

## **2.6 BAND EDGE**

### **2.6.1 Specification Reference**

FCC 47 CFR Part 2, Clause 2.1051  
FCC 47 CFR Part 22, Clause 22.917(a)  
FCC 47 CFR Part 24, Clause 24.238(a)  
RSS-132, Clause 5.5  
RSS-133, Clause 6.5

### **2.6.2 Standard Applicable**

In the 1.0 MHz bands immediately outside and adjacent to the equipment's operating frequency block, the emission power per any 1% of the emission bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least  $43 + 10 \log_{10} p(\text{watts})$ .

### **2.6.3 Equipment Under Test and Modification State**

Serial No: 370920000139 (NU) and 371929000156 (CU) / Test Configuration A and B

### **2.6.4 Date of Test/Initial of test personnel who performed the test**

August 19 and October 15, 2019/XYZ

### **2.6.5 Test Equipment Used**

The major items of test equipment used for the above tests are identified in Section 3.1.

### **2.6.6 Environmental Conditions**

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility.

|                     |                |
|---------------------|----------------|
| Ambient Temperature | 24.5 - 26.7°C  |
| Relative Humidity   | 45.0 - 49.6%   |
| ATM Pressure        | 98.9 - 99.0kPa |

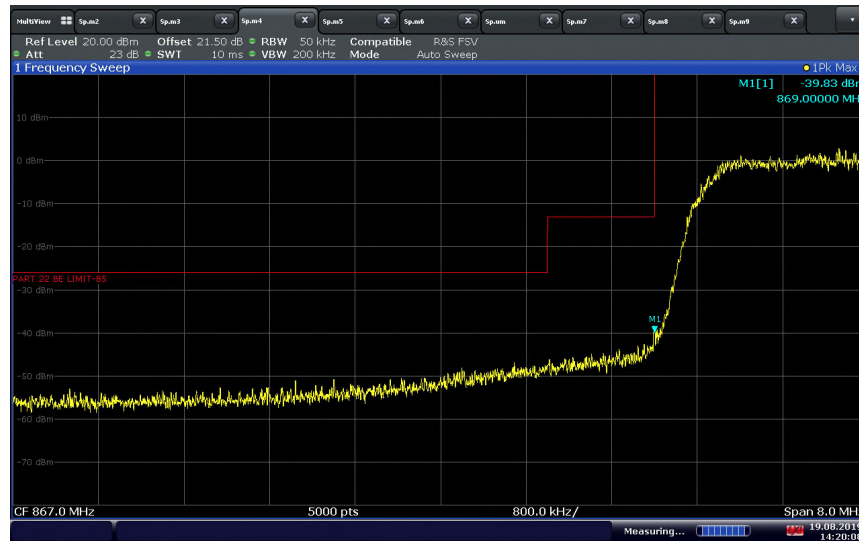


#### **2.6.7 Additional Observations**

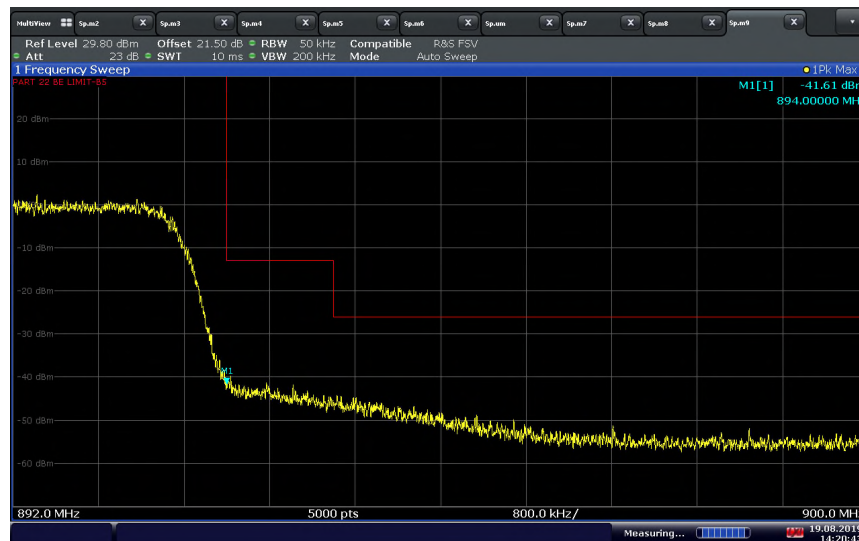
- This is a conducted test.
- Test guidance is per Section 6 of KDB971168 (D01 Power Meas License Digital Systems v02r02).
- The path loss was measured and entered as a level offset.
- The limit is set to -13dBm in the 1 MHz bands immediately outside to the frequency block.
- For WCDMA/LTE Band 5, RBW was set 1% of the Emission Bandwidth or 100 kHz, and for emissions more than 1.0 MHz outside the equipment's operating frequency block, the limit is set to:  
 $-13 + 10\lg(\text{RBW}_{\text{used}}/100\text{kHz}) \text{ dBm}$ .
- For LTE Band 25, RBW was set 1% of the Emission Bandwidth, and for emissions more than 1.0 MHz outside the equipment's operating frequency block, the limit is set to:  
 $-13 + 10\lg(\text{RBW}_{\text{used}}/1 \text{ MHz}) \text{ dBm}$ .

## 2.6.8 Test Results

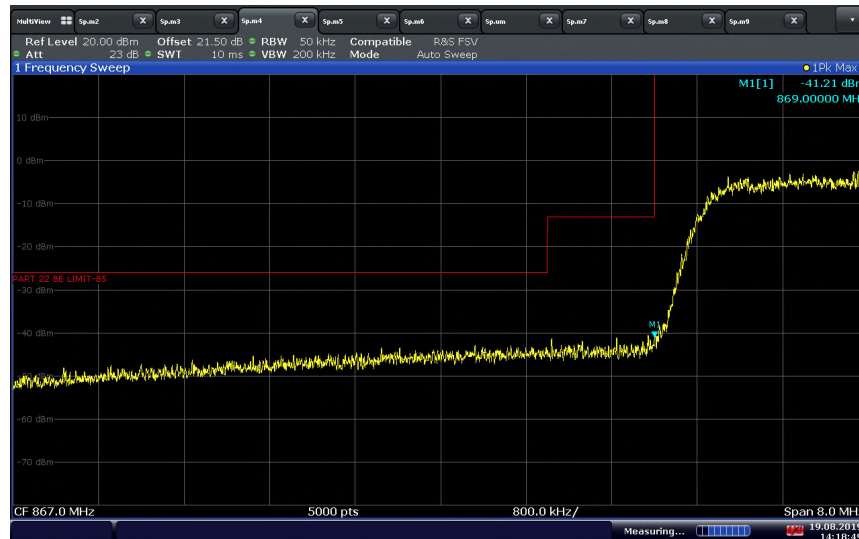
### WCDMA Band 5 Downlink\_5MHz Bandwidth\_Low Channel Band Edge



### WCDMA Band 5 Downlink\_5MHz Bandwidth\_High Channel Band Edge

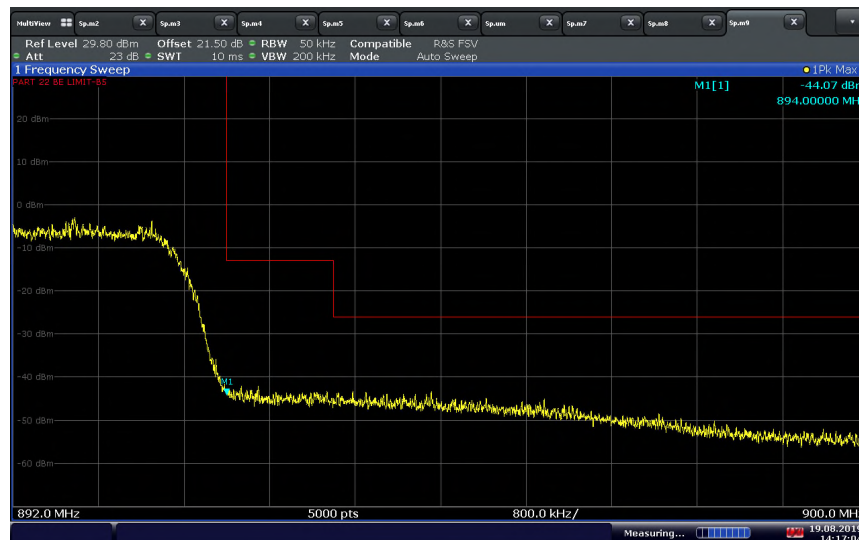


### WCDMA Band 5 Downlink\_15MHz Bandwidth\_Low Channel Band Edge



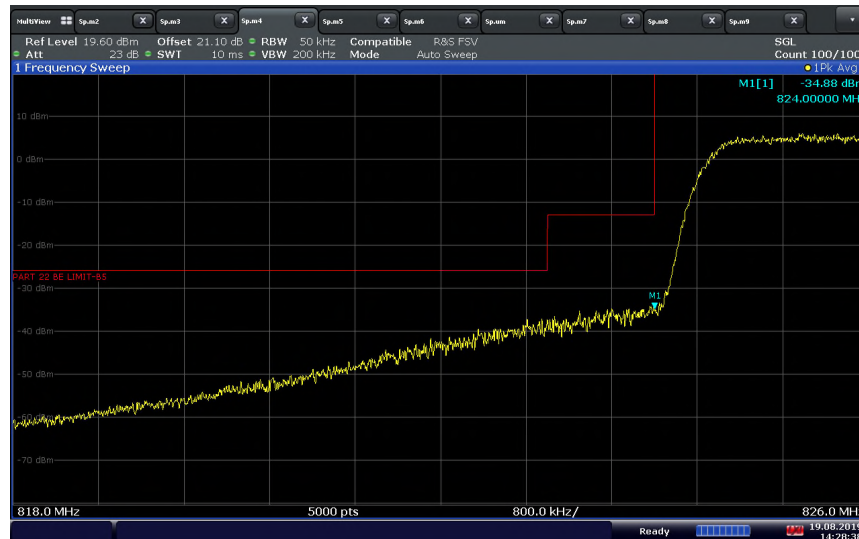
14:18:50 19.08.2019

### WCDMA Band 5 Downlink\_15MHz Bandwidth\_High Channel Band Edge

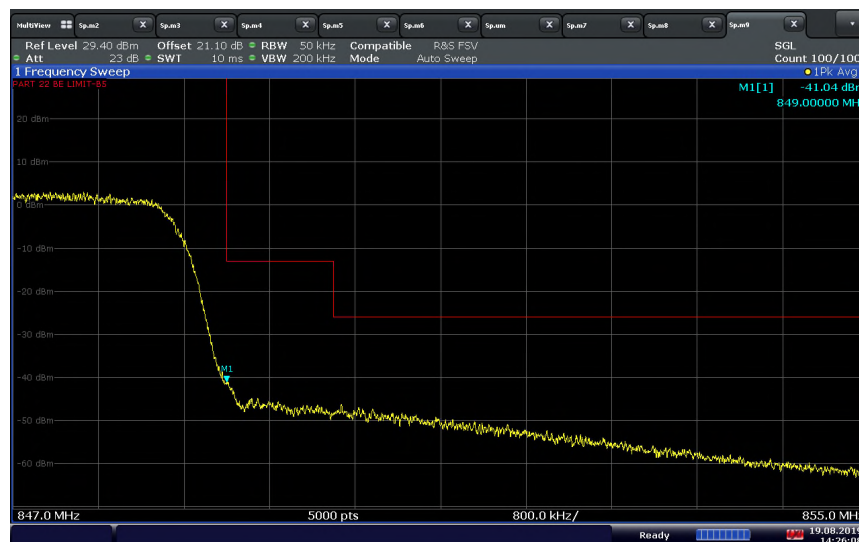


14:17:04 19.08.2019

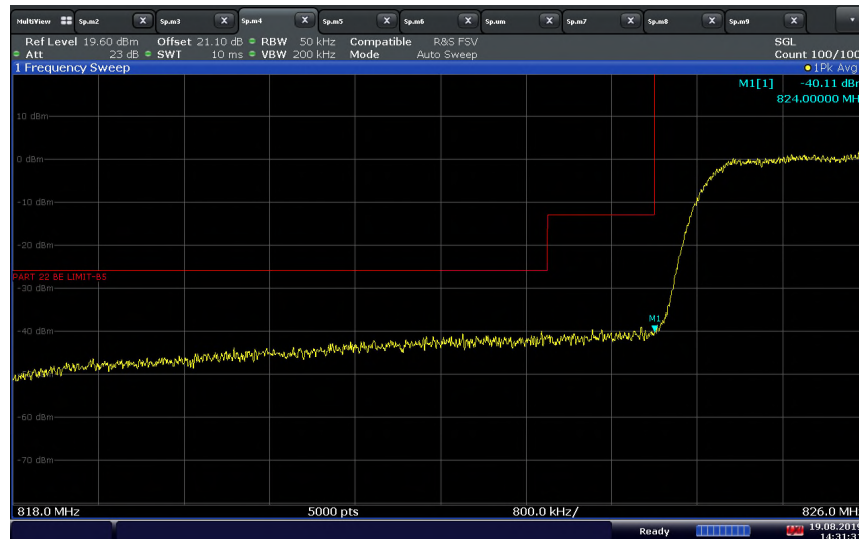
### WCDMA Band 5 Uplink\_5MHz Bandwidth\_Low Channel Band Edge



### WCDMA Band 5 Uplink\_5MHz Bandwidth\_High Channel Band Edge

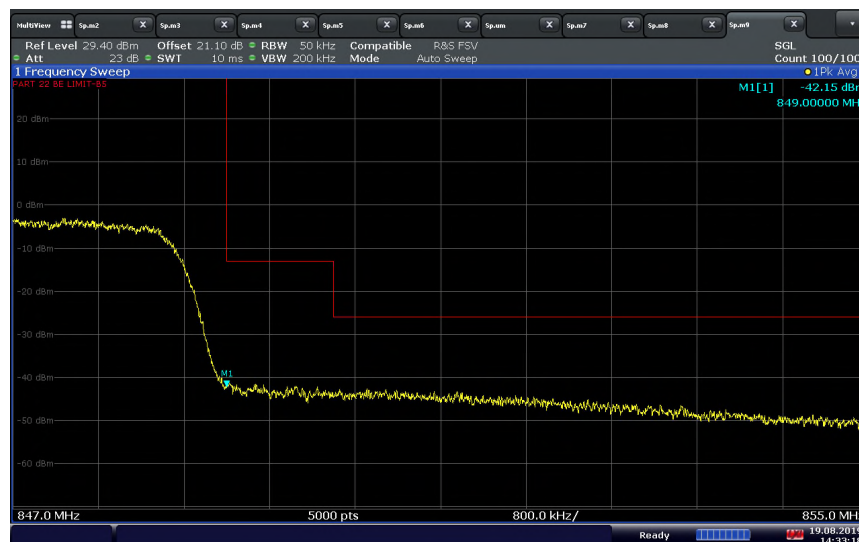


### WCDMA Band 5 Uplink\_15MHz Bandwidth\_Low Channel Band Edge



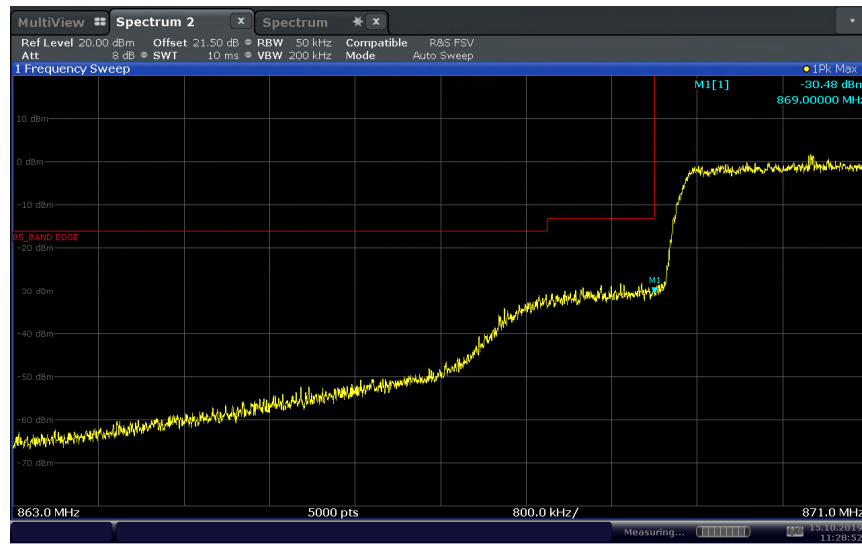
14:31:32 19.08.2019

### WCDMA Band 5 Uplink\_15MHz Bandwidth\_High Channel Band Edge

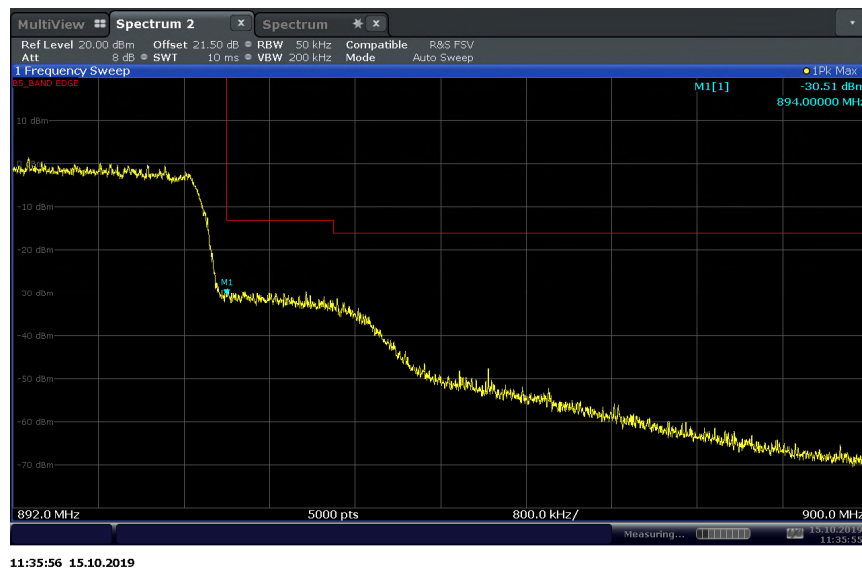


14:33:19 19.08.2019

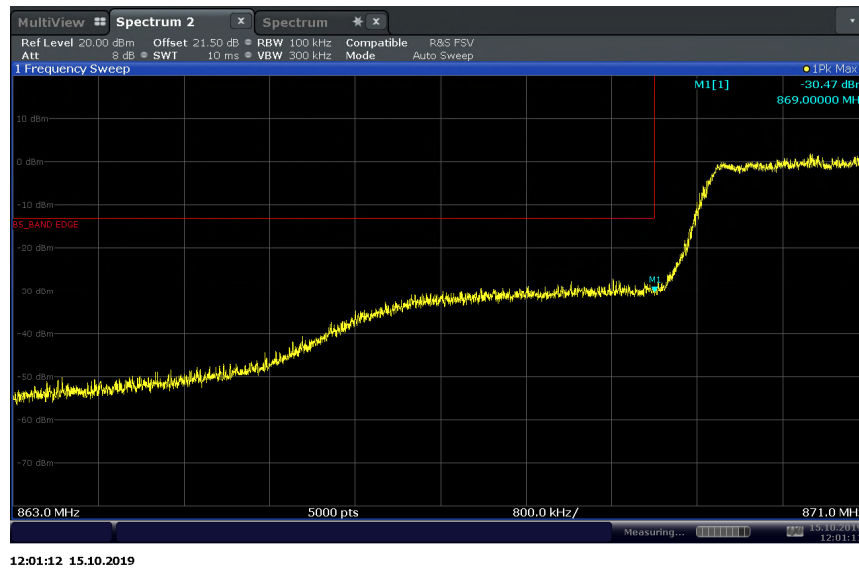
### LTE Band 5 Downlink\_5MHz Bandwidth\_Low Channel Band Edge



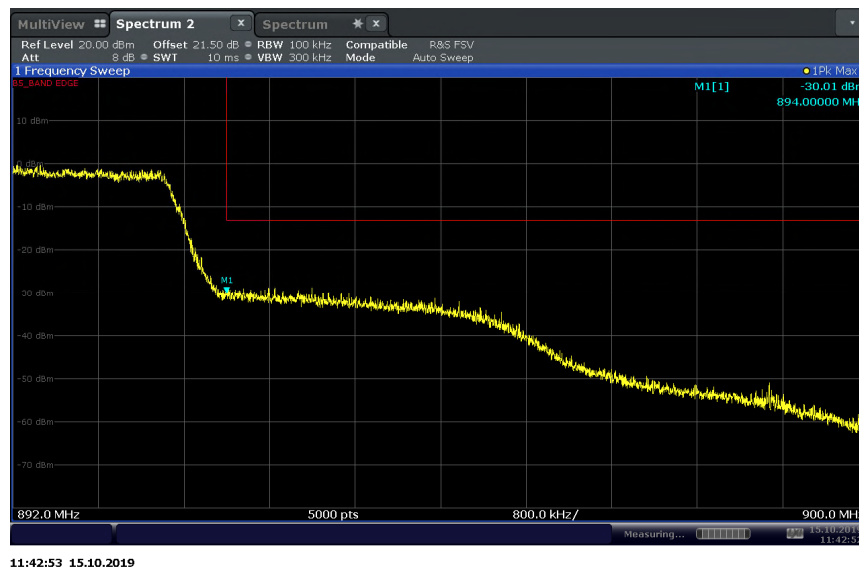
### LTE Band 5 Downlink\_5MHz Bandwidth\_High Channel Band Edge



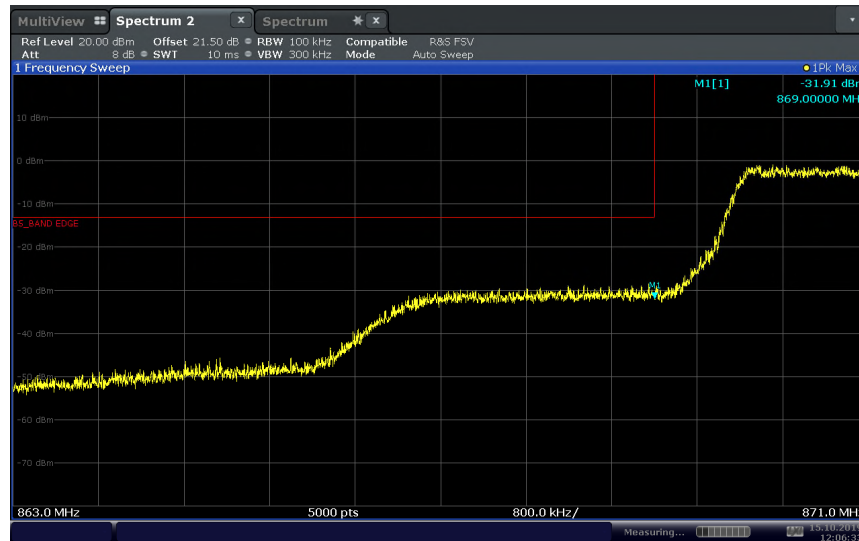
### LTE Band 5 Downlink\_10MHz Bandwidth\_Low Channel Band Edge



