

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	24.26	
				1	12	24.19	
				1	24	24.17	
				12	0	23.20	
				12	7	23.25	
				12	13	23.23	
				25	0	23.18	
	710	23790		1	0	24.25	
				1	12	24.31	
				1	24	24.31	
				12	0	23.19	
				12	7	23.32	
				12	13	23.32	
				25	0	23.24	
	713.5	23825		1	0	24.03	
				1	12	24.05	
				1	24	24.04	
				12	0	23.19	
				12	7	23.20	
				12	13	23.19	
				25	0	23.23	
	16QAM	706.5		23755	1	0	22.59
					1	12	22.56
					1	24	22.58
12					0	22.33	
12					7	22.29	
12					13	22.28	
25					0	22.41	
710		23790		1	0	23.04	
				1	12	23.01	
			1	24	23.02		
			12	0	22.00		
			12	7	22.28		
			12	13	22.44		
			25	0	22.38		
713.5		23825	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

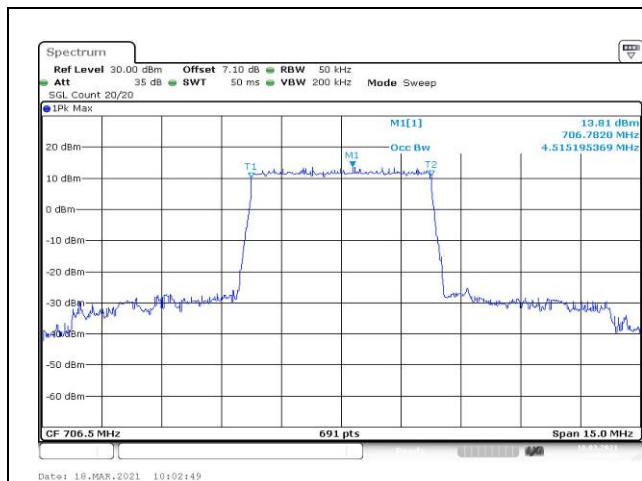


Fig.1

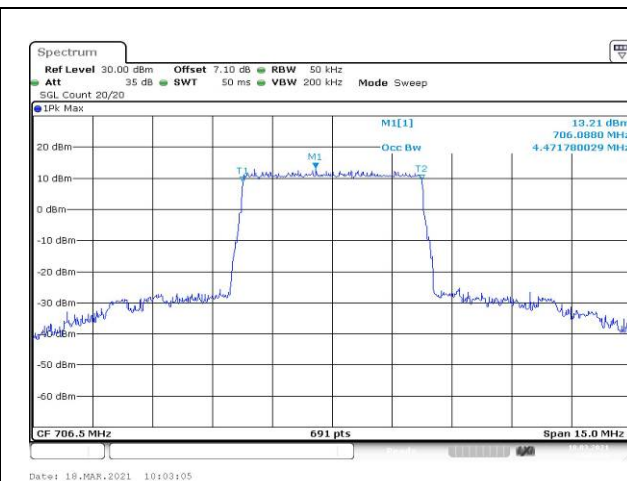


Fig.2

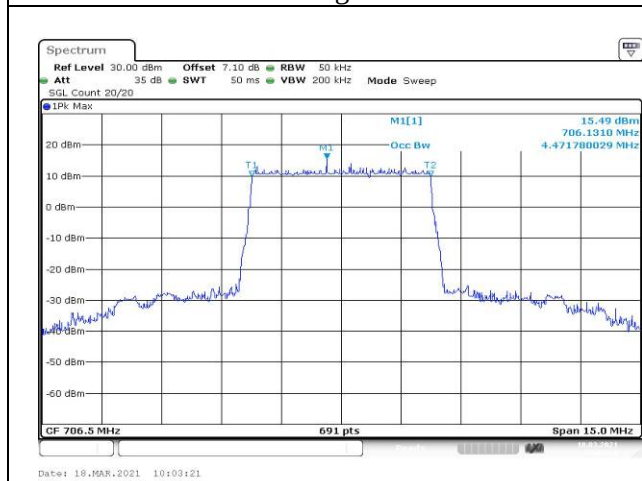


Fig.3

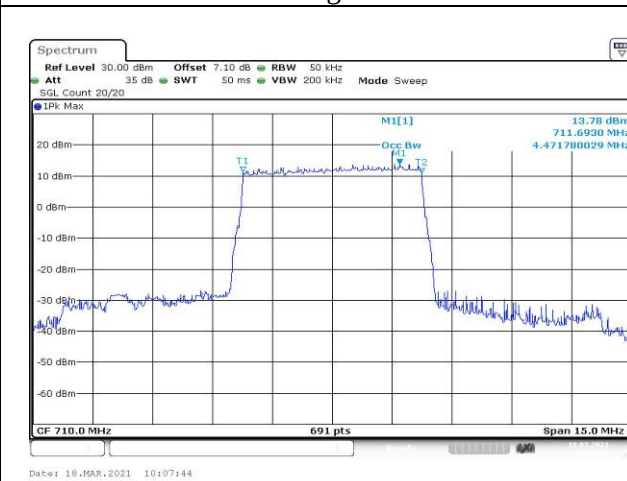


Fig.4

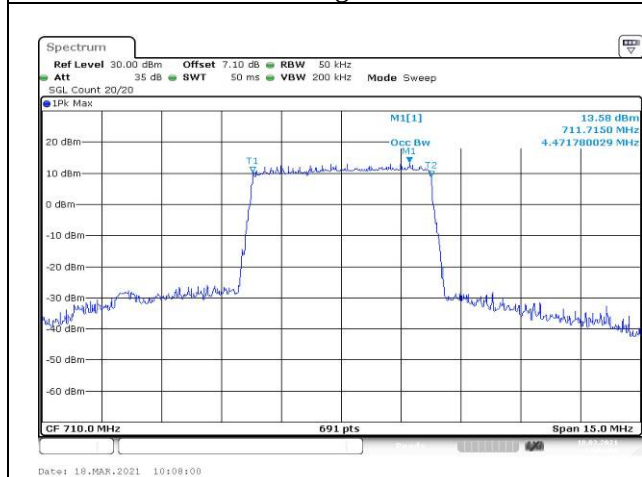


Fig.5

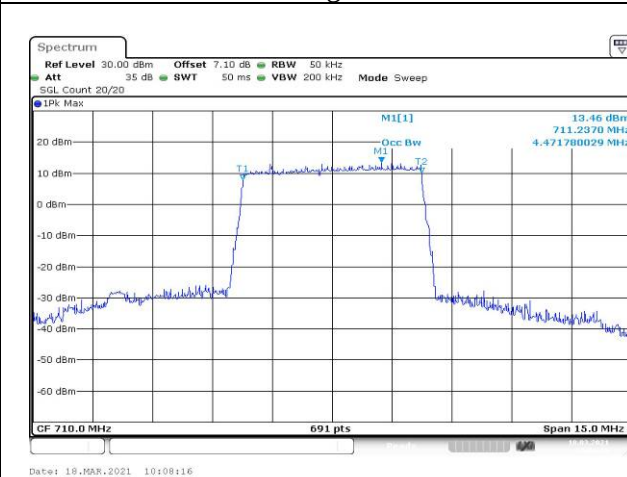
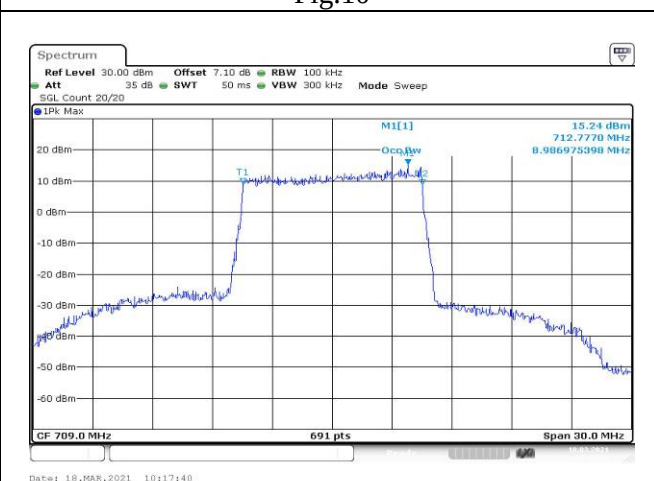
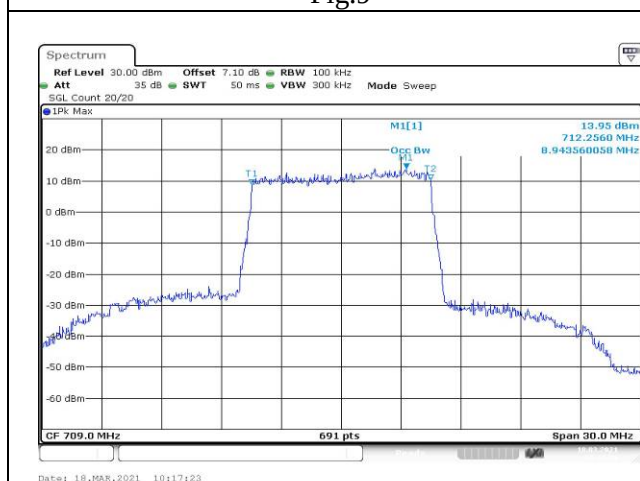
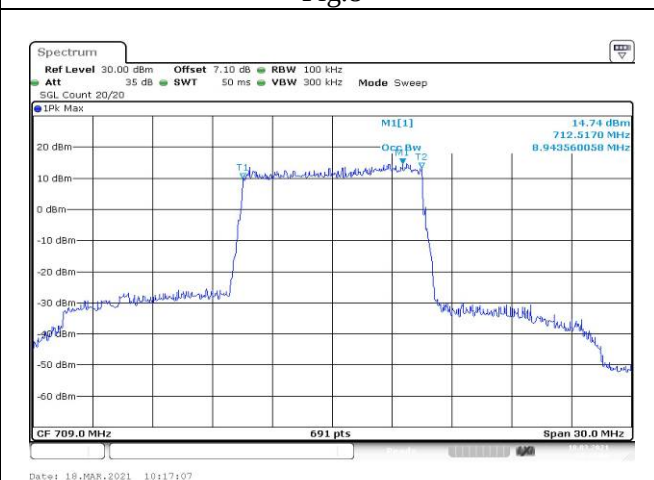
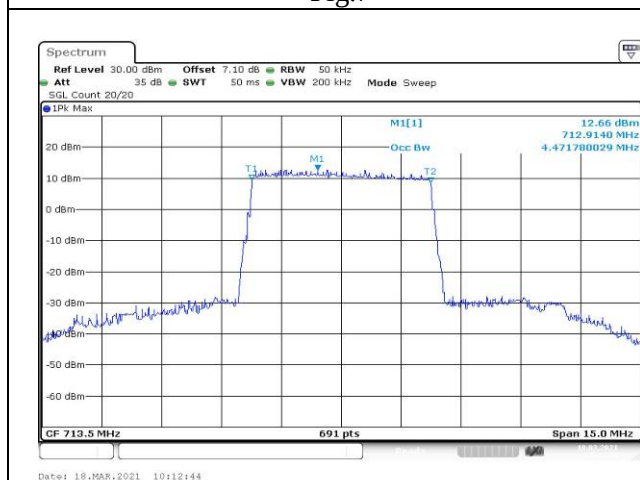
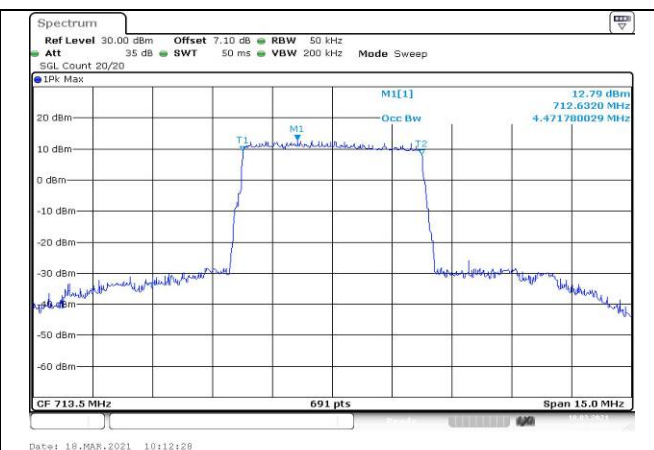
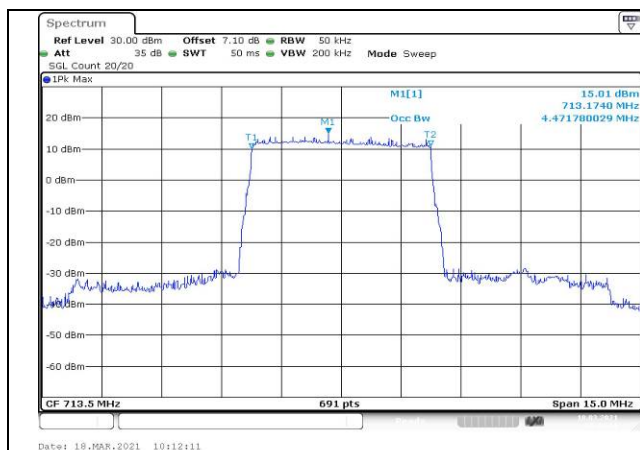
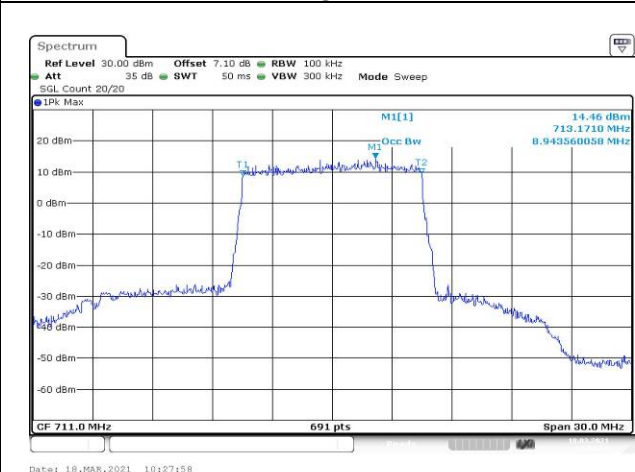
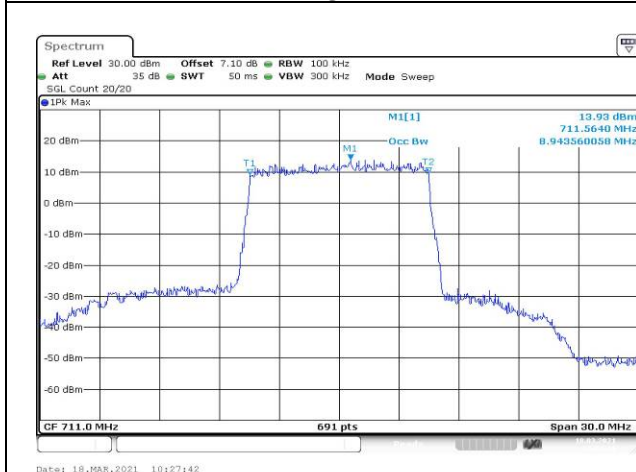
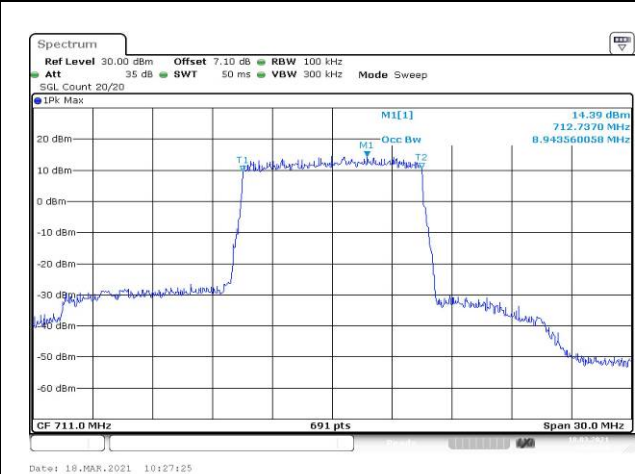
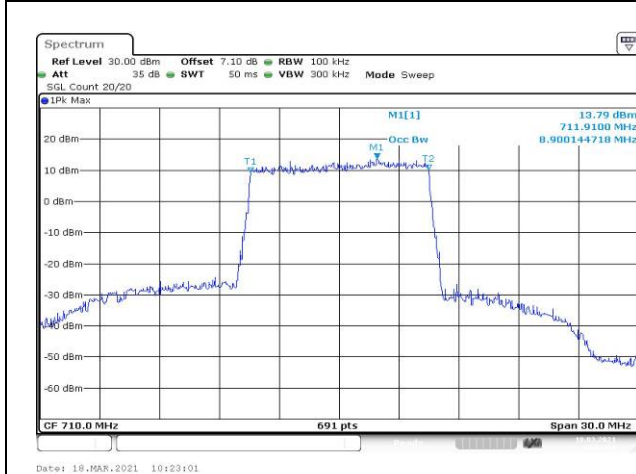
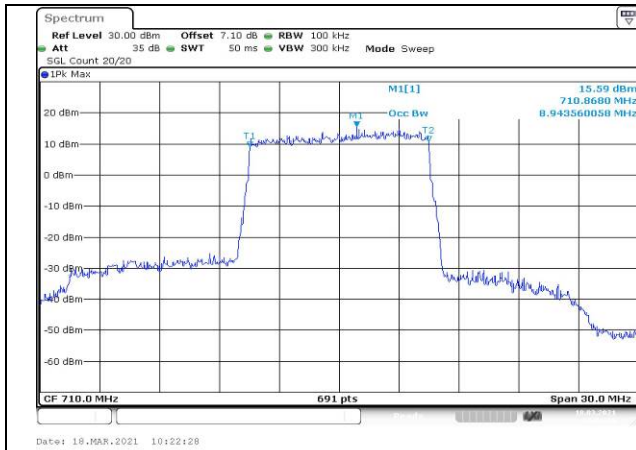


