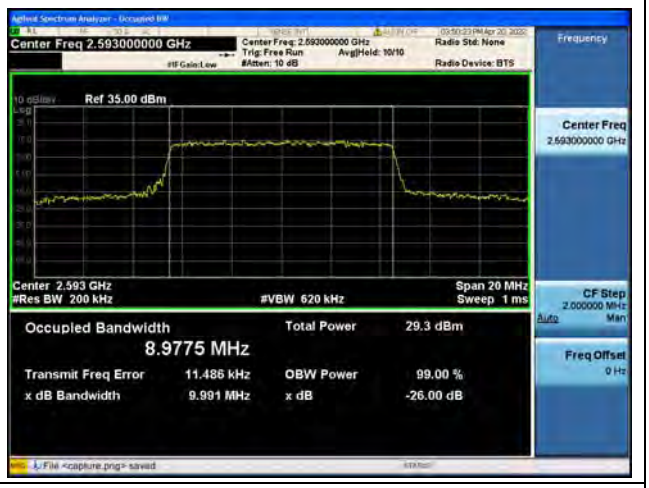
Band41 / 10MHz / Low CH / QPSK

Band41 / 10MHz / Low CH / 16QAM

Band41 / 10MHz / Low CH / 64QAM

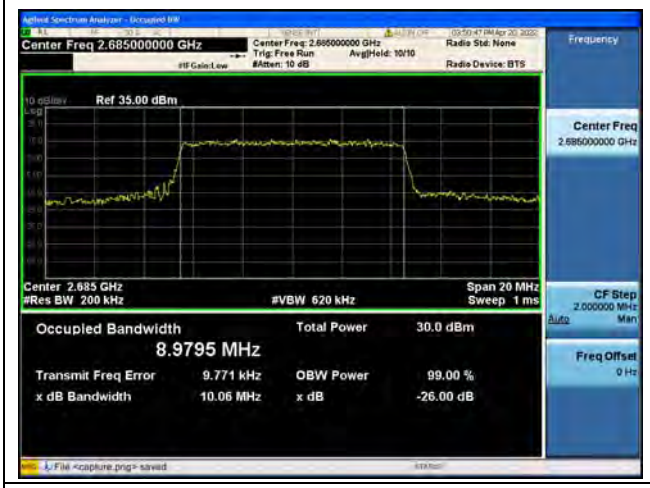
Band41 / 10MHz / Mid CH / QPSK



Band41 / 10MHz / Mid CH / 16QAM

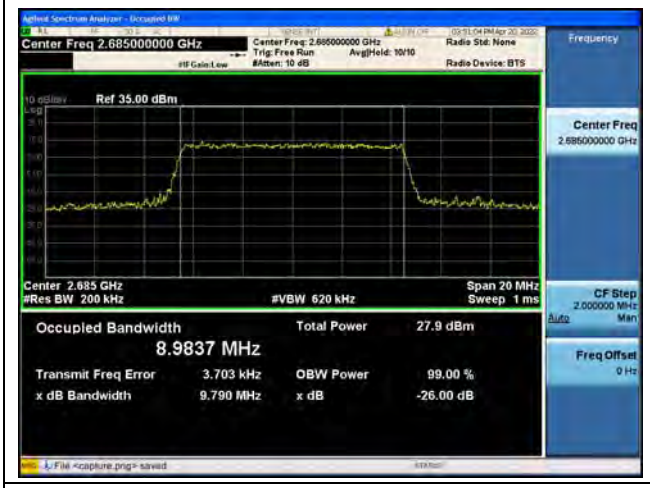
Band41 / 10MHz / Mid CH / 64QAM

Band41 / 10MHz / High CH / QPSK



Band41 / 10MHz / High CH / 16QAM

Band41 / 10MHz / High CH / 64QAM



Band41 / 15MHz / Low CH / QPSK

Band41 / 15MHz / Low CH / 16QAM

Band41 / 15MHz / Low CH / 64QAM

Band41 / 15MHz / Mid CH / QPSK

Band41 / 15MHz / Mid CH / 16QAM

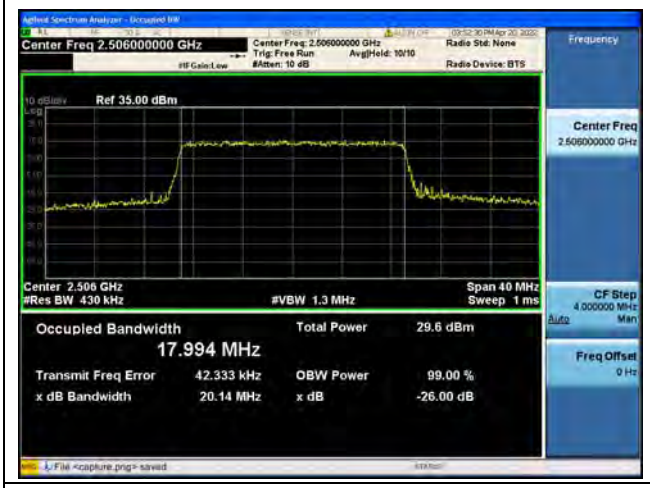
Band41 / 15MHz / Mid CH / 64QAM

Band41 / 15MHz / High CH / QPSK

Band41 / 15MHz / High CH / 16QAM

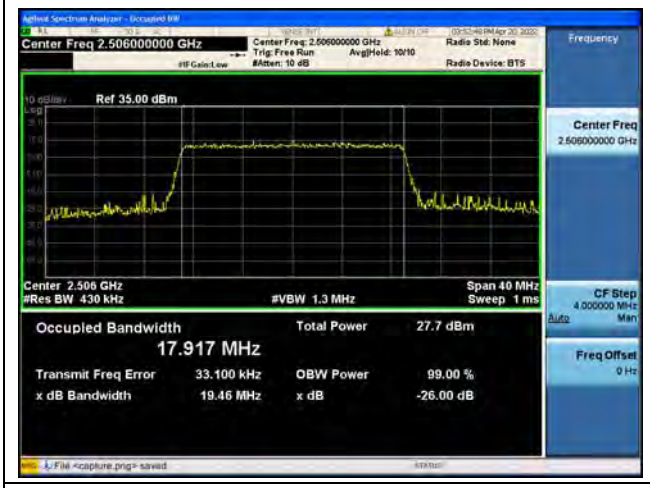
Band41 / 15MHz / High CH / 64QAM

Band41 / 20MHz / Low CH / QPSK



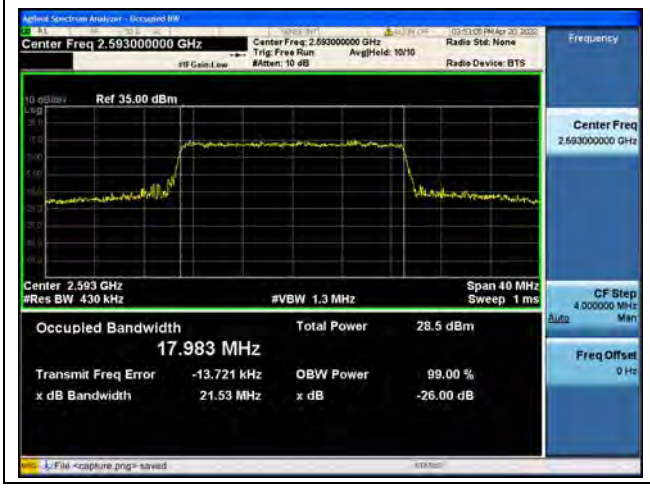
Band41 / 20MHz / Low CH / 16QAM

Band41 / 20MHz / Low CH / 64QAM



Band41 / 20MHz / Mid CH / QPSK

Band41 / 20MHz / Mid CH / 16QAM



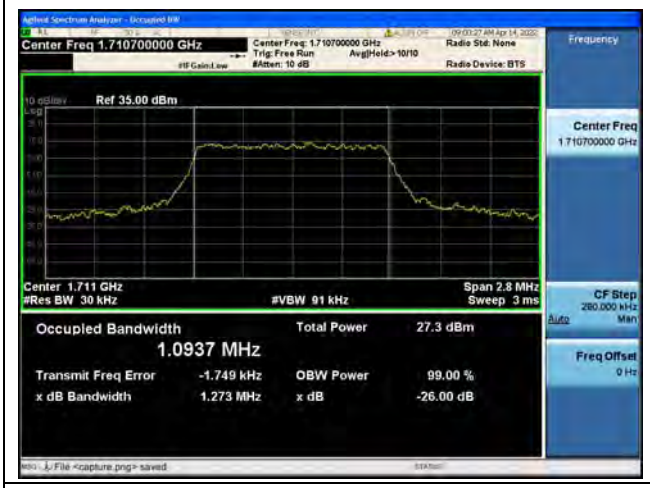
Band41 / 20MHz / Mid CH / 64QAM

Band41 / 20MHz / High CH / QPSK

Band41 / 20MHz / High CH / 16QAM

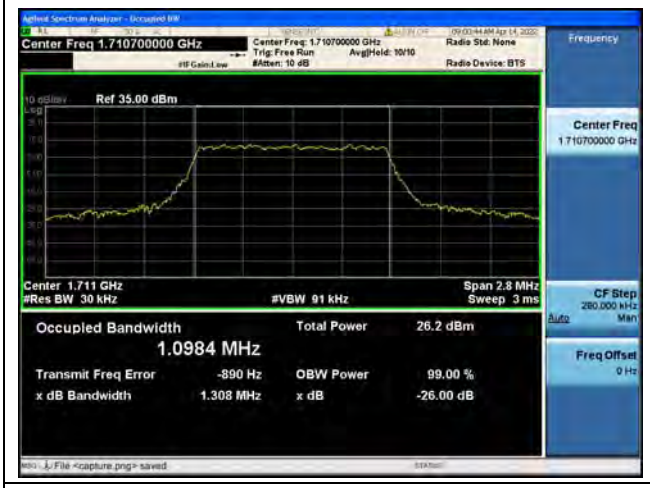
Band41 / 20MHz / High CH / 64QAM

Band66 / 1.4MHz / Low CH / QPSK



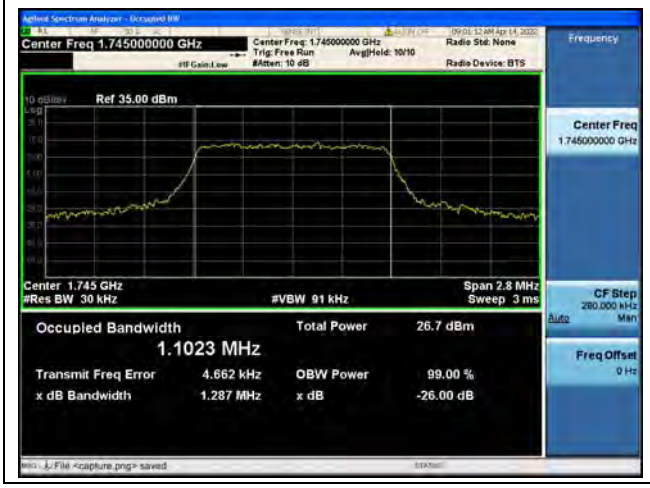
Band66 / 1.4MHz / Low CH / 16QAM

Band66 / 1.4MHz / Low CH / 64QAM



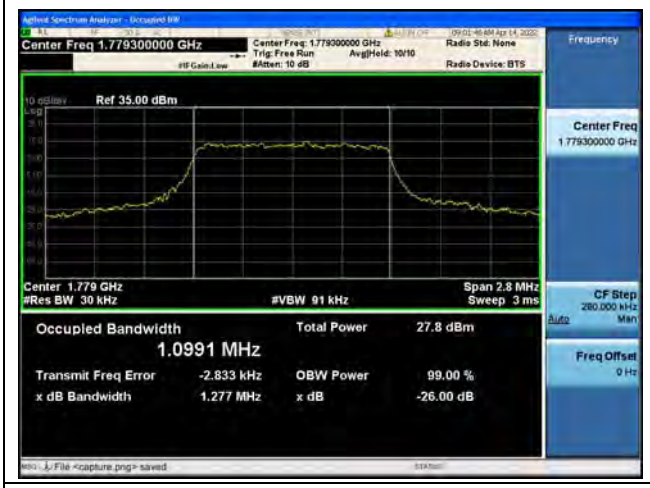
Band66 / 1.4MHz / Mid CH / QPSK

Band66 / 1.4MHz / Mid CH / 16QAM



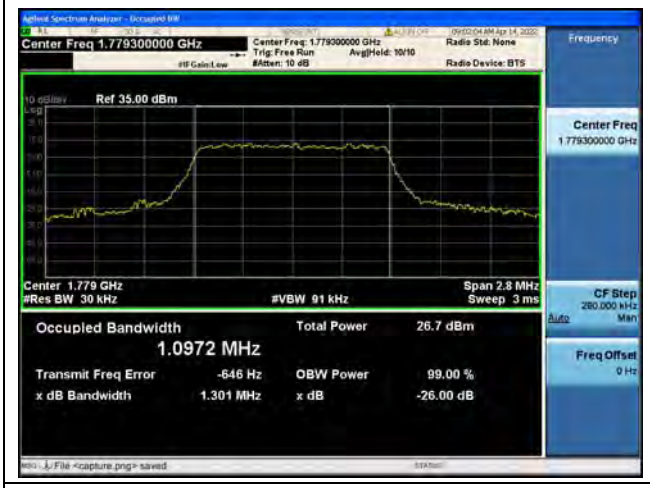
Band66 / 1.4MHz / Mid CH / 64QAM

Band66 / 1.4MHz / High CH / QPSK



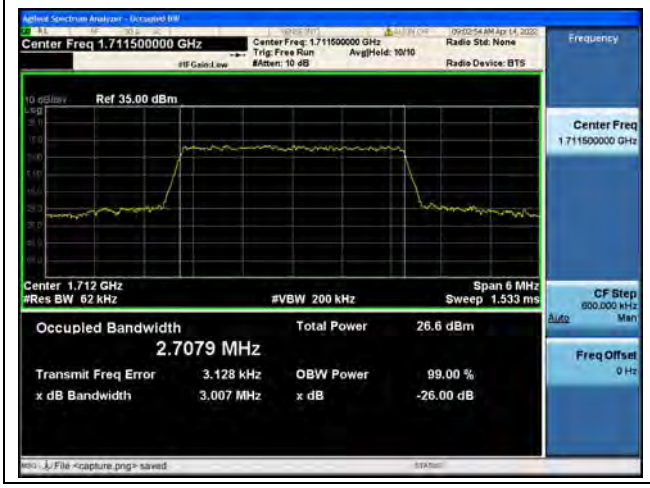
Band66 / 1.4MHz / High CH / 16QAM

Band66 / 1.4MHz / High CH / 64QAM



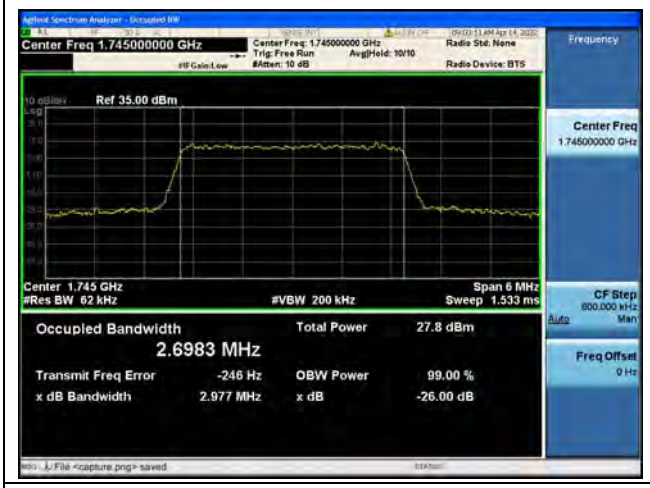
Band66 / 3MHz / Low CH / QPSK

Band66 / 3MHz / Low CH / 16QAM

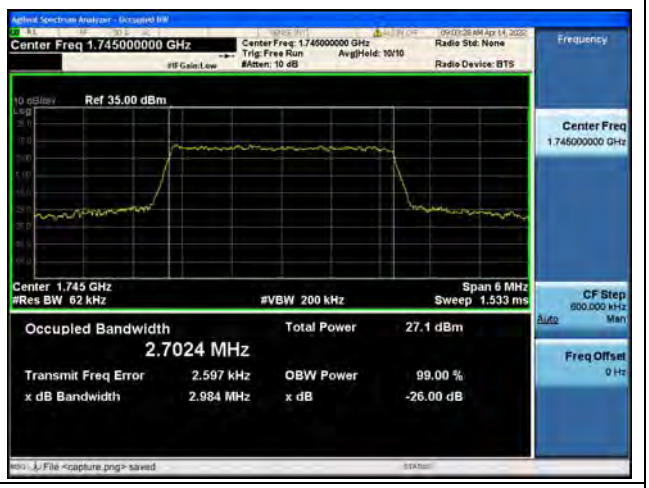


