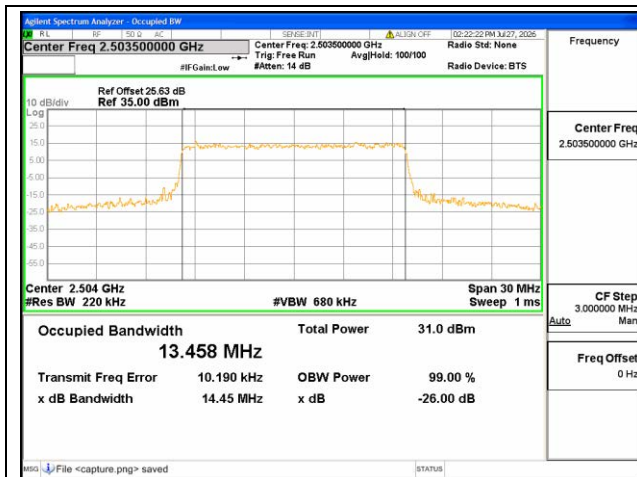
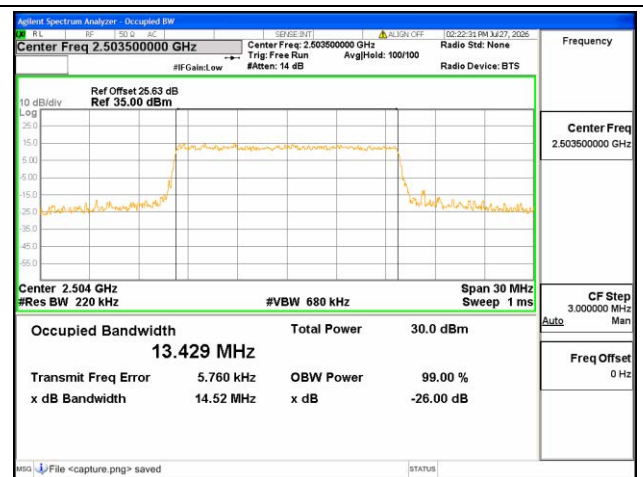
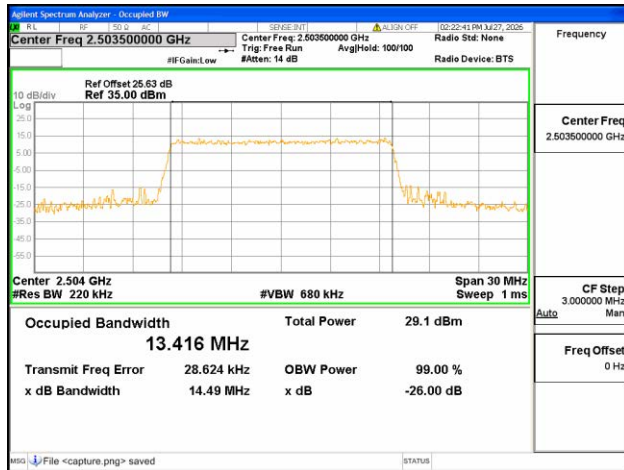




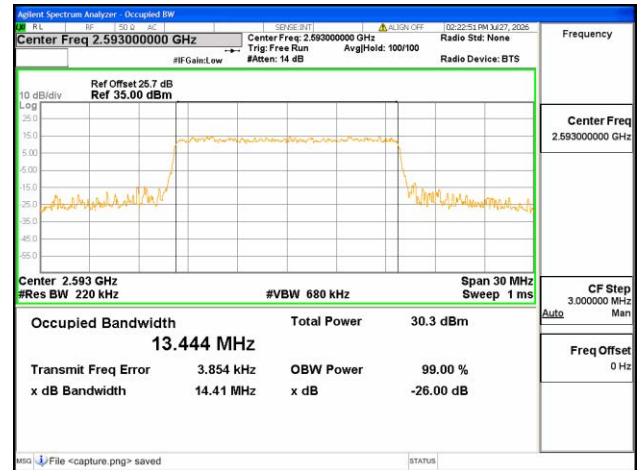
B41 / 15MHz / QPSK/ Low CH



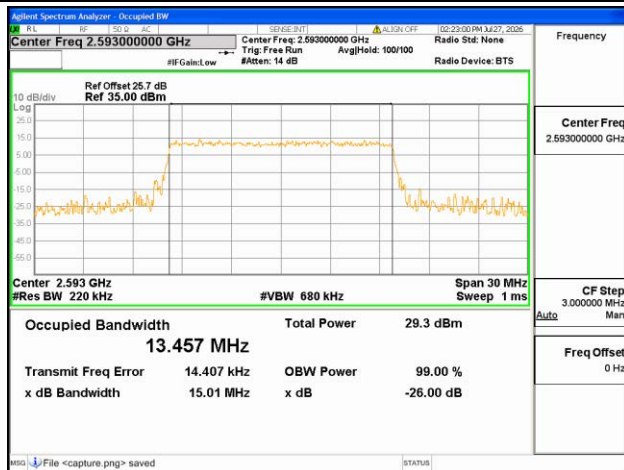
B41 / 15MHz / 16QAM/ Low CH



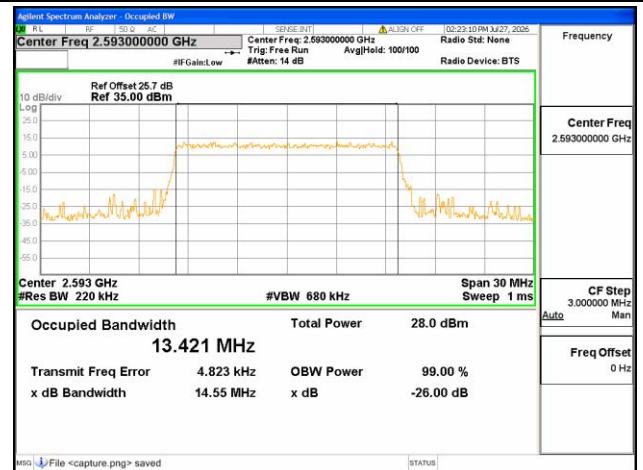
B41 / 15MHz / 64QAM/ Low CH



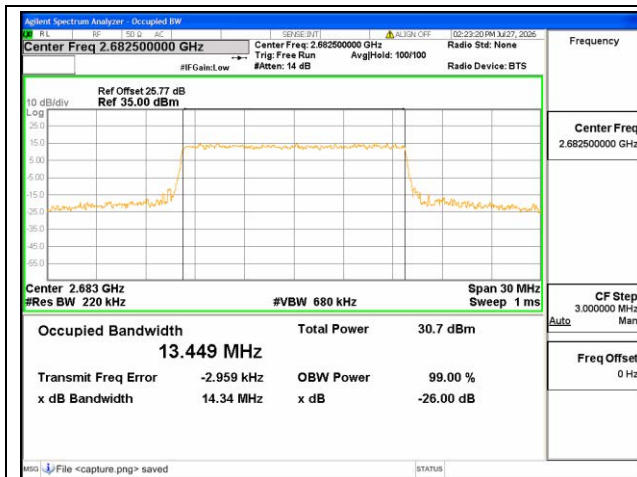
B41 / 15MHz / QPSK/ Mid CH



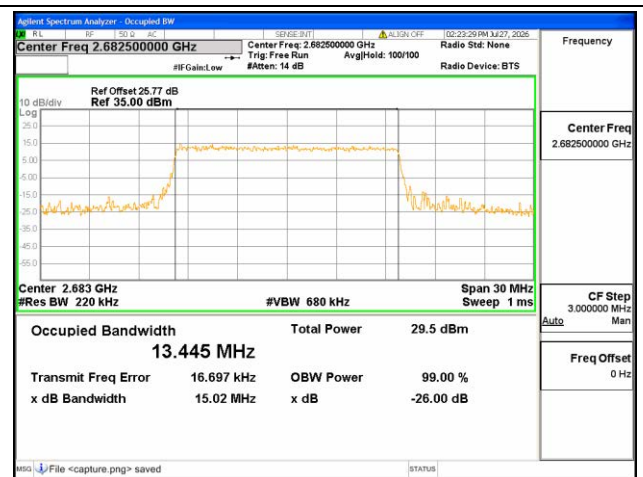
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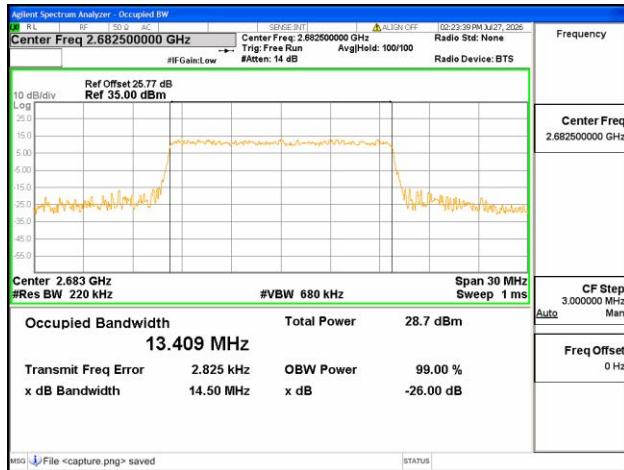
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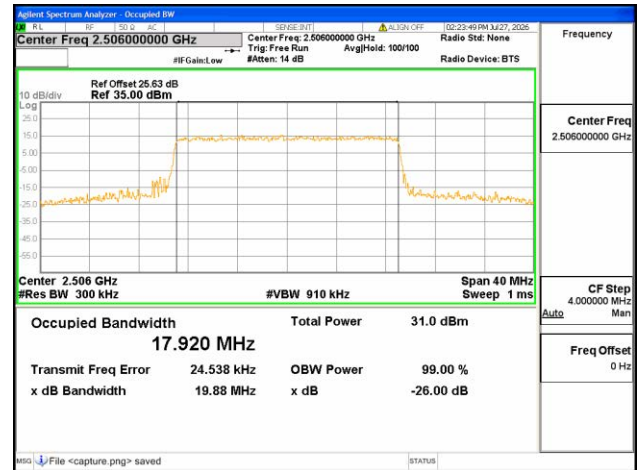
B41 / 15MHz / QPSK/ High CH



