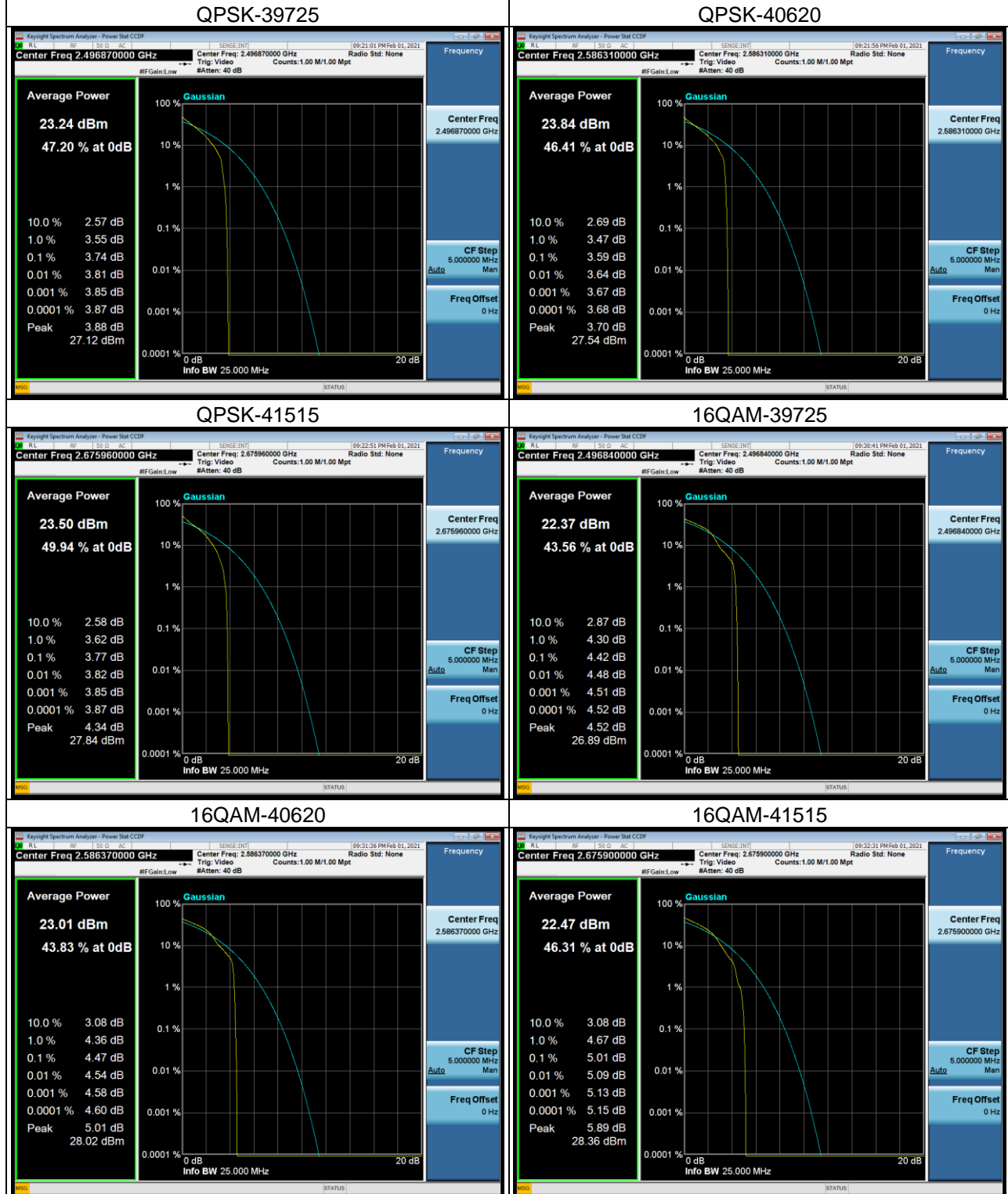
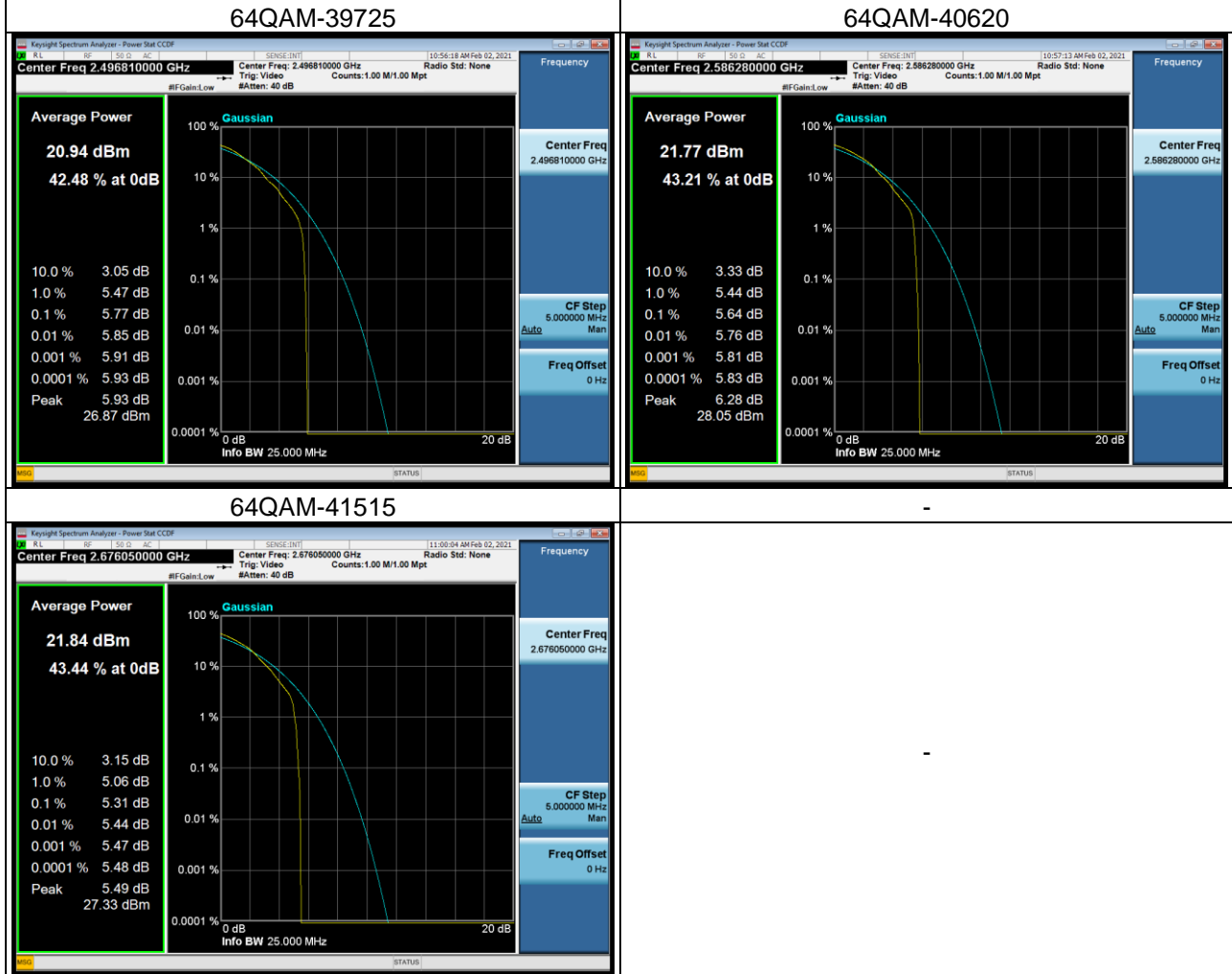