### LTE Band 5 Downlink\_10MHz Bandwidth\_High Channel Band Edge

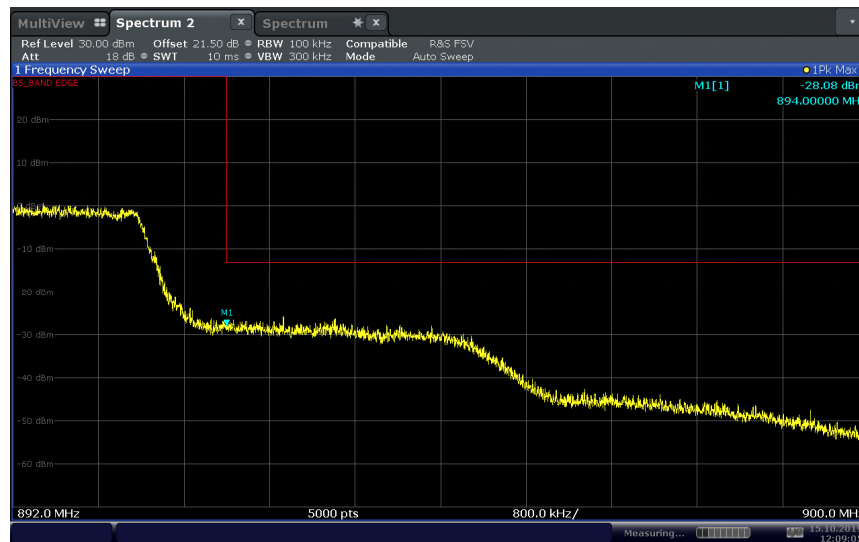


### LTE Band 5 Downlink\_15MHz Bandwidth\_Low Channel Band Edge



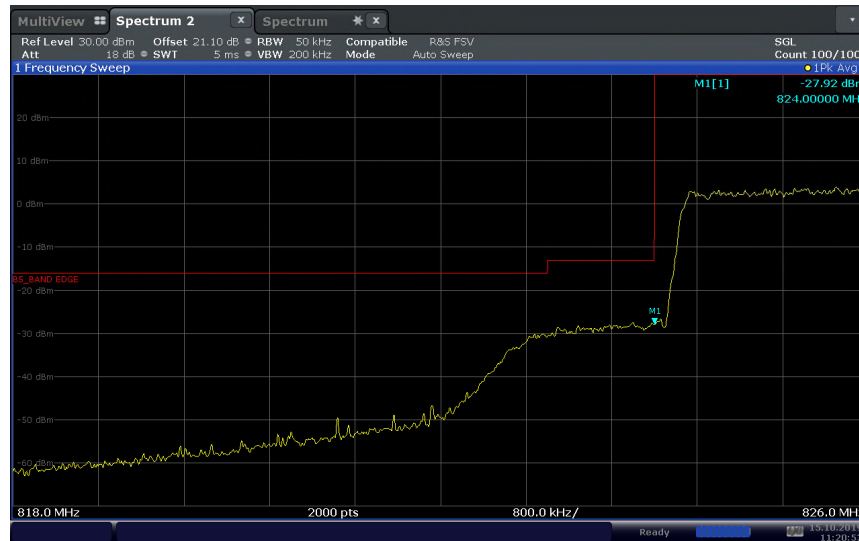
12:06:34 15.10.2019

### LTE Band 5 Downlink\_15MHz Bandwidth\_High Channel Band Edge



12:09:05 15.10.2019

### LTE Band 5 Uplink\_5MHz Bandwidth\_Low Channel Band Edge



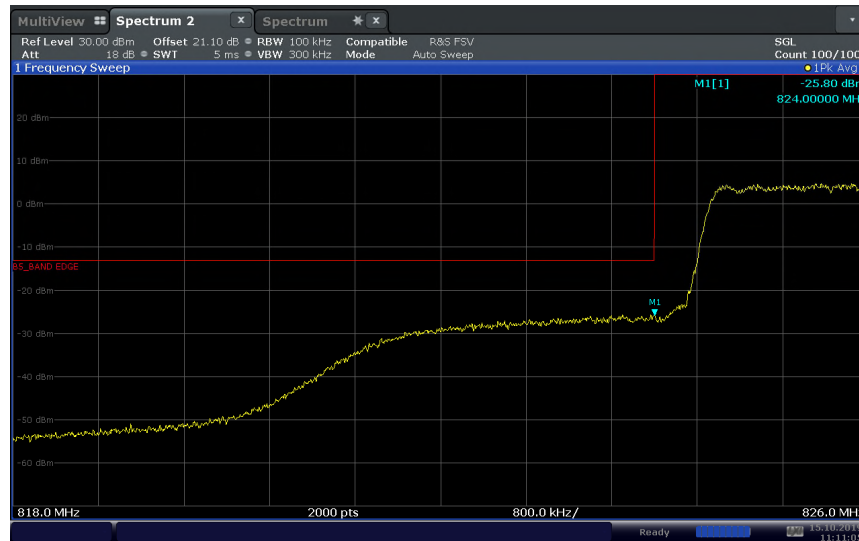
11:20:53 15.10.2019

### LTE Band 5 Uplink\_5MHz Bandwidth\_High Channel Band Edge



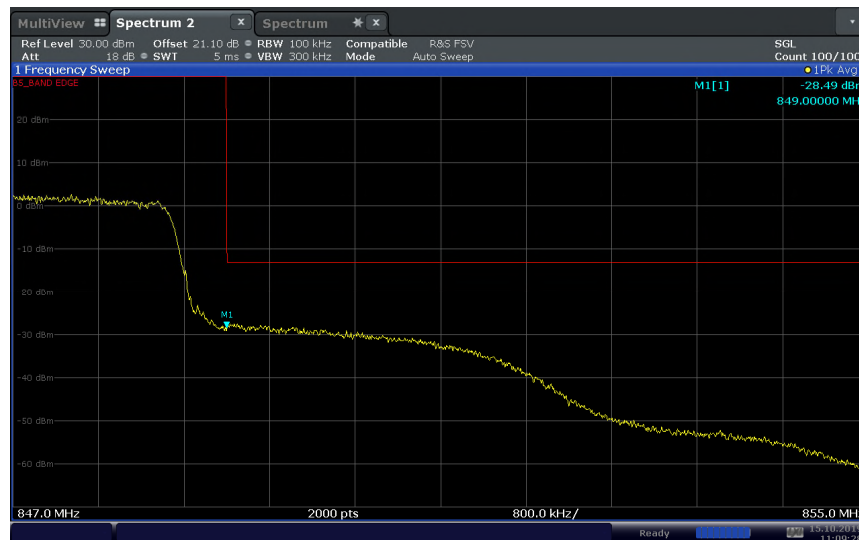
11:18:45 15.10.2019

### LTE Band 5 Uplink\_10MHz Bandwidth\_Low Channel Band Edge



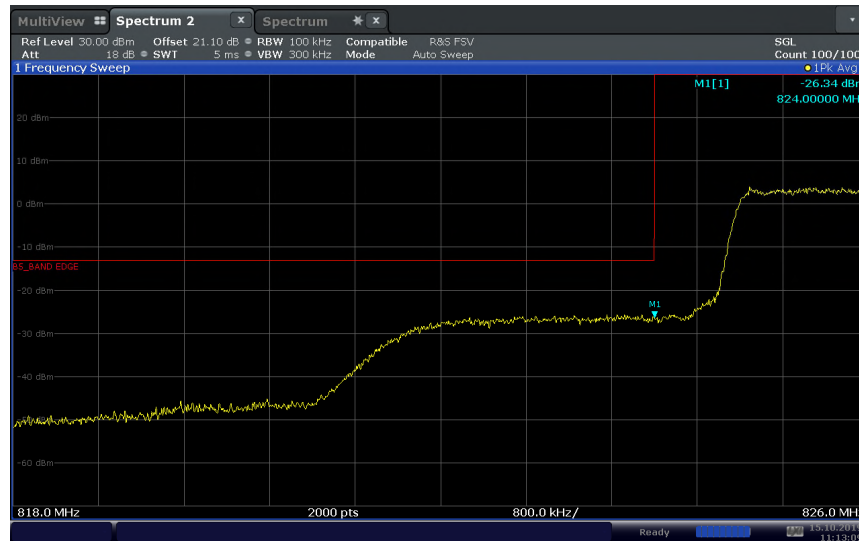
11:11:06 15.10.2019

### LTE Band 5 Uplink\_10MHz Bandwidth\_High Channel Band Edge



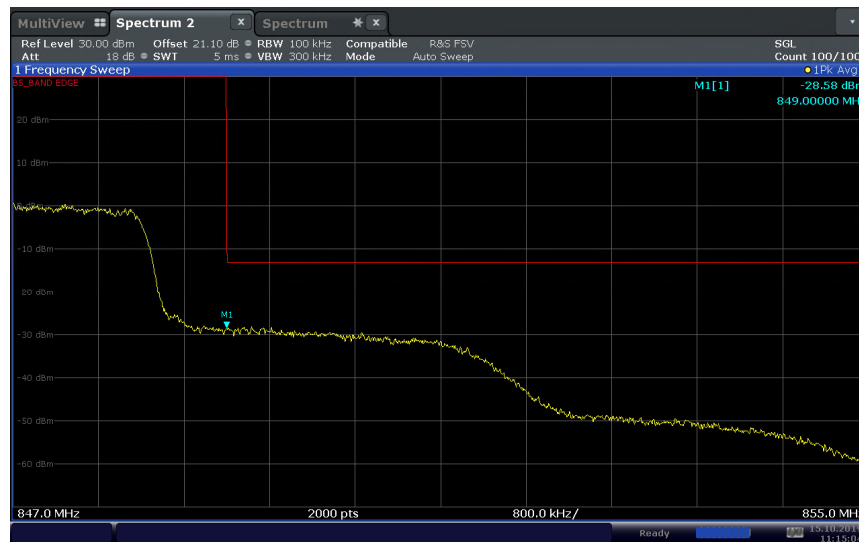
11:09:29 15.10.2019

### LTE Band 5 Uplink\_15MHz Bandwidth\_Low Channel Band Edge



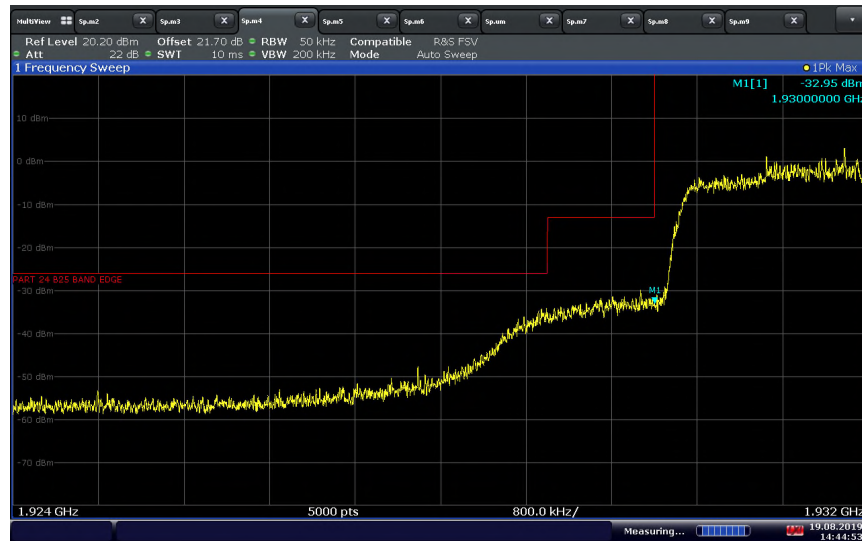
11:13:10 15.10.2019

### LTE Band 5 Uplink\_15MHz Bandwidth\_High Channel Band Edge



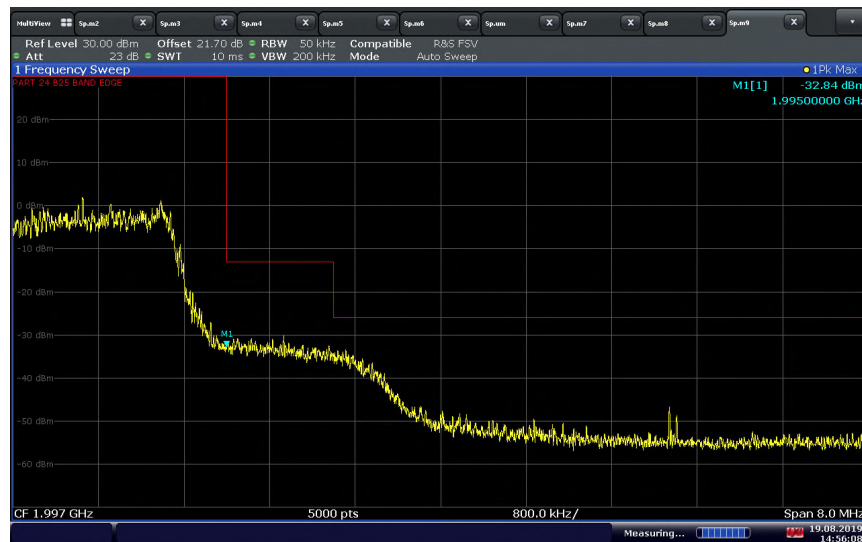
11:15:05 15.10.2019

### LTE Band 25 Downlink\_5MHz Bandwidth\_Low Channel Band Edge



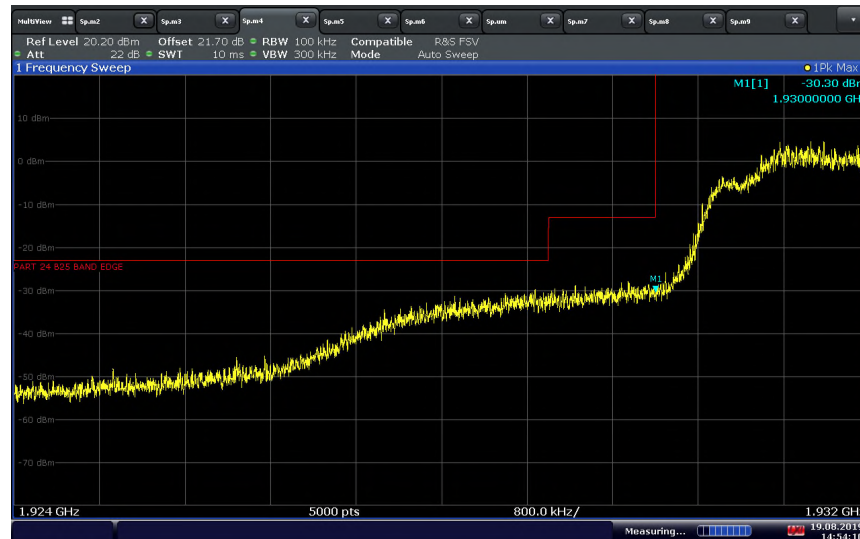
14:44:54 19.08.2019

### LTE Band 25 Downlink\_5MHz Bandwidth\_High Channel Band Edge

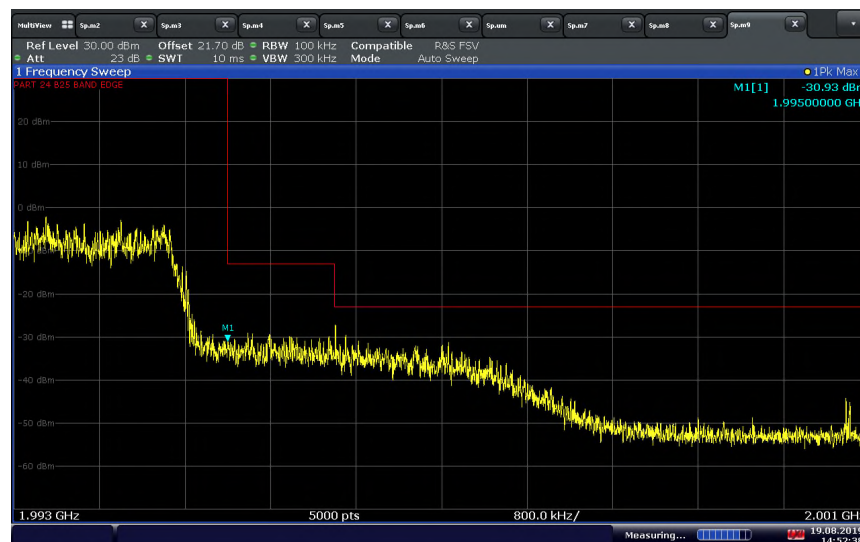


14:56:08 19.08.2019

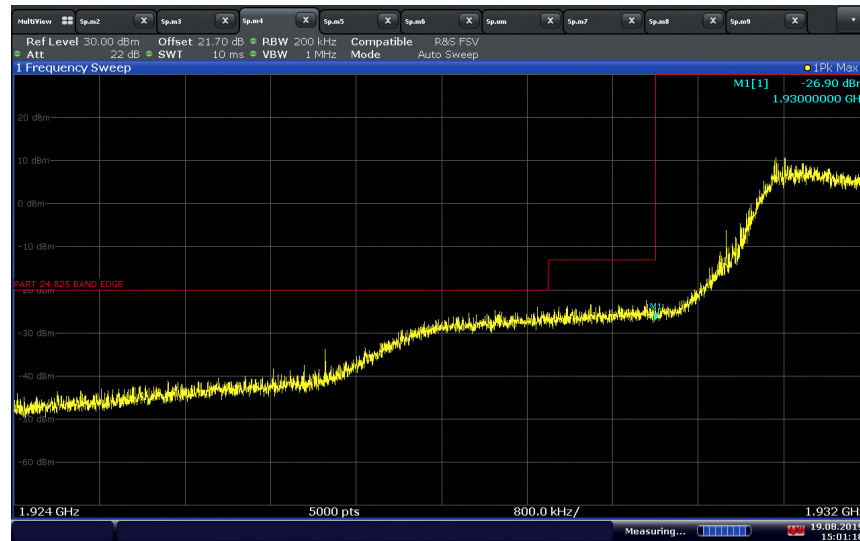
### LTE Band 25 Downlink\_10MHz Bandwidth\_Low Channel Band Edge



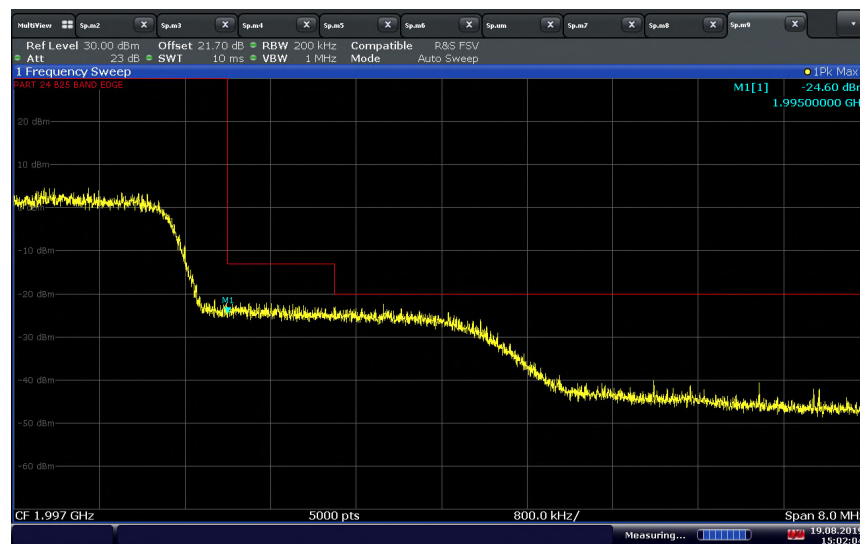
### LTE Band 25 Downlink\_10MHz Bandwidth\_High Channel Band Edge



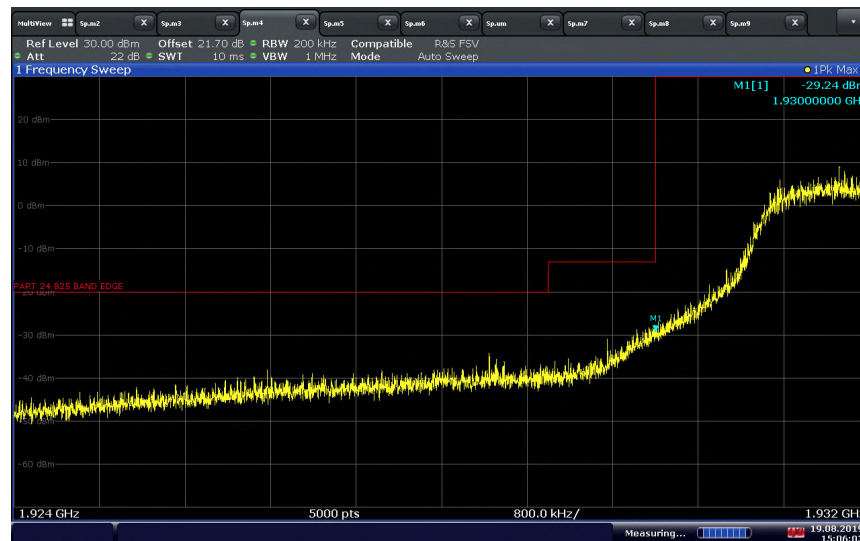
### LTE Band 25 Downlink\_15MHz Bandwidth\_Low Channel Band Edge



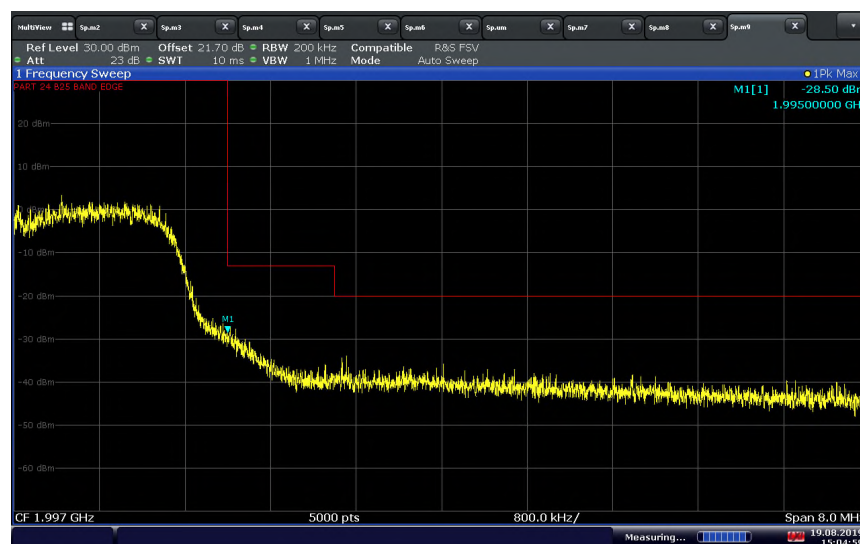
### LTE Band 25 Downlink\_15MHz Bandwidth\_High Channel Band Edge



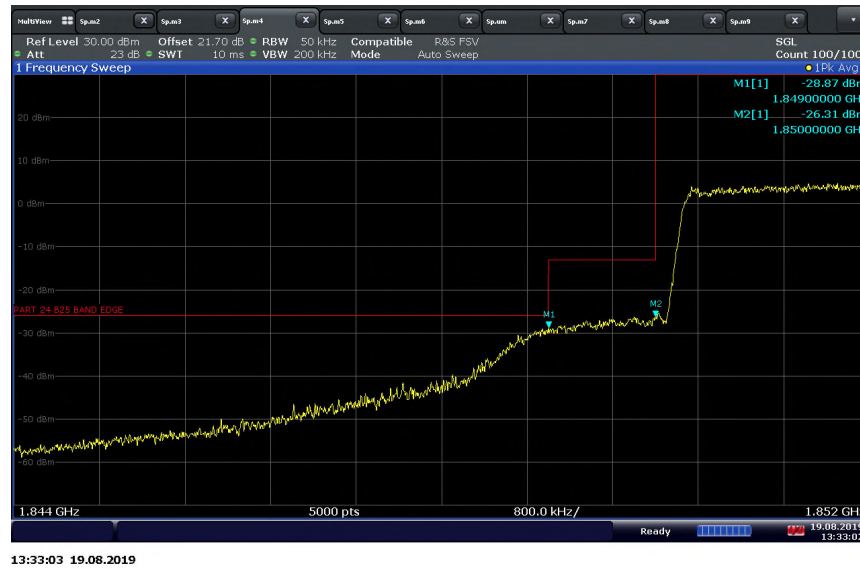
### LTE Band 25 Downlink\_20MHz Bandwidth\_Low Channel Band Edge



### LTE Band 25 Downlink\_20MHz Bandwidth\_High Channel Band Edge



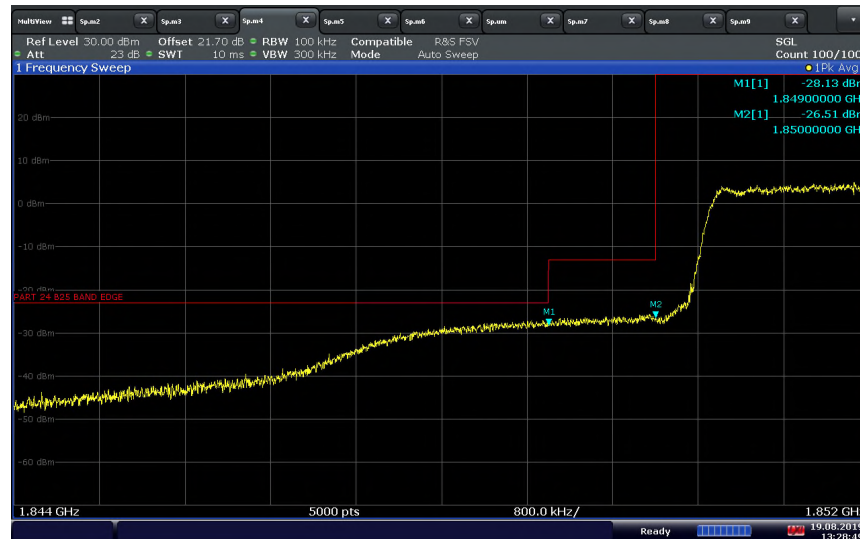
### LTE Band 25 Uplink\_5MHz Bandwidth\_Low Channel Band Edge



### LTE Band 25 Uplink\_5MHz Bandwidth\_High Channel Band Edge

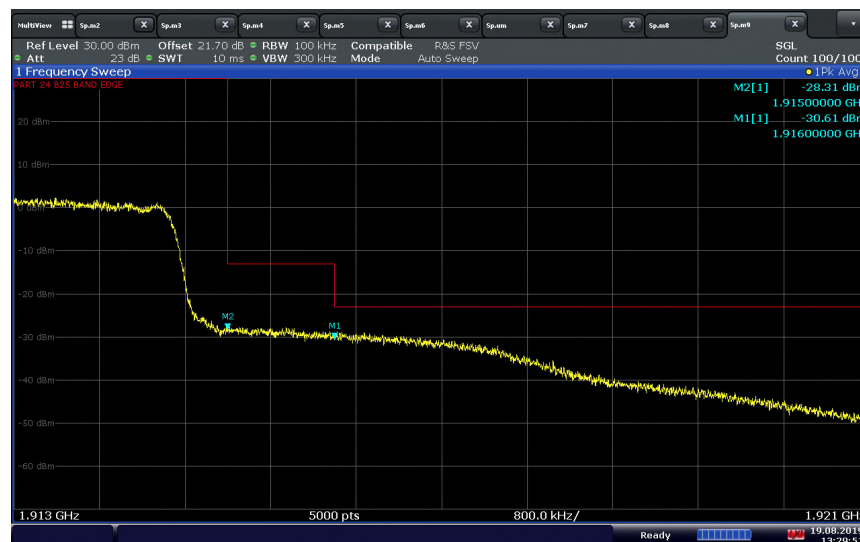


### LTE Band 25 Uplink\_10MHz Bandwidth\_Low Channel Band Edge



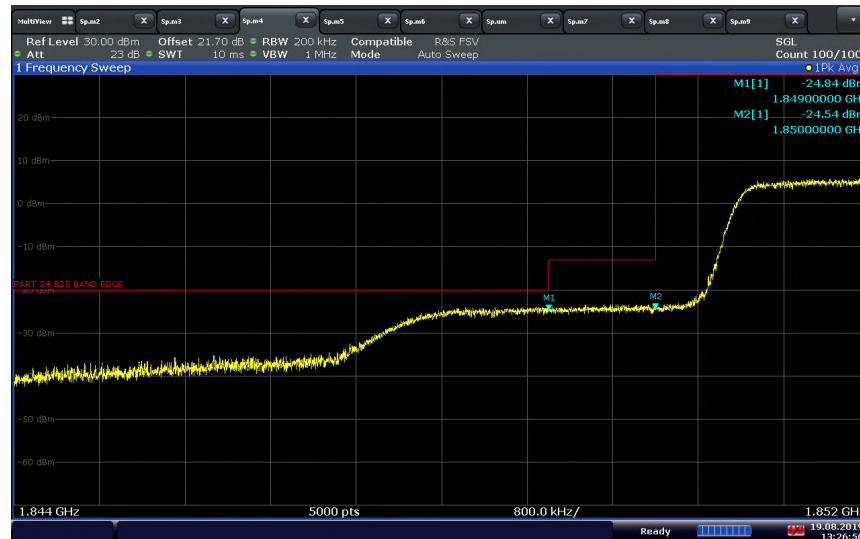
13:28:49 19.08.2019

### LTE Band 25 Uplink\_10MHz Bandwidth\_High Channel Band Edge

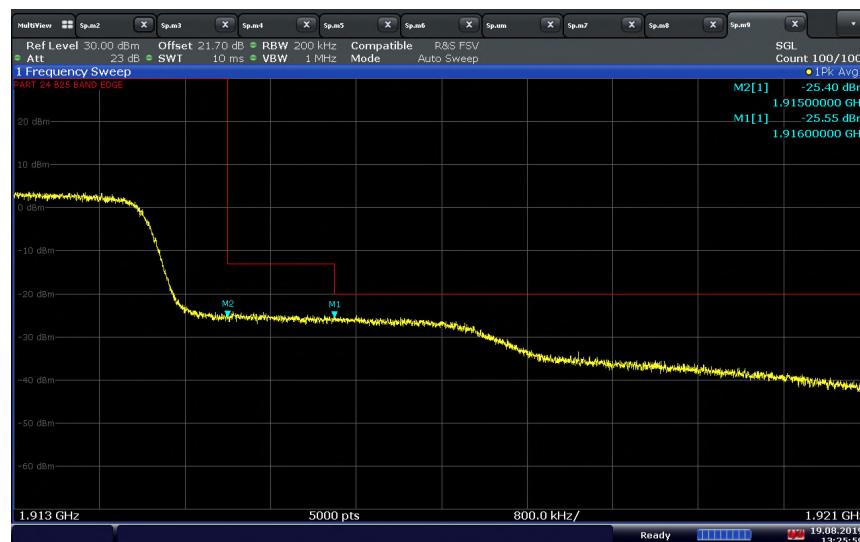


13:29:51 19.08.2019

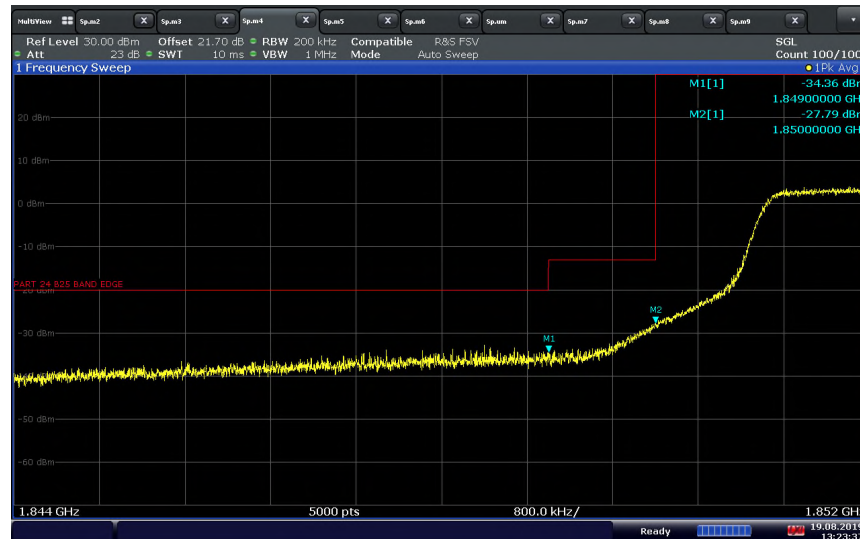
### LTE Band 25 Uplink\_15MHz Bandwidth\_Low Channel Band Edge



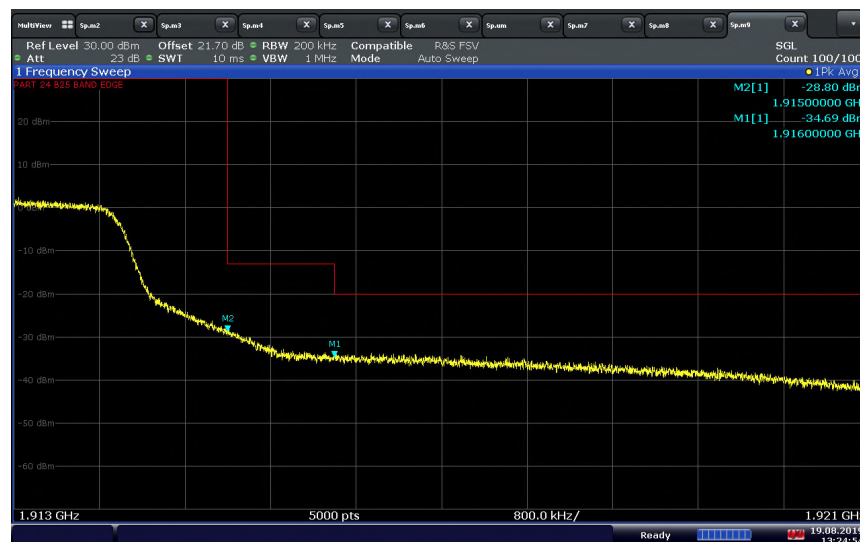
### LTE Band 25 Uplink\_15MHz Bandwidth\_High Channel Band Edge



### LTE Band 25 Uplink\_20MHz Bandwidth\_Low Channel Band Edge



### LTE Band 25 Uplink\_20MHz Bandwidth\_High Channel Band Edge



## **2.7 CONDUCTED SPURIOUS EMISSIONS**

### **2.7.1 Specification Reference**

FCC 47 CFR Part 2, Clause 2.1051  
FCC 47 CFR Part 22, Clause 22.917(a)  
FCC 47 CFR Part 24, Clause 24.238(a)  
RSS-132, Clause 5.5  
RSS-133, Clause 6.5

### **2.7.2 Standard Applicable**

Out of band emissions. 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.

### **2.7.3 Equipment Under Test and Modification State**

Serial No: 370920000139 (NU) and 371929000156 (CU) / Test Configuration A and B

### **2.7.4 Date of Test/Initial of test personnel who performed the test**

August 08, 13 and October 15, 16, 2019/XYZ

### **2.7.5 Test Equipment Used**

The major items of test equipment used for the above tests are identified in Section 3.1.

### **2.7.6 Environmental Conditions**

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility.

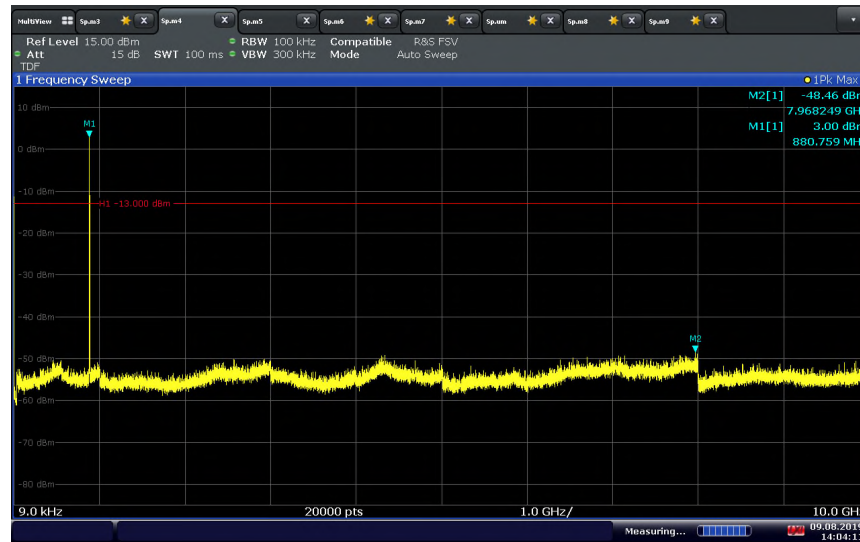
|                     |                |
|---------------------|----------------|
| Ambient Temperature | 24.5 - 25.8°C  |
| Relative Humidity   | 45.0 - 53.3%   |
| ATM Pressure        | 98.9 - 99.0kPa |

### **2.7.7 Additional Observations**

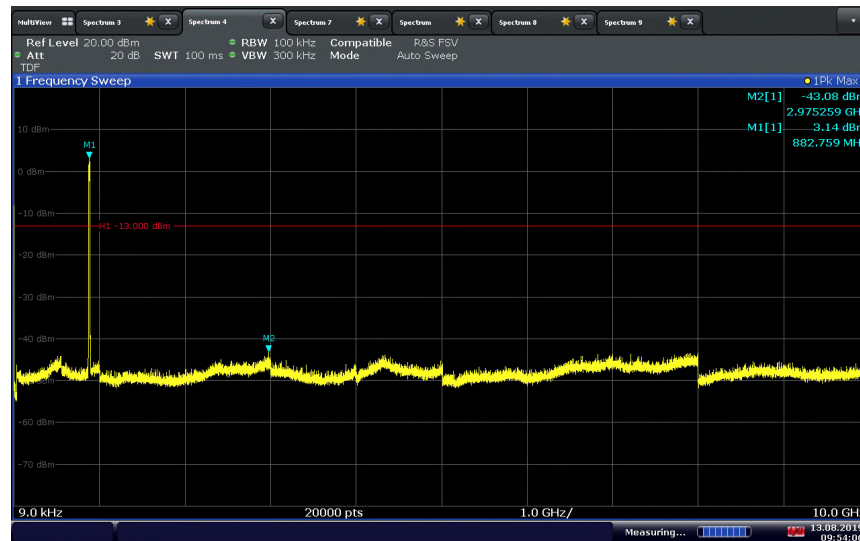
- This is a conducted test. Test guidance is per Section 6.1 of KDB971168 (D01 Power Meas License Digital Systems v03r01).
- The transducer factor (TDF) used is from the external attenuators and cables used.
- A resolution bandwidth of 100 kHz was used for WCDMA/LTE Band 5, and 1MHz was used for LTE Band 25.
- The limit is set to -13dBm.
- Only test plots for middle channel were presented as the representative configuration.

