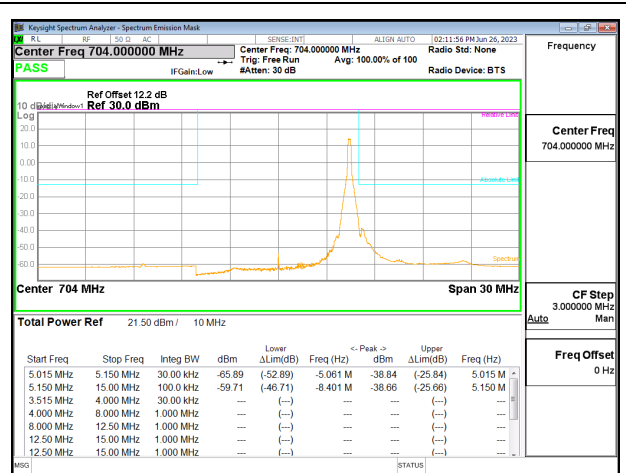
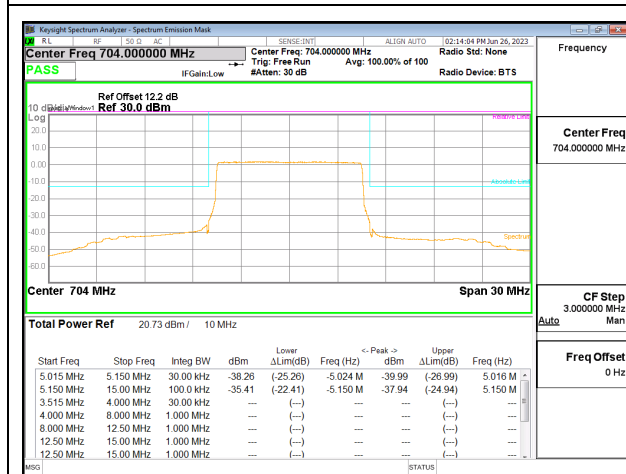


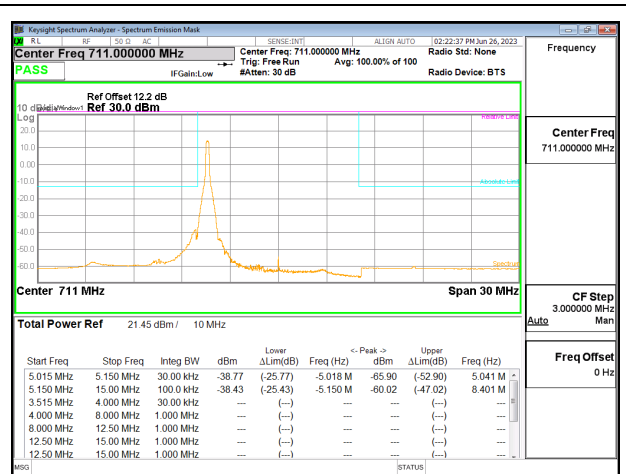
LTE12 10MHz 64QAM LOW Ch RB1-0



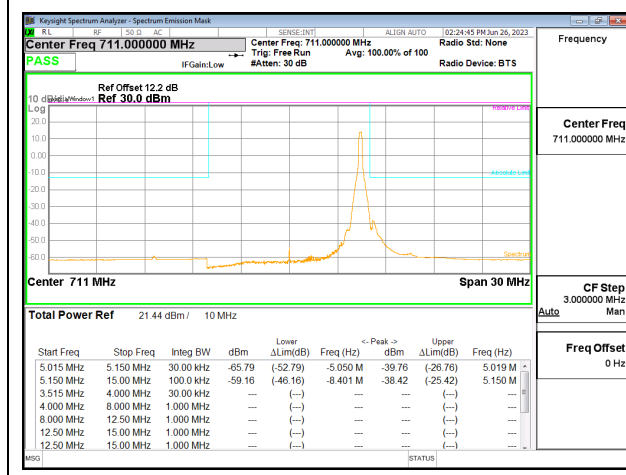
LTE12 10MHz 64QAM LOW Ch RB1-49



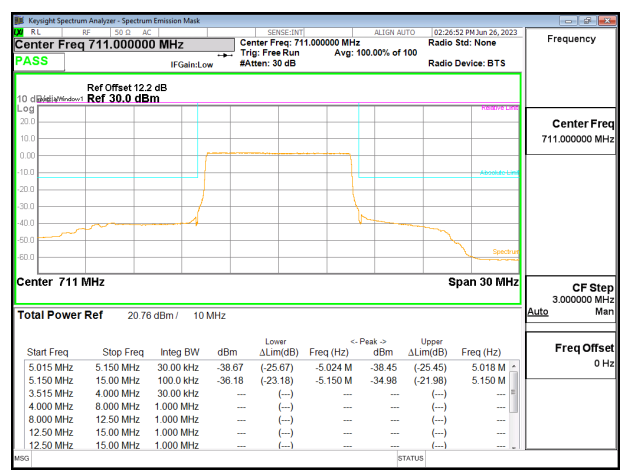
LTE12 10MHz 64QAM LOW Ch RB50-0



LTE12 10MHz 64QAM HIGH Ch RB1-0



LTE12 10MHz 64QAM HIGH Ch RB1-49



LTE12 10MHz 64QAM HIGH Ch RB50-0

**9.4.8. LTE13****LIMITS**

FCC: §27.53

(c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB;

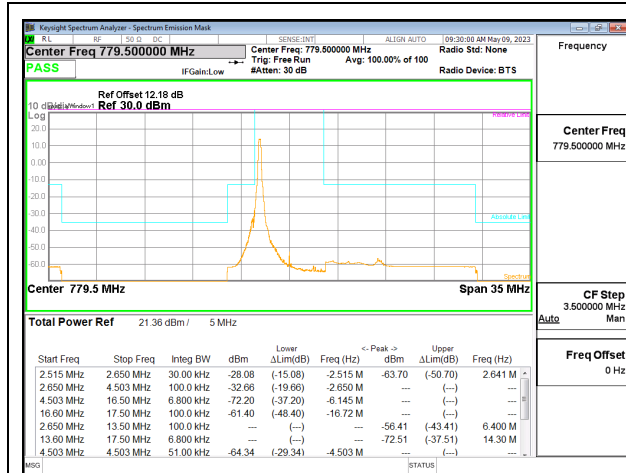
(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than  $65 + 10 \log (P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;

(5) Compliance with the provisions of paragraphs (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

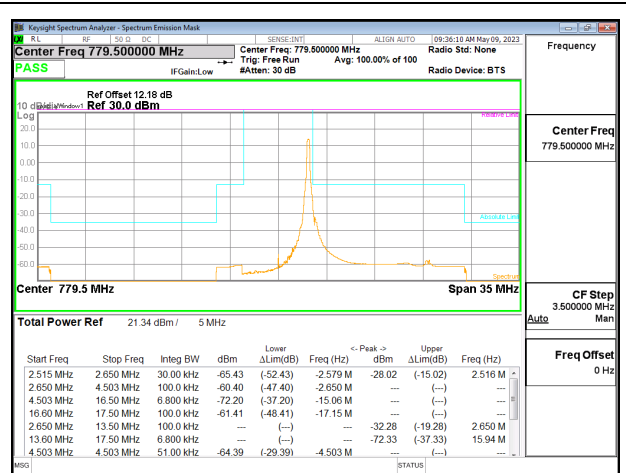
(6) Compliance with the provisions of paragraphs (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

(f) Emissions in the band 1559-1610 MHz shall be limited to  $-70$  dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals. ( $-70$  dBW/MHz =  $-40$  dBm/MHz).

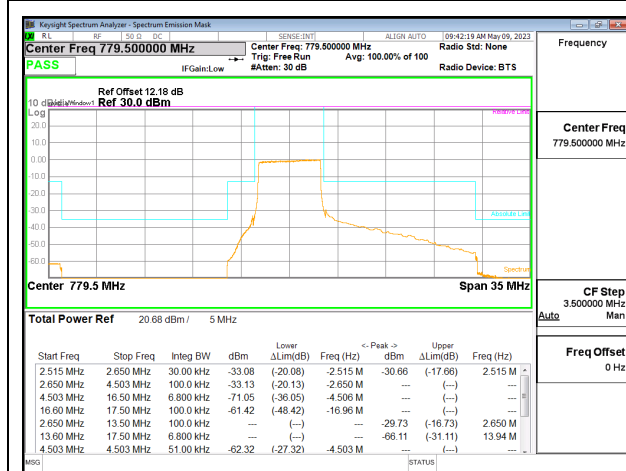
<b>Test Engineer ID:</b>	27465/44389	<b>Test Date:</b>	2023-05-09	<b>EUT Serial Number:</b>	QV77007YG9
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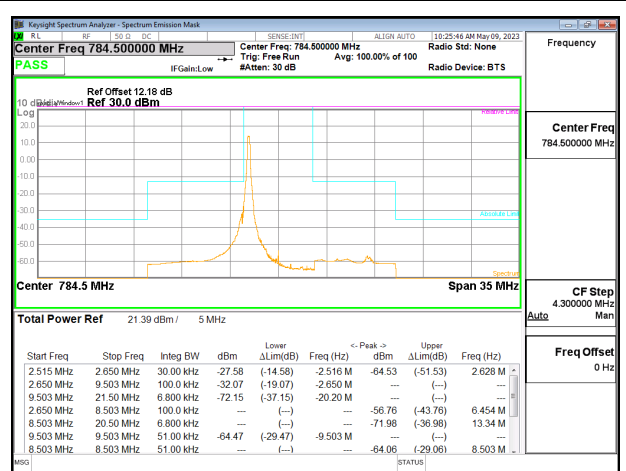
LTE13 5MHz 64QAM LOW Ch RB1-0



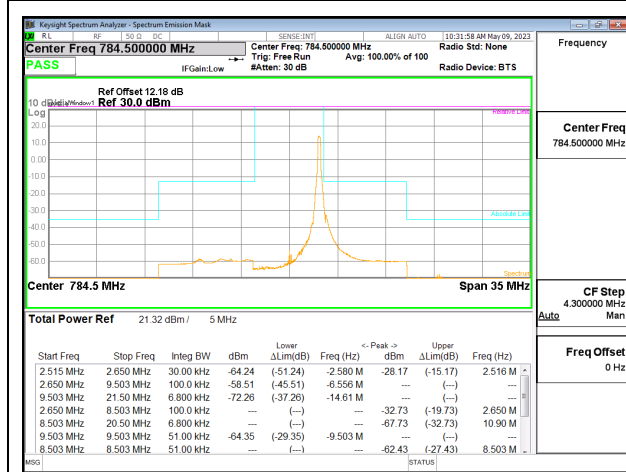
LTE13 5MHz 64QAM LOW Ch RB1-24



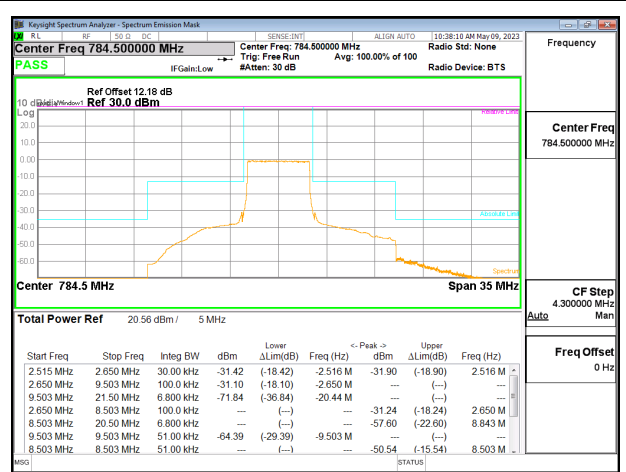
LTE13 5MHz 64QAM LOW Ch RB25-0



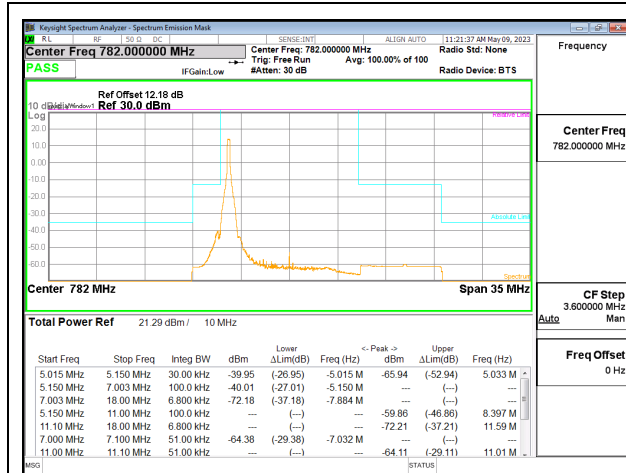
LTE13 5MHz 64QAM HIGH Ch RB1-0



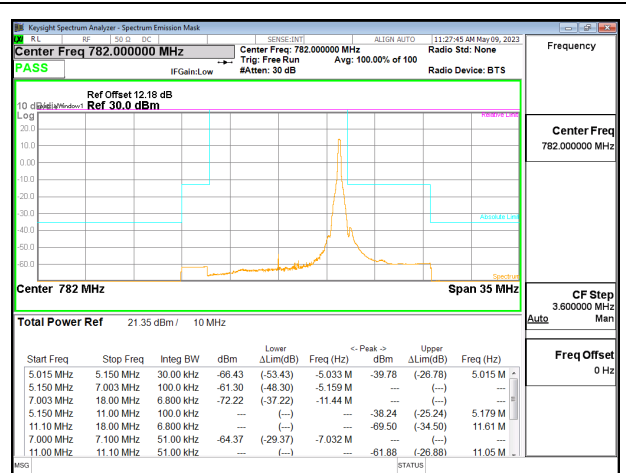
LTE13 5MHz 64QAM HIGH Ch RB1-24



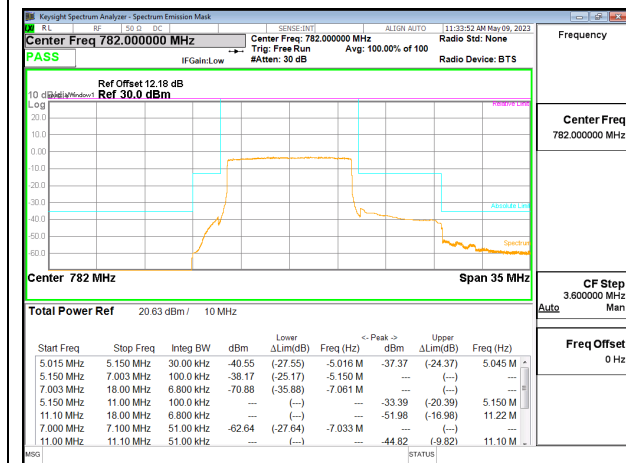
LTE13 5MHz 64QAM HIGH Ch RB25-0



LTE13 10MHz 64QAM LOW Ch RB1-0



LTE13 10MHz 64QAM LOW Ch RB1-49



LTE13 10MHz 64QAM LOW Ch RB50-0

LEFT INTENTIONALLY BLANK

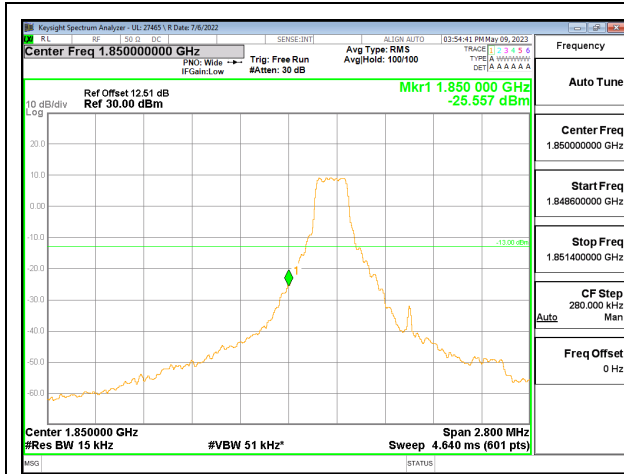
### 9.4.9. LTE25

#### LIMITS

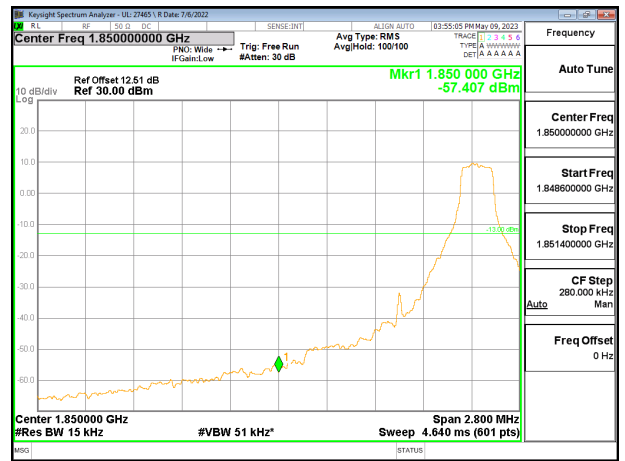
FCC: §24.238

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.

