

**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	23.33
				1	5	23.41
				3	2	22.85
				6	0	22.80
	836.5	20525		1	0	23.55
				1	5	23.51
				3	2	22.65
				6	0	22.50
	848.3	20643		1	0	23.42
				1	5	23.70
				3	2	22.59
				6	0	22.74
16QAM	824.7	20407	1.4	1	0	23.01
				1	5	22.84
				3	2	21.81
				6	0	21.75
	836.5	20525		1	0	22.84
				1	5	22.81
				3	2	21.58
				6	0	21.73
	848.3	20643		1	0	22.52
				1	5	22.33
				3	2	21.69
				6	0	21.72
64QAM	824.7	20407	1.4	1	0	22.56
				1	5	22.41
				3	2	21.59
				6	0	21.60
	836.5	20525		1	0	22.55
				1	5	22.61
				3	2	21.56
				6	0	21.70
	848.3	20643		1	0	22.60
				1	5	22.83
				3	2	21.67
				6	0	21.67

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	825.5	20415	3	1	0	23.32
				1	14	23.30
				8	4	22.67
				15	0	22.76
	836.5	20525		1	0	23.61
				1	14	23.44
				8	4	22.56
				15	0	22.51
	847.5	20635		1	0	23.54
				1	14	23.74
				8	4	22.65
				15	0	22.61
16QAM	825.5	20415	3	1	0	22.94
				1	14	22.84
				8	4	21.69
				15	0	21.79
	836.5	20525		1	0	22.77
				1	14	22.74
				8	4	21.58
				15	0	21.78
	847.5	20635		1	0	22.58
				1	14	22.31
				8	4	21.75
				15	0	21.58
64QAM	825.5	20415	3	1	0	22.53
				1	14	22.33
				8	4	21.69
				15	0	21.57
	836.5	20525		1	0	22.67
				1	14	22.56
				8	4	21.55
				15	0	21.63
	847.5	20635		1	0	22.58
				1	14	22.80
				8	4	21.65
				15	0	21.74

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	826.5	20425	5	1	0	23.38
				1	24	23.37
				12	6	22.70
				25	0	22.70
	836.5	20525		1	0	23.67
				1	24	23.55
				12	6	22.67
				25	0	22.61
	846.5	20625		1	0	23.42
				1	24	23.74
				12	6	22.73
				25	0	22.62
16QAM	826.5	20425	5	1	0	23.04
				1	24	23.00
				12	6	21.63
				25	0	21.81
	836.5	20525		1	0	22.92
				1	24	22.76
				12	6	21.68
				25	0	21.78
	846.5	20625		1	0	22.42
				1	24	22.41
				12	6	21.66
				25	0	21.60
64QAM	826.5	20425	5	1	0	22.47
				1	24	22.33
				12	6	21.61
				25	0	21.69
	836.5	20525		1	0	22.53
				1	24	22.54
				12	6	21.64
				25	0	21.68
	846.5	20625		1	0	22.56
				1	24	22.75
				12	6	21.66
				25	0	21.62

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	829	20450	10	1	0	23.61
				1	49	23.59
				24	12	22.96
				50	0	22.91
	836.5	20525		1	0	23.78
				1	49	23.67
				24	12	22.83
				50	0	22.79
	844	20600		1	0	23.67
				1	49	23.88
				24	12	22.87
				50	0	22.85
16QAM	829	20450	10	1	0	23.20
				1	49	23.13
				24	12	21.92
				50	0	21.93
	836.5	20525		1	0	23.06
				1	49	22.93
				24	12	21.82
				50	0	21.90
	844	20600		1	0	22.69
				1	49	22.58
				24	12	21.91
				50	0	21.84
64QAM	829	20450	10	1	0	22.70
				1	49	22.59
				24	12	21.87
				50	0	21.84
	836.5	20525		1	0	22.80
				1	49	22.78
				24	12	21.82
				50	0	21.91
	844	20600		1	0	22.71
				1	49	22.97
				24	12	21.90
				50	0	21.91

## 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	1.0791	Fig.1	1.0795	Fig.2	1.0728	Fig.3
	836.5	20525		6	0	1.0795	Fig.4	1.0792	Fig.5	1.0753	Fig.6
	848.3	20643		6	0	1.0800	Fig.7	1.0782	Fig.8	1.0781	Fig.9
	825.5	20415	3	15	0	2.6801	Fig.10	2.6893	Fig.11	2.6931	Fig.12
	836.5	20525		15	0	2.6816	Fig.13	2.6830	Fig.14	2.6925	Fig.15
	847.5	20635		15	0	2.6806	Fig.16	2.6841	Fig.17	2.6785	Fig.18
	826.5	20425	5	25	0	4.4666	Fig.19	4.4633	Fig.20	4.4778	Fig.21
	836.5	20525		25	0	4.4683	Fig.22	4.4757	Fig.23	4.4672	Fig.24
	846.5	20625		25	0	4.4729	Fig.25	4.4699	Fig.26	4.4665	Fig.27
	829	20450	10	50	0	8.9593	Fig.28	8.9201	Fig.29	8.9372	Fig.30
836.5	20525	50		0	8.9311	Fig.31	8.9314	Fig.32	8.9143	Fig.33	
844	20600	50		0	8.9570	Fig.34	8.9541	Fig.35	8.9572	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	1.235	Fig.1	1.226	Fig.2	1.230	Fig.3
	836.5	20525		6	0	1.227	Fig.4	1.255	Fig.5	1.235	Fig.6
	848.3	20643		6	0	1.248	Fig.7	1.230	Fig.8	1.240	Fig.9
	825.5	20415	3	15	0	2.889	Fig.10	2.880	Fig.11	2.886	Fig.12
	836.5	20525		15	0	2.862	Fig.13	2.887	Fig.14	2.889	Fig.15
	847.5	20635		15	0	2.892	Fig.16	2.871	Fig.17	2.899	Fig.18
	826.5	20425	5	25	0	4.789	Fig.19	4.800	Fig.20	4.778	Fig.21
	836.5	20525		25	0	4.807	Fig.22	4.835	Fig.23	4.798	Fig.24
	846.5	20625		25	0	4.834	Fig.25	4.835	Fig.26	4.818	Fig.27
	829	20450	10	50	0	9.577	Fig.28	9.519	Fig.29	9.598	Fig.30
836.5	20525	50		0	9.522	Fig.31	9.567	Fig.32	9.587	Fig.33	
844	20600	50		0	9.556	Fig.34	9.555	Fig.35	9.586	Fig.36	

