



## 7.6. Radiated Power (ERP/EIRP)

### 7.6.1.Test Limit

## **Radiated Power**

For FCC Part 24.232(c): LTE Band 2

The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 2 Watts.

For FCC Part 27.50(h): LTE Band 7

The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 2 Watts.

For FCC Part 27.50(d): LTE Band 4

The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 1 Watts.

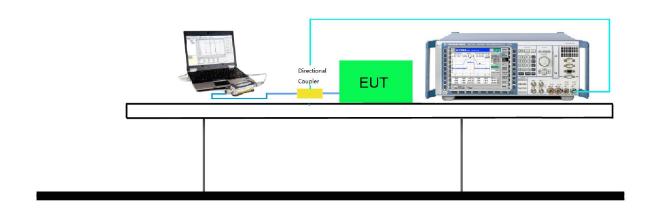
For FCC Part 27.50(c): LTE Band 12 / 17

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 3 Watts.

### 7.6.2.Test Procedure Used

KDB 971168 D01v03 - Section 5.2.3 & ANSI/TIA-603-E-2016

# 7.6.3.Test Setting



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### 7.6.4.Test Setup

- 1. The transmitter output port was connected to the system simulator.
- 2. Set EUT at maximum power through the system simulator.
- 3. Select lowest, middle, and highest channels for each band and different modulation.
- 4. Measure and record the power level from the system simulator.

According to KDB 412172 D01 Power Approach,

EIRP = PT + GT - LC, ERP = EIRP -2.15, where

PT = transmitter output power in dBm

GT = gain of the transmitting antenna in dBi

LC = signal attenuation in the connecting cable between the transmitter and antenna in dB

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# 7.6.5.Test Result

Product	Mobile Data Terminal	Temperature	25°C
Test Engineer	Polly Zong	Relative Humidity	52%
Test Site	TR3	Test Date	2017/12/11

	FD	D LTE Ba	nd 2				
D	DD 0.4			Power	(dBm)		
Bandwidth	RB Set		QPSK		16QAM		
(MHz)	Channel	18607	18900	19193	18607	18900	19193
	1 (RB_Pos:0)	21.10	21.22	21.22	21.24	21.06	20.95
	1 (RB_Pos: 3)	21.12	21.21	21.21	21.65	21.66	21.76
	1 (RB_Pos:5)	21.21	21.31	21.23	21.22	21.25	21.16
1.4MHz	3 (RB_Pos:0)	21.22	21.13	21.31	21.58	21.36	21.24
	3 (RB_Pos:2)	21.14	21.13	21.33	21.32	21.72	21.45
	3 (RB_Pos:3)	21.15	21.12	21.16	21.26	21.22	21.25
	6 (RB_Pos:0)	21.17	21.29	21.32	20.11	20.27	20.30
Bandwidth	RB Set			Power	(dBm)		
(MHz)	ND Set	QPSK			16QAM		
(1711 12)	Channel	18615	18900	19185	18615	18900	19185
	1 (RB_Pos:0)	21.22	21.43	21.55	21.54	21.76	21.64
	1 (RB_Pos:7)	21.34	21.51	21.39	21.44	21.30	21.70
	1 (RB_Pos:14)	21.45	21.15	21.45	21.59	21.79	21.88
3MHz	8 (RB_Pos:0)	21.13	21.33	21.23	20.17	20.20	20.23
	8 (RB_Pos:4)	21.36	21.44	21.34	19.99	20.14	20.16
	8 (RB_Pos:7)	21.41	21.44	21.11	20.30	20.20	20.37
	15 (RB_Pos:0)	21.32	21.61	21.20	20.31	20.44	20.32
Bandwidth	RB Set			Power	(dBm)		
(MHz)	110 001		QPSK	Г		16QAM	
(1711 12)	Channel	18625	18900	19175	18625	18900	19175
	1 (RB_Pos:0)	21.20	21.24	21.20	21.11	21.18	21.33
	1 (RB_Pos:12)	21.08	21.04	21.12	21.82	21.43	21.63
	1 (RB_Pos:24)	21.09	21.35	21.21	20.99	21.04	21.32
5MHz	12 (RB_Pos:0)	21.34	21.35	21.41	20.34	20.24	20.29
	12 (RB_Pos:6)	21.32	21.41	21.27	20.27	20.20	20.28
	12 (RB_Pos:13)	21.09	21.37	21.30	20.18	20.28	20.35
	25 (RB_Pos:0)	21.10	21.34	21.30	20.22	20.26	20.33

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D 1 . 1111	DD 0.4			Power	(dBm)		
Bandwidth	RB Set		QPSK			16QAM	
(MHz)	Channel	18650	18900	19150	18650	18900	19150
	1 (RB_Pos:0)	21.38	21.34	21.25	21.11	21.42	21.08
	1 (RB_Pos:24)	21.32	21.28	21.51	21.59	21.60	21.58
	1 (RB_Pos:49)	21.41	21.40	21.61	21.64	21.35	21.55
10MHz	25 (RB_Pos:0)	21.25	21.44	21.36	20.31	20.34	20.32
	25 (RB_Pos:12)	21.35	21.35	21.42	20.32	20.25	20.24
	25 (RB_Pos:25)	21.31	21.42	21.25	20.27	20.20	20.39
	50 (RB_Pos:0)	21.36	21.33	21.35	20.26	20.27	20.26
Bandwidth	DD Cot			Power	(dBm)		
	RB Set	QPSK				16QAM	
(MHz)	Channel	18675	18900	19125	18675	18900	19125
	1 (RB_Pos:0)	21.37	21.31	21.45	21.95	21.76	21.57
	1 (RB_Pos:37)	21.39	21.48	21.57	21.23	21.59	21.57
	1 (RB_Pos:74)	21.52	21.34	21.63	21.21	21.35	21.47
15MHz	37 (RB_Pos:0)	21.31	21.25	21.09	20.39	20.37	20.19
	37 (RB_Pos:18)	21.40	21.71	21.26	20.36	20.39	20.31
	37 (RB_Pos:38)	21.48	21.43	21.21	20.24	20.19	20.40
	75 (RB_Pos:0)	21.37	21.74	21.17	20.34	20.29	20.36
Dandwidth	DD Cot			Power	(dBm)		
Bandwidth (MHz)	RB Set		QPSK			16QAM	
(1011 12)	Channel	18700	18900	19100	18700	18900	19100
	1 (RB_Pos:0)	21.83	21.96	21.70	21.47	21.54	21.44
	1 (RB_Pos:49)	21.55	21.73	21.63	21.88	21.60	21.71
	1 (RB_Pos:99)	21.40	21.80	21.35	21.61	21.33	21.61
20MHz	50 (RB_Pos:0)	21.23	21.60	21.55	20.43	20.40	20.19
	50 (RB_Pos:25)	21.67	21.57	21.94	20.25	20.21	20.28
	50 (RB_Pos:50)	21.63	21.71	21.84	20.27	20.17	20.27
	100 (RB_Pos:0)	21.82	21.73	21.61	20.30	20.31	20.29



