

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 17

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	706.5	23755	5	1	0	22.50
				1	12	22.52
				1	24	22.39
				12	0	21.48
				12	6	21.62
				12	13	21.45
	25	0		21.55		
	710	23790		1	0	22.53
				1	12	22.44
				1	24	22.44
				12	0	21.66
				12	6	21.58
				12	13	21.58
	713.5	23825		25	0	21.56
				1	0	22.65
				1	12	22.48
				1	24	22.48
				12	0	21.70
12			6	21.60		
16QAM	706.5	23755	12	13	21.62	
			25	0	21.49	
			1	0	22.18	
			1	12	21.75	
			1	24	21.62	
			12	0	20.58	
	710	23790	12	6	20.61	
			12	13	20.57	
			25	0	20.49	
			1	0	21.75	
			1	12	22.18	
			1	24	21.50	
	713.5	23825	12	0	20.72	
			12	6	20.57	
			12	13	20.67	
			25	0	20.58	
			1	0	22.22	
			1	12	22.16	
1	24	21.85				
12	0	20.66				
12	6	20.58				
12	13	20.68				
25	0	20.69				

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	706.5	23755	5	1	0	20.44
				1	12	20.48
				1	24	20.32
				12	0	19.42
				12	6	19.58
				12	13	19.41
	710	23790		25	0	19.52
				1	0	20.43
				1	12	20.41
				1	24	20.40
				12	0	19.61
				12	6	19.55
	713.5	23825		12	13	19.48
				25	0	19.47
				1	0	20.56
				1	12	20.38
				1	24	20.40
				12	0	19.68
256QAM	706.5	23755	12	6	19.56	
			12	13	19.60	
			25	0	19.45	
			1	0	18.13	
			1	12	17.67	
			1	24	17.53	
	710	23790	12	0	17.54	
			12	6	17.57	
			12	13	17.48	
			25	0	17.41	
			1	0	17.72	
			1	12	18.09	
	713.5	23825	1	24	17.46	
			12	0	17.65	
			12	6	17.55	
			12	13	17.58	
			25	0	17.53	
			1	0	18.14	
			1	12	18.06	
			1	24	17.80	
			12	0	17.62	
			12	6	17.49	
			12	13	17.60	
			25	0	20.44	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	709	23780	10	1	0	17.64
				1	24	22.54
				1	49	22.60
				25	0	22.44
				25	12	21.56
				25	25	21.59
	710	23790		50	0	21.66
				1	0	21.63
				1	24	22.51
				1	49	22.62
				25	0	22.49
				25	12	21.73
	711	23800		25	25	21.56
				50	0	21.71
				1	0	21.49
				1	24	22.46
				1	49	22.55
				25	0	22.43
16QAM	709	23780	25	12	21.60	
			25	25	21.56	
			50	0	21.72	
			1	0	21.60	
			1	24	21.80	
			1	49	21.93	
	710	23790	25	0	21.58	
			25	12	20.50	
			25	25	20.72	
			50	0	20.65	
			1	0	20.56	
			1	24	22.25	
	711	23800	1	49	22.08	
			25	0	22.04	
			25	12	20.59	
			25	25	20.66	
			50	0	20.65	
			1	0	20.58	
			1	24	21.84	
			1	49	22.16	
			25	0	22.12	
			25	12	20.53	
			25	25	20.64	
			50	0	20.72	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	709	23780	10	1	0	20.65
				1	24	20.50
				1	49	20.58
				25	0	20.34
				25	12	19.49
				25	25	19.52
	710	23790		50	0	19.56
				1	0	19.60
				1	24	20.46
				1	49	20.52
				25	0	20.41
				25	12	19.69
	711	23800		25	25	19.50
				50	0	19.63
				1	0	19.39
				1	24	20.42
				1	49	20.50
				25	0	20.41
64QAM	709	23780	10	25	12	19.52
				25	25	19.46
				50	0	19.65
				1	0	19.50
				1	24	17.76
				1	49	17.84
	710	23790		25	0	17.50
				25	12	17.40
				25	25	17.67
				50	0	17.62
				1	0	17.49
				1	24	18.23
	711	23800		1	49	18.01
				25	0	18.00
				25	12	17.51
				25	25	17.62
				50	0	17.57
				1	0	17.52
				1	24	17.74
				1	49	18.11
				25	0	18.06
				25	12	17.49
				25	25	17.58
				50	0	17.68

Test on the worst case:

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)
Band17	5MHz	QPSK	23825	1RB#0	22.56
				1RB#12	22.39
				1RB#24	22.39

2 Occupied Bandwidth & Emission Bandwidth

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)							
						QPSK		16-QAM		64-QAM		256-QAM	
17	706.5	23755	5	25	0	4.476	Fig.1	4.466	Fig.4	4.476	Fig.7	4.466	Fig.10
	710	23790		25	0	4.476	Fig.2	4.466	Fig.5	4.486	Fig.8	4.466	Fig.11
	713.5	23825		25	0	4.466	Fig.3	4.466	Fig.6	4.476	Fig.9	4.466	Fig.12
	709	23780	10	50	0	8.918	Fig.13	8.918	Fig.16	8.918	Fig.19	8.918	Fig.22
	710	23790		50	0	8.952	Fig.14	8.918	Fig.17	8.918	Fig.20	8.918	Fig.23
	711	23800		50	0	8.918	Fig.15	8.918	Fig.18	8.918	Fig.21	8.918	Fig.24

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)							
						QPSK		16-QAM		64-QAM		256-QAM	
17	706.5	23755	5	25	0	4.890	Fig.1	4.890	Fig.4	4.870	Fig.7	4.850	Fig.10
	710	23790		25	0	4.890	Fig.2	4.910	Fig.5	4.900	Fig.8	4.840	Fig.11
	713.5	23825		25	0	4.880	Fig.3	4.900	Fig.6	4.910	Fig.9	4.850	Fig.12
	709	23780	10	50	0	9.700	Fig.13	9.667	Fig.16	9.733	Fig.19	9.633	Fig.22
	710	23790		50	0	9.700	Fig.14	9.700	Fig.17	9.667	Fig.20	9.633	Fig.23
	711	23800		50	0	9.667	Fig.15	9.667	Fig.18	9.667	Fig.21	9.633	Fig.24

