

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 12

1 RF Power Output

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
1.4	1	5	715.3	23173	23.43	22.34	22.28
			707.5	23095	23.55	22.93	22.63
			699.7	23017	23.65	23.01	22.98
	1	3	715.3	23173	23.51	22.33	22.25
			707.5	23095	23.67	22.75	22.68
			699.7	23017	23.71	22.59	22.68
	1	0	715.3	23173	23.38	22.06	22.01
			707.5	23095	23.66	22.47	22.69
			699.7	23017	23.73	22.63	22.61
	3	3	715.3	23173	23.57	22.48	22.78
			707.5	23095	23.84	23.01	22.86
			699.7	23017	23.85	22.75	22.73
	3	1	715.3	23173	23.64	22.60	22.89
			707.5	23095	23.76	22.73	23.06
			699.7	23017	23.93	22.88	22.84
	3	0	715.3	23173	23.63	22.55	22.72
			707.5	23095	23.70	22.67	22.83
			699.7	23017	23.85	22.78	22.74
	6	0	715.3	23173	22.72	21.53	21.57
			707.5	23095	22.83	21.51	21.71
			699.7	23017	22.96	21.64	21.63

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
3	1	14	714.5	23165	23.65	22.19	22.49
			707.5	23095	23.66	22.27	22.44
			700.5	23025	23.90	22.93	22.91
	1	7	714.5	23165	23.66	22.49	22.57
			707.5	23095	23.72	22.71	22.70
			700.5	23025	23.87	22.52	22.74
	1	0	714.5	23165	23.79	22.50	22.35
			707.5	23095	23.71	22.52	22.60
			700.5	23025	23.86	22.36	22.38
	8	7	714.5	23165	22.67	21.79	21.58
			707.5	23095	22.86	21.92	21.90
			700.5	23025	23.06	22.13	22.10
	8	4	714.5	23165	22.68	21.79	21.68
			707.5	23095	22.86	21.84	21.91
			700.5	23025	22.99	22.06	22.08
	8	0	714.5	23165	22.82	21.91	21.79
			707.5	23095	22.82	21.80	21.97
			700.5	23025	22.90	22.07	22.09
	15	0	714.5	23165	22.76	21.80	21.71
			707.5	23095	22.86	21.79	22.03
			700.5	23025	22.85	21.96	21.99

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
5	1	24	713.5	23155	23.57	22.46	22.21
			707.5	23095	23.62	22.79	22.41
			701.5	23035	23.83	23.23	22.65
	1	12	713.5	23155	23.82	22.66	22.55
			707.5	23095	23.76	22.60	22.67
			701.5	23035	23.90	22.71	22.71
	1	0	713.5	23155	23.74	22.18	22.54
			707.5	23095	23.83	22.33	22.45
			701.5	23035	23.96	22.50	22.45
	12	13	713.5	23155	22.61	21.40	21.59
			707.5	23095	22.89	21.84	21.60
			701.5	23035	22.94	21.82	21.68
	12	6	713.5	23155	22.85	21.73	21.60
			707.5	23095	22.86	21.70	21.80
			701.5	23035	22.95	21.88	21.80
	12	0	713.5	23155	22.78	21.72	21.61
			707.5	23095	22.82	21.66	21.54
			701.5	23035	22.88	21.66	21.76
	25	0	713.5	23155	22.68	21.73	21.62
			707.5	23095	22.86	21.79	21.88
			701.5	23035	22.92	21.94	21.94

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
10	1	49	711	23130	23.63	22.33	22.42
			707.5	23095	23.80	22.36	22.41
			704	23060	23.62	22.75	22.60
	1	24	711	23130	23.83	22.45	22.72
			707.5	23095	23.81	22.76	22.54
			704	23060	23.92	22.54	22.82
	1	0	711	23130	23.74	22.60	22.16
			707.5	23095	23.61	22.51	22.13
			704	23060	23.43	22.30	22.01
	25	25	711	23130	22.86	21.99	21.91
			707.5	23095	22.82	21.74	21.77
			704	23060	22.88	21.82	22.13
	25	12	711	23130	22.91	21.86	21.83
			707.5	23095	22.80	21.82	21.81
			704	23060	22.91	21.82	21.64
	25	0	711	23130	22.81	21.74	21.85
			707.5	23095	22.75	21.71	21.79
			704	23060	22.75	21.67	21.79
	50	0	711	23130	22.93	21.82	21.87
			707.5	23095	22.90	21.78	21.83
			704	23060	22.91	21.92	21.86

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	1.0731	Fig.1	1.0818	Fig.2	1.0778	Fig.3
	707.5	23095		6	0	1.0761	Fig.4	1.0819	Fig.5	1.0784	Fig.6
	715.3	23173		6	0	1.0829	Fig.7	1.0776	Fig.8	1.0753	Fig.9
	700.5	23025	3	15	0	2.6872	Fig.10	2.7116	Fig.11	2.6980	Fig.12
	707.5	23095		15	0	2.6832	Fig.13	2.7002	Fig.14	2.7046	Fig.15
	714.5	23165		15	0	2.7050	Fig.16	2.6987	Fig.17	2.6921	Fig.18
	701.5	23035	5	25	0	4.4914	Fig.19	4.4709	Fig.20	4.4961	Fig.21
	707.5	23095		25	0	4.4806	Fig.22	4.4866	Fig.23	4.4820	Fig.24
	713.5	23155		25	0	4.4751	Fig.25	4.4806	Fig.26	4.4895	Fig.27
	704	23060	10	50	0	8.9400	Fig.28	8.9363	Fig.29	8.9273	Fig.30
	707.5	23095		50	0	8.9325	Fig.31	8.9329	Fig.32	8.9623	Fig.33
	711	23130		50	0	8.8978	Fig.34	8.9067	Fig.35	8.9168	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	1.233	Fig.1	1.227	Fig.2	1.251	Fig.3
	707.5	23095		6	0	1.229	Fig.4	1.241	Fig.5	1.238	Fig.6
	715.3	23173		6	0	1.258	Fig.7	1.253	Fig.8	1.212	Fig.9
	700.5	23015	3	15	0	2.965	Fig.10	2.990	Fig.11	2.913	Fig.12
	707.5	23095		15	0	2.933	Fig.13	2.973	Fig.14	2.978	Fig.15
	714.5	23165		15	0	2.938	Fig.16	2.938	Fig.17	2.952	Fig.18
	701.5	23035	5	25	0	4.863	Fig.19	4.846	Fig.20	4.822	Fig.21
	707.5	23095		25	0	4.886	Fig.22	4.930	Fig.23	4.861	Fig.24
	713.5	23155		25	0	4.862	Fig.25	4.909	Fig.26	4.879	Fig.27
	704	23060	10	50	0	9.683	Fig.28	9.699	Fig.29	9.580	Fig.30
	707.5	23095		50	0	9.691	Fig.31	9.691	Fig.32	9.350	Fig.33
	711	23130		50	0	9.527	Fig.34	9.510	Fig.35	9.645	Fig.36

