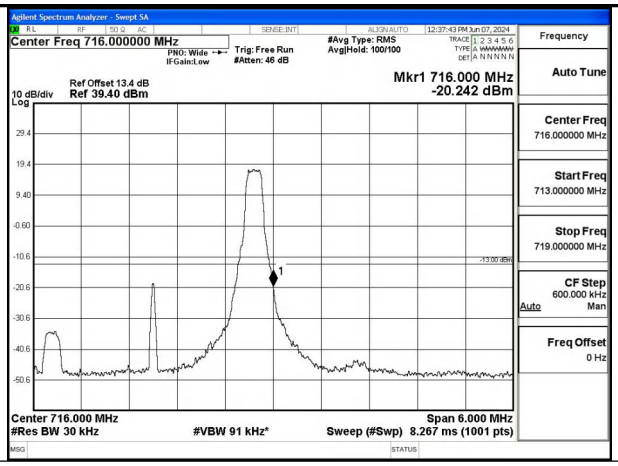

Fig.23

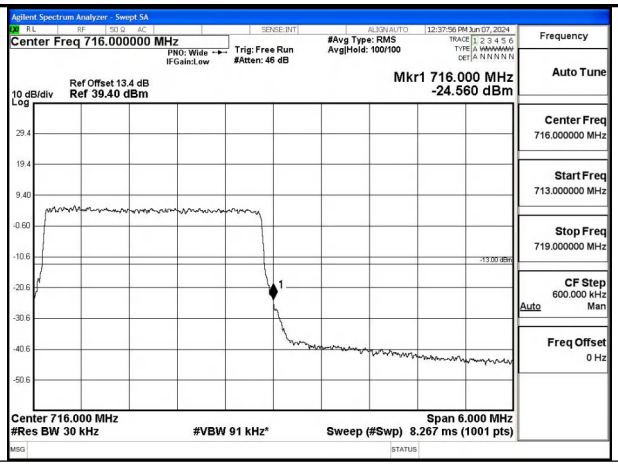

Fig.24

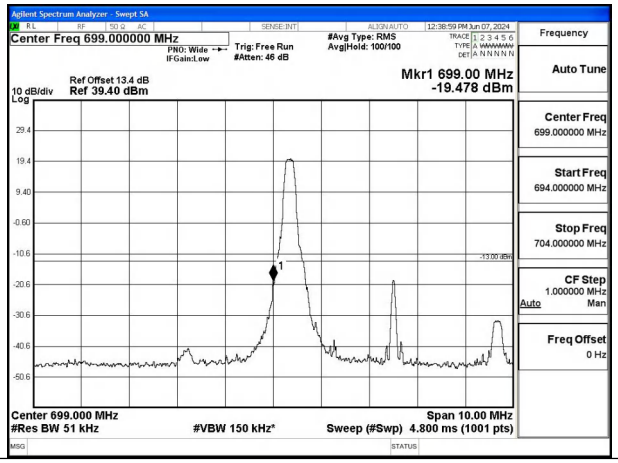

Fig.25

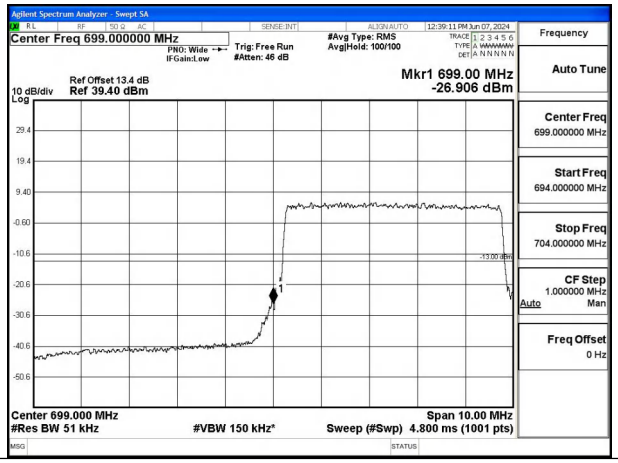

Fig.26

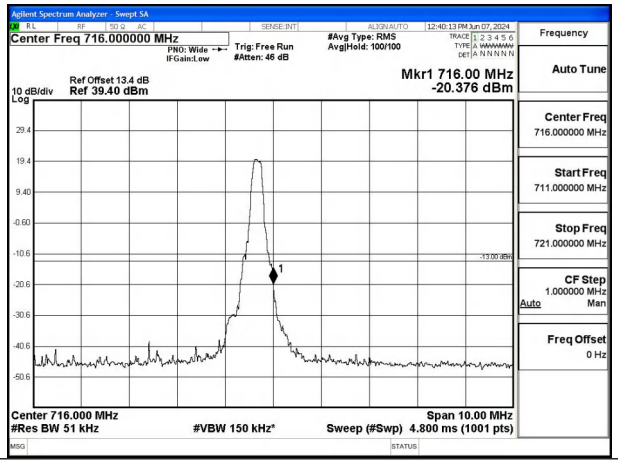

Fig.27

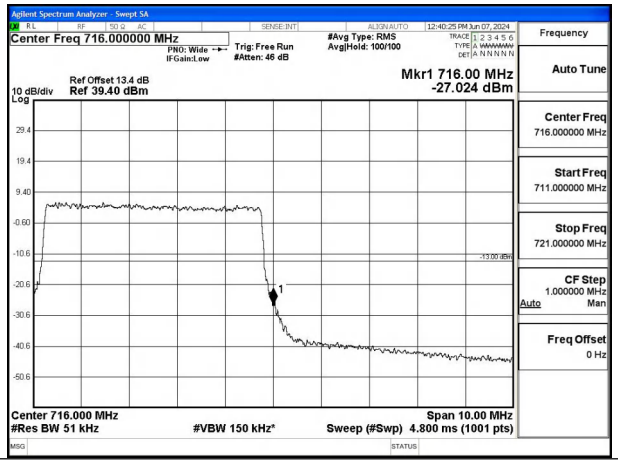

Fig.28

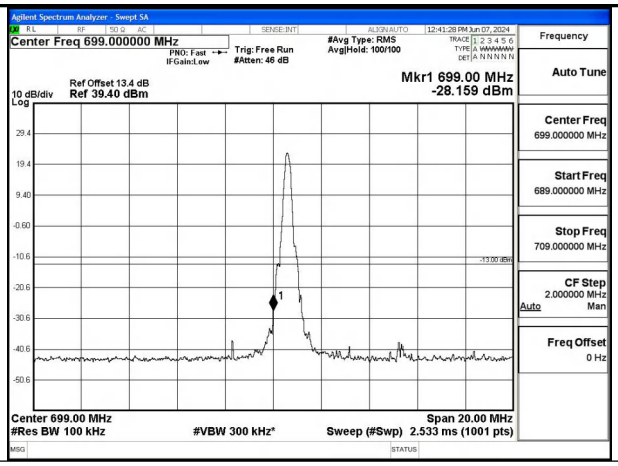

Fig.29

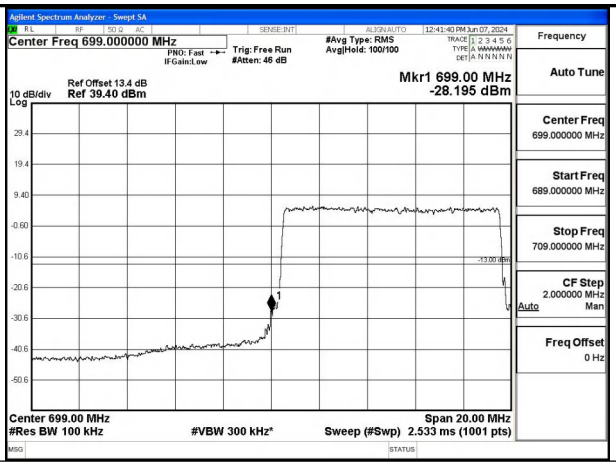

Fig.30

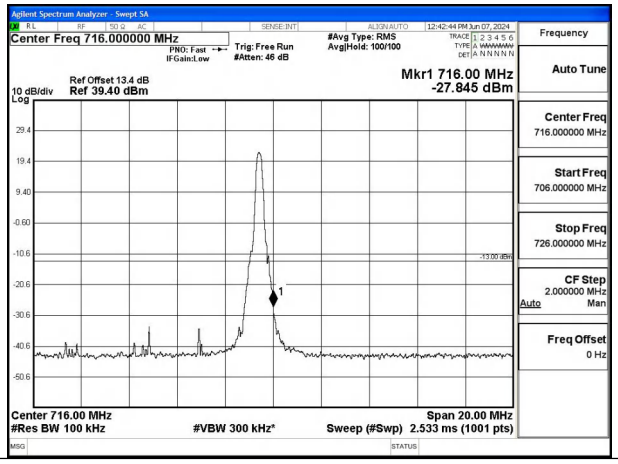

Fig.31

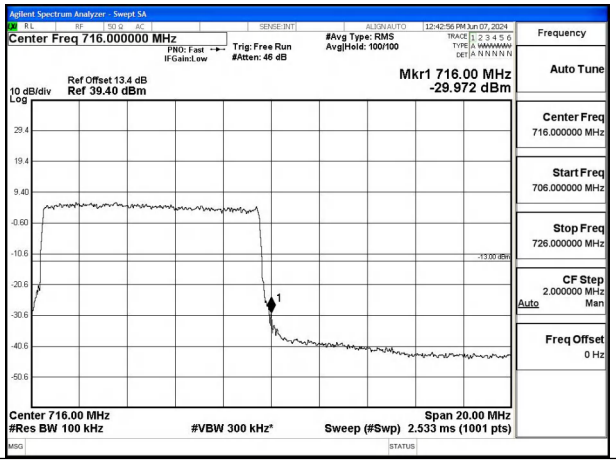

Fig.32

Test Mode: 64QAM

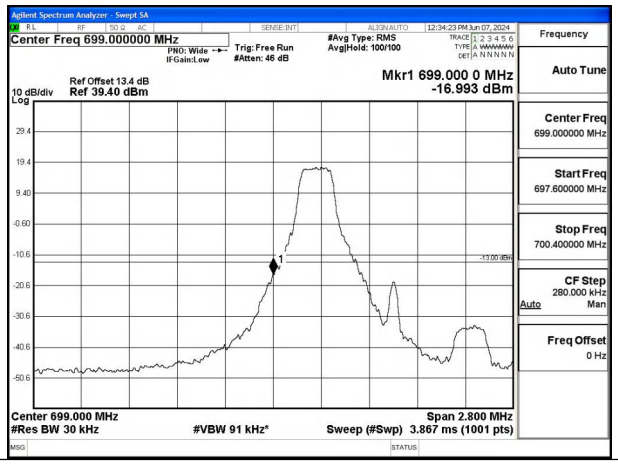

Fig.33

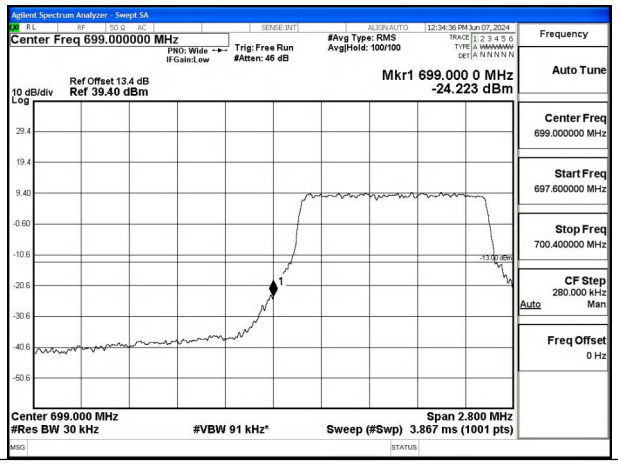

Fig.34

