

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	23.27
				1	5	23.29
				3	2	22.46
				6	0	22.40
	836.5	20525		1	0	23.23
				1	5	23.34
				3	2	22.30
				6	0	22.35
	848.3	20643		1	0	23.23
				1	5	23.22
				3	2	22.41
				6	0	22.24
16QAM	824.7	20407	1.4	1	0	22.57
				1	5	22.49
				3	2	21.33
				6	0	21.43
	836.5	20525		1	0	22.49
				1	5	22.59
				3	2	21.32
				6	0	21.26
	848.3	20643		1	0	22.43
				1	5	22.50
				3	2	21.29
				6	0	21.25
64QAM	824.7	20407	1.4	1	0	22.45
				1	5	22.45
				3	2	21.24
				6	0	21.34
	836.5	20525		1	0	22.46
				1	5	22.46
				3	2	21.25
				6	0	21.32
	848.3	20643		1	0	22.48
				1	5	22.41
				3	2	21.32
				6	0	21.19

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	825.5	20415	3	1	0	23.23
				1	14	23.23
				8	4	22.47
				15	0	22.41
	836.5	20525		1	0	23.30
				1	14	23.20
				8	4	22.31
				15	0	22.37
	847.5	20635		1	0	23.33
				1	14	23.28
				8	4	22.26
				15	0	22.24
16QAM	825.5	20415	3	1	0	22.48
				1	14	22.59
				8	4	21.39
				15	0	21.37
	836.5	20525		1	0	22.40
				1	14	22.51
				8	4	21.27
				15	0	21.37
	847.5	20635		1	0	22.54
				1	14	22.53
				8	4	21.32
				15	0	21.30
64QAM	825.5	20415	3	1	0	22.55
				1	14	22.39
				8	4	21.35
				15	0	21.30
	836.5	20525		1	0	22.45
				1	14	22.42
				8	4	21.36
				15	0	21.33
	847.5	20635		1	0	22.46
				1	14	22.47
				8	4	21.28
				15	0	21.18

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	826.5	20425	5	1	0	23.26
				1	24	23.30
				12	6	22.44
				25	0	22.46
	836.5	20525		1	0	23.18
				1	24	23.28
				12	6	22.40
				25	0	22.25
	846.5	20625		1	0	23.25
				1	24	23.22
				12	6	22.29
				25	0	22.34
16QAM	826.5	20425	5	1	0	22.54
				1	24	22.47
				12	6	21.38
				25	0	21.33
	836.5	20525		1	0	22.44
				1	24	22.51
				12	6	21.31
				25	0	21.32
	846.5	20625		1	0	22.56
				1	24	22.46
				12	6	21.29
				25	0	21.34
64QAM	826.5	20425	5	1	0	22.46
				1	24	22.44
				12	6	21.29
				25	0	21.42
	836.5	20525		1	0	22.45
				1	24	22.40
				12	6	21.34
				25	0	21.32
	846.5	20625		1	0	22.52
				1	24	22.38
				12	6	21.25
				25	0	21.24

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	829	20450	10	1	0	23.35
				1	49	23.35
				24	12	22.47
				50	0	22.46
	836.5	20525		1	0	23.32
				1	49	23.35
				24	12	22.40
				50	0	22.38
	844	20600		1	0	23.36
				1	49	23.31
				24	12	22.41
				50	0	22.37
16QAM	829	20450	10	1	0	22.60
				1	49	22.61
				24	12	21.44
				50	0	21.45
	836.5	20525		1	0	22.54
				1	49	22.63
				24	12	21.41
				50	0	21.38
	844	20600		1	0	22.57
				1	49	22.58
				24	12	21.37
				50	0	21.38
64QAM	829	20450	10	1	0	22.57
				1	49	22.54
				24	12	21.38
				50	0	21.42
	836.5	20525		1	0	22.47
				1	49	22.54
				24	12	21.37
				50	0	21.41
	844	20600		1	0	22.53
				1	49	22.48
				24	12	21.32
				50	0	21.28

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	1.0805	Fig.1	1.0817	Fig.2	1.0782	Fig.3
	836.5	20525		6	0	1.0801	Fig.4	1.0802	Fig.5	1.0822	Fig.6
	848.3	20643		6	0	1.0832	Fig.7	1.0782	Fig.8	1.0769	Fig.9
	825.5	20415	3	15	0	2.6833	Fig.10	2.6858	Fig.11	2.6808	Fig.12
	836.5	20525		15	0	2.6838	Fig.13	2.6839	Fig.14	2.6797	Fig.15
	847.5	20635		15	0	2.6817	Fig.16	2.6863	Fig.17	2.6814	Fig.18
	826.5	20425	5	25	0	4.4766	Fig.19	4.4790	Fig.20	4.4662	Fig.21
	836.5	20525		25	0	4.4801	Fig.22	4.4733	Fig.23	4.4785	Fig.24
	846.5	20625		25	0	4.4797	Fig.25	4.4706	Fig.26	4.4726	Fig.27
	829	20450	10	50	0	8.9615	Fig.28	8.9582	Fig.29	8.9718	Fig.30
	836.5	20525		50	0	8.9268	Fig.31	8.9664	Fig.32	8.9420	Fig.33
	844	20600		50	0	8.9468	Fig.34	8.9393	Fig.35	8.9495	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	1.239	Fig.1	1.241	Fig.2	1.232	Fig.3
	836.5	20525		6	0	1.217	Fig.4	1.233	Fig.5	1.238	Fig.6
	848.3	20643		6	0	1.234	Fig.7	1.222	Fig.8	1.239	Fig.9
	825.5	20415	3	15	0	2.904	Fig.10	2.895	Fig.11	2.887	Fig.12
	836.5	20525		15	0	2.892	Fig.13	2.896	Fig.14	2.883	Fig.15
	847.5	20635		15	0	2.887	Fig.16	2.893	Fig.17	2.909	Fig.18
	826.5	20425	5	25	0	4.840	Fig.19	4.818	Fig.20	4.831	Fig.21
	836.5	20525		25	0	4.834	Fig.22	4.842	Fig.23	4.785	Fig.24
	846.5	20625		25	0	4.840	Fig.25	4.814	Fig.26	4.842	Fig.27
	829	20450	10	50	0	9.512	Fig.28	9.514	Fig.29	9.489	Fig.30
	836.5	20525		50	0	9.525	Fig.31	9.540	Fig.32	9.545	Fig.33
	844	20600		50	0	9.539	Fig.34	9.562	Fig.35	9.529	Fig.36

