

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 17

1 RF Power Output

Rx Power Output							
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
QPSK	706.5	23755	5	1	0	23.42	
				1	12	23.46	
				1	24	23.51	
				12	0	22.40	
				12	7	22.47	
				12	13	22.54	
	25	0		21.54			
	710	23790		1	0	23.41	
				1	12	23.39	
				1	24	23.38	
				12	0	22.46	
				12	7	22.54	
				12	13	22.47	
	25	0		21.48			
	713.5	23825		1	0	23.41	
				1	12	23.38	
				1	24	23.44	
				12	0	22.49	
				12	7	22.47	
				12	13	22.47	
	25	0		21.37			
	16QAM	706.5		23755	1	0	22.57
					1	12	22.61
					1	24	22.44
12					0	21.54	
12					7	21.42	
12					13	21.53	
25		0		20.56			
710		23790		1	0	22.79	
				1	12	22.81	
			1	24	22.77		
			12	0	21.51		
			12	7	21.64		
			12	13	21.54		
25		0	20.46				
713.5		23825	1	0	22.56		
			1	12	22.58		
			1	24	22.61		
			12	0	21.45		
			12	7	21.46		
			12	13	21.42		
			25	0	20.43		

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	706.5	23755	5	1	0	21.62
				1	12	21.58
				1	24	21.55
				12	0	20.62
				12	7	20.61
				12	13	20.61
				25	0	19.62
	710	23790		1	0	21.47
				1	12	21.47
				1	24	21.42
				12	0	20.47
				12	7	20.44
				12	13	20.51
				25	0	19.47
	713.5	23825		1	0	21.45
				1	12	21.49
				1	24	21.48
				12	0	20.41
				12	7	20.45
				12	13	20.44
				25	0	19.30

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	709	23780	10	1	0	23.58
				1	25	23.48
				1	49	23.33
				25	0	22.49
				25	12	22.54
				25	25	22.54
				50	0	21.60
	710	23790		1	0	23.45
				1	25	23.48
				1	49	23.41
				25	0	22.50
				25	12	22.57
				25	25	22.61
				50	0	21.50
	711	23800		1	0	23.54
				1	25	23.45
				1	49	23.53
				25	0	22.45
				25	12	22.50
				25	25	22.55
				50	0	21.49
16QAM	709	23780	1	0	23.30	
			1	25	23.11	
			1	49	22.97	
			25	0	21.54	
			25	12	21.68	
			25	25	21.72	
			50	0	20.54	
	710	23790	1	0	22.64	
			1	25	22.60	
			1	49	22.60	
			25	0	21.52	
			25	12	21.59	
			25	25	21.59	
			50	0	20.46	
	711	23800	1	0	22.58	
			1	25	22.53	
			1	49	22.57	
			25	0	21.59	
			25	12	21.71	
			25	25	21.67	
			50	0	20.54	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	709	23780	10	1	0	21.64
				1	25	21.59
				1	49	21.58
				25	0	20.58
				25	12	20.59
				25	25	20.59
				50	0	19.59
	710	23790		1	0	21.50
				1	25	21.49
				1	49	21.56
				25	0	20.49
				25	12	20.56
				25	25	20.49
				50	0	19.48
	711	23800		1	0	21.54
				1	25	21.56
				1	49	21.49
				25	0	20.47
				25	12	20.49
				25	25	20.48
				50	0	19.48

2 Occupied Bandwidth

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)					
						QPSK		16-QAM		64-QAM	
17	706.5	23755	5	25	0	4.472	Fig.1	4.472	Fig.2	4.472	Fig.3
	710	23790		25	0	4.472	Fig.4	4.472	Fig.5	4.472	Fig.6
	713.5	23825		25	0	4.472	Fig.7	4.472	Fig.8	4.493	Fig.9
	709	23780	10	50	0	8.944	Fig.10	8.944	Fig.11	8.944	Fig.12
	710	23790		50	0	8.944	Fig.13	8.944	Fig.14	8.944	Fig.15
	711	23800		50	0	8.944	Fig.16	8.944	Fig.17	8.944	Fig.18