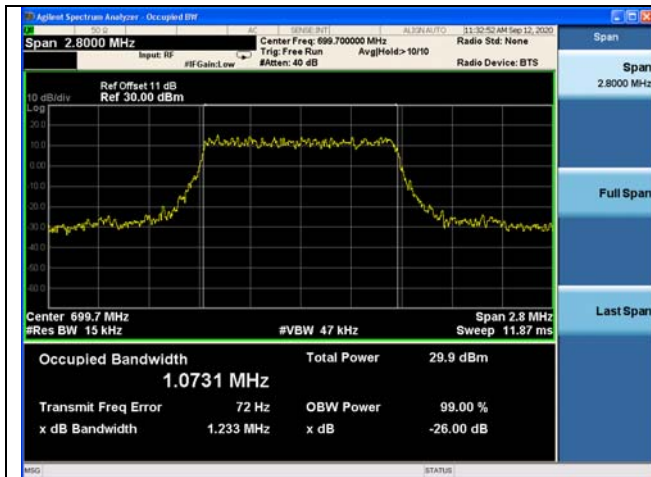


Fig.1



Fig.2

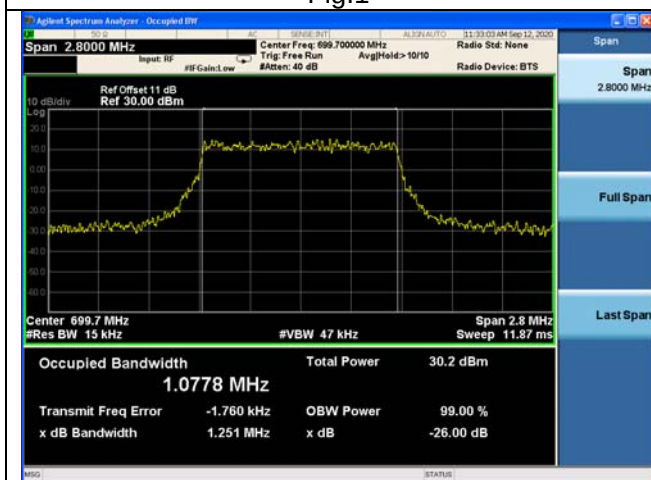


Fig.3

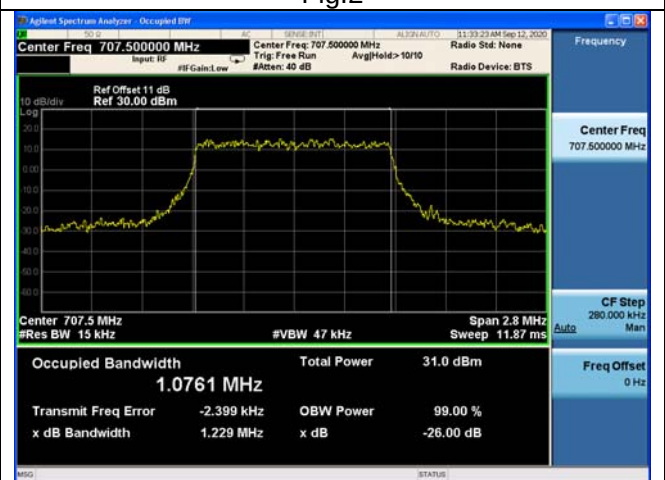


Fig.4

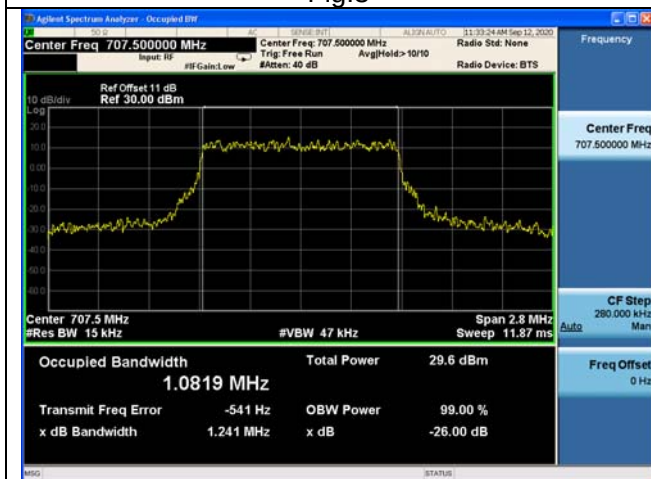


Fig.5

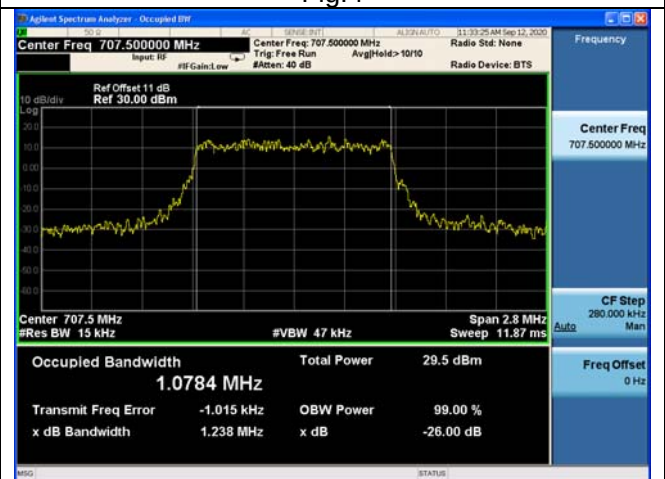


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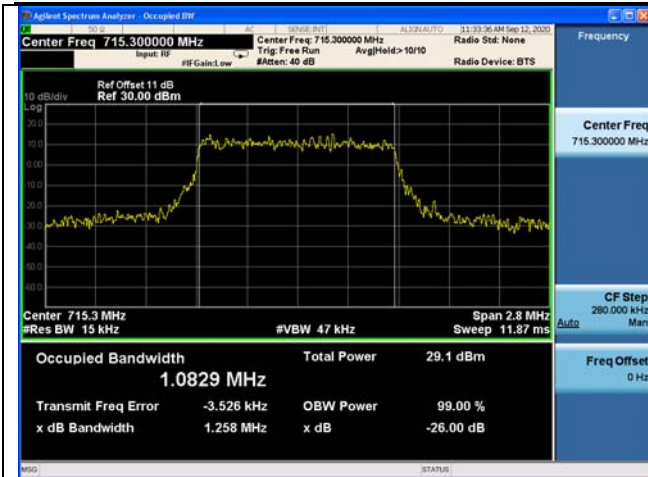


Fig.7



Fig.8

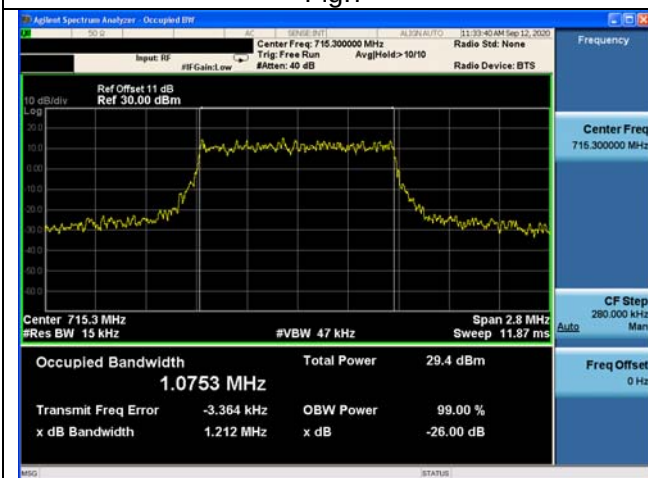


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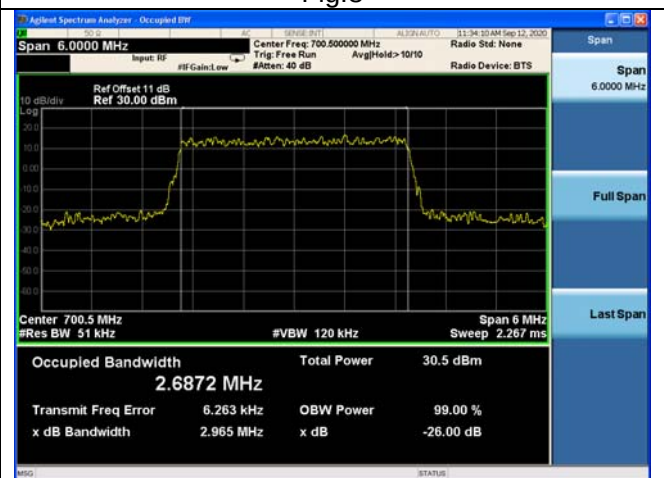


