

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 17

1 RF Power Output

Tx Power Output							
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
QPSK	706.5	23755	5	1	0	24.26	
				1	12	24.19	
				1	24	24.17	
				12	0	23.20	
				12	7	23.25	
				12	13	23.23	
	710	23790		25	0	23.18	
				1	0	24.25	
				1	12	24.31	
				1	24	24.31	
				12	0	23.19	
				12	7	23.32	
	713.5	23825		12	13	23.32	
				25	0	23.24	
				1	0	24.03	
				1	12	24.05	
				1	24	24.04	
				12	0	23.19	
	16QAM	706.5		23755	12	7	23.20
					12	13	23.19
					25	0	23.23
					1	0	22.59
					1	12	22.56
					1	24	22.58
710		23790	12	0	22.33		
			12	7	22.29		
			12	13	22.28		
			25	0	22.41		
			1	0	23.04		
			1	12	23.01		
713.5		23825	1	24	23.02		
			12	0	22.00		
			12	7	22.28		
			12	13	22.44		
			25	0	22.38		
			1	0	23.39		
			1	12	23.29		
			1	24	23.03		
			12	0	22.38		
			12	7	22.08		
			12	13	22.17		
			25	0	22.49		

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	706.5	23755	5	1	0	22.40
				1	12	22.40
				1	24	22.40
				12	0	22.39
				12	7	22.51
				12	13	22.50
				25	0	22.50
	710	23790		1	0	22.38
				1	12	22.37
				1	24	22.37
				12	0	22.37
				12	7	22.36
				12	13	22.36
				25	0	22.36
	713.5	23825		1	0	22.49
				1	12	22.40
				1	24	22.48
				12	0	22.49
				12	7	22.49
				12	13	22.54
				25	0	22.49

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
QPSK	709	23780	10	1	0	24.17	
				1	25	24.12	
				1	49	24.08	
				25	0	23.28	
				25	12	23.28	
				25	25	23.28	
				50	0	23.24	
	710	23790		1	0	24.45	
				1	25	24.22	
				1	49	24.21	
				25	0	23.15	
				25	12	23.30	
				25	25	23.15	
				50	0	23.31	
	711	23800		1	0	24.32	
				1	25	24.35	
				1	49	24.35	
				25	0	23.21	
				25	12	23.31	
				25	25	23.32	
				50	0	23.24	
	16QAM	709		23780	1	0	23.43
					1	25	23.50
					1	49	23.56
25					0	22.38	
25					12	22.36	
25					25	22.37	
50					0	22.37	
710		23790		1	0	23.46	
				1	25	23.55	
			1	49	23.47		
			25	0	22.38		
			25	12	22.34		
			25	25	22.36		
			50	0	22.46		
711		23800	1	0	22.86		
			1	25	23.06		
			1	49	23.06		
			25	0	22.61		
			25	12	22.60		
			25	25	22.61		
			50	0	22.37		

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	709	23780	10	1	0	22.37
				1	25	22.36
				1	49	22.36
				25	0	22.36
				25	12	22.36
				25	25	22.08
				50	0	22.36
	710	23790		1	0	22.45
				1	25	22.45
				1	49	22.45
				25	0	22.45
				25	12	22.45
				25	25	22.45
				50	0	22.45
	711	23800		1	0	22.42
				1	25	22.53
				1	49	22.54
				25	0	22.33
				25	12	22.48
				25	25	22.54
				50	0	22.37

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	4.515	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	4.472	Fig.9
	709	23780	10	50	0	8.944	Fig.10	8.944	Fig.11	8.987	Fig.12
	710	23790		50	0	8.944	Fig.13	8.944	Fig.14	8.900	Fig.15
	711	23800		50	0	8.944	Fig.16	8.944	Fig.17	8.944	Fig.18

