

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 41

1 RF Power Output

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
5	1	24	2687.5	41565	27.16	25.71	25.21
			2593	40620	26.70	25.64	25.62
			2498.5	39675	27.59	26.42	26.43
	1	12	2687.5	41565	27.15	25.91	25.69
			2593	40620	27.13	25.60	25.57
			2498.5	39675	28.16	26.63	25.10
	1	0	2687.5	41565	27.21	25.41	25.34
			2593	40620	26.99	25.46	25.57
			2498.5	39675	27.82	26.45	26.44
	12	13	2687.5	41565	26.08	25.07	25.09
			2593	40620	26.09	25.00	24.95
			2498.5	39675	27.01	25.86	25.73
	12	6	2687.5	41565	26.18	25.32	25.36
			2593	40620	26.03	25.12	25.11
			2498.5	39675	26.98	25.92	25.77
	12	0	2687.5	41565	26.03	25.35	25.28
			2593	40620	26.09	25.08	24.99
			2498.5	39675	26.62	25.73	25.71
	25	0	2687.5	41565	26.07	25.53	25.09
			2593	40620	25.96	25.21	25.20
			2498.5	39675	27.00	26.17	26.07

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
10	1	49	2685	41540	27.45	25.79	25.60
			2593	40620	27.07	25.64	25.65
			2501	39700	27.61	26.30	26.29
	1	24	2685	41540	27.45	25.65	25.63
			2593	40620	27.16	25.79	25.41
			2501	39700	27.80	26.52	25.92
	1	0	2685	41540	27.16	25.64	25.48
			2593	40620	27.16	25.78	25.77
			2501	39700	27.73	26.65	26.64
	25	25	2685	41540	25.96	25.23	25.30
			2593	40620	26.13	25.32	25.15
			2501	39700	26.60	25.77	25.69
	25	12	2685	41540	26.12	25.40	25.39
			2593	40620	26.27	25.26	25.10
			2501	39700	26.77	26.02	25.82
	25	0	2685	41540	25.97	25.41	25.23
			2593	40620	26.14	25.37	25.10
			2501	39700	26.74	25.83	25.86
	50	0	2685	41540	26.02	25.29	25.51
			2593	40620	26.24	25.32	25.01
			2501	39700	26.88	25.89	25.83

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
15	1	74	2682.5	41515	26.87	25.71	25.55
			2593	40620	26.90	25.80	25.89
			2503.5	39725	27.41	26.10	25.69
	1	37	2682.5	41515	26.68	25.57	25.16
			2593	40620	27.11	25.71	25.66
			2503.5	39725	27.51	26.34	26.17
	1	0	2682.5	41515	27.38	25.66	25.42
			2593	40620	27.23	25.97	25.83
			2503.5	39725	27.70	26.41	26.25
	36	38	2682.5	41515	25.95	25.06	25.15
			2593	40620	26.29	25.22	25.17
			2503.5	39725	26.63	25.55	25.49
	36	19	2682.5	41515	26.16	25.32	25.33
			2593	40620	26.34	25.15	25.13
			2503.5	39725	26.55	25.61	25.64
	36	0	2682.5	41515	26.01	24.93	24.95
			2593	40620	26.35	25.14	25.19
			2503.5	39725	26.81	25.70	25.73
	75	0	2682.5	41515	26.01	25.08	25.07
			2593	40620	26.34	25.18	25.38
			2503.5	39725	26.69	25.76	25.67

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
20	1	99	2680	41490	26.92	25.75	25.39
			2593	40620	26.73	25.85	25.83
			2506	39750	28.52	27.01	26.73
	1	50	2680	41490	27.53	25.69	25.39
			2593	40620	27.41	25.96	25.57
			2506	39750	27.39	26.29	26.22
	1	0	2680	41490	27.01	25.56	25.43
			2593	40620	27.36	26.13	26.10
			2506	39750	27.54	26.38	26.05
	50	50	2680	41490	26.09	25.04	24.90
			2593	40620	26.34	25.32	25.00
			2506	39750	26.78	25.80	25.68
	50	25	2680	41490	26.55	25.30	25.24
			2593	40620	26.29	25.18	25.16
			2506	39750	26.73	25.65	25.69
	50	0	2680	41490	25.99	25.24	24.90
			2593	40620	26.30	25.22	25.09
			2506	39750	26.60	25.61	25.56
	100	0	2680	41490	26.30	25.00	25.02
			2593	40620	26.44	25.36	25.30
			2506	39750	26.79	25.71	25.75

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	
41	2498.5	39675	5	25	0	4.5063	Fig.1	4.5224	Fig.2	4.5208	Fig.3
	2593	40620		25	0	4.4665	Fig.4	4.4738	Fig.5	4.4912	Fig.6
	2687.5	41565		25	0	4.4700	Fig.7	4.4681	Fig.8	4.4701	Fig.9
	2501	39700	10	50	0	9.0181	Fig.10	8.9962	Fig.11	9.0359	Fig.12
	2593	40620		50	0	8.9295	Fig.13	8.9229	Fig.14	8.9138	Fig.15
	2685	41540		50	0	8.9401	Fig.16	8.9119	Fig.17	8.8961	Fig.18
	2503.5	39725	15	75	0	13.412	Fig.19	13.395	Fig.20	13.387	Fig.21
	2593	40620		75	0	13.396	Fig.22	13.410	Fig.23	13.375	Fig.24
	2682.5	41515		75	0	13.387	Fig.25	13.440	Fig.26	13.341	Fig.27
	2506	39750	20	100	0	17.808	Fig.28	17.829	Fig.29	17.806	Fig.30
	2593	40620		100	0	17.843	Fig.31	17.850	Fig.32	17.832	Fig.33
	2680	41490		100	0	17.840	Fig.34	17.799	Fig.35	17.772	Fig.36

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
41	2498.5	39675	5	25	0	8.520	Fig.1	7.240	Fig.2	9.224	Fig.3
	2593	40620		25	0	5.057	Fig.4	4.875	Fig.5	5.130	Fig.6
	2687.5	41565		25	0	4.845	Fig.7	4.907	Fig.8	4.909	Fig.9
	2501	39700	10	50	0	14.48	Fig.10	16.28	Fig.11	15.75	Fig.12
	2593	40620		50	0	9.699	Fig.13	9.615	Fig.14	9.710	Fig.15
	2685	41540		50	0	9.704	Fig.16	9.639	Fig.17	9.588	Fig.18
	2503.5	39725	15	75	0	14.72	Fig.19	14.52	Fig.20	14.39	Fig.21
	2593	40620		75	0	14.51	Fig.22	14.26	Fig.23	14.20	Fig.24
	2682.5	41515		75	0	14.30	Fig.25	14.22	Fig.26	14.15	Fig.27
	2506	39750	20	100	0	18.93	Fig.28	18.79	Fig.29	19.34	Fig.30
	2593	40620		100	0	19.14	Fig.31	18.90	Fig.32	18.75	Fig.33
	2680	41490		100	0	18.81	Fig.34	18.94	Fig.35	18.90	Fig.36

