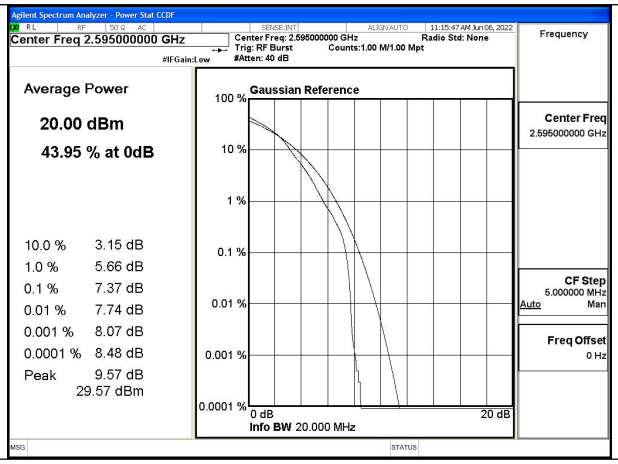


Fig.61

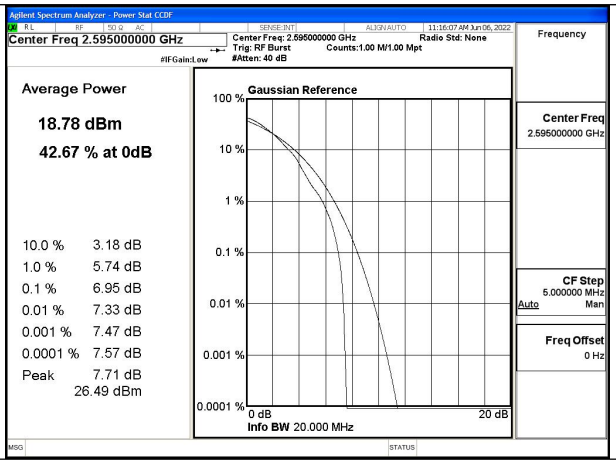


Fig.62

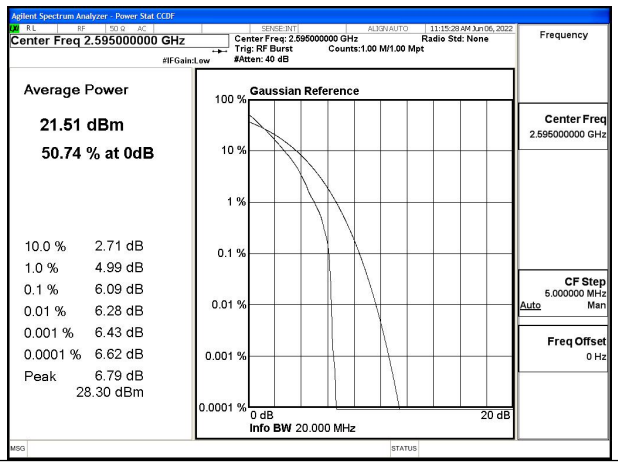


Fig.63

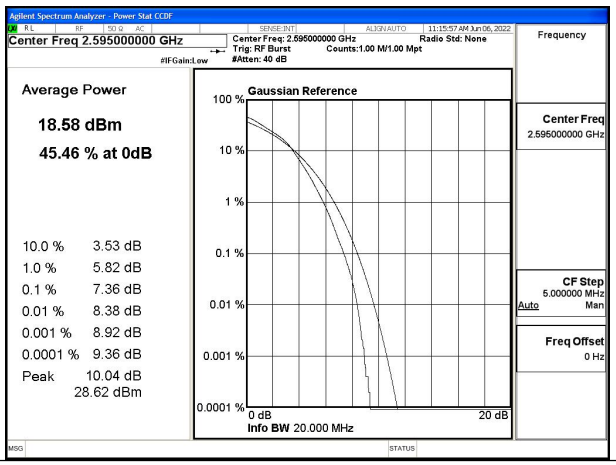


Fig.64

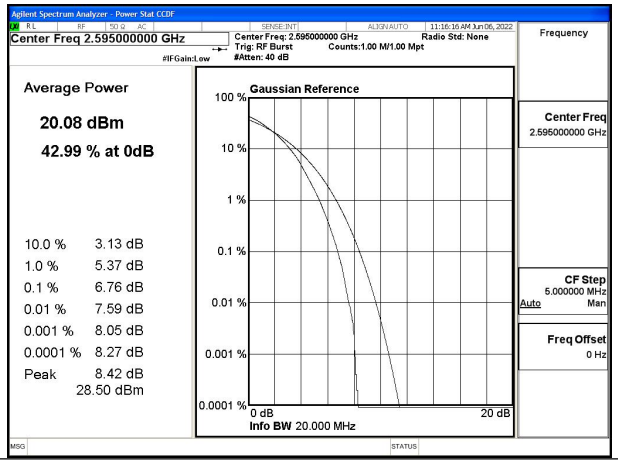


Fig.65

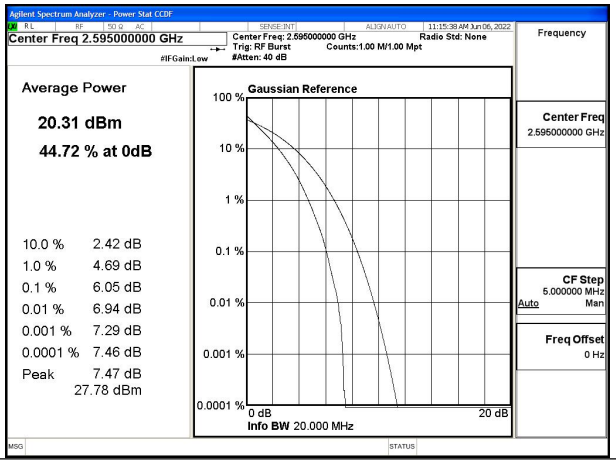


Fig.66

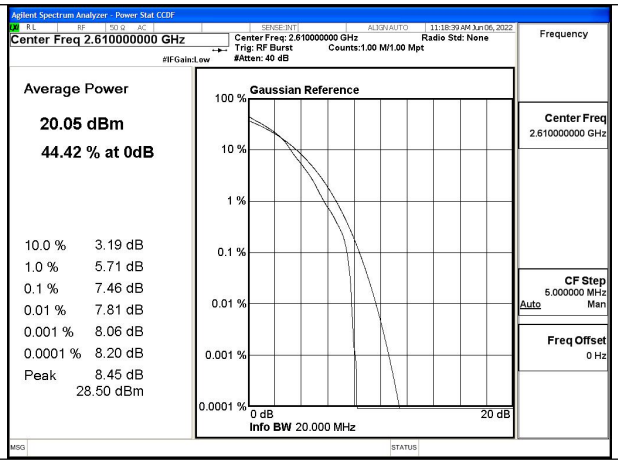


Fig.67

