

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	23.20
				1	5	23.29
				3	2	22.35
				6	0	22.36
	836.5	20525		1	0	23.65
				1	5	23.67
				3	2	22.22
				6	0	22.22
	848.3	20643		1	0	23.52
				1	5	23.49
				3	2	22.25
				6	0	22.23
16QAM	824.7	20407	1.4	1	0	22.72
				1	5	22.70
				3	2	21.38
				6	0	21.32
	836.5	20525		1	0	22.76
				1	5	22.72
				3	2	21.48
				6	0	21.26
	848.3	20643		1	0	22.82
				1	5	22.82
				3	2	21.42
				6	0	21.29

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	23.27
				8	4	22.35
				15	0	22.32
	836.5	20525		1	0	23.62
				1	14	23.61
				8	4	22.22
				15	0	22.22
	847.5	20635		1	0	23.57
				1	14	23.53
				8	4	22.20
				15	0	22.19
16QAM	825.5	20415	3	1	0	22.73
				1	14	22.68
				8	4	21.43
				15	0	21.29
	836.5	20525		1	0	22.71
				1	14	22.77
				8	4	21.42
				15	0	21.25
	847.5	20635		1	0	22.76
				1	14	22.81
				8	4	21.37
				15	0	21.25

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	826.5	20425	5	1	0	23.25
				1	24	23.28
				12	6	22.35
				25	0	22.34
	836.5	20525		1	0	23.65
				1	24	23.64
				12	6	22.20
				25	0	22.19
	846.5	20625		1	0	23.54
				1	24	23.58
				12	6	22.20
				25	0	22.17
16QAM	826.5	20425	5	1	0	22.74
				1	24	22.71
				12	6	21.39
				25	0	21.30
	836.5	20525		1	0	22.77
				1	24	22.72
				12	6	21.49
				25	0	21.29
	846.5	20625		1	0	22.81
				1	24	22.83
				12	6	21.40
				25	0	21.26

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	829	20450	10	1	0	23.32
				1	49	23.32
				24	12	22.43
				50	0	22.44
	836.5	20525		1	0	23.71
				1	49	23.71
				24	12	22.29
				50	0	22.32
	844	20600		1	0	23.61
				1	49	23.61
				24	12	22.32
				50	0	22.30
16QAM	829	20450	10	1	0	22.81
				1	49	22.81
				24	12	21.48
				50	0	21.40
	836.5	20525		1	0	22.84
				1	49	22.84
				24	12	21.53
				50	0	21.33
	844	20600		1	0	22.88
				1	49	22.88
				24	12	21.47
				50	0	21.35

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	1.0790	Fig.1	1.0794	Fig.2
	836.5	20525		6	0	1.0784	Fig.3	1.0759	Fig.4
	848.3	20643		6	0	1.0797	Fig.5	1.0786	Fig.6
	825.5	20415	3	15	0	2.6927	Fig.7	2.7015	Fig.8
	836.5	20525		15	0	2.6900	Fig.9	2.6982	Fig.10
	847.5	20635		15	0	2.6910	Fig.11	2.7020	Fig.12
	826.5	20425	5	25	0	4.4748	Fig.13	4.4657	Fig.14
	836.5	20525		25	0	4.4727	Fig.15	4.4703	Fig.16
	846.5	20625		25	0	4.4635	Fig.17	4.4657	Fig.18
	829	20450	10	50	0	8.9582	Fig.19	8.9324	Fig.20
	836.5	20525		50	0	8.9392	Fig.21	8.9258	Fig.22
	844	20600		50	0	8.9546	Fig.23	8.9195	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	1.220	Fig.1	1.211	Fig.2
	836.5	20525		6	0	1.219	Fig.3	1.215	Fig.4
	848.3	20643		6	0	1.221	Fig.5	1.222	Fig.6
	825.5	20415	3	15	0	3.022	Fig.7	2.989	Fig.8
	836.5	20525		15	0	2.998	Fig.9	3.025	Fig.10
	847.5	20635		15	0	3.001	Fig.11	3.005	Fig.12
	826.5	20425	5	25	0	4.908	Fig.13	4.908	Fig.14
	836.5	20525		25	0	4.886	Fig.15	4.887	Fig.16
	846.5	20625		25	0	4.891	Fig.17	4.903	Fig.18
	829	20450	10	50	0	9.634	Fig.19	9.738	Fig.20
	836.5	20525		50	0	9.634	Fig.21	9.807	Fig.22
	844	20600		50	0	9.617	Fig.23	9.590	Fig.24

