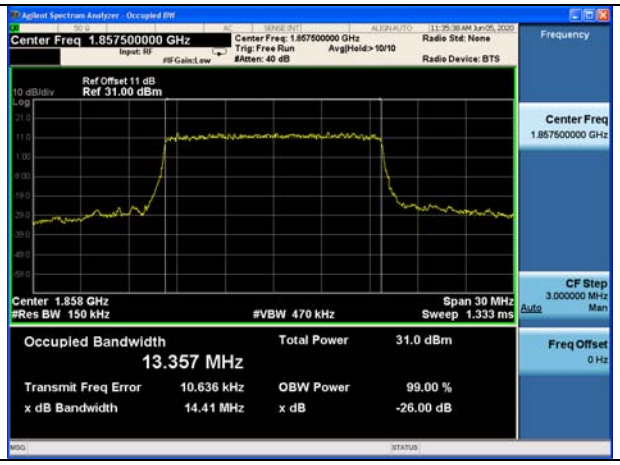

Fig.38

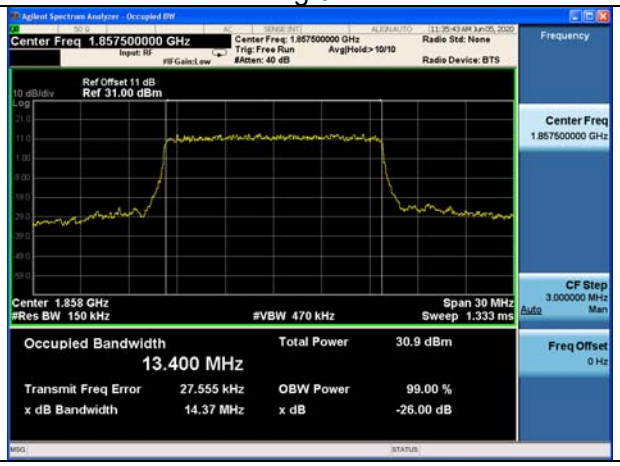

Fig.39

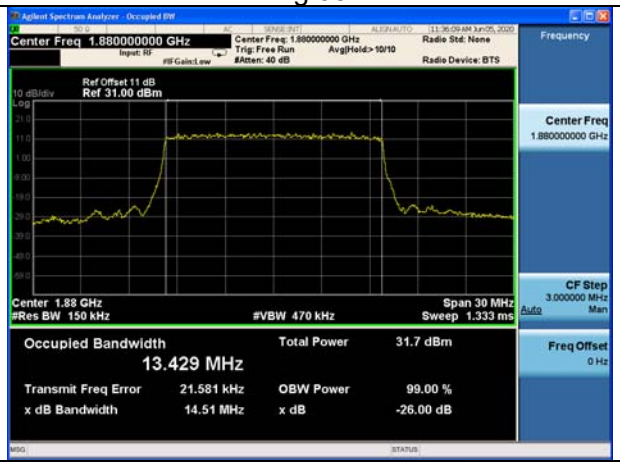

Fig.40

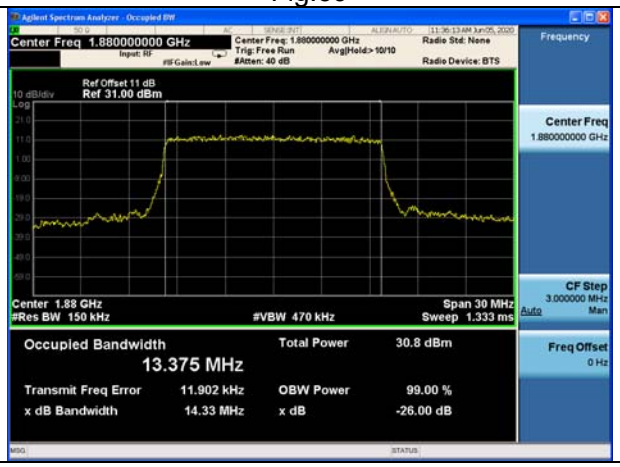

Fig.41

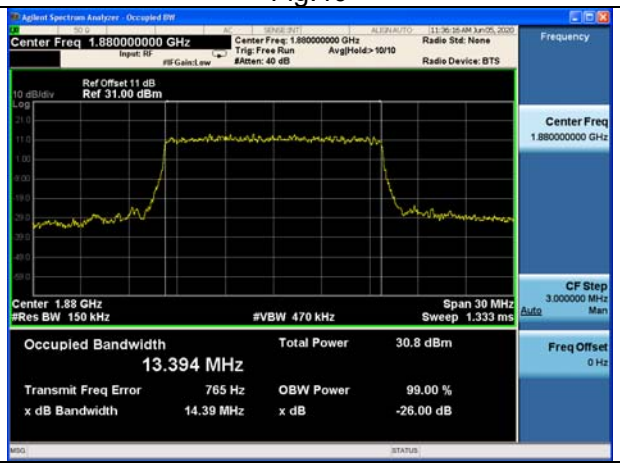

Fig.42

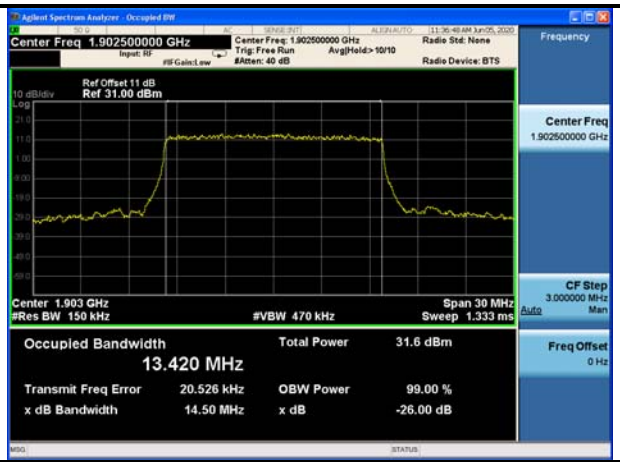

Fig.43

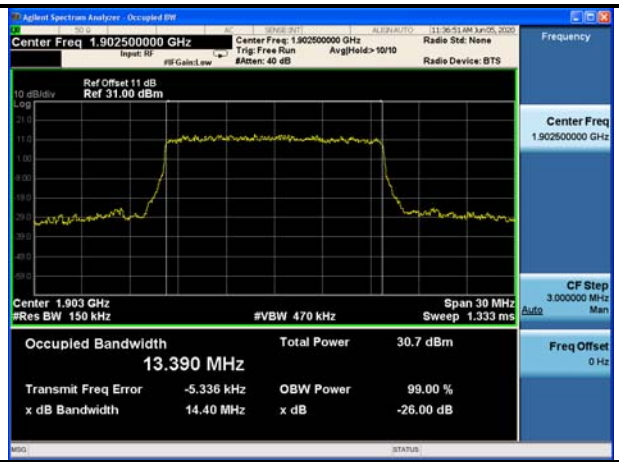

Fig.44

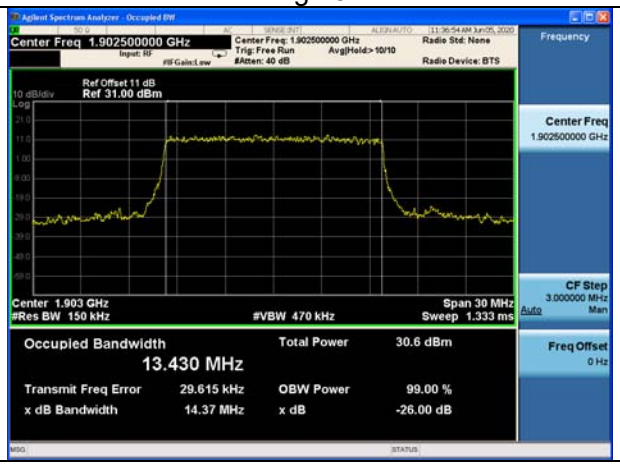

