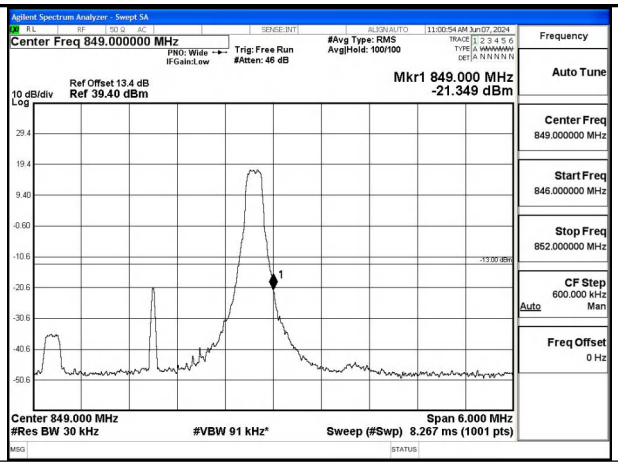

Fig.23

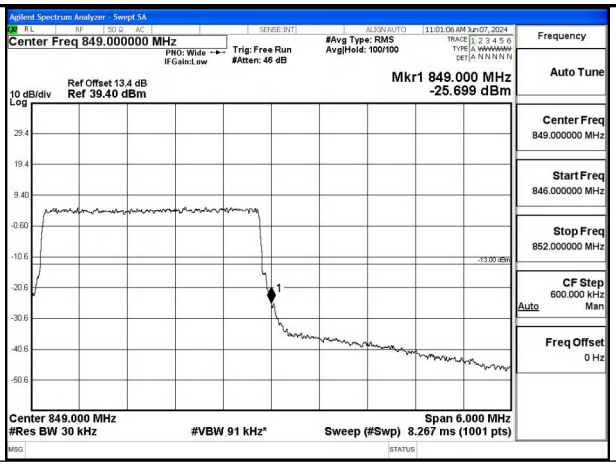

Fig.24

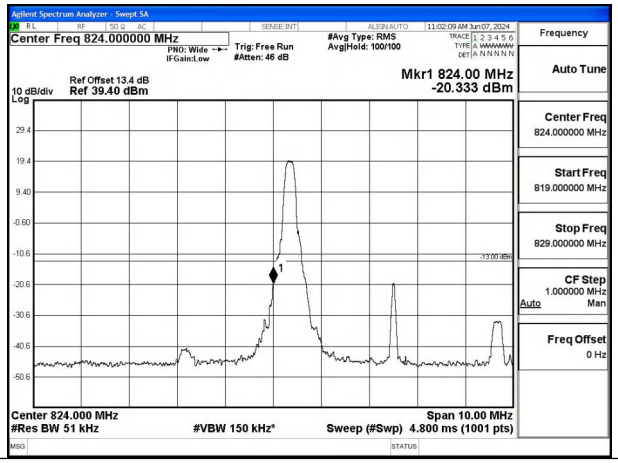

Fig.25

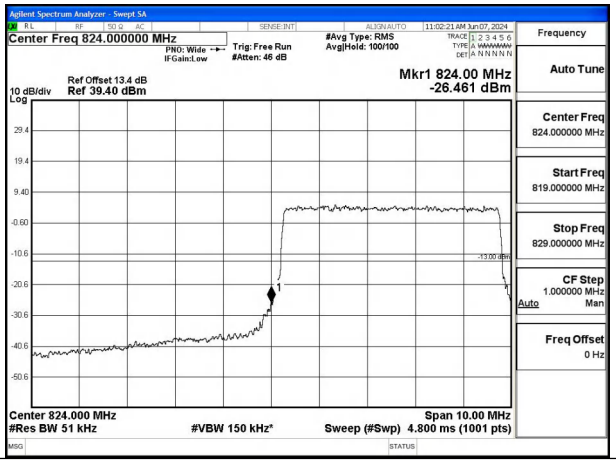

Fig.26

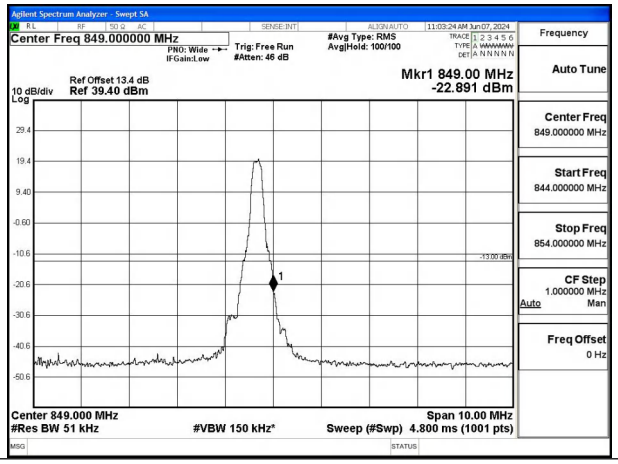

Fig.27

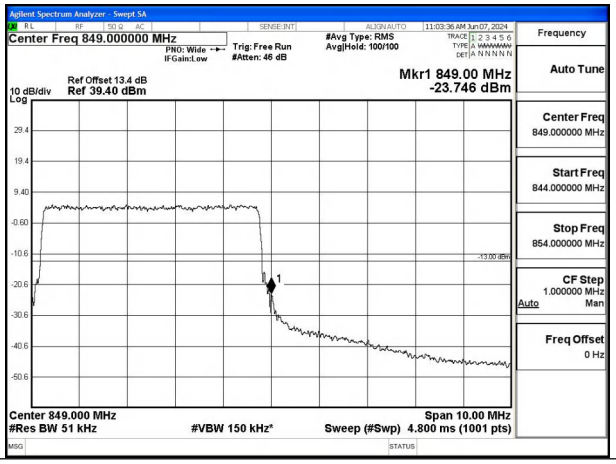

Fig.28

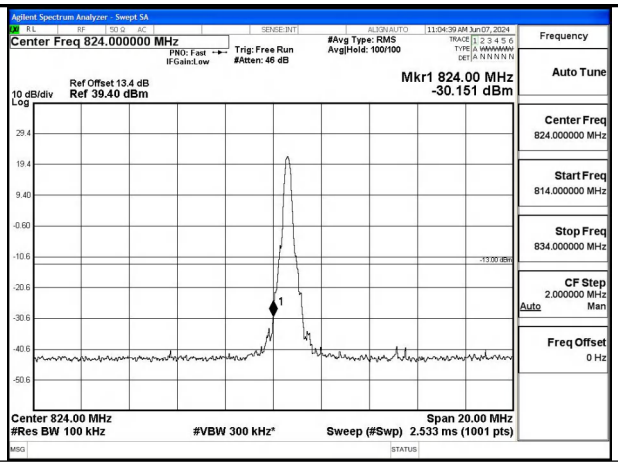

Fig.29

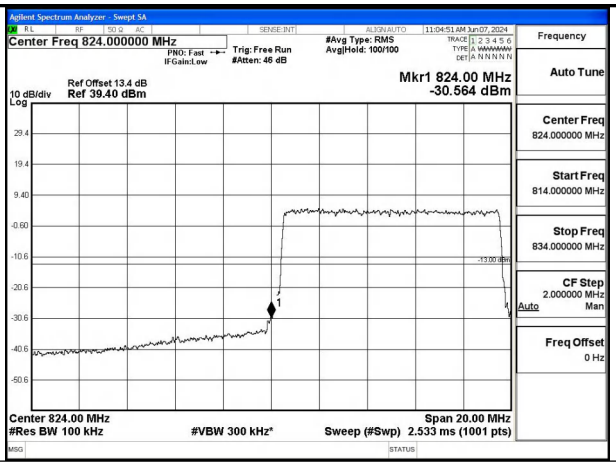

Fig.30

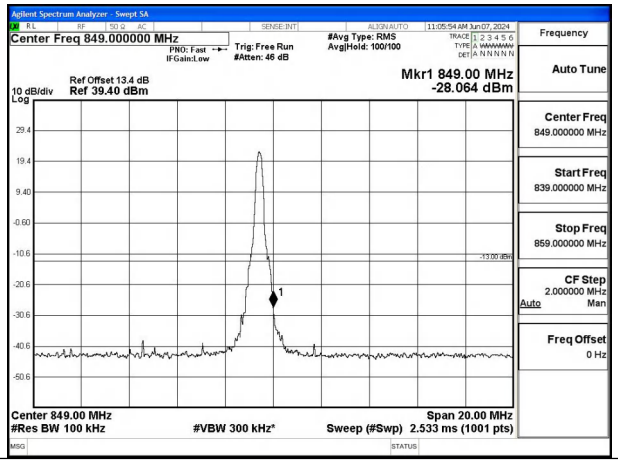

Fig.31

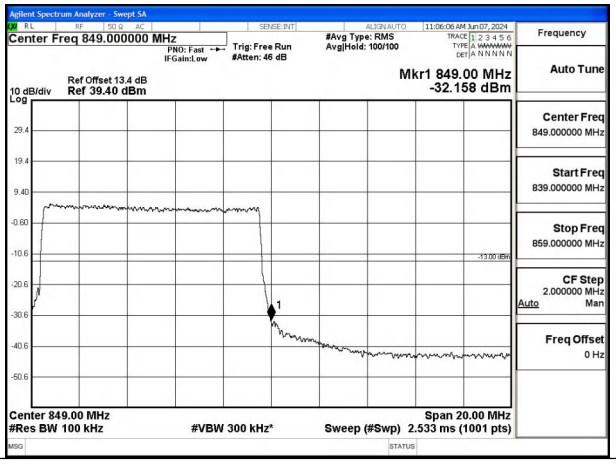

Fig.32

Test Mode: 64QAM

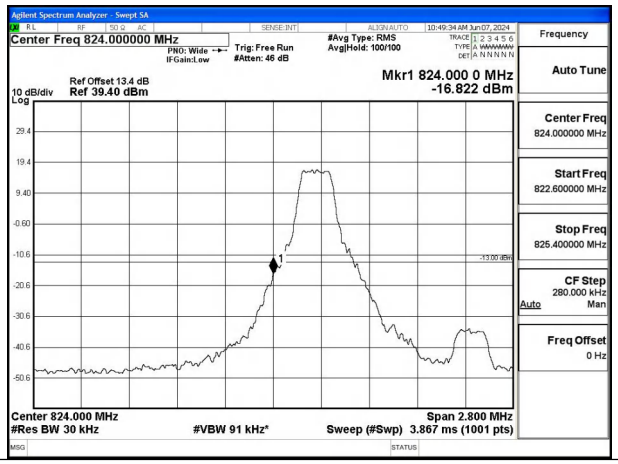

Fig.33

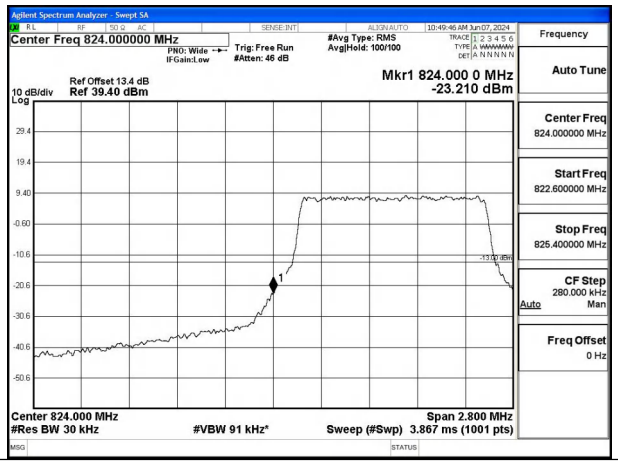

Fig.34

