

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 5

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	824.7	20407	1.4	1	0	24.50
				1	5	24.25
				3	2	23.04
				6	0	23.08
	836.5	20525		1	0	24.19
				1	5	24.64
				3	2	23.15
				6	0	23.16
	848.3	20643		1	0	24.24
				1	5	24.38
				3	2	23.21
				6	0	23.06
16QAM	824.7	20407	1.4	1	0	22.06
				1	5	22.20
				3	2	21.79
				6	0	22.09
	836.5	20525		1	0	22.61
				1	5	22.58
				3	2	22.24
				6	0	22.35
	848.3	20643		1	0	22.61
				1	5	22.70
				3	2	22.26
				6	0	22.19
64QAM	824.7	20407	1.4	1	0	22.17
				1	5	22.14
				3	2	22.06
				6	0	22.13
	836.5	20525		1	0	22.54
				1	5	22.71
				3	2	22.20
				6	0	22.30
	848.3	20643		1	0	22.31
				1	5	22.39
				3	2	22.05
				6	0	22.17

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	825.5	20415	3	1	0	24.48
				1	14	24.32
				8	4	23.00
				15	0	23.05
	836.5	20525		1	0	24.19
				1	14	24.56
				8	4	23.14
				15	0	23.24
	847.5	20635		1	0	24.35
				1	14	24.46
				8	4	23.19
				15	0	23.03
16QAM	825.5	20415	3	1	0	22.04
				1	14	22.27
				8	4	21.82
				15	0	22.11
	836.5	20525		1	0	22.60
				1	14	22.69
				8	4	22.27
				15	0	22.42
	847.5	20635		1	0	22.60
				1	14	22.68
				8	4	22.13
				15	0	22.23
64QAM	825.5	20415	3	1	0	22.24
				1	14	22.05
				8	4	22.06
				15	0	22.15
	836.5	20525		1	0	22.54
				1	14	22.62
				8	4	22.30
				15	0	22.24
	847.5	20635		1	0	22.38
				1	14	22.38
				8	4	22.07
				15	0	22.29

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	826.5	20425	5	1	0	24.41
				1	24	24.34
				12	6	23.06
				25	0	23.06
	836.5	20525		1	0	24.21
				1	24	24.64
				12	6	23.18
				25	0	23.24
	846.5	20625		1	0	24.36
				1	24	24.48
				12	6	23.19
				25	0	23.03
16QAM	826.5	20425	5	1	0	22.00
				1	24	22.25
				12	6	21.86
				25	0	22.15
	836.5	20525		1	0	22.55
				1	24	22.67
				12	6	22.22
				25	0	22.29
	846.5	20625		1	0	22.61
				1	24	22.77
				12	6	22.16
				25	0	22.20
64QAM	826.5	20425	5	1	0	22.26
				1	24	22.10
				12	6	22.08
				25	0	22.09
	836.5	20525		1	0	22.63
				1	24	22.57
				12	6	22.27
				25	0	22.27
	846.5	20625		1	0	22.33
				1	24	22.43
				12	6	22.12
				25	0	22.25

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	829	20450	10	1	0	24.55
				1	49	24.40
				24	12	23.08
				50	0	23.17
	836.5	20525		1	0	24.33
				1	49	24.71
				24	12	23.20
				50	0	23.27
	844	20600		1	0	24.37
				1	49	24.49
				24	12	23.29
				50	0	23.11
16QAM	829	20450	10	1	0	22.13
				1	49	22.29
				24	12	21.88
				50	0	22.16
	836.5	20525		1	0	22.69
				1	49	22.72
				24	12	22.34
				50	0	22.43
	844	20600		1	0	22.65
				1	49	22.78
				24	12	22.28
				50	0	22.27
64QAM	829	20450	10	1	0	22.28
				1	49	22.17
				24	12	22.10
				50	0	22.21
	836.5	20525		1	0	22.66
				1	49	22.71
				24	12	22.35
				50	0	22.38
	844	20600		1	0	22.39
				1	49	22.44
				24	12	22.17
				50	0	22.30

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	
5	824.7	20407	1.4	6	0	1.0819	Fig.1	1.0816	Fig.2	1.0782	Fig.3
	836.5	20525		6	0	1.0812	Fig.4	1.0810	Fig.5	1.0850	Fig.6
	848.3	20643		6	0	1.0804	Fig.7	1.0844	Fig.8	1.0827	Fig.9
	825.5	20415	3	15	0	2.6864	Fig.10	2.6905	Fig.11	2.6945	Fig.12
	836.5	20525		15	0	2.6931	Fig.13	2.6972	Fig.14	2.6906	Fig.15
	847.5	20635		15	0	2.6925	Fig.16	2.6940	Fig.17	2.6901	Fig.18
	826.5	20425	5	25	0	4.4683	Fig.19	4.4941	Fig.20	4.4715	Fig.21
	836.5	20525		25	0	4.4678	Fig.22	4.4705	Fig.23	4.4773	Fig.24
	846.5	20625		25	0	4.4789	Fig.25	4.4740	Fig.26	4.4743	Fig.27
	829	20450	10	50	0	8.9347	Fig.28	8.9129	Fig.29	8.9124	Fig.30
	836.5	20525		50	0	8.9346	Fig.31	8.9019	Fig.32	8.9335	Fig.33
	844	20600		50	0	8.9415	Fig.34	8.9135	Fig.35	8.9619	Fig.36

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
5	824.7	20407	1.4	6	0	1.245	Fig.1	1.241	Fig.2	1.237	Fig.3
	836.5	20525		6	0	1.240	Fig.4	1.232	Fig.5	1.245	Fig.6
	848.3	20643		6	0	1.246	Fig.7	1.230	Fig.8	1.227	Fig.9
	825.5	20415	3	15	0	2.933	Fig.10	2.928	Fig.11	2.971	Fig.12
	836.5	20525		15	0	2.957	Fig.13	2.949	Fig.14	2.933	Fig.15
	847.5	20635		15	0	2.944	Fig.16	2.979	Fig.17	2.967	Fig.18
	826.5	20425	5	25	0	4.836	Fig.19	4.950	Fig.20	4.882	Fig.21
	836.5	20525		25	0	4.964	Fig.22	4.816	Fig.23	4.876	Fig.24
	846.5	20625		25	0	4.938	Fig.25	4.851	Fig.26	4.866	Fig.27
	829	20450	10	50	0	9.678	Fig.28	9.644	Fig.29	9.606	Fig.30
	836.5	20525		50	0	9.688	Fig.31	9.471	Fig.32	9.653	Fig.33
	844	20600		50	0	9.626	Fig.34	9.568	Fig.35	9.599	Fig.36

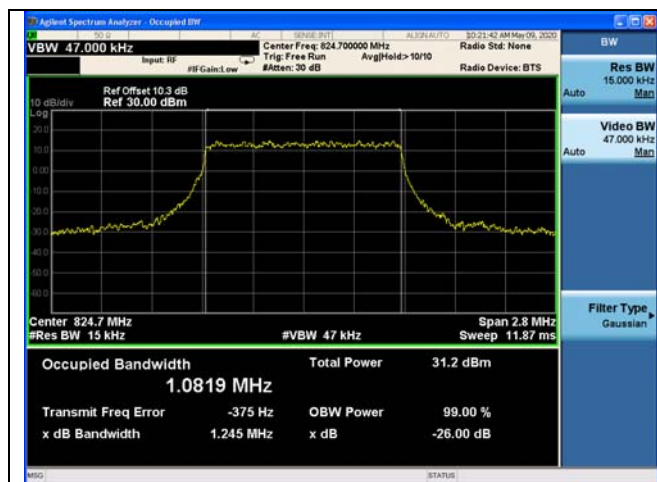


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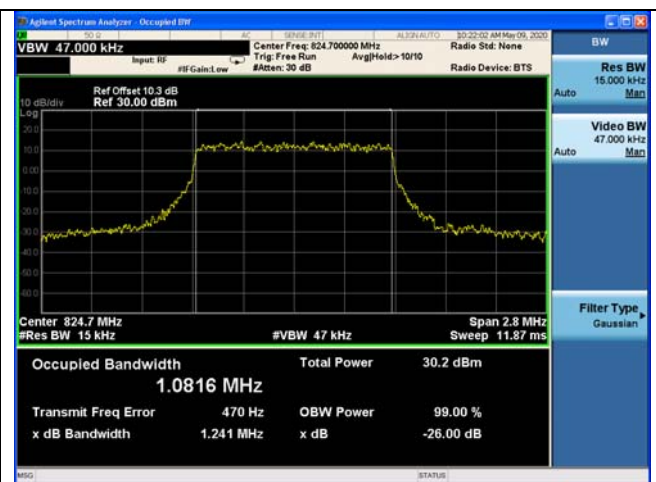


