

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 12 1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	699.7	23017	1.4	1	0	22.96
				1	5	22.96
				3	2	22.28
				6	0	22.23
	707.5	23095		1	0	22.93
				1	5	22.95
				3	2	22.07
				6	0	22.25
	715.3	23173		1	0	22.74
				1	5	22.89
				3	2	22.26
				6	0	22.18
16QAM	699.7	23017	1.4	1	0	22.05
				1	5	22.29
				3	2	21.52
				6	0	21.24
	707.5	23095		1	0	22.14
				1	5	22.19
				3	2	21.16
				6	0	21.23
	715.3	23173		1	0	21.94
				1	5	22.21
				3	2	21.26
				6	0	21.10
64QAM	699.7	23017	1.4	1	0	22.07
				1	5	22.17
				3	2	21.52
				6	0	21.30
	707.5	23095		1	0	22.16
				1	5	22.10
				3	2	21.33
				6	0	21.26
	715.3	23173		1	0	21.88
				1	5	22.08
				3	2	21.34
				6	0	21.15

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	700.5	23025	3	1	0	22.88
				1	14	23.10
				8	4	22.32
	707.5	23095		15	0	22.24
				1	0	22.89
				1	14	22.97
	714.5	23165		8	4	22.19
				15	0	22.26
				1	0	22.79
16QAM	700.5	23025	3	1	0	22.06
				1	14	22.28
				8	4	21.50
	707.5	23095		15	0	21.24
				1	0	22.14
				1	14	22.26
	714.5	23165		8	4	21.14
				15	0	21.16
				1	0	21.88
64QAM	700.5	23025	3	1	14	22.14
				8	4	21.32
				15	0	21.08
	707.5	23095		1	0	22.05
				1	14	22.11
				8	4	21.61
	714.5	23165		15	0	21.34
				1	0	22.11
				1	14	22.15
			8	4	21.29	
			15	0	21.23	
			1	0	21.88	
			1	14	22.12	
			8	4	21.35	
			15	0	21.18	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	701.5	23035	5	1	0	22.92
				1	24	23.05
				12	6	22.33
				25	0	22.25
	707.5	23095		1	0	22.87
				1	24	22.96
				12	6	22.21
				25	0	22.37
	713.5	23155		1	0	22.80
				1	24	22.92
				12	6	22.22
				25	0	22.19
16QAM	701.5	23035	5	1	0	22.04
				1	24	22.41
				12	6	21.54
				25	0	21.18
	707.5	23095		1	0	22.15
				1	24	22.18
				12	6	21.13
				25	0	21.21
	713.5	23155		1	0	21.83
				1	24	22.16
				12	6	21.34
				25	0	21.15
64QAM	701.5	23035	5	1	0	21.94
				1	24	22.23
				12	6	21.49
				25	0	21.33
	707.5	23095		1	0	22.12
				1	24	22.08
				12	6	21.38
				25	0	21.18
	713.5	23155		1	0	21.86
				1	24	22.19
				12	6	21.38
				25	0	21.11

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	704	23060	10	1	0	22.96
				1	49	23.11
				24	12	22.34
				50	0	22.36
	707.5	23095		1	0	22.98
				1	49	23.02
				24	12	22.21
				50	0	22.38
	711	23130		1	0	22.85
				1	49	22.93
				24	12	22.27
				50	0	22.24
16QAM	704	23060	10	1	0	22.16
				1	49	22.42
				24	12	21.59
				50	0	21.28
	707.5	23095		1	0	22.27
				1	49	22.32
				24	12	21.25
				50	0	21.28
	711	23130		1	0	21.98
				1	49	22.25
				24	12	21.35
				50	0	21.15
64QAM	704	23060	10	1	0	22.08
				1	49	22.23
				24	12	21.62
				50	0	21.40
	707.5	23095		1	0	22.23
				1	49	22.18
				24	12	21.41
				50	0	21.29
	711	23130		1	0	21.98
				1	49	22.21
				24	12	21.38
				50	0	21.24

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	
12	699.7	23017	1.4	6	0	1.0808	Fig.1	1.0788	Fig.2	1.0786	Fig.3
	707.5	23095		6	0	1.0783	Fig.4	1.0790	Fig.5	1.0784	Fig.6
	715.3	23173		6	0	1.0794	Fig.7	1.0786	Fig.8	1.0823	Fig.9
	700.5	23025	3	15	0	2.7008	Fig.10	2.6981	Fig.11	2.7003	Fig.12
	707.5	23095		15	0	2.6992	Fig.13	2.6985	Fig.14	2.7011	Fig.15
	714.5	23165		15	0	2.6964	Fig.16	2.6969	Fig.17	2.6884	Fig.18
	701.5	23035	5	25	0	4.4680	Fig.19	4.4656	Fig.20	4.4566	Fig.21
	707.5	23095		25	0	4.4782	Fig.22	4.4625	Fig.23	4.4833	Fig.24
	713.5	23155		25	0	4.4729	Fig.25	4.4555	Fig.26	4.4688	Fig.27
	704	23095	10	50	0	9.0724	Fig.28	8.9990	Fig.29	9.0143	Fig.30
	707.5	23095		50	0	9.1140	Fig.31	9.0273	Fig.32	9.0517	Fig.33
	711	23130		50	0	9.0671	Fig.34	9.0262	Fig.35	9.0540	Fig.36

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
12	699.7	23017	1.4	6	0	1.263	Fig.1	1.230	Fig.2	1.236	Fig.3
	707.5	23095		6	0	1.214	Fig.4	1.234	Fig.5	1.230	Fig.6
	715.3	23173		6	0	1.243	Fig.7	1.229	Fig.8	1.221	Fig.9
	700.5	23015	3	15	0	3.036	Fig.10	3.081	Fig.11	3.043	Fig.12
	707.5	23095		15	0	3.014	Fig.13	3.111	Fig.14	3.038	Fig.15
	714.5	23165		15	0	2.998	Fig.16	3.094	Fig.17	2.935	Fig.18
	701.5	23035	5	25	0	5.025	Fig.19	4.958	Fig.20	5.092	Fig.21
	707.5	23095		25	0	5.128	Fig.22	4.885	Fig.23	4.966	Fig.24
	713.5	23155		25	0	5.104	Fig.25	5.145	Fig.26	5.049	Fig.27
	704	23060	10	50	0	10.35	Fig.28	10.21	Fig.29	10.05	Fig.30
	707.5	23095		50	0	10.27	Fig.31	9.976	Fig.32	10.06	Fig.33
	711	23130		50	0	10.17	Fig.34	9.870	Fig.35	10.11	Fig.36