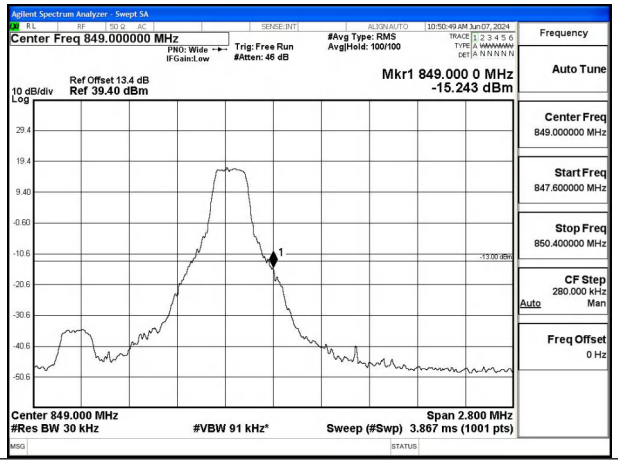

Fig.35

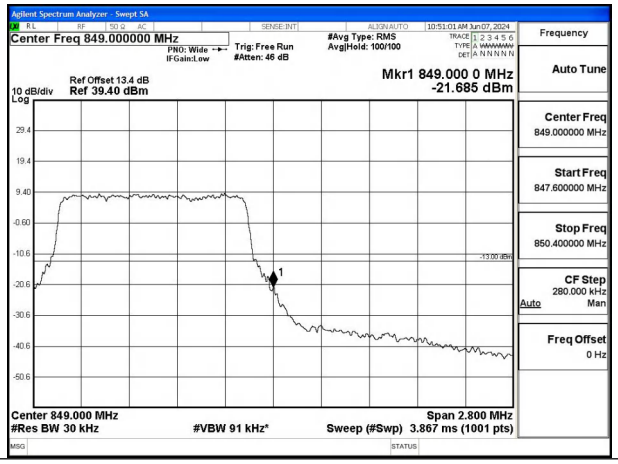

Fig.36

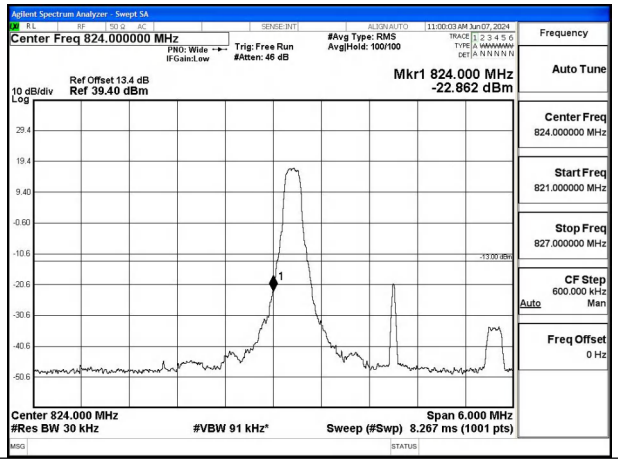

Fig.37

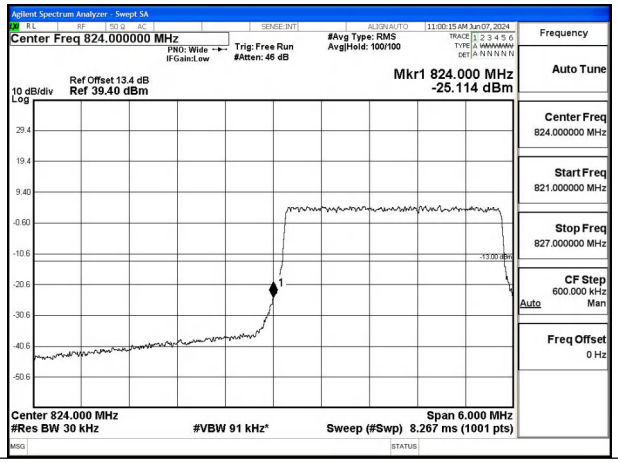

Fig.38

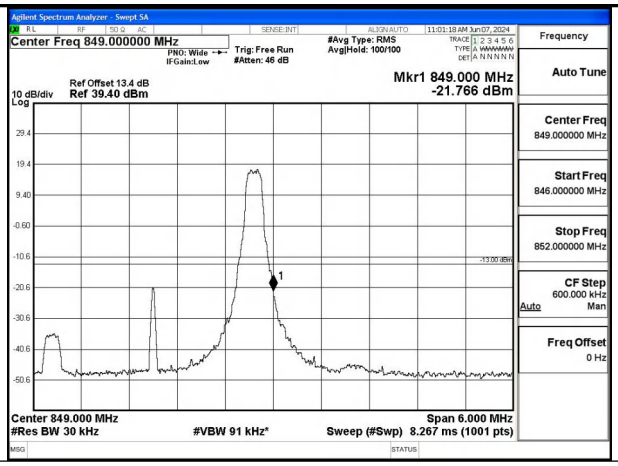

Fig.39

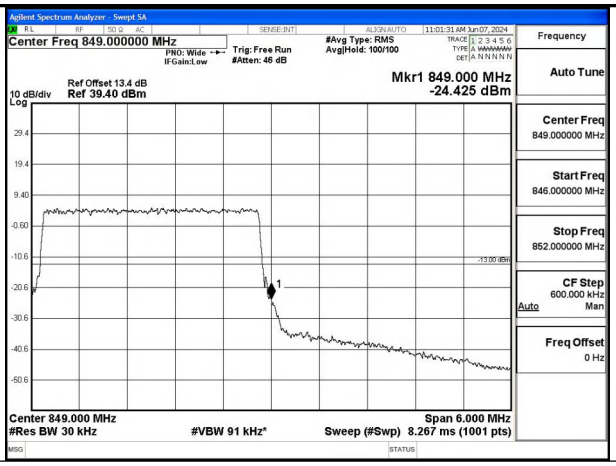

Fig.40

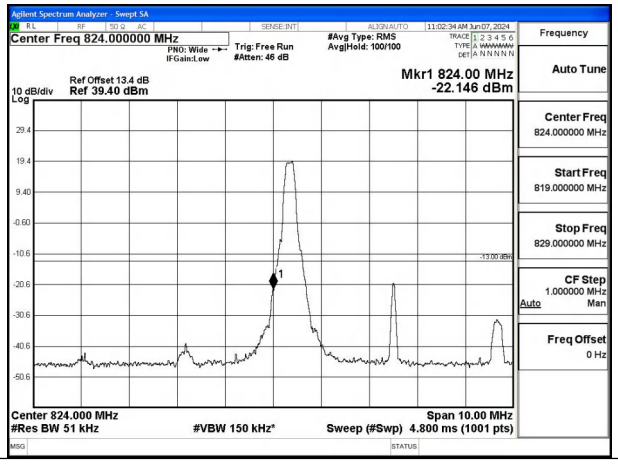

Fig.41

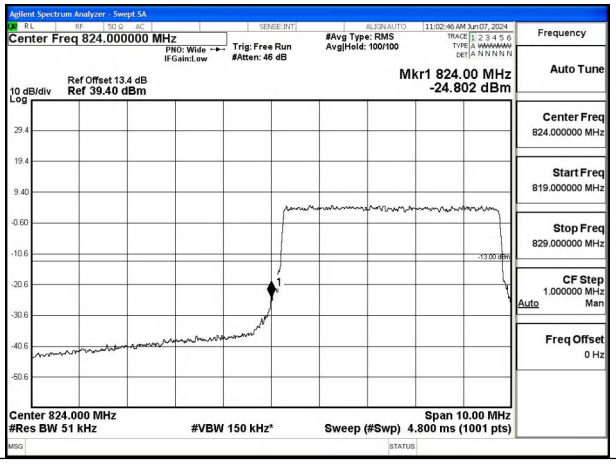

Fig.42

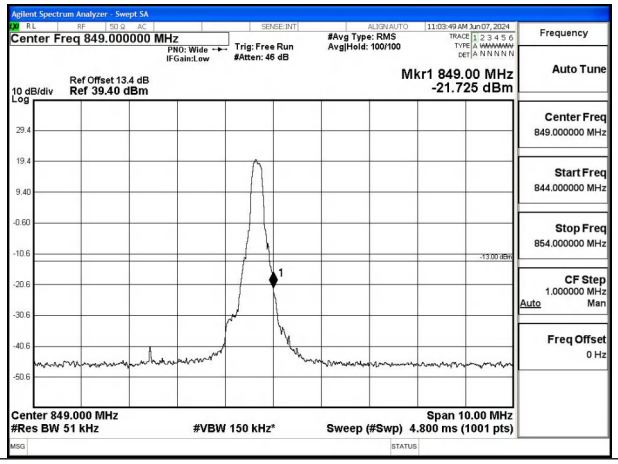

Fig.43

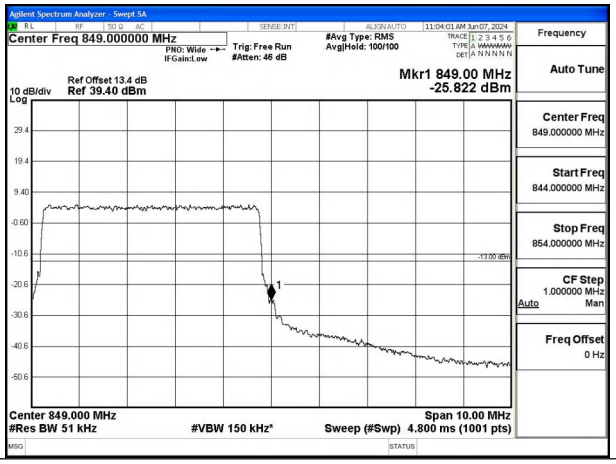

Fig.44

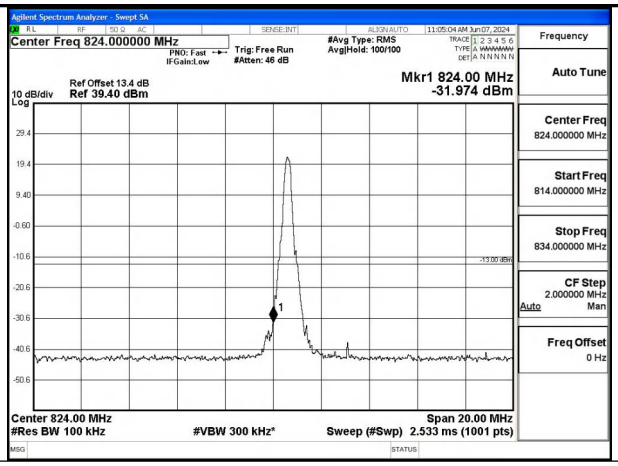

Fig.45

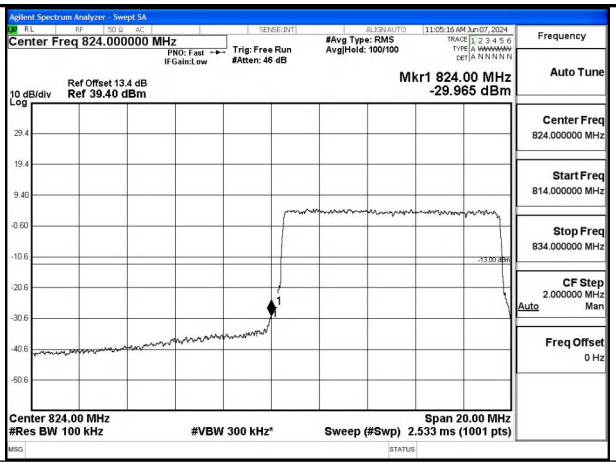

Fig.46

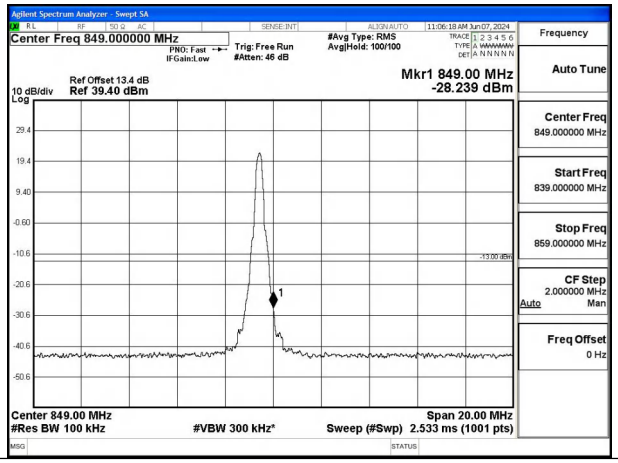

Fig.47