		FDD LTE	Band 4					
	55.0			Power	(dBm)			
Bandwidth	RB Set		QPSK			16QAM		
(MHz)	Channel	19957	20175	20393	19957	20175	20393	
	1 (RB_Pos:0)	21.63	21.61	21.77	21.53	21.22	21.60	
	1 (RB_Pos: 3)	21.74	21.27	21.54	21.72	21.46	22.14	
	1 (RB_Pos:5)	21.75	21.66	21.99	21.23	21.44	21.78	
1.4MHz	3 (RB_Pos:0)	21.42	21.63	21.69	21.54	21.71	21.73	
	3 (RB_Pos:2)	21.62	21.83	21.84	21.72	21.46	21.77	
	3 (RB_Pos:3)	21.90	21.45	21.77	21.55	21.27	21.71	
	6 (RB_Pos:0)	21.51	21.47	21.76	20.58	20.33	20.72	
Donduvidth	DD Cot	Power (dBm)						
Bandwidth	RB Set	QPSK			16QAM			
(MHz)	Channel	19965	20175	20385	19965	20175	20385	
	1 (RB_Pos:0)	20.72	21.03	21.94	21.56	21.53	21.82	
	1 (RB_Pos:7)	20.91	21.10	21.73	21.88	21.34	21.91	
	1 (RB_Pos:14)	20.87	21.29	21.44	21.84	21.64	21.93	
3.0MHz	8 (RB_Pos:0)	20.81	20.74	21.68	20.56	20.52	20.94	
	8 (RB_Pos:4)	21.14	21.32	21.51	20.39	20.17	20.67	
	8 (RB_Pos:7)	21.26	21.97	21.60	20.61	20.16	20.77	
	15 (RB_Pos:0)	21.40	21.36	21.15	20.53	20.36	20.80	
Bandwidth	RB Set			Power	(dBm)			
(MHz)	ND Set		QPSK			16QAM		
(1711 12)	Channel	19975	20175	20375	19975	20175	20375	
	1 (RB_Pos:0)	21.91	21.99	21.64	21.48	21.23	21.68	
	1 (RB_Pos:12)	21.61	21.73	21.81	21.91	21.43	21.39	
	1 (RB_Pos:24)	21.65	21.82	21.42	21.14	21.25	21.36	
5MHz	12 (RB_Pos:0)	21.89	21.59	21.68	20.58	20.30	20.74	
	12 (RB_Pos:6)	21.39	21.67	21.60	20.47	20.35	20.81	
	12 (RB_Pos:13)	21.75	21.93	21.64	20.48	20.37	20.78	
	25 (RB_Pos:0)	21.45	21.71	21.46	20.48	20.48	20.69	

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D I III.	DD 0 .1			Power	(dBm)				
Bandwidth	RB Set		QPSK			16QAM			
(MHz)	Channel	20000	20175	20350	20000	20175	20350		
	1 (RB_Pos:0)	21.60	21.98	21.92	21.68	21.48	21.78		
	1 (RB_Pos:24)	21.81	21.83	21.81	21.82	21.68	21.61		
	1 (RB_Pos:49)	21.78	21.99	21.63	21.76	21.47	21.43		
10MHz	25 (RB_Pos:0)	21.80	21.64	21.74	20.58	20.36	20.80		
	25 (RB_Pos:12)	21.56	22.33	22.38	20.47	20.29	20.84		
	25 (RB_Pos:25)	21.95	22.01	21.96	20.52	20.37	20.88		
	50 (RB_Pos:0)	21.91	21.84	22.20	20.57	20.37	20.85		
Dondwidth	DD Cot			Power	(dBm)				
Bandwidth	RB Set		QPSK			16QAM			
(MHz)	Channel	20025	20175	20325	20025	20175	20325		
	1 (RB_Pos:0)	21.77	20.92	21.23	21.96	21.88	21.90		
	1 (RB_Pos:37)	21.96	21.29	21.43	21.96	21.62	21.90		
	1 (RB_Pos:74)	21.84	21.78	21.72	21.40	21.55	21.53		
15MHz	37 (RB_Pos:0)	21.76	21.68	21.77	20.63	20.51	20.77		
	37 (RB_Pos:18)	21.25	21.69	22.16	20.61	20.45	20.80		
	37 (RB_Pos:38)	21.41	21.34	22.25	20.47	20.39	20.89		
	75 (RB_Pos:0)	21.21	21.28	22.41	20.59	20.50	20.85		
Pondwidth	DD Cot			Power	(dBm)				
Bandwidth (MHz)	RB Set		QPSK			16QAM			
(IVITIZ)	Channel	20050	20175	20300	20050	20175	20300		
	1 (RB_Pos:0)	22.08	22.41	22.58	21.98	21.72	21.90		
	1 (RB_Pos:49)	22.24	22.25	22.43	21.97	21.63	21.98		
	1 (RB_Pos:99)	22.18	22.32	22.52	21.50	21.81	21.98		
20MHz	50 (RB_Pos:0)	22.11	22.38	22.42	20.73	20.52	20.65		
	50 (RB_Pos:25)	22.40	22.42	22.01	20.56	20.40	20.73		
	50 (RB_Pos:50)	22.44	22.22	21.77	20.43	20.38	20.81		
	100 (RB_Pos:0)	22.24	22.23	22.18	20.61	20.48	20.74		



	FD	D LTE Ba	nd 7					
B 1 : W	55.0.4			Power	(dBm)			
Bandwidth	RB Set		QPSK			16QAM		
(MHz)	Channel	20775	21100	21425	20775	21100	21425	
	1 (RB_Pos:0)	22.39	21.74	22.43	20.80	21.51	21.24	
	1 (RB_Pos:12)	21.62	21.78	21.78	21.20	21.78	21.53	
	1 (RB_Pos:24)	21.83	22.18	20.90	20.85	21.05	20.96	
5MHz	12 (RB_Pos:0)	21.87	22.08	20.91	19.82	20.46	20.33	
	12 (RB_Pos:6)	22.20	22.44	20.75	19.87	20.41	20.34	
	12 (RB_Pos:13)	22.28	22.27	20.69	19.79	20.49	20.18	
	25 (RB_Pos:0)	22.35	22.55	20.98	19.75	20.44	20.18	
Dandwidth	RB Set			Power	(dBm)			
Bandwidth (MHz)	RD Set		QPSK			16QAM		
(IVIFIZ)	Channel	20800	21100	21400	20800	21100	21400	
	1 (RB_Pos:0)	20.93	21.11	21.12	20.74	21.47	21.21	
	1 (RB_Pos:24)	20.95	21.71	21.04	21.20	21.70	21.22	
	1 (RB_Pos:49)	21.80	21.82	21.92	21.20	21.68	21.28	
10MHz	25 (RB_Pos:0)	21.17	21.83	21.97	19.90	20.58	20.23	
	25 (RB_Pos:12)	21.11	21.53	21.60	19.90	20.47	20.33	
	25 (RB_Pos:25)	20.66	21.46	21.03	20.04	20.47	20.24	
	50 (RB_Pos:0)	21.17	21.27	21.66	19.97	20.56	20.27	
Bandwidth	RB Set			Power	(dBm)			
(MHz)	ND Set		QPSK			16QAM		
(1411 12)	Channel	20825	21100	21375	20825	21100	21375	
	1 (RB_Pos:0)	21.75	21.83	22.02	21.01	21.90	21.53	
	1 (RB_Pos:37)	21.37	21.32	22.26	21.25	21.61	21.50	
	1 (RB_Pos:74)	20.99	21.92	22.16	21.58	21.58	21.56	
15MHz	37 (RB_Pos:0)	21.36	21.13	21.05	19.97	20.57	20.43	
	37 (RB_Pos:18)	21.82	21.87	21.99	20.05	20.54	20.26	
	37 (RB_Pos:38)	21.63	21.60	21.57	20.15	20.42	20.19	
	75 (RB_Pos:0)	21.83	21.77	21.93	20.11	20.54	20.44	



