

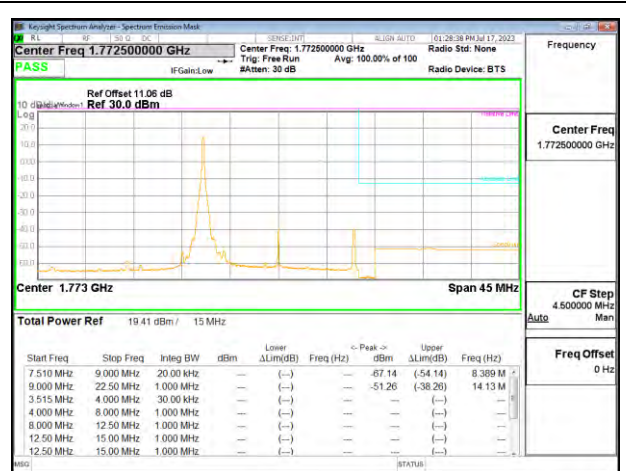
5G NR N66 15MHz QPSK LOW Ch RB1-0



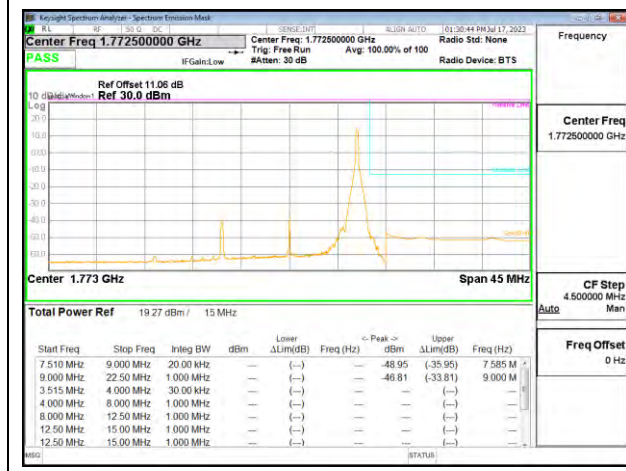
5G NR N66 15MHz QPSK LOW Ch RB1-77



5G NR N66 15MHz QPSK LOW Ch RB75-0



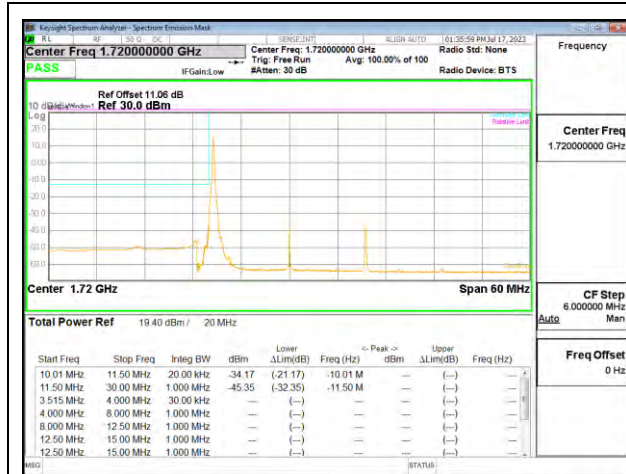
5G NR N66 15MHz QPSK HIGH Ch RB1-0



5G NR N66 15MHz QPSK HIGH Ch RB1-77



5G NR N66 15MHz QPSK HIGH Ch RB75-0



5G NR N66 20MHz QPSK LOW Ch RB1-0



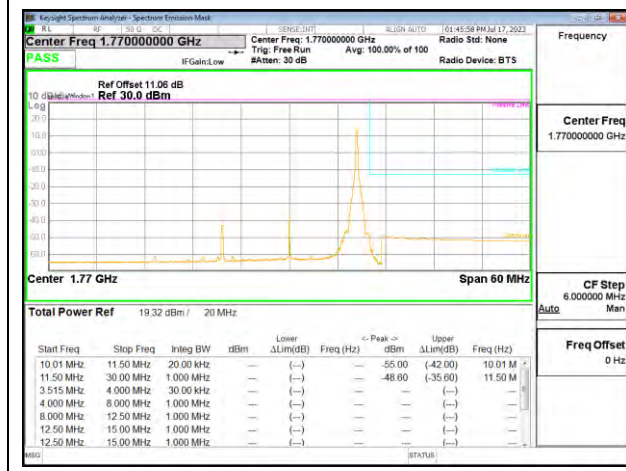
5G NR N66 20MHz QPSK LOW Ch RB1-104



5G NR N66 20MHz QPSK LOW Ch RB100-0



5G NR N66 20MHz QPSK HIGH Ch RB1-0



5G NR N66 20MHz QPSK HIGH Ch RB1-104



5G NR N66 20MHz QPSK HIGH Ch RB100-0

### 10.3. OUT OF BAND EMISSIONS

#### **TEST PROCEDURE**

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

For each out of band emissions measurement

- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz. (NOTE: Worst case set RBW/VBW to 1MHz/3MHz)

#### **RESULTS**

### 10.3.1. 5G NR n5

#### LIMITS

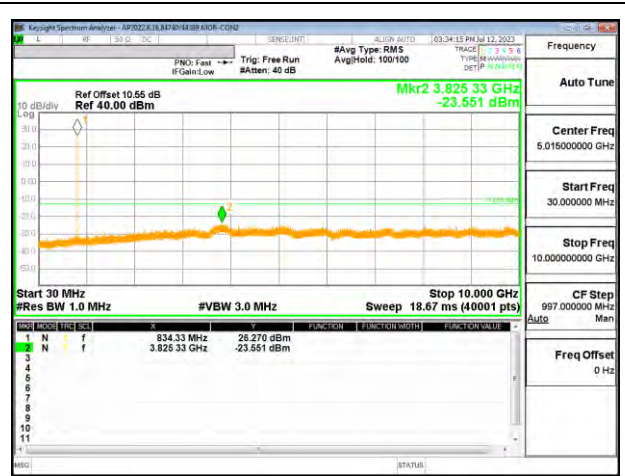
FCC: §22.917

The minimum permissible attenuation level of any spurious emissions is  $43 + 10 \log (P)$  dB where transmitting power (P) in Watts.

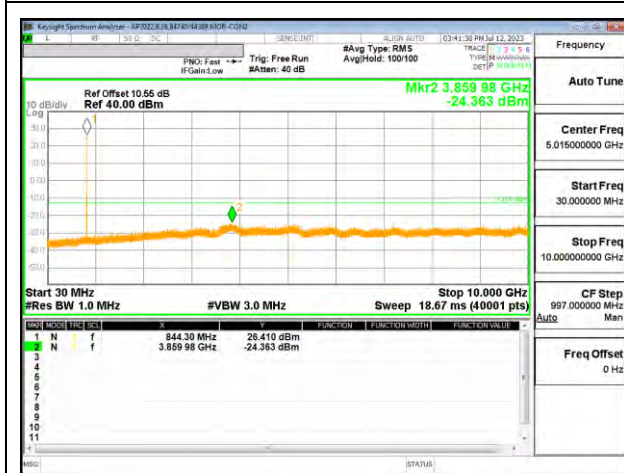
<b>Test Engineer ID:</b>	84740/44389	<b>Test Date:</b>	2023-07-12	<b>EUT Serial Number:</b>	QV77005ZHQ
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5G NR n5 5MHz QPSK LOW Ch RB1-0



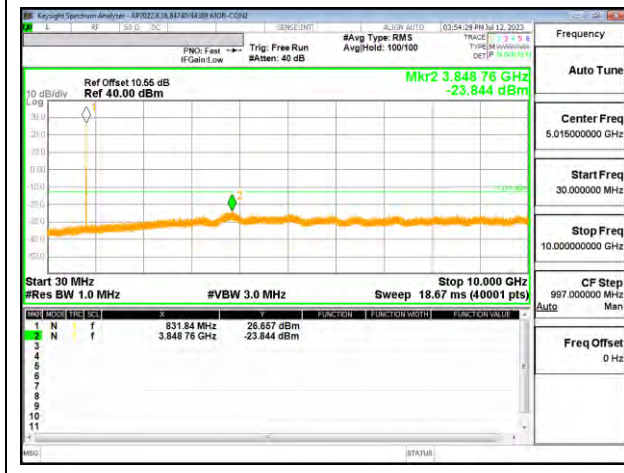
5G NR n5 5MHz QPSK MID Ch RB1-0



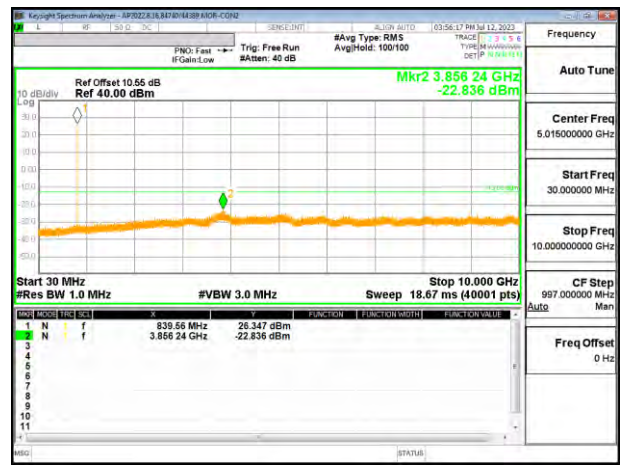
5G NR n5 5MHz QPSK HIGH Ch RB1-0



5G NR n5 10MHz QPSK LOW Ch RB1-0



5G NR n5 10MHz QPSK MID Ch RB1-0



5G NR n5 10MHz QPSK HIGH Ch RB1-0



5G NR n5 15MHz QPSK LOW Ch RB1-0



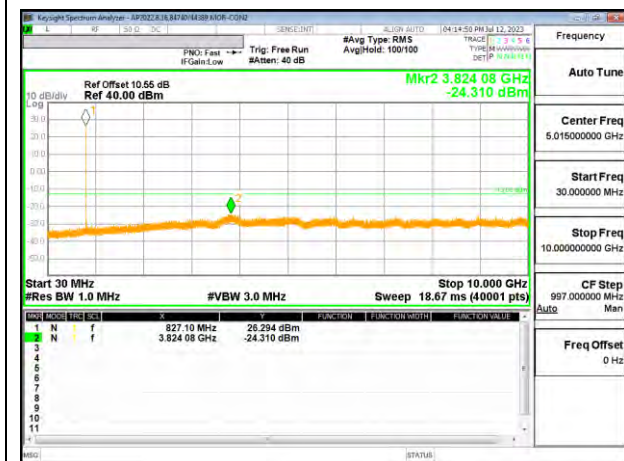
5G NR n5 15MHz QPSK MID Ch RB1-0



5G NR n5 15MHz QPSK HIGH Ch RB1-0



5G NR n5 20MHz QPSK LOW Ch RB1-0



5G NR n5 20MHz QPSK MID Ch RB1-0



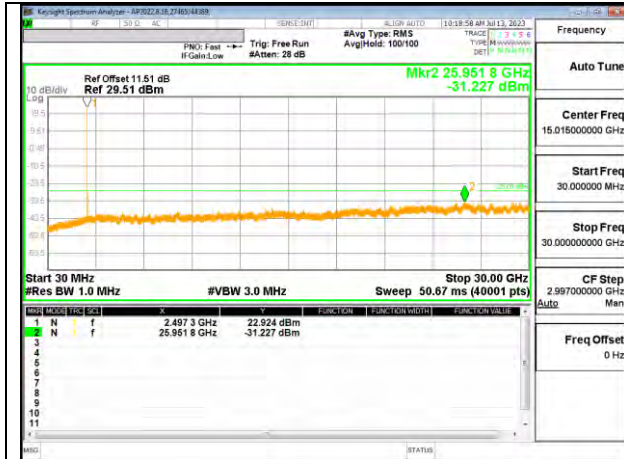
5G NR n5 20MHz QPSK HIGH Ch RB1-0

**10.3.2. 5G NR n41****LIMITS**

FCC: §27.53 (m)

The minimum permissible attenuation level of any spurious emissions is  $55 + 10 \log (P)$  dB where transmitting power (P) in Watts.

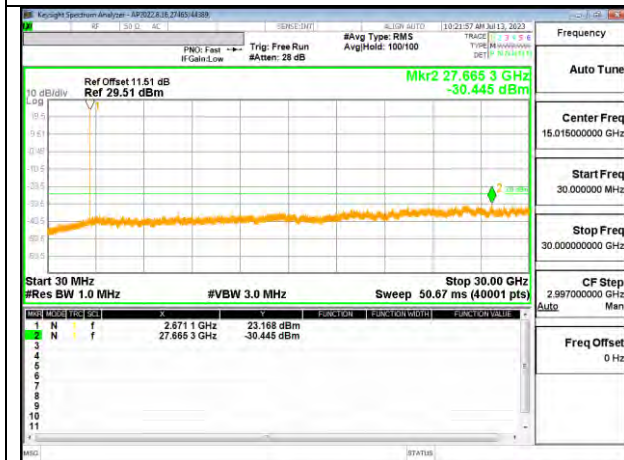
<b>Test Engineer ID:</b>	27465/44389	<b>Test Date:</b>	2023-07-12	<b>EUT Serial Number:</b>	QV770005VHQ
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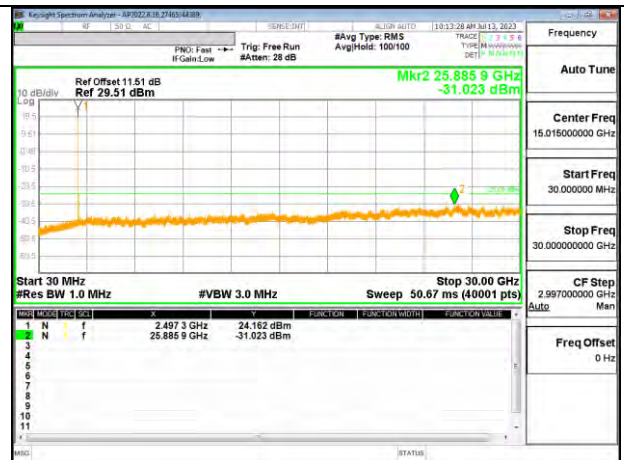
5G NR n41 20MHz QPSK LOW Ch RB1-0



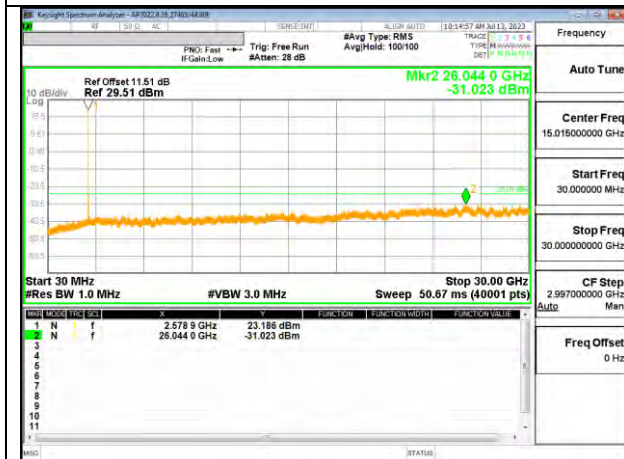
5G NR n41 20MHz QPSK MID Ch RB1-0



5G NR n41 20MHz QPSK HIGH Ch RB1-0



5G NR n41 30MHz QPSK LOW Ch RB1-0



5G NR n41 30MHz QPSK MID Ch RB1-0



5G NR n41 30MHz QPSK HIGH Ch RB1-0





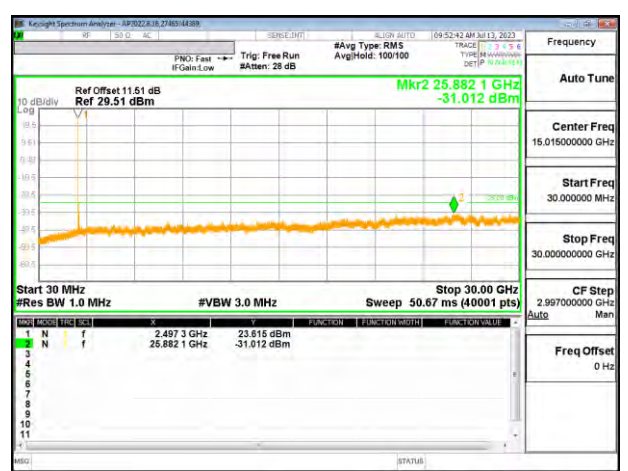
5G NR n41 40MHz QPSK LOW Ch RB1-0



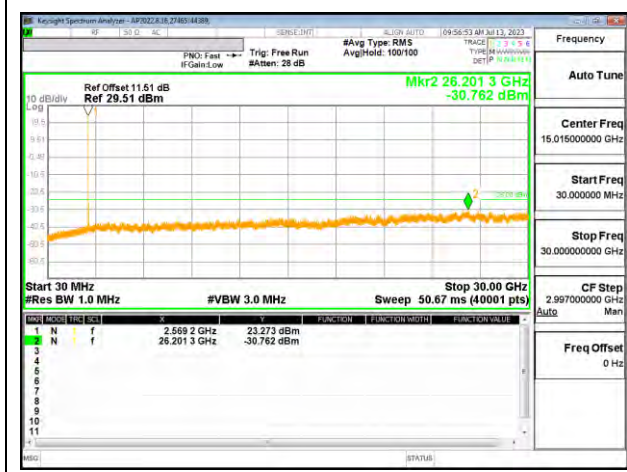
5G NR n41 40MHz QPSK MID Ch RB1-0



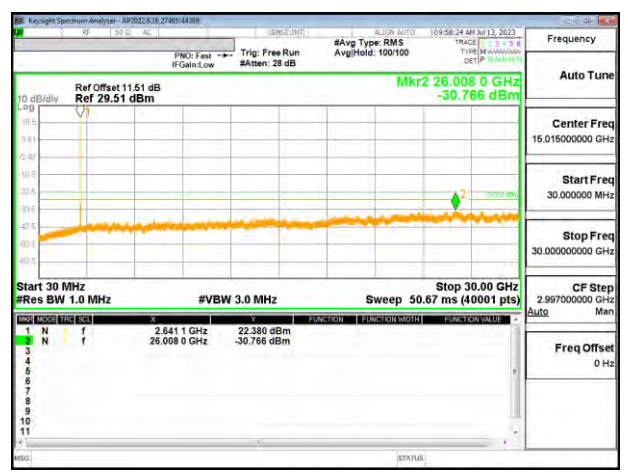
5G NR n41 40MHz QPSK HIGH Ch RB1-0



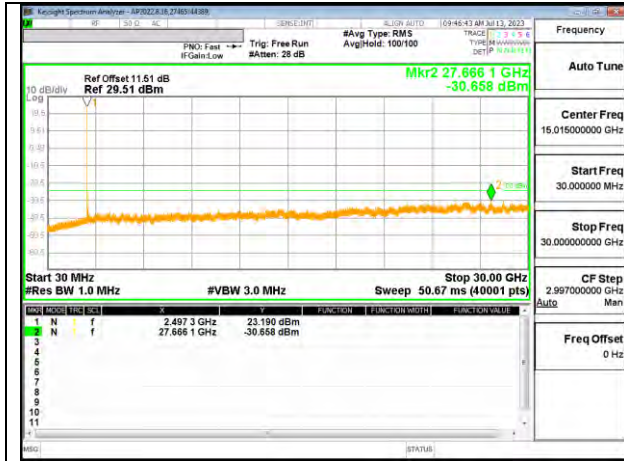
5G NR n41 50MHz QPSK LOW Ch RB1-0



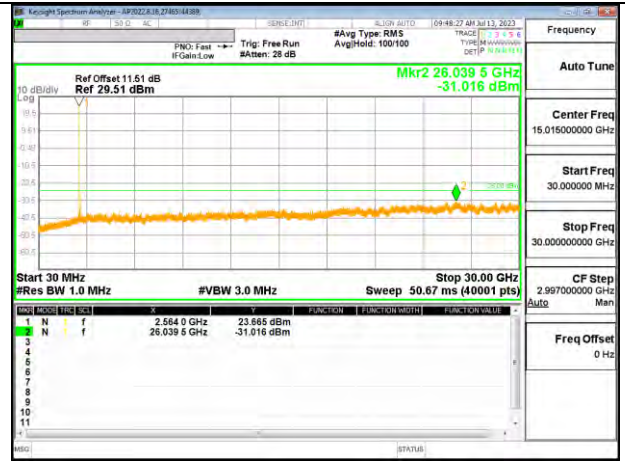
5G NR n41 50MHz QPSK MID Ch RB1-0



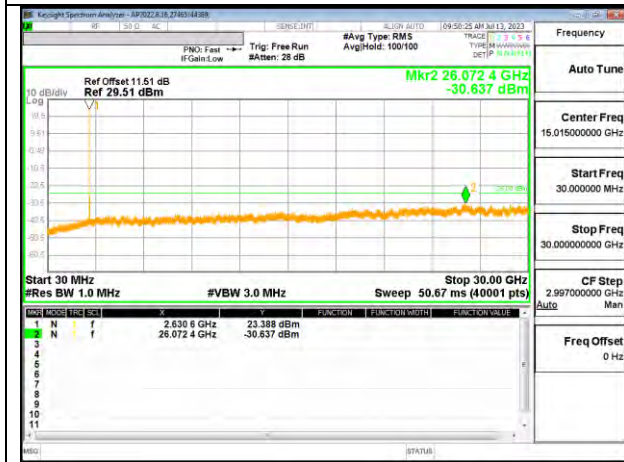
5G NR n41 50MHz QPSK HIGH Ch RB1-0



5G NR n41 60MHz QPSK LOW Ch RB1-0

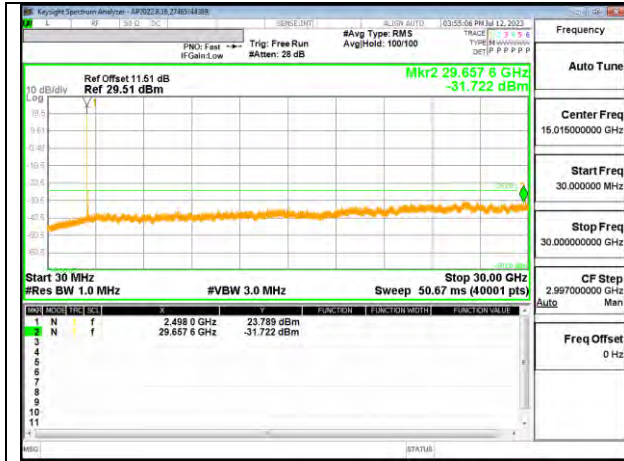


5G NR n41 60MHz QPSK MID Ch RB1-0



5G NR n41 60MHz QPSK HIGH Ch RB1-0

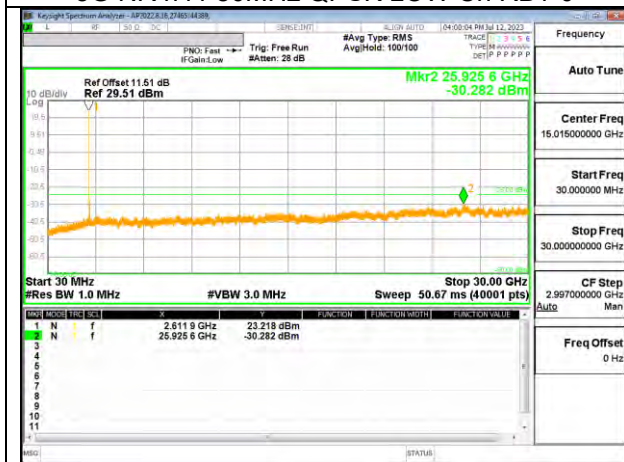
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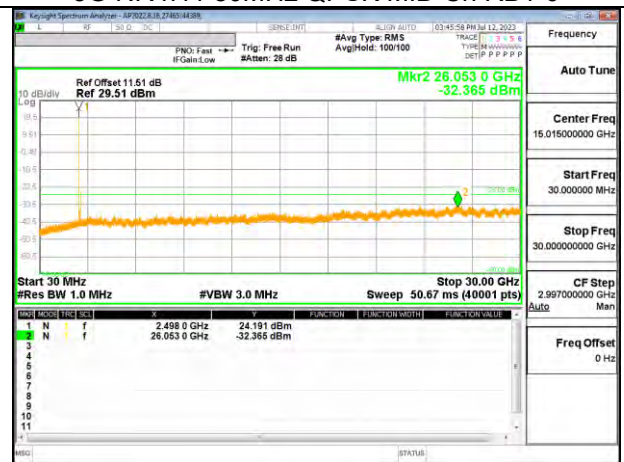
5G NR n41 80MHz QPSK LOW Ch RB1-0



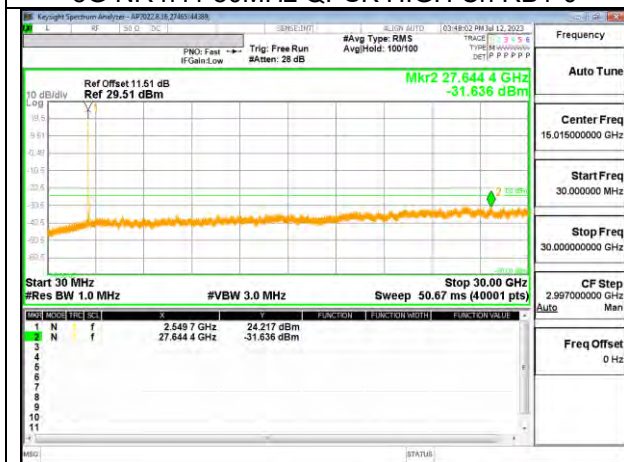
5G NR n41 80MHz QPSK MID Ch RB1-0



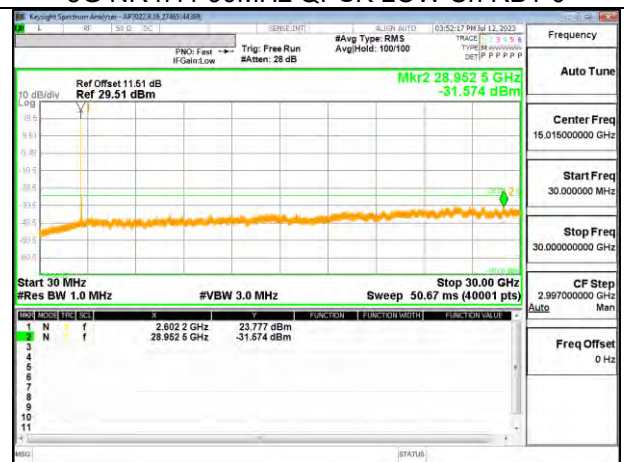
5G NR n41 80MHz QPSK HIGH Ch RB1-0



5G NR n41 90MHz QPSK LOW Ch RB1-0



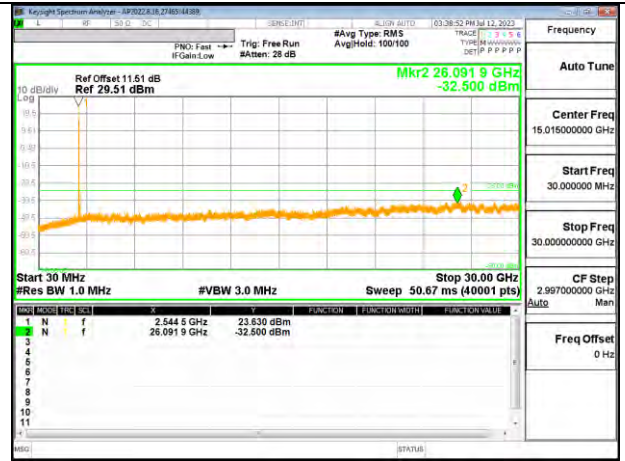
5G NR n41 90MHz QPSK MID Ch RB1-0



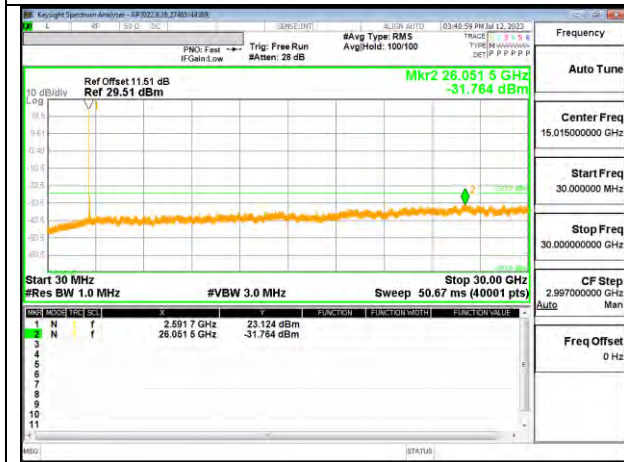
5G NR n41 90MHz QPSK HIGH Ch RB1-0



5G NR n41 100MHz QPSK LOW Ch RB1-0



5G NR n41 100MHz QPSK MID Ch RB1-0



5G NR n41 100MHz QPSK HIGH Ch RB1-0

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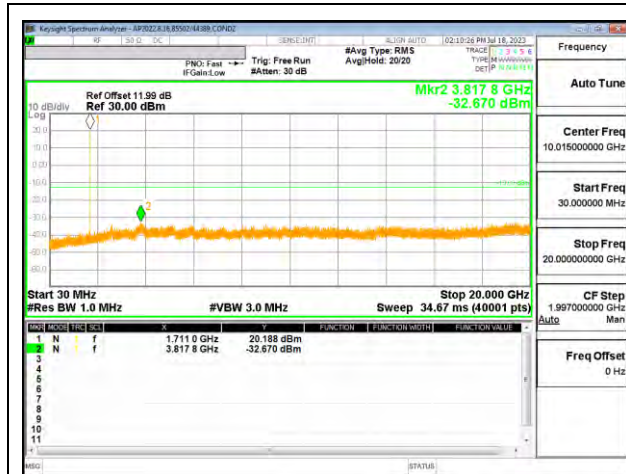
**10.3.3. LTE66****LIMITS**

FCC: §27.53(h)

The minimum permissible attenuation level of any spurious emissions is  $43 + 10 \log (P)$  dB where transmitting power (P) in Watts.

<b>Test Engineer ID:</b>	85502/44389	<b>Test Date:</b>	2023-07-18	<b>EUT Serial Number:</b>	QV7700DHHQ
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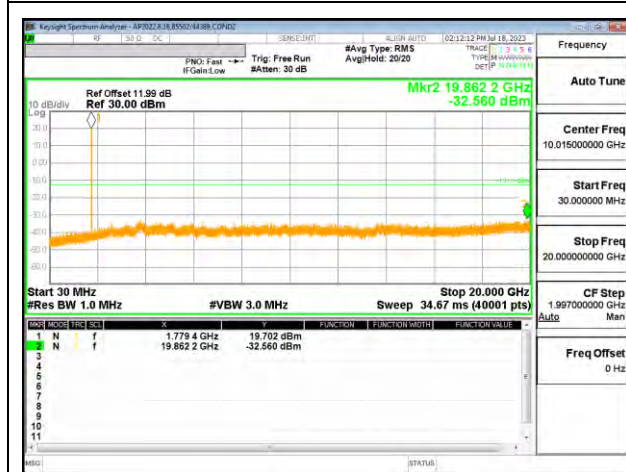
Sub Antenna



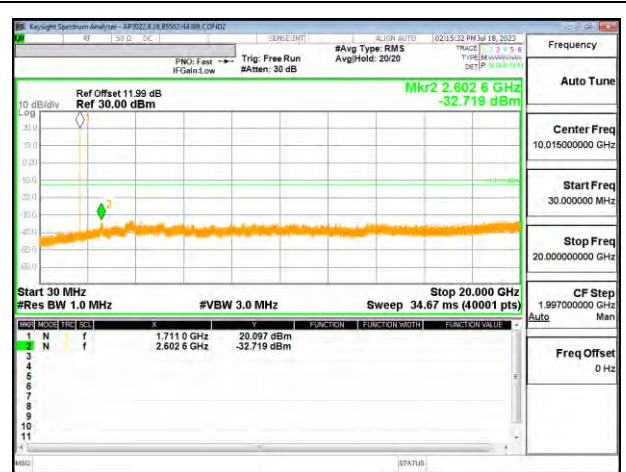
LTE66 1.4MHz QPSK LOW Ch RB1-0



LTE66 1.4MHz QPSK MID Ch RB1-0



LTE66 1.4MHz QPSK HIGH Ch RB1-0



LTE66 3MHz QPSK LOW Ch RB1-0



LTE66 3MHz QPSK MID Ch RB1-0



LTE66 3MHz QPSK HIGH Ch RB1-0



LTE66 5MHz QPSK LOW Ch RB1-0



LTE66 5MHz QPSK MID Ch RB1-0



LTE66 5MHz QPSK HIGH Ch RB1-0



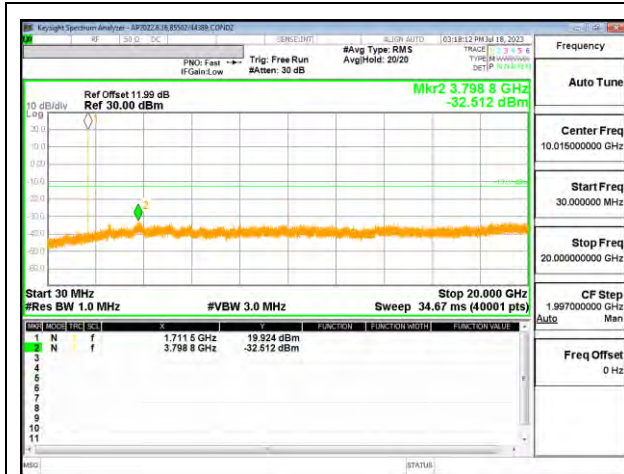
LTE66 10MHz QPSK LOW Ch RB1-0



LTE66 10MHz QPSK MID Ch RB1-0



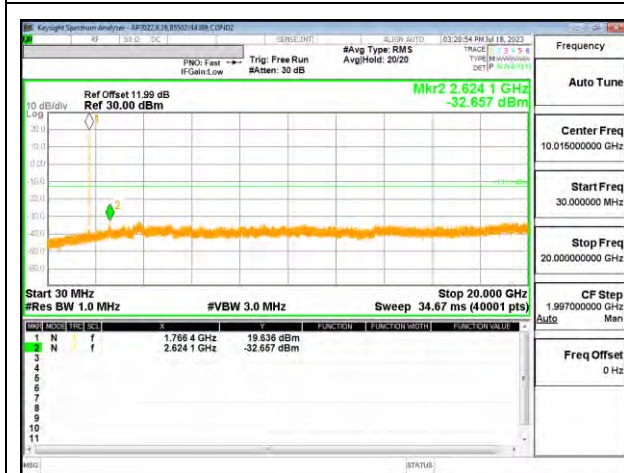
LTE66 10MHz QPSK HIGH Ch RB1-0



LTE66 15MHz QPSK LOW Ch RB1-0



LTE66 15MHz QPSK MID Ch RB1-0



LTE66 15MHz QPSK HIGH Ch RB1-0



LTE66 20MHz QPSK LOW Ch RB1-0



LTE66 20MHz QPSK MID Ch RB1-0



LTE66 20MHz QPSK HIGH Ch RB1-0

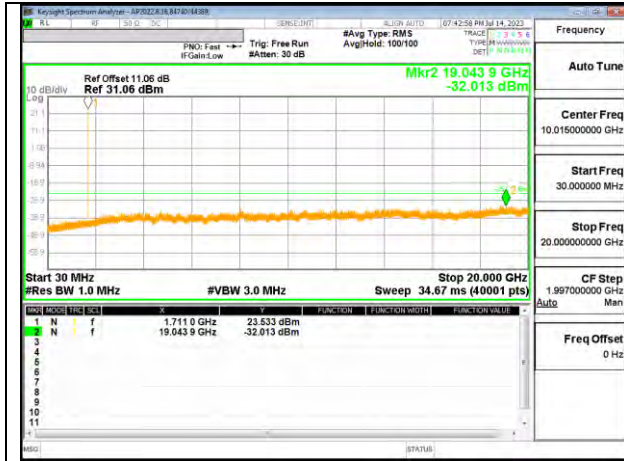


**10.3.4. 5G NR n66****LIMITS**

FCC: §27.53(h)

The minimum permissible attenuation level of any spurious emissions is  $43 + 10 \log (P)$  dB where transmitting power (P) in Watts.

