

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 13

1 RF Power Output

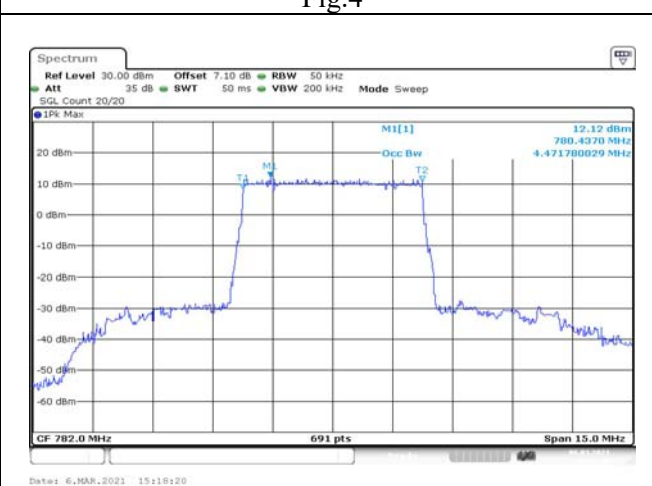
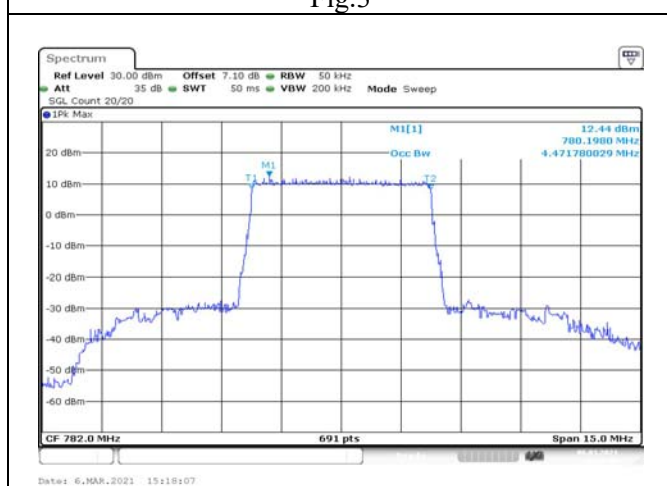
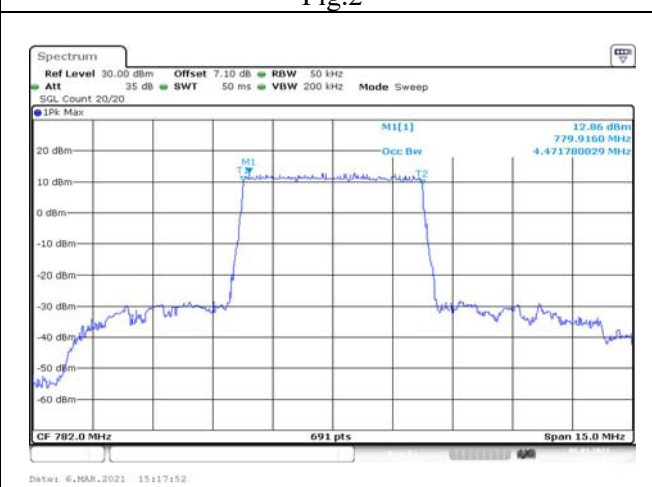
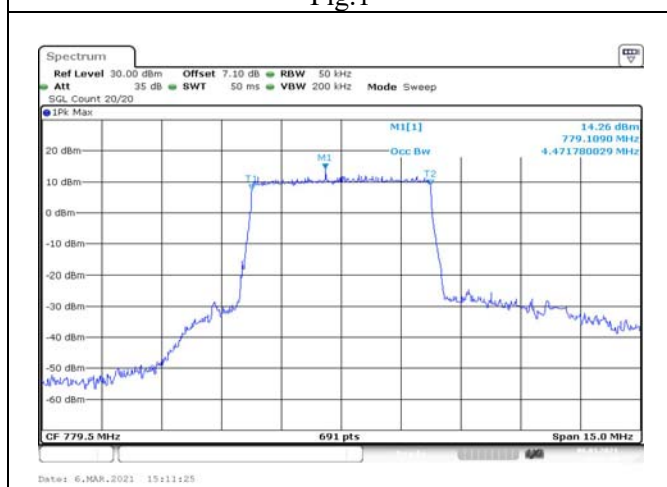
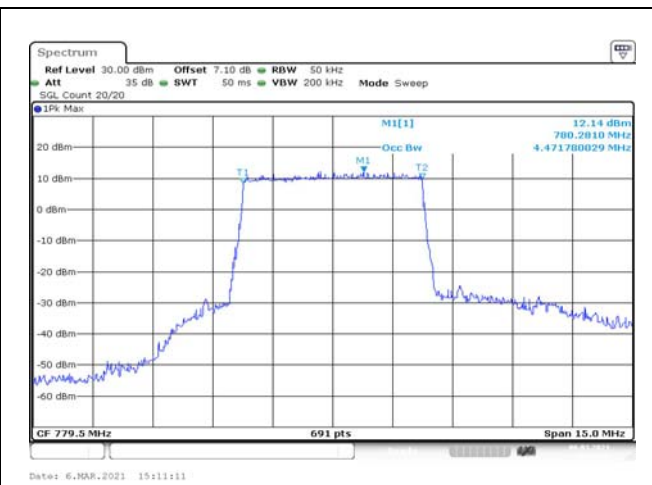
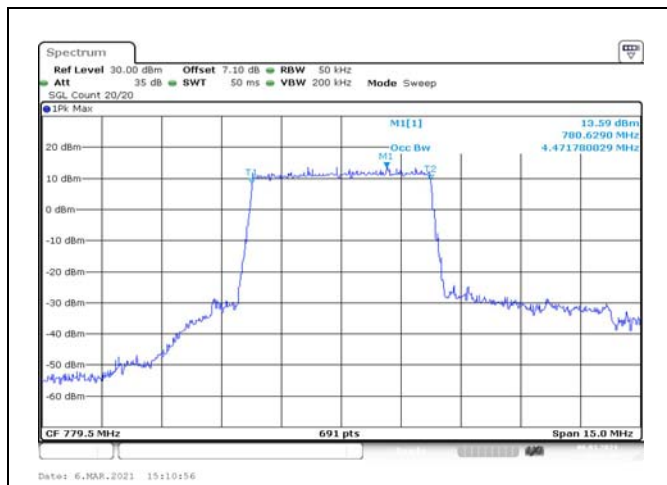
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	
QPSK	779.5	23205	5	1	0	23.53	
				1	12	23.57	
				1	24	23.50	
				12	0	22.53	
				12	7	22.55	
				12	13	22.62	
	25	0		21.63			
	782	23230		1	0	23.49	
				1	12	23.40	
				1	24	23.40	
				12	0	22.53	
				12	7	22.57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