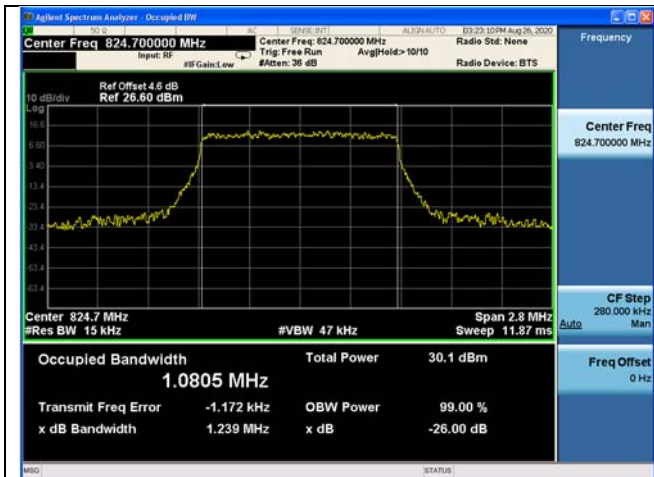


Fig.1



Fig.2

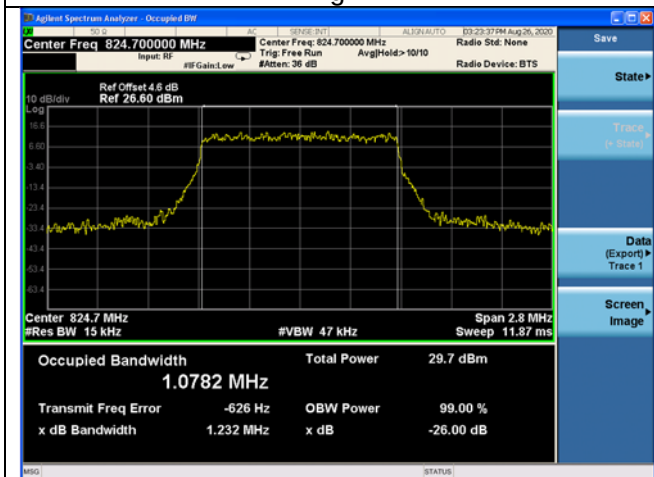


Fig.3

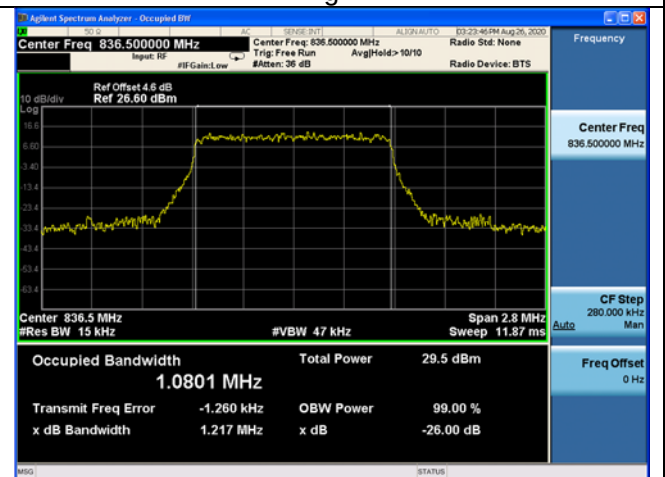


Fig.4

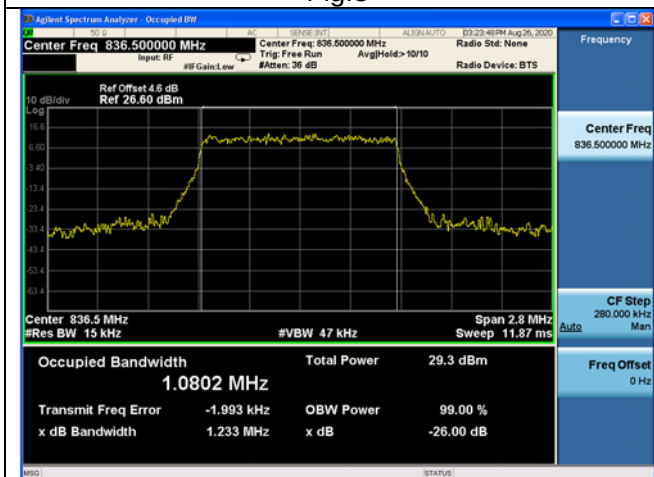


Fig.5

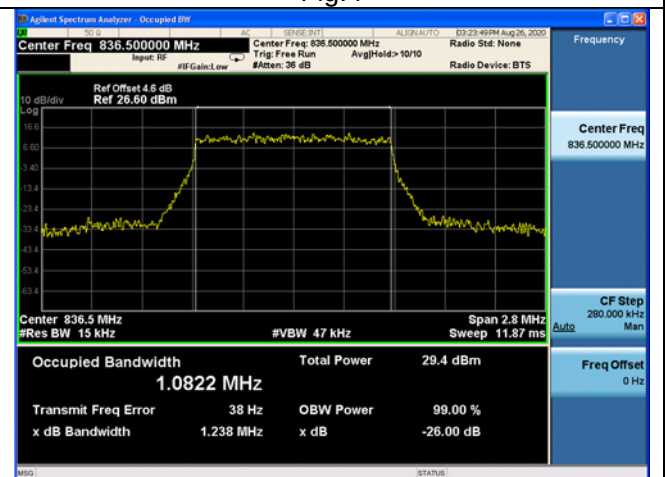


Fig.6

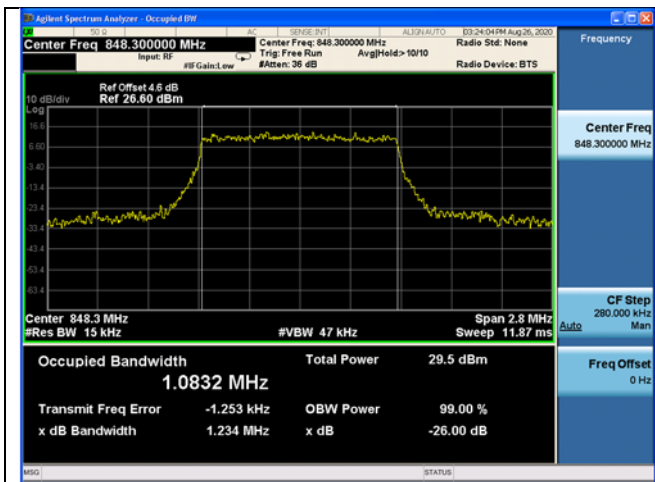


Fig.7

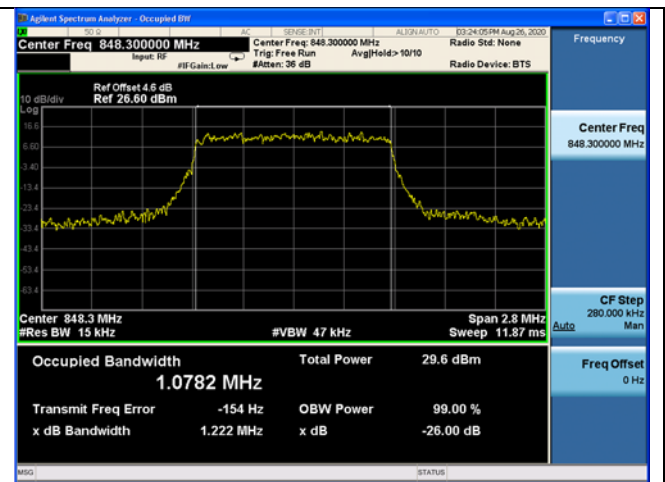


Fig.8

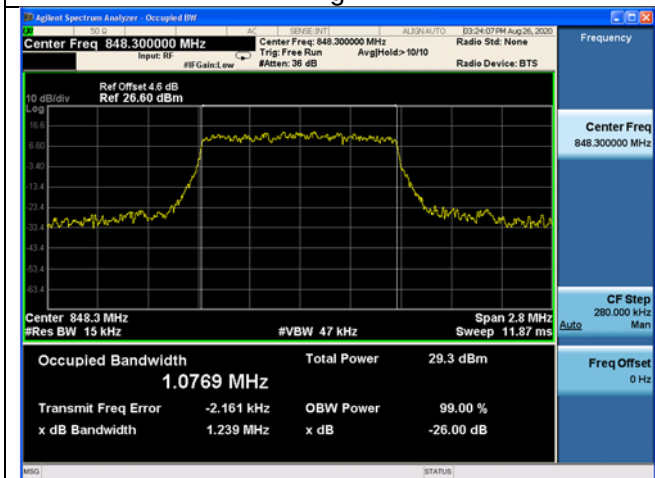


Fig.9

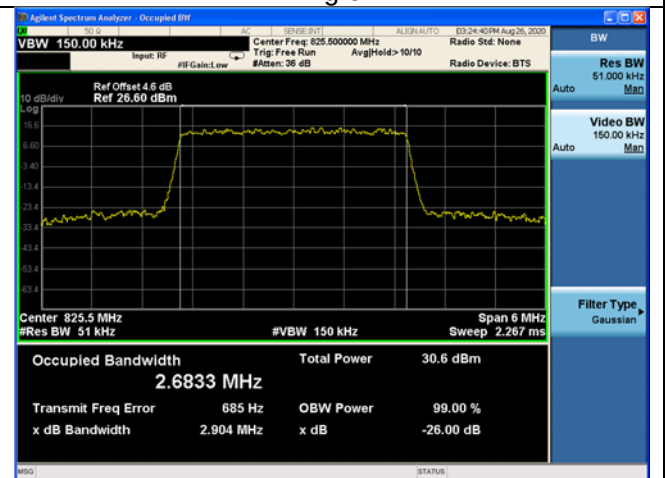


Fig.10

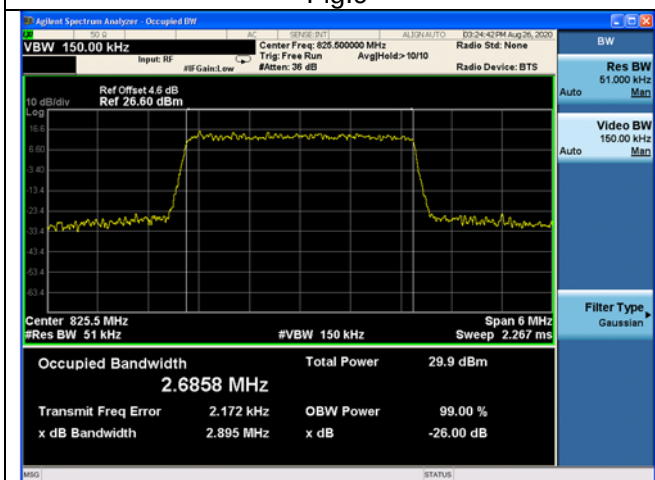