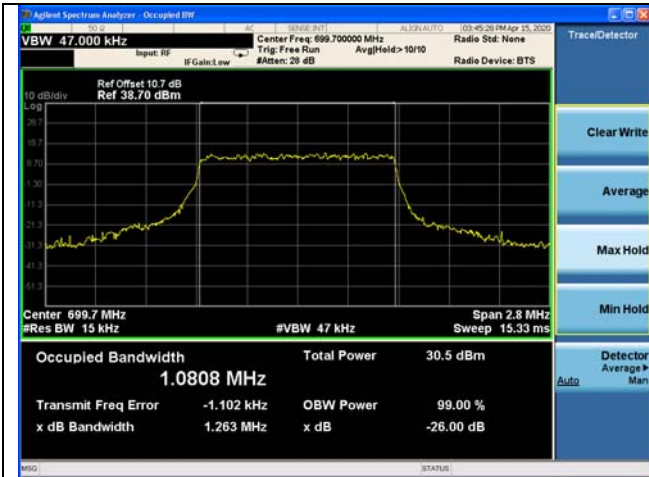


Fig.1

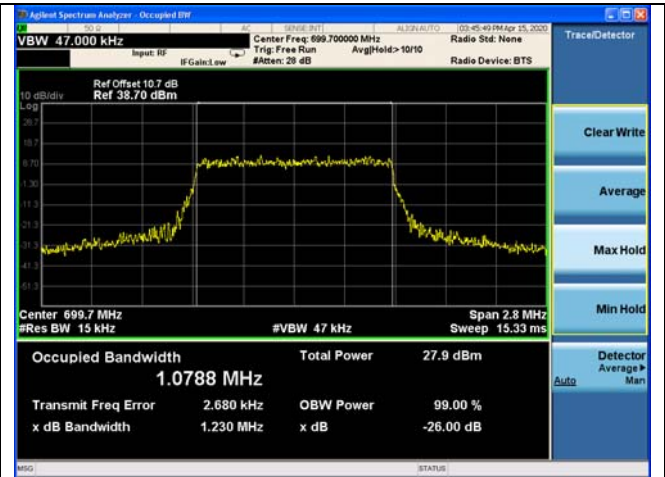


Fig.2

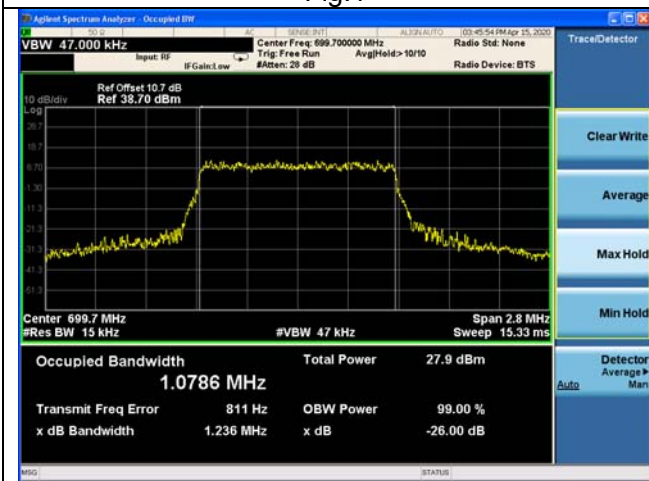


Fig.3

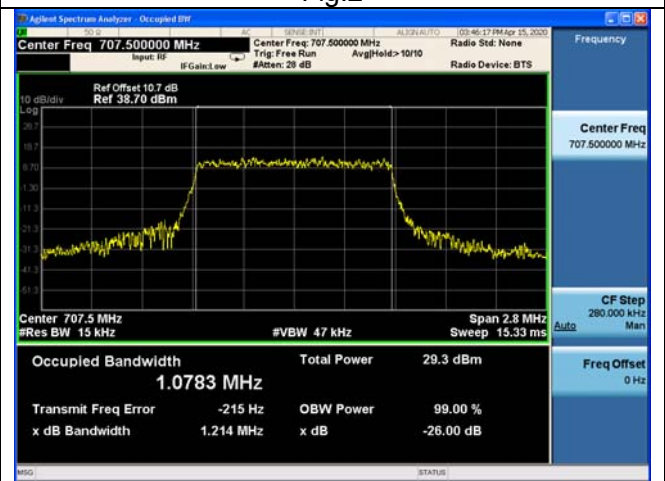


Fig.4

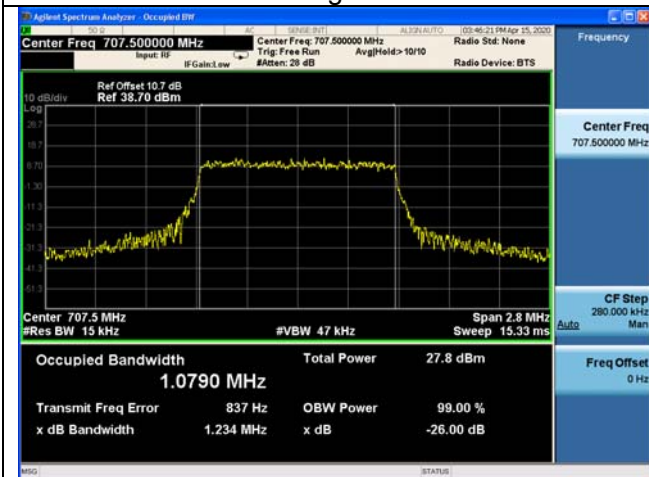


Fig.5

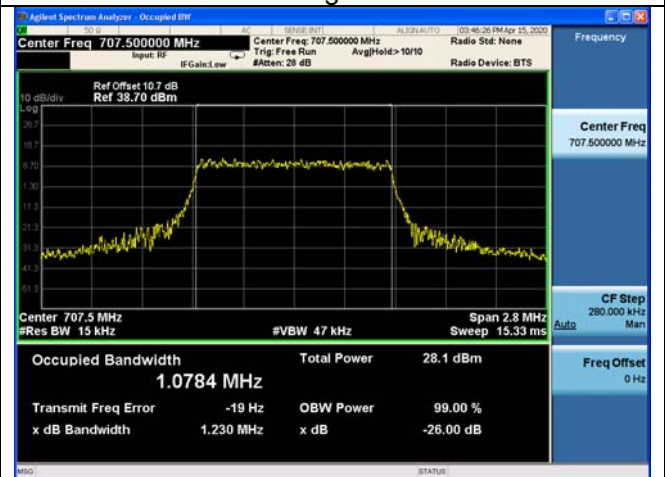


Fig.6

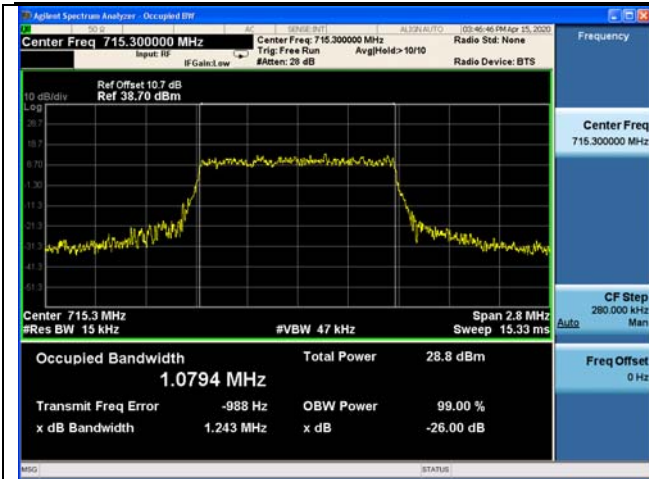


Fig.7

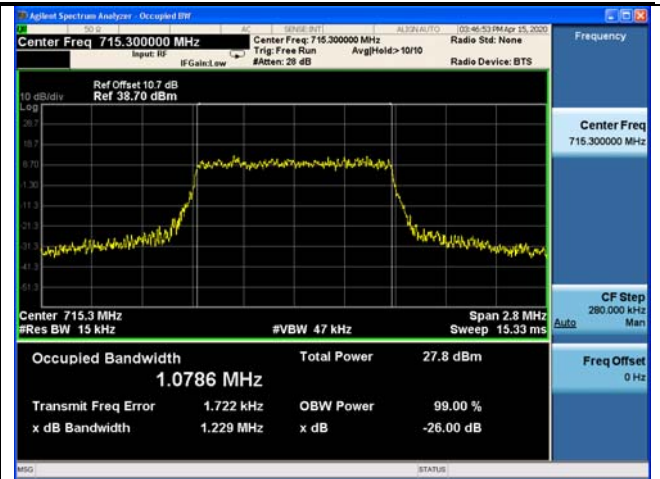


Fig.8

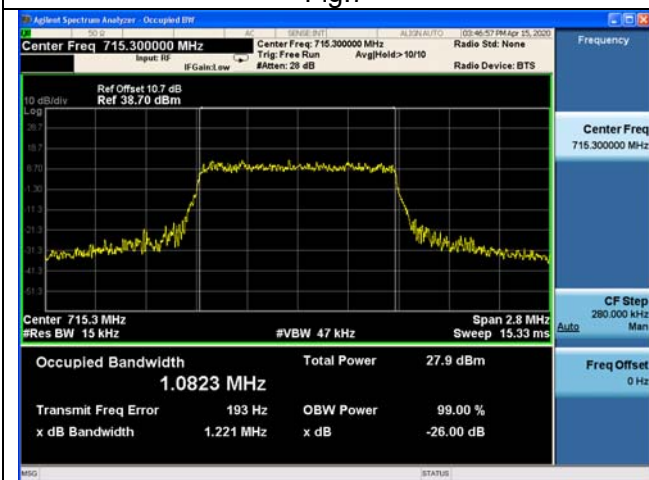


Fig.9

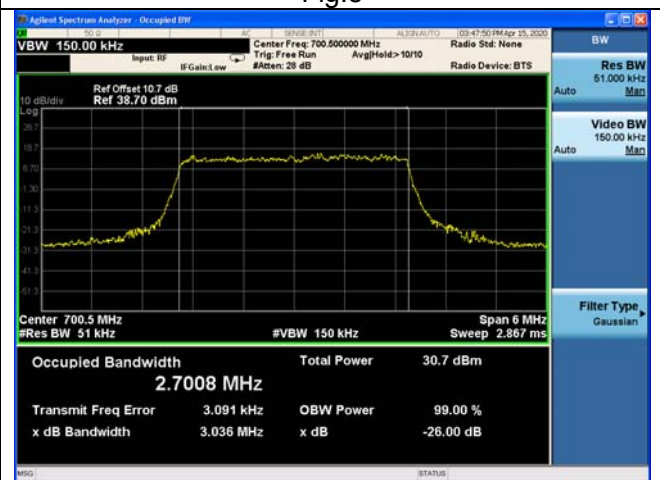


