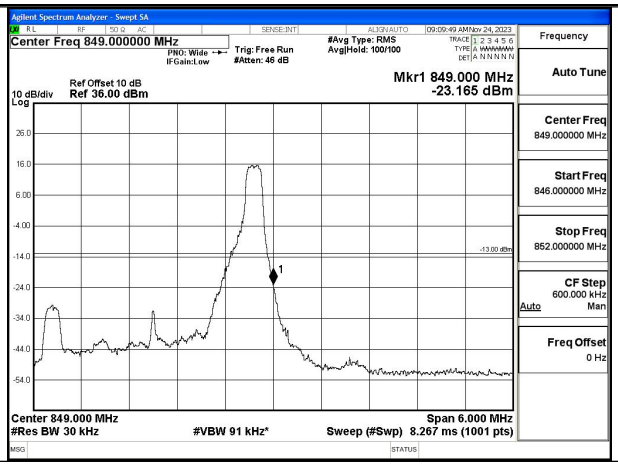

Fig.7

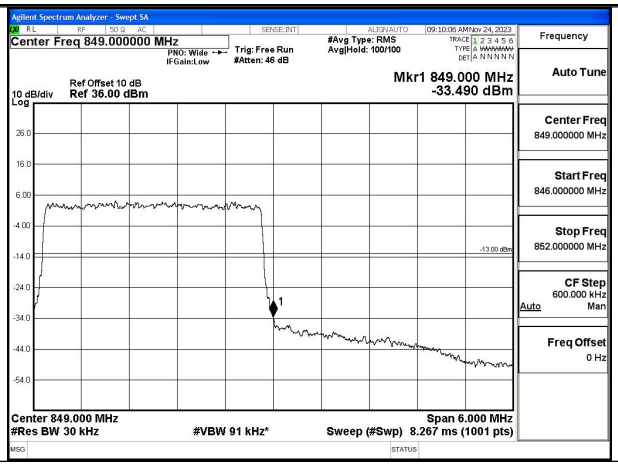

Fig.8

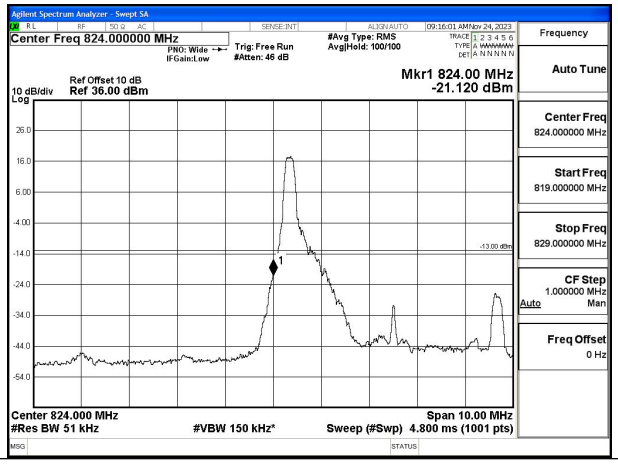

Fig.9

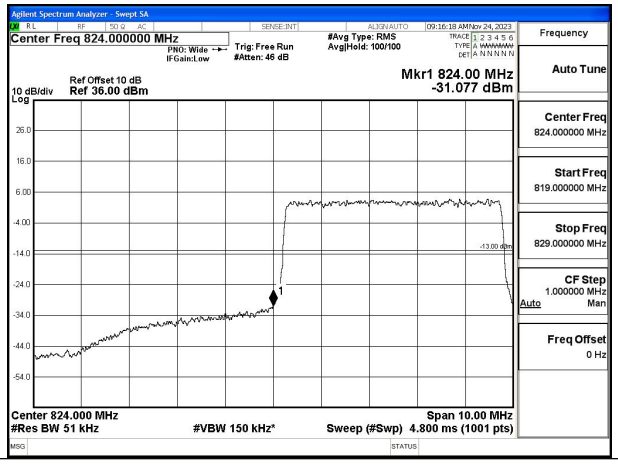

Fig.10

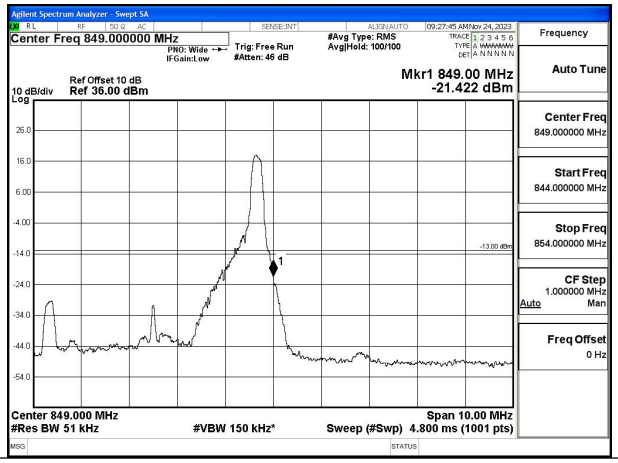

Fig.11

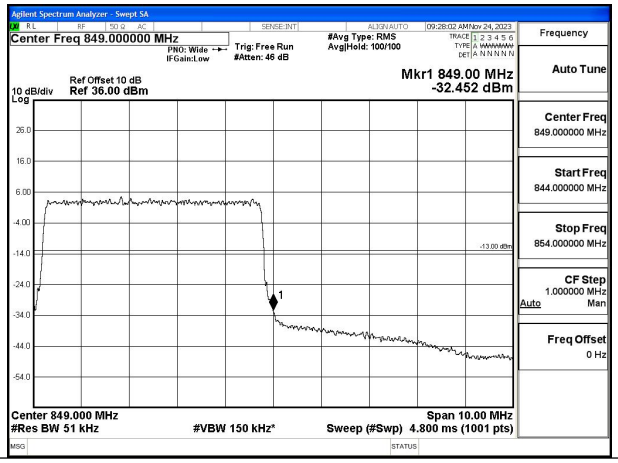

Fig.12

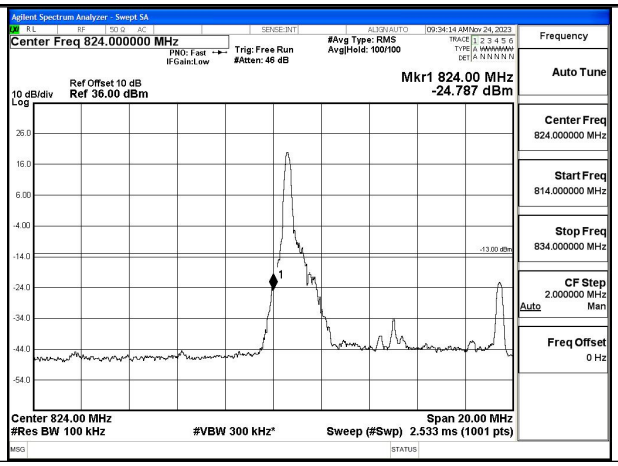

Fig.13

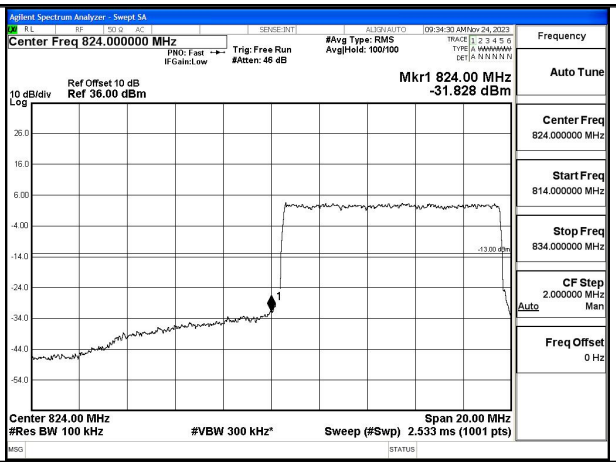

Fig.14

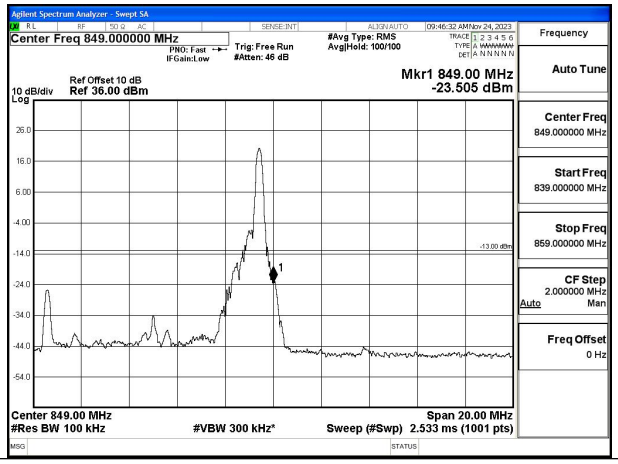

Fig.15

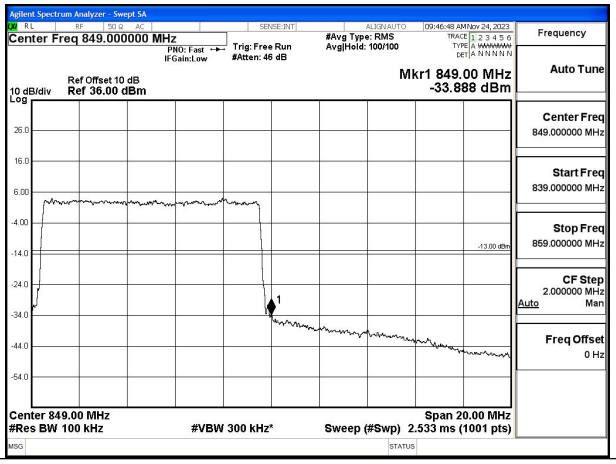

Fig.16

7 Frequency Stability

Temperature(°C)	Voltage	Test Result (ppm) Band 5 Low Channel QPSK			
		1.4M	3M	5M	10M
0	NV	-0.006	-0.011	-0.008	-0.011
+10	NV	-0.010	-0.011	-0.011	-0.016
+20	NV	-0.014	-0.009	-0.008	-0.006
