

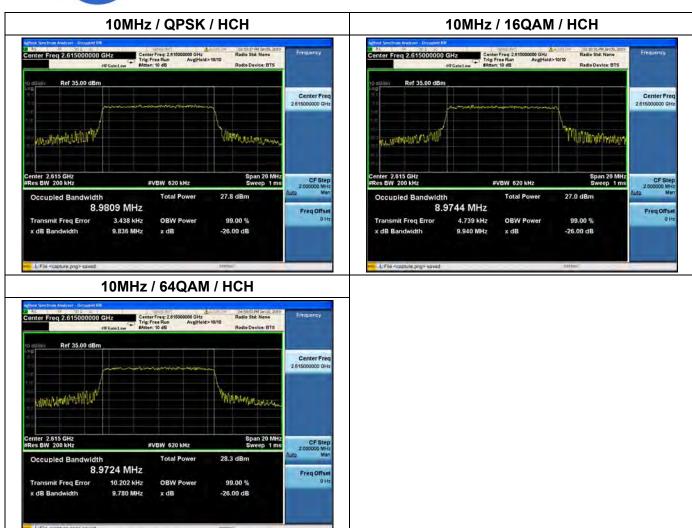




#### LTE Band 38 99% & 26dB Bandwidth 10MHz / QPSK / LCH 10MHz /16QAM / LCH Radio Std: None Radio Std: None Center Freq: 2.575000000 GHz Trig: Free Run Avg|Held>10/10 Center Freq: 2.575000000 GHz Trig: Free Run Avg|Held>10/10 Ref 35.00 dB Ref 35.00 dB Center Free Center Free ALLAM MAL Minimum Mountain managuman iter 2.575 GHz is BW 200 kHz 26.8 dBm 8.9582 MHz 8.9624 MHz Freq Offs smit Freq Error 14.125 kHz 99.00 % Transmit Freq Error 18.891 kHz OBW Power 99.00 % 10.19 MHz -26.00 dB 9.892 MHz -26.00 dB 10MHz / 64QAM / LCH 10MHz/QPSK/MCH Radio Std: None Radio Std: None Ref 35.00 dB Ref 35.00 dB Center Free Center Free WWW. The Mark William MAN MAN IMM now plot of Mountain 27.6 dBm 8.9796 MHz 8.9649 MHz Freq Offs 9.845 kHz 15.215 kHz 99.00 % 9.963 MHz -26.00 dB 9.850 MHz x dB -26.00 dB 10MHz / 16QAM / MCH 10MHz / 64QAM / MCH r1 2,59518 G 13.787 d Ref 35.00 dB Ref 35.00 dB Center Fre Center Free MANAJAM MANA WHILL MANAGE Market State Wilderstander CFS #VBW 620 kHz #VBW 620 kHz 26.8 dBm Total Powe 28.0 dBm 8.9669 MHz 8.9732 MHz 18.436 kHz 12.584 kHz 99.00 % Transmit Freq Error OBW Power -26.00 dB -26.00 dB







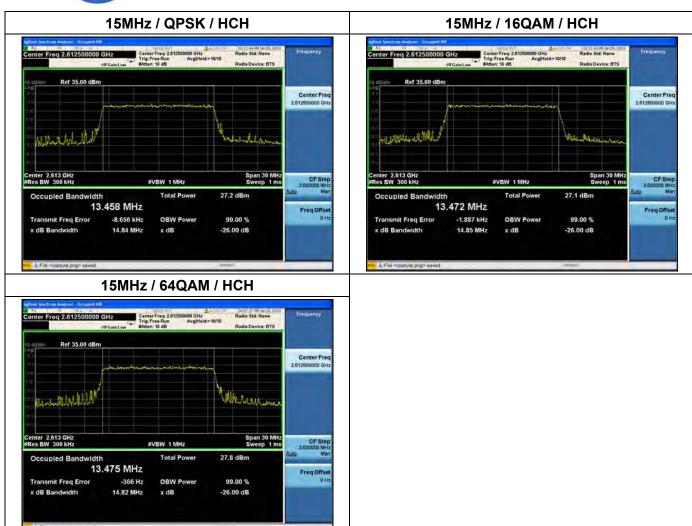




#### LTE Band 38 99% & 26dB Bandwidth 15MHz / QPSK / LCH 15MHz /16QAM / LCH 03:12:01 FM Jan09, 205 Radio Std: None Radio Std: None Center Freq: 2.577500000 GHz Trig: Free Run Avg|Held>10/10 Center Freq: 2.577500000 GHz Trig: Free Run Avg|Held>10/10 Ref 35.00 dB Ref 35.00 dB Center Free Center Free Market Market W 4年。145年中国 iter 2.578 GHz is BW 300 kHz 26.7 dBm 13.439 MHz 13.470 MHz Freq Offs smit Freq Error 23.143 kHz 99.00 % Transmit Freq Error 8.359 kHz OBW Power 99.00 % 15.09 MHz -26.00 dB 14.82 MHz x dB -26.00 dB 15MHz / 64QAM / LCH 15MHz/QPSK/MCH Radio Std: None Radio Std: None Ref 35.00 dB Ref 35.00 dB Center Free Center Free Motherwaren Wanter hor 1969 HANDING N. P. T. T. r 2.578 GHz 13.443 MHz 13.468 MHz Freq Offs 14.495 kHz 99.00 % 19.748 kHz 99.00 % 14.90 MHz -26.00 dB 15.02 MHz x dB -26.00 dB 15MHz / 16QAM / MCH 15MHz / 64QAM / MCH Ref 35.00 dB Ref 35.00 dB Center Fre Center Free all white the arangi John J. Wandha Market Line CF Step nter 2.595 GHz es BW 300 kHz CF St 26.7 dBm Total Powe 27.2 dBm 13.474 MHz 13.459 MHz Freq Offs -1.843 kHz -1.210 kHz 99.00 % Transmit Freq Error **OBW Power** 14.82 MHz -26.00 dB 14.55 MHz -26.00 dB











#### LTE Band 38 99% & 26dB Bandwidth 20MHz / QPSK / LCH 20MHz /16QAM / LCH Radio Std: None Radio Std: None Center Freq: 2.310000000 GHz Trig: Free Run Avg|Held>10/10 Center Freq: 2.310000000 GHz Trig: Free Run Avg|Held>10/10 Ref 35.00 dB Ref 35.00 dB Center Free Center Free J. H. W. L. Marie 神人加州州 Mellowhellowwe nter 2.31 GHz es BW 430 kHz 27.8 dBm 27.1 dBm 17.913 MHz 17.905 MHz Freq Offsi smit Freq Error 68.226 kHz 99.00 % Transmit Freq Error 62.945 kHz OBW Power 99.00 % 20.47 MHz -26.00 dB 19.56 MHz x dB -26.00 dB 20MHz / 64QAM / LCH 20MHz /QPSK / MCH Radio Std: None 2,58484 G 13,439 dE Ref 35.00 dB Ref 35.00 dE Center Fre Center Free anna di Hal William . #VBW 1.3 MHz FVBW 1.3 MHz Total Power 27.6 dBm 17.960 MHz 17.925 MHz Freq Offs -1.257 kHz 99.00 % -14.939 kHz 99.00 % 20.07 MHz -26,00 dB 19.59 MHz x dB -26.00 dB 20MHz / 16QAM / MCH 20MHz / 64QAM / MCH Ref 35.00 dB Ref 35.00 dBr Center Fre Center Free ALMINITARINA. Manuchane MINISTER STREET Marchael CF Step 4.000000 MH: Mar nter 2.595 GHz es BW 430 kHz CF Ste FVBW 1.3 MHz 26.9 dBm Total Powe 27.3 dBm 17.887 MHz 17.913 MHz Freq Offs -12.298 kHz -1.233 kHz 99.00 % Transmit Freq Error **OBW Power** 19.74 MHz -26.00 dB 20.11 MHz -26.00 dB