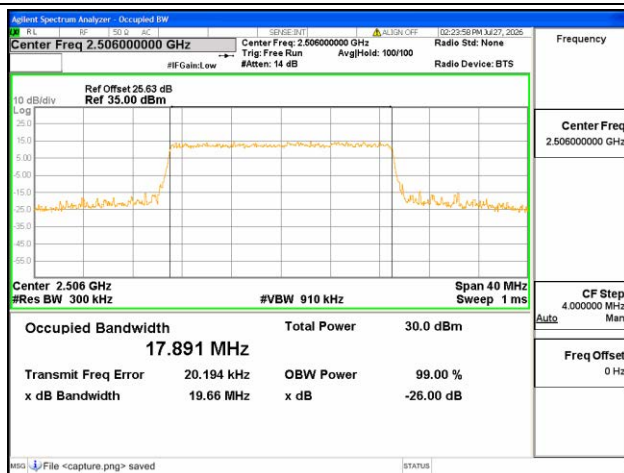
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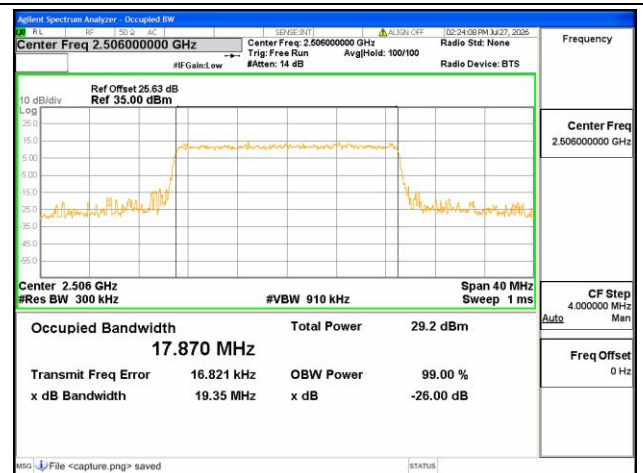
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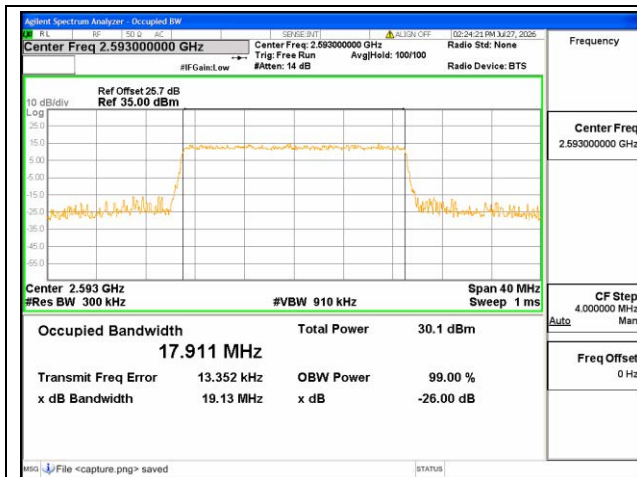
B41 / 20MHz / QPSK/ Low CH



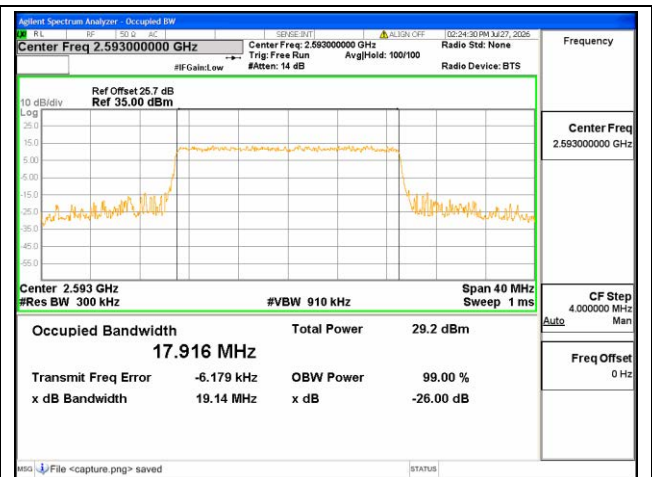
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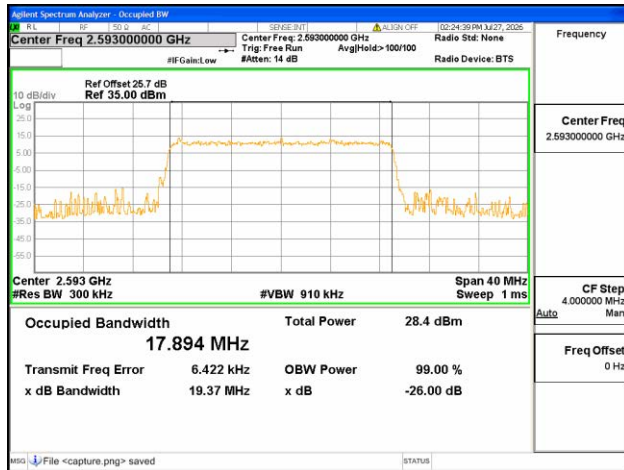
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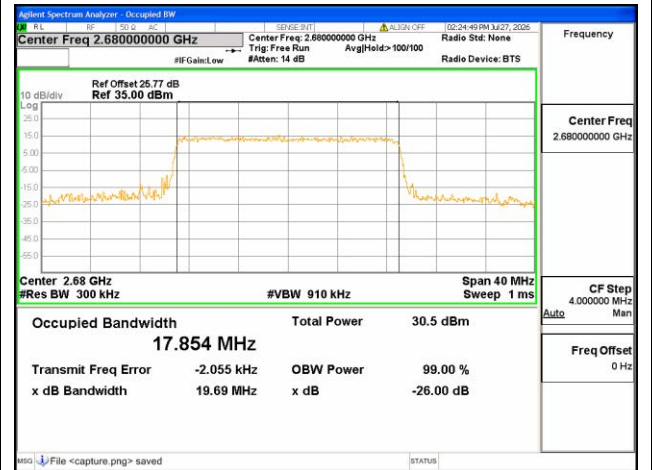
B41 / 20MHz / QPSK/ Mid CH



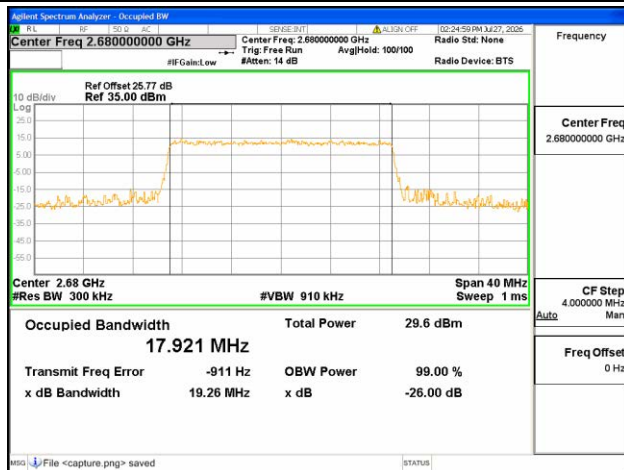
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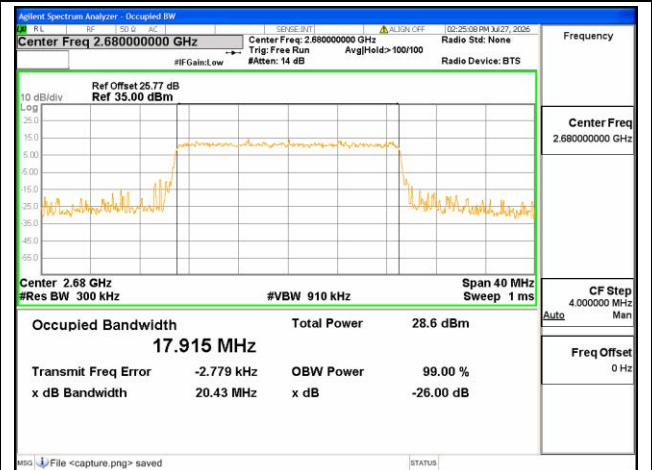
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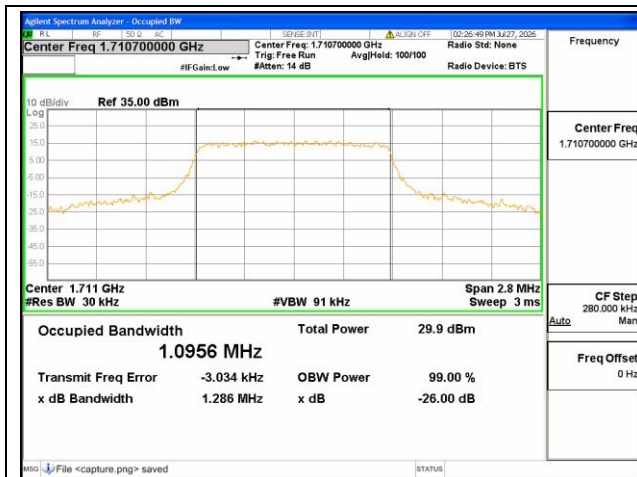
B41 / 20MHz / QPSK/ High CH