Fig.45

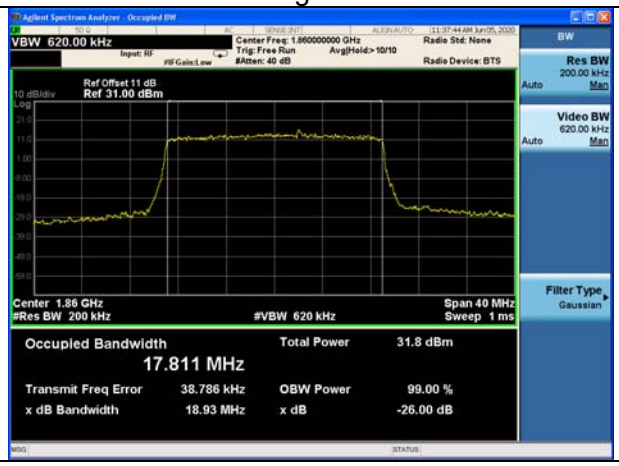

Fig.46

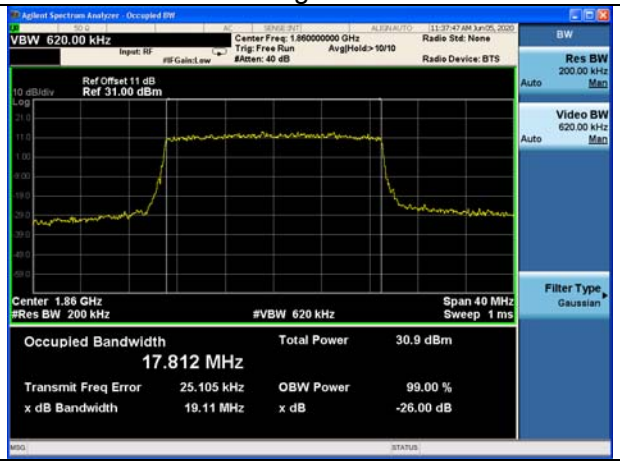

Fig.47

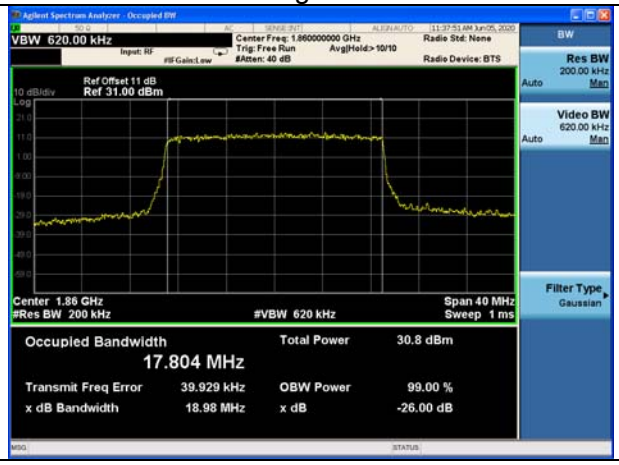

Fig.48

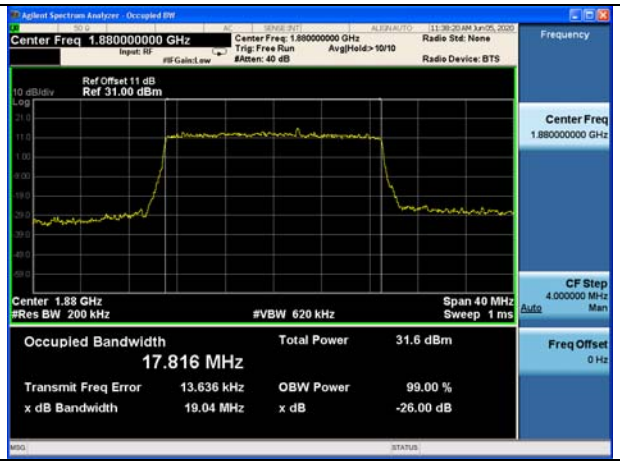

Fig.49

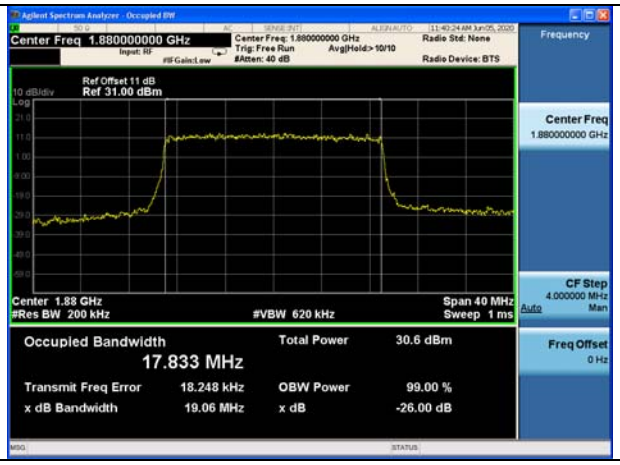

Fig.50

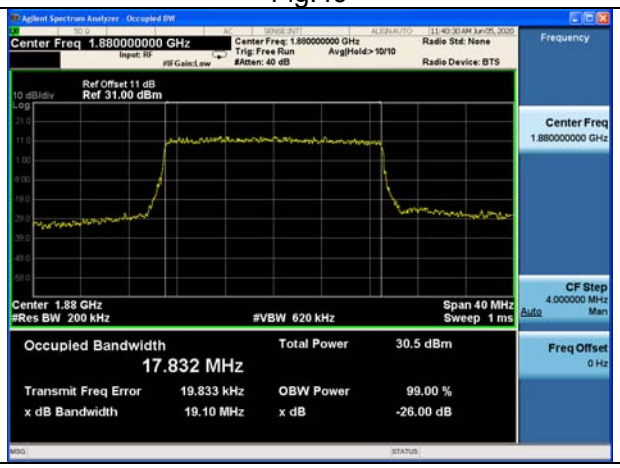

Fig.51

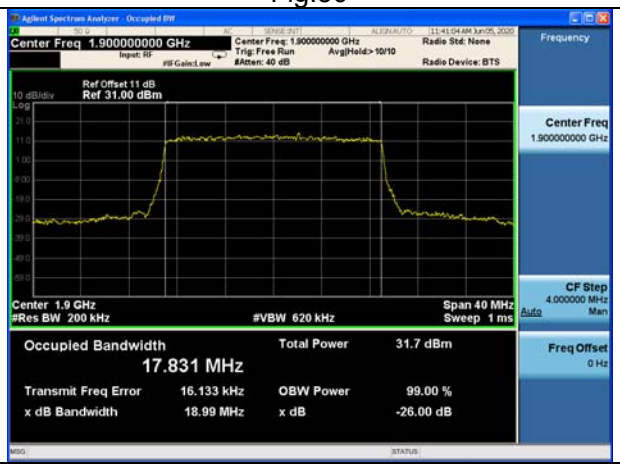

Fig.52

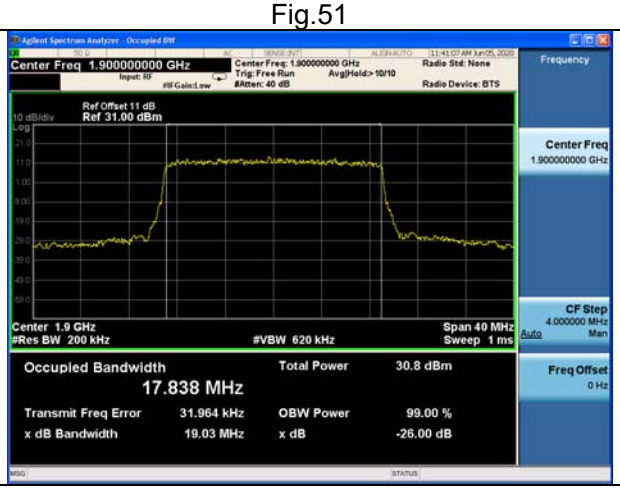