## 2.7.8 Test Results

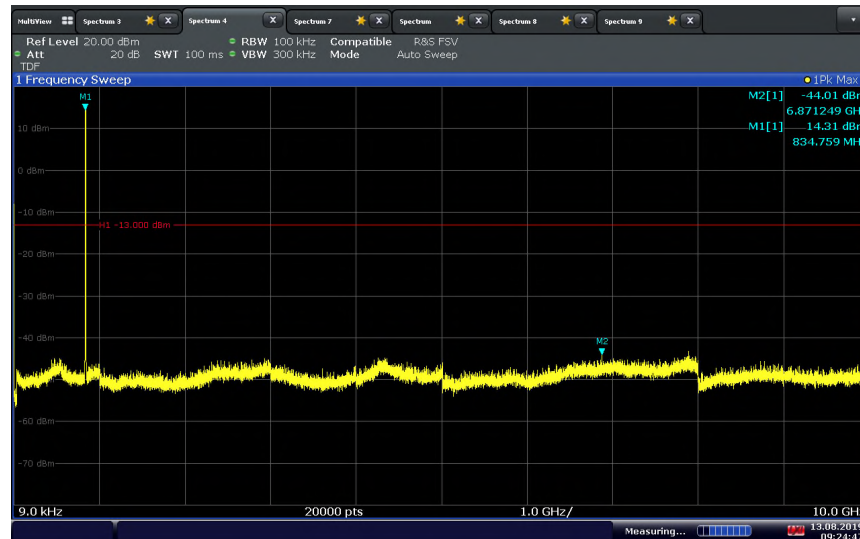
### WCDMA Band 5\_5MHz Bandwidth\_Downlink Middle Channel Conducted Spurious Emissions



### WCDMA Band 5\_15MHz Bandwidth\_Downlink Middle Channel Conducted Spurious Emissions

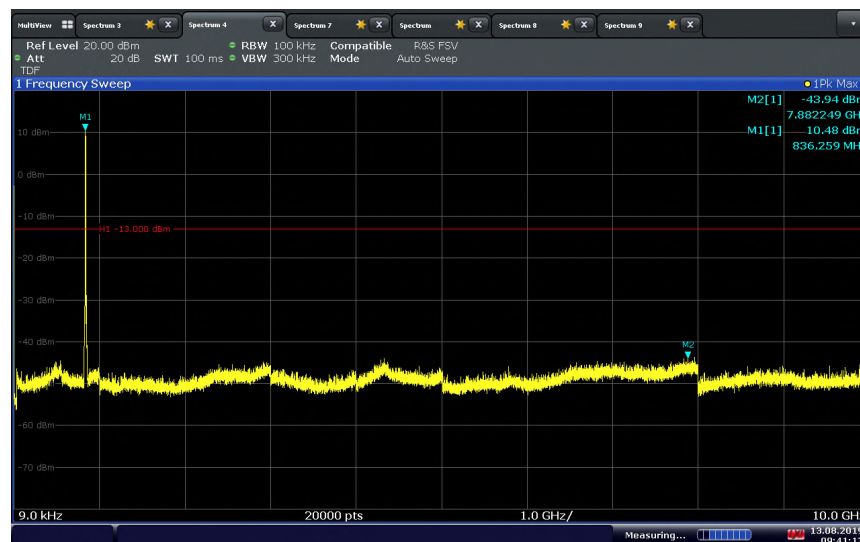


### WCDMA Band 5\_5MHz Bandwidth\_Uplink Middle Channel Conducted Spurious Emissions



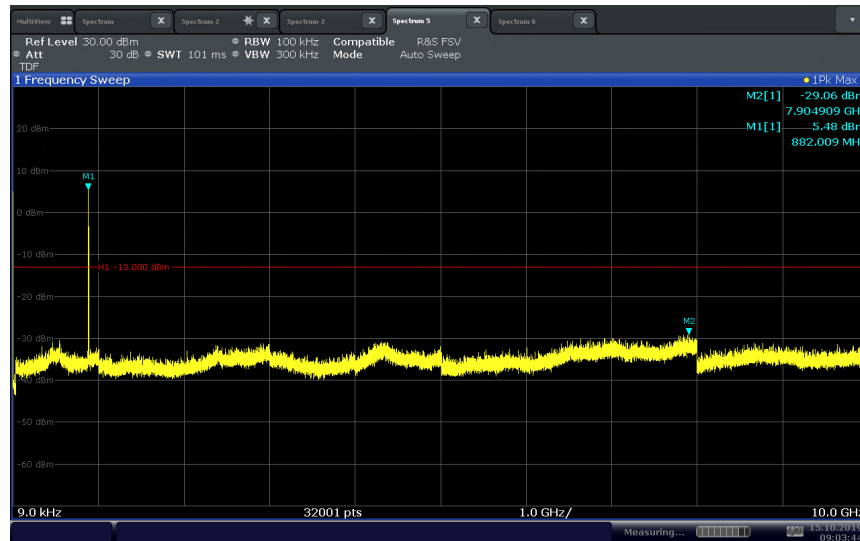
09:24:47 13.08.2019

### WCDMA Band 5\_15MHz Bandwidth\_Uplink Middle Channel Conducted Spurious Emissions



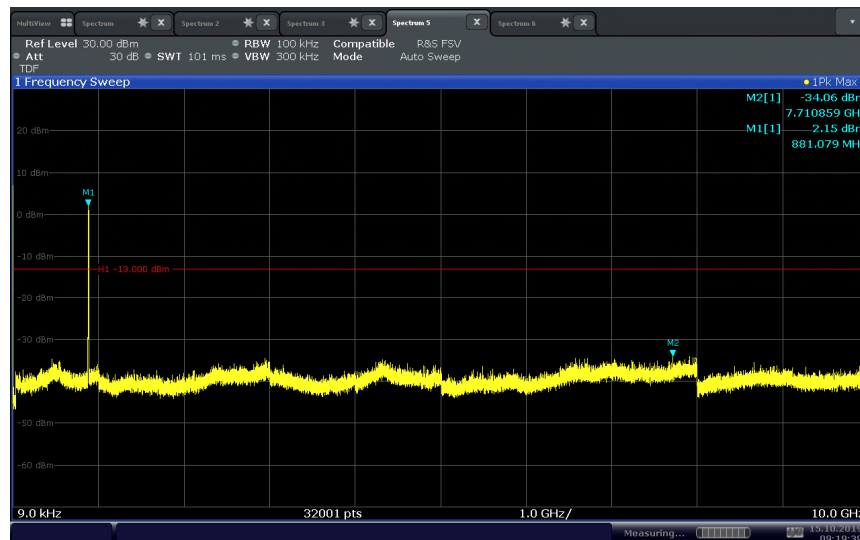
09:41:13 13.08.2019

### LTE Band 5\_5MHz Bandwidth\_Downlink Middle Channel Conducted Spurious Emissions



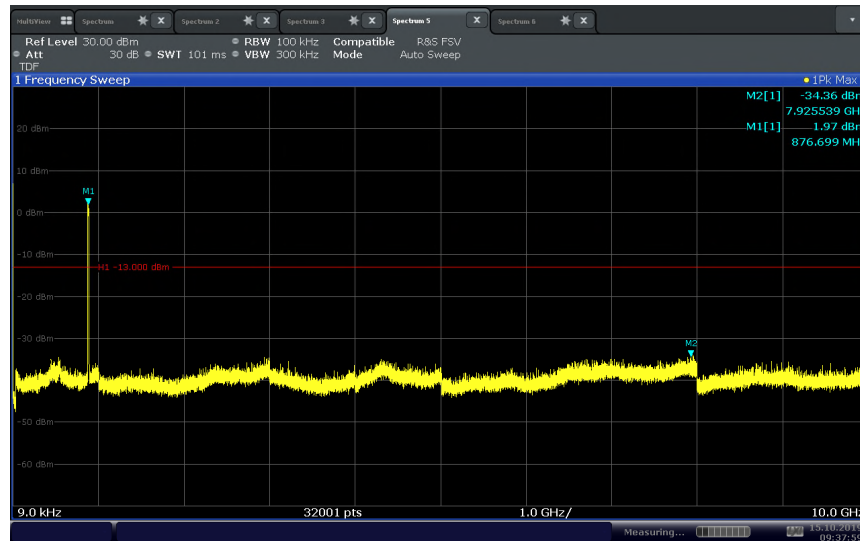
09:03:45 15.10.2019

### LTE Band 5\_10MHz Bandwidth\_Downlink Middle Channel Conducted Spurious Emissions



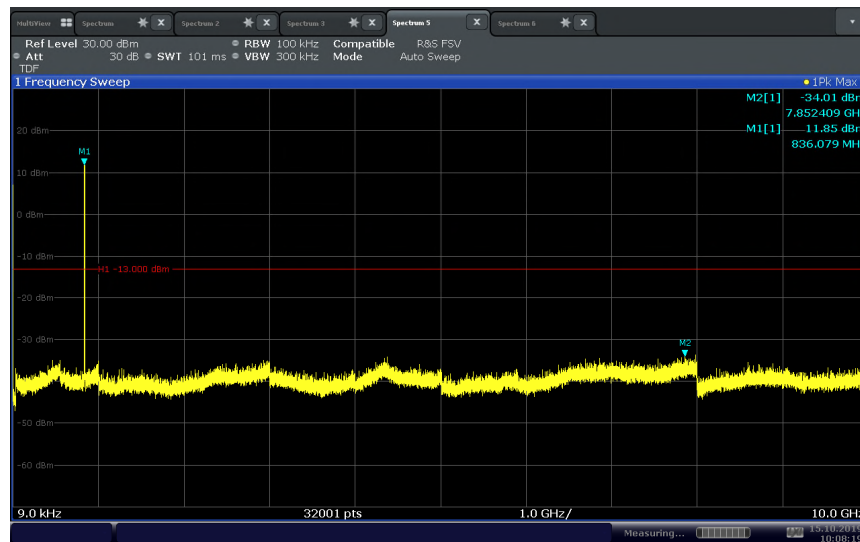
09:19:40 15.10.2019

### LTE Band 5\_15MHz Bandwidth\_Downlink Middle Channel Conducted Spurious Emissions



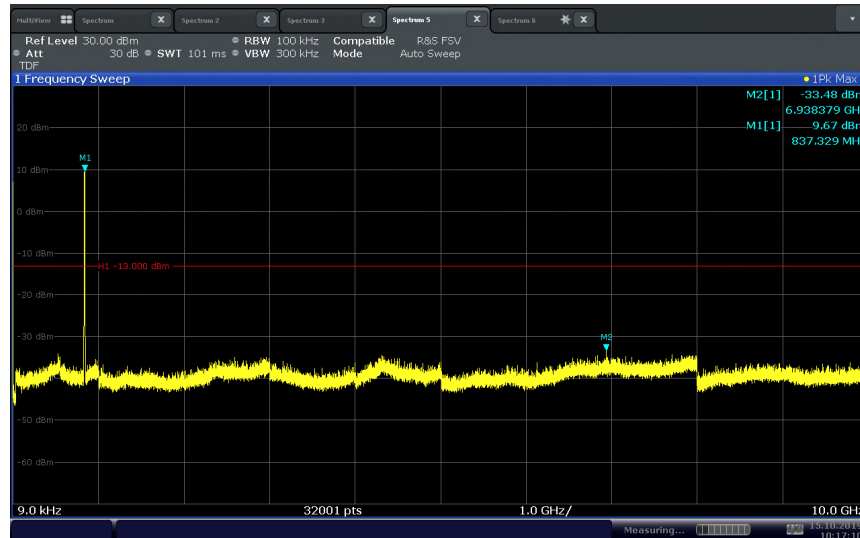
09:38:00 15.10.2019

### LTE Band 5\_5MHz Bandwidth\_Uplink Middle Channel Conducted Spurious Emissions



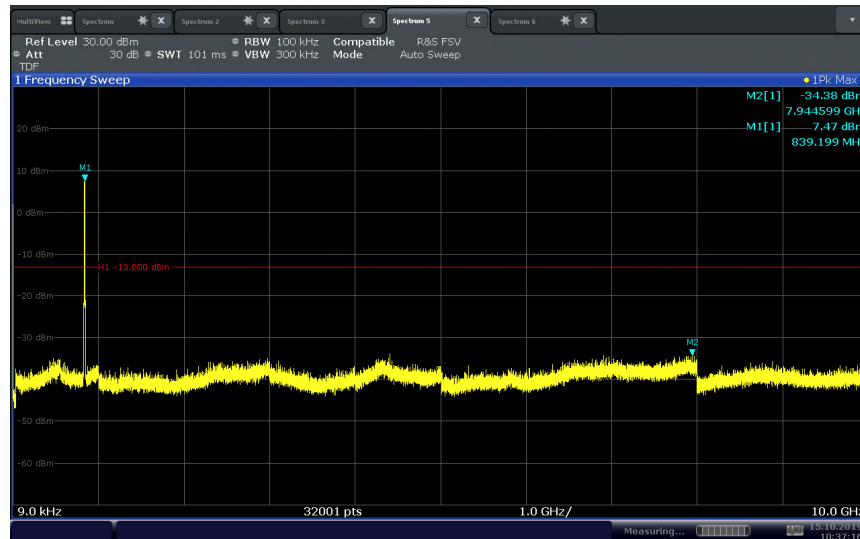
10:08:20 15.10.2019

### LTE Band 5\_10MHz Bandwidth\_Uplink Middle Channel Conducted Spurious Emissions



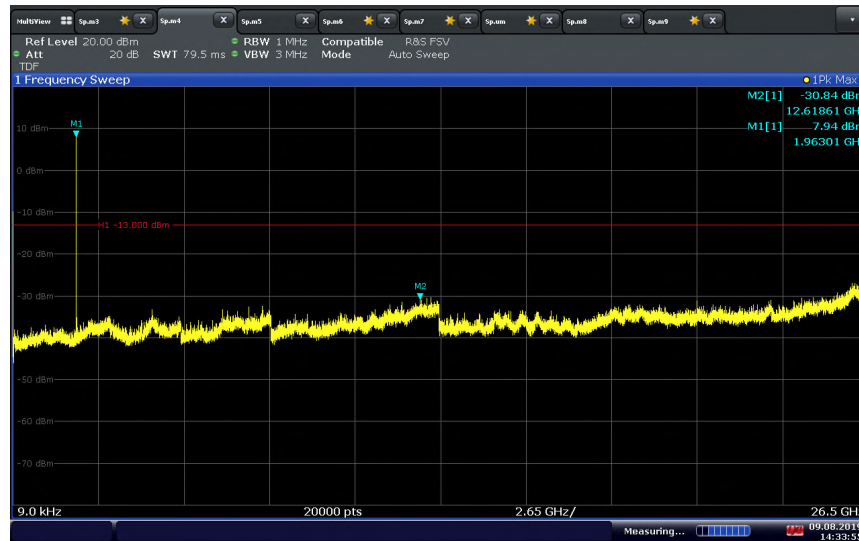
10:17:10 15.10.2019

### LTE Band 5\_15MHz Bandwidth\_Uplink Middle Channel Conducted Spurious Emissions



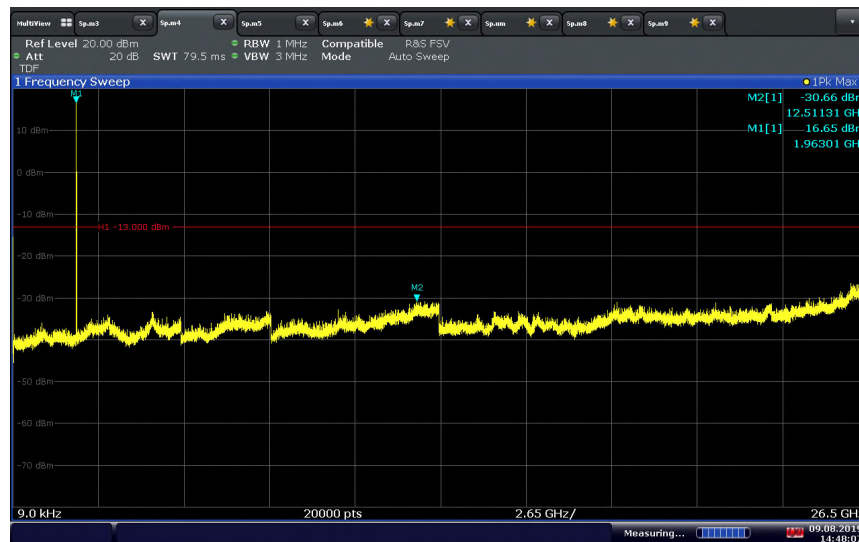
10:37:17 15.10.2019

### LTE Band 25\_5MHz Bandwidth\_Downlink Middle Channel Conducted Spurious Emissions



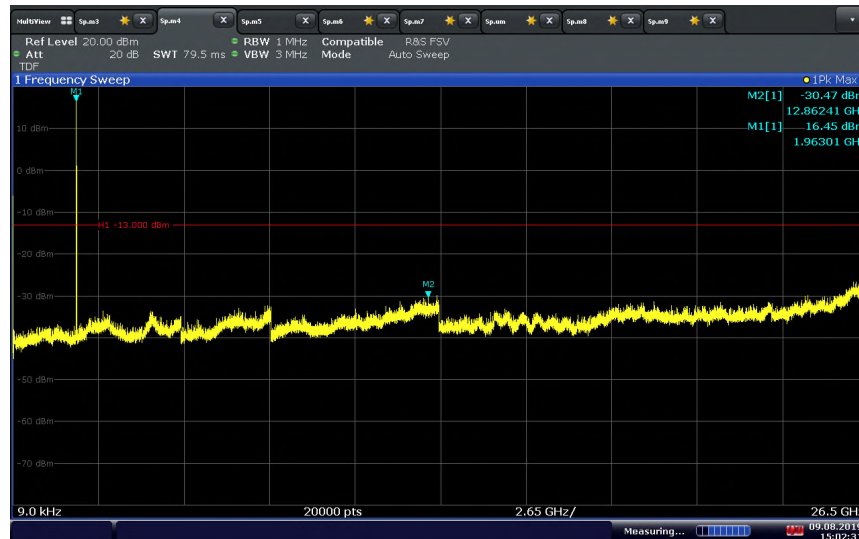
14:33:56 09.08.2019

### LTE Band 25\_10MHz Bandwidth\_Downlink Middle Channel Conducted Spurious Emissions

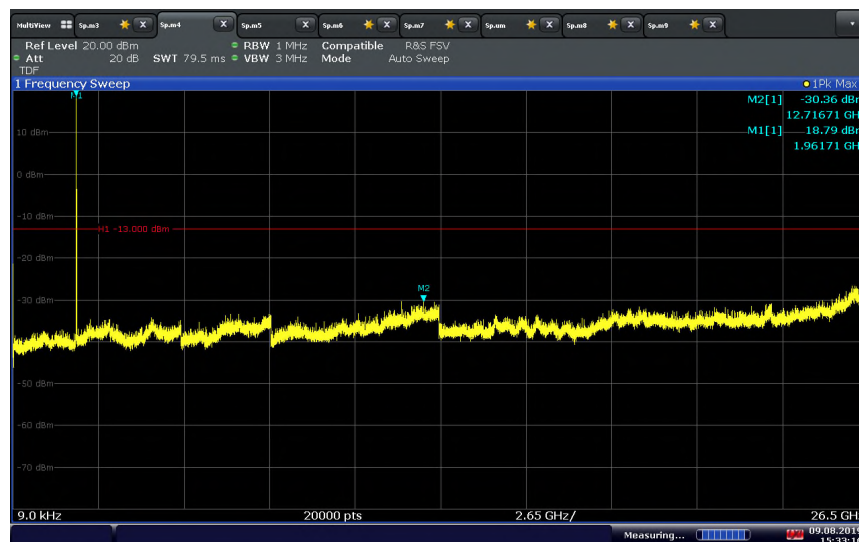


14:48:07 09.08.2019

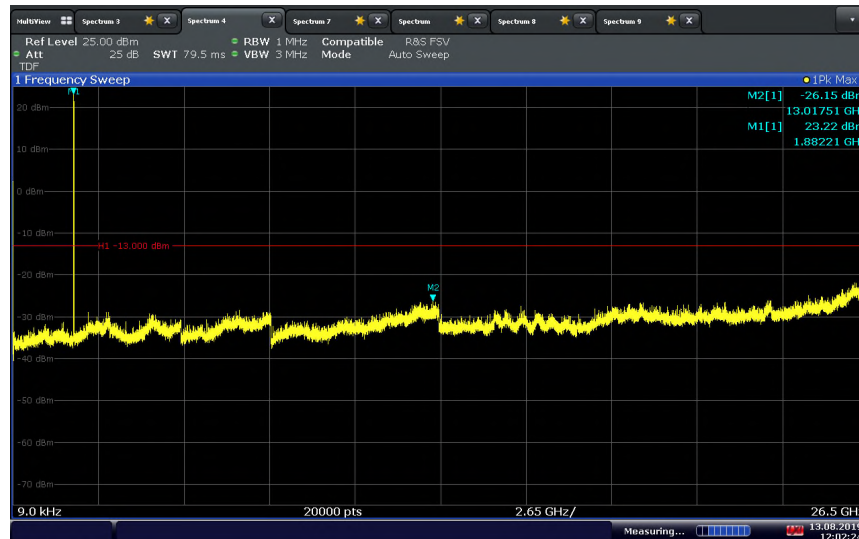
### LTE Band 25\_15MHz Bandwidth\_Downlink Middle Channel Conducted Spurious Emissions



### LTE Band 25\_20MHz Bandwidth\_Downlink Middle Channel Conducted Spurious Emissions

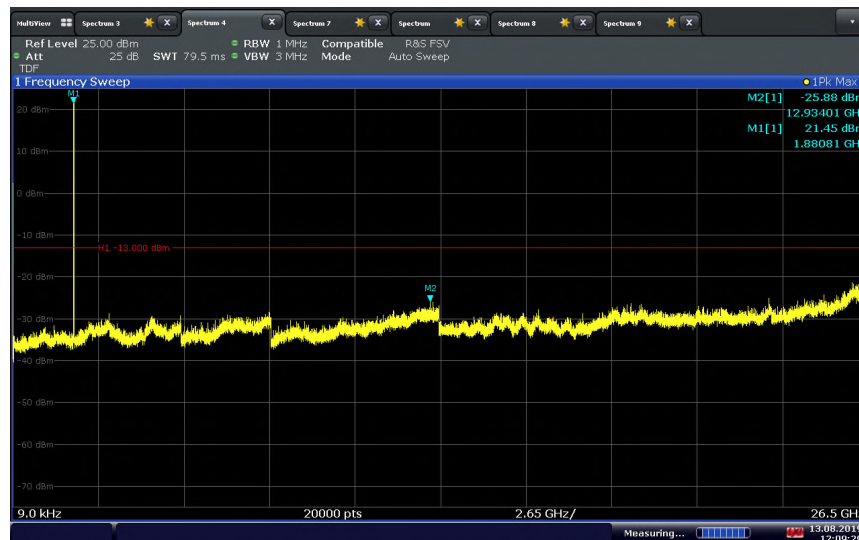


### LTE Band 25\_5MHz Bandwidth\_Uplink Middle Channel Conducted Spurious Emissions



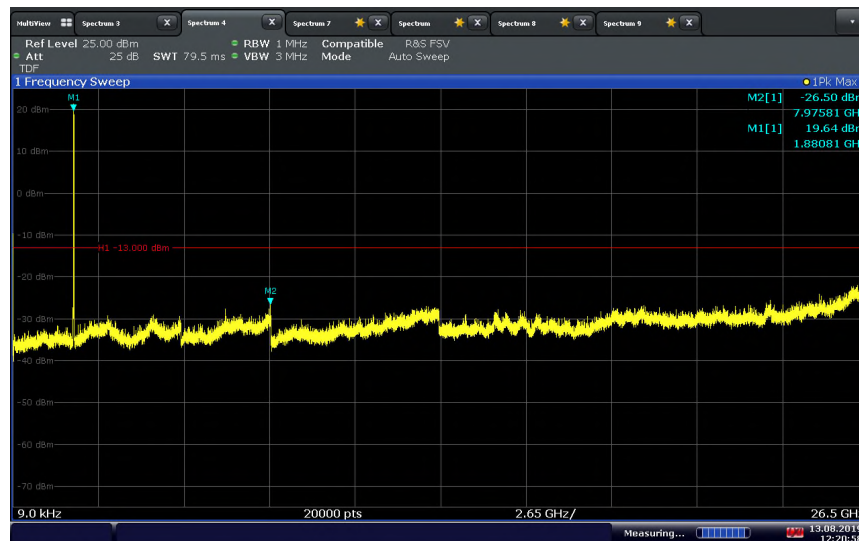
12:02:24 13.08.2019

### LTE Band 25\_10MHz Bandwidth\_Uplink Middle Channel Conducted Spurious Emissions



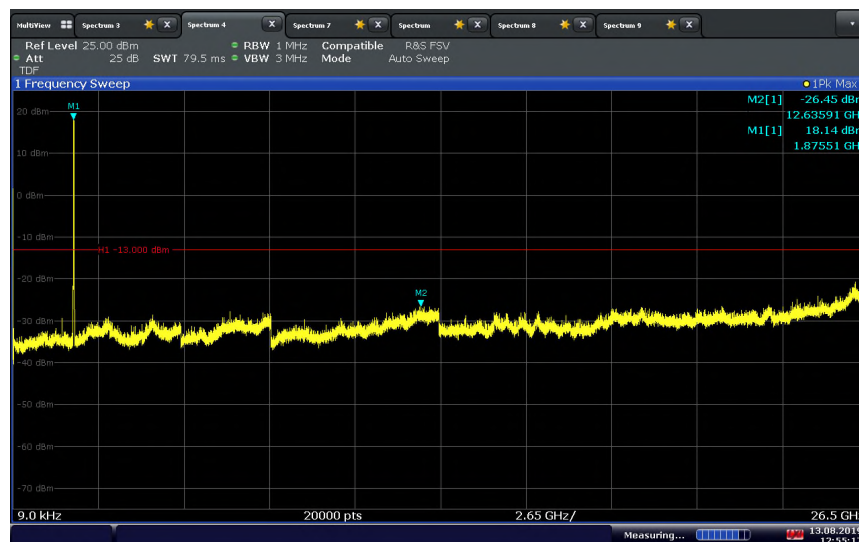
12:09:30 13.08.2019

### LTE Band 25\_15MHz Bandwidth\_Uplink Middle Channel Conducted Spurious Emissions



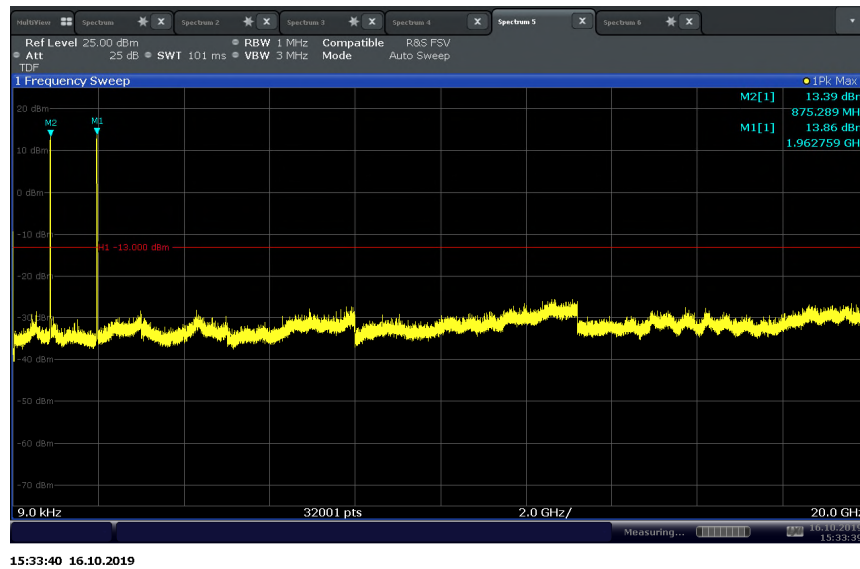
12:20:58 13.08.2019

### LTE Band 25\_20MHz Bandwidth\_Uplink Middle Channel Conducted Spurious Emissions

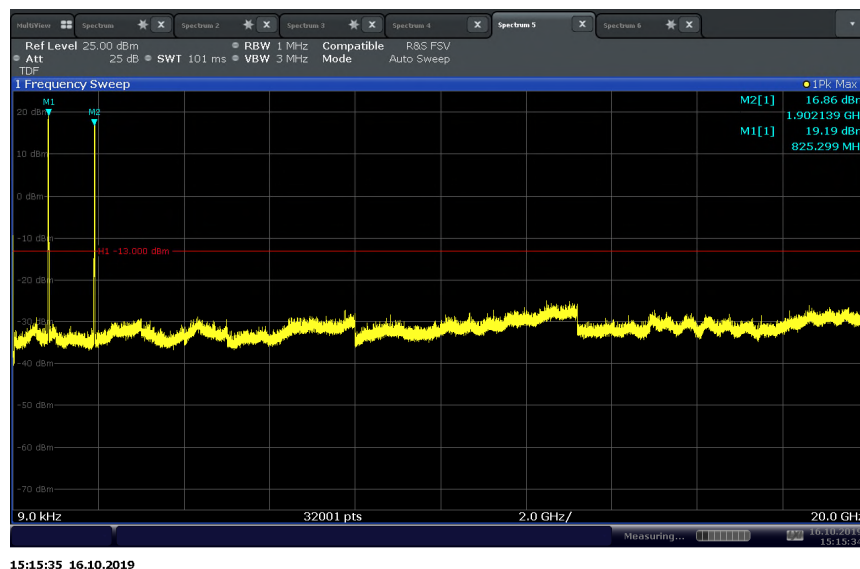


12:55:18 13.08.2019

**2 Bands per antenna port Conducted Spurious Emissions**  
**Antenna Port D Downlink: LTE Band 25 20MHz BW Mid Ch & LTE Band 5 15MHz BW Low Ch**



**2 Bands per antenna port Conducted Spurious Emissions**  
**Antenna Port D Uplink: LTE Band 25 20MHz BW High Ch & LTE Band 5 15MHz BW Low Ch**



## **2.8 FIELD STRENGTH OF SPURIOUS RADIATION**

### **2.8.1 Specification Reference**

FCC 47 CFR Part 2, Clause 2.1053  
FCC 47 CFR Part 22, Clause 22.917(a)  
FCC 47 CFR Part 24, Clause 24.238(a)  
RSS-132, Clause 5.5  
RSS-133, Clause 6.5

### **2.8.2 Standard Applicable**

Out of band emissions. 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.

### **2.8.3 Equipment Under Test and Modification State**

Serial No: 370920000139 (NU) and 371929000156 (CU) / Test Configuration C and D

### **2.8.4 Date of Test/Initial of test personnel who performed the test**

August 14 to September 06, and October 27, 2019/XYZ

### **2.8.5 Test Equipment Used**

The major items of test equipment used for the above tests are identified in Section 3.1.

### **2.8.6 Environmental Conditions**

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility.

|                     |                |
|---------------------|----------------|
| Ambient Temperature | 25.8 - 26.4°C  |
| Relative Humidity   | 31.1 - 53.7%   |
| ATM Pressure        | 98.5 - 99.1kPa |

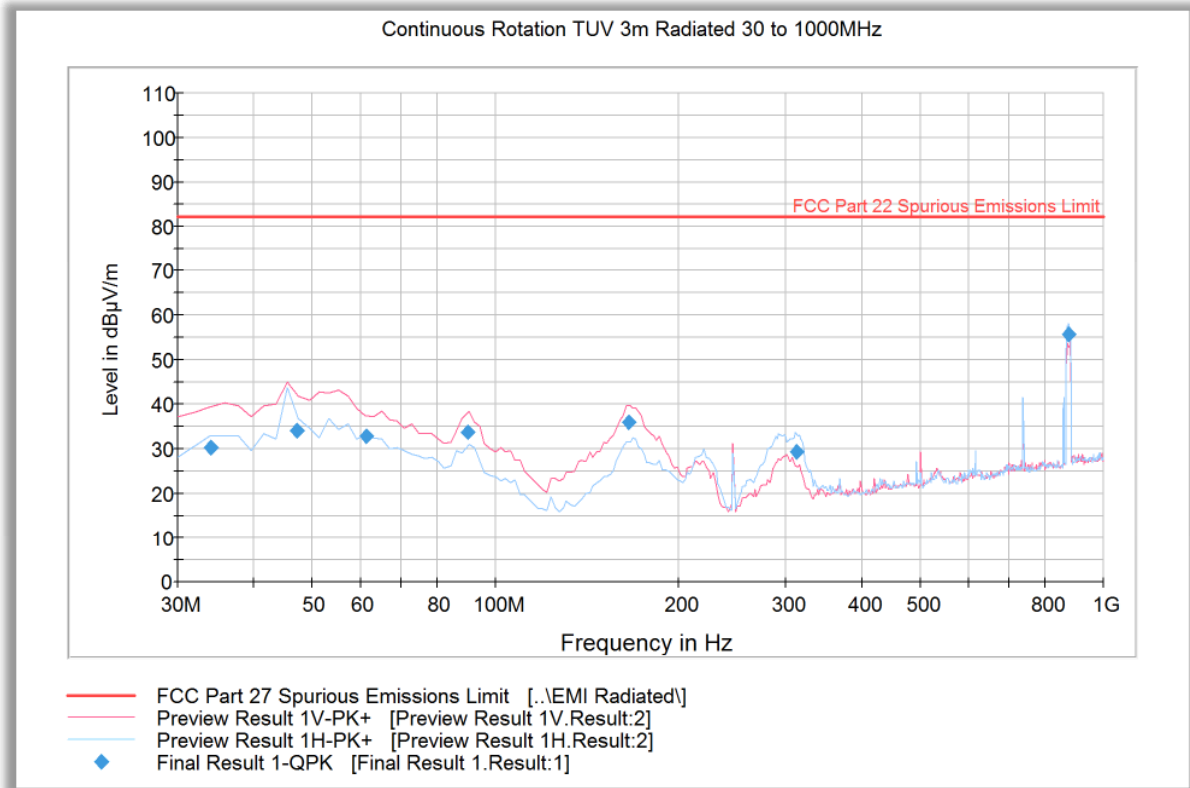
### **2.8.7 Additional Observations**

- This is a radiated test using substitution method as per Unwanted Emissions: Radiated Spurious method of measurement of C63.26 2015.
- Only the worst case configuration presented in this test report.
- Measurement was done using EMC32 automated software. Reported level is the actual level with all the correction factors factored in. Correction Factor column is for informational purposes only.

### **2.8.8 Test Results**

Compliant. See attached plots.