Fig.6





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

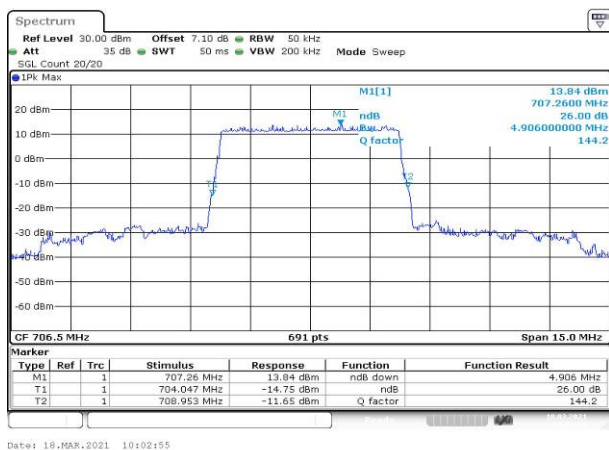


Fig.1

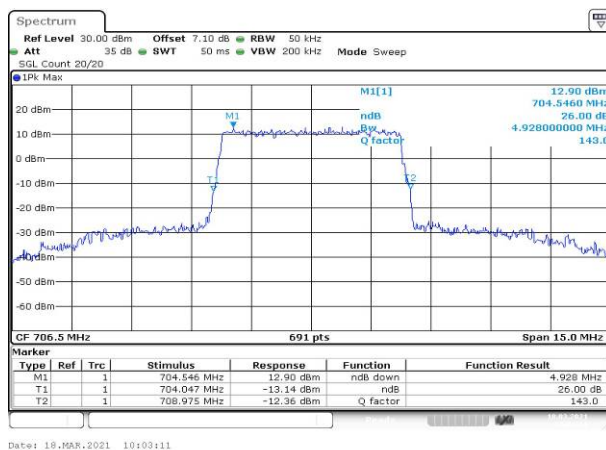


Fig.2

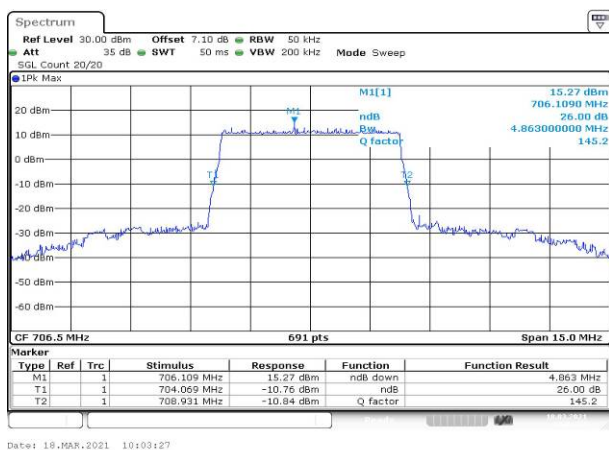


Fig.3

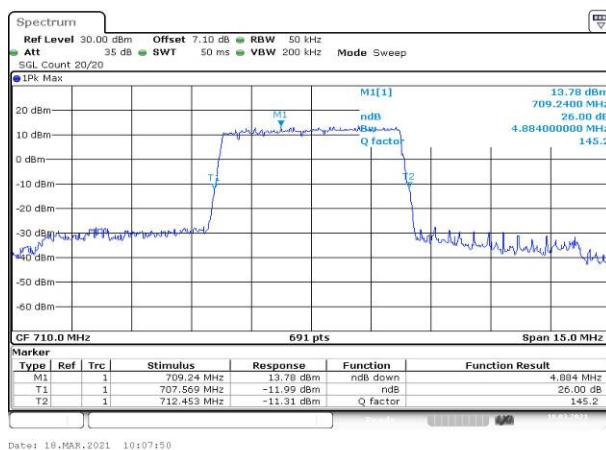


Fig.4

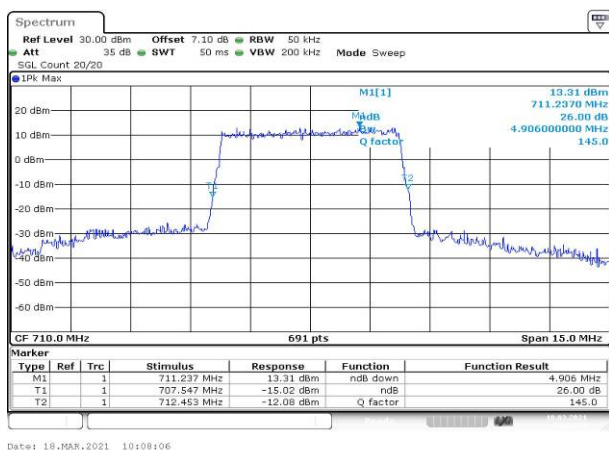


Fig.5

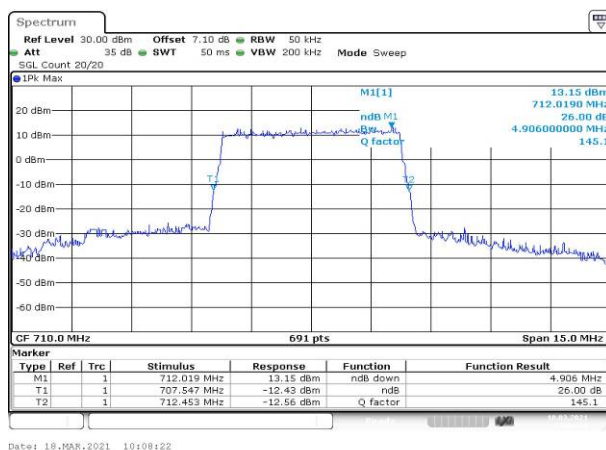


Fig.6

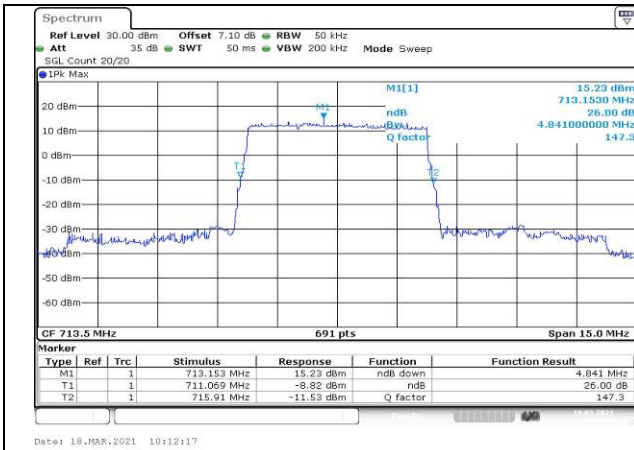


Fig.7

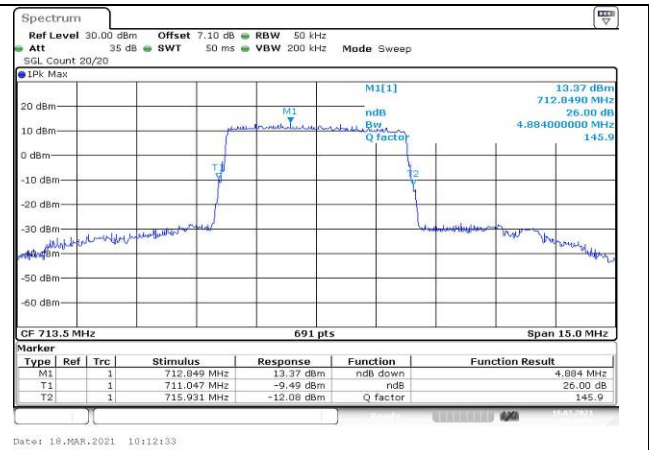


Fig.8

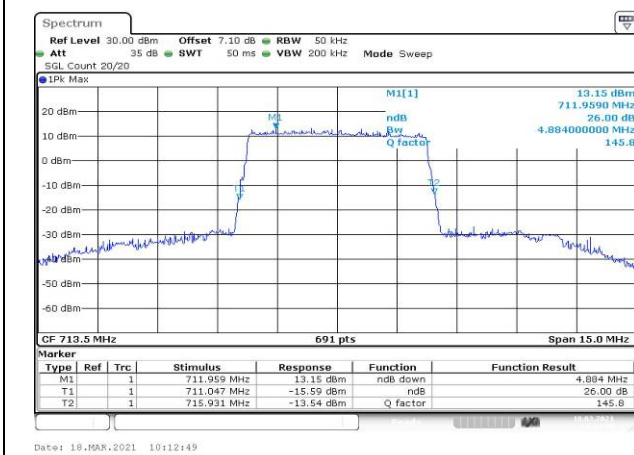


Fig.9

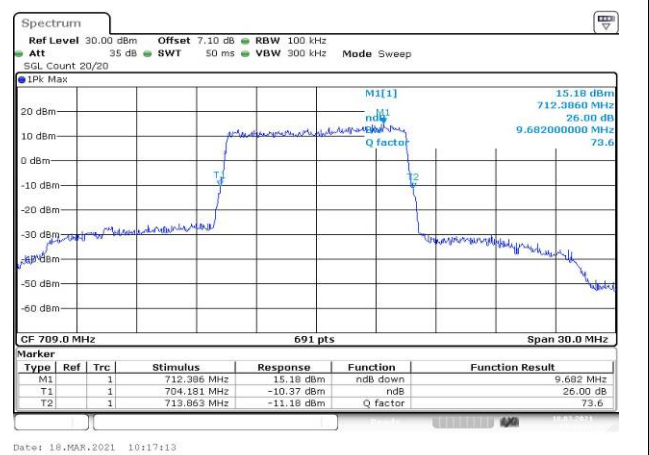


Fig.10

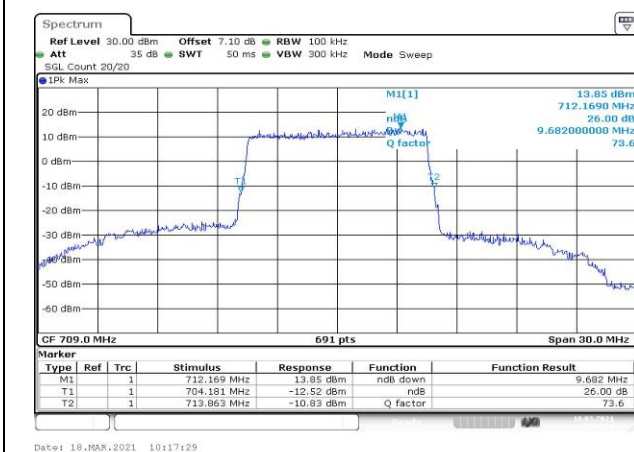