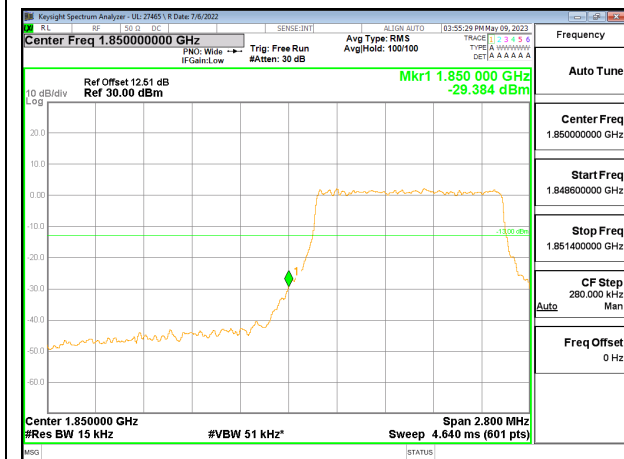
<b>Test Engineer ID:</b>	27465/44389	<b>Test Date:</b>	2023-05-09	<b>EUT Serial Number:</b>	QV77008AG9
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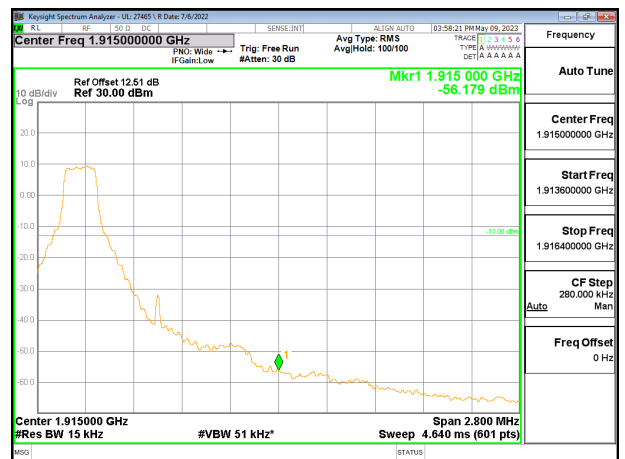
LTE25 1.4MHz 64QAM LOW Ch RB1-0