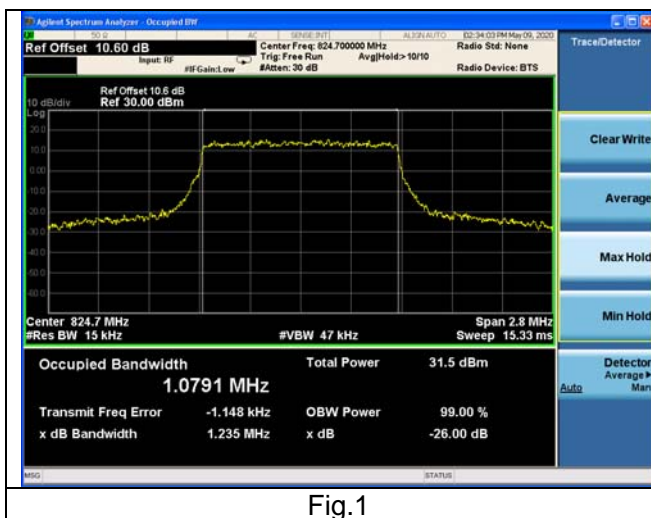


Fig.1

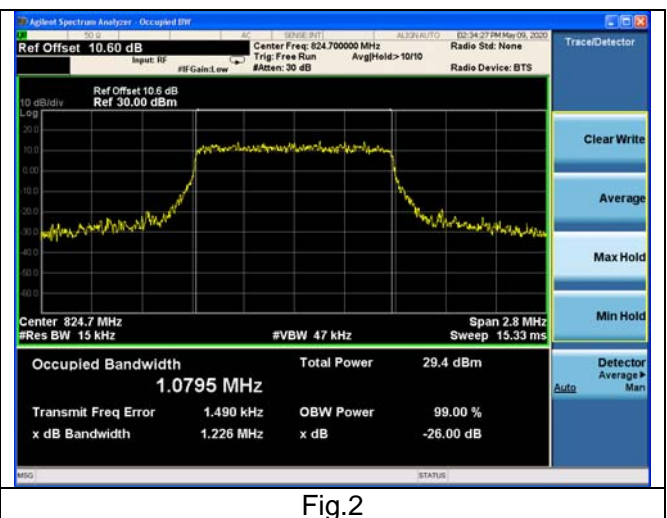


Fig.2

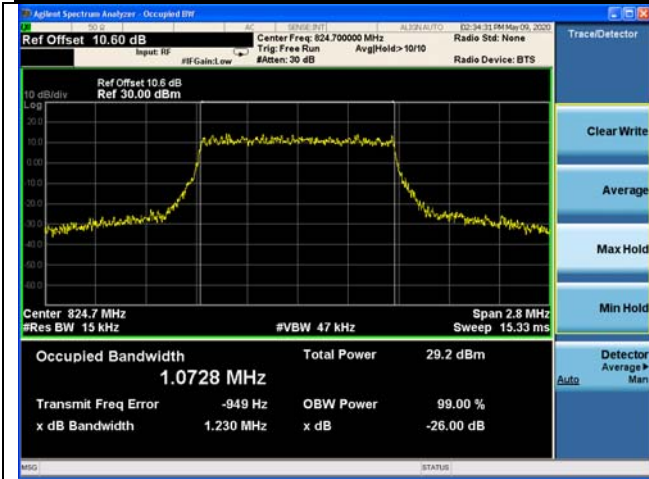


Fig.3



Fig.4

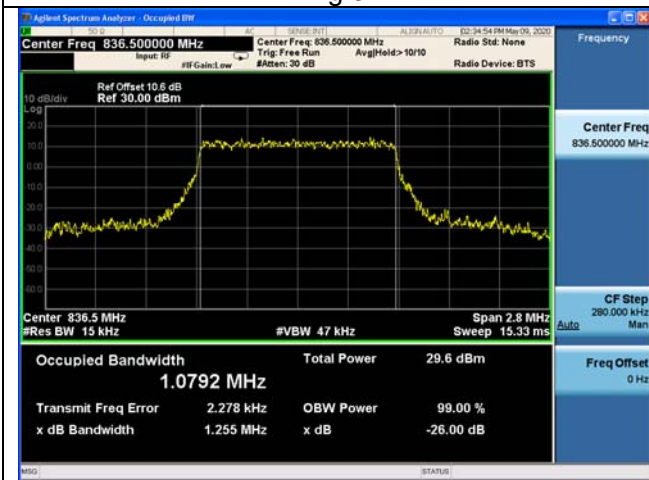


Fig.5

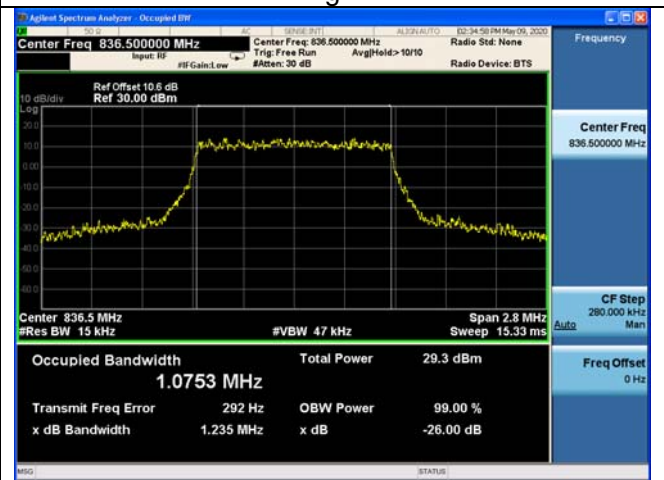


Fig.6

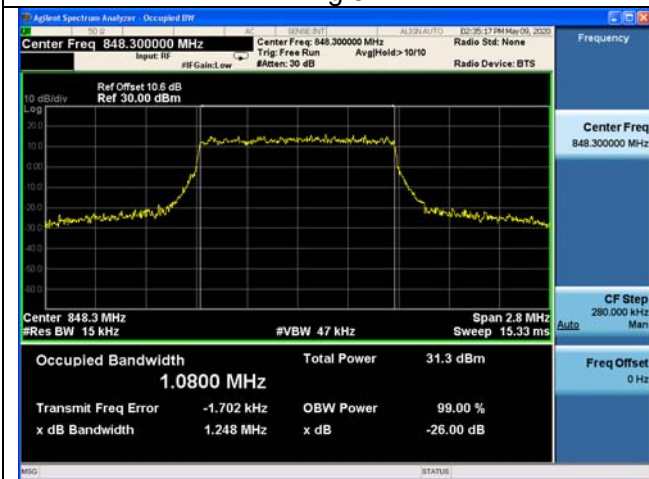


Fig.7



Fig.8

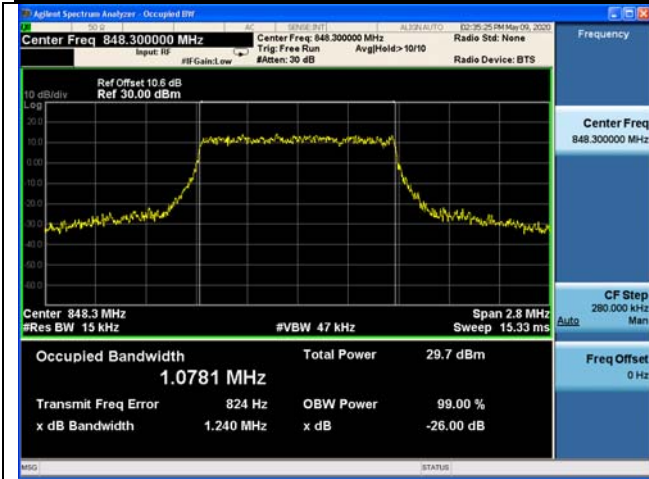


