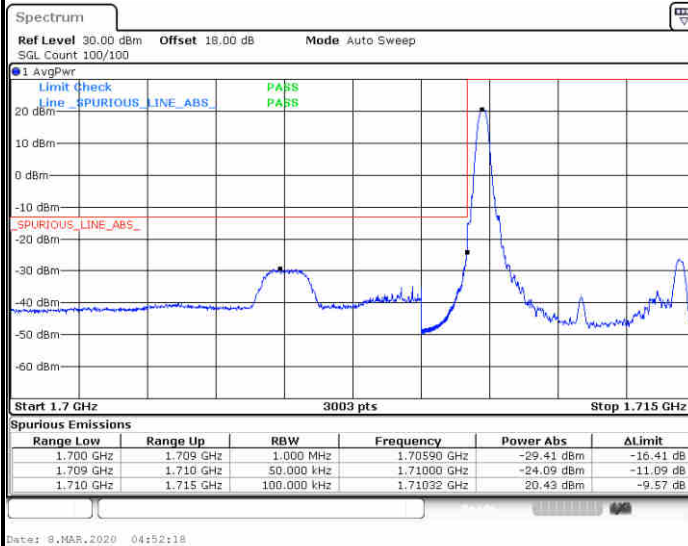


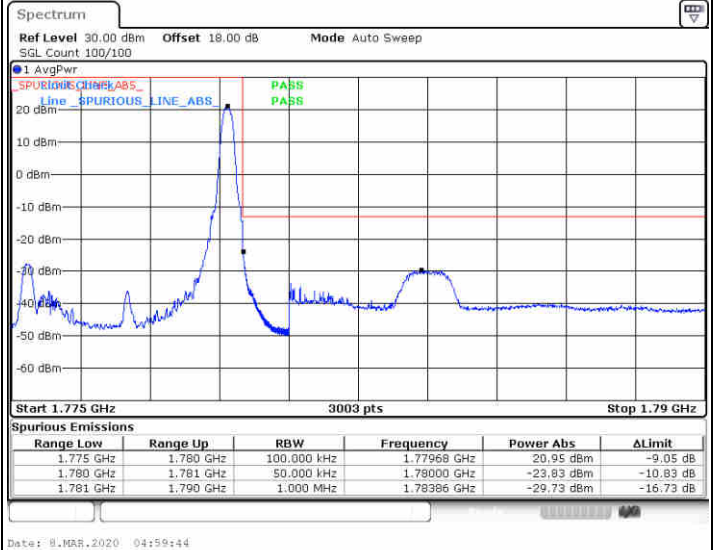


## ULCA-12A-66A / SCC(66A) 5MHz / QPSK

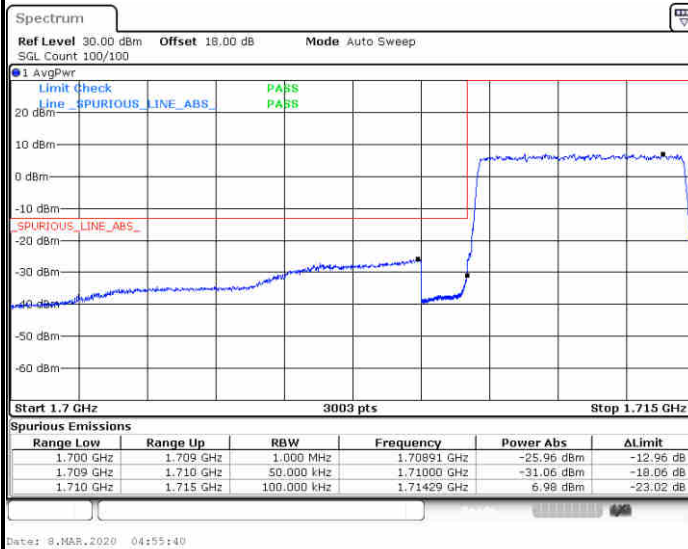
## Lowest Band Edge / 1RB



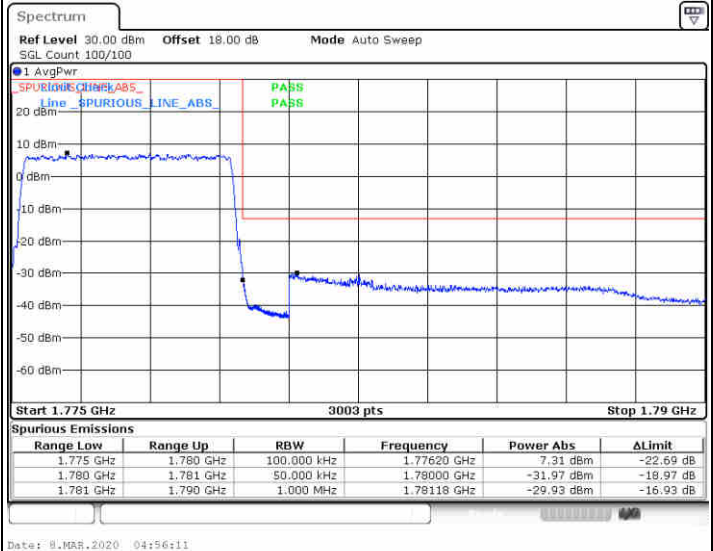
## Highest Band Edge / 1RB



## Lowest Band Edge / Full RB



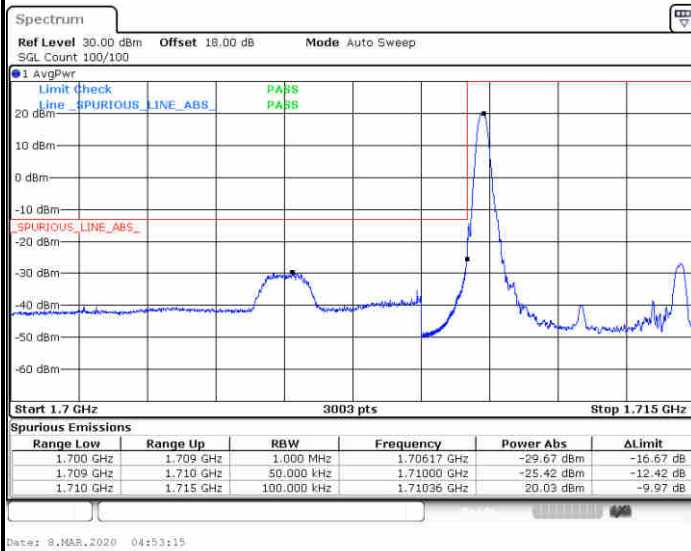
## Highest Band Edge / Full RB



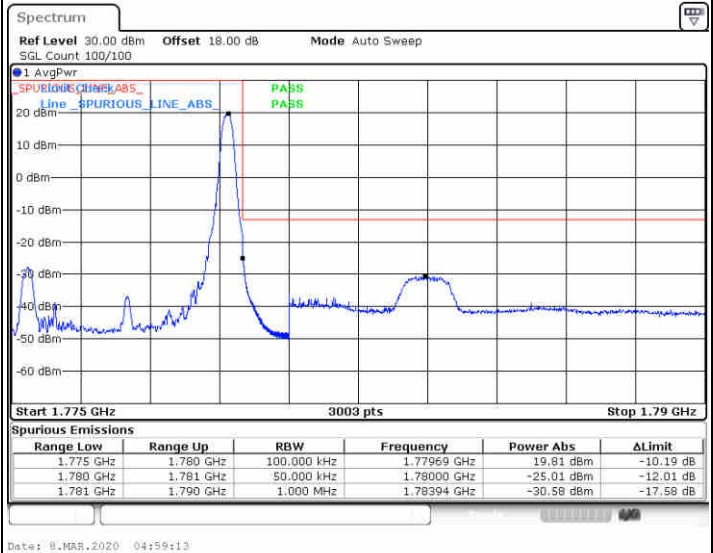


## ULCA-12A-66A / SCC(66A) 5MHz / 16QAM

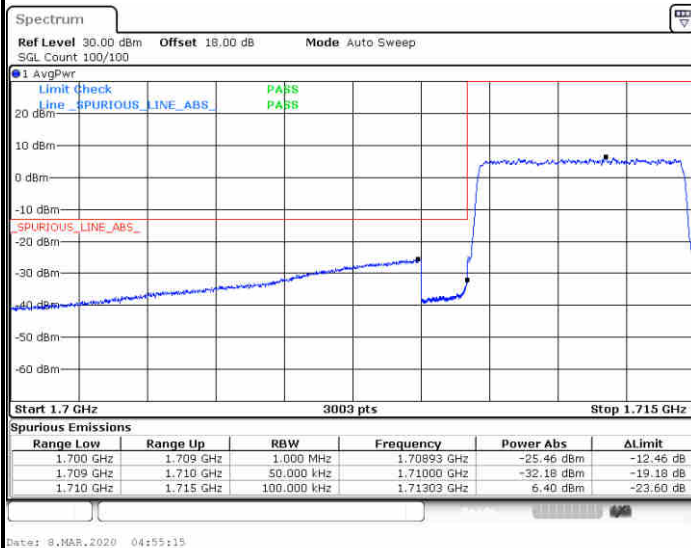
## Lowest Band Edge / 1 RB



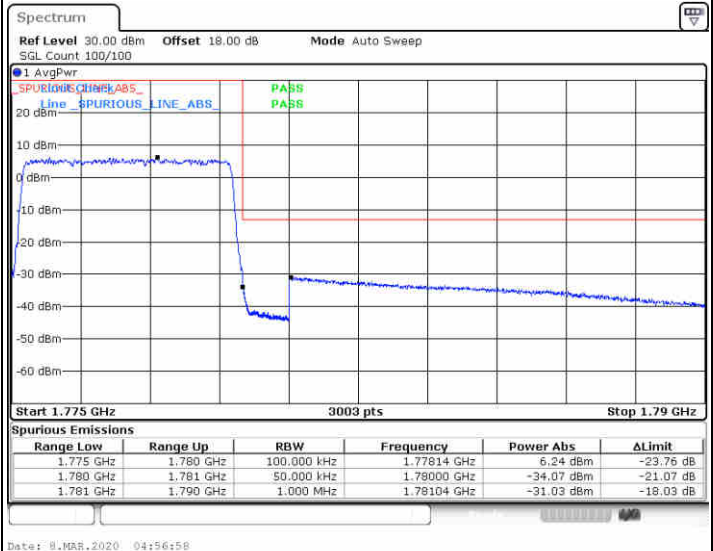
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



