

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	23.85
				1	5	23.87
				3	2	22.74
				6	0	22.70
	836.5	20525		1	0	23.83
				1	5	23.88
				3	2	22.91
				6	0	22.86
	848.3	20643		1	0	23.96
				1	5	23.76
				3	2	22.86
				6	0	22.70
16QAM	824.7	20407	1.4	1	0	22.70
				1	5	22.75
				3	2	21.86
				6	0	21.53
	836.5	20525		1	0	22.77
				1	5	22.79
				3	2	21.85
				6	0	21.85
	848.3	20643		1	0	22.82
				1	5	22.97
				3	2	21.77
				6	0	21.76
64QAM	824.7	20407	1.4	1	0	22.88
				1	5	22.71
				3	2	21.88
				6	0	21.53
	836.5	20525		1	0	22.69
				1	5	22.92
				3	2	21.67
				6	0	21.86
	848.3	20643		1	0	22.74
				1	5	22.65
				3	2	21.70
				6	0	21.78

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	825.5	20415	3	1	0	23.93
				1	14	23.71
				8	4	22.97
				15	0	22.71
	836.5	20525		1	0	23.96
				1	14	23.92
				8	4	22.93
				15	0	22.83
	847.5	20635		1	0	23.76
				1	14	23.60
				8	4	22.91
				15	0	22.69
16QAM	825.5	20415	3	1	0	22.87
				1	14	22.91
				8	4	21.91
				15	0	21.73
	836.5	20525		1	0	22.99
				1	14	22.96
				8	4	21.68
				15	0	21.72
	847.5	20635		1	0	22.96
				1	14	22.83
				8	4	21.90
				15	0	21.70
64QAM	825.5	20415	3	1	0	22.71
				1	14	22.76
				8	4	21.62
				15	0	21.57
	836.5	20525		1	0	22.90
				1	14	22.90
				8	4	21.87
				15	0	21.76
	847.5	20635		1	0	22.66
				1	14	22.70
				8	4	21.67
				15	0	21.64

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	826.5	20425	5	1	0	23.69
				1	24	23.76
				12	6	22.79
				25	0	22.68
	836.5	20525		1	0	23.83
				1	24	23.86
				12	6	22.99
				25	0	22.98
	846.5	20625		1	0	23.64
				1	24	23.89
				12	6	22.81
				25	0	22.88
16QAM	826.5	20425	5	1	0	22.66
				1	24	22.87
				12	6	21.79
				25	0	21.57
	836.5	20525		1	0	22.86
				1	24	22.99
				12	6	21.83
				25	0	21.67
	846.5	20625		1	0	22.84
				1	24	22.71
				12	6	21.76
				25	0	21.64
64QAM	826.5	20425	5	1	0	22.97
				1	24	22.78
				12	6	21.70
				25	0	21.56
	836.5	20525		1	0	22.81
				1	24	22.90
				12	6	21.81
				25	0	21.65
	846.5	20625		1	0	22.61
				1	24	22.77
				12	6	21.61
				25	0	21.59

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	829	20450	10	1	0	23.97
				1	49	23.97
				24	12	22.96
				50	0	22.96
	836.5	20525		1	0	23.98
				1	49	23.98
				24	12	23.03
				50	0	23.02
	844	20600		1	0	23.92
				1	49	23.92
				24	12	22.95
				50	0	22.96
16QAM	829	20450	10	1	0	22.92
				1	49	22.94
				24	12	21.90
				50	0	21.87
	836.5	20525		1	0	23.01
				1	49	23.01
				24	12	21.98
				50	0	21.88
	844	20600		1	0	22.99
				1	49	22.97
				24	12	21.91
				50	0	21.80
64QAM	829	20450	10	1	0	22.97
				1	49	22.87
				24	12	21.90
				50	0	21.80
	836.5	20525		1	0	22.98
				1	49	22.95
				24	12	21.97
				50	0	21.81
	844	20600		1	0	22.91
				1	49	22.93
				24	12	21.91
				50	0	21.75

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	1.1	Fig.1	1.1	Fig.2	1.1	Fig.3
	836.5	20525		6	0	1.1	Fig.4	1.1	Fig.5	1.1	Fig.6
	848.3	20643		6	0	1.1	Fig.7	1.1	Fig.8	1.1	Fig.9
	825.5	20415	3	15	0	2.7	Fig.10	2.7	Fig.11	2.7	Fig.12
	836.5	20525		15	0	2.7	Fig.13	2.7	Fig.14	2.7	Fig.15
	847.5	20635		15	0	2.7	Fig.16	2.7	Fig.17	2.7	Fig.18
	826.5	20425	5	25	0	4.5	Fig.19	4.5	Fig.20	4.5	Fig.21
	836.5	20525		25	0	4.5	Fig.22	4.5	Fig.23	4.5	Fig.24
	846.5	20625		25	0	4.5	Fig.25	4.5	Fig.26	4.4	Fig.27
	829	20450	10	50	0	9.0	Fig.28	9.0	Fig.29	9.0	Fig.30
	836.5	20525		50	0	8.9	Fig.31	9.0	Fig.32	8.9	Fig.33
	844	20600		50	0	9.0	Fig.34	9.0	Fig.35	9.0	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	1.3	Fig.1	1.2	Fig.2	1.3	Fig.3
	836.5	20525		6	0	1.2	Fig.4	1.3	Fig.5	1.2	Fig.6
	848.3	20643		6	0	1.3	Fig.7	1.2	Fig.8	1.3	Fig.9
	825.5	20415	3	15	0	3.0	Fig.10	3.0	Fig.11	2.9	Fig.12
	836.5	20525		15	0	3.0	Fig.13	3.0	Fig.14	2.9	Fig.15
	847.5	20635		15	0	3.0	Fig.16	3.0	Fig.17	2.9	Fig.18
	826.5	20425	5	25	0	4.9	Fig.19	4.9	Fig.20	4.8	Fig.21
	836.5	20525		25	0	4.8	Fig.22	4.8	Fig.23	4.8	Fig.24
	846.5	20625		25	0	4.9	Fig.25	4.8	Fig.26	4.7	Fig.27
	829	20450	10	50	0	10.0	Fig.28	9.8	Fig.29	9.9	Fig.30
	836.5	20525		50	0	9.8	Fig.31	9.7	Fig.32	9.8	Fig.33
	844	20600		50	0	9.9	Fig.34	9.7	Fig.35	9.7	Fig.36

