

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 12

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	699.7	23017	1.4	1	0	23.98
				1	5	24.27
				3	2	22.85
				6	0	22.98
	707.5	23095		1	0	24.02
				1	5	24.25
				3	2	23.07
				6	0	22.90
	715.3	23173		1	0	24.08
				1	5	24.15
				3	2	22.95
				6	0	23.11
16QAM	699.7	23017	1.4	1	0	22.04
				1	5	22.23
				3	2	21.78
				6	0	21.92
	707.5	23095		1	0	22.70
				1	5	22.79
				3	2	21.73
				6	0	22.01
	715.3	23173		1	0	22.51
				1	5	22.48
				3	2	22.02
				6	0	22.05
64QAM	699.7	23017	1.4	1	0	22.49
				1	5	22.71
				3	2	22.10
				6	0	22.07
	707.5	23095		1	0	22.94
				1	5	22.73
				3	2	22.33
				6	0	22.06
	715.3	23173		1	0	22.52
				1	5	22.59
				3	2	22.08
				6	0	22.16

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	700.5	23025	3	1	0	23.96
				1	14	24.22
				8	4	22.93
				15	0	22.91
	707.5	23095		1	0	24.02
				1	14	24.29
				8	4	23.11
				15	0	22.96
	714.5	23165		1	0	24.15
				1	14	24.13
				8	4	22.95
				15	0	23.04
16QAM	700.5	23025	3	1	0	22.10
				1	14	22.23
				8	4	21.78
				15	0	21.91
	707.5	23095		1	0	22.73
				1	14	22.88
				8	4	21.86
				15	0	22.05
	714.5	23165		1	0	22.49
				1	14	22.43
				8	4	21.97
				15	0	22.07
64QAM	700.5	23025	3	1	0	22.49
				1	14	22.60
				8	4	22.08
				15	0	21.98
	707.5	23095		1	0	22.82
				1	14	22.73
				8	4	22.25
				15	0	22.11
	714.5	23165		1	0	22.60
				1	14	22.67
				8	4	22.14
				15	0	22.10

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	701.5	23035	5	1	0	23.96
				1	24	24.25
				12	6	22.90
				25	0	23.01
	707.5	23095		1	0	24.05
				1	24	24.26
				12	6	23.15
				25	0	22.97
	713.5	23155		1	0	24.19
				1	24	24.12
				12	6	22.93
				25	0	23.04
16QAM	701.5	23035	5	1	0	22.05
				1	24	22.18
				12	6	21.82
				25	0	21.92
	707.5	23095		1	0	22.66
				1	24	22.82
				12	6	21.74
				25	0	22.05
	713.5	23155		1	0	22.48
				1	24	22.48
				12	6	21.96
				25	0	22.16
64QAM	701.5	23035	5	1	0	22.42
				1	24	22.61
				12	6	22.02
				25	0	22.02
	707.5	23095		1	0	22.91
				1	24	22.62
				12	6	22.27
				25	0	22.06
	713.5	23155		1	0	22.61
				1	24	22.73
				12	6	22.06
				25	0	22.15

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	704	23060	10	1	0	24.02
				1	49	24.28
				24	12	22.95
				50	0	23.03
	707.5	23095		1	0	24.13
				1	49	24.34
				24	12	23.16
				50	0	23.02
	711	23130		1	0	24.21
				1	49	24.24
				24	12	23.01
				50	0	23.11
16QAM	704	23060	10	1	0	22.18
				1	49	22.25
				24	12	21.92
				50	0	21.99
	707.5	23095		1	0	22.74
				1	49	22.92
				24	12	21.88
				50	0	22.07
	711	23130		1	0	22.52
				1	49	22.58
				24	12	22.08
				50	0	22.19
64QAM	704	23060	10	1	0	22.56
				1	49	22.71
				24	12	22.11
				50	0	22.08
	707.5	23095		1	0	22.96
				1	49	22.75
				24	12	22.35
				50	0	22.12
	711	23130		1	0	22.63
				1	49	22.74
				24	12	22.18
				50	0	22.17

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	
12	699.7	23017	1.4	6	0	1.0828	Fig.1	1.0828	Fig.2	1.0782	Fig.3
	707.5	23095		6	0	1.0847	Fig.4	1.0798	Fig.5	1.0812	Fig.6
	715.3	23173		6	0	1.0793	Fig.7	1.0804	Fig.8	1.0801	Fig.9
	700.5	23025	3	15	0	2.6921	Fig.10	2.6887	Fig.11	2.6856	Fig.12
	707.5	23095		15	0	2.6912	Fig.13	2.6887	Fig.14	2.6961	Fig.15
	714.5	23165		15	0	2.6965	Fig.16	2.6946	Fig.17	2.6852	Fig.18
	701.5	23035	5	25	0	4.4688	Fig.19	4.4661	Fig.20	4.4916	Fig.21
	707.5	23095		25	0	4.4828	Fig.22	4.4650	Fig.23	4.4828	Fig.24
	713.5	23155		25	0	4.4825	Fig.25	4.4656	Fig.26	4.4666	Fig.27
	704	23060	10	50	0	8.9286	Fig.28	8.9194	Fig.29	8.9409	Fig.30
	707.5	23095		50	0	8.9322	Fig.31	8.9472	Fig.32	8.9456	Fig.33
	711	23130		50	0	8.9125	Fig.34	8.9232	Fig.35	8.9439	Fig.36

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
12	699.7	23017	1.4	6	0	1.241	Fig.1	1.231	Fig.2	1.230	Fig.3
	707.5	23095		6	0	1.232	Fig.4	1.223	Fig.5	1.223	Fig.6
	715.3	23173		6	0	1.232	Fig.7	1.239	Fig.8	1.217	Fig.9
	700.5	23015	3	15	0	2.958	Fig.10	2.926	Fig.11	2.953	Fig.12
	707.5	23095		15	0	2.953	Fig.13	2.974	Fig.14	2.927	Fig.15
	714.5	23165		15	0	2.955	Fig.16	2.959	Fig.17	2.965	Fig.18
	701.5	23035	5	25	0	4.954	Fig.19	4.836	Fig.20	4.802	Fig.21
	707.5	23095		25	0	4.896	Fig.22	4.881	Fig.23	4.889	Fig.24
	713.5	23155		25	0	4.896	Fig.25	4.914	Fig.26	4.796	Fig.27
	704	23060	10	50	0	9.552	Fig.28	0.634	Fig.29	9.571	Fig.30
	707.5	23095		50	0	9.523	Fig.31	9.552	Fig.32	9.642	Fig.33
	711	23130		50	0	9.632	Fig.34	9.446	Fig.35	9.542	Fig.36

