

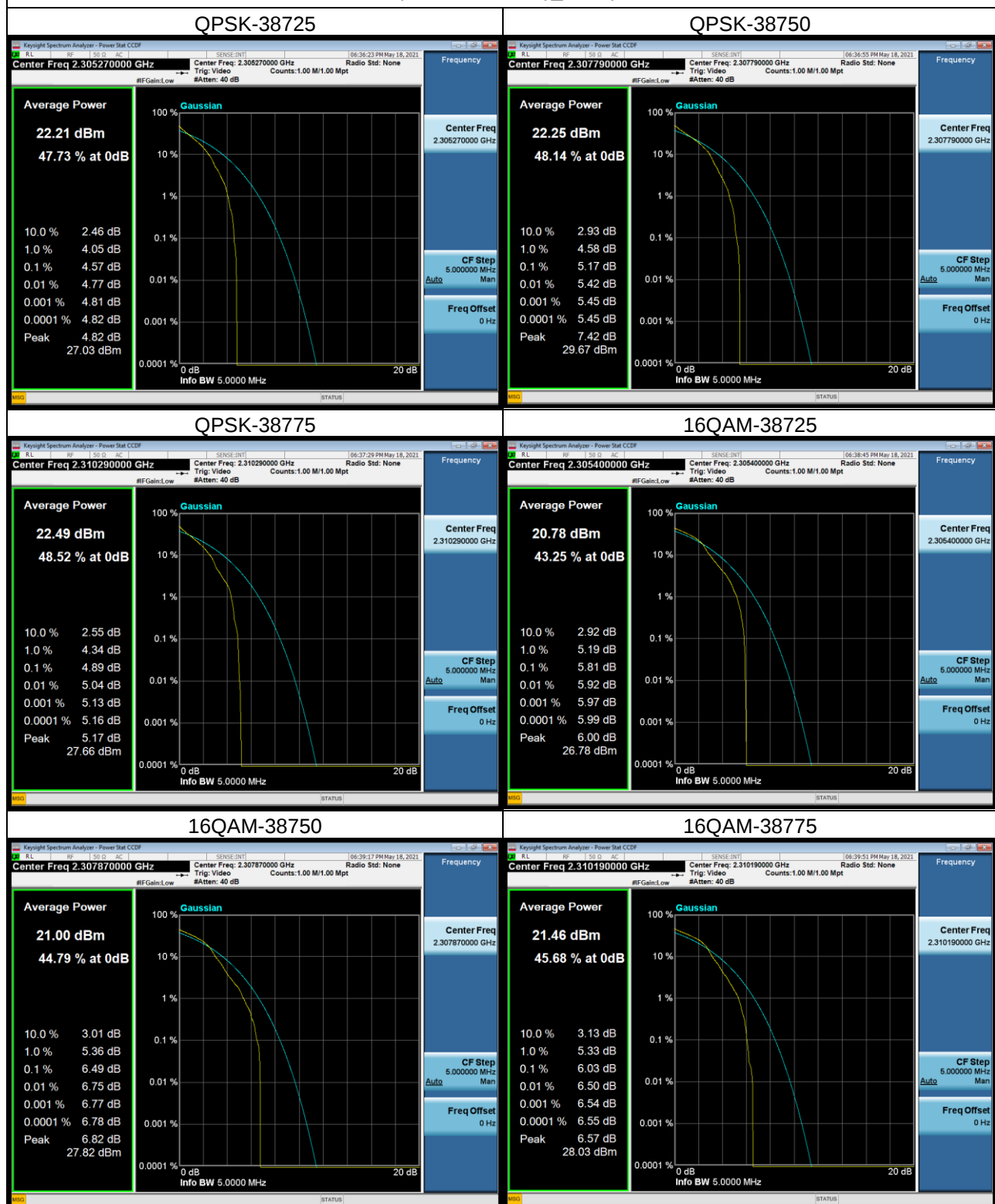
LTE Band 38_15M Spectrum Plot

