

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	23.25
				1	5	23.22
				3	2	22.17
				6	0	22.12
	836.5	20525		1	0	23.30
				1	5	23.26
				3	2	22.22
				6	0	22.21
	848.3	20643		1	0	23.37
				1	5	23.32
				3	2	22.30
				6	0	22.24
16QAM	824.7	20407	1.4	1	0	21.95
				1	5	21.93
				3	2	21.27
				6	0	21.29
	836.5	20525		1	0	21.99
				1	5	21.95
				3	2	21.28
				6	0	21.21
	848.3	20643		1	0	22.08
				1	5	22.09
				3	2	21.37
				6	0	21.30
64QAM	824.7	20407	1.4	1	0	22.17
				1	5	22.10
				3	2	21.20
				6	0	21.15
	836.5	20525		1	0	22.21
				1	5	22.12
				3	2	21.21
				6	0	21.21
	848.3	20643		1	0	22.29
				1	5	22.24
				3	2	21.40
				6	0	21.36

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	825.5	20415	3	1	0	23.16
				1	14	23.21
				8	4	22.10
				15	0	22.10
	836.5	20525		1	0	23.22
				1	14	23.20
				8	4	22.20
				15	0	22.15
	847.5	20635		1	0	23.36
				1	14	23.29
				8	4	22.23
				15	0	22.25
16QAM	825.5	20415	3	1	0	21.95
				1	14	21.93
				8	4	21.19
				15	0	21.25
	836.5	20525		1	0	21.91
				1	14	21.91
				8	4	21.22
				15	0	21.21
	847.5	20635		1	0	22.08
				1	14	22.06
				8	4	21.31
				15	0	21.26
64QAM	825.5	20415	3	1	0	22.14
				1	14	22.12
				8	4	21.16
				15	0	21.07
	836.5	20525		1	0	22.12
				1	14	22.10
				8	4	21.21
				15	0	21.11
	847.5	20635		1	0	22.25
				1	14	22.18
				8	4	21.33
				15	0	21.35

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	826.5	20425	5	1	0	23.24
				1	24	23.22
				12	6	22.16
				25	0	22.14
	836.5	20525		1	0	23.27
				1	24	23.29
				12	6	22.19
				25	0	22.20
	846.5	20625		1	0	23.35
				1	24	23.35
				12	6	22.30
				25	0	22.25
16QAM	826.5	20425	5	1	0	21.94
				1	24	21.97
				12	6	21.32
				25	0	21.28
	836.5	20525		1	0	21.94
				1	24	21.90
				12	6	21.24
				25	0	21.18
	846.5	20625		1	0	22.11
				1	24	22.10
				12	6	21.28
				25	0	21.28
64QAM	826.5	20425	5	1	0	22.12
				1	24	22.09
				12	6	21.12
				25	0	21.19
	836.5	20525		1	0	22.18
				1	24	22.11
				12	6	21.17
				25	0	21.19
	846.5	20625		1	0	22.33
				1	24	22.26
				12	6	21.41
				25	0	21.37

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	829	20450	10	1	0	23.32
				1	49	23.31
				24	12	22.25
				50	0	22.23
	836.5	20525		1	0	23.38
				1	49	23.37
				24	12	22.29
				50	0	22.27
	844	20600		1	0	23.45
				1	49	23.42
				24	12	22.38
				50	0	22.36
16QAM	829	20450	10	1	0	22.06
				1	49	22.04
				24	12	21.37
				50	0	21.35
	836.5	20525		1	0	22.07
				1	49	22.03
				24	12	21.38
				50	0	21.32
	844	20600		1	0	22.18
				1	49	22.16
				24	12	21.43
				50	0	21.40
64QAM	829	20450	10	1	0	22.23
				1	49	22.21
				24	12	21.27
				50	0	21.25
	836.5	20525		1	0	22.28
				1	49	22.23
				24	12	21.31
				50	0	21.27
	844	20600		1	0	22.38
				1	49	22.36
				24	12	21.47
				50	0	21.44

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	1.0839	Fig.1	1.0825	Fig.2	1.0829	Fig.3
	836.5	20525		6	0	1.0842	Fig.4	1.0844	Fig.5	1.0840	Fig.6
	848.3	20643		6	0	1.0827	Fig.7	1.0828	Fig.8	1.0839	Fig.9
	825.5	20415	3	15	0	2.6824	Fig.10	2.6829	Fig.11	2.6817	Fig.12
	836.5	20525		15	0	2.6877	Fig.13	2.6877	Fig.14	2.6892	Fig.15
	847.5	20635		15	0	2.6870	Fig.16	2.6899	Fig.17	2.6808	Fig.18
	826.5	20425	5	25	0	4.4799	Fig.19	4.4731	Fig.20	4.4759	Fig.21
	836.5	20525		25	0	4.4793	Fig.22	4.4829	Fig.23	4.4701	Fig.24
	846.5	20625		25	0	4.4800	Fig.25	4.4801	Fig.26	4.4806	Fig.27
	829	20450	10	50	0	8.9548	Fig.28	8.9452	Fig.29	8.9380	Fig.30
	836.5	20525		50	0	8.9660	Fig.31	8.9650	Fig.32	8.9485	Fig.33
	844	20600		50	0	8.9659	Fig.34	8.9552	Fig.35	8.9547	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	1.255	Fig.2	1.256	Fig.3
	836.5	20525		6	0	1.265	Fig.4	1.246	Fig.5	1.260	Fig.6
	848.3	20643		6	0	1.270	Fig.7	1.246	Fig.8	1.267	Fig.9
	825.5	20415	3	15	0	2.992	Fig.10	2.990	Fig.11	3.006	Fig.12
	836.5	20525		15	0	2.992	Fig.13	2.982	Fig.14	2.988	Fig.15
	847.5	20635		15	0	2.996	Fig.16	2.987	Fig.17	2.999	Fig.18
	826.5	20425	5	25	0	5.147	Fig.19	5.042	Fig.20	4.999	Fig.21
	836.5	20525		25	0	5.074	Fig.22	5.093	Fig.23	5.143	Fig.24
	846.5	20625		25	0	5.128	Fig.25	5.142	Fig.26	5.120	Fig.27
	829	20450	10	50	0	9.872	Fig.28	9.825	Fig.29	9.811	Fig.30
	836.5	20525		50	0	9.867	Fig.31	9.832	Fig.32	9.918	Fig.33
	844	20600		50	0	9.896	Fig.34	9.821	Fig.35	9.878	Fig.36