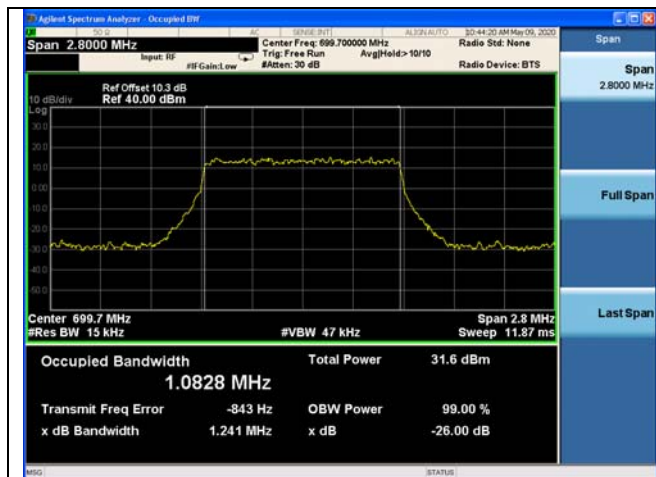


Fig.1

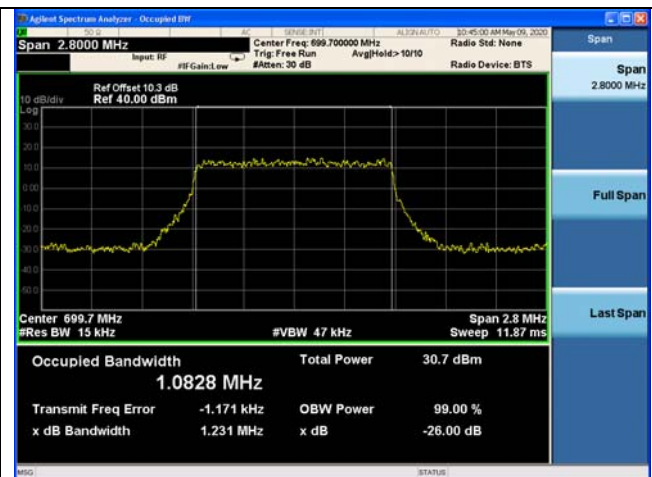


Fig.2

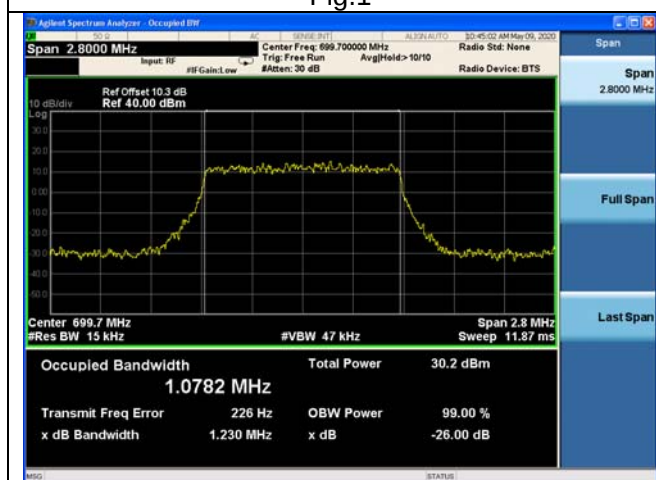


Fig.3

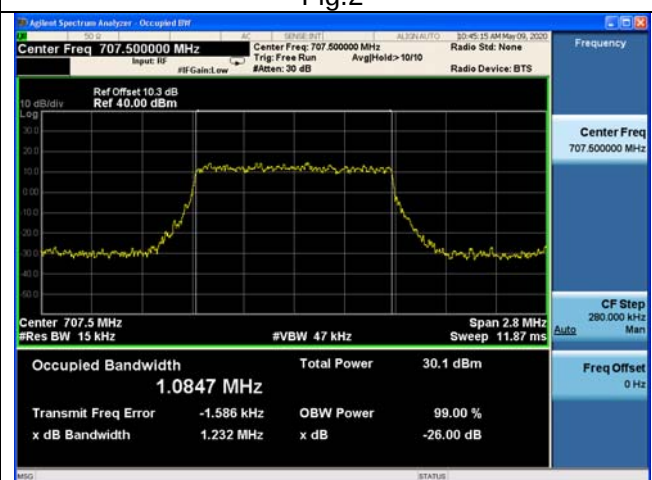


Fig.4

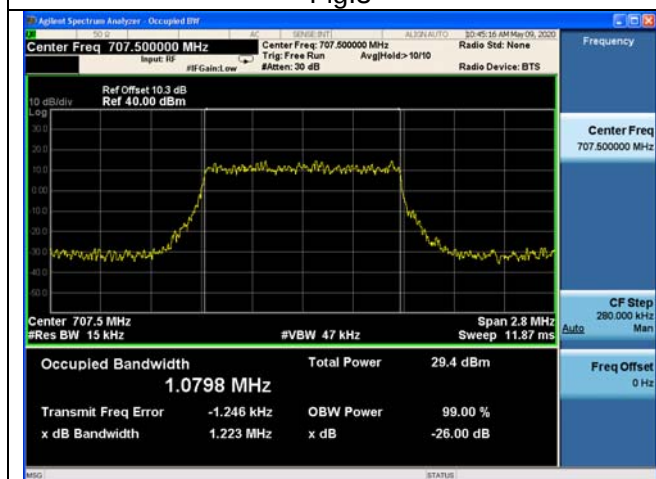


Fig.5

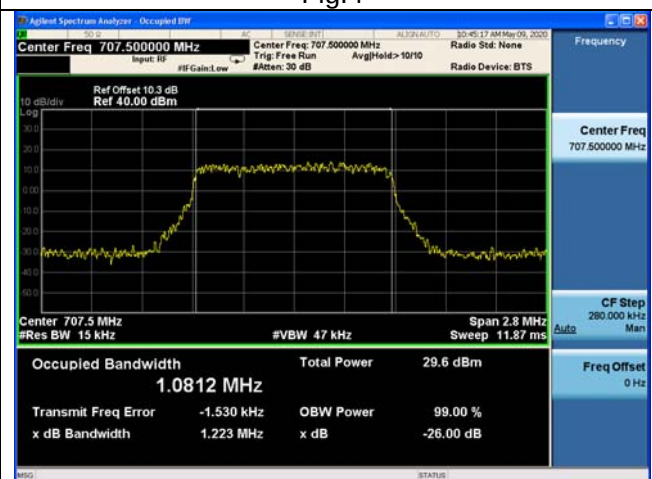


Fig.6

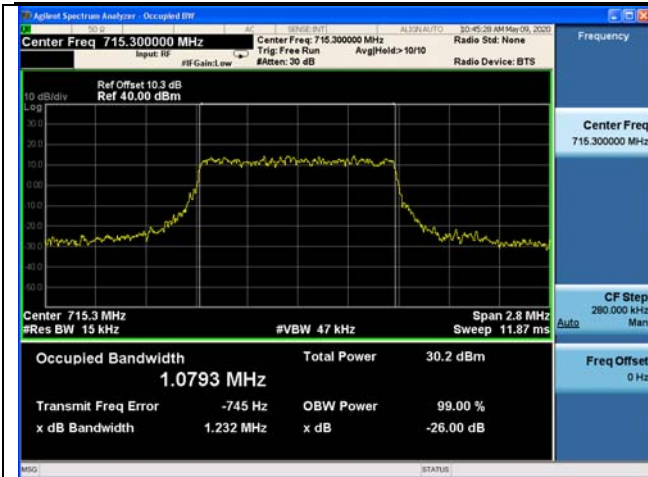


Fig.7

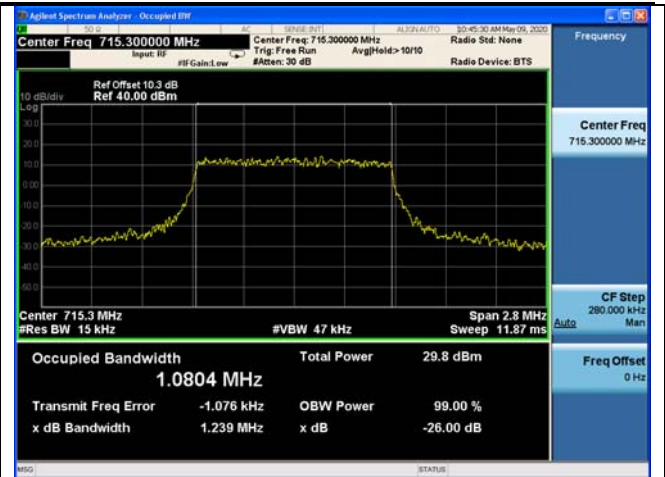


Fig.8

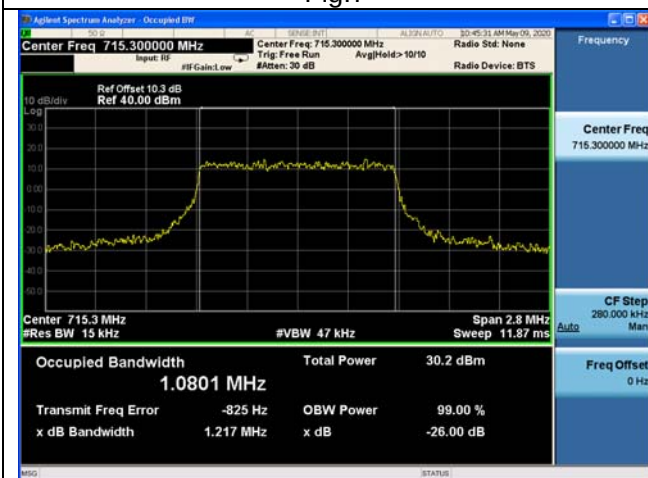


Fig.9

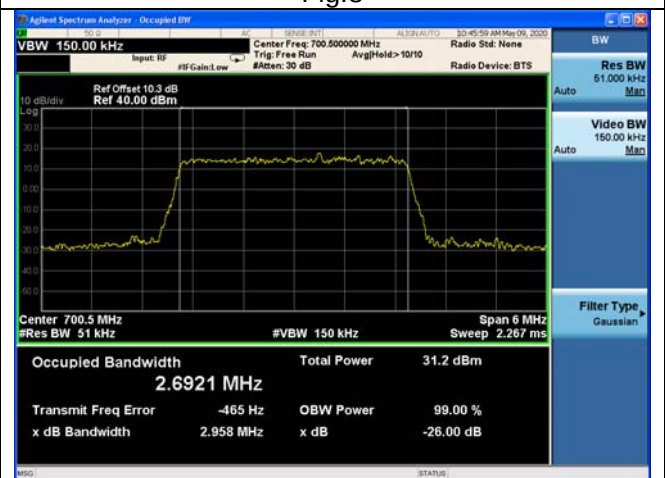