Fig.53

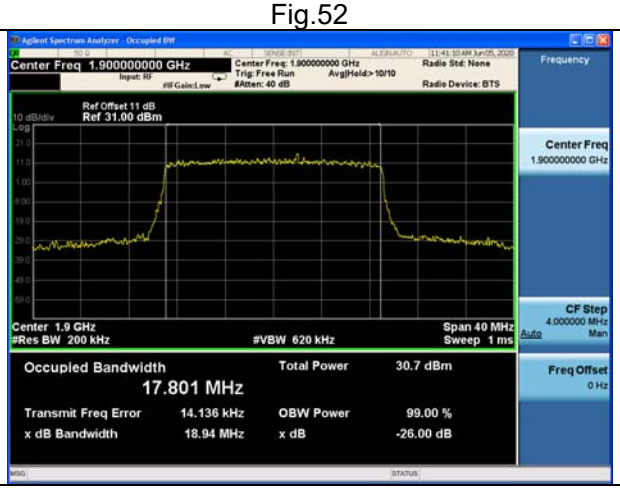

Fig.54

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


Agilent Spectrum Analyzer - Power Stat CCDF
Info BW 25.000 MHz
Center Freq: 1.880000000 GHz
Trig: Free Run
#Atten: 40 dB
Counts:630 k/10.0 Mpt
Radio Std: None
BW
Info BW
25.000 MHz
Average Power
22.39 dBm
47.95 % at 0dB
10.0 % 2.43 dB
1.0 % 3.84 dB
0.1 % 4.46 dB
0.01 % 4.79 dB
0.001 % 5.01 dB
0.0001 % --- dB
Peak 5.22 dB
27.61 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
#Atten: 40 dB
Counts:585 k/10.0 Mpt
Radio Std: None
BW
Info BW
25.000 MHz
Average Power
22.38 dBm
47.65 % at 0dB
10.0 % 2.48 dB
1.0 % 3.87 dB
0.1 % 4.48 dB
0.01 % 4.82 dB
0.001 % 5.06 dB
0.0001 % --- dB
Peak 5.15 dB
27.53 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