Fig.10

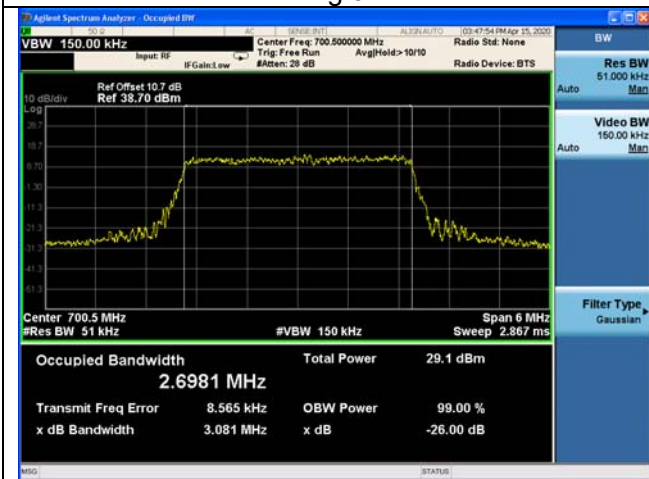


Fig.11

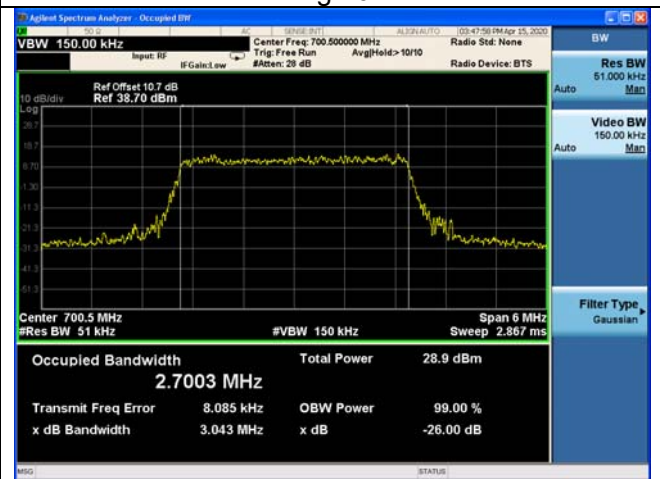


Fig.12

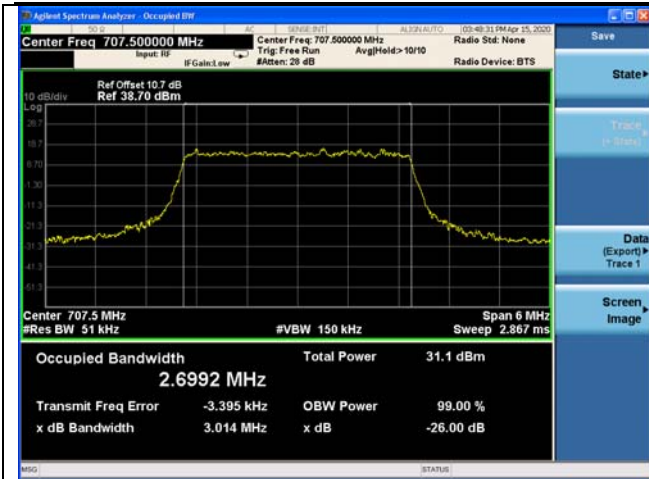


Fig.13

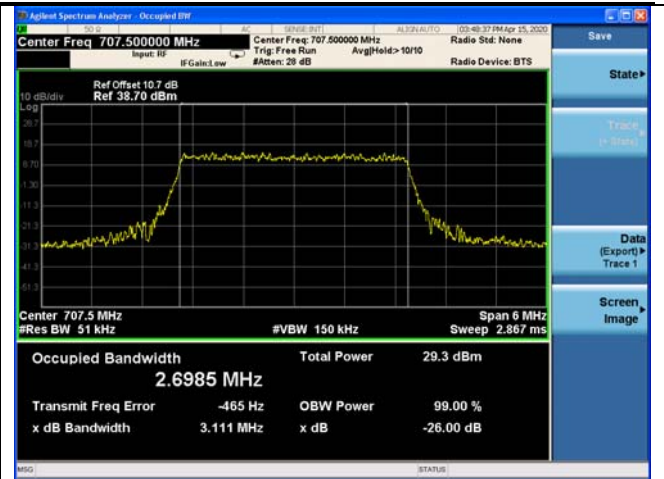


Fig.14

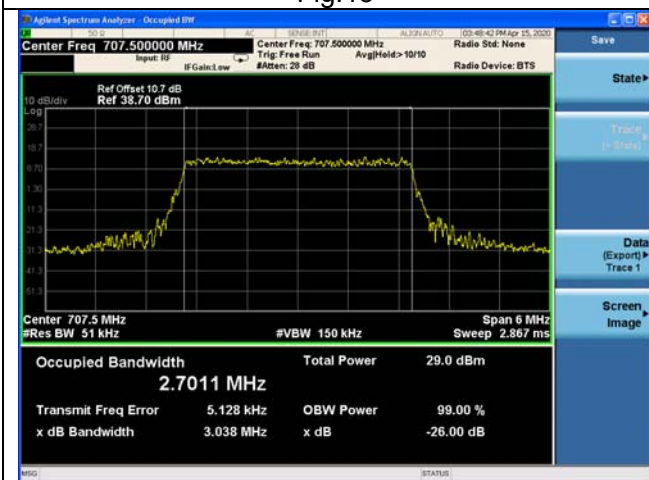


Fig.15

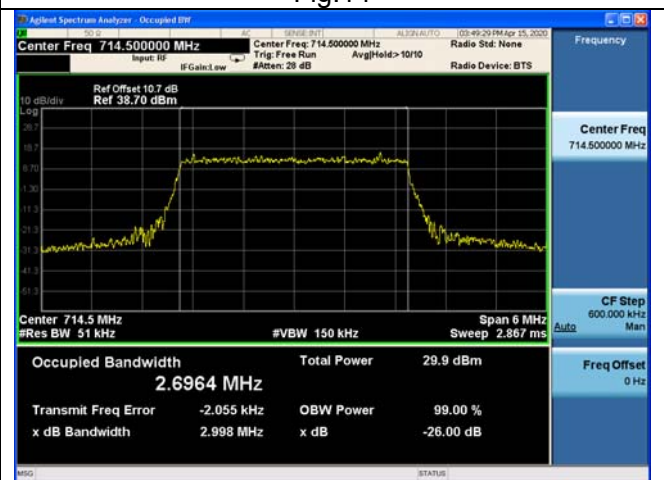


Fig.16

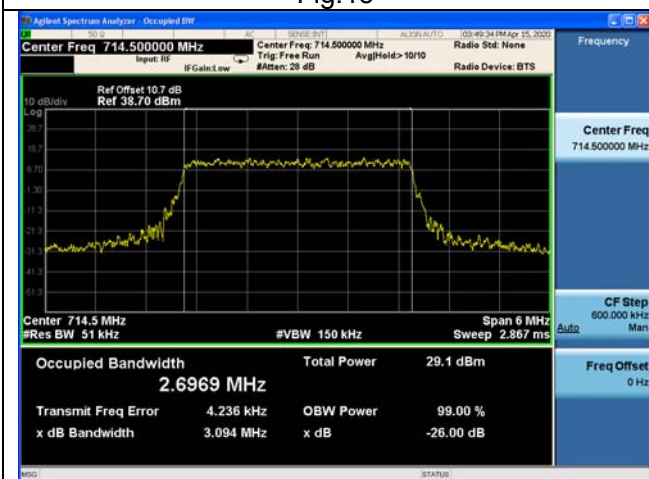


Fig.17

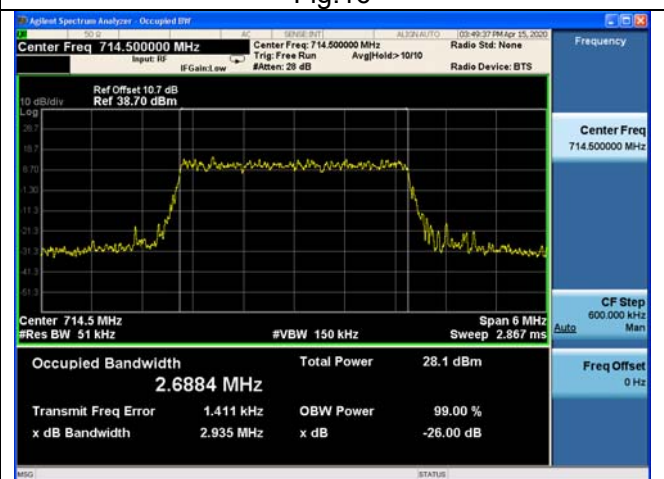


Fig.18

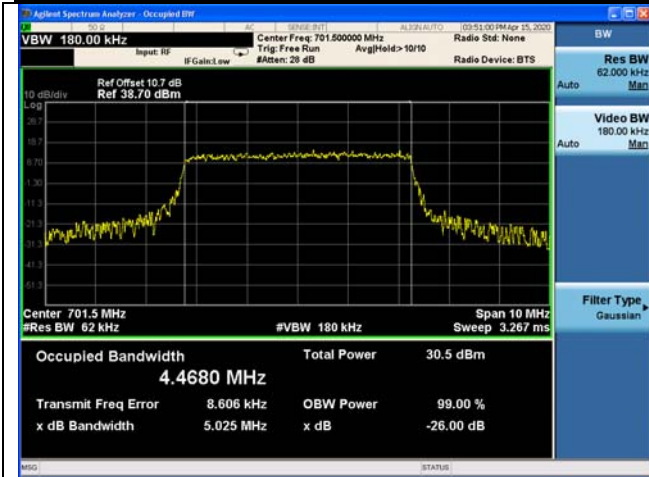


Fig.19

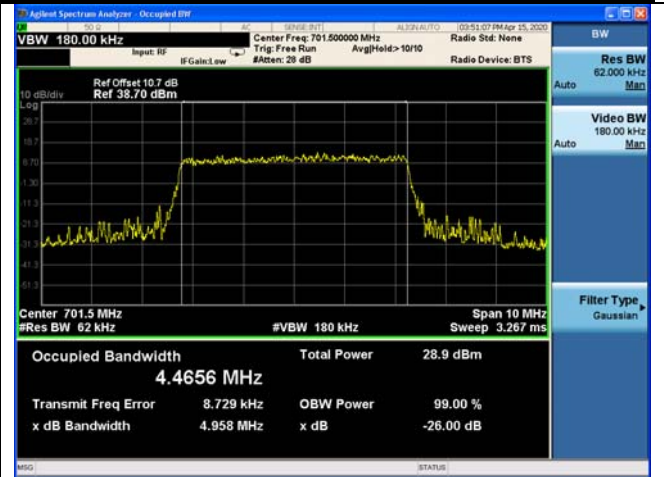