Fig.11

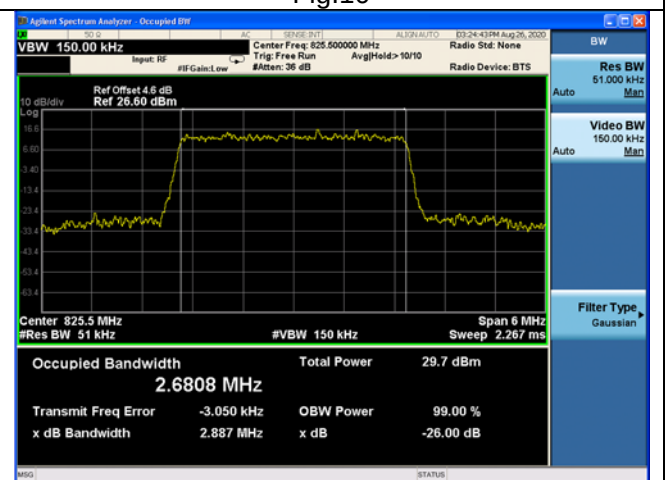


Fig.12

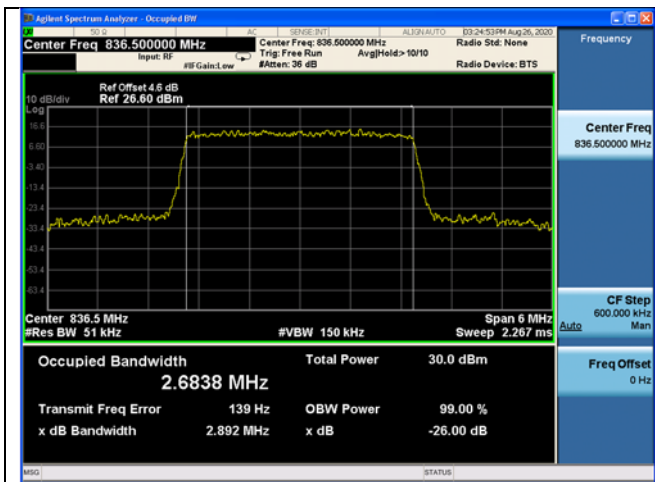


Fig.13

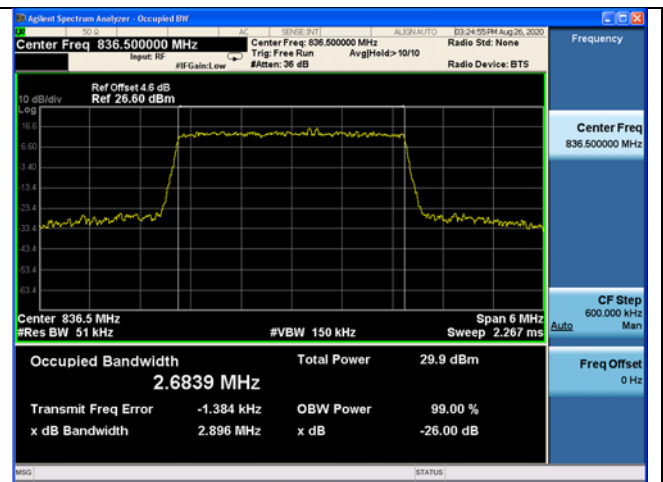


Fig.14

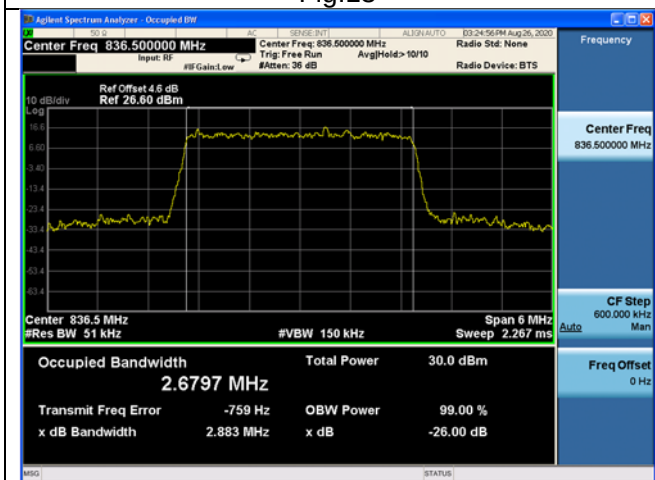


Fig.15

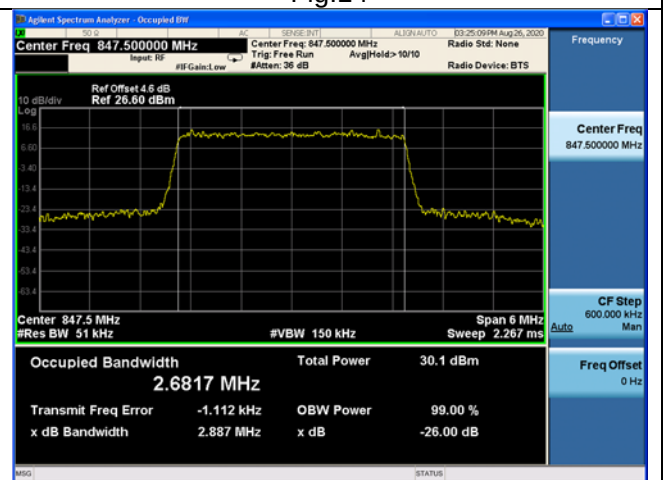


Fig.16

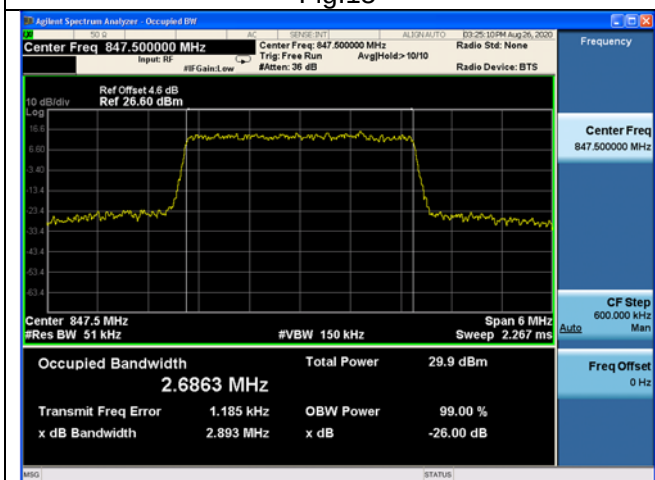


Fig.17

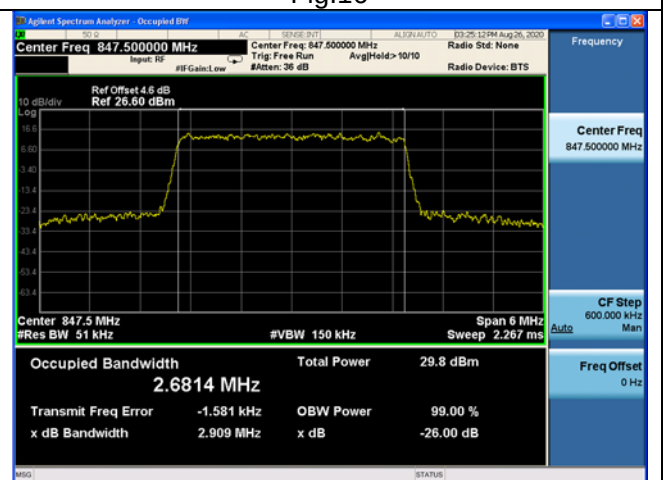


Fig.18

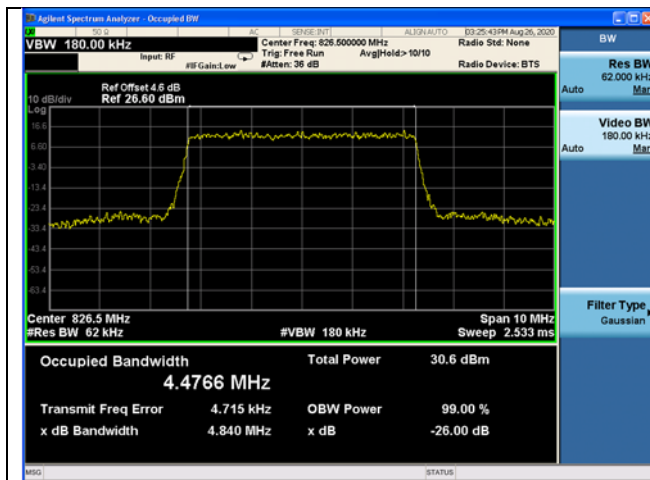


Fig.19

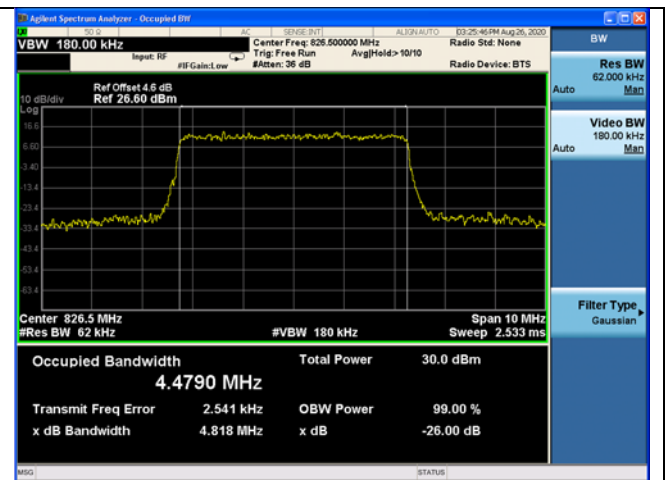