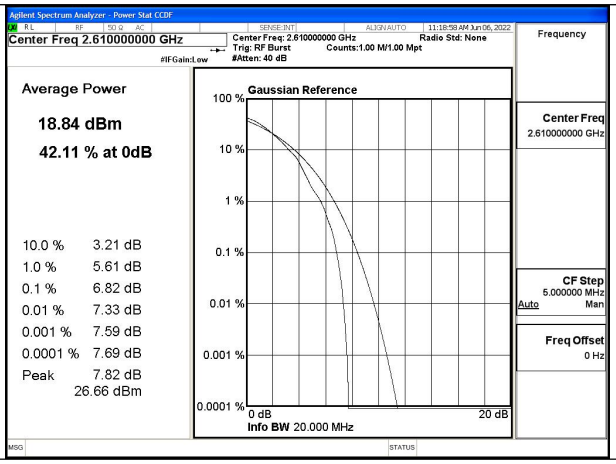


Fig.68

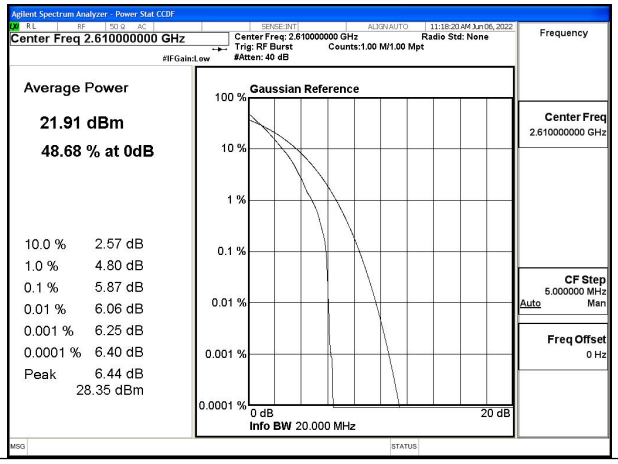


Fig.69

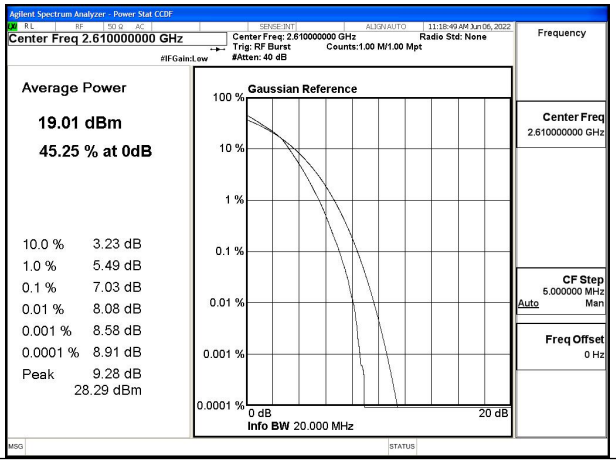


Fig.70

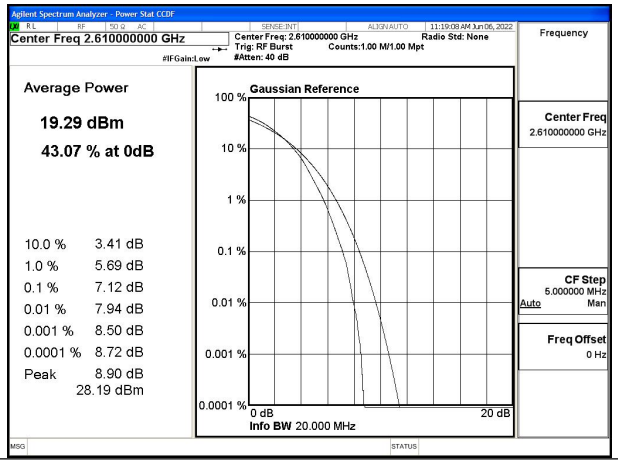


Fig.71

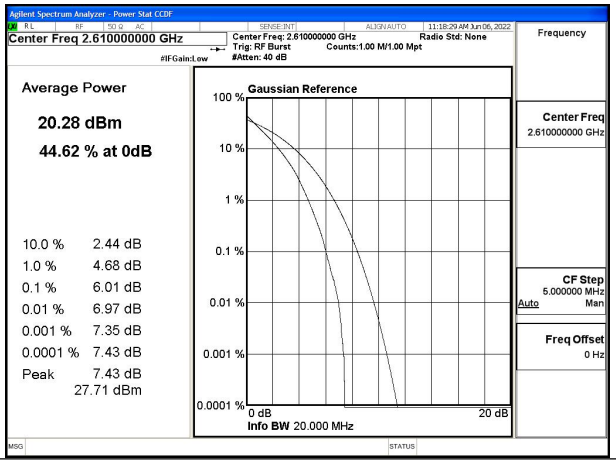


Fig.72

5 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
38	2580	37850	20	1	0	Fig.1
38	2595	38000	20	1	0	Fig.2
38	2610	38150	20	1	0	Fig.3

