

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 66

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
QPSK	1710.7	131979	1.4	1	0	23.19	
				1	5	23.19	
				3	2	22.46	
				6	0	22.35	
				1	0	23.15	
				1	5	23.15	
	1745	132322		3	2	22.40	
				6	0	22.30	
				1	0	23.32	
				1	5	23.32	
				3	2	22.53	
				6	0	22.44	
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
16QAM	1710.7	131979	1.4	1	0	22.50	
				1	5	22.50	
				3	2	21.42	
				6	0	21.29	
				1	0	22.44	
				1	5	22.43	
	1745	132322		3	2	21.33	
				6	0	21.22	
				1	0	22.54	
				1	5	22.45	
				3	2	21.46	
				6	0	21.40	
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
64QAM	1710.7	131979	1.4	1	0	22.39	
				1	5	22.39	
				3	2	21.31	
				6	0	21.23	
				1	0	22.39	
				1	5	22.39	
	1745	132322		3	2	21.27	
				6	0	21.16	
				1	0	22.53	
				1	5	22.53	
				3	2	21.42	
				6	0	21.34	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
QPSK	1711.5	131987	3	1	0	23.16	
				1	14	23.16	
				8	4	22.43	
				15	0	22.32	
	1745	132322		1	0	23.12	
				1	14	23.12	
				8	4	22.37	
				15	0	22.29	
	1778.5	132657		1	0	23.31	
				1	14	23.31	
				8	4	22.52	
				15	0	22.43	
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
16QAM	1711.5	131987	3	1	0	22.49	
				1	14	22.49	
				8	4	21.41	
				15	0	21.28	
	1745	132322		1	0	22.46	
				1	14	22.45	
				8	4	21.35	
				15	0	21.24	
	1778.5	132657		1	0	22.56	
				1	14	22.47	
				8	4	21.48	
				15	0	21.42	
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
64QAM	1711.5	131987	3	1	0	22.41	
				1	14	22.41	
				8	4	21.33	
				15	0	21.21	
	1745	132322		1	0	22.37	
				1	14	22.37	
				8	4	21.25	
				15	0	21.14	
	1778.5	132657		1	0	22.51	
				1	14	22.51	
				8	4	21.40	
				15	0	21.32	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
QPSK	1712.5	131997	5	1	0	23.13	
				1	24	23.13	
				12	6	22.40	
				25	0	22.29	
				1	0	23.09	
	1745	132322		1	24	23.09	
				12	6	22.34	
				25	0	22.26	
				1	0	23.28	
				1	24	23.28	
16QAM	1712.5	131997	5	12	6	22.49	
				25	0	22.40	
				1	0	22.46	
				1	24	22.46	
				12	6	21.39	
	1745	132322		25	0	21.26	
				1	0	22.45	
				1	24	22.44	
				12	6	21.34	
				25	0	21.23	
64QAM	1712.5	131997	5	1	0	22.55	
				1	24	22.46	
				12	6	21.50	
				25	0	21.44	
				1	0	22.43	
	1745	132322		1	24	22.43	
				12	6	21.35	
				25	0	21.24	
				1	0	22.40	
				1	24	22.40	
	1777.5	132647		12	6	21.28	
				25	0	21.17	
				1	0	22.54	
				1	24	22.54	
				12	6	21.43	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
QPSK	1715	132022	10	1	0	23.12	
				1	49	23.12	
				24	12	22.39	
				50	0	22.28	
				1	0	23.08	
	1745	132322		1	49	23.08	
				24	12	22.33	
				50	0	22.25	
				1	0	23.27	
				1	49	23.27	
16QAM	1715	132022	10	24	12	22.48	
				50	0	22.39	
				1	0	22.45	
				1	49	22.45	
				24	12	21.37	
	1745	132322		50	0	21.28	
				1	0	22.47	
				1	49	22.46	
				24	12	21.36	
				50	0	21.25	
64QAM	1715	132022	10	1	0	22.57	
				1	49	22.48	
				24	12	21.49	
				50	0	21.43	
				1	0	22.42	
	1745	132322		1	49	22.42	
				24	12	21.33	
				50	0	21.22	
				1	0	22.38	
				1	49	22.38	
	1775	132622		24	12	21.26	
				50	0	21.15	
				1	0	22.52	
				1	49	22.52	
				24	12	21.41	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
QPSK	1717.5	132047	15	1	0	23.10	
				1	74	23.10	
				40	18	22.37	
				75	0	22.26	
	1745	132322		1	0	23.06	
				1	74	23.06	
				40	18	22.31	
				75	0	22.23	
	1772.5	132597		1	0	23.25	
				1	74	23.25	
				40	18	22.46	
				75	0	22.37	
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
16QAM	1717.5	132047	15	1	0	22.43	
				1	74	22.43	
				40	18	21.35	
				75	0	21.28	
	1745	132322		1	0	22.47	
				1	74	22.46	
				40	18	21.33	
				75	0	21.22	
	1772.5	132597		1	0	22.54	
				1	74	22.45	
				40	18	21.46	
				75	0	21.40	
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
64QAM	1717.5	132047	15	1	0	22.39	
				1	74	22.39	
				40	18	21.31	
				75	0	21.20	
	1745	132322		1	0	22.36	
				1	74	22.36	
				40	18	21.23	
				75	0	21.12	
	1772.5	132597		1	0	22.49	
				1	74	22.49	
				40	18	21.38	
				75	0	21.30	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
QPSK	1720	132072	20	1	0	23.21	
				1	99	23.21	
				50	25	22.48	
				100	0	22.37	
	1745	132322		1	0	23.17	
				1	99	23.17	
				50	25	22.42	
				100	0	22.34	
	1770	132572		1	0	23.36	
				1	99	23.36	
				50	25	22.57	
				100	0	22.48	
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
16QAM	1720	132072	20	1	0	22.54	
				1	99	22.54	
				50	25	21.46	
				100	0	21.33	
	1745	132322		1	0	22.52	
				1	99	22.51	
				50	25	21.41	
				100	0	21.30	
	1770	132572		1	0	22.62	
				1	99	22.53	
				50	25	21.54	
				100	0	21.48	
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
64QAM	1720	132072	20	1	0	22.47	
				1	99	22.47	
				50	25	21.39	
				100	0	21.28	
	1745	132322		1	0	22.44	
				1	99	22.44	
				50	25	21.32	
				100	0	21.21	
	1770	132572		1	0	22.58	
				1	99	22.58	
				50	25	21.47	
				100	0	21.39	

2 Occupied Bandwidth

Test result

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Bandwidth of 99% Power (MHz)					
						QPSK		16-QAM		64-QAM	
						1.0724	Fig.1	1.0739	Fig.2	1.0712	Fig.3
66	1710.7	131979	1.4	6	0	1.0724	Fig.1	1.0739	Fig.2	1.0712	Fig.3
66	1745	132322	1.4	6	0	1.0763	Fig.4	1.0759	Fig.5	1.0750	Fig.6
66	1779.3	132665	1.4	6	0	1.0780	Fig.7	1.0784	Fig.8	1.0760	Fig.9

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
						1.224	Fig.1	1.217	Fig.2	1.228	Fig.3
66	1710.7	131979	1.4	6	0	1.224	Fig.1	1.217	Fig.2	1.228	Fig.3
66	1745	132322	1.4	6	0	1.247	Fig.4	1.237	Fig.5	1.250	Fig.6
66	1779.3	132665	1.4	6	0	1.235	Fig.7	1.233	Fig.8	1.238	Fig.9