Fig.20

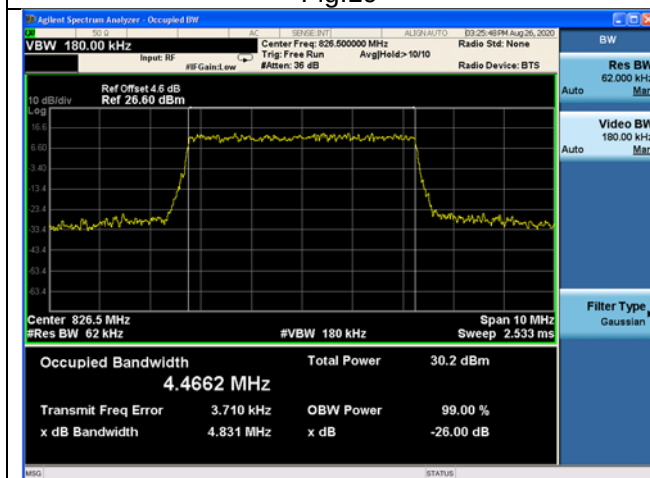


Fig.21

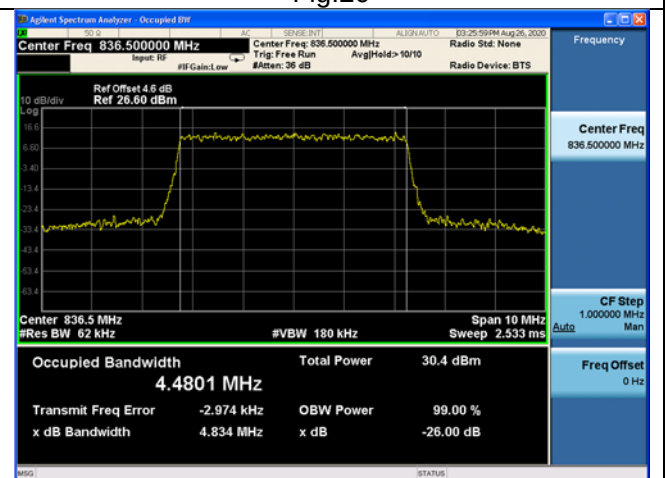


Fig.22

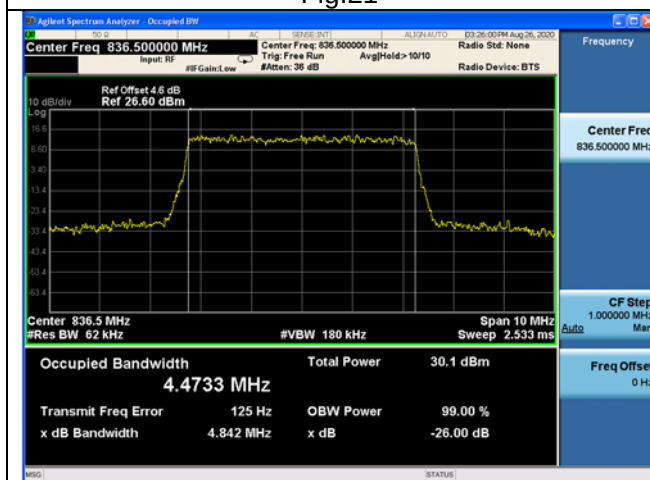


Fig.23

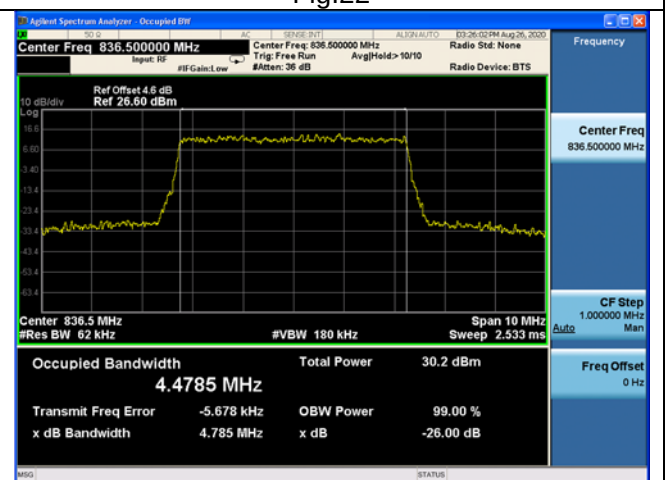


Fig.24

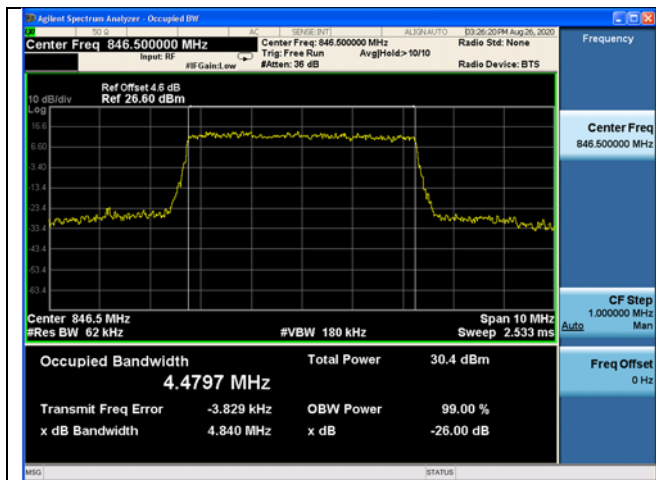


Fig.25

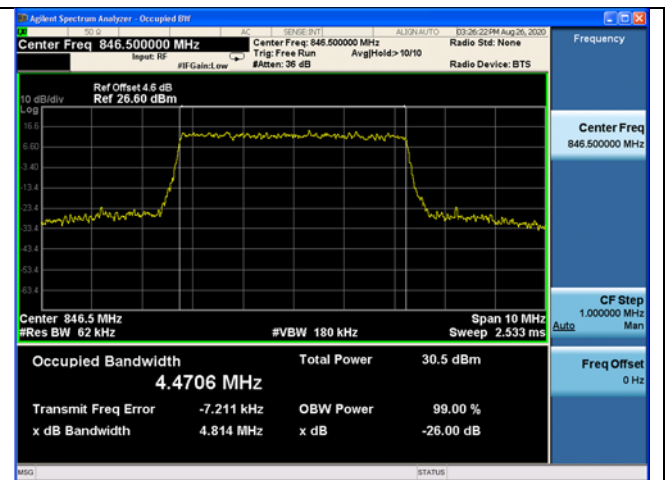


Fig.26

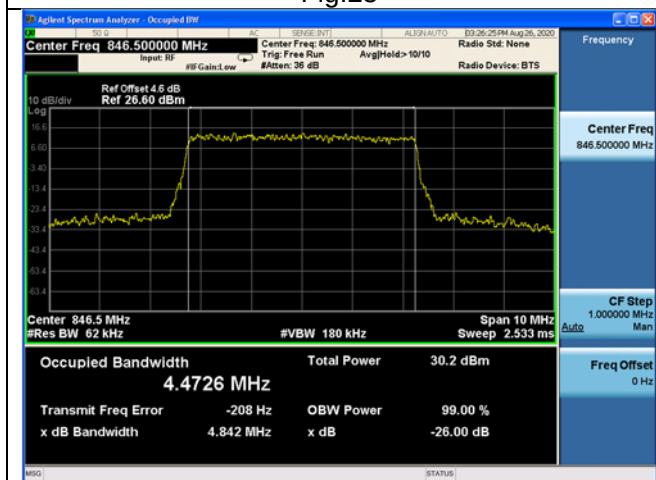


Fig.27

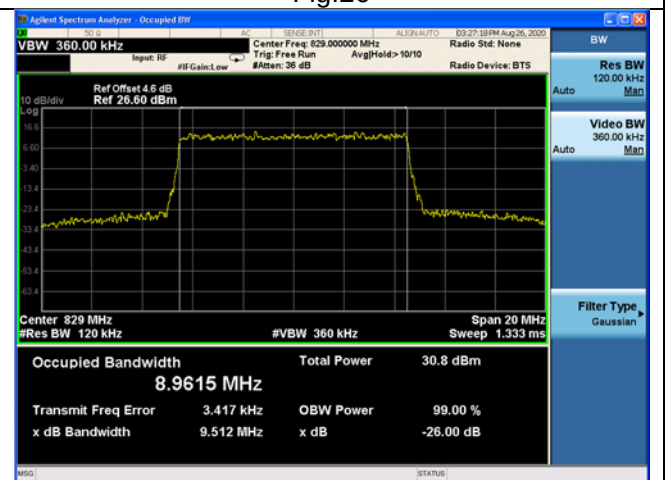


Fig.28

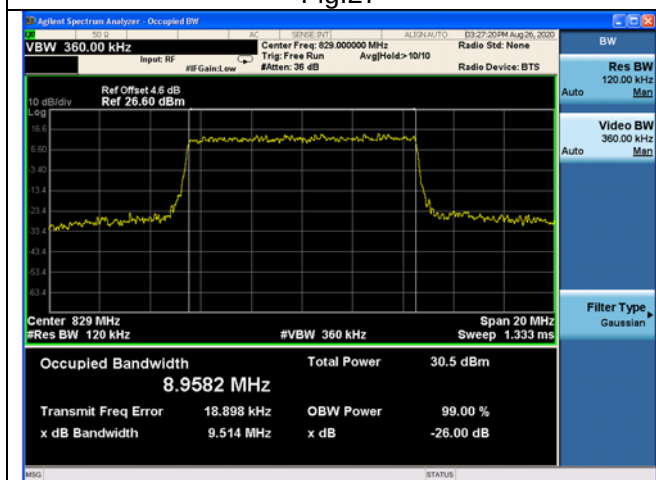


Fig.29