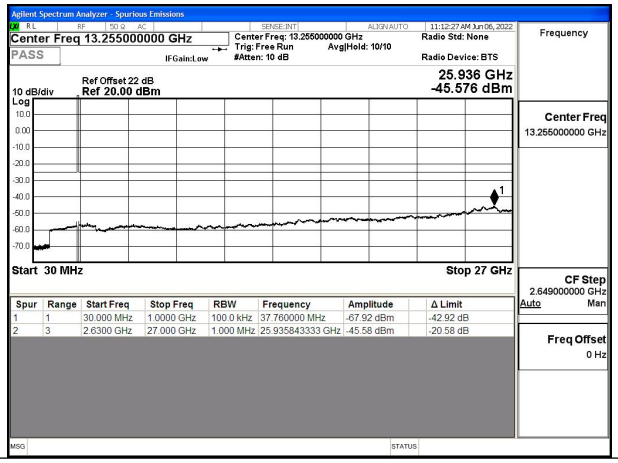


Fig.1

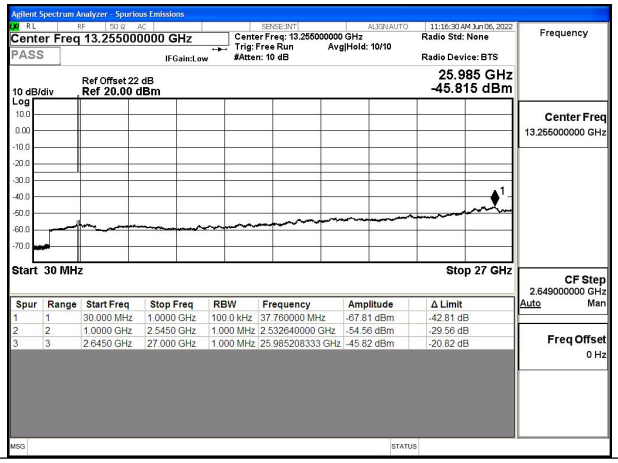


Fig.2

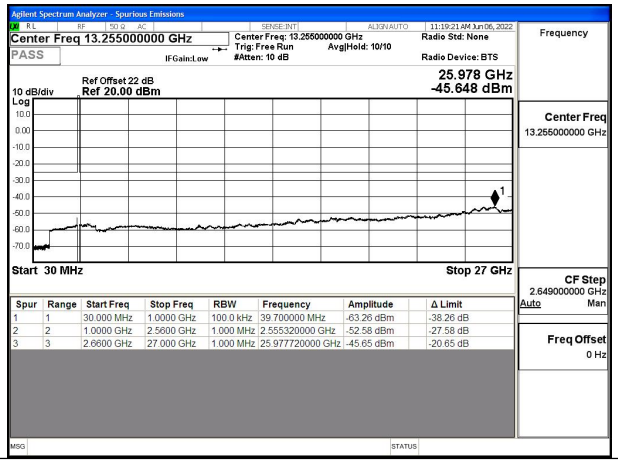


Fig.3

6 Band Edges Compliance

Band	Mode	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
38	QPSK	2572.5	37775	5	1	0	Fig.1
38	QPSK	2572.5	37775	5	25	0	Fig.2
38	QPSK	2617.5	38225	5	1	24	Fig.3
38	QPSK	2617.5	38225	5	25	0	Fig.4
38	QPSK	2575	37800	10	1	0	Fig.5
38	QPSK	2575	37800	10	50	0	Fig.6
38	QPSK	2615	38200	10	1	49	Fig.7
38	QPSK	2615	38200	10	50	0	Fig.8
38	QPSK	2577.5	37825	15	1	0	Fig.9
38	QPSK	2577.5	37825	15	75	0	Fig.10
38	QPSK	2612.5	38175	15	1	74	Fig.11
38	QPSK	2612.5	38175	15	75	0	Fig.12
38	QPSK	2580	37850	20	1	0	Fig.13
38	QPSK	2580	37850	20	100	0	Fig.14
38	QPSK	2610	38150	20	1	99	Fig.15
38	QPSK	2610	38150	20	100	0	Fig.16

Test Mode: QPSK

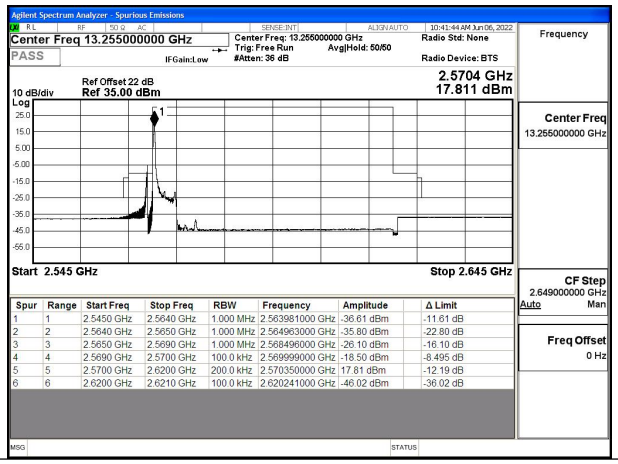


Fig.1

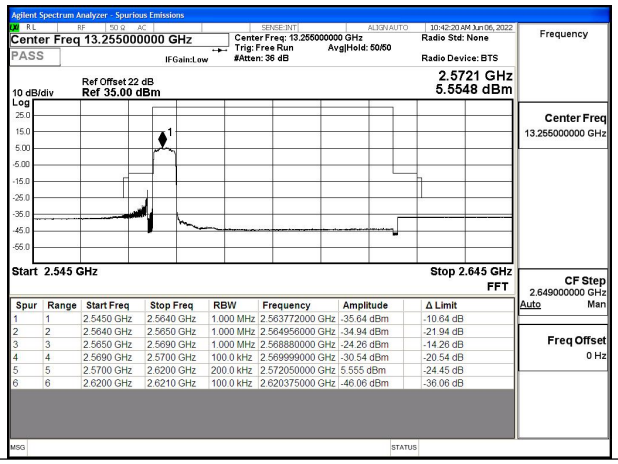
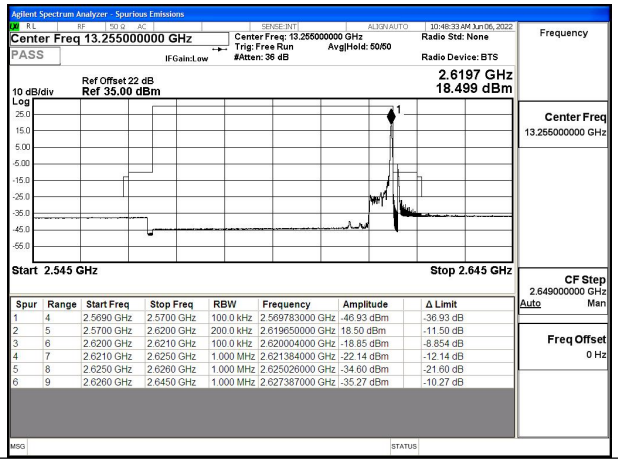


