

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 13

1 RF Power Output

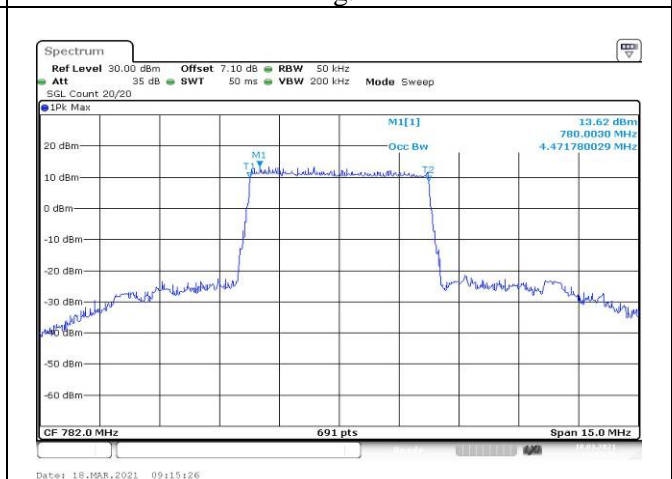
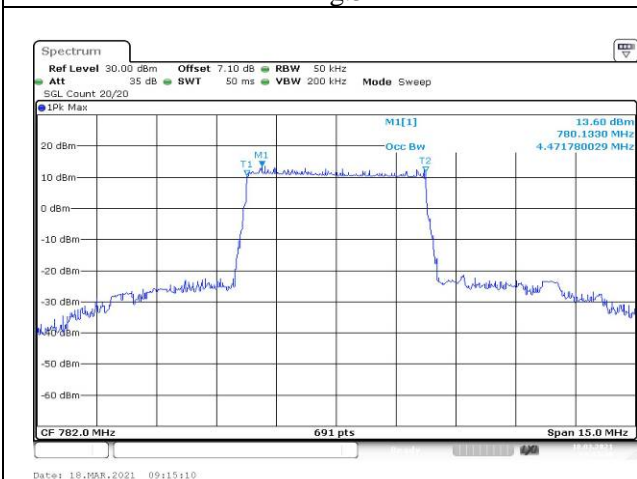
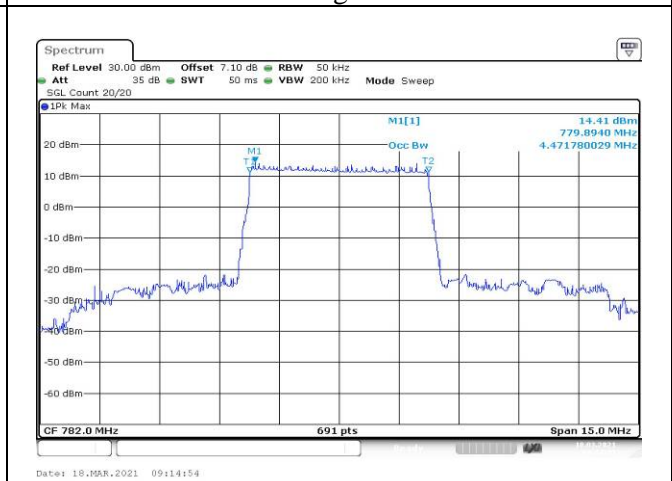
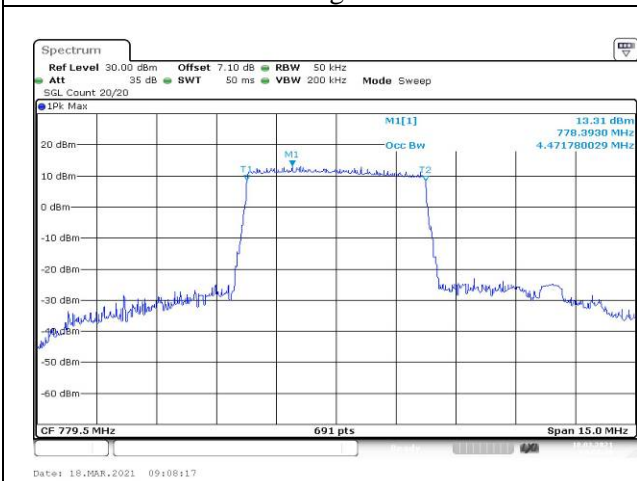
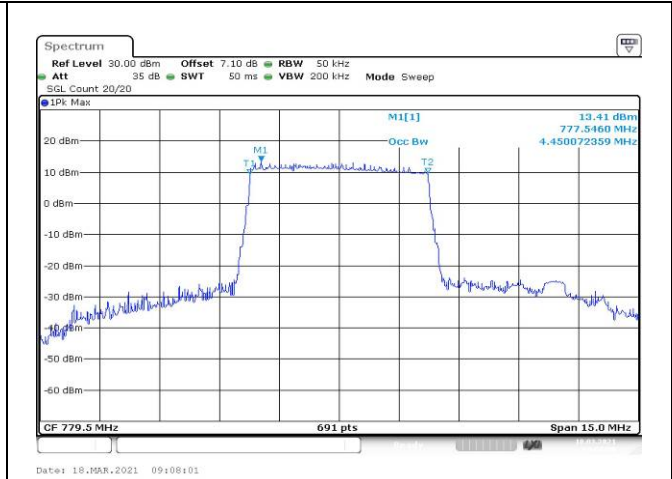
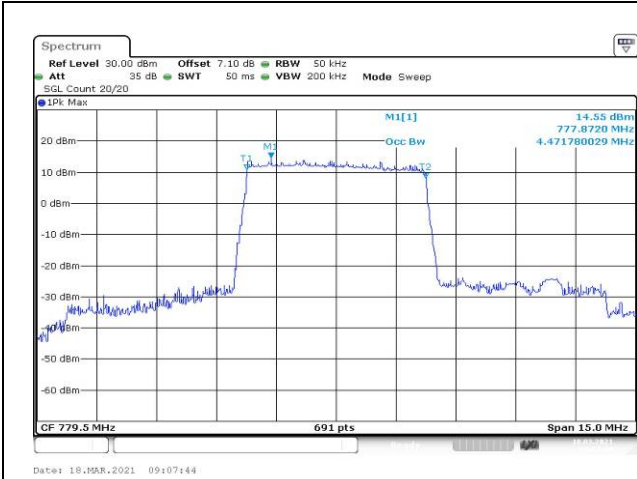
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	779.5	23205	5	1	0	24.27
				1	12	24.20
				1	24	24.24
				12	0	23.40
				12	7	23.29
				12	13	23.26
				25	0	23.32
	782	23230		1	0	24.40
				1	12	24.37
				1	24	24.34
				12	0	23.44
				12	7	23.31
				12	13	23.30
				25	0	23.34
	784.5	23255		1	0	24.26
				1	12	24.19
				1	24	24.18
				12	0	23.24
				12	7	23.38
				12	13	23.32
				25	0	23.25
16QAM	779.5	23205	1	0	22.64	
			1	12	22.70	
			1	24	22.57	
			12	0	22.52	
			12	7	22.55	
			12	13	22.54	
			25	0	22.60	
	782	23230	1	0	23.62	
			1	12	23.57	
			1	24	23.55	
			12	0	22.45	
			12	7	22.23	
			12	13	22.22	
			25	0	22.43	
	784.5	23255	1	0	23.04	
			1	12	23.05	
			1	24	23.10	
			12	0	22.40	
			12	7	22.34	
			12	13	22.34	
			25	0	22.19	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	779.5	23205	5	1	0	22.59
				1	12	22.59
				1	24	22.58
				12	0	22.67
				12	7	22.55
				12	13	22.66
				25	0	22.65
	782	23230		1	0	22.44
				1	12	22.44
				1	24	22.44
				12	0	22.44
				12	7	22.44
				12	13	22.44
				25	0	22.44
	784.5	23255		1	0	22.28
				1	12	22.37
				1	24	22.47
				12	0	22.55
				12	7	22.49
				12	13	22.54
				25	0	22.55
				25	0	22.55

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	782	23230	10	1	0	24.30
				1	25	24.29
				1	49	24.27
				25	0	23.34
				25	12	23.32
				25	25	23.31
16QAM				50	0	23.39
				1	0	23.89
				1	25	23.83
				1	49	23.82
				25	0	22.60
				25	12	22.49
64QAM				25	25	22.48
				50	0	22.57
				1	0	22.58
				1	25	22.58
				1	49	22.58
				25	0	22.58
	25	12	22.58			
	25	25	22.58			
	50	0	22.58			