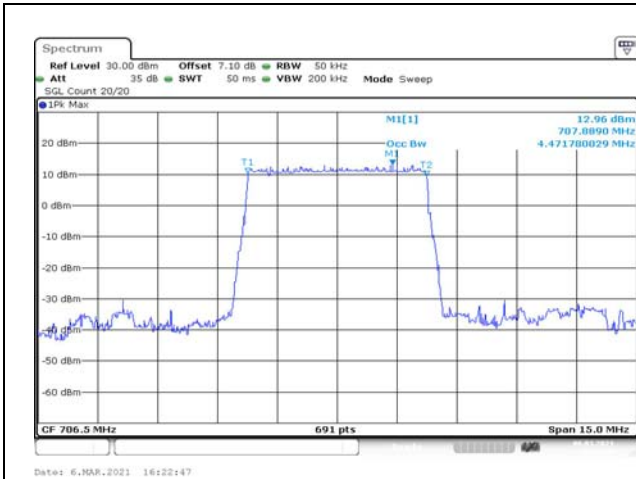


Fig.1

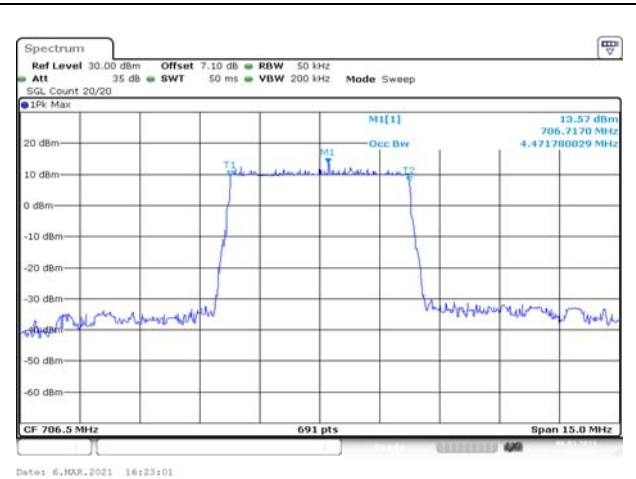


Fig.2

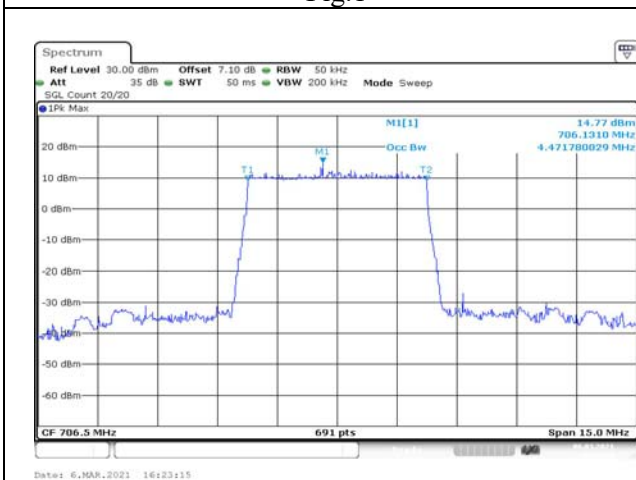


Fig.3

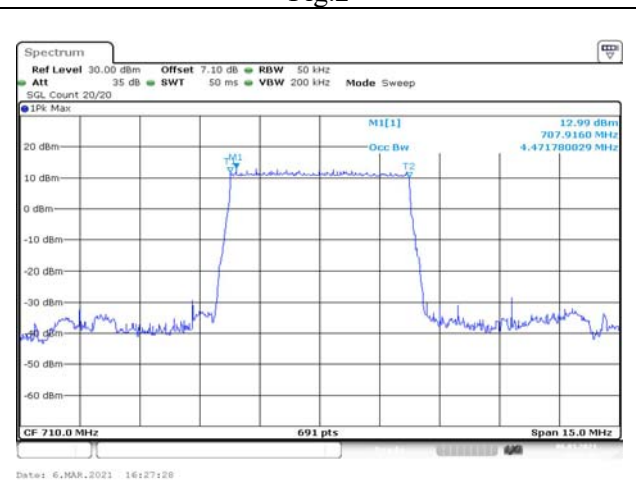


Fig.4

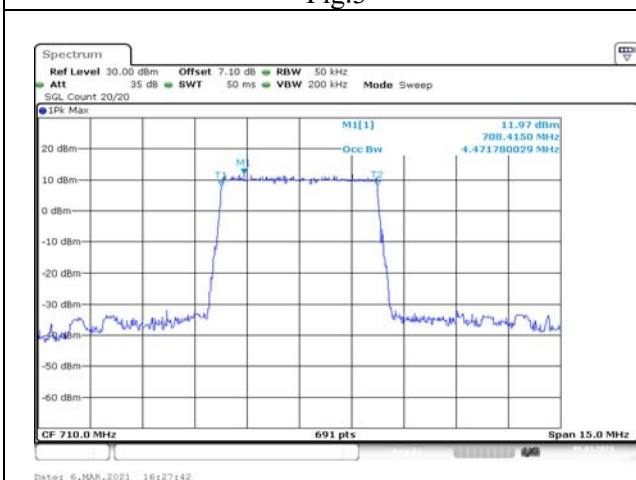


Fig.5

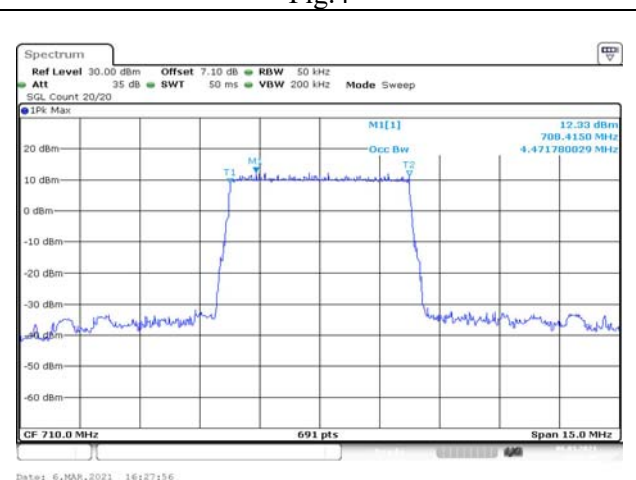
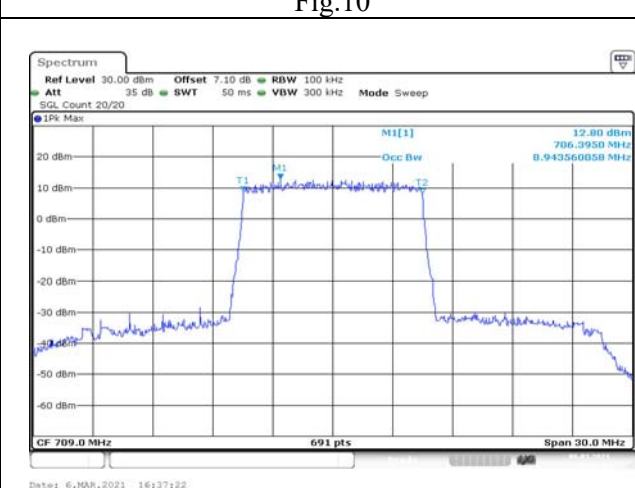
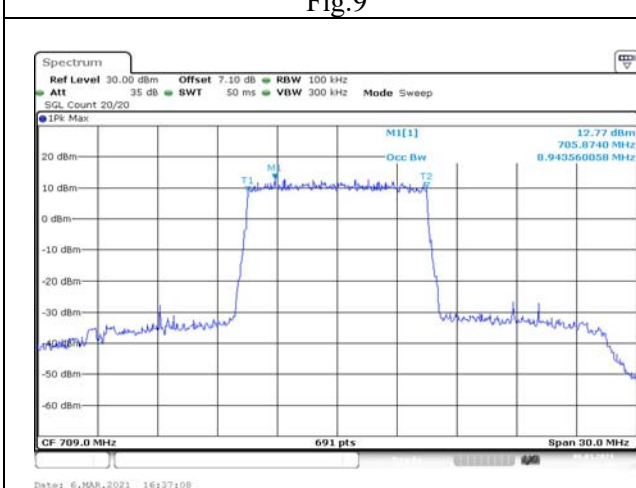
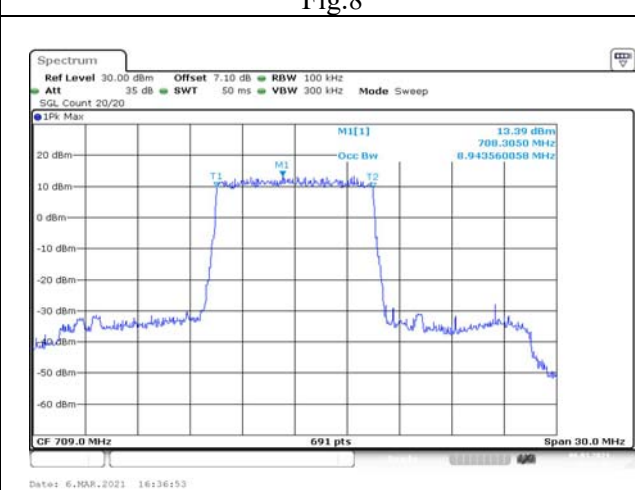
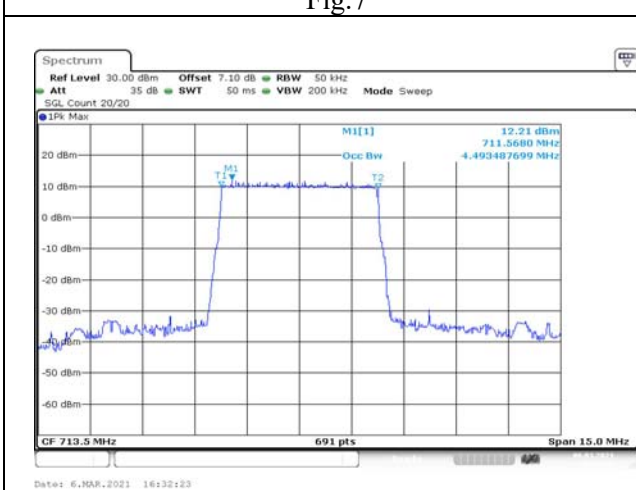
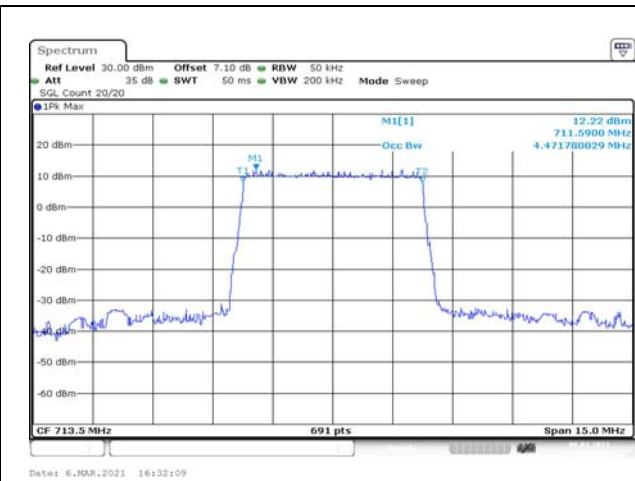
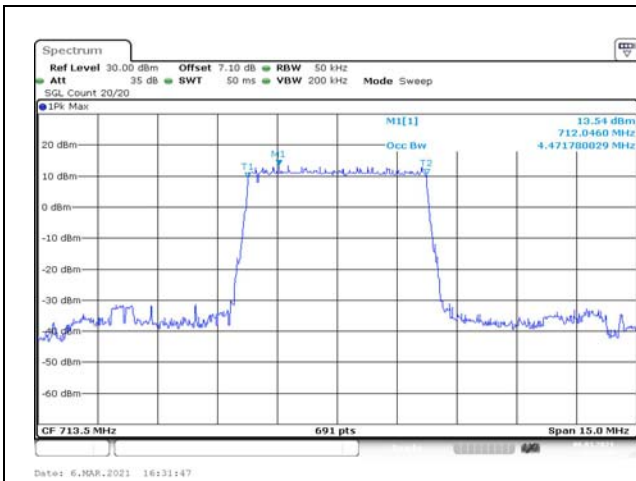


Fig.6



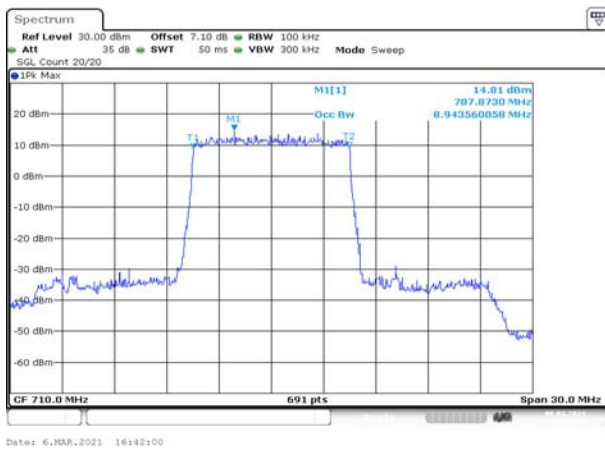


Fig.13

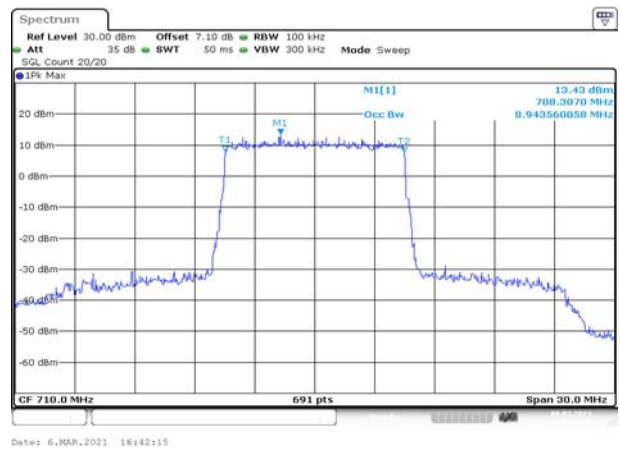


