

**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	24.57
				1	5	24.59
				3	2	23.21
				6	0	22.93
	836.5	20525		1	0	23.91
				1	5	23.94
				3	2	23.00
				6	0	23.03
	848.3	20643		1	0	24.19
				1	5	24.43
				3	2	23.30
				6	0	22.80
16QAM	824.7	20407	1.4	1	0	22.95
				1	5	22.68
				3	2	22.16
				6	0	21.87
	836.5	20525		1	0	22.89
				1	5	23.09
				3	2	22.26
				6	0	21.96
	848.3	20643		1	0	22.97
				1	5	23.06
				3	2	22.08
				6	0	21.90
64QAM	824.7	20407	1.4	1	0	23.24
				1	5	22.81
				3	2	21.91
				6	0	22.17
	836.5	20525		1	0	23.04
				1	5	22.89
				3	2	22.10
				6	0	21.99
	848.3	20643		1	0	22.78
				1	5	22.84
				3	2	22.34
				6	0	22.11

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	825.5	20415	3	1	0	24.39
				1	14	24.33
				8	4	23.12
				15	0	23.26
	836.5	20525		1	0	23.96
				1	14	24.18
				8	4	22.97
				15	0	23.02
	847.5	20635		1	0	24.46
				1	14	24.50
				8	4	23.11
				15	0	23.01
16QAM	825.5	20415	3	1	0	22.80
				1	14	23.11
				8	4	21.73
				15	0	21.85
	836.5	20525		1	0	22.91
				1	14	22.88
				8	4	22.29
				15	0	21.78
	847.5	20635		1	0	22.90
				1	14	22.90
				8	4	22.03
				15	0	22.03
64QAM	825.5	20415	3	1	0	23.03
				1	14	22.88
				8	4	22.26
				15	0	21.81
	836.5	20525		1	0	23.09
				1	14	22.97
				8	4	22.23
				15	0	21.99
	847.5	20635		1	0	23.08
				1	14	22.98
				8	4	22.12
				15	0	22.19

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	826.5	20425	5	1	0	24.12
				1	24	24.10
				12	6	22.94
				25	0	23.25
	836.5	20525		1	0	23.76
				1	24	23.88
				12	6	23.11
				25	0	23.18
	846.5	20625		1	0	24.16
				1	24	24.13
				12	6	23.18
				25	0	22.90
16QAM	826.5	20425	5	1	0	22.71
				1	24	22.71
				12	6	22.07
				25	0	22.02
	836.5	20525		1	0	22.72
				1	24	23.08
				12	6	22.13
				25	0	22.04
	846.5	20625		1	0	22.69
				1	24	23.03
				12	6	22.08
				25	0	21.86
64QAM	826.5	20425	5	1	0	23.07
				1	24	23.28
				12	6	21.97
				25	0	21.95
	836.5	20525		1	0	23.25
				1	24	23.25
				12	6	22.44
				25	0	22.20
	846.5	20625		1	0	23.10
				1	24	23.00
				12	6	22.16
				25	0	22.19

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	829	20450	10	1	0	24.60
				1	49	24.60
				24	12	23.26
				50	0	23.34
	836.5	20525		1	0	24.25
				1	49	24.25
				24	12	23.29
				50	0	23.26
	844	20600		1	0	24.50
				1	49	24.50
				24	12	23.31
				50	0	23.30
16QAM	829	20450	10	1	0	23.15
				1	49	23.15
				24	12	22.17
				50	0	22.15
	836.5	20525		1	0	23.19
				1	49	23.19
				24	12	22.36
				50	0	22.26
	844	20600		1	0	23.13
				1	49	23.13
				24	12	22.26
				50	0	22.27
64QAM	829	20450	10	1	0	23.30
				1	49	23.30
				24	12	22.34
				50	0	22.20
	836.5	20525		1	0	23.38
				1	49	23.38
				24	12	22.47
				50	0	22.22
	844	20600		1	0	23.26
				1	49	23.26
				24	12	22.36
				50	0	22.23

## 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	1.0817	Fig.2	1.0779	Fig.3
	836.5	20525		6	0	1.0831	Fig.4	1.0796	Fig.5	1.0821	Fig.6
	848.3	20643		6	0	1.0807	Fig.7	1.0830	Fig.8	1.0773	Fig.9
	825.5	20415	3	15	0	2.7021	Fig.10	2.6908	Fig.11	2.6939	Fig.12
	836.5	20525		15	0	2.7008	Fig.13	2.6940	Fig.14	2.6997	Fig.15
	847.5	20635		15	0	2.6957	Fig.16	2.6921	Fig.17	2.7007	Fig.18
	826.5	20425	5	25	0	4.4750	Fig.19	4.4738	Fig.20	4.4807	Fig.21
	836.5	20525		25	0	4.4793	Fig.22	4.4712	Fig.23	4.4797	Fig.24
	846.5	20625		25	0	4.4725	Fig.25	4.4783	Fig.26	4.4739	Fig.27
	829	20450	10	50	0	8.9724	Fig.28	8.9496	Fig.29	8.9570	Fig.30
	836.5	20525		50	0	8.9645	Fig.31	8.9177	Fig.32	8.9353	Fig.33
	844	20600		50	0	8.9573	Fig.34	8.9255	Fig.35	8.9290	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	1.264	Fig.1	1.225	Fig.2	1.246	Fig.3
	836.5	20525		6	0	1.224	Fig.4	1.229	Fig.5	1.226	Fig.6
	848.3	20643		6	0	1.245	Fig.7	1.219	Fig.8	1.214	Fig.9
	825.5	20415	3	15	0	3.022	Fig.10	3.003	Fig.11	3.037	Fig.12
	836.5	20525		15	0	2.999	Fig.13	2.991	Fig.14	3.012	Fig.15
	847.5	20635		15	0	3.012	Fig.16	3.035	Fig.17	2.998	Fig.18
	826.5	20425	5	25	0	5.049	Fig.19	5.123	Fig.20	5.040	Fig.21
	836.5	20525		25	0	5.060	Fig.22	5.062	Fig.23	5.188	Fig.24
	846.5	20625		25	0	5.049	Fig.25	5.076	Fig.26	5.143	Fig.27
	829	20450	10	50	0	9.959	Fig.28	9.924	Fig.29	9.632	Fig.30
	836.5	20525		50	0	9.840	Fig.31	9.612	Fig.32	9.678	Fig.33
	844	20600		50	0	9.773	Fig.34	9.652	Fig.35	9.876	Fig.36

