





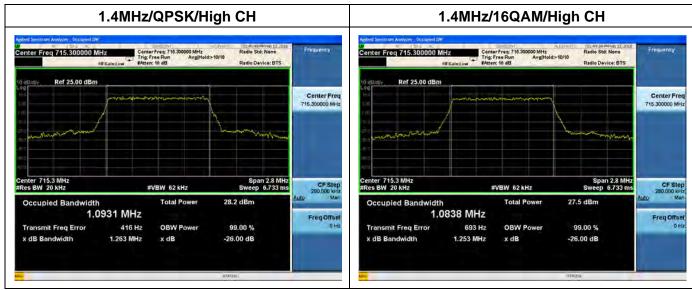
LTE Band 12, BW: 1.4MHz					
212 3411		QP	SK	16QAM	
Channel	Frequency	99% Bandwidth	26dB Bandwidth	99% Bandwidth	26dB Bandwidth
	(MHz)	(MHz)	(MHz)	(MHz)	(MHz)
23017	699.7	1.0831	1.249	1.0858	1.253
23095	707.5	1.0895	1.253	1.0853	1.245
23173	715.3	1.0931	1.263	1.0838	1.253
LTE Band	d 12, BW: 3N	1Hz			
	Fraguenay	QP	SK	160	QAM
Channel	Frequency (MHz)	99% Bandwidth	26dB Bandwidth	99% Bandwidth	26dB Bandwidth
	(IVITIZ)	(MHz)	(MHz)	(MHz)	(MHz)
23025	700.5	2.6903	2.932	2.6818	2.897
23095	707.5	2.6825	2.914	2.6900	2.931
23165	714.5	2.6870	2.891	2.6884	2.939
LTE Band	d 12, BW: 5N	lHz			
	F	QPSK		160	QAM
Channel	Frequency	99% Bandwidth	26dB Bandwidth	99% Bandwidth	26dB Bandwidth
	(MHz)	(MHz)	(MHz)	(MHz)	(MHz)
23035	701.5	4.4795	4.991	4.4864	4.964
23095	707.5	4.4940	5.003	4.4865	4.933
23165	714.5	4.4955	4.931	4.4760	4.921
LTE Band	d 12, BW: 10	MHz			
	Eroguepov	QPSK		16QAM	
Channel	Frequency	99% Bandwidth	26dB Bandwidth	99% Bandwidth	26dB Bandwidth
	(MHz)	(MHz)	(MHz)	(MHz)	(MHz)
23060	704.0	8.9765	9.884	8.9652	9.827
23095	707.5	8.9587	9.986	8.9551	9.819
23130	711.0	8.9933	9.965	8.9940	9.802



LTE Band 12 99%&26dB Bandwidth 1.4MHz/QPSK/Low CH 1.4MHz/16QAM/Low CH Ref 25,00 dBm Ref 25,00 dBm Center Freq Center Freq CF Step Occupied Bandwidth Occupied Bandwidth 27.7 dBm 1.0831 MHz 1.0858 MHz Freq Offse Freq Offse Transmit Freq Error 2.723 kHz **OBW Power** 99.00 % Transmit Freq Error 1.340 kHz **OBW Power** 99.00 % y dB Randwidth 1.249 MHz x dB -26.00 dB y dB Bandwidth 1.253 MHz x dB -26.00 dB 1.4MHz/QPSK/Mid CH 1.4MHz/16QAM/Mid CH Radio Device: BTS Ref 25,00 dBm Ref 25,00 dBm Center Freq 707.500000 MHz Center Freq 707.500000 MHz enter 707.5 MHz Res BW 20 kHz Span 2.8 MH veep 6.733 m enter 707.5 MHz Res BW 20 kHz Span 2.8 MH: /eep 6.733 m CF Step CF Step #VBW 62 kHz #VBW 62 kHz Total Power 1.0895 MHz 1.0853 MHz Transmit Freg Error -1.566 kHz **ORW Power** 99.00 % Transmit Freg Error 2 884 kHz ORW Power 99.00 % 1.253 MHz 1.245 MHz x dB Bandwidth x dB -26.00 dB x dB Bandwidth x dB -26.00 dB





















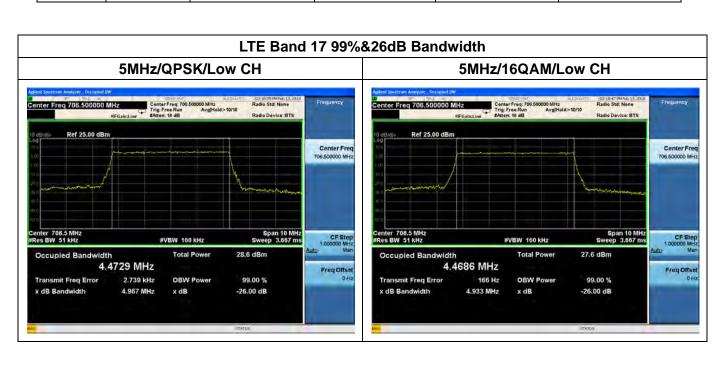






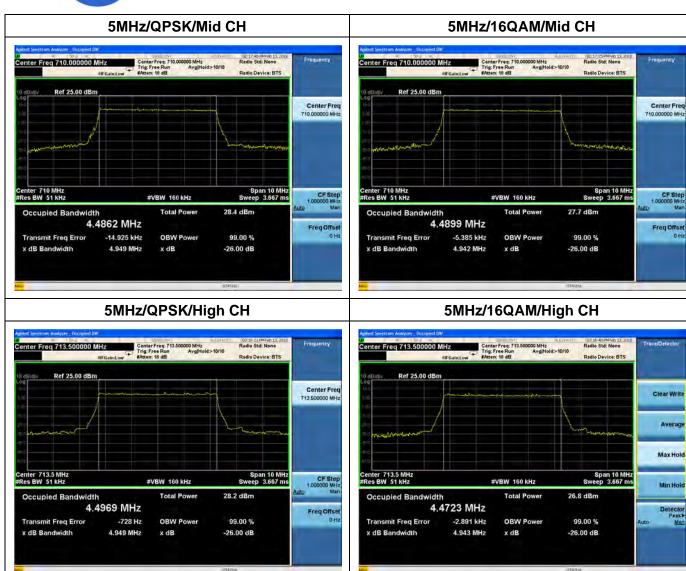


LTE Band	LTE Band 17, BW: 5MHz					
		QPSK		16QAM		
Channel	Frequency	99% Bandwidth	26dB Bandwidth	99% Bandwidth	26dB Bandwidth	
	(MHz)	(MHz)	(MHz)	(MHz)	(MHz)	
23755	706.5	4.4729	4.967	4.4686	4.933	
23790	710.0	4.4862	4.949	4.4899	4.942	
23825	713.5	4.4969	4.949	4.4723	4.943	
LTE Band	d 17, BW: 10	MHz				
	Fraguanay	QPSK		16QAM		
Channel	Frequency	99% Bandwidth	26dB Bandwidth	99% Bandwidth	26dB Bandwidth	
	(MHz)	(MHz)	(MHz)	(MHz)	(MHz)	
23780	709.0	8.9641	9.909	8.9892	9.799	
23790	710.0	8.9720	9.899	8.9832	9.834	
23800	711.0	8.9754	9.825	8.9812	9.733	



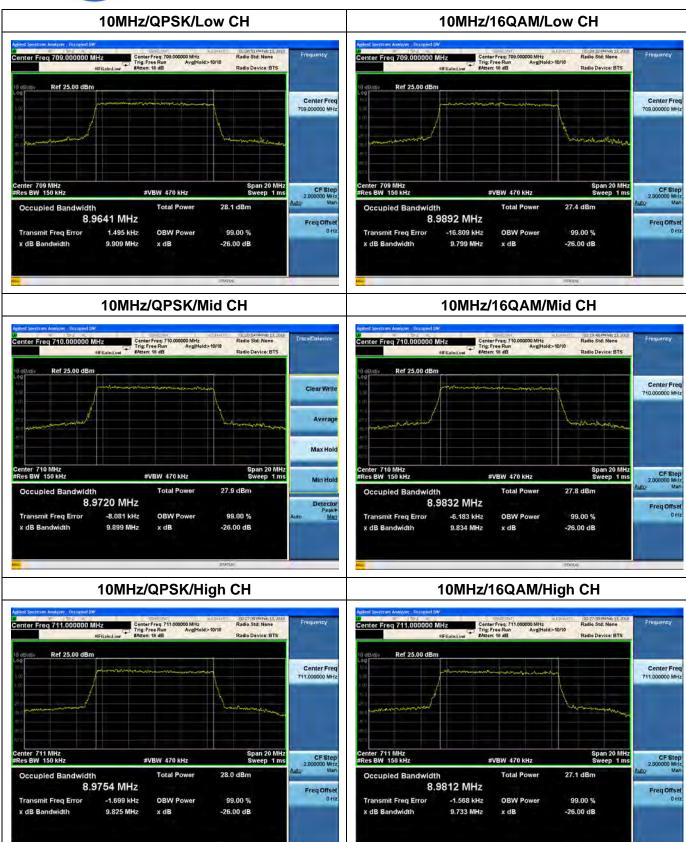
















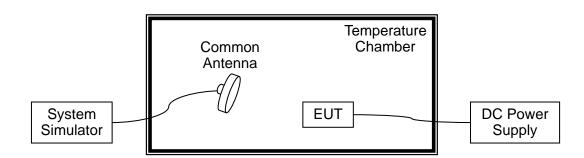
2.3. Frequency Stability

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 3.6VDC, which are specified by the applicant; the normal temperature here used is 20°C. The frequency deviation limit is ±2.5ppm.