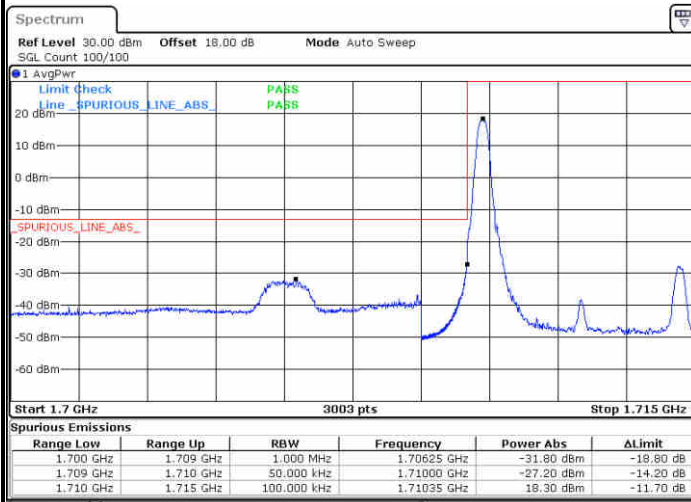
## Highest Band Edge / Full RB



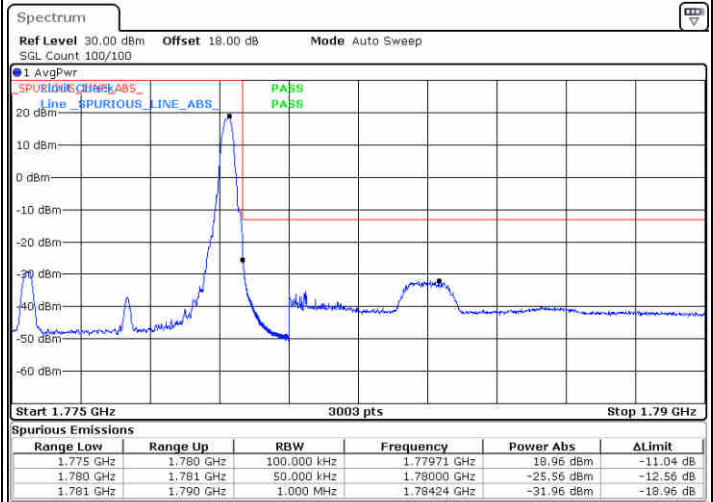


## ULCA-12A-66A / SCC(66A) 5MHz / 64QAM

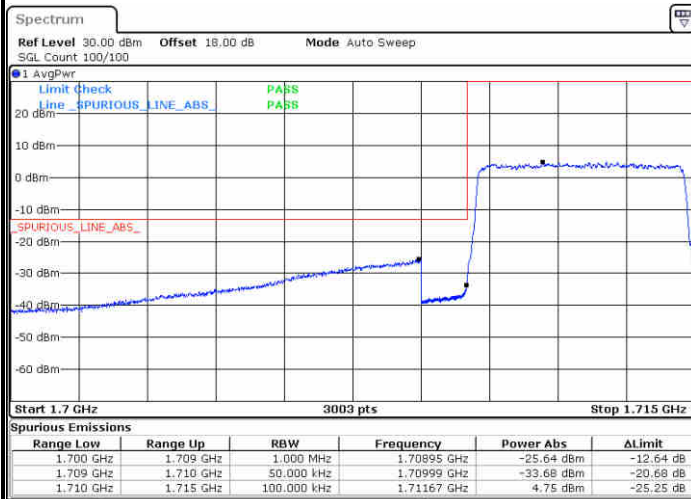
## Lowest Band Edge / 1 RB



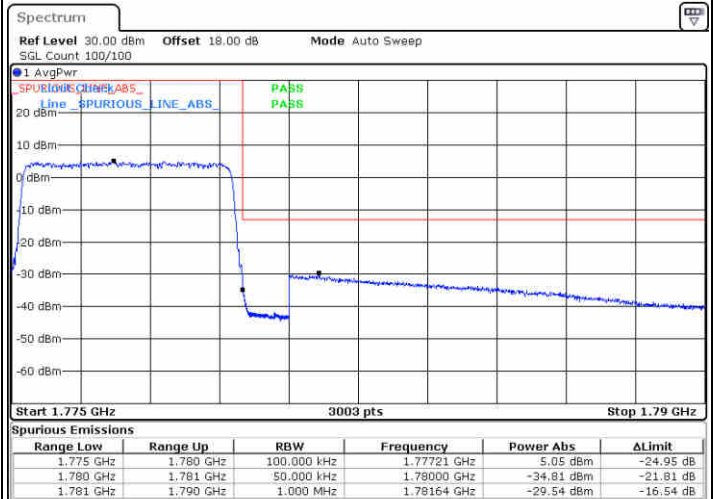
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



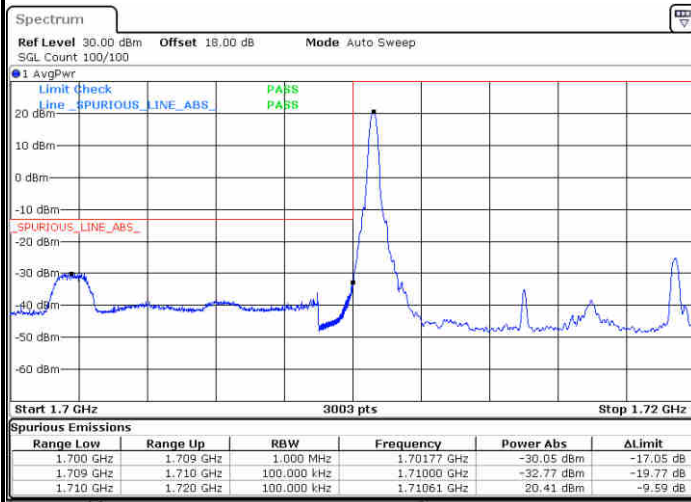
## Highest Band Edge / Full RB



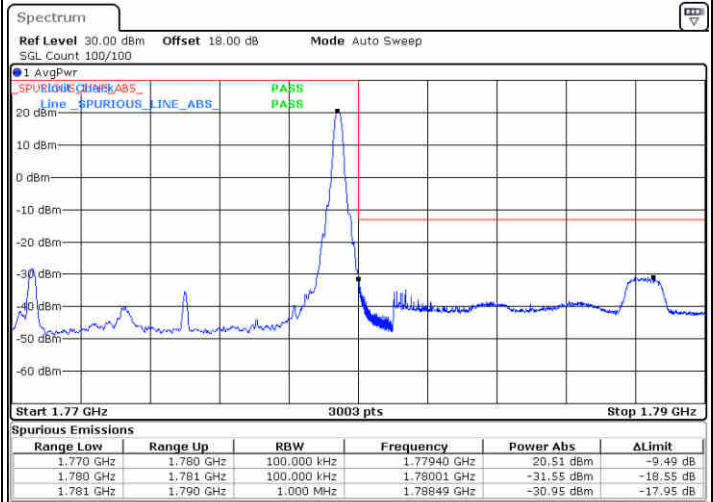


## ULCA-12A-66A / SCC(66A) 10MHz / QPSK

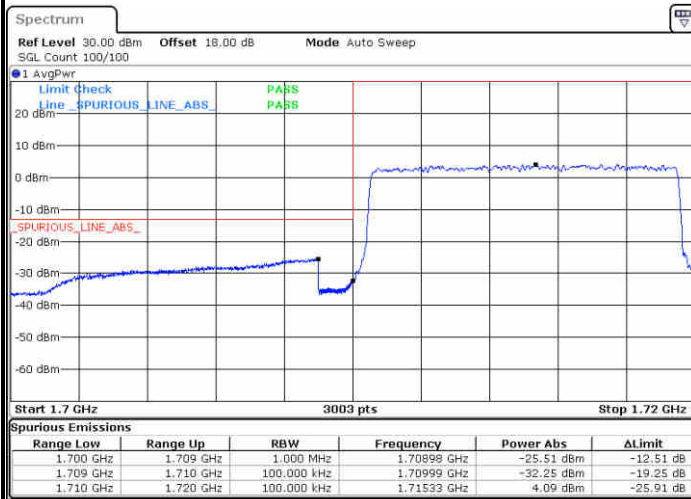
## Lowest Band Edge / 1 RB



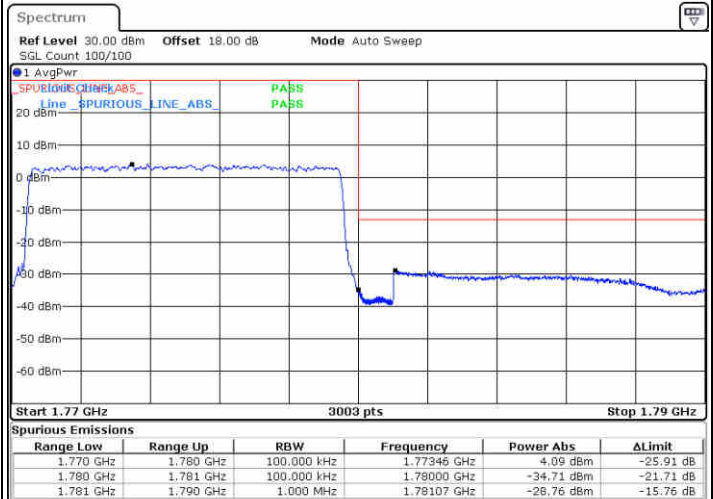
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



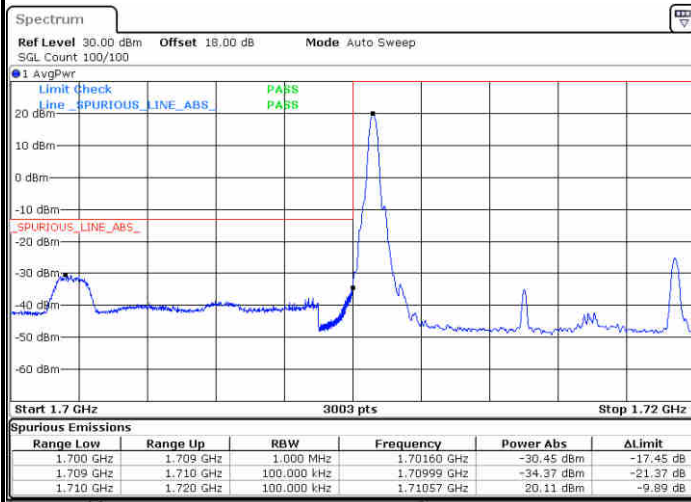
## Highest Band Edge / Full RB



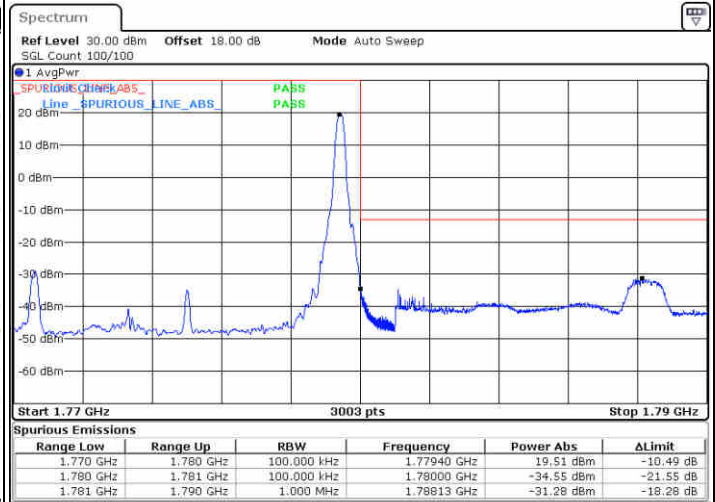


## ULCA-12A-66A / SCC(66A) 10MHz / 16QAM

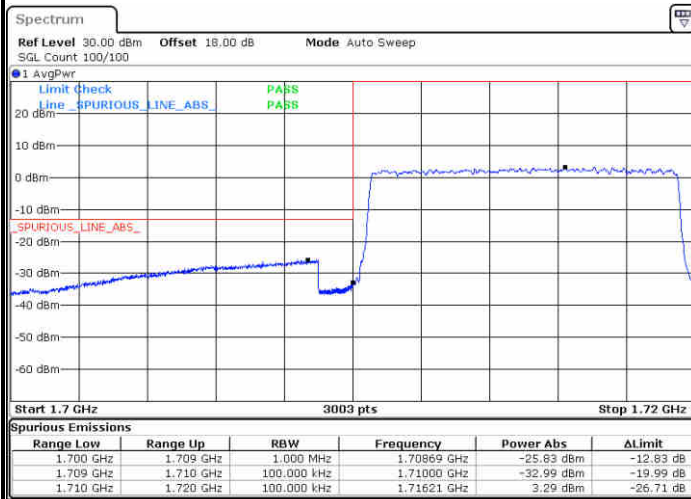
## Lowest Band Edge / 1 RB



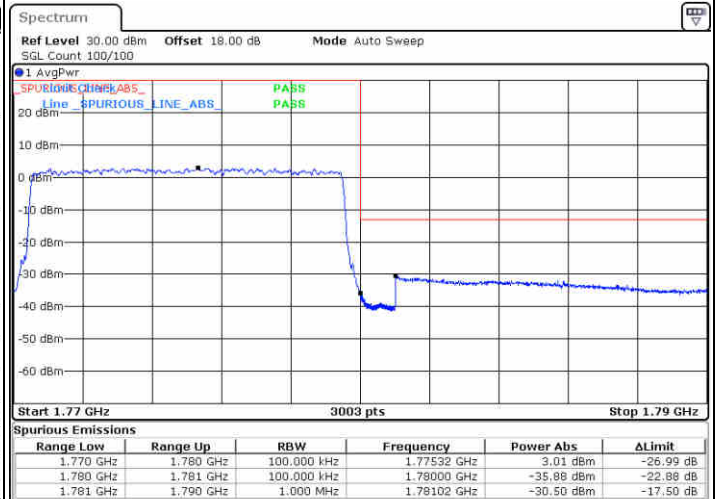
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



