

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	21.98
				1	5	22.01
				3	2	21.15
				6	0	21.02
	836.5	20525		1	0	21.94
				1	5	22.07
				3	2	21.09
				6	0	21.39
	848.3	20643		1	0	21.87
				1	5	21.97
				3	2	21.01
				6	0	21.12
16QAM	824.7	20407	1.4	1	0	21.02
				1	5	20.92
				3	2	19.86
				6	0	19.93
	836.5	20525		1	0	20.79
				1	5	21.96
				3	2	20.08
				6	0	19.89
	848.3	20643		1	0	21.05
				1	5	20.92
				3	2	20.05
				6	0	19.76

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	825.5	20415	3	1	0	21.72
				1	14	21.74
				8	4	21.15
				15	0	21.05
	836.5	20525		1	0	22.01
				1	14	22.11
				8	4	21.33
				15	0	21.29
	847.5	20635		1	0	21.94
				1	14	21.81
				8	4	21.19
				15	0	21.17
16QAM	825.5	20415	3	1	0	21.00
				1	14	20.94
				8	4	19.97
				15	0	19.90
	836.5	20525		1	0	21.38
				1	14	21.03
				8	4	20.00
				15	0	19.78
	847.5	20635		1	0	21.14
				1	14	21.00
				8	4	20.17
				15	0	19.99

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	826.5	20425	5	1	0	21.81
				1	24	21.92
				12	6	21.18
				25	0	21.17
	836.5	20525		1	0	21.74
				1	24	21.96
				12	6	20.98
				25	0	21.13
	846.5	20625		1	0	21.88
				1	24	21.79
				12	6	20.93
				25	0	21.13
16QAM	826.5	20425	5	1	0	21.02
				1	24	20.95
				12	6	20.12
				25	0	19.70
	836.5	20525		1	0	20.84
				1	24	21.00
				12	6	19.84
				25	0	19.82
	846.5	20625		1	0	21.09
				1	24	20.89
				12	6	20.02
				25	0	19.98

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	829	20450	10	1	0	22.41
				1	49	22.42
				24	12	21.59
				50	0	21.56
	836.5	20525		1	0	22.43
				1	49	22.48
				24	12	21.67
				50	0	21.74
	844	20600		1	0	22.50
				1	49	22.47
				24	12	21.61
				50	0	21.57
16QAM	829	20450	10	1	0	21.61
				1	49	21.29
				24	12	20.44
				50	0	20.40
	836.5	20525		1	0	21.31
				1	49	21.63
				24	12	20.41
				50	0	20.47
	844	20600		1	0	21.56
				1	49	21.48
				24	12	20.53
				50	0	20.46

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	1.0714	Fig.1	1.0734	Fig.2
	836.5	20525		6	0	1.0965	Fig.3	1.1069	Fig.4
	848.3	20643		6	0	1.0757	Fig.5	1.0795	Fig.6
	825.5	20415	3	15	0	2.6857	Fig.7	2.6879	Fig.8
	836.5	20525		15	0	2.7115	Fig.9	2.7102	Fig.10
	847.5	20635		15	0	2.6992	Fig.11	2.6985	Fig.12
	826.5	20425	5	25	0	4.4648	Fig.13	4.4564	Fig.14
	836.5	20525		25	0	4.5005	Fig.15	4.4979	Fig.16
	846.5	20625		25	0	4.4835	Fig.17	4.4750	Fig.18
	829	20450	10	50	0	8.9476	Fig.19	8.9363	Fig.20
	836.5	20525		50	0	8.9978	Fig.21	8.9934	Fig.22
	844	20600		50	0	8.9382	Fig.23	8.9166	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	1.206	Fig.1	1.236	Fig.2
	836.5	20525		6	0	2.280	Fig.3	2.138	Fig.4
	848.3	20643		6	0	1.349	Fig.5	1.293	Fig.6
	825.5	20415	3	15	0	2.832	Fig.7	2.839	Fig.8
	836.5	20525		15	0	4.504	Fig.9	4.645	Fig.10
	847.5	20635		15	0	3.716	Fig.11	3.861	Fig.12
	826.5	20425	5	25	0	4.766	Fig.13	4.706	Fig.14
	836.5	20525		25	0	8.172	Fig.15	8.561	Fig.16
	846.5	20625		25	0	4.906	Fig.17	5.012	Fig.18
	829	20450	10	50	0	9.576	Fig.19	9.536	Fig.20
	836.5	20525		50	0	14.99	Fig.21	15.30	Fig.22
	844	20600		50	0	9.386	Fig.23	9.378	Fig.24

