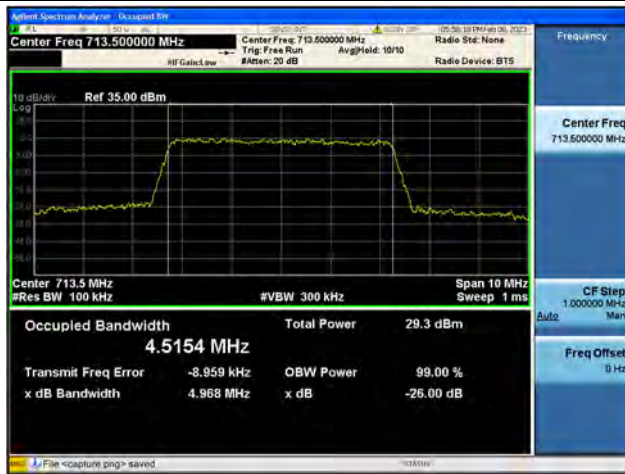




Band17 / 5MHz / QPSK/ High CH



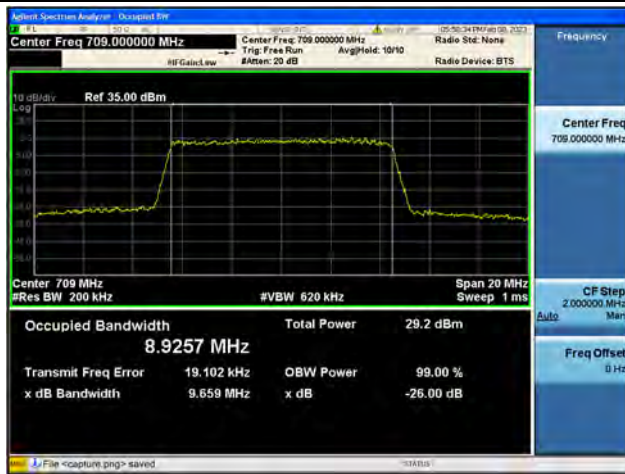
Band17 / 5MHz / 16QAM/ High CH



Band17 / 5MHz / 64QAM/ High CH



Band17 / 10MHz / QPSK/ Low CH



Band17 / 10MHz / 16QAM/ Low CH



Band17 / 10MHz / 64QAM/ Low CH



Band17 / 10MHz / QPSK/ Mid CH



Band17 / 10MHz / 16QAM/ Mid CH



Band17 / 10MHz / 64QAM/ Mid CH



Band17 / 10MHz / QPSK/ High CH

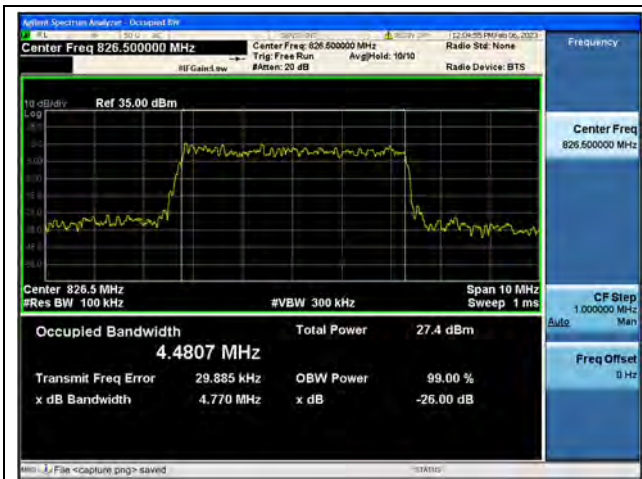


Band17 / 10MHz / 16QAM/ High CH



Band17 / 10MHz / 64QAM/ High CH





Band18Part22 / 5MHz / QPSK/ Low CH



Band18Part22 / 5MHz / 16QAM/ Low CH



Band18Part22 / 5MHz / 64QAM/ Low CH



Band18Part22 / 5MHz / QPSK/ Mid CH



Band18Part22 / 5MHz / 16QAM/ Mid CH



Band18Part22 / 5MHz / 64QAM/ Mid CH



Band18Part22 / 5MHz / QPSK/ High CH



Band18Part22 / 5MHz / 16QAM/ High CH



Band18Part22 / 5MHz / 64QAM/ High CH

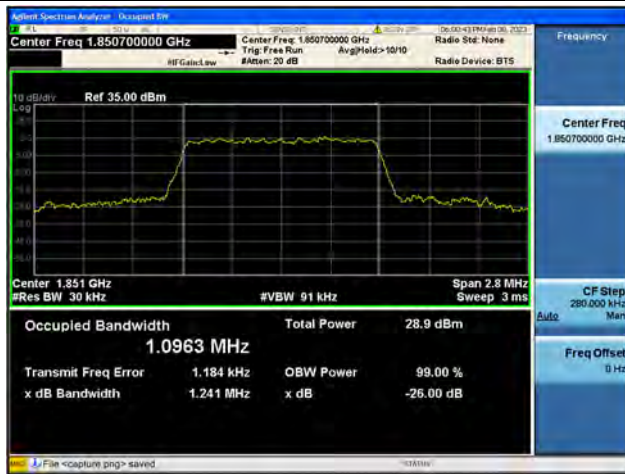




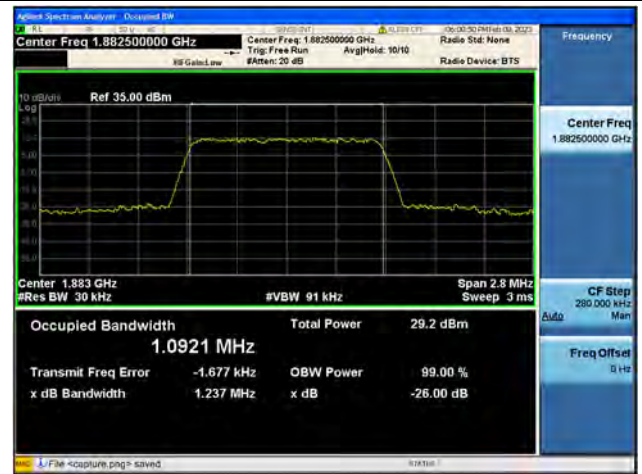
Band25 / 1.4MHz / QPSK/ Low CH



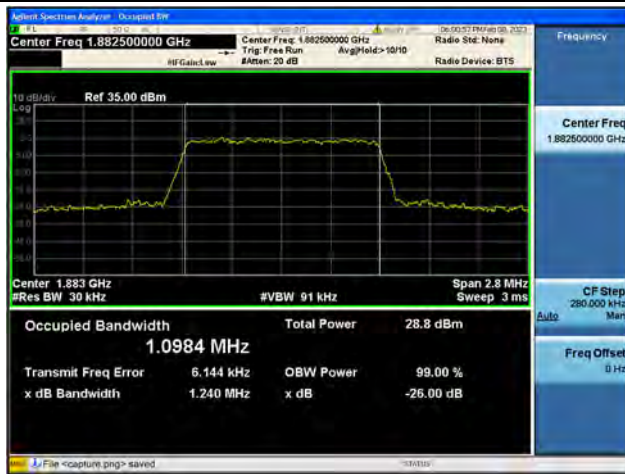
Band25 / 1.4MHz / 16QAM/ Low CH



Band25 / 1.4MHz / 64QAM/ Low CH



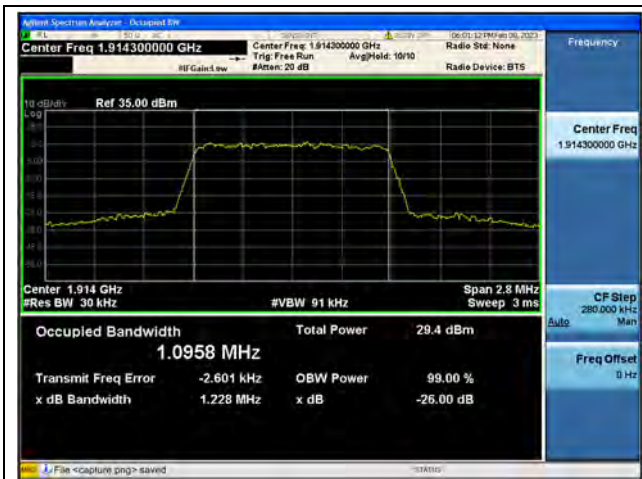
Band25 / 1.4MHz / QPSK/ Mid CH



Band25 / 1.4MHz / 16QAM/ Mid CH



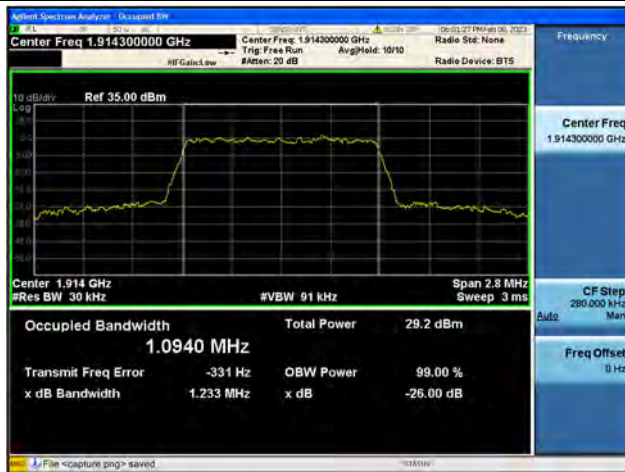
Band25 / 1.4MHz / 64QAM/ Mid CH



Band25 / 1.4MHz / QPSK/ High CH



Band25 / 1.4MHz / 16QAM/ High CH



Band25 / 1.4MHz / 64QAM/ High CH



Band25 / 3MHz / QPSK/ Low CH



Band25 / 3MHz / 16QAM/ Low CH



Band25 / 3MHz / 64QAM/ Low CH

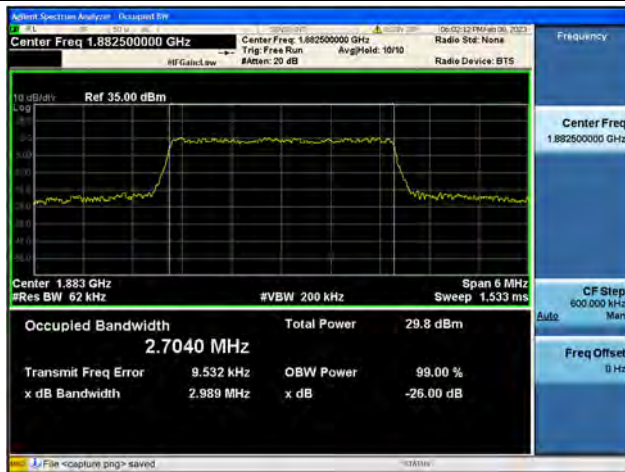




Band25 / 3MHz / QPSK/ Mid CH



Band25 / 3MHz / 16QAM/ Mid CH



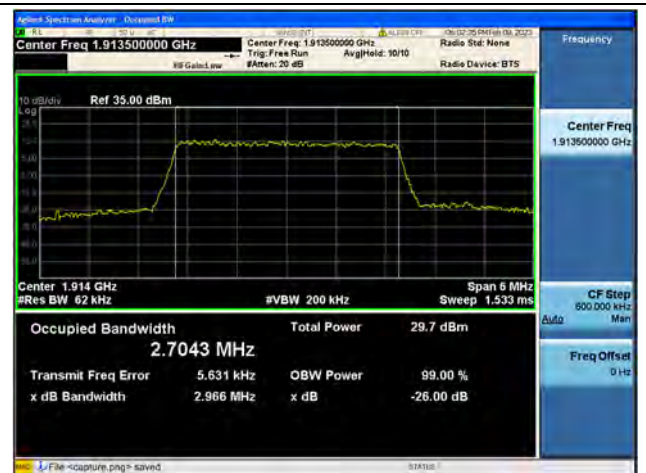
Band25 / 3MHz / 64QAM/ Mid CH



Band25 / 3MHz / QPSK/ High CH



Band25 / 3MHz / 16QAM/ High CH



Band25 / 3MHz / 64QAM/ High CH



Band25 / 5MHz / QPSK/ Low CH



Band25 / 5MHz / 16QAM/ Low CH



Band25 / 5MHz / 64QAM/ Low CH



Band25 / 5MHz / QPSK/ Mid CH



Band25 / 5MHz / 16QAM/ Mid CH



Band25 / 5MHz / 64QAM/ Mid CH





Band25 / 5MHz / QPSK/ High CH



Band25 / 5MHz / 16QAM/ High CH



Band25 / 5MHz / 64QAM/ High CH



Band25 / 10MHz / QPSK/ Low CH



Band25 / 10MHz / 16QAM/ Low CH



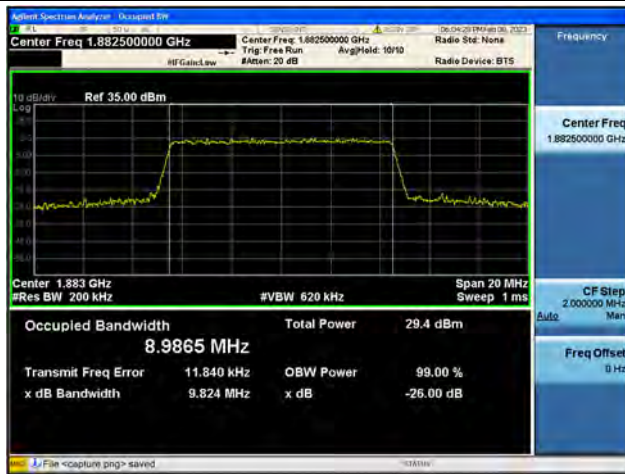
Band25 / 10MHz / 64QAM/ Low CH



Band25 / 10MHz / QPSK/ Mid CH



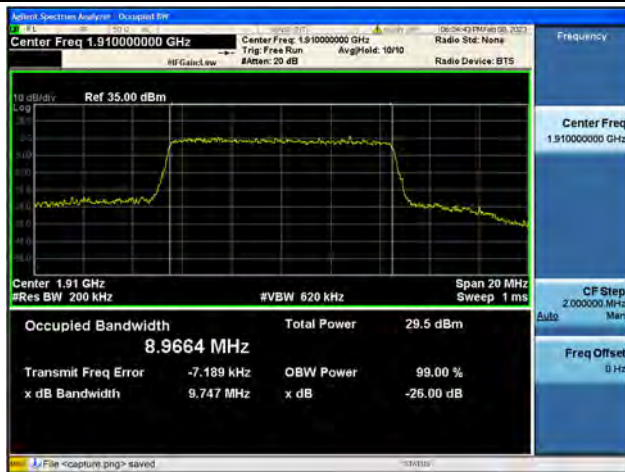
Band25 / 10MHz / 16QAM/ Mid CH



Band25 / 10MHz / 64QAM/ Mid CH



Band25 / 10MHz / QPSK/ High CH



Band25 / 10MHz / 16QAM/ High CH



Band25 / 10MHz / 64QAM/ High CH

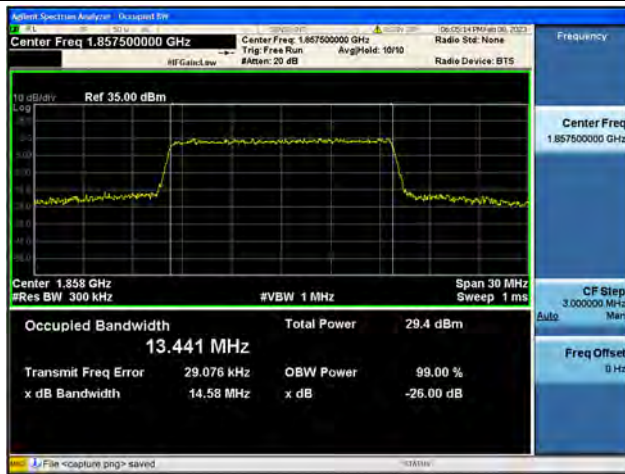




Band25 / 15MHz / QPSK/ Low CH



Band25 / 15MHz / 16QAM/ Low CH



Band25 / 15MHz / 64QAM/ Low CH



Band25 / 15MHz / QPSK/ Mid CH