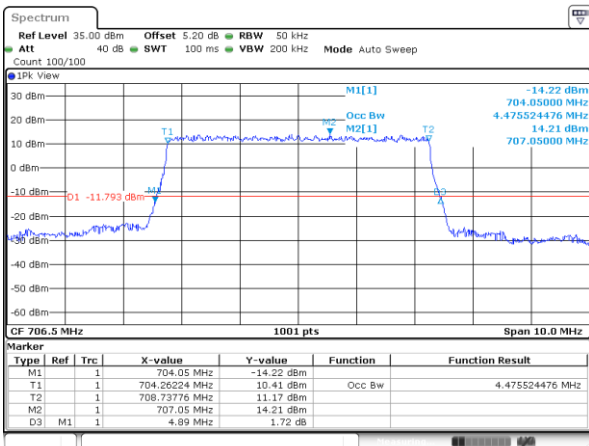


Fig.1

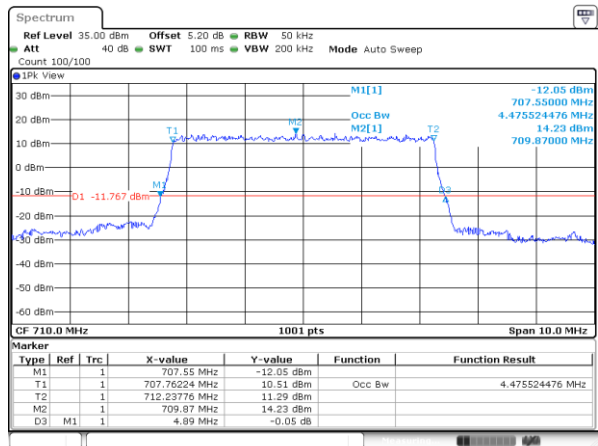


Fig.2

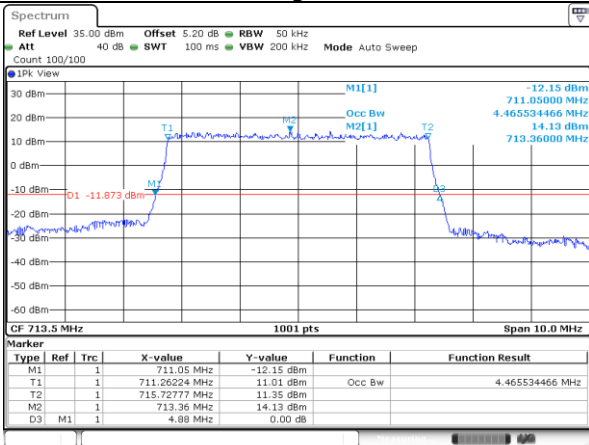


Fig.3

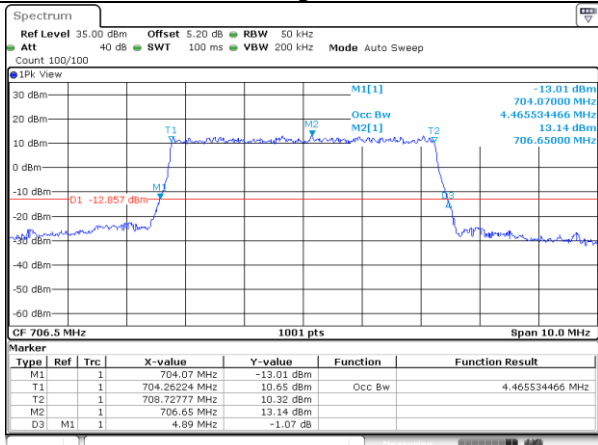


Fig.4

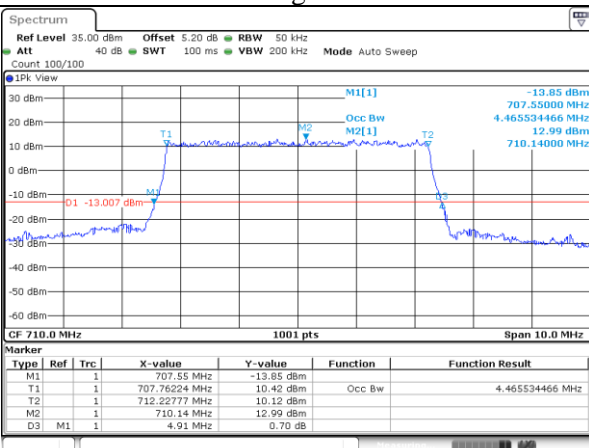


Fig.5

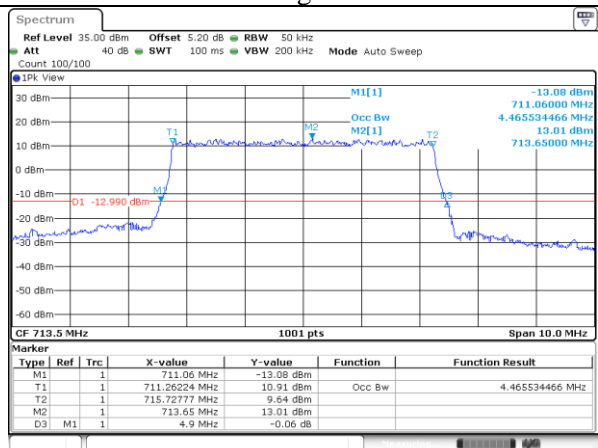


Fig.6

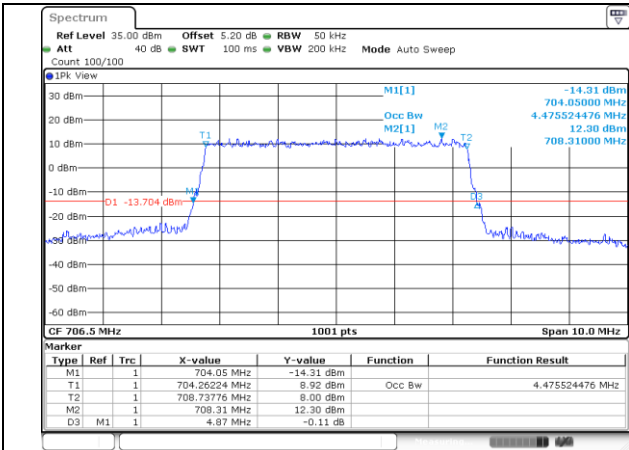


Fig.7

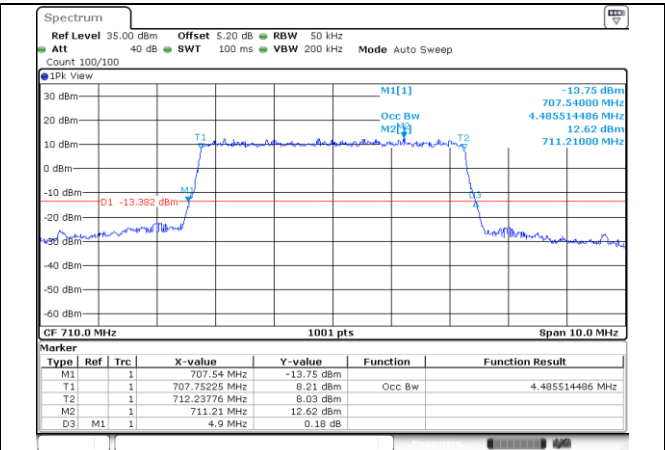


Fig.8

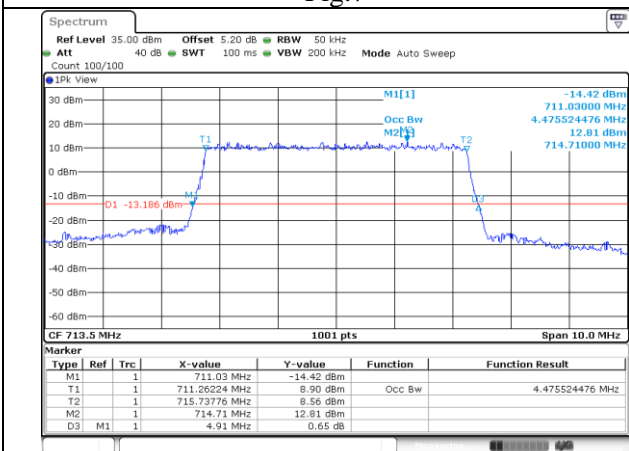


Fig.9