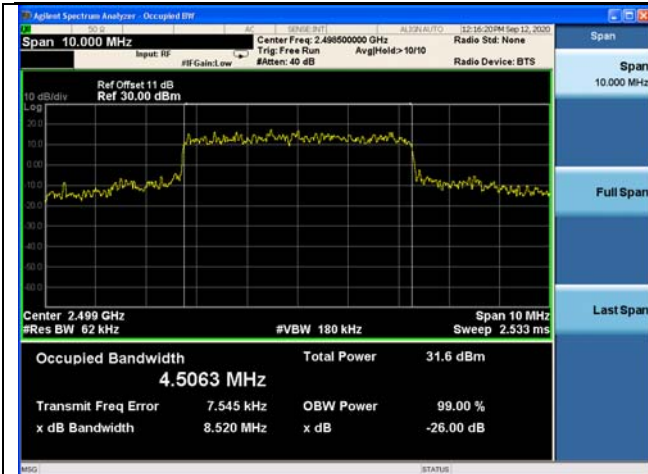


Fig.1

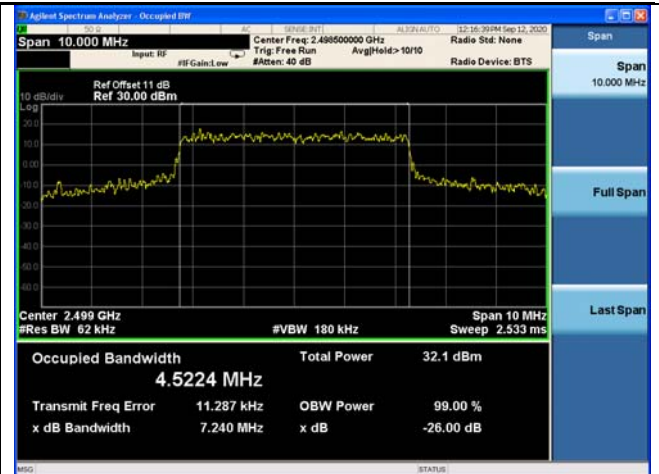


Fig.2

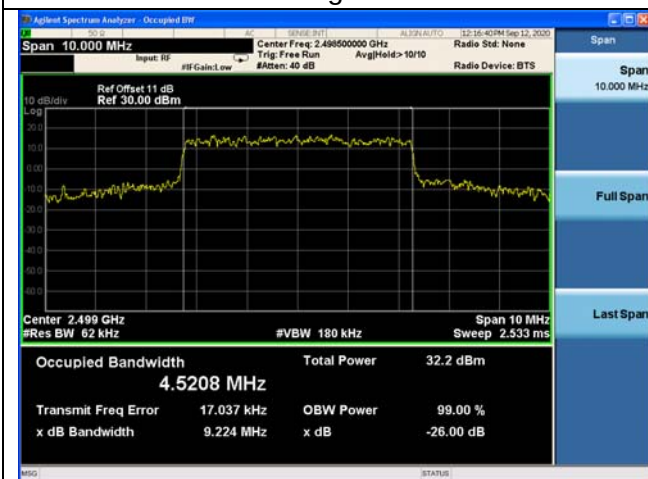


Fig.3

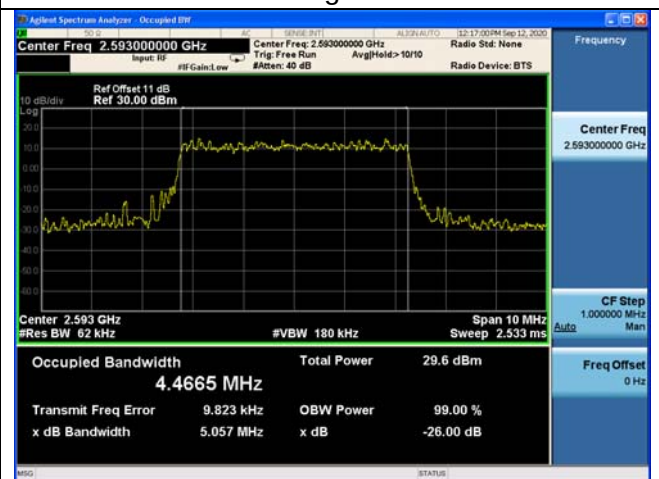


Fig.4

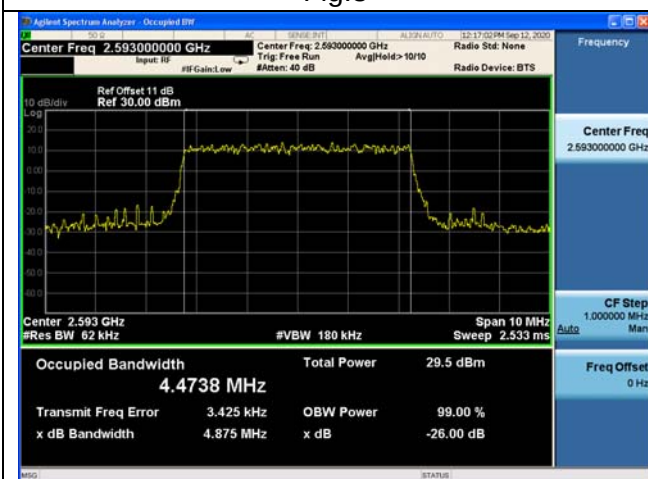


Fig.5

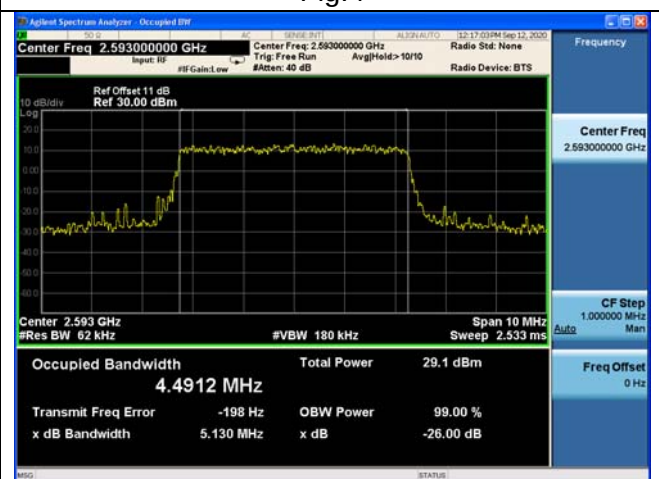


Fig.6

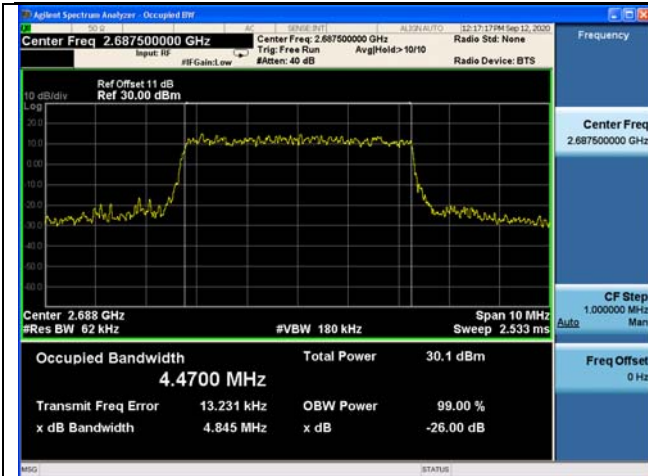


Fig.7

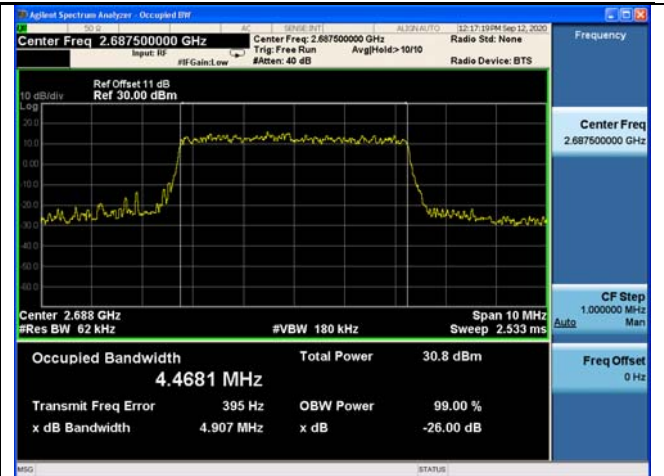


Fig.8

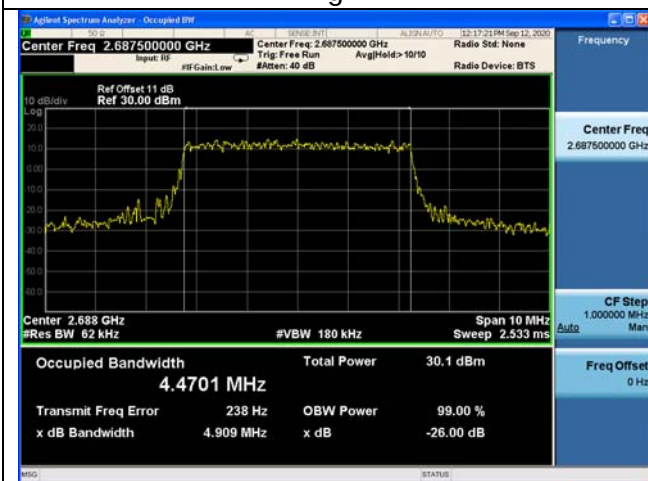


Fig.9

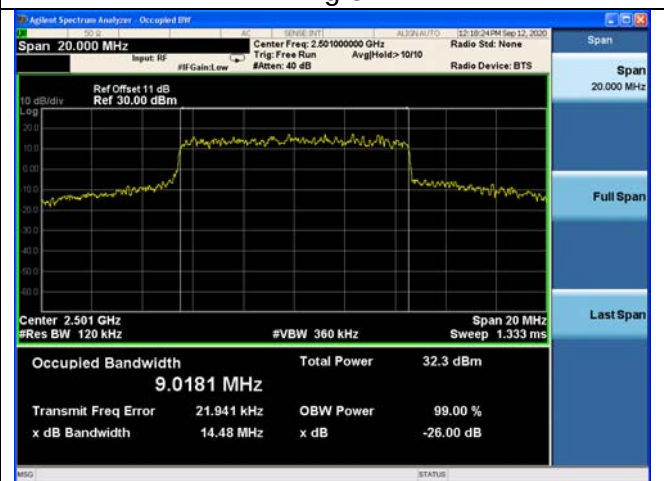


