

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 12

1 RF Power Output

Conducted Power (dBm)						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM	
1.4MHz	1RB-High (5)	715.3	24.04	23.22	23.12	
		707.5	24.05	23.23	23.23	
		699.7	23.86	23.08	23.18	
	1RB-Middle (3)	715.3	24.12	23.27	23.34	
		707.5	24.07	23.31	23.31	
		699.7	23.90	23.21	23.24	
	1RB-Low (0)	715.3	24.08	23.29	23.36	
		707.5	23.94	23.17	23.19	
		699.7	23.85	23.19	23.22	
	3RB-High (3)	715.3	24.04	23.05	23.20	
		707.5	24.04	23.08	23.18	
		699.7	23.83	22.90	23.00	
	3RB-Middle (1)	715.3	24.12	23.13	23.25	
		707.5	24.00	23.07	23.16	
		699.7	23.89	22.98	22.99	
	3RB-Low (0)	715.3	24.11	23.08	23.22	
		707.5	23.97	23.04	23.11	
		699.7	23.83	22.94	23.01	
	6RB (0)	715.3	23.15	22.14	22.19	
		707.5	23.01	22.09	22.03	
		699.7	22.93	22.01	21.95	
	3MHz	1RB-High (14)	714.5	24.15	23.30	23.30
			707.5	24.15	23.28	23.28
			700.5	23.92	23.22	23.11
		1RB-Middle (7)	714.5	24.15	23.32	23.37
			707.5	24.11	23.28	23.26
			700.5	23.90	23.18	23.08
1RB-Low (0)		714.5	24.18	23.37	23.36	
		707.5	24.08	23.27	23.23	
		700.5	24.02	23.22	23.21	
8RB-High (7)		714.5	23.24	22.21	22.13	
		707.5	23.17	22.18	22.12	
		700.5	23.01	22.04	22.05	
8RB-Middle (4)		714.5	23.26	22.27	22.20	
		707.5	23.21	22.20	22.15	
		700.5	23.03	22.13	22.08	
8RB-Low (0)		714.5	23.22	22.20	22.13	
		707.5	23.13	22.19	22.10	
		700.5	23.03	22.08	22.09	
15RB (0)		714.5	23.20	22.15	22.12	
		707.5	23.11	22.15	22.08	
		700.5	23.06	22.08	22.05	
5MHz		1RB-High (24)	713.5	24.20	23.37	23.24
			707.5	24.19	23.39	23.46
			701.5	24.03	23.28	23.27
		1RB-Middle (12)	713.5	24.18	23.44	23.37
			707.5	24.12	23.37	23.44
			701.5	23.93	23.20	23.20
	1RB-Low (0)	713.5	24.15	23.34	23.35	
		707.5	24.08	23.32	23.37	
		701.5	23.98	23.24	23.24	
	12RB-High (13)	713.5	23.28	22.18	22.25	

	12RB-Middle (6)	707.5	23.20	22.17	22.19	
		701.5	22.99	22.07	22.06	
		713.5	23.26	22.17	22.25	
	12RB-Low (0)	707.5	23.15	22.15	22.18	
		701.5	23.05	22.09	22.09	
		713.5	23.23	22.15	22.23	
	25RB (0)	707.5	23.13	22.14	22.15	
		701.5	23.01	22.04	22.06	
		713.5	23.21	22.17	22.23	
	10MHz	1RB-High (49)	711	24.20	23.44	23.39
			707.5	24.18	23.53	23.51
			704	24.09	23.44	23.44
1RB-Middle (24)		711	24.18	23.47	23.49	
		707.5	24.12	23.46	23.49	
		704	23.93	23.26	23.38	
1RB-Low (0)		711	24.10	23.32	23.34	
		707.5	24.03	23.24	23.23	
		704	23.88	23.19	23.14	
25RB-High (25)		711	23.34	22.13	22.27	
		707.5	23.27	22.21	22.20	
		704	23.13	22.09	22.15	
25RB-Middle (12)		711	23.28	22.19	22.20	
		707.5	23.18	22.16	22.14	
		704	23.17	22.17	22.10	
25RB-Low (0)		711	23.28	22.18	22.16	
		707.5	23.15	22.12	22.13	
		704	23.05	22.04	22.03	
50RB (0)		711	23.26	22.15	22.13	
		707.5	23.14	22.15	22.09	
		704	23.15	22.11	22.13	

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	1.0780	Fig.1	1.0813	Fig.2	1.0722	Fig.3
	707.5	23095		6	0	1.0825	Fig.4	1.0768	Fig.5	1.0770	Fig.6
	715.3	23173		6	0	1.0813	Fig.7	1.0817	Fig.8	1.0809	Fig.9
	700.5	23025	3	15	0	2.6860	Fig.10	2.6886	Fig.11	2.6928	Fig.12
	707.5	23095		15	0	2.6939	Fig.13	2.6972	Fig.14	2.6870	Fig.15
	714.5	23165		15	0	2.6898	Fig.16	2.6946	Fig.17	2.6924	Fig.18
	701.5	23035	5	25	0	4.4813	Fig.19	4.4576	Fig.20	4.4767	Fig.21
	707.5	23095		25	0	4.4743	Fig.22	4.4742	Fig.23	4.4797	Fig.24
	713.5	23155		25	0	4.4671	Fig.25	4.4776	Fig.26	4.4702	Fig.27
	704	23060	10	50	0	8.9329	Fig.28	8.9439	Fig.29	8.9299	Fig.30
	707.5	23095		50	0	8.9522	Fig.31	8.9541	Fig.32	8.9476	Fig.33
	711	23130		50	0	8.9057	Fig.34	8.9138	Fig.35	8.9448	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	1.204	Fig.1	1.209	Fig.2	1.208	Fig.3
	707.5	23095		6	0	1.209	Fig.4	1.212	Fig.5	1.195	Fig.6
	715.3	23173		6	0	1.204	Fig.7	1.208	Fig.8	1.203	Fig.9
	700.5	23015	3	15	0	2.986	Fig.10	2.906	Fig.11	2.934	Fig.12
	707.5	23095		15	0	2.945	Fig.13	2.979	Fig.14	2.982	Fig.15
	714.5	23165		15	0	2.963	Fig.16	2.975	Fig.17	2.942	Fig.18
	701.5	23035	5	25	0	4.837	Fig.19	4.856	Fig.20	4.835	Fig.21
	707.5	23095		25	0	4.904	Fig.22	4.839	Fig.23	4.901	Fig.24
	713.5	23155		25	0	4.862	Fig.25	4.859	Fig.26	4.893	Fig.27
	704	23060	10	50	0	9.542	Fig.28	9.554	Fig.29	9.620	Fig.30
	707.5	23095		50	0	9.627	Fig.31	9.554	Fig.32	9.533	Fig.33
	711	23130		50	0	9.660	Fig.34	9.553	Fig.35	9.552	Fig.36