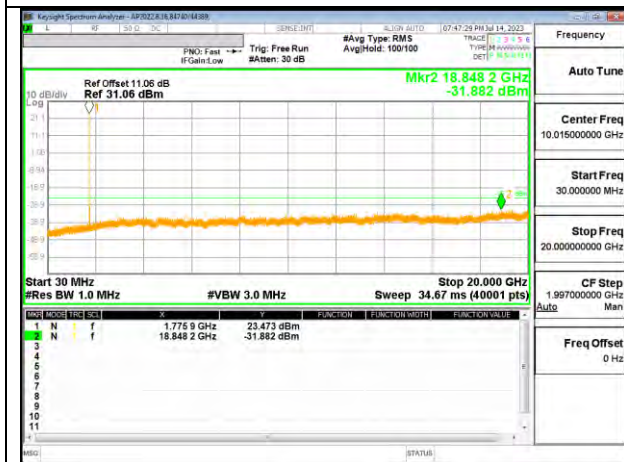
<b>Test Engineer ID:</b>	84740/44389	<b>Test Date:</b>	2023-07-14	<b>EUT Serial Number:</b>	QV7700DHHQ
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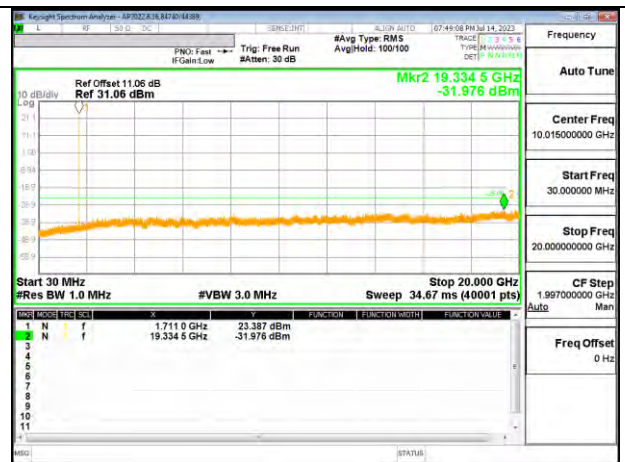
5G NR N66 5MHz QPSK LOW Ch RB1-0



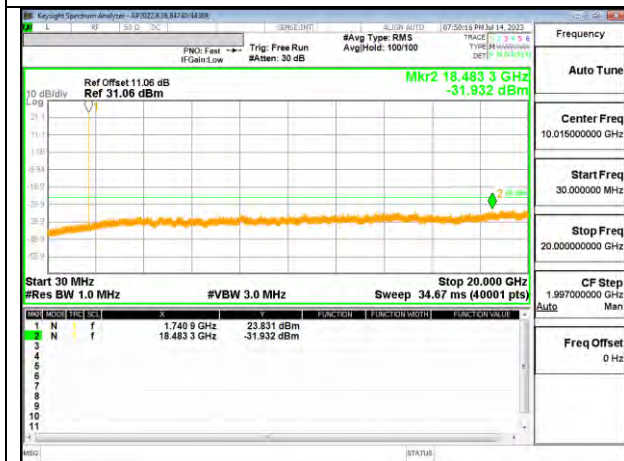
5G NR N66 5MHz QPSK MID Ch RB1-0



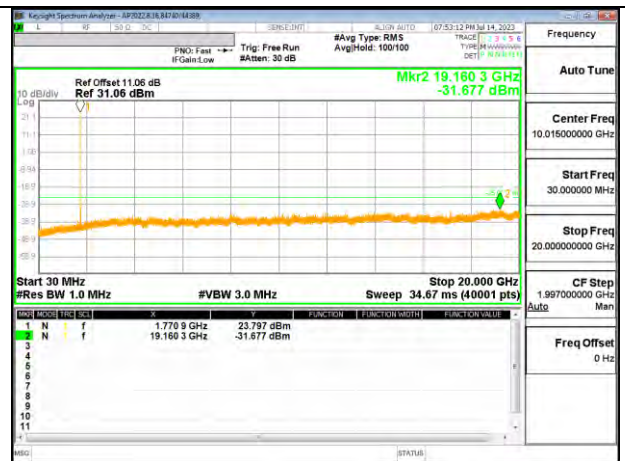
5G NR N66 5MHz QPSK HIGH Ch RB1-0



5G NR N66 10MHz QPSK LOW Ch RB1-0



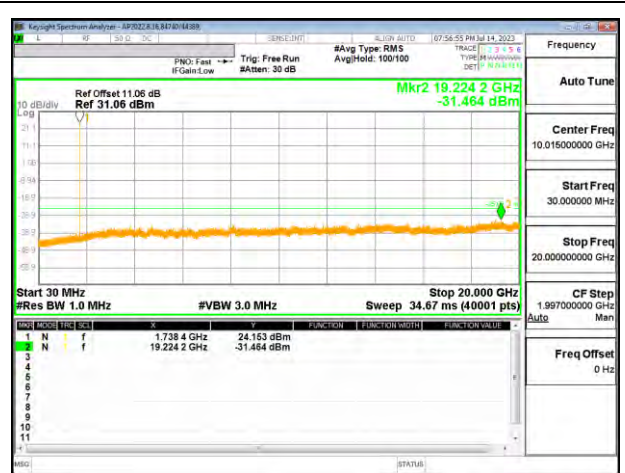
5G NR N66 10MHz QPSK MID Ch RB1-0



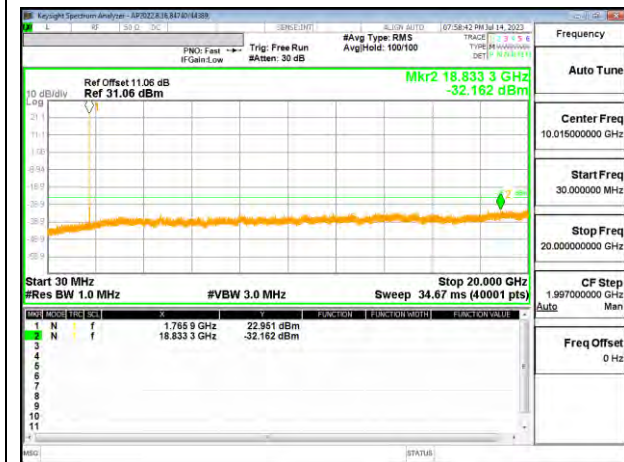
5G NR N66 10MHz QPSK HIGH Ch RB1-0



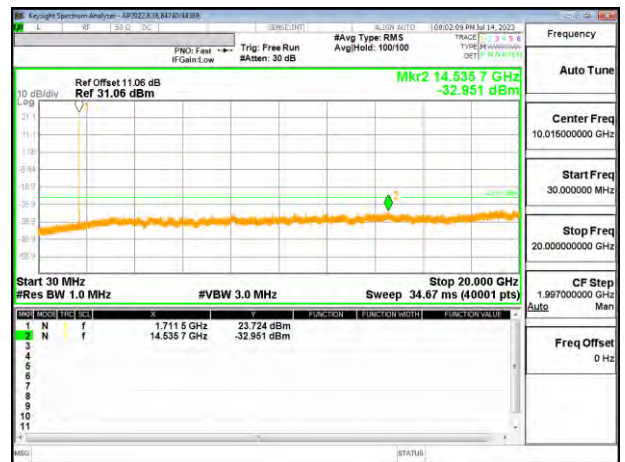
5G NR N66 15MHz QPSK LOW Ch RB1-0



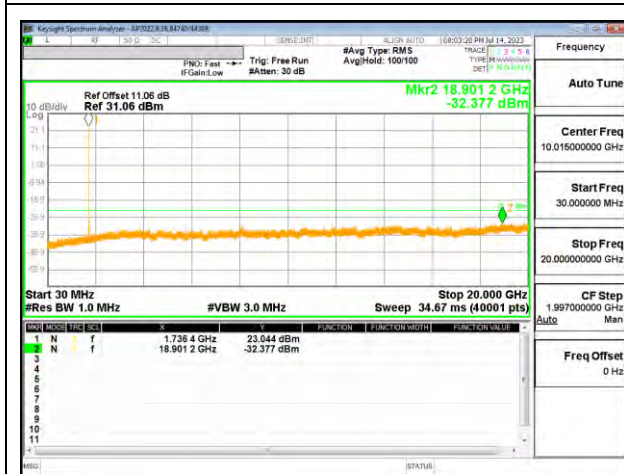
5G NR N66 15MHz QPSK MID Ch RB1-0



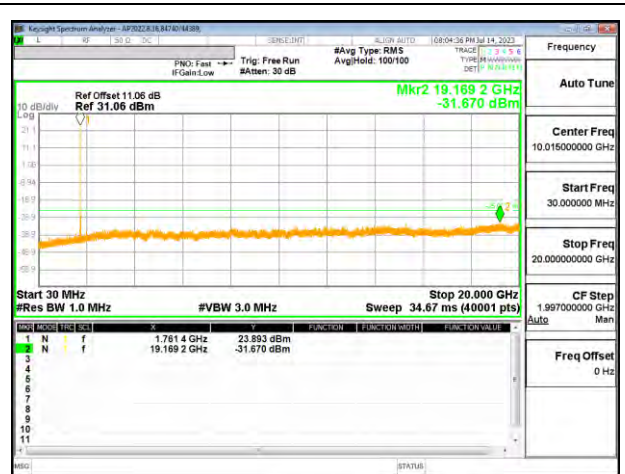
5G NR N66 15MHz QPSK HIGH Ch RB1-0



5G NR N66 20MHz QPSK LOW Ch RB1-0



5G NR N66 20MHz QPSK MID Ch RB1-0



5G NR N66 20MHz QPSK HIGH Ch RB1-0

## 10.4. FREQUENCY STABILITY

### **TEST PROCEDURE**

Use CMW 500 with Frequency Error measurement capability. A Spectrum analyzer was used for FR1 bands. CW mode was used for FR1 Bands.

- Temp. = -30°C to +50°C
- Normal Voltage, 3.89VDC.
- End Voltage, 3.69VDC.

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

The EUT is placed inside a temperature chamber. The temperature is set to 20°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°C is reached.

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

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

### **RESULTS**

See the following pages.

### 10.4.1. 5G NR n5

<b>Test Engineer ID:</b>	85502/44389	<b>Test Date:</b>	2023-07-13	<b>EUT Serial Number:</b>	QV77005ZHQ
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#### QPSK (20MHz)

Band	5	Frequency Range		Frequency Error Reading (Hz)	Limit	
		824	849		2.5	
Condition		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)	Normal	833.99884875	838.99994000			
Extreme (50°C)		833.9976	838.9987	-1276.25	-1.526	Yes
Extreme (40°C)		833.9982	838.9993	-630	-0.753	Yes
Extreme (30°C)		833.9975	838.9986	-1313.75	-1.571	Yes
Extreme (10°C)		833.9973	838.9984	-1556.25	-1.860	Yes
Extreme (0°C)		833.9996	839.0006	701.25	0.838	Yes
Extreme (-10°C)		834.0005	839.0016	1618.75	1.935	Yes
Extreme (-20°C)		834.0007	839.0018	1827.5	2.185	Yes
Extreme (-30°C)		834.0006	839.0017	1724.5	2.062	Yes
20°C		End Point Voltage	833.9987	838.9998	-135	-0.161

**10.4.2. 5G NR n41**

<b>Test Engineer ID:</b>	84740/44389	<b>Test Date:</b>	2023-07-17	<b>EUT Serial Number:</b>	QV770005VHQ
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**QPSK (100MHz)**

Band	41	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		2496	2690		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	2545.9796	2639.9694			
Extreme (50°C)		2546.1095	2640.0994	129960	50.120	Yes
Extreme (40°C)		2546.1078	2640.0977	128220	49.449	Yes
Extreme (30°C)		2545.9823	2639.9722	2730	1.053	Yes
Extreme (10°C)		2546.1061	2640.0959	126500	48.785	Yes
Extreme (0°C)		2546.1076	2640.0975	128020	49.371	Yes
Extreme (-10°C)		2545.9543	2639.9441	-25290	-9.753	Yes
Extreme (-20°C)		2546.0207	2640.0105	41070	15.839	Yes
Extreme (-30°C)		2546.0368	2640.0266	57190	22.056	Yes
20°C		End Point Voltage	2546.0687	2640.0586	89130	34.373

**10.4.3. LTE BAND 66**

<b>Test Engineer ID:</b>	85502/44389	<b>Test Date:</b>	2023-07-18	<b>EUT Serial Number:</b>	QV7700DHHQ
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**QPSK 20MHz – Sub Antenna**

Band	66	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		1710	1780		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	1719.9999967	1769.9999960			
Extreme (50°C)		1719.9999924	1769.9999917	-4.30	-0.002	Yes
Extreme (40°C)		1719.9999922	1769.9999915	-4.50	-0.003	Yes
Extreme (30°C)		1719.9999925	1769.9999918	-4.20	-0.002	Yes
Extreme (10°C)		1719.9999931	1769.9999924	-3.60	-0.002	Yes
Extreme (0°C)		1719.9999936	1769.9999929	-3.10	-0.002	Yes
Extreme (-10°C)		1719.9999935	1769.9999928	-3.20	-0.002	Yes
Extreme (-20°C)		1719.9999923	1769.9999916	-4.40	-0.003	Yes
Extreme (-30°C)		1719.9999936	1769.9999929	-3.10	-0.002	Yes
20°C		End Point Voltage	1719.9999929	1769.9999922	-3.80	-0.002

**10.4.4. 5G NR n66**

<b>Test Engineer ID:</b>	84740/44389	<b>Test Date:</b>	2023-07-14	<b>EUT Serial Number:</b>	QV7700DHHQ
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**QPSK (20MHz)**

Band	66	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		1710	1780		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	1719.9994	1769.9994			
Extreme (50°C)		1719.9931	1769.9931	-6340	-3.633	Yes
Extreme (40°C)		1720.0024	1770.0024	2970	1.702	Yes
Extreme (30°C)		1720.0063	1770.0063	6890	3.948	Yes
Extreme (10°C)		1720.0118	1770.0118	12350	7.077	Yes
Extreme (0°C)		1720.0157	1770.0157	16230	9.301	Yes
Extreme (-10°C)		1720.0092	1770.0092	9770	5.599	Yes
Extreme (-20°C)		1719.9857	1769.9857	-13770	-7.891	Yes
Extreme (-30°C)		1720.0077	1770.0077	8250	4.728	Yes
20°C		End Point Voltage	1720.0117	1770.0117	12240	7.014



### 10.5. PEAK TO AVERAGE RATIO

**LIMITS**

In addition, the peak to average power ratio (PAPR) of the transmitter shall not exceed 13 dB for more than 0.1% of the time and shall use a signal corresponding to the highest PAPR during periods of continuous transmission.

**RESULT**

**10.5.1. 5G NR n5**

<b>Test Engineer ID:</b>	85502/44389	<b>Test Date:</b>	2023-07-14	<b>EUT Serial Number:</b>	QV77005ZHQ
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Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
5G NR n5	5MHz	836.5	25	0	QPSK	27.27	21.71	5.56
					16QAM	27.20	20.83	6.37
	10MHz		50	0	QPSK	27.60	21.78	5.82
					16QAM	27.39	20.74	6.65
	15MHz		75	0	QPSK	27.61	21.93	5.68
					16QAM	27.52	20.92	6.60
	20MHz		100	0	QPSK	27.69	21.82	5.87
					16QAM	27.51	20.9	6.61
Duty Cycle Correction Factor (dB) =			0.00					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

**10.5.2. LTE BAND 66**

<b>Test Engineer ID:</b>	85502/44389	<b>Test Date:</b>	2023-07-18	<b>EUT Serial Number:</b>	QV7700DHHQ
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**LTE BAND 66 – Sub Antenna**

Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)		
						Peak	Average			
LTE Band 66	1.4MHz	1747.5	6	0	QPSK	20.97	16.1	4.87		
					16QAM	19.04	16.3	2.74		
	3MHz		15	0	QPSK	20.94	16.0	4.94		
					16QAM	20.95	16.1	4.85		
	5MHz		25	0	QPSK	20.88	16.1	4.78		
					16QAM	20.90	16.1	4.80		
	10MHz		50	0	QPSK	21.27	16.1	5.17		
					16QAM	19.13	16.1	3.03		
	15MHz		75	0	QPSK	21.14	16.1	5.04		
					16QAM	22.14	16.1	6.04		
	20MHz		100	0	QPSK	21.18	16.0	5.18		
					16QAM	22.20	16.1	6.10		
	Duty Cycle Correction Factor (dB) =			0.00						
	Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor									

**10.5.3. 5G NR n66**

<b>Test Engineer ID:</b>	85502/44389	<b>Test Date:</b>	2023-07-14	<b>EUT Serial Number:</b>	QV7700DHHQ
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Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
LTE Band 66	5MHz	1747.5	25	0	QPSK	24.06	18.71	5.35
					16QAM	23.04	17.12	5.92
	10MHz		50	0	QPSK	24.39	18.7	5.69
					16QAM	23.58	17.13	6.45
	15MHz		75	0	QPSK	24.34	18.73	5.61
					16QAM	23.50	17.27	6.23
	20MHz		100	0	QPSK	24.58	18.8	5.79
					16QAM	24.71	17.21	7.50
Duty Cycle Correction Factor (dB) =			0.00					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

## 11. 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.

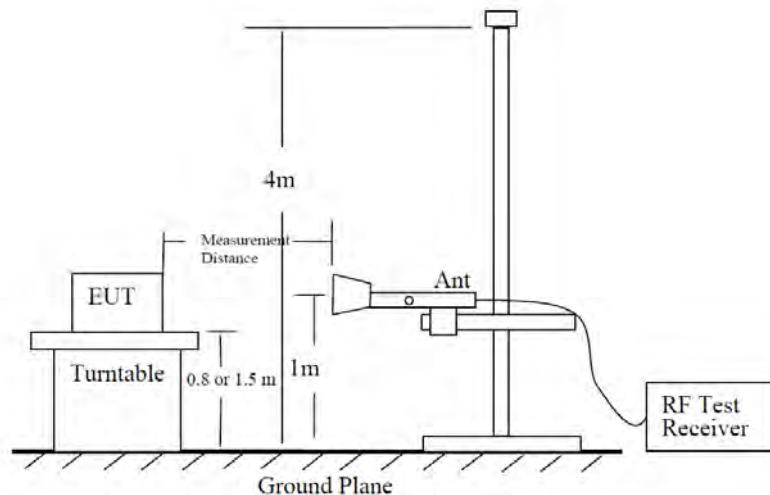


Figure 6 —Test site-up for radiated ERP and/or EIRP measurements

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

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

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

### TEST PROCEDURE

KDB 971168 D01 v03r01/D02 v02/r02

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

### RESULTS

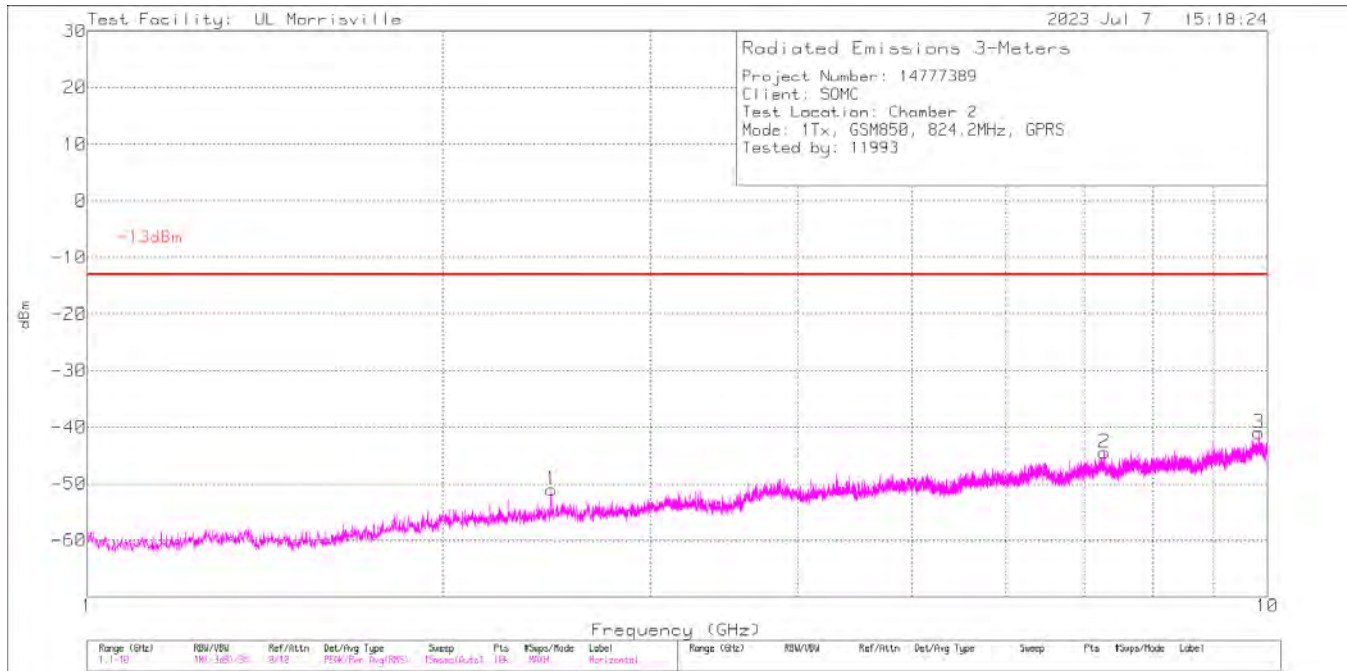
**11.1.1. GSM850****LIMITS**

FCC: §22.917 (a)

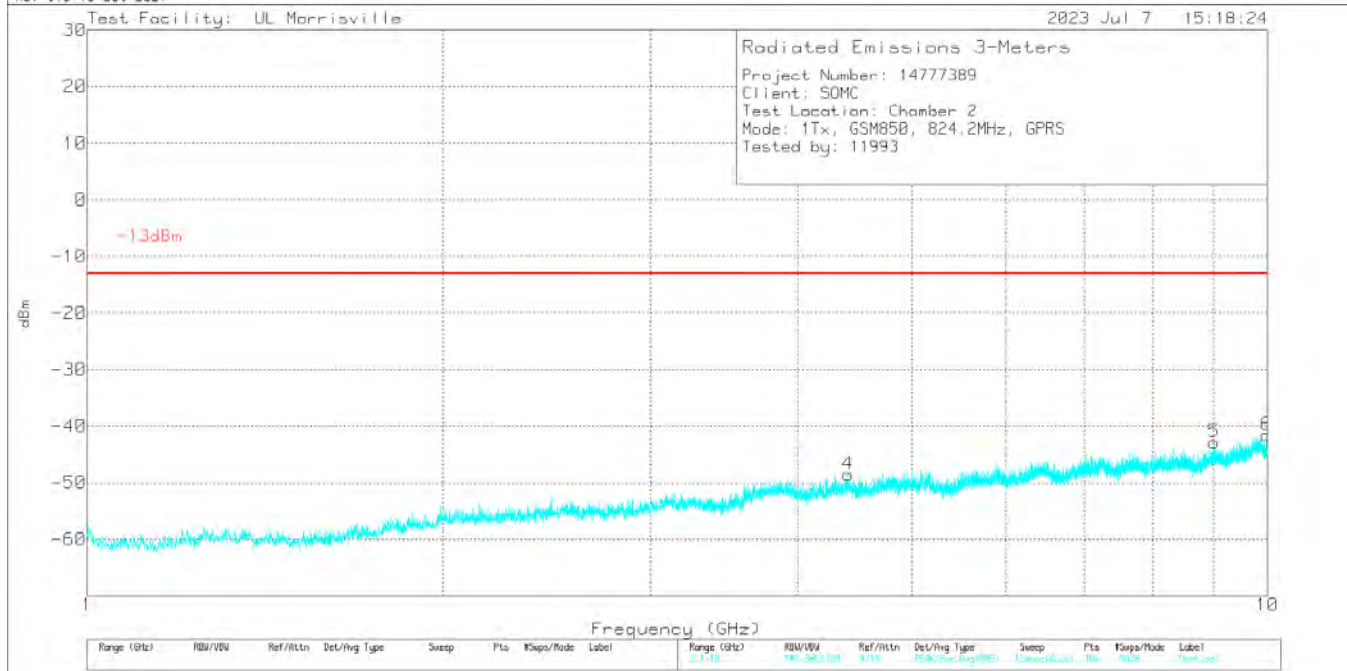
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

EUT Serial Number: QV7700HBHQ

**GPRS Low Channel**



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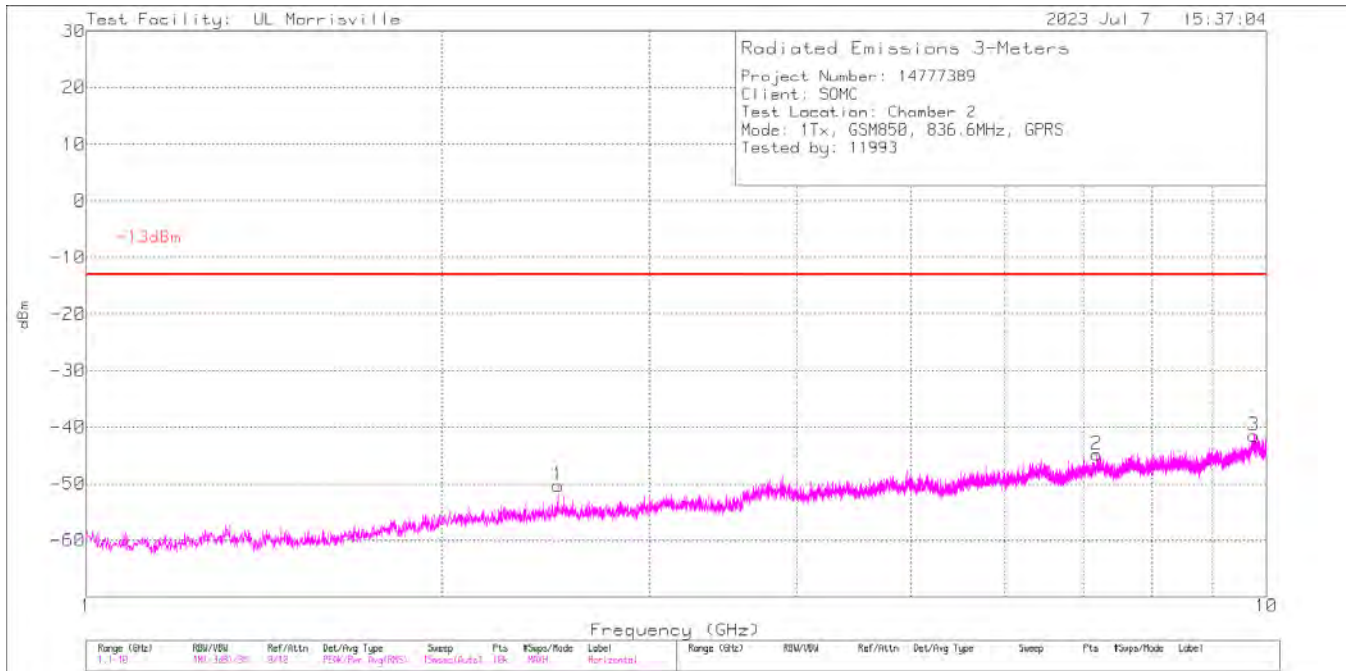


Rev 9.5 18 Oct 2021

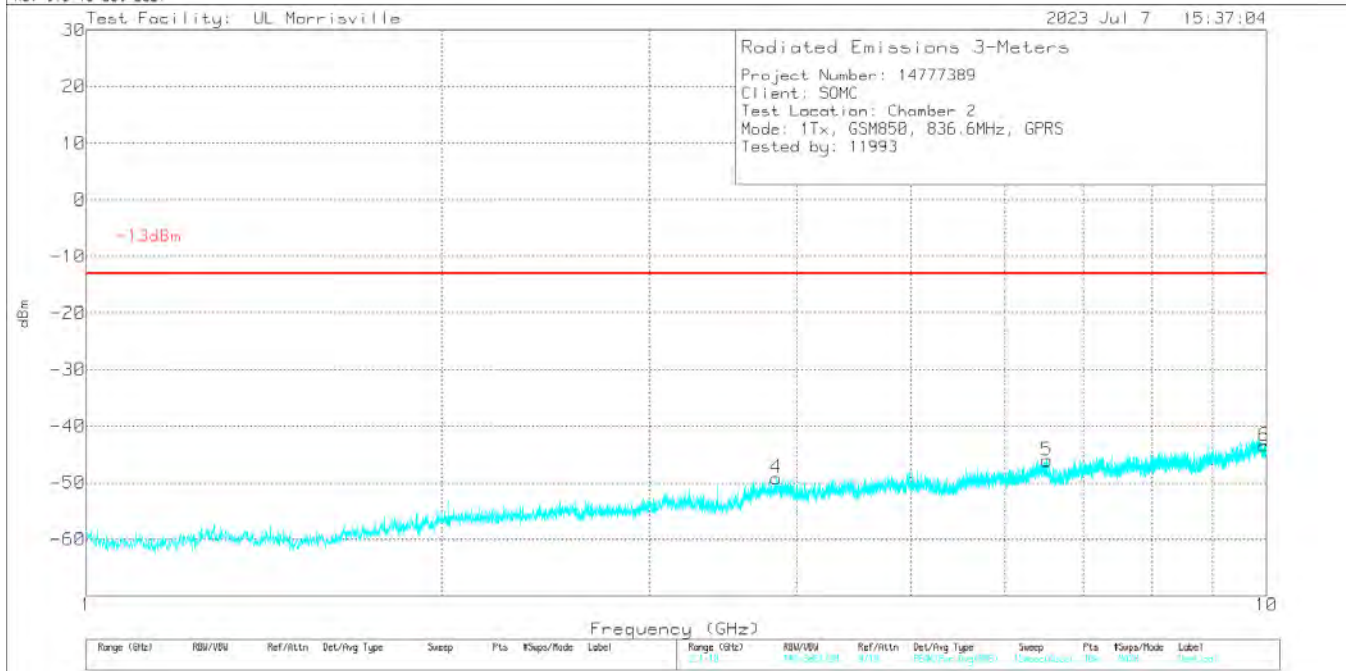
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.4724	-61.33	Pk	32.3	-34.1	.3	11.8	-51.03	-13	-38.03	0-360	199	H
4	4.4137	-63.33	Pk	33.6	-31.3	.7	11.8	-48.53	-13	-35.53	0-360	101	V
2	7.2748	-64.9	Pk	35.6	-27.4	.4	11.8	-44.5	-13	-31.5	0-360	300	H
5	9.0145	-64.98	Pk	36.2	-26.3	.4	11.8	-42.88	-13	-29.88	0-360	300	V
3	9.8299	-65.53	Pk	36.9	-24.8	.6	11.8	-41.03	-13	-28.03	0-360	101	H
6	9.9829	-66.35	Pk	37.2	-25.1	.9	11.8	-41.55	-13	-28.55	0-360	200	V

Pk - Peak detector

**GPRS Mid channel**



Rev 9.5 18 Oct 2021



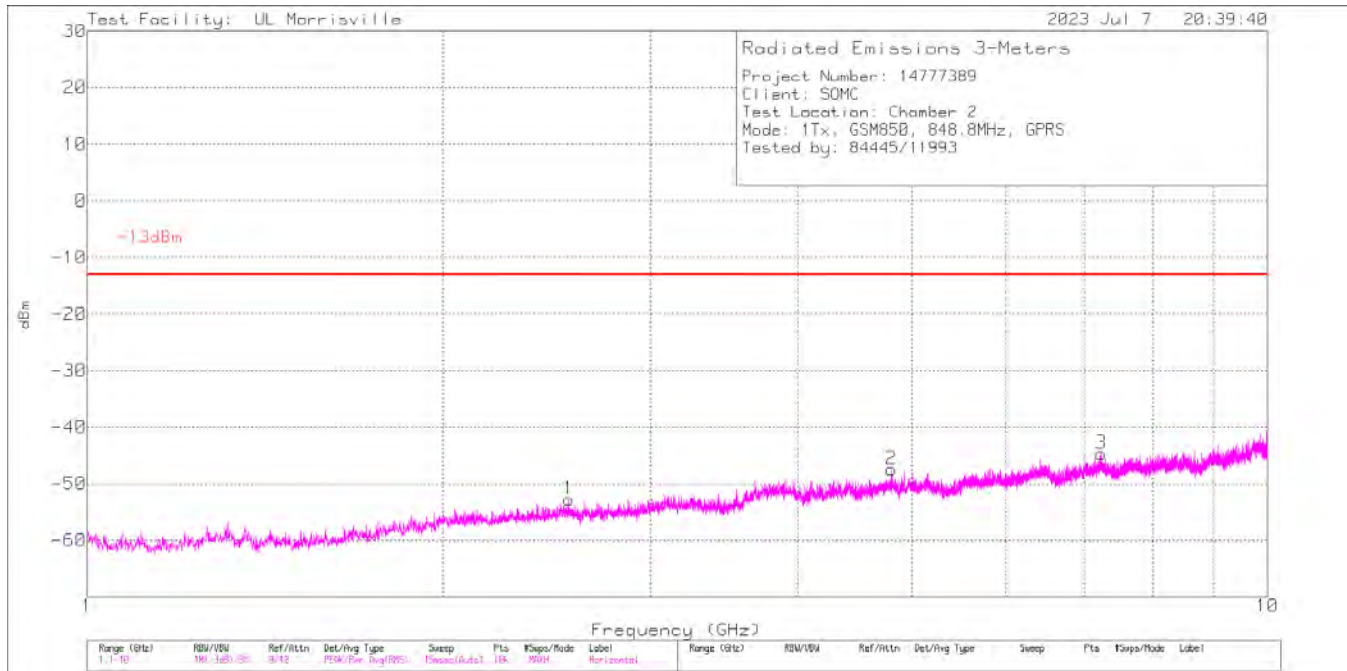
Rev 9.5 18 Oct 2021



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.5102	-61.24	Pk	32.4	-33.7	.4	11.8	-50.34	-13	-37.34	0-360	200	H
4	3.844	-62.23	Pk	33.4	-32.7	.6	11.8	-49.13	-13	-36.13	0-360	101	V
5	6.5179	-65.42	Pk	35.5	-28.4	.4	11.8	-46.12	-13	-33.12	0-360	300	V
2	7.1839	-65.04	Pk	35.6	-27.6	.4	11.8	-44.84	-13	-31.84	0-360	101	H
3	9.7516	-65.53	Pk	36.9	-25.5	.9	11.8	-41.43	-13	-28.43	0-360	101	H
6	9.9559	-67.31	Pk	37.1	-25.6	.5	11.8	-43.51	-13	-30.51	0-360	101	V

Pk - Peak detector

**GPRS High Channel**



Rev 9.5 18 Oct 2021



Rev 9.5 18 Oct 2021

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.5579	-63.42	Pk	32.4	-33.9	.3	11.8	-52.82	-13	-39.82	0-360	101	H
4	2.8612	-63.21	Pk	32.3	-33.8	.4	11.8	-52.51	-13	-39.51	0-360	201	V
2	4.8025	-62.69	Pk	34	-30.9	.3	11.8	-47.49	-13	-34.49	0-360	101	H
5	4.9969	-62.43	Pk	34	-31.2	.4	11.8	-47.43	-13	-34.43	0-360	101	V
6	6.3937	-63.59	Pk	35.5	-28.9	.3	11.8	-44.89	-13	-31.89	0-360	201	V
3	7.2316	-65.15	Pk	35.6	-27.4	.5	11.8	-44.65	-13	-31.65	0-360	101	H

Pk - Peak detector

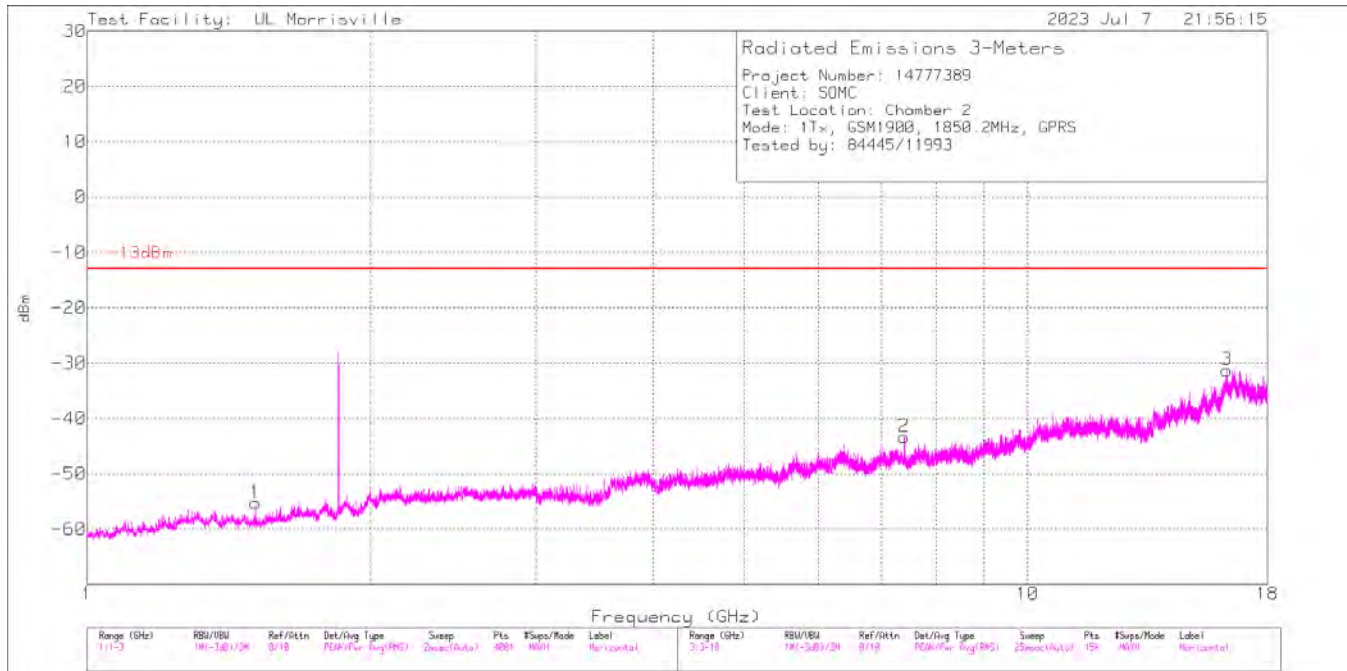
**11.1.2. GSM1900****LIMITS**

FCC: §24.238 (a)

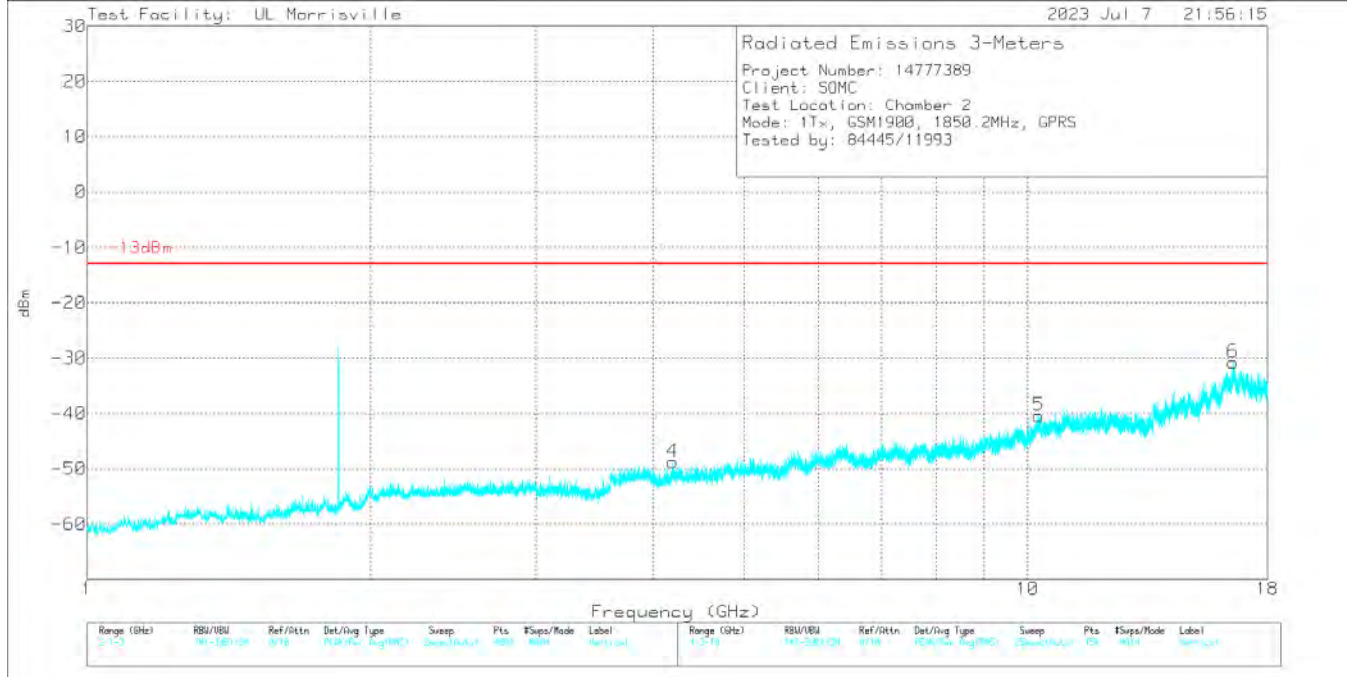
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