Fig.10

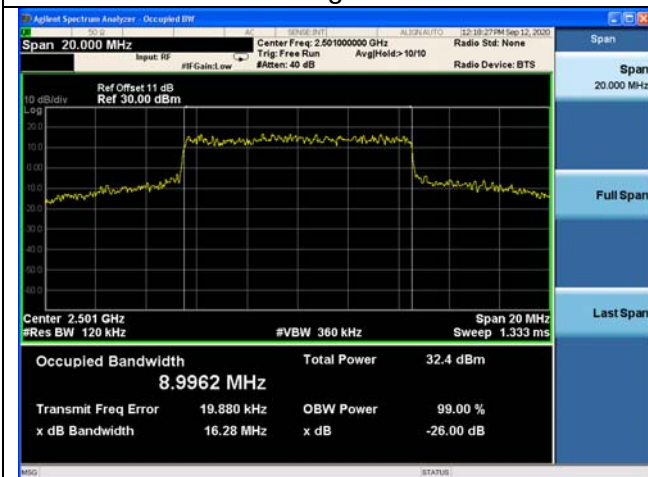


Fig.11

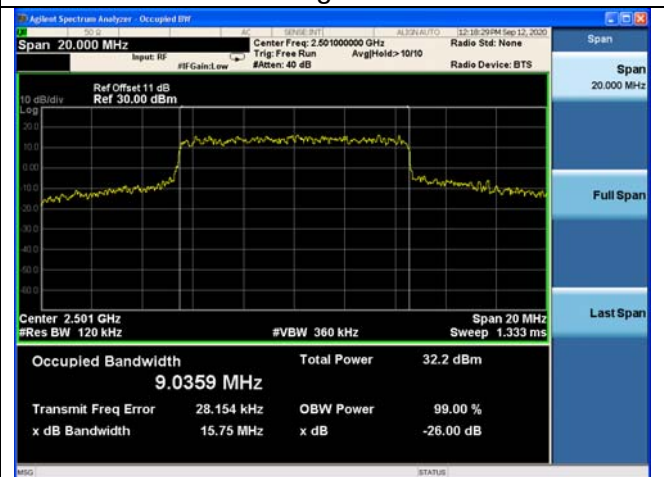


Fig.12

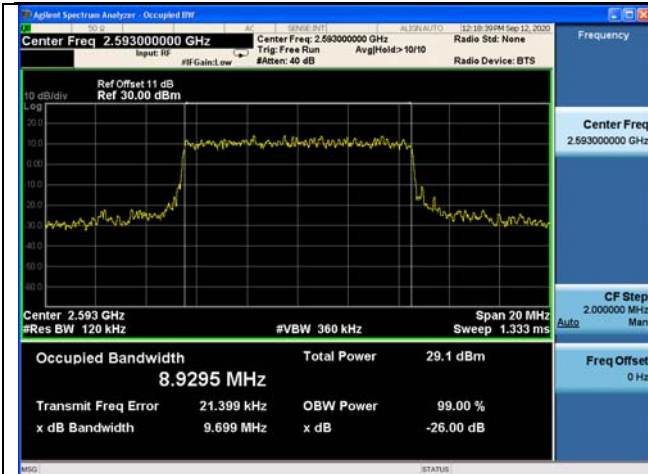


Fig.13

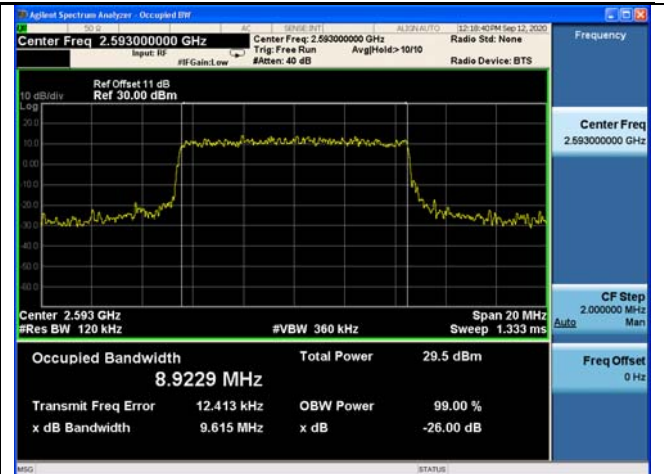


Fig.14

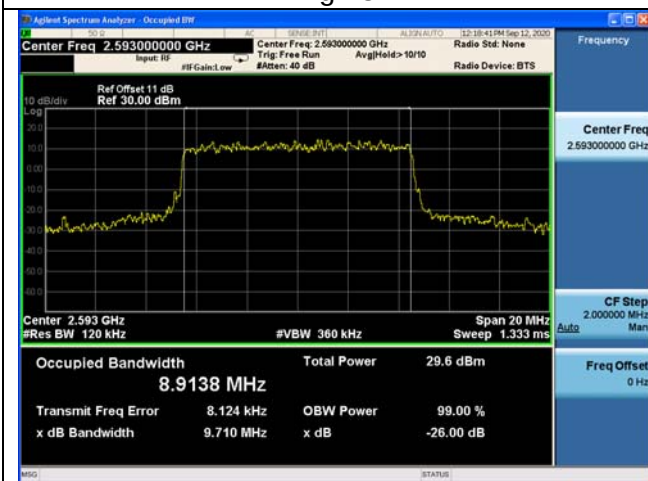


Fig.15

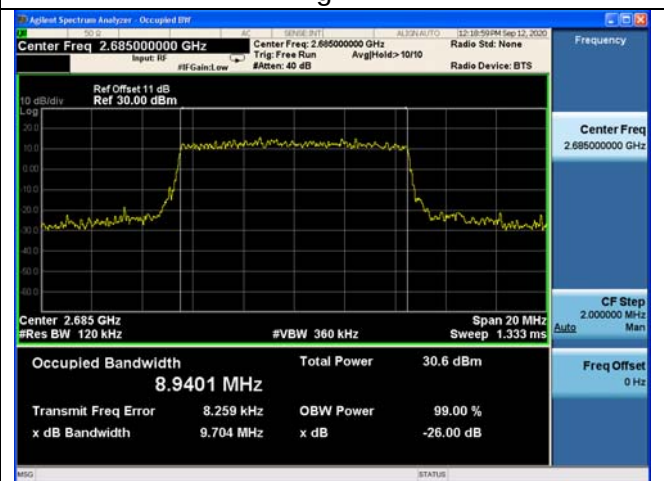


Fig.16

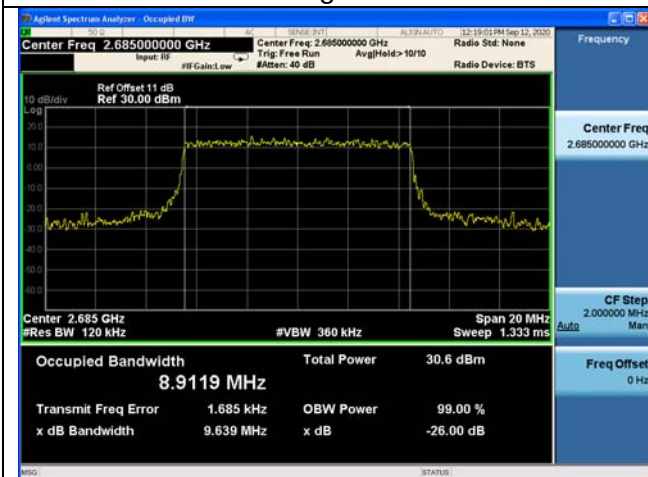


Fig.17

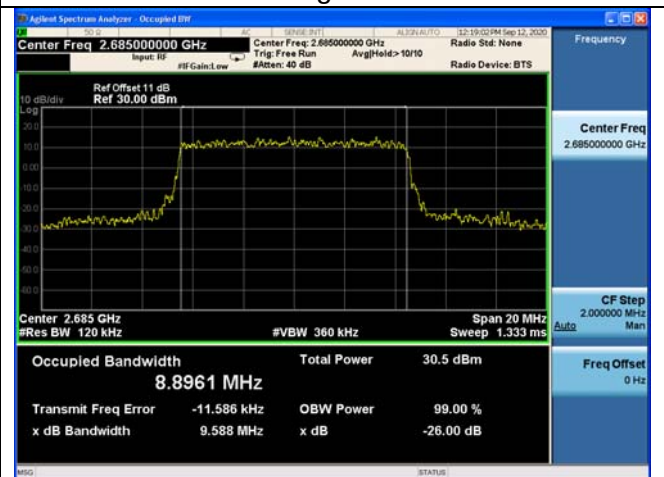


Fig.18

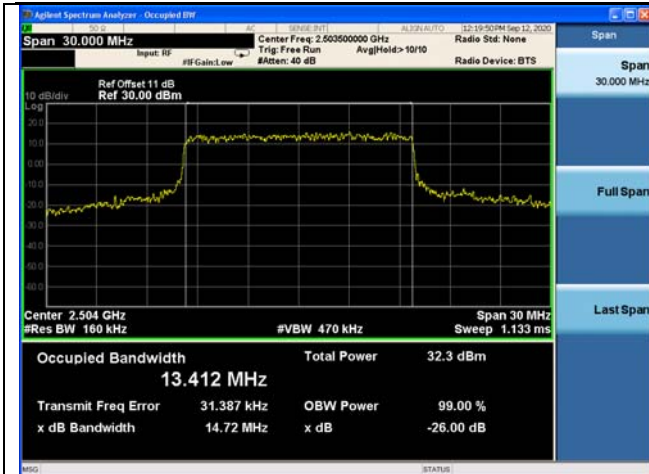


Fig.19