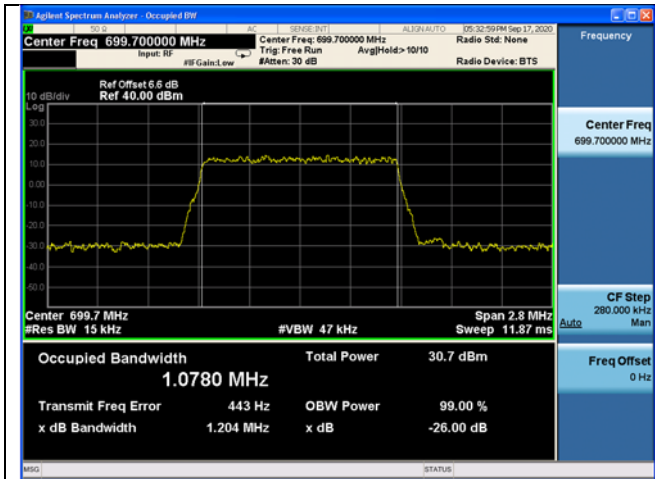


Fig.1

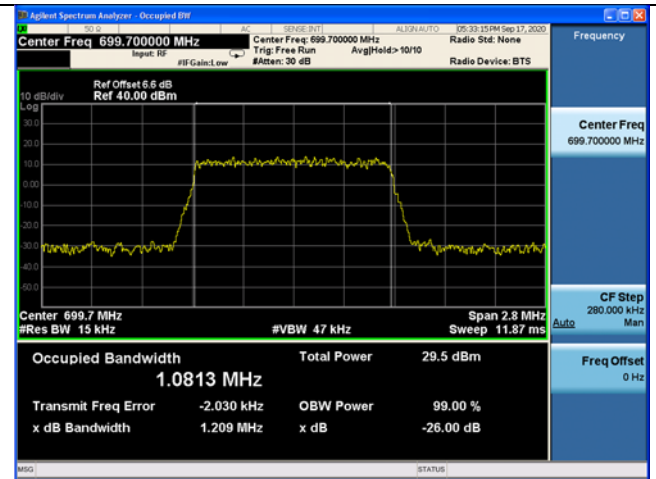


Fig.2

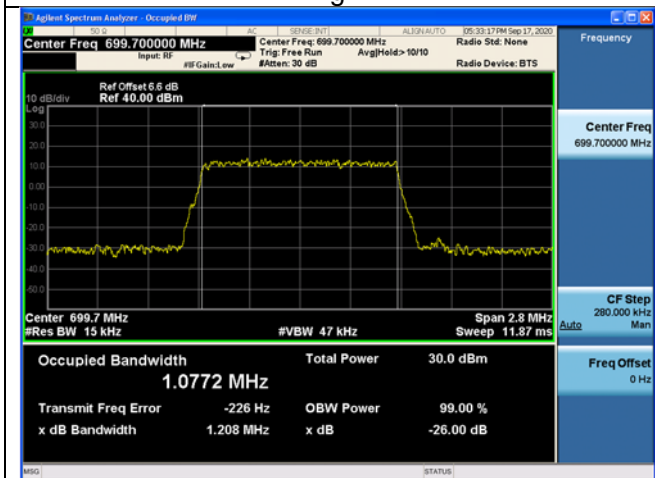


Fig.3

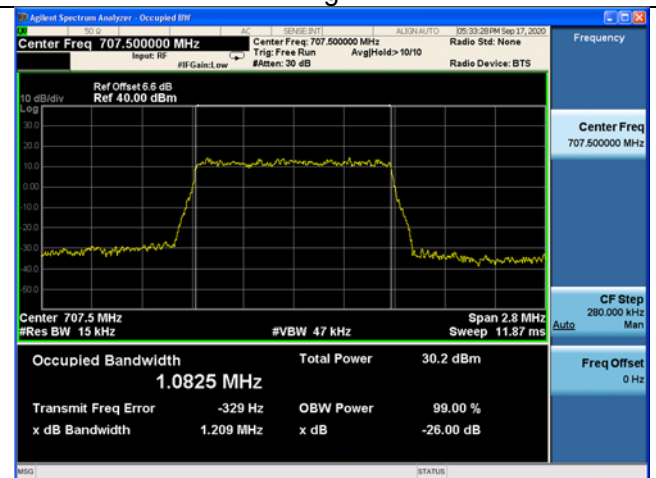


Fig.4

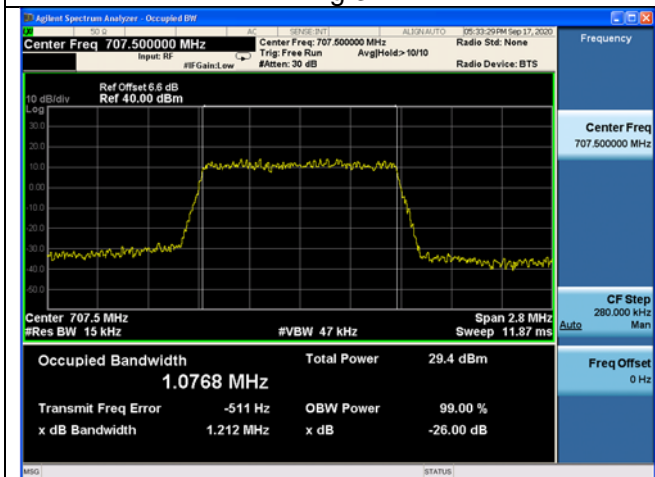


Fig.5

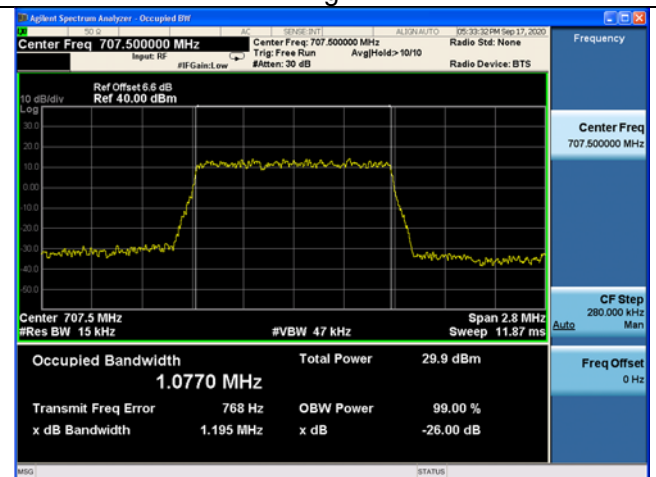


Fig.6

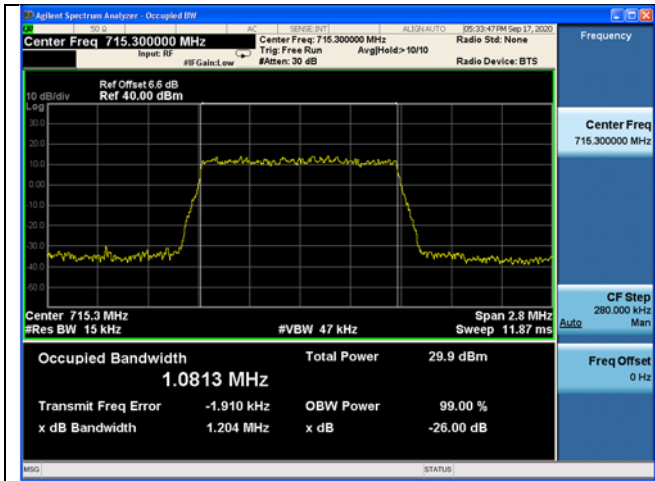


Fig.7

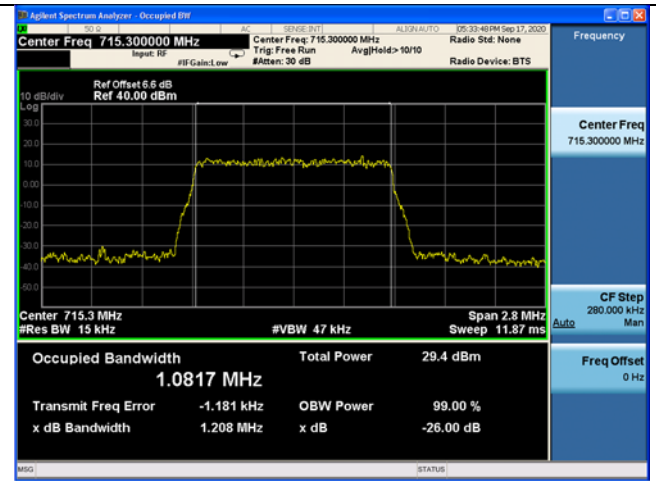


Fig.8

