

## APPENDIX H - PEAK TO AVERAGE RATIO

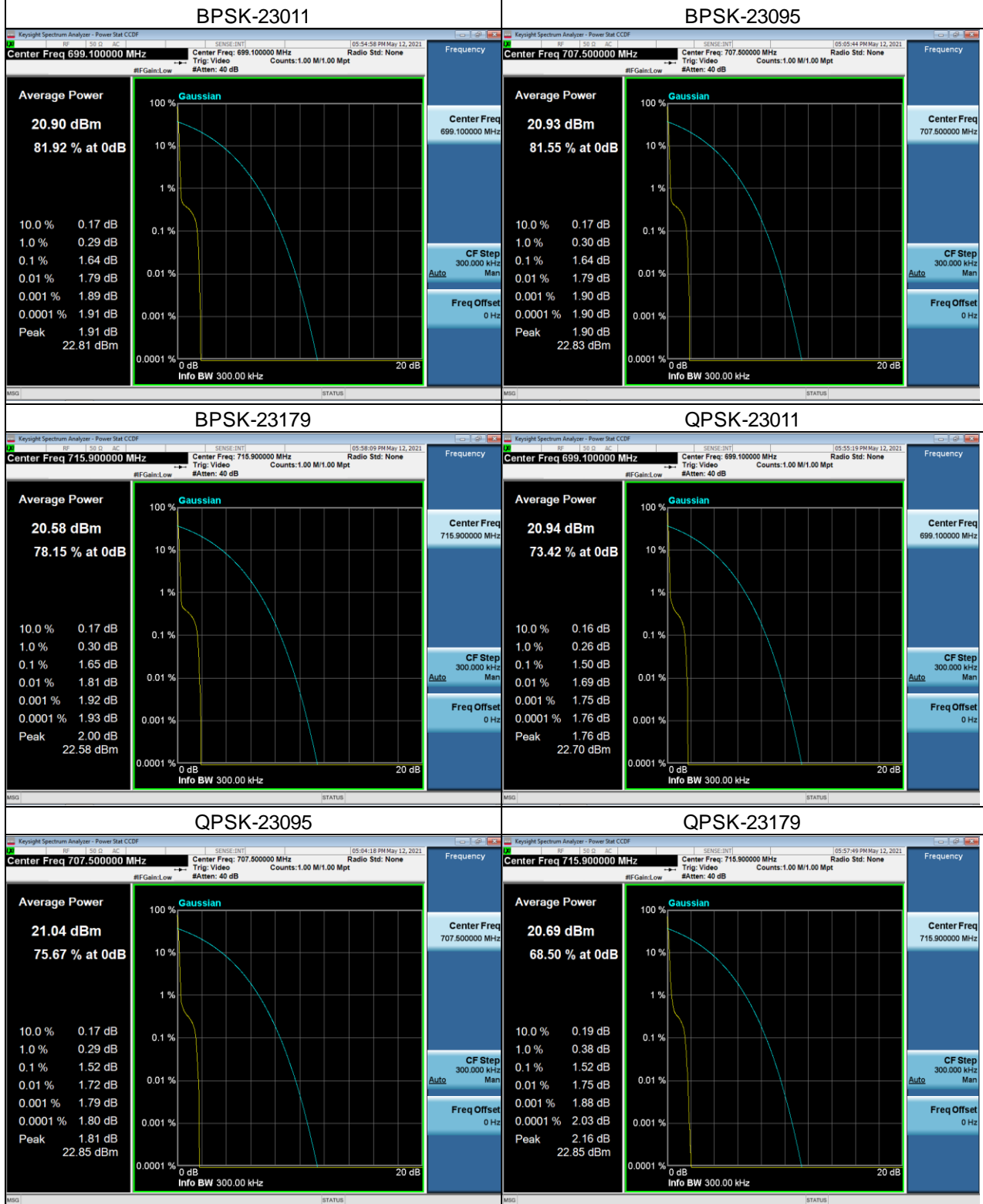
## LTE Band 4\_3.75KHz Spectrum Plot



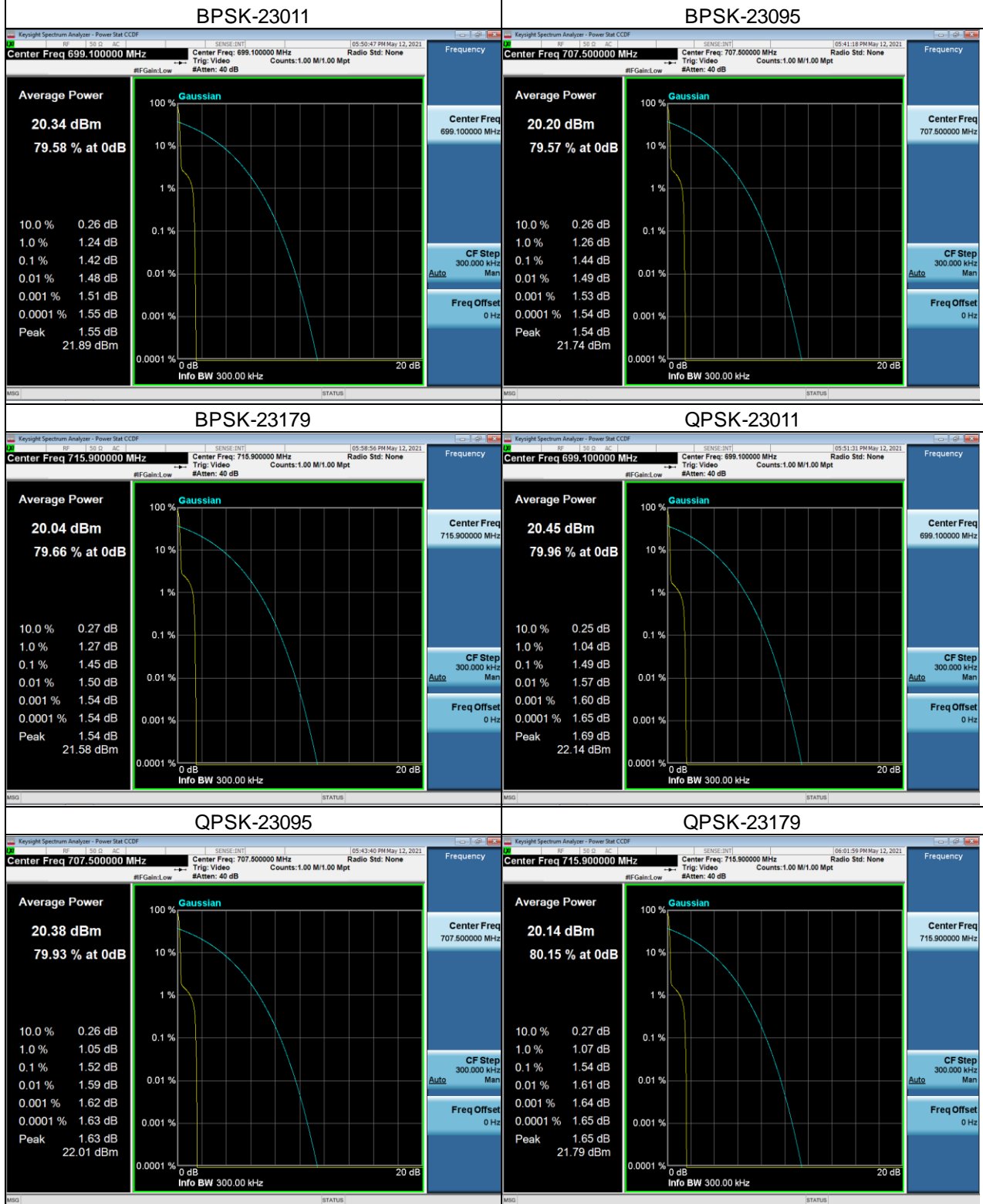
## LTE Band 4\_15KHz Spectrum Plot



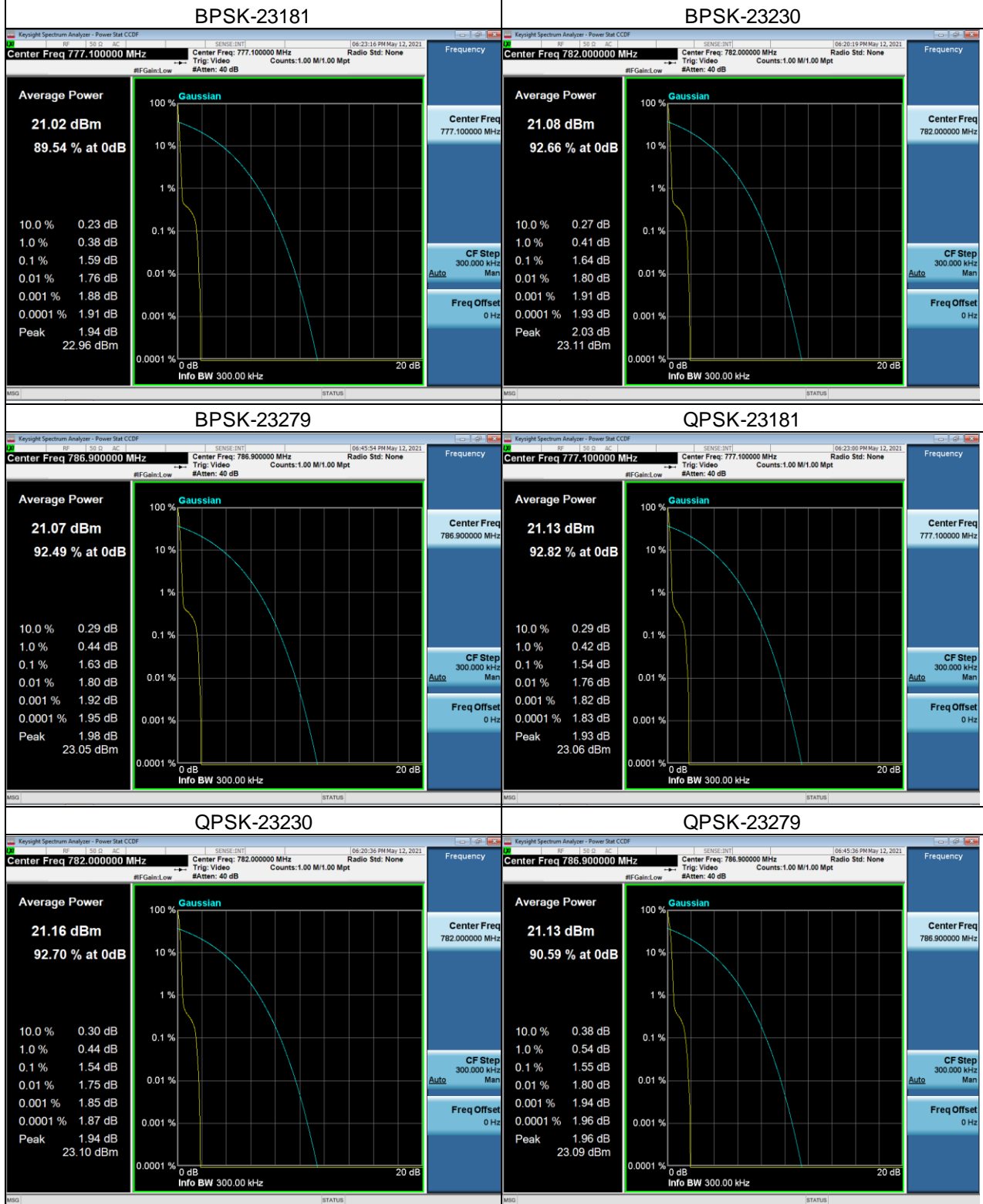
## LTE Band 12\_3.75KHz Spectrum Plot



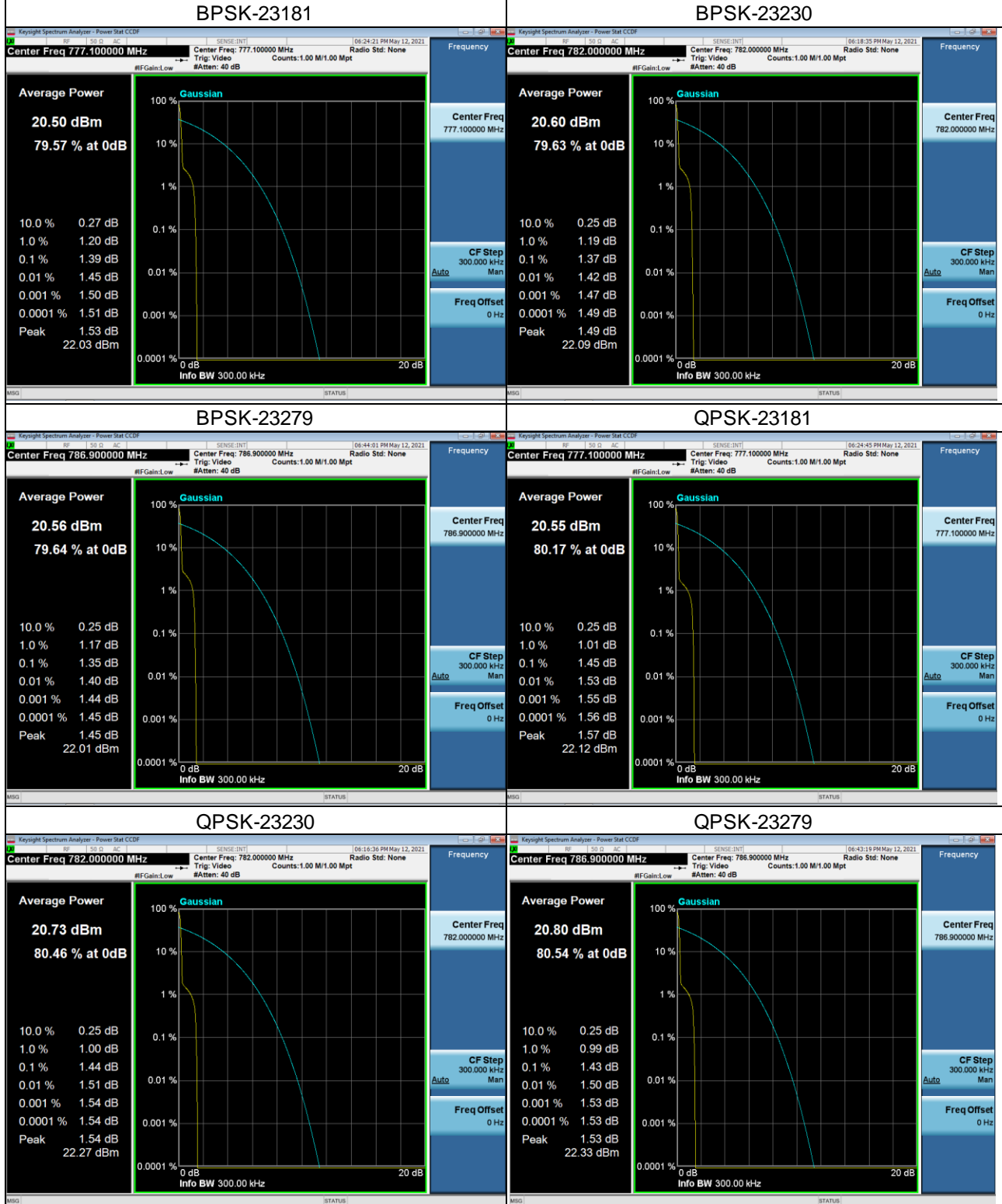
## LTE Band 12\_15KHz Spectrum Plot



## LTE Band 13\_3.75KHz Spectrum Plot



## LTE Band 13\_15KHz Spectrum Plot





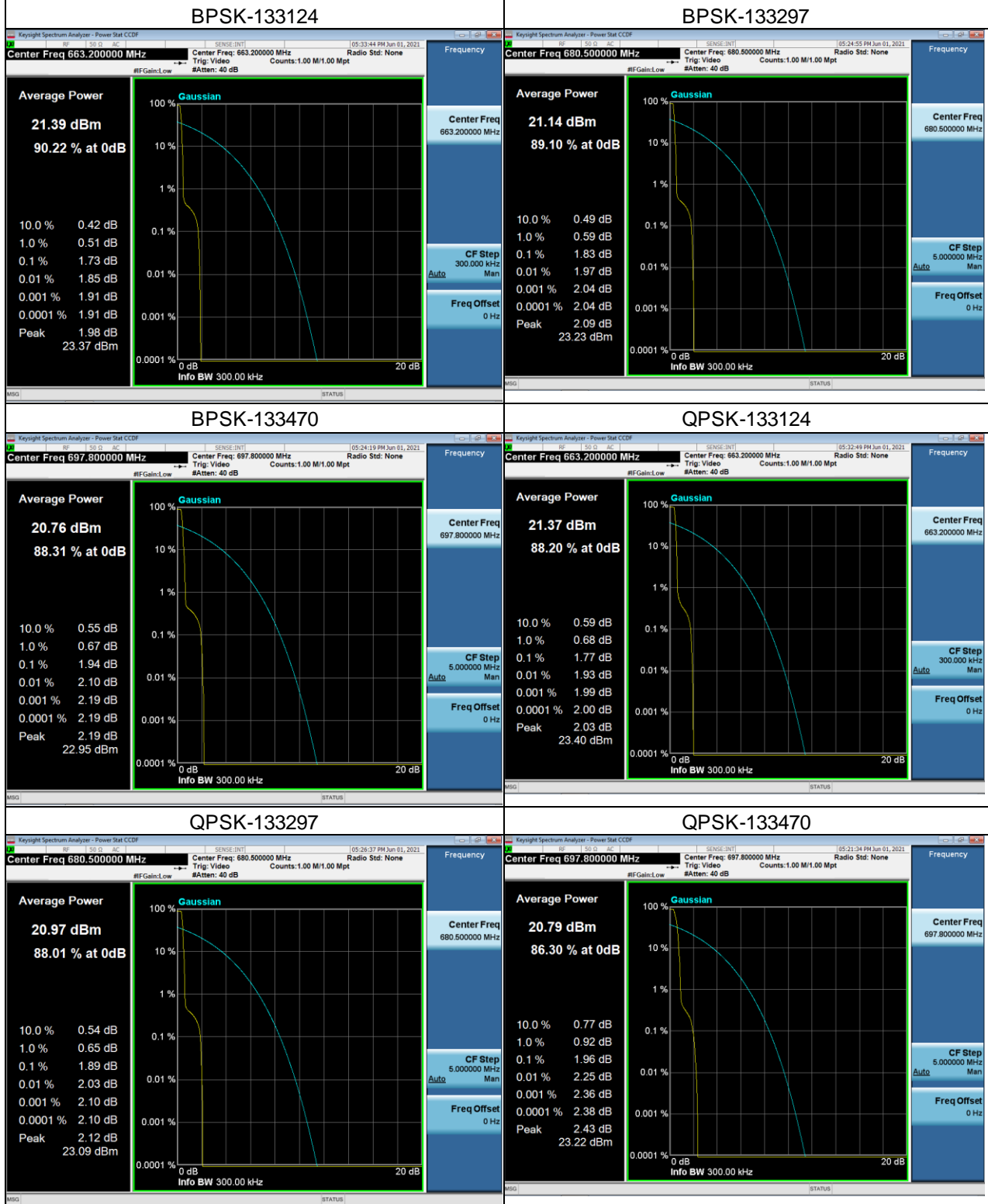
