

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	21.44
				1	5	21.55
				3	2	20.76
				6	0	20.67
	707.5	23095		1	0	21.77
				1	5	21.64
				3	2	20.92
				6	0	20.89
	715.3	23173		1	0	21.50
				1	5	21.49
				3	2	20.71
				6	0	20.65
16QAM	699.7	23017	1.4	1	0	20.26
				1	5	20.21
				3	2	19.67
				6	0	19.63
	707.5	23095		1	0	20.22
				1	5	20.38
				3	2	19.77
				6	0	19.60
	715.3	23173		1	0	20.38
				1	5	20.14
				3	2	19.69
				6	0	19.62

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	700.5	23025	3	1	0	21.62
				1	14	21.59
				8	4	20.70
				15	0	20.78
	707.5	23095		1	0	21.71
				1	14	21.71
				8	4	20.70
				15	0	20.75
	714.5	23165		1	0	21.62
				1	14	21.65
				8	4	20.90
				15	0	20.67
16QAM	700.5	23025	3	1	0	20.17
				1	14	20.31
				8	4	19.87
				15	0	19.67
	707.5	23095		1	0	20.31
				1	14	20.21
				8	4	19.79
				15	0	19.62
	714.5	23165		1	0	20.31
				1	14	20.18
				8	4	19.84
				15	0	19.53

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	701.5	23035	5	1	0	21.58
				1	24	21.54
				12	6	20.89
				25	0	20.74
	707.5	23095		1	0	21.72
				1	24	21.62
				12	6	20.75
				25	0	20.71
	713.5	23155		1	0	21.76
				1	24	21.45
				12	6	20.93
				25	0	20.84
16QAM	701.5	23035	5	1	0	20.11
				1	24	20.17
				12	6	19.94
				25	0	19.67
	707.5	23095		1	0	20.39
				1	24	20.24
				12	6	19.85
				25	0	19.65
	713.5	23155		1	0	20.22
				1	24	20.31
				12	6	19.81
				25	0	19.52

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	704	23060	10	1	0	21.66
				1	49	21.62
				24	12	20.68
				50	0	20.63
	707.5	23095		1	0	21.78
				1	49	21.73
				24	12	20.59
				50	0	20.52
	711	23130		1	0	21.85
				1	49	21.82
				24	12	20.79
				50	0	20.73
16QAM	704	23060	10	1	0	20.66
				1	49	20.65
				24	12	19.72
				50	0	19.66
	707.5	23095		1	0	20.81
				1	49	20.77
				24	12	19.59
				50	0	19.52
	711	23130		1	0	20.88
				1	49	20.83
				24	12	19.80
				50	0	19.72

2 Occupied Bandwidth

Test result

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)			
						QPSK		16-QAM	
12	699.7	23017	1.4	6	0	1.0827	Fig.1	1.0830	Fig.2
	707.5	23095		6	0	1.0833	Fig.3	1.0815	Fig.4
	715.3	23173		6	0	1.0836	Fig.5	1.0844	Fig.6
	700.5	23025	3	15	0	2.6794	Fig.7	2.6795	Fig.8
	707.5	23095		15	0	2.6810	Fig.9	2.6839	Fig.10
	714.5	23165		15	0	2.6807	Fig.11	2.6791	Fig.12
	701.5	23035	5	25	0	4.4719	Fig.13	4.4694	Fig.14
	707.5	23095		25	0	4.4818	Fig.15	4.4817	Fig.16
	713.5	23155		25	0	4.4689	Fig.17	4.4779	Fig.18
	704	23060	10	50	0	8.9268	Fig.19	8.9219	Fig.20
	707.5	23095		50	0	8.9579	Fig.21	8.9528	Fig.22
	711	23130		50	0	8.9066	Fig.23	8.9165	Fig.24

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)			
						QPSK		16-QAM	
12	699.7	23017	1.4	6	0	1.249	Fig.1	1.253	Fig.2
	707.5	23095		6	0	1.250	Fig.3	1.231	Fig.4
	715.3	23173		6	0	1.250	Fig.5	1.250	Fig.6
	700.5	23025	3	15	0	2.931	Fig.7	2.914	Fig.8
	707.5	23095		15	0	2.940	Fig.9	2.914	Fig.10
	714.5	23165		15	0	2.947	Fig.11	2.941	Fig.12
	701.5	23035	5	25	0	4.918	Fig.13	4.881	Fig.14
	707.5	23095		25	0	4.965	Fig.15	4.876	Fig.16
	713.5	23155		25	0	4.900	Fig.17	4.917	Fig.18
	704	23060	10	50	0	9.637	Fig.19	9.650	Fig.20
	707.5	23095		50	0	9.717	Fig.21	9.678	Fig.22
	711	23130		50	0	9.590	Fig.23	9.596	Fig.24