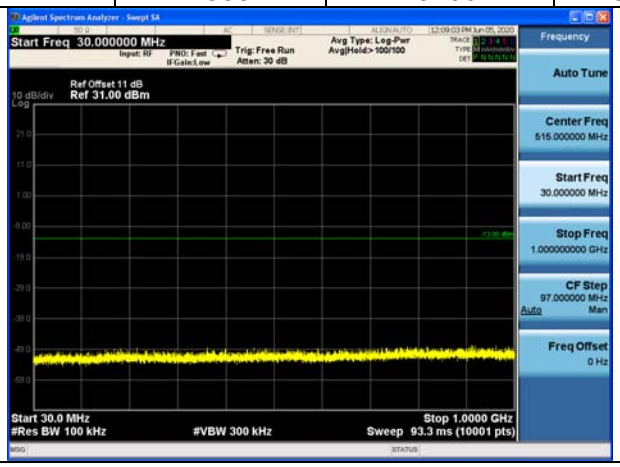

Fig.1

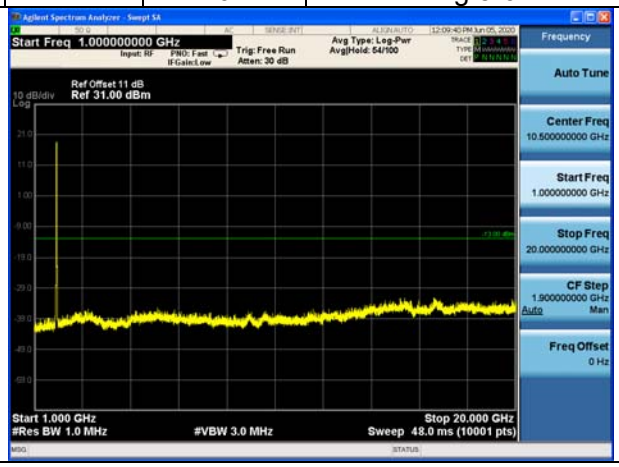

Fig.2

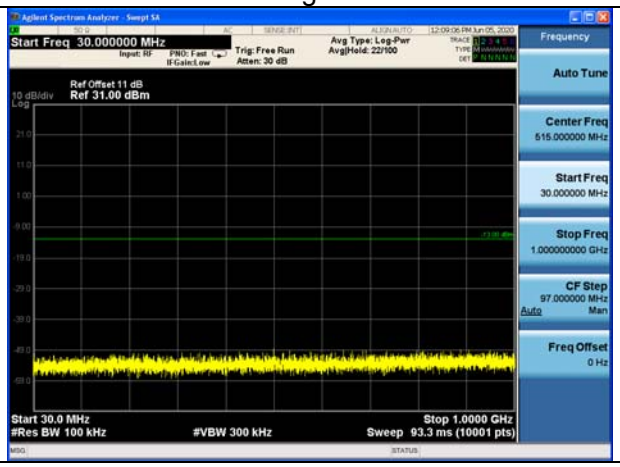

Fig3

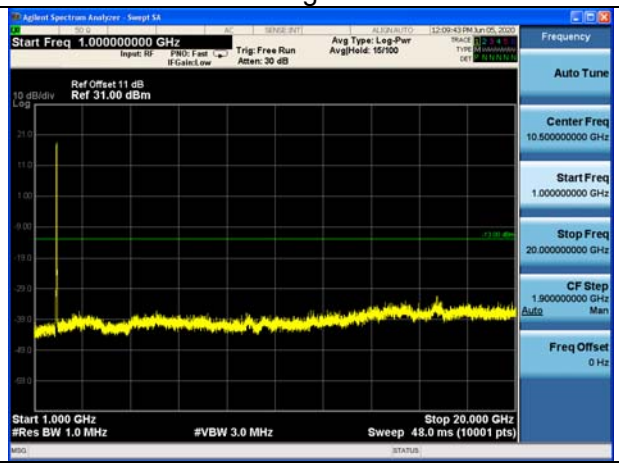

Fig4

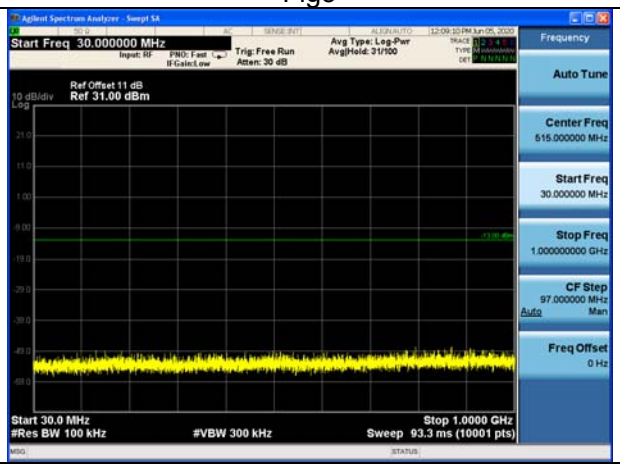

Fig5

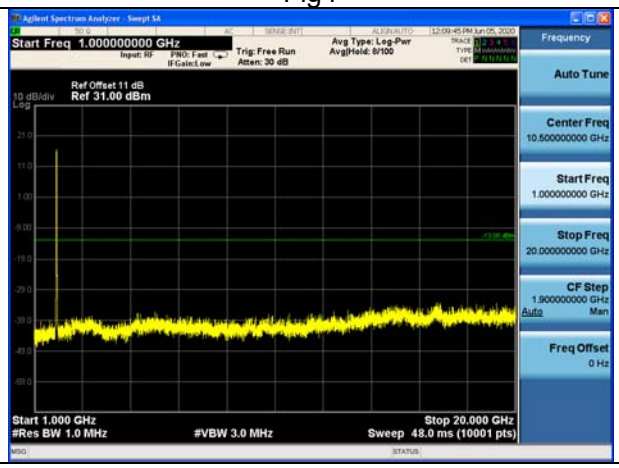

Fig6

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