## LTE Band 66\_3.75KMz Spectrum Plot



## LTE Band 66\_15KMz Spectrum Plot



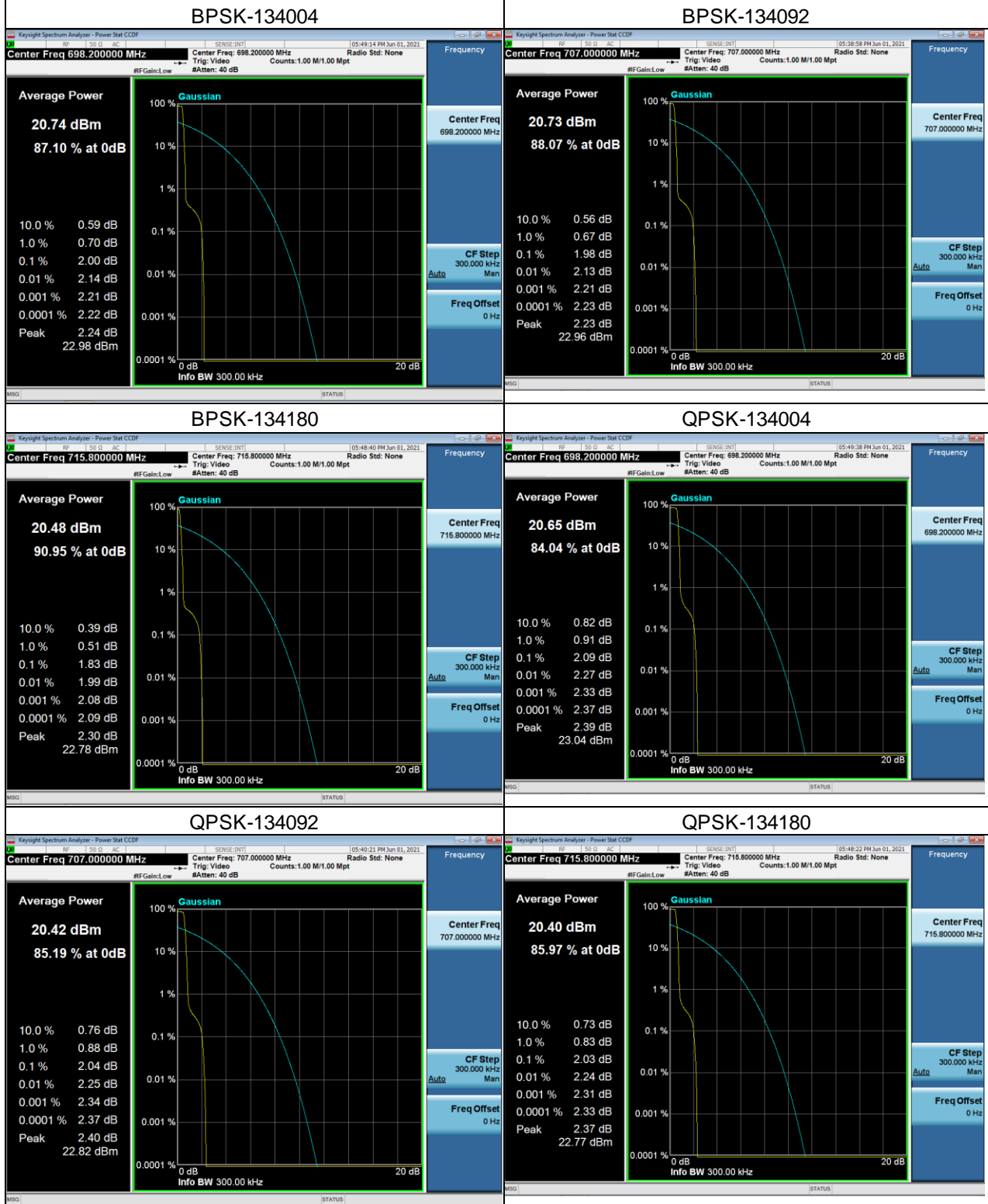
## LTE Band 71\_3.75KHz Spectrum Plot



## LTE Band 71\_15KHz Spectrum Plot



## LTE Band 85\_3.75KHz Spectrum Plot



## LTE Band 85\_15KHz Spectrum Plot



## **APPENDIX I - FREQUENCY STABILITY**

Test Mode	LTE Band 4_BPSK_CH20175_3.75KHz
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-13.29	-0.007670996	± 2.5