+30	NV	-0.013	-0.010	-0.015	0.005
+45	NV	-0.011	-0.011	-0.007	-0.012
+20	LV	-0.011	-0.012	-0.002	-0.008
+20	HV	-0.009	-0.009	0.001	-0.004

Temperature(°C)	Voltage	Test Result (ppm) Band 5 High Channel QPSK			
		1.4M	3M	5M	10M
0	NV	-0.013	0.002	-0.013	-0.006
+10	NV	-0.011	-0.003	-0.005	-0.004
+20	NV	-0.009	-0.010	-0.011	-0.014
+30	NV	-0.010	-0.002	-0.017	-0.008
+45	NV	-0.011	-0.008	-0.010	-0.010
+20	LV	-0.009	-0.011	-0.002	-0.015
+20	HV	-0.006	-0.008	-0.006	-0.016

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	23.10	17.42	0.055
QPSK	824.7	20407	1.4	1	3	23.28	17.60	0.058
QPSK	824.7	20407	1.4	1	5	23.10	17.42	0.055
QPSK	824.7	20407	1.4	3	0	23.23	17.55	0.057
QPSK	824.7	20407	1.4	3	1	23.16	17.48	0.056
QPSK	824.7	20407	1.4	3	3	23.14	17.46	0.056
QPSK	824.7	20407	1.4	6	0	22.19	16.51	0.045
QPSK	836.5	20525	1.4	1	0	23.09	17.41	0.055
QPSK	836.5	20525	1.4	1	3	23.20	17.52	0.056
QPSK	836.5	20525	1.4	1	5	23.07	17.39	0.055
QPSK	836.5	20525	1.4	3	0	23.21	17.53	0.057
QPSK	836.5	20525	1.4	3	1	23.20	17.52	0.056
QPSK	836.5	20525	1.4	3	3	23.19	17.51	0.056
QPSK	836.5	20525	1.4	6	0	22.17	16.49	0.045
QPSK	848.3	20643	1.4	1	0	23.17	17.49	0.056
QPSK	848.3	20643	1.4	1	3	23.27	17.59	0.057
QPSK	848.3	20643	1.4	1	5	23.17	17.49	0.056
QPSK	848.3	20643	1.4	3	0	23.17	17.49	0.056
QPSK	848.3	20643	1.4	3	1	23.29	17.61	0.058
QPSK	848.3	20643	1.4	3	3	23.23	17.55	0.057
QPSK	848.3	20643	1.4	6	0	22.25	16.57	0.045