Fig.1

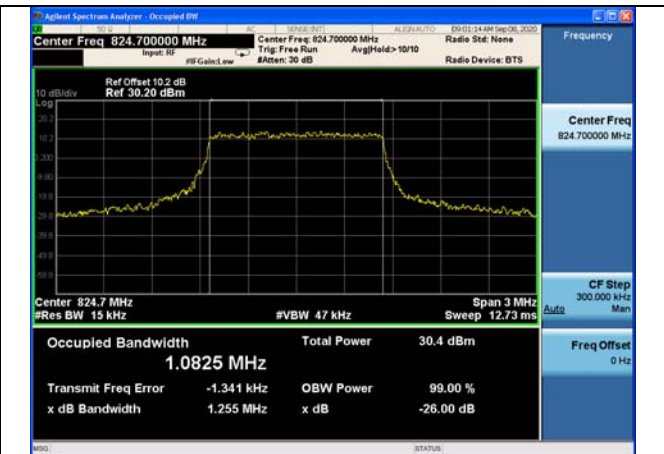


Fig.2

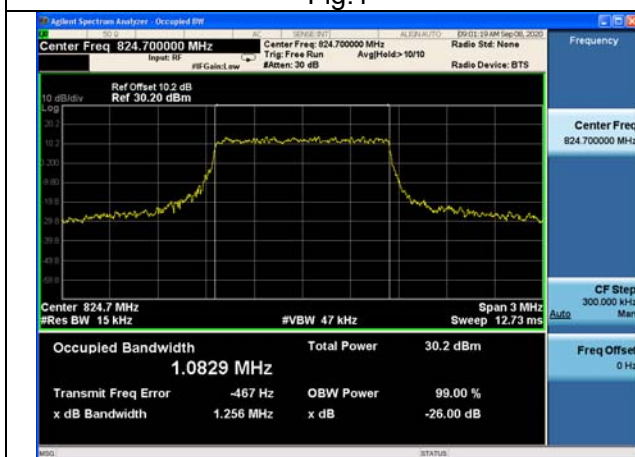


Fig.3

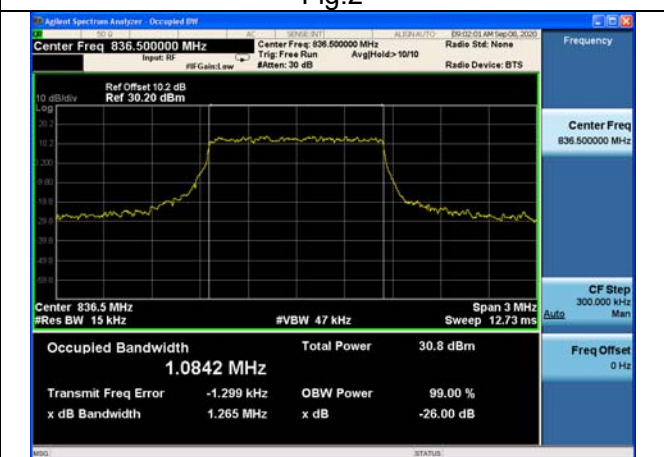


Fig.4

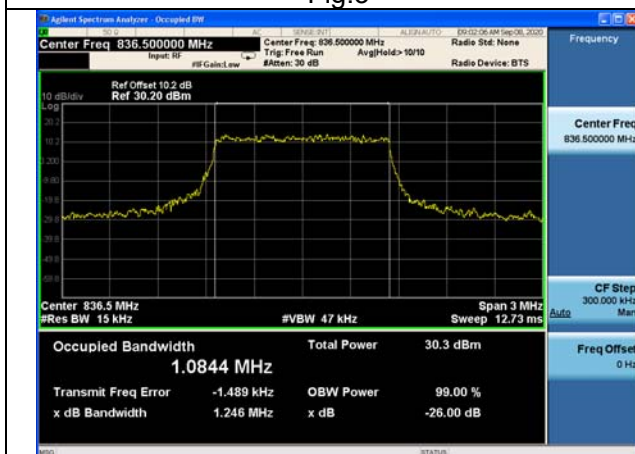


Fig.5

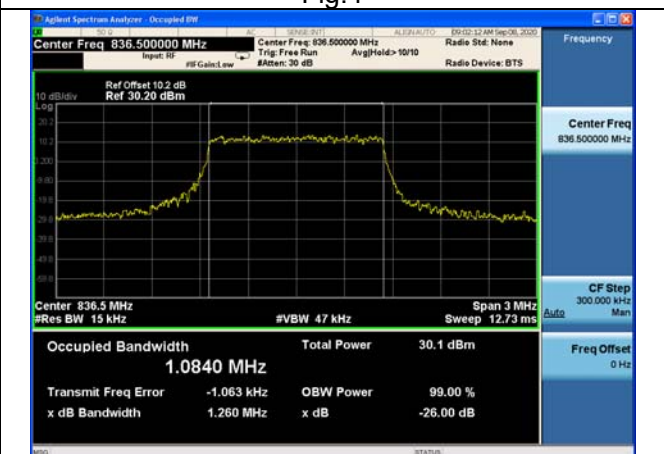


Fig.6

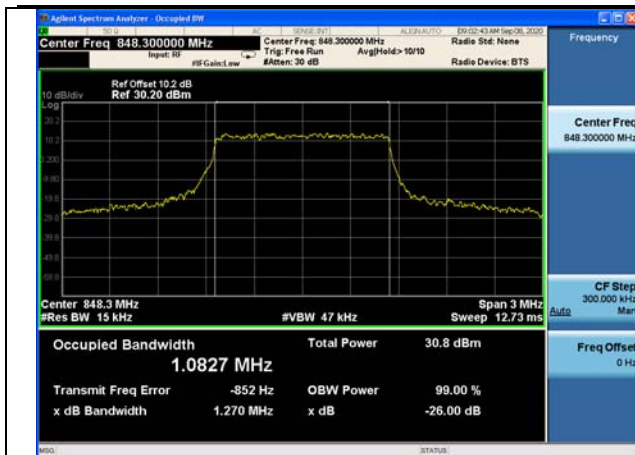


Fig.7

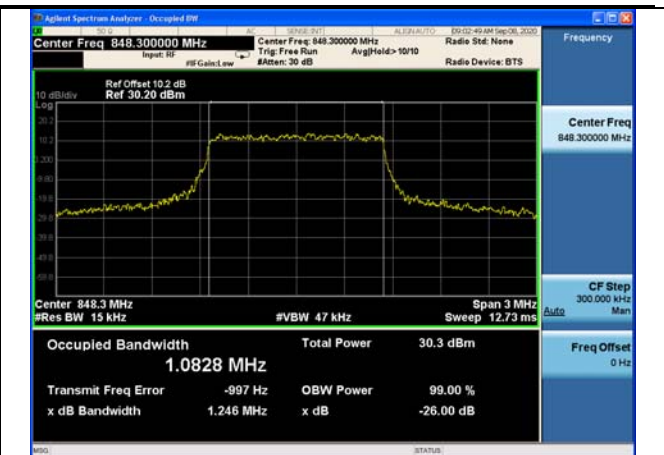


Fig.8

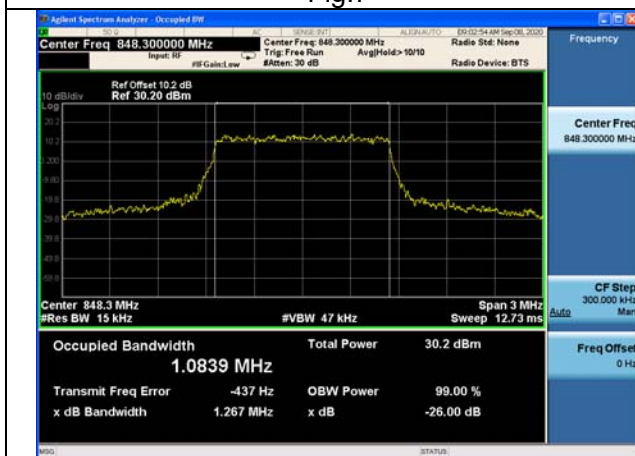


Fig.9

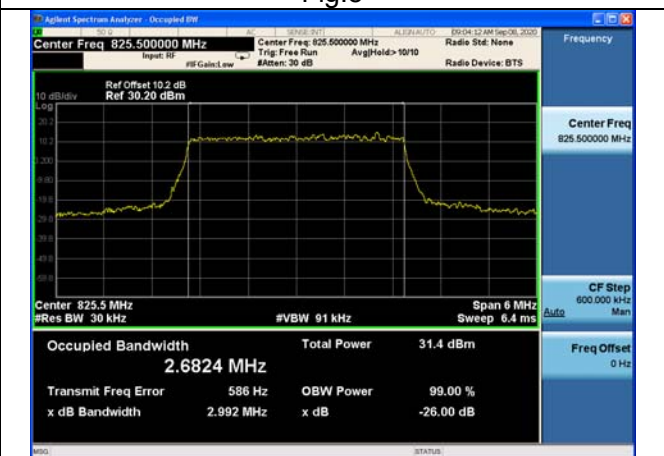