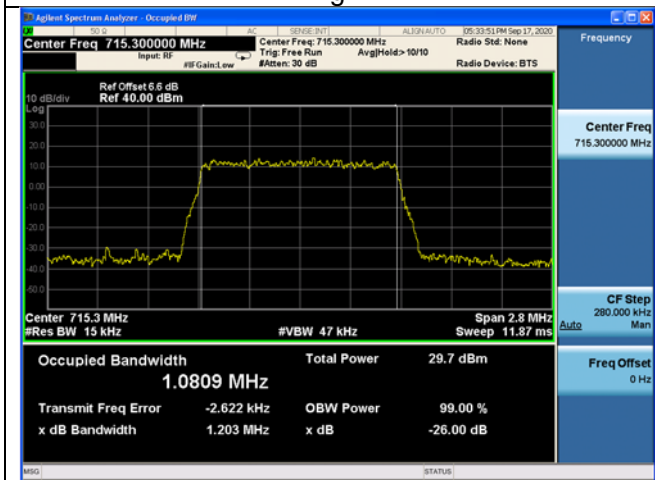


Fig.9

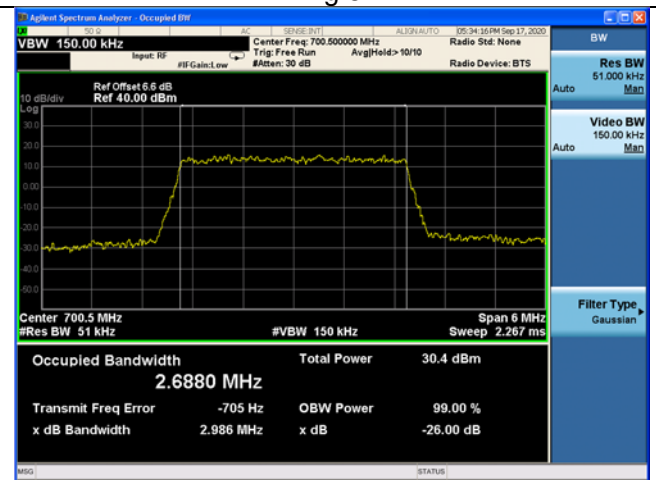


Fig.10

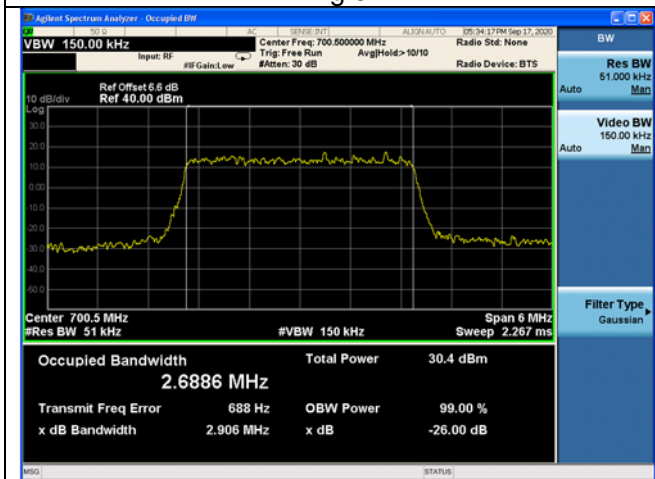


Fig.11

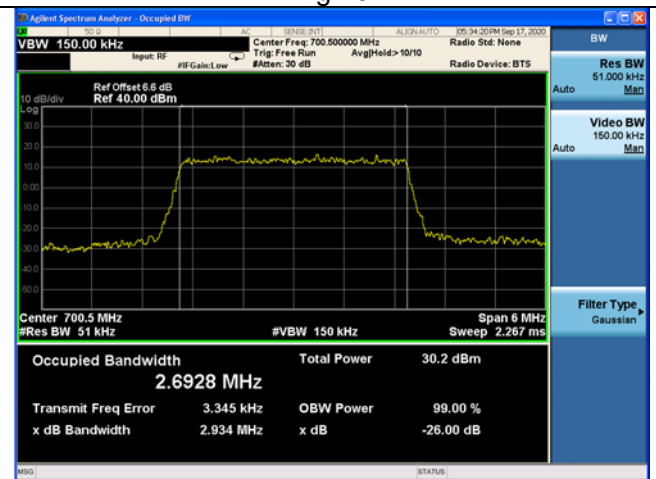


Fig.12

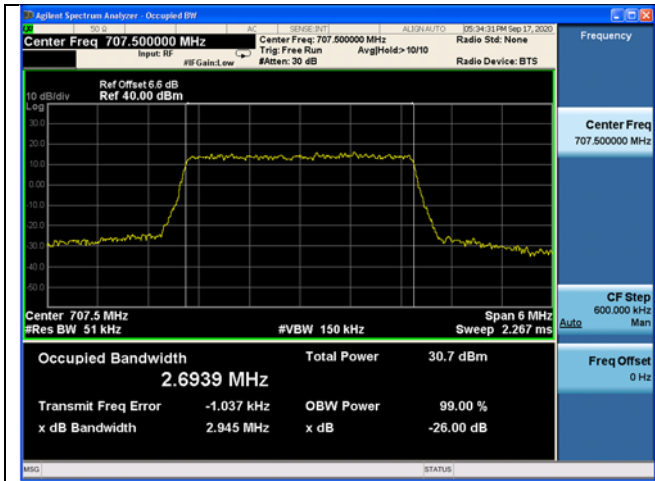


Fig.13

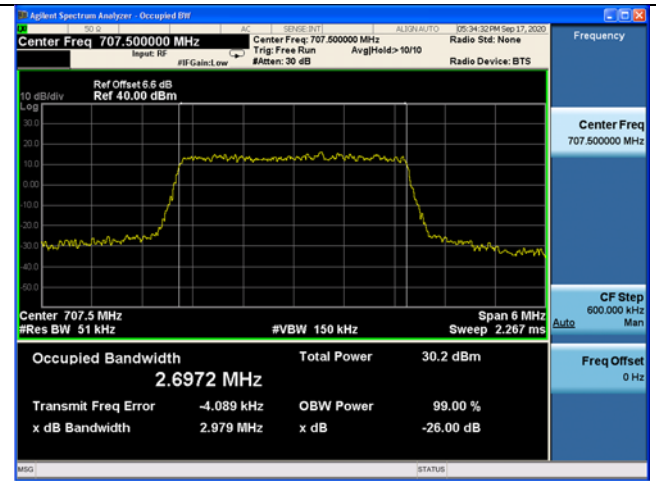


Fig.14

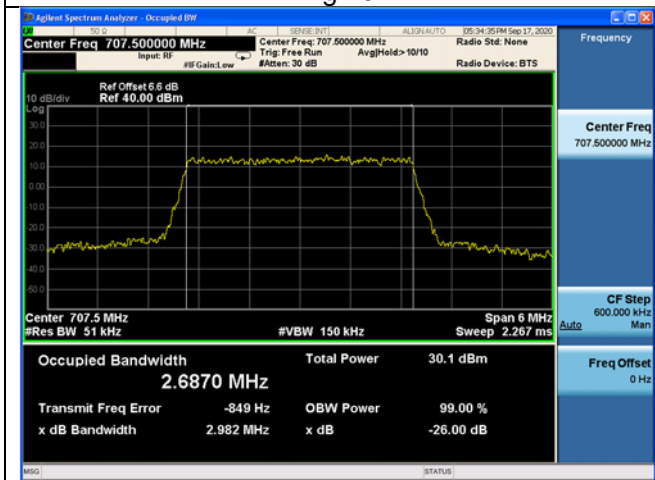


Fig.15

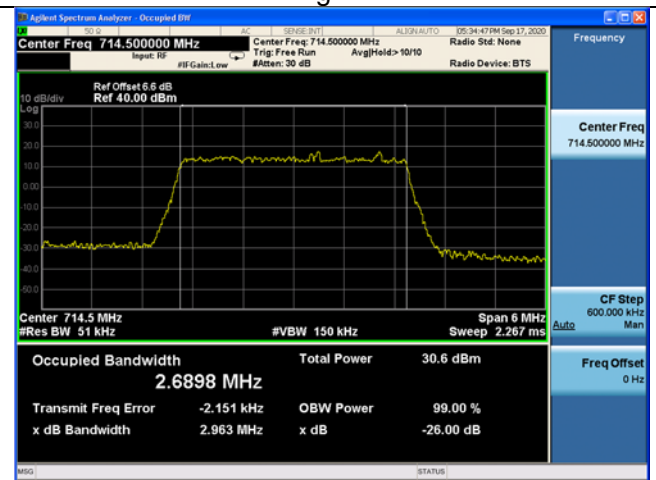


Fig.16

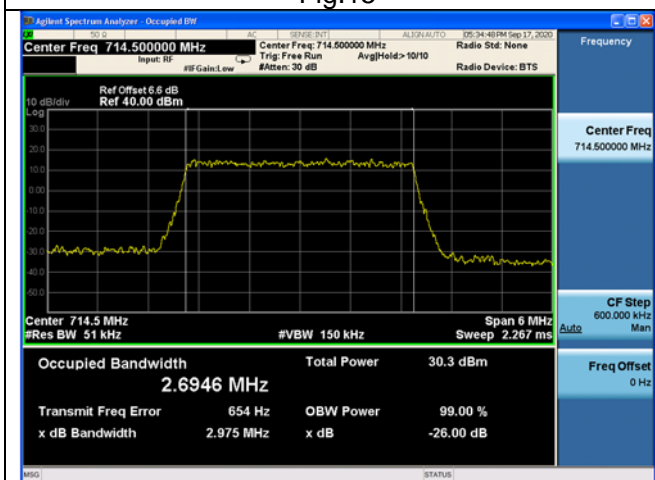