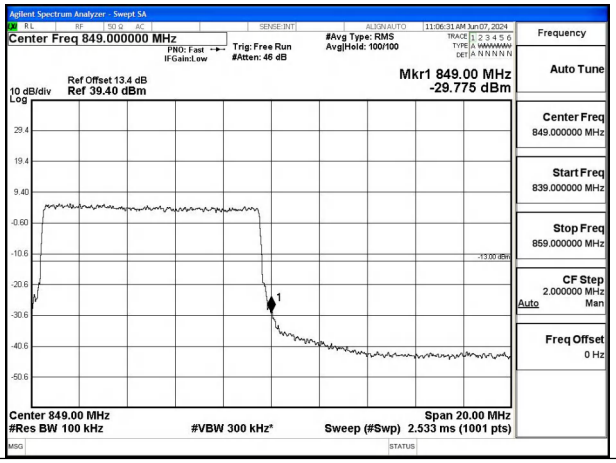

Fig.48

7 Frequency Stability

Temperature(°C)	Voltage	Test Result (ppm) Band 5 Low Channel QPSK			
		1.4M	3M	5M	10M
-30	NV	0.000	0.002	-0.002	-0.004
-20	NV	0.004	0.002	0.001	0.003
-10	NV	-0.006	-0.001	0.002	-0.008
0	NV	-0.002	0.002	0.002	0.005
+10	NV	-0.025	0.000	0.003	-0.006
+20	NV	-0.021	-0.001	0.001	-0.005
+30	NV	-0.002	-0.002	0.001	-0.005
+40	NV	-0.003	0.002	0.004	0.004
+50	NV	-0.004	0.001	0.003	0.004
+20	LV	0.002	0.001	0.001	0.004
+20	HV	-0.008	-0.001	-0.002	0.003

Temperature(°C)	Voltage	Test Result (ppm) Band 5 High Channel QPSK			
		1.4M	3M	5M	10M
-30	NV	-0.026	0.002	-0.004	-0.007