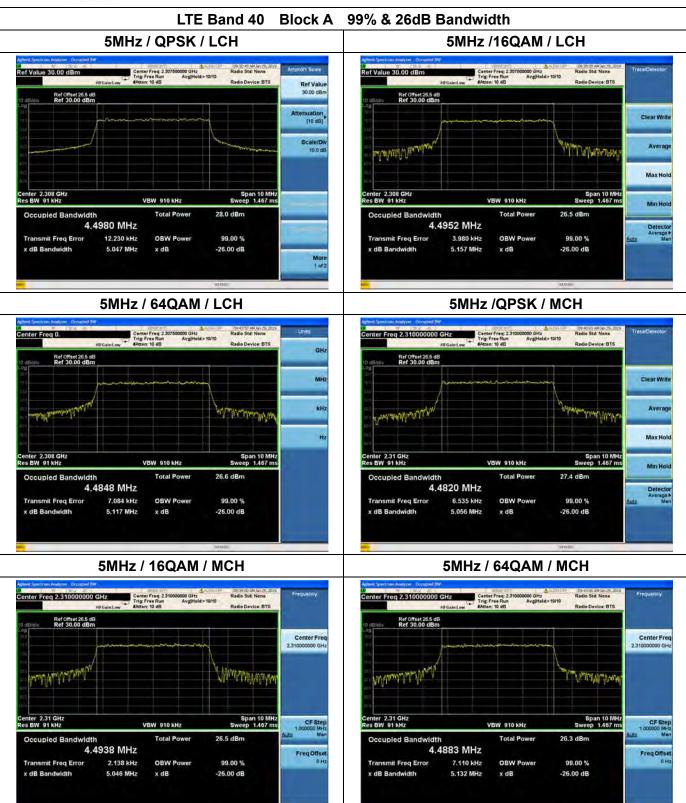






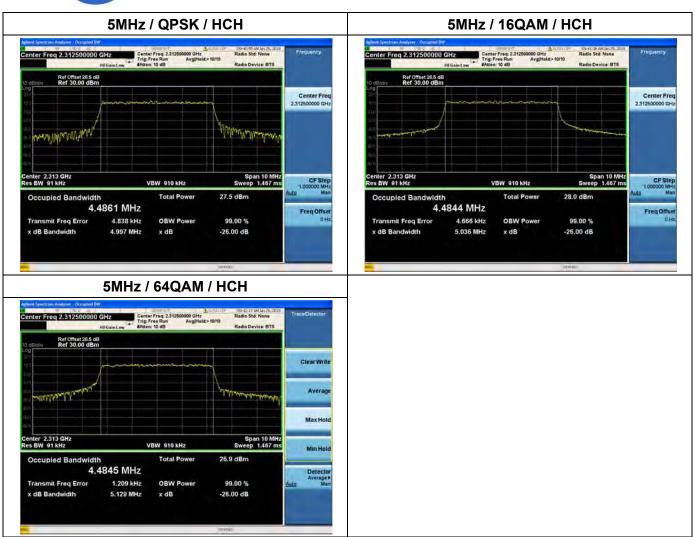






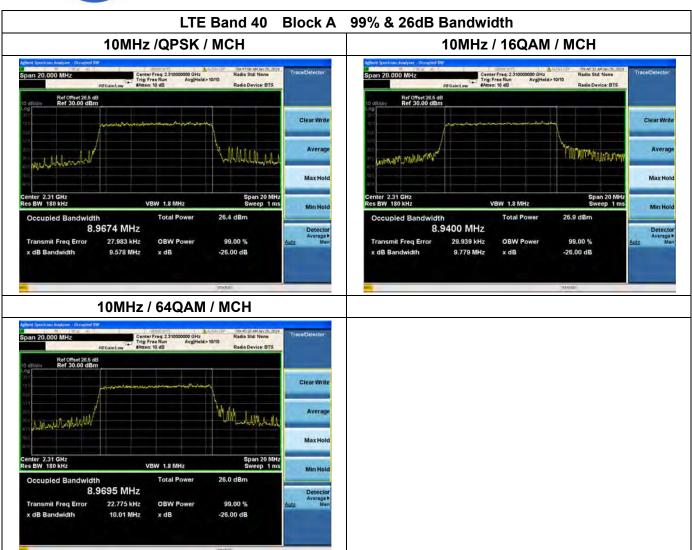






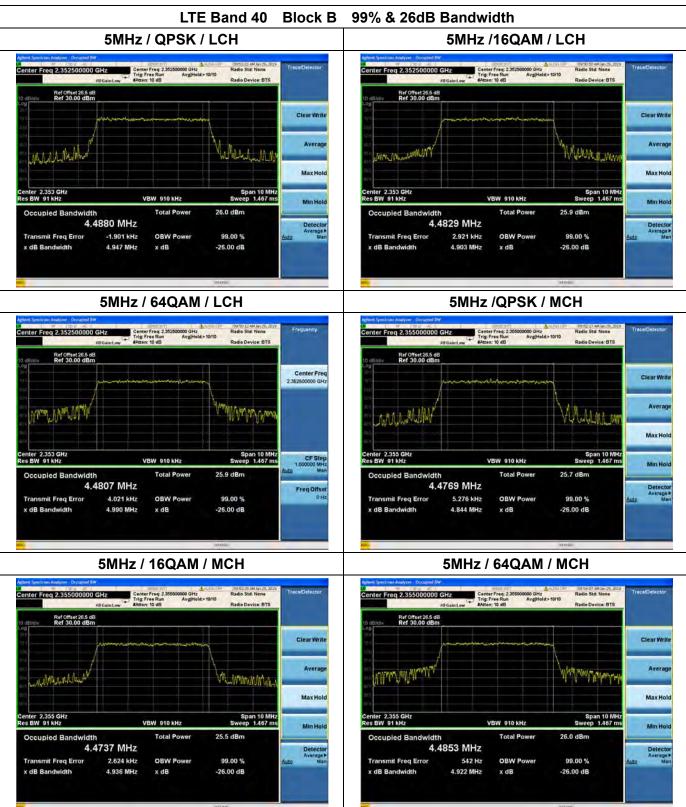






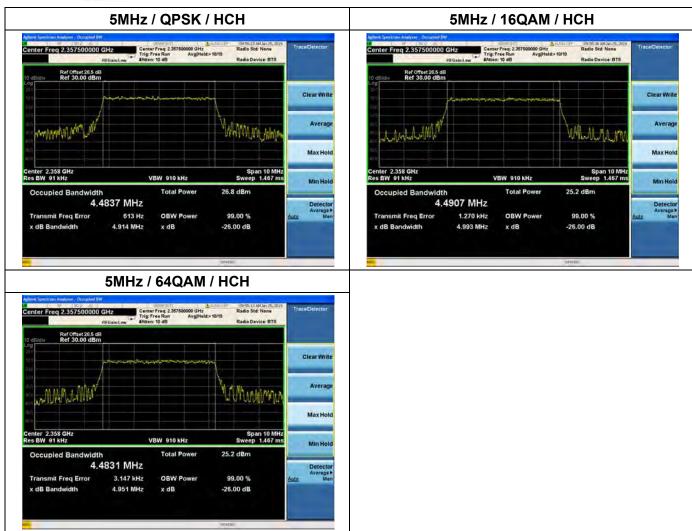






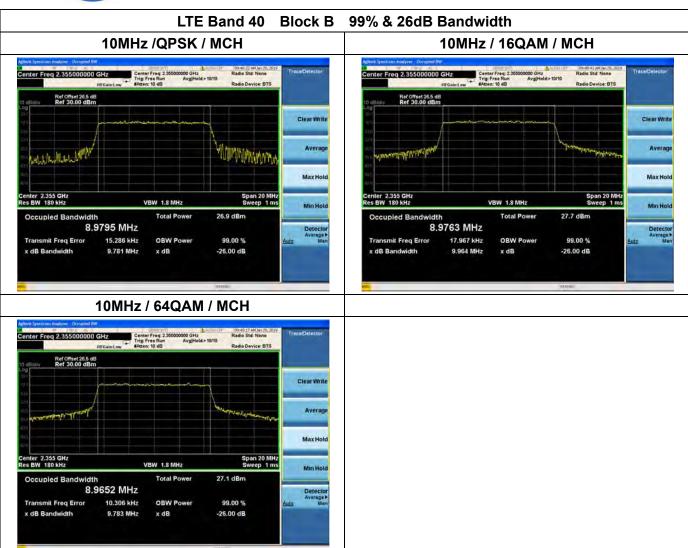
















#### LTE Band 41 99% & 26dB Bandwidth 5MHz / QPSK / LCH 5MHz /16QAM / LCH Radio Std: None Center Freq: 2.498500000 GHz Trig: Free Run Avg|Held>10/10 Center Freq: 2.498500000 GHz Trig: Free Run Avg|Held>10/10 Ref 35.00 dB Ref 35.00 dB Center Free Center Fre Math Man Turn CF 56 21.5 dBm 19.0 dBm 4.4891 MHz 4.4963 MHz Freq Offs smit Freq Error 24.324 kHz 99.00 % Transmit Freq Error 8.296 kHz OBW Power 99.00 % 4.979 MHz -26.00 dB 4.866 MHz x dB -26.00 dB **5MHz / 64QAM / LCH** 5MHz/QPSK/MCH Radio Std: None Radio Std: None Ref 35.00 dB Ref 35.00 dB Center Fre Center Free ANN WIM LAMBERT WA HUNDAL HANDER 27.8 dBm 4,4967 MHz 4.5046 MHz Freq Offs 21.487 kHz 99.00 % 4,921 MHz -26.00 dB 4.975 MHz x dB -26.00 dB **5MHz / 16QAM / MCH 5MHz / 64QAM / MCH** Ref 35.00 dB Ref 35.00 dB Center Fre 2.593000000 GH Center Free MANAMAN MANUMANTA nter 2.593 GHz es BW 100 kHz CF Step 1.000000 MH: Mar CF Ste 26.8 dBm Total Powe 27.6 dBm 4.4995 MHz 4.5063 MHz 7.420 kHz 931 Hz 99.00 % Transmit Freq Error OBW Power -26.00 dB 4.936 MHz -26.00 dB











#### LTE Band 41 99% & 26dB Bandwidth 10MHz / QPSK / LCH 10MHz /16QAM / LCH Radio Std: None Radio Std. None Center Freq: 2.501000000 GHz Trig: Free Run Avg|Held>10/10 Center Freq. 2.501000000 GHz Trig: Free Run Avg|Held>10/10 Ref 35.00 dBr Ref 35.00 dB Center Free Center Free iter 2.501 GHz is BW 200 kHz 26.9 dBm 9.0160 MHz 9.0118 MHz Freq Offs smit Freq Error 24.730 kHz 99.00 % Transmit Freq Error 33.414 kHz OBW Power 99.00 % 15.46 MHz -26.00 dB 14.75 MHz x dB -26.00 dB 10MHz / 64QAM / LCH 10MHz/QPSK/MCH Radio Std: None Radio Std: None Center Freq: 2.501000000 GHz Trig: Free Run Avg|Heid>10/10 Ref 35.00 dB Ref 35.00 dB Center Free Center Free WANTE JAMA AANA Span 20 MHz Sweep 1 ms #VBW 620 kHz Total Power 27.5 dBm 9.0257 MHz 8.9678 MHz Freq Offs 25.336 kHz 99.00 % 19.672 kHz 99.00 % 13.65 MHz -26.00 dB 9.803 MHz x dB -26.00 dB 10MHz / 16QAM / MCH 10MHz / 64QAM / MCH Ref 35.00 dB Ref 35.00 dB Center Fre Center Free MAN MANAGER MITCHARD IN manufactured and the second MINUTED THE REAL PROPERTY. CF Step nter 2.593 GHz es BW 200 kHz CF St #VBW 620 kHz #VBW 620 kHz 26.9 