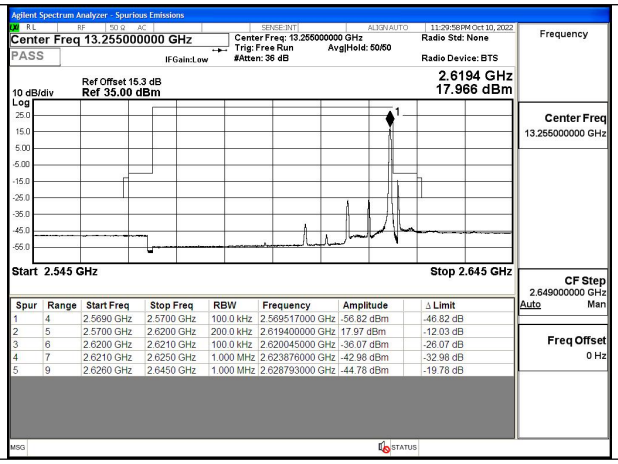

Fig.7

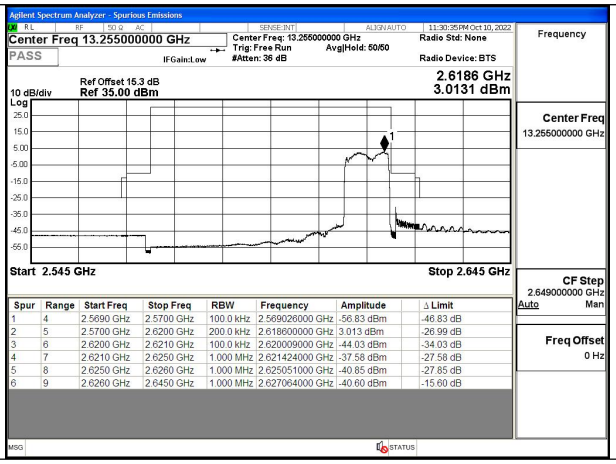

Fig.8

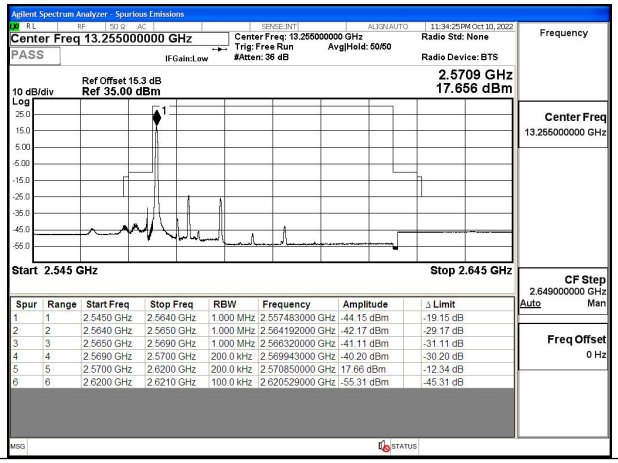

Fig.9

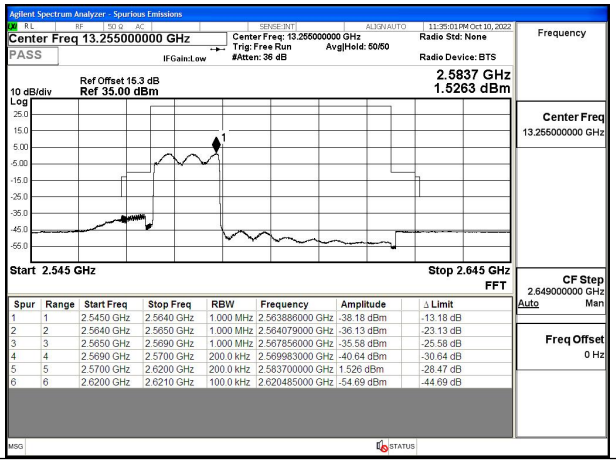

Fig.10

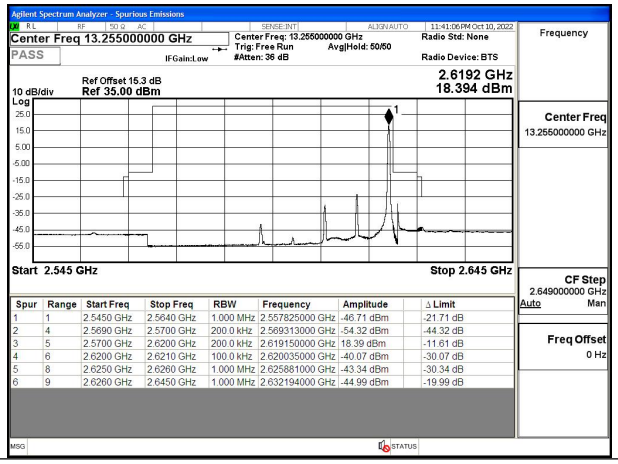

Fig.11

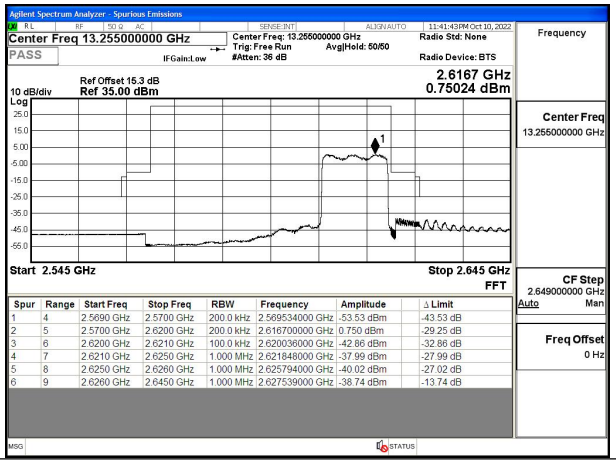

Fig.12

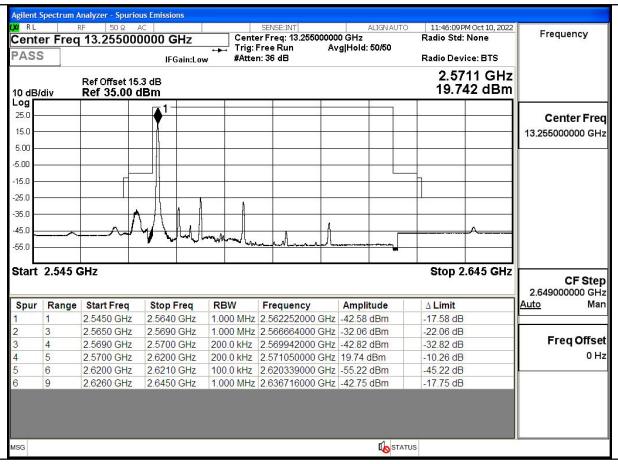

Fig.13

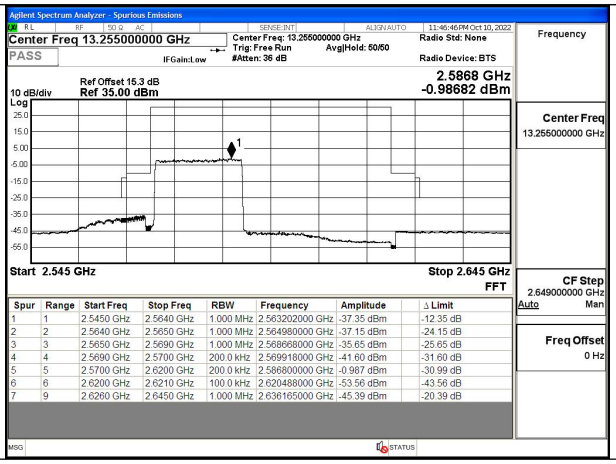

Fig.14

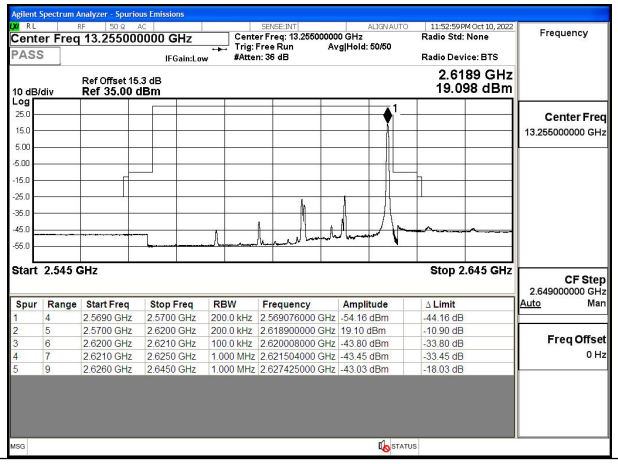

Fig.15

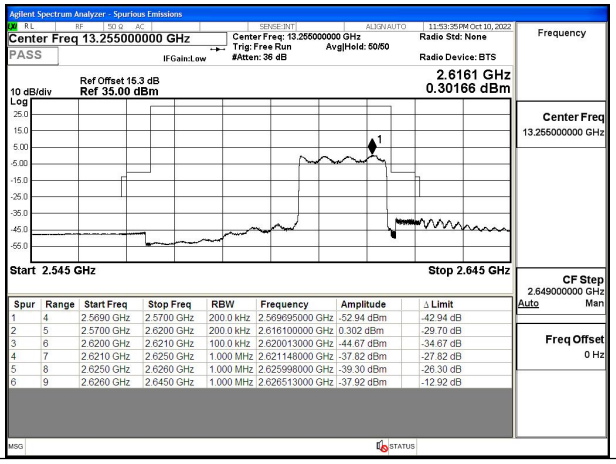