Fig.20

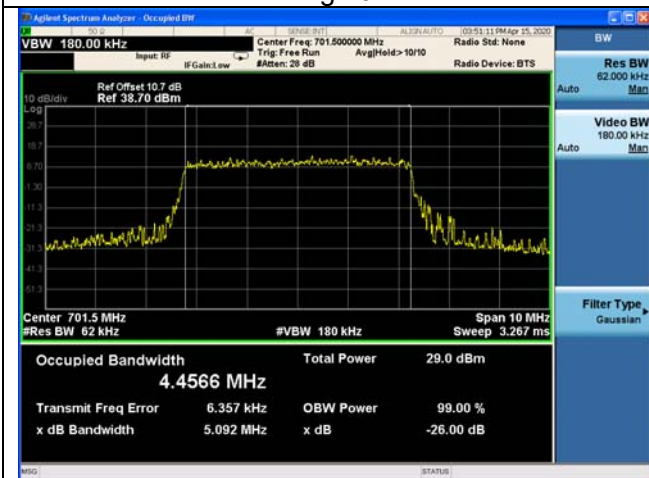


Fig.21

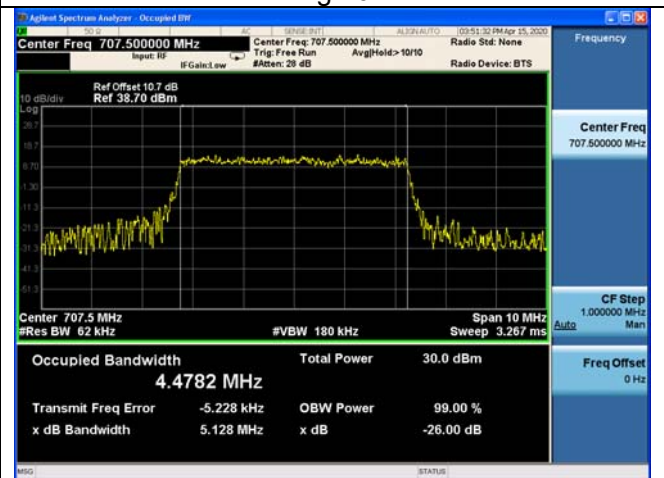


Fig.22

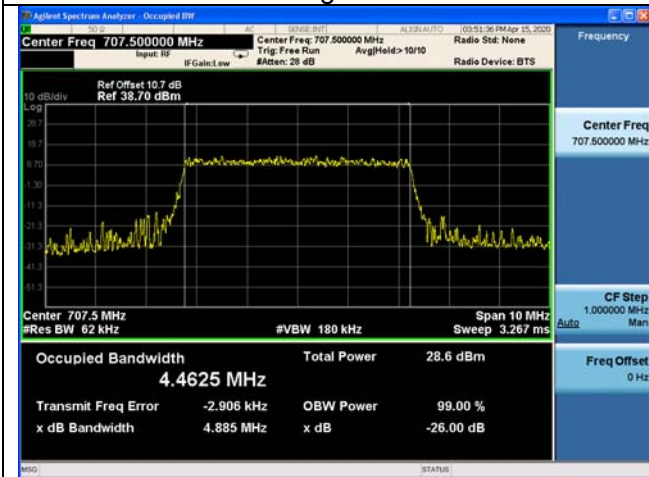


Fig.23

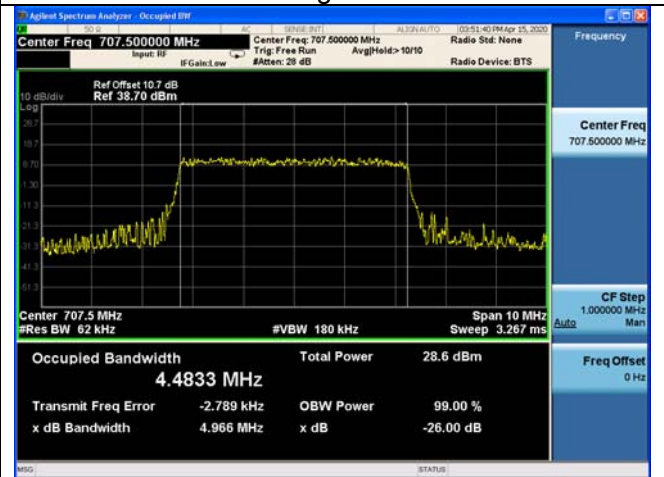


Fig.24

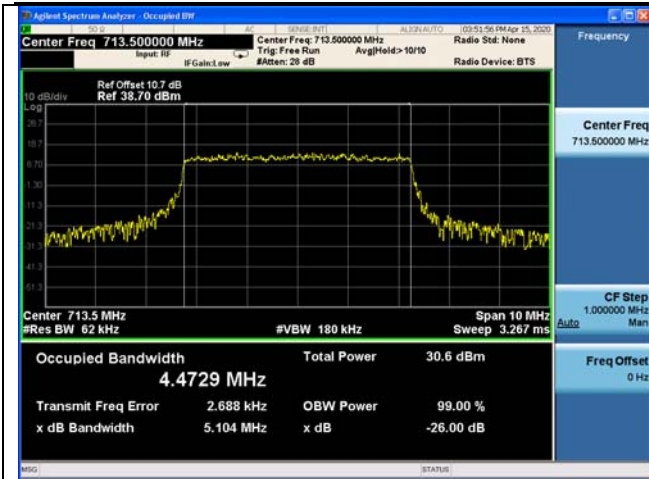


Fig.25

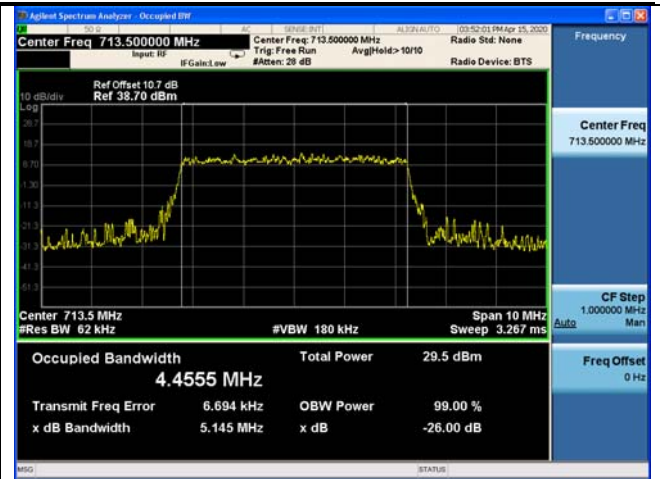


Fig.26

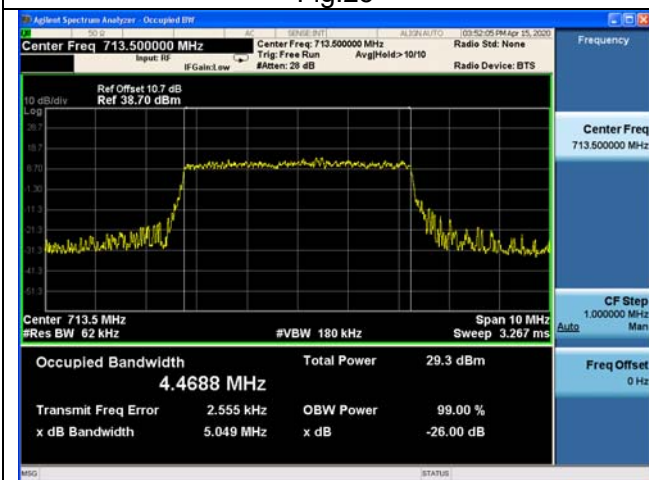


Fig.27

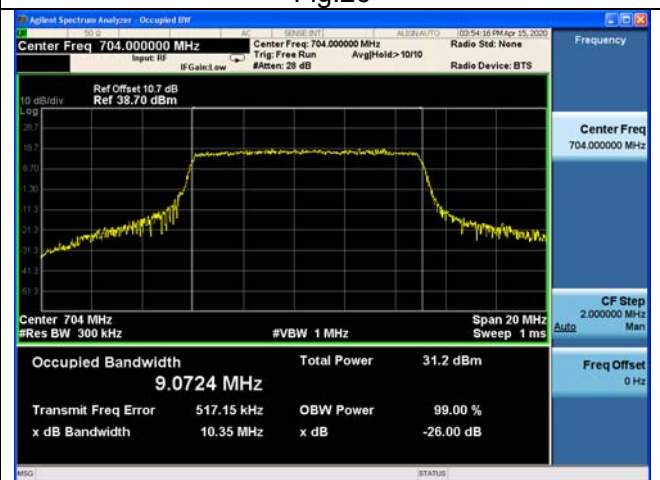


Fig.28

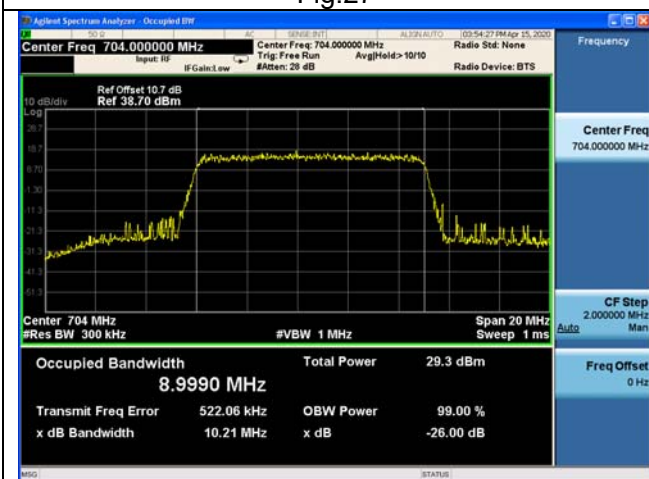


Fig.29