EUT Serial Number: QV7700HBHQ

**GPRS Low Channel**



Rev 9.5 18 Oct 2021

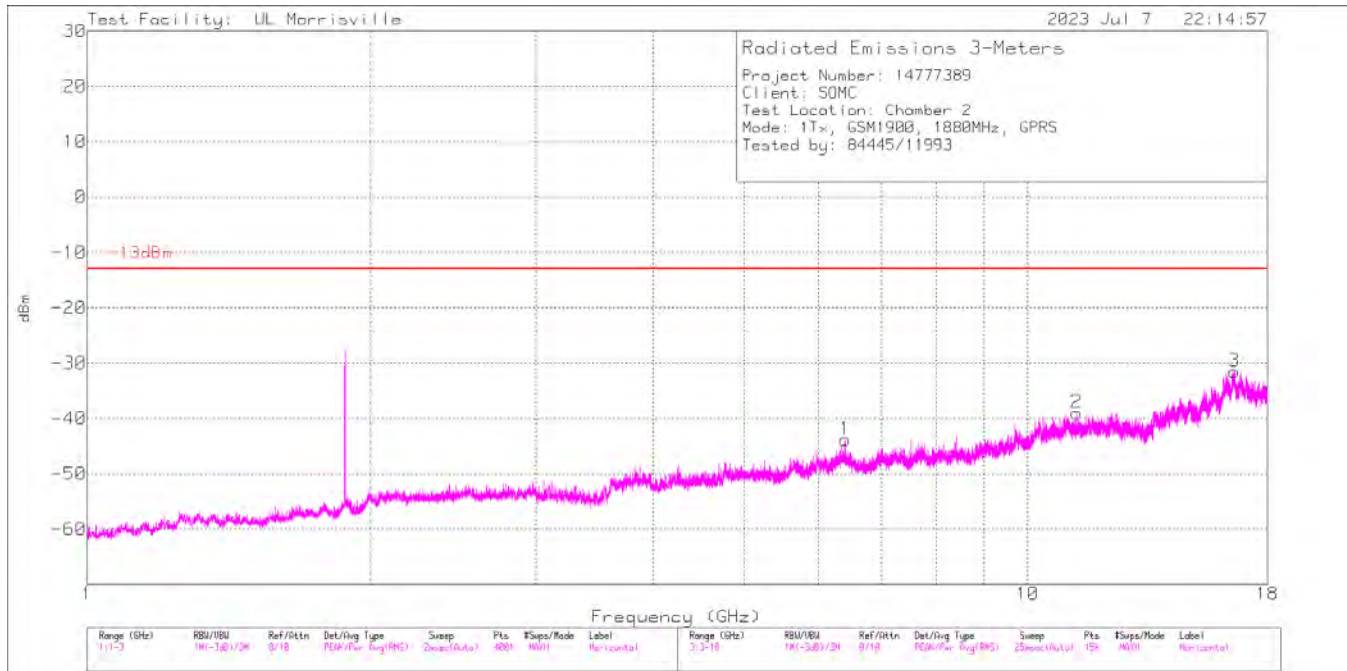


Rev 9.5 18 Oct 2021

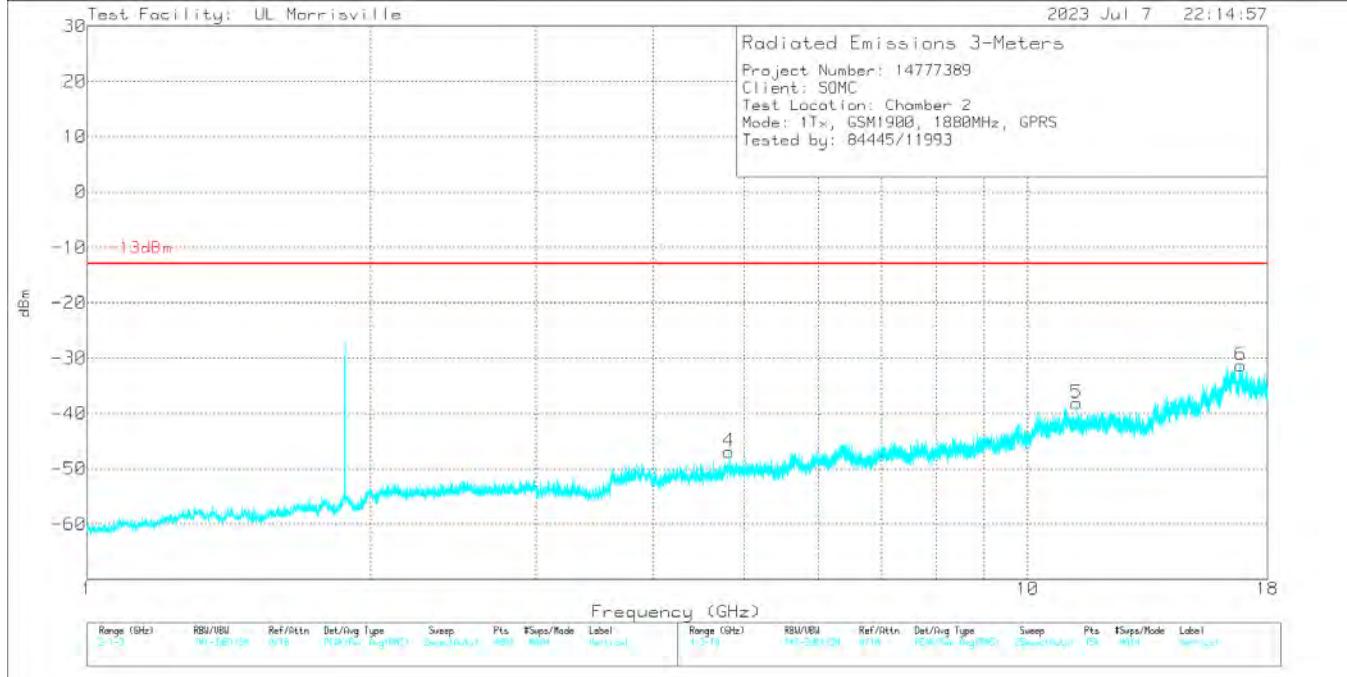
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.51	-61.09	Pk	27.7	-34.7	11.8	1	-55.29	-13	-42.29	0-360	199	H
4	4.194	-63.54	Pk	33.3	-30.3	11.8	0	-48.74	-13	-35.74	0-360	300	V
2	7.4	-64.08	Pk	35.6	-26.6	11.8	0	-43.28	-13	-30.28	0-360	200	H
5	10.278	-65.8	Pk	37.4	-23.8	11.8	0	-40.4	-13	-27.4	0-360	101	V
3	16.305	-65.13	Pk	40.9	-18.9	11.8	0	-31.33	-13	-18.33	0-360	300	H
6	16.548	-65.78	Pk	41.3	-18.1	11.8	0	-30.78	-13	-17.78	0-360	300	V

Pk - Peak detector

**GPRS Mid Channel**



Rev 9.5 18 Oct 2021



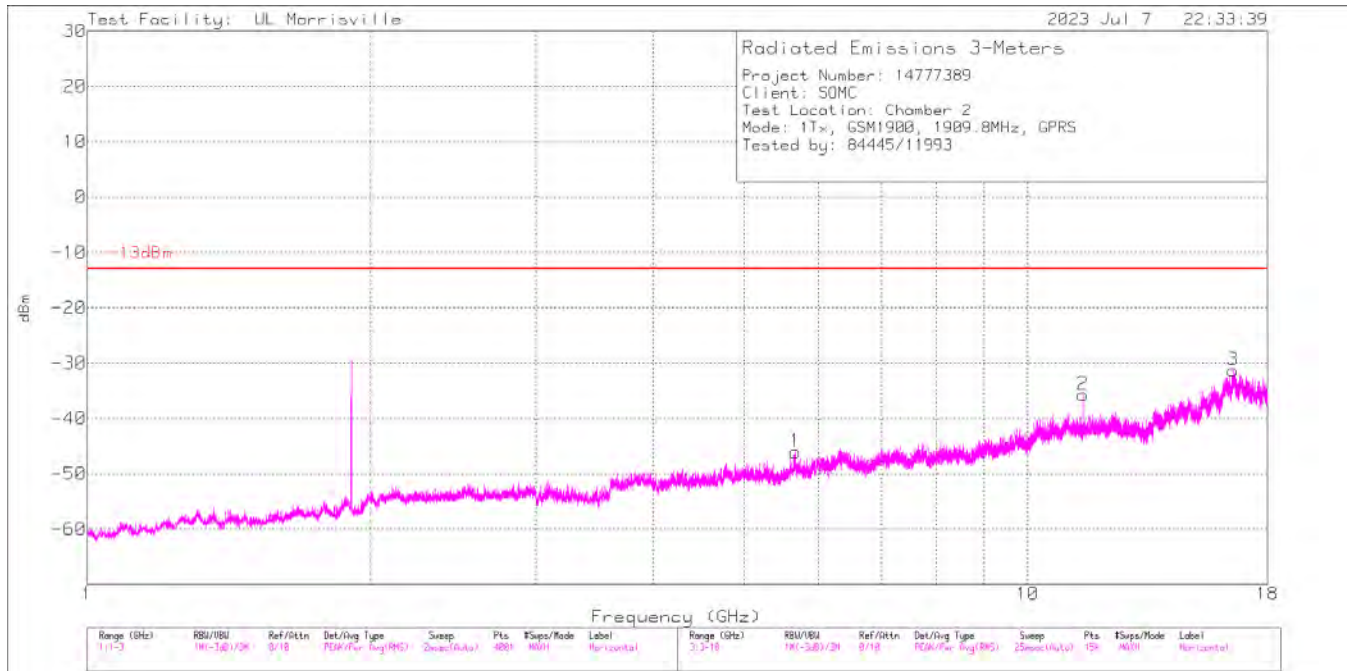
Rev 9.5 18 Oct 2021

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	4.811	-62.61	Pk	34	-30.1	11.8	0	-46.91	-13	-33.91	0-360	101	V
1	6.402	-63.54	Pk	35.5	-27.6	11.8	0	-43.84	-13	-30.84	0-360	299	H
2	11.28	-66.77	Pk	38	-22	11.8	0	-38.97	-13	-25.97	0-360	299	H
5	11.28	-65.98	Pk	38	-22	11.8	0	-38.18	-13	-25.18	0-360	200	V
3	16.599	-66.68	Pk	41.4	-18.1	11.8	0	-31.58	-13	-18.58	0-360	299	H
6	16.851	-66.62	Pk	41.6	-18.1	11.8	0	-31.32	-13	-18.32	0-360	101	V

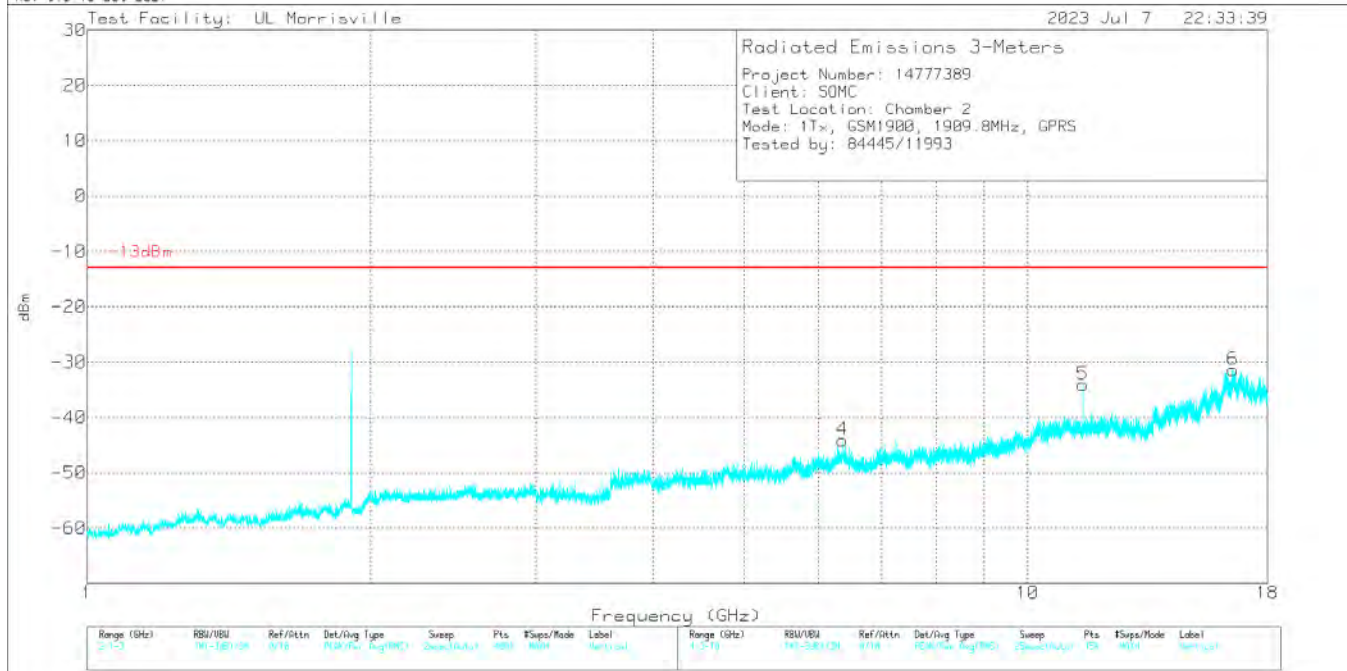
Pk - Peak detector



**GPRS High Channel**



Rev 9.5 18 Oct 2021



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Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.667	-64.06	Pk	34.6	-28.4	11.8	0	-46.06	-13	-33.06	0-360	101	H
4	6.36	-64.12	Pk	35.5	-27.3	11.8	0	-44.12	-13	-31.12	0-360	299	V
2	11.458	-62.01	Pk	38.2	-23.7	11.8	0	-35.71	-13	-22.71	0-360	101	H
5	11.458	-60.38	Pk	38.2	-23.7	11.8	0	-34.08	-13	-21.08	0-360	200	V
3	16.536	-66.42	Pk	41.3	-18	11.8	0	-31.32	-13	-18.32	0-360	101	H
6	16.54	-66.74	Pk	41.3	-17.8	11.8	0	-31.44	-13	-18.44	0-360	200	V

Pk - Peak detector

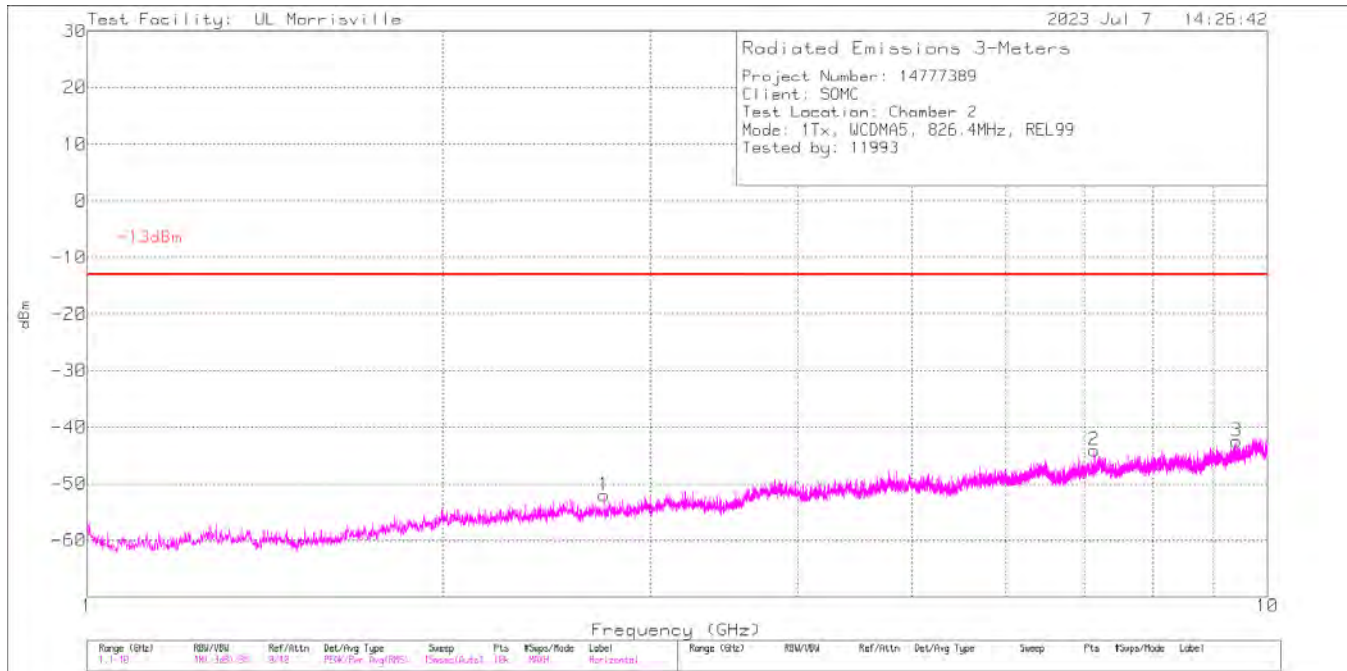
**11.1.3. WCDMA5****LIMITS**

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: QV7700HBHQ

**REL 99 Low Channel**



Rev 9.5 18 Oct 2021

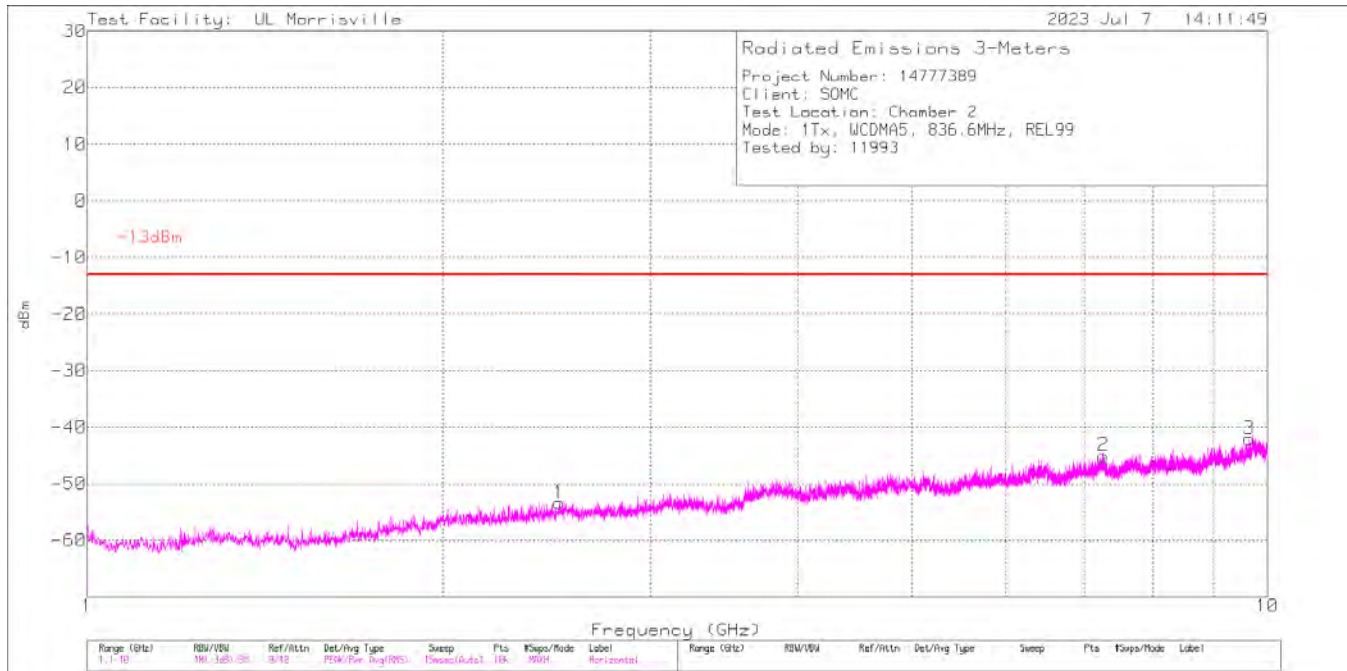


Rev 9.5 18 Oct 2021

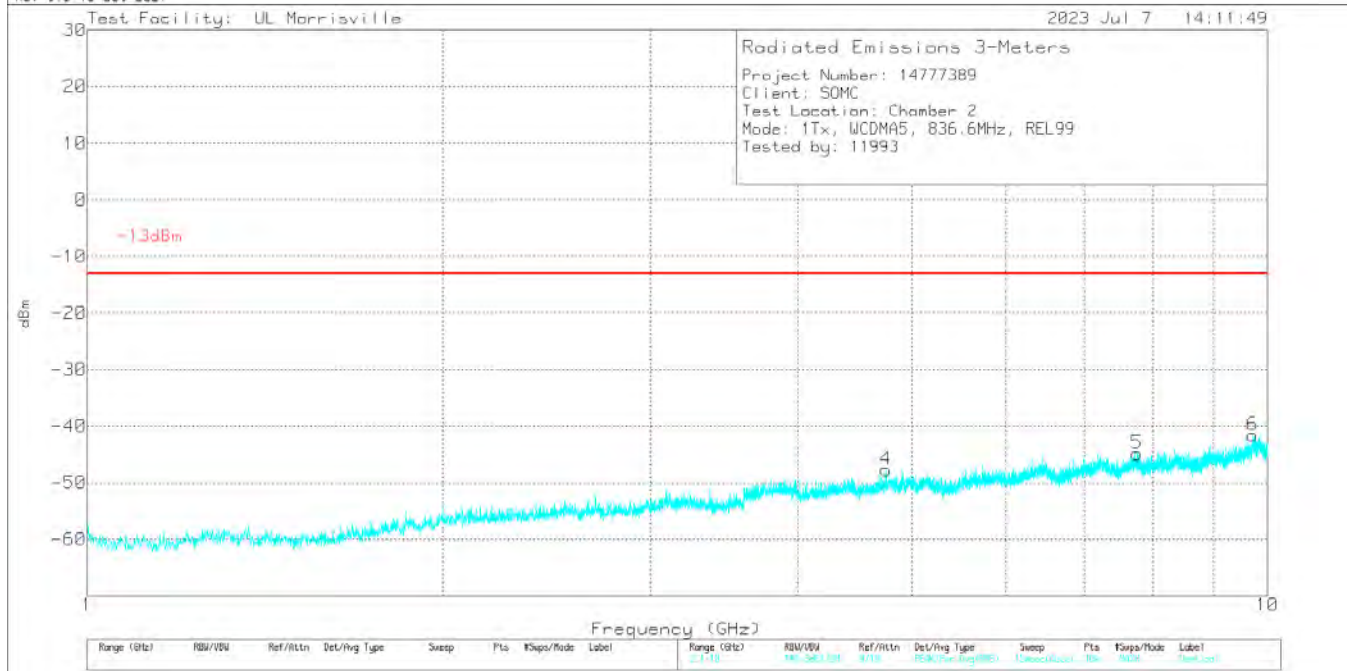
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.7397	-62.75	Pk	32.2	-33.7	.4	11.8	-52.05	-13	-39.05	0-360	101	H
4	3.9268	-61.32	Pk	33.4	-32.1	.1	11.8	-48.12	-13	-35.12	0-360	101	V
2	7.1362	-64.24	Pk	35.5	-27.6	.4	11.8	-44.14	-13	-31.14	0-360	200	H
5	7.2217	-64.22	Pk	35.6	-27.1	.4	11.8	-43.52	-13	-30.52	0-360	300	V
3	9.4186	-65.63	Pk	36.6	-25.8	.5	11.8	-42.53	-13	-29.53	0-360	300	H
6	9.5977	-65.55	Pk	36.7	-25.7	1.1	11.8	-41.65	-13	-28.65	0-360	300	V

Pk - Peak detector

REL 99 Mid Channel



Rev 9.5 18 Oct 2021

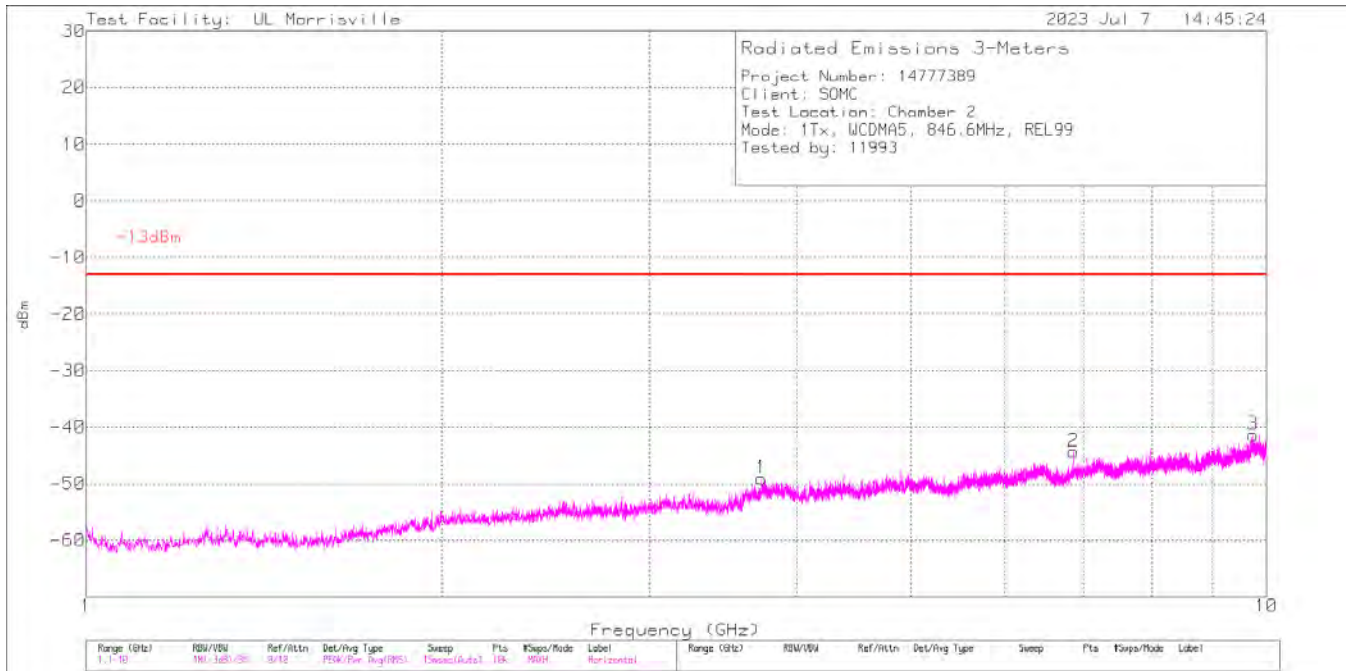


Rev 9.5 18 Oct 2021

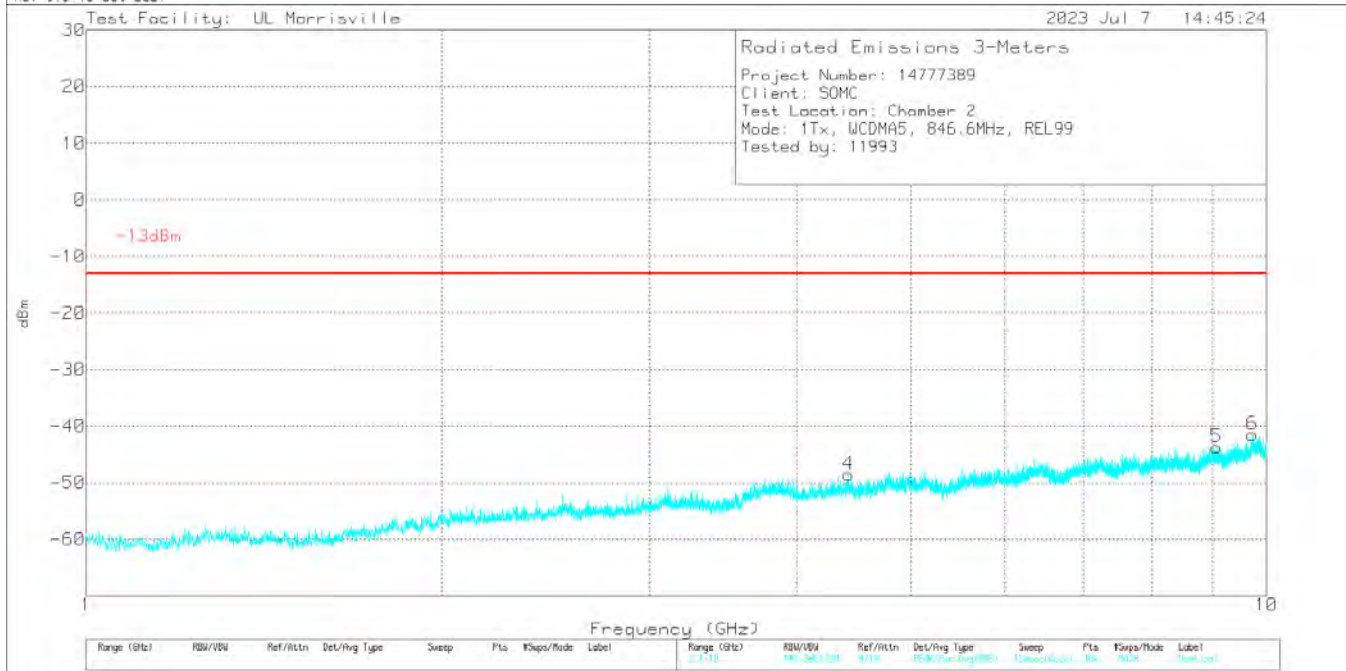
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.5111	-64.29	Pk	32.4	-33.7	.4	11.8	-53.39	-13	-40.39	0-360	299	H
4	4.7512	-62.54	Pk	33.9	-31	.2	11.8	-47.64	-13	-34.64	0-360	200	V
2	7.264	-65.74	Pk	35.6	-27.2	.4	11.8	-45.14	-13	-32.14	0-360	299	H
5	7.7491	-65.79	Pk	35.8	-27.1	.4	11.8	-44.89	-13	-31.89	0-360	200	V
3	9.6499	-65.49	Pk	36.8	-25.7	.5	11.8	-42.09	-13	-29.09	0-360	200	H
6	9.7174	-65.96	Pk	36.8	-25.1	.8	11.8	-41.66	-13	-28.66	0-360	299	V

Pk - Peak detector

**REL 99 High Channel**



Rev 9.5 18 Oct 2021



Rev 9.5 18 Oct 2021



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.7324	-62.03	Pk	33.1	-32.6	.7	11.8	-49.03	-13	-36.03	0-360	199	H
4	4.4218	-63.24	Pk	33.6	-31.4	.7	11.8	-48.54	-13	-35.54	0-360	200	V
2	6.8635	-64.16	Pk	35.6	-28	.4	11.8	-44.36	-13	-31.36	0-360	101	H
5	9.0775	-66.16	Pk	36.2	-25.9	.4	11.8	-43.66	-13	-30.66	0-360	101	V
6	9.7282	-65.98	Pk	36.9	-25.1	.9	11.8	-41.48	-13	-28.48	0-360	300	V
3	9.748	-65.61	Pk	36.9	-25.3	.9	11.8	-41.31	-13	-28.31	0-360	199	H

Pk - Peak detector

#### 11.1.4. LTE BAND 5

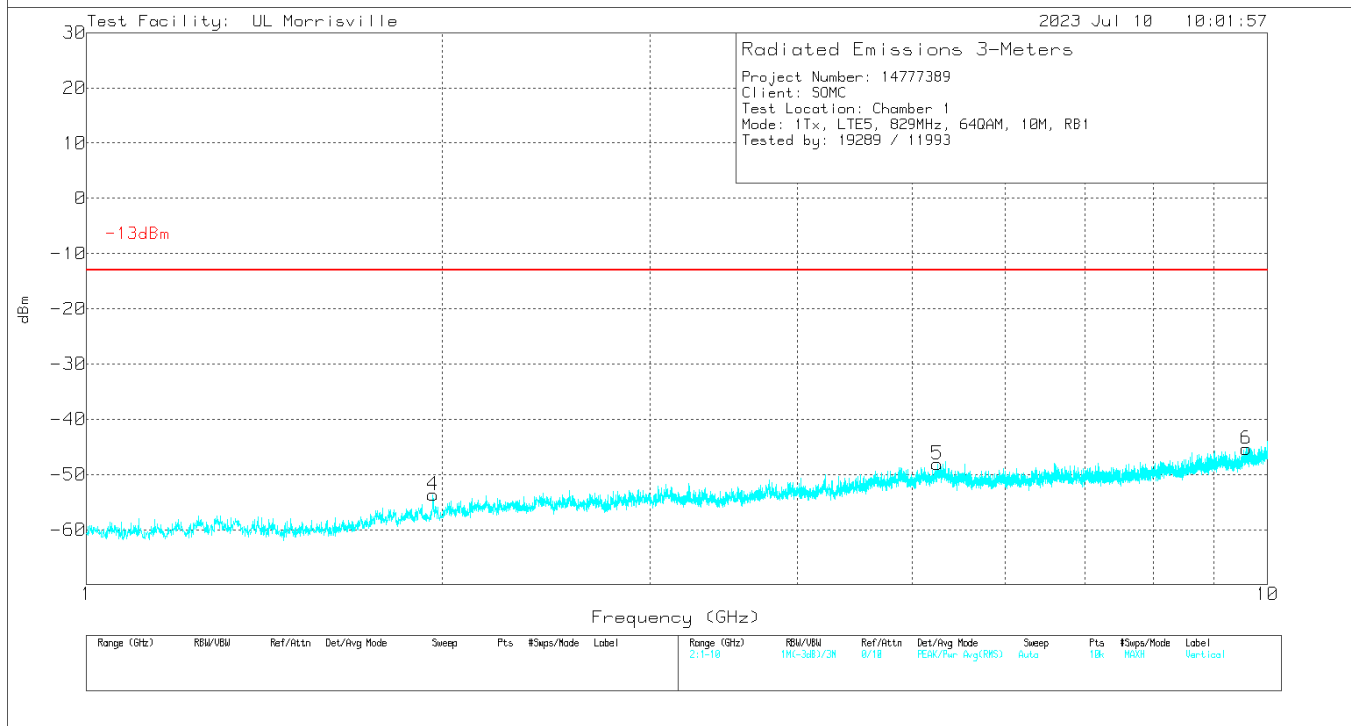
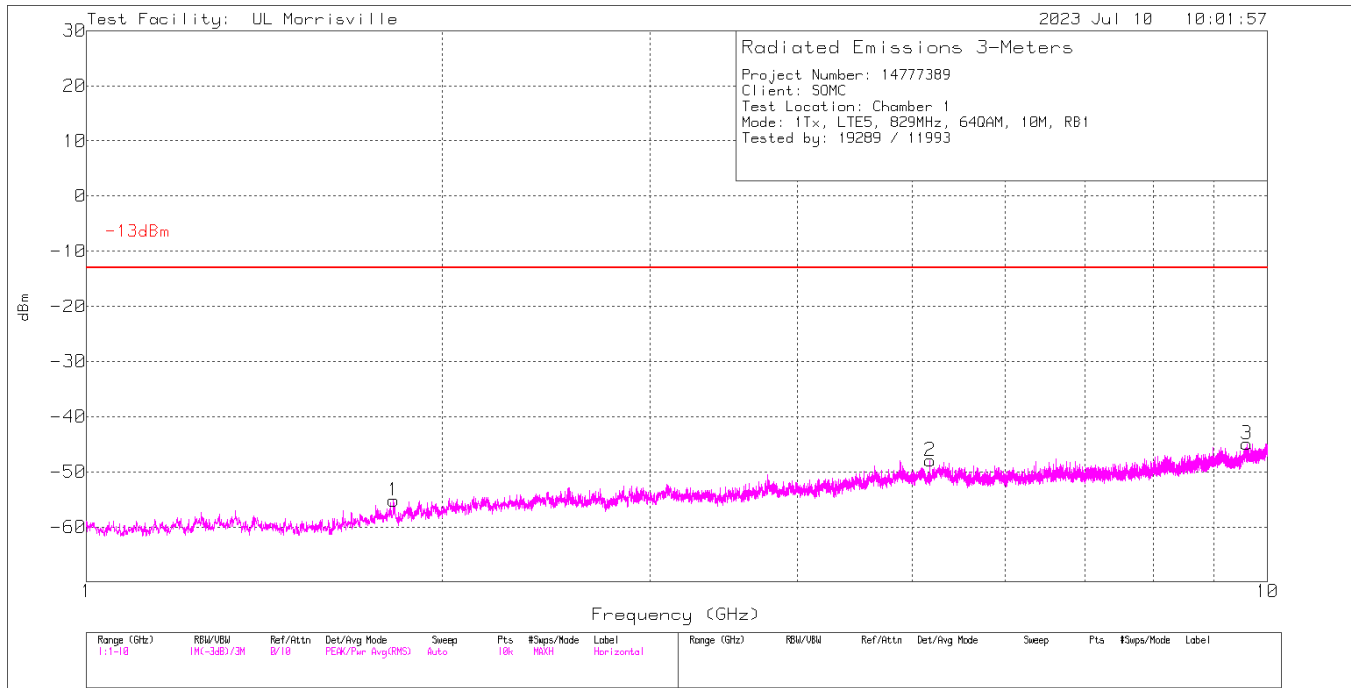
##### LIMITS

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: QV7700HBHQ

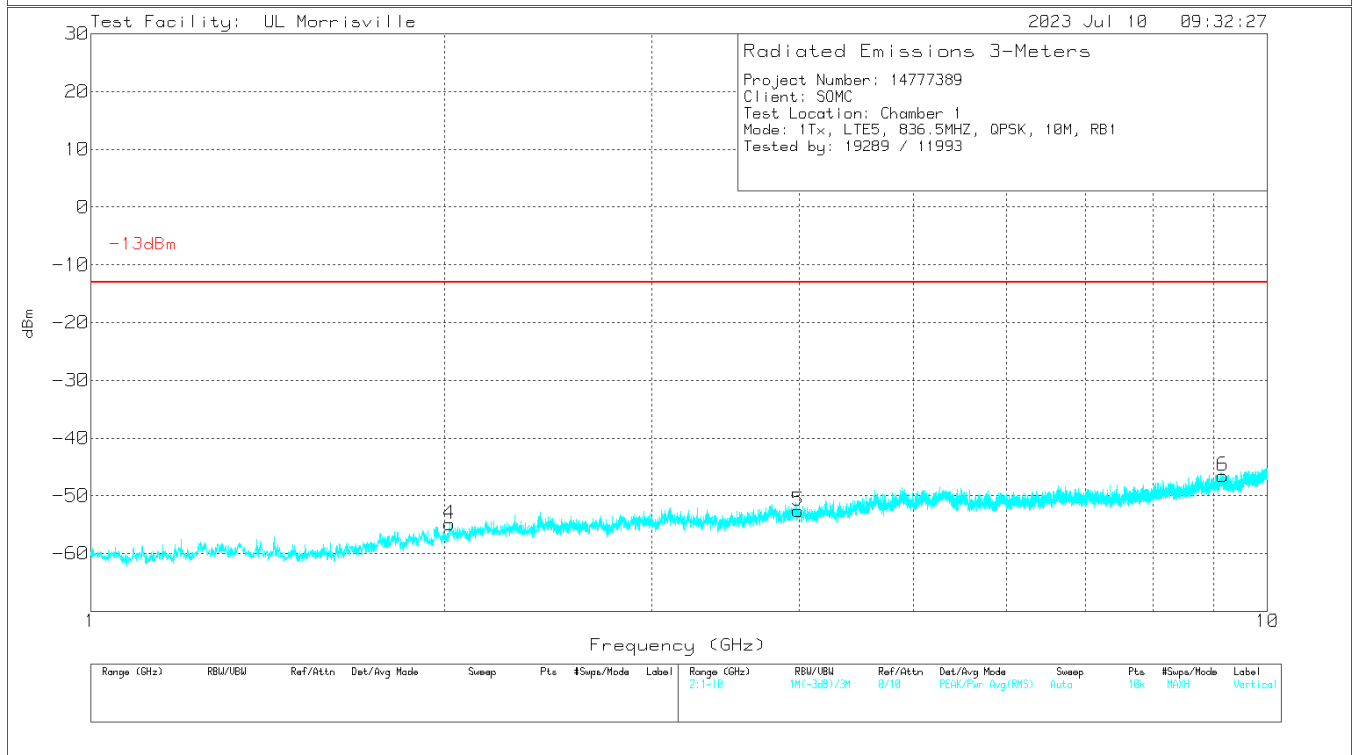
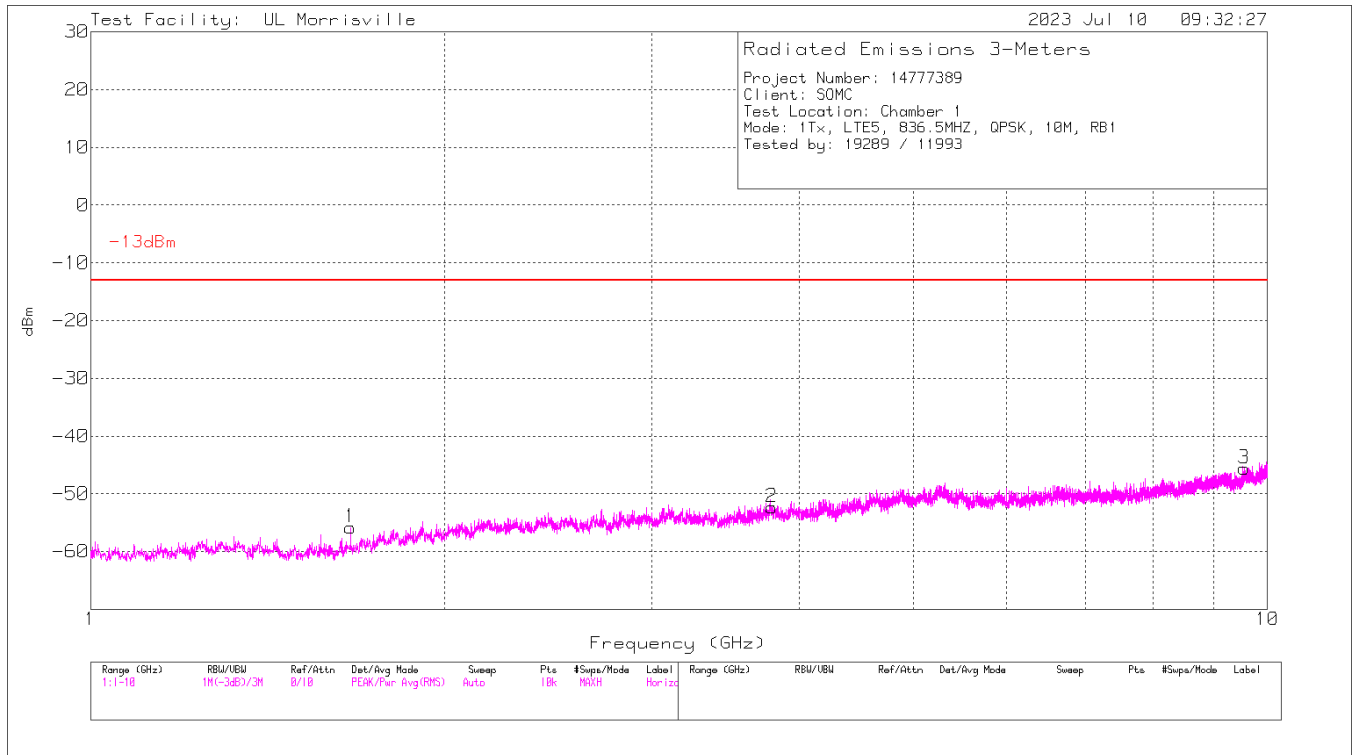
64QAM LTE5 (10MHz, Low Channel)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.819	-62.31	Pk	30.3	-35.5	.5	11.8	-55.21	-13	-42.21	0-360	200	H
4	1.9648	-62.4	Pk	30.9	-34.6	.6	11.8	-53.7	-13	-40.7	0-360	201	V
2	5.1787	-63.55	Pk	34.3	-31.1	.6	11.8	-47.95	-13	-34.95	0-360	200	H
5	5.2534	-64.74	Pk	34.4	-30.3	.7	11.8	-48.14	-13	-35.14	0-360	300	V
6	9.5923	-65.64	Pk	36.6	-28.7	.6	11.8	-45.34	-13	-32.34	0-360	300	V
3	9.6049	-65.64	Pk	36.7	-28.3	.5	11.8	-44.94	-13	-31.94	0-360	101	H