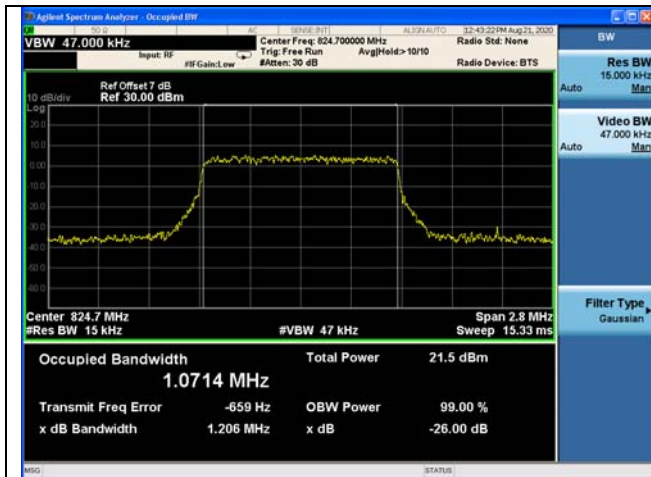


Fig.1



Fig.2



Fig.3

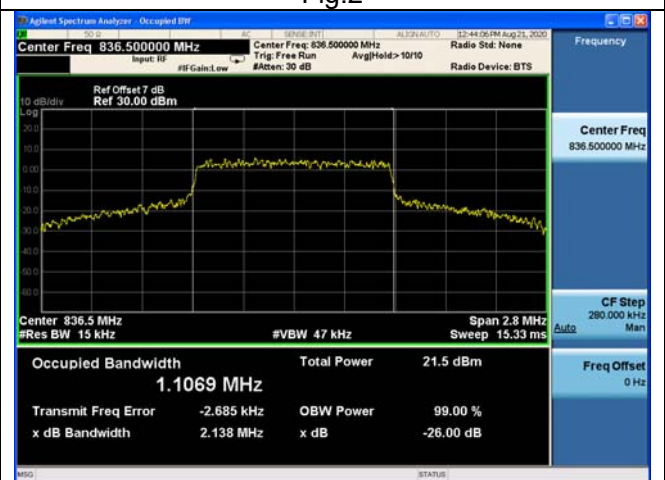


Fig.4

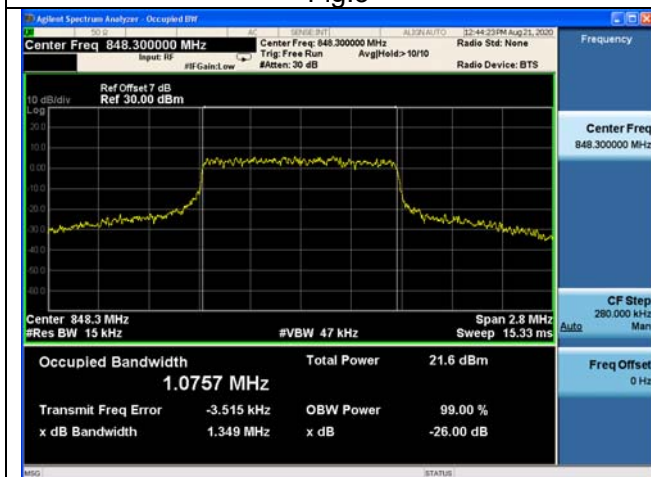


Fig.5



Fig.6

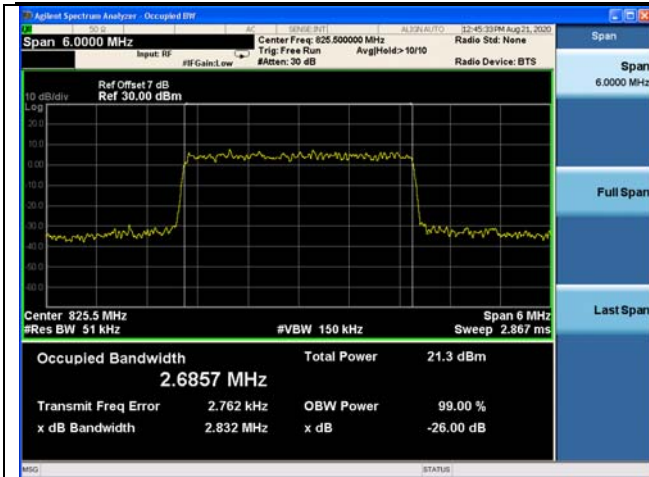


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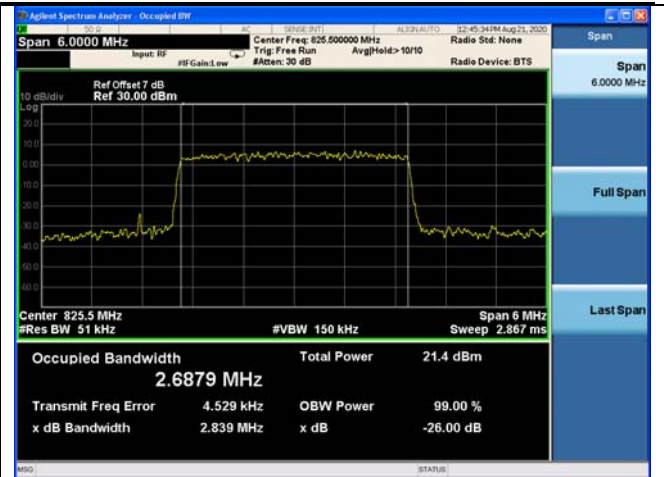