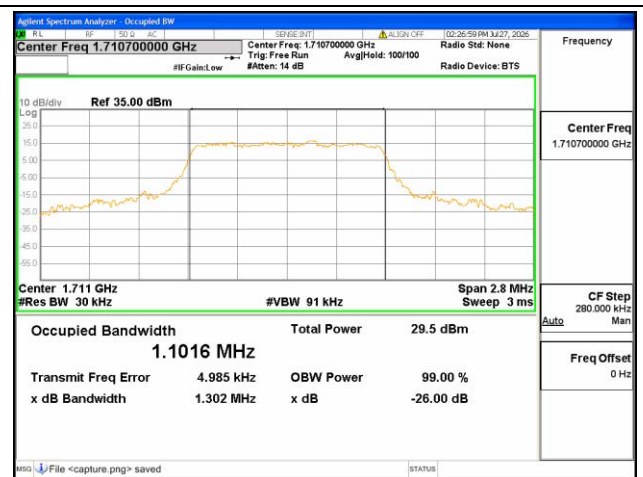
B41 / 20MHz / 16QAM/ High CH



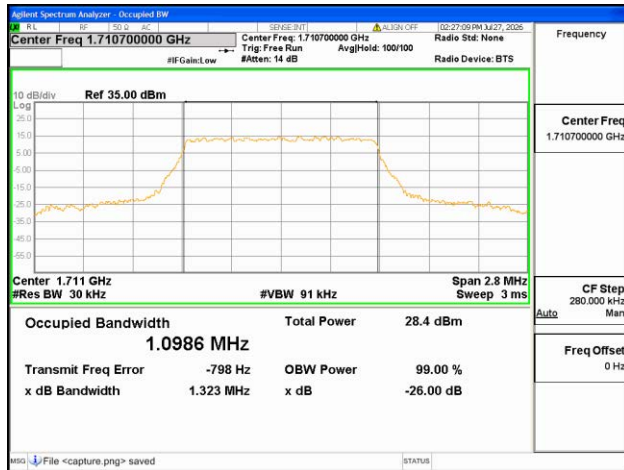
B41 / 20MHz / 64QAM/ High CH



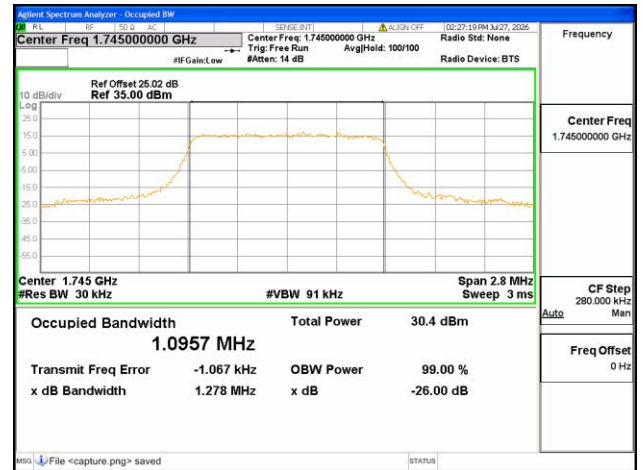
B66 / 1.4MHz / QPSK / Low CH



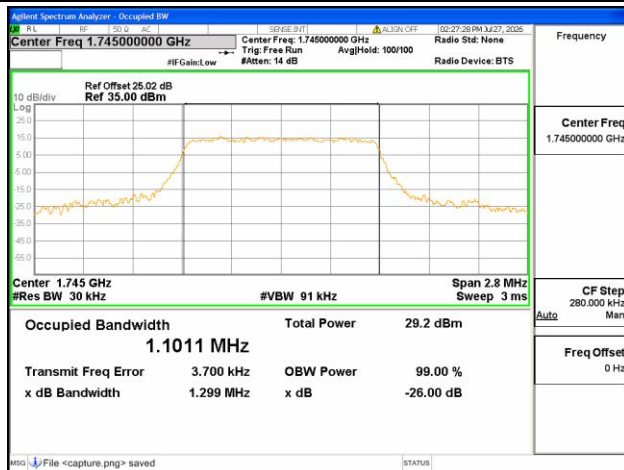
B66 / 1.4MHz / 16QAM / Low CH



B66 / 1.4MHz / 64QAM / Low CH



B66 / 1.4MHz / QPSK / Mid CH



B66 / 1.4MHz / 16QAM / Mid CH



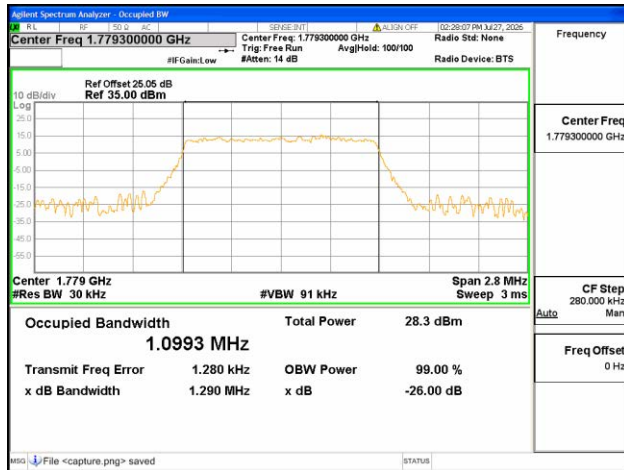
B66 / 1.4MHz / 64QAM / Mid CH



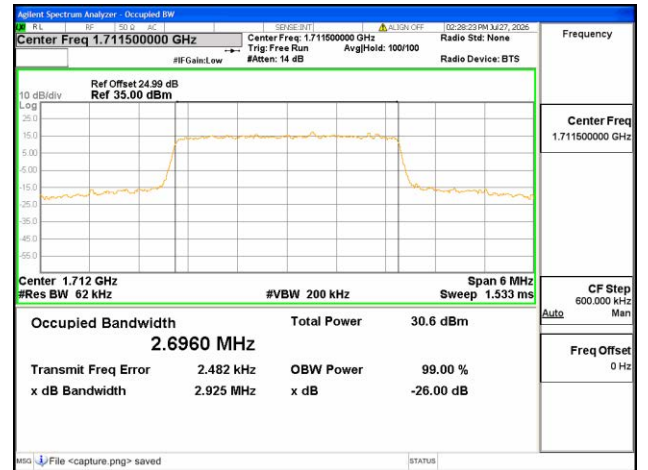
B66 / 1.4MHz / QPSK/ High CH



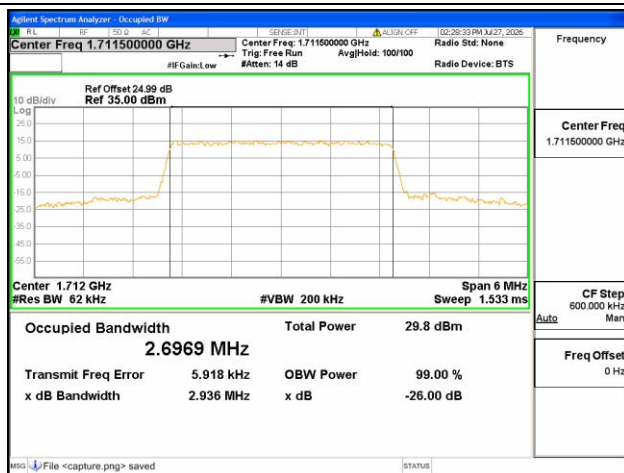
B66 / 1.4MHz / 16QAM/ High CH



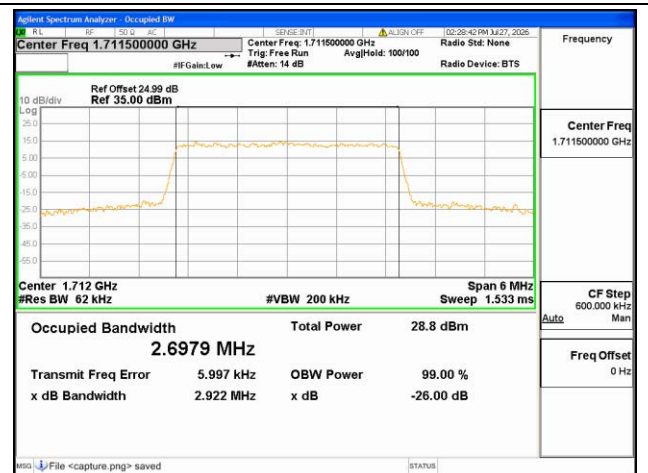
B66 / 1.4MHz / 64QAM/ High CH



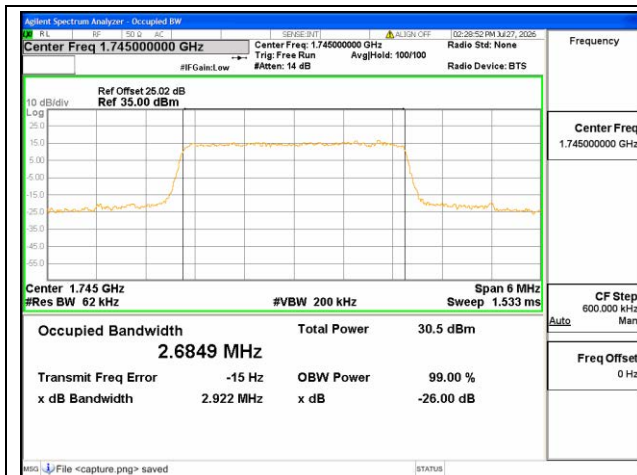
B66 / 3MHz / QPSK/ Low CH



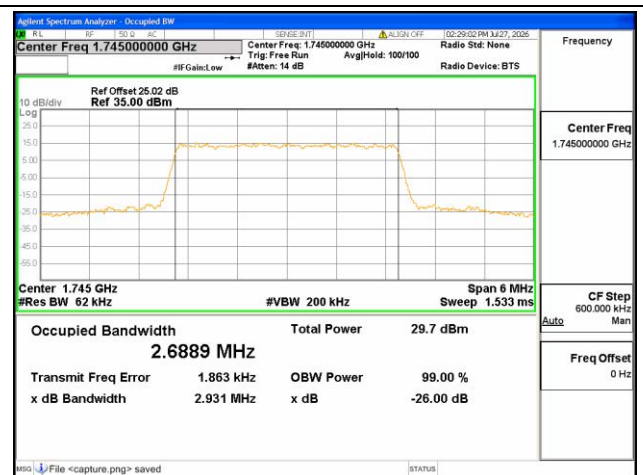
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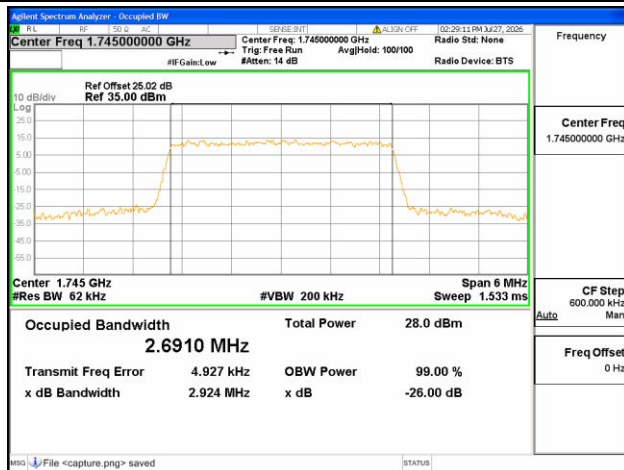