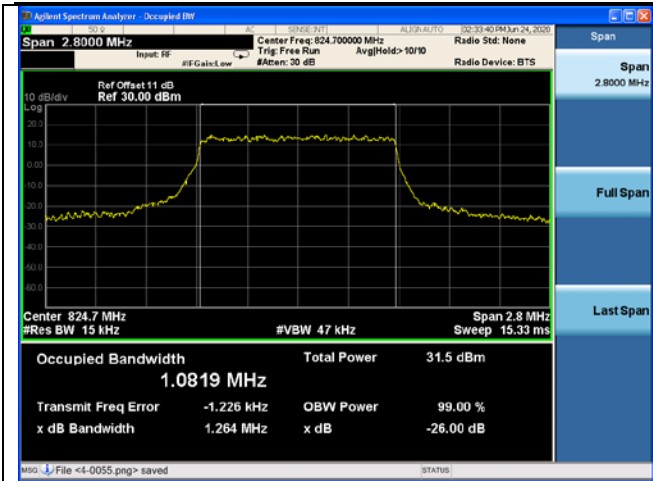


Fig.1

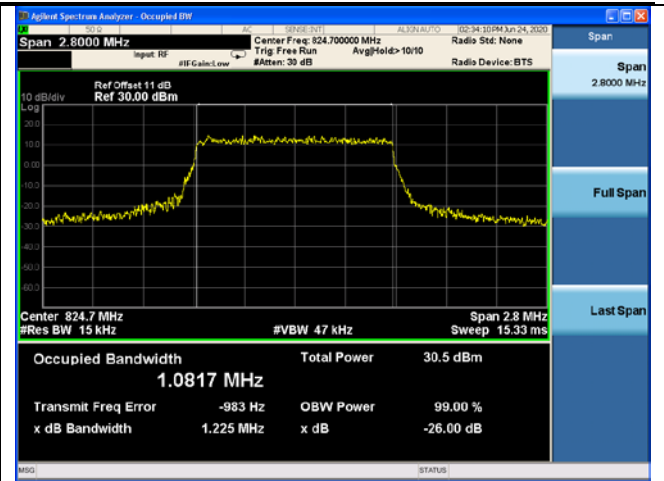


Fig.2

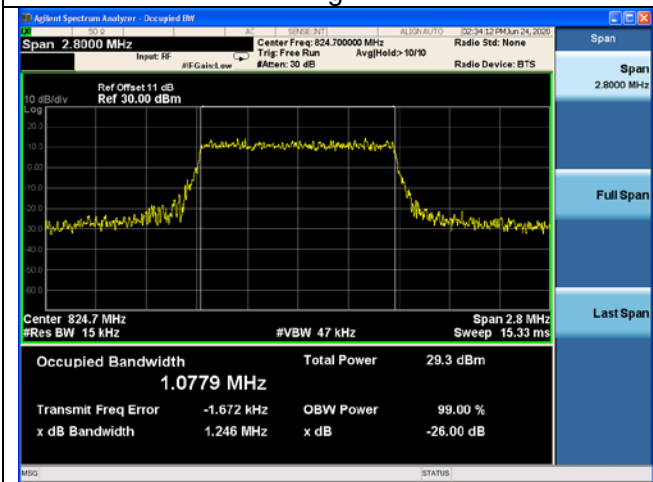


Fig.3

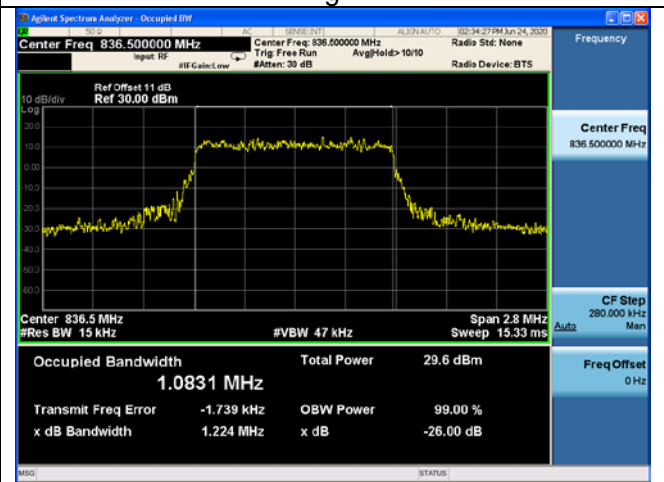


Fig.4

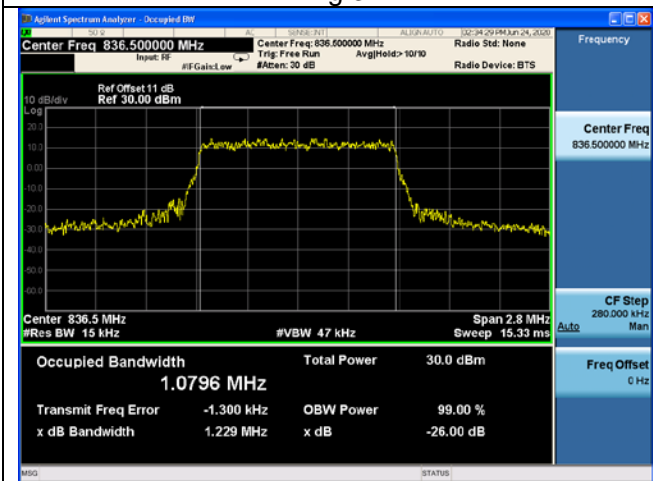


Fig.5

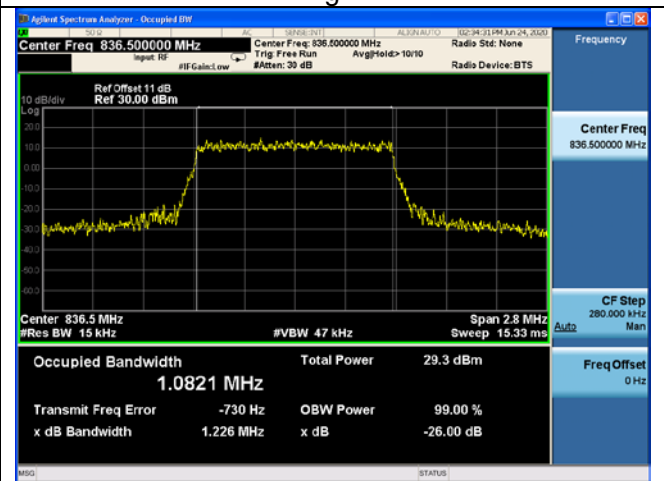


Fig.6

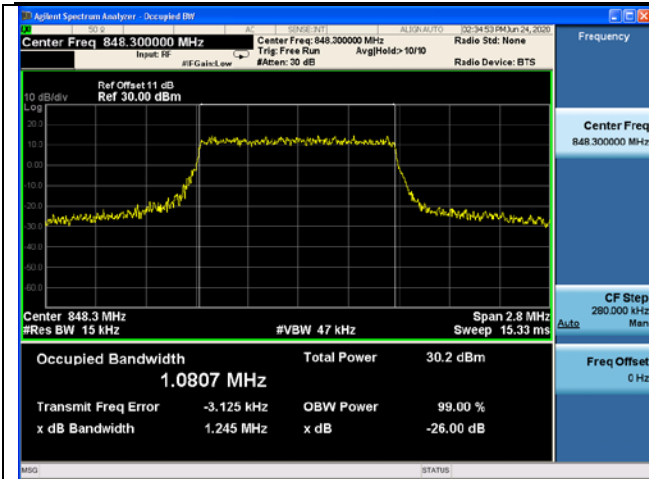


Fig.7

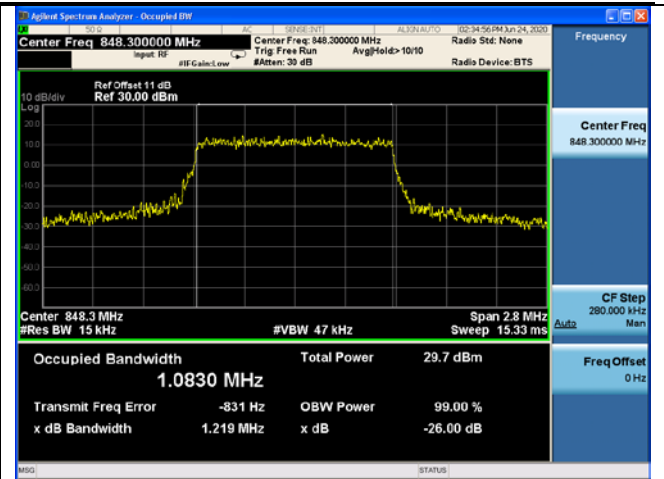


Fig.8

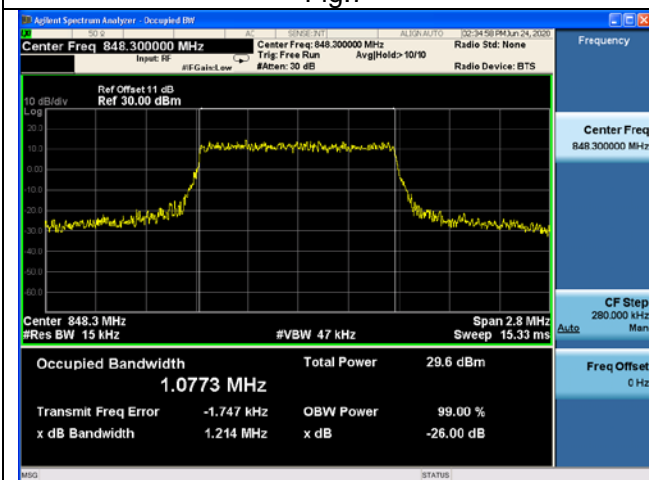


Fig.9

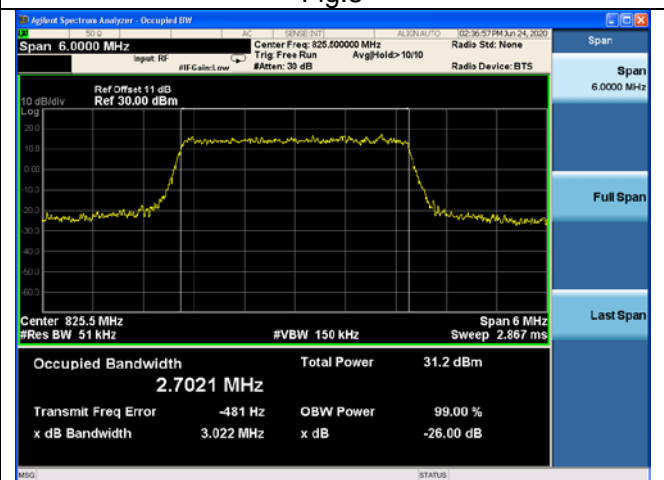