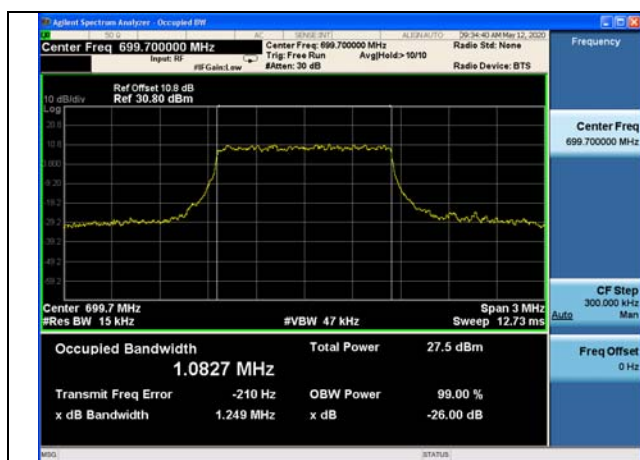


Fig.1

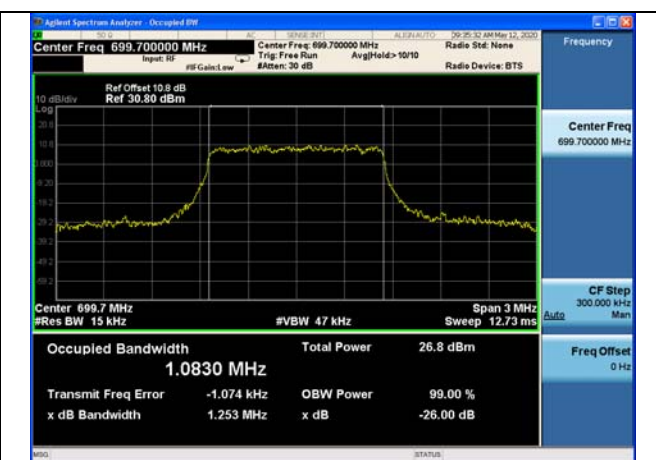


Fig.2

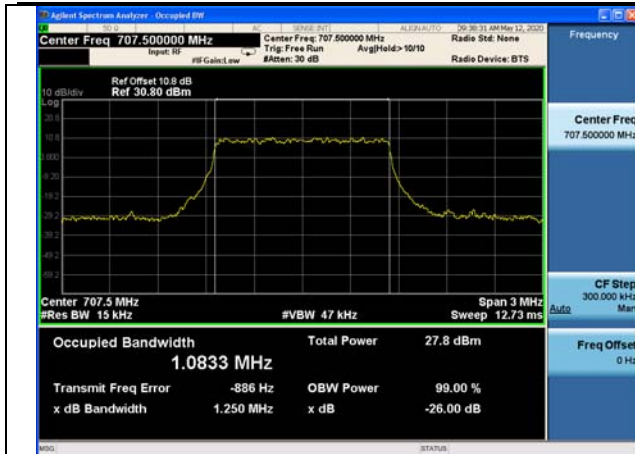


Fig.3

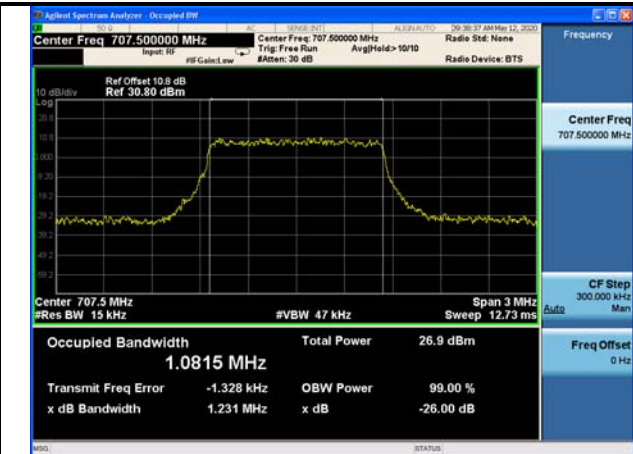


Fig.4

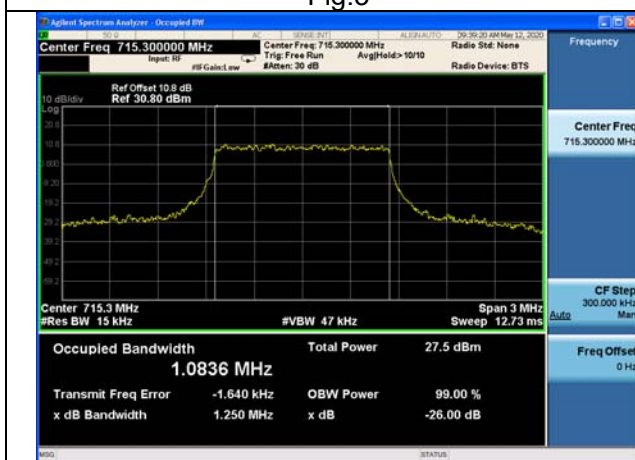


Fig.5

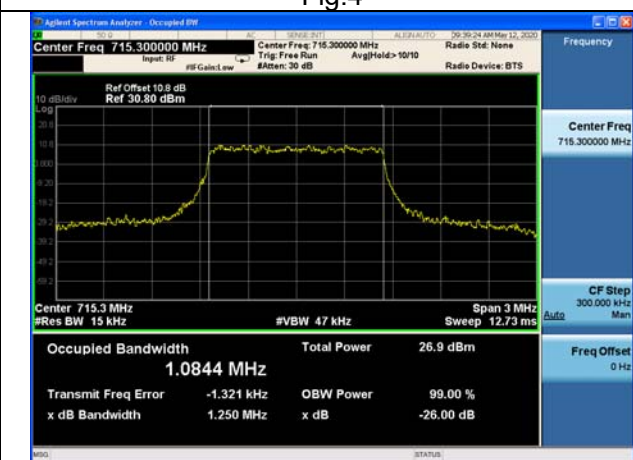


Fig.6

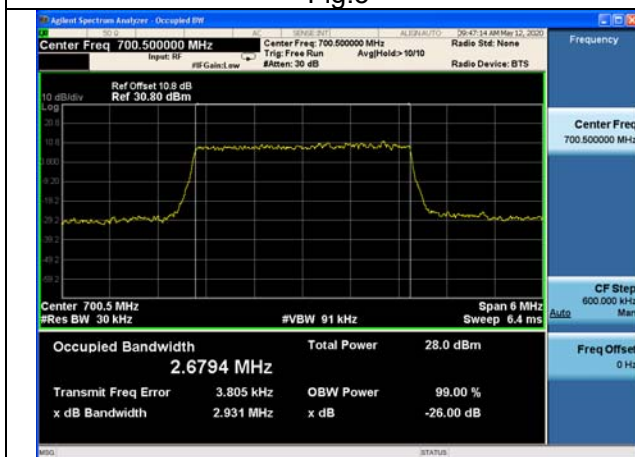