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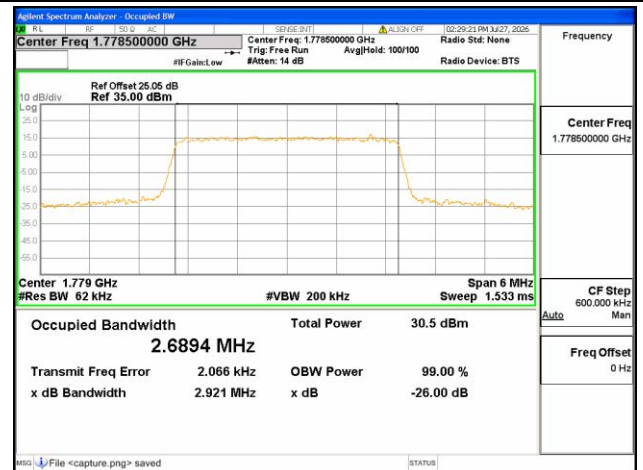
B66 / 3MHz / QPSK/ Mid CH



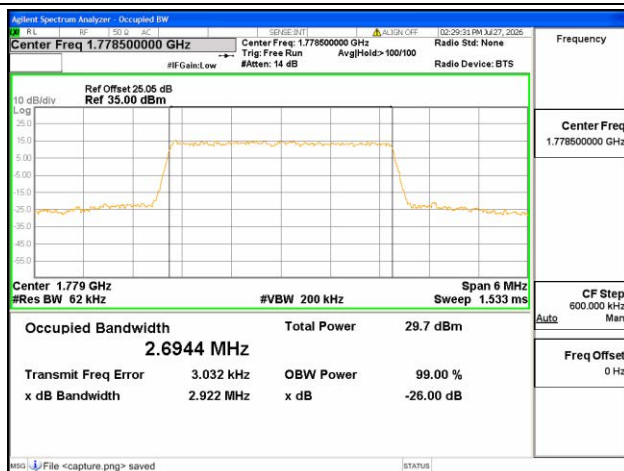
B66 / 3MHz / 16QAM/ Mid CH



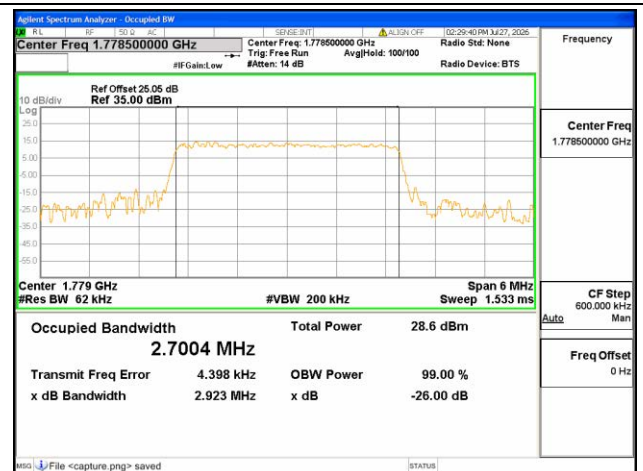
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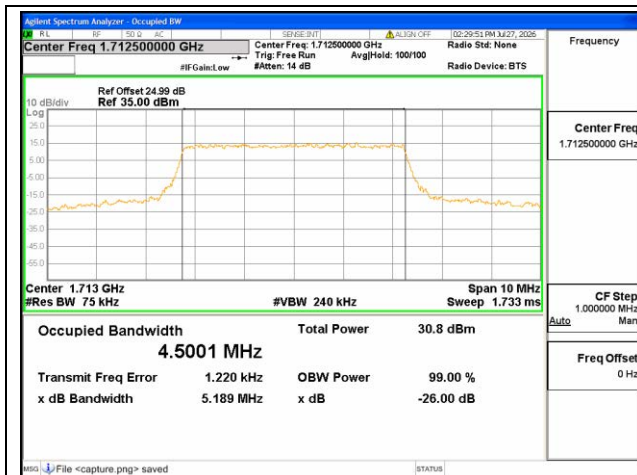
B66 / 3MHz / QPSK/ High CH



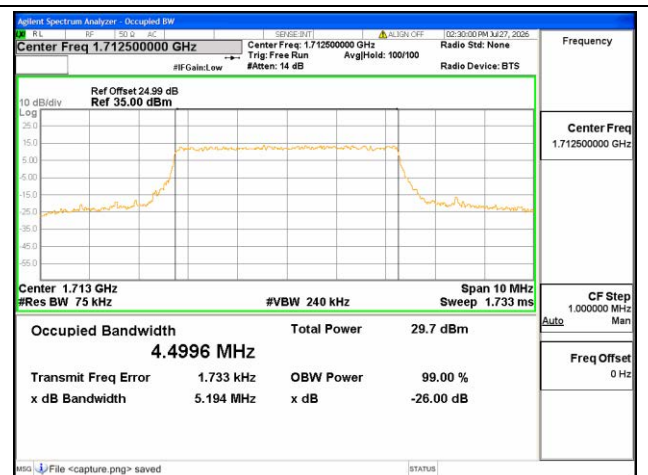
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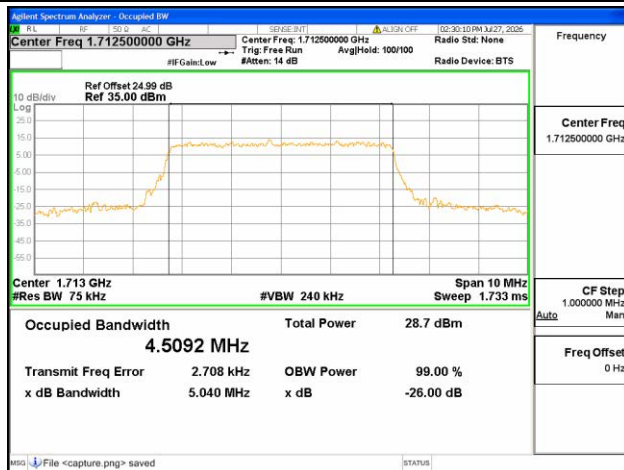
B66 / 3MHz / 64QAM/ High CH



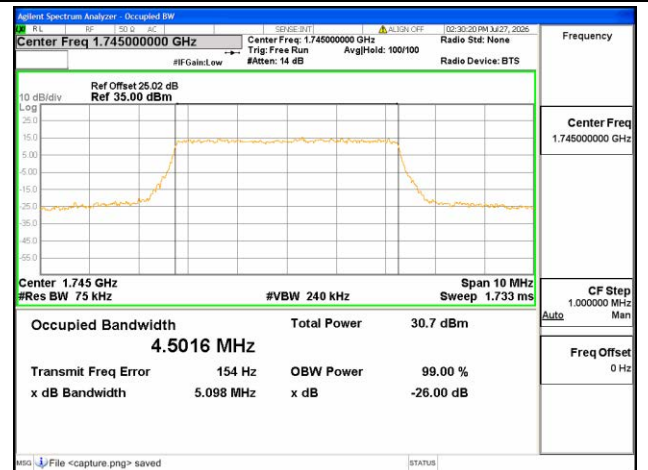
B66 / 5MHz / QPSK/ Low CH



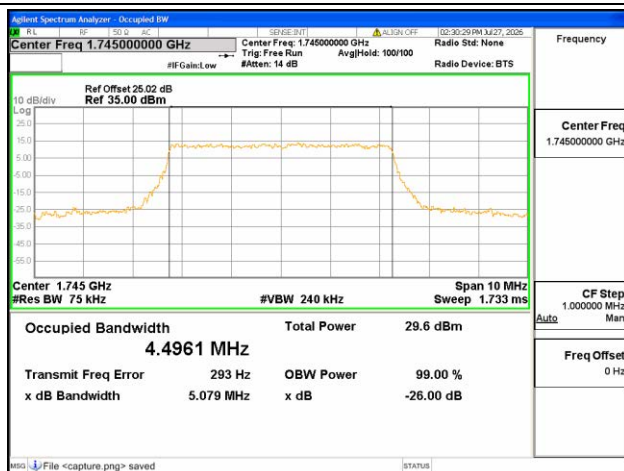
B66 / 5MHz / 16QAM/ Low CH



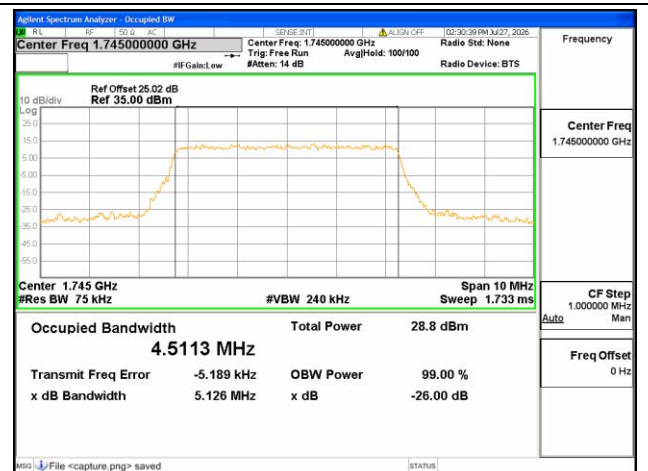
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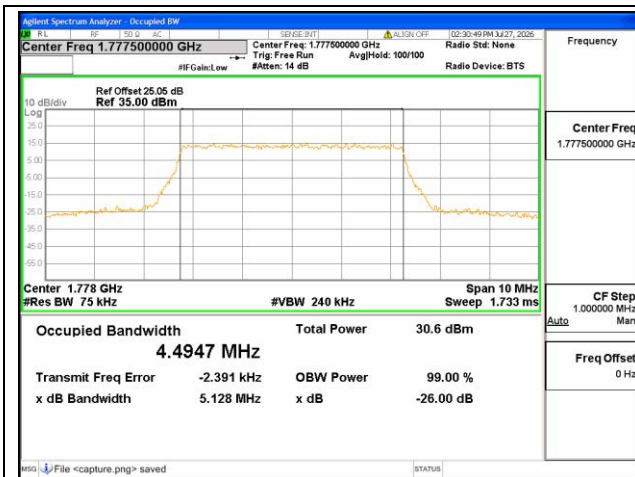
B66 / 5MHz / QPSK/ Mid CH