Fig.10

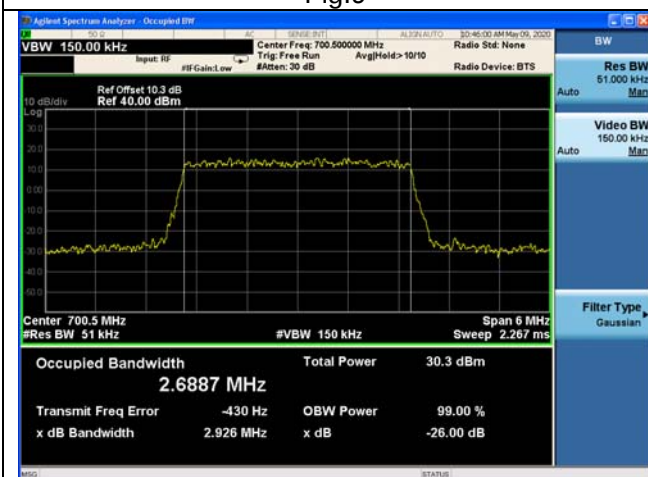


Fig.11

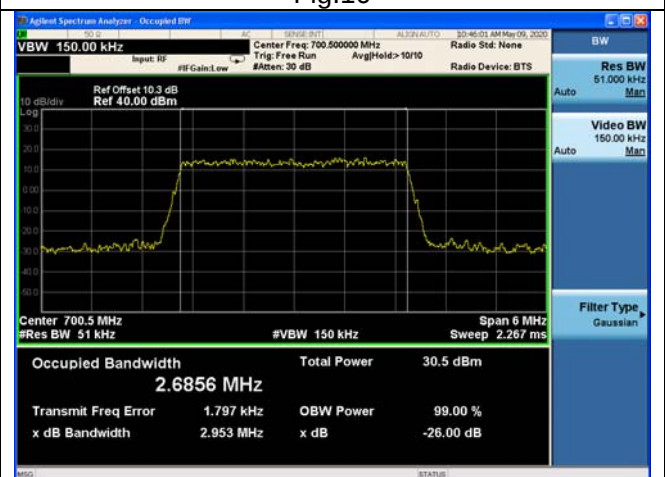


Fig.12

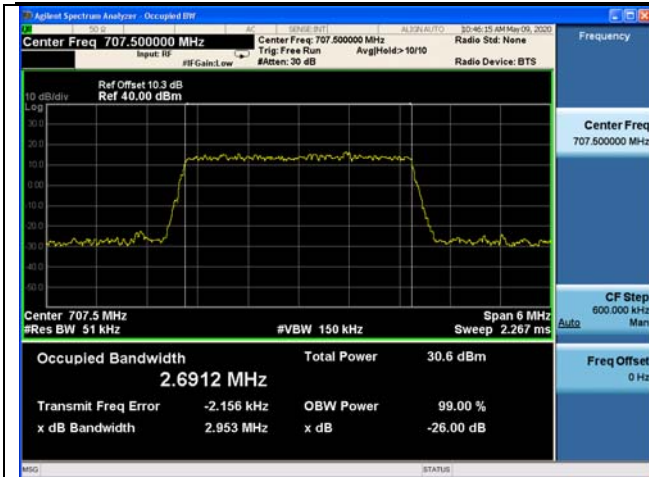


Fig.13

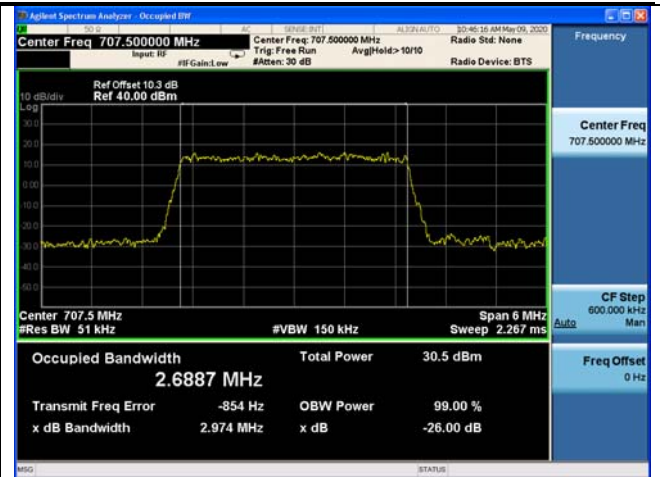


Fig.14

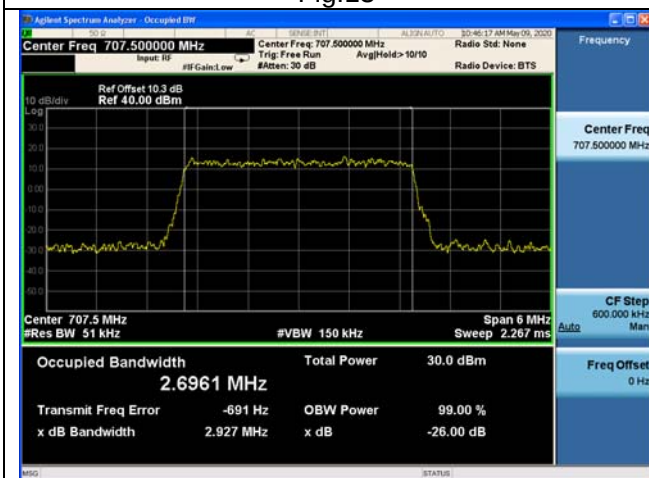


Fig.15

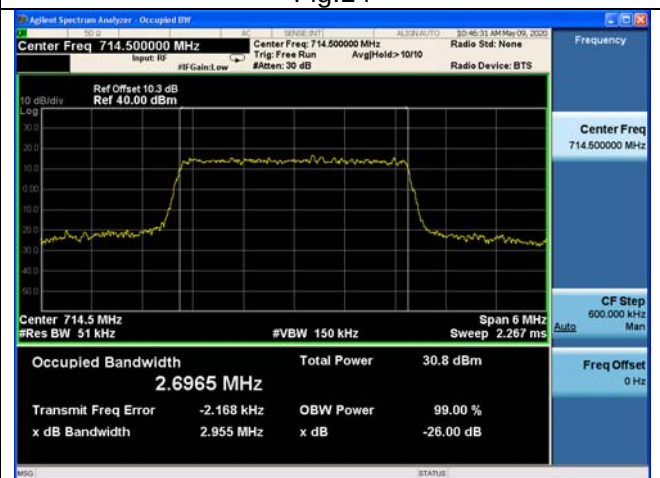


Fig.16

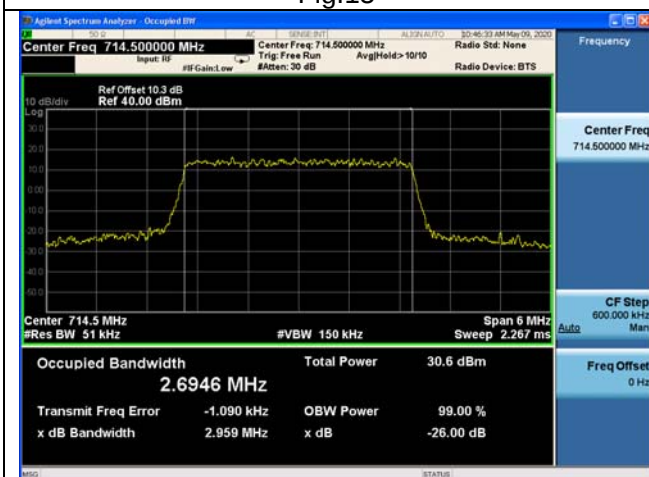


Fig.17

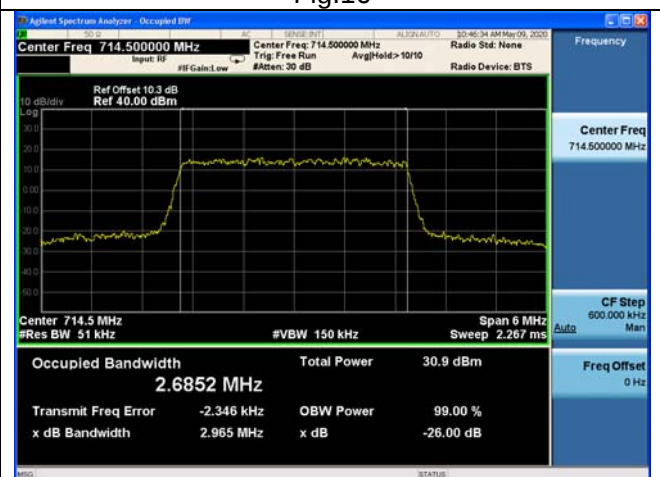


Fig.18

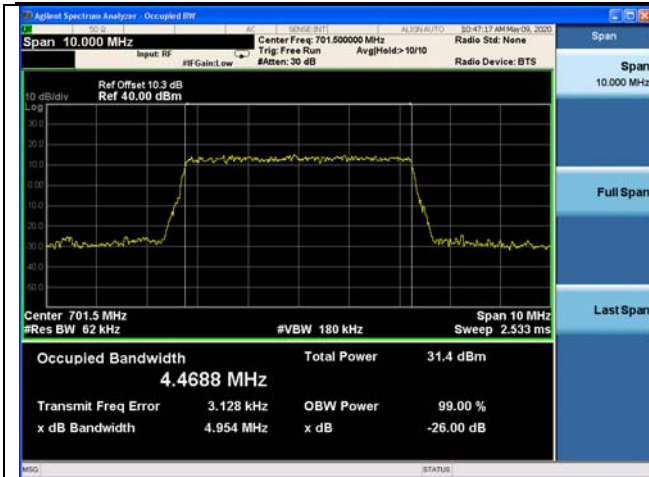