Fig.7

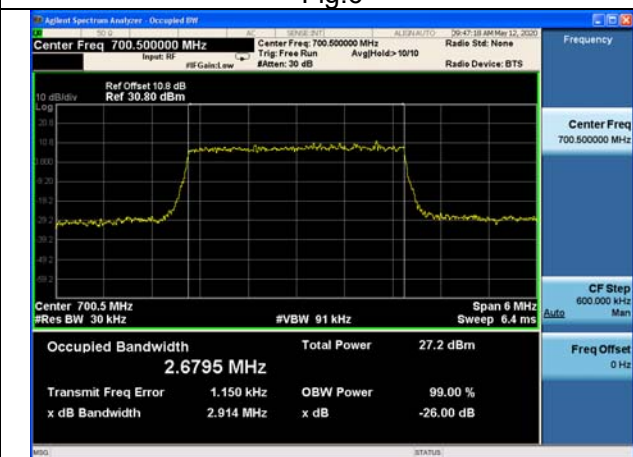


Fig.8

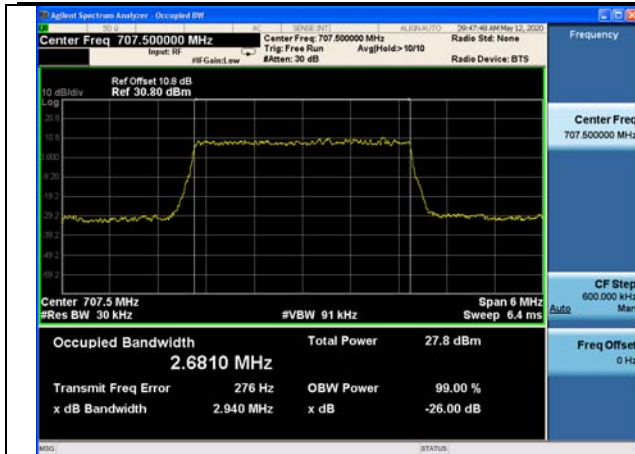


Fig.9

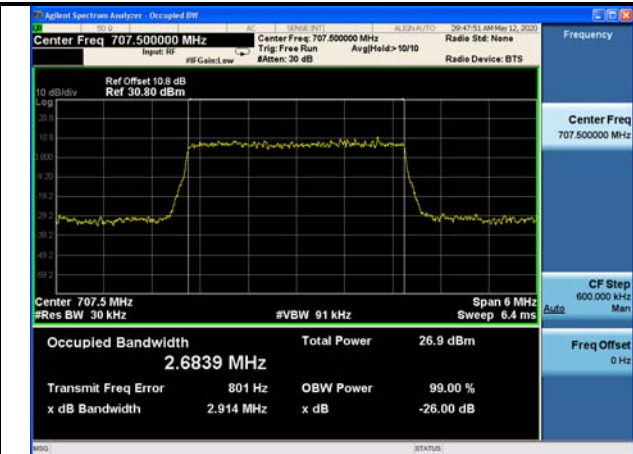


Fig.10

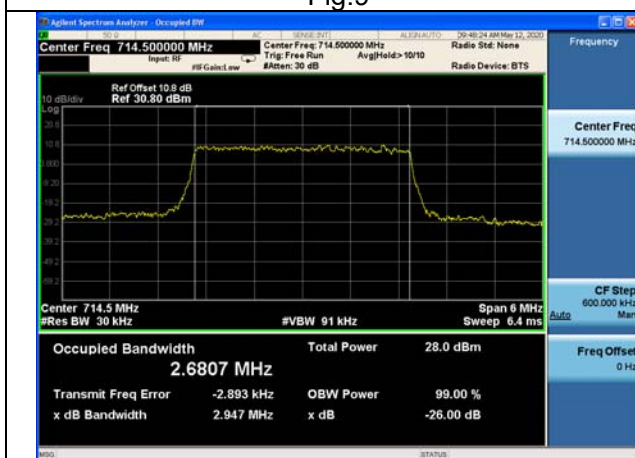


Fig.11

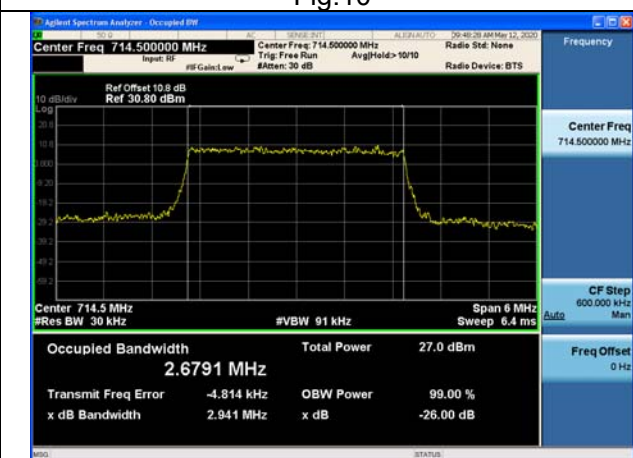


Fig.12

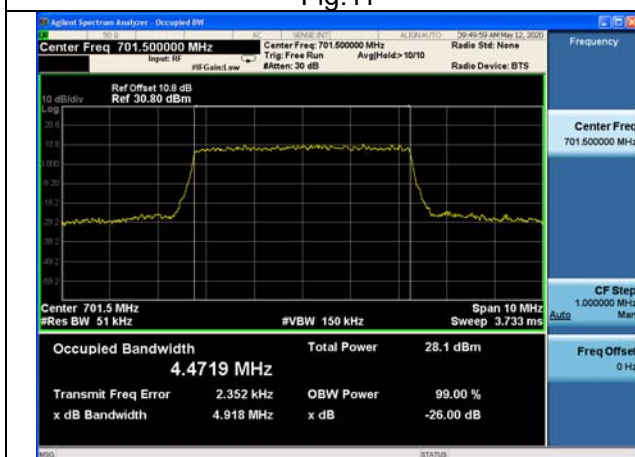


Fig.13