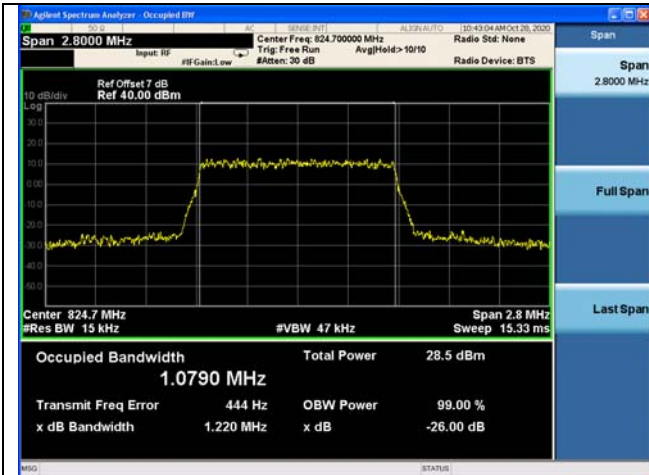


Fig.1

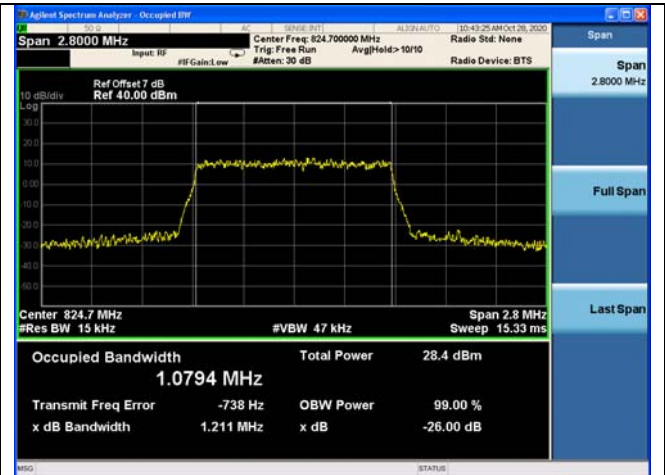


Fig.2

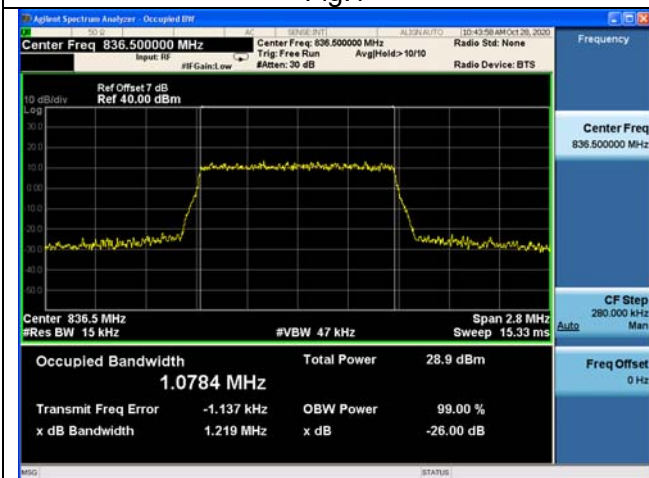


Fig.3

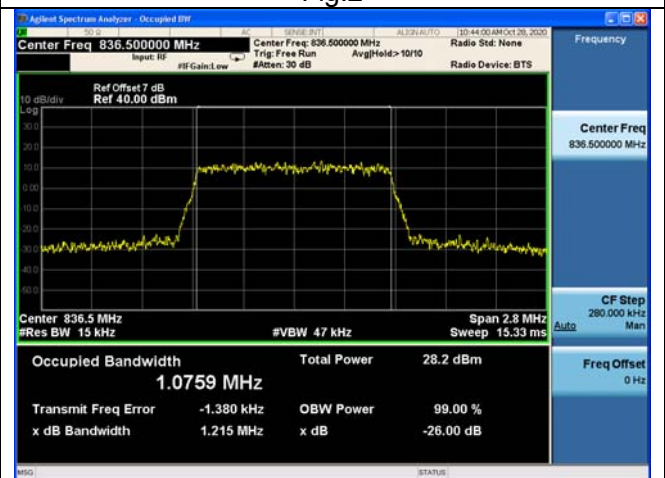


Fig.4

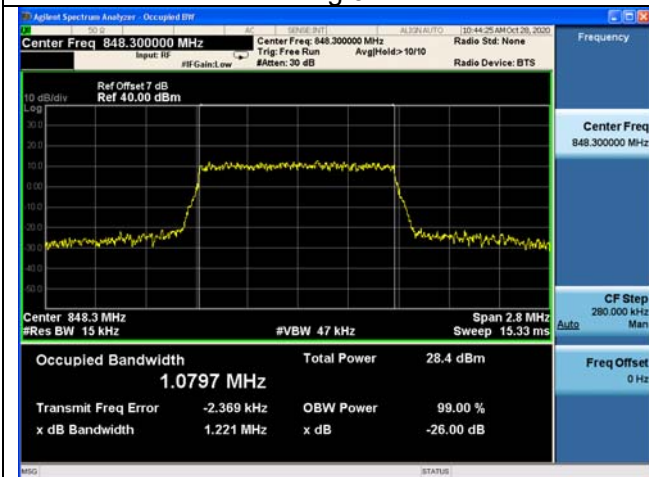


Fig.5