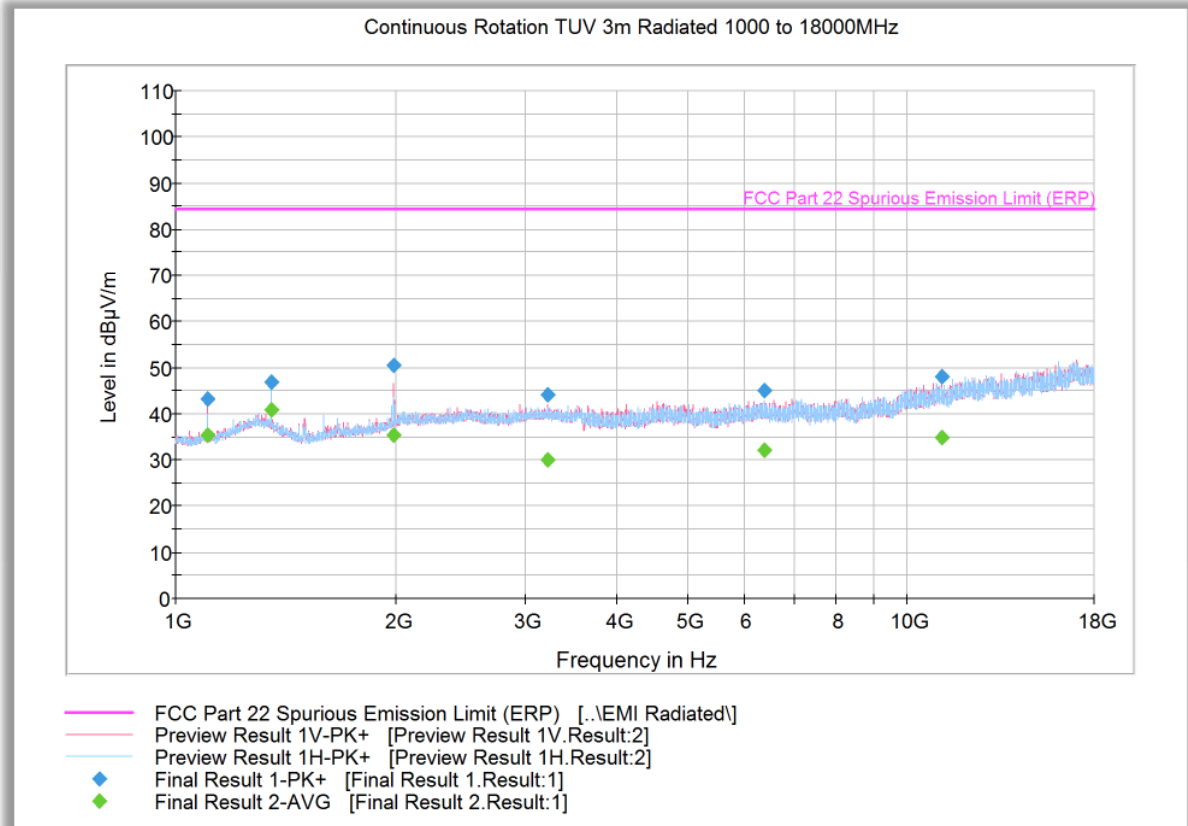
## 2.8.9 Test Results Below 1GHz (WCDMA Band 5 Downlink Worst Case Configuration) - 15MHz Bandwidth High Channel



### Quasi Peak Data

| Frequency (MHz) | QuasiPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBμV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 34.111663       | 30.2               | 1000.0          | 120.000         | 100.0       | V            | 15.0          | -9.6       | 54.2                  | 84.4           |
| 47.111102       | 34.1               | 1000.0          | 120.000         | 155.0       | V            | 189.0         | -14.2      | 50.3                  | 84.4           |
| 61.429980       | 32.9               | 1000.0          | 120.000         | 206.0       | V            | 159.0         | -16.8      | 51.5                  | 84.4           |
| 89.940521       | 33.6               | 1000.0          | 120.000         | 100.0       | V            | 312.0         | -15.1      | 50.8                  | 84.4           |
| 165.952144      | 35.9               | 1000.0          | 120.000         | 100.0       | V            | 76.0          | -11.8      | 48.5                  | 84.4           |
| 312.239840      | 29.5               | 1000.0          | 120.000         | 109.0       | H            | 330.0         | -7.0       | 54.9                  | 84.4           |
| 877.655070      | 55.5               | 1000.0          | 120.000         | 150.0       | H            | 146.0         | 4.5        | Fundamental Frequency |                |

## 2.8.10 Test Results Above 1GHz (WCDMA Band 5 Downlink Worst Case Configuration) - 15MHz Bandwidth Low Channel



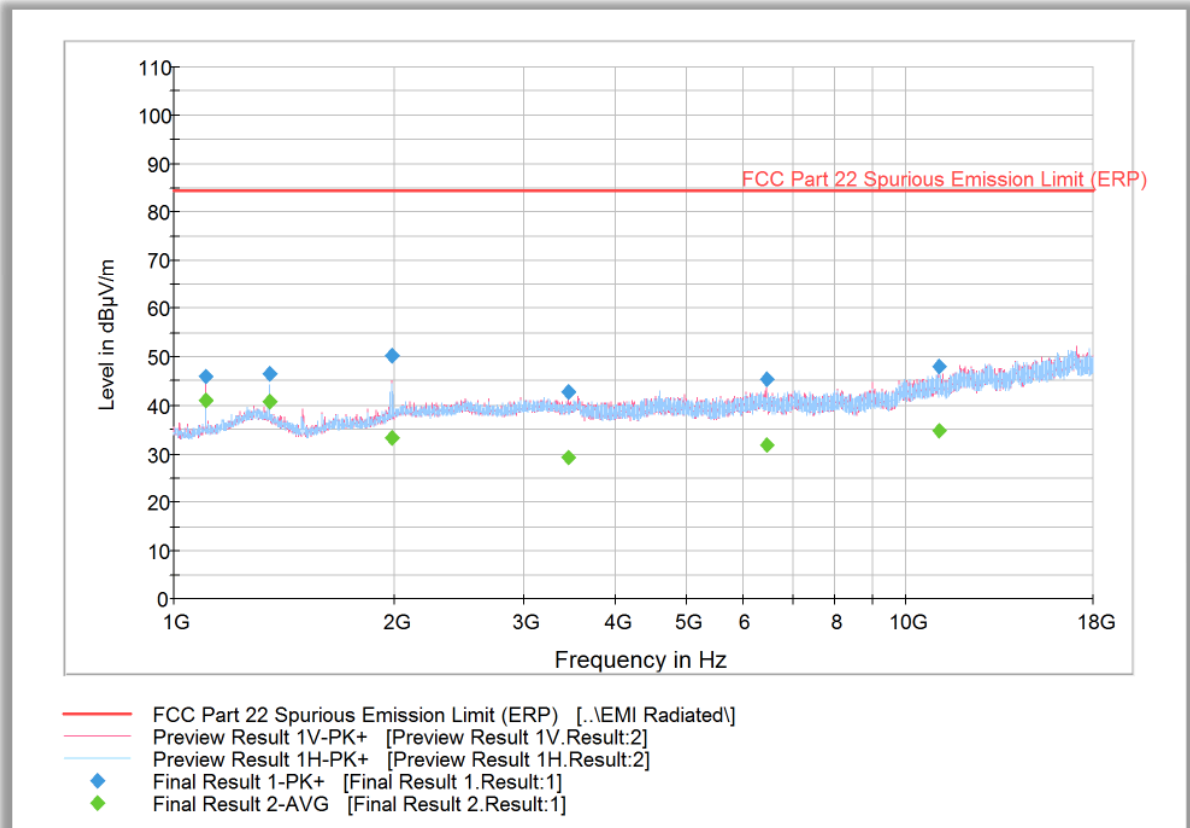
### Peak Data

| Frequency (MHz) | MaxPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1105.766667     | 43.2             | 1000.0          | 1000.000        | 250.5       | H            | 236.0         | -6.9       | 41.2        | 84.4           |
| 1351.933333     | 46.9             | 1000.0          | 1000.000        | 204.5       | H            | 4.0           | -5.1       | 37.5        | 84.4           |
| 1987.100000     | 50.4             | 1000.0          | 1000.000        | 199.5       | V            | 177.0         | -2.3       | 34.0        | 84.4           |
| 3220.233333     | 44.3             | 1000.0          | 1000.000        | 352.7       | V            | 269.0         | 1.2        | 40.1        | 84.4           |
| 6357.966667     | 45.2             | 1000.0          | 1000.000        | 250.5       | H            | 338.0         | 6.4        | 39.2        | 84.4           |
| 11115.366667    | 48.2             | 1000.0          | 1000.000        | 103.7       | V            | 101.0         | 12.3       | 36.2        | 84.4           |

### Average Data

| Frequency (MHz) | Average (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1105.766667     | 35.5             | 1000.0          | 1000.000        | 250.5       | H            | 236.0         | -6.9       | 48.8        | 84.4           |
| 1351.933333     | 41.0             | 1000.0          | 1000.000        | 204.5       | H            | 4.0           | -5.1       | 43.4        | 84.4           |
| 1987.100000     | 35.4             | 1000.0          | 1000.000        | 199.5       | V            | 177.0         | -2.3       | 49.0        | 84.4           |
| 3220.233333     | 29.9             | 1000.0          | 1000.000        | 352.7       | V            | 269.0         | 1.2        | 54.4        | 84.4           |
| 6357.966667     | 32.2             | 1000.0          | 1000.000        | 250.5       | H            | 338.0         | 6.4        | 52.2        | 84.4           |
| 11115.366667    | 34.8             | 1000.0          | 1000.000        | 103.7       | V            | 101.0         | 12.3       | 49.6        | 84.4           |

## 2.8.11 Test Results Above 1GHz (WCDMA Band 5 Downlink Worst Case Configuration) - 15MHz Bandwidth Middle Channel



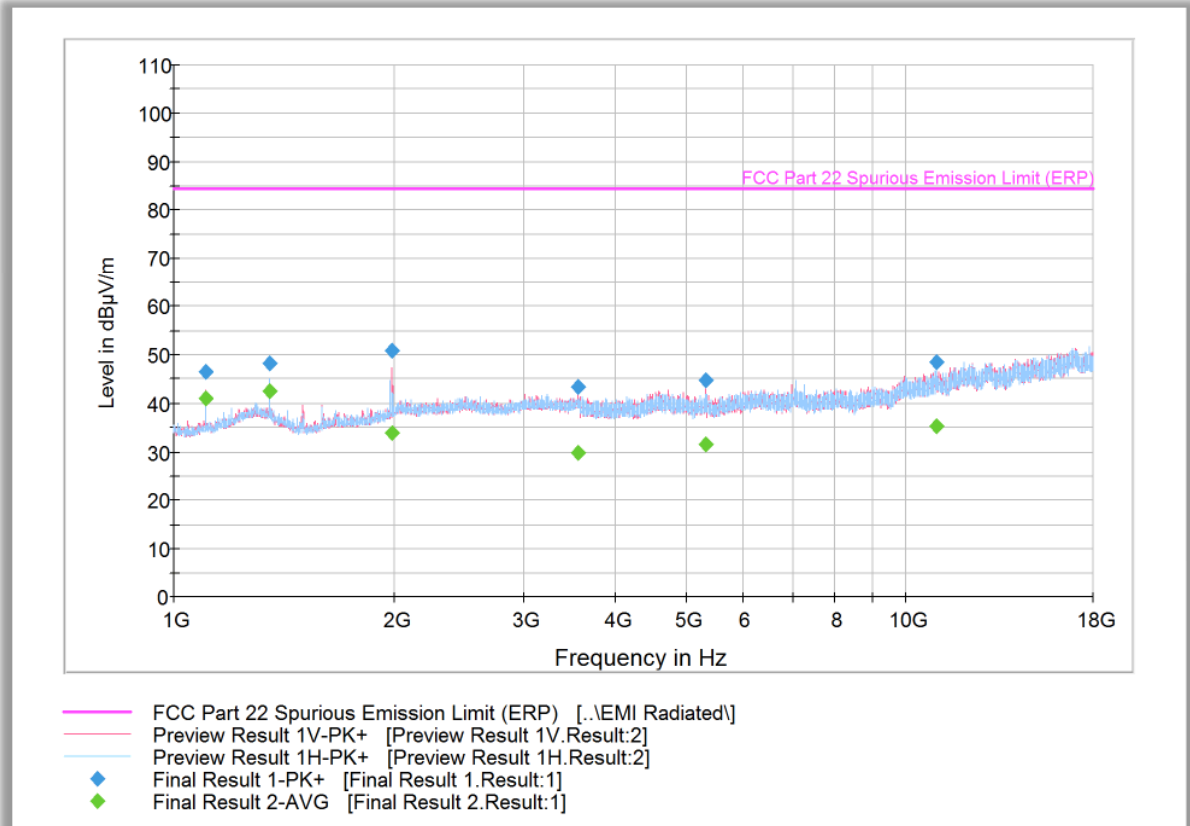
### Peak Data

| Frequency (MHz) | MaxPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1105.800000     | 46.0             | 1000.0          | 1000.000        | 286.2       | V            | 202.0         | -6.9       | 38.4        | 84.4           |
| 1351.766667     | 46.5             | 1000.0          | 1000.000        | 199.5       | H            | 8.0           | -5.1       | 37.8        | 84.4           |
| 1987.533333     | 50.2             | 1000.0          | 1000.000        | 200.5       | V            | 192.0         | -2.3       | 34.1        | 84.4           |
| 3451.800000     | 42.9             | 1000.0          | 1000.000        | 191.5       | V            | 225.0         | 1.0        | 41.5        | 84.4           |
| 6459.266667     | 45.2             | 1000.0          | 1000.000        | 147.7       | V            | 330.0         | 6.2        | 39.1        | 84.4           |
| 11068.766667    | 47.9             | 1000.0          | 1000.000        | 152.2       | V            | 189.0         | 12.0       | 36.5        | 84.4           |

### Average Data

| Frequency (MHz) | Average (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1105.800000     | 41.2             | 1000.0          | 1000.000        | 286.2       | V            | 202.0         | -6.9       | 43.2        | 84.4           |
| 1351.766667     | 40.7             | 1000.0          | 1000.000        | 199.5       | H            | 8.0           | -5.1       | 43.7        | 84.4           |
| 1987.533333     | 33.2             | 1000.0          | 1000.000        | 200.5       | V            | 192.0         | -2.3       | 51.1        | 84.4           |
| 3451.800000     | 29.4             | 1000.0          | 1000.000        | 191.5       | V            | 225.0         | 1.0        | 54.9        | 84.4           |
| 6459.266667     | 31.7             | 1000.0          | 1000.000        | 147.7       | V            | 330.0         | 6.2        | 52.6        | 84.4           |
| 11068.766667    | 34.7             | 1000.0          | 1000.000        | 152.2       | V            | 189.0         | 12.0       | 49.7        | 84.4           |

## 2.8.12 Test Results Above 1GHz (WCDMA Band 5 Downlink Worst Case Configuration) - 15MHz Bandwidth High Channel



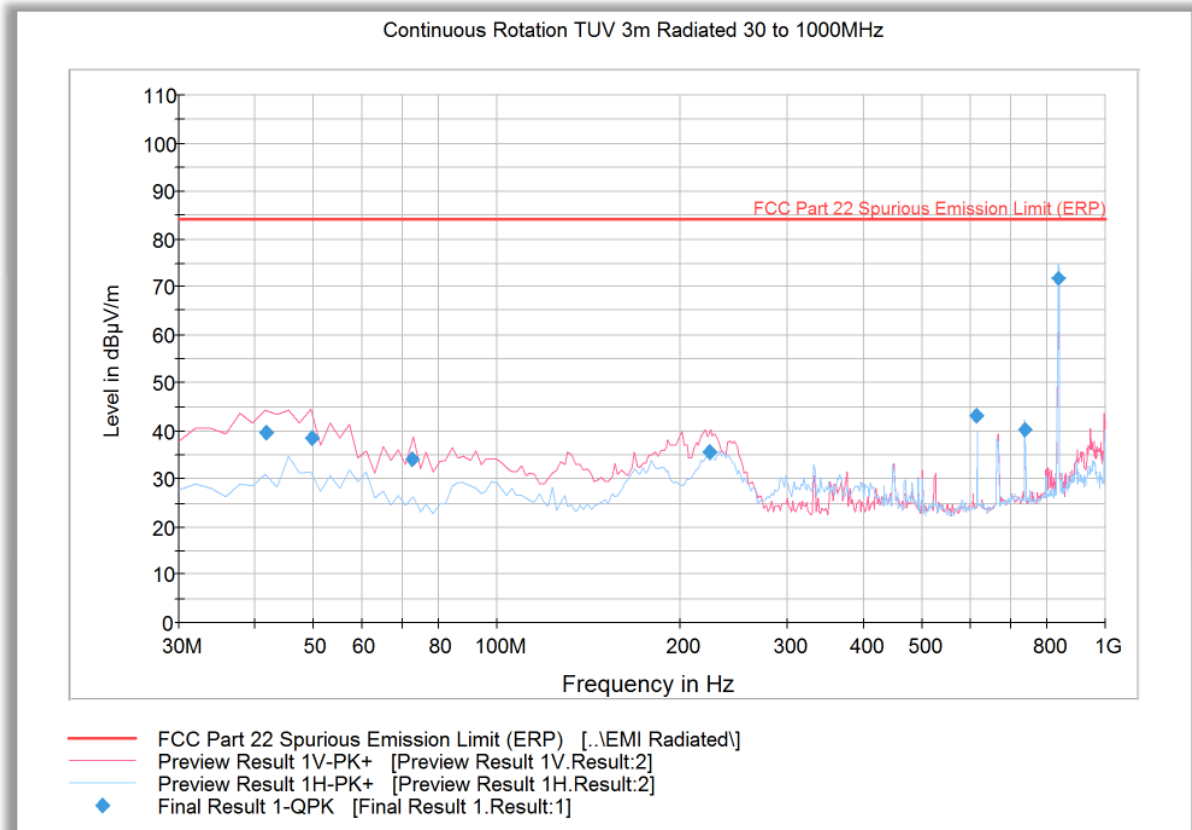
### Peak Data

| Frequency (MHz) | MaxPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1106.000000     | 46.4             | 1000.0          | 1000.000        | 289.2       | V            | 199.0         | -6.9       | 37.9        | 84.4           |
| 1351.533333     | 48.2             | 1000.0          | 1000.000        | 199.5       | H            | 7.0           | -5.1       | 36.2        | 84.4           |
| 1986.966667     | 50.8             | 1000.0          | 1000.000        | 213.4       | V            | 113.0         | -2.3       | 33.6        | 84.4           |
| 3568.900000     | 43.5             | 1000.0          | 1000.000        | 201.5       | V            | 86.0          | 1.7        | 40.9        | 84.4           |
| 5317.066667     | 44.7             | 1000.0          | 1000.000        | 194.5       | V            | 10.0          | 4.7        | 39.6        | 84.4           |
| 10987.533333    | 48.5             | 1000.0          | 1000.000        | 323.2       | H            | -19.0         | 11.8       | 35.8        | 84.4           |

### Average Data

| Frequency (MHz) | Average (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1106.000000     | 41.0             | 1000.0          | 1000.000        | 289.2       | V            | 199.0         | -6.9       | 43.4        | 84.4           |
| 1351.533333     | 42.6             | 1000.0          | 1000.000        | 199.5       | H            | 7.0           | -5.1       | 41.8        | 84.4           |
| 1986.966667     | 33.8             | 1000.0          | 1000.000        | 213.4       | V            | 113.0         | -2.3       | 50.5        | 84.4           |
| 3568.900000     | 29.9             | 100.0           | 1000.000        | 103.7       | H            | 191.0         | 1.7        | 54.4        | 84.4           |
| 5317.066667     | 31.7             | 1000.0          | 1000.000        | 194.5       | V            | 10.0          | 4.7        | 52.7        | 84.4           |
| 10987.533333    | 35.4             | 1000.0          | 1000.000        | 323.2       | H            | -19.0         | 11.8       | 48.9        | 84.4           |

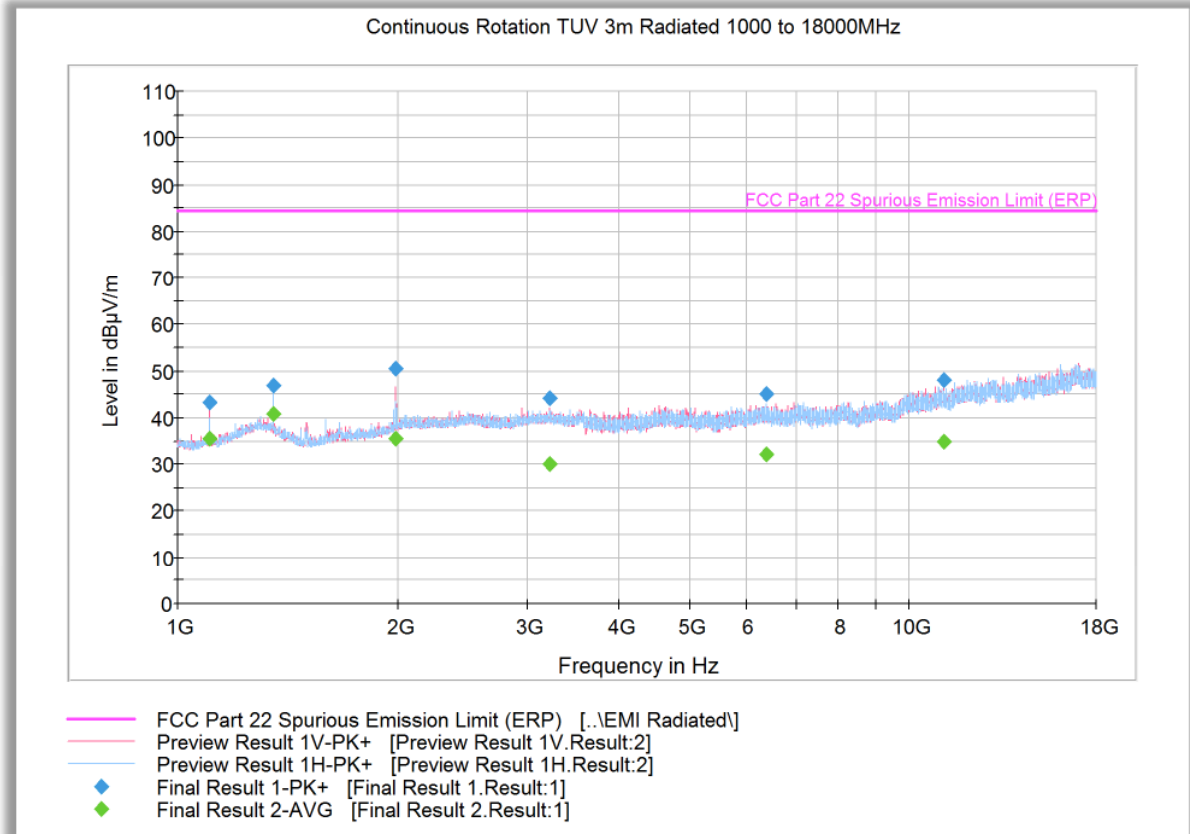
### 2.8.13 Test Results Below 1GHz (WCDMA Band 5 Uplink Worst Case Configuration) - 5MHz Bandwidth Middle Channel



#### Quasi Peak Data

| Frequency (MHz) | QuasiPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBμV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 41.743327       | 39.7               | 1000.0          | 120.000         | 100.0       | V            | 259.0         | -12.6      | 44.7                  | 84.4           |
| 49.638878       | 38.4               | 1000.0          | 120.000         | 105.0       | V            | 247.0         | -15.1      | 45.9                  | 84.4           |
| 72.445531       | 34.1               | 1000.0          | 120.000         | 144.0       | V            | 113.0         | -17.2      | 50.3                  | 84.4           |
| 223.748778      | 35.7               | 1000.0          | 120.000         | 109.0       | V            | 214.0         | -9.5       | 48.7                  | 84.4           |
| 614.390220      | 43.0               | 1000.0          | 120.000         | 126.0       | H            | 300.0         | 0.9        | 41.4                  | 84.4           |
| 737.255150      | 40.3               | 1000.0          | 120.000         | 183.0       | V            | 155.0         | 2.7        | 44.1                  | 84.4           |
| 837.033427      | 71.7               | 1000.0          | 120.000         | 100.0       | H            | 38.0          | 4.0        | Fundamental Frequency |                |

## 2.8.14 Test Results Above 1GHz (WCDMA Band 5 Uplink Worst Case Configuration) - 5MHz Bandwidth Low Channel



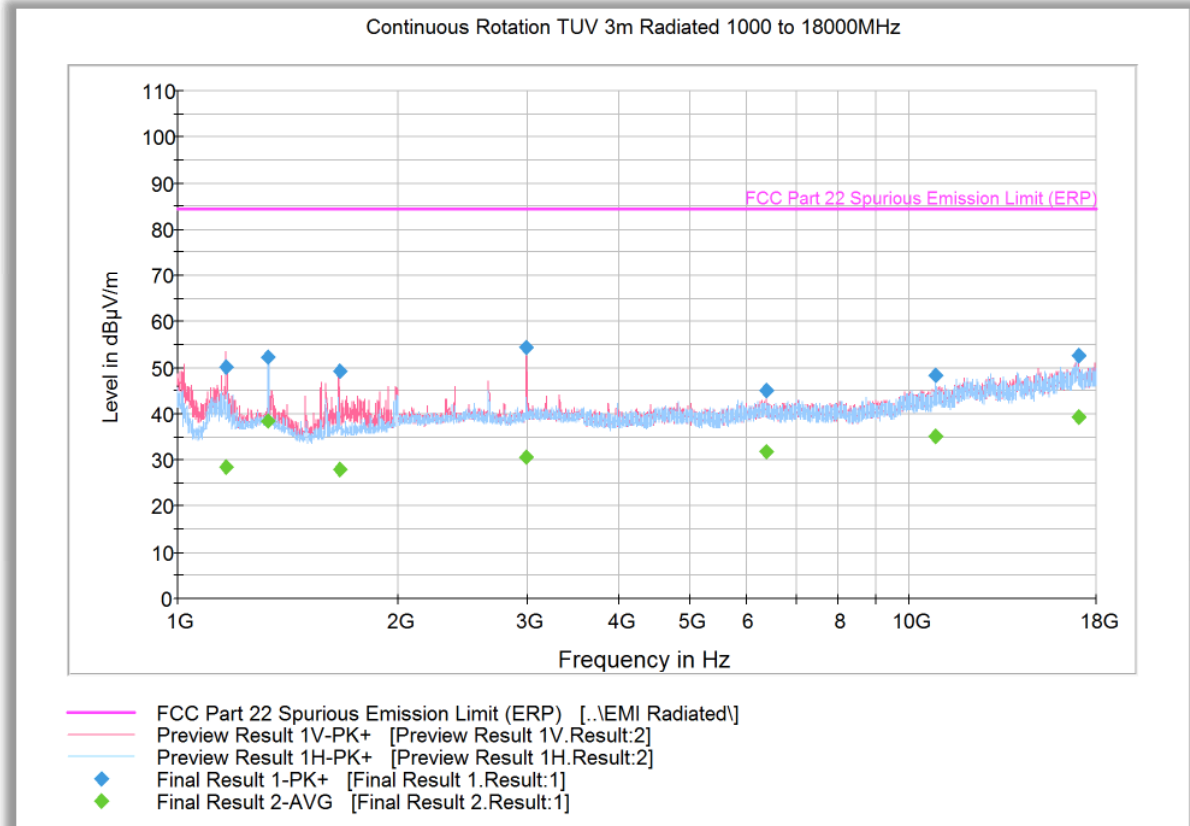
### Peak Data

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1105.766667     | 43.2             | 1000.0          | 1000.000        | 250.5       | H            | 236.0         | -6.9       | 41.2        | 84.4           |
| 1351.933333     | 46.9             | 1000.0          | 1000.000        | 204.5       | H            | 4.0           | -5.1       | 37.5        | 84.4           |
| 1987.100000     | 50.4             | 1000.0          | 1000.000        | 199.5       | V            | 177.0         | -2.3       | 34.0        | 84.4           |
| 3220.233333     | 44.3             | 1000.0          | 1000.000        | 352.7       | V            | 269.0         | 1.2        | 40.1        | 84.4           |
| 6357.966667     | 45.2             | 1000.0          | 1000.000        | 250.5       | H            | 338.0         | 6.4        | 39.2        | 84.4           |
| 11115.366667    | 48.2             | 1000.0          | 1000.000        | 103.7       | V            | 101.0         | 12.3       | 36.2        | 84.4           |

### Average Data

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1105.766667     | 35.5             | 1000.0          | 1000.000        | 250.5       | H            | 236.0         | -6.9       | 48.8        | 84.4           |
| 1351.933333     | 41.0             | 1000.0          | 1000.000        | 204.5       | H            | 4.0           | -5.1       | 43.4        | 84.4           |
| 1987.100000     | 35.4             | 1000.0          | 1000.000        | 199.5       | V            | 177.0         | -2.3       | 49.0        | 84.4           |
| 3220.233333     | 29.9             | 1000.0          | 1000.000        | 352.7       | V            | 269.0         | 1.2        | 54.4        | 84.4           |
| 6357.966667     | 32.2             | 1000.0          | 1000.000        | 250.5       | H            | 338.0         | 6.4        | 52.2        | 84.4           |
| 11115.366667    | 34.8             | 1000.0          | 1000.000        | 103.7       | V            | 101.0         | 12.3       | 49.6        | 84.4           |

## 2.8.15 Test Results Above 1GHz (WCDMA Band 5 Uplink Worst Case Configuration) - 5MHz Bandwidth Middle Channel



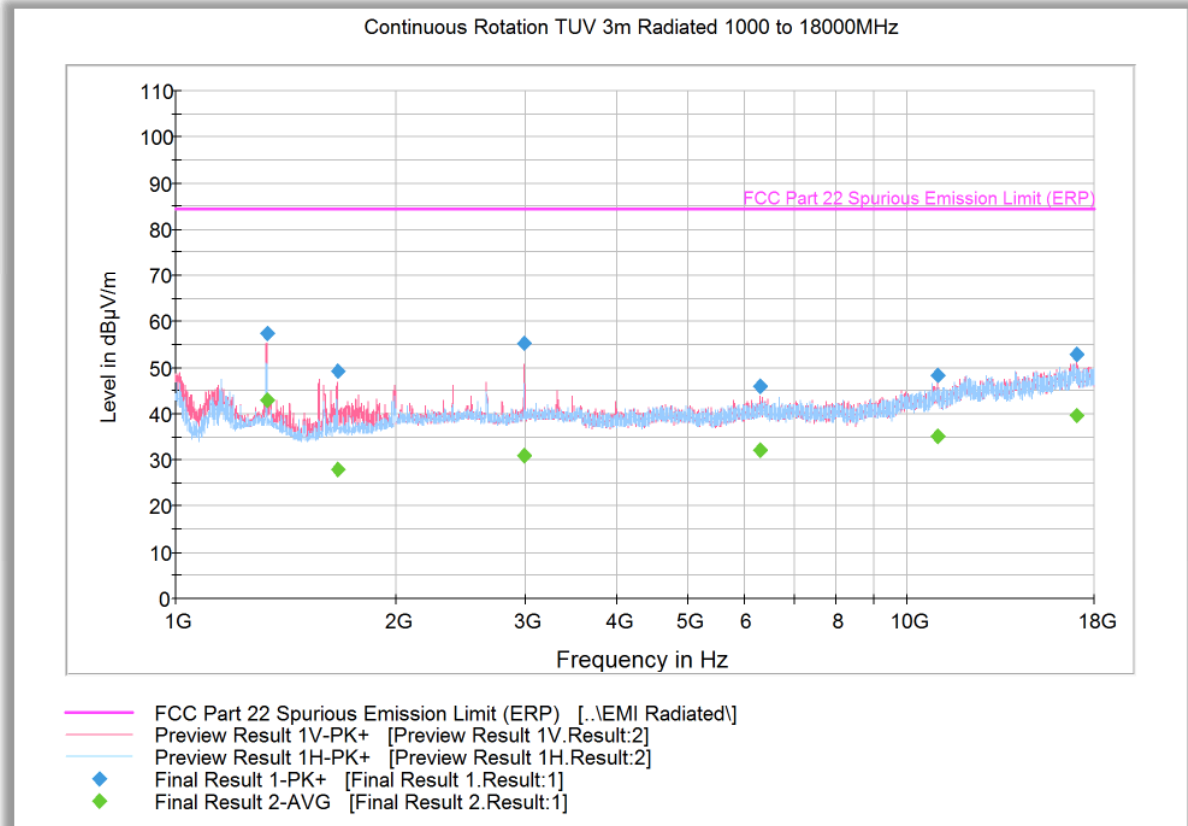
### Peak Data

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1167.033333     | 50.2             | 1000.0          | 1000.000        | 227.4       | V            | 241.0         | -6.7       | 34.1        | 84.4           |
| 1329.100000     | 52.2             | 1000.0          | 1000.000        | 408.9       | H            | 315.0         | -5.1       | 32.2        | 84.4           |
| 1663.800000     | 49.2             | 1000.0          | 1000.000        | 310.2       | V            | 296.0         | -5.2       | 35.2        | 84.4           |
| 2998.066667     | 54.5             | 1000.0          | 1000.000        | 315.2       | V            | 246.0         | 0.9        | 29.9        | 84.4           |
| 6367.500000     | 45.1             | 1000.0          | 1000.000        | 173.6       | V            | 136.0         | 6.4        | 39.2        | 84.4           |
| 10866.033333    | 48.5             | 1000.0          | 1000.000        | 325.1       | H            | 271.0         | 11.9       | 35.9        | 84.4           |
| 17009.700000    | 52.5             | 1000.0          | 1000.000        | 153.2       | V            | -9.0          | 17.8       | 31.9        | 84.4           |

### Average Data

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1167.033333     | 28.5             | 1000.0          | 1000.000        | 227.4       | V            | 241.0         | -6.7       | 55.9        | 84.4           |
| 1329.100000     | 38.4             | 1000.0          | 1000.000        | 408.9       | H            | 315.0         | -5.1       | 45.9        | 84.4           |
| 1663.800000     | 28.1             | 1000.0          | 1000.000        | 310.2       | V            | 296.0         | -5.2       | 56.3        | 84.4           |
| 2998.066667     | 30.7             | 1000.0          | 1000.000        | 315.2       | V            | 246.0         | 0.9        | 53.6        | 84.4           |
| 6367.500000     | 31.8             | 1000.0          | 1000.000        | 173.6       | V            | 136.0         | 6.4        | 52.5        | 84.4           |
| 10866.033333    | 35.0             | 1000.0          | 1000.000        | 325.1       | H            | 271.0         | 11.9       | 49.3        | 84.4           |
| 17009.700000    | 39.5             | 1000.0          | 1000.000        | 153.2       | V            | -9.0          | 17.8       | 44.9        | 84.4           |