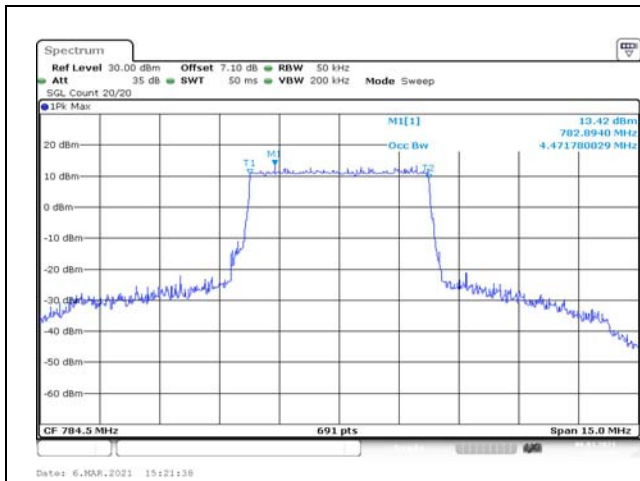


Fig.7

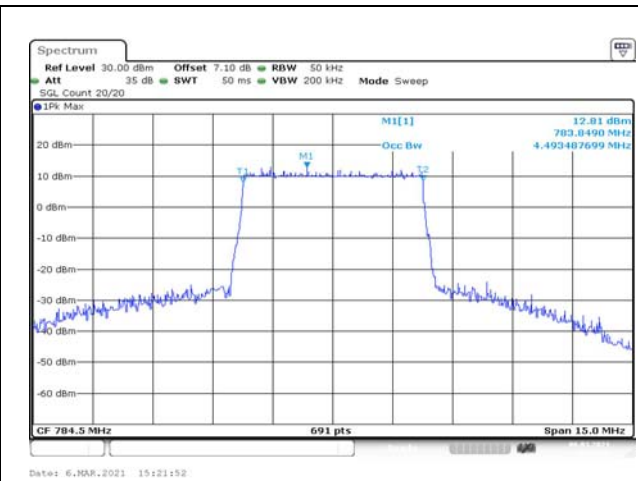


Fig.8

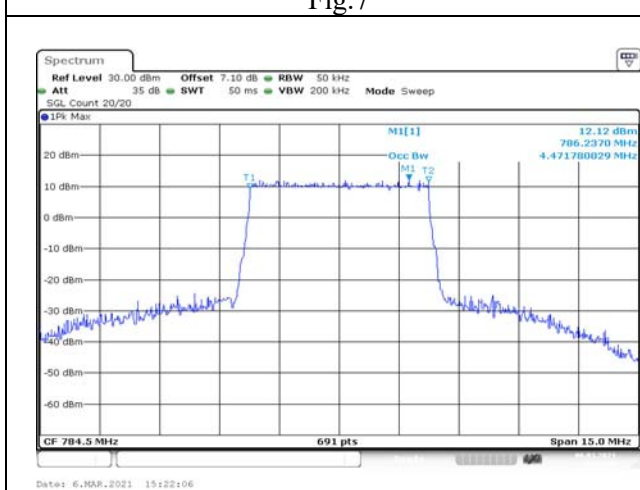


Fig.9

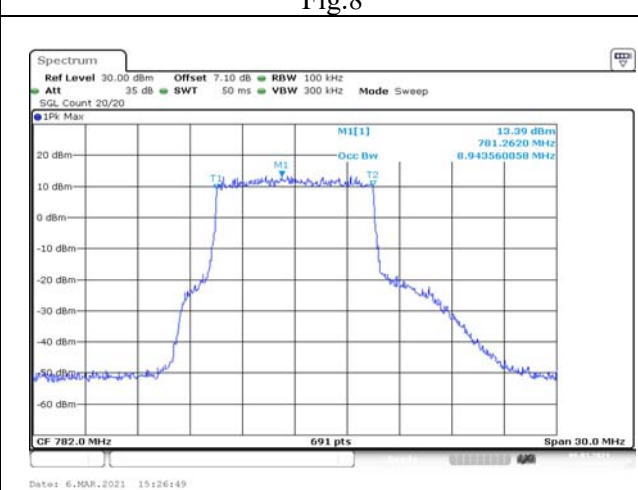


Fig.10

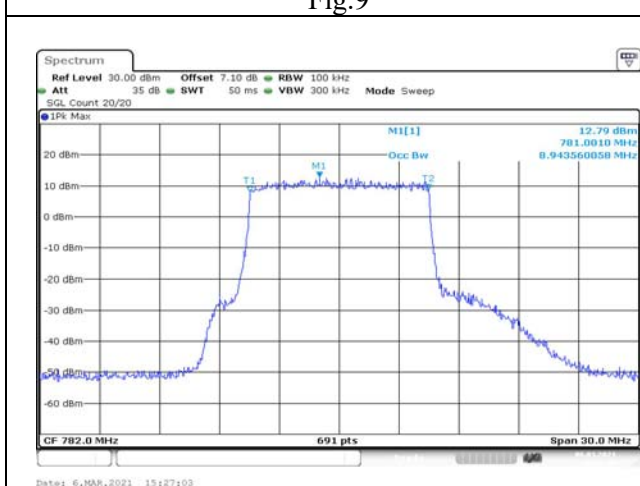


Fig.11

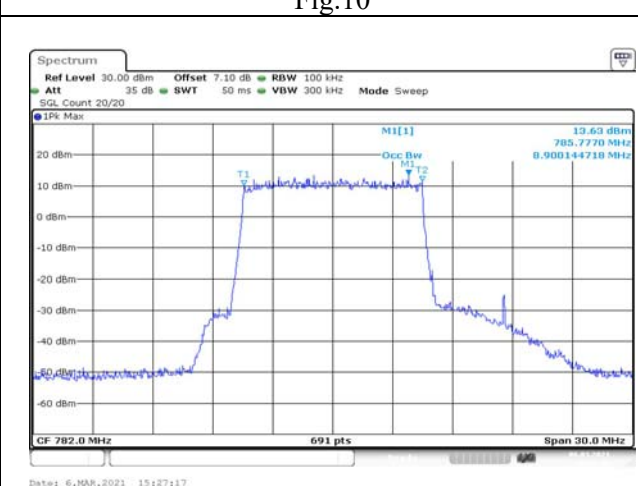


Fig.12

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

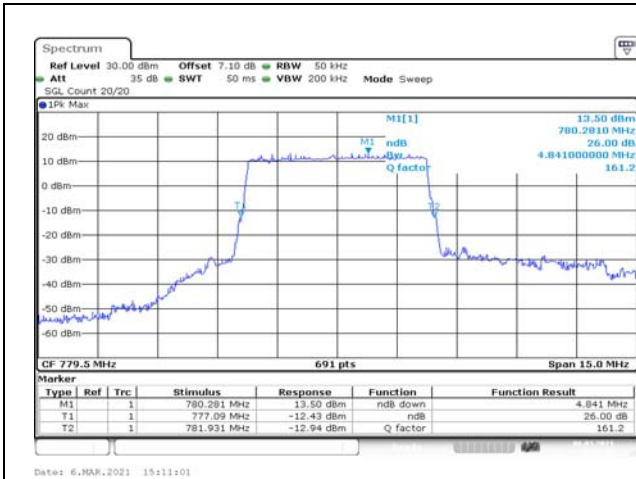


Fig.1

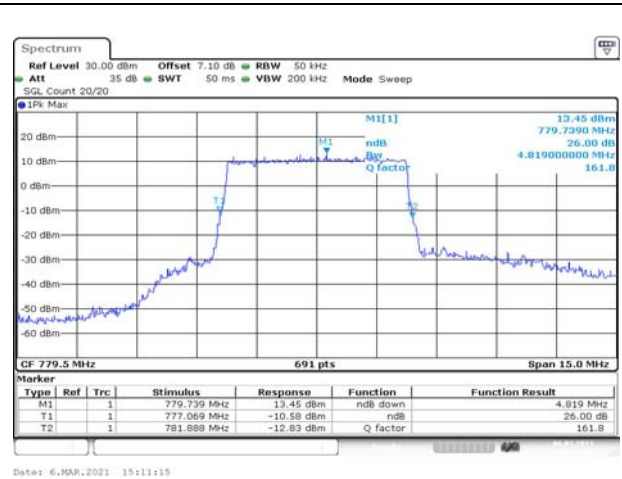


Fig.2

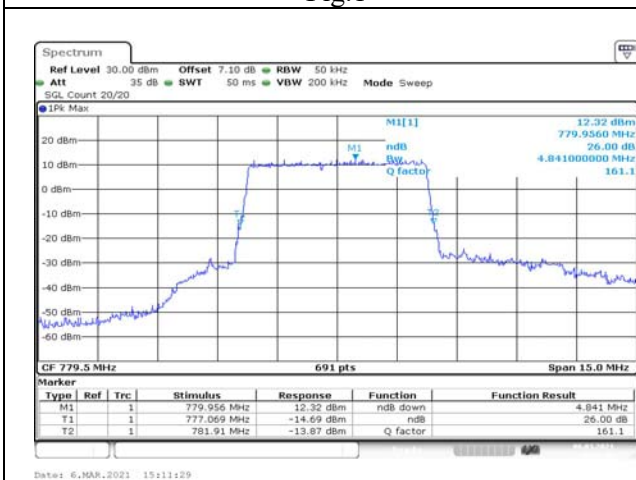


Fig.3

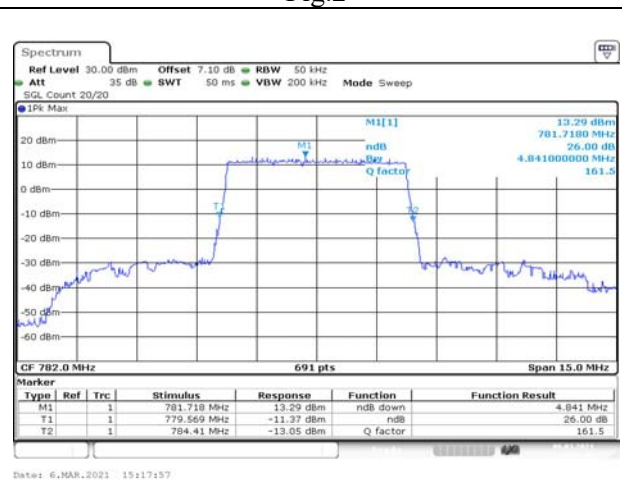


Fig.4

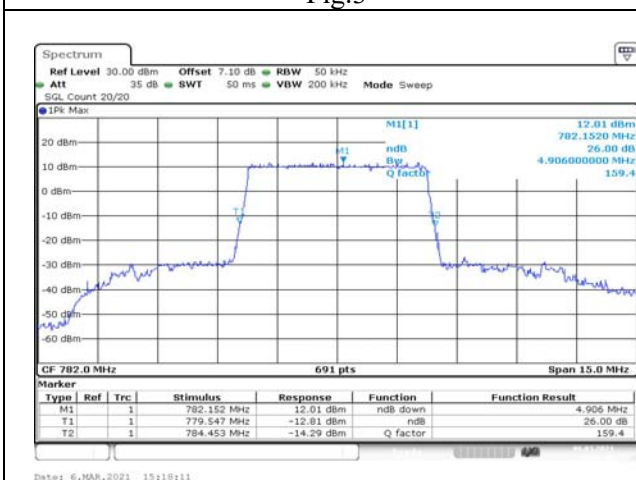


Fig.5



Fig.6

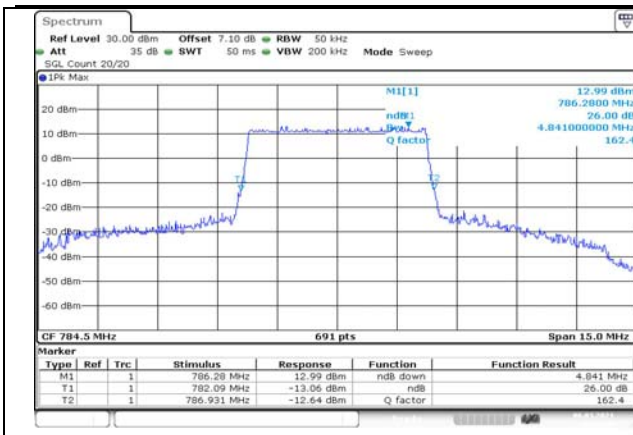


Fig.7

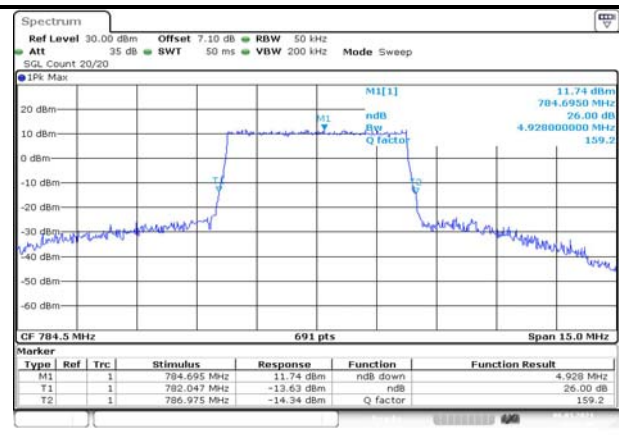


Fig.8

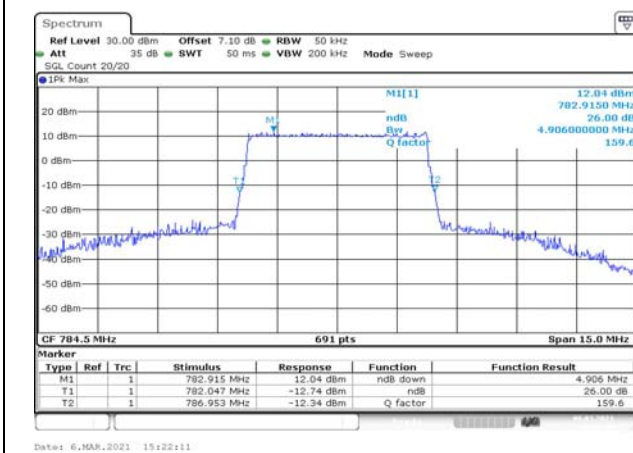


Fig.9