## LTE Band 41\_15M Spectrum Plot



## LTE Band 41\_15M Spectrum Plot



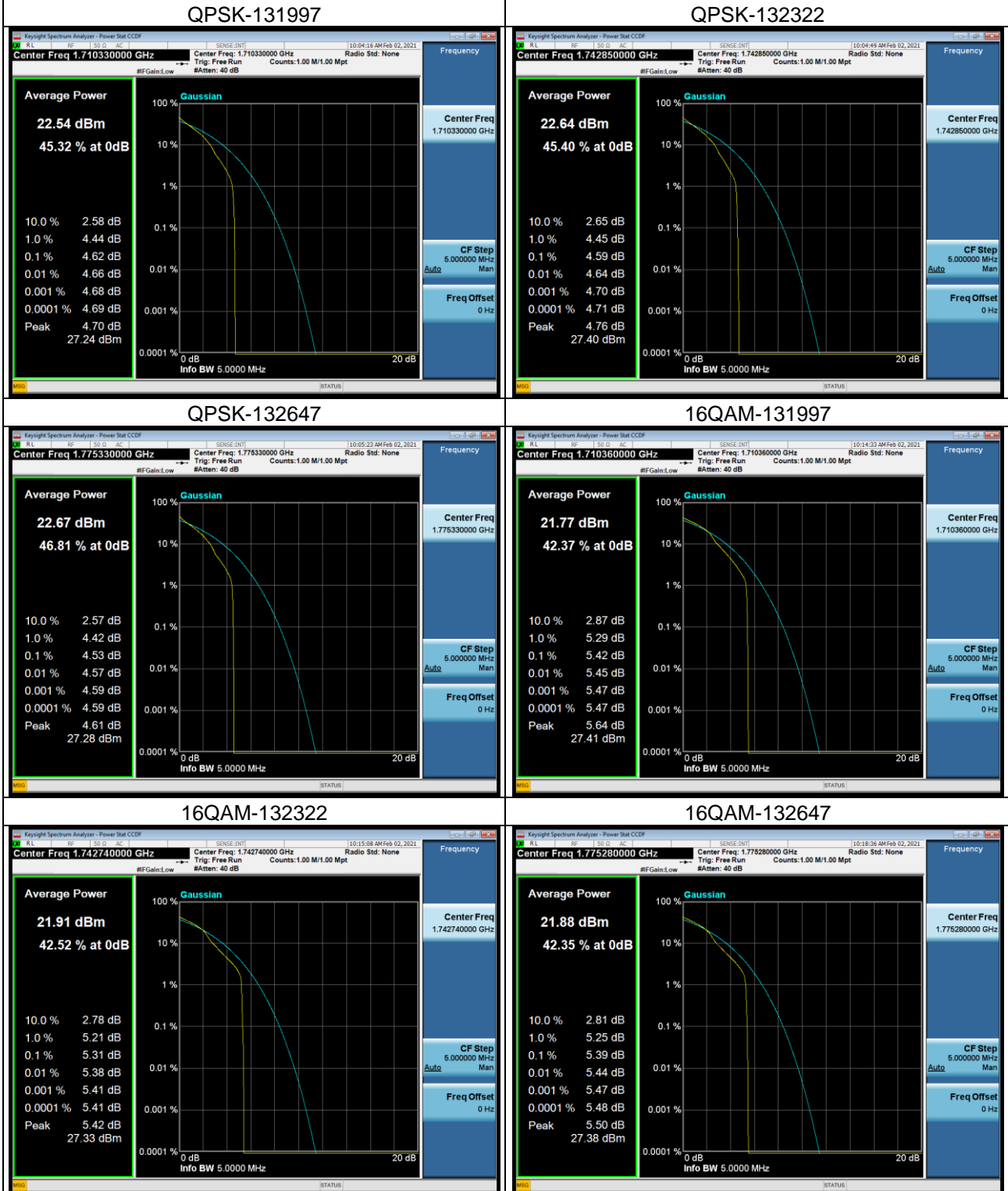
## LTE Band 41\_20M Spectrum Plot



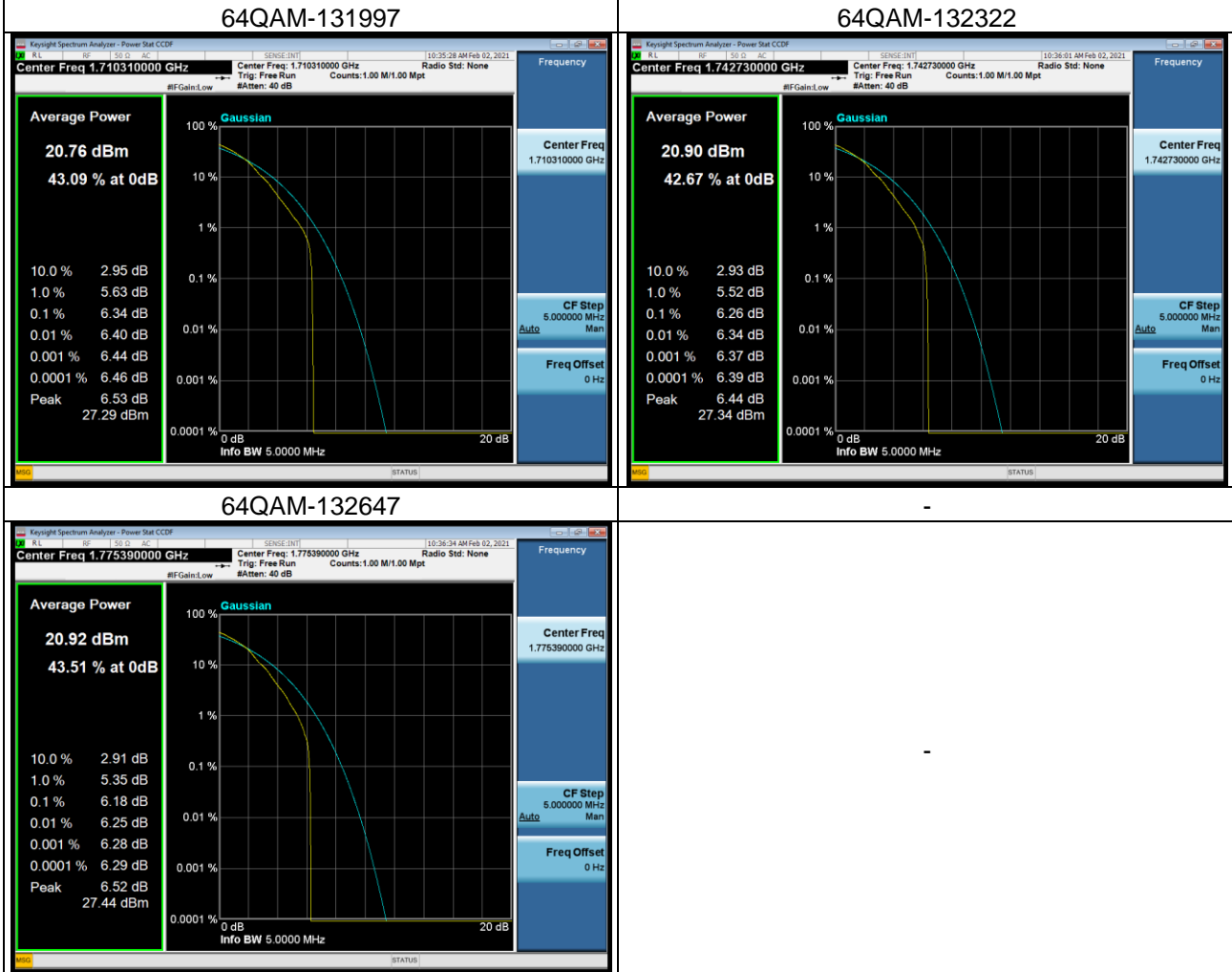
## LTE Band 41\_20M Spectrum Plot



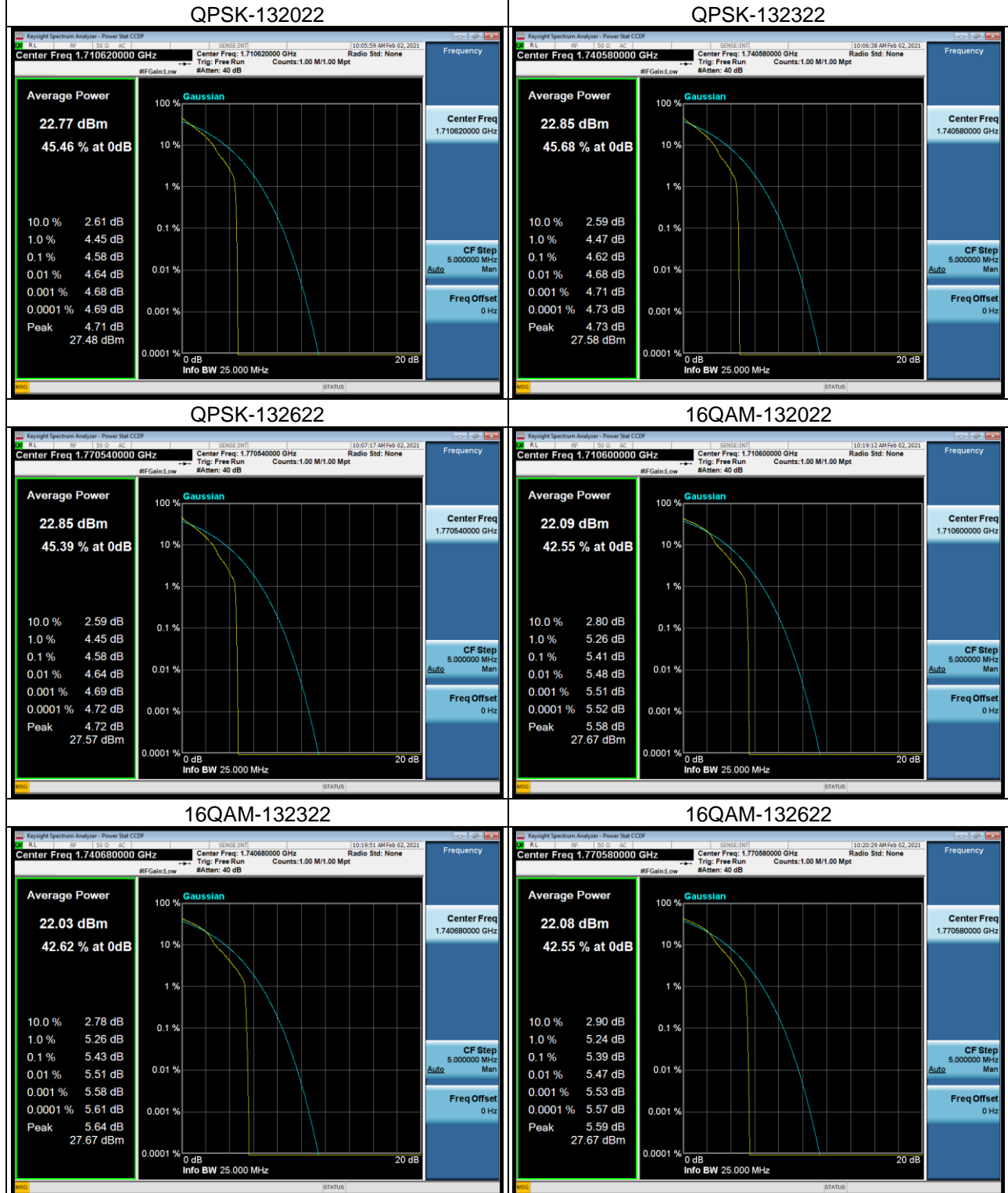