## 2.8.16 Test Results Above 1GHz (WCDMA Band 5 Uplink Worst Case Configuration) - 5MHz Bandwidth High Channel



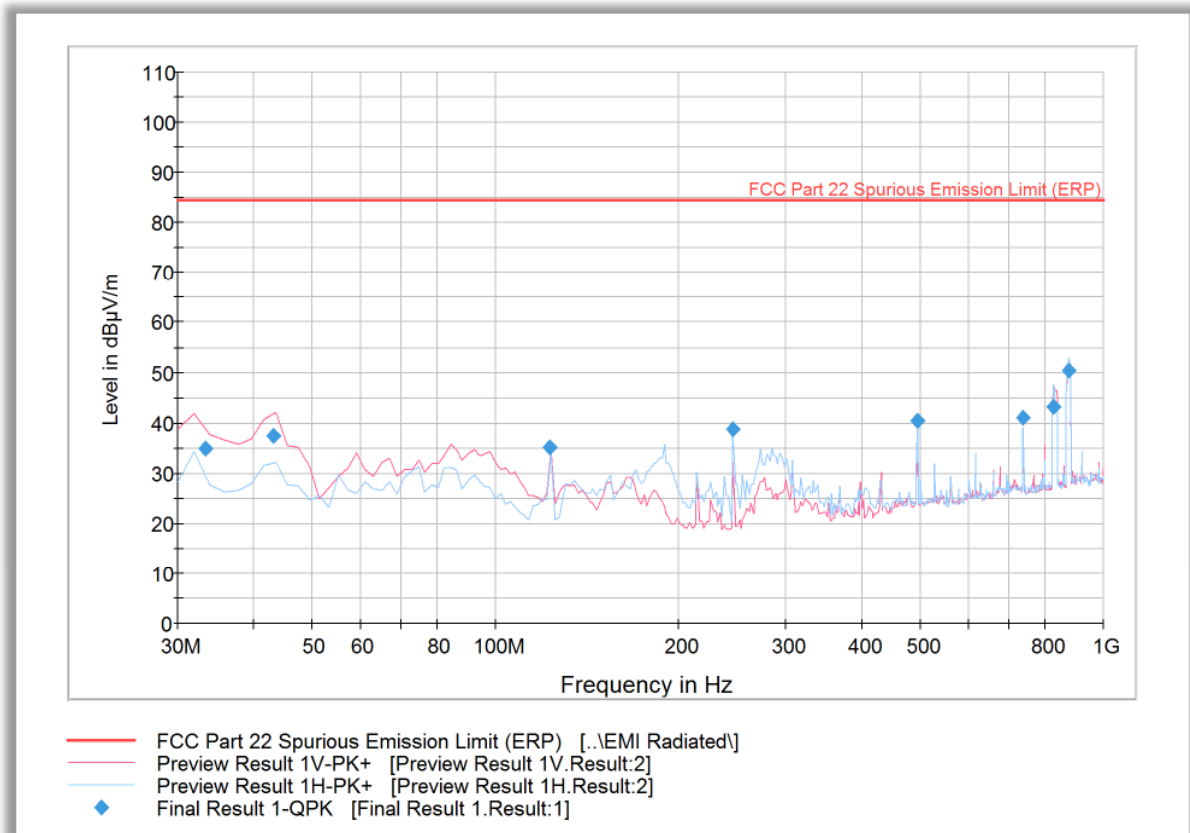
### Peak Data

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1331.133333     | 57.6             | 1000.0          | 1000.000        | 199.5       | V            | 94.0          | -5.1       | 26.8        | 84.4           |
| 1663.966667     | 49.4             | 1000.0          | 1000.000        | 332.1       | V            | 254.0         | -5.2       | 35.0        | 84.4           |
| 2997.733333     | 55.4             | 1000.0          | 1000.000        | 139.7       | V            | 266.0         | 0.9        | 29.0        | 84.4           |
| 6295.333333     | 46.1             | 1000.0          | 1000.000        | 225.4       | V            | 34.0          | 6.2        | 38.3        | 84.4           |
| 11004.300000    | 48.4             | 1000.0          | 1000.000        | 270.3       | V            | 38.0          | 11.8       | 36.0        | 84.4           |
| 16971.900000    | 53.0             | 1000.0          | 1000.000        | 146.7       | V            | 70.0          | 17.9       | 31.4        | 84.4           |

### Average Data

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1331.133333     | 42.9             | 1000.0          | 1000.000        | 199.5       | V            | 94.0          | -5.1       | 41.5        | 84.4           |
| 1663.966667     | 27.9             | 1000.0          | 1000.000        | 332.1       | V            | 254.0         | -5.2       | 56.5        | 84.4           |
| 2997.733333     | 31.0             | 1000.0          | 1000.000        | 139.7       | V            | 266.0         | 0.9        | 53.4        | 84.4           |
| 6295.333333     | 32.1             | 1000.0          | 1000.000        | 225.4       | V            | 34.0          | 6.2        | 52.2        | 84.4           |
| 11004.300000    | 35.1             | 1000.0          | 1000.000        | 270.3       | V            | 38.0          | 11.8       | 49.3        | 84.4           |
| 16971.900000    | 39.7             | 1000.0          | 1000.000        | 146.7       | V            | 70.0          | 17.9       | 44.7        | 84.4           |

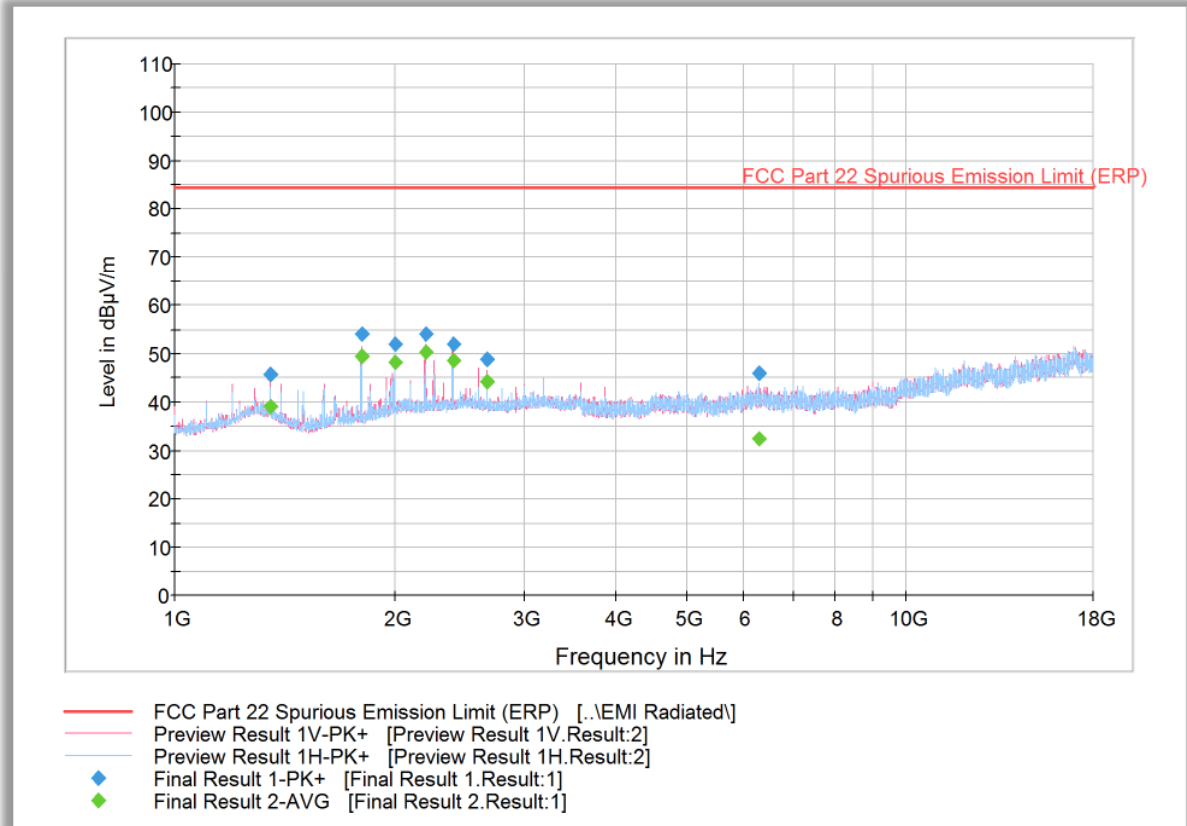
## 2.8.17 Test Results Below 1GHz (LTE Band 5 Downlink and Uplink Worst Case Configuration) - 15MHz Bandwidth Low Channel



### Quasi Peak Data

| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)              | Limit (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|--------------|---------------|------------|--------------------------|----------------|
| 33.400000       | 34.8               | 1000.0          | 120.000         | 110.0       | V            | 165.0         | -10.9      | 49.6                     | 84.4           |
| 43.047214       | 37.4               | 1000.0          | 120.000         | 109.0       | V            | 38.0          | -14.6      | 46.9                     | 84.4           |
| 122.866613      | 35.1               | 1000.0          | 120.000         | 105.0       | V            | 253.0         | -15.8      | 49.3                     | 84.4           |
| 245.731543      | 38.7               | 1000.0          | 120.000         | 133.0       | H            | 153.0         | -9.7       | 45.7                     | 84.4           |
| 494.989178      | 40.6               | 1000.0          | 120.000         | 100.0       | H            | 162.0         | -2.8       | 43.8                     | 84.4           |
| 737.255150      | 41.1               | 1000.0          | 120.000         | 123.0       | H            | 35.0          | 1.7        | 43.3                     | 84.4           |
| 829.617876      | 43.3               | 1000.0          | 120.000         | 100.0       | H            | 73.0          | 3.1        | UL Fundamental Frequency |                |
| 875.495070      | 50.4               | 1000.0          | 120.000         | 100.0       | H            | 90.0          | 3.6        | DL Fundamental Frequency |                |

## 2.8.18 Test Results Above 1GHz (LTE Band 5 Downlink and Uplink Worst Case Configuration) - 15MHz Bandwidth Low Channel



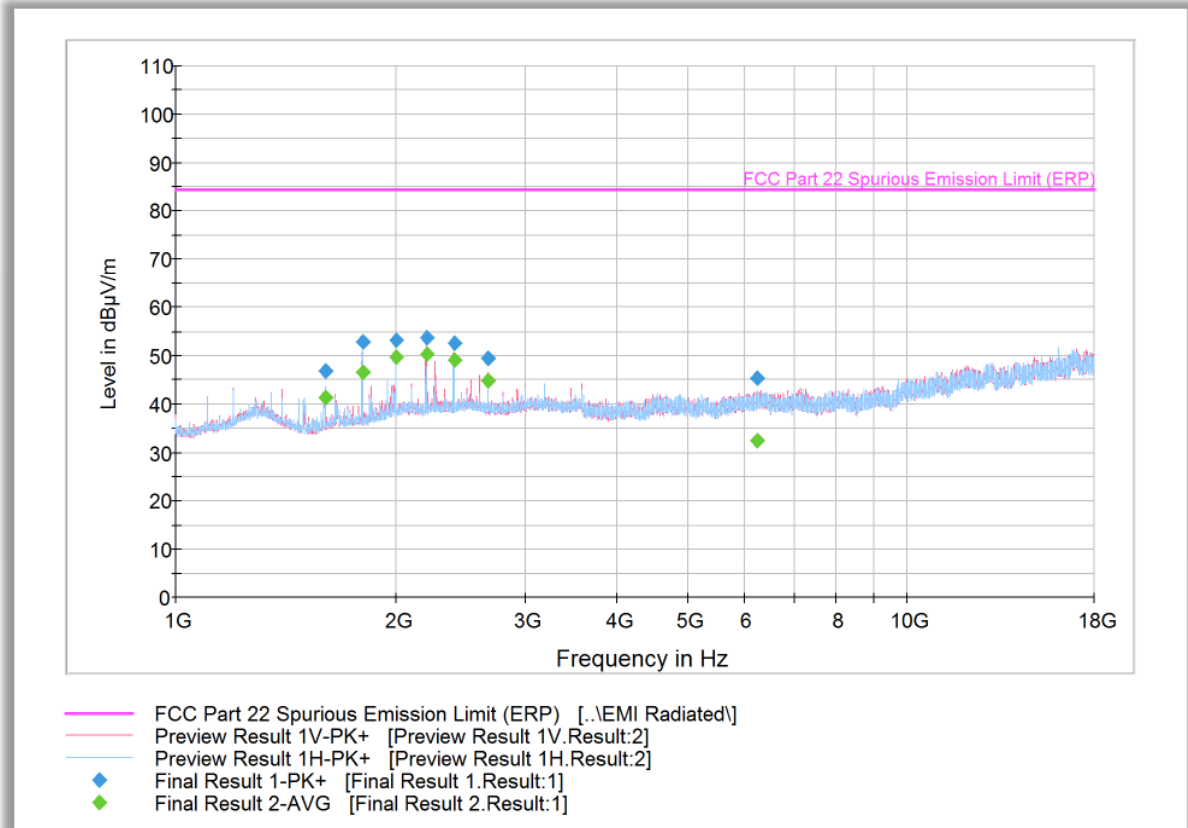
### Peak Data

| Frequency (MHz) | MaxPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1351.700000     | 45.7             | 1000.0          | 1000.000        | 211.0       | V            | 282.0         | -5.1       | 38.7        | 84.4           |
| 1800.166667     | 54.0             | 1000.0          | 1000.000        | 173.0       | H            | 242.0         | -3.4       | 30.4        | 84.4           |
| 1999.966667     | 52.0             | 1000.0          | 1000.000        | 292.0       | H            | 225.0         | -2.2       | 32.4        | 84.4           |
| 2200.000000     | 54.0             | 1000.0          | 1000.000        | 117.0       | V            | 169.0         | -1.6       | 30.4        | 84.4           |
| 2400.066667     | 52.0             | 1000.0          | 1000.000        | 100.0       | V            | 187.0         | -1.1       | 32.4        | 84.4           |
| 2666.766667     | 48.9             | 1000.0          | 1000.000        | 100.0       | V            | 185.0         | -0.2       | 35.5        | 84.4           |
| 6287.933333     | 45.8             | 1000.0          | 1000.000        | 305.0       | H            | 163.0         | 6.2        | 38.5        | 84.4           |

### Average Data

| Frequency (MHz) | Average (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1351.700000     | 39.0             | 1000.0          | 1000.000        | 211.0       | V            | 282.0         | -5.1       | 45.4        | 84.4           |
| 1800.166667     | 49.5             | 1000.0          | 1000.000        | 173.0       | H            | 242.0         | -3.4       | 34.9        | 84.4           |
| 1999.966667     | 48.3             | 1000.0          | 1000.000        | 292.0       | H            | 225.0         | -2.2       | 36.1        | 84.4           |
| 2200.000000     | 50.4             | 1000.0          | 1000.000        | 117.0       | V            | 169.0         | -1.6       | 34.0        | 84.4           |
| 2400.066667     | 48.6             | 1000.0          | 1000.000        | 100.0       | V            | 187.0         | -1.1       | 35.8        | 84.4           |
| 2666.766667     | 44.4             | 1000.0          | 1000.000        | 100.0       | V            | 185.0         | -0.2       | 40.0        | 84.4           |
| 6287.933333     | 32.5             | 1000.0          | 1000.000        | 305.0       | H            | 163.0         | 6.2        | 51.9        | 84.4           |

## 2.8.19 Test Results Above 1GHz (LTE Band 5 Downlink and Uplink Worst Case Configuration) - 15MHz Bandwidth Middle Channel



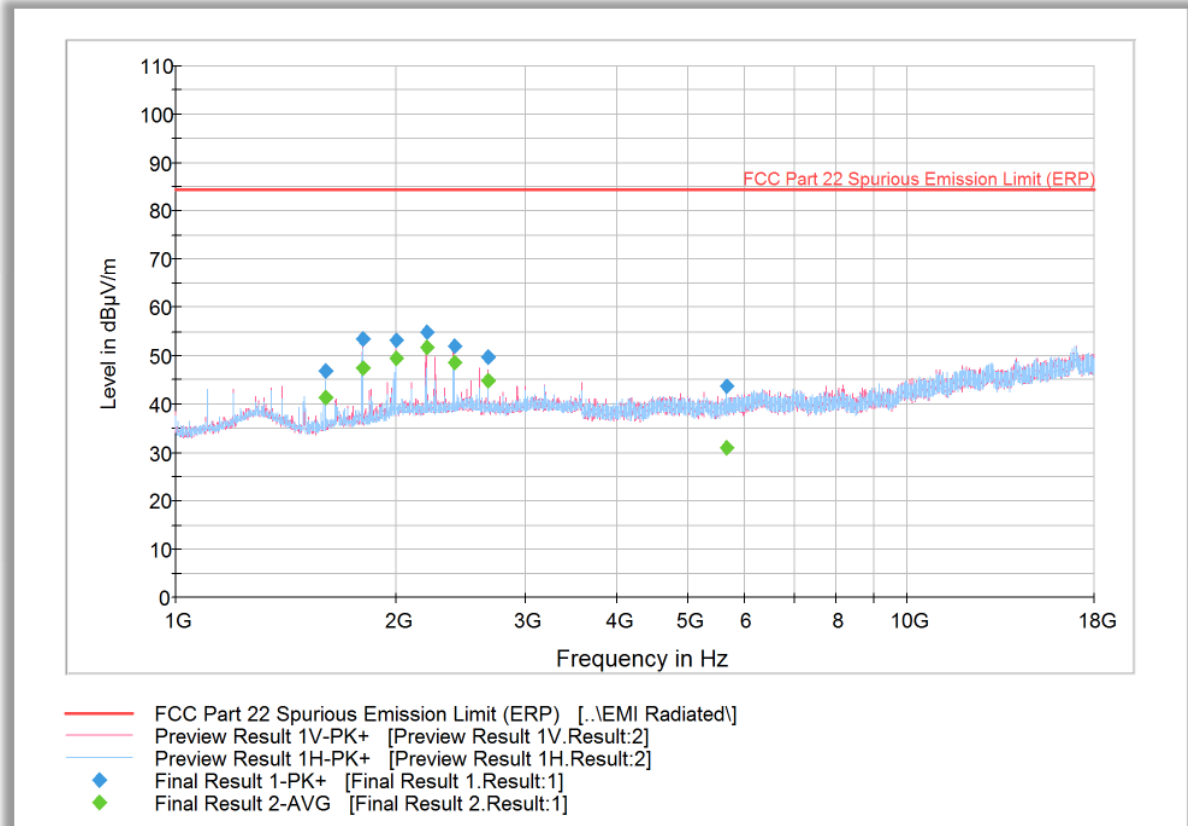
### Peak Data

| Frequency (MHz) | MaxPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1599.933333     | 46.9             | 1000.0          | 1000.000        | 206.0       | H            | 269.0         | -5.8       | 37.4        | 84.4           |
| 1800.166667     | 52.8             | 1000.0          | 1000.000        | 300.0       | V            | -4.0          | -3.4       | 31.6        | 84.4           |
| 1999.966667     | 53.2             | 1000.0          | 1000.000        | 250.0       | H            | 226.0         | -2.2       | 31.1        | 84.4           |
| 2199.833333     | 53.6             | 1000.0          | 1000.000        | 117.0       | V            | 167.0         | -1.6       | 30.8        | 84.4           |
| 2399.866667     | 52.6             | 1000.0          | 1000.000        | 100.0       | V            | 307.0         | -1.1       | 31.7        | 84.4           |
| 2666.766667     | 49.3             | 1000.0          | 1000.000        | 100.0       | V            | 184.0         | -0.2       | 35.1        | 84.4           |
| 6242.266667     | 45.5             | 1000.0          | 1000.000        | 123.0       | H            | 7.0           | 6.3        | 38.9        | 84.4           |

### Average Data

| Frequency (MHz) | Average (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1599.933333     | 41.4             | 1000.0          | 1000.000        | 206.0       | H            | 269.0         | -5.8       | 43.0        | 84.4           |
| 1800.166667     | 46.6             | 1000.0          | 1000.000        | 300.0       | V            | -4.0          | -3.4       | 37.8        | 84.4           |
| 1999.966667     | 49.6             | 1000.0          | 1000.000        | 250.0       | H            | 226.0         | -2.2       | 34.8        | 84.4           |
| 2199.833333     | 50.1             | 1000.0          | 1000.000        | 117.0       | V            | 167.0         | -1.6       | 34.2        | 84.4           |
| 2399.866667     | 49.0             | 1000.0          | 1000.000        | 100.0       | V            | 307.0         | -1.1       | 35.4        | 84.4           |
| 2666.766667     | 44.8             | 1000.0          | 1000.000        | 100.0       | V            | 184.0         | -0.2       | 39.6        | 84.4           |
| 6242.266667     | 32.4             | 1000.0          | 1000.000        | 123.0       | H            | 7.0           | 6.3        | 52.0        | 84.4           |

## 2.8.20 Test Results Above 1GHz (LTE Band 5 Downlink and Uplink Worst Case Configuration) - 15MHz Bandwidth High Channel



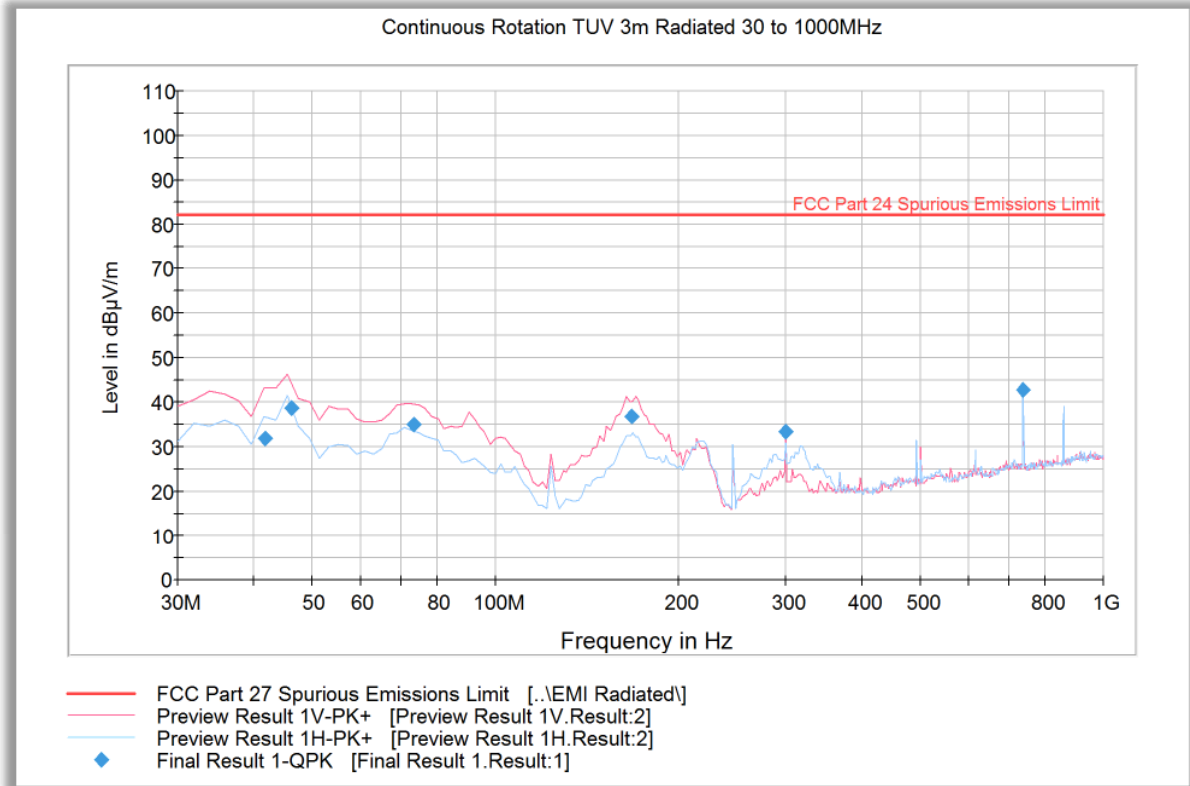
### Peak Data

| Frequency (MHz) | MaxPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1599.900000     | 46.8             | 1000.0          | 1000.000        | 206.0       | H            | 269.0         | -5.8       | 37.6        | 84.4           |
| 1799.800000     | 53.3             | 1000.0          | 1000.000        | 180.0       | V            | 28.0          | -3.4       | 31.0        | 84.4           |
| 1999.800000     | 53.0             | 1000.0          | 1000.000        | 117.0       | V            | 195.0         | -2.2       | 31.4        | 84.4           |
| 2199.833333     | 54.8             | 1000.0          | 1000.000        | 117.0       | V            | 171.0         | -1.6       | 29.6        | 84.4           |
| 2399.866667     | 52.0             | 1000.0          | 1000.000        | 123.0       | V            | 188.0         | -1.1       | 32.4        | 84.4           |
| 2666.766667     | 49.6             | 1000.0          | 1000.000        | 100.0       | V            | 186.0         | -0.2       | 34.8        | 84.4           |
| 5654.800000     | 43.7             | 1000.0          | 1000.000        | 143.0       | H            | 67.0          | 5.0        | 40.7        | 84.4           |

### Average Data

| Frequency (MHz) | Average (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 1599.900000     | 41.2             | 1000.0          | 1000.000        | 206.0       | H            | 269.0         | -5.8       | 43.2        | 84.4           |
| 1799.800000     | 47.3             | 1000.0          | 1000.000        | 180.0       | V            | 28.0          | -3.4       | 37.1        | 84.4           |
| 1999.800000     | 49.3             | 1000.0          | 1000.000        | 117.0       | V            | 195.0         | -2.2       | 35.1        | 84.4           |
| 2199.833333     | 51.6             | 1000.0          | 1000.000        | 117.0       | V            | 171.0         | -1.6       | 32.8        | 84.4           |
| 2399.866667     | 48.6             | 1000.0          | 1000.000        | 123.0       | V            | 188.0         | -1.1       | 35.8        | 84.4           |
| 2666.766667     | 44.8             | 1000.0          | 1000.000        | 100.0       | V            | 186.0         | -0.2       | 39.6        | 84.4           |
| 5654.800000     | 30.9             | 1000.0          | 1000.000        | 143.0       | H            | 67.0          | 5.0        | 53.5        | 84.4           |

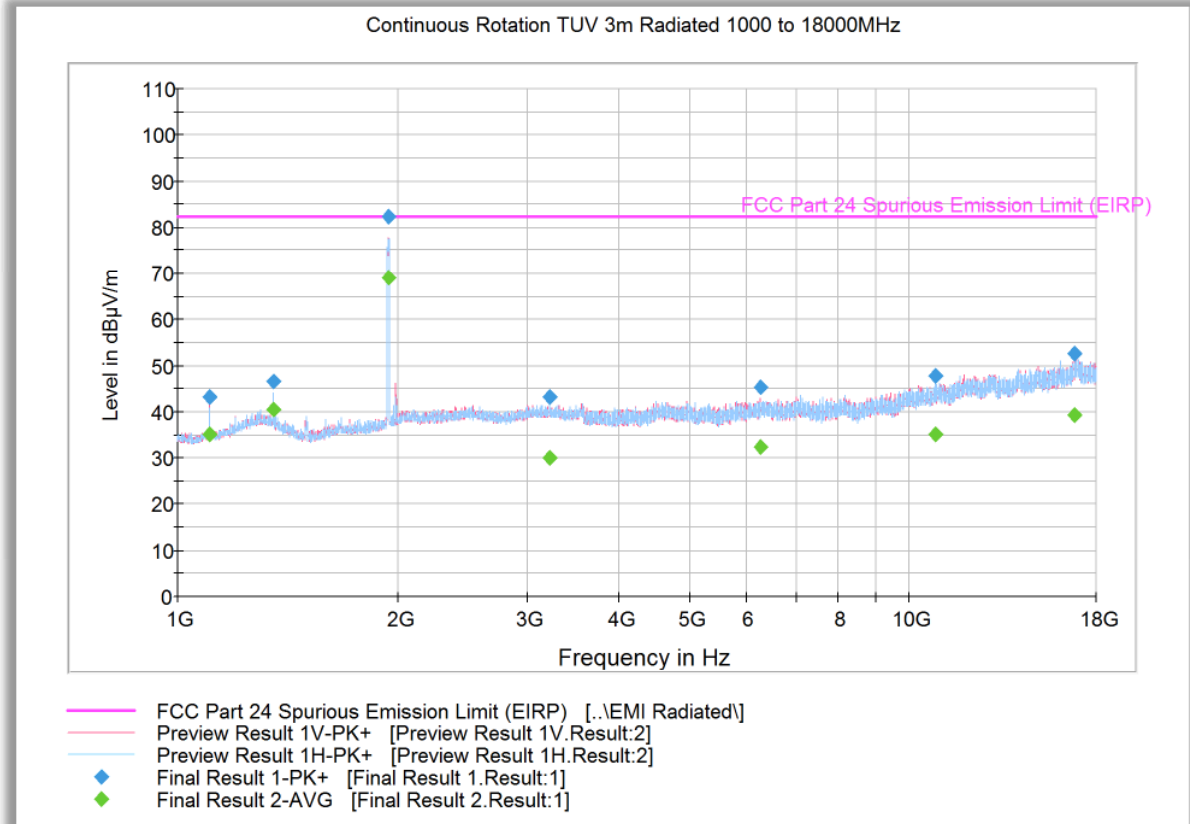
## 2.8.21 Test Results Below 1GHz (LTE Band 25 Downlink Worst Case Configuration) - 20MHz Bandwidth Middle Channel



### Quasi Peak Data

| Frequency (MHz) | QuasiPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 41.783327       | 31.9               | 1000.0          | 120.000         | 100.0       | V            | 127.0         | -12.6      | 50.3        | 82.2           |
| 46.071102       | 38.6               | 1000.0          | 120.000         | 108.0       | V            | 271.0         | -13.9      | 43.6        | 82.2           |
| 73.205531       | 34.9               | 1000.0          | 120.000         | 150.0       | V            | 259.0         | -17.2      | 47.3        | 82.2           |
| 167.199920      | 36.8               | 1000.0          | 120.000         | 100.0       | V            | 69.0          | -11.8      | 45.4        | 82.2           |
| 300.000401      | 33.3               | 1000.0          | 120.000         | 100.0       | V            | 330.0         | -6.9       | 48.9        | 82.2           |
| 737.295150      | 43.0               | 1000.0          | 120.000         | 100.0       | H            | 8.0           | 2.7        | 39.2        | 82.2           |
| 41.783327       | 31.9               | 1000.0          | 120.000         | 100.0       | V            | 127.0         | -12.6      | 50.3        | 82.2           |

## 2.8.22 Test Results Above 1GHz (LTE Band 25 Downlink Worst Case Configuration) - 20MHz Bandwidth Low Channel



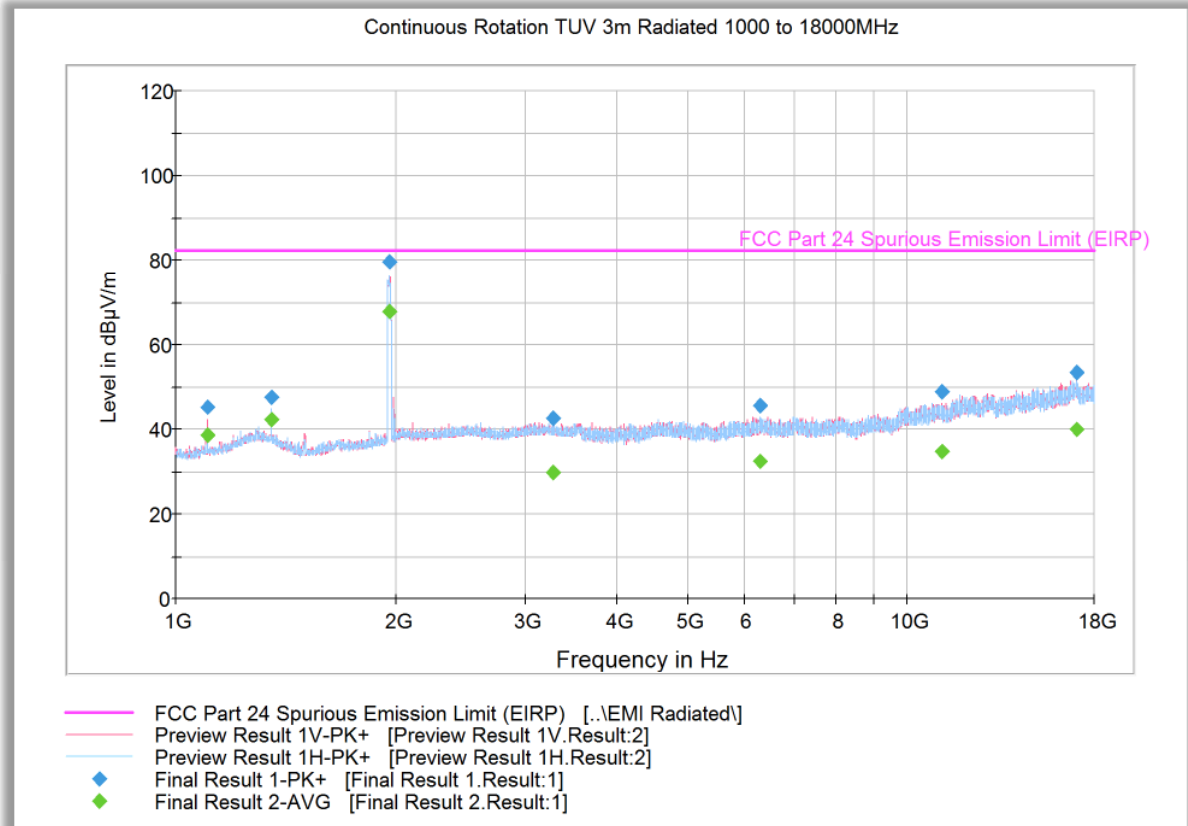
### Peak Data

| Frequency (MHz) | MaxPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 1105.766667     | 43.3             | 1000.0          | 1000.000        | 213.4       | V            | 203.0         | -6.9       | 38.9                  | 82.2           |
| 1351.933333     | 46.7             | 1000.0          | 1000.000        | 151.6       | H            | 4.0           | -5.1       | 35.5                  | 82.2           |
| 1945.566667     | 82.2             | 1000.0          | 1000.000        | 213.4       | V            | 191.0         | -2.4       | Fundamental Frequency | 82.2           |
| 3220.900000     | 43.2             | 1000.0          | 1000.000        | 343.1       | H            | 39.0          | 1.1        | 39.0                  | 82.2           |
| 6247.166667     | 45.5             | 1000.0          | 1000.000        | 250.5       | V            | 294.0         | 6.3        | 36.7                  | 82.2           |
| 10839.633333    | 47.9             | 1000.0          | 1000.000        | 151.6       | H            | 98.0          | 11.8       | 34.3                  | 82.2           |
| 16816.600000    | 52.6             | 1000.0          | 1000.000        | 113.7       | V            | 148.0         | 17.9       | 29.6                  | 82.2           |