David dille	DD 0-4	Power (dBm)						
Bandwidth	RB Set		QPSK			16QAM		
(MHz)	Channel	20850	21100	21350	20850	21100	21350	
	1 (RB_Pos:0)	21.78	21.77	21.01	21.22	21.79	21.98	
	1 (RB_Pos:49)	21.66	21.58	21.09	21.55	21.56	21.49	
	1 (RB_Pos:99)	22.00	21.62	21.13	21.61	21.65	21.49	
20MHz	50 (RB_Pos:0)	21.63	21.71	21.02	20.05	20.67	20.57	
	50 (RB_Pos:25)	21.81	21.98	21.64	20.15	20.57	20.38	
	50 (RB_Pos:50)	21.26	21.07	21.42	20.29	20.43	20.28	
	100 (RB_Pos:0)	21.78	21.50	21.17	20.16	20.53	20.44	

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		FDD LTE	Band 12					
5 1 1 1111	DD 0 4			Power	(dBm)			
Bandwidth	RB Set		QPSK			16QAM		
(MHz)	Channel	23017	23095	23173	23017	23095	23173	
	1 (RB_Pos:0)	20.90	21.13	22.00	21.09	21.41	20.60	
	1 (RB_Pos: 3)	21.25	21.58	21.99	21.43	21.32	21.03	
	1 (RB_Pos:5)	20.93	21.54	22.04	21.06	21.32	20.58	
1.4MHz	3 (RB_Pos:0)	20.79	21.14	22.16	21.67	21.75	20.72	
	3 (RB_Pos:2)	21.53	21.98	22.11	21.36	21.42	20.75	
	3 (RB_Pos:3)	20.91	22.10	22.33	21.36	21.38	20.85	
	6 (RB_Pos:0)	21.63	22.42	22.05	20.40	20.43	19.77	
Do o di ci dili	DD Cot			Power	(dBm)			
Bandwidth	RB Set		QPSK			16QAM		
(MHz)	Channel	23025	23095	23165	23025	23095	23165	
	1 (RB_Pos:0)	22.07	22.36	21.86	21.61	21.73	20.90	
	1 (RB_Pos:7)	22.15	21.38	21.91	21.44	21.37	20.84	
	1 (RB_Pos:14)	22.22	21.56	21.67	21.64	21.54	20.72	
3.0MHz	8 (RB_Pos:0)	22.34	21.59	21.76	20.48	20.48	19.70	
	8 (RB_Pos:4)	22.32	21.40	21.61	20.43	20.38	19.79	
	8 (RB_Pos:7)	22.41	21.30	21.72	20.40	20.35	19.74	
	15 (RB_Pos:0)	22.29	21.39	22.00	20.43	20.39	19.75	
Bandwidth	RB Set			Power	(dBm)			
(MHz)	ND Set		QPSK			16QAM		
(1711 12)	Channel	23035	23095	23155	23035	23095	23155	
	1 (RB_Pos:0)	21.82	21.91	22.23	21.27	21.60	20.84	
	1 (RB_Pos:12)	21.98	21.97	22.01	21.70	21.79	21.12	
	1 (RB_Pos:24)	21.73	21.33	20.96	21.35	20.98	20.65	
5MHz	12 (RB_Pos:0)	21.69	21.97	21.28	20.50	20.54	19.84	
	12 (RB_Pos:6)	21.81	21.59	22.20	20.36	20.32	19.69	
	12 (RB_Pos:13)	21.90	22.40	21.67	20.48	20.25	19.76	
	25 (RB_Pos:0)	21.77	21.88	21.83	20.44	20.40	19.74	

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Daniel de delle	DD 0-4		Power (dBm)							
Bandwidth	RB Set		QPSK			16QAM				
(MHz)	Channel	23060	23095	23130	23060	23095	23130			
	1 (RB_Pos:0)	21.97	22.47	22.09	21.34	21.57	21.49			
	1 (RB_Pos:24)	21.83	21.91	21.34	21.80	21.29	21.30			
	1 (RB_Pos:49)	21.86	21.98	21.58	21.74	21.19	21.15			
10MHz	25 (RB_Pos:0)	21.92	22.25	21.51	20.53	20.56	20.28			
	25 (RB_Pos:12)	21.89	21.89	21.58	20.48	20.38	20.00			
	25 (RB_Pos:25)	21.81	22.11	21.28	20.42	20.28	19.83			
	50 (RB_Pos:0)	21.85	21.98	21.06	20.54	20.46	20.18			

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	FDE	LTE Baı	nd 17							
D 1 . W	DD 0 4		Power (dBm)							
Bandwidth	RB Set		QPSK			16QAM				
(MHz)	Channel	23755	23790	23825	23755	23790	23825			
	1 (RB_Pos:0)	21.43	21.27	21.47	21.61	21.31	20.69			
	1 (RB_Pos:12)	21.23	21.67	21.89	21.58	21.68	21.09			
	1 (RB_Pos:24)	21.89	21.96	21.71	20.98	20.62	20.64			
5MHz	12 (RB_Pos:0)	21.83	21.50	21.16	20.63	20.42	19.94			
	12 (RB_Pos:6)	21.86	21.02	21.32	20.50	20.36	19.84			
	12 (RB_Pos:13)	21.84	21.02	21.71	20.47	20.18	19.84			
	25 (RB_Pos:0)	21.64	21.68	21.72	20.44	20.30	19.88			
Bandwidth	RB Set	Power (dBm)								
(MHz)	ND OCt	QPSK			16QAM					
(1011 12)	Channel	23780	23790	23800	23780	23790	23800			
	1 (RB_Pos:0)	21.98	21.73	21.60	21.61	21.61	21.68			
	1 (RB_Pos:24)	21.96	21.58	21.49	21.41	21.37	21.02			
	1 (RB_Pos:49)	21.93	21.43	21.69	21.07	21.15	21.14			
10MHz	25 (RB_Pos:0)	21.56	21.57	21.68	20.59	20.56	20.36			
	25 (RB_Pos:12)	21.63	21.63	21.76	20.50	20.26	20.13			
	25 (RB_Pos:25)	21.73	21.84	21.82	20.21	20.07	20.10			
	50 (RB_Pos:0)	21.69	21.55	21.63	20.41	20.37	20.20			

