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	22.93
				1	5	22.93
				3	2	22.02
				6	0	21.96
	836.5	20525		1	0	22.88
				1	5	22.82
				3	2	20.91
				6	0	20.89
	848.3	20643		1	0	22.79
				1	5	22.75
				3	2	21.93
				6	0	21.88
16QAM	824.7	20407	1.4	1	0	21.99
				1	5	21.93
				3	2	21.06
				6	0	21.03
	836.5	20525		1	0	21.86
				1	5	21.92
				3	2	19.95
				6	0	19.97
	848.3	20643		1	0	21.85
				1	5	21.71
				3	2	20.81
				6	0	20.74

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	825.5	20415	3	1	0	23.07
				1	14	22.99
				8	4	22.10
				15	0	22.02
	836.5	20525		1	0	22.95
				1	14	22.92
				8	4	21.06
				15	0	21.05
	847.5	20635		1	0	22.83
				1	14	22.81
				8	4	21.92
				15	0	21.86
16QAM	825.5	20415	3	1	0	22.02
				1	14	22.01
				8	4	21.09
				15	0	21.04
	836.5	20525		1	0	22.00
				1	14	21.94
				8	4	20.03
				15	0	20.01
	847.5	20635		1	0	21.91
				1	14	21.81
				8	4	20.97
				15	0	20.88

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	826.5	20425	5	1	0	23.07
				1	24	23.08
				12	6	22.12
				25	0	22.04
	836.5	20525		1	0	22.97
				1	24	22.98
				12	6	21.08
				25	0	21.02
	846.5	20625		1	0	22.85
				1	24	22.84
				12	6	22.00
				25	0	21.96
16QAM	826.5	20425	5	1	0	22.07
				1	24	22.04
				12	6	21.08
				25	0	21.05
	836.5	20525		1	0	21.95
				1	24	21.93
				12	6	20.07
				25	0	20.07
	846.5	20625		1	0	21.87
				1	24	21.91
				12	6	20.96
				25	0	20.91

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	829	20450	10	1	0	23.17
				1	49	23.13
				24	12	22.19
				50	0	22.18
	836.5	20525		1	0	23.07
				1	49	23.06
				24	12	21.17
				50	0	21.14
	844	20600		1	0	22.99
				1	49	22.95
				24	12	22.07
				50	0	22.02
16QAM	829	20450	10	1	0	22.20
				1	49	22.17
				24	12	21.23
				50	0	21.18
	836.5	20525		1	0	22.09
				1	49	22.06
				24	12	20.20
				50	0	20.16
	844	20600		1	0	22.00
				1	49	21.96
				24	12	21.08
				50	0	21.01

2 Occupied Bandwidth

Test result

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)			
						QPSK		16-QAM	
5	824.7	20407	1.4	6	0	1.0834	Fig.1	1.0831	Fig.2
	836.5	20525		6	0	1.0830	Fig.3	1.0814	Fig.4
	848.3	20643		6	0	1.0826	Fig.5	1.0836	Fig.6
	825.5	20415	3	15	0	2.6913	Fig.7	2.6924	Fig.8
	836.5	20525		15	0	2.6891	Fig.9	2.6926	Fig.10
	847.5	20635		15	0	2.6911	Fig.11	2.6887	Fig.12
	826.5	20425	5	25	0	4.4763	Fig.13	4.4747	Fig.14
	836.5	20525		25	0	4.4708	Fig.15	4.4738	Fig.16
	846.5	20625		25	0	4.4726	Fig.17	4.4743	Fig.18
	829	20450	10	50	0	8.9401	Fig.19	8.9396	Fig.20
	836.5	20525		50	0	8.9286	Fig.21	8.9164	Fig.22
	844	20600		50	0	8.9475	Fig.23	8.9361	Fig.24

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)			
						QPSK		16-QAM	
5	824.7	20407	1.4	6	0	1.246	Fig.1	1.240	Fig.2
	836.5	20525		6	0	1.243	Fig.3	1.238	Fig.4
	848.3	20643		6	0	1.245	Fig.5	1.239	Fig.6
	825.5	20415	3	15	0	2.973	Fig.7	2.960	Fig.8
	836.5	20525		15	0	2.962	Fig.9	2.966	Fig.10
	847.5	20635		15	0	2.964	Fig.11	2.964	Fig.12
	826.5	20425	5	25	0	4.939	Fig.13	4.920	Fig.14
	836.5	20525		25	0	4.882	Fig.15	4.900	Fig.16
	846.5	20625		25	0	4.927	Fig.17	4.895	Fig.18
	829	20450	10	50	0	9.725	Fig.19	9.635	Fig.20
	836.5	20525		50	0	9.650	Fig.21	9.638	Fig.22
	844	20600		50	0	9.691	Fig.23	9.700	Fig.24