Fig.14

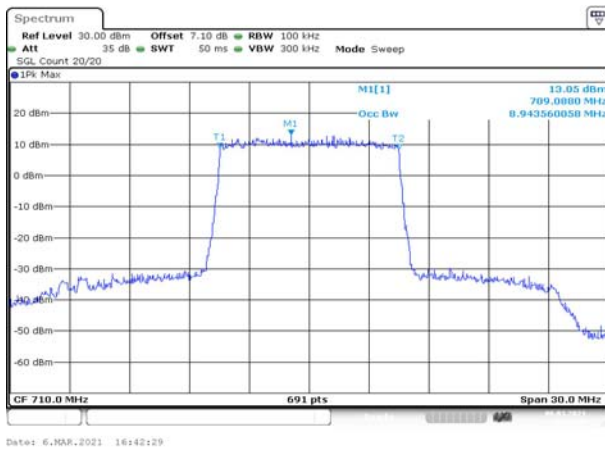


Fig.15

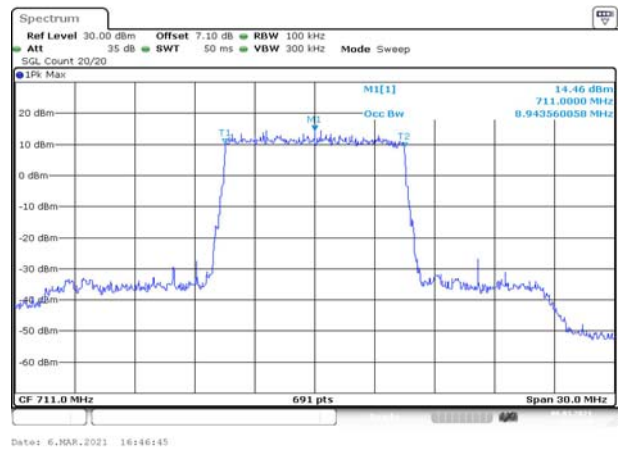


Fig.16

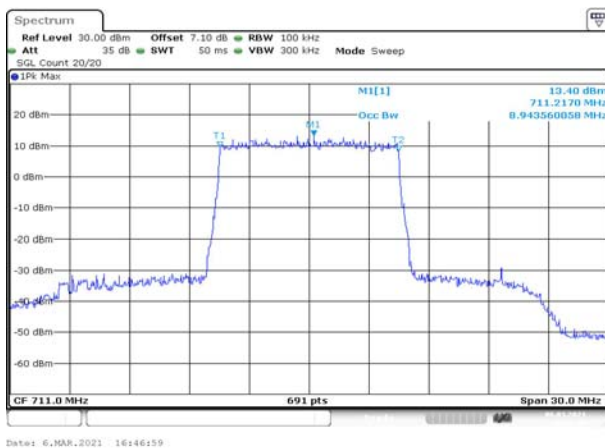


Fig.17

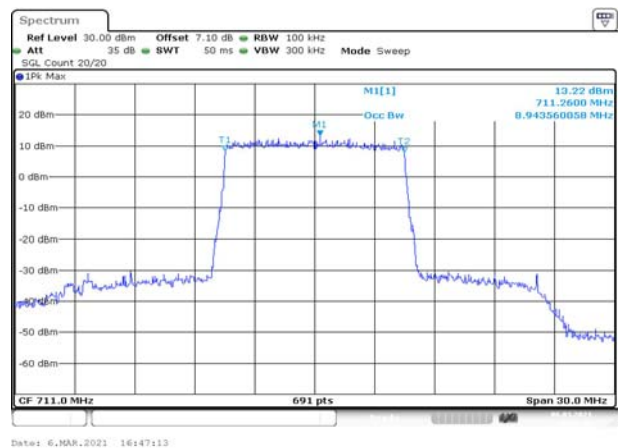


Fig.18

3 Emission Bandwidth

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
17	706.5	23755	5	25	0	4.841	Fig.1	4.884	Fig.2	4.819	Fig.3
	710	23790		25	0	4.841	Fig.4	4.884	Fig.5	4.884	Fig.6
	713.5	23825		25	0	4.884	Fig.7	4.863	Fig.8	4.863	Fig.9
	709	23780	10	50	0	9.595	Fig.10	9.682	Fig.11	9.638	Fig.12
	710	23790		50	0	9.595	Fig.13	9.465	Fig.14	9.551	Fig.15
	711	23800		50	0	9.638	Fig.16	9.595	Fig.17	9.551	Fig.18