Fig.10

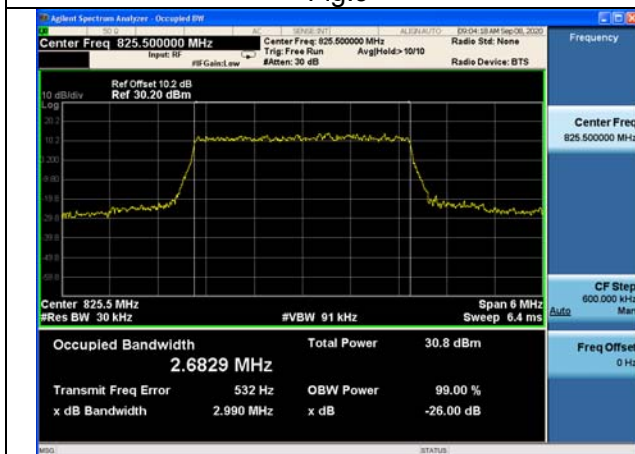


Fig.11

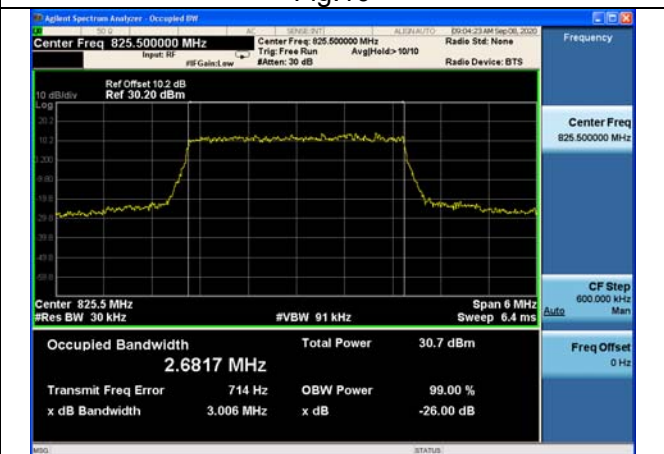


Fig.12

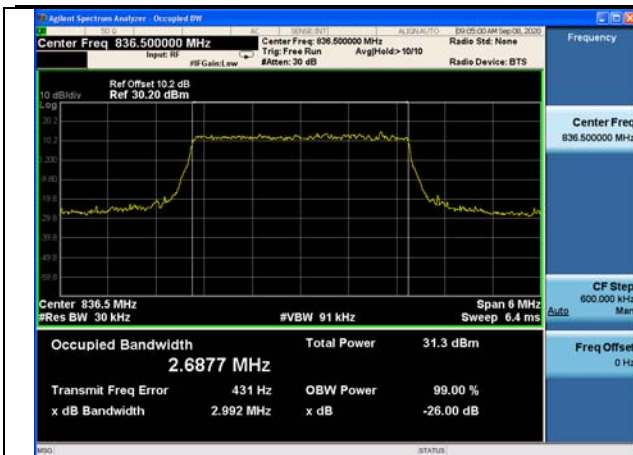


Fig.13

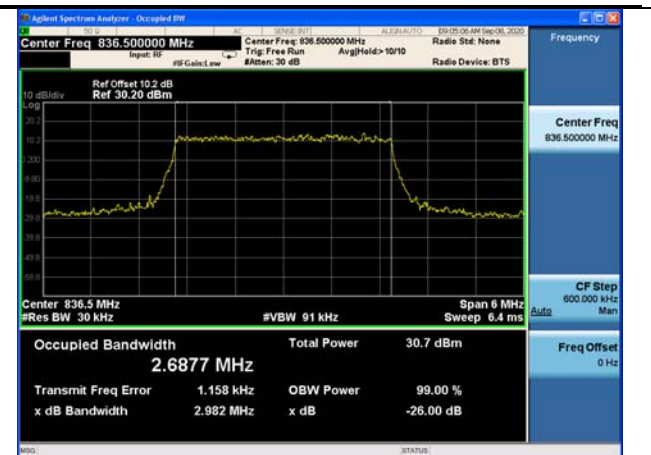


Fig.14

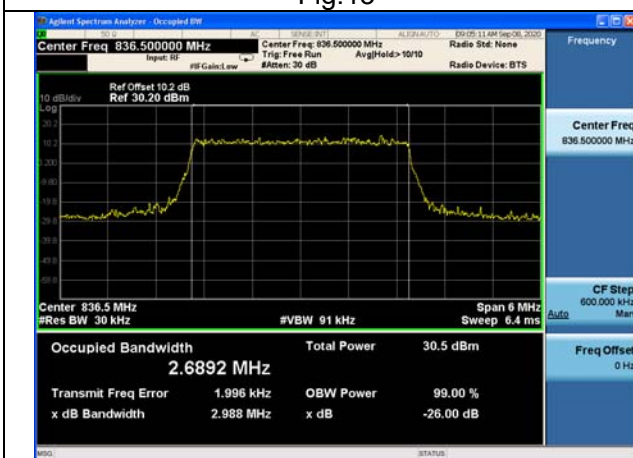


Fig.15

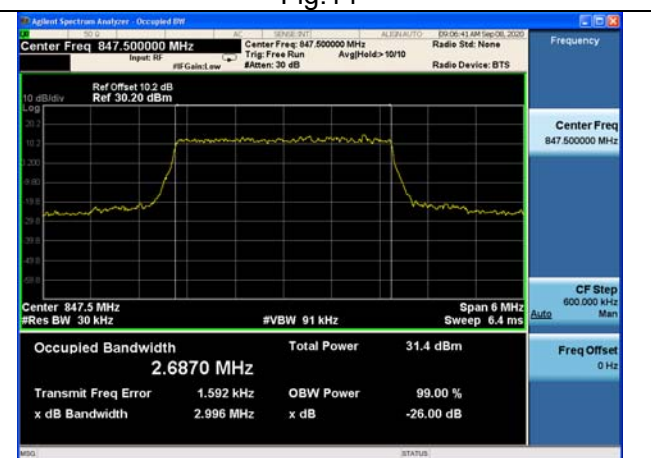


Fig.16

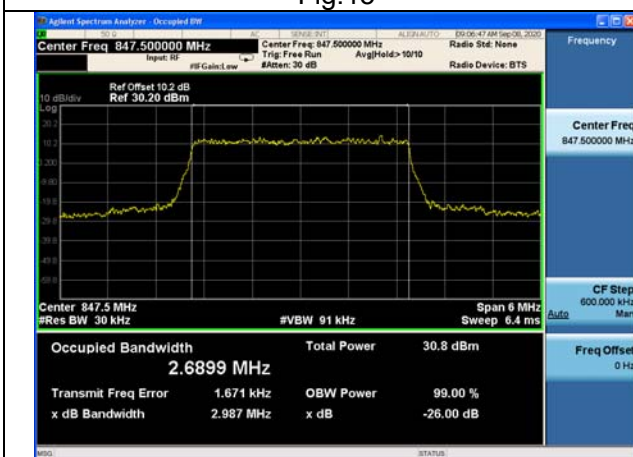


Fig.17

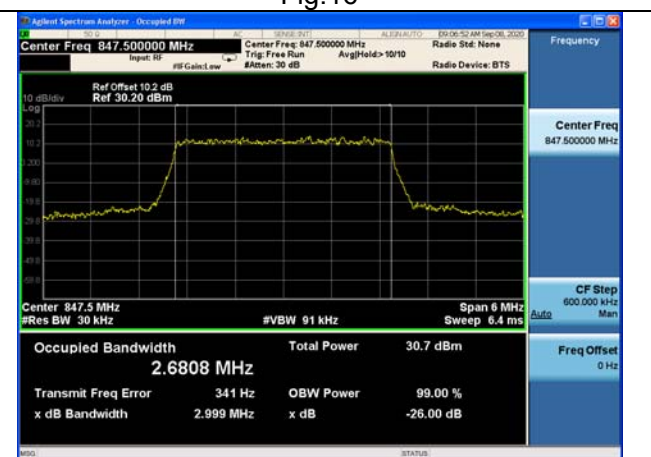


Fig.18