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	4.450	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	4.472	Fig.8	4.493	Fig.9
	782	23230	10	50	0	8.944	Fig.10	8.944	Fig.11	8.944	Fig.12



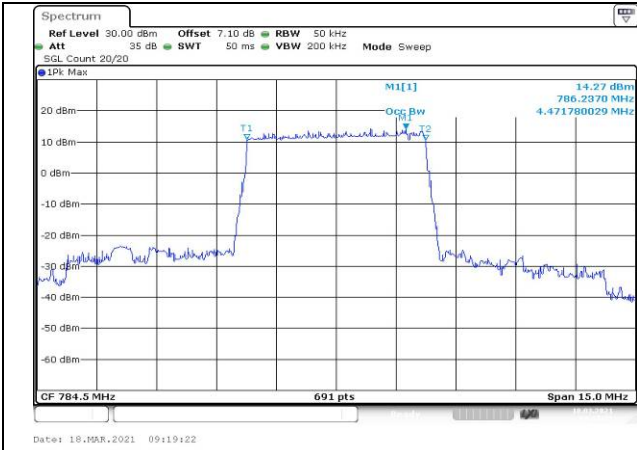


Fig.7

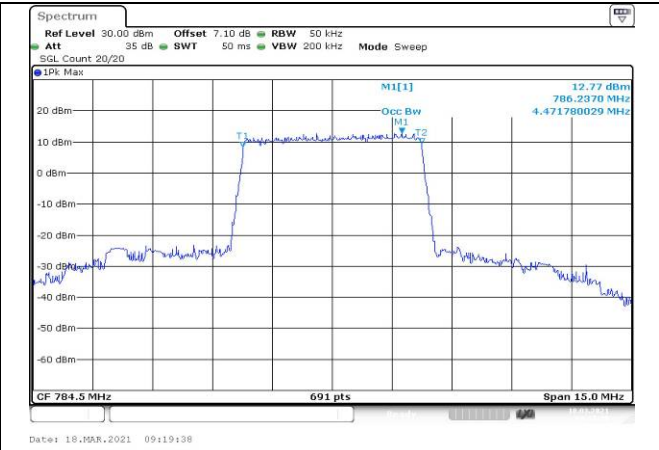


Fig.8

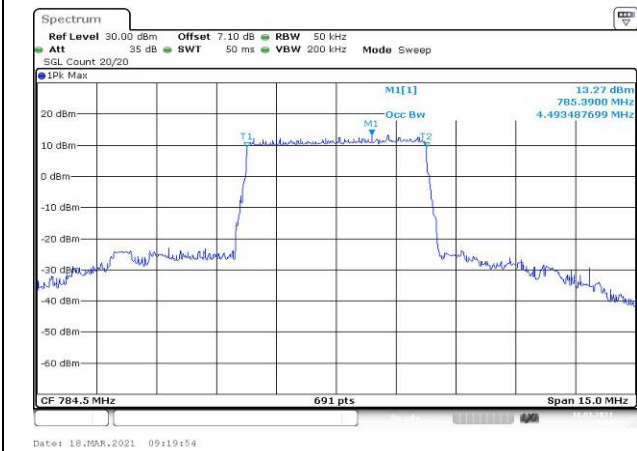


Fig.9

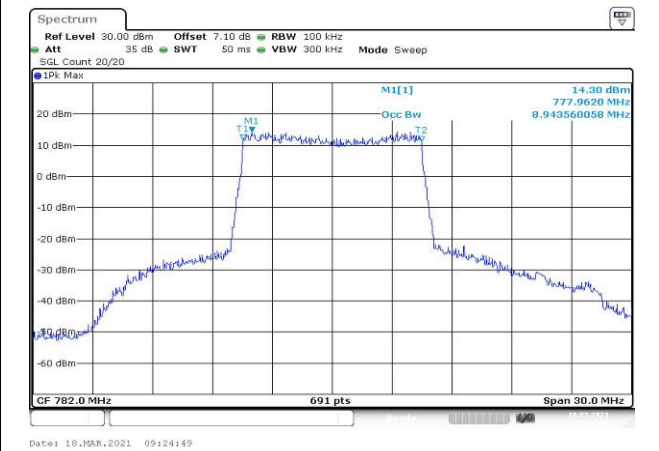


Fig.10

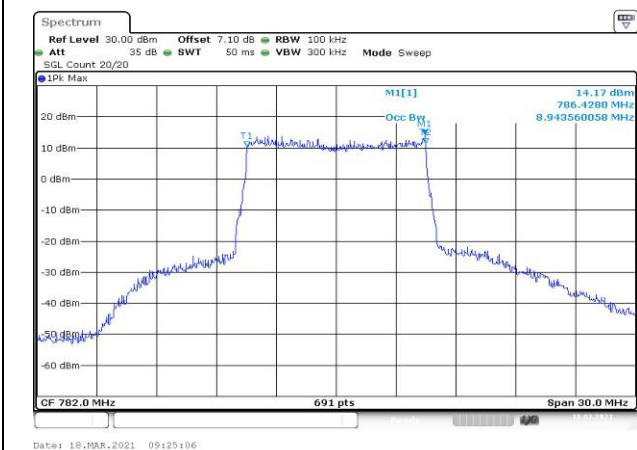


Fig.11

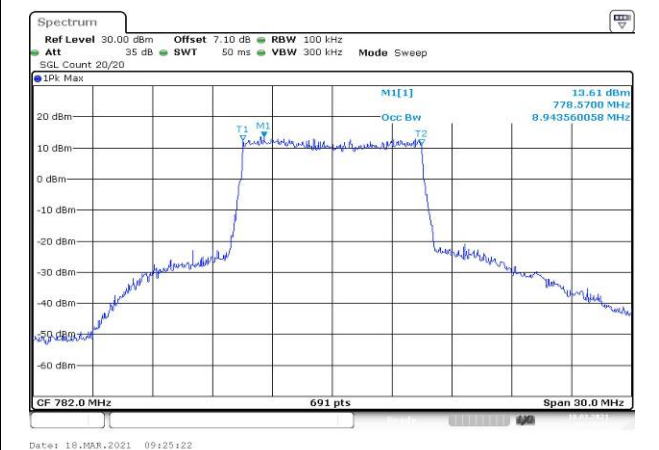


Fig.12

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	4.884	Fig.1	4.884	Fig.2	4.884	Fig.3
	782	23230		25	0	4.863	Fig.4	4.928	Fig.5	4.928	Fig.6
	784.5	23255		25	0	4.884	Fig.7	4.884	Fig.8	4.906	Fig.9
	782	23230	10	50	0	9.551	Fig.10	9.682	Fig.11	9.768	Fig.12