## LTE Band 66\_5M Spectrum Plot



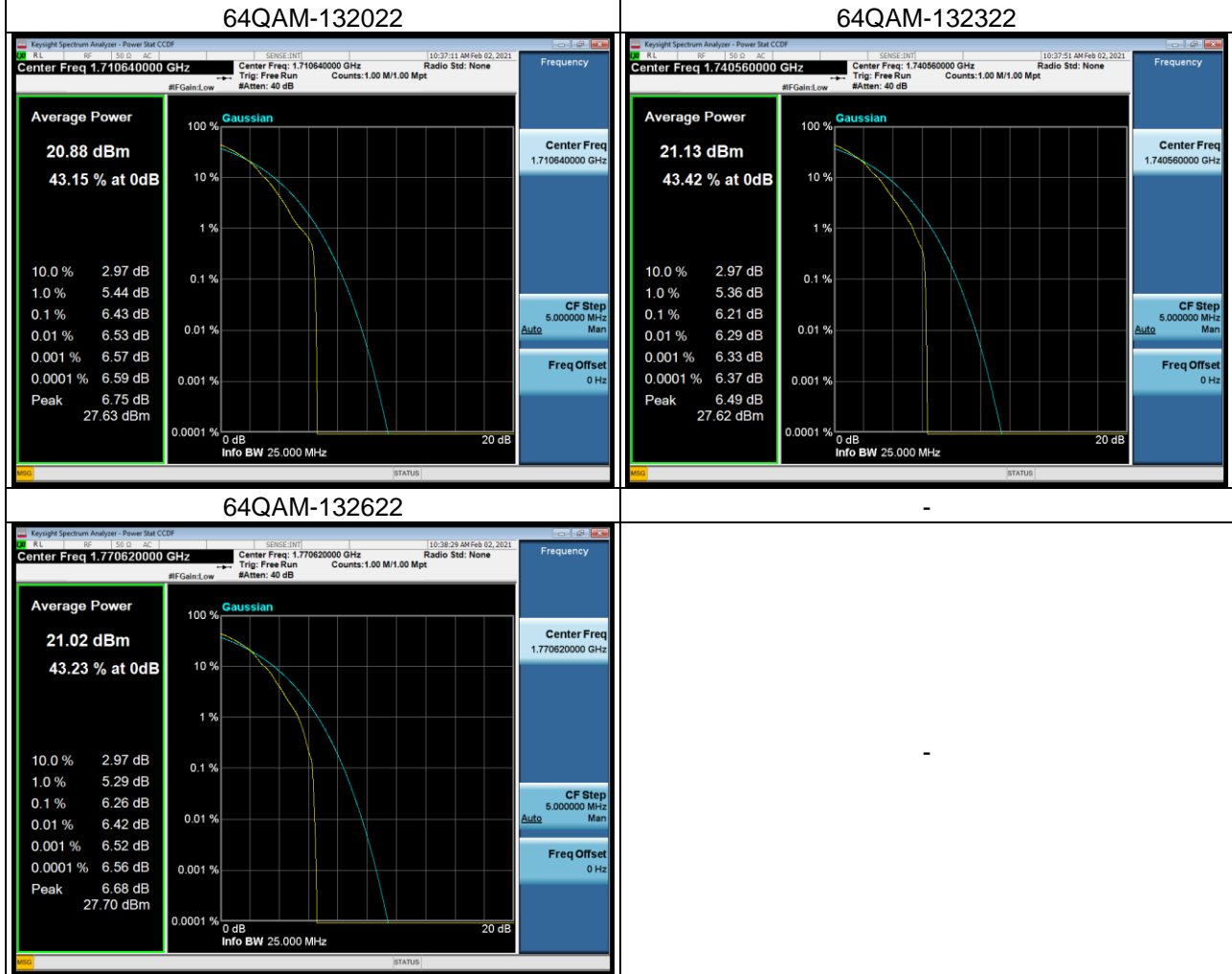
## LTE Band 66\_5M Spectrum Plot



## LTE Band 66\_10M Spectrum Plot

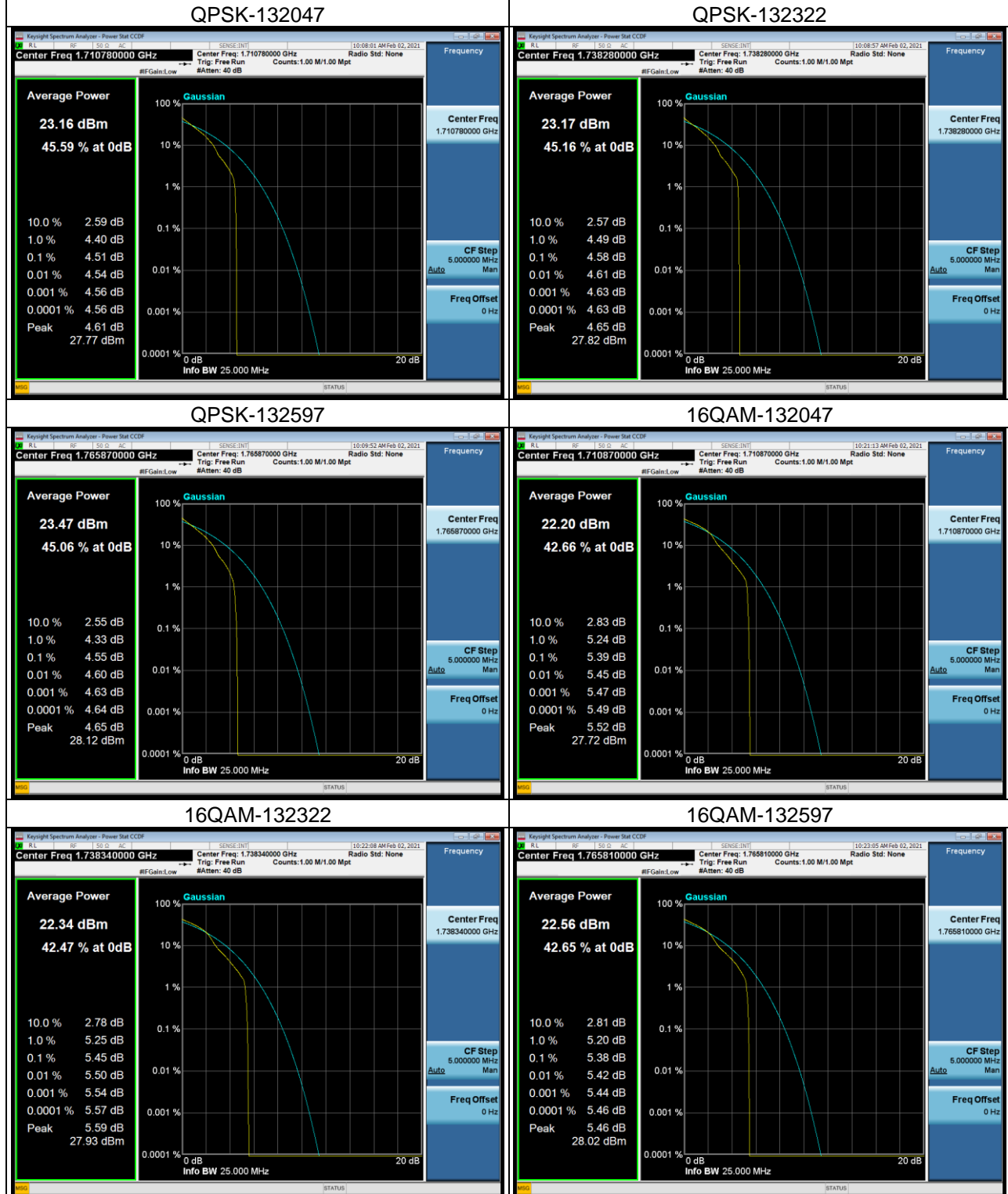