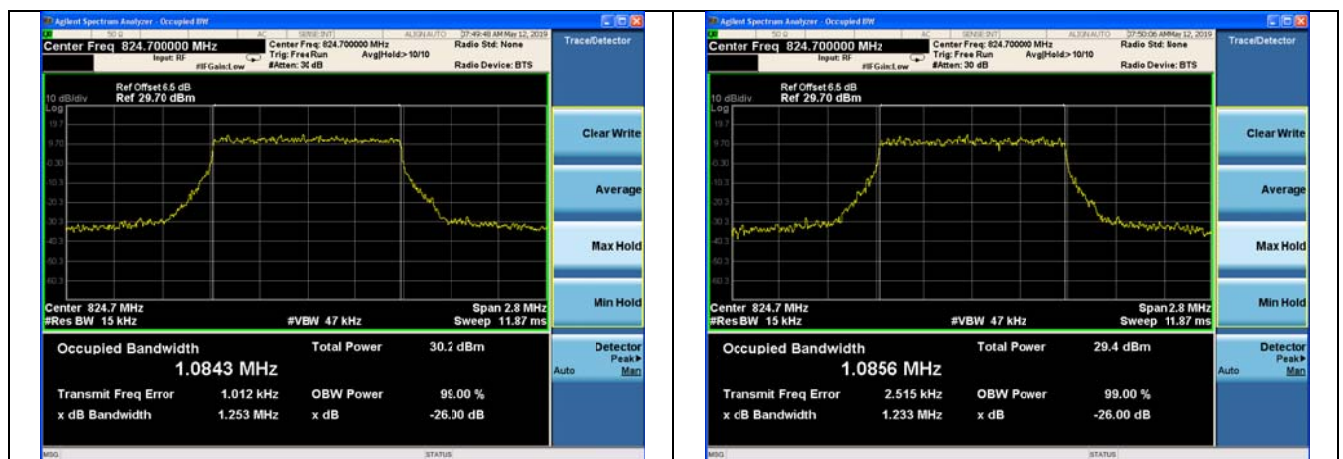


Fig.1

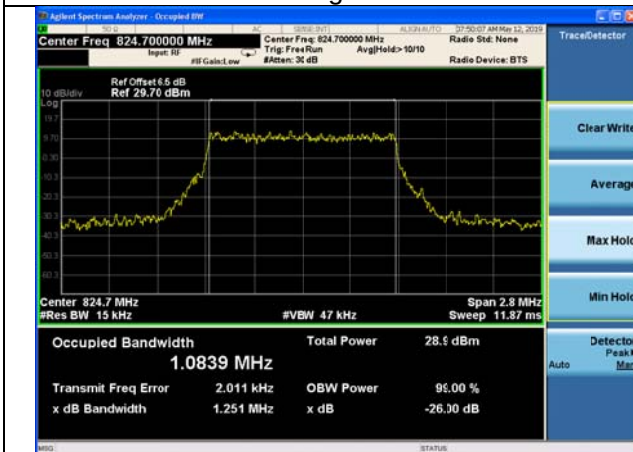


Fig.2

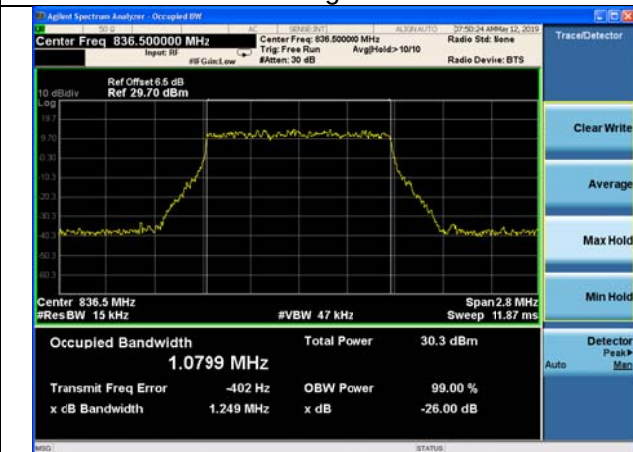


Fig.3

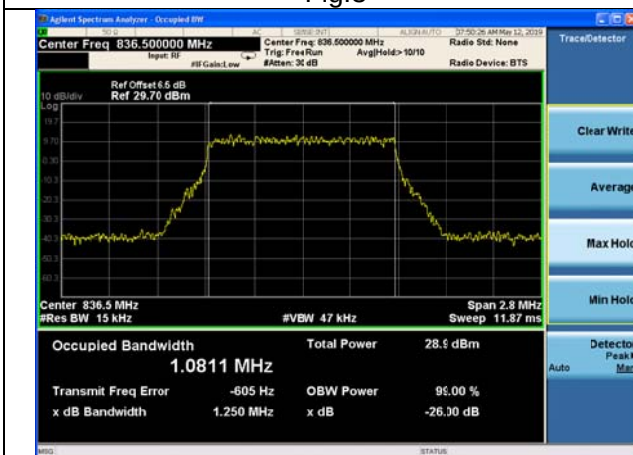


Fig.4

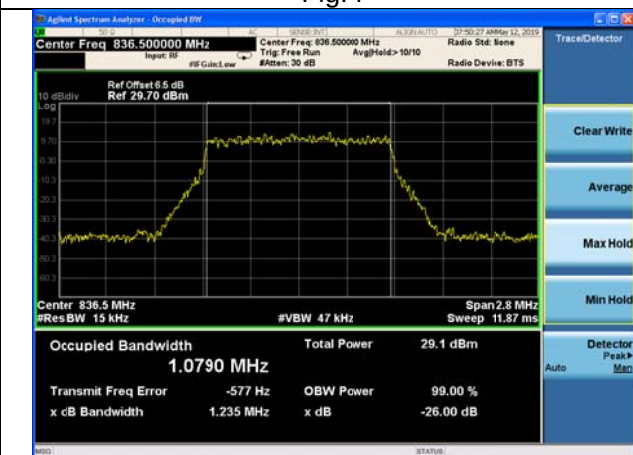


Fig.5

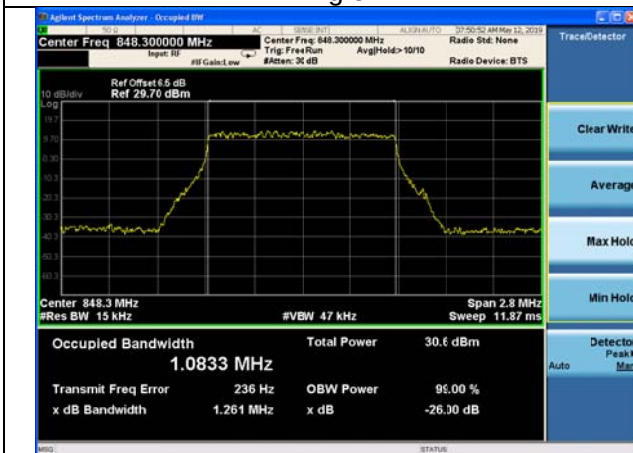


Fig.6

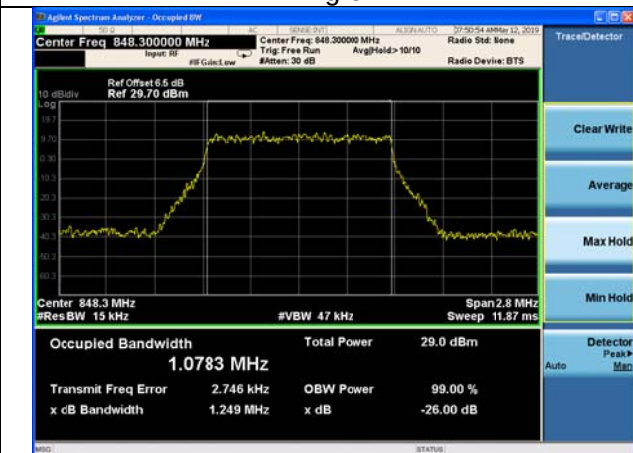


Fig.7

Fig.8

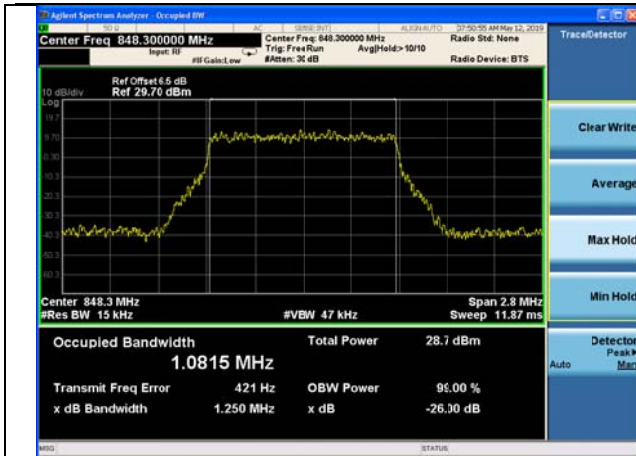


Fig.9

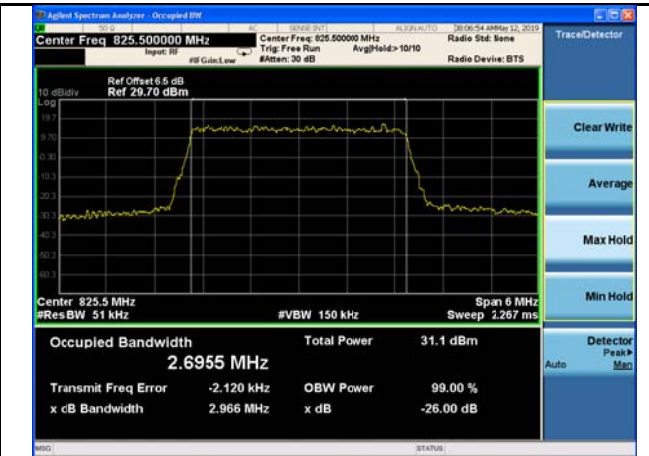


Fig.10