-20	NV	-0.005	0.002	0.005	0.004
-10	NV	0.005	0.003	0.007	-0.007
0	NV	-0.023	0.002	-0.005	0.005
+10	NV	0.003	0.002	0.005	-0.007
+20	NV	0.003	0.002	-0.006	0.004
+30	NV	-0.006	0.002	-0.006	-0.005
+40	NV	-0.020	0.000	0.004	-0.004
+50	NV	-0.022	0.002	0.006	0.005
+20	LV	0.005	0.001	0.005	0.004
+20	HV	0.004	0.001	0.004	-0.006

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	824.7	20407	1.4	1	0	22.60	24.95	0.313
QPSK	824.7	20407	1.4	1	3	22.57	24.92	0.310
QPSK	824.7	20407	1.4	1	5	22.51	24.86	0.306
QPSK	824.7	20407	1.4	3	0	22.54	24.89	0.308
QPSK	824.7	20407	1.4	3	1	22.68	25.03	0.318
QPSK	824.7	20407	1.4	3	3	22.62	24.97	0.314
QPSK	824.7	20407	1.4	6	0	21.58	23.93	0.247
QPSK	836.5	20525	1.4	1	0	22.85	25.20	0.331
QPSK	836.5	20525	1.4	1	3	22.96	25.31	0.340
QPSK	836.5	20525	1.4	1	5	22.95	25.30	0.339
QPSK	836.5	20525	1.4	3	0	22.81	25.16	0.328
QPSK	836.5	20525	1.4	3	1	22.96	25.31	0.340
QPSK	836.5	20525	1.4	3	3	22.91	25.26	0.336
QPSK	836.5	20525	1.4	6	0	21.90	24.25	0.266
QPSK	848.3	20643	1.4	1	0	22.88	25.23	0.333
QPSK	848.3	20643	1.4	1	3	22.87	25.22	0.333
QPSK	848.3	20643	1.4	1	5	22.77	25.12	0.325
QPSK	848.3	20643	1.4	3	0	22.94	25.29	0.338
QPSK	848.3	20643	1.4	3	1	22.87	25.22	0.333
QPSK	848.3	20643	1.4	3	3	22.82	25.17	0.329
QPSK	848.3	20643	1.4	6	0	21.85	24.20	0.263