Fig.2

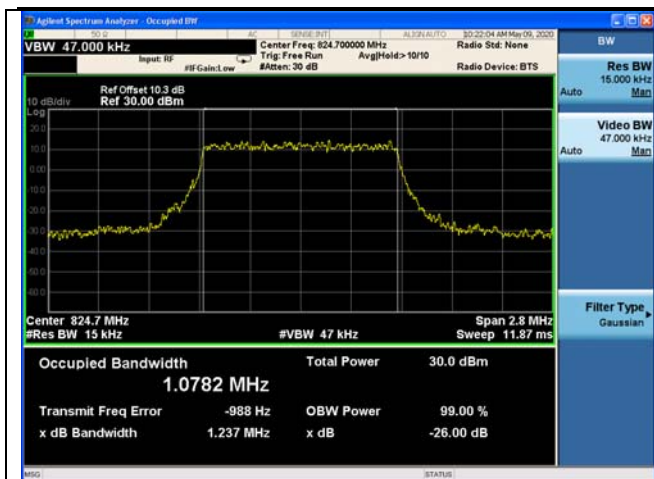


Fig.3

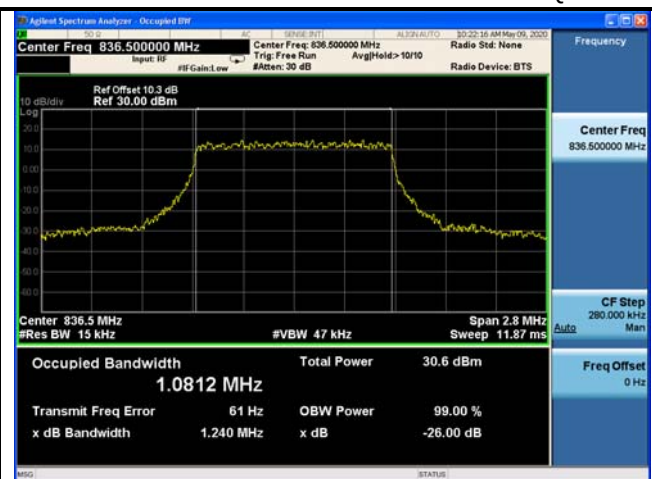


Fig.4

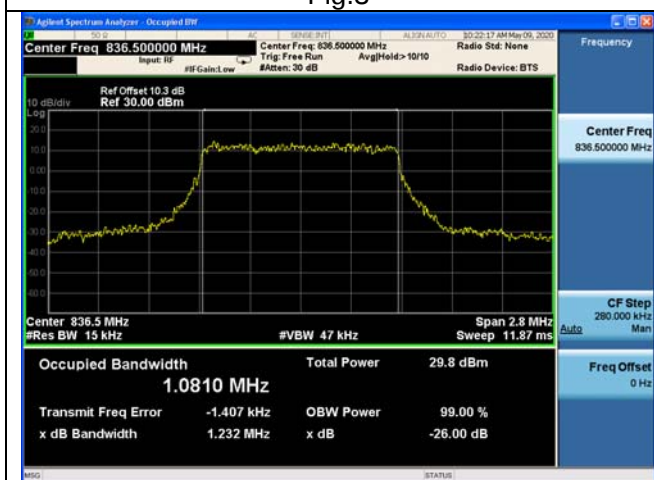


Fig.5

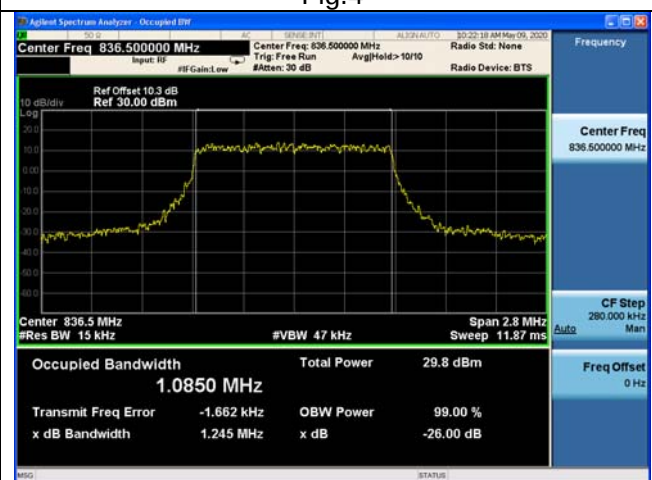


Fig.6

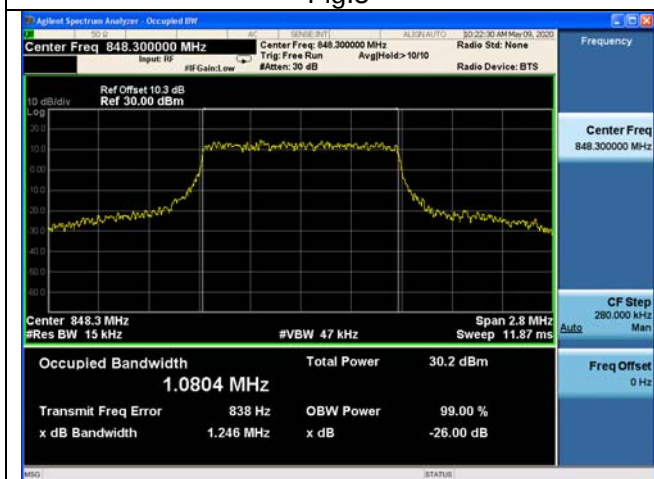


Fig.7

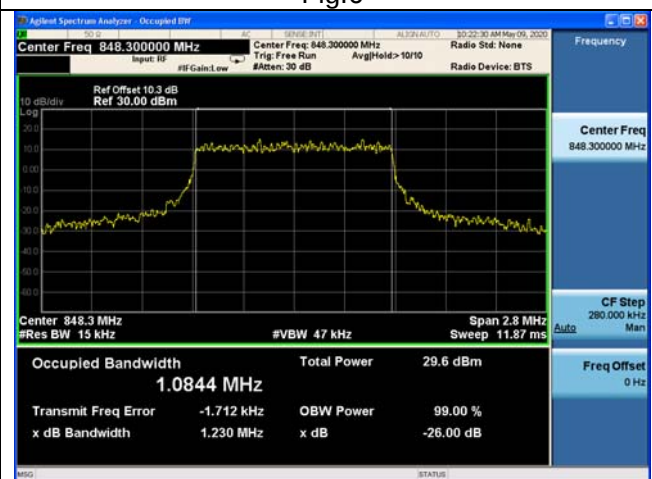


Fig.8

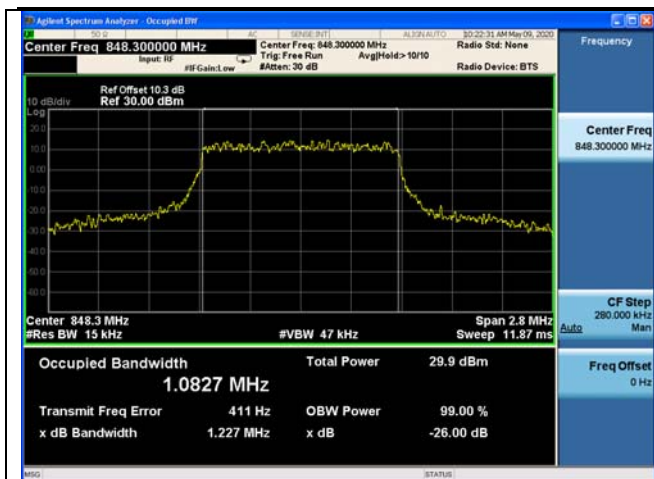


Fig.9

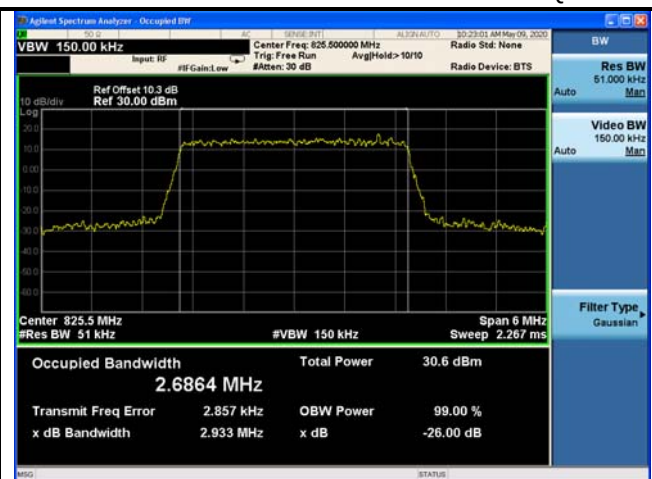


Fig.10