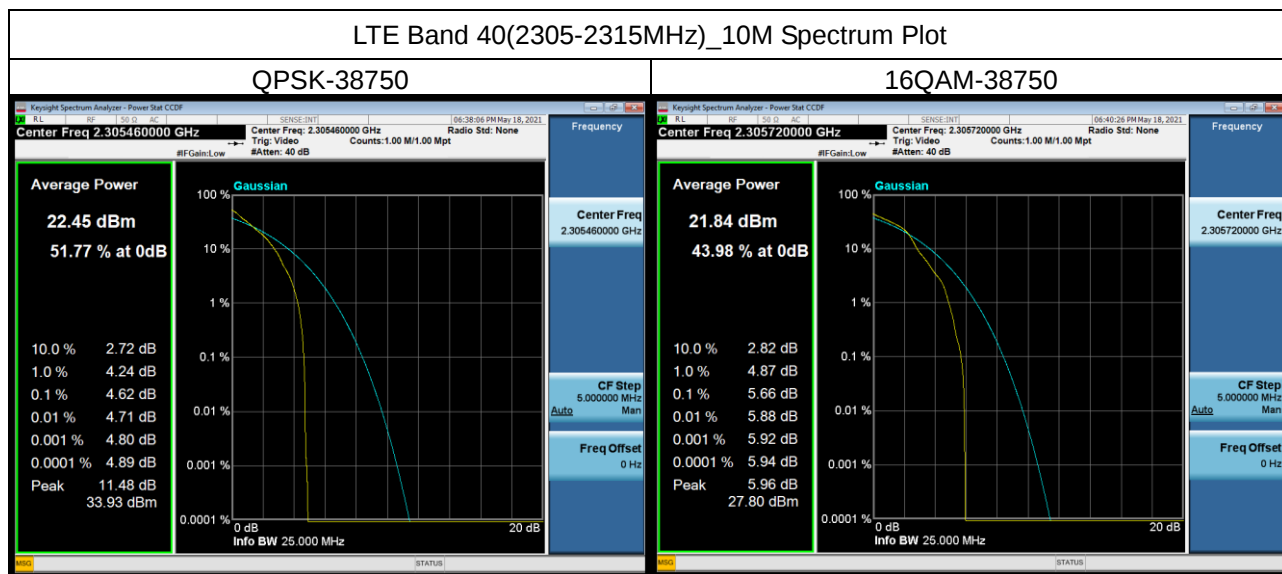


LTE Band 38_20M Spectrum Plot

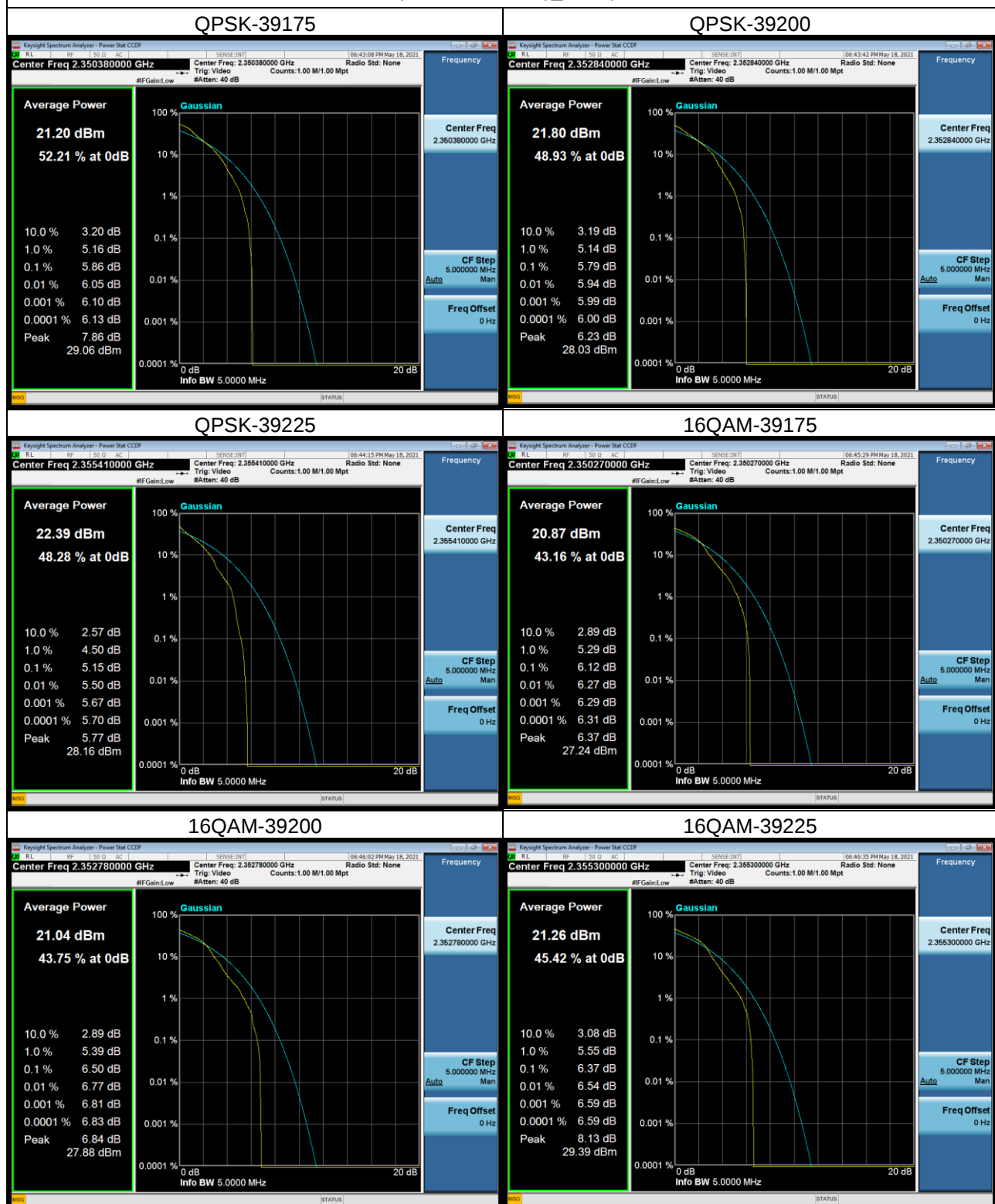


