

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	23.00
				1	5	23.11
				3	2	22.67
				6	0	22.60
	836.5	20525		1	0	23.34
				1	5	23.23
				3	2	22.57
				6	0	22.47
	848.3	20643		1	0	23.31
				1	5	23.26
				3	2	22.53
				6	0	22.32
16QAM	824.7	20407	1.4	1	0	22.97
				1	5	23.05
				3	2	21.67
				6	0	21.60
	836.5	20525		1	0	22.59
				1	5	22.63
				3	2	21.68
				6	0	21.60
	848.3	20643		1	0	22.49
				1	5	22.51
				3	2	21.57
				6	0	21.40
64QAM	824.7	20407	1.4	1	0	22.50
				1	5	22.63
				3	2	21.58
				6	0	21.58
	836.5	20525		1	0	22.80
				1	5	22.81
				3	2	21.74
				6	0	21.64
	848.3	20643		1	0	22.84
				1	5	22.78
				3	2	21.70
				6	0	21.63

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	825.5	20415	3	1	0	23.03
				1	14	23.03
				8	4	22.71
	836.5	20525		15	0	22.64
				1	0	23.21
				1	14	23.26
	847.5	20635		8	4	22.64
				15	0	22.51
				1	0	23.31
16QAM	825.5	20415	3	1	0	22.99
				1	14	23.08
				8	4	21.61
	836.5	20525		15	0	21.61
				1	0	22.66
				1	14	22.57
	847.5	20635		8	4	21.69
				15	0	21.68
				1	0	22.50
64QAM	825.5	20415	3	1	14	22.52
				8	4	21.61
				15	0	21.44
	836.5	20525		1	0	22.54
				1	14	22.66
				8	4	21.53
	847.5	20635		15	0	21.59
				1	0	22.85
				1	14	22.79
847.5	20635	8	4	21.72		
		15	0	21.68		
		1	0	22.75		
847.5	20635	1	14	22.84		
		8	4	21.76		
		15	0	21.53		

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	826.5	20425	5	1	0	23.01
				1	24	23.04
				12	6	22.62
				25	0	22.63
	836.5	20525		1	0	23.30
				1	24	23.20
				12	6	22.62
				25	0	22.51
	846.5	20625		1	0	23.35
				1	24	23.29
				12	6	22.61
				25	0	22.37
16QAM	826.5	20425	5	1	0	23.01
				1	24	23.07
				12	6	21.64
				25	0	21.52
	836.5	20525		1	0	22.65
				1	24	22.52
				12	6	21.75
				25	0	21.57
	846.5	20625		1	0	22.52
				1	24	22.54
				12	6	21.60
				25	0	21.41
64QAM	826.5	20425	5	1	0	22.52
				1	24	22.61
				12	6	21.52
				25	0	21.67
	836.5	20525		1	0	22.87
				1	24	22.78
				12	6	21.72
				25	0	21.53
	846.5	20625		1	0	22.84
				1	24	22.72
				12	6	21.69
				25	0	21.59

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	829	20450	10	1	0	23.13
				1	49	23.11
				24	12	22.75
				50	0	22.65
	836.5	20525		1	0	23.36
				1	49	23.28
				24	12	22.65
				50	0	22.52
	844	20600		1	0	23.35
				1	49	23.33
				24	12	22.63
				50	0	22.47
16QAM	829	20450	10	1	0	23.10
				1	49	23.11
				24	12	21.73
				50	0	21.66
	836.5	20525		1	0	22.66
				1	49	22.63
				24	12	21.78
				50	0	21.70
	844	20600		1	0	22.59
				1	49	22.62
				24	12	21.68
				50	0	21.53
64QAM	829	20450	10	1	0	22.56
				1	49	22.69
				24	12	21.61
				50	0	21.71
	836.5	20525		1	0	22.87
				1	49	22.85
				24	12	21.85
				50	0	21.68
	844	20600		1	0	22.88
				1	49	22.86
				24	12	21.83
				50	0	21.66

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	1.0796	Fig.2	1.0774	Fig.3
	836.5	20525		6	0	1.0811	Fig.4	1.0782	Fig.5	1.0808	Fig.6
	848.3	20643		6	0	1.0821	Fig.7	1.0772	Fig.8	1.0797	Fig.9
	825.5	20415	3	15	0	2.7004	Fig.10	2.7001	Fig.11	2.7071	Fig.12
	836.5	20525		15	0	2.6984	Fig.13	2.6915	Fig.14	2.6989	Fig.15
	847.5	20635		15	0	2.6958	Fig.16	2.7002	Fig.17	2.7015	Fig.18
	826.5	20425	5	25	0	4.4773	Fig.19	4.4709	Fig.20	4.4748	Fig.21
	836.5	20525		25	0	4.4742	Fig.22	4.4673	Fig.23	4.4620	Fig.24
	846.5	20625		25	0	4.4751	Fig.25	4.4648	Fig.26	4.4721	Fig.27
	829	20450	10	50	0	8.9569	Fig.28	8.9292	Fig.29	8.9557	Fig.30
	836.5	20525		50	0	8.9440	Fig.31	8.9179	Fig.32	8.9351	Fig.33
844	20600	50		0	8.9288	Fig.34	8.9431	Fig.35	8.9501	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	1.270	Fig.1	1.249	Fig.2	1.208	Fig.3
	836.5	20525		6	0	1.268	Fig.4	1.243	Fig.5	1.241	Fig.6
	848.3	20643		6	0	1.247	Fig.7	1.228	Fig.8	1.219	Fig.9
	825.5	20415	3	15	0	3.026	Fig.10	3.047	Fig.11	3.057	Fig.12
	836.5	20525		15	0	3.040	Fig.13	3.128	Fig.14	3.021	Fig.15
	847.5	20635		15	0	3.004	Fig.16	3.085	Fig.17	3.076	Fig.18
	826.5	20425	5	25	0	5.165	Fig.19	5.042	Fig.20	5.052	Fig.21
	836.5	20525		25	0	4.912	Fig.22	5.067	Fig.23	4.890	Fig.24
	846.5	20625		25	0	5.031	Fig.25	4.955	Fig.26	5.023	Fig.27
	829	20450	10	50	0	9.818	Fig.28	9.731	Fig.29	9.773	Fig.30
	836.5	20525		50	0	9.779	Fig.31	9.796	Fig.32	9.690	Fig.33
844	20600	50		0	9.870	Fig.34	9.752	Fig.35	9.675	Fig.36	