Fig.9

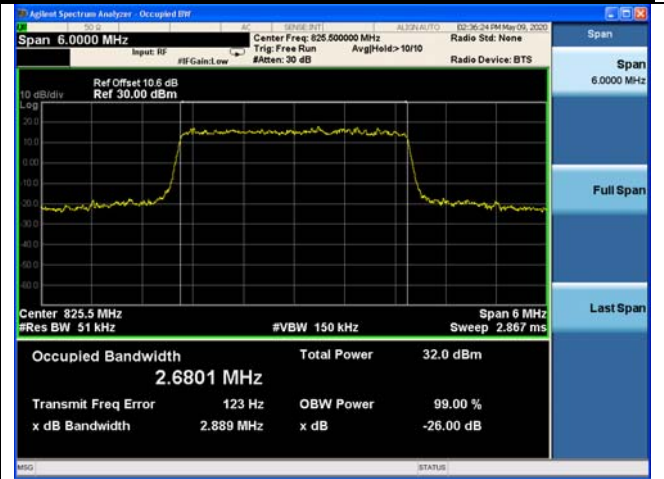


Fig.10

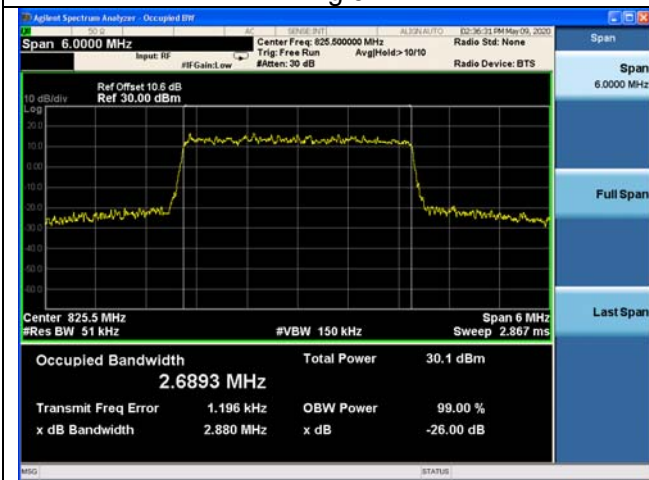


Fig.11

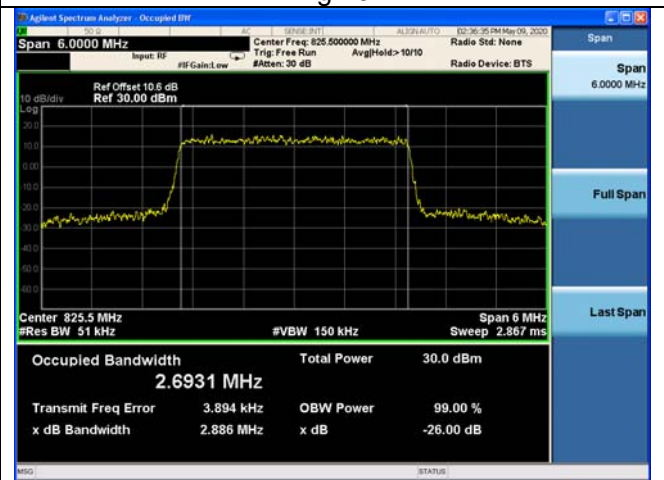


Fig.12

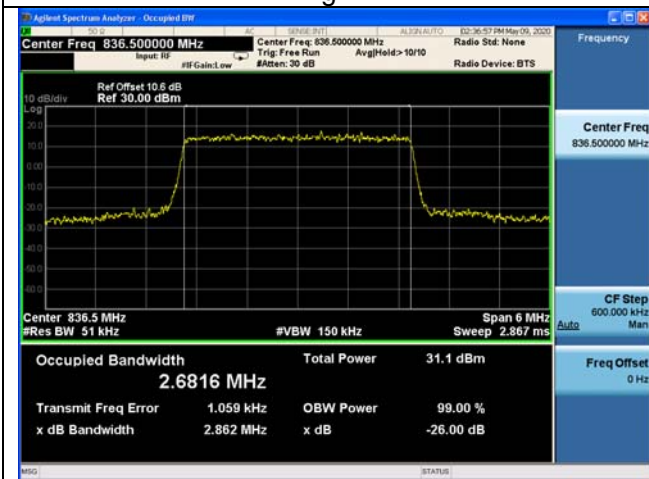


Fig.13

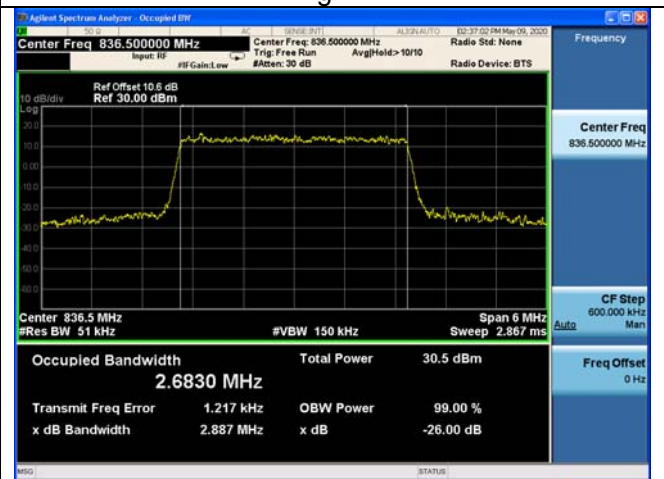


Fig.14

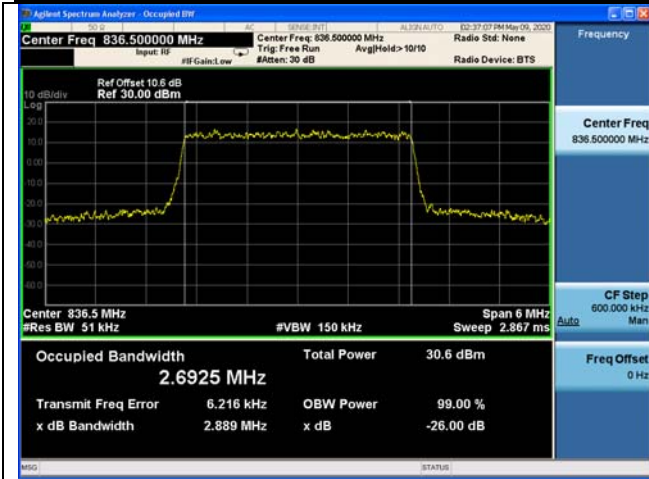


Fig.15



Fig.16