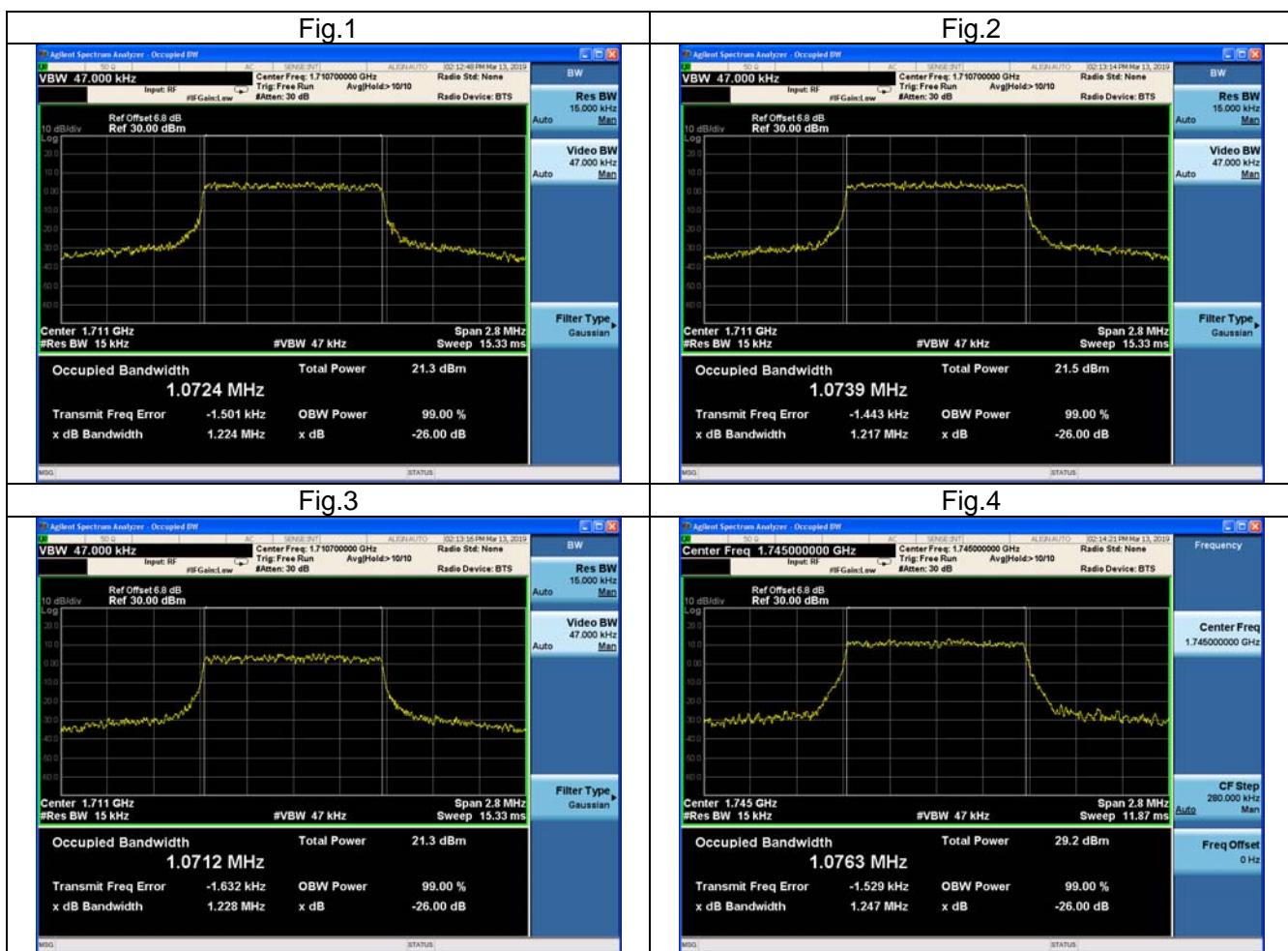


Fig.5

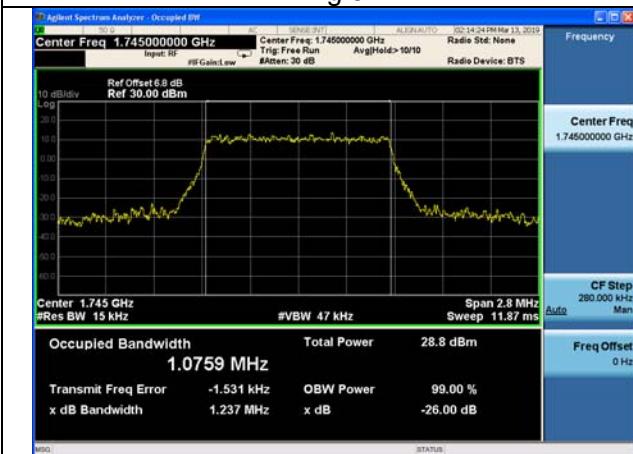


Fig.6

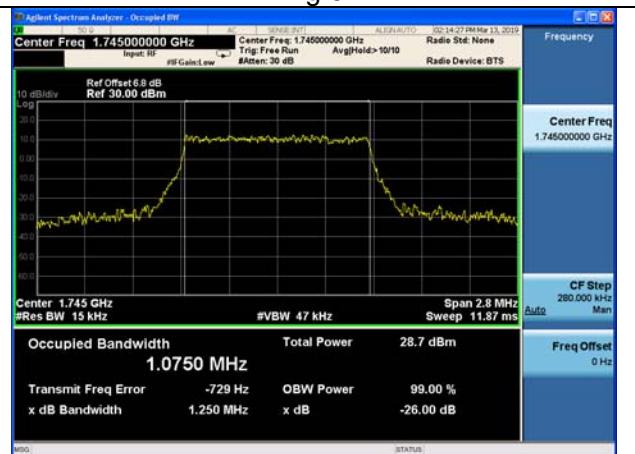


Fig.7

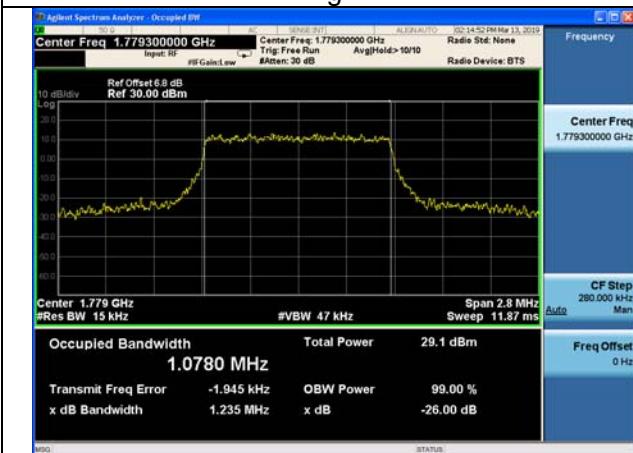


Fig.8

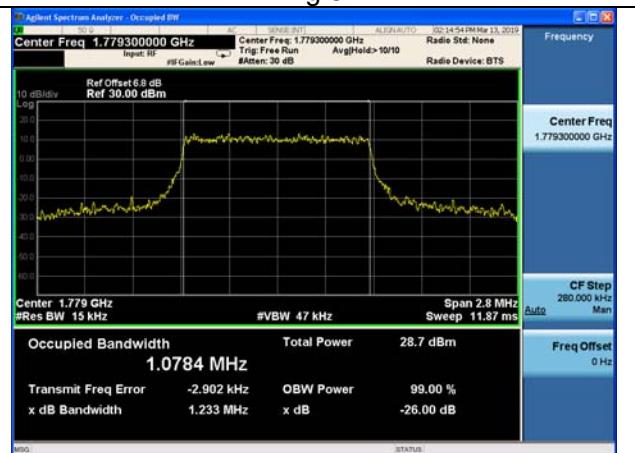
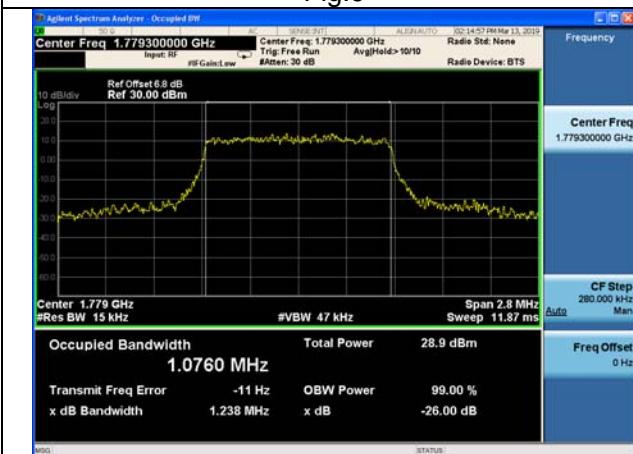


Fig.9



Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Bandwidth of 99% Power (MHz)					
						QPSK		16-QAM	64-QAM		
66	1711.5	131987	3	15	0	2.6974	Fig.1	2.7049	Fig.2	2.6957	Fig.3
66	1745	132322	3	15	0	2.6934	Fig.4	2.6875	Fig.5	2.6911	Fig.6
66	1778.5	132657	3	15	0	2.7010	Fig.7	2.6958	Fig.8	2.6919	Fig.9

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM			
66	1711.5	131987	3	15	0	2.920	Fig.1	2.924	Fig.2	2.926	Fig.3
66	1745	132322	3	15	0	2.899	Fig.4	2.876	Fig.5	2.895	Fig.6
66	1778.5	132657	3	15	0	2.891	Fig.7	2.909	Fig.8	2.921	Fig.9

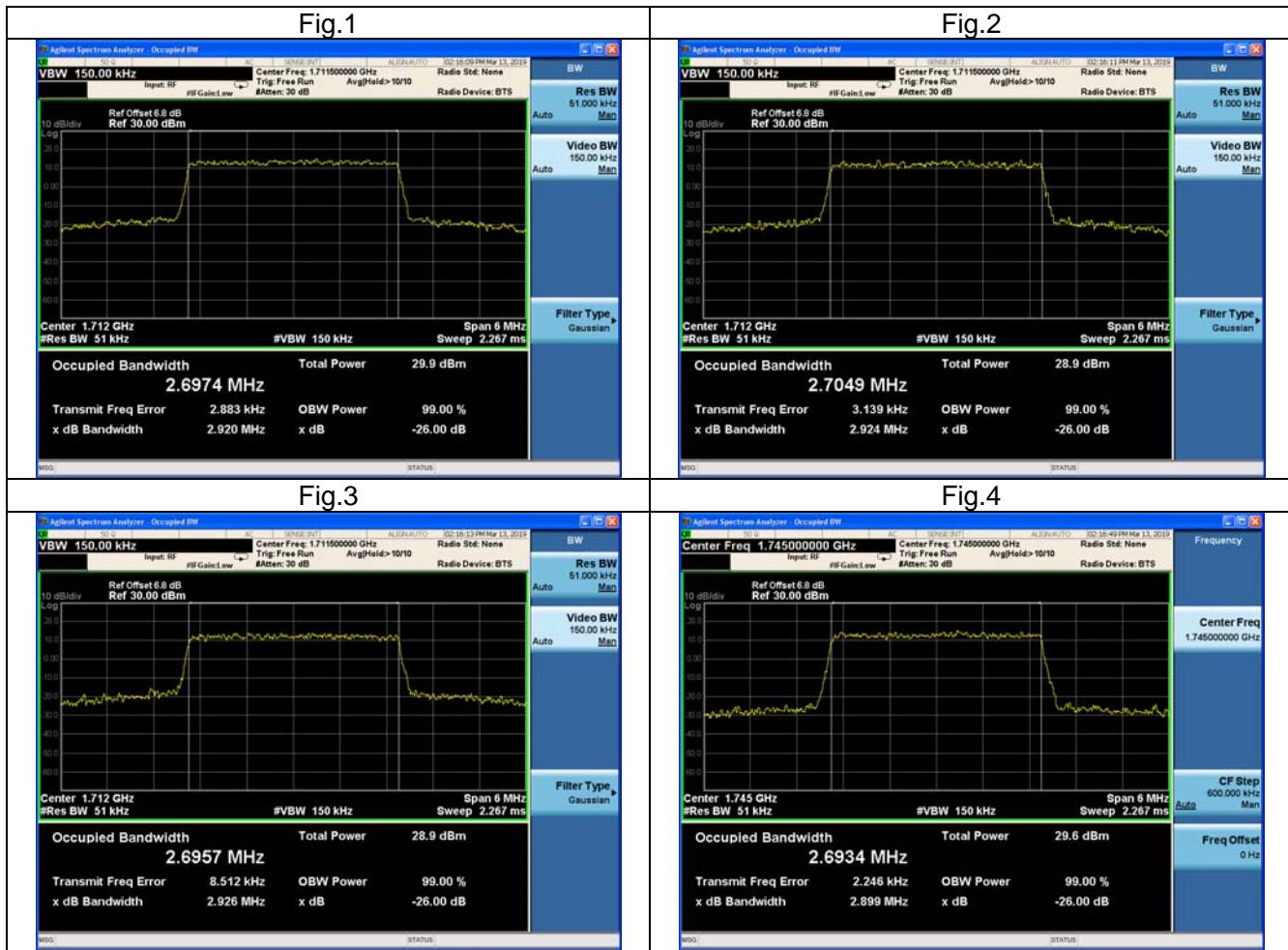


Fig.5

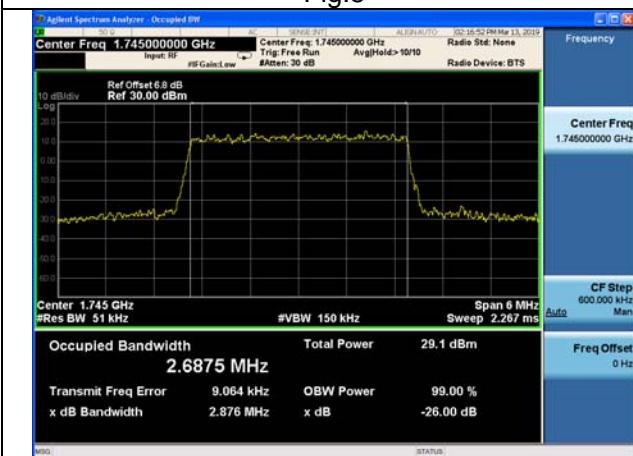


Fig.6

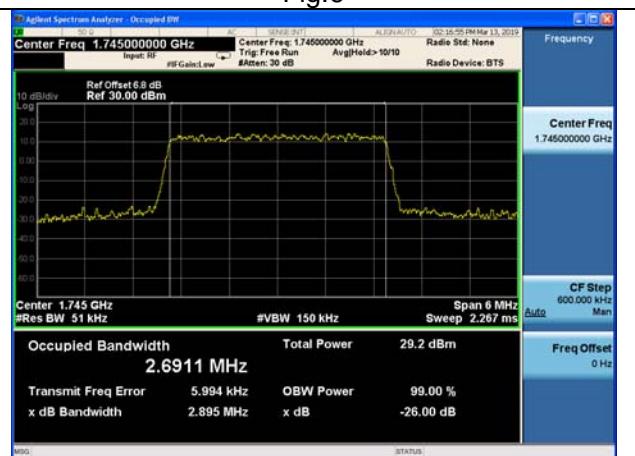


Fig.7

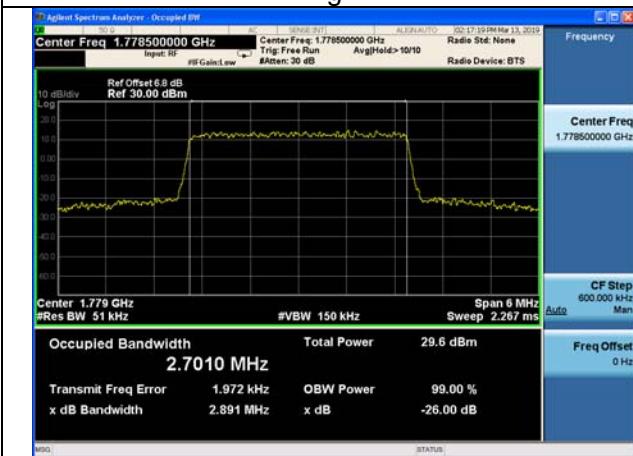


Fig.8

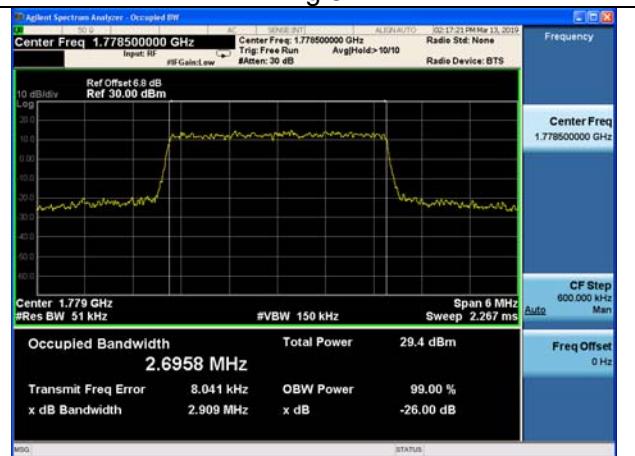
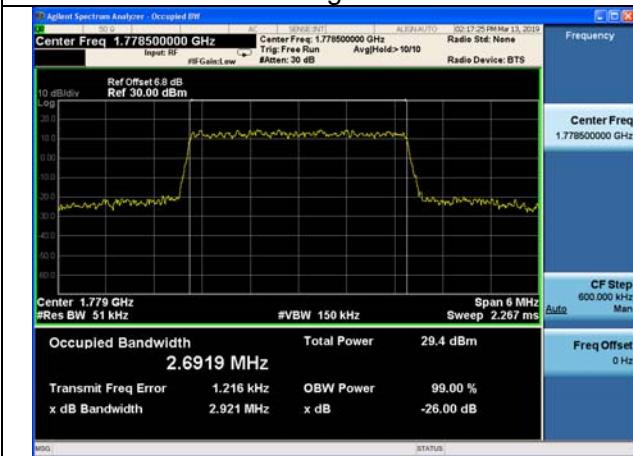


Fig.9



Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Bandwidth of 99% Power (MHz)					
						QPSK		16-QAM		64-QAM	
66	1712.5	131997	5	25	0	4.4864	Fig.1	4.4807	Fig.2	4.4795	Fig.3
66	1745	132322	5	25	0	4.5028	Fig.4	4.4763	Fig.5	4.4901	Fig.6
66	1777.5	132647	5	25	0	4.4896	Fig.7	4.4840	Fig.8	4.4766	Fig.9

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
66	1712.5	131997	5	25	0	5.030	Fig.1	5.151	Fig.2	5.071	Fig.3
66	1745	132322	5	25	0	4.980	Fig.4	5.048	Fig.5	5.000	Fig.6
66	1777.5	132647	5	25	0	5.031	Fig.7	5.041	Fig.8	5.086	Fig.9