Fig.8

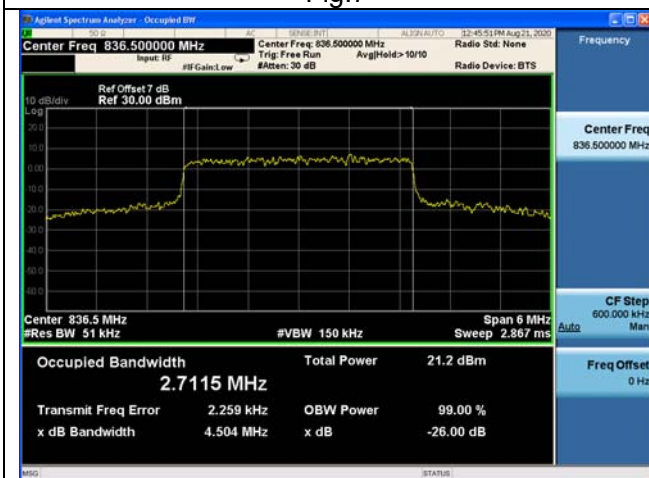


Fig.9



Fig.10

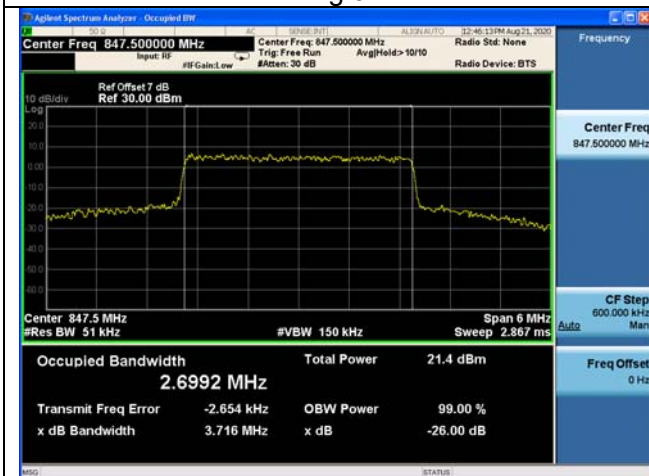


Fig.11



Fig.12

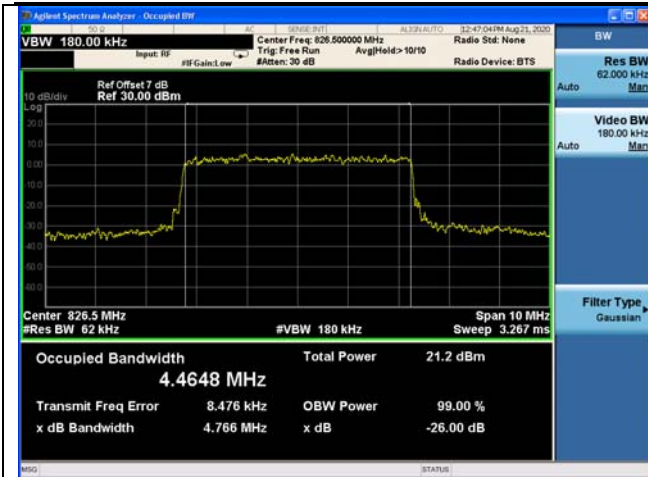


Fig.13

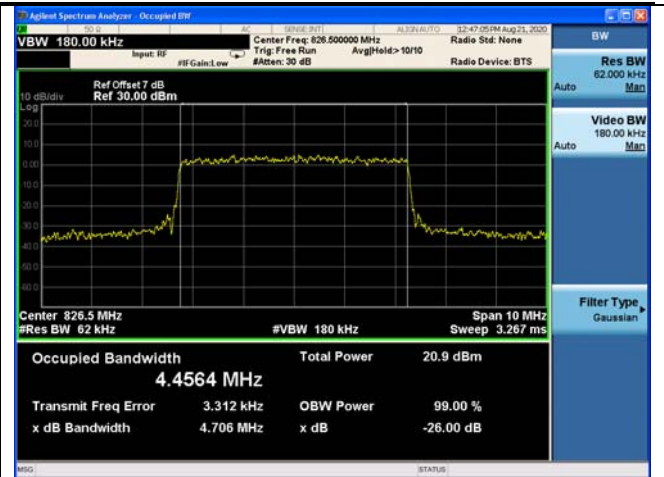


Fig.14

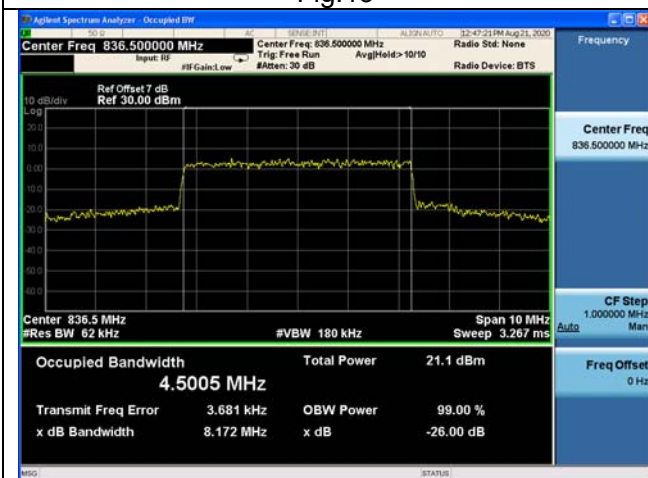