Fig.10

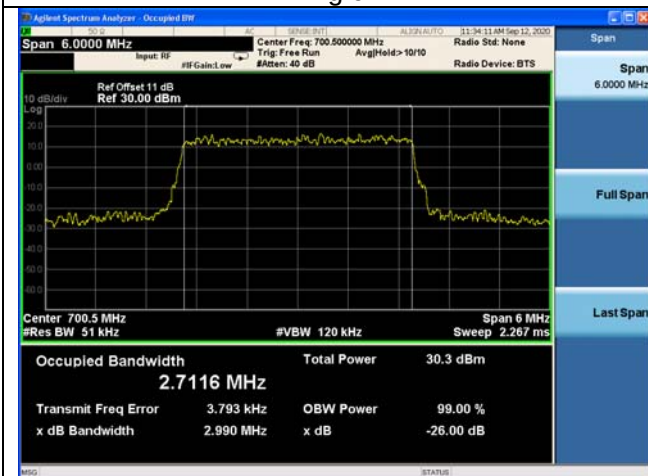


Fig.11

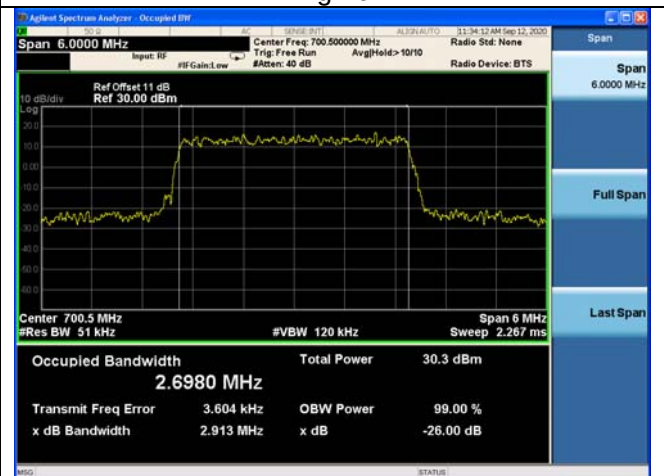


Fig.12

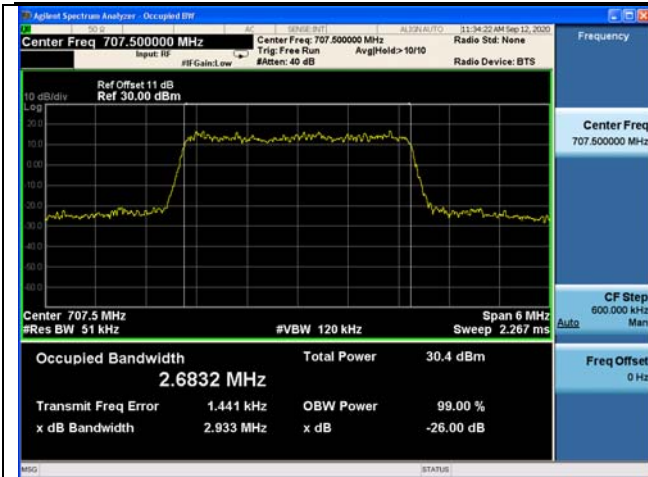


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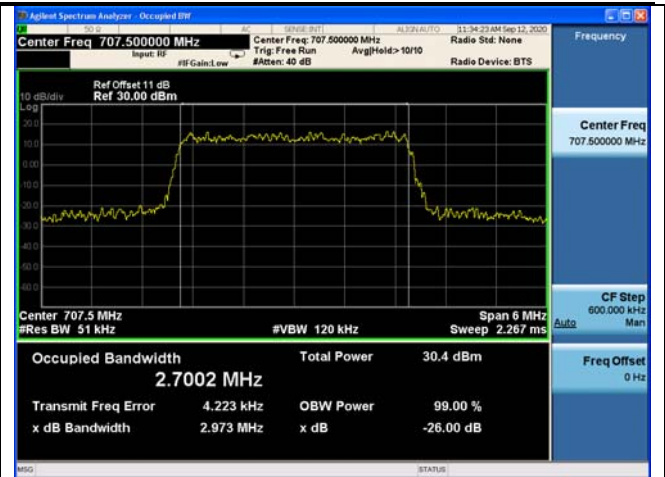


Fig.14

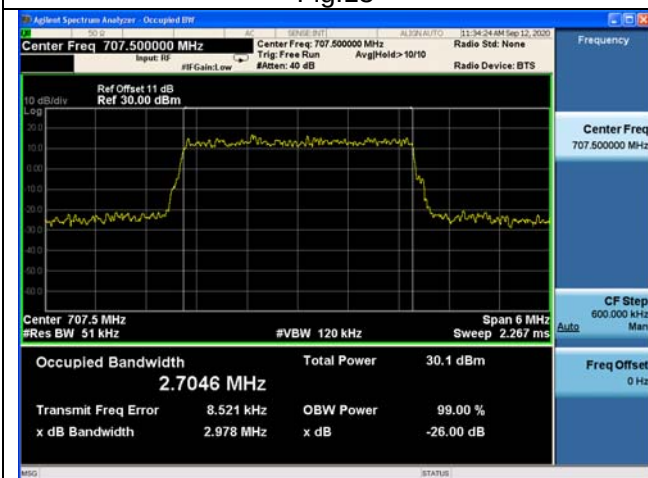


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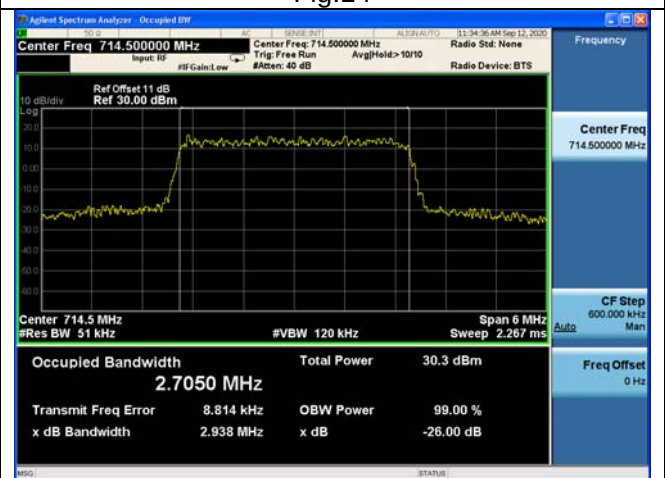