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		LTE B	and 2 (G <sub>T</sub> - L <sub>0</sub>	$_{\rm C}$ = 0.50 dB)			
Bandwidth	Modulation	UL Channel	Frequency (MHz)	Conducted Power (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
		18607	18050.7	21.22	21.72	33.00	-11.28
1.4M	QPSK	18900	1880.0	21.31	21.81	33.00	-11.19
		19193	1909.3	21.33	21.83	33.00	-11.17
		18607	18050.7	21.65	22.15	33.00	-10.85
1.4M	16QAM	18900	1880.0	21.72	22.22	33.00	-10.78
		19193	1909.3	21.76	22.26	33.00	-10.74
		18615	1851.5	21.45	21.95	33.00	-11.05
3M	QPSK	18900	1880.0	21.61	22.11	33.00	-10.89
		19185	1908.5	21.55	22.05	33.00	-10.95
		18615	1851.5	21.59	22.09	33.00	-10.91
3M	16QAM	18900	1880.0	21.79	22.29	33.00	-10.71
		19185	1908.5	21.88	22.38	33.00	-10.62
		18625	1852.5	21.34	21.84	33.00	-11.16
5M	QPSK	18900	1880.0	21.41	21.91	33.00	-11.09
		19175	1907.5	21.41	21.91	33.00	-11.09
		18625	1852.5	21.82	22.32	33.00	-10.68
5M	16QAM	18900	1880.0	21.43	21.93	33.00	-11.07
		19175	1907.5	21.63	22.13	33.00	-10.87
		18650	1855.0	21.41	21.91	33.00	-11.09
10M	QPSK	18900	1880.0	21.44	21.94	33.00	-11.06
		19150	1905.0	21.61	22.11	33.00	-10.89
		18650	1855.0	21.64	22.14	33.00	-10.86
10M	16QAM	18900	1880.0	21.60	22.10	33.00	-10.90
		19150	1905.0	21.58	22.08	33.00	-10.92
		18675	1857.5	21.52	22.02	33.00	-10.98
15M	QPSK	18900	1880.0	21.74	22.24	33.00	-10.76
		19125	1902.5	21.63	22.13	33.00	-10.87
		18675	1857.5	21.95	22.45	33.00	-10.55
15M	16QAM	18900	1880.0	21.76	22.26	33.00	-10.74
		19125	1902.5	21.57	22.07	33.00	-10.93
		18700	1860.0	21.83	22.33	33.00	-10.67
20M	QPSK	18900	1880.0	21.96	22.46	33.00	-10.54
		19100	1900.0	21.94	22.44	33.00	-10.56
		18700	1860.0	21.88	22.38	33.00	-10.62
20M	16QAM	18900	1880.0	21.60	22.10	33.00	-10.90
		19100	1900.0	21.71	22.21	33.00	-10.79

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		LTE B	and 4 (G <sub>T</sub> - L <sub>0</sub>	c = 0.51 dB)			
Bandwidth	Modulation	UL Channel	Frequency (MHz)	Conducted Power (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
		19957	1710.7	21.90	22.41	30.00	-7.59
1.4M	QPSK	20175	1732.5	21.83	22.34	30.00	-7.66
		20393	1754.3	21.99	22.50	30.00	-7.50
		19957	1710.7	21.72	22.23	30.00	-7.77
1.4M	16QAM	20175	1732.5	21.71	22.22	30.00	-7.78
		20393	1754.3	22.14	22.65	30.00	-7.35
		19965	1711.5	21.40	21.91	30.00	-8.09
3M	QPSK	20175	1732.5	21.97	22.48	30.00	-7.52
		20385	1753.5	21.94	22.45	30.00	-7.55
		19965	1711.5	21.88	22.39	30.00	-7.61
3M	16QAM	20175	1732.5	21.64	22.15	30.00	-7.85
		20385	1753.5	21.93	22.44	30.00	-7.56
		19975	1712.5	21.91	22.42	30.00	-7.58
5M	QPSK	20175	1732.5	21.99	22.50	30.00	-7.50
		20375	1752.5	21.64	22.15	30.00	-7.85
	16QAM	19975	1712.5	21.91	22.42	30.00	-7.58
5M		20175	1732.5	21.43	21.94	30.00	-8.06
		20375	1752.5	21.68	22.19	30.00	-7.81
		20000	1715.0	21.95	22.46	30.00	-7.54
10M	QPSK	20175	1732.5	22.33	22.84	30.00	-7.16
		20350	1750.0	22.38	22.89	30.00	-7.11
		20000	1715.0	21.82	22.33	30.00	-7.67
10M	16QAM	20175	1732.5	21.68	22.19	30.00	-7.81
		20350	1750.0	21.78	22.29	30.00	-7.71
		20025	1717.5	21.96	22.47	30.00	-7.53
15M	QPSK	20175	1732.5	21.78	22.29	30.00	-7.71
		20325	1747.5	22.41	22.92	30.00	-7.08
		20025	1717.5	21.96	22.47	30.00	-7.53
15M	16QAM	20175	1732.5	21.88	22.39	30.00	-7.61
		20325	1747.5	21.90	22.41	30.00	-7.59
		20050	1720.0	22.44	22.95	30.00	-7.05
20M	QPSK	20175	1732.5	22.42	22.93	30.00	-7.07
		20300	1745.0	22.58	23.09	30.00	-6.91
		20050	1720.0	21.98	22.49	30.00	-7.51
20M	16QAM	20175	1732.5	21.81	22.32	30.00	-7.68
		20300	1745.0	21.98	22.49	30.00	-7.51

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		LTE Ba	and 7 (G <sub>T</sub> - L <sub>C</sub>	; = -0.78 dB)			
Bandwidth	Modulation	UL Channel	Frequency (MHz)	Conducted Power (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
		20775	2502.5	22.39	21.61	33.00	-11.39
5M	QPSK	21100	2535.0	22.55	21.77	33.00	-11.23
		21425	2567.5	22.43	21.65	33.00	-11.35
		20775	2502.5	21.20	20.42	33.00	-12.58
5M	16QAM	21100	2535.0	21.78	21.00	33.00	-12.00
		21425	2567.5	21.53	20.75	33.00	-12.25
		20800	2505.0	21.80	21.02	33.00	-11.98
10M	QPSK	21100	2535.0	21.83	21.05	33.00	-11.95
		21400	2565.0	21.97	21.19	33.00	-11.81
		20800	2505.0	21.20	20.42	33.00	-12.58
10M	16QAM	21100	2535.0	21.70	20.92	33.00	-12.08
		21400	2565.0	21.28	20.50	33.00	-12.50
		20825	2507.5	21.83	21.05	33.00	-11.95
15M	QPSK	21100	2535.0	21.92	21.14	33.00	-11.86
		21375	2562.5	22.26	21.48	33.00	-11.52
		20825	2507.5	21.58	20.80	33.00	-12.20
15M	16QAM	21100	2535.0	21.90	21.12	33.00	-11.88
		21375	2562.5	21.56	20.78	33.00	-12.22
		20850	2510.0	22.00	21.22	33.00	-11.78
20M	QPSK	21100	2535.0	21.98	21.20	33.00	-11.80
		21350	2560.0	21.64	20.86	33.00	-12.14
		20850	2510.0	21.61	20.83	33.00	-12.17
20M	16QAM	21100	2535.0	21.79	21.01	33.00	-11.99
		21350	2560.0	21.98	21.20	33.00	-11.80

