

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	2.00	0.002817	Within authorized band for Band 17	Pass
	3.92	-7.86	-0.011070		
	4.53	-3.39	-0.004775		
16QAM					
25	3.45	2.40	0.003380	Within authorized band for Band 17	Pass
	3.92	-2.54	-0.003577		
	4.53	-3.19	-0.004493		
64QAM					
25	3.45	-1.92	-0.002704	Within authorized band for Band 17	Pass
	3.92	-1.36	-0.001915		
	4.53	-2.96	-0.004169		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 38 part:

Reference Frequency: LTE Band 38(10MHz) Middle channel=38000 Frequency=2595.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.92	-30	-5.61	-0.002162	Within authorized band for Band 38	Pass
	-20	-9.86	-0.003800		
	-10	-7.96	-0.003067		
	0	-5.51	-0.002123		
	10	5.54	0.002135		
	20	13.61	0.005245		
	30	7.81	0.003010		
	40	-10.04	-0.003869		
	50	7.59	0.002925		
16QAM					
3.92	-30	-7.92	-0.003052	Within authorized band for Band 38	Pass
	-20	-5.20	-0.002004		
	-10	-10.62	-0.004092		
	0	-7.73	-0.002979		
	10	-10.34	-0.003985		
	20	-10.09	-0.003888		
	30	10.68	0.004116		
	40	-7.45	-0.002871		
	50	8.65	0.003333		
64QAM					
3.92	-30	9.33	0.003595	Within authorized band for Band 38	Pass
	-20	-6.07	-0.002339		
	-10	-10.20	-0.003931		
	0	-4.58	-0.001765		
	10	-15.11	-0.005823		
	20	-2.41	-0.000929		
	30	-15.69	-0.006046		
	40	-9.55	-0.003680		
	50	-17.58	-0.006775		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-16.03	-0.006177	Within authorized band for Band 38	Pass
	3.92	7.11	0.002740		
	4.53	3.35	0.001291		
16QAM					
25	3.45	7.54	0.002906	Within authorized band for Band 38	Pass
	3.92	10.82	0.004170		
	4.53	-13.72	-0.005287		
64QAM					
25	3.45	-14.58	-0.005618	Within authorized band for Band 38	Pass
	3.92	-17.11	-0.006593		
	4.53	-10.29	-0.003965		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 41 part:

Reference Frequency: LTE Band 41 (10MHz) Middle channel=40640 Frequency=2595.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.92	-30	13.66	0.005264	Within authorized band for Band 41	Pass
	-20	-3.70	-0.001426		
	-10	13.42	0.005171		
	0	-22.82	-0.008794		
	10	10.81	0.004166		
	20	-7.22	-0.002782		
	30	-9.68	-0.003730		
	40	6.03	0.002324		
	50	-18.46	-0.007114		
16QAM					
3.92	-30	-13.05	-0.005029	Within authorized band for Band 41	Pass
	-20	-11.49	-0.004428		
	-10	-12.95	-0.004990		
	0	6.64	0.002559		
	10	-9.39	-0.003618		
	20	-15.46	-0.005958		
	30	7.17	0.002763		
	40	-12.85	-0.004952		
	50	13.73	0.005291		
64QAM					
3.92	-30	-18.45	-0.007110	Within authorized band for Band 41	Pass
	-20	14.87	0.005730		
	-10	-13.09	-0.005044		
	0	-10.17	-0.003919		
	10	-15.93	-0.006139		
	20	-5.94	-0.002289		
	30	20.23	0.007796		
	40	-13.22	-0.005094		
	50	-4.97	-0.001915		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-12.40	-0.004778	Within authorized band for Band 41	Pass
	3.92	-9.21	-0.003549		
	4.53	-11.28	-0.004347		
16QAM					
25	3.45	-18.03	-0.006948	Within authorized band for Band41	Pass
	3.92	-19.61	-0.007557		
	4.53	-7.34	-0.002829		
64QAM					
25	3.45	-11.72	-0.004516	Within authorized band for Band41	Pass
	3.92	-3.41	-0.001314		
	4.53	12.46	0.004802		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 66 part:

Reference Frequency: LTE Band 66 (10MHz) Middle channel=132322 Frequency=1745.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.92	-30	-2.58	-0.001479	Within authorized band for Band 66	Pass
	-20	-3.32	-0.001903		
	-10	12.71	0.007284		
	0	6.79	0.003891		
	10	9.92	0.005685		
	20	-5.41	-0.003100		
	30	-7.05	-0.004040		
	40	5.55	0.003181		
	50	2.39	0.001370		
16QAM					
3.92	-30	6.37	0.003650	Within authorized band for Band 66	Pass
	-20	1.97	0.001129		
	-10	7.27	0.004166		
	0	2.45	0.001404		
	10	-7.03	-0.004029		
	20	7.19	0.004120		
	30	-4.51	-0.002585		
	40	-3.27	-0.001874		
	50	7.73	0.004430		
64QAM					
3.92	-30	6.10	0.003496	Within authorized band for Band 66	Pass
	-20	3.22	0.001845		
	-10	-4.02	-0.002304		
	0	-4.11	-0.002355		
	10	3.83	0.002195		
	20	9.57	0.005484		
	30	-4.94	-0.002831		
	40	10.03	0.005748		
	50	8.92	0.005112		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	3.08	0.001765	Within authorized band for Band 66	Pass
	3.92	-2.64	-0.001513		
	4.53	8.37	0.004797		
16QAM					
25	3.45	-6.37	-0.003650	Within authorized band for Band 66	Pass
	3.92	5.77	0.003307		
	4.53	7.33	0.004201		
64QAM					
25	3.45	-6.96	-0.003989	Within authorized band for Band 66	Pass
	3.92	3.58	0.002052		
	4.53	-4.32	-0.002476		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

Appendix G: Modulation Characteristics

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result	Verdict
Band2	20MHz	QPSK	18900	100RB#0	PASS	PASS
Band2	20MHz	16QAM	18900	100RB#0	PASS	PASS
Band2	20MHz	64QAM	18900	100RB#0	PASS	PASS
Band4	20MHz	QPSK	20175	100RB#0	PASS	PASS
Band4	20MHz	16QAM	20175	100RB#0	PASS	PASS
Band4	20MHz	64QAM	20175	100RB#0	PASS	PASS
Band5	10MHz	QPSK	20525	50RB#0	PASS	PASS
Band5	10MHz	16QAM	20525	50RB#0	PASS	PASS
Band5	10MHz	64QAM	20525	50RB#0	PASS	PASS
Band7	20MHz	QPSK	21100	100RB#0	PASS	PASS
Band7	20MHz	16QAM	21100	100RB#0	PASS	PASS
Band7	20MHz	64QAM	21100	100RB#0	PASS	PASS
Band12	10MHz	QPSK	23095	50RB#0	PASS	PASS
Band12	10MHz	16QAM	23095	50RB#0	PASS	PASS
Band12	10MHz	64QAM	23095	50RB#0	PASS	PASS
Band17	10MHz	QPSK	23790	50RB#0	PASS	PASS
Band17	10MHz	16QAM	23790	50RB#0	PASS	PASS
Band17	10MHz	64QAM	23790	50RB#0	PASS	PASS
Band38	20MHz	QPSK	38000	100RB#0	PASS	PASS
Band38	20MHz	16QAM	38000	100RB#0	PASS	PASS
Band38	20MHz	64QAM	38000	100RB#0	PASS	PASS
Band41	20MHz	QPSK	40640	100RB#0	PASS	PASS
Band41	20MHz	16QAM	40640	100RB#0	PASS	PASS
Band41	20MHz	64QAM	40640	100RB#0	PASS	PASS
Band66	20MHz	QPSK	132322	100RB#0	PASS	PASS
Band66	20MHz	16QAM	132322	100RB#0	PASS	PASS
Band66	20MHz	64QAM	132322	100RB#0	PASS	PASS

Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs