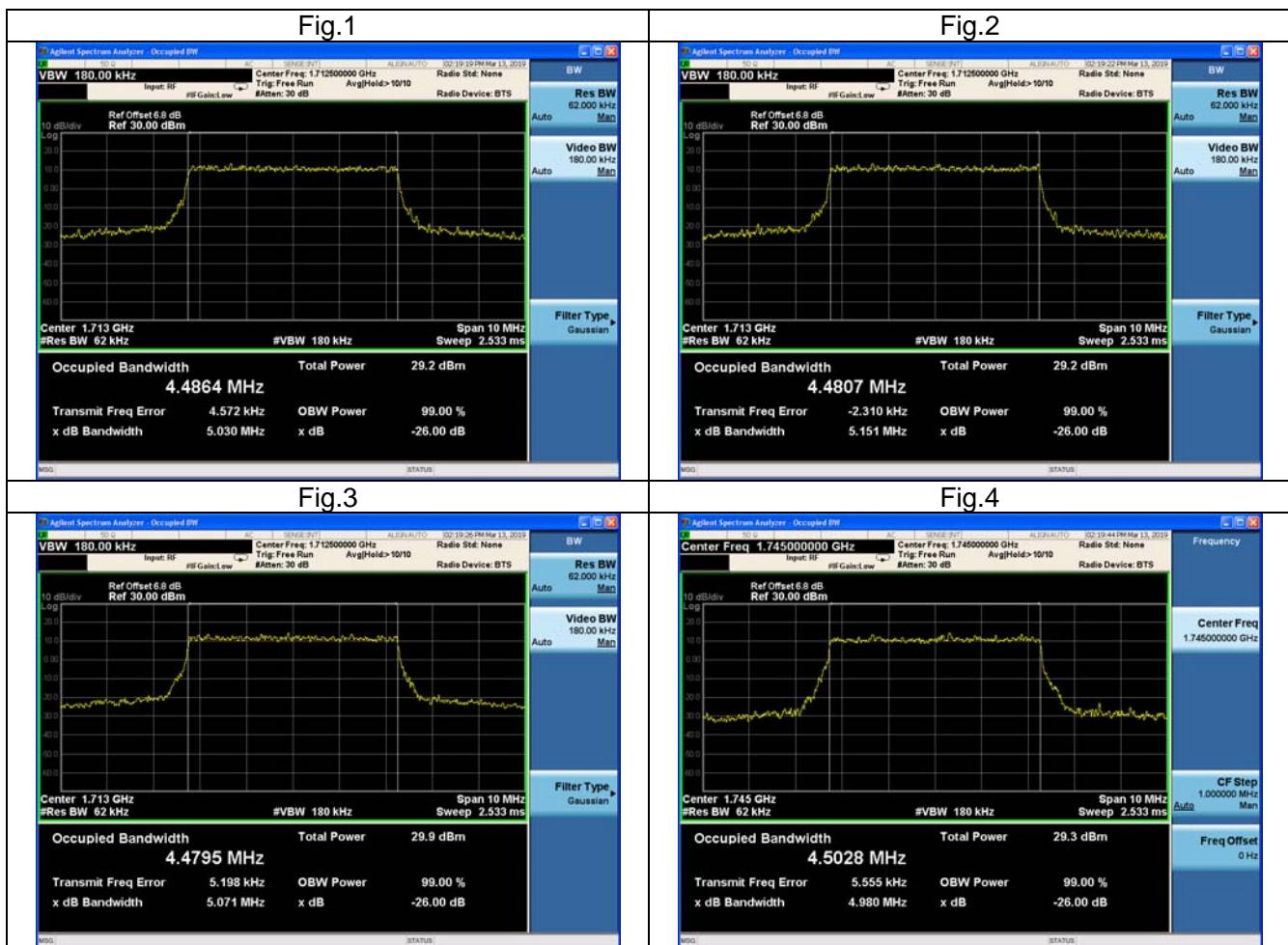


Fig.5

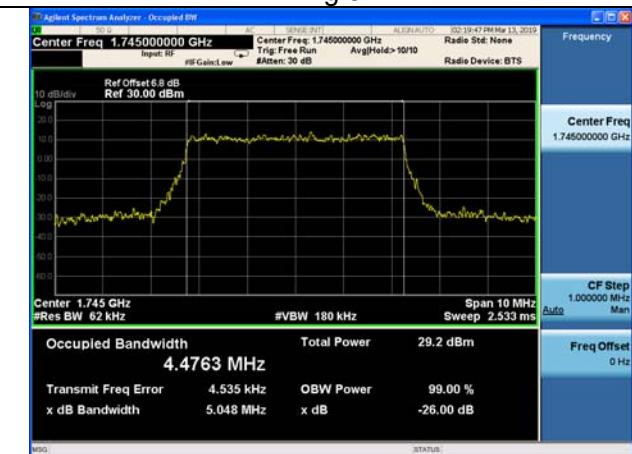


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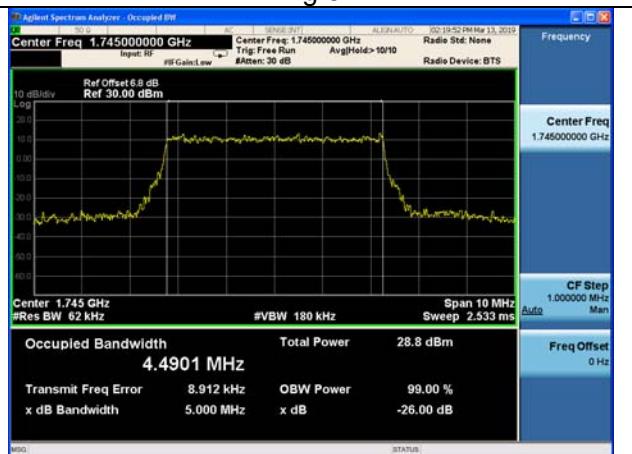


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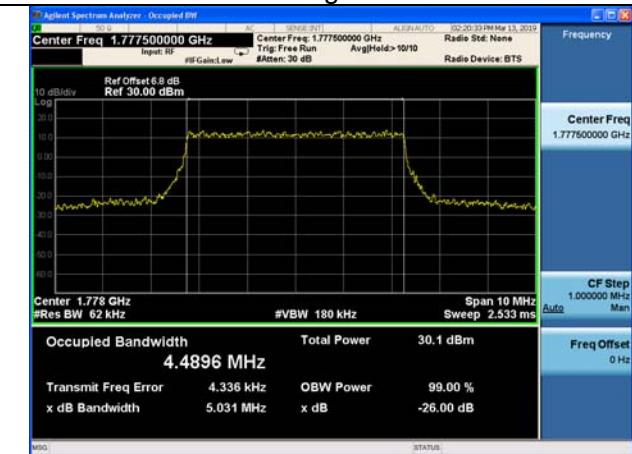


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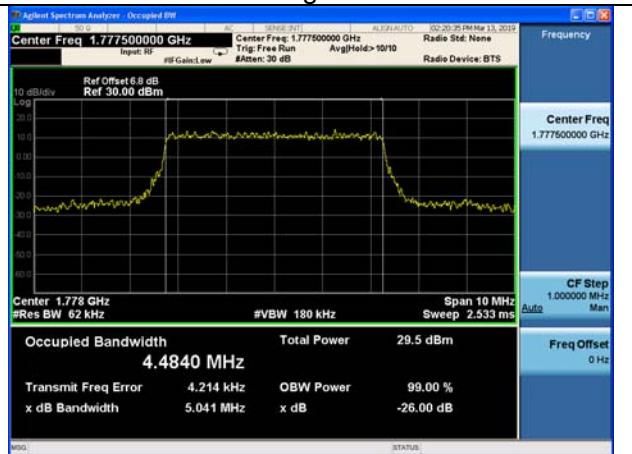
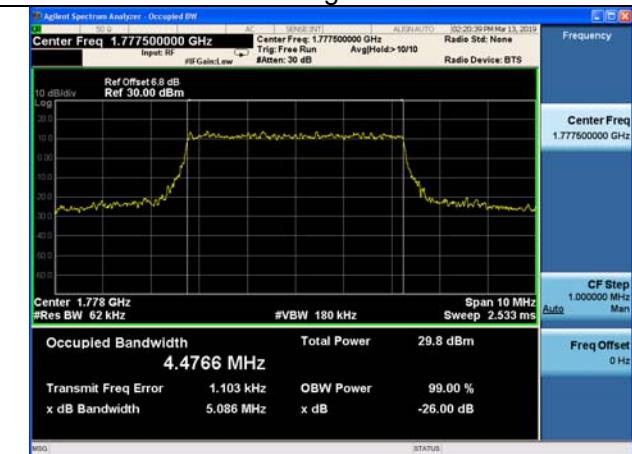


Fig.9



Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Bandwidth of 99% Power (MHz)					
						QPSK		16-QAM		64-QAM	
66	1715	132022	10	50	0	8.9827	Fig.1	8.9840	Fig.2	8.9673	Fig.3
66	1745	132322	10	50	0	8.9580	Fig.4	8.9359	Fig.5	8.9642	Fig.6
66	1775	132622	10	50	0	8.9761	Fig.7	8.9681	Fig.8	8.9672	Fig.9

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
66	1715	132022	10	50	0	9.885	Fig.1	9.840	Fig.2	9.850	Fig.3
66	1745	132322	10	50	0	9.827	Fig.4	9.831	Fig.5	9.808	Fig.6
66	1775	132622	10	50	0	9.899	Fig.7	9.932	Fig.8	9.928	Fig.9