Fig.2



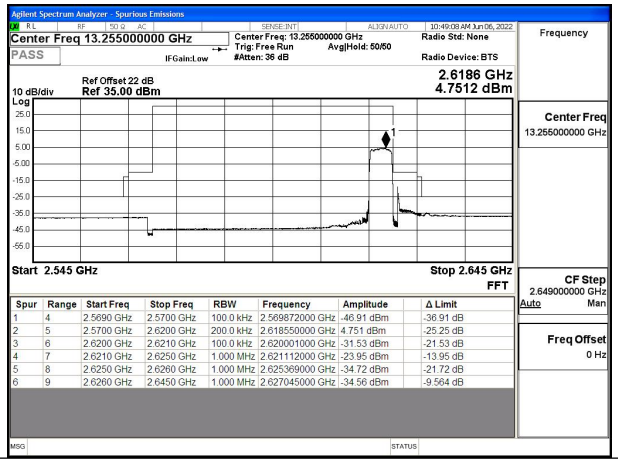


Fig.3

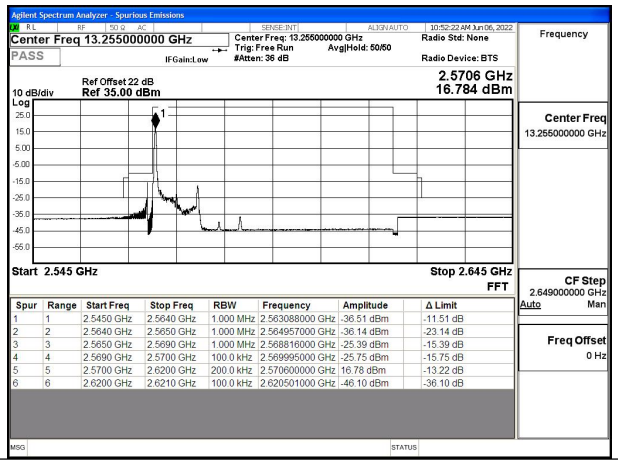


Fig.4

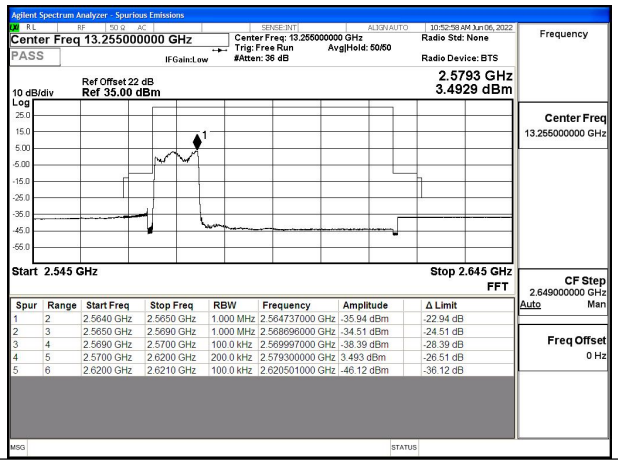


Fig.5

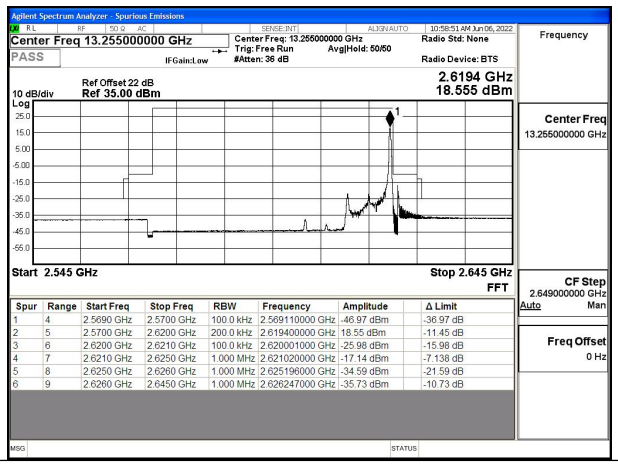


Fig.6

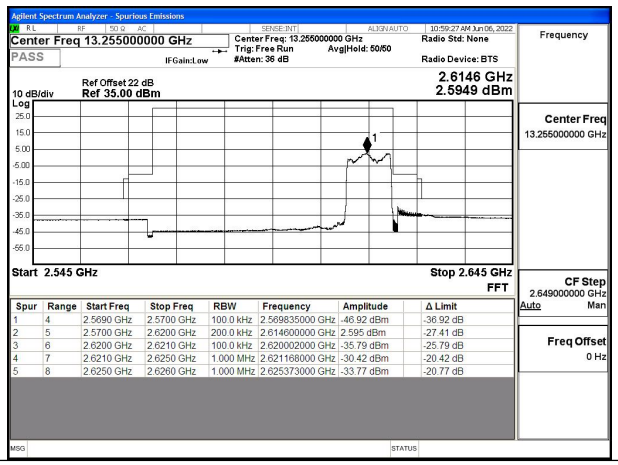


Fig.7

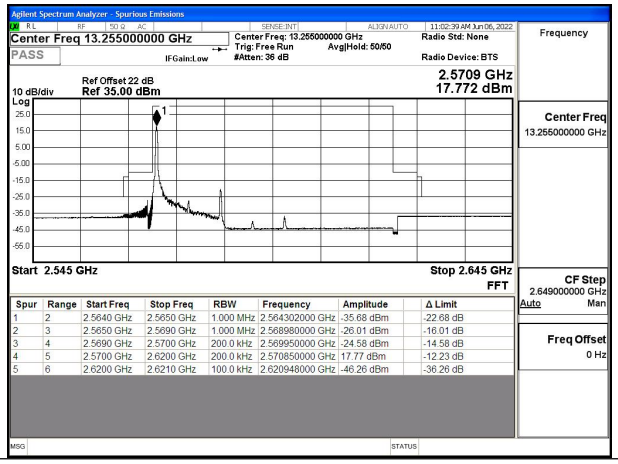


Fig.8

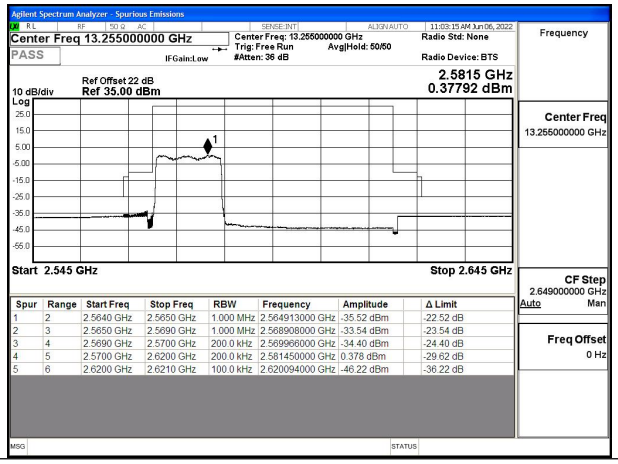


Fig.9

Fig.10

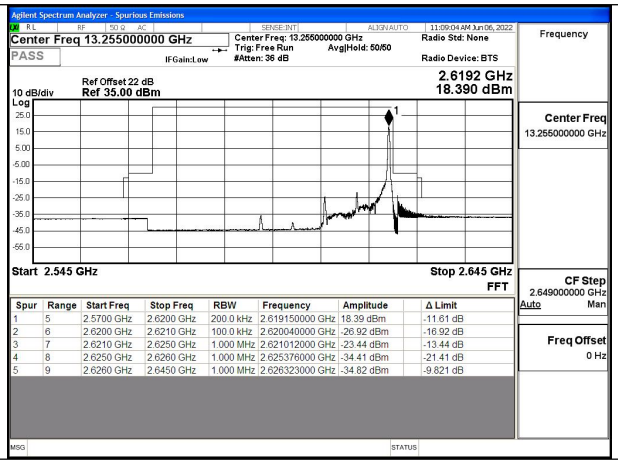


Fig.11

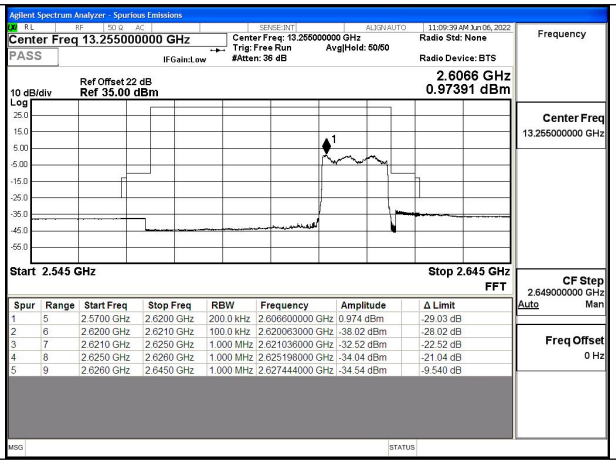


Fig.12

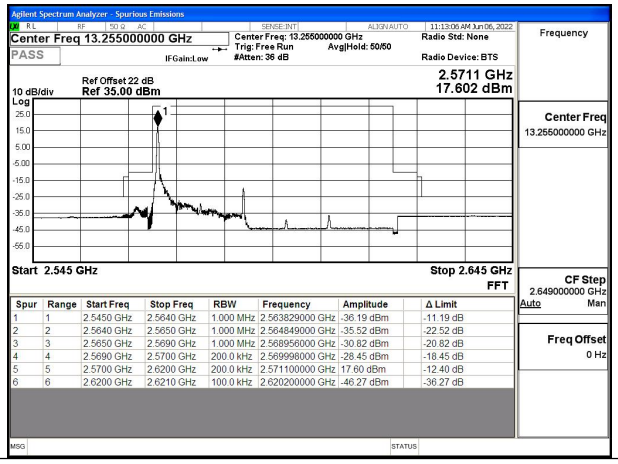


Fig.13