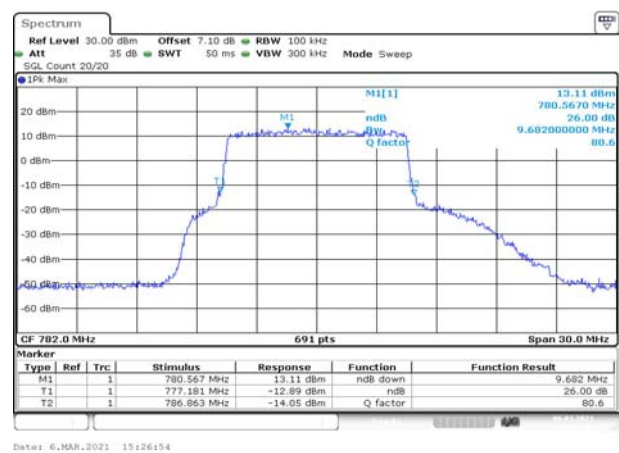


Fig.10

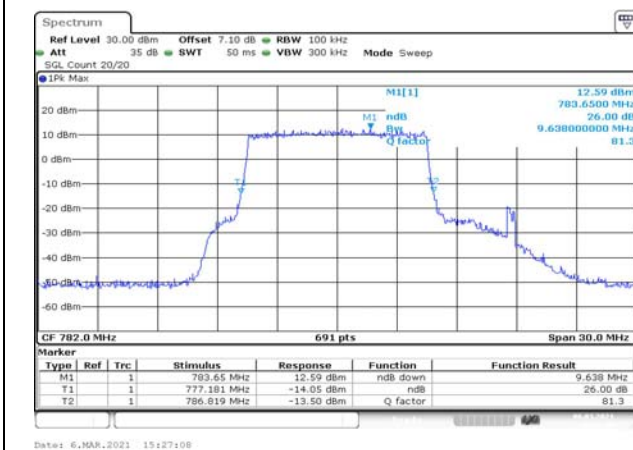


Fig.11

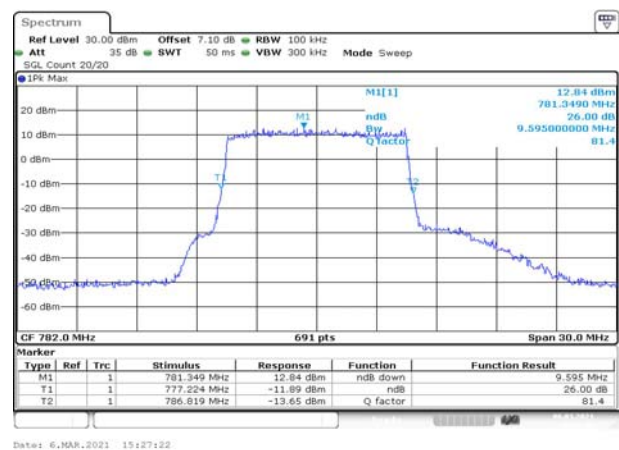


Fig.12

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

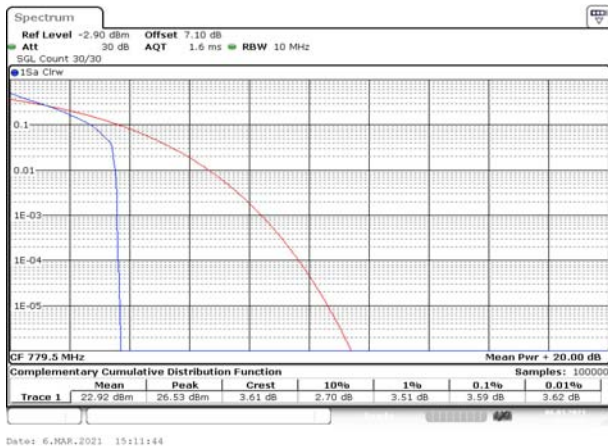


Fig.1

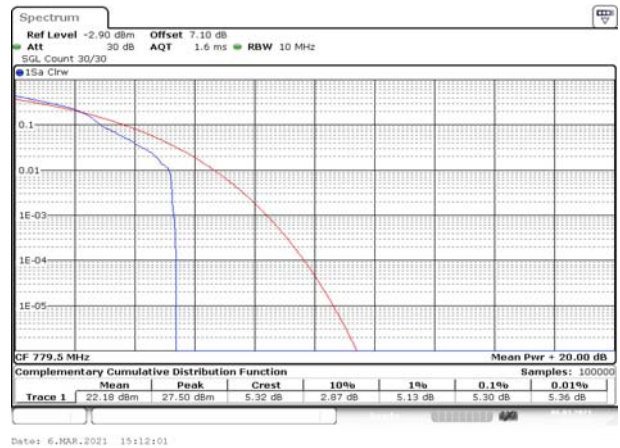


Fig.2

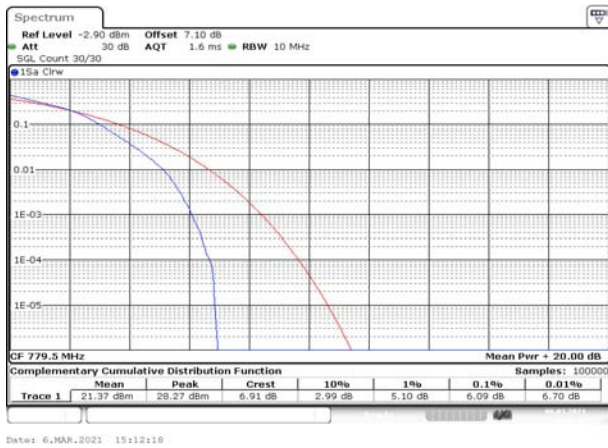


Fig.3

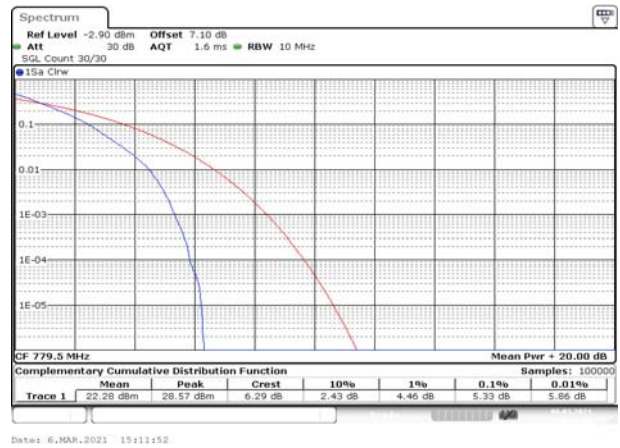


Fig.4

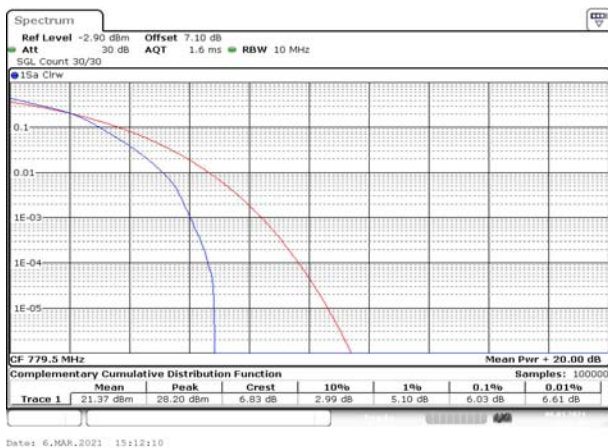


Fig.5

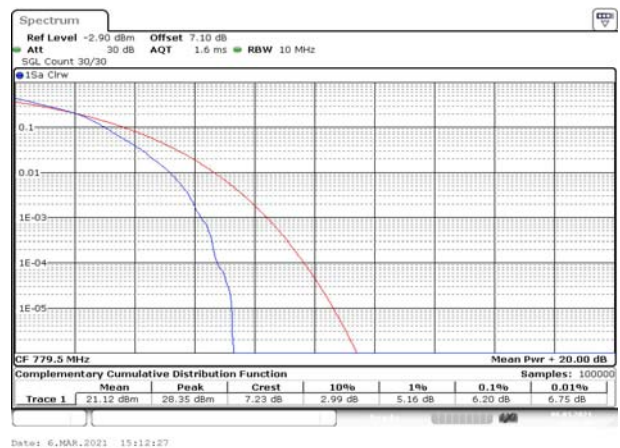


Fig.6

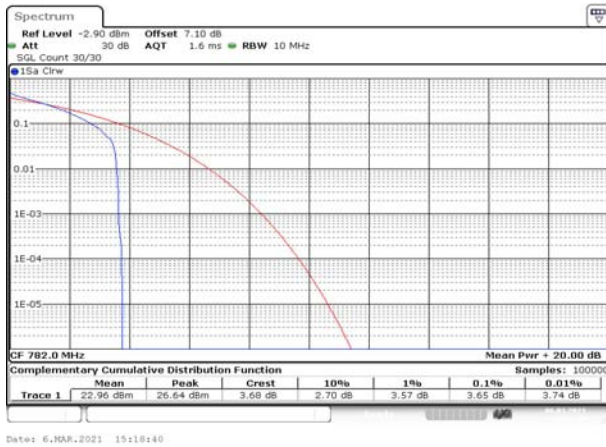


Fig.7

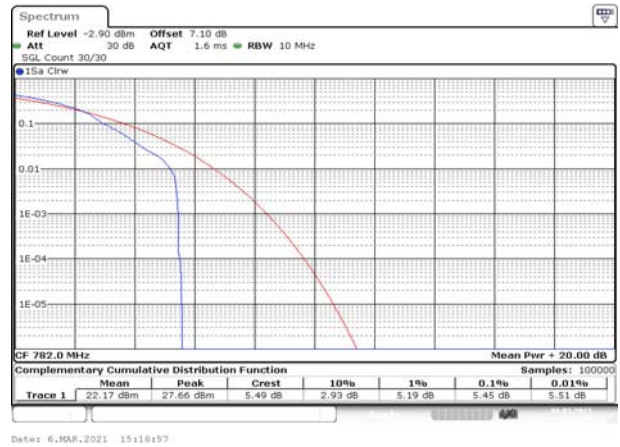


Fig.8

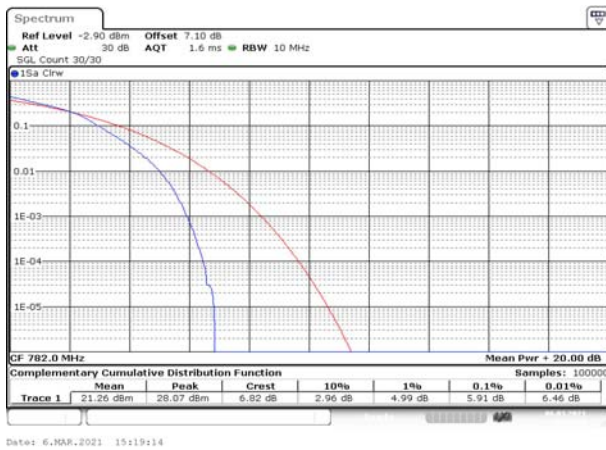


Fig.9

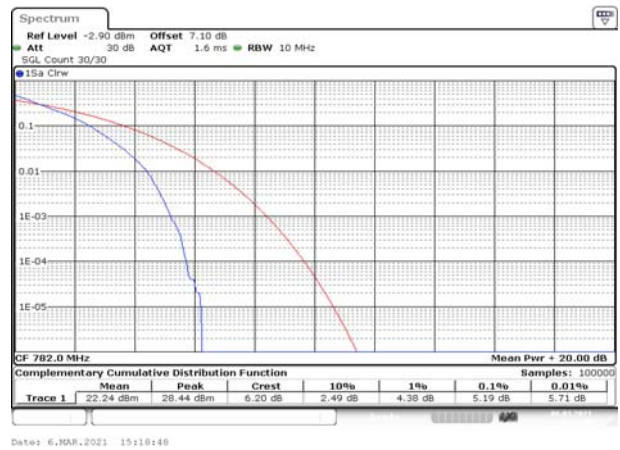


Fig.10

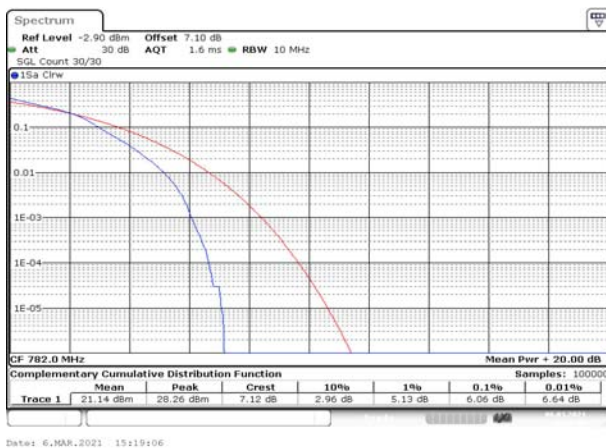


Fig.11