The testing was performed using one RB and Bandwidth setting for each band.

LTE Band 2 – QPSK - Channel 18900 – Frequency 1880.0MHz – RB 6/0						
	Limit: 1880.0MHz*1ppm=1880.0Hz					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Result		
100		-30	10.10			
100		-20	-12.12			
100		-10	7.37			
100		0	9.28			
100	3.8V	+10	8.10			
100		+20	7.02	PASS		
100		+30	-13.35			
100		+40	8.37			
100		+50	7.32			
115	4.35V	+20	-12.20			
85	3.6V	+20	10.45			

LTE Ba	LTE Band 4 – QPSK - Channel 20175 – Frequency 1732.5MHz – RB 6/0					
	Limit: 1732.5MHz*2.5ppm=4331.25Hz					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Result		
100		-30	14.15			
100		-20	-8.07			
100		-10	11.42			
100		0	13.33			
100	3.8V	+10	12.15			
100		+20	11.07	PASS		
100		+30	-9.30			
100		+40	12.42			
100		+50	11.37			
115	4.35V	+20	-8.15			
85	3.6V	+20	14.50			





LTE Band 7 – QPSK - Channel 21100 – Frequency 2535MHz – RB 25/0				
	Limit: 2	2535MHz*2.5ppn	n=6337.5Hz	
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Result
100		-30	8.44	
100		-20	-13.78	
100		-10	5.71	
100		0	7.62	
100	3.8V	+10	6.44	
100]	+20	5.36	PASS
100]	+30	-15.01	
100]	+40	6.71	
100]	+50	5.66]
115	4.35V	+20	-13.86]
85	3.6V	+20	8.79]

LTE Band 12 – QPSK - Channel 23095 – Frequency 707.5MHz – RB 6/0						
	Limit: 707.5 MHz*2.5ppm=1768.75Hz					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Result		
100		-30	13.44			
100		-20	-8.78			
100		-10	10.71			
100		0	12.62			
100	3.8V	+10	11.44			
100		+20	10.36	PASS		
100		+30	-10.01			
100		+40	11.71			
100		+50	10.66			
115	4.35V	+20	-8.86			
85	3.6V	+20	13.79			





LTE Ban	LTE Band 17 – QPSK - Channel 23790 – Frequency 710MHz – RB 25/0				
	Limit	: 710MHz*2.5ppı	m=1775Hz		
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Result	
100		-30	11.89		
100		-20	-10.33		
100		-10	9.16		
100		0	11.07		
100	3.8V	+10	9.89		
100		+20	8.81	PASS	
100		+30	-11.56		
100		+40	10.16		
100		+50	9.11		
115	4.35V	+20	-10.41		
85	3.6V	+20	12.24		





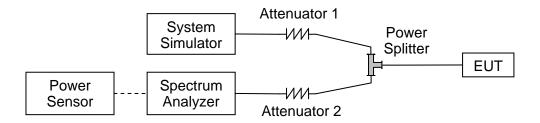
2.4. Peak to Average Radio

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.

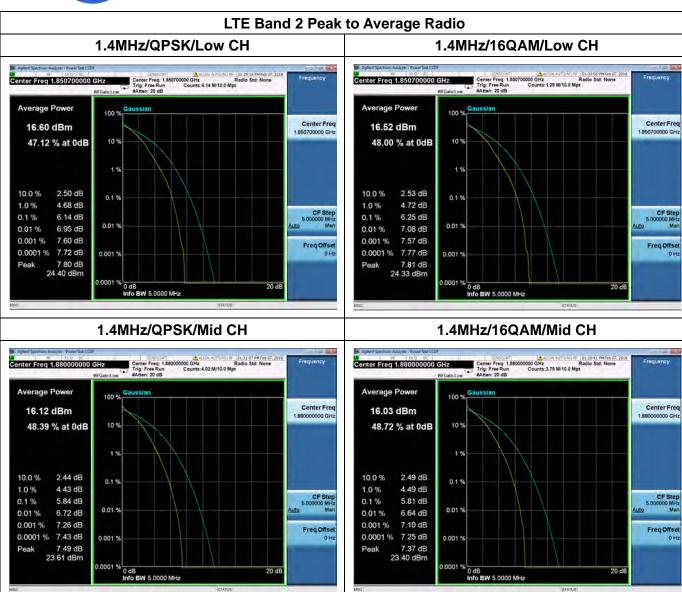
2.4.4. Test Result

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

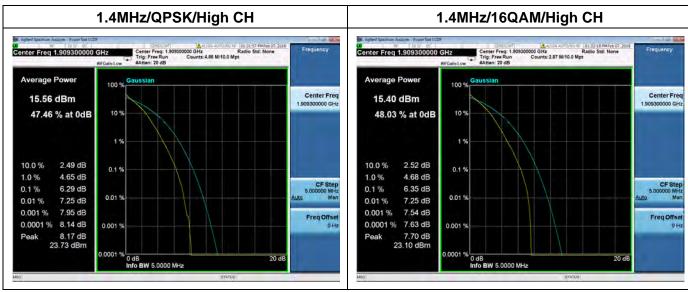


LTE Band	d 2, BW: 1.4	ИНZ				
	Frequency	Peak to Average Radio(dB)				
Channel	(MHz)	QPSK	16QAM			
18607	1850.7	6.14	6.25			
18900	1880.0	5.84	5.81			
19192	1909.2	6.29	6.35			
LTE Band	d 2, BW: 3M					
Channel	Frequency	Peak to Average Radio(dB)				
Chamei	(MHz)	QPSK	16QAM			
18615	1851.5	6.03	6.11			
18900	1880.0	5.98	6.07			
19184	1908.4	6.04	6.10			
LTE Band	d 2, BW: 5M	l z				
Channel	Frequency	Peak to Avera	ge Radio(dB)			
Chame	(MHz)	QPSK	16QAM			
18625	1852.5	6.03	6.10			
18900	1880.0	5.89	6.00			
19175	1907.5	6.03	6.07			
LTE Band	d 2, BW: 10N	1Hz				
Channel	Frequency	Peak to Avera	ge Radio(dB)			
Charmer	(MHz)	QPSK	16QAM			
18650	1855.0	4.26	4.25			
18900	1880.0	4.65	4.75			
19150	1905.0	4.72	4.85			
LTE Band	d 2, BW: 15N	lHz				
Channel	Frequency	Peak to Avera	ge Radio(dB)			
Chamie	(MHz)	QPSK	16QAM			
18675	1857.5	5.72	5.84			
18900	1880.0	5.72	5.82			
19125	1902.5	5.28	5.82			
LTE Band	d 2, BW: 20N	1Hz				
Channel	Frequency	Peak to Avera	ge Radio(dB)			
CHAITHE	(MHz)	QPSK	16QAM			
18700	1860.0	6.58	6.55			
18900	1880.0	6.45	6.50			
19100	1900.0	6.45	6.51			