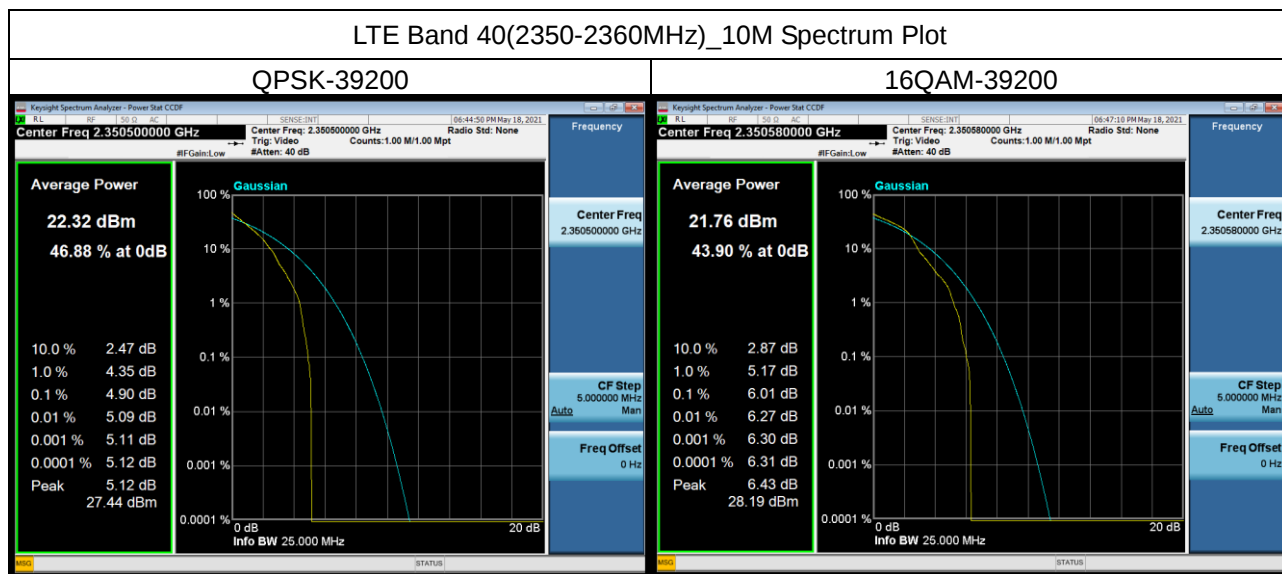
LTE Band 40(2305-2315MHz)_5M Spectrum Plot