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	824.7	20407	1.4	1	0	22.23	24.58	0.287
16QAM	824.7	20407	1.4	1	3	21.90	24.25	0.266
16QAM	824.7	20407	1.4	1	5	22.09	24.44	0.278
16QAM	824.7	20407	1.4	3	0	21.76	24.11	0.258
16QAM	824.7	20407	1.4	3	1	21.66	24.01	0.252
16QAM	824.7	20407	1.4	3	3	21.77	24.12	0.258
16QAM	824.7	20407	1.4	6	0	20.70	23.05	0.202
16QAM	836.5	20525	1.4	1	0	22.35	24.70	0.295
16QAM	836.5	20525	1.4	1	3	22.58	24.93	0.311
16QAM	836.5	20525	1.4	1	5	22.08	24.43	0.277
16QAM	836.5	20525	1.4	3	0	22.16	24.51	0.282
16QAM	836.5	20525	1.4	3	1	21.90	24.25	0.266
16QAM	836.5	20525	1.4	3	3	22.19	24.54	0.284
16QAM	836.5	20525	1.4	6	0	21.00	23.35	0.216
16QAM	848.3	20643	1.4	1	0	22.32	24.67	0.293
16QAM	848.3	20643	1.4	1	3	22.37	24.72	0.296
16QAM	848.3	20643	1.4	1	5	22.33	24.68	0.294
16QAM	848.3	20643	1.4	3	0	22.02	24.37	0.274
16QAM	848.3	20643	1.4	3	1	21.90	24.25	0.266
16QAM	848.3	20643	1.4	3	3	22.19	24.54	0.284
16QAM	848.3	20643	1.4	6	0	20.98	23.33	0.215
64QAM	824.7	20407	1.4	1	0	21.88	24.23	0.265
64QAM	824.7	20407	1.4	1	3	22.00	24.35	0.272
64QAM	824.7	20407	1.4	1	5	21.38	23.73	0.236
64QAM	824.7	20407	1.4	3	0	21.91	24.26	0.267
64QAM	824.7	20407	1.4	3	1	21.81	24.16	0.261
64QAM	824.7	20407	1.4	3	3	21.65	24.00	0.251
64QAM	824.7	20407	1.4	6	0	20.67	23.02	0.200
64QAM	836.5	20525	1.4	1	0	21.92	24.27	0.267
64QAM	836.5	20525	1.4	1	3	21.83	24.18	0.262
64QAM	836.5	20525	1.4	1	5	21.86	24.21	0.264
64QAM	836.5	20525	1.4	3	0	21.94	24.29	0.269
64QAM	836.5	20525	1.4	3	1	22.19	24.54	0.284
64QAM	836.5	20525	1.4	3	3	21.90	24.25	0.266
64QAM	836.5	20525	1.4	6	0	20.90	23.25	0.211
64QAM	848.3	20643	1.4	1	0	22.24	24.59	0.288
64QAM	848.3	20643	1.4	1	3	22.30	24.65	0.292
64QAM	848.3	20643	1.4	1	5	21.90	24.25	0.266
64QAM	848.3	20643	1.4	3	0	21.97	24.32	0.270
64QAM	848.3	20643	1.4	3	1	22.05	24.40	0.275
64QAM	848.3	20643	1.4	3	3	22.01	24.36	0.273
64QAM	848.3	20643	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	825.5	20415	3	1	0	22.83	25.18	0.330
QPSK	825.5	20415	3	1	8	22.92	25.27	0.337
QPSK	825.5	20415	3	1	14	22.89	25.24	0.334
QPSK	825.5	20415	3	8	0	21.90	24.25	0.266
QPSK	825.5	20415	3	8	4	21.91	24.26	0.267
QPSK	825.5	20415	3	8	7	21.89	24.24	0.265
QPSK	825.5	20415	3	15	0	21.90	24.25	0.266
QPSK	836.5	20525	3	1	0	22.86	25.21	0.332
QPSK	836.5	20525	3	1	8	22.88	25.23	0.333
QPSK	836.5	20525	3	1	14	22.88	25.23	0.333
QPSK	836.5	20525	3	8	0	21.90	24.25	0.266
QPSK	836.5	20525	3	8	4	22.00	24.35	0.272
QPSK	836.5	20525	3	8	7	21.97	24.32	0.270
QPSK	836.5	20525	3	15	0	21.88	24.23	0.265
QPSK	847.5	20635	3	1	0	22.90	25.25	0.335
QPSK	847.5	20635	3	1	8	22.93	25.28	0.337
QPSK	847.5	20635	3	1	14	22.85	25.20	0.331
QPSK	847.5	20635	3	8	0	22.00	24.35	0.272
QPSK	847.5	20635	3	8	4	22.00	24.35	0.272
QPSK	847.5	20635	3	8	7	22.02	24.37	0.274
QPSK	847.5	20635	3	15	0	22.09	24.44	0.278