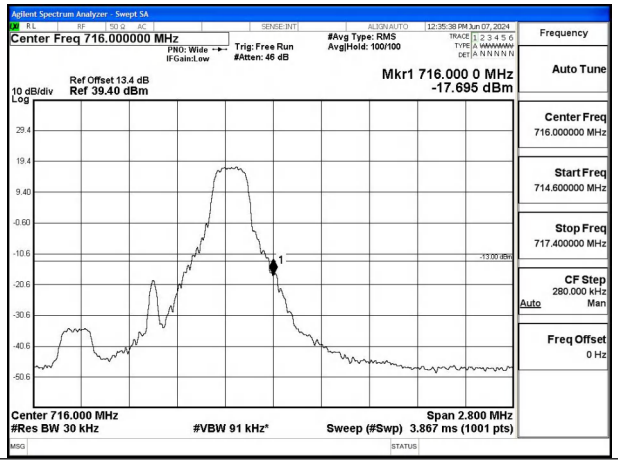

Fig.35

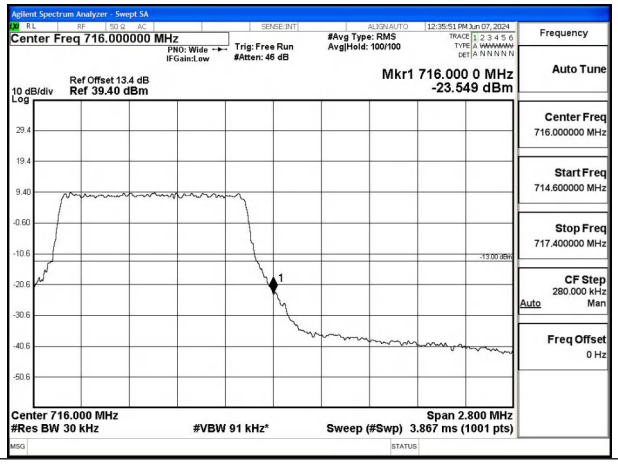

Fig.36

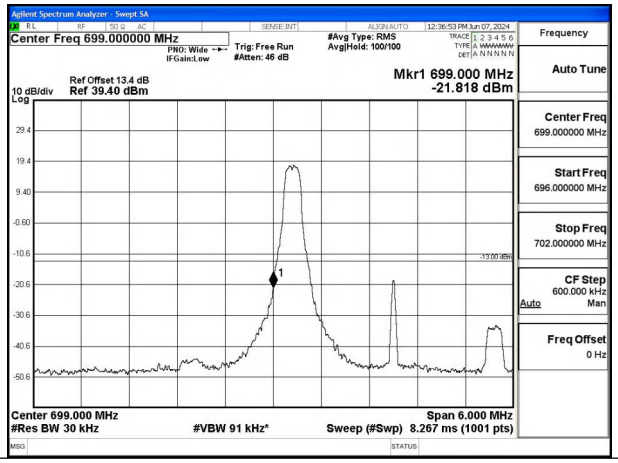

Fig.37

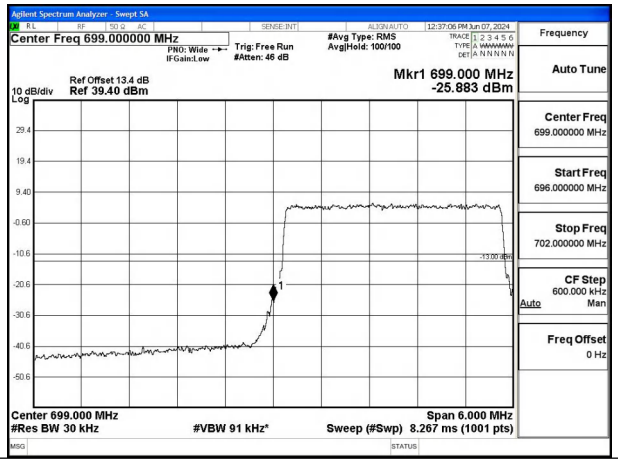

Fig.38

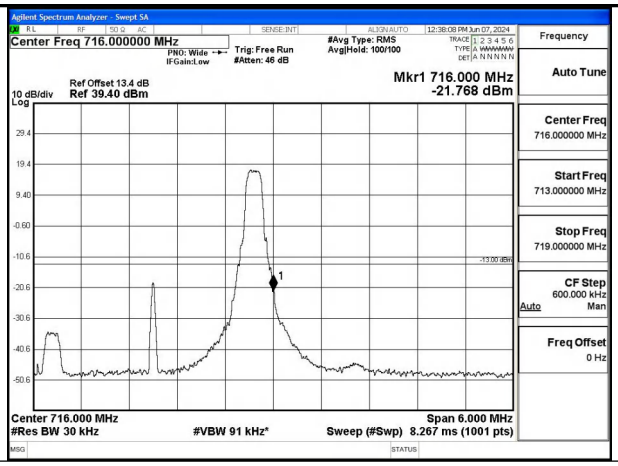

Fig.39

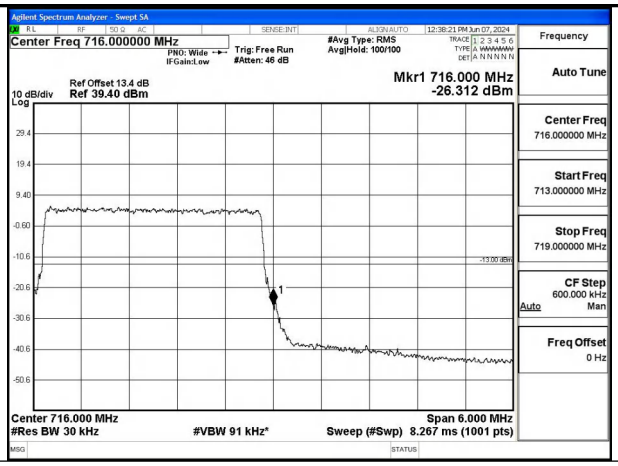

Fig.40

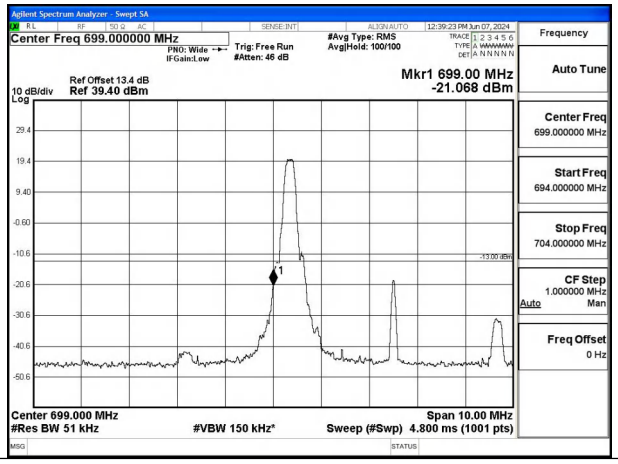

Fig.41

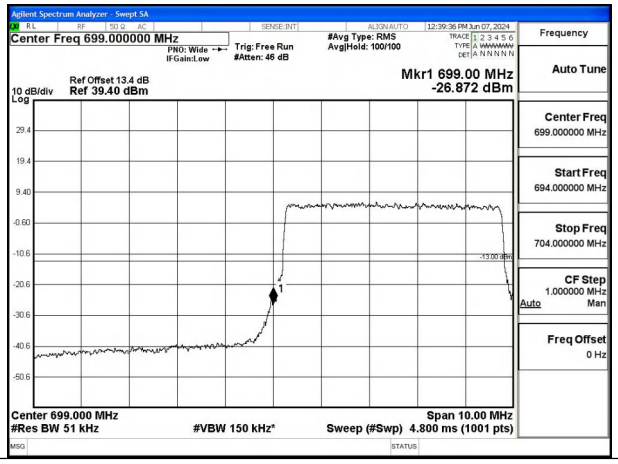

Fig.42

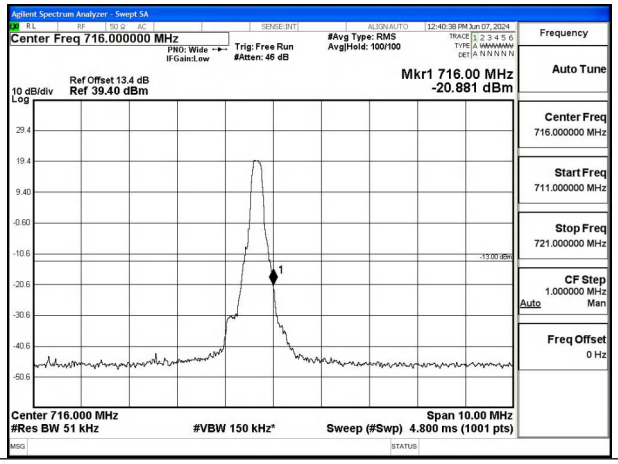

Fig.43

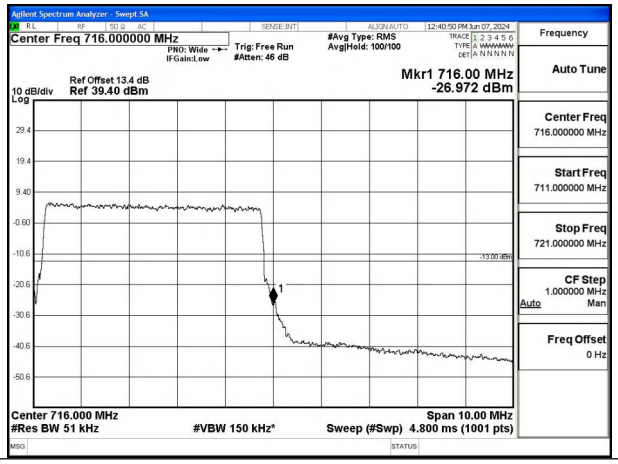

Fig.44

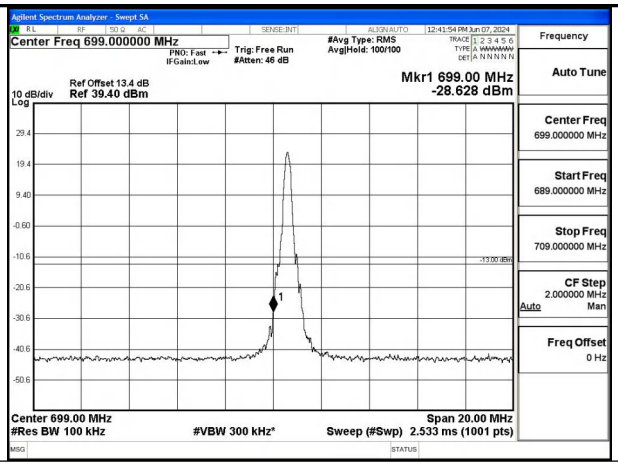

Fig.45

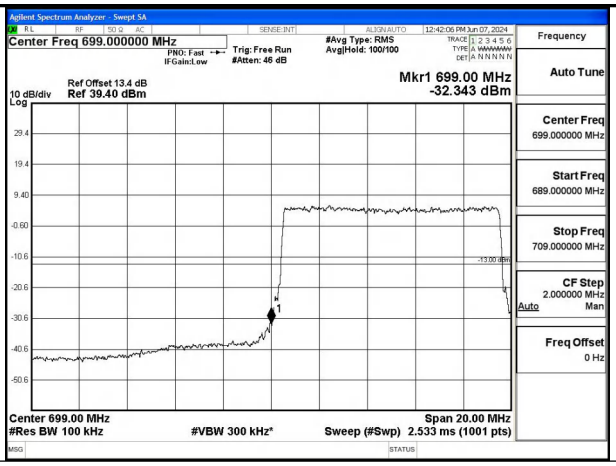

Fig.46

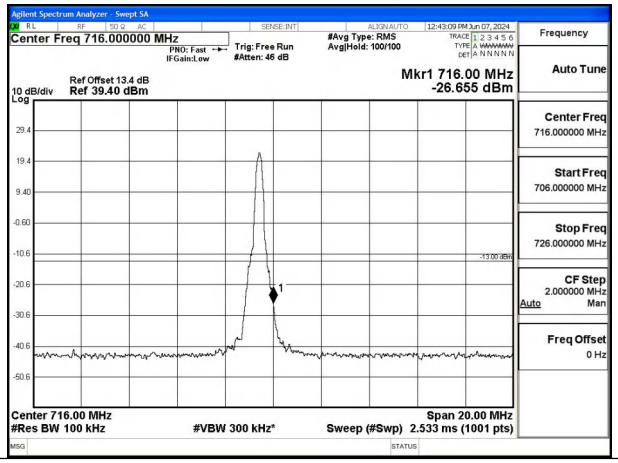

Fig.47