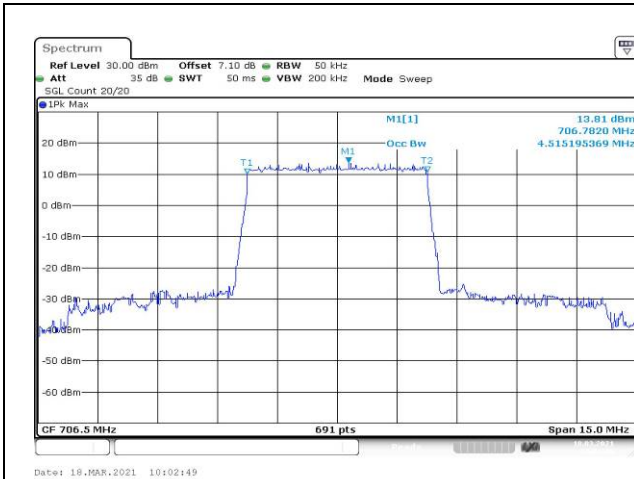


Fig.1

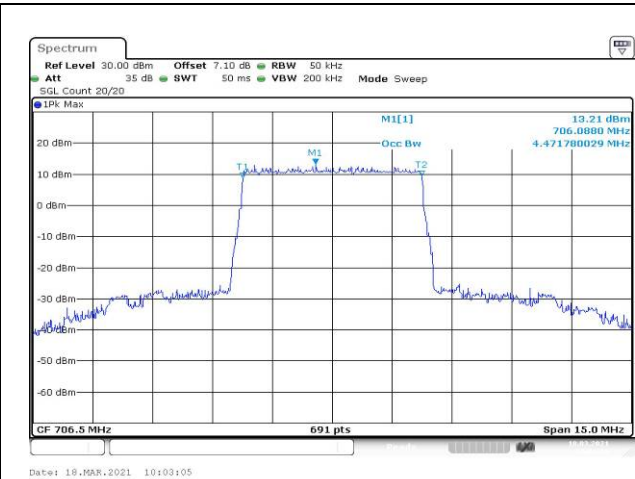


Fig.2

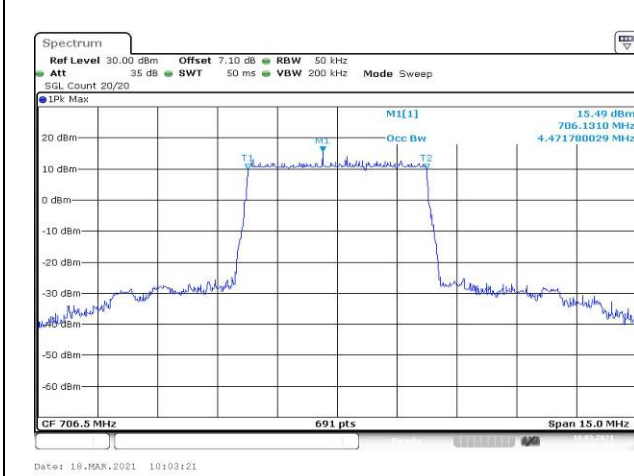


Fig.3

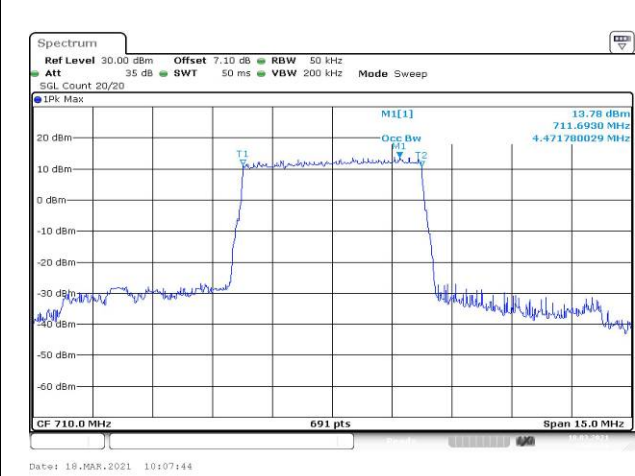


Fig.4

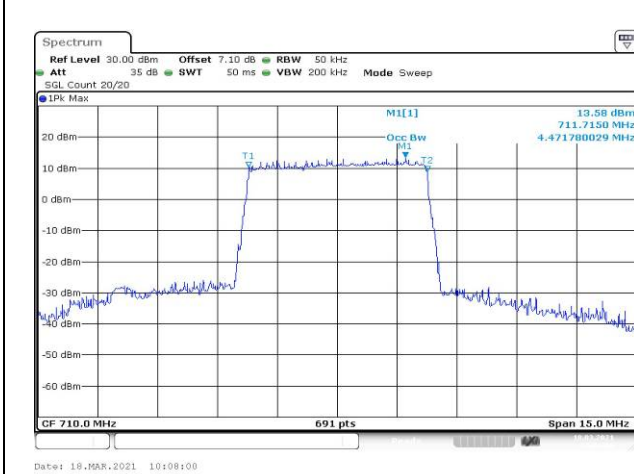


Fig.5

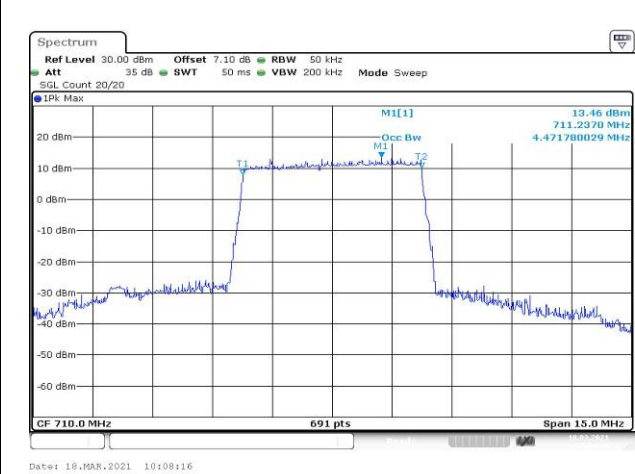
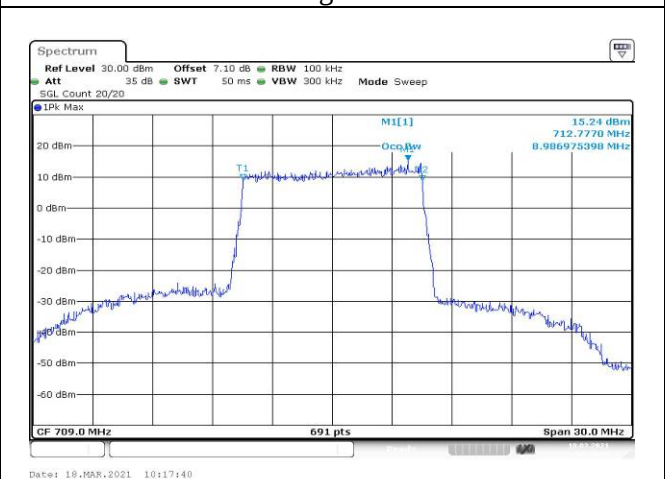
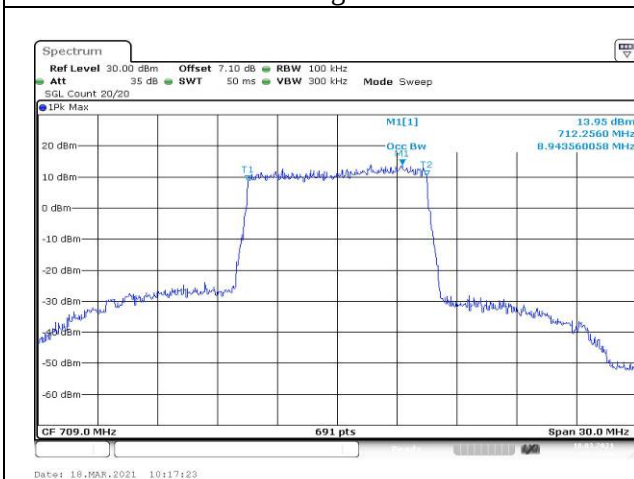
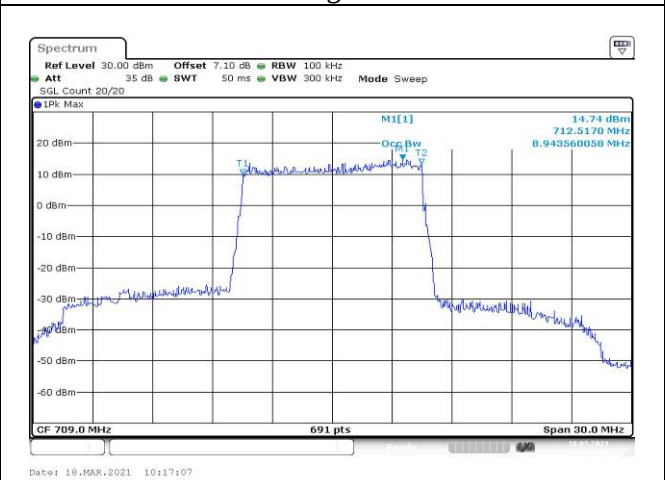
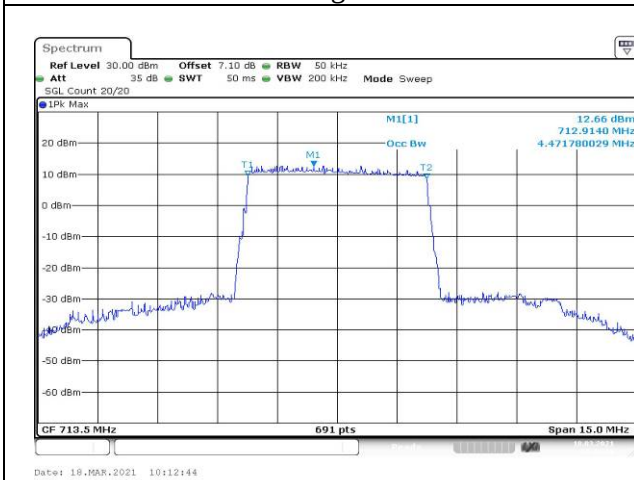
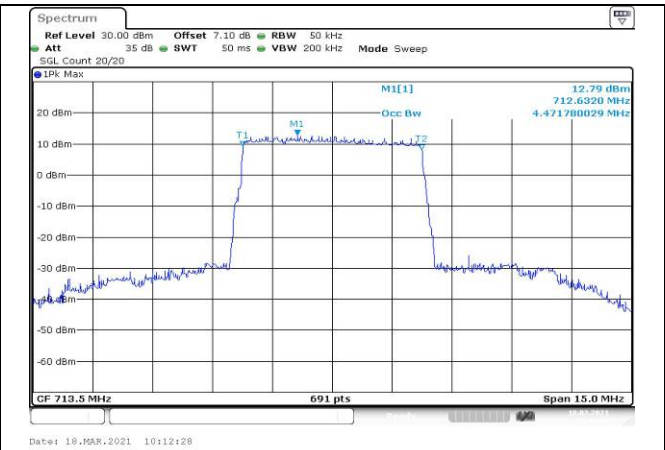
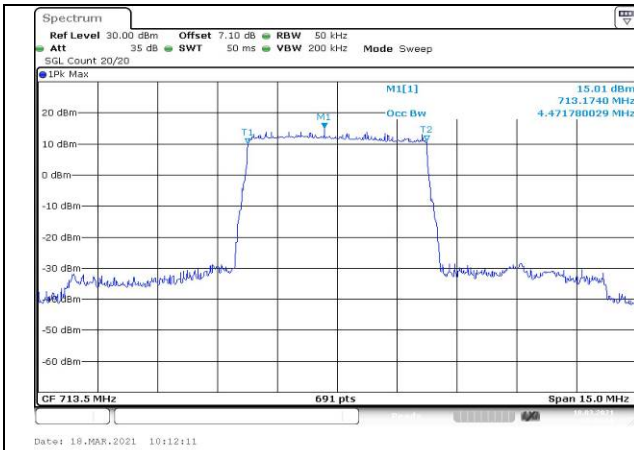
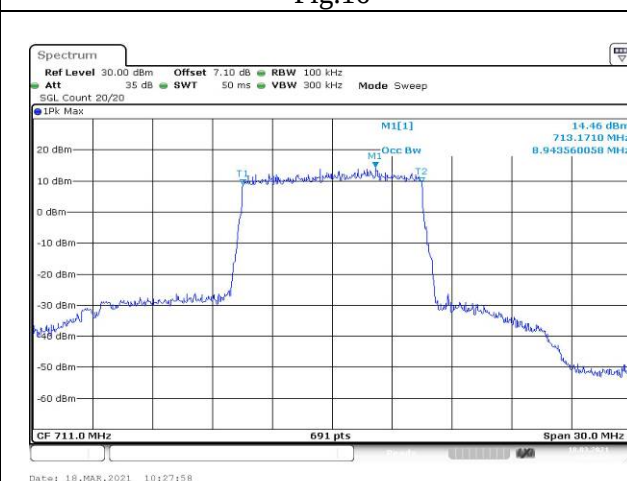
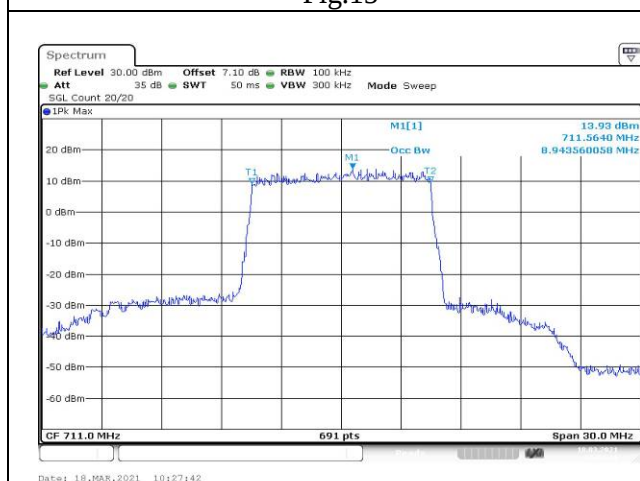
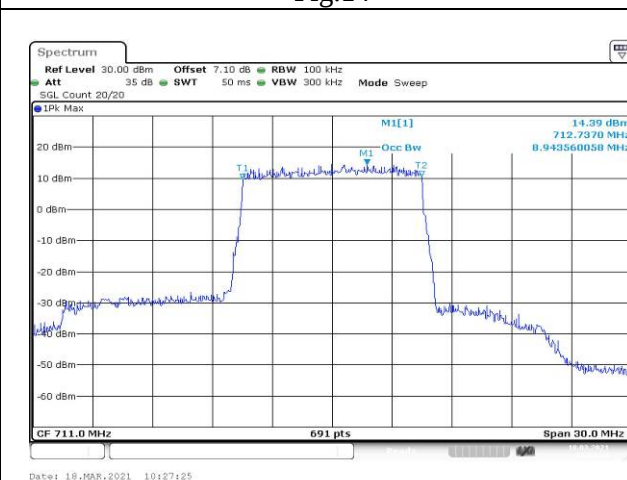
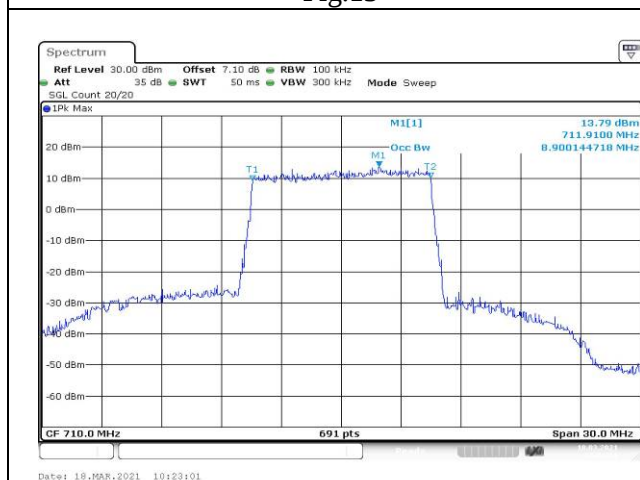
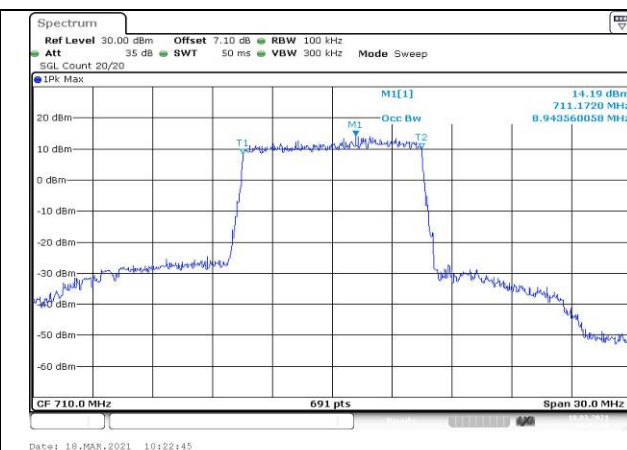
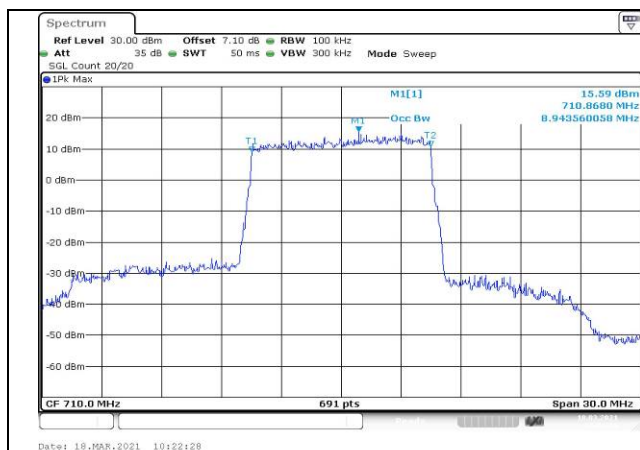


Fig.6





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	4.906	Fig.1	4.928	Fig.2	4.863	Fig.3
	710	23790		25	0	4.884	Fig.4	4.906	Fig.5	4.906	Fig.6
	713.5	23825		25	0	4.841	Fig.7	4.884	Fig.8	4.884	Fig.9
	709	23780	10	50	0	9.682	Fig.10	9.682	Fig.11	9.725	Fig.12
	710	23790		50	0	9.595	Fig.13	9.682	Fig.14	9.595	Fig.15
	711	23800		50	0	9.682	Fig.16	9.725	Fig.17	9.725	Fig.18

