



Frequency Stability

Test Conditions		LTE Band 26 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0107	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0114	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0018	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0009	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0013	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.25 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 26 (QPSK) / Low Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 15MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0010	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0002	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0000	
-20	Normal Voltage	0.0017	
-30	Normal Voltage	0.0016	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0035	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.25 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of ERP and Radiated Test

ERP

LTE Band 26 / 1.4MHz (GT - LC = -2.9 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	3	23.95	0.2483	18.90	0.0776
Middle		1	3	23.90	0.2455	18.85	0.0767
Highest		1	3	23.79	0.2393	18.74	0.0748
Lowest	16QAM	1	0	22.68	0.1854	17.63	0.0579
Middle		1	0	22.38	0.1730	17.33	0.0541
Highest		1	0	22.45	0.1758	17.40	0.0550
Lowest	64QAM	3	1	21.58	0.1439	16.53	0.0450
Middle		3	1	21.67	0.1469	16.62	0.0459
Highest		3	1	21.66	0.1466	16.61	0.0458
Limit	ERP < 100W			Result		PASS	

LTE Band 26 / 3MHz (GT - LC = -2.9 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	14	23.95	0.2483	18.90	0.0776
Middle		1	14	23.91	0.2460	18.86	0.0769
Highest		1	14	23.67	0.2328	18.62	0.0728
Lowest	16QAM	1	8	22.47	0.1766	17.42	0.0552
Middle		1	8	22.73	0.1875	17.68	0.0586
Highest		1	8	22.74	0.1879	17.69	0.0587
Lowest	64QAM	1	8	21.44	0.1393	16.39	0.0436
Middle		1	8	21.60	0.1445	16.55	0.0452
Highest		1	8	21.47	0.1403	16.42	0.0439
Limit	ERP < 100W			Result		PASS	

LTE Band 26 / 5MHz (GT - LC = -2.9 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	24	23.97	0.2495	18.92	0.0780
Middle		1	24	23.84	0.2421	18.79	0.0757
Highest		1	24	23.92	0.2466	18.87	0.0771
Lowest	16QAM	1	24	22.55	0.1799	17.50	0.0562
Middle		1	24	22.83	0.1919	17.78	0.0600
Highest		1	24	22.63	0.1832	17.58	0.0573
Lowest	64QAM	1	24	21.71	0.1483	16.66	0.0463
Middle		1	24	21.75	0.1496	16.70	0.0468
Highest		1	24	21.28	0.1343	16.23	0.0420
Limit	ERP < 100W			Result		PASS	



LTE Band 26 / 10MHz (Channel 26740) (GT - LC = -2.9 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	-	-	-	-	-	-
Middle		1	25	23.84	0.2421	18.79	0.0757
Highest		-	-	-	-	-	-
Lowest	16QAM	-	-	-	-	-	-
Middle		1	49	22.82	0.1914	17.77	0.0598
Highest		-	-	-	-	-	-
Lowest	64QAM	-	-	-	-	-	-
Middle		1	25	21.64	0.1459	16.59	0.0456
Highest		-	-	-	-	-	-
Limit	ERP < 100W			Result		PASS	

LTE Band 26 / 15MHz (Channel 26765) (GT - LC = -2.9 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	74	23.99	0.2506	18.94	0.0783
Middle		-	-	-	-	-	-
Highest		-	-	-	-	-	-
Lowest	16QAM	1	37	22.84	0.1923	17.79	0.0601
Middle		-	-	-	-	-	-
Highest		-	-	-	-	-	-
Lowest	64QAM	1	37	21.80	0.1514	16.75	0.0473
Middle		-	-	-	-	-	-
Highest		-	-	-	-	-	-
Limit	ERP < 100W			Result		PASS	



Radiated Spurious Emission

LTE Band 26

LTE Band 26 / 3MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1656	-60.27	-13	-47.27	-69.02	-66.02	0.82	8.72	H
	2488	-59.48	-13	-46.48	-73.07	-67.06	1.05	10.78	H
	3312	-58.29	-13	-45.29	-73.83	-66.93	1.10	11.89	H
									H
									H
									H
	1656	-61.30	-13	-48.30	-69.91	-67.05	0.82	8.72	V
	2488	-59.12	-13	-46.12	-72.82	-66.70	1.05	10.78	V
	3312	-57.56	-13	-44.56	-73.52	-66.20	1.10	11.89	V
									V
									V
									V
Middle	1640	-61.55	-13	-48.55	-70.25	-67.25	0.81	8.66	H
	2456	-59.57	-13	-46.57	-73.11	-67.12	1.04	10.74	H
	3280	-58.45	-13	-45.45	-74.15	-67.02	1.10	11.82	H
									H
									H
									H
	1640	-60.55	-13	-47.55	-69.1	-66.25	0.81	8.66	V
	2456	-59.55	-13	-46.55	-73.27	-67.10	1.04	10.74	V
	3280	-57.86	-13	-44.86	-73.88	-66.43	1.10	11.82	V
									V
									V
									V



Highest	1648	-63.67	-13	-50.67	-69.06	-69.40	0.81	8.69	H
	2472	-59.77	-13	-46.77	-72.69	-67.34	1.04	10.76	H
	3296	-58.04	-13	-45.04	-74.02	-66.64	1.10	11.85	H
									H
									H
									H
									H
	1648	-59.41	-13	-46.41	-68	-65.14	0.81	8.69	V
	2472	-59.08	-13	-46.08	-72.78	-66.65	1.04	10.76	V
	3296	-58.13	-13	-45.13	-74.11	-66.73	1.10	11.85	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 26 / 10MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1638	-63.80	-13	-50.80	-72.48	-69.49	0.81	8.65	H
	2457	-60.38	-13	-47.38	-73.92	-67.93	1.04	10.74	H
	3276	-58.16	-13	-45.16	-73.87	-66.72	1.10	11.81	H
									H
									H
									H
									H
	1638	-64.21	-13	-51.21	-72.75	-69.90	0.81	8.65	V
	2457	-59.97	-13	-46.97	-73.69	-67.52	1.04	10.74	V
	3276	-57.72	-13	-44.72	-73.74	-66.28	1.10	11.81	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 26 / 15MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1643	-63.83	-13	-50.83	-72.54	-69.54	0.81	8.67	H
	2465	-59.41	-13	-46.41	-72.96	-66.97	1.04	10.75	H
	3286	-58.22	-13	-45.22	-73.88	-66.80	1.10	11.83	H
									H
									H
									H
									H
	1643	-64.03	-13	-51.03	-72.6	-69.74	0.81	8.67	V
	2465	-59.76	-13	-46.76	-73.47	-67.32	1.04	10.75	V
	3286	-57.79	-13	-44.79	-73.79	-66.37	1.10	11.83	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.