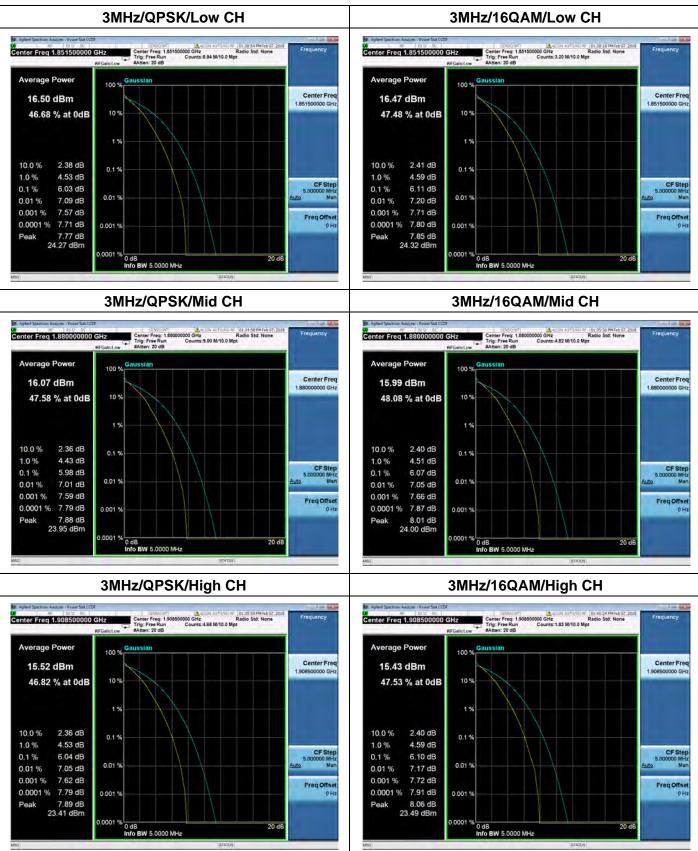






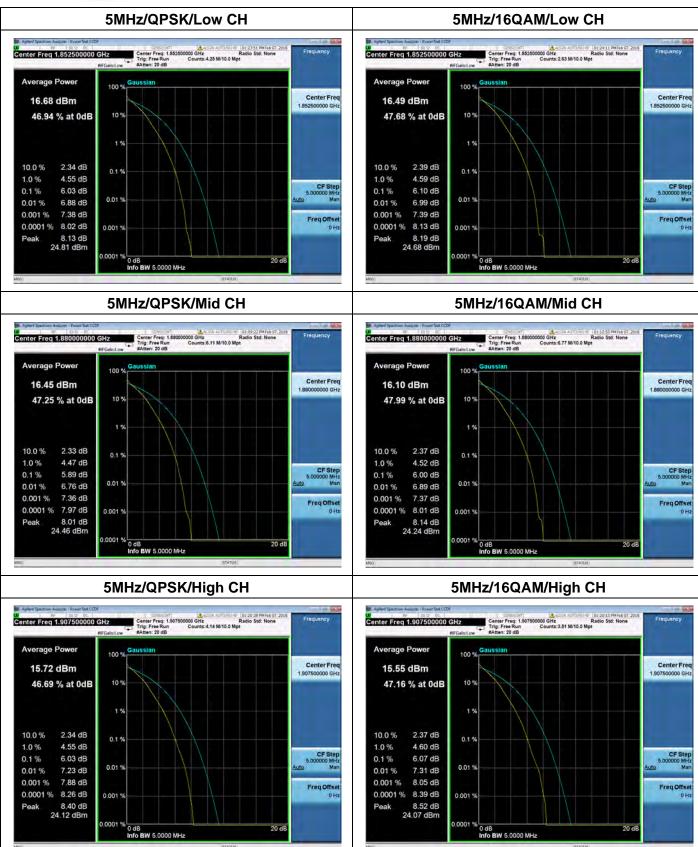






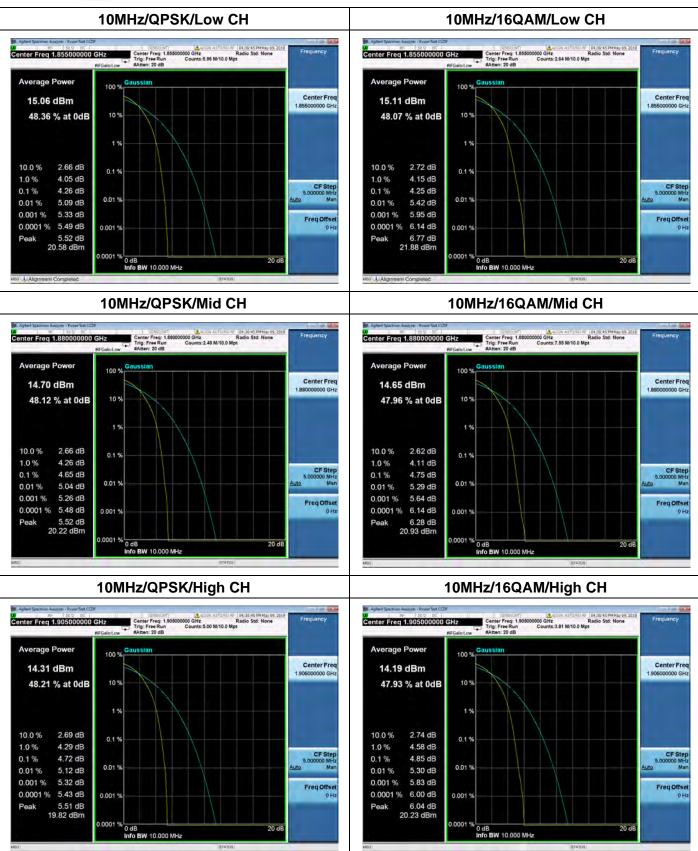






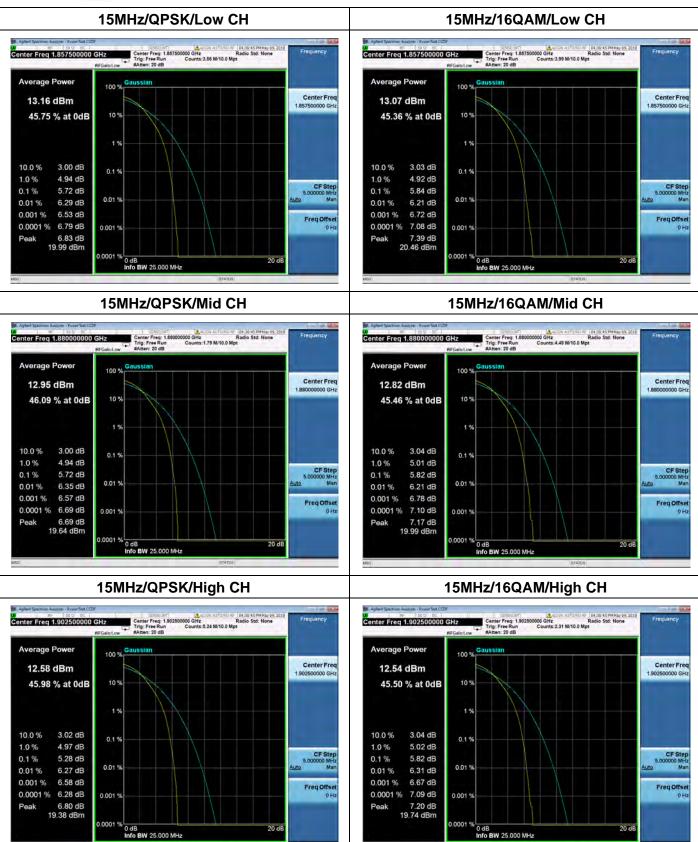






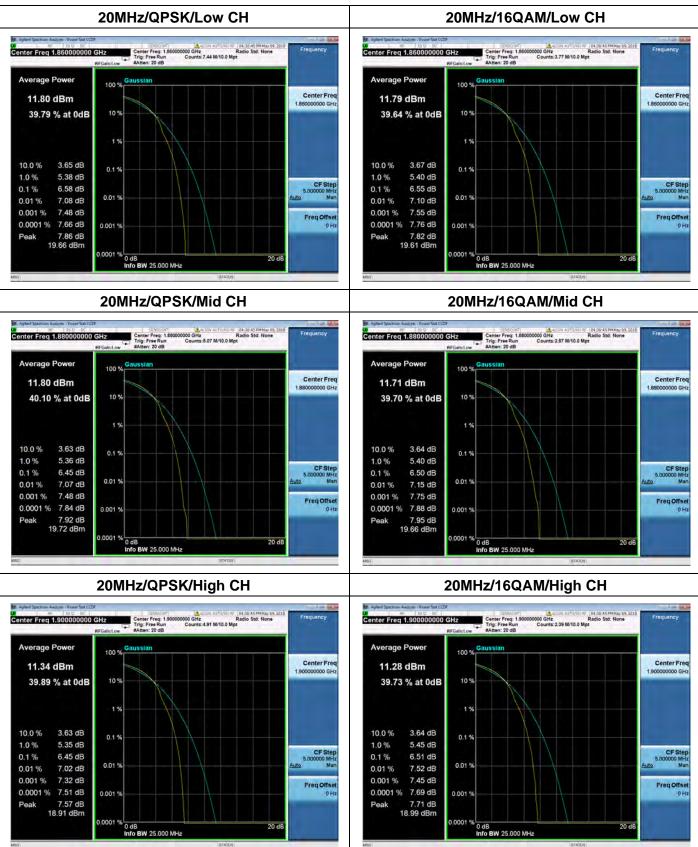














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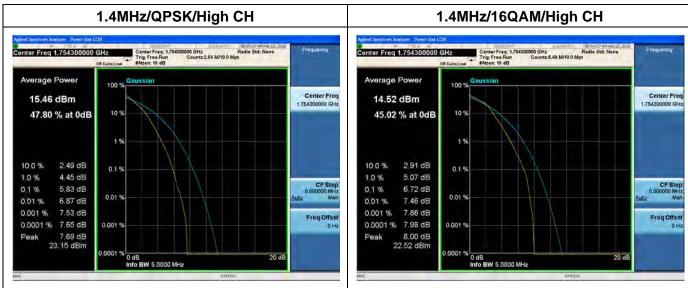