## LTE Band 66\_10M Spectrum Plot

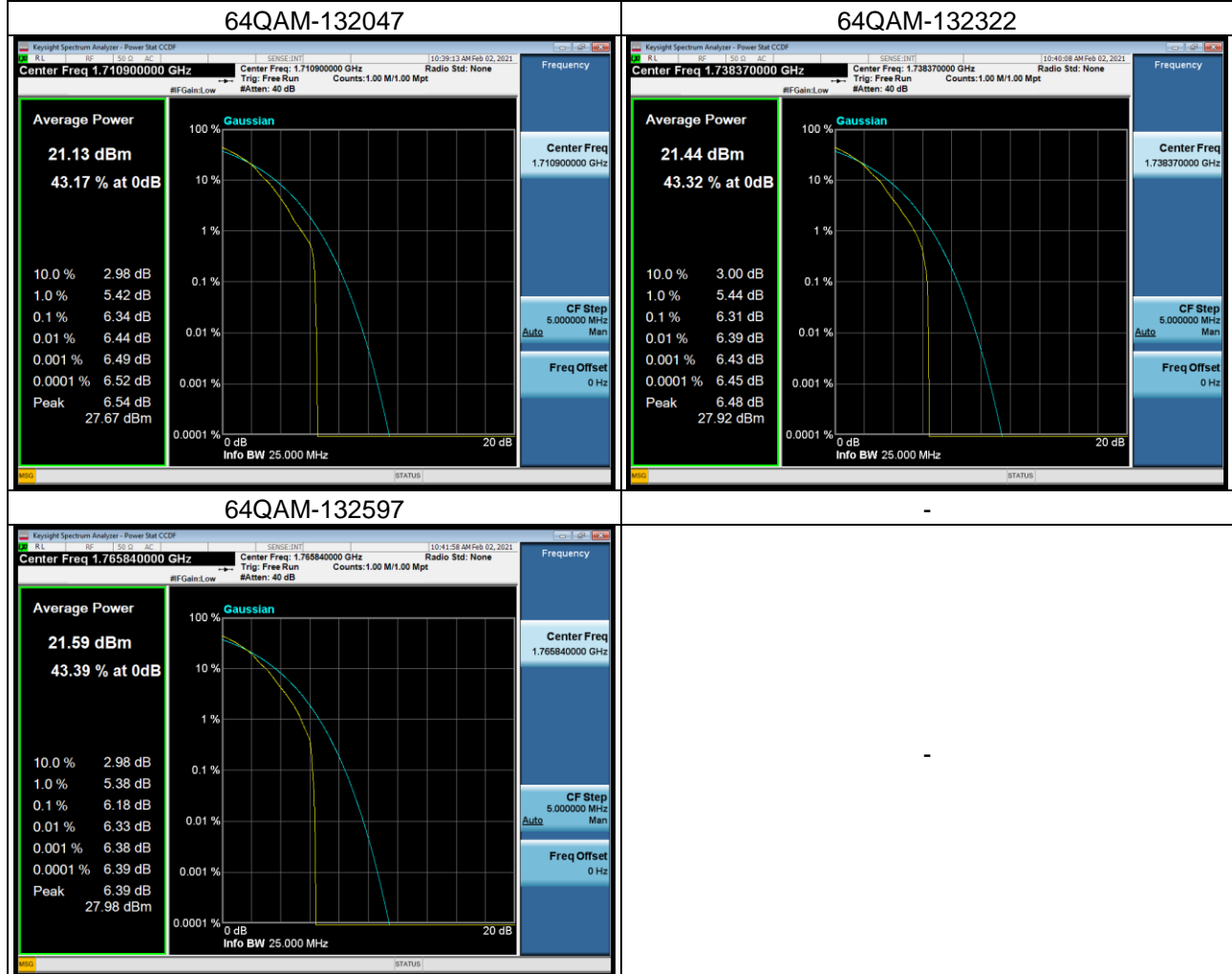




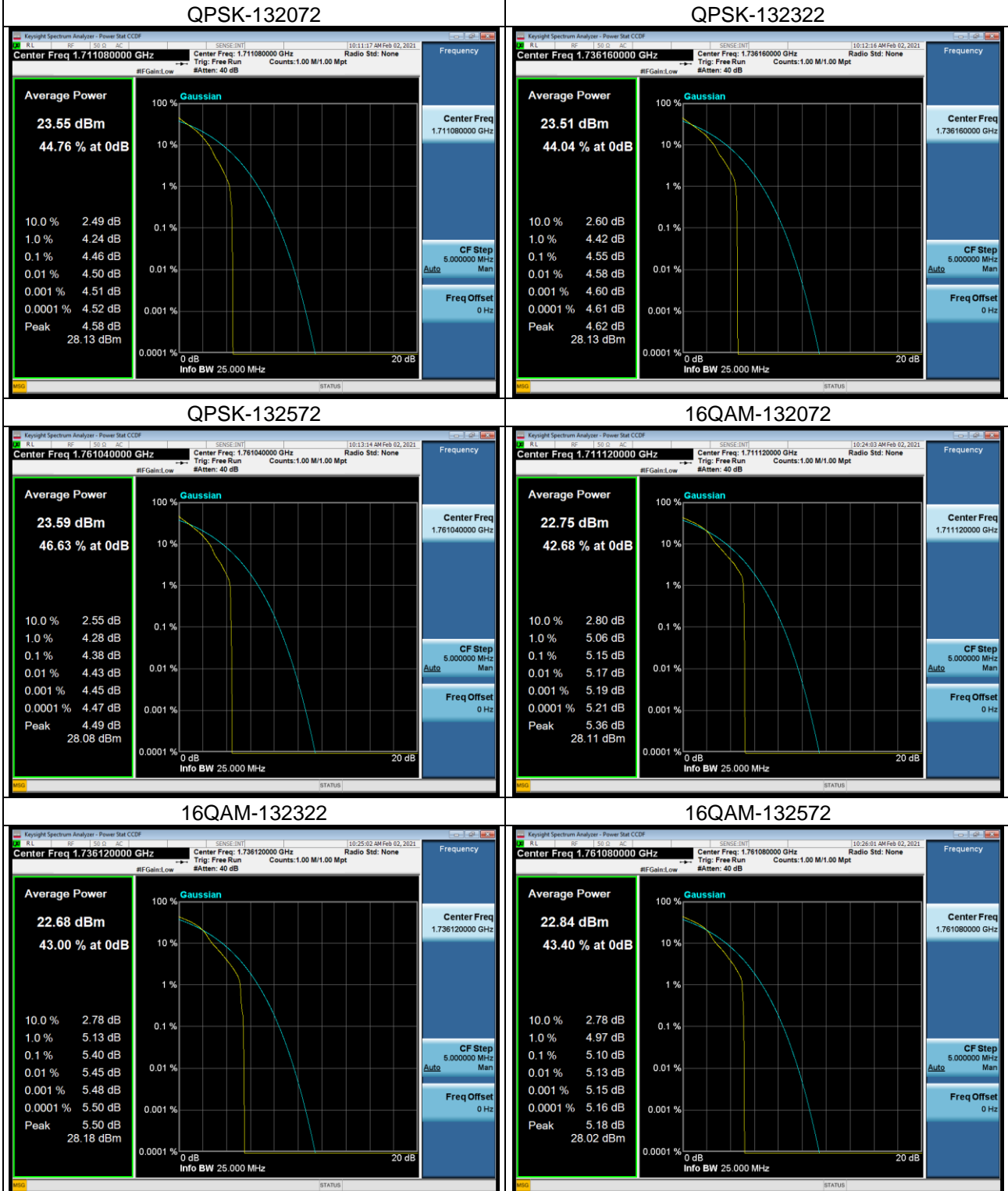
## LTE Band 66\_15M Spectrum Plot



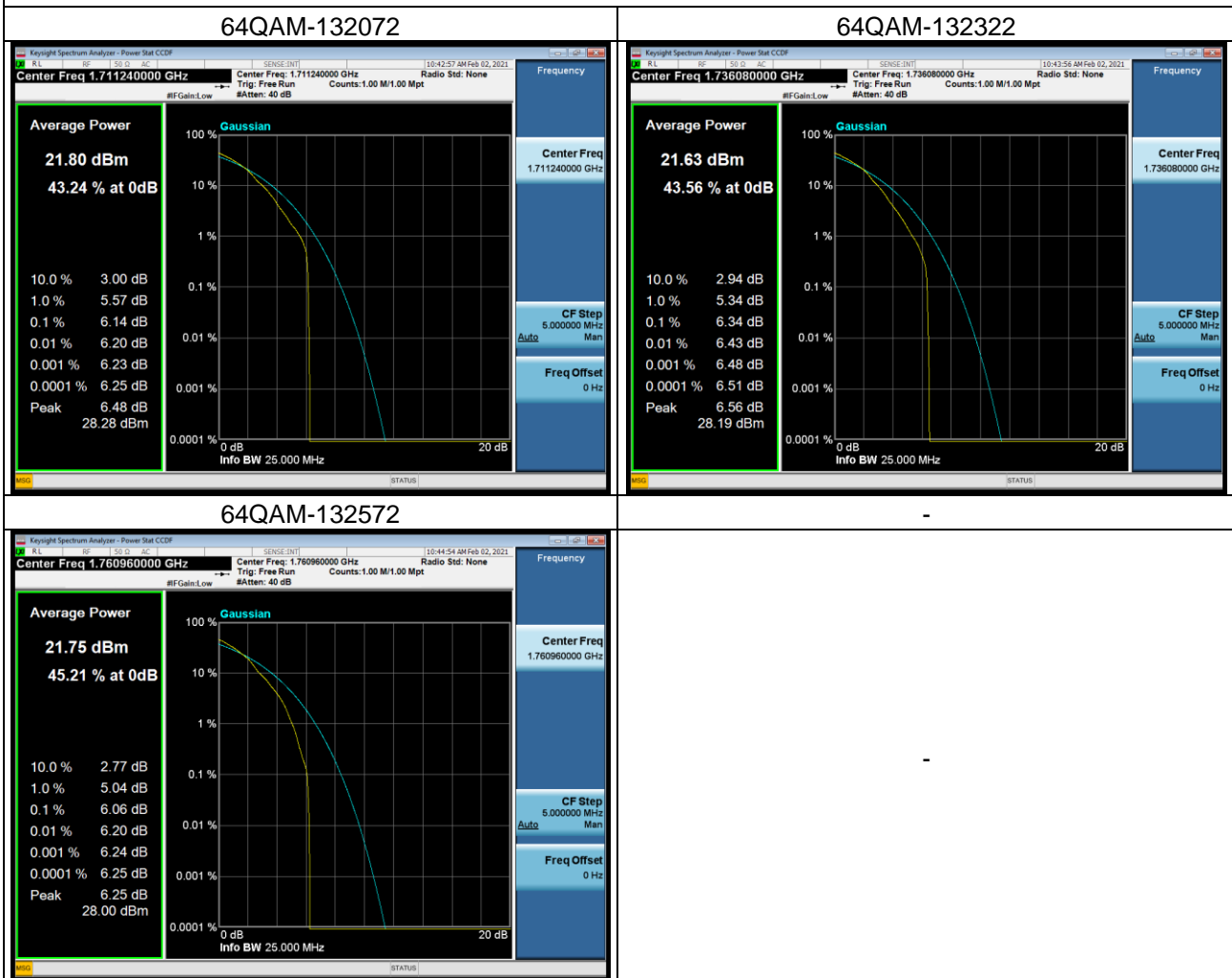
## LTE Band 66\_15M Spectrum Plot



## LTE Band 66\_20M Spectrum Plot



## LTE Band 66\_20M Spectrum Plot



## APPENDIX I - FREQUENCY STABILITY

Test Mode	WCDMA Band IV _CH1413
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	6.13	0.003538035	± 2.5
10	4.66	0.002687291	
20	3.65	0.002106661	
30	3.26	0.001881565	
40	3.15	0.001818077	
45	4.52	0.002608796	
Max. Deviation (ppm)	6.13	0.003538035	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	2.25	0.001298626	± 2.5
120	3.24	0.001870022	
102	4.26	0.002458733	
Max. Deviation (ppm)	4.26	0.002458733	