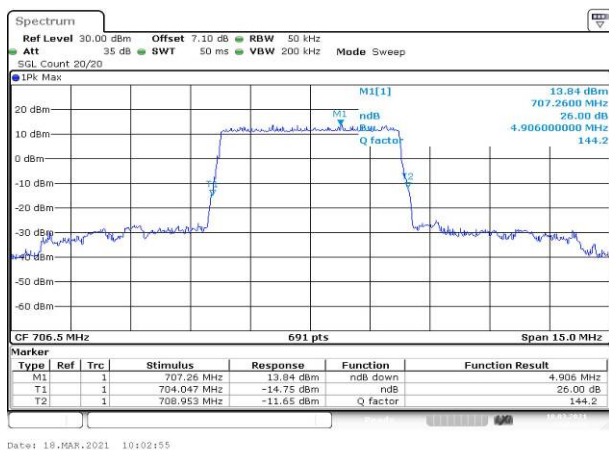


Fig.1

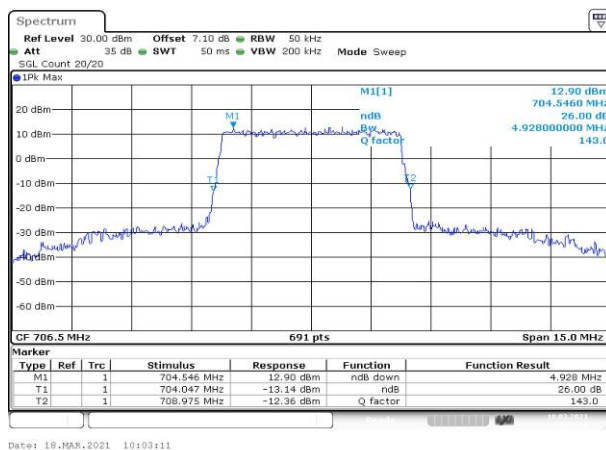


Fig.2

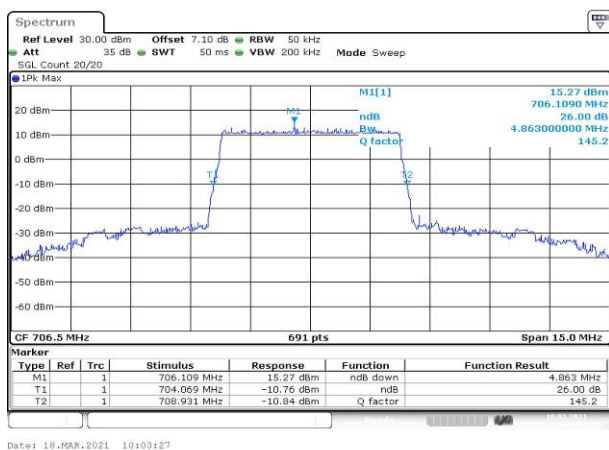


Fig.3

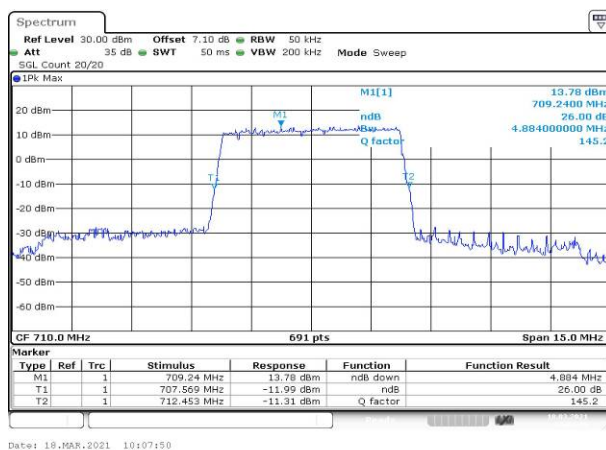


Fig.4

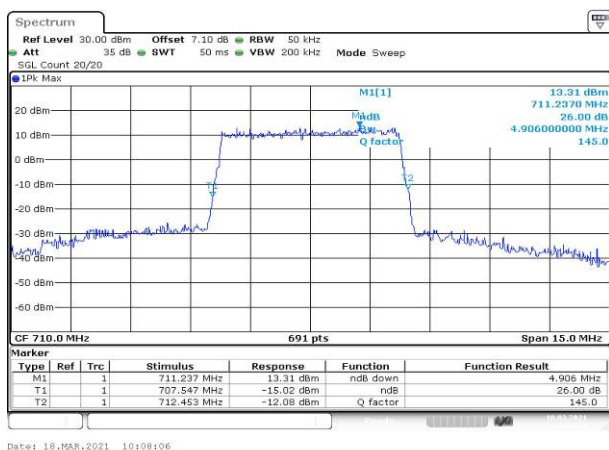


Fig.5

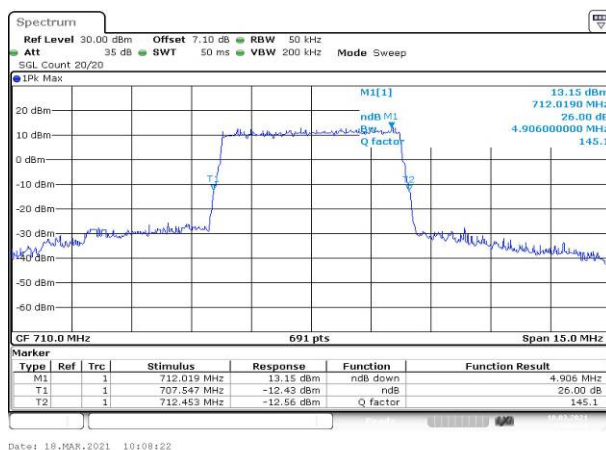


Fig.6

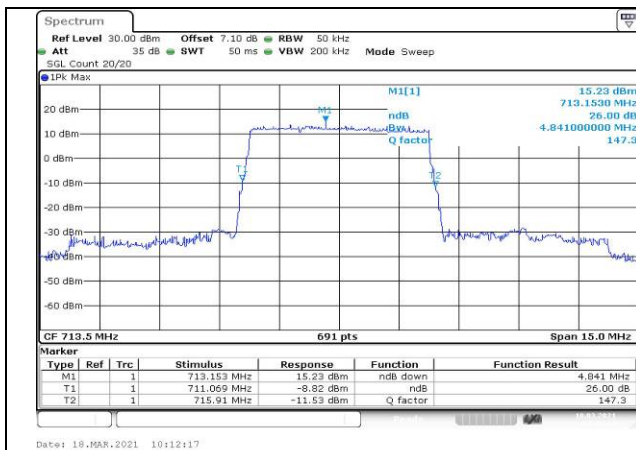


Fig.7

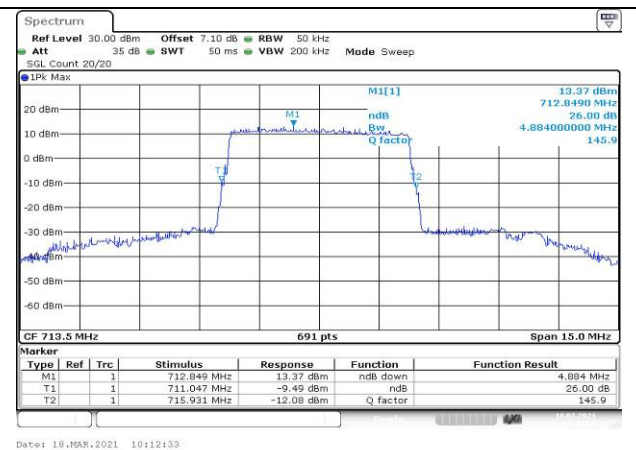


Fig.8

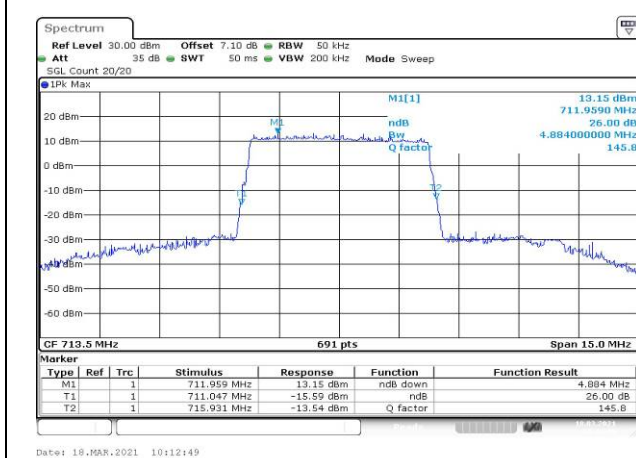


Fig.9

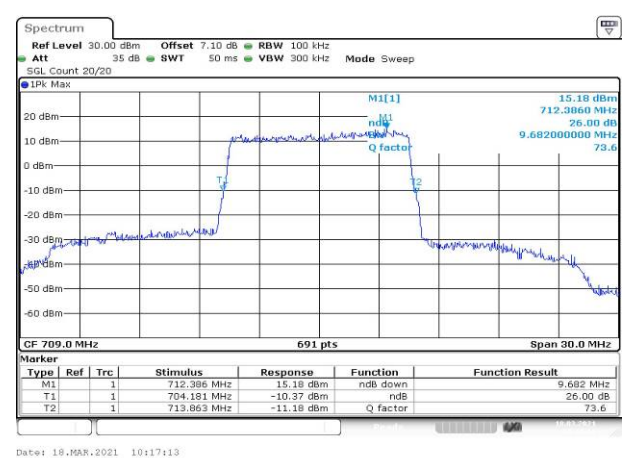


Fig.10

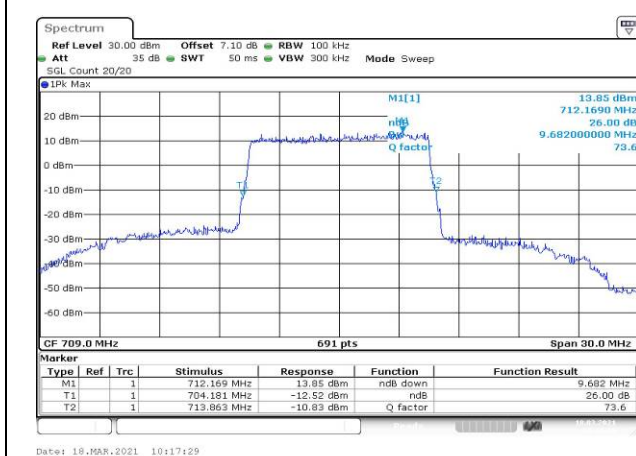


Fig.11

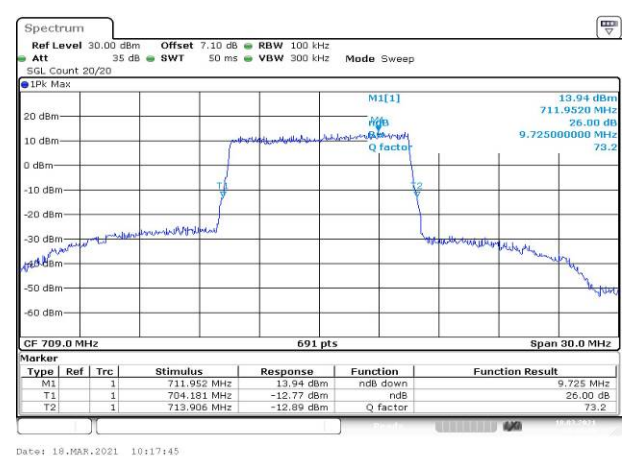


Fig.12

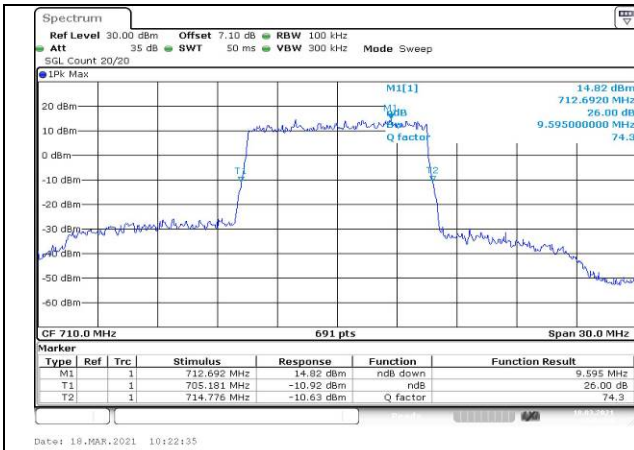


Fig.13

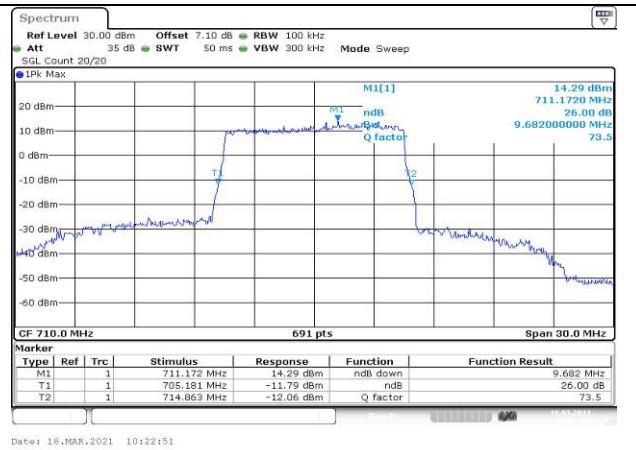


Fig.14

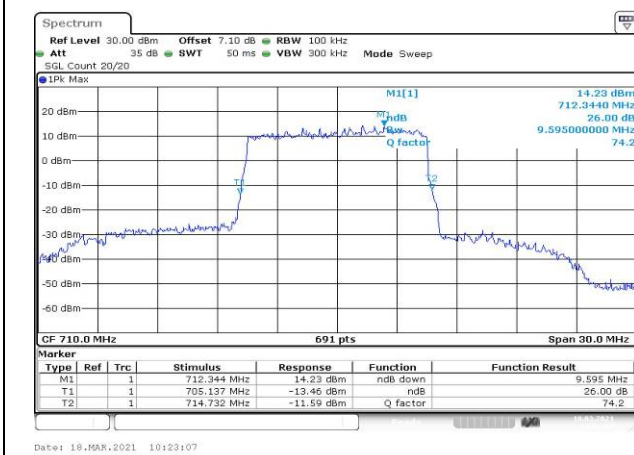


Fig.15

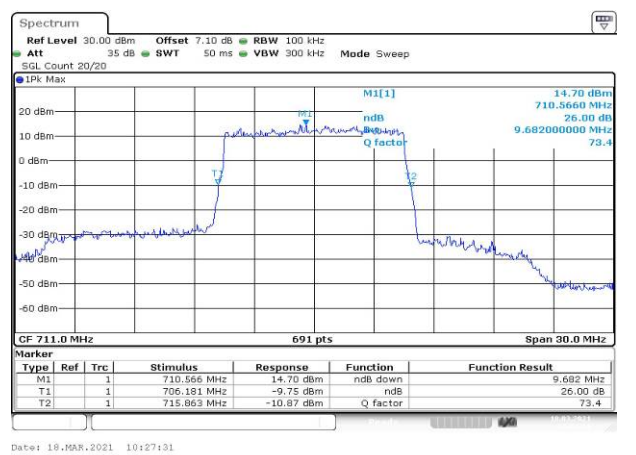


Fig.16

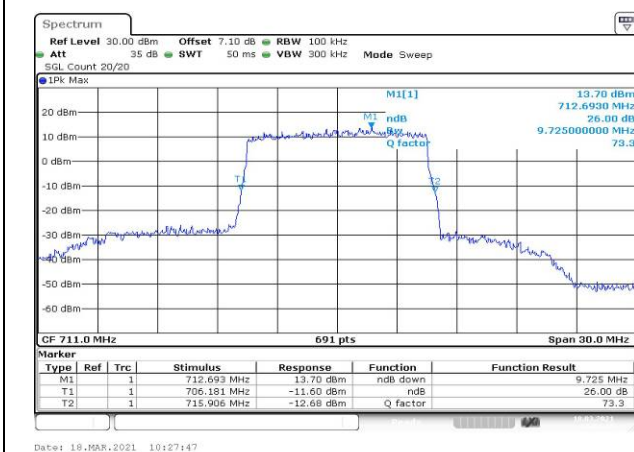


Fig.17

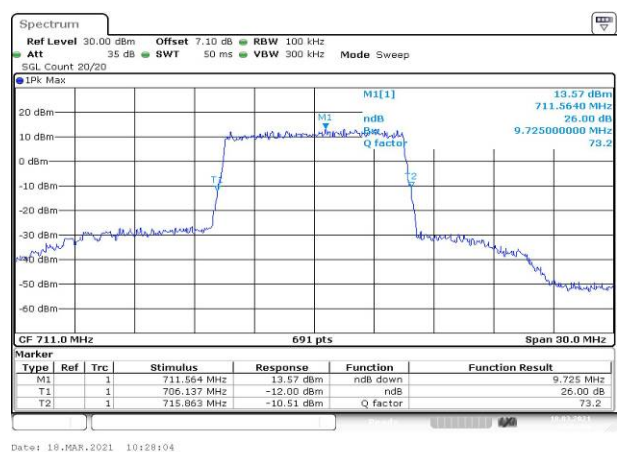


Fig.18

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

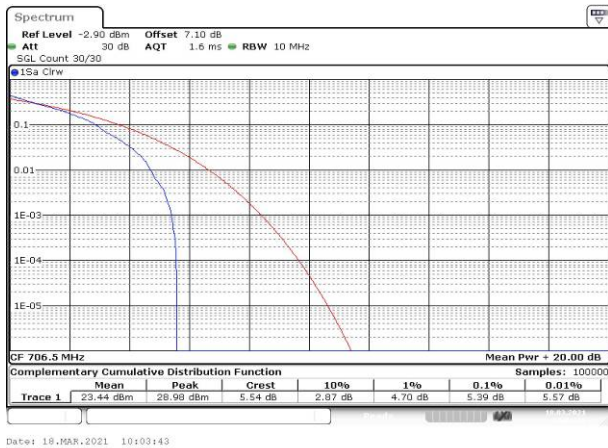


Fig.1

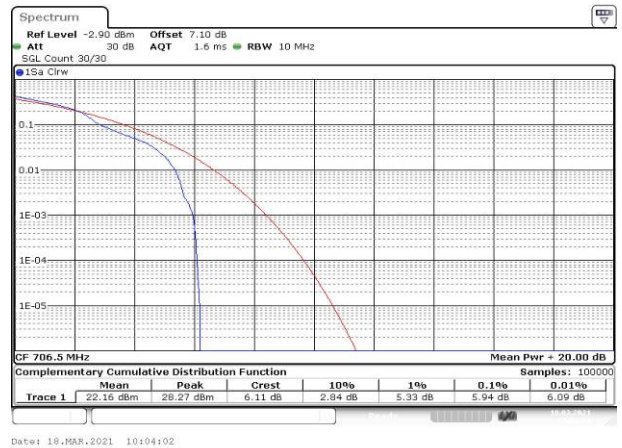


Fig.2

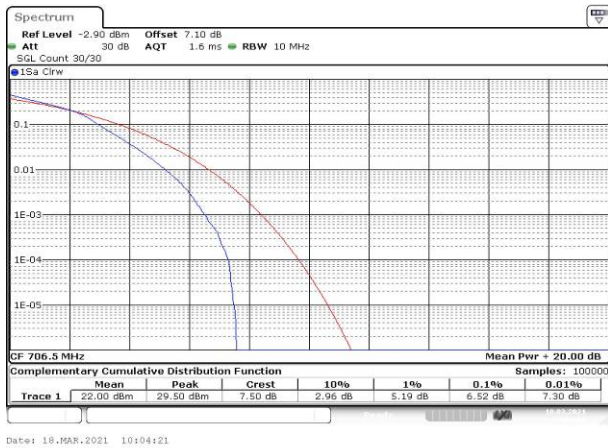


Fig.3

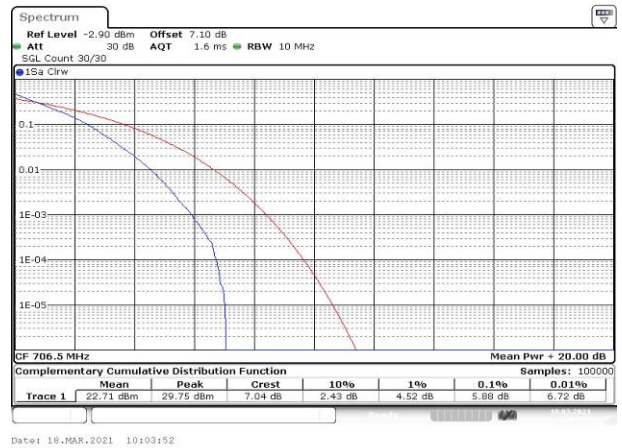


Fig.4

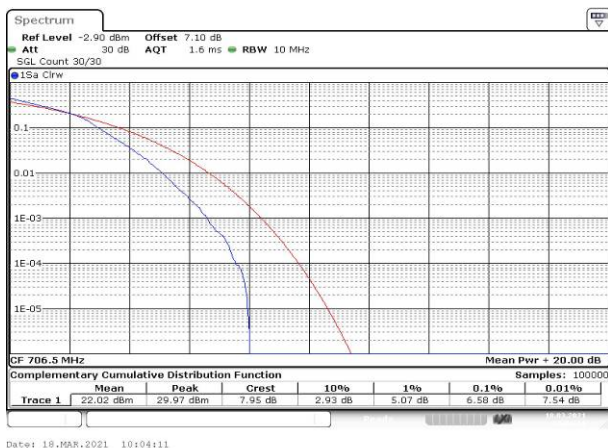


Fig.5

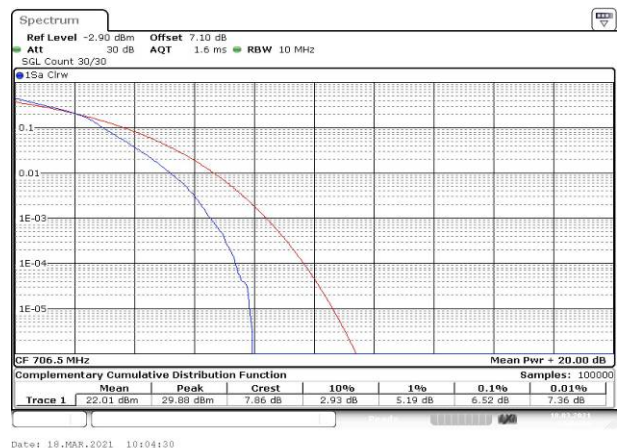


Fig.6

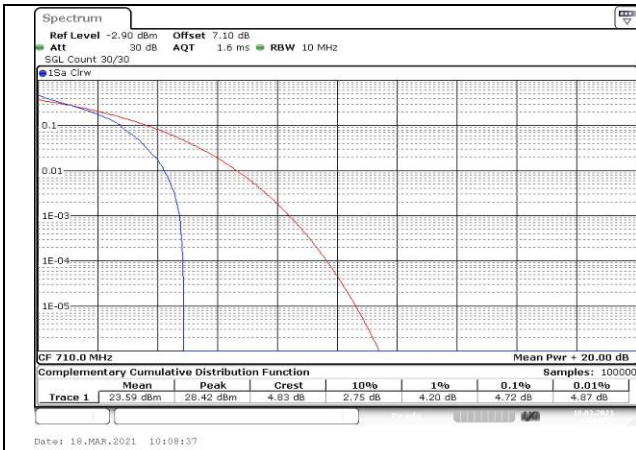


Fig.7

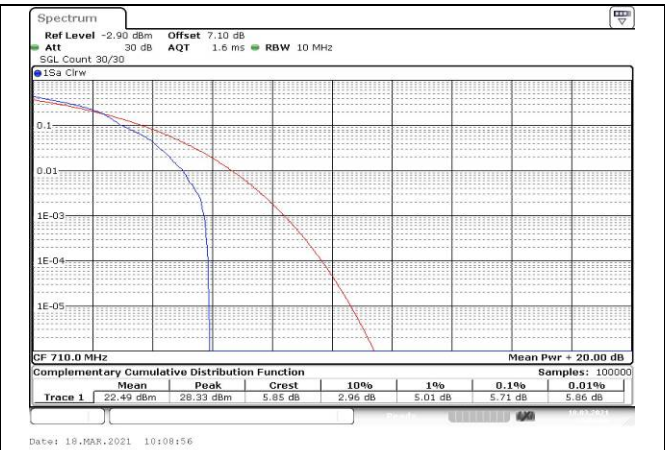


Fig.8