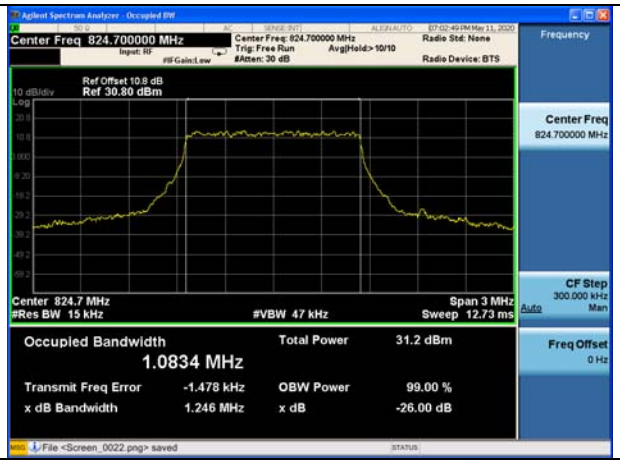


Fig.1

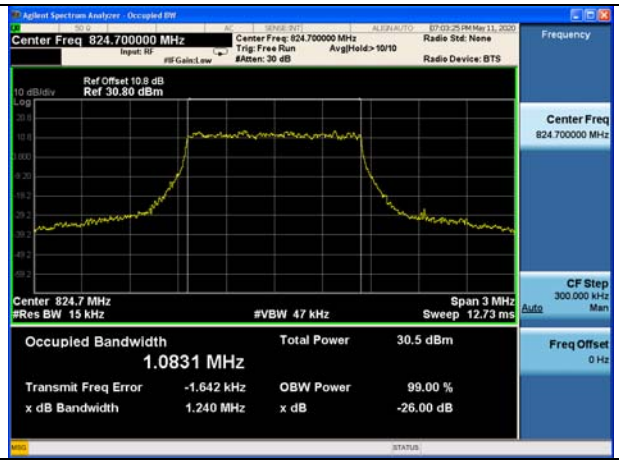


Fig.2

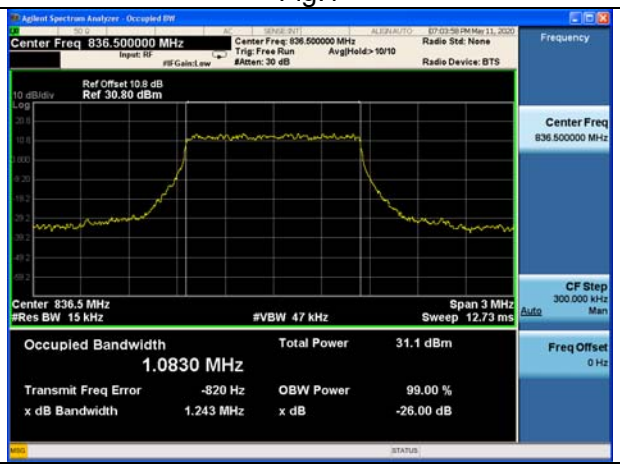


Fig.3

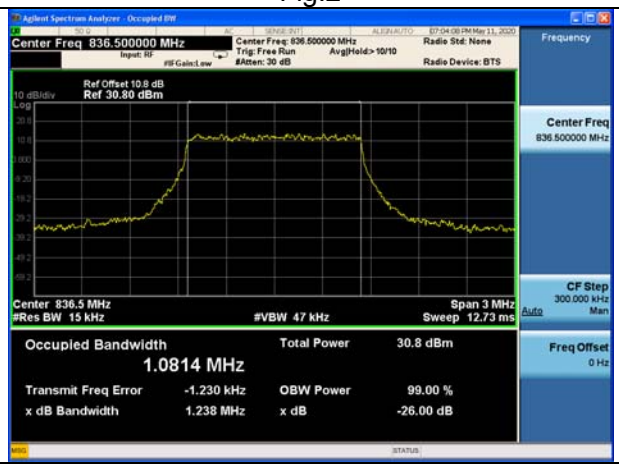


Fig.4

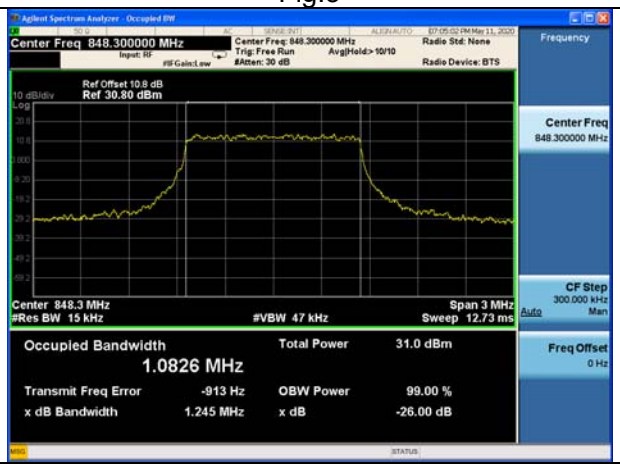


Fig.5

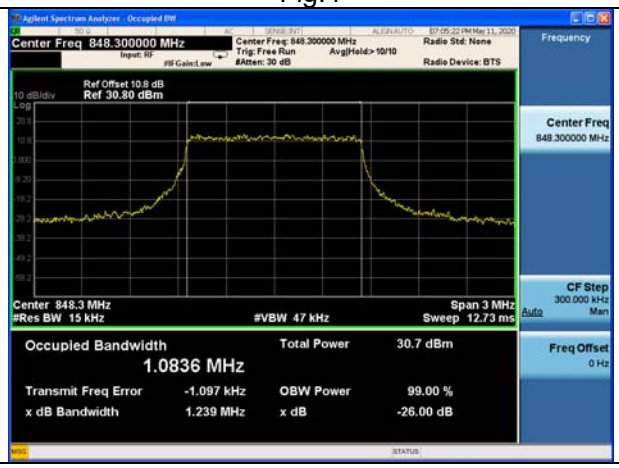


Fig.6

Fig.7

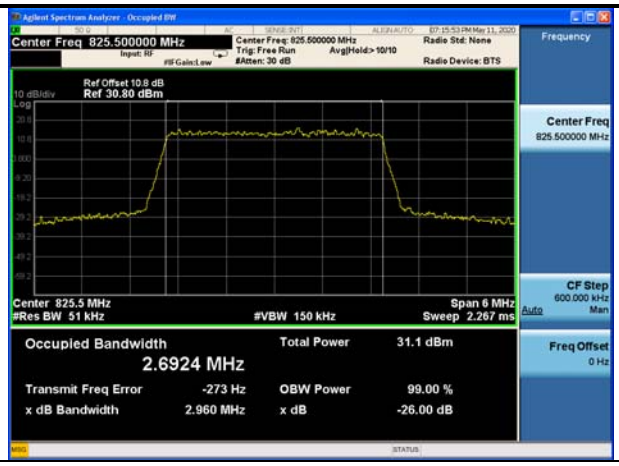