Fig.10

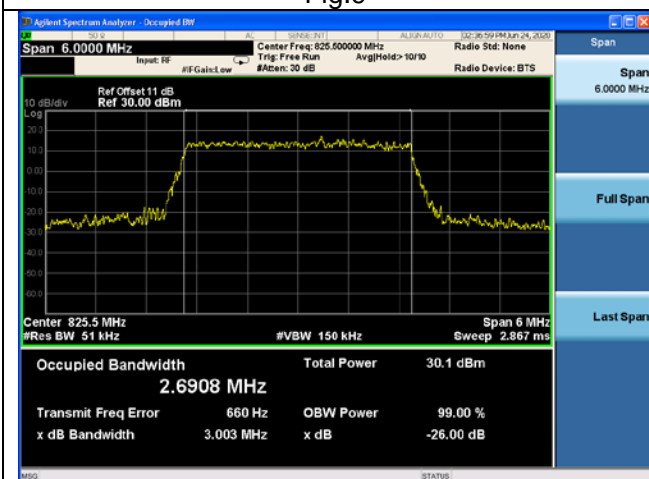


Fig.11

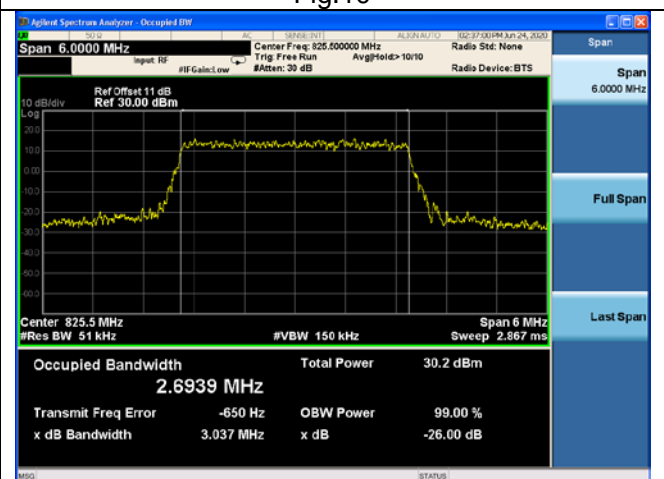


Fig.12

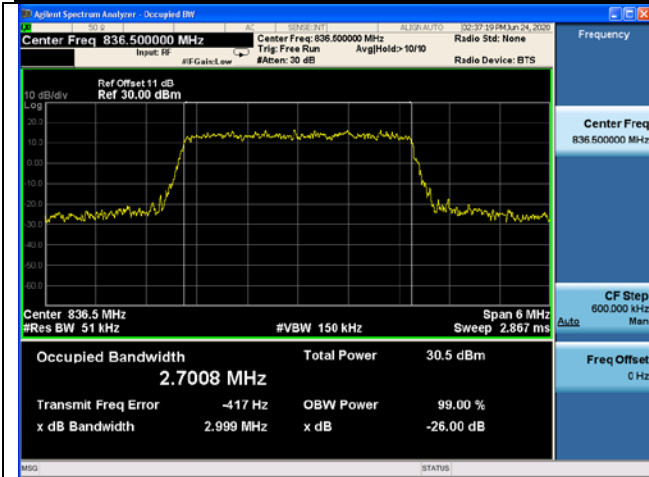


Fig.13

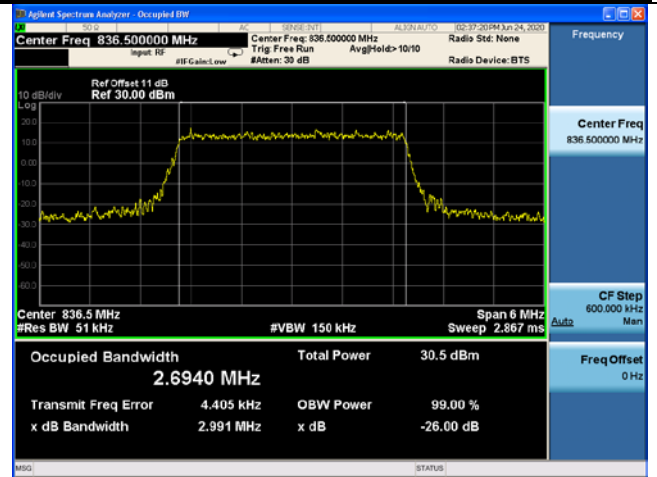


Fig.14

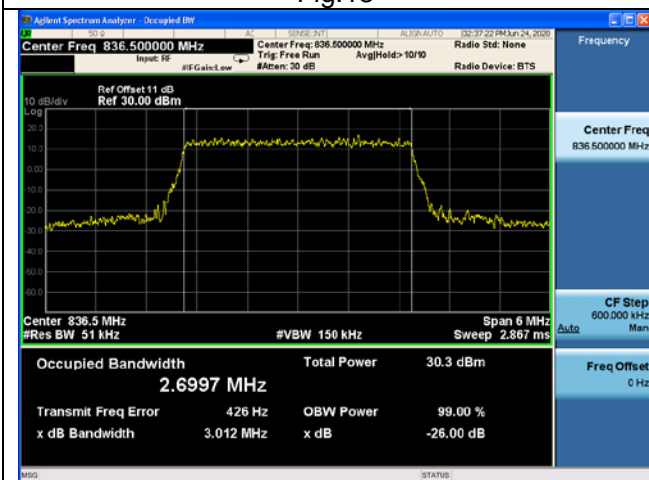


Fig.15

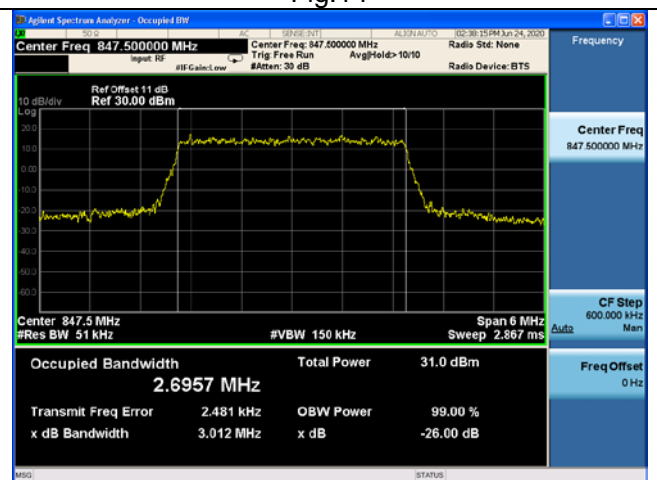


Fig.16

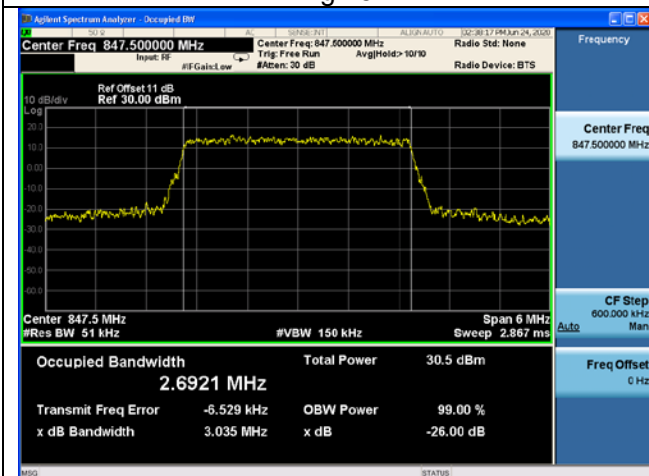


Fig.17

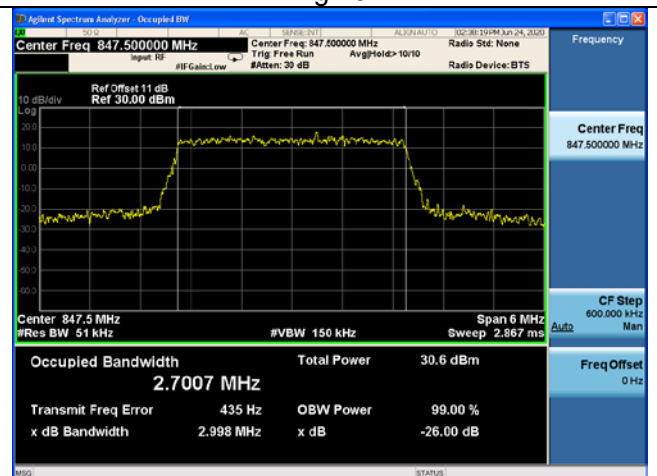


Fig.18



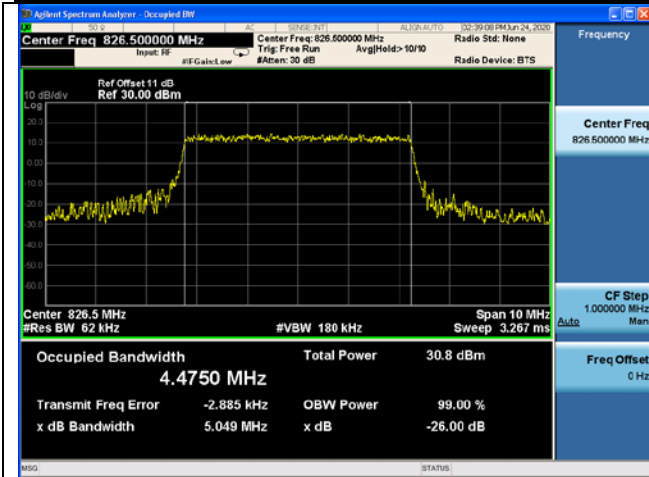


Fig.19

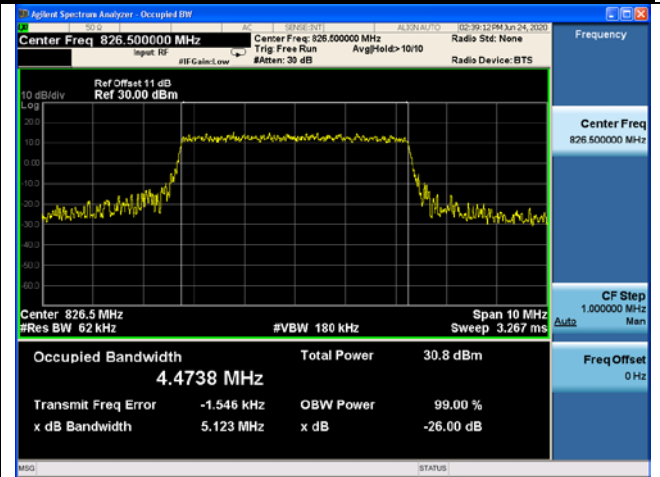