Fig.11

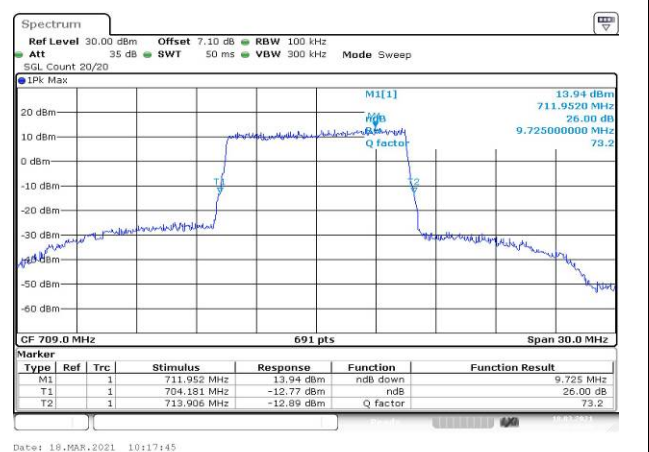


Fig.12

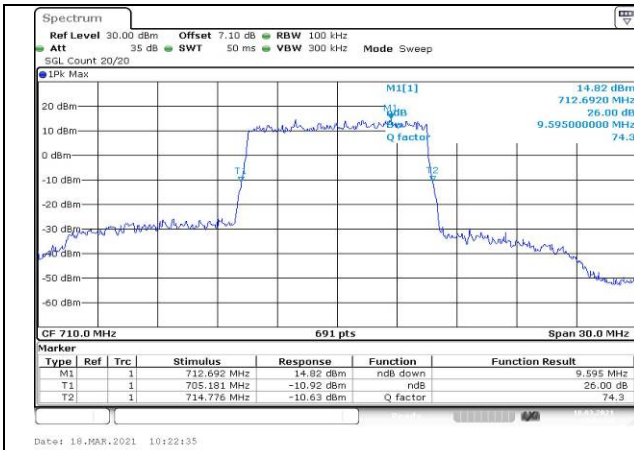


Fig.13

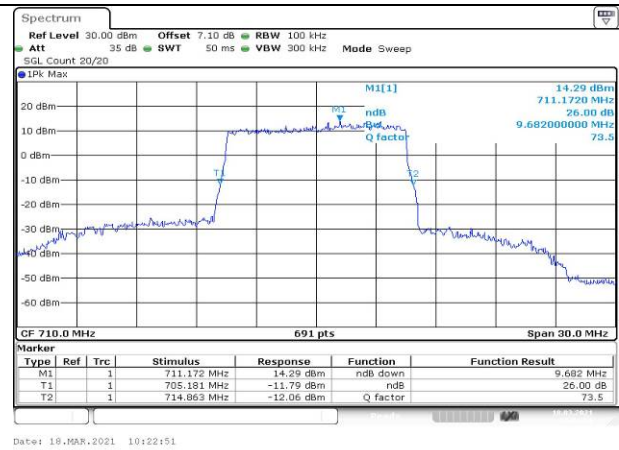


Fig.14

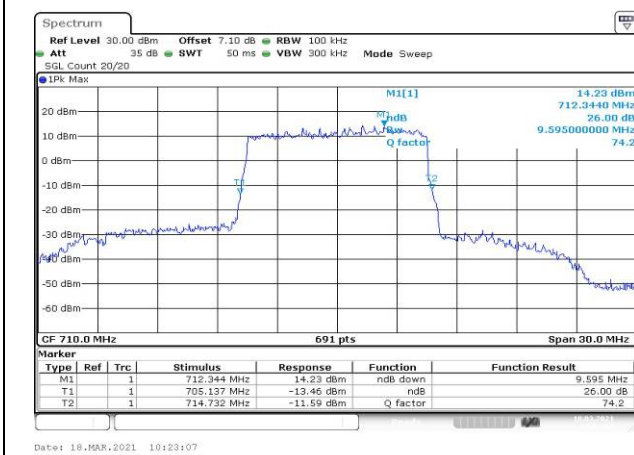


Fig.15

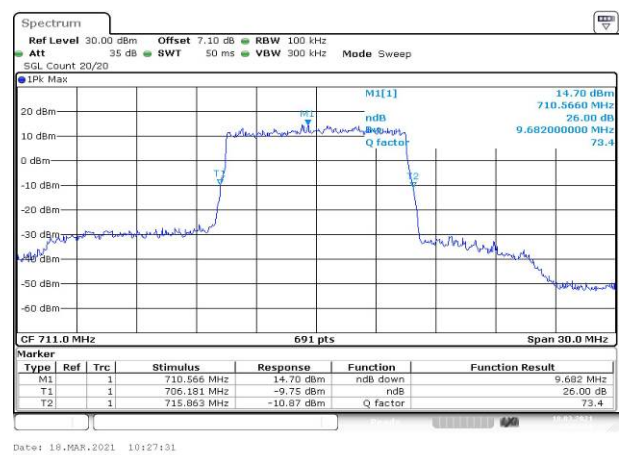


Fig.16

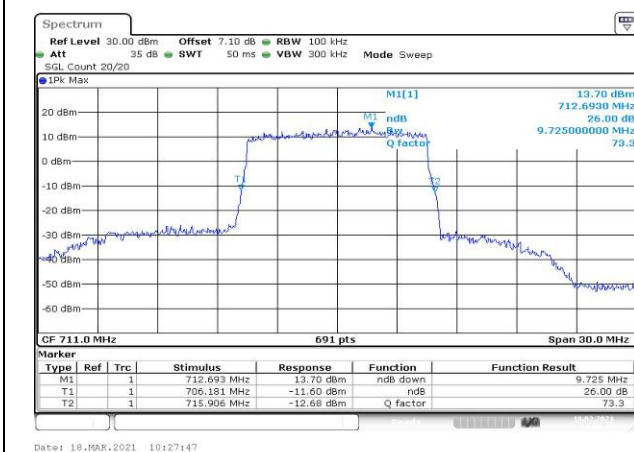


Fig.17

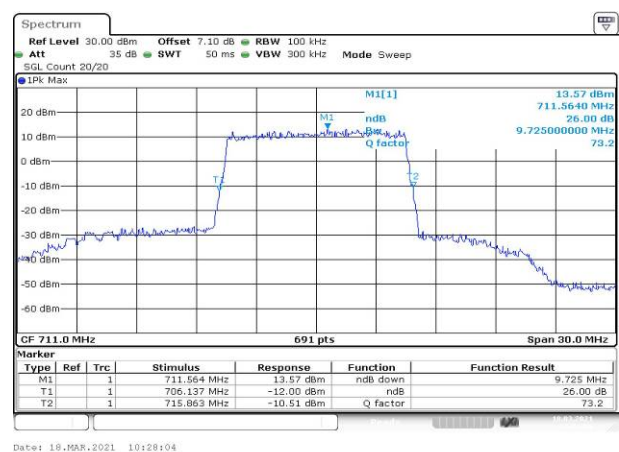


Fig.18

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

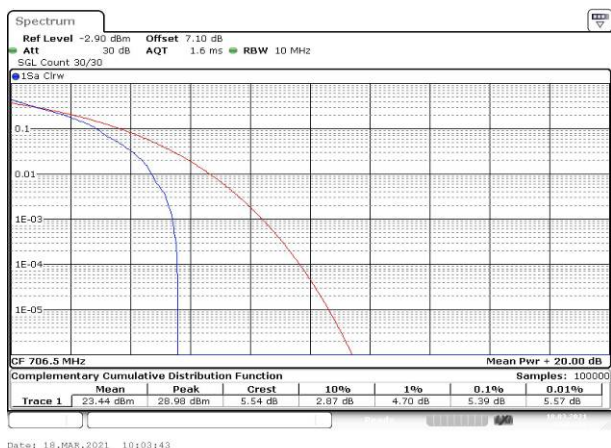


Fig.1

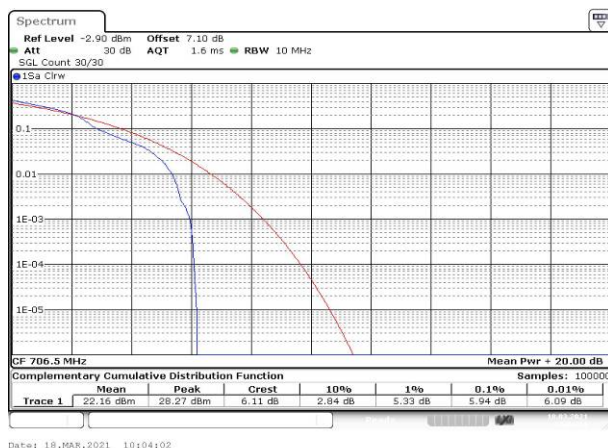


Fig.2

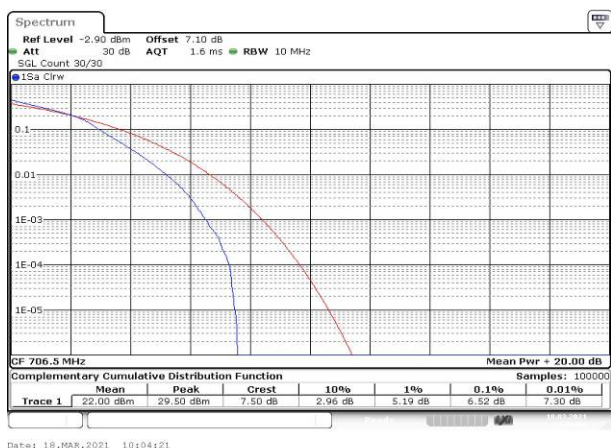


Fig.3