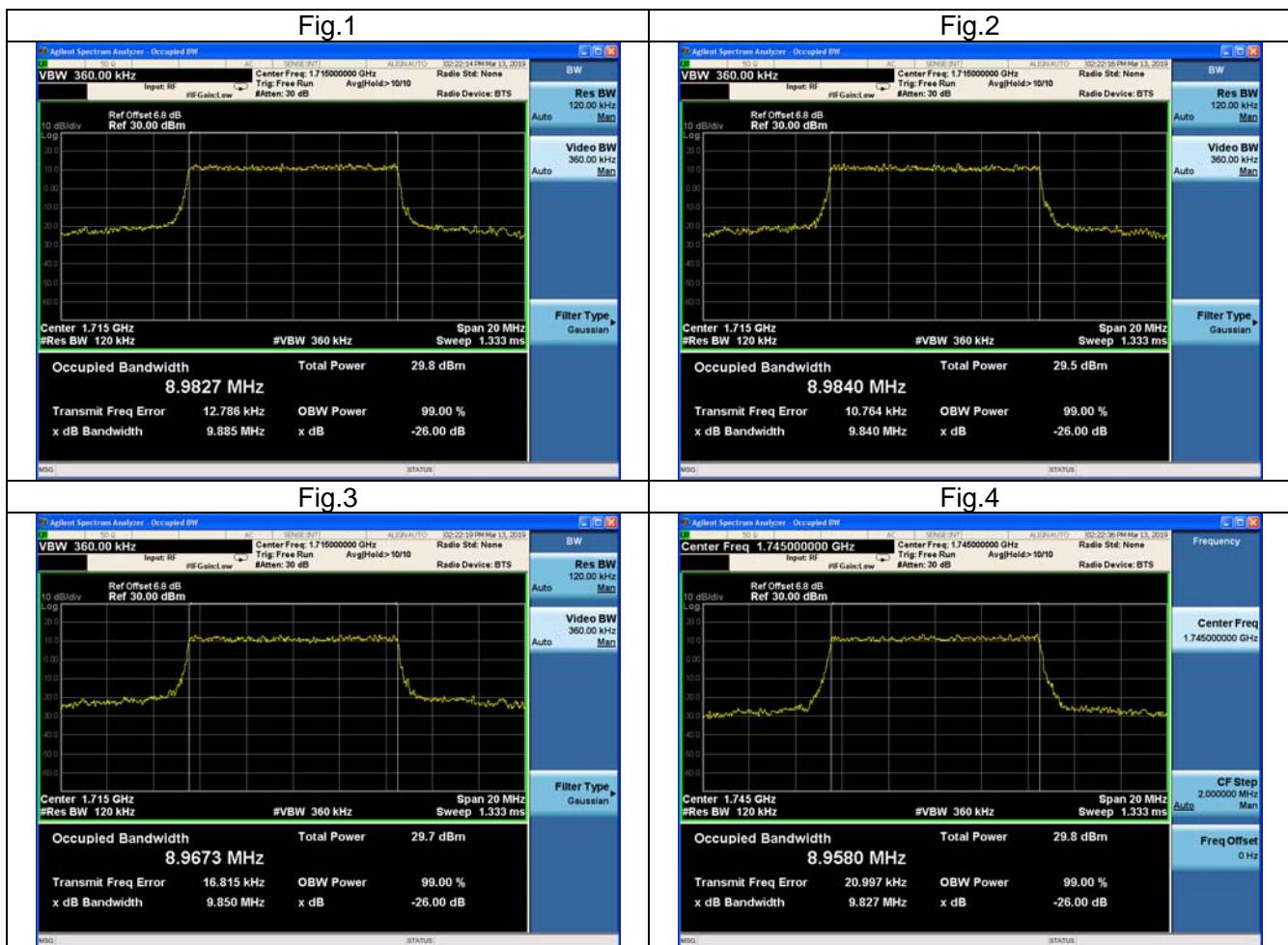


Fig.5

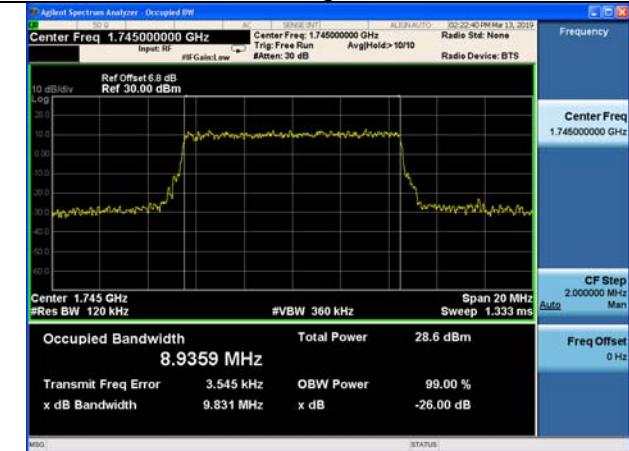


Fig.6

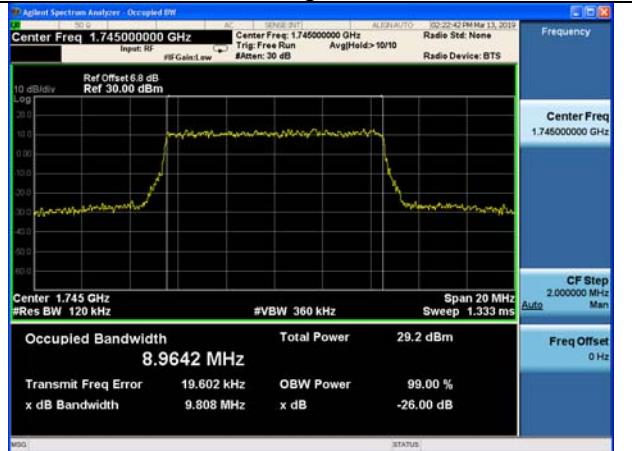


Fig.7

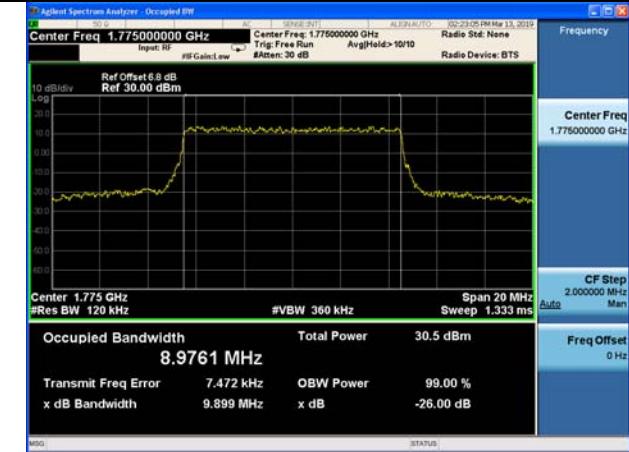


Fig.8

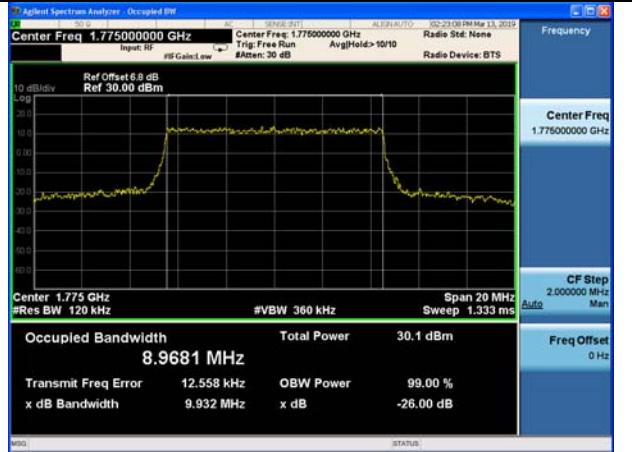
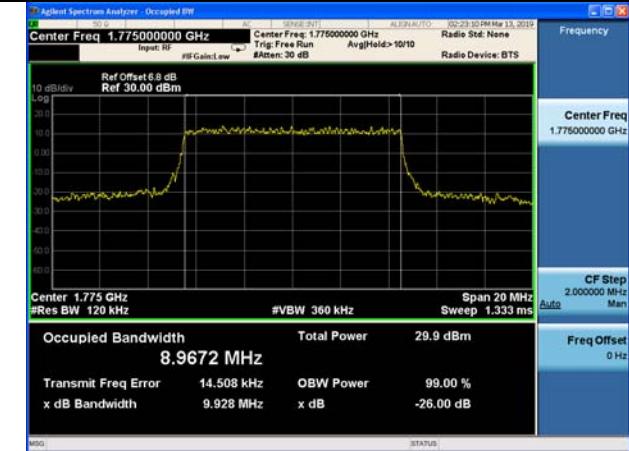


Fig.9



Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Bandwidth of 99% Power (MHz)					
						QPSK		16-QAM		64-QAM	
66	1717.5	132047	15	75	0	13.457	Fig.1	13.482	Fig.2	13.424	Fig.3
66	1745	132322	15	75	0	13.440	Fig.4	13.411	Fig.5	13.426	Fig.6
66	1772.5	132597	15	75	0	13.480	Fig.7	13.492	Fig.8	13.407	Fig.9

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
66	1717.5	132047	15	75	0	14.65	Fig.1	14.83	Fig.2	14.55	Fig.3
66	1745	132322	15	75	0	14.54	Fig.4	14.52	Fig.5	14.74	Fig.6
66	1772.5	132597	15	75	0	14.86	Fig.7	14.45	Fig.8	14.64	Fig.9

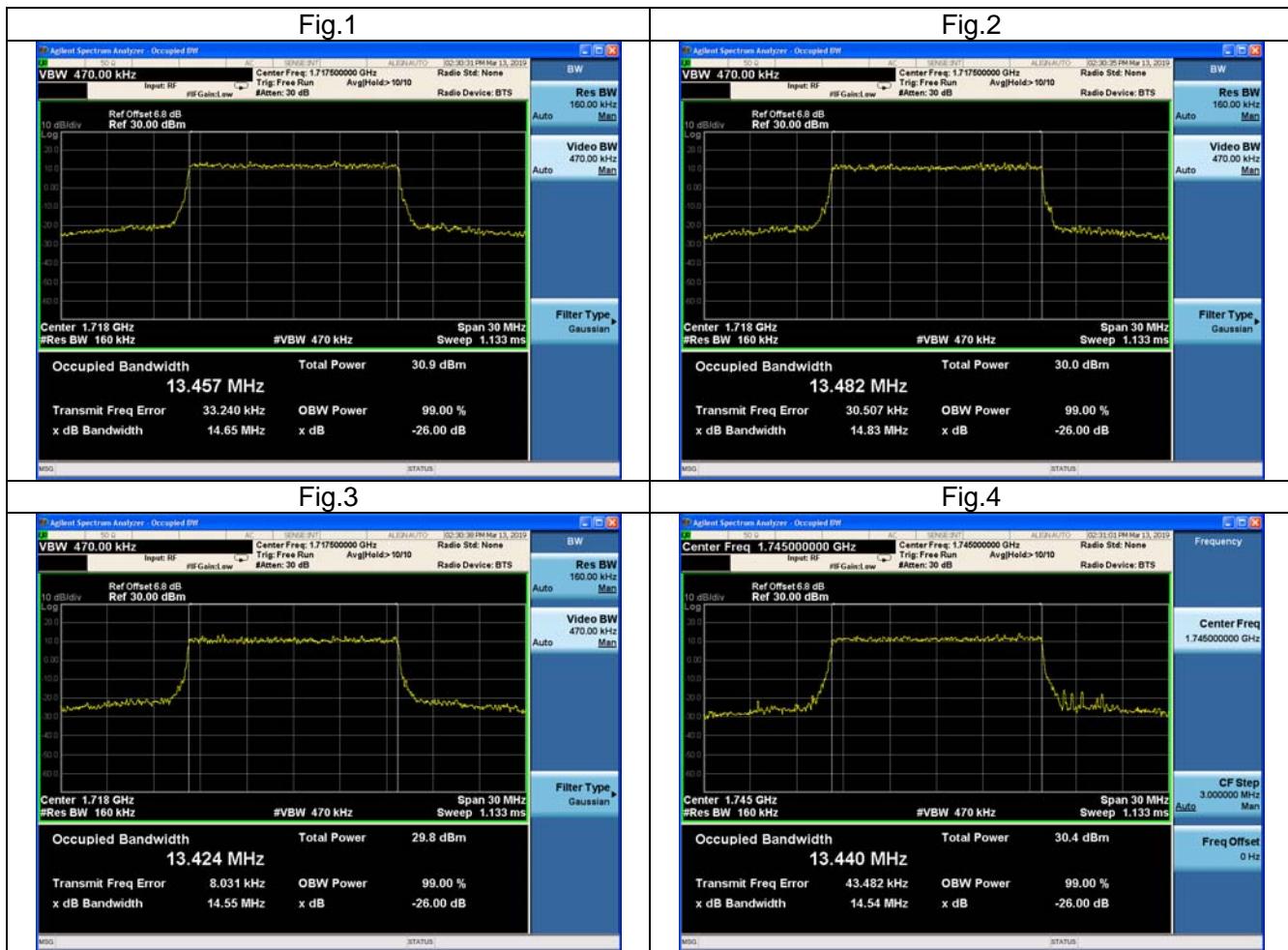


Fig.5

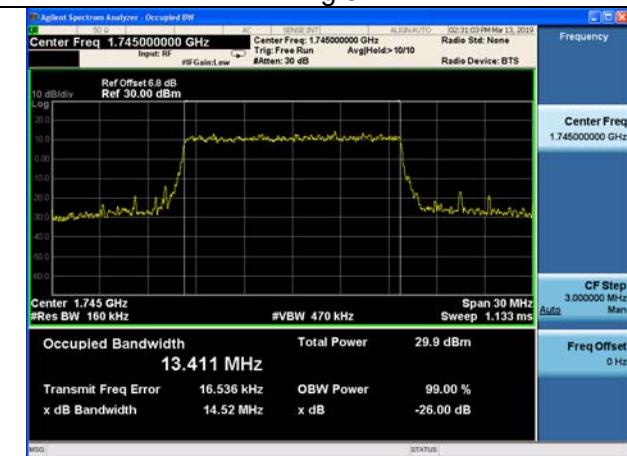


Fig.6

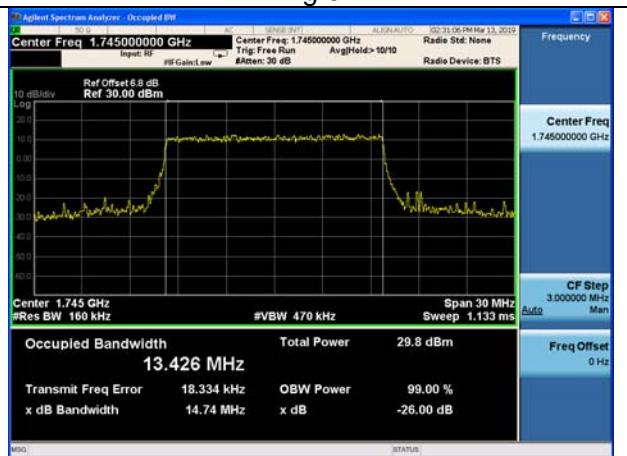


Fig.7

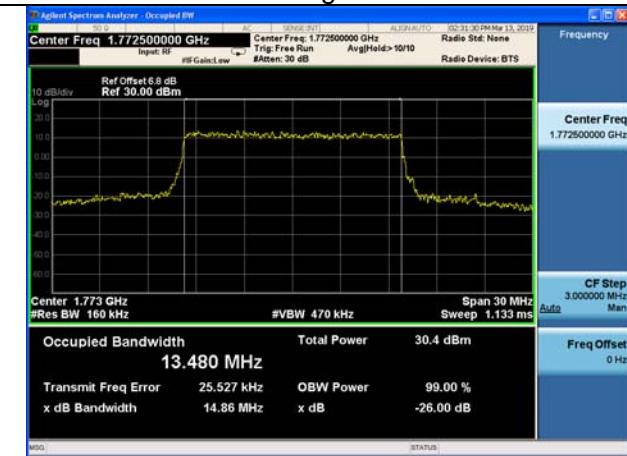
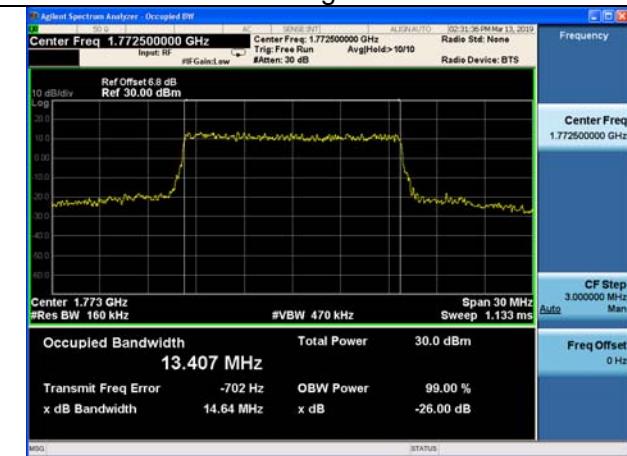


Fig.8



Fig.9



Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Bandwidth of 99% Power (MHz)					
						QPSK		16-QAM		64-QAM	
66	1720	132072	20	100	0	17.856	Fig.1	17.875	Fig.2	17.886	Fig.3
66	1745	132322	20	100	0	17.857	Fig.4	17.887	Fig.5	17.916	Fig.6
66	1770	132572	20	100	0	17.900	Fig.7	17.902	Fig.8	17.896	Fig.9

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
66	1720	132072	20	100	0	19.35	Fig.1	19.04	Fig.2	19.18	Fig.3
66	1745	132322	20	100	0	19.34	Fig.4	19.11	Fig.5	19.05	Fig.6
66	1770	132572	20	100	0	19.16	Fig.7	19.26	Fig.8	19.28	Fig.9