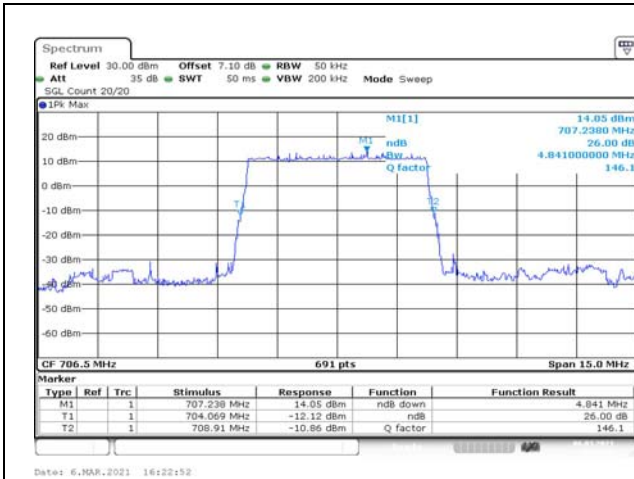


Fig.1

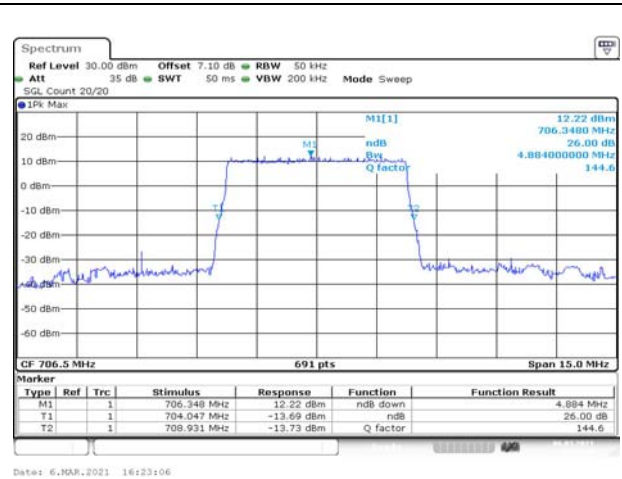


Fig.2

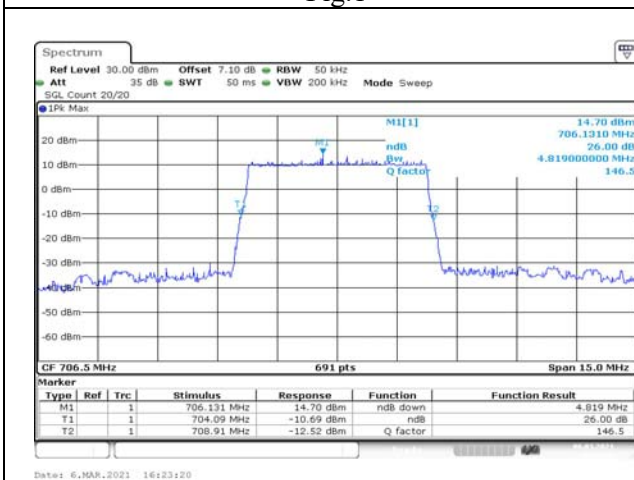


Fig.3

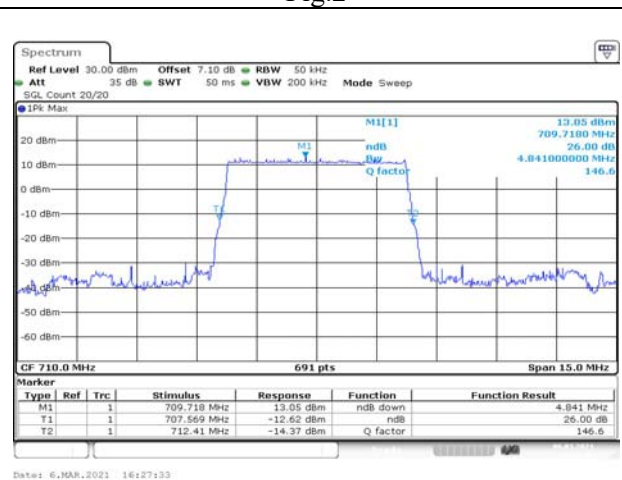


Fig.4

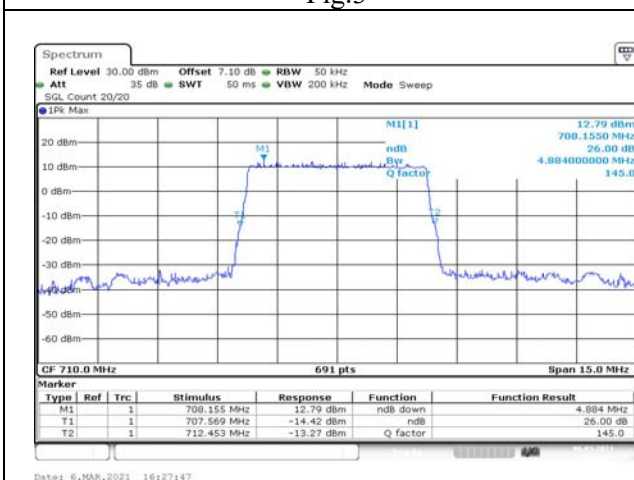


Fig.5

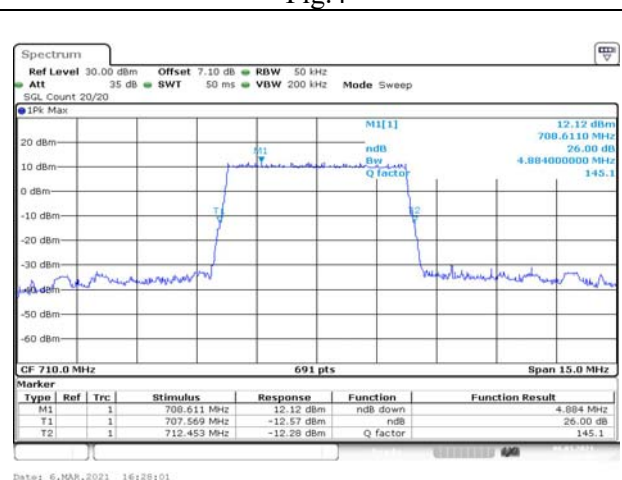


Fig.6

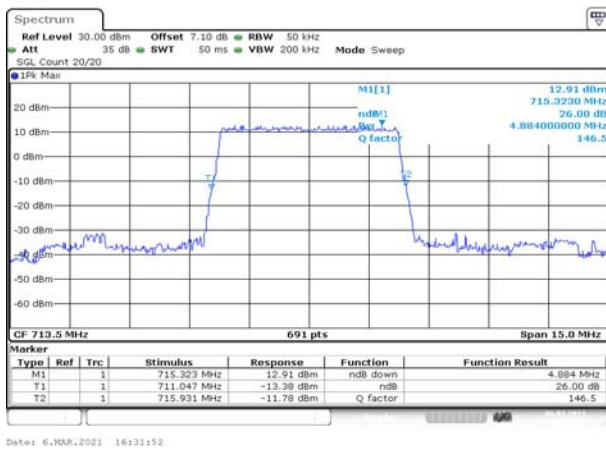


Fig.7

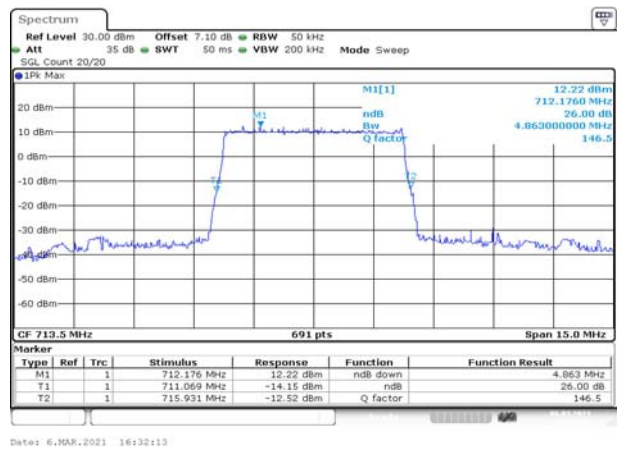


Fig.8

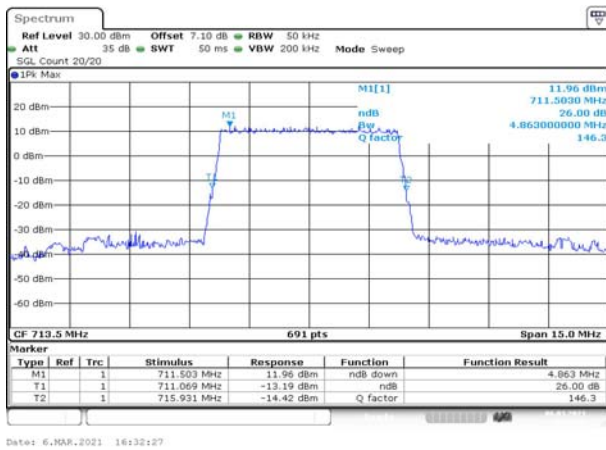


Fig.9

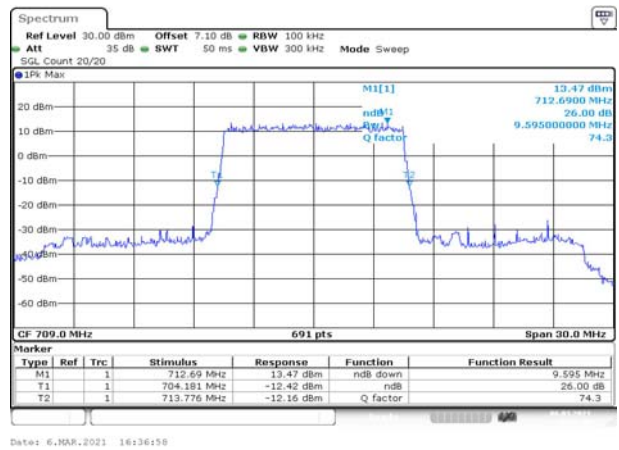


Fig.10

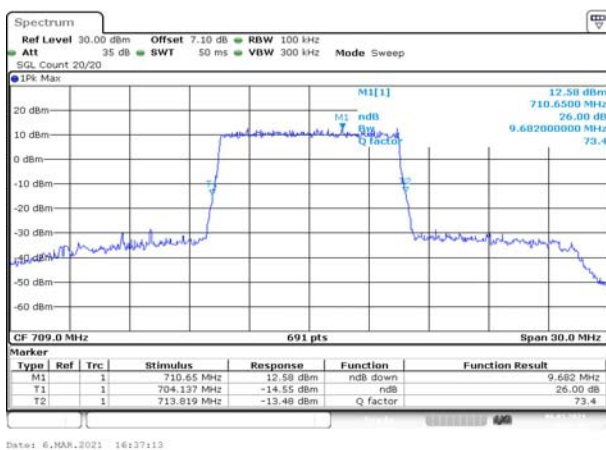


Fig.11

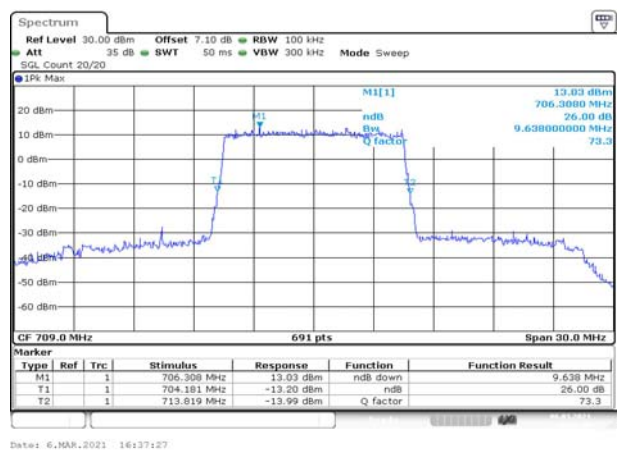


Fig.12

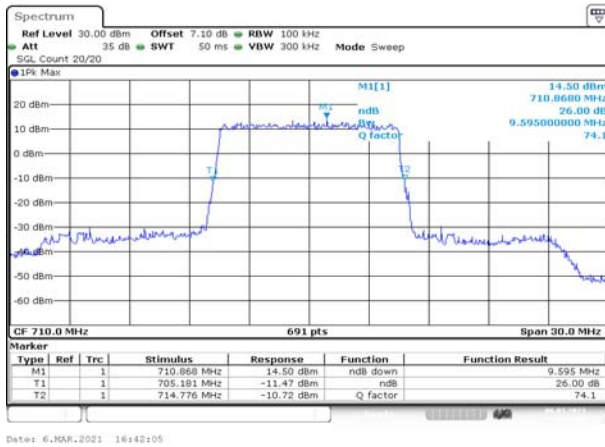


Fig.13

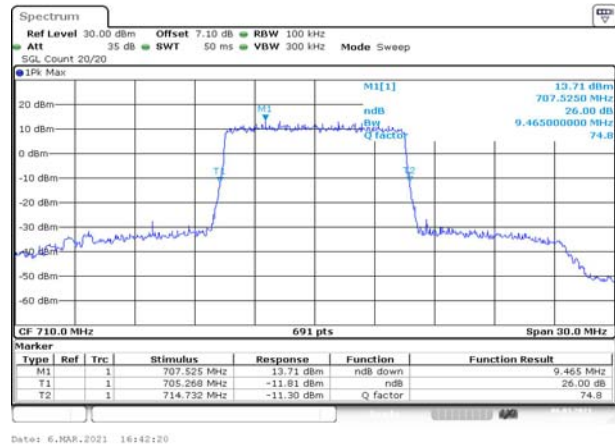


Fig.14

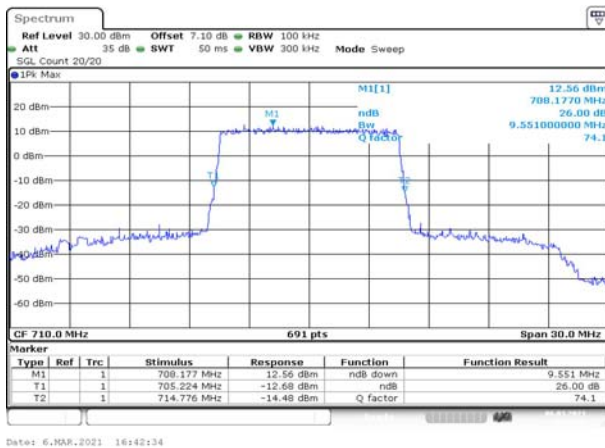


Fig.15

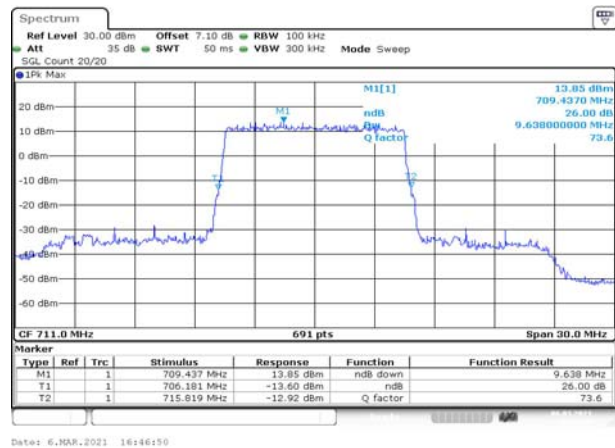


Fig.16

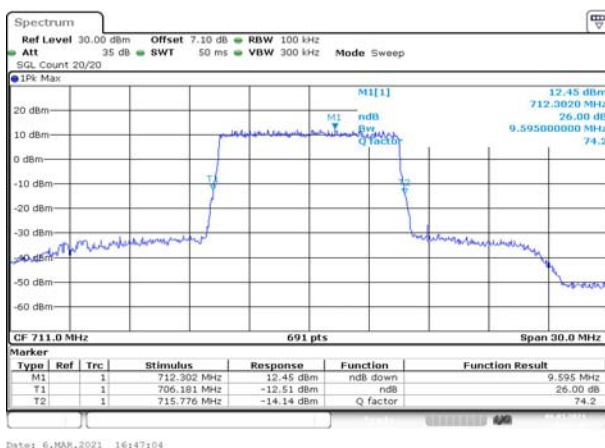


Fig.17

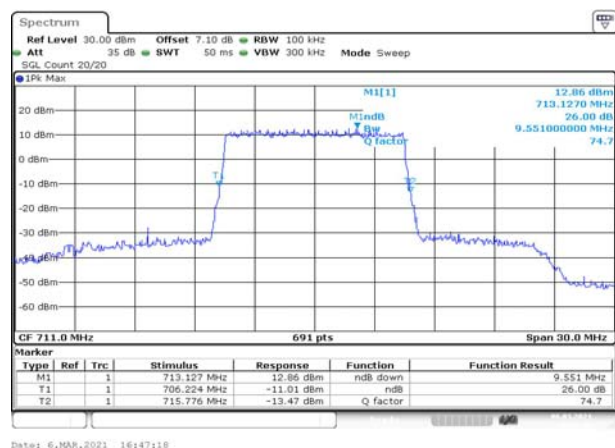


Fig.18

4 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
17	706.5	23755	5	1	24	Fig.1	Fig.2	Fig.3
	706.5	23755		25	0	Fig.4	Fig.5	Fig.6
	710	23790		1	24	Fig.7	Fig.8	Fig.9
	710	23790		25	0	Fig.10	Fig.11	Fig.12
	713.5	23825		1	24	Fig.13	Fig.14	Fig.15
	713.5	23825		25	0	Fig.16	Fig.17	Fig.18
	709	23780	10	1	49	Fig.19	Fig.20	Fig.21
	709	23780		50	0	Fig.22	Fig.23	Fig.24
	710	23790		1	49	Fig.25	Fig.26	Fig.27
	710	23790		50	0	Fig.28	Fig.29	Fig.30
	711	23800		1	49	Fig.31	Fig.32	Fig.33
	711	23800		50	0	Fig.34	Fig.35	Fig.36