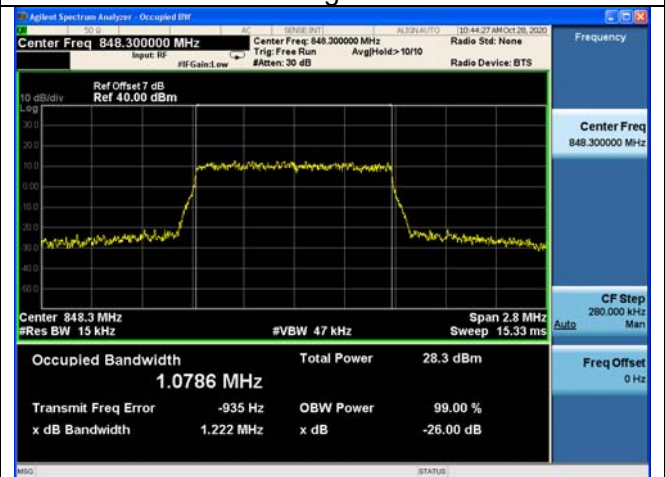


Fig.6

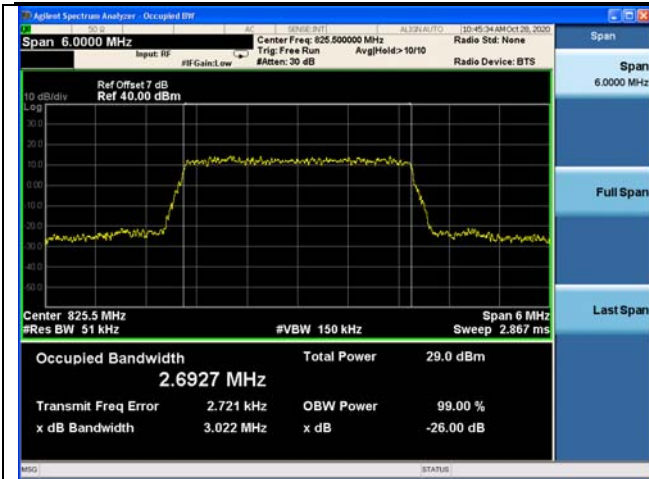


Fig.7

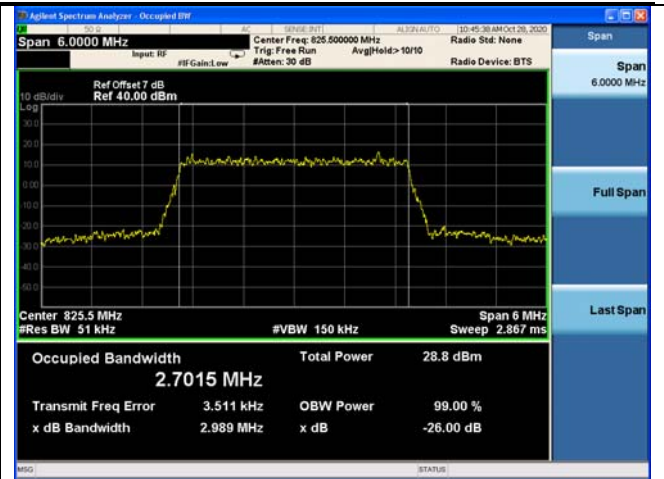


Fig.8

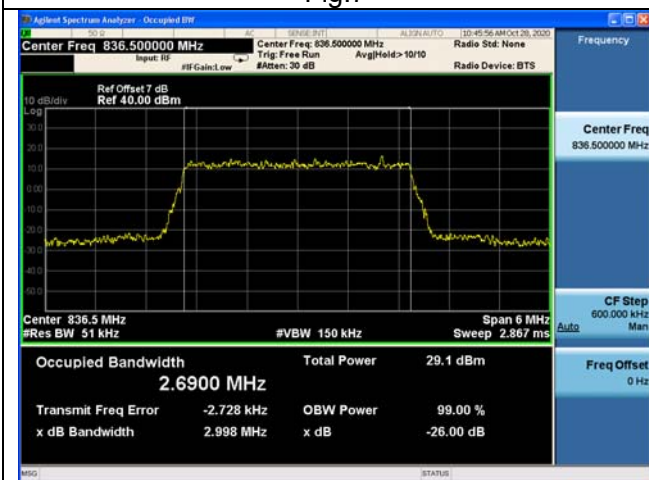


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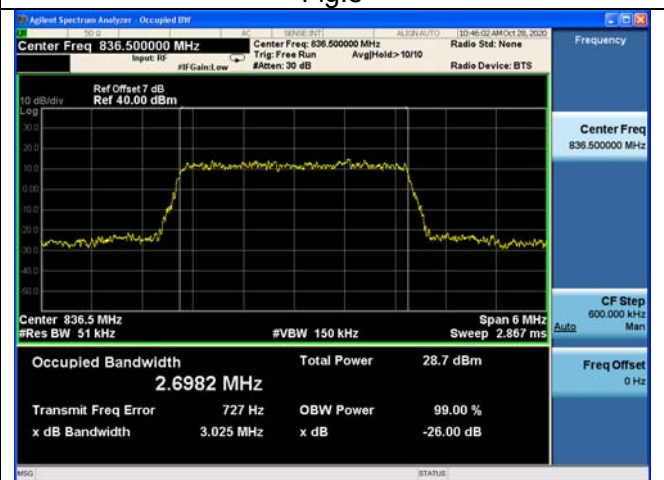