Band66 / 3MHz / Low CH / 64QAM

Band66 / 3MHz / Mid CH / QPSK



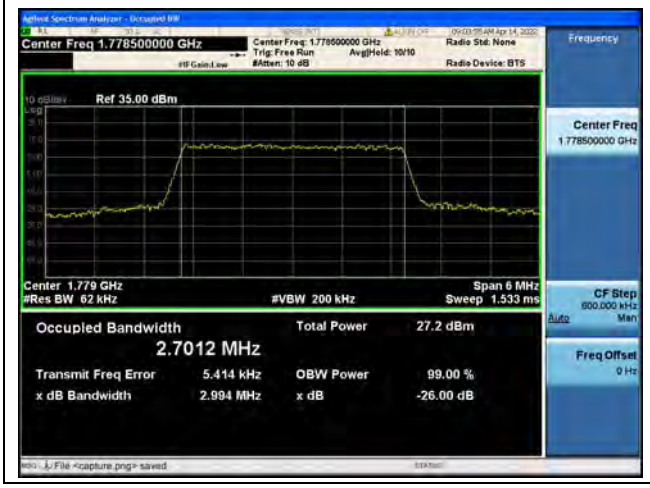
Band66 / 3MHz / Mid CH / 16QAM



Band66 / 3MHz / Mid CH / 64QAM

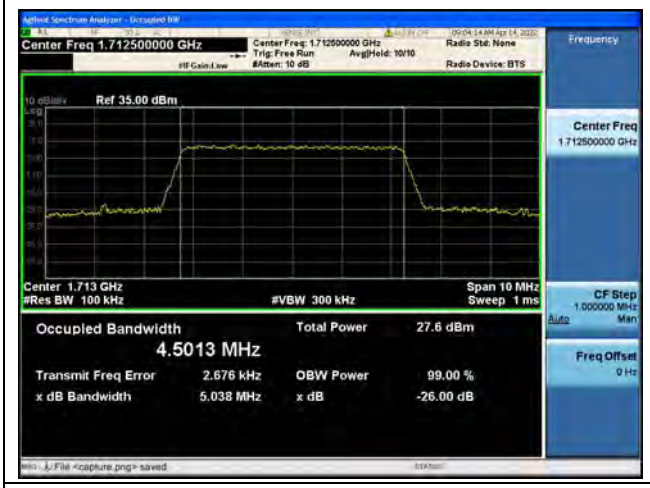
Band66 / 3MHz / High CH / QPSK

Band66 / 3MHz / High CH / 16QAM



Band66 / 3MHz / High CH / 64QAM

Band66 / 5MHz / Low CH / QPSK



Band66 / 5MHz / Low CH / 16QAM

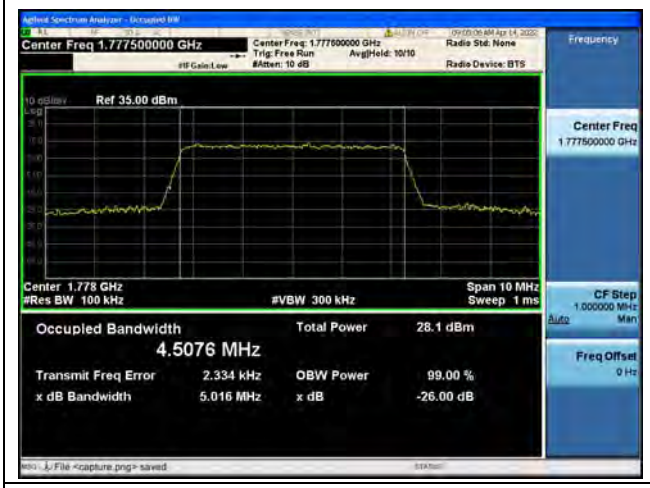
Band66 / 5MHz / Low CH / 64QAM

Band66 / 5MHz / Mid CH / QPSK

Band66 / 5MHz / Mid CH / 16QAM

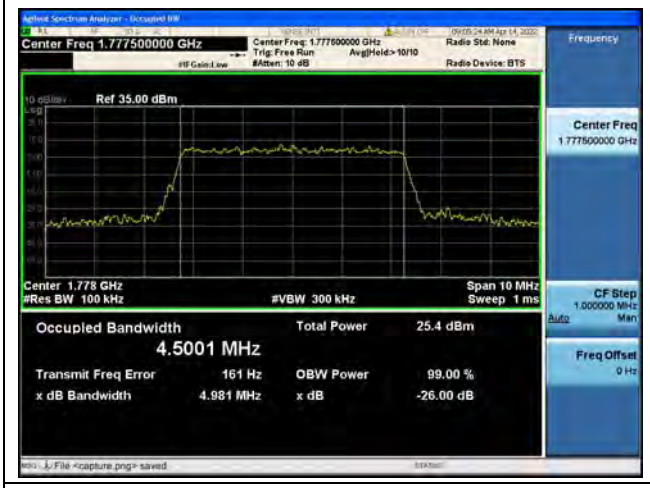
Band66 / 5MHz / Mid CH / 64QAM

Band66 / 5MHz / High CH / QPSK



Band66 / 5MHz / High CH / 16QAM

Band66 / 5MHz / High CH / 64QAM

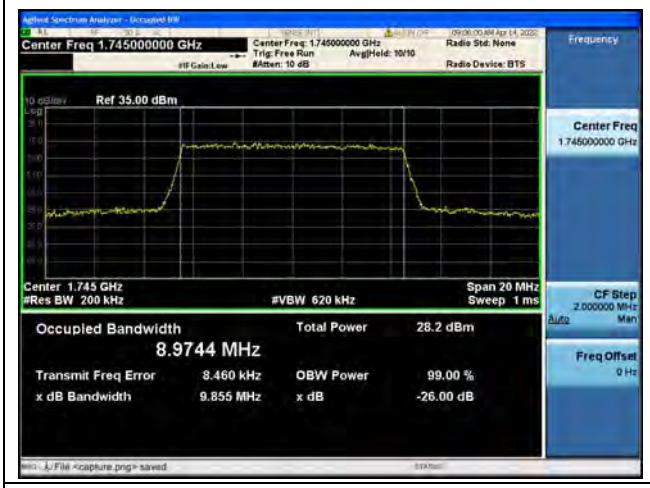


Band66 / 10MHz / Low CH / QPSK

Band66 / 10MHz / Low CH / 16QAM

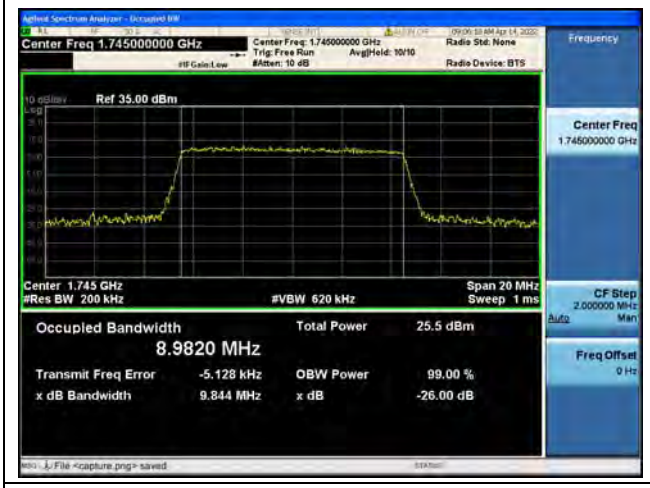
Band66 / 10MHz / Low CH / 64QAM

Band66 / 10MHz / Mid CH / QPSK



Band66 / 10MHz / Mid CH / 16QAM

Band66 / 10MHz / Mid CH / 64QAM

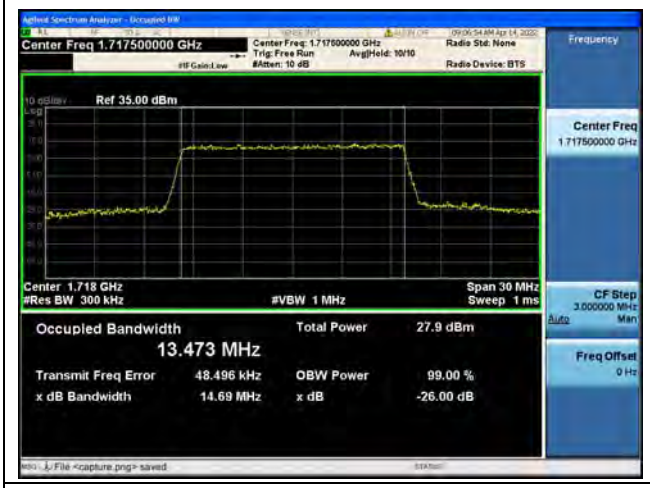


Band66 / 10MHz / High CH / QPSK

Band66 / 10MHz / High CH / 16QAM

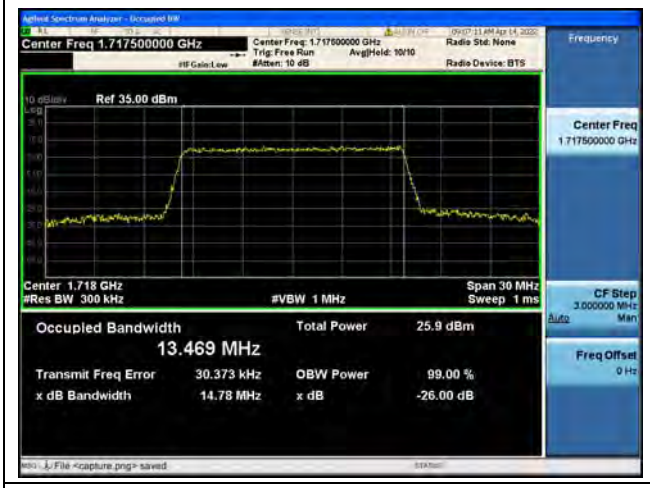
Band66 / 10MHz / High CH / 64QAM

Band66 / 15MHz / Low CH / QPSK



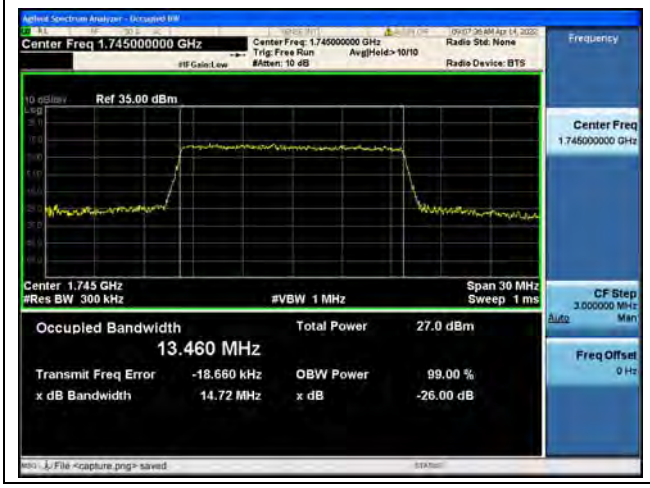
Band66 / 15MHz / Low CH / 16QAM

Band66 / 15MHz / Low CH / 64QAM



Band66 / 15MHz / Mid CH / QPSK

Band66 / 15MHz / Mid CH / 16QAM



Band66 / 15MHz / Mid CH / 64QAM

Band66 / 15MHz / High CH / QPSK

Band66 / 15MHz / High CH / 16QAM

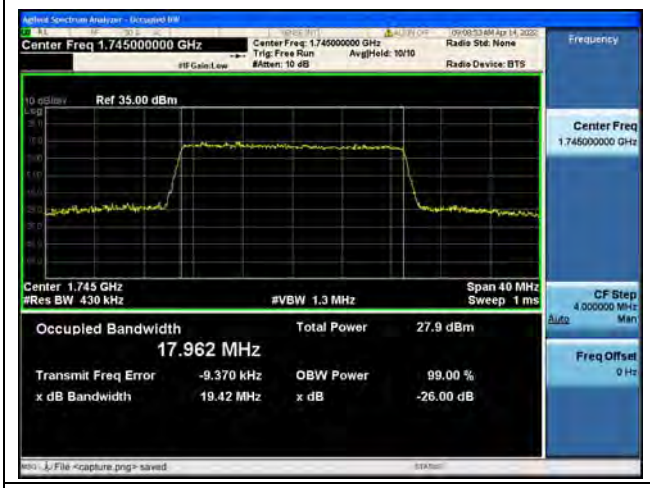
Band66 / 15MHz / High CH / 64QAM

Band66 / 20MHz / Low CH / QPSK

Band66 / 20MHz / Low CH / 16QAM

Band66 / 20MHz / Low CH / 64QAM

Band66 / 20MHz / Mid CH / QPSK

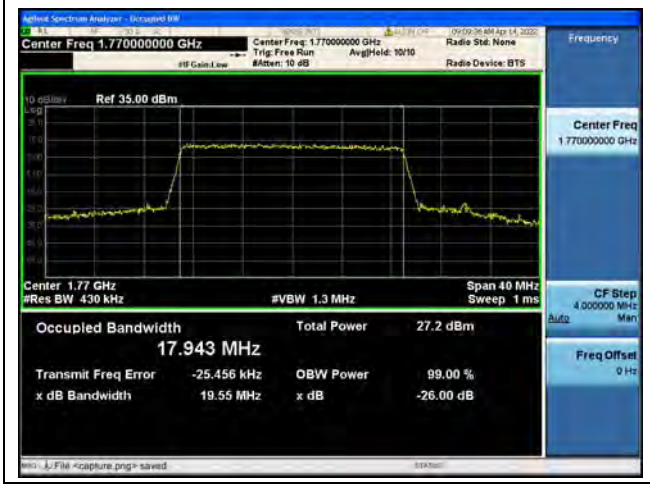


Band66 / 20MHz / Mid CH / 16QAM

Band66 / 20MHz / Mid CH / 64QAM

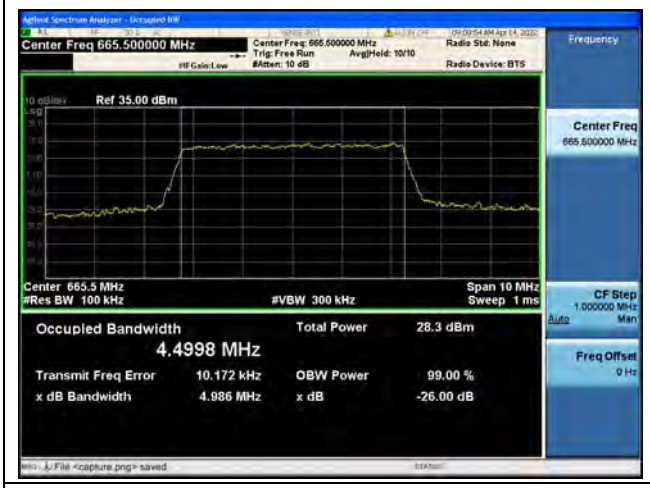
Band66 / 20MHz / High CH / QPSK

