

**APPENDIX A – TEST DATA OF CONDUCTED EMISSION**

**LTE Band 40(2305-2315)**

**1 RF Power Output**

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2307.5	38725	5	1	0	23.63
QPSK	2307.5	38725	5	1	12	23.75
QPSK	2307.5	38725	5	1	24	23.63
QPSK	2307.5	38725	5	12	0	22.54
QPSK	2307.5	38725	5	12	7	22.56
QPSK	2307.5	38725	5	12	13	22.50
QPSK	2307.5	38725	5	25	0	22.60
QPSK	2310	38750	5	1	0	23.94
QPSK	2310	38750	5	1	12	23.91
QPSK	2310	38750	5	1	24	23.92
QPSK	2310	38750	5	12	0	22.46
QPSK	2310	38750	5	12	7	22.55
QPSK	2310	38750	5	12	13	22.48
QPSK	2310	38750	5	25	0	22.59
QPSK	2312.5	38775	5	1	0	23.72
QPSK	2312.5	38775	5	1	12	23.81
QPSK	2312.5	38775	5	1	24	23.77
QPSK	2312.5	38775	5	12	0	22.69
QPSK	2312.5	38775	5	12	7	22.58
QPSK	2312.5	38775	5	12	13	22.68
QPSK	2312.5	38775	5	25	0	22.63

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	2307.5	38725	5	1	0	22.33
16QAM	2307.5	38725	5	1	12	22.45
16QAM	2307.5	38725	5	1	24	22.46
16QAM	2307.5	38725	5	12	0	21.72
16QAM	2307.5	38725	5	12	7	21.80
16QAM	2307.5	38725	5	12	13	21.73
16QAM	2307.5	38725	5	25	0	21.84
16QAM	2310	38750	5	1	0	22.28
16QAM	2310	38750	5	1	12	22.32
16QAM	2310	38750	5	1	24	22.26
16QAM	2310	38750	5	12	0	21.69
16QAM	2310	38750	5	12	7	21.76
16QAM	2310	38750	5	12	13	21.65
16QAM	2310	38750	5	25	0	21.80
16QAM	2312.5	38775	5	1	0	22.50
16QAM	2312.5	38775	5	1	12	22.37
16QAM	2312.5	38775	5	1	24	22.44
16QAM	2312.5	38775	5	12	0	21.69
16QAM	2312.5	38775	5	12	7	21.76
16QAM	2312.5	38775	5	12	13	21.67
16QAM	2312.5	38775	5	25	0	21.84

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2310	38750	10	1	0	24.03
QPSK	2310	38750	10	1	25	23.89
QPSK	2310	38750	10	1	49	23.89
QPSK	2310	38750	10	25	0	22.53
QPSK	2310	38750	10	25	12	22.61
QPSK	2310	38750	10	25	25	22.60
QPSK	2310	38750	10	50	0	22.50

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	2310	38750	10	1	0	22.39
16QAM	2310	38750	10	1	25	22.31
16QAM	2310	38750	10	1	49	22.23
16QAM	2310	38750	10	25	0	21.74
16QAM	2310	38750	10	25	12	21.77
16QAM	2310	38750	10	25	25	21.84
16QAM	2310	38750	10	50	0	21.87

## 2 Occupied Bandwidth

Band	Mode	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)	
40	QPSK	2307.5	38725	5	25	0	4.463	Fig.1
40	QPSK	2310	38750	5	25	0	4.458	Fig.2
40	QPSK	2312.5	38775	5	25	0	4.465	Fig.3
40	QPSK	2310	38750	10	50	0	8.844	Fig.6

Band	Mode	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)	
40	16QAM	2307.5	38725	5	25	0	4.290	Fig.7
40	16QAM	2310	38750	5	25	0	4.431	Fig.8
40	16QAM	2312.5	38775	5	25	0	4.455	Fig.9
40	16QAM	2310	38750	10	50	0	8.942	Fig.12