Fig.16

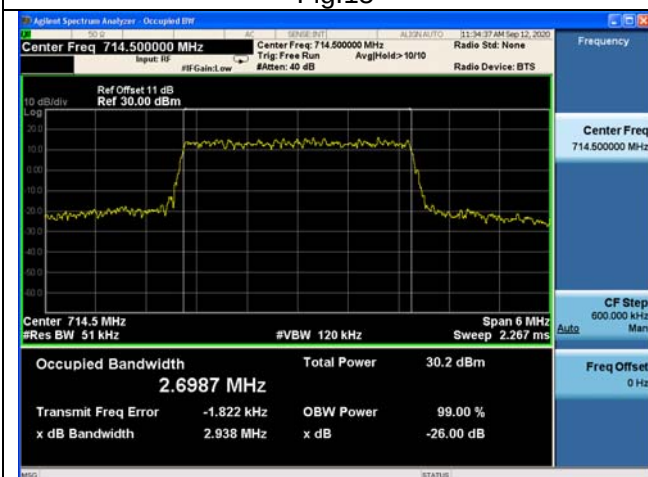


Fig.17

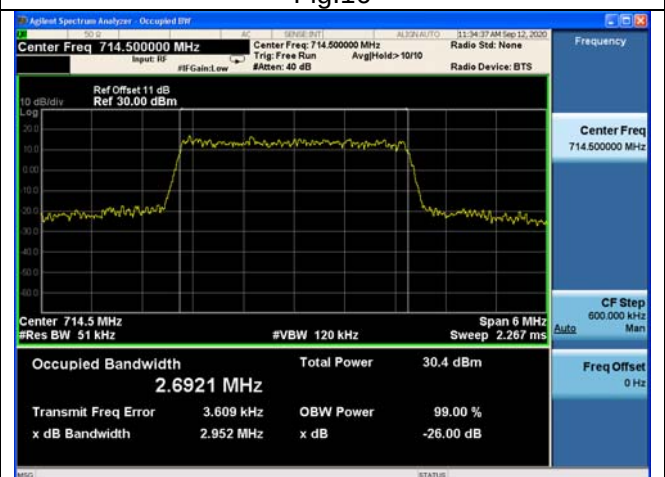


Fig.18

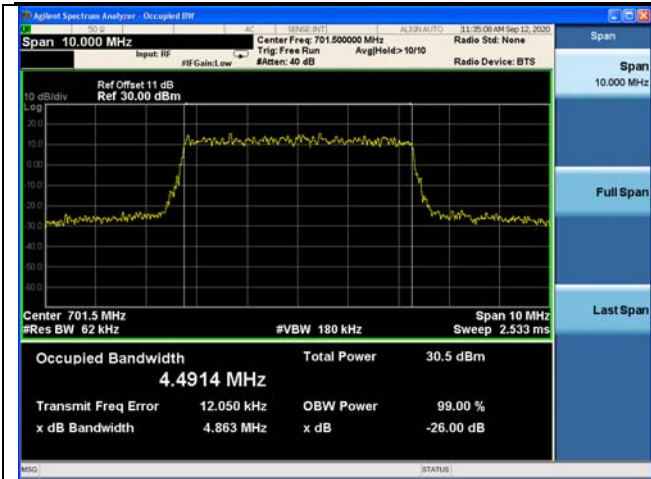


Fig.19

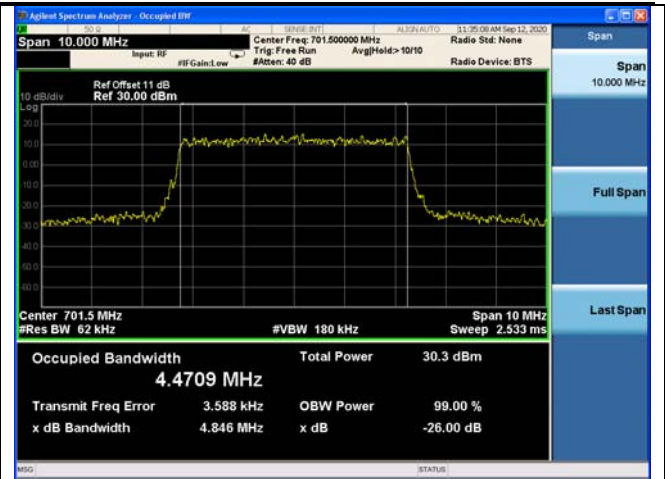


Fig.20

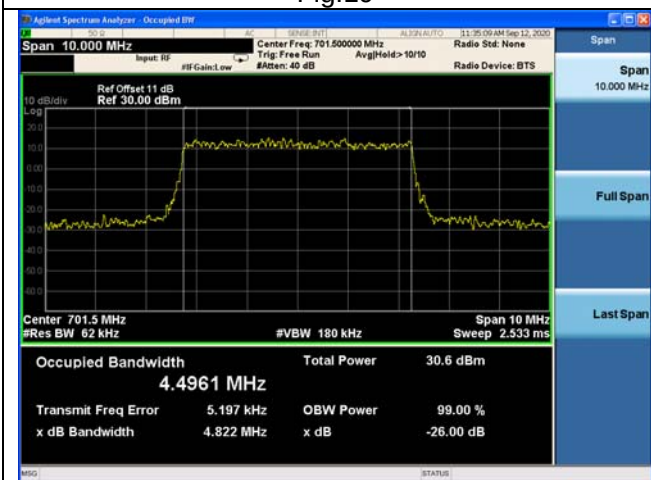


Fig.21

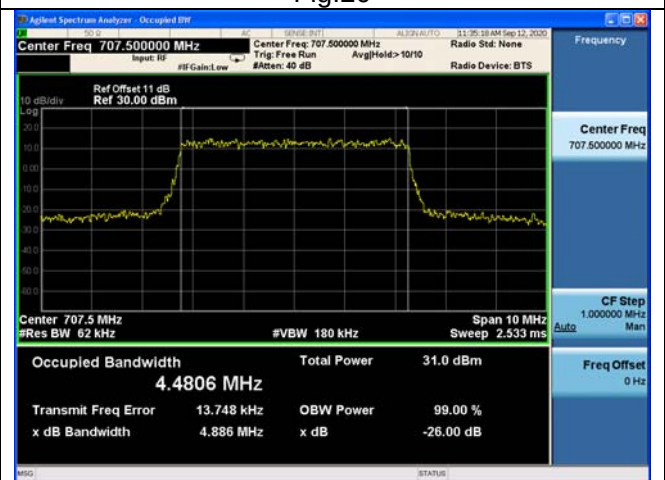


Fig.22

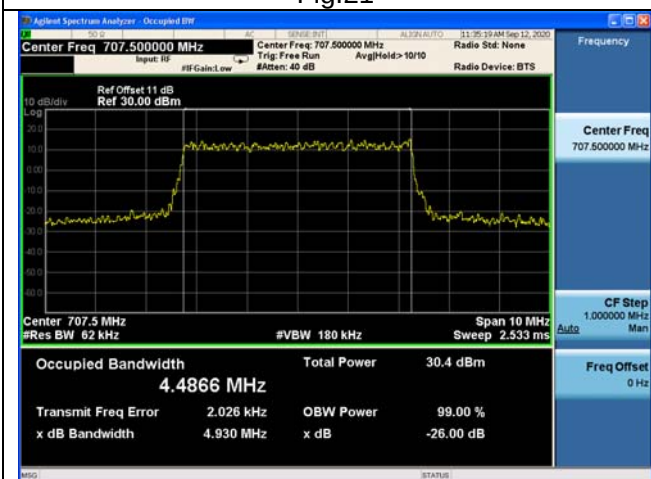


Fig.23

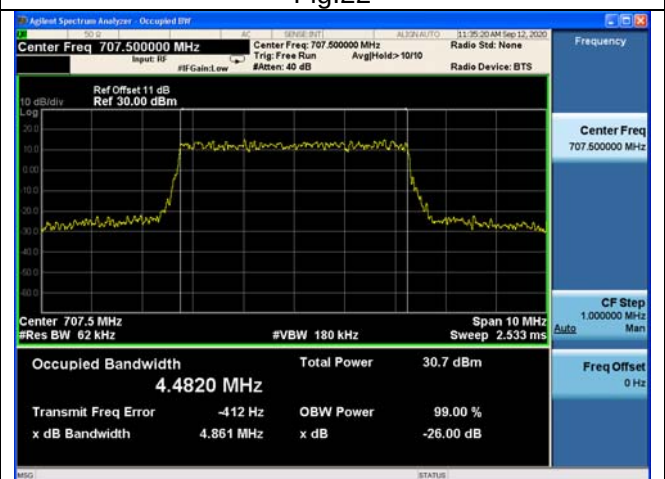


Fig.24

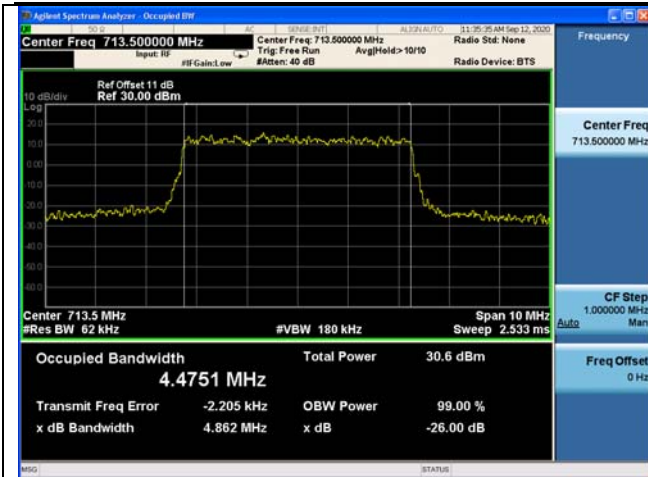


Fig.25



Fig.26

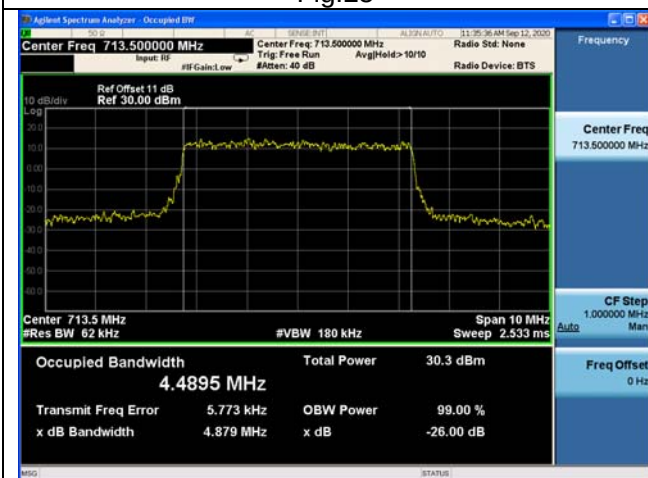