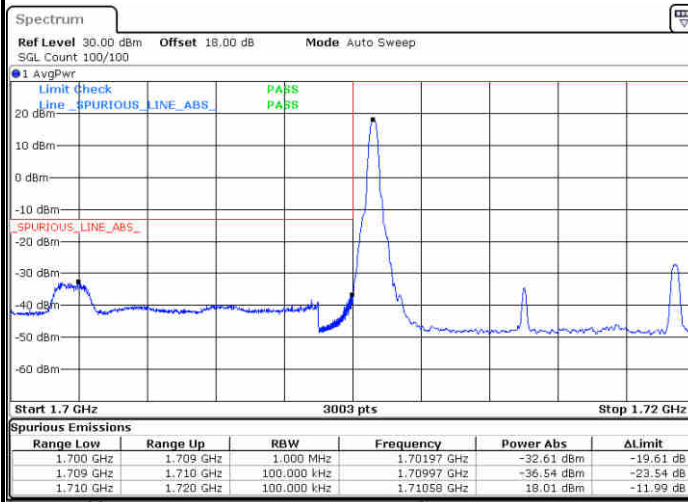
## Highest Band Edge / Full RB



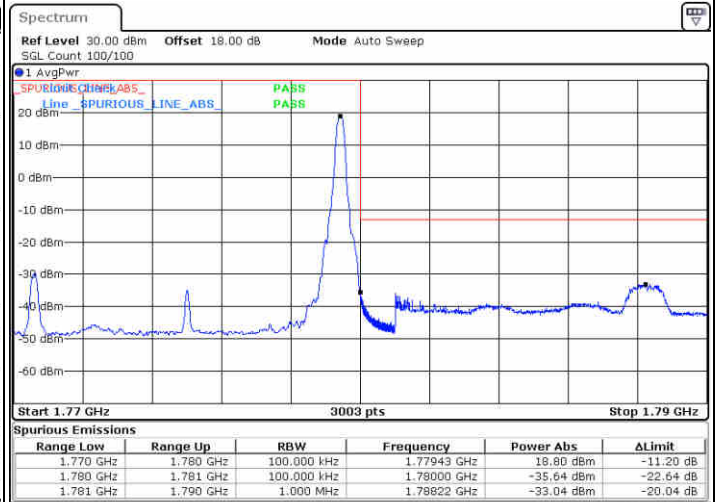


## ULCA-12A-66A / SCC(66A) 10MHz / 64QAM

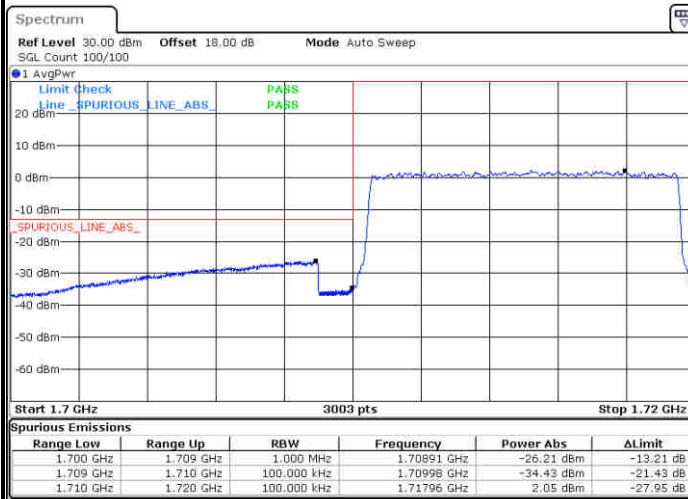
## Lowest Band Edge / 1 RB



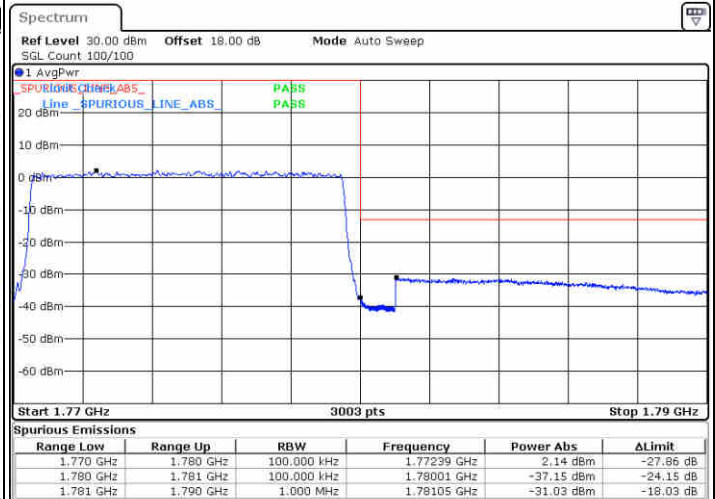
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