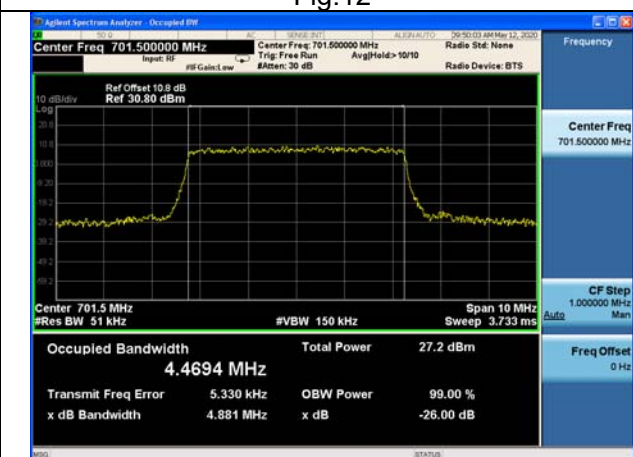


Fig.14

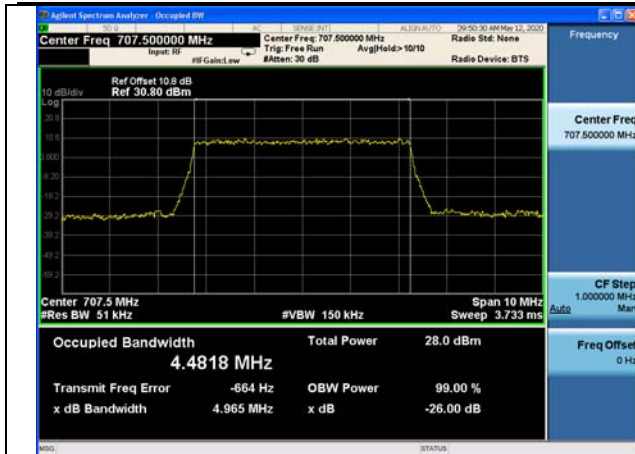


Fig.15

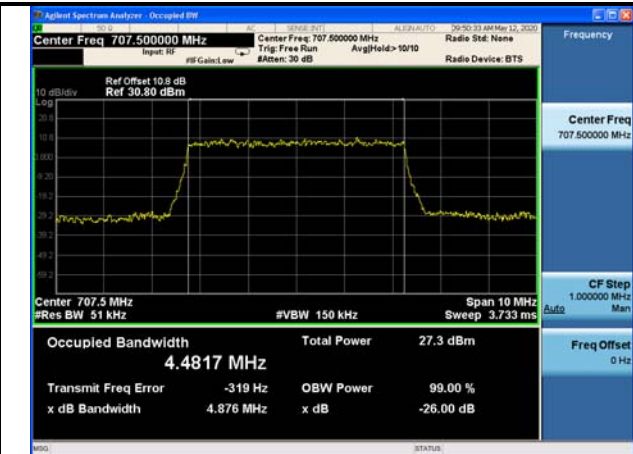


Fig.16

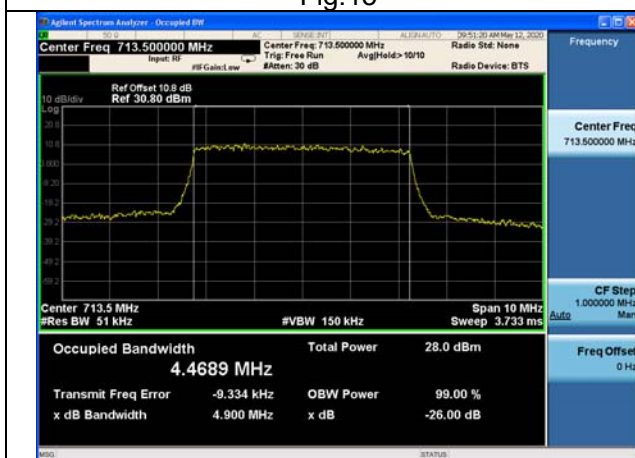


Fig.17

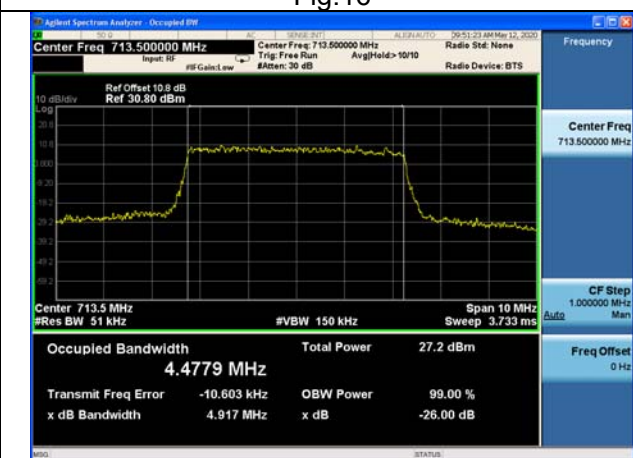


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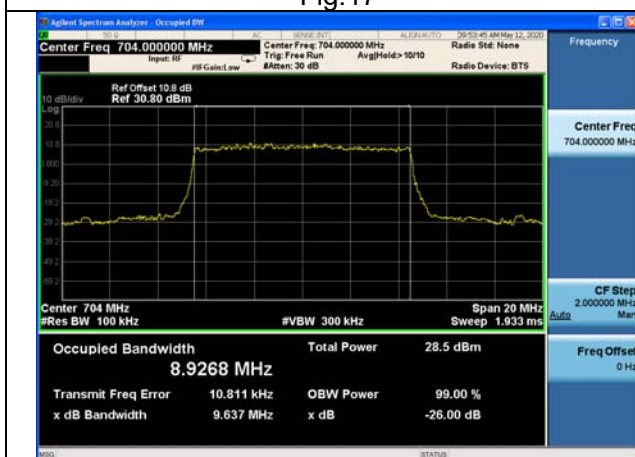