### Average Data

| Frequency (MHz) | Average (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 1105.766667     | 35.3             | 1000.0          | 1000.000        | 213.4       | V            | 203.0         | -6.9       | 46.9                  | 82.2           |
| 1351.933333     | 40.5             | 1000.0          | 1000.000        | 151.6       | H            | 4.0           | -5.1       | 41.8                  | 82.2           |
| 1945.566667     | 69.1             | 1000.0          | 1000.000        | 213.4       | V            | 191.0         | -2.4       | Fundamental Frequency | 82.2           |
| 3220.900000     | 30.0             | 1000.0          | 1000.000        | 343.1       | H            | 39.0          | 1.1        | 52.3                  | 82.2           |
| 6247.166667     | 32.4             | 1000.0          | 1000.000        | 250.5       | V            | 294.0         | 6.3        | 49.8                  | 82.2           |
| 10839.633333    | 35.3             | 1000.0          | 1000.000        | 151.6       | H            | 98.0          | 11.8       | 46.9                  | 82.2           |
| 16816.600000    | 39.4             | 1000.0          | 1000.000        | 113.7       | V            | 148.0         | 17.9       | 42.8                  | 82.2           |

## 2.8.23 Test Results Above 1GHz (LTE Band 25 Downlink Worst Case Configuration) - 20MHz Bandwidth Middle Channel



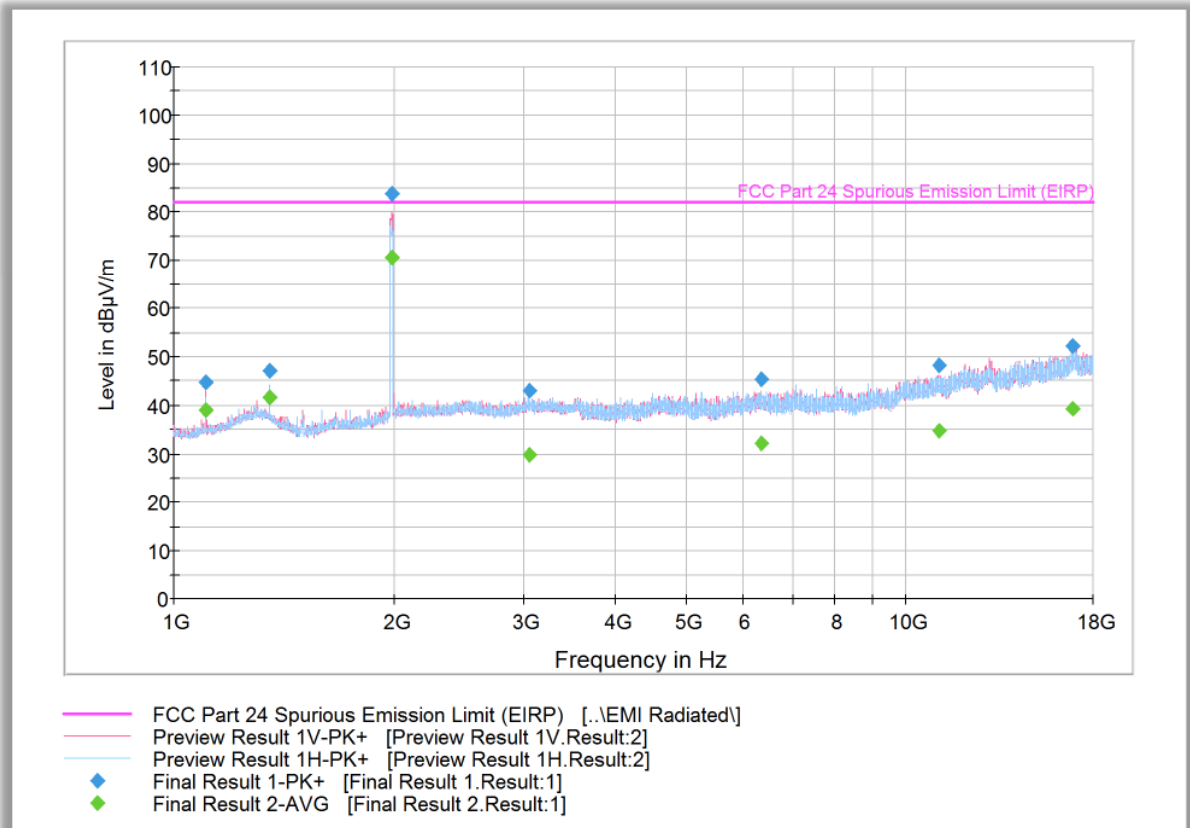
### Peak Data

| Frequency (MHz) | MaxPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 1105.800000     | 45.3             | 1000.0          | 1000.000        | 290.2       | V            | 205.0         | -6.9       | 37.0                  | 82.2           |
| 1351.733333     | 47.4             | 1000.0          | 1000.000        | 194.5       | H            | 9.0           | -5.1       | 34.8                  | 82.2           |
| 1959.166667     | 79.7             | 1000.0          | 1000.000        | 147.7       | H            | 150.0         | -2.3       | Fundamental Frequency |                |
| 3280.266667     | 42.6             | 1000.0          | 1000.000        | 240.4       | V            | 12.0          | 1.0        | 39.7                  | 82.2           |
| 6274.900000     | 45.7             | 1000.0          | 1000.000        | 280.2       | H            | -19.0         | 6.3        | 36.5                  | 82.2           |
| 11114.000000    | 48.7             | 1000.0          | 1000.000        | 103.7       | V            | 135.0         | 12.3       | 33.5                  | 82.2           |
| 16979.566667    | 53.3             | 1000.0          | 1000.000        | 347.1       | V            | 228.0         | 17.9       | 28.9                  | 82.2           |

### Average Data

| Frequency (MHz) | Average (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 1105.800000     | 38.6             | 1000.0          | 1000.000        | 290.2       | V            | 205.0         | -6.9       | 43.6                  | 82.2           |
| 1351.733333     | 42.1             | 1000.0          | 1000.000        | 194.5       | H            | 9.0           | -5.1       | 40.1                  | 82.2           |
| 1959.166667     | 67.9             | 1000.0          | 1000.000        | 147.7       | H            | 150.0         | -2.3       | Fundamental Frequency |                |
| 3280.266667     | 29.8             | 1000.0          | 1000.000        | 240.4       | V            | 12.0          | 1.0        | 52.4                  | 82.2           |
| 6274.900000     | 32.5             | 1000.0          | 1000.000        | 280.2       | H            | -19.0         | 6.3        | 49.8                  | 82.2           |
| 11114.000000    | 34.8             | 1000.0          | 1000.000        | 103.7       | V            | 135.0         | 12.3       | 47.4                  | 82.2           |
| 16979.566667    | 40.1             | 1000.0          | 1000.000        | 347.1       | V            | 228.0         | 17.9       | 42.1                  | 82.2           |

## 2.8.24 Test Results Above 1GHz (LTE Band 25 Downlink Worst Case Configuration) - 20MHz Bandwidth High Channel



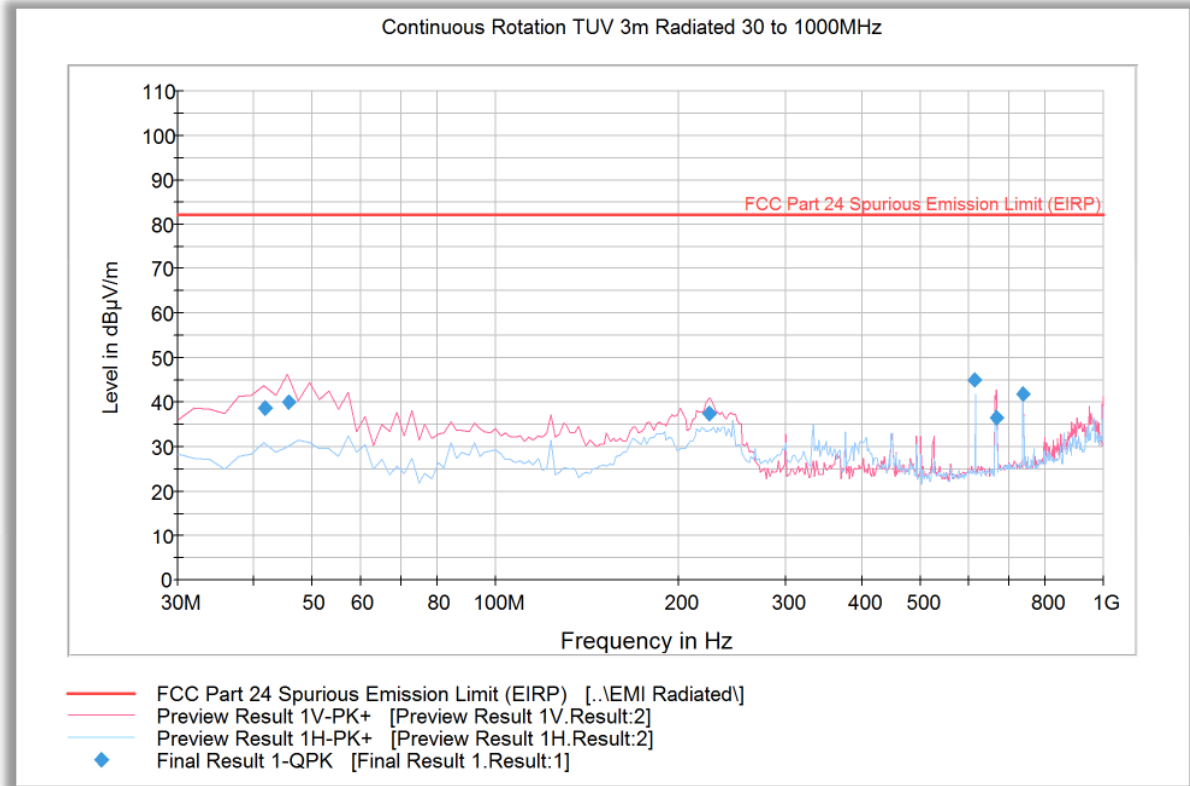
### Peak Data

| Frequency (MHz) | MaxPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 1105.766667     | 44.7             | 1000.0          | 1000.000        | 250.5       | H            | 236.0         | -6.9       | 37.6                  | 82.2           |
| 1351.533333     | 47.2             | 1000.0          | 1000.000        | 151.6       | H            | 6.0           | -5.1       | 35.0                  | 82.2           |
| 1986.566667     | 83.9             | 1000.0          | 1000.000        | 252.3       | V            | 183.0         | -2.3       | Fundamental Frequency |                |
| 3056.000000     | 43.0             | 1000.0          | 1000.000        | 195.5       | H            | 290.0         | 1.0        | 39.3                  | 82.2           |
| 6330.266667     | 45.3             | 1000.0          | 1000.000        | 152.2       | H            | 125.0         | 6.3        | 36.9                  | 82.2           |
| 11067.966667    | 48.2             | 1000.0          | 1000.000        | 265.3       | V            | 223.0         | 12.0       | 34.1                  | 82.2           |
| 16859.733333    | 52.4             | 1000.0          | 1000.000        | 327.2       | H            | 354.0         | 18.0       | 29.8                  | 82.2           |

### Average Data

| Frequency (MHz) | Average (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 1105.766667     | 38.9             | 1000.0          | 1000.000        | 250.5       | H            | 236.0         | -6.9       | 43.3                  | 82.2           |
| 1351.533333     | 41.7             | 1000.0          | 1000.000        | 151.6       | H            | 6.0           | -5.1       | 40.5                  | 82.2           |
| 1986.566667     | 70.6             | 1000.0          | 1000.000        | 252.3       | V            | 183.0         | -2.3       | Fundamental Frequency |                |
| 3056.000000     | 30.0             | 1000.0          | 1000.000        | 195.5       | H            | 290.0         | 1.0        | 52.3                  | 82.2           |
| 6330.266667     | 32.2             | 1000.0          | 1000.000        | 152.2       | H            | 125.0         | 6.3        | 50.0                  | 82.2           |
| 11067.966667    | 34.8             | 1000.0          | 1000.000        | 265.3       | V            | 223.0         | 12.0       | 47.4                  | 82.2           |
| 16859.733333    | 39.3             | 1000.0          | 1000.000        | 327.2       | H            | 354.0         | 18.0       | 42.9                  | 82.2           |

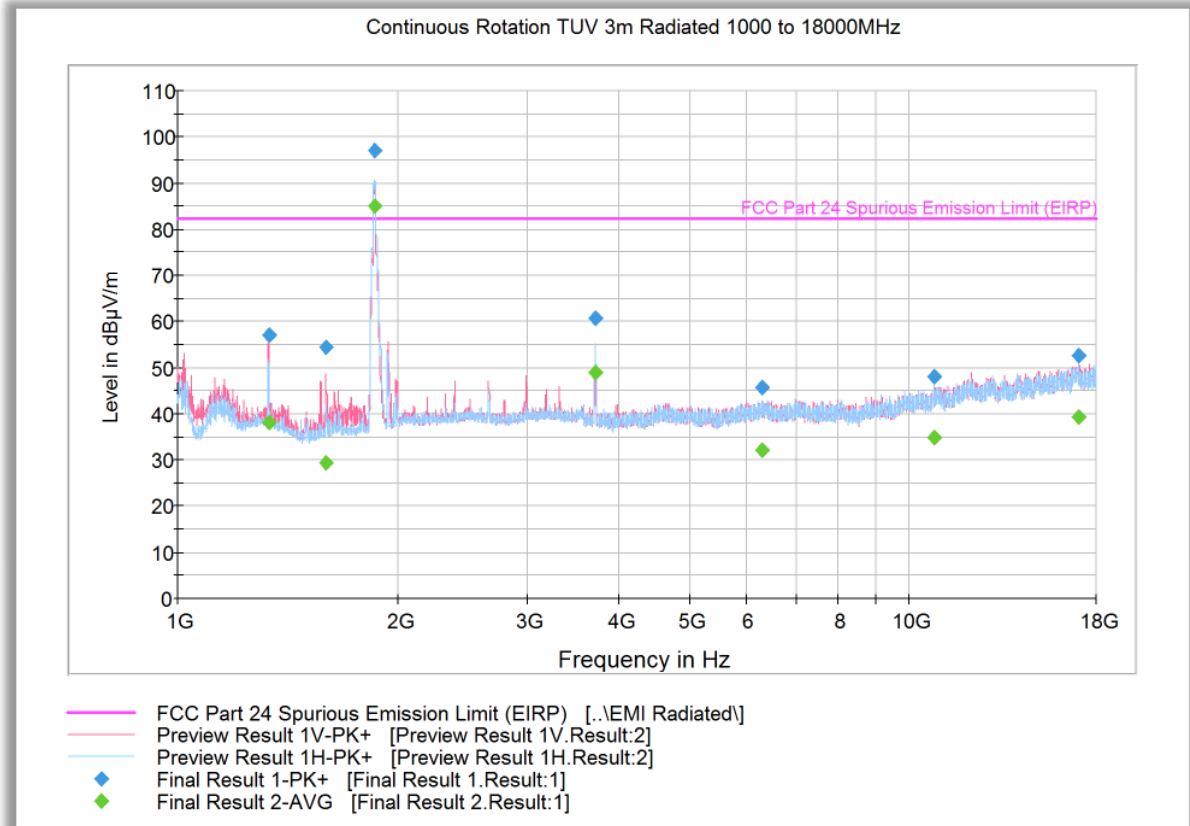
## 2.8.25 Test Results Below 1GHz (LTE Band 25 Uplink Worst Case Configuration) - 20MHz Bandwidth High Channel



### Quasi Peak Data

| Frequency (MHz) | QuasiPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBμV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 41.783327       | 38.8               | 1000.0          | 120.000         | 100.0       | V            | -15.0         | -12.6      | 43.5        | 82.2           |
| 45.671102       | 40.0               | 1000.0          | 120.000         | 100.0       | V            | 296.0         | -13.7      | 42.2        | 82.2           |
| 224.292665      | 37.4               | 1000.0          | 120.000         | 100.0       | V            | 218.0         | -9.5       | 44.8        | 82.2           |
| 614.390220      | 45.0               | 1000.0          | 120.000         | 121.0       | H            | 301.0         | 0.9        | 37.2        | 82.2           |
| 666.115190      | 36.6               | 1000.0          | 120.000         | 109.0       | V            | 265.0         | 1.4        | 45.6        | 82.2           |
| 737.255150      | 41.9               | 1000.0          | 120.000         | 177.0       | V            | 159.0         | 2.7        | 40.3        | 82.2           |

## 2.8.26 Test Results Above 1GHz (LTE Band 25 Uplink Worst Case Configuration) - 20MHz Bandwidth Low Channel



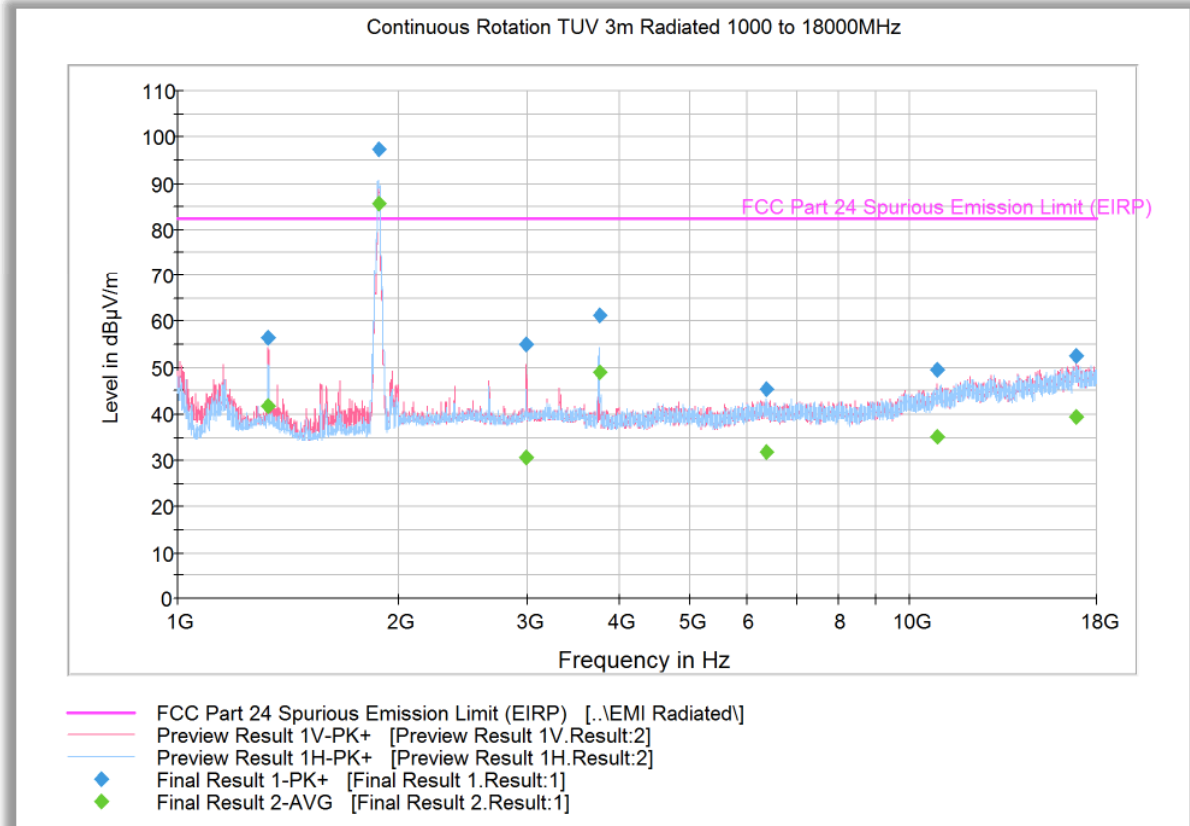
### Peak Data

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 1332.866667     | 57.0             | 1000.0          | 1000.000        | 199.5       | V            | 90.0          | -5.1       | 25.3                  | 82.2           |
| 1594.566667     | 54.5             | 1000.0          | 1000.000        | 103.7       | V            | 274.0         | -5.8       | 27.8                  | 82.2           |
| 1862.700000     | 97.2             | 1000.0          | 1000.000        | 200.5       | H            | 124.0         | -2.8       | Fundamental Frequency | 82.2           |
| 3720.933333     | 60.8             | 1000.0          | 1000.000        | 195.5       | H            | 122.0         | 2.0        | 21.4                  | 82.2           |
| 6293.366667     | 45.8             | 1000.0          | 1000.000        | 352.7       | H            | 185.0         | 6.2        | 36.4                  | 82.2           |
| 10817.066667    | 48.0             | 1000.0          | 1000.000        | 312.2       | H            | 20.0          | 11.8       | 34.3                  | 82.2           |
| 17026.100000    | 52.7             | 1000.0          | 1000.000        | 317.2       | H            | 329.0         | 17.8       | 29.5                  | 82.2           |

### Average Data

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 1332.866667     | 38.1             | 1000.0          | 1000.000        | 199.5       | V            | 90.0          | -5.1       | 44.1                  | 82.2           |
| 1594.566667     | 29.5             | 1000.0          | 1000.000        | 103.7       | V            | 274.0         | -5.8       | 52.7                  | 82.2           |
| 1862.700000     | 85.0             | 1000.0          | 1000.000        | 200.5       | H            | 124.0         | -2.8       | Fundamental Frequency | 82.2           |
| 3720.933333     | 48.8             | 1000.0          | 1000.000        | 195.5       | H            | 122.0         | 2.0        | 33.4                  | 82.2           |
| 6293.366667     | 32.2             | 1000.0          | 1000.000        | 352.7       | H            | 185.0         | 6.2        | 50.0                  | 82.2           |
| 10817.066667    | 35.0             | 1000.0          | 1000.000        | 312.2       | H            | 20.0          | 11.8       | 47.2                  | 82.2           |
| 17026.100000    | 39.3             | 1000.0          | 1000.000        | 317.2       | H            | 329.0         | 17.8       | 42.9                  | 82.2           |

## 2.8.27 Test Results Above 1GHz (LTE Band 25 Uplink Worst Case Configuration) - 20MHz Bandwidth Middle Channel



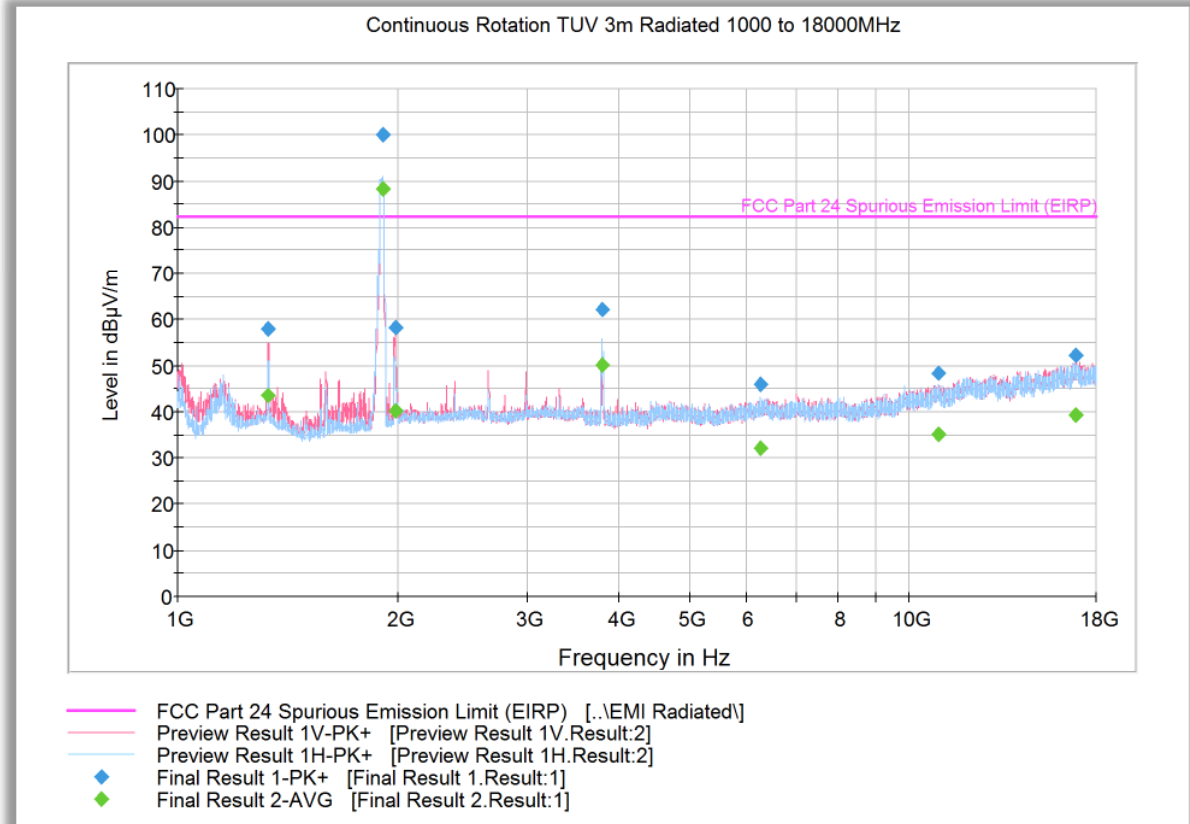
### Peak Data

| Frequency (MHz) | MaxPeak (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 1330.033333     | 56.4             | 1000.0          | 1000.000        | 194.5       | V            | 89.0          | -5.1       | 25.8                  | 82.2           |
| 1882.500000     | 97.3             | 1000.0          | 1000.000        | 199.5       | H            | 238.0         | -2.7       | Fundamental Frequency |                |
| 2993.333333     | 54.9             | 1000.0          | 1000.000        | 152.2       | V            | 268.0         | 0.8        | 27.3                  | 82.2           |
| 3764.966667     | 61.2             | 1000.0          | 1000.000        | 190.5       | H            | 122.0         | 2.0        | 21.0                  | 82.2           |
| 6379.900000     | 45.3             | 1000.0          | 1000.000        | 146.7       | H            | 47.0          | 6.4        | 36.9                  | 82.2           |
| 10907.566667    | 49.5             | 1000.0          | 1000.000        | 127.7       | V            | 308.0         | 11.9       | 32.8                  | 82.2           |
| 16875.566667    | 52.7             | 1000.0          | 1000.000        | 120.7       | V            | 332.0         | 18.0       | 29.5                  | 82.2           |

### Average Data

| Frequency (MHz) | Average (dBμV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBμV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 1330.033333     | 41.7             | 1000.0          | 1000.000        | 194.5       | V            | 89.0          | -5.1       | 40.5                  | 82.2           |
| 1882.500000     | 85.7             | 1000.0          | 1000.000        | 199.5       | H            | 238.0         | -2.7       | Fundamental Frequency |                |
| 2993.333333     | 30.8             | 1000.0          | 1000.000        | 152.2       | V            | 268.0         | 0.8        | 51.5                  | 82.2           |
| 3764.966667     | 49.1             | 1000.0          | 1000.000        | 190.5       | H            | 122.0         | 2.0        | 33.1                  | 82.2           |
| 6379.900000     | 31.9             | 1000.0          | 1000.000        | 146.7       | H            | 47.0          | 6.4        | 50.4                  | 82.2           |
| 10907.566667    | 35.0             | 1000.0          | 1000.000        | 127.7       | V            | 308.0         | 11.9       | 47.2                  | 82.2           |
| 16875.566667    | 39.4             | 1000.0          | 1000.000        | 120.7       | V            | 332.0         | 18.0       | 42.9                  | 82.2           |

## 2.8.28 Test Results Above 1GHz (LTE Band 25 Uplink Worst Case Configuration) - 20MHz Bandwidth High Channel



### Peak Data

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 1330.200000     | 58.0             | 1000.0          | 1000.000        | 198.5       | V            | 92.0          | -5.1       | 24.2                  | 82.2           |
| 1904.766667     | 100.1            | 1000.0          | 1000.000        | 190.5       | H            | 125.0         | -2.5       | Fundamental Frequency |                |
| 1985.966667     | 58.5             | 1000.0          | 1000.000        | 155.2       | V            | 275.0         | -2.3       | 23.8                  | 82.2           |
| 3809.200000     | 62.2             | 1000.0          | 1000.000        | 127.7       | H            | 116.0         | 2.2        | 20.0                  | 82.2           |
| 6261.333333     | 45.9             | 1000.0          | 1000.000        | 143.7       | H            | 354.0         | 6.3        | 36.4                  | 82.2           |
| 10956.000000    | 48.3             | 1000.0          | 1000.000        | 142.7       | H            | 80.0          | 11.9       | 33.9                  | 82.2           |
| 16849.633333    | 52.2             | 1000.0          | 1000.000        | 181.6       | H            | 318.0         | 18.0       | 30.0                  | 82.2           |

### Average Data

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB)           | Limit (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-----------------------|----------------|
| 1330.200000     | 43.5             | 1000.0          | 1000.000        | 198.5       | V            | 92.0          | -5.1       | 38.7                  | 82.2           |
| 1904.766667     | 88.4             | 1000.0          | 1000.000        | 190.5       | H            | 125.0         | -2.5       | Fundamental Frequency |                |
| 1985.966667     | 40.1             | 1000.0          | 1000.000        | 155.2       | V            | 275.0         | -2.3       | 42.1                  | 82.2           |
| 3809.200000     | 50.2             | 1000.0          | 1000.000        | 127.7       | H            | 116.0         | 2.2        | 32.0                  | 82.2           |
| 6261.333333     | 32.3             | 1000.0          | 1000.000        | 143.7       | H            | 354.0         | 6.3        | 49.9                  | 82.2           |
| 10956.000000    | 35.0             | 1000.0          | 1000.000        | 142.7       | H            | 80.0          | 11.9       | 47.2                  | 82.2           |
| 16849.633333    | 39.3             | 1000.0          | 1000.000        | 181.6       | H            | 318.0         | 18.0       | 42.9                  | 82.2           |

## 2.9 FREQUENCY STABILITY

### 2.9.1 Specification Reference

FCC 47 CFR Part 2, Clause 2.1055  
 FCC 47 CFR Part 22, Clause 22.355  
 FCC 47 CFR Part 24, Clause 24.235  
 RSS-132, Clause 5.3  
 RSS-133, Clause 6.3

### 2.9.2 Standard Applicable

FCC Part 22.355:  
 The carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table C-1 of this section.

**TABLE C-1—FREQUENCY TOLERANCE FOR TRANSMITTERS IN THE PUBLIC MOBILE SERVICES**

| Frequency range (MHz) | Base, fixed (ppm) | Mobile >3 watts (ppm) | Mobile ≤3 watts (ppm) |
|-----------------------|-------------------|-----------------------|-----------------------|
| 25 to 50 .....        | 20.0              | 20.0                  | 50.0                  |
| 50 to 450 .....       | 5.0               | 5.0                   | 50.0                  |
| 450 to 512 .....      | 2.5               | 5.0                   | 5.0                   |
| 821 to 896 .....      | 1.5               | 2.5                   | 2.5                   |
| 928 to 929 .....      | 5.0               | n/a                   | n/a                   |
| 929 to 960 .....      | 1.5               | n/a                   | n/a                   |
| 2110 to 2220 .....    | 10.0              | n/a                   | n/a                   |

FCC Part 24.235:  
 The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

RSS-132:  
 The carrier frequency shall not depart from the reference frequency in excess of  $\pm 2.5$  ppm for mobile stations and  $\pm 1.5$  ppm for base stations.

RSS-133  
 The carrier frequency shall not depart from the reference frequency, in excess of  $\pm 2.5$  ppm for mobile stations and  $\pm 1.0$  ppm for base stations.

### 2.9.3 Equipment Under Test and Modification State

Serial No: 370920000139 (NU) and 371929000156 (CU) / Test Configuration A and B

### 2.9.4 Date of Test/Initial of test personnel who performed the test

August 20, 21, September 10 and October 17, 2019/XYZ



#### **2.9.5 Test Equipment Used**

The major items of test equipment used for the above tests are identified in Section 3.1.

#### **2.9.6 Environmental Conditions**

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility.

|                     |                |
|---------------------|----------------|
| Ambient Temperature | 21.7 - 25.7°C  |
| Relative Humidity   | 23.2 - 58.1%   |
| ATM Pressure        | 98.5 - 99.5kPa |

#### **2.9.7 Additional Observations**

- This is a conducted test.
- The Unit was operated at 120 VAC nominal voltage and was placed in the temperature chamber for the series of temperature variation evaluations performed
- The Temperature was reduced to -30°C and allowed to sit for 1 hour to allow the equipment and chamber temperature to stabilize. The measurements on both downlink and uplink were then performed. The temperature was then increased by 10°C steps and allowed to settle before taking the next set of measurements.
- Voltage variation was also performed at 85% and 115% of the nominal voltage.
- EUT was injected a CW signal from a Signal Generator and maximum frequency error was monitored using the spectrum analyser.
- 5MHz bandwidth Middle Channel was tested as the representative configuration.