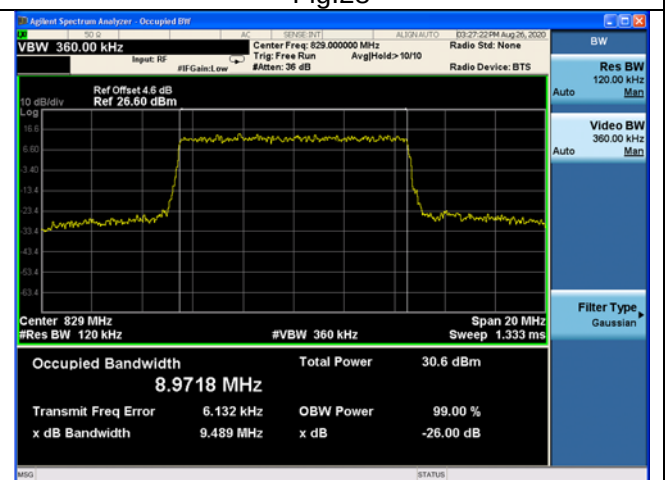


Fig.30

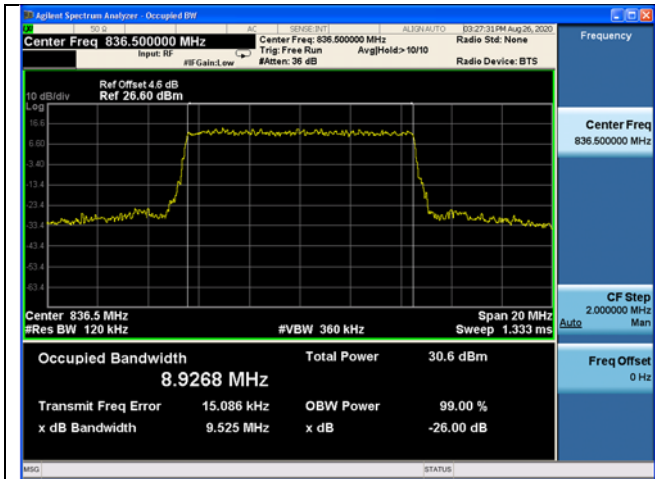


Fig.31



Fig.32

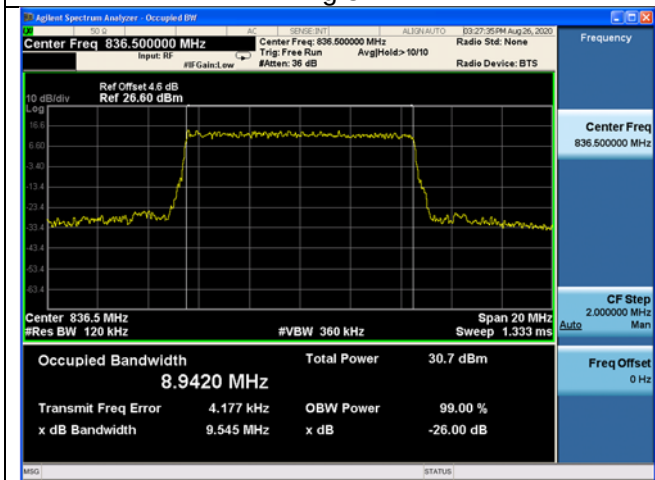


Fig.33

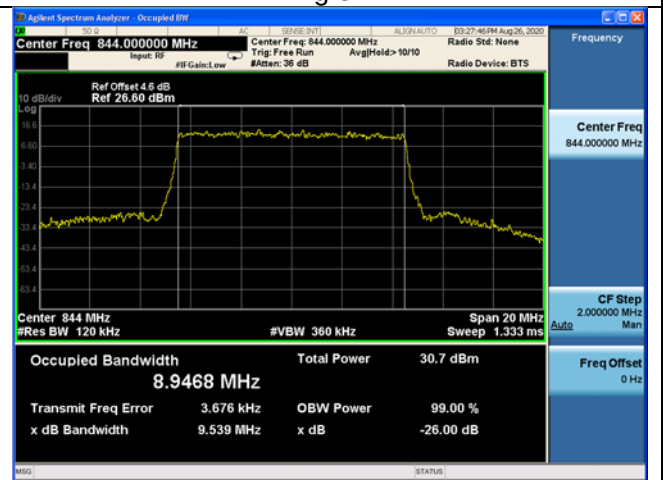


Fig.34

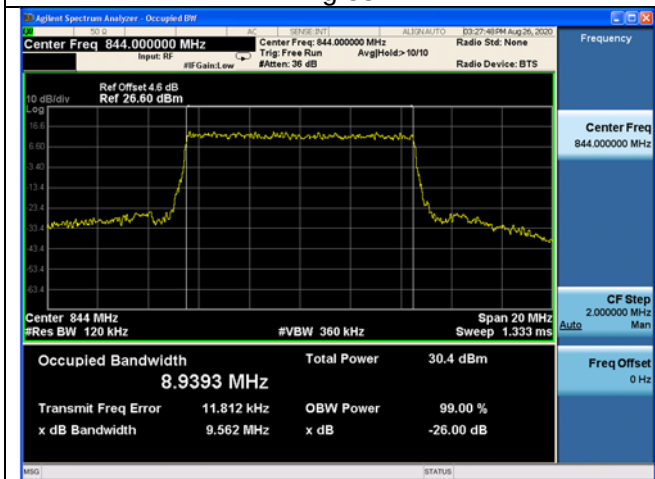


Fig.35

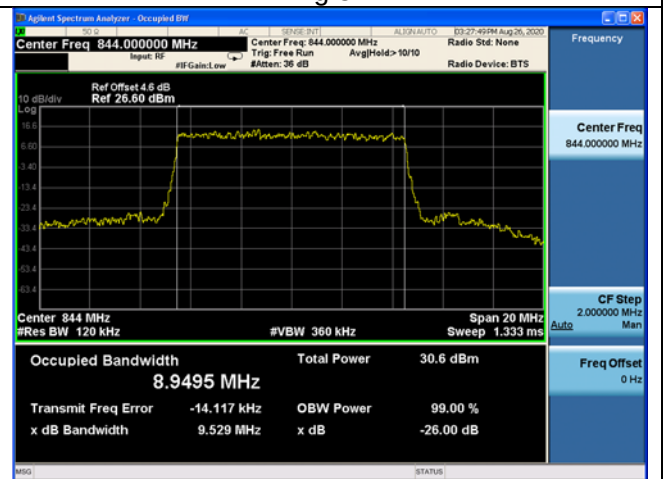


Fig.36

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

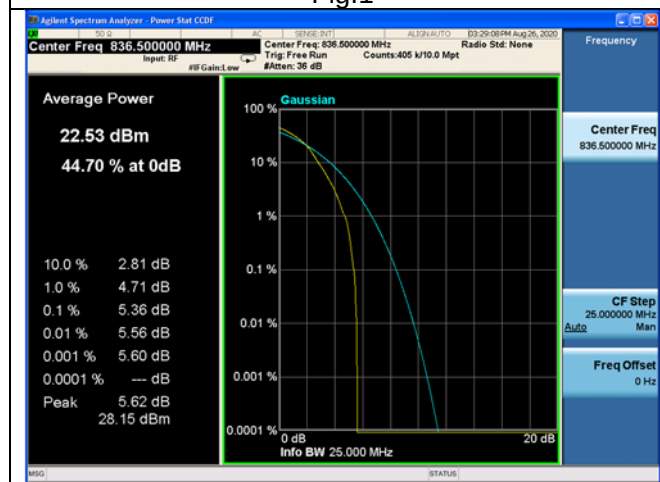


Fig.3

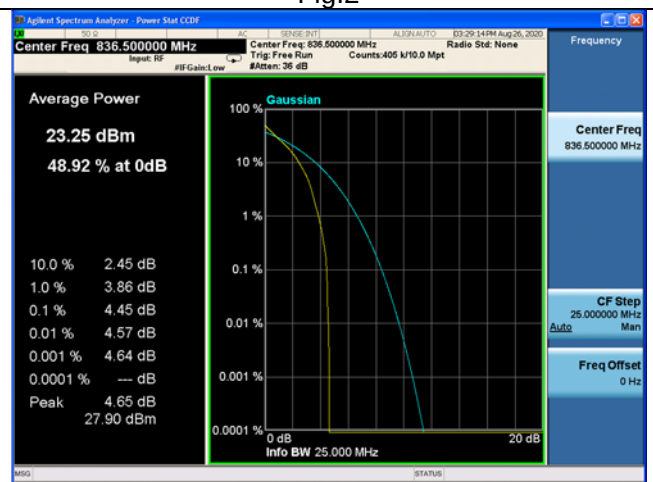


Fig.4

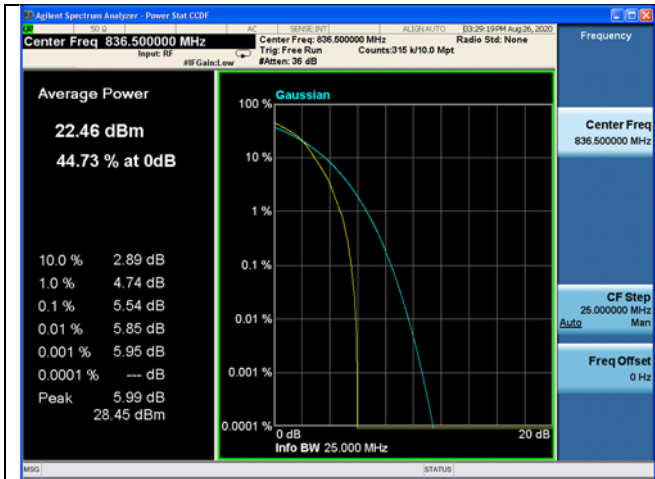