Band25 / 15MHz / 16QAM/ Mid CH



Band25 / 15MHz / 64QAM/ Mid CH



Band25 / 15MHz / QPSK/ High CH



Band25 / 15MHz / 16QAM/ High CH



Band25 / 15MHz / 64QAM/ High CH



Band25 / 20MHz / QPSK/ Low CH



Band25 / 20MHz / 16QAM/ Low CH

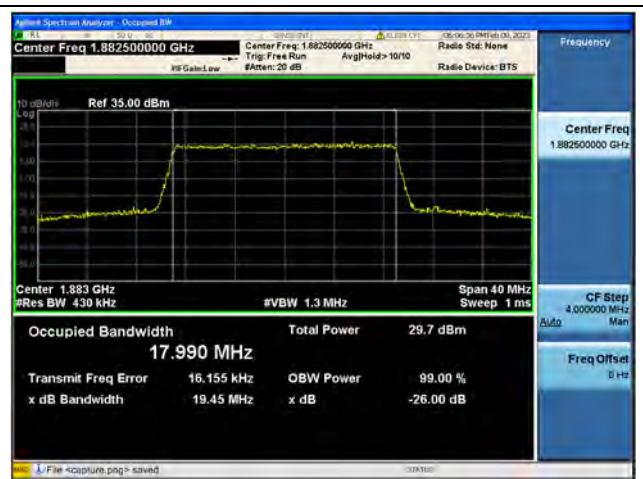


Band25 / 20MHz / 64QAM/ Low CH

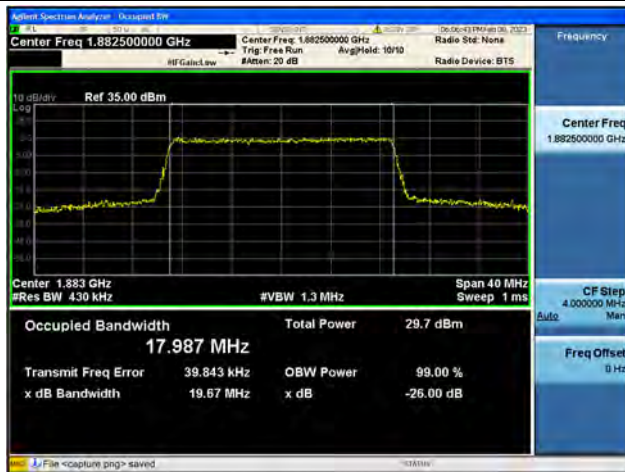




Band25 / 20MHz / QPSK/ Mid CH



Band25 / 20MHz / 16QAM/ Mid CH



Band25 / 20MHz / 64QAM/ Mid CH



Band25 / 20MHz / QPSK/ High CH



Band25 / 20MHz / 16QAM/ High CH



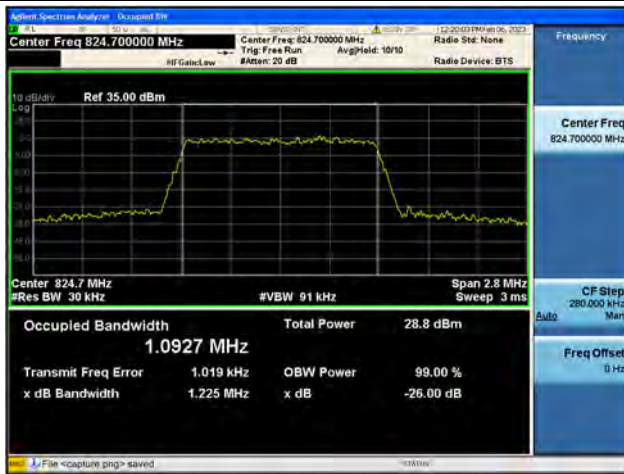
Band25 / 20MHz / 64QAM/ High CH



Band26Part22 / 1.4MHz / QPSK/ Low CH



Band26Part22 / 1.4MHz / 16QAM/ Low CH



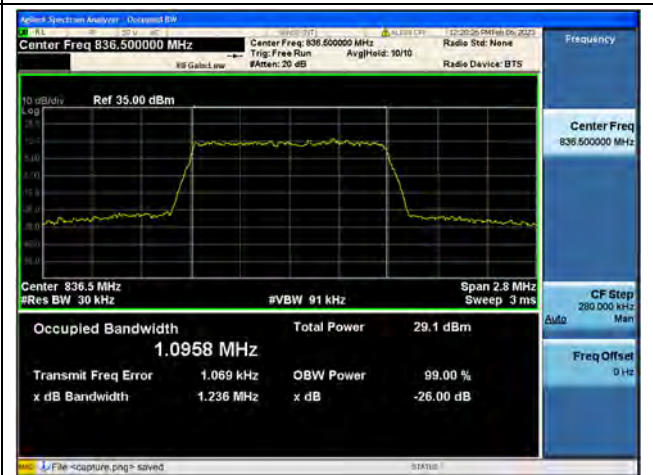
Band26Part22 / 1.4MHz / 64QAM/ Low CH



Band26Part22 / 1.4MHz / QPSK/ Mid CH



Band26Part22 / 1.4MHz / 16QAM/ Mid CH



Band26Part22 / 1.4MHz / 64QAM/ Mid CH

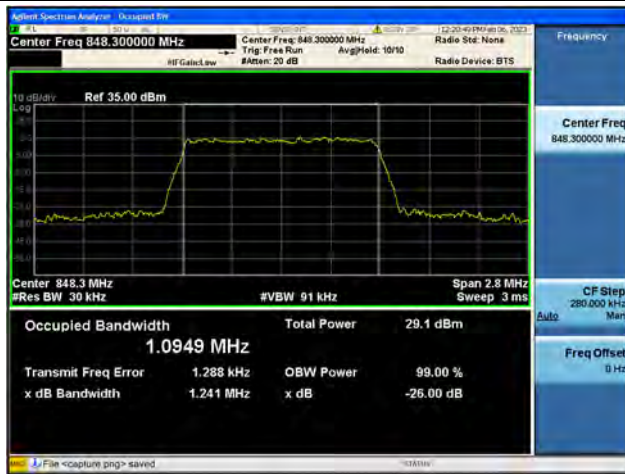




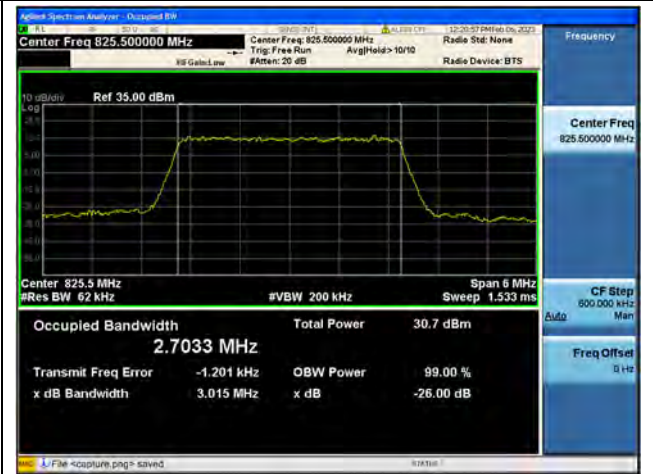
Band26Part22 / 1.4MHz / QPSK / High CH



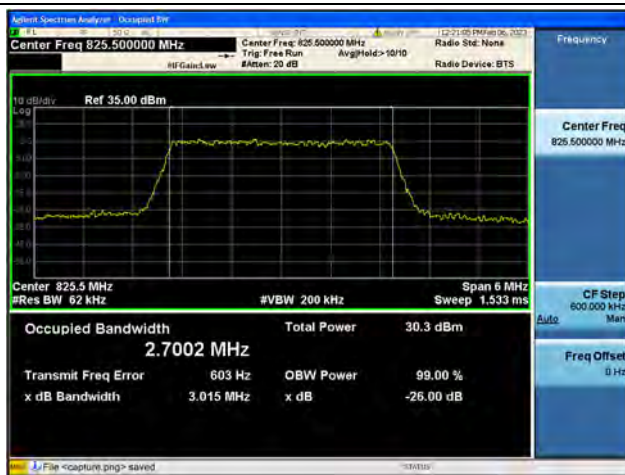
Band26Part22 / 1.4MHz / 16QAM / High CH



Band26Part22 / 1.4MHz / 64QAM / High CH



Band26Part22 / 3MHz / QPSK / Low CH



Band26Part22 / 3MHz / 16QAM / Low CH



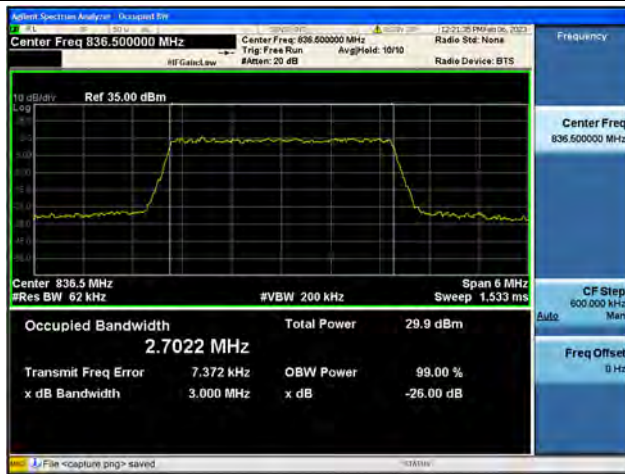
Band26Part22 / 3MHz / 64QAM / Low CH



Band26Part22 / 3MHz / QPSK/ Mid CH



Band26Part22 / 3MHz / 16QAM/ Mid CH



Band26Part22 / 3MHz / 64QAM/ Mid CH



Band26Part22 / 3MHz / QPSK/ High CH

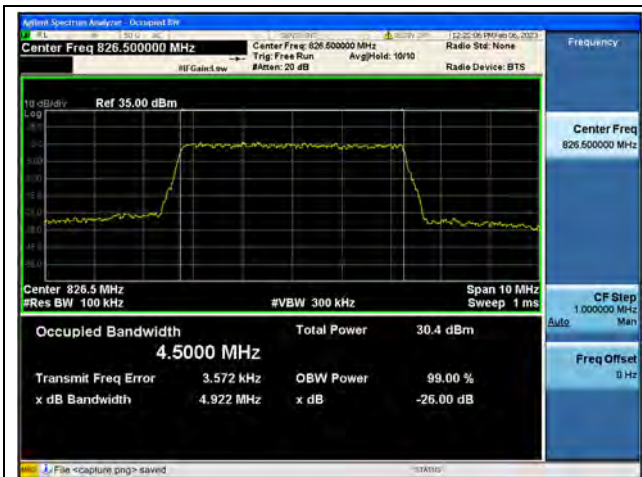


Band26Part22 / 3MHz / 16QAM/ High CH



Band26Part22 / 3MHz / 64QAM/ High CH

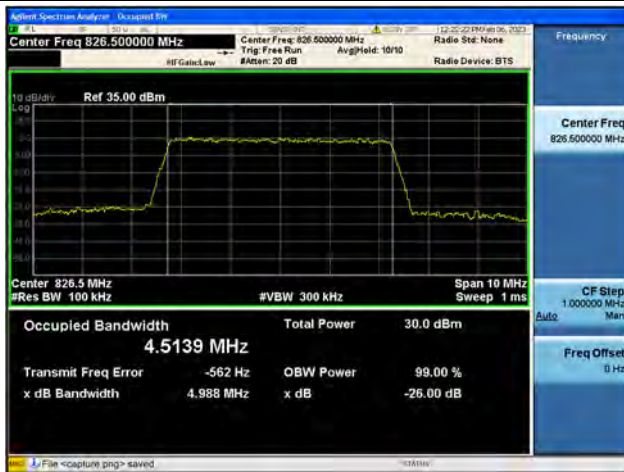




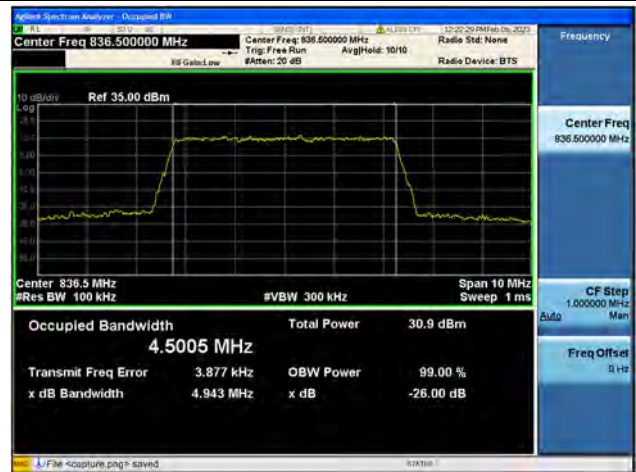
Band26Part22 / 5MHz / QPSK/ Low CH



Band26Part22 / 5MHz / 16QAM/ Low CH



Band26Part22 / 5MHz / 64QAM/ Low CH



Band26Part22 / 5MHz / QPSK/ Mid CH



Band26Part22 / 5MHz / 16QAM/ Mid CH



Band26Part22 / 5MHz / 64QAM/ Mid CH



Band26Part22 / 5MHz / QPSK/ High CH



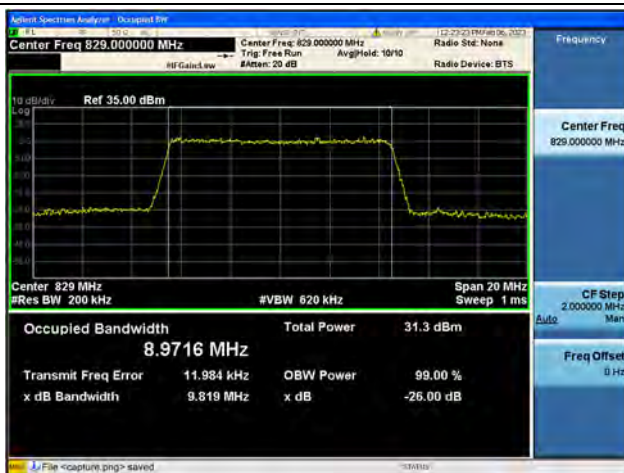
Band26Part22 / 5MHz / 16QAM/ High CH



Band26Part22 / 5MHz / 64QAM/ High CH



Band26Part22 / 10MHz / QPSK/ Low CH



Band26Part22 / 10MHz / 16QAM/ Low CH



Band26Part22 / 10MHz / 64QAM/ Low CH

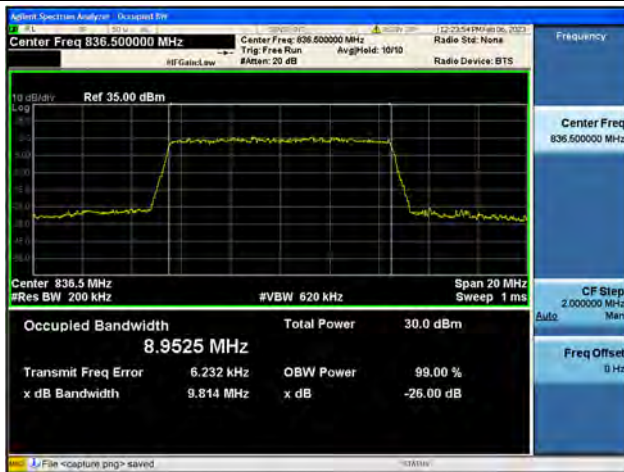




Band26Part22 / 10MHz / QPSK/ Mid CH



Band26Part22 / 10MHz / 16QAM/ Mid CH



Band26Part22 / 10MHz / 64QAM/ Mid CH



Band26Part22 / 10MHz / QPSK/ High CH



Band26Part22 / 10MHz / 16QAM/ High CH



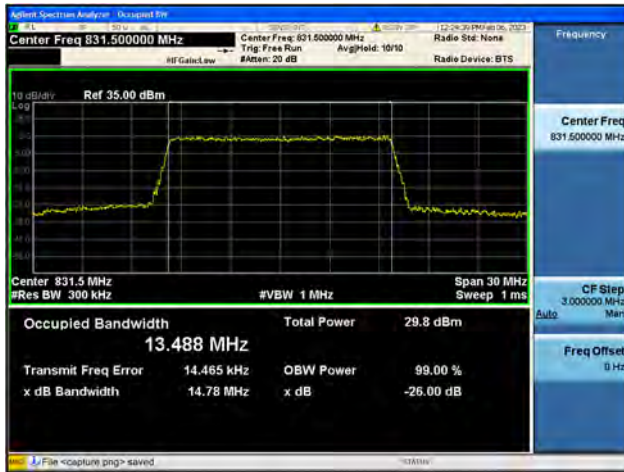
Band26Part22 / 10MHz / 64QAM/ High CH



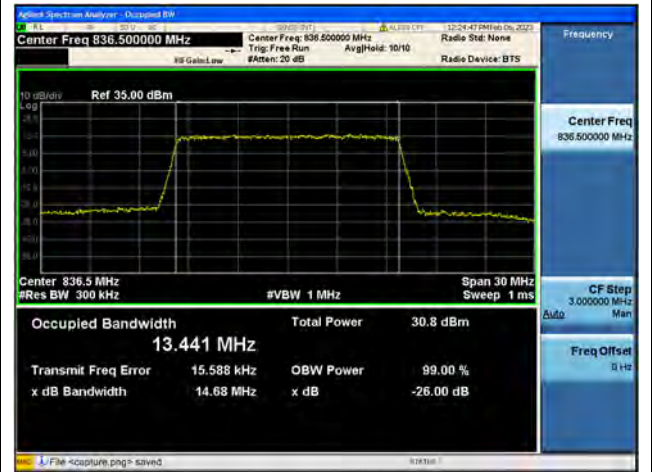
Band26Part22 / 15MHz / QPSK/ Low CH



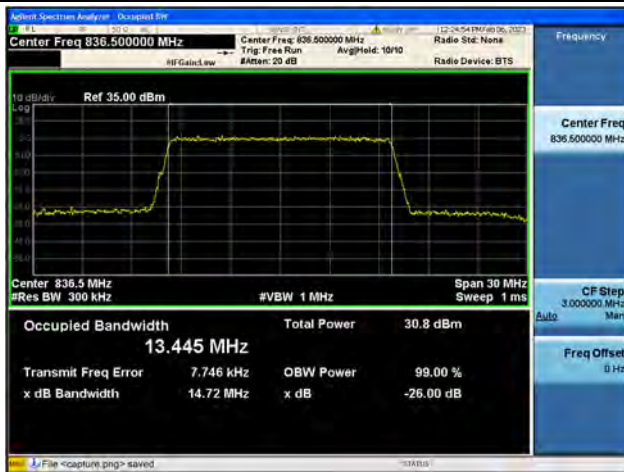
Band26Part22 / 15MHz / 16QAM/ Low CH