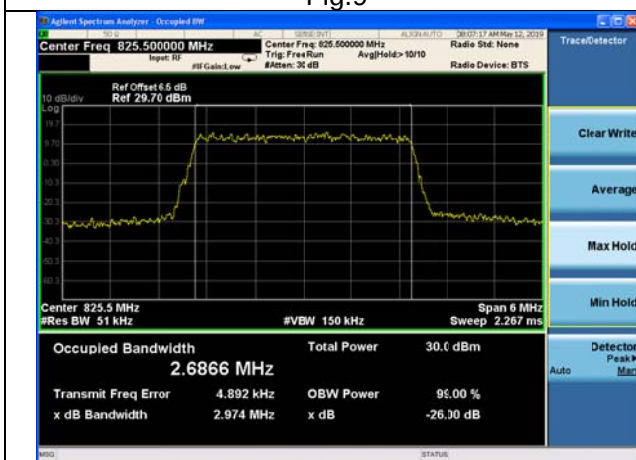


Fig.11

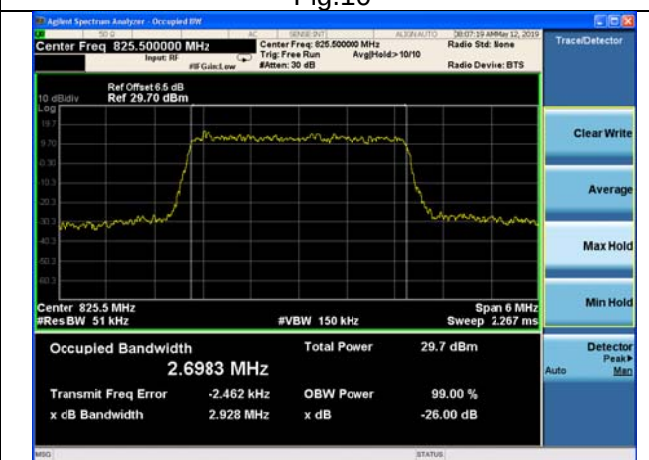


Fig.12

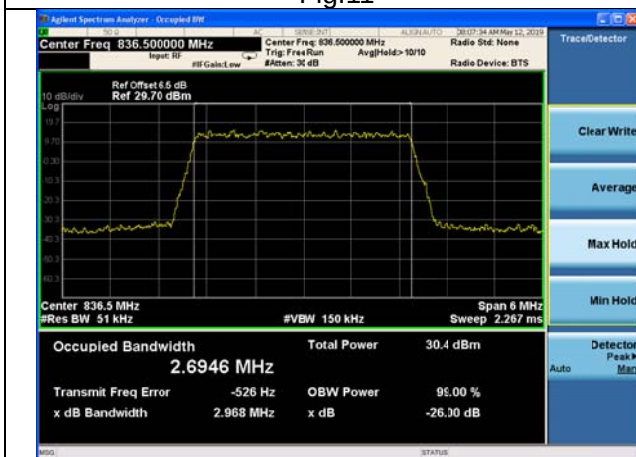


Fig.13

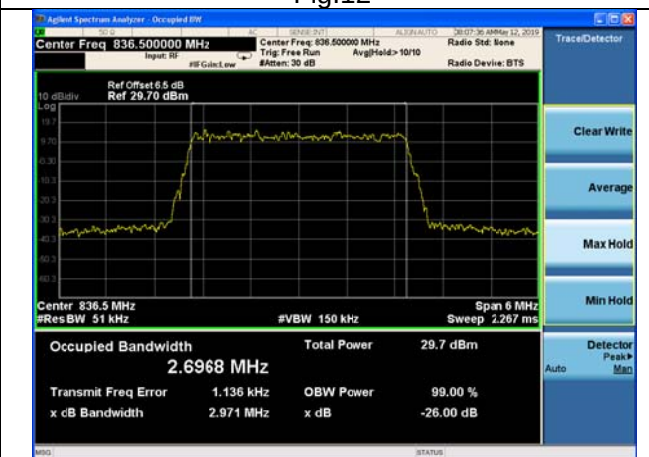


Fig.14

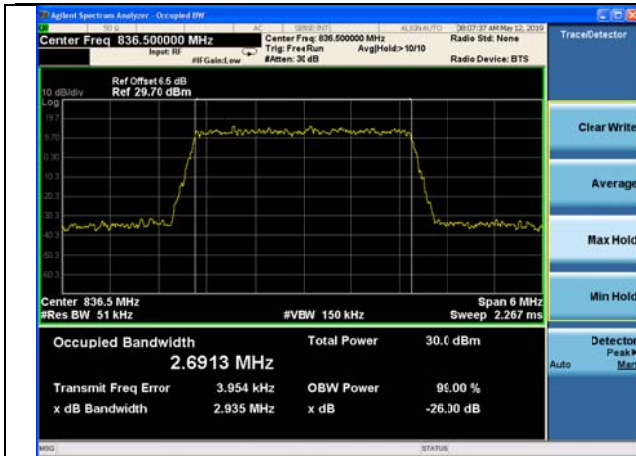


Fig.15

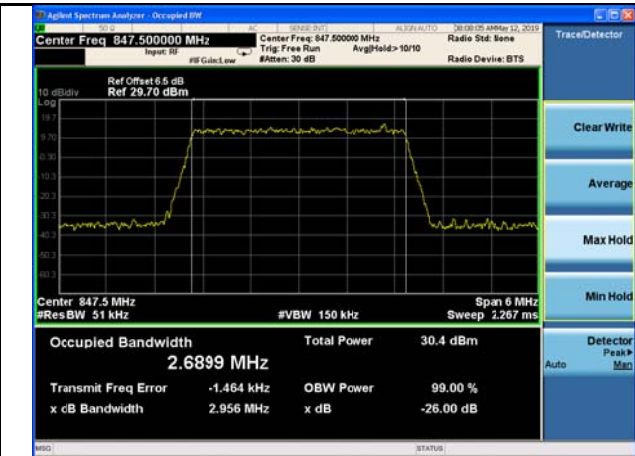


Fig.16

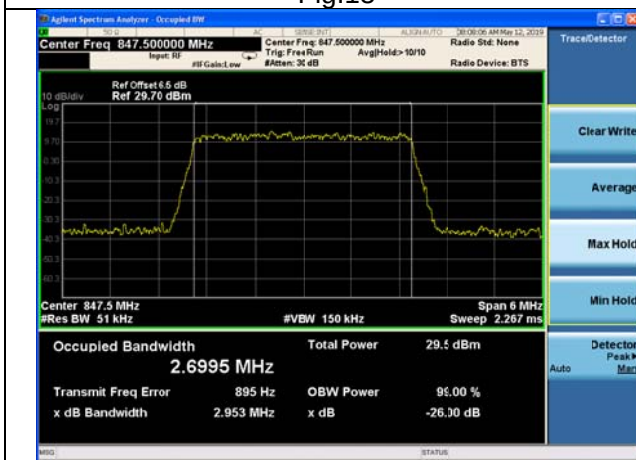


Fig.17

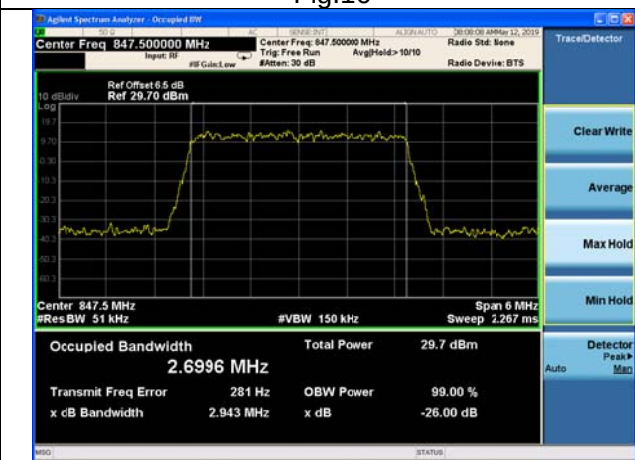


Fig.18

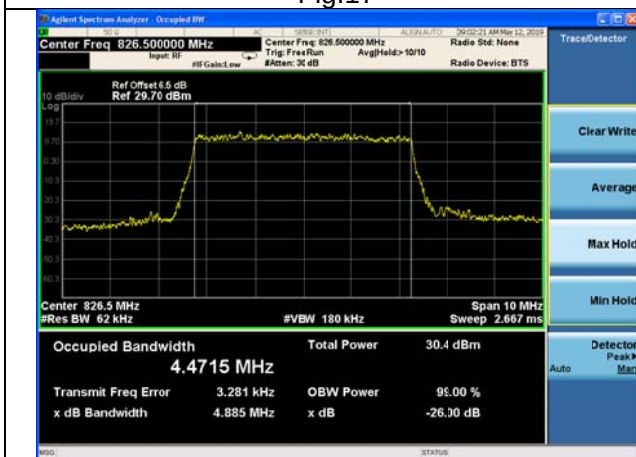


Fig.19

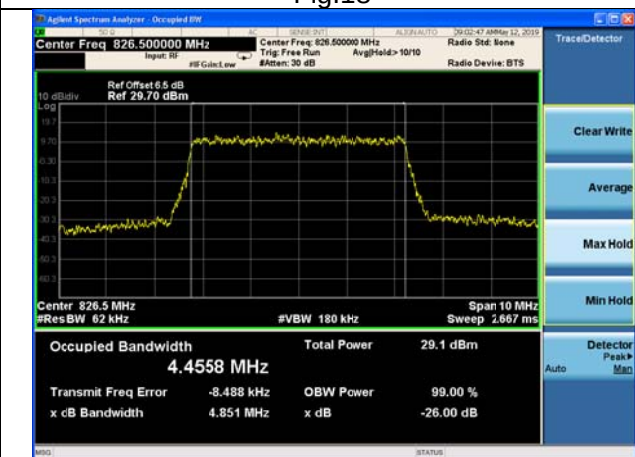