Pk - Peak detector

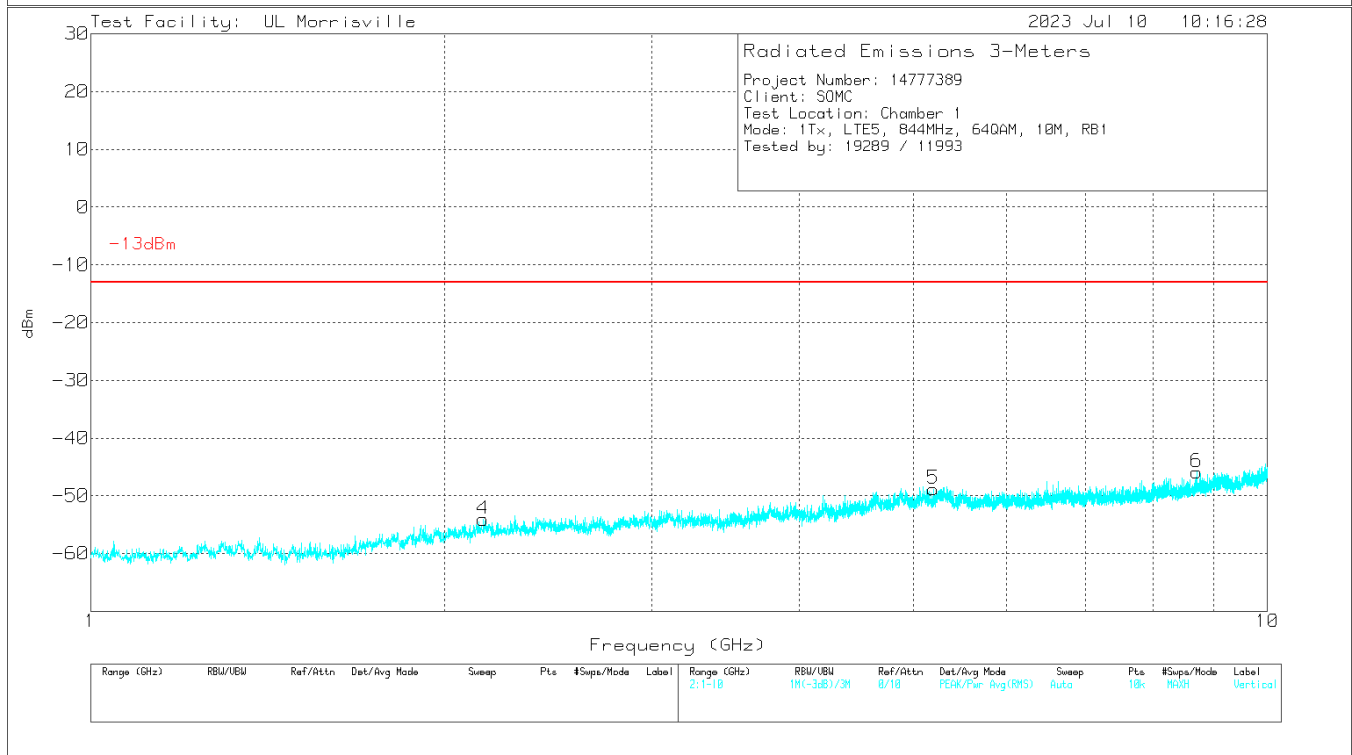
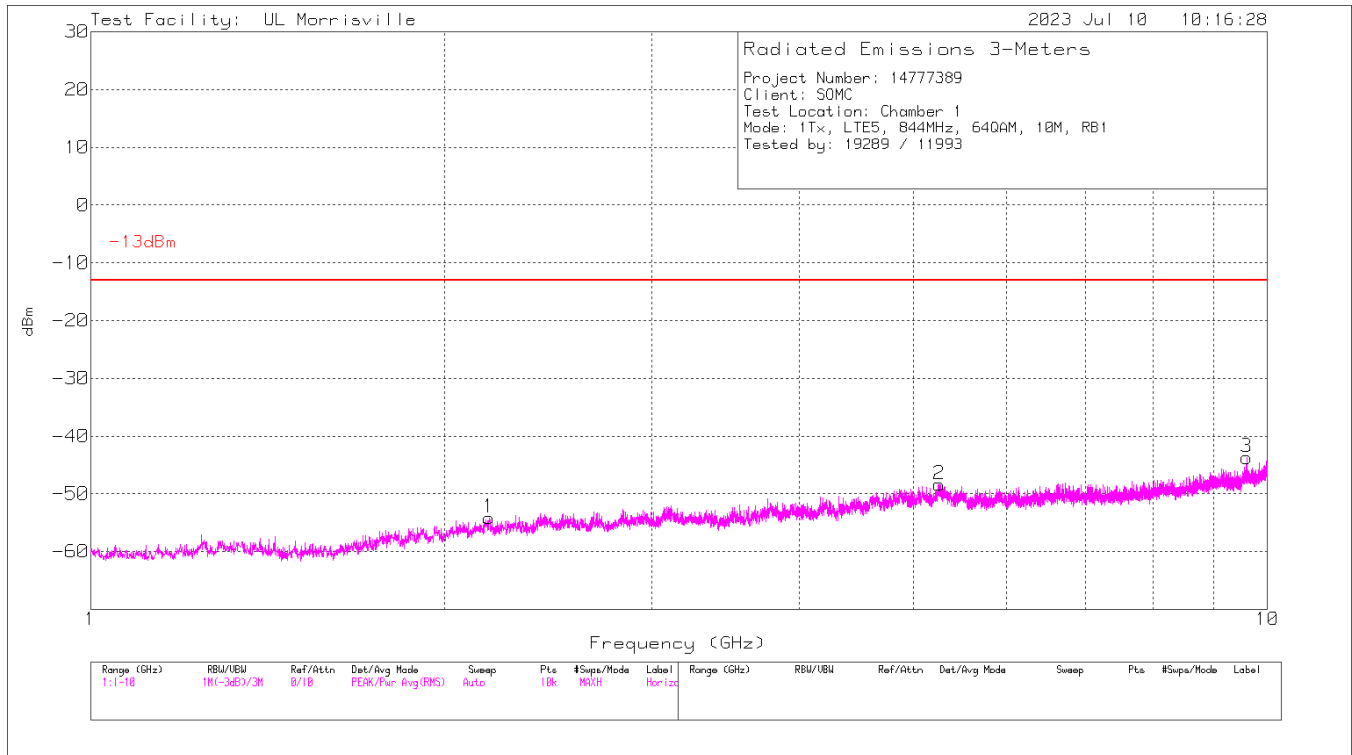
64QAM LTE5 (10MHz, Mid Channel)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.6642	-60.81	Pk	28.8	-36.1	.5	11.8	-55.81	-13	-42.81	0-360	200	H
4	2.0188	-63.27	Pk	31.2	-35.2	.6	11.8	-54.87	-13	-41.87	0-360	300	V
2	3.7945	-65.94	Pk	33.4	-32.1	.5	11.8	-52.34	-13	-39.34	0-360	200	H
5	3.9943	-66.18	Pk	33.4	-31.9	.3	11.8	-52.58	-13	-39.58	0-360	101	V
6	9.1621	-66.33	Pk	36	-28.6	.6	11.8	-46.53	-13	-33.53	0-360	200	V
3	9.5599	-66.01	Pk	36.6	-28.6	.6	11.8	-45.61	-13	-32.61	0-360	300	H

Pk - Peak detector

64QAM LTE5 (10MHz, High Channel)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.1565	-63.47	Pk	31.7	-34.8	.7	11.8	-54.07	-13	-41.07	0-360	200	V
1	2.1817	-63.86	Pk	31.7	-34.5	.7	11.8	-54.16	-13	-41.16	0-360	101	H
5	5.2021	-64.81	Pk	34.4	-30.9	.7	11.8	-48.81	-13	-35.81	0-360	101	V
2	5.2624	-64.88	Pk	34.4	-30.4	.7	11.8	-48.38	-13	-35.38	0-360	200	H
6	8.7049	-64.98	Pk	35.9	-29.1	.5	11.8	-45.88	-13	-32.88	0-360	101	V
3	9.6004	-64.72	Pk	36.6	-28.2	.8	11.8	-43.72	-13	-30.72	0-360	299	H

Pk - Peak detector



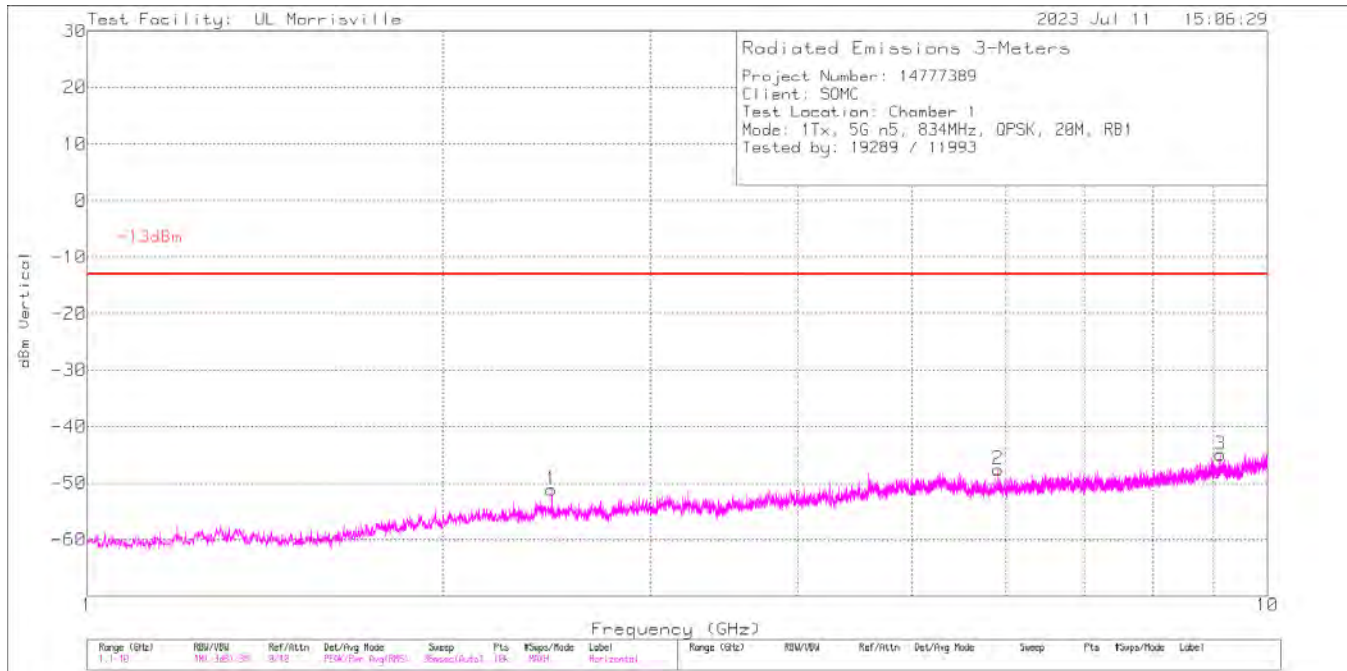
**11.1.5. 5G NR n5****LIMITS**

FCC: §22.917 (a)

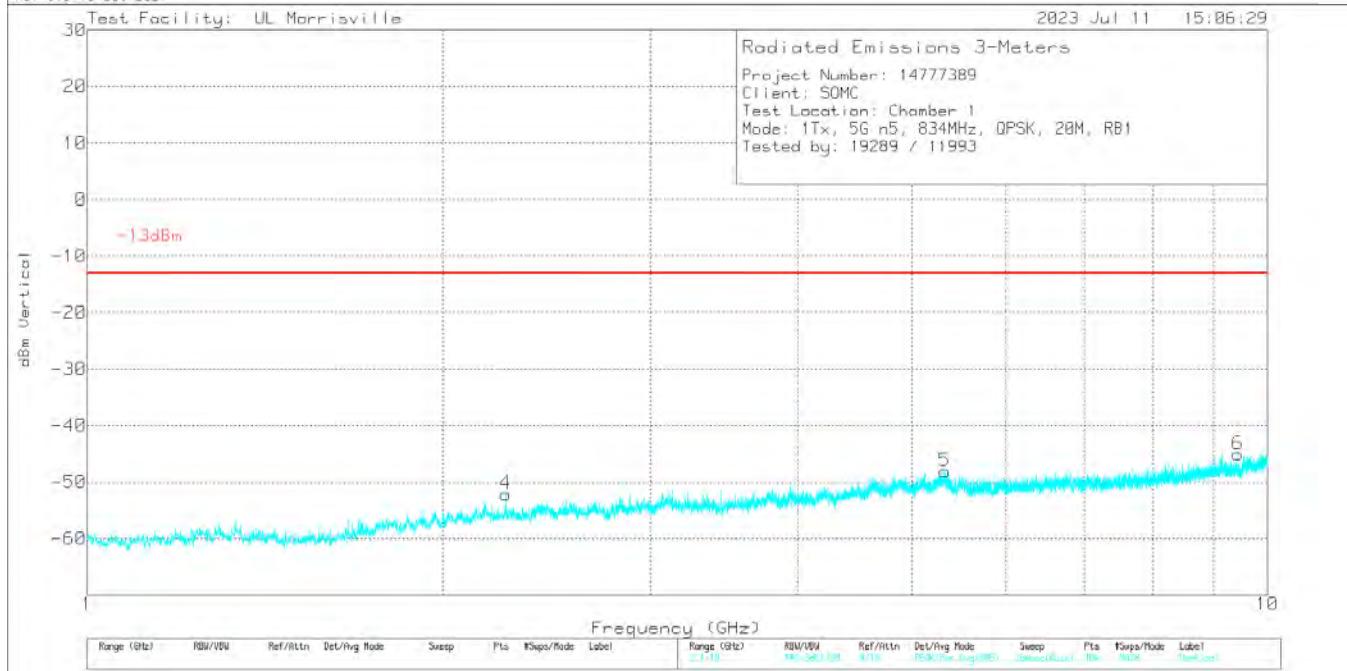
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

EUT Serial Number: QV7700HBHQ

**QPSK 5G NR N5 (20MHz, Low Channel)**



Rev 9.5 18 Oct 2021

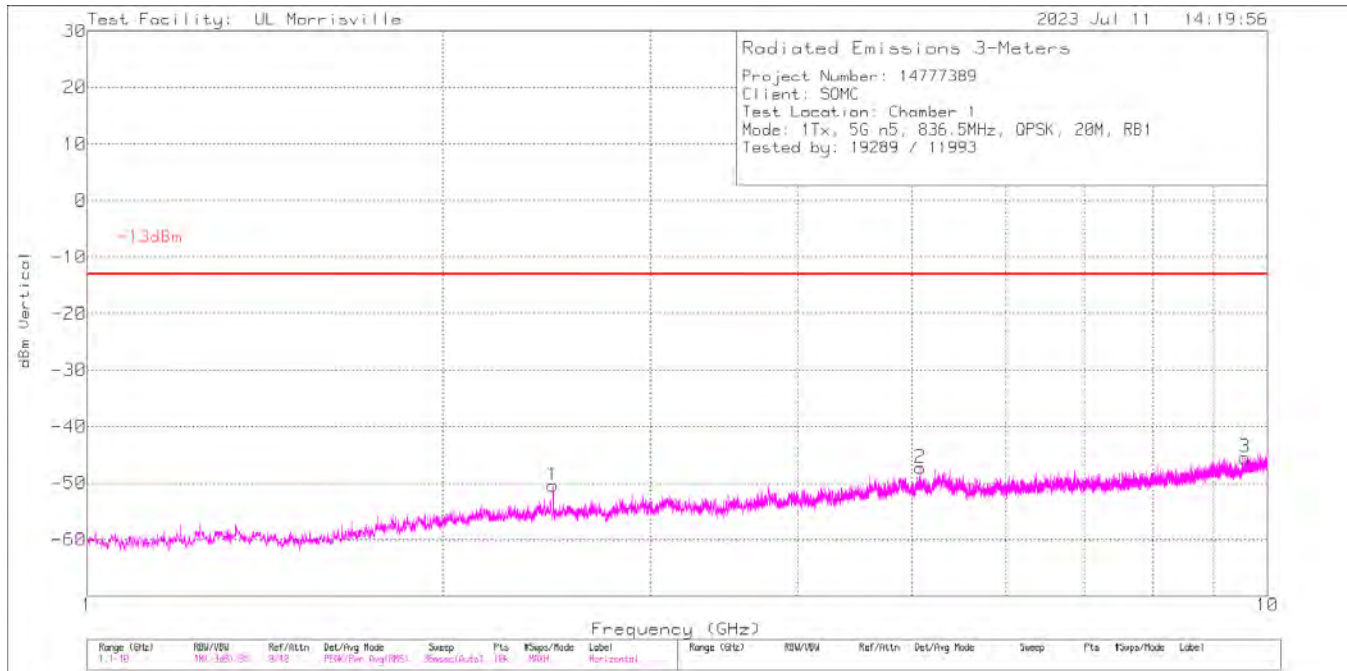


Rev 9.5 18 Oct 2021

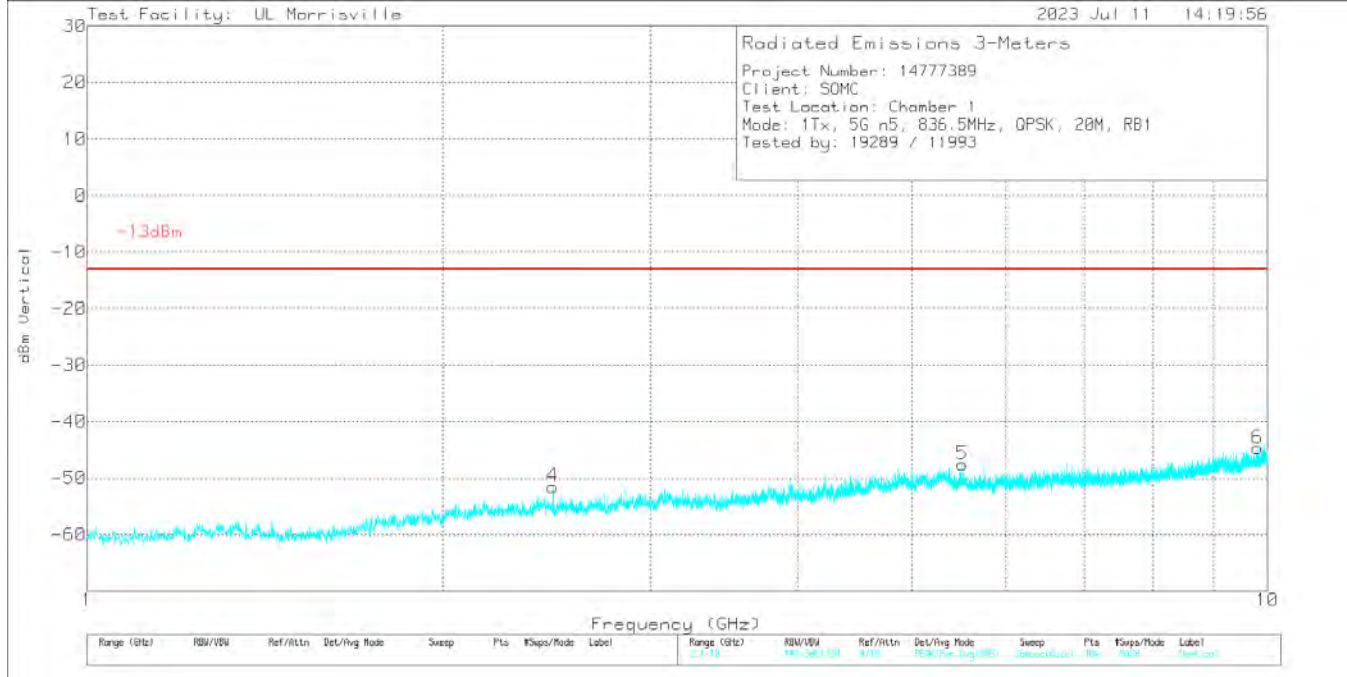
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.2618	-62	Pk	31.8	-34.5	.8	11.8	-52.1	-13	-39.1	0-360	200	V
1	2.4733	-61.82	Pk	32.3	-34.1	.6	11.8	-51.22	-13	-38.22	0-360	199	H
5	5.329	-64.87	Pk	34.5	-30.1	.6	11.8	-48.07	-13	-35.07	0-360	101	V
2	5.9113	-63.43	Pk	35	-31.7	.8	11.8	-47.53	-13	-34.53	0-360	300	H
3	9.127	-64.42	Pk	36	-28.8	.5	11.8	-44.92	-13	-31.92	0-360	300	H
6	9.4384	-65.06	Pk	36.5	-28.9	.6	11.8	-45.06	-13	-32.06	0-360	200	V

Pk - Peak detector

**QPSK 5G NR N5 (20MHz, Mid Channel)**



Rev 9.5 18 Oct 2021

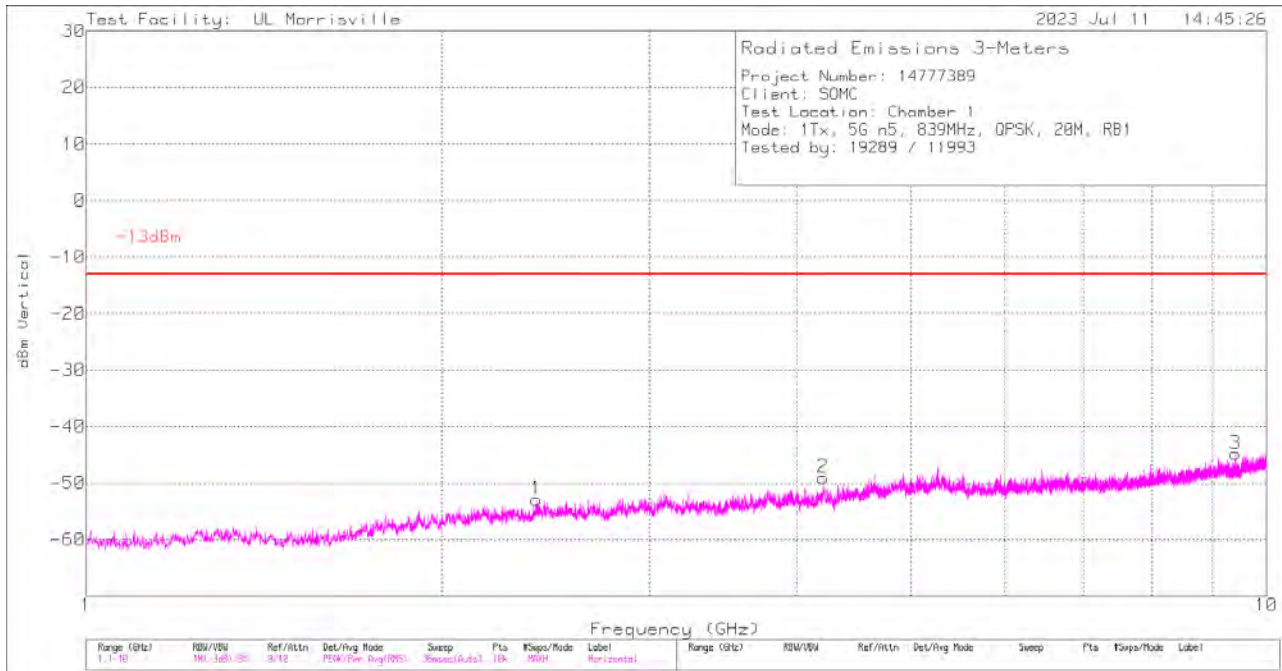


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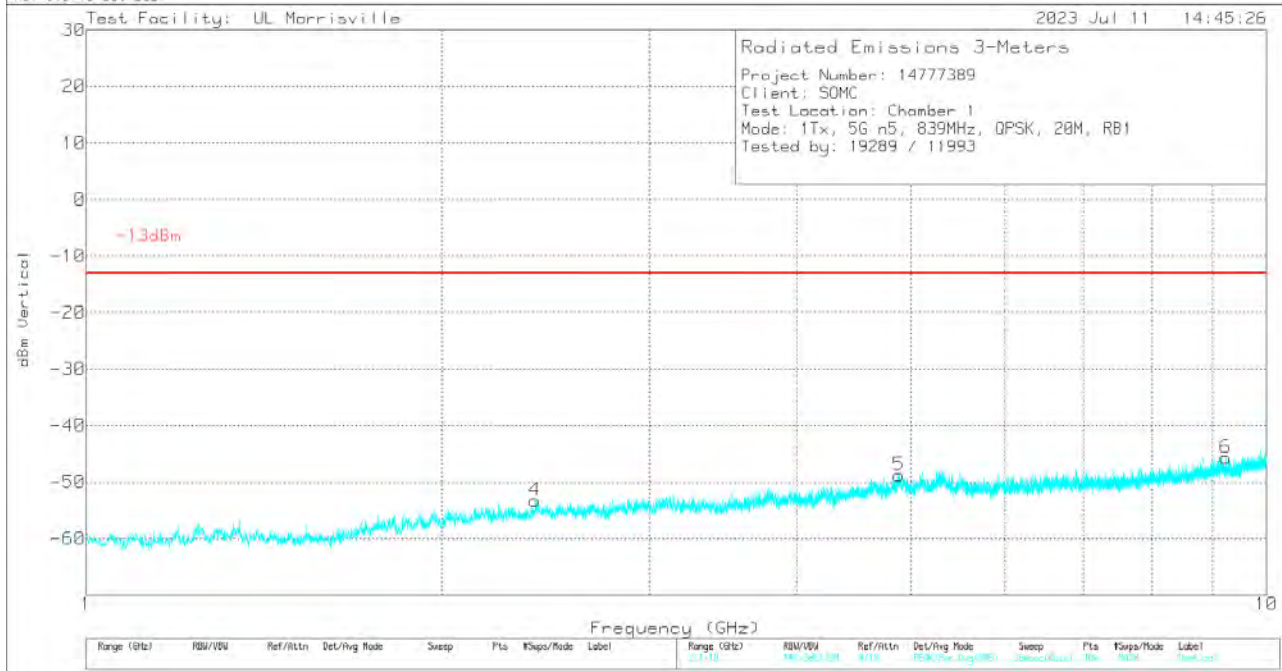
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.4814	-60.98	Pk	32.3	-34.1	.6	11.8	-50.38	-13	-37.38	0-360	300	H
4	2.4814	-62.08	Pk	32.3	-34.1	.6	11.8	-51.48	-13	-38.48	0-360	300	V
2	5.077	-62.89	Pk	34.2	-31	.6	11.8	-47.29	-13	-34.29	0-360	101	H
5	5.518	-64.19	Pk	34.4	-30.4	.8	11.8	-47.59	-13	-34.59	0-360	300	V
3	9.5725	-66.23	Pk	36.6	-28.5	.9	11.8	-45.43	-13	-32.43	0-360	101	H
6	9.8155	-65.82	Pk	37.1	-28.5	.7	11.8	-44.72	-13	-31.72	0-360	300	V

Pk - Peak detector

**QPSK 5G NR N5 (20MHz, High Channel)**



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Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.3995	-63.66	Pk	32.1	-34.3	.8	11.8	-53.26	-13	-40.26	0-360	300	V
1	2.4076	-63.55	Pk	32.1	-34	.8	11.8	-52.85	-13	-39.85	0-360	101	H
2	4.2121	-63.72	Pk	33.4	-31.1	.6	11.8	-49.02	-13	-36.02	0-360	101	H
5	4.8817	-65.05	Pk	34	-30.1	.6	11.8	-48.75	-13	-35.75	0-360	300	V
6	9.2413	-65.82	Pk	36.2	-28.4	.5	11.8	-45.72	-13	-32.72	0-360	201	V
3	9.415	-64.88	Pk	36.4	-28.8	.6	11.8	-44.88	-13	-31.88	0-360	300	H

Pk - Peak detector

### 11.1.6. LTE BAND 12

#### LIMITS

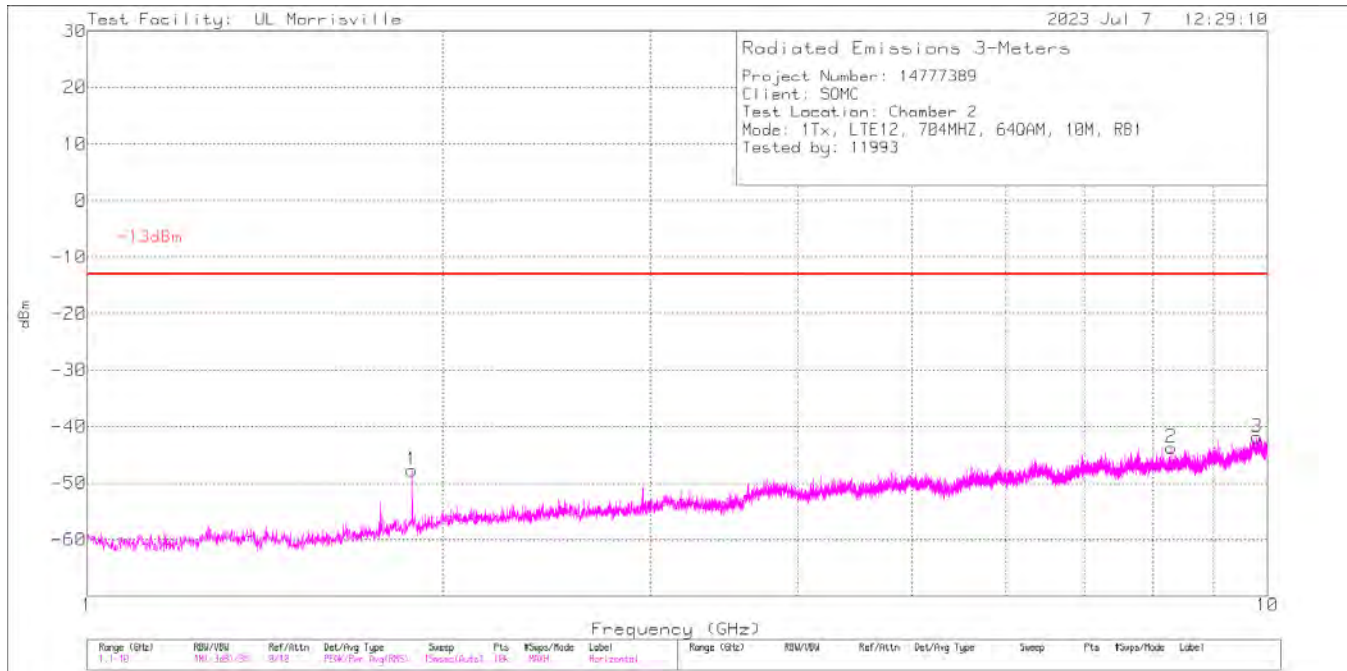
FCC: §27.53 (g)

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: QV7700HBHQ



64QAM LTE12 (10MHz, Low Channel)



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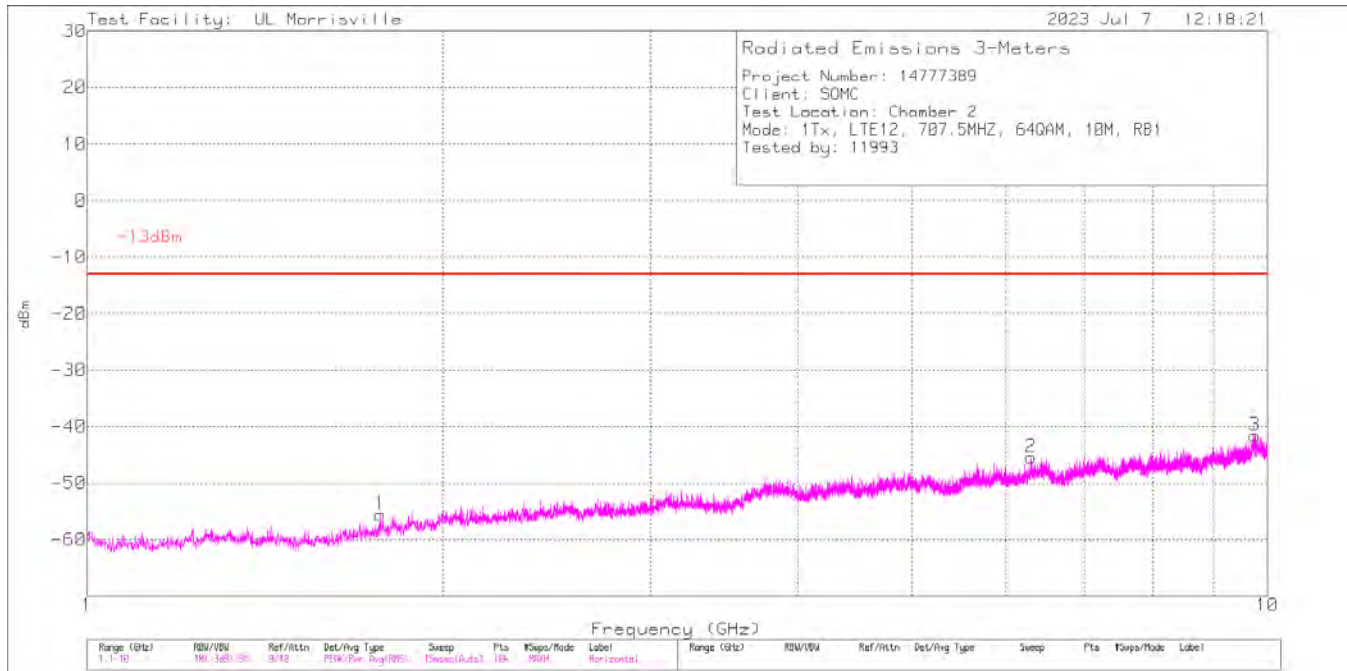


Rev 9.5 18 Oct 2021

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.8847	-56.13	Pk	30.6	-34.4	.4	11.8	-47.73	-13	-34.73	0-360	200	H
4	1.8856	-59.79	Pk	30.6	-34.4	.4	11.8	-51.39	-13	-38.39	0-360	101	V
5	7.7212	-64.81	Pk	35.7	-27.1	.4	11.8	-44.01	-13	-31.01	0-360	201	V
2	8.2864	-64.71	Pk	35.7	-27	.5	11.8	-43.71	-13	-30.71	0-360	101	H
6	9.7336	-66.49	Pk	36.9	-25.2	.9	11.8	-42.09	-13	-29.09	0-360	101	V
3	9.7984	-65.62	Pk	36.9	-25.3	.4	11.8	-41.82	-13	-28.82	0-360	200	H

Pk - Peak detector

**64QAM LTE12 (10MHz, Mid Channel)**



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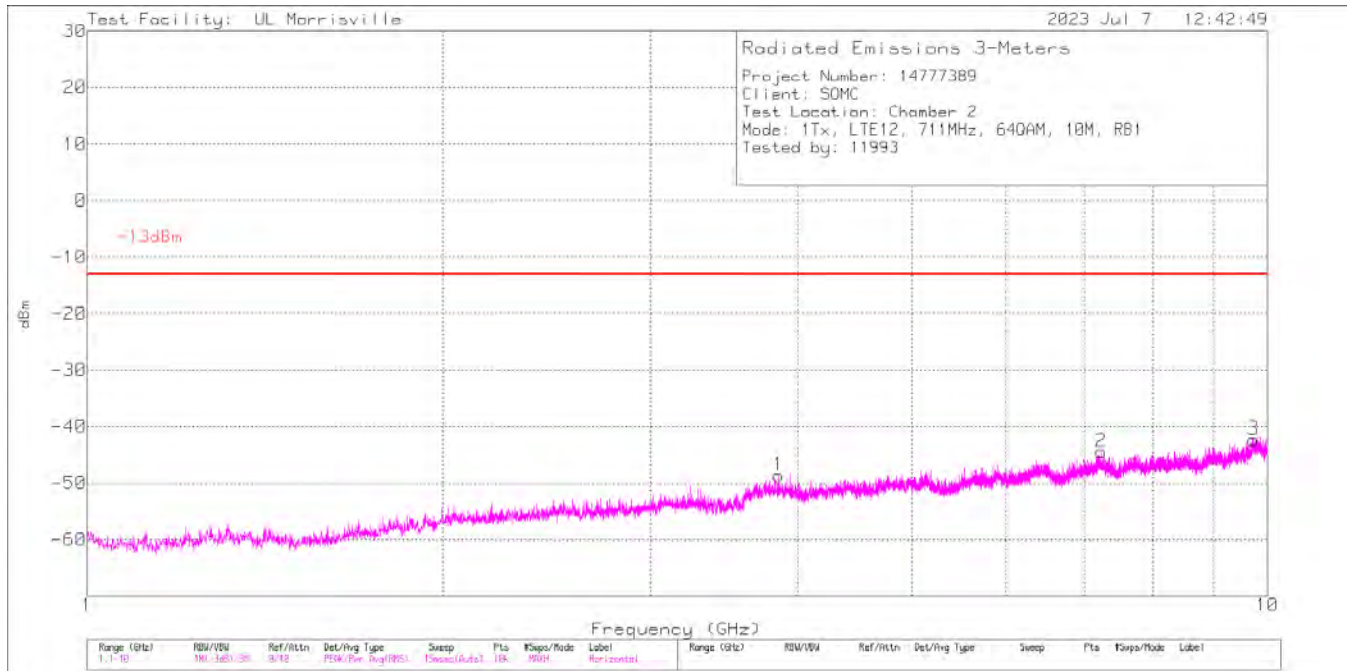