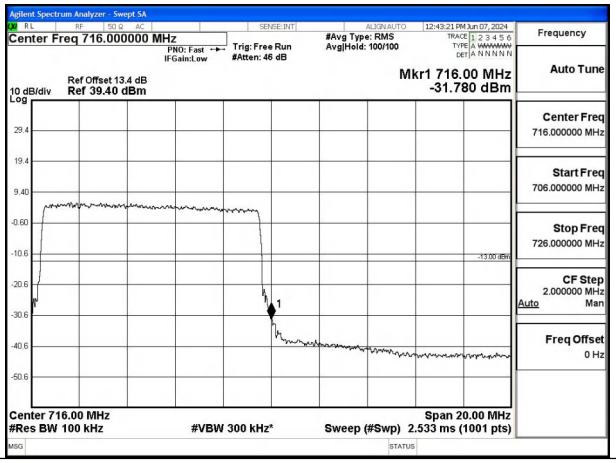

Fig.48

7 Frequency Stability

Temperature(°C)	Voltage	Test Result (ppm) Band 12 Low Channel QPSK			
		1.4M	3M	5M	10M
-30	NV	-0.010	0.005	-0.002	0.005
-20	NV	0.017	0.004	-0.004	-0.008
-10	NV	0.008	0.009	0.003	-0.006
0	NV	-0.026	-0.005	0.002	-0.005
+10	NV	-0.030	0.009	0.004	-0.008
+20	NV	0.014	0.002	0.004	-0.007
+30	NV	-0.002	0.004	0.002	0.008
+40	NV	-0.017	-0.003	0.005	0.006
+50	NV	0.015	0.005	0.006	0.007
+20	LV	-0.026	0.008	0.002	0.006
+20	HV	-0.026	-0.009	0.004	0.005

Temperature(°C)	Voltage	Test Result (ppm) Band 12 High Channel QPSK			
		1.4M	3M	5M	10M
-30	NV	-0.007	0.005	0.005	0.002