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	LTE Band 12 ( $G_T - L_C = -0.47 \text{ dB}$ )								
Bandwidth	Modulation	UL Channel	Frequency (MHz)	Conducted Power (dBm)	ERP (dBm)	Limit (dBm)	Margin (dB)		
1.4M	QPSK	23017 23095 23173	699.7 707.5 715.3	21.63 22.42 22.33	21.16 21.95 21.86	34.77 34.77 34.77	-13.61 -12.82 -12.91		
1.4M	16QAM	23017 23095 23173	699.7 707.5 715.3	21.67 21.75 21.03	21.20 21.28 20.56	34.77 34.77 34.77	-13.57 -13.49 -14.21		
3M	QPSK	23025 23095 23165	700.5 707.5 714.5	22.41 22.36 22.00	21.94 21.89 21.53	34.77 34.77 34.77	-12.83 -12.88 -13.24		
3M	16QAM	23025 23095 23165	700.5 707.5 714.5	21.64 21.73 20.90	21.17 21.26 20.43	34.77 34.77 34.77	-13.60 -13.51 -14.34		
5M	QPSK	23035 23095 23155	701.5 707.5 713.5	21.98 22.40 22.23	21.51 21.93 21.76	34.77 34.77 34.77	-13.26 -12.84 -13.01		
5M	16QAM	23035 23095 23155	701.5 707.5 713.5	21.70 21.79 21.12	21.23 21.32 20.65	34.77 34.77 34.77	-13.54 -13.45 -14.12		
10M	QPSK	23060 23095 23130	704 707.5 711	21.97 22.47 22.09	21.50 22.00 21.62	34.77 34.77 34.77	-13.27 -12.77 -13.15		
10M	16QAM	23060 23095 23130	704 707.5 711	21.80 21.57 21.49	21.33 21.10 21.02	34.77 34.77 34.77	-13.44 -13.67 -13.75		

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		LTE Ba	nd 17 (G <sub>T</sub> - L	$_{\rm C}$ = -0.92 dB)			
Bandwidth	Modulation	UL	Frequency	Conducted	ERP	Limit	Margin
		Channel	(MHz)	Power	(dBm)	(dBm)	(dB)
				(dBm)			
		23755	706.5	21.89	20.97	34.77	-13.80
5M	QPSK	23790	710	21.96	21.04	34.77	-13.73
		23825	713.5	21.89	20.97	34.77	-13.80
		23755	706.5	21.61	20.69	34.77	-14.08
5M	16QAM	23790	710	21.68	20.76	34.77	-14.01
		23825	713.5	21.09	20.17	34.77	-14.60
		23780	709	21.98	21.06	34.77	-13.71
10M	QPSK	23790	710	21.84	20.92	34.77	-13.85
		23800	711	21.82	20.90	34.77	-13.87
		23780	709	21.61	20.69	34.77	-14.08
10M	16QAM	23790	710	21.61	20.69	34.77	-14.08
		23800	711	21.68	20.76	34.77	-14.01

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## 7.7. Radiated Spurious Emissions Measurements

#### 7.7.1.Test Limit

Out of band emissions: The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

Additional requirement for LTE Band 7:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 55 + 10 log(P) dB.

#### 7.7.2.Test Procedure Used

KDB 971168 D01 v02r02 - Section 5.8 & ANSI/TIA-603-E-2016 - Section 2.2.12

### 7.7.3.Test Setting

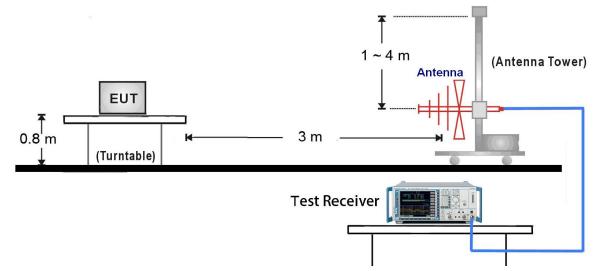
- 1. RBW = 100kHz for emissions below
- 2. VBW  $\geq$  3 x RBW
- 3. Span = 1.5 times the OBW
- 4. No. of sweep points > 2 x span / RB
- 5. Detector = RMS
- 6. Trace mode = Average (Max Hold for pulsed emissions)
- 7. The trace was allowed to stabilize

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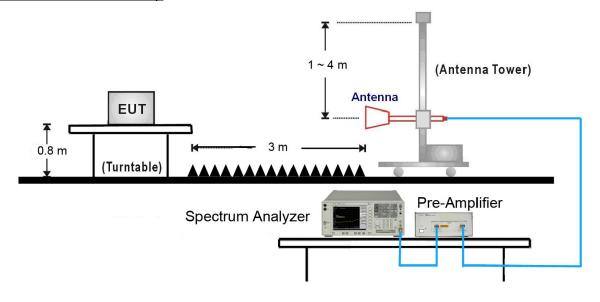


# 7.7.4.Test Setup

# 30MHz ~ 1GHz Test Setup:



# 1GHz ~ 25GHz Test Setup:



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### 7.7.5.Test Result

Product	Mobile Data Terminal	Temperature	25°C
Test Engineer	Polly Zong	Relative Humidity	52%
Test Site	TR3	Test Date	2017/11/04

	LTE Band 2									
Frequency	Ant.	SG Reading	Cable	Substitute	EIRP	Limit	Margin			
(MHz)	Pol.	(dBm)	Loss	Antenna	(dBm)	(dBm)	(dB)			
	(H/V)		(dB)	Gain (dBd)						
Low CH 187	700 (1860	).0MHz) BW=20	MHz							
5573.00	V	-60.74	1.26	13.15	-48.85	-13.00	-48.85			
8165.50	V	-57.37	1.49	11.72	-47.14	-13.00	-34.14			
5581.50	Н	-63.23	1.25	13.15	-51.33	-13.00	-38.33			
8701.00	Н	-57.71	1.45	11.65	-47.51	-13.00	-34.51			
Mid. CH 18900 (1880.0MHz) BW=20MHz										
3762.50	V	-65.85	0.99	12.73	-54.11	-13.00	-41.11			
5641.00	V	-63.96	1.27	13.14	-52.09	-13.00	-39.09			
5641.00	Н	-62.89	1.27	13.14	-51.02	-13.00	-38.02			
8131.50	Н	-58.72	1.40	11.63	-48.49	-13.00	-35.49			
High CH 19	100 (190	0.0MHz) BW=20	)MHz							
3796.50	V	-63.25	1.29	12.75	-51.79	-13.00	-38.79			
5700.50	V	-60.56	1.46	13.12	-48.90	-13.00	-35.90			
3796.50	Н	-66.72	1.00	12.75	-54.97	-13.00	-41.97			
5700.50	Н	-59.73	1.29	13.12	-47.90	-13.00	-34.90			

## Notes:

- 1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line.
- 2. ERP (dBm) = SG Reading (dBm) Cable Loss (dB) + Substitute Antenna Gain (dBd).
- All bandwidth and modulation of operation were investigated. The test results shown represent the worst case emissions.