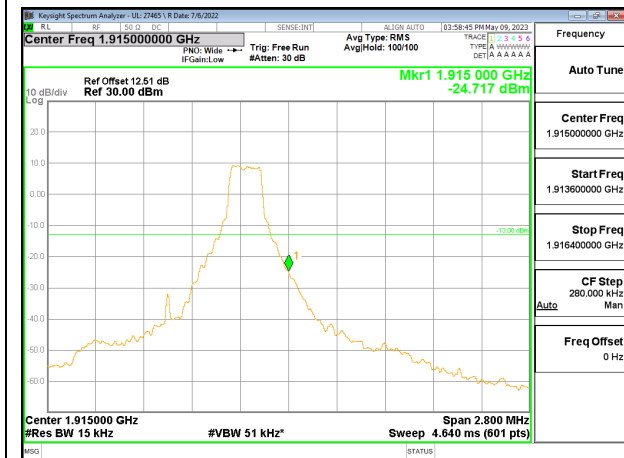
LTE25 1.4MHz 64QAM LOW Ch RB1-5



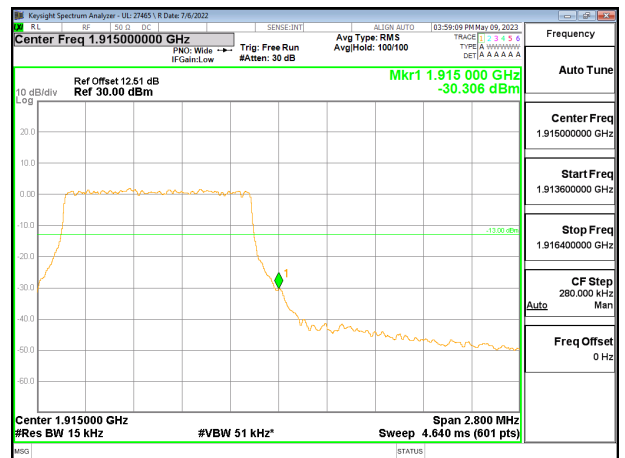
LTE25 1.4MHz 64QAM LOW Ch RB6-0



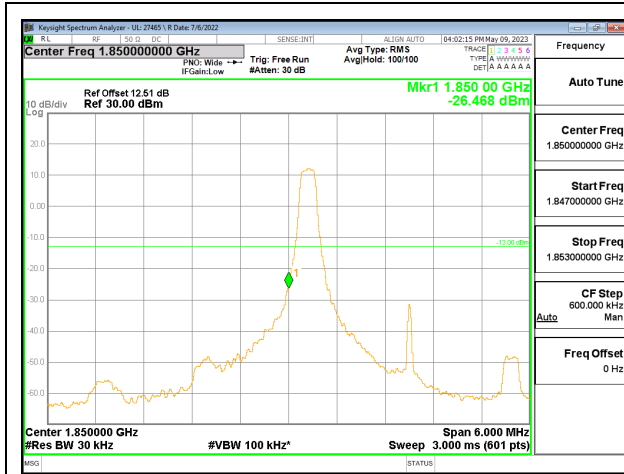
LTE25 1.4MHz 64QAM HIGH Ch RB1-0



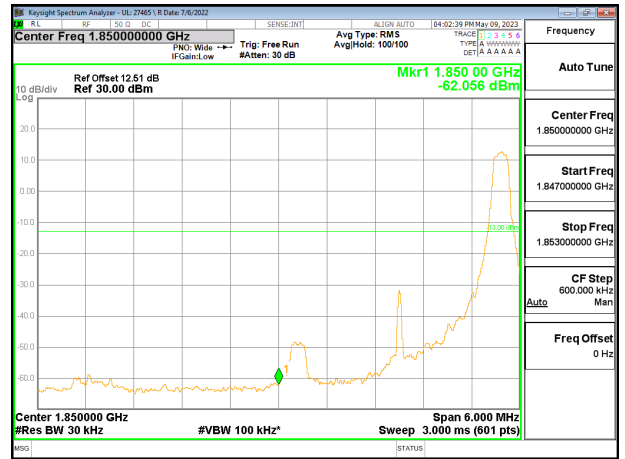
LTE25 1.4MHz 64QAM HIGH Ch RB1-5



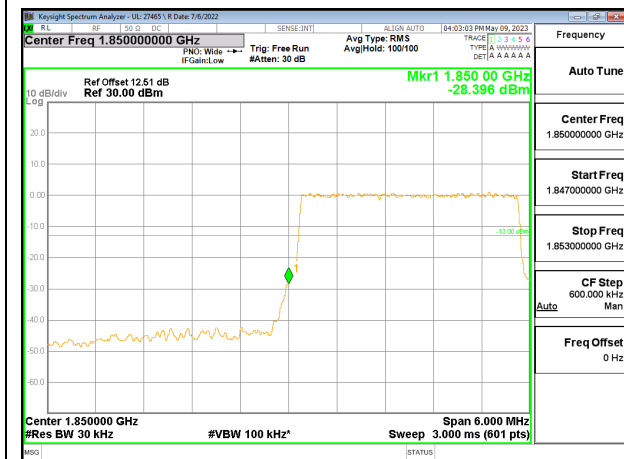
LTE25 1.4MHz 64QAM HIGH Ch RB6-0



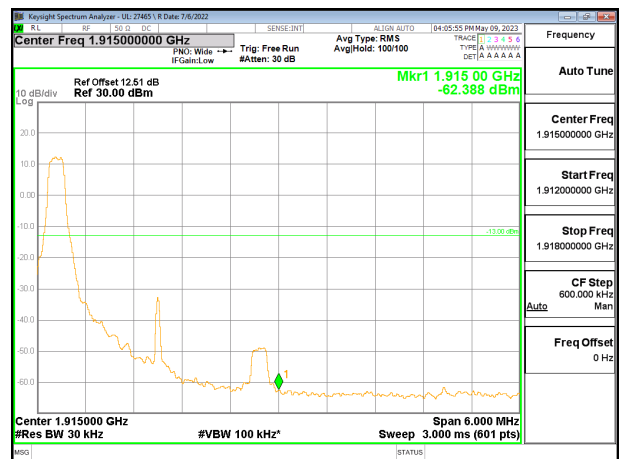
LTE25 3MHz 64QAM LOW Ch RB1-0



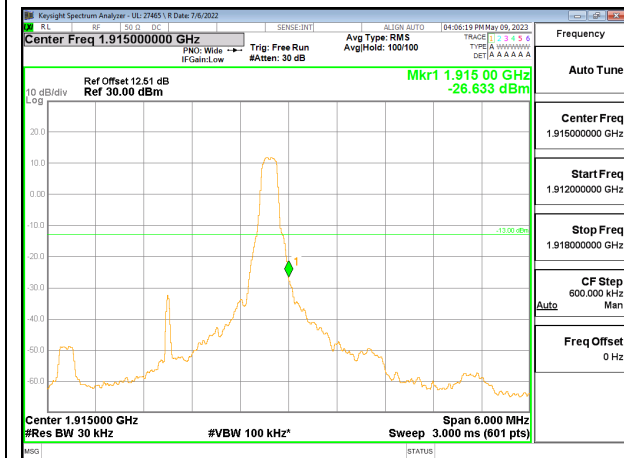
LTE25 3MHz 64QAM LOW Ch RB1-14



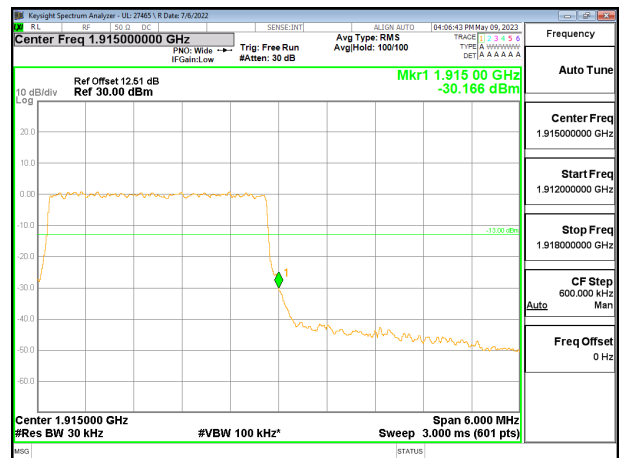
LTE25 3MHz 64QAM LOW Ch RB15-0



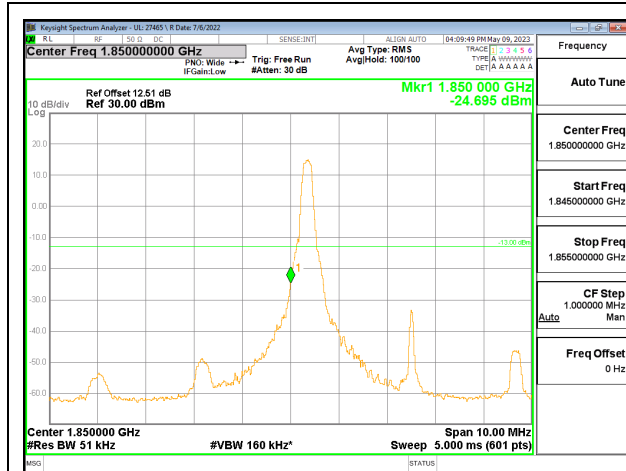
LTE25 3MHz 64QAM HIGH Ch RB1-0



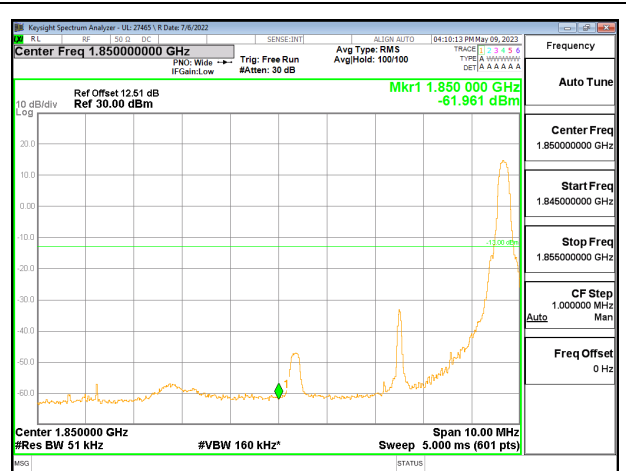
LTE25 3MHz 64QAM HIGH Ch RB1-14



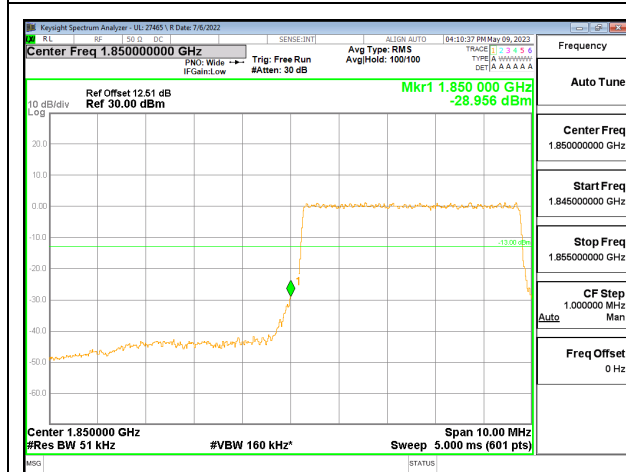
LTE25 3MHz 64QAM HIGH Ch RB15-0



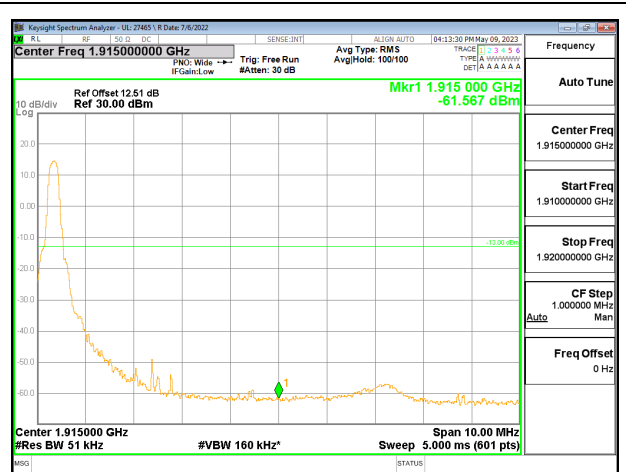
LTE25 5MHz 64QAM LOW Ch RB1-0



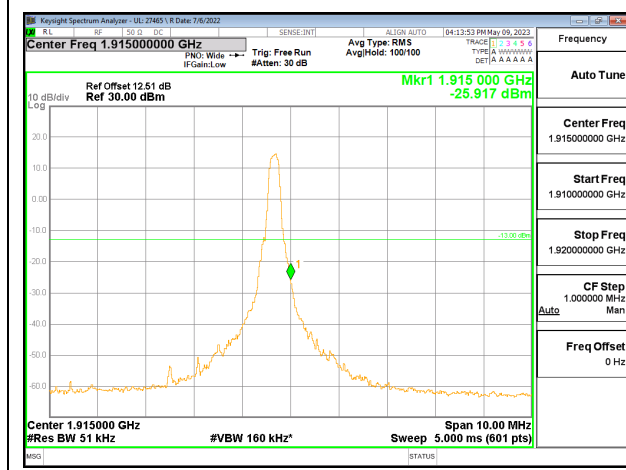
LTE25 5MHz 64QAM LOW Ch RB1-24



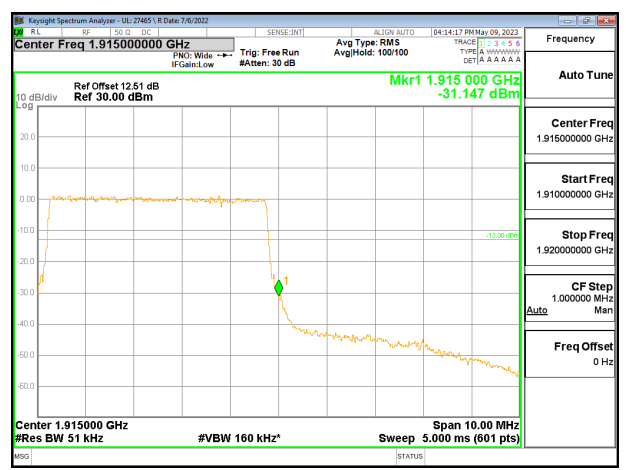
LTE25 5MHz 64QAM LOW Ch RB25-0



LTE25 5MHz 64QAM HIGH Ch RB1-0

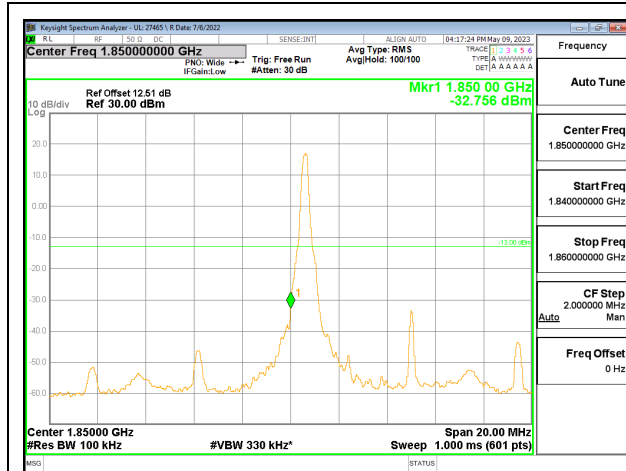


LTE25 5MHz 64QAM HIGH Ch RB1-24

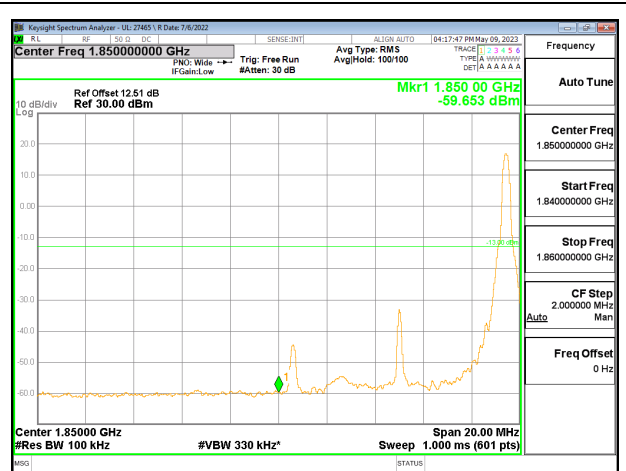


LTE25 5MHz 64QAM HIGH Ch RB25-0

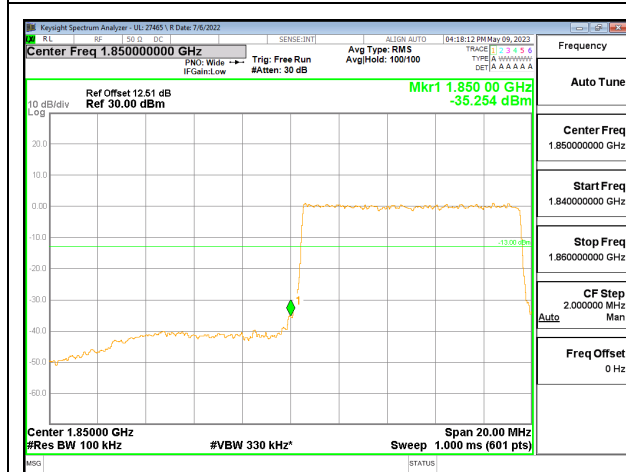




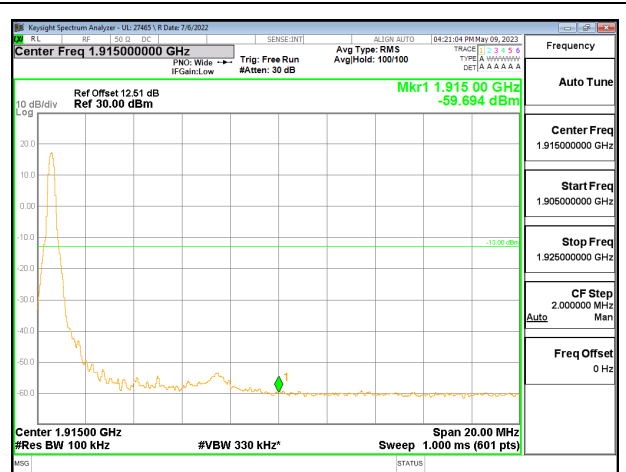
LTE25 10MHz 64QAM LOW Ch RB1-0



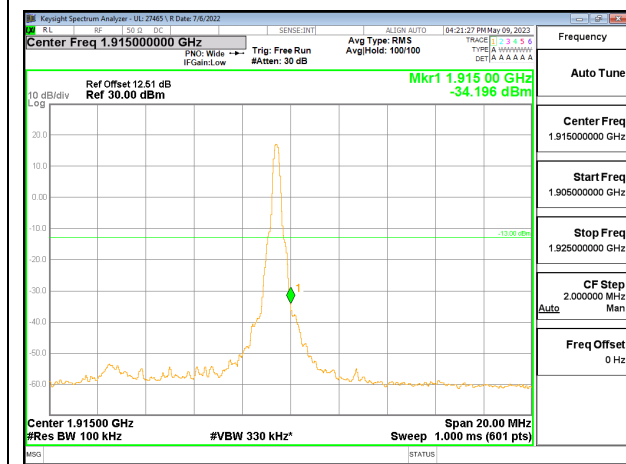
LTE25 10MHz 64QAM LOW Ch RB1-49



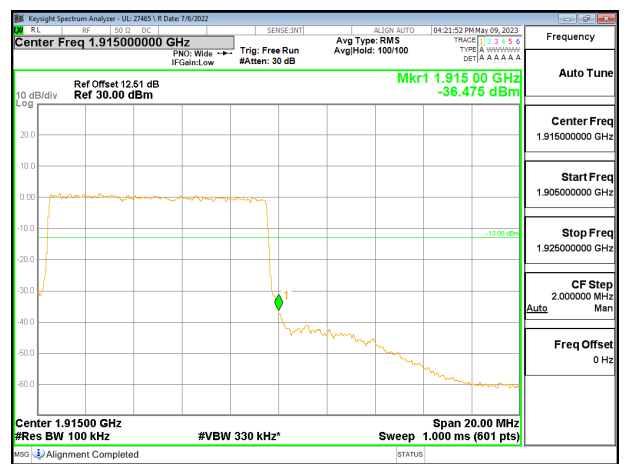
LTE25 10MHz 64QAM LOW Ch RB50-0



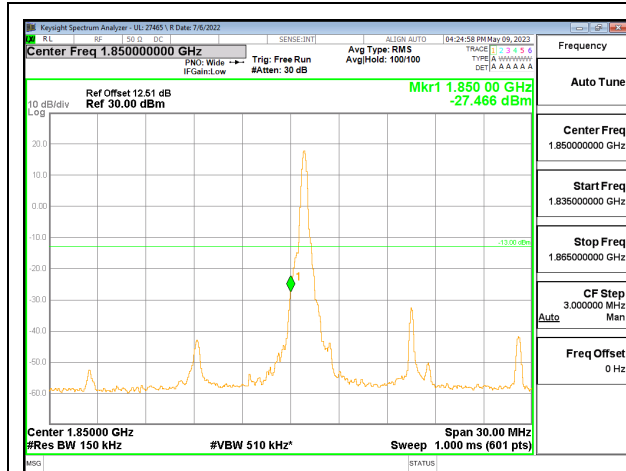