-10	6.65	0.003838384	
0	7.66	0.004421356	
10	13.92	0.008034632	
20	5.36	0.003093795	
30	7.56	0.004363636	
40	-8.15	-0.004704185	
50	-10.45	-0.006031746	
60	-9.36	-0.005402597	
Max. Deviation (ppm)	13.92	0.008034632	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	2.55	0.001471861	± 2.5
3.7	14.61	0.0084329	
3.3	-7.43	-0.0042886	
Max. Deviation (ppm)	14.61	0.0084329	



Test Mode	LTE Band 4_BPSK_CH20175_15KHz
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-8.24	-0.004756133	± 2.5
-10	-5.32	-0.003070707	
0	-0.51	-0.000294372	
10	13.86	0.008	
20	4.47	0.002580087	
30	-2.41	-0.001391053	
40	-11.00	-0.006349206	
50	-6.87	-0.003965368	
60	-6.37	-0.003676768	
Max. Deviation (ppm)	13.86	0.008	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	9.99	0.005766234	± 2.5
3.7	7.83	0.004519481	
3.3	6.01	0.003468975	
Max. Deviation (ppm)	9.99	0.005766234	

Test Mode	LTE Band 12_BPSK_CH23095_3.75KHz
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	9.59	0.01355477	± 2.5
