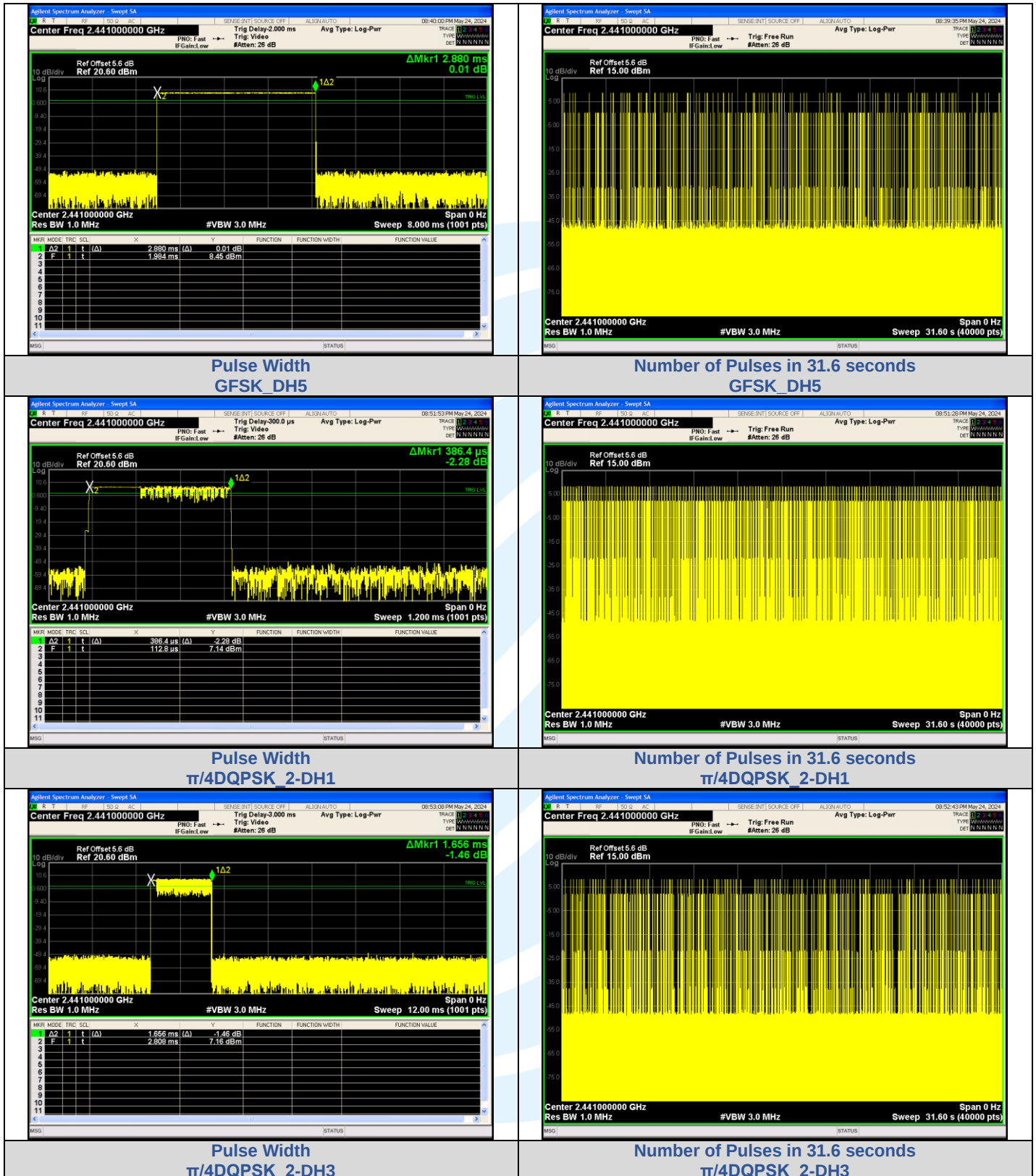
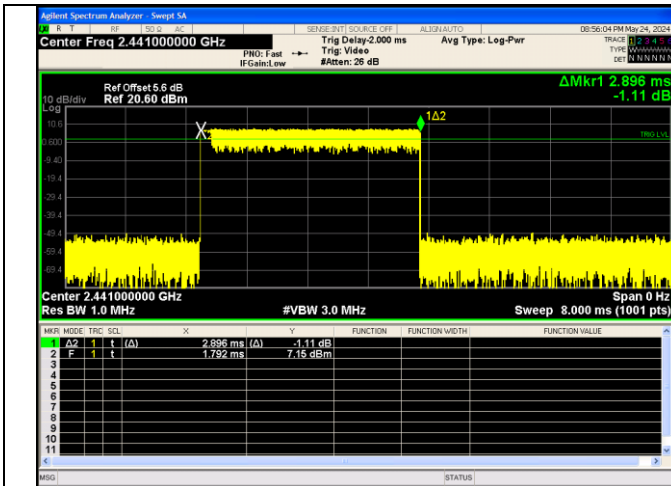
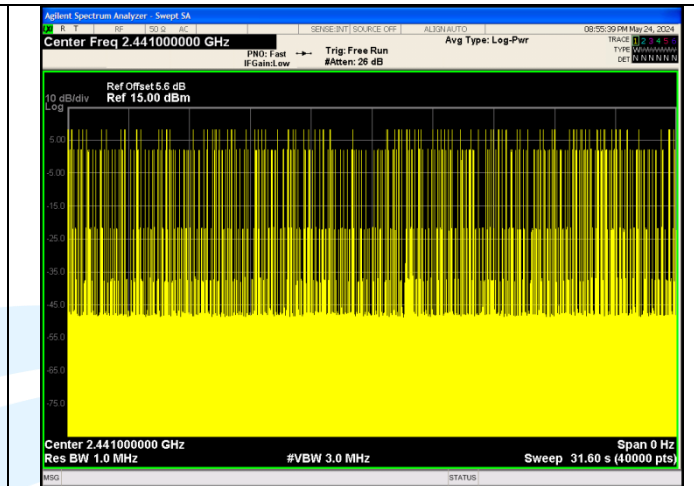