Fig.16

7 Frequency Stability

Temperature(°C)	Voltage	Test Result (ppm) Band 38 Low Channel QPSK			
		5M	10M	15M	20M
-20	NV	0.009	-0.006	0.005	0.000
-10	NV	0.011	0.005	-0.001	-0.006
0	NV	0.005	-0.004	-0.014	-0.010
+10	NV	-0.003	-0.012	-0.007	-0.010
+20	NV	0.006	-0.007	-0.012	0.004
+30	NV	-0.004	-0.007	-0.007	-0.002
+40	NV	0.008	-0.005	-0.002	0.007
+50	NV	0.006	-0.018	-0.014	-0.014
+60	NV	0.012	0.006	0.010	0.005
+20	LV	0.006	0.001	0.003	0.007
+20	HV	0.010	0.003	0.004	0.011

Temperature(°C)	Voltage	Test Result (ppm) Band 38 High Channel QPSK			
		5M	10M	15M	20M
-20	NV	0.012	0.010	0.008	0.004
-10	NV	-0.006	0.009	-0.006	0.007
0	NV	0.011	-0.003	0.011	-0.012
+10	NV	-0.008	-0.005	-0.010	0.009
+20	NV	-0.007	0.012	-0.007	-0.003
+30	NV	-0.004	0.003	-0.008	-0.006
+40	NV	-0.003	0.009	0.001	-0.003
+50	NV	0.011	-0.009	-0.011	-0.010
+60	NV	0.018	0.015	0.014	0.008
+20	LV	-0.007	0.008	0.010	0.010
+20	HV	0.012	0.003	0.011	0.013