Test Mode: QPSK

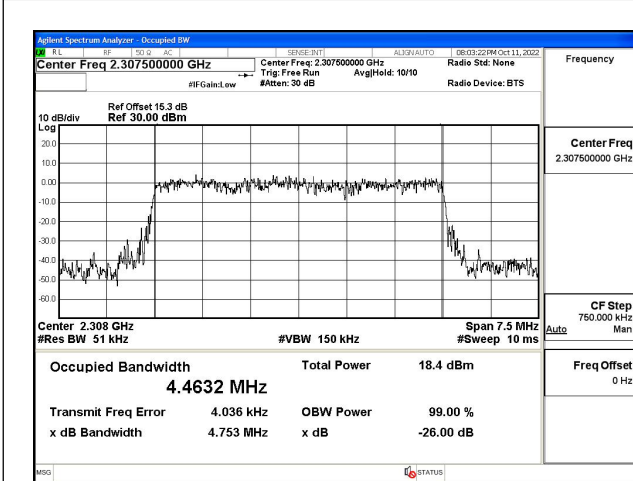


Fig.1

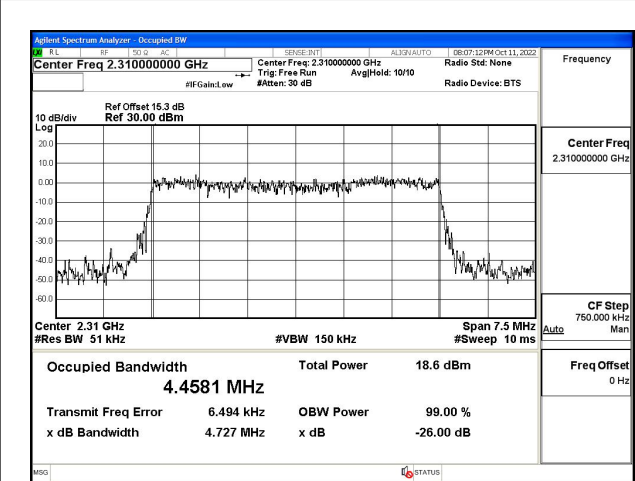


Fig.2

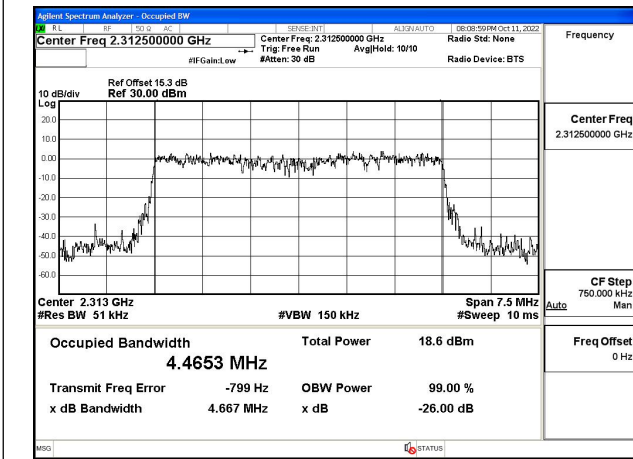


Fig.3

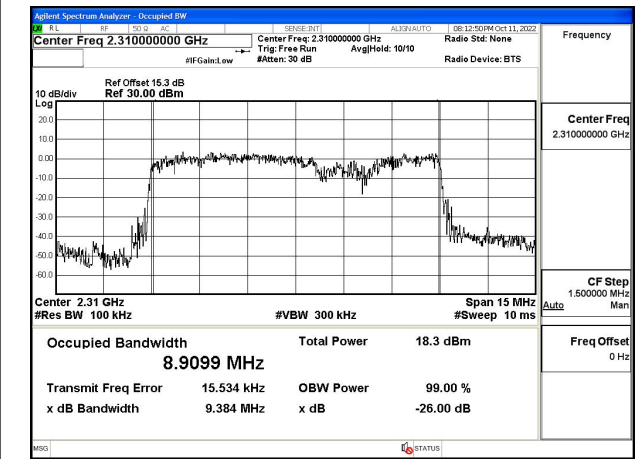


Fig.4

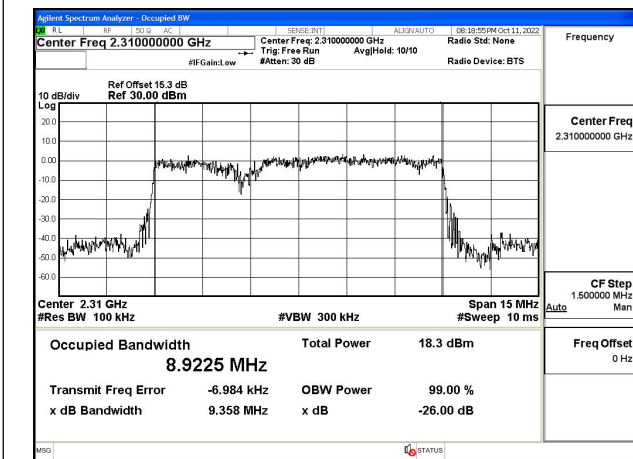


Fig.5

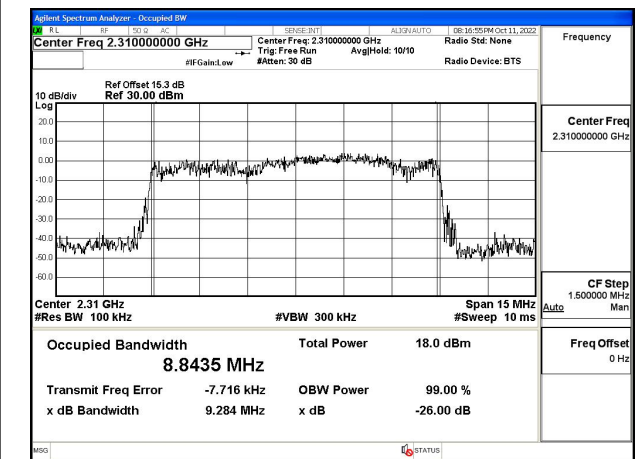


Fig.6

Test Mode: 16QAM

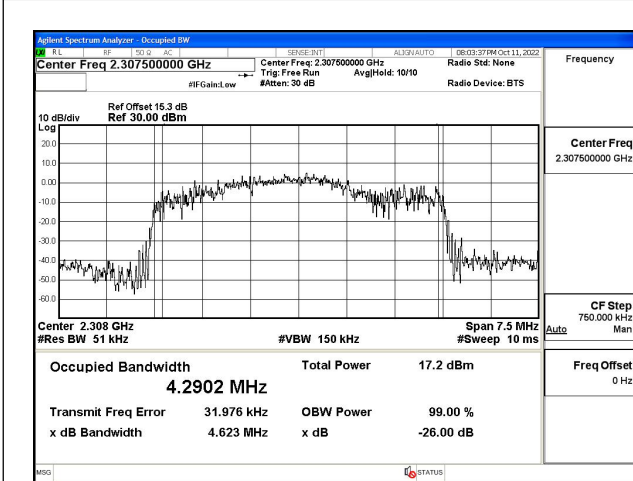


Fig.7

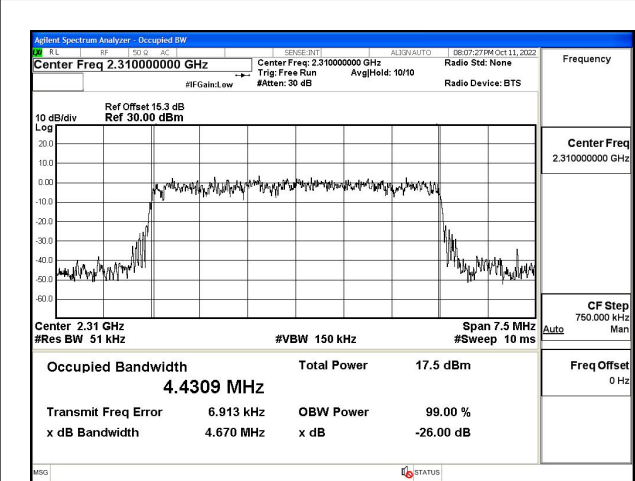


Fig.8

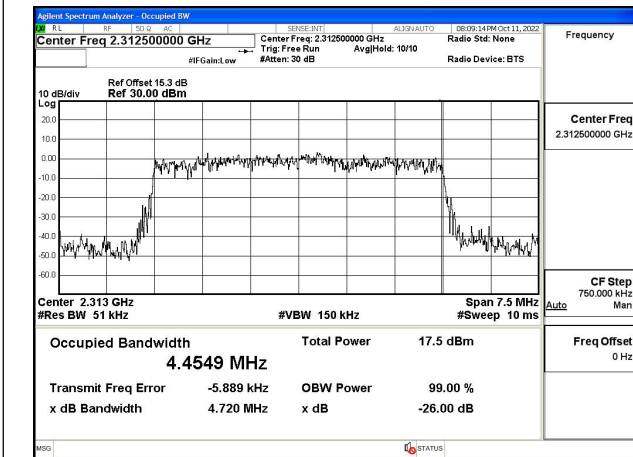


Fig.9

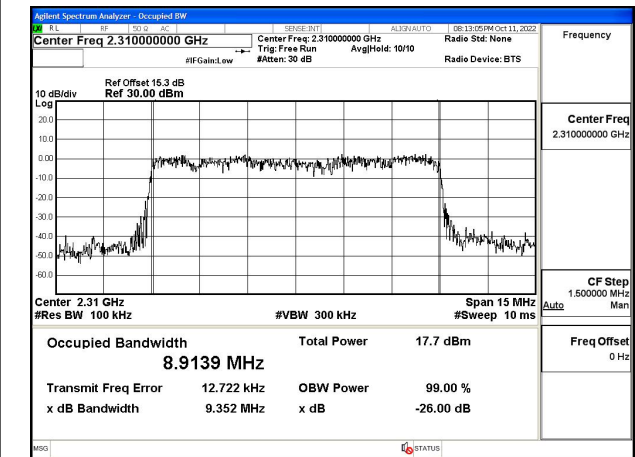


Fig.10

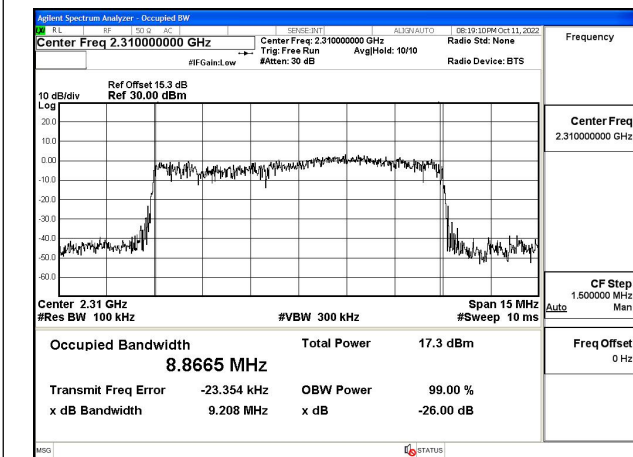


Fig.11

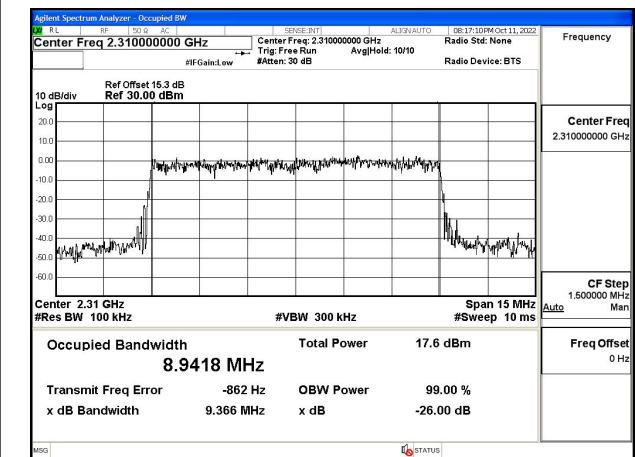


Fig.12

### 3 Emission Bandwidth

Band	Mode	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)	
40	QPSK	2307.5	38725	5	25	0	4.753	Fig.1
40	QPSK	2310	38750	5	25	0	4.727	Fig.2
40	QPSK	2312.5	38775	5	25	0	4.667	Fig.3
40	QPSK	2310	38750	10	50	0	9.284	Fig.6

Band	Mode	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)	
40	16QAM	2307.5	38725	5	25	0	4.623	Fig.7
40	16QAM	2310	38750	5	25	0	4.670	Fig.8
40	16QAM	2312.5	38775	5	25	0	4.720	Fig.9
40	16QAM	2310	38750	10	50	0	9.366	Fig.12