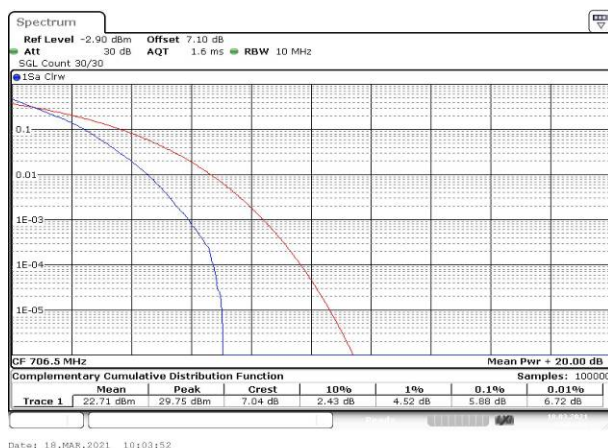


Fig.4

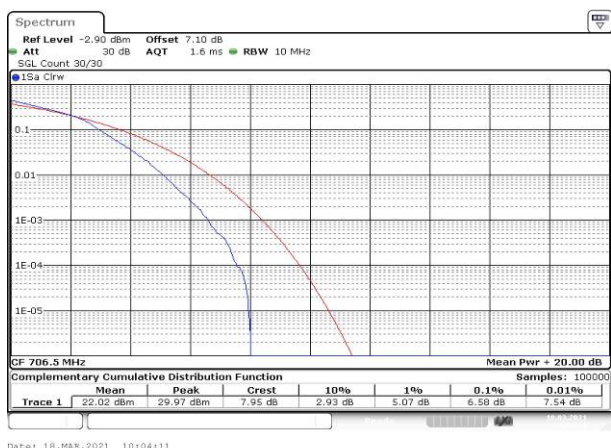


Fig.5

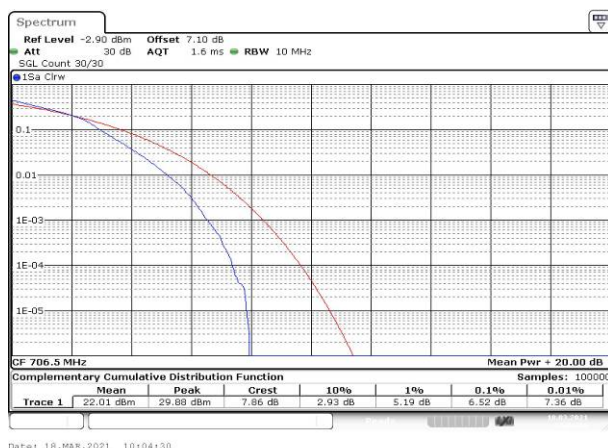


Fig.6

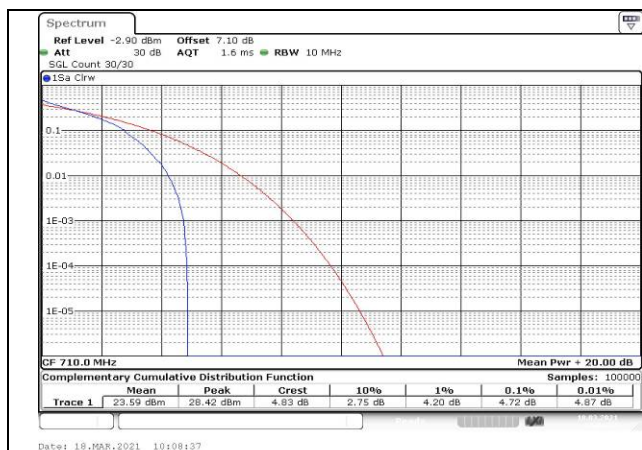


Fig.7

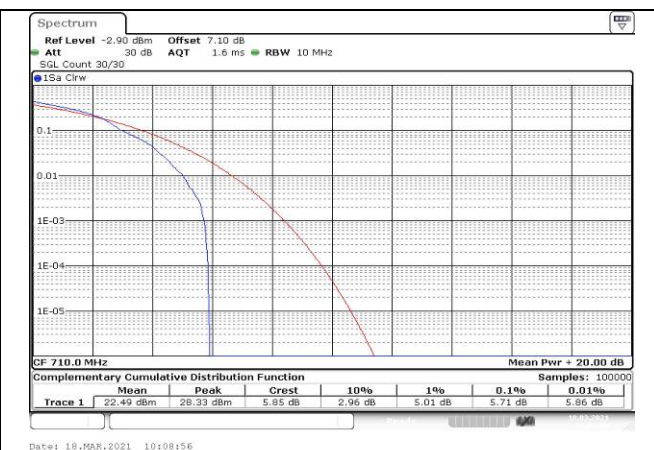


Fig.8

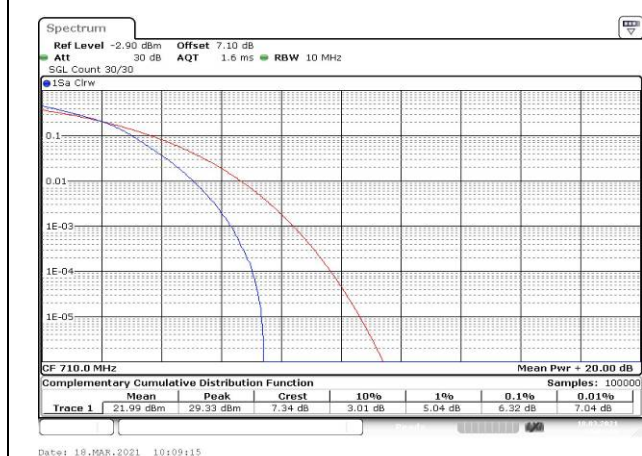


Fig.9

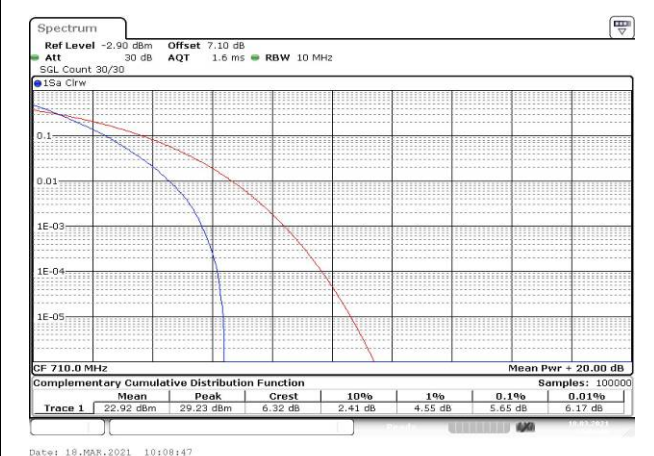


Fig.10

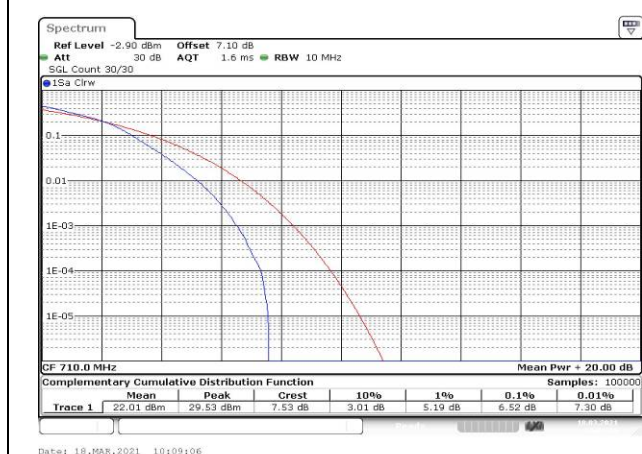


Fig.11

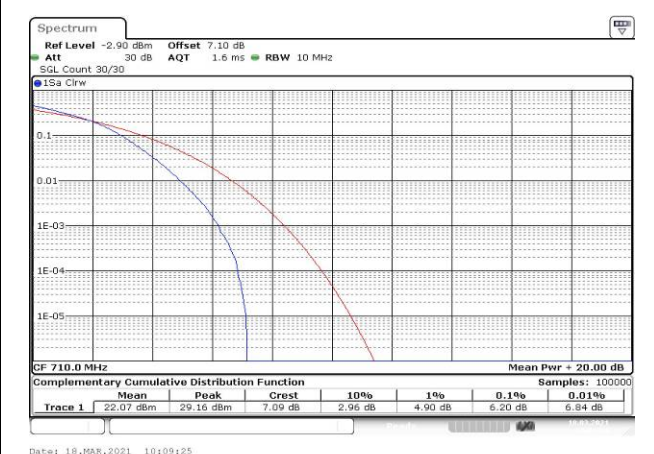


Fig.12

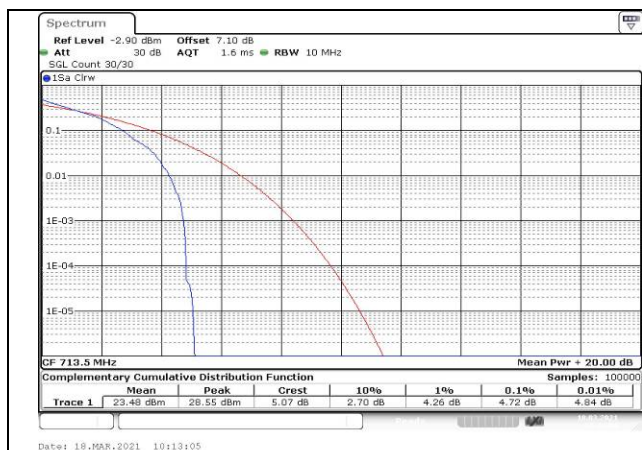


Fig.13

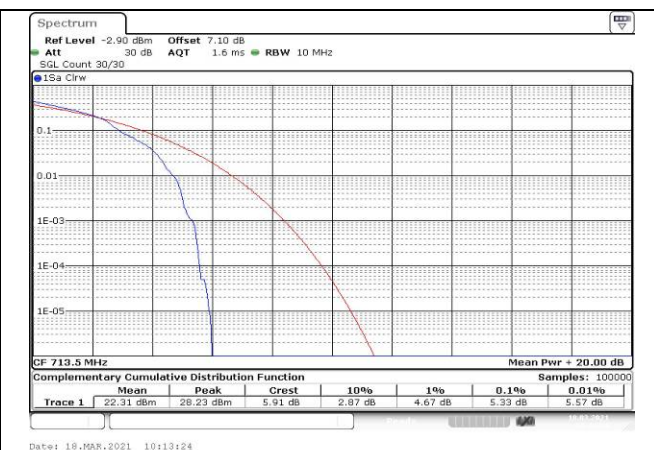


Fig.14

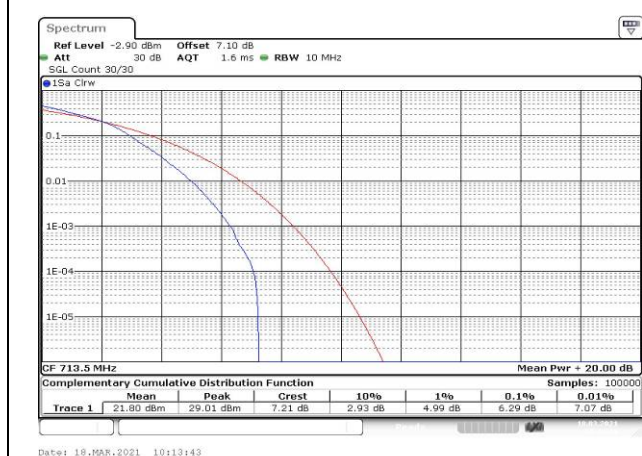


Fig.15