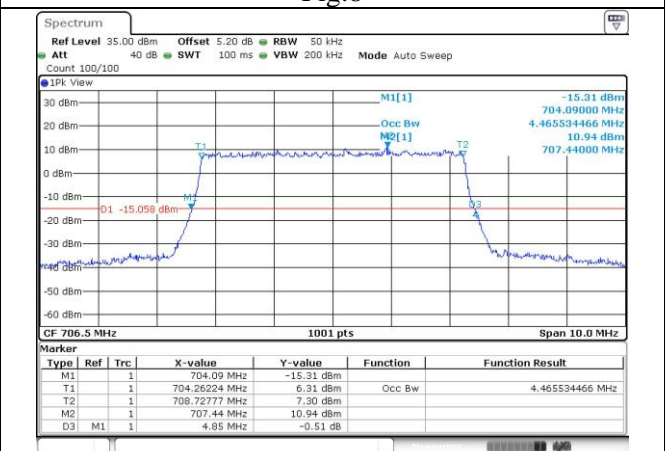


Fig.10

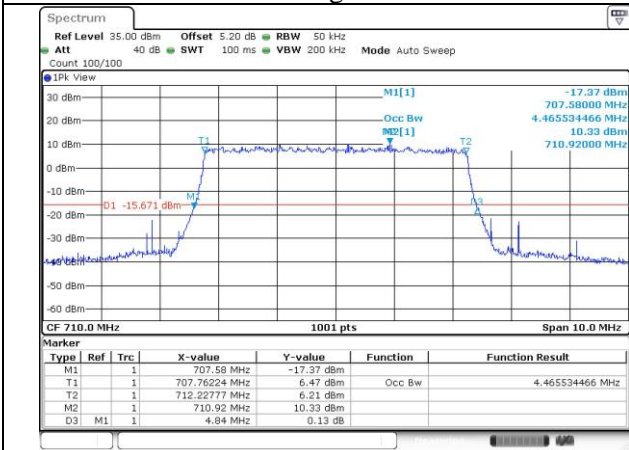


Fig.11

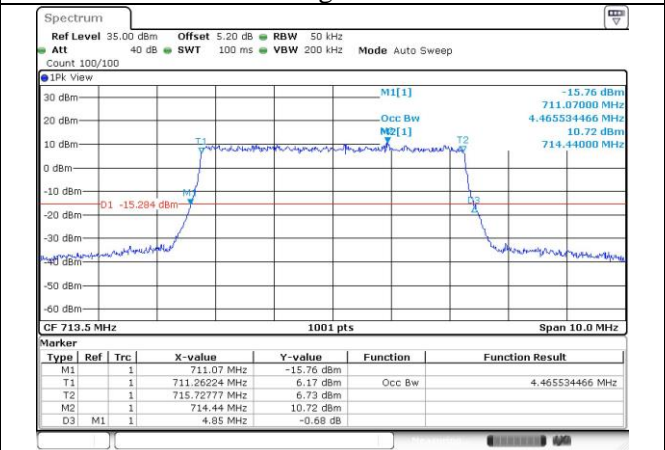


Fig.12

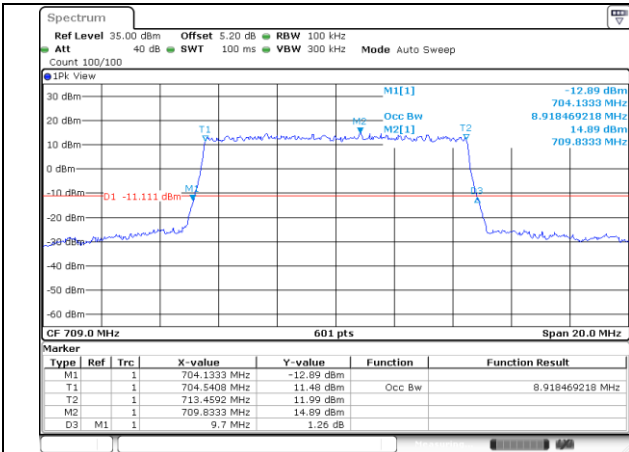


Fig.13

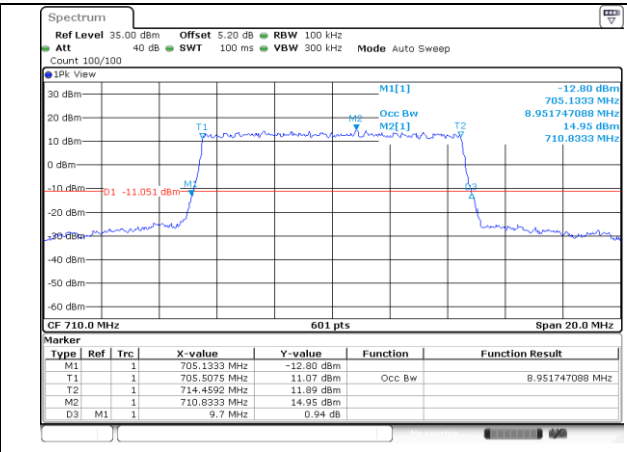


Fig.14

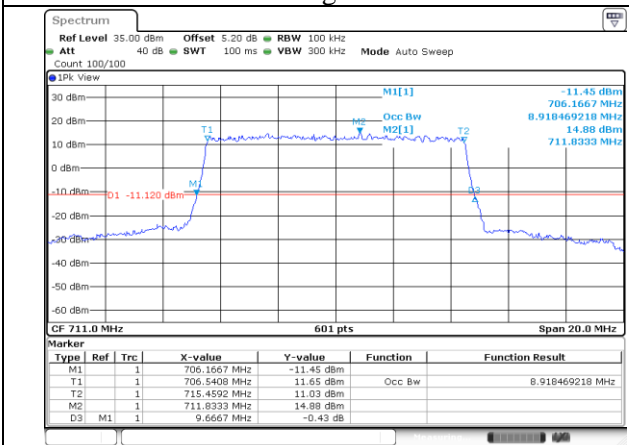


Fig.15

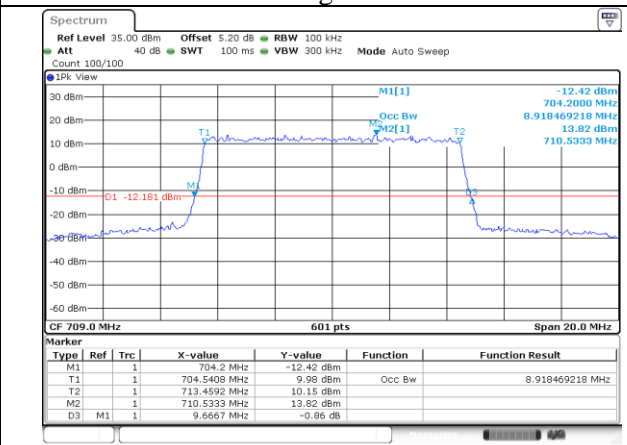


Fig.16

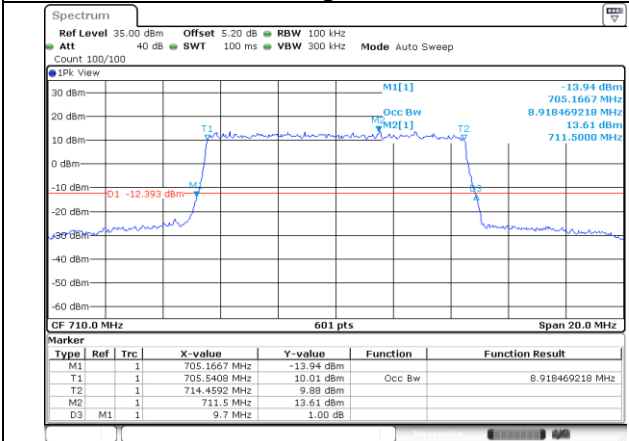


Fig.17

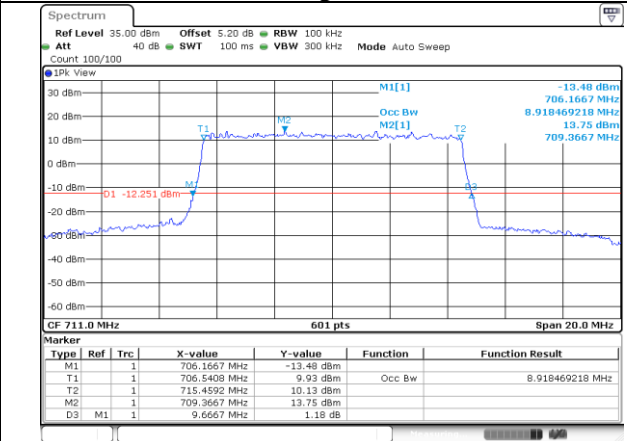


Fig.18

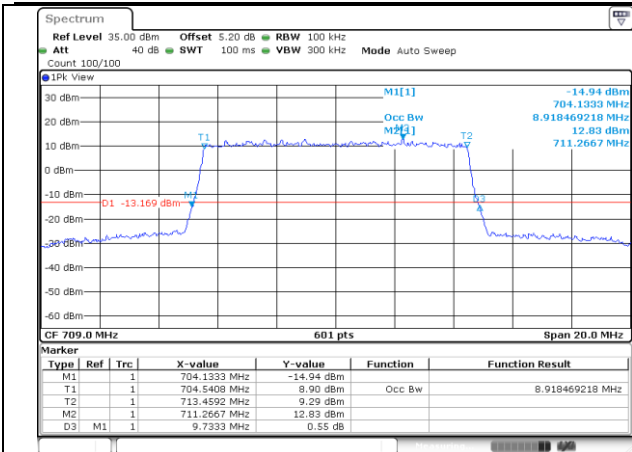