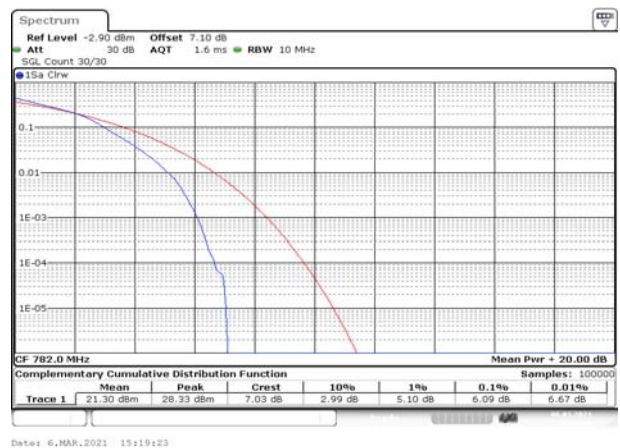


Fig.12

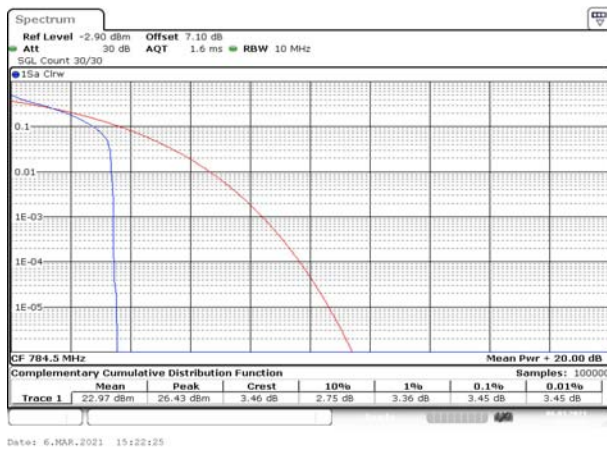


Fig.13

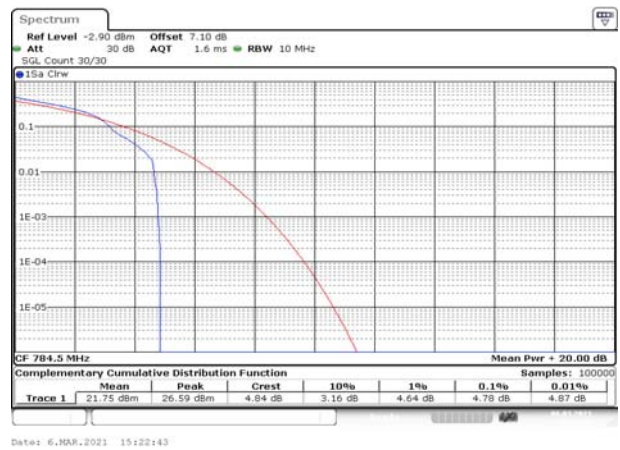


Fig.14

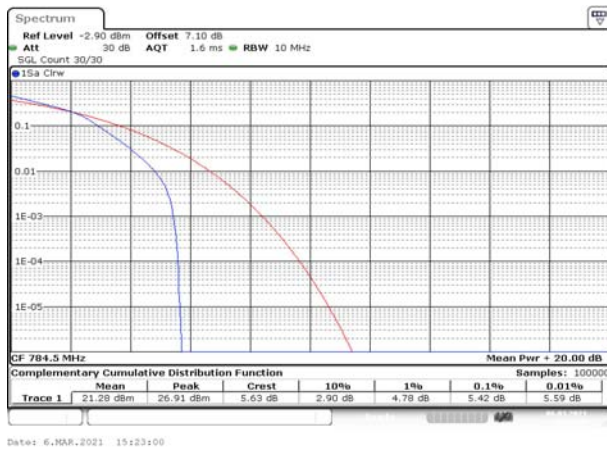


Fig.15

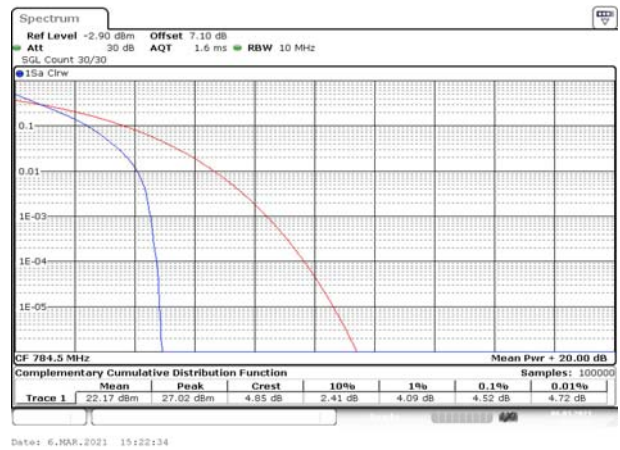


Fig.16

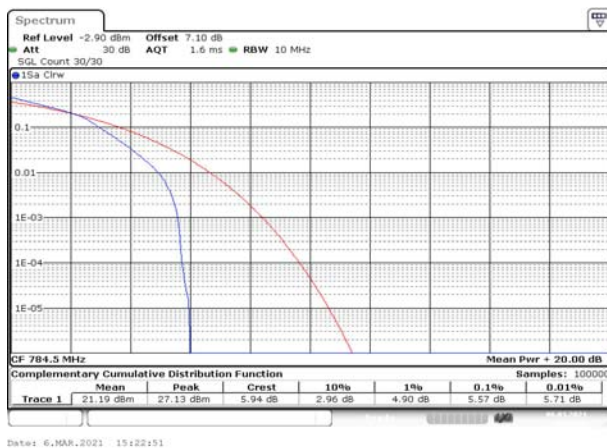


Fig.17

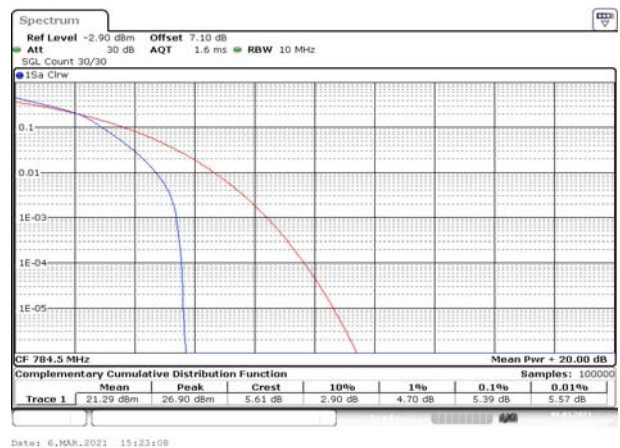


Fig.18

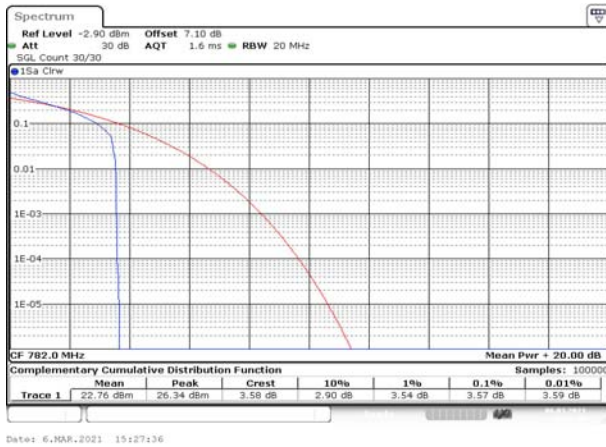


Fig.19

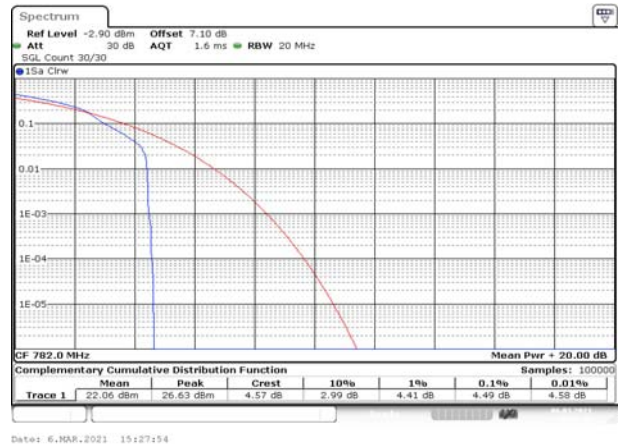


Fig.20

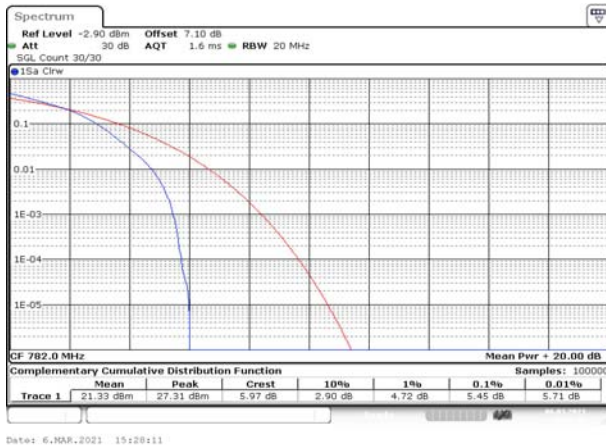


Fig.21

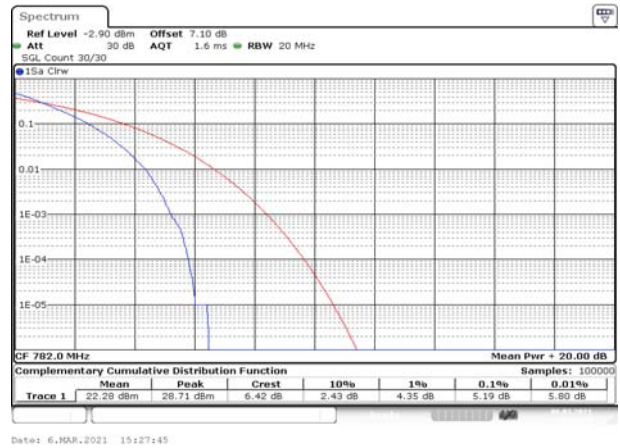


Fig.22

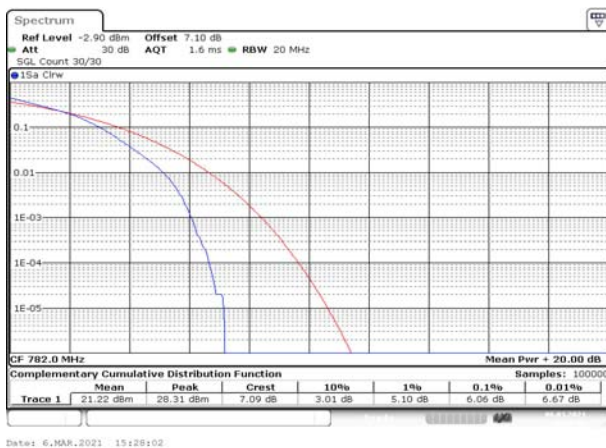


Fig.23

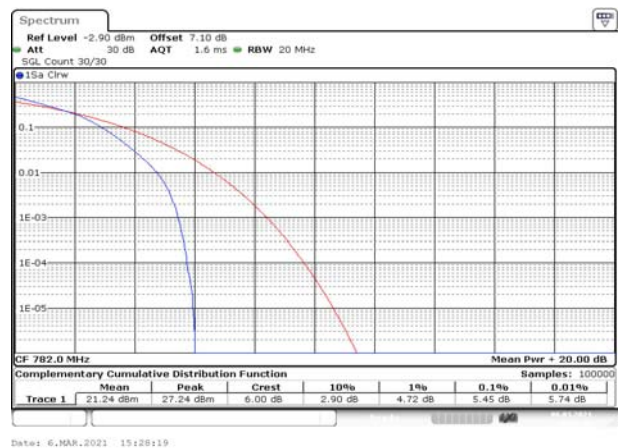


Fig.24

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

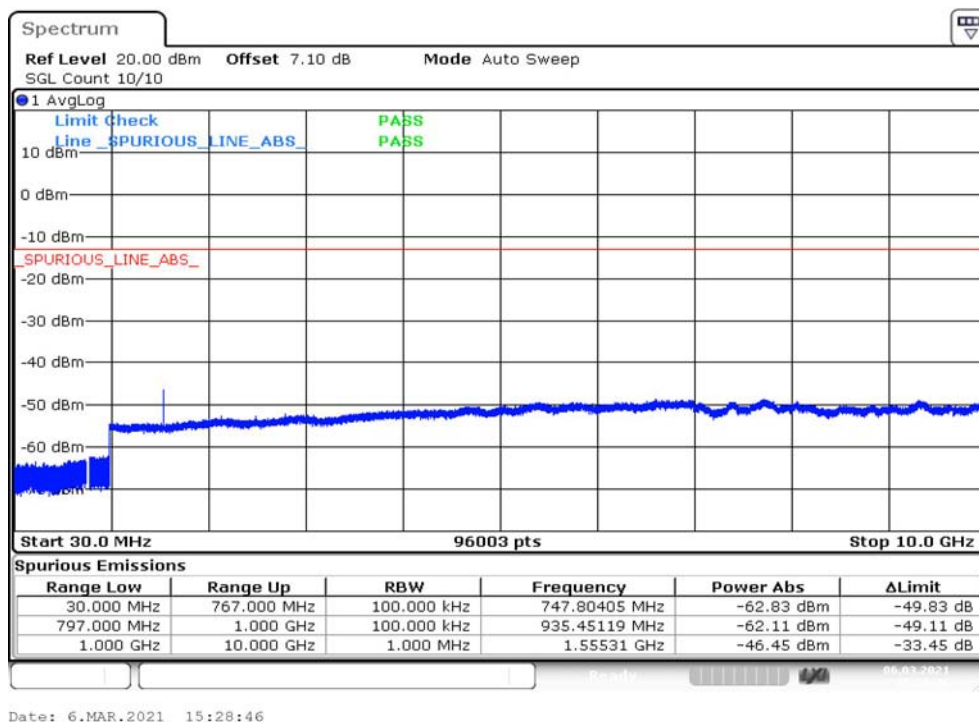


Fig.1

6 Band Edges Compliance