LTE25 10MHz 64QAM HIGH Ch RB1-0



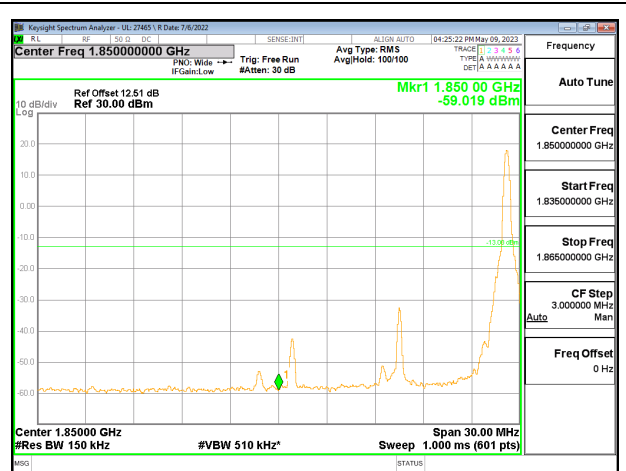
LTE25 10MHz 64QAM HIGH Ch RB1-49



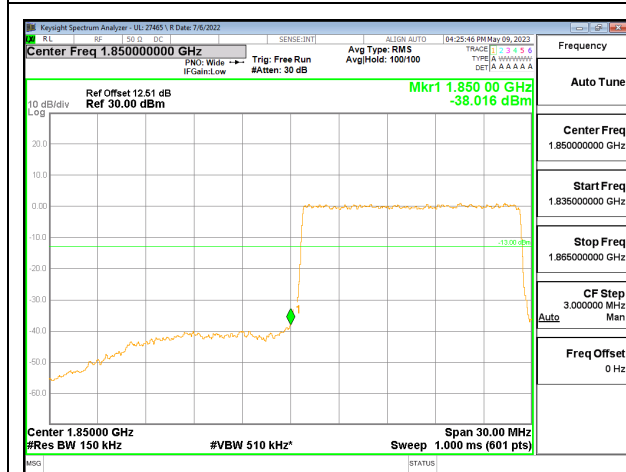
LTE25 10MHz 64QAM HIGH Ch RB50-0



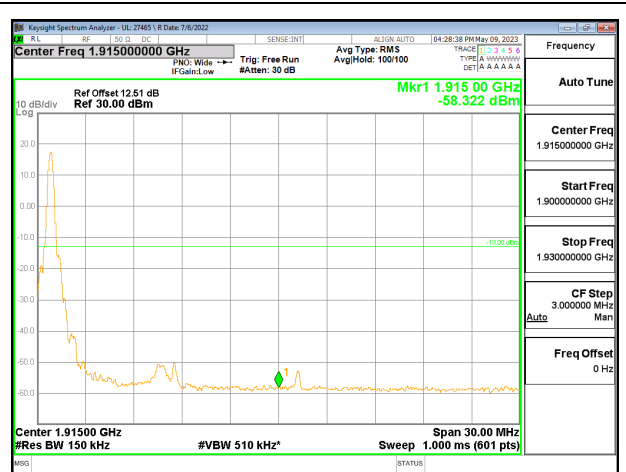
LTE25 15MHz 64QAM LOW Ch RB1-0



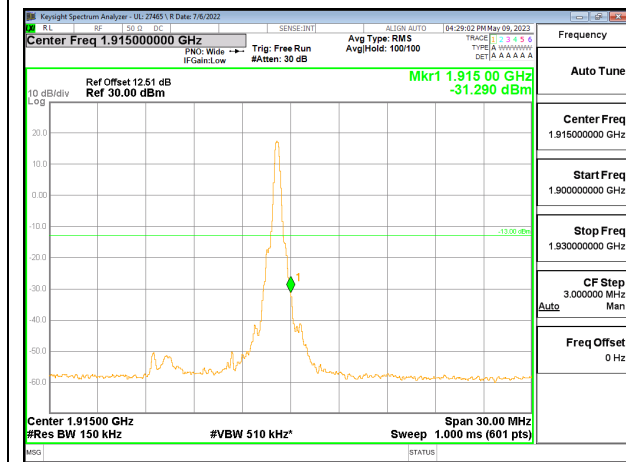
LTE25 15MHz 64QAM LOW Ch RB1-74



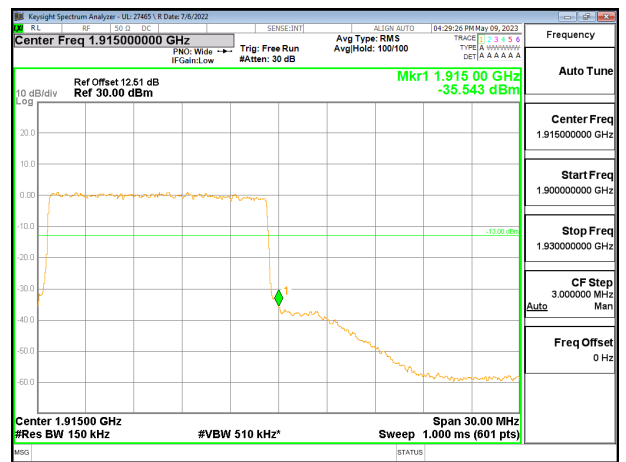
LTE25 15MHz 64QAM LOW Ch RB75-0



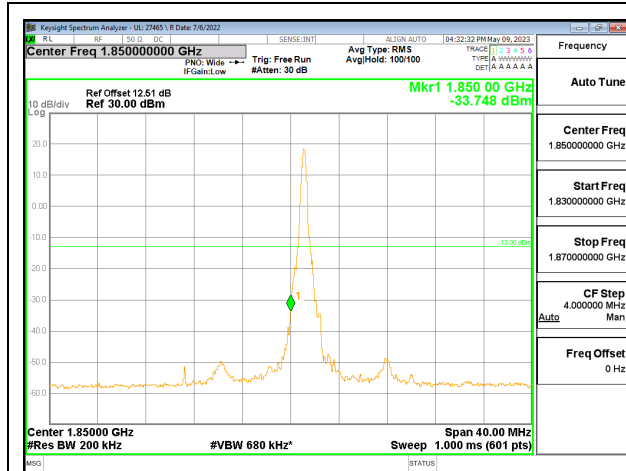
LTE25 15MHz 64QAM HIGH Ch RB1-0



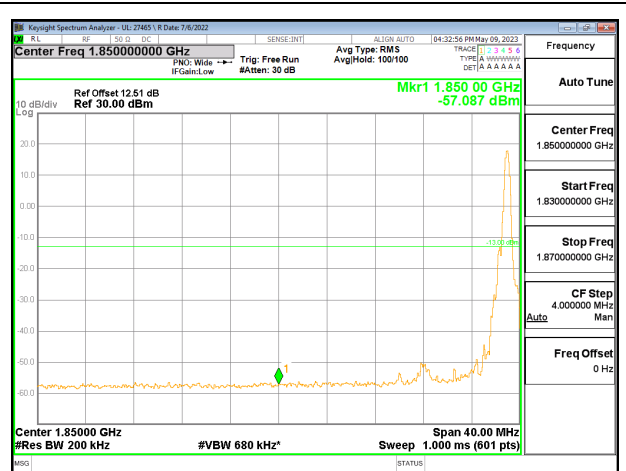
LTE25 15MHz 64QAM HIGH Ch RB1-74



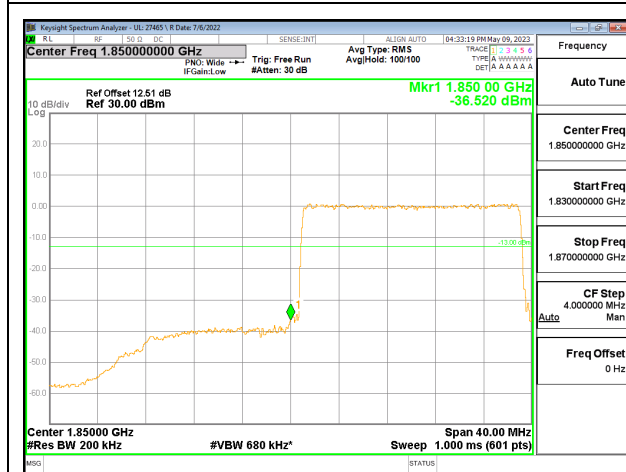
LTE25 15MHz 64QAM HIGH Ch RB75-0



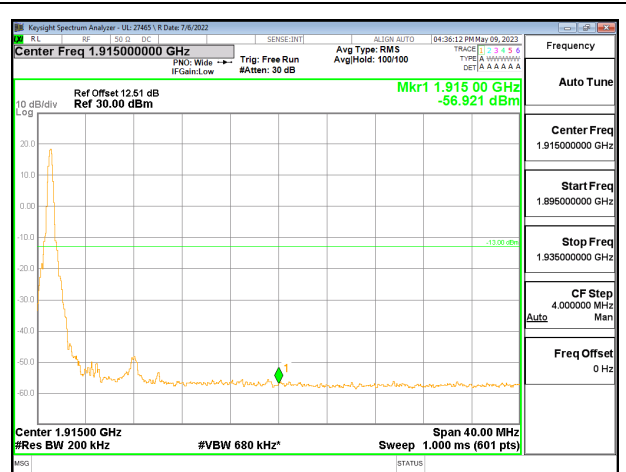
LTE25 20MHz 64QAM LOW Ch RB1-0



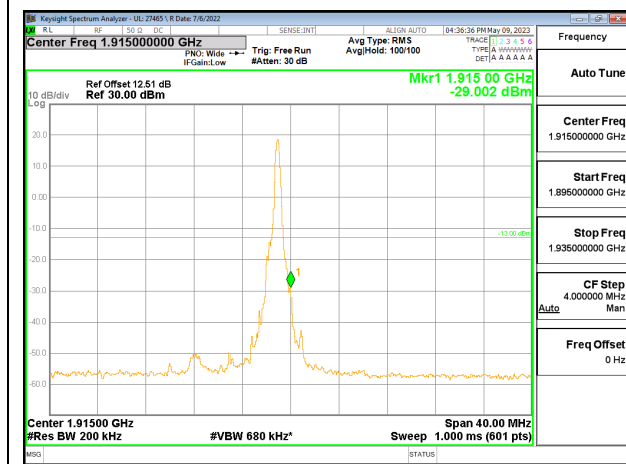
LTE25 20MHz 64QAM LOW Ch RB1-99



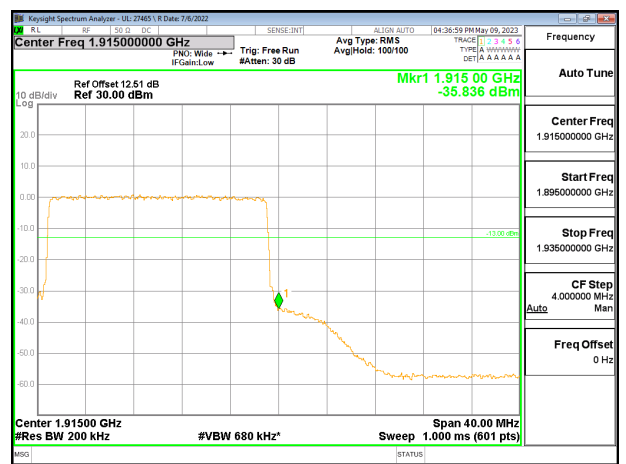
LTE25 20MHz 64QAM LOW Ch RB100-0



LTE25 20MHz 64QAM HIGH Ch RB1-0



LTE25 20MHz 64QAM HIGH Ch RB1-99



LTE25 20MHz 64QAM HIGH Ch RB100-0

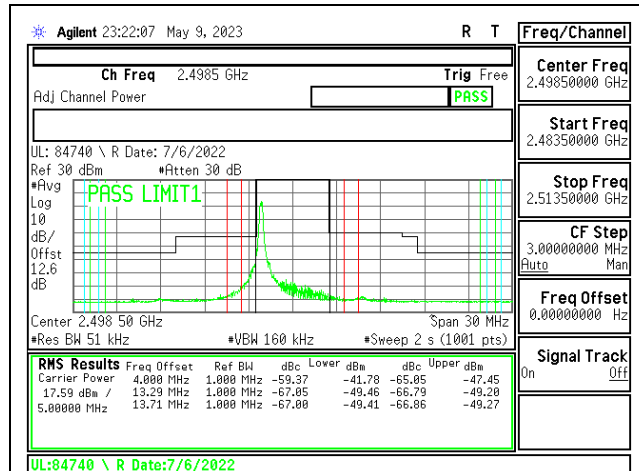
**9.4.10. LTE41**

**LIMITS**

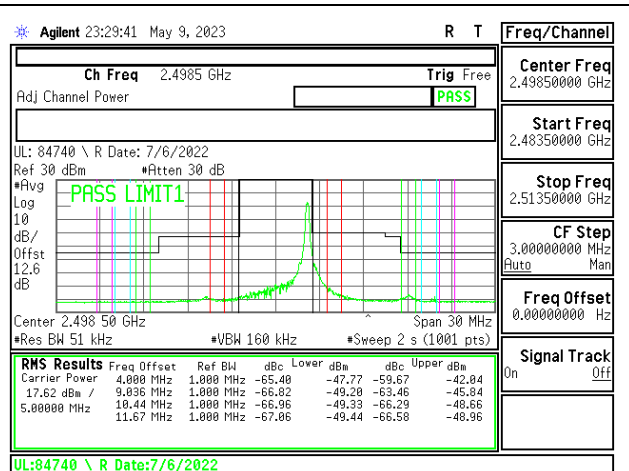
FCC: §27.53

(m)(4) For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log (P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log (P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

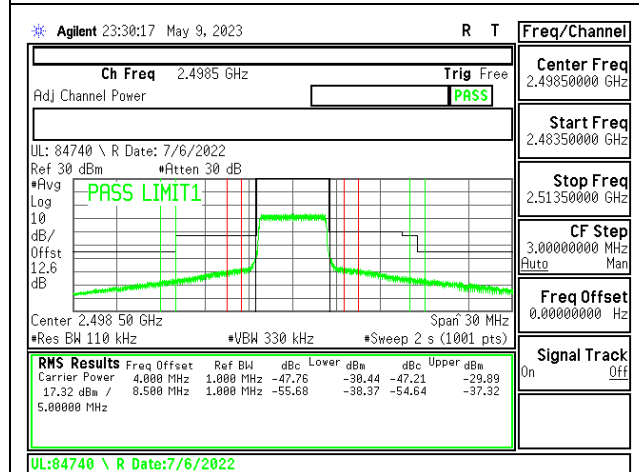
<b>Test Engineer ID:</b>	27465/44389	<b>Test Date:</b>	2023-05-09	<b>EUT Serial Number:</b>	QV77008AG9
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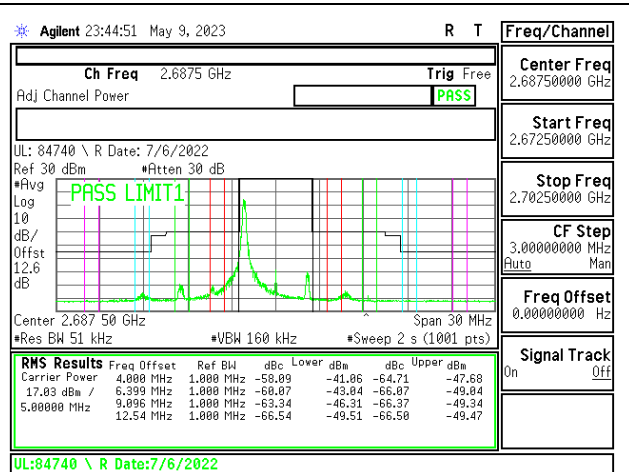
LTE41 5MHz 16QAM LOW Ch RB1-0