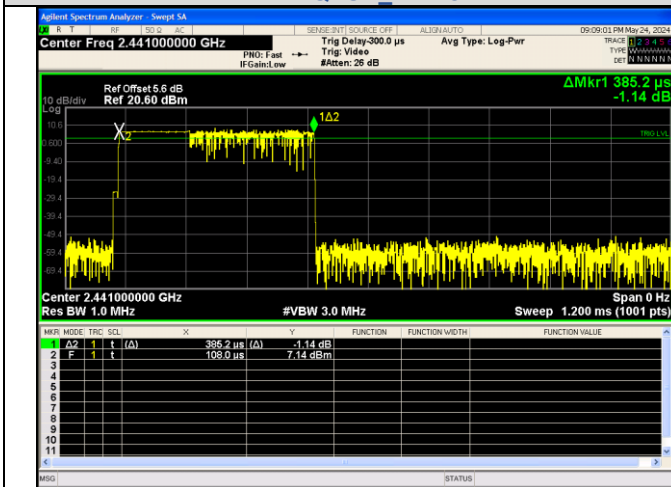




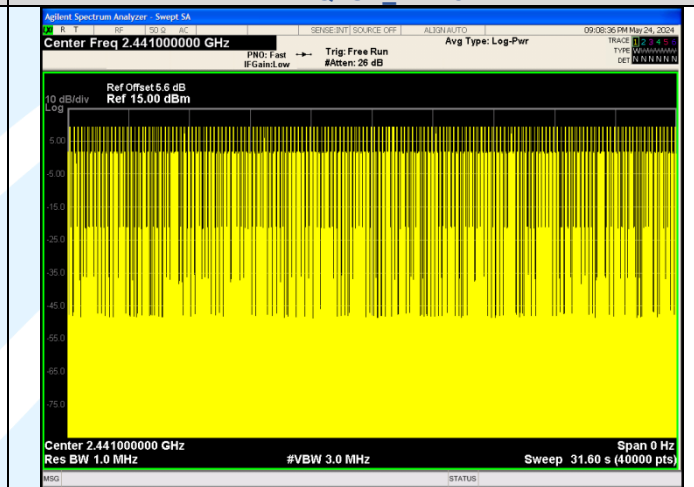
Pulse Width  
 $\pi/4$ DQPSK\_2-DH5



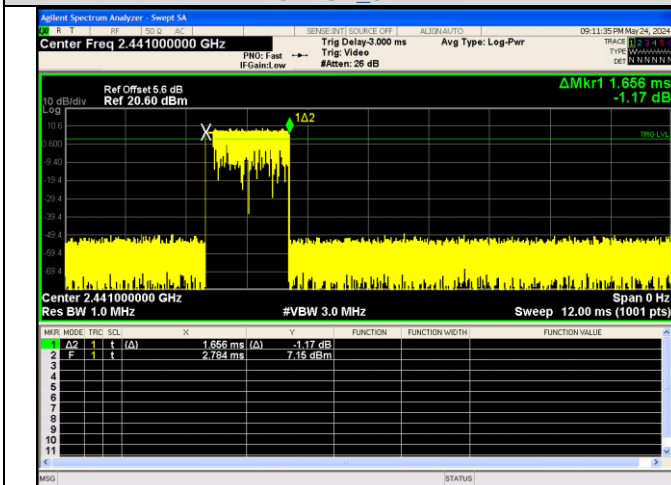
Number of Pulses in 31.6 seconds  
 $\pi/4$ DQPSK\_2-DH5



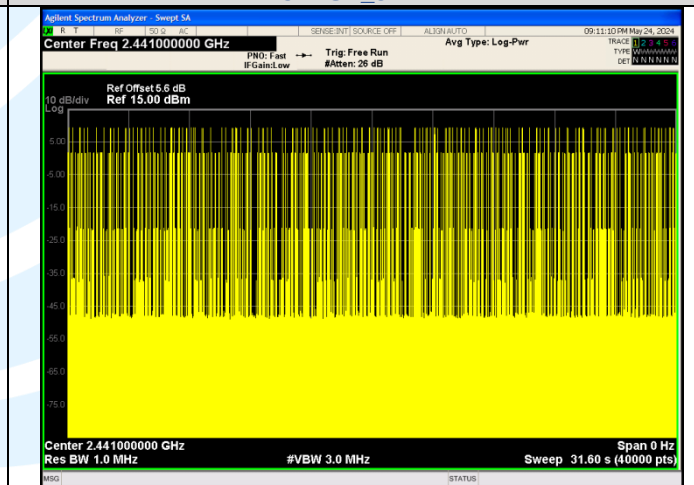
Pulse Width  
8DPSK\_3-DH1



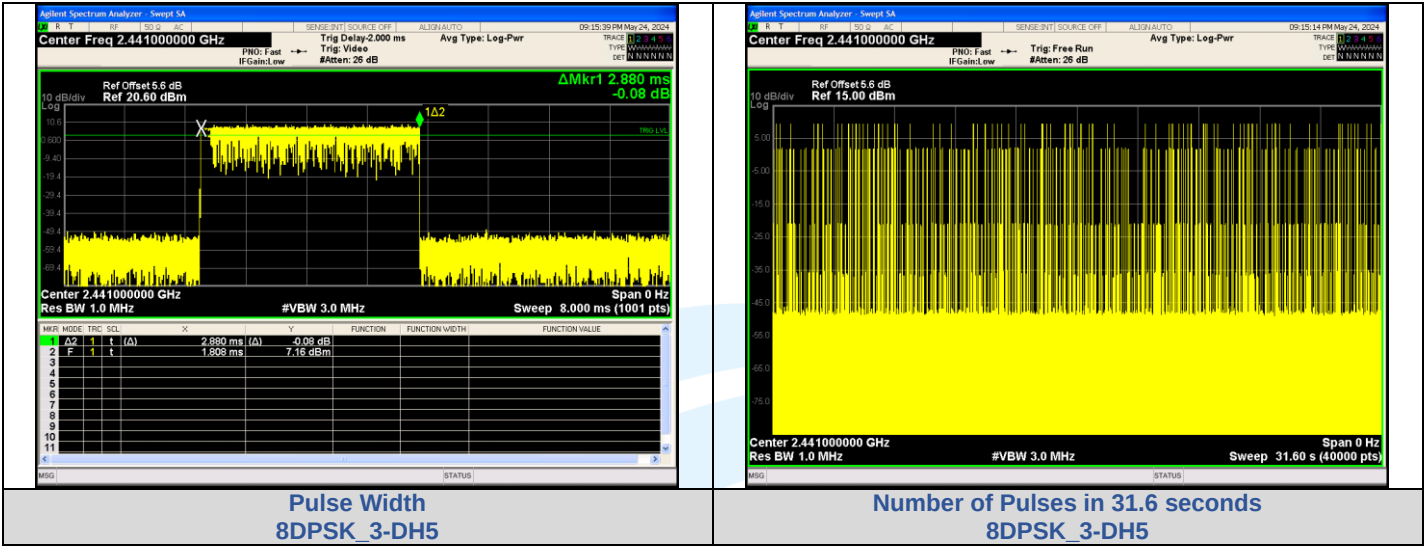
Number of Pulses in 31.6 seconds  
8DPSK\_3-DH1