Band 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

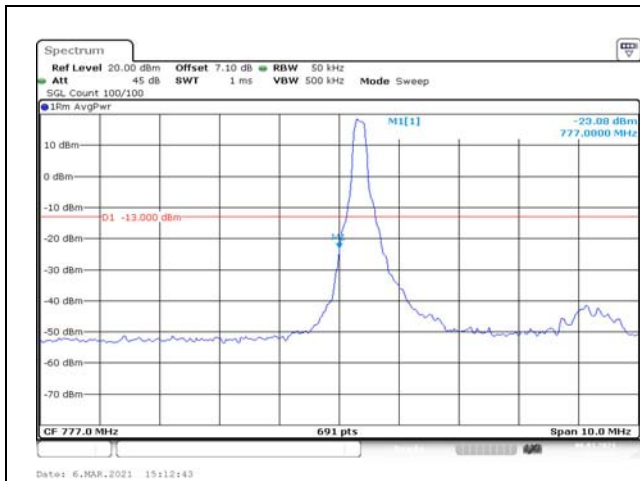


Fig.1

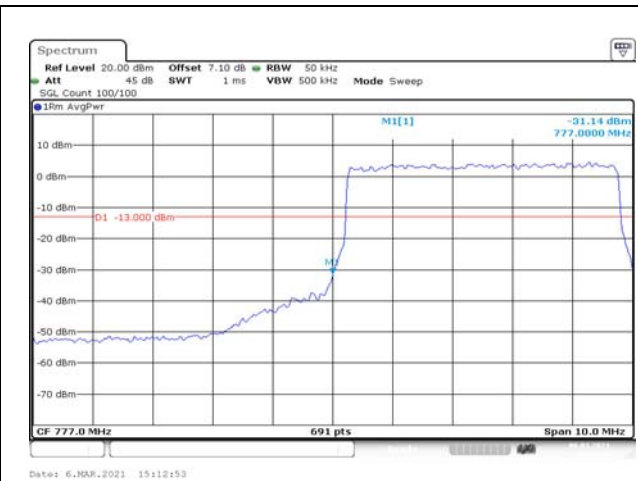


Fig.2

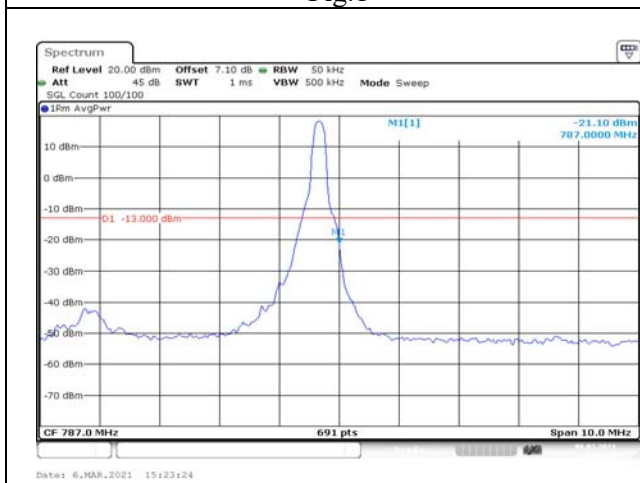


Fig.3

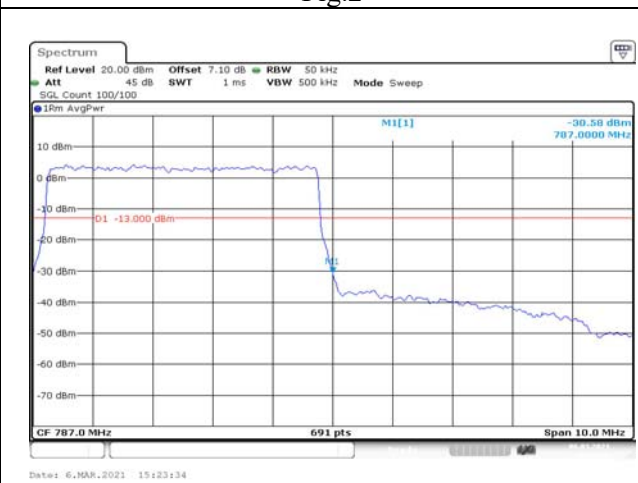


Fig.4

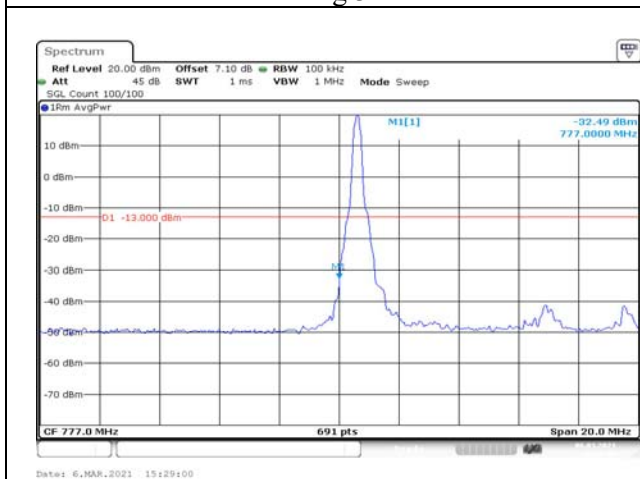


Fig.5

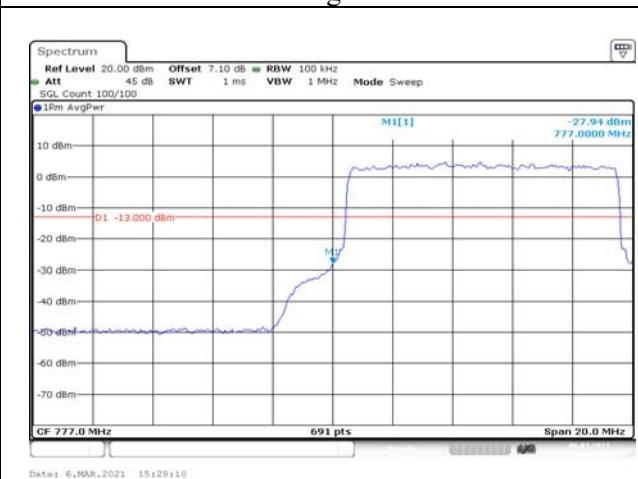


Fig.6

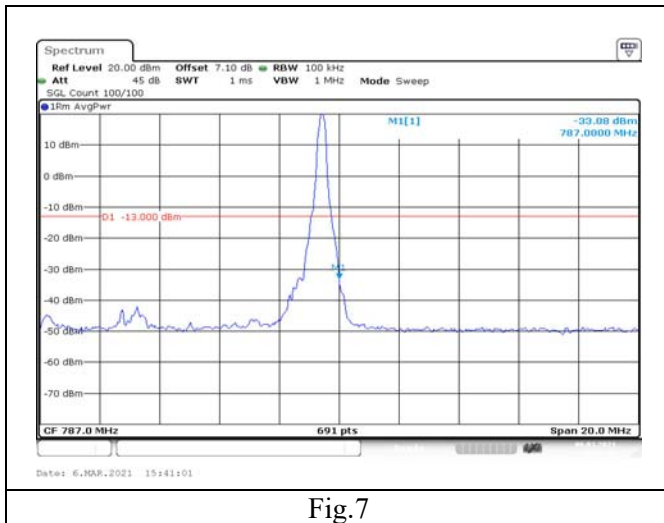


Fig.7

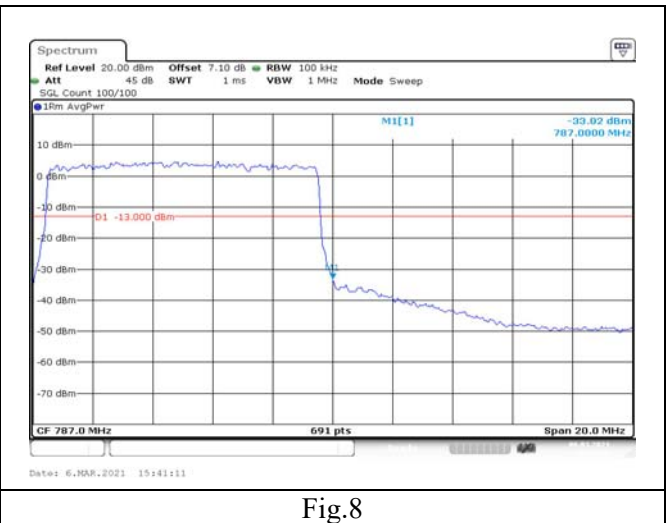


Fig.8

7 Frequency Stability

Temperature(°C)	Voltage	Test Result (ppm) Band13 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

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	17.08	0.051
				1	12	23.57	17.12	0.052
				1	24	23.50	17.05	0.051
				12	0	22.53	16.08	0.041
				12	7	22.55	16.10	0.041