LTE Band	d 4, BW: 1.4I	ИНz			
Channel	Frequency	Peak to Aver	age Radio(dB)		
Onamor	(MHz)	QPSK	16QAM		
18607	1850.7	5.97	6.72		
18900	1880.0	5.98	6.82		
19192	1909.2	5.83	6.72		
LTE Band	d 4, BW: 3MI	l z			
Channel	Frequency	Peak to Aver	age Radio(dB)		
Chame	(MHz)	QPSK	16QAM		
18615	1851.5	5.86	6.54		
18900	1880.0	6.11	6.92		
19184	1908.4	5.83	6.50		
LTE Band	d 4, BW: 5M	-lz			
Channel	Frequency	Peak to Aver	age Radio(dB)		
Channel	(MHz)	QPSK	16QAM		
18625	1852.5	5.87	6.39		
18900	1880.0	6.38	6.71		
19175	1907.5	6.15	6.50		
LTE Band	d 4, BW: 10M	IHz			
Channal	Frequency	Peak to Average Radio(dB)			
Channel	(MHz)	QPSK	16QAM		
18650	1855.0	5.55	6.15		
18900	1880.0	4.72	6.54		
19150	1905.0	4.56	6.58		
LTE Band	d 4, BW: 15M	IHz			
Channal	Frequency	Peak to Aver	age Radio(dB)		
Channel	(MHz)	QPSK	16QAM		
18675	1857.5	5.75	6.05		
18900	1880.0	5.97	6.81		
19125	1902.5	5.68	6.59		
LTE Band	d 4, BW: 20N	IHz			
Ob a mad	Frequency	Peak to Aver	rage Radio(dB)		
Channel	(MHz)	QPSK	16QAM		
18700	1860.0	6.59	7.15		
18900	1880.0	6.45	7.15		
19100	1900.0	6.73	7.15		
	•				



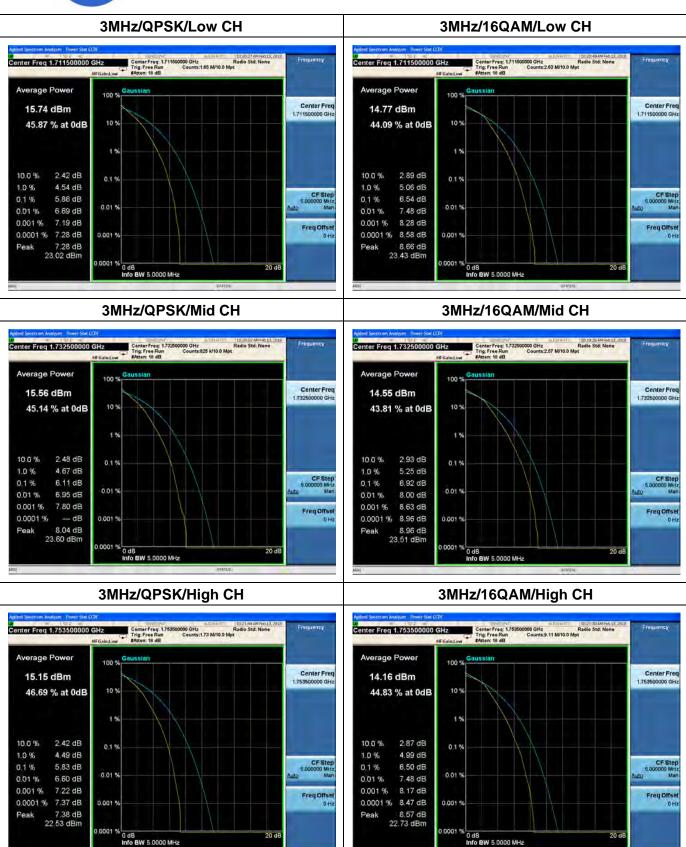
LTE Band 4 Peak to Average Radio 1.4MHz/QPSK/Low CH 1.4MHz/16QAM/Low CH Center Freq: 1.710700000 GHz Radio Std: None Trig: Free Run Counts: 2.04 M/10.0 Mpt #Atten: 18 dB Center Freq: 1.710700000 GHz Radio Std: None Trig: Free Run Counts: 2:10 M/10.0 Mpt Center Freq 1.710700000 GHz Center Freq 1.710700000 GHz Average Power Average Power Center Freq 1.710700000 GHz Center Freq 16.10 dBm 15.19 dBm 10 % 43.93 % at 0dB 10 % 47.00 % at 0dB 1% 1% 2.58 dB 2.93 dB 10.0 % 10.0 % 0.1 % 0.1 % 4.59 dB 5.19 dB 1.0 % 1.0 % CF Step 5.000000 MHz Man CF Step 5.000000 MH: 5.97 dB 0.1 % 0.1 % 6,72 dB 0.01 % 0.01 % 0.01 % 6.78 dB 0.01 % 7.61 dB 0.001 % 7.38 dB 0.001 % 7.83 dB Freq Offse Freq Offse 0.0001 % 7.49 dB 0.001 0.0001 % 7.91 dB 0.001 % 7.54 dB 7.96 dB 23.15 dBm Peak Peak 23.64 dBm 0.0001 % 0 dB Info BW 5.0000 MHz 0.0001 % 0 dB Info BW 5.0000 MHz 1.4MHz/QPSK/Mid CH 1.4MHz/16QAM/Mid CH Center Freq: 1.732500000 GHz Radio Std: None Trig: Free Run Counts: 8.79 M/10.0 Mpt Center Freq: 1.732500000 GHz Radio Std: None Average Power Average Power 100 % 100 % Center Freq 1.732500000 RH-Center Freq 15.88 dBm 14.98 dBm 44.22 % at 0dB 10 % 46.25 % at 0dB 1% 1% 10.0 % 2.61 dB 10.0 % 2.98 dB 0.1 % 4.68 dB 10% 5.24 dB 10% CF Step 5.000000 MH3 Mar CF Step 5.000000 MH: 0.1 % 5,98 dB 0.1 % 6,82 dB 0.01 % 0.01 % 0.01 % 6.69 dB 0.01 % 7.82 dB 0.001 % 7.01 dB 0.001 % 8.18 dB Freq Offse Freq Offse 0.0001 % 7.17 dB Peak 7.18 dB 0.001 9 0.0001 % 8.27 dB 0.001 9 8.29 dB 23.27 dBm Peak 23.06 dBm 0,0001 % 0 dB Info BW 5,0000 MHz 0 dB Info BW 5.0000 MHz 0.0001 % 20 dB 20 dB