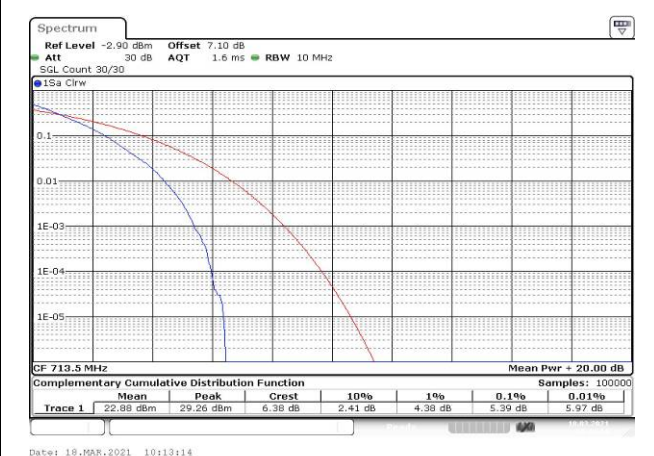


Fig.16

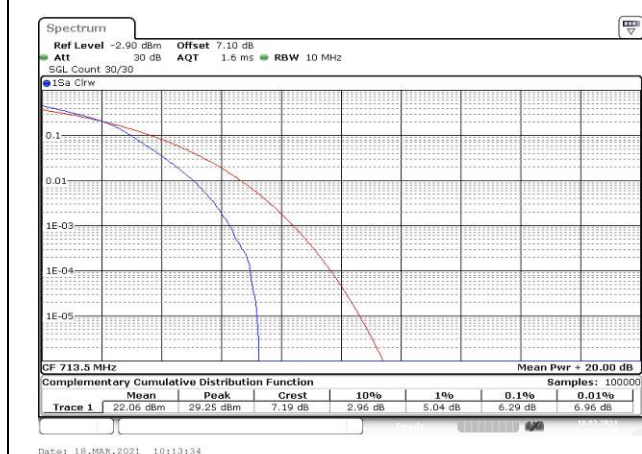


Fig.17

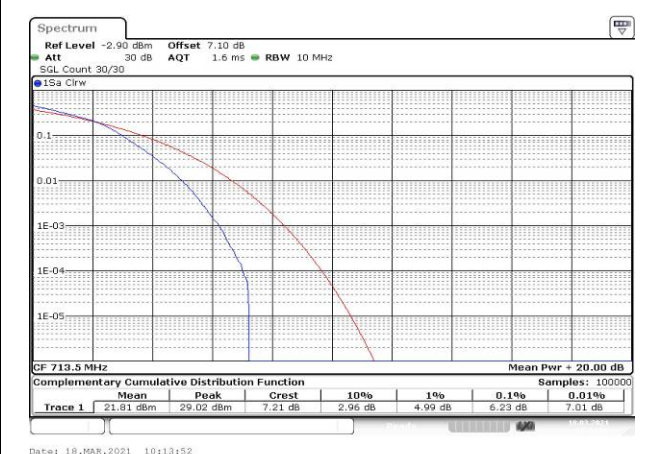


Fig.18

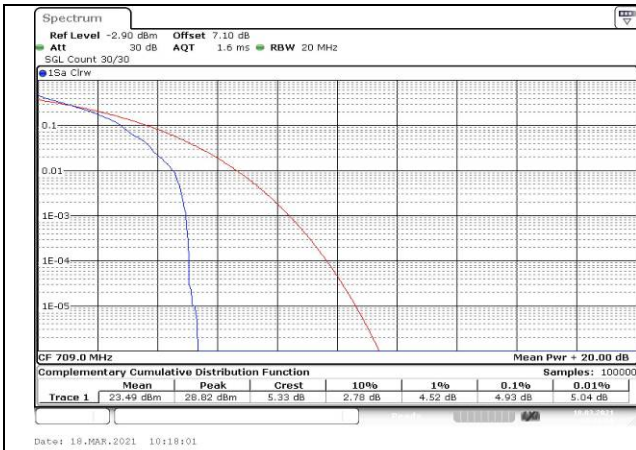


Fig.19

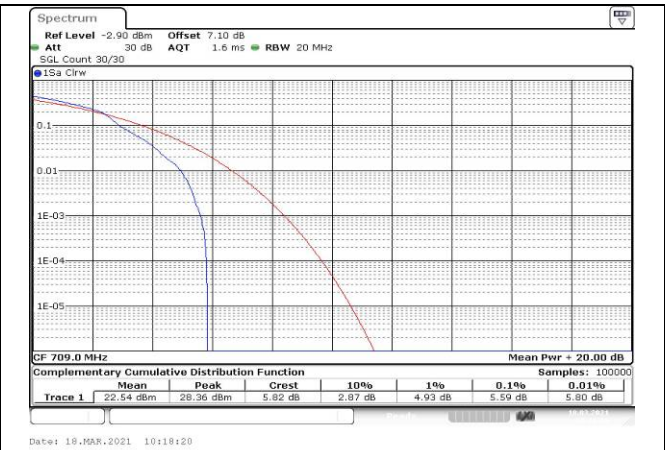


Fig.20

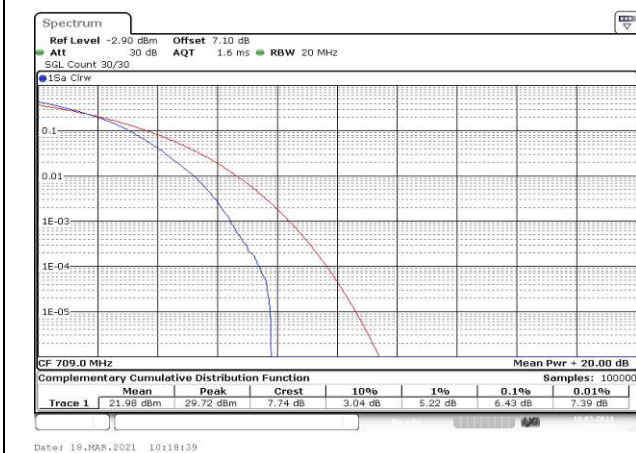


Fig.21

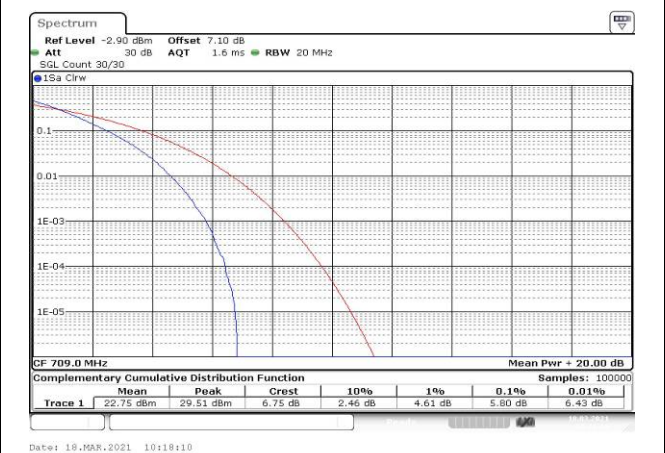


Fig.22

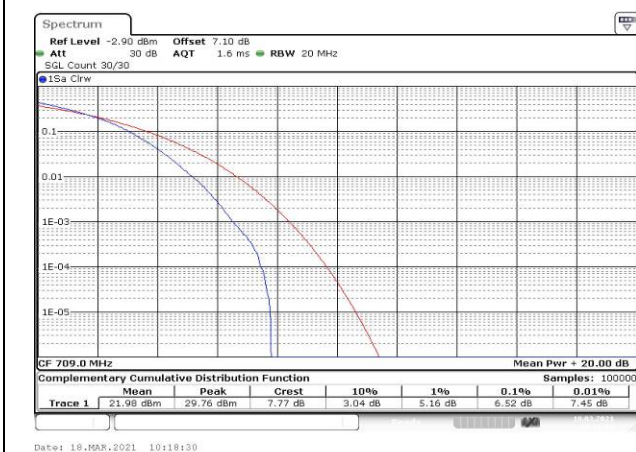


Fig.23

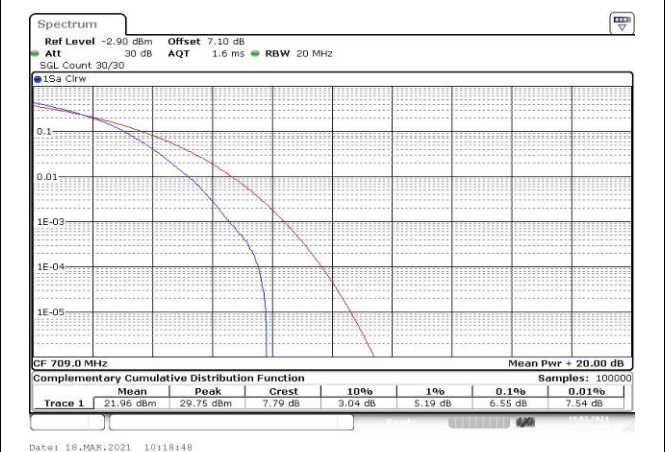


Fig.24

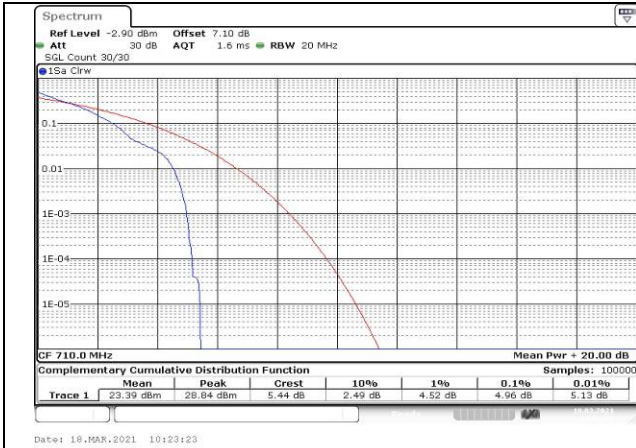


Fig.25

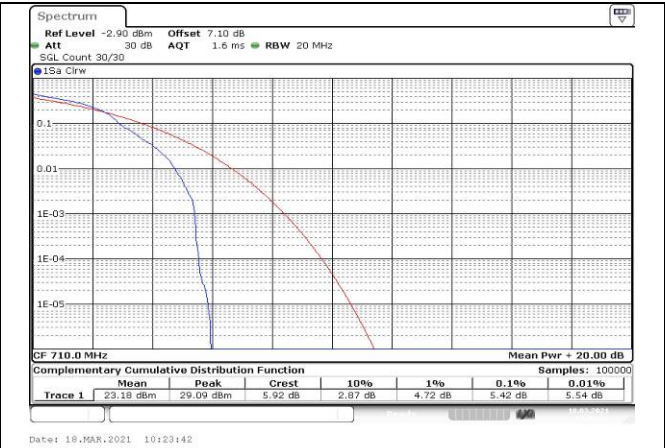


Fig.26

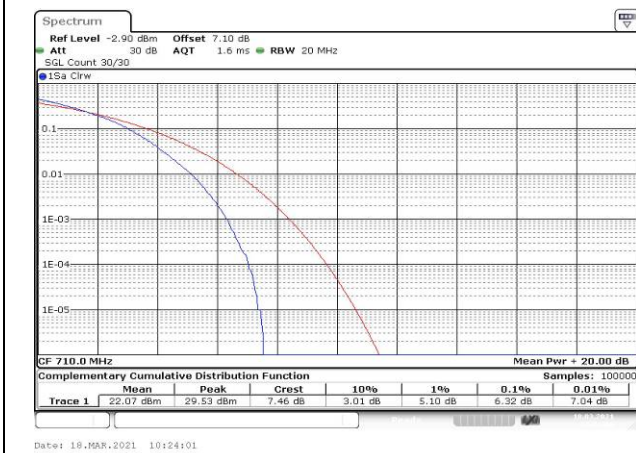