Pulse Width  
8DPSK\_3-DH3



Number of Pulses in 31.6 seconds  
8DPSK\_3-DH3



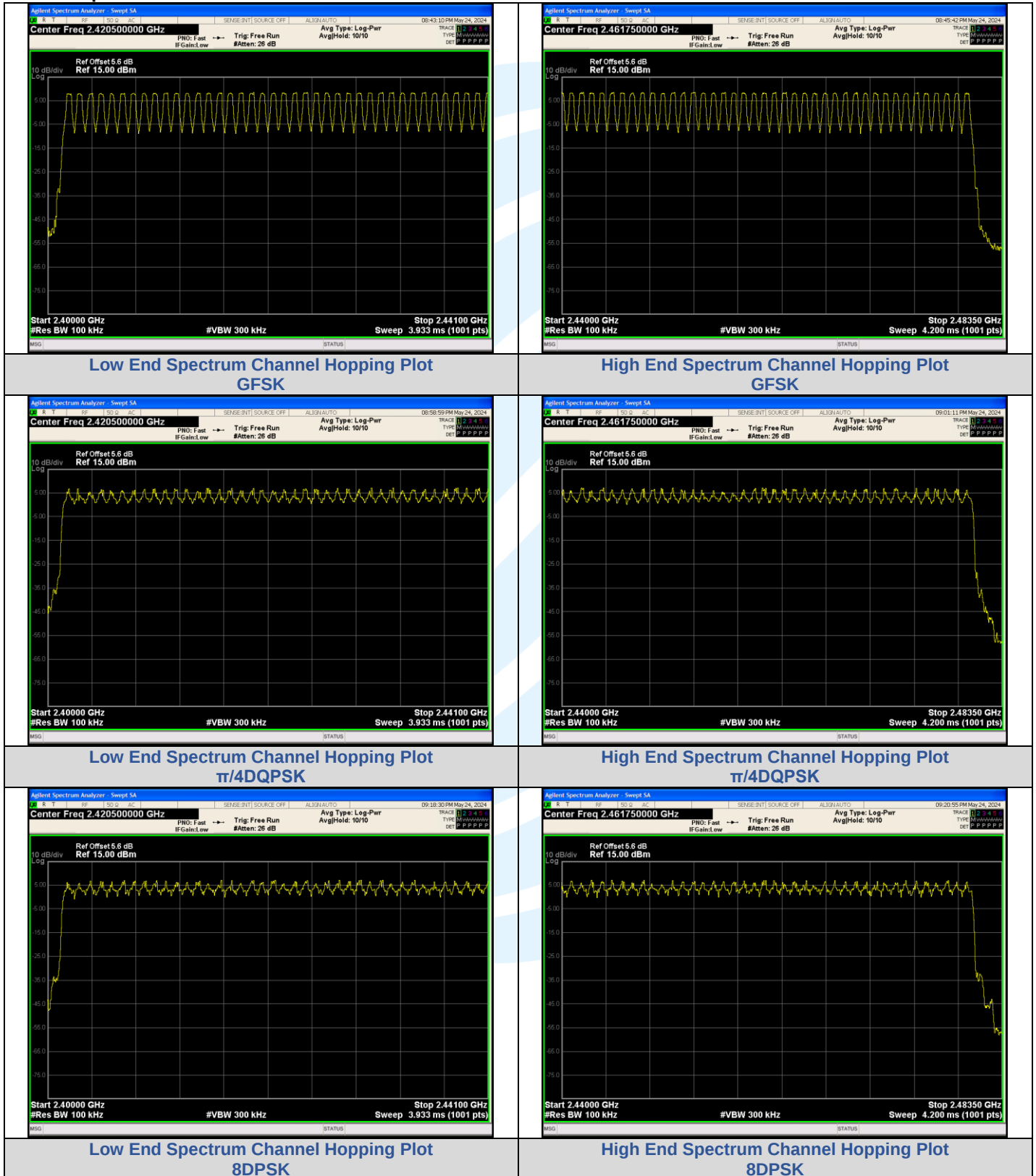
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## A.6 NUMBER OF HOPPING CHANNEL

| Modulation    | Packet | Number of Hopping Channel | Limit | Result |
|---------------|--------|---------------------------|-------|--------|
| GFSK          | DH5    | 79                        | 15    | PASS   |
| $\pi/4$ DQPSK | 2-DH5  | 79                        | 15    | PASS   |
| 8DPSK         | 3-DH5  | 79                        | 15    | PASS   |

## Test Graphs



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## A.7 RADIATED SPURIOUS EMISSIONS

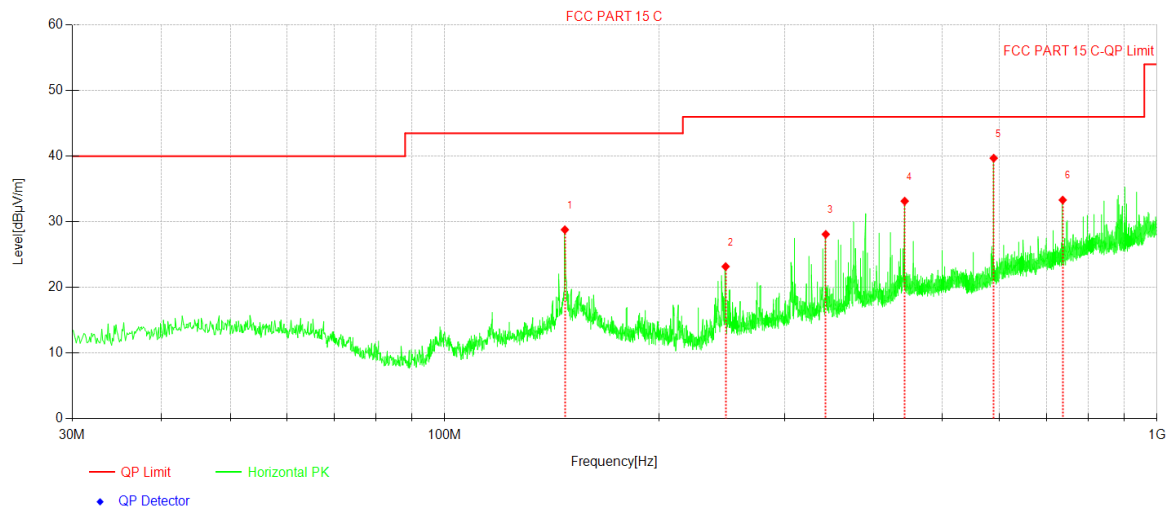
### Radiated Emission Test Data (9 kHz ~ 30 MHz):