Fig.19

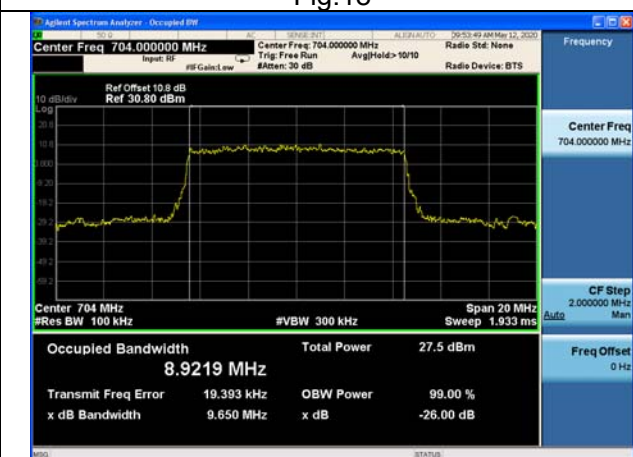


Fig.20

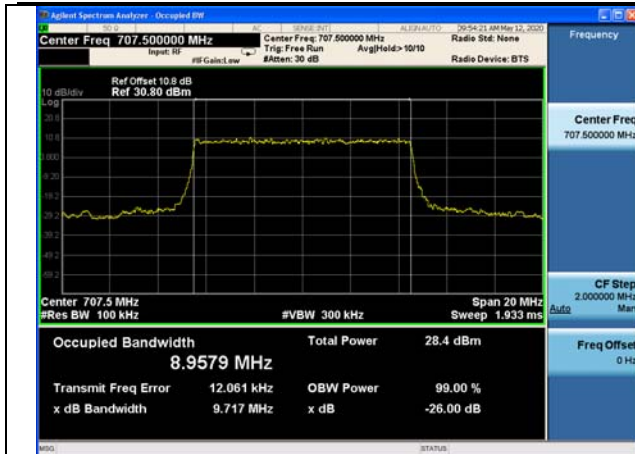


Fig.21

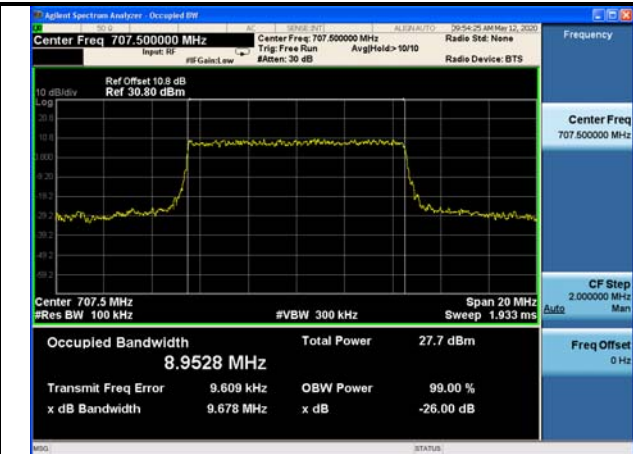


Fig.22

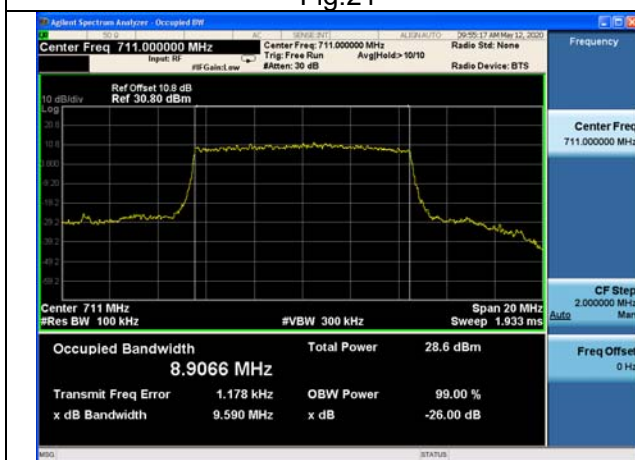


Fig.23

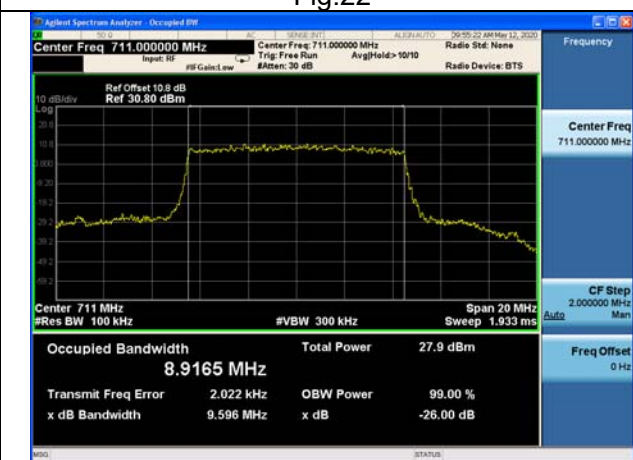


Fig.24

3 Peak-Average Ratio

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

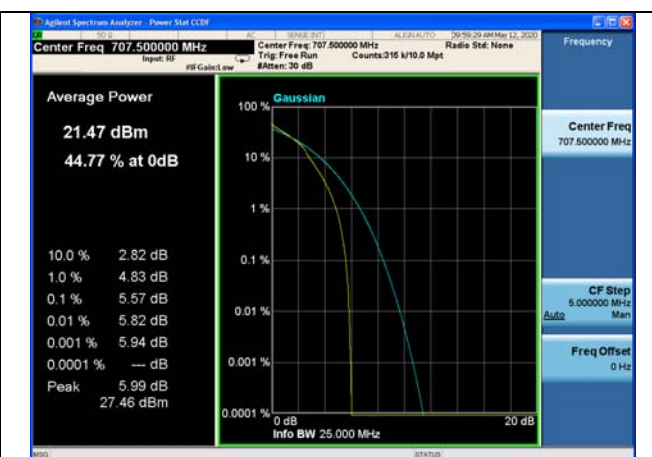


Fig.6



Fig.7



Fig.8