Test Mode	LTE Band 4_CH20175_1.4M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-4.06	-0.002343434	± 2.5
10	-1.00	-0.000577201	
20	-5.57	-0.003215007	
30	-2.35	-0.001356421	
40	-1.39	-0.000802309	
45	4.00	0.002308802	
Max. Deviation (ppm)	-5.57	-0.003215007	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	2.53	0.001460317	± 2.5
120	-5.40	-0.003116883	
102	-4.63	-0.002672439	
Max. Deviation (ppm)	-5.4	-0.003116883	

Test Mode	LTE Band 4_CH20175_3M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-0.30	-0.00017316	± 2.5
10	-3.47	-0.002002886	
20	-4.94	-0.002851371	
30	1.58	0.000911977	
40	-3.61	-0.002083694	
45	-3.89	-0.00224531	
Max. Deviation (ppm)	-4.94	-0.002851371	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	-6.23	-0.00359596	± 2.5
120	-1.41	-0.000813853	
102	-0.67	-0.000386724	
Max. Deviation (ppm)	-6.23	-0.00359596	



Test Mode	LTE Band 4_CH20175_5M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	5.92	0.003417027	± 2.5
10	2.87	0.001656566	
20	-1.41	-0.000813853	
30	-4.06	-0.002343434	
40	-5.00	-0.002886003	
45	6.90	0.003982684	
Max. Deviation (ppm)	6.9	0.003982684	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	5.54	0.003197691	± 2.5
120	1.35	0.000779221	
102	-2.78	-0.001604618	
Max. Deviation (ppm)	5.54	0.003197691	

Test Mode	LTE Band 4_CH20175_10M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	1.51	0.000871573	± 2.5
10	-0.75	-0.0004329	
20	-5.16	-0.002978355	
30	-6.61	-0.003815296	
40	-4.36	-0.002516595	
45	-4.42	-0.002551227	
Max. Deviation (ppm)	-6.61	-0.003815296	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	0.34	0.000196248	± 2.5
120	6.90	0.003982684	
102	1.06	0.000611833	
Max. Deviation (ppm)	6.9	0.003982684	

Test Mode	LTE Band 4_CH20175_15M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	4.12	0.002378066	± 2.5
10	2.76	0.001593074	
20	1.62	0.000935065	
30	-3.80	-0.002193362	
40	-6.41	-0.003699856	
45	-3.35	-0.001933622	
Max. Deviation (ppm)	-6.41	-0.003699856	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	1.63	0.000940837	± 2.5
120	4.73	0.002730159	
102	4.59	0.002649351	
Max. Deviation (ppm)	4.73	0.002730159	

Test Mode	LTE Band 4_CH20175_20M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	1.37	0.000790765	± 2.5
10	0.95	0.000548341	
20	-4.22	-0.002435786	
30	6.03	0.003480519	
40	-0.75	-0.0004329	
45	-3.76	-0.002170274	
Max. Deviation (ppm)	6.03	0.003480519	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	-6.21	-0.003584416	± 2.5
120	3.15	0.001818182	
102	6.85	0.003953824	
Max. Deviation (ppm)	6.85	0.003953824	

Test Mode	LTE Band 7_CH21100_5M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	0.49	0.000193294	± 2.5
10	0.72	0.000284024	
20	4.29	0.001692308	
30	-3.99	-0.001573964	
40	-3.14	-0.001238659	
45	-4.69	-0.001850099	
Max. Deviation (ppm)	-4.69	-0.001850099	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	2.45	0.000966469	± 2.5
120	4.33	0.001708087	
102	2.42	0.000954635	
Max. Deviation (ppm)	4.33	0.001708087	

Test Mode	LTE Band 7_CH21100_10M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-6.59	-0.002599606	± 2.5
10	-6.71	-0.002646943	
20	3.65	0.001439842	
30	-1.40	-0.000552268	
40	5.19	0.002047337	
45	-2.36	-0.000930966	
Max. Deviation (ppm)	-6.71	-0.002646943	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	-5.19	-0.002047337	± 2.5
120	-2.76	-0.001088757	
102	2.77	0.001092702	
Max. Deviation (ppm)	-5.19	-0.002047337	

Test Mode	LTE Band 7_CH21100_15M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	1.49	0.000587771	±2.5
10	3.24	0.001278107	
20	-0.42	-0.00016568	
30	6.48	0.002556213	
40	-4.09	-0.001613412	
45	-5.65	-0.002228797	
Max. Deviation (ppm)	6.48	0.002556213	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	-2.82	-0.001112426	±2.5
120	2.42	0.000954635	
102	-0.33	-0.000130178	
Max. Deviation (ppm)	-2.82	-0.001112426	

Test Mode	LTE Band 7_CH21100_20M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-2.03	-0.000800789	± 2.5
10	-1.28	-0.000504931	
20	-3.72	-0.001467456	
30	-6.11	-0.002410256	
40	2.15	0.000848126	
45	-6.59	-0.002599606	
Max. Deviation (ppm)	-6.59	-0.002599606	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	2.47	0.000974359	± 2.5
120	0.92	0.000362919	
102	6.85	0.00270217	
Max. Deviation (ppm)	6.85	0.00270217	



Test Mode	LTE Band 12_CH23095_1.4M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	4.08	0.005766784	± 2.5
10	5.14	0.007268518	
20	3.22	0.004551237	
30	-1.75	0.002473498	
40	-5.28	0.007462898	
45	-1.80	0.00254417	
Max. Deviation (ppm)	-5.28	0.007462898	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	1.11	0.001568905	± 2.5
120	-1.21	0.001710247	
102	-5.84	0.008254417	
Max. Deviation (ppm)	-5.84	0.008254417	

Test Mode	LTE Band 12_CH23095_3M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	7.00	0.009893993	± 2.5
10	-3.10	0.004381625	
20	5.24	0.00740636	
30	-1.28	0.001809187	
40	-5.07	0.007166078	
45	2.72	0.003844523	
Max. Deviation (ppm)	7	0.009893993	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	3.11	0.00439576	± 2.5
120	1.84	0.002600707	
102	5.32	0.007519435	
Max. Deviation (ppm)	5.32	0.007519435	

Test Mode	LTE Band 12_CH23095_5M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	1.44	0.002035336	± 2.5
10	5.80	0.00819788	
20	0.73	0.001031802	
30	5.68	0.008028269	
40	-4.40	-0.006219081	
45	-2.73	-0.003858657	
Max. Deviation (ppm)	5.8	0.00819788	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	-3.59	-0.005074205	± 2.5
120	-5.17	-0.00730742	
102	5.85	0.008268551	
Max. Deviation (ppm)	5.85	0.008268551	