8 Effective Radiated Power and Effective Isotropic Radiated Power

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	2572.5	37775	5	1	0	24.15	22.90	0.195
QPSK	2572.5	37775	5	1	12	24.34	23.09	0.204
QPSK	2572.5	37775	5	1	24	24.22	22.97	0.198
QPSK	2572.5	37775	5	12	0	23.21	21.96	0.157
QPSK	2572.5	37775	5	12	7	23.20	21.95	0.157
QPSK	2572.5	37775	5	12	13	23.06	21.81	0.152
QPSK	2572.5	37775	5	25	0	23.06	21.81	0.152
QPSK	2595	38000	5	1	0	24.32	23.07	0.203
QPSK	2595	38000	5	1	12	24.37	23.12	0.205
QPSK	2595	38000	5	1	24	24.26	23.01	0.200
QPSK	2595	38000	5	12	0	22.98	21.73	0.149
QPSK	2595	38000	5	12	7	22.97	21.72	0.149
QPSK	2595	38000	5	12	13	22.97	21.72	0.149
QPSK	2595	38000	5	25	0	23.00	21.75	0.150
QPSK	2617.5	38225	5	1	0	24.11	22.86	0.193
QPSK	2617.5	38225	5	1	12	24.08	22.83	0.192
QPSK	2617.5	38225	5	1	24	24.19	22.94	0.197
QPSK	2617.5	38225	5	12	0	23.04	21.79	0.151
QPSK	2617.5	38225	5	12	7	23.00	21.75	0.150
QPSK	2617.5	38225	5	12	13	23.00	21.75	0.150
QPSK	2617.5	38225	5	25	0	23.02	21.77	0.150

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	2572.5	37775	5	1	0	22.92	21.67	0.147
16QAM	2572.5	37775	5	1	12	22.84	21.59	0.144
16QAM	2572.5	37775	5	1	24	22.91	21.66	0.147
16QAM	2572.5	37775	5	12	0	22.25	21.00	0.126
16QAM	2572.5	37775	5	12	7	22.22	20.97	0.125
16QAM	2572.5	37775	5	12	13	22.26	21.01	0.126
16QAM	2572.5	37775	5	25	0	22.44	21.19	0.132
16QAM	2595	38000	5	1	0	23.10	21.85	0.153
16QAM	2595	38000	5	1	12	22.96	21.71	0.148
16QAM	2595	38000	5	1	24	23.01	21.76	0.150
16QAM	2595	38000	5	12	0	22.25	21.00	0.126
16QAM	2595	38000	5	12	7	22.37	21.12	0.129
16QAM	2595	38000	5	12	13	22.22	20.97	0.125
16QAM	2595	38000	5	25	0	22.04	20.79	0.120
16QAM	2617.5	38225	5	1	0	22.84	21.59	0.144
16QAM	2617.5	38225	5	1	12	22.85	21.60	0.145
16QAM	2617.5	38225	5	1	24	22.84	21.59	0.144
16QAM	2617.5	38225	5	12	0	22.21	20.96	0.125
16QAM	2617.5	38225	5	12	7	22.20	20.95	0.124
16QAM	2617.5	38225	5	12	13	22.05	20.80	0.120
16QAM	2617.5	38225	5	25	0	22.24	20.99	0.126

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	2575	37800	10	1	0	24.86	23.61	0.230
QPSK	2575	37800	10	1	25	24.77	23.52	0.225
QPSK	2575	37800	10	1	49	24.82	23.57	0.228
QPSK	2575	37800	10	25	0	23.11	21.86	0.153
QPSK	2575	37800	10	25	12	23.21	21.96	0.157
QPSK	2575	37800	10	25	25	23.04	21.79	0.151
QPSK	2575	37800	10	50	0	23.28	22.03	0.160
QPSK	2595	38000	10	1	0	24.42	23.17	0.207
QPSK	2595	38000	10	1	25	24.38	23.13	0.206
QPSK	2595	38000	10	1	49	24.24	22.99	0.199
QPSK	2595	38000	10	25	0	22.99	21.74	0.149
QPSK	2595	38000	10	25	12	23.03	21.78	0.151
QPSK	2595	38000	10	25	25	22.98	21.73	0.149
QPSK	2595	38000	10	50	0	23.12	21.87	0.154
QPSK	2615	38200	10	1	0	24.49	23.24	0.211
QPSK	2615	38200	10	1	25	24.44	23.19	0.208
QPSK	2615	38200	10	1	49	24.56	23.31	0.214
QPSK	2615	38200	10	25	0	22.91	21.66	0.147
QPSK	2615	38200	10	25	12	22.96	21.71	0.148
QPSK	2615	38200	10	25	25	22.88	21.63	0.146
QPSK	2615	38200	10	50	0	23.01	21.76	0.150