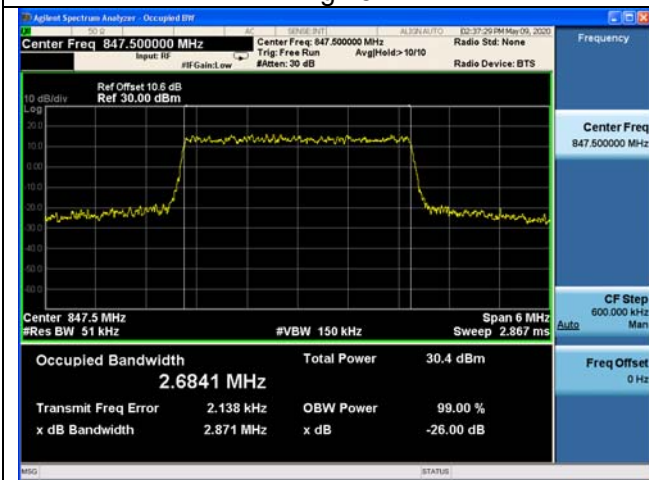


Fig.17

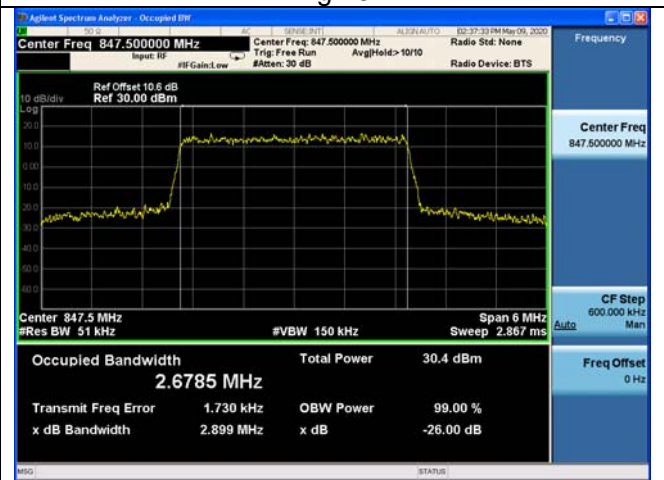


Fig.18

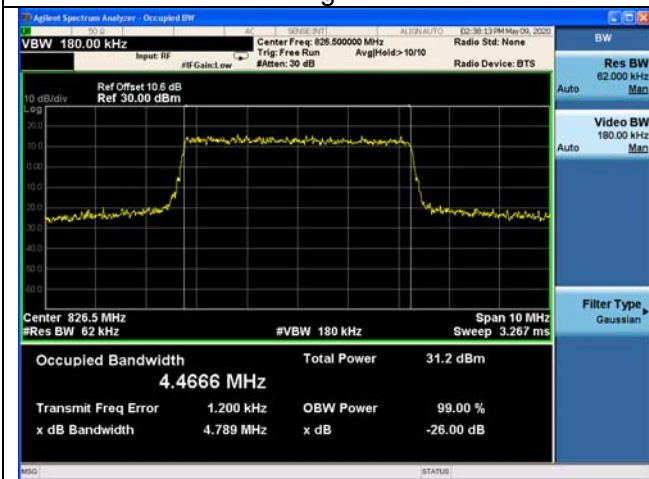


Fig.19

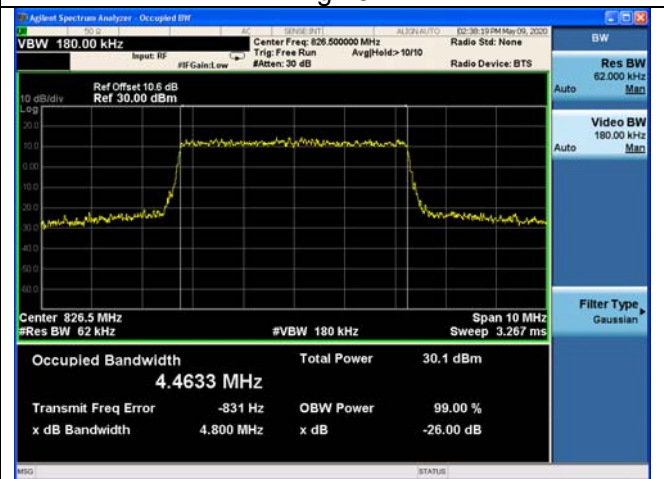


Fig.20



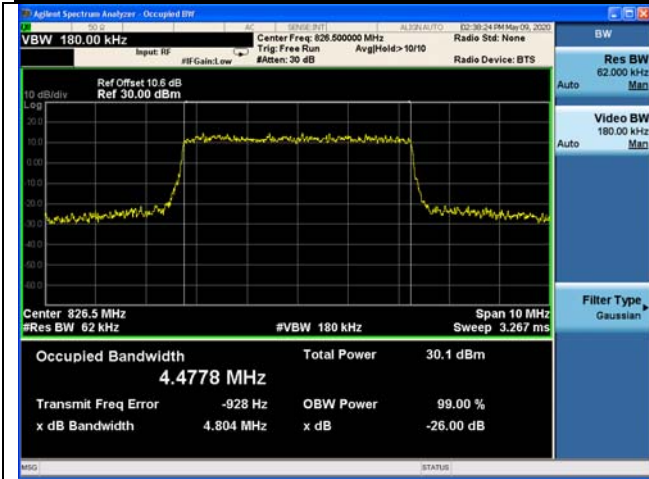


Fig.21



Fig.22

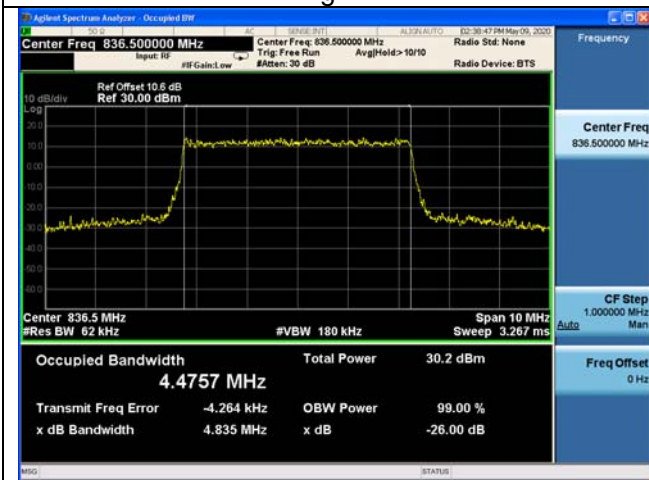


Fig.23

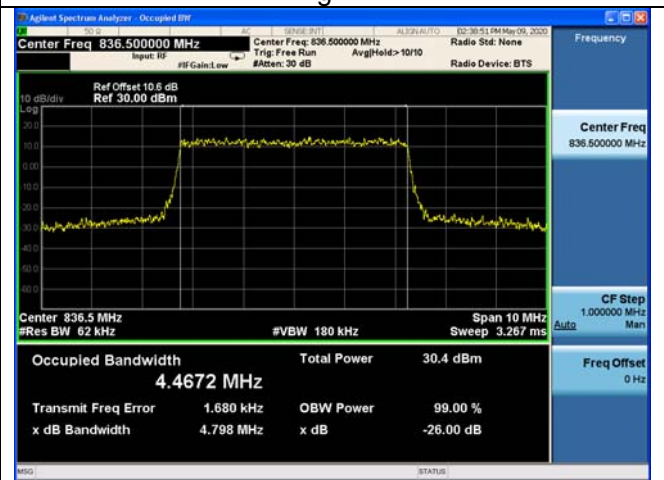