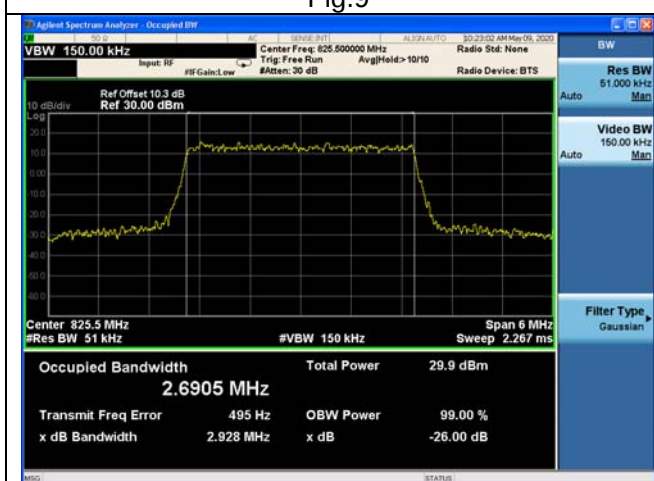


Fig.11

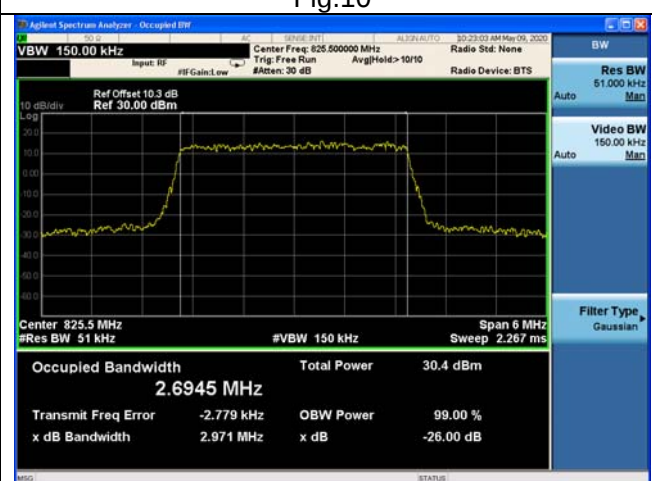


Fig.12

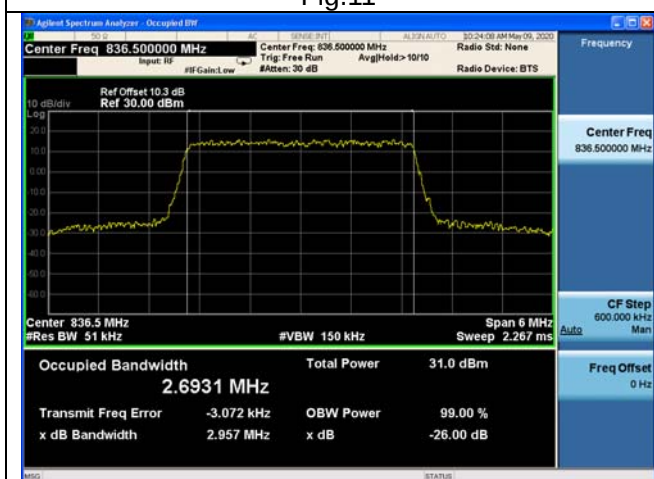


Fig.13

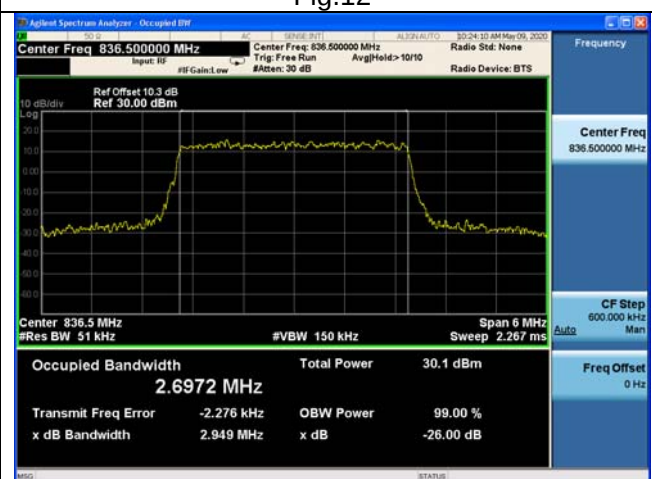


Fig.14

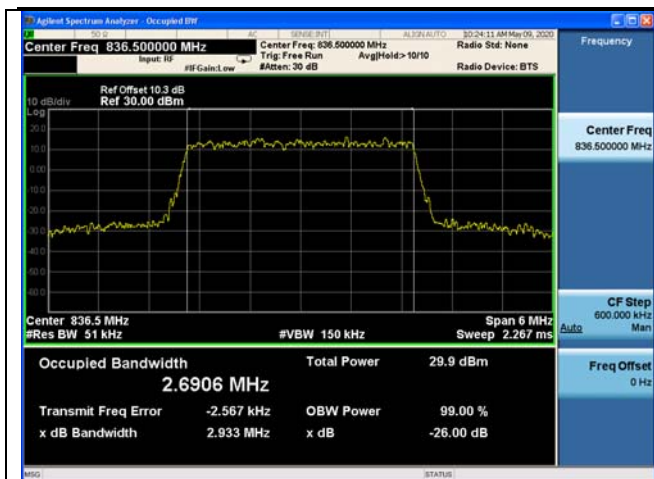


Fig.15

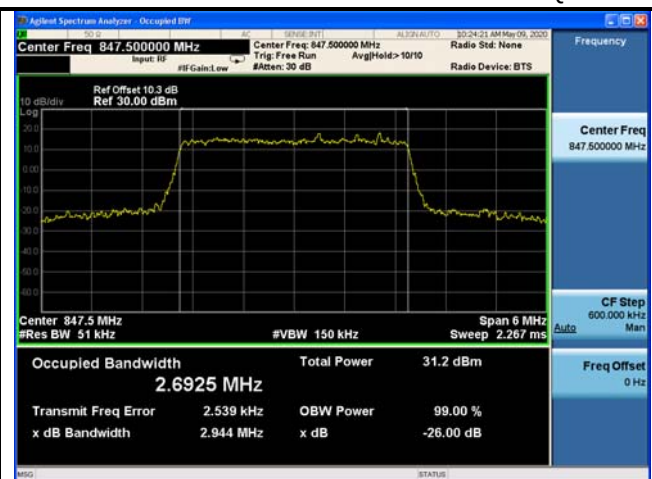


Fig.16

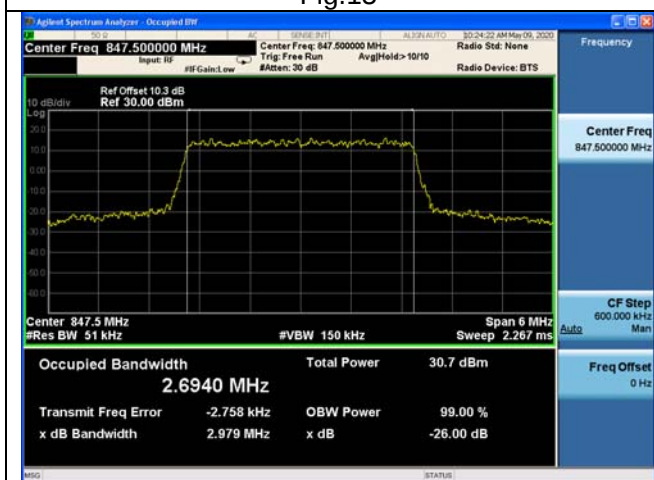


Fig.17

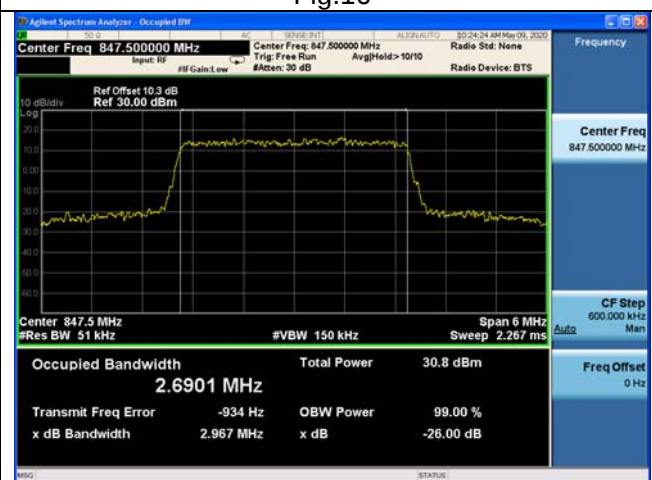


Fig.18

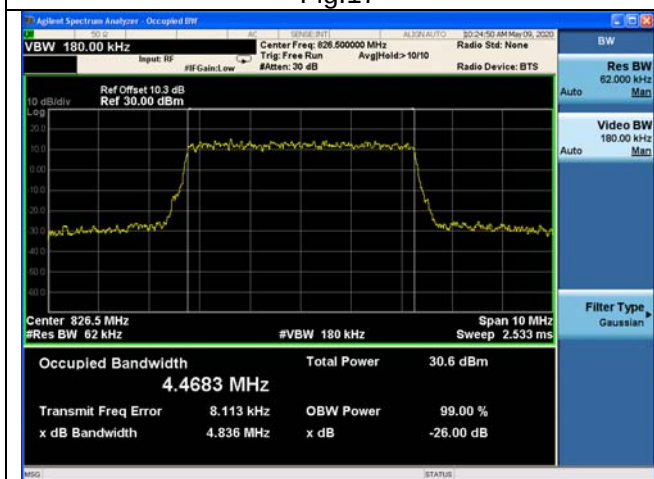