dBm Total Power 26.8 dBm 8.9675 MHz 8.9606 MHz Freq Offs 13.454 kHz 20.101 kHz 99.00 % Transmit Freq Error OBW Power 10.07 MHz -26.00 dB 9.914 MHz -26.00 dB











#### LTE Band 41 99% & 26dB Bandwidth 15MHz / QPSK / LCH 15MHz /16QAM / LCH 03:38:33 PM Jan09, 205 Radio Std: None Radio Std: None Center Freq: 2.503600000 GHz Trig: Free Run Avg|Heid>10/10 Center Freq: 2.503500000 GHz Trig: Free Run Avg|Heid>10/10 Ref 35.00 dB Ref 35.00 dB Center Free Center Fre CF St 27.1 dBm 13.496 MHz 13.493 MHz Freq Offsi smit Freq Error 44.101 kHz 99.00 % Transmit Freq Error 39.876 kHz OBW Power 99.00 % 18.04 MHz -26.00 dB 17.90 MHz x dB -26.00 dB 15MHz / 64QAM / LCH 15MHz/QPSK/MCH Radio Std: None Radio Std: None Ref 35.00 dB Ref 35.00 dB Center Free Center Free AND PART WALLAND and several field the Total Power 27.7 dBm 13.470 MHz 13,479 MHz Freq Offs 43.622 kHz 99.00 % 25.084 kHz 99.00 % 19.82 MHz -26.00 dB 14.59 MHz x dB -26.00 dB 15MHz / 16QAM / MCH 15MHz / 64QAM / MCH Ref 35.00 dBn Ref 35.00 dB Center Fre 2.593000000 GH Center Free while Metalle nter 2.593 GHz es BW 300 kHz CF Step nter 2.593 GHz s BW 300 kHz CF St 26.8 dBm Total Powe 26.6 dBm 13.455 MHz 13.442 MHz 24.713 kHz 9.432 kHz 99.00 % Transmit Freq Error OBW Power 14.78 MHz -26.00 dB 14.97 MHz -26.00 dB











#### LTE Band 41 99% & 26dB Bandwidth 20MHz / QPSK / LCH 20MHz /16QAM / LCH Radio Std: None Radio Std: None Center Freq. 2.505000000 GHz Trig: Free Run Avg|Hold>10/10 Center Freq: 2.505000000 GHz Trig: Free Run Avg|Held>10/10 Ref 35.00 dB Ref 35.00 dB Center Free Center Fre 28.0 dBm 27.9 dBm 17.933 MHz 17.915 MHz Freq Offsi smit Freq Error 39.453 kHz 99.00 % Transmit Freq Error 46.533 kHz OBW Power 99.00 % 20.74 MHz -26.00 dB 20.58 MHz x dB -26.00 dB 20MHz / 64QAM / LCH 20MHz /QPSK / MCH Radio Std: None Radio Std: None Ref 35.00 dB Ref 35.00 dB Center Free Center Free #VBW 1.3 MHz Total Power 27.4 dBm 17.915 MHz 17.969 MHz Freq Offs 46.533 kHz 99.00 % 31,536 kHz 99.00 % 20.58 MHz -26.00 dB 19.77 MHz x dB -26.00 dB 20MHz / 16QAM / MCH 20MHz / 64QAM / MCH Ref 35.00 dBr Ref 35.00 dBr Center Fre Center Free المالية المالية المالية Maria de la Maria nter 2.593 GHz es BW 430 kHz CF Step 4.000000 MH: Mar nter 2.593 GHz es BW 430 kHz CF Ste FVBW 1.3 MHz 27.4 dBm Total Power 26.4 dBm 17.969 MHz 17.934 MHz Freq Offs 31.536 kHz 11.993 kHz 99.00 % Transmit Freq Error OBW Power 19.77 MHz -26.00 dB 19.39 MHz -26.00 dB











