

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 4

1 RF Power Output

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
1.4	1	5	1754.3	20393	23.62	22.77	22.49
			1732.5	20175	23.28	22.58	22.40
			1710.7	19957	23.29	22.43	22.21
	1	3	1754.3	20393	23.56	22.47	22.68
			1732.5	20175	23.39	22.69	22.54
			1710.7	19957	23.55	22.31	22.39
	1	0	1754.3	20393	23.51	22.31	22.33
			1732.5	20175	23.38	22.28	22.48
			1710.7	19957	23.40	22.22	22.16
	3	3	1754.3	20393	23.57	22.68	22.79
			1732.5	20175	23.63	22.83	22.56
			1710.7	19957	23.59	22.20	22.39
	3	1	1754.3	20393	23.61	22.71	22.77
			1732.5	20175	23.64	22.85	22.71
			1710.7	19957	23.53	22.46	22.54
	3	0	1754.3	20393	23.57	22.70	22.65
			1732.5	20175	23.57	22.80	22.62
			1710.7	19957	23.60	22.52	22.45
	6	0	1754.3	20393	22.70	21.70	21.83
			1732.5	20175	22.60	21.66	21.61
			1710.7	19957	22.56	21.44	21.48

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
3	1	14	1753.5	20385	23.60	22.16	22.44
			1732.5	20175	23.56	22.19	22.32
			1711.5	19965	23.44	21.97	22.35
	1	7	1753.5	20385	23.68	22.35	22.46
			1732.5	20175	23.52	22.44	22.52
			1711.5	19965	23.49	22.38	22.57
	1	0	1753.5	20385	23.52	22.80	22.37
			1732.5	20175	23.45	22.26	22.35
			1711.5	19965	23.47	22.67	22.43
	8	7	1753.5	20385	22.68	21.64	21.66
			1732.5	20175	22.53	21.65	21.47
			1711.5	19965	22.71	21.64	21.58
	8	4	1753.5	20385	22.47	21.59	21.56
			1732.5	20175	22.61	21.72	21.62
			1711.5	19965	22.60	21.68	21.51
	8	0	1753.5	20385	22.44	21.75	21.55
			1732.5	20175	22.64	21.65	21.63
			1711.5	19965	22.55	21.39	21.56
	15	0	1753.5	20385	22.58	21.68	21.58
			1732.5	20175	22.55	21.40	21.52
			1711.5	19965	22.62	21.61	21.61

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
5	1	24	1752.5	20375	23.71	22.81	22.53
			1732.5	20175	23.41	22.56	22.37
			1712.5	19975	23.53	22.21	22.18
	1	12	1752.5	20375	23.54	22.41	22.50
			1732.5	20175	23.49	22.61	22.46
			1712.5	19975	23.73	22.43	22.47
	1	0	1752.5	20375	23.47	22.48	22.44
			1732.5	20175	23.48	22.50	22.38
			1712.5	19975	23.53	22.67	22.45
	12	13	1752.5	20375	22.77	21.63	21.86
			1732.5	20175	22.67	21.51	21.66
			1712.5	19975	22.69	21.48	21.53
	12	6	1752.5	20375	22.72	21.84	21.75
			1732.5	20175	22.72	21.61	21.51
			1712.5	19975	22.76	21.75	21.61
	12	0	1752.5	20375	22.68	21.79	21.71
			1732.5	20175	22.61	21.65	21.59
			1712.5	19975	22.65	21.45	21.38
	25	0	1752.5	20375	22.66	21.77	21.77
			1732.5	20175	22.69	21.68	21.67
			1712.5	19975	22.61	21.70	21.69

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
10	1	49	1750	20350	23.65	22.31	22.28
			1732.5	20175	23.54	22.74	22.73
			1715	20000	23.63	22.22	22.21
	1	24	1750	20350	23.60	22.32	22.58
			1732.5	20175	23.76	22.77	22.41
			1715	20000	23.68	22.29	22.49
	1	0	1750	20350	23.51	22.02	22.01
			1732.5	20175	23.55	22.45	22.43
			1715	20000	23.36	21.99	21.92
	25	25	1750	20350	22.65	21.74	21.67
			1732.5	20175	22.70	21.50	21.56
			1715	20000	22.64	21.73	21.42
	25	12	1750	20350	22.69	21.78	21.77
			1732.5	20175	22.69	21.57	21.54
			1715	20000	22.77	21.54	21.52
	25	0	1750	20350	22.47	21.65	21.64
			1732.5	20175	22.62	21.39	21.36
			1715	20000	22.68	21.60	21.62
	50	0	1750	20350	22.62	21.57	21.79
			1732.5	20175	22.65	21.64	21.57
			1715	20000	22.70	21.69	21.77

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
15	1	74	1747.5	20325	23.76	22.54	22.64
			1732.5	20175	23.49	22.34	22.31
			1717.5	20025	23.62	22.25	22.08
	1	37	1747.5	20325	23.62	22.87	22.65
			1732.5	20175	23.47	22.29	22.28
			1717.5	20025	23.78	22.39	22.45
	1	0	1747.5	20325	23.68	22.37	22.16
			1732.5	20175	23.41	21.85	21.82
			1717.5	20025	23.63	22.37	22.13
	36	38	1747.5	20325	22.70	21.60	21.76
			1732.5	20175	22.74	21.61	21.63
			1717.5	20025	22.76	21.76	21.78
	36	19	1747.5	20325	22.71	21.77	21.75
			1732.5	20175	22.65	21.61	21.60
			1717.5	20025	22.81	21.62	21.85
	36	0	1747.5	20325	22.59	21.66	21.73
			1732.5	20175	22.56	21.52	21.66
			1717.5	20025	22.66	21.75	21.67
	75	0	1747.5	20325	22.68	21.66	21.73
			1732.5	20175	22.70	21.66	21.65
			1717.5	20025	22.77	21.63	21.87

BW	RB Size	RB Offset	Carrier frequency (MHz)	UL Channel	Conducted power (dBm)		
					QPSK	16QAM	64QAM
20	1	99	1745	20300	23.97	22.51	22.68
			1732.5	20175	23.61	22.28	22.27
			1720	20050	23.66	22.96	22.10
	1	50	1745	20300	23.71	22.82	22.84
			1732.5	20175	23.64	22.73	22.74
			1720	20050	23.73	22.60	22.55
	1	0	1745	20300	24.00	22.54	22.30
			1732.5	20175	23.60	22.55	22.56
			1720	20050	23.71	22.40	22.41
	50	50	1745	20300	22.76	21.79	21.77
			1732.5	20175	22.75	21.74	21.75
			1720	20050	22.86	21.74	21.76
	50	25	1745	20300	22.74	21.85	21.75
			1732.5	20175	22.75	21.73	21.72
			1720	20050	22.86	21.78	21.27
	50	0	1745	20300	22.76	21.74	21.84
			1732.5	20175	22.81	21.57	21.56
			1720	20050	22.77	21.80	21.81
	100	0	1745	20300	22.90	21.80	21.88
			1732.5	20175	22.78	21.66	21.65
			1720	20050	22.92	21.81	22.63

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	
4	1710.7	19957	1.4	6	0	1.0767	Fig.1	1.0777	Fig.2	1.0765	Fig.3
	1732.5	20175		6	0	1.0778	Fig.4	1.0738	Fig.5	1.0768	Fig.6
	1754.3	20393		6	0	1.0796	Fig.7	1.0838	Fig.8	1.0880	Fig.9
	1711.5	19965	3	15	0	2.6942	Fig.10	2.6938	Fig.11	2.7000	Fig.12
	1732.5	20175		15	0	2.7068	Fig.13	2.6869	Fig.14	2.6940	Fig.15
	1753.5	20385		15	0	2.7147	Fig.16	2.7080	Fig.17	2.7077	Fig.18
	1712.5	19975	5	25	0	4.4833	Fig.19	4.4915	Fig.20	4.4838	Fig.21
	1732.5	20175		25	0	4.4703	Fig.22	4.4840	Fig.23	4.4876	Fig.24
	1752.5	20375		25	0	4.5000	Fig.25	4.4849	Fig.26	4.4979	Fig.27
	1715	20000	10	50	0	8.9354	Fig.28	8.9295	Fig.29	8.9227	Fig.30
	1732.5	20175		50	0	8.9115	Fig.31	8.9123	Fig.32	8.9322	Fig.33
	1750	20350		50	0	8.9855	Fig.34	8.9744	Fig.35	8.9651	Fig.36
	1717.5	20025	15	75	0	13.428	Fig.37	13.375	Fig.38	13.365	Fig.39
	1732.5	20175		75	0	13.401	Fig.40	13.369	Fig.41	13.400	Fig.42
	1747.5	20325		75	0	13.400	Fig.43	13.426	Fig.44	13.460	Fig.45
	1720	20050	20	100	0	17.864	Fig.46	17.861	Fig.47	17.883	Fig.48
	1732.5	20175		100	0	17.814	Fig.49	17.763	Fig.50	17.807	Fig.51
	1745	20300		100	0	17.829	Fig.52	17.836	Fig.53	17.841	Fig.54

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
4	1710.7	19957	1.4	6	0	1.264	Fig.1	1.275	Fig.2	1.251	Fig.3
	1732.5	20175		6	0	1.265	Fig.4	1.241	Fig.5	1.261	Fig.6
	1754.3	20393		6	0	1.412	Fig.7	1.379	Fig.8	1.407	Fig.9
	1711.5	19965	3	15	0	2.950	Fig.10	2.934	Fig.11	2.965	Fig.12
	1732.5	20175		15	0	2.958	Fig.13	2.945	Fig.14	2.957	Fig.15
	1753.5	20385		15	0	3.055	Fig.16	3.012	Fig.17	3.047	Fig.18
	1712.5	19975	5	25	0	4.889	Fig.19	4.923	Fig.20	4.910	Fig.21
	1732.5	20175		25	0	4.967	Fig.22	4.964	Fig.23	4.947	Fig.24
	1752.5	20375		25	0	4.915	Fig.25	5.257	Fig.26	4.967	Fig.27
	1715	20000	10	50	0	9.488	Fig.28	9.700	Fig.29	9.570	Fig.30
	1732.5	20175		50	0	9.722	Fig.31	9.732	Fig.32	9.723	Fig.33
	1750	20350		50	0	10.32	Fig.34	10.16	Fig.35	10.57	Fig.36
	1717.5	20025	15	75	0	14.44	Fig.37	14.31	Fig.38	14.10	Fig.39
	1732.5	20175		75	0	14.27	Fig.40	14.17	Fig.41	14.66	Fig.42
	1747.5	20325		75	0	14.73	Fig.43	14.87	Fig.44	15.45	Fig.45
	1720	20050	20	100	0	18.94	Fig.46	19.01	Fig.47	18.97	Fig.48
	1732.5	20175		100	0	19.10	Fig.49	19.15	Fig.50	18.95	Fig.51
	1745	20300		100	0	19.69	Fig.52	19.51	Fig.53	19.23	Fig.54