4 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
12	704	23060	10	1	0	Fig.1-2
	707.5	23095	10	1	0	Fig.3-4
	711	23130	10	1	0	Fig.5-6

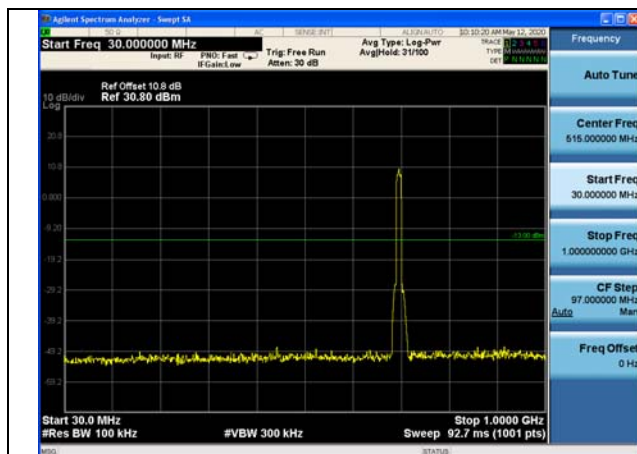


Fig.1



Fig.2

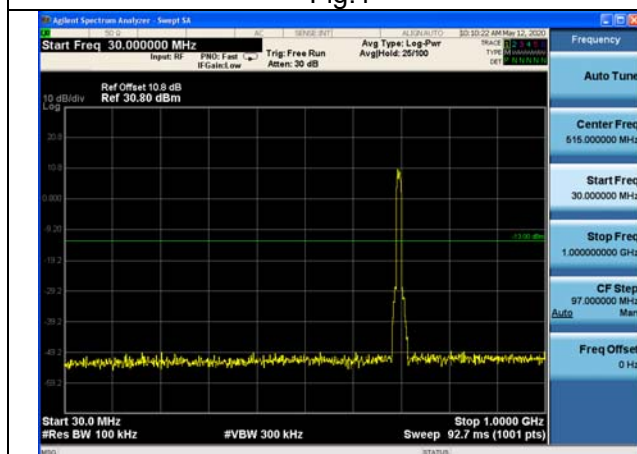


Fig3



Fig4

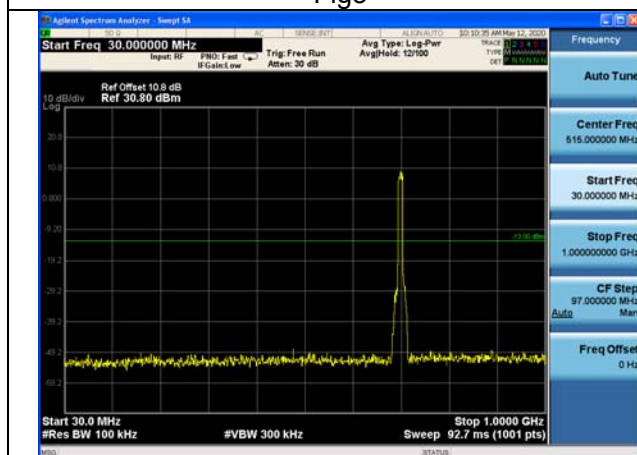


Fig5



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	p/	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