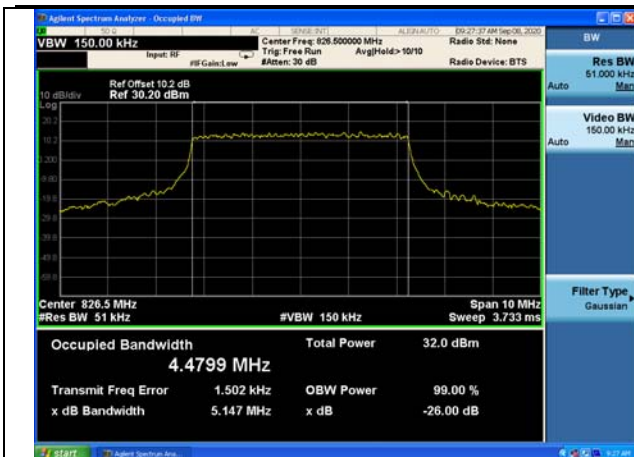


Fig.19

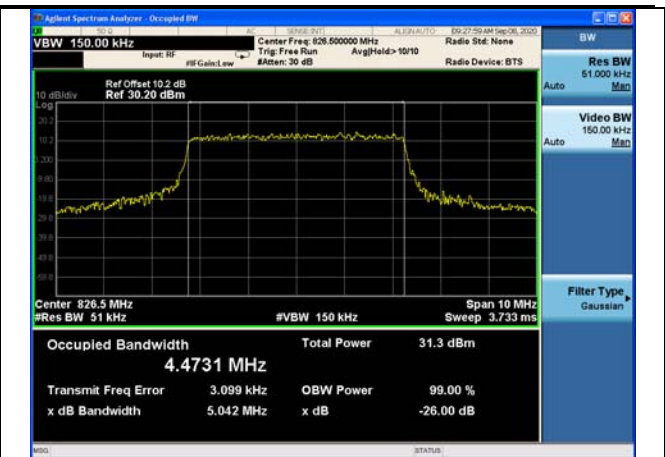


Fig.20

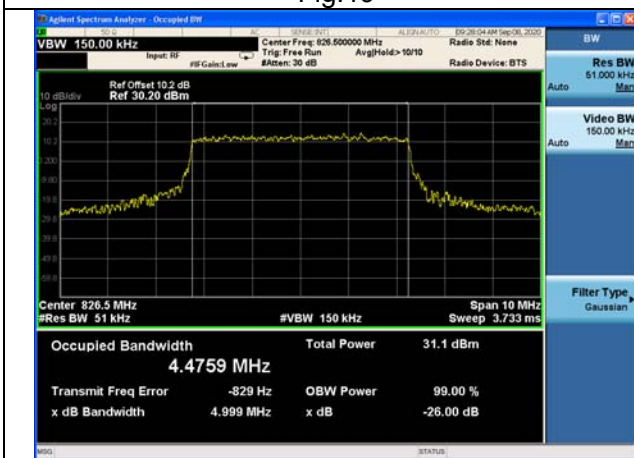


Fig.21

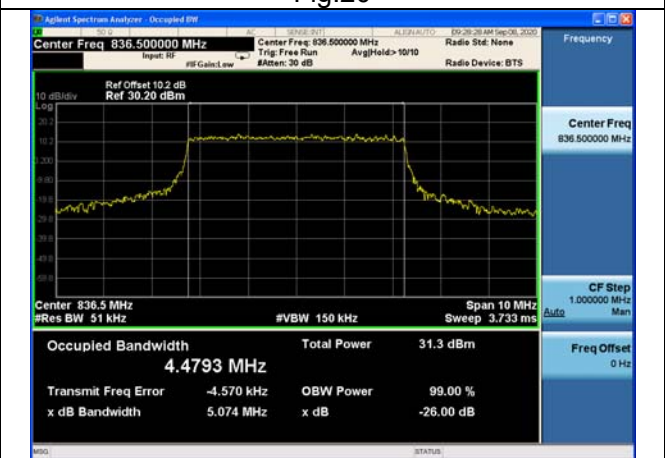


Fig.22

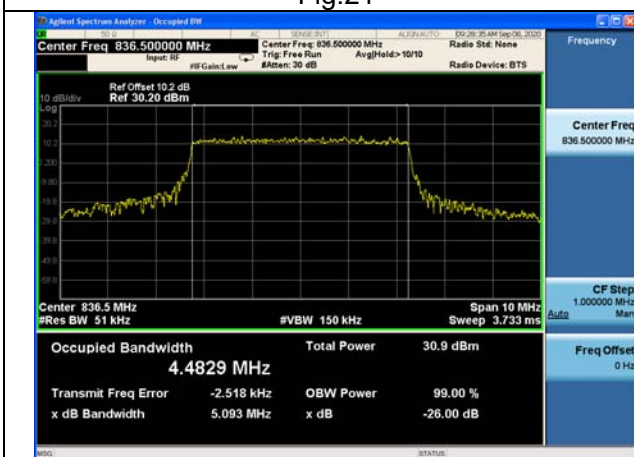


Fig.23

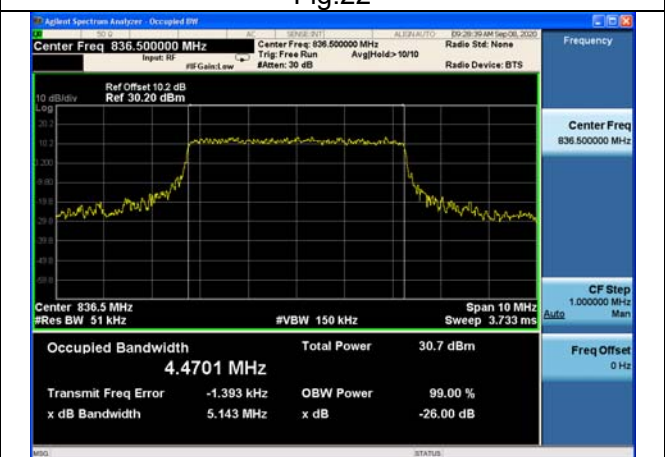


Fig.24

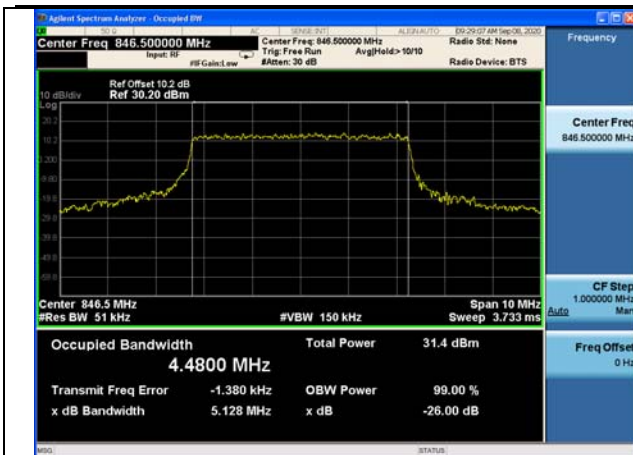


Fig.25

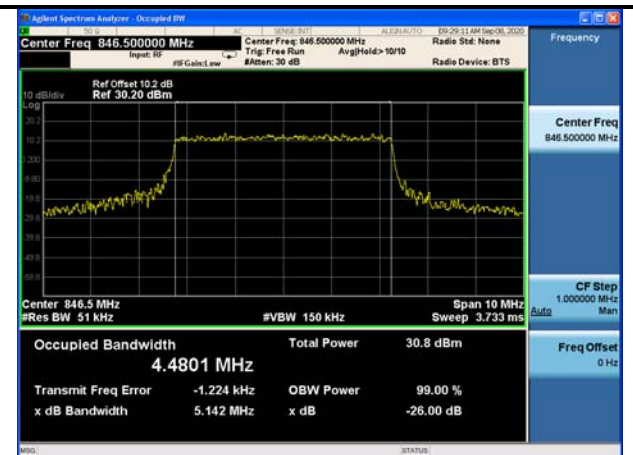


Fig.26

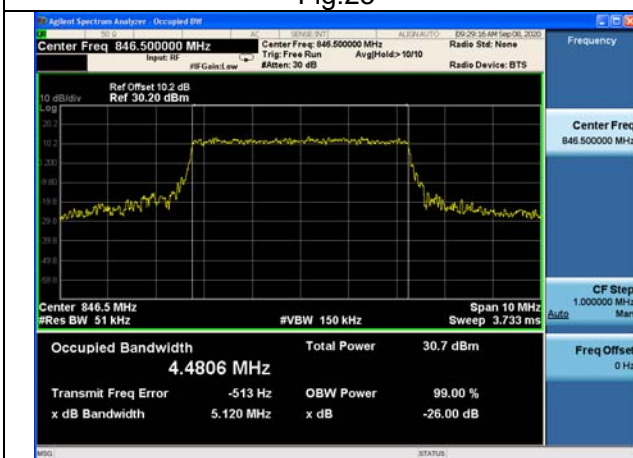