Fig.20

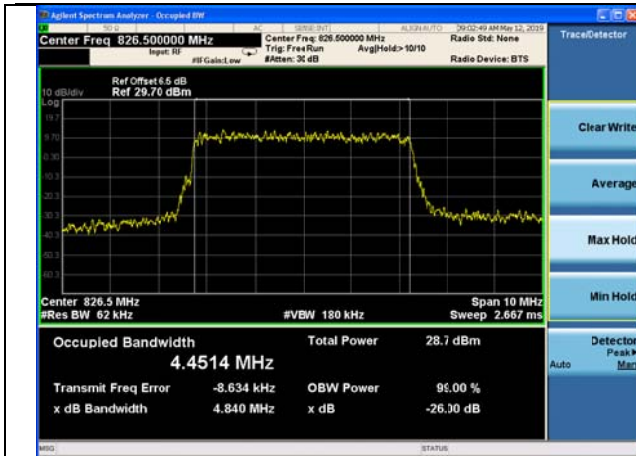


Fig.21

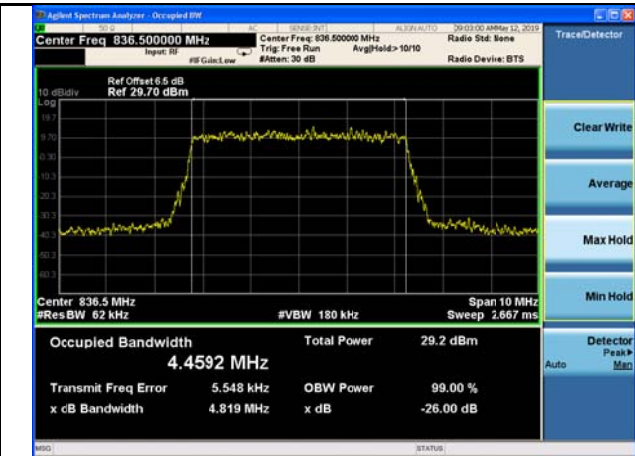


Fig.22

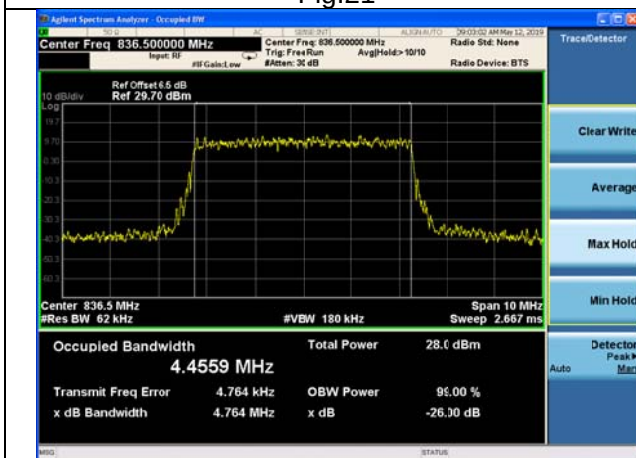


Fig.23

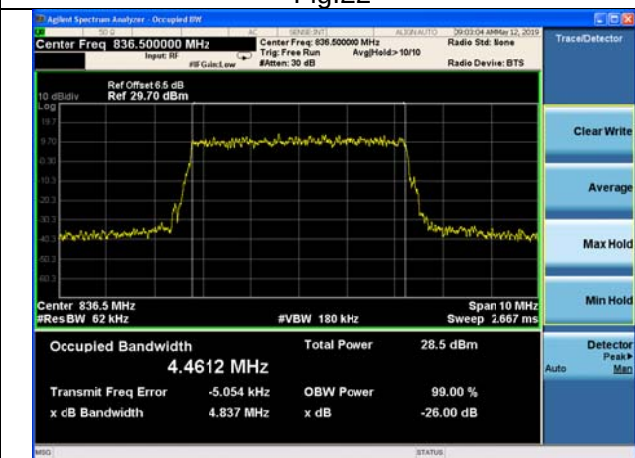


Fig.24

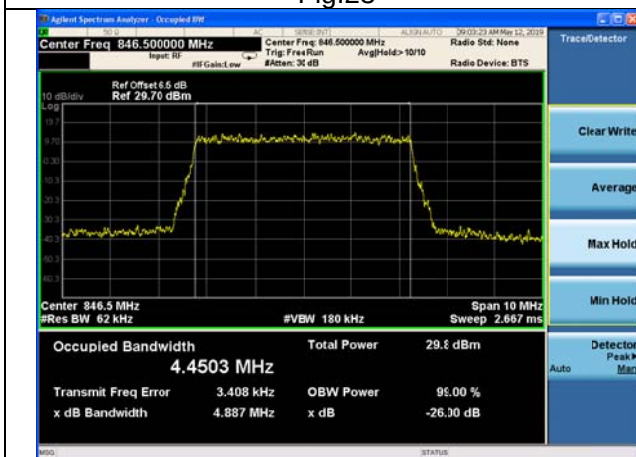


Fig.25

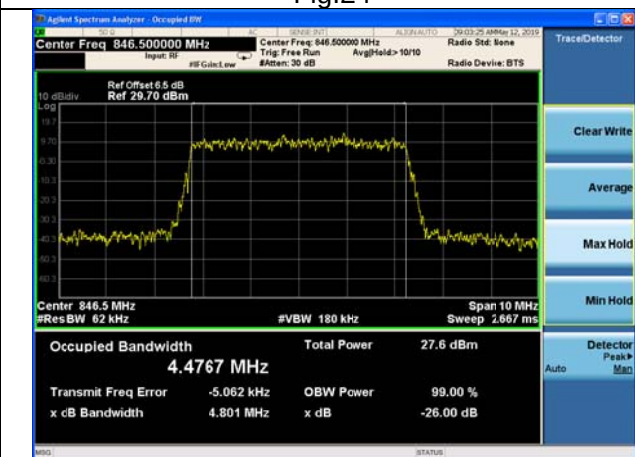


Fig.26

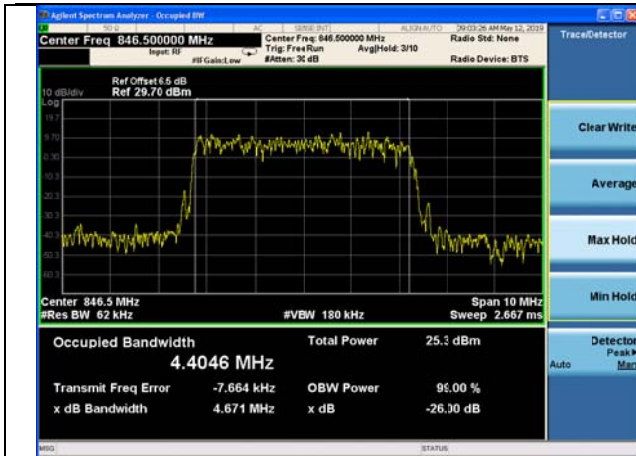


Fig.27

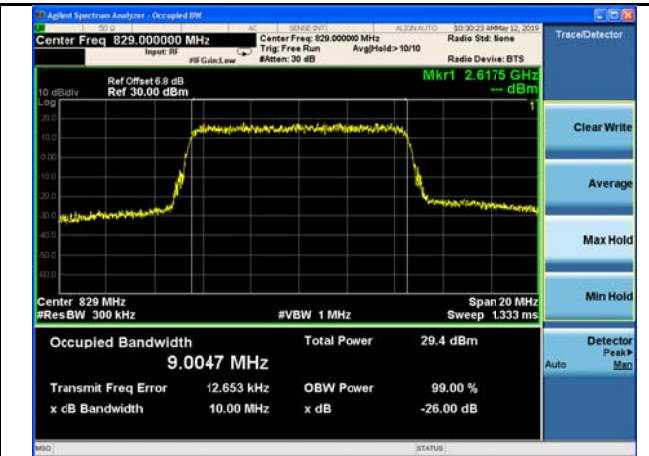


Fig.28

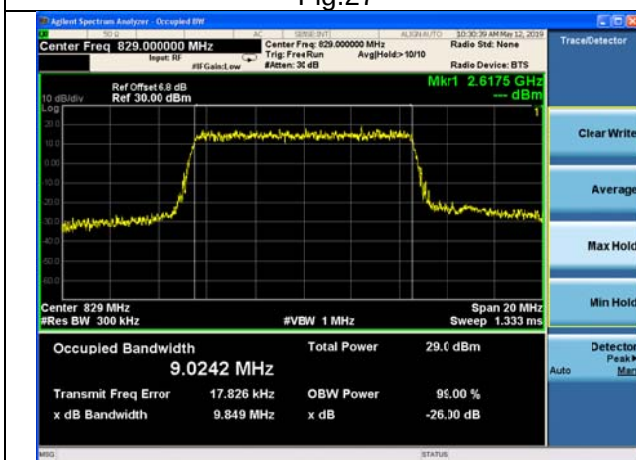


Fig.29