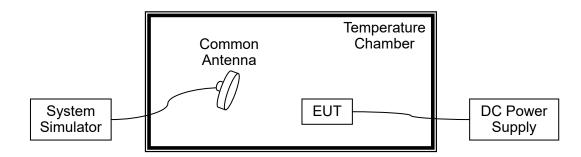
# 2.3. Frequency Stability

### 2.3.1. Requirement

According to FCC section 2.1055 & 27.54&24.235, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

- (a) The temperature is varied from -30°C to +50°C at intervals of not more than 10°C.
- (b) For hand carried battery powered equipment, the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacture. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

### 2.3.2. Test Description



The EUT which is powered by the DC Power Supply directly, is located in the Temperature Chamber. The EUT is commanded by the System Simulator (SS) to operate at the maximum output power. A call is established between the EUT and the SS via a Common Antenna.

### 2.3.3. Test procedure

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

### 2.3.4. Test Result

The nominal, highest and lowest extreme voltages are separately 3.8VDC, 4.35VDC and 3.5VDC, which are specified by the applicant; the normal temperature here used is 20°C.



Lī	E Band 2, QP	SK, Channel 189	000, Frequency	1880.0MHz					
	Limit =Within Authorized Band								
\/oltogo /9/\	Power	Tomp (°C)	Fre. Dev.	Deviation	Dogult				
Voltage (%)	(VDC)	Temp (°C)	(Hz)	(ppm)	Result				
100		-30	15	0.008					
100		-20	11	0.006					
100		-10	13	0.007					
100		0	-5	-0.003					
100	3.85	+10	-13	-0.007					
100		+20	18	0.010	PASS				
100		+30	32	0.017					
100		+40	43	0.023					
100		+50	-15	-0.008					
115	4.43	+20	45	0.024					
85	3.27	+20	-11	-0.006					

L	LTE Band 4, QPSK, Channel 20175, Frequency 1732.5MHz								
	Limit =Within Authorized Band								
Voltage (%)	Power	Temp (°C)	Fre. Dev.	Deviation	Result				
Voltage (70)	(VDC)	Temp ( 0)	(Hz)	(ppm)	Result				
100		-30	12	0.007					
100		-20	21	0.012					
100		-10	23	0.013					
100		0	-11	-0.006					
100	3.85	+10	-15	-0.009					
100		+20	31	0.018	PASS				
100		+30	12	0.007					
100		+40	34	0.020					
100		+50	36	0.021					
115	4.43	+20	39	0.023					
85	3.27	+20	64	0.037					



L.	LTE Band 5, QPSK, Channel 20525, Frequency 836.5MHz								
	Limit=±2.5ppm								
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result				
100		-30	32	0.038					
100		-20	26	0.031					
100		-10	-11	-0.013					
100		0	11	0.013					
100	3.85	+10	24	0.029	PASS				
100		+20	32	0.038	PASS				
100		+30	-16	-0.019					
100		+40	26	0.031	]				
100		+50	31	0.037	]				
115	4.43	+20	24	0.029	]				
85	3.27	+20	-22	-0.026	1				

L	LTE Band 7, QPSK, Channel 21100, Frequency 2535MHz								
	Limit= Within Authorized Band								
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result				
100		-30	32	0.013					
100		-20	54	0.021					
100		-10	43	0.017					
100		0	-18	-0.007					
100	3.85	+10	31	0.012	PASS				
100		+20	43	0.017	PASS				
100		+30	-24	-0.009					
100		+40	-29	-0.011					
100		+50	67	0.026					
115	4.43	+20	-31	-0.012					
85	3.27	+20	43	0.017					



L	LTE Band 12, QPSK, Channel 23095, Frequency 707.5MHz Limit =Within Authorized Band								
Voltage (%)	Power	Temp (°C)	Fre. Dev.	Deviation	Result				
Voltage (70)	(VDC)	remp ( o)	(Hz)	(ppm)	Result				
100		-30	56	0.079					
100		-20	45	0.064					
100		-10	-13	-0.018					
100		0	22	0.031					
100	3.85	+10	-25	-0.035					
100		+20	32	0.045	PASS				
100		+30	37	0.052					
100		+40	64	0.090					
100		+50	58	0.082					
115	4.43	+20	67	0.095					
85	3.27	+20	-35	-0.049					

	LTE Band 17, QPSK, Channel 23790, Frequency 710MHz								
	Limit =Within Authorized Band								
Voltage (%)	Power	Temp (°C)	Fre. Dev.	Deviation	Result				
	(VDC)	- P ( )	(Hz)	(ppm)					
100		-30	65	0.092					
100		-20	59	0.083					
100		-10	-44	-0.062					
100		0	35	0.049					
100	3.8	+10	-35	-0.049					
100		+20	-46	-0.065	PASS				
100		+30	-45	-0.063					
100		+40	69	0.097					
100		+50	60	0.085					
115	4.43	+20	76	0.107					
85	3.27	+20	79	0.111					



L1	LTE Band 19, QPSK, Channel 24075, Frequency 837.5MHz Limit=±2.5ppm								
Voltage (%)	Power	Temp (°C)	Fre. Dev.	Deviation	Result				
Voitage (70)	(VDC)	Temp (C)	(Hz)	(ppm)	Nesuit				
100		-30	-46	-0.055					
100		-20	-41	-0.049					
100		-10	-36	-0.043					
100		0	25	0.030					
100	3.85	+10	28	0.033	PASS				
100		+20	34	0.041	PASS				
100		+30	-25	-0.030					
100		+40	-43	-0.051					
100		+50	54	0.064					
115	4.43	+20	69	0.082					
85	3.27	+20	65	0.078					

LTE Band 25, QPSK, Channel 26365, Frequency 1882.5MHz								
Limit =Within Authorized Band								
Voltage (%)	Power	Temp (°C)	Fre. Dev.	Deviation	Result			
voitage ( 76)	(VDC)	remp ( C)	(Hz)	(ppm)	Result			
100		-30	-46	-0.024				
100		-20	59	0.031				
100		-10	-41	-0.022				
100		0	37	0.020				
100	3.85	+10	43	0.023				
100		+20	46	0.024	PASS			
100		+30	-46	-0.024				
100		+40	55	0.029				
100		+50	-56	-0.030				
115	4.43	+20	-42	-0.022				
85	3.27	+20	46	0.024				





L	LTE Band 26, QPSK, Channel 26915, Frequency 836.5MHz Limit =±2.5ppm								
Voltage (%)	Power	Temp (°C)	Fre. Dev.	Deviation	Result				
voitage (78)	(VDC)	remp ( C)	(Hz)	(ppm)	Nesuit				
100		-30	-46	-0.055					
100		-20	59	0.071					
100		-10	-33	-0.039					
100		0	17	0.020					
100	3.85	+10	31	0.037					
100		+20	43	0.051	PASS				
100		+30	33	0.039					
100		+40	54	0.065					
100		+50	-57	-0.068					
115	4.43	+20	-64	-0.077					
85	3.27	+20	87	0.104					

L	LTE Band 30, QPSK, Channel 27710, Frequency 2310MHz								
Limit =Within Authorized Band									
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result				
100		-30	46	0.020					
100		-20	44	0.019					
100		-10	-25	-0.011					
100		0	15	0.006					
100	3.85	+10	26	0.011					
100		+20	-18	-0.008	PASS				
100		+30	-27	-0.012					
100		+40	-24	-0.010					
100		+50	-31	-0.013					
115	4.43	+20	-40	-0.017					
85	3.27	+20	58	0.025					