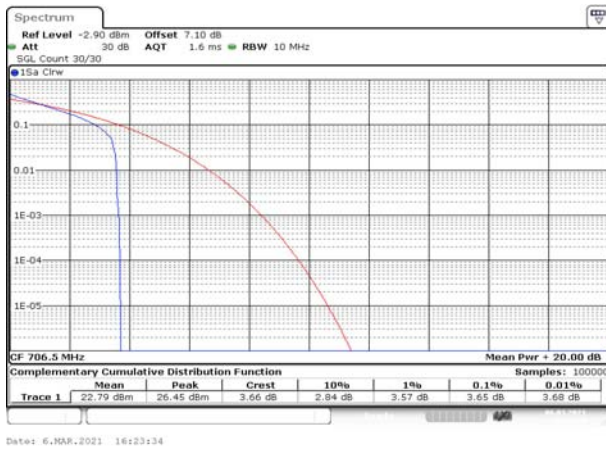


Fig.1

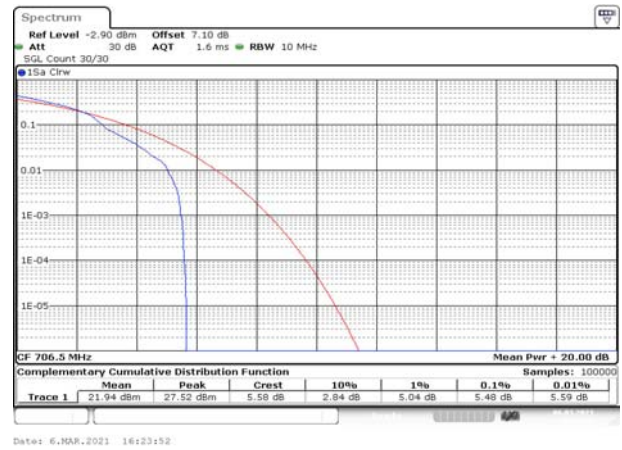


Fig.2

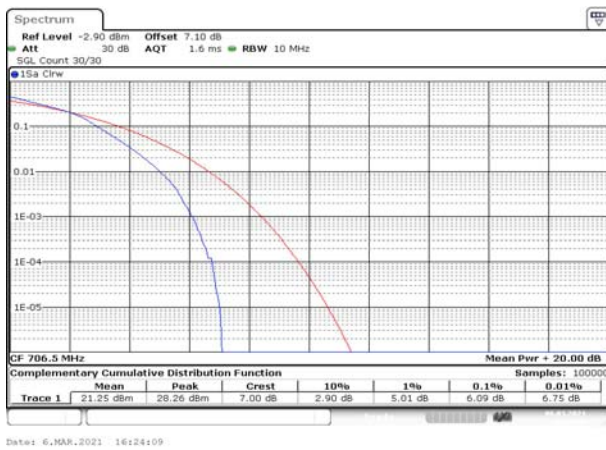


Fig.3

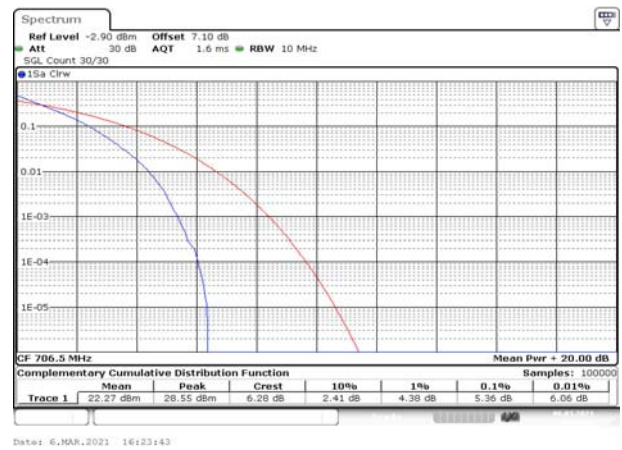


Fig.4

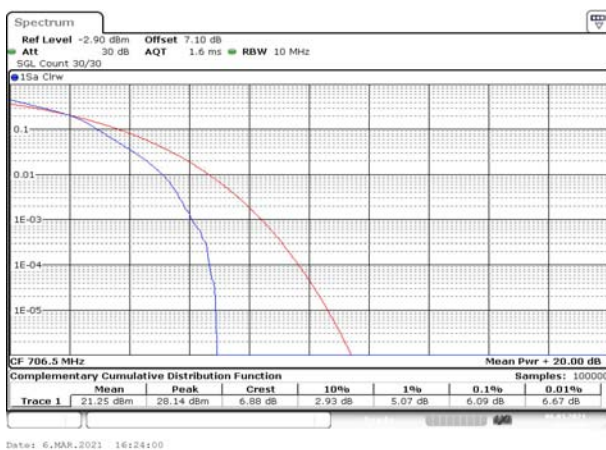


Fig.5

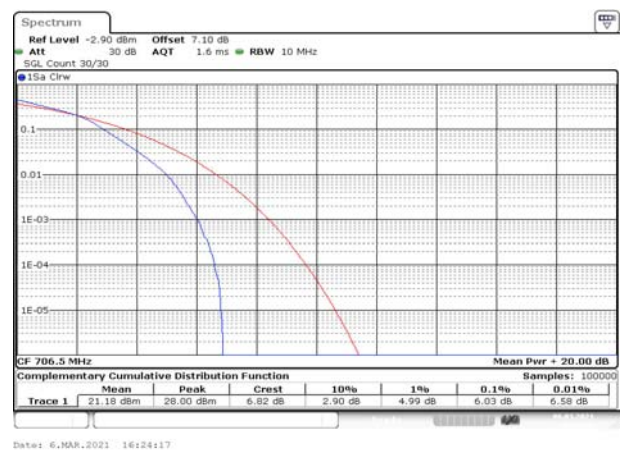


Fig.6

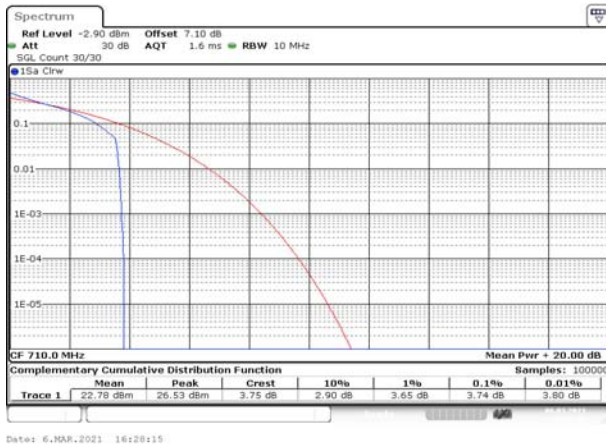


Fig.7

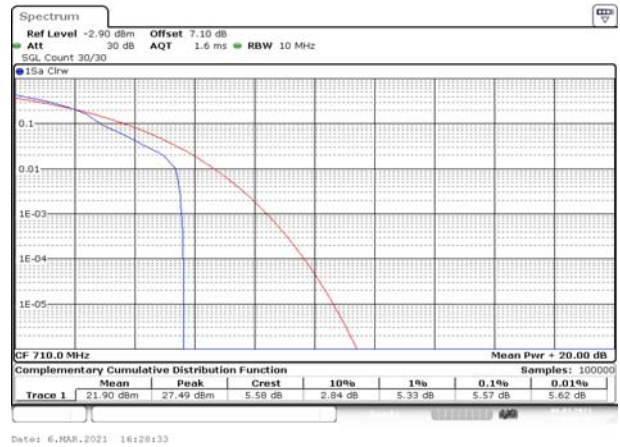


Fig.8

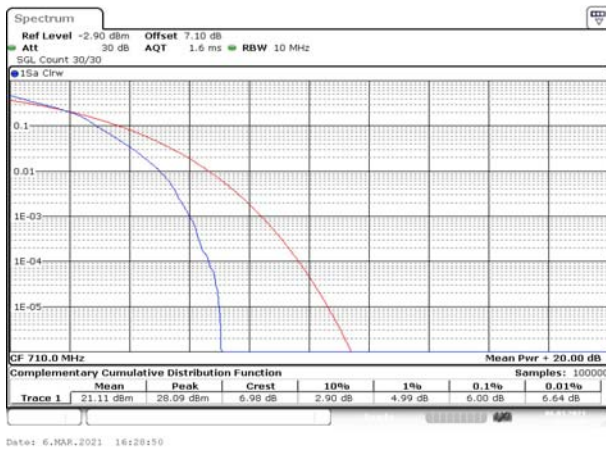


Fig.9

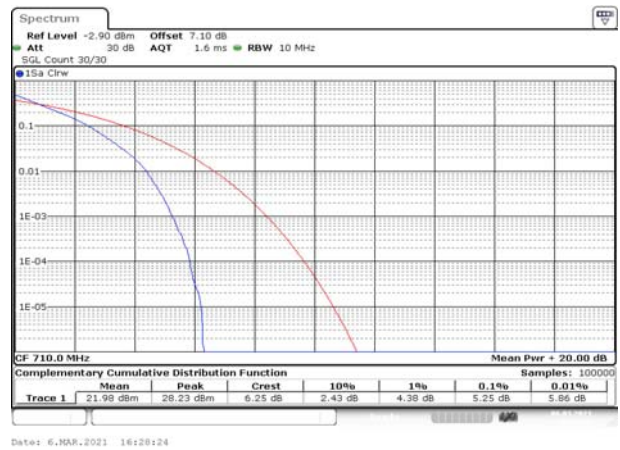


Fig.10

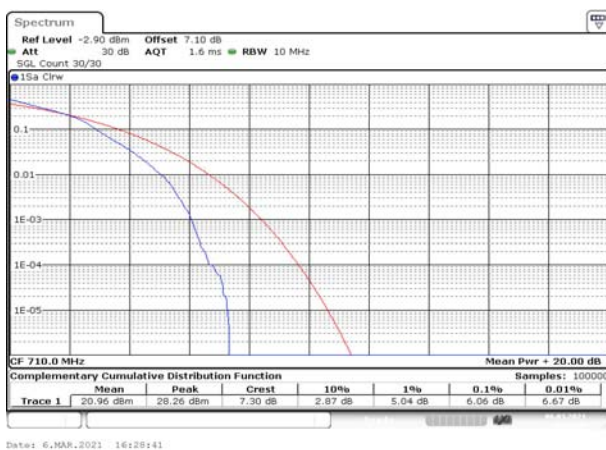


Fig.11

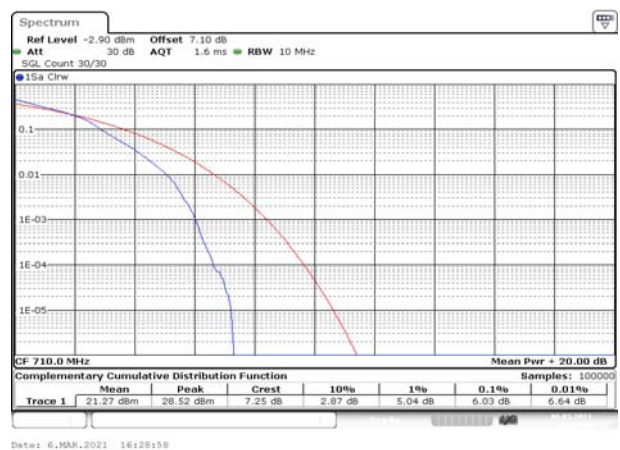


Fig.12

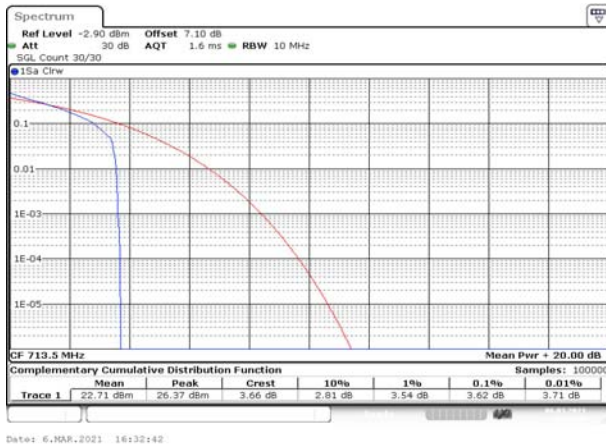


Fig.13

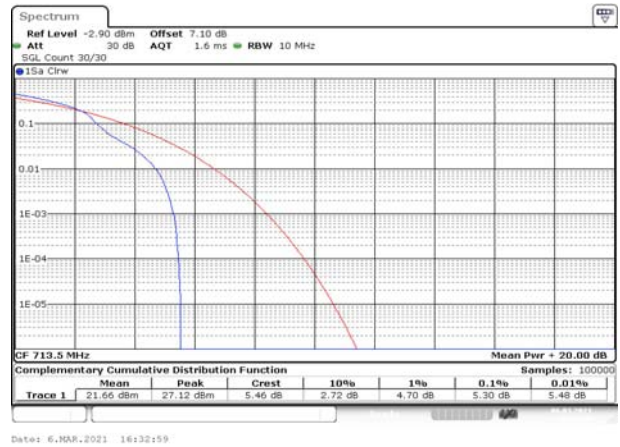


Fig.14

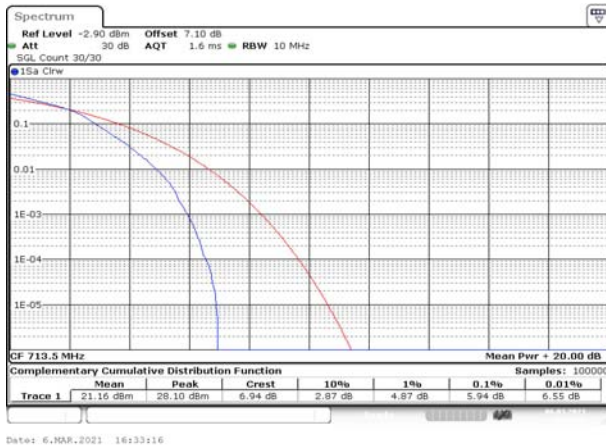