Fig.19

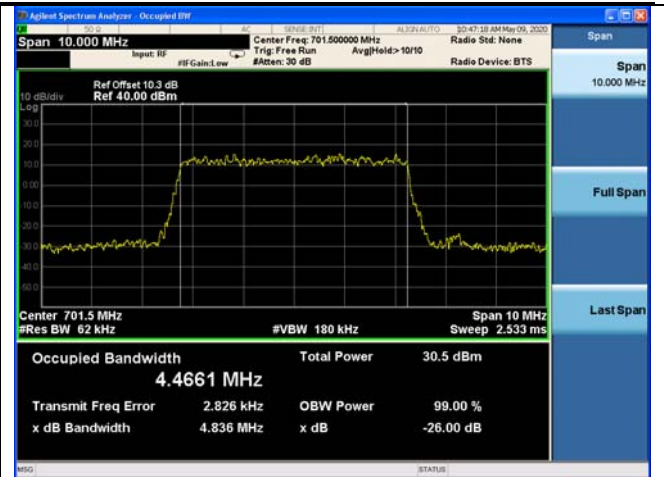


Fig.20

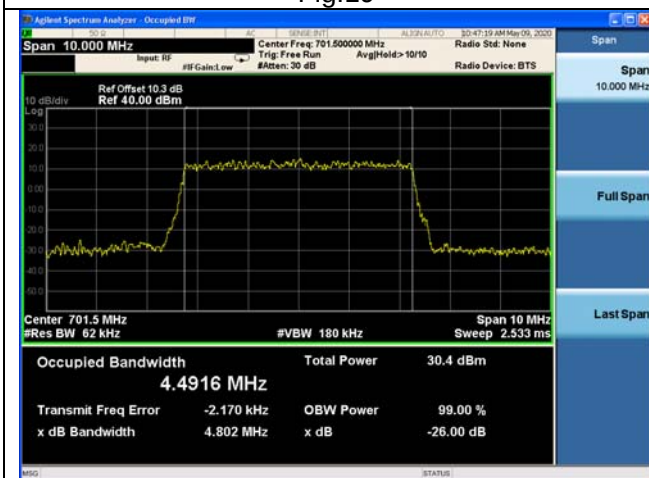


Fig.21

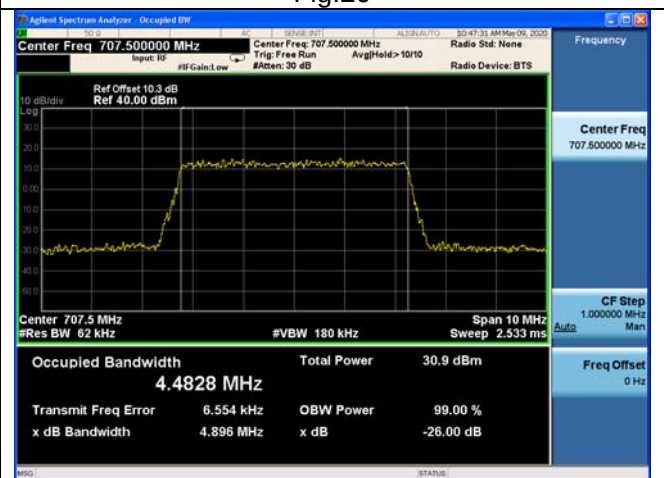


Fig.22

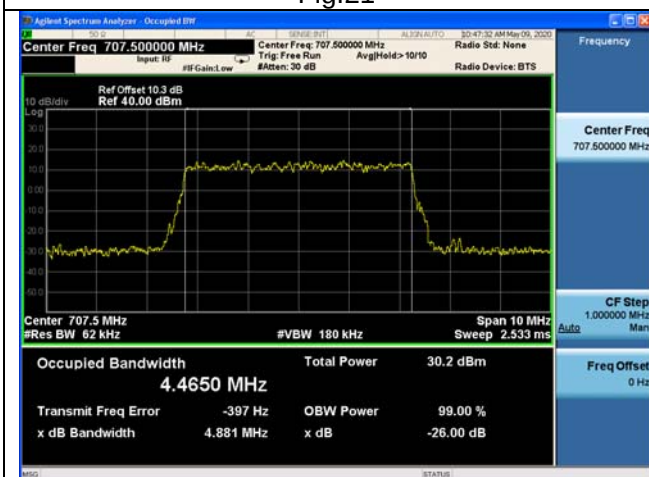


Fig.23

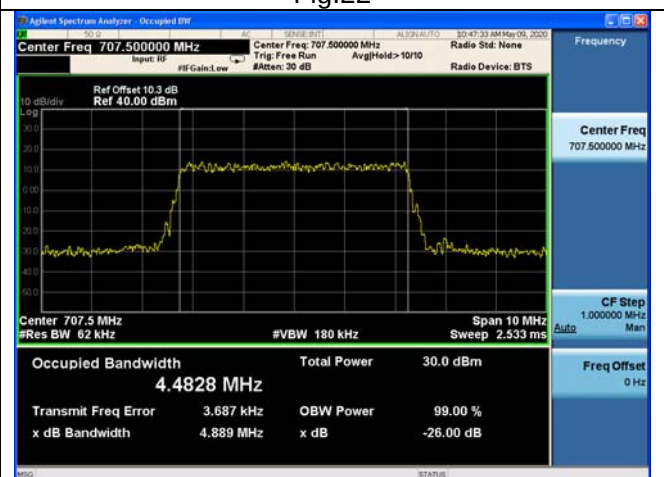


Fig.24

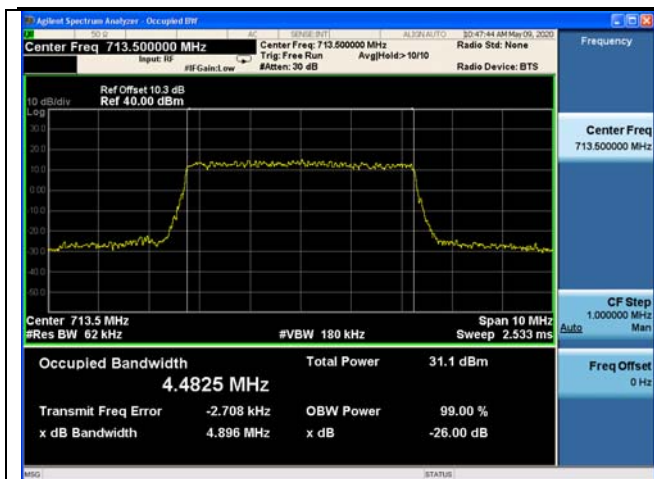


Fig.25

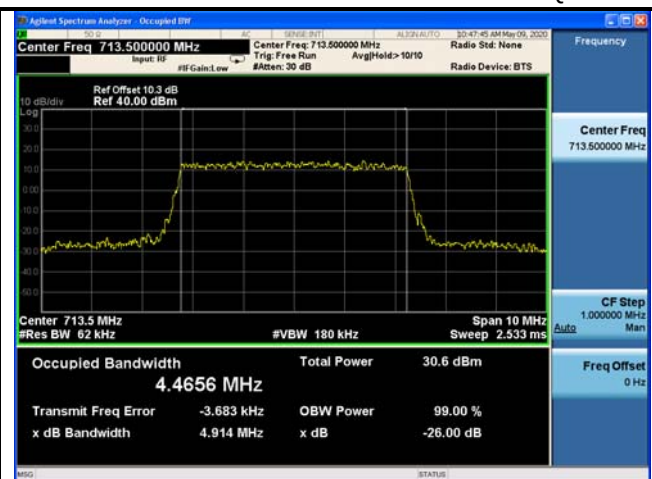


Fig.26

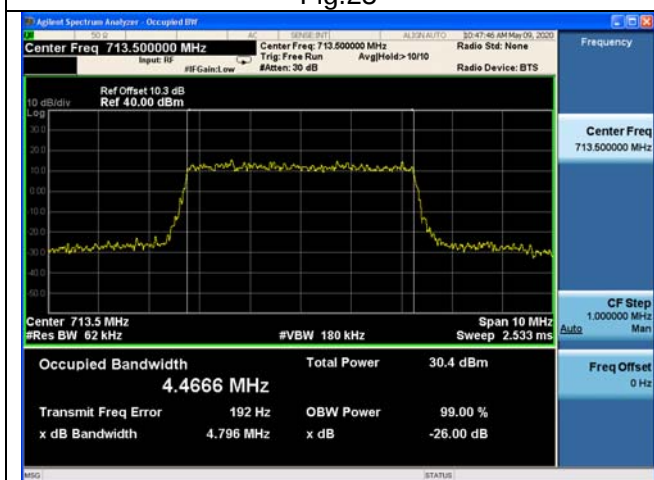


Fig.27

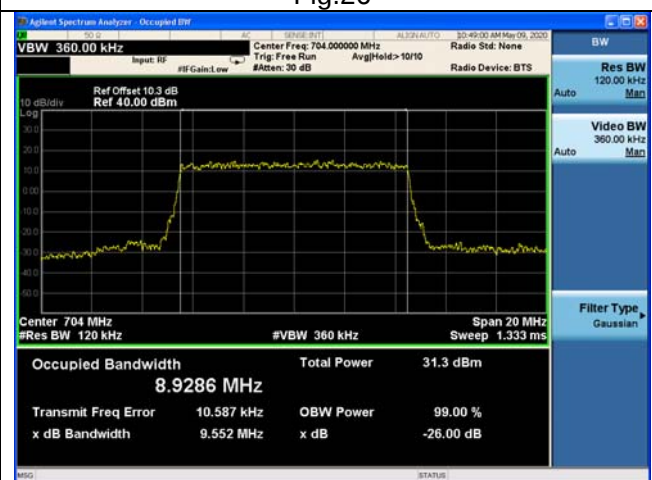


Fig.28