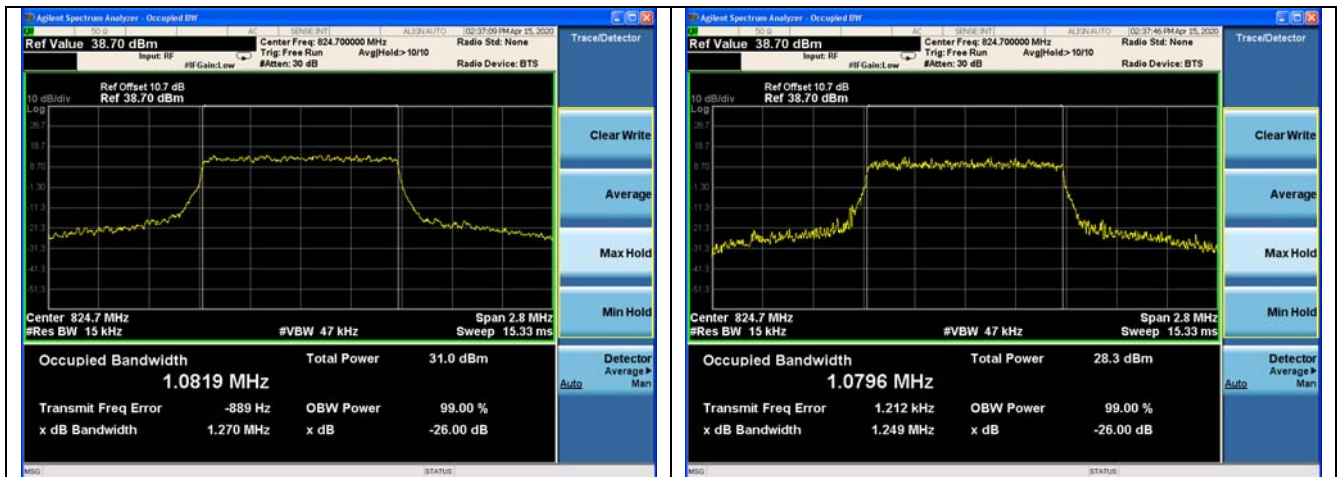


Fig.1

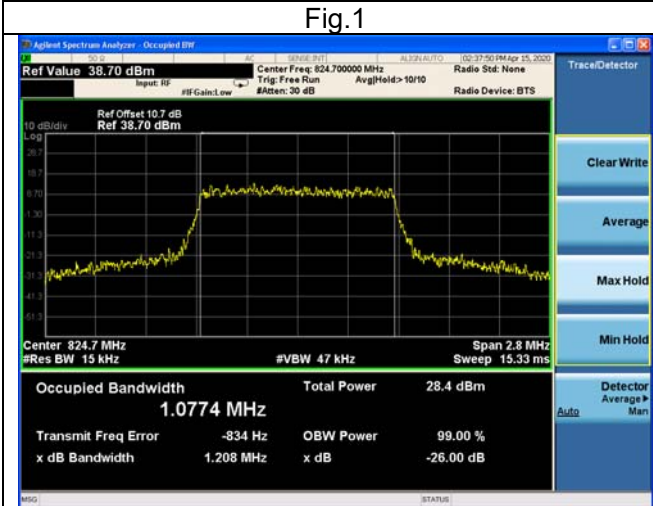


Fig.2

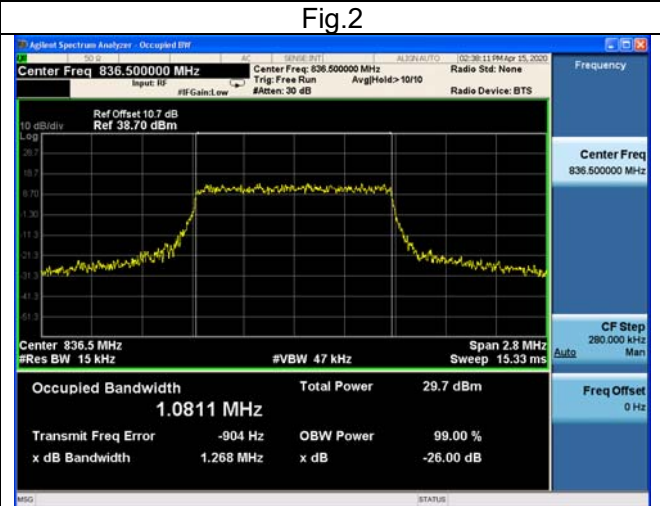


Fig.3

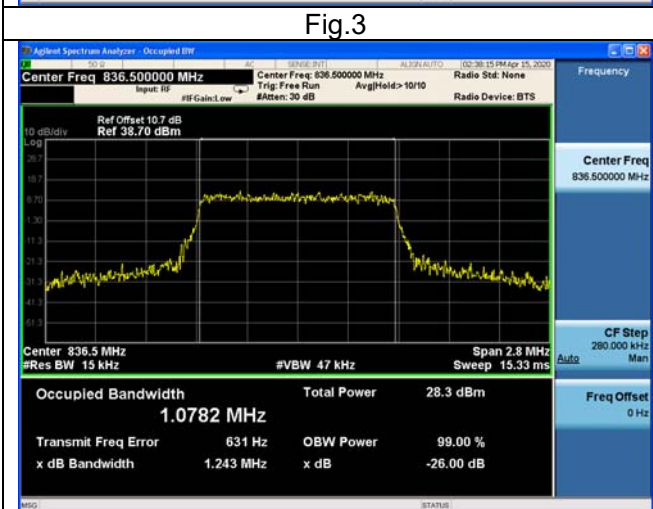


Fig.4

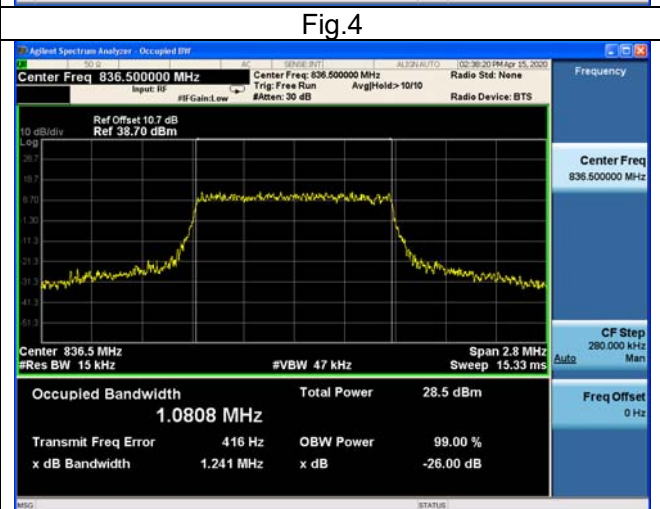


Fig.5

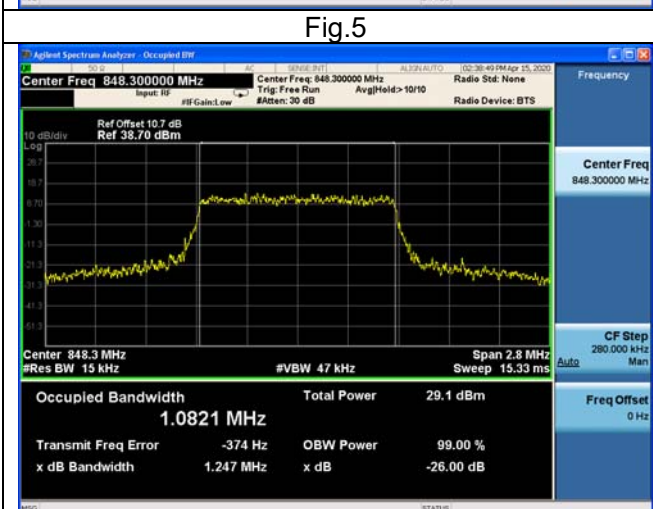


Fig.6

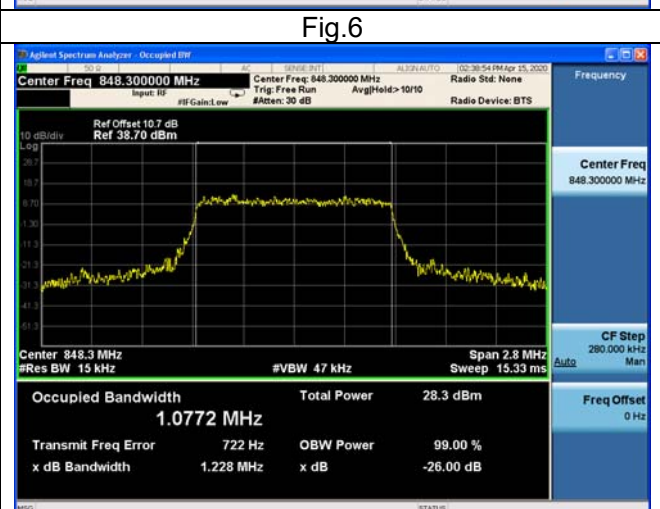


Fig.7

Fig.8

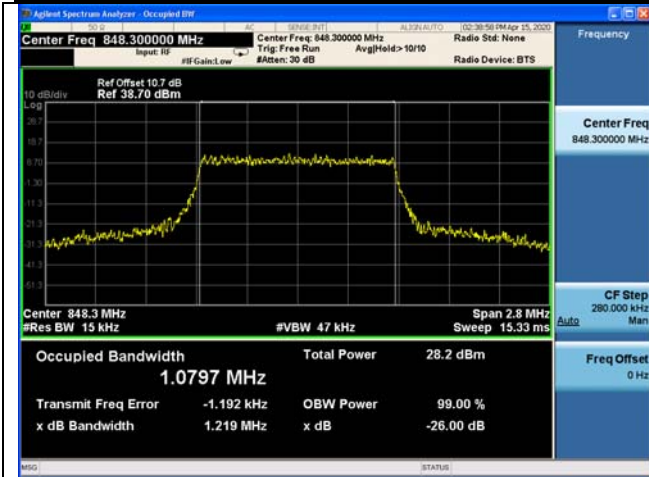


Fig.9

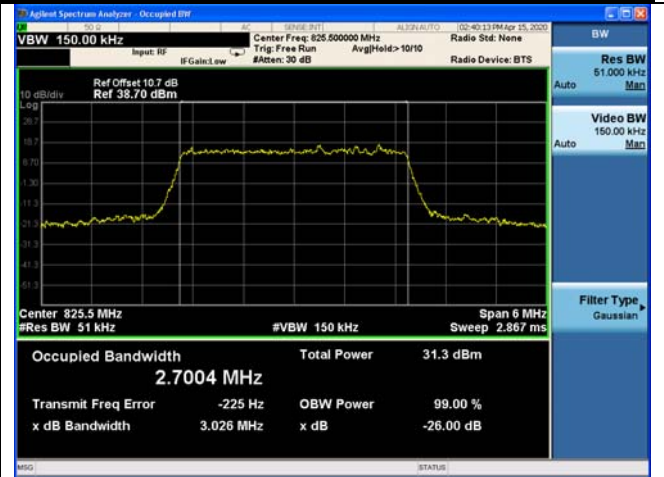


Fig.10

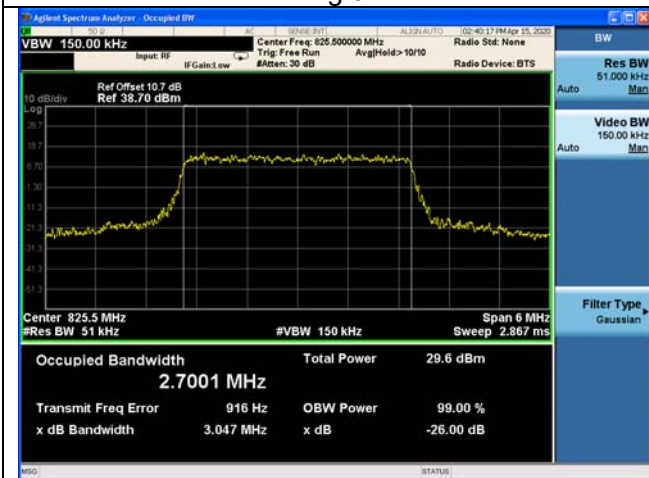


Fig.11

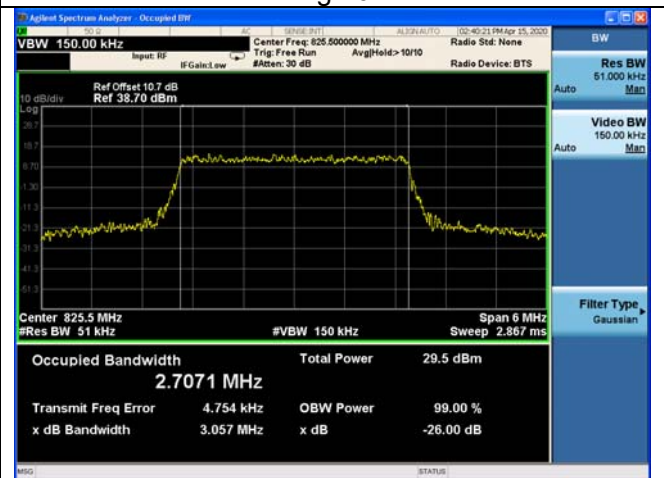