Fig.17

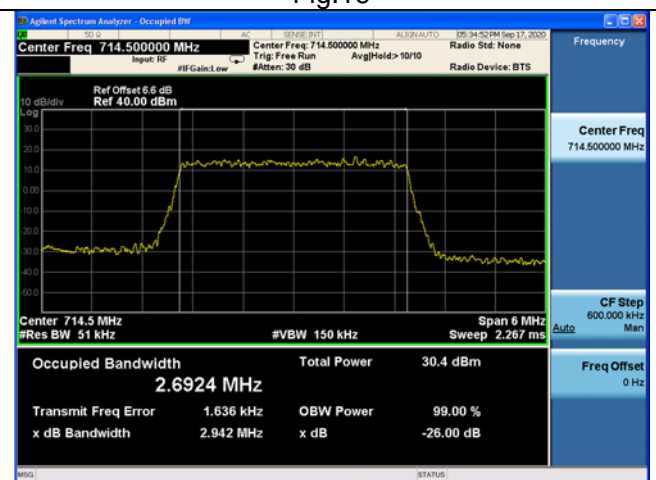


Fig.18

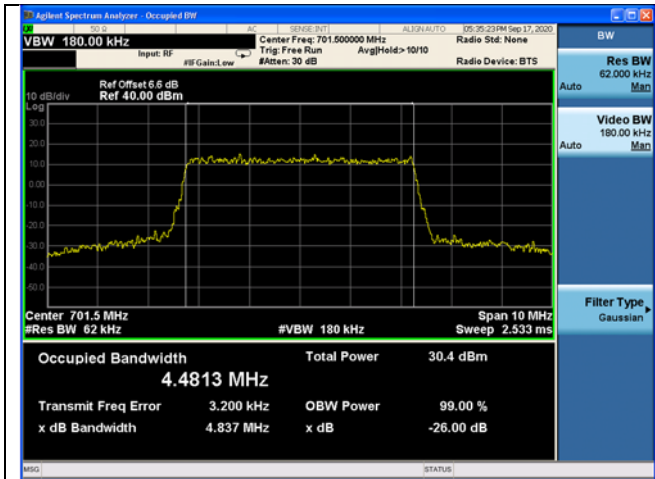


Fig.19

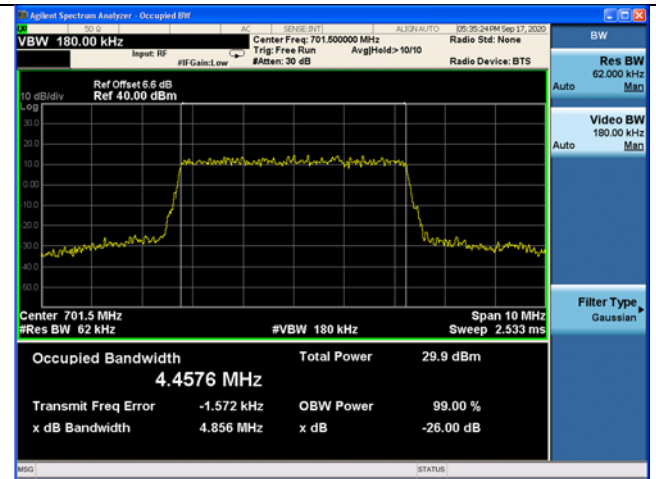


Fig.20

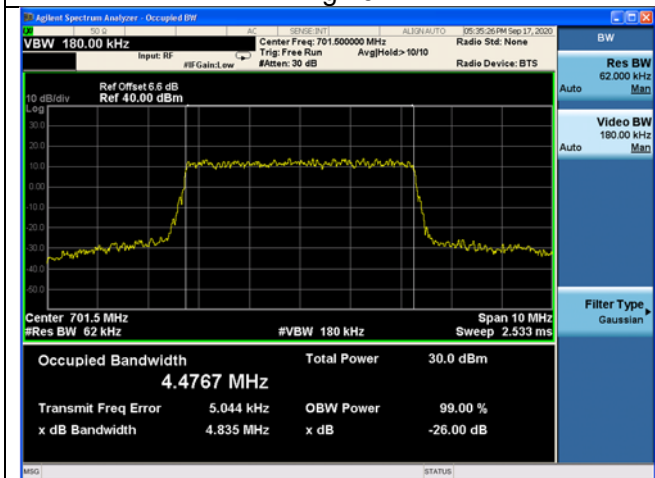


Fig.21

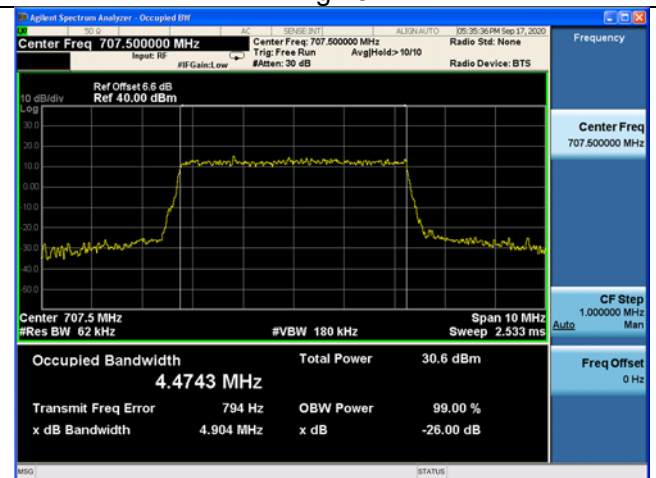


Fig.22

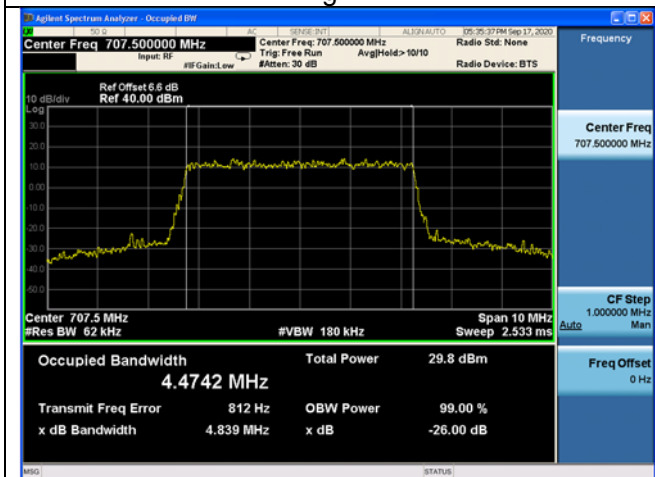


Fig.23

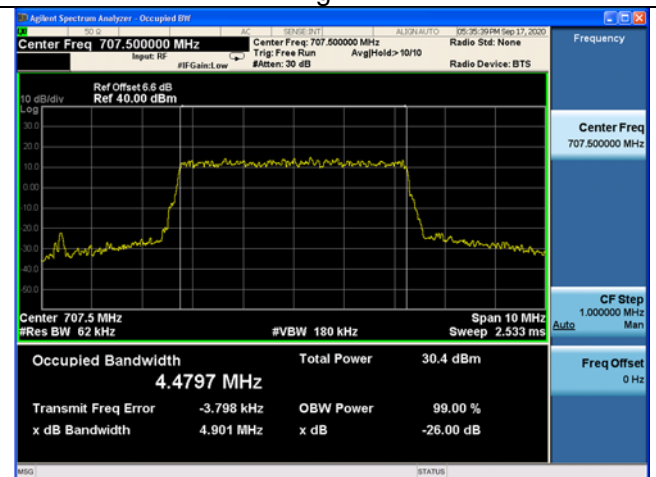


Fig.24

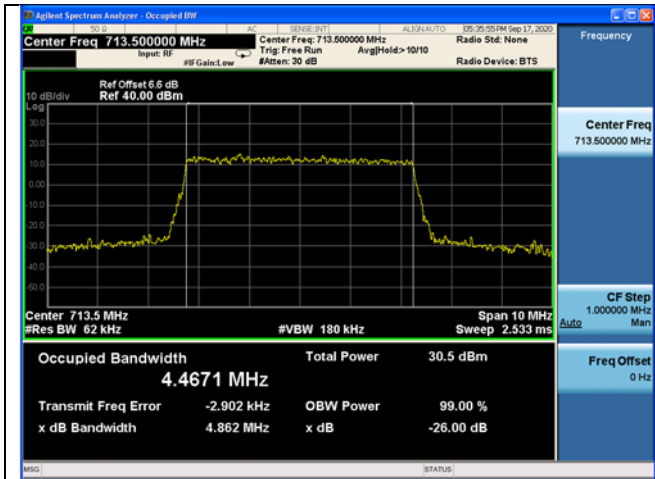


Fig.25