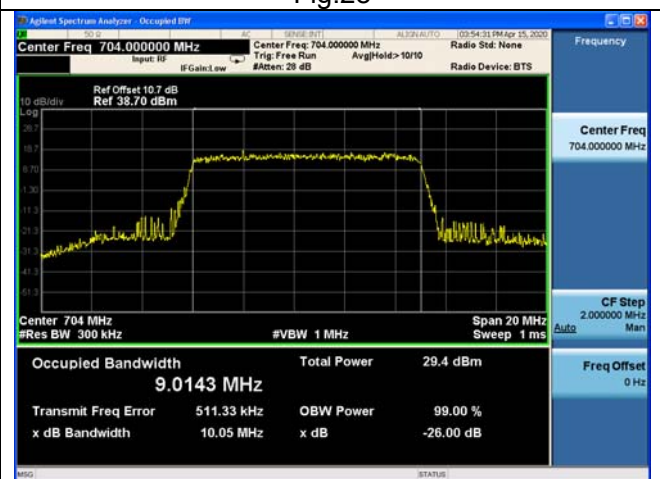


Fig.30

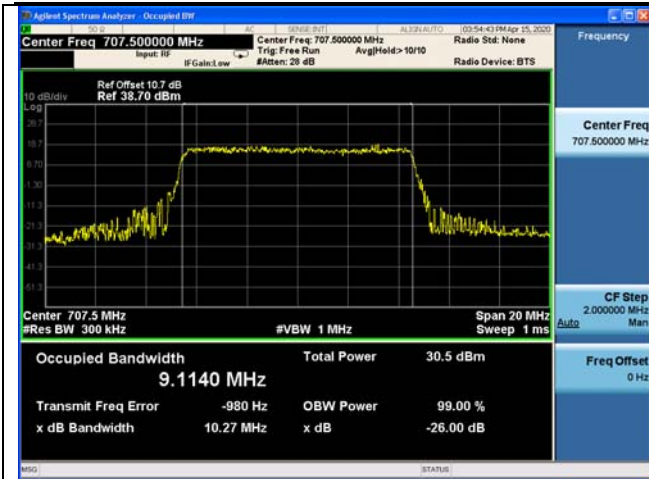


Fig.31

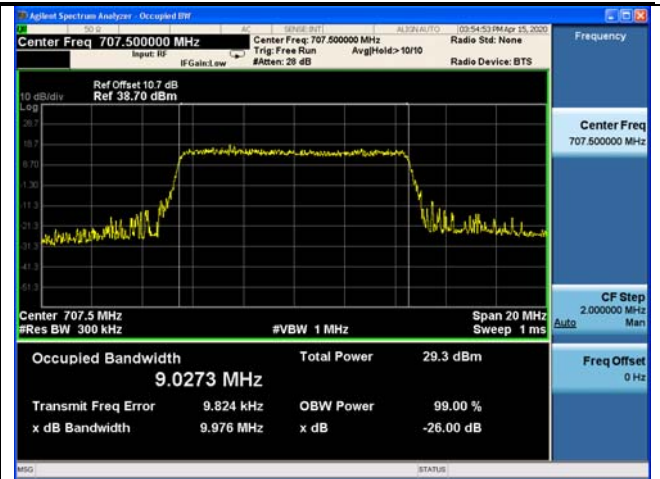


Fig.32

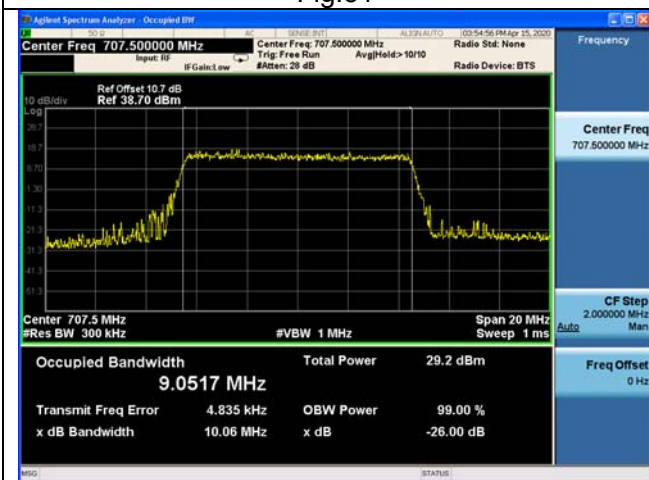


Fig.33

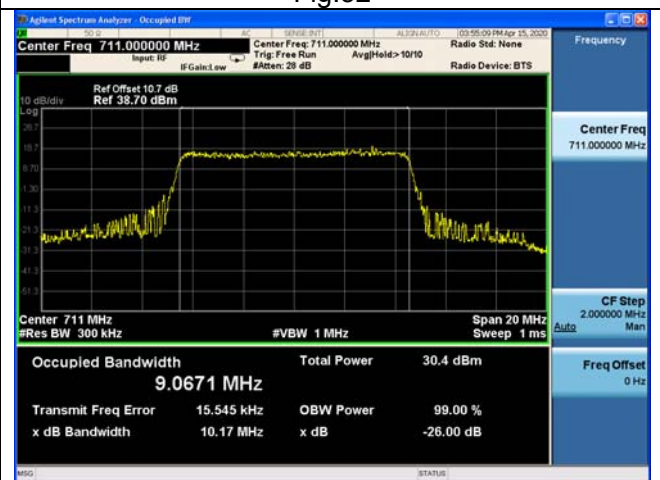


Fig.34

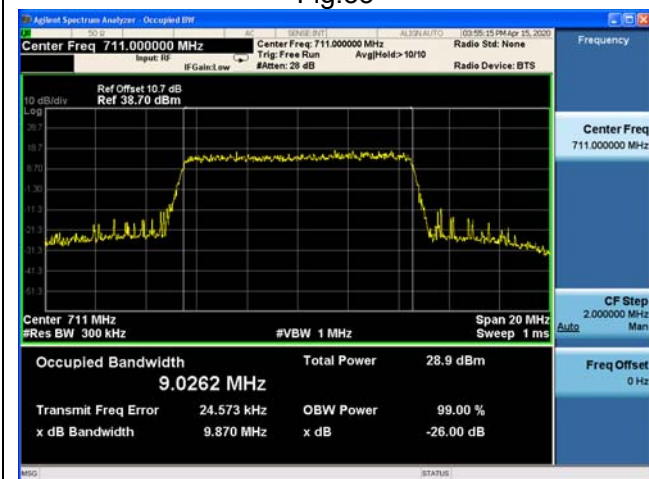


Fig.35

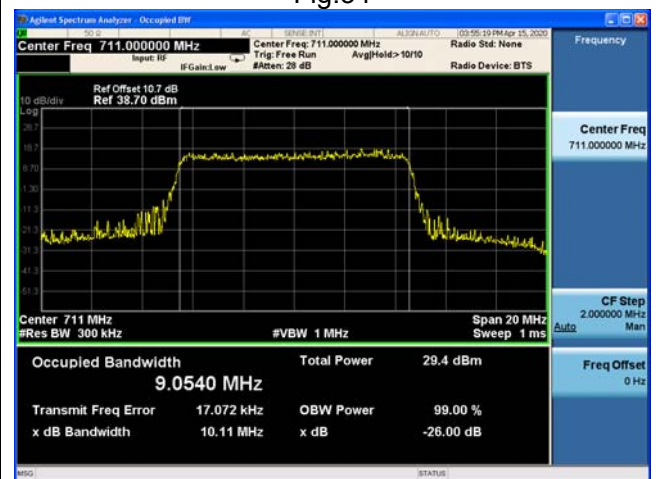


Fig.36

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
12	707.5	23095	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