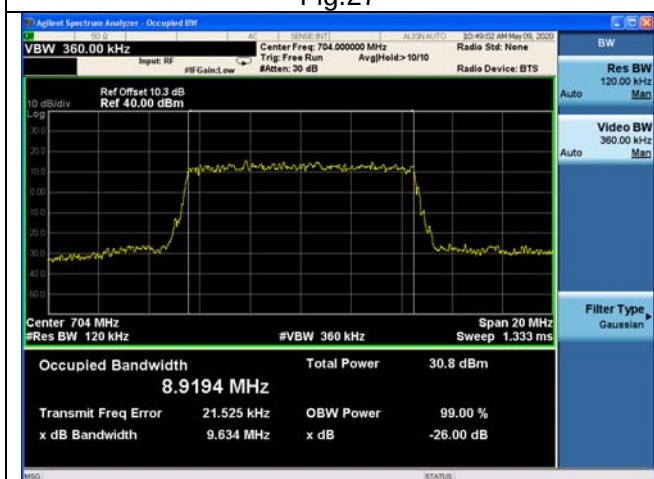


Fig.29

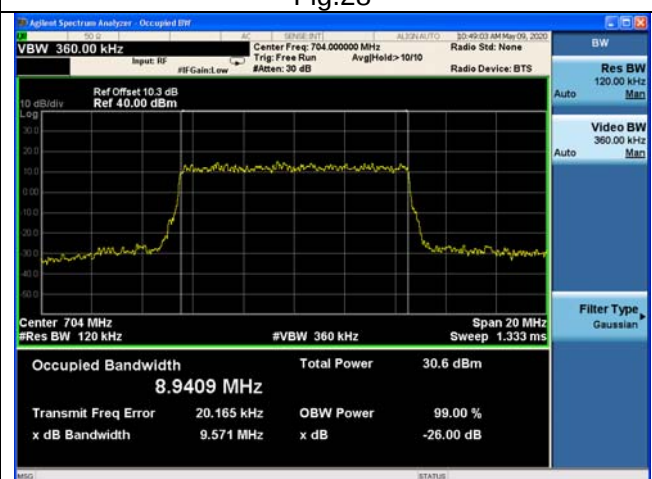


Fig.30

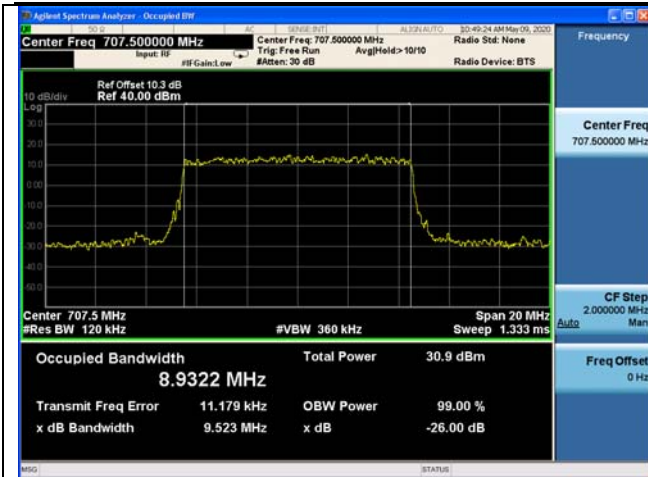


Fig.31

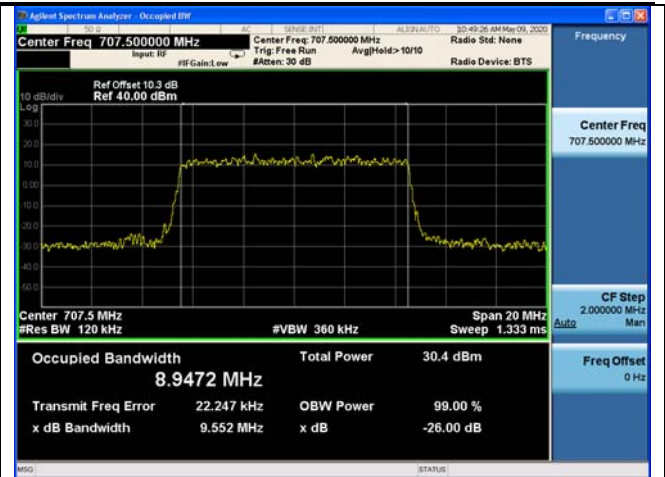


Fig.32

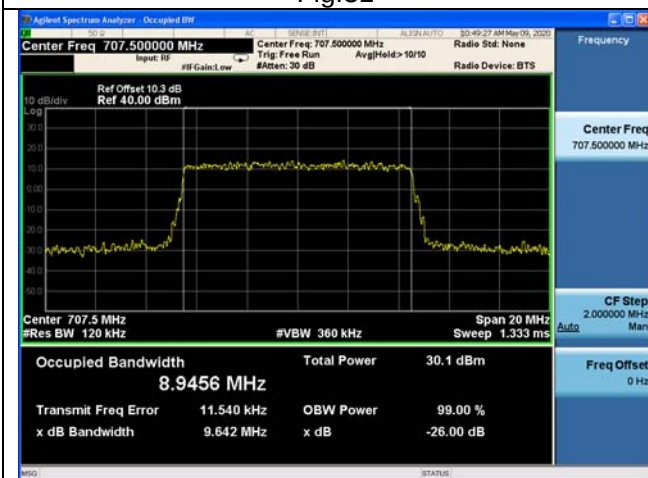


Fig.33



Fig.34

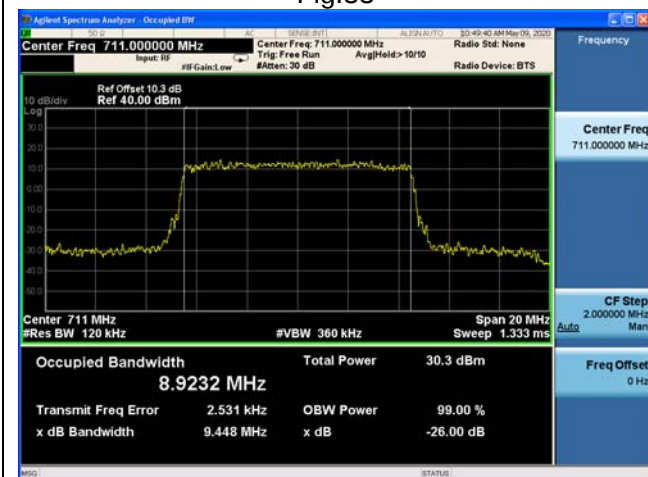


Fig.35

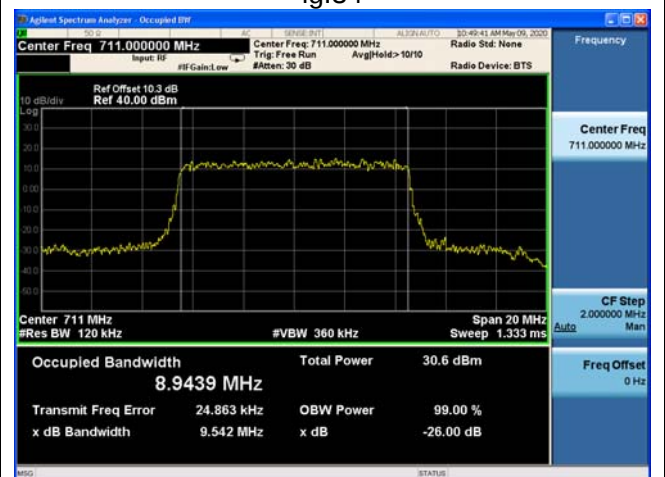


Fig.36

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
12	707.5	23095	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