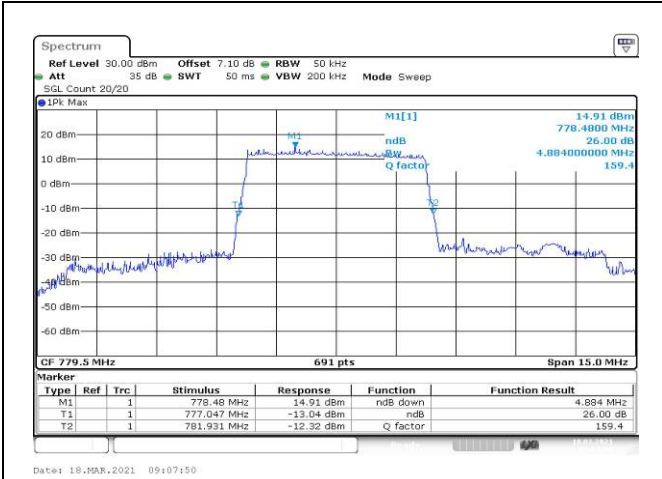


Fig.1

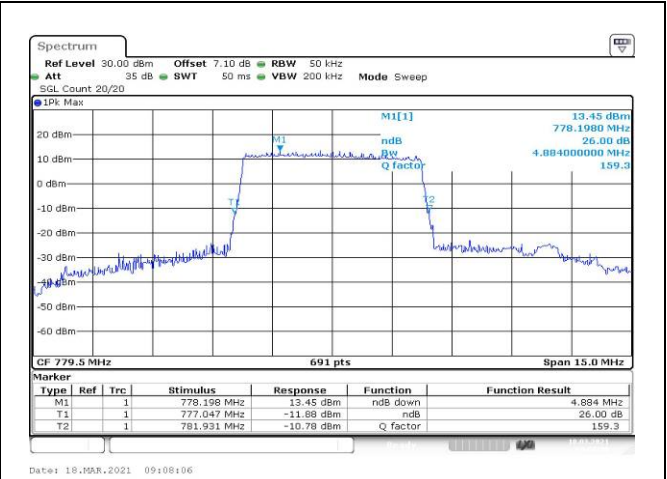


Fig.2

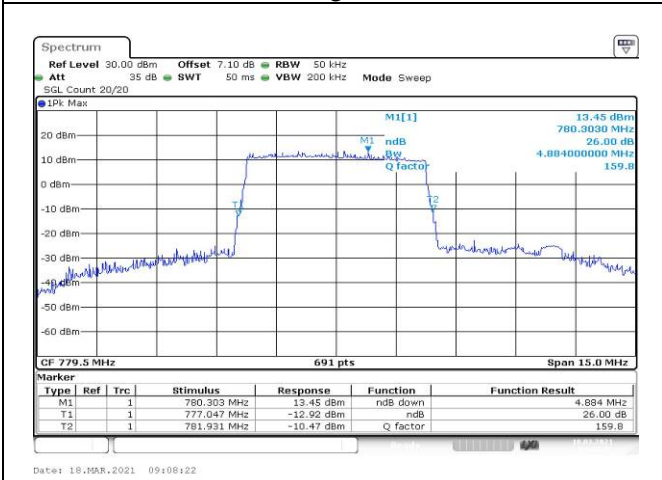


Fig.3

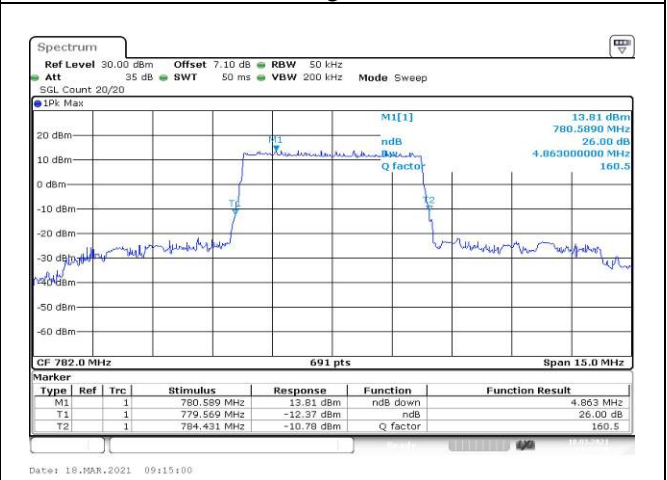


Fig.4

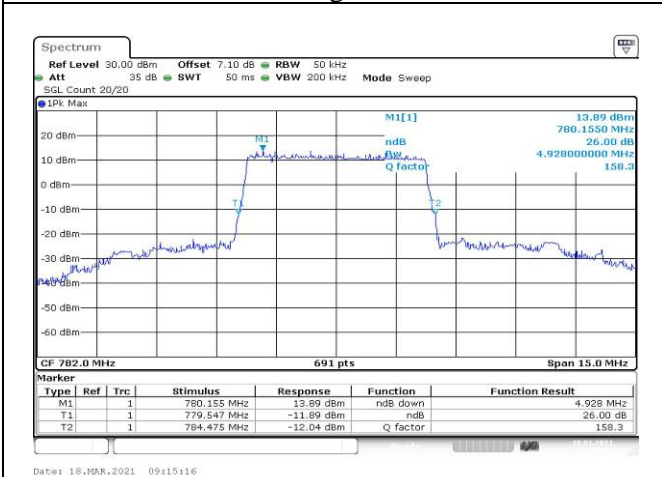


Fig.5

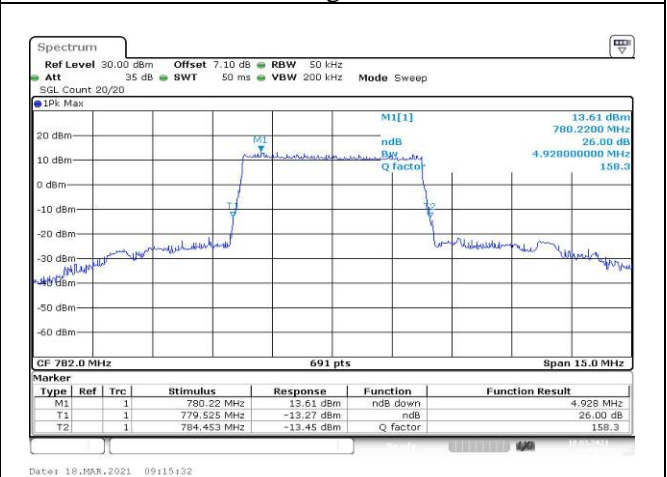


Fig.6

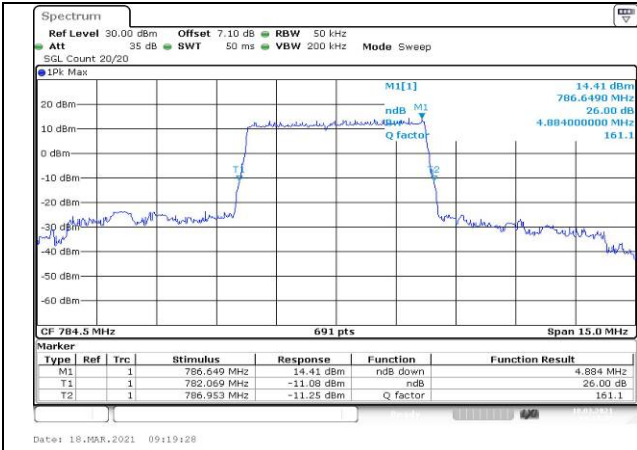


Fig.7

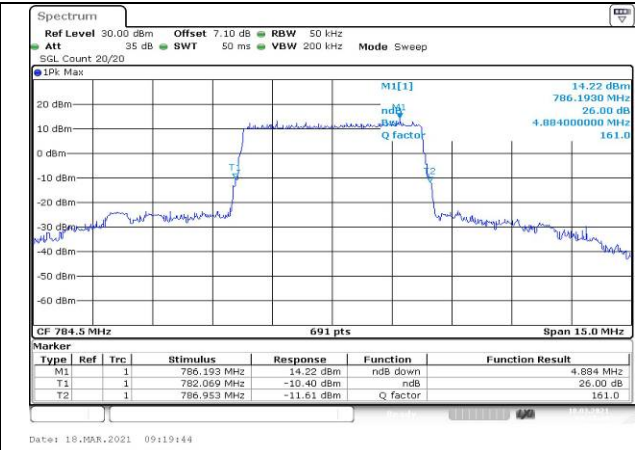


Fig.8