Band26Part22 / 15MHz / 64QAM/ Low CH



Band26Part22 / 15MHz / QPSK/ Mid CH

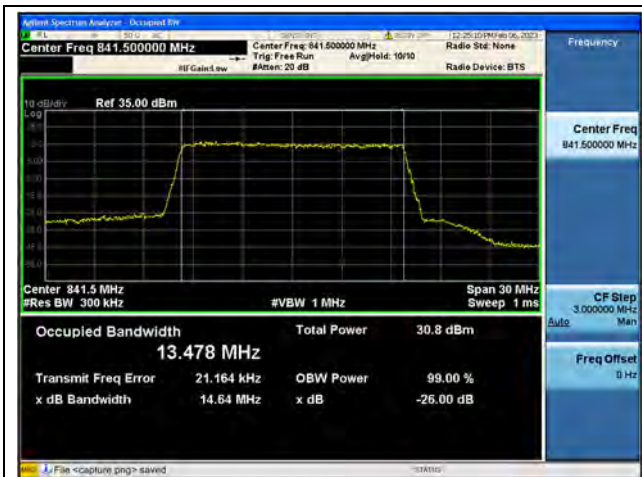


Band26Part22 / 15MHz / 16QAM/ Mid CH



Band26Part22 / 15MHz / 64QAM/ Mid CH





Band26Part22 / 15MHz / QPSK/ High CH



Band26Part22 / 15MHz / 16QAM/ High CH



Band26Part22 / 15MHz / 64QAM/ High CH



Band38 / 5MHz / QPSK/ Low CH



Band38 / 5MHz / 16QAM/ Low CH



Band38 / 5MHz / 64QAM/ Low CH



Band38 / 5MHz / QPSK/ Mid CH



Band38 / 5MHz / 16QAM/ Mid CH



Band38 / 5MHz / 64QAM/ Mid CH

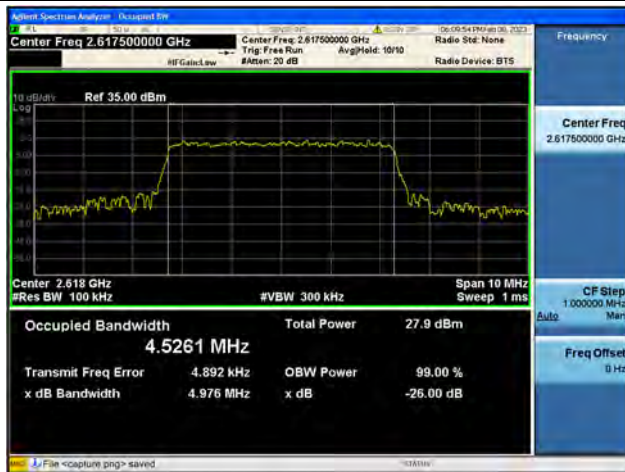




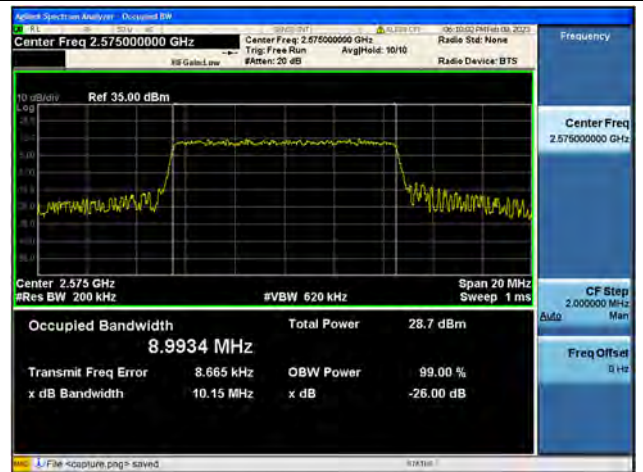
Band38 / 5MHz / QPSK/ High CH



Band38 / 5MHz / 16QAM/ High CH



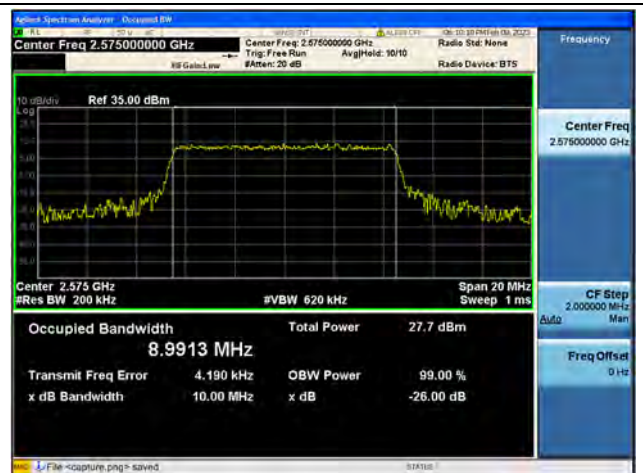
Band38 / 5MHz / 64QAM/ High CH



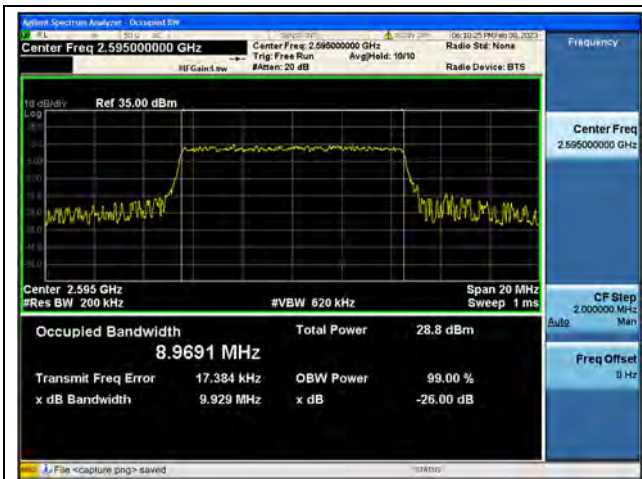
Band38 / 10MHz / QPSK/ Low CH



Band38 / 10MHz / 16QAM/ Low CH



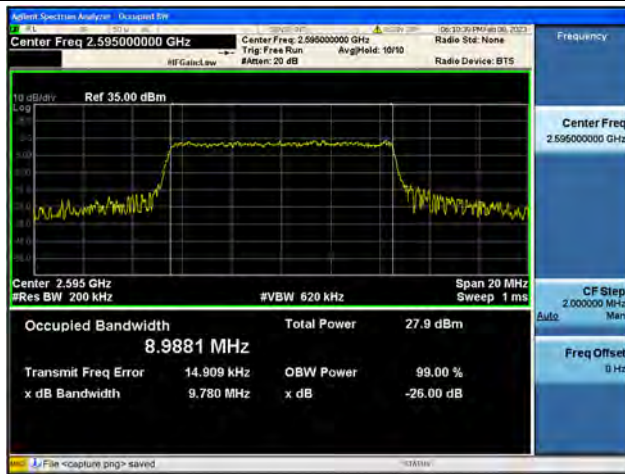
Band38 / 10MHz / 64QAM/ Low CH



Band38 / 10MHz / QPSK/ Mid CH



Band38 / 10MHz / 16QAM/ Mid CH



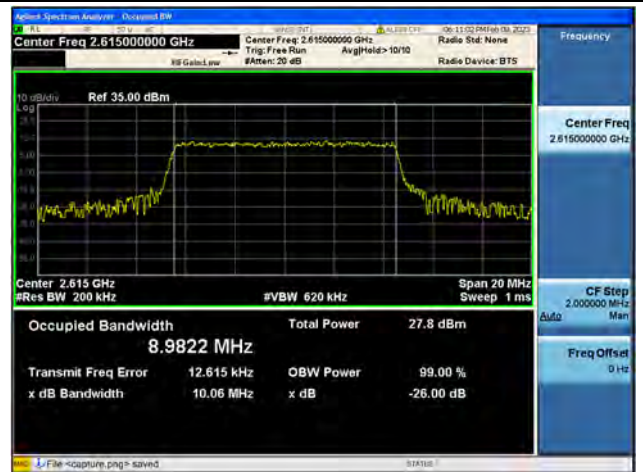
Band38 / 10MHz / 64QAM/ Mid CH



Band38 / 10MHz / QPSK/ High CH



Band38 / 10MHz / 16QAM/ High CH



Band38 / 10MHz / 64QAM/ High CH

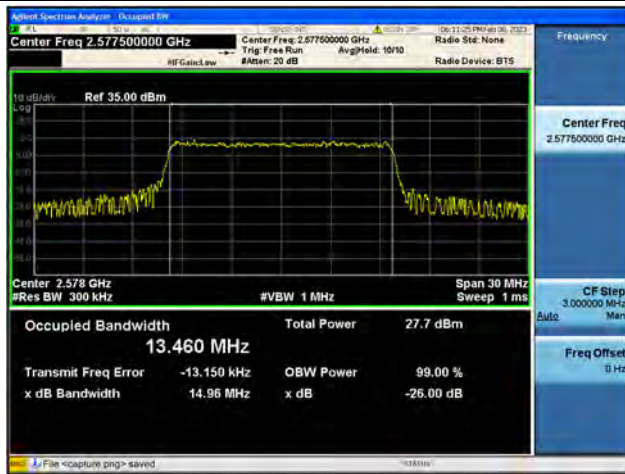




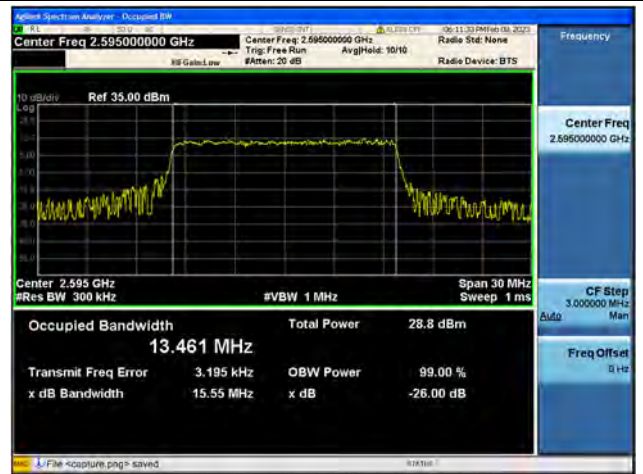
Band38 / 15MHz / QPSK/ Low CH



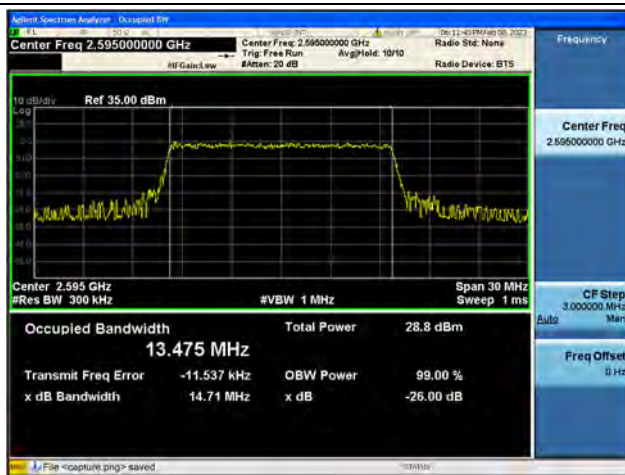
Band38 / 15MHz / 16QAM/ Low CH



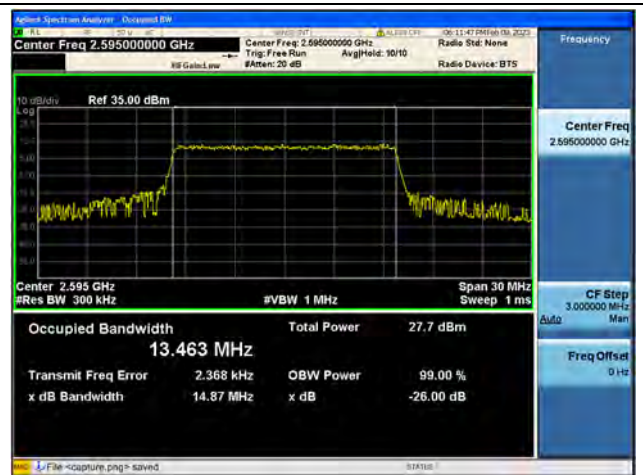
Band38 / 15MHz / 64QAM/ Low CH



Band38 / 15MHz / QPSK/ Mid CH



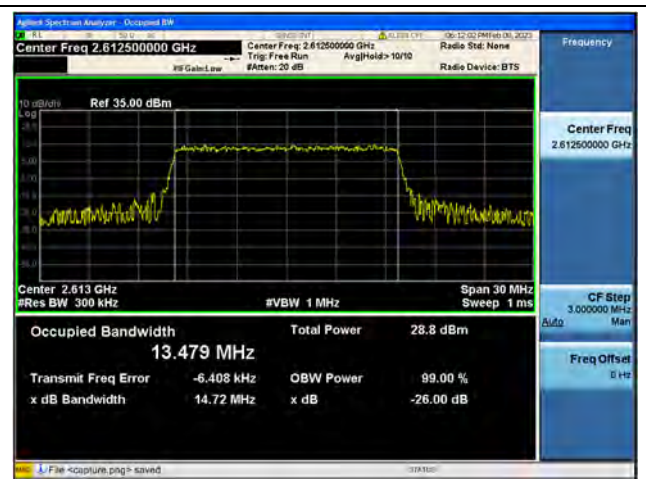
Band38 / 15MHz / 16QAM/ Mid CH



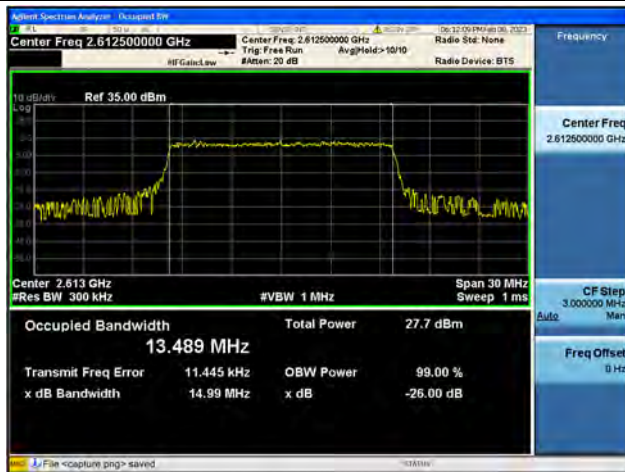
Band38 / 15MHz / 64QAM/ Mid CH



Band38 / 15MHz / QPSK/ High CH



Band38 / 15MHz / 16QAM/ High CH



Band38 / 15MHz / 64QAM/ High CH



Band38 / 20MHz / QPSK/ Low CH



Band38 / 20MHz / 16QAM/ Low CH



Band38 / 20MHz / 64QAM/ Low CH

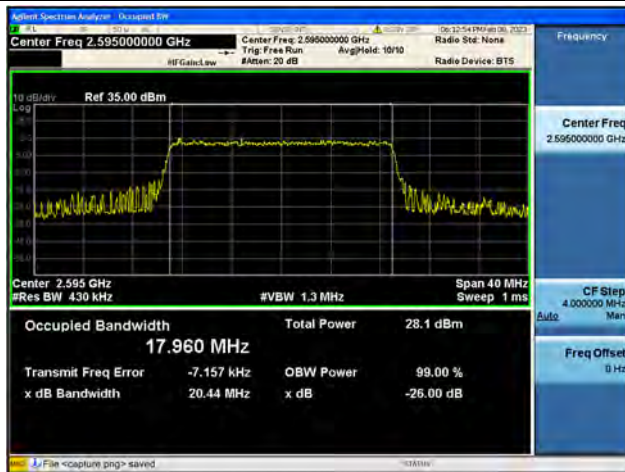




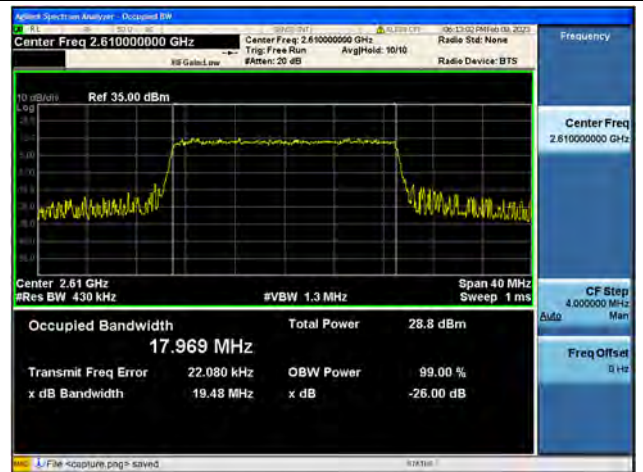
Band38 / 20MHz / QPSK/ Mid CH



Band38 / 20MHz / 16QAM/ Mid CH



Band38 / 20MHz / 64QAM/ Mid CH



Band38 / 20MHz / QPSK/ High CH



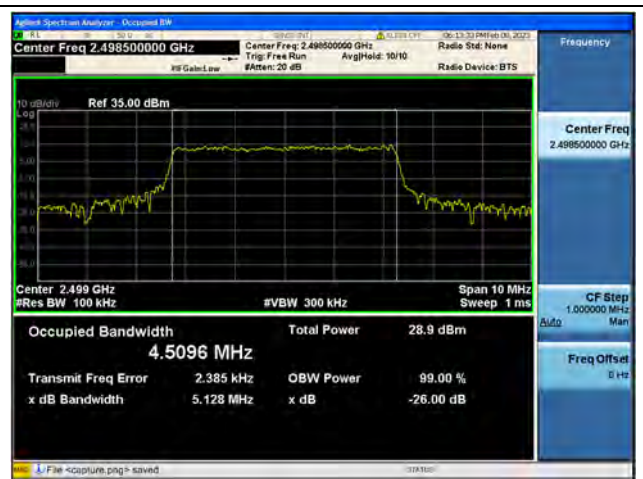
Band38 / 20MHz / 16QAM/ High CH



Band38 / 20MHz / 64QAM/ High CH



Band41 / 5MHz / QPSK/ Low CH



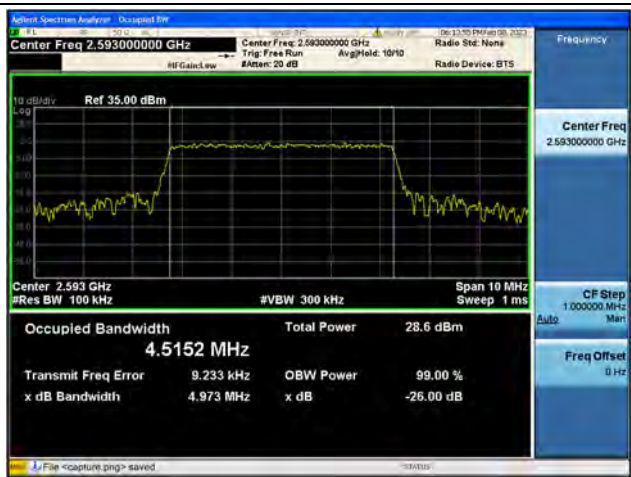
Band41 / 5MHz / 16QAM/ Low CH



Band41 / 5MHz / 64QAM/ Low CH



Band41 / 5MHz / QPSK/ Mid CH



Band41 / 5MHz / 16QAM/ Mid CH



Band41 / 5MHz / 64QAM/ Mid CH

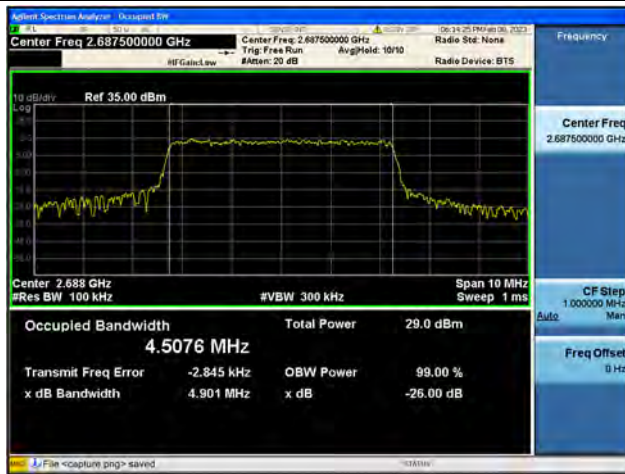




Band41 / 5MHz / QPSK/ High CH



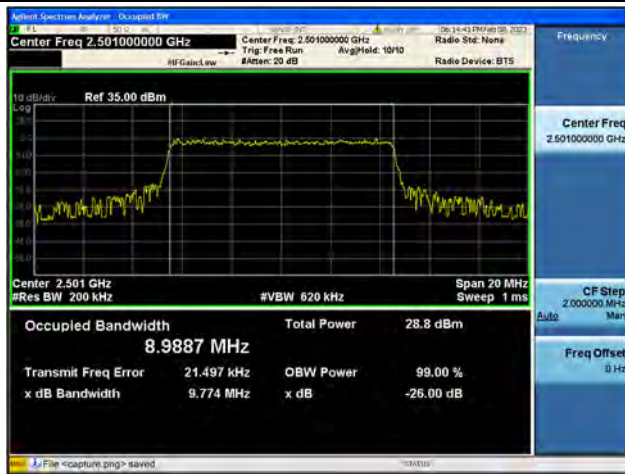
Band41 / 5MHz / 16QAM/ High CH



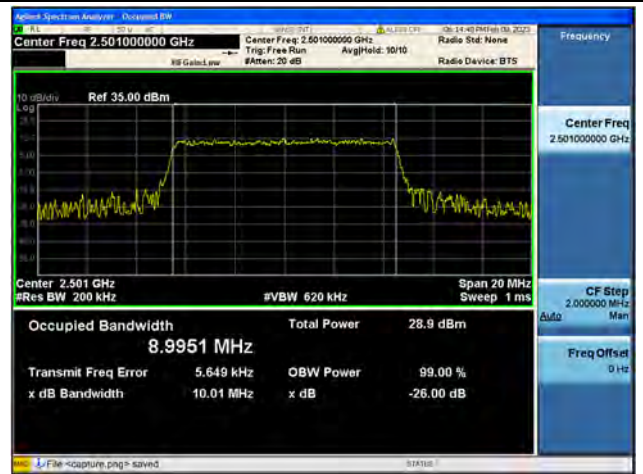
Band41 / 5MHz / 64QAM/ High CH



Band41 / 10MHz / QPSK/ Low CH