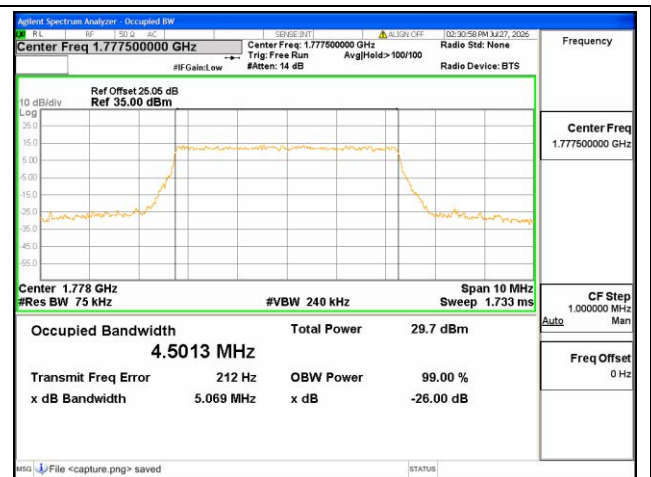
B66 / 5MHz / 16QAM/ Mid CH



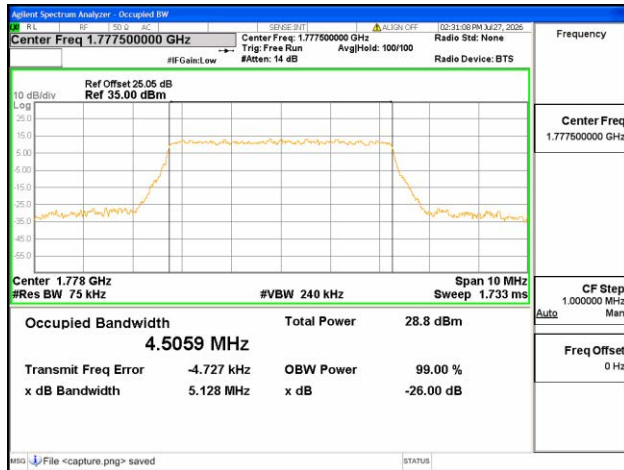
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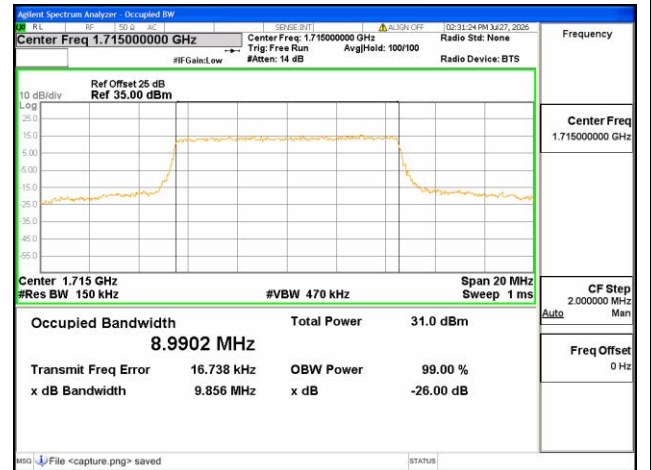
B66 / 5MHz / QPSK/ High CH



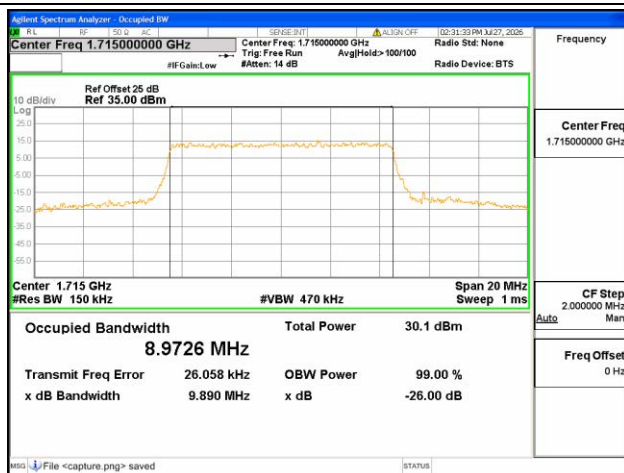
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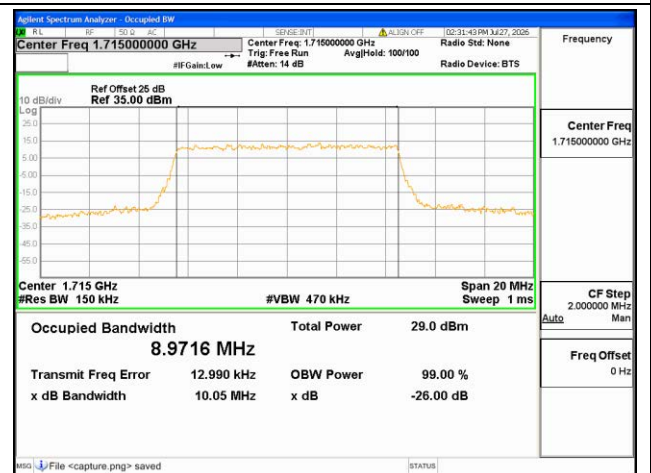
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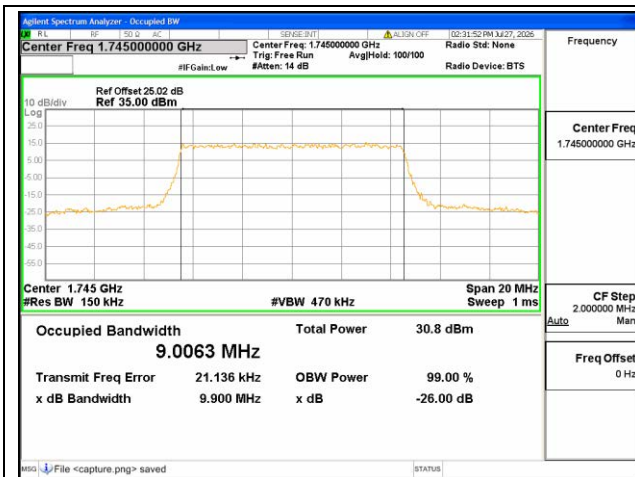
B66 / 10MHz / QPSK/ Low CH



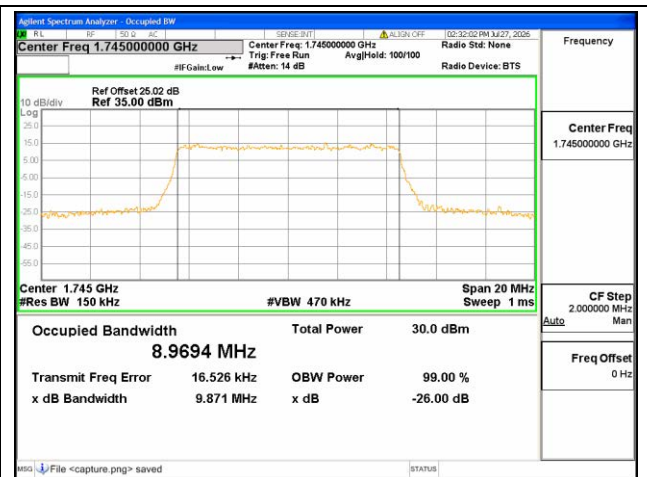
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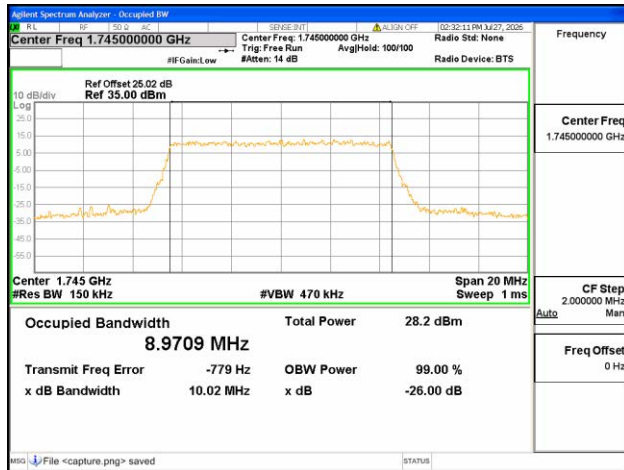
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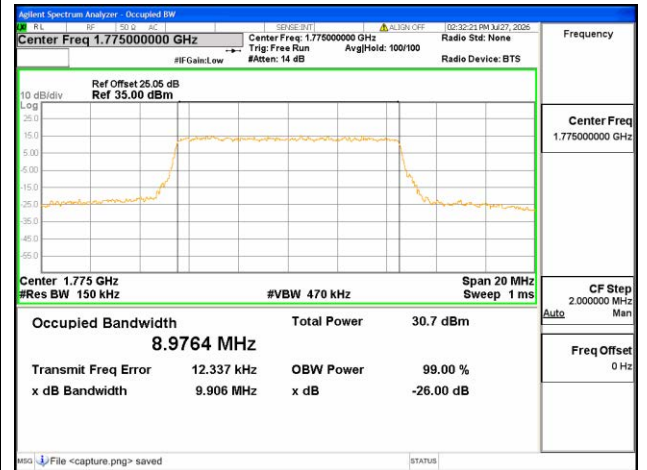
B66 / 10MHz / QPSK/ Mid CH



