

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 13

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	779.5	23205	5	1	0	23.53
				1	12	23.57
				1	24	23.50
				12	0	22.53
				12	7	22.55
				12	13	22.62
	782	23230		25	0	21.63
				1	0	23.49
				1	12	23.40
				1	24	23.40
				12	0	22.53
				12	7	22.57
	784.5	23255		12	13	22.56
				25	0	21.64
				1	0	23.54
				1	12	23.52
				1	24	23.59
				12	0	22.59
16QAM	779.5	23205	12	7	22.54	
			12	13	22.68	
			25	0	21.50	
			1	0	22.59	
			1	12	22.58	
			1	24	22.56	
	782	23230	12	0	21.41	
			12	7	21.58	
			12	13	21.69	
			25	0	20.46	
			1	0	22.69	
			1	12	22.84	
	784.5	23255	1	24	22.88	
			12	0	21.58	
			12	7	21.68	
			12	13	21.68	
			25	0	20.54	
			1	0	22.71	
			1	12	22.64	
			1	24	22.56	
			12	0	21.54	
			12	7	21.60	
			12	13	21.59	
			25	0	20.52	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	779.5	23205	5	1	0	21.68
				1	12	21.60
				1	24	21.63
				12	0	20.67
				12	7	20.51
				12	13	20.54
				25	0	19.55
	782	23230		1	0	21.44
				1	12	21.55
				1	24	21.62
				12	0	20.56
				12	7	20.60
				12	13	20.66
				25	0	19.65
	784.5	23255		1	0	21.65
				1	12	21.70
				1	24	21.53
				12	0	20.57
				12	7	20.64
				12	13	20.66
				25	0	19.51

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	782	23230	10	1	0	23.46
				1	25	23.46
				1	49	23.47
				25	0	22.60
				25	12	22.69
				25	25	22.72
				50	0	21.57
16QAM				1	0	23.16
				1	25	23.20
				1	49	23.07
				25	0	21.62
				25	12	21.71
				25	25	21.75
				50	0	20.69
64QAM				1	0	21.64
				1	25	21.64
				1	49	21.63
				25	0	20.64
				25	12	20.64
				25	25	20.62
				50	0	19.68

2 Occupied Bandwidth

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)					
						QPSK		16-QAM		64-QAM	
13	779.5	23205	5	25	0	4.472	Fig.1	4.472	Fig.2	4.472	Fig.3
	782	23230		25	0	4.472	Fig.4	4.472	Fig.5	4.472	Fig.6
	784.5	23255		25	0	4.472	Fig.7	4.493	Fig.8	4.472	Fig.9
	782	23230	10	50	0	8.944	Fig.10	8.944	Fig.11	8.900	Fig.12