Fig.20

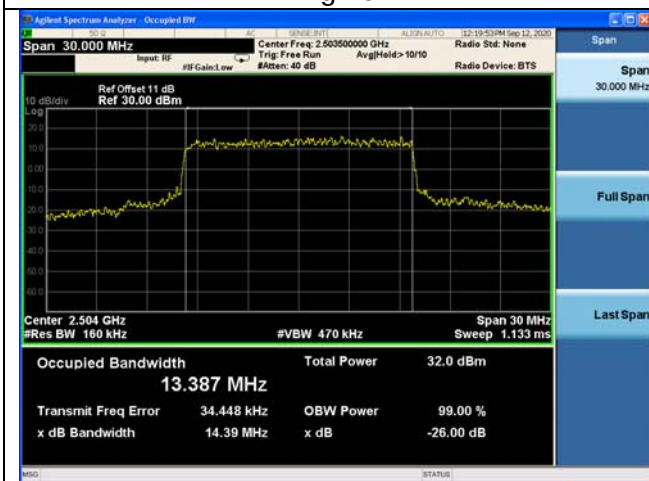


Fig.21

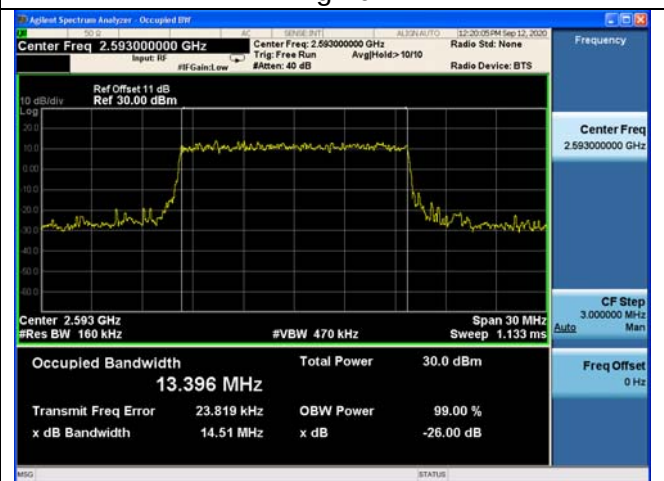


Fig.22

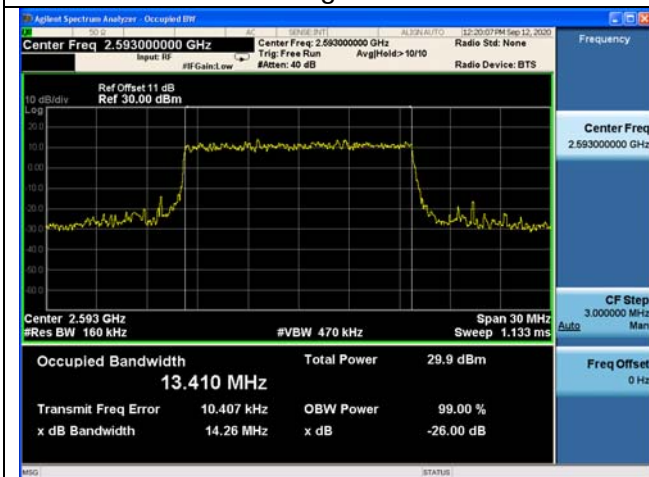


Fig.23

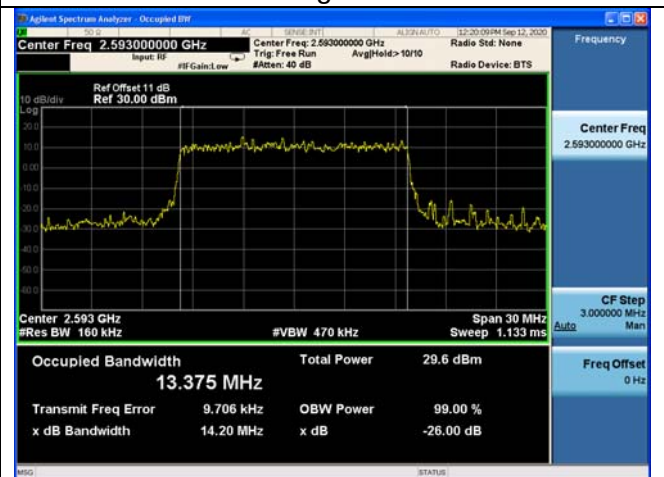


Fig.24

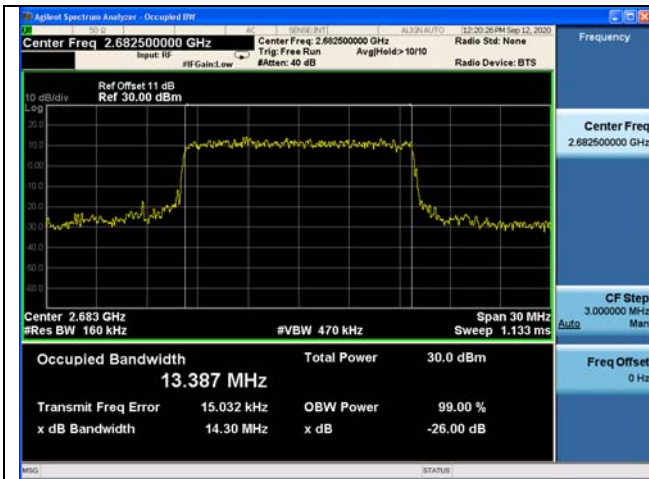


Fig.25

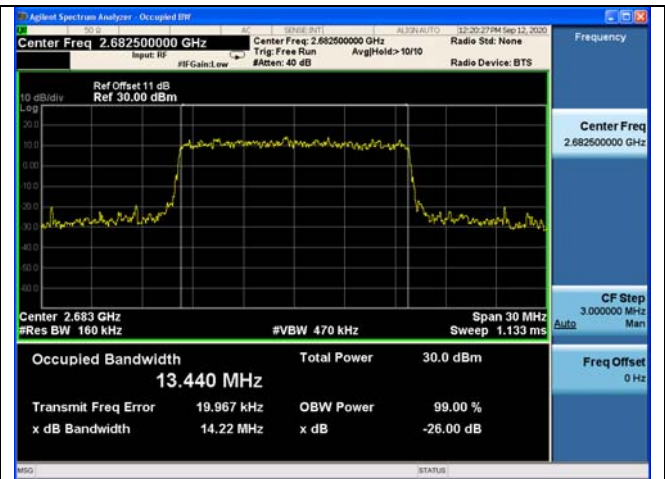


Fig.26

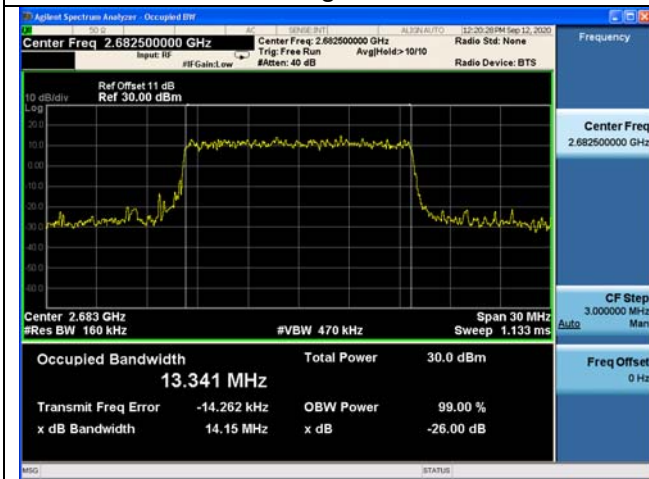


Fig.27



Fig.28

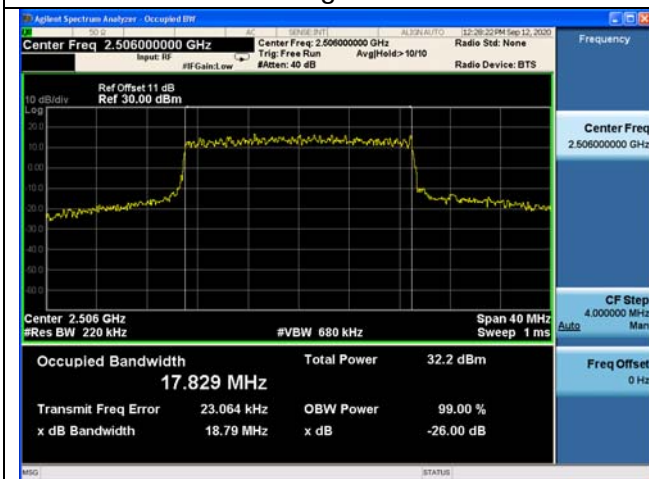


Fig.29

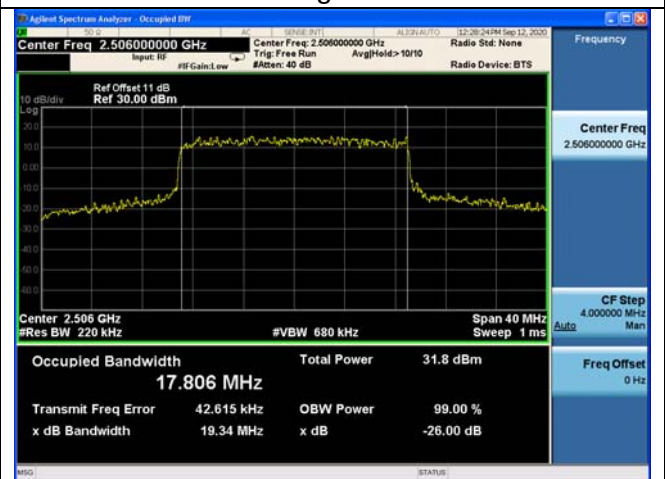


Fig.30