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	825.5	20415	3	1	0	22.21	24.56	0.286
16QAM	825.5	20415	3	1	8	22.29	24.64	0.291
16QAM	825.5	20415	3	1	14	22.08	24.43	0.277
16QAM	825.5	20415	3	8	0	21.08	23.43	0.220
16QAM	825.5	20415	3	8	4	20.98	23.33	0.215
16QAM	825.5	20415	3	8	7	20.99	23.34	0.216
16QAM	825.5	20415	3	15	0	20.87	23.22	0.210
16QAM	836.5	20525	3	1	0	22.39	24.74	0.298
16QAM	836.5	20525	3	1	8	22.24	24.59	0.288
16QAM	836.5	20525	3	1	14	22.40	24.75	0.299
16QAM	836.5	20525	3	8	0	20.99	23.34	0.216
16QAM	836.5	20525	3	8	4	21.12	23.47	0.222
16QAM	836.5	20525	3	8	7	21.10	23.45	0.221
16QAM	836.5	20525	3	15	0	20.89	23.24	0.211
16QAM	847.5	20635	3	1	0	22.26	24.61	0.289
16QAM	847.5	20635	3	1	8	22.21	24.56	0.286
16QAM	847.5	20635	3	1	14	22.09	24.44	0.278
16QAM	847.5	20635	3	8	0	21.08	23.43	0.220
16QAM	847.5	20635	3	8	4	21.07	23.42	0.220
16QAM	847.5	20635	3	8	7	21.16	23.51	0.224
16QAM	847.5	20635	3	15	0	21.03	23.38	0.218
64QAM	825.5	20415	3	1	0	22.07	24.42	0.277
64QAM	825.5	20415	3	1	8	22.02	24.37	0.274
64QAM	825.5	20415	3	1	14	21.47	23.82	0.241
64QAM	825.5	20415	3	8	0	20.90	23.25	0.211
64QAM	825.5	20415	3	8	4	21.00	23.35	0.216
64QAM	825.5	20415	3	8	7	21.13	23.48	0.223
64QAM	825.5	20415	3	15	0	20.92	23.27	0.212
64QAM	836.5	20525	3	1	0	21.87	24.22	0.264
64QAM	836.5	20525	3	1	8	21.95	24.30	0.269
64QAM	836.5	20525	3	1	14	21.56	23.91	0.246
64QAM	836.5	20525	3	8	0	20.86	23.21	0.209
64QAM	836.5	20525	3	8	4	20.91	23.26	0.212
64QAM	836.5	20525	3	8	7	20.94	23.29	0.213
64QAM	836.5	20525	3	15	0	20.94	23.29	0.213
64QAM	847.5	20635	3	1	0	22.05	24.40	0.275
64QAM	847.5	20635	3	1	8	22.05	24.40	0.275
64QAM	847.5	20635	3	1	14	21.99	24.34	0.272
64QAM	847.5	20635	3	8	0	21.18	23.53	0.225
64QAM	847.5	20635	3	8	4	20.98	23.33	0.215
64QAM	847.5	20635	3	8	7	21.05	23.40	0.219
64QAM	847.5	20635	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	826.5	20425	5	1	0	22.81	25.16	0.328
QPSK	826.5	20425	5	1	12	22.86	25.21	0.332
QPSK	826.5	20425	5	1	24	22.78	25.13	0.326
QPSK	826.5	20425	5	12	0	21.86	24.21	0.264
QPSK	826.5	20425	5	12	7	21.97	24.32	0.270
QPSK	826.5	20425	5	12	13	21.92	24.27	0.267
QPSK	826.5	20425	5	25	0	21.93	24.28	0.268
QPSK	836.5	20525	5	1	0	22.75	25.10	0.324
QPSK	836.5	20525	5	1	12	22.89	25.24	0.334
QPSK	836.5	20525	5	1	24	22.95	25.30	0.339
QPSK	836.5	20525	5	12	0	21.94	24.29	0.269
QPSK	836.5	20525	5	12	7	21.91	24.26	0.267
QPSK	836.5	20525	5	12	13	21.96	24.31	0.270
QPSK	836.5	20525	5	25	0	21.80	24.15	0.260
QPSK	846.5	20625	5	1	0	23.06	25.41	0.348
QPSK	846.5	20625	5	1	12	22.97	25.32	0.340
QPSK	846.5	20625	5	1	24	22.85	25.20	0.331
QPSK	846.5	20625	5	12	0	22.00	24.35	0.272
QPSK	846.5	20625	5	12	7	22.08	24.43	0.277
QPSK	846.5	20625	5	12	13	21.99	24.34	0.272
QPSK	846.5	20625	5	25	0	22.00	24.35	0.272

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	826.5	20425	5	1	0	22.02	24.37	0.274
16QAM	826.5	20425	5	1	12	22.29	24.64	0.291
16QAM	826.5	20425	5	1	24	22.22	24.57	0.286
16QAM	826.5	20425	5	12	0	20.77	23.12	0.205
16QAM	826.5	20425	5	12	7	20.85	23.20	0.209
16QAM	826.5	20425	5	12	13	21.01	23.36	0.217
16QAM	826.5	20425	5	25	0	20.93	23.28	0.213
16QAM	836.5	20525	5	1	0	22.15	24.50	0.282
16QAM	836.5	20525	5	1	12	22.36	24.71	0.296
16QAM	836.5	20525	5	1	24	22.49	24.84	0.305
16QAM	836.5	20525	5	12	0	20.90	23.25	0.211
16QAM	836.5	20525	5	12	7	20.98	23.33	0.215
16QAM	836.5	20525	5	12	13	20.97	23.32	0.215
16QAM	836.5	20525	5	25	0	20.97	23.32	0.215
16QAM	846.5	20625	5	1	0	22.46	24.81	0.303
16QAM	846.5	20625	5	1	12	22.09	24.44	0.278
16QAM	846.5	20625	5	1	24	21.90	24.25	0.266
16QAM	846.5	20625	5	12	0	20.82	23.17	0.207
16QAM	846.5	20625	5	12	7	21.25	23.60	0.229
16QAM	846.5	20625	5	12	13	20.90	23.25	0.211
16QAM	846.5	20625	5	25	0	21.15	23.50	0.224
64QAM	826.5	20425	5	1	0	21.98	24.33	0.271
64QAM	826.5	20425	5	1	12	22.24	24.59	0.288
64QAM	826.5	20425	5	1	24	22.08	24.43	0.277
64QAM	826.5	20425	5	12	0	20.75	23.10	0.204
64QAM	826.5	20425	5	12	7	20.92	23.27	0.212
64QAM	826.5	20425	5	12	13	20.93	23.28	0.213
64QAM	826.5	20425	5	25	0	20.91	23.26	0.212
64QAM	836.5	20525	5	1	0	21.65	24.00	0.251
64QAM	836.5	20525	5	1	12	22.04	24.39	0.275
64QAM	836.5	20525	5	1	24	22.01	24.36	0.273
64QAM	836.5	20525	5	12	0	20.92	23.27	0.212
64QAM	836.5	20525	5	12	7	20.97	23.32	0.215
64QAM	836.5	20525	5	12	13	20.98	23.33	0.215
64QAM	836.5	20525	5	25	0	20.85	23.20	0.209
64QAM	846.5	20625	5	1	0	22.07	24.42	0.277
64QAM	846.5	20625	5	1	12	22.09	24.44	0.278
64QAM	846.5	20625	5	1	24	21.91	24.26	0.267
64QAM	846.5	20625	5	12	0	20.97	23.32	0.215
64QAM	846.5	20625	5	12	7	21.01	23.36	0.217
64QAM	846.5	20625	5	12	13	21.06	23.41	0.219
64QAM	846.5	20625	5	25	0	20.95	23.30	0.214