Band66 / 20MHz / High CH / 16QAM

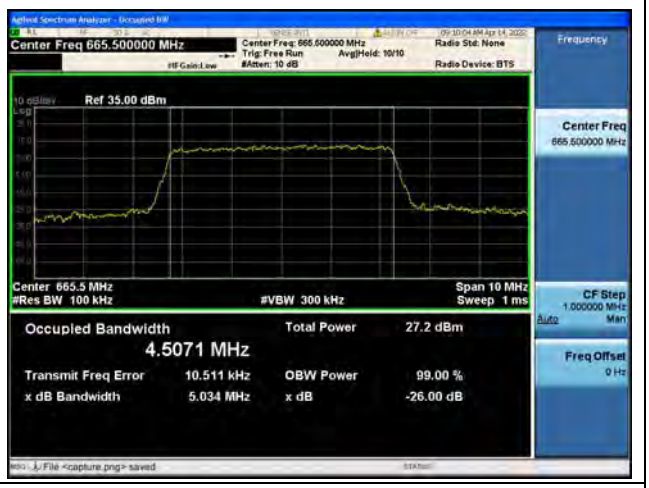


Band66 / 20MHz / High CH / 64QAM

Band71 / 5MHz / Low CH / QPSK



Band71 / 5MHz / Low CH / 16QAM



Band71 / 5MHz / Low CH / 64QAM

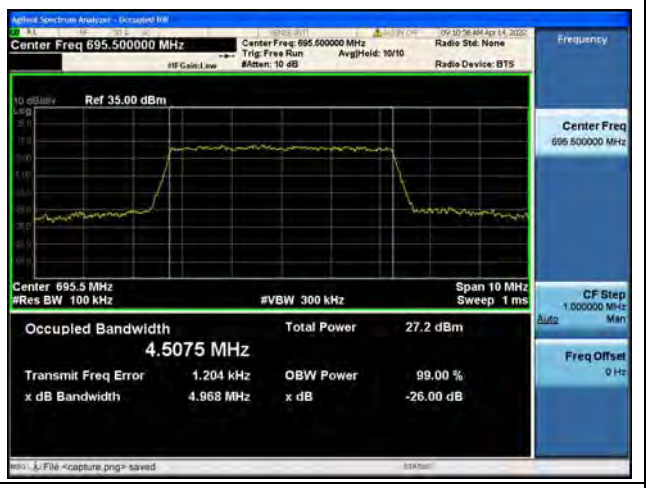
Band71 / 5MHz / Mid CH / QPSK

Band71 / 5MHz / Mid CH / 16QAM

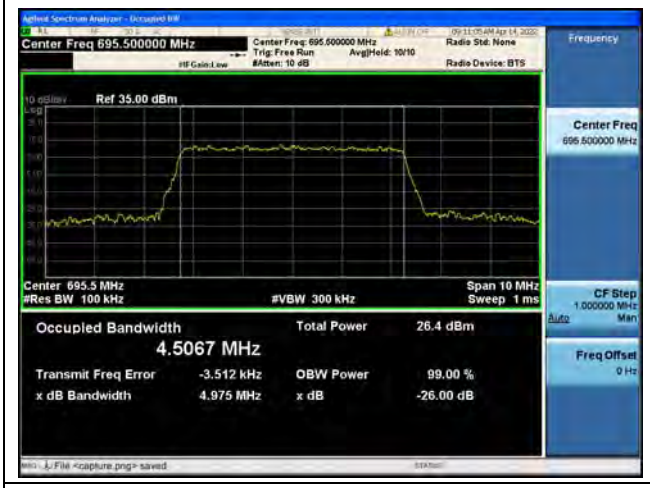
Band71 / 5MHz / Mid CH / 64QAM

Band71 / 5MHz / High CH / QPSK

Band71 / 5MHz / High CH / 16QAM



Band71 / 5MHz / High CH / 64QAM



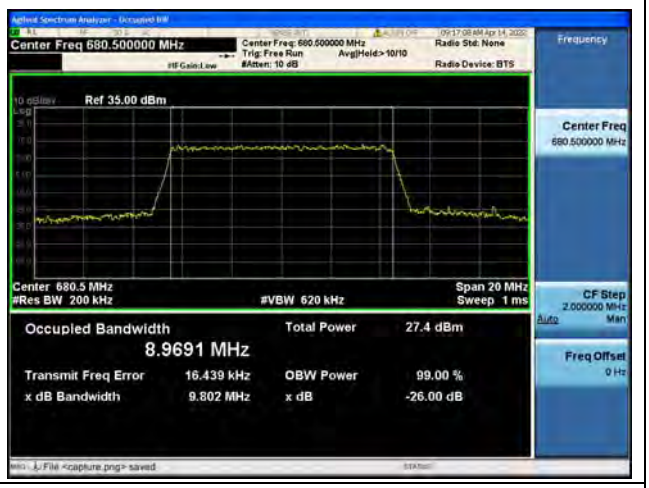
Band71 / 10MHz / Low CH / QPSK

Band71 / 10MHz / Low CH / 16QAM

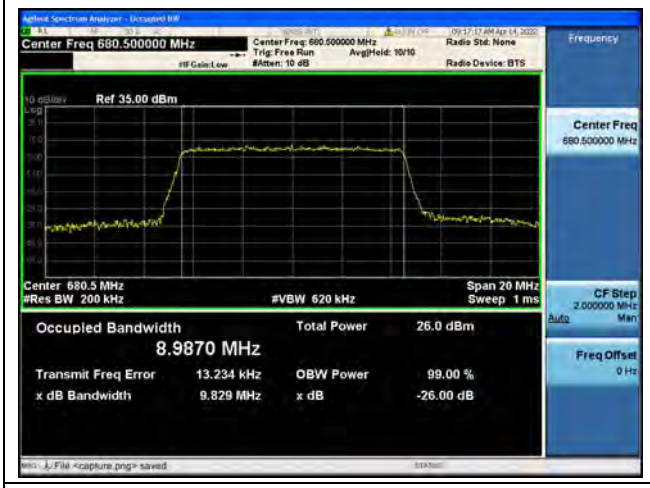
Band71 / 10MHz / Low CH / 64QAM

Band71 / 10MHz / Mid CH / QPSK

Band71 / 10MHz / Mid CH / 16QAM



Band71 / 10MHz / Mid CH / 64QAM



Band71 / 10MHz / High CH / QPSK

Band71 / 10MHz / High CH / 16QAM

Band71 / 10MHz / High CH / 64QAM

Band71 / 15MHz / Low CH / QPSK

Band71 / 15MHz / Low CH / 16QAM

Band71 / 15MHz / Low CH / 64QAM

Band71 / 15MHz / Mid CH / QPSK

Band71 / 15MHz / Mid CH / 16QAM

Band71 / 15MHz / Mid CH / 64QAM

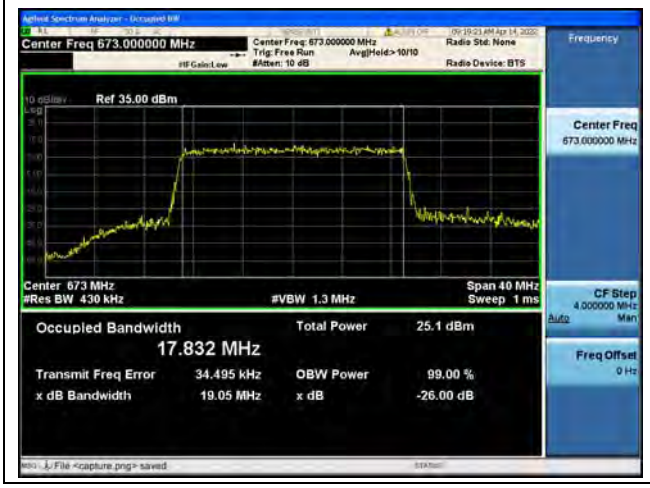
Band71 / 15MHz / High CH / QPSK

Band71 / 15MHz / High CH / 16QAM

Band71 / 15MHz / High CH / 64QAM

Band71 / 20MHz / Low CH / QPSK

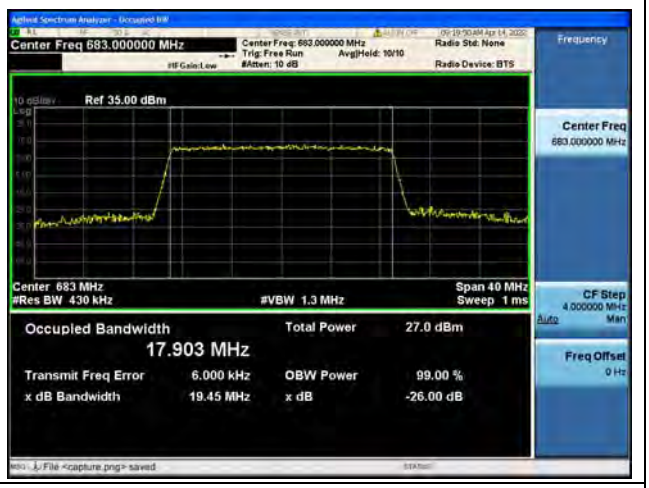
Band71 / 20MHz / Low CH / 16QAM



Band71 / 20MHz / Low CH / 64QAM

Band71 / 20MHz / Mid CH / QPSK

Band71 / 20MHz / Mid CH / 16QAM



Band71 / 20MHz / Mid CH / 64QAM

Band71 / 20MHz / High CH / QPSK

Band71 / 20MHz / High CH / 16QAM

Band71 / 20MHz / High CH / 64QAM

2.3. Frequency Stability

2.3.1. Requirement

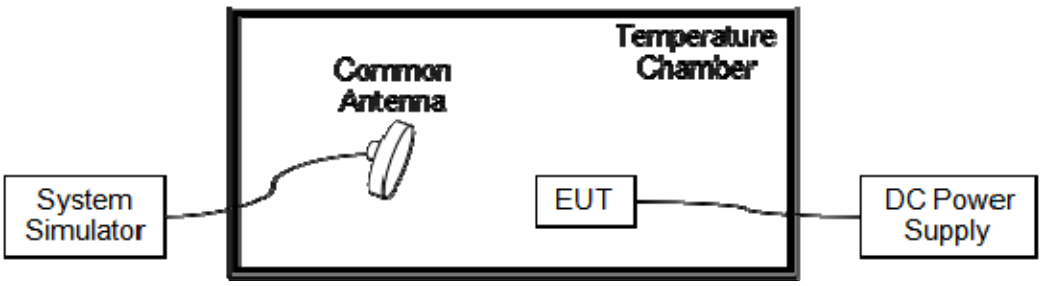
According to FCC section 2.1055, 24.235, 27.54, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

(a) The temperature is varied from -30°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.