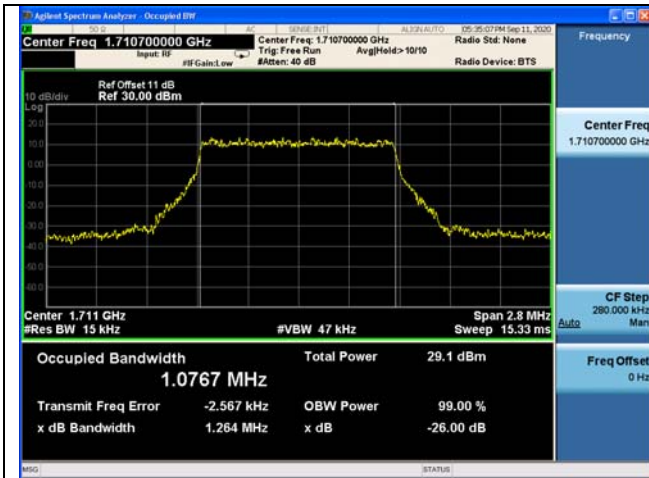


Fig.1



Fig.2

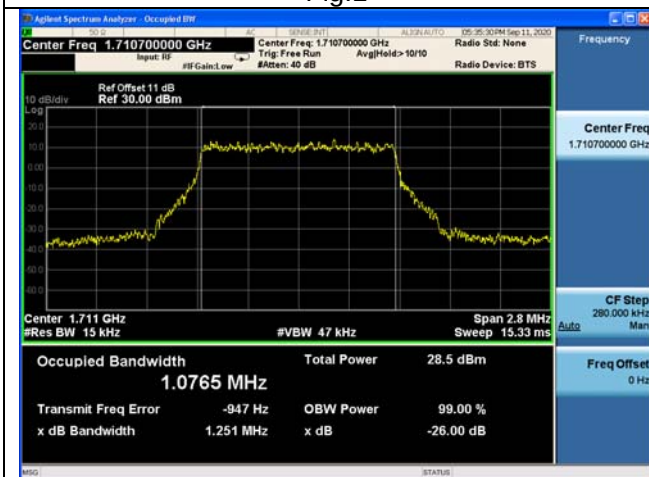


Fig.3

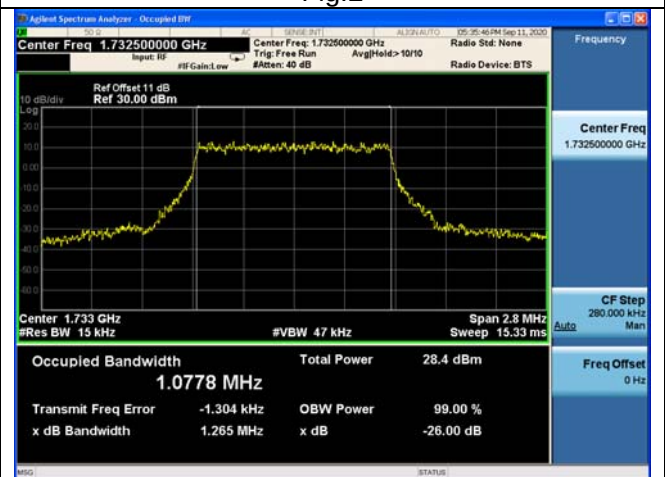


Fig.4

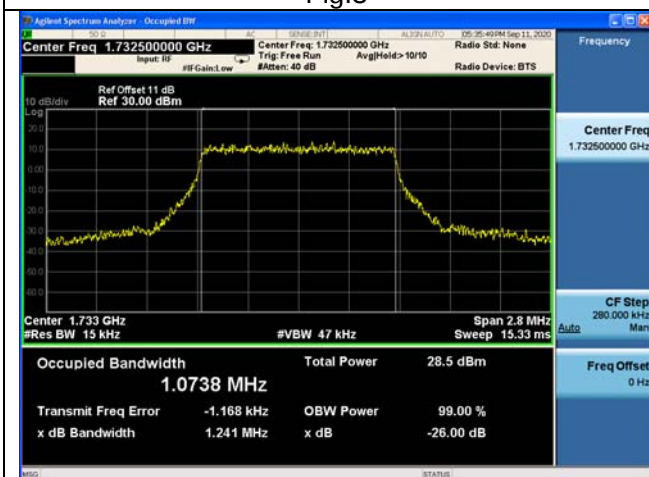


Fig.5

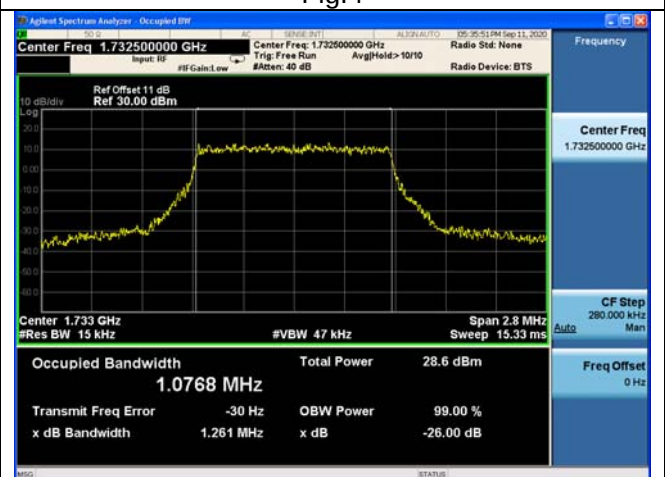


Fig.6

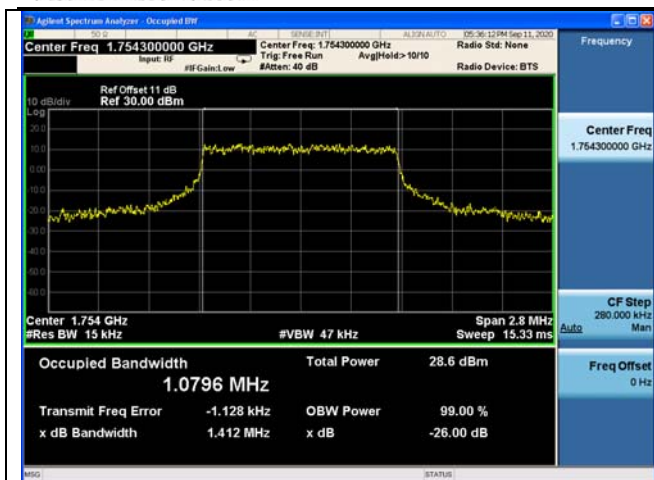


Fig.7

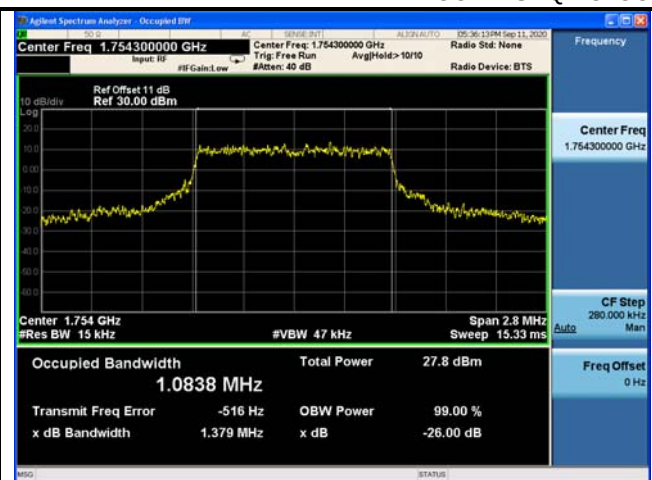


Fig.8

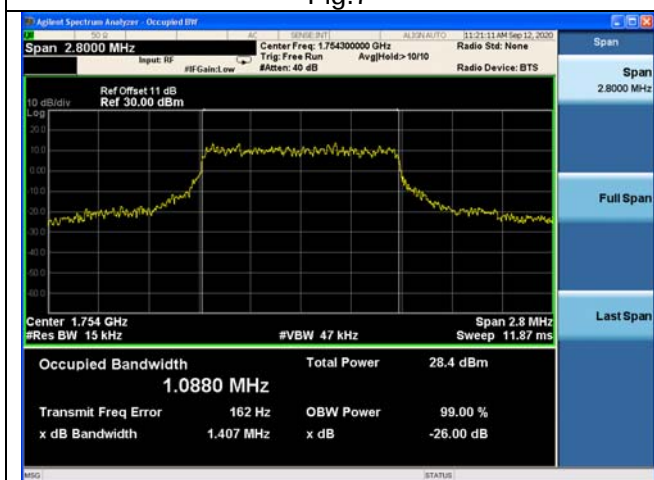


Fig.9

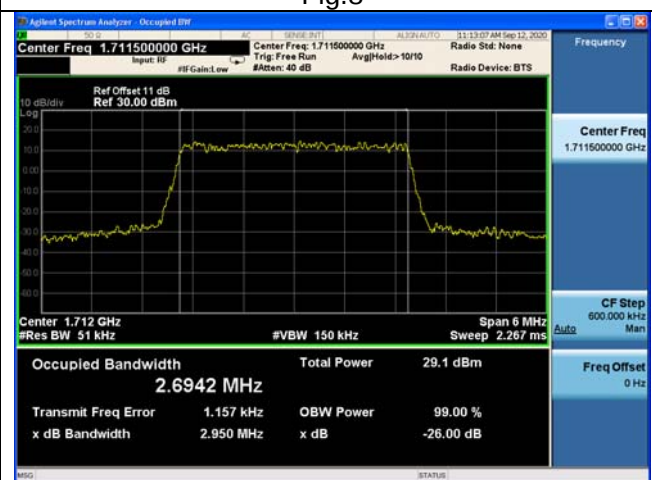


Fig.10

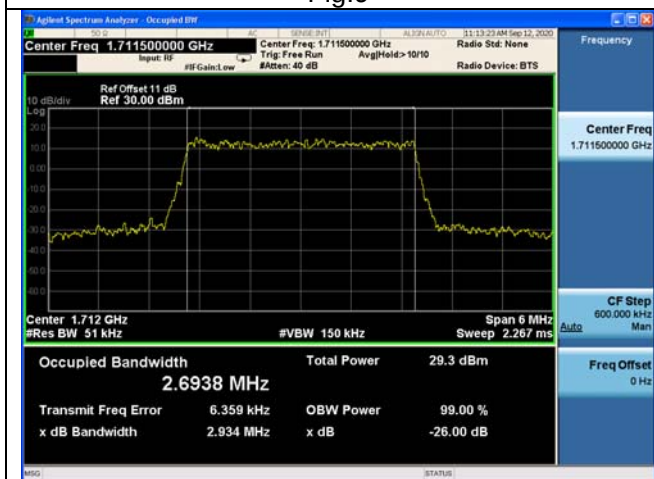


Fig.11

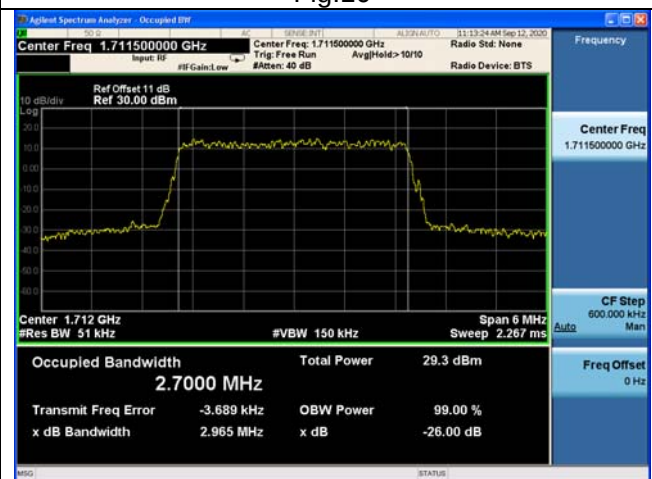