Band41 / 10MHz / 16QAM/ Low CH



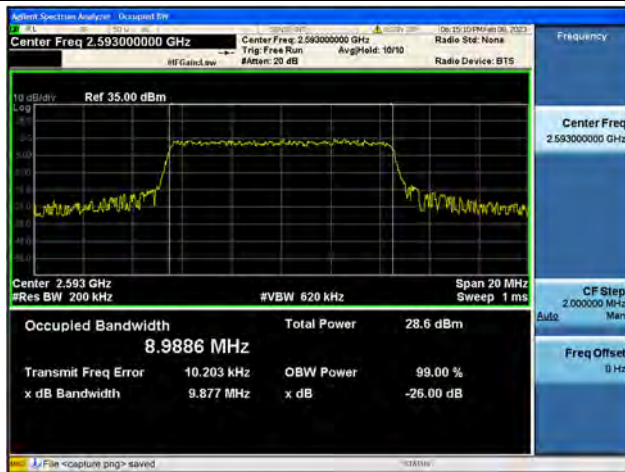
Band41 / 10MHz / 64QAM/ Low CH



Band41 / 10MHz / QPSK/ Mid CH



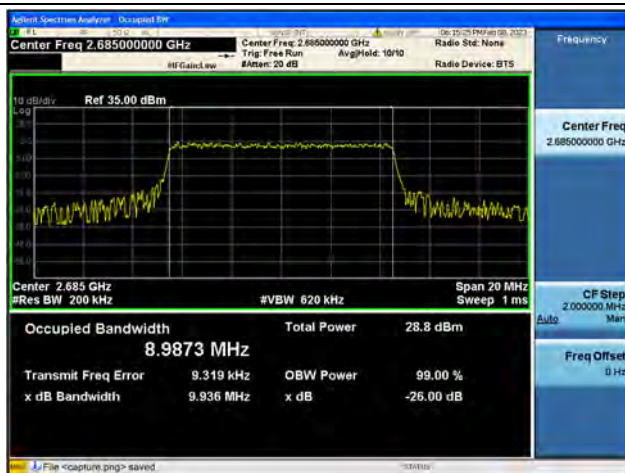
Band41 / 10MHz / 16QAM/ Mid CH



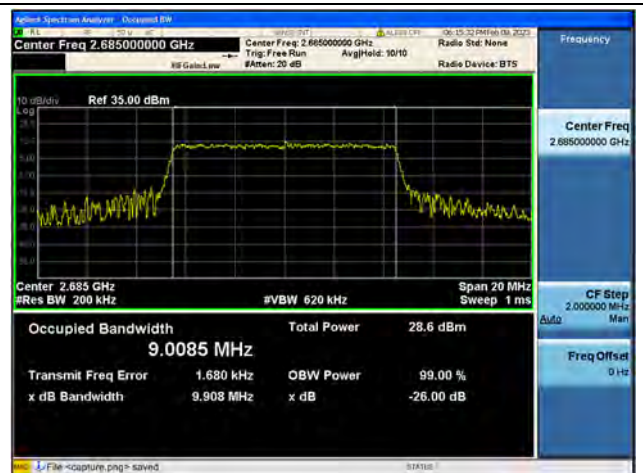
Band41 / 10MHz / 64QAM/ Mid CH



Band41 / 10MHz / QPSK/ High CH



Band41 / 10MHz / 16QAM/ High CH



Band41 / 10MHz / 64QAM/ High CH

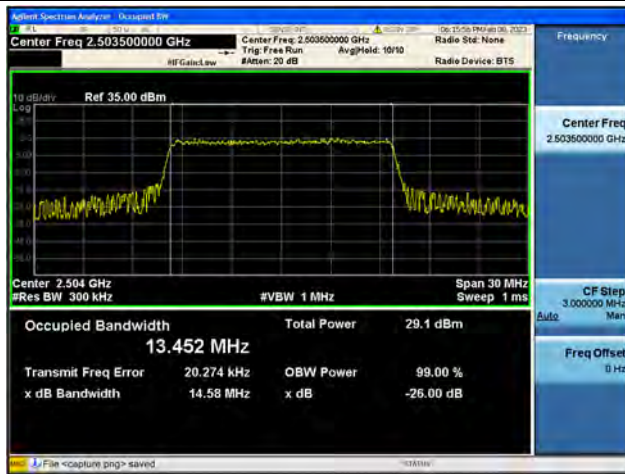




Band41 / 15MHz / QPSK/ Low CH



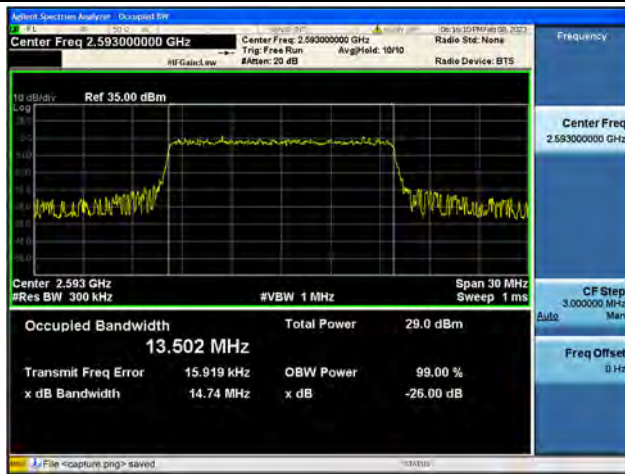
Band41 / 15MHz / 16QAM/ Low CH



Band41 / 15MHz / 64QAM/ Low CH



Band41 / 15MHz / QPSK/ Mid CH



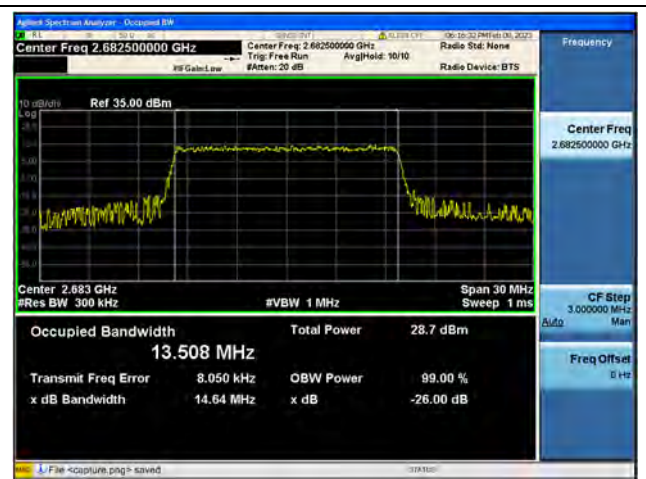
Band41 / 15MHz / 16QAM/ Mid CH



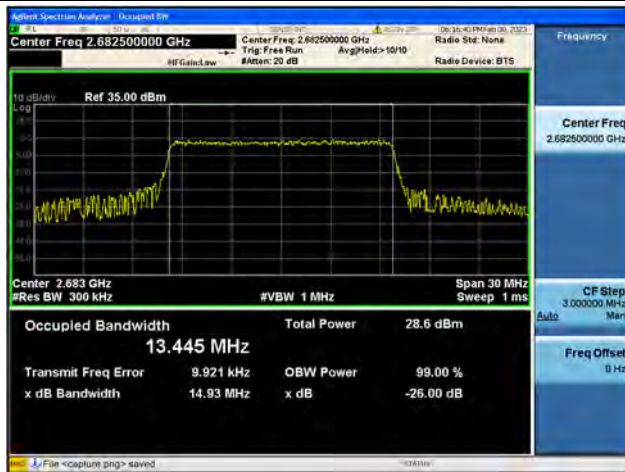
Band41 / 15MHz / 64QAM/ Mid CH



Band41 / 15MHz / QPSK/ High CH



Band41 / 15MHz / 16QAM/ High CH



Band41 / 15MHz / 64QAM/ High CH



Band41 / 20MHz / QPSK/ Low CH



Band41 / 20MHz / 16QAM/ Low CH



Band41 / 20MHz / 64QAM/ Low CH

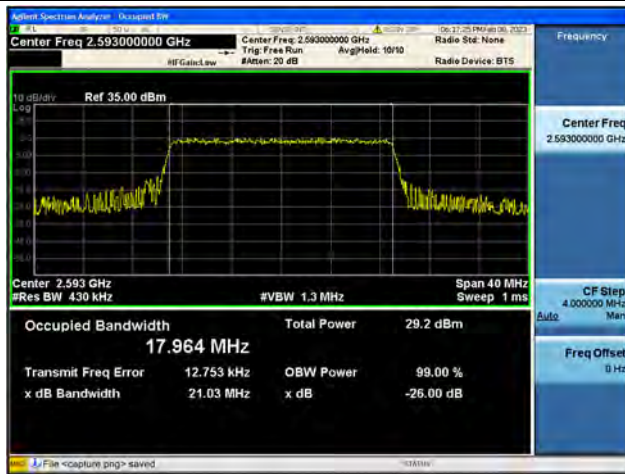




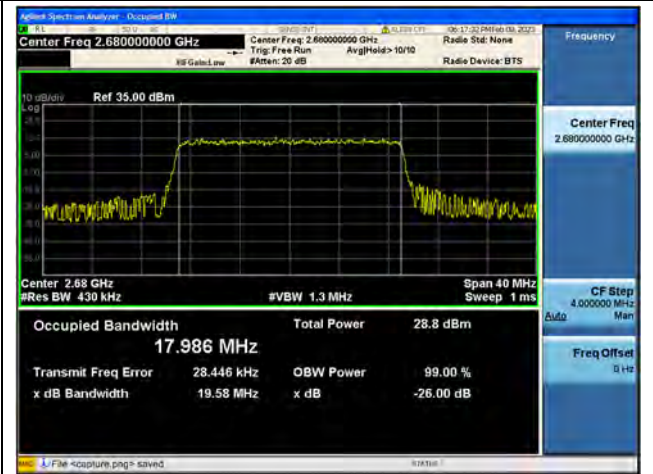
Band41 / 20MHz / QPSK/ Mid CH



Band41 / 20MHz / 16QAM/ Mid CH



Band41 / 20MHz / 64QAM/ Mid CH



Band41 / 20MHz / QPSK/ High CH



Band41 / 20MHz / 16QAM/ High CH



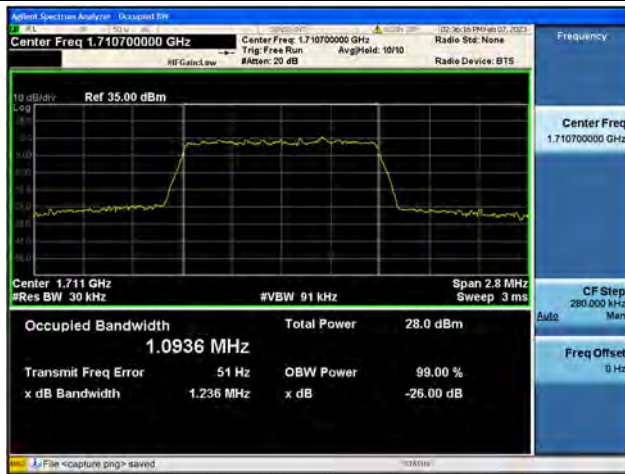
Band41 / 20MHz / 64QAM/ High CH



Band66 / 1.4MHz / QPSK/ Low CH



Band66 / 1.4MHz / 16QAM/ Low CH



Band66 / 1.4MHz / 64QAM/ Low CH



Band66 / 1.4MHz / QPSK/ Mid CH



Band66 / 1.4MHz / 16QAM/ Mid CH



Band66 / 1.4MHz / 64QAM/ Mid CH





Band66 / 1.4MHz / QPSK/ High CH



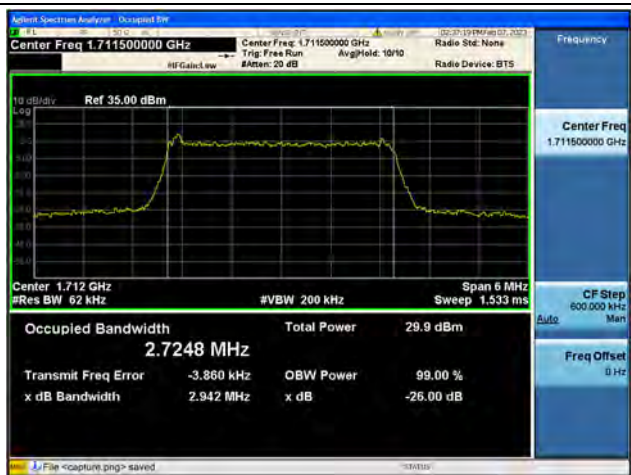
Band66 / 1.4MHz / 16QAM/ High CH



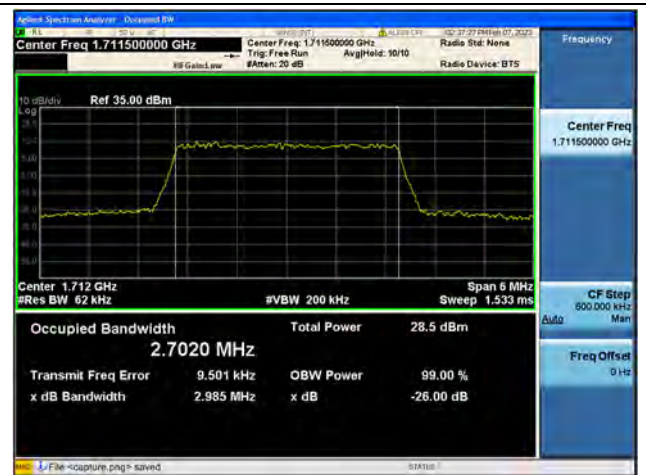
Band66 / 1.4MHz / 64QAM/ High CH



Band66 / 3MHz / QPSK/ Low CH



Band66 / 3MHz / 16QAM/ Low CH



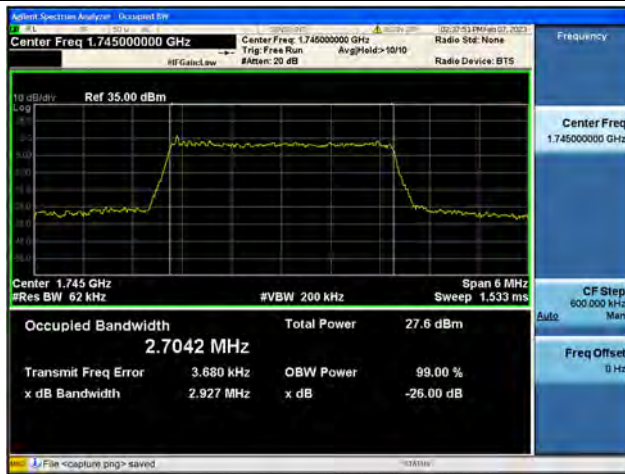
Band66 / 3MHz / 64QAM/ Low CH



Band66 / 3MHz / QPSK/ Mid CH



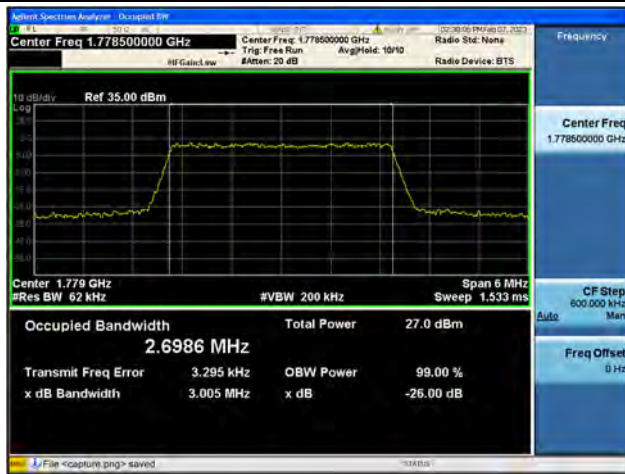
Band66 / 3MHz / 16QAM/ Mid CH



Band66 / 3MHz / 64QAM/ Mid CH



Band66 / 3MHz / QPSK/ High CH



Band66 / 3MHz / 16QAM/ High CH

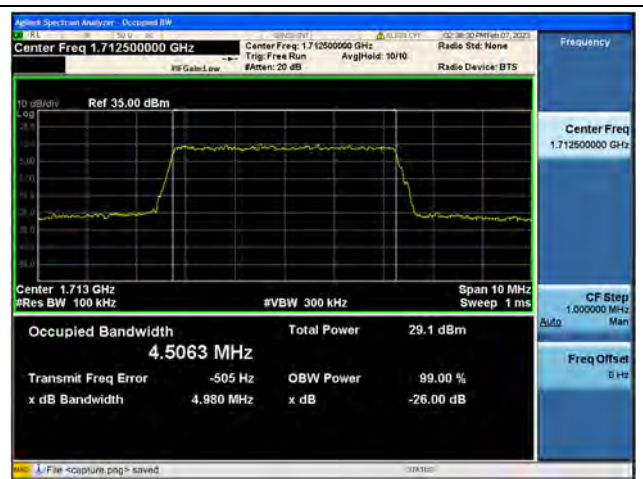


Band66 / 3MHz / 64QAM/ High CH





Band66 / 5MHz / QPSK/ Low CH



Band66 / 5MHz / 16QAM/ Low CH



Band66 / 5MHz / 64QAM/ Low CH



Band66 / 5MHz / QPSK/ Mid CH



Band66 / 5MHz / 16QAM/ Mid CH



Band66 / 5MHz / 64QAM/ Mid CH



Band66 / 5MHz / QPSK/ High CH



Band66 / 5MHz / 16QAM/ High CH



Band66 / 5MHz / 64QAM/ High CH



Band66 / 10MHz / QPSK/ Low CH



Band66 / 10MHz / 16QAM/ Low CH



Band66 / 10MHz / 64QAM/ Low CH

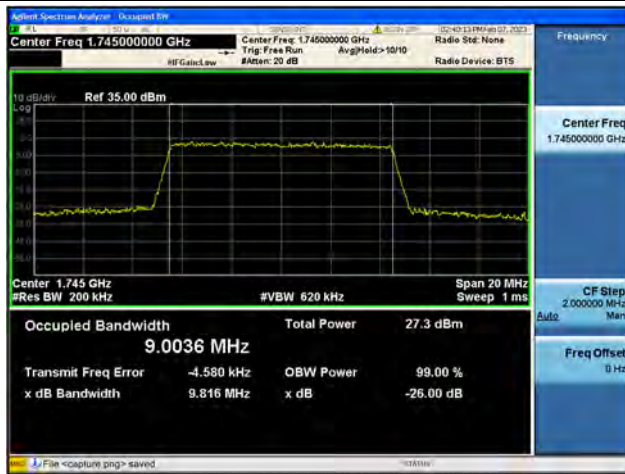




Band66 / 10MHz / QPSK/ Mid CH



Band66 / 10MHz / 16QAM/ Mid CH



Band66 / 10MHz / 64QAM/ Mid CH