-20	NV	-0.019	0.003	0.006	0.006
-10	NV	-0.021	0.004	0.005	-0.006
0	NV	0.016	0.003	0.007	0.004
+10	NV	0.021	-0.005	-0.007	0.005
+20	NV	-0.020	0.002	-0.006	0.004
+30	NV	-0.015	0.003	0.009	0.005
+40	NV	0.008	0.010	-0.006	-0.007
+50	NV	-0.025	0.005	0.006	-0.007
+20	LV	-0.023	0.005	-0.009	-0.006
+20	HV	-0.022	0.002	0.009	0.007

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	699.7	23017	1.4	1	0	22.94	25.29	0.338
QPSK	699.7	23017	1.4	1	3	22.84	25.19	0.330
QPSK	699.7	23017	1.4	1	5	22.84	25.19	0.330
QPSK	699.7	23017	1.4	3	0	22.84	25.19	0.330
QPSK	699.7	23017	1.4	3	1	22.85	25.20	0.331
QPSK	699.7	23017	1.4	3	3	22.80	25.15	0.327
QPSK	699.7	23017	1.4	6	0	21.84	24.19	0.262
QPSK	707.5	23095	1.4	1	0	22.83	25.18	0.330
QPSK	707.5	23095	1.4	1	3	22.86	25.21	0.332
QPSK	707.5	23095	1.4	1	5	22.83	25.18	0.330
QPSK	707.5	23095	1.4	3	0	22.83	25.18	0.330
QPSK	707.5	23095	1.4	3	1	22.87	25.22	0.333
QPSK	707.5	23095	1.4	3	3	22.92	25.27	0.337
QPSK	707.5	23095	1.4	6	0	21.85	24.20	0.263
QPSK	715.3	23173	1.4	1	0	22.87	25.22	0.333
QPSK	715.3	23173	1.4	1	3	22.88	25.23	0.333
QPSK	715.3	23173	1.4	1	5	22.88	25.23	0.333
QPSK	715.3	23173	1.4	3	0	22.88	25.23	0.333
QPSK	715.3	23173	1.4	3	1	22.90	25.25	0.335
QPSK	715.3	23173	1.4	3	3	22.89	25.24	0.334
QPSK	715.3	23173	1.4	6	0	21.90	24.25	0.266