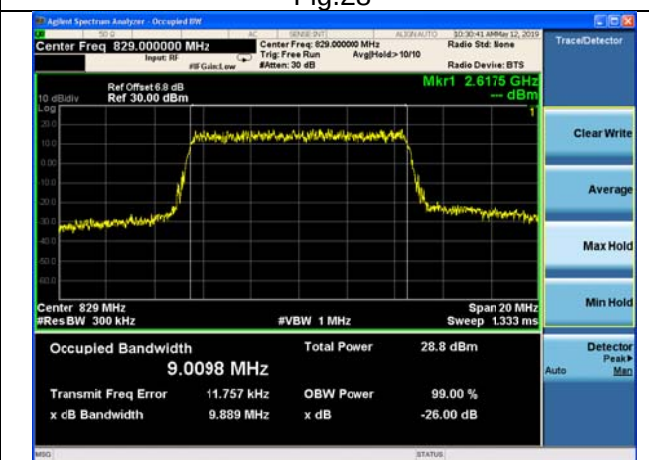


Fig.30

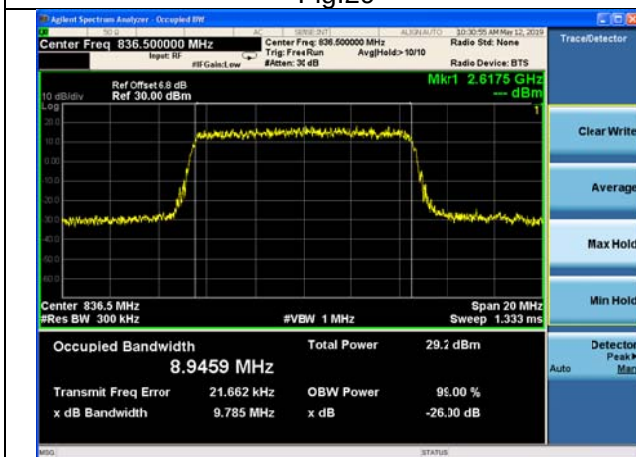


Fig.31

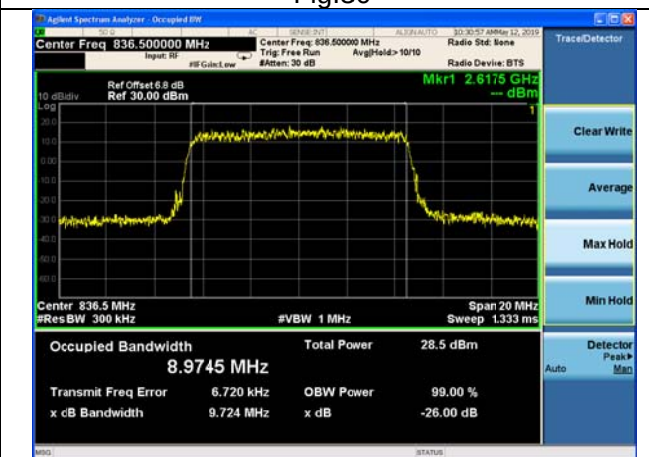


Fig.32

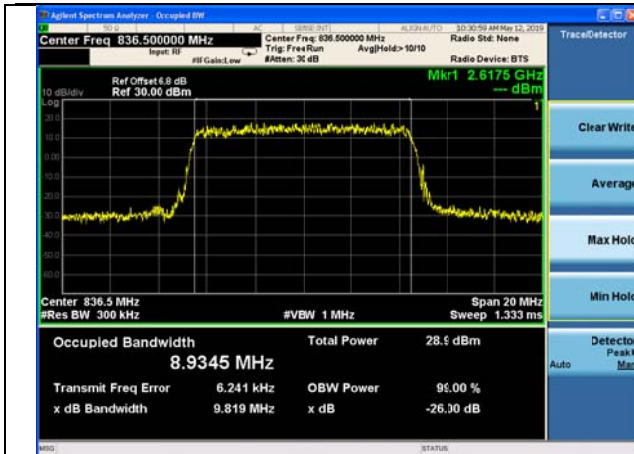


Fig.33

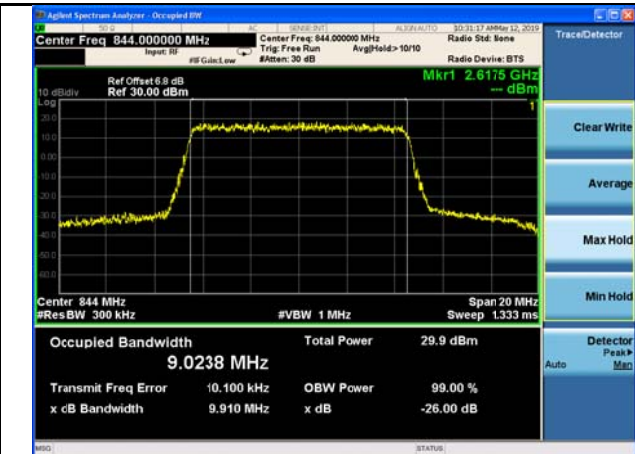


Fig.34

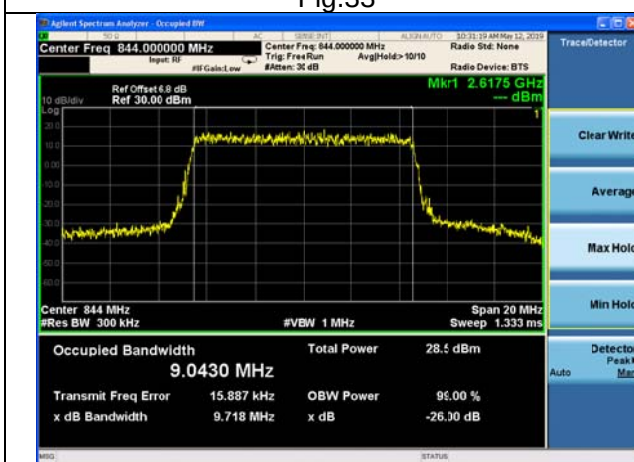


Fig.35

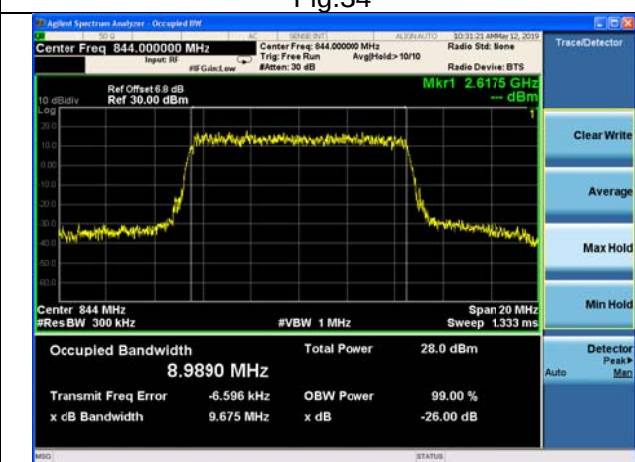


Fig.36

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

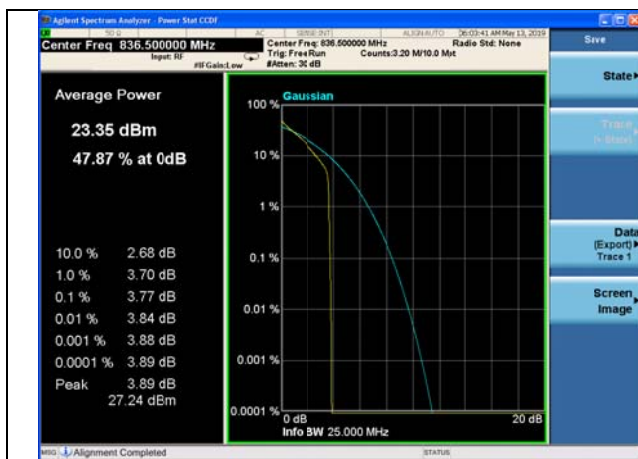


Fig.1