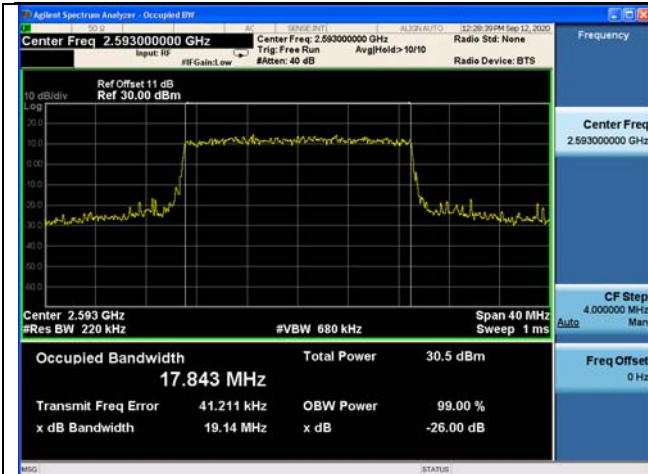


Fig.31

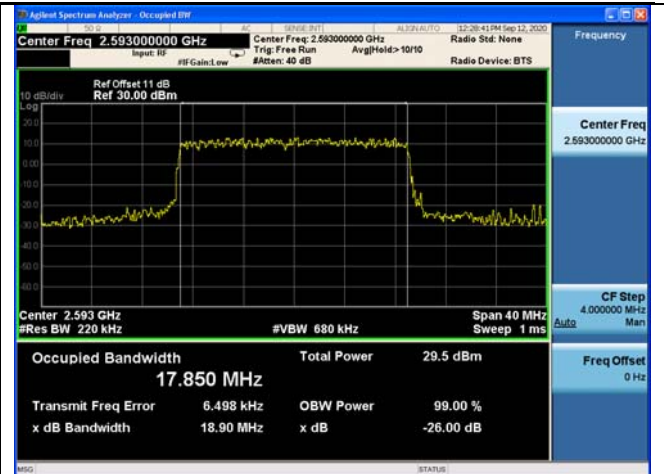


Fig.32

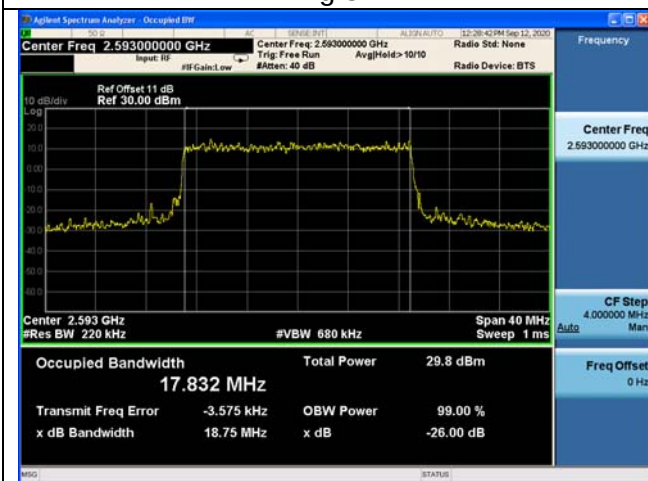


Fig.33

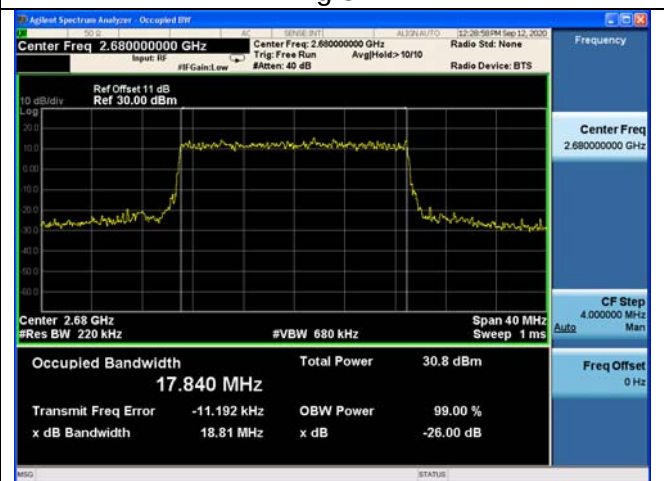


Fig.34

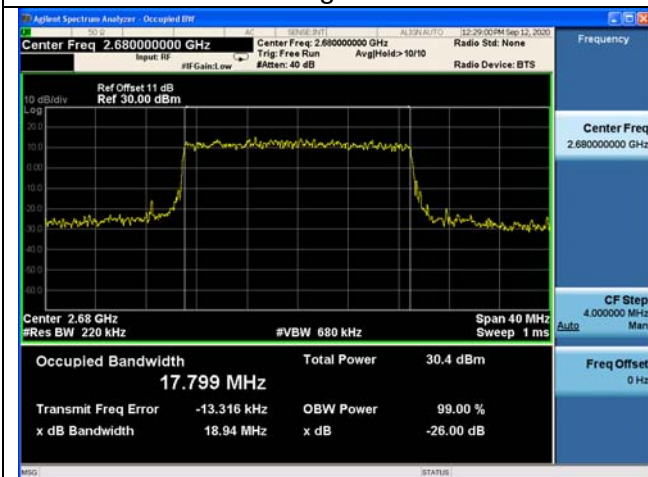


Fig.35

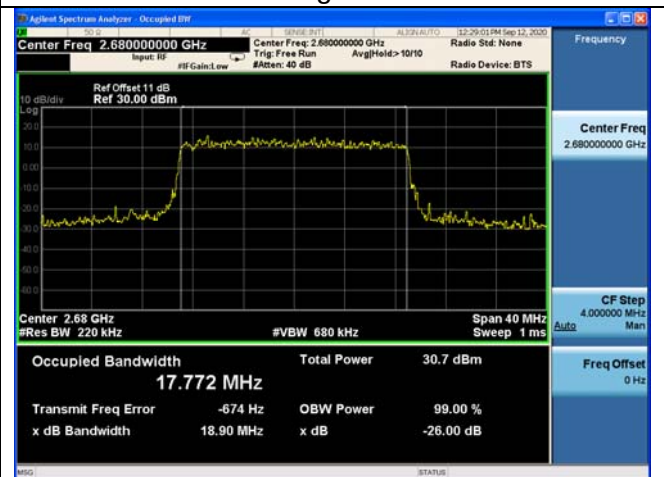


Fig.36

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
41	2593	40620	5	1	0	Fig.1	Fig.2	Fig.3
			10	1	0	Fig.4	Fig.5	Fig.6
			15	1	0	Fig.7	Fig.8	Fig.9
			20	1	0	Fig.10	Fig.11	Fig.12