Fig.24

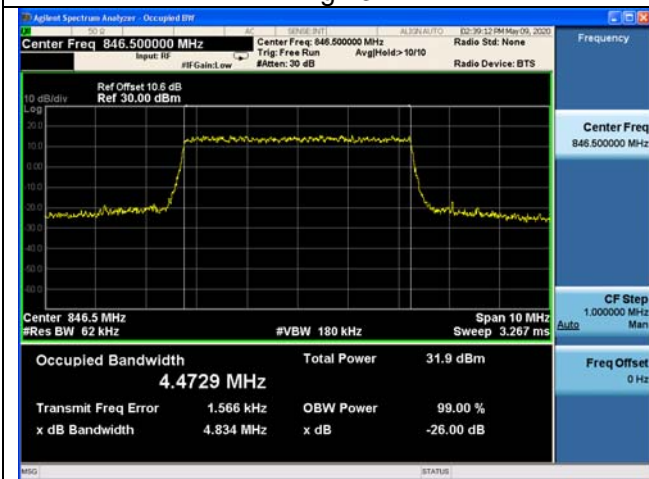


Fig.25

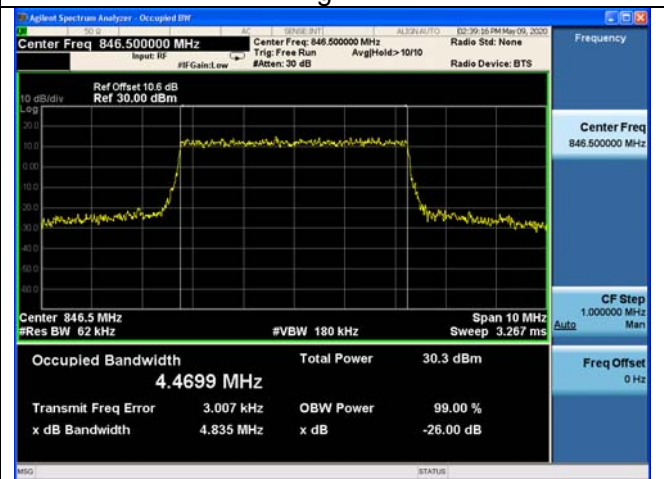


Fig.26

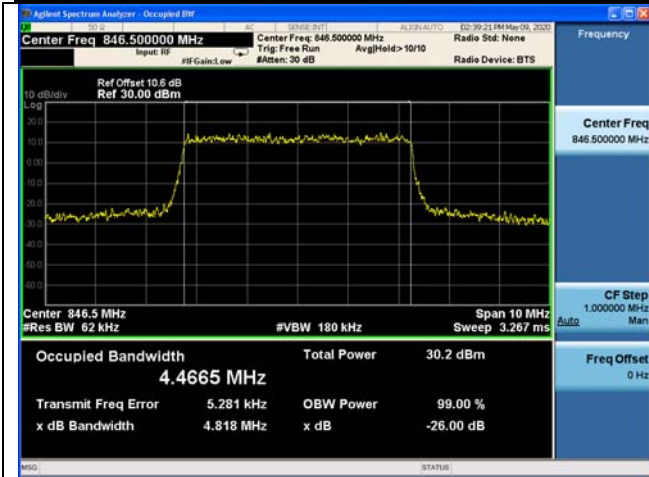


Fig.27



Fig.28

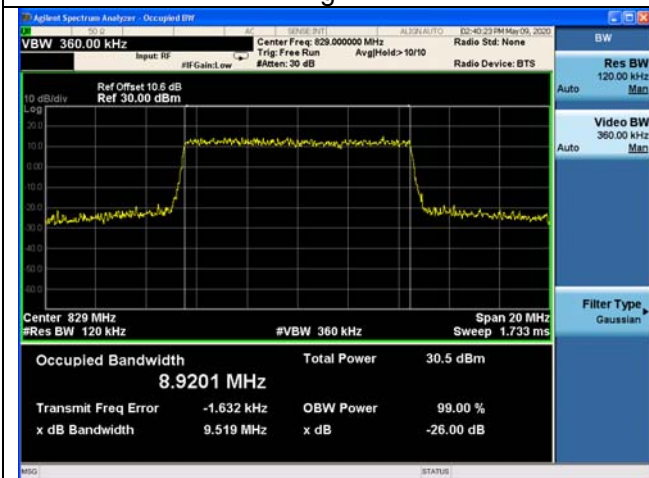


Fig.29

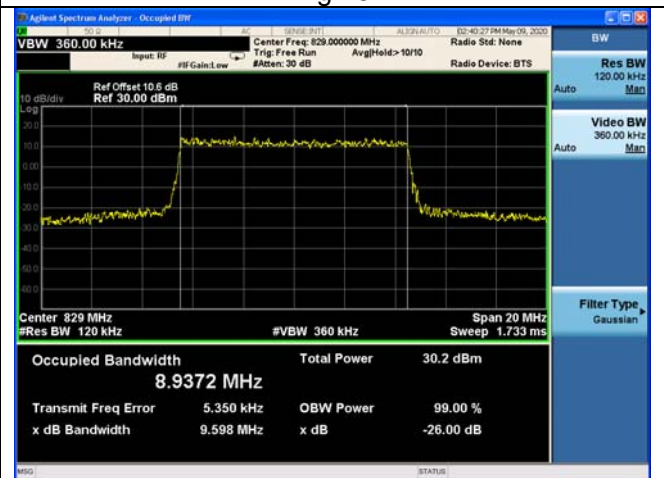


Fig.30

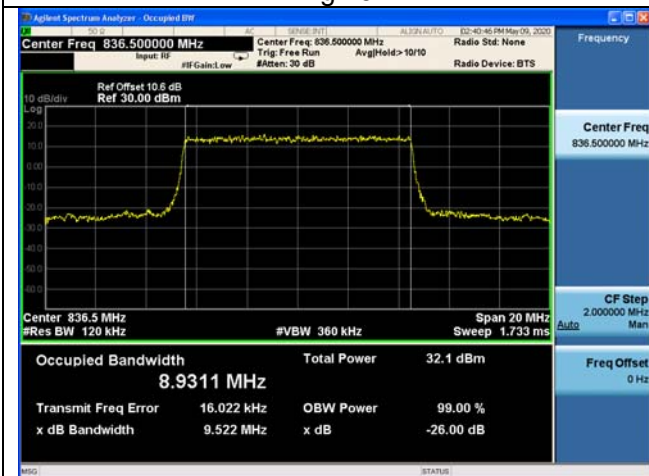


Fig.31