Fig.15

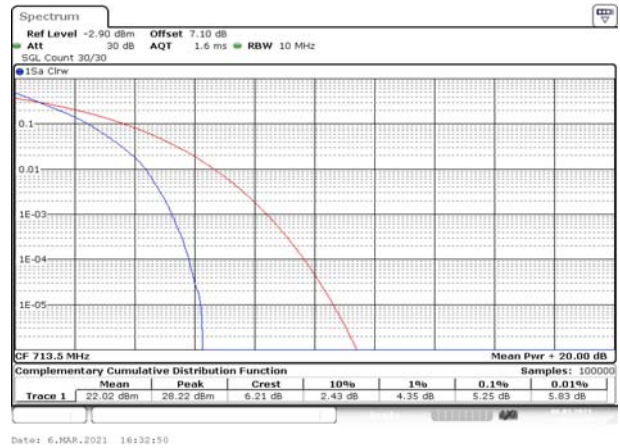


Fig.16

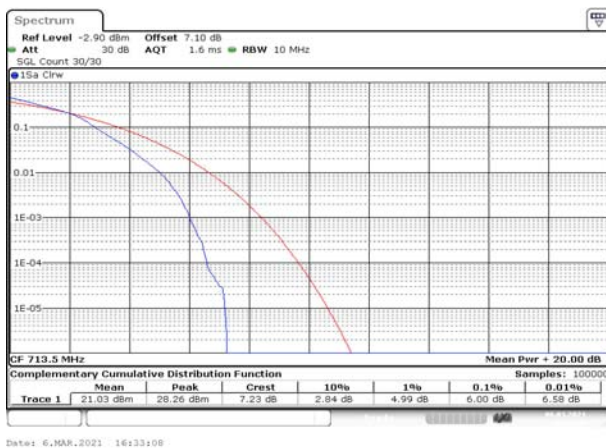


Fig.17

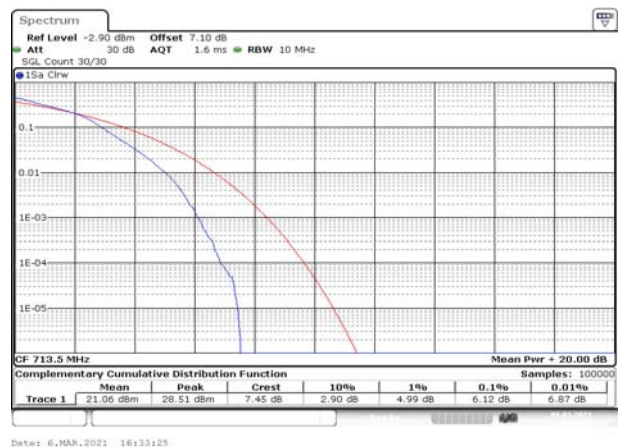


Fig.18

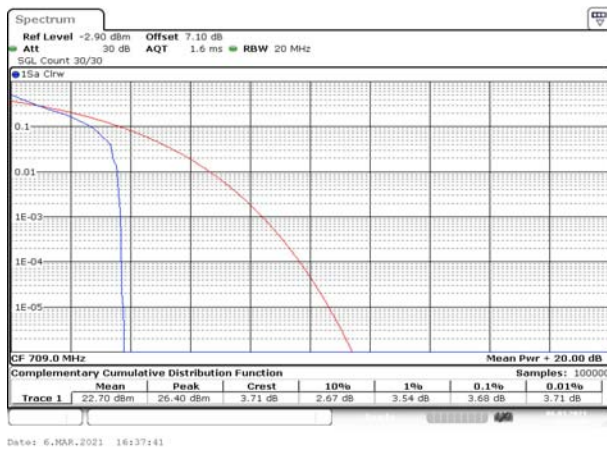


Fig.19

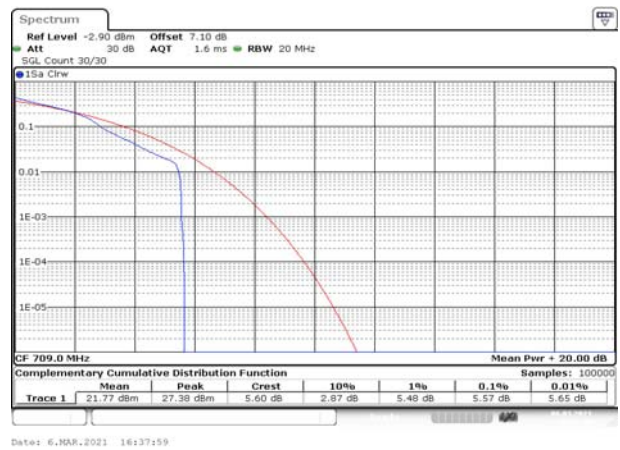


Fig.20

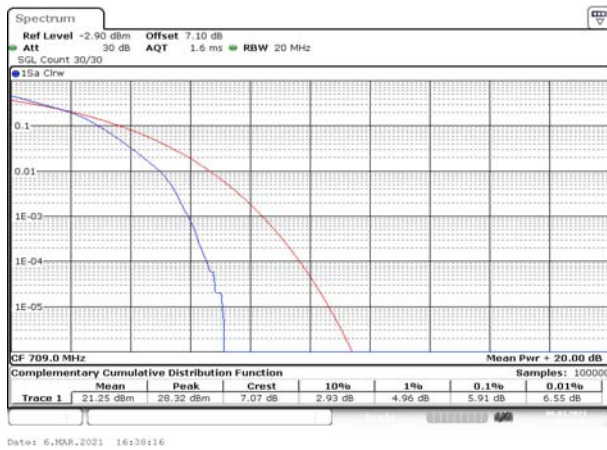


Fig.21

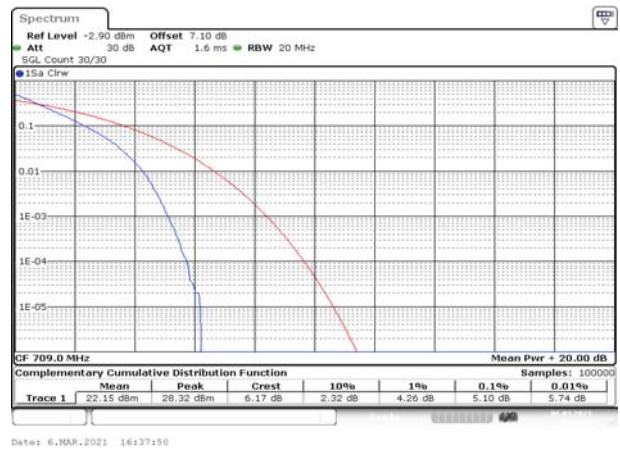


Fig.22

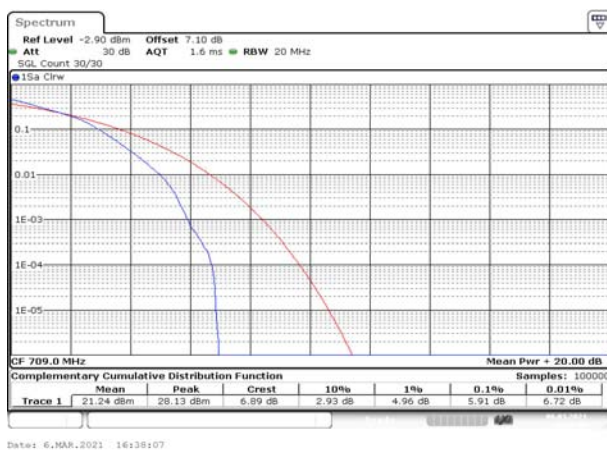


Fig.23

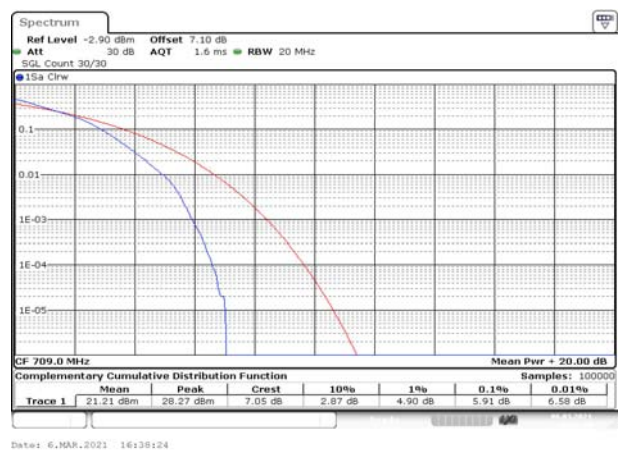


Fig.24

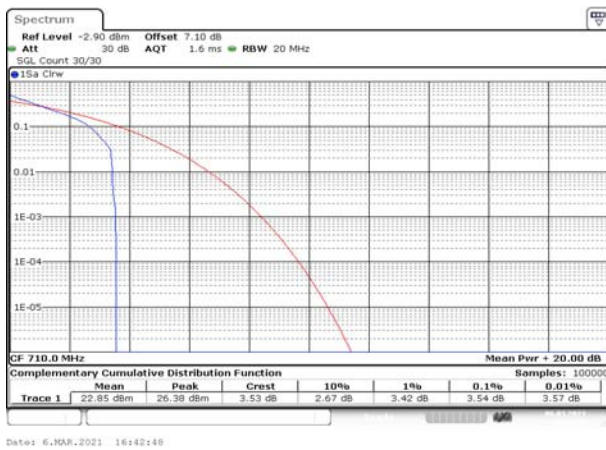


Fig.25

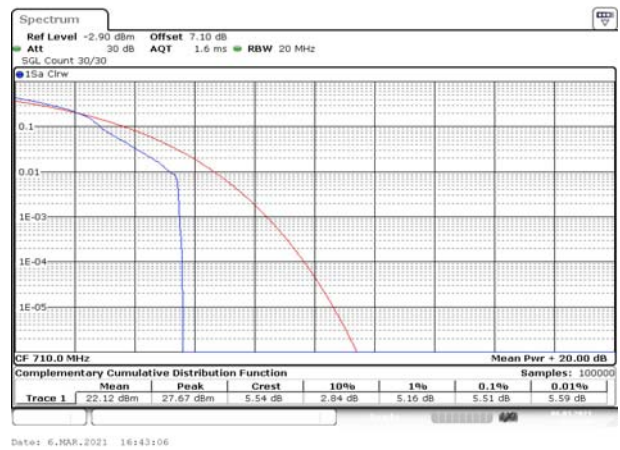


Fig.26

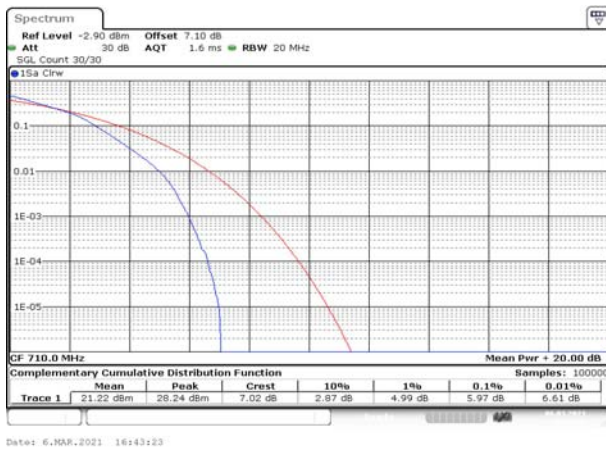


Fig.27

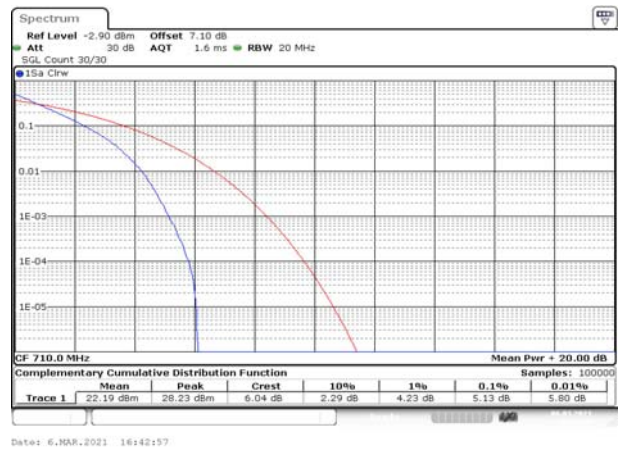


Fig.28

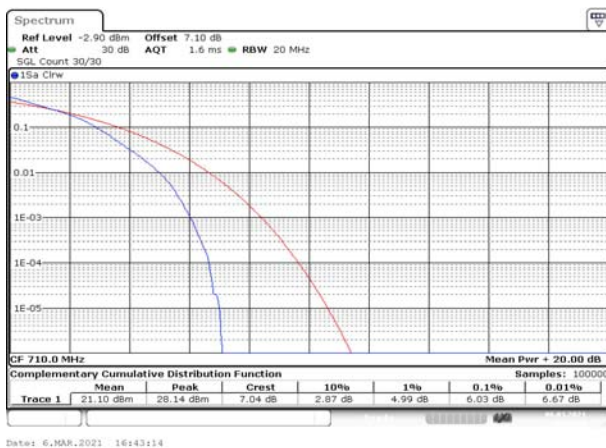


Fig.29