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	699.7	23017	1.4	1	0	22.03	24.38	0.274
16QAM	699.7	23017	1.4	1	3	22.05	24.40	0.275
16QAM	699.7	23017	1.4	1	5	22.01	24.36	0.273
16QAM	699.7	23017	1.4	3	0	21.91	24.26	0.267
16QAM	699.7	23017	1.4	3	1	22.07	24.42	0.277
16QAM	699.7	23017	1.4	3	3	22.24	24.59	0.288
16QAM	699.7	23017	1.4	6	0	20.89	23.24	0.211
16QAM	707.5	23095	1.4	1	0	22.19	24.54	0.284
16QAM	707.5	23095	1.4	1	3	22.40	24.75	0.299
16QAM	707.5	23095	1.4	1	5	22.08	24.43	0.277
16QAM	707.5	23095	1.4	3	0	22.05	24.40	0.275
16QAM	707.5	23095	1.4	3	1	21.96	24.31	0.270
16QAM	707.5	23095	1.4	3	3	21.92	24.27	0.267
16QAM	707.5	23095	1.4	6	0	20.96	23.31	0.214
16QAM	715.3	23173	1.4	1	0	22.28	24.63	0.290
16QAM	715.3	23173	1.4	1	3	22.05	24.40	0.275
16QAM	715.3	23173	1.4	1	5	21.94	24.29	0.269
16QAM	715.3	23173	1.4	3	0	21.89	24.24	0.265
16QAM	715.3	23173	1.4	3	1	21.95	24.30	0.269
16QAM	715.3	23173	1.4	3	3	21.82	24.17	0.261
16QAM	715.3	23173	1.4	6	0	20.88	23.23	0.210
64QAM	699.7	23017	1.4	1	0	21.81	24.16	0.261
64QAM	699.7	23017	1.4	1	3	22.03	24.38	0.274
64QAM	699.7	23017	1.4	1	5	22.06	24.41	0.276
64QAM	699.7	23017	1.4	3	0	22.05	24.40	0.275
64QAM	699.7	23017	1.4	3	1	22.01	24.36	0.273
64QAM	699.7	23017	1.4	3	3	22.08	24.43	0.277
64QAM	699.7	23017	1.4	6	0	20.73	23.08	0.203
64QAM	707.5	23095	1.4	1	0	21.94	24.29	0.269
64QAM	707.5	23095	1.4	1	3	22.08	24.43	0.277
64QAM	707.5	23095	1.4	1	5	22.10	24.45	0.279
64QAM	707.5	23095	1.4	3	0	22.04	24.39	0.275
64QAM	707.5	23095	1.4	3	1	21.85	24.20	0.263
64QAM	707.5	23095	1.4	3	3	21.84	24.19	0.262
64QAM	707.5	23095	1.4	6	0	20.99	23.34	0.216
64QAM	715.3	23173	1.4	1	0	21.84	24.19	0.262
64QAM	715.3	23173	1.4	1	3	22.02	24.37	0.274
64QAM	715.3	23173	1.4	1	5	22.19	24.54	0.284
64QAM	715.3	23173	1.4	3	0	21.89	24.24	0.265
64QAM	715.3	23173	1.4	3	1	22.01	24.36	0.273
64QAM	715.3	23173	1.4	3	3	21.83	24.18	0.262
64QAM	715.3	23173	1.4	6	0	20.94	23.29	0.213

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	700.5	23025	3	1	0	22.91	25.26	0.336
QPSK	700.5	23025	3	1	8	22.81	25.16	0.328
QPSK	700.5	23025	3	1	14	22.82	25.17	0.329
QPSK	700.5	23025	3	8	0	21.90	24.25	0.266
QPSK	700.5	23025	3	8	4	21.86	24.21	0.264
QPSK	700.5	23025	3	8	7	21.85	24.20	0.263
QPSK	700.5	23025	3	15	0	21.89	24.24	0.265
QPSK	707.5	23095	3	1	0	22.77	25.12	0.325
QPSK	707.5	23095	3	1	8	22.91	25.26	0.336
QPSK	707.5	23095	3	1	14	22.84	25.19	0.330
QPSK	707.5	23095	3	8	0	21.83	24.18	0.262
QPSK	707.5	23095	3	8	4	21.84	24.19	0.262
QPSK	707.5	23095	3	8	7	21.84	24.19	0.262
QPSK	707.5	23095	3	15	0	21.84	24.19	0.262
QPSK	714.5	23165	3	1	0	22.78	25.13	0.326
QPSK	714.5	23165	3	1	8	22.92	25.27	0.337
QPSK	714.5	23165	3	1	14	22.90	25.25	0.335
QPSK	714.5	23165	3	8	0	21.91	24.26	0.267
QPSK	714.5	23165	3	8	4	21.99	24.34	0.272
QPSK	714.5	23165	3	8	7	21.94	24.29	0.269
QPSK	714.5	23165	3	15	0	21.82	24.17	0.261