Fig.19

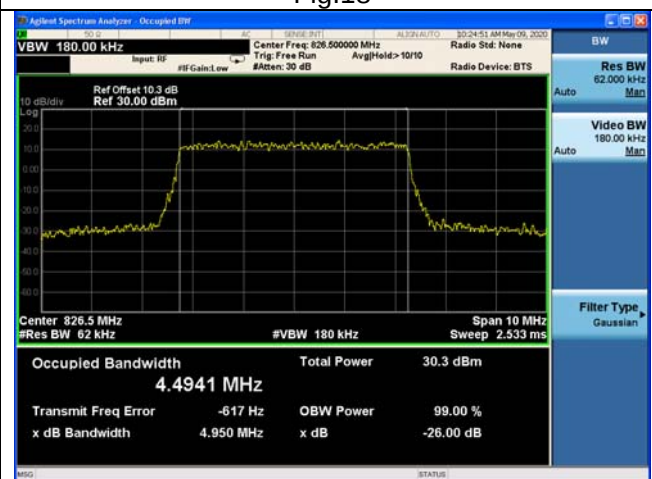


Fig.20

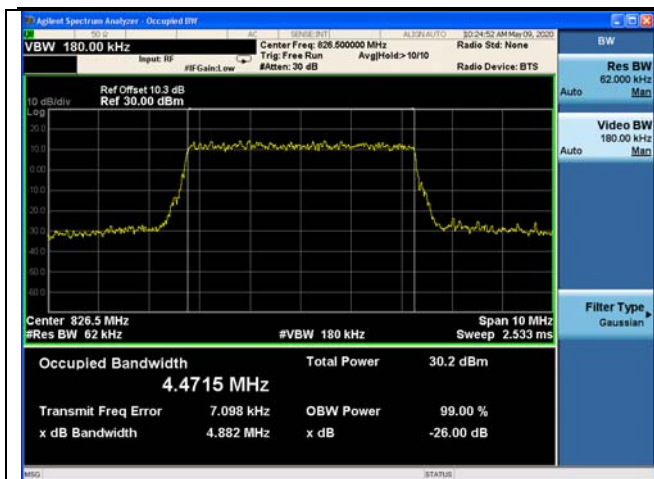


Fig.21

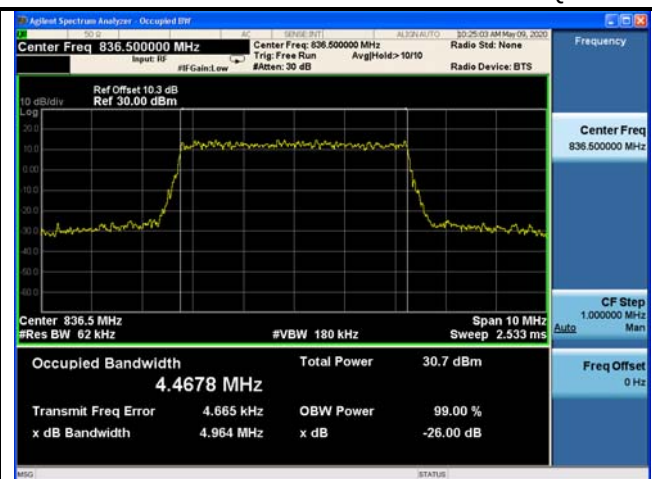


Fig.22

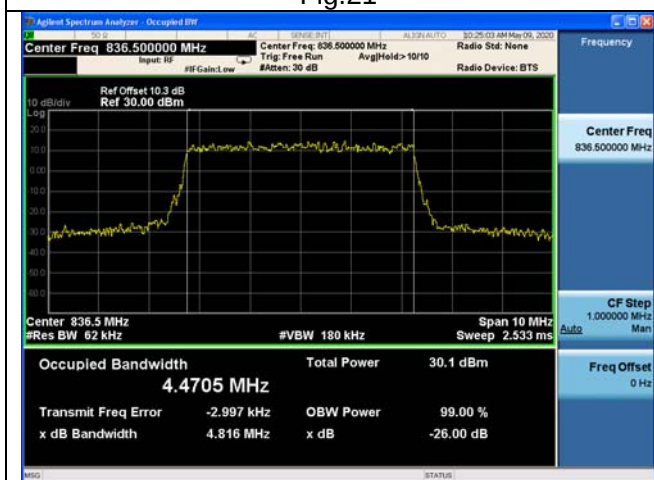


Fig.23

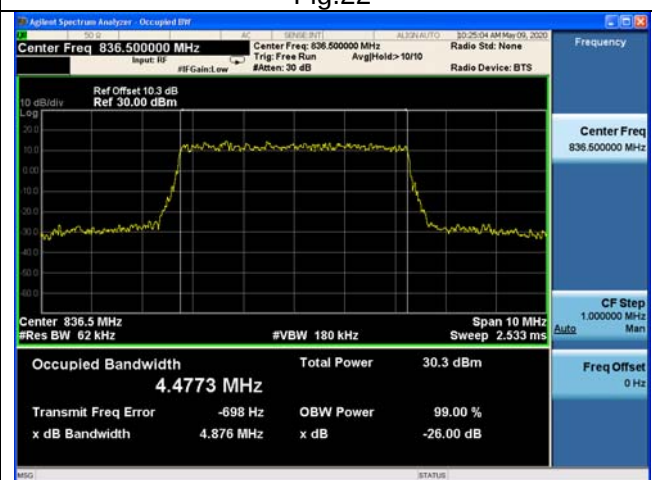


Fig.24

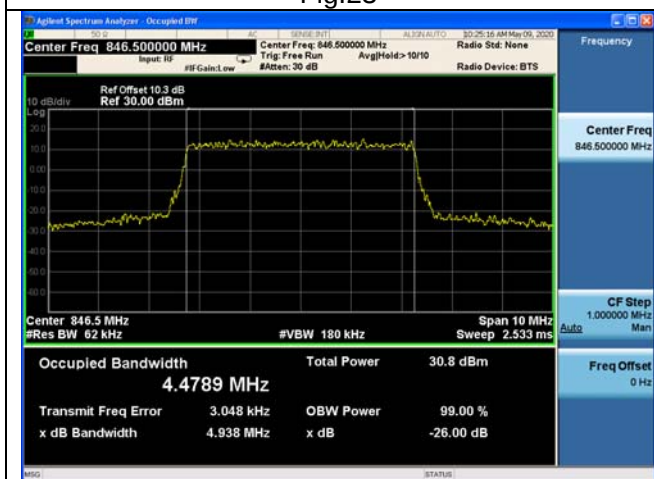


Fig.25

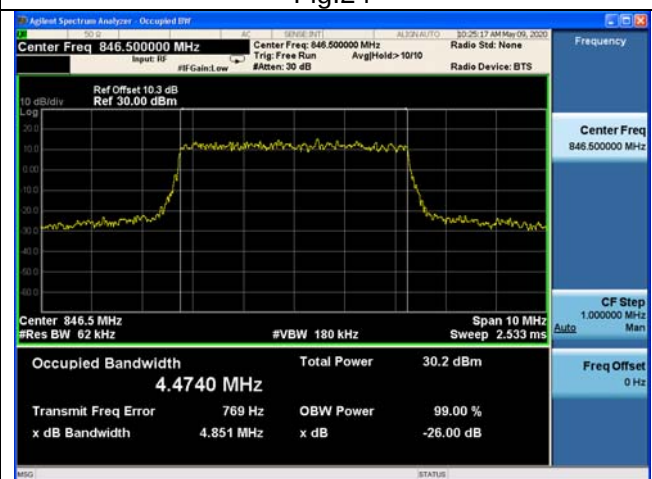


Fig.26

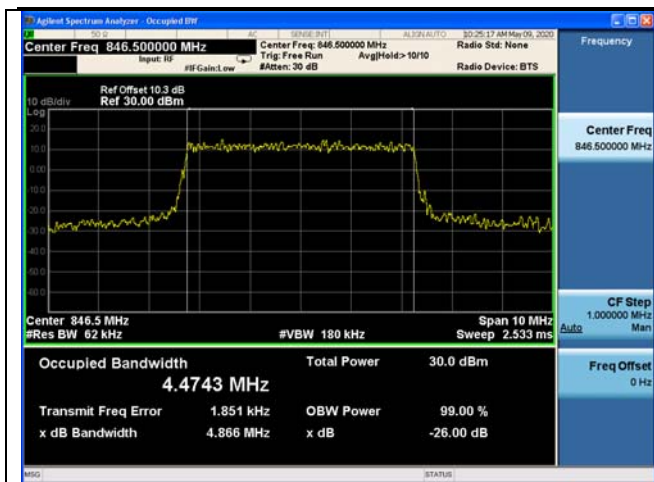


Fig.27