Fig.27

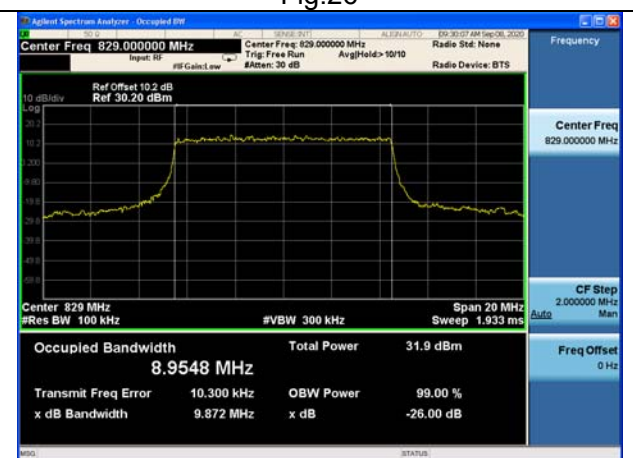


Fig.28

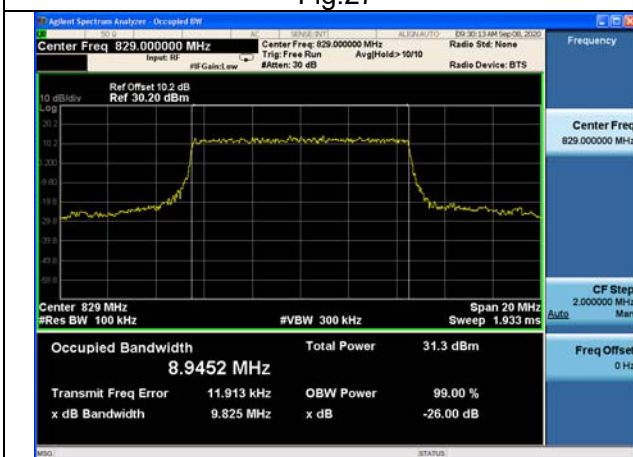


Fig.29

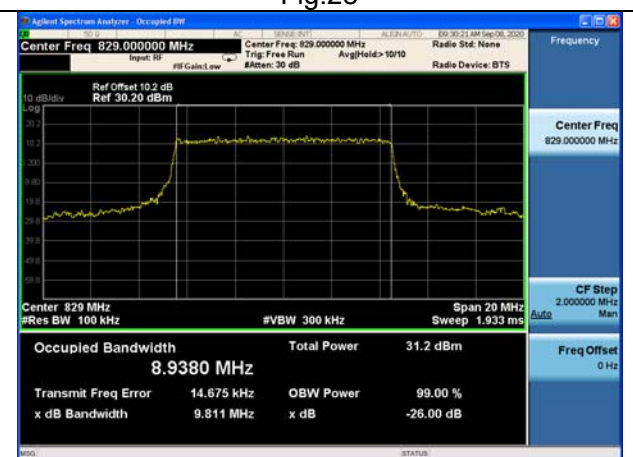


Fig.30

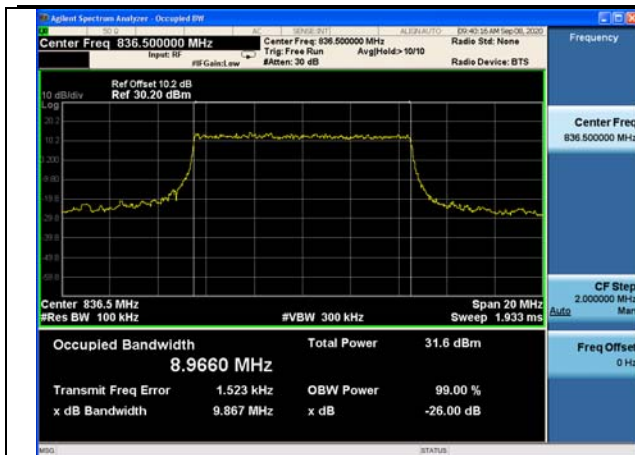


Fig.31

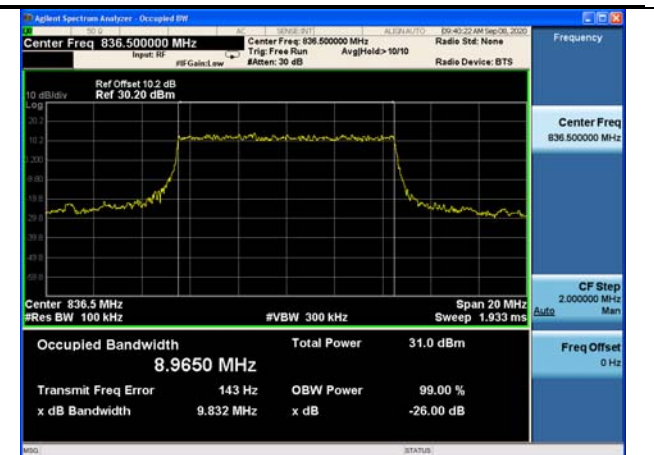


Fig.32

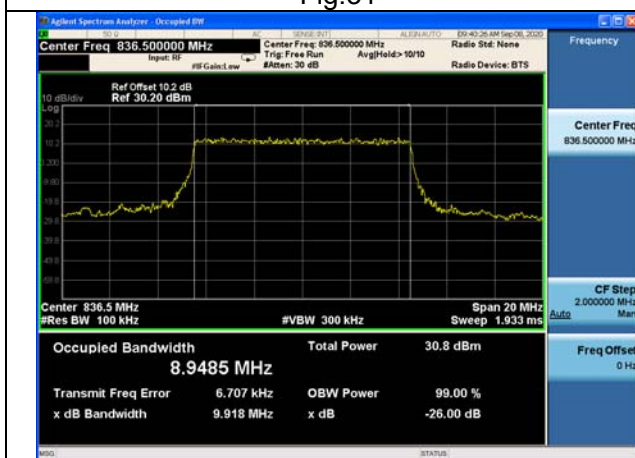


Fig.33

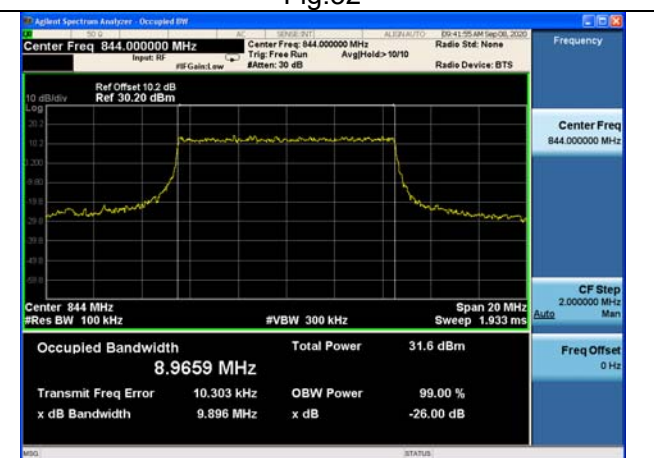


Fig.34

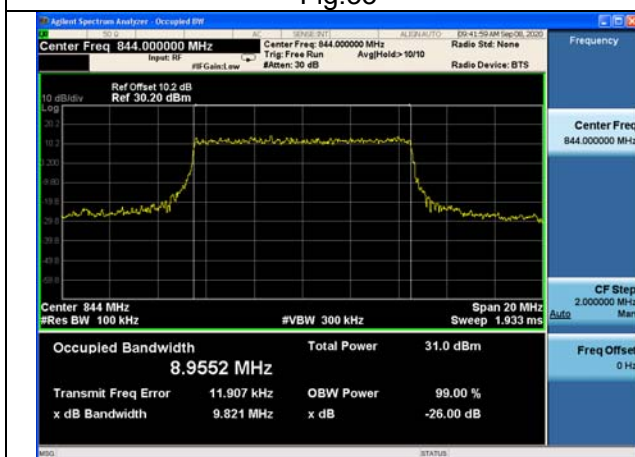


Fig.35