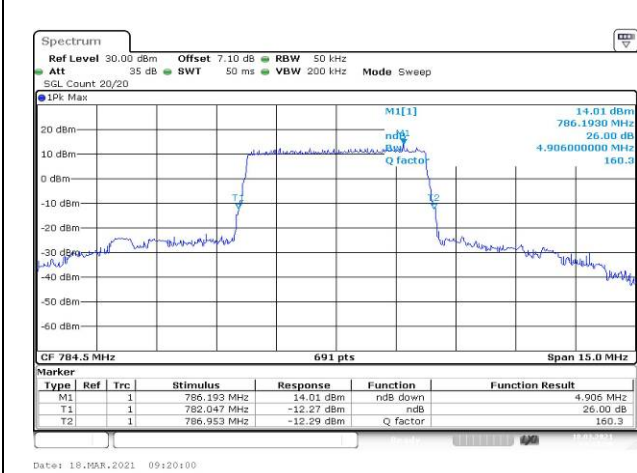


Fig.9

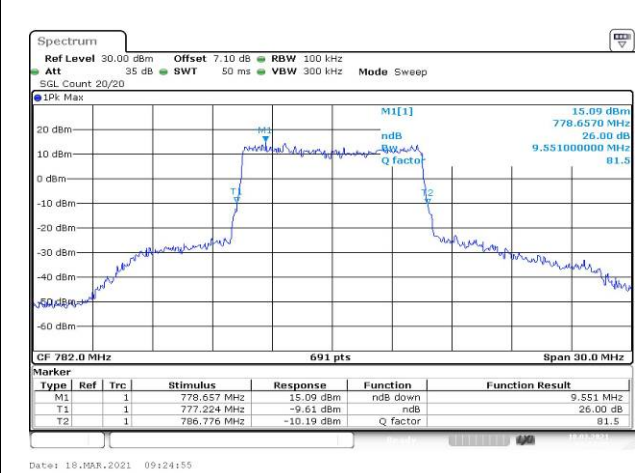


Fig.10

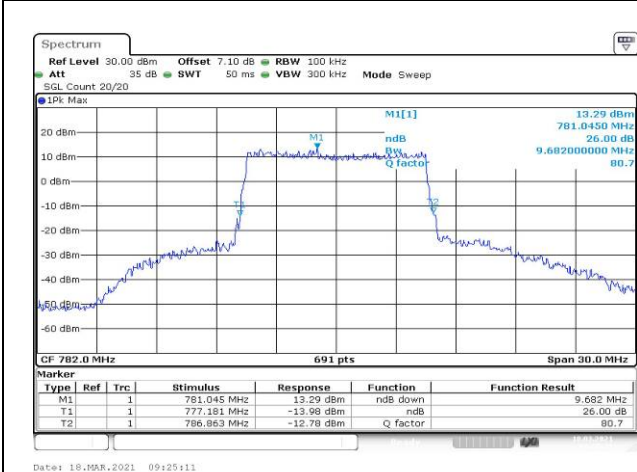


Fig.11

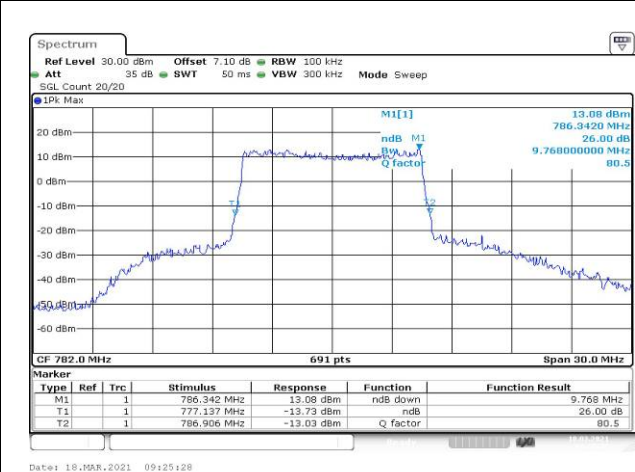


Fig.12

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

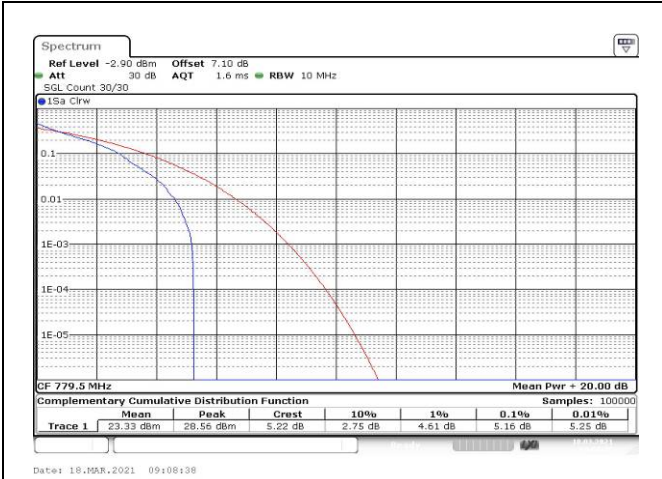


Fig.1

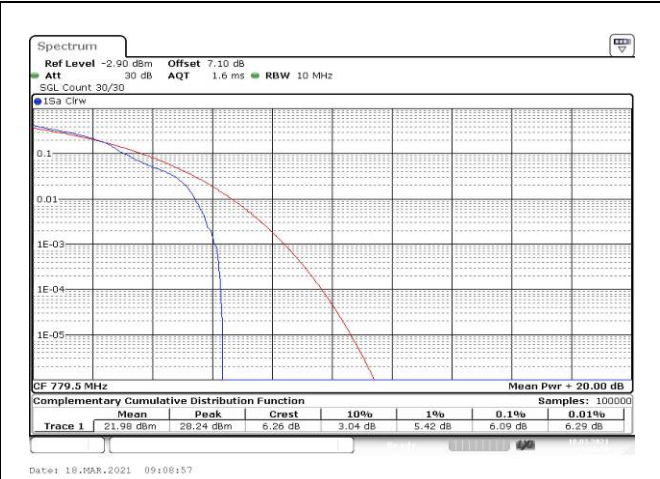


Fig.2

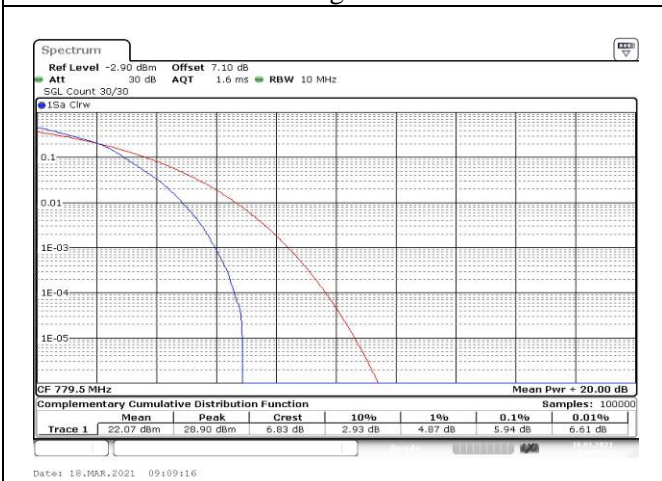


Fig.3