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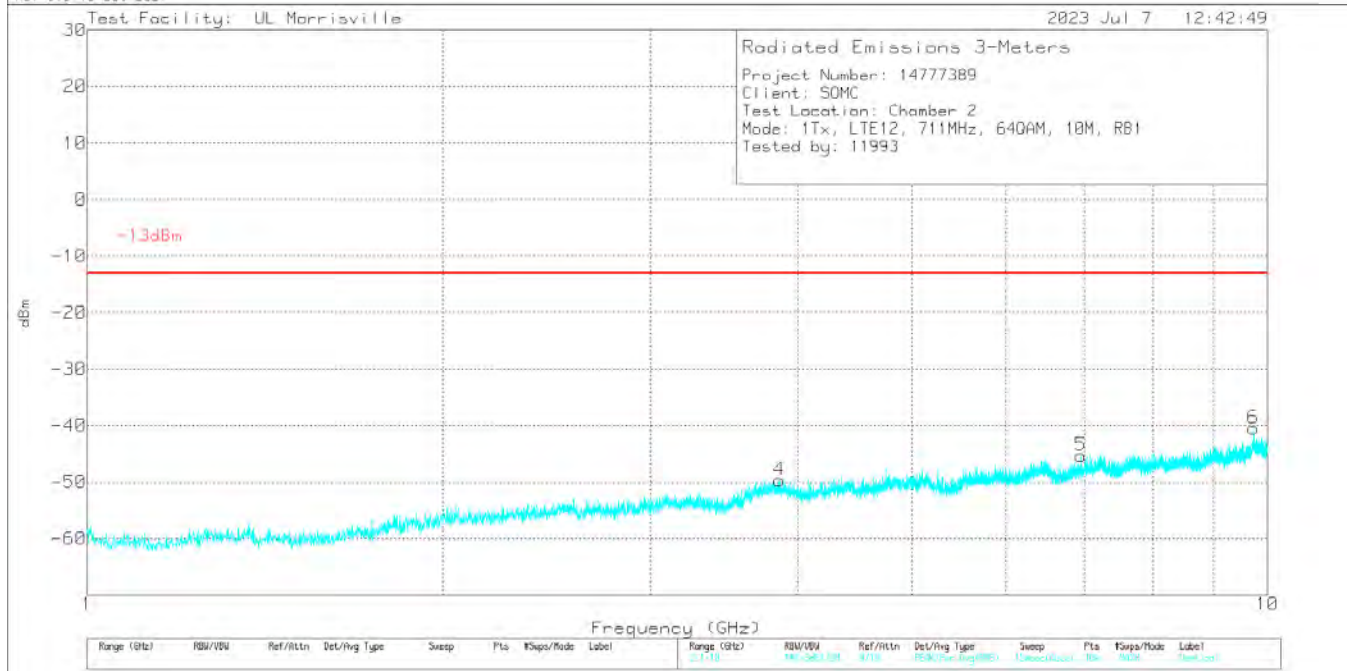
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.7713	-62.7	Pk	29.5	-34.6	.4	11.8	-55.6	-13	-42.6	0-360	101	H
4	1.8838	-60.56	Pk	30.6	-34.3	.4	11.8	-52.06	-13	-39.06	0-360	299	V
2	6.3064	-64.23	Pk	35.5	-28.9	.4	11.8	-45.43	-13	-32.43	0-360	200	H
5	7.5286	-65.45	Pk	35.6	-27.1	.4	11.8	-44.75	-13	-31.75	0-360	200	V
3	9.7498	-65.76	Pk	36.9	-25.4	.9	11.8	-41.56	-13	-28.56	0-360	101	H
6	9.7516	-65.71	Pk	36.9	-25.5	.9	11.8	-41.61	-13	-28.61	0-360	200	V

Pk - Peak detector

64QAM LTE12 (10MHz, High Channel)



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Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.8539	-61.98	Pk	33.4	-32.6	.7	11.8	-48.68	-13	-35.68	0-360	300	H
4	3.8602	-63.08	Pk	33.4	-32.5	.7	11.8	-49.68	-13	-36.68	0-360	300	V
5	6.9508	-65.25	Pk	35.5	-27.8	.4	11.8	-45.35	-13	-32.35	0-360	300	V
2	7.2316	-65.01	Pk	35.6	-27.4	.5	11.8	-44.51	-13	-31.51	0-360	101	H
6	9.7264	-65.14	Pk	36.9	-25	.9	11.8	-40.54	-13	-27.54	0-360	200	V
3	9.7354	-66.59	Pk	36.9	-25.3	.9	11.8	-42.29	-13	-29.29	0-360	199	H

Pk - Peak detector

**11.1.7. LTE BAND 13****LIMITS**

FCC: §27.53

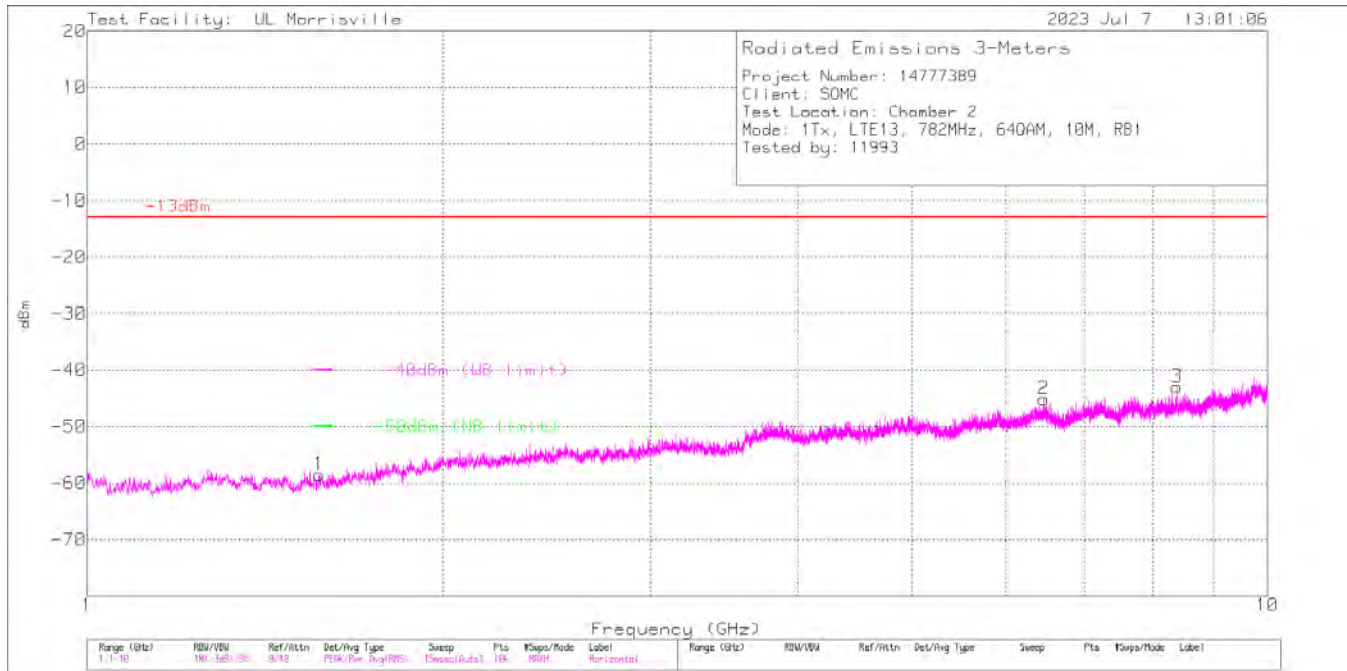
(c) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

(f) Emissions in the band 1559-1610 MHz shall be limited to  $-70$  dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and  $-80$  dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

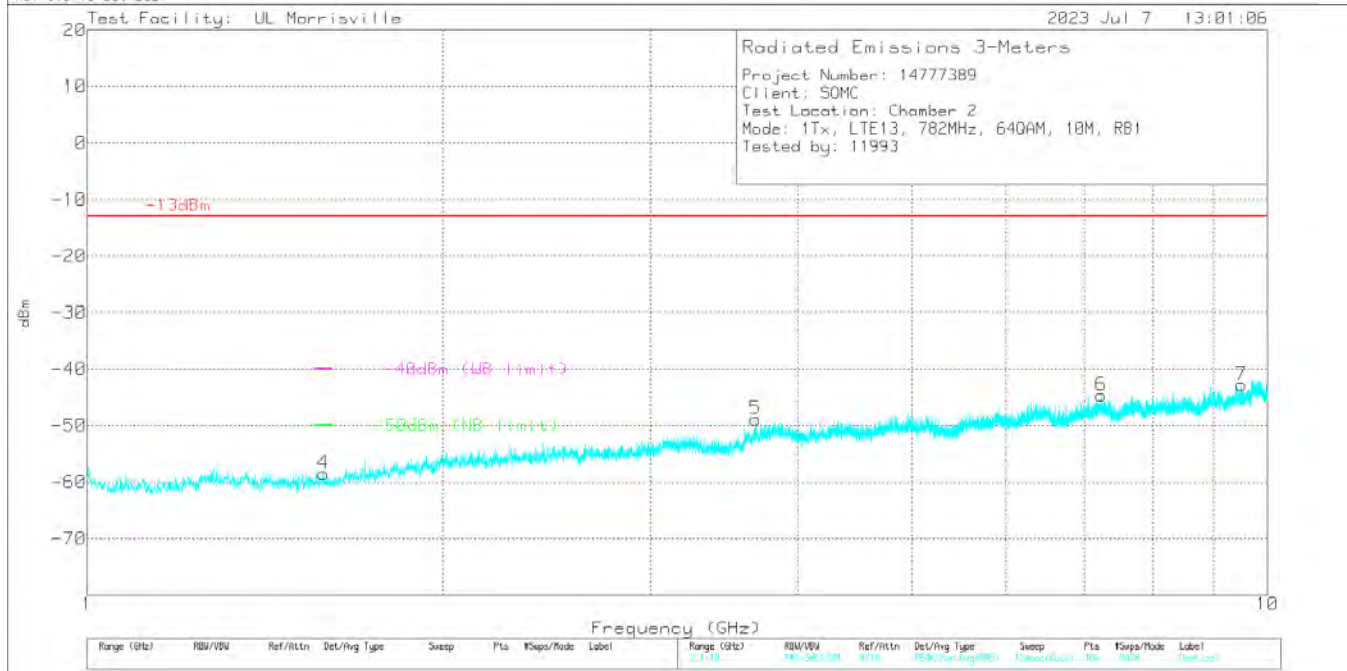
Note: Emissions in the GPS band were wideband emissions therefore the  $-40$ dBm/MHz limit was used.

EUT Serial Number: QV7700HBHQ

**64QAM LTE13 (10MHz, Mid Channel)**



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Marker	Frequency (GHz)	Meter Reading (dBm)	Det	88761 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	-40dBm (WB limit)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.5733	-64.12	Pk	28.1	-34.7	.4	11.8	-58.52	-13	-45.52	-40	-18.52	0-360	101	H
4	1.58455	-64.2	Pk	28.2	-34.7	.4	11.8	-58.5	-13	-45.5	-40	-18.5	0-360	101	V
5	3.6811	-61.61	Pk	33	-32.5	.4	11.8	-48.91	-13	-35.91	-	-	0-360	300	V
2	6.4603	-64.02	Pk	35.5	-28.8	.4	11.8	-45.12	-13	-32.12	-	-	0-360	101	H
6	7.2298	-65.16	Pk	35.6	-27.3	.4	11.8	-44.66	-13	-31.66	-	-	0-360	300	V
3	8.3845	-64.47	Pk	35.8	-26.7	.5	11.8	-43.07	-13	-30.07	-	-	0-360	300	H
7	9.5104	-66.07	Pk	36.7	-25.7	.5	11.8	-42.77	-13	-29.77	-	-	0-360	200	V

Pk - Peak detector

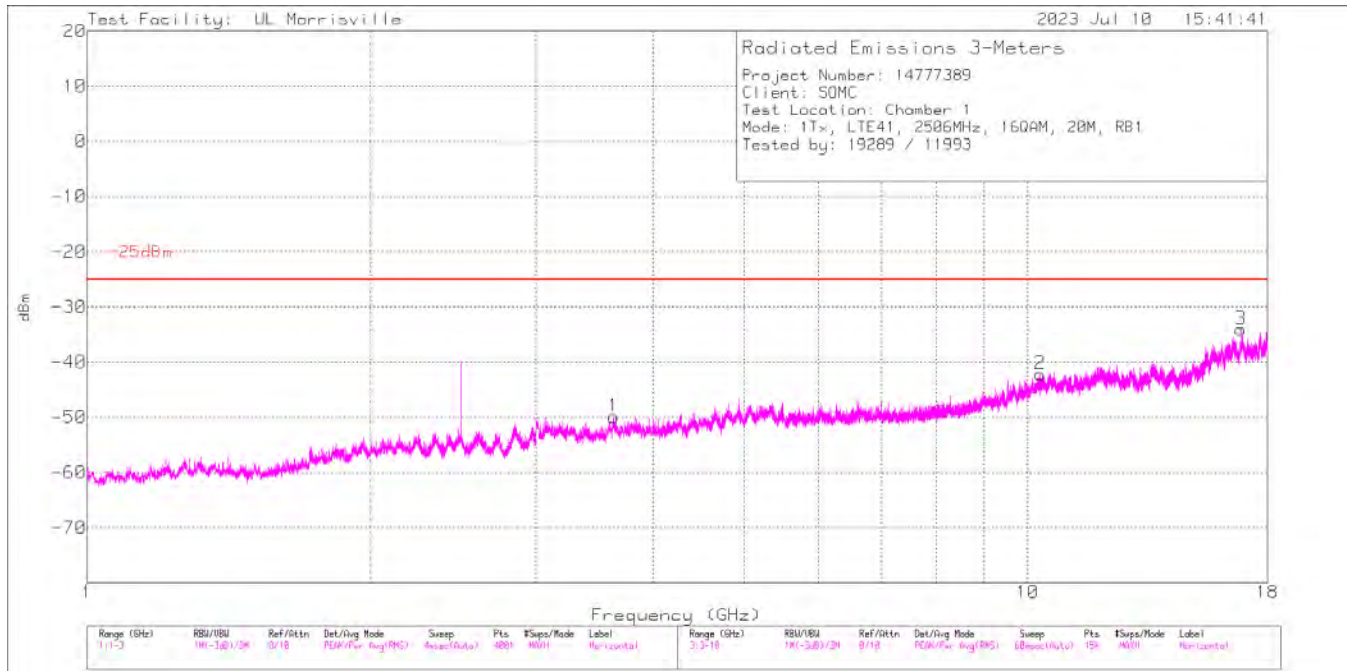
**11.1.8. LTE BAND 41**

FCC: §27.53 (m)

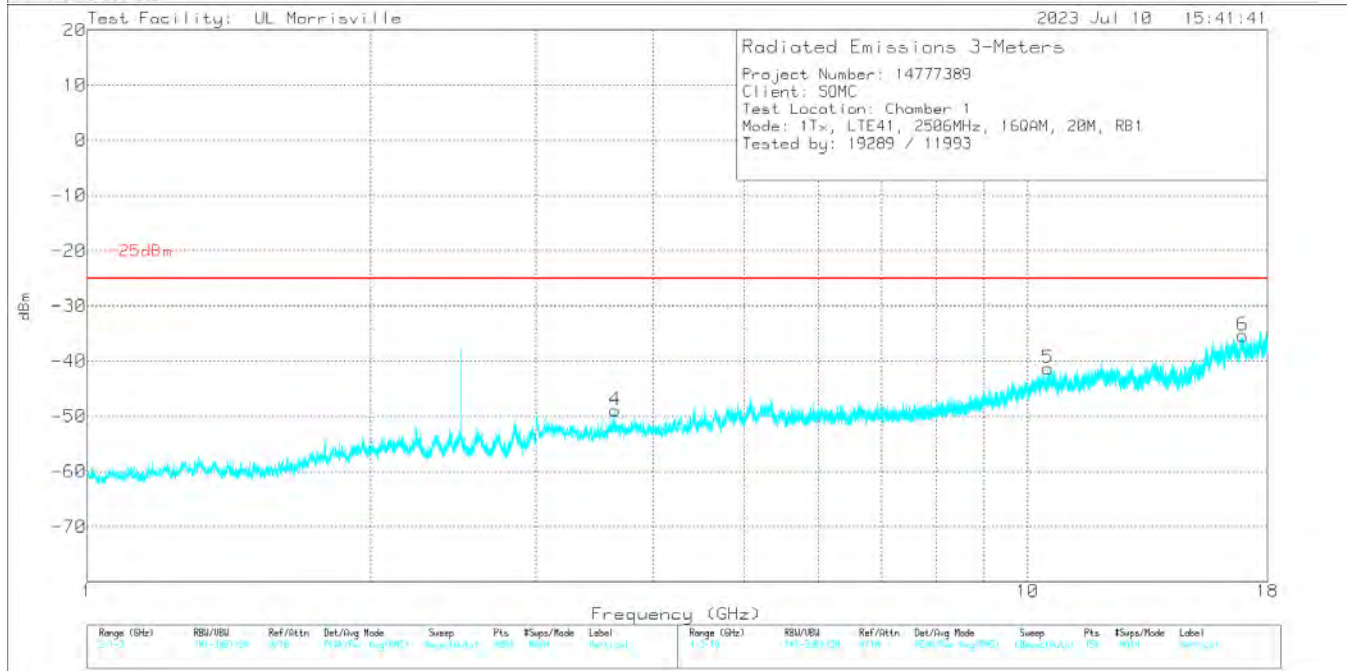
At least  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.

EUT Serial Number: QV7700HBHQ

16QAM LTE41(20MHz, Low Channel)



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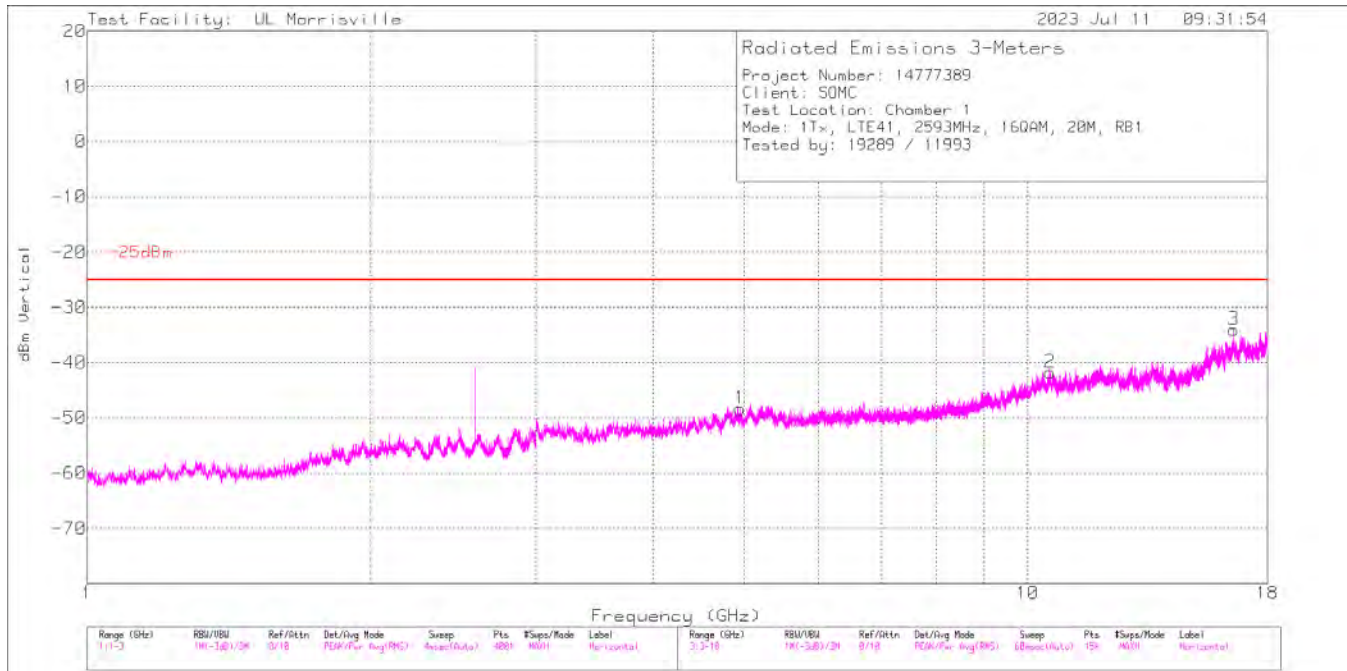


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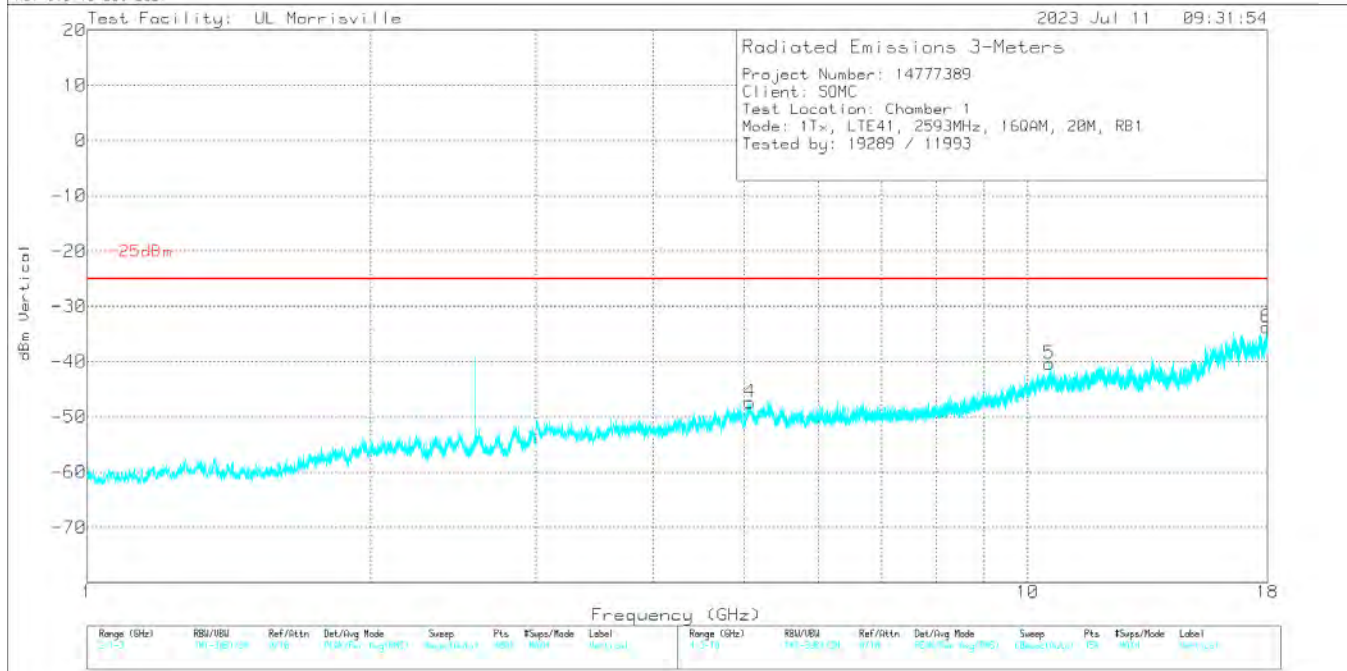
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.629	-65.45	Pk	33	-30.2	11.8	.9	-49.95	-25	-24.95	0-360	299	H
4	3.644	-63.96	Pk	33.1	-30.7	11.8	.9	-48.86	-25	-23.86	0-360	300	V
2	10.325	-66.38	Pk	37.7	-25.8	11.8	.5	-42.18	-25	-17.18	0-360	101	H
5	10.506	-65.3	Pk	37.9	-26.5	11.8	.8	-41.3	-25	-16.3	0-360	101	V
3	16.869	-65.48	Pk	41.7	-23.4	11.8	1.3	-34.08	-25	-9.08	0-360	199	H
6	16.946	-66.97	Pk	41.7	-22.9	11.8	1	-35.37	-25	-10.37	0-360	101	V

Pk - Peak detector

16QAM LTE41(20MHz, Mid Channel)



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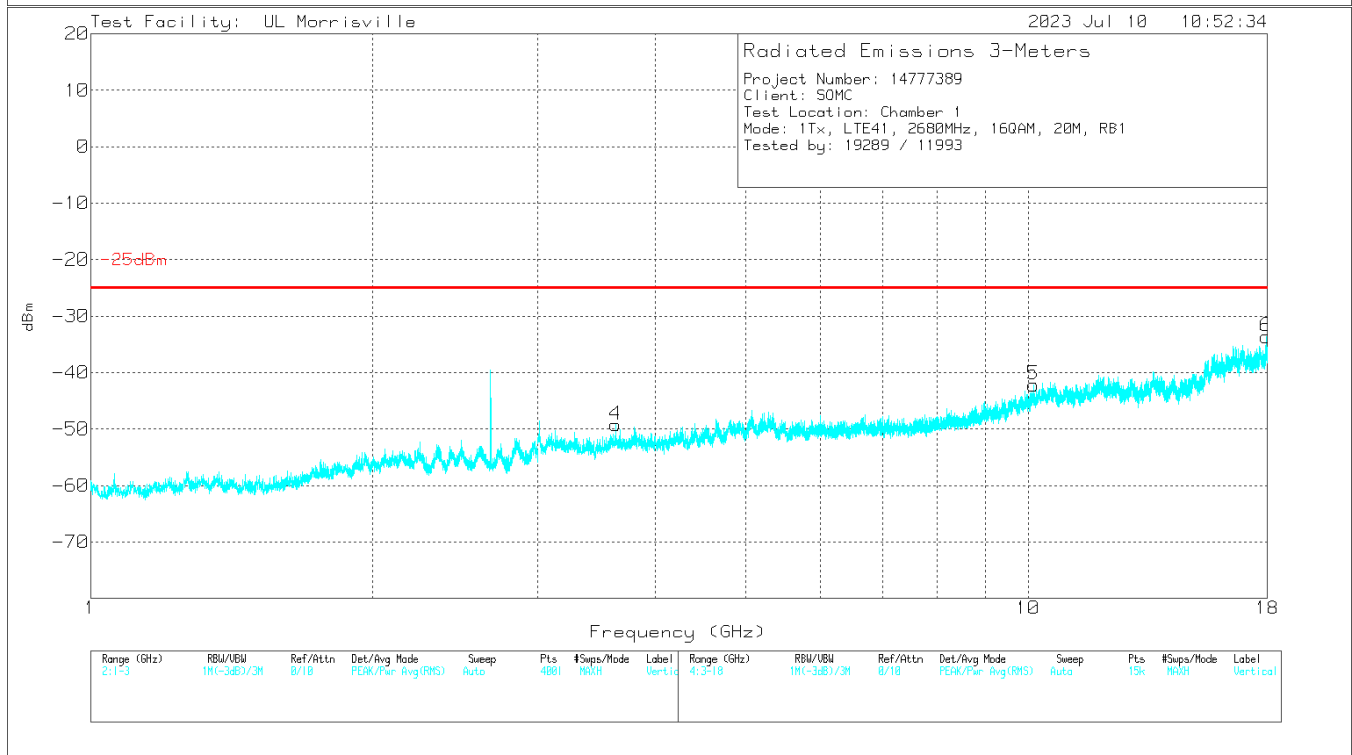
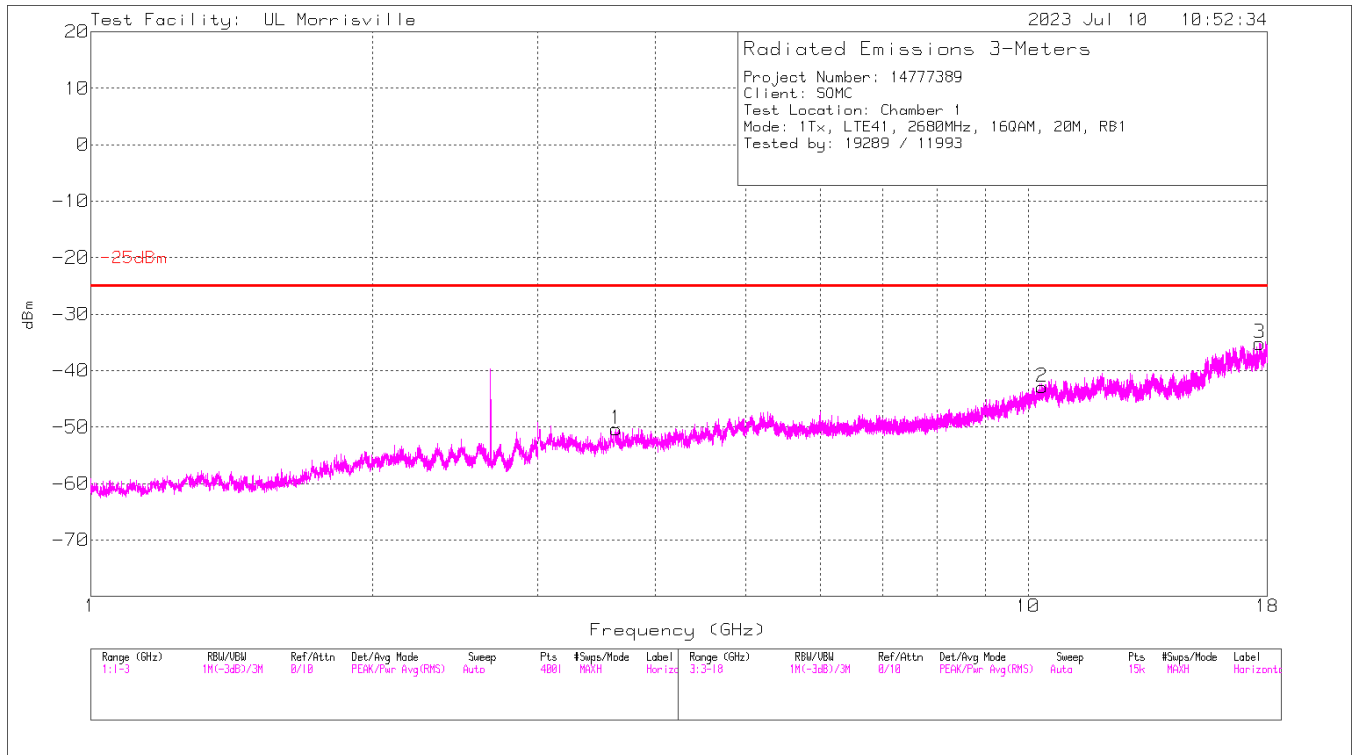


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Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	4.951	-64	Pk	34	-31.1	11.8	.9	-48.4	-25	-23.4	0-360	299	H
4	5.07	-64.81	Pk	34.2	-29.5	11.8	.9	-47.41	-25	-22.41	0-360	300	V
5	10.551	-65.48	Pk	37.8	-26.1	11.8	1.6	-40.38	-25	-15.38	0-360	201	V
2	10.56	-67.03	Pk	37.8	-25.9	11.8	1.5	-41.83	-25	-16.83	0-360	101	H
3	16.568	-65.27	Pk	41.2	-23.2	11.8	1.4	-34.07	-25	-9.07	0-360	101	H
6	17.98	-65.87	Pk	41.4	-22.2	11.8	1.1	-33.77	-25	-8.77	0-360	201	V

Pk - Peak detector

16QAM LTE41(20MHz, High Channel)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	3.634	-64.34	Pk	33	-30.6	11.8	.9	-49.24	-25	-24.24	0-360	201	V
1	3.637	-65.17	Pk	33	-30.9	11.8	.9	-50.37	-25	-25.37	0-360	101	H
5	10.139	-65.56	Pk	37.6	-27.3	11.8	1.3	-42.16	-25	-17.16	0-360	101	V
2	10.353	-67.5	Pk	37.7	-25.5	11.8	.6	-42.9	-25	-17.9	0-360	299	H
3	17.657	-66.26	Pk	41.5	-23.2	11.8	1	-35.16	-25	-10.16	0-360	299	H
6	17.945	-66.33	Pk	41.4	-21.5	11.8	1	-33.63	-25	-8.63	0-360	300	V

Pk - Peak detector



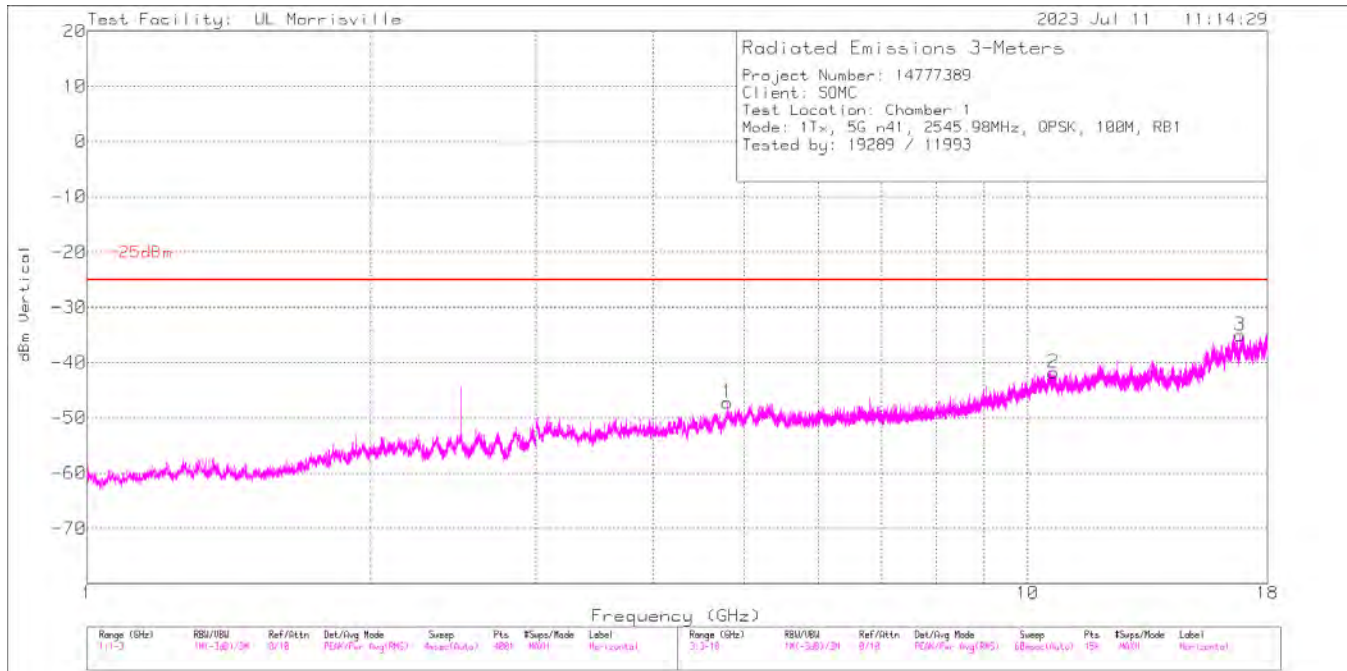
**11.1.9. 5G NR n41**

FCC: §27.53 (m)

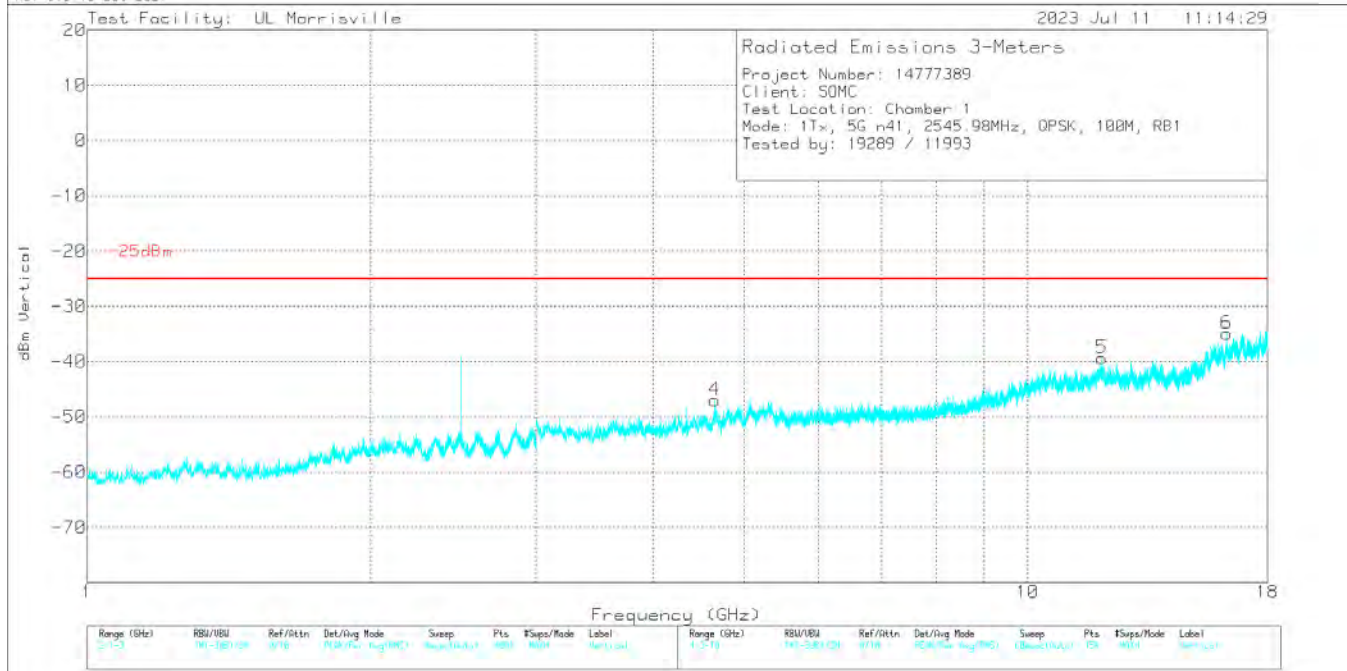
At least  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.