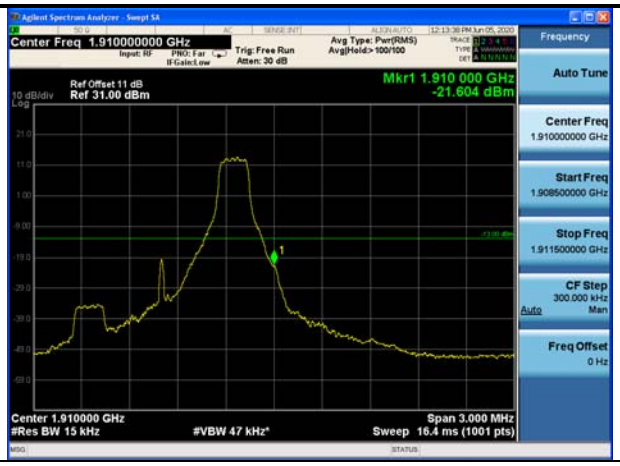

Fig.3

Fig.4

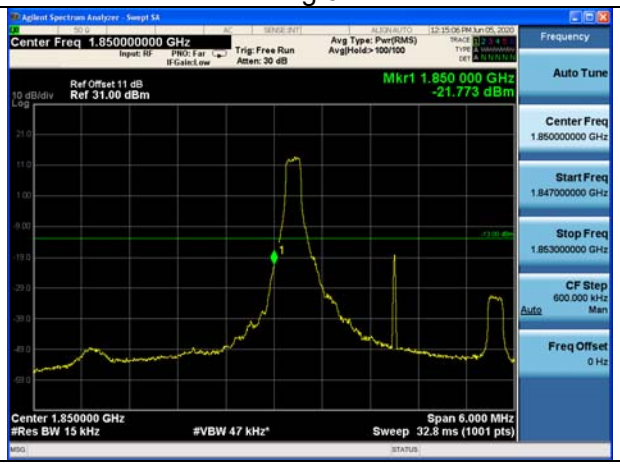

Fig.5

Fig.6

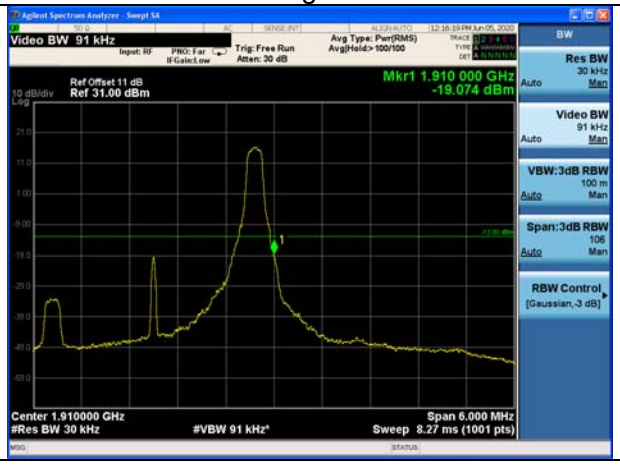

Fig.7

Fig.8

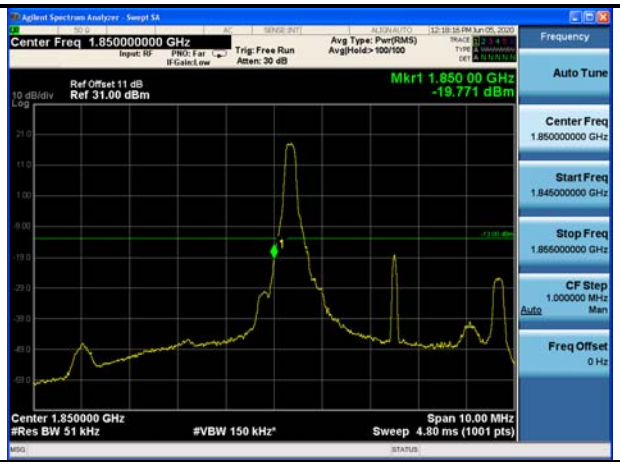

Fig.9

Fig.10

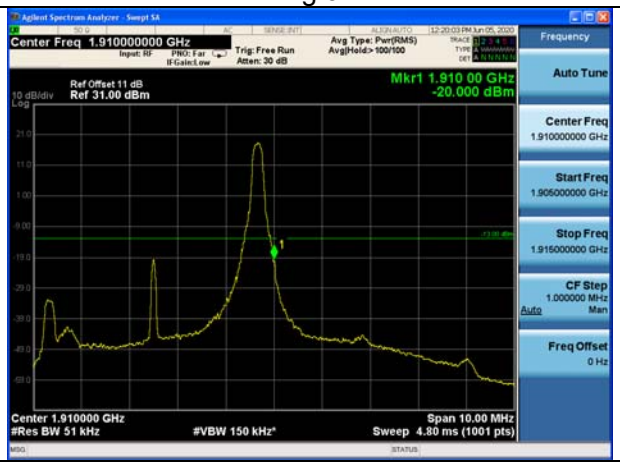

Fig.11

Fig.12

Fig.13

Fig.14

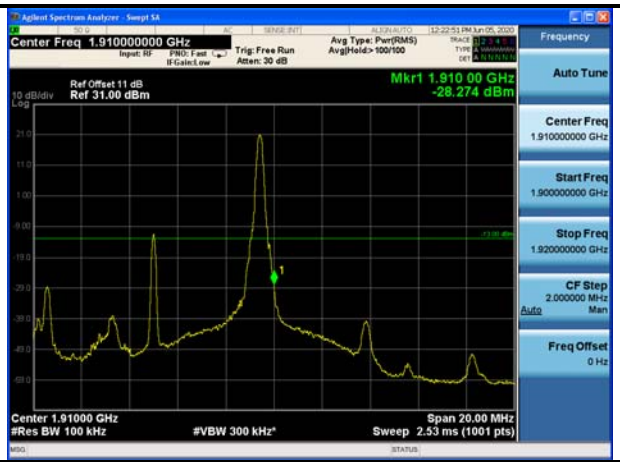

Fig.15

Fig.16