LTE Band 40(2350-2360MHz)_5M Spectrum Plot





LTE Band 41_5M Spectrum Plot



LTE Band 41_10M Spectrum Plot



LTE Band 41_15M Spectrum Plot



LTE Band 41_20M Spectrum Plot



APPENDIX I - FREQUENCY STABILITY

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)
-20	1.85	0.000729783	± 2.5
-10	6.37	0.002512821	
0	5.82	0.002295858	
10	4.31	0.001700197	
20	2.24	0.000883629	
30	-4.74	-0.001869822	
40	-2.69	-0.001061144	
50	-2.11	-0.000832347	
60	3.12	0.001230769	
70	3.49	0.001376726	
-75	2.43	0.00095858	
Max. Deviation (ppm)	6.37	0.002512821	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	4.47	0.001763314	± 2.5
3.8	5.64	0.002224852	
3.5	2.01	0.000792899	
Max. Deviation (ppm)	5.64	0.002224852	

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)
-20	5.49	0.00216568	± 2.5
-10	1.59	0.000627219	
0	6.25	0.002465483	
10	2.37	0.000934911	
20	1.72	0.000678501	
30	6.56	0.002587771	
40	2.08	0.000820513	
50	-4.29	-0.001692308	
60	-6.41	-0.0025286	
70	1.45	0.000571992	
-75	6.21	0.002449704	
Max. Deviation (ppm)	6.56	0.002587771	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	2.37	0.000934911	± 2.5
3.8	-6.27	-0.002473373	
3.5	3.35	0.001321499	
Max. Deviation (ppm)	-6.27	-0.002473373	

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)
-20	3.78	0.001491124	± 2.5
-10	1.71	0.000674556	
0	-6.16	-0.00242998	
10	4.62	0.001822485	
20	-1.14	-0.000449704	
30	-5.47	-0.002157791	
40	-3.32	-0.001309665	
50	-4.25	-0.001676529	
60	1.07	0.000422091	
70	3.48	0.001372781	
-75	4.77	0.001881657	
Max. Deviation (ppm)	-6.16	-0.00242998	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	-6.44	-0.002540434	± 2.5
3.8	-2.18	-0.000859961	
3.5	-1.51	-0.000595661	
Max. Deviation (ppm)	-6.44	-0.002540434	

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)
-20	1.85	0.000729783	± 2.5
-10	6.37	0.002512821	
0	5.82	0.002295858	
10	4.31	0.001700197	
20	2.24	0.000883629	
30	-4.74	-0.001869822	
40	-2.69	-0.001061144	
50	-2.11	-0.000832347	
60	3.12	0.001230769	
70	3.49	0.001376726	
-75	2.43	0.00095858	
Max. Deviation (ppm)	6.37	0.002512821	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	5.63	0.002220907	± 2.5
3.8	4.93	0.001944773	
3.5	-3.28	-0.001293886	
Max. Deviation (ppm)	5.63	0.002220907	

Test Mode	LTE Band 38_CH38000_5M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-4.64	-0.001788054	± 2.5
-10	6.72	0.002589595	
0	2.09	0.000805395	
10	5.51	0.002123314	
20	-3.93	-0.001514451	
30	5.42	0.002088632	
40	-3.27	-0.001260116	
50	1.28	0.000493256	
60	2.17	0.000836224	
70	-5.07	-0.001953757	
-75	3.73	0.00143738	
Max. Deviation (ppm)	-5.07	-0.001953757	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	5.61	0.00216185	± 2.5
3.8	4.96	0.001911368	
3.5	-5.96	-0.002296724	
Max. Deviation (ppm)	-5.96	-0.002296724	