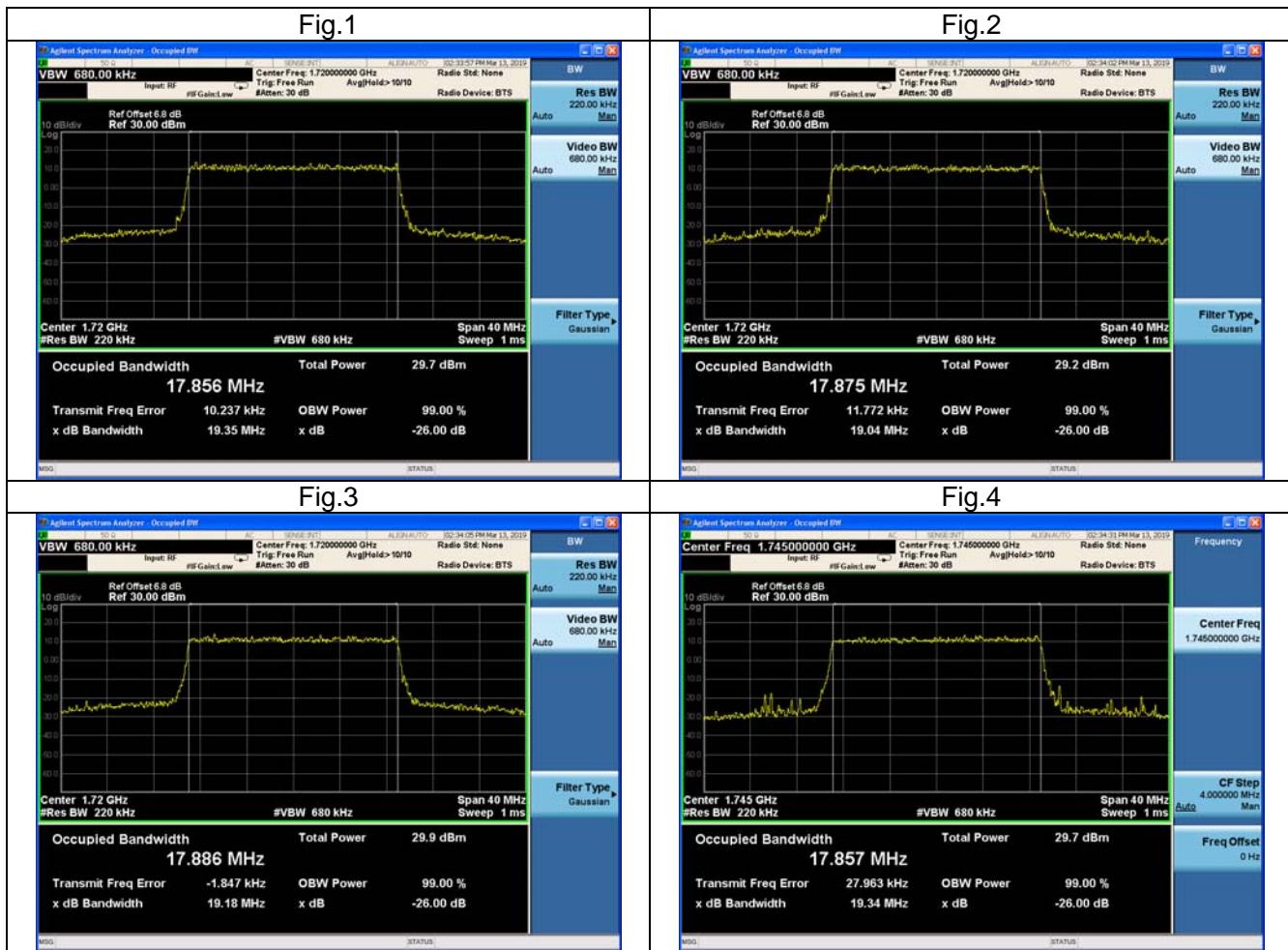


Fig.5

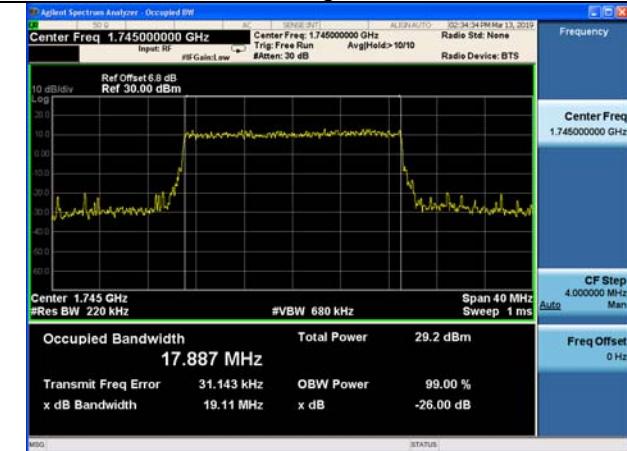


Fig.6

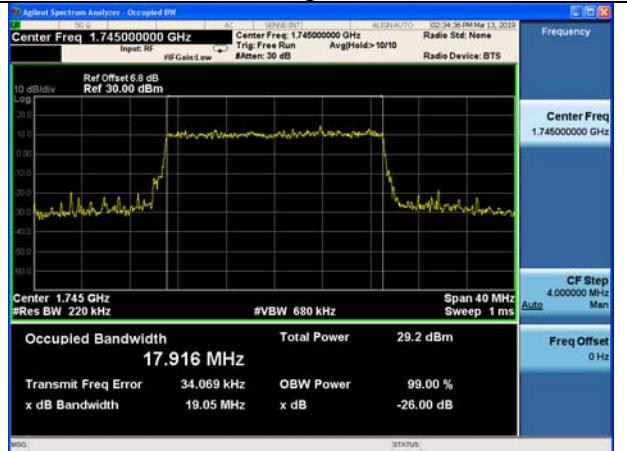


Fig.7

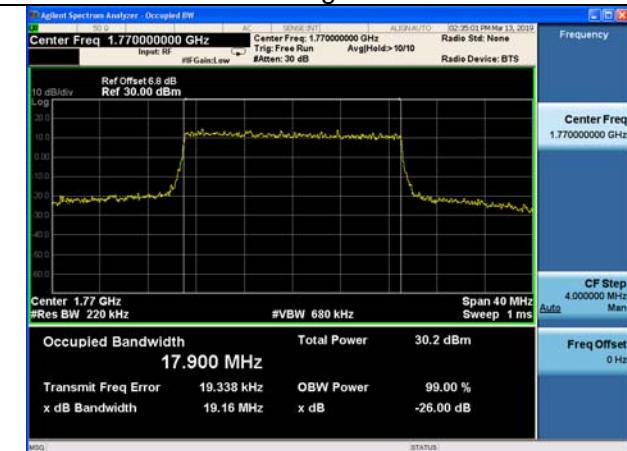


Fig.8

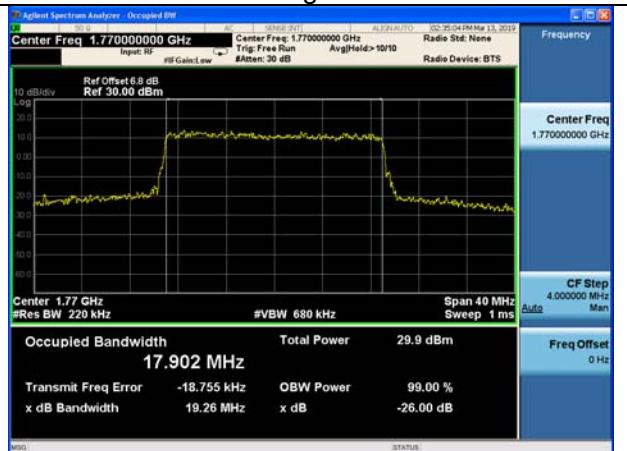
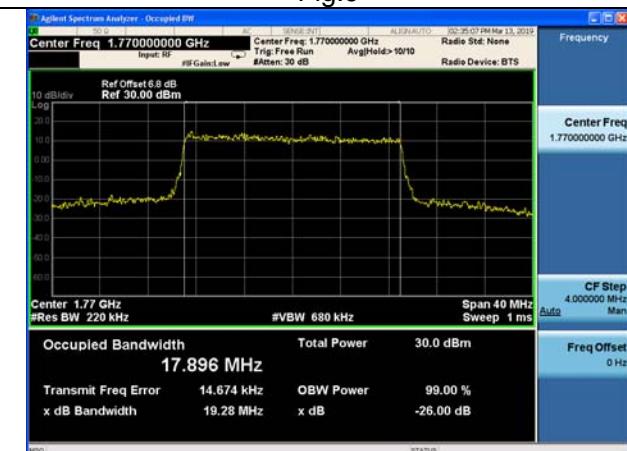


Fig.9

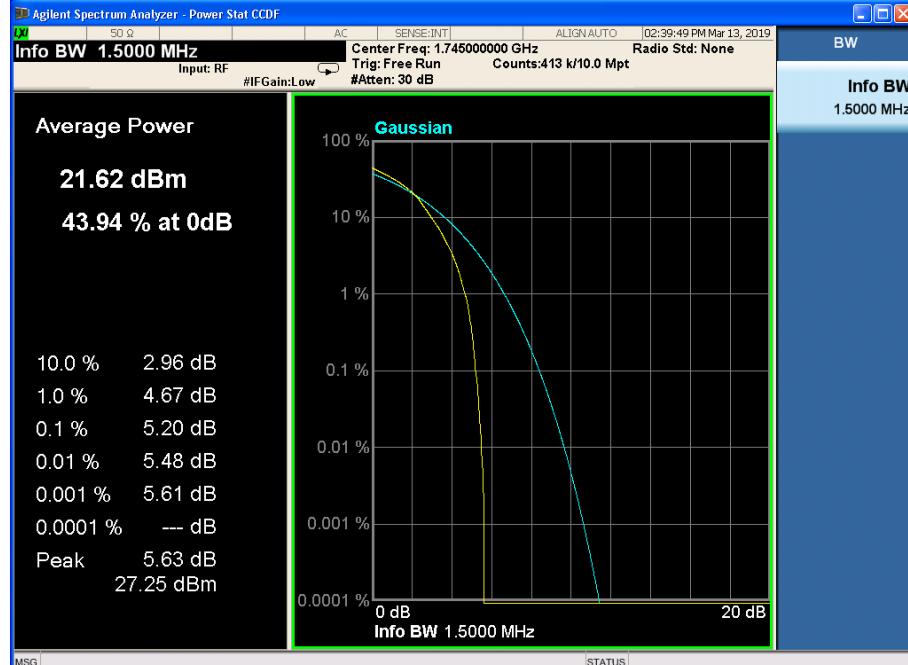


3 Peak-Average Ratio

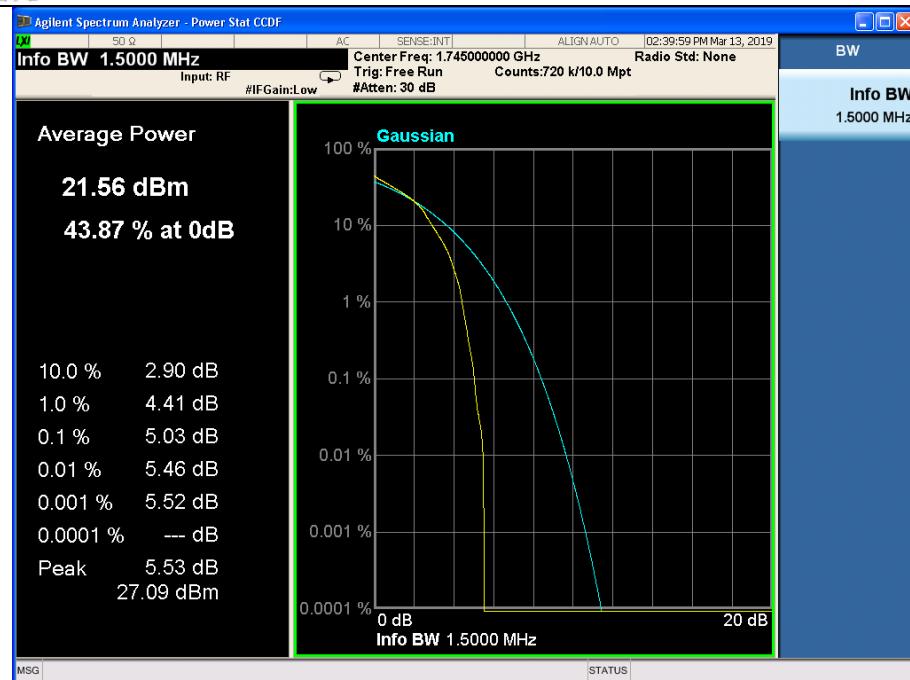
Test result:



Peak-Average Ratio Plot(1.4MHz BW,QPSK,Band 66-mid Channel)



Peak-Average Ratio Plot(1.4MHz BW,16QAM,Band 66-mid Channel)