Fig.8

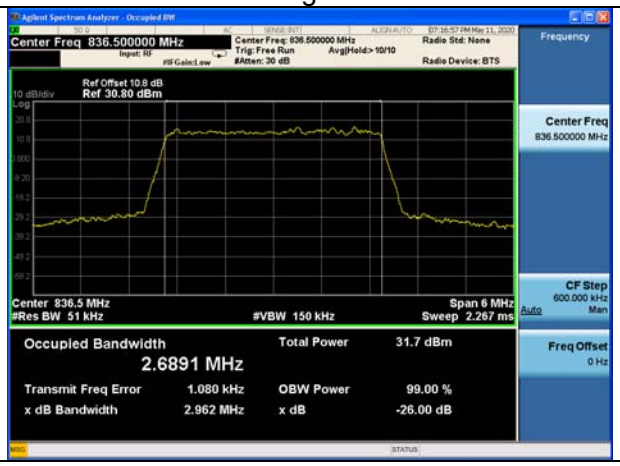


Fig.9

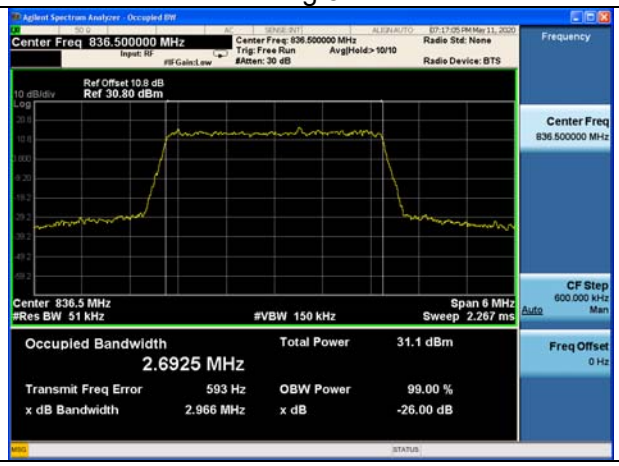


Fig.10

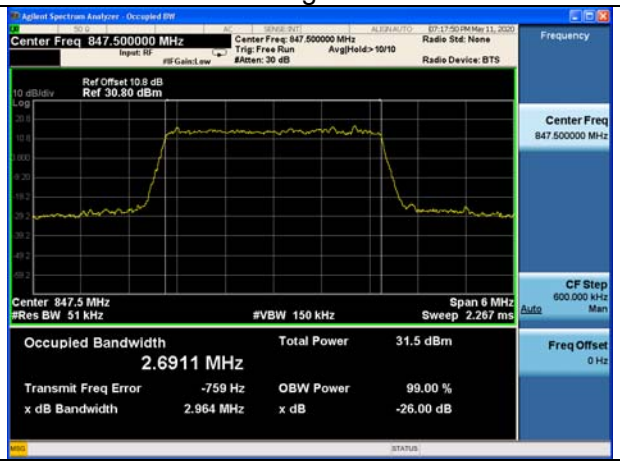


Fig.11

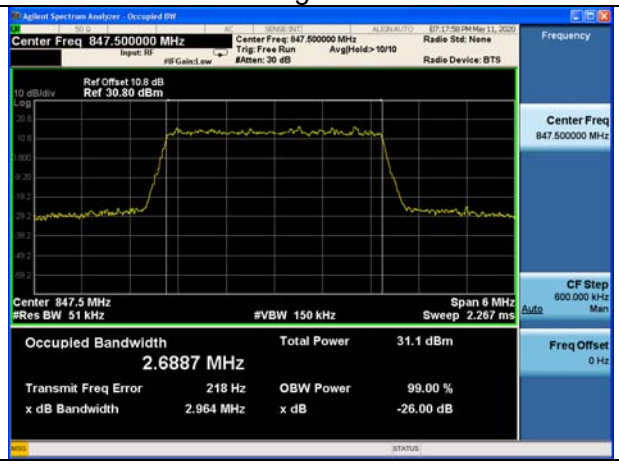


Fig.12

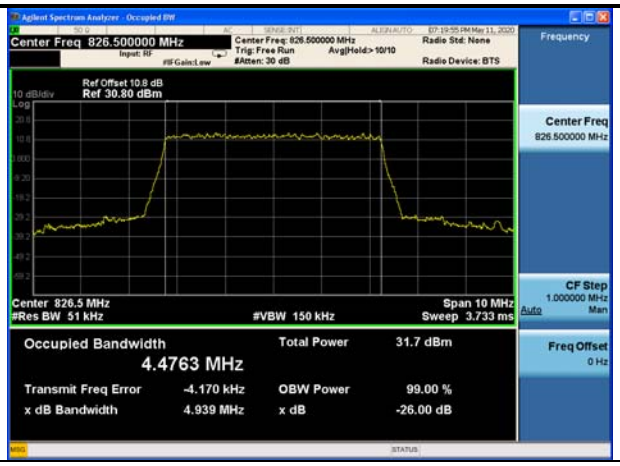


Fig.13

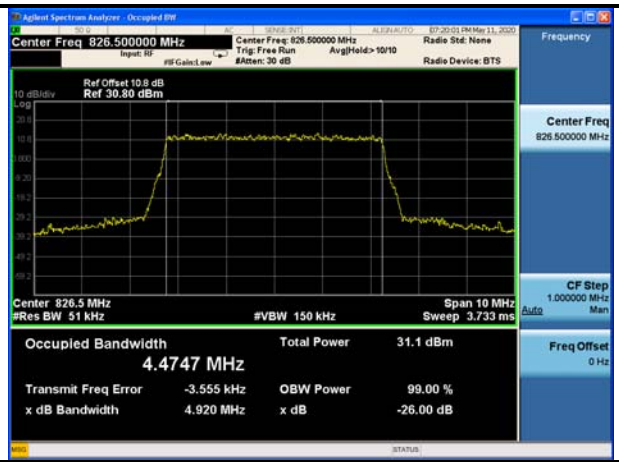


Fig.14

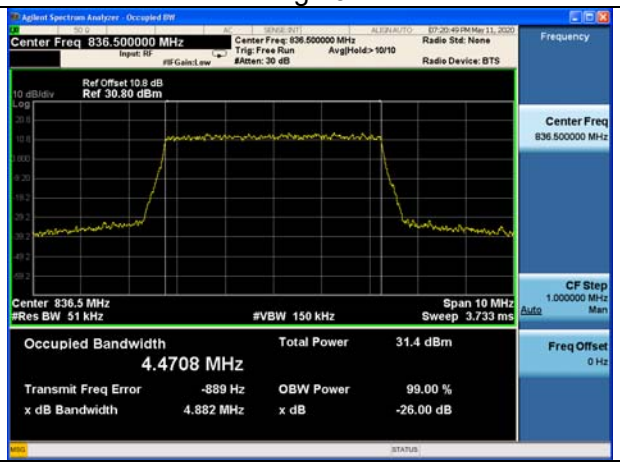