The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

### Radiated Emission Test Data (30 MHz ~ 1 GHz):

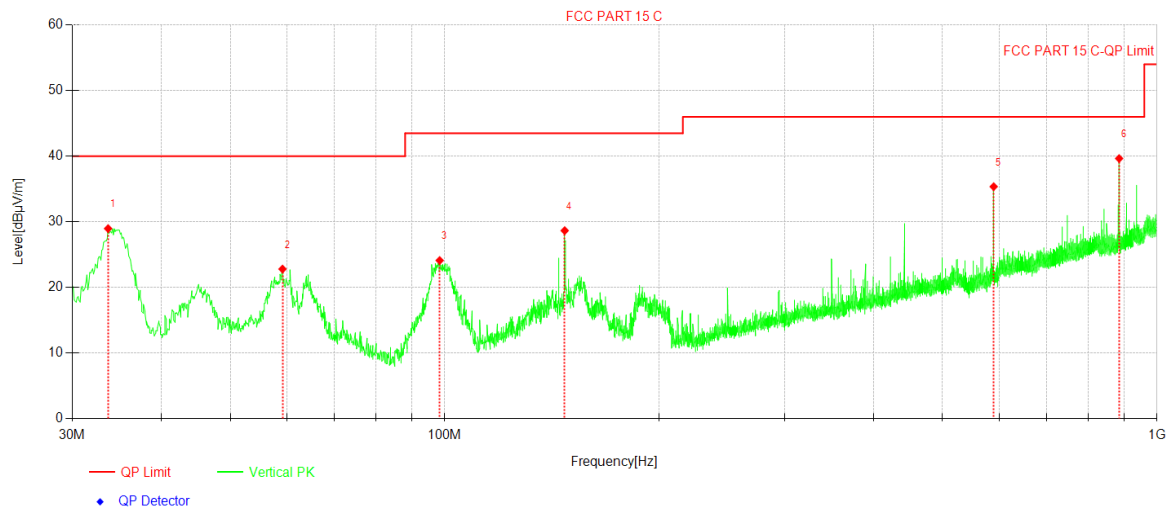
#### Worst-Case Configuration(GFSK\_DH5 Channel 39)

#### Horizontal



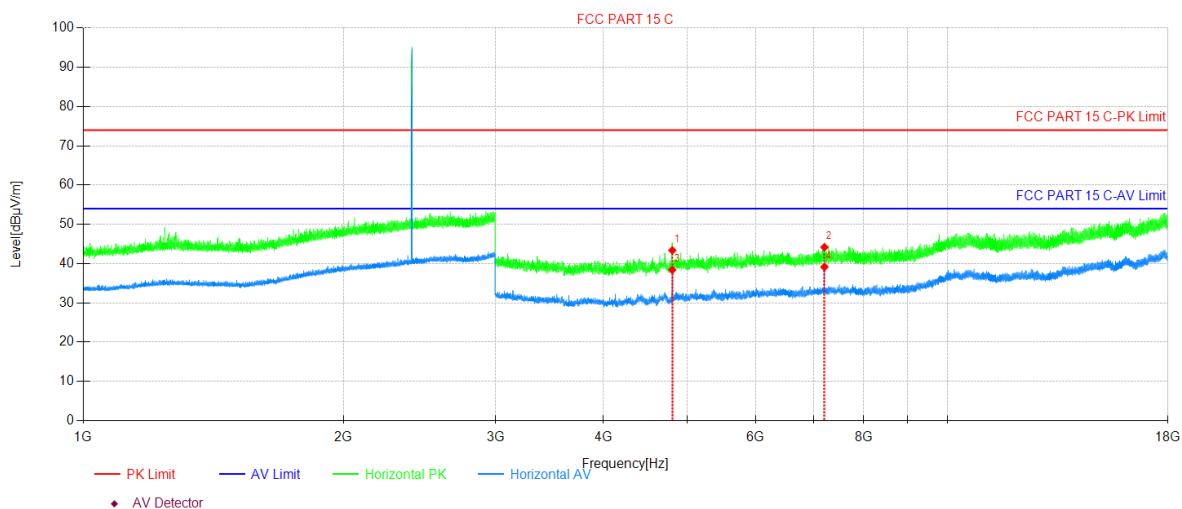
| No. | Frequency (MHz) | Reading (dBuV) | Correction factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|------------------------|-----------------|----------------|-------------|----------|
| 1   | 147.4787        | 36.80          | -8.01                  | 28.79           | 43.50          | 14.71       | Peak     |
| 2   | 247.9808        | 32.14          | -8.97                  | 23.17           | 46.00          | 22.83       | Peak     |
| 3   | 342.7593        | 33.98          | -5.89                  | 28.09           | 46.00          | 17.91       | Peak     |
| 4   | 442.3882        | 36.14          | -2.99                  | 33.15           | 46.00          | 12.85       | Peak     |
| 5   | 589.843         | 40.09          | -0.39                  | 39.70           | 46.00          | 6.30        | Peak     |
| 6   | 737.2977        | 30.27          | 3.05                   | 33.32           | 46.00          | 12.68       | Peak     |

## Vertical



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|------------------------|-----------------|----------------|-------------|----------|
| 1   | 33.6864         | 38.41          | -9.45                  | 28.96           | 40.00          | 11.04       | Peak     |
| 2   | 59.1999         | 31.47          | -8.68                  | 22.79           | 40.00          | 17.21       | Peak     |
| 3   | 98.3918         | 36.97          | -12.87                 | 24.10           | 43.50          | 19.40       | Peak     |
| 4   | 147.3817        | 36.67          | -8.02                  | 28.65           | 43.50          | 14.85       | Peak     |
| 5   | 589.843         | 35.75          | -0.39                  | 35.36           | 46.00          | 10.64       | Peak     |
| 6   | 884.7525        | 34.98          | 4.67                   | 39.65           | 46.00          | 6.35        | Peak     |