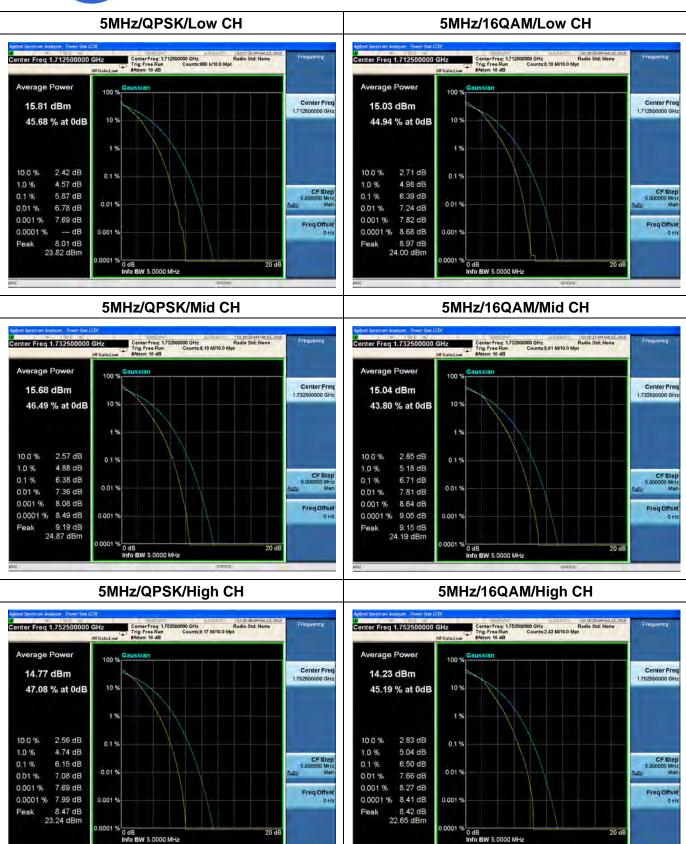
















10MHz/QPSK/Low CH 10MHz/16QAM/Low CH Center Freq: 1.715000000 GHz Radio Std: None Trig: Free Run Counts 9.52 M/10.0 Mpt Center Freq 1.715000000 GHz Average Power Average Power Center Freq 1,715000000 GHz Center Freq 1.715000000 GHz 14.08 dBm 13.63 dBm 10 % 10 % 45.88 % at 0dB 43.33 % at 0dB 1% 1% 10.0 % 2.95 dB 10.0 % 3.05 dB 0.1 % 0.1 % 4 65 dB 5 07 dB 1.0 % 1.0 % CF Step 5.000000 MH CF Step 5,000000 MH 0.1% 5,55 dB 0.1% 6.15 dB 0.01 % 0.01 % 0.01 % 6.13 dB 0.01 % 6.69 dB 0.001 % 6.65 dB 0.001 % 7.22 dB Freq Offse Freq Offse 0.0001 % 6.91 dB 0.0001 % 7.40 dB 0.001 0.001 7.46 dB 21.54 dBm 7.43 dB Peak Peak 21.06 dBm 0.0001 % 0.0001 % 0 dB Info BW 10.000 MHz 0 dB Info BW 10.000 MHz 10MHz/QPSK/Mid CH 10MHz/16QAM/Mid CH Center Freq: 1.732800000 GHz Radio Std: None Trig: Free Run Counts:2.48 M/10.0 Mpt Center Freq: 1.732500000 GHz Radio Std: None Trig: Free Run Counts: 1.94 M/10.0 Mpt Average Power Average Power 100 % 100 % Center Freq Center Freq 14.55 dBm 13 60 dBm 10 % 10 % 47.99 % at 0dB 43.15 % at 0dB 1 % 1% 10.0 % 2.69 dB 10.0 % 3.08 dB 0.1 % 1.0 % 4.57 dB CF Step 5,000000 MHz Man 1.0 % 5.13 dB CF Step 5.000000 MH3 Mar 4.72 dB 6.54 dB 01% 0.1 % 0.01 % 0.01 % 0.01 % 5.14 dB 0.01 % 6.83 dB 0.001 % 5.41 dB 0.001 % 7.15 dB Freq Offse Freq Offse 0.0001 % 5.51 dB 0.0001 % 7.32 dB Peak 7,33 dBm 20.93 dBm 5.51 dB 20.06 dBm Peak 0.0001 % 0 dB Info BW 10.000 MHz 0.0001 % 20 dB 0 dB Info BW 10.000 MHz 20 dB 10MHz/QPSK/High CH 10MHz/16QAM/High CH Average Power Average Power 100 % 100 % Center Freq Center Freq 14.35 dBm 13.36 dBm 10 % 48.21 % at 0dB 43,26 % at 0dB 1% 1% 2.66 dB 3.05 dB 10.0 % 10.0 % 0.1 % 4.06 dB CF Step 5.000000 MH 5.06 dB 1.0 % 1.0 % CF Step 4.56 dB 6.58 dB 0.1% 0.1% 0.01 % 0.01 % 5.03 dB 6.73 dB 0.01 % 0.01 % 0.001 % 5.58 dB 0.001 % 7.15 dB Freq Offse 0.0001 % 5.39 dB 0.0001 % 7.21 dB Peak 7,24 GB 20,60 dBm 5.41 dB 19.76 dBm Peak 0.0001 % 0.0001 % 20 dB 0 dB Info BW 10.000 MHz 0 dB Info BW 10.000 MHz





15MHz/QPSK/Low CH 15MHz/16QAM/Low CH Center Freq: 17 17500000 GHz Radio Std: None Trig: Free Run Counts: 3.90 M/10.0 Mpt #Atten: 18 dB Center Freq: 1.7 17500000 GHz Radio Std: None Trig: Free Run Counts: 6.47 M/10.0 Mpt Center Freq 1.717500000 GHz Average Power Average Power Center Freq 1.717500000 GHz Center Freq 1.717500000 GHz 12.88 dBm 12.55 dBm 10% 10 % 45.89 % at 0dB 43.95 % at 0dB 1% 1% 10.0 % 3.00 dB 10.0 % 3.15 dB 0.1 % 0.1 % 4 91 dB 5 15 dB 1.0 % 1.0 % CF Step 5.000000 MH CF Step 5,000000 MHz 0.1% 5.75 dB 0.1% 6.05 dB 0.01 % 0.01 % 0.01 % 6.20 dB 0.01 % 6.75 dB 0.001 % 6.61 dB 0.001 % 7.59 dB Freq Offse Freq Offse 0.0001 % 6.74 dB 0.0001 % 7.72 dB 0.001 0.001 6.77 dB 7.77 dB Peak Peak 19.65 dBm 20.32 dBm 0.0001 % 0.0001 % 0 dB Info BW 25.000 MHz 0 dB Info BW 25.000 MHz 15MHz/QPSK/Mid CH 15MHz/16QAM/Mid CH Center Freq: 1.732500000 GHz Radio Std: None Trig: Free Run Counts 2.55 M/10.0 Mpt Average Power Average Power 100 % 100 % Center Freq Center Freq 12.41 dBm 11.67 dBm 10 % 10 % 44.45 % at 0dB 42.02 % at 0dB 1 % 1% 10.0 % 3.09 dB 10.0 % 3.26 dB 0.1 % 1.0 % 5.07 dB CF Step 5,000000 MHz Man 1.0 % 5.56 dB CF Step 5.000000 MH3 Mar 6.81 dB 5.97 dB 01% 0.1 % 0.01 % 0.01 % 0.01 % 6.53 dB 0.01 % 7.53 dB 0.001 % 7.15 dB 0.001 % 8.22 dB Freq Offse Freq Offse 0.0001 % 7.69 dB 0.0001 % 8,70 dB 8,56 dB 20,97 dBm Peak 8.74 dB 20 41 dBm Peak 0.0001 % 0 dB Info BW 25,000 MHz 0.0001 % 20 dB 0 dB Info BW 25,000 MHz 20 dB 15MHz/QPSK/High CH 15MHz/16QAM/High CH Center Freq: 1,747500000 GHz Radio Std: None Trig: Free Run Counts: 2.61 M/10.0 Mpt #Atten: 10 dB Average Power Average Power 100 % 100 % Center Freq Center Freq 12.70 dBm 11.67 dBm 10 % 46.28 % at 0dB 42.26 % at 0dB 1% 1% 3.24 dB 10.0 % 2.98 dB 10.0 % 0.1% 4.89 dB CF Step 5.000000 MH 5.54 dB 1.0 % 1.0 % CF Step 5,68 dB 6.59 dB 0.1% 0.1 % 0.01 % 0.01 % 6.59 dB 7.59 dB 0.01 % 0.01 % 0.001 % 6.26 dB 0.001 % 8.15 dB Freq Offse 0.0001 % 6.45 dB 0.0001 % 8,27 dB 6.50 dB Peak 8.31 dB 19.98 dBm Peak 19.20 dBm 0.0001 % 0.0001 % 20 dB 0 dB Info BW 25.000 MHz 0 dB Info BW 25,000 MHz





20MHz/QPSK/Low CH 20MHz/16QAM/Low CH Center Freq: 1.720000000 GHz Radio Std: None Trig: Free Run Counts: 990 k/10.0 Mpt #Atten: 18 dB Center Freq: 1.720000000 GHz Trig: Free Run Counts: 1.65 M/10.0 Mpt Saften: 14 AP Center Freq 1.720000000 GHz Average Power Average Power Center Freq Center Freq 1,720000000 GHz 10.64 dBm 11.60 dBm 10% 10 % 39.94 % at 0dB 38.91 % at 0dB 1% 1% 10.0 % 3.62 dB 10.0 % 3.73 dB 0.1 % 0.1 % 5 34 dB 5.81 dB 1.0 % 1.0 % CF Step 5.000000 MH CF Step 5,000000 MHz 0.1% 6.59 dB 0.1% 7.15 dB 0.01 % 0.01 % 0.01 % 6.97 dB 0.01 % 8.01 dB 0.001 % 7.39 dB 0.001 % 8.63 dB Freq Offse Freq Offse 0.0001 % - dB 0.0001 % 9.03 dB 0.001 0.001 7.54 dB 9.04 dB Peak Peak 19.68 dBm 19.14 dBm 0.0001 % 0.0001 % 0 dB Info BW 25.000 MHz 0 dB Info BW 25.000 MHz 20MHz/QPSK/Mid CH 20MHz/16QAM/Mid CH Center Freq: 1.732200000 GHz Radio Std: None Trig: Free Run Counts:4.68 M/10.0 Mpt Center Freq: 1.732200000 GHz Trig: Free Run Counts: 270 k/10.0 Mpt Stitem: 19.48 Average Power Average Power 100 % 100 % Center Freq Center Freq 11.30 dBm 10.36 dBm 10 % 10 % 40.04 % at 0dB 38.78 % at 0dB 1 % 1% 10.0 % 3.63 dB 10.0 % 3.72 dB 0.1 % 1.0 % 5.36 dB CF Step 5,000000 MHz Man 1.0 % 5.84 dB CF Step 5.000000 MH3 Mar 6.45 dB 7.15 dB 01% 0.1 % 0.01 % 0.01 % 0.01 % 6.92 dB 0.01 % 8.18 dB 0.001 % 7.22 dB 0.001 % 8.96 dB Freq Offse Freq Offse 0.0001 % 7.42 dB 0.0001 % - dB Peak 9.06 db 19.42 dBm 7.51 dB 18.81 dBm Peak 0.0001 % 0 dB Info BW 25,000 MHz 0.0001 9 20 dB 0 dB Info BW 25,000 MHz 20 dB 20MHz/QPSK/High CH 20MHz/16QAM/High CH CenterFreq: 1.745000000 GHz Radio Std: None Trig: Free Run Counts:7.92 M/10.0 Mpt #Atten: 18 dB Average Power Average Power 100 % 100 % Center Freq Center Freq 11.04 dBm 10.43 dBm 10 % 39.06 % at 0dB 38.65 % at 0dB 1% 1% 10.0 % 3.70 dB 10.0 % 3.73 dB 0.1 % 5.56 dB CF-Step 5,000000 MHz Mar 5.82 dB 1.0 % 1.0 % CF Step 0.1% 6.73 dB 7.15 dB 0.1% 0.01 % 0.01 % 7.35 dB 8.08 dB 0.01 % 0.01 % 0.001 % 7.85 dB 0.001 % 8.62 dB Freq Offse 0.0001 % 8,29 dB 0.0001 % 8.93 dB Peak 9.00 dB 19.43 dBm 9.02 dB Peak 9.02 dB 20.06 dBm 0.0001 % 0.0001 % 20 dB 0 dB Info BW 25,000 MHz 0 dB Info BW 25.000 MHz