L	TE Band 38, Q	PSK, Channel 3	88000, Frequen	cy 2595MHz					
	Limit =Within Authorized Band								
Voltage (%)	Power	Power Town (%C)	Fre. Dev.	Deviation	Result				
voitage (70)	(VDC)	Temp (°C)	(Hz)	(ppm)	Nesuit				
100		-30	67	0.026					
100		-20	-57.3	-0.022					
100		-10	45	0.017					
100		0	34	0.013					
100	3.85	+10	-44	-0.017					
100		+20	54	0.021	PASS				
100		+30	-52	-0.020					
100		+40	-54	-0.021					
100		+50	-49	-0.019					
115	4.43	+20	71	0.027					
85	3.27	+20	83	0.032					

LTE E	LTE Band 40 Block A, QPSK, Channel 38750, Frequency 2310MHz								
Limit =Within Authorized Band									
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result				
100		-30	72	0.031					
100		-20	33	0.014					
100		-10	-61	-0.026					
100		0	64	0.028					
100	3.85	+10	55	0.024					
100		+20	29	0.013	PASS				
100		+30	55	0.024					
100		+40	-65	-0.028					
100		+50	-73	-0.032					
115	4.43	+20	53	0.023					
85	3.27	+20	55	0.024					



LTE E	Band 40 Block	B, QPSK, Chan	nel 39200, Fred	quency 2355MHz				
Limit =Within Authorized Band								
Voltage (%)	Power	Temp (°C)	Fre. Dev.	Deviation	Result			
voitage ( ///)	(VDC)	remp ( C)	(Hz)	(ppm)	Nesuit			
100		-30	63	0.027				
100		-20	52	0.022				
100		-10	-67	-0.028				
100		0	66	0.028				
100	3.85	+10	41	0.017				
100		+20	27	0.011	PASS			
100		+30	58	0.025				
100	1	+40	-56	-0.024				
100		+50	-79	-0.034				
115	4.43	+20	39	0.017				
85	3.27	+20	46	0.020				

L	TE Band 41, Q	PSK, Channel 4	l0620, Frequen	cy 2593MHz						
	Limit =Within Authorized Band									
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result					
100		-30	73	0.028						
100		-20	-62	-0.024						
100		-10	-68	-0.026						
100		0	-22	-0.008						
100	3.85	+10	-32	-0.012						
100		+20	-35	-0.013	PASS					
100		+30	44	0.017						
100		+40	41	0.016						
100		+50	45	0.017						
115	4.43	+20	56	0.022						
85	3.27	+20	63	0.024						



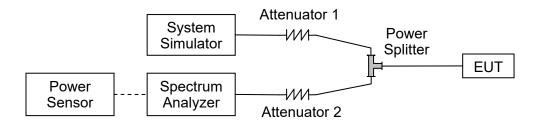
# 2.4. Peak to Average Radio

### 2.4.1. Requirement

According to FCC section 24.232(d), the peak to average ratio (PAR) of the transmission may not exceed 13dB.

### 2.4.2. Test Description

### A. Test Set:



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 500hm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

### 2.4.3. Test procedure

KDB 971168 D01v03 Section 5.7 and ANSI/TIA-603-E-2016.

### 2.4.4. Test Result

Record the maximum PAPR level associated with a probability of 0.1%.



			LTE Band 2			
BW (MHz)	Modulation	LCH	МСН	нсн	Limit (dB)	Verdict
	QPSK	4.18	4.55	4.74	<=13	PASS
1.4	16QAM	5.15	5.50	5.80	<=13	PASS
	64QAM	5.62	5.77	5.59	<=13	PASS
	QPSK	4.08	4.33	4.49	<=13	PASS
3	16QAM	5.17	5.55	5.74	<=13	PASS
	64QAM	5.53	5.75	5.67	<=13	PASS
	QPSK	4.35	4.62	4.78	<=13	PASS
5	16QAM	5.31	5.58	5.74	<=13	PASS
	64QAM	5.53	5.73	5.71	<=13	PASS
	QPSK	4.40	4.52	4.82	<=13	PASS
10	16QAM	5.36	5.64	5.71	<=13	PASS
	64QAM	5.50	5.77	5.78	<=13	PASS
	QPSK	4.37	4.5	4.62	<=13	PASS
15	16QAM	5.32	5.49	5.57	<=13	PASS
	64QAM	5.55	5.63	5.66	<=13	PASS
	QPSK	4.54	4.59	4.50	<=13	PASS
20	16QAM	5.52	5.53	5.61	<=13	PASS
	64QAM	5.28	5.63	5.63	<=13	PASS



			LTE Band 4			
BW (MHz)	Modulation	LCH	мсн	нсн	Limit (dB)	Verdict
	QPSK	4.84	5.04	5.05	<=13	PASS
1.4	16QAM	5.83	5.91	6.13	<=13	PASS
	64QAM	5.78	5.93	6.15	<=13	PASS
	QPSK	4.72	4.69	4.83	<=13	PASS
3	16QAM	5.89	5.95	6.14	<=13	PASS
	64QAM	5.78	6.04	6.16	<=13	PASS
	QPSK	4.78	4.95	4.93	<=13	PASS
5	16QAM	5.84	5.89	6.02	<=13	PASS
	64QAM	5.76	6.05	6.03	<=13	PASS
	QPSK	4.84	4.91	4.93	<=13	PASS
10	16QAM	5.85	6.00	6.08	<=13	PASS
	64QAM	5.71	5.97	6.04	<=13	PASS
	QPSK	4.73	4.88	4.90	<=13	PASS
15	16QAM	5.82	5.92	6.00	<=13	PASS
	64QAM	5.69	5.91	6.00	<=13	PASS
	QPSK	4.78	4.79	4.83	<=13	PASS
20	16QAM	5.87	5.91	5.96	<=13	PASS
	64QAM	5.78	5.89	5.97	<=13	PASS



			LTE Band 5			
BW (MHz)	Modulation	LCH	МСН	нсн	Limit (dB)	Verdict
	QPSK	4.83	4.44	4.67	<=13	PASS
1.4	16QAM	5.87	5.49	5.57	<=13	PASS
	64QAM	5.89	5.52	5.57	<=13	PASS
	QPSK	4.61	4.22	4.46	<=13	PASS
3	16QAM	5.9	5.51	5.70	<=13	PASS
	64QAM	5.92	5.47	5.70	<=13	PASS
	QPSK	4.79	4.48	4.68	<=13	PASS
5	16QAM	5.85	5.52	5.74	<=13	PASS
	64QAM	5.86	5.53	5.75	<=13	PASS
	QPSK	4.59	4.47	4.88	<=13	PASS
10	16QAM	5.82	5.59	5.73	<=13	PASS
	64QAM	5.84	5.56	5.74	<=13	PASS

	LTE Band 7								
BW (MHz)	Modulation	LCH	МСН	нсн	Limit (dB)	Verdict			
	QPSK	4.81	4.74	4.64	<=13	PASS			
5	16QAM	5.87	5.79	5.65	<=13	PASS			
	64QAM	5.92	5.93	5.72	<=13	PASS			
	QPSK	4.84	4.76	4.60	<=13	PASS			
10	16QAM	5.95	5.84	5.63	<=13	PASS			
	64QAM	5.98	5.91	5.73	<=13	PASS			
	QPSK	4.81	4.70	4.49	<=13	PASS			
15	16QAM	5.93	5.78	5.55	<=13	PASS			
	64QAM	5.95	5.88	5.65	<=13	PASS			
	QPSK	4.77	4.66	4.51	<=13	PASS			
20	16QAM	5.96	5.83	5.67	<=13	PASS			
	64QAM	5.98	5.92	5.71	<=13	PASS			