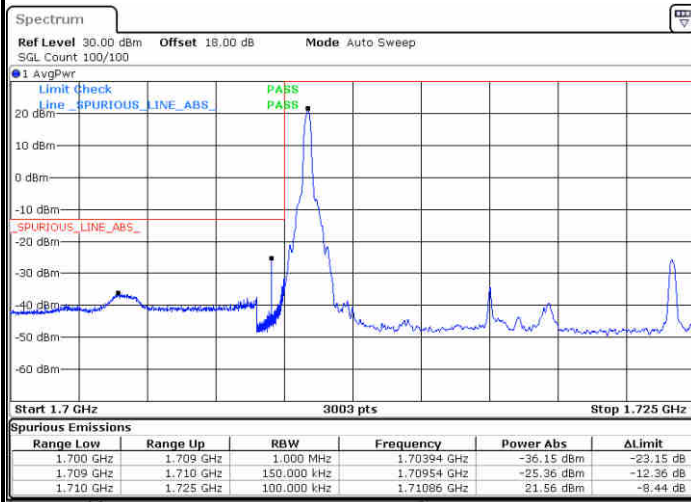
## Highest Band Edge / Full RB





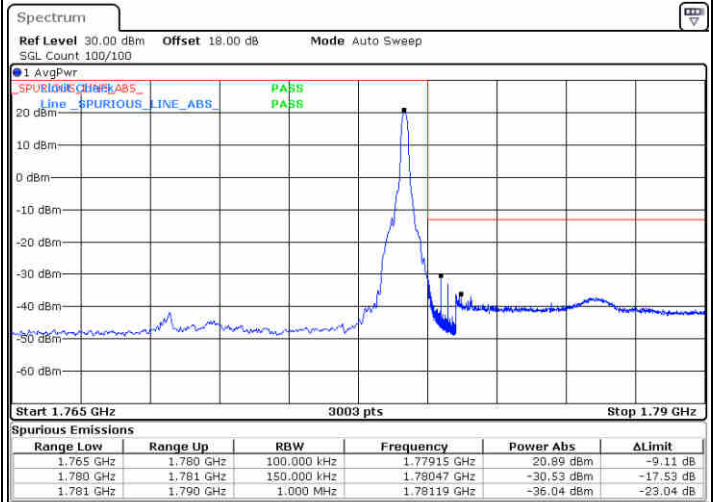
## ULCA-12A-66A / SCC(66A) 15MHz / QPSK

## Lowest Band Edge / 1 RB



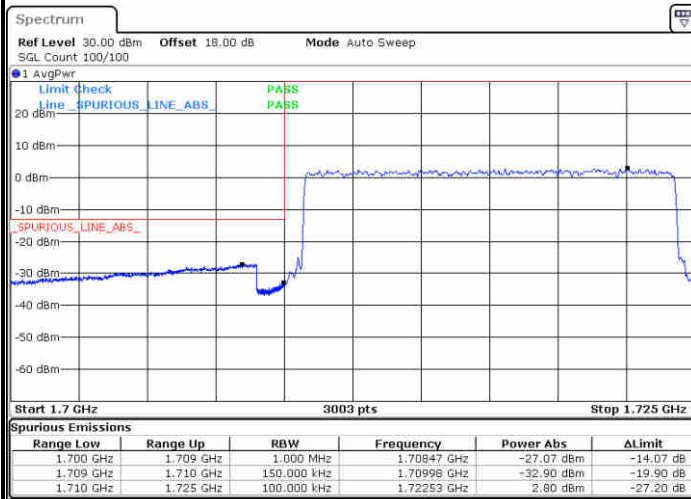
Date: 8.MAR.2020 05:05:34

## Highest Band Edge / 1 RB



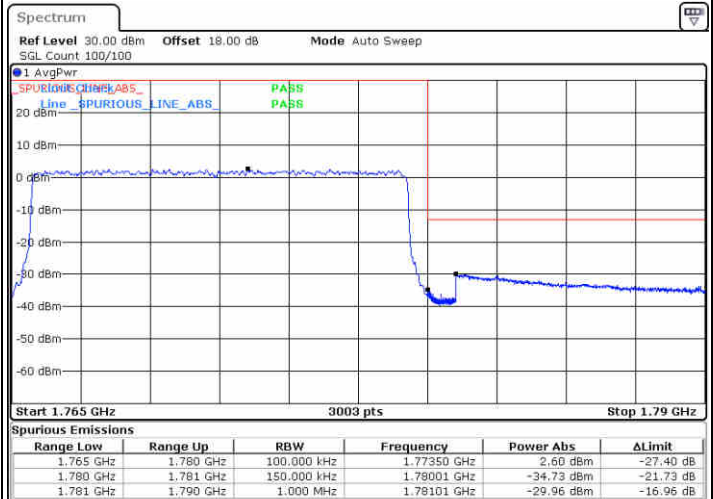
Date: 8.MAR.2020 05:11:31

## Lowest Band Edge / Full RB



Date: 8.MAR.2020 05:07:41

## Highest Band Edge / Full RB

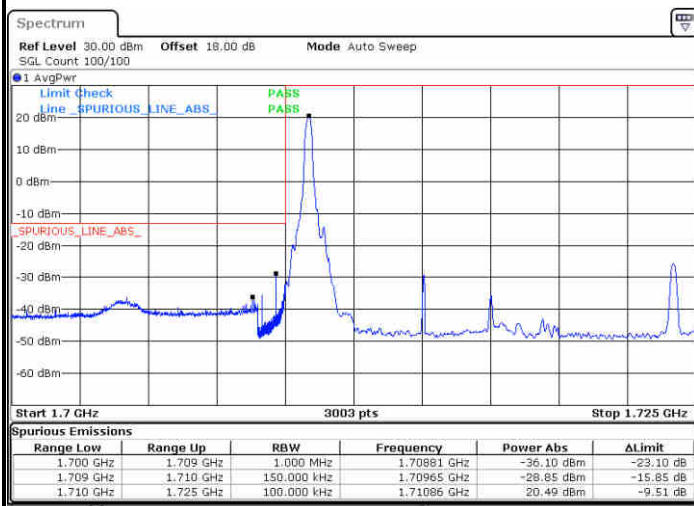


Date: 8.MAR.2020 05:08:35

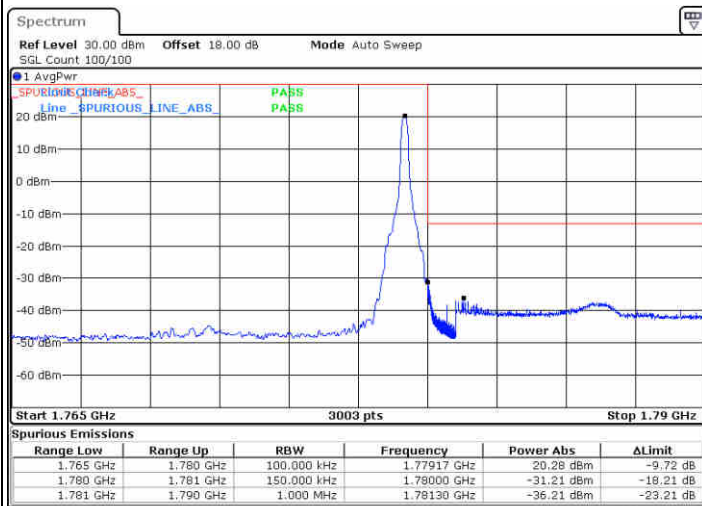


## ULCA-12A-66A / SCC(66A) 15MHz / 16QAM

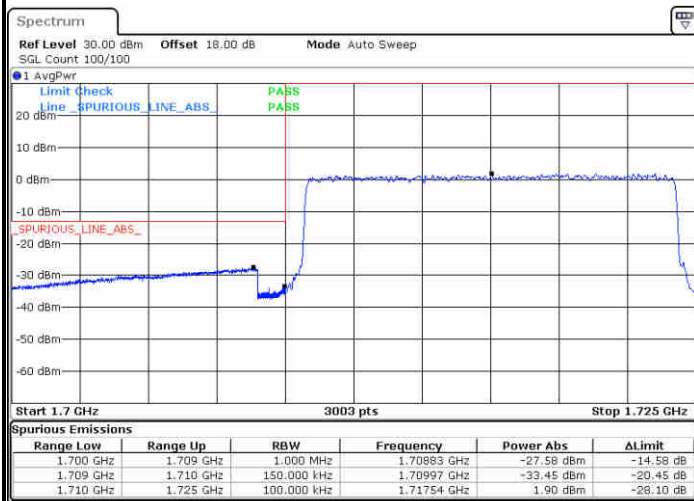
## Lowest Band Edge / 1 RB



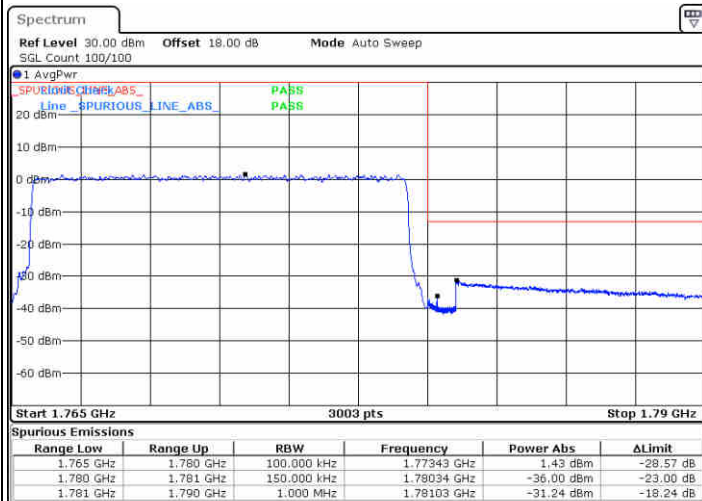
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



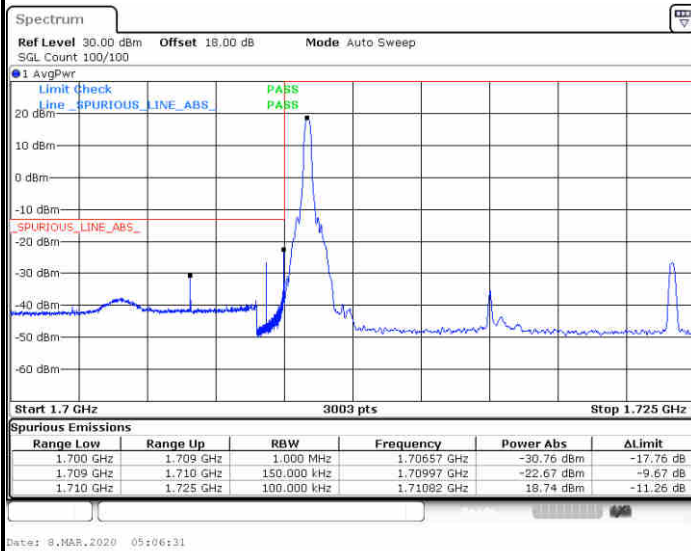
## Highest Band Edge / Full RB



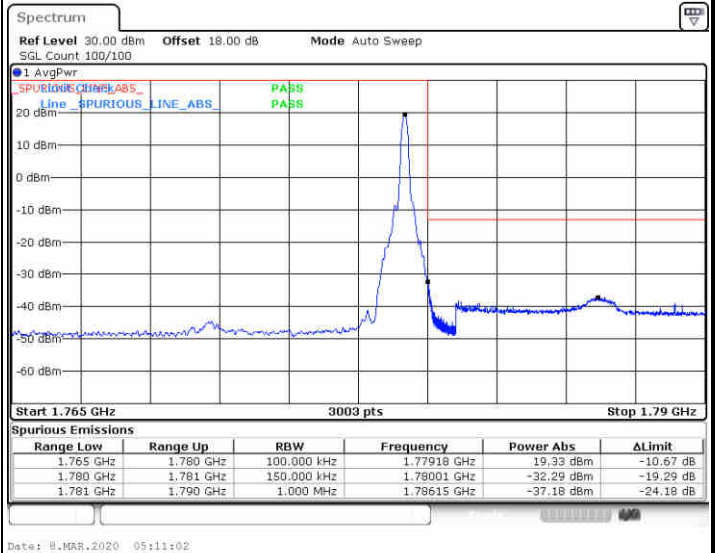


## ULCA-12A-66A / SCC(66A) 15MHz / 64QAM

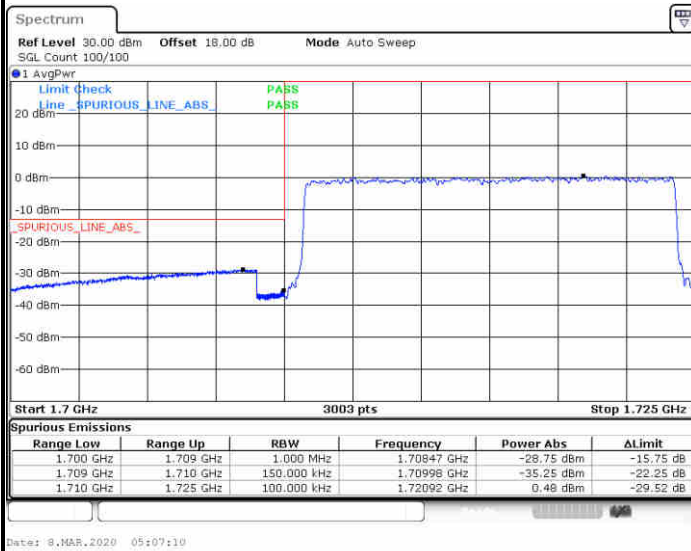
## Lowest Band Edge / 1 RB



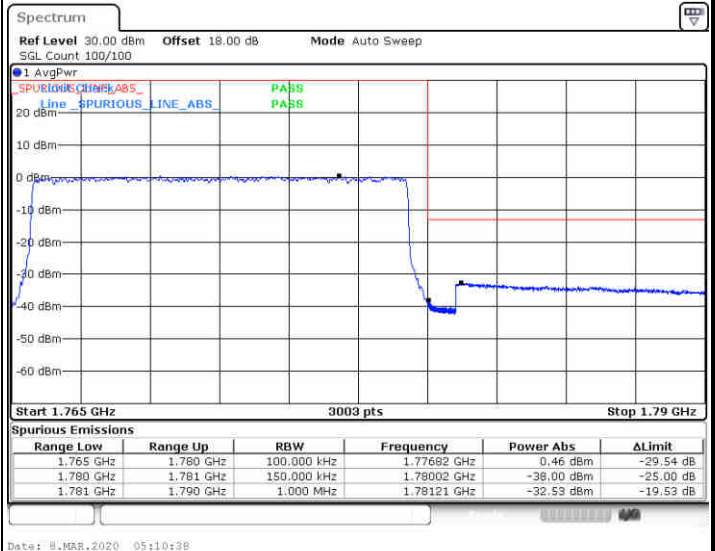
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



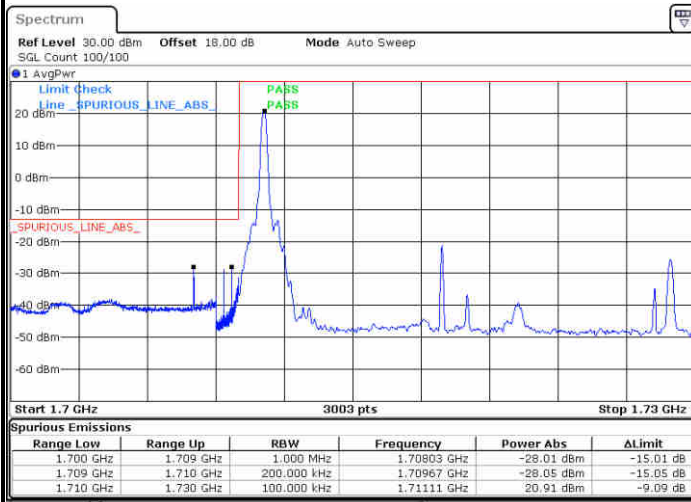
## Highest Band Edge / Full RB



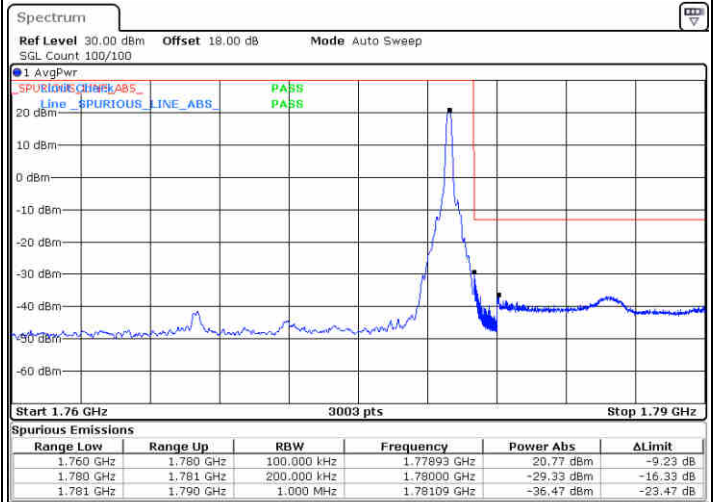


## ULCA-12A-66A / SCC(66A) 20MHz / QPSK

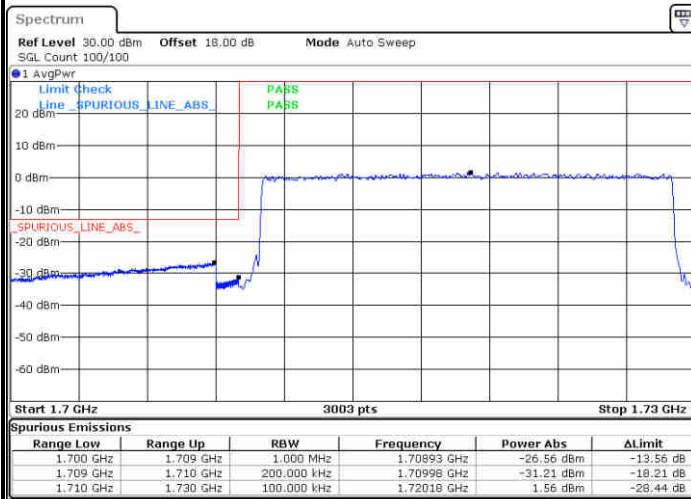
## Lowest Band Edge / 1 RB



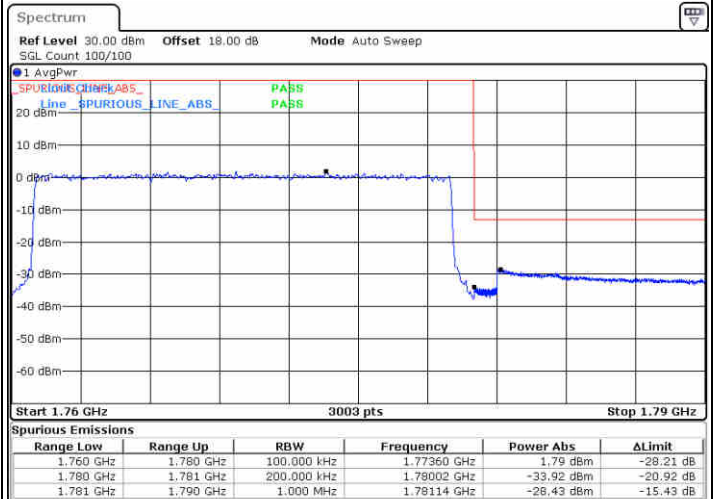
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