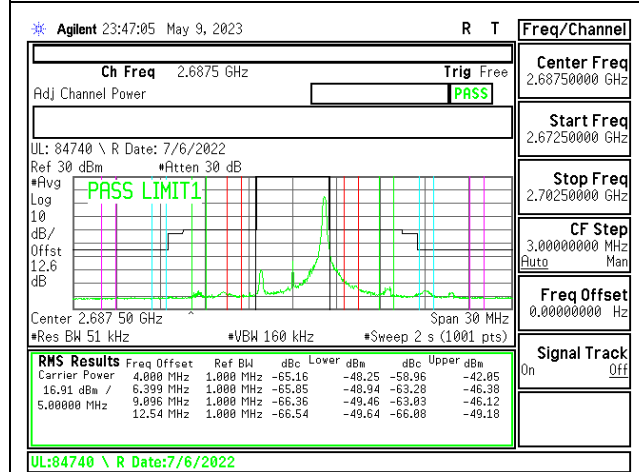
LTE41 5MHz 16QAM LOW Ch RB1-24



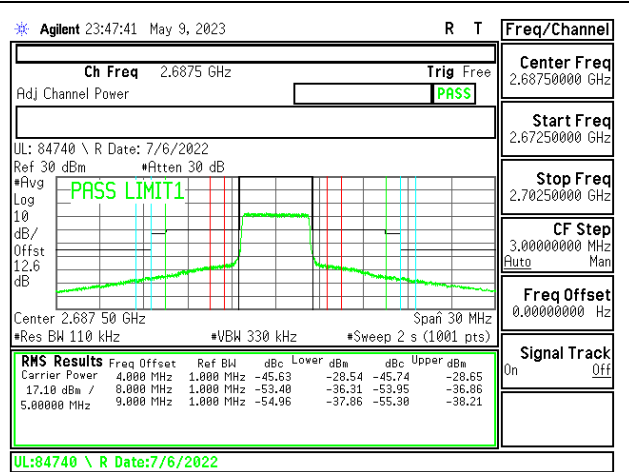
LTE41 5MHz 16QAM LOW Ch RB25-0



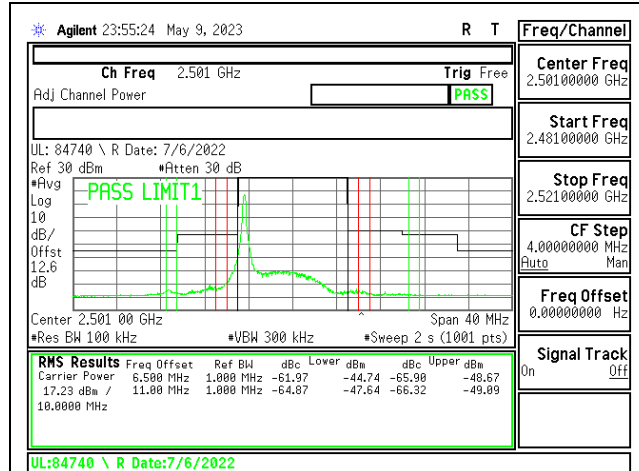
LTE41 5MHz 16QAM HIGH Ch RB1-0



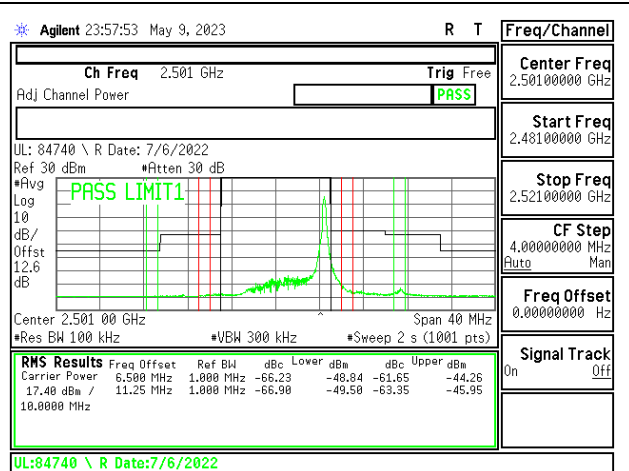
LTE41 5MHz 16QAM HIGH Ch RB1-24



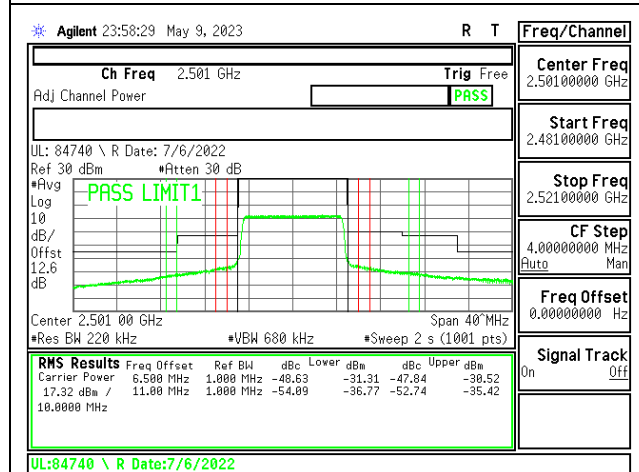
LTE41 5MHz 16QAM HIGH Ch RB25-0



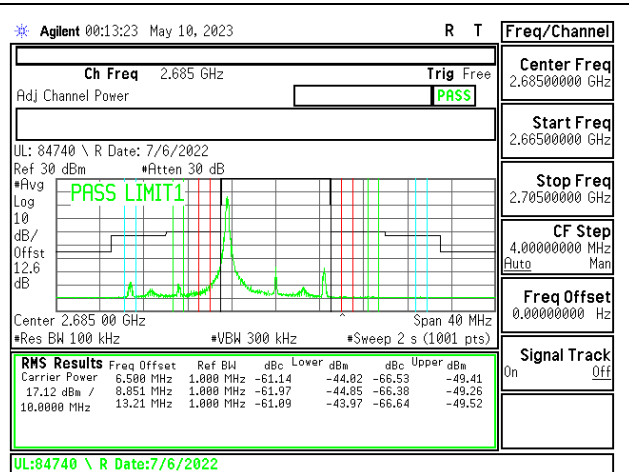
LTE41 10MHz 16QAM LOW Ch RB1-0



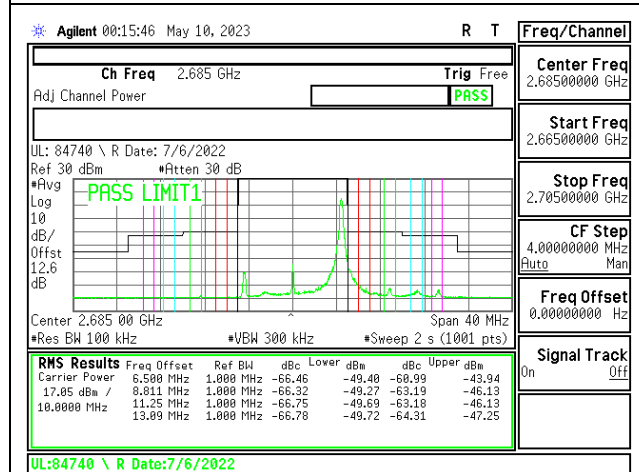
LTE41 10MHz 16QAM LOW Ch RB1-49



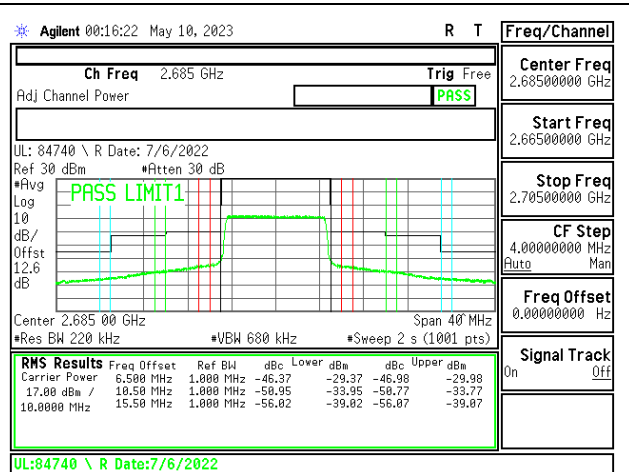
LTE41 10MHz 16QAM LOW Ch RB50-0



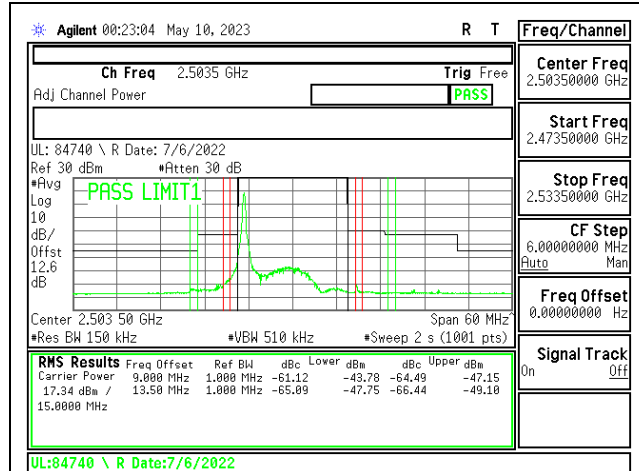
LTE41 10MHz 16QAM HIGH Ch RB1-0



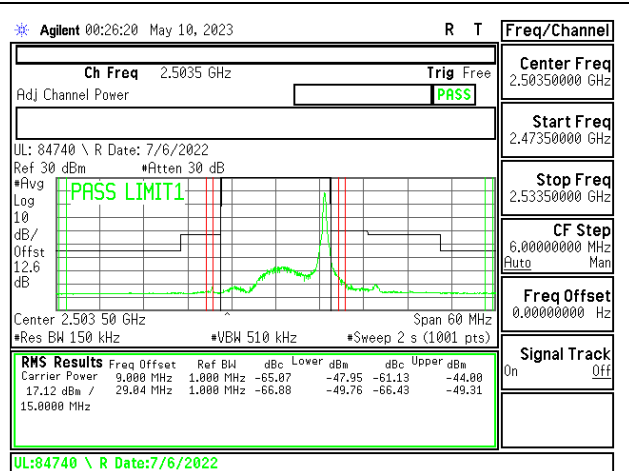
LTE41 10MHz 16QAM HIGH Ch RB1-49



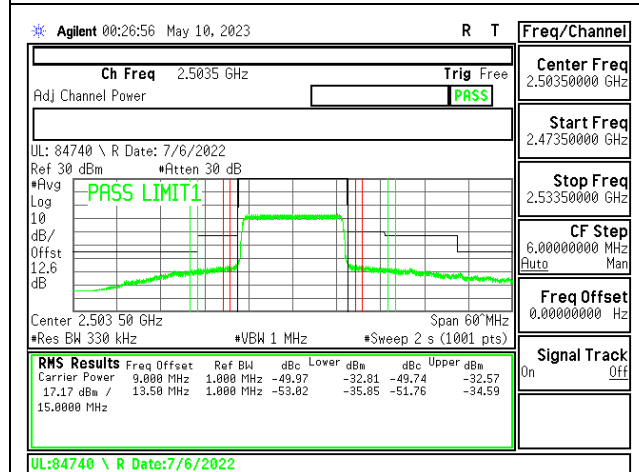
LTE41 10MHz 16QAM HIGH Ch RB50-0



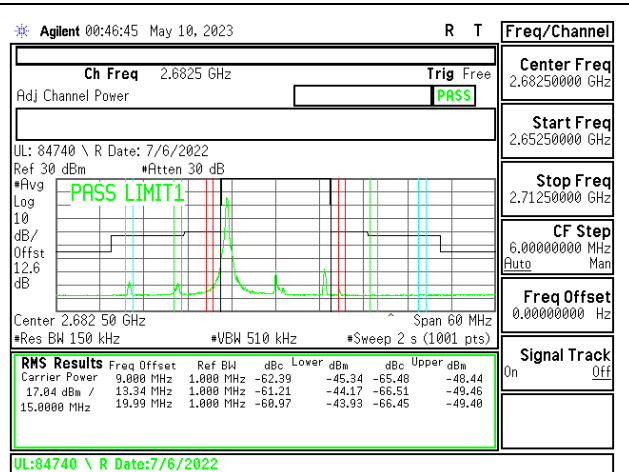
LTE41 15MHz 16QAM LOW Ch RB1-0



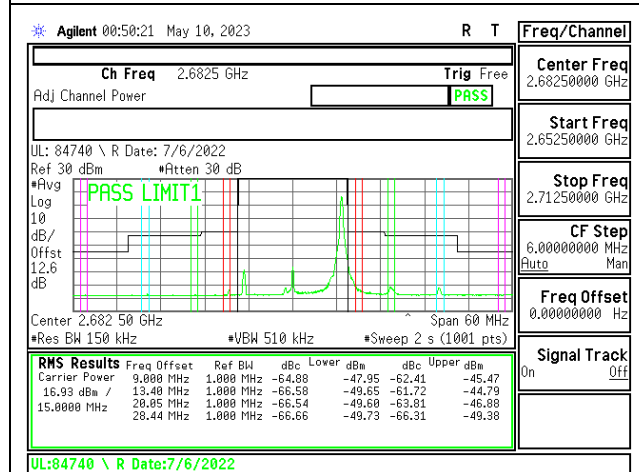
LTE41 15MHz 16QAM LOW Ch RB1-74



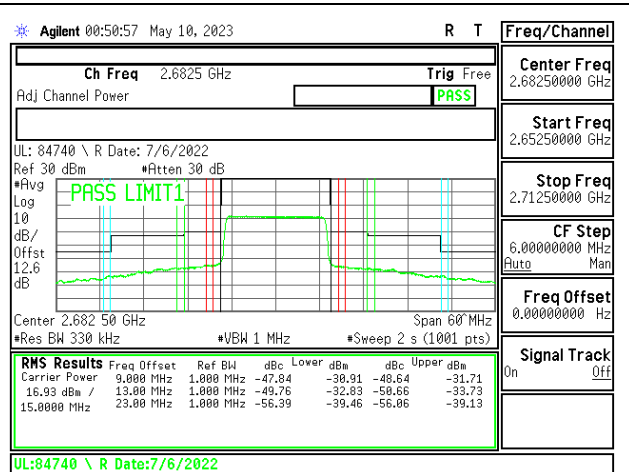
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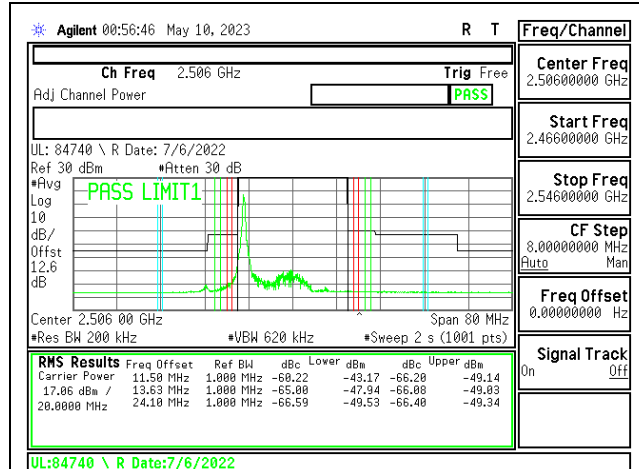
LTE41 15MHz 16QAM HIGH Ch RB1-0



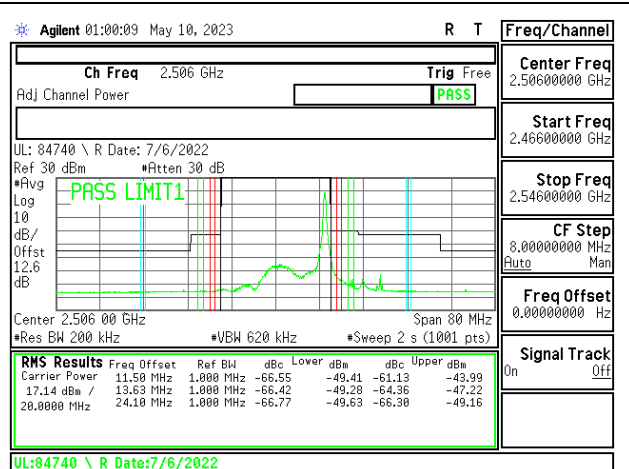
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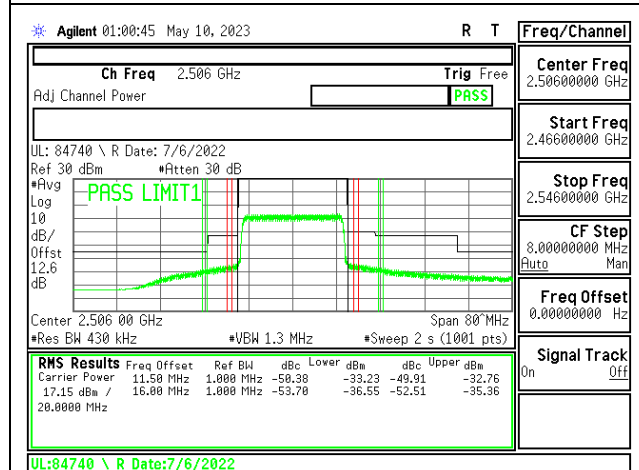
LTE41 15MHz 16QAM HIGH Ch RB75-0



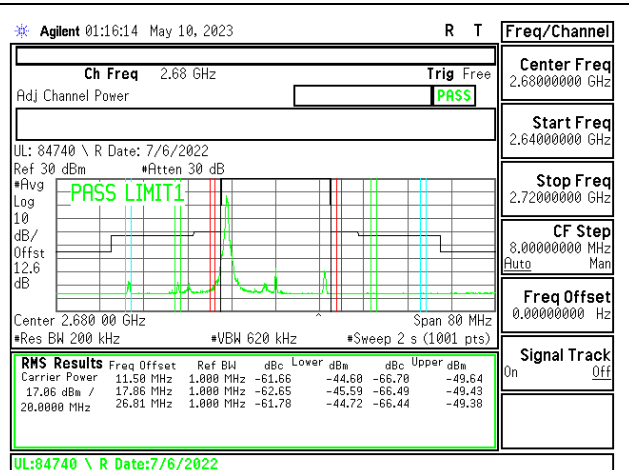
LTE41 20MHz 16QAM LOW Ch RB1-0



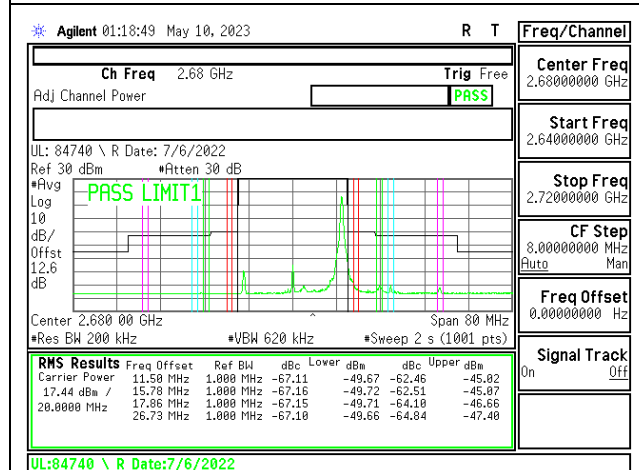
LTE41 20MHz 16QAM LOW Ch RB1-99



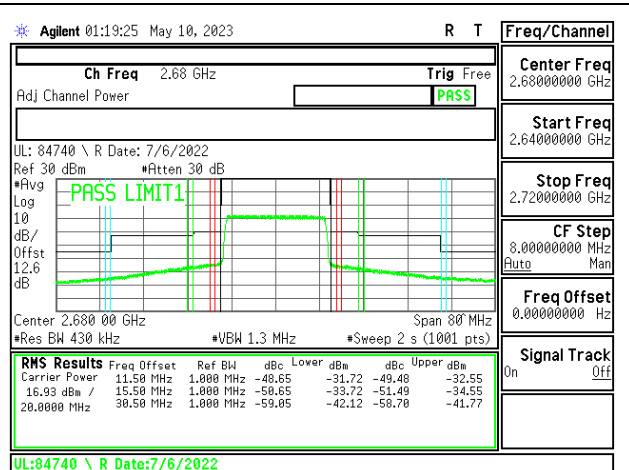
LTE41 20MHz 16QAM LOW Ch RB100-0



LTE41 20MHz 16QAM HIGH Ch RB1-0



LTE41 20MHz 16QAM HIGH Ch RB1-99



LTE41 20MHz 16QAM HIGH Ch RB100-0

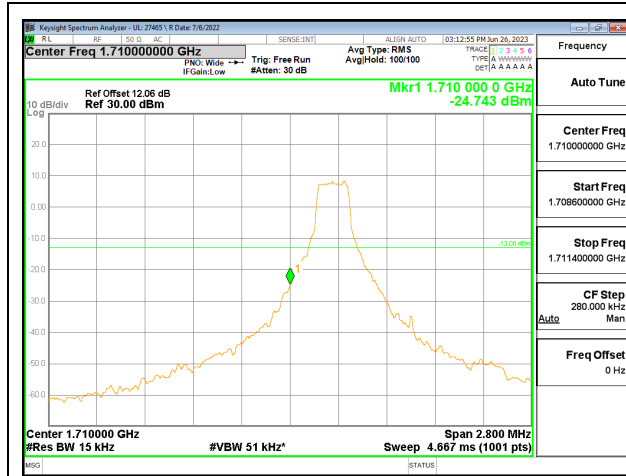


**9.4.11. LTE66****LIMITS**

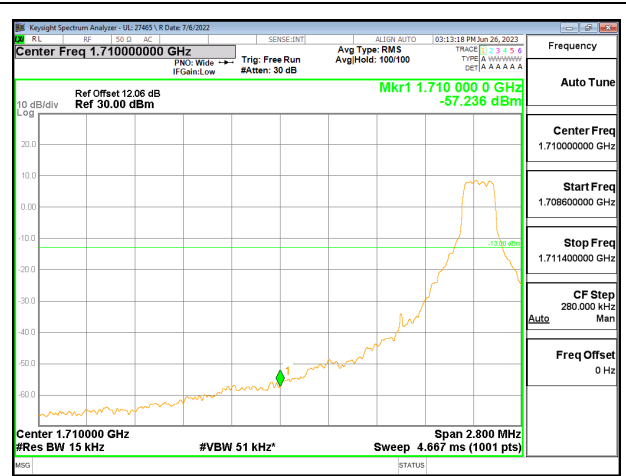
FCC: §27.53(h)

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.