Test Mode	LTE Band 38_CH38000_10M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-2.43	-0.000936416	± 2.5
-10	4.97	0.001915222	
0	-2.84	-0.001094412	
10	-3.17	-0.00122158	
20	-6.65	-0.00256262	
30	-5.44	-0.002096339	
40	-6.21	-0.002393064	
50	-1.18	-0.000454721	
60	-5.41	-0.002084778	
70	-6.05	-0.002331407	
-75	-5.49	-0.002115607	
Max. Deviation (ppm)	-6.21	-0.002393064	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	1.75	0.000674374	± 2.5
3.8	3.03	0.00116763	
3.5	5.67	0.002184971	
Max. Deviation (ppm)	5.67	0.002184971	

Test Mode	LTE Band 38_CH38000_15M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-3.62	-0.00139499	± 2.5
-10	-5.28	-0.002034682	
0	5.74	0.002211946	
10	-2.86	-0.001102119	
20	-3.69	-0.001421965	
30	-2.95	-0.001136802	
40	-3.23	-0.001244701	
50	1.17	0.000450867	
60	-2.40	-0.000924855	
70	6.18	0.002381503	
-75	-4.28	-0.001649326	
Max. Deviation (ppm)	6.18	0.002381503	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	5.95	0.002292871	± 2.5
3.8	3.47	0.001337187	
3.5	4.11	0.001583815	
Max. Deviation (ppm)	5.95	0.002292871	

Test Mode	LTE Band 38_CH38000_20M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-1.81	-0.000697495	± 2.5
-10	-5.52	-0.002127168	
0	-4.41	-0.001699422	
10	4.38	0.001687861	
20	4.43	0.001707129	
30	3.73	0.00143738	
40	-1.91	-0.000736031	
50	-3.67	-0.001414258	
60	1.32	0.000508671	
70	-6.45	-0.002485549	
-75	3.16	0.001217726	
Max. Deviation (ppm)	-6.45	-0.002485549	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	-3.05	-0.001175337	± 2.5
3.8	3.39	0.001306358	
3.5	-5.31	-0.002046243	
Max. Deviation (ppm)	-5.31	-0.002046243	

Test Mode	LTE Band 40(2305-2315MHz)_CH38750_5M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-3.79	-0.001640693	± 2.5
-10	-4.50	-0.001948052	
0	-2.38	-0.001030303	
10	-6.58	-0.002848485	
20	3.81	0.001649351	
30	2.93	0.001268398	
40	7.12	0.003082251	
50	-5.43	-0.002350649	
60	7.13	0.00308658	
70	5.41	0.002341991	
-75	5.41	0.002341991	
Max. Deviation (ppm)	7.13	0.00308658	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	4.16	0.001800866	± 2.5
3.8	-4.29	-0.001857143	
3.5	-1.21	-0.00052381	
Max. Deviation (ppm)	-4.29	-0.001857143	

Test Mode	LTE Band 40(2305-2315MHz)_CH38750_10M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-4.06	-0.001757576	± 2.5
-10	5.50	0.002380952	
0	-6.34	-0.002744589	
10	5.80	0.002510823	
20	-4.28	-0.001852814	
30	7.28	0.003151515	
40	1.50	0.000649351	
50	1.93	0.000835498	
60	6.58	0.002848485	
70	-3.64	-0.001575758	
-75	-5.41	-0.002341991	
Max. Deviation (ppm)	7.28	0.003151515	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	4.59	0.001987013	± 2.5
3.8	-2.28	-0.000987013	
3.5	5.27	0.002281385	
Max. Deviation (ppm)	5.27	0.002281385	