Fig.20

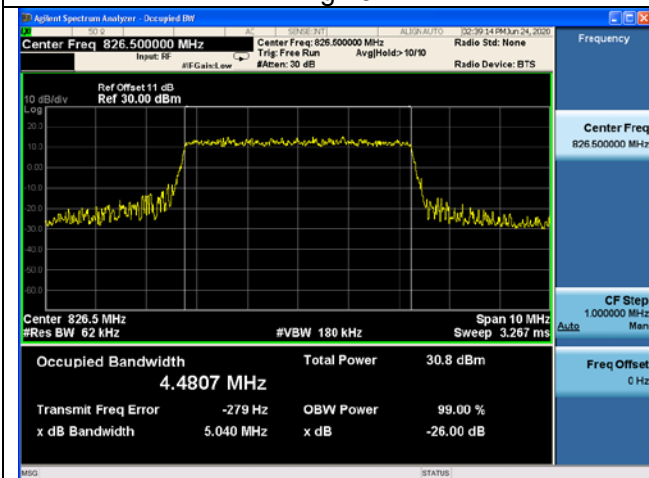


Fig.21

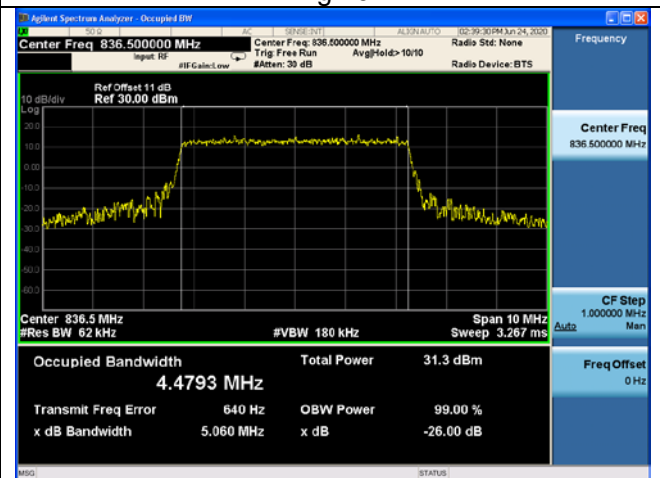


Fig.22

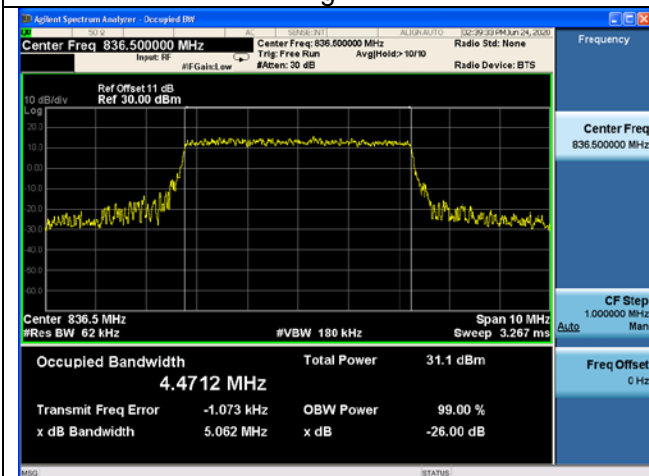


Fig.23

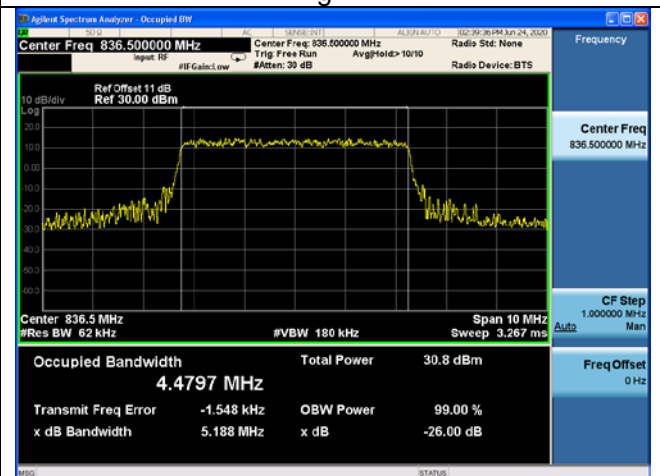


Fig.24

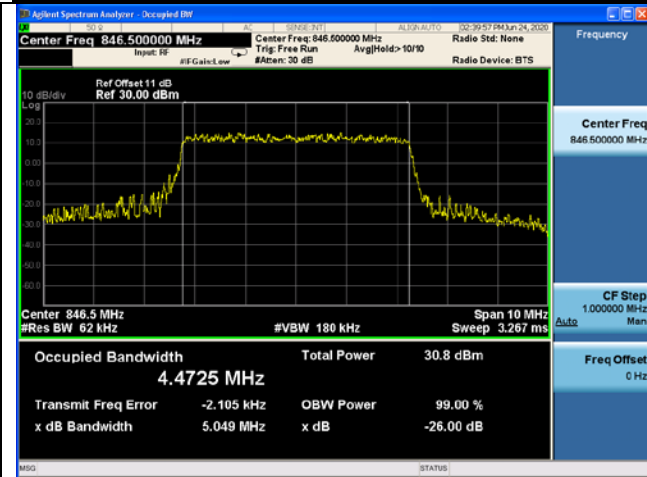


Fig.25

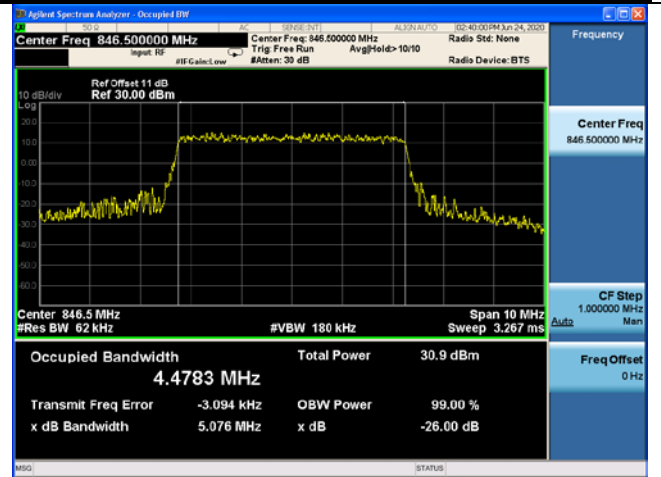


Fig.26

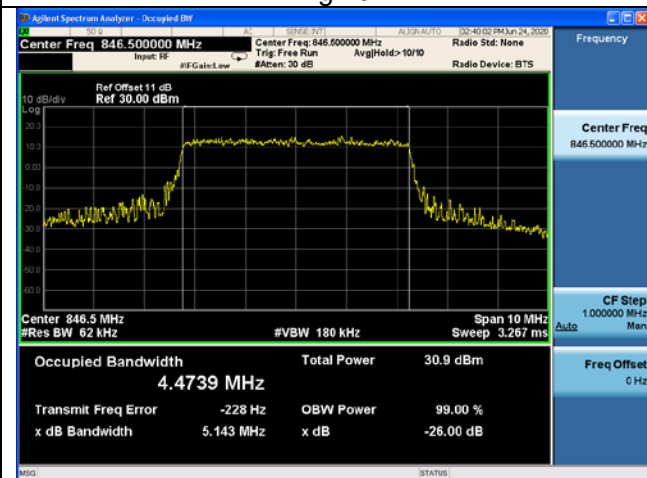


Fig.27

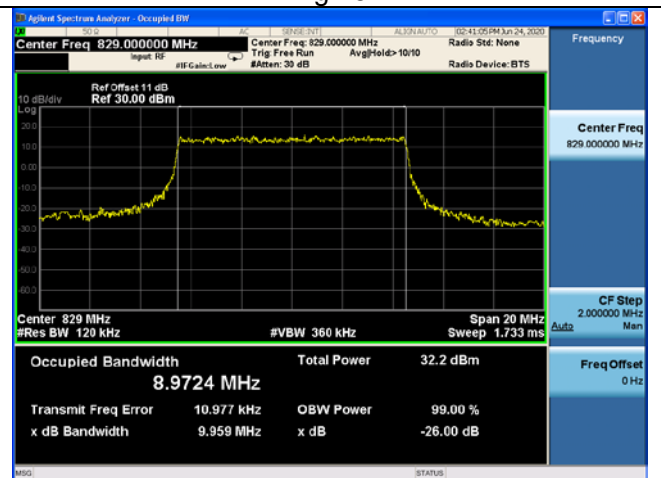


Fig.28

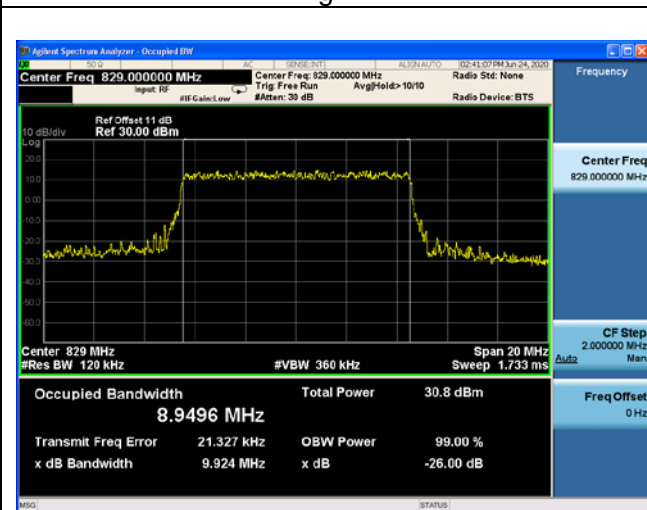


Fig.29