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	2575	37800	10	1	0	23.06	21.81	0.152
16QAM	2575	37800	10	1	25	23.00	21.75	0.150
16QAM	2575	37800	10	1	49	22.94	21.69	0.148
16QAM	2575	37800	10	25	0	22.54	21.29	0.135
16QAM	2575	37800	10	25	12	22.24	20.99	0.126
16QAM	2575	37800	10	25	25	22.25	21.00	0.126
16QAM	2575	37800	10	50	0	22.32	21.07	0.128
16QAM	2595	38000	10	1	0	23.14	21.89	0.155
16QAM	2595	38000	10	1	25	22.94	21.69	0.148
16QAM	2595	38000	10	1	49	22.89	21.64	0.146
16QAM	2595	38000	10	25	0	22.17	20.92	0.124
16QAM	2595	38000	10	25	12	22.01	20.76	0.119
16QAM	2595	38000	10	25	25	22.08	20.83	0.121
16QAM	2595	38000	10	50	0	22.11	20.86	0.122
16QAM	2615	38200	10	1	0	22.72	21.47	0.140
16QAM	2615	38200	10	1	25	22.73	21.48	0.141
16QAM	2615	38200	10	1	49	22.72	21.47	0.140
16QAM	2615	38200	10	25	0	22.06	20.81	0.121
16QAM	2615	38200	10	25	12	22.09	20.84	0.121
16QAM	2615	38200	10	25	25	22.06	20.81	0.121
16QAM	2615	38200	10	50	0	22.17	20.92	0.124

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	2577.5	37825	15	1	0	24.81	23.56	0.227
QPSK	2577.5	37825	15	1	37	24.77	23.52	0.225
QPSK	2577.5	37825	15	1	74	24.81	23.56	0.227
QPSK	2577.5	37825	15	36	0	23.21	21.96	0.157
QPSK	2577.5	37825	15	36	29	23.22	21.97	0.157
QPSK	2577.5	37825	15	36	30	23.23	21.98	0.158
QPSK	2577.5	37825	15	75	0	23.25	22.00	0.158
QPSK	2595	38000	15	1	0	24.50	23.25	0.211
QPSK	2595	38000	15	1	37	24.37	23.12	0.205
QPSK	2595	38000	15	1	74	23.95	22.70	0.186
QPSK	2595	38000	15	36	0	23.16	21.91	0.155
QPSK	2595	38000	15	36	29	23.05	21.80	0.151
QPSK	2595	38000	15	36	30	23.06	21.81	0.152
QPSK	2595	38000	15	75	0	22.89	21.64	0.146
QPSK	2612.5	38175	15	1	0	24.46	23.21	0.209
QPSK	2612.5	38175	15	1	37	24.41	23.16	0.207
QPSK	2612.5	38175	15	1	74	24.43	23.18	0.208
QPSK	2612.5	38175	15	36	0	23.00	21.75	0.150
QPSK	2612.5	38175	15	36	29	22.92	21.67	0.147
QPSK	2612.5	38175	15	36	30	22.92	21.67	0.147
QPSK	2612.5	38175	15	75	0	22.99	21.74	0.149