## 2.9.8 Test Results Summary

| WCDMA Band 5 Downlink |                         |                                     |                    |
|-----------------------|-------------------------|-------------------------------------|--------------------|
| <i>Voltage (VAC)</i>  | <i>Temperature (°C)</i> | <i>Frequency Deviation (Hz/ppm)</i> | <i>Limit (ppm)</i> |
| <b>120</b>            | -30                     | 0 / 0                               | 1.5                |
|                       | -20                     | 0 / 0                               | 1.5                |
|                       | -10                     | 0 / 0                               | 1.5                |
|                       | 0                       | 0 / 0                               | 1.5                |
|                       | +10                     | 0 / 0                               | 1.5                |
|                       | +20                     | 0 / 0                               | 1.5                |
|                       | +30                     | 0 / 0                               | 1.5                |
|                       | +40                     | 0 / 0                               | 1.5                |
|                       | +50                     | 0 / 0                               | 1.5                |

| WCDMA Band 5 Downlink   |                      |                                     |                    |
|-------------------------|----------------------|-------------------------------------|--------------------|
| <i>Temperature (°C)</i> | <i>Voltage (VAC)</i> | <i>Frequency Deviation (Hz/ppm)</i> | <i>Limit (ppm)</i> |
| <b>20</b>               | 102                  | 0 / 0                               | 1.5                |
|                         | 138                  | 0 / 0                               | 1.5                |

| WCDMA Band 5 Uplink  |                         |                                     |                    |
|----------------------|-------------------------|-------------------------------------|--------------------|
| <i>Voltage (VAC)</i> | <i>Temperature (°C)</i> | <i>Frequency Deviation (Hz/ppm)</i> | <i>Limit (ppm)</i> |
| <b>120</b>           | -30                     | 0 / 0                               | 1.5                |
|                      | -20                     | 0 / 0                               | 1.5                |
|                      | -10                     | 0 / 0                               | 1.5                |
|                      | 0                       | 0 / 0                               | 1.5                |
|                      | +10                     | 0 / 0                               | 1.5                |
|                      | +20                     | 0 / 0                               | 1.5                |
|                      | +30                     | 0 / 0                               | 1.5                |
|                      | +40                     | 0 / 0                               | 1.5                |
|                      | +50                     | 0 / 0                               | 1.5                |

| WCDMA Band 5 Uplink     |                      |                                     |                    |
|-------------------------|----------------------|-------------------------------------|--------------------|
| <i>Temperature (°C)</i> | <i>Voltage (VAC)</i> | <i>Frequency Deviation (Hz/ppm)</i> | <i>Limit (ppm)</i> |
| <b>20</b>               | 102                  | 0 / 0                               | 1.5                |
|                         | 138                  | 0 / 0                               | 1.5                |

| LTE Band 5 Downlink  |                         |                                     |                    |
|----------------------|-------------------------|-------------------------------------|--------------------|
| <i>Voltage (VAC)</i> | <i>Temperature (°C)</i> | <i>Frequency Deviation (Hz/ppm)</i> | <i>Limit (ppm)</i> |
| <b>120</b>           | -30                     | 0 / 0                               | 1.5                |
|                      | -20                     | 0 / 0                               | 1.5                |
|                      | -10                     | 0 / 0                               | 1.5                |
|                      | 0                       | 0 / 0                               | 1.5                |
|                      | +10                     | 0 / 0                               | 1.5                |
|                      | +20                     | 0 / 0                               | 1.5                |
|                      | +30                     | 0 / 0                               | 1.5                |
|                      | +40                     | 0 / 0                               | 1.5                |
|                      | +50                     | 0 / 0                               | 1.5                |

| LTE Band 5 Downlink     |                      |                                     |                    |
|-------------------------|----------------------|-------------------------------------|--------------------|
| <i>Temperature (°C)</i> | <i>Voltage (VAC)</i> | <i>Frequency Deviation (Hz/ppm)</i> | <i>Limit (ppm)</i> |
| <b>20</b>               | 102                  | 0 / 0                               | 1.5                |
|                         | 138                  | 0 / 0                               | 1.5                |

| LTE Band 5 Uplink    |                         |                                     |                    |
|----------------------|-------------------------|-------------------------------------|--------------------|
| <i>Voltage (VAC)</i> | <i>Temperature (°C)</i> | <i>Frequency Deviation (Hz/ppm)</i> | <i>Limit (ppm)</i> |
| <b>120</b>           | -30                     | 0 / 0                               | 1.5                |
|                      | -20                     | 0 / 0                               | 1.5                |
|                      | -10                     | 0 / 0                               | 1.5                |
|                      | 0                       | 0 / 0                               | 1.5                |
|                      | +10                     | 0 / 0                               | 1.5                |
|                      | +20                     | 0 / 0                               | 1.5                |
|                      | +30                     | 0 / 0                               | 1.5                |
|                      | +40                     | 0 / 0                               | 1.5                |
|                      | +50                     | 0 / 0                               | 1.5                |

| LTE Band 5 Uplink       |                      |                                     |                    |
|-------------------------|----------------------|-------------------------------------|--------------------|
| <i>Temperature (°C)</i> | <i>Voltage (VAC)</i> | <i>Frequency Deviation (Hz/ppm)</i> | <i>Limit (ppm)</i> |
| <b>20</b>               | 102                  | 0 / 0                               | 1.5                |
|                         | 138                  | 0 / 0                               | 1.5                |

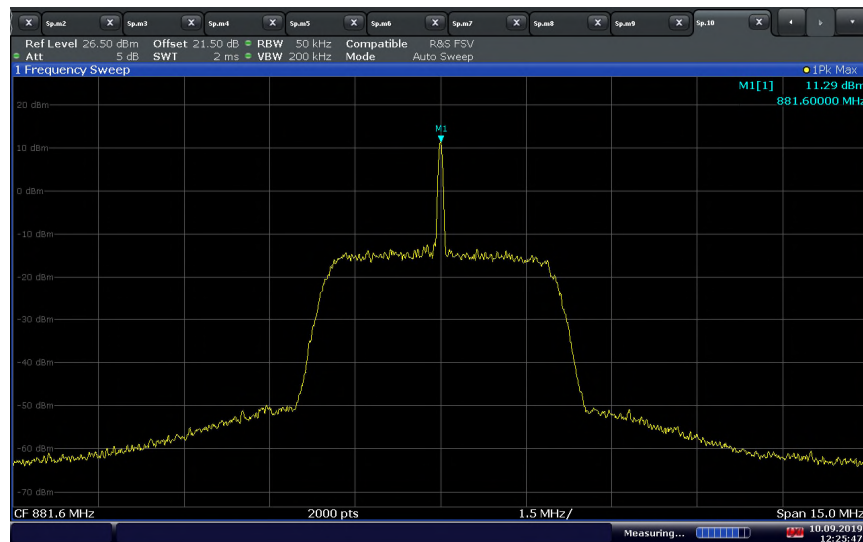
| LTE Band 25 Downlink |                         |                                     |                    |
|----------------------|-------------------------|-------------------------------------|--------------------|
| <i>Voltage (VAC)</i> | <i>Temperature (°C)</i> | <i>Frequency Deviation (Hz/ppm)</i> | <i>Limit (ppm)</i> |
| <b>120</b>           | -30                     | 0 / 0                               | 1.0                |
|                      | -20                     | 0 / 0                               | 1.0                |
|                      | -10                     | 0 / 0                               | 1.0                |
|                      | 0                       | 0 / 0                               | 1.0                |
|                      | +10                     | 0 / 0                               | 1.0                |
|                      | +20                     | 0 / 0                               | 1.0                |
|                      | +30                     | 0 / 0                               | 1.0                |
|                      | +40                     | 0 / 0                               | 1.0                |
|                      | +50                     | 0 / 0                               | 1.0                |

| LTE Band 25 Downlink    |                      |                                     |                    |
|-------------------------|----------------------|-------------------------------------|--------------------|
| <i>Temperature (°C)</i> | <i>Voltage (VAC)</i> | <i>Frequency Deviation (Hz/ppm)</i> | <i>Limit (ppm)</i> |
| <b>20</b>               | 102                  | 0 / 0                               | 1.0                |
|                         | 138                  | 0 / 0                               | 1.0                |

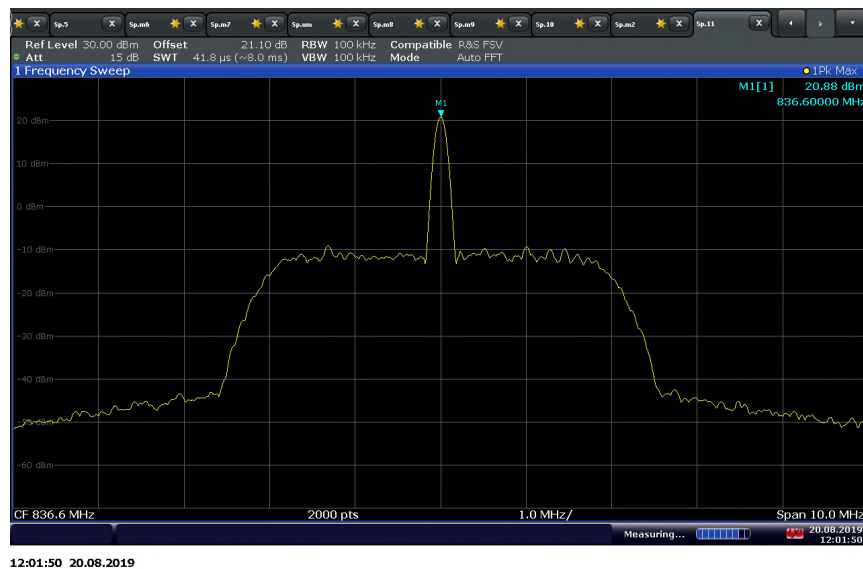
| LTE Band 25 Uplink   |                         |                                     |                    |
|----------------------|-------------------------|-------------------------------------|--------------------|
| <i>Voltage (VAC)</i> | <i>Temperature (°C)</i> | <i>Frequency Deviation (Hz/ppm)</i> | <i>Limit (ppm)</i> |
| <b>120</b>           | -30                     | 0 / 0                               | 1.0                |
|                      | -20                     | 0 / 0                               | 1.0                |
|                      | -10                     | 0 / 0                               | 1.0                |
|                      | 0                       | 0 / 0                               | 1.0                |
|                      | +10                     | 0 / 0                               | 1.0                |
|                      | +20                     | 0 / 0                               | 1.0                |
|                      | +30                     | 0 / 0                               | 1.0                |
|                      | +40                     | 0 / 0                               | 1.0                |
|                      | +50                     | 0 / 0                               | 1.0                |

| LTE Band 25 Uplink      |                      |                                     |                    |
|-------------------------|----------------------|-------------------------------------|--------------------|
| <i>Temperature (°C)</i> | <i>Voltage (VAC)</i> | <i>Frequency Deviation (Hz/ppm)</i> | <i>Limit (ppm)</i> |
| <b>20</b>               | 102                  | 0 / 0                               | 1.0                |
|                         | 138                  | 0 / 0                               | 1.0                |

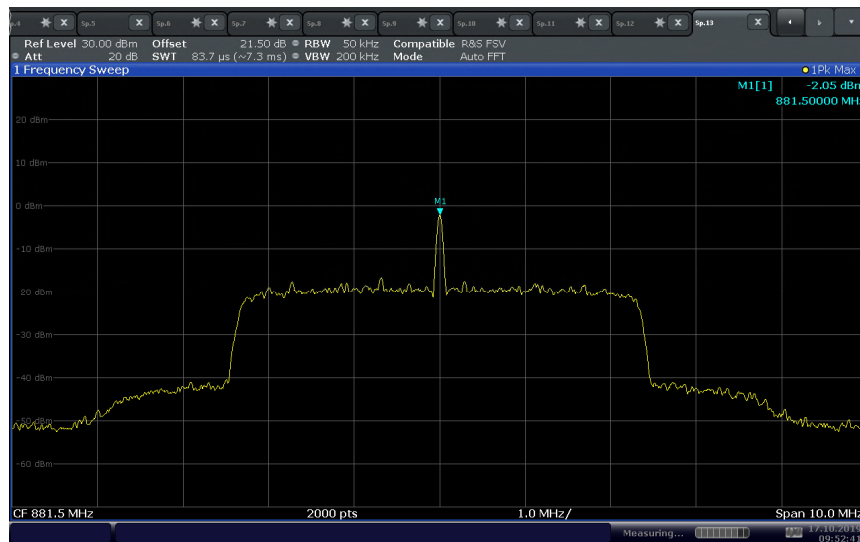
## 2.9.9 Sample Test Plots



WCDMA B5 Downlink Middle Channel 120VAC @ 20°C

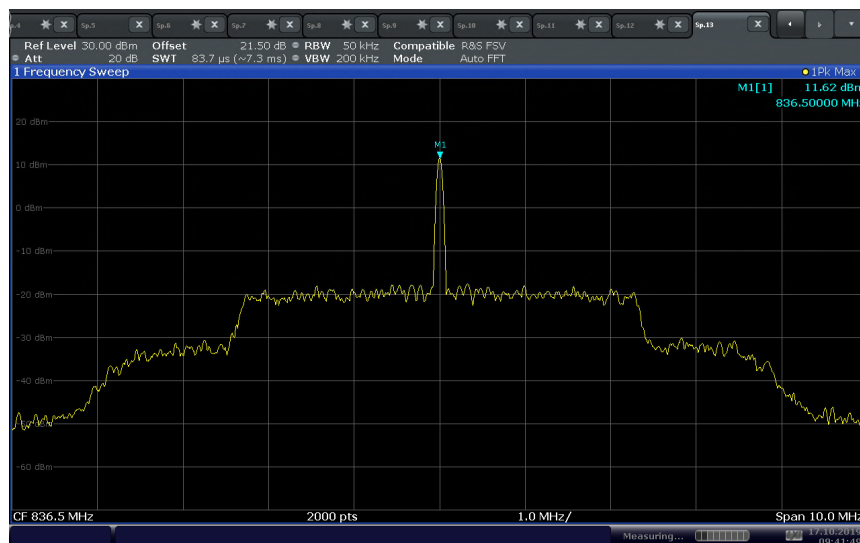


WCDMA B5 Uplink Middle Channel 120VAC @ 20°C



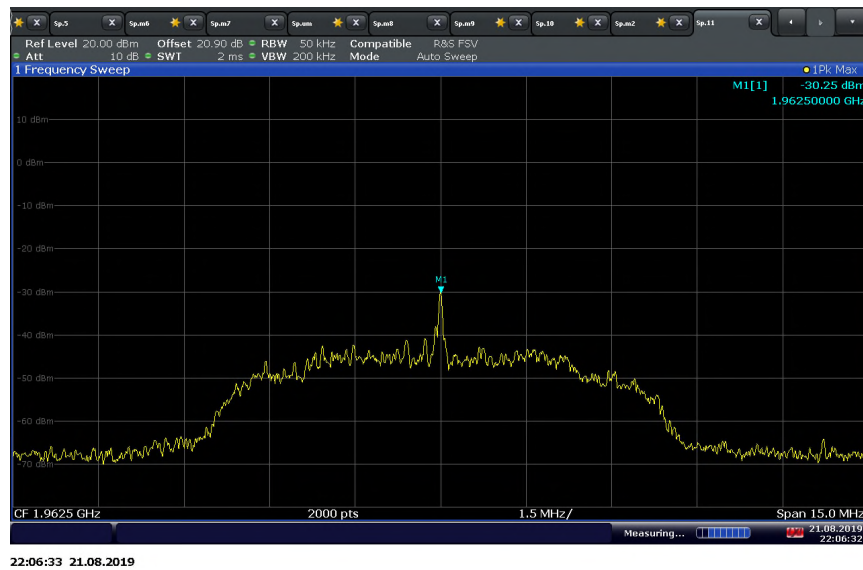
09:52:41 17.10.2019

#### LTE B5 and Band 26 869-894MHz Downlink Middle Channel 120VAC @ 20°C

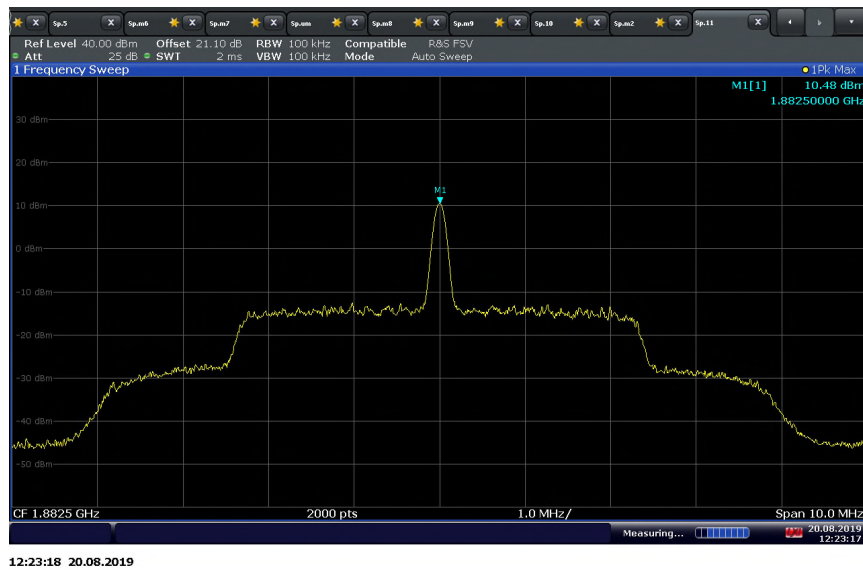


09:41:50 17.10.2019

#### LTE B5 and Band 26 824-849MHz Uplink Middle Channel 120VAC @ 20°C



LTE B25 Downlink Middle Channel 120VAC @ 20°C



LTE B25 Uplink Middle Channel 120VAC @ 20°C



## 2.10 POWER LINE CONDUCTED EMISSIONS

### 2.10.1 Specification Reference

RSS-Gen, Section 8.8

### 2.10.2 Standard Applicable

An intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN).

| Frequency of emission (MHz) | Conducted limit (dB $\mu$ V) |           |
|-----------------------------|------------------------------|-----------|
|                             | Quasi-peak                   | Average   |
| 0.15–0.5                    | 66 to 56*                    | 56 to 46* |
| 0.5–5                       | 56                           | 46        |
| 5–30                        | 60                           | 50        |

*\*Decreases with the logarithm of the frequency.*

### 2.10.3 Equipment Under Test and Modification State

Serial No: 370920000139 (NU) and 371929000156 (CU) /Test Configuration B

### 2.10.4 Date of Test/Initial of test personnel who performed the test

August 30, 2019/XYZ

### 2.10.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

### 2.10.6 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility.

|                     |          |
|---------------------|----------|
| Ambient Temperature | 25.2 °C  |
| Relative Humidity   | 47.3 %   |
| ATM Pressure        | 98.9 kPa |

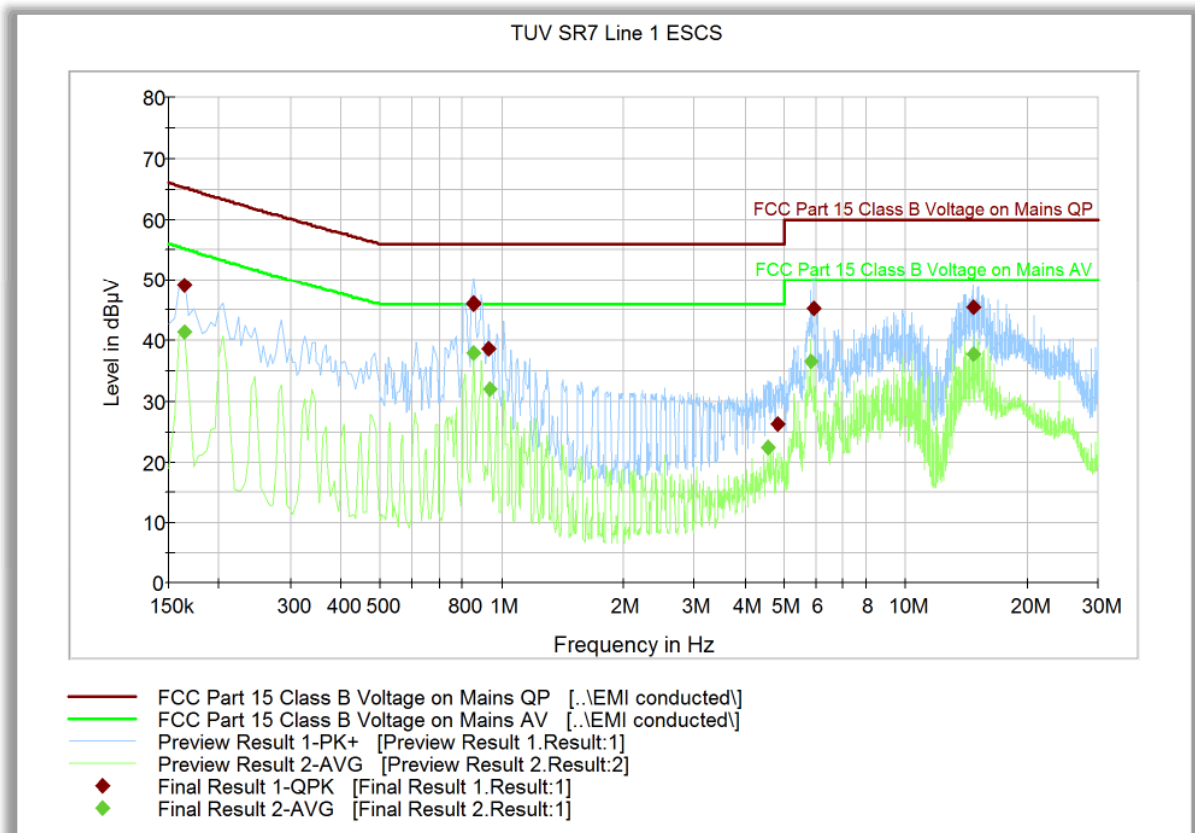
## 2.10.7 Additional Observations

- EUT verified using input voltage of 120VAC 60Hz.
- There are no significant variations in test results between each operating modes. Only the one worst operation modes for WCDMA and LTE are presented.
- Measurement was done using EMC32 automated software. Reported level is the actual level with all the correction factors factored in. Correction Factor column is for informational purposes only. See Section 2.10.8 for sample computation.

## 2.10.8 Sample Computation (Conducted Emission – Quasi Peak)

|                                                      |                                |      |      |
|------------------------------------------------------|--------------------------------|------|------|
| Measuring equipment raw measurement (dbμV) @ 150kHz  |                                |      | 5.5  |
| Correction Factor (dB)                               | Asset# 8607 (20 dB attenuator) | 19.9 | 20.7 |
|                                                      | Asset# 1177 (cable)            | 0.15 |      |
|                                                      | Asset# 1176 (cable)            | 0.35 |      |
|                                                      | Asset# 7567 (LISN)             | 0.30 |      |
| Reported QuasiPeak Final Measurement (dbμV) @ 150kHz |                                |      | 26.2 |

## 2.10.9 Test Results - Conducted Emissions Line 1 – Hot (WCDMA B5 Mode)



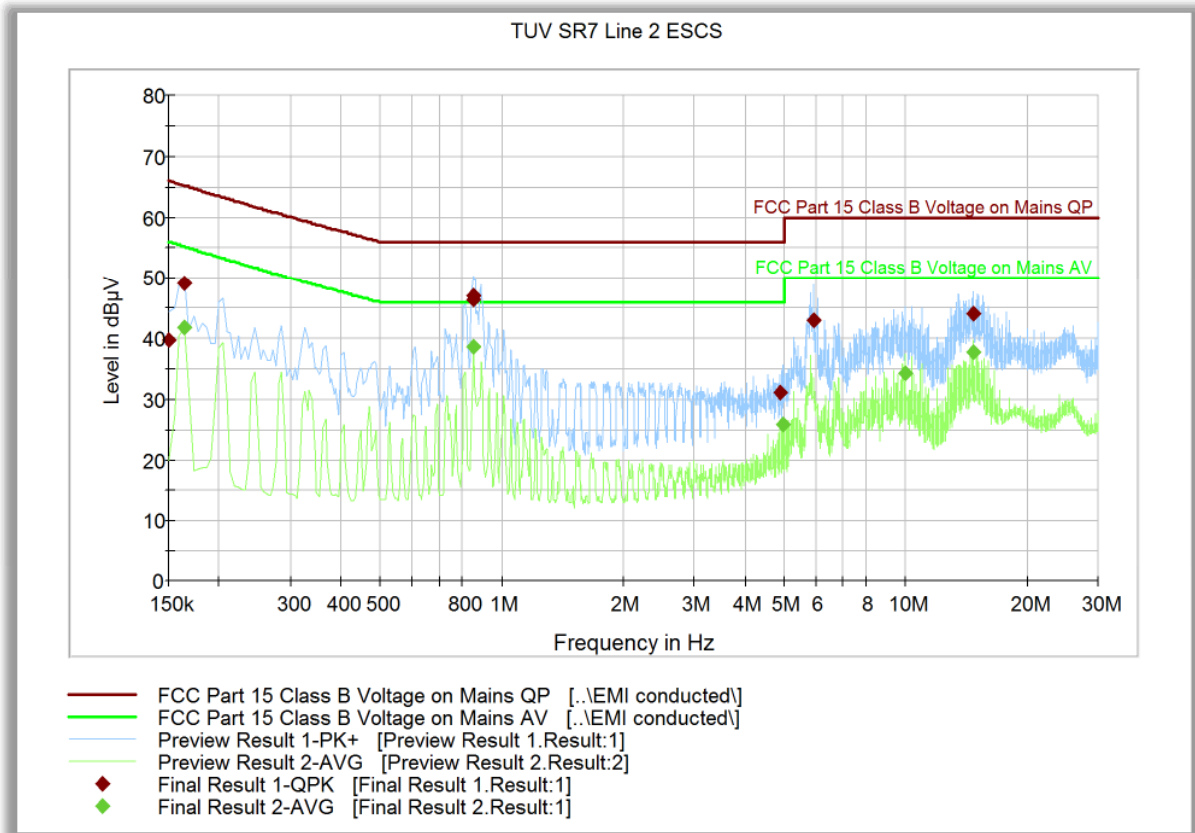
### Quasi Peak

| Frequency (MHz) | QuasiPeak (dBµV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV) |
|-----------------|------------------|-----------------|-----------------|--------|------|------------|-------------------|--------------------|
| 0.163500        | 49.3             | 1000.0          | 9.000           | Off    | L1   | 20.1       | 16.0              | 65.2               |
| 0.847500        | 46.1             | 1000.0          | 9.000           | Off    | L1   | 19.9       | 9.9               | 56.0               |
| 0.928500        | 38.7             | 1000.0          | 9.000           | Off    | L1   | 19.9       | 17.3              | 56.0               |
| 4.821000        | 26.3             | 1000.0          | 9.000           | Off    | L1   | 20.5       | 29.7              | 56.0               |
| 5.905500        | 45.3             | 1000.0          | 9.000           | Off    | L1   | 20.4       | 14.7              | 60.0               |
| 14.653500       | 45.4             | 1000.0          | 9.000           | Off    | L1   | 20.5       | 14.6              | 60.0               |

### Average

| Frequency (MHz) | Average (dBµV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin - Ave (dB) | Limit - Ave (dBµV) |
|-----------------|----------------|-----------------|-----------------|--------|------|------------|-------------------|--------------------|
| 0.163500        | 41.4           | 1000.0          | 9.000           | Off    | L1   | 20.1       | 13.8              | 55.2               |
| 0.852000        | 38.0           | 1000.0          | 9.000           | Off    | L1   | 19.9       | 8.0               | 46.0               |
| 0.933000        | 32.0           | 1000.0          | 9.000           | Off    | L1   | 19.9       | 14.0              | 46.0               |
| 4.546500        | 22.4           | 1000.0          | 9.000           | Off    | L1   | 20.4       | 23.6              | 46.0               |
| 5.824500        | 36.7           | 1000.0          | 9.000           | Off    | L1   | 20.4       | 13.3              | 50.0               |
| 14.653500       | 37.8           | 1000.0          | 9.000           | Off    | L1   | 20.5       | 12.2              | 50.0               |

## 2.10.10 FCC Conducted Emissions Line 2 – Neutral (WCDMA B5 Mode)



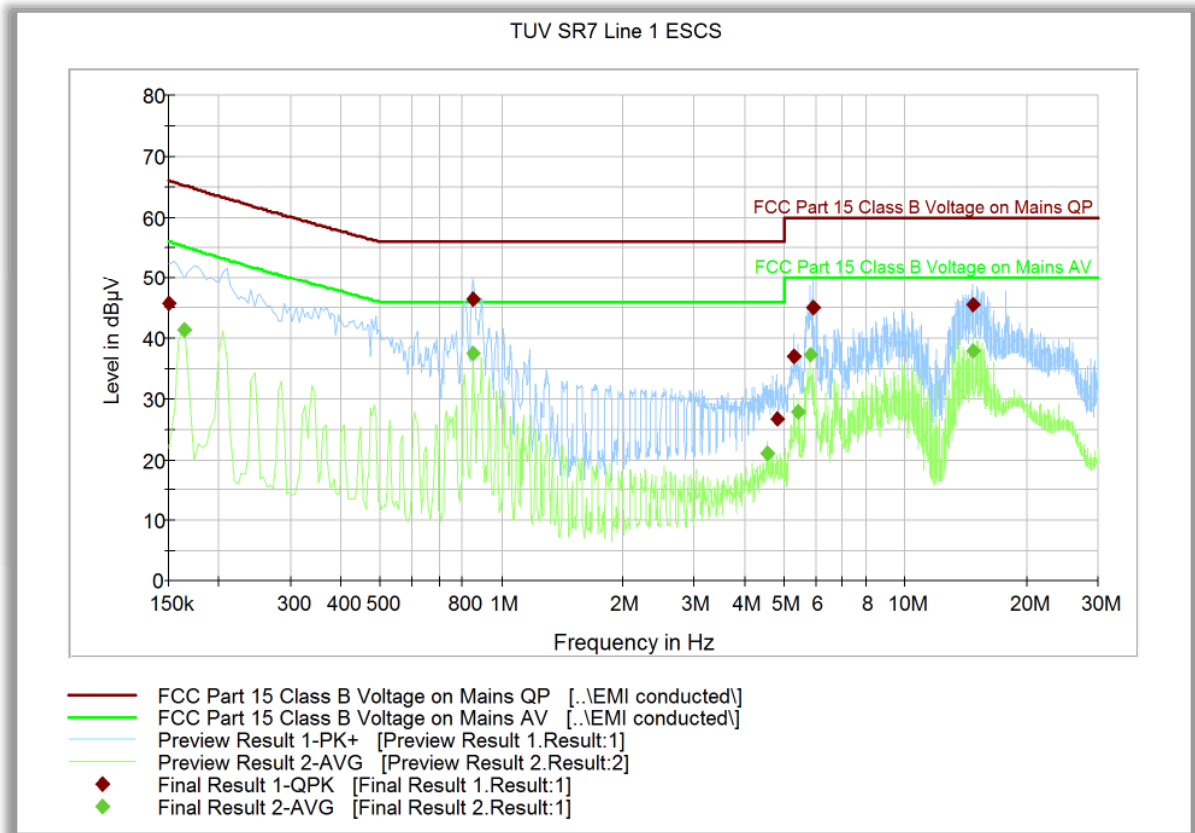
### Quasi Peak

| Frequency (MHz) | QuasiPeak (dBµV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV) |
|-----------------|------------------|-----------------|-----------------|--------|------|------------|-------------------|--------------------|
| 0.150000        | 39.7             | 1000.0          | 9.000           | Off    | N    | 20.1       | 26.3              | 66.0               |
| 0.163500        | 49.2             | 1000.0          | 9.000           | Off    | N    | 20.0       | 16.0              | 65.2               |
| 0.852000        | 47.0             | 1000.0          | 9.000           | Off    | N    | 19.8       | 9.0               | 56.0               |
| 4.902000        | 31.0             | 1000.0          | 9.000           | Off    | N    | 20.5       | 25.0              | 56.0               |
| 5.905500        | 43.0             | 1000.0          | 9.000           | Off    | N    | 20.3       | 17.0              | 60.0               |
| 14.653500       | 44.2             | 1000.0          | 9.000           | Off    | N    | 20.6       | 15.8              | 60.0               |