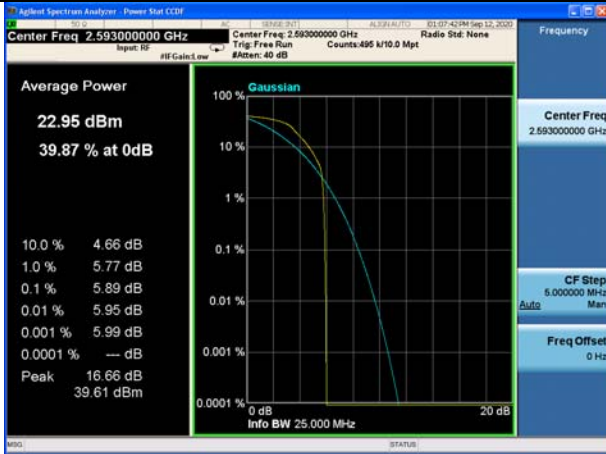


Fig.1

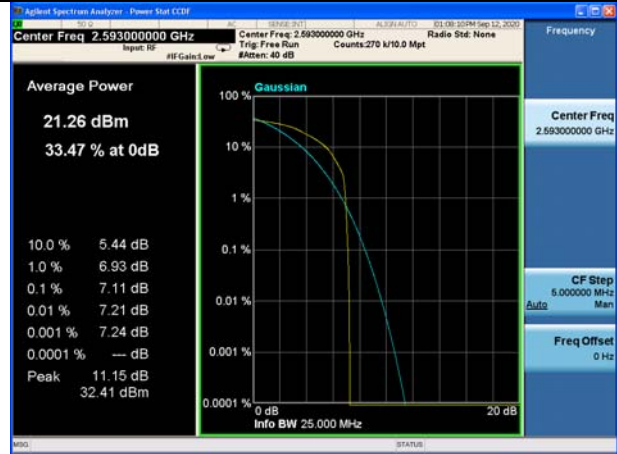


Fig.2



Fig.3



Fig.4



Fig.5

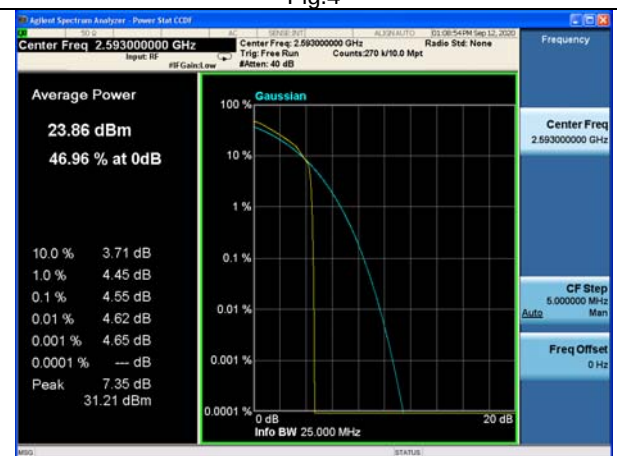


Fig.6



Fig.7

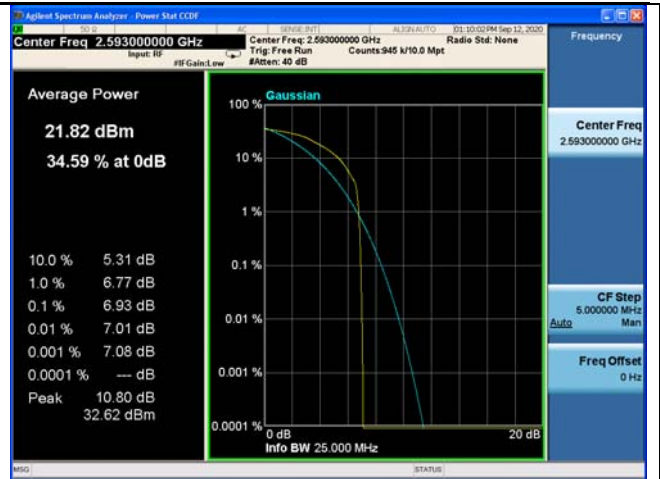


Fig.8



Fig.9

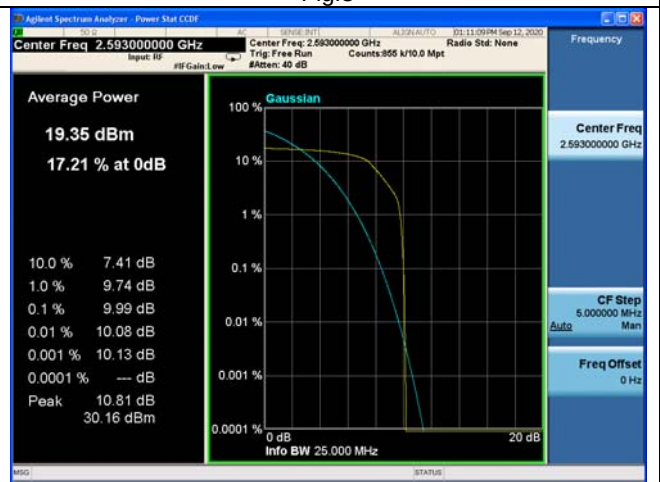


Fig.10



Fig.11

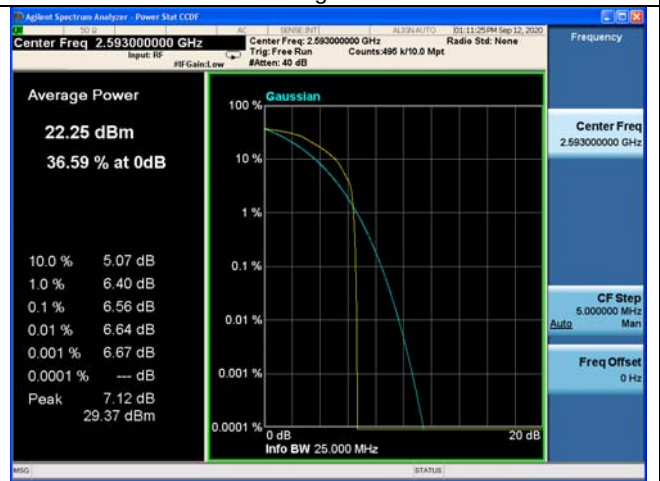


Fig.12

4 Spurious Emissions at antenna terminal

Band	Carrier frequency	Channel	BW	RB Size	RB Offset	Conducted QPSK
41	2506	39750	20	1	0	Fig.1-2
	2593	40620	20	1	0	Fig.3-4
	2680	41490	20	1	0	Fig.5-6

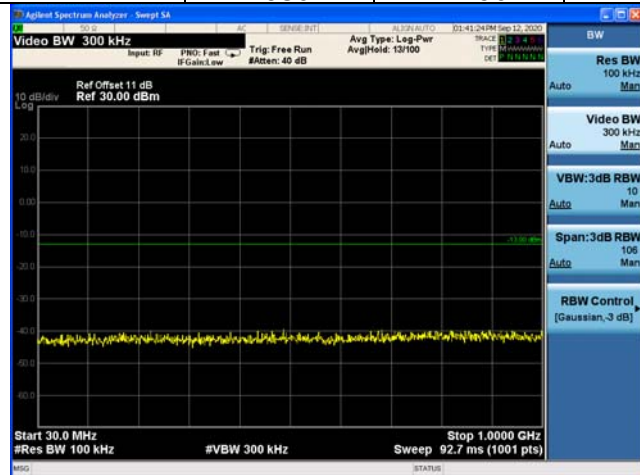


Fig1



Fig2

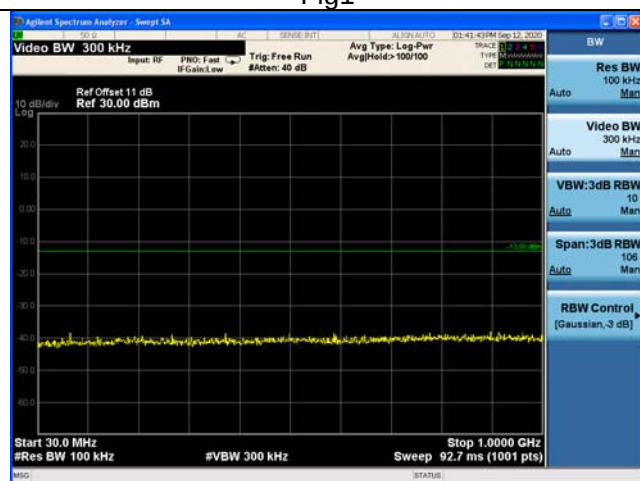


Fig3

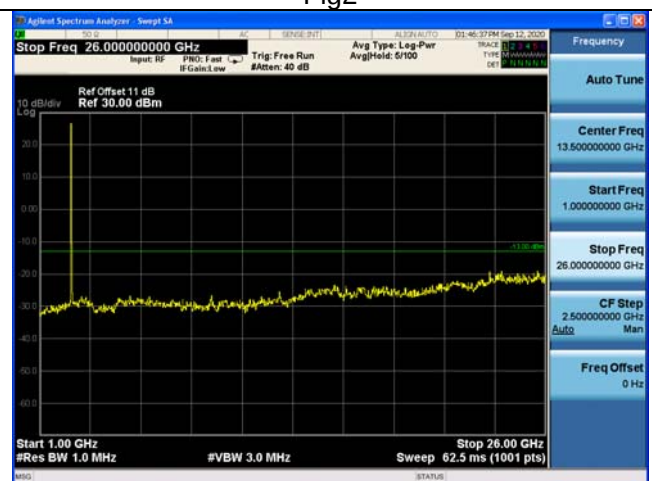


Fig4

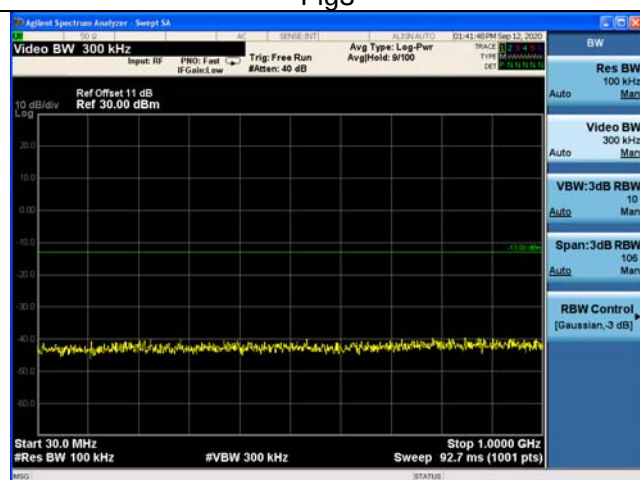


Fig5



Fig6

5 Band Edges Compliance

Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
41	2498.5	39675	5	1	0	Fig.1
				25	0	Fig.2
				1	24	Fig.3
				25	0	Fig.4
	2687.5	41565	10	1	0	Fig.5
				50	0	Fig.6
				1	49	Fig.7
				50	0	Fig.8
	2501	39700	15	1	0	Fig.9
				75	0	Fig.10
				1	74	Fig.11
				75	0	Fig.12
	2685	41540	20	1	0	Fig.13
				100	0	Fig.14
				1	99	Fig.15
				100	0	Fig.16
2503.5	39725					
2682.5	41515					
2506	39750					
2680	41490					