Fig.12

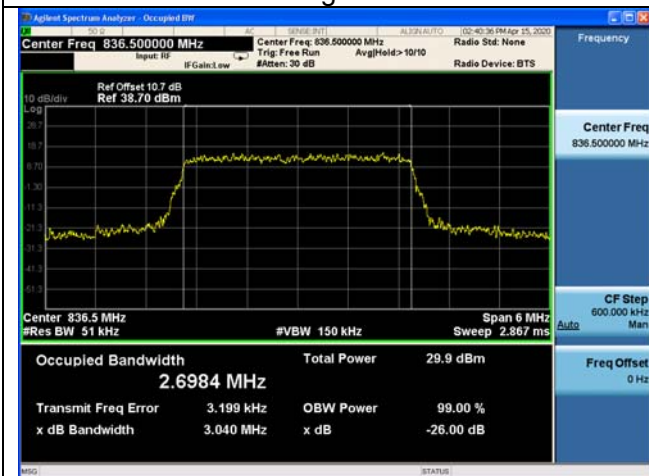


Fig.13

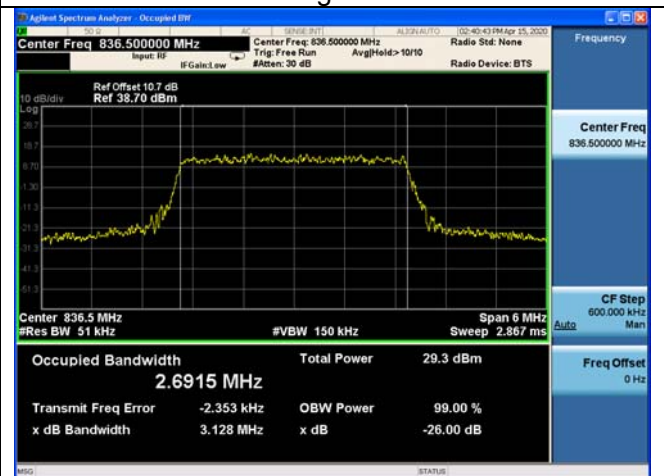


Fig.14



Fig.15

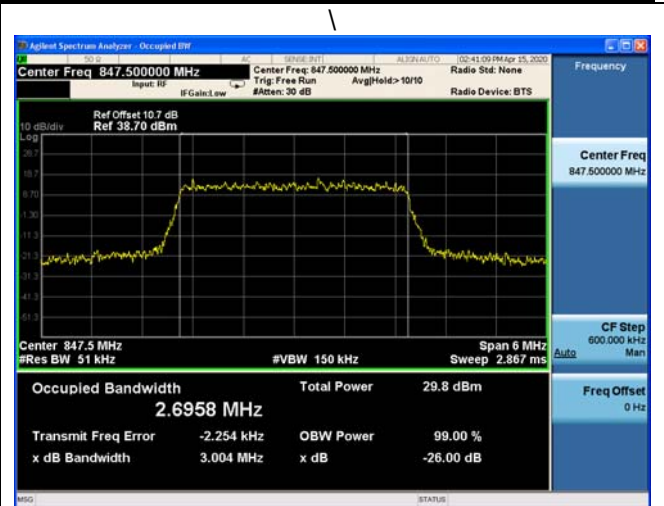


Fig.16

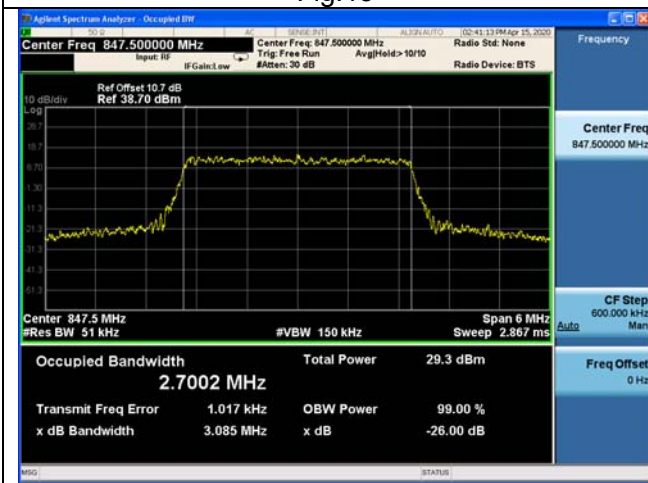


Fig.17

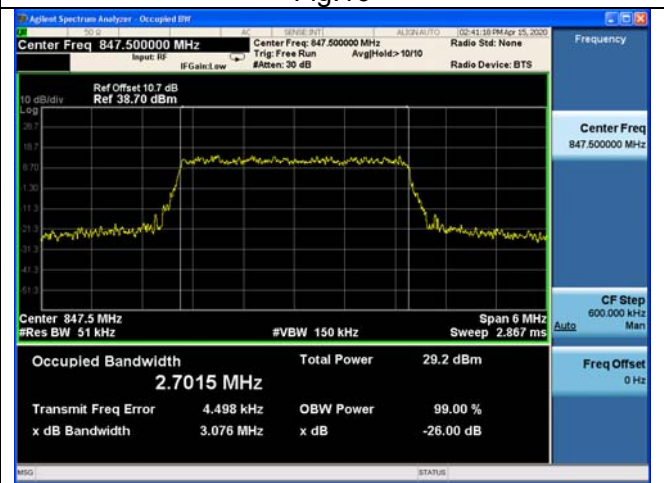


Fig.18

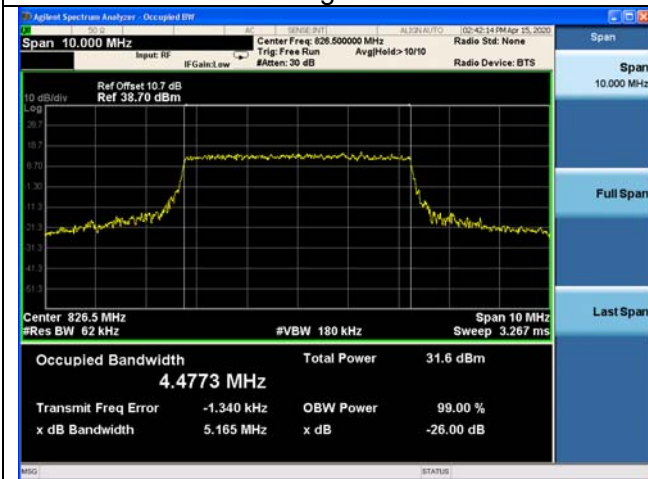


Fig.19

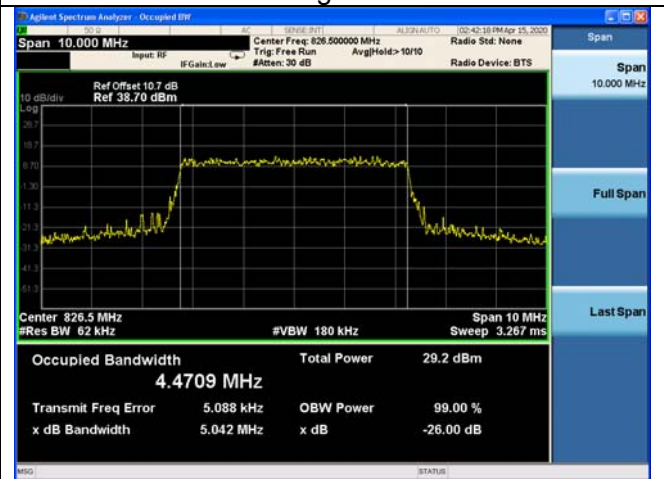


Fig.20

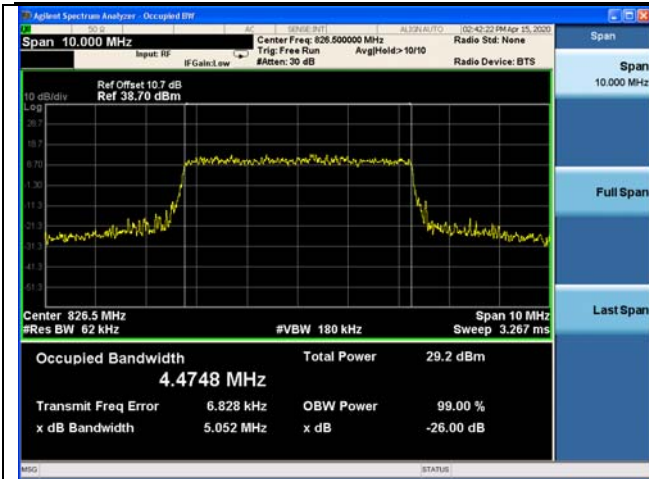


Fig.21

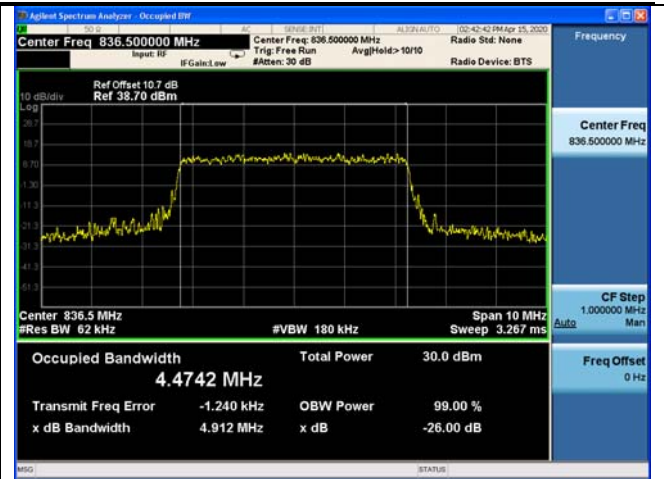


Fig.22

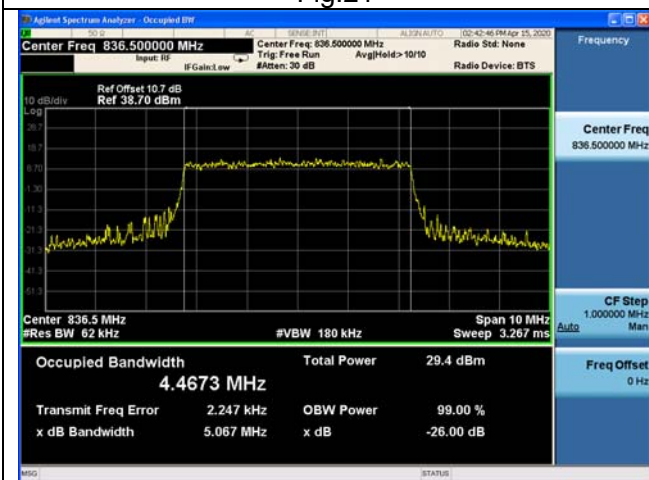


Fig.23

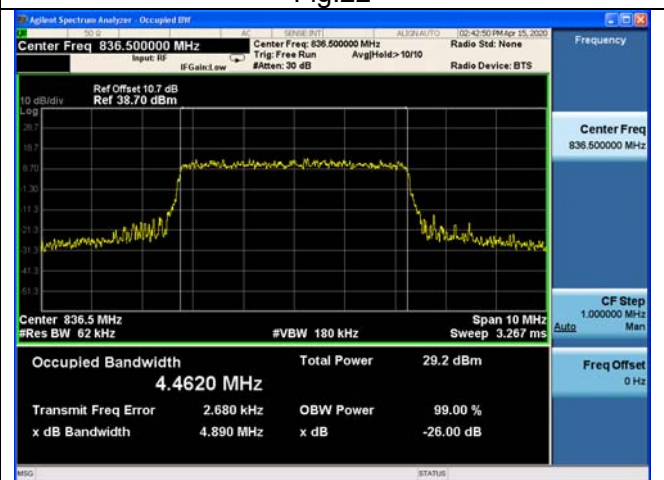