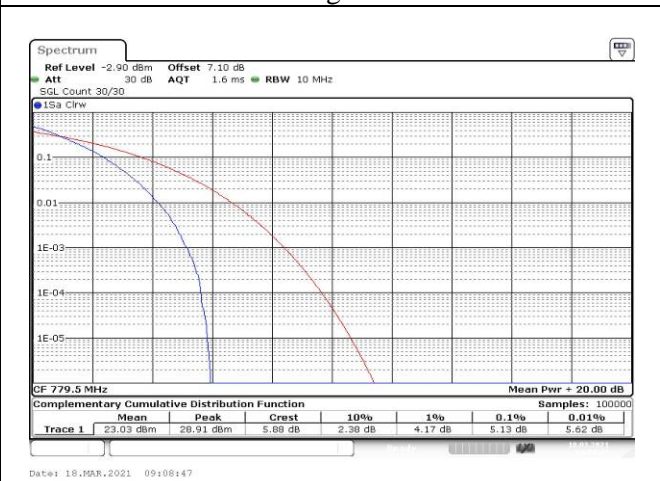


Fig.4

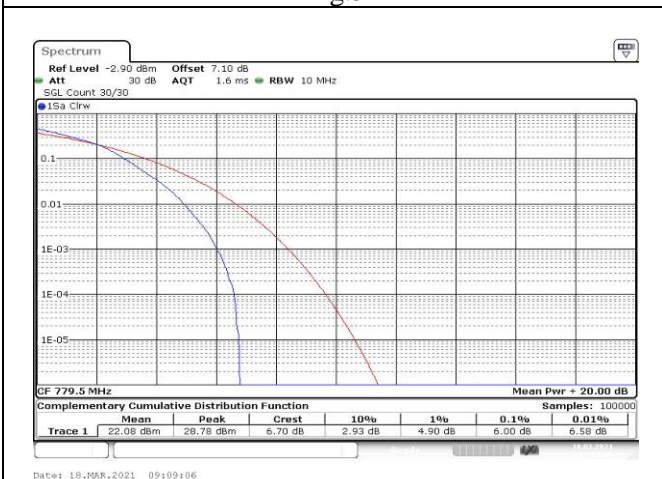


Fig.5

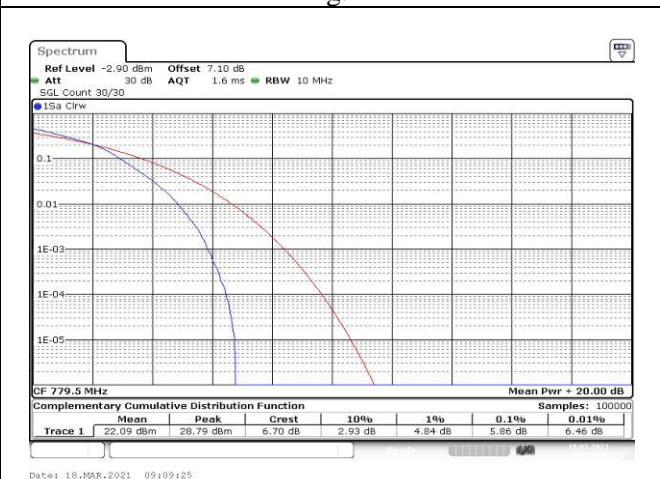


Fig.6

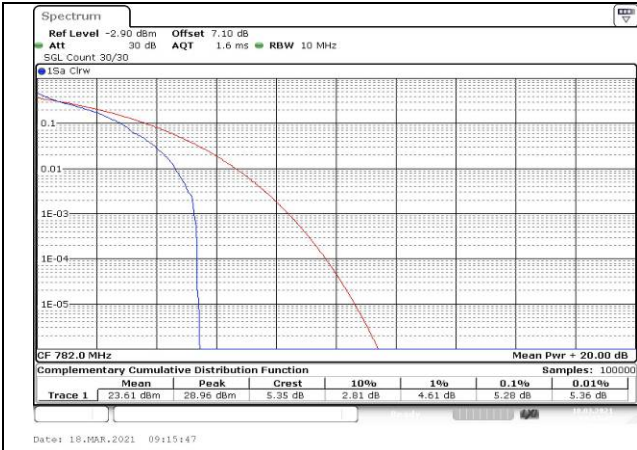


Fig.7



Fig.8

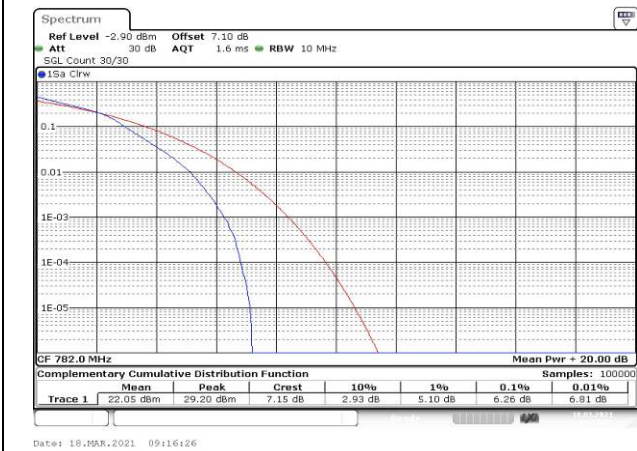


Fig.9

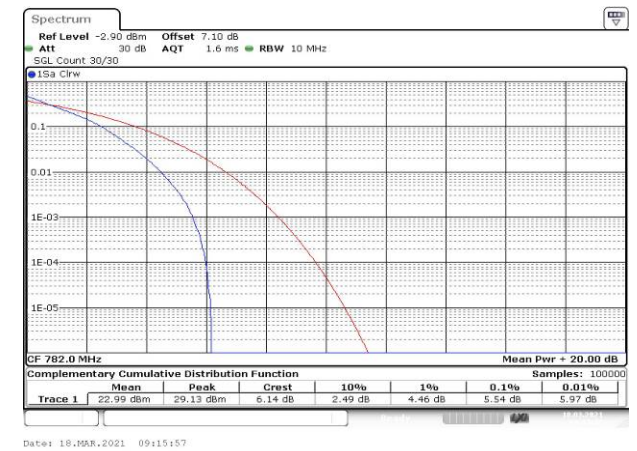


Fig.10

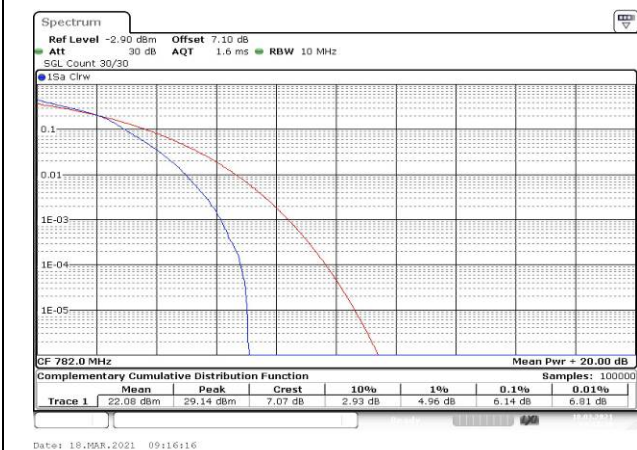


Fig.11

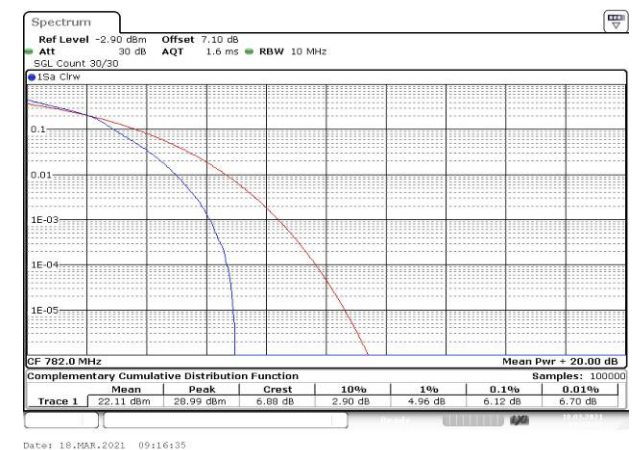


Fig.12