			LTE Band 12			
BW (MHz)	Modulation	LCH	мсн	нсн	Limit (dB)	Verdict
	QPSK	3.55	4.42	4.65	<=13	PASS
1.4	16QAM	4.46	5.31	5.69	<=13	PASS
	64QAM	4.58	5.45	5.71	<=13	PASS
	QPSK	4.22	4.46	4.500	<=13	PASS
3	16QAM	5.28	5.4	5.72	<=13	PASS
	64QAM	5.34	5.52	5.71	<=13	PASS
	QPSK	4.77	4.55	4.79	<=13	PASS
5	16QAM	5.75	5.59	5.74	<=13	PASS
	64QAM	5.79	5.61	5.76	<=13	PASS
	QPSK	5.05	4.56	4.64	<=13	PASS
10	16QAM	5.99	5.56	5.56	<=13	PASS
	64QAM	6.00	5.64	5.57	<=13	PASS

	LTE Band 17							
BW (MHz)	Modulation	LCH	МСН	нсн	Limit (dB)	Verdict		
	QPSK	4.88	4.54	4.87	<=13	PASS		
5	16QAM	6.01	5.58	5.85	<=13	PASS		
	64QAM	5.97	5.58	5.83	<=13	PASS		
	QPSK	4.41	4.41	4.77	<=13	PASS		
10	16QAM	5.65	5.68	5.8	<=13	PASS		
	64QAM	5.65	5.66	5.8	<=13	PASS		



	LTE Band 19							
BW (MHz)	Modulation	LCH	МСН	нсн	Limit (dB)	Verdict		
	QPSK	4.70	4.60	4.68	<=13	PASS		
5	16QAM	5.75	5.64	5.76	<=13	PASS		
	64QAM	5.77	5.59	5.72	<=13	PASS		
	QPSK	4.57	4.53	4.72	<=13	PASS		
10	16QAM	5.66	5.64	5.69	<=13	PASS		
	64QAM	5.66	5.60	5.68	<=13	PASS		
	QPSK	1	4.38	1	<=13	PASS		
15	16QAM	1	5.57	1	<=13	PASS		
	64QAM	1	5.53	1	<=13	PASS		

	LTE Band 25								
BW (MHz)	Modulation	LCH	МСН	нсн	Limit (dB)	Verdict			
	QPSK	4.57	4.26	4.73	<=13	PASS			
1.4	16QAM	5.60	5.28	5.71	<=13	PASS			
	64QAM	5.69	5.65	5.68	<=13	PASS			
	QPSK	4.30	4.19	4.42	<=13	PASS			
3	16QAM	5.56	5.37	5.69	<=13	PASS			
	64QAM	5.61	5.71	5.66	<=13	PASS			
	QPSK	4.44	4.48	4.63	<=13	PASS			
5	16QAM	5.33	5.47	5.65	<=13	PASS			
	64QAM	5.57	5.68	5.62	<=13	PASS			
	QPSK	4.14	4.31	4.35	<=13	PASS			
10	16QAM	5.34	5.53	5.62	<=13	PASS			
	64QAM	5.44	5.69	5.66	<=13	PASS			
	QPSK	4.34	4.17	4.40	<=13	PASS			
15	16QAM	5.44	5.18	5.58	<=13	PASS			
	64QAM	5.21	5.55	5.64	<=13	PASS			
	QPSK	4.33	4.34	4.56	<=13	PASS			
20	16QAM	5.36	5.48	5.71	<=13	PASS			
	64QAM	5.37	5.57	5.74	<=13	PASS			



	LTE Band 26								
BW (MHz)	Modulation	LCH	МСН	нсн	Limit (dB)	Verdict			
	QPSK	6.03	4.40	4.59	<=13	PASS			
1.4	16QAM	6.02	4.41	5.76	<=13	PASS			
	64QAM	4.81	5.50	5.77	<=13	PASS			
	QPSK	4.70	4.32	5.75	<=13	PASS			
3	16QAM	4.69	4.31	5.53	<=13	PASS			
	64QAM	6.01	5.57	4.48	<=13	PASS			
	QPSK	4.83	5.64	5.81	<=13	PASS			
5	16QAM	5.99	4.54	4.69	<=13	PASS			
	64QAM	4.84	5.67	4.69	<=13	PASS			
	QPSK	5.88	4.35	4.60	<=13	PASS			
10	16QAM	4.76	5.53	4.62	<=13	PASS			
	64QAM	4.75	5.56	4.84	<=13	PASS			
	QPSK	4.70	5.57	5.64	<=13	PASS			
15	16QAM	4.69	4.40	5.57	<=13	PASS			
	64QAM	5.79	4.37	5.34	<=13	PASS			

	LTE Band 30							
BW (MHz)	Modulation	LCH	мсн	нсн	Limit (dB)	Verdict		
	QPSK	4.73	4.72	4.7	<=13	PASS		
5	16QAM	5.78	5.79	5.77	<=13	PASS		
	64QAM	5.78	5.79	5.79	<=13	PASS		
	QPSK	1	4.71	1	<=13	PASS		
10	16QAM	/	5.78	/	<=13	PASS		
	64QAM	1	5.86	1	<=13	PASS		



LTE Band 38							
BW (MHz)	Modulation	LCH	МСН	нсн	Limit (dB)	Verdict	
	QPSK	8.86	8.92	8.21	<=13	PASS	
5	16QAM	9.38	9.09	9.30	<=13	PASS	
	64QAM	9.37	9.30	9.03	<=13	PASS	
	QPSK	8.06	8.54	8.02	<=13	PASS	
10	16QAM	9.83	10.52	10.24	<=13	PASS	
	64QAM	9.51	10.15	10.26	<=13	PASS	
	QPSK	7.31	9.25	8.41	<=13	PASS	
15	16QAM	9.07	9.85	10.34	<=13	PASS	
	64QAM	9.75	9.83	9.95	<=13	PASS	
	QPSK	7.98	6.65	7.84	<=13	PASS	
20	16QAM	9.22	8.92	8.80	<=13	PASS	
	64QAM	10.26	9.57	9.84	<=13	PASS	

LTE Band 40 Block A							
BW (MHz)	Modulation	LCH	МСН	нсн	Limit (dB)	Verdict	
	QPSK	7.27	7.86	7.30	<=13	PASS	
5	16QAM	7.45	7.42	7.29	<=13	PASS	
	64QAM	7.16	7.26	7.27	<=13	PASS	
10	QPSK	/	6.79	/	<=13	PASS	
	16QAM	/	6.83	/	<=13	PASS	
	64QAM	1	6.81	1	<=13	PASS	

LTE Band 40 Block B						
BW (MHz)	Modulation	LCH	МСН	нсн	Limit (dB)	Verdict
	QPSK	7.24	7.34	7.22	<=13	PASS
5	16QAM	7.27	7.20	7.45	<=13	PASS
	64QAM	7.79	7.13	7.13	<=13	PASS
	QPSK	1	6.57	1	<=13	PASS
10	16QAM	1	8.02	1	<=13	PASS
	64QAM	/	6.93	1	<=13	PASS



LTE Band 41							
BW (MHz)	Modulation	LCH	МСН	нсн	Limit (dB)	Verdict	
5	QPSK	8.91	8.26	8.60	<=13	PASS	
	16QAM	10.52	10.03	8.81	<=13	PASS	
	64QAM	9.62	9.22	8.61	<=13	PASS	
	QPSK	7.14	9.01	8.91	<=13	PASS	
10	16QAM	7.94	9.35	9.72	<=13	PASS	
	64QAM	7.42	9.95	10.84	<=13	PASS	
	QPSK	7.66	7.61	7.57	<=13	PASS	
15	16QAM	8.42	8.93	9.08	<=13	PASS	
	64QAM	8.24	10.48	11.03	<=13	PASS	
20	QPSK	6.68	8.39	7.31	<=13	PASS	
	16QAM	9.02	9.38	9.97	<=13	PASS	
	64QAM	5.9	10.38	8.05	<=13	PASS	