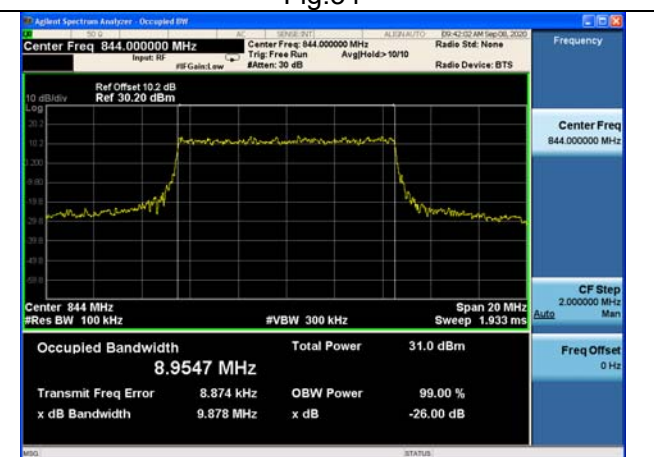


Fig.36

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

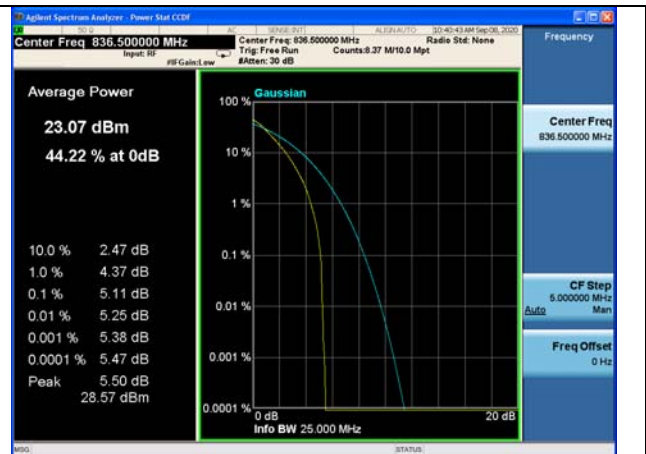


Fig.2



Fig.3

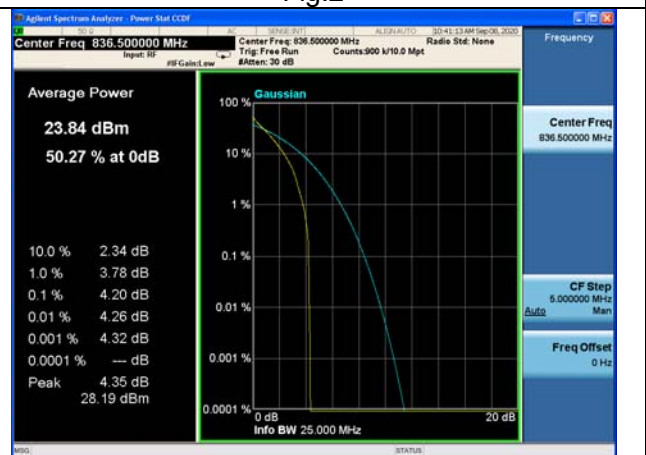


Fig.4

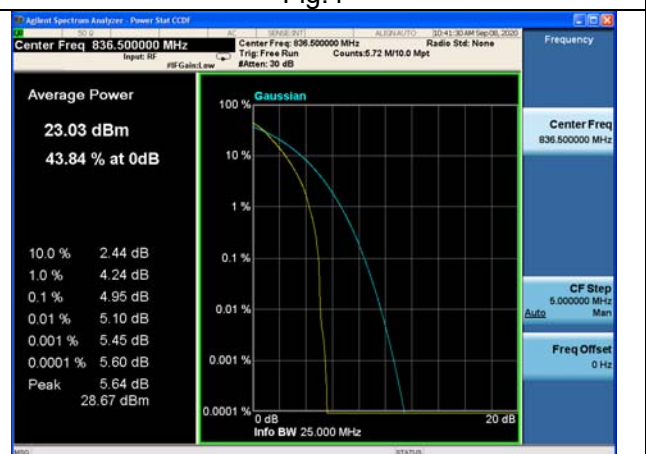


Fig.5



Fig.6

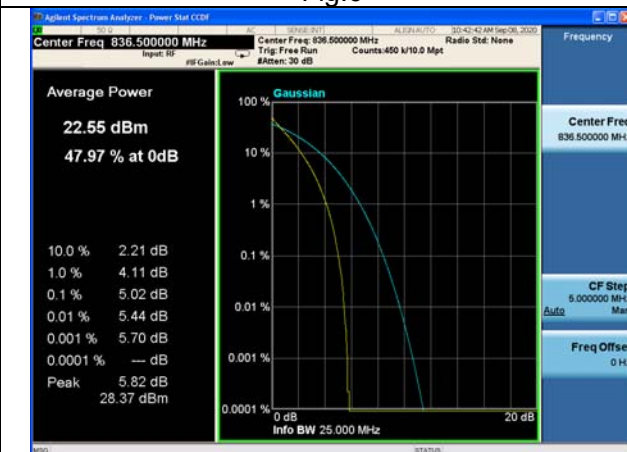


Fig.7



Fig.8



Fig.9



Fig.10



Fig.11

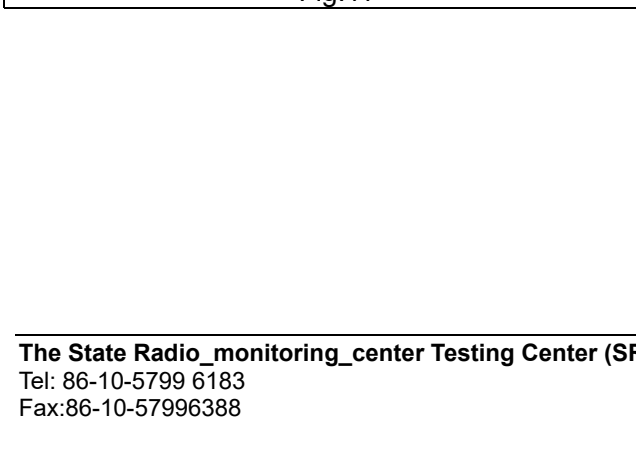
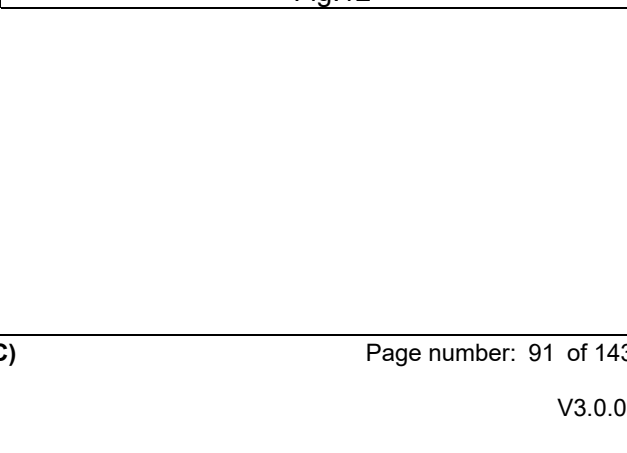