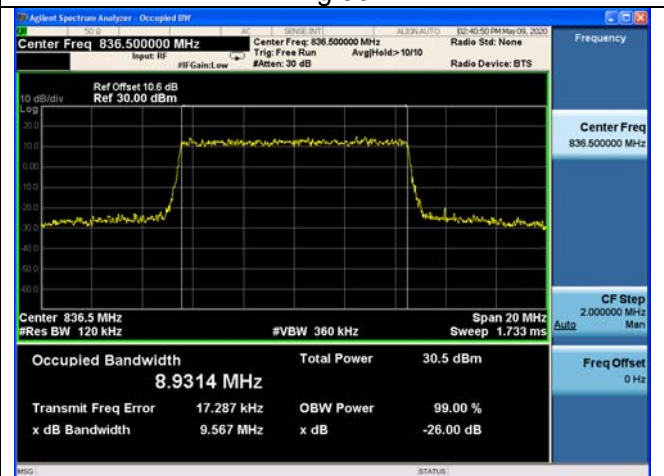


Fig.32

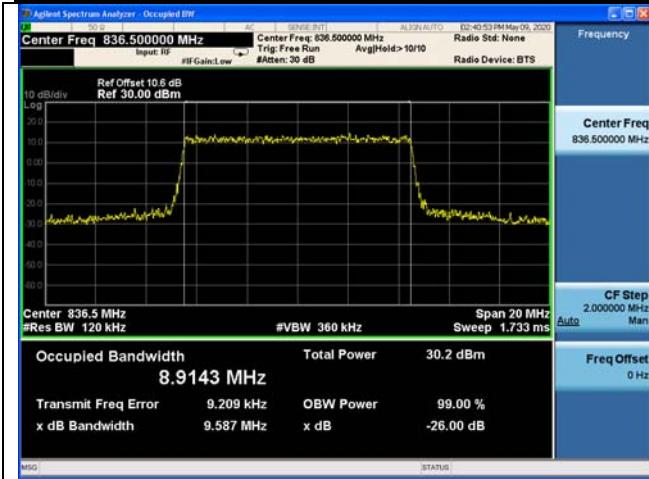


Fig.33



Fig.34

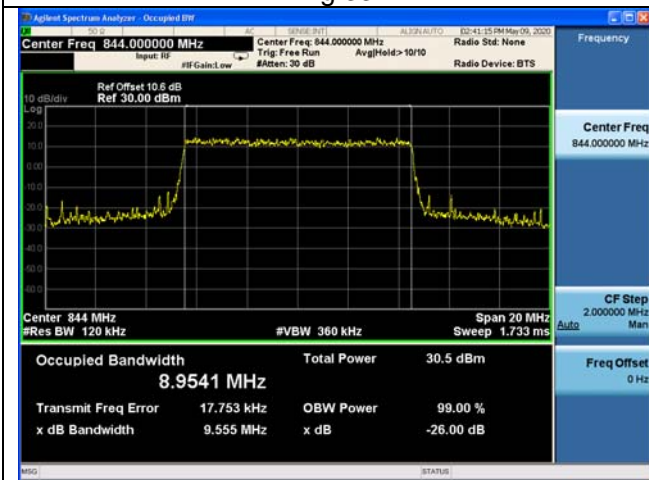


Fig.35

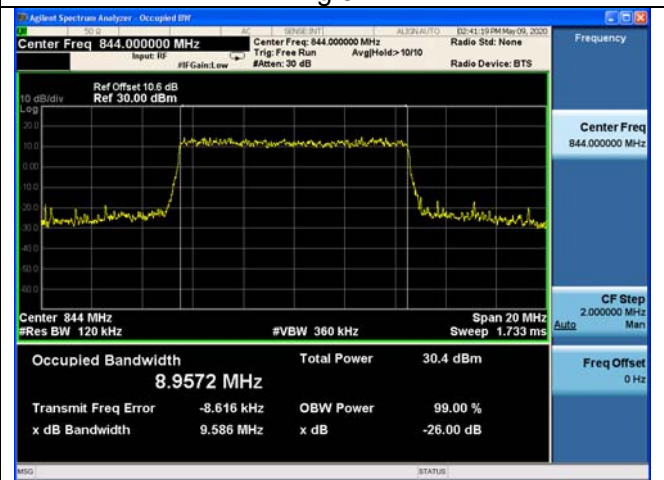


Fig.36

### 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

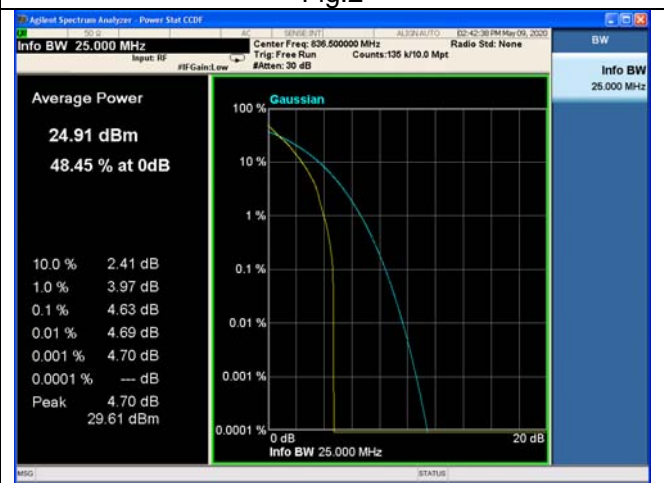
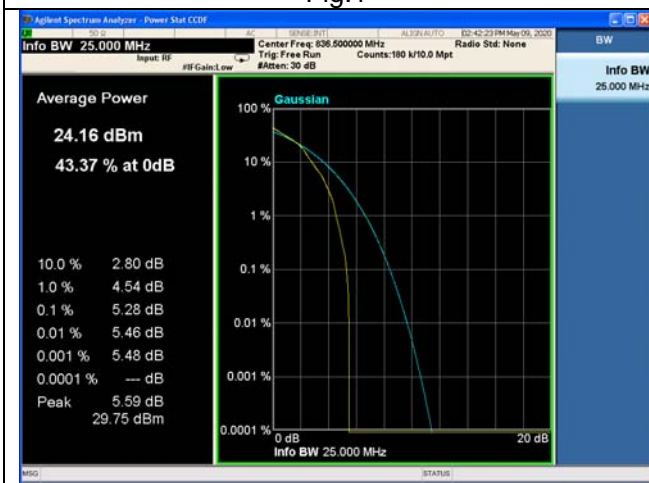