Fig.15

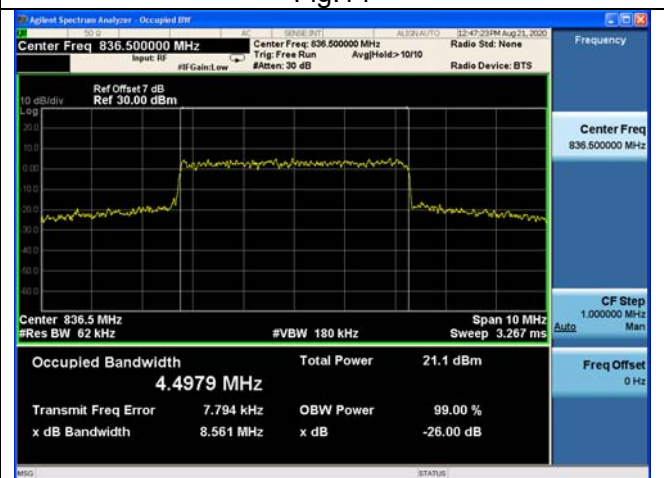


Fig.16

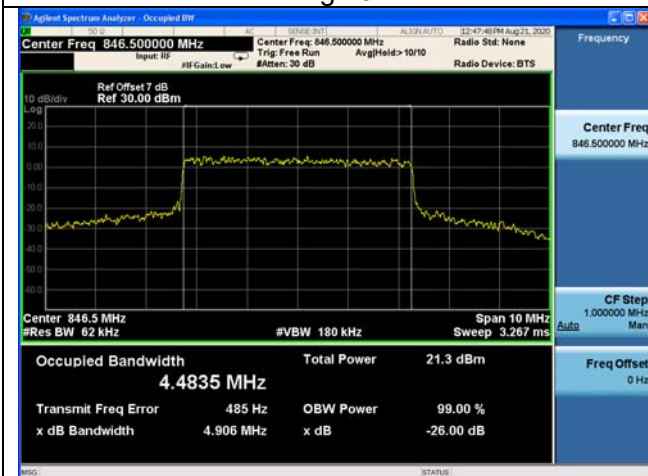


Fig.17



Fig.18

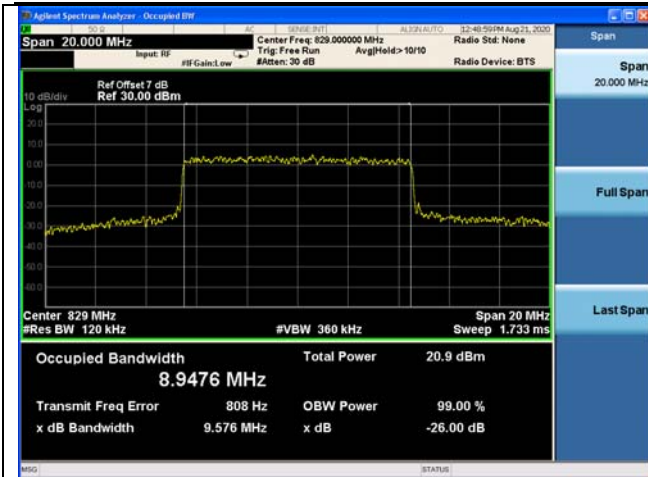


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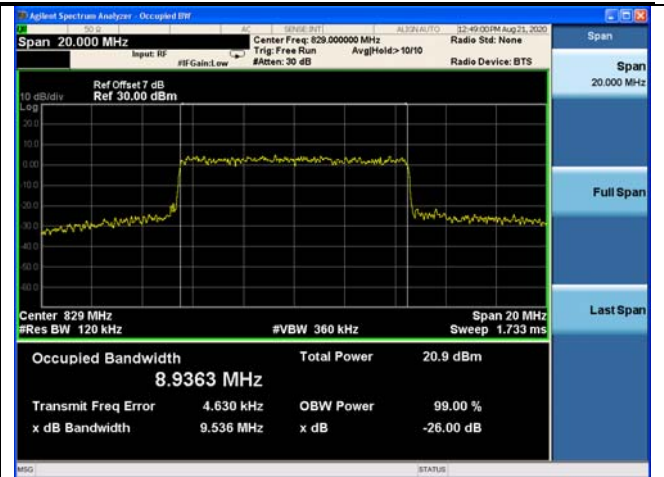