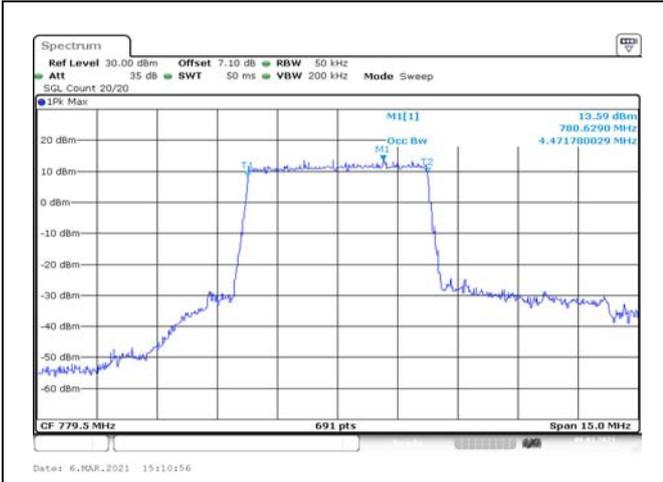


Fig.1

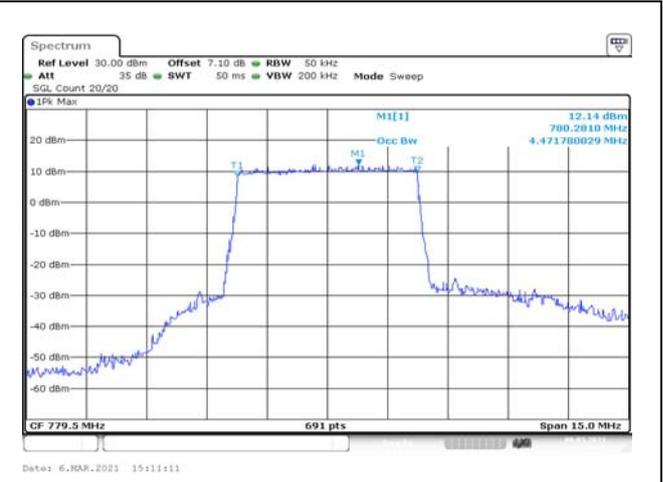


Fig.2

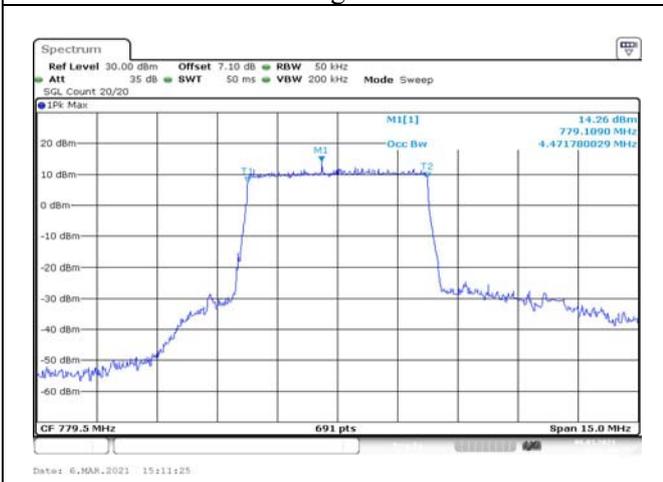


Fig.3

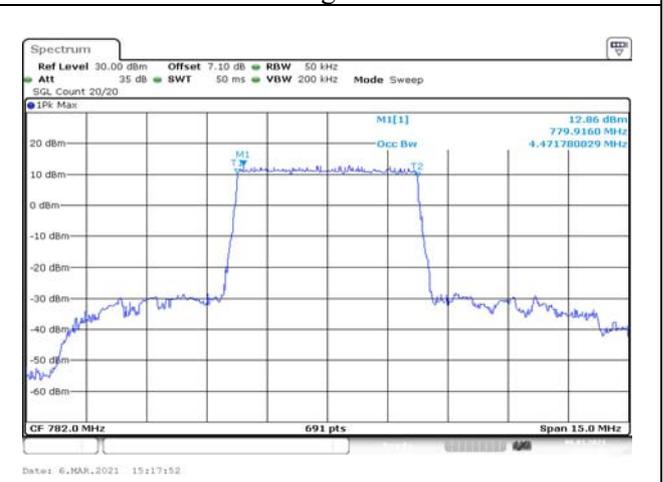


Fig.4

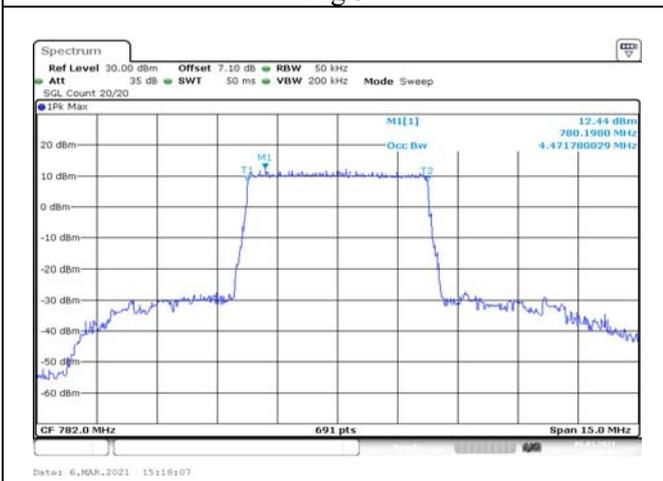


Fig.5

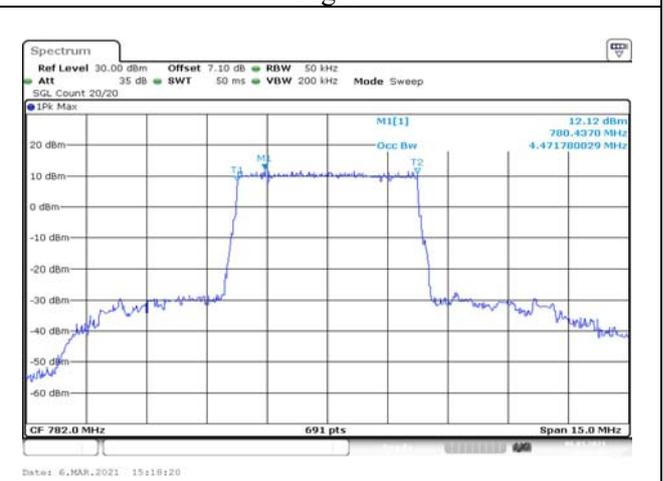


Fig.6

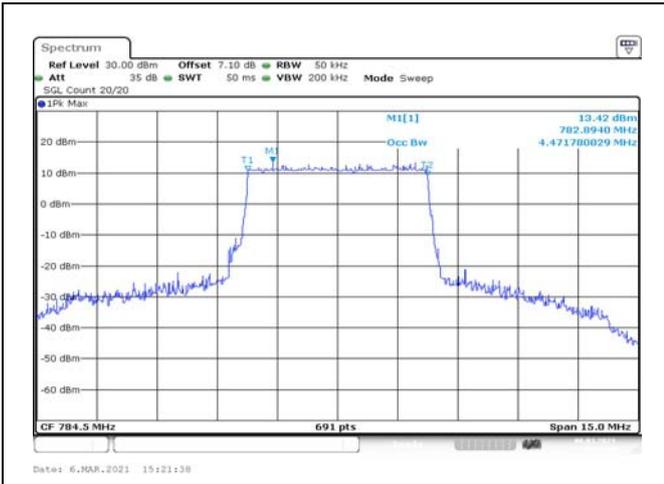


Fig.7

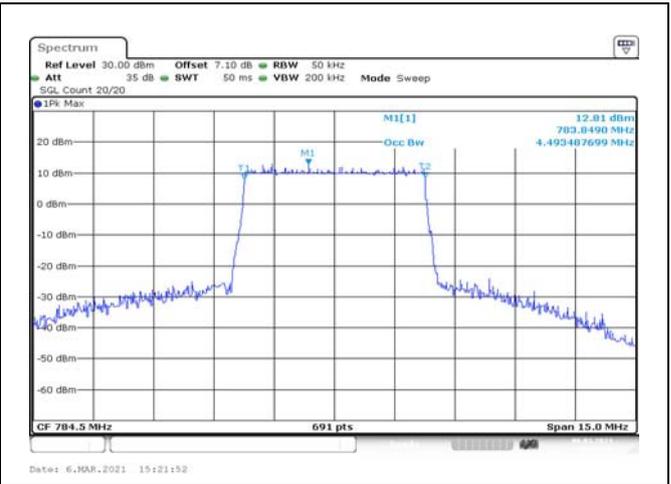


Fig.8

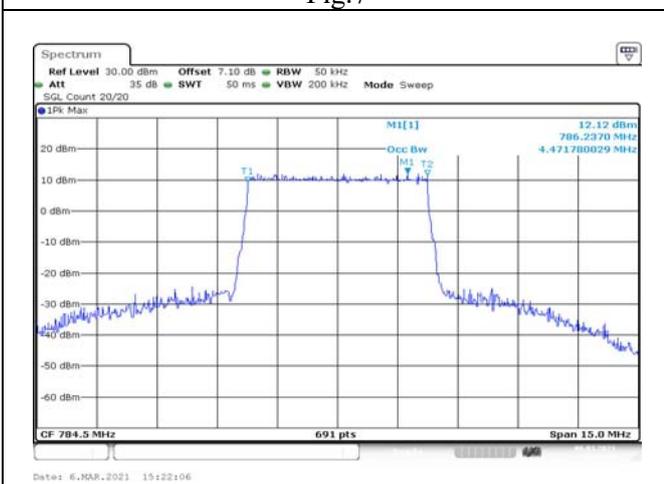


Fig.9

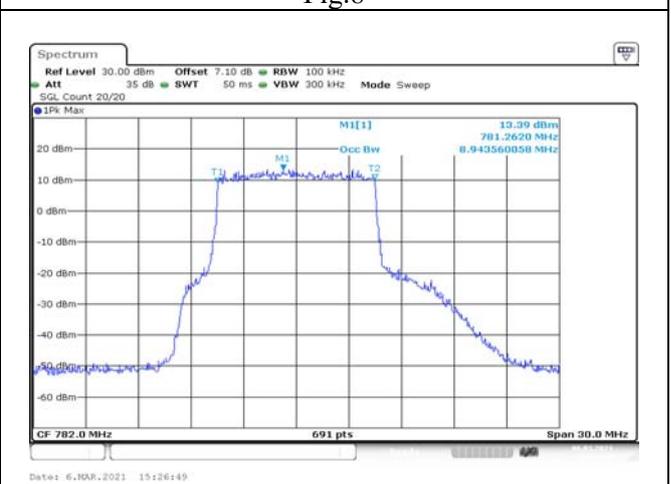


Fig.10

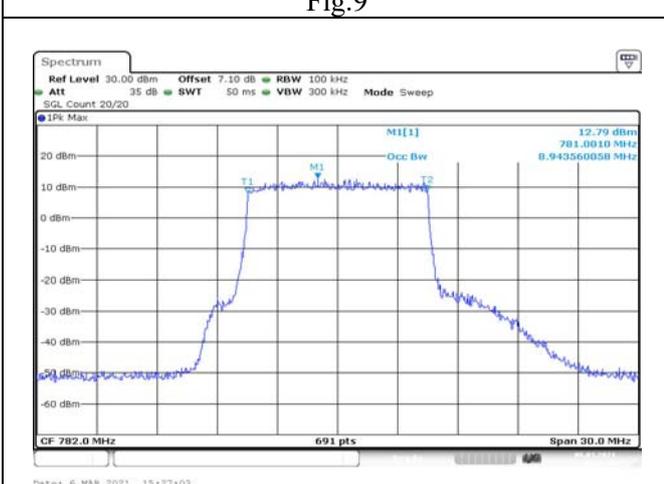


Fig.11



Fig.12

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	
13	779.5	23205	5	25	0	4.841	Fig.1	4.819	Fig.2	4.841	Fig.3
	782	23230		25	0	4.841	Fig.4	4.906	Fig.5	4.884	Fig.6
	784.5	23255		25	0	4.841	Fig.7	4.928	Fig.8	4.906	Fig.9
	782	23230	10	50	0	9.682	Fig.10	9.638	Fig.11	9.595	Fig.12