Fig.27

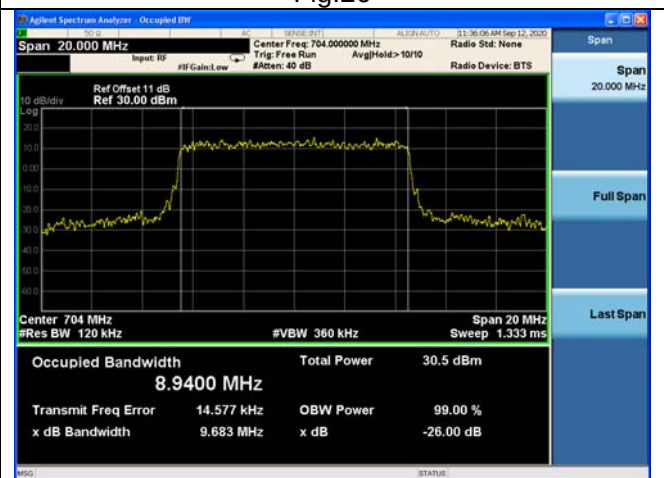


Fig.28

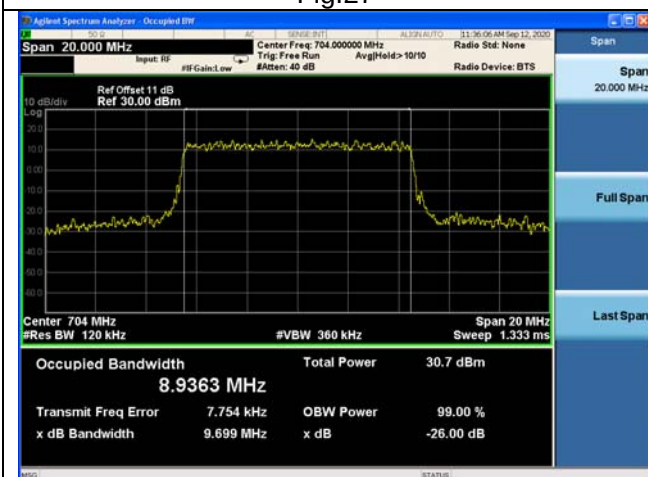


Fig.29

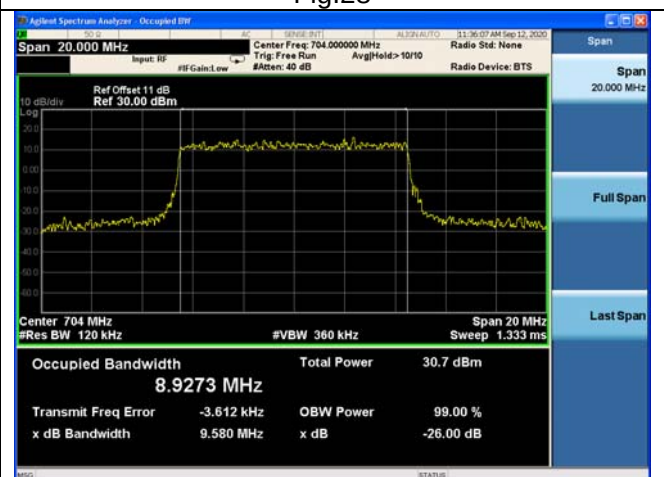


Fig.30

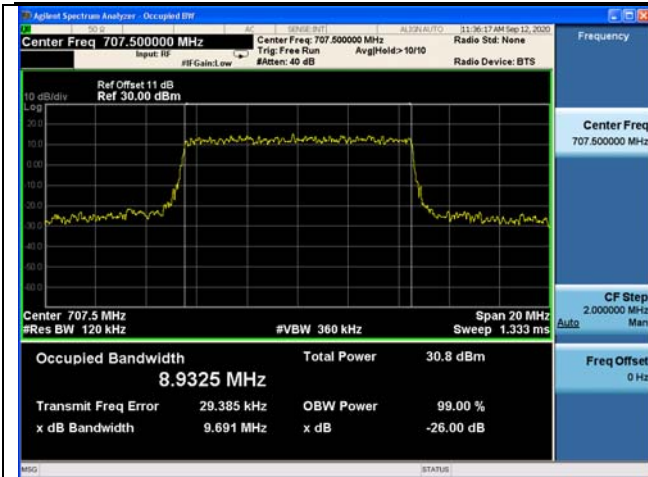


Fig.31

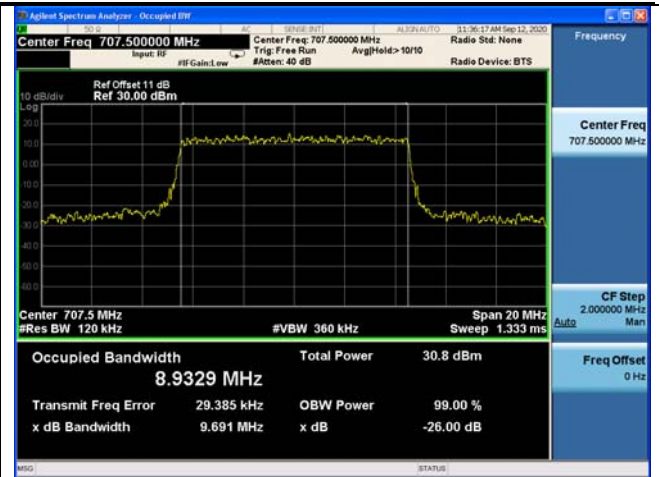


Fig.32

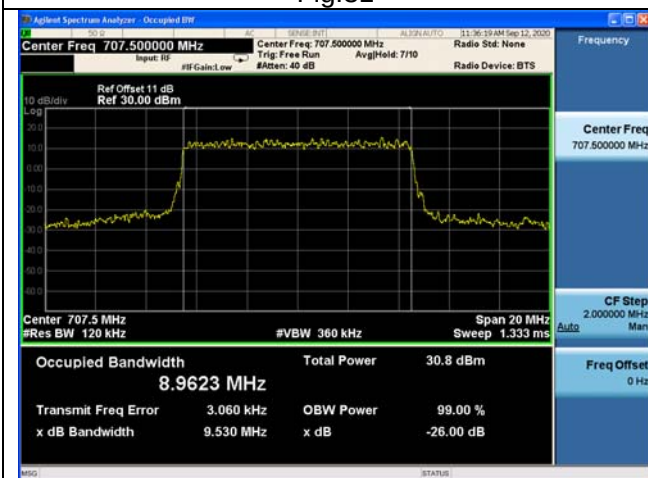


Fig.33

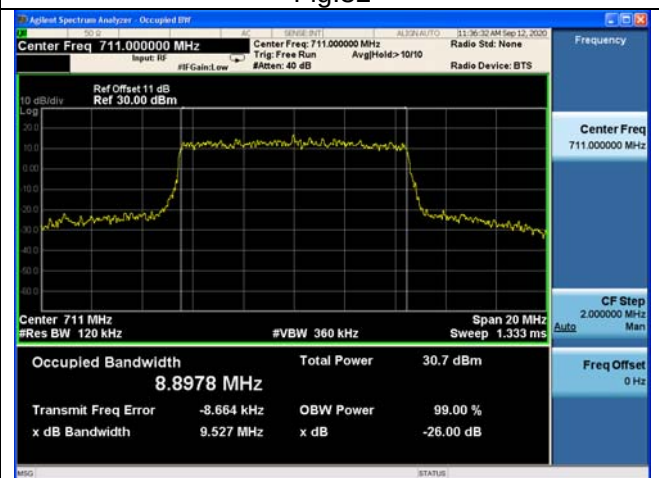


Fig.34

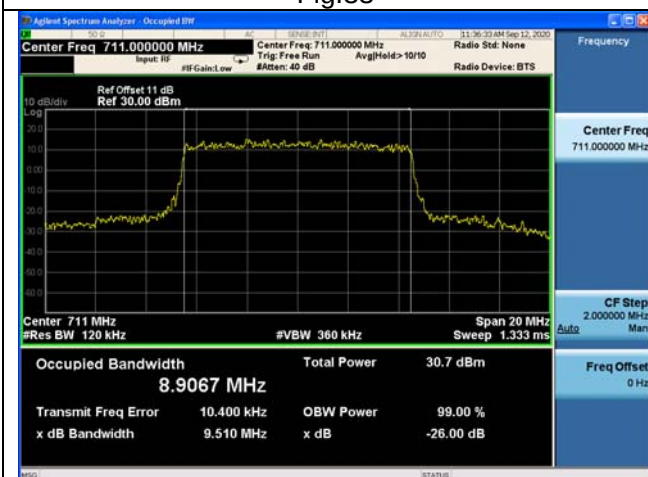


Fig.35

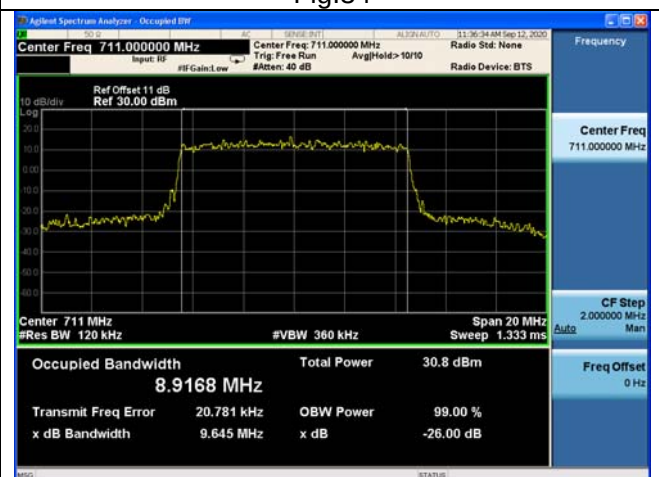


Fig.36

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