Fig.12

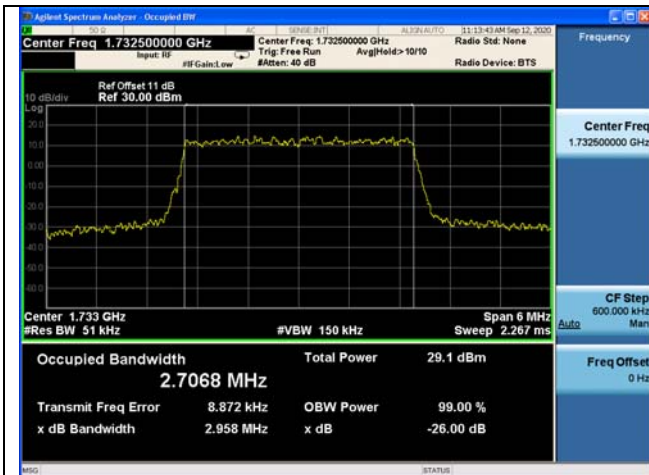


Fig.13

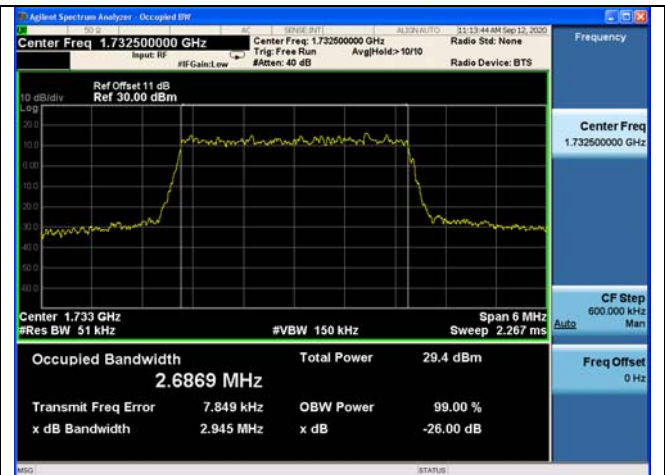


Fig.14

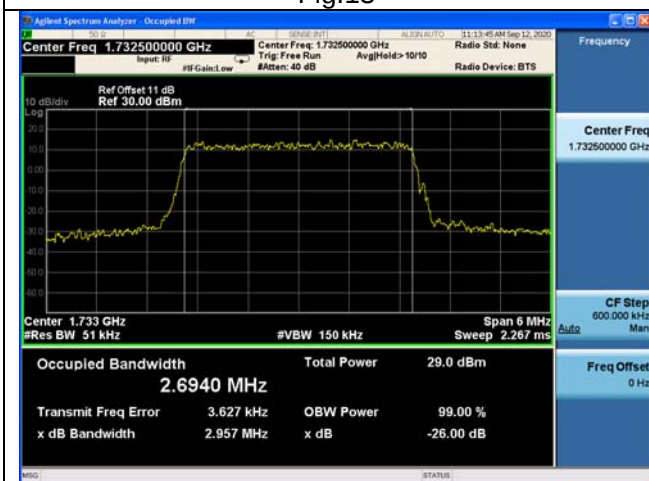


Fig.15

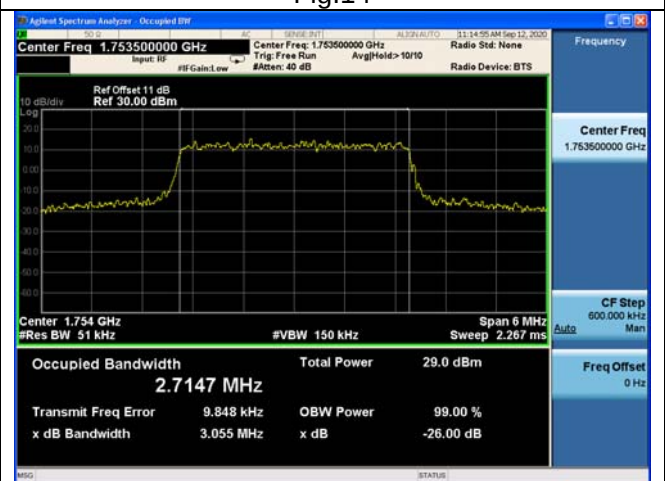


Fig.16

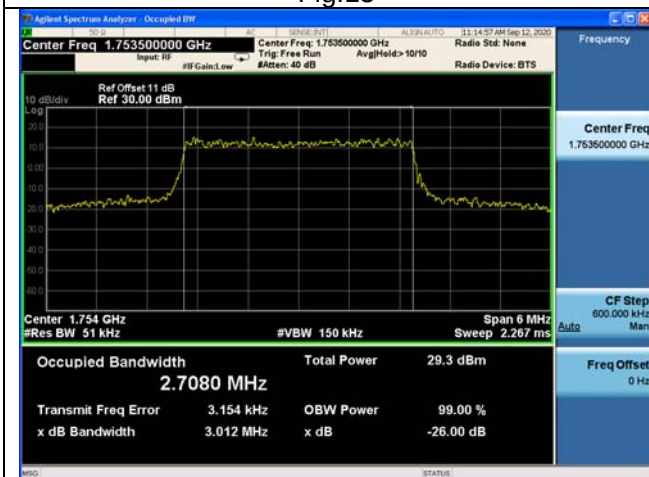


Fig.17

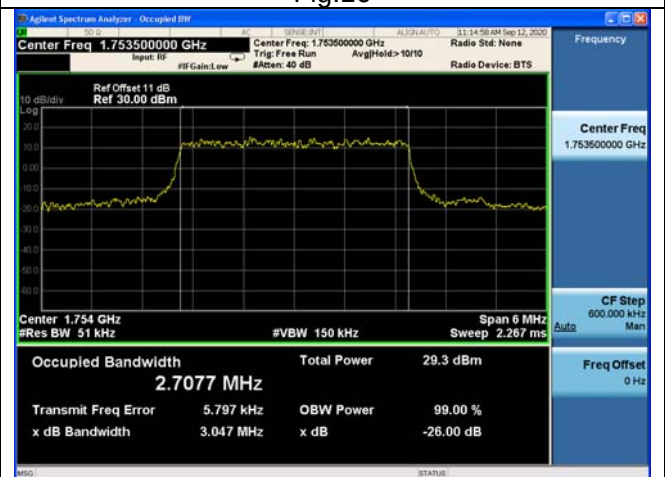


Fig.18

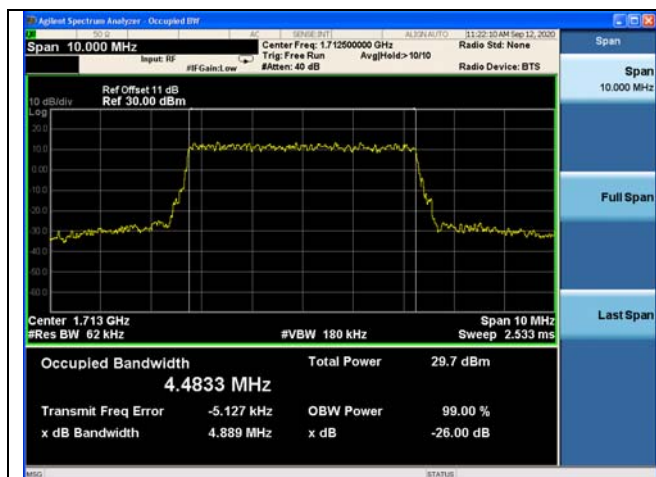


Fig.19

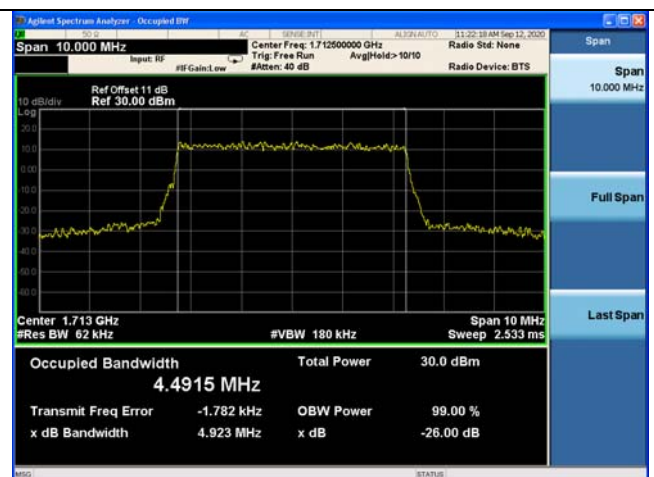


Fig.20

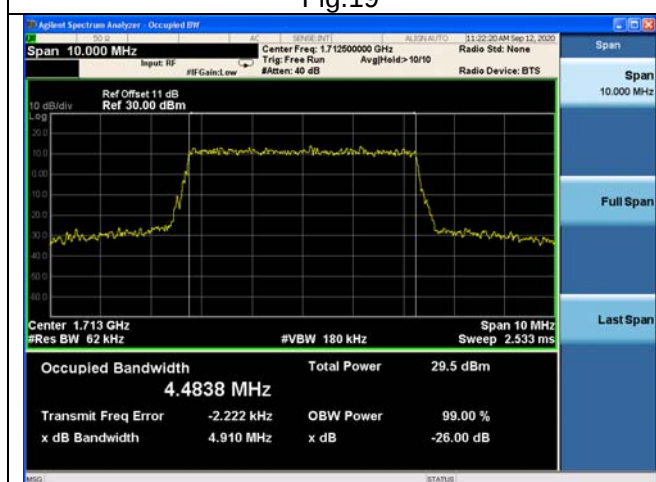


Fig.21

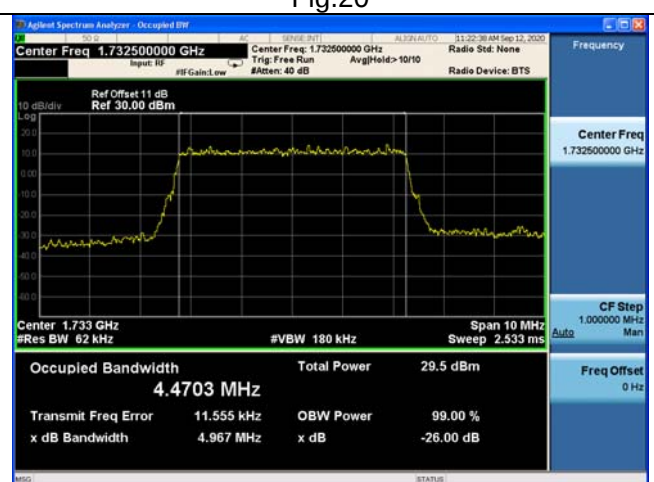


Fig.22

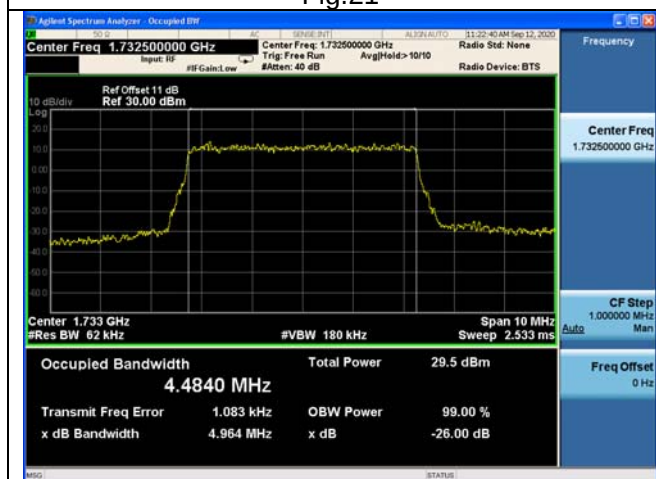