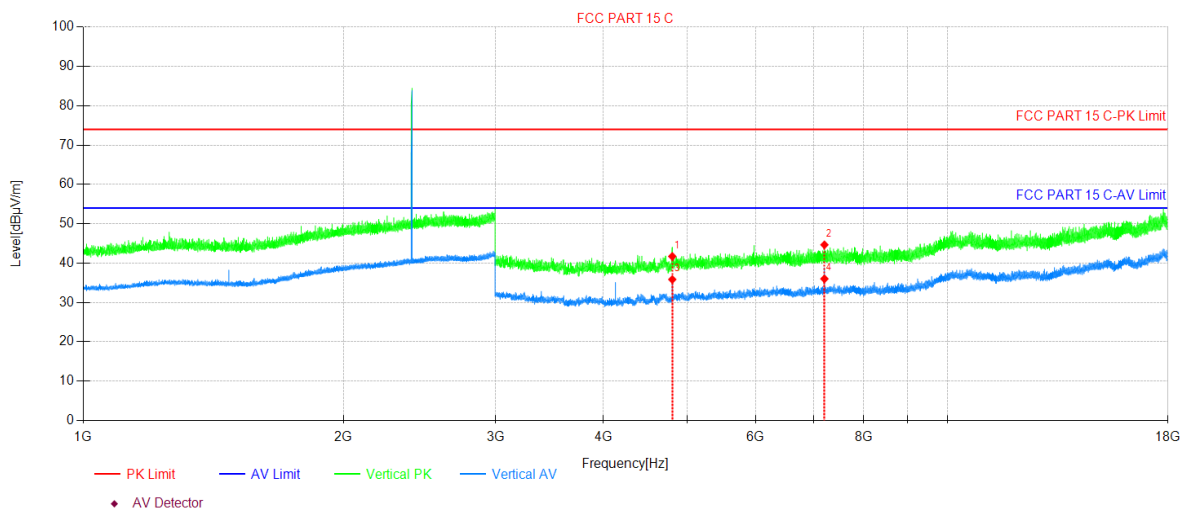
## Radiated Emission Test Data (Above 1GHz):

BR+EDR \_ Lowest Channel:  
Test Graph

## Data List

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector | Polarity   | Verdict |
|-----|-------------|----------------|---------------|----------------|----------------|-------------|-------------|-----------|----------|------------|---------|
| 1   | 4804.5902   | 47.99          | -4.61         | 43.38          | 74.00          | 30.62       | 150         | 55        | PK       | Horizontal | PASS    |
| 2   | 7206.2103   | 45.93          | -1.76         | 44.17          | 74.00          | 29.83       | 150         | 43        | PK       | Horizontal | PASS    |
| 3   | 4804.5902   | 43.02          | -4.61         | 38.41          | 54.00          | 15.59       | 150         | 43        | AV       | Horizontal | PASS    |
| 4   | 7206.2103   | 40.92          | -1.76         | 39.16          | 54.00          | 14.84       | 150         | 43        | AV       | Horizontal | PASS    |

## Test Graph



## Data List

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector | Polarity | Verdict |
|-----|-------------|----------------|---------------|----------------|----------------|-------------|-------------|-----------|----------|----------|---------|
| 1   | 4804.5902   | 46.32          | -4.61         | 41.71          | 74.00          | 32.29       | 150         | 86        | PK       | Vertical | PASS    |
| 2   | 7206.2103   | 46.41          | -1.76         | 44.65          | 74.00          | 29.35       | 150         | 100       | PK       | Vertical | PASS    |
| 3   | 4804.5902   | 40.46          | -4.61         | 35.85          | 54.00          | 18.15       | 150         | 86        | AV       | Vertical | PASS    |
| 4   | 7206.2103   | 37.77          | -1.76         | 36.01          | 54.00          | 17.99       | 150         | 100       | AV       | Vertical | PASS    |

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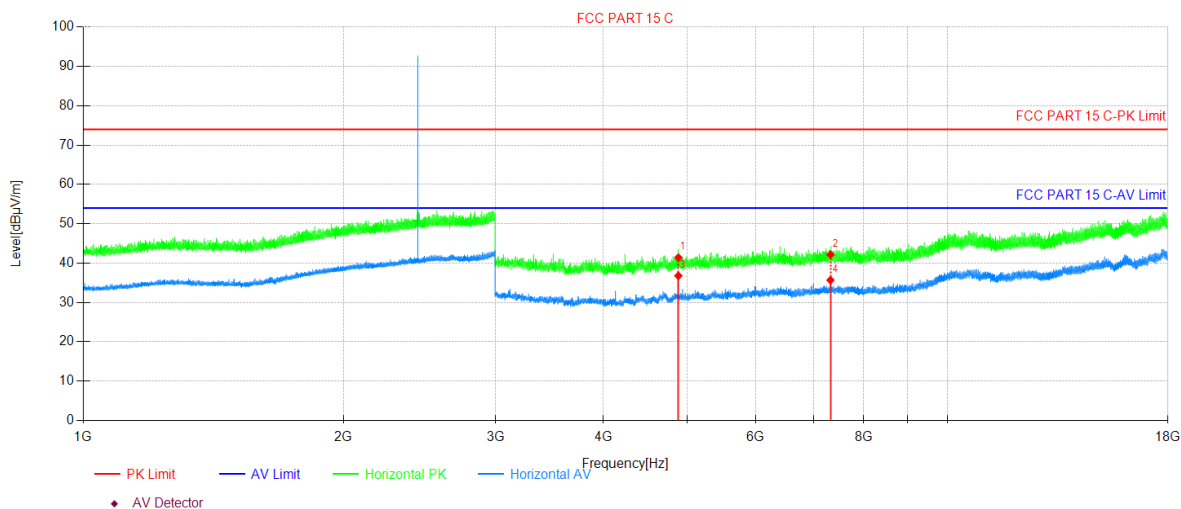
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## BR+EDR \_ Middle Channe:

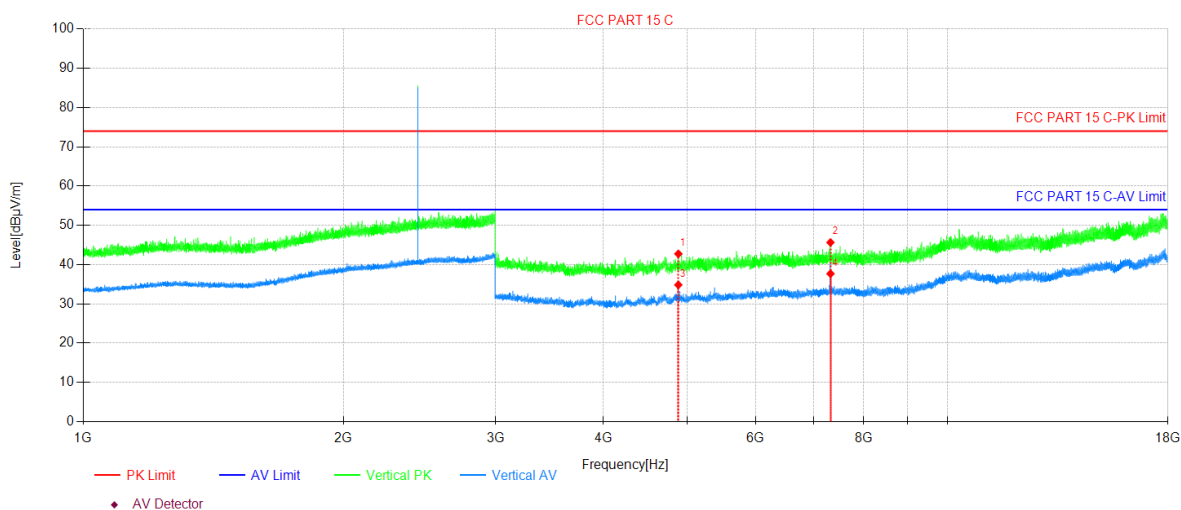
### Test Graph



### Data List

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector | Polarity   | Verdict |
|-----|-------------|----------------|---------------|----------------|----------------|-------------|-------------|-----------|----------|------------|---------|
| 1   | 4882.5941   | 46.13          | -4.72         | 41.41          | 74.00          | 32.59       | 150         | 43        | PK       | Horizontal | PASS    |
| 2   | 7323.2162   | 43.67          | -1.49         | 42.18          | 74.00          | 31.82       | 150         | 15        | PK       | Horizontal | PASS    |
| 3   | 4882.5941   | 41.50          | -4.72         | 36.78          | 54.00          | 17.22       | 150         | 43        | AV       | Horizontal | PASS    |
| 4   | 7323.2162   | 37.17          | -1.49         | 35.68          | 54.00          | 18.32       | 150         | 28        | AV       | Horizontal | PASS    |

### Test Graph



### Data List

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector | Polarity | Verdict |
|-----|-------------|----------------|---------------|----------------|----------------|-------------|-------------|-----------|----------|----------|---------|
| 1   | 4882.5941   | 47.46          | -4.72         | 42.74          | 74.00          | 31.26       | 150         | 86        | PK       | Vertical | PASS    |
| 2   | 7323.2162   | 47.14          | -1.49         | 45.65          | 74.00          | 28.35       | 150         | 98        | PK       | Vertical | PASS    |
| 3   | 4882.5941   | 39.56          | -4.72         | 34.84          | 54.00          | 19.16       | 150         | 86        | AV       | Vertical | PASS    |
| 4   | 7323.2162   | 39.16          | -1.49         | 37.67          | 54.00          | 16.33       | 150         | 98        | AV       | Vertical | PASS    |

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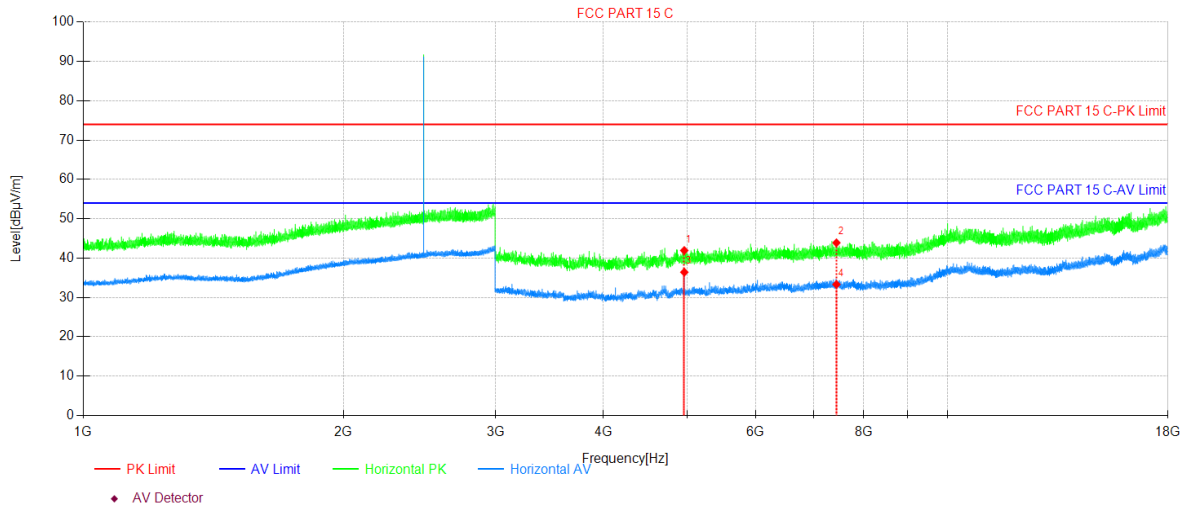
E-mail: info@uttlab.com

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## BR+EDR \_ Highest Channel:

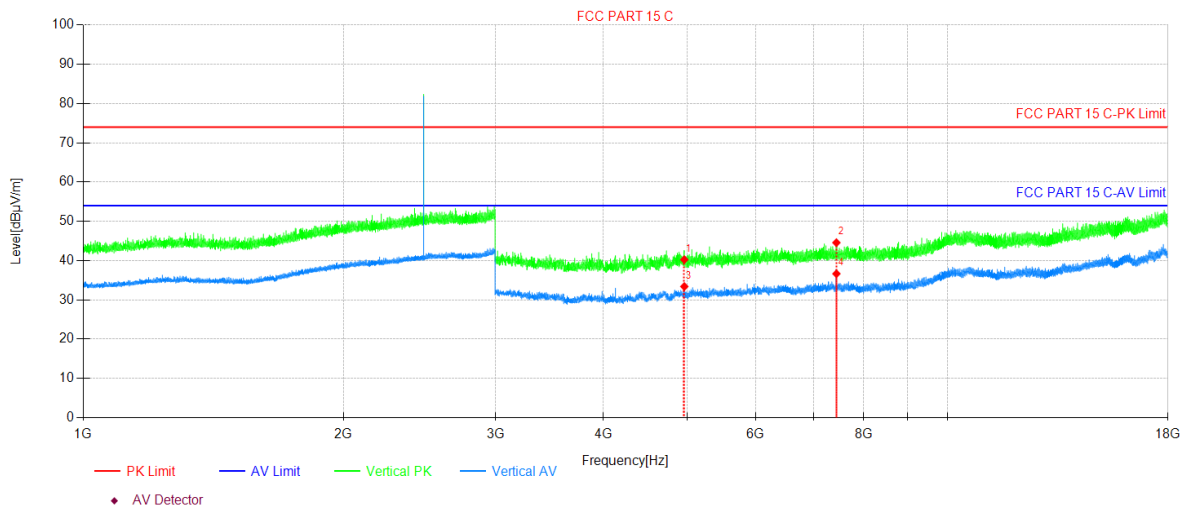
### Test Graph



### Data List

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector | Polarity   | Verdict |
|-----|-------------|----------------|---------------|----------------|----------------|-------------|-------------|-----------|----------|------------|---------|
| 1   | 4960.598    | 46.80          | -4.86         | 41.94          | 74.00          | 32.06       | 150         | 58        | PK       | Horizontal | PASS    |
| 2   | 7440.222    | 45.24          | -1.34         | 43.90          | 74.00          | 30.10       | 150         | 70        | PK       | Horizontal | PASS    |
| 3   | 4960.598    | 41.28          | -4.86         | 36.42          | 54.00          | 17.58       | 150         | 58        | AV       | Horizontal | PASS    |
| 4   | 7440.222    | 34.65          | -1.34         | 33.31          | 54.00          | 20.69       | 150         | 139       | AV       | Horizontal | PASS    |