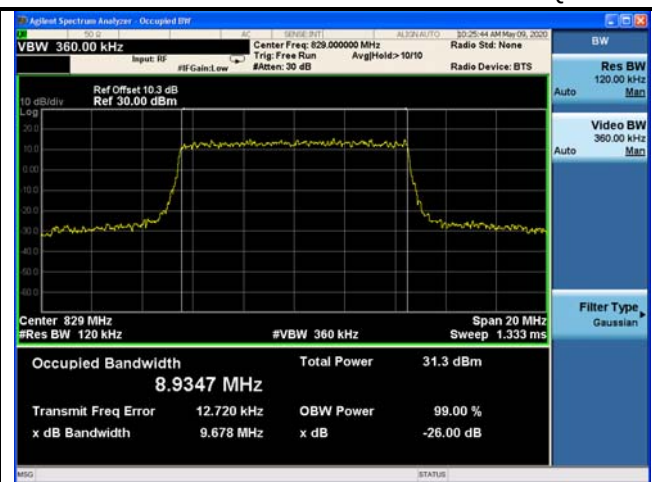


Fig.28

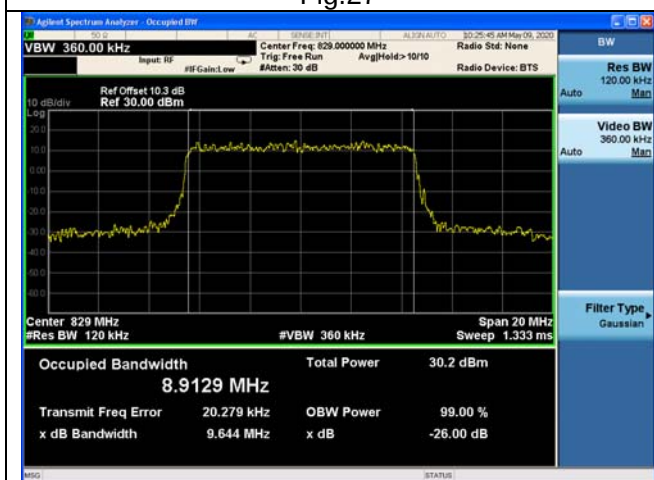


Fig.29

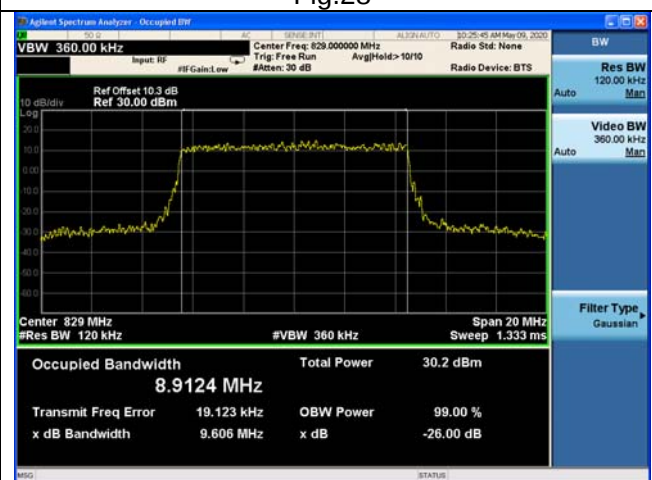


Fig.30

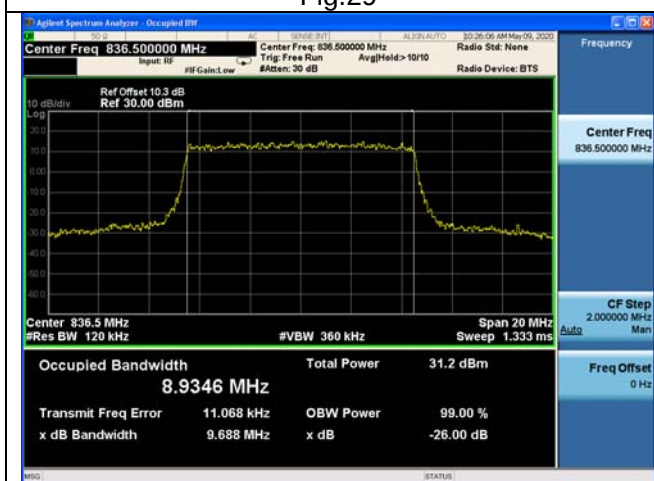


Fig.31

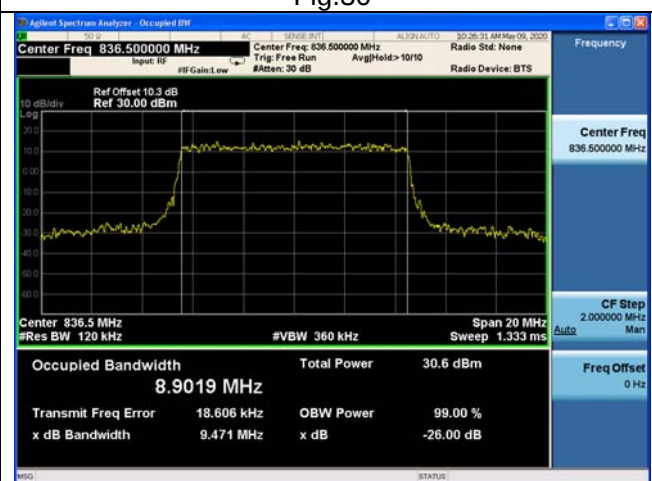


Fig.32

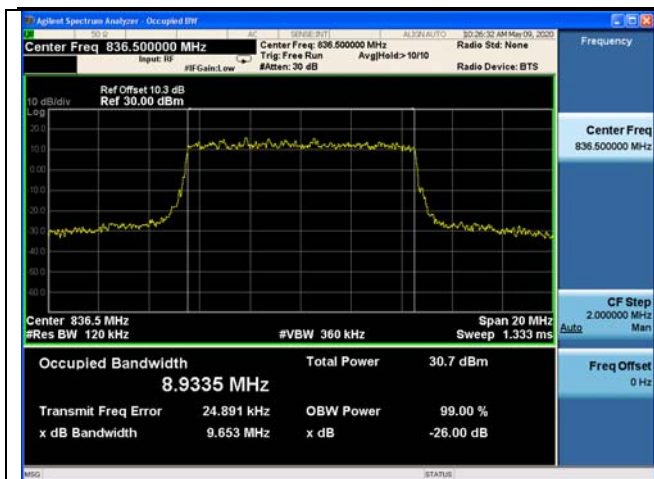


Fig.33

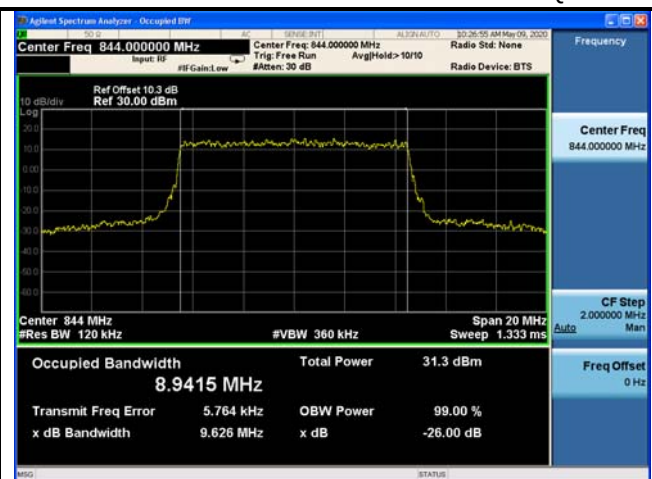


Fig.34

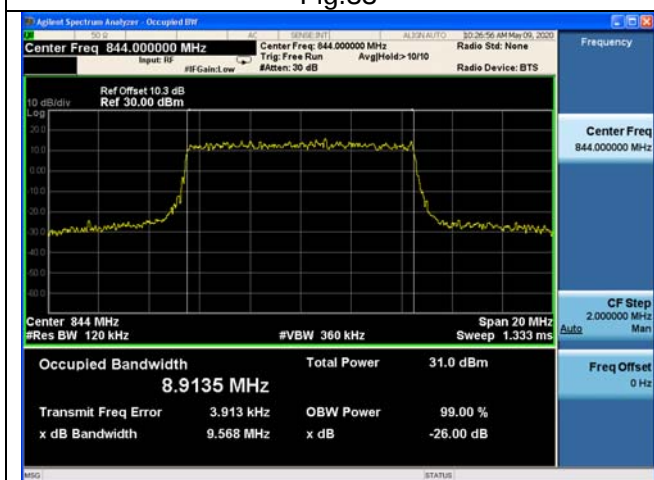


Fig.35