Fig.19

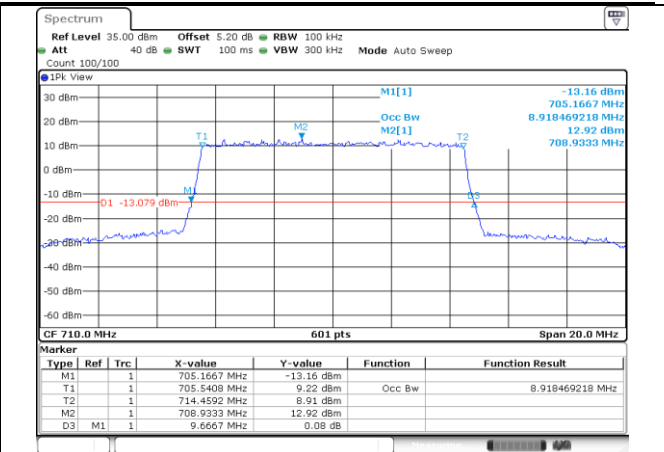


Fig.20

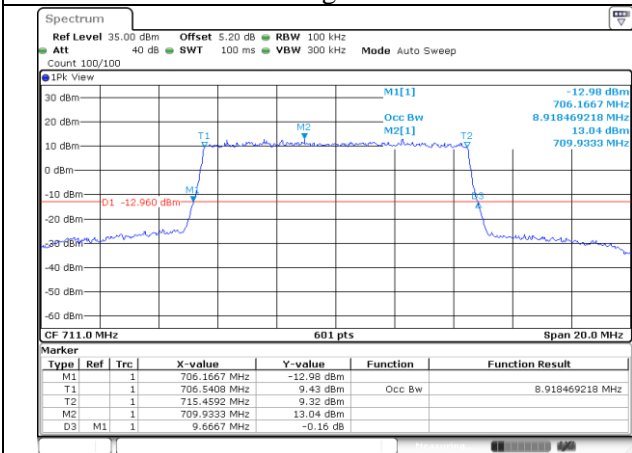


Fig.21

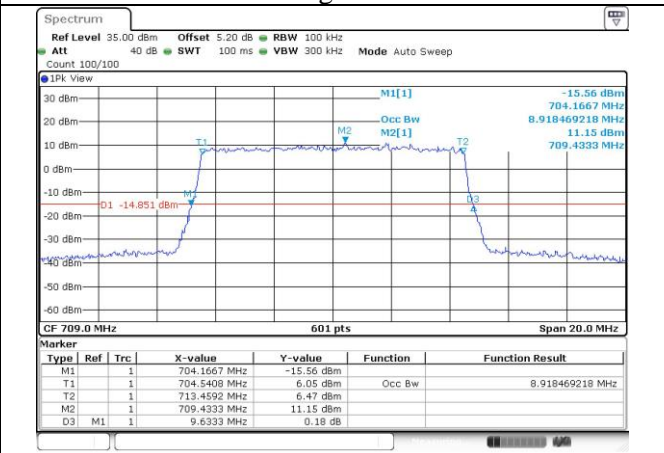


Fig.22

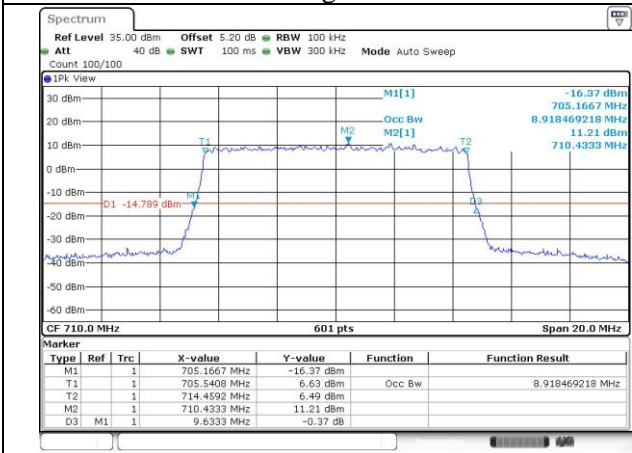


Fig.23

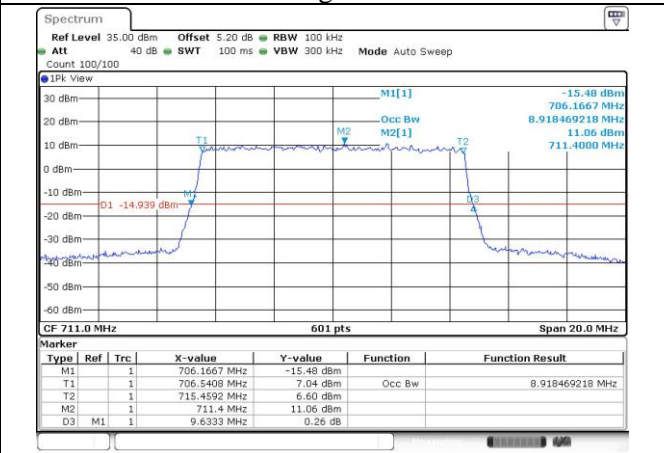


Fig.24

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM	256-QAM
17	709	23780	10	50	0	Fig.1	Fig.4	Fig.7	Fig.10
	710	23790		50	0	Fig.2	Fig.5	Fig.8	Fig.11
	711	23800		50	0	Fig.3	Fig.6	Fig.9	Fig.12