### Test Graph



### Data List

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector | Polarity | Verdict |
|-----|-------------|----------------|---------------|----------------|----------------|-------------|-------------|-----------|----------|----------|---------|
| 1   | 4960.598    | 45.11          | -4.86         | 40.25          | 74.00          | 33.75       | 150         | 65        | PK       | Vertical | PASS    |
| 2   | 7440.222    | 45.91          | -1.34         | 44.57          | 74.00          | 29.43       | 150         | 50        | PK       | Vertical | PASS    |
| 3   | 4960.598    | 38.26          | -4.86         | 33.40          | 54.00          | 20.60       | 150         | 81        | AV       | Vertical | PASS    |
| 4   | 7440.222    | 37.99          | -1.34         | 36.65          | 54.00          | 17.35       | 150         | 65        | AV       | Vertical | PASS    |

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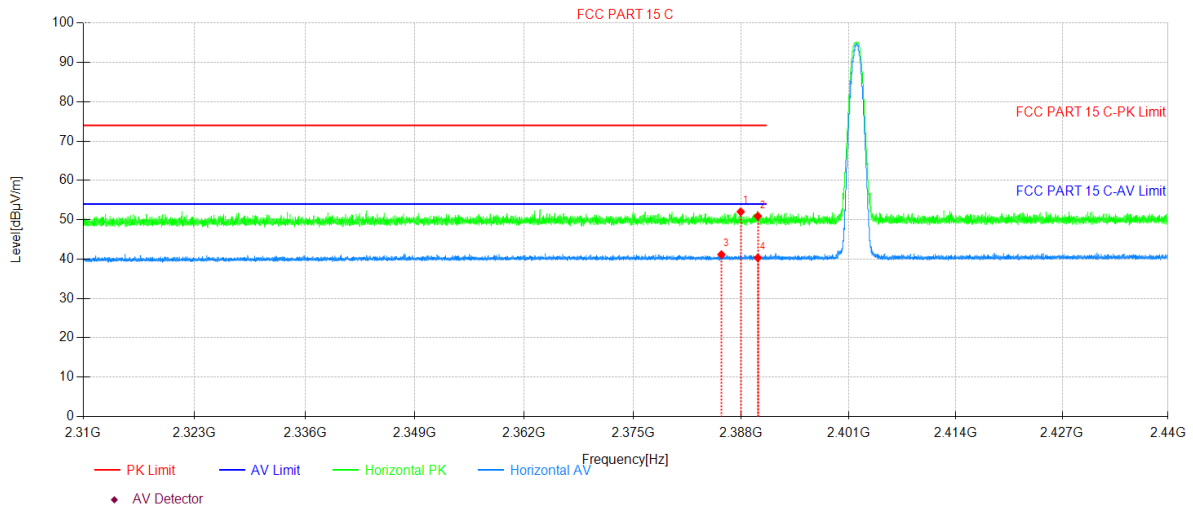
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## A.8 BAND EDGE MEASUREMENTS (RADIATED)

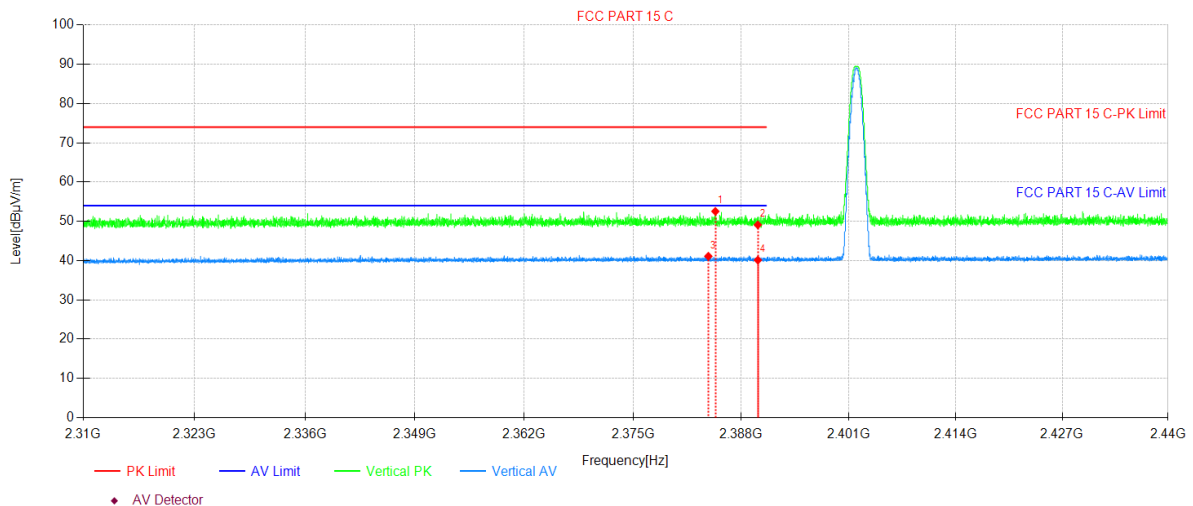
### BR+EDR\_Lowest Channel: Test Graph



#### Data List

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector | Polarity   | Verdict |
|-----|-------------|----------------|---------------|----------------|----------------|-------------|-------------|-----------|----------|------------|---------|
| 1   | 2387.9428   | 52.84          | -0.80         | 52.04          | 74.00          | 21.96       | 150         | 183       | PK       | Horizontal | PASS    |
| 2   | 2390.01     | 51.72          | -0.80         | 50.92          | 74.00          | 23.08       | 150         | 43        | PK       | Horizontal | PASS    |
| 3   | 2385.6156   | 41.97          | -0.81         | 41.16          | 54.00          | 12.84       | 150         | 353       | AV       | Horizontal | PASS    |
| 4   | 2390.01     | 41.13          | -0.80         | 40.33          | 54.00          | 13.67       | 150         | 43        | AV       | Horizontal | PASS    |

### Test Graph



#### Data List

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector | Polarity | Verdict |
|-----|-------------|----------------|---------------|----------------|----------------|-------------|-------------|-----------|----------|----------|---------|
| 1   | 2384.8875   | 53.36          | -0.82         | 52.54          | 74.00          | 21.46       | 150         | 351       | PK       | Vertical | PASS    |
| 2   | 2390.01     | 49.90          | -0.80         | 49.10          | 74.00          | 24.90       | 150         | 132       | PK       | Vertical | PASS    |
| 3   | 2384.0424   | 41.93          | -0.82         | 41.11          | 54.00          | 12.89       | 150         | 284       | AV       | Vertical | PASS    |
| 4   | 2390.01     | 40.94          | -0.80         | 40.14          | 54.00          | 13.86       | 150         | 13        | AV       | Vertical | PASS    |