Fig.23

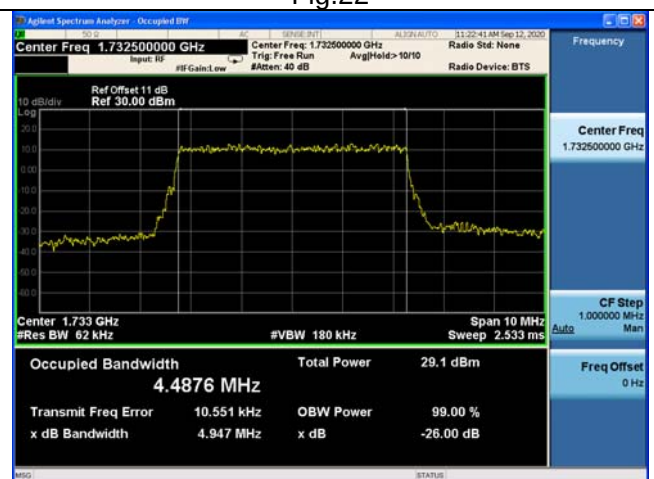


Fig.24

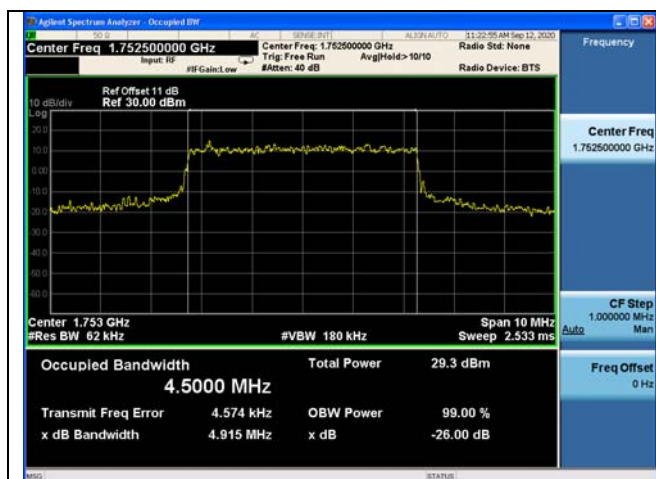


Fig.25

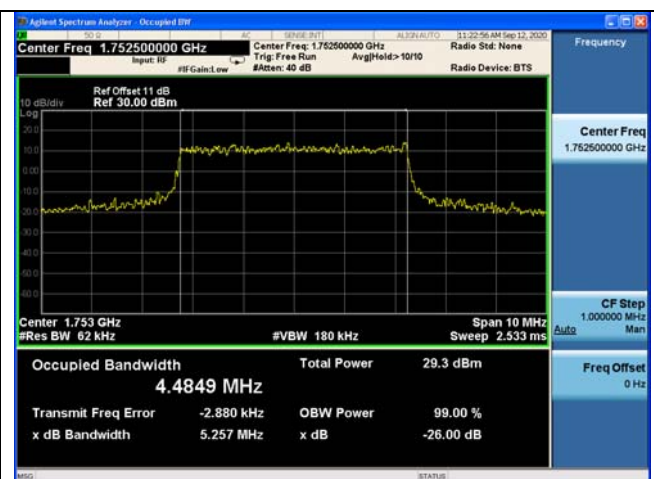


Fig.26

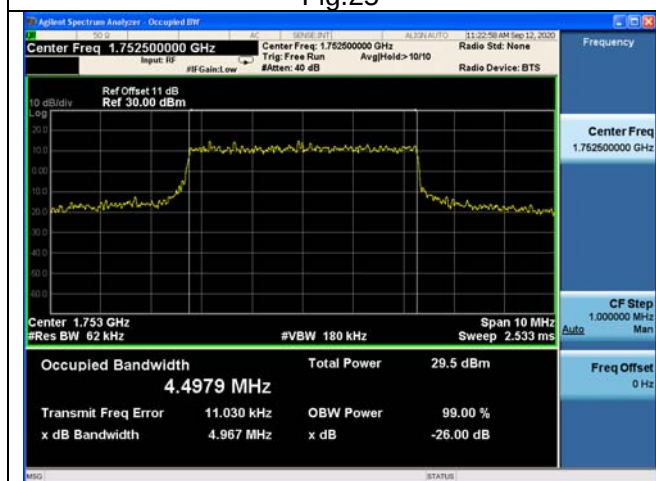


Fig.27

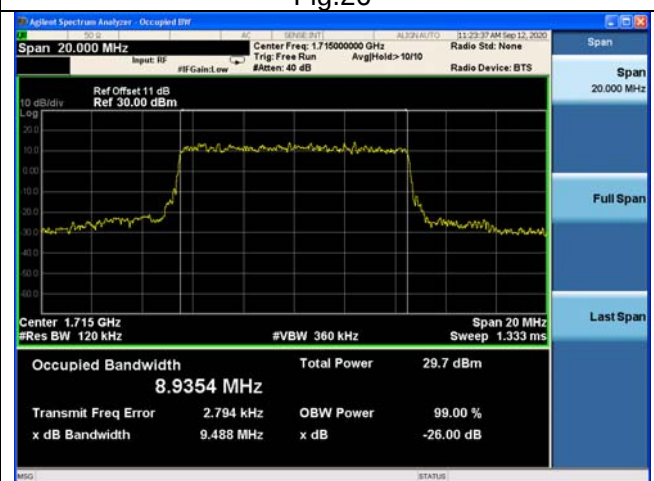


Fig.28

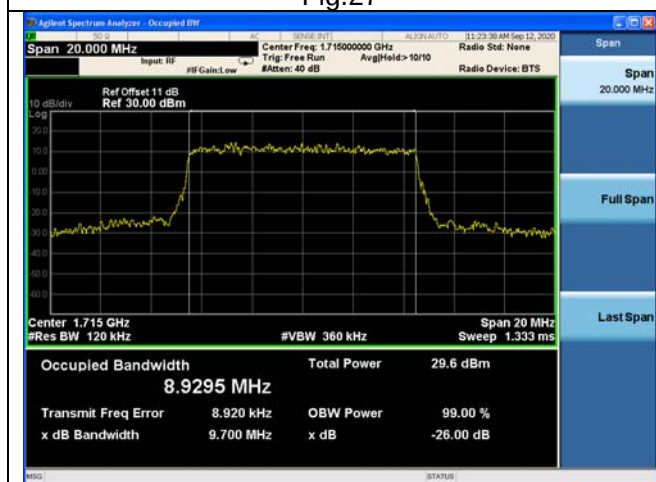


Fig.29

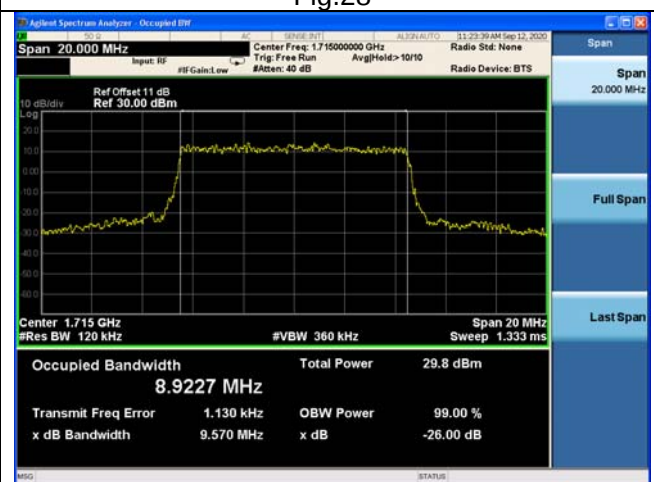


Fig.30

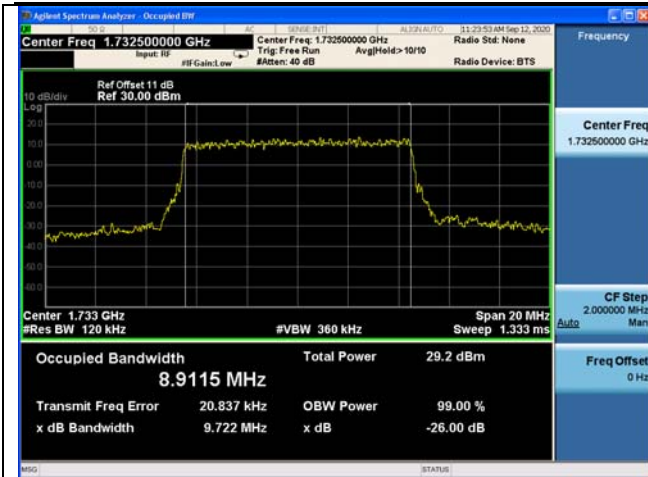


Fig.31

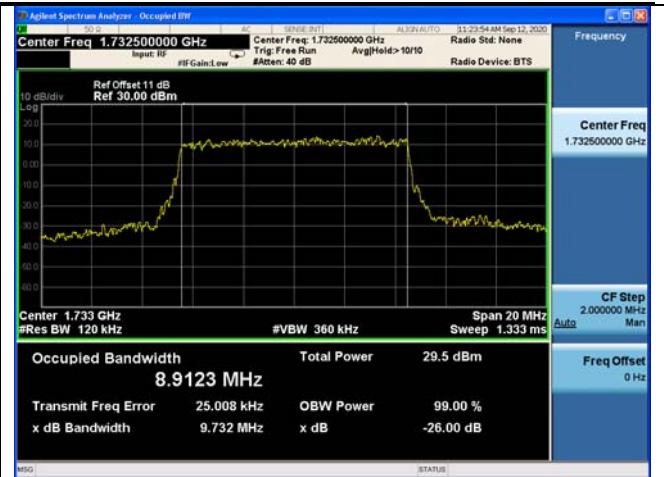


Fig.32

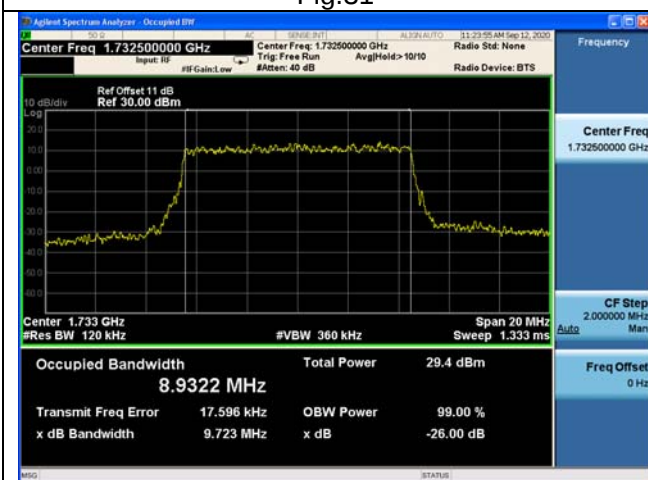


Fig.33

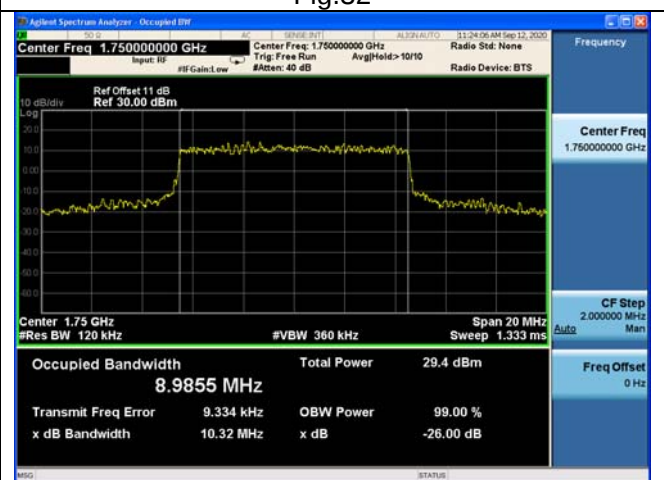