Fig.20

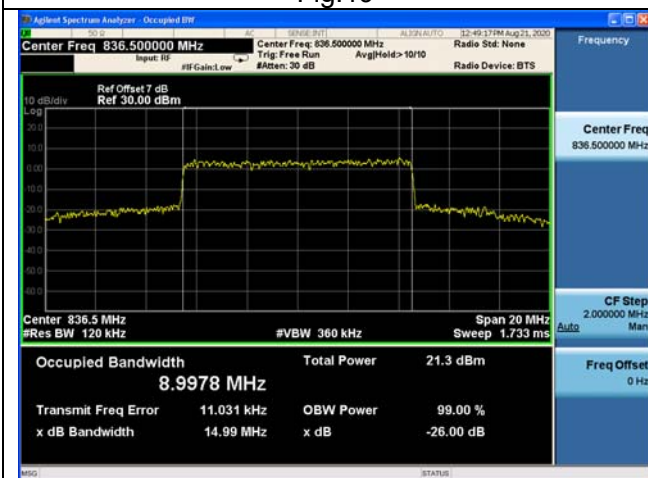


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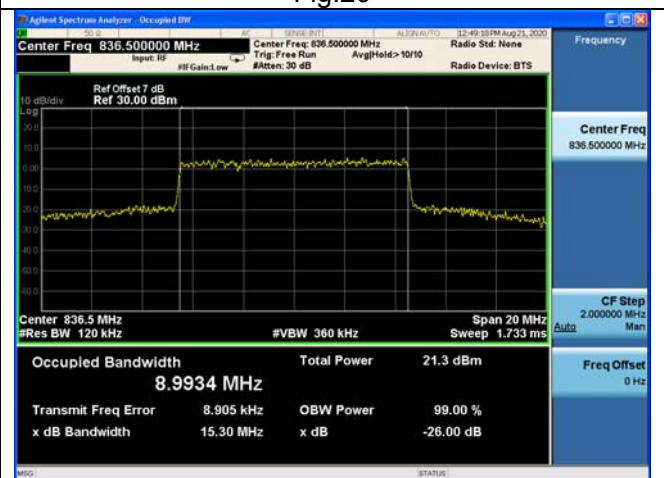