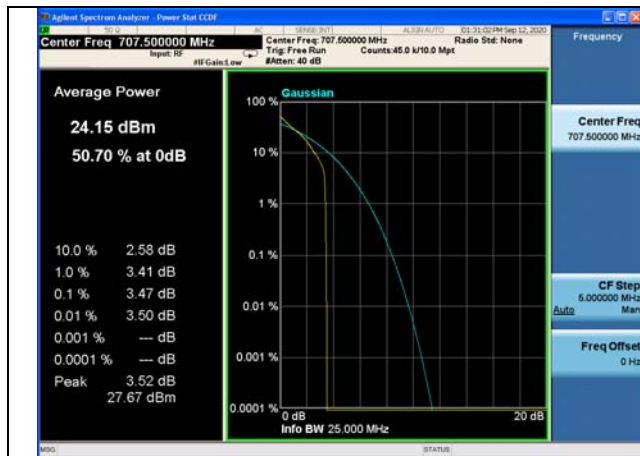


Fig.1

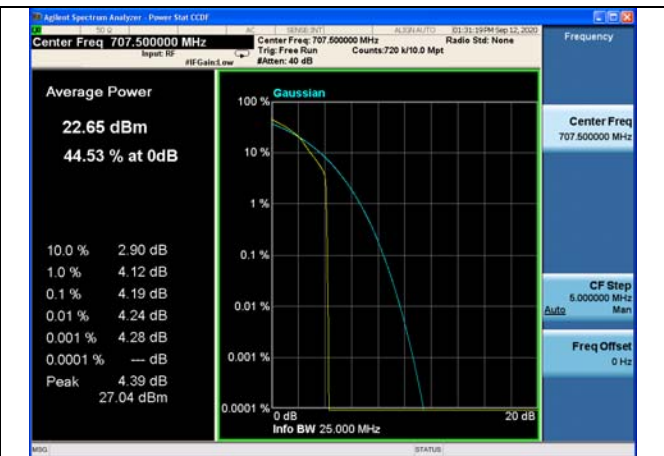


Fig.2



Fig.3



Fig.4

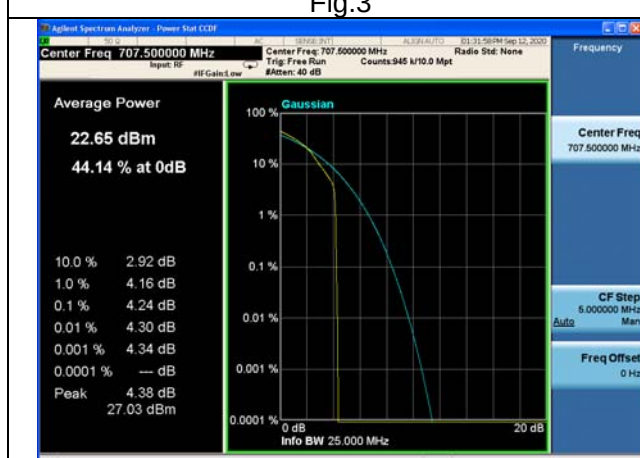


Fig.5



Fig.6



Fig.7



Fig.8



Fig.9

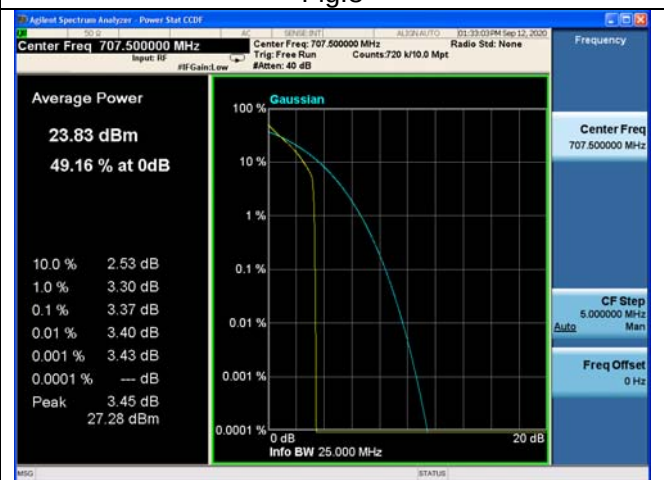


Fig.10

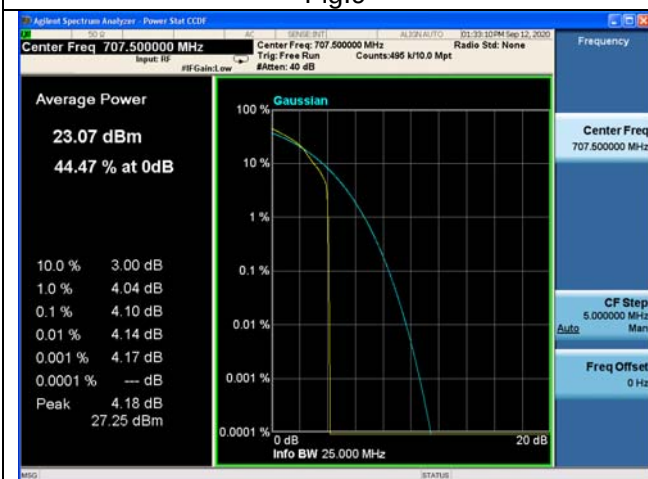


Fig.11

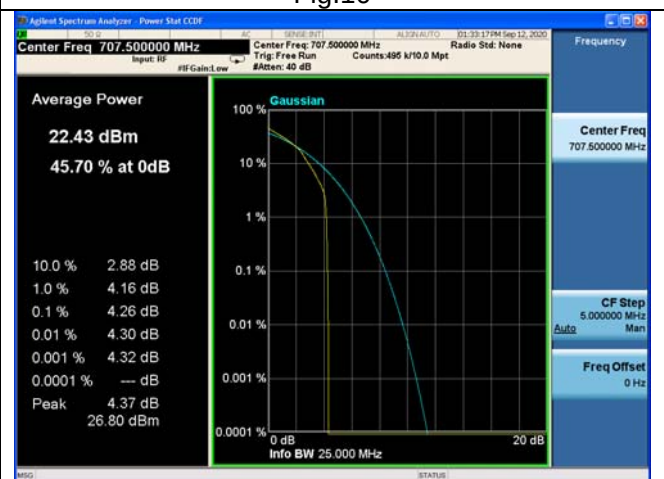


Fig.12

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

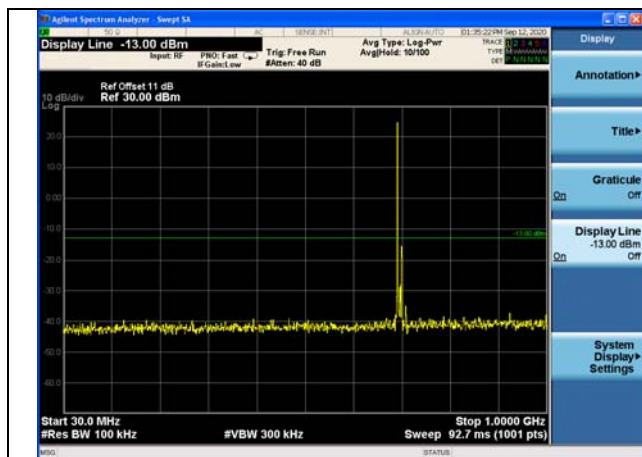


Fig.1

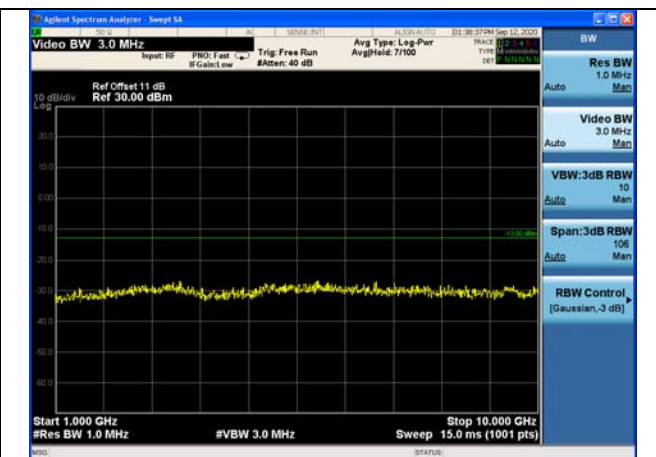


Fig.2