Fig.1

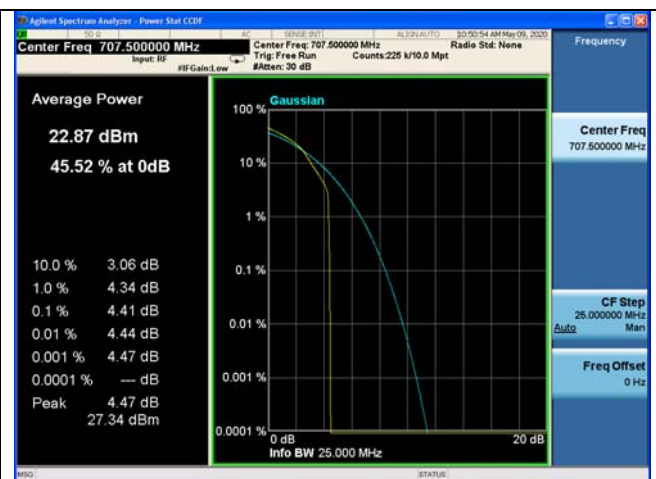


Fig.2

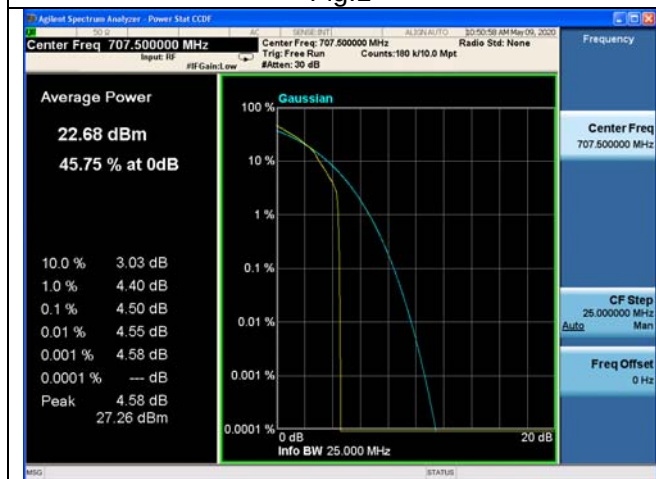


Fig.3

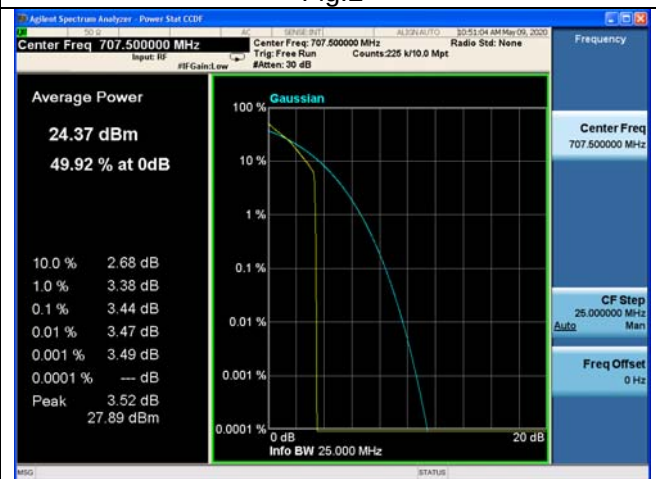


Fig.4

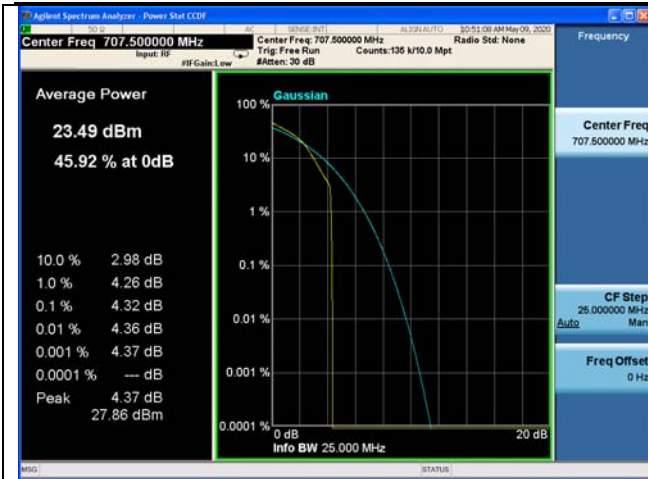


Fig.5

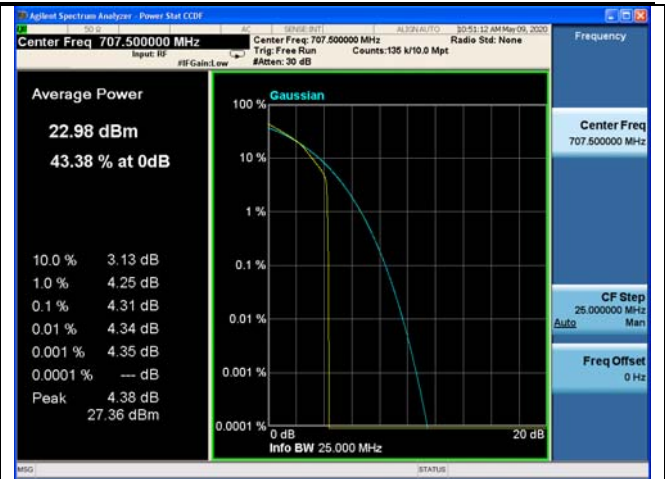


Fig.6

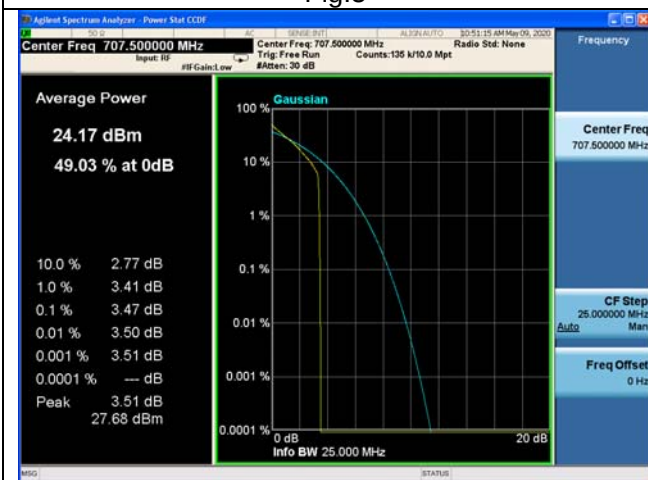


Fig.7

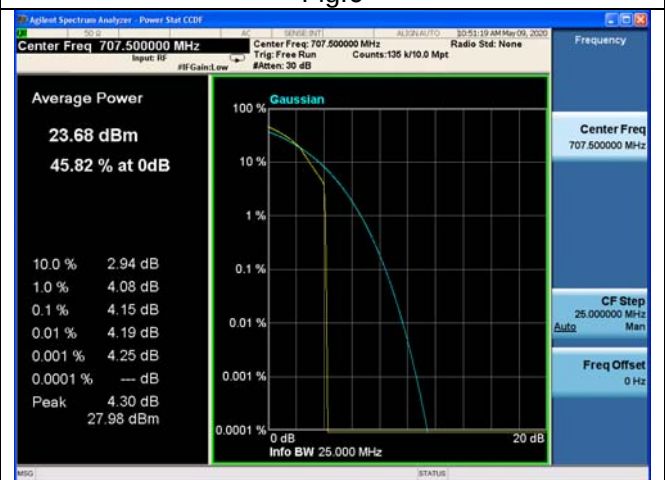


Fig.8



Fig.9

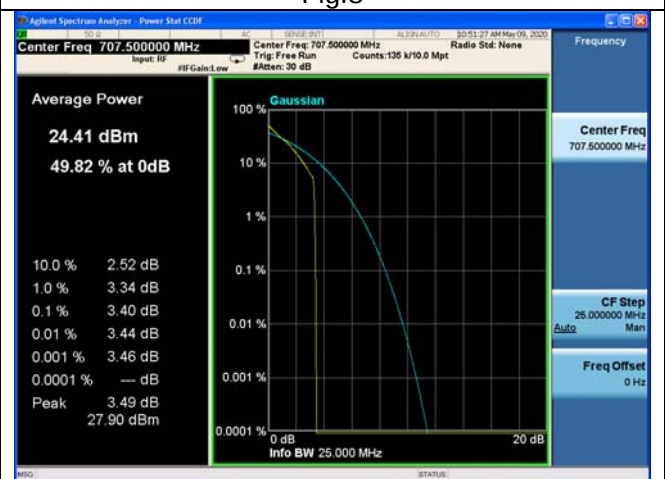


Fig.10

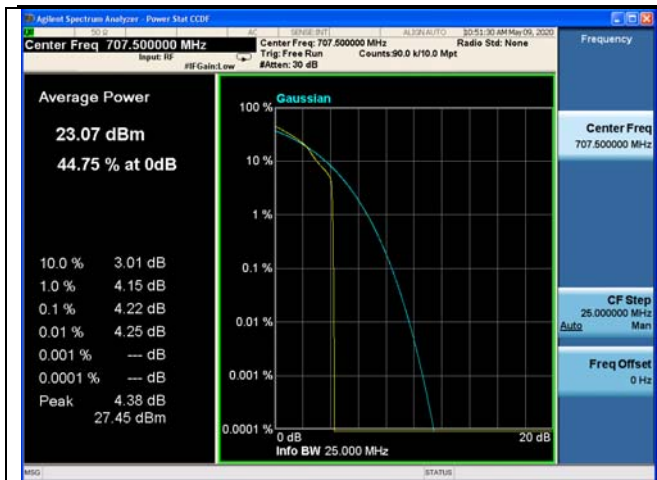


Fig.11

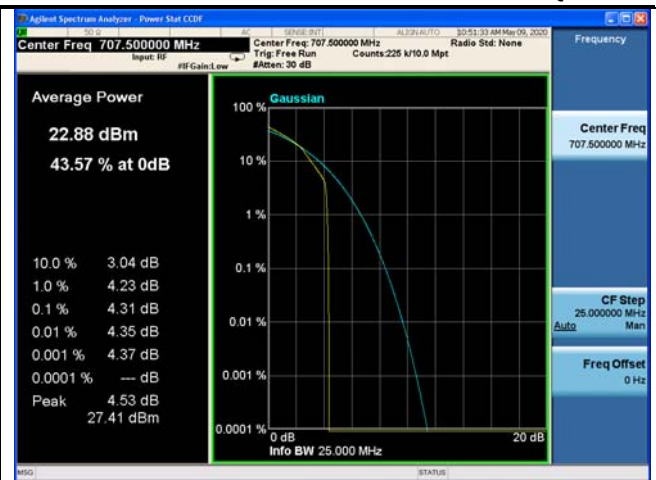


Fig.12

4 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
12	704	23060	10	1	0	Fig.1-2
	707.5	23095	10	1	0	Fig.3-4
	711	23173	10	1	0	Fig.4-5