Fig.22



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

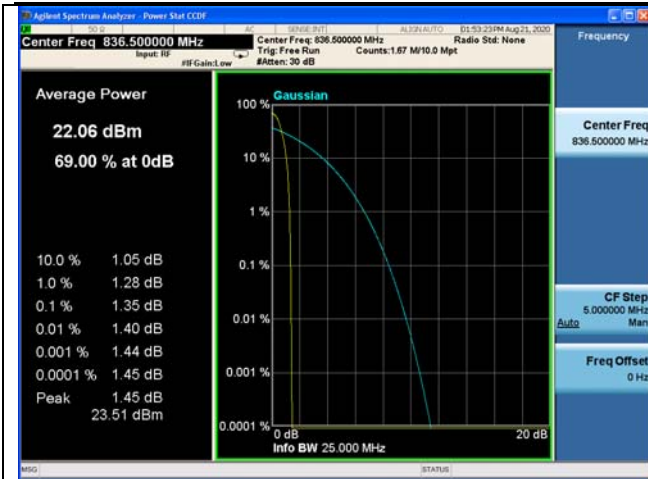


Fig.5

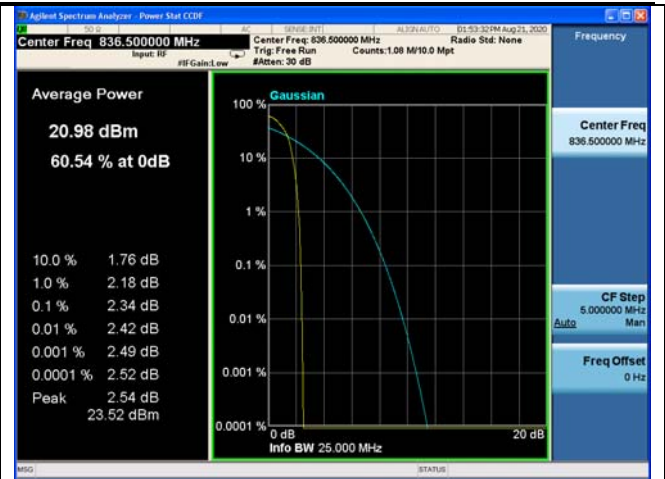


Fig.6



Fig.7

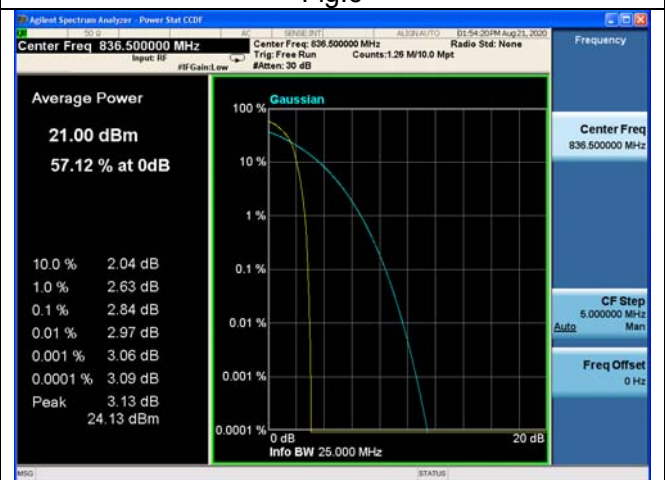


Fig.8

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

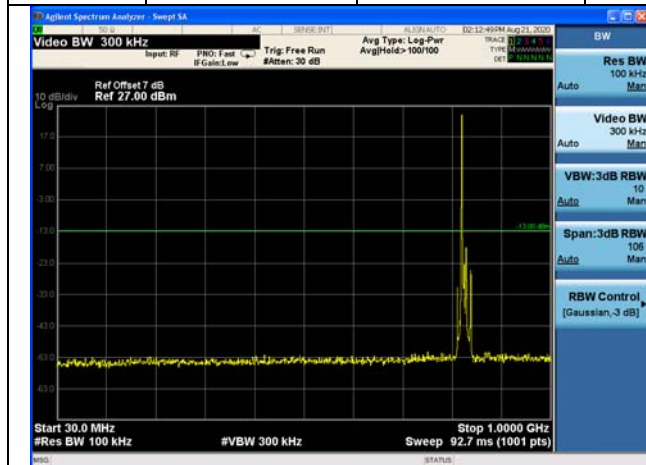


Fig.1

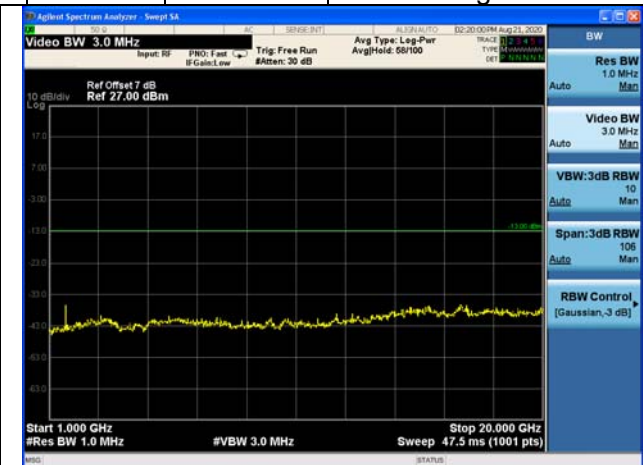


Fig.2

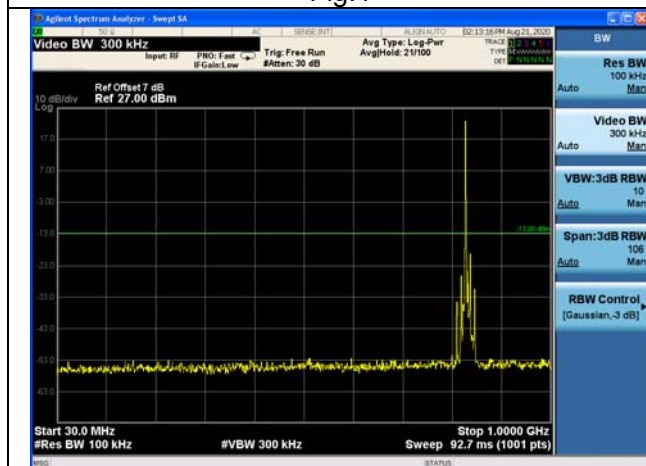


Fig3

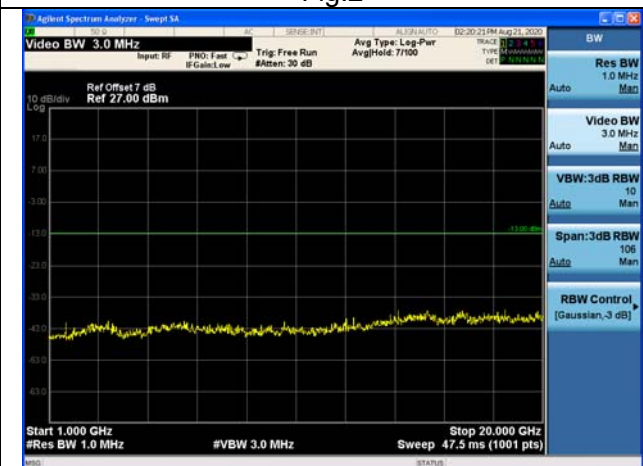


Fig4

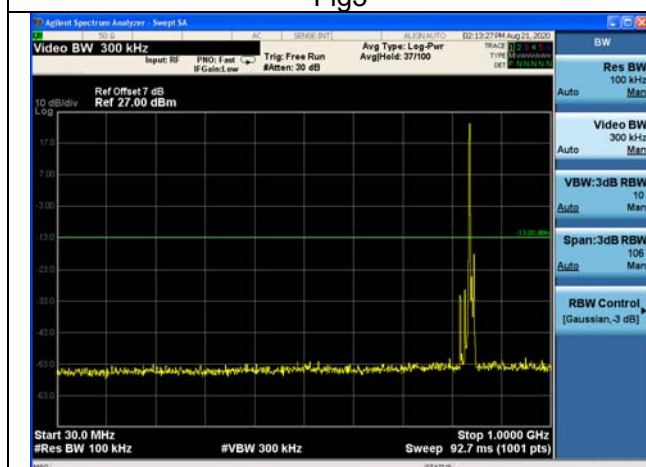


Fig5

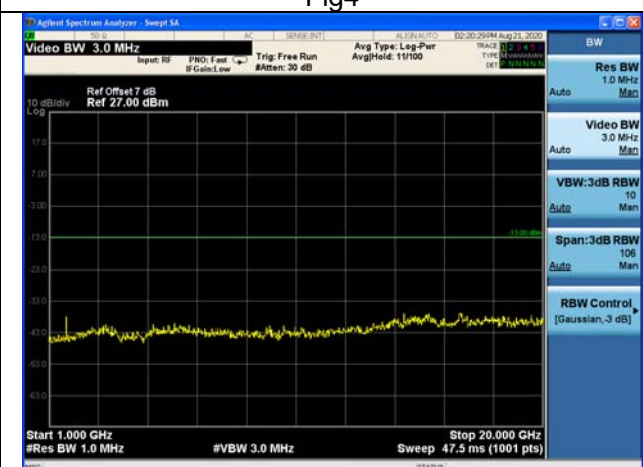


Fig6

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