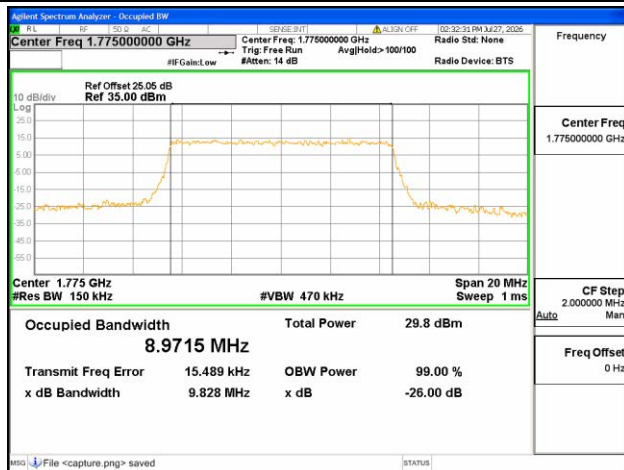
B66 / 10MHz / 16QAM/ Mid CH



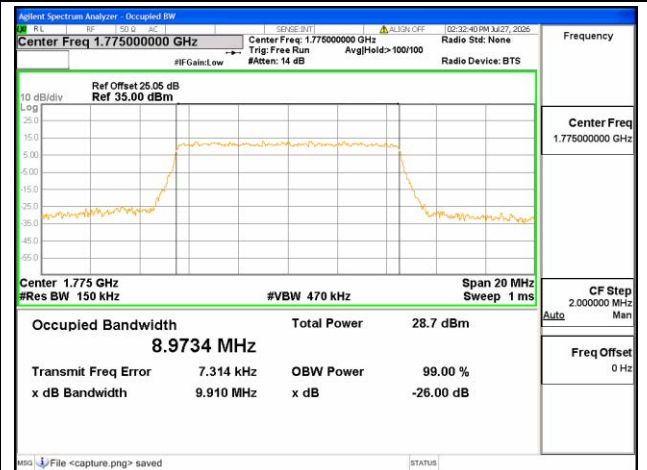
B66 / 10MHz / 64QAM/ Mid CH



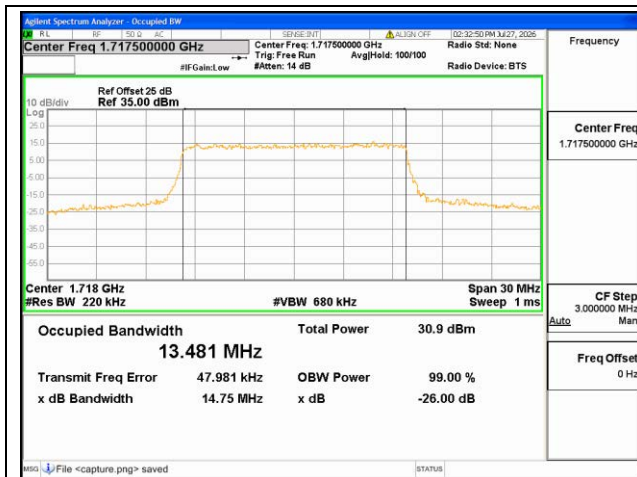
B66 / 10MHz / QPSK/ High CH



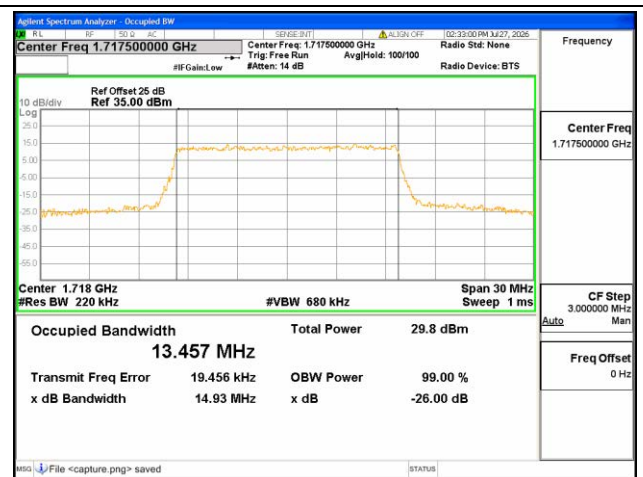
B66 / 10MHz / 16QAM/ High CH



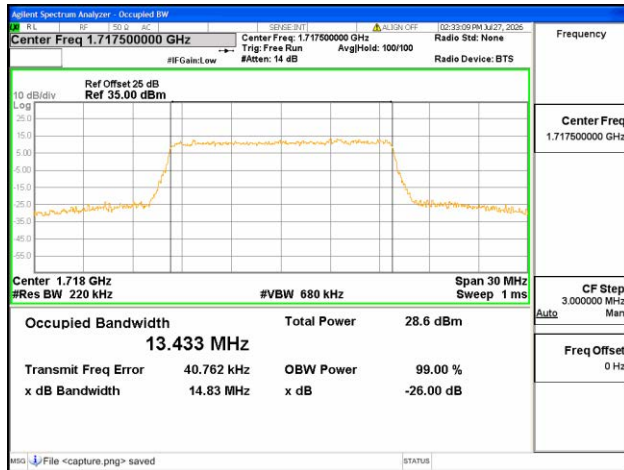
B66 / 10MHz / 64QAM/ High CH



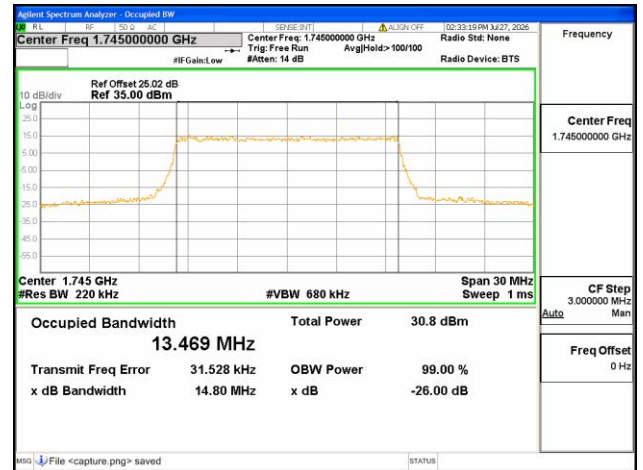
B66 / 15MHz / QPSK/ Low CH



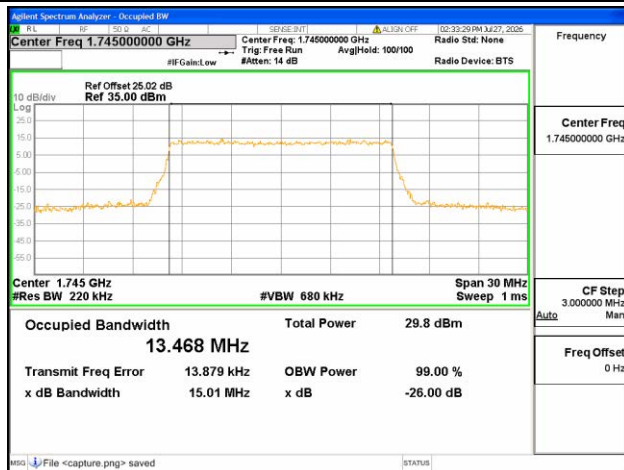
B66 / 15MHz / 16QAM/ Low CH



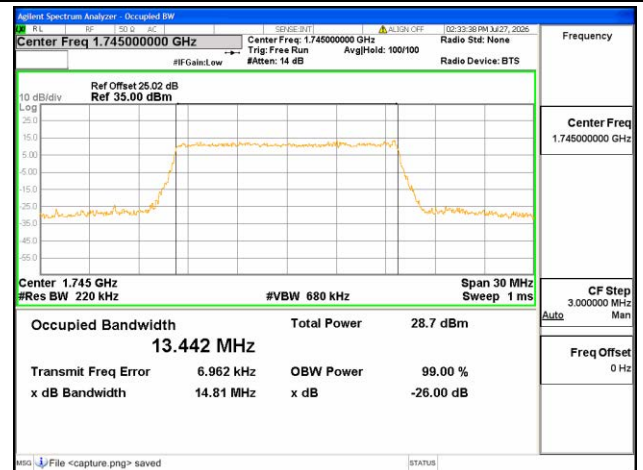
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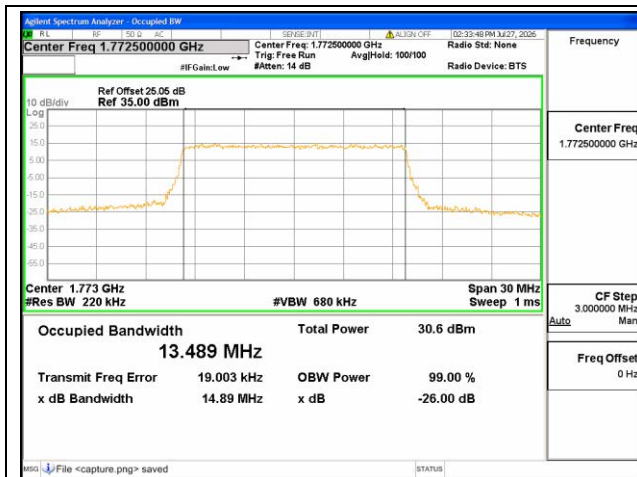
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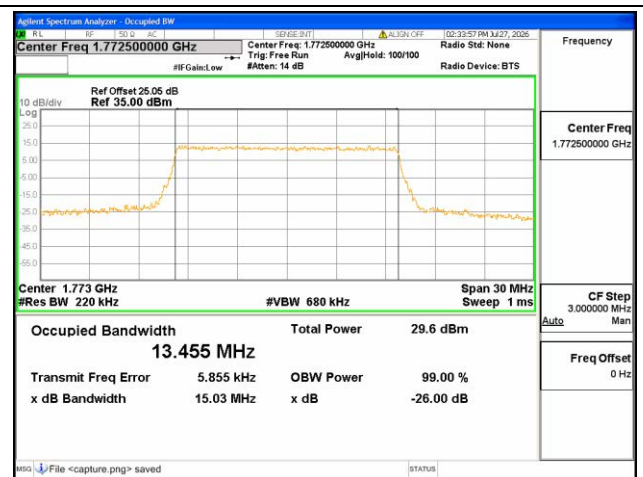
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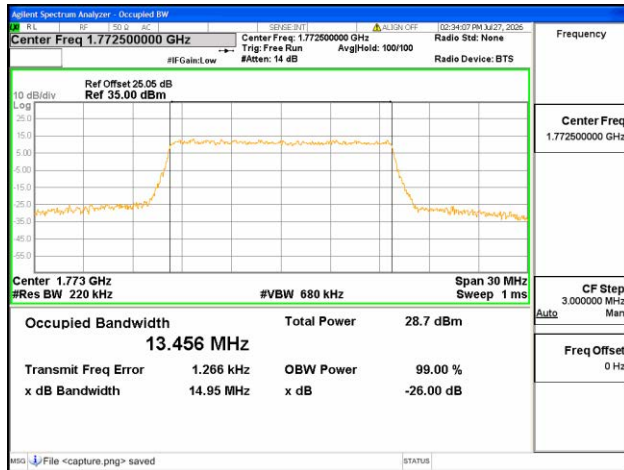
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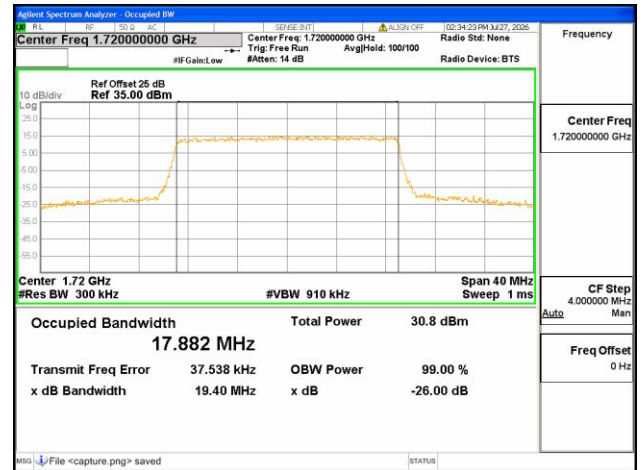
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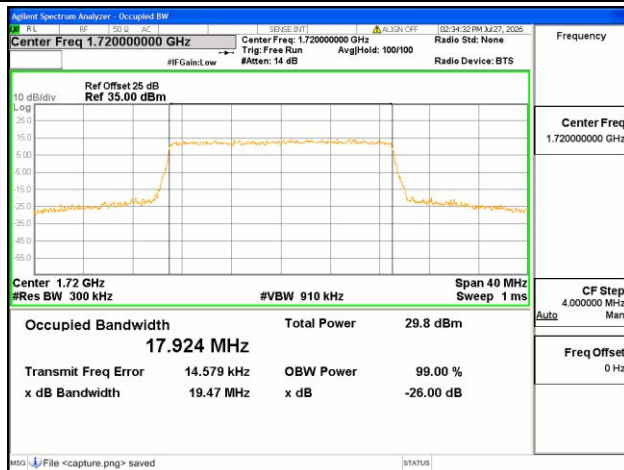