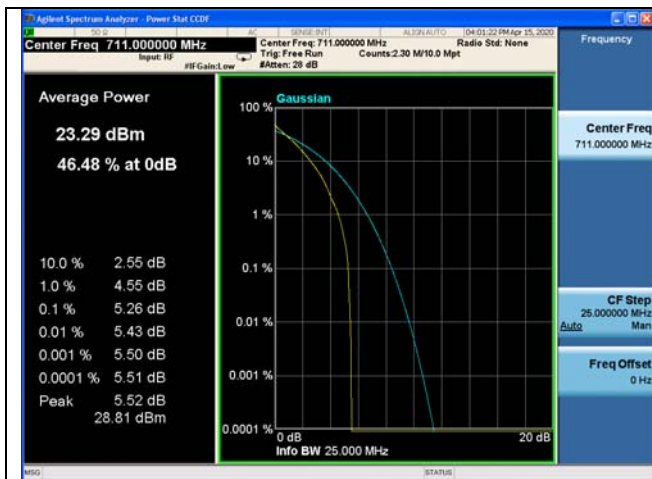


Fig.1

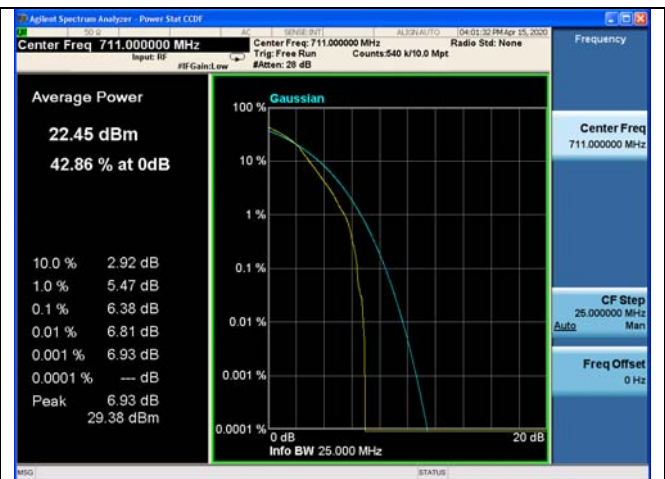


Fig.2

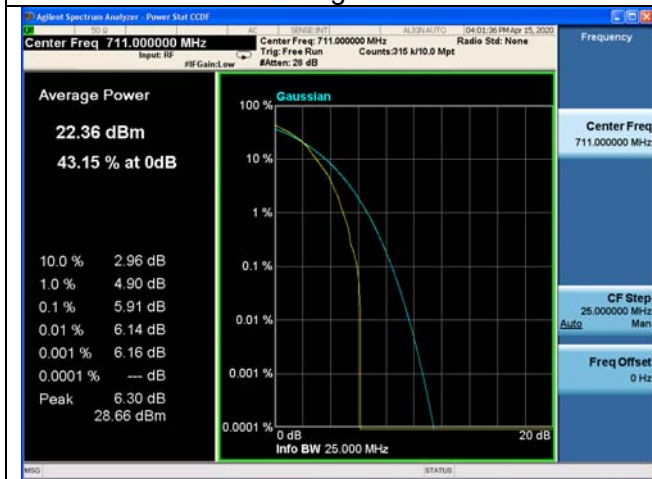


Fig.3

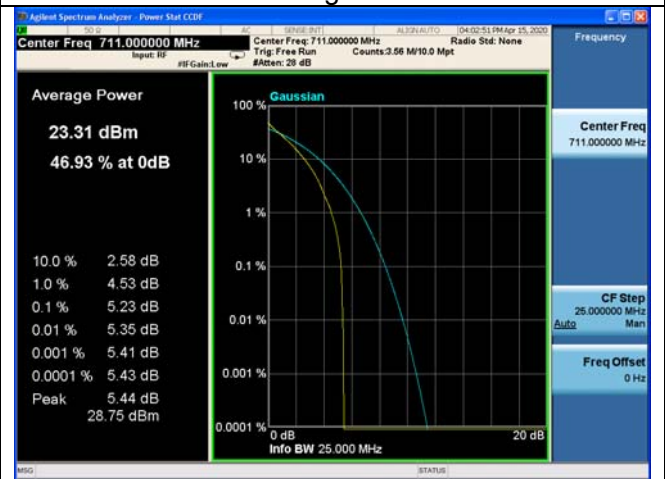


Fig.4

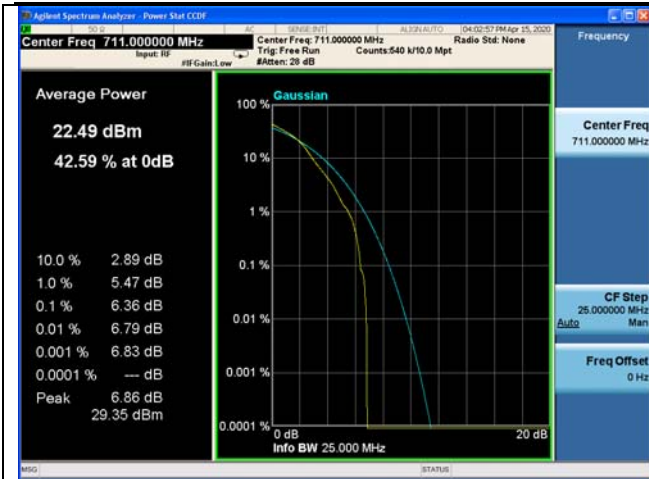


Fig.5



Fig.6



Fig.7

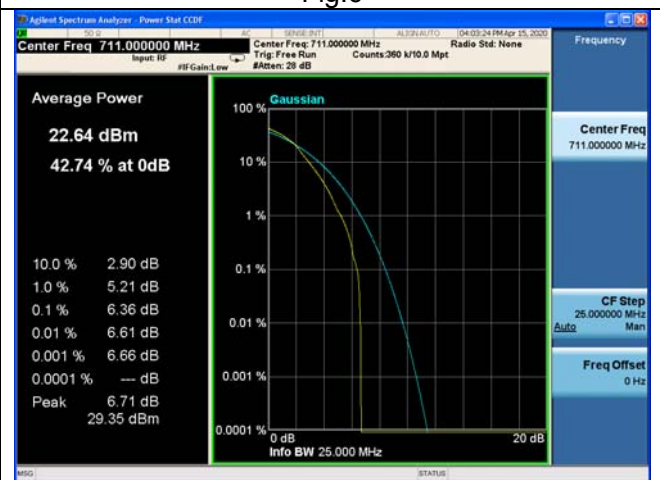


Fig.8

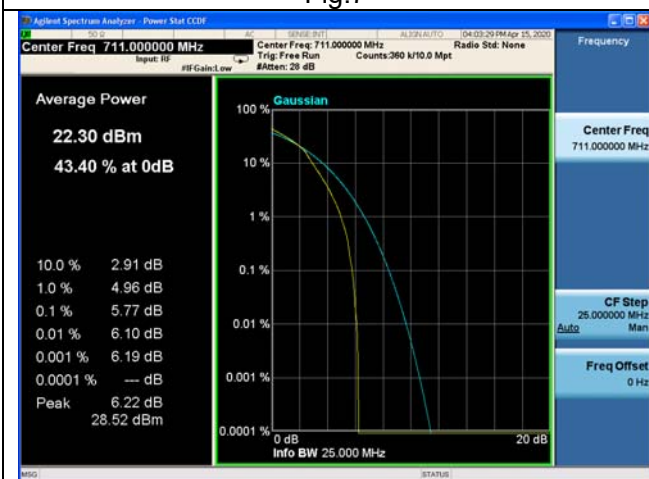


Fig.9



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
12	704	23060	10	1	0	Fig.1-2
	707.5	23095	10	1	0	Fig.3-4
	711	23173	10	1	0	Fig.4-5