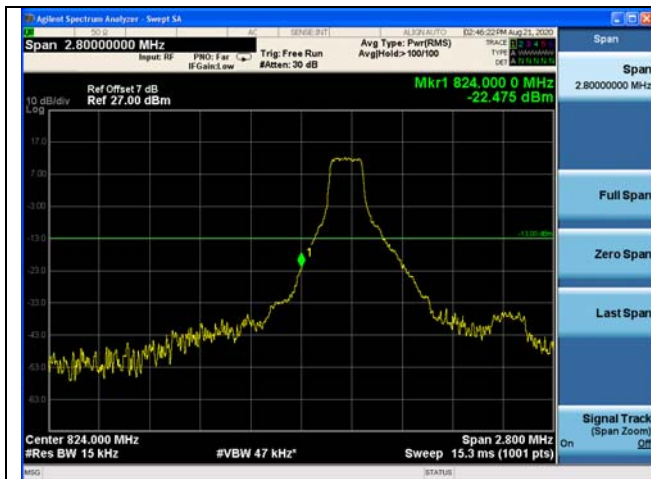


Fig.1



Fig.2

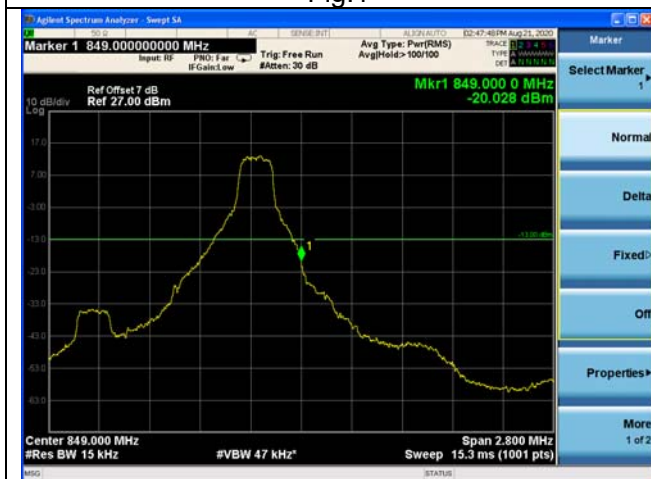


Fig.3

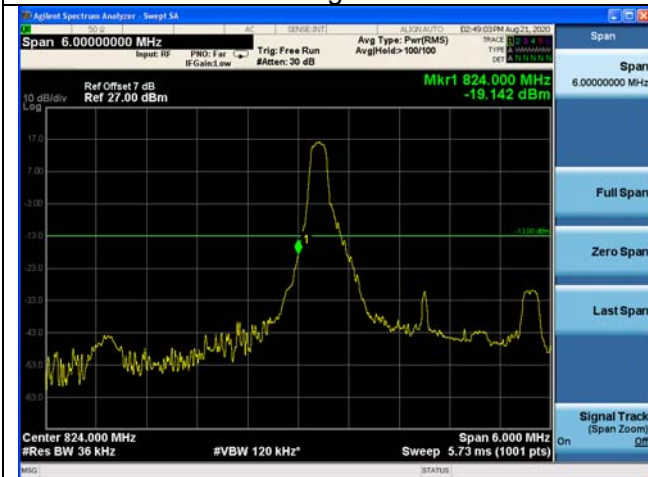


Fig.4



Fig.5



Fig.6



Fig.7

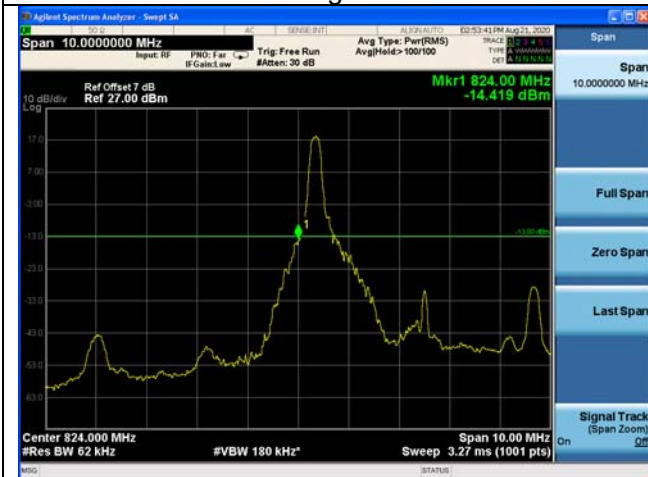


Fig.8

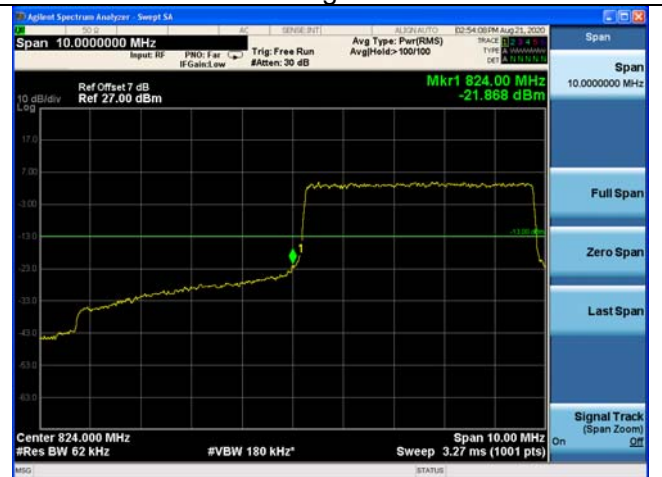


Fig.9

Fig.10

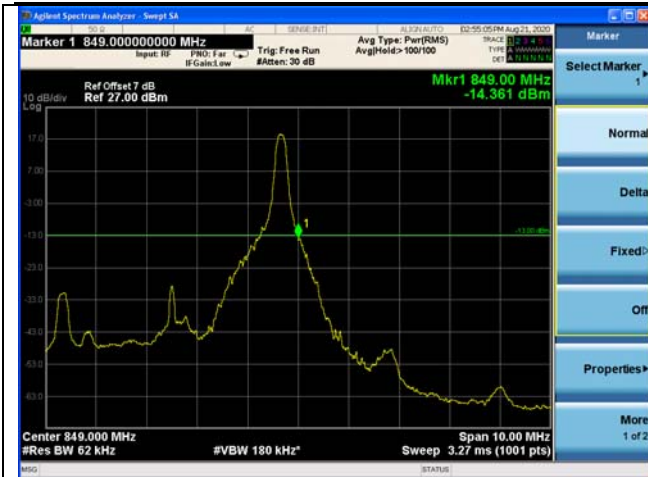


Fig.11



Fig.12

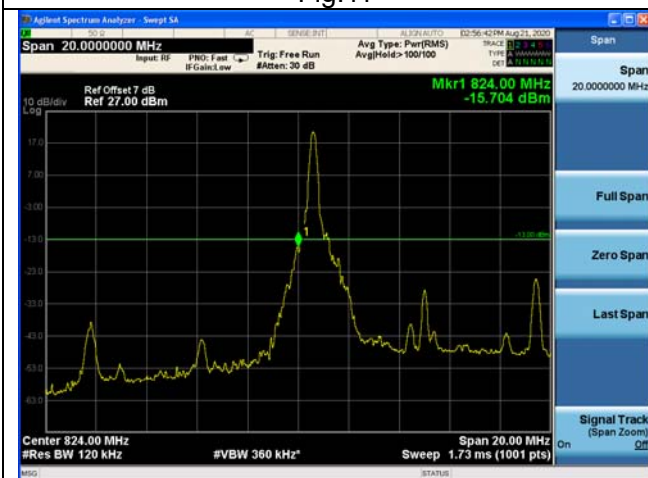


Fig.13



Fig.14



Fig.15



Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band5Low Channel			
		1.4M	3M	5M	10M
-20	NV	0.044	0.060	-0.018	-0.006
-10	NV	0.011	-0.010	-0.047	-0.029
0	NV	0.001	-0.014	-0.028	0.048
+10	NV	-0.064	0.052	-0.083	0.053
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.080	0.078	0.049	0.015
+40	NV	-0.034	0.004	0.026	0.064
+50	NV	0.011	0.027	0.044	-0.048
+20	LV	0.001	-0.023	-0.072	-0.028
+20	HV	-0.029	-0.069	0.077	0.011

Temperature(°C)	Voltage	Test Result (ppm) Band5High annel			
		1.4M	3M	5M	10M
-20	NV	0.008	0.036	0.007	0.044
-10	NV	0.047	0.022	0.050	0.035
0	NV	-0.011	0.010	-0.017	-0.048
+10	NV	0.002	-0.035	0.045	-0.016
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.025	-0.012	-0.016	0.038
+40	NV	-0.033	0.067	0.050	0.013
+50	NV	-0.003	-0.020	0.045	-0.043
+20	LV	0.003	0.008	-0.021	-0.087
+20	HV	0.067	-0.038	-0.058	0.043