Fig.34

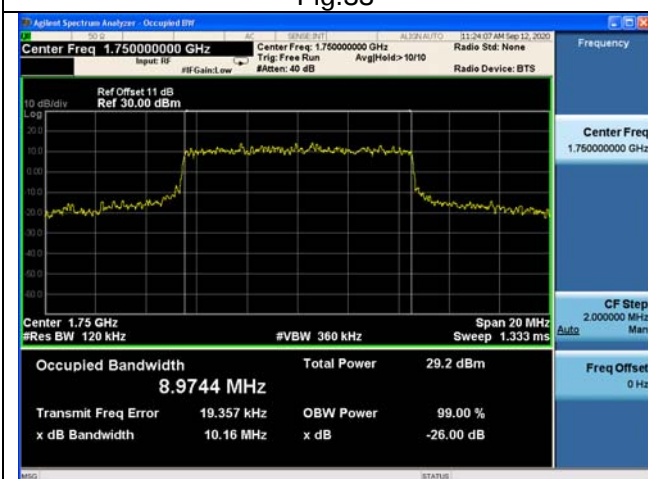


Fig.35

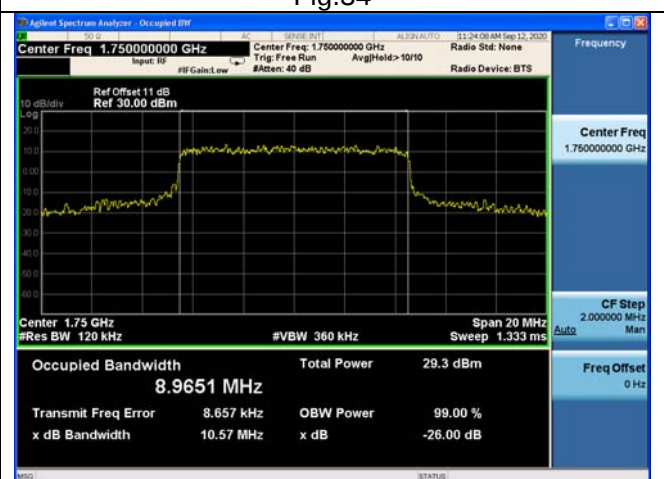


Fig.36

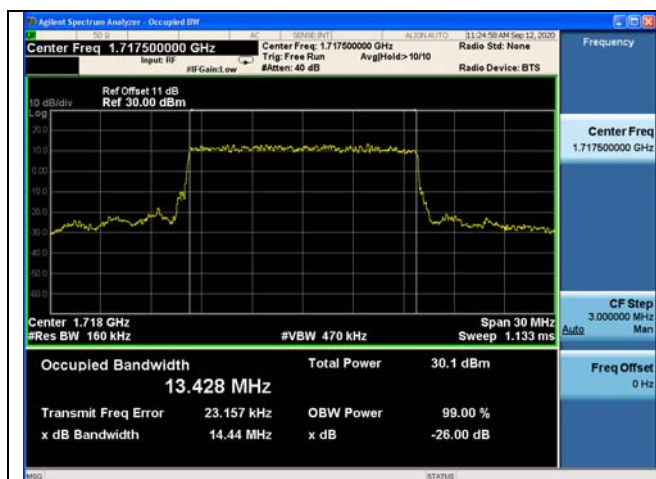


Fig.37

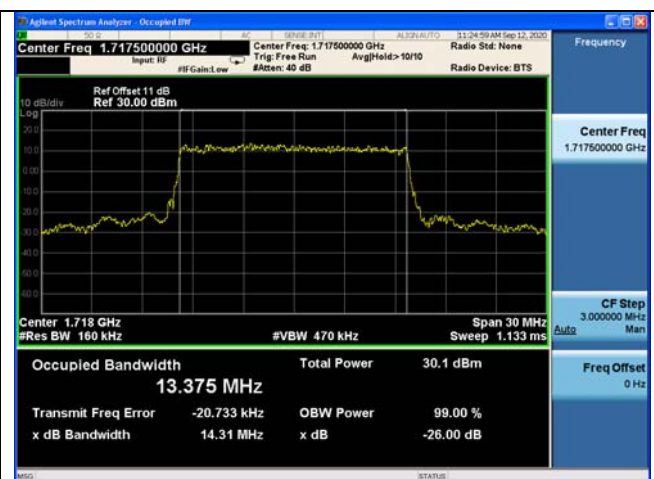


Fig.38

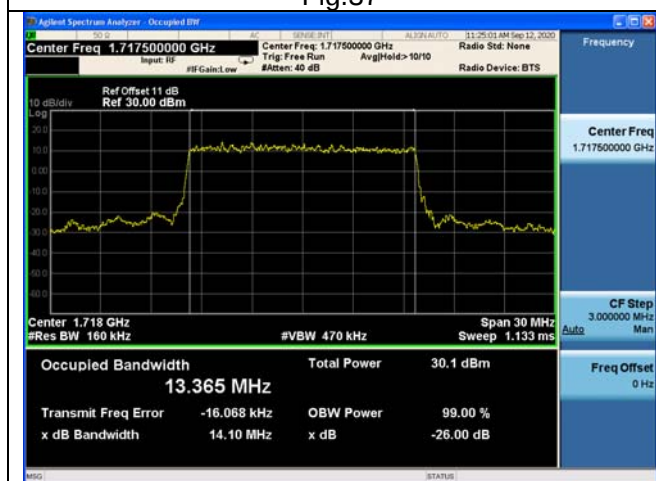


Fig.39

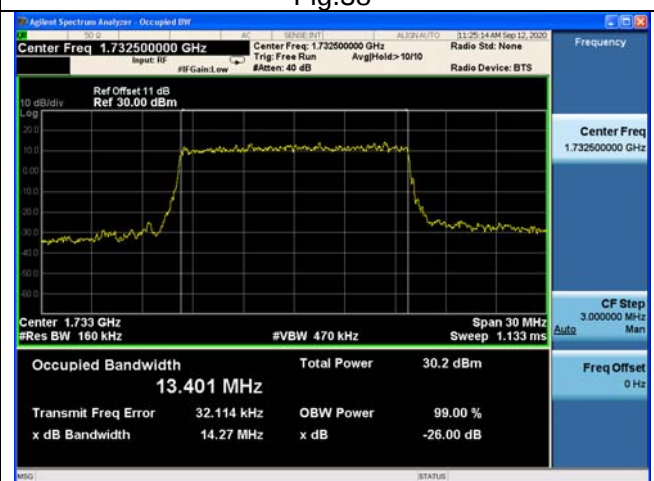


Fig.40

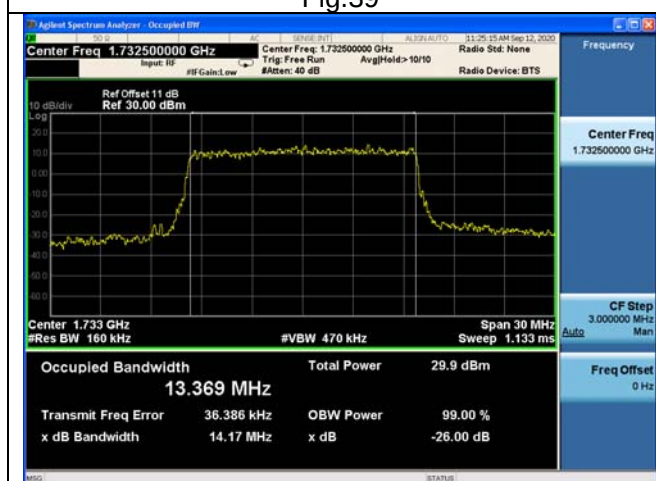


Fig.41

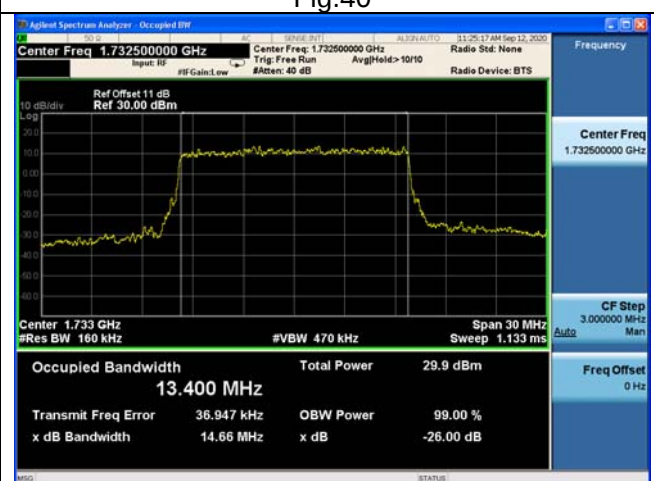


Fig.42

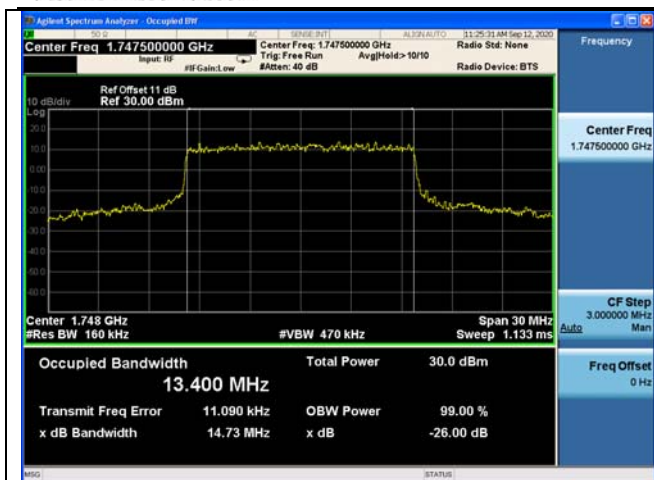


Fig.43

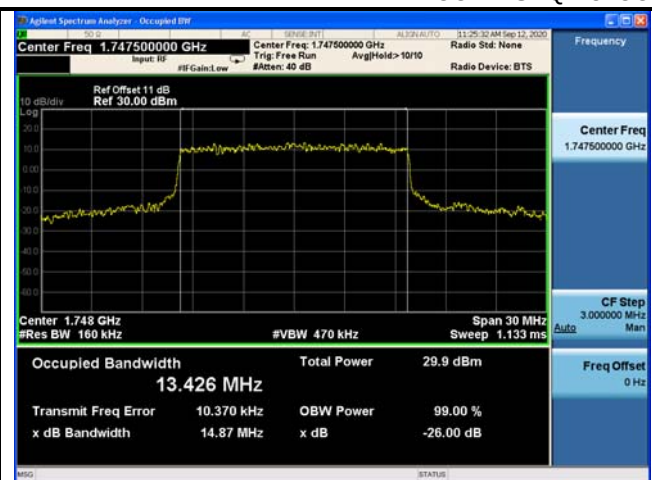


Fig.44

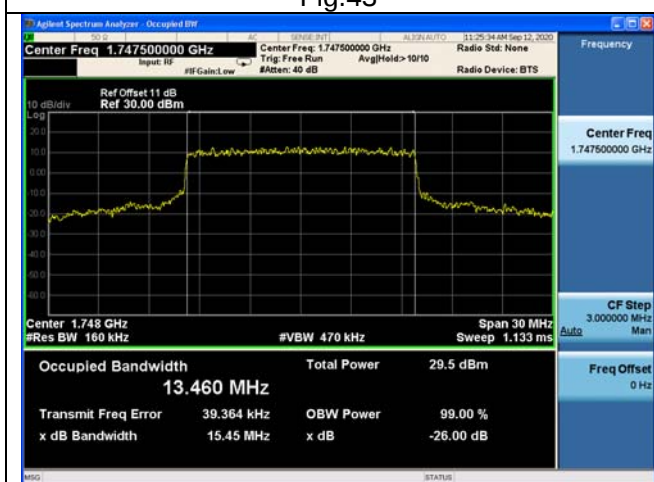