Test Mode: QPSK

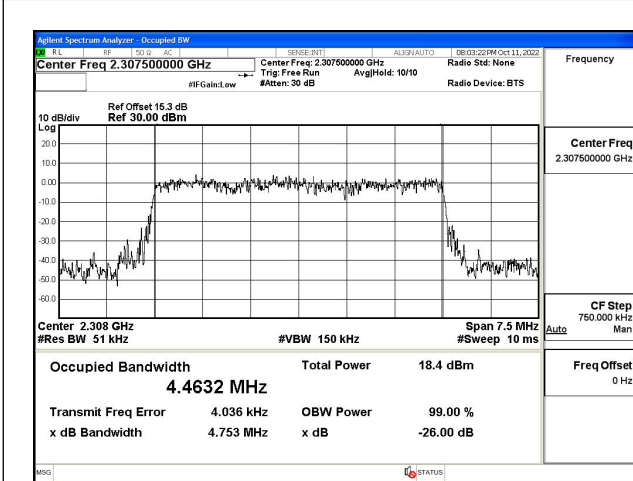


Fig.1

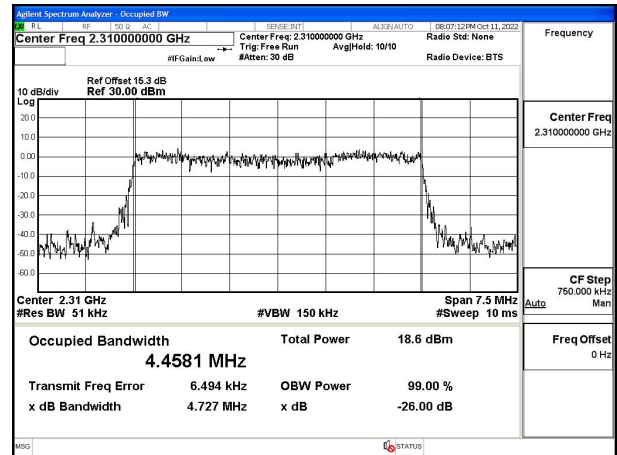


Fig.2

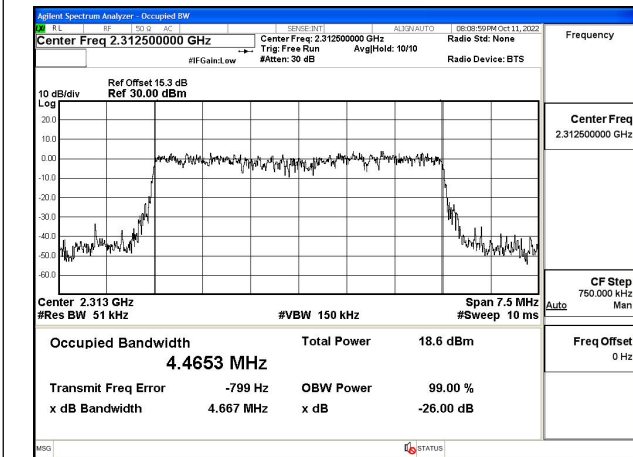


Fig.3

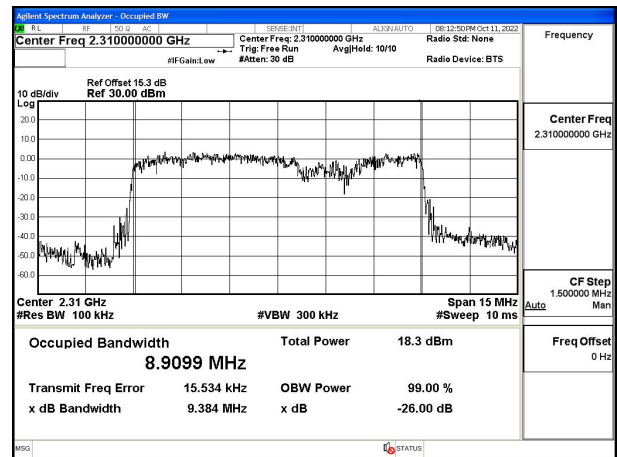


Fig.4

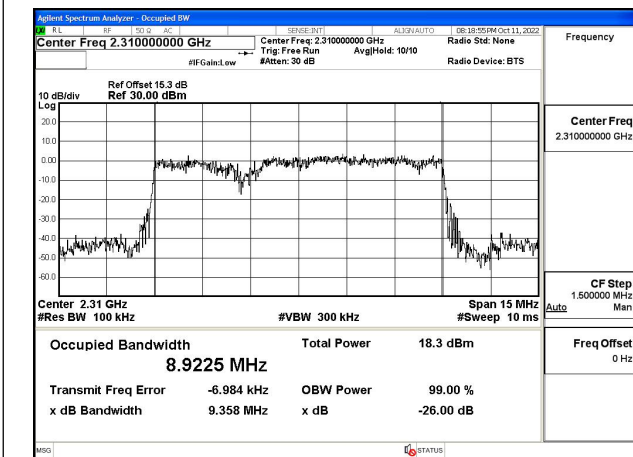


Fig.5

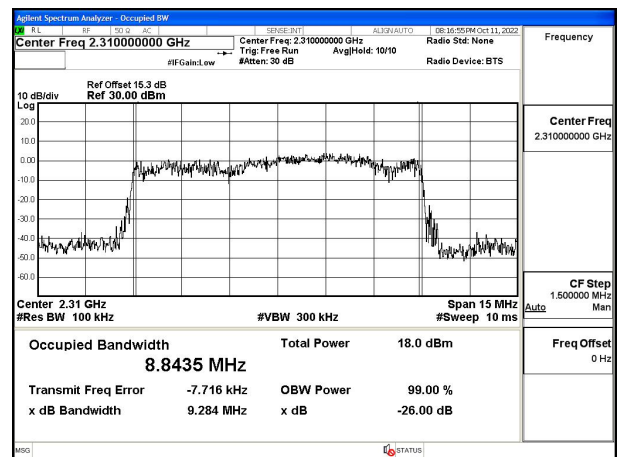


Fig.6



Test Mode: 16QAM

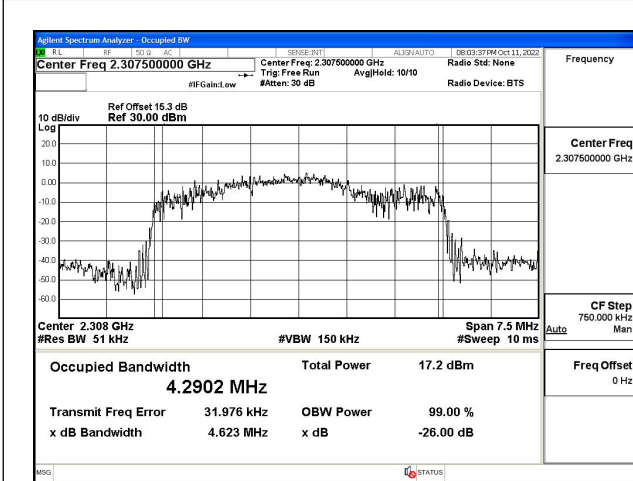


Fig.7

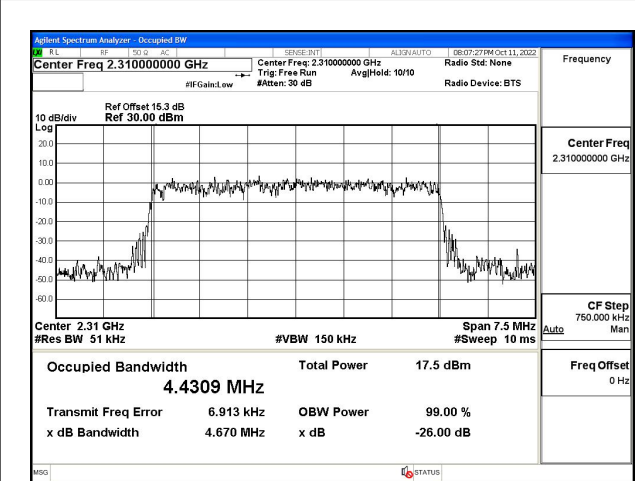


Fig.8

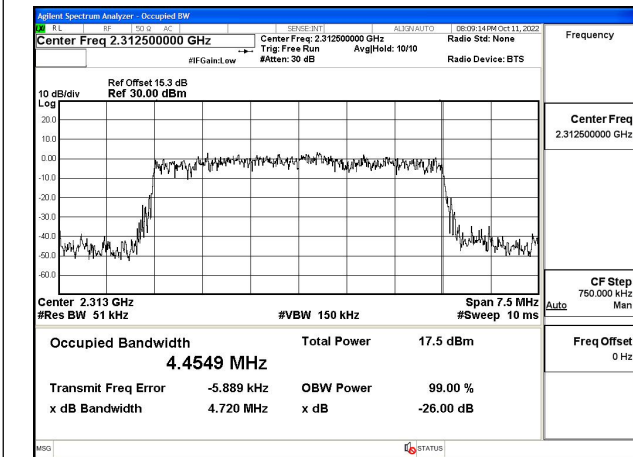


Fig.9

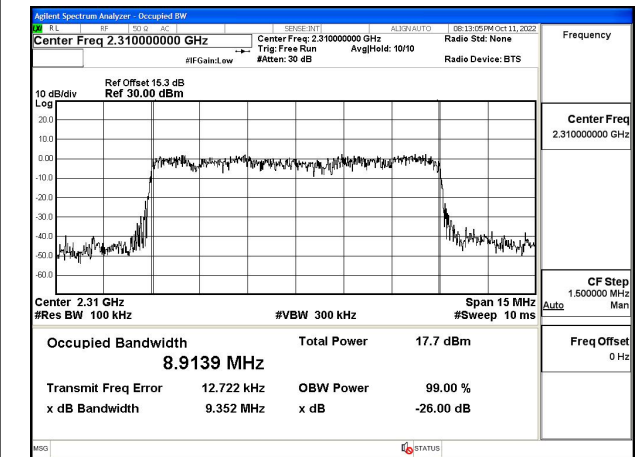


Fig.10

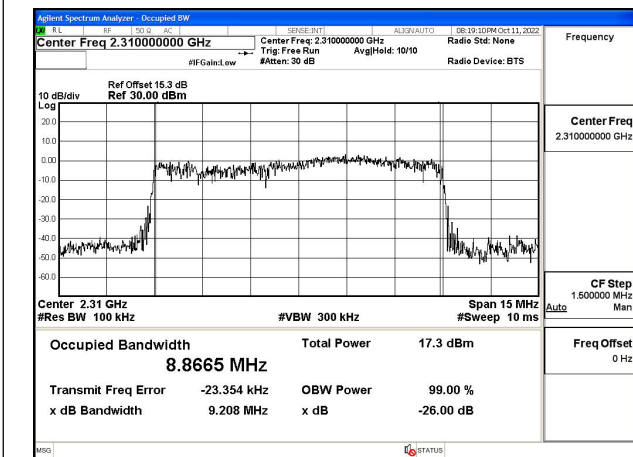


Fig.11

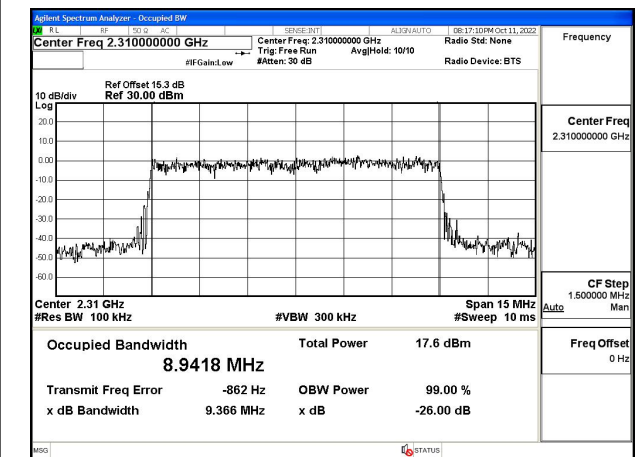


Fig.12

**4 Peak-Average Ratio**

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
40	2307.5	38725	5	1	24	Fig.1	Fig.2	---
40	2307.5	38725	5	25	0	Fig.3	Fig.4	---
40	2310	38750	5	1	24	Fig.5	Fig.6	---
40	2310	38750	5	25	0	Fig.7	Fig.8	---
40	2312.5	38775	5	1	24	Fig.9	Fig.10	---
40	2312.5	38775	5	25	0	Fig.11	Fig.12	---
40	2310	38750	10	1	49	Fig.21	Fig.22	---
40	2310	38750	10	50	0	Fig.23	Fig.24	---