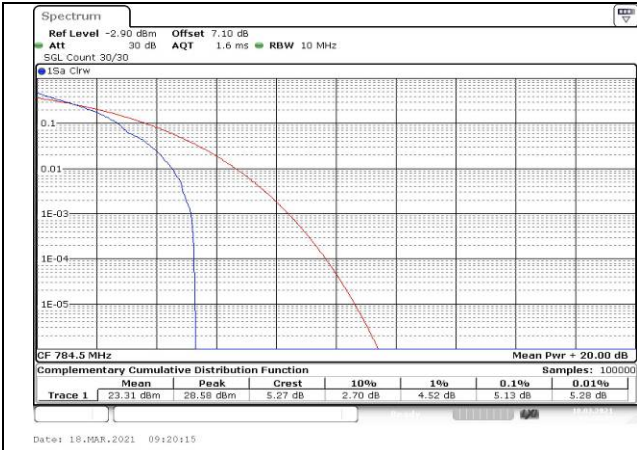


Fig.13

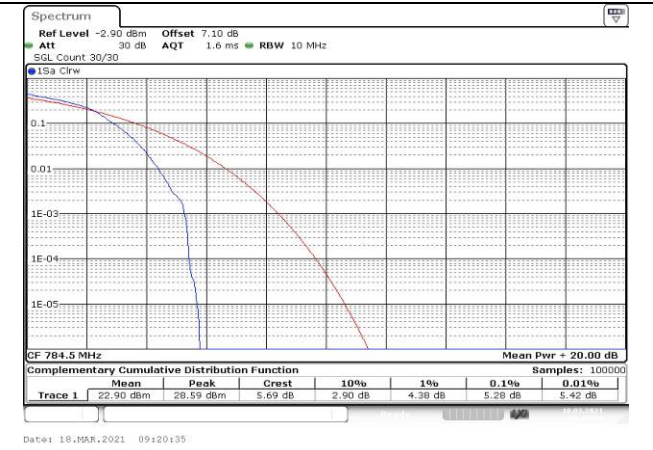


Fig.14

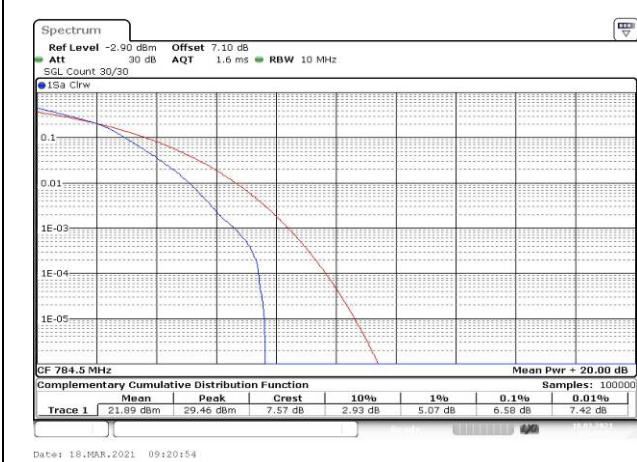


Fig.15

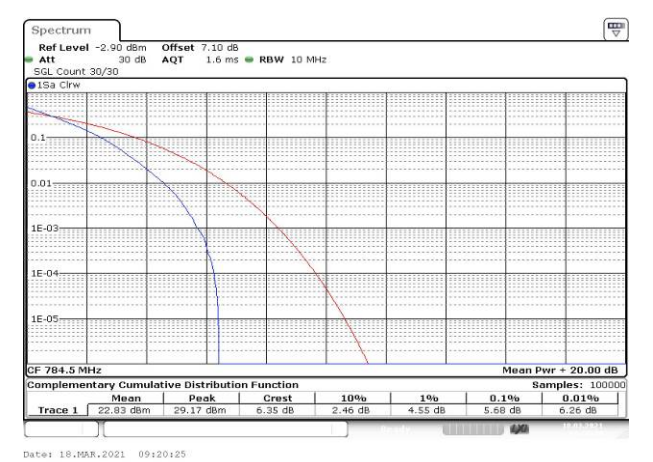


Fig.16

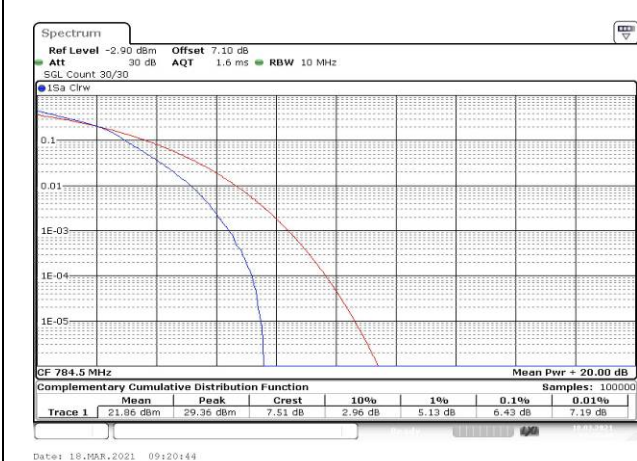


Fig.17

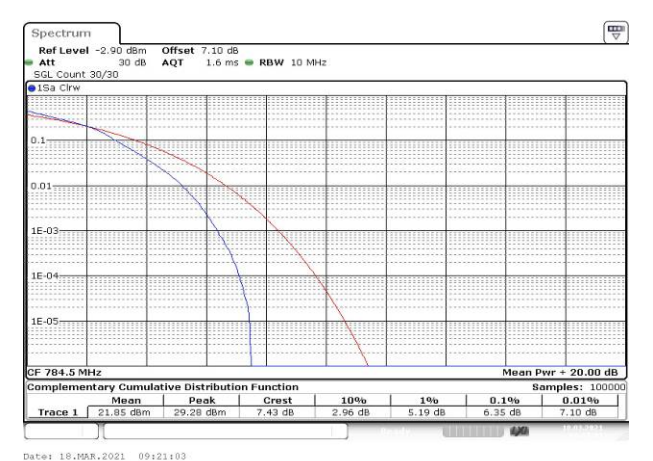


Fig.18

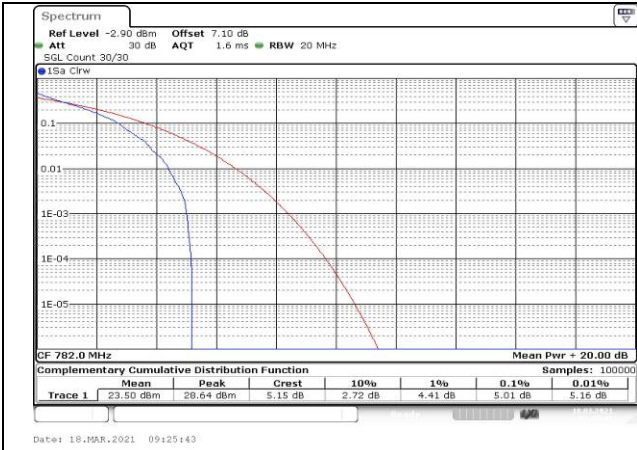


Fig.19

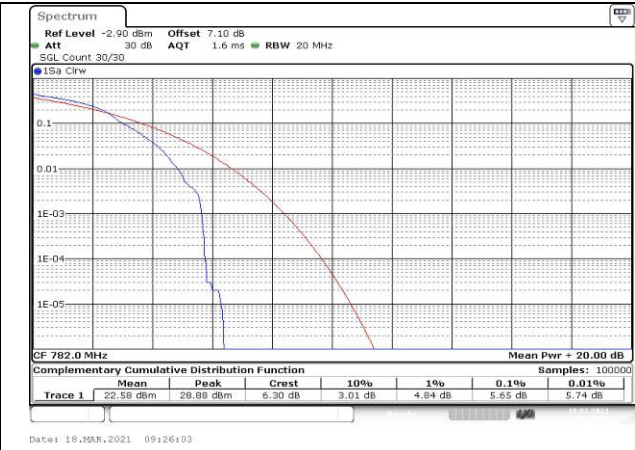


Fig.20