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	2577.5	37825	15	1	0	22.93	21.68	0.147
16QAM	2577.5	37825	15	1	37	22.98	21.73	0.149
16QAM	2577.5	37825	15	1	74	22.93	21.68	0.147
16QAM	2577.5	37825	15	36	0	22.20	20.95	0.124
16QAM	2577.5	37825	15	36	29	22.20	20.95	0.124
16QAM	2577.5	37825	15	36	30	22.20	20.95	0.124
16QAM	2577.5	37825	15	75	0	22.48	21.23	0.133
16QAM	2595	38000	15	1	0	23.06	21.81	0.152
16QAM	2595	38000	15	1	37	22.93	21.68	0.147
16QAM	2595	38000	15	1	74	22.79	21.54	0.143
16QAM	2595	38000	15	36	0	22.29	21.04	0.127
16QAM	2595	38000	15	36	29	22.18	20.93	0.124
16QAM	2595	38000	15	36	30	22.00	20.75	0.119
16QAM	2595	38000	15	75	0	22.29	21.04	0.127
16QAM	2612.5	38175	15	1	0	22.67	21.42	0.139
16QAM	2612.5	38175	15	1	37	22.62	21.37	0.137
16QAM	2612.5	38175	15	1	74	22.90	21.65	0.146
16QAM	2612.5	38175	15	36	0	22.01	20.76	0.119
16QAM	2612.5	38175	15	36	29	22.13	20.88	0.122
16QAM	2612.5	38175	15	36	30	22.13	20.88	0.122
16QAM	2612.5	38175	15	75	0	22.23	20.98	0.125

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	2580	37850	20	1	0	24.85	23.60	0.229
QPSK	2580	37850	20	1	49	24.85	23.60	0.229
QPSK	2580	37850	20	1	99	24.71	23.46	0.222
QPSK	2580	37850	20	50	0	23.22	21.97	0.157
QPSK	2580	37850	20	50	24	23.31	22.06	0.161
QPSK	2580	37850	20	50	50	23.04	21.79	0.151
QPSK	2580	37850	20	100	0	23.27	22.02	0.159
QPSK	2595	38000	20	1	0	24.57	23.32	0.215
QPSK	2595	38000	20	1	49	24.35	23.10	0.204
QPSK	2595	38000	20	1	99	24.29	23.04	0.201
QPSK	2595	38000	20	50	0	23.09	21.84	0.153
QPSK	2595	38000	20	50	24	23.04	21.79	0.151
QPSK	2595	38000	20	50	50	23.03	21.78	0.151
QPSK	2595	38000	20	100	0	22.89	21.64	0.146
QPSK	2610	38150	20	1	0	24.53	23.28	0.213
QPSK	2610	38150	20	1	49	24.44	23.19	0.208
QPSK	2610	38150	20	1	99	24.23	22.98	0.199
QPSK	2610	38150	20	50	0	23.17	21.92	0.156
QPSK	2610	38150	20	50	24	22.97	21.72	0.149
QPSK	2610	38150	20	50	50	23.13	21.88	0.154
QPSK	2610	38150	20	100	0	23.00	21.75	0.150

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	2580	37850	20	1	0	22.96	21.71	0.148
16QAM	2580	37850	20	1	49	22.94	21.69	0.148
16QAM	2580	37850	20	1	99	22.79	21.54	0.143
16QAM	2580	37850	20	50	0	22.51	21.26	0.134
16QAM	2580	37850	20	50	24	22.40	21.15	0.130
16QAM	2580	37850	20	50	50	22.29	21.04	0.127
16QAM	2580	37850	20	100	0	22.27	21.02	0.126
16QAM	2595	38000	20	1	0	23.14	21.89	0.155
16QAM	2595	38000	20	1	49	22.82	21.57	0.144
16QAM	2595	38000	20	1	99	22.80	21.55	0.143
16QAM	2595	38000	20	50	0	22.26	21.01	0.126
16QAM	2595	38000	20	50	24	22.23	20.98	0.125
16QAM	2595	38000	20	50	50	22.23	20.98	0.125
16QAM	2595	38000	20	100	0	22.37	21.12	0.129
16QAM	2610	38150	20	1	0	23.15	21.90	0.155
16QAM	2610	38150	20	1	49	23.06	21.81	0.152
16QAM	2610	38150	20	1	99	23.16	21.91	0.155
16QAM	2610	38150	20	50	0	22.27	21.02	0.126
16QAM	2610	38150	20	50	24	22.22	20.97	0.125
16QAM	2610	38150	20	50	50	22.11	20.86	0.122
16QAM	2610	38150	20	100	0	22.14	20.89	0.123