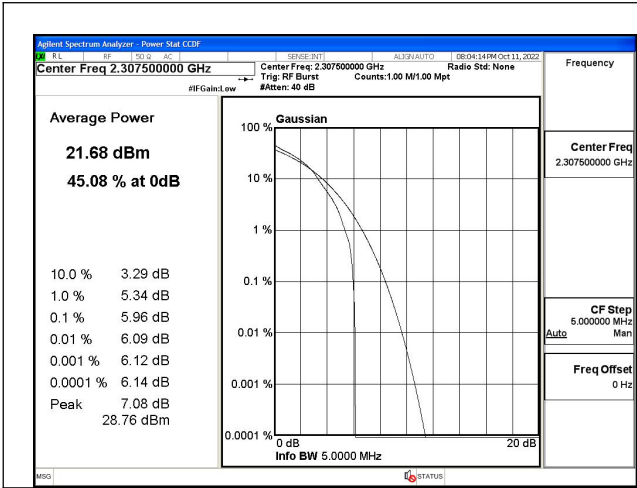


Fig.1

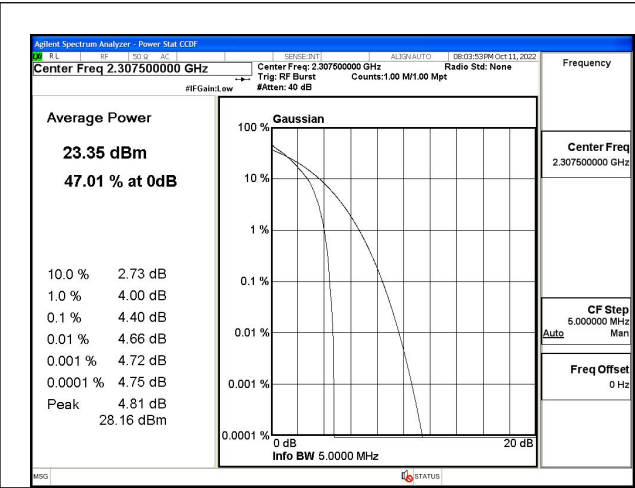


Fig.2

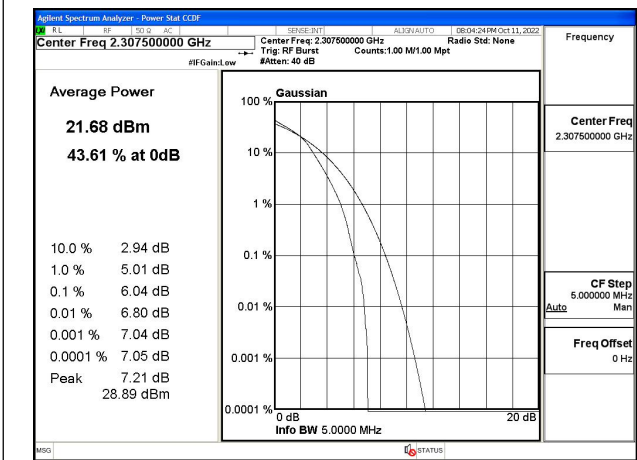


Fig.3

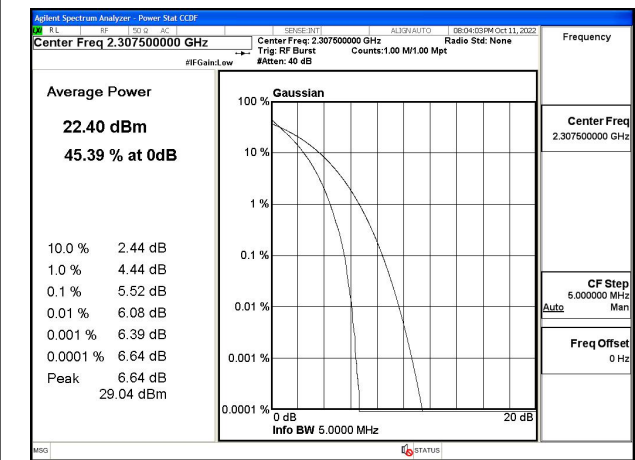


Fig.4

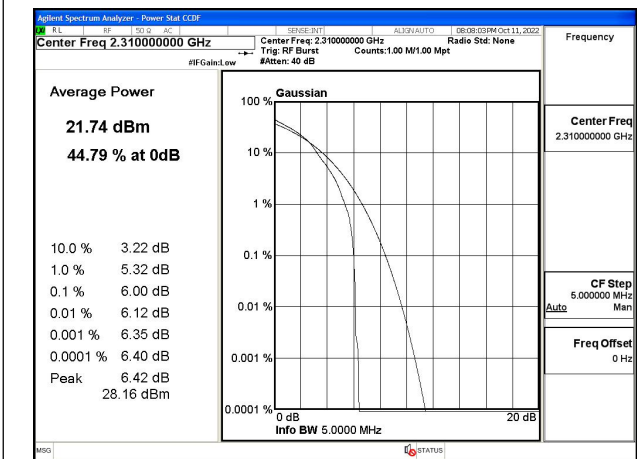


Fig.5

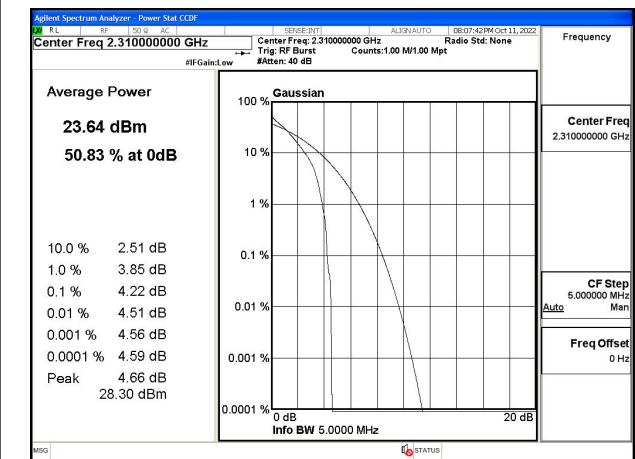


Fig.6

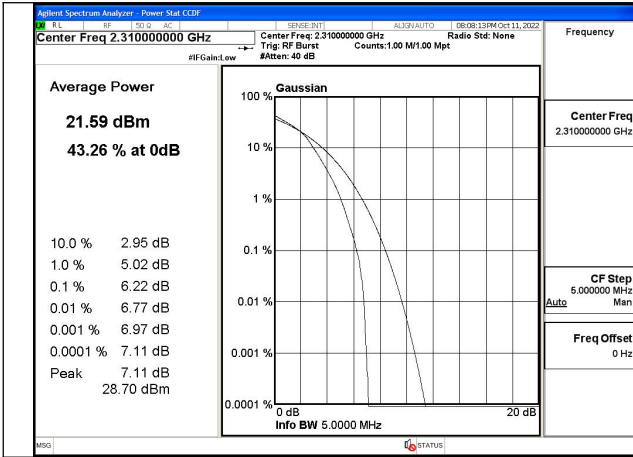


Fig.7

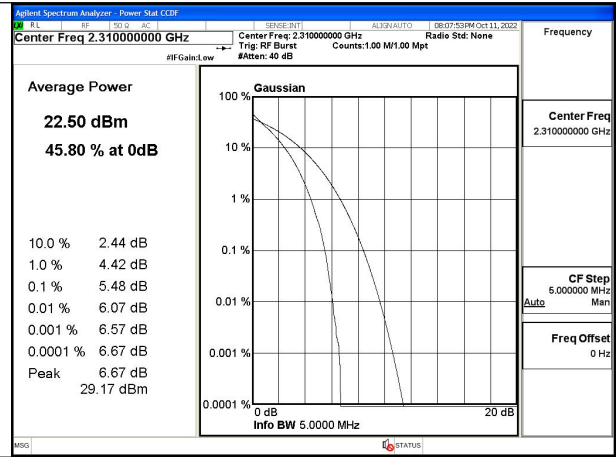


Fig.8

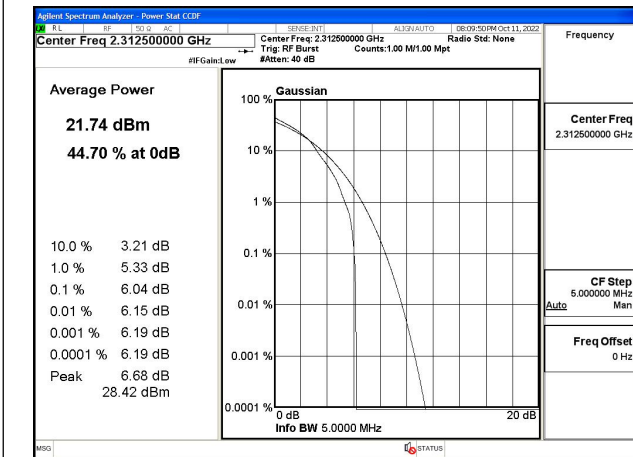


Fig.9

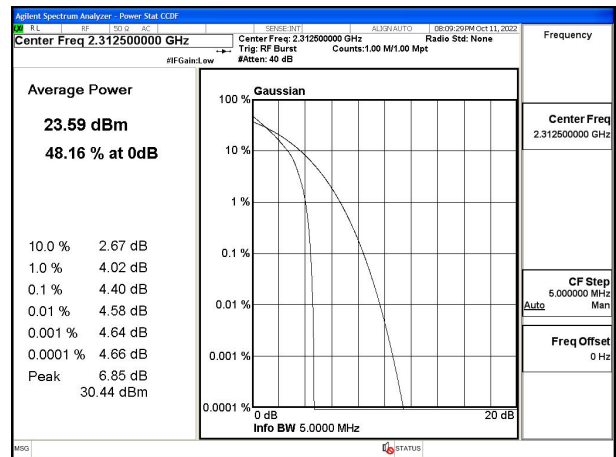


Fig.10

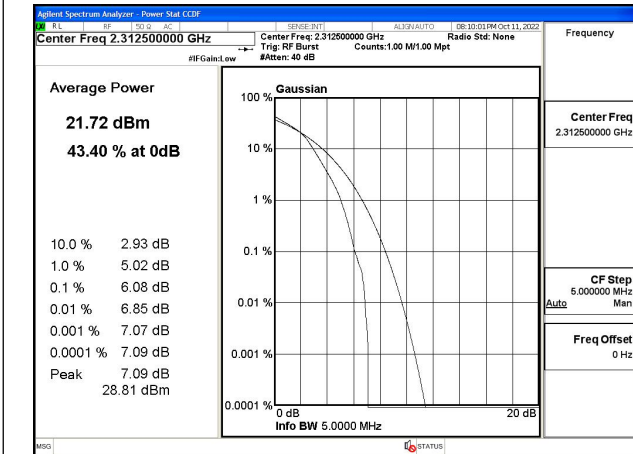


Fig.11

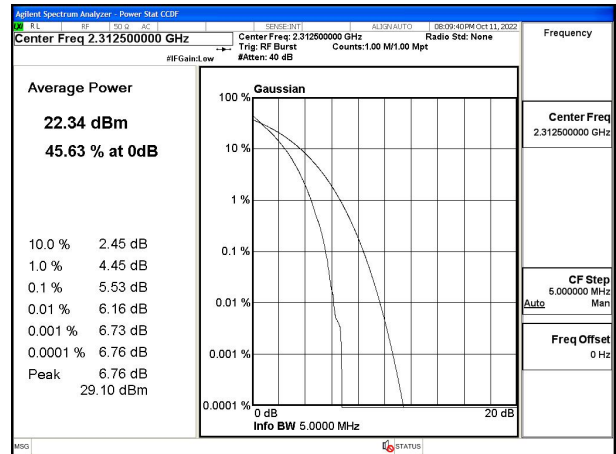