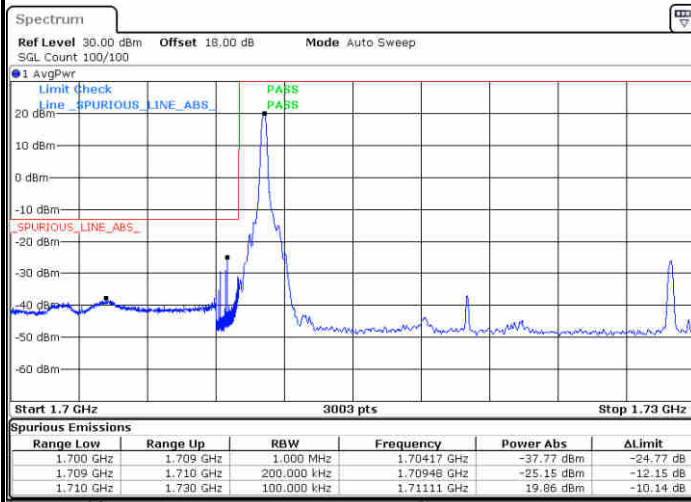
## Highest Band Edge / Full RB



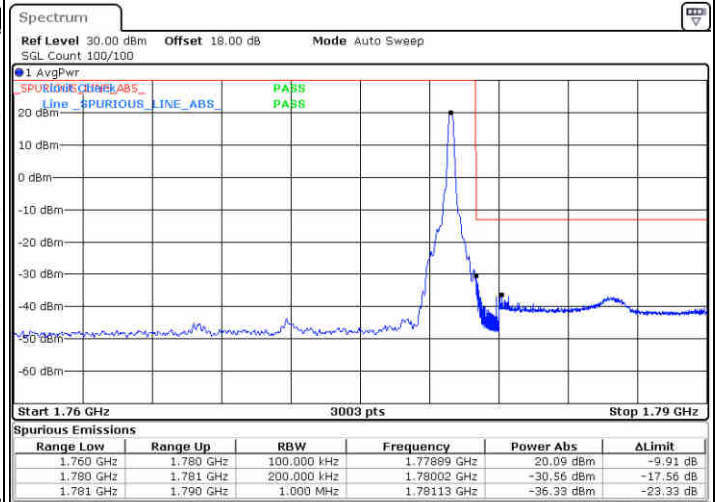


## ULCA-12A-66A / SCC(66A) 20MHz / 16QAM

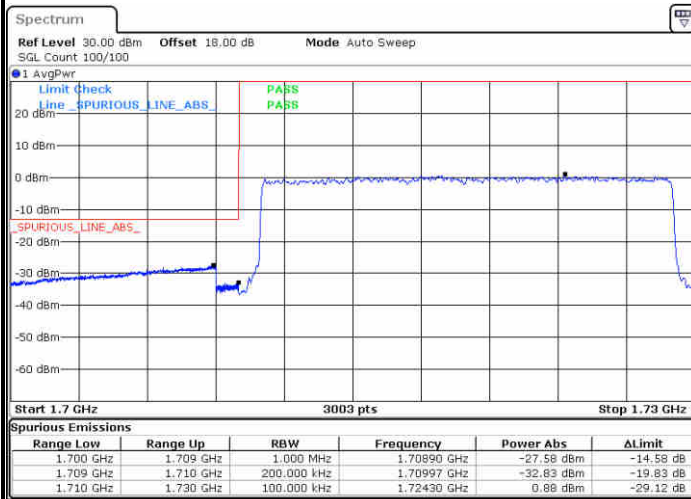
## Lowest Band Edge / 1 RB



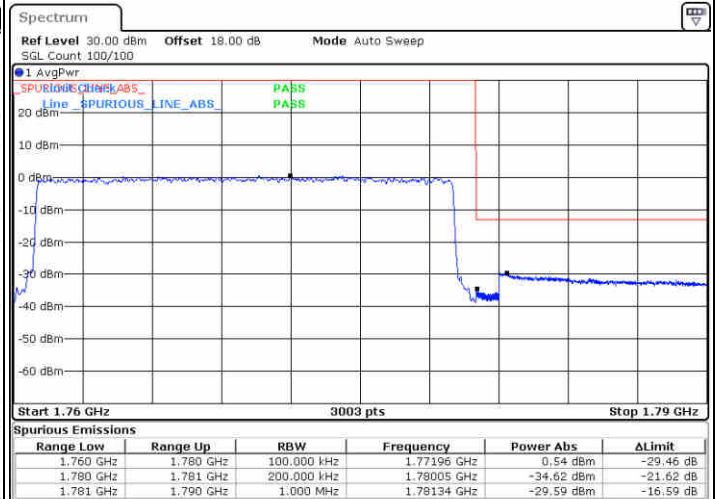
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



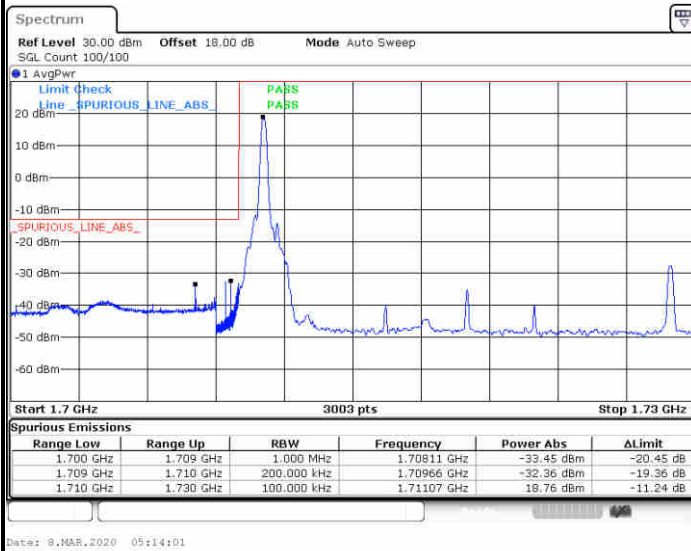
## Highest Band Edge / Full RB



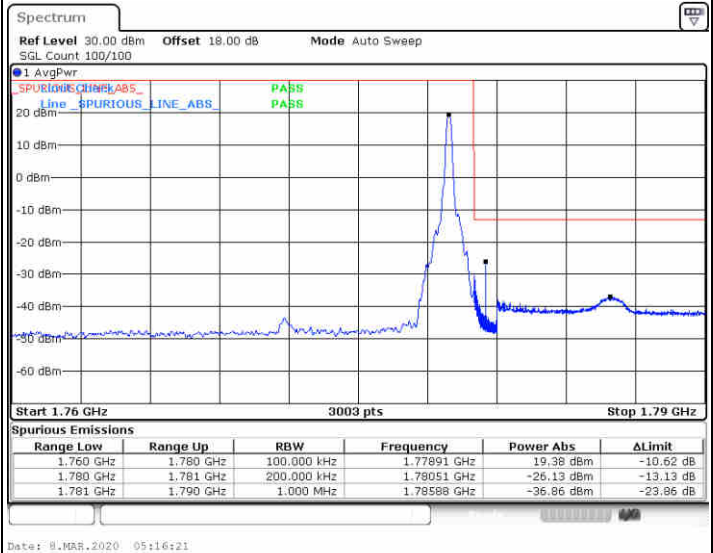


## ULCA-12A-66A / SCC(66A) 20MHz / 64QAM

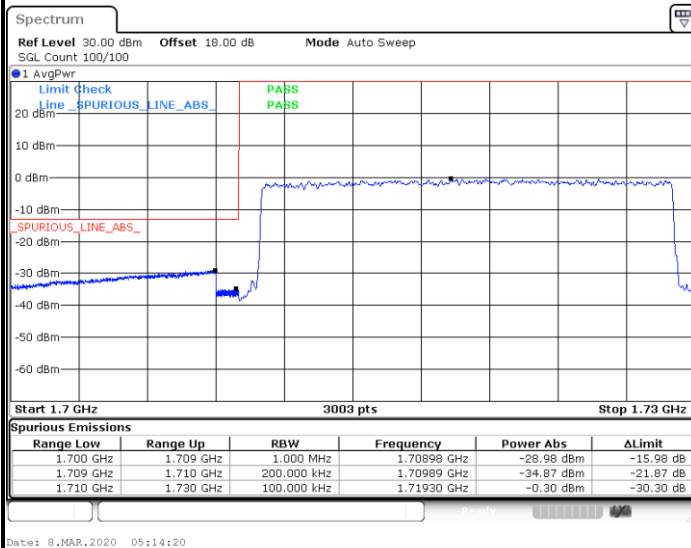
## Lowest Band Edge / 1 RB



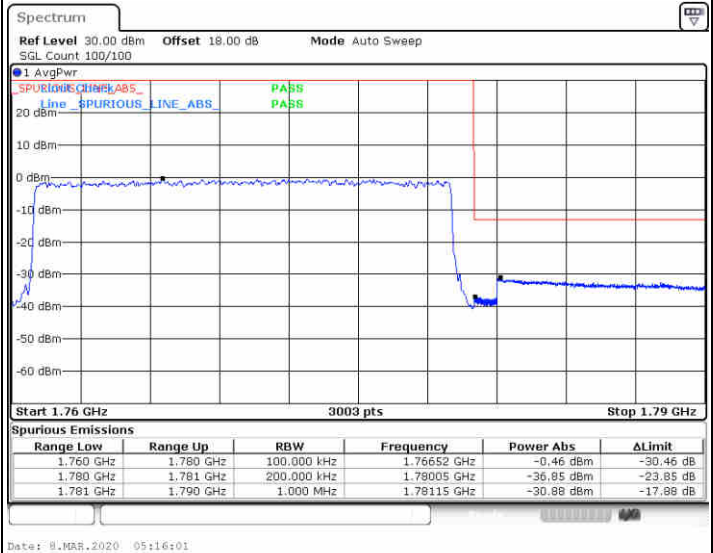
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