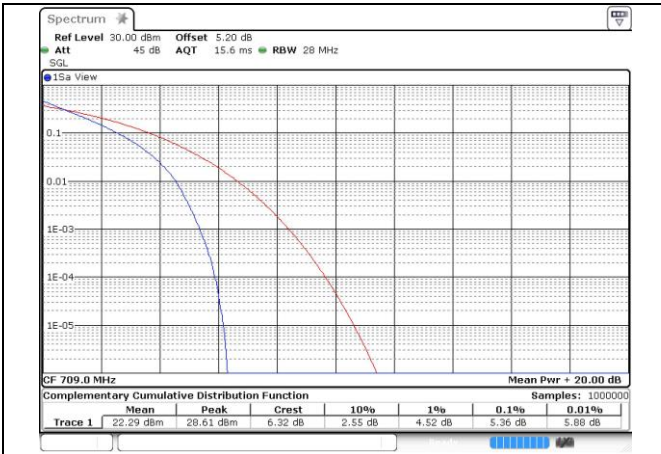


Fig.1

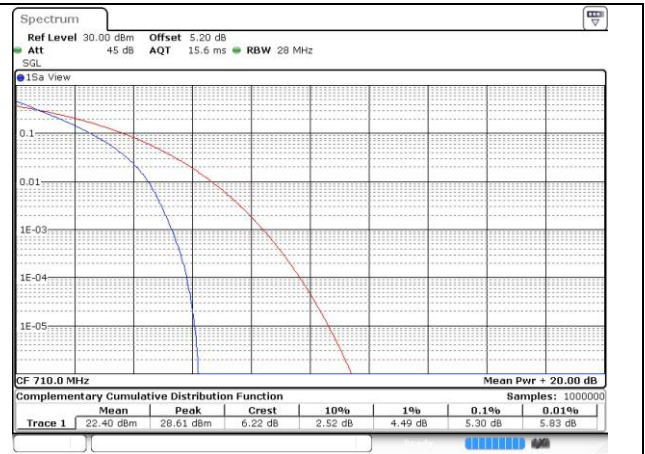


Fig.2

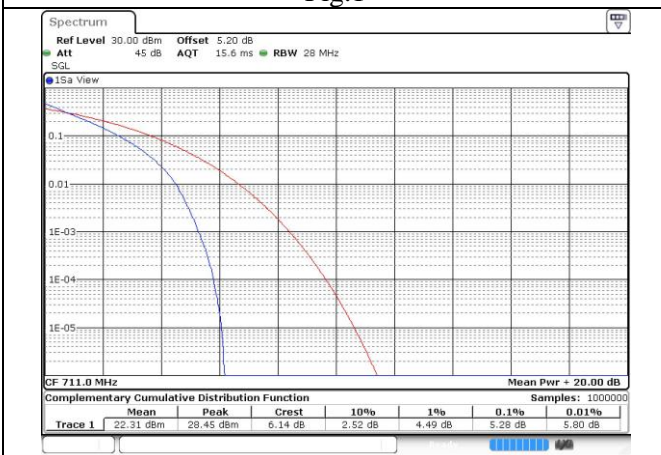


Fig.3

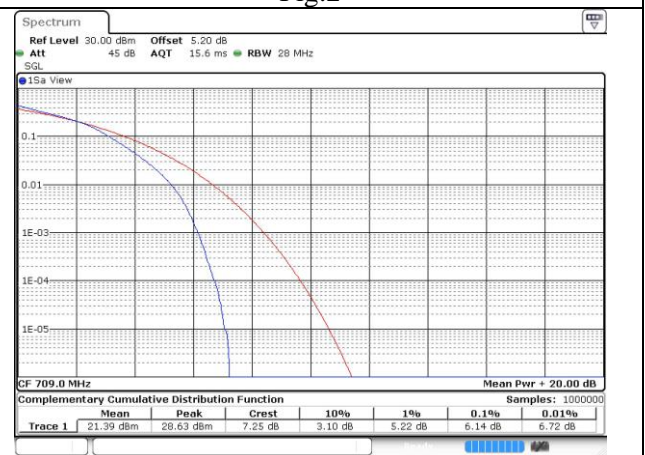


Fig.4

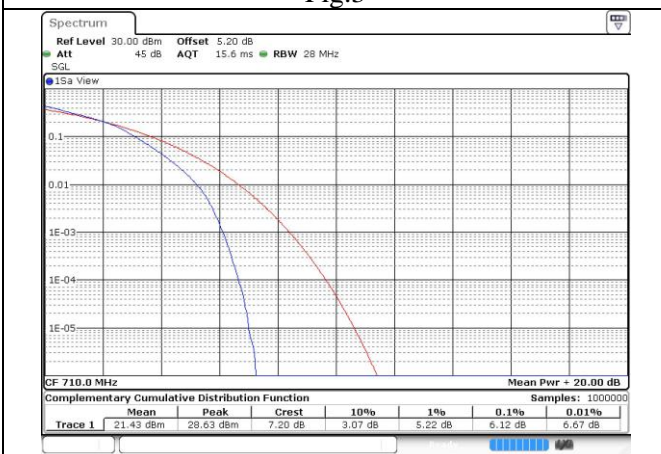


Fig.5

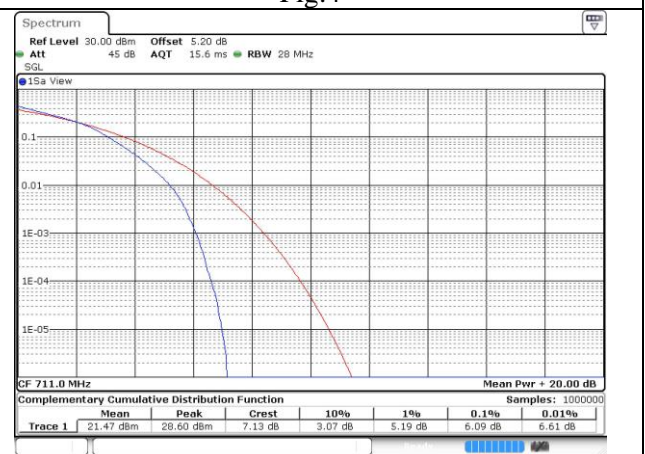


Fig.6

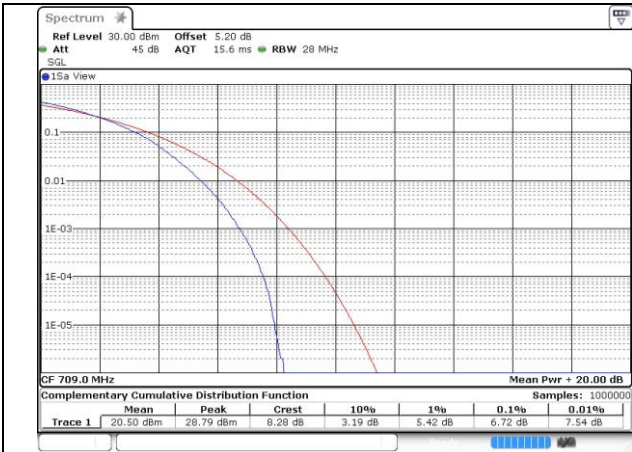


Fig.7

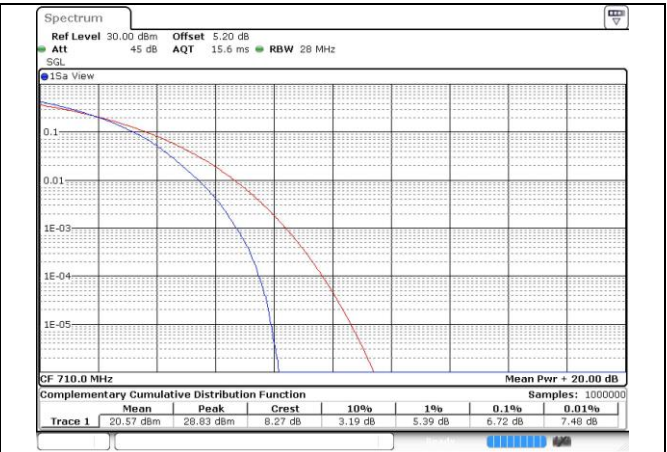


Fig.8



Fig.9

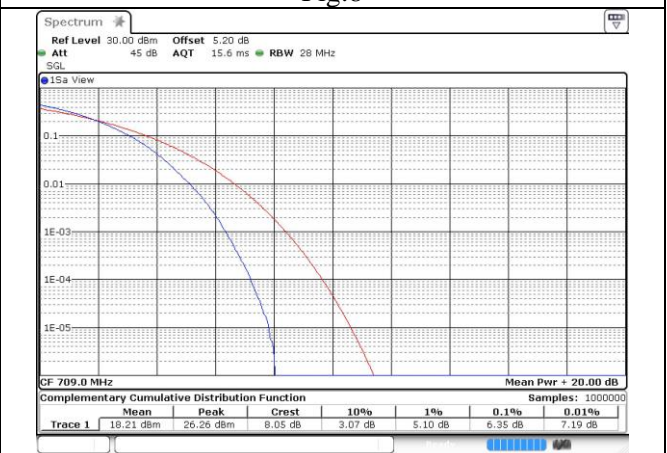


Fig.10



Fig.11

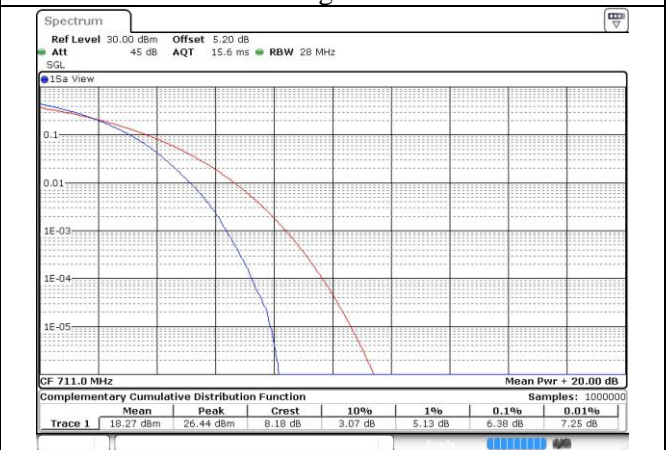


Fig.12

4 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
17	709	23780	10	1	0	Fig.1
	710	23790		1	0	Fig.2
	711	23800		1	0	Fig.3