Band66 / 10MHz / QPSK/ High CH



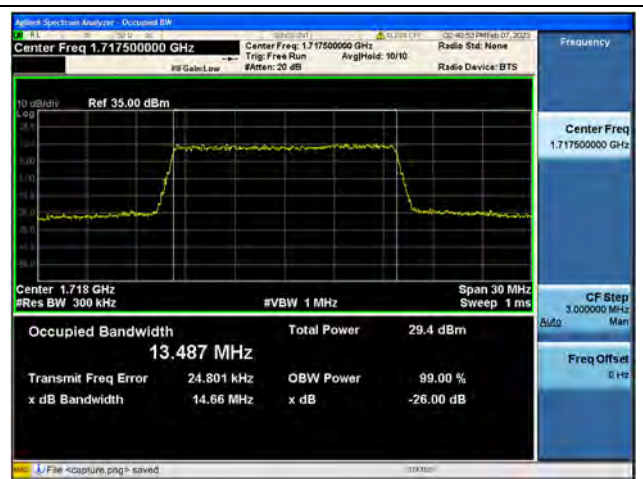
Band66 / 10MHz / 16QAM/ High CH



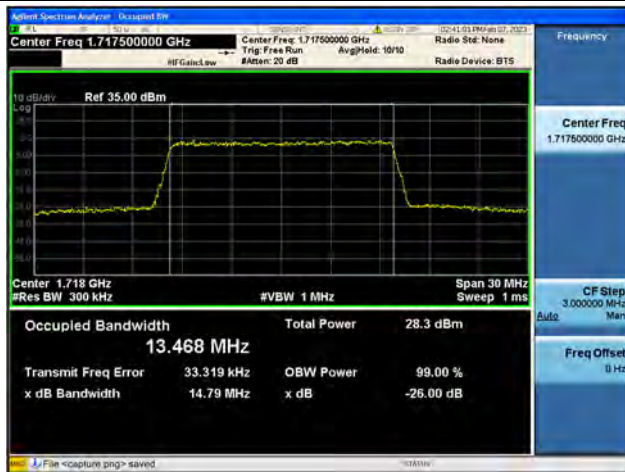
Band66 / 10MHz / 64QAM/ High CH



Band66 / 15MHz / QPSK/ Low CH



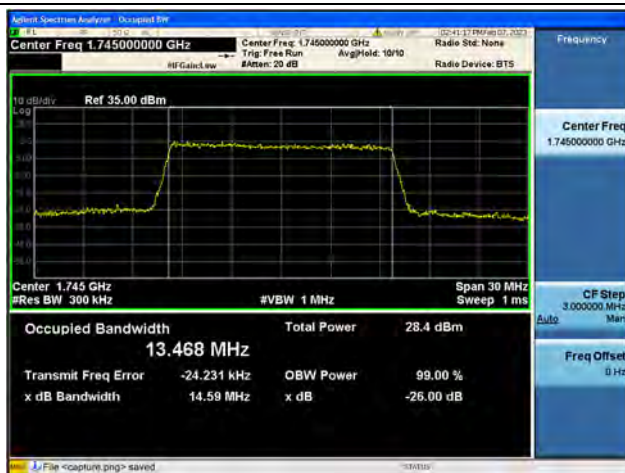
Band66 / 15MHz / 16QAM/ Low CH



Band66 / 15MHz / 64QAM/ Low CH



Band66 / 15MHz / QPSK/ Mid CH



Band66 / 15MHz / 16QAM/ Mid CH



Band66 / 15MHz / 64QAM/ Mid CH





Band66 / 15MHz / QPSK/ High CH



Band66 / 15MHz / 16QAM/ High CH



Band66 / 15MHz / 64QAM/ High CH



Band66 / 20MHz / QPSK/ Low CH



Band66 / 20MHz / 16QAM/ Low CH



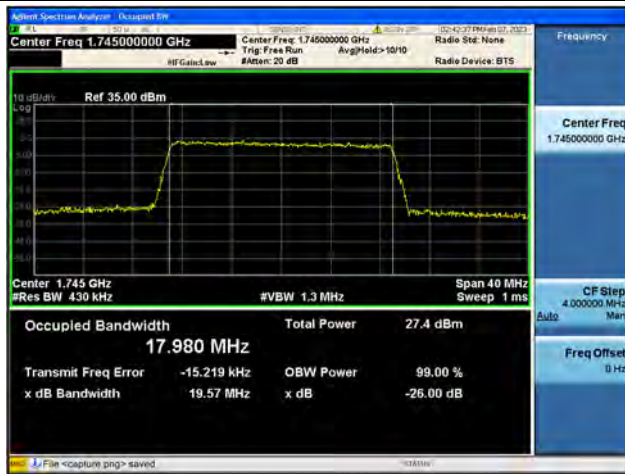
Band66 / 20MHz / 64QAM/ Low CH



Band66 / 20MHz / QPSK/ Mid CH



Band66 / 20MHz / 16QAM/ Mid CH



Band66 / 20MHz / 64QAM/ Mid CH



Band66 / 20MHz / QPSK/ High CH



Band66 / 20MHz / 16QAM/ High CH



Band66 / 20MHz / 64QAM/ High CH

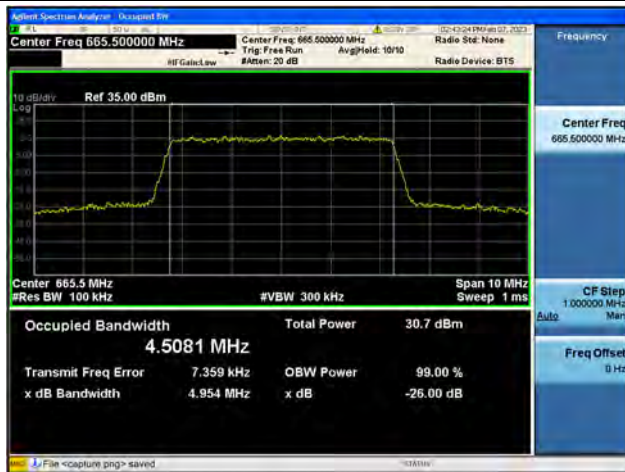




Band71 / 5MHz / QPSK/ Low CH



Band71 / 5MHz / 16QAM/ Low CH



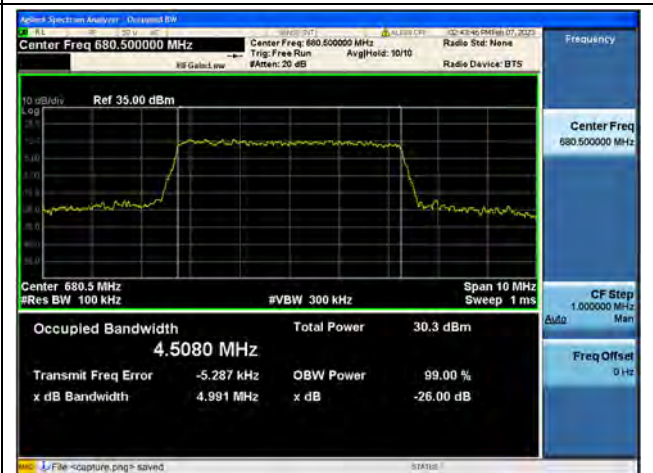
Band71 / 5MHz / 64QAM/ Low CH



Band71 / 5MHz / QPSK/ Mid CH



Band71 / 5MHz / 16QAM/ Mid CH



Band71 / 5MHz / 64QAM/ Mid CH



Band71 / 5MHz / QPSK/ High CH



Band71 / 5MHz / 16QAM/ High CH



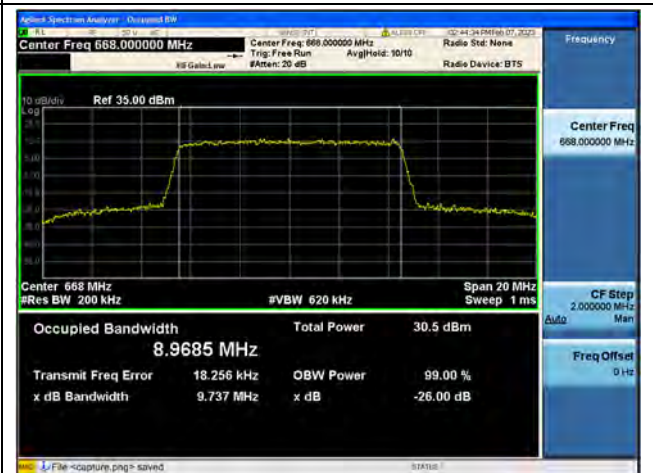
Band71 / 5MHz / 64QAM/ High CH



Band71 / 10MHz / QPSK/ Low CH



Band71 / 10MHz / 16QAM/ Low CH



Band71 / 10MHz / 64QAM/ Low CH

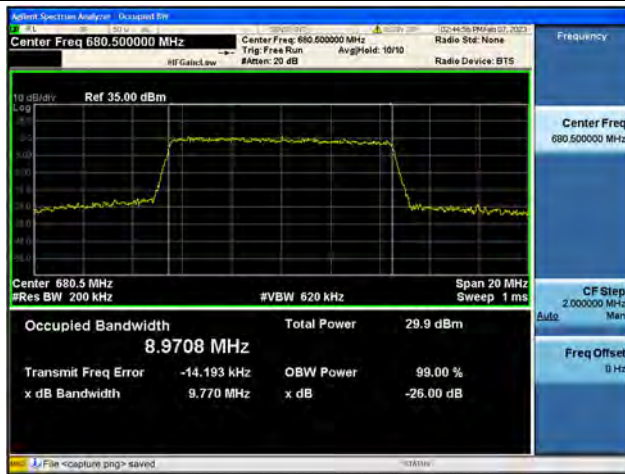




Band71 / 10MHz / QPSK/ Mid CH



Band71 / 10MHz / 16QAM/ Mid CH



Band71 / 10MHz / 64QAM/ Mid CH



Band71 / 10MHz / QPSK/ High CH



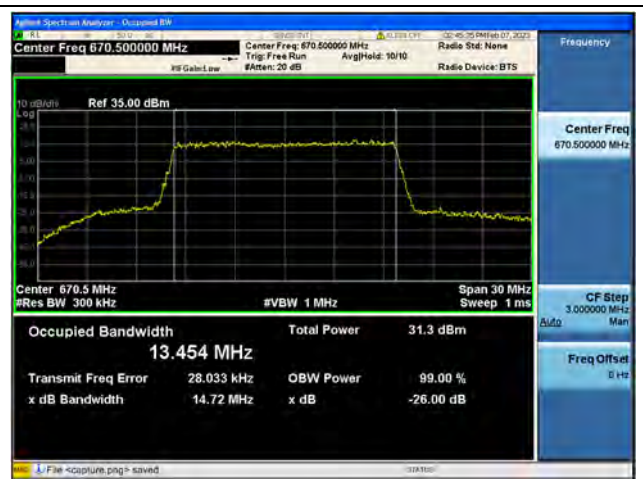
Band71 / 10MHz / 16QAM/ High CH



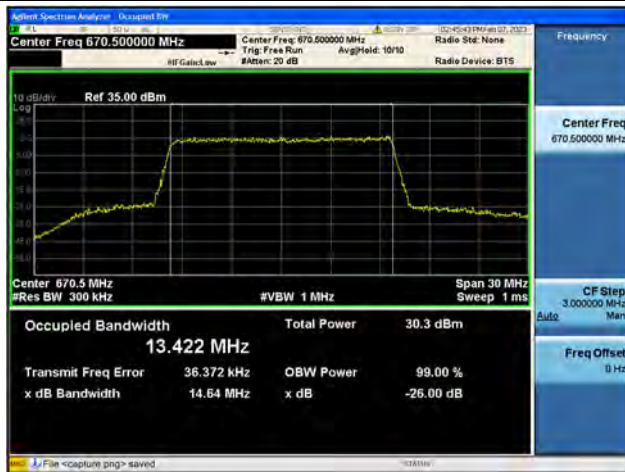
Band71 / 10MHz / 64QAM/ High CH



Band71 / 15MHz / QPSK/ Low CH



Band71 / 15MHz / 16QAM/ Low CH



Band71 / 15MHz / 64QAM/ Low CH



Band71 / 15MHz / QPSK/ Mid CH



Band71 / 15MHz / 16QAM/ Mid CH

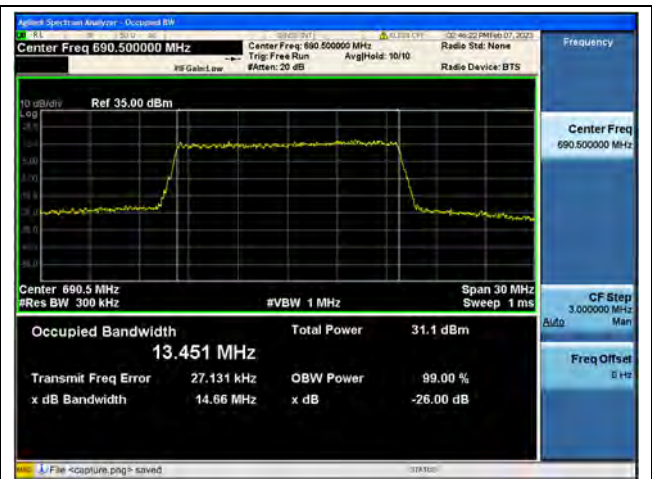


Band71 / 15MHz / 64QAM/ Mid CH





Band71 / 15MHz / QPSK/ High CH



Band71 / 15MHz / 16QAM/ High CH



Band71 / 15MHz / 64QAM/ High CH



Band71 / 20MHz / QPSK/ Low CH



Band71 / 20MHz / 16QAM/ Low CH



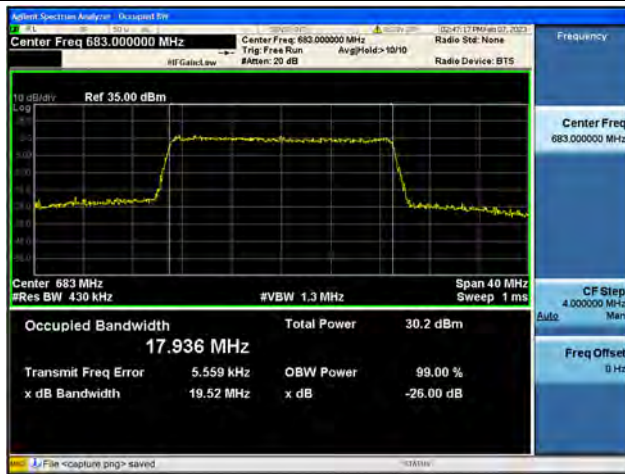
Band71 / 20MHz / 64QAM/ Low CH



Band71 / 20MHz / QPSK/ Mid CH



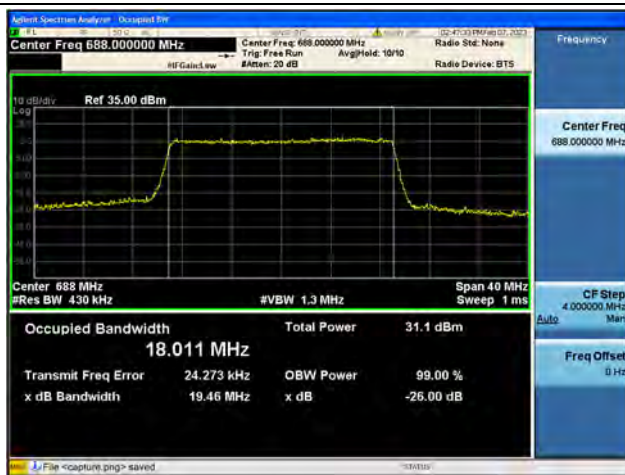
Band71 / 20MHz / 16QAM/ Mid CH



Band71 / 20MHz / 64QAM/ Mid CH



Band71 / 20MHz / QPSK/ High CH



Band71 / 20MHz / 16QAM/ High CH



Band71 / 20MHz / 64QAM/ High CH



## 2.3. Frequency Stability

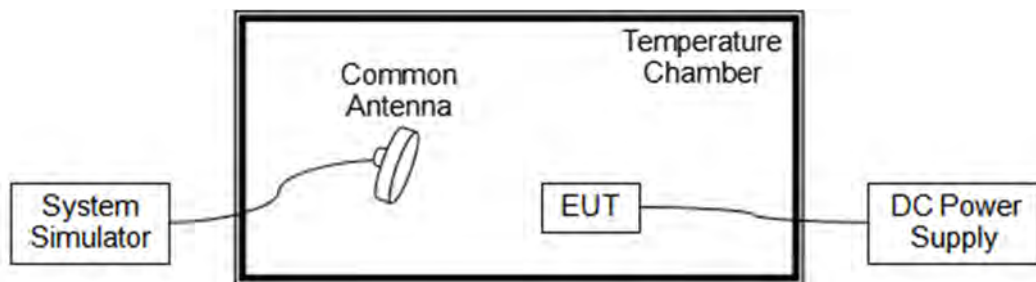