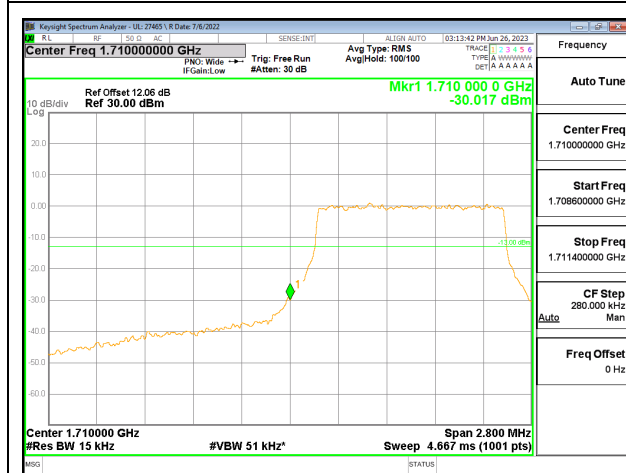
<b>Test Engineer ID:</b>	27465/44389	<b>Test Date:</b>	2023-05-09 2023-06-26	<b>EUT Serial Number:</b>	QV77008AG9
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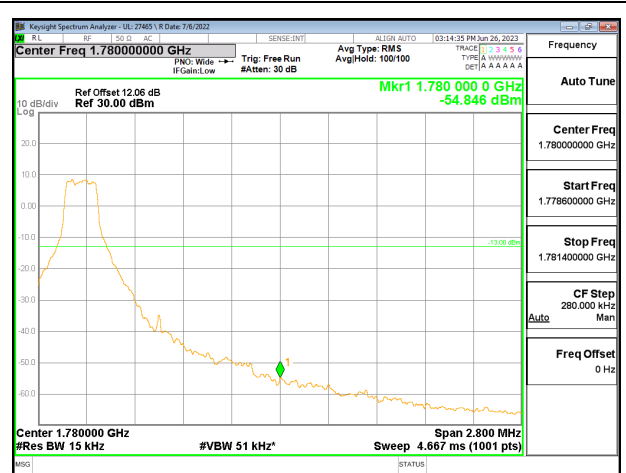
LTE66 1.4MHz 16QAM LOW Ch RB1-0