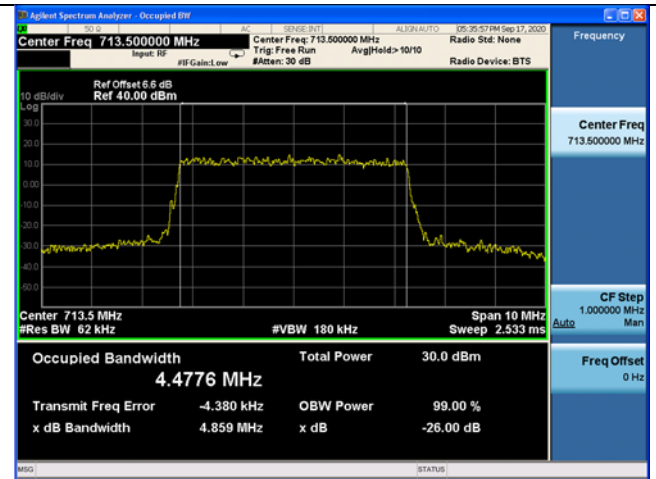


Fig.26

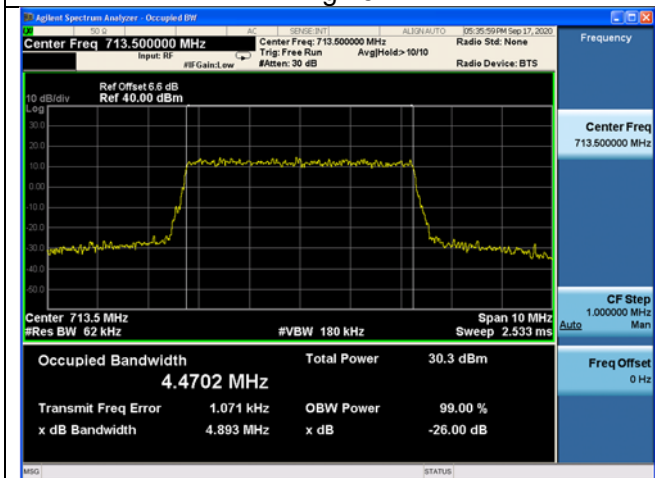


Fig.27

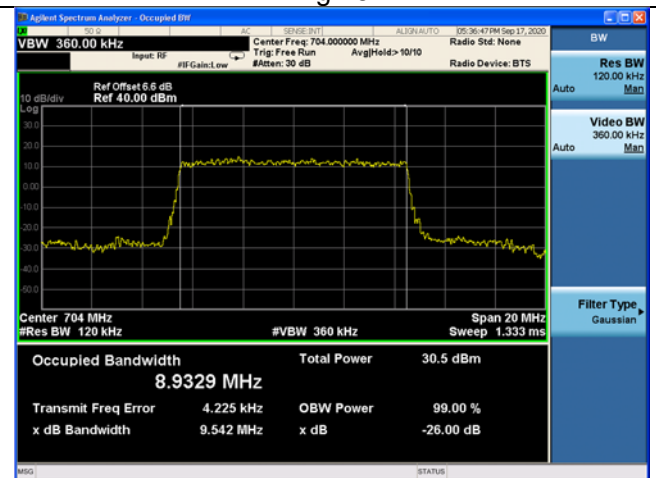


Fig.28

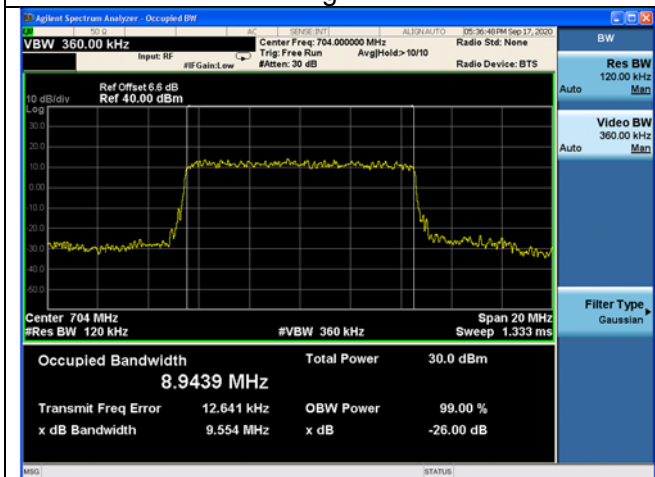


Fig.29

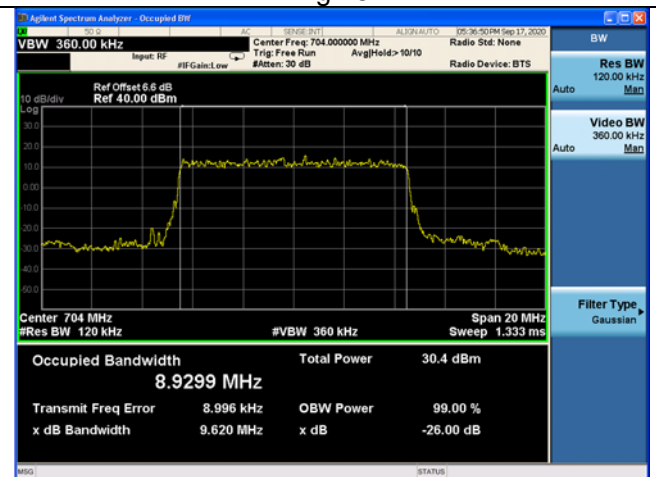


Fig.30

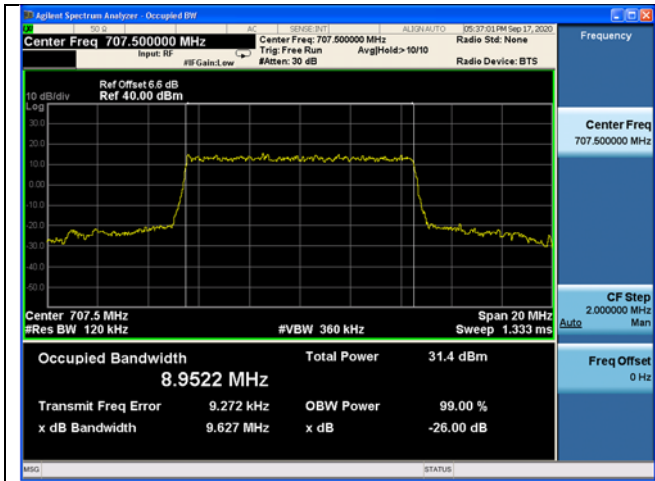


Fig.31

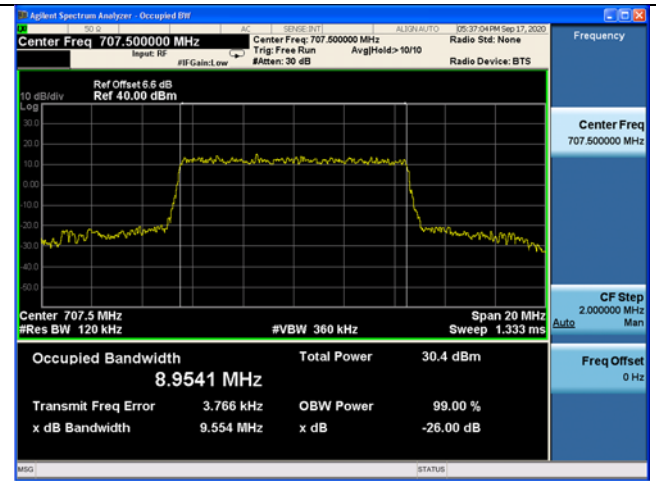


Fig.32

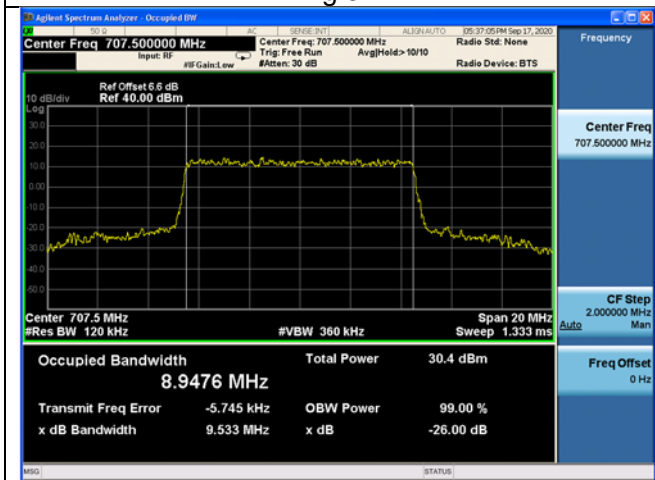


Fig.33