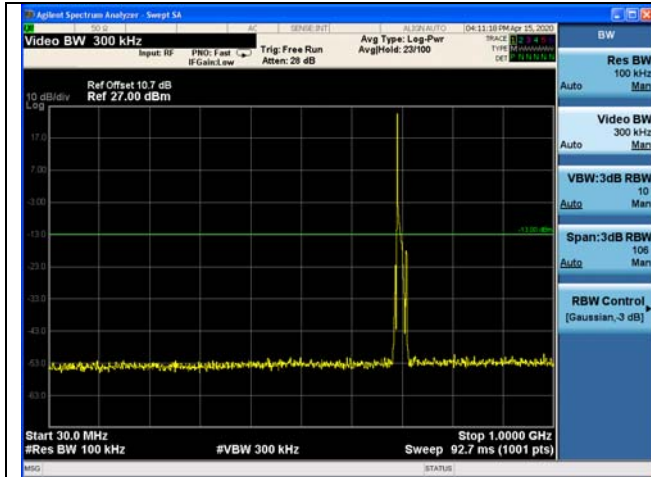


Fig.1

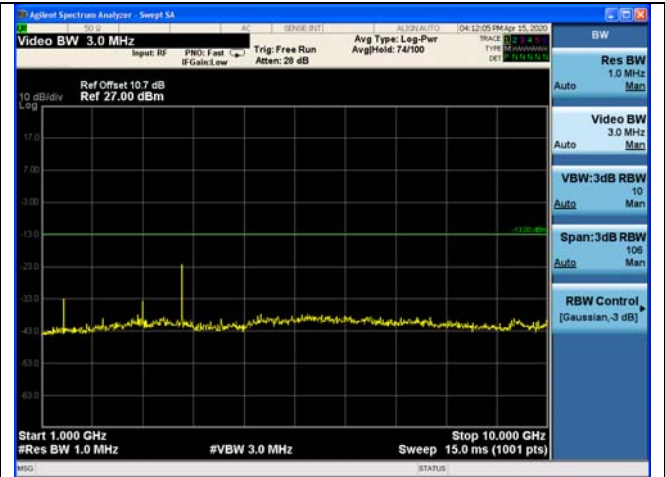


Fig.2

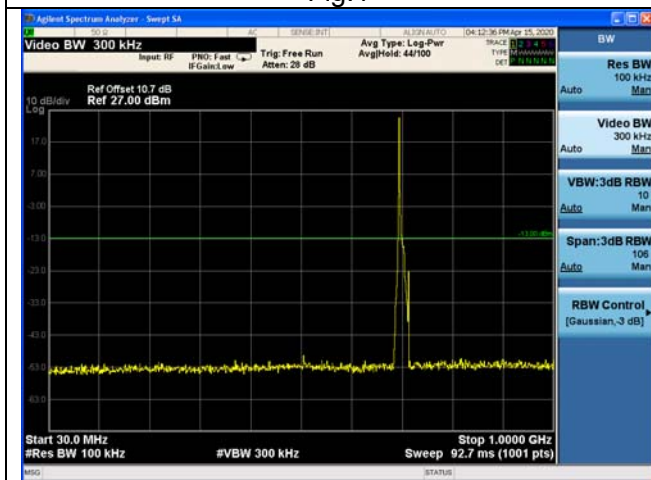


Fig3

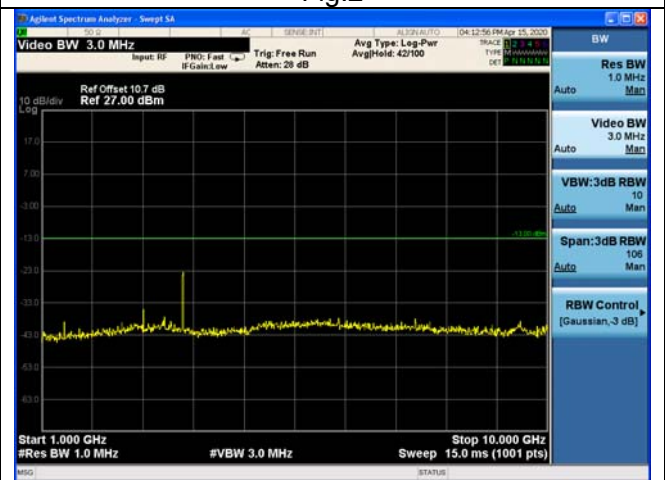


Fig4

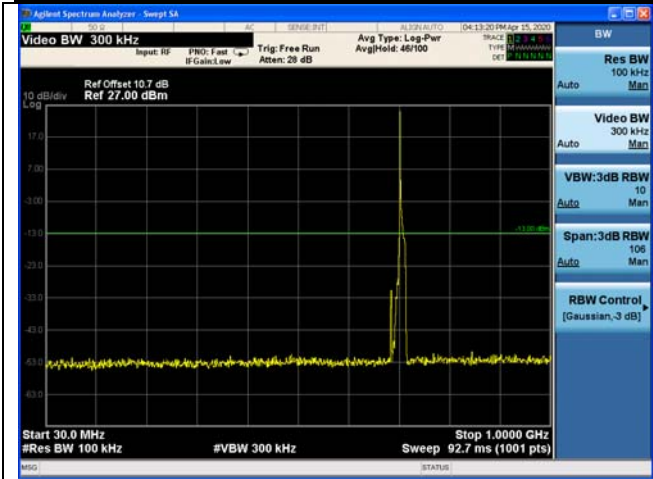


Fig5

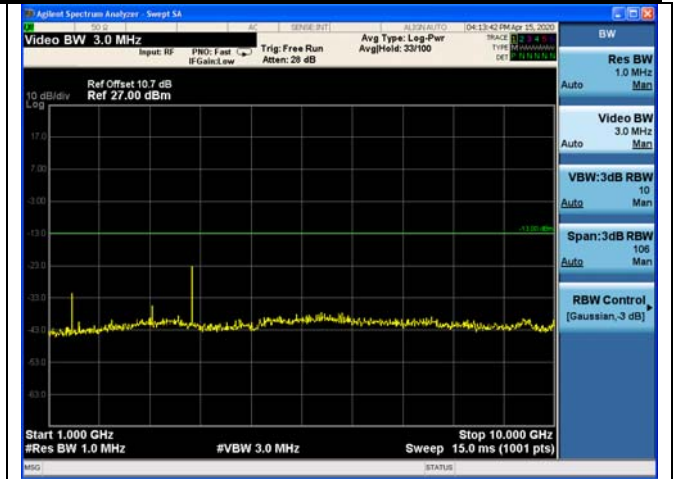


Fig6

5 Band Edges Compliance
Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
12	699.7	23017	1.4	1	0	Fig.1
				6	0	Fig.2
	715.3	23173		1	5	Fig.3
				6	0	Fig.4
	700.5	23025	3	1	0	Fig.5
				15	0	Fig.6
	714.5	23165		1	14	Fig.7
				15	0	Fig.8
	701.5	23035	5	1	0	Fig.9
				25	0	Fig.10
	713.5	23155		1	24	Fig.11
				25	0	Fig.12
	704	23060	10	1	0	Fig.13
				50	0	Fig.14
	711	23130		1	49	Fig.15
				50	0	Fig.16