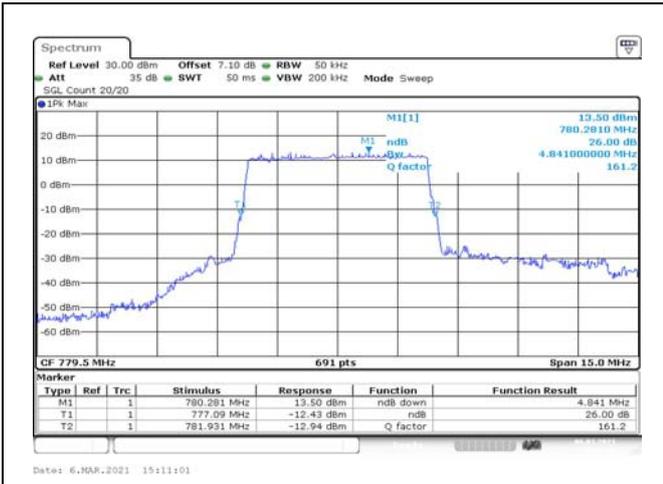


Fig.1

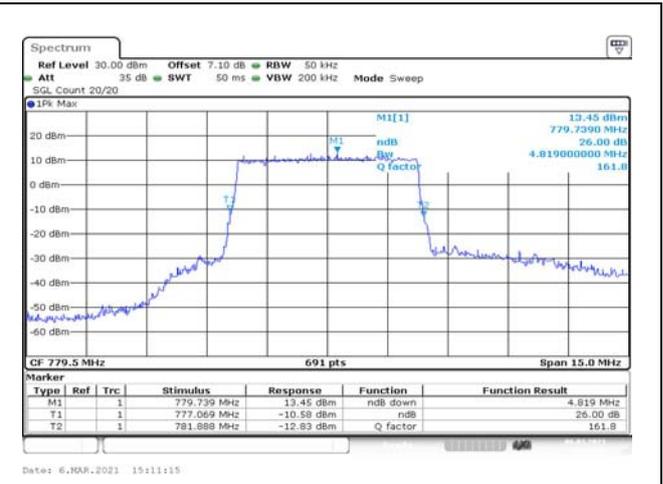


Fig.2



Fig.3

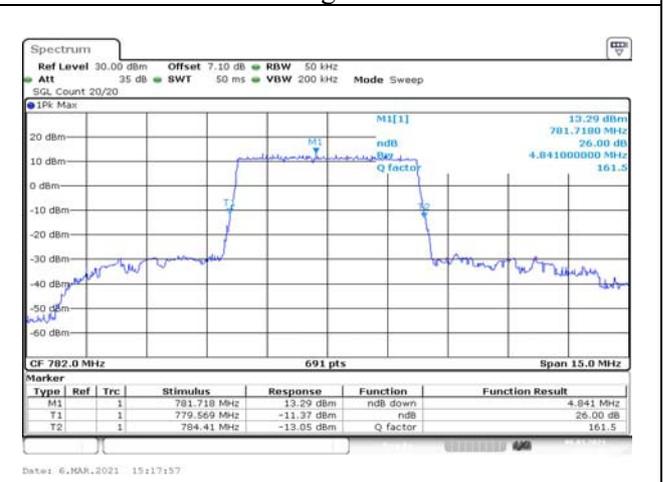


Fig.4



Fig.5

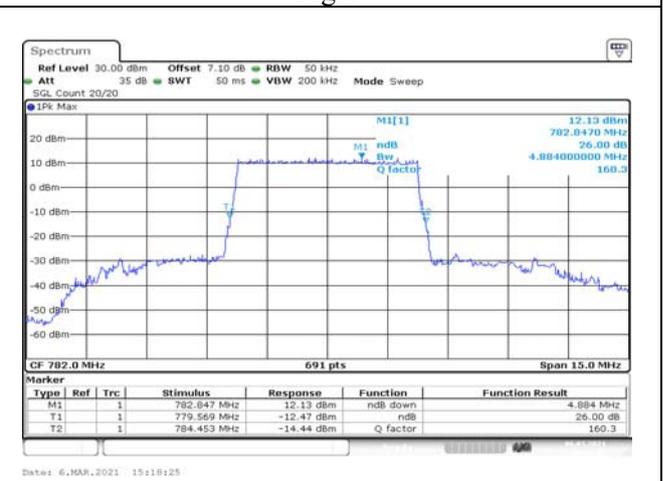


Fig.6

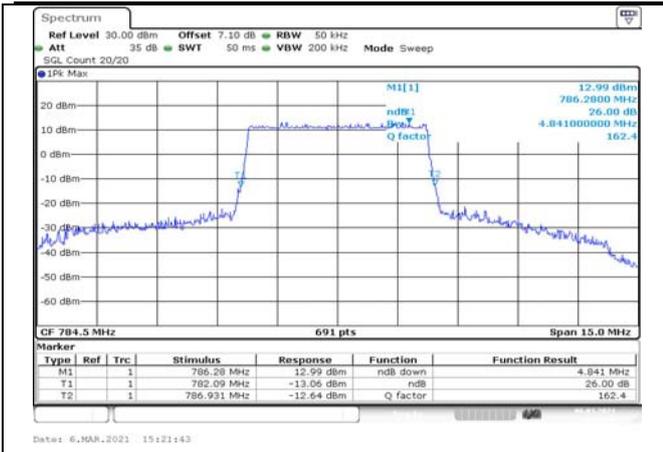


Fig.7

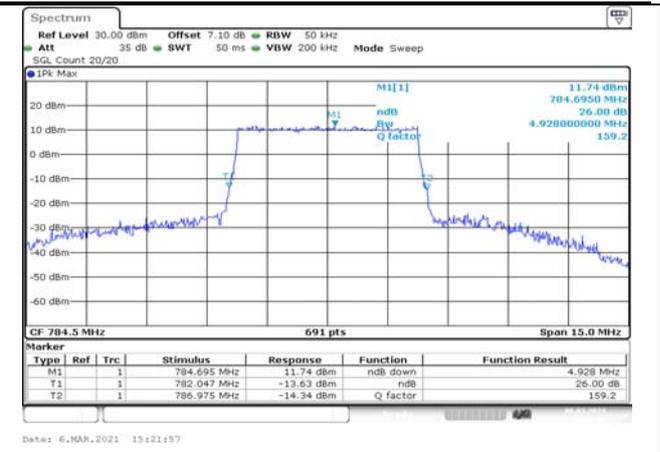


Fig.8

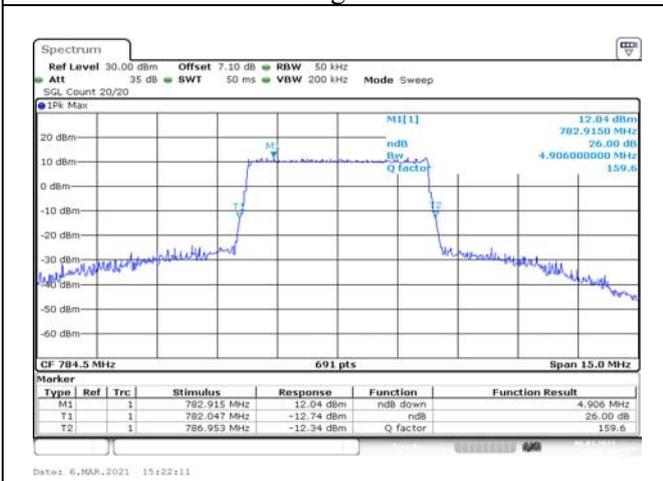


Fig.9

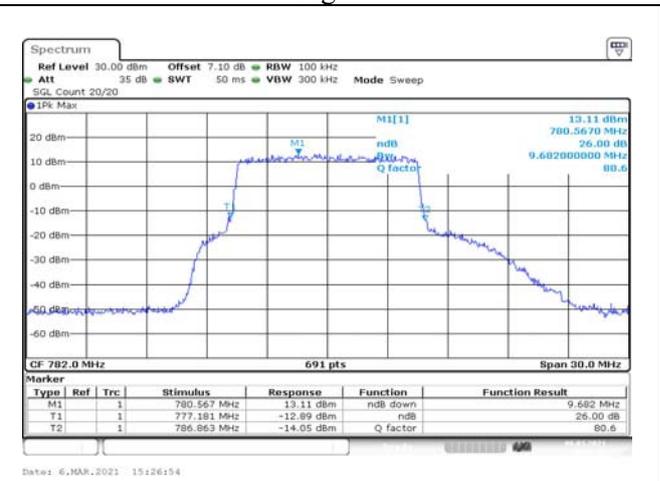


Fig.10



Fig.11



Fig.12

4 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
13	779.5	23205	5	1	24	Fig.1	Fig.2	Fig.3
	779.5	23205		25	0	Fig.4	Fig.5	Fig.6
	782	23230		1	24	Fig.7	Fig.8	Fig.9
	782	23230		25	0	Fig.10	Fig.11	Fig.12
	784.5	23255		1	24	Fig.13	Fig.14	Fig.15
	784.5	23255		25	0	Fig.16	Fig.17	Fig.18
	782	23230	10	1	49	Fig.19	Fig.20	Fig.21
	782	23230		50	0	Fig.22	Fig.23	Fig.24