## LTE Band 2 Peak-to-Average Radio

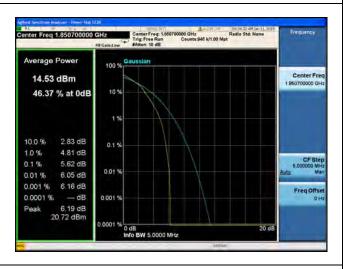
## 1.4MHz / QPSK / LCH



## 1.4MHz / 16QAM / LCH



#### 1.4MHz / 64QAM / LCH



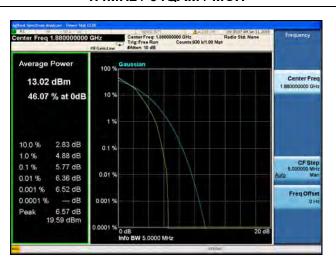
#### 1.4MHz / QPSK / MCH



## 1.4MHz / 16QAM / MCH



#### 1.4MHz / 64QAM / MCH









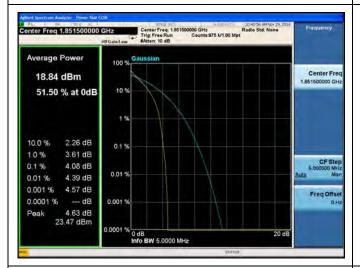


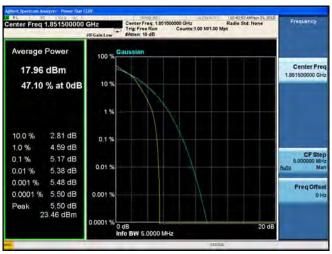


# LTE Band 2 Peak-to-Average Radio

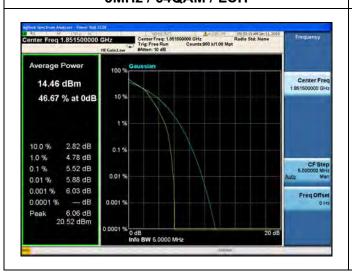
#### 3MHz / QPSK / LCH

#### 3MHz / 16QAM / LCH





## 3MHz / 64QAM / LCH



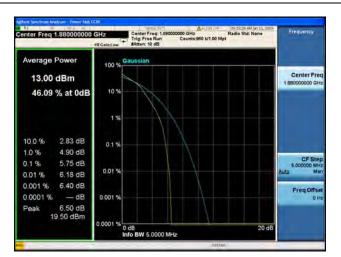




## 3MHz / 16QAM / MCH



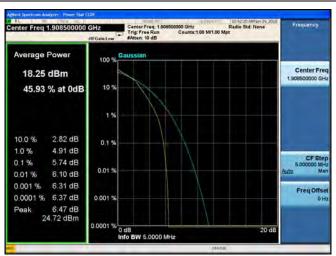
#### 3MHz / 64QAM / MCH



#### 3MHz / QPSK / HCH











# LTE Band 2 Peak-to-Average Radio

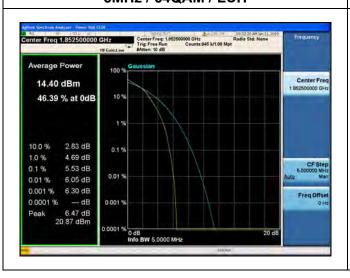
#### 5MHz / QPSK / LCH

## 5MHz / 16QAM / LCH





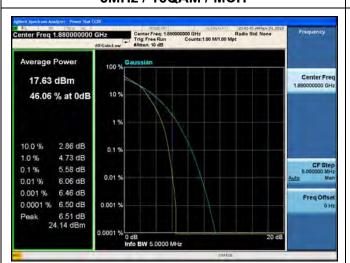
## 5MHz / 64QAM / LCH







#### **5MHz / 16QAM / MCH**



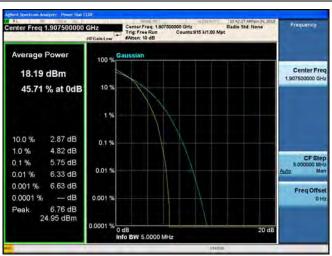
#### **5MHz / 64QAM / MCH**



## 5MHz / QPSK / HCH



## 5MHz / 16QAM / HCH





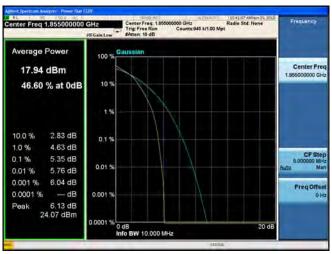


# LTE Band 2 Peak-to-Average Radio

#### 10MHz / QPSK / LCH

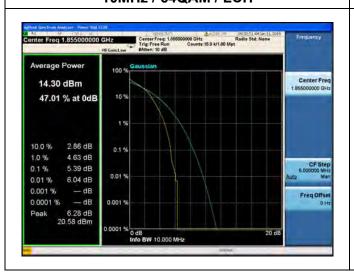
# 10MHz / 16QAM / LCH

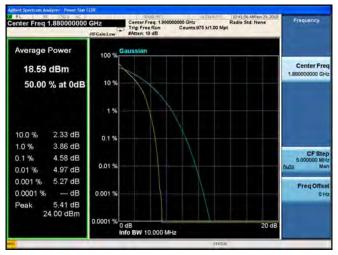




#### 10MHz / 64QAM / LCH

# 10MHz / QPSK / MCH





Tel: 86-755-36698555

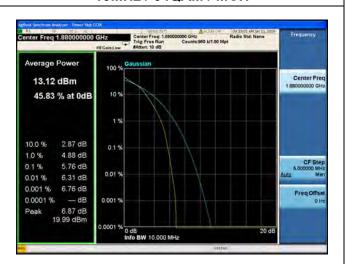
Http://www.morlab.cn



## 10MHz / 16QAM / MCH



#### 10MHz / 64QAM / MCH



## 10MHz / QPSK / HCH







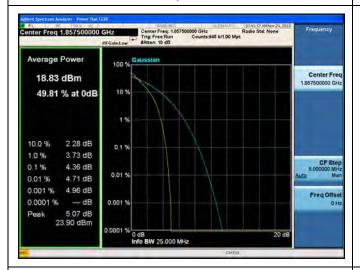


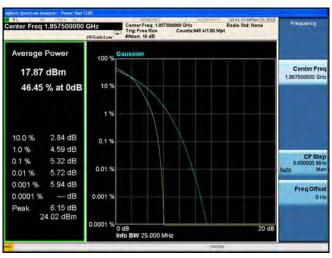


# LTE Band 2 Peak-to-Average Radio

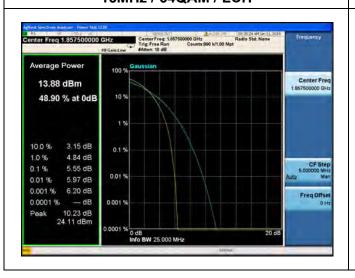
#### 15MHz / QPSK / LCH

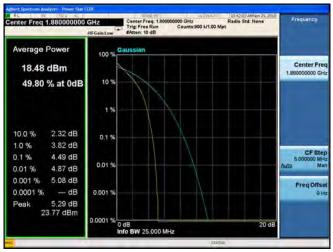
# 15MHz / 16QAM / LCH





#### 15MHz / 64QAM / LCH









## 15MHz / 16QAM / MCH



#### 15MHz / 64QAM / MCH



## 15MHz / QPSK / HCH











# LTE Band 2 Peak-to-Average Radio

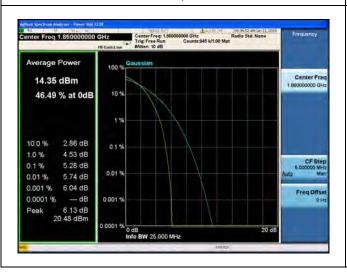
#### 20MHz / QPSK / LCH



## 20MHz / 16QAM / LCH



#### 20MHz / 64QAM / LCH

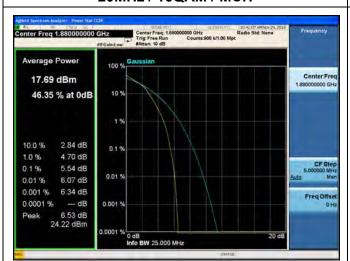




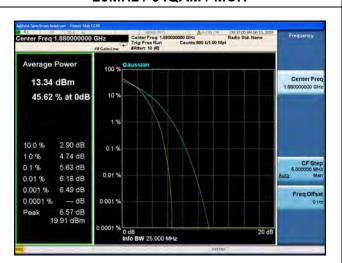




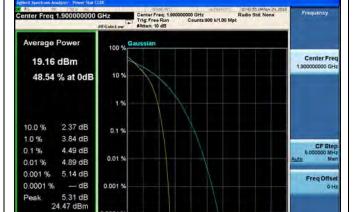
#### 20MHz / 16QAM / MCH



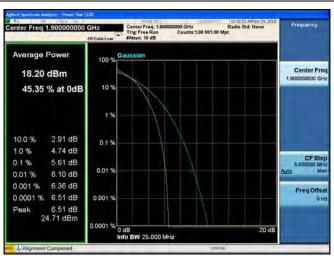
#### 20MHz / 64QAM / MCH



## 20MHz / QPSK / HCH



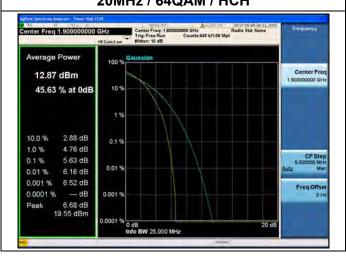
#### 20MHz / 16QAM / HCH



# 20MHz / 64QAM / HCH

0 dB Info BW 25.000 MHz

0.0001 %