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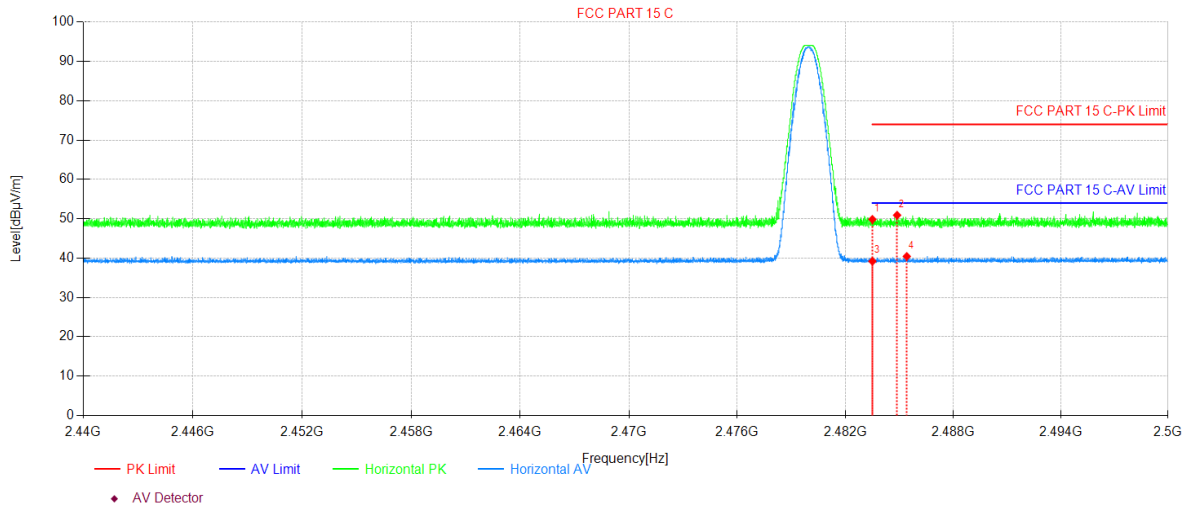
E-mail: info@uttlab.com

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## BR+EDR \_ Highest Channel :

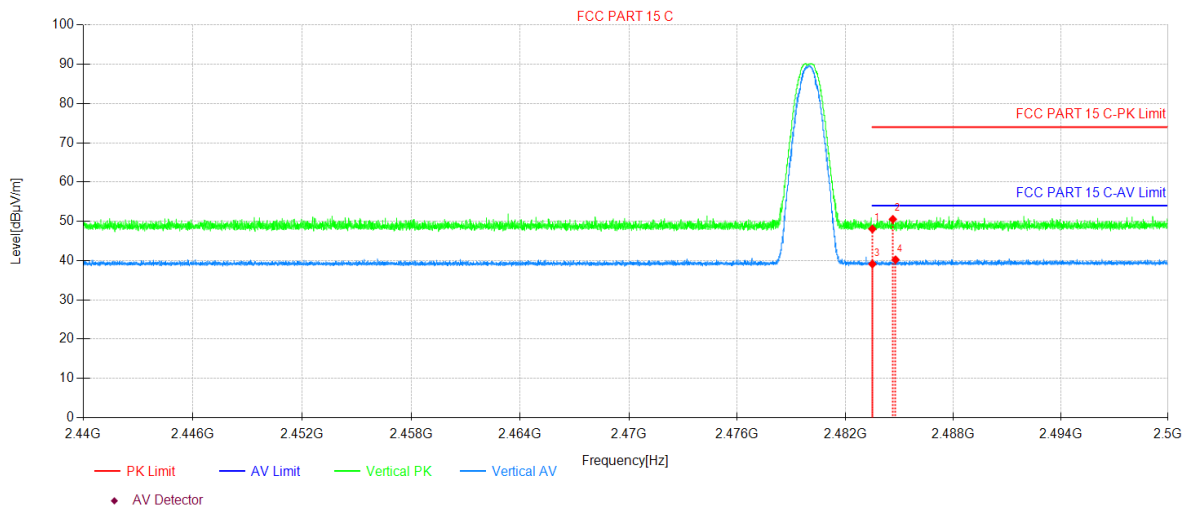
### Test Graph



### Data List

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector | Polarity   | Verdict |
|-----|-------------|----------------|---------------|----------------|----------------|-------------|-------------|-----------|----------|------------|---------|
| 1   | 2483.5044   | 50.15          | -0.29         | 49.86          | 74.00          | 24.14       | 150         | 222       | PK       | Horizontal | PASS    |
| 2   | 2484.8785   | 51.18          | -0.27         | 50.91          | 74.00          | 23.09       | 150         | 126       | PK       | Horizontal | PASS    |
| 3   | 2483.5044   | 39.49          | -0.29         | 39.20          | 54.00          | 14.80       | 150         | 9         | AV       | Horizontal | PASS    |
| 4   | 2485.4185   | 40.71          | -0.27         | 40.44          | 54.00          | 13.56       | 150         | 39        | AV       | Horizontal | PASS    |

### Test Graph



### Data List

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector | Polarity | Verdict |
|-----|-------------|----------------|---------------|----------------|----------------|-------------|-------------|-----------|----------|----------|---------|
| 1   | 2483.5044   | 48.36          | -0.29         | 48.07          | 74.00          | 25.93       | 150         | 282       | PK       | Vertical | PASS    |
| 2   | 2484.6445   | 50.81          | -0.28         | 50.53          | 74.00          | 23.47       | 150         | 124       | PK       | Vertical | PASS    |
| 3   | 2483.5044   | 39.41          | -0.29         | 39.12          | 54.00          | 14.88       | 150         | 321       | AV       | Vertical | PASS    |
| 4   | 2484.7945   | 40.50          | -0.27         | 40.23          | 54.00          | 13.77       | 150         | 331       | AV       | Vertical | PASS    |

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**Remark:**

1. Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain, the value was added to Original Receiver Reading by the software automatically.
2. Result = Reading + Correct Factor.
3. Margin = Limit - Result
4. For Radiated Emission above 18GHz, there was not any unwanted emission detected.
5. The testing of Radiated Emissions was performed in Dongguan DN Testing Co., Ltd.



## APPENDIX 1 PHOTOS OF TEST SETUP

See test photos attached in Appendix 1 for the actual connections between Product and support equipment.

## APPENDIX 2 PHOTOS OF EUT CONSTRUCTIONAL DETAILS

Refer to Appendix 2 for EUT external and internal photos.

\*\*\* End of Report \*\*\*

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