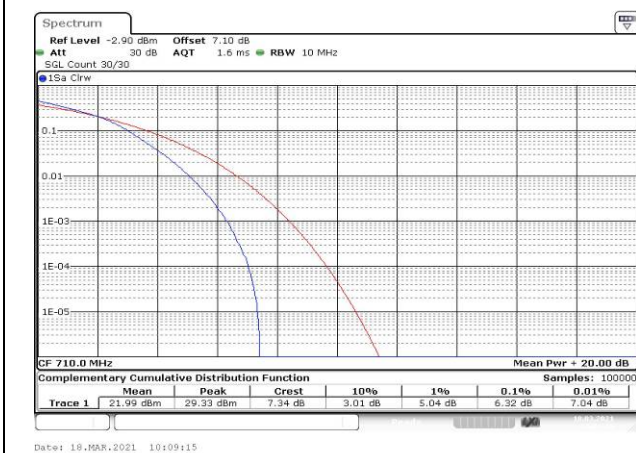


Fig.9

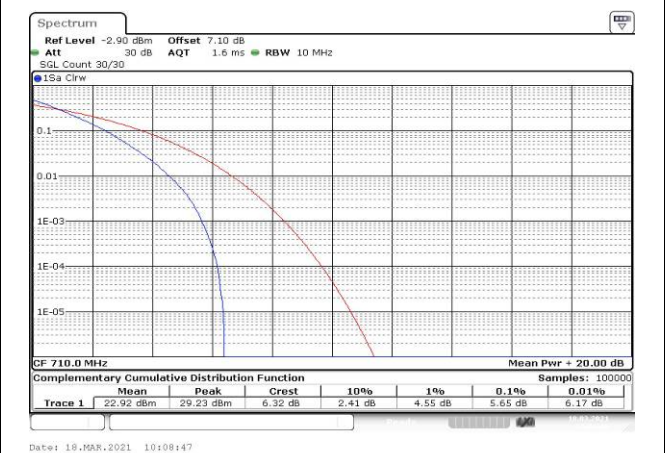


Fig.10

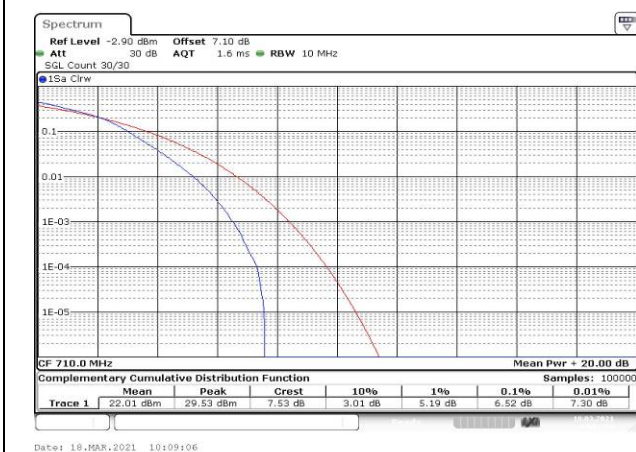


Fig.11

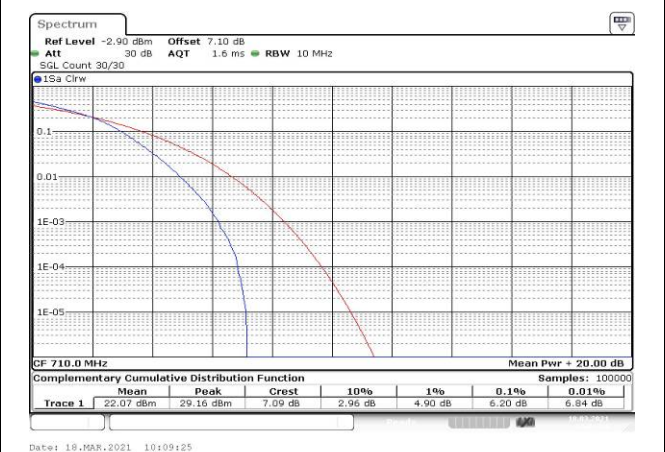


Fig.12

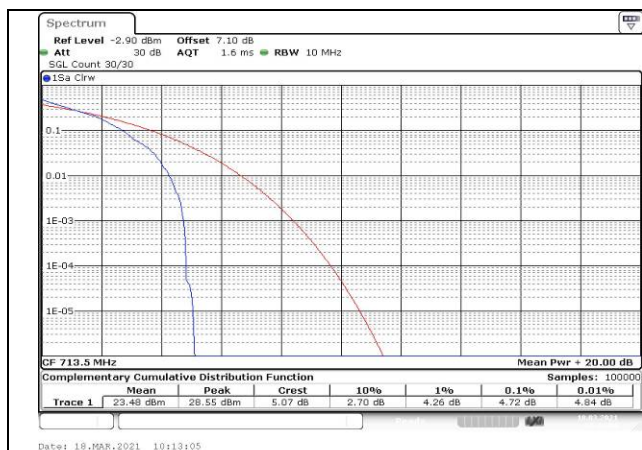


Fig.13

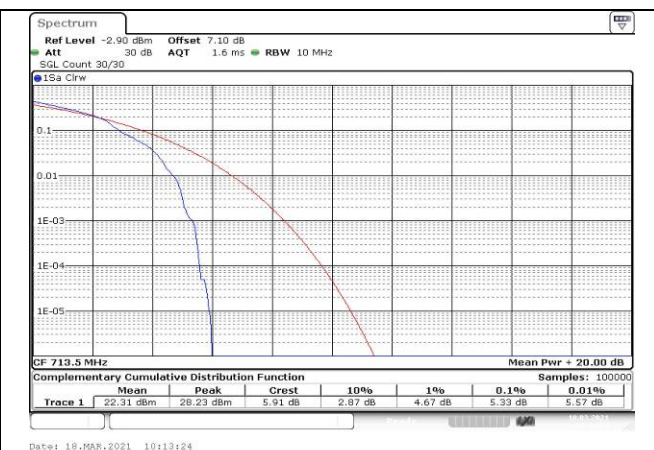


Fig.14

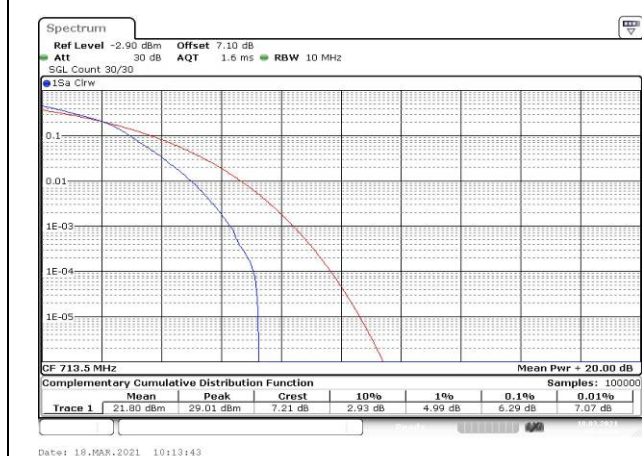


Fig.15

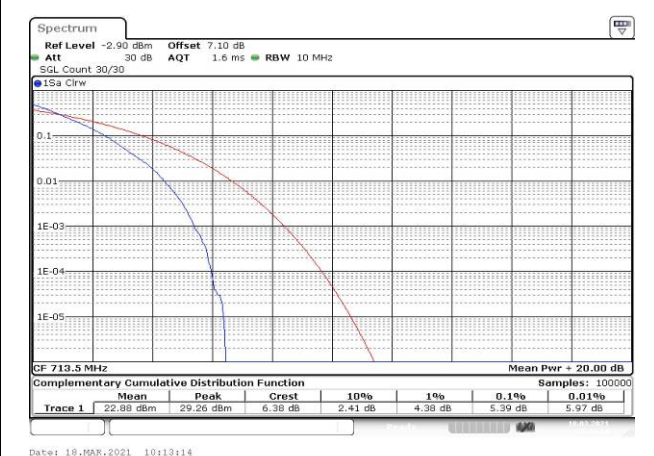


Fig.16

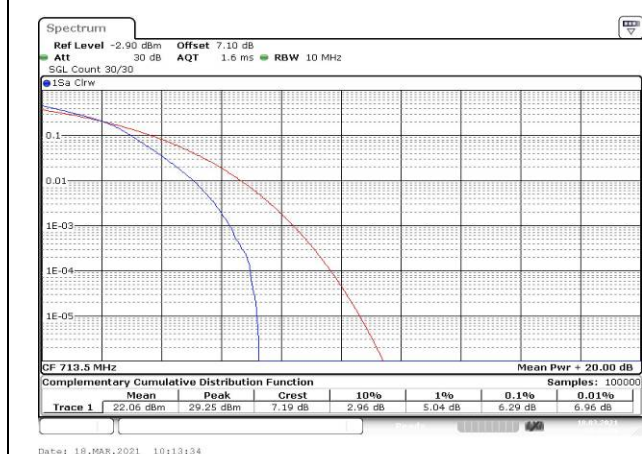


Fig.17

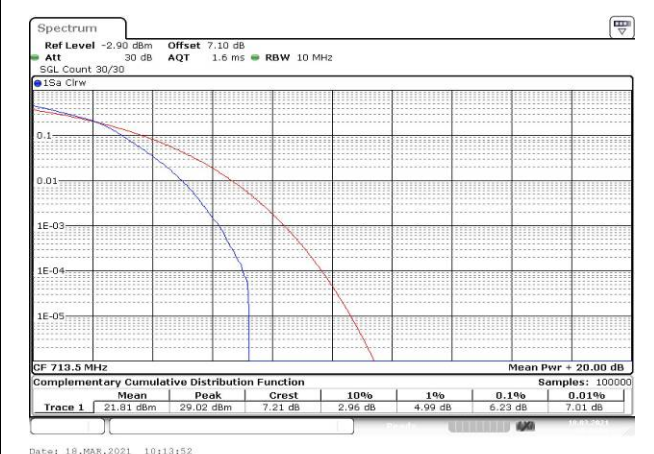


Fig.18

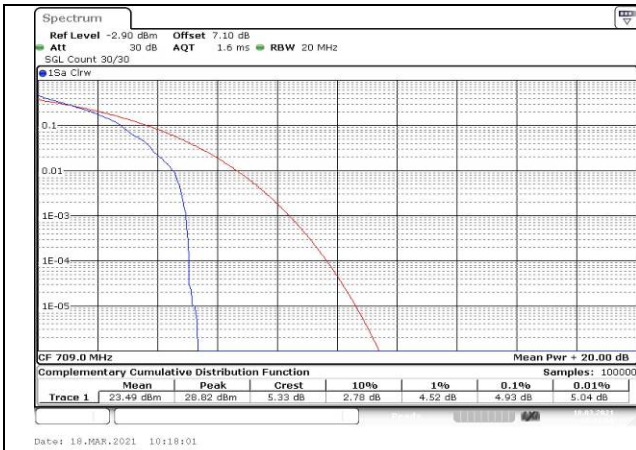


Fig.19

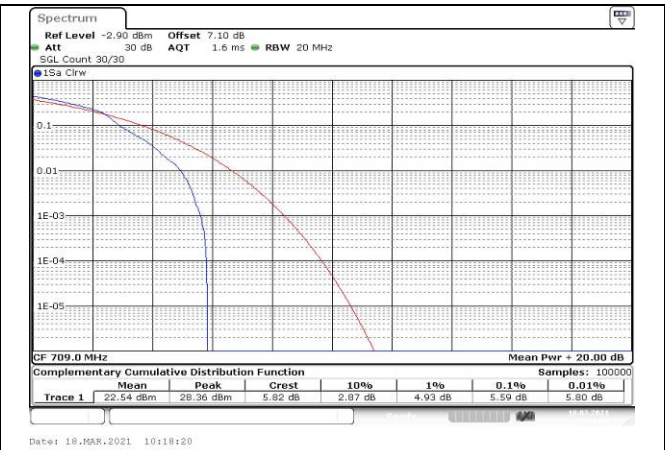


Fig.20

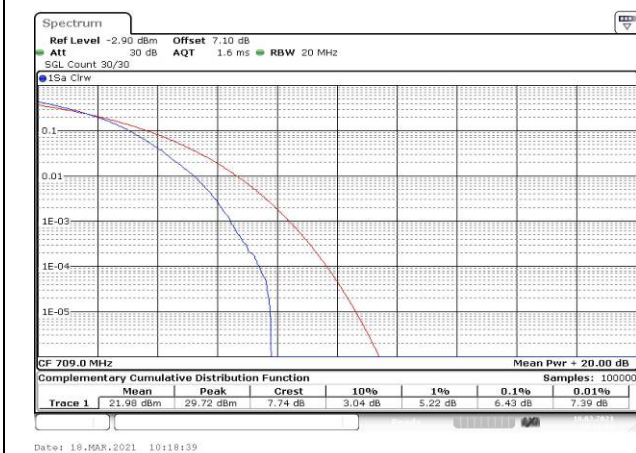


Fig.21

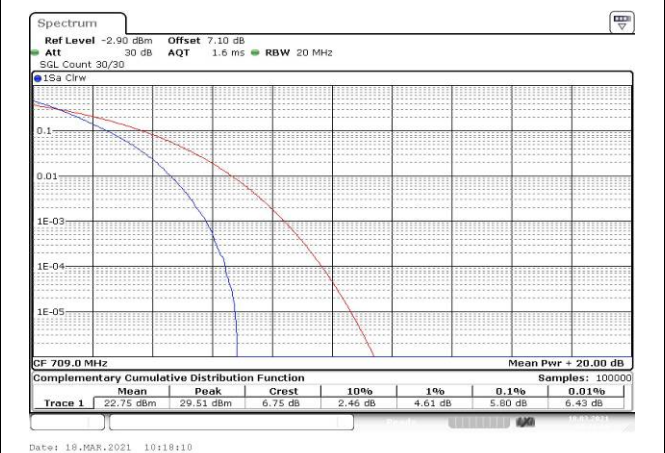


Fig.22

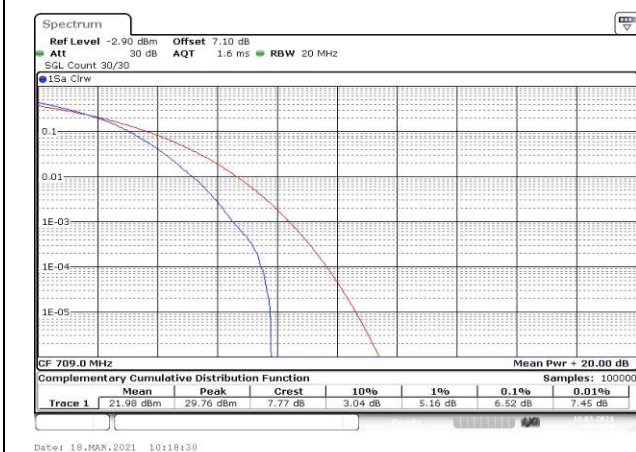


Fig.23

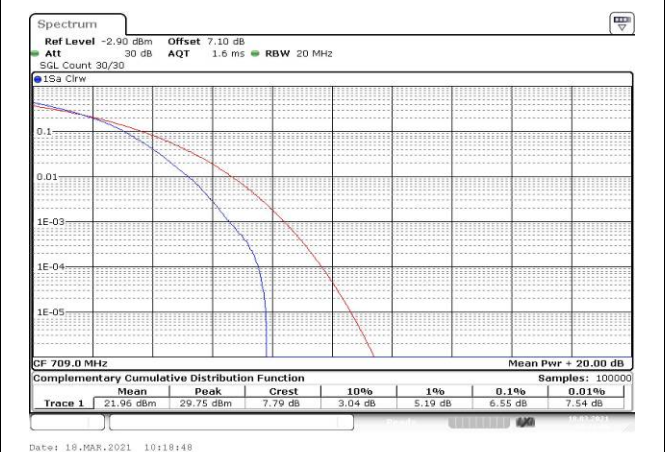


Fig.24

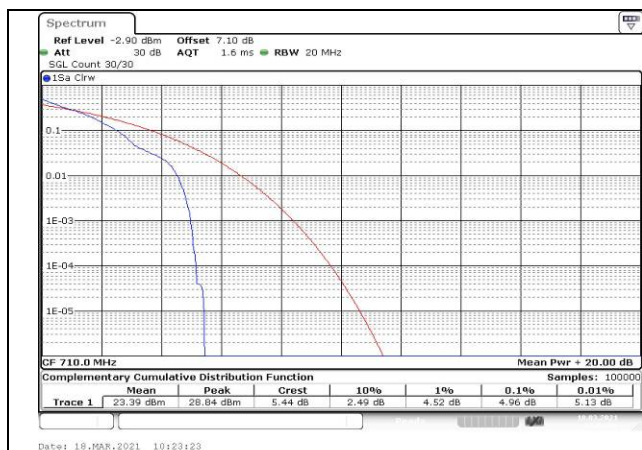


Fig.25

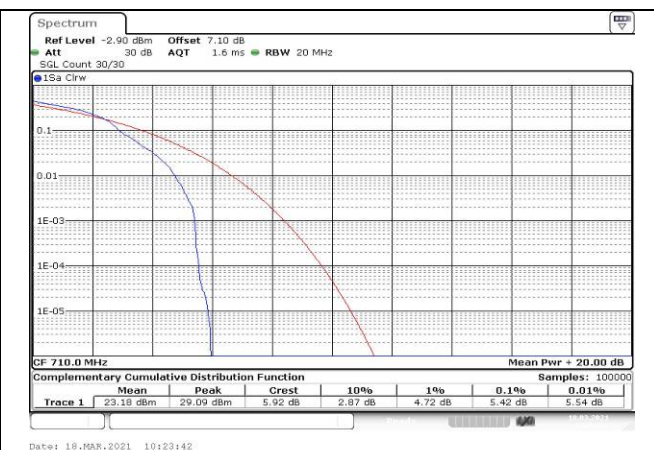


Fig.26

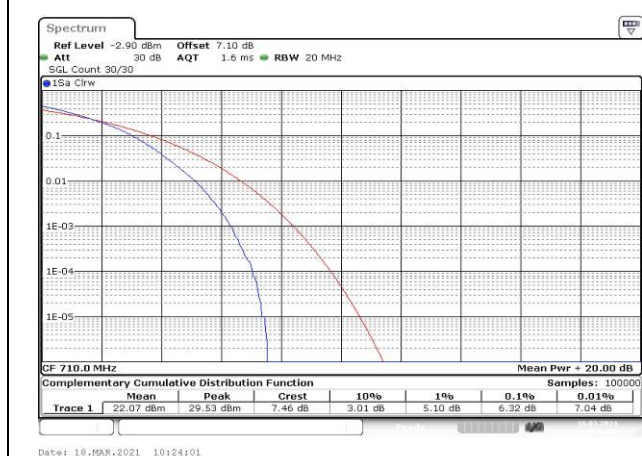


Fig.27

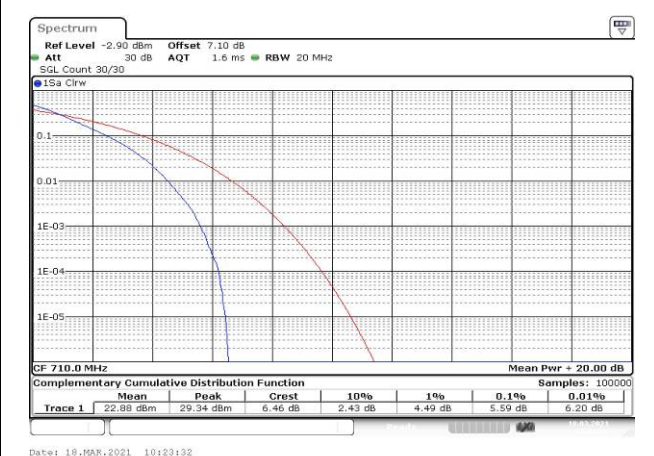


Fig.28

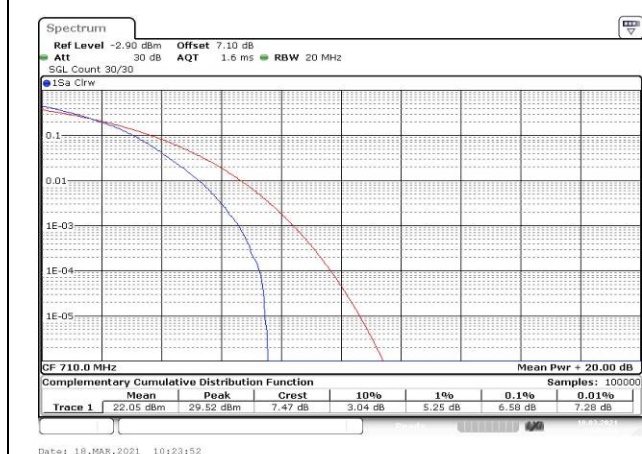


Fig.29

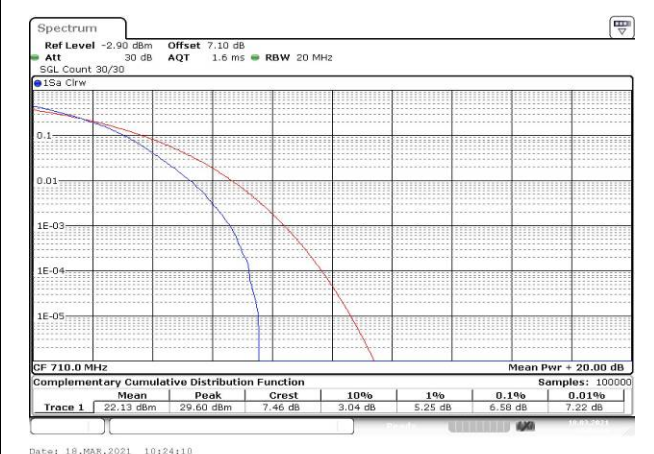


Fig.30

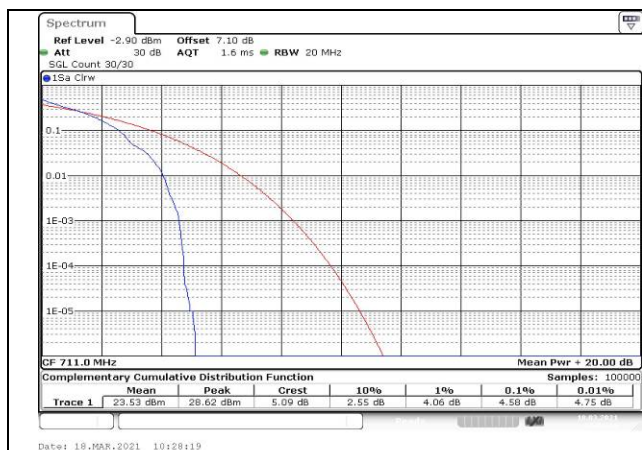


Fig.31

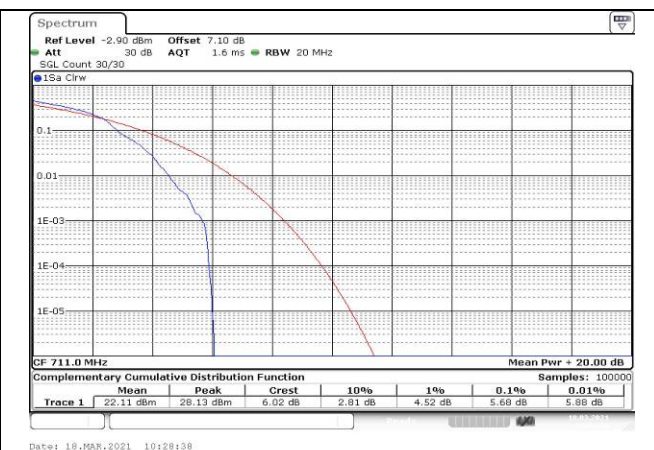


Fig.32

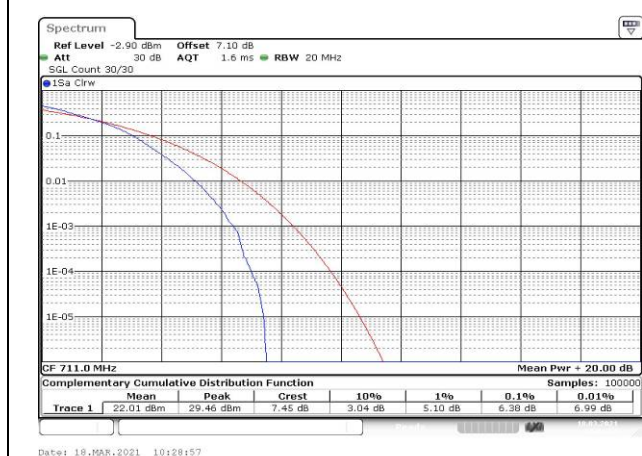


Fig.33

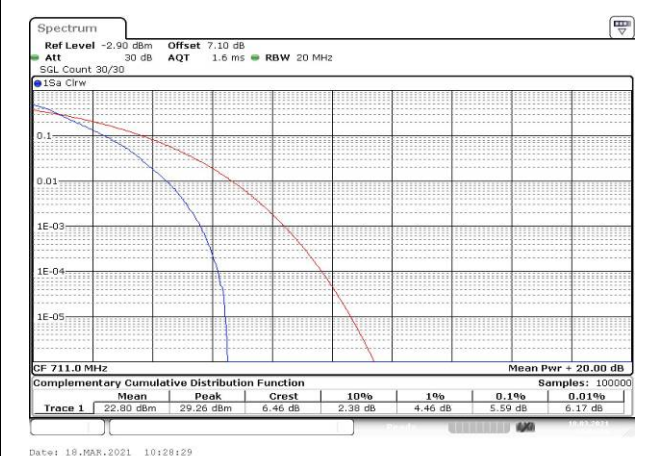


Fig.34

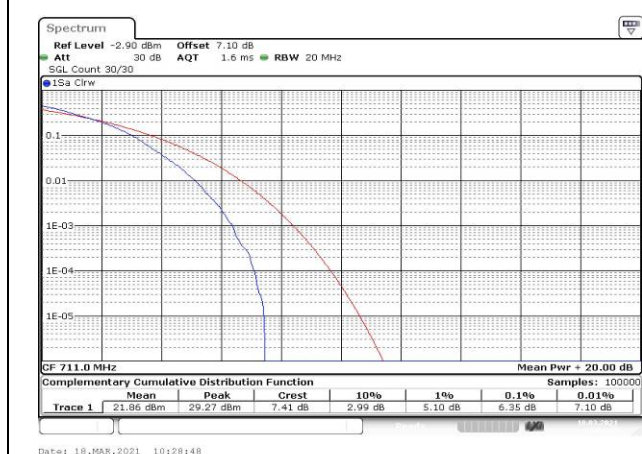


Fig.35