Note: The operating temperature of EUT is from 0°C to 49°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 3.85V, 4.20V and 3.65V, which are specified by the applicant; the normal temperature here used is 20°C.

LTE Band 2, QPSK, Channel 18900, Frequency 1880.0MHz Limit =Within Authorized Band					
Voltage (%)	**Power (VDC)**	**Temp(°C)**	**Fre. Dev.(Hz)**	**Deviation (ppm)**	**Result**
Normal	3.80	+20(Ref)	33	0.018	PASS
Normal		0	54	0.029	
Normal		+10	14	0.007	
Normal		+20	-19	-0.010	
Normal		+30	-40	-0.021	
Normal		+40	-23	-0.012	
Normal		+49	39	0.021	
High	4.35	+20	27	0.014	
BATT.ENDPOINT	3.65	+20	-48	-0.026	

LTE Band 4, QPSK, Channel 20175, Frequency 1732.5MHz Limit =Within Authorized Band					
Voltage (%)	**Power (VDC)**	**Temp(°C)**	**Fre. Dev.(Hz)**	**Deviation (ppm)**	**Result**
Normal	3.80	+20(Ref)	13	0.008	PASS
Normal		0	50	0.029	
Normal		+10	18	0.010	
Normal		+20	-41	-0.024	
Normal		+30	13	0.008	
Normal		+40	38	0.022	
Normal		+49	-13	-0.008	
High	4.35	+20	34	0.020	
BATT.ENDPOINT	3.65	+20	-44	-0.025	

LTE Band 5, QPSK, Channel 20525, Frequency 836.5MHz Limit=±2.5ppm					
Voltage (%)	**Power (VDC)**	**Temp(°C)**	**Fre. Dev.(Hz)**	**Deviation (ppm)**	**Result**
Normal	3.80	+20(Ref)	26	0.031	PASS
Normal		0	27	0.032	
Normal		+10	13	0.016	
Normal		+20	-15	-0.018	
Normal		+30	-37	-0.044	
Normal		+40	49	0.059	
Normal		+49	36	0.043	
High	4.35	+20	-44	-0.053	
BATT.ENDPOINT	3.65	+20	42	0.050	

LTE Band 12, QPSK, Channel 23095, Frequency 707.5MHz Limit =Within Authorized Band					
Voltage (%)	**Power (VDC)**	**Temp(°C)**	**Fre. Dev.(Hz)**	**Deviation (ppm)**	**Result**
Normal	3.80	+20(Ref)	-47	-0.066	PASS
Normal		0	50	0.071	
Normal		+10	28	0.040	
Normal		+20	-53	-0.075	
Normal		+30	25	0.035	
Normal		+40	52	0.073	
Normal		+49	38	0.054	
High	4.35	+20	35	0.049	
BATT.ENDPOINT	3.65	+20	-59	-0.083	

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	3.80	+20(Ref)	-23	-0.012	PASS