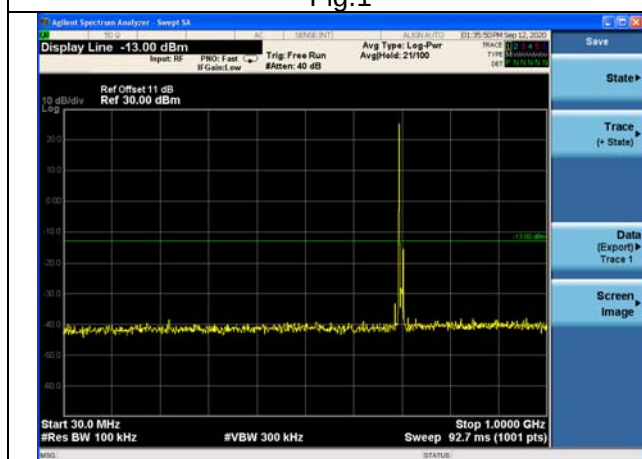


Fig3

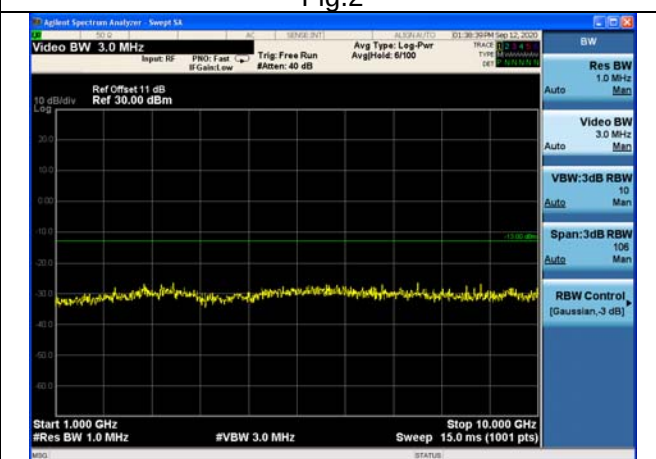


Fig4

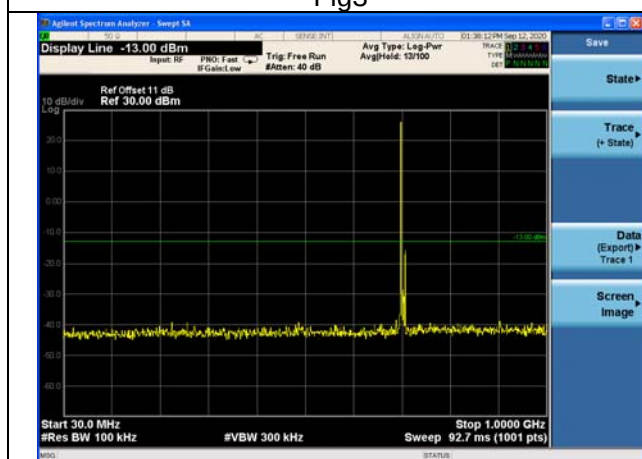


Fig5

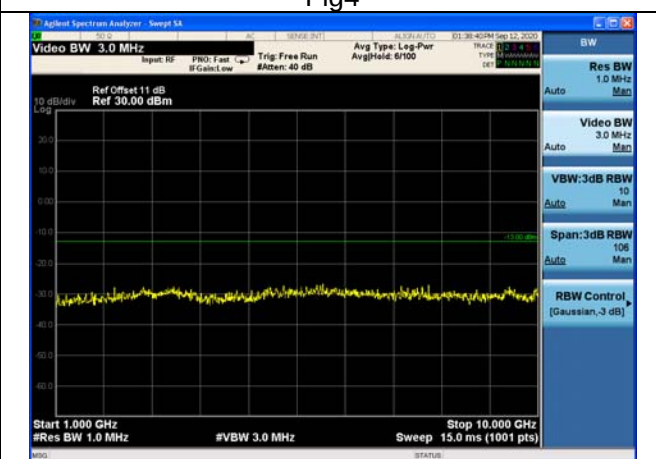


Fig6

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	1.4	1	5	Fig.3
				6	0	Fig.4
	700.5	23025	3	1	0	Fig.5
				15	0	Fig.6
	714.5	23165	3	1	14	Fig.7
				15	0	Fig.8
	701.5	23035	5	1	0	Fig.9
				25	0	Fig.10
	713.5	23155	5	1	24	Fig.11
				25	0	Fig.12
	704	23060	10	1	0	Fig.13
				50	0	Fig.14
	711	23130	10	1	49	Fig.15
				50	0	Fig.16