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	22.05	16.37	0.043
16QAM	824.7	20407	1.4	1	3	22.32	16.64	0.046
16QAM	824.7	20407	1.4	1	5	22.11	16.43	0.044
16QAM	824.7	20407	1.4	3	0	22.08	16.40	0.044
16QAM	824.7	20407	1.4	3	1	22.16	16.48	0.044
16QAM	824.7	20407	1.4	3	3	22.09	16.41	0.044
16QAM	824.7	20407	1.4	6	0	21.26	15.58	0.036
16QAM	836.5	20525	1.4	1	0	22.27	16.59	0.046
16QAM	836.5	20525	1.4	1	3	22.45	16.77	0.048
16QAM	836.5	20525	1.4	1	5	22.33	16.65	0.046
16QAM	836.5	20525	1.4	3	0	22.16	16.48	0.044
16QAM	836.5	20525	1.4	3	1	22.24	16.56	0.045
16QAM	836.5	20525	1.4	3	3	22.12	16.44	0.044
16QAM	836.5	20525	1.4	6	0	21.32	15.64	0.037
16QAM	848.3	20643	1.4	1	0	22.40	16.72	0.047
16QAM	848.3	20643	1.4	1	3	22.70	17.02	0.050
16QAM	848.3	20643	1.4	1	5	22.45	16.77	0.048
16QAM	848.3	20643	1.4	3	0	22.10	16.42	0.044
16QAM	848.3	20643	1.4	3	1	22.26	16.58	0.045
16QAM	848.3	20643	1.4	3	3	22.22	16.54	0.045
16QAM	848.3	20643	1.4	6	0	21.31	15.63	0.037
64QAM	824.7	20407	1.4	1	0	21.36	15.68	0.037
64QAM	824.7	20407	1.4	1	3	21.58	15.90	0.039
64QAM	824.7	20407	1.4	1	5	21.43	15.75	0.038
64QAM	824.7	20407	1.4	3	0	21.59	15.91	0.039
64QAM	824.7	20407	1.4	3	1	21.47	15.79	0.038
64QAM	824.7	20407	1.4	3	3	21.51	15.83	0.038
64QAM	824.7	20407	1.4	6	0	20.07	14.39	0.027
64QAM	836.5	20525	1.4	1	0	21.31	15.63	0.037
64QAM	836.5	20525	1.4	1	3	21.55	15.87	0.039
64QAM	836.5	20525	1.4	1	5	21.29	15.61	0.036
64QAM	836.5	20525	1.4	3	0	21.25	15.57	0.036
64QAM	836.5	20525	1.4	3	1	21.30	15.62	0.036
64QAM	836.5	20525	1.4	3	3	21.29	15.61	0.036
64QAM	836.5	20525	1.4	6	0	20.46	14.78	0.030
64QAM	848.3	20643	1.4	1	0	21.39	15.71	0.037
64QAM	848.3	20643	1.4	1	3	21.58	15.90	0.039
64QAM	848.3	20643	1.4	1	5	21.48	15.80	0.038
64QAM	848.3	20643	1.4	3	0	21.20	15.52	0.036
64QAM	848.3	20643	1.4	3	1	21.19	15.51	0.036
64QAM	848.3	20643	1.4	3	3	21.19	15.51	0.036
64QAM	848.3	20643	1.4	6	0	20.39	14.71	0.030

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	23.06	17.38	0.055
QPSK	825.5	20415	3	1	8	23.08	17.40	0.055
QPSK	825.5	20415	3	1	14	23.13	17.45	0.056
QPSK	825.5	20415	3	8	0	22.04	16.36	0.043
QPSK	825.5	20415	3	8	4	22.15	16.47	0.044
QPSK	825.5	20415	3	8	7	22.17	16.49	0.045
QPSK	825.5	20415	3	15	0	22.12	16.44	0.044
QPSK	836.5	20525	3	1	0	23.16	17.48	0.056
QPSK	836.5	20525	3	1	8	23.17	17.49	0.056
QPSK	836.5	20525	3	1	14	23.21	17.53	0.057
QPSK	836.5	20525	3	8	0	22.15	16.47	0.044
QPSK	836.5	20525	3	8	4	22.24	16.56	0.045
QPSK	836.5	20525	3	8	7	22.19	16.51	0.045
QPSK	836.5	20525	3	15	0	22.21	16.53	0.045
QPSK	847.5	20635	3	1	0	23.18	17.50	0.056
QPSK	847.5	20635	3	1	8	23.19	17.51	0.056
QPSK	847.5	20635	3	1	14	23.24	17.56	0.057
QPSK	847.5	20635	3	8	0	22.19	16.51	0.045
QPSK	847.5	20635	3	8	4	22.33	16.65	0.046
QPSK	847.5	20635	3	8	7	22.21	16.53	0.045
QPSK	847.5	20635	3	15	0	22.28	16.60	0.046