Fig.15

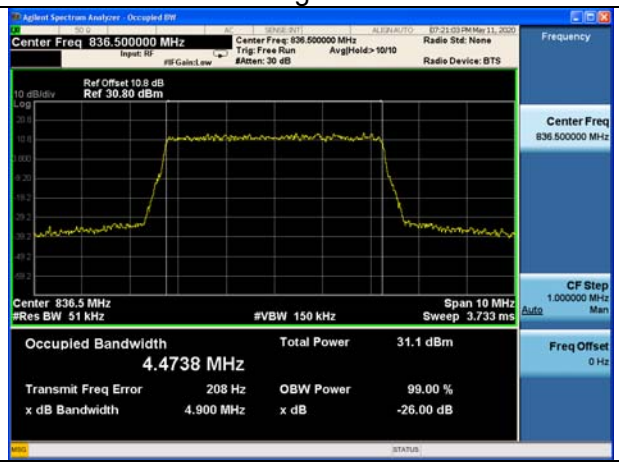


Fig.16

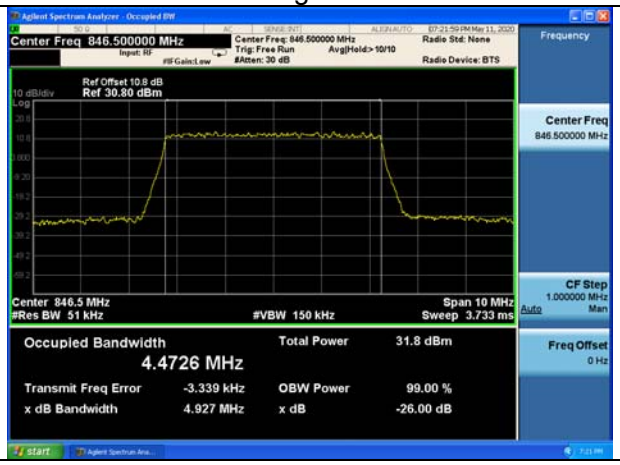


Fig.17

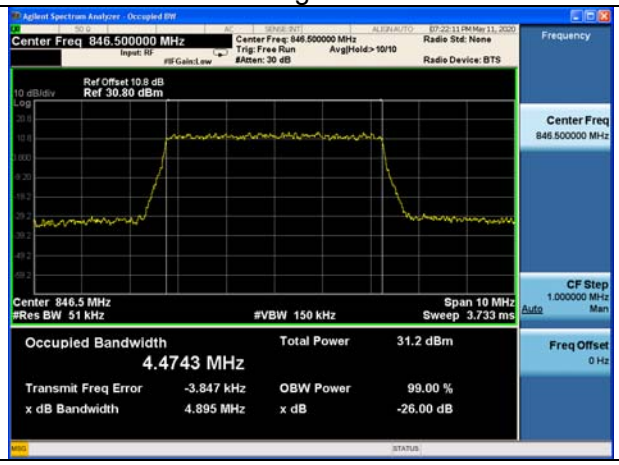


Fig.18

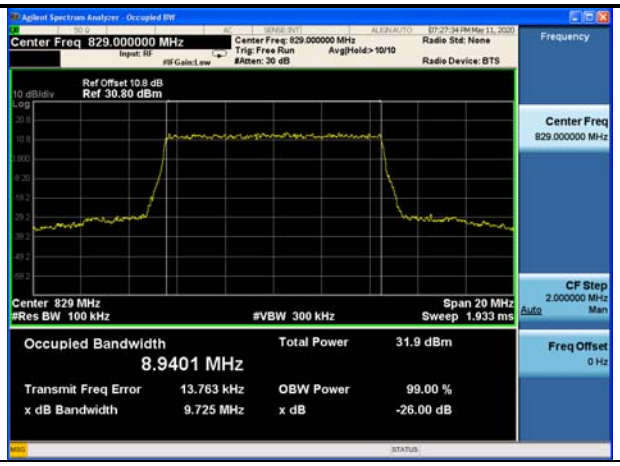


Fig.19

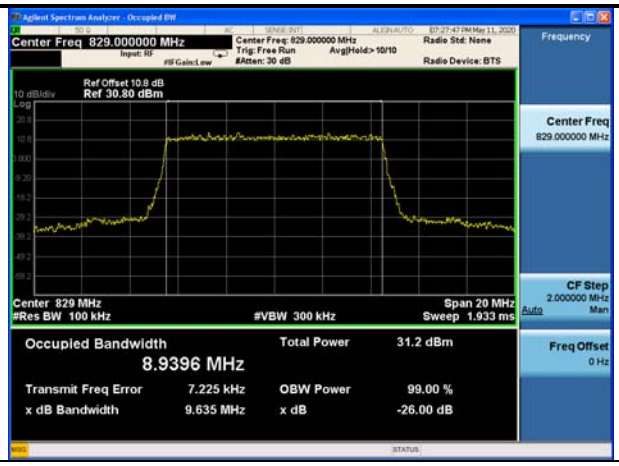


Fig.20

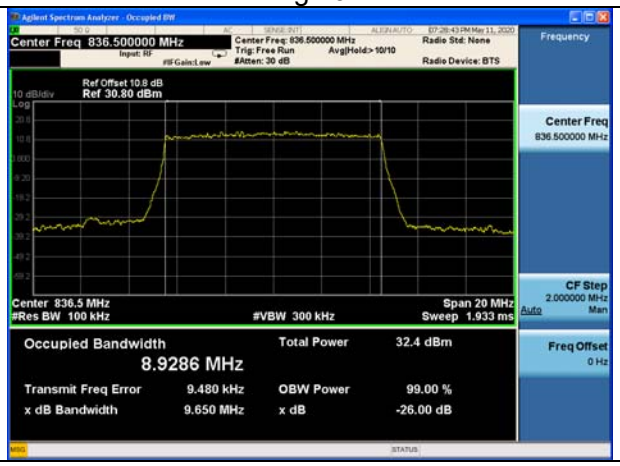


Fig.21