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	LTE Band 4									
Frequency	Ant.	SG Reading	Cable	Substitute	ERP	Limit	Margin			
(MHz)	Pol.	(dBm)	Loss	Antenna	(dBm)	(dBm)	(dB)			
	(H/V)		(dB)	Gain (dBd)						
Low CH 200	050 (1720	).0MHz) BW=20	MHz							
5156.50	V	-62.07	1.22	12.81	-50.47	-13.00	-37.47			
7400.50	V	-57.05	1.45	11.02	-47.48	-13.00	-34.48			
5156.50	Н	-63.29	1.22	12.81	-51.70	-13.00	-38.70			
7069.00	Н	-58.87	1.42	11.37	-48.92	-13.00	-35.92			
Mid. CH 20175 (1732.5MHz) BW=20MHz										
3465.00	V	-67.13	1.20	12.73	-55.60	-13.00	-42.60			
5199.00	V	-56.90	1.42	12.86	-45.46	-13.00	-32.46			
3465.00	Н	-65.22	1.20	12.73	-53.70	-13.00	-40.70			
5199.00	Н	-58.48	1.43	12.86	-47.05	-13.00	-34.05			
High CH 20	300 (174	5.0MHz) BW=20	)MHz							
3490.50	V	-67.63	1.19	12.64	-56.18	-13.00	-43.18			
5233.00	V	-56.76	1.45	12.91	-45.30	-13.00	-32.30			
3490.50	Н	-65.78	1.19	12.64	-54.33	-13.00	-41.33			
5233.00	Н	-62.09	1.40	12.91	-50.58	-13.00	-37.58			

- 1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line.
- 2. ERP (dBm) = SG Reading (dBm) Cable Loss (dB) + Substitute Antenna Gain (dBd).
- All bandwidth and modulation of operation were investigated. The test results shown represent the worst case emissions.

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	LTE Band 7									
Frequency	Ant.	SG Reading	Cable	Substitute	ERP	Limit	Margin			
(MHz)	Pol.	(dBm)	Loss	Antenna	(dBm)	(dBm)	(dB)			
	(H/V)		(dB)	Gain (dBd)						
Low CH 208	350 (2510	).0MHz) BW=20	MHz							
5003.50	V	-60.53	1.19	12.66	-49.06	-25.00	-24.06			
7494.00	V	-56.56	1.47	11.22	-46.81	-25.00	-21.81			
5003.50	Н	-60.81	1.47	12.66	-49.62	-25.00	-24.62			
7460.00	Н	-57.86	1.79	11.15	-48.50	-25.00	-23.50			
Mid. CH 21100 (2535.0MHz) BW=20MHz										
3890.00	V	-66.42	1.42	12.68	-55.16	-25.00	-30.16			
5071.50	V	-60.08	1.79	12.73	-49.14	-25.00	-24.14			
3856.00	Н	-68.40	1.21	12.71	-56.90	-25.00	-31.90			
5071.50	Н	-61.79	1.79	12.73	-50.85	-25.00	-25.85			
High CH 21	350 (256	0.0MHz) BW=20	)MHz							
3890.00	V	-67.46	1.20	12.68	-55.98	-25.00	-30.98			
5139.50	V	-62.19	1.67	12.80	-51.06	-25.00	-26.06			
3796.50	Н	-67.08	1.20	12.75	-55.53	-25.00	-30.53			
5139.50	Н	-61.30	1.74	12.80	-50.24	-25.00	-25.24			

- 1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line.
- 2. ERP (dBm) = SG Reading (dBm) Cable Loss (dB) + Substitute Antenna Gain (dBd)
- All bandwidth and modulation of operation were investigated. The test results shown represent the worst case emissions.

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	LTE Band 12									
Frequency	Ant.	SG Reading	Cable	Substitute	ERP	Limit	Margin			
(MHz)	Pol.	(dBm)	Loss	Antenna	(dBm)	(dBm)	(dB)			
	(H/V)		(dB)	Gain (dBd)						
Low CH 230	060 (704.	0MHz) BW=10M	1Hz							
1399.50	V	-63.90	0.64	8.01	-56.52	-13.00	-43.52			
2105.00	V	-51.76	0.77	9.52	-43.00	-13.00	-30.00			
1408.00	Н	-60.17	0.64	8.07	-52.73	-13.00	-39.73			
2105.00	Н	-50.38	0.89	9.52	-41.75	-13.00	-28.75			
Mid. CH 23095 (707.5MHz) BW=10MHz										
1416.50	V	-59.63	0.63	8.14	-52.12	-13.00	-39.12			
2122.00	V	-51.61	0.77	9.47	-42.90	-13.00	-29.90			
1416.50	Н	-54.31	0.64	8.14	-46.80	-13.00	-33.80			
2122.00	Н	-50.90	0.69	9.47	-42.11	-13.00	-29.11			
High CH 23	130 (711	MHz) BW=10MH	<del>l</del> z							
1425.00	V	-59.53	0.63	8.21	-51.95	-13.00	-38.95			
2139.00	V	-54.48	0.77	9.42	-45.83	-13.00	-32.83			
1425.00	Н	-53.55	0.63	8.21	-45.97	-13.00	-32.97			
2147.50	Н	-55.27	0.77	9.39	-46.65	-13.00	-33.65			

- 1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line.
- 2. ERP (dBm) = SG Reading (dBm) Cable Loss (dB) + Substitute Antenna Gain (dBd).
- All bandwidth and modulation of operation were investigated. The test results shown represent the worst case emissions.

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	LTE Band 17									
Frequency	Ant.	SG Reading	Cable	Substitute	ERP	Limit	Margin			
(MHz)	Pol.	(dBm)	Loss	Antenna	(dBm)	(dBm)	(dB)			
	(H/V)		(dB)	Gain (dBd)						
Low CH 237	780 (709.	0MHz) BW=10M	1Hz							
1416.50	V	-54.49	0.58	8.14	-46.93	-13.00	-33.93			
2122.00	V	-50.87	0.73	9.47	-42.13	-13.00	-29.13			
1416.50	Н	-50.81	0.58	8.14	-43.25	-13.00	-30.25			
2122.00	Н	-53.23	0.73	9.47	-44.49	-13.00	-31.49			
Mid. CH 23790 (710.0MHz) BW=10MHz										
1416.50	V	-56.51	0.58	8.14	-48.95	-13.00	-35.95			
2122.00	V	-58.55	0.73	9.47	-49.81	-13.00	-36.81			
1416.50	Н	-54.87	0.58	8.14	-47.31	-13.00	-34.31			
2122.00	Н	-57.14	0.73	9.47	-48.40	-13.00	-35.40			
High CH 23	800 (711	.0MHz) BW=10N	ИHz							
1433.50	V	-59.22	0.59	8.28	-51.53	-13.00	-38.53			
2147.50	V	-58.44	0.73	9.39	-49.78	-13.00	-36.78			
1433.50	Н	-57.27	0.59	8.28	-49.58	-13.00	-36.58			
2147.50	Н	-60.25	0.73	9.39	-51.59	-13.00	-38.59			

- 1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line.
- 2. ERP (dBm) = SG Reading (dBm) Cable Loss (dB) + Substitute Antenna Gain (dBd).
- All bandwidth and modulation of operation were investigated. The test results shown represent the worst case emissions.