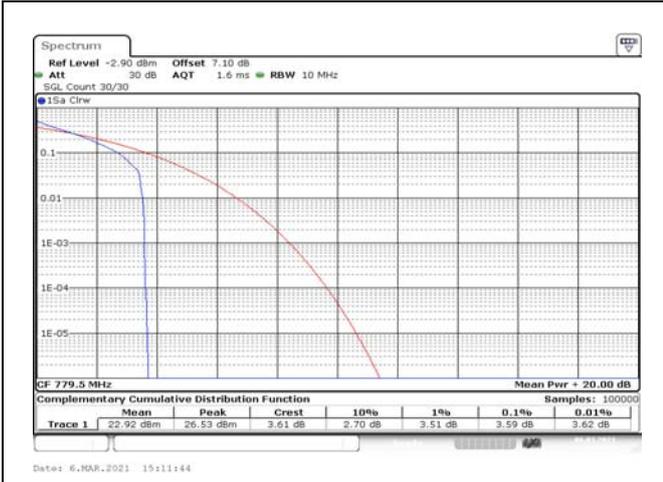


Fig.1

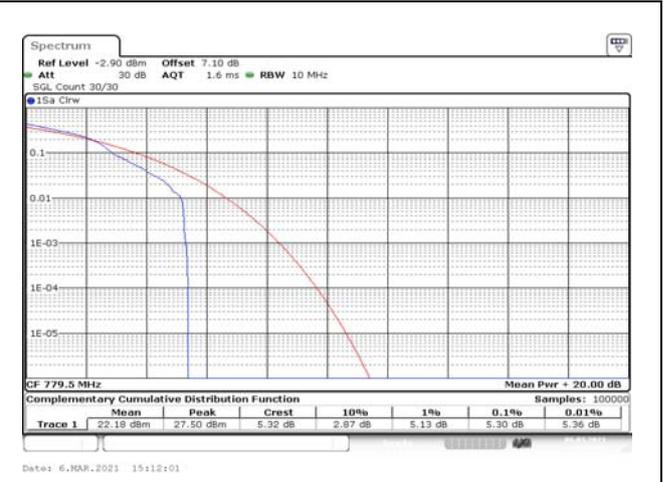


Fig.2

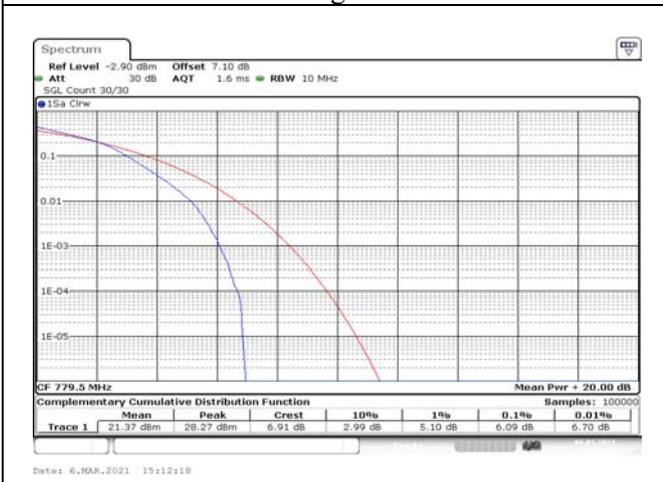


Fig.3

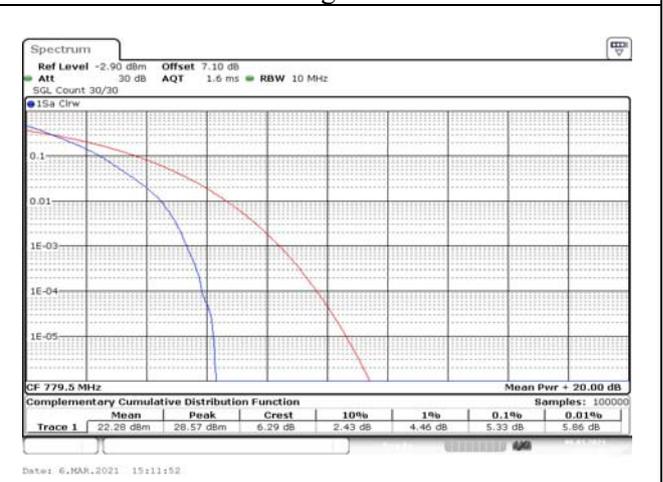


Fig.4

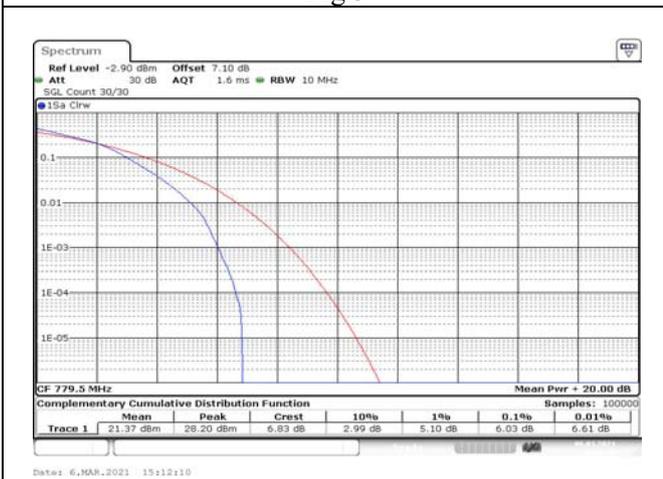


Fig.5

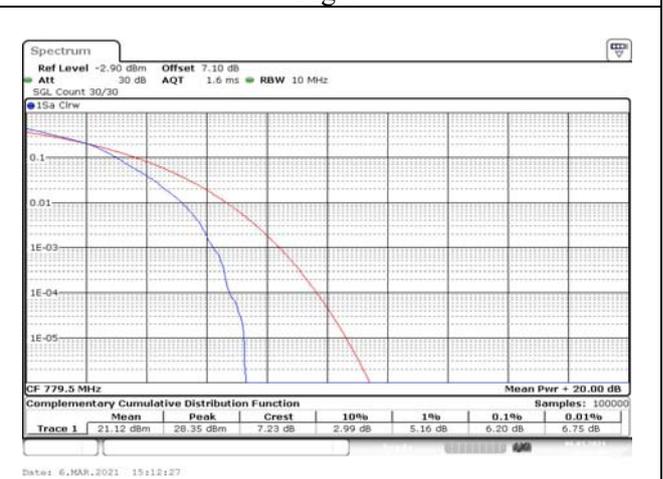


Fig.6

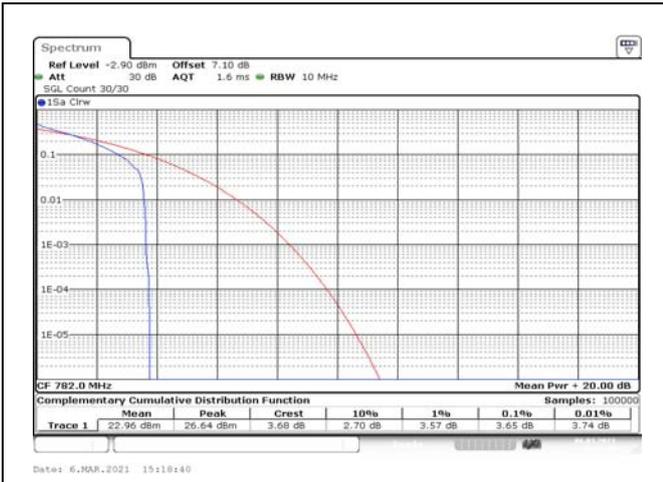


Fig.7

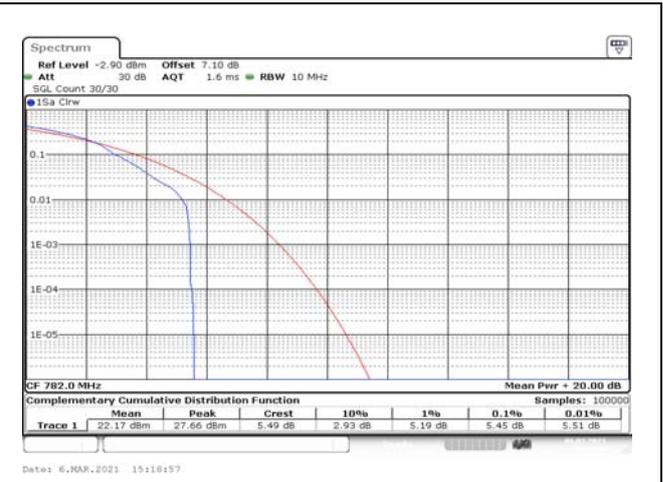


Fig.8