Fig.5

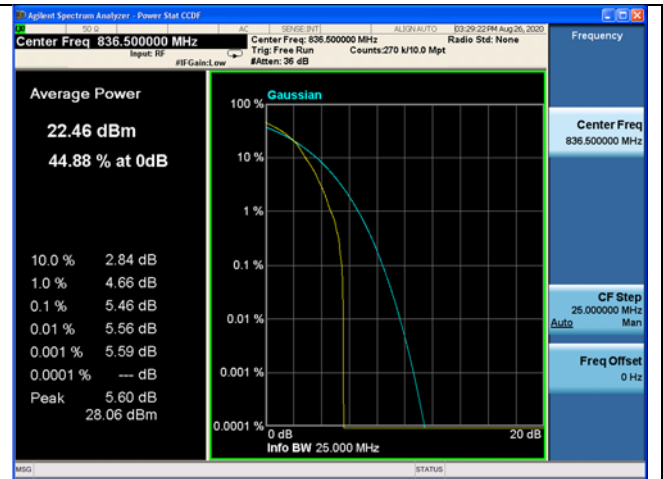


Fig.6

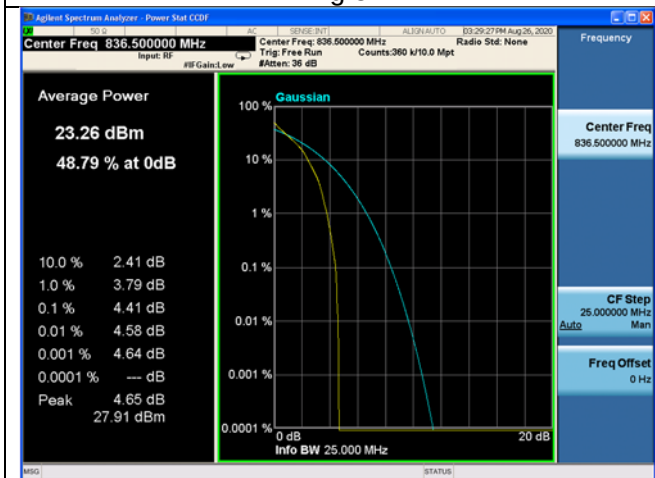


Fig.7

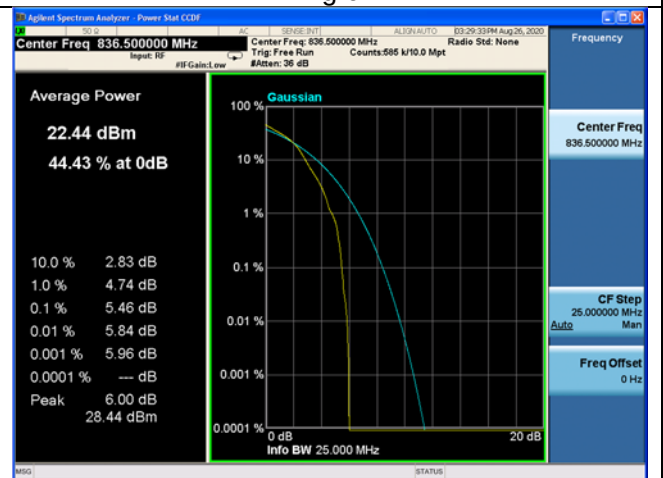


Fig.8

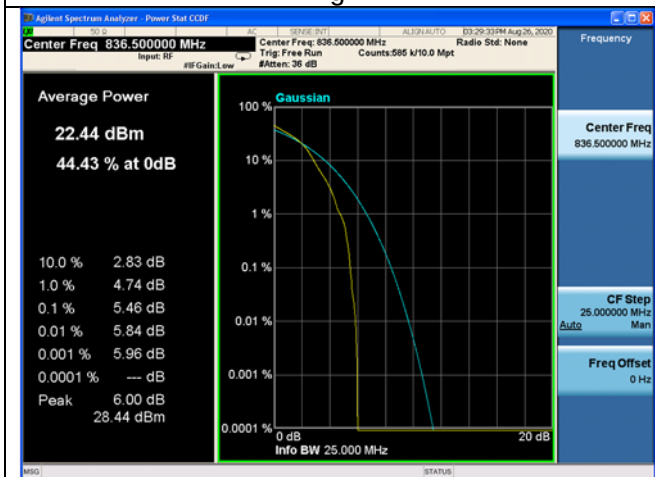


Fig.9

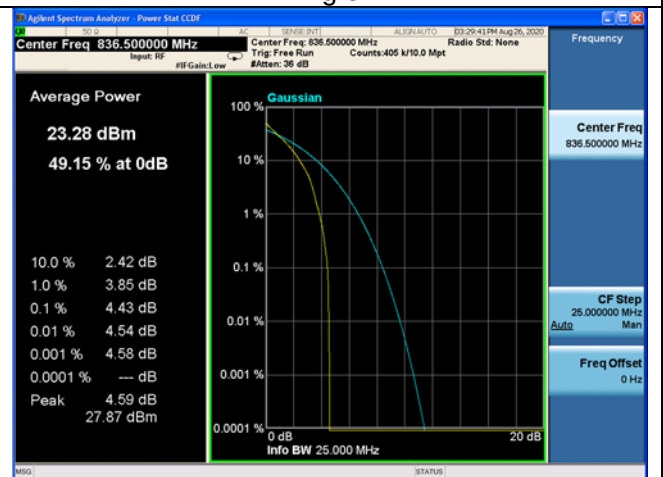


Fig.10

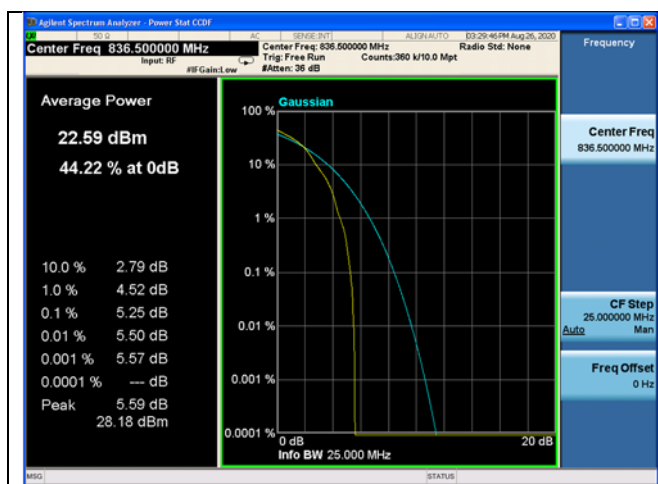


Fig.11

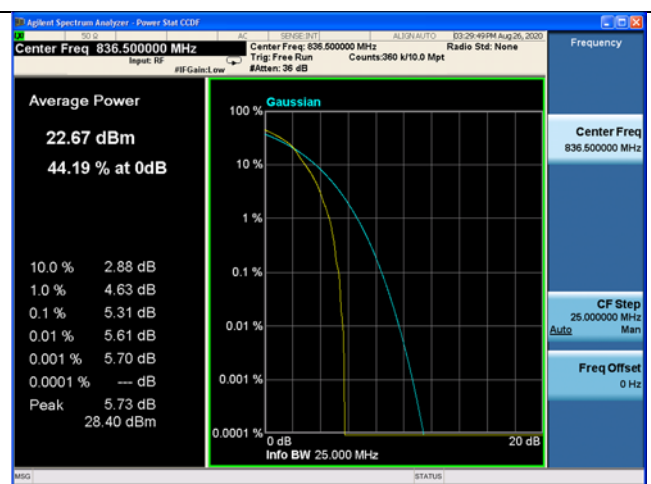


Fig.12

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

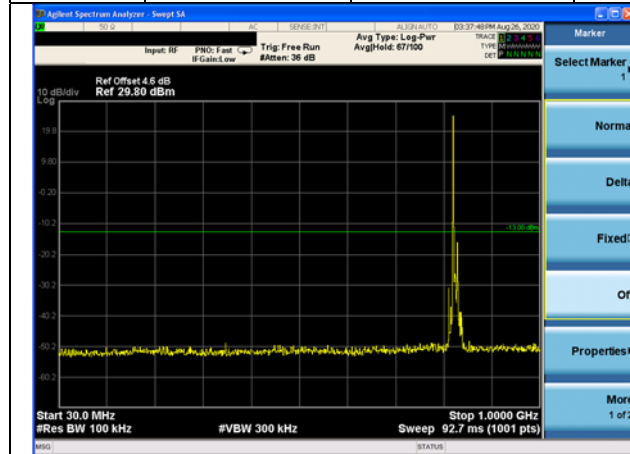


Fig.1