### Average

| Frequency (MHz) | Average (dBµV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin - Ave (dB) | Limit - Ave (dBµV) |
|-----------------|----------------|-----------------|-----------------|--------|------|------------|-------------------|--------------------|
| 0.163500        | 41.7           | 1000.0          | 9.000           | Off    | N    | 20.0       | 13.5              | 55.2               |
| 0.163500        | 41.7           | 1000.0          | 9.000           | Off    | N    | 20.0       | 13.5              | 55.2               |
| 0.852000        | 38.6           | 1000.0          | 9.000           | Off    | N    | 19.8       | 7.4               | 46.0               |
| 4.983000        | 25.9           | 1000.0          | 9.000           | Off    | N    | 20.5       | 20.1              | 46.0               |
| 9.955500        | 34.2           | 1000.0          | 9.000           | Off    | N    | 20.7       | 15.8              | 50.0               |
| 14.658000       | 37.7           | 1000.0          | 9.000           | Off    | N    | 20.6       | 12.3              | 50.0               |

## 2.10.11 Test Results - Conducted Emissions Line 1 – Hot (the worst case LTE Band)



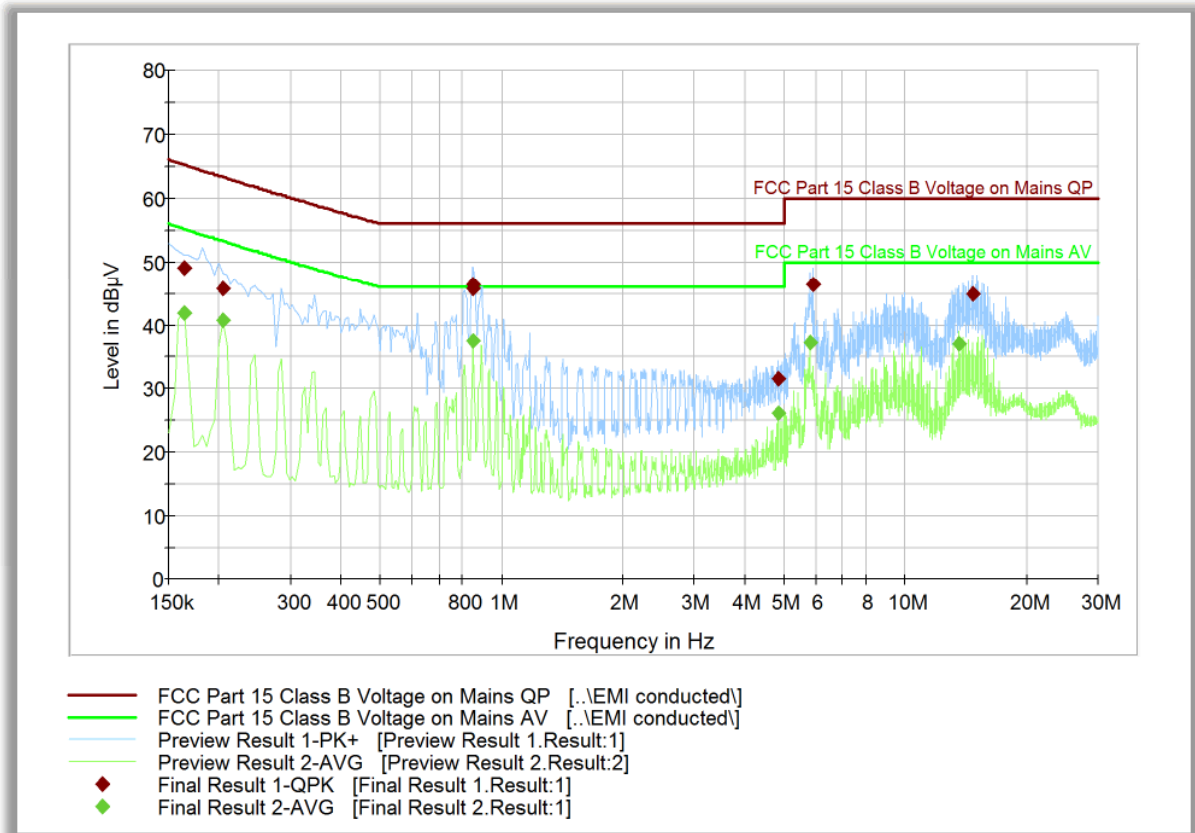
### Quasi Peak

| Frequency (MHz) | QuasiPeak (dBµV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV) |
|-----------------|------------------|-----------------|-----------------|--------|------|------------|-------------------|--------------------|
| 0.150000        | 45.8             | 1000.0          | 9.000           | Off    | L1   | 20.1       | 20.2              | 66.0               |
| 0.852000        | 46.3             | 1000.0          | 9.000           | Off    | L1   | 19.9       | 9.7               | 56.0               |
| 4.812000        | 26.6             | 1000.0          | 9.000           | Off    | L1   | 20.5       | 29.4              | 56.0               |
| 5.311500        | 37.0             | 1000.0          | 9.000           | Off    | L1   | 20.4       | 23.0              | 60.0               |
| 5.905500        | 45.1             | 1000.0          | 9.000           | Off    | L1   | 20.4       | 14.9              | 60.0               |
| 14.653500       | 45.4             | 1000.0          | 9.000           | Off    | L1   | 20.5       | 14.6              | 60.0               |

### Average

| Frequency (MHz) | Average (dBµV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin - Ave (dB) | Limit - Ave (dBµV) |
|-----------------|----------------|-----------------|-----------------|--------|------|------------|-------------------|--------------------|
| 0.163500        | 41.4           | 1000.0          | 9.000           | Off    | L1   | 20.1       | 13.8              | 55.2               |
| 0.852000        | 37.5           | 1000.0          | 9.000           | Off    | L1   | 19.9       | 8.5               | 46.0               |
| 4.551000        | 21.0           | 1000.0          | 9.000           | Off    | L1   | 20.4       | 25.0              | 46.0               |
| 5.415000        | 27.9           | 1000.0          | 9.000           | Off    | L1   | 20.4       | 22.1              | 50.0               |
| 5.824500        | 37.2           | 1000.0          | 9.000           | Off    | L1   | 20.4       | 12.8              | 50.0               |
| 14.653500       | 38.0           | 1000.0          | 9.000           | Off    | L1   | 20.5       | 12.0              | 50.0               |

## 2.10.12 Test Result - Conducted Emissions Line 2 – Neutral (the worst case LTE Band)



### Quasi Peak

| Frequency (MHz) | QuasiPeak (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBμV) |
|-----------------|------------------|-----------------|-----------------|--------|------|------------|-------------------|--------------------|
| 0.163500        | 49.0             | 1000.0          | 9.000           | Off    | N    | 20.0       | 16.2              | 65.2               |
| 0.204000        | 45.8             | 1000.0          | 9.000           | Off    | N    | 19.9       | 17.5              | 63.3               |
| 0.852000        | 46.4             | 1000.0          | 9.000           | Off    | N    | 19.8       | 9.6               | 56.0               |
| 4.857000        | 31.6             | 1000.0          | 9.000           | Off    | N    | 20.5       | 24.4              | 56.0               |
| 5.905500        | 46.4             | 1000.0          | 9.000           | Off    | N    | 20.3       | 13.6              | 60.0               |
| 14.658000       | 44.9             | 1000.0          | 9.000           | Off    | N    | 20.6       | 15.1              | 60.0               |

### Average

| Frequency (MHz) | Average (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin - Ave (dB) | Limit - Ave (dBμV) |
|-----------------|----------------|-----------------|-----------------|--------|------|------------|-------------------|--------------------|
| 0.163500        | 41.9           | 1000.0          | 9.000           | Off    | N    | 20.0       | 13.3              | 55.2               |
| 0.204000        | 40.7           | 1000.0          | 9.000           | Off    | N    | 19.9       | 12.5              | 53.3               |
| 0.852000        | 37.5           | 1000.0          | 9.000           | Off    | N    | 19.8       | 8.5               | 46.0               |
| 4.857000        | 26.1           | 1000.0          | 9.000           | Off    | N    | 20.5       | 19.9              | 46.0               |
| 5.820000        | 37.2           | 1000.0          | 9.000           | Off    | N    | 20.3       | 12.8              | 50.0               |
| 13.636500       | 37.0           | 1000.0          | 9.000           | Off    | N    | 20.6       | 13.0              | 50.0               |

FCC ID: NU: YETQ44-1234CNU  
CU: YETQ41-5ECU  
IC: NU: 9298A-Q441234CNU  
CU: 9298A-Q415ECU  
Report No. 72146075A



### **SECTION 3**

#### **TEST EQUIPMENT USED**

### 3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

| ID Number<br>(SDGE/SDRB)     | Test Equipment                       | Type             | Serial Number | Manufacturer               | Cal Date                  | Cal Due Date |
|------------------------------|--------------------------------------|------------------|---------------|----------------------------|---------------------------|--------------|
| Antenna Conducted Port Setup |                                      |                  |               |                            |                           |              |
| 7662                         | P-Series Power Meter                 | N1911A           | MY45100951    | Agilent                    | 06/28/19                  | 06/28/20     |
| 7661                         | 50MHz-18GHz Wideband Power Sensor    | N1921A           | MY45241383    | Agilent                    | 07/24/19                  | 07/24/20     |
| 7608                         | Vector Signal Generator              | SMBV100A         | 259021        | Rhode & Schwarz            | 10/10/19                  | 10/10/21     |
| 7582                         | Signal/Spectrum Analyzer             | FSW26            | 101614        | Rhode & Schwarz            | 01/07/19                  | 01/07/20     |
| 8825                         | 20dB Attenuator                      | 46-20-34         | BK5773        | Weinschel Corp.            | Verified by 7608 and 7582 |              |
| -                            | 10dB Attenuator                      | VAT-10W2+2W      | N/A           | MCL                        | Verified by 7608 and 7582 |              |
| Radiated Test Setup          |                                      |                  |               |                            |                           |              |
| 1033                         | Bilog Antenna                        | 3142C            | 00044556      | EMCO                       | 09/05/19                  | 09/05/21     |
| 7575                         | Double-ridged waveguide horn antenna | 3117             | 00155511      | EMCO                       | 06/16/18                  | 06/16/20     |
| 8628                         | Pre-amplifier                        | QLJ 01182835-JO  | 8986002       | QuinStar Technologies Inc. | 03/07/19                  | 03/07/20     |
| 1040                         | EMI Test Receiver                    | ESIB40           | 100292        | Rhode & Schwarz            | 10/11/19                  | 10/11/20     |
| 7620                         | EMI Test Receiver                    | ESU              | 100399        | Rhode & Schwarz            | 10/18/19                  | 10/18/20     |
| 1016                         | Pre-amplifier                        | PAM-0202         | 187           | A.H. Systems, Inc.         | 03/08/19                  | 03/08/20     |
| Conducted Emissions          |                                      |                  |               |                            |                           |              |
| 7620                         | EMI Test Receiver                    | ESU              | 100399        | Rhode & Schwarz            | 10/18/19                  | 10/18/20     |
| 7567                         | LISN                                 | FCC-LISN-50-25-2 | 120304        | Fischer Custom Comm.       | 12/14/17                  | 12/14/19     |
| 8822                         | 20dB Attenuator                      | 34-20-34         | N/A           | MCE / Weinschel            | 03/05/19                  | 03/06/20     |
| 8824                         | 20dB Attenuator                      | 34-20-34         | N/A           | MCE / Weinschel            | 03/05/19                  | 03/05/20     |
| Miscellaneous                |                                      |                  |               |                            |                           |              |
| 43003                        | True RMS Multimeter                  | 85 III           | 96880143      | Fluke                      | 10/07/19                  | 10/07/20     |
| 7579                         | Temperature Chamber                  | 115              | 151617        | TestQuity                  | 09/09/19                  | 09/09/20     |
| 7619                         | Temp & Humidity Sensor               | iBTHX-W          | 15050268      | Omega                      | 06/18/19                  | 06/18/20     |
|                              | Test Software                        | EMC32            | V8.53         | Rhode & Schwarz            | N/A                       |              |

### 3.2 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:

#### 3.2.1 Conducted Antenna Port Measurement

|                               | Input Quantity (Contribution) $X_i$ | Value   | Prob. Dist. | Divisor | $u_i(x)$ | $u_i(x)^2$ |
|-------------------------------|-------------------------------------|---------|-------------|---------|----------|------------|
| 1                             | Receiver reading                    | 0.10 dB | Normal, k=1 | 1.000   | 0.10     | 0.01       |
| 2                             | Cable attenuation                   | 1.00 dB | Normal, k=2 | 2.000   | 0.50     | 0.25       |
| 3                             | Received sinewave accuracy          | 0.07 dB | Normal, k=2 | 2.000   | 0.04     | 0.00       |
| 4                             | Receiver pulse amplitude            | 0.00 dB | Rectangular | 1.732   | 0.00     | 0.00       |
| 5                             | Receiver pulse repetition rate      | 0.00 dB | Rectangular | 1.732   | 0.00     | 0.00       |
| 6                             | Noise floor proximity               | 0.00 dB | Rectangular | 1.732   | 0.00     | 0.00       |
| 7                             | Frequency interpolation             | 0.10 dB | Rectangular | 1.732   | 0.06     | 0.00       |
| 8                             | Mismatch                            | 0.07 dB | U-shaped    | 1.414   | 0.05     | 0.00       |
|                               |                                     |         |             |         |          |            |
| Combined standard uncertainty |                                     |         | Normal      | 0.52    | dB       |            |
| Expanded uncertainty          |                                     |         | Normal, k=2 | 1.03    | dB       |            |

#### 3.2.2 Radiated Emission Measurements (Below 1GHz)

|                               | Input Quantity (Contribution) $X_i$ | Value   | Prob. Dist. | Divisor | $u_i(x)$ | $u_i(x)^2$ |
|-------------------------------|-------------------------------------|---------|-------------|---------|----------|------------|
| 1                             | Receiver reading                    | 0.10 dB | Normal, k=1 | 1.000   | 0.10     | 0.01       |
| 2                             | Attenuation: antenna-receiver       | 0.20 dB | Normal, k=2 | 2.000   | 0.10     | 0.01       |
| 3                             | Antenna factor AF                   | 0.75 dB | Normal, k=2 | 2.000   | 0.38     | 0.14       |
| 4                             | Receiver sinewave accuracy          | 0.45 dB | Normal, k=2 | 2.000   | 0.23     | 0.05       |
| 5                             | Receiver pulse amplitude            | 1.50 dB | Rectangular | 1.732   | 0.87     | 0.75       |
| 6                             | Receiver pulse repetition rate      | 1.50 dB | Rectangular | 1.732   | 0.87     | 0.75       |
| 7                             | Noise floor proximity               | 0.50 dB | Rectangular | 1.732   | 0.29     | 0.08       |
| 8                             | Mismatch: antenna-receiver          | 0.95 dB | U-shaped    | 1.414   | 0.67     | 0.45       |
| 9                             | AF frequency interpolation          | 0.30 dB | Rectangular | 1.732   | 0.17     | 0.03       |
| 10                            | AF height deviations                | 0.10 dB | Rectangular | 1.732   | 0.06     | 0.00       |
| 11                            | Directivity difference at 3 m       | 3.12 dB | Rectangular | 1.732   | 1.80     | 3.24       |
| 12                            | Phase center location at 3 m        | 1.00 dB | Rectangular | 1.732   | 0.58     | 0.33       |
| 13                            | Cross-polarisation                  | 0.90 dB | Rectangular | 1.732   | 0.52     | 0.27       |
| 14                            | Balance                             | 0.00 dB | Rectangular | 1.732   | 0.00     | 0.00       |
| 15                            | Site imperfections                  | 3.76 dB | Triangular  | 2.449   | 1.54     | 2.36       |
| 16                            | Separation distance at 3 m          | 0.30 dB | Rectangular | 1.732   | 0.17     | 0.03       |
| 17                            | Effect of setup table material      | 0.77 dB | Rectangular | 1.732   | 0.44     | 0.20       |
| 18                            | Table height at 3 m                 | 0.10 dB | Normal, k=2 | 2.000   | 0.05     | 0.00       |
| 19                            | Near-field effects                  | 0.00 dB | Triangular  | 2.449   | 0.00     | 0.00       |
| 20                            | Effect of ambient noise on OATS     | 0.00 dB |             |         |          | 0.00       |
|                               |                                     |         |             |         |          |            |
| Combined standard uncertainty |                                     |         | Normal      | 2.95    | dB       |            |
| Expanded uncertainty          |                                     |         | Normal, k=2 | 5.90    | dB       |            |

### 3.2.3 Radiated Emission Measurements (Above 1GHz)

|                               | Input Quantity (Contribution) $X_i$ | Value   | Prob. Dist. | Divisor | $u_i(x)$ | $u_i(x)^2$ |
|-------------------------------|-------------------------------------|---------|-------------|---------|----------|------------|
| 1                             | Receiver reading                    | 0.10 dB | Normal, k=1 | 1.000   | 0.10     | 0.01       |
| 2                             | Attenuation: antenna-receiver       | 0.20 dB | Normal, k=2 | 2.000   | 0.10     | 0.01       |
| 3                             | Antenna factor AF                   | 0.75 dB | Normal, k=2 | 2.000   | 0.38     | 0.14       |
| 4                             | Receiver sinewave accuracy          | 0.45 dB | Normal, k=2 | 2.000   | 0.23     | 0.05       |
| 5                             | Receiver pulse amplitude            | 1.50 dB | Rectangular | 1.732   | 0.87     | 0.75       |
| 6                             | Receiver pulse repetition rate      | 1.50 dB | Rectangular | 1.732   | 0.87     | 0.75       |
| 7                             | Noise floor proximity               | 0.50 dB | Rectangular | 1.732   | 0.29     | 0.08       |
| 8                             | Mismatch: antenna-receiver          | 0.95 dB | U-shaped    | 1.414   | 0.67     | 0.45       |
| 9                             | AF frequency interpolation          | 0.30 dB | Rectangular | 1.732   | 0.17     | 0.03       |
| 10                            | AF height deviations                | 0.10 dB | Rectangular | 1.732   | 0.06     | 0.00       |
| 11                            | Directivity difference at 3 m       | 3.12 dB | Rectangular | 1.732   | 1.80     | 3.24       |
| 12                            | Phase center location at 3 m        | 1.00 dB | Rectangular | 1.732   | 0.58     | 0.33       |
| 13                            | Cross-polarisation                  | 0.90 dB | Rectangular | 1.732   | 0.52     | 0.27       |
| 14                            | Balance                             | 0.00 dB | Rectangular | 1.732   | 0.00     | 0.00       |
| 15                            | Site imperfections                  | 3.25 dB | Triangular  | 2.449   | 1.33     | 1.76       |
| 16                            | Separation distance at 3 m          | 0.30 dB | Rectangular | 1.732   | 0.17     | 0.03       |
| 17                            | Effect of setup table material      | 0.77 dB | Rectangular | 1.732   | 0.44     | 0.20       |
| 18                            | Table height at 3 m                 | 0.10 dB | Normal, k=2 | 2.000   | 0.05     | 0.00       |
| 19                            | Near-field effects                  | 0.00 dB | Triangular  | 2.449   | 0.00     | 0.00       |
| 20                            | Effect of ambient noise on OATS     | 0.00 dB |             |         |          | 0.00       |
|                               |                                     |         |             |         |          |            |
| Combined standard uncertainty |                                     |         | Normal      | 2.85    | dB       |            |
| Expanded uncertainty          |                                     |         | Normal, k=2 | 5.70    | dB       |            |

### 3.2.4 Conducted Measurements

|                               | Input Quantity (Contribution) $X_i$ | Value   | Prob. Dist. | Divisor | $u_i(x)$ | $u_i(x)^2$ |
|-------------------------------|-------------------------------------|---------|-------------|---------|----------|------------|
| 1                             | Receiver reading                    | 0.10 dB | Normal, k=1 | 1.000   | 0.10     | 0.01       |
| 2                             | LISN-receiver attenuation           | 0.10 dB | Normal, k=2 | 2.000   | 0.05     | 0.00       |
| 3                             | LISN voltage division factor        | 0.30 dB | Normal, k=2 | 2.000   | 0.15     | 0.02       |
| 4                             | Receiver sinewave accuracy          | 0.36 dB | Normal, k=2 | 2.000   | 0.18     | 0.03       |
| 5                             | Receiver pulse amplitude            | 1.50 dB | Rectangular | 1.732   | 0.87     | 0.75       |
| 6                             | Receiver pulse repetition rate      | 1.50 dB | Rectangular | 1.732   | 0.87     | 0.75       |
| 7                             | Noise floor proximity               | 0.00 dB | Rectangular | 1.732   | 0.00     | 0.00       |
| 8                             | AMN VDF frequency interpolation     | 0.10 dB | Rectangular | 1.732   | 0.06     | 0.00       |
| 9                             | Mismatch                            | 0.07 dB | U-shaped    | 1.414   | 0.05     | 0.00       |
| 10                            | LISN impedance                      | 2.65 dB | Triangular  | 2.449   | 1.08     | 1.17       |
| 11                            | Effect of mains disturbance         | 0.00 dB |             |         | 0.00     | 0.00       |
| 12                            | Effect of the environment           |         |             |         |          |            |
|                               |                                     |         |             |         |          |            |
| Combined standard uncertainty |                                     |         | Normal      | 1.66    | dB       |            |
| Expanded uncertainty          |                                     |         | Normal, k=2 | 3.31    | dB       |            |

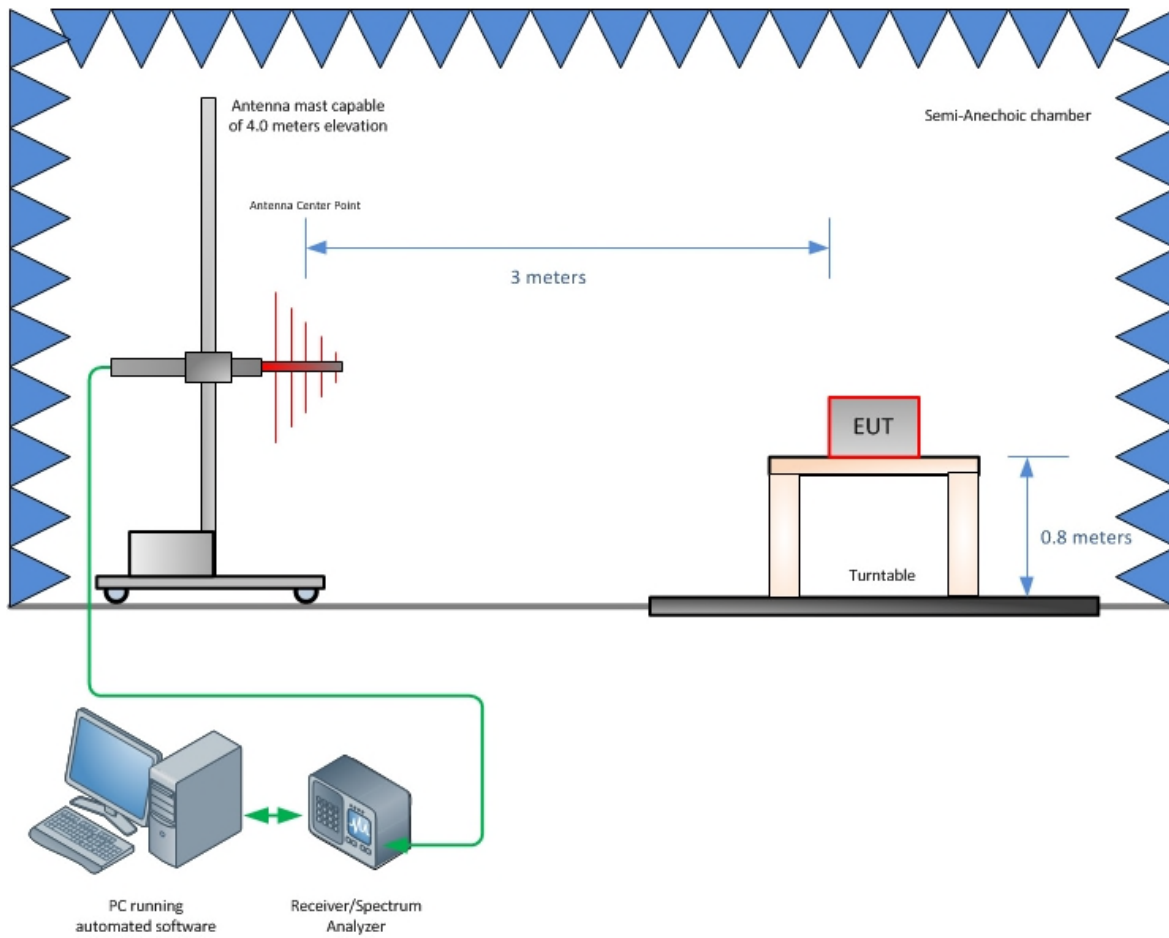
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CU: YETQ41-5ECU  
IC: NU: 9298A-Q441234CNU  
CU: 9298A-Q415ECU  
Report No. 72146075A



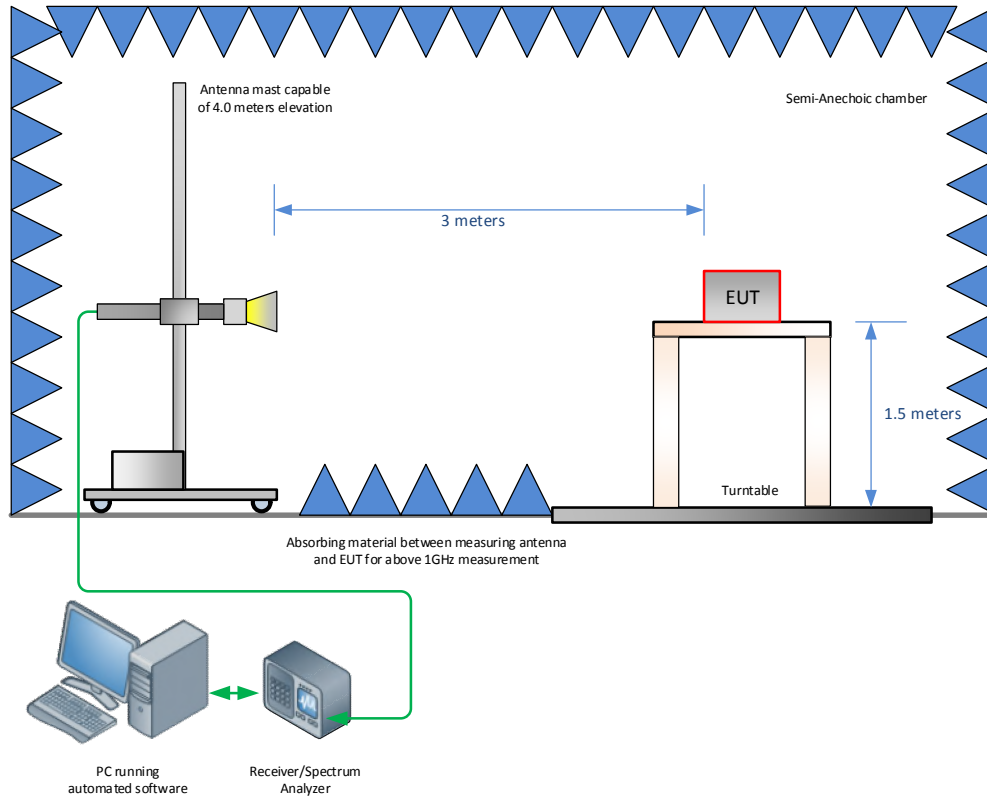
## **SECTION 4**

### **DIAGRAM OF TEST SETUP**

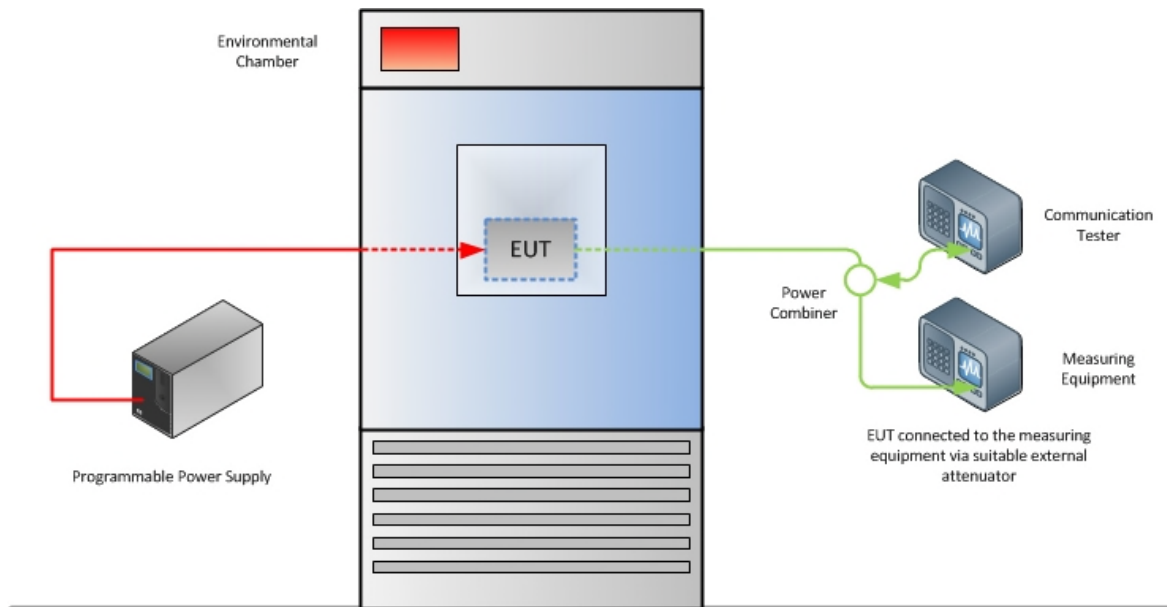
#### 4.1 TEST SETUP DIAGRAM



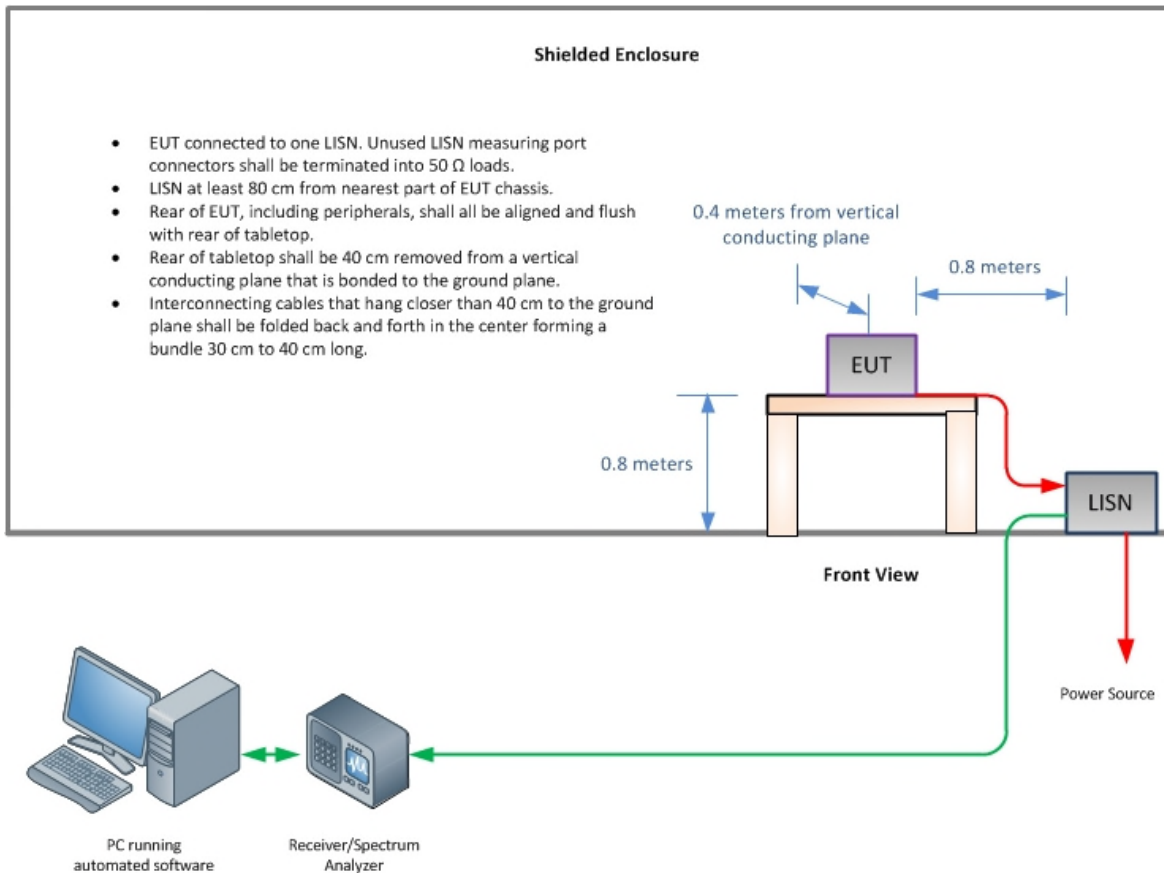
**Radiated Emission Test Setup (Below 1GHz)**



**Radiated Emission Test Setup (Above 1GHz)**



**Frequency Stability Test Configuration**



### Conducted Emissions Test Configuration (if applicable)

FCC ID: NU: YETQ44-1234CNU  
CU: YETQ41-5ECU  
IC: NU: 9298A-Q441234CNU  
CU: 9298A-Q415ECU  
Report No. 72146075A



## **SECTION 5**

### **ACCREDITATION, DISCLAIMERS AND COPYRIGHT**

## 5.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT

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