				12	13	22.62	16.17	0.041
				25	0	21.63	15.18	0.033
	782	23230		1	0	23.49	17.04	0.051
				1	12	23.40	16.95	0.050
				1	24	23.40	16.95	0.050
				12	0	22.53	16.08	0.041
				12	7	22.57	16.12	0.041
				12	13	22.56	16.11	0.041
				25	0	21.64	15.19	0.033
	784.5	23255		1	0	23.54	17.09	0.051
				1	12	23.52	17.07	0.051
				1	24	23.59	17.14	0.052
				12	0	22.59	16.14	0.041
				12	7	22.54	16.09	0.041
				12	13	22.68	16.23	0.042
				25	0	21.50	15.05	0.032
16QAM	779.5	23205	1	0	22.59	16.14	0.041	
			1	12	22.58	16.13	0.041	
			1	24	22.56	16.11	0.041	
			12	0	21.41	14.96	0.031	
			12	7	21.58	15.13	0.033	
			12	13	21.69	15.24	0.033	
			25	0	20.46	14.01	0.025	
	782	23230	1	0	22.69	16.24	0.042	
			1	12	22.84	16.39	0.044	
			1	24	22.88	16.43	0.044	
			12	0	21.58	15.13	0.033	
			12	7	21.68	15.23	0.033	
			12	13	21.68	15.23	0.033	
			25	0	20.54	14.09	0.026	
	784.5	23255	1	0	22.71	16.26	0.042	
			1	12	22.64	16.19	0.042	
			1	24	22.56	16.11	0.041	
			12	0	21.54	15.09	0.032	
			12	7	21.60	15.15	0.033	
			12	13	21.59	15.14	0.033	
			25	0	20.52	14.07	0.026	

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	15.23	0.033
				1	12	21.60	15.15	0.033
				1	24	21.63	15.18	0.033
				12	0	20.67	14.22	0.026
				12	7	20.51	14.06	0.025
				12	13	20.54	14.09	0.026
				25	0	19.55	13.10	0.020
	782	23230		1	0	21.44	14.99	0.032
				1	12	21.55	15.10	0.032
				1	24	21.62	15.17	0.033
				12	0	20.56	14.11	0.026
				12	7	20.60	14.15	0.026
				12	13	20.66	14.21	0.026
				25	0	19.65	13.20	0.021
	784.5	23255		1	0	21.65	15.20	0.033
				1	12	21.70	15.25	0.033
				1	24	21.53	15.08	0.032
				12	0	20.57	14.12	0.026
				12	7	20.64	14.19	0.026
				12	13	20.66	14.21	0.026
				25	0	19.51	13.06	0.020

Modulation	Carrier frequern cy (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	17.01	0.050
				1	25	23.46	17.01	0.050
				1	49	23.47	17.02	0.050
				25	0	22.60	16.15	0.041
				25	12	22.69	16.24	0.042
				25	25	22.72	16.27	0.042
				50	0	21.57	15.12	0.033
16QAM				1	0	23.16	16.71	0.047
				1	25	23.20	16.75	0.047
				1	49	23.07	16.62	0.046
				25	0	21.62	15.17	0.033
				25	12	21.71	15.26	0.034
				25	25	21.75	15.30	0.034
				50	0	20.69	14.24	0.027
64QAM				1	0	21.64	15.19	0.033
				1	25	21.64	15.19	0.033
				1	49	21.63	15.18	0.033
				25	0	20.64	14.19	0.026
				25	12	20.64	14.19	0.026
				25	25	20.62	14.17	0.026
				50	0	19.68	13.23	0.021