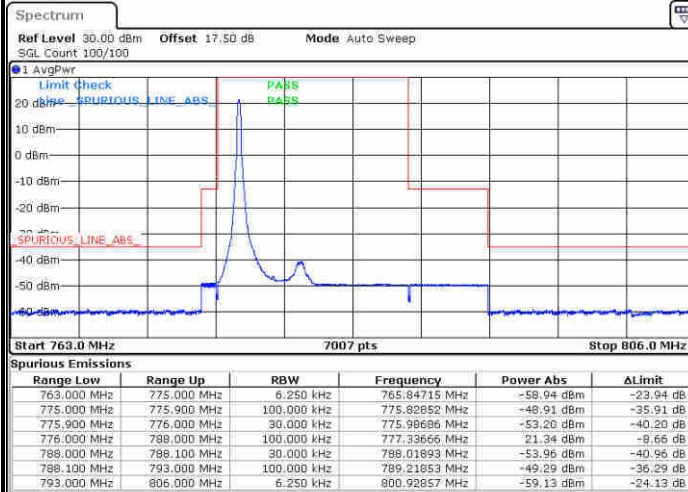
## Highest Band Edge / Full RB



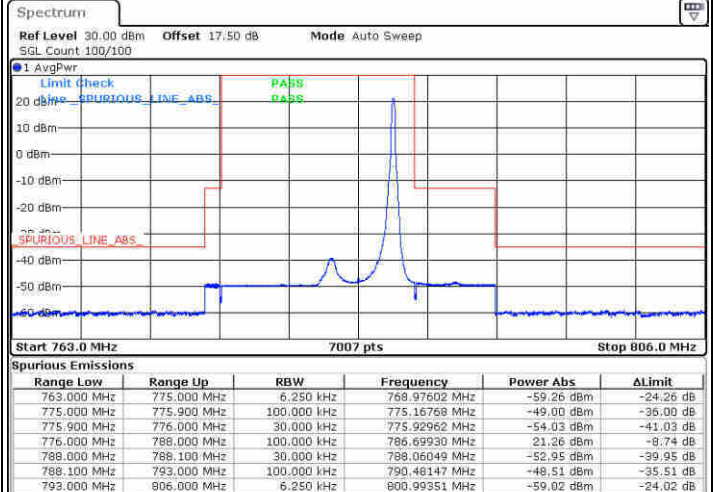


## ULCA-13A-66A / PCC(13A) 5MHz / QPSK

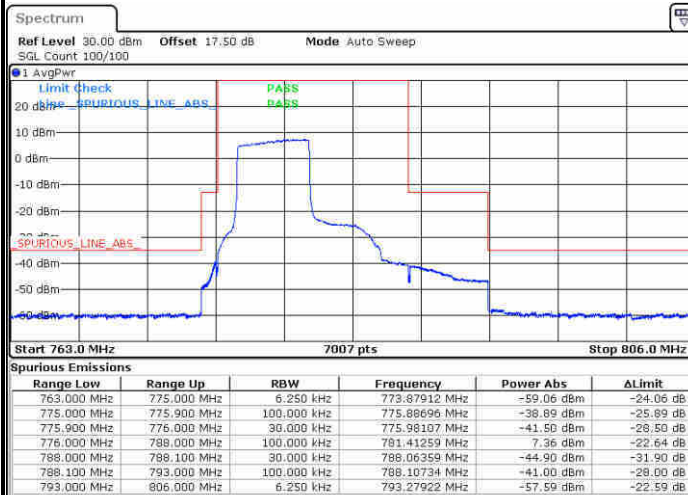
## Lowest Band Edge / 1RB



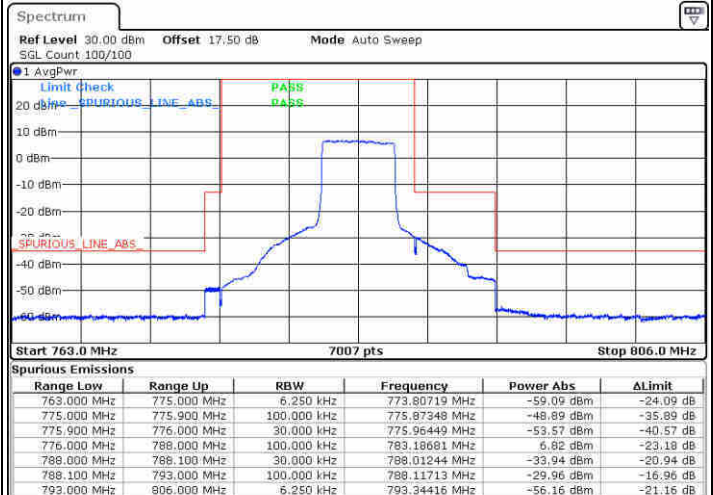
## Highest Band Edge / 1RB



## Lowest Band Edge / Full RB



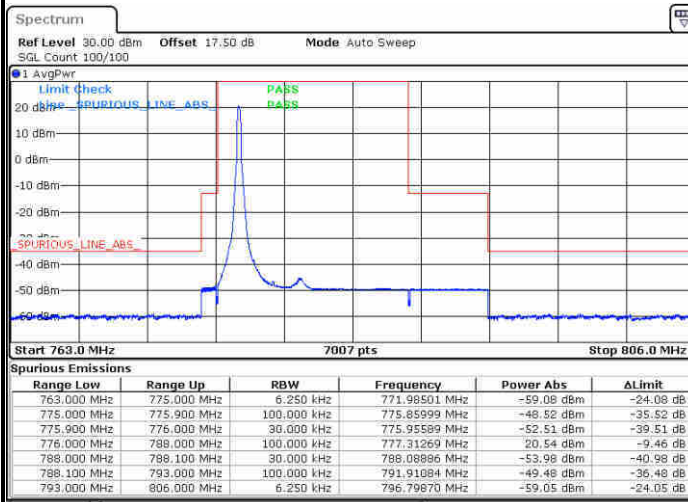
## Highest Band Edge / Full RB



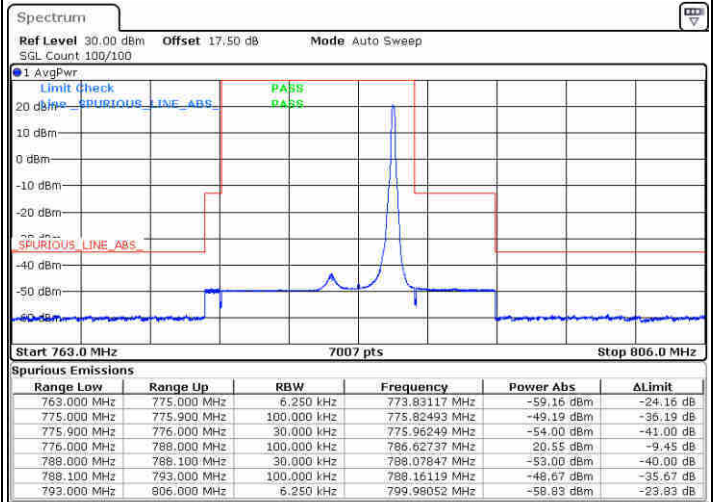


## ULCA-13A-66A / PCC(13A) 5MHz / 16QAM

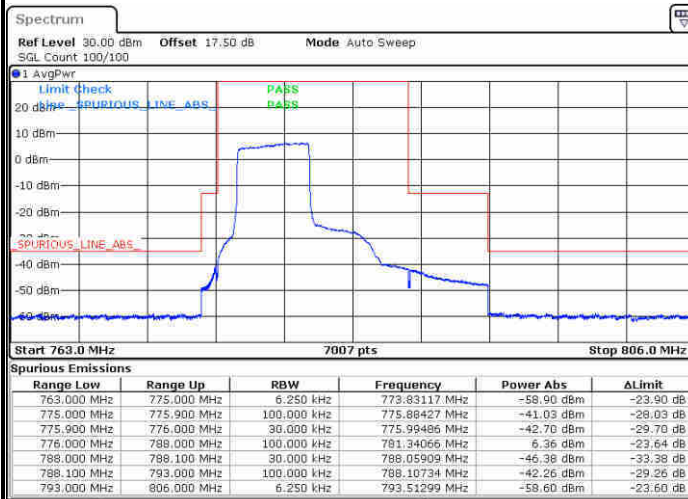
## Lowest Band Edge / 1 RB



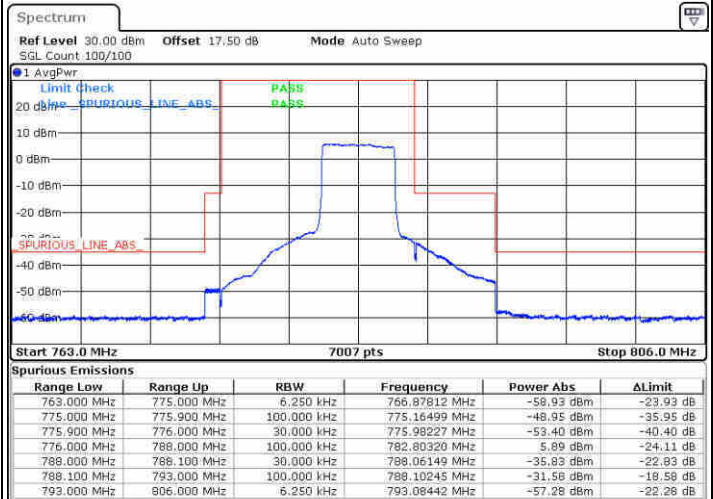
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