Fig.45

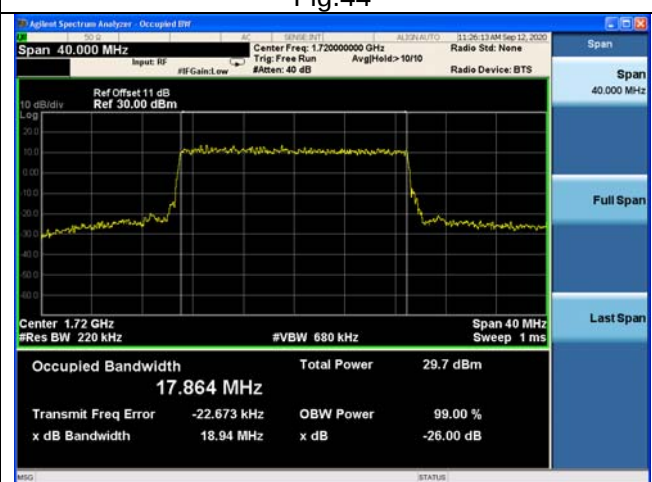


Fig.46

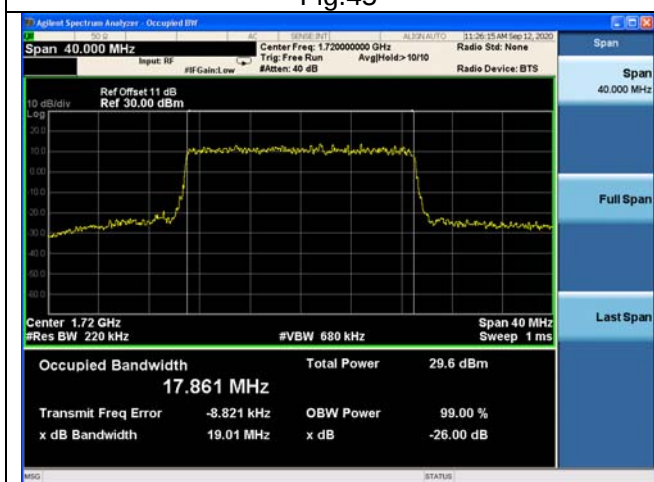


Fig.47

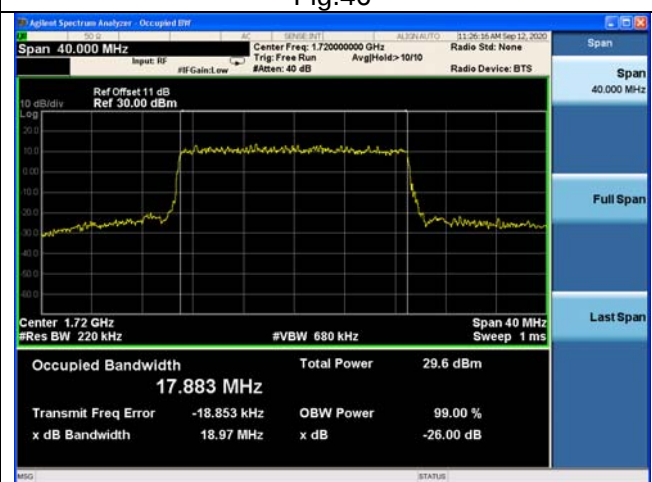


Fig.48

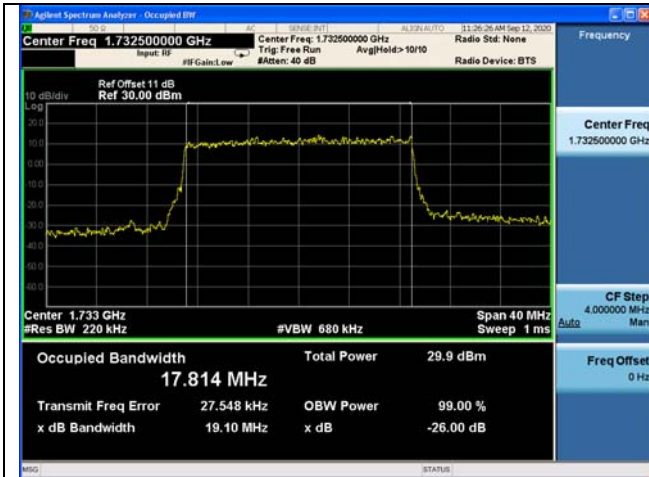


Fig.49



Fig.50

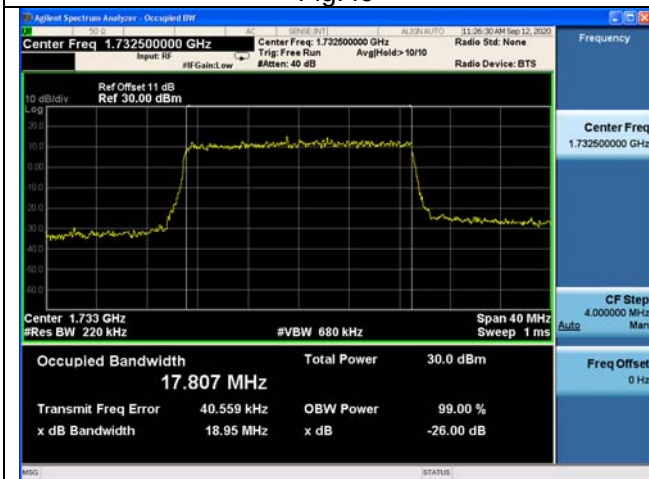


Fig.51

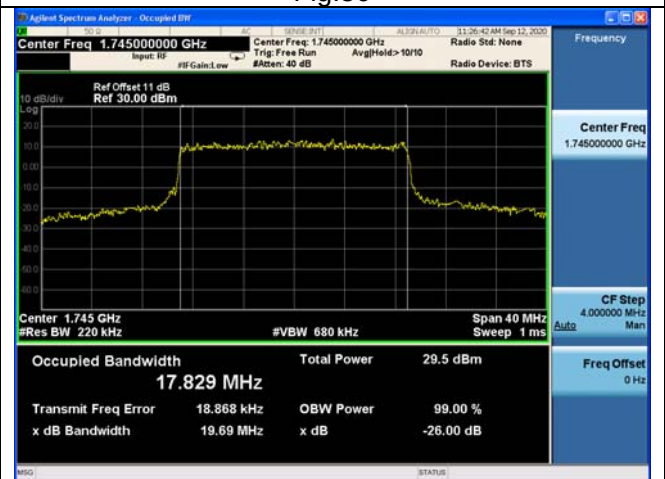


Fig.52

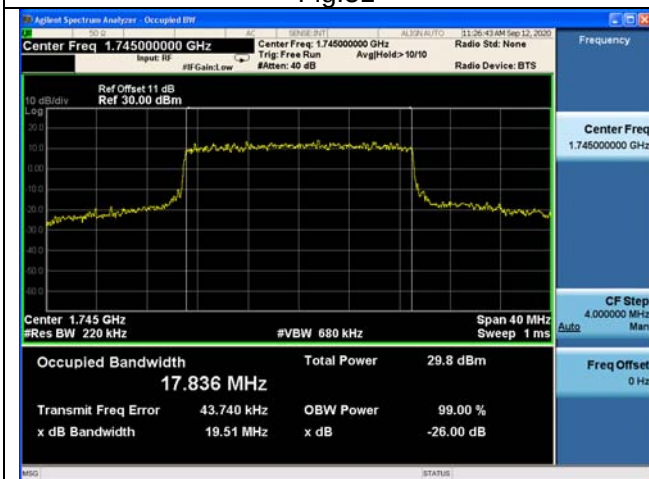


Fig.53

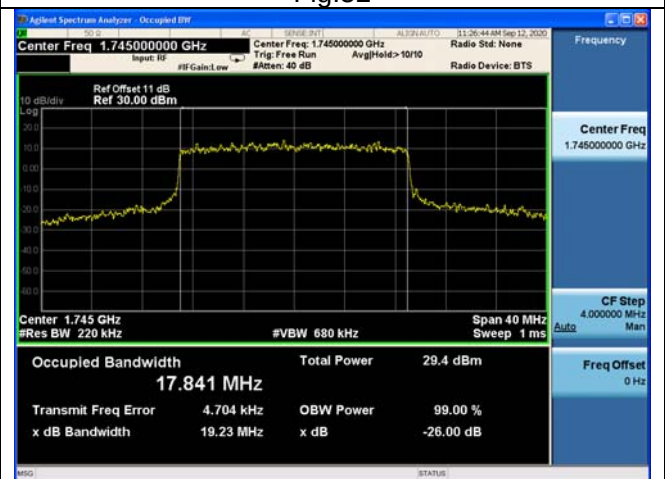


Fig.54

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
4	1732.5	20175	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