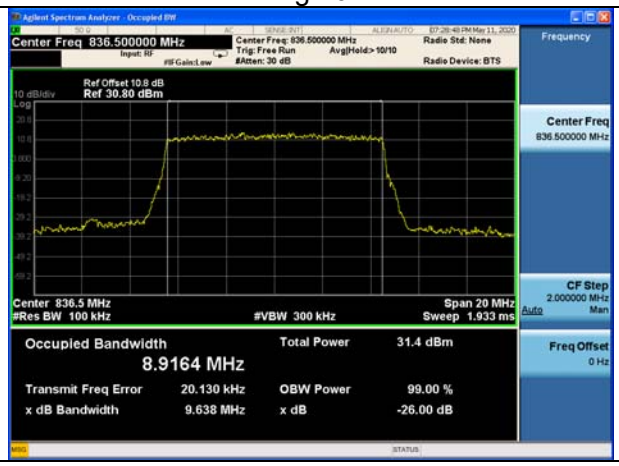


Fig.22

Fig.23

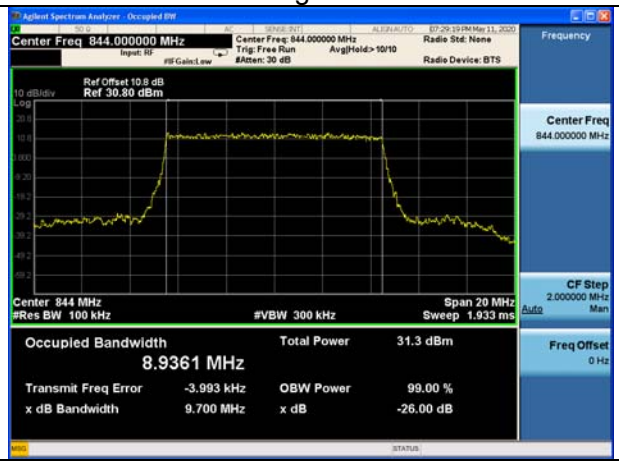


Fig.24

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM
5	836.5	20525	1.4	1	0	Fig.1	Fig.2
			3	1	0	Fig.3	Fig.4
			5	1	0	Fig.5	Fig.6
			10	1	0	Fig.7	Fig.8

Fig.1

Fig.2

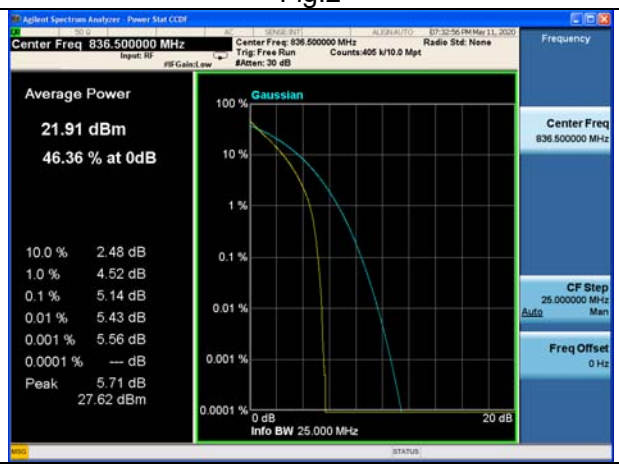
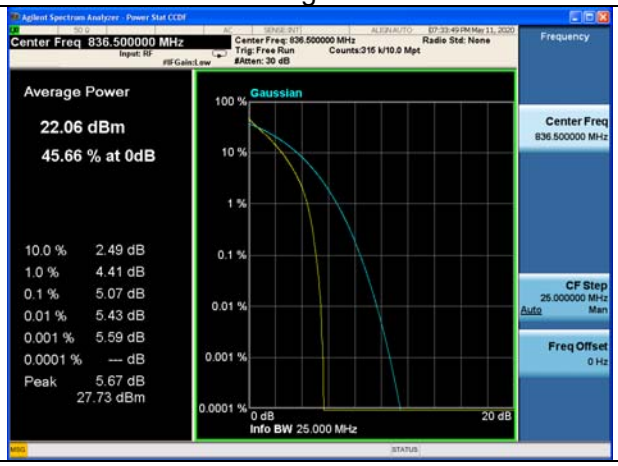