Fig.10

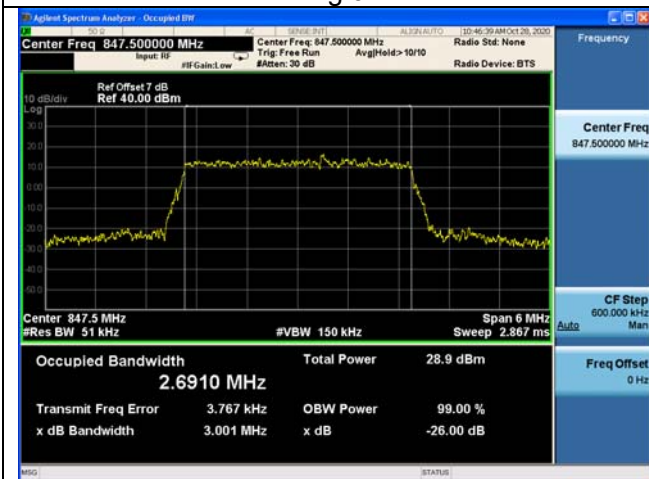


Fig.11

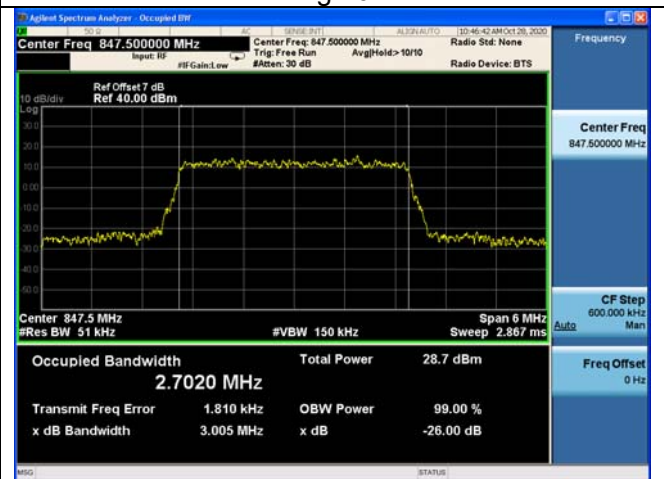


Fig.12

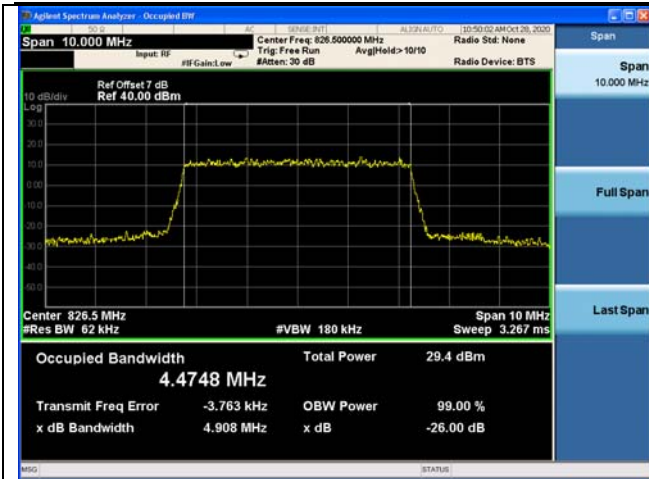


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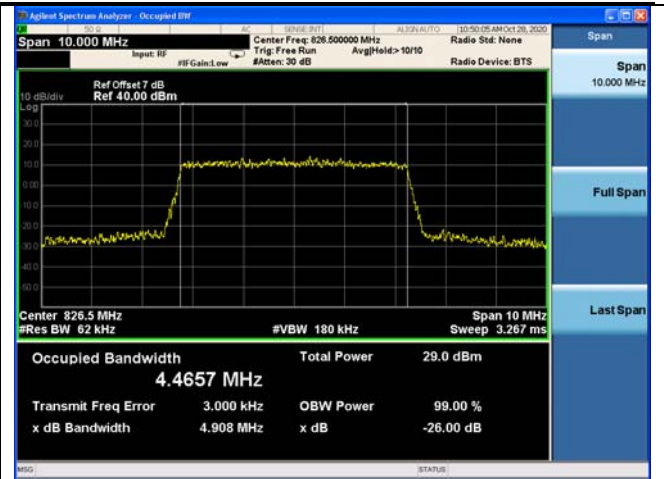


Fig.14

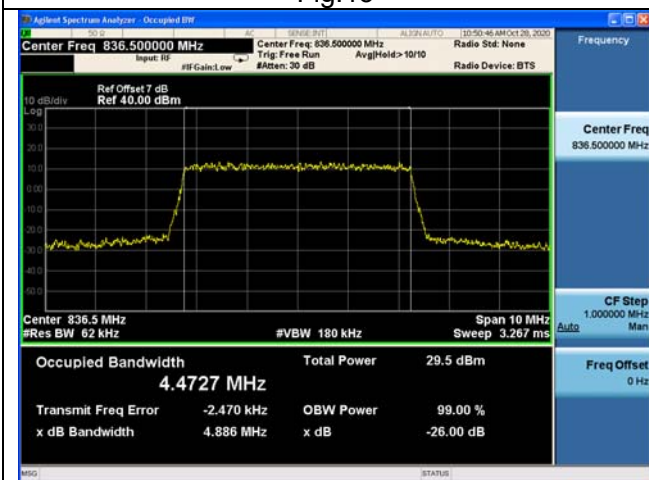


Fig.15

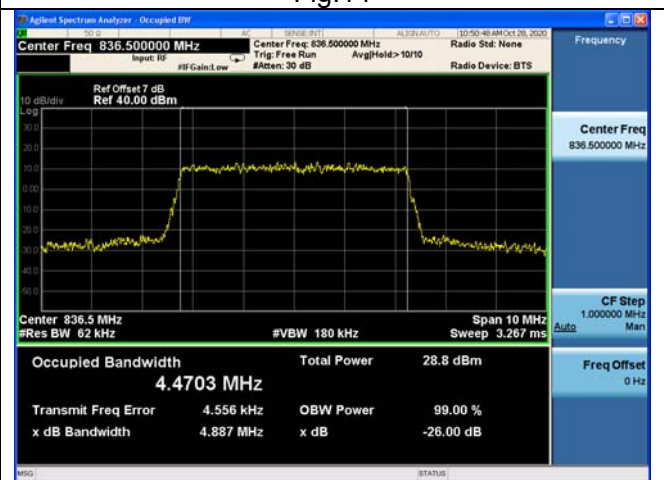


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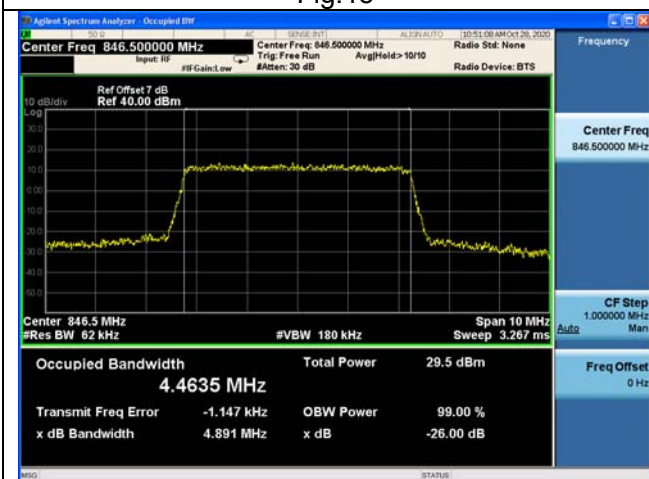