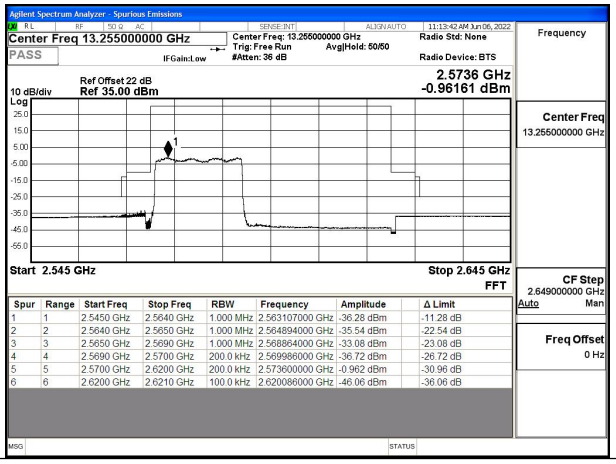


Fig.14

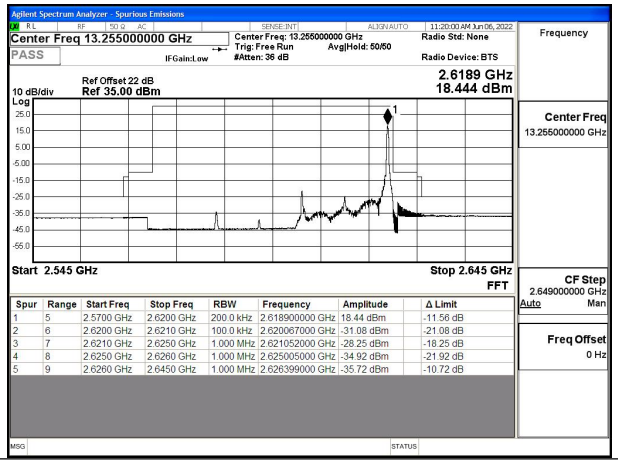


Fig.15

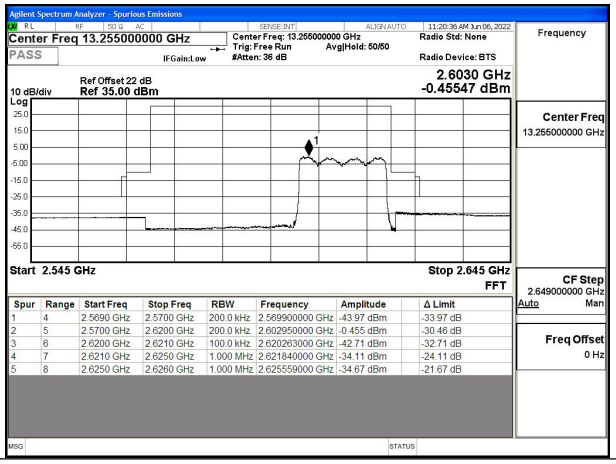


Fig.16

7 Frequency Stability

Temperature(°C)	Voltage	Test Result (ppm) Band 38 Low Channel QPSK			
		5M	10M	15M	20M
0	NV	0.015	0.010	0.006	0.009
+10	NV	-0.016	-0.006	0.002	-0.005
+20	NV	0.004	-0.002	-0.005	0.003
+30	NV	0.004	-0.007	-0.002	0.004
+40	NV	0.010	0.006	-0.005	-0.003
+50	NV	0.010	0.002	0.009	0.003
+55	NV	0.005	0.002	-0.019	0.000
+20	LV	0.006	-0.002	0.005	-0.005
+20	HV	0.016	-0.001	0.007	-0.005