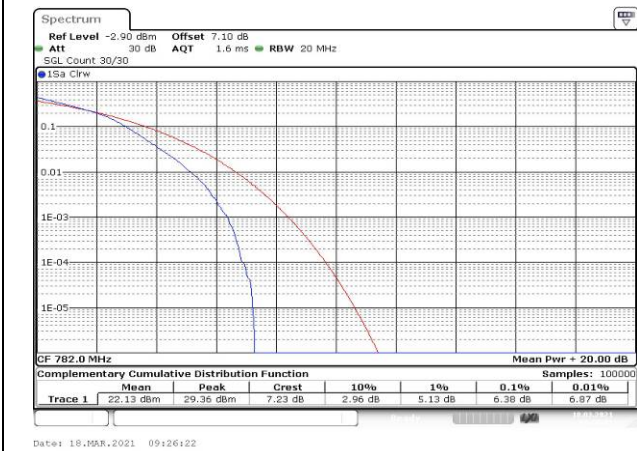


Fig.21

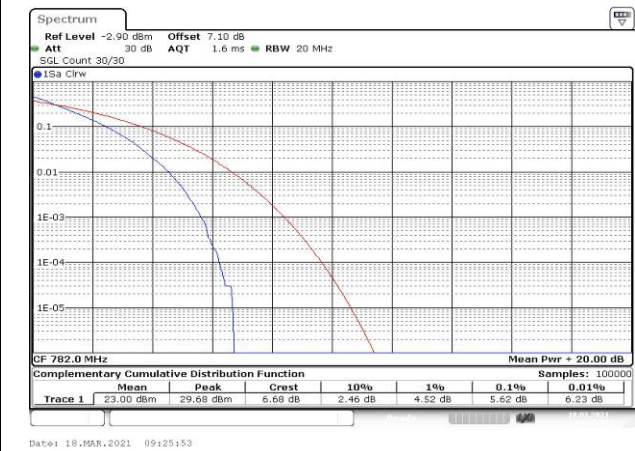


Fig.22

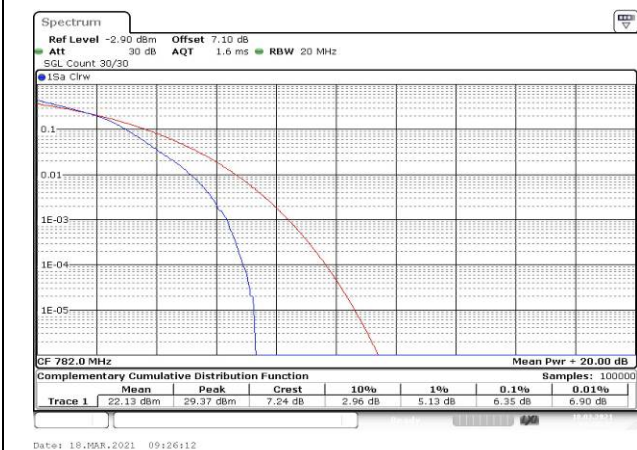


Fig.23

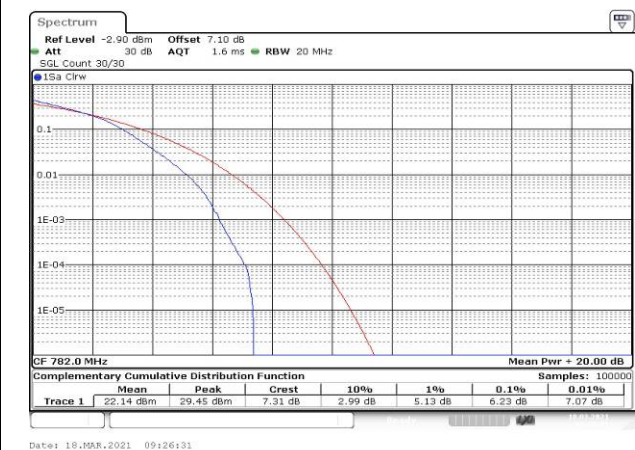


Fig.24

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

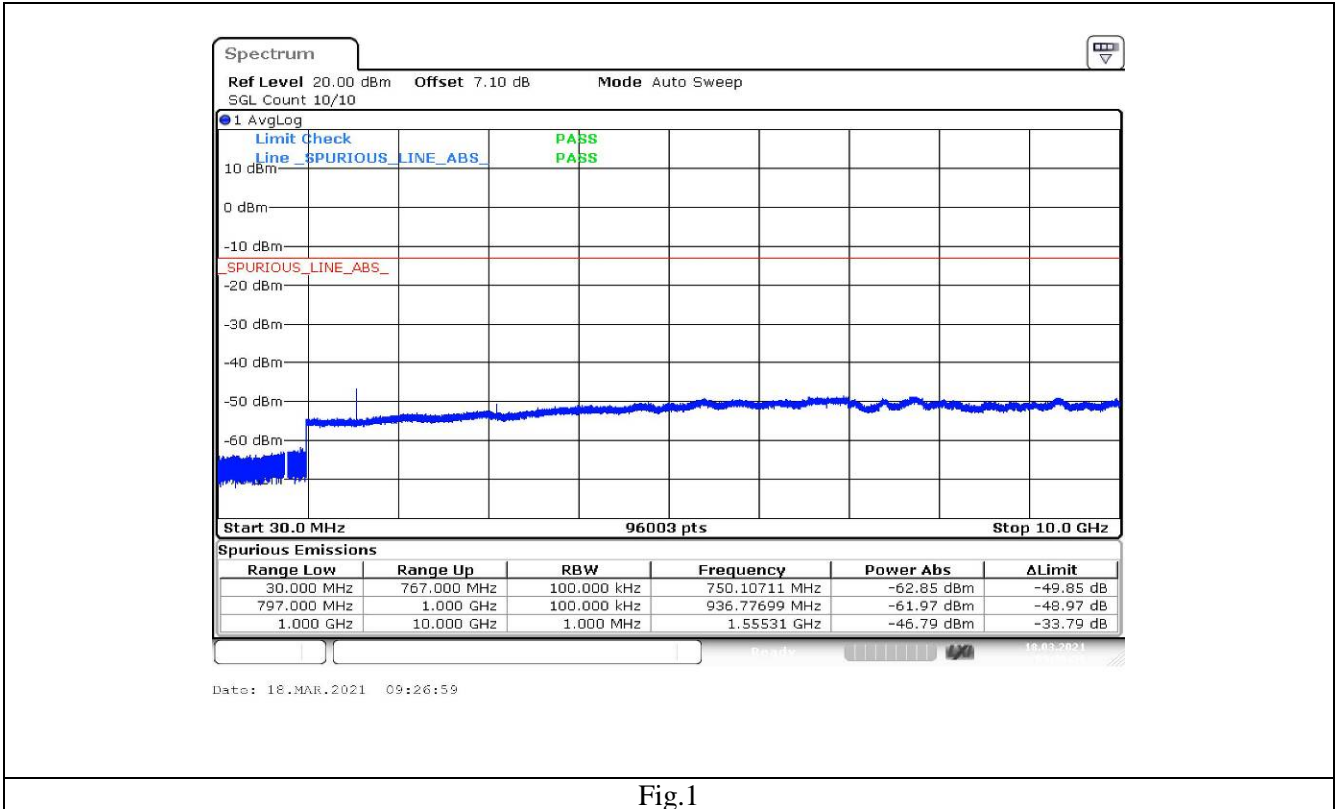


Fig.1

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
	784.5	23255		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