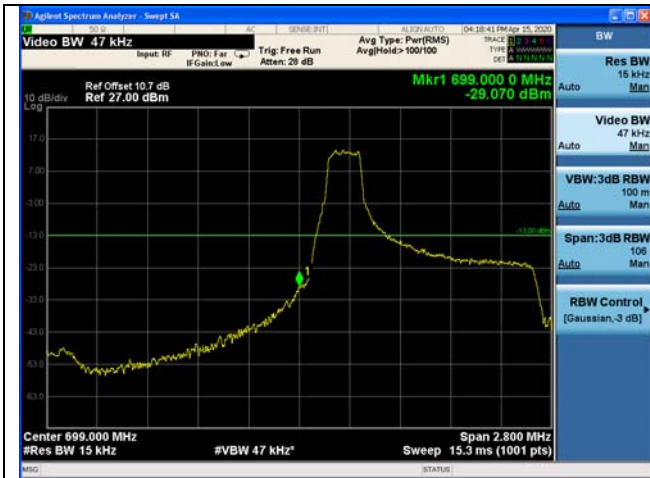


Fig.1



Fig.2

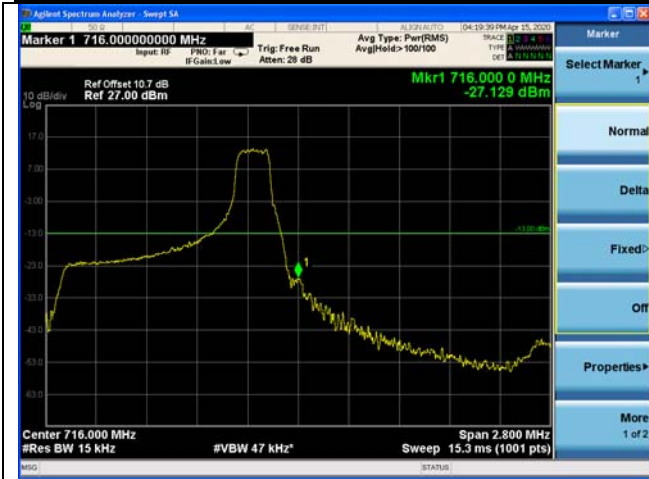


Fig.3



Fig.4

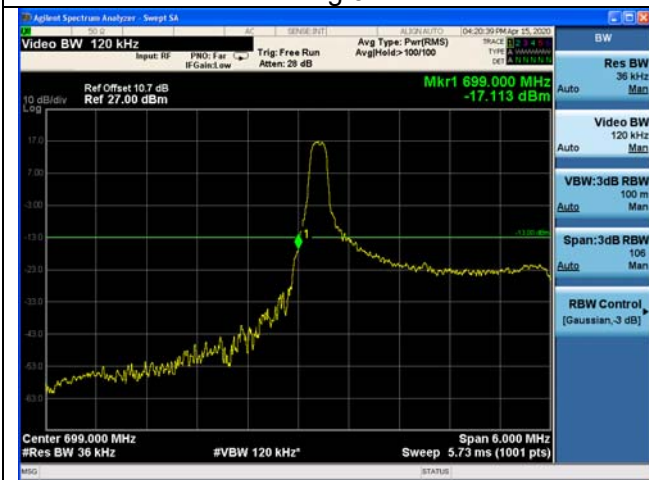


Fig.5

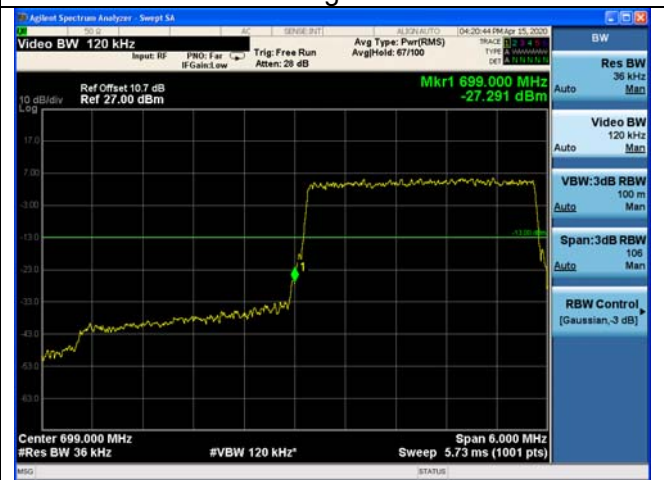


Fig.6

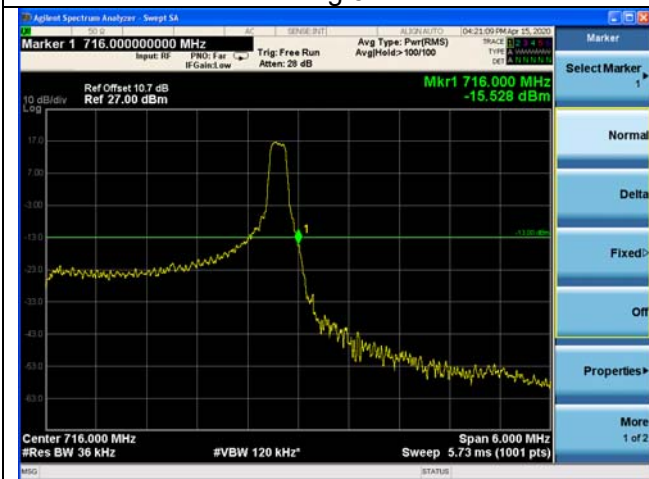


Fig.7



Fig.8

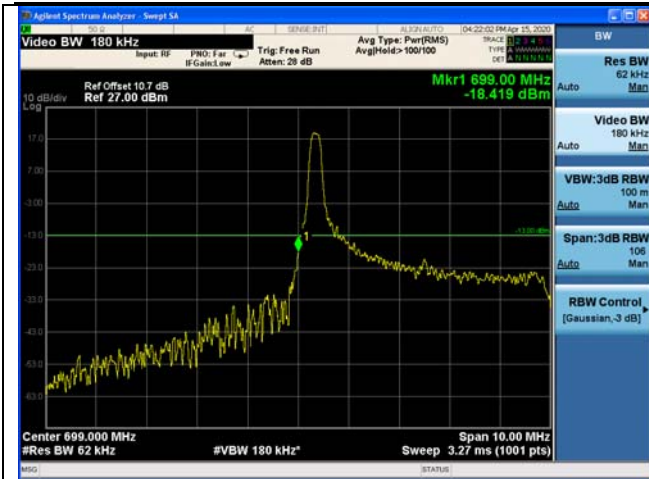


Fig.9



Fig.10



Fig.11



Fig.12

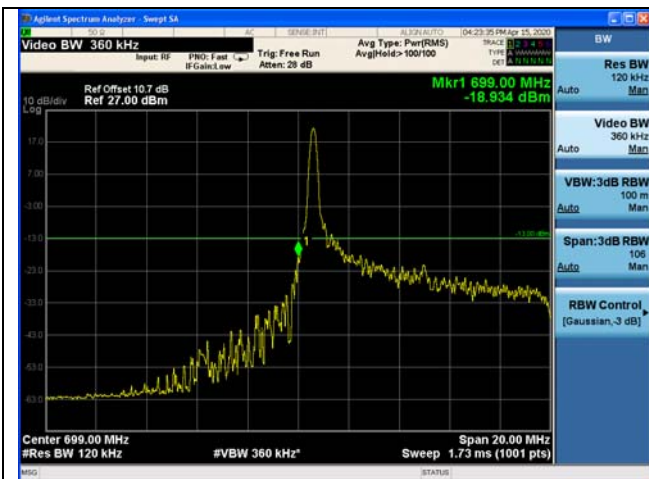


Fig.13



Fig.14

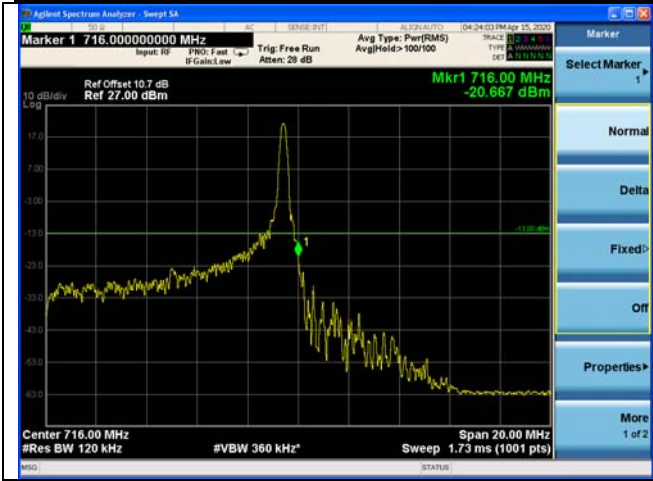


Fig.15



Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band12 Low Channel			
		1.4M	3M	5M	10M
-30	NV	-0.037	0.007	-0.018	0.022
-20	NV	-0.023	0.018	0.053	0.033
-10	NV	0.097	0.035	0.124	0.055
0	NV	0.103	0.045	-0.015	-0.073
+10	NV	-0.106	0.070	0.095	0.091
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.080	-0.046	-0.142	0.019
+40	NV	0.094	0.041	0.033	0.010
+50	NV	0.119	0.068	0.155	-0.096
+20	LV	0.085	0.006	0.087	0.081
+20	HV	0.053	0.089	0.017	0.046

Temperature(°C)	Voltage	Test Result (ppm) Band12 High Channel			
		1.4M	3M	5M	10M
-30	NV	0.032	0.066	0.020	0.038
-20	NV	-0.013	0.070	0.044	0.011
-10	NV	0.075	0.098	0.049	0.069
0	NV	-0.005	0.088	0.004	-0.059
+10	NV	0.081	-0.053	0.113	0.066
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.054	-0.016	0.134	0.081
+40	NV	0.072	0.144	0.113	0.001
+50	NV	0.039	-0.117	-0.025	0.014
+20	LV	0.069	-0.071	0.042	0.142
+20	HV	-0.088	0.144	0.057	0.027