Fig.24

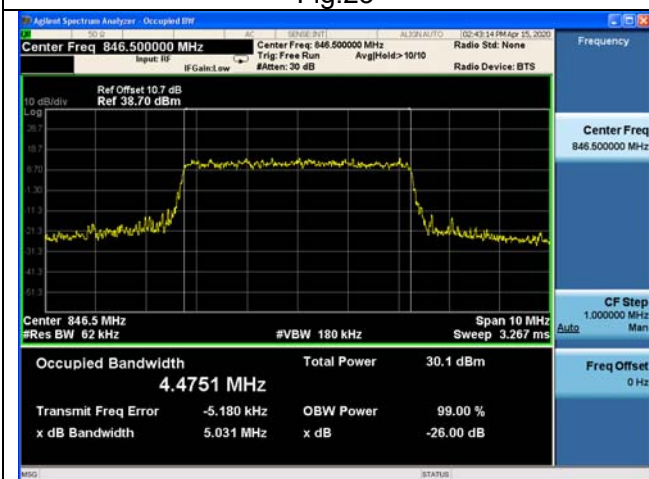


Fig.25

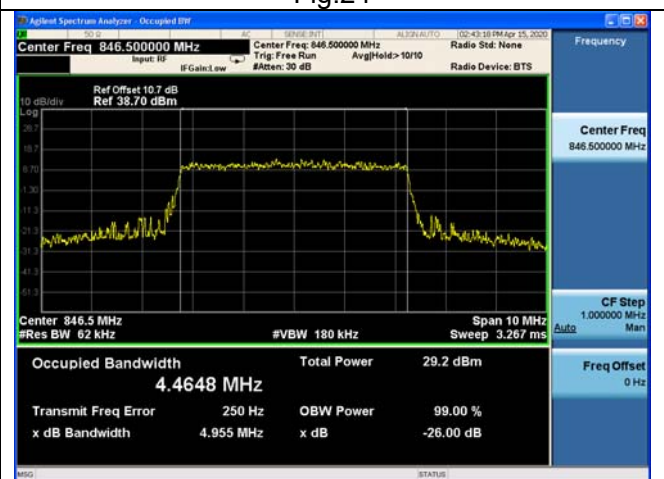


Fig.26

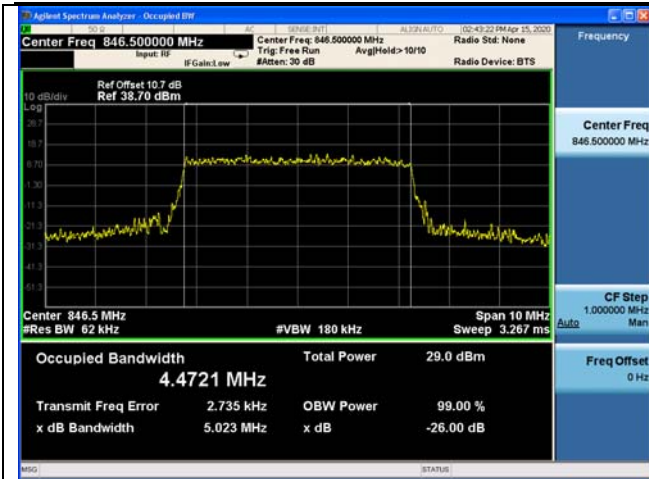


Fig.27

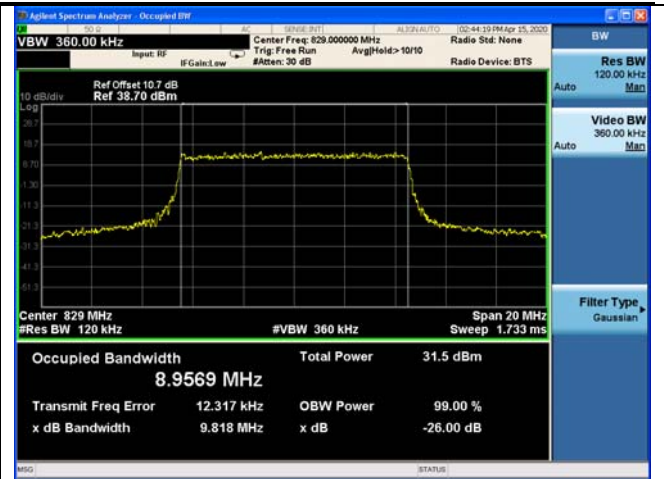


Fig.28

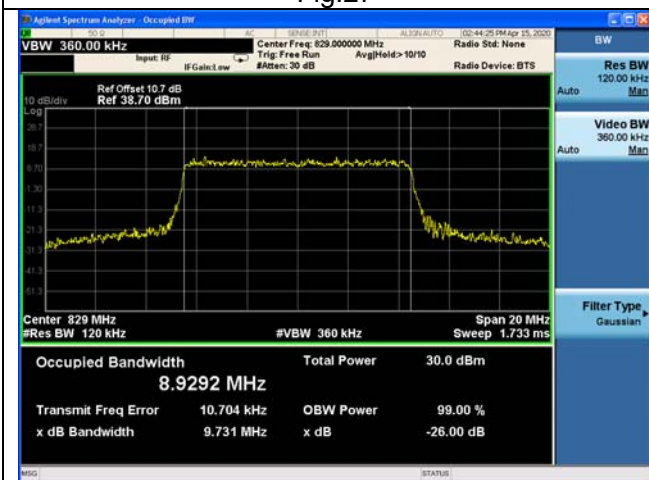


Fig.29

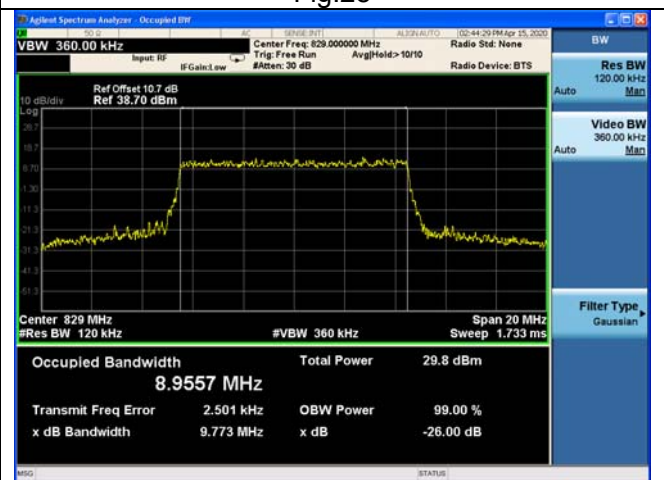


Fig.30

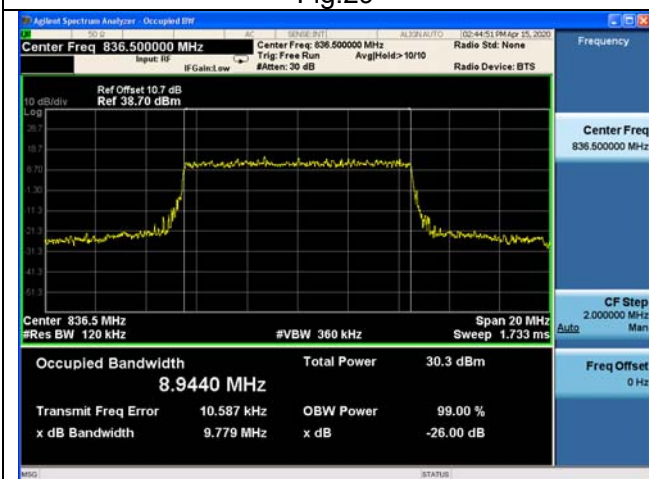


Fig.31

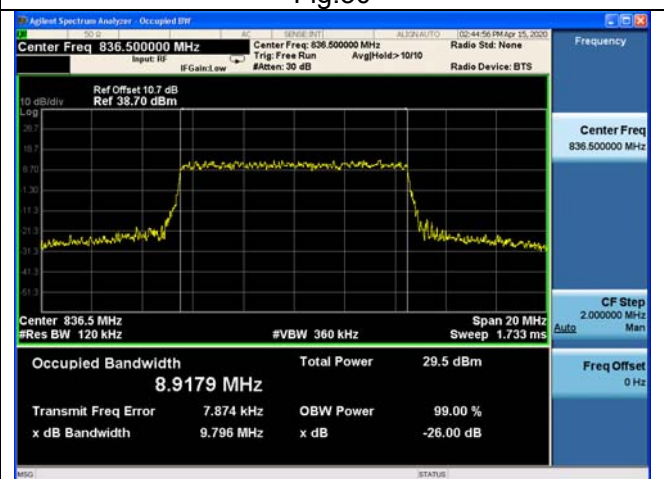


Fig.32

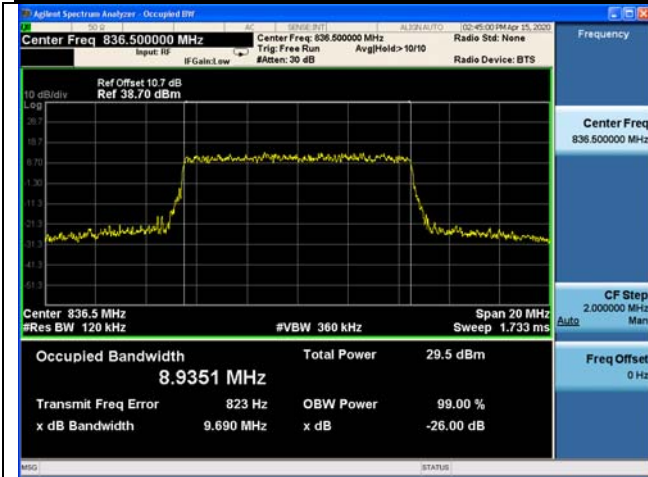


Fig.33



Fig.34

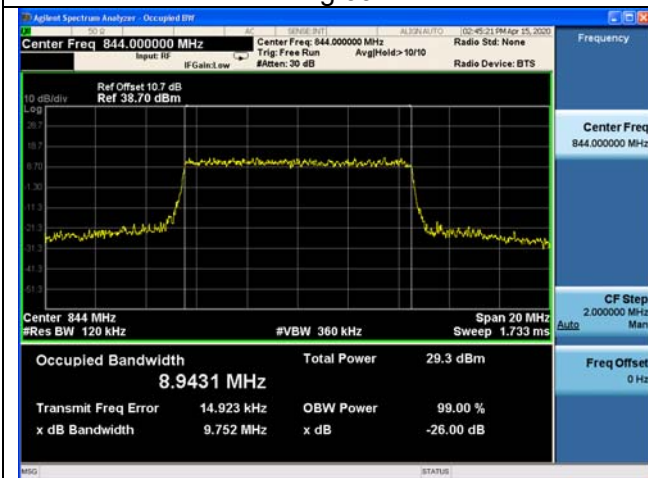


Fig.35