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## 7.8. Frequency Stability Under Temperature & Voltage Variations

### 7.8.1.Test Limit

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

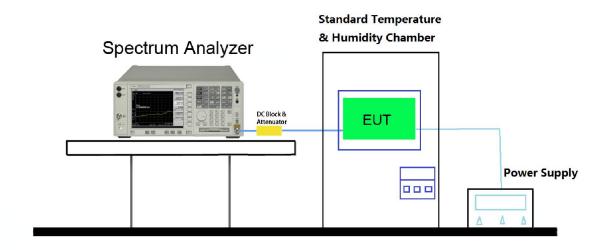
For Part 24, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

For Part 27, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

### 7.8.2.Test Procedure

KDB 971168 D01v03 - Section 9.0 & ANSI/TIA-603-E-2016

### 7.8.3.Test Setup



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# 7.8.4.Test Result

Product	Mobile Data Terminal	Temperature	25°C				
Test Engineer	Polly Zong	Relative Humidity	52%				
Test Site	TR3	TR3 Test Date 2017/12/08					
Test Mode	LTE Band 2 Mid. CH 18900 (1880.0MHz)						

Voltage (%)	Power (V <sub>DC</sub> )	TEMP (%)	Frequency (Hz)	Freq. Dev.	Deviation (%)	Limit (%)	Result
QPSK	(VDC)	(70)	(112)	(112)	(70)	(70)	
100%		+20(Ref)	1880,000,000	-10	-0.000001	±0.00025	Pass
100%		-30	1880,000,000	-72	-0.000004	±0.00025	Pass
100%		-20	1880,000,000	88	0.000005	±0.00025	Pass
100%		-10	1880,000,000	-60	-0.000003	±0.00025	Pass
100%	0.0	0	1880,000,000	-73	-0.000004	±0.00025	Pass
100%	3.8	+10	1880,000,000	45	0.000002	±0.00025	Pass
100%		+20	1880,000,000	-48	-0.000003	±0.00025	Pass
100%		+30	1880,000,000	-56	-0.000003	±0.00025	Pass
100%		+40	1880,000,000	-68	-0.000004	±0.00025	Pass
100%		+50	1880,000,000	-22	-0.000001	±0.00025	Pass
115%	4.37	+20	1880,000,000	-38	-0.000002	±0.00025	Pass
BAT.ENDPOINT	3.23	+20	1880,000,000	-7	0.000000	±0.00025	Pass
16QAM							
100%		+20(Ref)	1880,000,000	-93	-0.000005	±0.00025	Pass
100%		-30	1880,000,000	-45	-0.000002	±0.00025	Pass
100%		-20	1880,000,000	-45	-0.000002	±0.00025	Pass
100%		-10	1880,000,000	-43	-0.000002	±0.00025	Pass
100%	2.0	0	1880,000,000	-58	-0.000003	±0.00025	Pass
100%	3.8	+10	1880,000,000	63	0.000003	±0.00025	Pass
100%		+20	1880,000,000	-100	-0.000005	±0.00025	Pass
100%		+30	1880,000,000	9	0.000000	±0.00025	Pass
100%		+40	1880,000,000	94	0.000005	±0.00025	Pass
100%		+50	1880,000,000	65	0.000003	±0.00025	Pass
115%	4.37	+20	1880,000,000	-50	-0.000003	±0.00025	Pass
BAT.ENDPOINT	3.23	+20	1880,000,000	14	0.000001	±0.00025	Pass

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Product	Mobile Data Terminal	Temperature	25°C			
Test Engineer	Polly Zong	Relative Humidity	52%			
Test Site	TR3 Test Date 2017/12/08					
Test Mode	LTE Band 4 Mid. CH 20175 (1732.5MHz)					

Voltage	Power	TEMP	Frequency	Freq. Dev.	Deviation	Limit	Result
(%)	(V <sub>DC</sub> )	(%)	(Hz)	(Hz)	(%)	(%)	result
QPSK							
100%		+20(Ref)	1732,500,000	69	0.000004	±0.00025	Pass
100%		-30	1732,500,000	-75	-0.000004	±0.00025	Pass
100%		-20	1732,500,000	-24	-0.000001	±0.00025	Pass
100%		-10	1732,500,000	69	0.000004	±0.00025	Pass
100%	3.8	0	1732,500,000	86	0.000005	±0.00025	Pass
100%	3.0	+10	1732,500,000	-8	0.000000	±0.00025	Pass
100%		+20	1732,500,000	-14	-0.000001	±0.00025	Pass
100%		+30	1732,500,000	-98	-0.000006	±0.00025	Pass
100%		+40	1732,500,000	89	0.000005	±0.00025	Pass
100%		+50	1732,500,000	-13	-0.000001	±0.00025	Pass
115%	4.37	+20	1732,500,000	45	0.000003	±0.00025	Pass
BAT.ENDPOINT	3.23	+20	1732,500,000	80	0.000005	±0.00025	Pass
16QAM							
100%		+20(Ref)	1732,500,000	-91	-0.000005	±0.00025	Pass
100%		-30	1732,500,000	-19	-0.000001	±0.00025	Pass
100%		-20	1732,500,000	-96	-0.000006	±0.00025	Pass
100%		-10	1732,500,000	-100	-0.000006	±0.00025	Pass
100%	2.0	0	1732,500,000	10	0.000001	±0.00025	Pass
100%	3.8	+10	1732,500,000	-99	-0.000006	±0.00025	Pass
100%		+20	1732,500,000	-6	0.000000	±0.00025	Pass
100%		+30	1732,500,000	-86	-0.000005	±0.00025	Pass
100%		+40	1732,500,000	26	0.000002	±0.00025	Pass
100%		+50	1732,500,000	-65	-0.000004	±0.00025	Pass
115%	4.37	+20	1732,500,000	71	0.000004	±0.00025	Pass
BAT.ENDPOINT	3.23	+20	1732,500,000	19	0.000001	±0.00025	Pass

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Product	Mobile Data Terminal	Temperature	25°C			
Test Engineer	Polly Zong	Relative Humidity	52%			
Test Site	TR3	Test Date	2017/12/08			
Test Mode	LTE Band 7 Mid. CH 21100 (2535.0MHz)					