Normal		0	-41	-0.022	
Normal		+10	26	0.014	
Normal		+20	-35	-0.019	
Normal		+30	28	0.015	
Normal		+40	-58	-0.031	
Normal		+49	29	0.015	
High	4.35	+20	45	0.024	
BATT.ENDPOINT	3.65	+20	47	0.025	

LTE Band 26, QPSK, Channel 26915, Frequency 836.5MHz Limit=±2.5ppm					
Voltage (%)	**Power (VDC)**	**Temp(°C)**	**Fre. Dev.(Hz)**	**Deviation (ppm)**	**Result**
Normal	3.80	+20(Ref)	-33	-0.039	PASS
Normal		0	-19	-0.023	
Normal		+10	45	0.054	
Normal		+20	32	0.038	
Normal		+30	-14	-0.017	
Normal		+40	-42	-0.050	
Normal		+49	-44	-0.053	
High	4.35	+20	-17	-0.020	
BATT.ENDPOINT	3.65	+20	17	0.020	

LTE Band 41, QPSK, Channel 40620, Frequency 2593MHz Limit =Within Authorized Band					
Voltage (%)	**Power (VDC)**	**Temp(°C)**	**Fre. Dev.(Hz)**	**Deviation (ppm)**	**Result**
Normal	3.80	+20(Ref)	25	0.010	PASS
Normal		0	-57	-0.022	
Normal		+10	-24	-0.009	
Normal		+20	-20	-0.008	
Normal		+30	-23	-0.009	
Normal		+40	-40	-0.015	
Normal		+49	-52	-0.020	
High	4.35	+20	-20	-0.008	
BATT.ENDPOINT	3.65	+20	19	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	3.80	+20(Ref)	25	0.010	PASS
Normal		0	-57	-0.022	
Normal		+10	-24	-0.009	
Normal		+20	-20	-0.008	
Normal		+30	-23	-0.009	
Normal		+40	-40	-0.015	
Normal		+49	-52	-0.020	
High	4.35	+20	-20	-0.008	
BATT.ENDPOINT	3.65	+20	19	0.007	

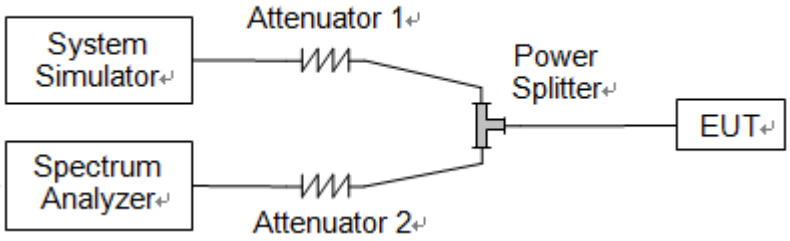
LTE Band 71, QPSK, Channel 133322, Frequency 683.0MHz Limit =Within Authorized Band					
Voltage (%)	**Power (VDC)**	**Temp(°C)**	**Fre. Dev.(Hz)**	**Deviation (ppm)**	**Result**
Normal	3.80	+20(Ref)	25	0.010	PASS
Normal		0	-57	-0.022	
Normal		+10	-24	-0.009	
Normal		+20	-20	-0.008	
Normal		+30	-23	-0.009	
Normal		+40	-40	-0.015	
Normal		+49	-52	-0.020	
High	4.35	+20	-20	-0.008	
BATT.ENDPOINT	3.65	+20	19	0.007	

2.4. Peak to Average Radio

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.