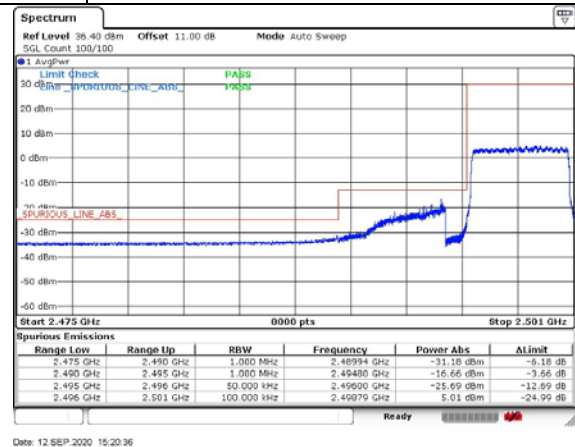
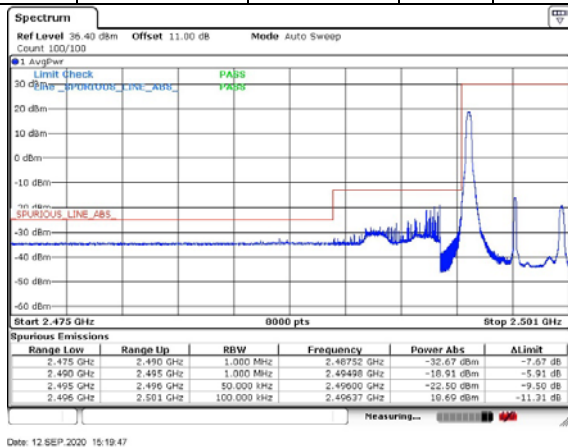