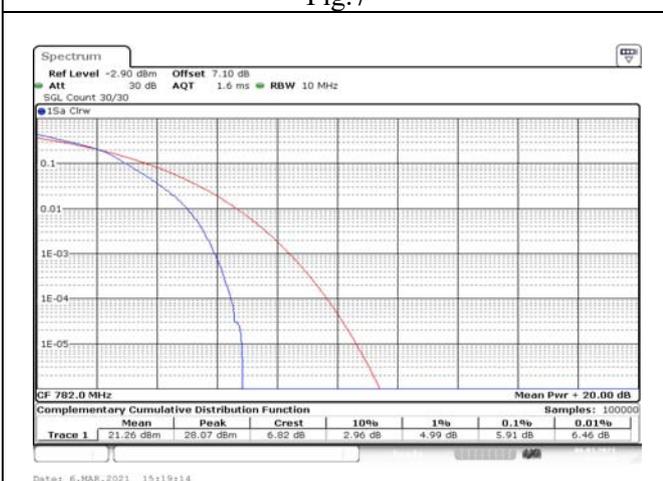


Fig.9

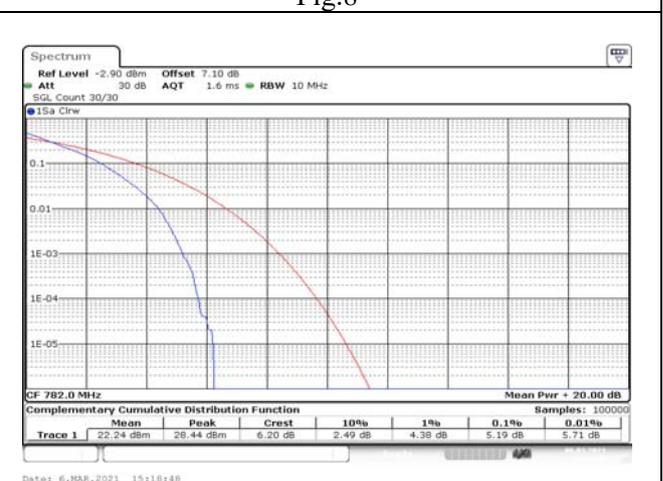


Fig.10

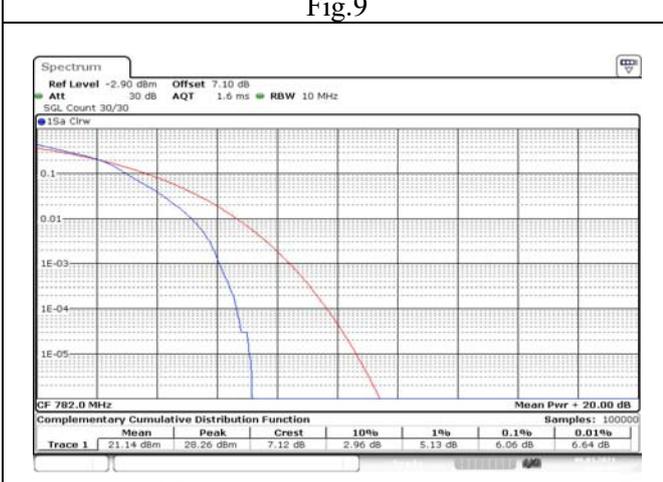


Fig.11

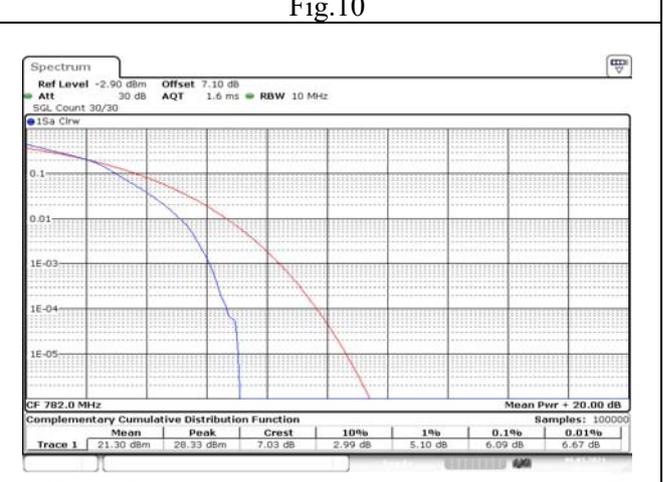


Fig.12

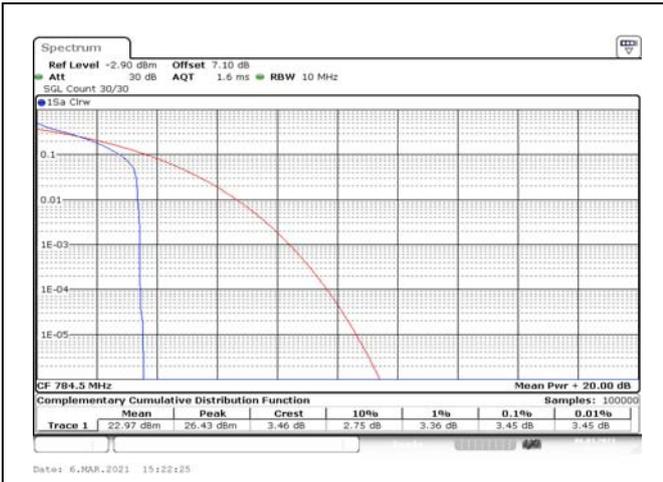


Fig.13

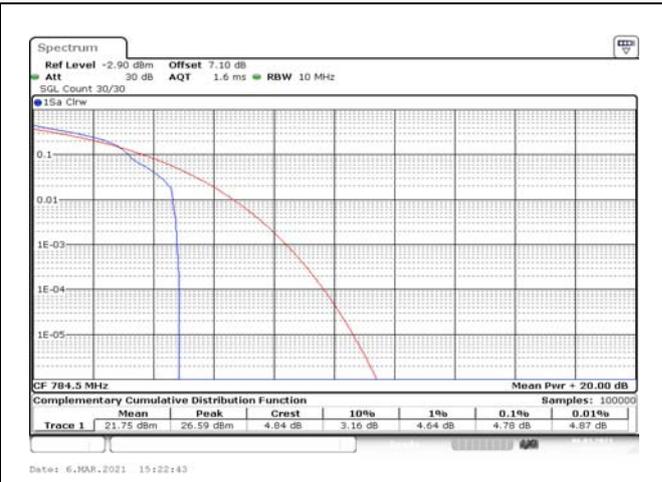


Fig.14

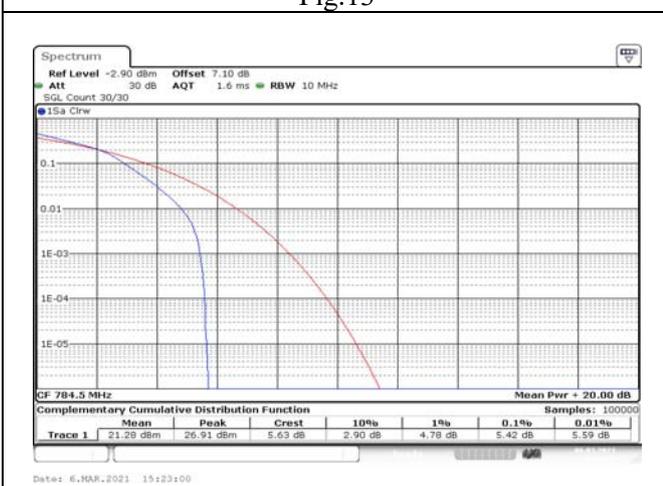


Fig.15

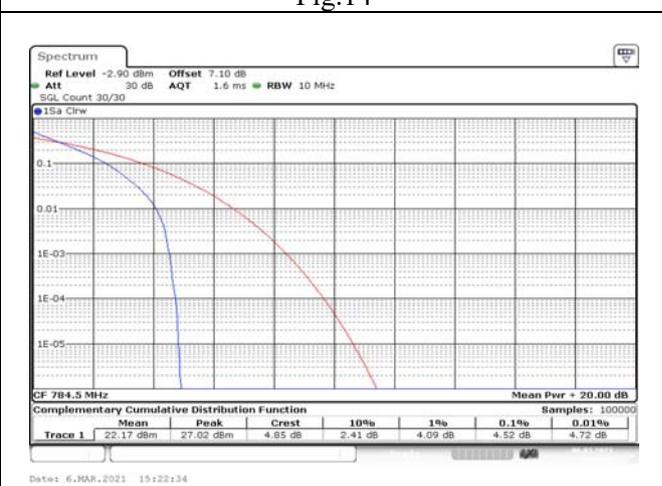


Fig.16

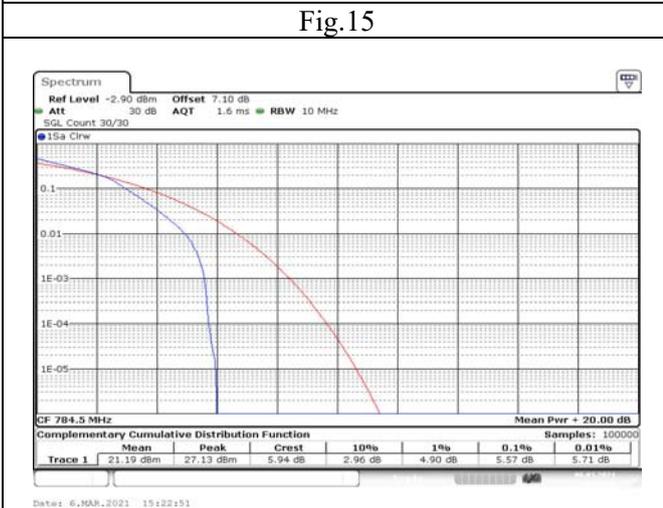