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	4.72	<=13	PASS
	Low	16QAM	5.58	<=13	PASS
	Low	64QAM	5.60	<=13	PASS
	Mid	QPSK	5.05	<=13	PASS
	Mid	16QAM	5.82	<=13	PASS
	Mid	64QAM	5.73	<=13	PASS
	High	QPSK	4.92	<=13	PASS
	High	16QAM	5.67	<=13	PASS
	High	64QAM	5.68	<=13	PASS
3	Low	QPSK	4.95	<=13	PASS
	Low	16QAM	5.73	<=13	PASS
	Low	64QAM	6.20	<=13	PASS
	Mid	QPSK	5.03	<=13	PASS
	Mid	16QAM	5.87	<=13	PASS
	Mid	64QAM	6.25	<=13	PASS
	High	QPSK	5.02	<=13	PASS
	High	16QAM	5.84	<=13	PASS
	High	64QAM	6.23	<=13	PASS
5	Low	QPSK	5.16	<=13	PASS
	Low	16QAM	5.85	<=13	PASS
	Low	64QAM	6.21	<=13	PASS
	Mid	QPSK	5.25	<=13	PASS
	Mid	16QAM	5.98	<=13	PASS
	Mid	64QAM	6.28	<=13	PASS
	High	QPSK	5.26	<=13	PASS
	High	16QAM	5.95	<=13	PASS
	High	64QAM	6.34	<=13	PASS
10	Low	QPSK	5.16	<=13	PASS
	Low	16QAM	5.90	<=13	PASS
	Low	64QAM	6.26	<=13	PASS
	Mid	QPSK	5.29	<=13	PASS
	Mid	16QAM	6.06	<=13	PASS
	Mid	64QAM	6.34	<=13	PASS
	High	QPSK	5.39	<=13	PASS
	High	16QAM	6.03	<=13	PASS
	High	64QAM	6.36	<=13	PASS

15	Low	QPSK	5.13	<=13	PASS
	Low	16QAM	5.82	<=13	PASS
	Low	64QAM	6.29	<=13	PASS
	Mid	QPSK	5.10	<=13	PASS
	Mid	16QAM	5.90	<=13	PASS
	Mid	64QAM	6.24	<=13	PASS
	High	QPSK	5.19	<=13	PASS
	High	16QAM	5.90	<=13	PASS
	High	64QAM	6.33	<=13	PASS
20	Low	QPSK	5.25	<=13	PASS
	Low	16QAM	5.99	<=13	PASS
	Low	64QAM	6.36	<=13	PASS
	Mid	QPSK	5.19	<=13	PASS
	Mid	16QAM	6.01	<=13	PASS
	Mid	64QAM	6.33	<=13	PASS
	High	QPSK	5.31	<=13	PASS
	High	16QAM	6.07	<=13	PASS
	High	64QAM	6.43	<=13	PASS

LTE Band 4					
BW(MHz)	**Channel Level**	**Modulation**	**PAR Radio(dB)**	**Limit(dB)**	**Verdict**
1.4	Low	QPSK	4.93	<=13	PASS
	Low	16QAM	5.79	<=13	PASS
	Low	64QAM	6.37	<=13	PASS
	Mid	QPSK	4.92	<=13	PASS
	Mid	16QAM	5.71	<=13	PASS
	Mid	64QAM	6.25	<=13	PASS
	High	QPSK	5.25	<=13	PASS
	High	16QAM	5.95	<=13	PASS
	High	64QAM	6.40	<=13	PASS
3	Low	QPSK	5.10	<=13	PASS
	Low	16QAM	5.97	<=13	PASS
	Low	64QAM	6.35	<=13	PASS
	Mid	QPSK	4.99	<=13	PASS
	Mid	16QAM	5.85	<=13	PASS
	Mid	64QAM	6.30	<=13	PASS
	High	QPSK	5.34	<=13	PASS
	High	16QAM	6.12	<=13	PASS
	High	64QAM	6.45	<=13	PASS
5	Low	QPSK	5.28	<=13	PASS
	Low	16QAM	5.97	<=13	PASS
	Low	64QAM	6.35	<=13	PASS
	Mid	QPSK	5.19	<=13	PASS
	Mid	16QAM	5.91	<=13	PASS
	Mid	64QAM	6.31	<=13	PASS
	High	QPSK	5.38	<=13	PASS
	High	16QAM	6.09	<=13	PASS
	High	64QAM	6.43	<=13	PASS
10	Low	QPSK	5.27	<=13	PASS
	Low	16QAM	6.07	<=13	PASS
	Low	64QAM	6.34	<=13	PASS
	Mid	QPSK	5.18	<=13	PASS
	Mid	16QAM	5.90	<=13	PASS
	Mid	64QAM	6.25	<=13	PASS
	High	QPSK	5.37	<=13	PASS
	High	16QAM	6.06	<=13	PASS
	High	64QAM	6.34	<=13	PASS

15	Low	QPSK	5.14	<=13	PASS
	Low	16QAM	5.87	<=13	PASS
	Low	64QAM	6.32	<=13	PASS
	Mid	QPSK	4.99	<=13	PASS
	Mid	16QAM	5.75	<=13	PASS
	Mid	64QAM	6.24	<=13	PASS
	High	QPSK	5.18	<=13	PASS
	High	16QAM	5.90	<=13	PASS
	High	64QAM	6.35	<=13	PASS
20	Low	QPSK	5.15	<=13	PASS
	Low	16QAM	5.91	<=13	PASS
	Low	64QAM	6.27	<=13	PASS
	Mid	QPSK	4.99	<=13	PASS
	Mid	16QAM	5.83	<=13	PASS
	Mid	64QAM	6.22	<=13	PASS
	High	QPSK	5.24	<=13	PASS
	High	16QAM	6.00	<=13	PASS
	High	64QAM	6.38	<=13	PASS

LTE Band 25					
BW(MHz)	**Channel Level**	**Modulation**	**PAR Radio(dB)**	**Limit(dB)**	**Verdict**
1.4	Low	QPSK	4.93	<=13	PASS
	Low	16QAM	5.81	<=13	PASS
	Low	64QAM	5.80	<=13	PASS
	Mid	QPSK	5.22	<=13	PASS
	Mid	16QAM	5.99	<=13	PASS
	Mid	64QAM	5.91	<=13	PASS
	High	QPSK	4.94	<=13	PASS
	High	16QAM	5.71	<=13	PASS
	High	64QAM	5.69	<=13	PASS
3	Low	QPSK	5.10	<=13	PASS
	Low	16QAM	5.93	<=13	PASS
	Low	64QAM	5.87	<=13	PASS
	Mid	QPSK	5.27	<=13	PASS
	Mid	16QAM	6.07	<=13	PASS
	Mid	64QAM	6.42	<=13	PASS
	High	QPSK	5.13	<=13	PASS
	High	16QAM	5.90	<=13	PASS
	High	64QAM	6.31	<=13	PASS
5	Low	QPSK	5.26	<=13	PASS
	Low	16QAM	6.02	<=13	PASS
	Low	64QAM	6.37	<=13	PASS
	Mid	QPSK	5.41	<=13	PASS
	Mid	16QAM	6.06	<=13	PASS
	Mid	64QAM	6.44	<=13	PASS
	High	QPSK	5.29	<=13	PASS
	High	16QAM	5.96	<=13	PASS
	High	64QAM	6.31	<=13	PASS
10	Low	QPSK	5.33	<=13	PASS
	Low	16QAM	6.02	<=13	PASS
	Low	64QAM	6.34	<=13	PASS
	Mid	QPSK	5.39	<=13	PASS
	Mid	16QAM	6.05	<=13	PASS
	Mid	64QAM	6.38	<=13	PASS
	High	QPSK	5.31	<=13	PASS
	High	16QAM	6.00	<=13	PASS
	High	64QAM	6.29	<=13	PASS

15	Low	QPSK	5.21	<=13	PASS
	Low	16QAM	5.95	<=13	PASS
	Low	64QAM	6.34	<=13	PASS
	Mid	QPSK	5.19	<=13	PASS
	Mid	16QAM	5.89	<=13	PASS
	Mid	64QAM	6.33	<=13	PASS
	High	QPSK	5.16	<=13	PASS
	High	16QAM	5.85	<=13	PASS
	High	64QAM	6.32	<=13	PASS
20	Low	QPSK	5.31	<=13	PASS
	Low	16QAM	6.07	<=13	PASS
	Low	64QAM	6.41	<=13	PASS
	Mid	QPSK	5.29	<=13	PASS
	Mid	16QAM	6.03	<=13	PASS
	Mid	64QAM	6.38	<=13	PASS
	High	QPSK	5.31	<=13	PASS
	High	16QAM	6.09	<=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	5.14	<=13	PASS
	Low	16QAM	5.91	<=13	PASS
	Low	64QAM	6.40	<=13	PASS
	Mid	QPSK	5.35	<=13	PASS
	Mid	16QAM	6.06	<=13	PASS
	Mid	64QAM	6.48	<=13	PASS
	High	QPSK	5.08	<=13	PASS
	High	16QAM	5.85	<=13	PASS
	High	64QAM	6.30	<=13	PASS
3	Low	QPSK	5.14	<=13	PASS
	Low	16QAM	6.02	<=13	PASS
	Low	64QAM	6.39	<=13	PASS
	Mid	QPSK	5.27	<=13	PASS
	Mid	16QAM	6.15	<=13	PASS
	Mid	64QAM	6.43	<=13	PASS
	High	QPSK	5.10	<=13	PASS
	High	16QAM	6.00	<=13	PASS
	High	64QAM	6.32	<=13	PASS
5	Low	QPSK	5.36	<=13	PASS
	Low	16QAM	6.04	<=13	PASS
	Low	64QAM	6.46	<=13	PASS
	Mid	QPSK	5.39	<=13	PASS
	Mid	16QAM	6.08	<=13	PASS
	Mid	64QAM	6.43	<=13	PASS
	High	QPSK	5.27	<=13	PASS
	High	16QAM	5.99	<=13	PASS
	High	64QAM	6.34	<=13	PASS
10	Low	QPSK	5.34	<=13	PASS
	Low	16QAM	6.10	<=13	PASS
	Low	64QAM	6.38	<=13	PASS
	Mid	QPSK	5.37	<=13	PASS
	Mid	16QAM	6.05	<=13	PASS
	Mid	64QAM	6.36	<=13	PASS
	High	QPSK	5.28	<=13	PASS
	High	16QAM	5.98	<=13	PASS
	High	64QAM	6.31	<=13	PASS

15	Low	QPSK	5.18	<=13	PASS
	Low	16QAM	5.93	<=13	PASS
	Low	64QAM	6.38	<=13	PASS
	Mid	QPSK	5.19	<=13	PASS
	Mid	16QAM	5.91	<=13	PASS
	Mid	64QAM	6.38	<=13	PASS
	High	QPSK	5.14	<=13	PASS
	High	16QAM	5.86	<=13	PASS
	High	64QAM	6.32	<=13	PASS
20	Low	QPSK	5.28	<=13	PASS
	Low	16QAM	6.03	<=13	PASS
	Low	64QAM	6.34	<=13	PASS
	Mid	QPSK	5.28	<=13	PASS
	Mid	16QAM	6.07	<=13	PASS
	Mid	64QAM	6.39	<=13	PASS
	High	QPSK	5.20	<=13	PASS
	High	16QAM	6.01	<=13	PASS
	High	64QAM	6.32	<=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

Band2 / 3MHz / Mid CH / QPSK

Band2 / 3MHz / Mid CH / 16QAM

Band2 / 3MHz / Mid CH / 64QAM

Band2 / 3MHz / High CH / QPSK

Band2 / 3MHz / High CH / 16QAM

Band2 / 3MHz / High CH / 64QAM

Band2 / 5MHz / Low CH / QPSK

Band2 / 5MHz / Low CH / 16QAM

Band2 / 5MHz / Low CH / 64QAM

Band2 / 5MHz / Mid CH / QPSK

Band2 / 5MHz / Mid CH / 16QAM

Band2 / 5MHz / Mid CH / 64QAM

Band2 / 5MHz / High CH / QPSK

Band2 / 5MHz / High CH / 16QAM

Band2 / 5MHz / High CH / 64QAM

Band2 / 10MHz / Low CH / QPSK

Band2 / 10MHz / Low CH / 16QAM

Band2 / 10MHz / Low CH / 64QAM

Band2 / 10MHz / Mid CH / QPSK

Band2 / 10MHz / Mid CH / 16QAM

Band2 / 10MHz / Mid CH / 64QAM

Band2 / 10MHz / High CH / QPSK

Band2 / 10MHz / High CH / 16QAM

Band2 / 10MHz / High CH / 64QAM

Band2 / 15MHz / Low CH / QPSK

Band2 / 15MHz / Low CH / 16QAM

Band2 / 15MHz / Low CH / 64QAM

Band2 / 15MHz / Mid CH / QPSK

Band2 / 15MHz / Mid CH / 16QAM

Band2 / 15MHz / Mid CH / 64QAM

Band2 / 15MHz / High CH / QPSK

Band2 / 15MHz / High CH / 16QAM

Band2 / 15MHz / High CH / 64QAM

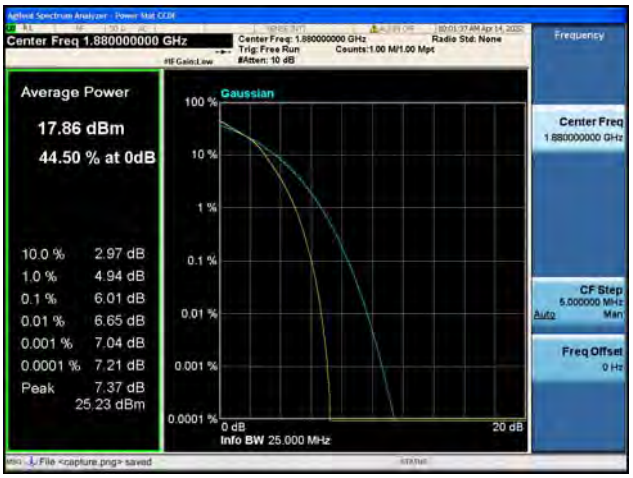
Band2 / 20MHz / Low CH / QPSK

Band2 / 20MHz / Low CH / 16QAM

Band2 / 20MHz / Low CH / 64QAM

Band2 / 20MHz / Mid CH / QPSK

Band2 / 20MHz / Mid CH / 16QAM



Band2 / 20MHz / Mid CH / 64QAM

Band2 / 20MHz / High CH / QPSK

Band2 / 20MHz / High CH / 16QAM

Band2 / 20MHz / High CH / 64QAM

Band4 / 1.4MHz / Low CH / QPSK

Band4 / 1.4MHz / Low CH / 16QAM

Band4 / 1.4MHz / Low CH / 64QAM

Band4 / 1.4MHz / Mid CH / QPSK

Band4 / 1.4MHz / Mid CH / 16QAM

Band4 / 1.4MHz / Mid CH / 64QAM

Band4 / 1.4MHz / High CH / QPSK

Band4 / 1.4MHz / High CH / 16QAM

Band4 / 1.4MHz / High CH / 64QAM

Band4 / 3MHz / Low CH / QPSK

Band4 / 3MHz / Low CH / 16QAM

Band4 / 3MHz / Low CH / 64QAM

Band4 / 3MHz / Mid CH / QPSK

Band4 / 3MHz / Mid CH / 16QAM

Band4 / 3MHz / Mid CH / 64QAM

Band4 / 3MHz / High CH / QPSK

Band4 / 3MHz / High CH / 16QAM

Band4 / 3MHz / High CH / 64QAM

Band4 / 5MHz / Low CH / QPSK

Band4 / 5MHz / Low CH / 16QAM

Band4 / 5MHz / Low CH / 64QAM

Band4 / 5MHz / Mid CH / QPSK

Band4 / 5MHz / Mid CH / 16QAM

Band4 / 5MHz / Mid CH / 64QAM

Band4 / 5MHz / High CH / QPSK

Band4 / 5MHz / High CH / 16QAM

Band4 / 5MHz / High CH / 64QAM

Band4 / 10MHz / Low CH / QPSK

Band4 / 10MHz / Low CH / 16QAM

Band4 / 10MHz / Low CH / 64QAM

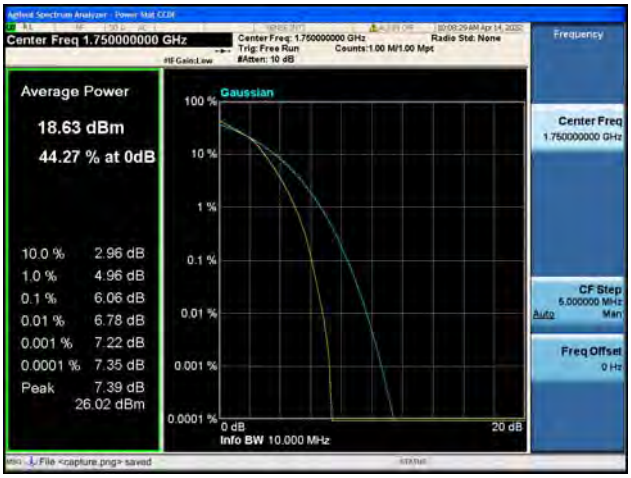
Band4 / 10MHz / Mid CH / QPSK

Band4 / 10MHz / Mid CH / 16QAM

Band4 / 10MHz / Mid CH / 64QAM

Band4 / 10MHz / High CH / QPSK

Band4 / 10MHz / High CH / 16QAM



Band4 / 10MHz / High CH / 64QAM

Band4 / 15MHz / Low CH / QPSK

Band4 / 15MHz / Low CH / 16QAM

Band4 / 15MHz / Low CH / 64QAM

Band4 / 15MHz / Mid CH / QPSK

Band4 / 15MHz / Mid CH / 16QAM

Band4 / 15MHz / Mid CH / 64QAM

Band4 / 15MHz / High CH / QPSK

Band4 / 15MHz / High CH / 16QAM

Band4 / 15MHz / High CH / 64QAM

Band4 / 20MHz / Low CH / QPSK

Band4 / 20MHz / Low CH / 16QAM

Band4 / 20MHz / Low CH / 64QAM

Band4 / 20MHz / Mid CH / QPSK

Band4 / 20MHz / Mid CH / 16QAM

Band4 / 20MHz / Mid CH / 64QAM

Band4 / 20MHz / High CH / QPSK

Band4 / 20MHz / High CH / 16QAM

Band4 / 20MHz / High CH / 64QAM

Band25 / 1.4MHz / Low CH / QPSK

Band25 / 1.4MHz / Low CH / 16QAM

Band25 / 1.4MHz / Low CH / 64QAM

Band25 / 1.4MHz / Mid CH / QPSK

Band25 / 1.4MHz / Mid CH / 16QAM

Band25 / 1.4MHz / Mid CH / 64QAM

Band25 / 1.4MHz / High CH / QPSK

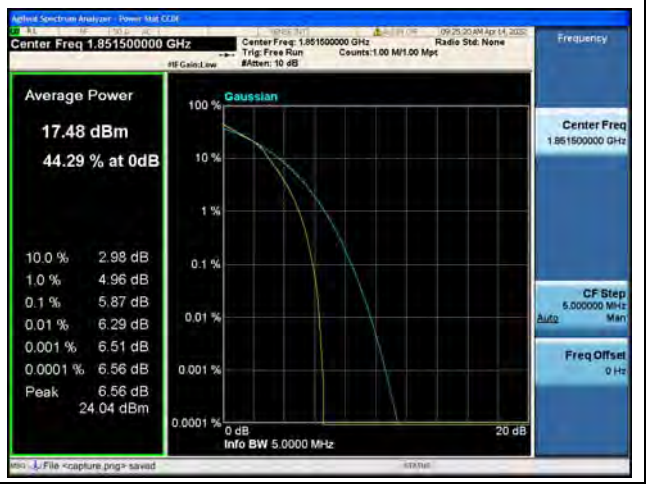