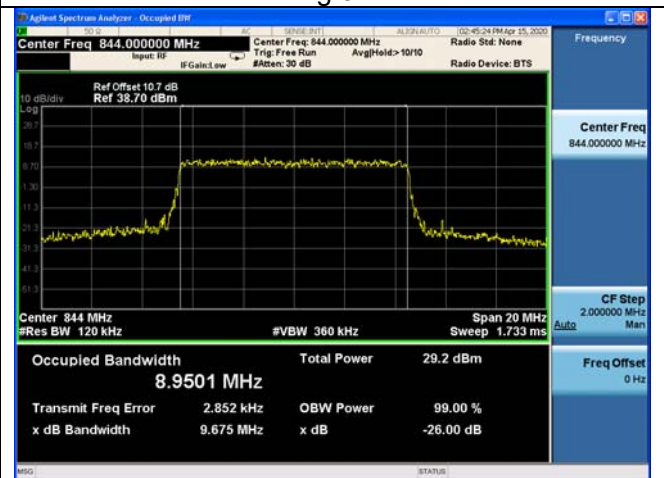


Fig.36

3 Peak-Average Ratio

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

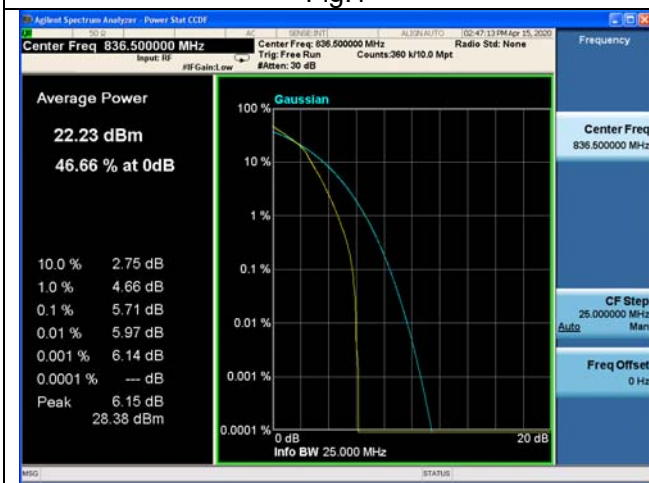


Fig.3

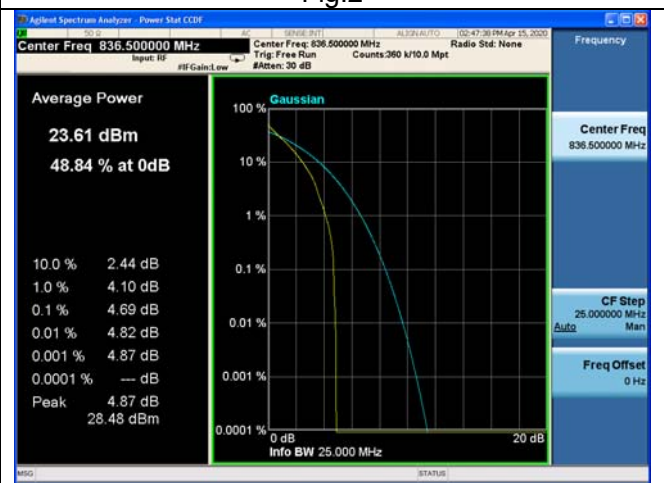


Fig.4

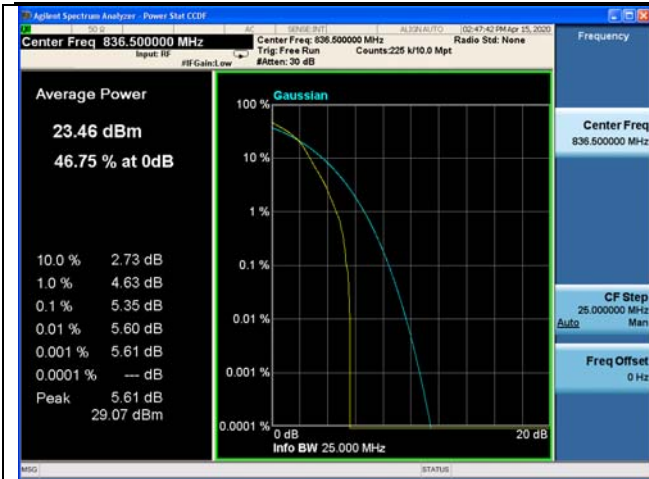


Fig.5



Fig.6



Fig.7

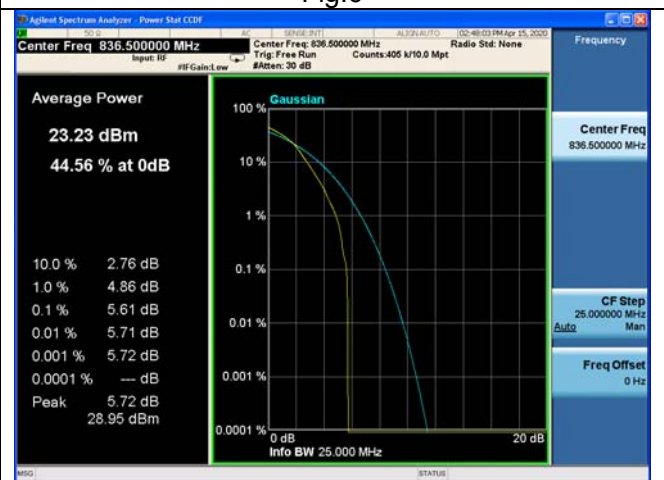


Fig.8



Fig.9

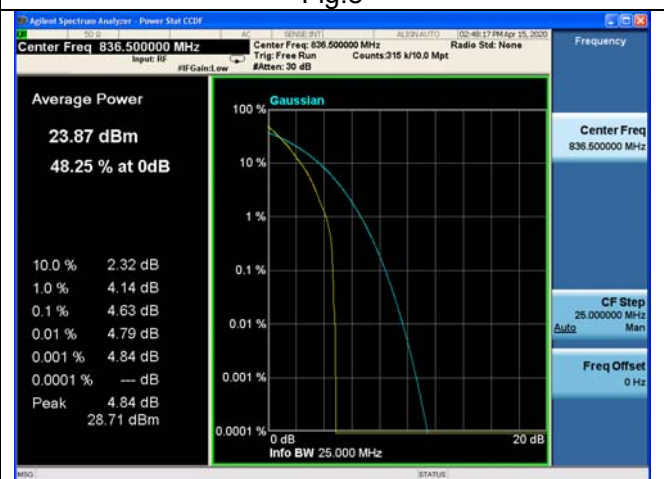


Fig.10



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

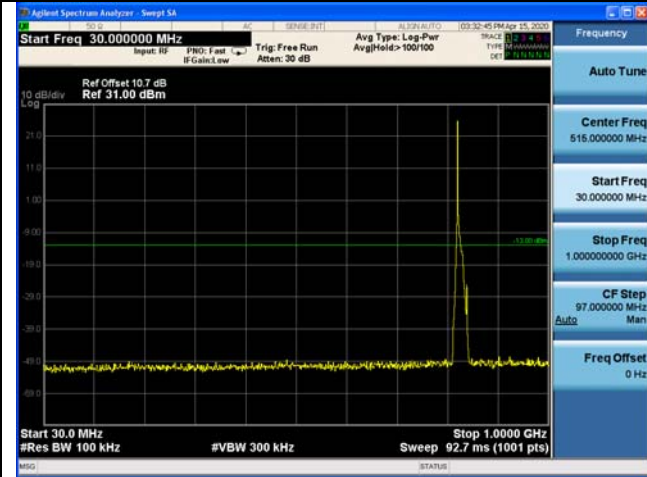


Fig.1

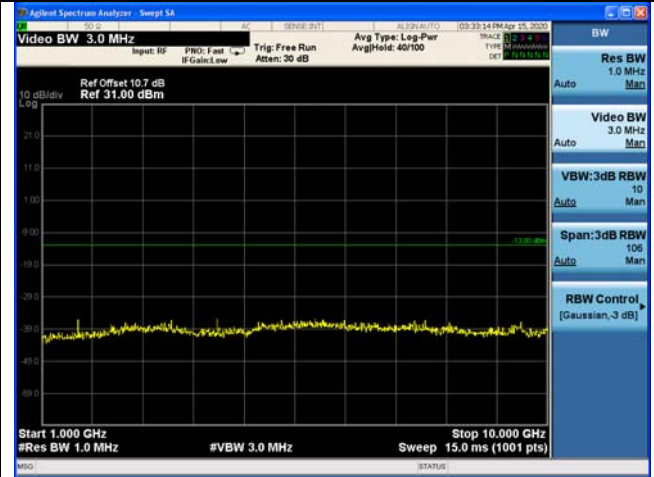


Fig.2