EUT Serial Number: QV7700HBHQ

**QPSK 5G NR N41(100MHz, Low Channel)**



Rev 9.5 18 Oct 2021

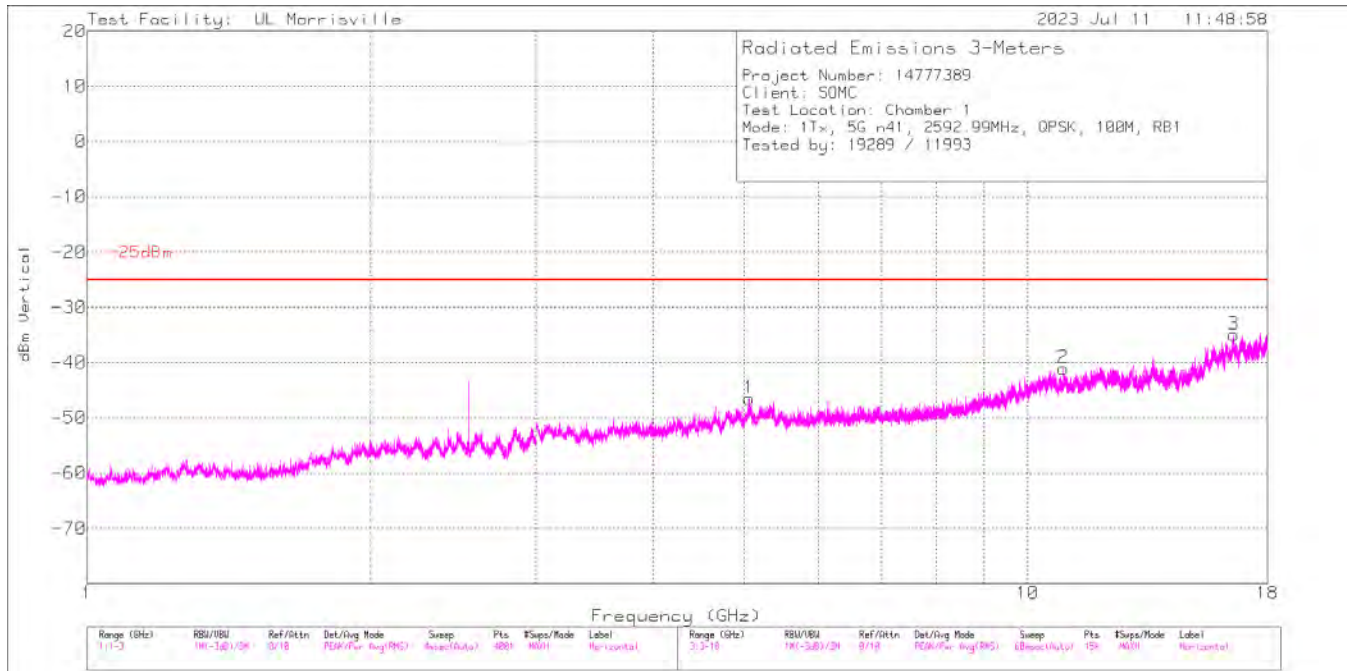


Rev 9.5 18 Oct 2021

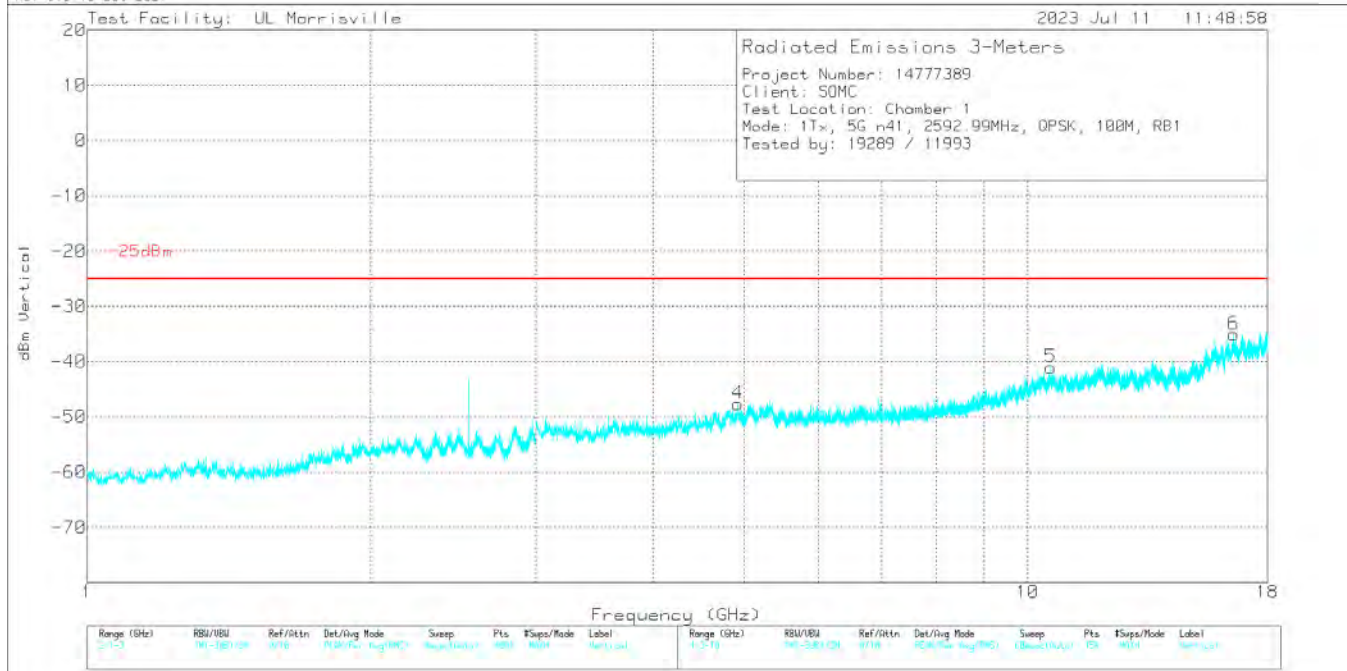
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	4.649	-62.63	Pk	34.2	-31.2	11.8	.8	-47.03	-25	-22.03	0-360	200	V
1	4.799	-63.63	Pk	34	-30.4	11.8	1	-47.23	-25	-22.23	0-360	300	H
2	10.666	-66.8	Pk	37.9	-25.7	11.8	1	-41.8	-25	-16.8	0-360	199	H
5	12.006	-64.94	Pk	38.7	-25.8	11.8	.9	-39.34	-25	-14.34	0-360	300	V
6	16.288	-65.36	Pk	40.7	-23.3	11.8	1.2	-34.96	-25	-9.96	0-360	101	V
3	16.846	-66.1	Pk	41.6	-23.6	11.8	1.3	-35	-25	-10	0-360	199	H

Pk - Peak detector

**QPSK 5G NR N41(100MHz, Mid Channel)**



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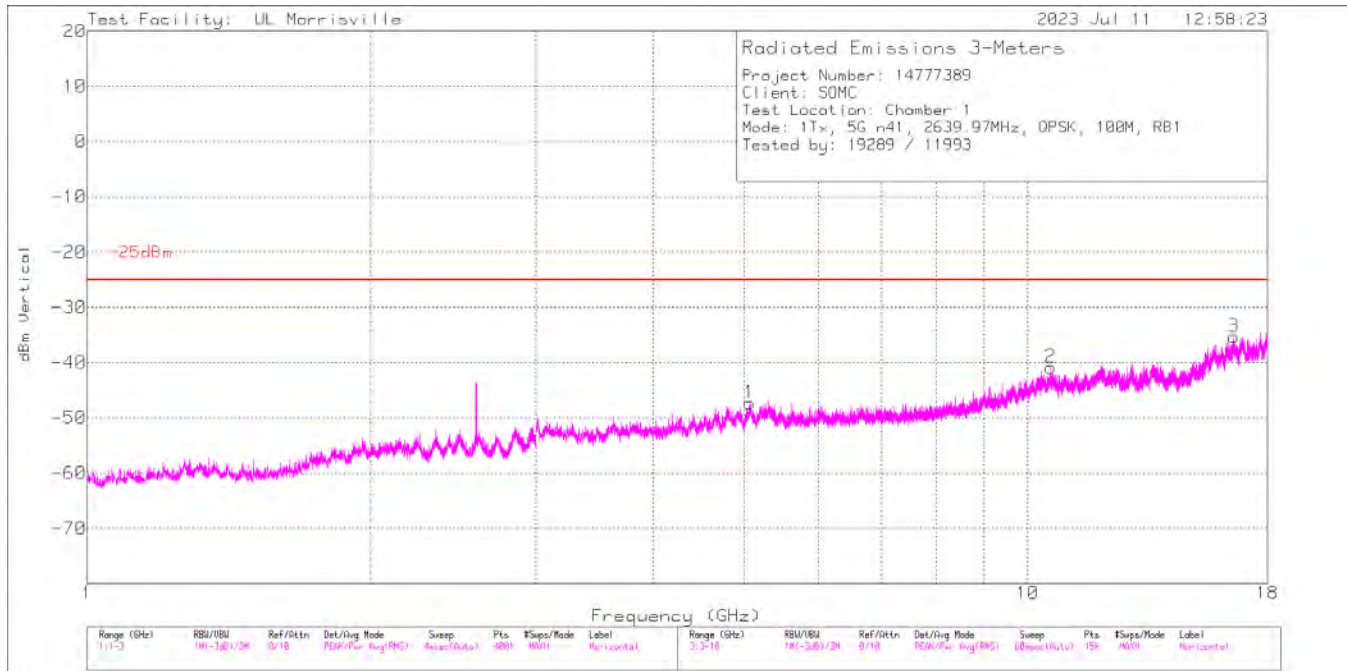


Rev 9.5 18 Oct 2021

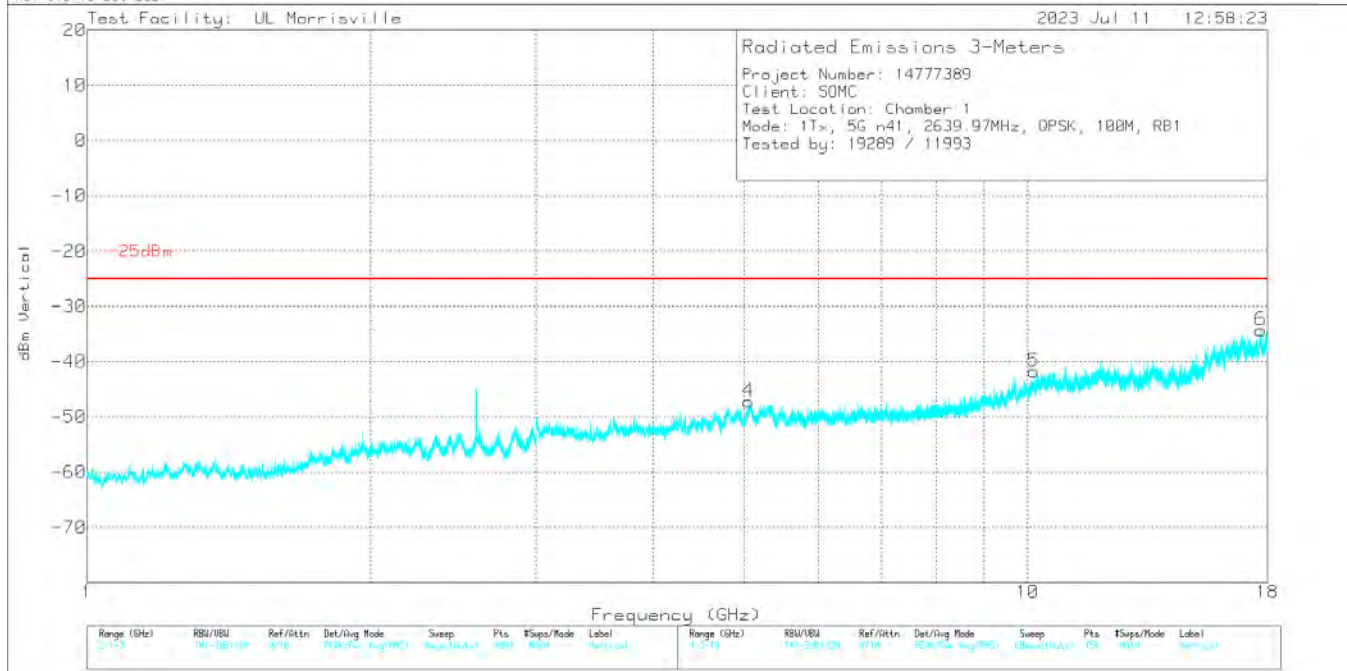
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	4.922	-63.77	Pk	34	-30.5	11.8	.9	-47.57	-25	-22.57	0-360	300	V
1	5.061	-63.71	Pk	34.1	-29.6	11.8	.9	-46.51	-25	-21.51	0-360	300	H
5	10.581	-66.42	Pk	37.8	-25.3	11.8	1.1	-41.02	-25	-16.02	0-360	200	V
2	10.918	-65.54	Pk	37.8	-25.5	11.8	.4	-41.04	-25	-16.04	0-360	101	H
3	16.564	-65.65	Pk	41.2	-23.7	11.8	1.4	-34.95	-25	-9.95	0-360	101	H
6	16.58	-65.5	Pk	41.2	-23.8	11.8	1.3	-35	-25	-10	0-360	101	V

Pk - Peak detector

**QPSK 5G NR N41(100MHz, High Channel)**



Rev 9.5 18 Oct 2021



Rev 9.5 18 Oct 2021

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	5.053	-64.21	Pk	34.1	-29.8	11.8	.9	-47.21	-25	-22.21	0-360	101	V
1	5.068	-64.87	Pk	34.2	-29.5	11.8	1	-47.37	-25	-22.37	0-360	200	H
5	10.166	-65.02	Pk	37.6	-27	11.8	.8	-41.82	-25	-16.82	0-360	300	V
2	10.587	-66.55	Pk	37.8	-25	11.8	1	-40.95	-25	-15.95	0-360	300	H
3	16.562	-65.86	Pk	41.2	-23.9	11.8	1.4	-35.36	-25	-10.36	0-360	300	H
6	17.708	-65.46	Pk	41.7	-23.3	11.8	1	-34.26	-25	-9.26	0-360	101	V

Pk - Peak detector

## 11.1.10. LTE BAND 66

### LIMITS

FCC: §27.53(h)

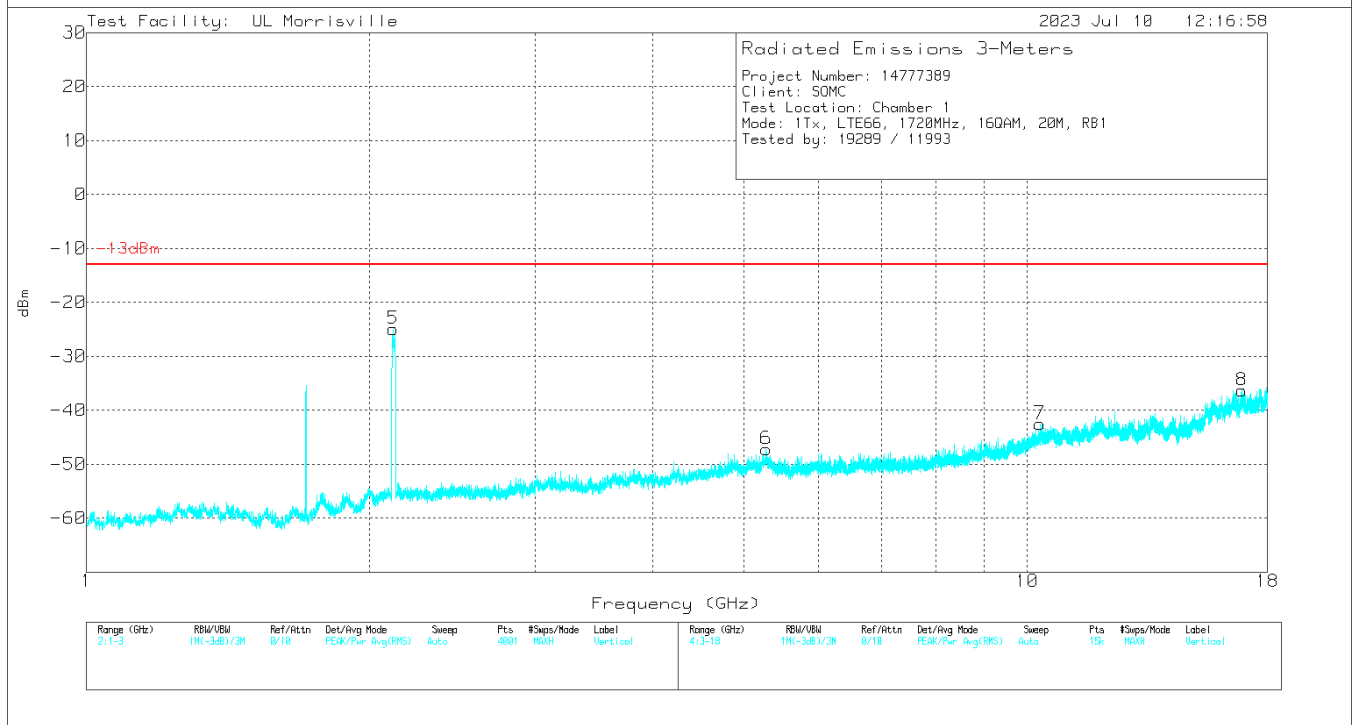
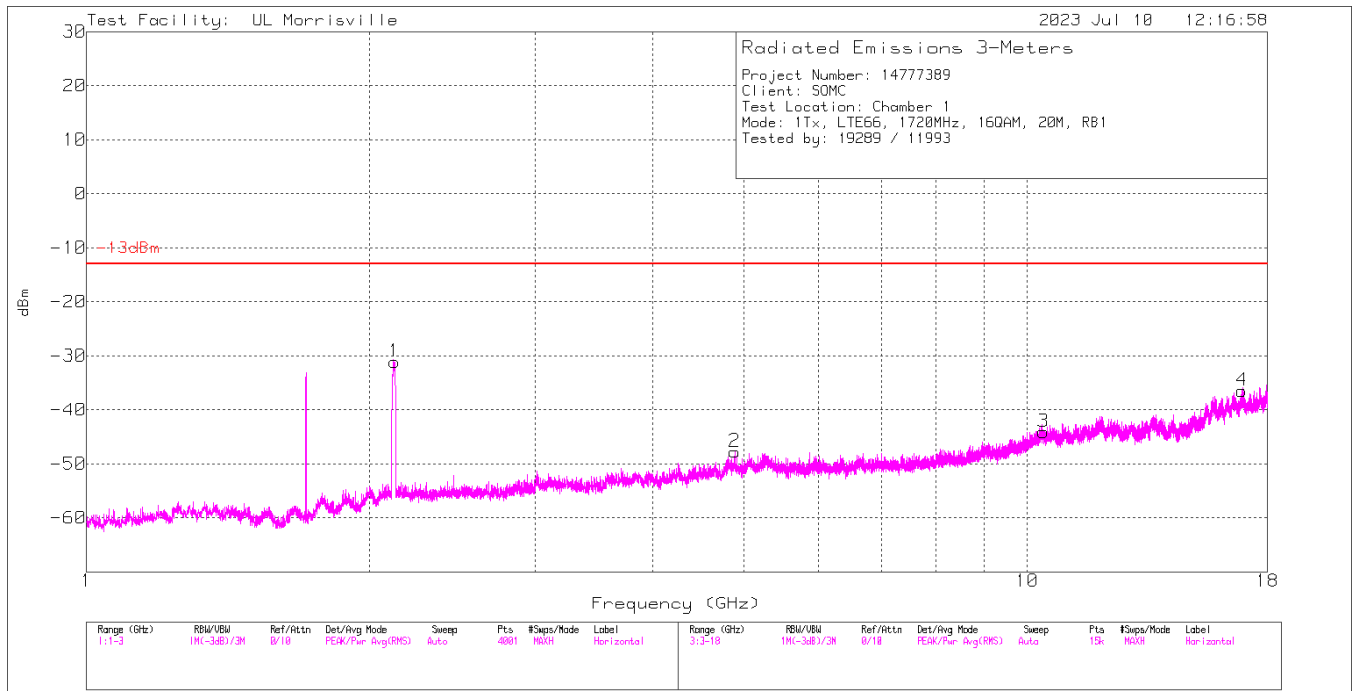
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

### Main Antenna

EUT Serial Number: QV7700HBHQ



### 16QAM LTE66 (20MHz, Low Channel)

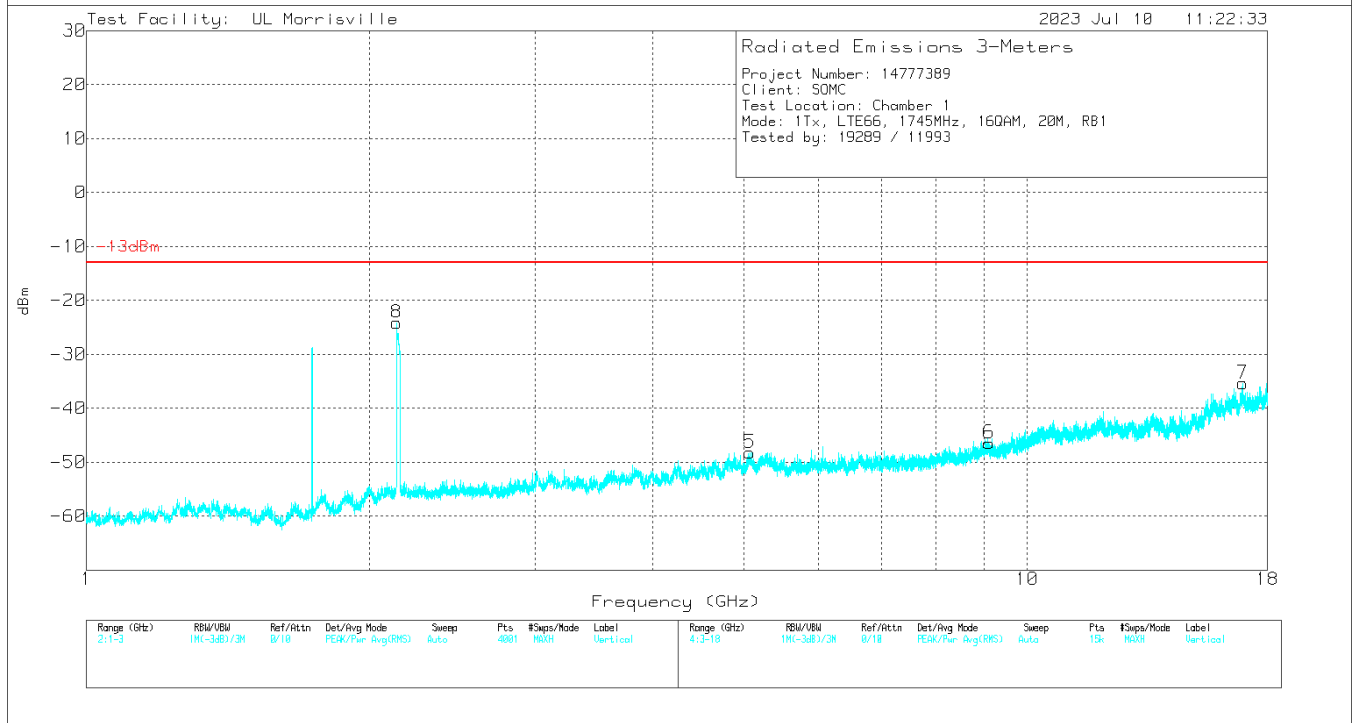
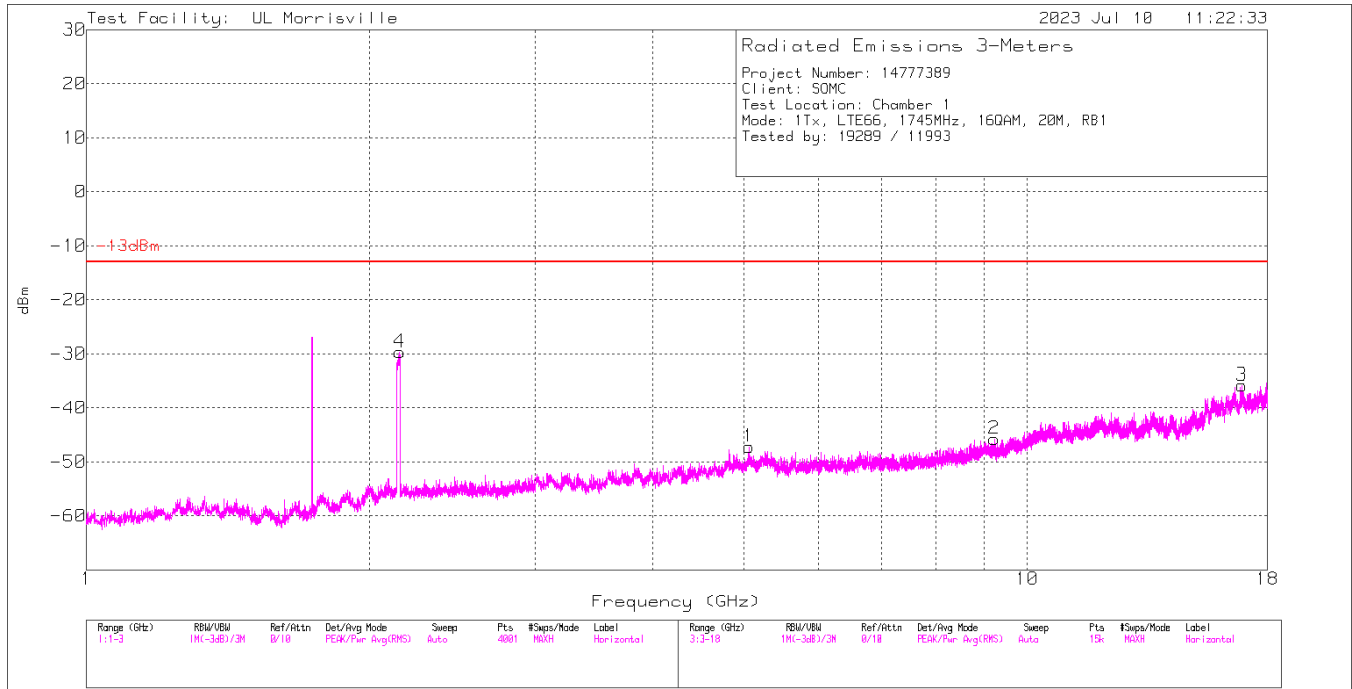


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5 <sup>DL</sup>	2.1175	-34.44	Pk	31.6	-35.1	11.8	1.2	-24.94	-	-	0-360	200	V
1 <sup>DL</sup>	2.1245	-40.63	Pk	31.6	-35.1	11.8	1.2	-31.13	-	-	0-360	101	H
2	4.886	-63.91	Pk	34	-29.7	11.8	0	-47.81	-13	-34.81	0-360	299	H
6	5.276	-64.83	Pk	34.4	-28.6	11.8	0	-47.23	-13	-34.23	0-360	300	V
7	10.309	-65.49	Pk	37.7	-26.6	11.8	0	-42.59	-13	-29.59	0-360	201	V
3	10.399	-67.33	Pk	37.7	-26.3	11.8	0	-44.13	-13	-31.13	0-360	200	H
8	16.907	-66.87	Pk	41.8	-23.1	11.8	0	-36.37	-13	-23.37	0-360	300	V
4	16.911	-67.19	Pk	41.8	-22.9	11.8	0	-36.49	-13	-23.49	0-360	299	H

Pk - Peak detector

DL - Downlink

### 16QAM LTE66 (20MHz, Mid Channel)

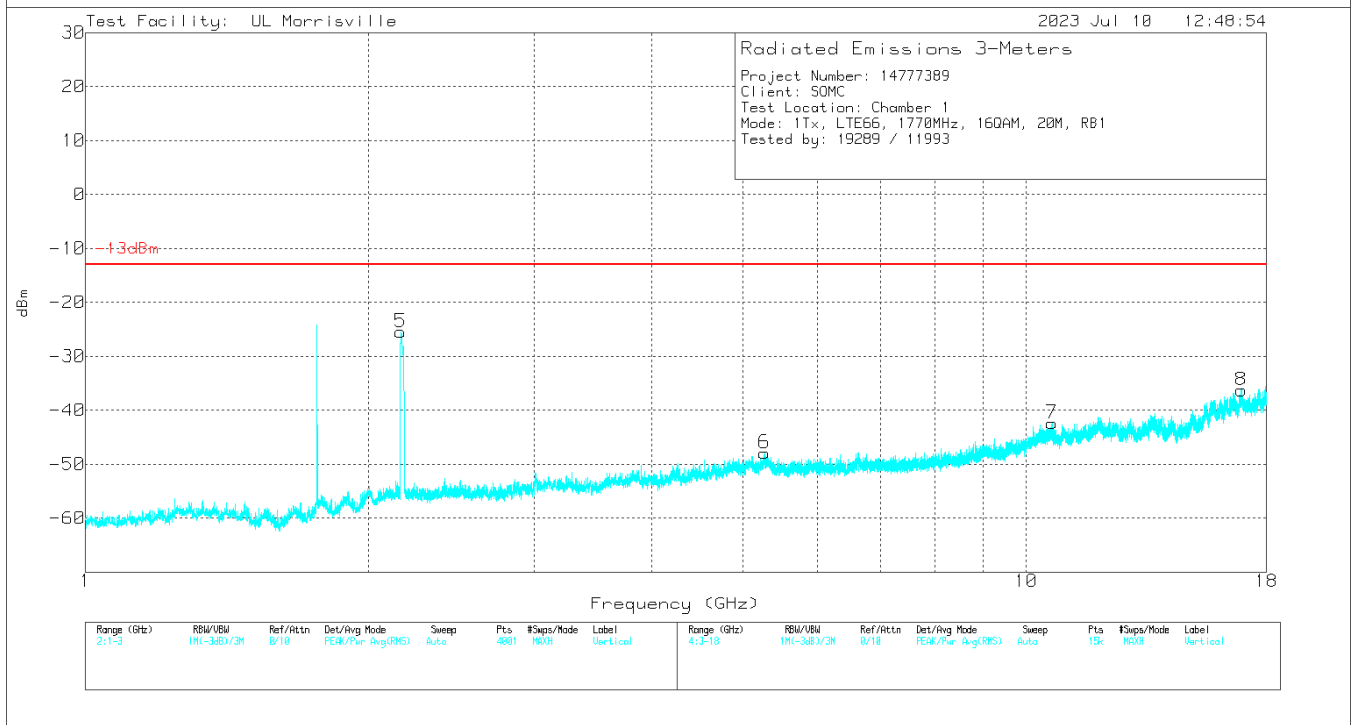
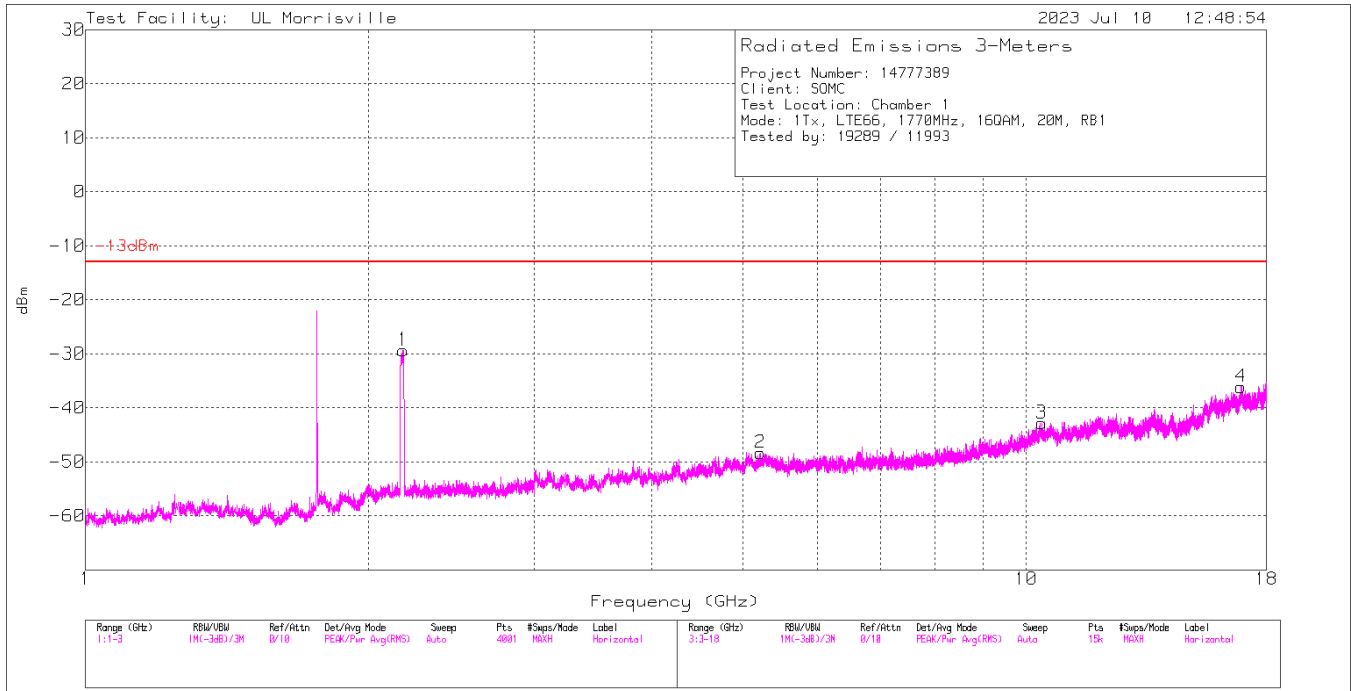


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8 <sup>DL</sup>	2.137	-34.07	Pk	31.7	-34.8	11.8	1.2	-24.17	-	-	0-360	101	V
4 <sup>DL</sup>	2.1515	-39.53	Pk	31.7	-34.8	11.8	1.1	-29.73	-	-	0-360	101	H
1	5.061	-63.53	Pk	34.1	-29.6	11.8	0	-47.23	-13	-34.23	0-360	300	H
5	5.068	-64.79	Pk	34.2	-29.5	11.8	0	-48.29	-13	-35.29	0-360	201	V
6	9.102	-65.71	Pk	36	-28.6	11.8	0	-46.51	-13	-33.51	0-360	300	V
2	9.221	-65.27	Pk	36.1	-28.4	11.8	0	-45.77	-13	-32.77	0-360	300	H
3	16.91	-66.83	Pk	41.8	-22.7	11.8	0	-35.93	-13	-22.93	0-360	300	H
7	16.939	-66.63	Pk	41.7	-22.3	11.8	0	-35.43	-13	-22.43	0-360	101	V

Pk - Peak detector

DL - Downlink

### 16QAM LTE66 (20MHz, High Channel)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5 <sup>DL</sup>	2.162	-35.32	Pk	31.7	-34.8	11.8	1.1	-25.52	-	-	0-360	101	V
1 <sup>DL</sup>	2.1765	-39.3	Pk	31.7	-34.6	11.8	1	-29.4	-	-	0-360	101	H
2	5.216	-64.19	Pk	34.4	-30.4	11.8	0	-48.39	-13	-35.39	0-360	300	H
6	5.267	-65.07	Pk	34.4	-29.1	11.8	0	-47.97	-13	-34.97	0-360	201	V
3	10.383	-66.61	Pk	37.7	-25.8	11.8	0	-42.91	-13	-29.91	0-360	300	H
7	10.647	-66.74	Pk	37.9	-25.4	11.8	0	-42.44	-13	-29.44	0-360	101	V
4	16.91	-67.05	Pk	41.8	-22.7	11.8	0	-36.15	-13	-23.15	0-360	300	H
8	16.922	-67.1	Pk	41.7	-22.7	11.8	0	-36.3	-13	-23.3	0-360	101	V

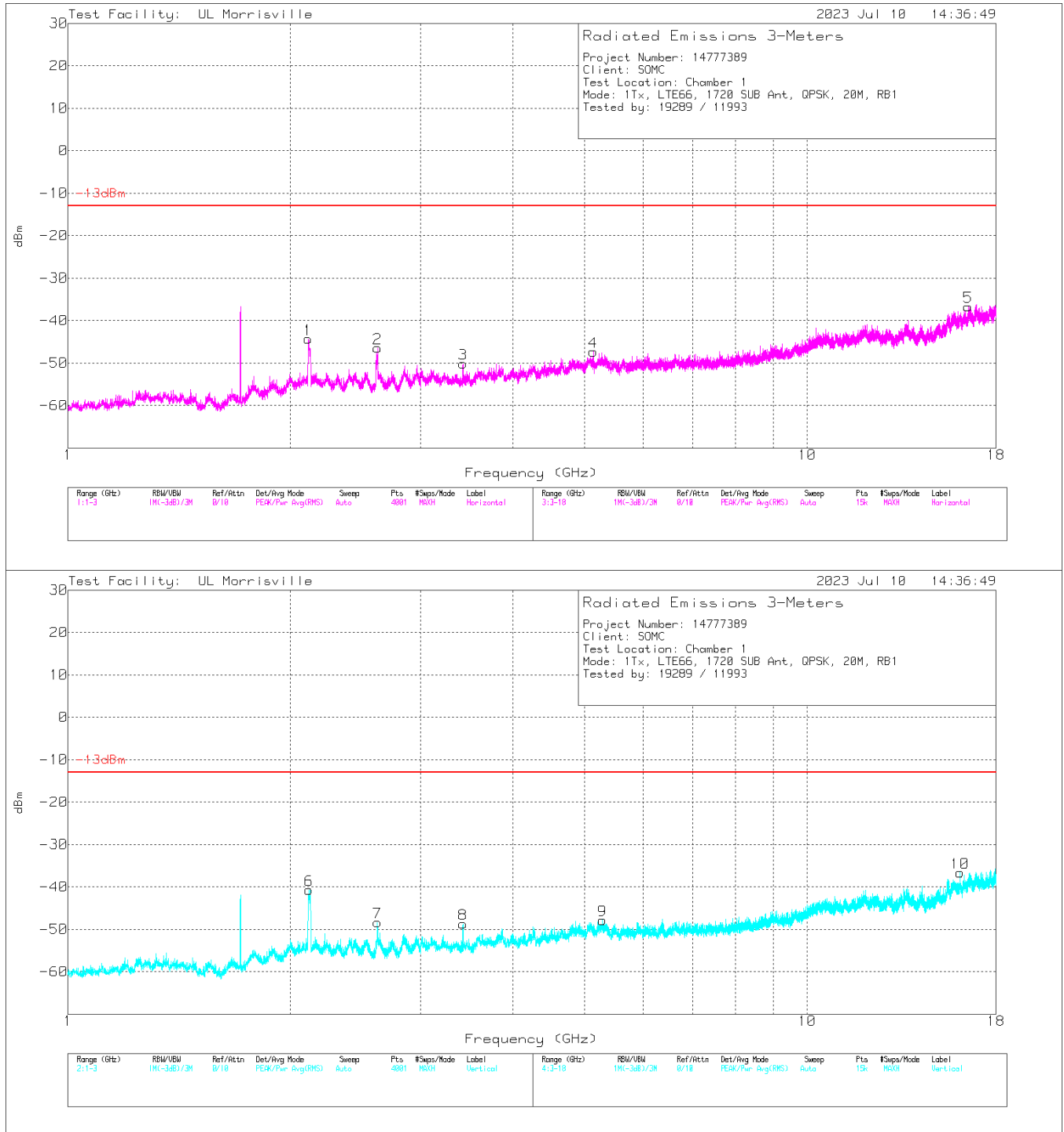
Pk - Peak detector

DL - Downlink

**Sub Antenna**

EUT Serial Number: QV7700HBHQ

**QPSK LTE66 (20MHz Low Channel)**



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1 <sup>DL</sup>	2.1125	-54.98	Pk	31.6	-35.2	11.8	1.2	1.2	-44.38	-	-	0-360	101	H
6 <sup>DL</sup>	2.118	-51.52	Pk	31.6	-35	11.8	1.2	1.2	-40.72	-	-	0-360	101	V
7 <sup>NR</sup>	2.621	-59.9	Pk	32.1	-34	11.8	.4	1.2	-48.4	-	-	0-360	300	V
2 <sup>NR</sup>	2.6235	-57.98	Pk	32.1	-34	11.8	.4	1.2	-46.48	-	-	0-360	300	H
3	3.422	-62.17	Pk	32.6	-32.4	11.8	0	0	-50.17	-13	-37.17	0-360	300	H
8	3.422	-60.73	Pk	32.6	-32.4	11.8	0	0	-48.73	-13	-35.73	0-360	101	V
4	5.134	-63.55	Pk	34.3	-29.9	11.8	0	0	-47.35	-13	-34.35	0-360	200	H
9	5.284	-65.35	Pk	34.4	-28.7	11.8	0	0	-47.85	-13	-34.85	0-360	300	V
10	16.088	-65.8	Pk	40.7	-23.3	11.8	0	0	-36.6	-13	-23.6	0-360	200	V
5	16.503	-64.95	Pk	41.1	-24.7	11.8	0	0	-36.75	-13	-23.75	0-360	101	H