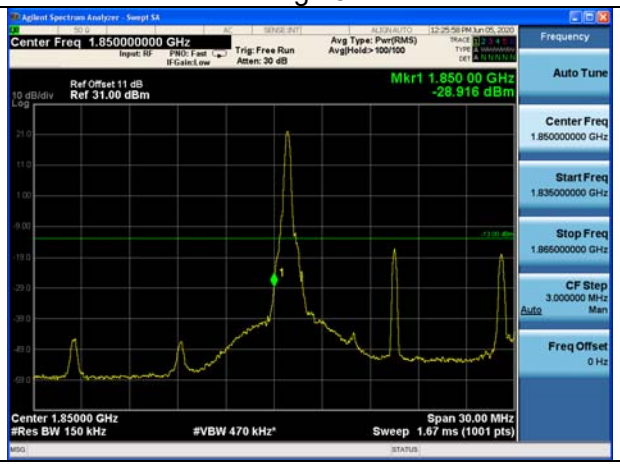

Fig.17

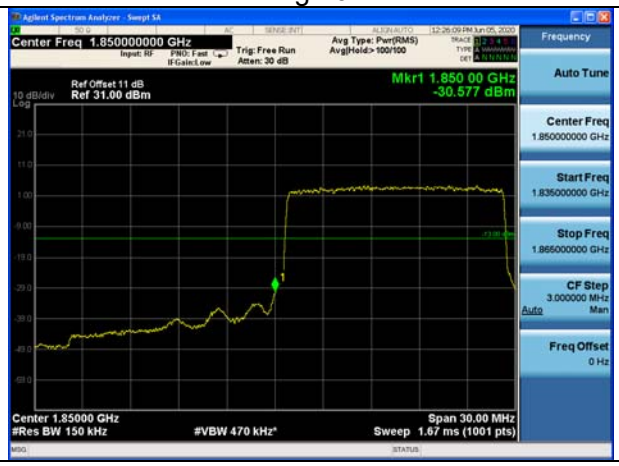

Fig.18

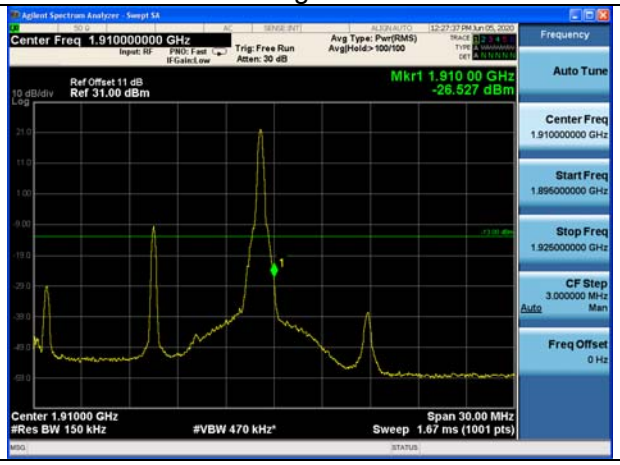

Fig.19

Fig.20

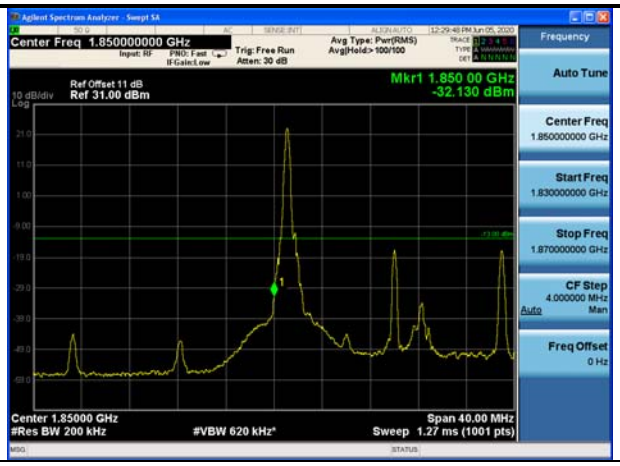

Fig.21

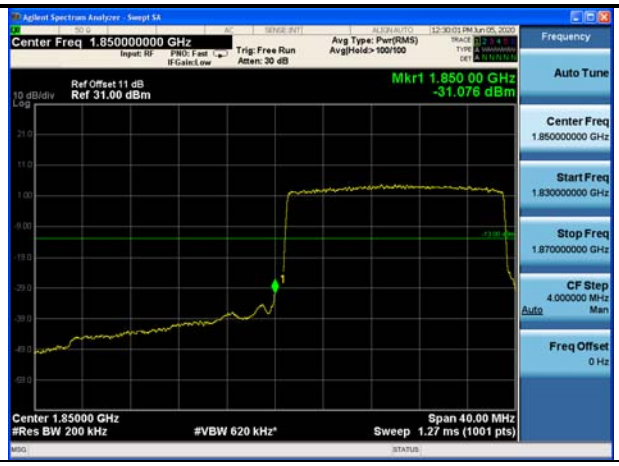

Fig.22

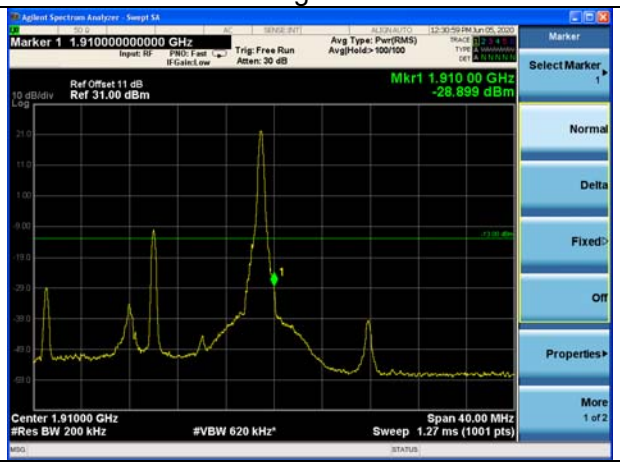

Fig.23

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	0.006	-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
+55	NV	-0.013	-0.015	-0.005	0.001	-0.009	0.011
+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
-10	NV	-0.008	-0.022	-0.011	0.018	0.022	-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
+55	NV	0.020	-0.021	-0.013	-0.022	-0.025	-0.007
+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