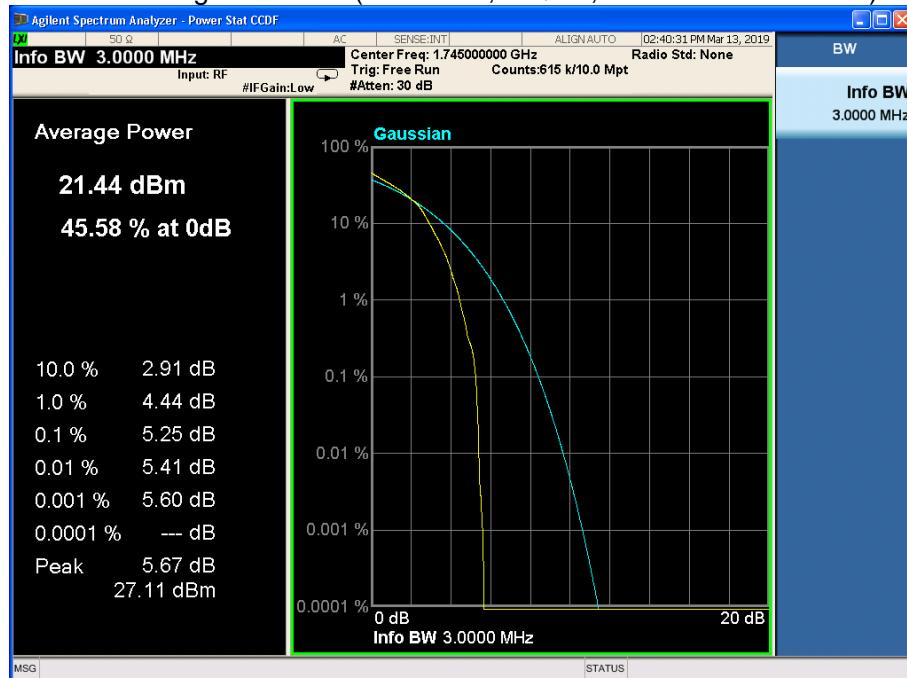
Peak-Average Ratio Plot(1.4MHz BW,64QAM,Band 66-mid Channel)



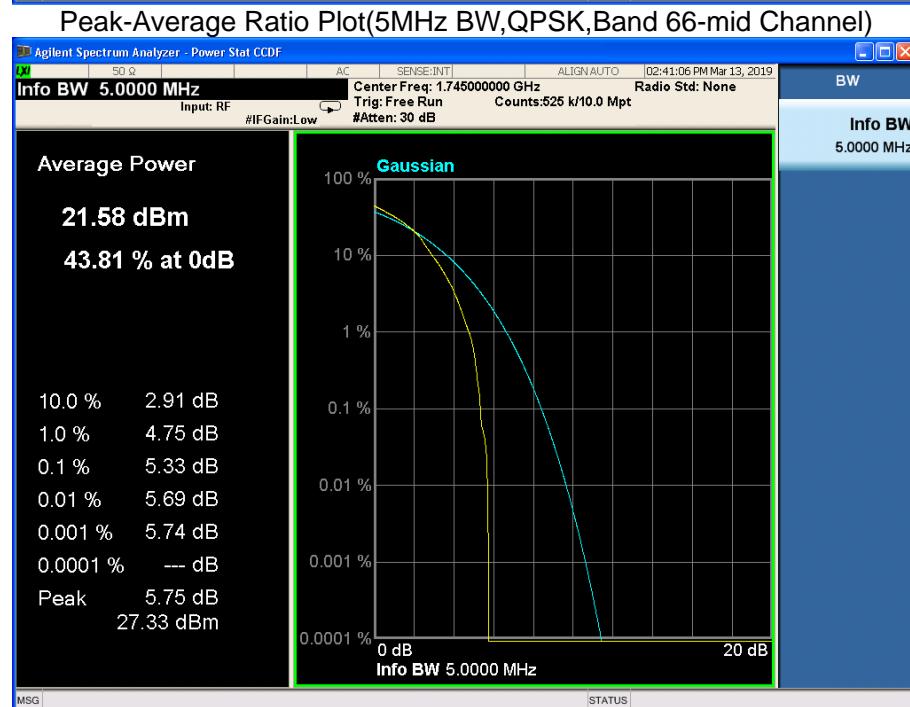
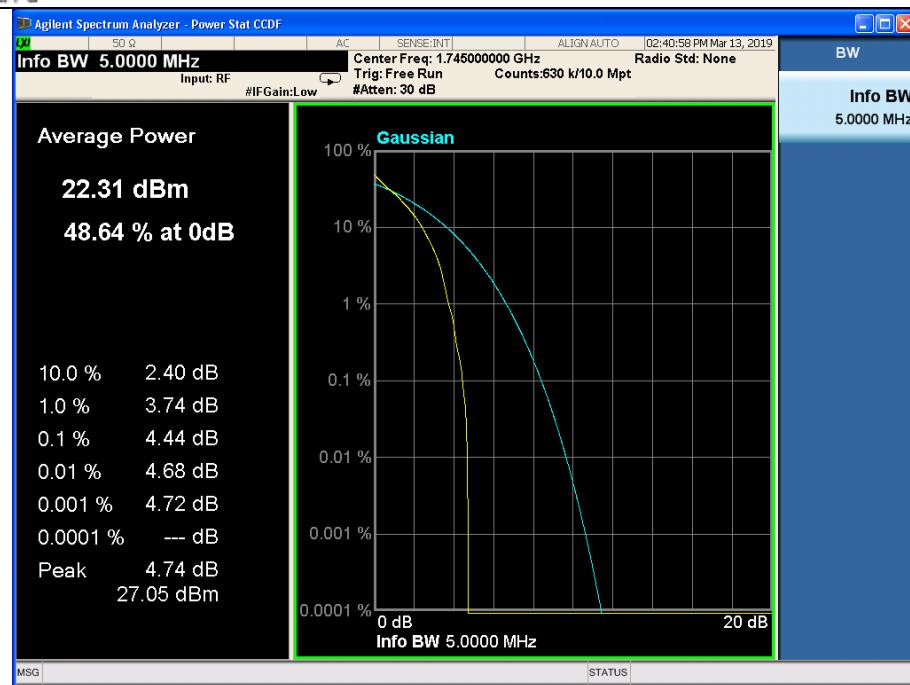
Peak-Average Ratio Plot(3MHz BW,QPSK,Band 66-mid Channel)



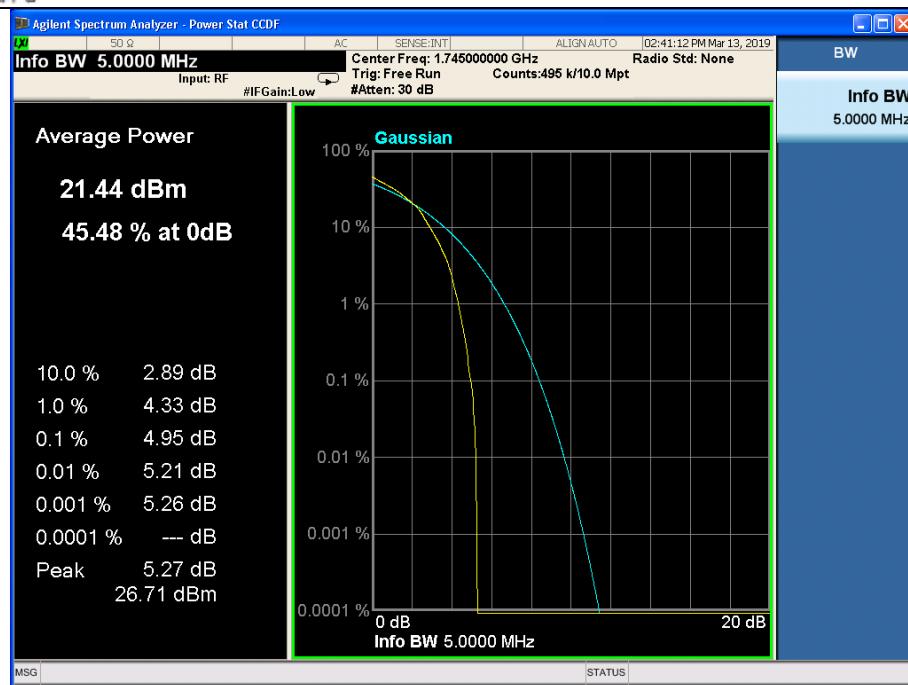
Peak-Average Ratio Plot(3MHz BW,16QAM,Band 66-mid Channel)



Peak-Average Ratio Plot(3MHz BW,64QAM,Band 66-mid Channel)



Peak-Average Ratio Plot(5MHz BW,QPSK,Band 66-mid Channel)



Peak-Average Ratio Plot(5MHz BW,64QAM,Band 66-mid Channel)



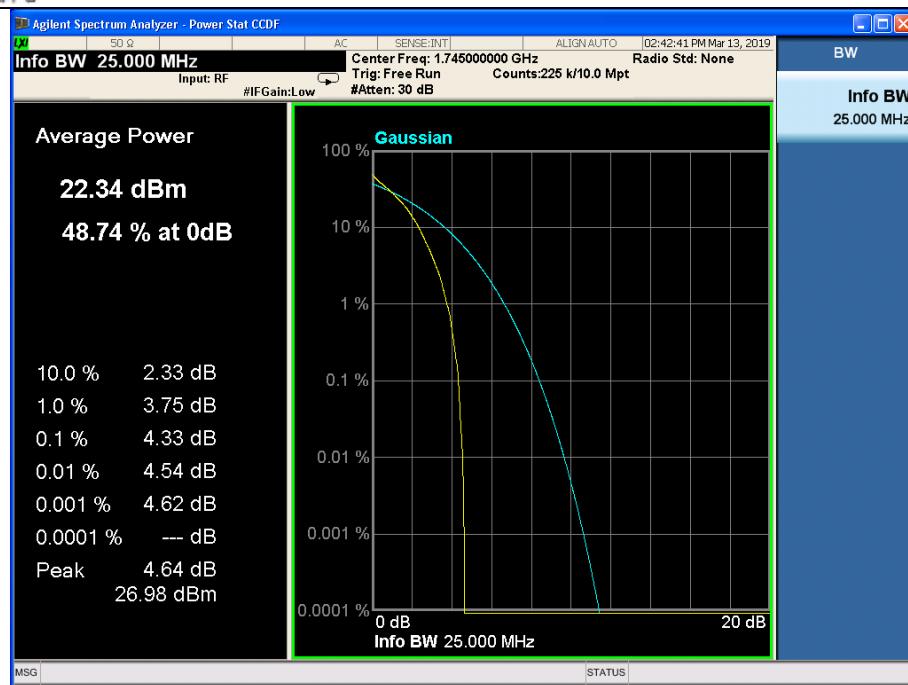
Peak-Average Ratio Plot(10MHz BW,QPSK,Band 66-mid Channel)



Peak-Average Ratio Plot(10MHz BW,16QAM,Band 66-mid Channel)



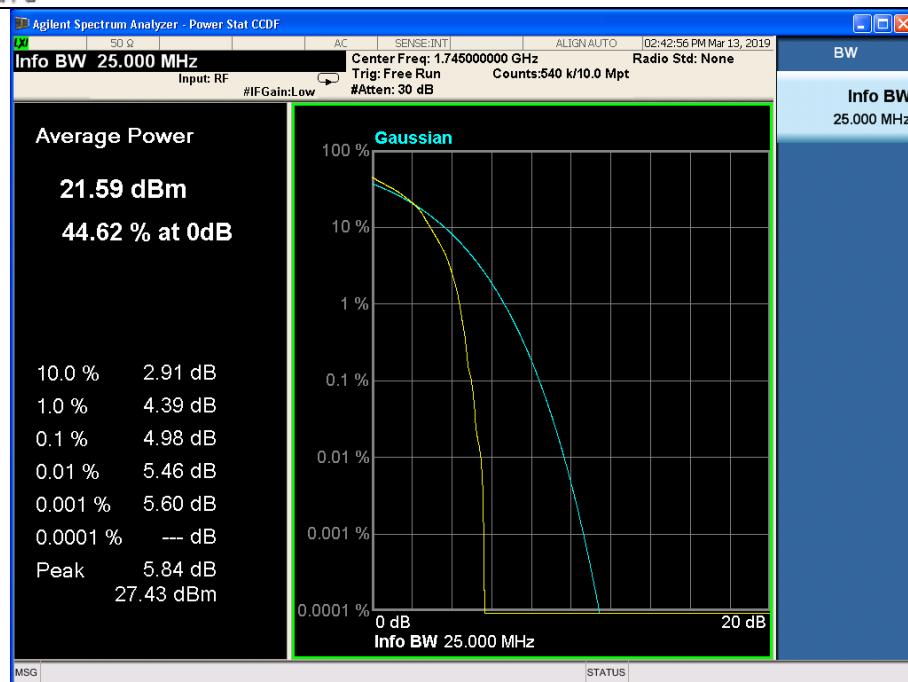
Peak-Average Ratio Plot(10MHz BW,64QAM,Band 66-mid Channel)



Peak-Average Ratio Plot(15MHz BW,QPSK,Band 66-mid Channel)



Peak-Average Ratio Plot(15MHz BW,16QAM,Band 66-mid Channel)



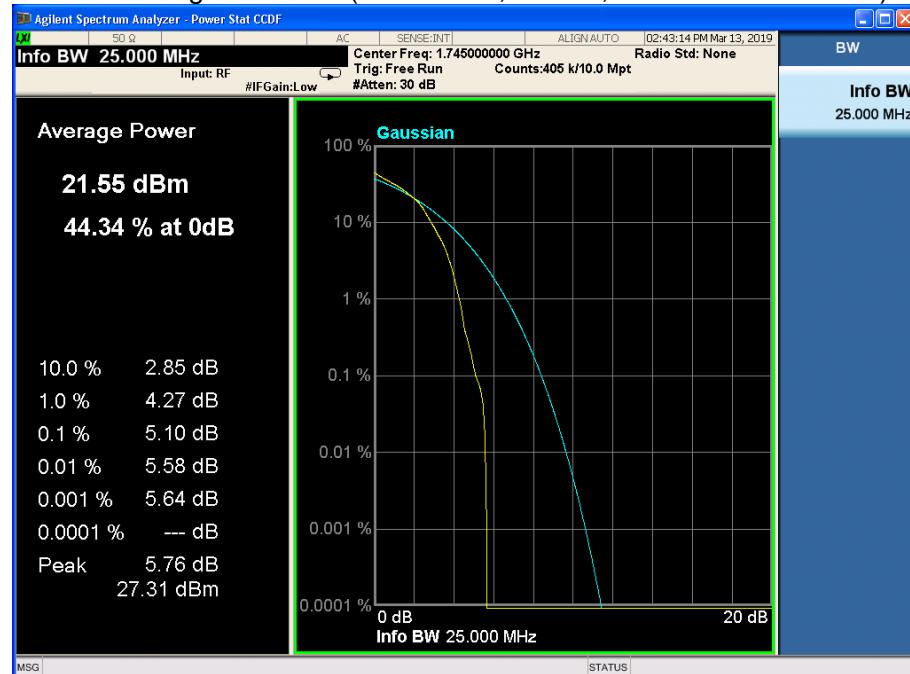
Peak-Average Ratio Plot(15MHz BW,64QAM,Band 66-mid Channel)