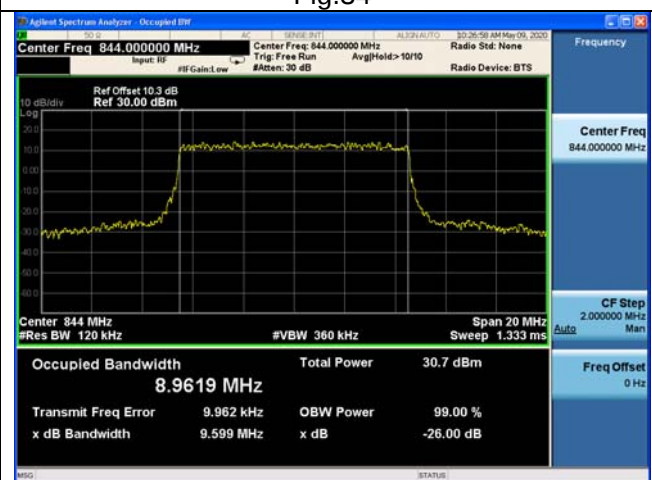


Fig.36

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
5	836.5	20525	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

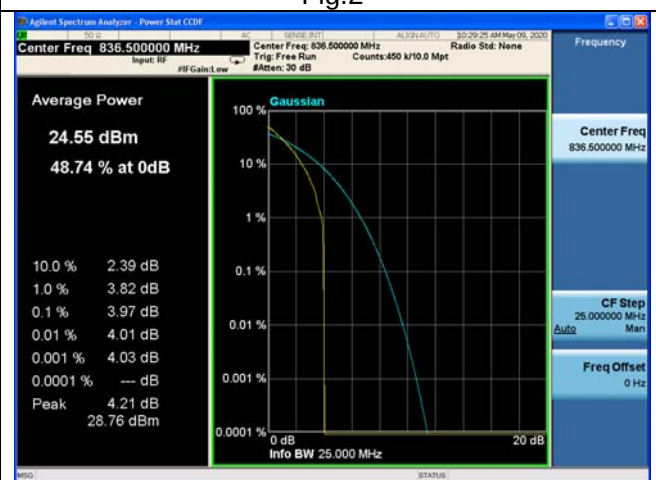


Fig.4



Fig.5



Fig.6



Fig.7

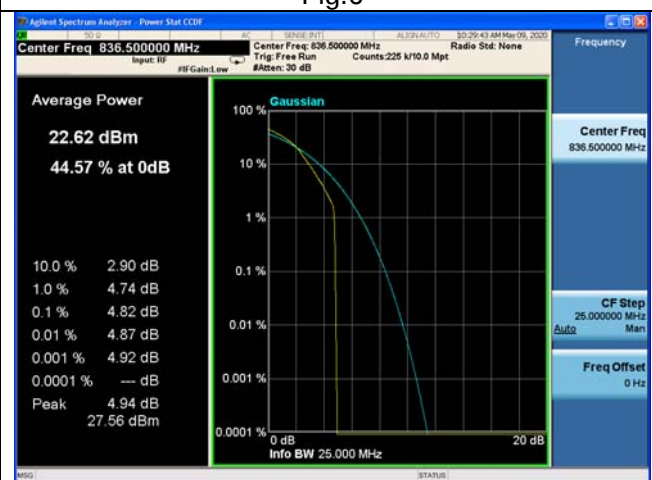


Fig.8



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
5	829	20450	10	1	0	Fig.1-2
	836.5	20525	10	1	0	Fig.3-4
	844	20600	10	1	0	Fig.4-5