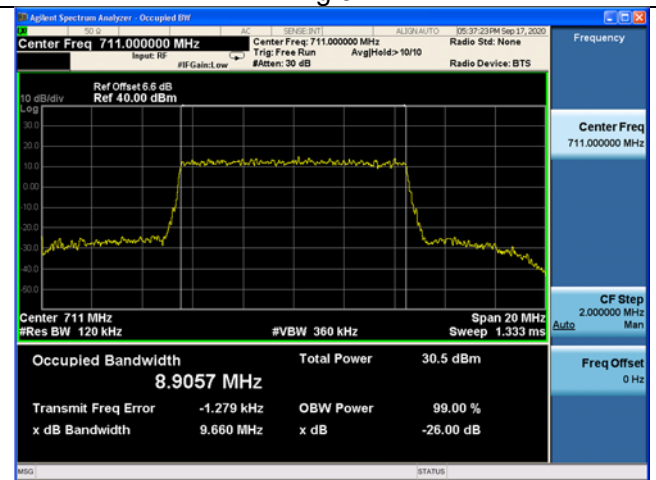


Fig.34

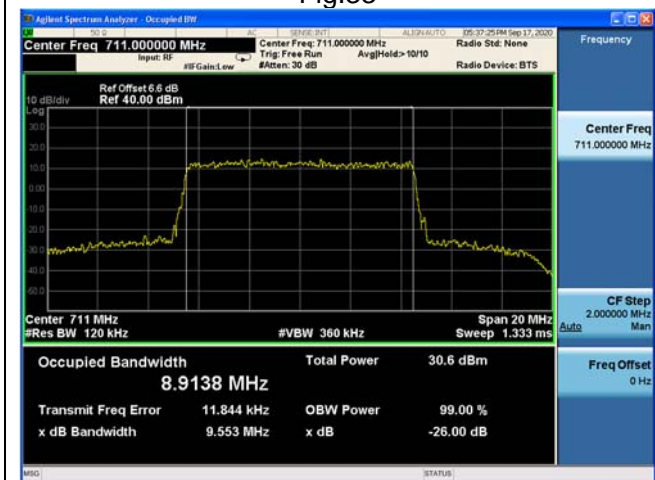


Fig.35

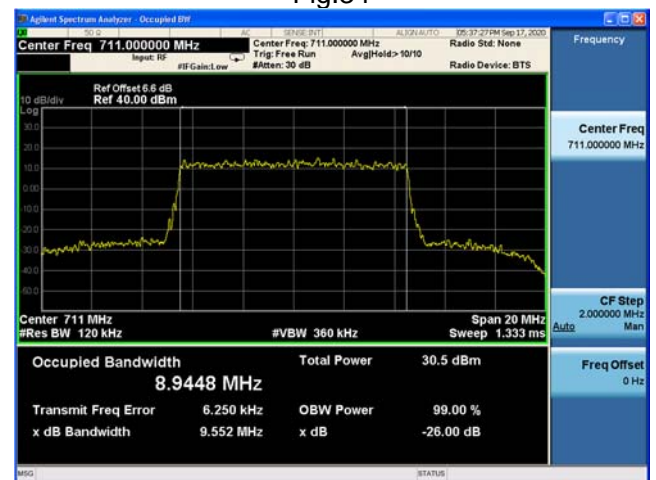
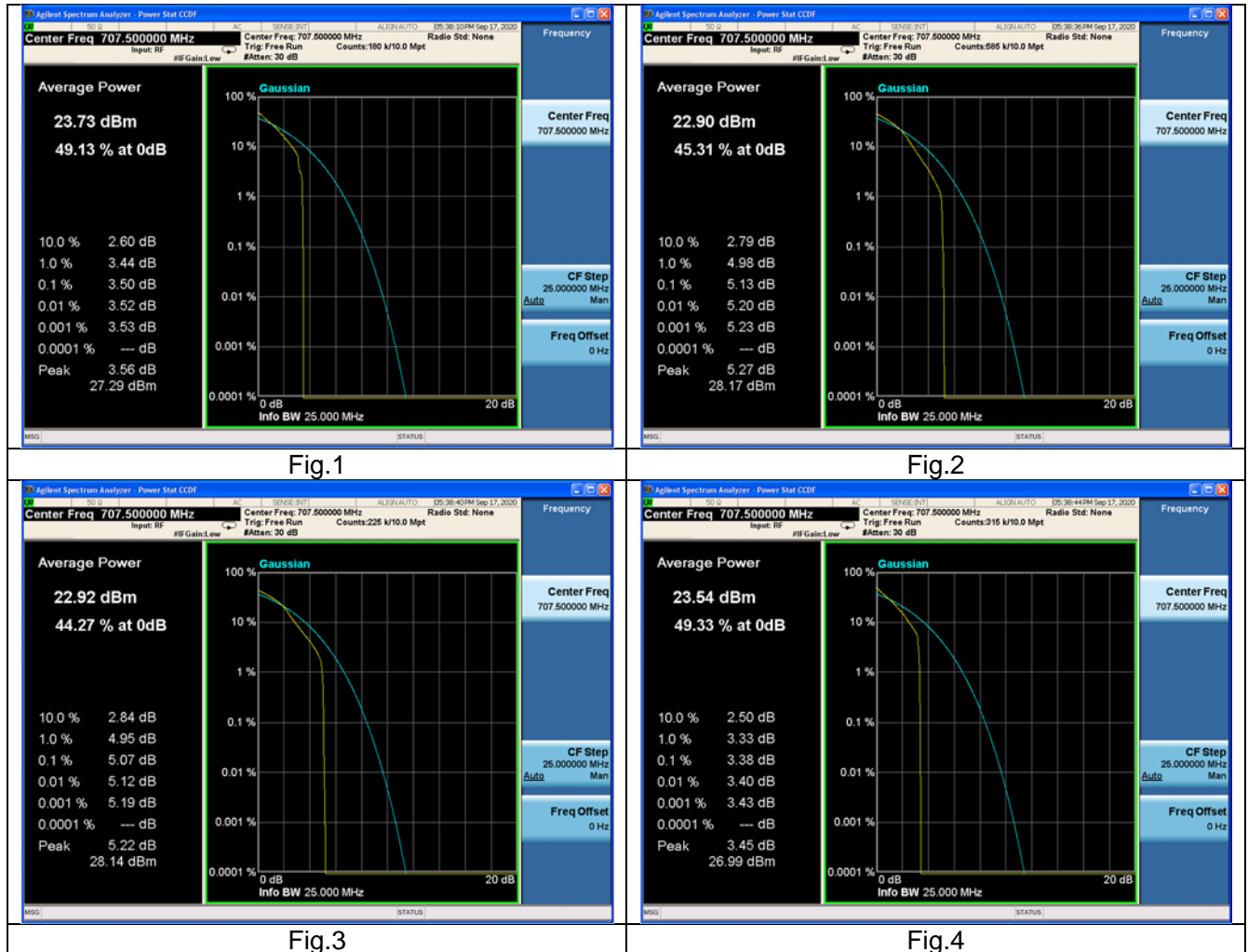
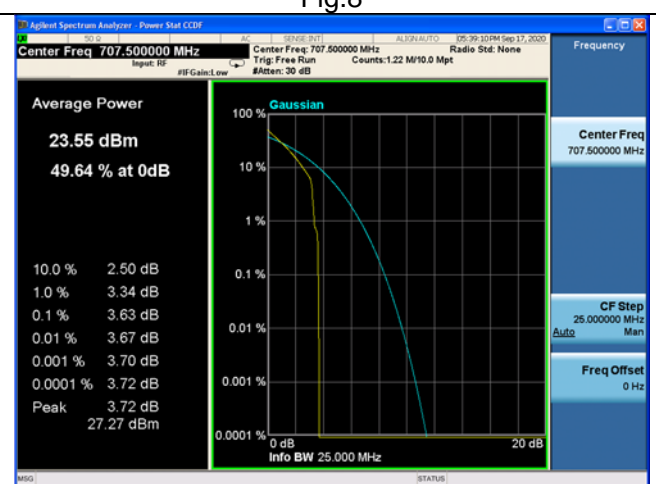
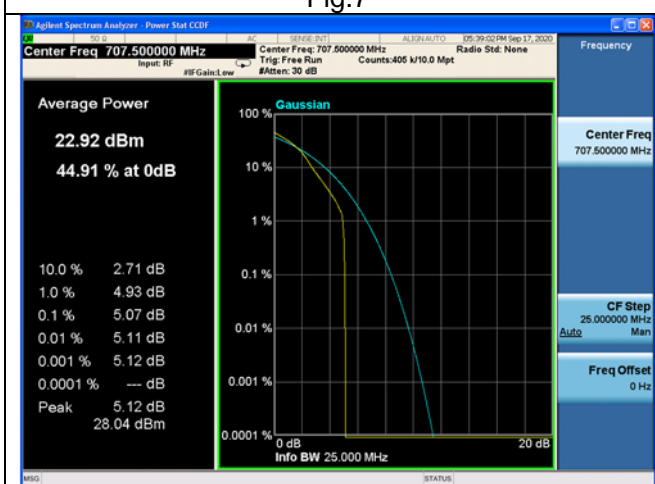
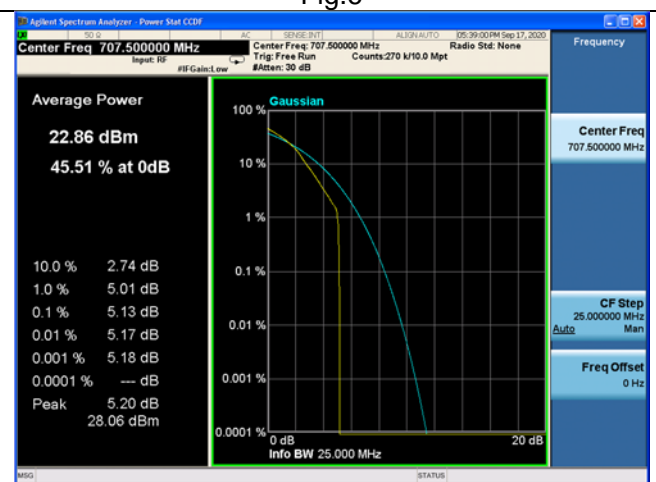
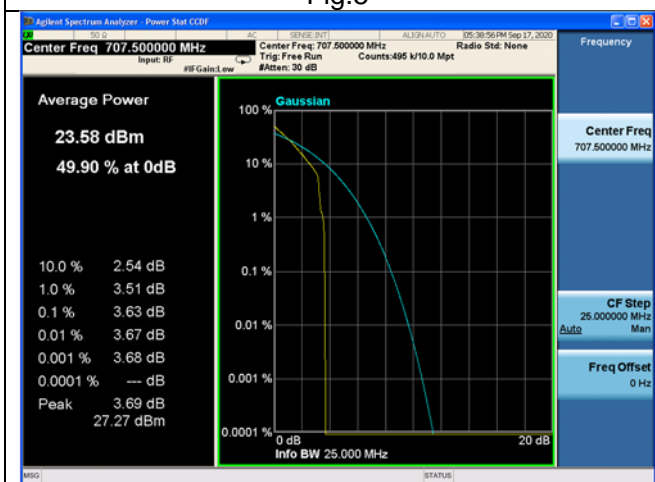
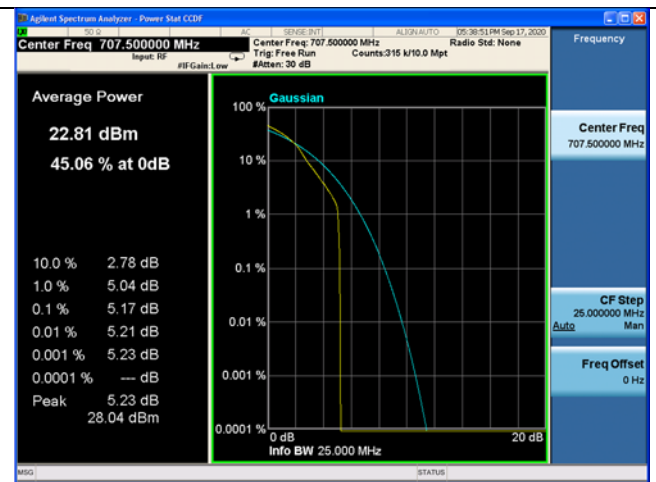
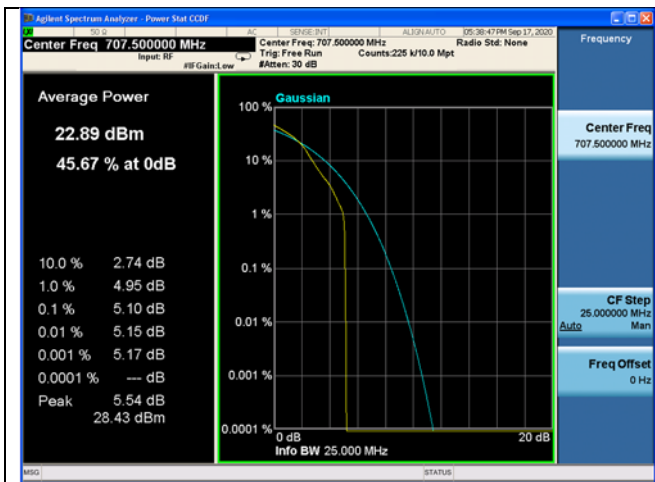