Fig.1

Fig.2

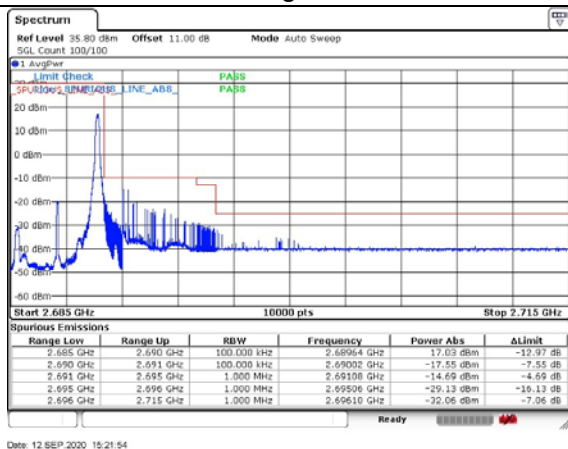


Fig.3

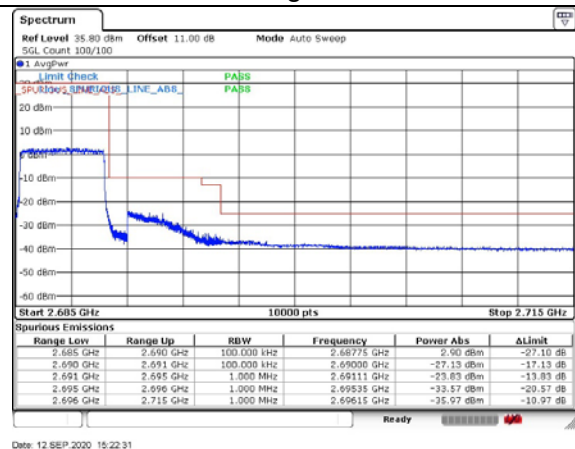


Fig.4

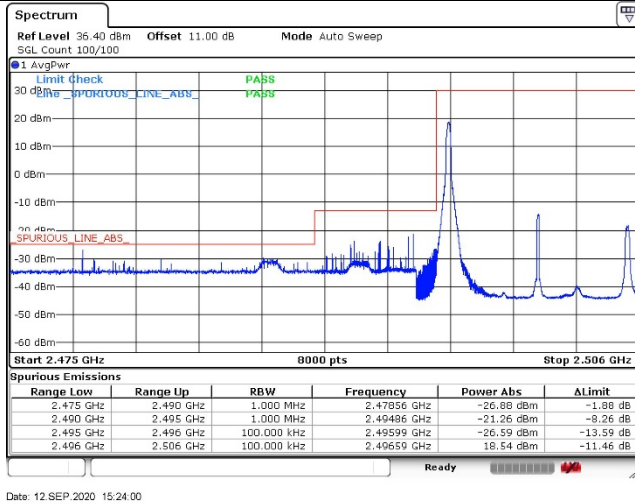


Fig.5

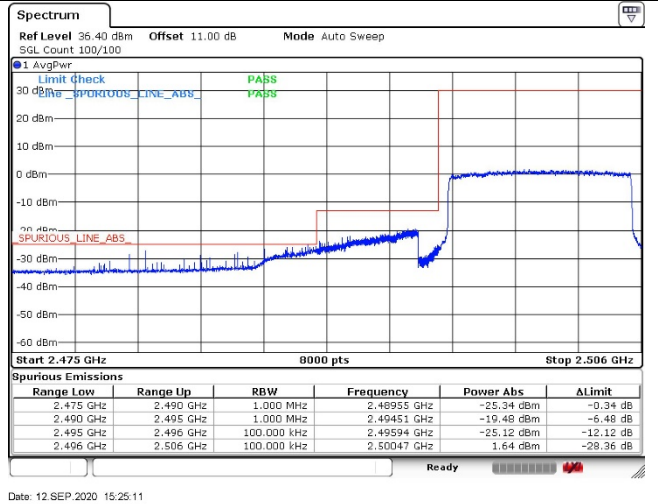


Fig.6

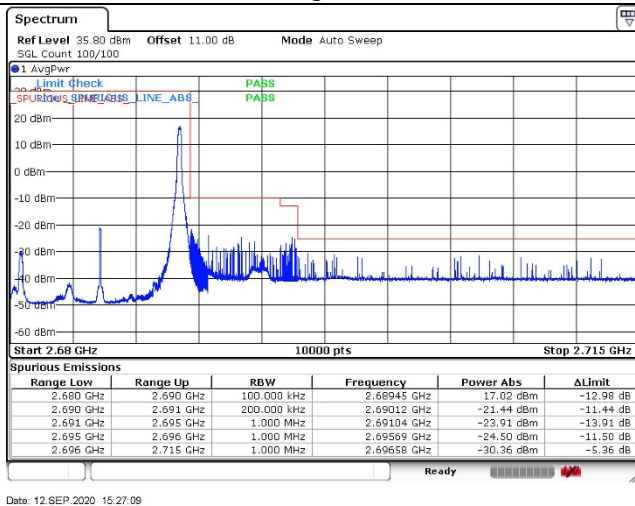


Fig.7

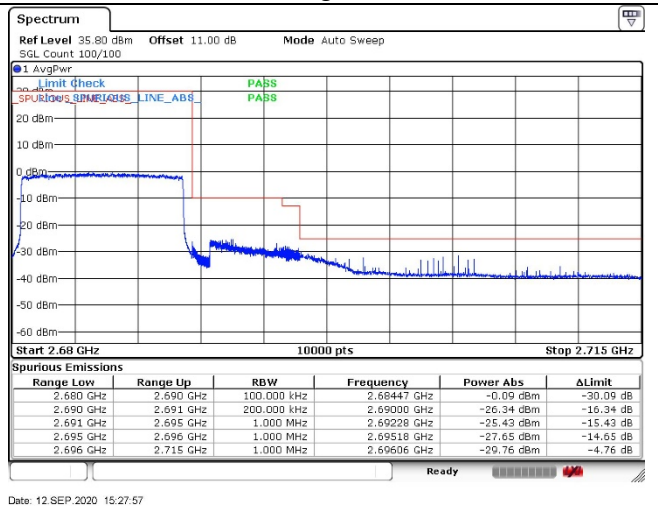


Fig.8

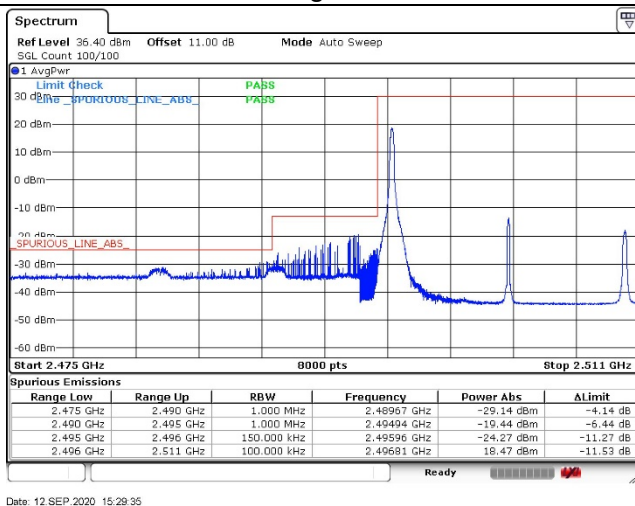


Fig.9

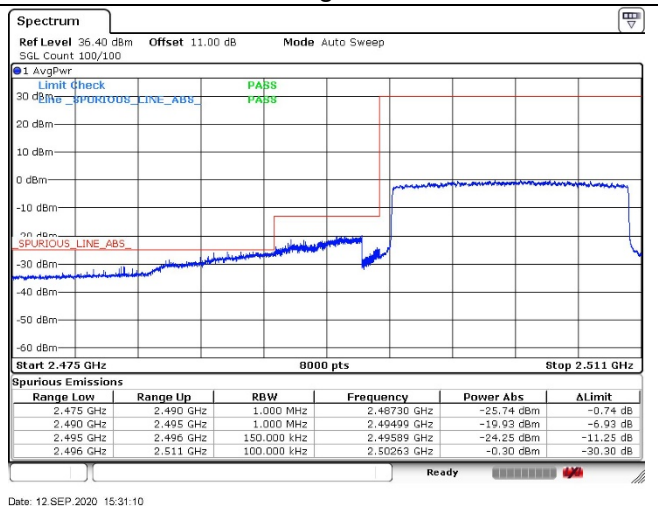
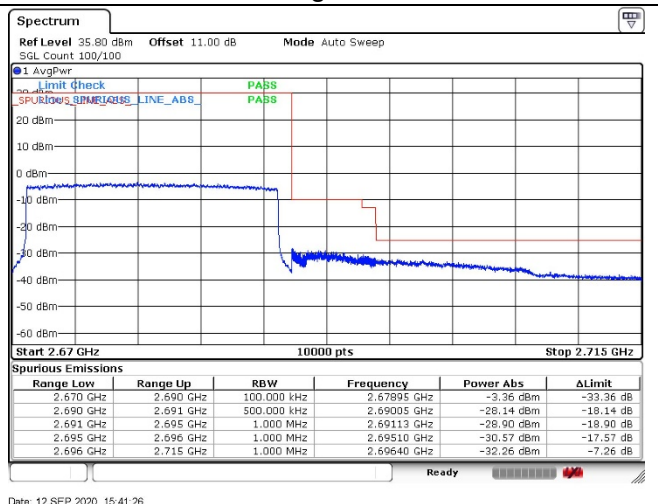
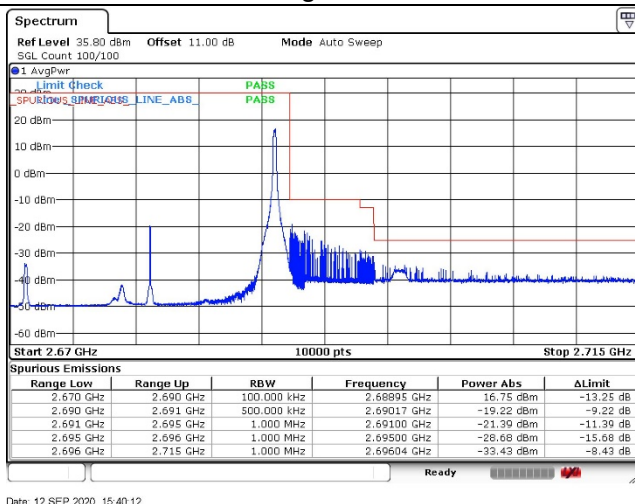
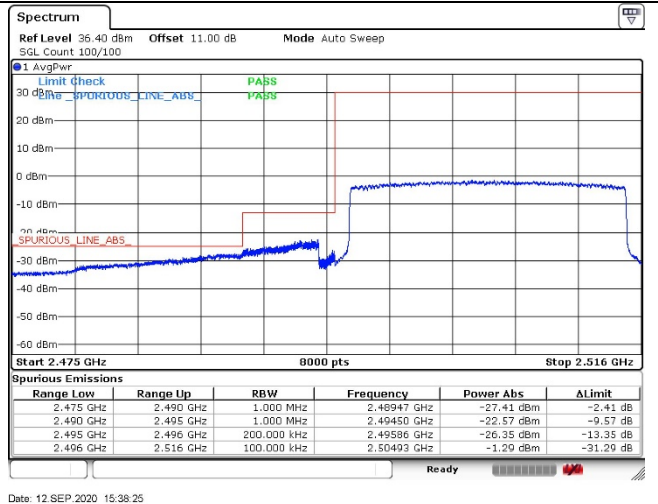
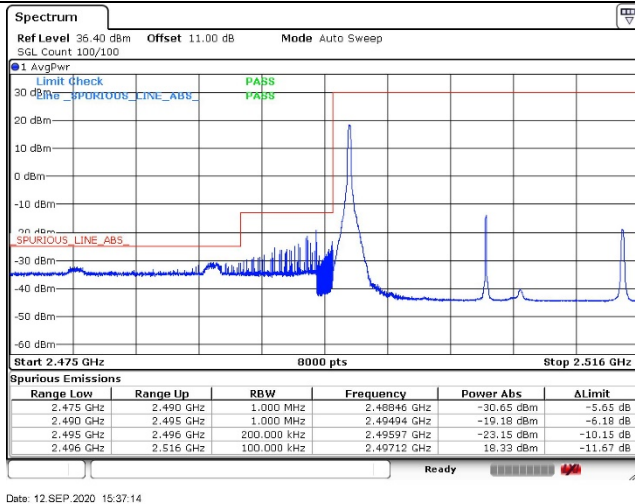
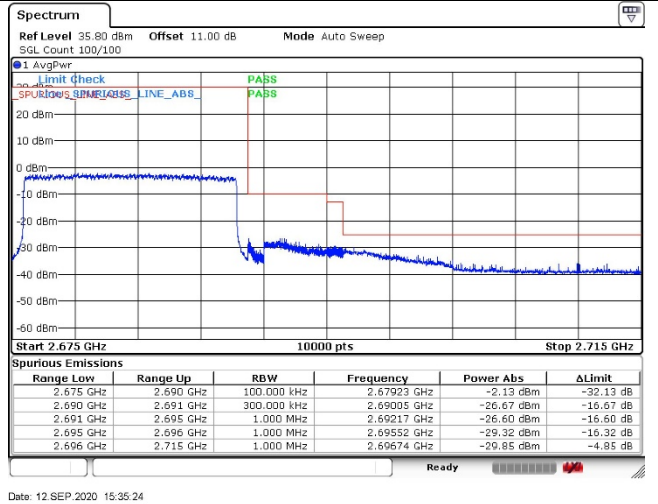
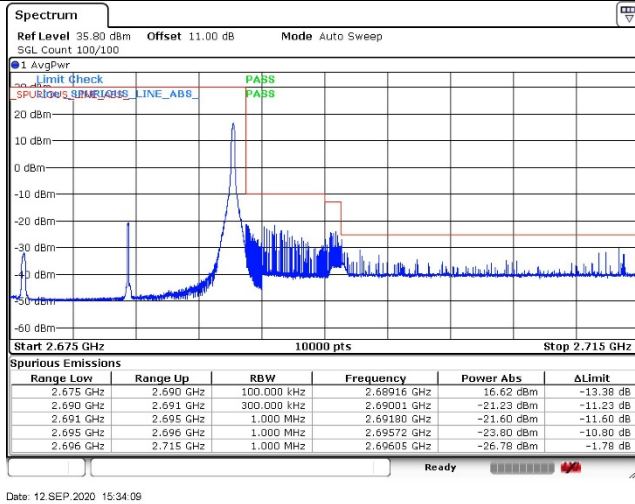


Fig.10



6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band41 Low Channel			
		5M	10M	15M	20M
-10	NV	-0.026	0.026	-0.015	0.037
0	NV	-0.024	0.013	-0.039	0.001
+10	NV	0.030	-0.004	0.005	0.025
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.001	0.036	-0.007	0.003
+40	NV	-0.008	-0.040	-0.027	-0.004
+50	NV	0.001	0.010	-0.041	0.053
+55	NV	0.020	-0.034	0.039	0.041
+20	LV	0.020	0.047	0.041	-0.023
+20	HV	0.046	0.043	-0.024	-0.035

Temperature(°C)	Voltage	Test Result (ppm) Ban41 High Channel			
		5M	10M	15M	20M
-10	NV	0.014	0.041	0.000	-0.007
0	NV	-0.029	-0.031	-0.037	0.027
+10	NV	-0.034	0.045	-0.015	-0.034
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.011	0.000	-0.005	0.051
+40	NV	0.046	0.036	-0.037	0.045
+50	NV	0.020	-0.001	0.044	0.041
+55	NV	0.018	0.004	0.026	0.027
+20	LV	-0.004	0.020	0.018	0.032
+20	HV	0.011	0.030	-0.025	0.016