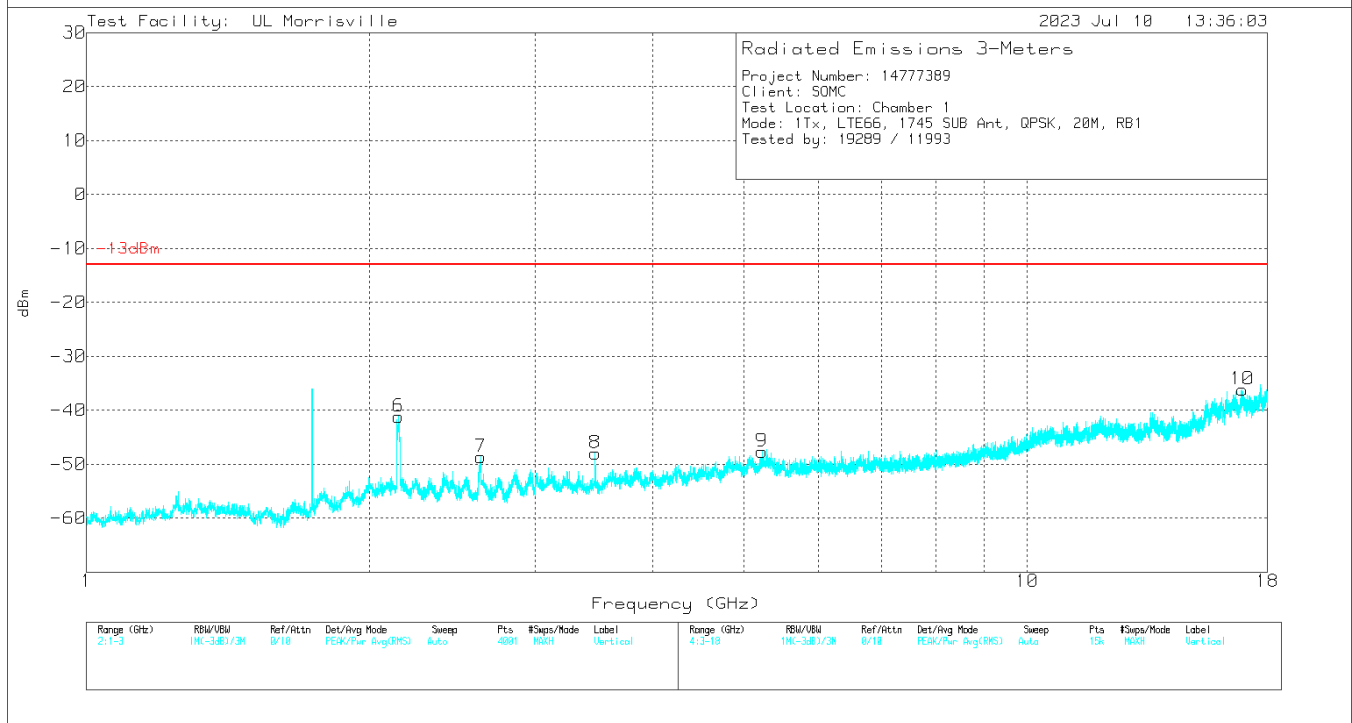
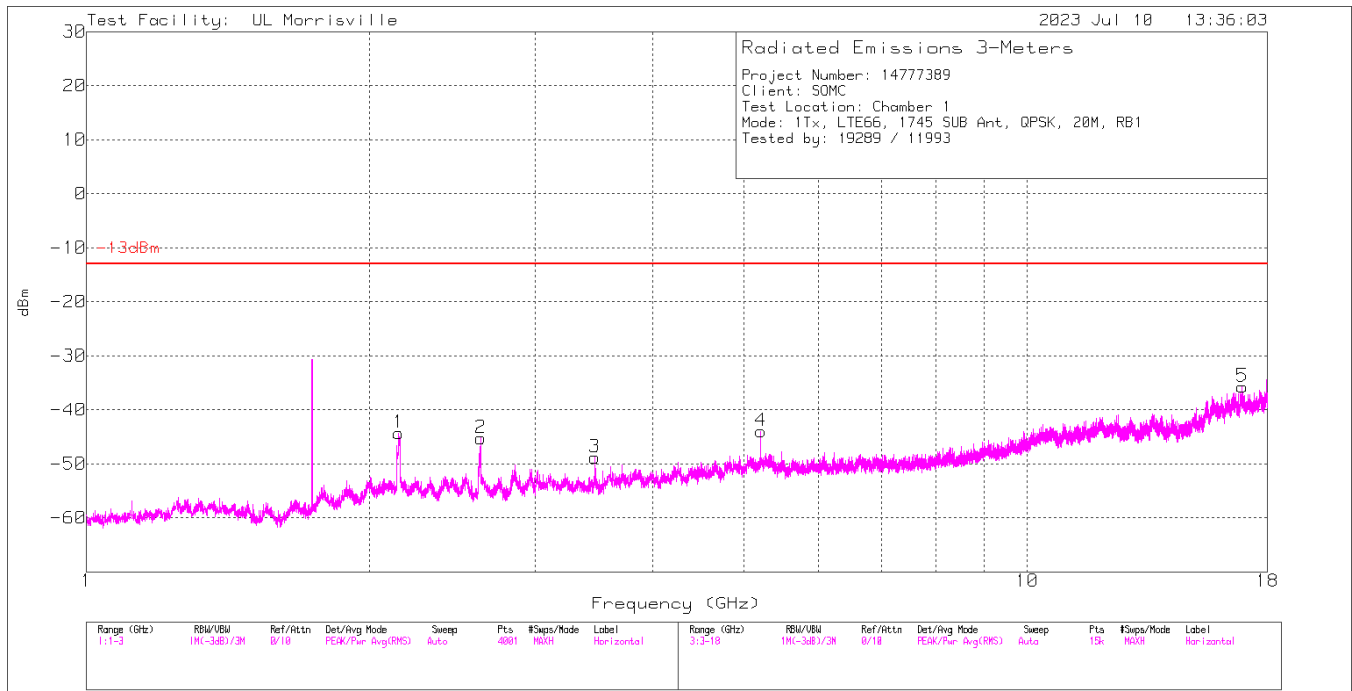
Pk - Peak detector

DL - Downlink

NR - 5G Uplink/Downlink



### QPSK LTE66 (20MHz, Mid Channel)



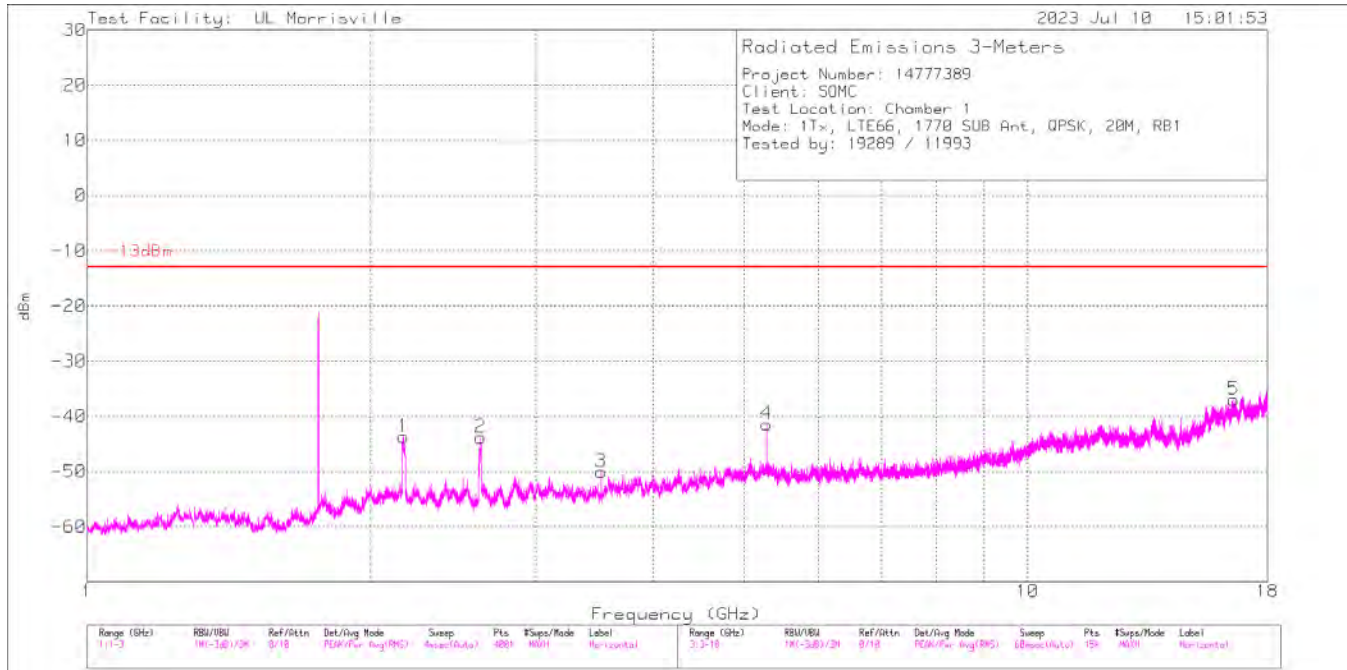
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6 <sup>DL</sup>	2.145	-52.08	Pk	31.6	-34.9	11.8	1.2	1.2	-41.18	-	-	0-360	101	V
1 <sup>DL</sup>	2.1465	-55.34	Pk	31.6	-34.8	11.8	1.2	1.2	-44.34	-	-	0-360	101	H
2 <sup>NR</sup>	2.625	-56.87	Pk	32.1	-33.9	11.8	.4	1.2	-45.27	-	-	0-360	199	H
7 <sup>NR</sup>	2.625	-60.26	Pk	32.1	-33.9	11.8	.4	1.2	-48.66	-	-	0-360	300	V
3	3.471	-60.7	Pk	32.6	-32.5	11.8	0	0	-48.8	-13	-35.8	0-360	300	H
8	3.472	-59.81	Pk	32.6	-32.6	11.8	0	0	-48.01	-13	-35.01	0-360	101	V
4	5.208	-59.58	Pk	34.4	-30.6	11.8	0	0	-43.98	-13	-30.98	0-360	101	H
9	5.224	-63.77	Pk	34.4	-30.1	11.8	0	0	-47.67	-13	-34.67	0-360	300	V
5	16.92	-66.47	Pk	41.7	-22.8	11.8	0	0	-35.77	-13	-22.77	0-360	101	H
10	16.92	-66.91	Pk	41.7	-22.8	11.8	0	0	-36.21	-13	-23.21	0-360	300	V

Pk - Peak detector

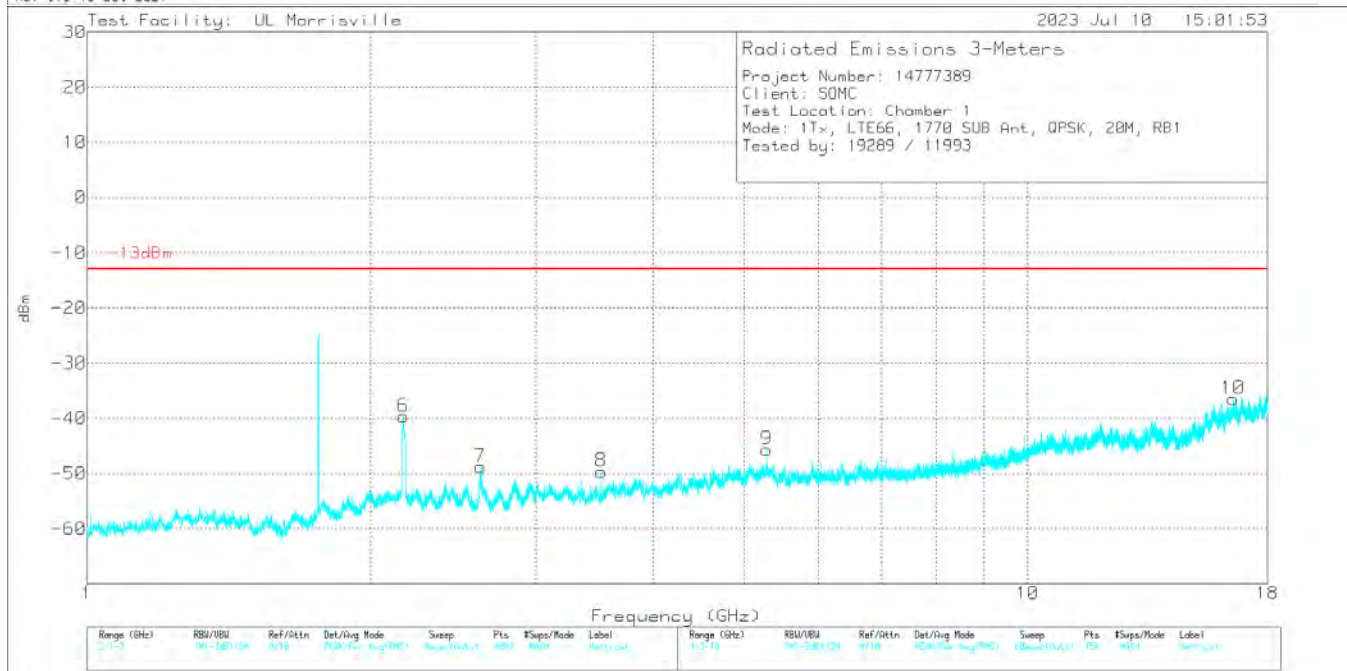
DL - Downlink

NR - 5G Uplink/Downlink

### QPSK LTE66 (20MHz High Channel)



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Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1 <sup>DL</sup>	2.1675	-54.69	Pk	31.7	-34.7	11.8	1	1.2	-43.69	-	-	0-360	101	H
6 <sup>DL</sup>	2.168	-50.67	Pk	31.7	-34.7	11.8	1	1.2	-39.67	-	-	0-360	101	V
2 <sup>NR</sup>	2.6205	-55.35	Pk	32.1	-34	11.8	.4	1.2	-43.85	-13	-30.85	0-360	199	H
7 <sup>NR</sup>	2.621	-60.33	Pk	32.1	-34	11.8	.4	1.2	-48.83	-13	-35.83	0-360	101	V
3	3.522	-62.11	Pk	32.7	-32.5	11.8	0	0	-50.11	-13	-37.11	0-360	300	H
8	3.522	-61.62	Pk	32.7	-32.5	11.8	0	0	-49.62	-13	-36.62	0-360	101	V
4	5.283	-58.91	Pk	34.4	-28.7	11.8	0	0	-41.41	-13	-28.41	0-360	200	H
9	5.283	-63.16	Pk	34.4	-28.7	11.8	0	0	-45.66	-13	-32.66	0-360	300	V
10	16.552	-65.6	Pk	41.1	-23.8	11.8	0	0	-36.5	-13	-23.5	0-360	300	V
5	16.581	-66.26	Pk	41.2	-23.7	11.8	0	0	-36.96	-13	-23.96	0-360	200	H

Pk - Peak detector

DL - Downlink

NR - 5G Uplink/Downlink

### 11.1.11. 5G NR n66

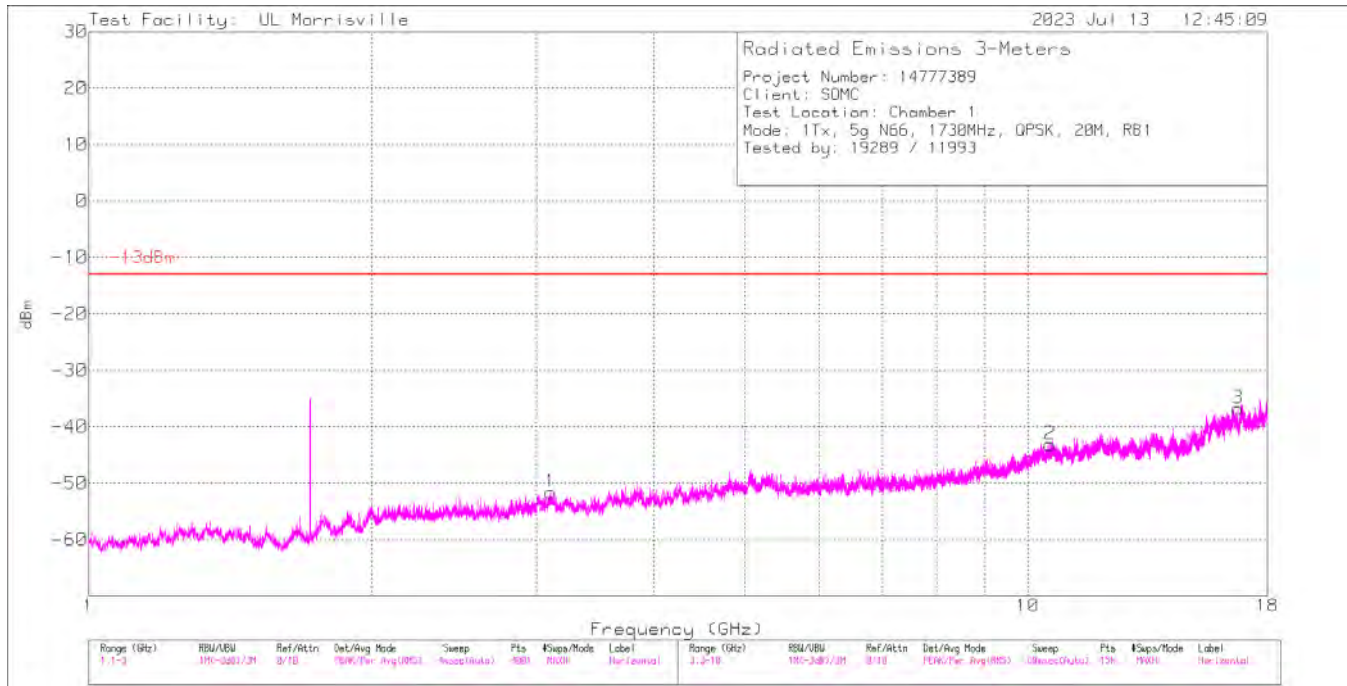
#### LIMITS

FCC: §27.53(h)

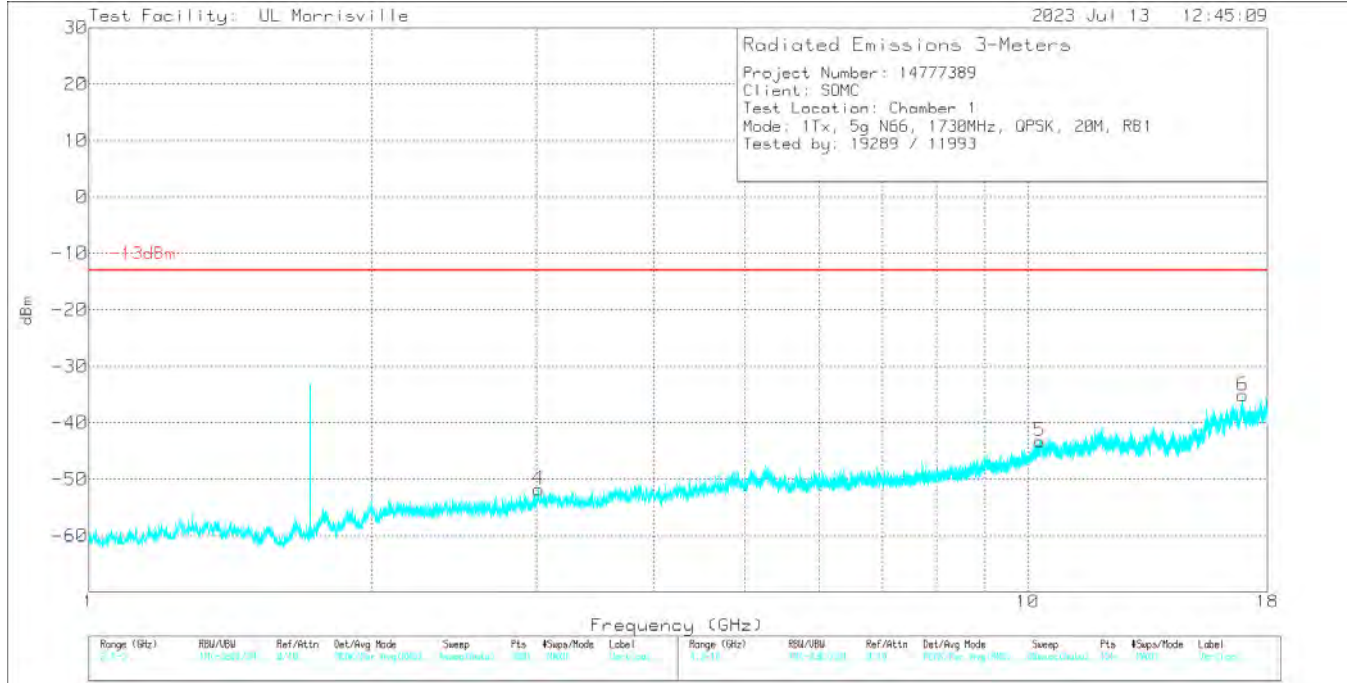
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

EUT Serial Number: QV7700HBHQ

**QPSK 5G n66 (20MHz, Low Channel)**



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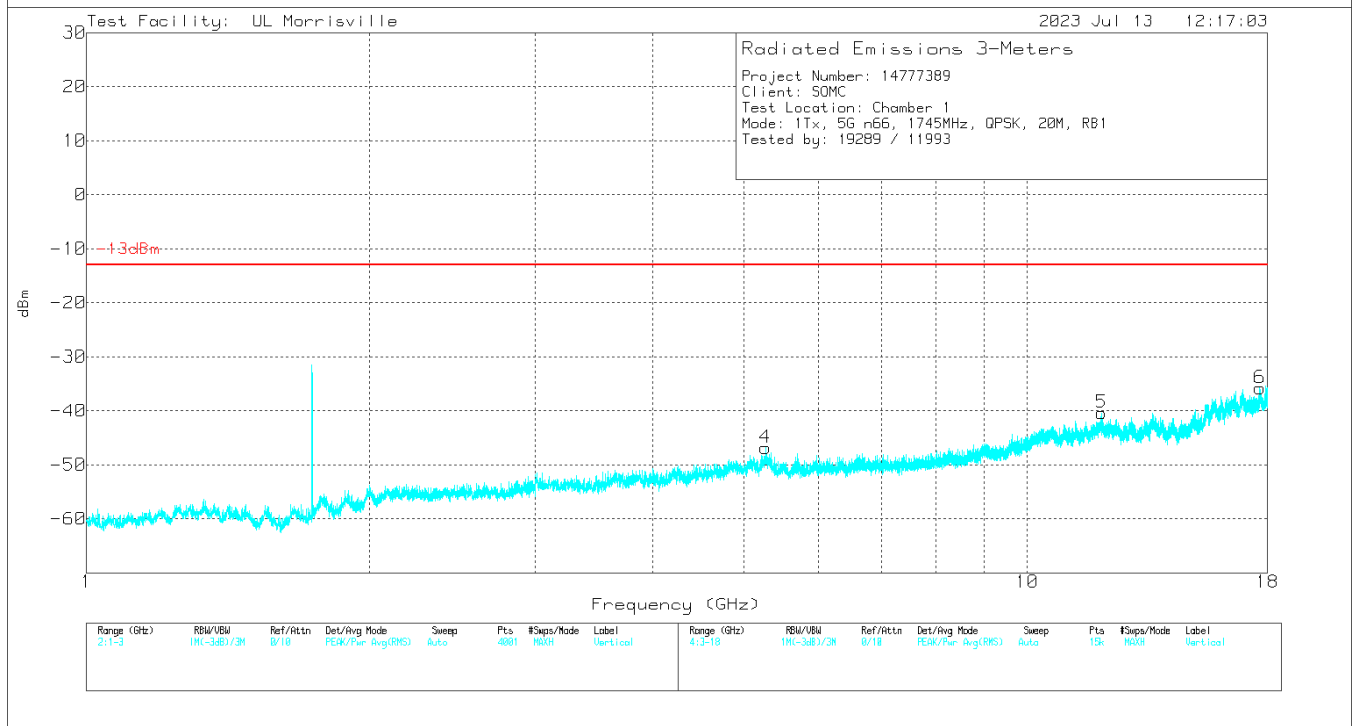
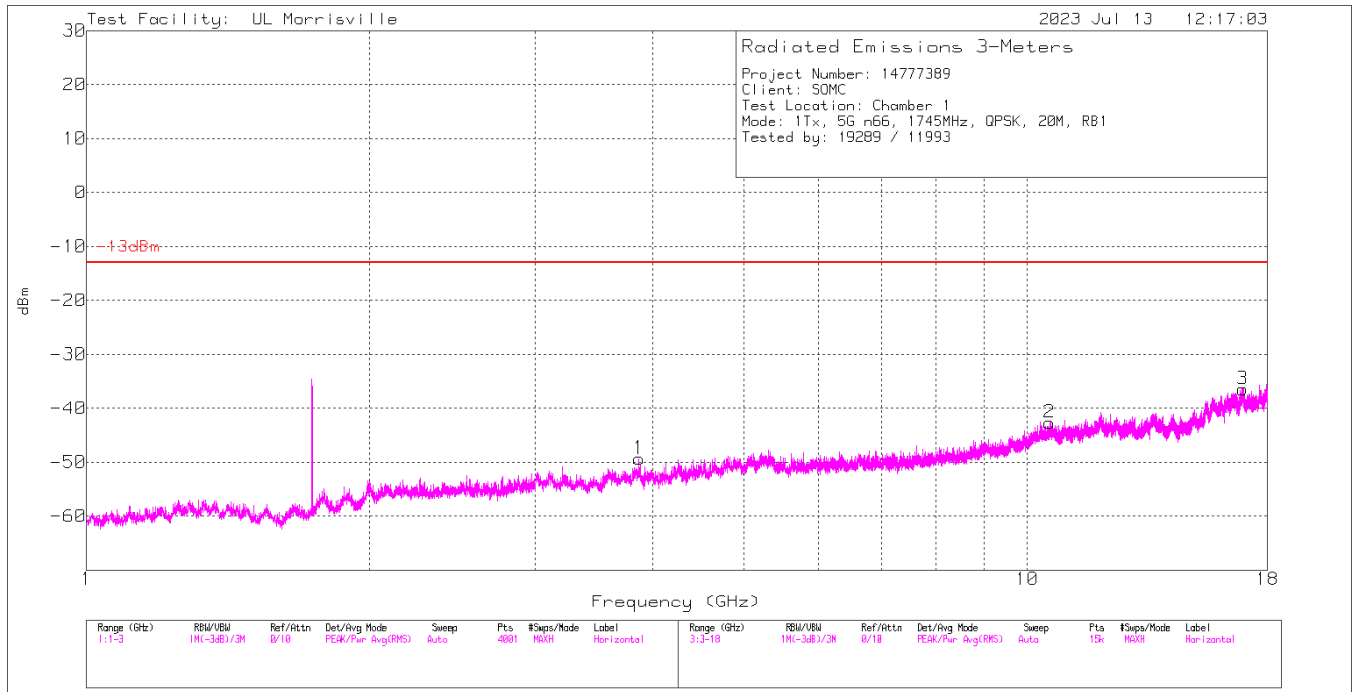


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Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	3.013	-64.79	Pk	32.9	-31.7	11.8	0	-51.79	-13	-38.79	0-360	201	V
1	3.102	-64.3	Pk	32.9	-32	11.8	0	-51.6	-13	-38.6	0-360	101	H
5	10.306	-66.24	Pk	37.7	-26.5	11.8	0	-43.24	-13	-30.24	0-360	101	V
2	10.563	-66.96	Pk	37.8	-25.8	11.8	0	-43.16	-13	-30.16	0-360	101	H
3	16.743	-65.47	Pk	41.5	-24.6	11.8	0	-36.77	-13	-23.77	0-360	299	H
6	16.94	-66.26	Pk	41.7	-22.4	11.8	0	-35.16	-13	-22.16	0-360	300	V

Pk - Peak detector

**QPSK n66 (20MHz, Mid Channel)**

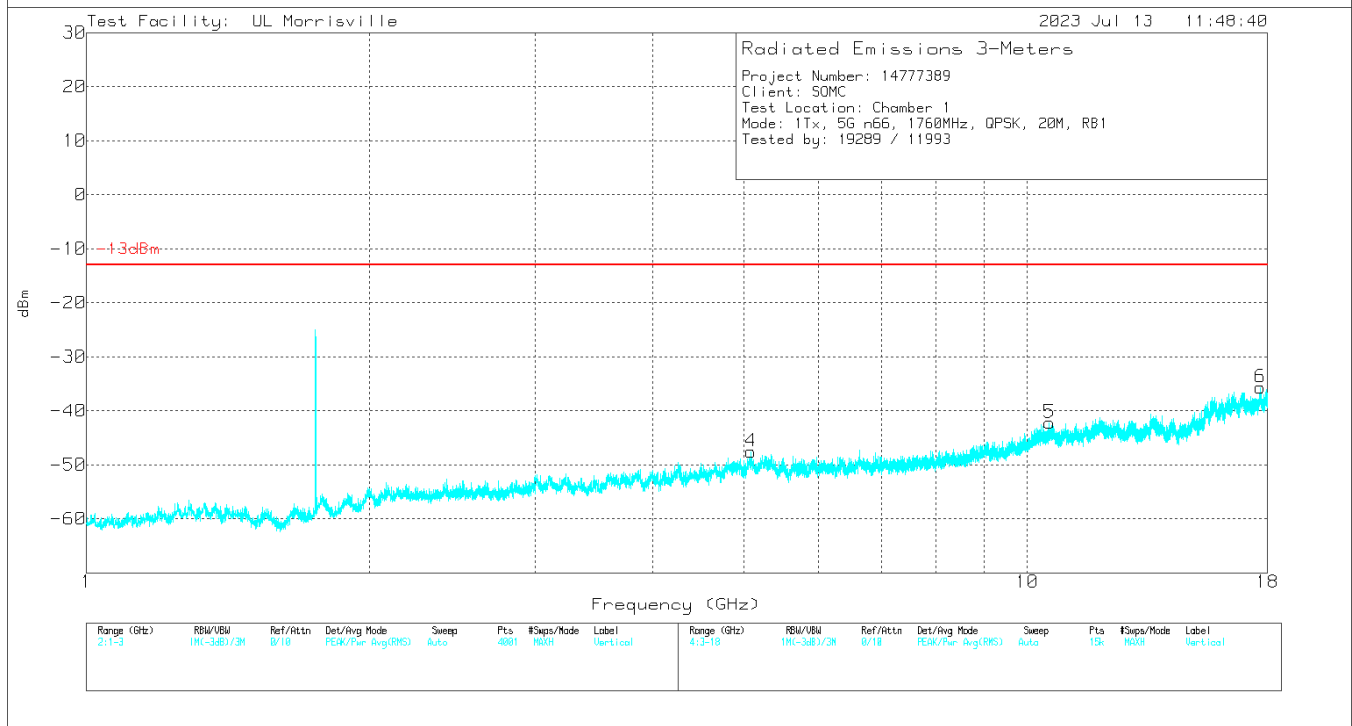
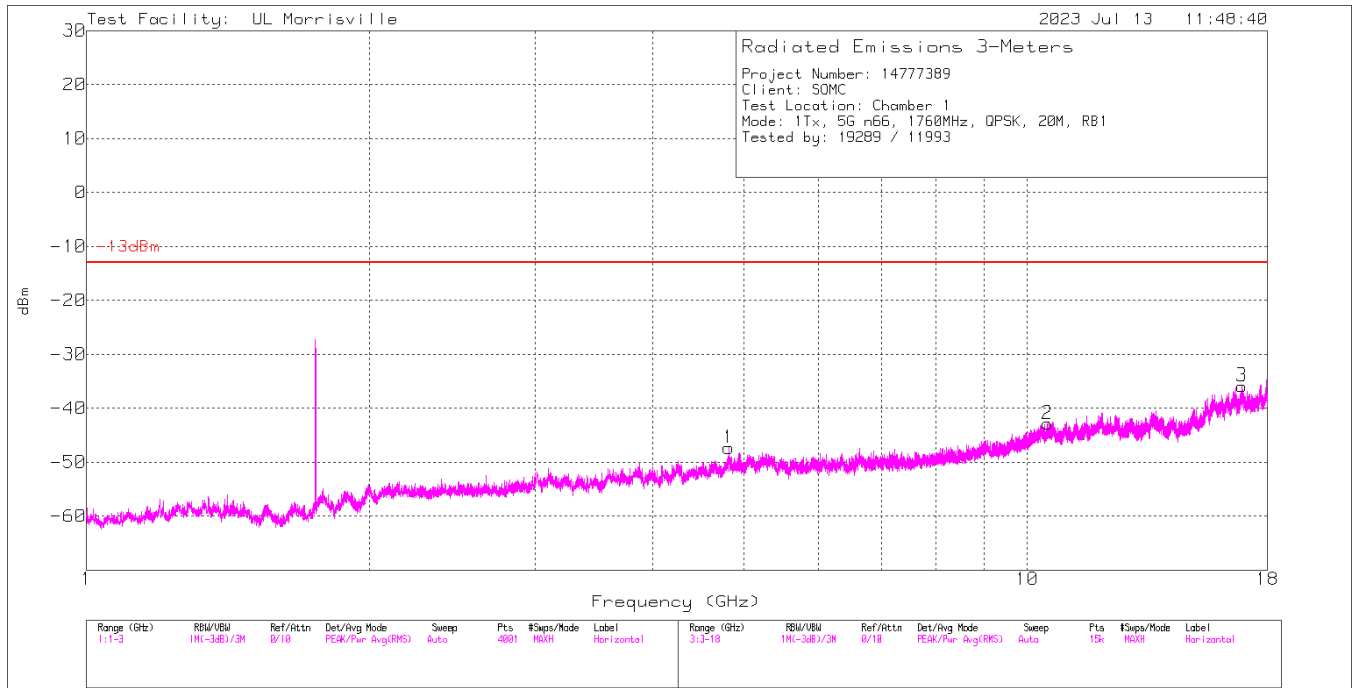




Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.865	-63.51	Pk	33.4	-31.1	11.8	0	-49.41	-13	-36.41	0-360	200	H
4	5.268	-63.96	Pk	34.4	-29.1	11.8	0	-46.86	-13	-33.86	0-360	200	V
2	10.558	-66.31	Pk	37.8	-26	11.8	0	-42.71	-13	-29.71	0-360	200	H
5	11.991	-65.32	Pk	38.6	-25.5	11.8	0	-40.42	-13	-27.42	0-360	200	V
3	16.939	-67.68	Pk	41.7	-22.3	11.8	0	-36.48	-13	-23.48	0-360	299	H
6	17.665	-66.23	Pk	41.6	-23	11.8	0	-35.83	-13	-22.83	0-360	300	V

Pk - Peak detector

**QPSK n66 (20MHz, High Channel)**



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	4.814	-63.25	Pk	34	-29.9	11.8	0	-47.35	-13	-34.35	0-360	300	H
4	5.083	-63.89	Pk	34.2	-29.7	11.8	0	-47.59	-13	-34.59	0-360	300	V
2	10.505	-66.12	Pk	37.9	-26.5	11.8	0	-42.92	-13	-29.92	0-360	101	H
5	10.554	-65.87	Pk	37.8	-26	11.8	0	-42.27	-13	-29.27	0-360	300	V
3	16.909	-66.84	Pk	41.8	-22.7	11.8	0	-35.94	-13	-22.94	0-360	101	H
6	17.684	-65.98	Pk	41.6	-23.1	11.8	0	-35.68	-13	-22.68	0-360	200	V

Pk - Peak detector

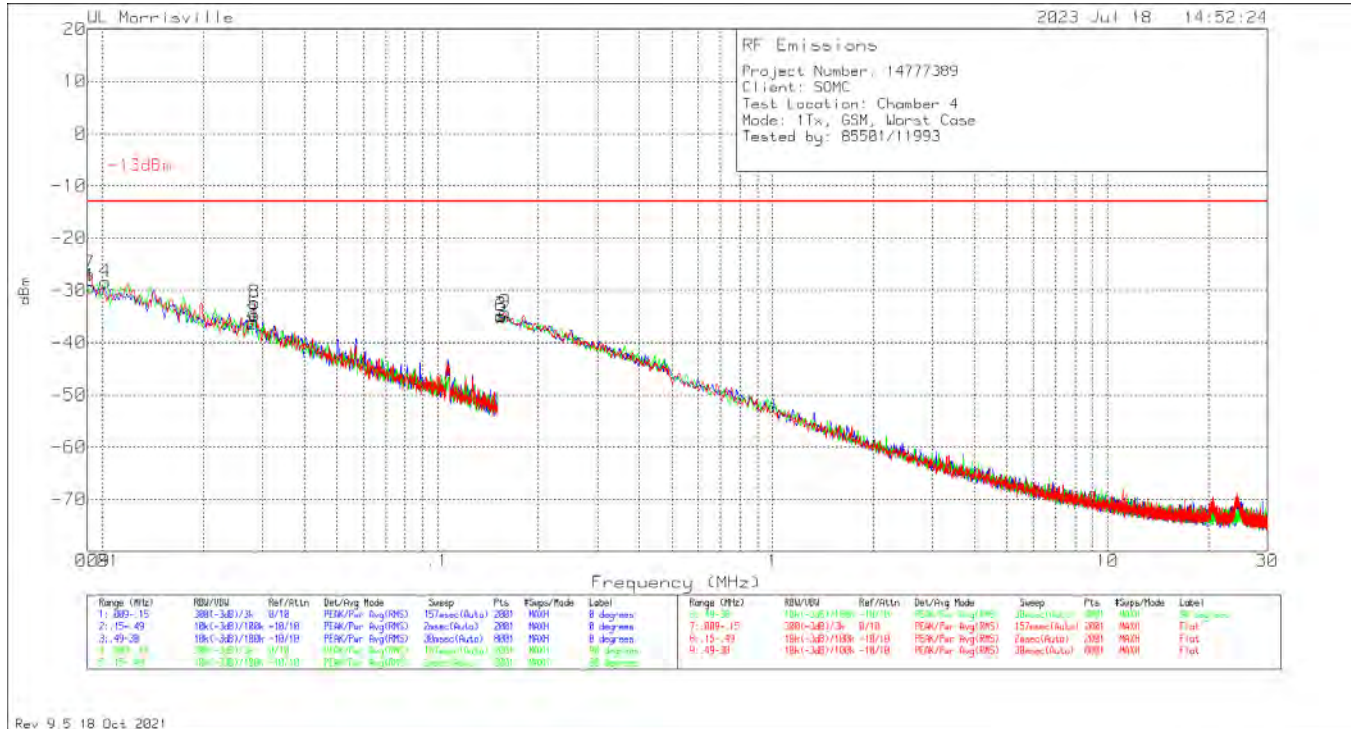
## 11.2. Worst Case Emissions

### 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.

### 11.2.1. Worst Case GSM

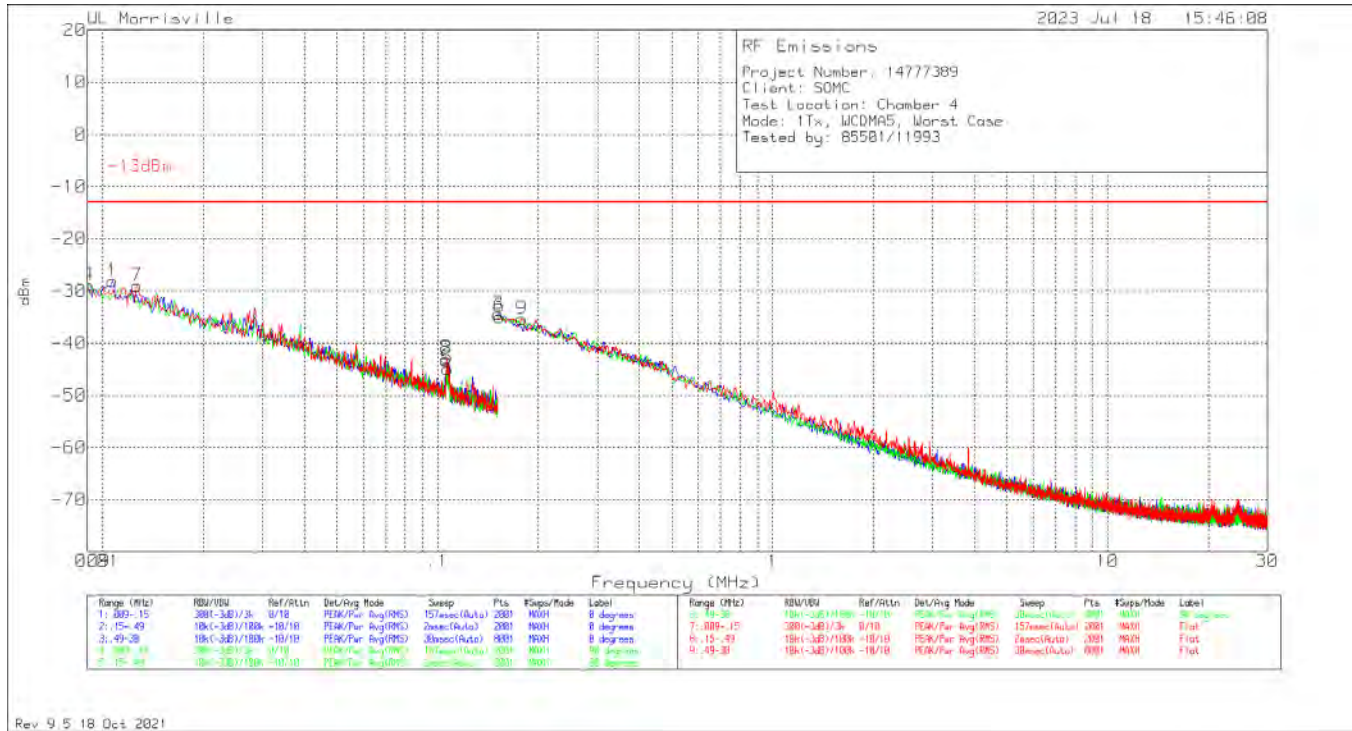


Rev 9 5 18 Oct 2021

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	135144 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
7	.00914	-58.62	Pk	19.9	.1	11.8	-26.82	-13	-13.82	0-360	100	Flat
1	.00921	-61.05	Pk	19.9	.1	11.8	-29.25	-13	-16.25	0-360	100	0 degs
4	.01021	-59.44	Pk	19.2	.1	11.8	-28.34	-13	-15.34	0-360	100	90 degs
2	.0281	-62.43	Pk	14.3	.1	11.8	-36.23	-13	-23.23	0-360	100	0 degs
5	.02845	-60.94	Pk	14.3	.1	11.8	-34.74	-13	-21.74	0-360	100	90 degs
8	.02845	-58.55	Pk	14.3	.1	11.8	-32.35	-13	-19.35	0-360	100	Flat
3	.15425	-58.89	Pk	12.2	.1	11.8	-34.79	-13	-21.79	0-360	100	0 degs
6	.15493	-59.02	Pk	12.2	.1	11.8	-34.92	-13	-21.92	0-360	100	90 degs
9	.15884	-58.35	Pk	12.2	.1	11.8	-34.25	-13	-21.25	0-360	100	Flat