### 2.3.1. Requirement

According to FCC section 2.1055, 24.235, 27.54, 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  $-30^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$  at intervals of not more than  $10^{\circ}\text{C}$ .
- (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.

**Note:** The operating temperature of EUT is from  $0^{\circ}\text{C}$  to  $35^{\circ}\text{C}$ , which are specified by the applicant.

### 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 3.89V, 4.48V and 3.60V, which are specified by the applicant; the normal temperature here used is 20°C.

<b>LTE Band 2, QPSK, Channel 18900, Frequency 1880.0MHz</b>					
<b>Limit =Within Authorized Band</b>					
<b>Voltage (%)</b>	<b>Power (VDC)</b>	<b>Temp(°C)</b>	<b>Fre. Dev.(Hz)</b>	<b>Deviation (ppm)</b>	<b>Result</b>
Normal	3.89	+20(Ref)	-22	-0.012	PASS
Normal		0	-15	-0.008	
Normal		+10	28	0.015	
Normal		+20	22	0.012	
Normal		+30	21	0.011	
Normal		+35	-13	-0.007	
High	4.48	+20	-20	-0.011	
BATT.ENDPOINT	3.60	+20	17	0.009	

<b>LTE Band 4, QPSK, Channel 20175, Frequency 1732.5MHz</b>					
<b>Limit =Within Authorized Band</b>					
<b>Voltage (%)</b>	<b>Power (VDC)</b>	<b>Temp(°C)</b>	<b>Fre. Dev.(Hz)</b>	<b>Deviation (ppm)</b>	<b>Result</b>
Normal	3.89	+20(Ref)	20	0.012	PASS
Normal		0	-14	-0.008	
Normal		+10	28	0.016	
Normal		+20	20	0.012	
Normal		+30	23	0.013	
Normal		+35	28	0.016	
High	4.48	+20	15	0.009	
BATT.ENDPOINT	3.60	+20	24	0.014	





LTE Band 5, QPSK, Channel 20525, Frequency 836.5MHz Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	15	0.018	PASS
Normal		0	-22	-0.026	
Normal		+10	49	0.059	
Normal		+20	21	0.025	
Normal		+30	47	0.056	
Normal		+35	52	0.062	
High	4.48	+20	41	0.049	
BATT.ENDPOINT	3.60	+20	-22	-0.026	

LTE Band 7, QPSK, Channel 21100, Frequency 2535.0MHz Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	-19	-0.007	PASS
Normal		0	-17	-0.007	
Normal		+10	18	0.007	
Normal		+20	45	0.018	
Normal		+30	48	0.019	
Normal		+35	-14	-0.006	
High	4.48	+20	16	0.006	
BATT.ENDPOINT	3.60	+20	48	0.019	



<b>LTE Band 12, QPSK, Channel 23095, Frequency 707.5MHz</b>					
<b>Limit =Within Authorized Band</b>					
<b>Voltage (%)</b>	<b>Power (VDC)</b>	<b>Temp(°C)</b>	<b>Fre. Dev.(Hz)</b>	<b>Deviation (ppm)</b>	<b>Result</b>
Normal	3.89	+20(Ref)	15	0.021	PASS
Normal		0	13	0.018	
Normal		+10	23	0.033	
Normal		+20	14	0.020	
Normal		+30	18	0.025	
Normal		+35	51	0.072	
High	4.48	+20	52	0.073	
BATT.ENDPOINT	3.60	+20	53	0.075	

<b>LTE Band 13, QPSK, Channel 23230, Frequency 782MHz</b>					
<b>Limit=±2.5ppm</b>					
<b>Voltage (%)</b>	<b>Power (VDC)</b>	<b>Temp(°C)</b>	<b>Fre. Dev.(Hz)</b>	<b>Deviation (ppm)</b>	<b>Result</b>
Normal	3.89	+20(Ref)	36	0.046	PASS
Normal		0	-15	-0.019	
Normal		+10	14	0.018	
Normal		+20	28	0.036	