Fig.5

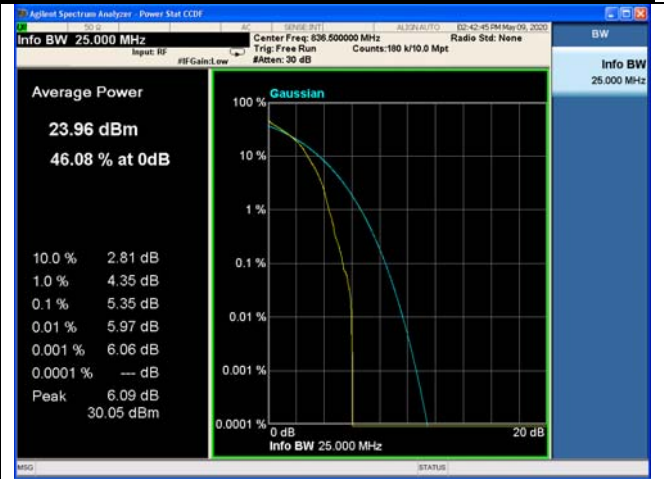


Fig.6



Fig.7



Fig.8



Fig.9

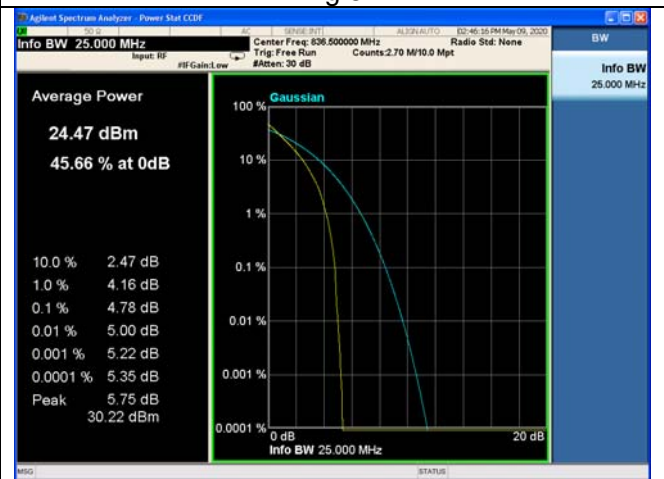


Fig.10



Fig.11

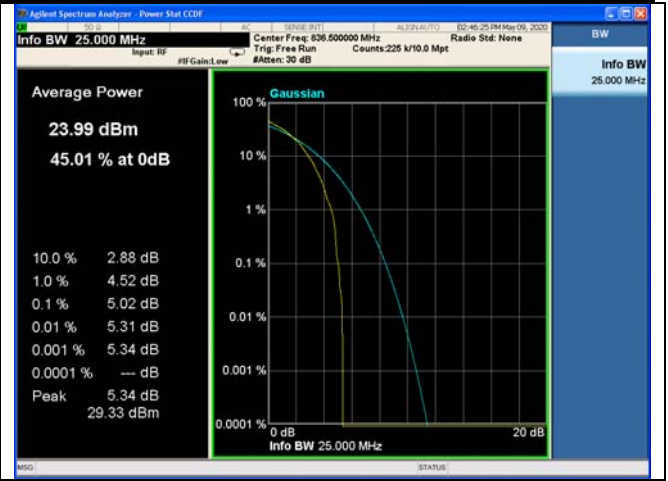


Fig.12

**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

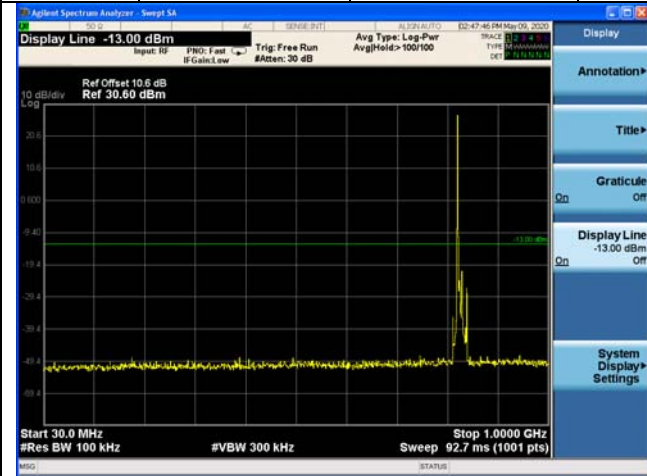


Fig.1

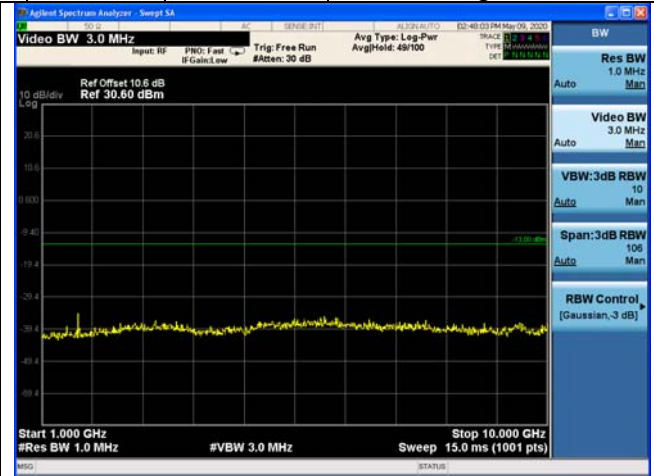


Fig.2

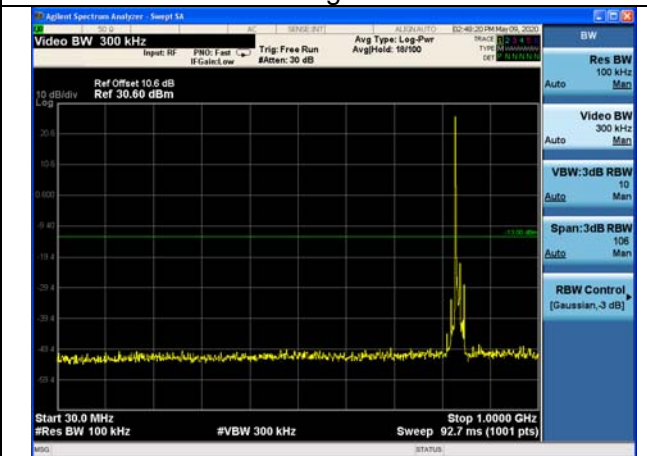


Fig3

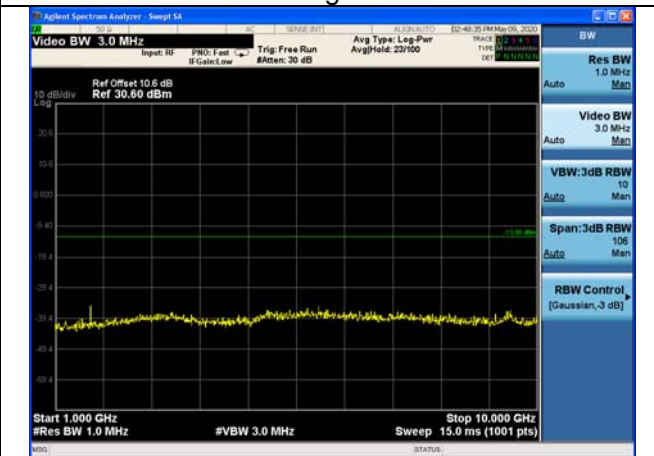


Fig4

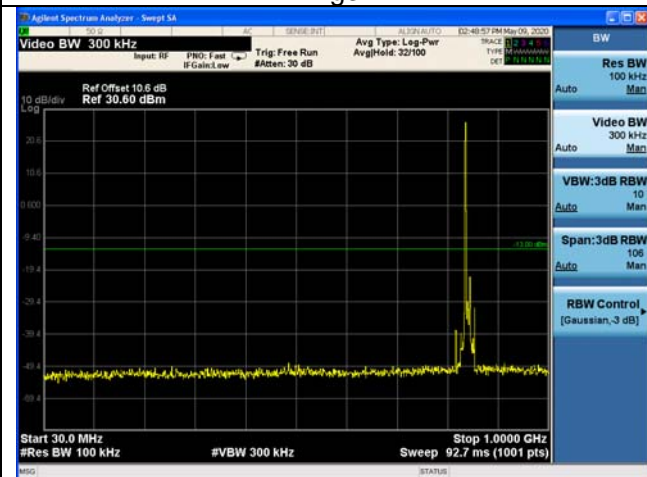


Fig5

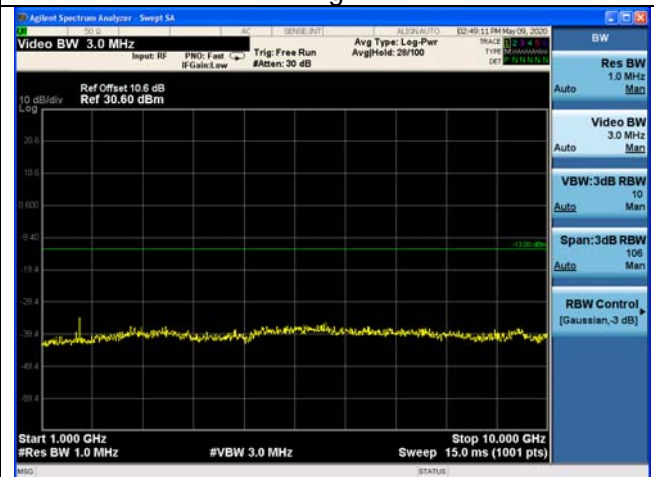


Fig6

**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

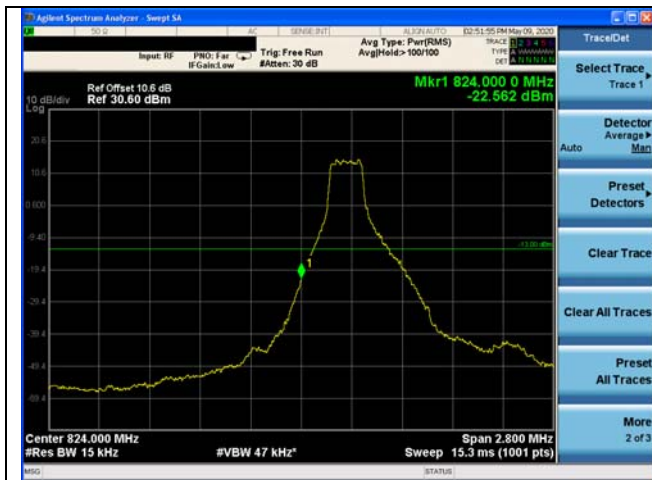


Fig.1



Fig.2





Fig.3



Fig.4



Fig.5



Fig.6



Fig.7



Fig.8

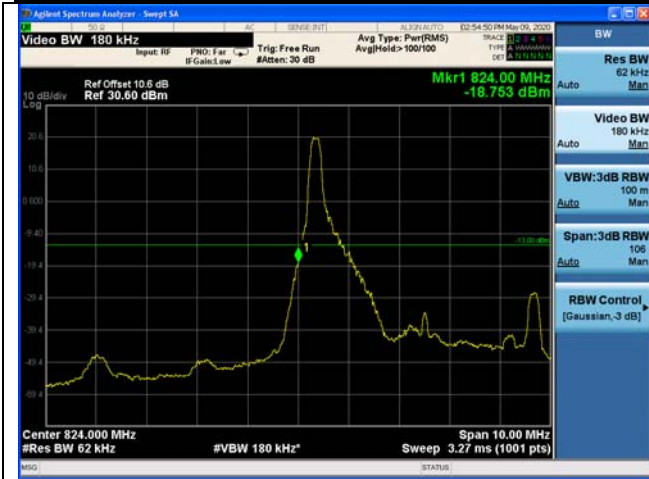


Fig.9



Fig.10



Fig.11



Fig.12



Fig.13

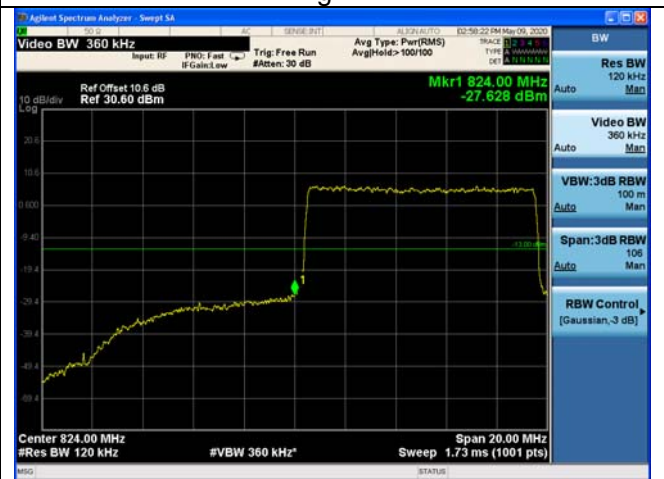


Fig.14



Fig.15

