

LTE Band 25 Spectrum Plot_20M

QPSK-26140



QPSK-26365



QPSK-26590



16QAM-26140



16QAM-26365



16QAM-26590



APPENDIX I - FREQUENCY STABILITY

Test Mode:	WCDMA Band 2_CH9400
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	4.58	0.002436170	2.5
-20	6.57	0.003494681	2.5
-10	2.47	0.001313830	2.5
0	3.02	0.001606383	2.5
10	2.86	0.001521277	2.5
20	3.43	0.001824468	2.5
30	7.16	0.003808511	2.5
40	2.44	0.001297872	2.5
50	3.62	0.001925532	2.5
Max. Deviation (ppm)	7.16	0.003808511	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	0.95	0.000505319	2.5
7.68	2.49	0.001324468	2.5
6.50	3.55	0.001888298	2.5
Max. Deviation (ppm)	3.55	0.001888298	2.5

Test Mode:	LTE Band 2_CH18900_1.4M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	4.32	0.002297872	2.5
-20	5.64	0.003000000	2.5
-10	-4.25	0.002260638	2.5
0	-3.44	0.001829787	2.5
10	-1.58	0.000840426	2.5
20	-0.12	6.38298E-05	2.5
30	0.99	0.000526596	2.5
40	3.08	0.001638298	2.5
50	4.44	0.002361702	2.5
Max. Deviation (ppm)	5.64	0.003000000	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	3.44	0.001829787	2.5
7.68	-2.19	0.001164894	2.5
6.50	5.03	0.002675532	2.5
Max. Deviation (ppm)	5.03	0.002675532	2.5

Test Mode:	LTE Band 2_CH18900_3M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	4.28	0.002276596	2.5
-20	5.54	0.002946809	2.5
-10	-3.91	0.002079787	2.5
0	-3.52	0.001872340	2.5
10	4.81	0.002558511	2.5
20	-4.02	0.002138298	2.5
30	-2.33	0.001239362	2.5
40	-4.82	0.002563830	2.5
50	5.57	0.002962766	2.5
Max. Deviation (ppm)	5.57	0.002962766	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	-4.16	0.002212766	2.5
7.68	6.03	0.003207447	2.5
6.50	4.02	0.002138298	2.5
Max. Deviation (ppm)	6.03	0.003207447	2.5

Test Mode:	LTE Band 2_CH18900_5M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	3.61	0.001920213	2.5
-20	4.81	0.002558511	2.5
-10	-5.75	0.003058511	2.5
0	-3.49	0.001856383	2.5
10	2.57	0.001367021	2.5
20	8.44	0.004489362	2.5
30	-1.96	0.001042553	2.5
40	5.52	0.002936170	2.5
50	2.31	0.001228723	2.5
Max. Deviation (ppm)	8.44	0.004489362	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	3.18	0.001691489	2.5
7.68	4.21	0.002239362	2.5
6.50	-0.86	0.000457447	2.5
Max. Deviation (ppm)	4.21	0.002239362	2.5

Test Mode:	LTE Band 2_CH18900_10M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	3.53	0.001877660	2.5
-20	-2.56	0.001361702	2.5
-10	-3.57	0.001898936	2.5
0	-2.67	0.001420213	2.5
10	1.58	0.000840426	2.5
20	3.14	0.001670213	2.5
30	3.77	0.002005319	2.5
40	4.09	0.002175532	2.5
50	3.61	0.001920213	2.5
Max. Deviation (ppm)	4.09	0.002175532	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	2.64	0.001404255	2.5
7.68	3.72	0.001978723	2.5
6.50	-4.12	0.002191489	2.5
Max. Deviation (ppm)	4.12	0.002191489	2.5

Test Mode:	LTE Band 2_CH18900_15M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	1.54	0.000819149	2.5
-20	5.12	0.002723404	2.5
-10	-3.45	0.001835106	2.5
0	-2.71	0.001441489	2.5
10	-4.86	0.002585106	2.5
20	5.46	0.002904255	2.5
30	3.98	0.002117021	2.5
40	1.00	0.000531915	2.5
50	5.83	0.003101064	2.5
Max. Deviation (ppm)	5.83	0.003101064	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	2.14	0.001138298	2.5
7.68	-1.11	0.000590426	2.5
6.50	-6.83	0.003632979	2.5
Max. Deviation (ppm)	6.83	0.003632979	2.5