Test Mode	LTE Band 12_CH23095_10M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	0.38	0.000537102	± 2.5
10	-2.44	-0.003448763	
20	3.88	0.005484099	
30	-6.57	-0.009286219	
40	-4.29	-0.006063604	
45	2.04	0.002883392	
Max. Deviation (ppm)	-6.57	-0.009286219	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	3.38	0.004777385	± 2.5
120	2.37	0.003349823	
102	6.71	0.009484099	
Max. Deviation (ppm)	6.71	0.009484099	

Test Mode	LTE Band 13_CH23230_5M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-5.26	-0.006726343	± 2.5
10	2.16	0.002762148	
20	-0.63	-0.000805627	
30	3.16	0.004040921	
40	-6.88	-0.008797954	
45	-1.65	-0.002109974	
Max. Deviation (ppm)	-6.88	-0.008797954	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	2.78	0.003554987	± 2.5
120	4.16	0.005319693	
102	-5.74	-0.007340153	
Max. Deviation (ppm)	-5.74	-0.007340153	

Test Mode	LTE Band 13_CH23230_10M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	2.42	0.003094629	± 2.5
10	-2.85	-0.003644501	
20	-2.02	-0.00258312	
30	5.99	0.007659847	
40	-6.13	-0.007838875	
45	-3.91	-0.005	
Max. Deviation (ppm)	-6.13	-0.007838875	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	6.37	0.00814578	± 2.5
120	-3.03	-0.00387468	
102	-4.14	-0.005294118	
Max. Deviation (ppm)	6.37	0.00814578	

Test Mode	LTE Band 17_CH23790_5M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-5.51	-0.007760563	± 2.5
10	-6.47	-0.009112676	
20	-6.52	-0.009183099	
30	7.06	0.009943662	
40	5.85	0.008239437	
45	1.64	0.002309859	
Max. Deviation (ppm)	7.06	0.009943662	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	5.90	0.008309859	± 2.5
120	-0.84	-0.001183099	
102	-3.46	-0.004873239	
Max. Deviation (ppm)	5.9	0.008309859	

Test Mode	LTE Band 17_CH23790_10M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	3.13	0.004408451	± 2.5
10	-4.76	-0.006704225	
20	-2.46	-0.003464789	
30	4.87	0.006859155	
40	-4.22	-0.005943662	
45	-0.64	-0.000901408	
Max. Deviation (ppm)	4.87	0.006859155	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	-1.13	-0.001591549	± 2.5
120	-5.60	-0.007887324	
102	1.02	0.00143662	
Max. Deviation (ppm)	-5.6	-0.007887324	



Test Mode	LTE Band 41_CH40620_5M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	6.19	0.002387196	± 2.5
10	-0.34	-0.000131122	
20	0.79	0.000304666	
30	2.65	0.001021982	
40	-6.84	-0.002637871	
45	6.05	0.002333205	
Max. Deviation (ppm)	-6.84	-0.002637871	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	-2.24	-0.000863864	± 2.5
120	6.85	0.002641728	
102	-1.77	-0.000682607	
Max. Deviation (ppm)	6.85	0.002641728	

Test Mode	LTE Band 41_CH40620_10M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	5.31	0.002047821	± 2.5
10	6.20	0.002391053	
20	-5.53	-0.002132665	
30	-7.24	-0.002792133	
40	4.56	0.001758581	
45	-1.76	-0.00067875	
Max. Deviation (ppm)	-7.24	-0.002792133	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	6.38	0.00246047	± 2.5
120	-2.93	-0.001129965	
102	0.45	0.000173544	
Max. Deviation (ppm)	6.38	0.00246047	

Test Mode	LTE Band 41_CH40620_15M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-0.54	-0.000208253	± 2.5
10	-0.28	-0.000107983	
20	-4.07	-0.00156961	
30	6.43	0.002479753	
40	-3.48	-0.001342075	
45	-5.13	-0.001978403	
Max. Deviation (ppm)	6.43	0.002479753	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	-2.99	-0.001153105	± 2.5
120	-5.17	-0.00199383	
102	-1.03	-0.000397223	
Max. Deviation (ppm)	-5.17	-0.00199383	

Test Mode	LTE Band 41_CH40620_20M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	1.03	0.000397223	± 2.5
10	1.30	0.00050135	
20	1.18	0.000455071	
30	0.58	0.000223679	
40	-4.10	-0.00158118	
45	-5.38	-0.002074817	
Max. Deviation (ppm)	-5.38	-0.002074817	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	1.71	0.000659468	± 2.5
120	5.85	0.002256074	
102	2.31	0.00089086	
Max. Deviation (ppm)	5.85	0.002256074	

Test Mode	LTE Band 66_CH132322_5M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-4.09	-0.00234384	± 2.5
10	-4.69	-0.002687679	
20	-3.15	-0.001805158	
30	-6.20	-0.003553009	
40	-2.04	-0.001169054	
45	-4.21	-0.002412607	
Max. Deviation (ppm)	-6.2	-0.003553009	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	-7.95	-0.004555874	± 2.5
120	-2.11	-0.001209169	
102	-0.81	-0.000464183	
Max. Deviation (ppm)	-7.95	-0.004555874	

Test Mode	LTE Band 66_CH132322_10M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-2.04	-0.001169054	± 2.5
10	6.49	0.003719198	
20	6.46	0.003702006	
30	-5.50	-0.003151862	
40	2.91	0.001667622	
45	5.21	0.002985673	
Max. Deviation (ppm)	6.49	0.003719198	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	0.89	0.000510029	± 2.5
120	5.60	0.003209169	
102	-5.29	-0.003031519	
Max. Deviation (ppm)	5.6	0.003209169	

Test Mode	LTE Band 66_CH132322_15M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-5.43	-0.003111748	± 2.5
10	7.54	0.004320917	
20	-7.21	-0.004131805	
30	-1.85	-0.001060172	
40	-7.52	-0.004309456	
45	6.44	0.003690544	
Max. Deviation (ppm)	7.54	0.004320917	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	0.61	0.00034957	± 2.5
120	7.82	0.004481375	
102	7.88	0.004515759	
Max. Deviation (ppm)	7.88	0.004515759	

Test Mode	LTE Band 66_CH132322_20M
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-6.99	-0.004005731	± 2.5
10	-4.28	-0.002452722	
20	7.68	0.004401146	
30	1.80	0.001031519	
40	-3.76	-0.002154728	
45	3.21	0.001839542	
Max. Deviation (ppm)	7.68	0.004401146	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
138	-4.32	-0.002475645	± 2.5
120	6.46	0.003702006	
102	5.81	0.003329513	
Max. Deviation (ppm)	6.46	0.003702006	

End of Test Report