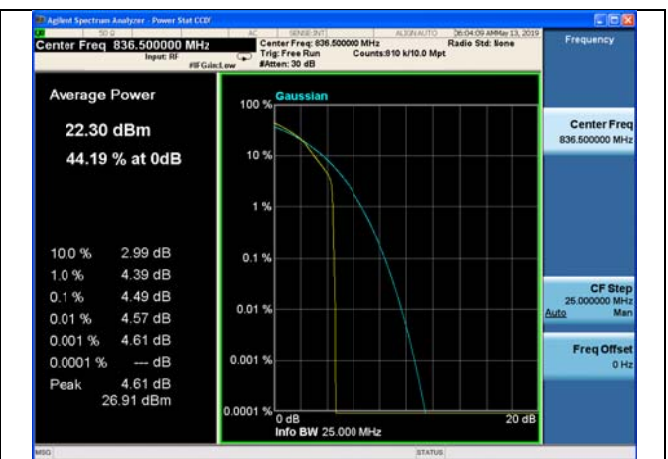


Fig.2

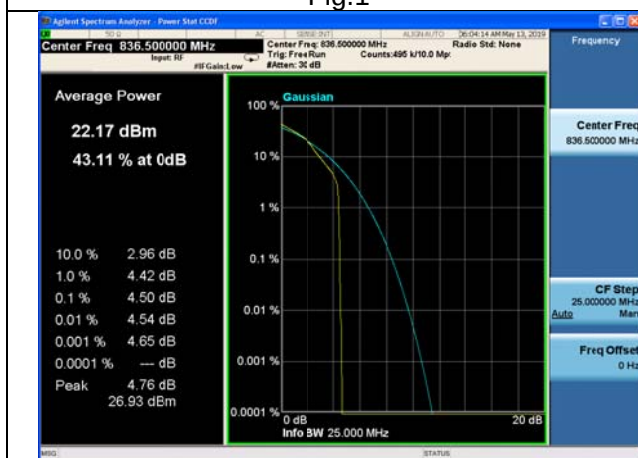


Fig.3

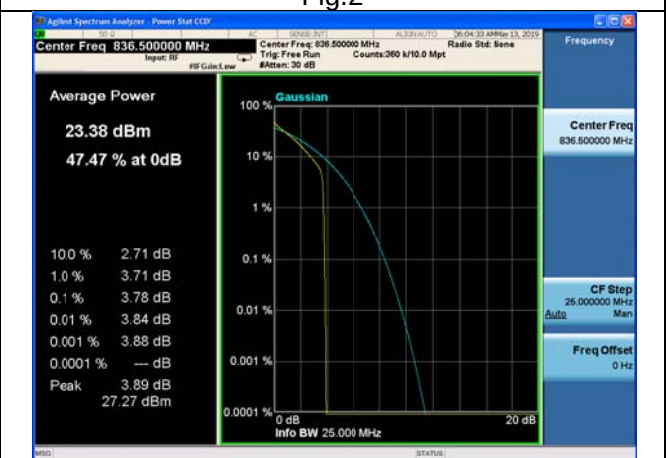


Fig.4

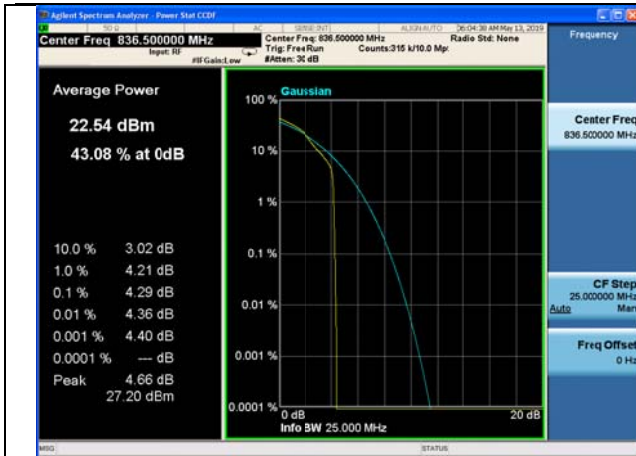


Fig.5



Fig.6

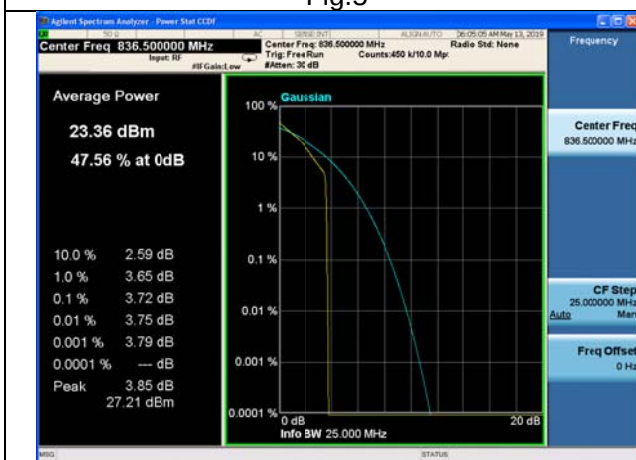


Fig.7



Fig.8

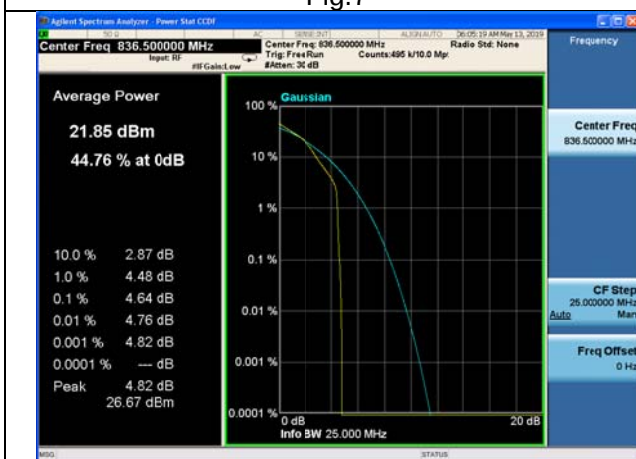


Fig.9



Fig.10

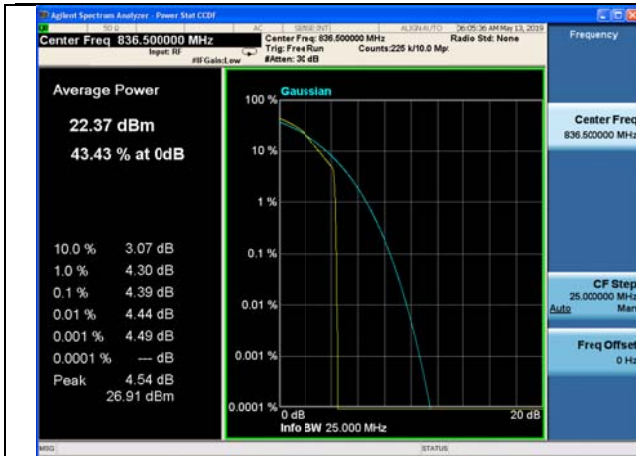


Fig.11



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
	836.5	20525	10	1	0	Fig.2
	844	20600	10	1	0	Fig.3