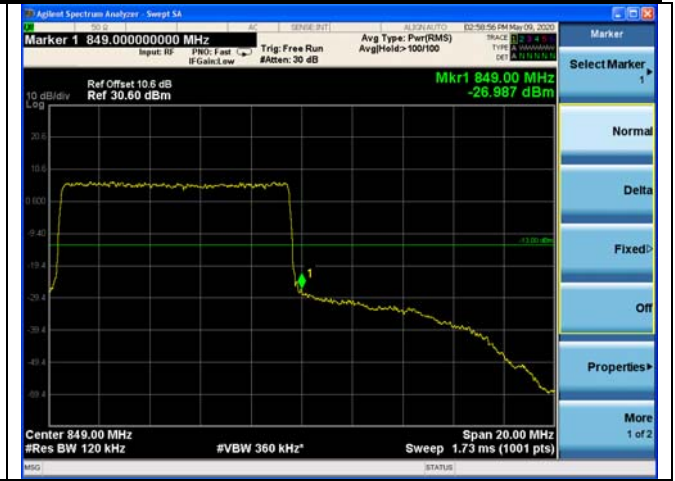


Fig.16

## 6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band5Low Channel			
		1.4M	3M	5M	10M
-10	NV	0.040	0.071	-0.058	0.003
0	NV	-0.061	0.055	-0.048	-0.023
+10	NV	-0.037	-0.054	0.082	0.027
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.021	0.046	-0.024	-0.031
+40	NV	0.015	-0.024	0.014	0.010
+50	NV	-0.038	0.018	0.027	-0.001
+55	NV	-0.004	-0.060	0.062	0.013
+20	LV	0.056	-0.079	-0.014	-0.015
+20	HV	-0.017	0.030	0.086	0.042

Temperature(°C)	Voltage	Test Result (ppm) Band5High annel			
		1.4M	3M	5M	10M
-10	NV	0.013	0.011	-0.032	-0.017
0	NV	0.008	0.035	0.059	0.040
+10	NV	0.012	-0.011	-0.064	0.017
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.077	0.007	0.069	-0.002
+40	NV	0.029	-0.005	0.069	-0.048
+50	NV	-0.037	-0.023	-0.032	0.054
+55	NV	0.032	0.002	0.042	0.008
+20	LV	-0.017	0.012	0.056	-0.010
+20	HV	-0.032	-0.045	0.040	0.059