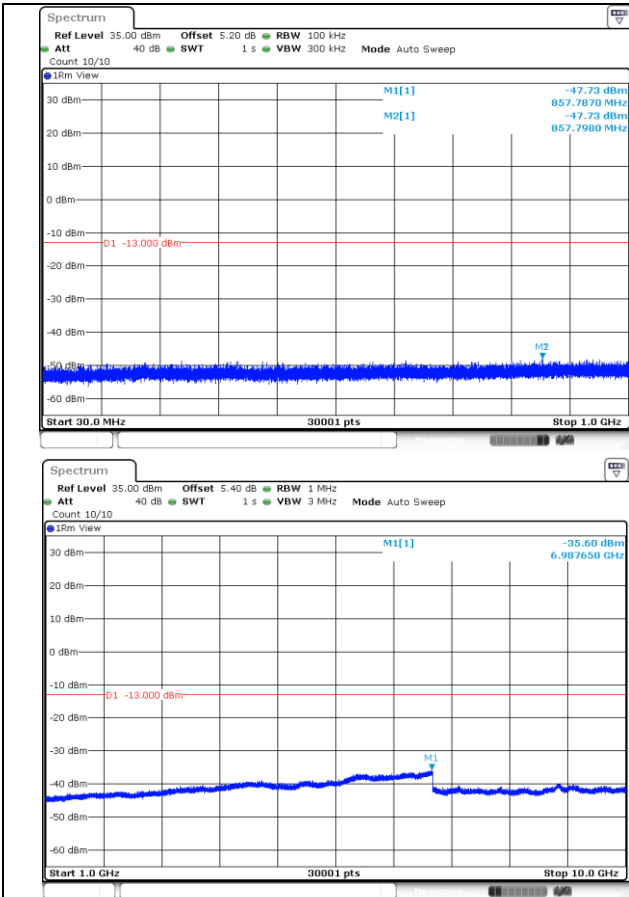


Fig.1

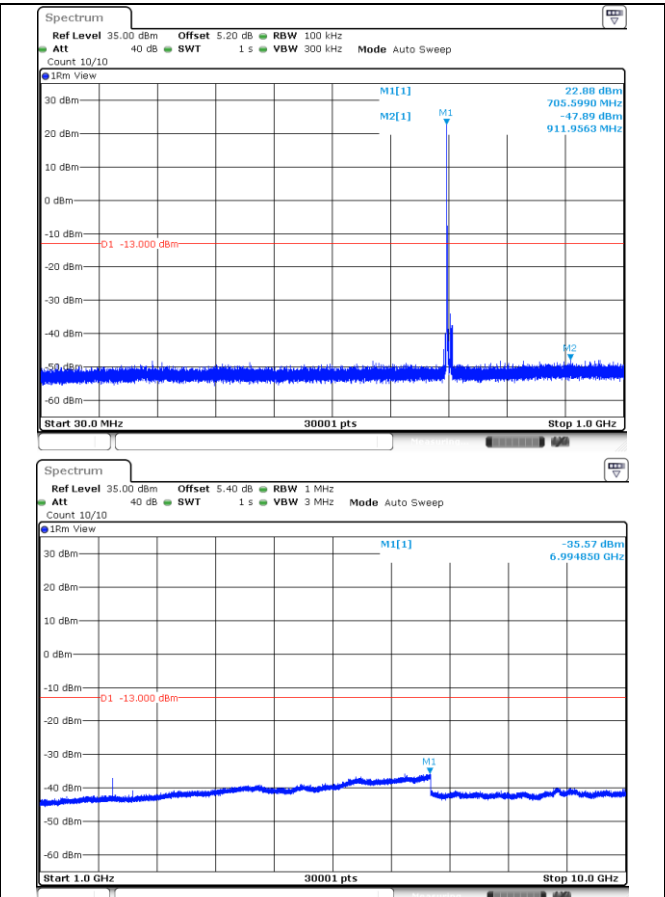
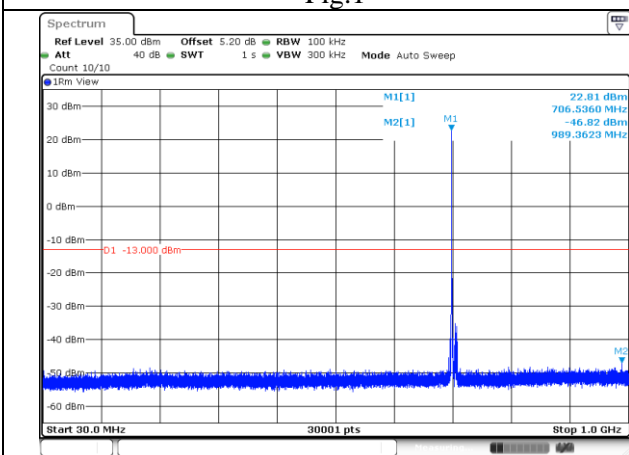


Fig.2



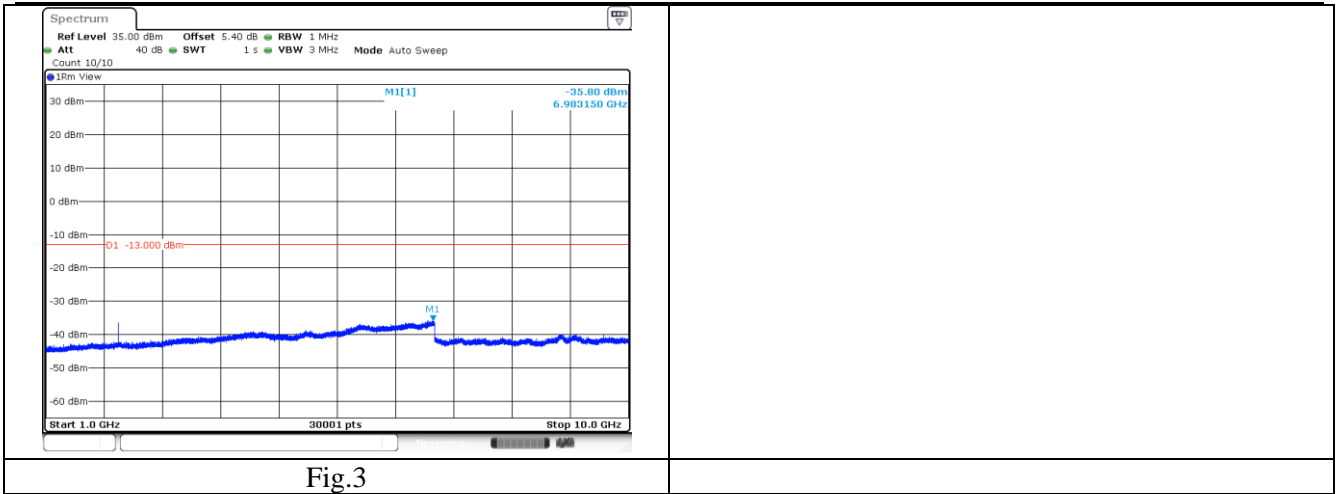


Fig.3

5 Band Edges Compliance

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
17	706.5	23755	5	1	0	Fig.1
				25	0	Fig.2
	1	24		Fig.3		
	25	0		Fig.4		
	709	23780	10	1	0	Fig.5
				50	0	Fig.6
	1	49		Fig.7		
	50	0		Fig.8		
711	23800					