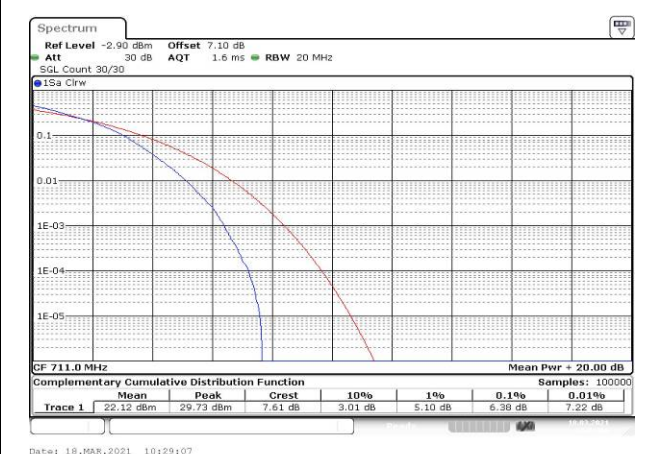


Fig.36

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

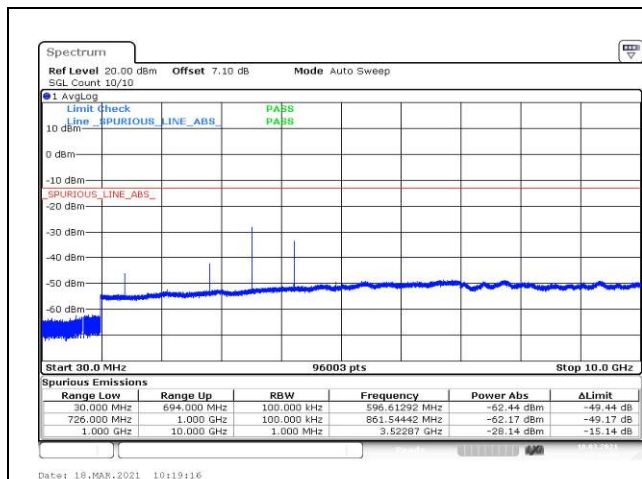


Fig.1

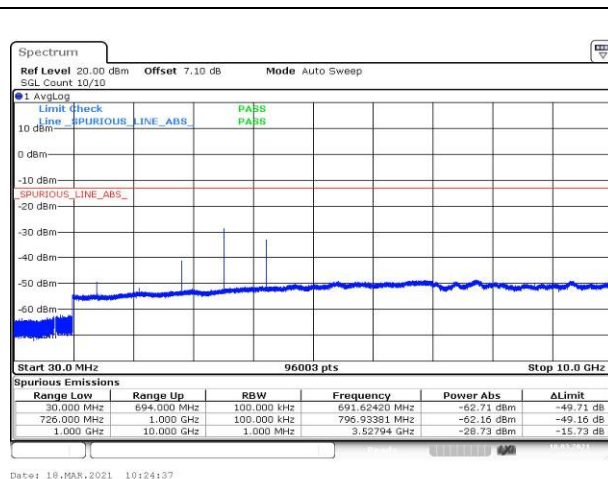


Fig.2

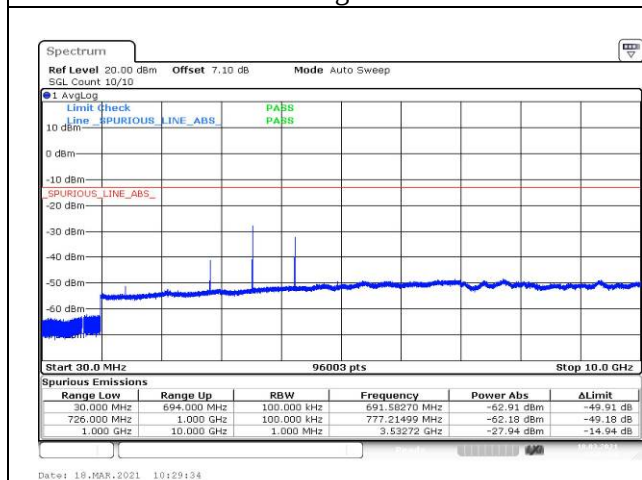


Fig.3

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

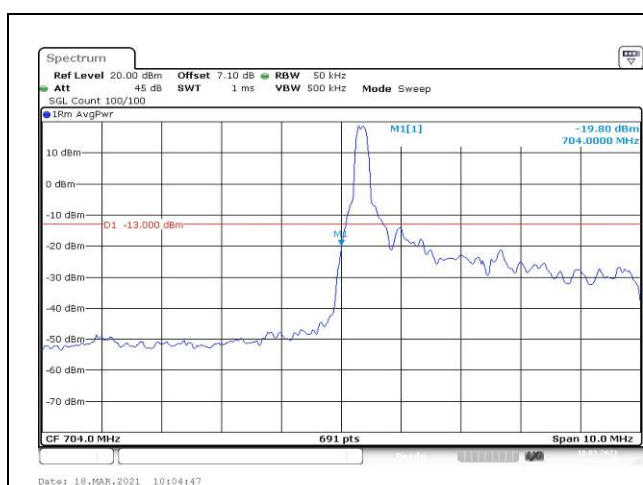


Fig.1

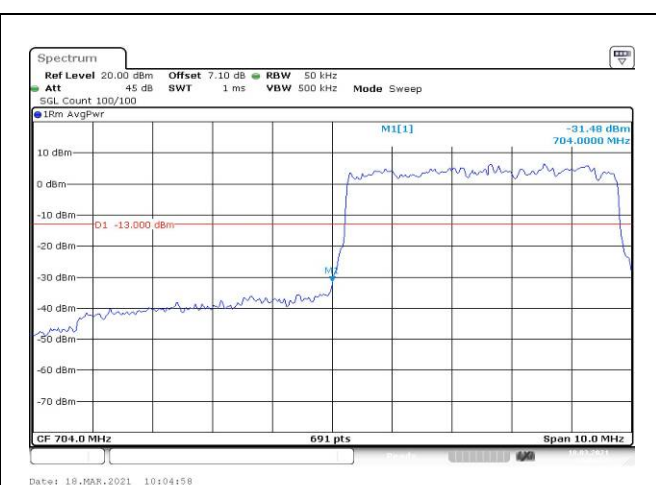


Fig.2

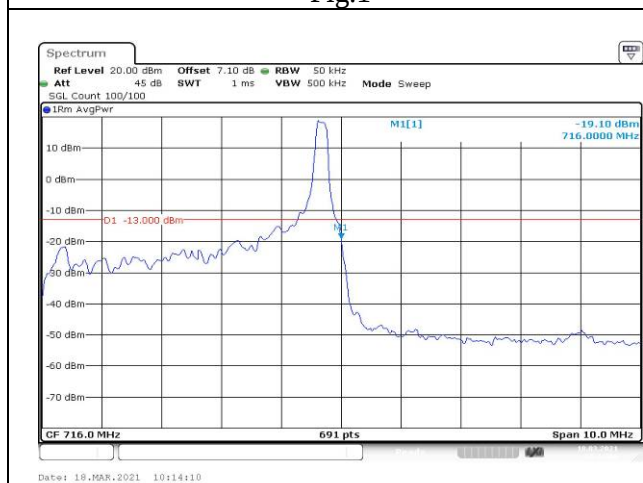


Fig.3

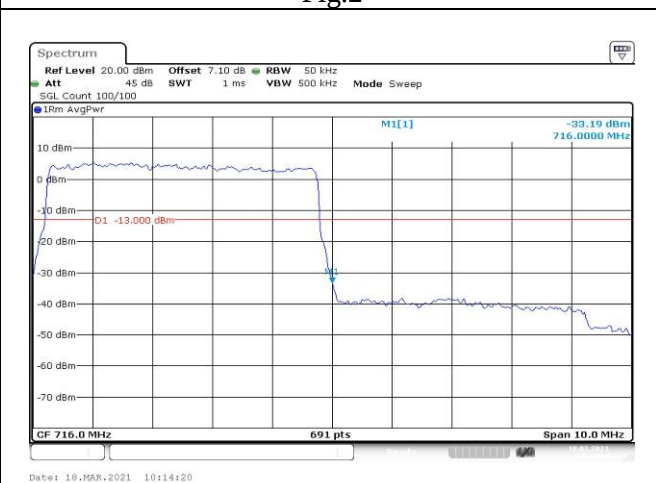


Fig.4

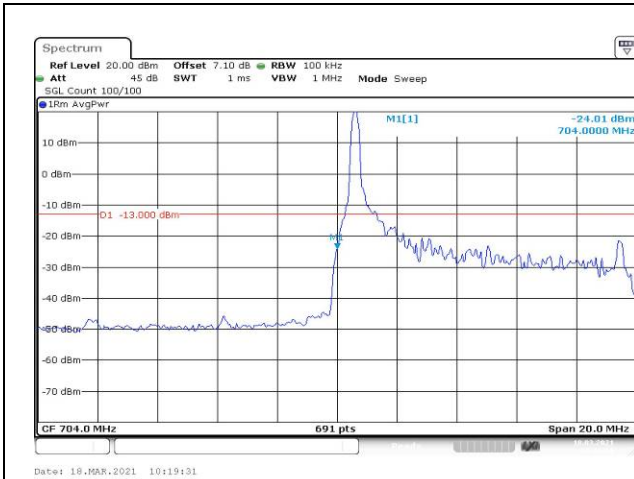


Fig.5

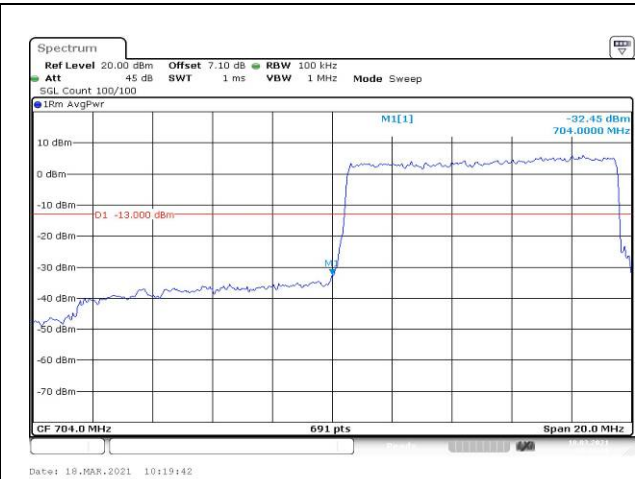


Fig.6

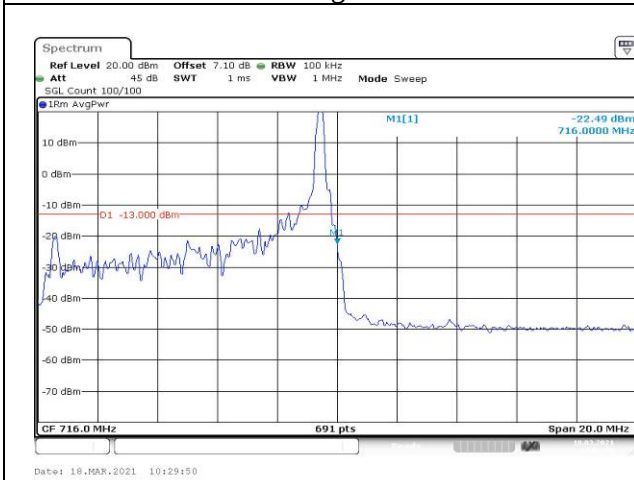


Fig.7



Fig.8

7 Frequency Stability

Temperature(°C)	Voltage	Test Result (ppm) Band17 Low Channel QPSK					
		1.4M	3M	5M	10M	15M	20M
-10	NV	---	---	0.001	-0.001	---	---
0	NV	---	---	-0.039	-0.042	---	---
+10	NV	---	---	-0.035	0.003	---	---
+20	NV	---	---	0.000	0.000	---	---
+30	NV	---	---	-0.058	-0.010	---	---
+40	NV	---	---	0.006	-0.030	---	---
+50	NV	---	---	-0.050	-0.005	---	---
+55	NV	---	---	-0.044	-0.011	---	---
+20	LV	---	---	-0.051	-0.045	---	---
+20	HV	---	---	-0.046	0.002	---	---

Temperature(°C)	Voltage	Test Result (ppm) Band17 High Channel QPSK					
		1.4M	3M	5M	10M	15M	20M
-10	NV	---	---	-0.012	0.019	---	---
0	NV	---	---	-0.032	-0.049	---	---
+10	NV	---	---	0.009	0.023	---	---