LTE Band	7, BW: 5MHz			
Channel	Frequency	Peak to Averaç	ge Radio(dB)	
Charine	(MHz)	QPSK	16QAM	
20775	2502.5	5.87	6.39	
21100	2535.0	6.38	6.71	
21425	2567.5	6.15	6.50	
LTE Band	7, BW: 10MHz	!		
Channel	Frequency	Peak to Averaç	ge Radio(dB)	
Chamilei	(MHz)	QPSK	16QAM	
20800	2505.0	5.55	6.15	
21100	2535.0	4.72	6.54	
21400	2565.0	4.56	6.58	
LTE Band	7, BW: 15MHz			
Channel	Frequency	Peak to Average Radio(dB)		
Chamilei	(MHz)	QPSK	16QAM	
20825	2507.5	5.75	6.05	
21100	2535.0	5.97	6.81	
21375	2562.5	5.68	6.59	
LTE Band	7, BW: 20MHz	1		
Channel	Frequency	Peak to Averaç	ge Radio(dB)	
Channel	(MHz)	QPSK	16QAM	
20850	2510.0	6.59	7.15	
21100	2535.0	6.45	7.15	
21350	2560.0	6.73	7.15	
				





LTE Band 7 Peak to Average Radio 5MHz/QPSK/Low CH 5MHz/16QAM/Low CH Center Freq: 2.502500000 GHz Radio Std: None Trig: Free Run Counts: 3.23 M/10.0 Mpt Center Freq 2.502500000 GHz Center Freq 2.502500000 GHz Average Power Average Power Center Freq Center Freq 2,502500000 GHz 12.42 dBm 12.32 dBm 10 % 48.58 % at 0dB 10 % 48.42 % at 0dB 1 % 1% 10.0 % 2.35 dB 10.0 % 2.39 dB 0.1 % 0.1 % 4.22 dB 4.29 dB 1.0 % 1.0 % CF Step CF Step 5.000000 MHz 5,29 dB 0.1 % 5,21 dB 0.1 % 0.01 % 0.01 % 0.01 % 5.92 dB 0.01 % 6.03 dB 0.001 % 6.18 dB 0.001 % 6.35 dB Freq Offse Freq Offs 0.0001 % 6.26 dB 0.001 9 0.0001 % 6.45 dB 0.001 % 6.46 dB 18.78 dBm 6.28 dB Peak Peak 18.70 dBm 0,0001 % 0 dB Info BW 5,0000 MH≥ 0.0001 % 0 dB Info BW 5.0000 MHz 5MHz/QPSK/Mid CH 5MHz/16QAM/Mid CH Center Freq: 2.535000000 GHz Radio Std: None Trig: Free Run Counts: 2.12 M/10.0 Mpt Center Freq: 2.535000000 GHz Radio Std: None Trig: Free Run Counts:4.31 M/10.0 Mpt #Atten: 18 dB Center Freq 2.535000000 GHz Average Power Average Power 100 % Center Freq Center Freq 11.97 dBm 11.98 dBm 10 % 10 % 48.20 % at 0dB 48.95 % at 0dB 1% 10.0 % 2.34 dB 10.0 % 2.38 dB 0.1 % 4.19 dB 4.21 dB CF Ster 5,000000 MH CF Step 5.000000 MHz Man 10% 10% 0.1 % 5,23 dB 0.1 % 5.27 dB 0.01 % 0.01 % 5.79 dB 0.01 % 0.01 % 5.85 dB 0.001 % 6.13 dB 0.001 % 6.08 dB Freq Offset Freq Offse 0.0001 % 6.42 dB 0.0001 % 6.49 dB 0.001 % 6.46 dB 18.43 dBm 6.51 dB Peak Peak 18.49 dBm 0,0001 % 0 dB Info BW 5,0000 MHz 0,0001 % 0 dB Info BW 5,0000 MHz 20 dB