Fig.3	Fig.4
	
Fig.5	Fig.6
	
Fig.7	Fig.8

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

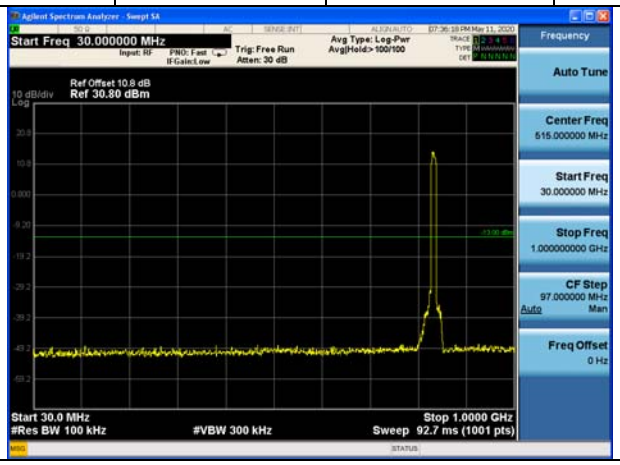


Fig.1

Fig.2

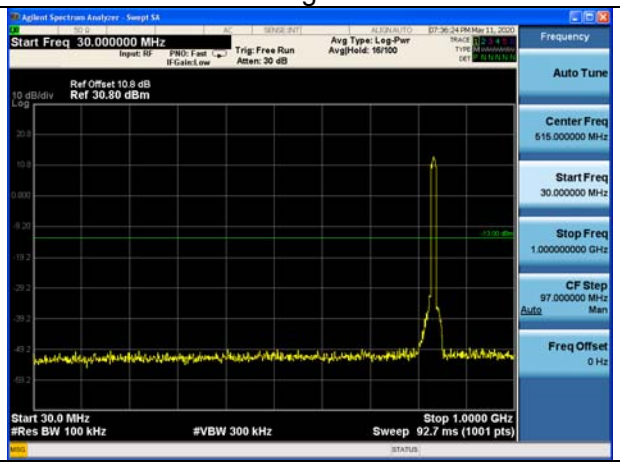


Fig3

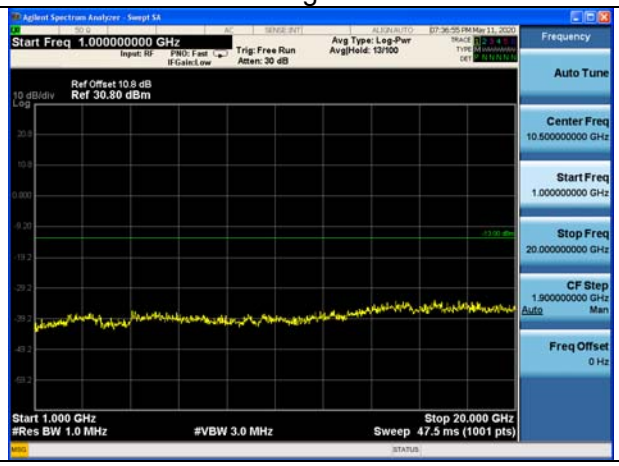


Fig4

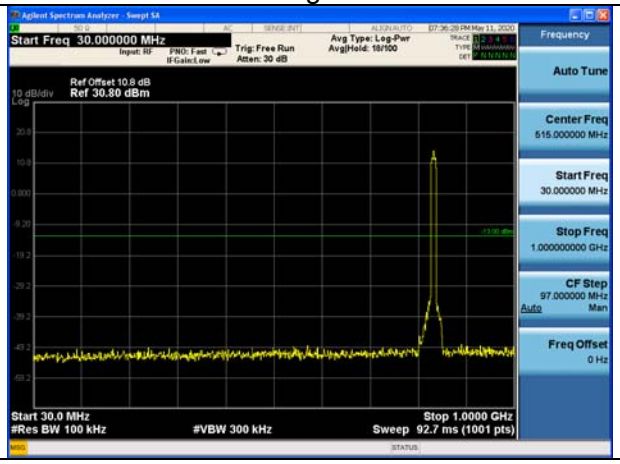


Fig5

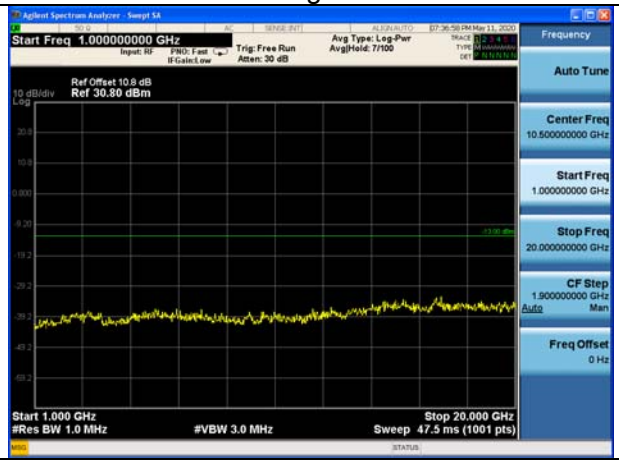


Fig6

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

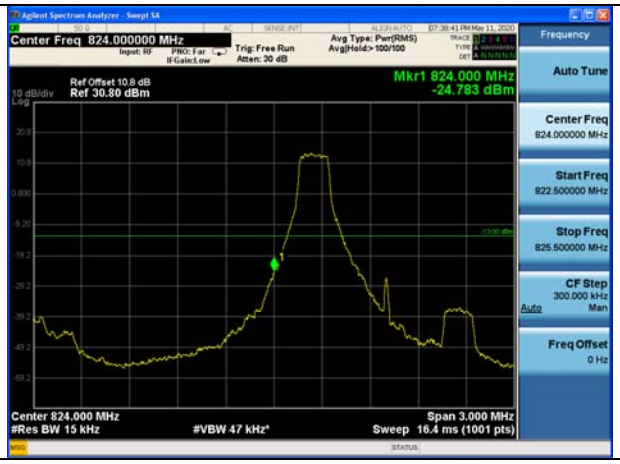


Fig.1

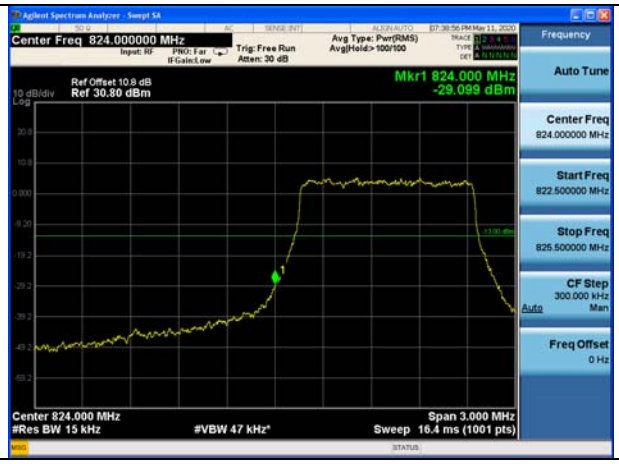


Fig.2

Fig.3

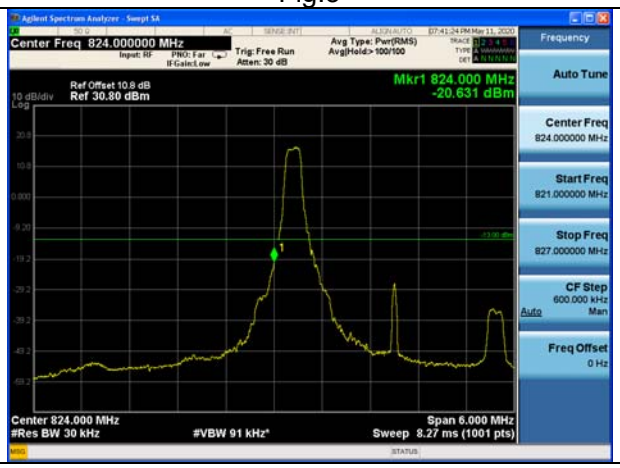


Fig.4

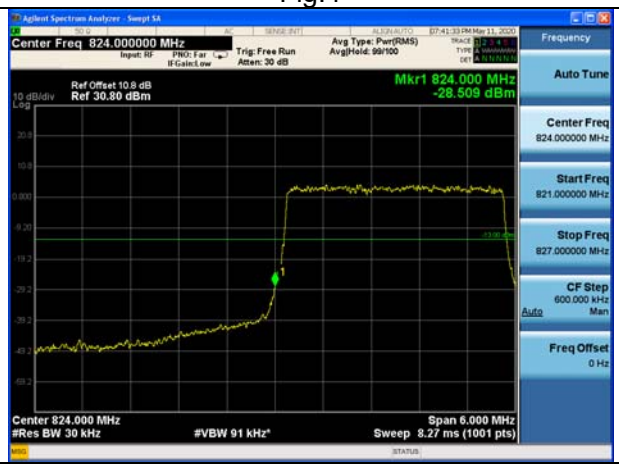