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	829	20450	10	1	0	22.71	25.06	0.321
QPSK	829	20450	10	1	25	22.87	25.22	0.333
QPSK	829	20450	10	1	49	23.01	25.36	0.344
QPSK	829	20450	10	25	0	21.78	24.13	0.259
QPSK	829	20450	10	25	12	21.93	24.28	0.268
QPSK	829	20450	10	25	25	21.94	24.29	0.269
QPSK	829	20450	10	50	0	21.93	24.28	0.268
QPSK	836.5	20525	10	1	0	22.83	25.18	0.330
QPSK	836.5	20525	10	1	25	22.93	25.28	0.337
QPSK	836.5	20525	10	1	49	22.77	25.12	0.325
QPSK	836.5	20525	10	25	0	21.98	24.33	0.271
QPSK	836.5	20525	10	25	12	21.90	24.25	0.266
QPSK	836.5	20525	10	25	25	21.92	24.27	0.267
QPSK	836.5	20525	10	50	0	21.94	24.29	0.269
QPSK	844	20600	10	1	0	22.96	25.31	0.340
QPSK	844	20600	10	1	25	22.95	25.30	0.339
QPSK	844	20600	10	1	49	22.85	25.20	0.331
QPSK	844	20600	10	25	0	22.07	24.42	0.277
QPSK	844	20600	10	25	12	22.11	24.46	0.279
QPSK	844	20600	10	25	25	22.04	24.39	0.275
QPSK	844	20600	10	50	0	22.09	24.44	0.278

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	829	20450	10	1	0	22.21	24.56	0.286
16QAM	829	20450	10	1	25	22.42	24.77	0.300
16QAM	829	20450	10	1	49	22.05	24.40	0.275
16QAM	829	20450	10	25	0	20.79	23.14	0.206
16QAM	829	20450	10	25	12	20.87	23.22	0.210
16QAM	829	20450	10	25	25	21.00	23.35	0.216
16QAM	829	20450	10	50	0	20.89	23.24	0.211
16QAM	836.5	20525	10	1	0	22.20	24.55	0.285
16QAM	836.5	20525	10	1	25	22.14	24.49	0.281
16QAM	836.5	20525	10	1	49	22.19	24.54	0.284
16QAM	836.5	20525	10	25	0	20.82	23.17	0.207
16QAM	836.5	20525	10	25	12	20.90	23.25	0.211
16QAM	836.5	20525	10	25	25	20.84	23.19	0.208
16QAM	836.5	20525	10	50	0	20.97	23.32	0.215
16QAM	844	20600	10	1	0	21.95	24.30	0.269
16QAM	844	20600	10	1	25	22.45	24.80	0.302
16QAM	844	20600	10	1	49	22.06	24.41	0.276
16QAM	844	20600	10	25	0	21.07	23.42	0.220
16QAM	844	20600	10	25	12	21.14	23.49	0.223
16QAM	844	20600	10	25	25	21.07	23.42	0.220
16QAM	844	20600	10	50	0	21.20	23.55	0.226
64QAM	829	20450	10	1	0	21.88	24.23	0.265
64QAM	829	20450	10	1	25	21.89	24.24	0.265
64QAM	829	20450	10	1	49	22.39	24.74	0.298
64QAM	829	20450	10	25	0	20.76	23.11	0.205
64QAM	829	20450	10	25	12	20.96	23.31	0.214
64QAM	829	20450	10	25	25	21.01	23.36	0.217
64QAM	829	20450	10	50	0	20.85	23.20	0.209
64QAM	836.5	20525	10	1	0	22.35	24.70	0.295
64QAM	836.5	20525	10	1	25	22.25	24.60	0.288
64QAM	836.5	20525	10	1	49	21.86	24.21	0.264
64QAM	836.5	20525	10	25	0	20.95	23.30	0.214
64QAM	836.5	20525	10	25	12	20.93	23.28	0.213
64QAM	836.5	20525	10	25	25	21.06	23.41	0.219
64QAM	836.5	20525	10	50	0	20.82	23.17	0.207
64QAM	844	20600	10	1	0	22.33	24.68	0.294
64QAM	844	20600	10	1	25	22.32	24.67	0.293
64QAM	844	20600	10	1	49	22.01	24.36	0.273
64QAM	844	20600	10	25	0	20.92	23.27	0.212
64QAM	844	20600	10	25	12	21.06	23.41	0.219
64QAM	844	20600	10	25	25	21.01	23.36	0.217
64QAM	844	20600	10	50	0	21.06	23.41	0.219