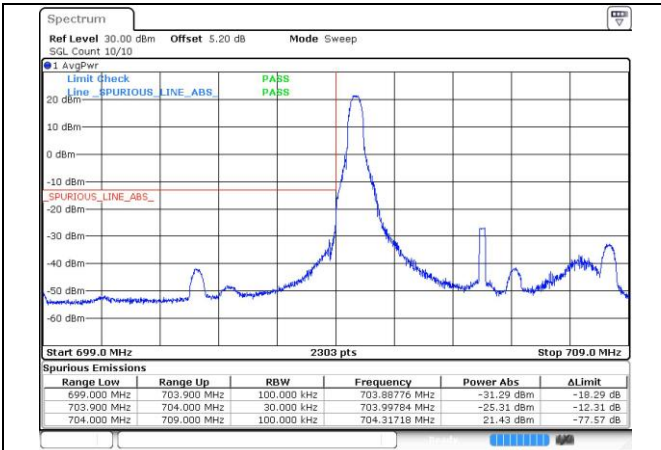


Fig.1

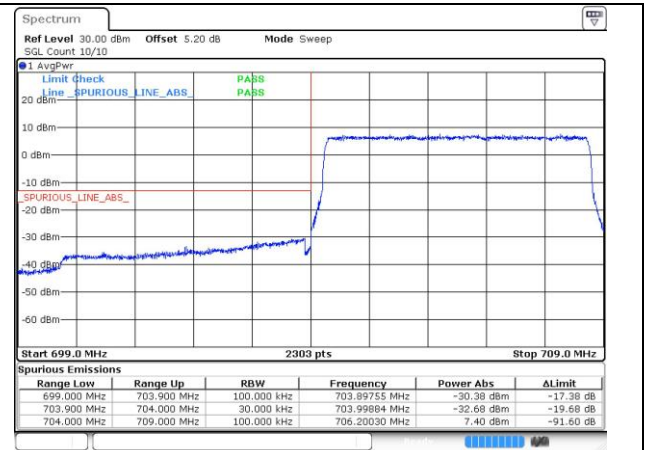


Fig.2

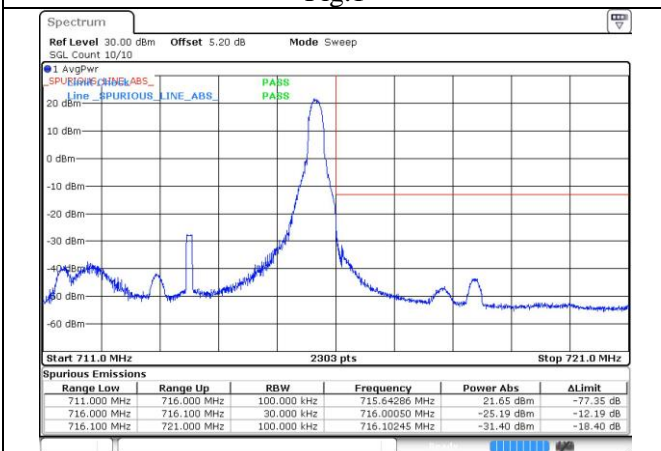


Fig.3

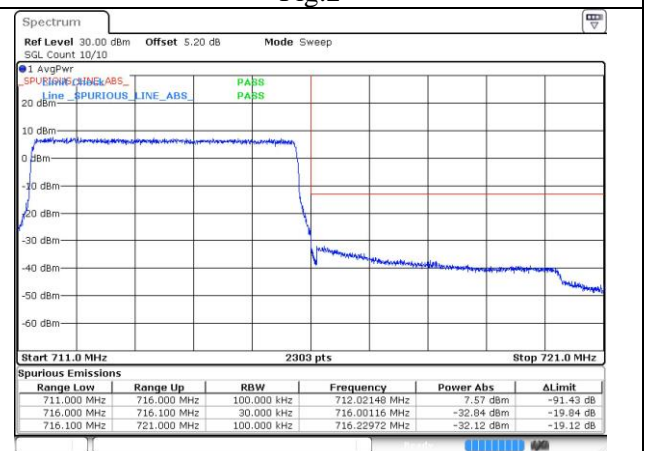


Fig.4

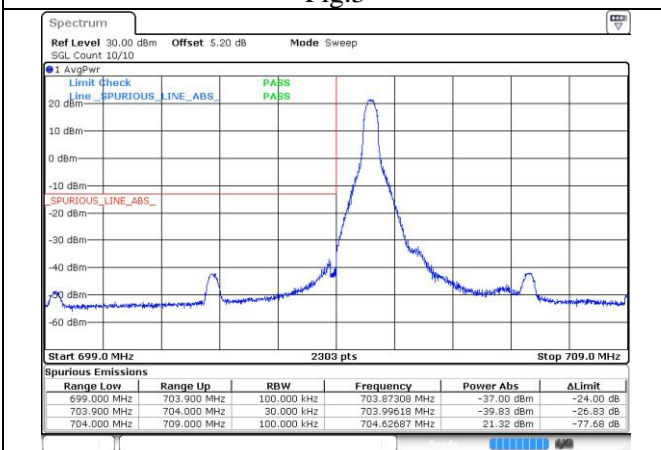


Fig.5

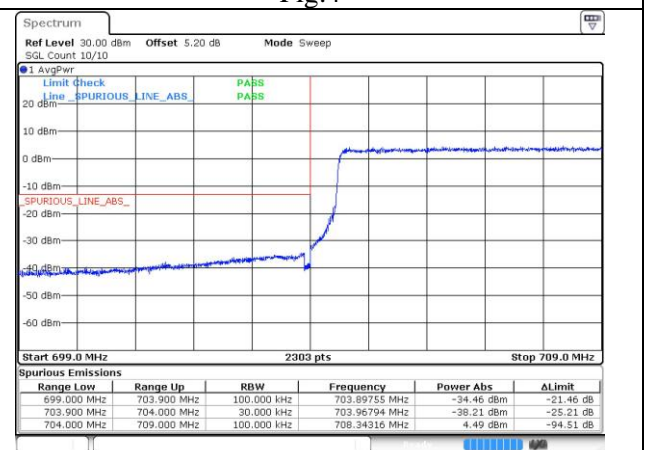


Fig.6

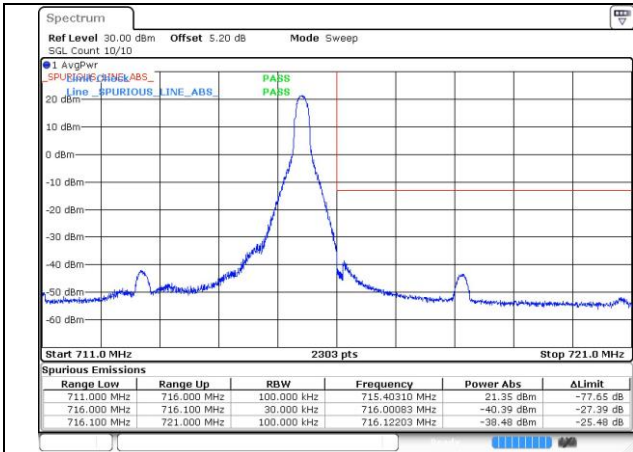


Fig.7

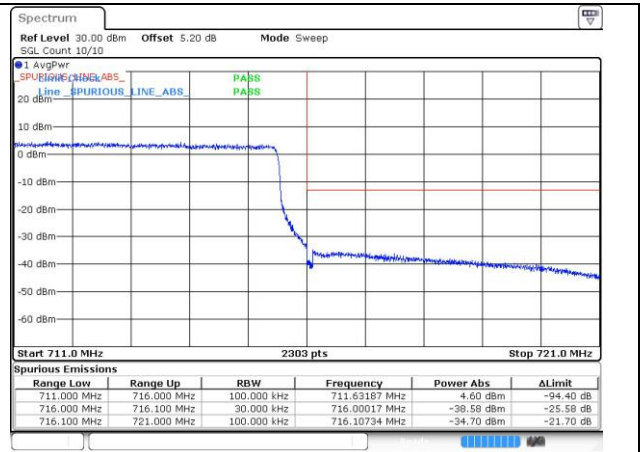


Fig.8

6 Frequency Stability

Temperature(°C)	Voltage	Test Result (ppm) Band17 Low Channel QPSK					
		1.4M	3M	5M	10M	15M	20M
-30	NV	---	---	---	0.003244	---	---
-20	NV	---	---	---	0.003526	---	---
-10	NV	---	---	---	0.007052	---	---
0	NV	---	---	---	0.011001	---	---
+10	NV	---	---	---	0.004231	---	---
+20	NV	---	---	---	0.009732	---	---
+30	NV	---	---	---	0.003526	---	---
+40	NV	---	---	---	0.001693	---	---
+50	NV	---	---	---	0.004372	---	---
+20	LV	---	---	---	0.001269	---	---
+20	HV	---	---	---	0.004795	---	---

Temperature(°C)	Voltage	Test Result (ppm) Band17 High Channel QPSK					
		1.4M	3M	5M	10M	15M	20M
-30	NV	---	---	---	0.002954	---	---
-20	NV	---	---	---	0.007595	---	---
-10	NV	---	---	---	0.006188	---	---
0	NV	---	---	---	0.011533	---	---
+10	NV	---	---	---	0.007454	---	---
+20	NV	---	---	---	0.004782	---	---
+30	NV	---	---	---	0.006329	---	---
+40	NV	---	---	---	0.005485	---	---
+50	NV	---	---	---	0.007314	---	---
+20	LV	---	---	---	0.003376	---	---
+20	HV	---	---	---	0.005485	---	---