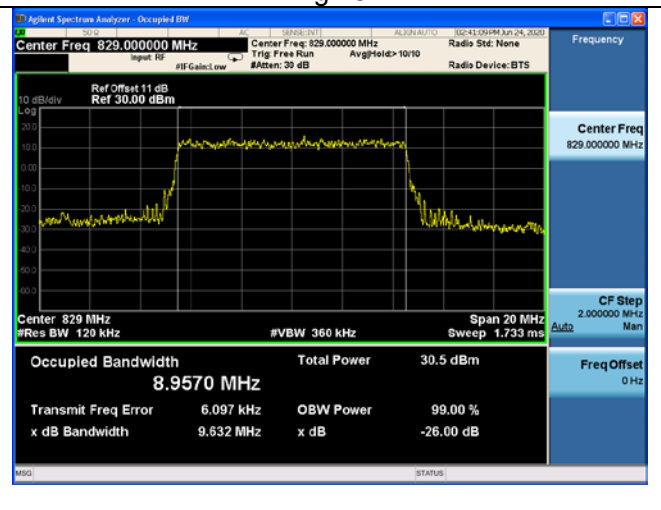


Fig.30

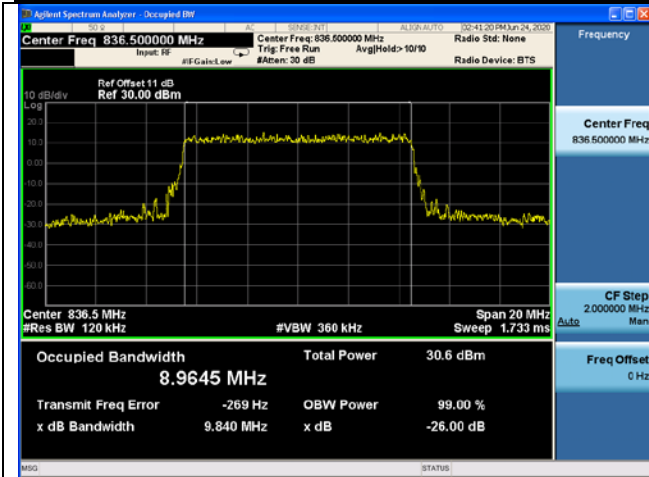


Fig.31

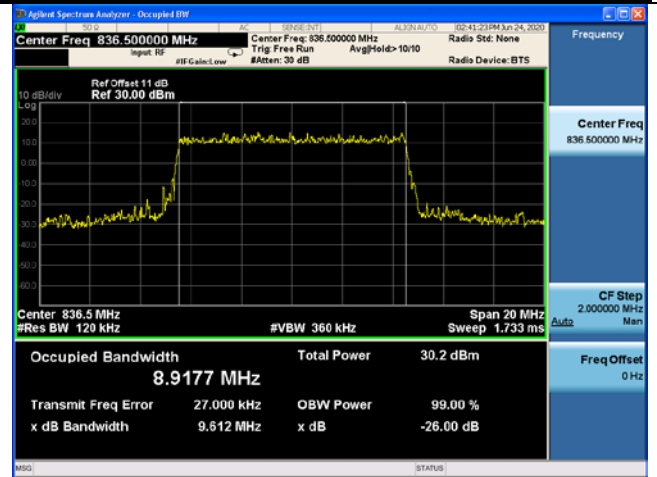


Fig.32

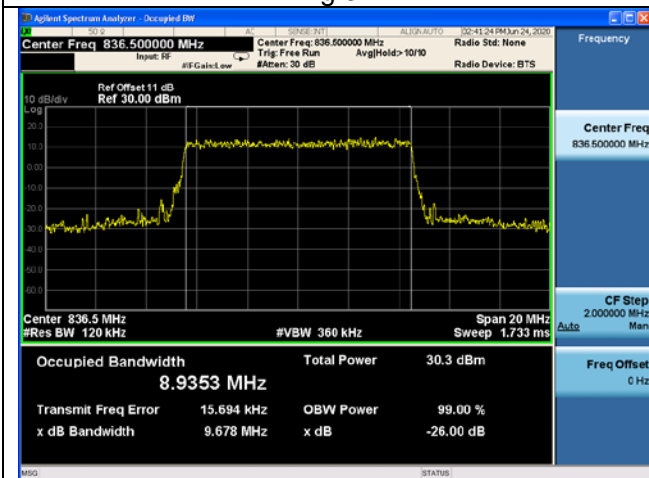


Fig.33

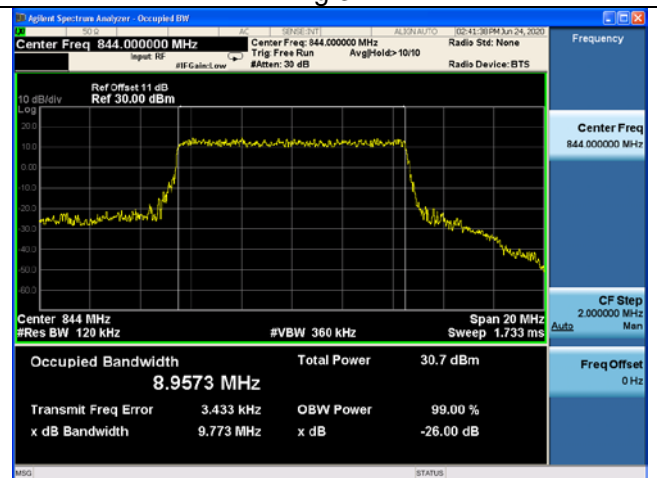


Fig.34

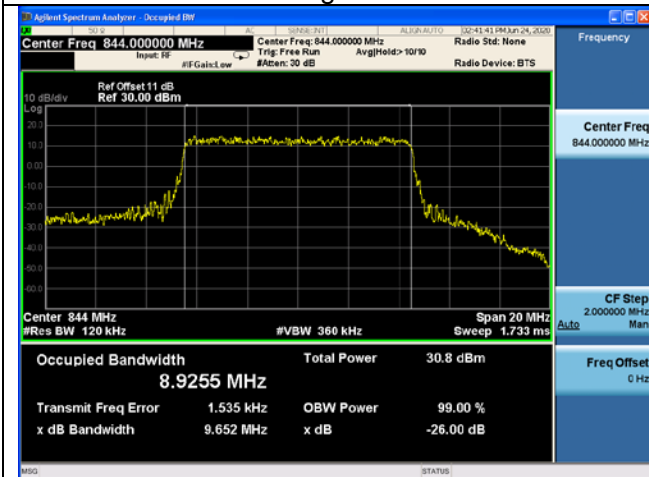


Fig.35

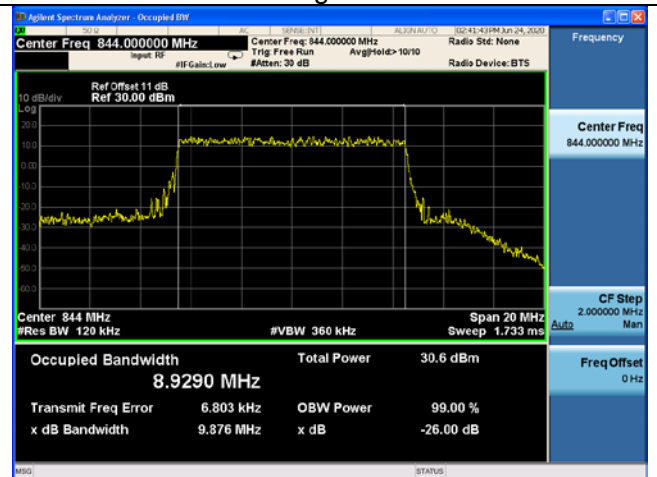
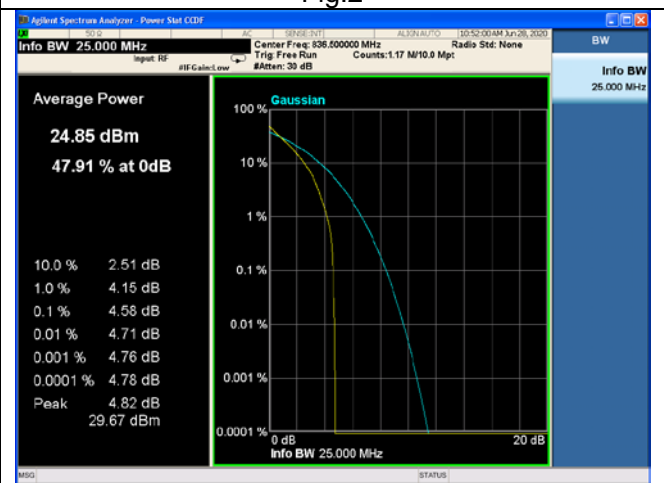
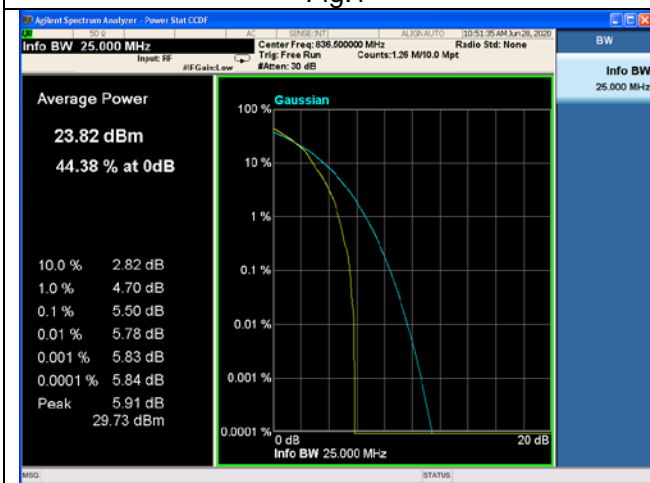
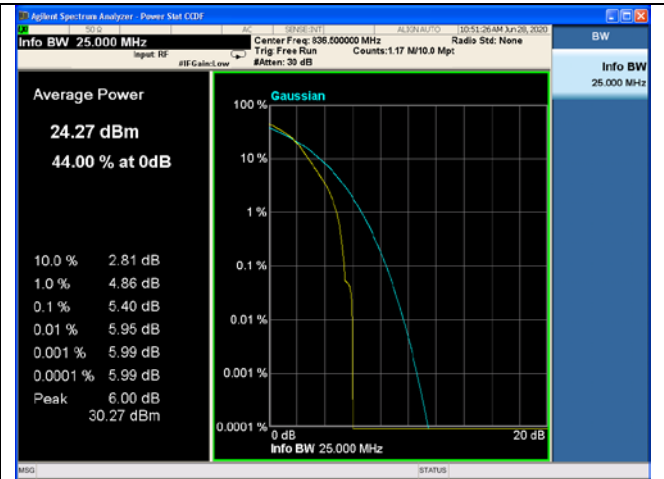
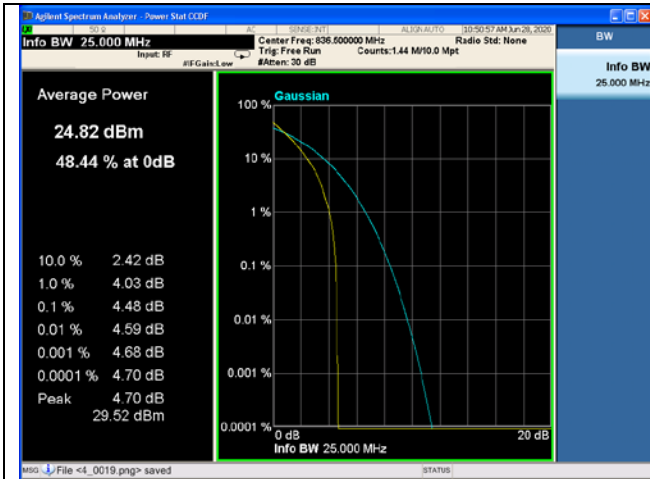