Fig.12

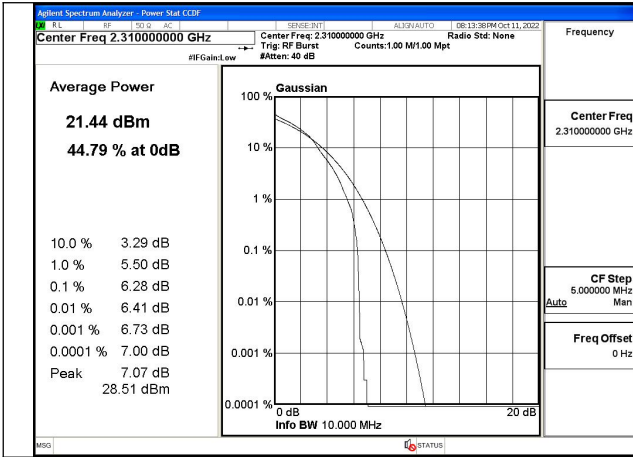


Fig. 13

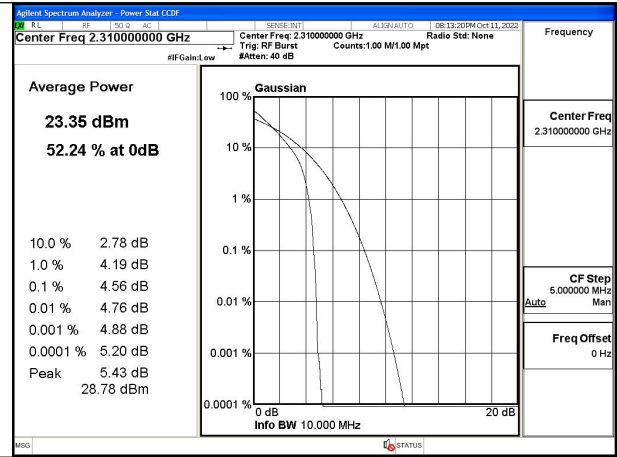


Fig. 14

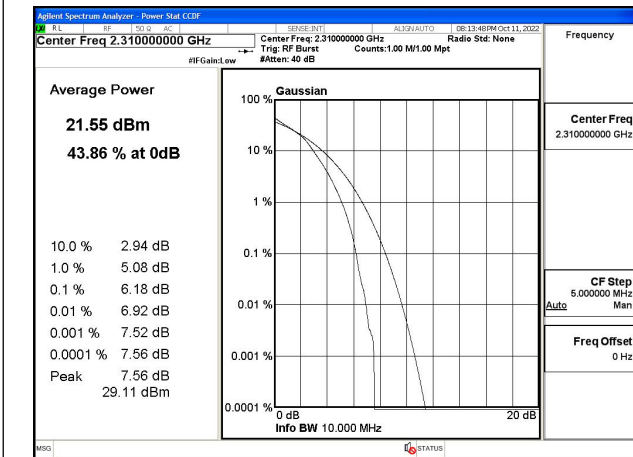


Fig. 15

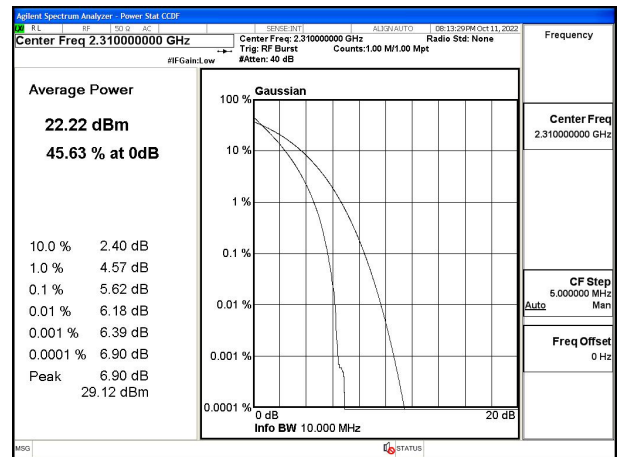


Fig. 16

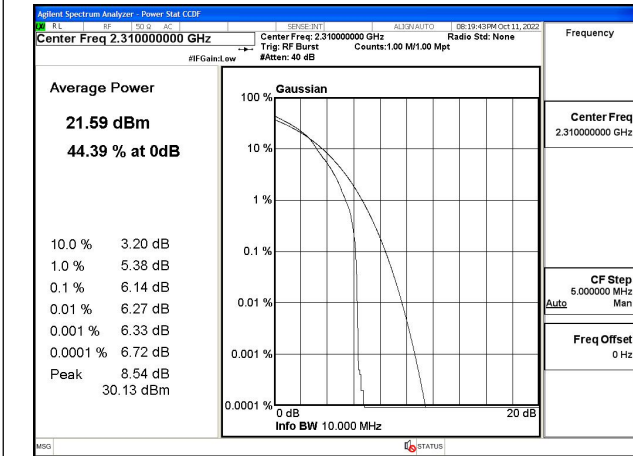


Fig. 17

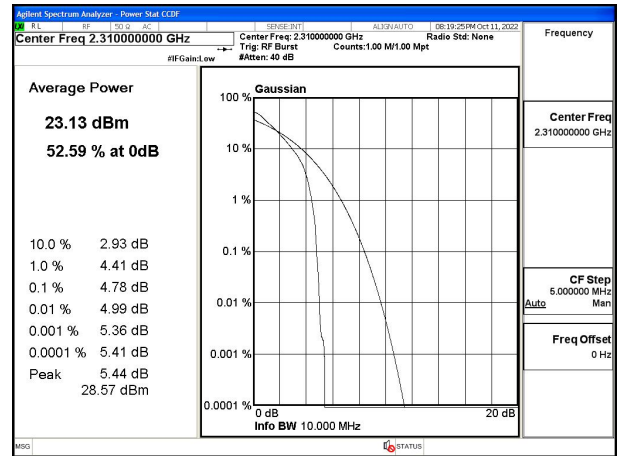


Fig. 18

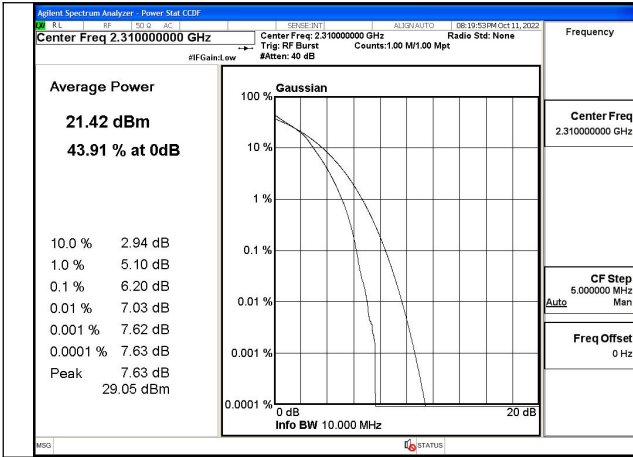


Fig.19

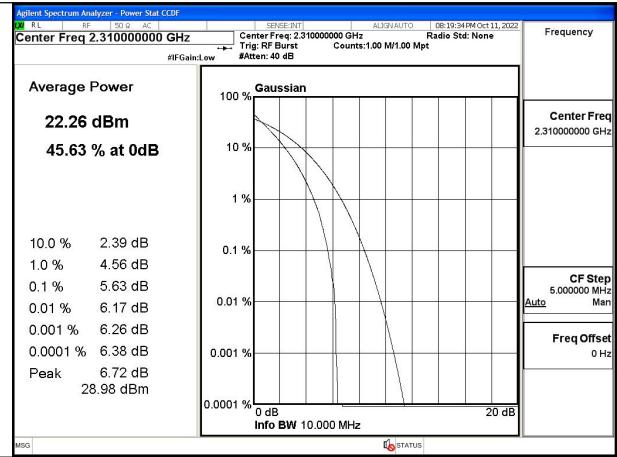


Fig.20

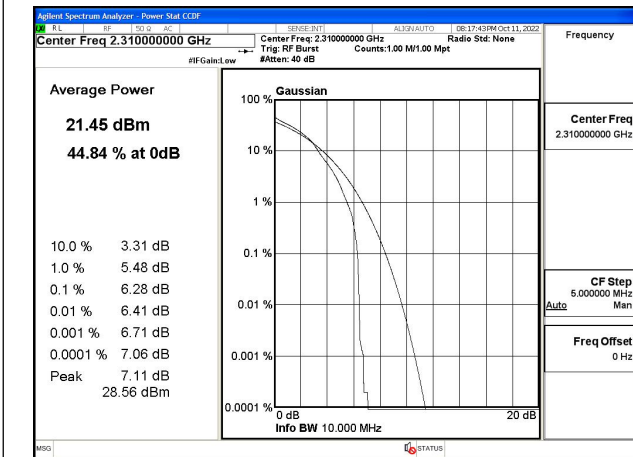


Fig.21

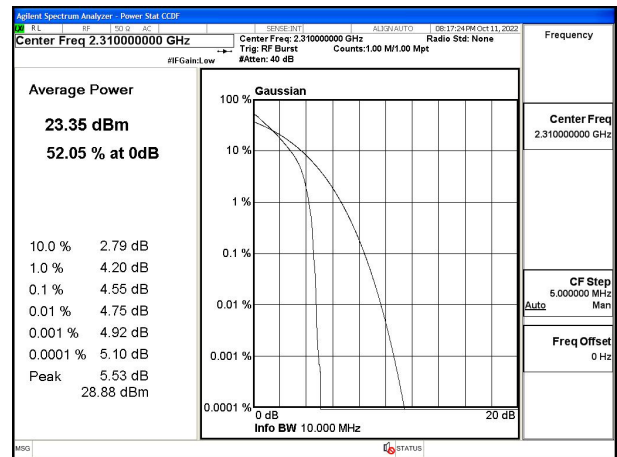


Fig.22

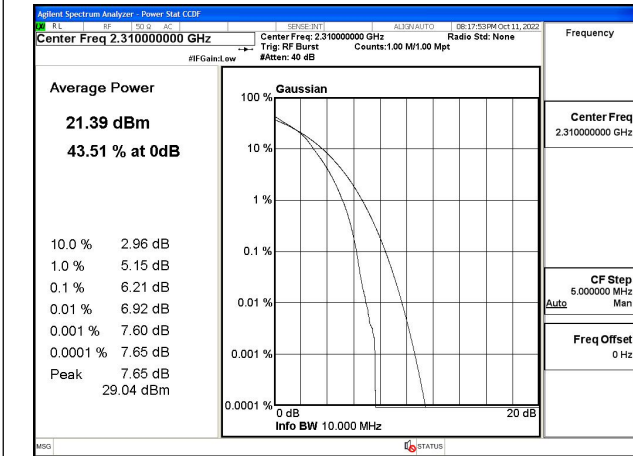


Fig.23