Fig.17

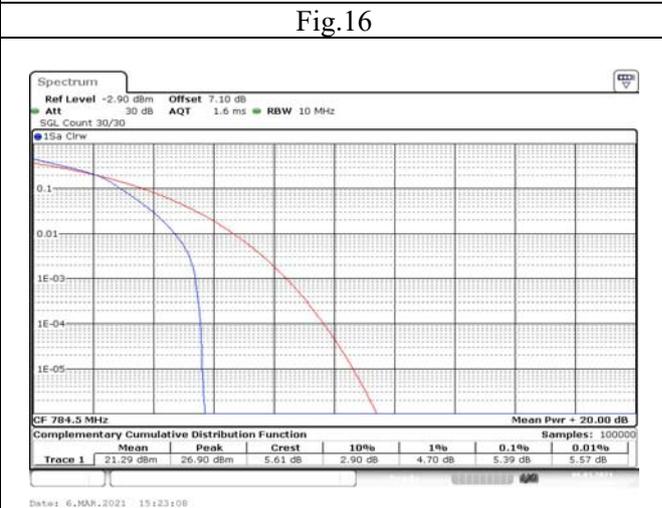


Fig.18

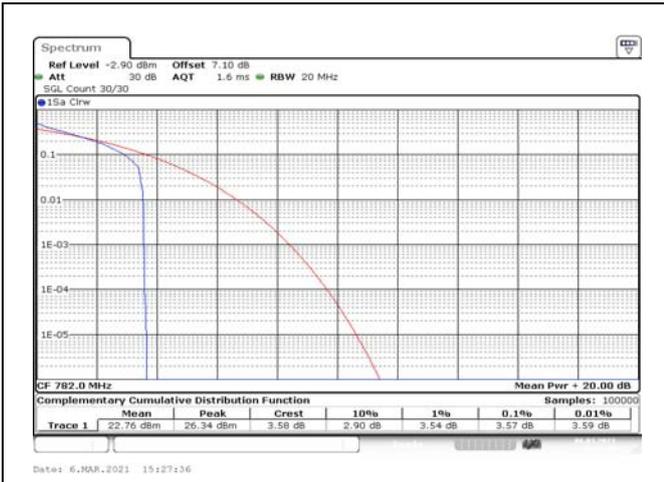


Fig.19

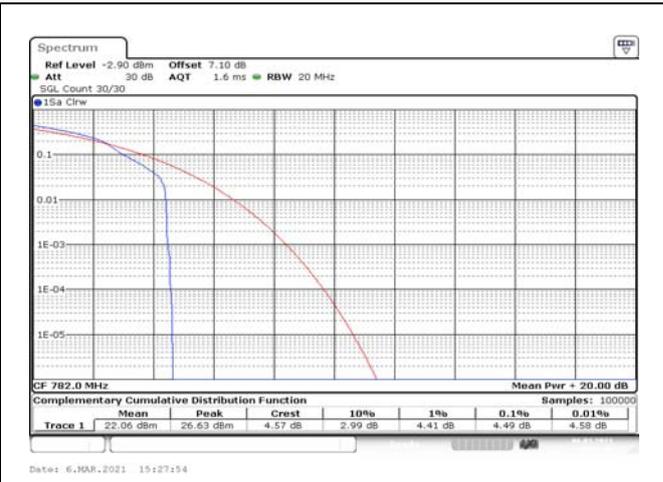


Fig.20

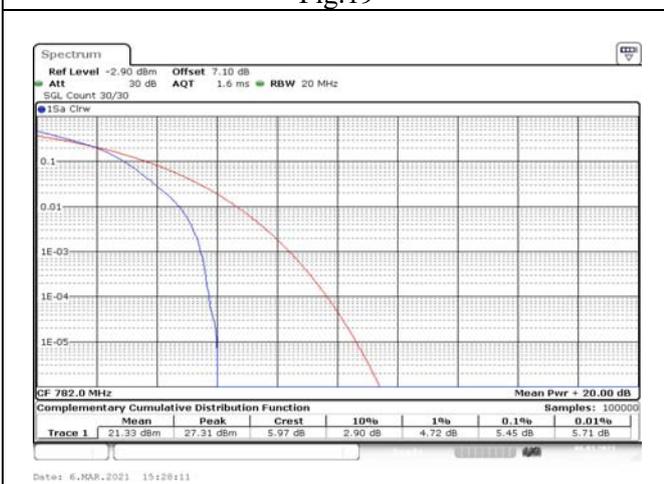


Fig.21



Fig.22

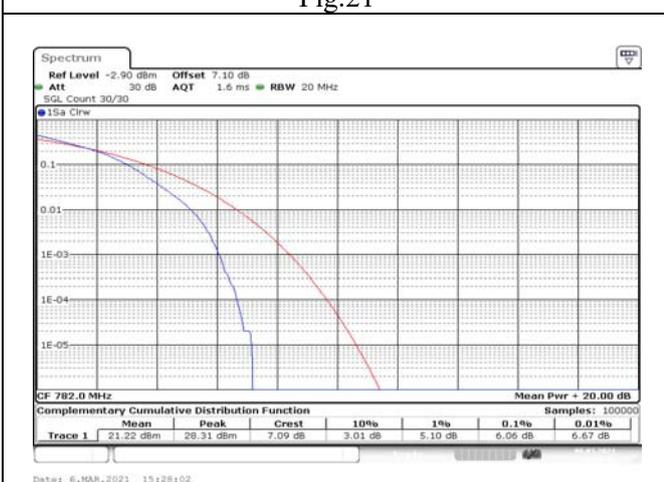


Fig.23

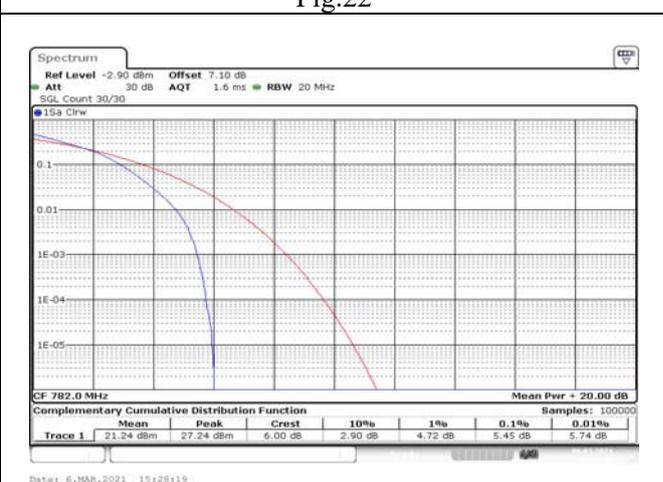


Fig.24

5 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
13	782	23230	10	1	0	Fig.1