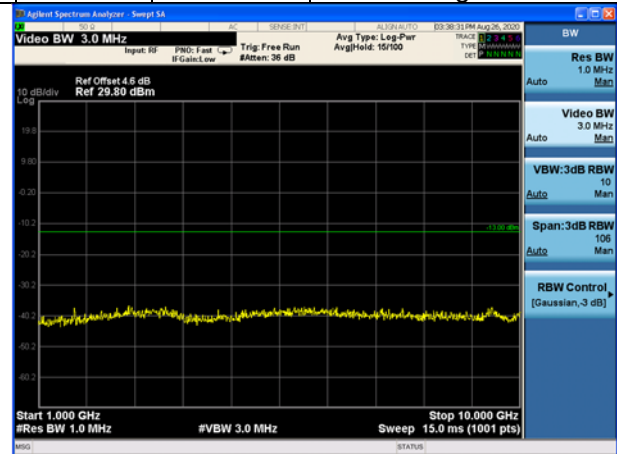


Fig.2

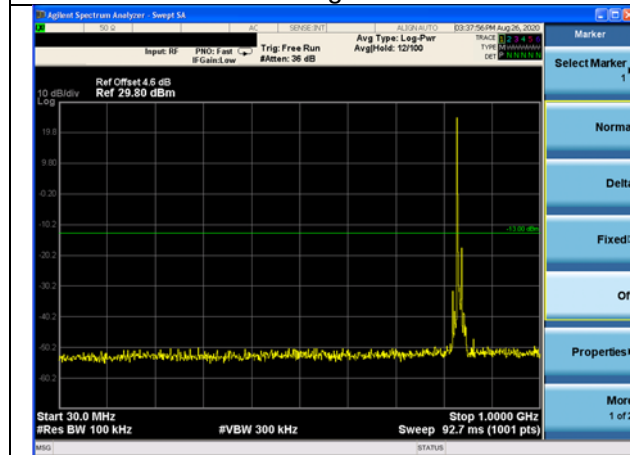


Fig3

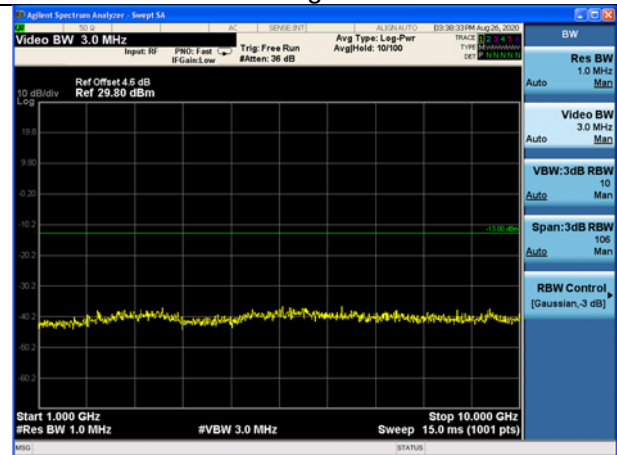


Fig4

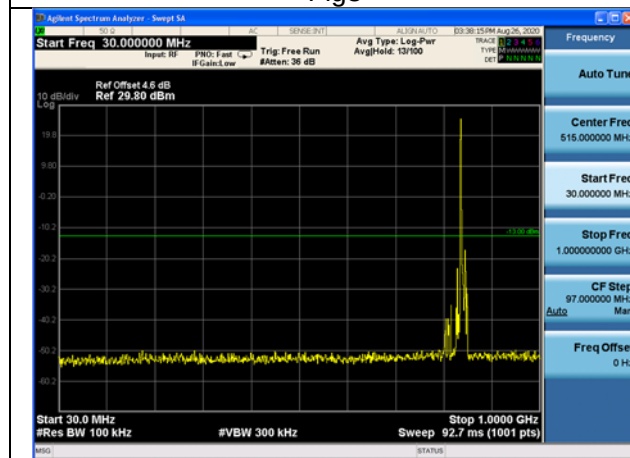


Fig5

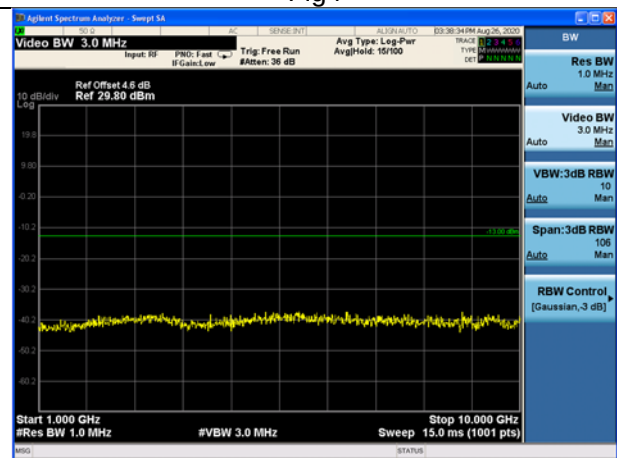


Fig6

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

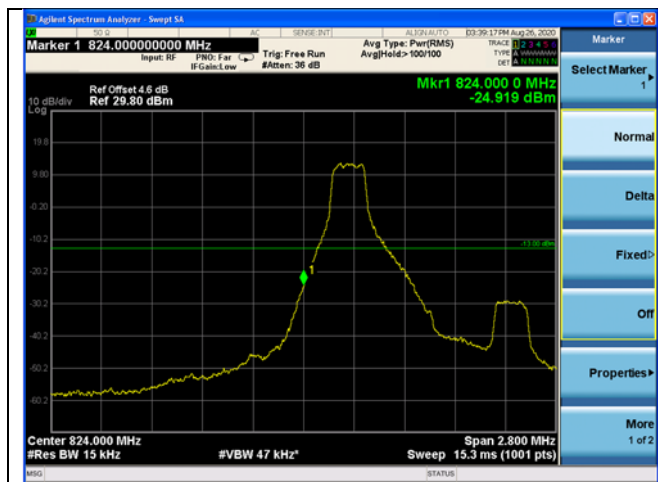


Fig.1

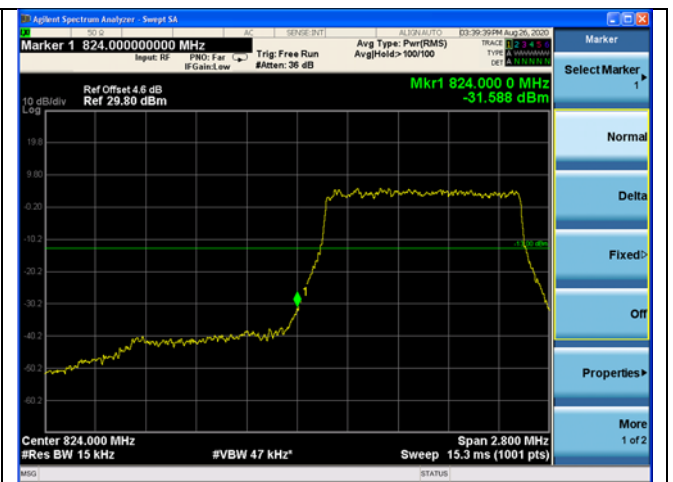


Fig.2

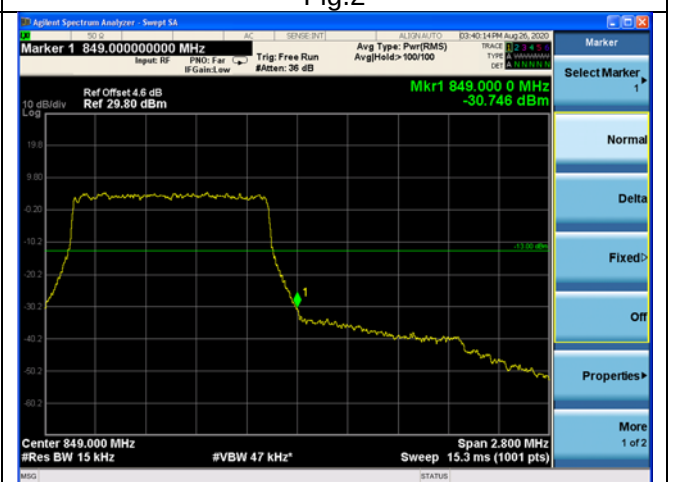
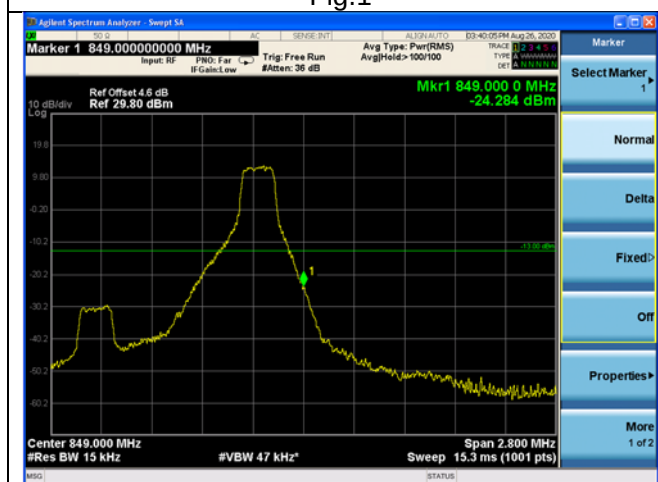