Fig.12



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

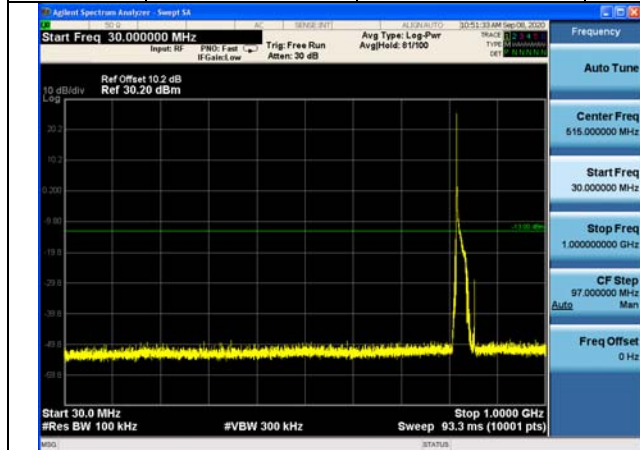


Fig.1

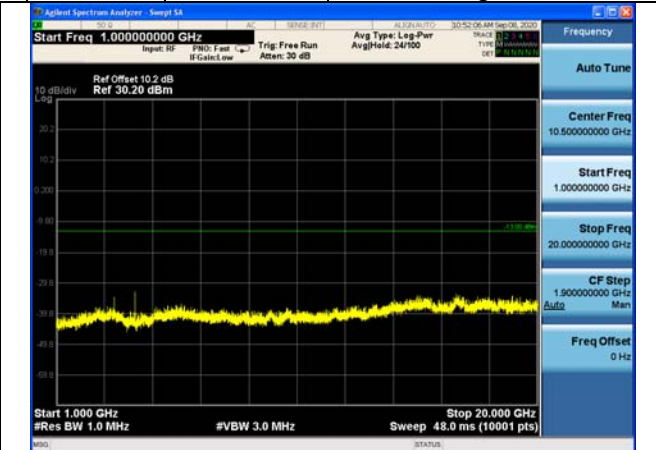


Fig.2

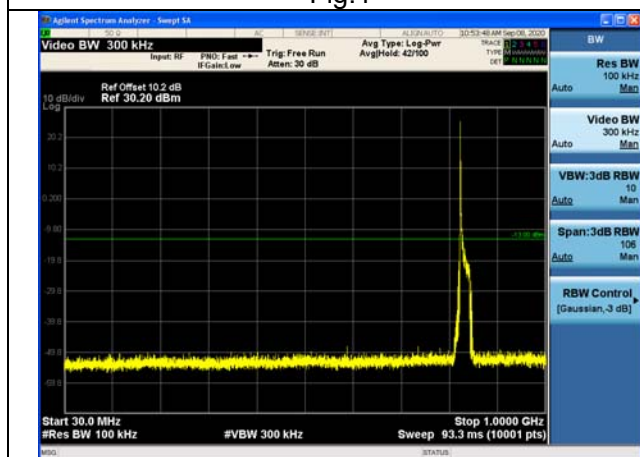


Fig3

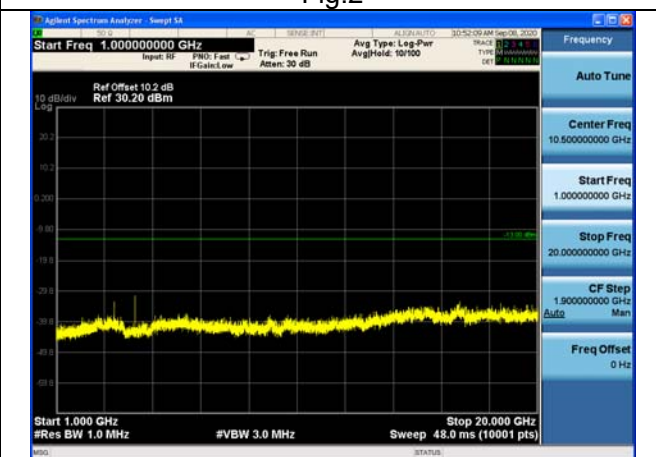


Fig4

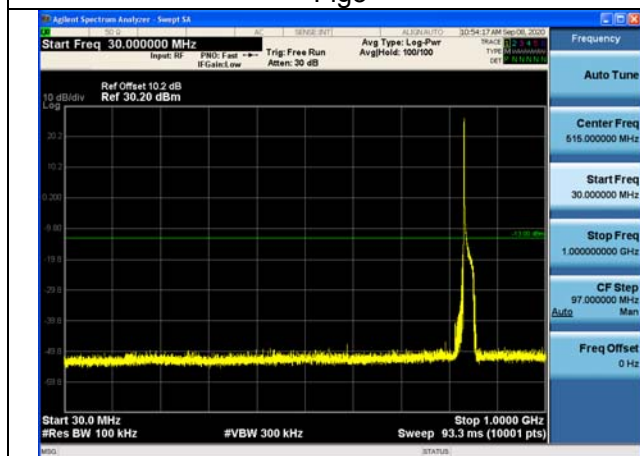


Fig5

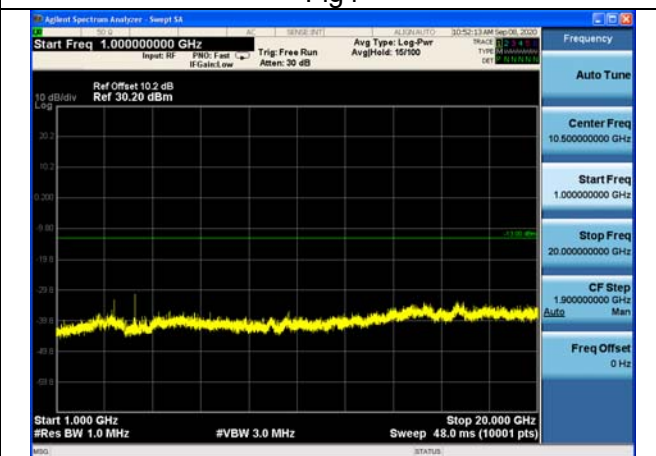


Fig6

5 Band Edges Compliance

Test result

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

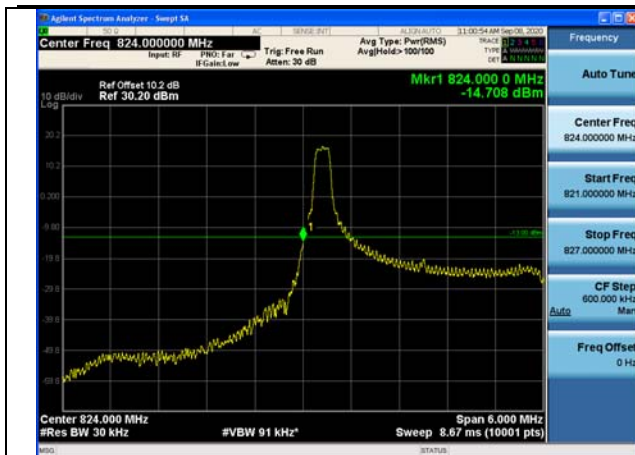


Fig.5

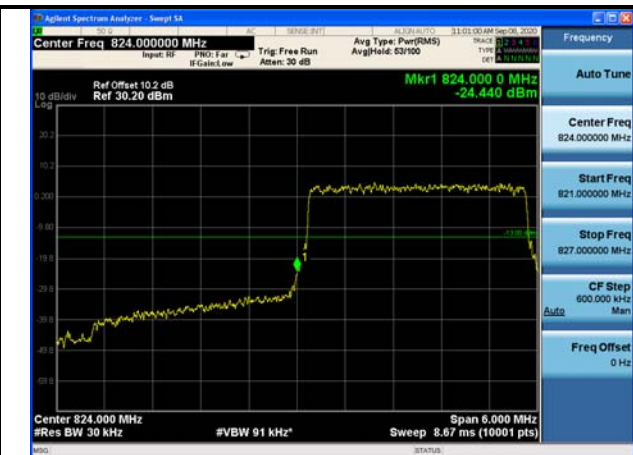


Fig.6

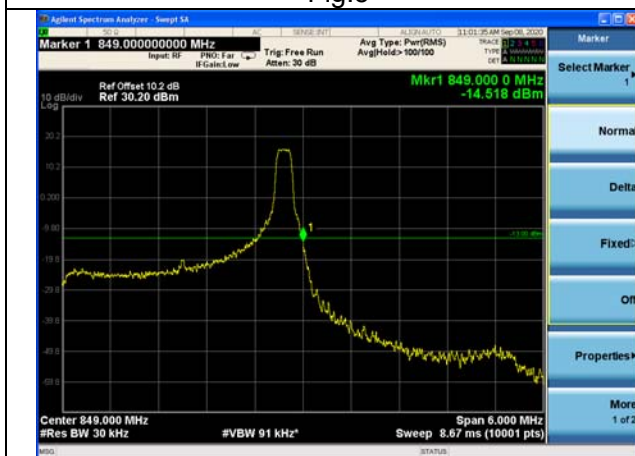


Fig.7



Fig.8

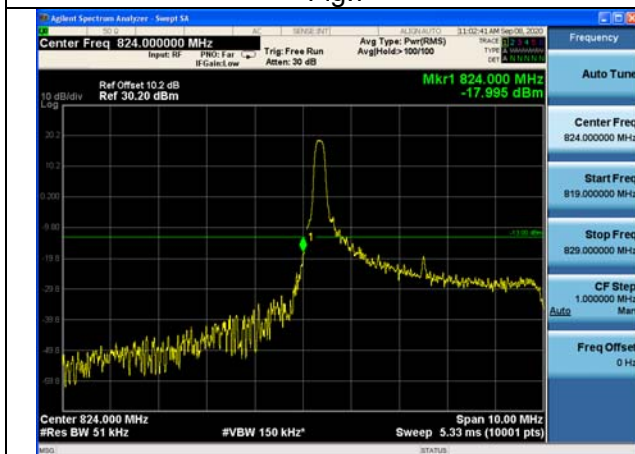


Fig.9



Fig.10

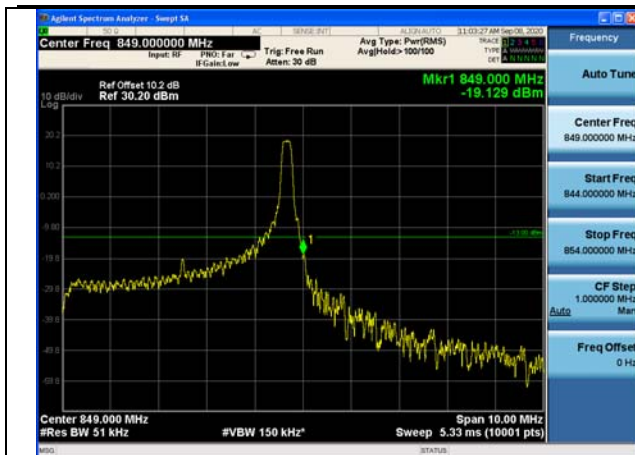


Fig.11



Fig.12

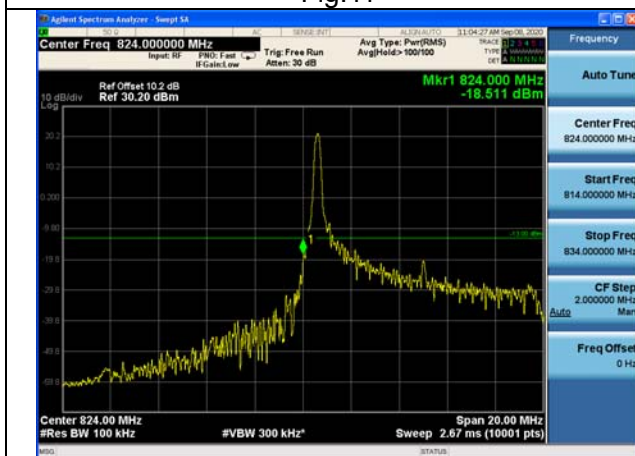


Fig.13

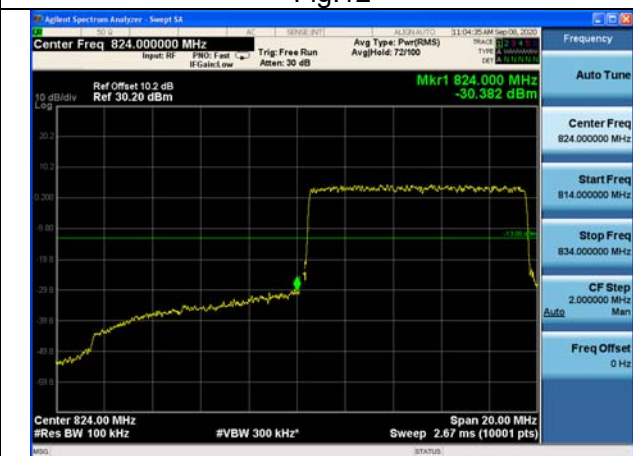


Fig.14

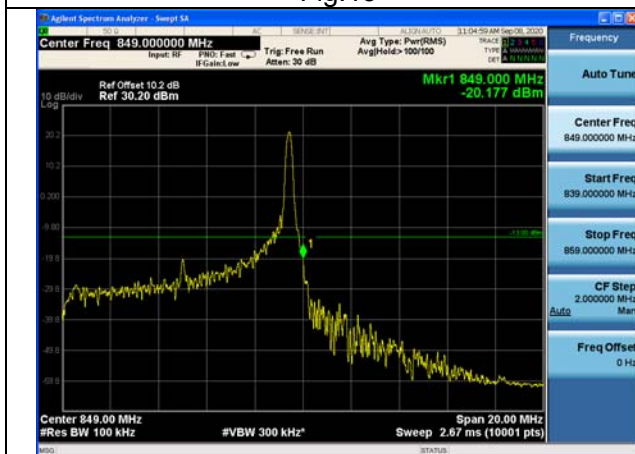


Fig.15



Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band5Low Channel			
		1.4M	3M	5M	10M
-25	NV	0.002	0.012	0.021	0.015
-20	NV	0.002	0.020	0.033	0.013
-10	NV	0.004	0.014	0.001	0.015
0	NV	-0.011	-0.026	0.022	0.005
+10	NV	0.000	0.000	0.000	0.000
+20	NV	-0.011	0.021	-0.002	0.002
+30	NV	0.002	-0.014	0.022	-0.001
+40	NV	0.019	-0.019	-0.013	0.011
+50	NV	0.003	-0.019	-0.021	-0.006
+20	LV	-0.015	0.001	-0.009	0.003
+20	HV	0.014	-0.007	-0.001	-0.005

Temperature(°C)	Voltage	Test Result (ppm) Band5High annel			
		1.4M	3M	5M	10M
-25	NV	0.017	-0.021	-0.011	-0.004
-20	NV	0.018	-0.006	-0.019	0.023
-10	NV	-0.011	-0.007	-0.001	-0.008
0	NV	-0.022	-0.001	0.022	-0.014
+10	NV	0.000	0.000	0.000	0.000
+20	NV	-0.004	-0.021	0.013	0.005
+30	NV	-0.018	-0.008	0.004	0.007
+40	NV	0.011	0.011	-0.015	-0.002
+50	NV	-0.015	-0.001	-0.003	0.002
+20	LV	-0.012	0.018	-0.006	0.006
+20	HV	0.011	-0.003	-0.014	0.008