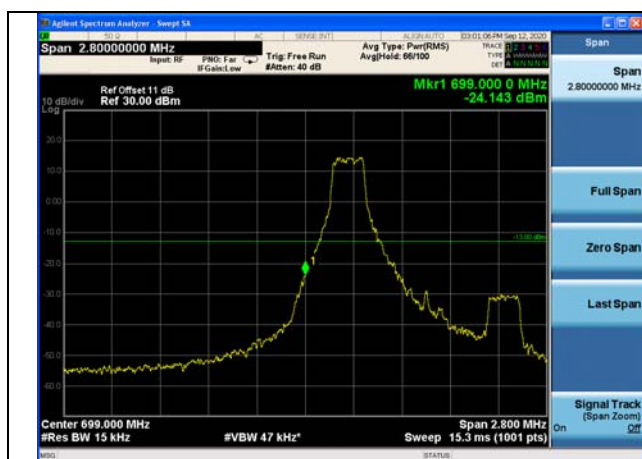


Fig.1

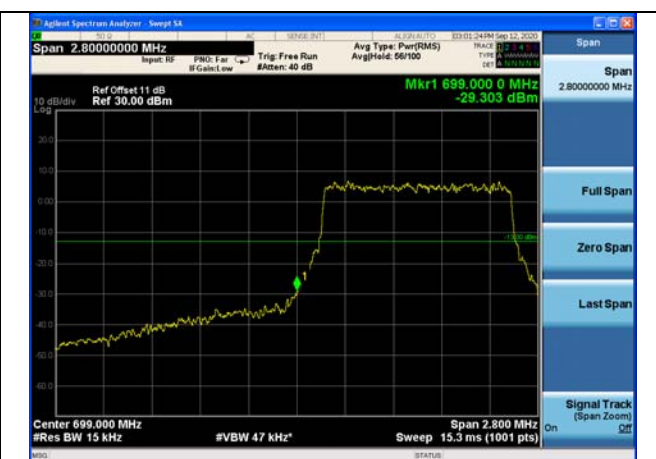


Fig.2

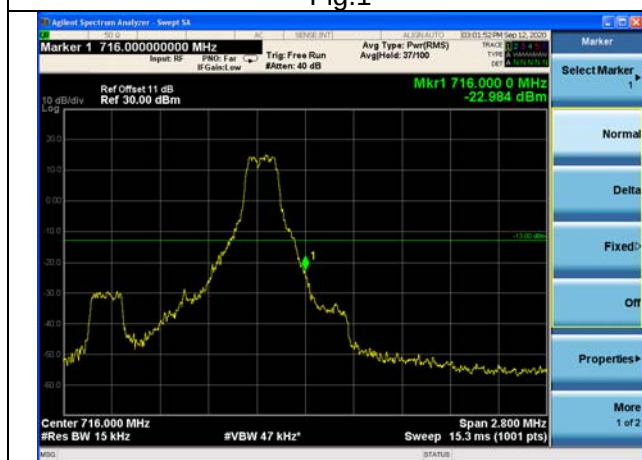


Fig.3



Fig.4

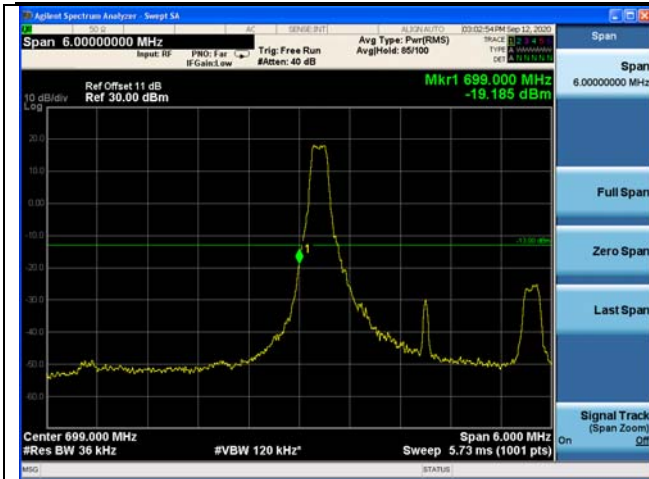


Fig.5



Fig.6

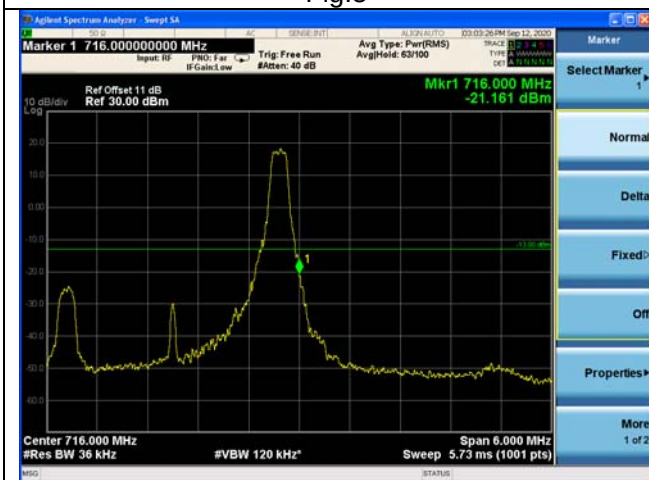


Fig.7



Fig.8

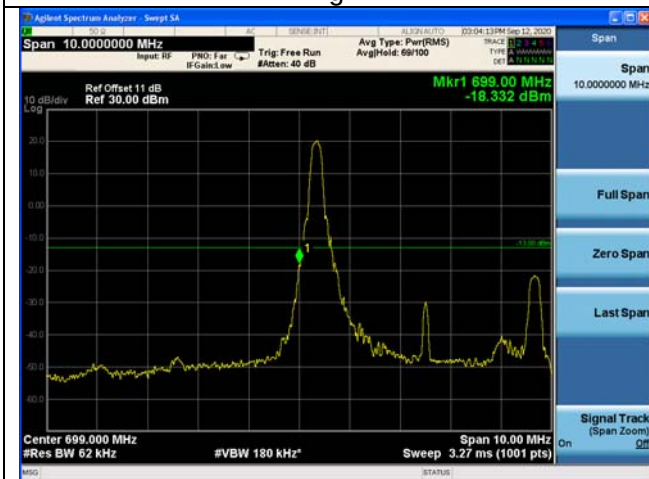


Fig.9



Fig.10

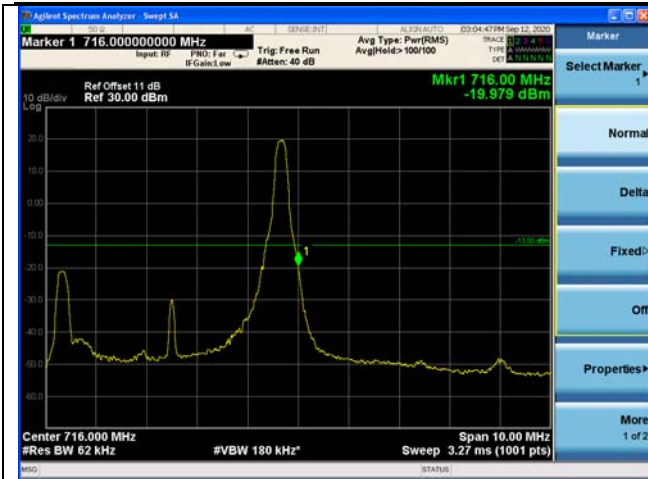


Fig.11



Fig.12

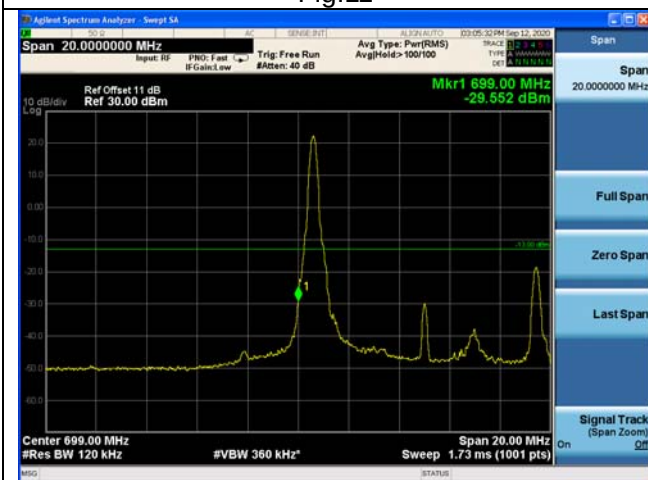


Fig.13

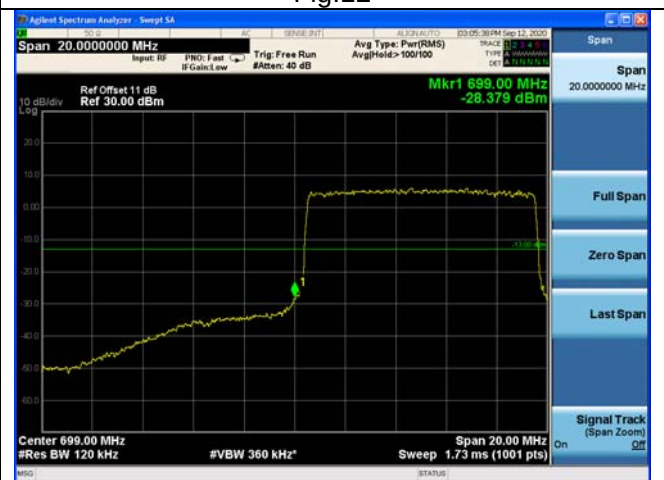


Fig.14

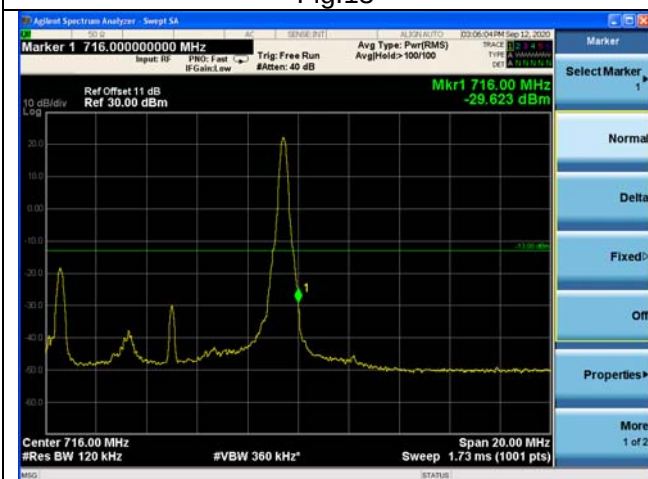


Fig.15



Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band12 Low Channel			
		1.4M	3M	5M	10M
-10	NV	-0.018	-0.037	-0.034	0.031
0	NV	0.040	0.012	0.005	-0.006
+10	NV	-0.037	-0.022	0.018	-0.034
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.030	-0.016	0.022	-0.008
+40	NV	0.049	-0.042	0.043	0.029
+50	NV	0.047	-0.034	0.028	0.036
+55	NV	0.042	0.018	0.022	0.007
+20	LV	-0.039	0.047	-0.023	-0.028
+20	HV	0.041	-0.014	-0.023	0.050

Temperature(°C)	Voltage	Test Result (ppm) Band12 High Channel			
		1.4M	3M	5M	10M
-10	NV	0.008	0.003	0.033	0.008
0	NV	0.040	0.026	-0.012	-0.021
+10	NV	-0.013	0.002	-0.018	0.007
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.003	-0.021	-0.032	-0.001
+40	NV	0.022	0.033	0.051	0.044
+50	NV	0.040	-0.023	-0.009	0.025
+55	NV	-0.039	0.048	0.023	0.035
+20	LV	-0.017	0.020	0.052	-0.030
+20	HV	-0.009	0.040	0.017	-0.042