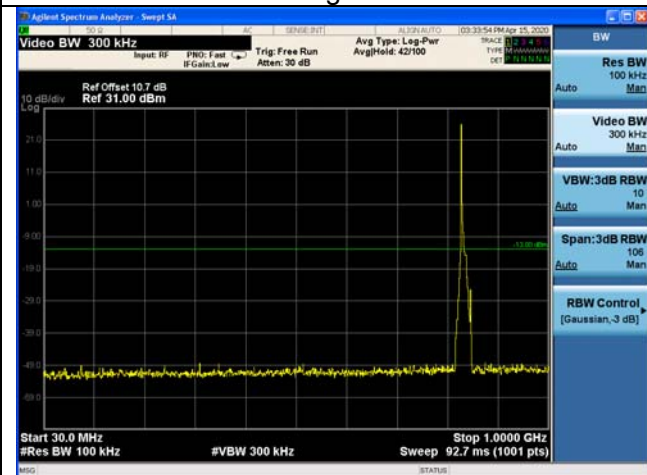


Fig3

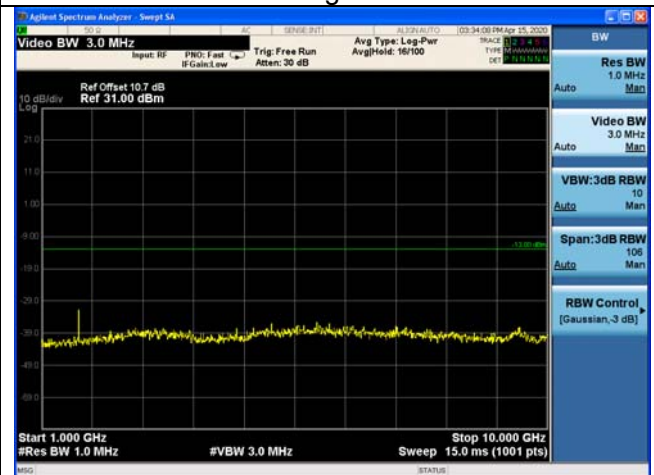


Fig4

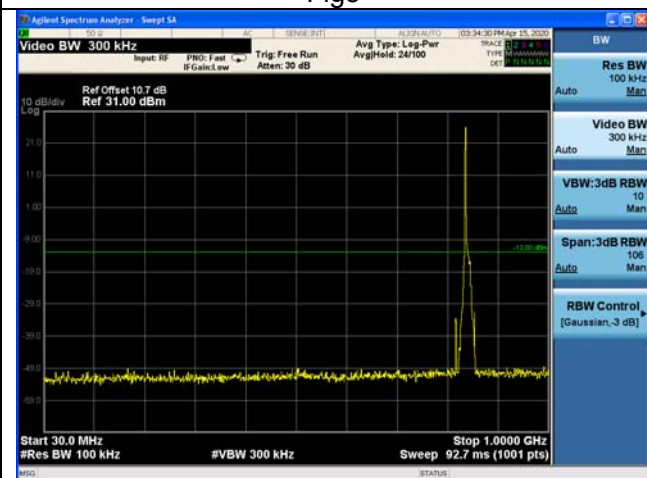


Fig5



Fig6

5 Band Edges Compliance
Test result

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

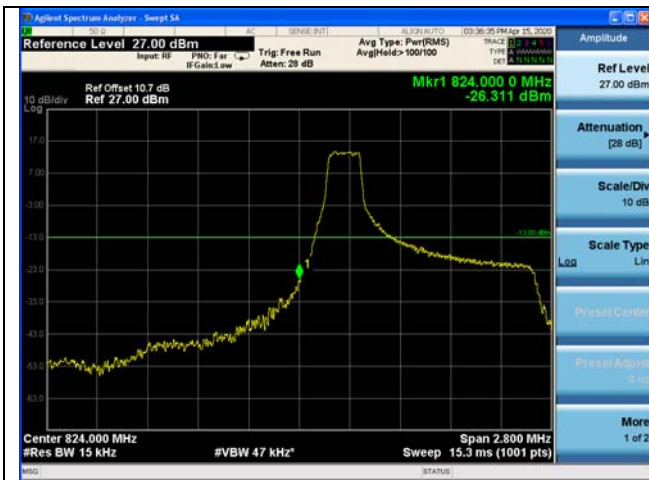


Fig.1

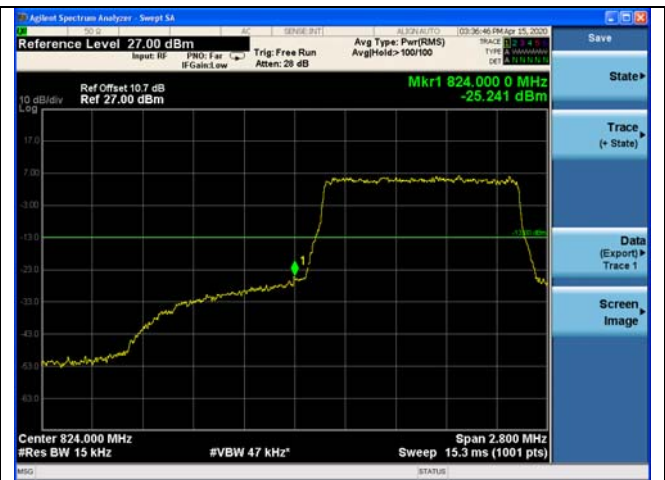


Fig.2



Fig.3



Fig.4

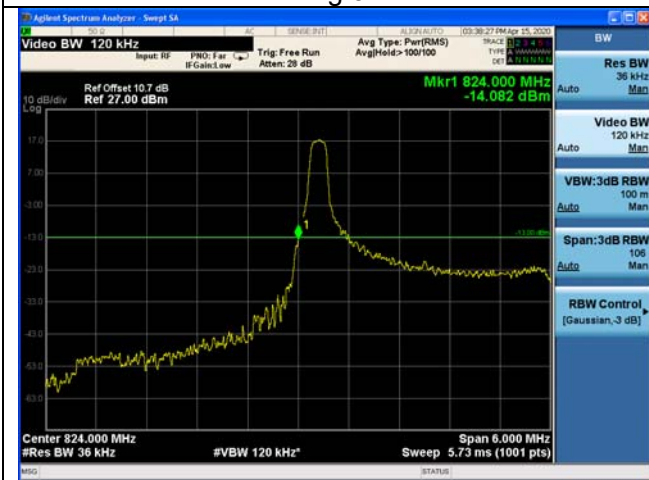


Fig.5



Fig.6

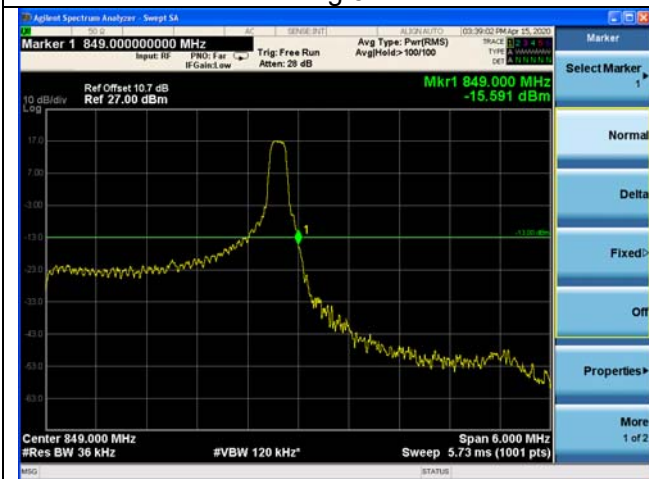


Fig.7



Fig.8

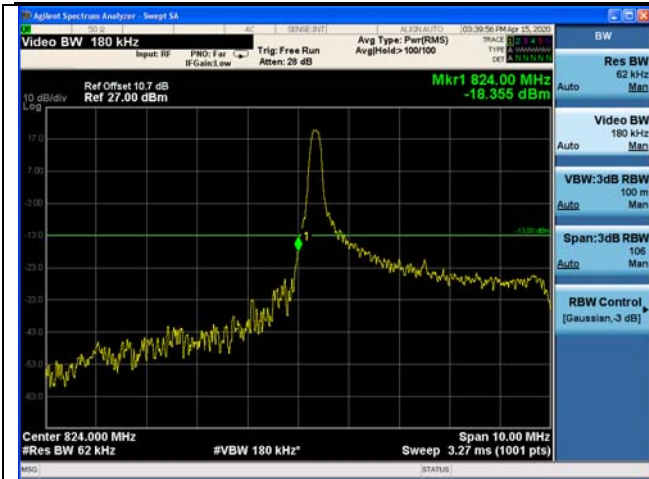


Fig.9

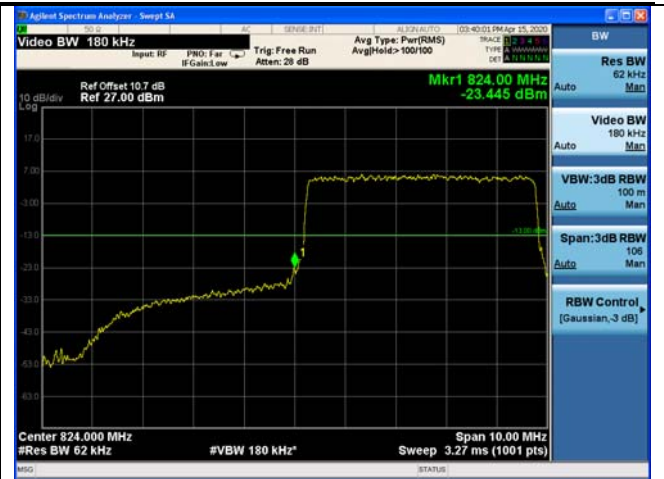