#### LTE Band 4 Peak-to-Average Radio 1.4MHz / QPSK / LCH 1.4MHz / 16QAM / LCH Center Freq: 1,710700000 GHz Radio Std: None Trig: Free Run Counts:30.0 k/1.00 Mpt CenterFreq: 1.710700000 GHz Radio Std: None Trig: Free Run Counts 990 k/1.00 Mpt er Freq 1.710700000 GHz Center Free Center Free 19.79 dBm 18.88 dBm 109 45.14 % at 0dB 49.66 % at 0dB 2.44 dB 10.0 % 2.92 dB 10.0 % 0.1 % 0.1 % 4.05 dB 5.02 dB 1.0 % 1.0 % CF Step 5.000000 MHz Man 4.76 dB 5.83 dB 0.1 % 0.1% 0.01 % 0.01 % 0.01 % 0.01% 6.14 dB 5.09 dB 0.001 % 0.001 % 6.26 dB -- dB Freq Offse 0.0001 % — dB Peak 5.12 dB 0.0001 % --- dB Peak 6.32 dB 0.001 % 0.001% 24.91 dBm 25 20 dBm 0.0001 % 0 dB Info BW 5.0000 MHz 0.0001 % 0 dB Info BW 5.0000 MHz 1.4MHz / 64QAM / LCH 1.4MHz / QPSK / MCH Center Freq: 1.710700000 GHz Radio Std: None Trig: Free Run Counts:930 k/1.00 Mpt Center Free; 1.732600000 GHz Radio Std: None Trig: Free Run Counts: 15.0 k/1.00 Mpt Average Power Average Power Center Free Center Free 17.87 dBm 18.97 dBm 109 45.26 % at 0dB 45.18 % at 0dB 2.60 dB 10.0 % 2.94 dB 10.0 % 0.1 % 0.1 % 5.04 dB 4.46 dB 1.0 % 1.0 % CF Step 5.000000 MHz Man 0.1% 5.77 dB 0.1% 5.39 dB 0.01 % 0.01 % 0.01 % 0.01 % 5.72 dB 6.04 dB 0.001 % 6.13 dB 0.001 % 0.001 % — dB 0.0001 % — dB Freq Offse 0.0001 % -- dB 0.001% 0.001% 6.19 dB 24.06 dBm 5.72 dB Peak 24 69 dBm 0.0001 9 0.0001 % 0 dB Info BW 5.0000 MHz 1.4MHz / 16QAM / MCH 1.4MHz / 64QAM / MCH Center Freq. 1.732500000 GHz Radio Std: None Trig: Free Run Counts:930 k/1.00 Mpt Center Free, 1.732500000 GHz Radio Std: None Trig: Free Run Counts:975 k/1.00 Mpt #Atten: 10 dB Center Freq 1.732500000 GHz enter Freq 1.732500000 GHz Center Fre Center Fred 18.71 dBm 18.15 dBm 44.67 % at 0dB 10 % 44.47 % at 0dB 1% 2.96 dB 100% 2.95 dB 100% 0.1 % 0.1 % 5.09 dB 1.0 % 5.07 dB 1.0 % CF Step 5.000000 MHz Mar CF Ste 5.000000 5.91 dB 5.92 dB 0.1% 0.1% 0.01 % 0.01 % 0.01 % 6.26 dB 0.001 % 6.38 dB 6.23 dB 0.01% 0.001 % 6.36 dB Freq Offs 0.0001 % — dB Peak 6.42 dB 24.57 dBm 0.0001 % — dB Peak 6.42 dB 25.13 dBm 0.001 % 0.001% 0.0001 % 0 dB Info BW 5.0000 MHz 0.0001 % 0 dB Info BW 5.0000 MHz





#### 1.4MHz / QPSK / HCH 1.4MHz / 16QAM / HCH Center Freq: 1.754300000 GHz Radio Std: None Trig: Free Run Counts: 950 k/1.00 Mpt Center Free 1.754300000 GHz Radio Std: None This: Free Run Counts: 1.00 MH.00 Mpt Atten: 1.0 dB Average Power Center Free Center Fred 18.95 dBm 18.13 dBm 109 49.06 % at 0dB 44.32 % at 0dB 2.54 dB 10.0 % 2.97 dB 10.0 % 0.1 % 0.1 % 4.25 dB 5.19 dB 1.0 % 1.0 % 0.1% 5.05 dB 0.1% 6.13 dB 0.01 % 0.01 % 0.01 % 5.40 dB 0.01 % 6.73 dB 0.001 % 5.64 dB 0.001 % 6.93 dB Freq Offse 0.0001 % -- dB 0.0001 % 6.98 dB 0.001 % 0.001 % Peak 5.75 dB 24.70 dBm 6.99 dB 25.12 dBm 0.0001 % 0 dB Info BW 5.0000 MHz 20 dB 20 dB 1.4MHz / 64QAM / HCH Center Freq: 1.754300000 GHz Radio Std: None Trig: Free Run Counts 990 k/1.00 Mpt Skitter: 10 dG Center Freq 1.754300000 GHz Center Fred 1.754300000 GH: 17.71 dBm 44.43 % at 0dB 10% 10.0 % 2.99 dB 0.1 % 5.20 dB 1.0 % 6.15 dB 0.1% 0.01 % 0.01 % 6.68 dB 0.001 % 6.89 dB Freq Offsi 0.0001 % --- dB Peak 6.98 dB 24.69 dBm 0.001 %