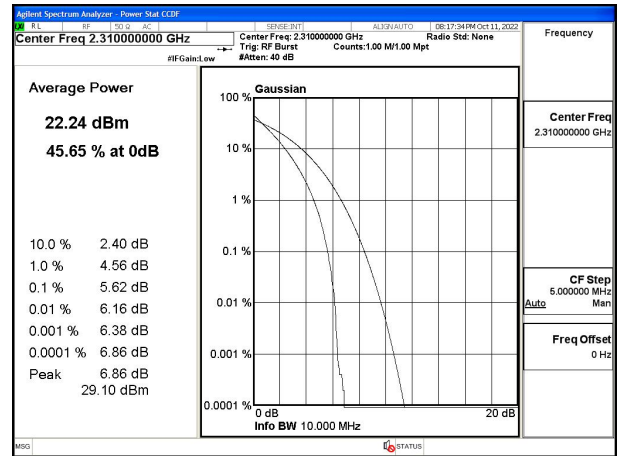


Fig.24

**5 Spurious Emissions at antenna terminal**

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
40	2310	38750	10	1	0	Fig.1

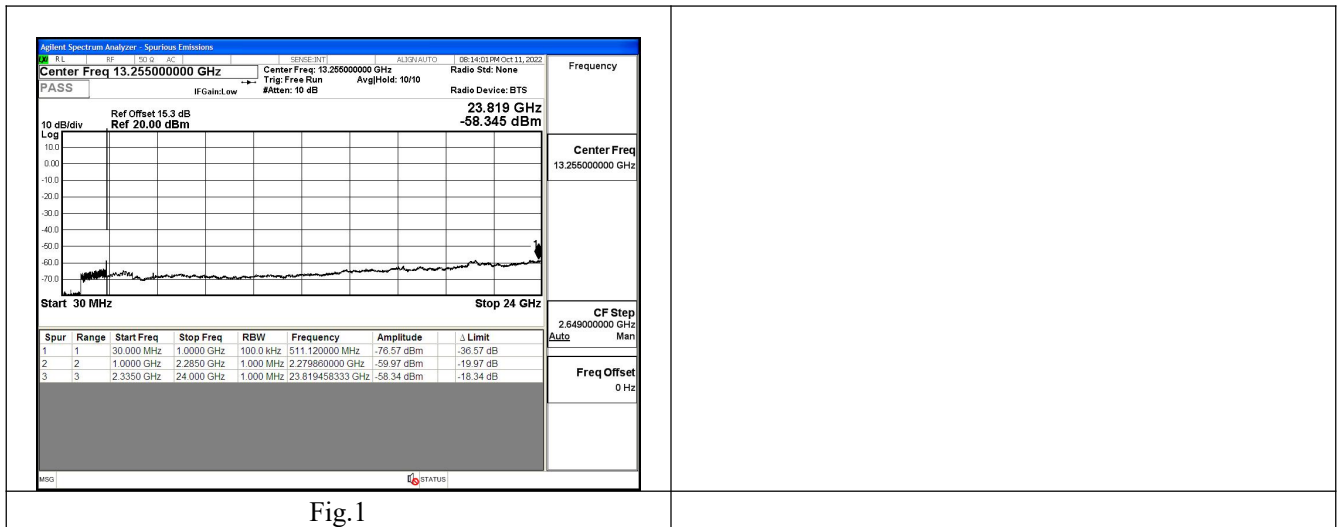


Fig.1

**6 Band Edges Compliance**

Band	Mode	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
40	QPSK	2307.5	38725	5	1	0	Fig.1
40	QPSK	2307.5	38725	5	25	0	Fig.2
40	QPSK	2312.5	38775	5	1	24	Fig.3
40	QPSK	2312.5	38775	5	25	0	Fig.4
40	QPSK	2310	38750	10	1	0	Fig5
40	QPSK	2310	38750	10	50	0	Fig.6
40	QPSK	2310	38750	10	1	49	Fig.7

Test Mode: QPSK