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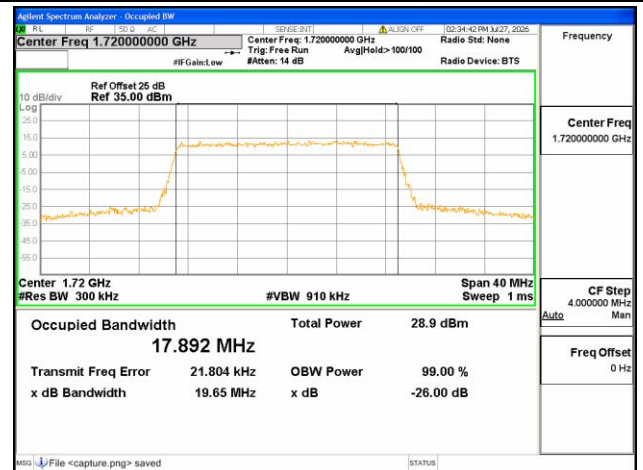
B66 / 15MHz / 64QAM/ High CH



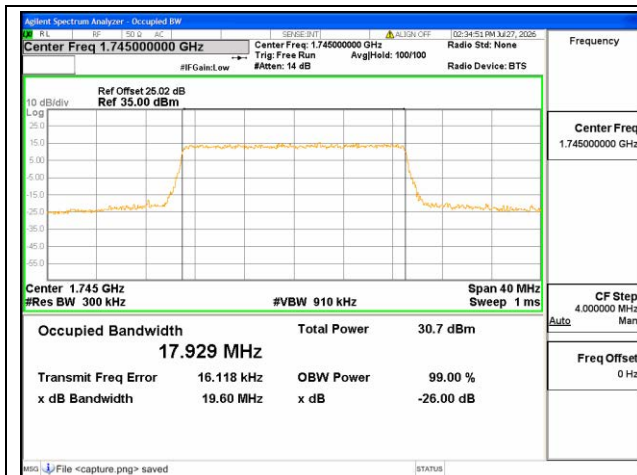
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B66 / 20MHz / 16QAM/ Low CH



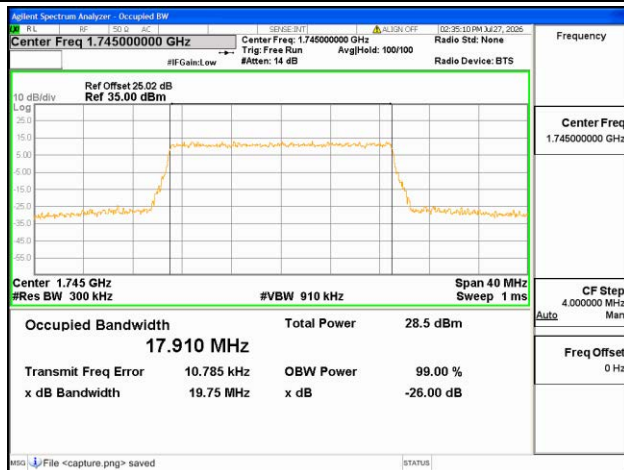
B66 / 20MHz / 64QAM/ Low CH



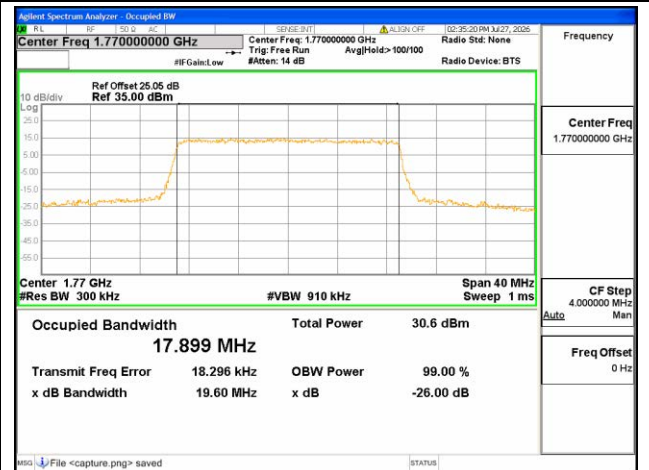
B66 / 20MHz / QPSK/ Mid CH



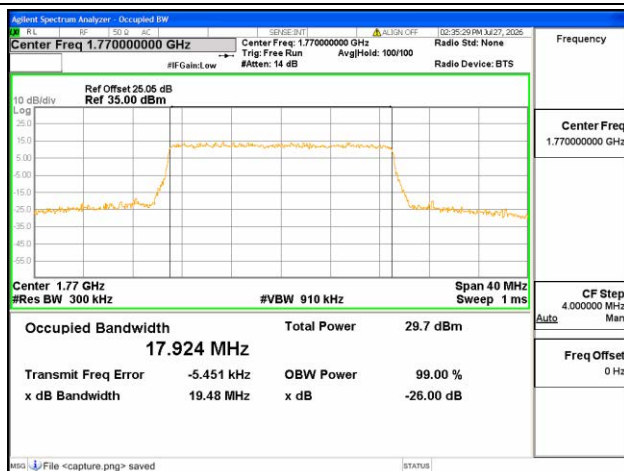
B66 / 20MHz / 16QAM/ Mid CH



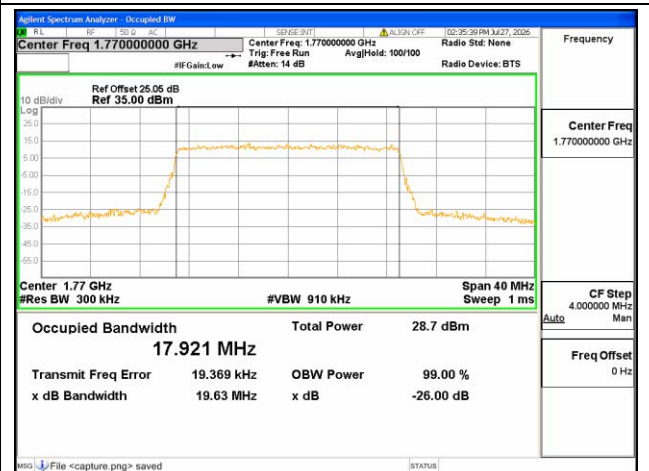
B66 / 20MHz / 64QAM/ Mid CH



B66 / 20MHz / QPSK/ High CH



B66 / 20MHz / 16QAM/ High CH



B66 / 20MHz / 64QAM/ High CH

2.3. Frequency Stability

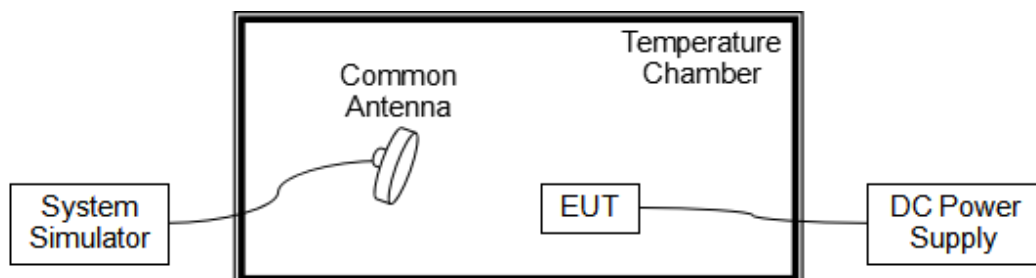
2.3.1. Requirement

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°C to $+50^{\circ}\text{C}$ 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 -10°C to 50°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, 4.45V and 3.45V, which are specified by the applicant; the normal temperature here used is 20°C.