Voltage (%)	Power (V <sub>DC</sub> )	TEMP (%)	Frequency (Hz)	Freq. Dev.	Deviation (%)	Limit (%)	Result
QPSK							
100%		+20(Ref)	2535,000,000	78	0.000003	±0.00025	Pass
100%		-30	2535,000,000	41	0.000002	±0.00025	Pass
100%		-20	2535,000,000	25	0.000001	±0.00025	Pass
100%		-10	2535,000,000	-33	-0.000001	±0.00025	Pass
100%	2.0	0	2535,000,000	44	0.000002	±0.00025	Pass
100%	3.8	+10	2535,000,000	-87	-0.000003	±0.00025	Pass
100%		+20	2535,000,000	-10	0.000000	±0.00025	Pass
100%		+30	2535,000,000	57	0.000002	±0.00025	Pass
100%		+40	2535,000,000	-87	-0.000003	±0.00025	Pass
100%		+50	2535,000,000	56	0.000002	±0.00025	Pass
115%	4.37	+20	2535,000,000	-58	-0.000002	±0.00025	Pass
BAT.ENDPOINT	3.23	+20	2535,000,000	-88	-0.000003	±0.00025	Pass
16QAM							
100%		+20(Ref)	2535,000,000	39	0.000002	±0.00025	Pass
100%		-30	2535,000,000	-27	-0.000001	±0.00025	Pass
100%		-20	2535,000,000	-22	-0.000001	±0.00025	Pass
100%		-10	2535,000,000	-38	-0.000001	±0.00025	Pass
100%	2.0	0	2535,000,000	13	0.000001	±0.00025	Pass
100%	3.8	+10	2535,000,000	-10	0.000000	±0.00025	Pass
100%		+20	2535,000,000	90	0.000004	±0.00025	Pass
100%		+30	2535,000,000	-67	-0.000003	±0.00025	Pass
100%		+40	2535,000,000	69	0.000003	±0.00025	Pass
100%		+50	2535,000,000	-29	-0.000001	±0.00025	Pass
115%	4.37	+20	2535,000,000	40	0.000002	±0.00025	Pass
BAT.ENDPOINT	3.23	+20	2535,000,000	96	0.000004	±0.00025	Pass

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Product	Mobile Data Terminal	Temperature	25°C		
Test Engineer	Polly Zong	Relative Humidity	52%		
Test Site	TR3	Test Date	2017/12/08		
Test Mode	LTE Band 12 Mid. CH 23095 (707.5MHz)				

Voltage (%)	Power (V <sub>DC</sub> )	TEMP (%)	Frequency (Hz)	Freq. Dev.	Deviation (%)	Limit (%)	Result
QPSK	( 20)		,	, ,	,		
100%		+20(Ref)	707,500,000	88	0.000012	±0.00025	Pass
100%		-30	707,500,000	-32	-0.000005	±0.00025	Pass
100%		-20	707,500,000	57	0.000008	±0.00025	Pass
100%		-10	707,500,000	30	0.000004	±0.00025	Pass
100%	2.0	0	707,500,000	-63	-0.000009	±0.00025	Pass
100%	3.8	+10	707,500,000	29	0.000004	±0.00025	Pass
100%		+20	707,500,000	46	0.000007	±0.00025	Pass
100%		+30	707,500,000	-41	-0.000006	±0.00025	Pass
100%		+40	707,500,000	67	0.000009	±0.00025	Pass
100%		+50	707,500,000	-41	-0.000006	±0.00025	Pass
115%	4.37	+20	707,500,000	95	0.000013	±0.00025	Pass
BAT.ENDPOINT	3.23	+20	707,500,000	-49	-0.000007	±0.00025	Pass
16QAM							
100%		+20(Ref)	707,500,000	98	0.000014	±0.00025	Pass
100%		-30	707,500,000	24	0.000003	±0.00025	Pass
100%		-20	707,500,000	-98	-0.000014	±0.00025	Pass
100%		-10	707,500,000	79	0.000011	±0.00025	Pass
100%	2.0	0	707,500,000	38	0.000005	±0.00025	Pass
100%	3.8	+10	707,500,000	-46	-0.000007	±0.00025	Pass
100%		+20	707,500,000	62	0.000009	±0.00025	Pass
100%		+30	707,500,000	70	0.000010	±0.00025	Pass
100%		+40	707,500,000	31	0.000004	±0.00025	Pass
100%		+50	707,500,000	-59	-0.000008	±0.00025	Pass
115%	4.37	+20	707,500,000	-92	-0.000013	±0.00025	Pass
BAT.ENDPOINT	3.23	+20	707,500,000	18	0.000003	±0.00025	Pass

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Product	Mobile Data Terminal	Temperature	25°C			
Test Engineer	Polly Zong	Relative Humidity	52%			
Test Site	TR3	Test Date	2017/12/08			
Test Mode	LTE Band 17 Mid. CH 23790 (710.0MHz)					

Voltage (%)	Power (V <sub>DC</sub> )	TEMP (%)	Frequency (Hz)	Freq. Dev.	Deviation (%)	Limit (%)	Result
QPSK							
100%		+20(Ref)	710,000,000	-50	-0.000007	±0.00025	Pass
100%		-30	710,000,000	34	0.000005	±0.00025	Pass
100%		-20	710,000,000	-29	-0.000004	±0.00025	Pass
100%		-10	710,000,000	-57	-0.000008	±0.00025	Pass
100%	2.0	0	710,000,000	19	0.000003	±0.00025	Pass
100%	3.8	+10	710,000,000	-56	-0.000008	±0.00025	Pass
100%		+20	710,000,000	-32	-0.000005	±0.00025	Pass
100%		+30	710,000,000	69	0.000010	±0.00025	Pass
100%		+40	710,000,000	-75	-0.000011	±0.00025	Pass
100%		+50	710,000,000	16	0.000002	±0.00025	Pass
115%	4.37	+20	710,000,000	27	0.000004	±0.00025	Pass
BAT.ENDPOINT	3.23	+20	710,000,000	93	0.000013	±0.00025	Pass
16QAM							
100%		+20(Ref)	710,000,000	59	0.000008	±0.00025	Pass
100%		-30	710,000,000	-15	-0.000002	±0.00025	Pass
100%		-20	710,000,000	49	0.000007	±0.00025	Pass
100%		-10	710,000,000	-27	-0.000004	±0.00025	Pass
100%	0.0	0	710,000,000	-29	-0.000004	±0.00025	Pass
100%	3.8	+10	710,000,000	-48	-0.000007	±0.00025	Pass
100%		+20	710,000,000	-38	-0.000005	±0.00025	Pass
100%		+30	710,000,000	-67	-0.000009	±0.00025	Pass
100%		+40	710,000,000	68	0.000010	±0.00025	Pass
100%		+50	710,000,000	91	0.000013	±0.00025	Pass
115%	4.37	+20	710,000,000	65	0.000009	±0.00025	Pass
BAT.ENDPOINT	3.23	+20	710,000,000	-61	-0.000009	±0.00025	Pass

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# 8. CONCLUSION

The data collected relate only the item(s) tested and show that the **Mobile Data Terminal** compliance with all the requirements of Parts 2, 24, 27 of the FCC Rules.

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