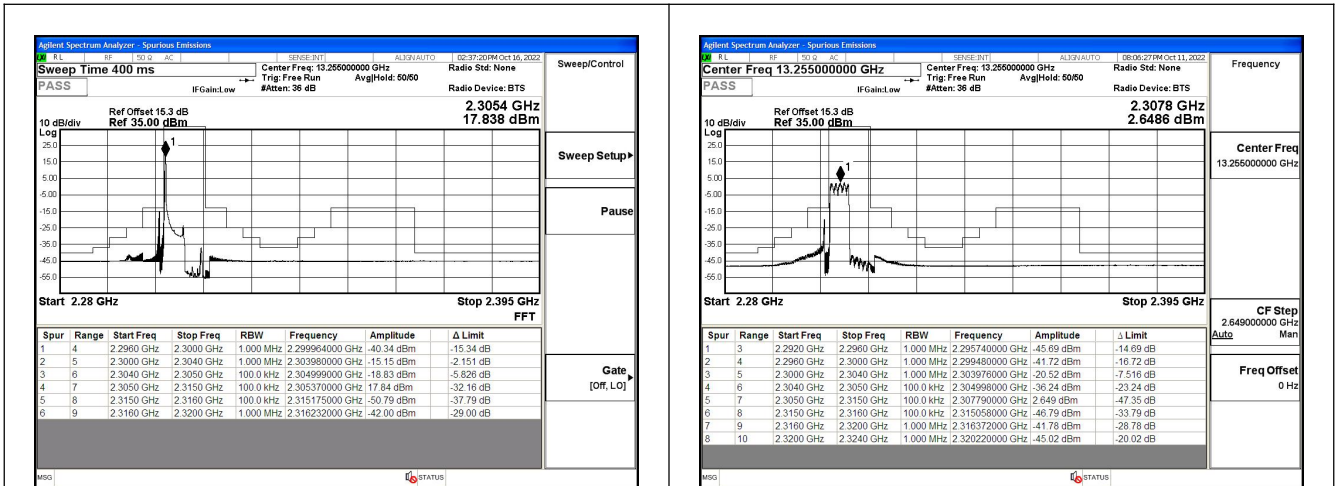


Fig.1

Fig.2

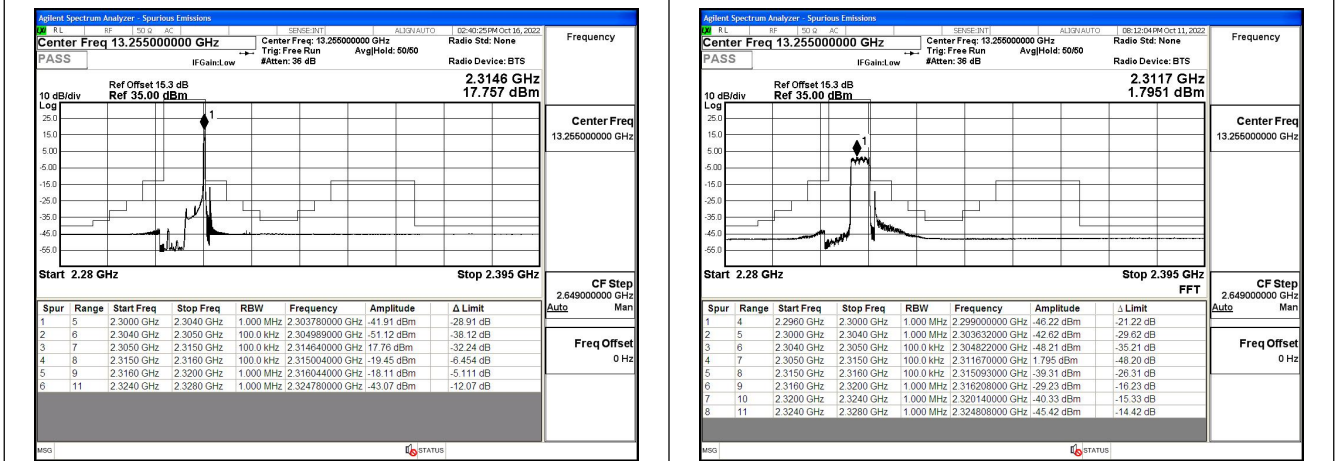


Fig.3

Fig.4



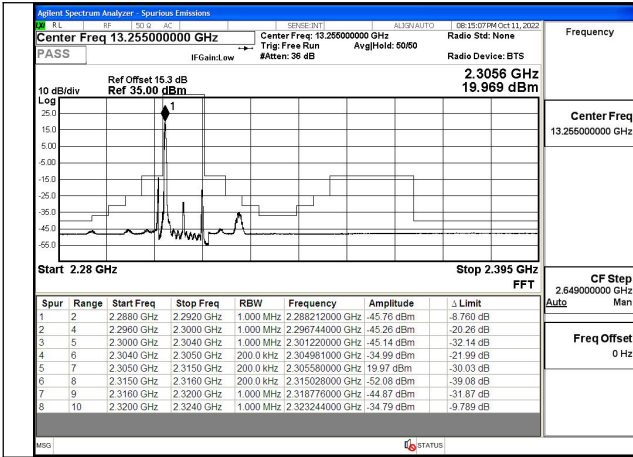


Fig.5

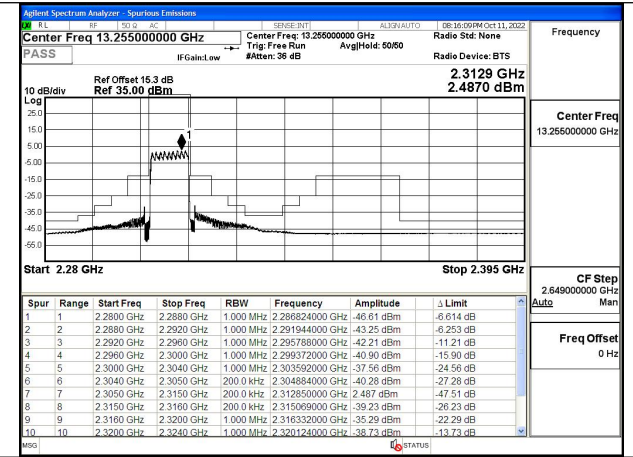


Fig.6

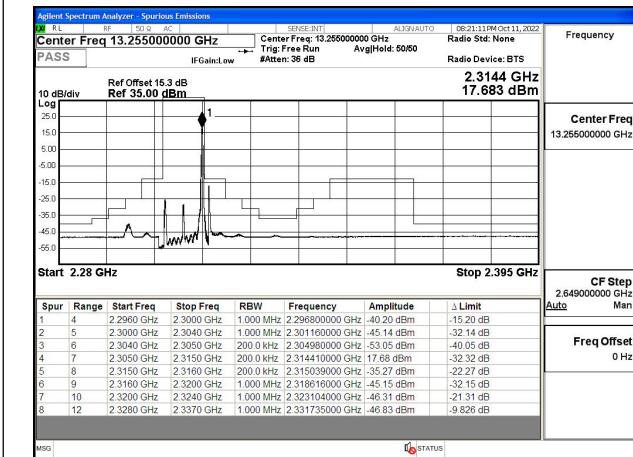


Fig.7

## 7 Frequency Stability

Temperature(°C)	Voltage	Test Result (ppm) Band 40(2305-2315) Low Channel QPSK	
		5M	10M
-20	NV	0.009	0.003
-10	NV	-0.001	0.001
0	NV	-0.003	-0.006
+10	NV	0.007	-0.014
+20	NV	0.007	-0.008
+30	NV	0.001	0.001
+40	NV	0.003	0.011
+50	NV	0.002	0.004
+60	NV	0.005	-0.003
+20	LV	0.008	0.007
+20	HV	0.005	0.005