+20	NV	---	---	0.000	0.000	---	---
+30	NV	---	---	-0.038	-0.023	---	---
+40	NV	---	---	-0.045	0.003	---	---
+50	NV	---	---	-0.024	-0.011	---	---
+55	NV	---	---	-0.032	-0.015	---	---
+20	LV	---	---	-0.029	-0.007	---	---
+20	HV	---	---	0.027	0.015	---	---

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	24.26	18.91	0.078
				1	12	24.19	18.84	0.077
				1	24	24.17	18.82	0.076
				12	0	23.20	17.85	0.061
				12	7	23.25	17.90	0.062
				12	13	23.23	17.88	0.061
				25	0	23.18	17.83	0.061
	710	23790		1	0	24.25	18.90	0.078
				1	12	24.31	18.96	0.079
				1	24	24.31	18.96	0.079
				12	0	23.19	17.84	0.061
				12	7	23.32	17.97	0.063
				12	13	23.32	17.97	0.063
				25	0	23.24	17.89	0.062
	713.5	23825		1	0	24.03	18.68	0.074
				1	12	24.05	18.70	0.074
				1	24	24.04	18.69	0.074
				12	0	23.19	17.84	0.061
				12	7	23.20	17.85	0.061
				12	13	23.19	17.84	0.061
				25	0	23.23	17.88	0.061
16QAM	706.5	23755	1	0	22.59	17.24	0.053	
			1	12	22.56	17.21	0.053	
			1	24	22.58	17.23	0.053	
			12	0	22.33	16.98	0.050	
			12	7	22.29	16.94	0.049	
			12	13	22.28	16.93	0.049	
			25	0	22.41	17.06	0.051	
	710	23790	1	0	23.04	17.69	0.059	
			1	12	23.01	17.66	0.058	
			1	24	23.02	17.67	0.058	
			12	0	22.00	16.65	0.046	
			12	7	22.28	16.93	0.049	
			12	13	22.44	17.09	0.051	
			25	0	22.38	17.03	0.050	
	713.5	23825	1	0	23.39	18.04	0.064	
			1	12	23.29	17.94	0.062	
			1	24	23.03	17.68	0.059	