Test Mode	LTE Band 40(2350-2360MHz)_CH39200_5M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-2.89	-0.001227176	± 2.5
-10	6.51	0.002764331	
0	6.84	0.002904459	
10	-1.66	-0.000704883	
20	-3.49	-0.001481953	
30	6.44	0.002734607	
40	2.38	0.001010616	
50	1.54	0.000653928	
60	3.74	0.00158811	
70	5.29	0.002246285	
-75	1.02	0.000433121	
Max. Deviation (ppm)	6.84	0.002904459	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	5.56	0.002360934	± 2.5
3.8	-4.73	-0.002008493	
3.5	-2.63	-0.001116773	
Max. Deviation (ppm)	5.56	0.002360934	

Test Mode	LTE Band 40(2350-2360MHz)_CH39200_10M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-1.12	-0.000475584	± 2.5
-10	-5.81	-0.002467091	
0	4.28	0.00181741	
10	-5.26	-0.002233546	
20	1.36	0.000577495	
30	5.68	0.00241189	
40	-6.77	-0.002874735	
50	-4.19	-0.001779193	
60	6.27	0.00266242	
70	3.55	0.001507431	
-75	5.44	0.002309979	
Max. Deviation (ppm)	-6.77	-0.002874735	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	-5.98	-0.002539278	± 2.5
3.8	3.95	0.001677282	
3.5	-3.94	-0.001673036	
Max. Deviation (ppm)	-5.98	-0.002539278	

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)
-20	1.28	0.000493637	± 2.5
-10	4.11	0.001585037	
0	6.17	0.002379483	
10	-5.05	-0.001947551	
20	-2.52	-0.000971847	
30	-3.02	-0.001164674	
40	-1.24	-0.000478211	
50	-5.14	-0.00198226	
60	6.22	0.002398766	
70	2.59	0.000998843	
-75	2.23	0.000860008	
Max. Deviation (ppm)	6.22	0.002398766	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	-1.97	-0.000759738	± 2.5
3.8	-2.96	-0.001141535	
3.5	-5.07	-0.001955264	
Max. Deviation (ppm)	-5.07	-0.001955264	

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)
-20	-6.20	-0.002391053	± 2.5
-10	1.75	0.000674894	
0	-2.02	-0.00077902	
10	4.07	0.00156961	
20	1.42	0.000547628	
30	-2.39	-0.000921712	
40	-5.21	-0.002009256	
50	-1.62	-0.000624759	
60	6.51	0.002510605	
70	-2.94	-0.001133822	
-75	2.68	0.001033552	
Max. Deviation (ppm)	6.51	0.002510605	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	-2.15	-0.000829155	± 2.5
3.8	5.65	0.002178943	
3.5	5.69	0.002194369	
Max. Deviation (ppm)	5.69	0.002194369	

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)
-20	6.41	0.00247204	± 2.5
-10	6.03	0.002325492	
0	5.98	0.002306209	
10	-4.37	-0.001685307	
20	-5.50	-0.002121095	
30	-4.90	-0.001889703	
40	-4.39	-0.00169302	
50	3.86	0.001488623	
60	-3.37	-0.001299653	
70	7.27	0.002803702	
-75	2.26	0.000871577	
Max. Deviation (ppm)	7.27	0.002803702	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	3.49	0.001345931	± 2.5
3.8	6.72	0.002591593	
3.5	4.85	0.00187042	
Max. Deviation (ppm)	6.72	0.002591593	

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)
-20	1.05	0.000404936	± 2.5
-10	5.12	0.001974547	
0	-2.97	-0.001145391	
10	4.47	0.001723872	
20	-3.89	-0.001500193	
30	-2.86	-0.00110297	
40	-5.99	-0.002310066	
50	5.45	0.002101813	
60	-6.40	-0.002468184	
70	-6.12	-0.002360201	
-75	-6.82	-0.002630158	
Max. Deviation (ppm)	-6.82	-0.002630158	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.2	-2.57	-0.00099113	± 2.5
3.8	1.61	0.000620902	
3.5	3.93	0.001515619	
Max. Deviation (ppm)	3.93	0.001515619	

End of Test Report