Band25 / 1.4MHz / High CH / 16QAM

Band25 / 1.4MHz / High CH / 64QAM

Band25 / 3MHz / Low CH / QPSK

Band25 / 3MHz / Low CH / 16QAM

Band25 / 3MHz / Low CH / 64QAM



Band25 / 3MHz / Mid CH / QPSK

Band25 / 3MHz / Mid CH / 16QAM

Band25 / 3MHz / Mid CH / 64QAM

Band25 / 3MHz / High CH / QPSK

Band25 / 3MHz / High CH / 16QAM

Band25 / 3MHz / High CH / 64QAM

Band25 / 5MHz / Low CH / QPSK

Band25 / 5MHz / Low CH / 16QAM

Band25 / 5MHz / Low CH / 64QAM

Band25 / 5MHz / Mid CH / QPSK

Band25 / 5MHz / Mid CH / 16QAM

Band25 / 5MHz / Mid CH / 64QAM

Band25 / 5MHz / High CH / QPSK

Band25 / 5MHz / High CH / 16QAM

Band25 / 5MHz / High CH / 64QAM

Band25 / 10MHz / Low CH / QPSK

Band25 / 10MHz / Low CH / 16QAM

Band25 / 10MHz / Low CH / 64QAM

Band25 / 10MHz / Mid CH / QPSK

Band25 / 10MHz / Mid CH / 16QAM

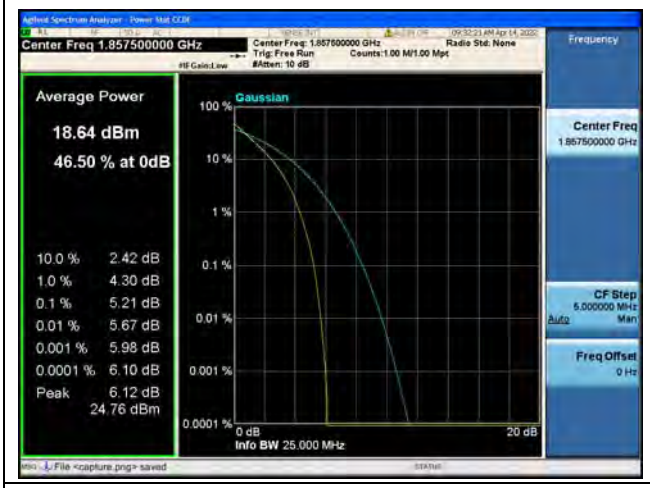
Band25 / 10MHz / Mid CH / 64QAM

Band25 / 10MHz / High CH / QPSK

Band25 / 10MHz / High CH / 16QAM

Band25 / 10MHz / High CH / 64QAM

Band25 / 15MHz / Low CH / QPSK



Band25 / 15MHz / Low CH / 16QAM

Band25 / 15MHz / Low CH / 64QAM

Band25 / 15MHz / Mid CH / QPSK

Band25 / 15MHz / Mid CH / 16QAM

Band25 / 15MHz / Mid CH / 64QAM

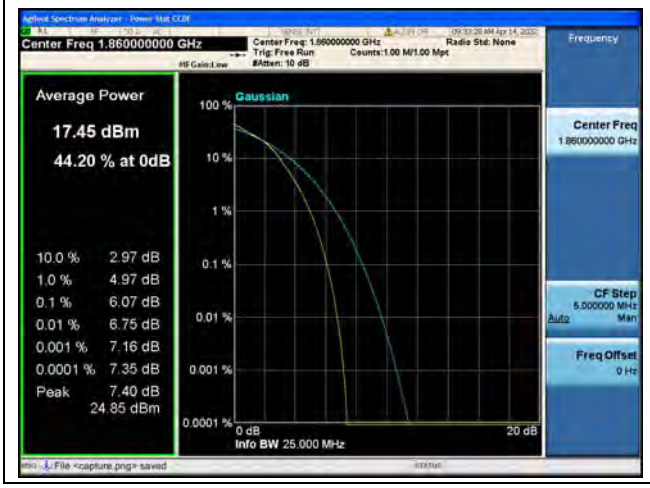
Band25 / 15MHz / High CH / QPSK

Band25 / 15MHz / High CH / 16QAM

Band25 / 15MHz / High CH / 64QAM

Band25 / 20MHz / Low CH / QPSK

Band25 / 20MHz / Low CH / 16QAM



Band25 / 20MHz / Low CH / 64QAM

Band25 / 20MHz / Mid CH / QPSK

Band25 / 20MHz / Mid CH / 16QAM

Band25 / 20MHz / Mid CH / 64QAM

Band25 / 20MHz / High CH / QPSK

Band25 / 20MHz / High CH / 16QAM

Band25 / 20MHz / High CH / 64QAM

Band66 / 1.4MHz / Low CH / QPSK

Band66 / 1.4MHz / Low CH / 16QAM

Band66 / 1.4MHz / Low CH / 64QAM

Band66 / 1.4MHz / Mid CH / QPSK

Band66 / 1.4MHz / Mid CH / 16QAM

Band66 / 1.4MHz / Mid CH / 64QAM

Band66 / 1.4MHz / High CH / QPSK

Band66 / 1.4MHz / High CH / 16QAM

Band66 / 1.4MHz / High CH / 64QAM

Band66 / 3MHz / Low CH / QPSK

Band66 / 3MHz / Low CH / 16QAM

Band66 / 3MHz / Low CH / 64QAM

Band66 / 3MHz / Mid CH / QPSK

Band66 / 3MHz / Mid CH / 16QAM

Band66 / 3MHz / Mid CH / 64QAM

Band66 / 3MHz / High CH / QPSK

Band66 / 3MHz / High CH / 16QAM

Band66 / 3MHz / High CH / 64QAM

Band66 / 5MHz / Low CH / QPSK

Band66 / 5MHz / Low CH / 16QAM

Band66 / 5MHz / Low CH / 64QAM

Band66 / 5MHz / Mid CH / QPSK

Band66 / 5MHz / Mid CH / 16QAM

Band66 / 5MHz / Mid CH / 64QAM

Band66 / 5MHz / High CH / QPSK

Band66 / 5MHz / High CH / 16QAM

Band66 / 5MHz / High CH / 64QAM

Band66 / 10MHz / Low CH / QPSK

Band66 / 10MHz / Low CH / 16QAM

Band66 / 10MHz / Low CH / 64QAM

Band66 / 10MHz / Mid CH / QPSK

Band66 / 10MHz / Mid CH / 16QAM

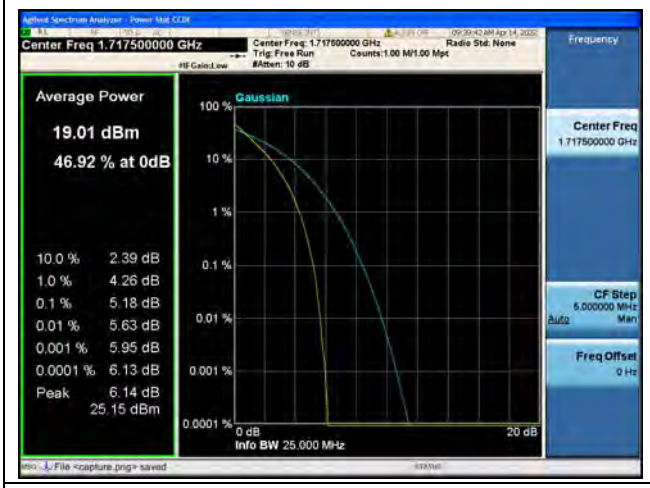
Band66 / 10MHz / Mid CH / 64QAM

Band66 / 10MHz / High CH / QPSK

Band66 / 10MHz / High CH / 16QAM

Band66 / 10MHz / High CH / 64QAM

Band66 / 15MHz / Low CH / QPSK



Band66 / 15MHz / Low CH / 16QAM

Band66 / 15MHz / Low CH / 64QAM

Band66 / 15MHz / Mid CH / QPSK

Band66 / 15MHz / Mid CH / 16QAM

Band66 / 15MHz / Mid CH / 64QAM

Band66 / 15MHz / High CH / QPSK

Band66 / 15MHz / High CH / 16QAM

Band66 / 15MHz / High CH / 64QAM

Band66 / 20MHz / Low CH / QPSK

Band66 / 20MHz / Low CH / 16QAM

Band66 / 20MHz / Low CH / 64QAM

Band66 / 20MHz / Mid CH / QPSK

Band66 / 20MHz / Mid CH / 16QAM

Band66 / 20MHz / Mid CH / 64QAM

Band66 / 20MHz / High CH / QPSK

Band66 / 20MHz / High CH / 16QAM

Band66 / 20MHz / High CH / 64QAM

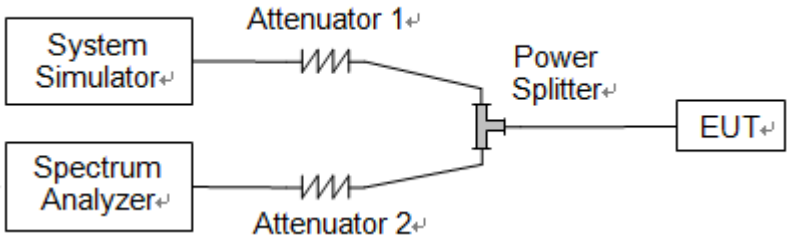
2.5. Conducted Spurious Emissions

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.

Additional requirement for LTE Band 41:
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 55 + 10 log(P) dB. This calculated to be -25dBm.

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 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.

2.5.3. Test Procedure

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