Temperature(°C)	Voltage	Test Result (ppm) Band 38 High Channel QPSK			
		5M	10M	15M	20M
0	NV	-0.011	-0.010	0.006	-0.017
+10	NV	-0.007	-0.012	0.004	-0.010
+20	NV	-0.010	0.003	0.004	-0.010
+30	NV	-0.004	-0.009	0.003	-0.003
+40	NV	-0.019	0.003	-0.001	-0.006
+50	NV	-0.006	0.020	-0.008	0.003
+55	NV	-0.013	-0.013	0.003	-0.009
+20	LV	-0.018	-0.009	0.001	-0.018
+20	HV	-0.005	0.001	0.001	-0.011

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	22.69	23.99	0.251
QPSK	2572.5	37775	5	1	12	21.80	23.10	0.204
QPSK	2572.5	37775	5	1	24	21.76	23.06	0.202
QPSK	2572.5	37775	5	12	0	20.92	22.22	0.167
QPSK	2572.5	37775	5	12	7	20.93	22.23	0.167
QPSK	2572.5	37775	5	12	13	20.79	22.09	0.162
QPSK	2572.5	37775	5	25	0	20.79	22.09	0.162
QPSK	2595	38000	5	1	0	21.94	23.24	0.211
QPSK	2595	38000	5	1	12	21.80	23.10	0.204
QPSK	2595	38000	5	1	24	21.81	23.11	0.205
QPSK	2595	38000	5	12	0	20.58	21.88	0.154
QPSK	2595	38000	5	12	7	20.51	21.81	0.152
QPSK	2595	38000	5	12	13	20.48	21.78	0.151
QPSK	2595	38000	5	25	0	20.56	21.86	0.153
QPSK	2617.5	38225	5	1	0	21.54	22.84	0.192
QPSK	2617.5	38225	5	1	12	21.67	22.97	0.198
QPSK	2617.5	38225	5	1	24	21.64	22.94	0.197
QPSK	2617.5	38225	5	12	0	20.55	21.85	0.153
QPSK	2617.5	38225	5	12	7	20.52	21.82	0.152

QPSK	2617.5	38225	5	12	13	20.51	21.81	0.152
QPSK	2617.5	38225	5	25	0	20.56	21.86	0.153

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	20.55	21.85	0.153
16QAM	2572.5	37775	5	1	12	20.35	21.65	0.146
16QAM	2572.5	37775	5	1	24	20.39	21.69	0.148
16QAM	2572.5	37775	5	12	0	19.76	21.06	0.128
16QAM	2572.5	37775	5	12	7	19.71	21.01	0.126
16QAM	2572.5	37775	5	12	13	19.78	21.08	0.128
16QAM	2572.5	37775	5	25	0	19.96	21.26	0.134
16QAM	2595	38000	5	1	0	20.62	21.92	0.156
16QAM	2595	38000	5	1	12	20.51	21.81	0.152
16QAM	2595	38000	5	1	24	20.42	21.72	0.149
16QAM	2595	38000	5	12	0	19.40	20.70	0.117
16QAM	2595	38000	5	12	7	19.51	20.81	0.121
16QAM	2595	38000	5	12	13	19.43	20.73	0.118
16QAM	2595	38000	5	25	0	19.51	20.81	0.121
16QAM	2617.5	38225	5	1	0	20.20	21.50	0.141
16QAM	2617.5	38225	5	1	12	20.23	21.53	0.142
16QAM	2617.5	38225	5	1	24	20.25	21.55	0.143
16QAM	2617.5	38225	5	12	0	19.51	20.81	0.121
16QAM	2617.5	38225	5	12	7	19.59	20.89	0.123
16QAM	2617.5	38225	5	12	13	19.58	20.88	0.122
16QAM	2617.5	38225	5	25	0	19.63	20.93	0.124
64QAM	2572.5	37775	5	1	0	19.78	21.08	0.128
64QAM	2572.5	37775	5	1	12	19.57	20.87	0.122
64QAM	2572.5	37775	5	1	24	18.79	20.09	0.102
64QAM	2572.5	37775	5	12	0	19.46	20.76	0.119
64QAM	2572.5	37775	5	12	7	19.63	20.93	0.124
64QAM	2572.5	37775	5	12	13	19.49	20.79	0.120
64QAM	2572.5	37775	5	25	0	19.49	20.79	0.120
64QAM	2595	38000	5	1	0	19.20	20.50	0.112
64QAM	2595	38000	5	1	12	19.39	20.69	0.117
64QAM	2595	38000	5	1	24	18.40	19.70	0.093
64QAM	2595	38000	5	12	0	19.30	20.60	0.115
64QAM	2595	38000	5	12	7	19.38	20.68	0.117
64QAM	2595	38000	5	12	13	19.19	20.49	0.112
64QAM	2595	38000	5	25	0	19.26	20.56	0.114
64QAM	2617.5	38225	5	1	0	18.96	20.26	0.106
64QAM	2617.5	38225	5	1	12	19.46	20.76	0.119
64QAM	2617.5	38225	5	1	24	18.63	19.93	0.098
64QAM	2617.5	38225	5	12	0	18.62	19.92	0.098
64QAM	2617.5	38225	5	12	7	18.75	20.05	0.101
64QAM	2617.5	38225	5	12	13	18.57	19.87	0.097

64QAM	2617.5	38225	5	25	0	18.62	19.92	0.098

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	22.02	23.32	0.215
QPSK	2575	37800	10	1	25	22.20	23.50	0.224
QPSK	2575	37800	10	1	49	22.04	23.34	0.216
QPSK	2575	37800	10	25	0	20.70	22.00	0.158
QPSK	2575	37800	10	25	12	20.66	21.96	0.157
QPSK	2575	37800	10	25	25	20.68	21.98	0.158
QPSK	2575	37800	10	50	0	20.31	21.61	0.145
QPSK	2595	38000	10	1	0	21.63	22.93	0.196
QPSK	2595	38000	10	1	25	21.57	22.87	0.194
QPSK	2595	38000	10	1	49	21.47	22.77	0.189
QPSK	2595	38000	10	25	0	20.34	21.64	0.146
QPSK	2595	38000	10	25	12	20.34	21.64	0.146
QPSK	2595	38000	10	25	25	20.19	21.49	0.141
QPSK	2595	38000	10	50	0	19.98	21.28	0.134
QPSK	2615	38200	10	1	0	21.70	23.00	0.200
QPSK	2615	38200	10	1	25	21.28	22.58	0.181
QPSK	2615	38200	10	1	49	21.50	22.80	0.191
QPSK	2615	38200	10	25	0	20.37	21.67	0.147
QPSK	2615	38200	10	25	12	20.24	21.54	0.143
QPSK	2615	38200	10	25	25	20.64	21.94	0.156
QPSK	2615	38200	10	50	0	20.15	21.45	0.140