7 Effective Radiated Power and Effective Isotropic Radiated Power

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conduct ed power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	706.5	23755	5	1	0	22.50	16.35	0.043
				1	12	22.52	16.37	0.043
				1	24	22.39	16.24	0.042
				12	0	21.48	15.33	0.034
				12	6	21.62	15.47	0.035
				12	13	21.45	15.30	0.034
	25	0		21.55	15.40	0.035		
	710	23790		1	0	22.53	16.38	0.043
				1	12	22.44	16.29	0.043
				1	24	22.44	16.29	0.043
				12	0	21.66	15.51	0.036
				12	6	21.58	15.43	0.035
				12	13	21.58	15.43	0.035
	25	0		21.56	15.41	0.035		
	713.5	23825		1	0	22.65	16.50	0.045
				1	12	22.48	16.33	0.043
				1	24	22.48	16.33	0.043
				12	0	21.70	15.55	0.036
12			6	21.60	15.45	0.035		
12			13	21.62	15.47	0.035		
25	0	21.49	15.34	0.034				
16QAM	706.5	23755	1	0	22.18	16.03	0.040	
			1	12	21.75	15.60	0.036	
			1	24	21.62	15.47	0.035	
			12	0	20.58	14.43	0.028	
			12	6	20.61	14.46	0.028	
			12	13	20.57	14.42	0.028	
	25	0	20.49	14.34	0.027			
	710	23790	1	0	21.75	15.60	0.036	
			1	12	22.18	16.03	0.040	
			1	24	21.50	15.35	0.034	
			12	0	20.72	14.57	0.029	
			12	6	20.57	14.42	0.028	
			12	13	20.67	14.52	0.028	
	25	0	20.58	14.43	0.028			
	713.5	23825	1	0	22.22	16.07	0.040	
			1	12	22.16	16.01	0.040	
			1	24	21.85	15.70	0.037	
			12	0	20.66	14.51	0.028	
12			6	20.58	14.43	0.028		
12			13	20.68	14.53	0.028		
25	0	20.69	14.54	0.028				

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conduct ed power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
64QAM	706.5	23755	5	1	0	20.44	14.29	0.027
				1	12	20.48	14.33	0.027
				1	24	20.32	14.17	0.026
				12	0	19.42	13.27	0.021
				12	6	19.58	13.43	0.022
				12	13	19.41	13.26	0.021
	25	0		19.52	13.37	0.022		
	710	23790		1	0	20.43	14.28	0.027
				1	12	20.41	14.26	0.027
				1	24	20.40	14.25	0.027
				12	0	19.61	13.46	0.022
				12	6	19.55	13.4	0.022
				12	13	19.48	13.33	0.022
	25	0		19.47	13.32	0.021		
	713.5	23825		1	0	20.56	14.41	0.028
				1	12	20.38	14.23	0.026
				1	24	20.40	14.25	0.027
				12	0	19.68	13.53	0.023
12			6	19.56	13.41	0.022		
12			13	19.60	13.45	0.022		
25	0	19.45	13.3	0.021				
256QAM	706.5	23755	5	1	0	18.13	11.98	0.016
				1	12	17.67	11.52	0.014
				1	24	17.53	11.38	0.014
				12	0	17.54	11.39	0.014
				12	6	17.57	11.42	0.014
				12	13	17.48	11.33	0.014
	25	0		17.41	11.26	0.013		
	710	23790		1	0	17.72	11.57	0.014
				1	12	18.09	11.94	0.016
				1	24	17.46	11.31	0.014
				12	0	17.65	11.5	0.014
				12	6	17.55	11.4	0.014
				12	13	17.58	11.43	0.014
	25	0		17.53	11.38	0.014		
	713.5	23825		1	0	18.14	11.99	0.016
				1	12	18.06	11.91	0.016
				1	24	17.80	11.65	0.015
				12	0	17.62	11.47	0.014
12			6	17.49	11.34	0.014		
12			13	17.60	11.45	0.014		
25	0	17.64	11.49	0.014				

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conduct ed power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	709	23780	10	1	0	22.54	16.39	0.044
				1	24	22.60	16.45	0.044
				1	49	22.44	16.29	0.043
				25	0	21.56	15.41	0.035
				25	12	21.59	15.44	0.035
				25	25	21.66	15.51	0.036
	710	23790		50	0	21.63	15.48	0.035
				1	0	22.51	16.36	0.043
				1	24	22.62	16.47	0.044
				1	49	22.49	16.34	0.043
				25	0	21.73	15.58	0.036
				25	12	21.56	15.41	0.035
	711	23800		25	25	21.71	15.56	0.036
				50	0	21.49	15.34	0.034
				1	0	22.46	16.31	0.043
1			24	22.55	16.4	0.044		
1			49	22.43	16.28	0.042		
25			0	21.60	15.45	0.035		
16QAM	709	23780	25	12	21.56	15.41	0.035	
			25	25	21.72	15.57	0.036	
			50	0	21.60	15.45	0.035	
			1	0	21.80	15.65	0.037	
			1	24	21.93	15.78	0.038	
			1	49	21.58	15.43	0.035	
	710	23790	25	0	20.50	14.35	0.027	
			25	12	20.72	14.57	0.029	
			25	25	20.65	14.5	0.028	
			50	0	20.56	14.41	0.028	
			1	0	22.25	16.1	0.041	
			1	24	22.08	15.93	0.039	
	711	23800	1	49	22.04	15.89	0.039	
			25	0	20.59	14.44	0.028	
			25	12	20.66	14.51	0.028	
25			25	20.65	14.5	0.028		
50			0	20.58	14.43	0.028		
1			0	21.84	15.69	0.037		
			1	24	22.16	16.01	0.040	
			1	49	22.12	15.97	0.040	
			25	0	20.53	14.38	0.027	
			25	12	20.64	14.49	0.028	
			25	25	20.72	14.57	0.029	
			50	0	20.65	14.5	0.028	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conduct ed power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
64QAM	709	23780	10	1	0	20.50	14.35	0.027
				1	24	20.58	14.43	0.028
				1	49	20.34	14.19	0.026
				25	0	19.49	13.34	0.022
				25	12	19.52	13.37	0.022
				25	25	19.56	13.41	0.022
	50	0		19.60	13.45	0.022		
	710	23790		1	0	20.46	14.31	0.027
				1	24	20.52	14.37	0.027
				1	49	20.41	14.26	0.027
				25	0	19.69	13.54	0.023
				25	12	19.50	13.35	0.022
				25	25	19.63	13.48	0.022
	711	23800		50	0	19.39	13.24	0.021
				1	0	20.42	14.27	0.027
				1	24	20.50	14.35	0.027
				1	49	20.41	14.26	0.027
				25	0	19.52	13.37	0.022
25			12	19.46	13.31	0.021		
256QAM	709	23780	10	25	25	19.65	13.5	0.022
				50	0	19.50	13.35	0.022
				1	0	17.76	11.61	0.014
				1	24	17.84	11.69	0.015
				1	49	17.5	11.35	0.014
				25	0	17.4	11.25	0.013
	710	23790		25	12	17.67	11.52	0.014
				25	25	17.62	11.47	0.014
				50	0	17.49	11.34	0.014
				1	0	18.23	12.08	0.016
				1	24	18.01	11.86	0.015
				1	49	18	11.85	0.015
	711	23800		25	0	17.51	11.36	0.014
				25	12	17.62	11.47	0.014
				25	25	17.57	11.42	0.014
				50	0	17.52	11.37	0.014
				1	0	17.74	11.59	0.014
				1	24	18.11	11.96	0.016
				1	49	18.06	11.91	0.016
				25	0	17.49	11.34	0.014
				25	12	17.58	11.43	0.014
				25	25	17.68	11.53	0.014
				50	0	17.60	11.45	0.014

Test on the worst case:

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	ERP (dBm)	Limit (dBm)
Band17	5MHz	QPSK	23825	1RB#0	22.56	16.41	0.044
				1RB#12	22.39	16.24	0.042
				1RB#24	22.39	16.24	0.042