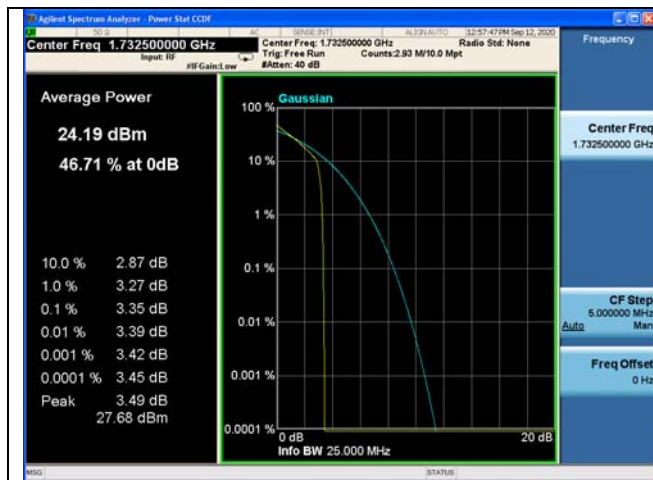


Fig.1

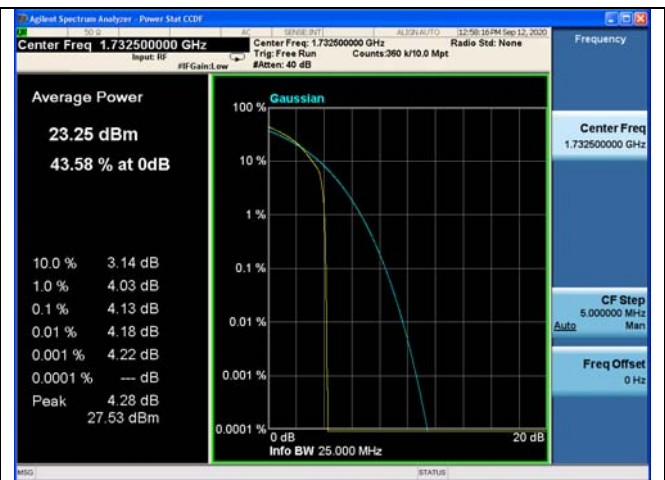


Fig.2

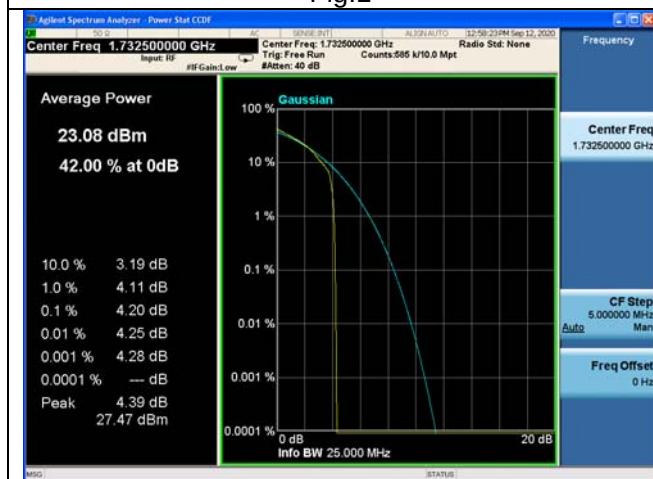


Fig.3

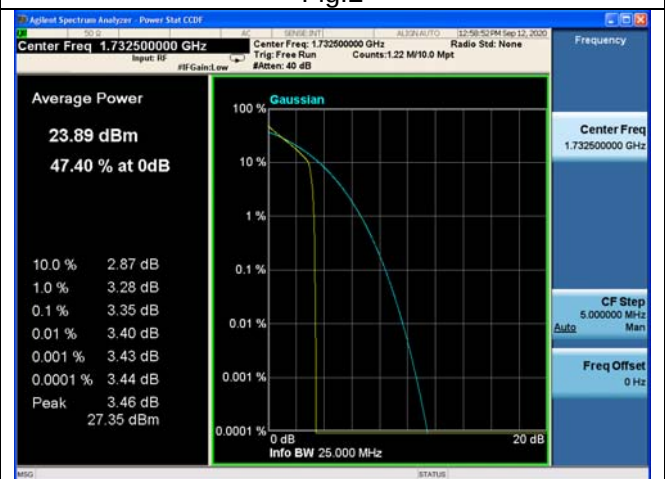


Fig.4



Fig.5

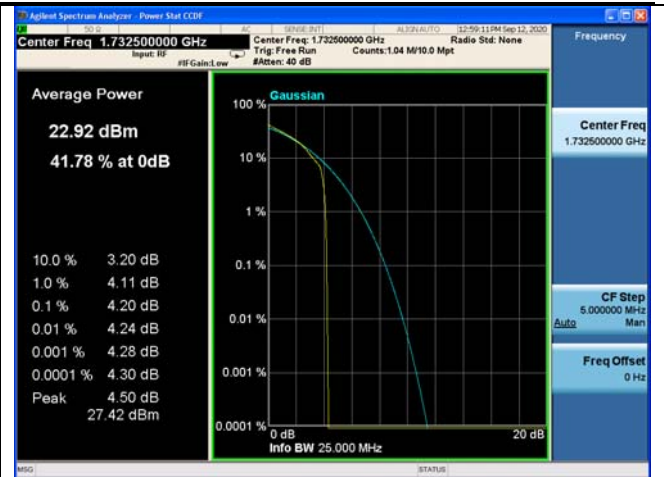


Fig.6



Fig.7



Fig.8

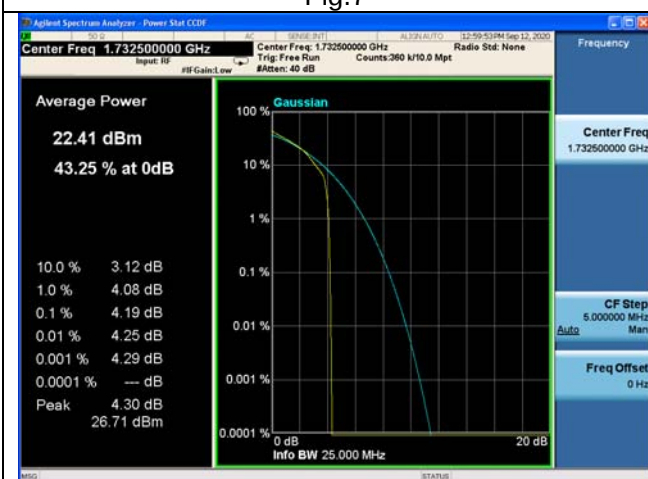


Fig.9



Fig.10



Fig.11

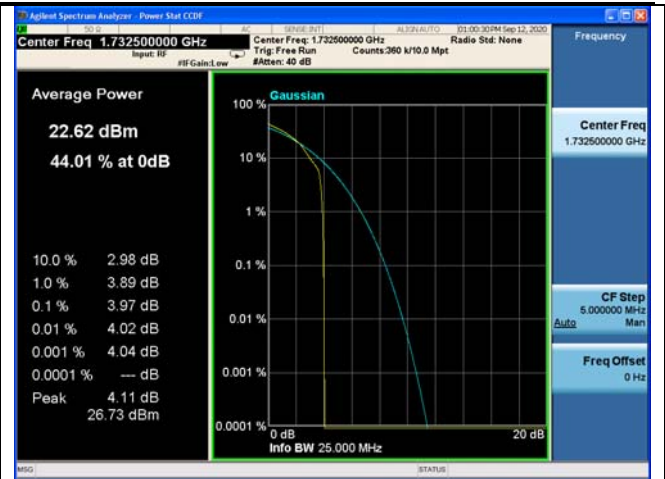


Fig.12

4 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
4	1720	20050	20	1	0	Fig.1-2
	1732.5	20175	20	1	0	Fig.3-4
	1745	20300	20	1	0	Fig.5-6

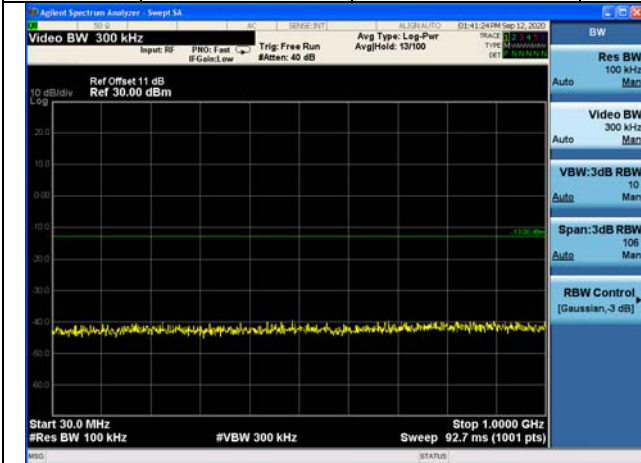


Fig.1

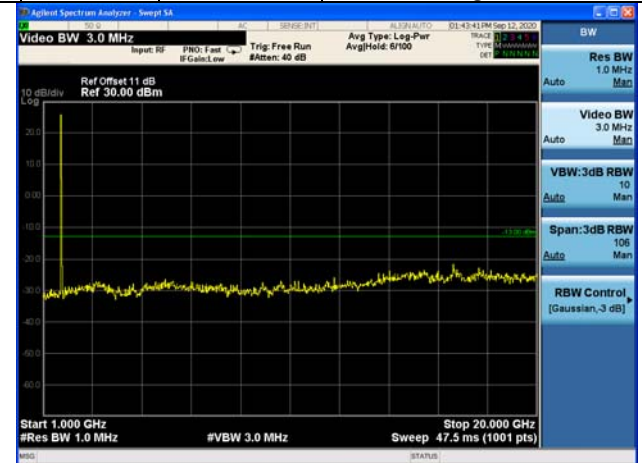


Fig.2

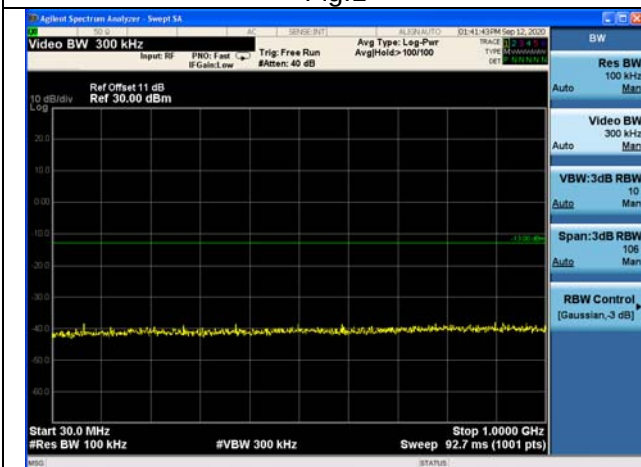


Fig3

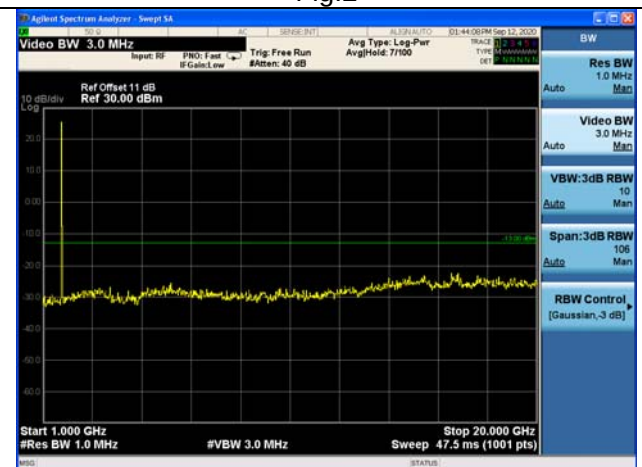


Fig4

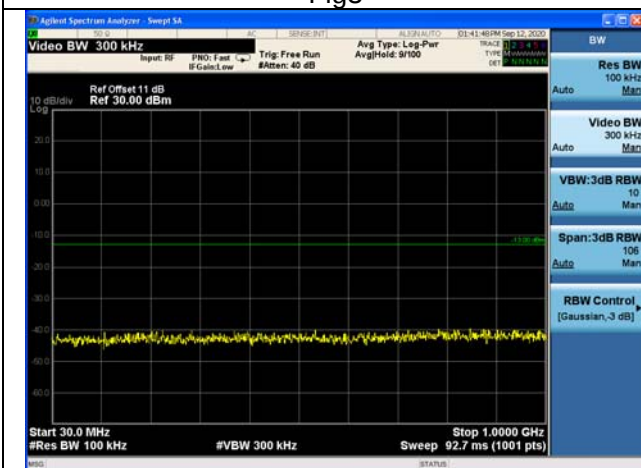


Fig5

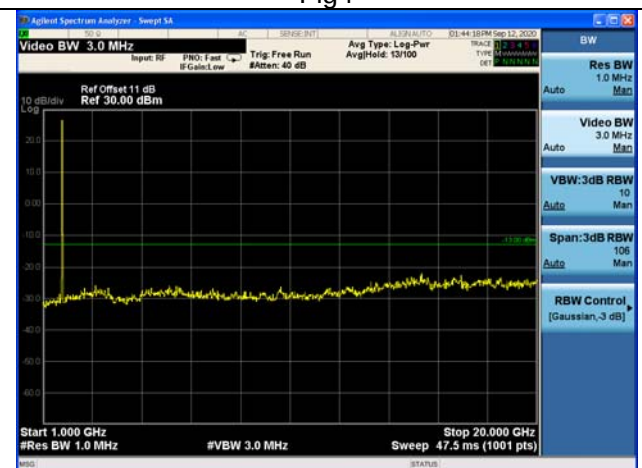


Fig6

5 Band Edges Compliance

Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
4	1710.7	19957	1.4	1	0	Fig.1
				6	0	Fig.2
	1754.3	20393		1	5	Fig.3
				6	0	Fig.4
	1711.5	19965	3	1	0	Fig.5
				15	0	Fig.6
	1753.5	20385		1	14	Fig.7
				15	0	Fig.8
	1712.5	19975	5	1	0	Fig.9
				25	0	Fig.10
	1752.5	20375		1	24	Fig.11
				25	0	Fig.12
	1715	20000	10	1	0	Fig.13
				50	0	Fig.14
	1750	20350		1	49	Fig.15
				50	0	Fig.16
	1717.5	20025	15	1	0	Fig.17
				75	0	Fig.18
	1747.5	20325		1	74	Fig.19
				75	0	Fig.20
	1720	20050	20	1	0	Fig.21
				100	0	Fig.22
	1745	20300		1	99	Fig.23
				100	0	Fig.24