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	20.21	21.51	0.142
16QAM	2575	37800	10	1	25	20.30	21.60	0.145
16QAM	2575	37800	10	1	49	20.13	21.43	0.139
16QAM	2575	37800	10	25	0	19.67	20.97	0.125
16QAM	2575	37800	10	25	12	19.77	21.07	0.128
16QAM	2575	37800	10	25	25	19.68	20.98	0.125
16QAM	2575	37800	10	50	0	19.36	20.66	0.116
16QAM	2595	38000	10	1	0	20.30	21.60	0.145
16QAM	2595	38000	10	1	25	20.12	21.42	0.139
16QAM	2595	38000	10	1	49	19.95	21.25	0.133
16QAM	2595	38000	10	25	0	19.31	20.61	0.115
16QAM	2595	38000	10	25	12	19.30	20.60	0.115
16QAM	2595	38000	10	25	25	19.22	20.52	0.113
16QAM	2595	38000	10	50	0	18.98	20.28	0.107
16QAM	2615	38200	10	1	0	20.27	21.57	0.144
16QAM	2615	38200	10	1	25	20.24	21.54	0.143
16QAM	2615	38200	10	1	49	20.31	21.61	0.145
16QAM	2615	38200	10	25	0	19.75	21.05	0.127

16QAM	2615	38200	10	25	12	19.61	20.91	0.123
16QAM	2615	38200	10	25	25	19.70	21.00	0.126
16QAM	2615	38200	10	50	0	19.26	20.56	0.114
64QAM	2575	37800	10	1	0	19.29	20.59	0.115
64QAM	2575	37800	10	1	25	19.21	20.51	0.112
64QAM	2575	37800	10	1	49	19.13	20.43	0.110
64QAM	2575	37800	10	25	0	19.58	20.88	0.122
64QAM	2575	37800	10	25	12	19.67	20.97	0.125
64QAM	2575	37800	10	25	25	19.86	21.16	0.131
64QAM	2575	37800	10	50	0	19.66	20.96	0.125
64QAM	2595	38000	10	1	0	18.64	19.94	0.099
64QAM	2595	38000	10	1	25	18.47	19.77	0.095
64QAM	2595	38000	10	1	49	18.47	19.77	0.095
64QAM	2595	38000	10	25	0	19.54	20.84	0.121
64QAM	2595	38000	10	25	12	19.51	20.81	0.121
64QAM	2595	38000	10	25	25	19.60	20.90	0.123
64QAM	2595	38000	10	50	0	19.50	20.80	0.120
64QAM	2615	38200	10	1	0	18.78	20.08	0.102
64QAM	2615	38200	10	1	25	18.86	20.16	0.104
64QAM	2615	38200	10	1	49	18.61	19.91	0.098
64QAM	2615	38200	10	25	0	18.93	20.23	0.105
64QAM	2615	38200	10	25	12	18.93	20.23	0.105
64QAM	2615	38200	10	25	25	19.01	20.31	0.107
64QAM	2615	38200	10	50	0	18.91	20.21	0.105

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	22.12	23.42	0.220
QPSK	2577.5	37825	15	1	37	22.02	23.32	0.215
QPSK	2577.5	37825	15	1	74	22.00	23.30	0.214
QPSK	2577.5	37825	15	36	0	20.75	22.05	0.160
QPSK	2577.5	37825	15	36	29	20.65	21.95	0.157
QPSK	2577.5	37825	15	36	30	20.66	21.96	0.157
QPSK	2577.5	37825	15	75	0	20.34	21.64	0.146
QPSK	2595	38000	15	1	0	22.38	23.68	0.233
QPSK	2595	38000	15	1	37	21.55	22.85	0.193
QPSK	2595	38000	15	1	74	21.45	22.75	0.188
QPSK	2595	38000	15	36	0	20.33	21.63	0.146
QPSK	2595	38000	15	36	29	20.28	21.58	0.144
QPSK	2595	38000	15	36	30	20.28	21.58	0.144
QPSK	2595	38000	15	75	0	19.77	21.07	0.128
QPSK	2612.5	38175	15	1	0	21.52	22.82	0.191
QPSK	2612.5	38175	15	1	37	21.42	22.72	0.187
QPSK	2612.5	38175	15	1	74	21.58	22.88	0.194
QPSK	2612.5	38175	15	36	0	20.63	21.93	0.156
QPSK	2612.5	38175	15	36	29	20.41	21.71	0.148