Fig.36

### 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



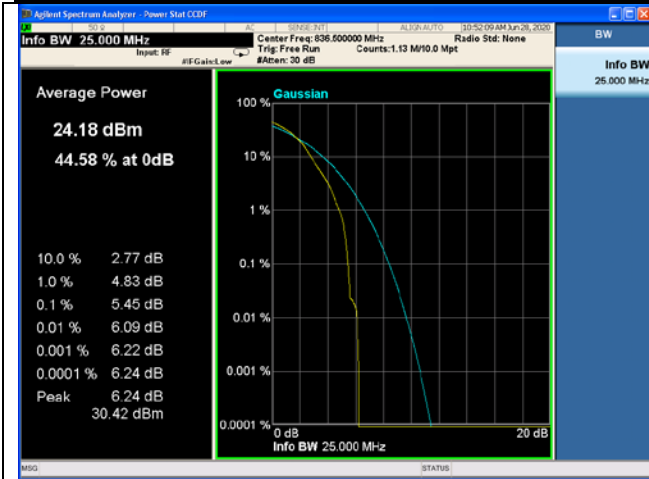


Fig.5

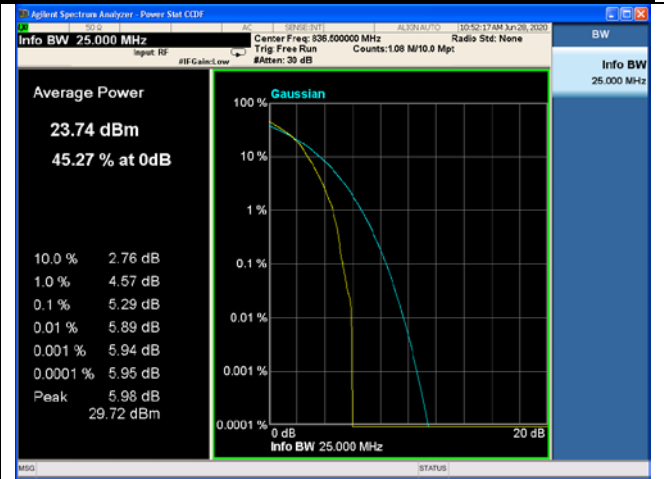


Fig.6

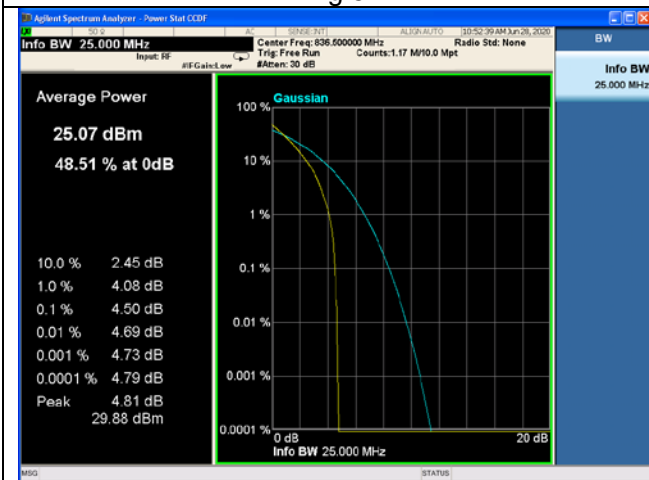


Fig.7

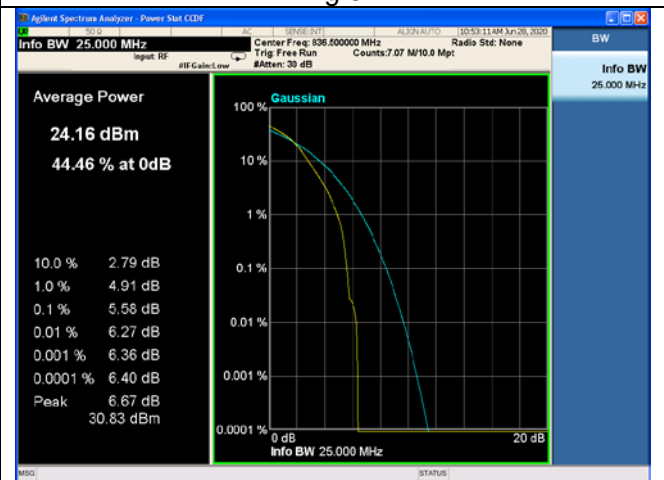


Fig.8

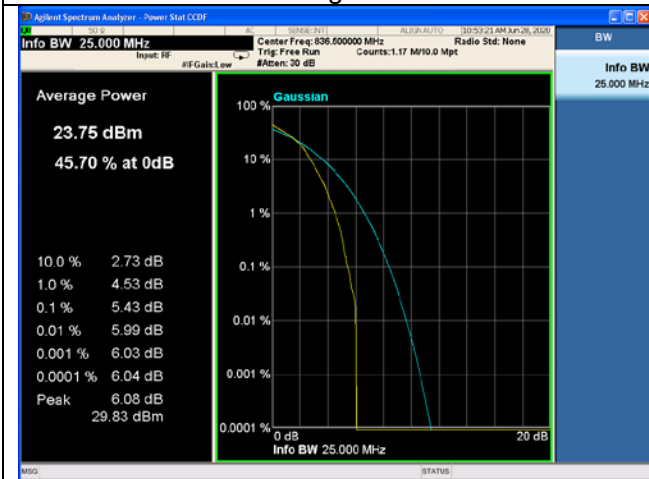


Fig.9

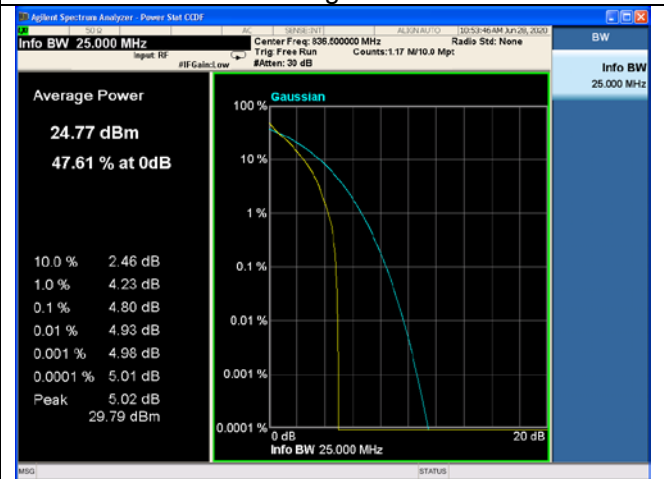


Fig.10

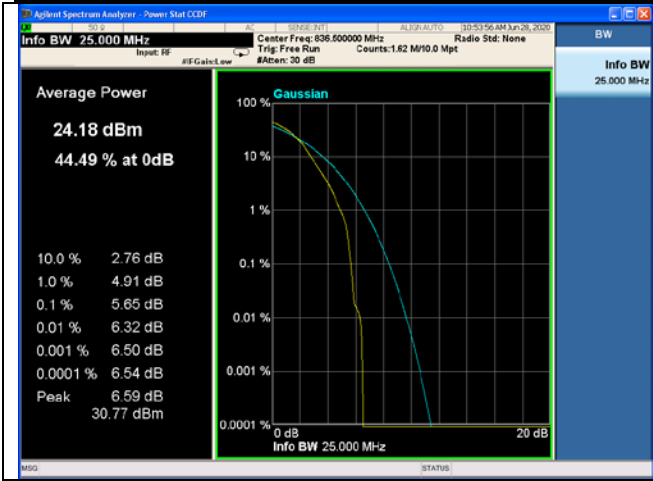


Fig.11

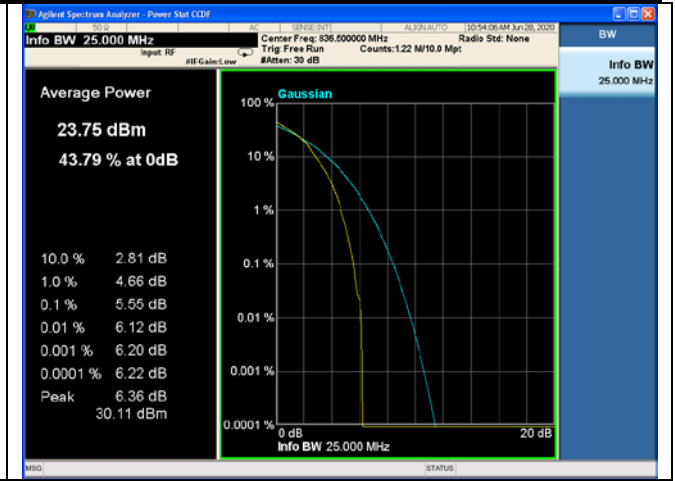


Fig.12

**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

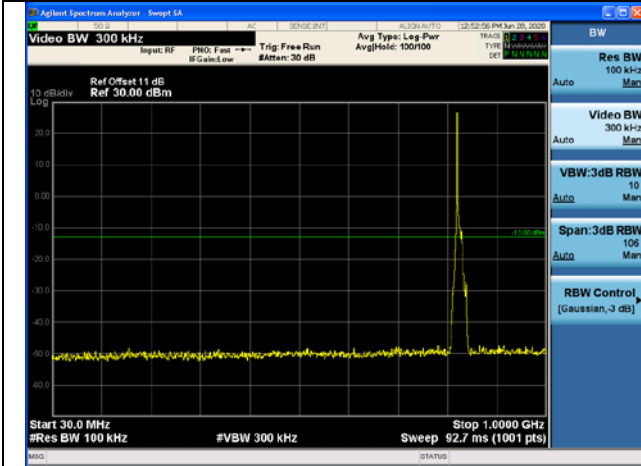


Fig.1

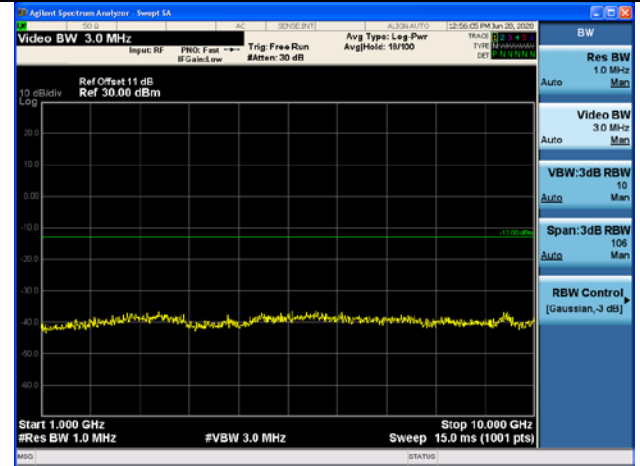


Fig.2

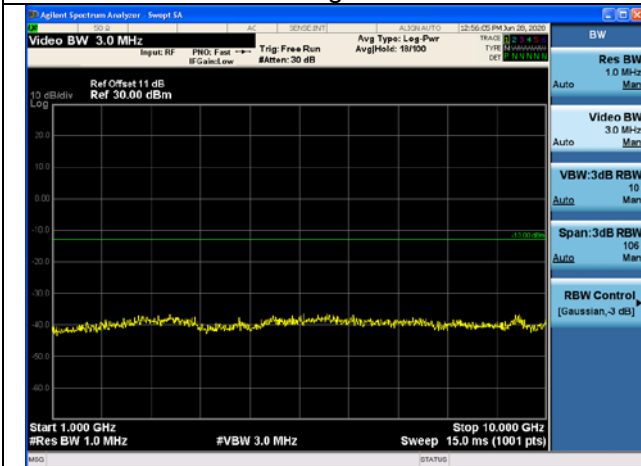


Fig3

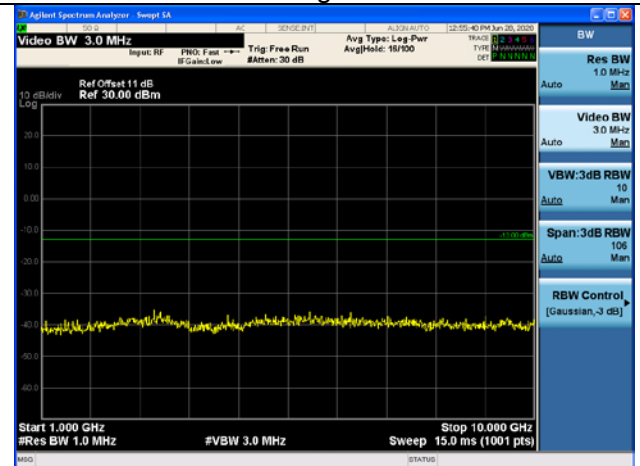


Fig4

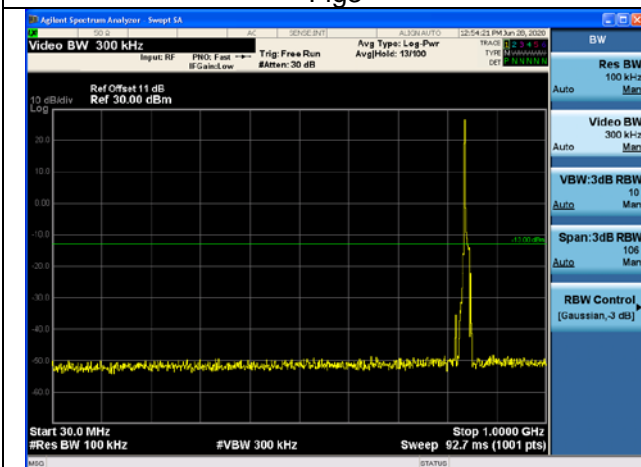


Fig5