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	700.5	23025	3	1	0	22.17	24.52	0.283
16QAM	700.5	23025	3	1	8	22.30	24.65	0.292
16QAM	700.5	23025	3	1	14	21.80	24.15	0.260
16QAM	700.5	23025	3	8	0	20.81	23.16	0.207
16QAM	700.5	23025	3	8	4	20.90	23.25	0.211
16QAM	700.5	23025	3	8	7	20.73	23.08	0.203
16QAM	700.5	23025	3	15	0	20.91	23.26	0.212
16QAM	707.5	23095	3	1	0	22.39	24.74	0.298
16QAM	707.5	23095	3	1	8	22.03	24.38	0.274
16QAM	707.5	23095	3	1	14	22.26	24.61	0.289
16QAM	707.5	23095	3	8	0	20.92	23.27	0.212
16QAM	707.5	23095	3	8	4	20.95	23.30	0.214
16QAM	707.5	23095	3	8	7	21.06	23.41	0.219
16QAM	707.5	23095	3	15	0	20.88	23.23	0.210
16QAM	714.5	23165	3	1	0	22.18	24.53	0.284
16QAM	714.5	23165	3	1	8	22.04	24.39	0.275
16QAM	714.5	23165	3	1	14	22.38	24.73	0.297
16QAM	714.5	23165	3	8	0	21.08	23.43	0.220
16QAM	714.5	23165	3	8	4	21.10	23.45	0.221
16QAM	714.5	23165	3	8	7	21.21	23.56	0.227
16QAM	714.5	23165	3	15	0	20.92	23.27	0.212
64QAM	700.5	23025	3	1	0	22.20	24.55	0.285
64QAM	700.5	23025	3	1	8	21.86	24.21	0.264
64QAM	700.5	23025	3	1	14	21.56	23.91	0.246
64QAM	700.5	23025	3	8	0	20.97	23.32	0.215
64QAM	700.5	23025	3	8	4	20.87	23.22	0.210
64QAM	700.5	23025	3	8	7	20.89	23.24	0.211
64QAM	700.5	23025	3	15	0	21.01	23.36	0.217
64QAM	707.5	23095	3	1	0	21.85	24.20	0.263
64QAM	707.5	23095	3	1	8	22.31	24.66	0.292
64QAM	707.5	23095	3	1	14	21.68	24.03	0.253
64QAM	707.5	23095	3	8	0	21.01	23.36	0.217
64QAM	707.5	23095	3	8	4	20.93	23.28	0.213
64QAM	707.5	23095	3	8	7	20.85	23.20	0.209
64QAM	707.5	23095	3	15	0	20.89	23.24	0.211
64QAM	714.5	23165	3	1	0	22.43	24.78	0.301
64QAM	714.5	23165	3	1	8	22.10	24.45	0.279
64QAM	714.5	23165	3	1	14	22.29	24.64	0.291
64QAM	714.5	23165	3	8	0	21.04	23.39	0.218
64QAM	714.5	23165	3	8	4	21.01	23.36	0.217
64QAM	714.5	23165	3	8	7	21.06	23.41	0.219
64QAM	714.5	23165	3	15	0	20.99	23.34	0.216

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	701.5	23035	5	1	0	22.83	25.18	0.330
QPSK	701.5	23035	5	1	12	22.80	25.15	0.327
QPSK	701.5	23035	5	1	24	22.86	25.21	0.332
QPSK	701.5	23035	5	12	0	21.88	24.23	0.265
QPSK	701.5	23035	5	12	7	21.90	24.25	0.266
QPSK	701.5	23035	5	12	13	21.85	24.20	0.263
QPSK	701.5	23035	5	25	0	21.83	24.18	0.262
QPSK	707.5	23095	5	1	0	22.92	25.27	0.337
QPSK	707.5	23095	5	1	12	22.97	25.32	0.340
QPSK	707.5	23095	5	1	24	22.80	25.15	0.327
QPSK	707.5	23095	5	12	0	21.85	24.20	0.263
QPSK	707.5	23095	5	12	7	21.90	24.25	0.266
QPSK	707.5	23095	5	12	13	21.89	24.24	0.265
QPSK	707.5	23095	5	25	0	21.89	24.24	0.265
QPSK	713.5	23155	5	1	0	22.88	25.23	0.333
QPSK	713.5	23155	5	1	12	23.01	25.36	0.344
QPSK	713.5	23155	5	1	24	22.96	25.31	0.340
QPSK	713.5	23155	5	12	0	21.93	24.28	0.268
QPSK	713.5	23155	5	12	7	21.97	24.32	0.270
QPSK	713.5	23155	5	12	13	21.98	24.33	0.271
QPSK	713.5	23155	5	25	0	21.96	24.31	0.270

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	701.5	23035	5	1	0	22.40	24.75	0.299
16QAM	701.5	23035	5	1	12	22.35	24.70	0.295
16QAM	701.5	23035	5	1	24	22.13	24.48	0.281
16QAM	701.5	23035	5	12	0	20.87	23.22	0.210
16QAM	701.5	23035	5	12	7	20.96	23.31	0.214
16QAM	701.5	23035	5	12	13	20.77	23.12	0.205
16QAM	701.5	23035	5	25	0	20.92	23.27	0.212
16QAM	707.5	23095	5	1	0	22.39	24.74	0.298
16QAM	707.5	23095	5	1	12	22.24	24.59	0.288
16QAM	707.5	23095	5	1	24	22.12	24.47	0.280
16QAM	707.5	23095	5	12	0	20.99	23.34	0.216
16QAM	707.5	23095	5	12	7	20.94	23.29	0.213
16QAM	707.5	23095	5	12	13	20.98	23.33	0.215
16QAM	707.5	23095	5	25	0	20.85	23.20	0.209
16QAM	713.5	23155	5	1	0	22.37	24.72	0.296
16QAM	713.5	23155	5	1	12	22.34	24.69	0.294
16QAM	713.5	23155	5	1	24	22.00	24.35	0.272
16QAM	713.5	23155	5	12	0	20.89	23.24	0.211
16QAM	713.5	23155	5	12	7	21.01	23.36	0.217
16QAM	713.5	23155	5	12	13	20.94	23.29	0.213
16QAM	713.5	23155	5	25	0	20.98	23.33	0.215
64QAM	701.5	23035	5	1	0	22.19	24.54	0.284
64QAM	701.5	23035	5	1	12	22.20	24.55	0.285
64QAM	701.5	23035	5	1	24	21.65	24.00	0.251
64QAM	701.5	23035	5	12	0	20.85	23.20	0.209
64QAM	701.5	23035	5	12	7	21.00	23.35	0.216
64QAM	701.5	23035	5	12	13	20.92	23.27	0.212
64QAM	701.5	23035	5	25	0	20.86	23.21	0.209
64QAM	707.5	23095	5	1	0	21.96	24.31	0.270
64QAM	707.5	23095	5	1	12	22.09	24.44	0.278
64QAM	707.5	23095	5	1	24	22.01	24.36	0.273
64QAM	707.5	23095	5	12	0	20.77	23.12	0.205
64QAM	707.5	23095	5	12	7	20.95	23.30	0.214
64QAM	707.5	23095	5	12	13	20.94	23.29	0.213
64QAM	707.5	23095	5	25	0	20.93	23.28	0.213
64QAM	713.5	23155	5	1	0	22.20	24.55	0.285
64QAM	713.5	23155	5	1	12	21.84	24.19	0.262
64QAM	713.5	23155	5	1	24	21.96	24.31	0.270
64QAM	713.5	23155	5	12	0	20.81	23.16	0.207
64QAM	713.5	23155	5	12	7	21.05	23.40	0.219
64QAM	713.5	23155	5	12	13	20.81	23.16	0.207
64QAM	713.5	23155	5	25	0	20.98	23.33	0.215