Normal		+30	22	0.028	
Normal		+35	-20	-0.026	
High	4.48	+20	27	0.035	
BATT.ENDPOINT	3.60	+20	28	0.036	





LTE Band 17, 64QAM, Channel 23790, Frequency 710.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	13	0.018	PASS
Normal		0	51	0.072	
Normal		+10	22	0.031	
Normal		+20	15	0.021	
Normal		+30	45	0.063	
Normal		+35	-22	-0.031	
High	4.48	+20	-16	-0.023	
BATT.ENDPOINT	3.60	+20	-17	-0.024	

LTE Band 18, 64QAM, Channel 23970, Frequency 827.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	23	0.028	PASS
Normal		0	19	0.023	
Normal		+10	-23	-0.028	
Normal		+20	-14	-0.017	
Normal		+30	15	0.018	
Normal		+35	34	0.041	
High	4.48	+20	32	0.039	
BATT.ENDPOINT	3.60	+20	20	0.024	



LTE Band 25, QPSK, Channel 26365, Frequency 1882.5MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	26	0.014	PASS
Normal		0	-14	-0.007	
Normal		+10	21	0.011	
Normal		+20	37	0.020	
Normal		+30	38	0.020	
Normal		+35	50	0.027	
High	4.48	+20	21	0.011	
BATT.ENDPOINT	3.60	+20	15	0.008	

LTE Band 26, QPSK, Channel 26915, Frequency 836.5MHz Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	13	0.016	PASS
Normal		0	27	0.032	
Normal		+10	53	0.063	
Normal		+20	-16	-0.019	
Normal		+30	27	0.032	
Normal		+35	23	0.027	
High	4.48	+20	-13	-0.016	
BATT.ENDPOINT	3.60	+20	-20	-0.024	





LTE Band 38, 64QAM, Channel 38000, Frequency 2595.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	33	0.013	PASS
Normal		0	34	0.013	
Normal		+10	19	0.007	
Normal		+20	14	0.005	
Normal		+30	-22	-0.008	
Normal		+35	42	0.016	
High	4.48	+20	22	0.008	
BATT.ENDPOINT	3.60	+20	14	0.005	

LTE Band 41, QPSK, Channel 40620, Frequency 2593MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	-14	-0.005	PASS
Normal		0	20	0.008	
Normal		+10	-22	-0.008	
Normal		+20	37	0.014	
Normal		+30	26	0.010	
Normal		+35	27	0.010	
High	4.48	+20	47	0.018	
BATT.ENDPOINT	3.60	+20	17	0.007	



LTE Band 66, QPSK, Channel 132322, Frequency 1745MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	26	0.015	PASS
Normal		0	-23	-0.013	
Normal		+10	22	0.013	
Normal		+20	16	0.009	
Normal		+30	33	0.019	
Normal		+35	-16	-0.009	
High	4.48	+20	47	0.027	
BATT.ENDPOINT	3.60	+20	-13	-0.007	

LTE Band 71, QPSK, Channel 133322, Frequency 683.0MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	44	0.064	PASS
Normal		0	47	0.069	
Normal		+10	-23	-0.034	
Normal		+20	45	0.066	
Normal		+30	30	0.044	
Normal		+35	18	0.026	
High	4.48	+20	-22	-0.032	
BATT.ENDPOINT	3.60	+20	-14	-0.020	



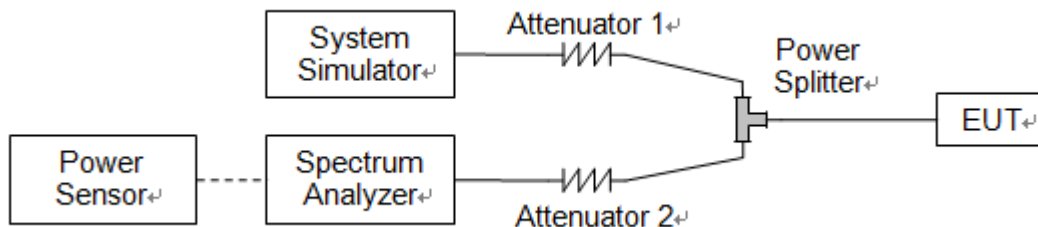
## 2.4. Peak to Average Ratio

### 2.4.1. Requirement

According to FCC section 24.232(d), 27.50(d) and 27.50(j)(4), the peak to average ratio (PAR) of the transmission may not exceed 13dB.