Pk - Peak detector

11.2.2. Worst Case WCDMA



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Marker	Frequency (MHz)	Meter Reading (dBm)	Det	135144 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
4	.00907	-60.83	Pk	20	.1	11.8	-28.93	-13	-15.93	0-360	100	90 degs
1	.0107	-58.94	Pk	19	.1	11.8	-28.04	-13	-15.04	0-360	100	0 degs
7	.01269	-58.99	Pk	18.1	.1	11.8	-28.99	-13	-15.99	0-360	100	Flat
8	.10627	-67.06	Pk	12.2	.1	11.8	-42.96	-13	-29.96	0-360	100	Flat
2	.10634	-67.33	Pk	12.2	.1	11.8	-43.23	-13	-30.23	0-360	100	0 degs
5	.10734	-69.04	Pk	12.2	.1	11.8	-44.94	-13	-31.94	0-360	100	90 degs
3	.1517	-58.53	Pk	12.2	.1	11.8	-34.43	-13	-21.43	0-360	100	0 degs
6	.15323	-59.1	Pk	12.2	.1	11.8	-35	-13	-22	0-360	100	90 degs
9	.17865	-59.45	Pk	12.2	.1	11.8	-35.35	-13	-22.35	0-360	100	Flat

PK - Peak detector

### 11.3. Simultaneous Transmission

**Scans:**

Scan #	Mode	Mode	Mode
1	LTE B66 1745MHz 20MHz RB1-49	2441MHz BT GFSK C0	5240MHz 11ax HE20 SU MIMO
2	LTE B66 1745MHz 20MHz RB1-49	2441MHz BT GFSK C1	5240MHz 11ax HE20 SU MIMO
3	LTE B66 1745MHz 20MHz RB1-49	2442MHz 11g 6Mbps MIMO	
4	LTE B41 2620MHz 20MHz RB1-49	5240MHz 11ax HE20 SU MIMO	
5	LTE B12 704MHz 10MHz RB1-24	2462MHz 11g 6Mbps MIMO	

**LIMITS**

FCC: §27.53(h)

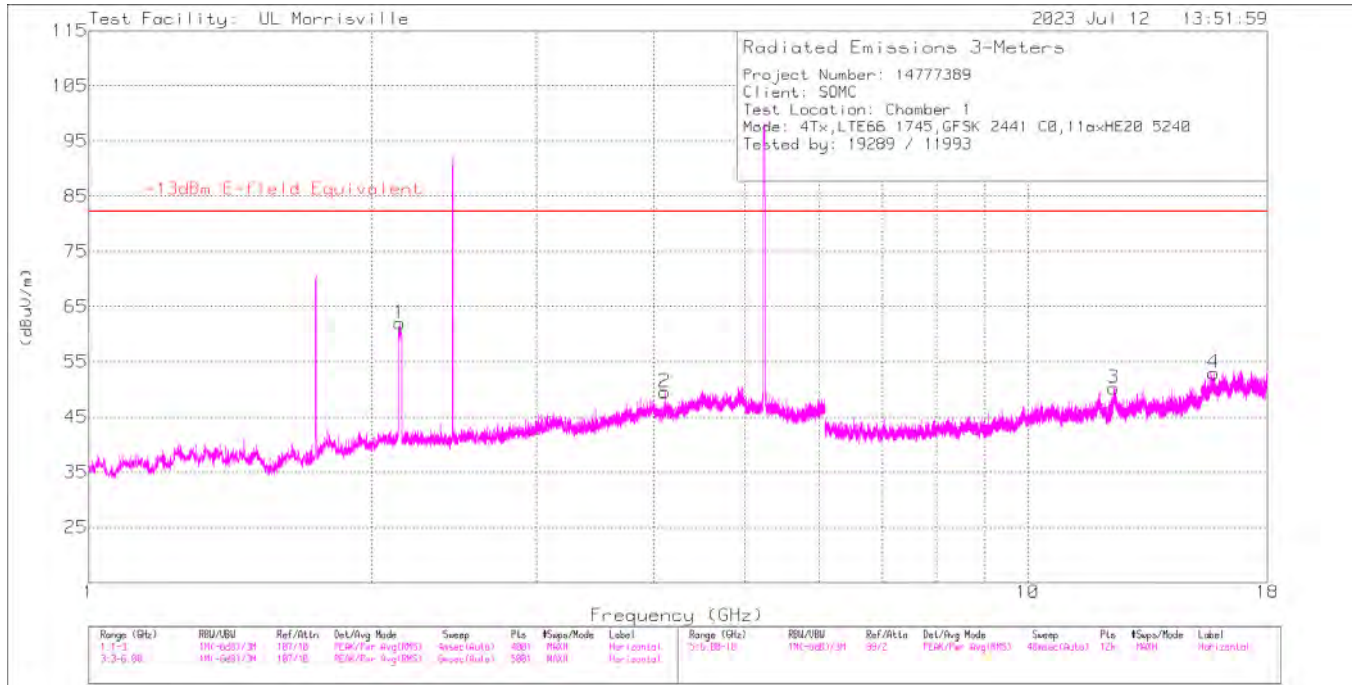
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

**LIMITS (LTE Band 41, 5G NR n41)**

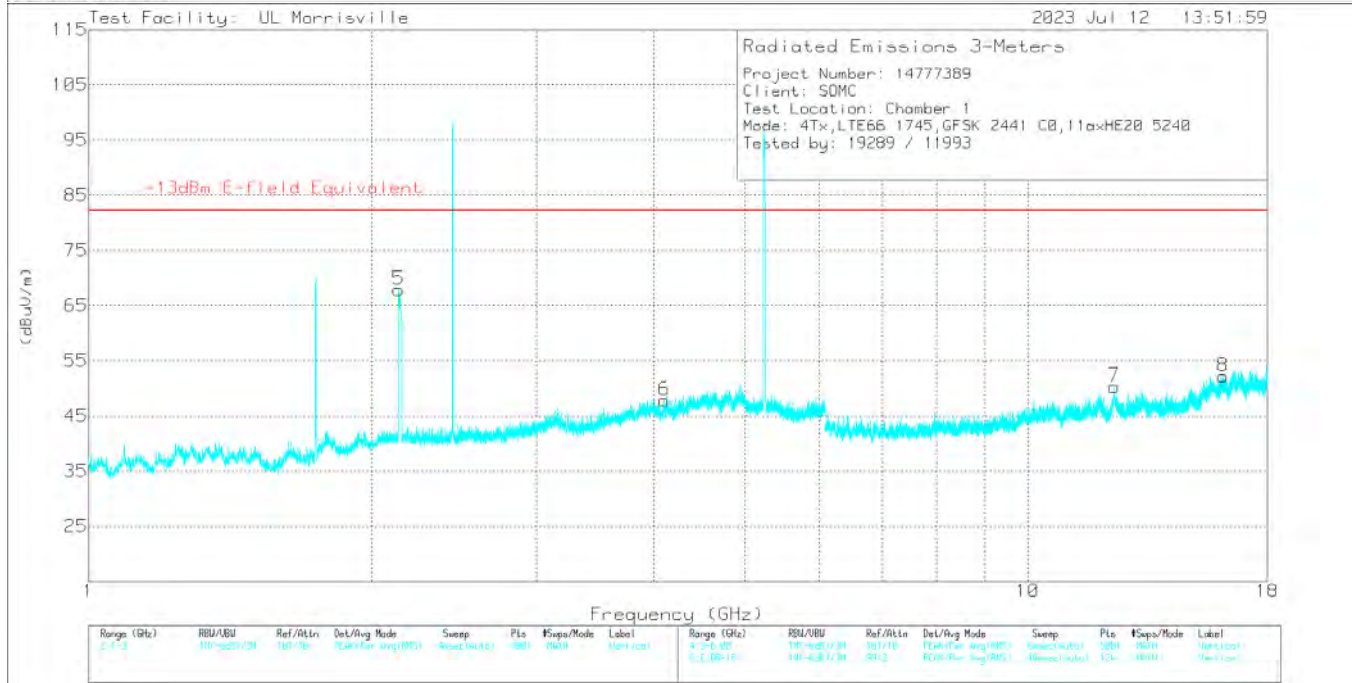
FCC: §27.53 (m)

At least  $55 + 10 \log (P)$  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.

11.3.1. Scan 1



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Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.1051	34.01	Pk	33.4	-18.7	.8	49.51	82.2	-32.69	0-360	101	H
6	* 4.10141	32.13	Pk	33.4	-18.5	.8	47.83	82.2	-34.37	0-360	200	V
5 <sup>DL</sup>	2.138	58.07	Pk	31.7	-23.1	1.2	67.87	-	-	0-360	200	V
1 <sup>DL</sup>	2.143	52.19	Pk	31.7	-23.1	1.2	61.99	-	-	0-360	200	H
3	* 12.34992	36.43	Pk	38.6	-24.8	0	50.23	82.2	-31.97	0-360	199	H
7	* 12.36283	35.62	Pk	38.6	-23.9	0	50.32	82.2	-31.88	0-360	101	V
4	* 15.7789	36.77	Pk	40.6	-24.4	0	52.97	82.2	-29.23	0-360	199	H
8	* 16.15538	35.79	Pk	40.6	-24.2	0	52.19	82.2	-30.01	0-360	101	V

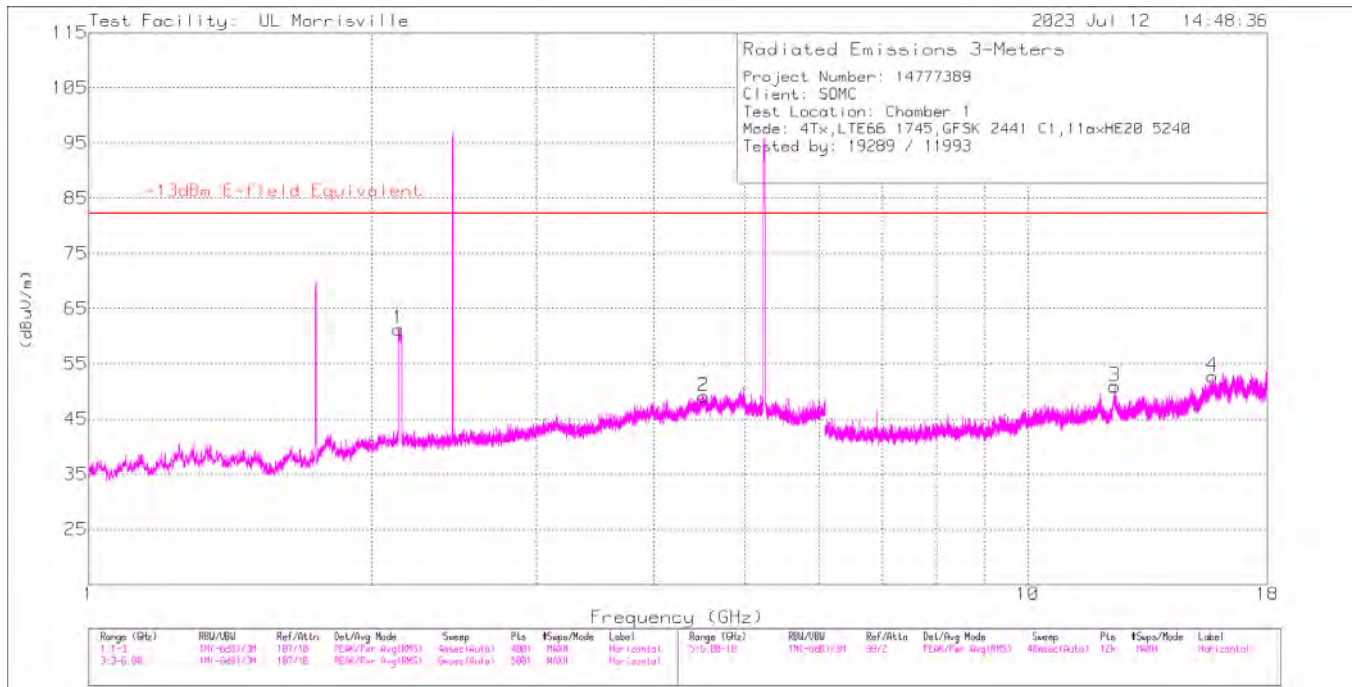
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

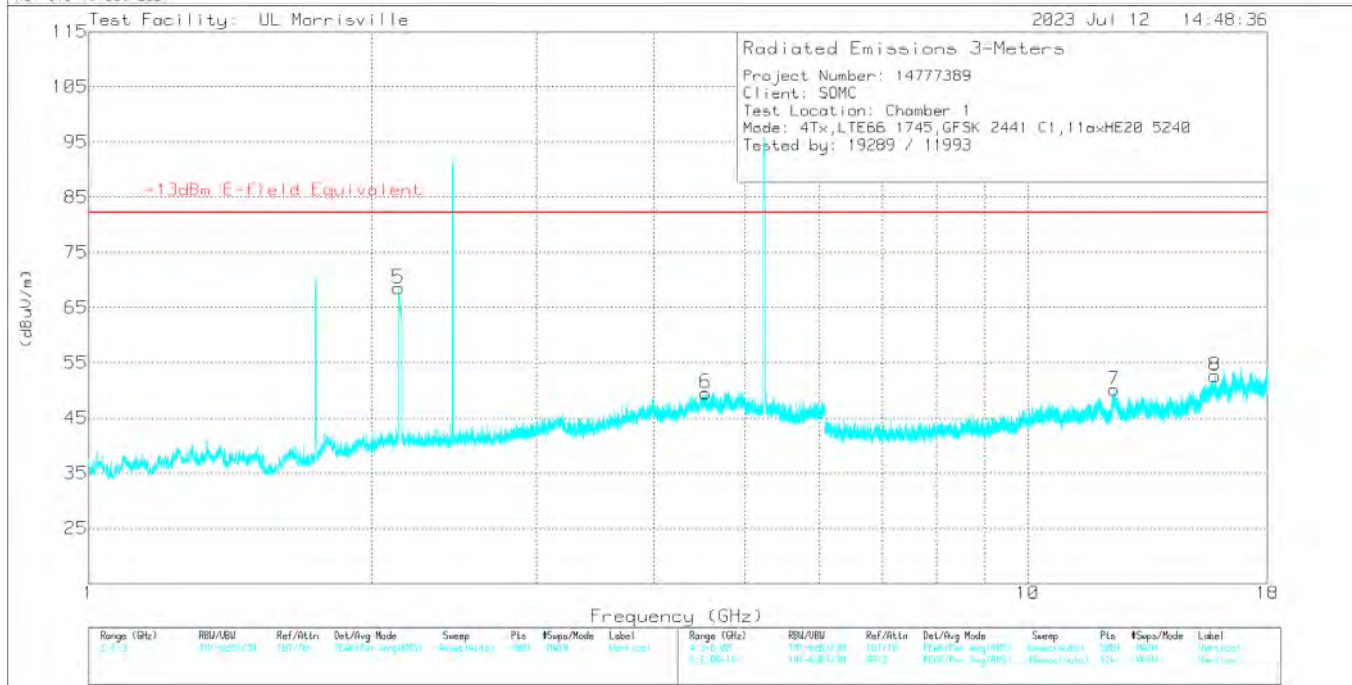
DL - Downlink



11.3.2. Scan 2



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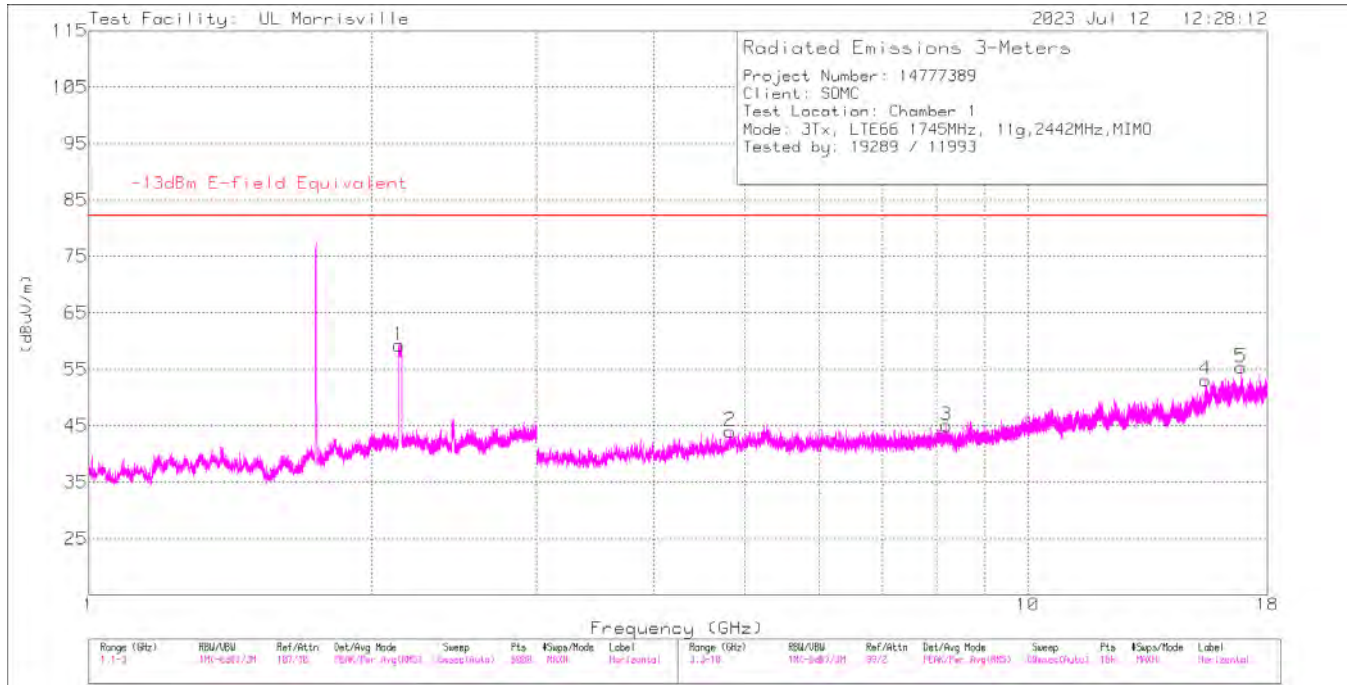
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.51474	33.61	Pk	34	-19.4	.9	49.11	82.2	-33.09	0-360	101	H
6	* 4.53877	34.04	Pk	34	-19.4	.9	49.54	82.2	-32.66	0-360	200	V
1 <sup>DL</sup>	2.137	51.49	Pk	31.7	-23.1	1.2	61.29	-	-	0-360	200	H
5 <sup>DL</sup>	2.138	58.71	Pk	31.7	-23.1	1.2	68.51	-	-	0-360	200	V
7	* 12.36382	35.45	Pk	38.6	-23.9	0	50.15	82.2	-32.05	0-360	101	V
3	* 12.37574	36.85	Pk	38.6	-24.5	0	50.95	82.2	-31.25	0-360	101	H
4	* 15.73222	35.94	Pk	40.7	-23.9	0	52.74	82.2	-29.46	0-360	200	H
8	* 15.83254	36.54	Pk	40.7	-24.6	0	52.64	82.2	-29.56	0-360	101	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

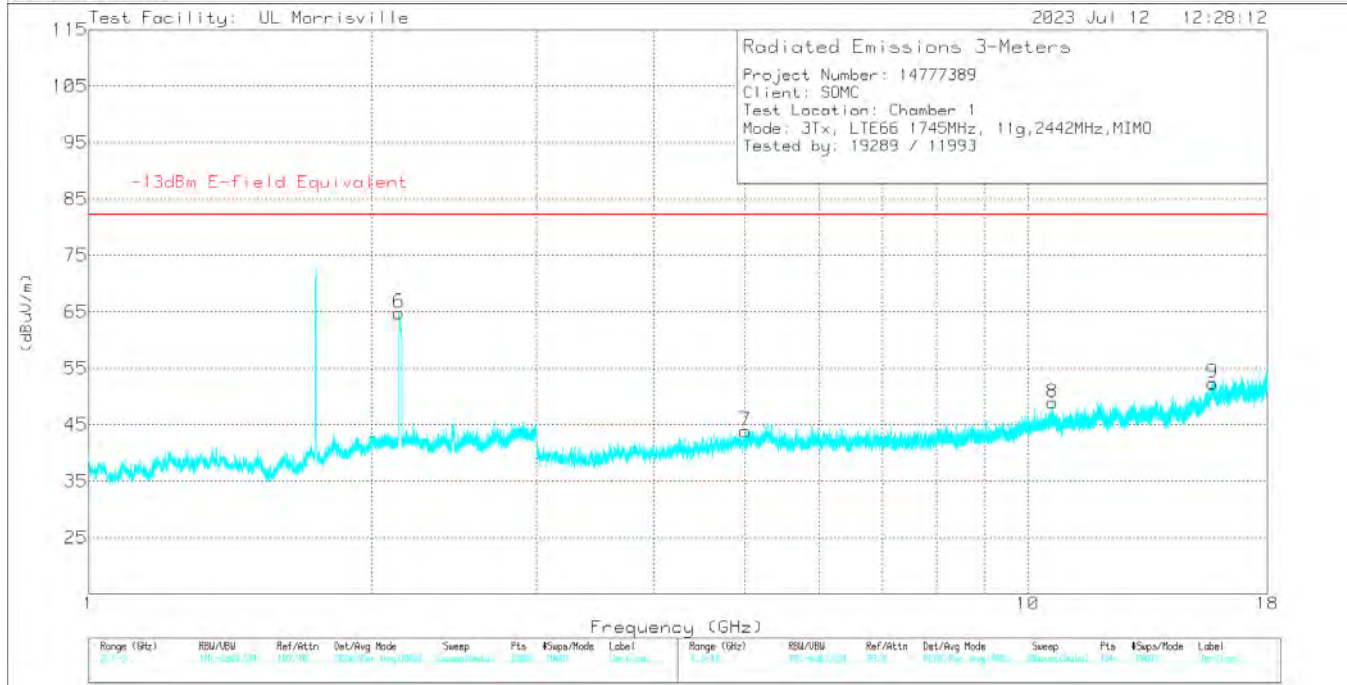
Pk - Peak detector

DL - Downlink

### 11.3.3. Scan 3



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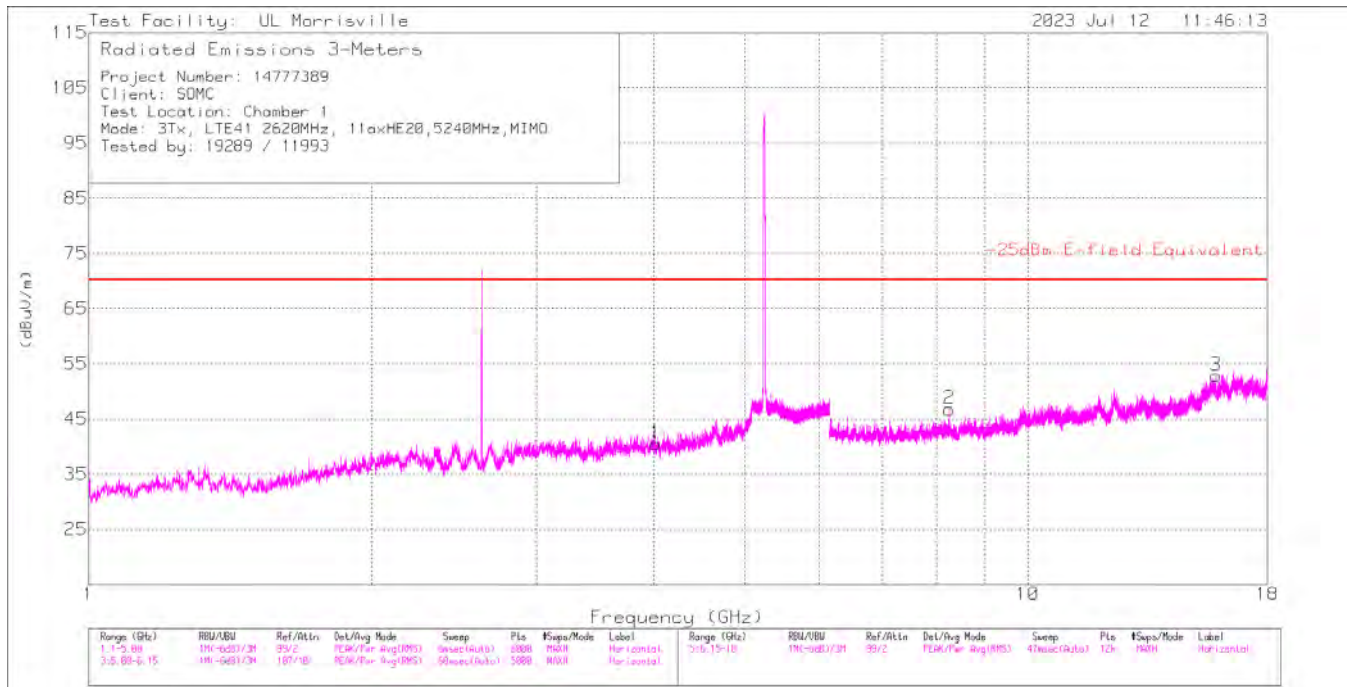
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1 <sup>DL</sup>	2.14019	48.27	Pk	31.7	-23.1	1.2	1.2	59.27	-	-	0-360	200	H
6 <sup>DL</sup>	2.14086	53.83	Pk	31.7	-23.1	1.2	1.2	64.83	-	-	0-360	200	V
8	* 10.63125	36.36	Pk	37.9	-25.3	0	0	48.96	82.2	-33.24	0-360	101	V
4	* 15.45938	36.96	Pk	40.4	-24.2	0	0	53.16	82.2	-29.04	0-360	101	H
9	* 15.7275	35.1	Pk	40.7	-23.4	0	0	52.4	82.2	-29.8	0-360	200	V
2	* 4.81875	39.64	Pk	34	-29.6	0	0	44.04	82.2	-38.16	0-360	101	H
7	* 5.00438	40.39	Pk	34.1	-30.6	0	0	43.89	82.2	-38.31	0-360	101	V
3	* 8.19094	38.69	Pk	35.9	-29.5	0	0	45.09	82.2	-37.11	0-360	200	H
5	16.87406	37.17	Pk	41.7	-23.5	0	0	55.37	82.2	-26.83	0-360	200	H

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

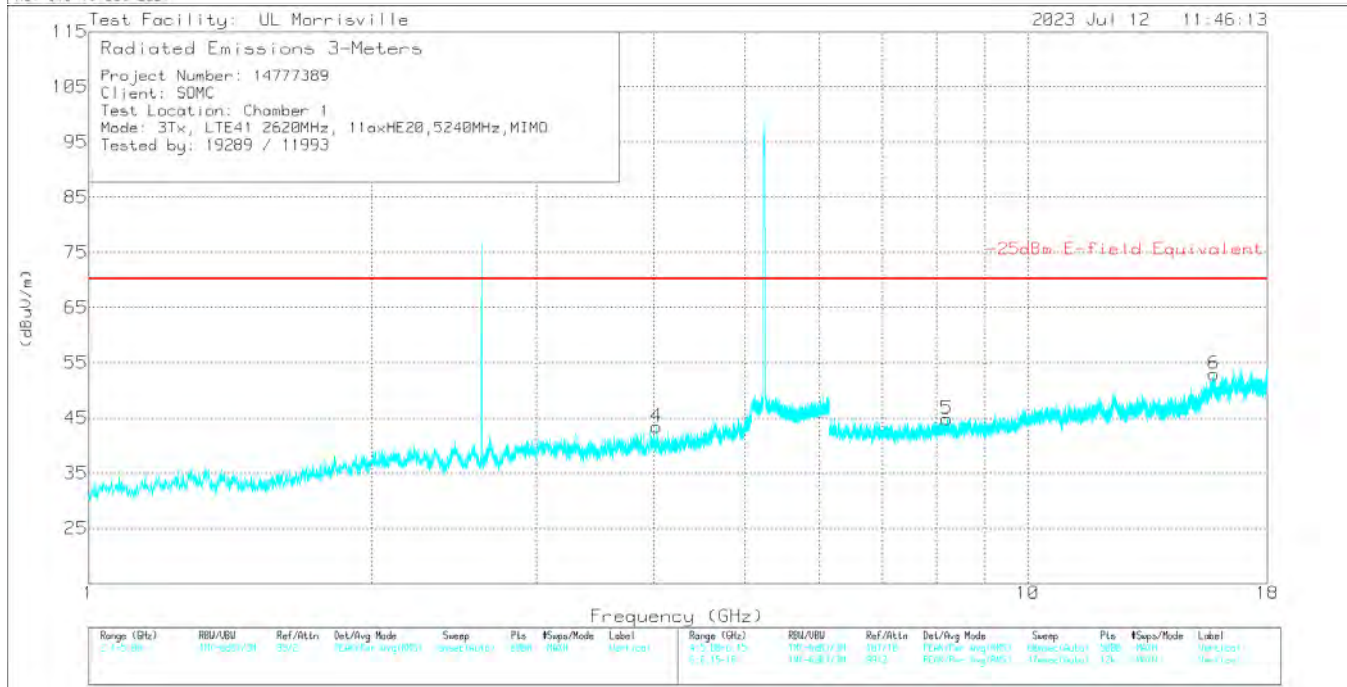
Pk - Peak detector

DL - Downlink

### 11.3.4. Scan 4



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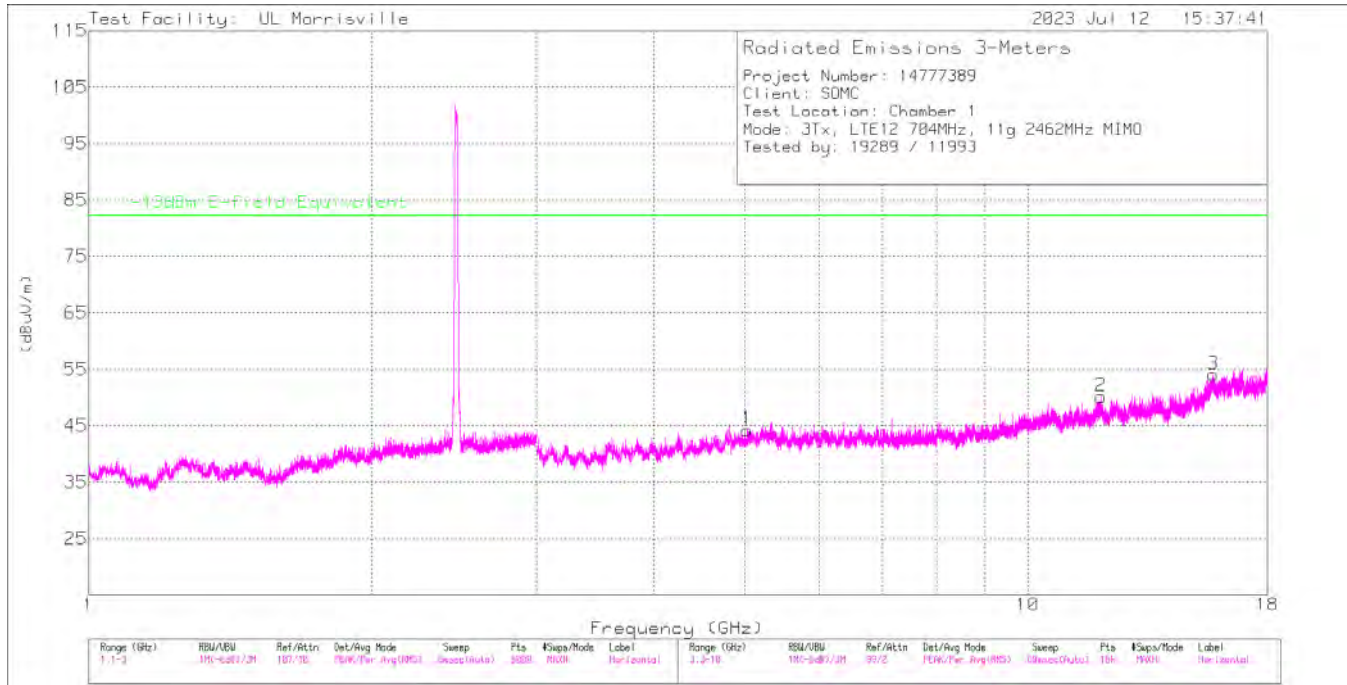
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Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-25dBm E-field Equivalent	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.0197	38.4	Pk	33.4	-31.7	.4	40.5	70.2	-29.7	0-360	200	H
4	* 4.0231	41.49	Pk	33.4	-31.8	.3	43.39	70.2	-26.81	0-360	101	V
6	* 15.79788	36.44	Pk	40.7	-24.2	0	52.94	70.2	-17.26	0-360	101	V
3	* 15.86996	37.05	Pk	40.7	-24.9	0	52.85	70.2	-17.35	0-360	200	H
5	* 8.20203	38.48	Pk	35.9	-29.6	0	44.78	70.2	-25.42	0-360	101	V
2	* 8.25041	39.58	Pk	35.9	-28.7	0	46.78	70.2	-23.42	0-360	200	H

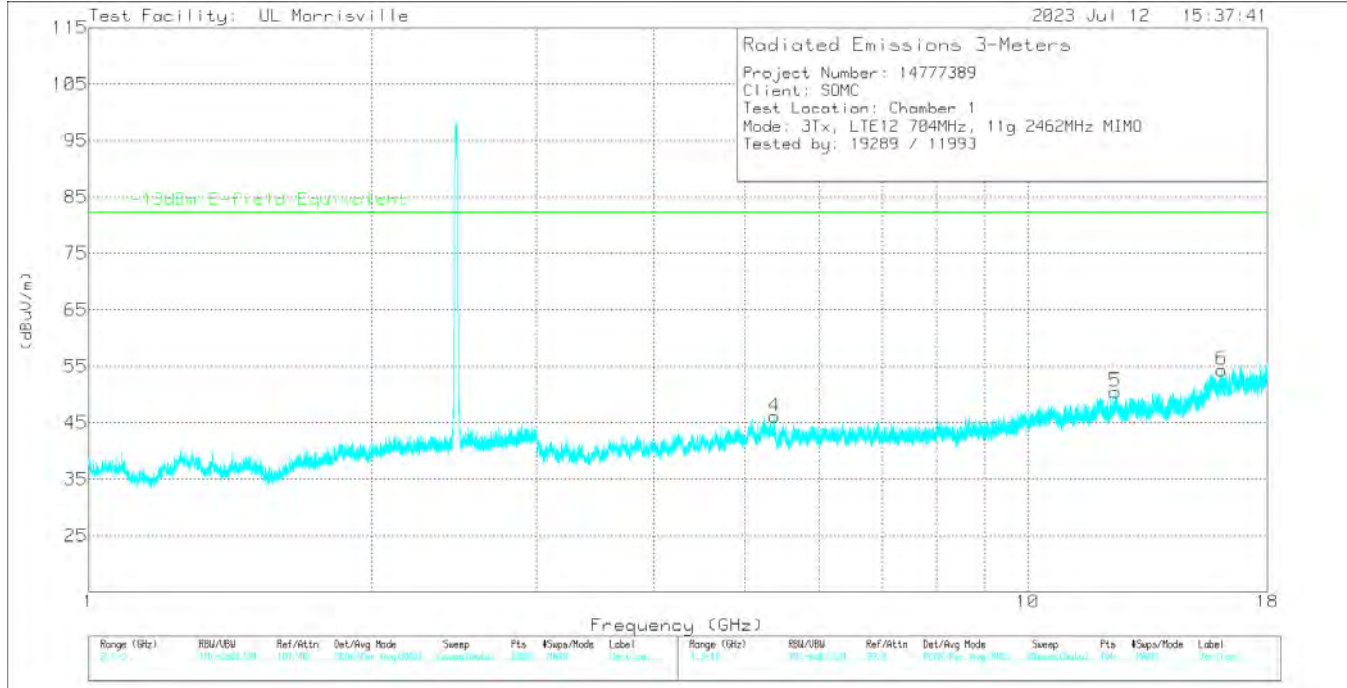
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

### 11.3.5. Scan 5



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Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.02406	39.9	Pk	34.1	-30.3	.6	44.3	82.2	-37.9	0-360	101	H
2	* 11.97469	36.08	Pk	38.6	-25.5	1	50.18	82.2	-32.02	0-360	101	H
3	* 15.75844	35.79	Pk	40.6	-23.4	1.1	54.09	82.2	-28.11	0-360	200	H
4	* 5.37656	40.62	Pk	34.5	-29.7	.7	46.12	82.2	-36.08	0-360	200	V
5	* 12.39938	37.29	Pk	38.6	-26.4	1	50.49	82.2	-31.71	0-360	200	V
6	* 16.09969	36.08	Pk	40.7	-23.7	1.3	54.38	82.2	-27.82	0-360	101	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector



## 12. SETUP PHOTOS

Please see R14777389-EP4 For Setup Photos and Setup Diagrams.

# END OF REPORT