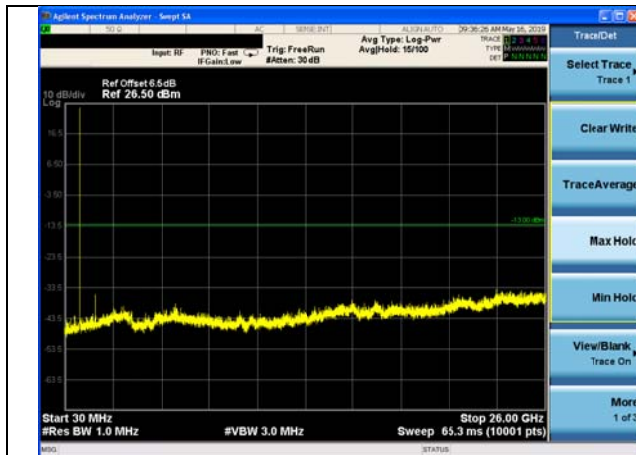


Fig.1

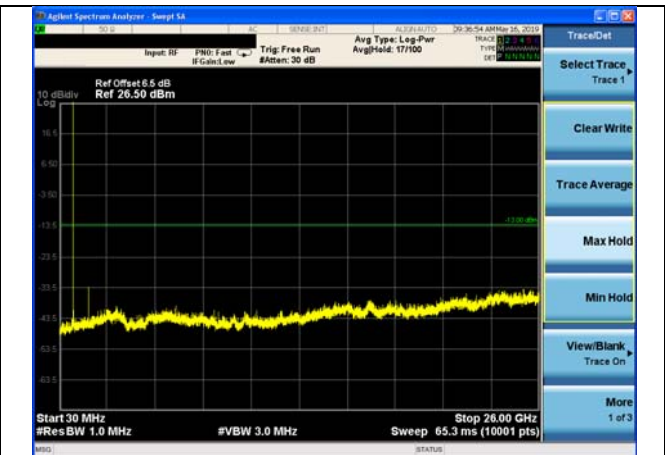


Fig.2

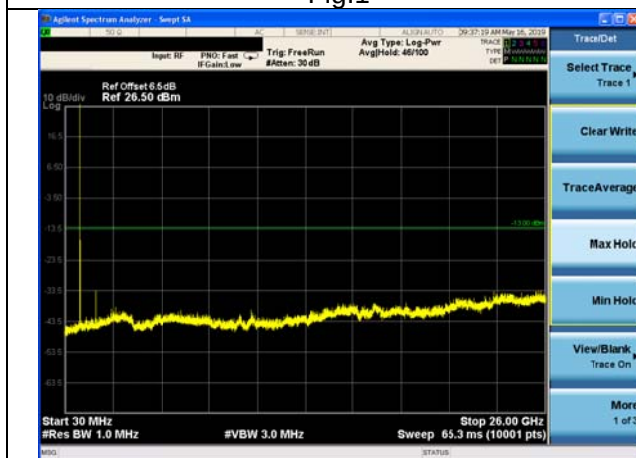


Fig3

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
		20643		1	5	Fig.3
				6	0	Fig.4
	825.5	20415	3	1	0	Fig.5
				15	0	Fig.6
		20635		1	14	Fig.7
				15	0	Fig.8
	826.5	20425	5	1	0	Fig.9
				25	0	Fig.10
		20625		1	24	Fig.11
				25	0	Fig.12
	829	20450	10	1	0	Fig.13
				50	0	Fig.14
		20600		1	49	Fig.15
				50	0	Fig.16

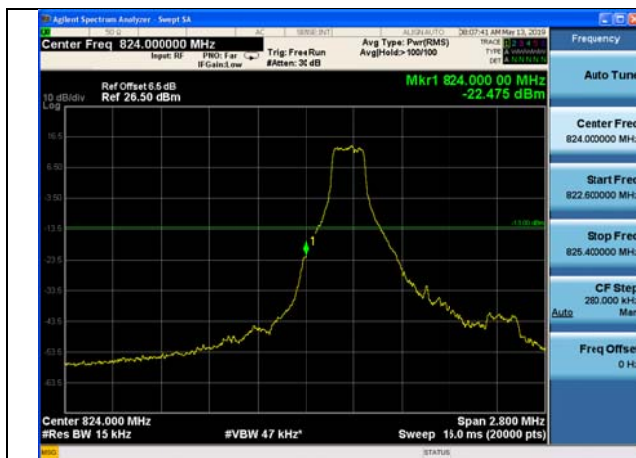


Fig.1



Fig.2

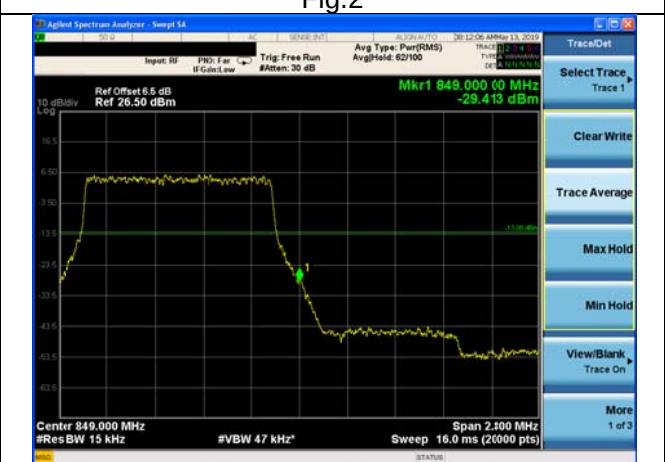
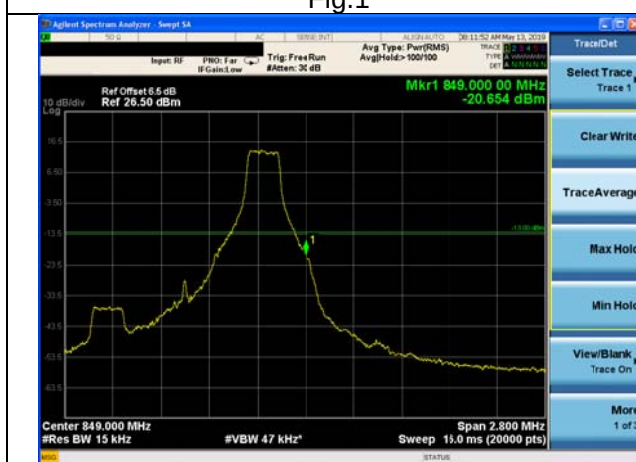