Fig.36

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





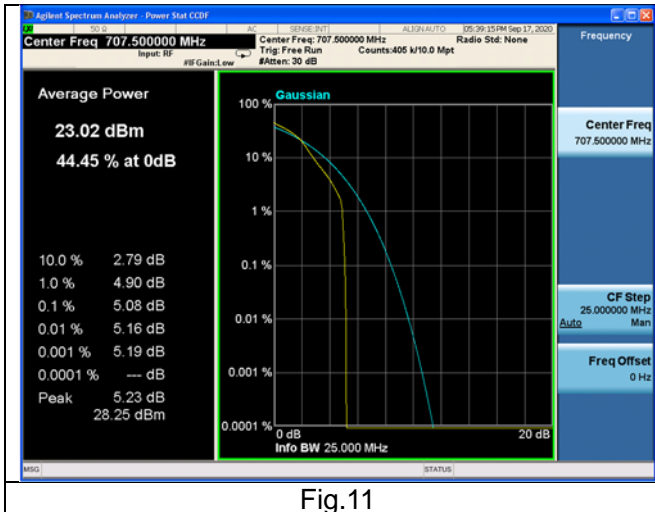


Fig.11

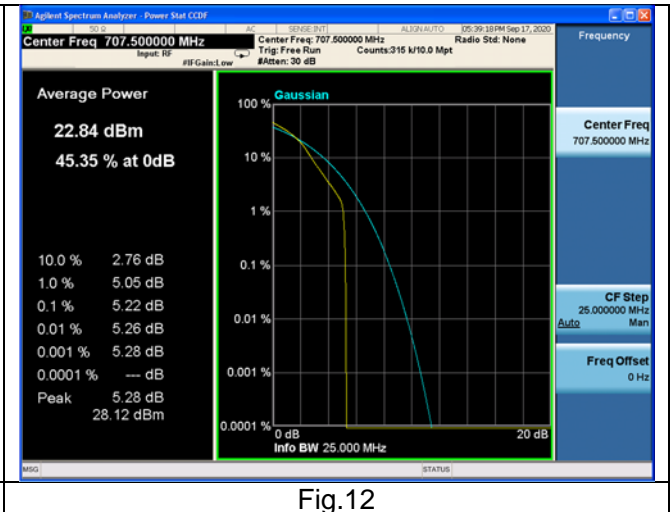


Fig.12

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	23130	10	1	0	Fig.4-5

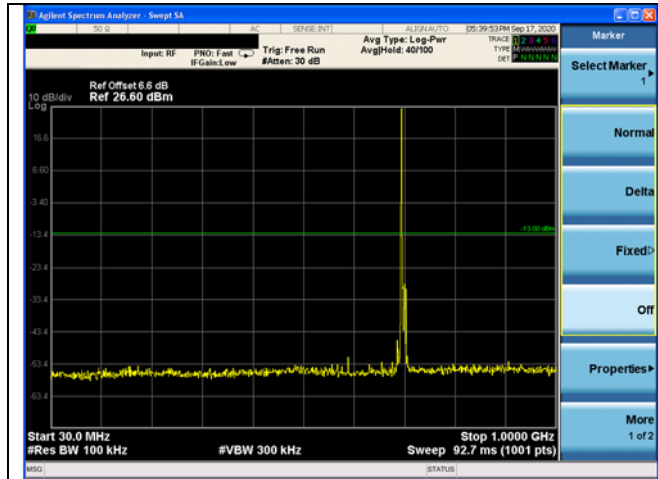


Fig.1

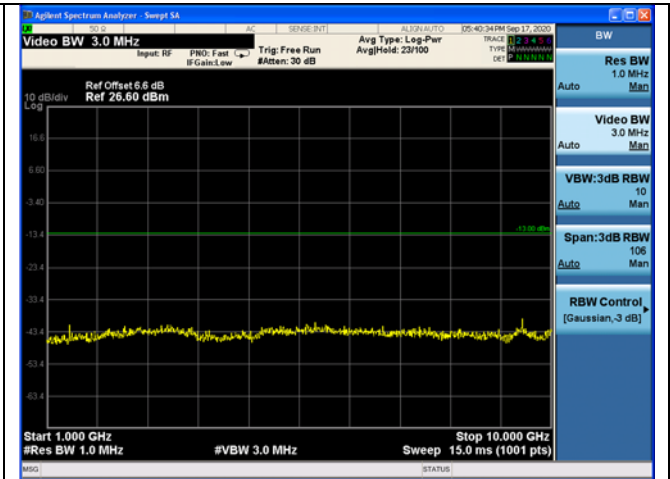


Fig.2

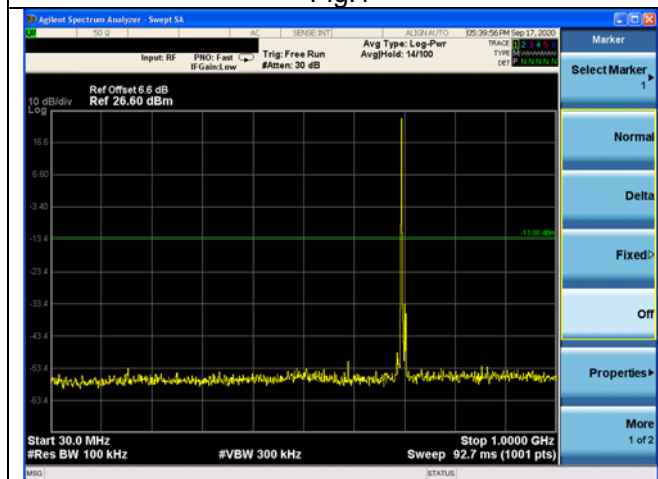


Fig3

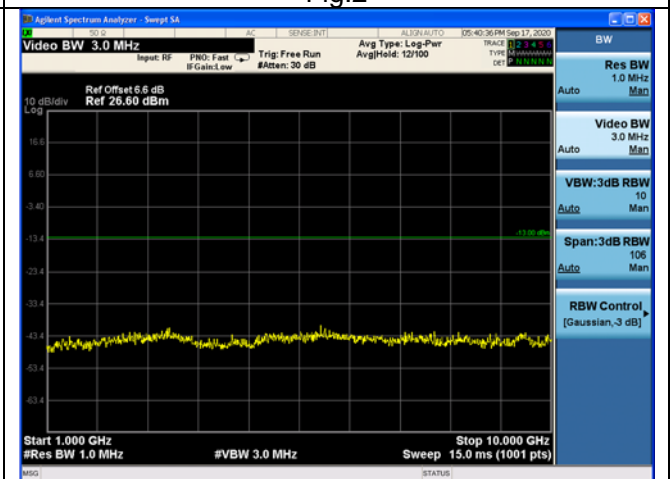


Fig4

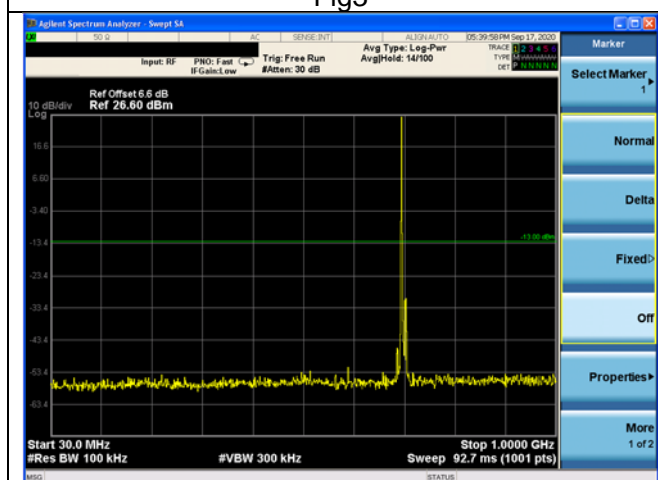


Fig5

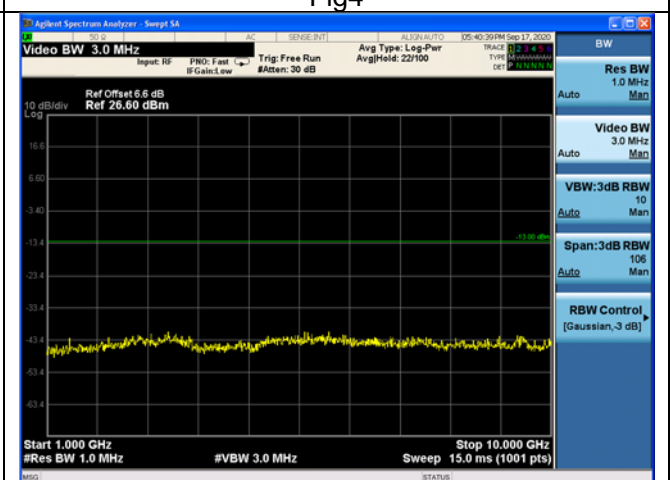


Fig6

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	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	