Fig.17

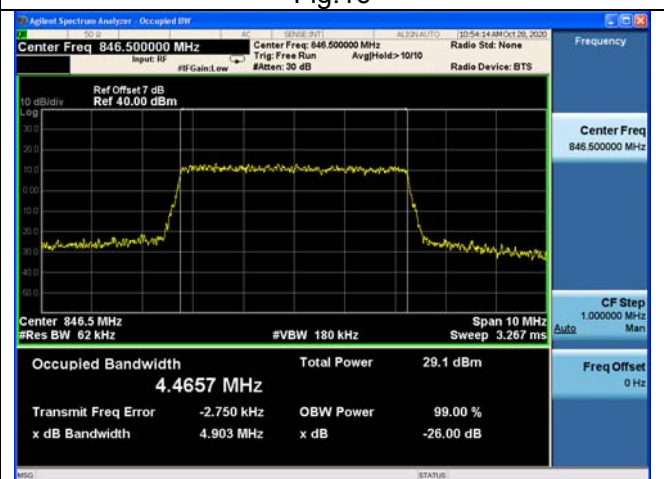


Fig.18

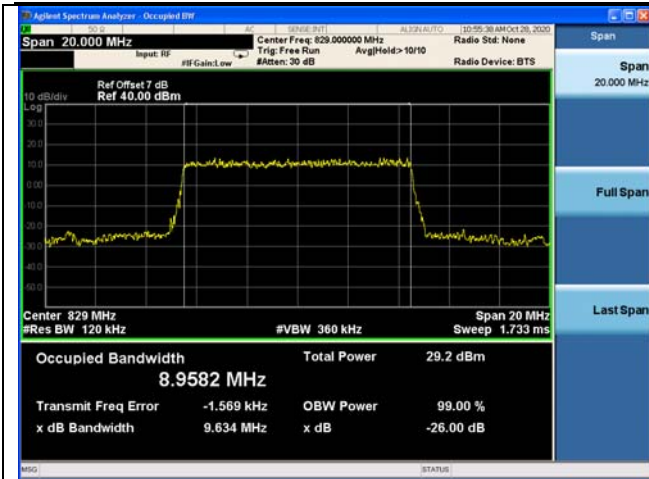


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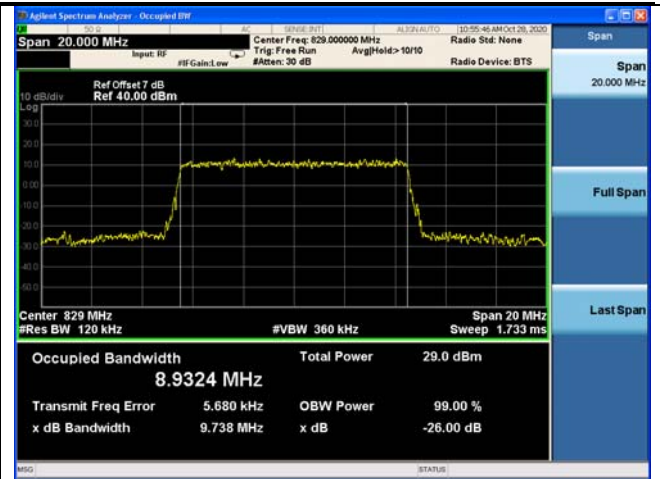


Fig.20

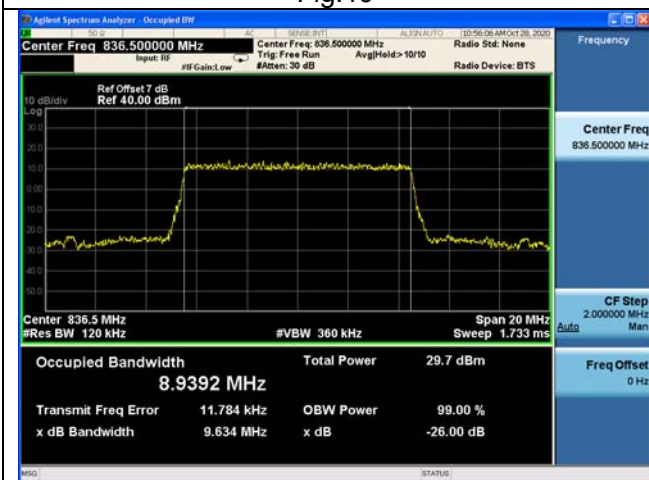


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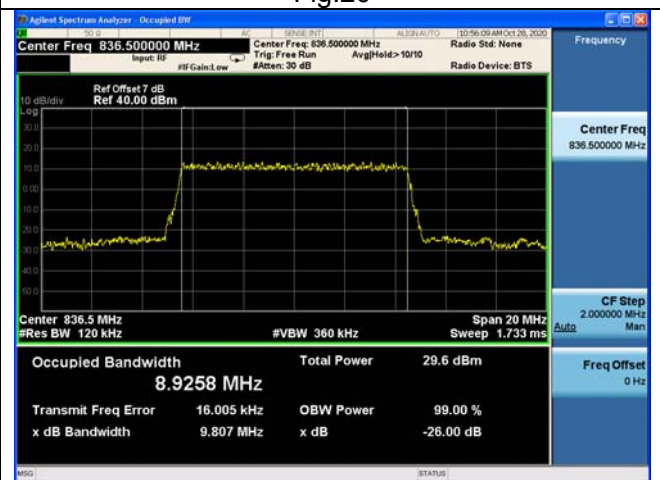


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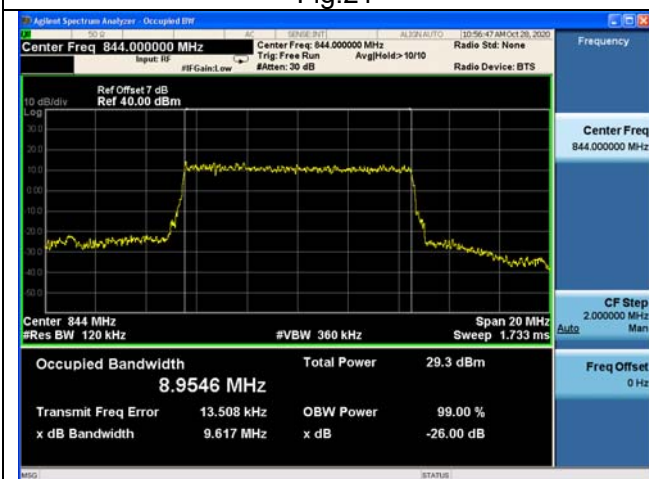