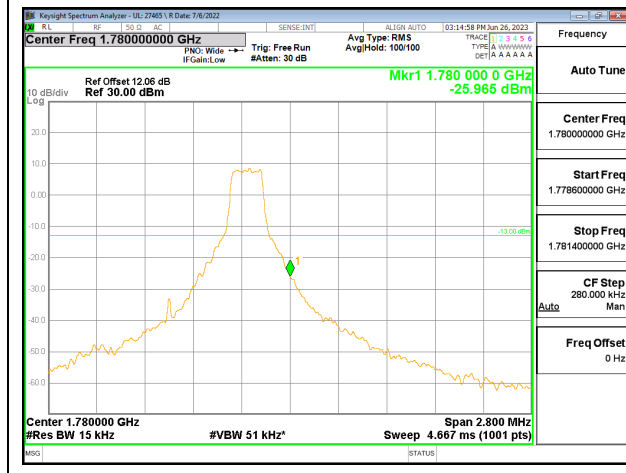
LTE66 1.4MHz 16QAM LOW Ch RB1-5



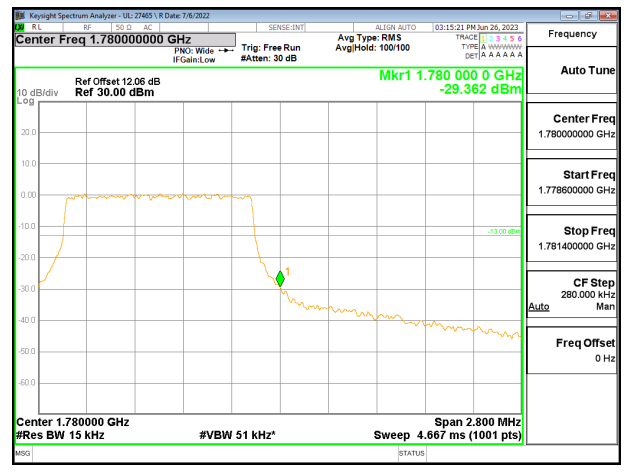
LTE66 1.4MHz 16QAM LOW Ch RB6-0



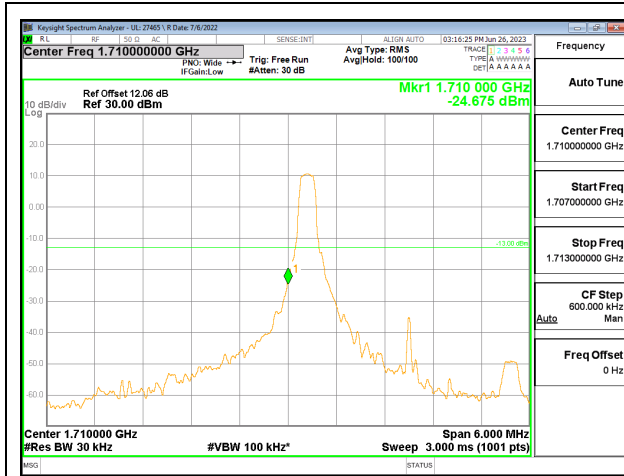
LTE66 1.4MHz 16QAM HIGH Ch RB1-0



LTE66 1.4MHz 16QAM HIGH Ch RB1-5



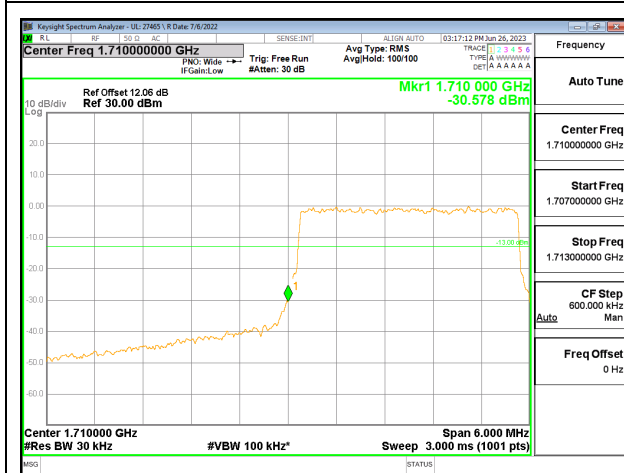
LTE66 1.4MHz 16QAM HIGH Ch RB6-0



LTE66 3MHz 16QAM LOW Ch RB1-0



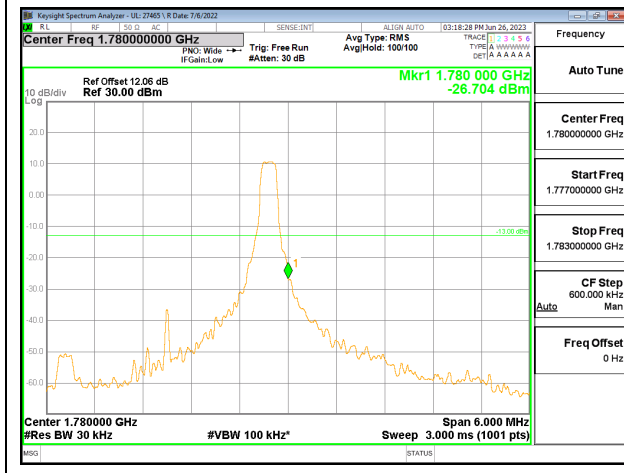
LTE66 3MHz 16QAM LOW Ch RB1-14



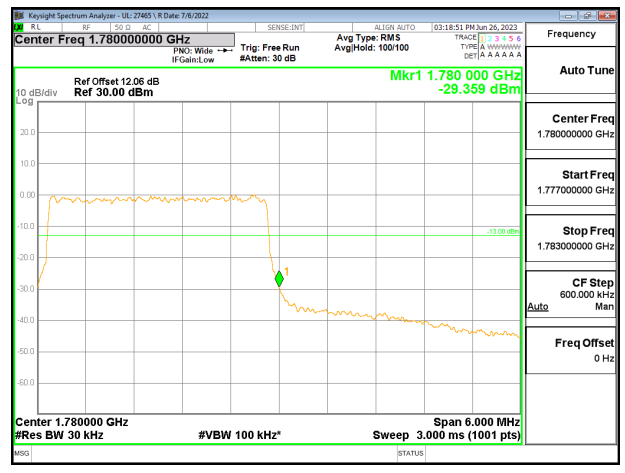
LTE66 3MHz 16QAM LOW Ch RB15-0



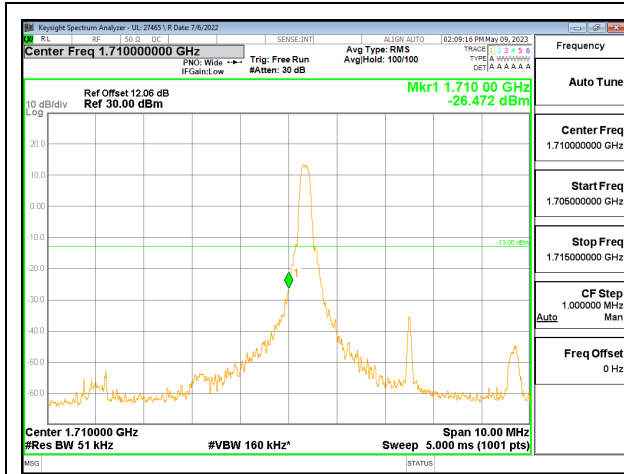
LTE66 3MHz 16QAM HIGH Ch RB1-0



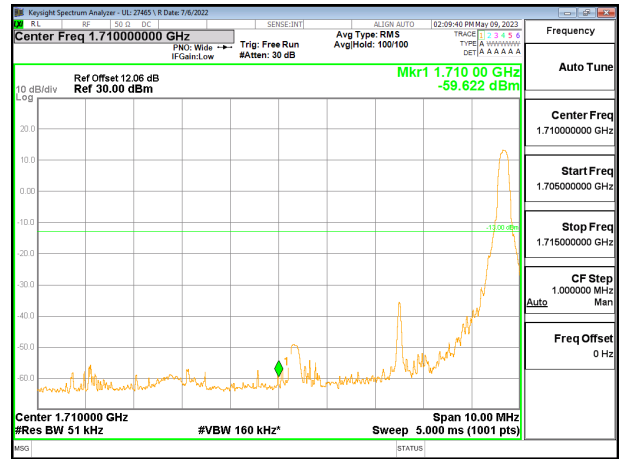
LTE66 3MHz 16QAM HIGH Ch RB1-14



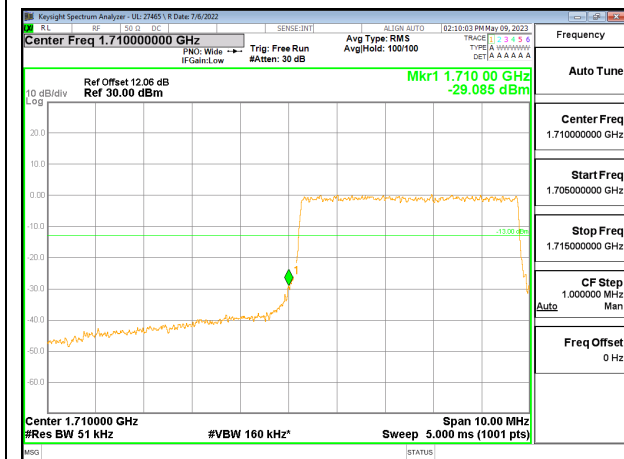
LTE66 3MHz 16QAM HIGH Ch RB15-0



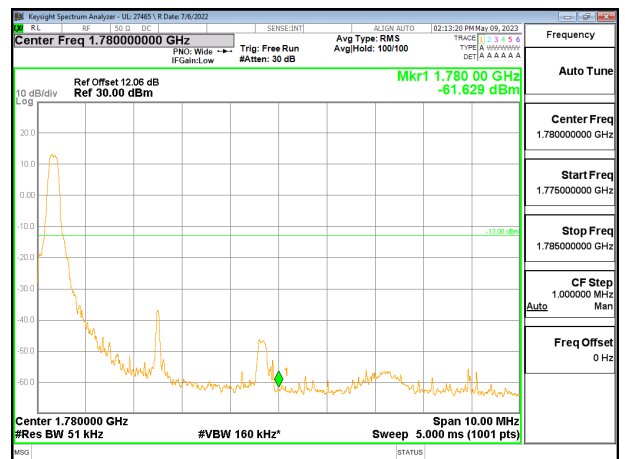
LTE66 5MHz 16QAM LOW Ch RB1-0



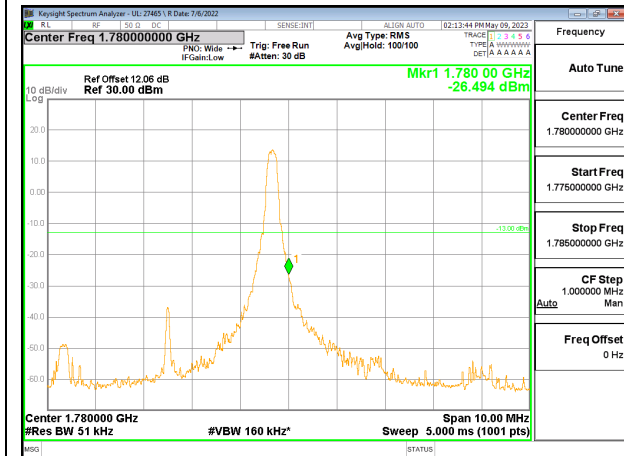
LTE66 5MHz 16QAM LOW Ch RB1-24



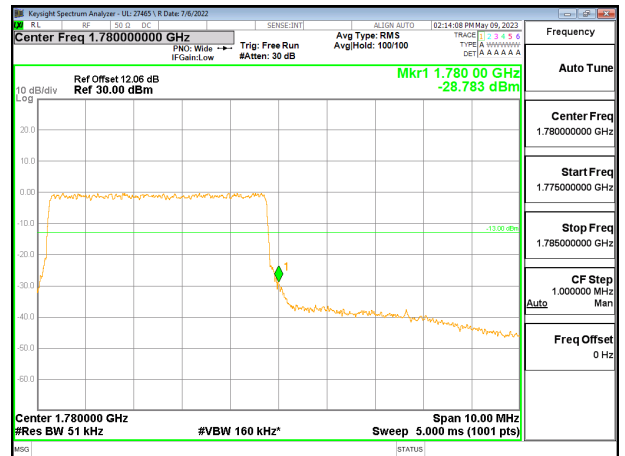
LTE66 5MHz 16QAM LOW Ch RB25-0



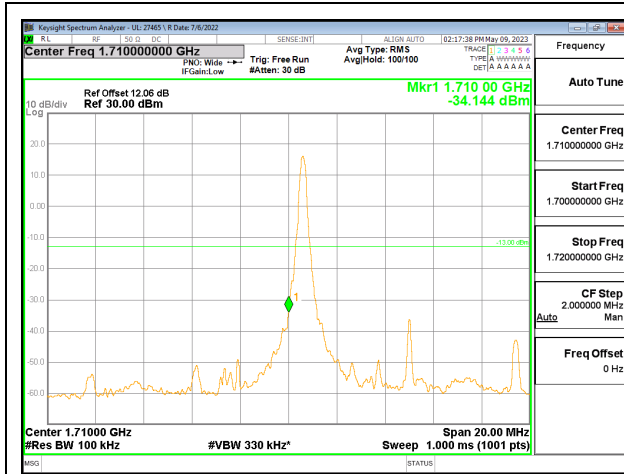
LTE66 5MHz 16QAM HIGH Ch RB1-0



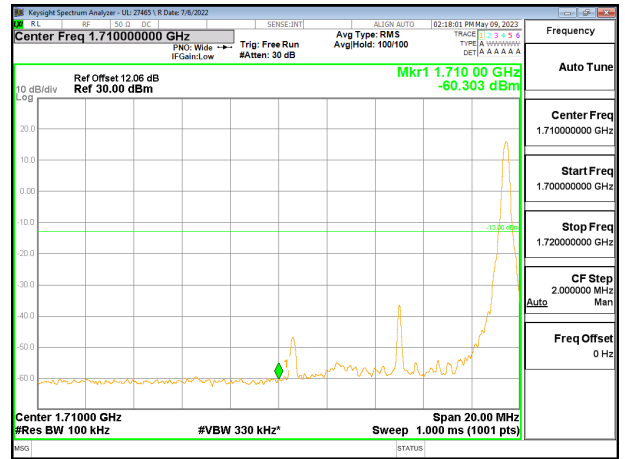
LTE66 5MHz 16QAM HIGH Ch RB1-24



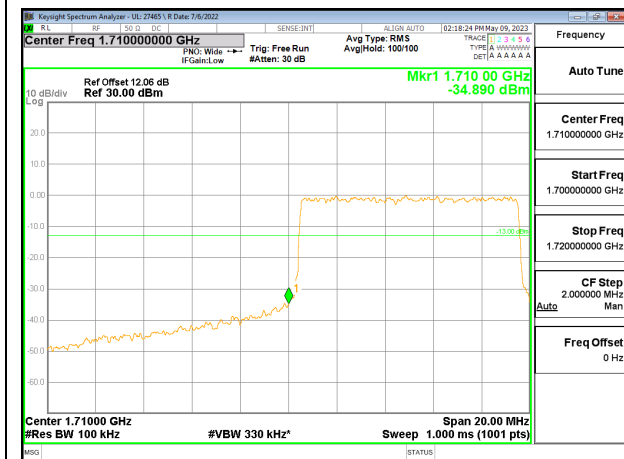
LTE66 5MHz 16QAM HIGH Ch RB25-0



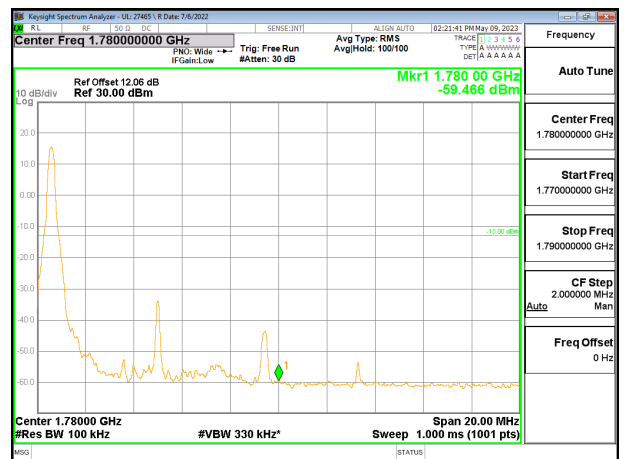
LTE66 10MHz 16QAM LOW Ch RB1-0



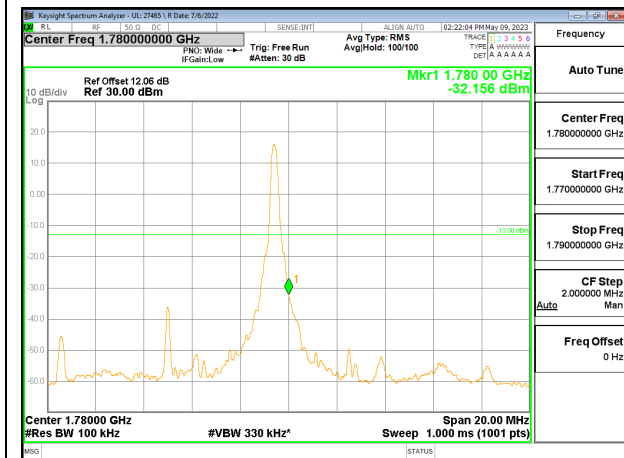
LTE66 10MHz 16QAM LOW Ch RB1-49



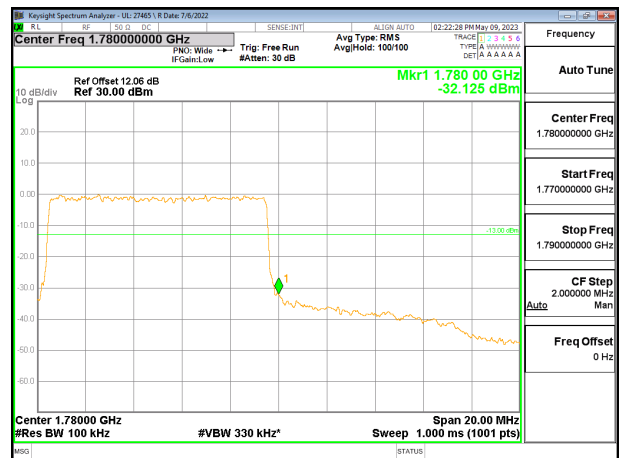
LTE66 10MHz 16QAM LOW Ch RB50-0



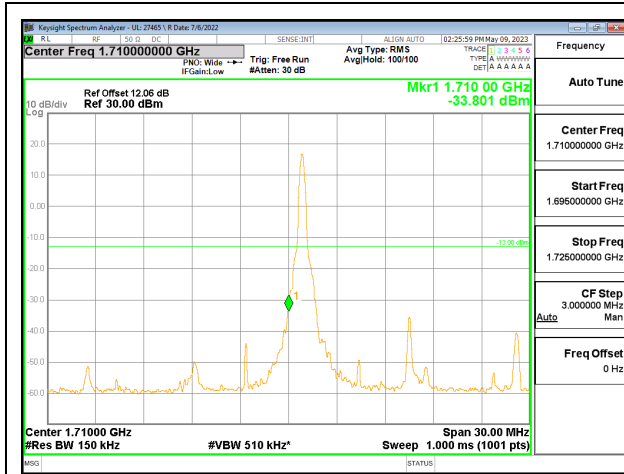
LTE66 10MHz 16QAM HIGH Ch RB1-0



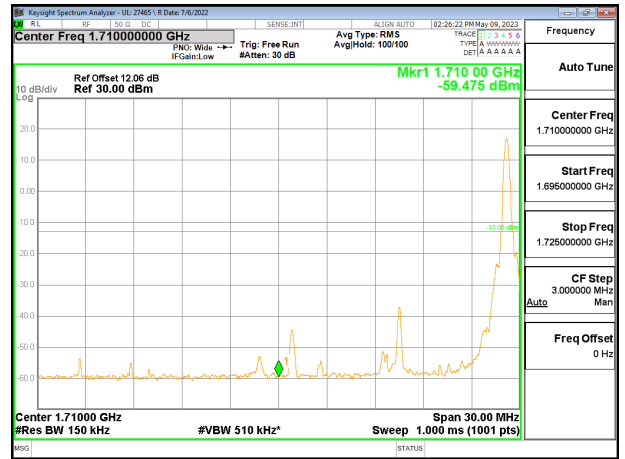
LTE66 10MHz 16QAM HIGH Ch RB1-49



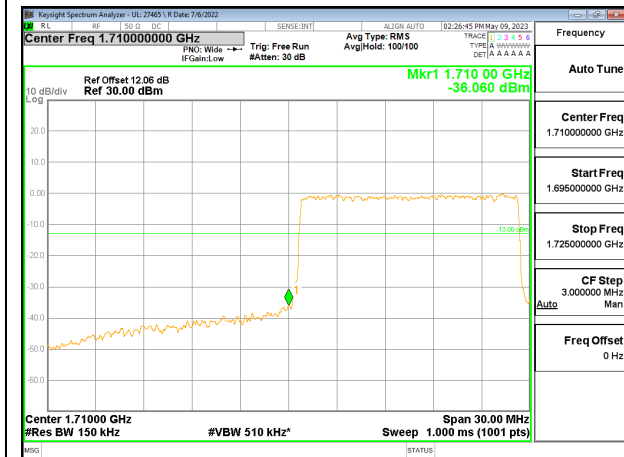
LTE66 10MHz 16QAM HIGH Ch RB50-0



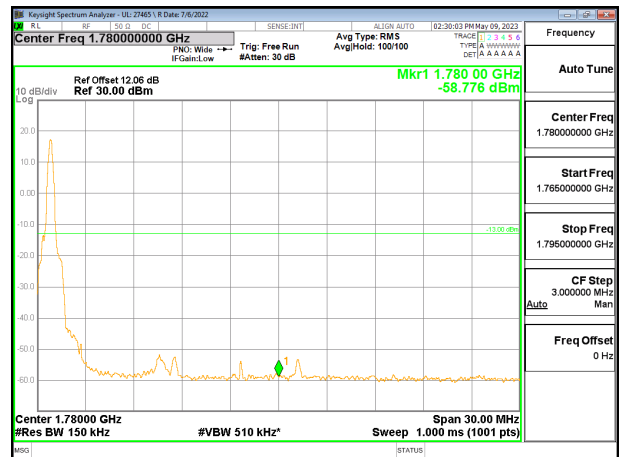
LTE66 15MHz 16QAM LOW Ch RB1-0



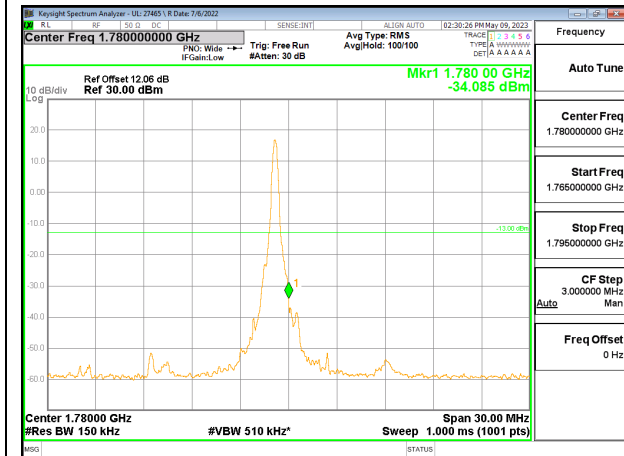
LTE66 15MHz 16QAM LOW Ch RB1-74



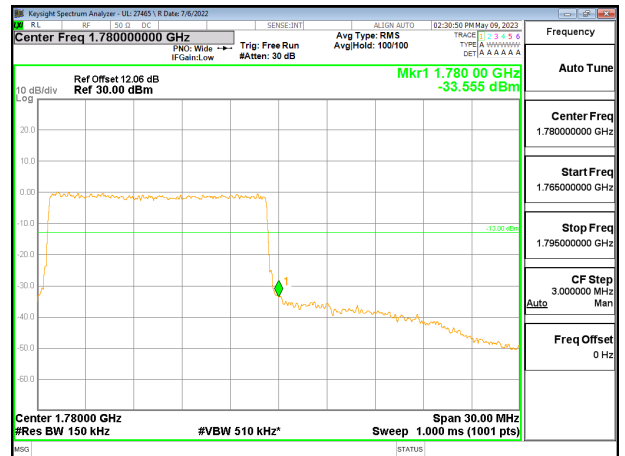
LTE66 15MHz 16QAM LOW Ch RB75-0



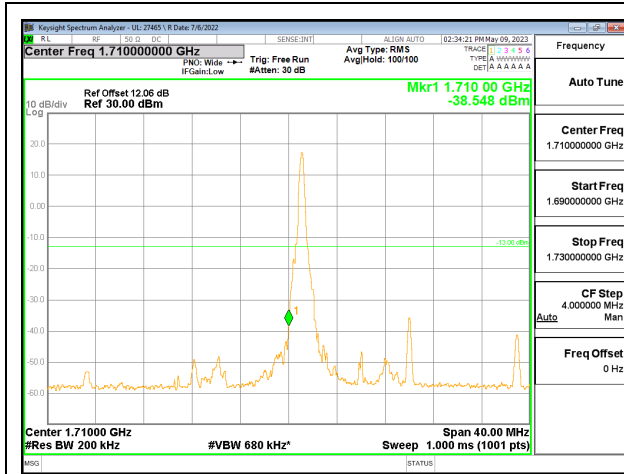
LTE66 15MHz 16QAM HIGH Ch RB1-0



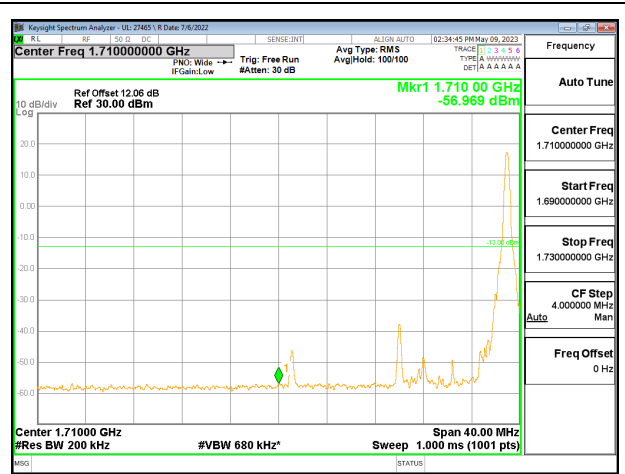
LTE66 15MHz 16QAM HIGH Ch RB1-74



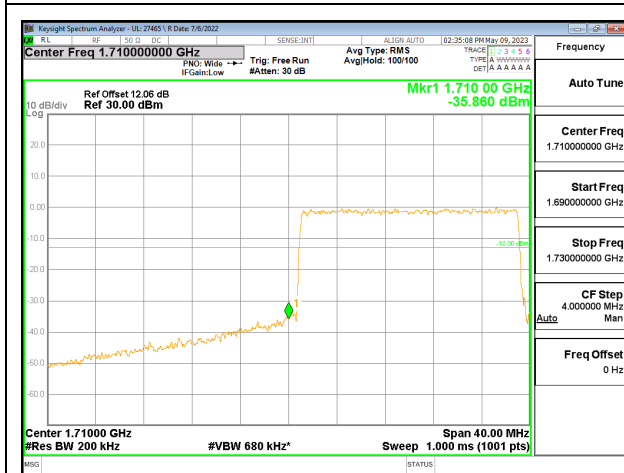
LTE66 15MHz 16QAM HIGH Ch RB75-0



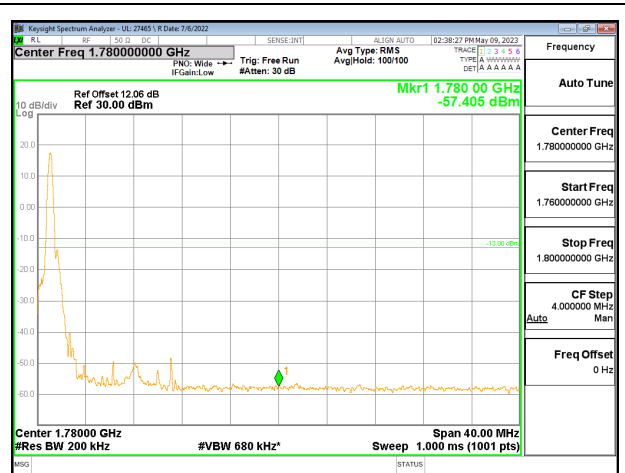
LTE66 20MHz 16QAM LOW Ch RB1-0



LTE66 20MHz 16QAM LOW Ch RB1-99



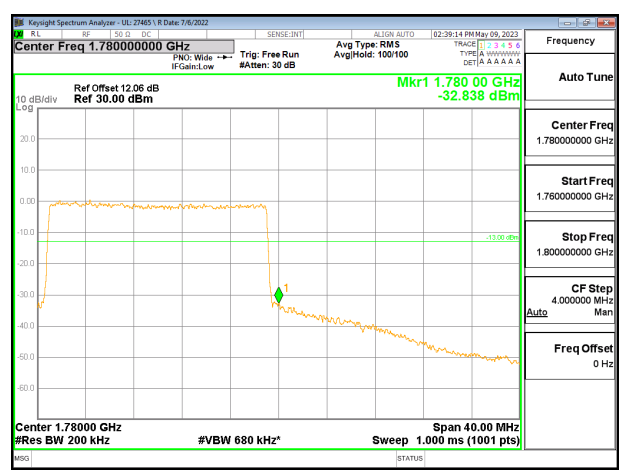
LTE66 20MHz 16QAM LOW Ch RB100-0



LTE66 20MHz 16QAM HIGH Ch RB1-0



LTE66 20MHz 16QAM HIGH Ch RB1-99



LTE66 20MHz 16QAM HIGH Ch RB100-0

## 9.5. FREQUENCY STABILITY

### TEST PROCEDURE

Use CMW 500 with Frequency Error measurement capability.

(vii) Temp. =  $-30^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$

(viii) Voltage = (85% - 115%)

Normal, 3.89VDC

End Voltage, 3.69VDC.