Fig.10

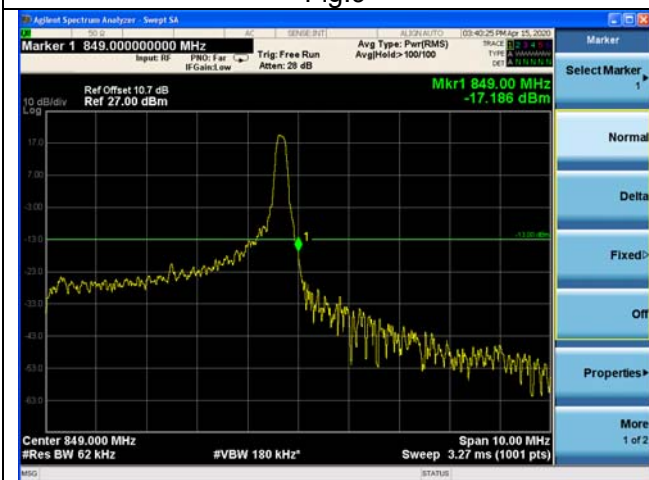


Fig.11



Fig.12

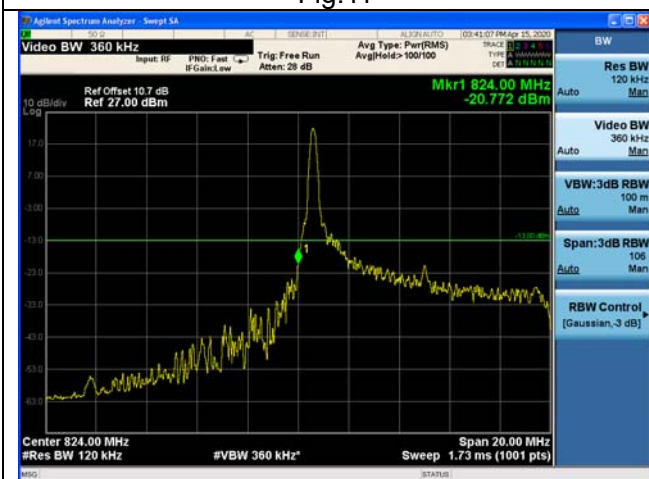


Fig.13

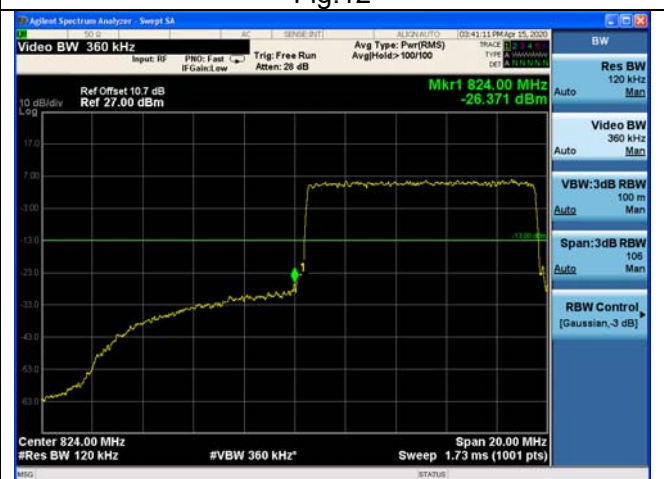


Fig.14



Fig.15



Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band5Low Channel			
		1.4M	3M	5M	10M
-30	NV	0.020	-0.041	0.042	-0.045
-20	NV	0.045	-0.075	-0.005	0.009
-10	NV	0.000	0.041	-0.048	-0.036
0	NV	-0.033	0.072	-0.006	0.004
+10	NV	-0.045	0.043	0.051	0.042
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.009	0.033	-0.030	-0.023
+40	NV	-0.017	0.010	0.039	0.020
+50	NV	0.000	0.041	0.028	-0.036
+20	LV	0.066	0.081	-0.015	-0.069
+20	HV	-0.043	0.050	0.063	0.080

Temperature(°C)	Voltage	Test Result (ppm) Band5High annel			
		1.4M	3M	5M	10M
-30	NV	0.012	-0.003	0.033	-0.002
-20	NV	0.027	0.038	0.018	-0.010
-10	NV	-0.003	-0.012	-0.035	-0.011
0	NV	-0.008	0.075	0.064	0.023
+10	NV	-0.003	-0.027	0.086	-0.025
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.079	0.023	0.092	0.011
+40	NV	0.031	0.037	0.024	0.059
+50	NV	-0.026	-0.001	-0.020	0.076
+20	LV	-0.024	-0.021	0.063	-0.035
+20	HV	-0.015	-0.057	0.034	0.063