Fig.23

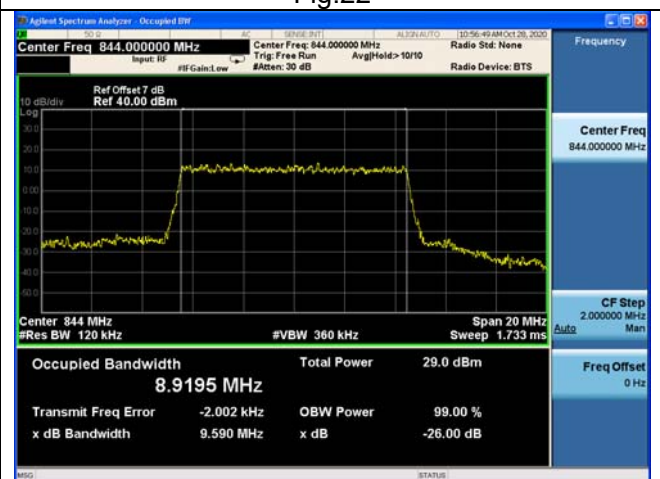


Fig.24

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

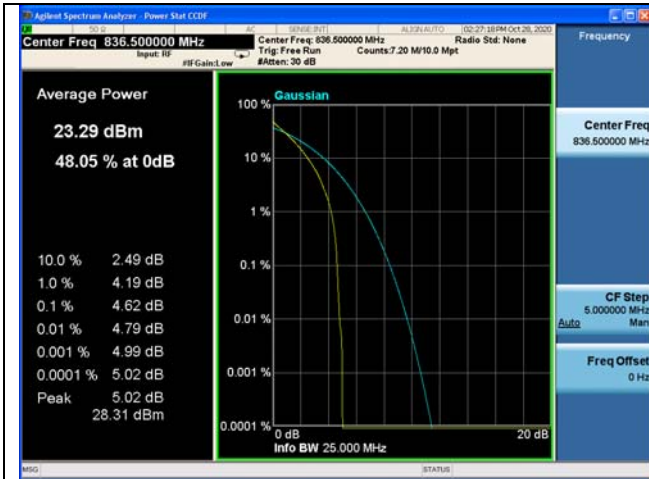


Fig.1

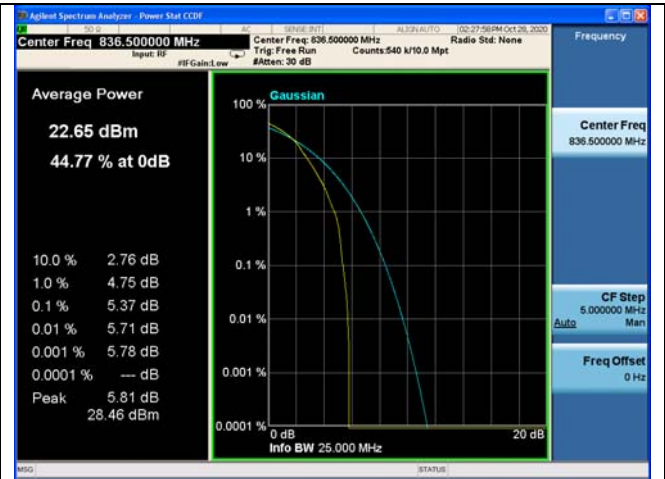


Fig.2

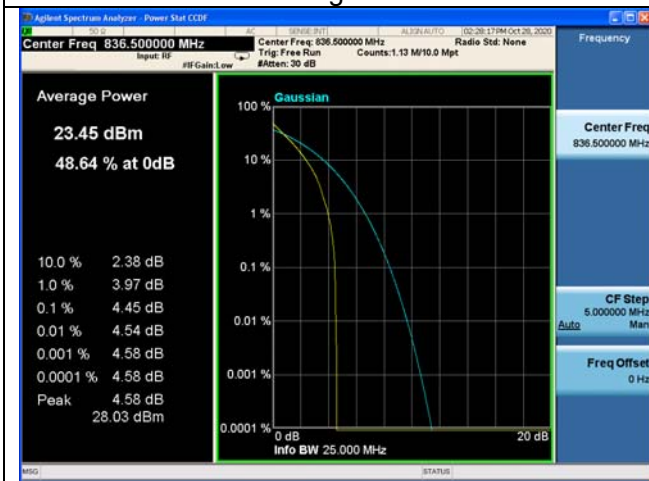


Fig.3



Fig.4

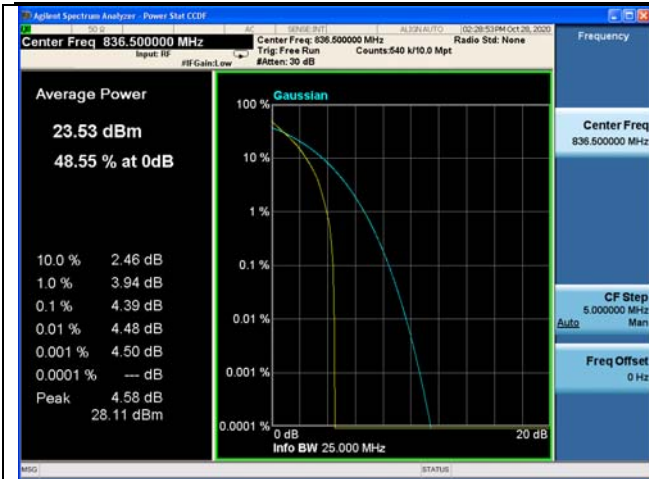


Fig.5



Fig.6

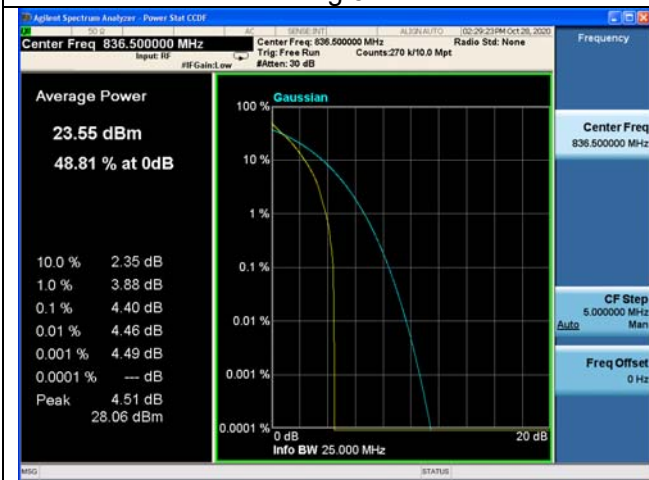


Fig.7

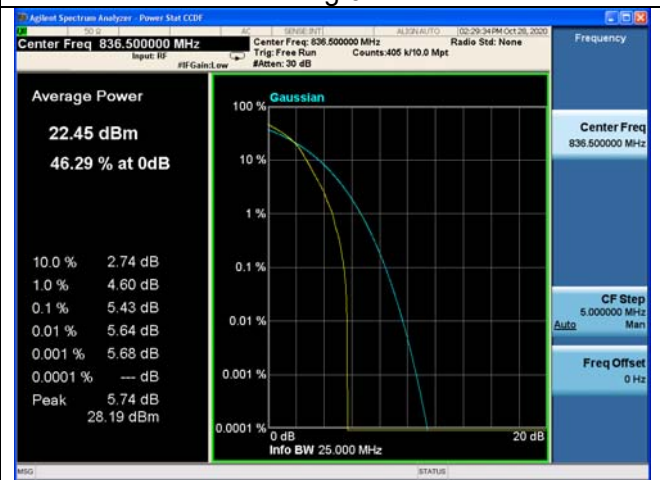


Fig.8

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

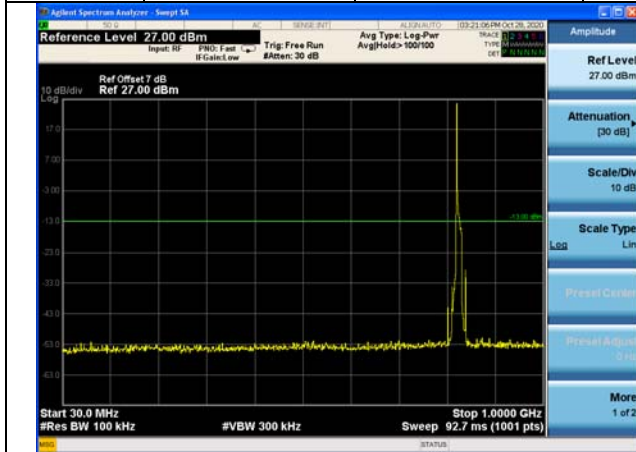


Fig.1

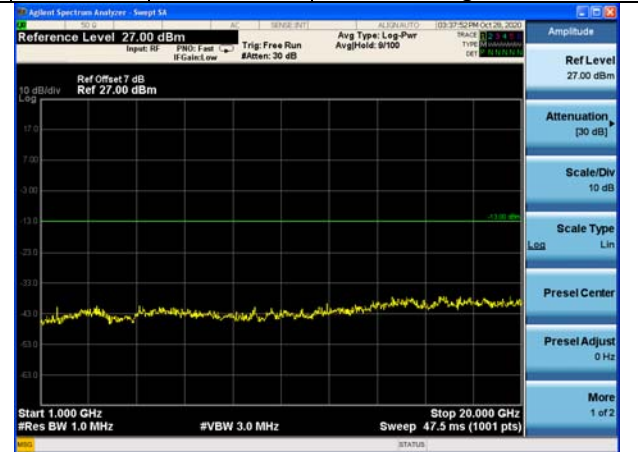


Fig.2

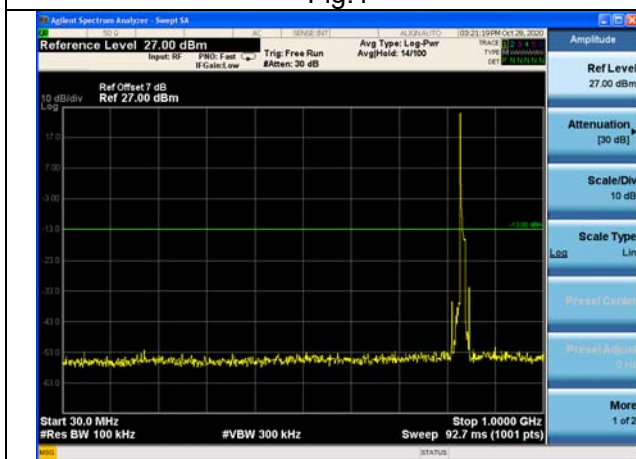


Fig3

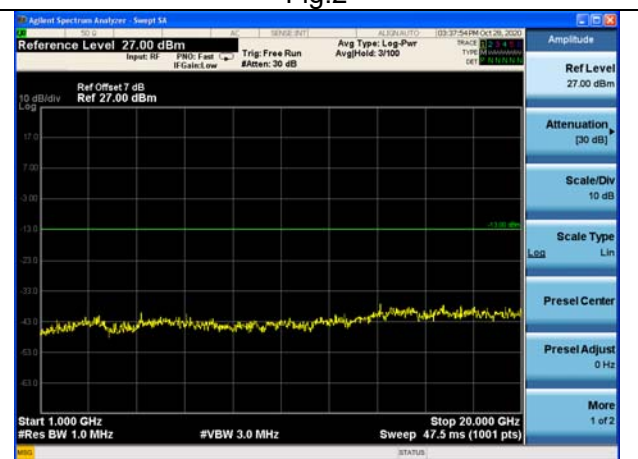