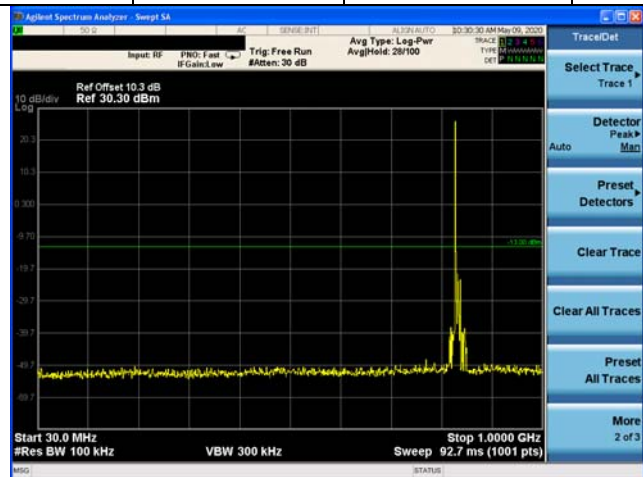


Fig.1

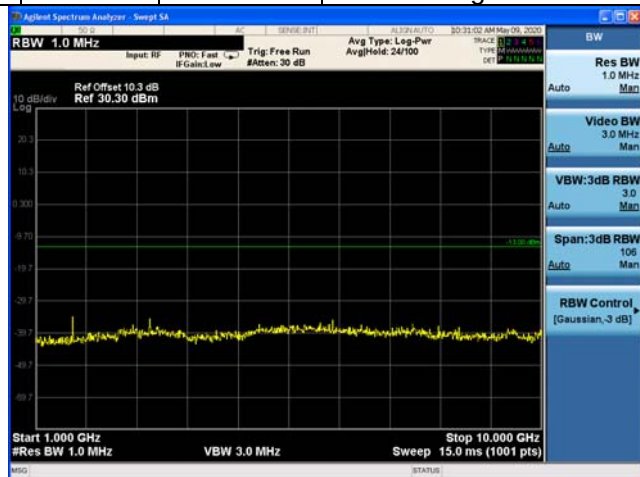


Fig.2

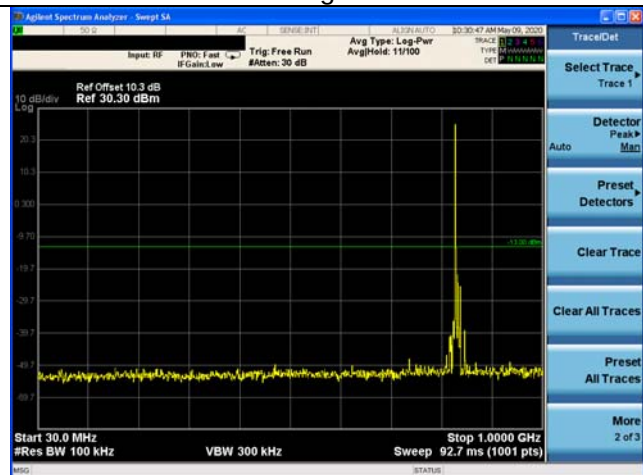


Fig3

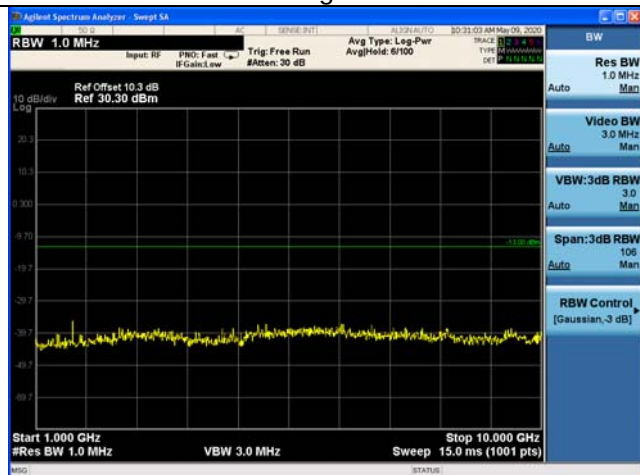


Fig4

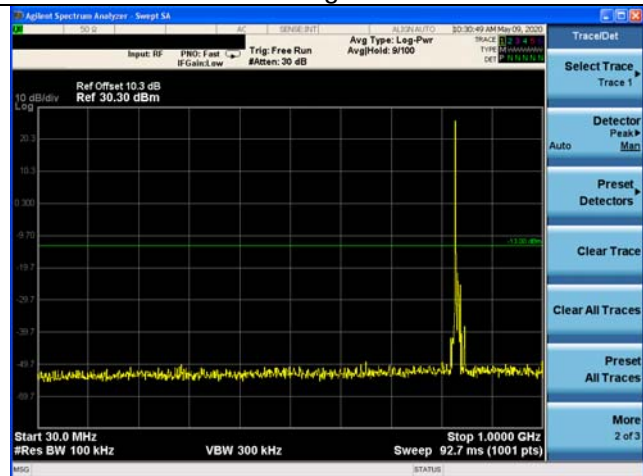


Fig5

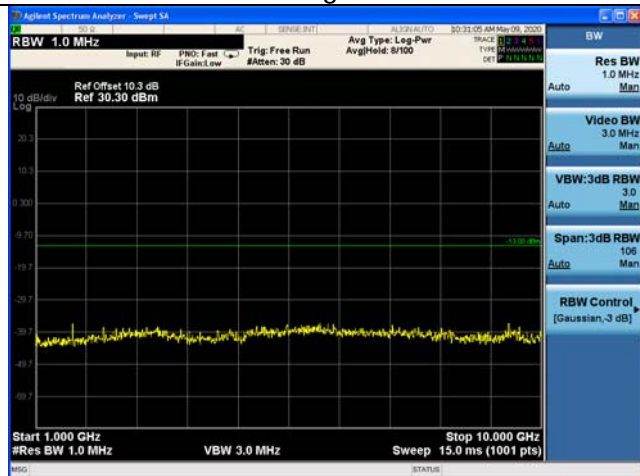


Fig6

5 Band Edges Compliance

Test result

Test Result						
Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
5	824.7	20407	1.4	1	0	Fig.1
				6	0	Fig.2
	848.3	20643		1	5	Fig.3
				6	0	Fig.4
	825.5	20415	3	1	0	Fig.5
				15	0	Fig.6
	847.5	20635		1	14	Fig.7
				15	0	Fig.8
	826.5	20425	5	1	0	Fig.9
				25	0	Fig.10
	846.5	20625		1	24	Fig.11
				25	0	Fig.12
	829	20450	10	1	0	Fig.13
				50	0	Fig.14
	844	20600		1	49	Fig.15
				50	0	Fig.16