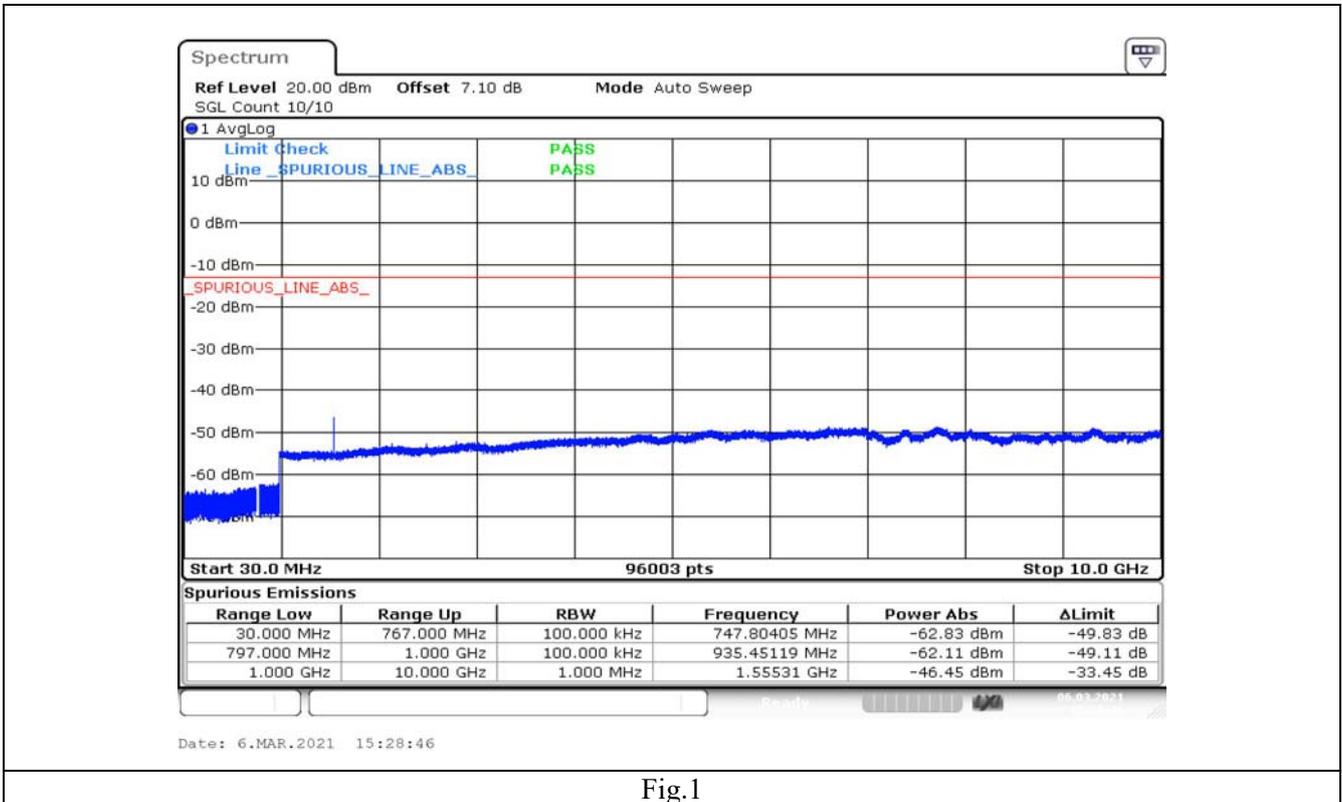


Fig.1

6 Band Edges Compliance

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
13	779.5	23205	5	1	0	Fig.1
				25	0	Fig.2
	1	24		Fig.3		
	25	0		Fig.4		
	782	23230	10	1	0	Fig.5
				50	0	Fig.6
				1	49	Fig.7
				50	0	Fig.8