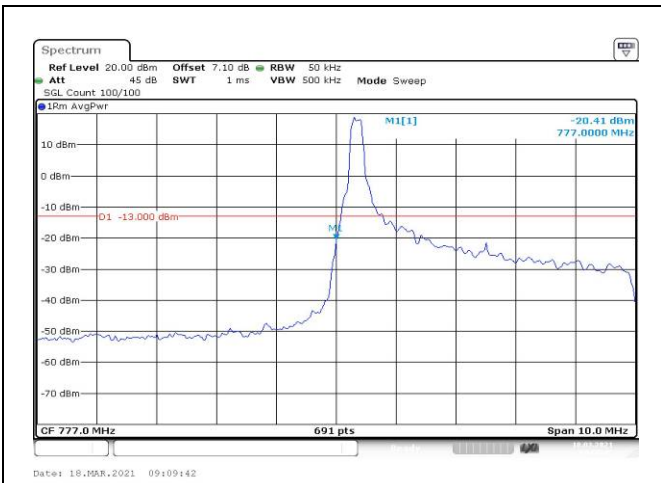


Fig.1

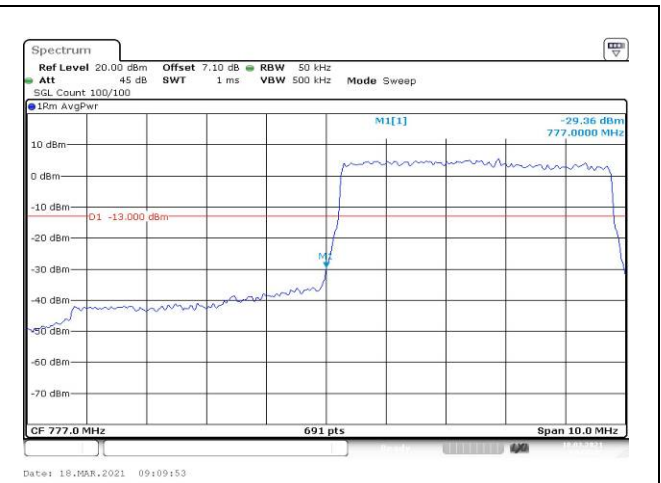


Fig.2

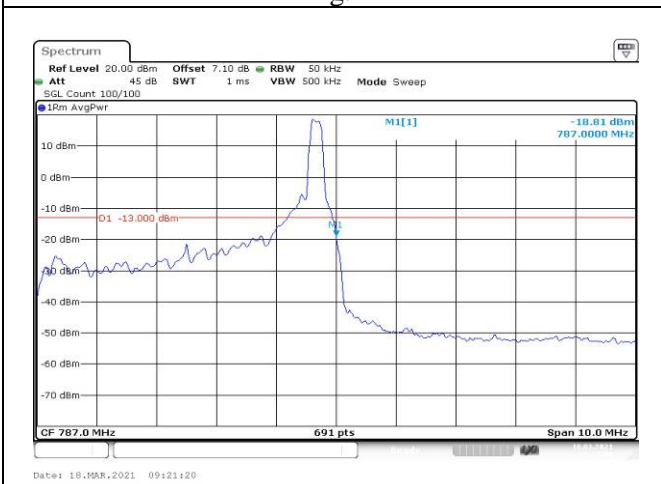


Fig.3

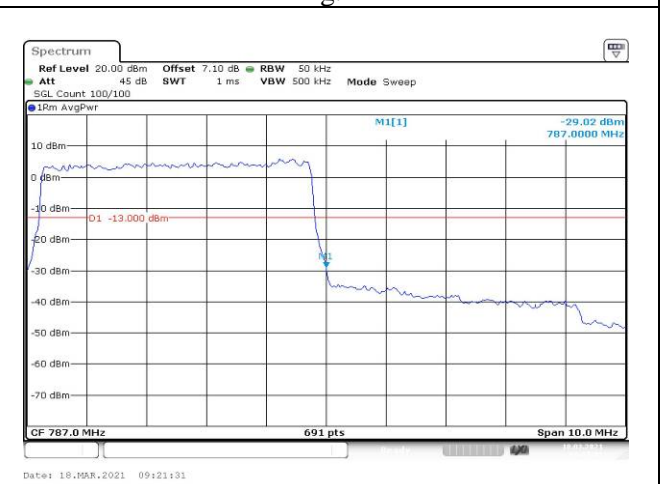


Fig.4

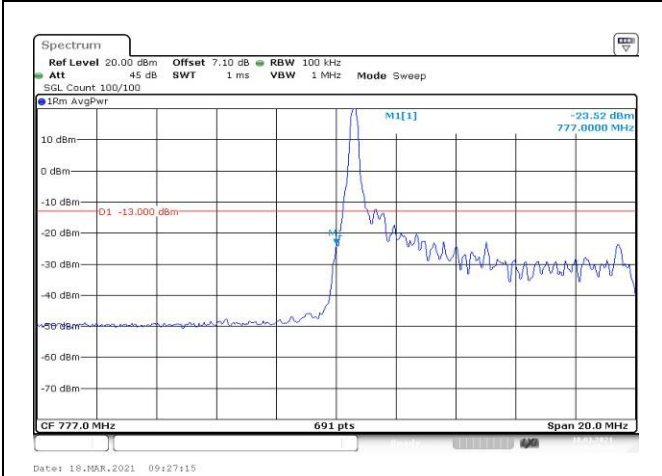


Fig.5

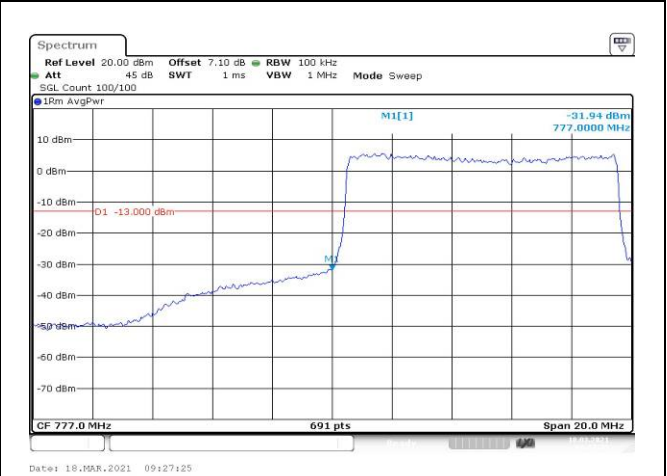


Fig.6

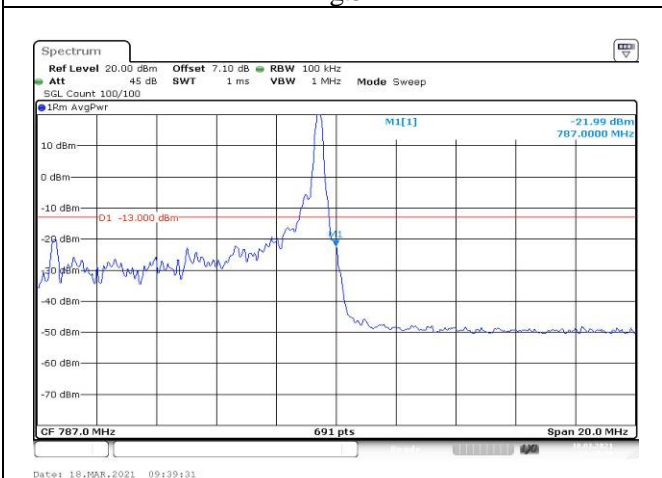


Fig.7

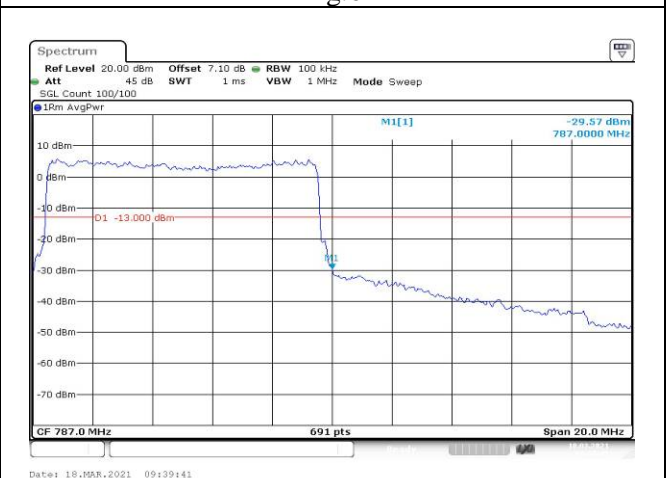


Fig.8

7 Frequency Stability

Temperature(°C)	Voltage	Test Result (ppm) Band13 Middle Channel QPSK					
		1.4M	3M	5M	10M	15M	20M
-10	NV	---	---	-0.021	0.005	---	---
0	NV	---	---	-0.029	-0.010	---	---
+10	NV	---	---	0.012	0.015	---	---
+20	NV	---	---	-0.039	-0.040	---	---
+30	NV	---	---	-0.036	-0.012	---	---
+40	NV	---	---	0.023	-0.007	---	---
+50	NV	---	---	-0.060	-0.037	---	---
+20	LV	---	---	-0.018	-0.018	---	---
+20	HV	---	---	-0.044	-0.025	---	---

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	24.27	18.92	0.078
				1	12	24.20	18.85	0.077
				1	24	24.24	18.89	0.077
				12	0	23.40	18.05	0.064
				12	7	23.29	17.94	0.062
				12	13	23.26	17.91	0.062
	782	23230		25	0	23.32	17.97	0.063
				1	0	24.40	19.05	0.080
				1	12	24.37	19.02	0.080
				1	24	24.34	18.99	0.079
				12	0	23.44	18.09	0.064
				12	7	23.31	17.96	0.063
	784.5	23255		12	13	23.30	17.95	0.062
				25	0	23.34	17.99	0.063
				1	0	24.26	18.91	0.078
				1	12	24.19	18.84	0.077
				1	24	24.18	18.83	0.076
				12	0	23.24	17.89	0.062
16QAM	779.5	23205	12	7	23.38	18.03	0.064	
			12	13	23.32	17.97	0.063	
			25	0	23.25	17.90	0.062	
			1	0	22.64	17.29	0.054	
			1	12	22.70	17.35	0.054	
			1	24	22.57	17.22	0.053	
	782	23230	12	0	22.52	17.17	0.052	
			12	7	22.55	17.20	0.052	
			12	13	22.54	17.19	0.052	
			25	0	22.60	17.25	0.053	
			1	0	23.62	18.27	0.067	
			1	12	23.57	18.22	0.066	
	784.5	23255	1	24	23.55	18.20	0.066	
			12	0	22.45	17.10	0.051	
			12	7	22.23	16.88	0.049	
			12	13	22.22	16.87	0.049	
			25	0	22.43	17.08	0.051	
			1	0	23.04	17.69	0.059	
			1	12	23.05	17.70	0.059	
			1	24	23.10	17.75	0.060	
			12	0	22.40	17.05	0.051	
			12	7	22.34	16.99	0.050	
			12	13	22.34	16.99	0.050	
			25	0	22.19	16.84	0.048	

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	22.59	17.24	0.053
				1	12	22.59	17.24	0.053
				1	24	22.58	17.23	0.053
				12	0	22.67	17.32	0.054
				12	7	22.55	17.20	0.052
				12	13	22.66	17.31	0.054
				25	0	22.65	17.30	0.054
	782	23230		1	0	22.44	17.09	0.051
				1	12	22.44	17.09	0.051
				1	24	22.44	17.09	0.051
				12	0	22.44	17.09	0.051
				12	7	22.44	17.09	0.051
				12	13	22.44	17.09	0.051
				25	0	22.44	17.09	0.051
	784.5	23255		1	0	22.28	16.93	0.049
				1	12	22.37	17.02	0.050
				1	24	22.47	17.12	0.052
				12	0	22.55	17.20	0.052
				12	7	22.49	17.14	0.052
				12	13	22.54	17.19	0.052
				25	0	22.55	17.20	0.052

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	24.30	18.95	0.079
				1	25	24.29	18.94	0.078
				1	49	24.27	18.92	0.078
				25	0	23.34	17.99	0.063
				25	12	23.32	17.97	0.063
				25	25	23.31	17.96	0.063
				50	0	23.39	18.04	0.064
16QAM				1	0	23.89	18.54	0.071
				1	25	23.83	18.48	0.070
				1	49	23.82	18.47	0.070
				25	0	22.60	17.25	0.053
				25	12	22.49	17.14	0.052
				25	25	22.48	17.13	0.052
				50	0	22.57	17.22	0.053
64QAM				1	0	22.58	17.23	0.053
				1	25	22.58	17.23	0.053
				1	49	22.58	17.23	0.053
				25	0	22.58	17.23	0.053
				25	12	22.58	17.23	0.053
				25	25	22.58	17.23	0.053
				50	0	22.58	17.23	0.053