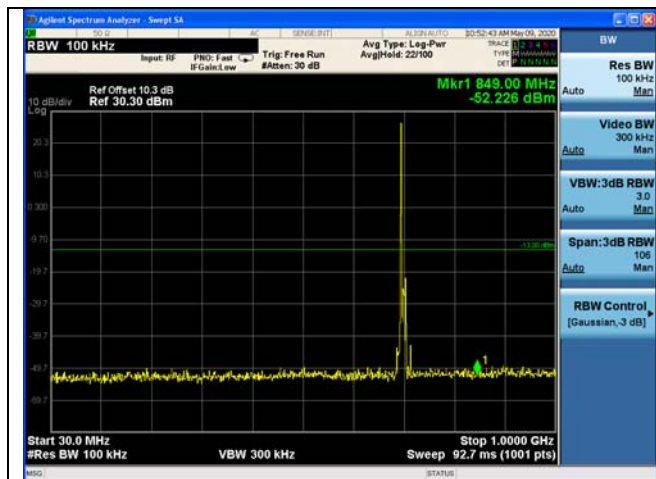


Fig.1

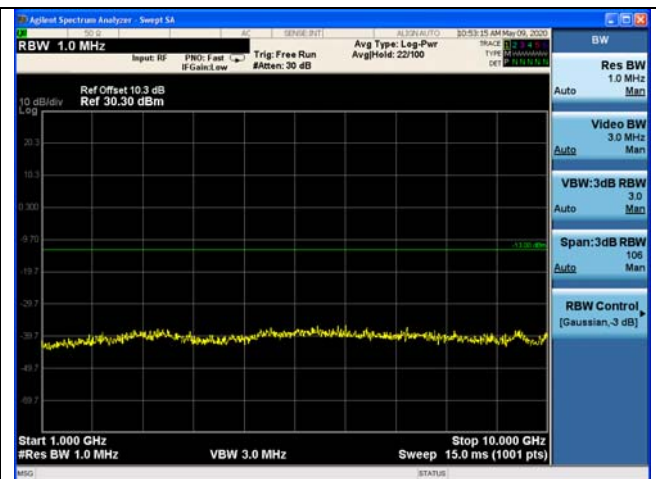


Fig.2

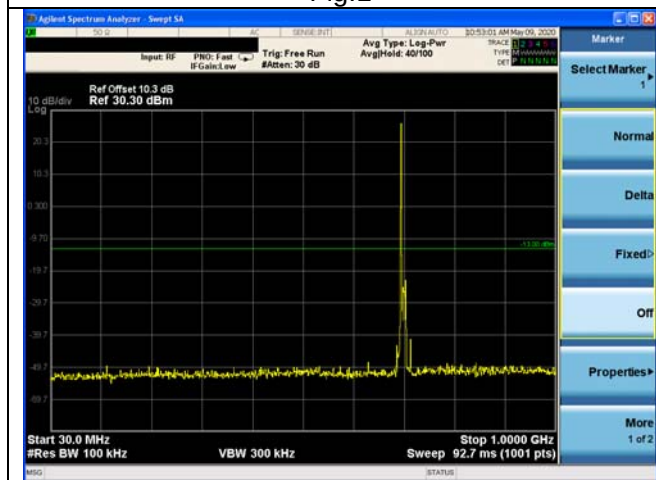


Fig3

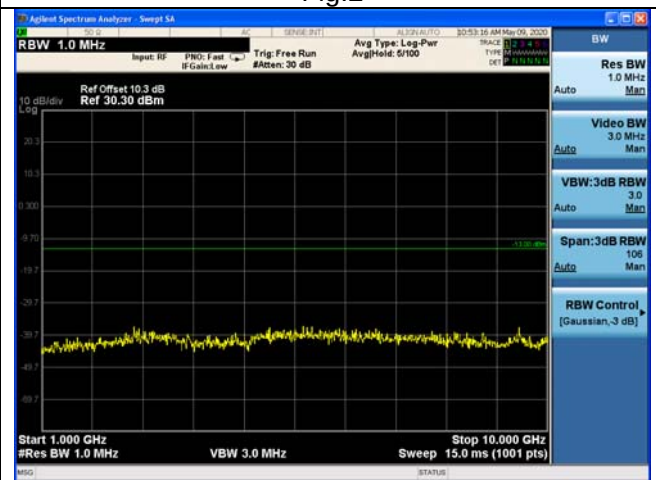
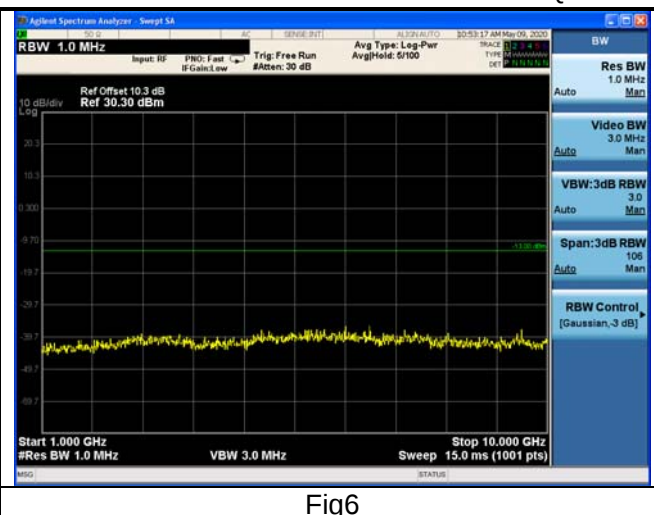
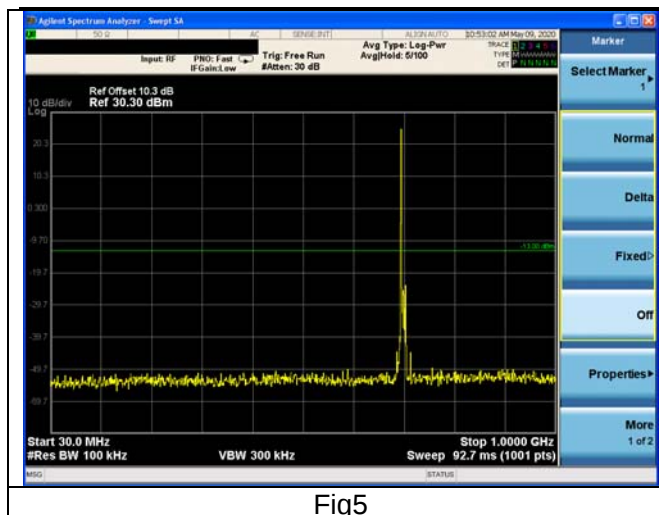


Fig4



5 Band Edges Compliance

Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
12	699.7	23017	1.4	1	0	Fig.1
				6	0	Fig.2
	715.3	23173		1	5	Fig.3
				6	0	Fig.4
	700.5	23025	3	1	0	Fig.5
				15	0	Fig.6
	714.5	23165		1	14	Fig.7
				15	0	Fig.8
	701.5	23035	5	1	0	Fig.9
				25	0	Fig.10
	713.5	23155		1	24	Fig.11
				25	0	Fig.12
	704	23060	10	1	0	Fig.13
				50	0	Fig.14
	711	23130		1	49	Fig.15
				50	0	Fig.16