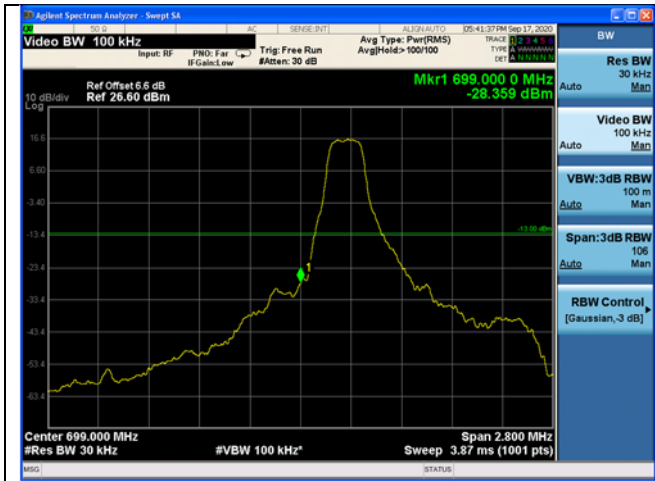


Fig.1

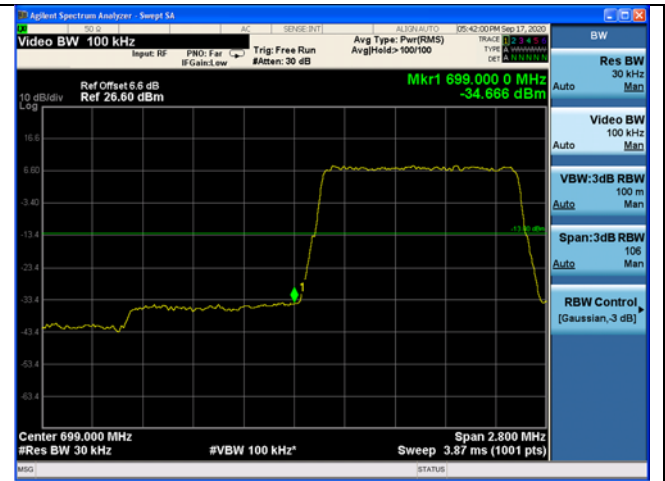


Fig.2

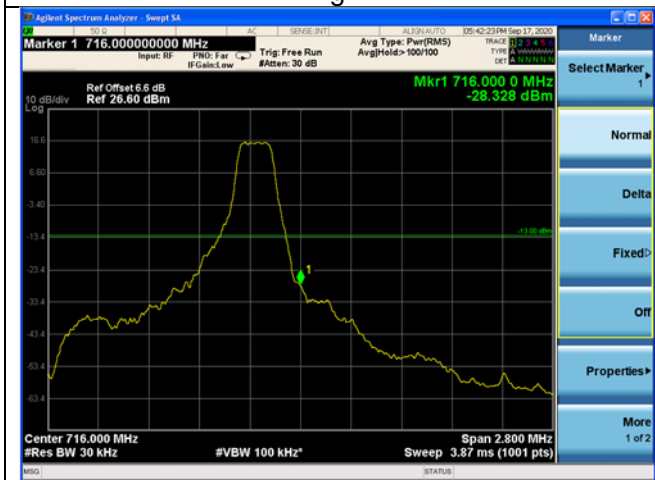


Fig.3



Fig.4

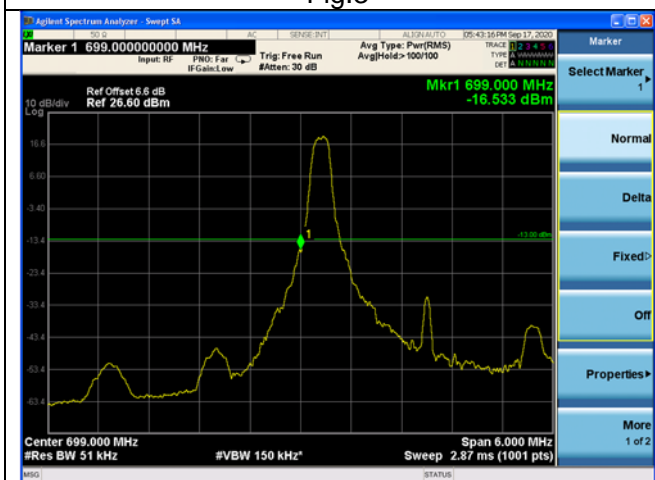


Fig.5

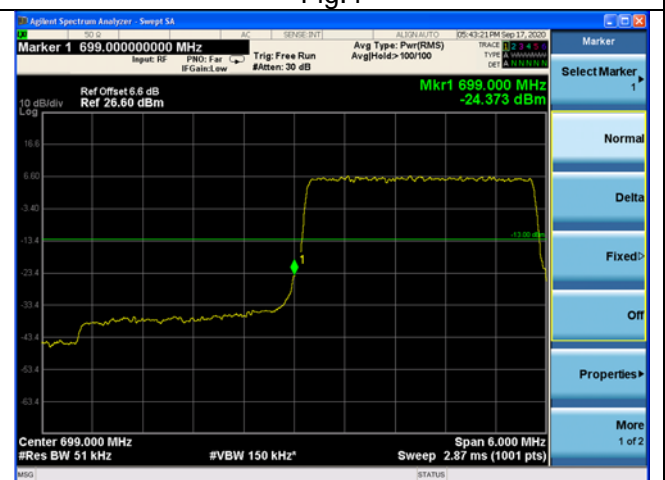


Fig.6

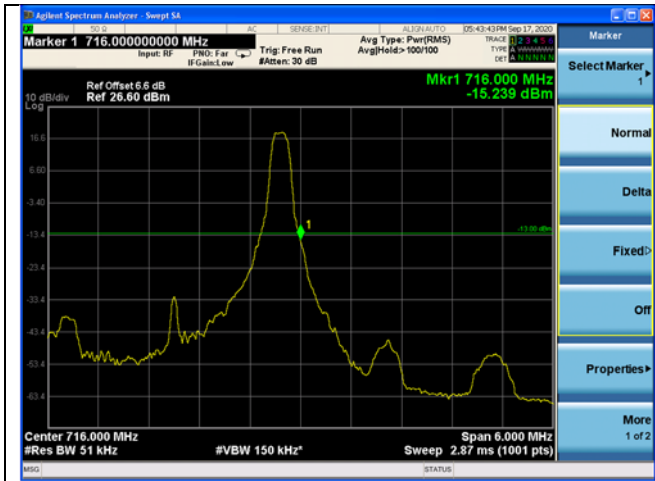


Fig.7

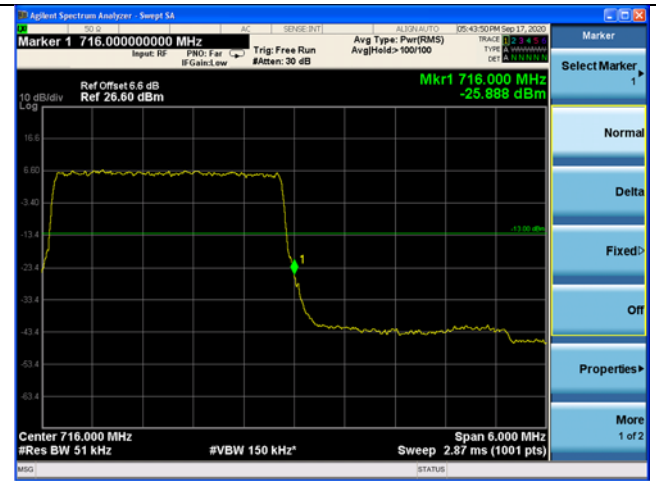


Fig.8

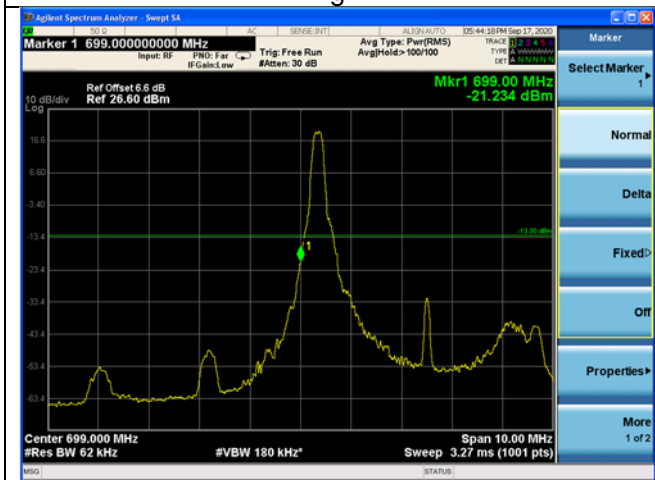


Fig.9

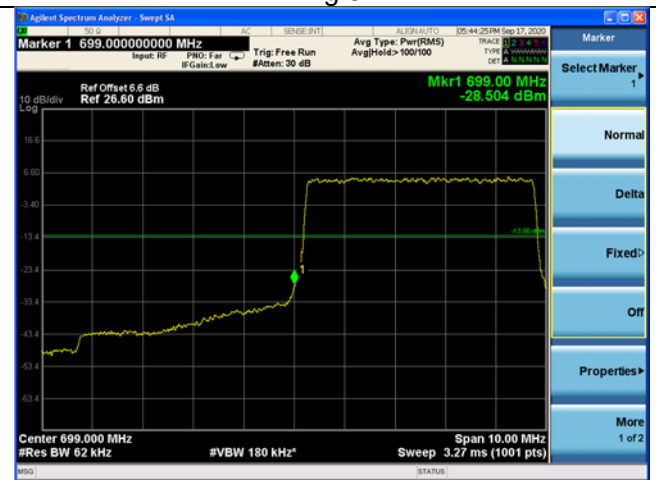


Fig.10

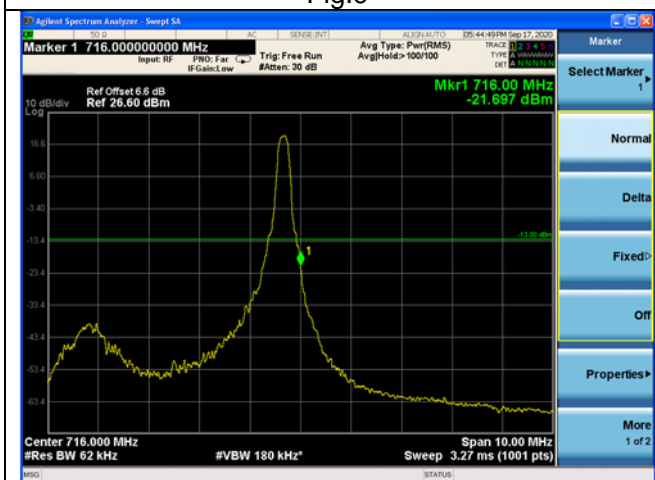


Fig.11

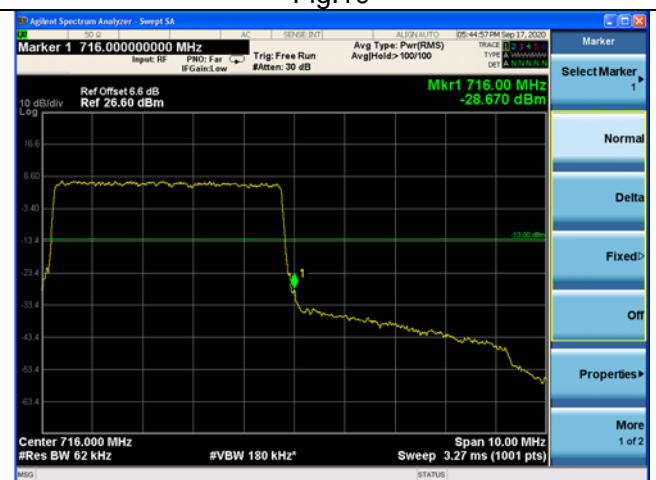


Fig.12

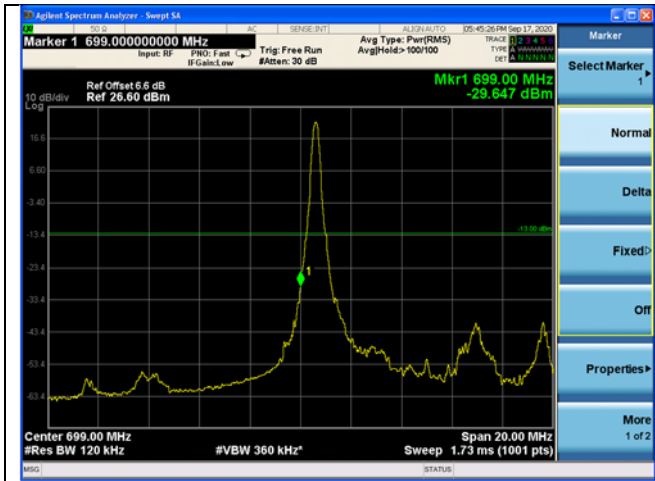


Fig.13



Fig.14

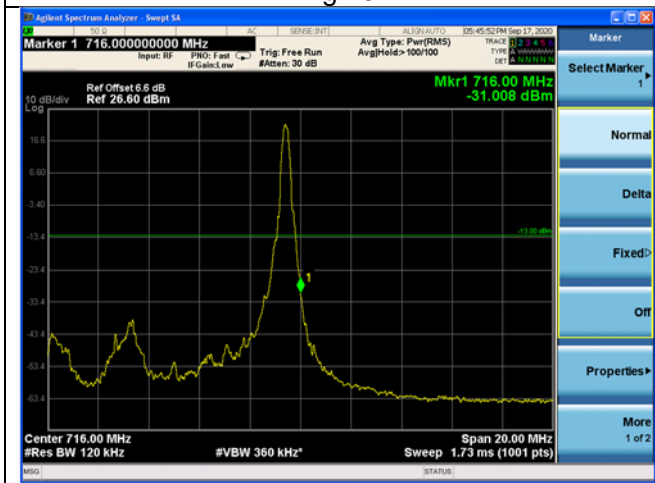


Fig.15



Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band12 Low Channel			
		1.4M	3M	5M	10M
-10	NV	0.084	0.099	0.056	-0.013
0	NV	0.081	0.048	0.075	0.012
+10	NV	-0.038	0.093	-0.035	-0.092
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.090	-0.028	0.080	0.027
+40	NV	-0.081	0.005	0.068	-0.042
+50	NV	-0.098	0.086	0.087	0.086
+55	NV	-0.002	-0.023	-0.041	-0.018
+20	LV	-0.093	0.092	-0.051	0.092
+20	HV	0.060	-0.089	-0.091	0.019

Temperature(°C)	Voltage	Test Result (ppm) Band12 High Channel			
		1.4M	3M	5M	10M
-10	NV	-0.019	0.098	0.047	0.017
0	NV	0.034	-0.076	0.043	-0.008
+10	NV	-0.078	-0.085	-0.048	0.036
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.008	-0.002	-0.090	-0.020
+40	NV	-0.059	-0.004	-0.004	-0.091
+50	NV	0.078	-0.099	0.009	0.070
+55	NV	-0.078	-0.001	0.040	0.043
+20	LV	0.084	-0.016	0.044	-0.097
+20	HV	-0.083	-0.029	0.099	-0.045