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	22.55	16.87	0.049
16QAM	825.5	20415	3	1	8	22.64	16.96	0.050
16QAM	825.5	20415	3	1	14	22.68	17.00	0.050
16QAM	825.5	20415	3	8	0	21.08	15.40	0.035
16QAM	825.5	20415	3	8	4	21.20	15.52	0.036
16QAM	825.5	20415	3	8	7	21.17	15.49	0.035
16QAM	825.5	20415	3	15	0	21.10	15.42	0.035
16QAM	836.5	20525	3	1	0	22.43	16.75	0.047
16QAM	836.5	20525	3	1	8	22.32	16.64	0.046
16QAM	836.5	20525	3	1	14	22.39	16.71	0.047
16QAM	836.5	20525	3	8	0	21.04	15.36	0.034
16QAM	836.5	20525	3	8	4	21.23	15.55	0.036
16QAM	836.5	20525	3	8	7	21.17	15.49	0.035
16QAM	836.5	20525	3	15	0	21.19	15.51	0.036
16QAM	847.5	20635	3	1	0	22.49	16.81	0.048
16QAM	847.5	20635	3	1	8	22.45	16.77	0.048
16QAM	847.5	20635	3	1	14	22.39	16.71	0.047
16QAM	847.5	20635	3	8	0	21.22	15.54	0.036
16QAM	847.5	20635	3	8	4	21.32	15.64	0.037
16QAM	847.5	20635	3	8	7	21.27	15.59	0.036
16QAM	847.5	20635	3	15	0	21.28	15.60	0.036
64QAM	825.5	20415	3	1	0	21.43	15.75	0.038
64QAM	825.5	20415	3	1	8	21.40	15.72	0.037
64QAM	825.5	20415	3	1	14	21.53	15.85	0.038
64QAM	825.5	20415	3	8	0	20.07	14.39	0.027
64QAM	825.5	20415	3	8	4	20.21	14.53	0.028
64QAM	825.5	20415	3	8	7	20.18	14.50	0.028
64QAM	825.5	20415	3	15	0	20.07	14.39	0.027
64QAM	836.5	20525	3	1	0	21.23	15.55	0.036
64QAM	836.5	20525	3	1	8	21.32	15.64	0.037
64QAM	836.5	20525	3	1	14	21.38	15.70	0.037
64QAM	836.5	20525	3	8	0	20.17	14.49	0.028
64QAM	836.5	20525	3	8	4	20.25	14.57	0.029
64QAM	836.5	20525	3	8	7	20.16	14.48	0.028
64QAM	836.5	20525	3	15	0	20.15	14.47	0.028
64QAM	847.5	20635	3	1	0	21.44	15.76	0.038
64QAM	847.5	20635	3	1	8	21.45	15.77	0.038
64QAM	847.5	20635	3	1	14	21.36	15.68	0.037
64QAM	847.5	20635	3	8	0	20.21	14.53	0.028
64QAM	847.5	20635	3	8	4	20.19	14.51	0.028
64QAM	847.5	20635	3	8	7	20.10	14.42	0.028
64QAM	847.5	20635	3	15	0	20.26	14.58	0.029