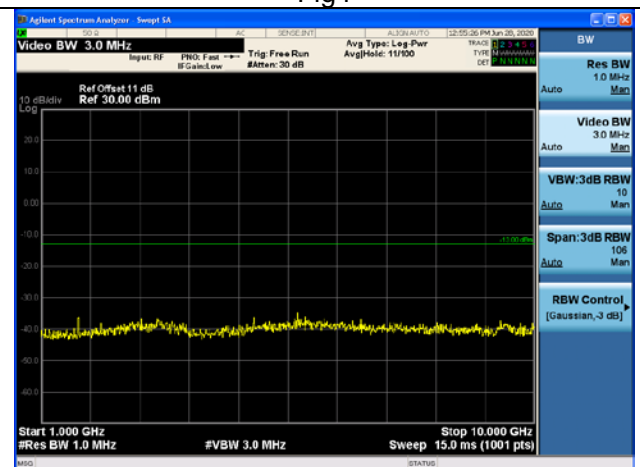


Fig6

**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

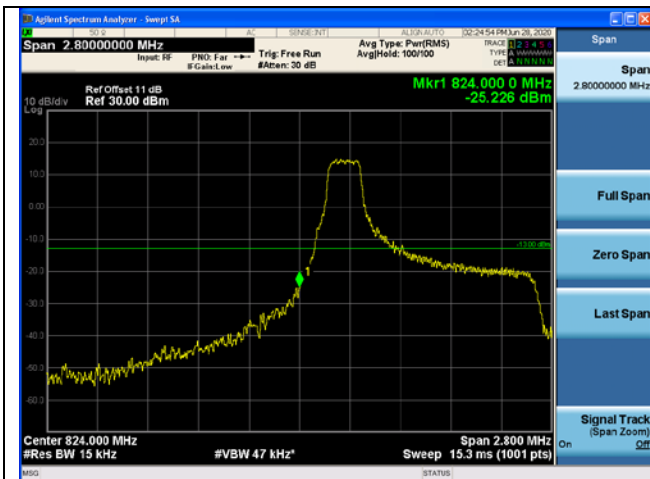


Fig.1

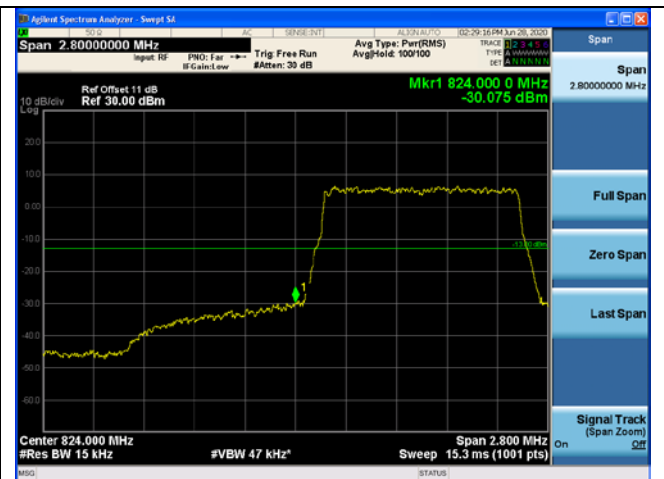
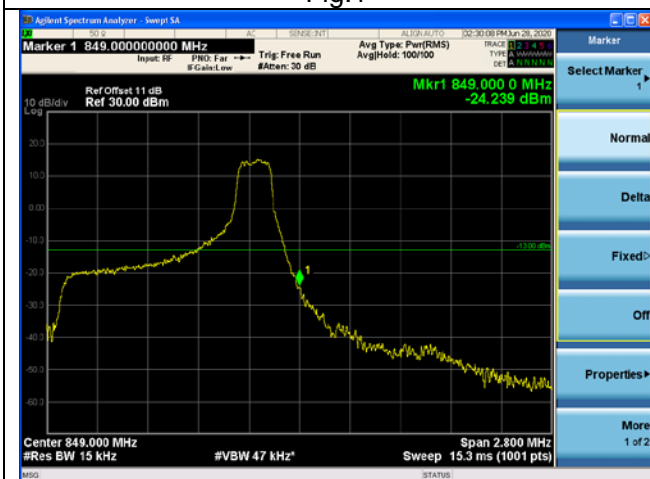
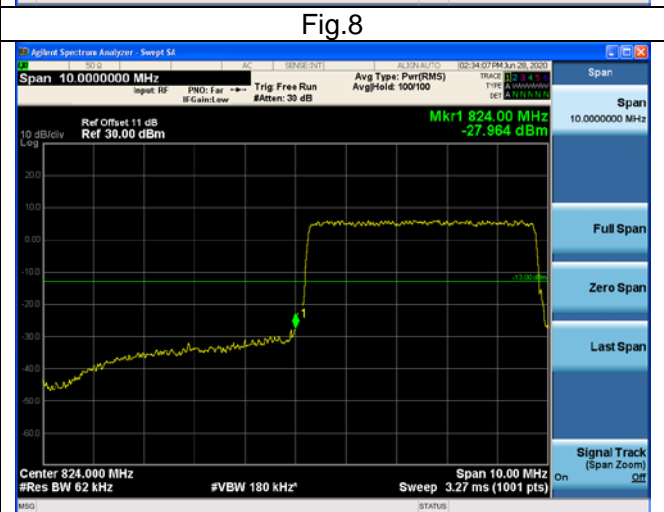
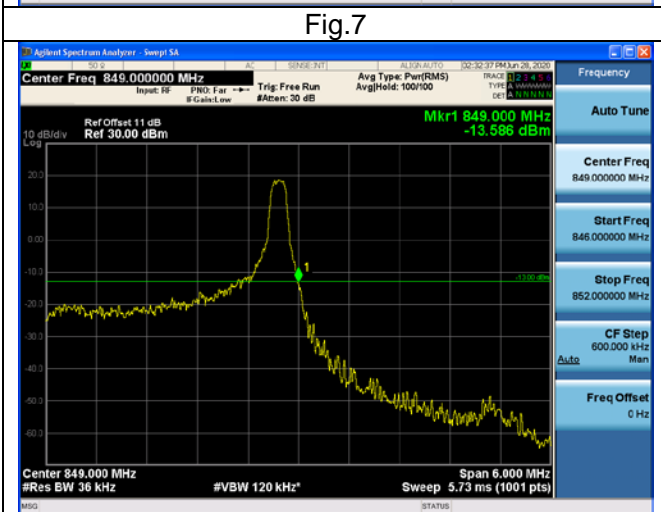
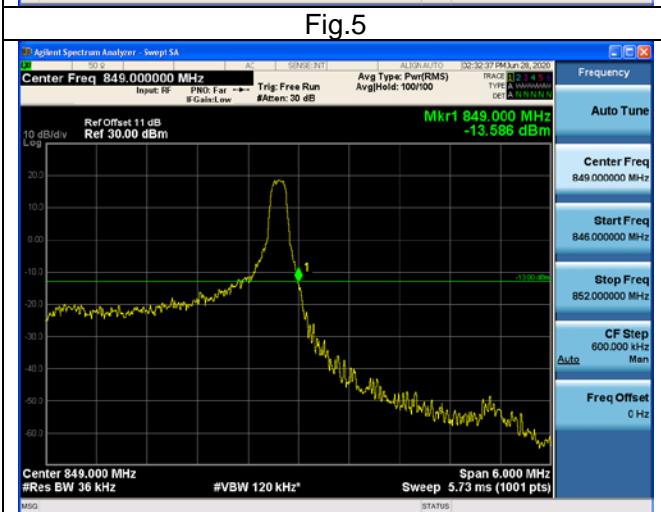
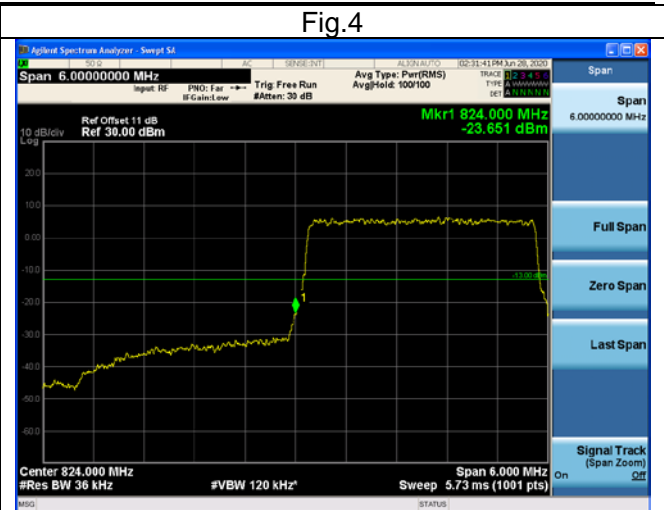
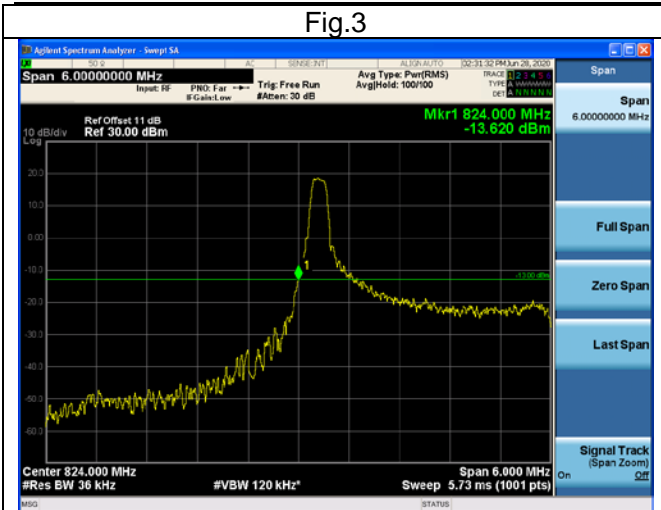


Fig.2







**Fig.9**

**Fig.10**

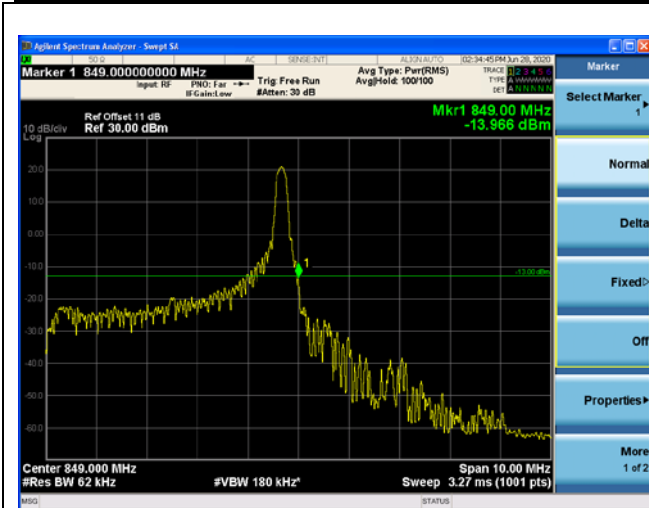


Fig.11



Fig.12

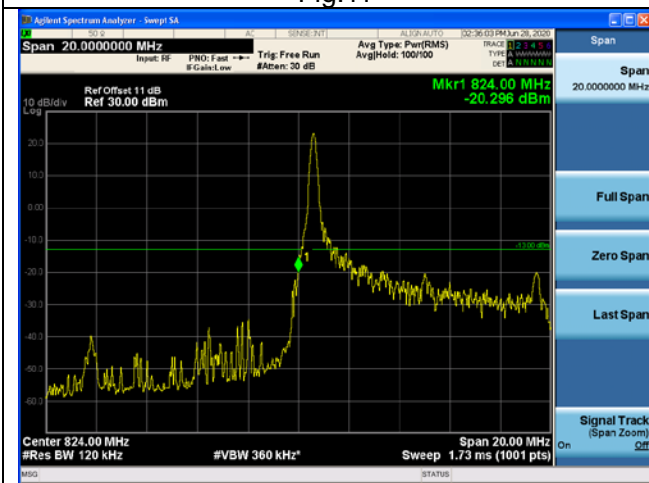


Fig.13

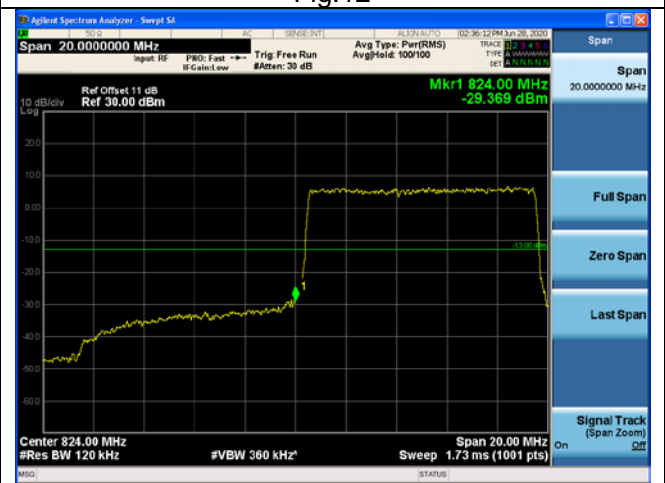


Fig.14

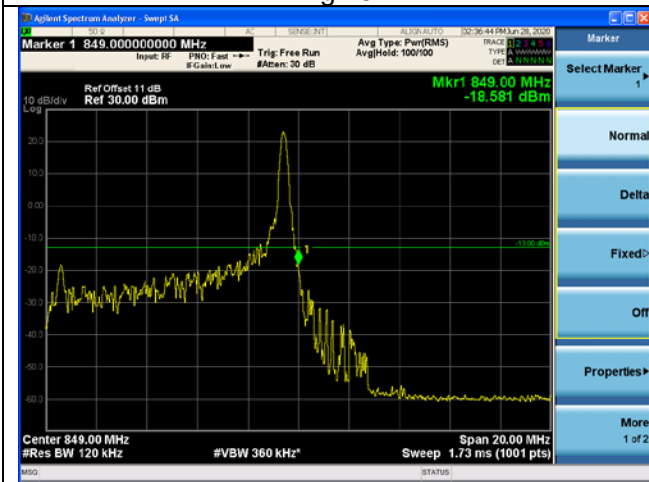


Fig.15



Fig.16

## 6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band5Low Channel			
		1.4M	3M	5M	10M