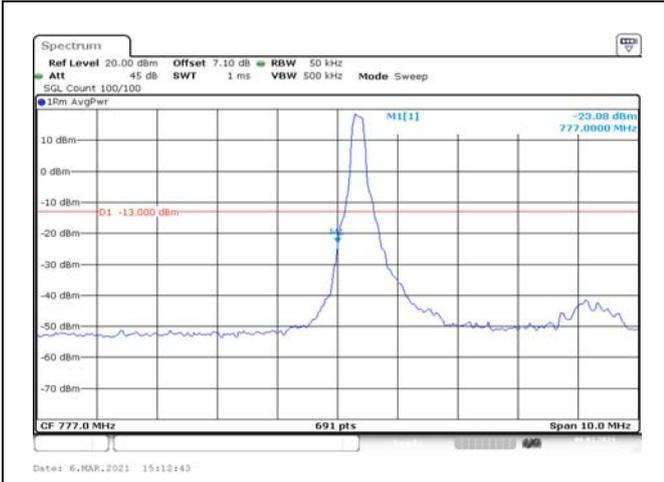


Fig.1



Fig.2

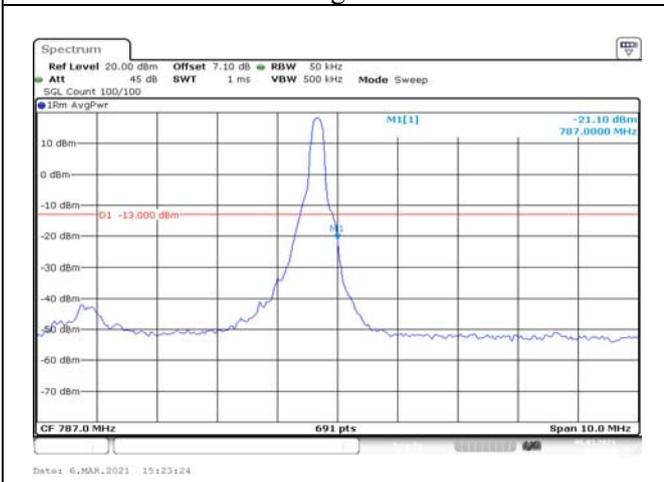


Fig.3

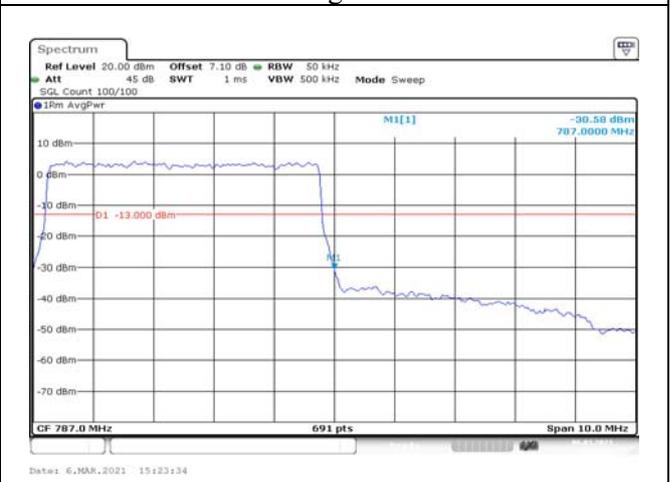


Fig.4

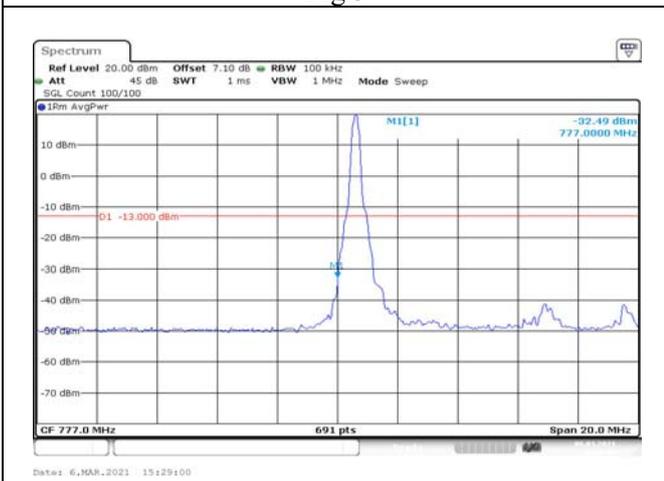


Fig.5

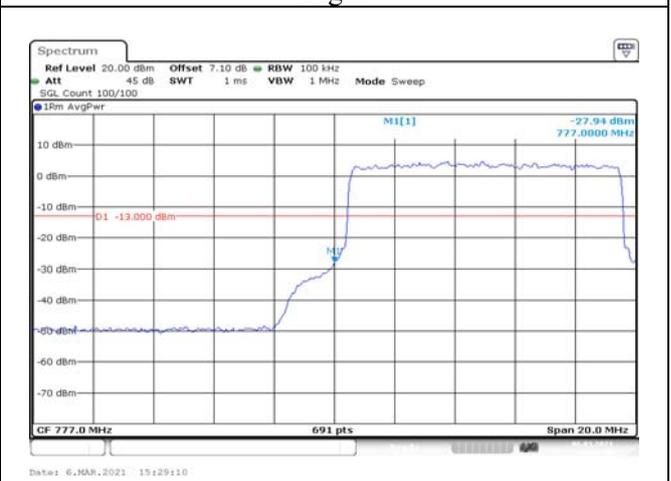


Fig.6

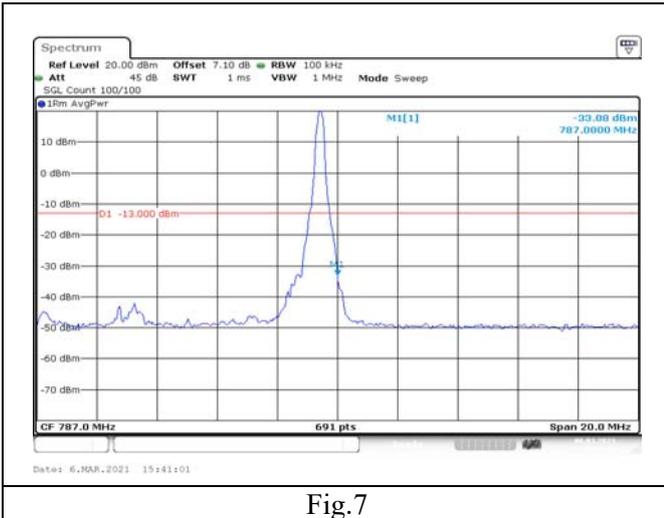


Fig.7

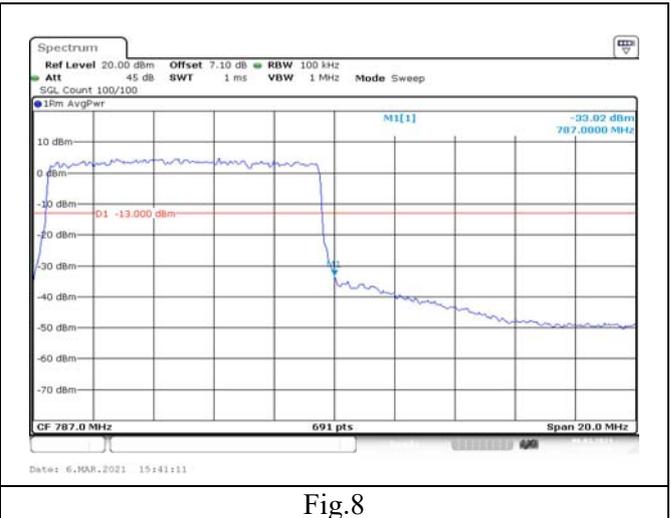


Fig.8

7 Frequency Stability

Temperature(°C)	Voltage	Test Result (ppm) Band13 Low Channel QPSK					
		1.4M	3M	5M	10M	15M	20M
-30	NV	---	---	0.006	0.008	---	---
-20	NV	---	---	0.005	0.007	---	---
-10	NV	---	---	0.001	0.004	---	---
0	NV	---	---	0.008	0.003	---	---
+10	NV	---	---	0.010	0.003	---	---
+20	NV	---	---	0.000	0.000	---	---
+30	NV	---	---	0.003	0.005	---	---
+40	NV	---	---	0.005	0.003	---	---
+50	NV	---	---	0.004	0.001	---	---
+20	LV	---	---	0.006	0.006	---	---
+20	HV	---	---	0.009	0.003	---	---

Temperature(°C)	Voltage	Test Result (ppm) Band13 High Channel QPSK					
		1.4M	3M	5M	10M	15M	20M
-30	NV	---	---	0.003	0.001	---	---
-20	NV	---	---	0.005	0.009	---	---
-10	NV	---	---	0.006	0.009	---	---
0	NV	---	---	0.005	0.009	---	---
+10	NV	---	---	0.013	0.007	---	---
+20	NV	---	---	0.000	0.000	---	---
+30	NV	---	---	0.008	0.002	---	---
+40	NV	---	---	0.004	0.007	---	---
+50	NV	---	---	0.006	0.011	---	---
+20	LV	---	---	0.005	0.002	---	---
+20	HV	---	---	0.004	0.006	---	---

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	779.5	23205	5	1	0	23.53	16.98	0.050
				1	12	23.57	17.02	0.050
				1	24	23.50	16.95	0.050
				12	0	22.53	15.98	0.040
				12	7	22.55	16.00	0.040
				12	13	22.62	16.07	0.040
	25	0		21.63	15.08	0.032		
	782	23230		1	0	23.49	16.94	0.049
				1	12	23.40	16.85	0.048
				1	24	23.40	16.85	0.048
				12	0	22.53	15.98	0.040
				12	7	22.57	16.02	0.040
				12	13	22.56	16.01	0.040
	25	0		21.64	15.09	0.032		
	784.5	23255		1	0	23.54	16.99	0.050
1			12	23.52	16.97	0.050		
1			24	23.59	17.04	0.051		
12			0	22.59	16.04	0.040		
12			7	22.54	15.99	0.040		
12			13	22.68	16.13	0.041		
25	0	21.50	14.95	0.031				
16QAM	779.5	23205	1	0	22.59	16.04	0.040	
			1	12	22.58	16.03	0.040	
			1	24	22.56	16.01	0.040	
			12	0	21.41	14.86	0.031	
			12	7	21.58	15.03	0.032	
			12	13	21.69	15.14	0.033	
	25	0	20.46	13.91	0.025			
	782	23230	1	0	22.69	16.14	0.041	
			1	12	22.84	16.29	0.043	
			1	24	22.88	16.33	0.043	
			12	0	21.58	15.03	0.032	
			12	7	21.68	15.13	0.033	
			12	13	21.68	15.13	0.033	
	25	0	20.54	13.99	0.025			
	784.5	23255	1	0	22.71	16.16	0.041	
1			12	22.64	16.09	0.041		
1			24	22.56	16.01	0.040		
12			0	21.54	14.99	0.032		
12			7	21.60	15.05	0.032		
12			13	21.59	15.04	0.032		
25	0	20.52	13.97	0.025				

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conduct ed power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
64QAM	779.5	23205	5	1	0	21.68	15.13	0.033
				1	12	21.60	15.05	0.032
				1	24	21.63	15.08	0.032
				12	0	20.67	14.12	0.026
				12	7	20.51	13.96	0.025
				12	13	20.54	13.99	0.025
				25	0	19.55	13.00	0.020
	782	23230		1	0	21.44	14.89	0.031
				1	12	21.55	15.00	0.032
				1	24	21.62	15.07	0.032
				12	0	20.56	14.01	0.025
				12	7	20.60	14.05	0.025
				12	13	20.66	14.11	0.026
				25	0	19.65	13.10	0.020
	784.5	23255		1	0	21.65	15.10	0.032
				1	12	21.70	15.15	0.033
				1	24	21.53	14.98	0.031
				12	0	20.57	14.02	0.025
				12	7	20.64	14.09	0.026
				12	13	20.66	14.11	0.026
				25	0	19.51	12.96	0.020

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conduct ed power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	782	23230	10	1	0	23.46	16.91	0.049
				1	25	23.46	16.91	0.049
				1	49	23.47	16.92	0.049
				25	0	22.60	16.05	0.040
				25	12	22.69	16.14	0.041
				25	25	22.72	16.17	0.041
				50	0	21.57	15.02	0.032
16QAM				1	0	23.16	16.61	0.046
				1	25	23.20	16.65	0.046
				1	49	23.07	16.52	0.045
				25	0	21.62	15.07	0.032
				25	12	21.71	15.16	0.033
				25	25	21.75	15.20	0.033
				50	0	20.69	14.14	0.026
64QAM	1	0	21.64	15.09	0.032			
	1	25	21.64	15.09	0.032			
	1	49	21.63	15.08	0.032			
	25	0	20.64	14.09	0.026			
	25	12	20.64	14.09	0.026			
	25	25	20.62	14.07	0.026			
	50	0	19.68	13.13	0.021			