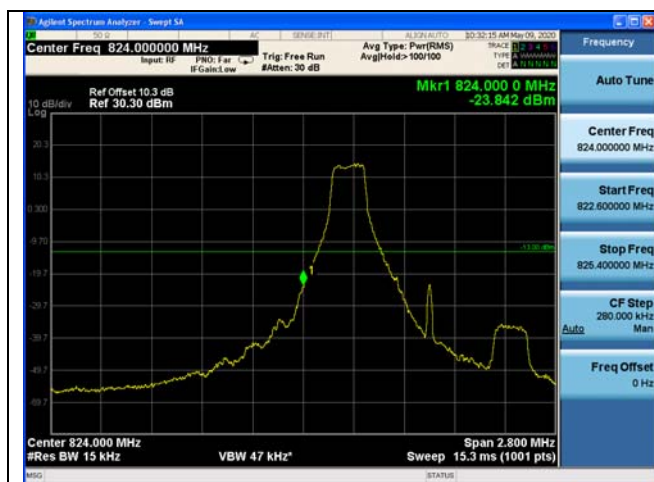


Fig.1



Fig.2

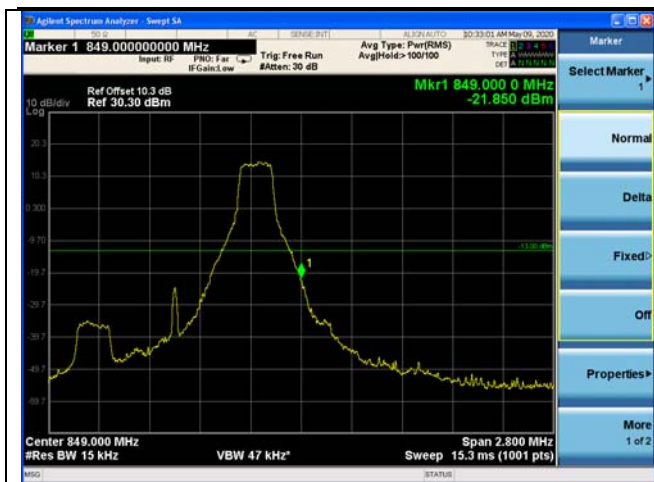


Fig.3



Fig.4

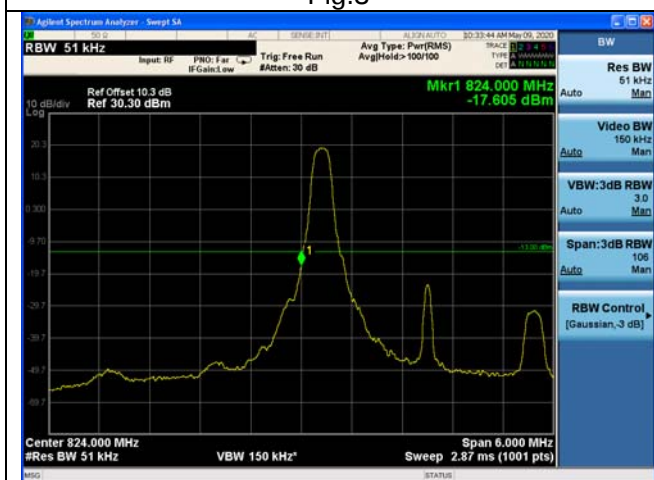


Fig.5



Fig.6

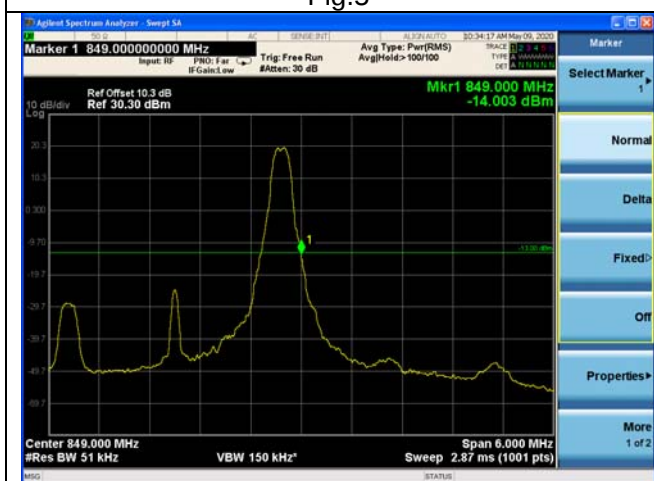


Fig.7



Fig.8

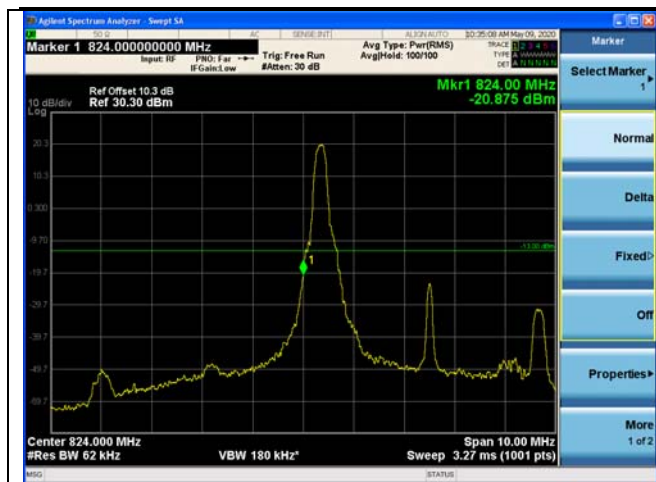


Fig.9



Fig.10

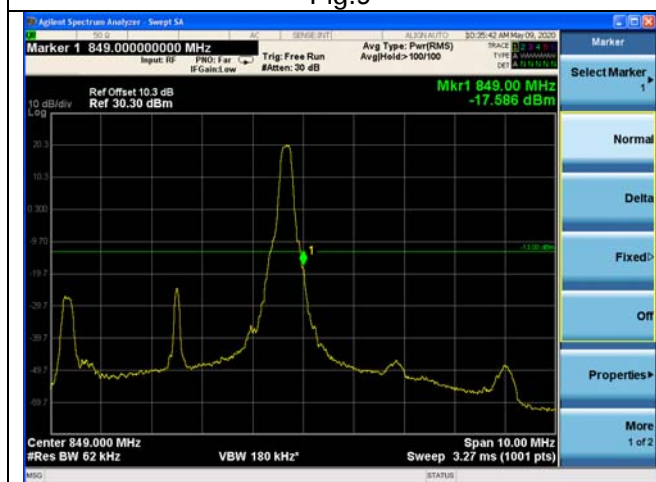


Fig.11



Fig.12

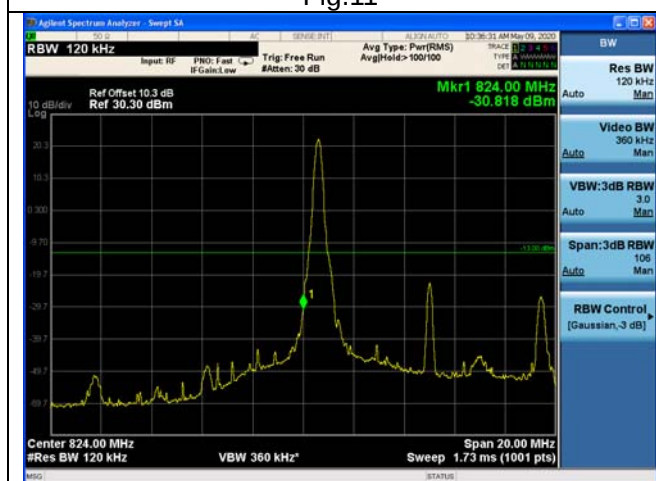


Fig.13

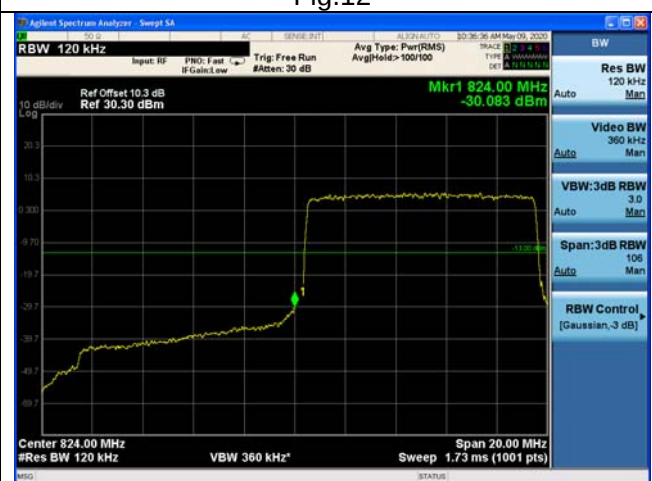
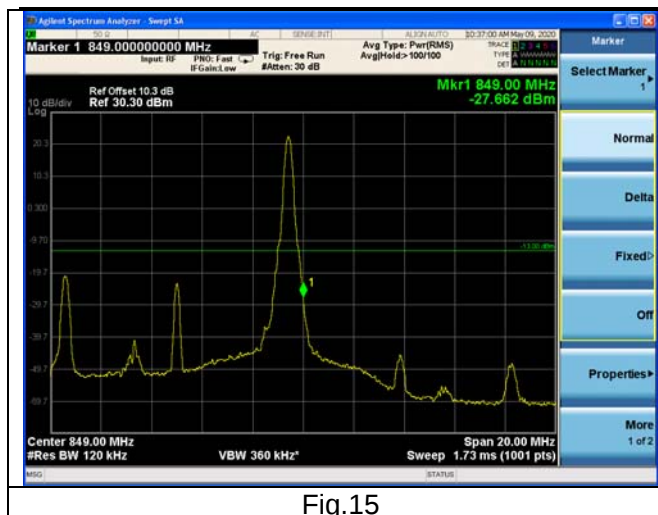


Fig.14



6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band5Low Channel			
		1.4M	3M	5M	10M
-10	NV	0.047	0.015	-0.062	0.042
0	NV	-0.068	-0.021	0.060	-0.048
+10	NV	0.053	-0.017	0.087	-0.100
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.014	-0.073	-0.058	0.007
+40	NV	-0.092	0.048	0.005	0.040
+50	NV	-0.091	-0.028	0.092	-0.070
+55	NV	-0.025	0.008	0.086	-0.041
+20	LV	0.052	-0.070	-0.006	0.007
+20	HV	0.007	-0.036	0.003	-0.070

Temperature(°C)	Voltage	Test Result (ppm) Band5High annel			
		1.4M	3M	5M	10M
-10	NV	-0.079	-0.093	-0.064	0.044
0	NV	0.082	0.016	-0.067	-0.051
+10	NV	0.065	-0.062	0.030	-0.062
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.040	-0.026	0.080	-0.099
+40	NV	-0.079	0.028	0.033	0.050
+50	NV	0.031	-0.049	-0.009	0.012
+55	NV	0.003	-0.020	0.018	0.026
+20	LV	0.068	-0.025	0.067	-0.086
+20	HV	-0.073	-0.027	0.083	0.092