			12	0	22.38	17.03	0.050	
			12	7	22.08	16.73	0.047	
			12	13	22.17	16.82	0.048	
			25	0	22.49	17.14	0.052	

Modulation	Carrier frequen cy (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	22.40	17.05	0.051
				1	12	22.40	17.05	0.051
				1	24	22.40	17.05	0.051
				12	0	22.39	17.04	0.051
				12	7	22.51	17.16	0.052
				12	13	22.50	17.15	0.052
				25	0	22.50	17.15	0.052
	710	23790		1	0	22.38	17.03	0.050
				1	12	22.37	17.02	0.050
				1	24	22.37	17.02	0.050
				12	0	22.37	17.02	0.050
				12	7	22.36	17.01	0.050
				12	13	22.36	17.01	0.050
				25	0	22.36	17.01	0.050
	713.5	23825		1	0	22.49	17.14	0.052
				1	12	22.40	17.05	0.051
				1	24	22.48	17.13	0.052
				12	0	22.49	17.14	0.052
				12	7	22.49	17.14	0.052
				12	13	22.54	17.19	0.052
				25	0	22.49	17.14	0.052

Modulation	Carrier frequen cy (MHz)	UL Channel	BW	RB Size	RB Offset	Conduct ed power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	709	23780	10	1	0	24.17	18.82	0.076
				1	25	24.12	18.77	0.075
				1	49	24.08	18.73	0.075
				25	0	23.28	17.93	0.062
				25	12	23.28	17.93	0.062
				25	25	23.28	17.93	0.062
				50	0	23.24	17.89	0.062
	710	23790		1	0	24.45	19.10	0.081
				1	25	24.22	18.87	0.077
				1	49	24.21	18.86	0.077
				25	0	23.15	17.80	0.060
				25	12	23.30	17.95	0.062
				25	25	23.15	17.80	0.060
				50	0	23.31	17.96	0.063
	711	23800		1	0	24.32	18.97	0.079
				1	25	24.35	19.00	0.079