Peak-Average Ratio Plot(20MHz BW,QPSK,Band 66-mid Channel)



Peak-Average Ratio Plot(20MHz BW,16QAM,Band 66-mid Channel)



Peak-Average Ratio Plot(20MHz BW,64QAM,Band 66-mid Channel)

4 Spurious Emissions at antenna terminal

Test result

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
66	1720	132072	20	1	0	Fig.1

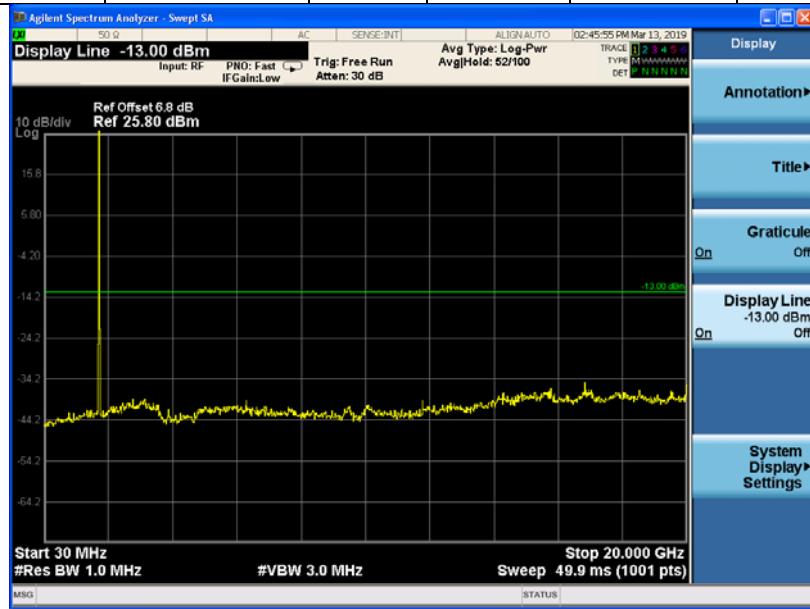


Fig.1

Band	Carrier frequency (MHz)	Channel(Mid)	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
66	1745	132322	20	1	0	Fig.1



Fig.1

Band	Carrier frequency (MHz)	Channel(High)	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
66	1770	132572	20	1	0	Fig.1

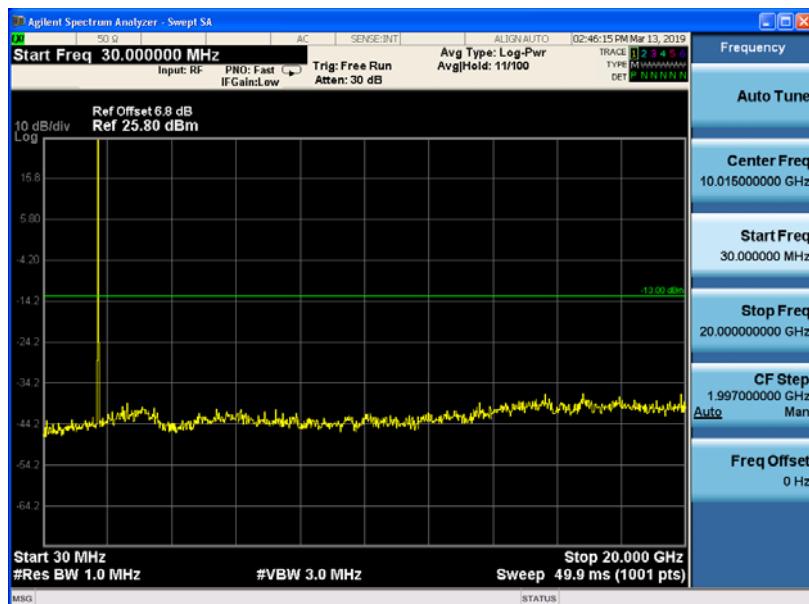


Fig.1

5 Band Edges Compliance

Test result

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Band Edges Plot	
						QPSK	
66	1710.7	131979	1.4	1	0	Fig.1	
				6	0	Fig.4	

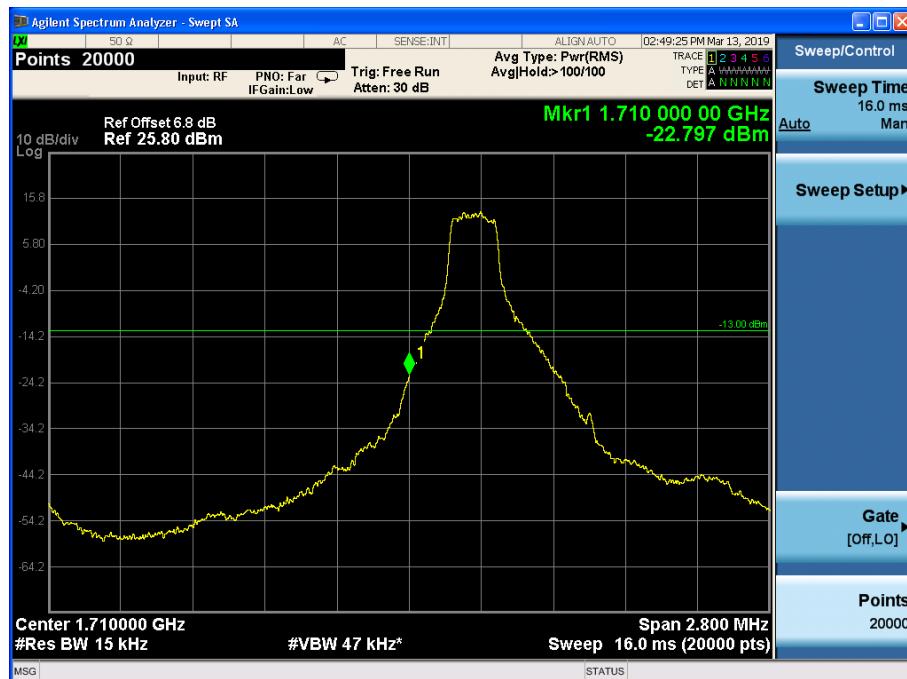


Fig.1



Fig.4

Band	Carrier frequency (MHz)	Channel(High)	BW	RB Size	RB Offset	Band EdgesPlot
						QPSK
66	1779.3	132665	1.4	1	5	Fig.1
				6	0	Fig.4

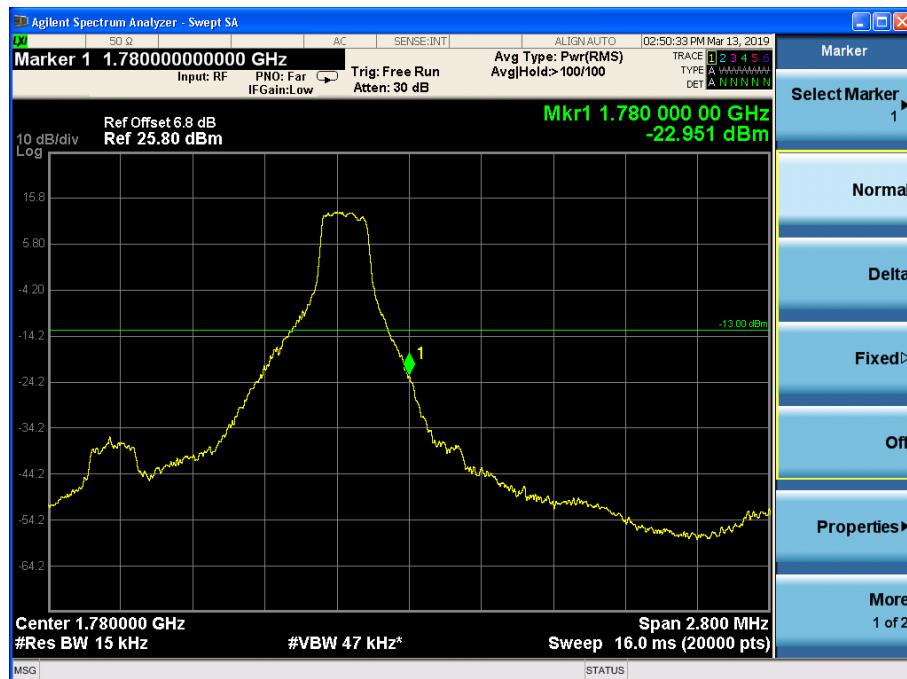


Fig.1



Fig.4

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Band EdgesPlot
						QPSK
66	1711.5	131987	3	1	0	Fig.1
				15	0	Fig.4



Fig.1



Fig.4

Band	Carrier frequency (MHz)	Channel(High)	BW	RB Size	RB Offset	Band EdgesPlot
						QPSK
66	1778.5	132657	3	1	14	Fig.1
				15	0	Fig.4

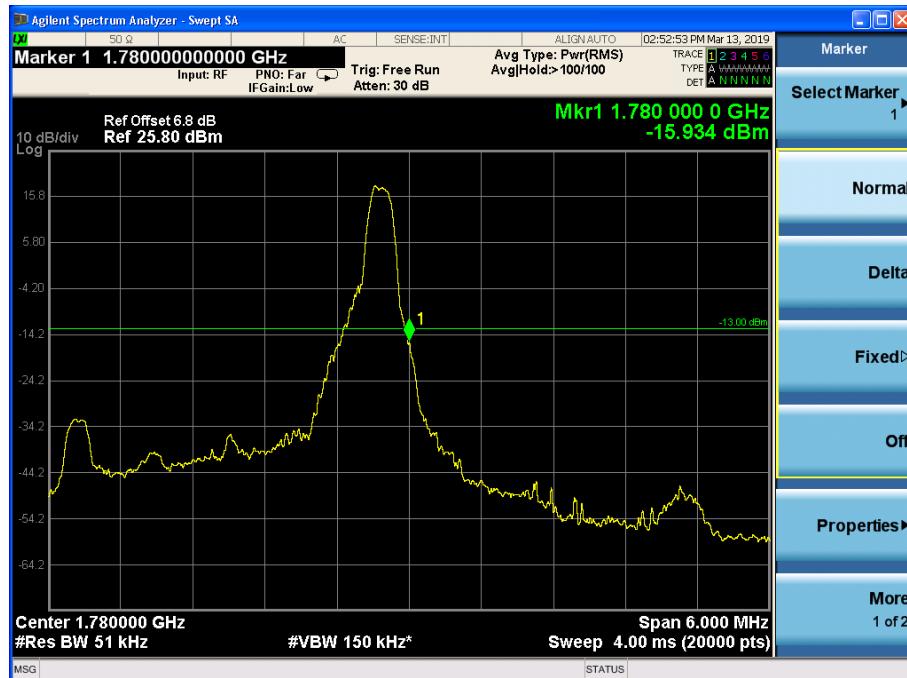


Fig.4



Fig.8

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Band EdgesPlot
						QPSK
66	1712.5	131997	5	1	0	Fig.1
				25	0	Fig.4



Fig.1



Fig.4

Band	Carrier frequency (MHz)	Channel(High)	BW	RB Size	RB Offset	Band EdgesPlot
						QPSK
66	1777.5	132647	5	1	24	Fig.1
				25	0	Fig.4



Fig.1



Fig.4

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Band EdgesPlot
						QPSK
66	1715	132022	10	1	0	Fig.1
				50	0	Fig.4

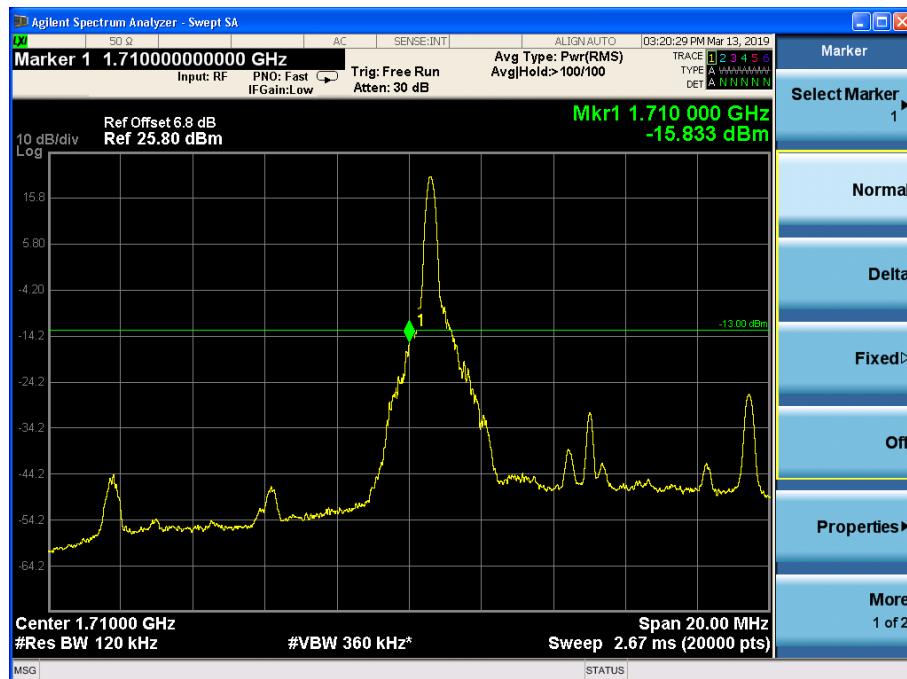


Fig.1



Fig.4

Band	Carrier frequency (MHz)	Channel(High)	BW	RB Size	RB Offset	Band EdgesPlot
						QPSK
66	1775	132622	10	1	49	Fig.1
				50	0	Fig.4