Fig.27

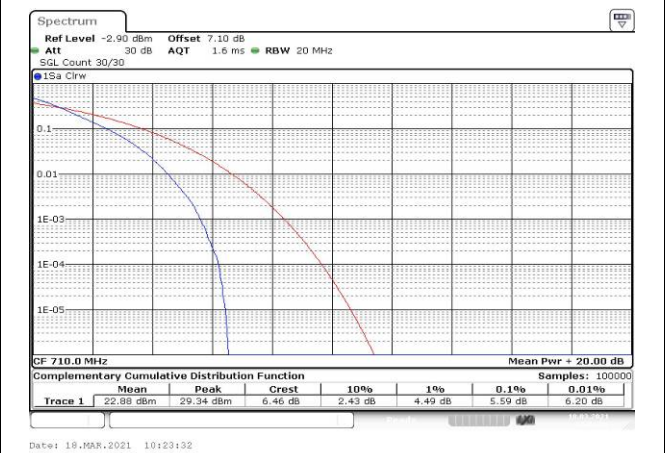


Fig.28

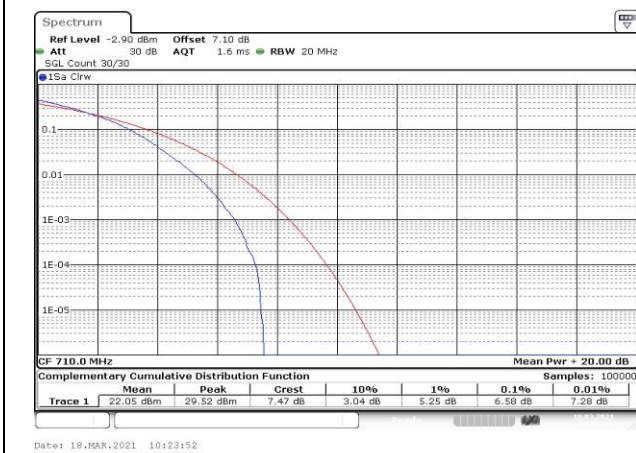


Fig.29

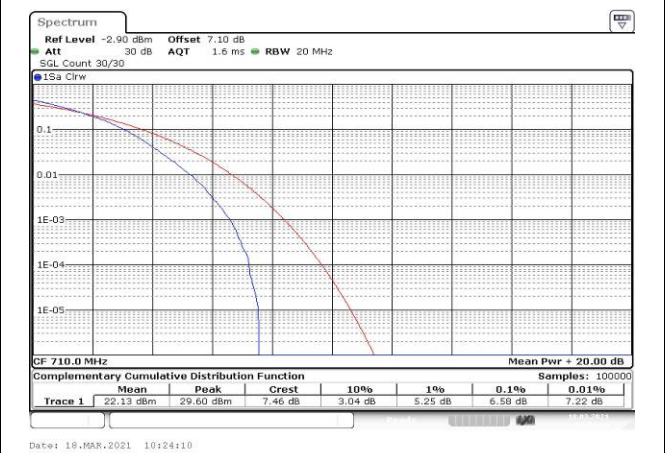


Fig.30

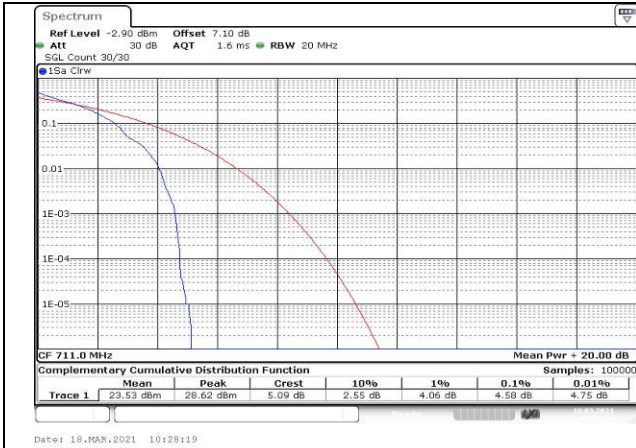


Fig.31

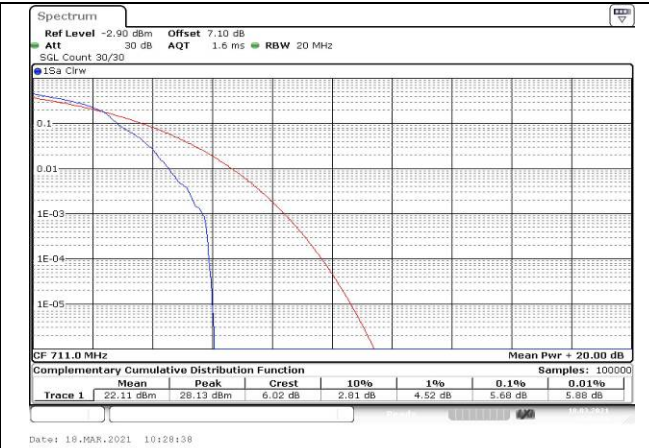


Fig.32

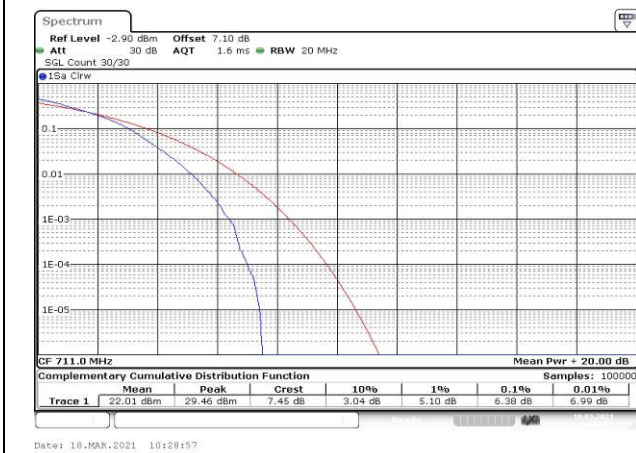


Fig.33

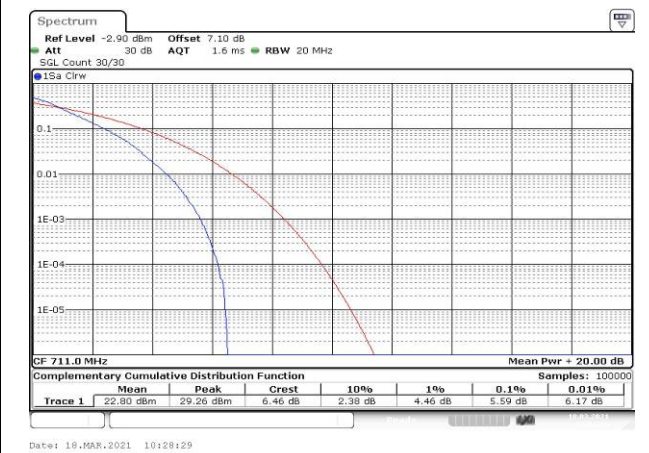


Fig.34

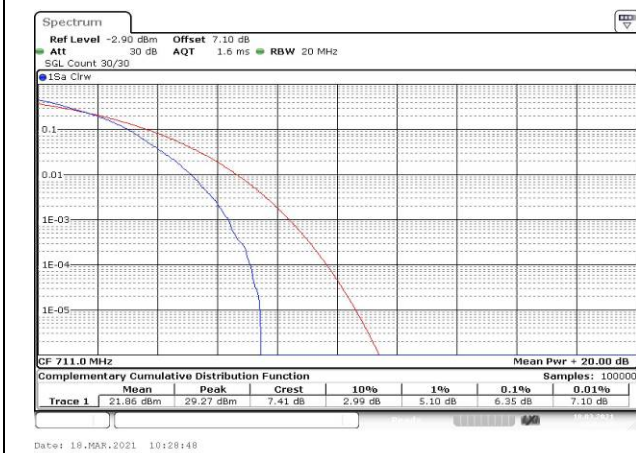


Fig.35

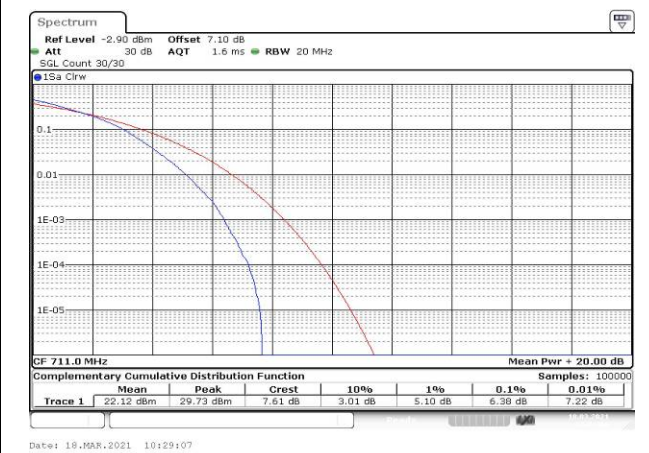


Fig.36

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

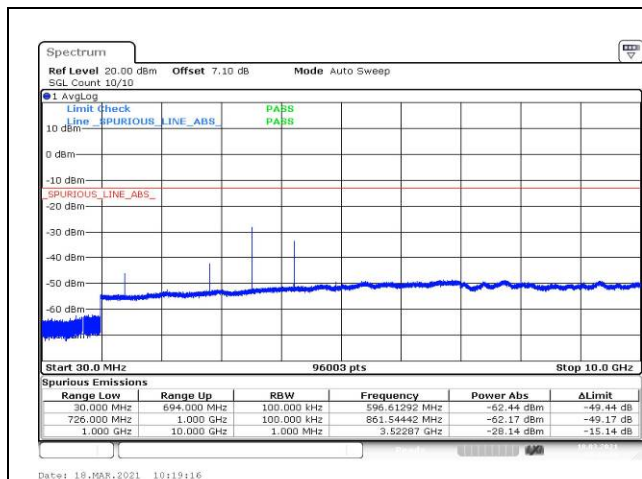


Fig.1