Fig.3

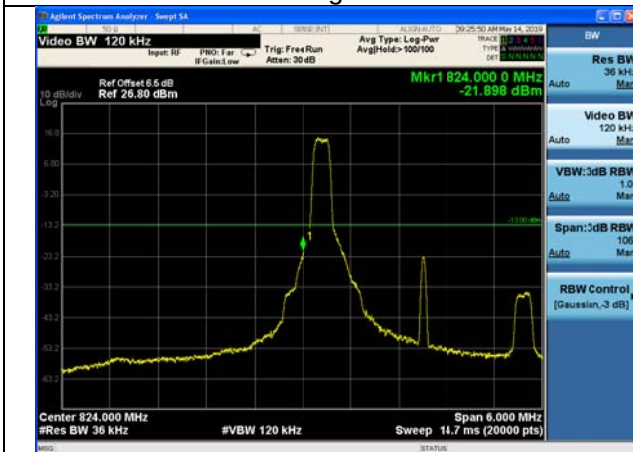


Fig.4

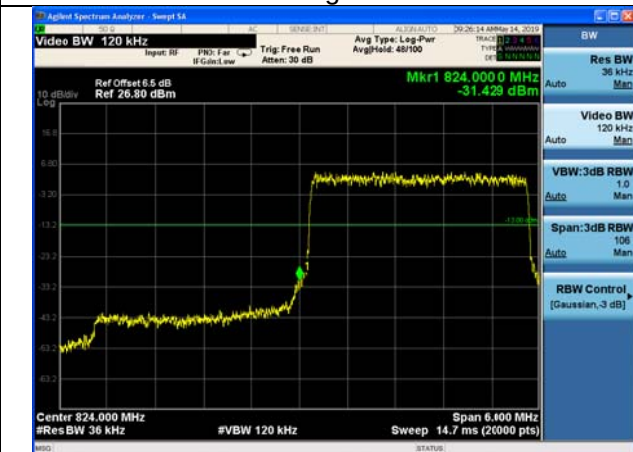


Fig.5

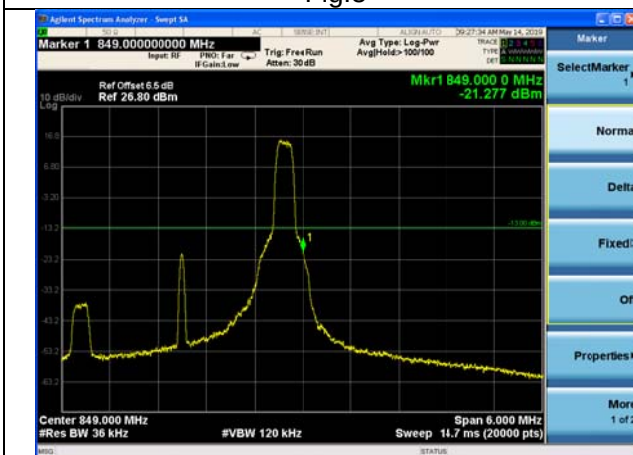


Fig.6

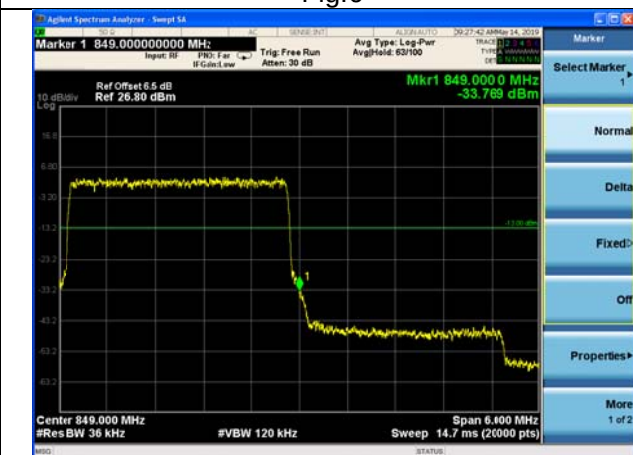


Fig.7

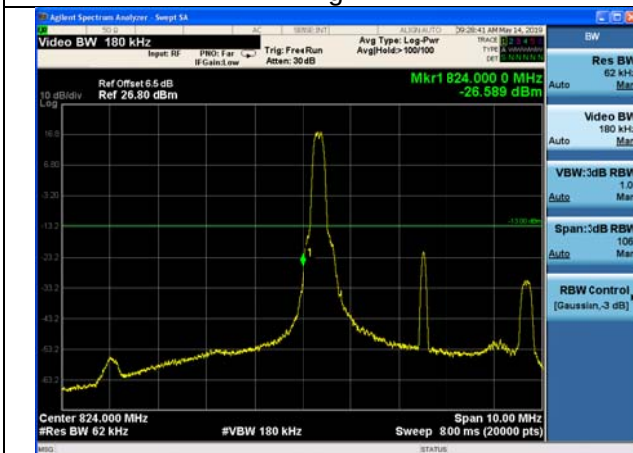


Fig.8

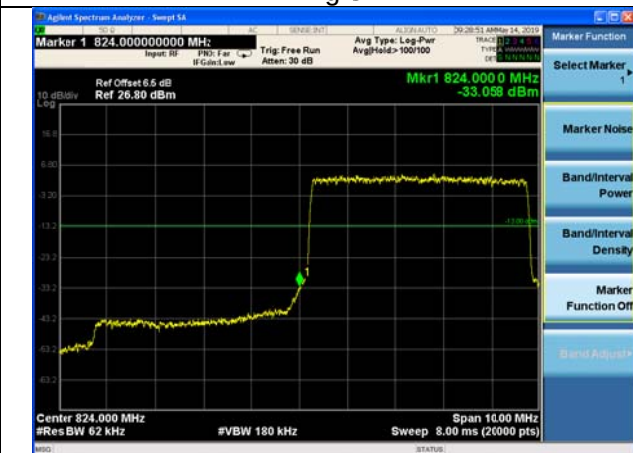


Fig.9

Fig.10

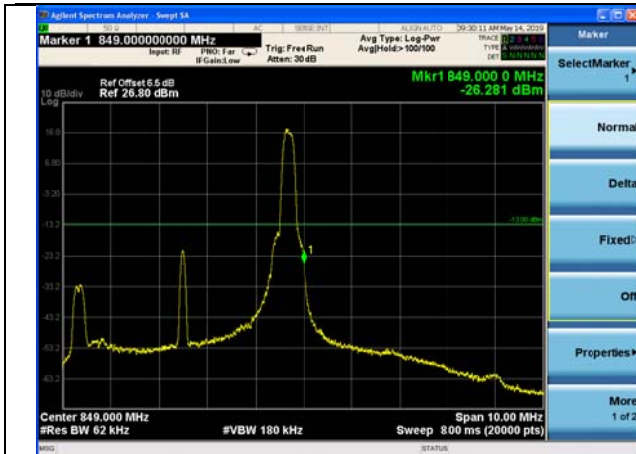


Fig.11



Fig.12

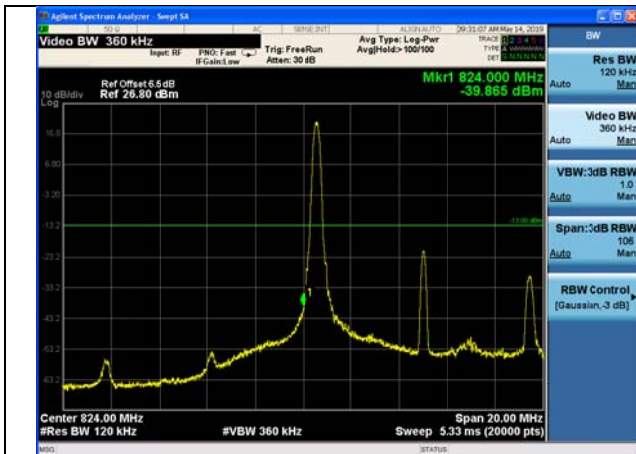


Fig.13

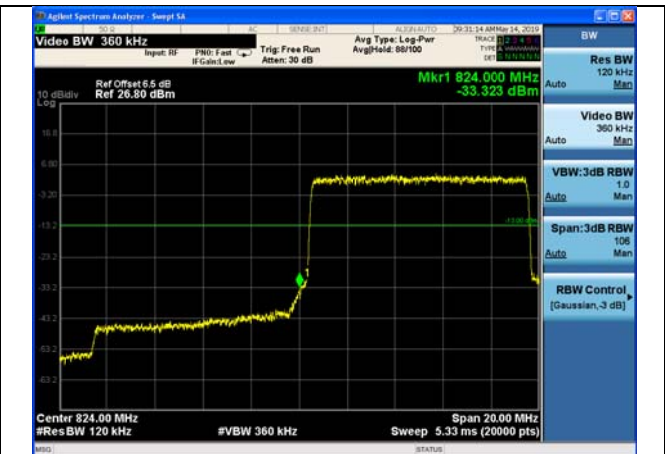


Fig.14

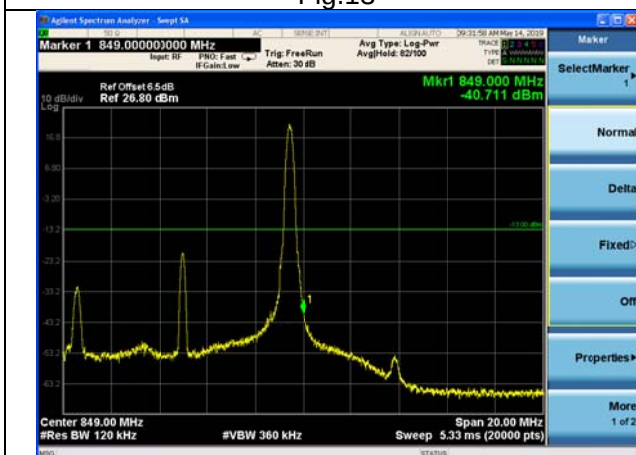


Fig.15

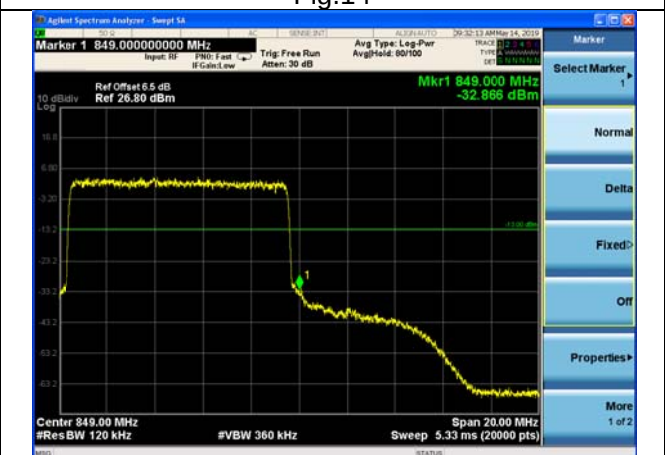


Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band5 Low Channel			
		1.4M	3M	5M	10M
-10	NV	0.079	0.010	0.100	0.033
0	NV	0.076	0.046	0.007	0.087
+10	NV	0.123	0.078	0.083	0.109
+20	NV	0.052	0.019	0.070	0.005
+30	NV	0.082	0.042	0.145	0.016
+40	NV	0.082	0.040	0.034	0.004
+50	NV	0.114	0.035	0.124	0.072
+20	LV	0.081	0.012	0.101	0.081
+20	HV	0.061	0.073	0.049	0.055

Temperature(°C)	Voltage	Test Result (ppm) Band5 High Channel			
		1.4M	3M	5M	10M
-10	NV	0.057	0.128	0.056	0.035
0	NV	0.029	0.099	0.034	0.067
+10	NV	0.084	0.053	0.111	0.069
+20	NV	0.093	0.023	0.102	0.050
+30	NV	0.055	0.018	0.115	0.080
+40	NV	0.069	0.141	0.097	0.037
+50	NV	0.030	0.085	0.039	0.021
+20	LV	0.070	0.072	0.045	0.138
+20	HV	0.083	0.141	0.064	0.017