LTE Band 2, 64QAM, Channel 18900, Frequency 1880.0MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.85	+20(Ref)	-14	-0.007	PASS
Normal		-10	21	0.011	
Normal		0	0	0.000	
Normal		+10	17	0.009	
Normal		+20	17	0.009	
Normal		+30	-7	-0.004	
Normal		+40	19	0.010	
Normal		+50	-17	-0.009	
High	4.45	+20	22	0.012	
BATT.ENDPOINT	3.45	+20	18	0.010	

LTE Band 4, 64QAM, Channel 20175, Frequency 1732.5MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.85	+20(Ref)	-11	-0.006	PASS
Normal		-10	15	0.009	
Normal		0	15	0.009	
Normal		+10	-16	-0.009	
Normal		+20	-18	-0.010	
Normal		+30	21	0.012	
Normal		+40	5	0.003	
Normal		+50	13	0.008	
High	4.45	+20	15	0.009	
BATT.ENDPOINT	3.45	+20	20	0.012	



LTE Band 5, 64QAM, Channel 20525, Frequency 836.5MHz					
Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.85	+20(Ref)	19	0.023	PASS
Normal		-10	22	0.026	
Normal		0	-10	-0.012	
Normal		+10	15	0.018	
Normal		+20	16	0.019	
Normal		+30	6	0.007	
Normal		+40	13	0.016	
Normal		+50	10	0.012	
High	4.45	+20	16	0.019	
BATT.ENDPOINT	3.45	+20	19	0.023	

LTE Band 7, 64QAM, Channel 21100, Frequency 2535.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.85	+20(Ref)	16	0.006	PASS
Normal		-10	11	0.004	
Normal		0	18	0.007	
Normal		+10	20	0.008	
Normal		+20	17	0.007	
Normal		+30	0	0.000	
Normal		+40	17	0.007	
Normal		+50	16	0.006	
High	4.45	+20	16	0.006	
BATT.ENDPOINT	3.45	+20	14	0.006	



LTE Band 13, 64QAM, Channel 23230, Frequency 782.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.85	+20(Ref)	-21	-0.027	PASS
Normal		-10	21	0.027	
Normal		0	-17	-0.022	
Normal		+10	7	0.009	
Normal		+20	19	0.024	
Normal		+30	19	0.024	
Normal		+40	19	0.024	
Normal		+50	-16	-0.020	
High	4.45	+20	-22	-0.028	
BATT.ENDPOINT	3.45	+20	19	0.024	

LTE Band 26, 64QAM, Channel 26915, Frequency 836.5MHz					
Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.85	+20(Ref)	9	0.011	PASS
Normal		-10	18	0.022	
Normal		0	21	0.025	
Normal		+10	19	0.023	
Normal		+20	13	0.016	
Normal		+30	-21	-0.025	
Normal		+40	5	0.006	
Normal		+50	18	0.022	
High	4.45	+20	20	0.024	
BATT.ENDPOINT	3.45	+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	3.85	+20(Ref)	18	0.007	PASS
Normal		-10	16	0.006	
Normal		0	-13	-0.005	
Normal		+10	-16	-0.006	
Normal		+20	7	0.003	
Normal		+30	20	0.008	
Normal		+40	-10	-0.004	
Normal		+50	15	0.006	
High	4.45	+20	-6	-0.002	
BATT.ENDPOINT	3.45	+20	18	0.007	

LTE Band 40, 64QAM, Channel 38750, Frequency 2310.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.85	+20(Ref)	11	0.005	PASS
Normal		-10	14	0.006	
Normal		0	9	0.004	
Normal		+10	15	0.006	
Normal		+20	-23	-0.010	
Normal		+30	4	0.002	
Normal		+40	16	0.007	
Normal		+50	-17	-0.007	
High	4.45	+20	11	0.005	
BATT.ENDPOINT	3.45	+20	18	0.008	



LTE Band 40, 64QAM, Channel 39200, Frequency 2355.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.85	+20(Ref)	15	0.006	PASS
Normal		-10	19	0.008	
Normal		0	-2	-0.001	
Normal		+10	14	0.006	
Normal		+20	3	0.001	
Normal		+30	17	0.007	
Normal		+40	13	0.006	
Normal		+50	16	0.007	
High	4.45	+20	16	0.007	
BATT.ENDPOINT	3.45	+20	15	0.006	

LTE Band 41, 64QAM, Channel 40620, Frequency 2593.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.85	+20(Ref)	14	0.005	PASS
Normal		-10	-6	-0.002	
Normal		0	20	0.008	
Normal		+10	7	0.003	
Normal		+20	15	0.006	
Normal		+30	15	0.006	
Normal		+40	6	0.002	
Normal		+50	19	0.007	
High	4.45	+20	10	0.004	
BATT.ENDPOINT	3.45	+20	14	0.005	



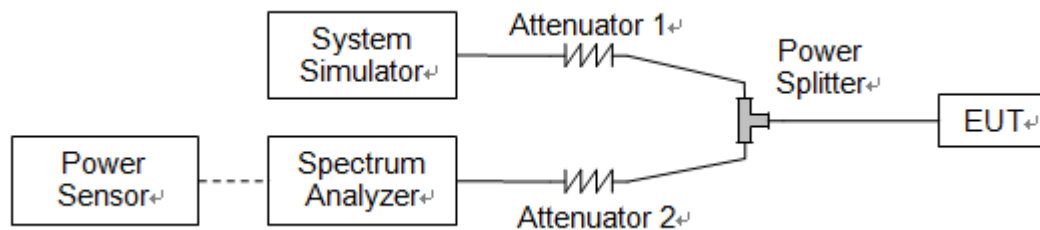
LTE Band 66, 64QAM, Channel 132322, Frequency 1745.0MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.85	+20(Ref)	-23	-0.013	PASS
Normal		-10	15	0.009	
Normal		0	-5	-0.003	
Normal		+10	15	0.009	
Normal		+20	-22	-0.013	
Normal		+30	-14	-0.008	
Normal		+40	-22	-0.013	
Normal		+50	15	0.009	
High	4.45	+20	5	0.003	
BATT.ENDPOINT	3.45	+20	18	0.010	

2.4. Peak to Average Ratio

2.4.1. Requirement

According to FCC section 24.232(d) and 27.50(d), 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	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	Peak to Average Radio(dB)	Verdict
B2	1.4	Low	18607	1850.7	QPSK	4.43	PASS
B2	1.4	Low	18607	1850.7	16QAM	5.24	PASS
B2	1.4	Low	18607	1850.7	64QAM	5.75	PASS
B2	1.4	Mid	18900	1880	QPSK	4.39	PASS
B2	1.4	Mid	18900	1880	16QAM	5.06	PASS
B2	1.4	Mid	18900	1880	64QAM	5.70	PASS
B2	1.4	High	19193	1909.3	QPSK	3.24	PASS
B2	1.4	High	19193	1909.3	16QAM	4.10	PASS
B2	1.4	High	19193	1909.3	64QAM	5.18	PASS
B2	3	Low	18615	1851.5	QPSK	4.54	PASS
B2	3	Low	18615	1851.5	16QAM	5.44	PASS
B2	3	Low	18615	1851.5	64QAM	5.85	PASS
B2	3	Mid	18900	1880	QPSK	4.58	PASS
B2	3	Mid	18900	1880	16QAM	5.29	PASS
B2	3	Mid	18900	1880	64QAM	5.70	PASS
B2	3	High	19185	1908.5	QPSK	3.92	PASS
B2	3	High	19185	1908.5	16QAM	4.71	PASS
B2	3	High	19185	1908.5	64QAM	5.33	PASS
B2	5	Low	18625	1852.5	QPSK	4.94	PASS
B2	5	Low	18625	1852.5	16QAM	5.49	PASS
B2	5	Low	18625	1852.5	64QAM	5.93	PASS
B2	5	Mid	18900	1880	QPSK	4.83	PASS
B2	5	Mid	18900	1880	16QAM	5.50	PASS
B2	5	Mid	18900	1880	64QAM	5.87	PASS
B2	5	High	19175	1907.5	QPSK	4.60	PASS
B2	5	High	19175	1907.5	16QAM	5.32	PASS
B2	5	High	19175	1907.5	64QAM	5.90	PASS
B2	10	Low	18650	1855	QPSK	4.96	PASS
B2	10	Low	18650	1855	16QAM	5.59	PASS
B2	10	Low	18650	1855	64QAM	6.06	PASS
B2	10	Mid	18900	1880	QPSK	5.02	PASS
B2	10	Mid	18900	1880	16QAM	5.62	PASS
B2	10	Mid	18900	1880	64QAM	5.99	PASS
B2	10	High	19150	1905	QPSK	5.04	PASS
B2	10	High	19150	1905	16QAM	5.63	PASS