-10	3.32	0.00469258	
0	6.18	0.008734982	
10	7.85	0.011095406	
20	-7.48	0.010572438	
30	10.40	0.014699647	
40	13.39	0.018925795	
50	6.05	0.008551237	
60	-5.24	0.00740636	
Max. Deviation (ppm)	13.39	0.018925795	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	13.17	0.018614841	± 2.5
3.7	10.52	0.014869258	
3.3	-12.15	0.017173145	
Max. Deviation (ppm)	13.17	0.018614841	

Test Mode	LTE Band 12_BPSK_CH23095_15KHz
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-10.47	-0.014798587	± 2.5
-10	-2.16	-0.003053004	
0	6.67	0.009427562	
10	-5.66	-0.008	
20	10.63	0.015024735	
30	-9.42	-0.013314488	
40	-12.68	-0.017922261	
50	8.10	0.011448763	
60	1.95	0.002756184	
Max. Deviation (ppm)	-12.68	-0.017922261	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	-10.28	-0.014530035	± 2.5
3.7	14.11	0.019943463	
3.3	13.13	0.018558304	
Max. Deviation (ppm)	14.11	0.019943463	

Test Mode	LTE Band 13_BPSK_CH23230_3.75KHz
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	7.25	0.0092711	± 2.5
-10	-7.44	0.009514066	
0	-12.56	0.016061381	
10	-2.98	0.003810742	
20	6.21	0.007941176	
30	-8.77	0.011214834	
40	3.90	0.004987212	
50	7.94	0.010153453	
60	-3.53	0.004514066	
Max. Deviation (ppm)	-12.56	0.016061381	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	10.29	0.013158568	± 2.5
3.7	13.67	0.017480818	
3.3	-12.43	0.015895141	
Max. Deviation (ppm)	13.67	0.017480818	