Temperature(°C)	Voltage	Test Result (ppm) Band 40(2305-2315) High Channel QPSK	
		5M	10M
-20	NV	-0.005	0.003
-10	NV	0.005	0.003
0	NV	-0.006	-0.012
+10	NV	-0.015	-0.014
+20	NV	0.004	-0.007
+30	NV	-0.004	-0.003
+40	NV	0.005	0.004
+50	NV	-0.003	0.004
+60	NV	-0.005	-0.008
+20	LV	0.010	0.009
+20	HV	-0.001	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	2307.5	38725	5	1	0	23.63	22.69	0.186
QPSK	2307.5	38725	5	1	12	23.75	22.81	0.191
QPSK	2307.5	38725	5	1	24	23.63	22.69	0.186
QPSK	2307.5	38725	5	12	0	22.54	21.60	0.145
QPSK	2307.5	38725	5	12	7	22.56	21.62	0.145
QPSK	2307.5	38725	5	12	13	22.50	21.56	0.143
QPSK	2307.5	38725	5	25	0	22.60	21.66	0.147
QPSK	2310	38750	5	1	0	23.94	23.00	0.200
QPSK	2310	38750	5	1	12	23.91	22.97	0.198
QPSK	2310	38750	5	1	24	23.92	22.98	0.199
QPSK	2310	38750	5	12	0	22.46	21.52	0.142
QPSK	2310	38750	5	12	7	22.55	21.61	0.145
QPSK	2310	38750	5	12	13	22.48	21.54	0.143
QPSK	2310	38750	5	25	0	22.59	21.65	0.146
QPSK	2312.5	38775	5	1	0	23.72	22.78	0.190
QPSK	2312.5	38775	5	1	12	23.81	22.87	0.194
QPSK	2312.5	38775	5	1	24	23.77	22.83	0.192
QPSK	2312.5	38775	5	12	0	22.69	21.75	0.150
QPSK	2312.5	38775	5	12	7	22.58	21.64	0.146
QPSK	2312.5	38775	5	12	13	22.68	21.74	0.149
QPSK	2312.5	38775	5	25	0	22.63	21.69	0.148

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	2307.5	38725	5	1	0	22.33	21.39	0.138
16QAM	2307.5	38725	5	1	12	22.45	21.51	0.142
16QAM	2307.5	38725	5	1	24	22.46	21.52	0.142
16QAM	2307.5	38725	5	12	0	21.72	20.78	0.120
16QAM	2307.5	38725	5	12	7	21.80	20.86	0.122
16QAM	2307.5	38725	5	12	13	21.73	20.79	0.120
16QAM	2307.5	38725	5	25	0	21.84	20.90	0.123
16QAM	2310	38750	5	1	0	22.28	21.34	0.136
16QAM	2310	38750	5	1	12	22.32	21.38	0.137
16QAM	2310	38750	5	1	24	22.26	21.32	0.136
16QAM	2310	38750	5	12	0	21.69	20.75	0.119
16QAM	2310	38750	5	12	7	21.76	20.82	0.121
16QAM	2310	38750	5	12	13	21.65	20.71	0.118
16QAM	2310	38750	5	25	0	21.80	20.86	0.122
16QAM	2312.5	38775	5	1	0	22.50	21.56	0.143
16QAM	2312.5	38775	5	1	12	22.37	21.43	0.139
16QAM	2312.5	38775	5	1	24	22.44	21.50	0.141
16QAM	2312.5	38775	5	12	0	21.69	20.75	0.119
16QAM	2312.5	38775	5	12	7	21.76	20.82	0.121
16QAM	2312.5	38775	5	12	13	21.67	20.73	0.118
16QAM	2312.5	38775	5	25	0	21.84	20.90	0.123

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
QPSK	2310	38750	10	1	0	24.03	23.09	0.204
QPSK	2310	38750	10	1	25	23.89	22.95	0.197
QPSK	2310	38750	10	1	49	23.89	22.95	0.197
QPSK	2310	38750	10	25	0	22.53	21.59	0.144
QPSK	2310	38750	10	25	12	22.61	21.67	0.147
QPSK	2310	38750	10	25	25	22.60	21.66	0.147
QPSK	2310	38750	10	50	0	22.50	21.56	0.143

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)	ERP/ EIRP (dBm)	ERP/ EIRP (W)
16QAM	2310	38750	10	1	0	22.39	21.45	0.140
16QAM	2310	38750	10	1	25	22.31	21.37	0.137
16QAM	2310	38750	10	1	49	22.23	21.29	0.135
16QAM	2310	38750	10	25	0	21.74	20.80	0.120
16QAM	2310	38750	10	25	12	21.77	20.83	0.121
16QAM	2310	38750	10	25	25	21.84	20.90	0.123
16QAM	2310	38750	10	50	0	21.87	20.93	0.124

**LTE Band 40(2350-2360)**  
**9 RF Power Output**

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2352.5	39175	5	1	0	24.01
QPSK	2352.5	39175	5	1	12	23.57
QPSK	2352.5	39175	5	1	24	23.47
QPSK	2352.5	39175	5	12	0	22.57
QPSK	2352.5	39175	5	12	7	22.38
QPSK	2352.5	39175	5	12	13	22.50
QPSK	2352.5	39175	5	25	0	22.53
QPSK	2355	39200	5	1	0	23.96
QPSK	2355	39200	5	1	12	23.85
QPSK	2355	39200	5	1	24	23.89
QPSK	2355	39200	5	12	0	22.61
QPSK	2355	39200	5	12	7	22.58
QPSK	2355	39200	5	12	13	22.41
QPSK	2355	39200	5	25	0	22.46
QPSK	2357.5	39225	5	1	0	23.70
QPSK	2357.5	39225	5	1	12	23.88
QPSK	2357.5	39225	5	1	24	23.79
QPSK	2357.5	39225	5	12	0	22.55
QPSK	2357.5	39225	5	12	7	22.64
QPSK	2357.5	39225	5	12	13	22.48
QPSK	2357.5	39225	5	25	0	22.59

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	2352.5	39175	5	1	0	22.69
16QAM	2352.5	39175	5	1	12	22.42
16QAM	2352.5	39175	5	1	24	22.22
16QAM	2352.5	39175	5	12	0	21.56
16QAM	2352.5	39175	5	12	7	21.68
16QAM	2352.5	39175	5	12	13	21.65
16QAM	2352.5	39175	5	25	0	21.67
16QAM	2355	39200	5	1	0	22.23
16QAM	2355	39200	5	1	12	22.21
16QAM	2355	39200	5	1	24	22.17
16QAM	2355	39200	5	12	0	21.66
16QAM	2355	39200	5	12	7	21.61
16QAM	2355	39200	5	12	13	21.61
16QAM	2355	39200	5	25	0	21.64
16QAM	2357.5	39225	5	1	0	22.47
16QAM	2357.5	39225	5	1	12	22.39
16QAM	2357.5	39225	5	1	24	22.40
16QAM	2357.5	39225	5	12	0	21.71
16QAM	2357.5	39225	5	12	7	21.69
16QAM	2357.5	39225	5	12	13	21.70
16QAM	2357.5	39225	5	25	0	21.83

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2355	39200	10	1	0	23.88
QPSK	2355	39200	10	1	25	23.89
QPSK	2355	39200	10	1	49	23.73
QPSK	2355	39200	10	25	0	22.41
QPSK	2355	39200	10	25	12	22.48
QPSK	2355	39200	10	25	25	22.40
QPSK	2355	39200	10	50	0	22.48

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	2355	39200	10	1	0	22.31
16QAM	2355	39200	10	1	25	22.25
16QAM	2355	39200	10	1	49	22.18
16QAM	2355	39200	10	25	0	21.69
16QAM	2355	39200	10	25	12	21.72
16QAM	2355	39200	10	25	25	21.60
16QAM	2355	39200	10	50	0	21.68



### 10 Occupied Bandwidth

Band	Mode	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)	
40	QPSK	2352.5	39175	5	25	0	4.457	Fig.1
40	QPSK	2355	39200	5	25	0	4.481	Fig.2
40	QPSK	2357.5	39225	5	25	0	4.446	Fig.3
40	QPSK	2355	39200	10	50	0	8.915	Fig.6

Band	Mode	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)	
40	16QAM	2352.5	39175	5	25	0	4.427	Fig.7
40	16QAM	2355	39200	5	25	0	4.453	Fig.8
40	16QAM	2357.5	39225	5	25	0	4.430	Fig.9
40	16QAM	2355	39200	10	50	0	8.921	Fig.12