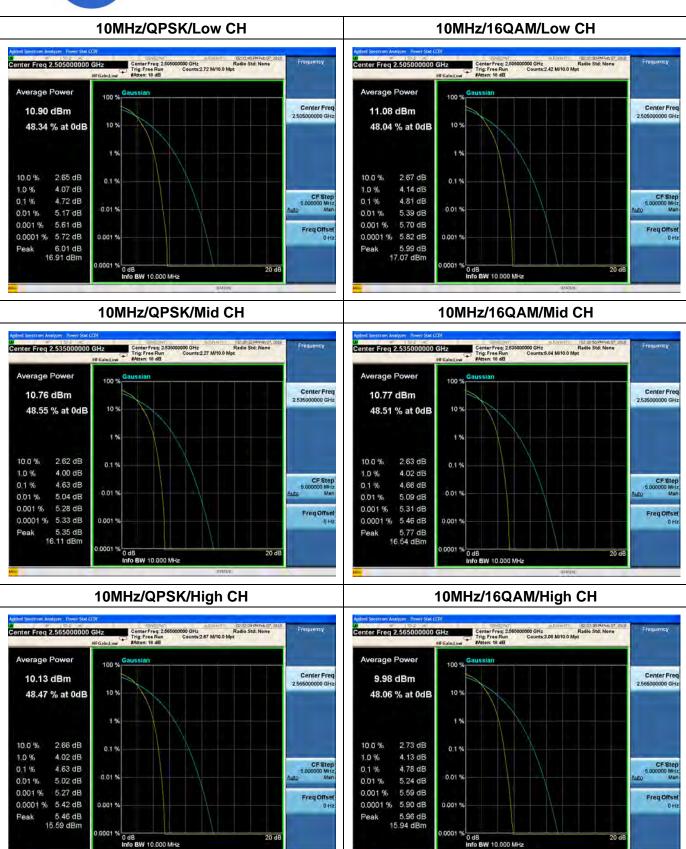






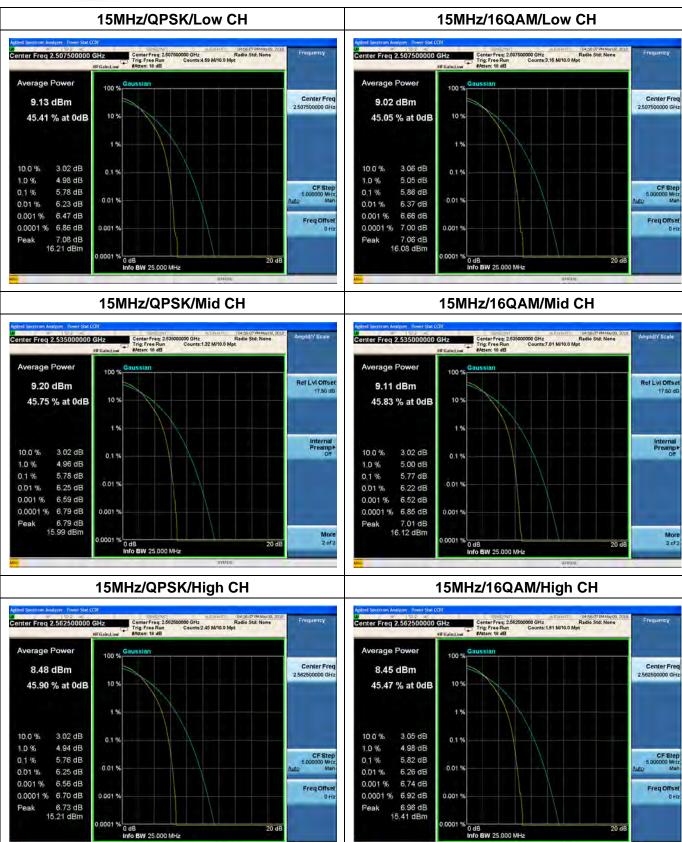






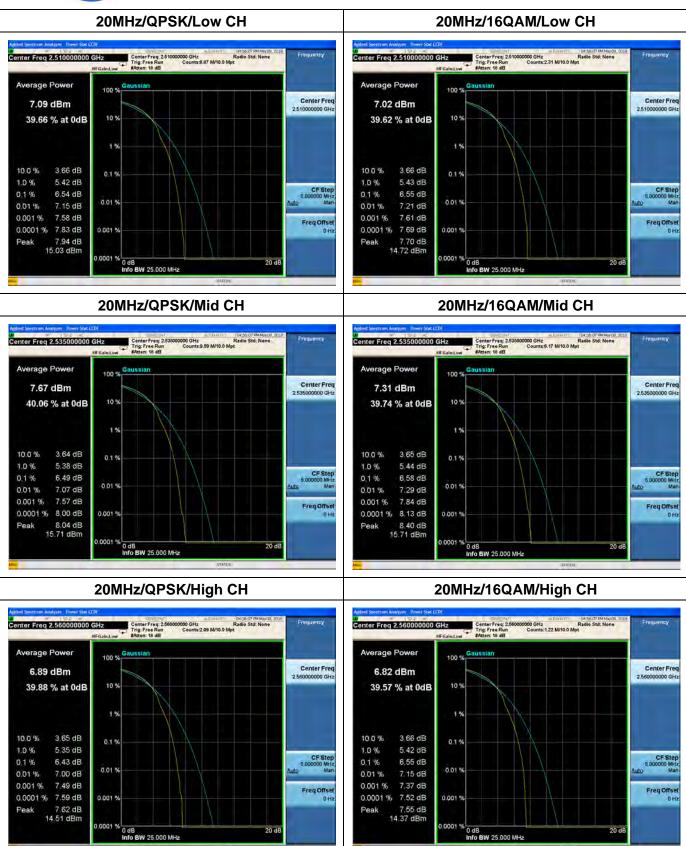














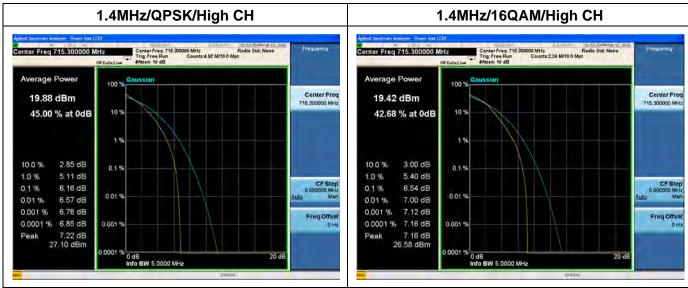


112, BW: 1.4N	ЛНZ			
Frequency	Peak to Avera	Peak to Average Radio(dB)		
(MHz)	QPSK	16QAM		
699.7	5.12	5.76		
707.5	5.72	6.26		
715.3	6.16	6.54		
1 12, BW: 3MF	łz			
Frequency	Peak to Average Radio(dB)			
(MHz)	QPSK	16QAM		
700.5	5.21	6.00		
707.5	5.72	6.04		
714.5	5.87	6.21		
1 12, BW: 5MF	łz			
Frequency	Peak to Average Radio(dB)			
(MHz)	QPSK	16QAM		
701.5	5.66	6.41		
707.5	5.73	6.45		
714.5	5.36	6.06		
112, BW: 10M	lHz			
Frequency	Peak to Average Radio(dB)			
(MHz)	QPSK	16QAM		
704.0	4.95	6.33		
707.5	4.63	6.18		
711.0	4.67	5.95		
	Frequency (MHz) 699.7 707.5 715.3 112, BW: 3MH Frequency (MHz) 700.5 714.5 112, BW: 5MH Frequency (MHz) 701.5 707.5 714.5 112, BW: 10M Frequency (MHz) 707.5 714.5 707.5 714.5 707.5 714.5 707.5 714.5	(MHz) QPSK 699.7 5.12 707.5 5.72 715.3 6.16 I 12, BW: 3MHz Peak to Average (MHz) Frequency (MHz) QPSK 700.5 5.21 707.5 5.72 714.5 5.87 I 12, BW: 5MHz Frequency (MHz) Peak to Average (MHz) 707.5 5.73 714.5 5.36 I 12, BW: 10MHz Frequency (MHz) Peak to Average (MHz) 704.0 4.95 707.5 4.63		



LTE Band 12 Peak to Average Radio 1.4MHz/QPSK/Low CH 1.4MHz/16QAM/Low CH Center Freq: 699.700000 MHz Radio Std: None Trig: Free Run Counts: 3.71 M/10.0 Mpt #Atten: 18 dB Center Freq: 899.700000 MHz Radio Std: None Trig: Free Run Counts: 5.37 M/10.0 Mpt Center Freq 699.700000 MHz Average Power Average Power Center Freq Center Freq 699.700000 MHz 20.28 dBm 19.60 dBm 10 % 10 % 48.17 % at 0dB 45.03 % at 0dB 1% 1% 10.0 % 2.67 dB 10.0 % 2.97 dB 0.1 % 0.1 % 1.0 % 4.41 dB 1.0 % 4.89 dB CF Step 5,000000 MHz Man CF Step 5.000000 MH: 5.12 dB 5,76 dB 0.1 % 0.1 % 0.01 % 0.01 % 0.01 % 5.45 dB 0.01 % 6.10 dB 0.001 % 5.58 dB 0.001 % 6.22 dB Freq Offse Freq Offse 0.0001 % 5.64 dB 0.001 0.0001 % 6.29 dB 0.001 % 6.35 dB 6.32 dB Peak Peak 25.92 dBm 26.63 dBm 0.0001 % 0 dB Info BW 5,0000 MHz 0.0001 % 0 dB Info BW 5.0000 MHz 1.4MHz/QPSK/Mid CH 1.4MHz/16QAM/Mid CH Center Freq: 707.500000 MH2 Radio Std: None Trig: Freq Run Counts: 2.03 M/10.0 Mpt #Atten: 18 dB Center Freq 707.500000 MHz Average Power Average Power 100 % 100 % Center Freq 707.500000 MHz Center Freq 20.27 dBm 19.74 dBm 10 % 10 % 45.58 % at 0dB 45.53 % at 0dB 1% 1% 10.0 % 2.61 dB 10.0 % 2.84 dB 0.1 % 4.67 dB 5.07 dB 1.0 % 10% CF Step 5.000000 MH2 Mar CF Step 5.000000 MH3 Mar 0.1 % 5.72 dB 0.1 % 6.26 dB 0.01 % 0.01 % 0.01 % 6.21 dB 0.01 % 6.72 dB 0.001 % 6.42 dB 0.001 % 6.93 dB Freq Offse Freq Offse 0.0001 % 6.52 dB 0.001 % 0.0001 % 7.06 dB 0.001 % 6.54 dB 26.81 dBm 7.09 dB Peak 26.83 dBm 0,0001 % 0 dB Info BW 5,0000 MHz 0 dB Info BW 5.0000 MHz 0.0001 % 20 dB









3MHz/QPSK/Low CH Center Freq: 700.500000 MHz Radio Std: None Tatter 18 at 18 Average Power Center Freq 20.56 dBm 10 % 45.93 % at 0dB 1% 10.0 % 2.49 dB 0.1 % 4 36 dB 1.0 % CF Step 5,000000 MH 0.1% 5.21 dB 0.01 % 0.01 % 5.58 dB 0.001 % 5.82 dB Freq Offse 0.0001 % 5.91 dB 0.001 5,92 dB 26.48 dBm Peak 0.0001 % 0 dB Info BW 5.0000 MHz

3MHz/16QAM/Low CH Center Freq: 700.500000 MHz Radio Std: None Trig: Free Run Counts: 2.48 M/10.0 Mpt Average Power Center Freq 00.500000 MHz 19.58 dBm 10% 44.00 % at 0dB 2.92 dB 0.1 % 4 99 dB CF Step 5,000000 MHz 6.00 dB 0.01 % 6.47 dB