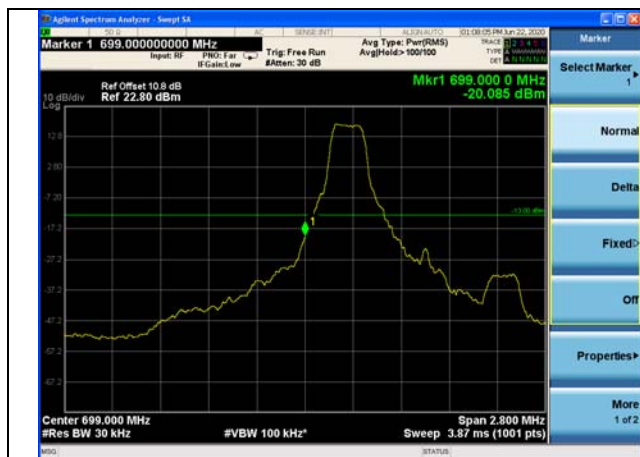


Fig.1



Fig.2



Fig.3



Fig.4

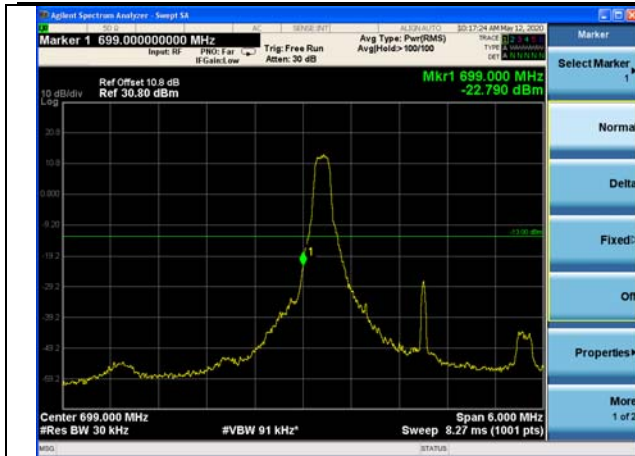


Fig.5

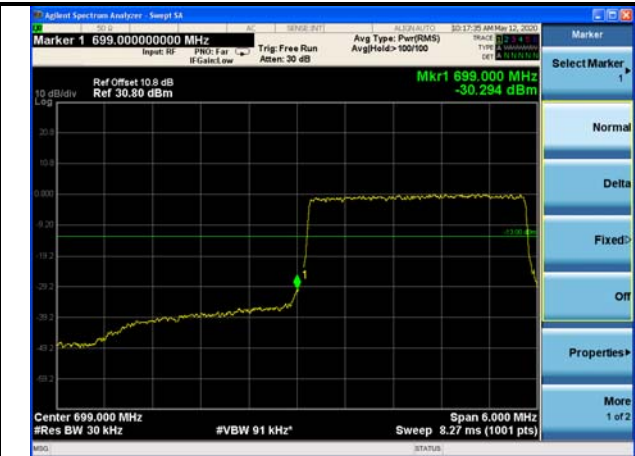


Fig.6

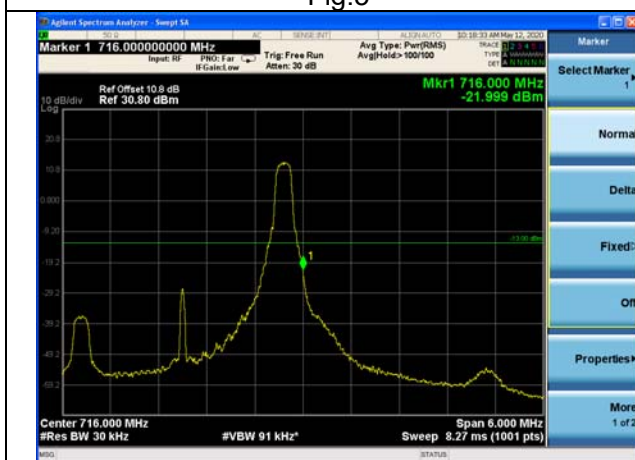


Fig.7



Fig.8

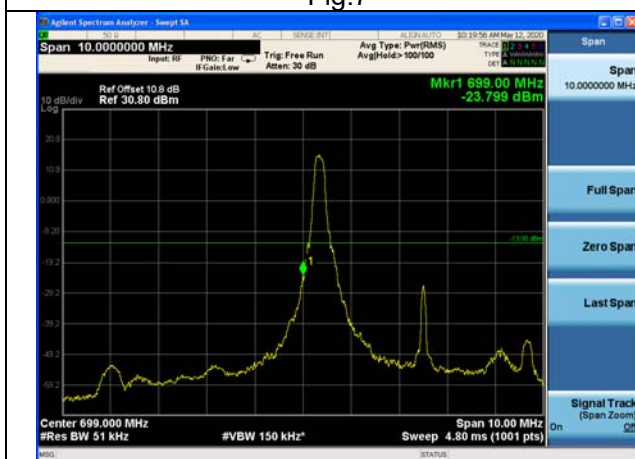


Fig.9

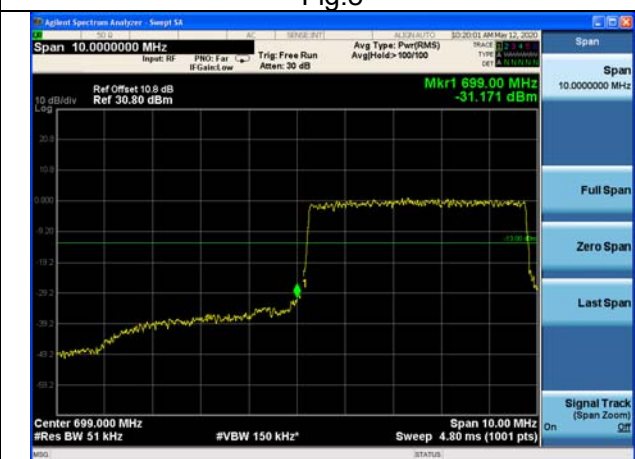


Fig.10

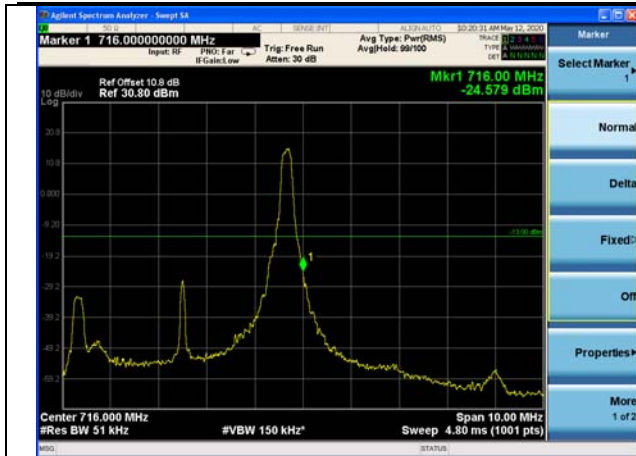


Fig.11



Fig.12

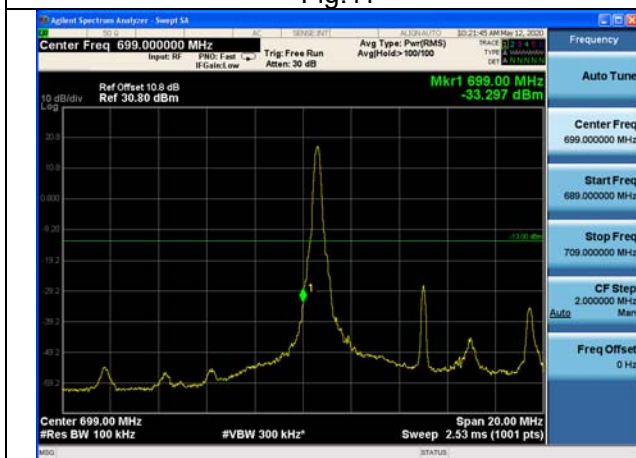


Fig.13

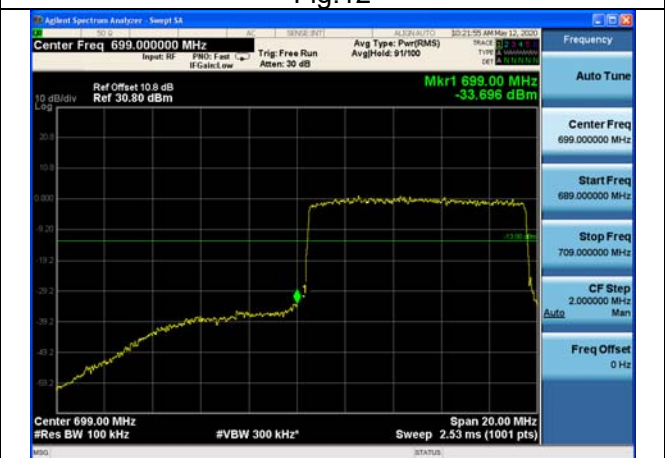


Fig.14

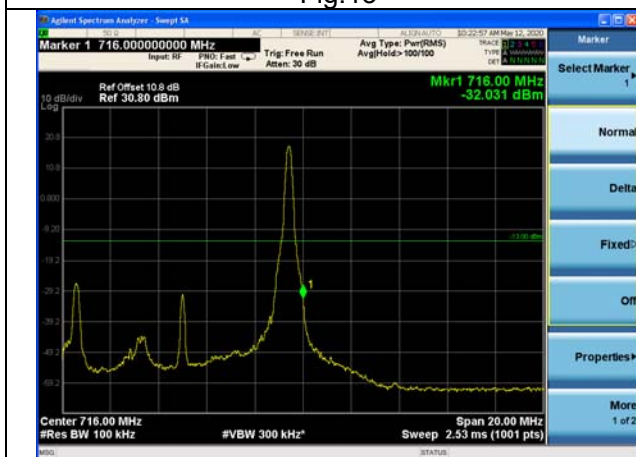


Fig.15



Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band12 Low Channel			
		1.4M	3M	5M	10M
-10	NV	0.019	0.018	-0.013	0.005
0	NV	-0.016	-0.017	-0.014	0.006
+10	NV	-0.005	0.008	0.018	-0.021
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.005	0.027	-0.002	0.017
+40	NV	0.011	-0.014	0.031	0.012
+50	NV	0.006	-0.013	0.004	0.030
+55	NV	0.007	-0.021	0.013	0.032
+20	LV	0.027	0.010	0.010	-0.010
+20	HV	0.026	0.015	0.032	0.001

Temperature(°C)	Voltage	Test Result (ppm) Band12 High Channel			
		1.4M	3M	5M	10M
-10	NV	0.014	0.013	-0.020	0.017
0	NV	0.007	0.002	-0.009	-0.004
+10	NV	-0.008	0.006	-0.021	0.027
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.019	-0.018	0.024	-0.006
+40	NV	0.021	-0.015	-0.005	0.021
+50	NV	0.000	-0.005	0.024	0.024
+55	NV	0.003	0.013	-0.003	-0.011
+20	LV	0.007	-0.031	0.016	0.013
+20	HV	0.019	0.026	-0.012	-0.009