According to FCC section 27.50(k)(4) for Band 42, in measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13dB.

### 2.4.2. 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 50Ohm; 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)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	4.67	<=13	PASS
	Low	16QAM	5.42	<=13	PASS
	Low	64QAM	6.60	<=13	PASS
	Mid	QPSK	4.68	<=13	PASS
	Mid	16QAM	5.43	<=13	PASS
	Mid	64QAM	6.52	<=13	PASS
	High	QPSK	4.15	<=13	PASS
	High	16QAM	4.92	<=13	PASS
	High	64QAM	6.01	<=13	PASS
3	Low	QPSK	4.55	<=13	PASS
	Low	16QAM	5.44	<=13	PASS
	Low	64QAM	6.43	<=13	PASS
	Mid	QPSK	4.70	<=13	PASS
	Mid	16QAM	5.60	<=13	PASS
	Mid	64QAM	6.47	<=13	PASS
	High	QPSK	4.16	<=13	PASS
	High	16QAM	5.09	<=13	PASS
	High	64QAM	6.07	<=13	PASS
5	Low	QPSK	4.70	<=13	PASS
	Low	16QAM	5.40	<=13	PASS
	Low	64QAM	6.37	<=13	PASS
	Mid	QPSK	4.92	<=13	PASS
	Mid	16QAM	5.66	<=13	PASS
	Mid	64QAM	6.49	<=13	PASS
	High	QPSK	4.68	<=13	PASS
	High	16QAM	5.38	<=13	PASS
	High	64QAM	6.25	<=13	PASS
10	Low	QPSK	4.61	<=13	PASS
	Low	16QAM	5.34	<=13	PASS
	Low	64QAM	6.16	<=13	PASS
	Mid	QPSK	5.04	<=13	PASS
	Mid	16QAM	5.97	<=13	PASS
	Mid	64QAM	6.51	<=13	PASS
	High	QPSK	4.99	<=13	PASS
	High	16QAM	5.72	<=13	PASS
	High	64QAM	6.40	<=13	PASS





15	Low	QPSK	4.51	<=13	PASS
	Low	16QAM	5.23	<=13	PASS
	Low	64QAM	6.08	<=13	PASS
	Mid	QPSK	4.96	<=13	PASS
	Mid	16QAM	5.73	<=13	PASS
	Mid	64QAM	6.40	<=13	PASS
	High	QPSK	4.91	<=13	PASS
	High	16QAM	5.72	<=13	PASS
	High	64QAM	6.45	<=13	PASS
20	Low	QPSK	4.81	<=13	PASS
	Low	16QAM	5.51	<=13	PASS
	Low	64QAM	6.17	<=13	PASS
	Mid	QPSK	5.24	<=13	PASS
	Mid	16QAM	5.81	<=13	PASS
	Mid	64QAM	6.45	<=13	PASS
	High	QPSK	4.90	<=13	PASS
	High	16QAM	5.74	<=13	PASS
	High	64QAM	6.42	<=13	PASS



LTE Band 4					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	5.18	<=13	PASS
	Low	16QAM	5.93	<=13	PASS
	Low	64QAM	6.70	<=13	PASS
	Mid	QPSK	4.88	<=13	PASS
	Mid	16QAM	5.60	<=13	PASS
	Mid	64QAM	6.44	<=13	PASS
	High	QPSK	5.02	<=13	PASS
	High	16QAM	5.75	<=13	PASS
	High	64QAM	6.67	<=13	PASS
3	Low	QPSK	5.11	<=13	PASS
	Low	16QAM	6.02	<=13	PASS
	Low	64QAM	6.60	<=13	PASS
	Mid	QPSK	4.80	<=13	PASS
	Mid	16QAM	5.69	<=13	PASS
	Mid	64QAM	6.36	<=13	PASS
	High	QPSK	4.99	<=13	PASS
	High	16QAM	5.90	<=13	PASS
	High	64QAM	6.50	<=13	PASS
5	Low	QPSK	5.21	<=13	PASS
	Low	16QAM	5.97	<=13	PASS
	Low	64QAM	6.68	<=13	PASS
	Mid	QPSK	5.04	<=13	PASS
	Mid	16QAM	5.73	<=13	PASS
	Mid	64QAM	6.45	<=13	PASS
	High	QPSK	5.11	<=13	PASS
	High	16QAM	5.84	<=13	PASS
	High	64QAM	6.58	<=13	PASS
10	Low	QPSK	5.25	<=13	PASS
	Low	16QAM	6.00	<=13	PASS
	Low	64QAM	6.64	<=13	PASS
	Mid	QPSK	5.06	<=13	PASS
	Mid	16QAM	5.77	<=13	PASS
	Mid	64QAM	6.41	<=13	PASS
	High	QPSK	5.13	<=13	PASS
	High	16QAM	5.88	<=13	PASS
	High	64QAM	6.56	<=13	PASS





15	Low	QPSK	5.23	<=13	PASS
	Low	16QAM	5.93	<=13	PASS
	Low	64QAM	6.62	<=13	PASS
	Mid	QPSK	4.94	<=13	PASS
	Mid	16QAM	5.78	<=13	PASS
	Mid	64QAM	6.47	<=13	PASS
	High	QPSK	5.01	<=13	PASS
	High	16QAM	5.80	<=13	PASS
	High	64QAM	6.56	<=13	PASS
20	Low	QPSK	5.11	<=13	PASS
	Low	16QAM	5.92	<=13	PASS
	Low	64QAM	6.56	<=13	PASS
	Mid	QPSK	5.04	<=13	PASS
	Mid	16QAM	5.84	<=13	PASS
	Mid	64QAM	6.48	<=13	PASS
	High	QPSK	5.11	<=13	PASS
	High	16QAM	5.88	<=13	PASS
	High	64QAM	6.50	<=13	PASS



LTE Band 25					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	4.58	<=13	PASS
	Low	16QAM	5.33	<=13	PASS
	Low	64QAM	6.41	<=13	PASS
	Mid	QPSK	4.38	<=13	PASS
	Mid	16QAM	5.32	<=13	PASS
	Mid	64QAM	6.14	<=13	PASS
	High	QPSK	4.86	<=13	PASS
	High	16QAM	5.66	<=13	PASS
	High	64QAM	6.48	<=13	PASS
3	Low	QPSK	4.52	<=13	PASS
	Low	16QAM	5.38	<=13	PASS
	Low	64QAM	6.11	<=13	PASS
	Mid	QPSK	4.35	<=13	PASS
	Mid	16QAM	5.33	<=13	PASS
	Mid	64QAM	6.11	<=13	PASS
	High	QPSK	4.81	<=13	PASS
	High	16QAM	5.71	<=13	PASS
	High	64QAM	6.39	<=13	PASS
5	Low	QPSK	4.71	<=13	PASS
	Low	16QAM	5.43	<=13	PASS
	Low	64QAM	6.18	<=13	PASS
	Mid	QPSK	4.75	<=13	PASS
	Mid	16QAM	5.57	<=13	PASS
	Mid	64QAM	6.22	<=13	PASS
	High	QPSK	4.98	<=13	PASS
	High	16QAM	5.69	<=13	PASS
	High	64QAM	6.48	<=13	PASS
10	Low	QPSK	4.79	<=13	PASS
	Low	16QAM	5.52	<=13	PASS
	Low	64QAM	6.18	<=13	PASS
	Mid	QPSK	4.88	<=13	PASS
	Mid	16QAM	5.62	<=13	PASS
	Mid	64QAM	6.26	<=13	PASS
	High	QPSK	4.99	<=13	PASS
	High	16QAM	5.66	<=13	PASS
	High	64QAM	6.27	<=13	PASS





15	Low	QPSK	4.62	<=13	PASS
	Low	16QAM	5.39	<=13	PASS
	Low	64QAM	6.12	<=13	PASS
	Mid	QPSK	5.00	<=13	PASS
	Mid	16QAM	5.83	<=13	PASS
	Mid	64QAM	6.38	<=13	PASS
	High	QPSK	4.95	<=13	PASS
	High	16QAM	5.69	<=13	PASS
	High	64QAM	6.32	<=13	PASS
20	Low	QPSK	4.85	<=13	PASS
	Low	16QAM	5.61	<=13	PASS
	Low	64QAM	6.23	<=13	PASS
	Mid	QPSK	5.15	<=13	PASS
	Mid	16QAM	5.80	<=13	PASS
	Mid	64QAM	6.51	<=13	PASS
	High	QPSK	5.04	<=13	PASS
	High	16QAM	5.82	<=13	PASS
	High	64QAM	6.43	<=13	PASS



LTE Band 66					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	5.06	<=13	PASS
	Low	16QAM	5.97	<=13	PASS
	Low	64QAM	6.60	<=13	PASS
	Mid	QPSK	4.60	<=13	PASS
	Mid	16QAM	5.59	<=13	PASS
	Mid	64QAM	6.17	<=13	PASS
	High	QPSK	4.91	<=13	PASS
	High	16QAM	5.61	<=13	PASS
	High	64QAM	6.63	<=13	PASS
3	Low	QPSK	5.01	<=13	PASS
	Low	16QAM	6.23	<=13	PASS
	Low	64QAM	6.54	<=13	PASS
	Mid	QPSK	4.60	<=13	PASS
	Mid	16QAM	5.60	<=13	PASS
	Mid	64QAM	6.17	<=13	PASS
	High	QPSK	4.96	<=13	PASS
	High	16QAM	5.85	<=13	PASS
	High	64QAM	6.56	<=13	PASS
5	Low	QPSK	5.21	<=13	PASS
	Low	16QAM	5.92	<=13	PASS
	Low	64QAM	6.62	<=13	PASS
	Mid	QPSK	4.89	<=13	PASS
	Mid	16QAM	5.62	<=13	PASS
	Mid	64QAM	6.26	<=13	PASS
	High	QPSK	5.17	<=13	PASS
	High	16QAM	5.91	<=13	PASS
	High	64QAM	6.60	<=13	PASS
10	Low	QPSK	5.32	<=13	PASS
	Low	16QAM	6.03	<=13	PASS
	Low	64QAM	6.67	<=13	PASS
	Mid	QPSK	4.96	<=13	PASS
	Mid	16QAM	5.73	<=13	PASS
	Mid	64QAM	6.32	<=13	PASS
	High	QPSK	5.13	<=13	PASS
	High	16QAM	5.85	<=13	PASS
	High	64QAM	6.49	<=13	PASS





15	Low	QPSK	5.18	<=13	PASS
	Low	16QAM	5.98	<=13	PASS
	Low	64QAM	6.67	<=13	PASS
	Mid	QPSK	4.88	<=13	PASS
	Mid	16QAM	5.65	<=13	PASS
	Mid	64QAM	6.36	<=13	PASS
	High	QPSK	4.90	<=13	PASS
	High	16QAM	5.66	<=13	PASS
	High	64QAM	6.43	<=13	PASS
20	Low	QPSK	5.12	<=13	PASS
	Low	16QAM	5.96	<=13	PASS
	Low	64QAM	6.61	<=13	PASS
	Mid	QPSK	5.01	<=13	PASS
	Mid	16QAM	5.84	<=13	PASS
	Mid	64QAM	6.40	<=13	PASS
	High	QPSK	5.13	<=13	PASS
	High	16QAM	6.04	<=13	PASS
	High	64QAM	6.49	<=13	PASS



Band2 / 1.4MHz / Low CH / QPSK



Band2 / 1.4MHz / Low CH / 16QAM



Band2 / 1.4MHz / Low CH / 64QAM



Band2 / 1.4MHz / Mid CH / QPSK

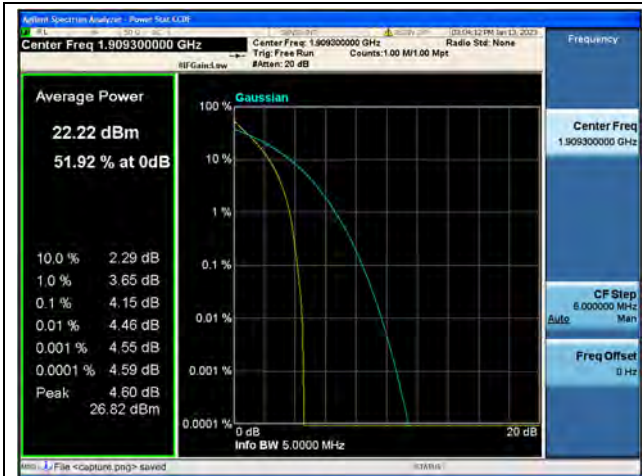


Band2 / 1.4MHz / Mid CH / 16QAM

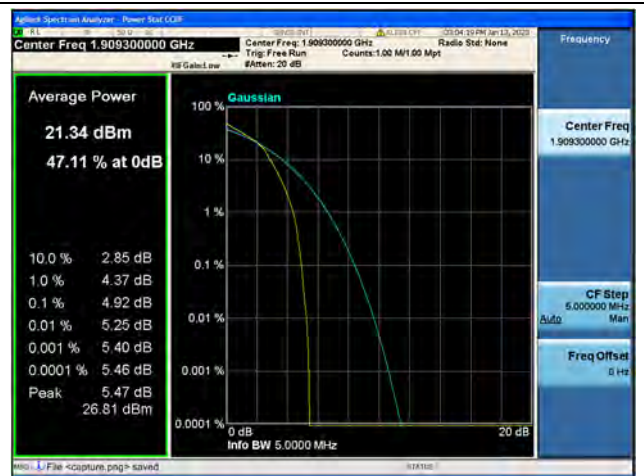


Band2 / 1.4MHz / Mid CH / 64QAM





Band2 / 1.4MHz / High CH / QPSK



Band2 / 1.4MHz / High CH / 16QAM



Band2 / 1.4MHz / High CH / 64QAM



Band2 / 3MHz / Low CH / QPSK



Band2 / 3MHz / Low CH / 16QAM



Band2 / 3MHz / Low CH / 64QAM