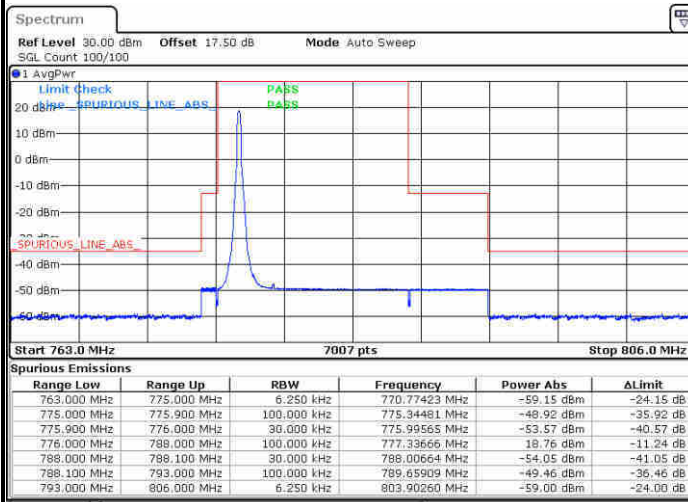
## Highest Band Edge / Full RB



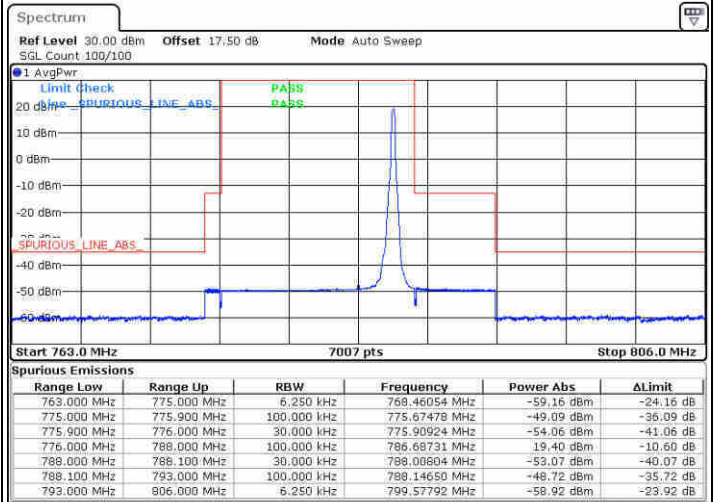


## ULCA-13A-66A / PCC(13A) 5MHz / 64QAM

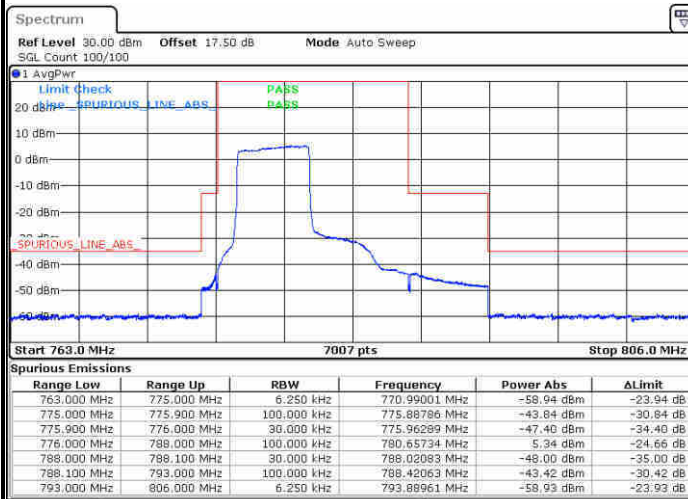
## Lowest Band Edge / 1 RB



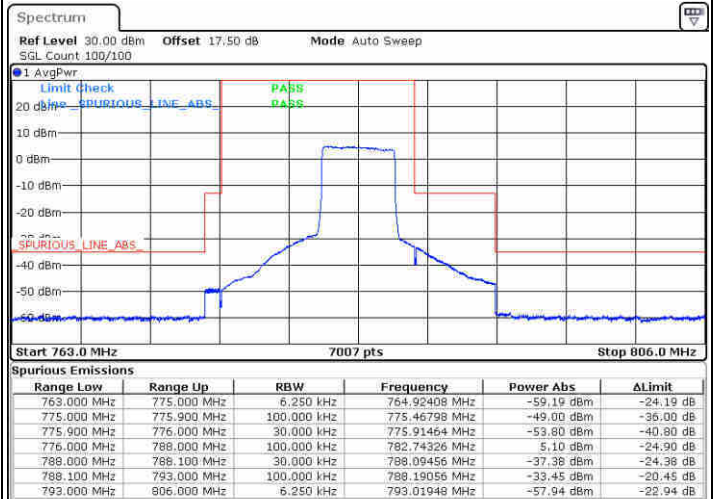
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



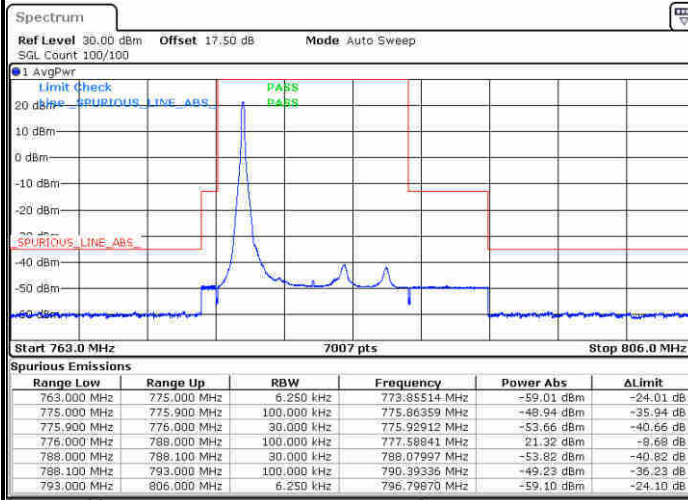
## Highest Band Edge / Full RB





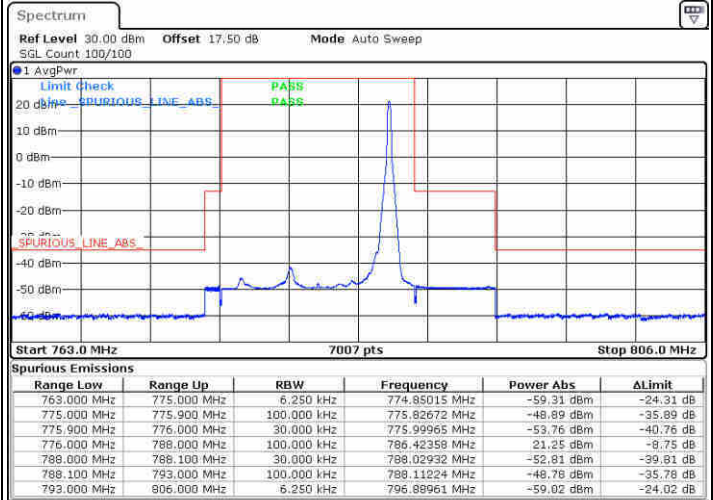
## ULCA-13A-66A / PCC(13A) 10MHz / QPSK

## Lowest Band Edge / 1 RB



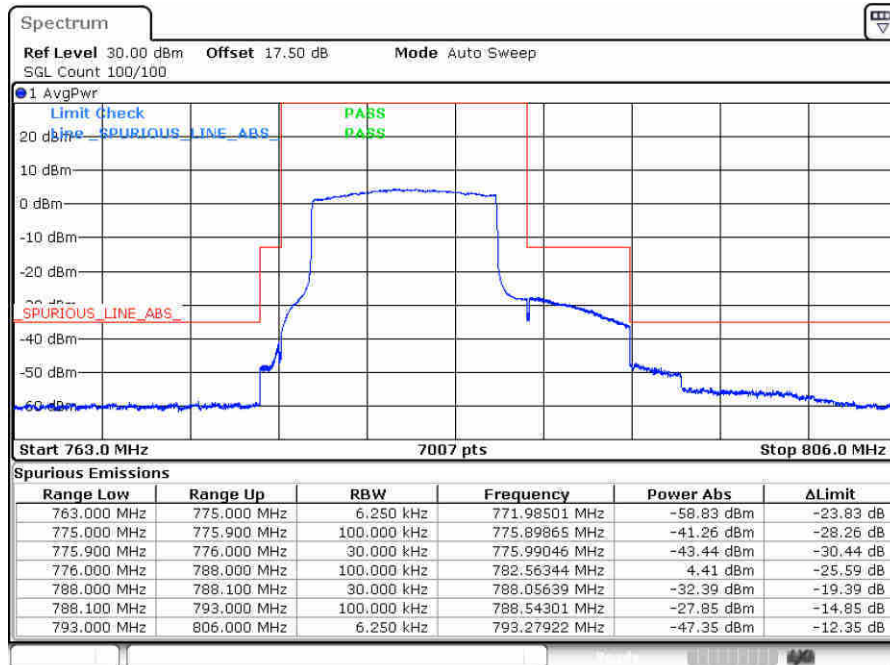
Date: 8, MAR, 2020 04:41:40

## Highest Band Edge / 1 RB



Date: 8, MAR, 2020 04:43:32

## Band Edge / Full RB

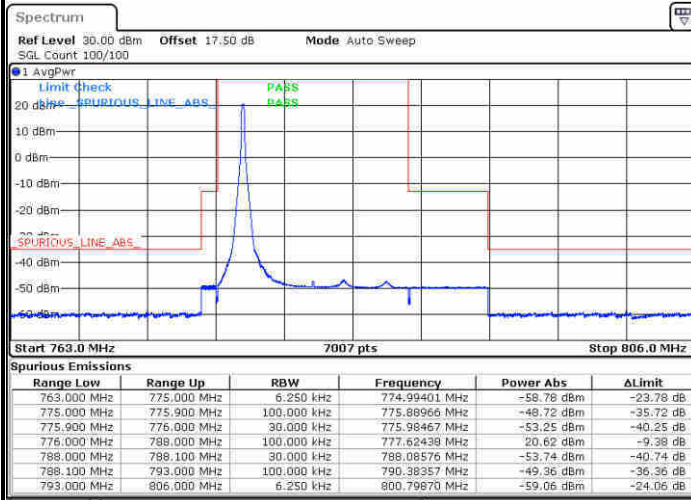


Date: 8, MAR, 2020 04:34:07



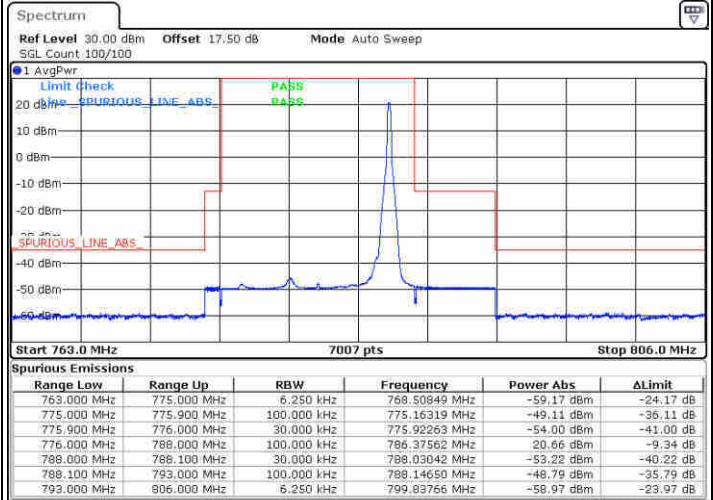
## ULCA-13A-66A / PCC(13A) 10MHz / 16QAM

## Lowest Band Edge / 1 RB



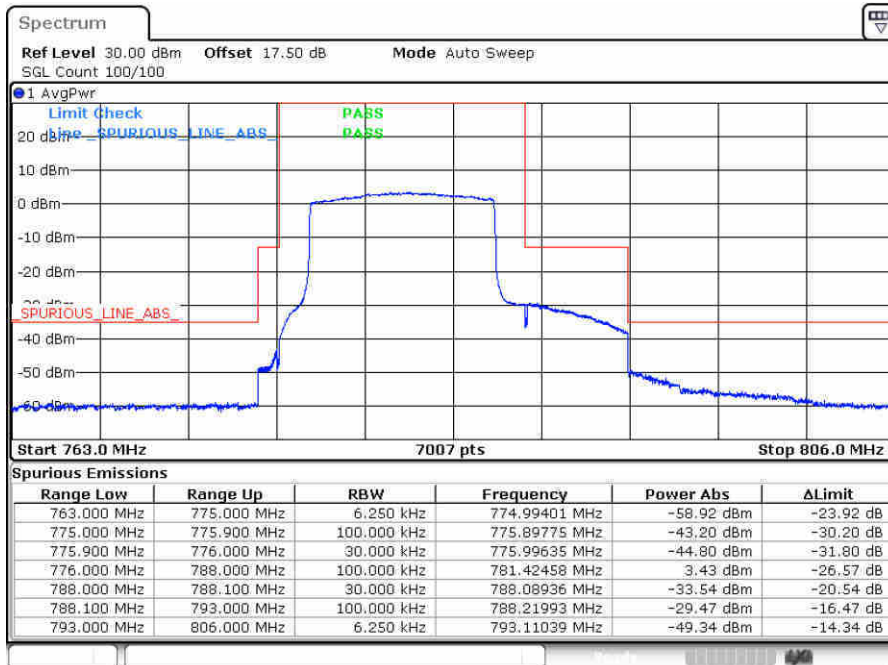
Date: 8, MAR, 2020 04:40:16

## Highest Band Edge / 1 RB



Date: 8, MAR, 2020 04:46:36

## Band Edge / Full RB

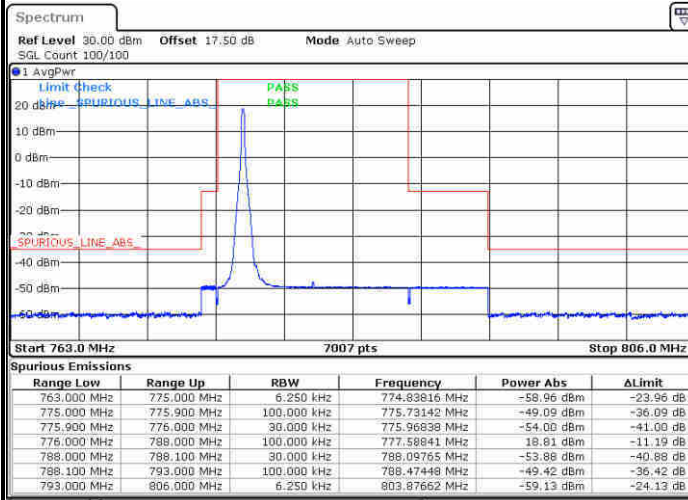


Date: 8, MAR, 2020 04:35:59



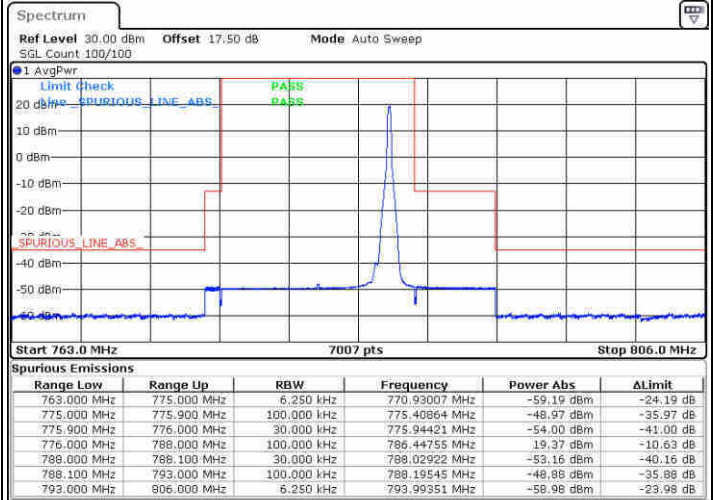
## ULCA-13A-66A / PCC(13A) 10MHz / 64QAM