-10	NV	0.038	0.000	0.040	0.017
0	NV	-0.011	-0.015	0.012	-0.045
+10	NV	-0.044	-0.025	0.021	0.016
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.001	-0.004	-0.001	-0.022
+40	NV	-0.037	0.000	0.008	-0.034
+50	NV	0.048	0.032	-0.044	-0.041
+50	NV	-0.042	0.033	0.042	-0.001
+20	LV	0.029	-0.020	-0.035	-0.024
+20	HV	-0.033	-0.002	-0.011	-0.005

Temperature(°C)	Voltage	Test Result (ppm) Band5High Channel			
		1.4M	3M	5M	10M
-30	NV	0.038	-0.019	-0.032	0.008
-20	NV	-0.032	0.010	-0.015	0.011
-10	NV	-0.009	0.038	0.008	-0.035
0	NV	0.000	0.000	0.000	0.000
+10	NV	0.030	0.008	0.035	0.020
+20	NV	0.001	-0.003	0.024	-0.036
+30	NV	-0.002	0.041	0.038	0.018
+40	NV	-0.024	0.044	-0.011	0.012
+50	NV	-0.008	-0.009	0.035	0.005
+20	LV	0.001	0.042	0.012	-0.021
+20	HV	0.038	-0.019	-0.032	0.008