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	22.88	17.20	0.052
QPSK	826.5	20425	5	1	12	23.18	17.50	0.056
QPSK	826.5	20425	5	1	24	22.95	17.27	0.053
QPSK	826.5	20425	5	12	0	22.02	16.34	0.043
QPSK	826.5	20425	5	12	7	22.08	16.40	0.044
QPSK	826.5	20425	5	12	13	22.14	16.46	0.044
QPSK	826.5	20425	5	25	0	22.11	16.43	0.044
QPSK	836.5	20525	5	1	0	23.12	17.44	0.055
QPSK	836.5	20525	5	1	12	23.36	17.68	0.059
QPSK	836.5	20525	5	1	24	23.13	17.45	0.056
QPSK	836.5	20525	5	12	0	22.18	16.50	0.045
QPSK	836.5	20525	5	12	7	22.24	16.56	0.045
QPSK	836.5	20525	5	12	13	22.22	16.54	0.045
QPSK	836.5	20525	5	25	0	22.20	16.52	0.045
QPSK	846.5	20625	5	1	0	23.15	17.47	0.056
QPSK	846.5	20625	5	1	12	23.41	17.73	0.059
QPSK	846.5	20625	5	1	24	23.19	17.51	0.056
QPSK	846.5	20625	5	12	0	22.22	16.54	0.045
QPSK	846.5	20625	5	12	7	22.32	16.64	0.046
QPSK	846.5	20625	5	12	13	22.30	16.62	0.046
QPSK	846.5	20625	5	25	0	22.21	16.53	0.045

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	22.10	16.42	0.044
16QAM	826.5	20425	5	1	12	22.35	16.67	0.046
16QAM	826.5	20425	5	1	24	22.22	16.54	0.045
16QAM	826.5	20425	5	12	0	21.01	15.33	0.034
16QAM	826.5	20425	5	12	7	21.06	15.38	0.035
16QAM	826.5	20425	5	12	13	21.09	15.41	0.035
16QAM	826.5	20425	5	25	0	21.09	15.41	0.035
16QAM	836.5	20525	5	1	0	22.45	16.77	0.048
16QAM	836.5	20525	5	1	12	22.70	17.02	0.050
16QAM	836.5	20525	5	1	24	22.47	16.79	0.048
16QAM	836.5	20525	5	12	0	21.10	15.42	0.035
16QAM	836.5	20525	5	12	7	21.18	15.50	0.035
16QAM	836.5	20525	5	12	13	21.16	15.48	0.035
16QAM	836.5	20525	5	25	0	21.11	15.43	0.035
16QAM	846.5	20625	5	1	0	22.38	16.70	0.047
16QAM	846.5	20625	5	1	12	22.65	16.97	0.050
16QAM	846.5	20625	5	1	24	22.44	16.76	0.047
16QAM	846.5	20625	5	12	0	21.16	15.48	0.035
16QAM	846.5	20625	5	12	7	21.25	15.57	0.036
16QAM	846.5	20625	5	12	13	21.20	15.52	0.036
16QAM	846.5	20625	5	25	0	21.26	15.58	0.036
64QAM	826.5	20425	5	1	0	20.98	15.30	0.034
64QAM	826.5	20425	5	1	12	21.26	15.58	0.036
64QAM	826.5	20425	5	1	24	21.13	15.45	0.035
64QAM	826.5	20425	5	12	0	20.07	14.39	0.027
64QAM	826.5	20425	5	12	7	20.14	14.46	0.028
64QAM	826.5	20425	5	12	13	20.16	14.48	0.028
64QAM	826.5	20425	5	25	0	20.07	14.39	0.027
64QAM	836.5	20525	5	1	0	21.36	15.68	0.037
64QAM	836.5	20525	5	1	12	21.60	15.92	0.039
64QAM	836.5	20525	5	1	24	21.38	15.70	0.037
64QAM	836.5	20525	5	12	0	20.10	14.42	0.028
64QAM	836.5	20525	5	12	7	20.15	14.47	0.028
64QAM	836.5	20525	5	12	13	20.20	14.52	0.028
64QAM	836.5	20525	5	25	0	20.13	14.45	0.028
64QAM	846.5	20625	5	1	0	21.39	15.71	0.037
64QAM	846.5	20625	5	1	12	21.63	15.95	0.039
64QAM	846.5	20625	5	1	24	21.37	15.69	0.037
64QAM	846.5	20625	5	12	0	20.29	14.61	0.029
64QAM	846.5	20625	5	12	7	20.34	14.66	0.029
64QAM	846.5	20625	5	12	13	20.23	14.55	0.029
64QAM	846.5	20625	5	25	0	20.24	14.56	0.029