#### **Frequency Stability vs Temperature:**

The EUT is placed inside a temperature chamber. The temperature is set to  $20^{\circ}\text{C}$  and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize, and soak, and then the measurement is repeated. This is repeated until  $+50^{\circ}\text{C}$  is reached.

#### **Frequency Stability vs Voltage:**

The peak frequency error is recorded (worst-case).

### RESULTS



**9.5.1. GSM850**

<b>Test Engineer ID:</b>	84740/44389	<b>Test Date:</b>	2023-05-09	<b>EUT Serial Number:</b>	QV77002SG9
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Band		GSM850		Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		824	849	2.5	Within Authorized Frequency Block (Hz)			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)					
Normal (20°C)	Normal	824.2000	848.8000					
Extreme (50°C)		824.2000	848.8000	23.72	0.028	Yes		
Extreme (40°C)		824.2000	848.8000	25.57	0.031	Yes		
Extreme (30°C)		824.2000	848.8000	31.54	0.038	Yes		
Extreme (10°C)		824.2000	848.8000	31.09	0.037	Yes		
Extreme (0°C)		824.2000	848.8000	29.73	0.036	Yes		
Extreme (-10°C)		824.2000	848.8000	32.14	0.038	Yes		
Extreme (-20°C)		824.2000	848.8000	29.65	0.035	Yes		
Extreme (-30°C)		824.2000	848.8000	28	0.033	Yes		
20°C		End Point Voltage	824.2000	848.8000	29.85	0.036	Yes	

**9.5.2. GSM1900**

<b>Test Engineer ID:</b>	84740/44389	<b>Test Date:</b>	2023-05-09	<b>EUT Serial Number:</b>	QV77002SG9
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Band		GSM1900		Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		1850	1910	2.5	Within Authorized Frequency Block (Hz)			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)					
Normal (20°C)	Normal	1850.2000	1909.8000					
Extreme (50°C)		1850.2000	1909.8000	26.41	0.014	Yes		
Extreme (40°C)		1850.2000	1909.8000	29.65	0.016	Yes		
Extreme (30°C)		1850.2000	1909.8000	25.73	0.014	Yes		
Extreme (10°C)		1850.2000	1909.8000	32.81	0.017	Yes		
Extreme (0°C)		1850.2000	1909.8000	30.51	0.016	Yes		
Extreme (-10°C)		1850.2000	1909.8000	29.65	0.016	Yes		
Extreme (-20°C)		1850.2000	1909.8000	28.61	0.015	Yes		
Extreme (-30°C)		1850.2000	1909.8000	27.07	0.014	Yes		
20°C		End Point Voltage	1850.2000	1909.8000	22.12	0.012	Yes	

**9.5.3. WCDMA BAND 2**

<b>Test Engineer ID:</b>	84740/44389	<b>Test Date:</b>	2023-05-12	<b>EUT Serial Number:</b>	QV77002SG9
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Band		2		Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		1850	1910	2.5	Within Authorized Frequency Block (Hz)			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)				Frequency Stability (ppm)	
Normal (20°C)	Normal	1852.4000	1907.6000					
Extreme (50°C)		1852.4000	1907.6000	11.82	0.006	Yes		
Extreme (40°C)		1852.4000	1907.6000	11.19	0.006	Yes		
Extreme (30°C)		1852.4000	1907.6000	9.35	0.005	Yes		
Extreme (10°C)		1852.4000	1907.6000	8.16	0.004	Yes		
Extreme (0°C)		1852.4000	1907.6000	12.13	0.006	Yes		
Extreme (-10°C)		1852.4000	1907.6000	14.29	0.008	Yes		
Extreme (-20°C)		1852.4000	1907.6000	12.78	0.007	Yes		
Extreme (-30°C)		1852.4000	1907.6000	8.94	0.005	Yes		
20°C		End Point Voltage	1852.4000	1907.6000	-8.29	-0.004	Yes	

**9.5.4. WCDMA BAND 4**

<b>Test Engineer ID:</b>	84740/44389	<b>Test Date:</b>	2023-05-12	<b>EUT Serial Number:</b>	QV77002SG9
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Band		4		Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		1710	1755	N/A	Within Authorized Frequency Block (Hz)			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)	Frequency Stability (ppm)				
Normal (20°C)	Normal	1712.4000	1752.6000					
Extreme (50°C)		1712.4000	1752.6000	-30.25	-0.017	Yes		
Extreme (40°C)		1712.4000	1752.6000	-27.57	-0.016	Yes		
Extreme (30°C)		1712.4000	1752.6000	21.08	0.012	Yes		
Extreme (10°C)		1712.4000	1752.6000	6.82	0.004	Yes		
Extreme (0°C)		1712.4000	1752.6000	16.1	0.009	Yes		
Extreme (-10°C)		1712.4000	1752.6000	21.53	0.012	Yes		
Extreme (-20°C)		1712.4000	1752.6000	19.37	0.011	Yes		
Extreme (-30°C)		1712.4000	1752.6000	9.82	0.006	Yes		
20°C		End Point Voltage	1712.4000	1752.6000	7.15	0.004	Yes	

**9.5.5. WCDMA BAND 5**

<b>Test Engineer ID:</b>	84740/44389	<b>Test Date:</b>	2023-05-12	<b>EUT Serial Number:</b>	QV77002SG9
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Band		5		Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		824	849	2.5	Within Authorized Frequency Block (Hz)			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)				Frequency Stability (ppm)	
Normal (20°C)	Normal	826.4000	846.6000					
Extreme (50°C)		826.4000	846.6000	-6.31	-0.008	Yes		
Extreme (40°C)		826.4000	846.6000	-7.99	-0.010	Yes		
Extreme (30°C)		826.4000	846.6000	-4.59	-0.005	Yes		
Extreme (10°C)		826.4000	846.6000	-3.47	-0.004	Yes		
Extreme (0°C)		826.4000	846.6000	4.1	0.005	Yes		
Extreme (-10°C)		826.4000	846.6000	4.65	0.006	Yes		
Extreme (-20°C)		826.4000	846.6000	4.7	0.006	Yes		
Extreme (-30°C)		826.4000	846.6000	3.96	0.005	Yes		
20°C		End Point Voltage	826.4000	846.6000	-3.67	-0.004	Yes	

9.5.6. LTE5

<b>Test Engineer ID:</b>	85502/44389	<b>Test Date:</b>	2023-05-09	<b>EUT Serial Number:</b>	QV77007YG9
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Band		5		Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		824	849	2.5	Within Authorized Frequency Block (Hz)			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)				Frequency Stability (ppm)	
Normal (20°C)	Normal	829.0000	844.0000					
Extreme (50°C)		829.0000	844.0000	2.01	0.002	Yes		
Extreme (40°C)		829.0000	844.0000	1.16	0.001	Yes		
Extreme (30°C)		829.0000	844.0000	2.48	0.003	Yes		
Extreme (10°C)		829.0000	844.0000	4.24	0.005	Yes		
Extreme (0°C)		829.0000	844.0000	1.98	0.002	Yes		
Extreme (-10°C)		829.0000	844.0000	1.25	0.001	Yes		
Extreme (-20°C)		829.0000	844.0000	4.05	0.005	Yes		
Extreme (-30°C)		829.0000	844.0000	1.82	0.002	Yes		
20°C		End Point Voltage	829.0000	844.0000	-2.13	-0.003	Yes	

9.5.7. LTE12

<b>Test Engineer ID:</b>	85502/44389	<b>Test Date:</b>	2023-05-09	<b>EUT Serial Number:</b>	QV77007YG9
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Band		12		Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		699	716	N/A	Within Authorized Frequency Block (Hz)			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)	Frequency Stability (ppm)				
Normal (20°C)	Normal	700.0000	711.0000					
Extreme (50°C)		700.0000	711.0000	-0.57	-0.001	Yes		
Extreme (40°C)		700.0000	711.0000	1.24	0.002	Yes		
Extreme (30°C)		700.0000	711.0000	0.51	0.001	Yes		
Extreme (10°C)		700.0000	711.0000	1.59	0.002	Yes		
Extreme (0°C)		700.0000	711.0000	2.42	0.003	Yes		
Extreme (-10°C)		700.0000	711.0000	3.17	0.004	Yes		
Extreme (-20°C)		700.0000	711.0000	1.16	0.002	Yes		
Extreme (-30°C)		700.0000	711.0000	1.49	0.002	Yes		
20°C		End Point Voltage	700.0000	711.0000	2.35	0.003	Yes	

**9.5.8. LTE13**

<b>Test Engineer ID:</b>	85502/44389	<b>Test Date:</b>	2023-05-09	<b>EUT Serial Number:</b>	QV77007YG9
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Band		13		Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		777	787	N/A				
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)	Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)			
Normal (20°C)	Normal	779.5000	784.5000					
Extreme (50°C)		779.5000	784.5000	2.43	0.003	Yes		
Extreme (40°C)		779.5000	784.5000	1.09	0.001	Yes		
Extreme (30°C)		779.5000	784.5000	1.48	0.002	Yes		
Extreme (10°C)		779.5000	784.5000	3.53	0.005	Yes		
Extreme (0°C)		779.5000	784.5000	1.53	0.002	Yes		
Extreme (-10°C)		779.5000	784.5000	2.56	0.003	Yes		
Extreme (-20°C)		779.5000	784.5000	4.22	0.005	Yes		
Extreme (-30°C)		779.5000	784.5000	5.57	0.007	Yes		
20°C		End Point Voltage	779.5000	784.5000	3.79	0.005	Yes	

**9.5.9. LTE25**

<b>Test Engineer ID:</b>	27465/44389	<b>Test Date:</b>	2023-05-10	<b>EUT Serial Number:</b>	QV77008AG9
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Band		25		Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		1850	1915	2.5				
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)	Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)			
Normal (20°C)	Normal	1860.0000	1905.0000					
Extreme (50°C)		1860.0000	1905.0000	-8.17	-0.004	Yes		
Extreme (40°C)		1860.0000	1905.0000	-6.81	-0.004	Yes		
Extreme (30°C)		1860.0000	1905.0000	-8.04	-0.004	Yes		
Extreme (10°C)		1860.0000	1905.0000	-5.13	-0.003	Yes		
Extreme (0°C)		1860.0000	1905.0000	-5.89	-0.003	Yes		
Extreme (-10°C)		1860.0000	1905.0000	-6.85	-0.004	Yes		
Extreme (-20°C)		1860.0000	1905.0000	-5.82	-0.003	Yes		
Extreme (-30°C)		1860.0000	1905.0000	-6.44	-0.003	Yes		
20°C		End Point Voltage	1860.0000	1905.0000	-8.1	-0.004	Yes	

**9.5.10. LTE41**

<b>Test Engineer ID:</b>	27465/44389	<b>Test Date:</b>	2023-05-10	<b>EUT Serial Number:</b>	QV77008AG9
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Band		41		Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		2500	2690	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage							
Normal (20°C)	Normal	2506.0000	2680.0000					
Extreme (50°C)		2506.0000	2680.0000	-9.61	-0.004	Yes		
Extreme (40°C)		2506.0000	2680.0000	-12.53	-0.005	Yes		
Extreme (30°C)		2506.0000	2680.0000	-11.97	-0.005	Yes		
Extreme (10°C)		2506.0000	2680.0000	-10.42	-0.004	Yes		
Extreme (0°C)		2506.0000	2680.0000	-10.02	-0.004	Yes		
Extreme (-10°C)		2506.0000	2680.0000	-10.86	-0.004	Yes		
Extreme (-20°C)		2506.0000	2680.0000	-11.97	-0.005	Yes		
Extreme (-30°C)		2506.0000	2680.0000	-12.67	-0.005	Yes		
20°C		End Point Voltage	2506.0000	2680.0000	-11.72	-0.005	Yes	

**9.5.11. LTE66**

<b>Test Engineer ID:</b>	27465/44389	<b>Test Date:</b>	2023-05-10	<b>EUT Serial Number:</b>	QV77008AG9
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Band		66		Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		1710	1780	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage							
Normal (20°C)	Normal	1720.0000	1770.0000					
Extreme (50°C)		1720.0000	1770.0000	-5.94	-0.003	Yes		
Extreme (40°C)		1720.0000	1770.0000	-5.81	-0.003	Yes		
Extreme (30°C)		1720.0000	1770.0000	-5.81	-0.003	Yes		
Extreme (10°C)		1720.0000	1770.0000	-5.87	-0.003	Yes		
Extreme (0°C)		1720.0000	1770.0000	-5.62	-0.003	Yes		
Extreme (-10°C)		1720.0000	1770.0000	-5.69	-0.003	Yes		
Extreme (-20°C)		1720.0000	1770.0000	-5.18	-0.003	Yes		
Extreme (-30°C)		1720.0000	1770.0000	-5.23	-0.003	Yes		
20°C		End Point Voltage	1720.0000	1770.0000	-6.27	-0.004	Yes	

## 10. RADIATED TEST RESULTS

### Radiated measurement using the Field Strength Method

Using the test configuration shown in Figure 6 below, We measure the radiated emissions directly from the EUT and convert the measured field strength or received power to ERP or EIRP, as required, for comparison to the applicable limits. As stated in 5.5.1 of ANSI C63.26-2015, the field strength measurement method using a test site validated to the requirements of ANSI C63.4 is an alternative to the substitution measurement method.

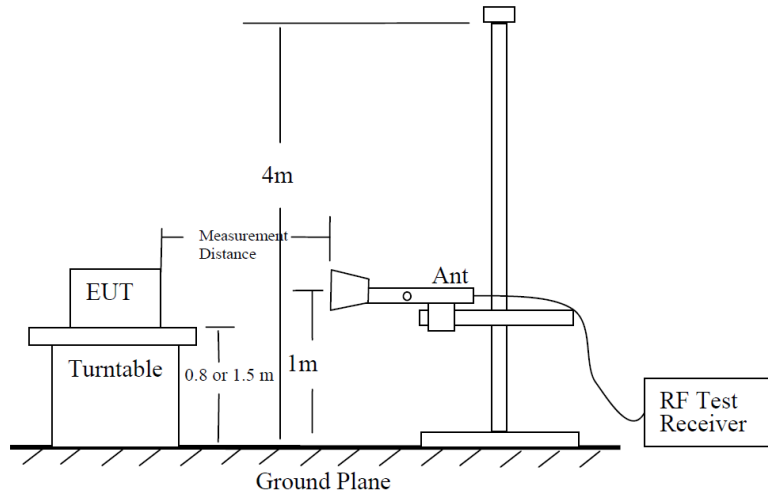


Figure 6 —Test site-up for radiated ERP and/or EIRP measurements

### Radiated Power Measurement Calculation According to ANSI C63.26-2015

- a)  $E \text{ (dB}\mu\text{V/m)} = \text{Measured amplitude level (dB}\mu\text{V)} + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$ .
- b)  $E \text{ (dB}\mu\text{V/m)} = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$ .
- c)  $E \text{ (dB}\mu\text{V/m)} = \text{EIRP (dBm)} - 20\log(D) + 104.8$ ; where D is the measurement distance (in the far field region) in m.
- d)  $\text{EIRP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 20\log(D) - 104.8$ ; where D is the measurement distance (in the far field region) in m.

So, from d)

The measuring distance is usually at 3m, then  $20 \cdot \log(3) = 9.5424$

Then,  $\text{EIRP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 9.5424 - 104.8 = E \text{ (dB}\mu\text{V/m)} - 95.2576$

Note: Confidence check of each chamber is performed daily to see if any degradation from expected/normal reading reference data. Ambient check of each chamber is performed monthly.

## 10.1. FIELD STRENGTH OF SPURIOUS RADIATION, ABOVE 1GHz

### TEST PROCEDURE

KDB 971168 D01 v03r01/D02 v02/r01

All tests above 1GHz were done with a Resolution Bandwidth of 1MHz, and a Video Bandwidth of 3MHz

### RESULTS

Note: GPRS/EGPRS, REL99/HSDPA, QPSK/16QAM modes were tested for all bands, but only the worst-case mode is reported.



### 10.1.1. GSM850

#### LIMITS

FCC: §22.917 (a)

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.

EUT Serial Number: QV77007DHJ