Test Mode:	LTE Band 2_CH18900_20M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	3.51	0.001867021	2.5
-20	2.85	0.001515957	2.5
-10	-3.37	0.001792553	2.5
0	2.01	0.001069149	2.5
10	6.58	0.003500000	2.5
20	-2.48	0.001319149	2.5
30	-5.41	0.002877660	2.5
40	-3.47	0.001845745	2.5
50	5.41	0.002877660	2.5
Max. Deviation (ppm)	6.58	0.003500000	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	-6.54	0.003478723	2.5
7.68	3.48	0.001851064	2.5
6.50	-2.41	0.001281915	2.5
Max. Deviation (ppm)	6.54	0.003478723	2.5

Test Mode:	LTE Band 25_CH26365_1.4M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-3.16	0.001678619	2.5
-20	3.66	0.001944223	2.5
-10	-3.25	0.001726428	2.5
0	3.13	0.001662683	2.5
10	5.58	0.002964143	2.5
20	6.79	0.003606906	2.5
30	2.15	0.001142098	2.5
40	4.19	0.002225764	2.5
50	7.34	0.003899070	2.5
Max. Deviation (ppm)	7.34	0.003899070	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	2.31	0.001227092	2.5
7.68	3.54	0.001880478	2.5
6.50	4.78	0.002539177	2.5
Max. Deviation (ppm)	4.78	0.002539177	2.5

Test Mode:	LTE Band 25_CH26365_3M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	1.27	0.00067463	2.5
-20	-3.54	0.00188048	2.5
-10	-4.89	0.00259761	2.5
0	2.52	0.00133865	2.5
10	6.51	0.00345817	2.5
20	-5.24	0.00278353	2.5
30	8.05	0.00427623	2.5
40	6.60	0.00350598	2.5
50	-2.16	0.00114741	2.5
Max. Deviation (ppm)	8.05	0.00427623	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	3.26	0.00173174	2.5
7.68	-2.87	0.00152457	2.5
6.50	6.99	0.00371315	2.5
Max. Deviation (ppm)	6.99	0.00371315	2.5

Test Mode:	LTE Band 25_CH26365_5M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-8.20	0.004355910	2.5
-20	3.16	0.001678619	2.5
-10	-4.22	0.002241700	2.5
0	3.71	0.001970784	2.5
10	5.41	0.002873838	2.5
20	6.17	0.003277556	2.5
30	3.14	0.001667995	2.5
40	4.08	0.002167331	2.5
50	7.39	0.003925631	2.5
Max. Deviation (ppm)	8.20	0.004355910	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	3.61	0.001917663	2.5
7.68	-4.35	0.002310757	2.5
6.50	7.19	0.003819389	2.5
Max. Deviation (ppm)	7.19	0.003819389	2.5

Test Mode:	LTE Band 25_CH26365_10M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	4.02	0.002135458	2.5
-20	-3.06	0.001625498	2.5
-10	-4.98	0.002645418	2.5
0	1.03	0.000547145	2.5
10	-5.72	0.003038513	2.5
20	2.71	0.001439575	2.5
30	1.89	0.001003984	2.5
40	4.31	0.002289509	2.5
50	8.31	0.004414343	2.5
Max. Deviation (ppm)	8.31	0.004414343	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	6.46	0.003431607	2.5
7.68	-3.35	0.001779548	2.5
6.50	-2.50	0.001328021	2.5
Max. Deviation (ppm)	6.46	0.003431607	2.5

Test Mode:	LTE Band 25_CH26365_15M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	5.25	0.002788845	2.5
-20	-6.66	0.003537849	2.5
-10	7.47	0.003968127	2.5
0	-2.84	0.001508632	2.5
10	1.97	0.001046481	2.5
20	6.01	0.003192563	2.5
30	1.44	0.000764940	2.5
40	2.14	0.001136786	2.5
50	2.94	0.001561753	2.5
Max. Deviation (ppm)	7.47	0.003968127	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	-2.49	0.001322709	2.5
7.68	5.25	0.002788845	2.5
6.50	4.05	0.002151394	2.5
Max. Deviation (ppm)	5.25	0.002788845	2.5

Test Mode:	LTE Band 25_CH26365_20M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-0.21	0.000111554	2.5
-20	1.52	0.000807437	2.5
-10	3.20	0.001699867	2.5
0	6.42	0.003410359	2.5
10	-2.25	0.001195219	2.5
20	6.28	0.003335989	2.5
30	1.37	0.000727756	2.5
40	1.82	0.000966799	2.5
50	5.99	0.003181939	2.5
Max. Deviation (ppm)	6.42	0.003410359	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
8.80	-2.25	0.001195219	2.5
7.68	6.95	0.003691899	2.5
6.50	-3.41	0.001811421	2.5
Max. Deviation (ppm)	6.95	0.003691899	2.5