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	23.06	17.38	0.055
QPSK	829	20450	10	1	25	23.27	17.59	0.057
QPSK	829	20450	10	1	49	23.13	17.45	0.056
QPSK	829	20450	10	25	0	22.12	16.44	0.044
QPSK	829	20450	10	25	12	22.14	16.46	0.044
QPSK	829	20450	10	25	25	22.22	16.54	0.045
QPSK	829	20450	10	50	0	22.15	16.47	0.044
QPSK	836.5	20525	10	1	0	23.20	17.52	0.056
QPSK	836.5	20525	10	1	25	23.36	17.68	0.059
QPSK	836.5	20525	10	1	49	23.17	17.49	0.056
QPSK	836.5	20525	10	25	0	22.23	16.55	0.045
QPSK	836.5	20525	10	25	12	22.18	16.50	0.045
QPSK	836.5	20525	10	25	25	22.27	16.59	0.046
QPSK	836.5	20525	10	50	0	22.19	16.51	0.045
QPSK	844	20600	10	1	0	23.19	17.51	0.056
QPSK	844	20600	10	1	25	23.42	17.74	0.059
QPSK	844	20600	10	1	49	23.18	17.50	0.056
QPSK	844	20600	10	25	0	22.28	16.60	0.046
QPSK	844	20600	10	25	12	22.31	16.63	0.046
QPSK	844	20600	10	25	25	22.27	16.59	0.046
QPSK	844	20600	10	50	0	22.26	16.58	0.045

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	22.55	16.87	0.049
16QAM	829	20450	10	1	25	22.83	17.15	0.052
16QAM	829	20450	10	1	49	22.71	17.03	0.050
16QAM	829	20450	10	25	0	21.13	15.45	0.035
16QAM	829	20450	10	25	12	21.20	15.52	0.036
16QAM	829	20450	10	25	25	21.19	15.51	0.036
16QAM	829	20450	10	50	0	21.20	15.52	0.036
16QAM	836.5	20525	10	1	0	22.41	16.73	0.047
16QAM	836.5	20525	10	1	25	22.52	16.84	0.048
16QAM	836.5	20525	10	1	49	22.37	16.69	0.047
16QAM	836.5	20525	10	25	0	21.21	15.53	0.036
16QAM	836.5	20525	10	25	12	21.21	15.53	0.036
16QAM	836.5	20525	10	25	25	21.27	15.59	0.036
16QAM	836.5	20525	10	50	0	21.23	15.55	0.036
16QAM	844	20600	10	1	0	22.40	16.72	0.047
16QAM	844	20600	10	1	25	22.56	16.88	0.049
16QAM	844	20600	10	1	49	22.47	16.79	0.048
16QAM	844	20600	10	25	0	21.33	15.65	0.037
16QAM	844	20600	10	25	12	21.36	15.68	0.037
16QAM	844	20600	10	25	25	21.34	15.66	0.037
16QAM	844	20600	10	50	0	21.28	15.60	0.036
64QAM	829	20450	10	1	0	21.38	15.70	0.037
64QAM	829	20450	10	1	25	21.67	15.99	0.040
64QAM	829	20450	10	1	49	21.50	15.82	0.038
64QAM	829	20450	10	25	0	20.25	14.57	0.029
64QAM	829	20450	10	25	12	20.29	14.61	0.029
64QAM	829	20450	10	25	25	20.20	14.52	0.028
64QAM	829	20450	10	50	0	20.23	14.55	0.029
64QAM	836.5	20525	10	1	0	21.33	15.65	0.037
64QAM	836.5	20525	10	1	25	21.46	15.78	0.038
64QAM	836.5	20525	10	1	49	21.28	15.60	0.036
64QAM	836.5	20525	10	25	0	20.26	14.58	0.029
64QAM	836.5	20525	10	25	12	20.23	14.55	0.029
64QAM	836.5	20525	10	25	25	20.26	14.58	0.029
64QAM	836.5	20525	10	50	0	20.32	14.64	0.029
64QAM	844	20600	10	1	0	21.33	15.65	0.037
64QAM	844	20600	10	1	25	21.58	15.90	0.039
64QAM	844	20600	10	1	49	21.47	15.79	0.038
64QAM	844	20600	10	25	0	20.40	14.72	0.030
64QAM	844	20600	10	25	12	20.41	14.73	0.030
64QAM	844	20600	10	25	25	20.37	14.69	0.029
64QAM	844	20600	10	50	0	20.28	14.60	0.029