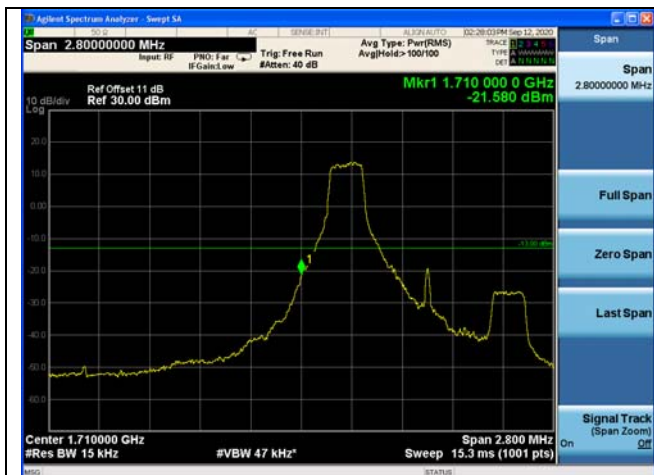


Fig.1



Fig.2



Fig.3



Fig.4

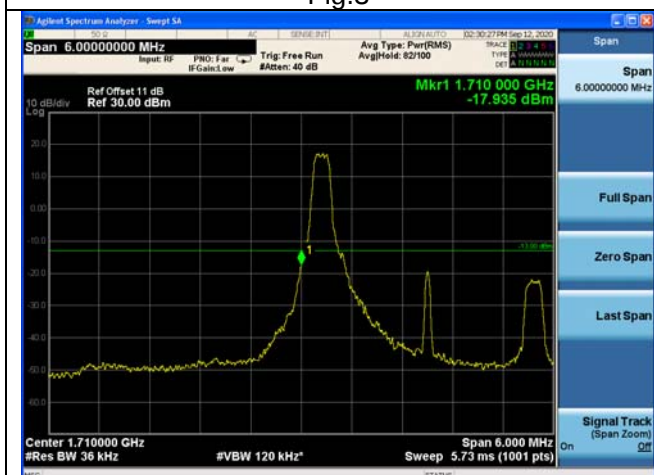


Fig.5

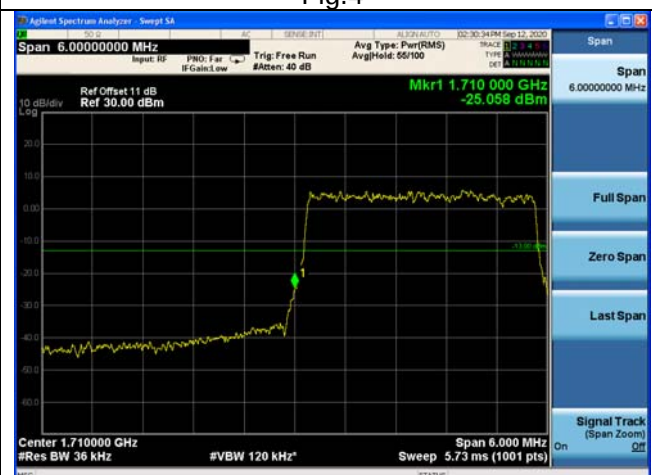


Fig.6

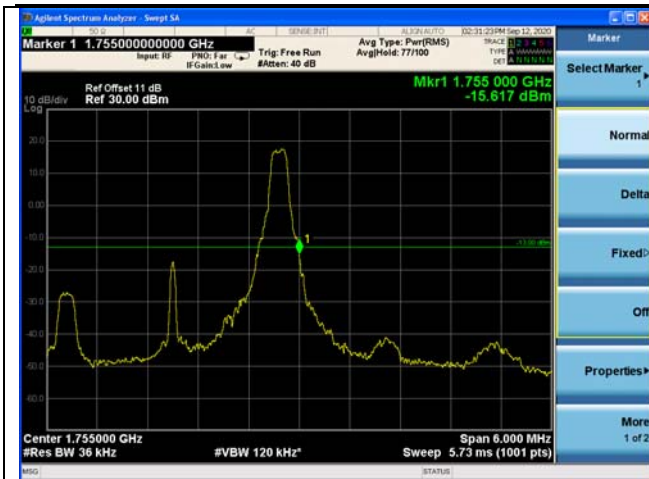


Fig.7



Fig.8

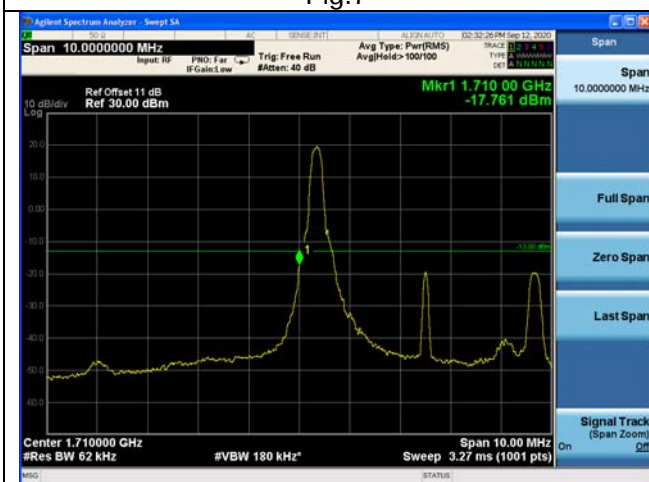


Fig.9



Fig.10

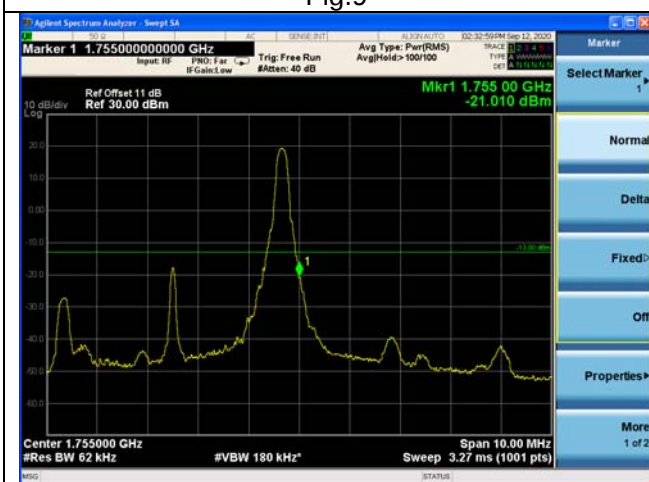


Fig.11



Fig.12

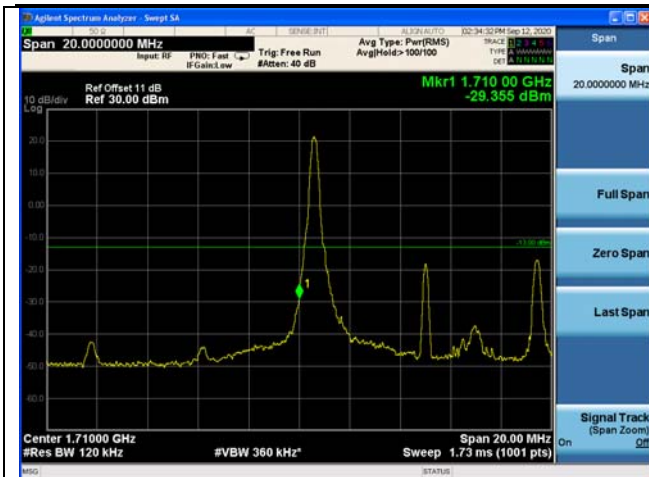


Fig.13



Fig.14

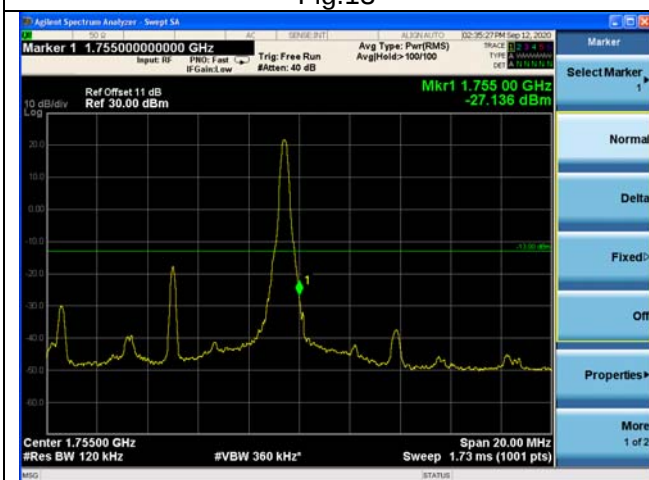


Fig.15



Fig.16



Fig.17



Fig.18

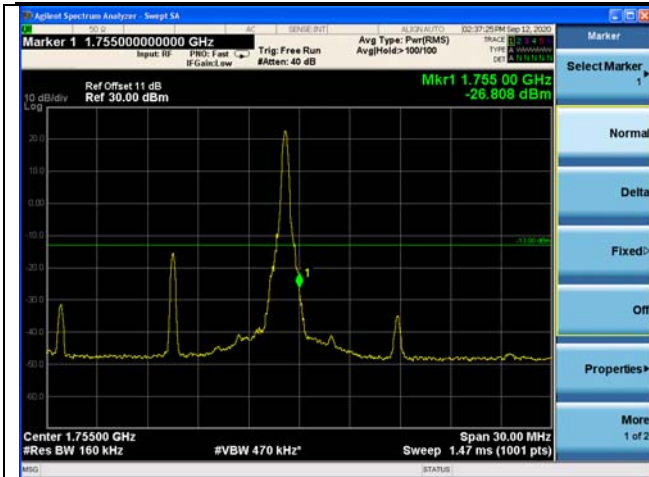


Fig.19



Fig.20

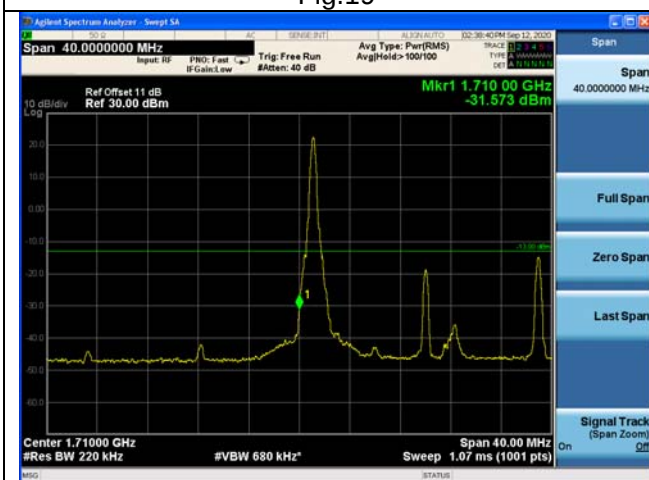


Fig.21

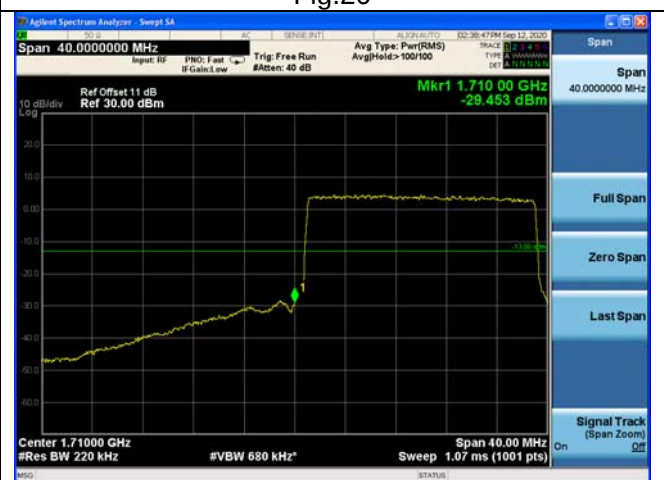


Fig.22

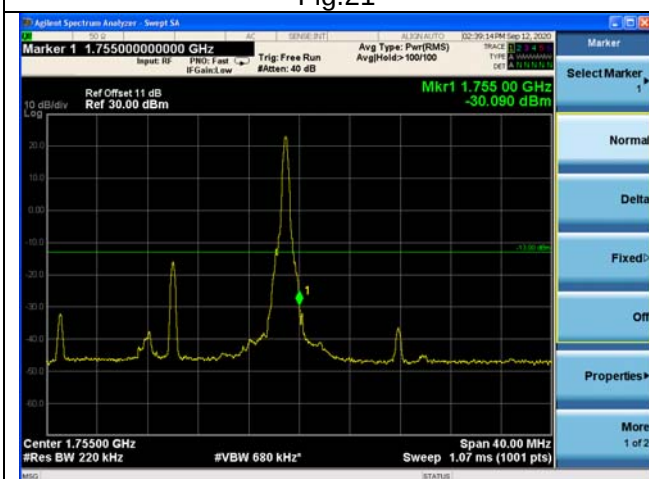


Fig.23



Fig.24

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band4 Low Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	0.041	-0.042	-0.038	0.036	-0.040	-0.016
0	NV	-0.016	0.038	-0.014	-0.026	0.035	-0.022
+10	NV	0.010	0.003	0.014	0.037	-0.033	0.036
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	0.029	-0.032	0.023	0.044	0.021	0.019
+40	NV	0.043	0.002	0.036	0.037	-0.039	-0.002
+50	NV	-0.013	0.026	0.011	-0.030	0.011	0.045
+55	NV	-0.040	-0.030	0.002	0.006	0.033	-0.007
+20	LV	0.031	-0.030	0.017	-0.032	0.047	0.005
+20	HV	0.020	0.013	0.045	0.050	0.016	0.039

Temperature(°C)	Voltage	Test Result (ppm) Band4 High Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	-0.003	-0.027	0.016	0.012	0.008	0.047
0	NV	-0.007	-0.007	0.040	0.005	-0.016	-0.001
+10	NV	-0.039	0.036	-0.023	0.005	0.038	-0.010
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	0.015	-0.042	0.029	0.049	-0.033	0.030
+40	NV	0.039	0.002	-0.025	0.050	-0.029	0.034
+50	NV	-0.011	-0.012	0.041	0.002	0.044	0.029
+55	NV	-0.009	0.033	0.023	-0.026	0.016	0.013
+20	LV	-0.042	0.031	0.052	0.038	-0.016	0.028
+20	HV	0.030	-0.020	0.045	0.027	0.041	-0.002