Fig4

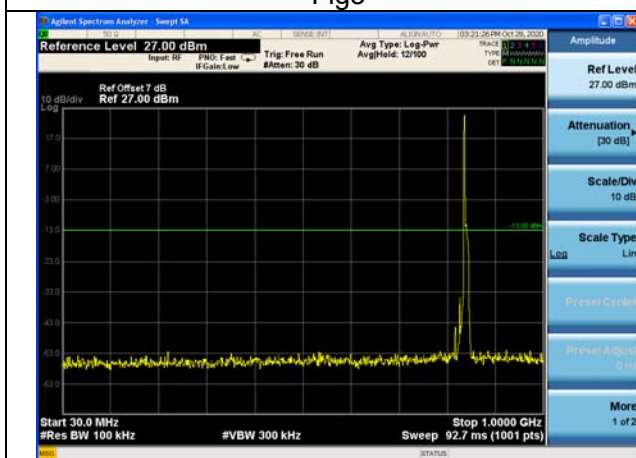


Fig5

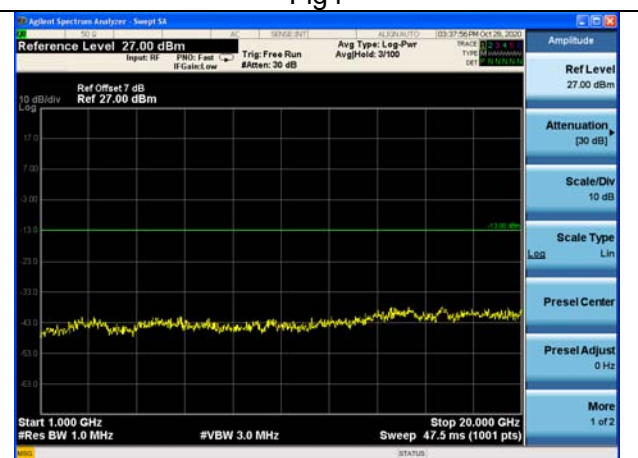


Fig6

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

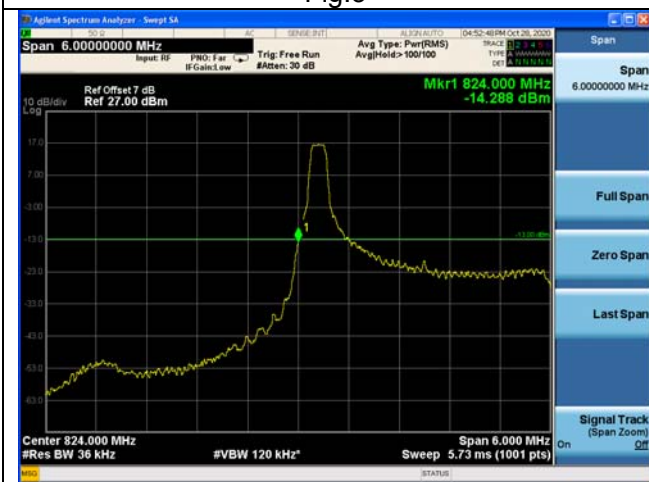


Fig.5



Fig.6

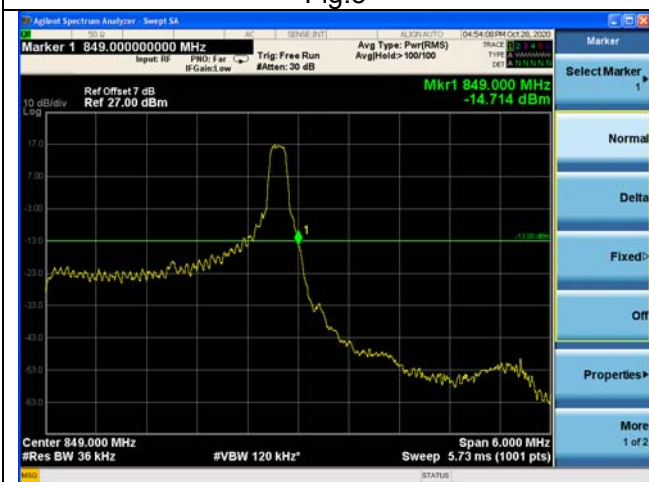


Fig.7



Fig.8



Fig.9



Fig.10



Fig.11



Fig.12

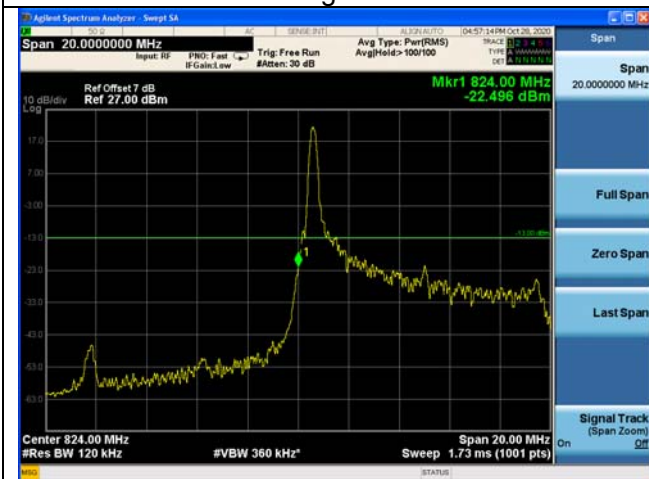


Fig.13



Fig.14

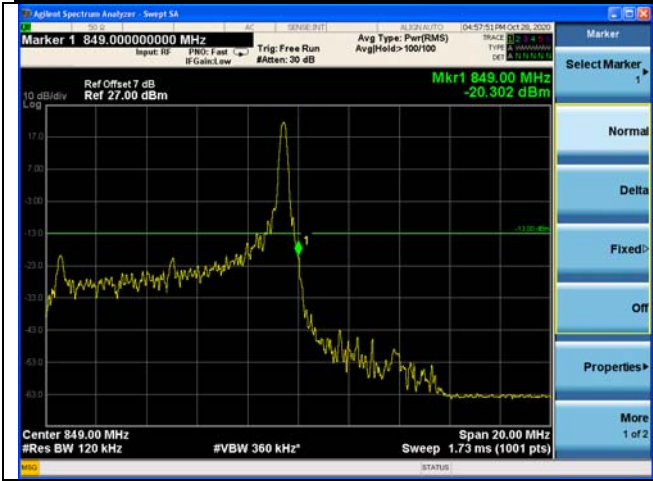


Fig.15



Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band5Low Channel			
		1.4M	3M	5M	10M
-20	NV	0.021	-0.004	-0.009	0.024
-10	NV	-0.015	0.006	0.013	-0.021
0	NV	-0.009	0.002	-0.009	0.023
+10	NV	-0.019	0.008	0.032	-0.004
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.018	-0.022	0.009	-0.005
+40	NV	-0.015	-0.008	0.018	0.007
+50	NV	-0.014	0.028	0.020	0.001
+55	NV	0.022	0.010	0.017	-0.022
+20	LV	-0.001	0.020	-0.033	-0.001
+20	HV	0.019	-0.023	0.002	0.025

Temperature(°C)	Voltage	Test Result (ppm) Band5High annel			
		1.4M	3M	5M	10M
-20	NV	0.032	0.011	0.007	-0.026
-10	NV	-0.006	0.031	-0.015	-0.010
0	NV	-0.001	0.037	0.001	-0.007
+10	NV	0.033	-0.018	0.017	0.017
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.025	-0.018	-0.028	0.003
+40	NV	-0.037	-0.018	0.035	0.034
+50	NV	0.019	0.009	-0.025	0.014
+55	NV	-0.036	0.012	0.007	0.027
+20	LV	0.024	0.011	0.011	0.030
+20	HV	-0.004	-0.019	-0.034	0.020