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	704	23060	10	1	0	22.92	25.27	0.337
QPSK	704	23060	10	1	25	22.94	25.29	0.338
QPSK	704	23060	10	1	49	22.89	25.24	0.334
QPSK	704	23060	10	25	0	21.85	24.20	0.263
QPSK	704	23060	10	25	12	21.96	24.31	0.270
QPSK	704	23060	10	25	25	21.87	24.22	0.264
QPSK	704	23060	10	50	0	21.89	24.24	0.265
QPSK	707.5	23095	10	1	0	22.86	25.21	0.332
QPSK	707.5	23095	10	1	25	22.97	25.32	0.340
QPSK	707.5	23095	10	1	49	22.81	25.16	0.328
QPSK	707.5	23095	10	25	0	21.89	24.24	0.265
QPSK	707.5	23095	10	25	12	21.89	24.24	0.265
QPSK	707.5	23095	10	25	25	21.92	24.27	0.267
QPSK	707.5	23095	10	50	0	21.92	24.27	0.267
QPSK	711	23130	10	1	0	22.91	25.26	0.336
QPSK	711	23130	10	1	25	22.88	25.23	0.333
QPSK	711	23130	10	1	49	22.78	25.13	0.326
QPSK	711	23130	10	25	0	21.93	24.28	0.268
QPSK	711	23130	10	25	12	21.95	24.30	0.269
QPSK	711	23130	10	25	25	21.86	24.21	0.264
QPSK	711	23130	10	50	0	21.87	24.22	0.264

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	704	23060	10	1	0	22.32	24.67	0.293
16QAM	704	23060	10	1	25	22.15	24.50	0.282
16QAM	704	23060	10	1	49	22.23	24.58	0.287
16QAM	704	23060	10	25	0	20.94	23.29	0.213
16QAM	704	23060	10	25	12	20.97	23.32	0.215
16QAM	704	23060	10	25	25	20.95	23.30	0.214
16QAM	704	23060	10	50	0	20.95	23.30	0.214
16QAM	707.5	23095	10	1	0	22.57	24.92	0.310
16QAM	707.5	23095	10	1	25	22.11	24.46	0.279
16QAM	707.5	23095	10	1	49	21.89	24.24	0.265
16QAM	707.5	23095	10	25	0	20.83	23.18	0.208
16QAM	707.5	23095	10	25	12	20.89	23.24	0.211
16QAM	707.5	23095	10	25	25	20.98	23.33	0.215
16QAM	707.5	23095	10	50	0	20.96	23.31	0.214
16QAM	711	23130	10	1	0	22.20	24.55	0.285
16QAM	711	23130	10	1	25	22.23	24.58	0.287
16QAM	711	23130	10	1	49	22.37	24.72	0.296
16QAM	711	23130	10	25	0	20.89	23.24	0.211
16QAM	711	23130	10	25	12	20.96	23.31	0.214
16QAM	711	23130	10	25	25	21.05	23.40	0.219
16QAM	711	23130	10	50	0	20.90	23.25	0.211
64QAM	704	23060	10	1	0	21.87	24.22	0.264
64QAM	704	23060	10	1	25	21.88	24.23	0.265
64QAM	704	23060	10	1	49	21.41	23.76	0.238
64QAM	704	23060	10	25	0	20.93	23.28	0.213
64QAM	704	23060	10	25	12	20.92	23.27	0.212
64QAM	704	23060	10	25	25	20.88	23.23	0.210
64QAM	704	23060	10	50	0	20.94	23.29	0.213
64QAM	707.5	23095	10	1	0	22.27	24.62	0.290
64QAM	707.5	23095	10	1	25	22.27	24.62	0.290
64QAM	707.5	23095	10	1	49	21.71	24.06	0.255
64QAM	707.5	23095	10	25	0	20.86	23.21	0.209
64QAM	707.5	23095	10	25	12	20.96	23.31	0.214
64QAM	707.5	23095	10	25	25	20.90	23.25	0.211
64QAM	707.5	23095	10	50	0	20.83	23.18	0.208
64QAM	711	23130	10	1	0	21.63	23.98	0.250
64QAM	711	23130	10	1	25	22.11	24.46	0.279
64QAM	711	23130	10	1	49	21.93	24.28	0.268
64QAM	711	23130	10	25	0	20.90	23.25	0.211
64QAM	711	23130	10	25	12	20.88	23.23	0.210
64QAM	711	23130	10	25	25	20.92	23.27	0.212
64QAM	711	23130	10	50	0	20.84	23.19	0.208