				1	49	24.35	19.00	0.079
				25	0	23.21	17.86	0.061
				25	12	23.31	17.96	0.063
				25	25	23.32	17.97	0.063
				50	0	23.24	17.89	0.062
16QAM	709	23780	1	0	23.43	18.08	0.064	
			1	25	23.50	18.15	0.065	
			1	49	23.56	18.21	0.066	
			25	0	22.38	17.03	0.050	
			25	12	22.36	17.01	0.050	
			25	25	22.37	17.02	0.050	
			50	0	22.37	17.02	0.050	
	710	23790	1	0	23.46	18.11	0.065	
			1	25	23.55	18.20	0.066	
			1	49	23.47	18.12	0.065	
			25	0	22.38	17.03	0.050	
			25	12	22.34	16.99	0.050	
			25	25	22.36	17.01	0.050	
			50	0	22.46	17.11	0.051	
	711	23800	1	0	22.86	17.51	0.056	
			1	25	23.06	17.71	0.059	
			1	49	23.06	17.71	0.059	
			25	0	22.61	17.26	0.053	
			25	12	22.60	17.25	0.053	
			25	25	22.61	17.26	0.053	
			50	0	22.37	17.02	0.050	

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	22.37	17.02	0.050
				1	25	22.36	17.01	0.050
				1	49	22.36	17.01	0.050
				25	0	22.36	17.01	0.050
				25	12	22.36	17.01	0.050
				25	25	22.08	16.73	0.047
				50	0	22.36	17.01	0.050
	710	23790		1	0	22.45	17.10	0.051
				1	25	22.45	17.10	0.051
				1	49	22.45	17.10	0.051
				25	0	22.45	17.10	0.051
				25	12	22.45	17.10	0.051
				25	25	22.45	17.10	0.051
				50	0	22.45	17.10	0.051
	711	23800		1	0	22.42	17.07	0.051
				1	25	22.53	17.18	0.052
				1	49	22.54	17.19	0.052
				25	0	22.33	16.98	0.050
				25	12	22.48	17.13	0.052
				25	25	22.54	17.19	0.052
				50	0	22.37	17.02	0.050