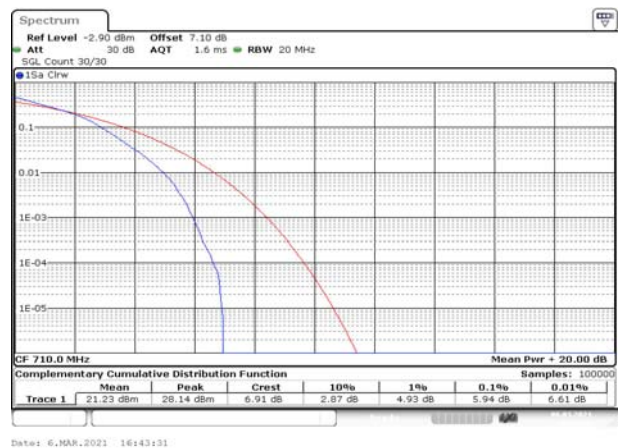


Fig.30

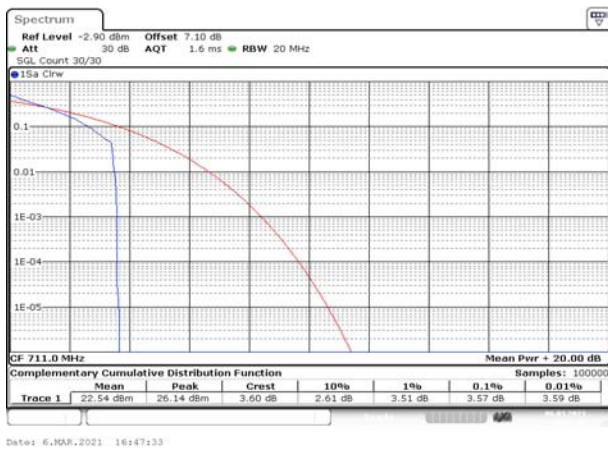


Fig.31

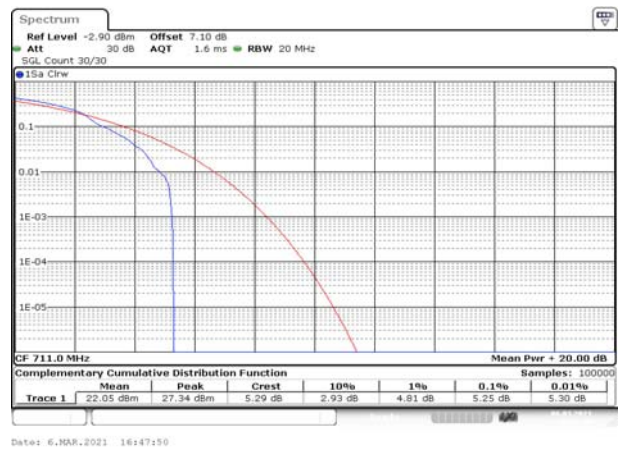


Fig.32

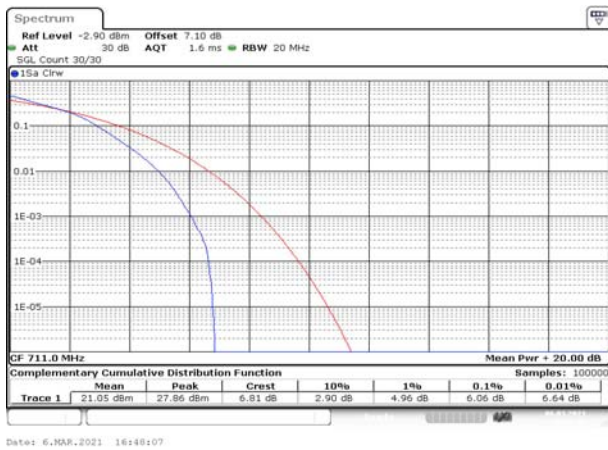


Fig.33

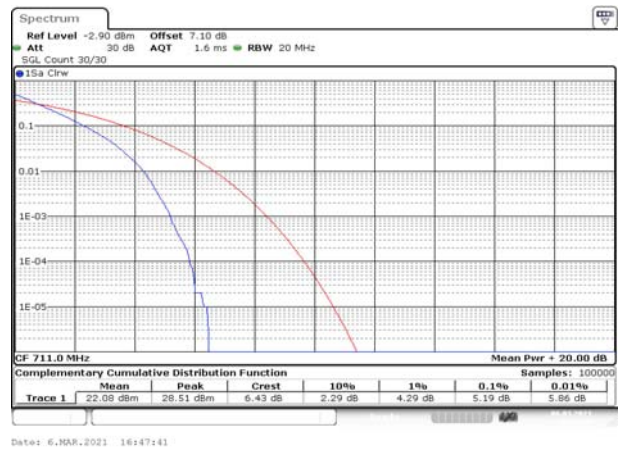


Fig.34

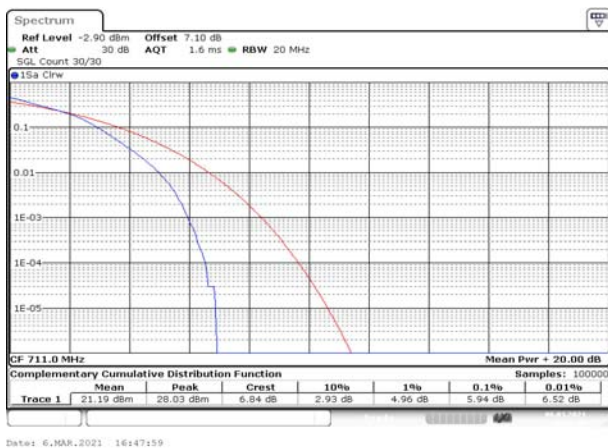


Fig.35

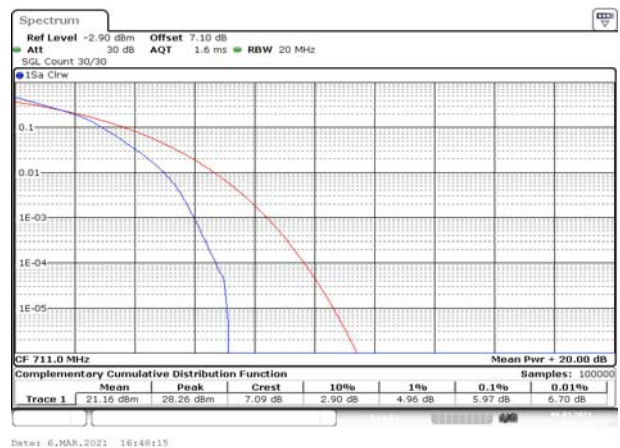


Fig.36

5 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

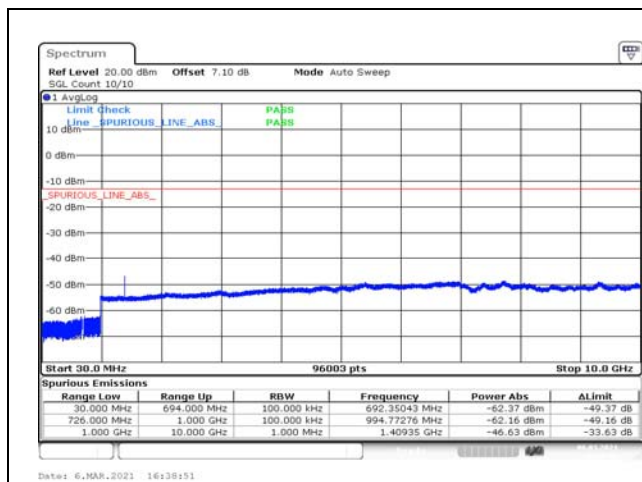


Fig.1

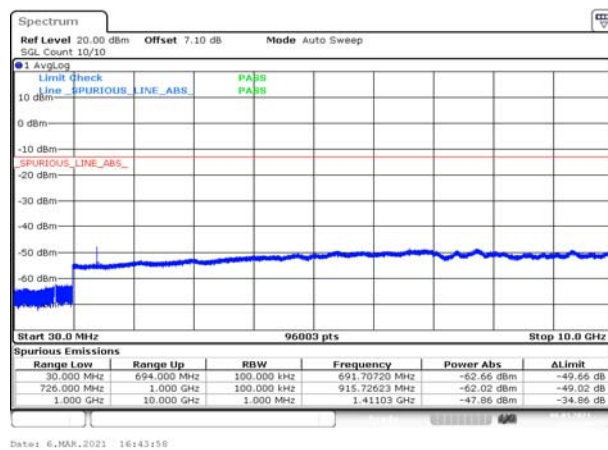


Fig.2

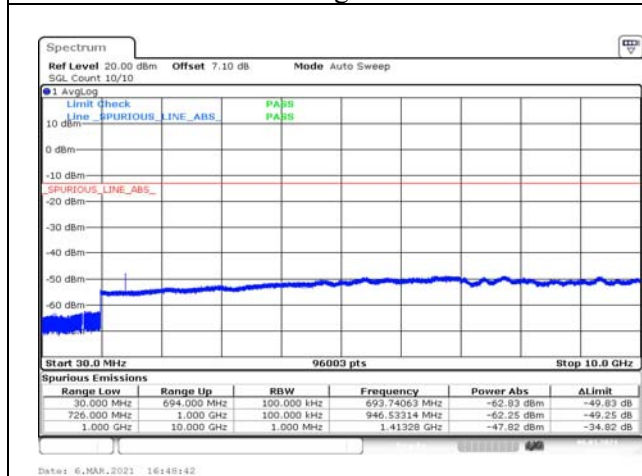


Fig.3

6 Band Edges Compliance

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
	713.5	23825		1	24	Fig.3
				25	0	Fig.4
	709	23780	10	1	0	Fig.5
				50	0	Fig.6
	711	23800		1	49	Fig.7
				50	0	Fig.8