Test Mode	LTE Band 13_BPSK_CH23230_15KHz
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	11.76	0.015038363	± 2.5
-10	13.17	0.016841432	
0	11.32	0.014475703	
10	8.75	0.011189258	
20	-4.70	-0.00601023	
30	-13.18	-0.01685422	
40	-2.43	-0.003107417	
50	-4.37	-0.005588235	
60	5.03	0.006432225	
Max. Deviation (ppm)	-13.18	-0.01685422	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	-0.69	-0.000882353	± 2.5
3.7	13.08	0.016726343	
3.3	-13.01	-0.016636829	
Max. Deviation (ppm)	13.08	0.016726343	

Test Mode	LTE Band 66_BPSK_CH132322_3.75KHz
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-2.94	-0.001684814	± 2.5
-10	-0.27	-0.000154728	
0	7.92	0.004538682	
10	1.85	0.001060172	
20	-6.07	-0.00347851	
30	11.29	0.006469914	
40	-2.03	-0.001163324	
50	1.29	0.000739255	
60	2.57	0.001472779	
Max. Deviation (ppm)	11.29	0.006469914	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	-9.68	-0.005547278	± 2.5
3.7	11.13	0.006378223	
3.3	-9.30	-0.005329513	
Max. Deviation (ppm)	11.13	0.006378223	

Test Mode	LTE Band 66_BPSK _CH132322_15KHz
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-5.19	-0.002974212	± 2.5
-10	4.13	0.002366762	
0	-8.15	-0.004670487	
10	6.37	0.00365043	
20	-0.86	-0.000492837	
30	10.62	0.00608596	
40	-10.33	-0.005919771	
50	-1.21	-0.00069341	
60	7.83	0.004487106	
Max. Deviation (ppm)	10.62	0.00608596	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	2.31	0.001323782	± 2.5
3.7	-12.15	-0.006962751	
3.3	4.17	0.002389685	
Max. Deviation (ppm)	-12.15	-0.006962751	

Test Mode	LTE Band 71_BPSK_CH23095_3.75KHz
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	6.09	0.008949302	± 2.5
-10	8.59	0.012623071	
0	5.38	0.007905952	
10	-4.07	-0.005980896	
20	4.57	0.00671565	
30	9.86	0.014489346	
40	8.82	0.012961058	
50	-5.21	-0.007656135	
60	-10.91	-0.016032329	
Max. Deviation (ppm)	-10.91	-0.016032329	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	2.93	0.004305658	± 2.5
3.7	10.99	0.01614989	
3.3	5.97	0.008772961	
Max. Deviation (ppm)	10.99	0.01614989	



Test Mode	LTE Band 71_BPSK_CH23095_15KHz
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	7.76	0.01140338	± 2.5
-10	7.15	0.01050698	
0	11.48	0.016869949	
10	8.86	0.013019838	
20	-2.65	-0.003894195	
30	11.41	0.016767083	
40	-9.14	-0.013431301	
50	10.29	0.015121234	
60	-11.02	-0.016193975	
Max. Deviation (ppm)	11.48	0.016869949	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	10.78	0.015841293	± 2.5
3.7	-6.11	-0.008978692	
3.3	-2.45	-0.003600294	
Max. Deviation (ppm)	10.78	0.015841293	

Test Mode	LTE Band 85_BPSK_CH23230_3.75KHz
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**Temperature vs. Frequency Stability**

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	9.65	0.013649222	± 2.5
-10	6.03	0.008528996	
0	-4.31	-0.006096181	
10	11.03	0.015601132	
20	10.80	0.015275813	
30	8.54	0.012079208	
40	6.63	0.009377652	
50	11.71	0.016562942	
60	3.78	0.005346535	
Max. Deviation (ppm)	11.71	0.016562942	

**Voltage vs. Frequency Stability**

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	4.36	0.006166902	± 2.5
3.7	-4.22	-0.005968883	
3.3	2.18	0.003083451	
Max. Deviation (ppm)	4.36	0.006166902	