Fig.5

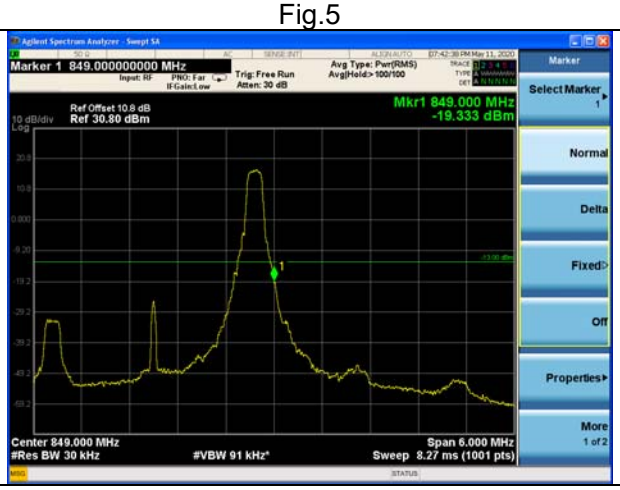


Fig.6

Fig.7

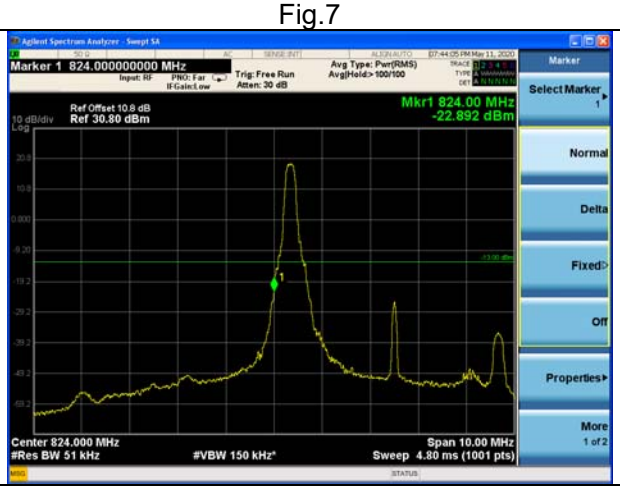


Fig.8

Fig.9

Fig.10

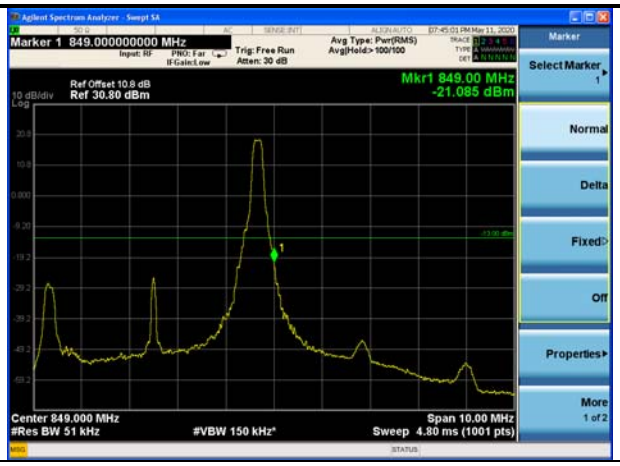


Fig.11

Fig.12

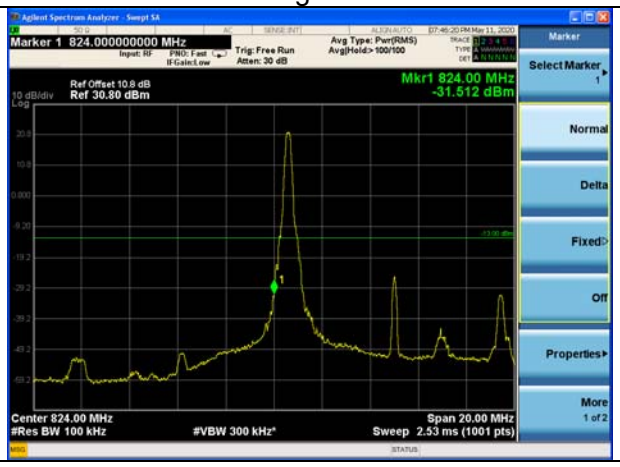


Fig.13

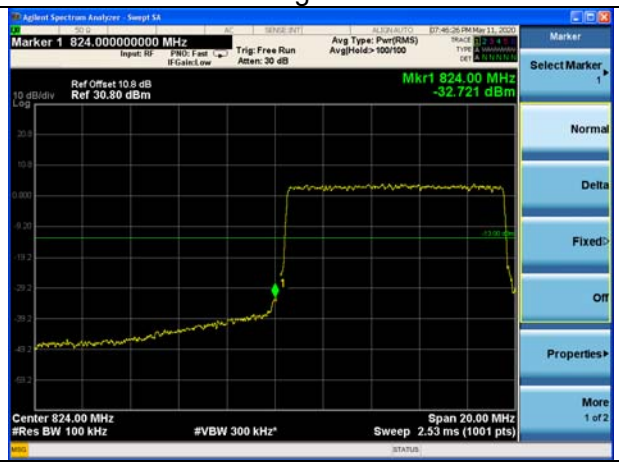


Fig.14

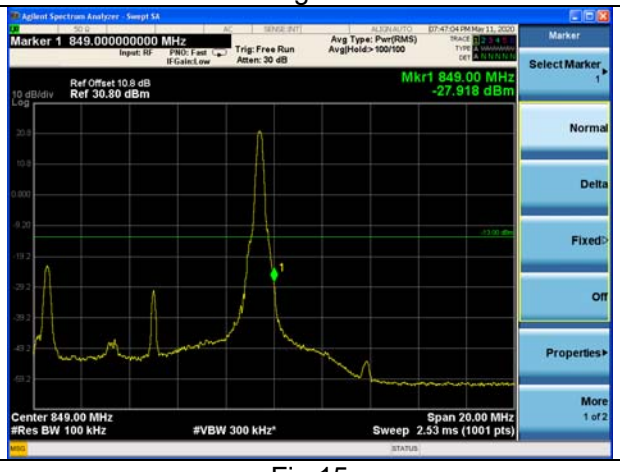


Fig.15

Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band5Low Channel			
		1.4M	3M	5M	10M
-10	NV	0.027	-0.047	-0.013	0.022
0	NV	0.026	-0.028	0.017	0.010
+10	NV	-0.015	-0.018	-0.023	-0.039
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.020	-0.021	0.017	-0.001
+40	NV	-0.003	0.027	0.001	0.024
+50	NV	-0.011	0.016	0.023	-0.026
+55	NV	0.007	-0.018	0.024	0.029
+20	LV	-0.008	0.017	0.022	-0.014
+20	HV	0.014	-0.024	0.027	-0.023

Temperature(°C)	Voltage	Test Result (ppm) Band5High annel			
		1.4M	3M	5M	10M
-10	NV	0.014	-0.011	0.011	0.010
0	NV	-0.018	0.022	0.027	0.008
+10	NV	0.033	-0.013	0.018	0.007
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.010	0.005	-0.029	-0.018
+40	NV	0.001	-0.033	-0.023	0.031
+50	NV	-0.009	-0.024	0.033	0.024
+55	NV	-0.016	0.042	-0.010	-0.027
+20	LV	-0.026	0.010	-0.018	-0.015
+20	HV	-0.013	-0.024	0.034	0.014