QPSK	2612.5	38175	15	36	30	20.40	21.70	0.148
QPSK	2612.5	38175	15	75	0	20.24	21.54	0.143

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	20.37	21.67	0.147
16QAM	2577.5	37825	15	1	37	20.31	21.61	0.145
16QAM	2577.5	37825	15	1	74	19.95	21.25	0.133
16QAM	2577.5	37825	15	36	0	19.71	21.01	0.126
16QAM	2577.5	37825	15	36	29	19.67	20.97	0.125
16QAM	2577.5	37825	15	36	30	19.77	21.07	0.128
16QAM	2577.5	37825	15	75	0	19.57	20.87	0.122
16QAM	2595	38000	15	1	0	20.33	21.63	0.146
16QAM	2595	38000	15	1	37	20.10	21.40	0.138
16QAM	2595	38000	15	1	74	19.87	21.17	0.131
16QAM	2595	38000	15	36	0	19.48	20.78	0.120
16QAM	2595	38000	15	36	29	19.19	20.49	0.112
16QAM	2595	38000	15	36	30	19.20	20.50	0.112
16QAM	2595	38000	15	75	0	19.00	20.30	0.107
16QAM	2612.5	38175	15	1	0	20.18	21.48	0.141
16QAM	2612.5	38175	15	1	37	20.02	21.32	0.136
16QAM	2612.5	38175	15	1	74	20.24	21.54	0.143
16QAM	2612.5	38175	15	36	0	19.60	20.90	0.123
16QAM	2612.5	38175	15	36	29	19.60	20.90	0.123
16QAM	2612.5	38175	15	36	30	19.36	20.66	0.116
16QAM	2612.5	38175	15	75	0	19.08	20.38	0.109
64QAM	2577.5	37825	15	1	0	18.99	20.29	0.107
64QAM	2577.5	37825	15	1	37	19.44	20.74	0.119
64QAM	2577.5	37825	15	1	74	18.86	20.16	0.104
64QAM	2577.5	37825	15	36	0	19.70	21.00	0.126
64QAM	2577.5	37825	15	36	29	19.64	20.94	0.124
64QAM	2577.5	37825	15	36	30	19.64	20.94	0.124
64QAM	2577.5	37825	15	75	0	19.70	21.00	0.126
64QAM	2595	38000	15	1	0	18.72	20.02	0.100
64QAM	2595	38000	15	1	37	18.47	19.77	0.095
64QAM	2595	38000	15	1	74	18.46	19.76	0.095
64QAM	2595	38000	15	36	0	19.69	20.99	0.126
64QAM	2595	38000	15	36	29	19.37	20.67	0.117
64QAM	2595	38000	15	36	30	19.37	20.67	0.117
64QAM	2595	38000	15	75	0	19.56	20.86	0.122
64QAM	2612.5	38175	15	1	0	18.82	20.12	0.103
64QAM	2612.5	38175	15	1	37	18.54	19.84	0.096
64QAM	2612.5	38175	15	1	74	18.54	19.84	0.096
64QAM	2612.5	38175	15	36	0	19.14	20.44	0.111
64QAM	2612.5	38175	15	36	29	18.87	20.17	0.104
64QAM	2612.5	38175	15	36	30	18.87	20.17	0.104

64QAM	2612.5	38175	15	75	0	19.01	20.31	0.107

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	22.15	23.45	0.221
QPSK	2580	37850	20	1	49	22.07	23.37	0.217
QPSK	2580	37850	20	1	99	21.68	22.98	0.199
QPSK	2580	37850	20	50	0	20.61	21.91	0.155
QPSK	2580	37850	20	50	24	20.63	21.93	0.156
QPSK	2580	37850	20	50	50	20.49	21.79	0.151
QPSK	2580	37850	20	100	0	20.11	21.41	0.138
QPSK	2595	38000	20	1	0	22.18	23.48	0.223
QPSK	2595	38000	20	1	49	21.60	22.90	0.195
QPSK	2595	38000	20	1	99	21.31	22.61	0.182
QPSK	2595	38000	20	50	0	20.46	21.76	0.150
QPSK	2595	38000	20	50	24	20.20	21.50	0.141
QPSK	2595	38000	20	50	50	20.28	21.58	0.144
QPSK	2595	38000	20	100	0	19.88	21.18	0.131
QPSK	2610	38150	20	1	0	21.90	23.20	0.209
QPSK	2610	38150	20	1	49	21.67	22.97	0.198
QPSK	2610	38150	20	1	99	21.64	22.94	0.197
QPSK	2610	38150	20	50	0	20.33	21.63	0.146
QPSK	2610	38150	20	50	24	20.36	21.66	0.147
QPSK	2610	38150	20	50	50	20.26	21.56	0.143
QPSK	2610	38150	20	100	0	19.90	21.20	0.132

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	20.34	21.64	0.146
16QAM	2580	37850	20	1	49	20.16	21.46	0.140
16QAM	2580	37850	20	1	99	19.91	21.21	0.132
16QAM	2580	37850	20	50	0	19.67	20.97	0.125
16QAM	2580	37850	20	50	24	19.66	20.96	0.125
16QAM	2580	37850	20	50	50	19.54	20.84	0.121
16QAM	2580	37850	20	100	0	19.22	20.52	0.113
16QAM	2595	38000	20	1	0	20.34	21.64	0.146
16QAM	2595	38000	20	1	49	20.14	21.44	0.139
16QAM	2595	38000	20	1	99	20.05	21.35	0.136
16QAM	2595	38000	20	50	0	19.44	20.74	0.119
16QAM	2595	38000	20	50	24	19.40	20.70	0.117
16QAM	2595	38000	20	50	50	19.29	20.59	0.115
16QAM	2595	38000	20	100	0	19.10	20.40	0.110
16QAM	2610	38150	20	1	0	20.10	21.40	0.138
16QAM	2610	38150	20	1	49	20.13	21.43	0.139
16QAM	2610	38150	20	1	99	20.15	21.45	0.140
16QAM	2610	38150	20	50	0	19.31	20.61	0.115

16QAM	2610	38150	20	50	24	19.30	20.60	0.115
16QAM	2610	38150	20	50	50	19.33	20.63	0.116
16QAM	2610	38150	20	100	0	19.11	20.41	0.110
64QAM	2580	37850	20	1	0	19.28	20.58	0.114
64QAM	2580	37850	20	1	49	19.10	20.40	0.110
64QAM	2580	37850	20	1	99	18.91	20.21	0.105
64QAM	2580	37850	20	50	0	20.00	21.30	0.135
64QAM	2580	37850	20	50	24	19.75	21.05	0.127
64QAM	2580	37850	20	50	50	19.86	21.16	0.131
64QAM	2580	37850	20	100	0	19.91	21.21	0.132
64QAM	2595	38000	20	1	0	18.83	20.13	0.103
64QAM	2595	38000	20	1	49	18.49	19.79	0.095
64QAM	2595	38000	20	1	99	18.40	19.70	0.093
64QAM	2595	38000	20	50	0	20.02	21.32	0.136
64QAM	2595	38000	20	50	24	19.54	20.84	0.121
64QAM	2595	38000	20	50	50	19.62	20.92	0.124
64QAM	2595	38000	20	100	0	19.80	21.10	0.129
64QAM	2610	38150	20	1	0	18.60	19.90	0.098
64QAM	2610	38150	20	1	49	18.48	19.78	0.095
64QAM	2610	38150	20	1	99	18.54	19.84	0.096
64QAM	2610	38150	20	50	0	19.66	20.96	0.125
64QAM	2610	38150	20	50	24	19.17	20.47	0.111
64QAM	2610	38150	20	50	50	19.23	20.53	0.113
64QAM	2610	38150	20	100	0	19.43	20.73	0.118