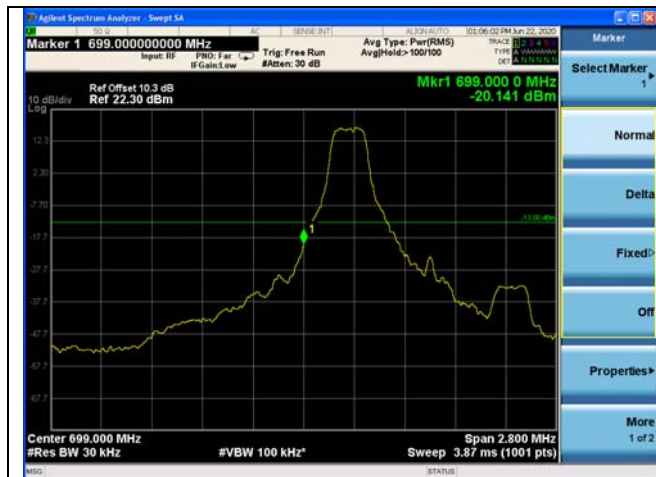


Fig.1

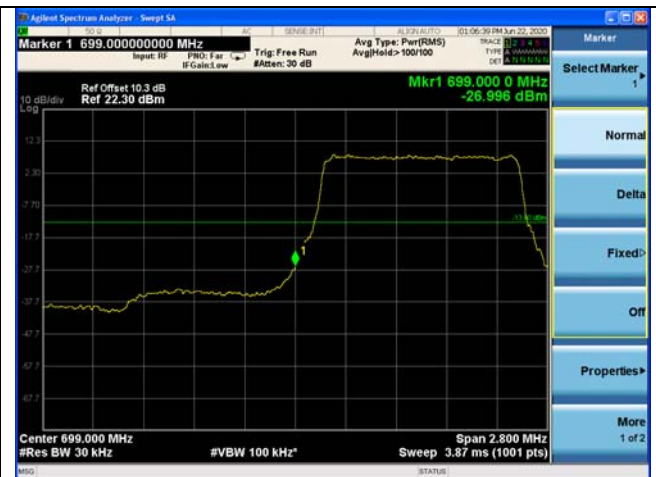


Fig.2



Fig.3



Fig.4

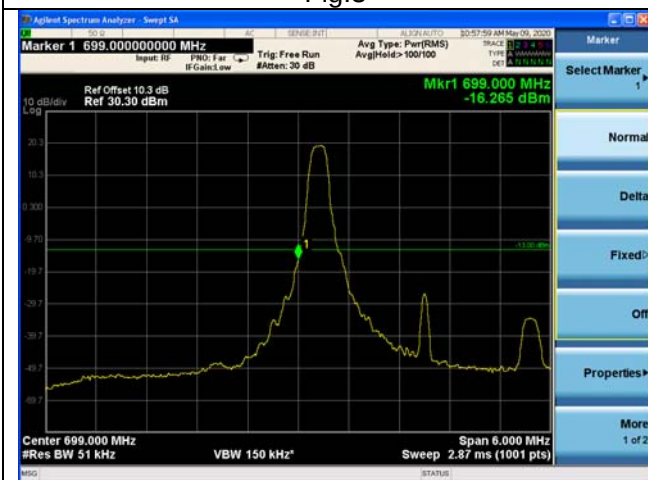


Fig.5

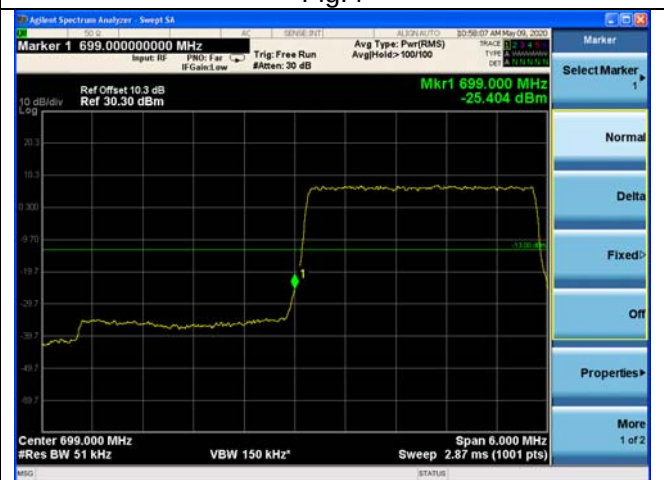


Fig.6

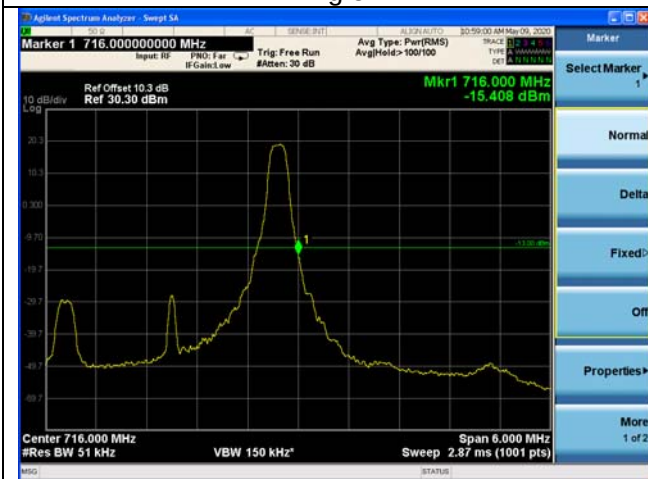


Fig.7



Fig.8

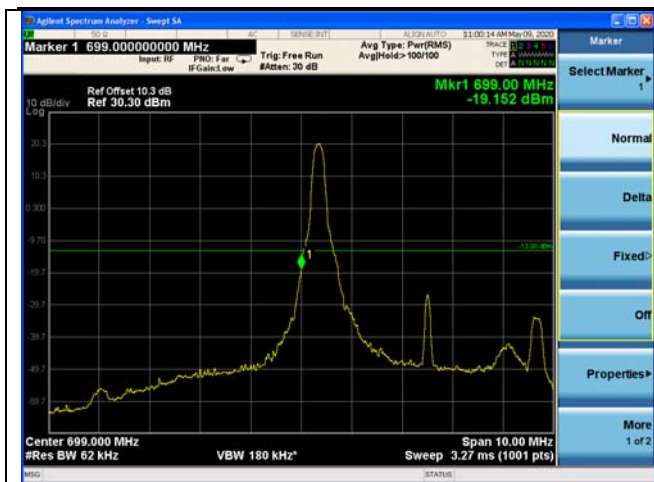


Fig.9

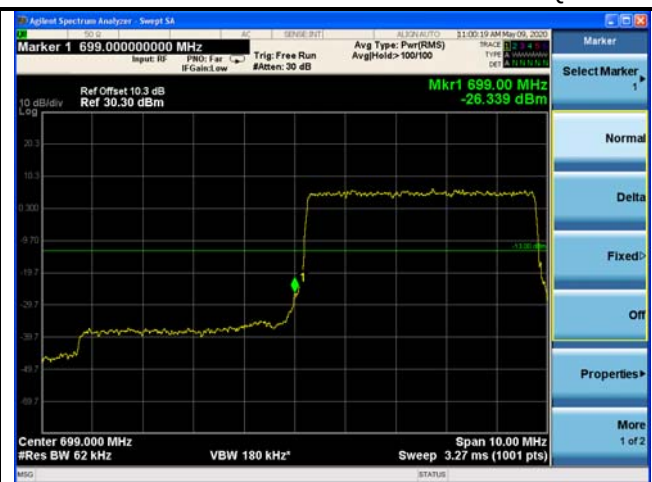


Fig.10

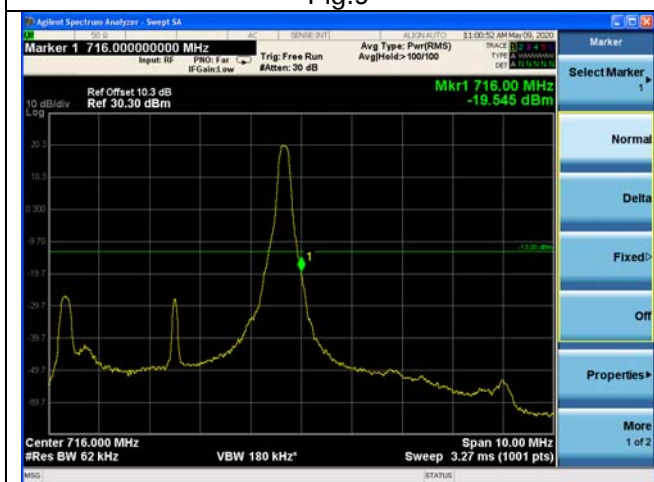


Fig.11



Fig.12

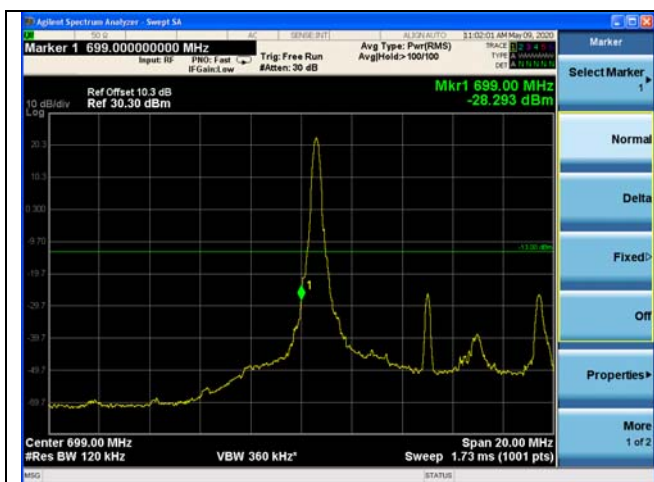


Fig.13

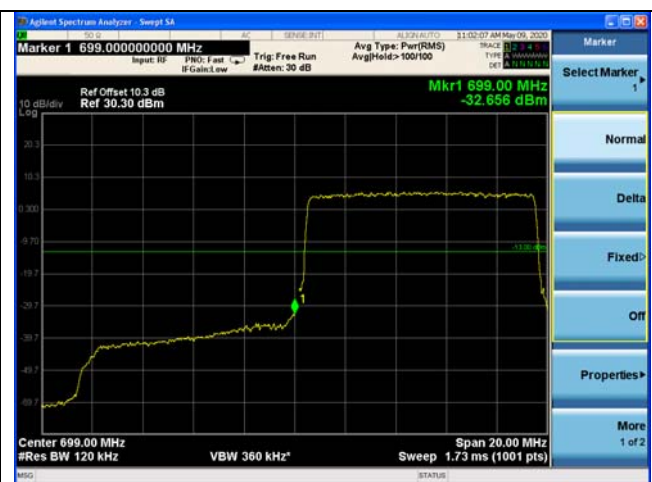
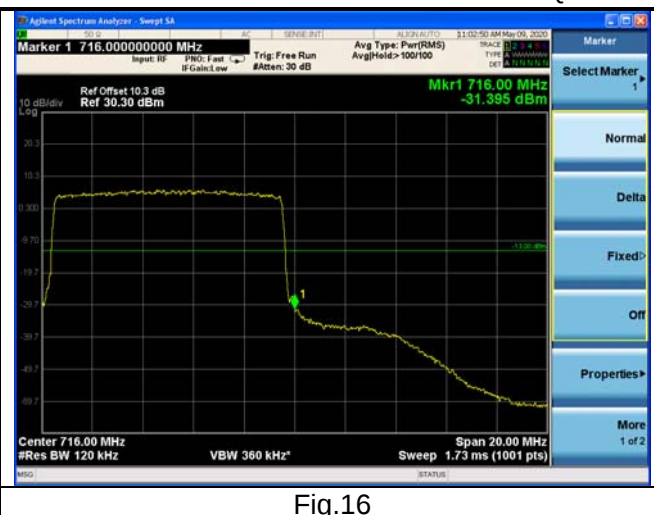
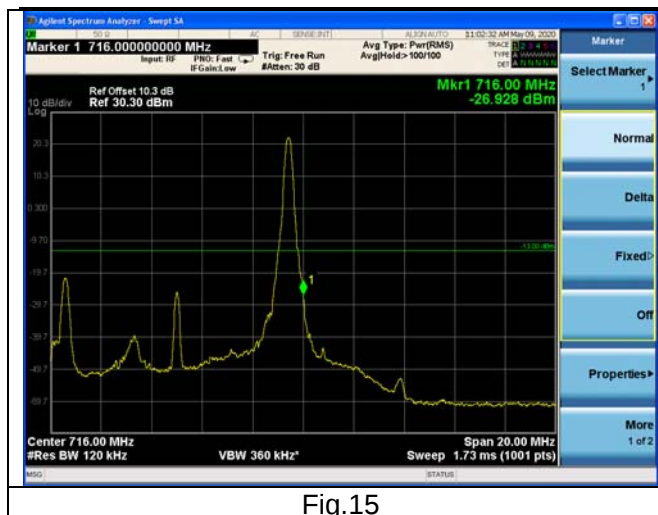


Fig.14



6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band12 Low Channel			
		1.4M	3M	5M	10M
-10	NV	0.031	-0.034	0.006	-0.075
0	NV	-0.068	-0.092	0.072	-0.093
+10	NV	-0.100	-0.092	0.009	0.082
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.000	-0.036	0.087	-0.052
+40	NV	-0.055	-0.073	0.075	0.042
+50	NV	0.015	0.019	-0.059	0.018
+55	NV	0.032	0.038	0.069	-0.037
+20	LV	0.085	-0.056	0.072	0.031
+20	HV	0.014	0.094	-0.043	0.098

Temperature(°C)	Voltage	Test Result (ppm) Band12 High Channel			
		1.4M	3M	5M	10M
-10	NV	0.088	0.052	0.039	-0.010
0	NV	-0.072	0.003	0.002	-0.020
+10	NV	0.093	-0.046	0.074	0.018
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.061	0.095	0.036	0.062
+40	NV	-0.014	0.075	0.022	0.080
+50	NV	-0.085	-0.094	0.066	0.073
+55	NV	-0.069	0.003	-0.052	-0.018
+20	LV	0.068	-0.099	-0.080	-0.056
+20	HV	-0.019	-0.060	0.030	-0.017