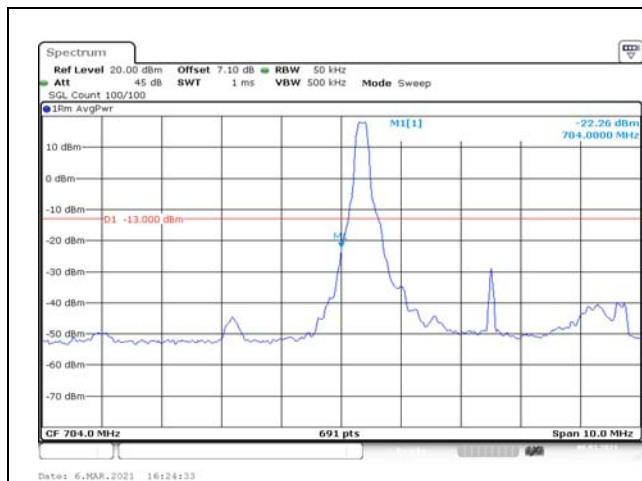


Fig.1

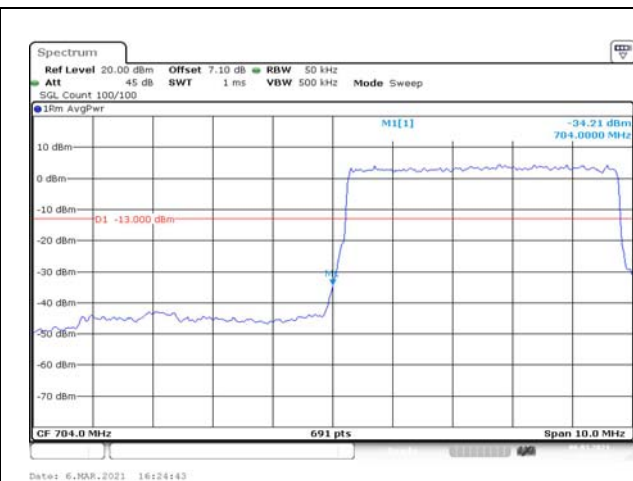


Fig.2

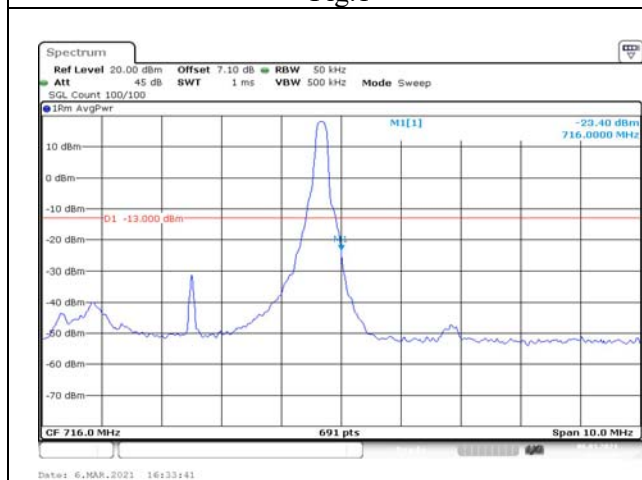


Fig.3

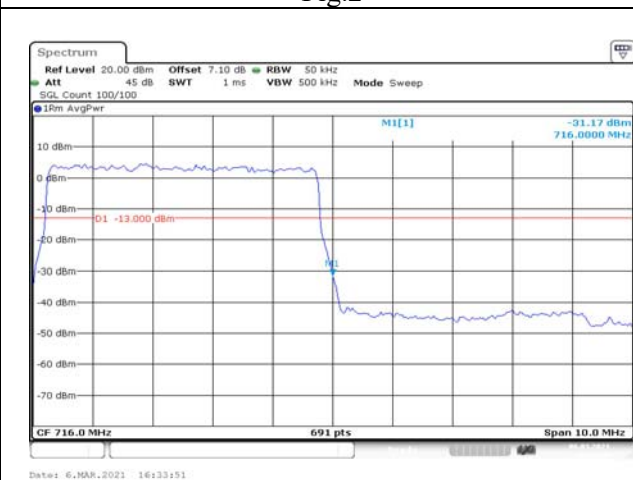


Fig.4

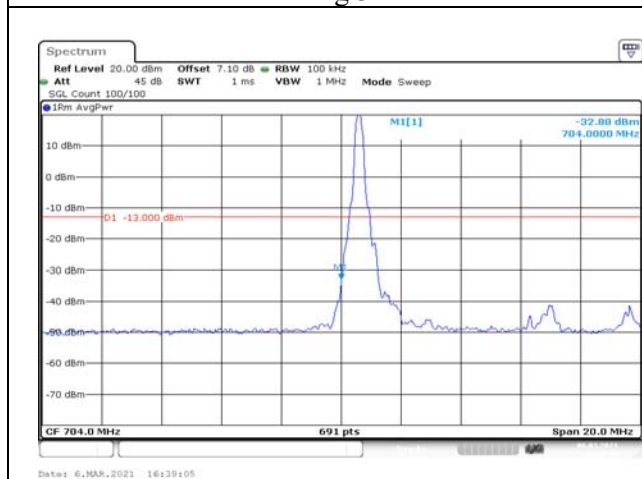


Fig.5

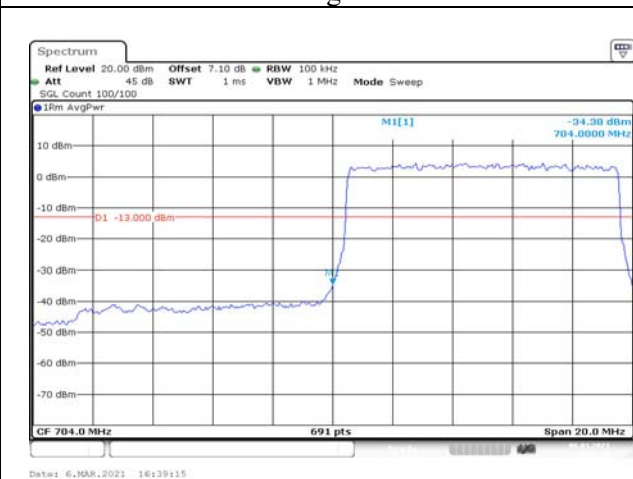


Fig.6

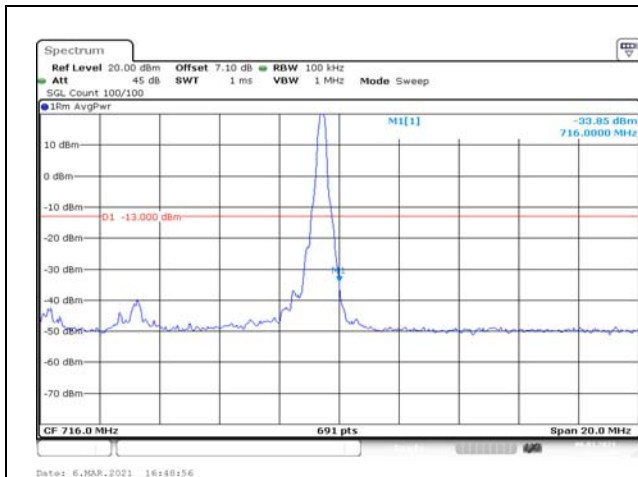


Fig.7

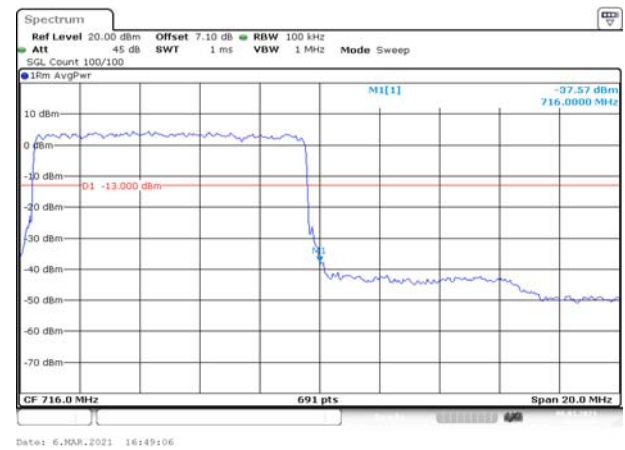


Fig.8

7 Frequency Stability

Temperature(°C)	Voltage	Test Result (ppm) Band17 Low Channel QPSK					
		1.4M	3M	5M	10M	15M	20M
-30	NV	---	---	0.002	0.010	---	---
-20	NV	---	---	0.002	0.002	---	---
-10	NV	---	---	0.006	0.004	---	---
0	NV	---	---	0.003	0.004	---	---
+10	NV	---	---	0.002	0.000	---	---
+20	NV	---	---	0.000	0.000	---	---
+30	NV	---	---	-0.002	0.009	---	---
+40	NV	---	---	0.002	0.002	---	---
+50	NV	---	---	-0.002	0.005	---	---
+20	LV	---	---	0.002	-0.001	---	---
+20	HV	---	---	0.009	0.009	---	---

Temperature(°C)	Voltage	Test Result (ppm) Band17 High Channel QPSK					
		1.4M	3M	5M	10M	15M	20M
-30	NV	---	---	-0.002	0.010	---	---
-20	NV	---	---	0.000	0.001	---	---
-10	NV	---	---	0.002	0.008	---	---
0	NV	---	---	-0.002	0.002	---	---
+10	NV	---	---	0.000	0.001	---	---
+20	NV	---	---	0.000	0.000	---	---
+30	NV	---	---	0.008	0.008	---	---
+40	NV	---	---	-0.008	0.006	---	---
+50	NV	---	---	0.006	0.004	---	---
+20	LV	---	---	-0.002	0.009	---	---
+20	HV	---	---	-0.004	0.006	---	---

8 Effective Radiated Power and Effective Isotropic Radiated Power

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	23.42	16.97	0.050
				1	12	23.46	17.01	0.050
				1	24	23.51	17.06	0.051
				12	0	22.40	15.95	0.039
				12	7	22.47	16.02	0.040
				12	13	22.54	16.09	0.041
				25	0	21.54	15.09	0.032
	710	23790		1	0	23.41	16.96	0.050
				1	12	23.39	16.94	0.049
				1	24	23.38	16.93	0.049
				12	0	22.46	16.01	0.040
				12	7	22.54	16.09	0.041
				12	13	22.47	16.02	0.040
				25	0	21.48	15.03	0.032
	713.5	23825		1	0	23.41	16.96	0.050
				1	12	23.38	16.93	0.049
				1	24	23.44	16.99	0.050
				12	0	22.49	16.04	0.040
				12	7	22.47	16.02	0.040
				12	13	22.47	16.02	0.040
				25	0	21.37	14.92	0.031
16QAM	706.5	23755	1	0	22.57	16.12	0.041	
			1	12	22.61	16.16	0.041	
			1	24	22.44	15.99	0.040	
			12	0	21.54	15.09	0.032	
			12	7	21.42	14.97	0.031	
			12	13	21.53	15.08	0.032	
			25	0	20.56	14.11	0.026	
	710	23790	1	0	22.79	16.34	0.043	
			1	12	22.81	16.36	0.043	
			1	24	22.77	16.32	0.043	
			12	0	21.51	15.06	0.032	
			12	7	21.64	15.19	0.033	
			12	13	21.54	15.09	0.032	
			25	0	20.46	14.01	0.025	
	713.5	23825	1	0	22.56	16.11	0.041	
			1	12	22.58	16.13	0.041	
			1	24	22.61	16.16	0.041	
			12	0	21.45	15.00	0.032	
			12	7	21.46	15.01	0.032	
			12	13	21.42	14.97	0.031	
			25	0	20.43	13.98	0.025	

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	21.62	15.17	0.033
				1	12	21.58	15.13	0.033
				1	24	21.55	15.10	0.032
				12	0	20.62	14.17	0.026
				12	7	20.61	14.16	0.026
				12	13	20.61	14.16	0.026
				25	0	19.62	13.17	0.021
	710	23790		1	0	21.47	15.02	0.032
				1	12	21.47	15.02	0.032
				1	24	21.42	14.97	0.031
				12	0	20.47	14.02	0.025
				12	7	20.44	13.99	0.025
				12	13	20.51	14.06	0.025
				25	0	19.47	13.02	0.020
	713.5	23825		1	0	21.45	15.00	0.032
				1	12	21.49	15.04	0.032
				1	24	21.48	15.03	0.032
				12	0	20.41	13.96	0.025
				12	7	20.45	14.00	0.025
				12	13	20.44	13.99	0.025
				25	0	19.30	12.85	0.019

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	23.58	17.13	0.052
				1	25	23.48	17.03	0.050
				1	49	23.33	16.88	0.049
				25	0	22.49	16.04	0.040
				25	12	22.54	16.09	0.041
				25	25	22.54	16.09	0.041
	50	0		21.60	15.15	0.033		
	710	23790		1	0	23.45	17.00	0.050
				1	25	23.48	17.03	0.050
				1	49	23.41	16.96	0.050
				25	0	22.50	16.05	0.040
				25	12	22.57	16.12	0.041
				25	25	22.61	16.16	0.041
	50	0		21.50	15.05	0.032		
	711	23800		1	0	23.54	17.09	0.051
				1	25	23.45	17.00	0.050
				1	49	23.53	17.08	0.051
				25	0	22.45	16.00	0.040
				25	12	22.50	16.05	0.040
				25	25	22.55	16.10	0.041
	16QAM	709		23780	50	0	21.49	15.04
1			0		23.30	16.85	0.048	
1			25		23.11	16.66	0.046	
1			49		22.97	16.52	0.045	
25			0		21.54	15.09	0.032	
25			12		21.68	15.23	0.033	
25		25	21.72	15.27	0.034			
50		0	20.54	14.09	0.026			
710		23790	1	0	22.64	16.19	0.042	
			1	25	22.60	16.15	0.041	
			1	49	22.60	16.15	0.041	
			25	0	21.52	15.07	0.032	
			25	12	21.59	15.14	0.033	
			25	25	21.59	15.14	0.033	
50		0	20.46	14.01	0.025			
711		23800	1	0	22.58	16.13	0.041	
			1	25	22.53	16.08	0.041	
			1	49	22.57	16.12	0.041	
			25	0	21.59	15.14	0.033	
			25	12	21.71	15.26	0.034	
			25	25	21.67	15.22	0.033	
50	0	20.54	14.09	0.026				

Modulation	Carrier frequen cy (MHz)	UL Channel	BW	RB Size	RB Offset	Conduct ed power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
64QAM	709	23780	10	1	0	21.64	15.19	0.033
				1	25	21.59	15.14	0.033
				1	49	21.58	15.13	0.033
				25	0	20.58	14.13	0.026
				25	12	20.59	14.14	0.026
				25	25	20.59	14.14	0.026
				50	0	19.59	13.14	0.021
	710	23790		1	0	21.50	15.05	0.032
				1	25	21.49	15.04	0.032
				1	49	21.56	15.11	0.032
				25	0	20.49	14.04	0.025
				25	12	20.56	14.11	0.026
				25	25	20.49	14.04	0.025
				50	0	19.48	13.03	0.020
	711	23800		1	0	21.54	15.09	0.032
				1	25	21.56	15.11	0.032
				1	49	21.49	15.04	0.032
				25	0	20.47	14.02	0.025
				25	12	20.49	14.04	0.025
				25	25	20.48	14.03	0.025
				50	0	19.48	13.03	0.020