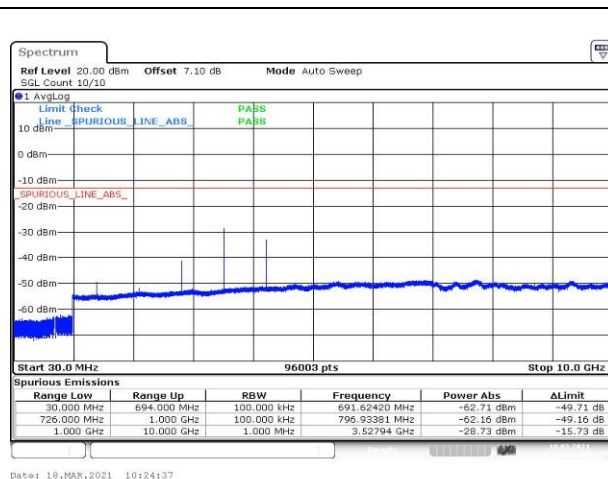


Fig.2

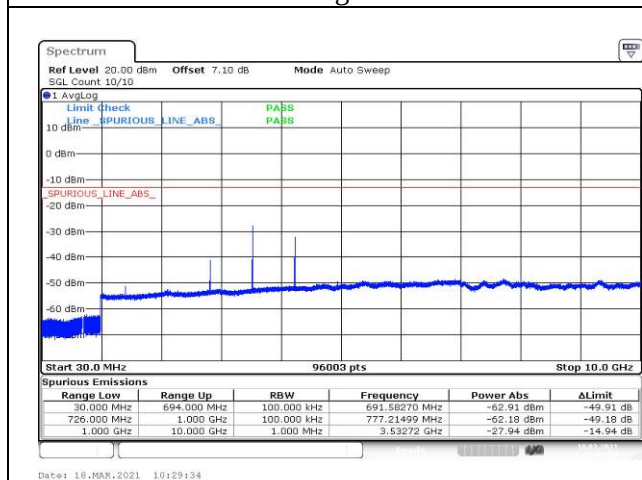


Fig.3

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

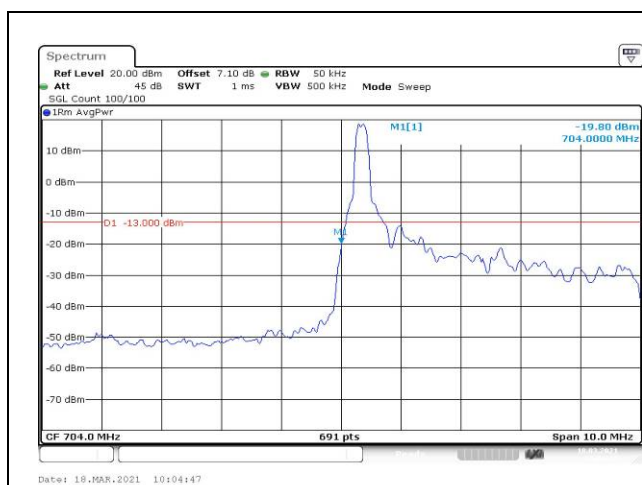


Fig.1

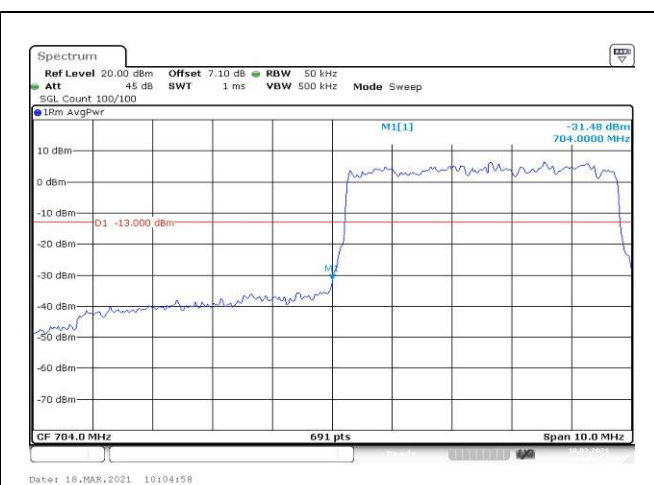


Fig.2

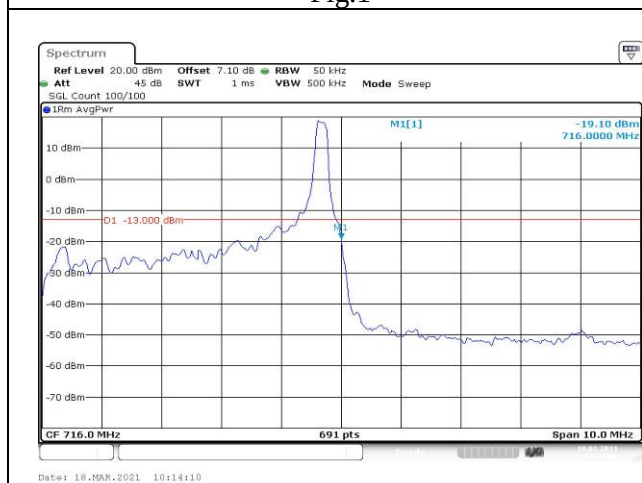


Fig.3

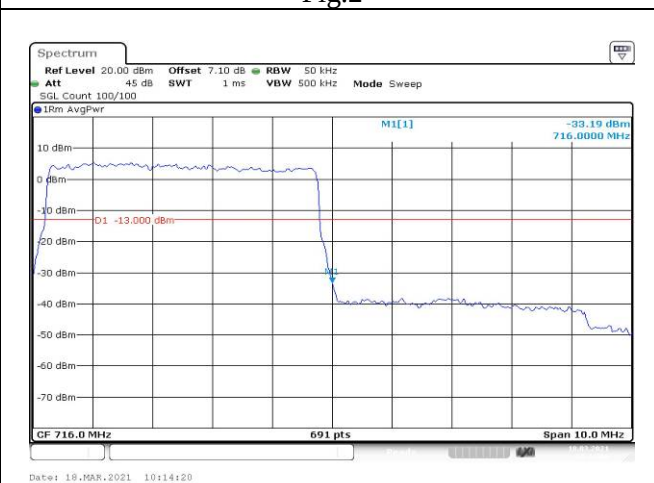


Fig.4

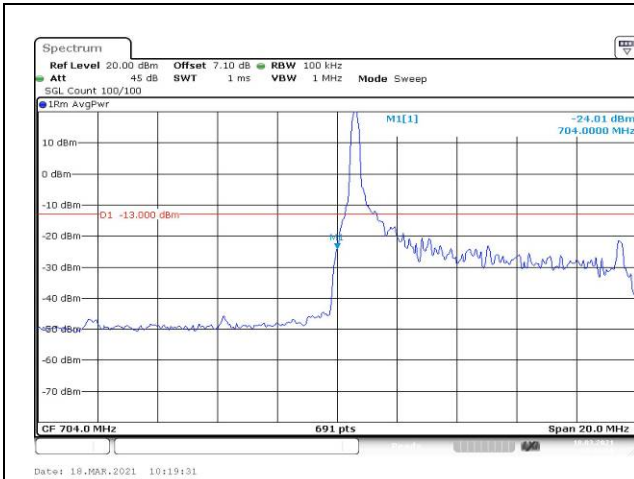


Fig.5

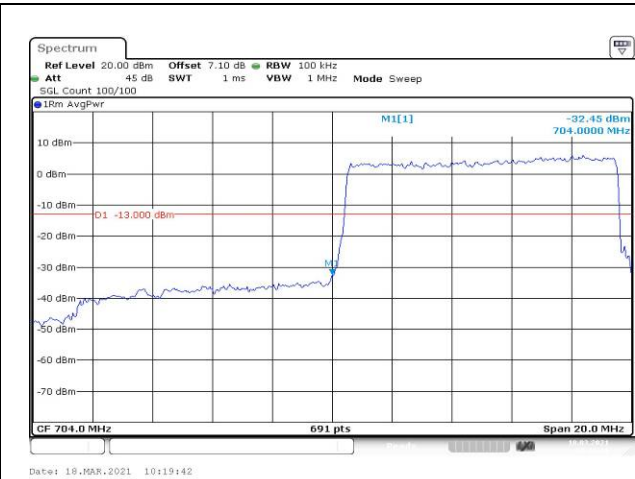


Fig.6

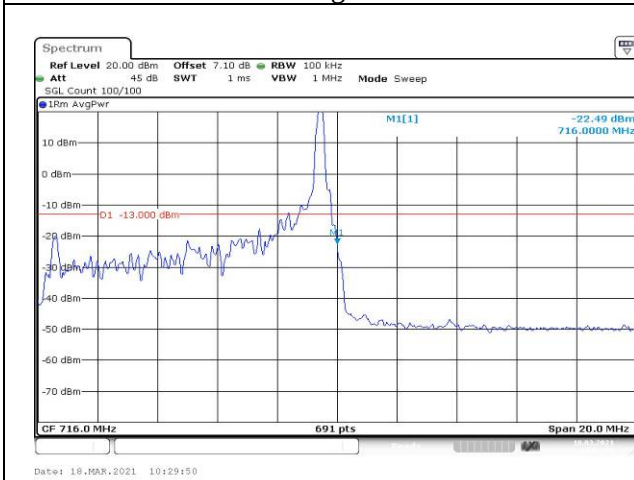


Fig.7



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

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