Fig.3

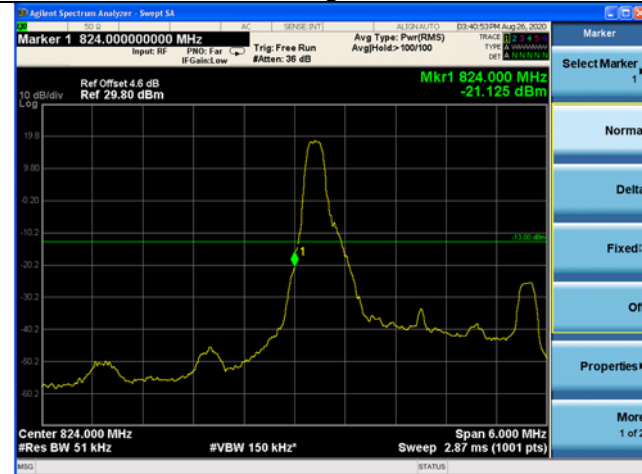


Fig.4

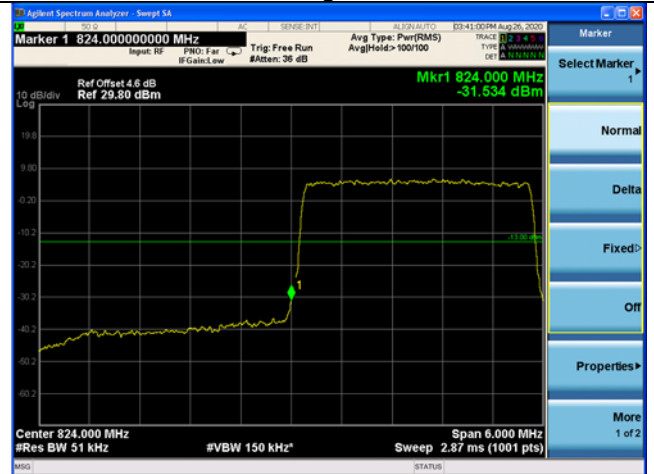


Fig.5

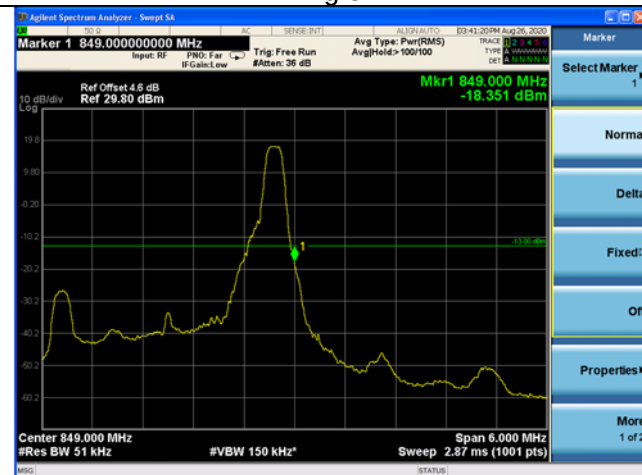


Fig.6



Fig.7

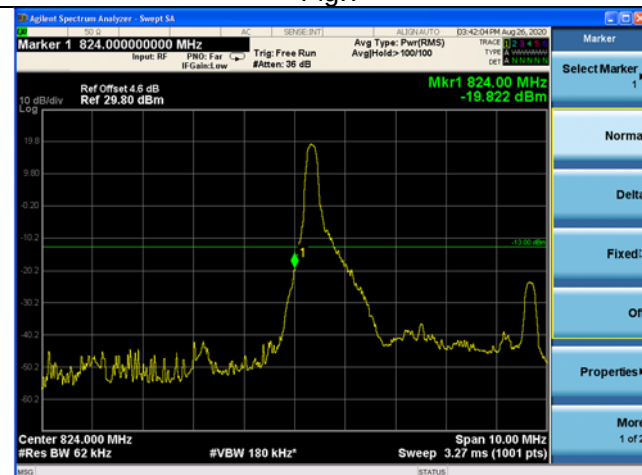


Fig.8

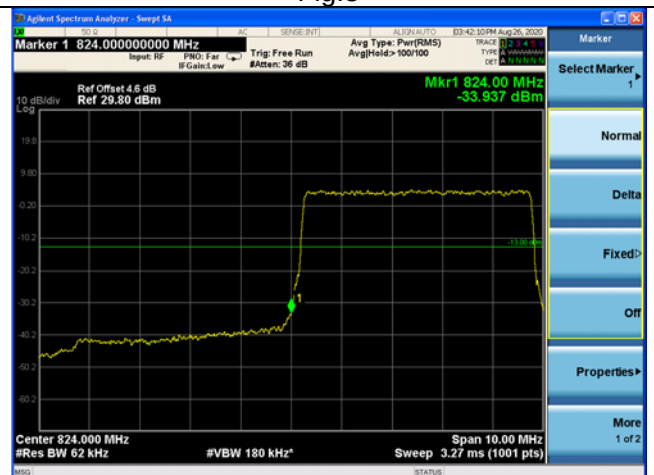


Fig.9



Fig.10



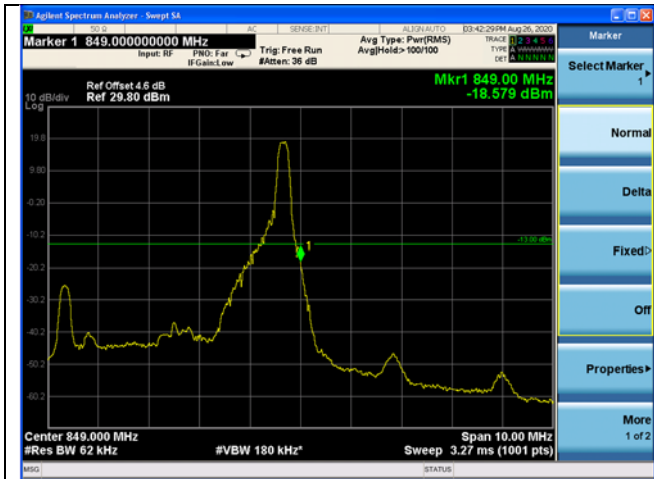


Fig.11



Fig.12

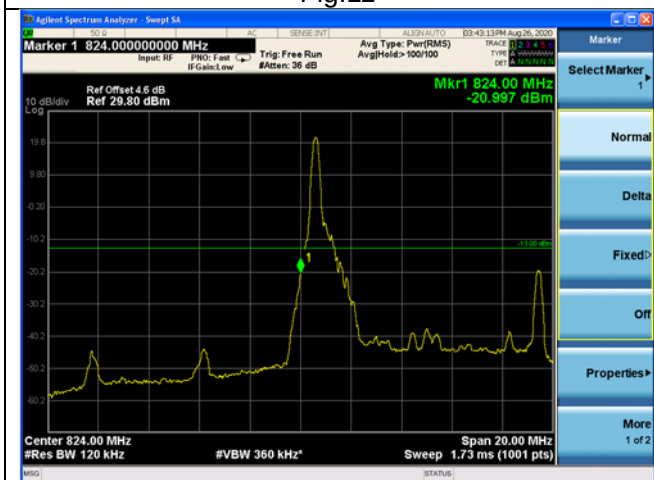


Fig.13

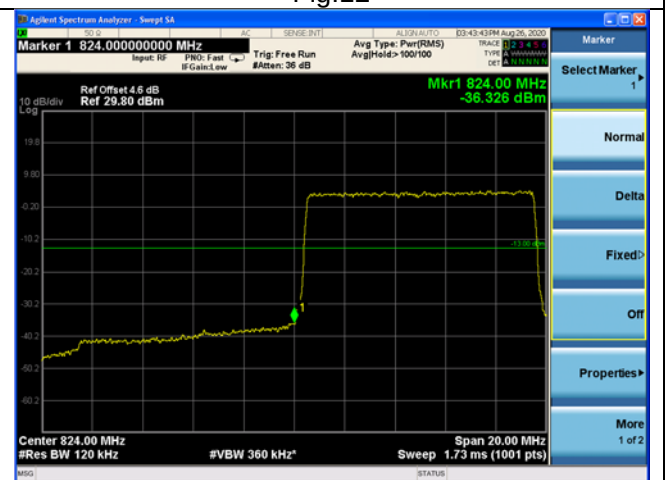


Fig.14

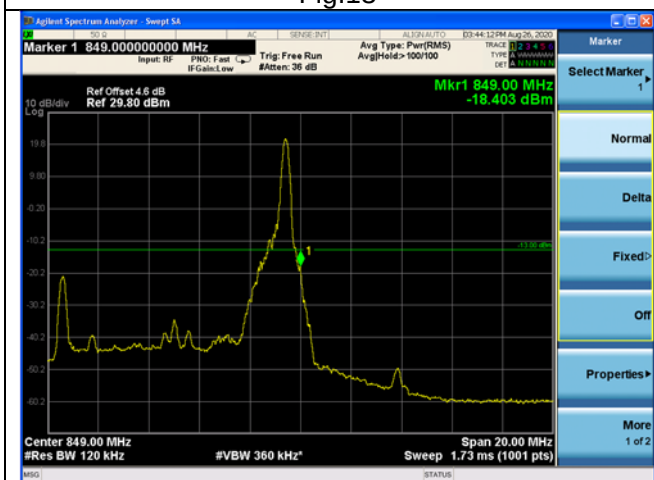


Fig.15



Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band5Low Channel			
		1.4M	3M	5M	10M
-10	NV	-0.082	-0.096	-0.033	0.067
0	NV	0.069	0.065	-0.047	0.093
+10	NV	0.039	0.029	-0.088	-0.033
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.052	-0.026	0.055	-0.064
+40	NV	0.069	-0.006	-0.005	0.094
+50	NV	-0.059	0.069	0.066	-0.084
+55	NV	-0.009	-0.079	-0.067	-0.040
+20	LV	-0.047	-0.032	0.086	0.070
+20	HV	0.038	-0.091	-0.093	-0.072

Temperature(°C)	Voltage	Test Result (ppm) Band5High annel			
		1.4M	3M	5M	10M
-10	NV	0.057	0.037	-0.025	-0.045
0	NV	0.002	-0.009	0.021	-0.085
+10	NV	0.001	-0.061	0.008	0.008
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.071	-0.048	0.087	0.023
+40	NV	-0.025	0.089	-0.100	-0.098
+50	NV	0.052	-0.060	-0.017	0.054
+55	NV	0.029	-0.033	-0.018	0.072
+20	LV	0.000	-0.088	-0.095	0.024
+20	HV	0.050	-0.023	0.096	-0.003