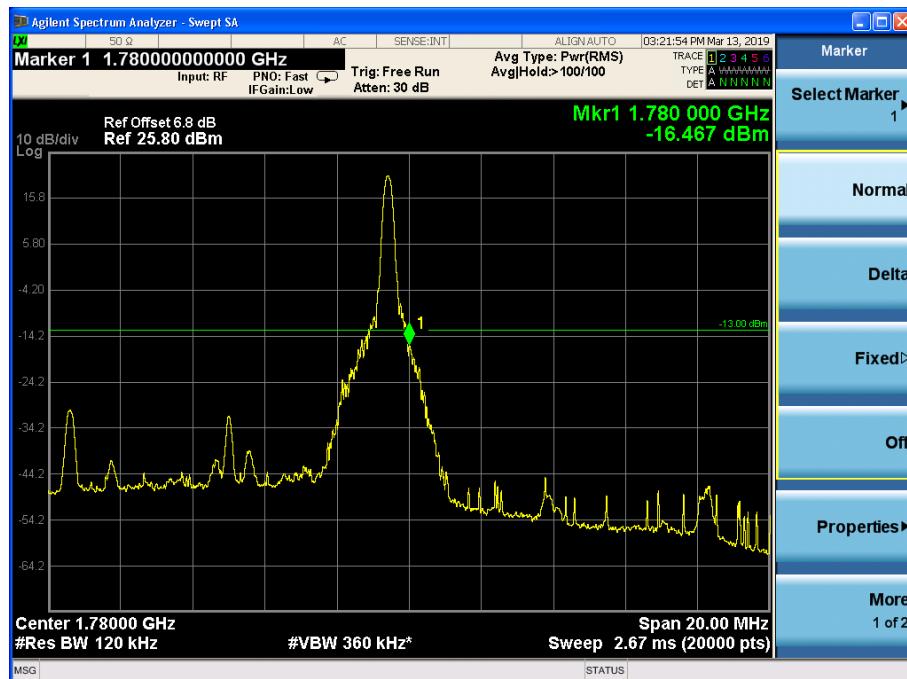


Fig.1



Fig.4

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Band EdgesPlot
						QPSK
66	1717.5	132047	15	1	0	Fig.1
				75	0	Fig.4

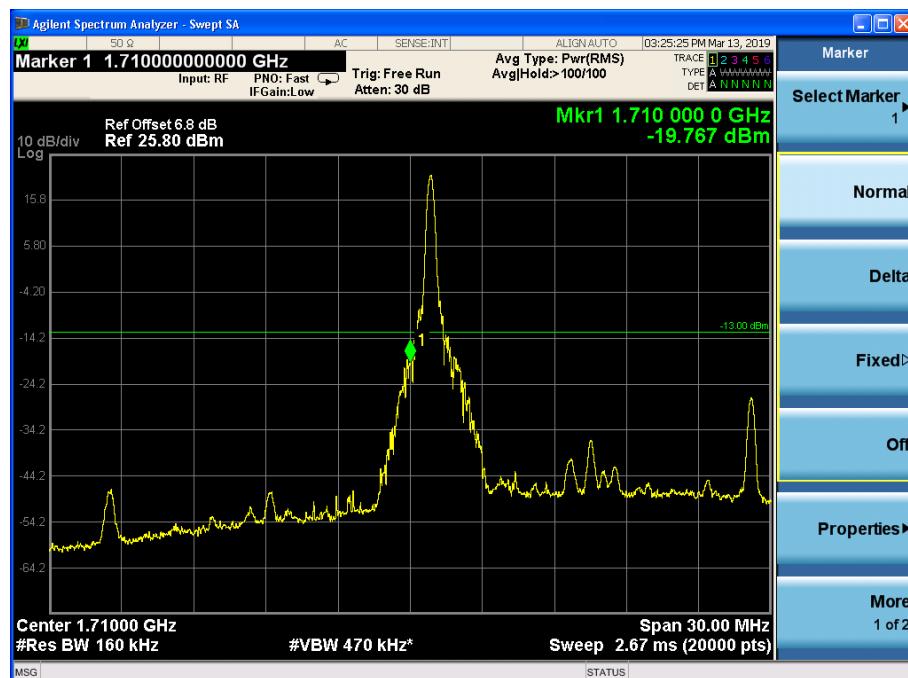


Fig.1



Fig.4

Band	Carrier frequency (MHz)	Channel(High)	BW	RB Size	RB Offset	Band EdgesPlot
						QPSK
66	1772.5	132597	15	1	74	Fig.1
				75	0	Fig.4

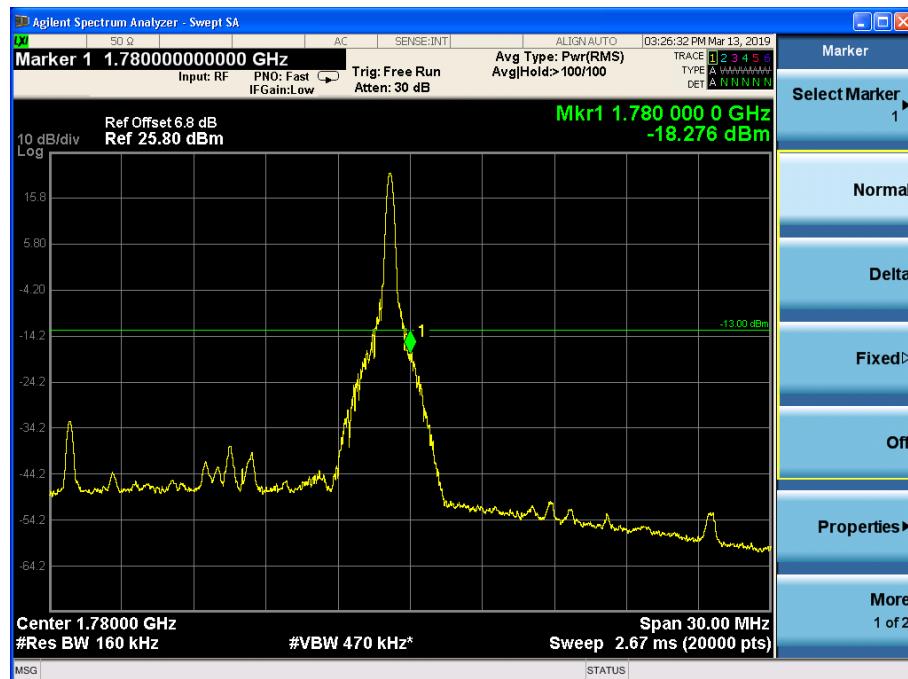


Fig.1



Fig.4

Band	Carrier frequency (MHz)	Channel(Low)	BW	RB Size	RB Offset	Band EdgesPlot
						QPSK
66	1720	132072	20	1	0	Fig.1
				100	0	Fig.4

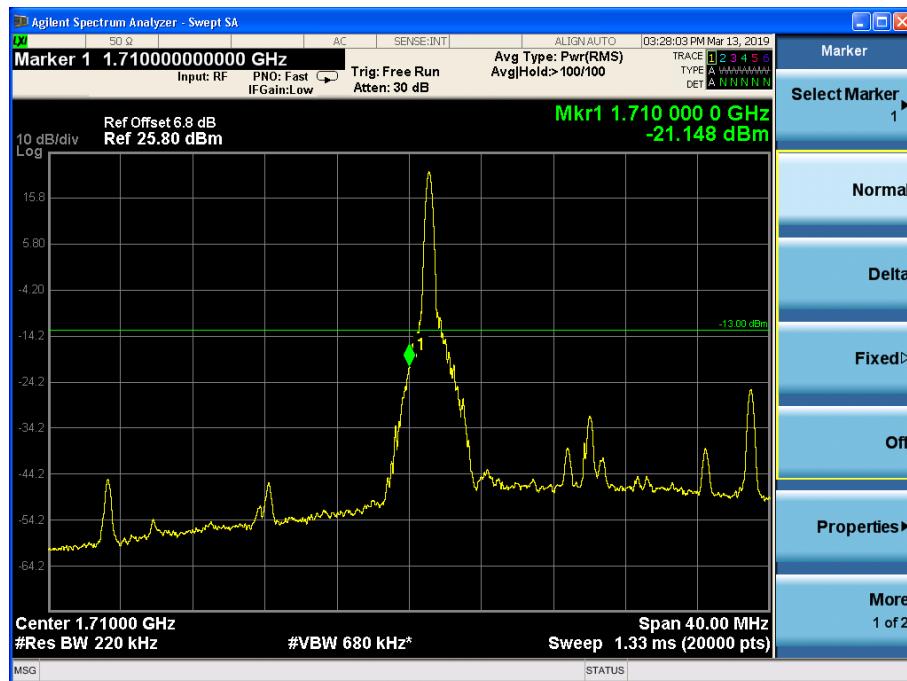


Fig.1

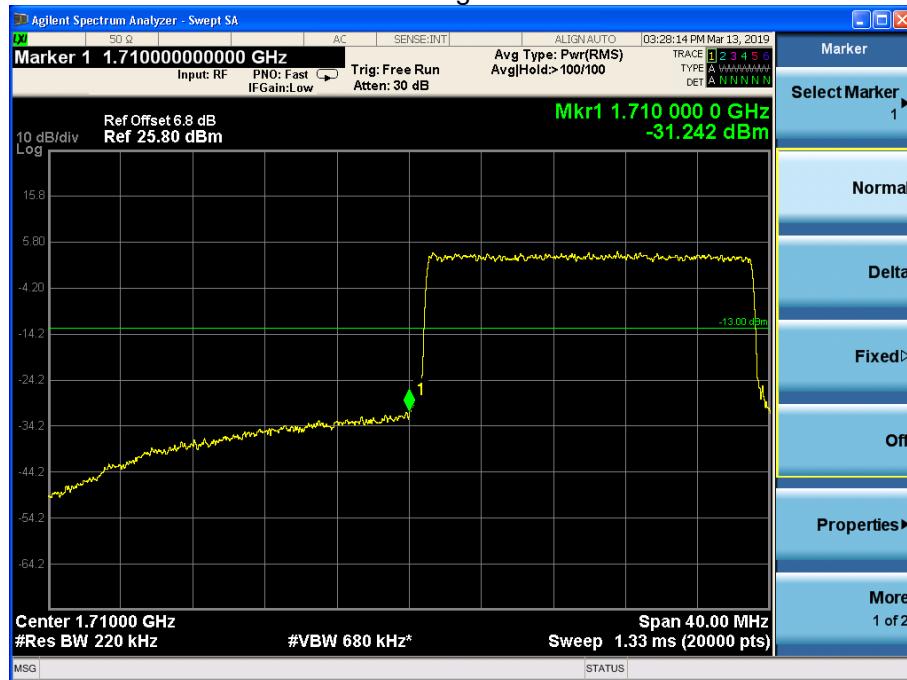


Fig.4

Band	Carrier frequency (MHz)	Channel(High)	BW	RB Size	RB Offset	Band EdgesPlot
						QPSK
66	1770	132572	20	1	99	Fig.1
				100	0	Fig.4



Fig.1



Fig.4

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band66 Low Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	0.050	0.048	0.032	0.007	0.013	0.124
0	NV	0.036	0.034	0.144	0.088	0.005	0.055
+10	NV	0.049	0.051	0.113	0.051	0.131	0.062
+20	NV	0.112	0.020	0.130	0.040	0.048	0.090
+30	NV	0.141	0.050	0.003	0.021	0.083	0.136
+40	NV	0.064	0.105	0.097	0.097	0.012	0.009
+50	NV	0.025	0.077	0.132	0.050	0.146	0.112
+55	NV	0.063	0.019	0.034	0.041	0.012	0.057
+20	LV	0.047	0.101	0.127	0.023	0.065	0.066
+20	HV	0.005	0.062	0.134	0.076	0.135	0.012

Temperature(°C)	Voltage	Test Result (ppm) Band66 High Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	0.017	0.015	0.006	0.095	0.060	0.131
0	NV	0.013	0.090	0.128	0.041	0.064	0.112
+10	NV	0.033	0.072	0.140	0.065	0.130	0.040
+20	NV	0.149	0.101	0.076	0.114	0.120	0.110
+30	NV	0.062	0.002	0.050	0.107	0.073	0.124
+40	NV	0.055	0.020	0.014	0.085	0.034	0.076
+50	NV	0.107	0.096	0.135	0.082	0.023	0.160
+55	NV	0.075	0.086	0.116	0.009	0.034	0.125
+20	LV	0.025	0.001	0.061	0.080	0.038	0.047
+20	HV	0.051	0.031	0.110	0.018	0.040	0.139