Freq Offsel

3MHz/QPSK/Mid CH

3MHz/16QAM/Mid CH

10.0 %

1.0 %

0.1%

0.01 %

Peak

0.001 % 6.71 dB

0.0001 % 6.91 dB

6.92 dB

26.50 dBm

0.001

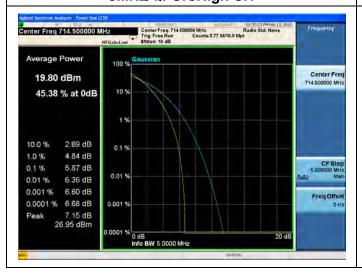
0.0001 9

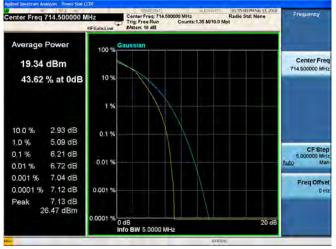




3MHz/QPSK/High CH

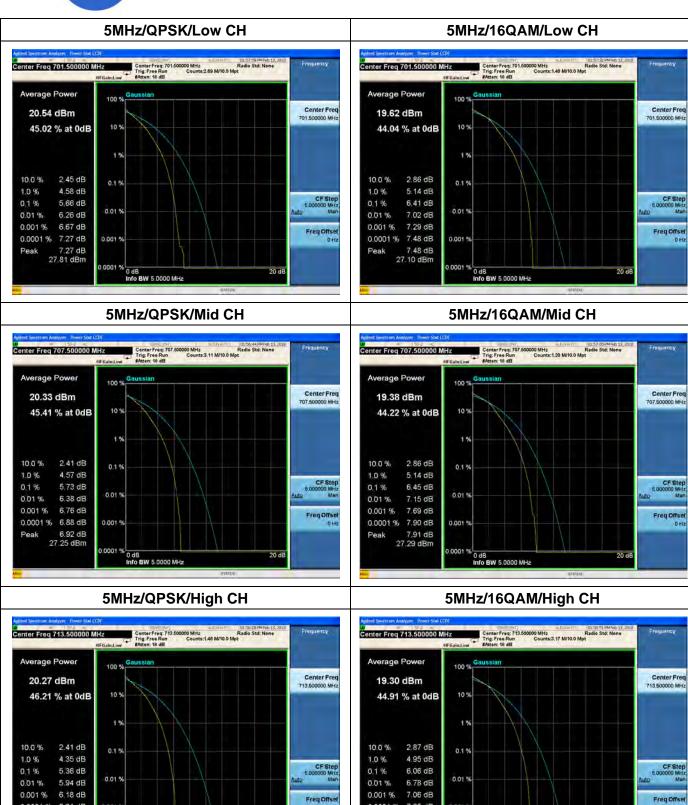
3MHz/16QAM/High CH













0.0001 % 6.31 dB

Peak

6.44 dB 26.71 dBm

0.0001 %

0 dB Info BW 5,0000 MHz 0 dB Info BW 5.0000 MHz

0.0001 %

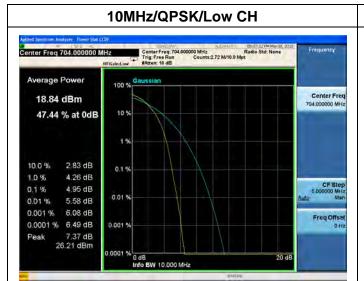
0.0001 % 7.25 dB

7,29 dB 26,59 dBm

Peak

20 dB





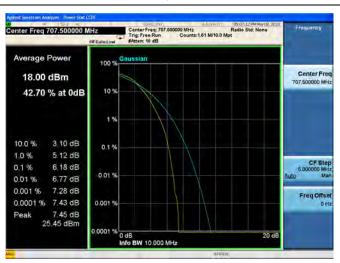
10MHz/16QAM/Low CH Center Freq: 704.000000 MHz Radio Std; None Trig: Free Run Counts:435 k/10.0 Mpt Average Power Center Freq 704.000000 MHz 18.00 dBm 10% 42.98 % at 0dB 10.0 % 3.10 dB 0.1 % 5 14 dB 1.0 % CF Step 5,000000 MHz 0.1% 6.33 dB 0.01 % 0.01 % 6.82 dB 0.001 % 7.25 dB Freq Offsel 0.0001 % - dB 0.001 7.33 dB Peak 25,33 dBm 0.0001 9

10MHz/QPSK/Mid CH

10MHz/16QAM/Mid CH

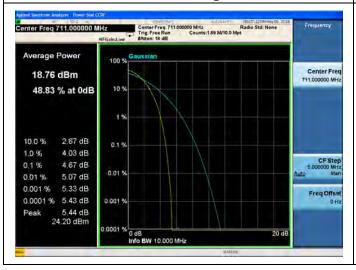
0 dB Info BW 10.000 MHz





10MHz/QPSK/High CH

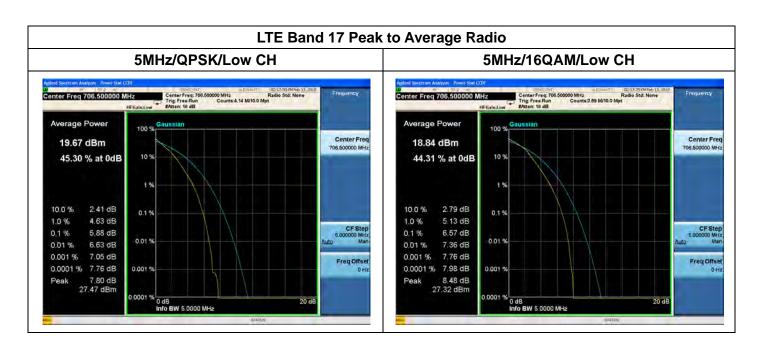
10MHz/16QAM/High CH





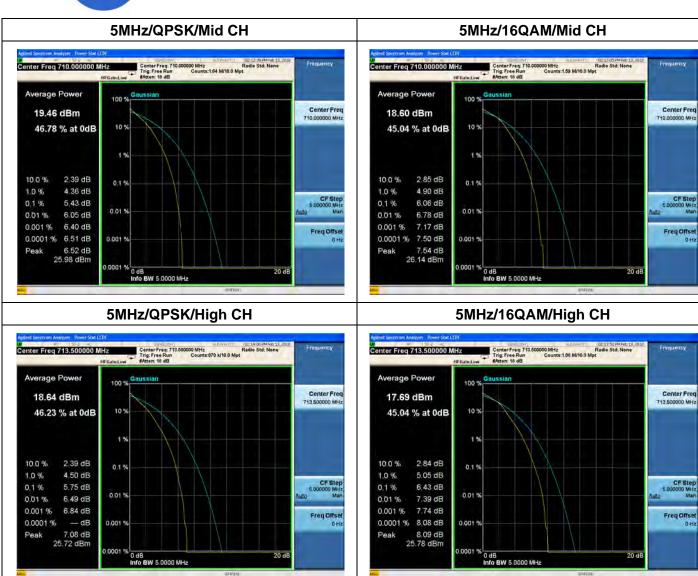


LTE Band	17, BW: 5MH	z		
Channel	Frequency	Peak to Average Radio(dB)		
	(MHz)	QPSK	16QAM	
23755	706.5	5.88	6.57	
23790	710.0	5.43	6.06	
23825	713.5	5.75	6.43	
LTE Band	1 1, BW: 10MH	z		
Channel	Frequency	Peak to Average Radio(dB)		
	(MHz)	QPSK	16QAM	
23780	709.0	4.66	6.09	
23790	710.0	5.54	6.10	
23800	711.0	4.65	6.09	



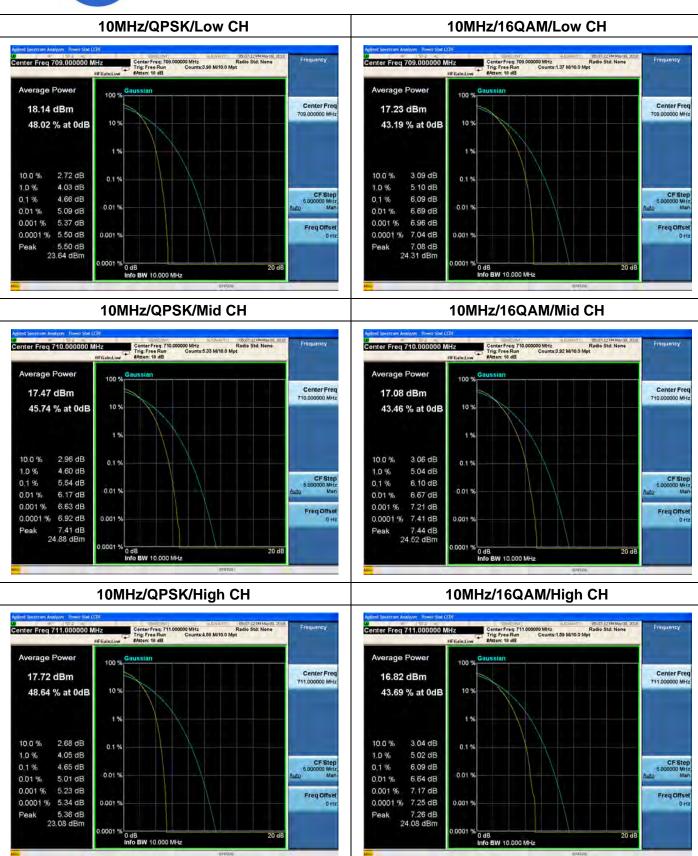














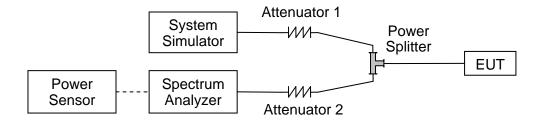


2.5. Conducted Spurious Emissions

2.5.1. Requirement

According to FCC section 2.1051, 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. This calculated to be -13dBm.

2.5.2. Test Description



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.

2.5.3. Test procedure

KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.

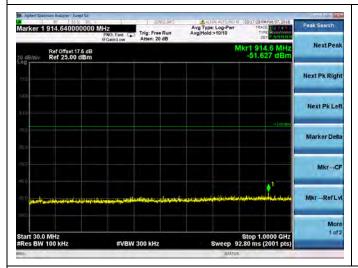
2.5.4. Test Result

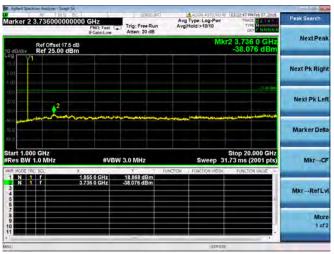




LTE Band 2 1.4MHz BW Low Channel

QPSK





16QAM