## Lowest Band Edge / 1 RB



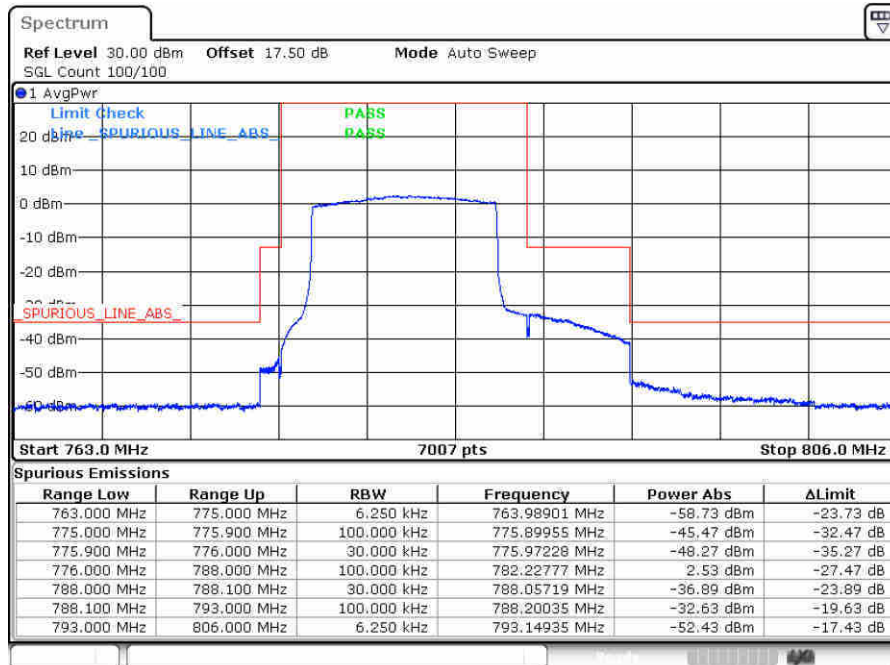
Date: 8, MAR, 2020 04:39:01

## Highest Band Edge / 1 RB



Date: 8, MAR, 2020 04:49:24

## Band Edge / Full RB

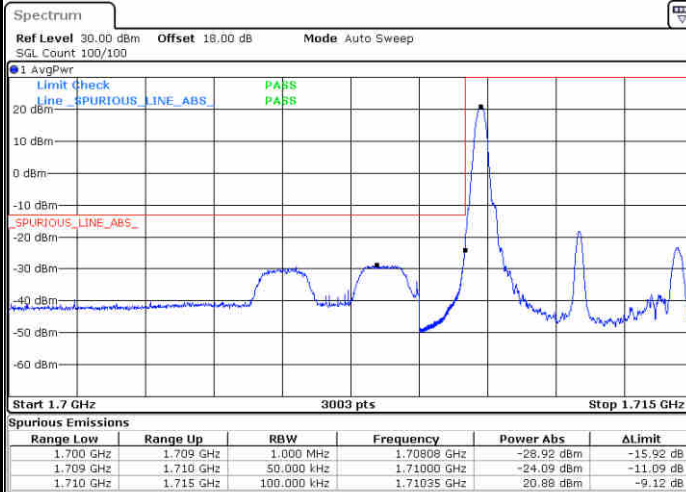


Date: 8, MAR, 2020 04:37:24

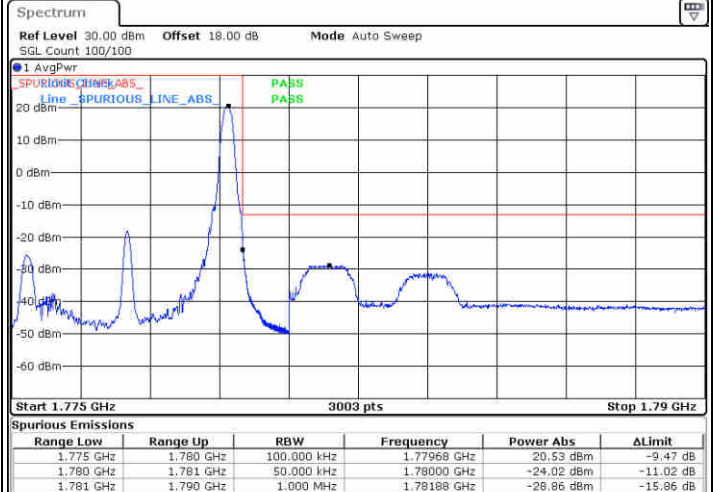


## ULCA-13A-66A / SCC(66A) 5MHz / QPSK

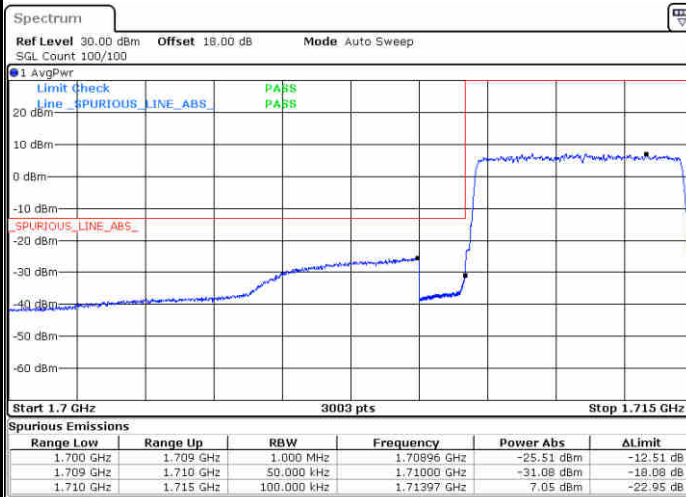
## Lowest Band Edge / 1RB



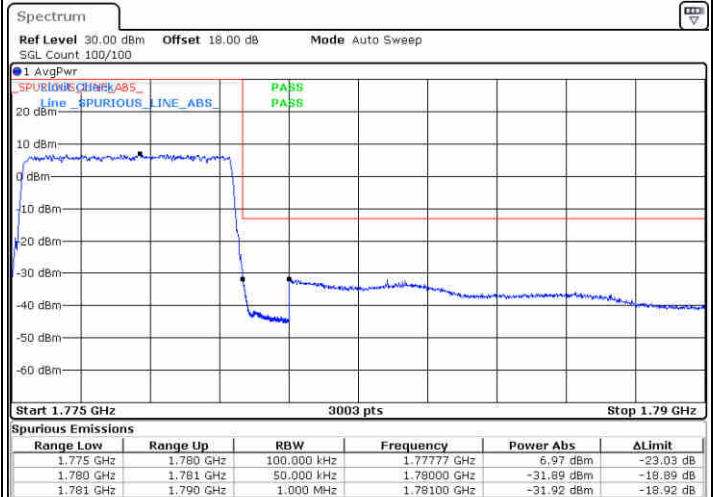
## Highest Band Edge / 1RB



## Lowest Band Edge / Full RB



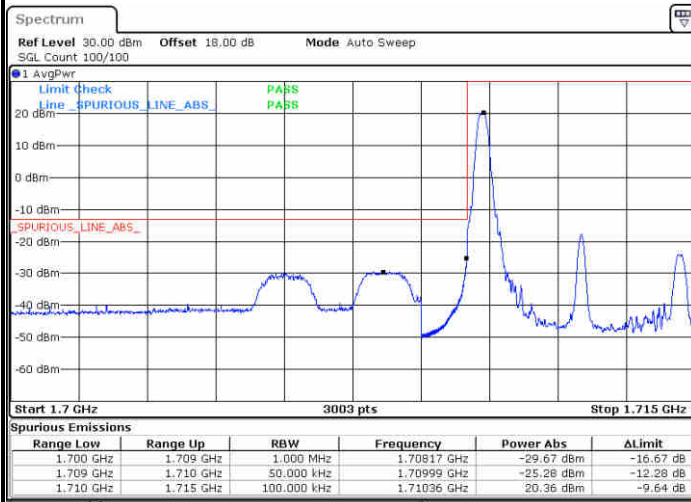
## Highest Band Edge / Full RB



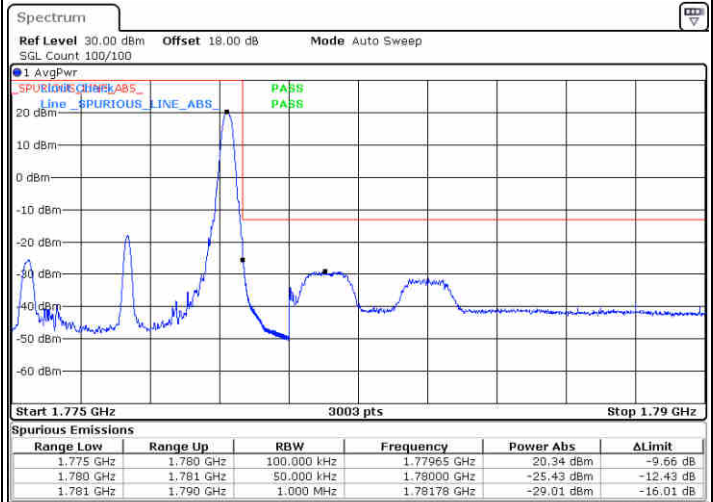


## ULCA-13A-66A / SCC(66A) 5MHz / 16QAM

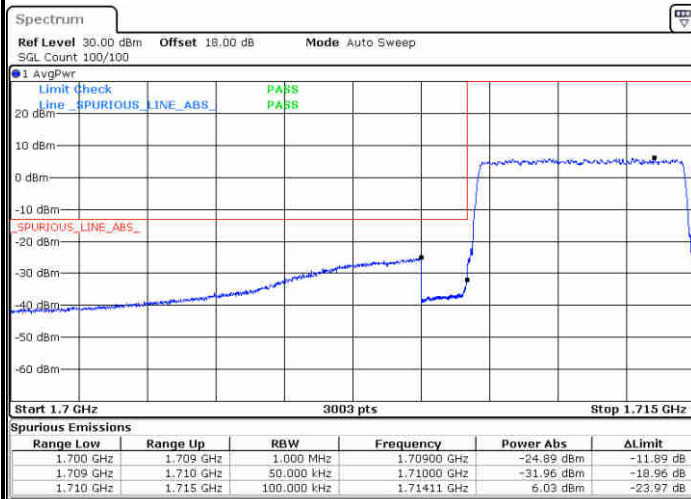
## Lowest Band Edge / 1 RB



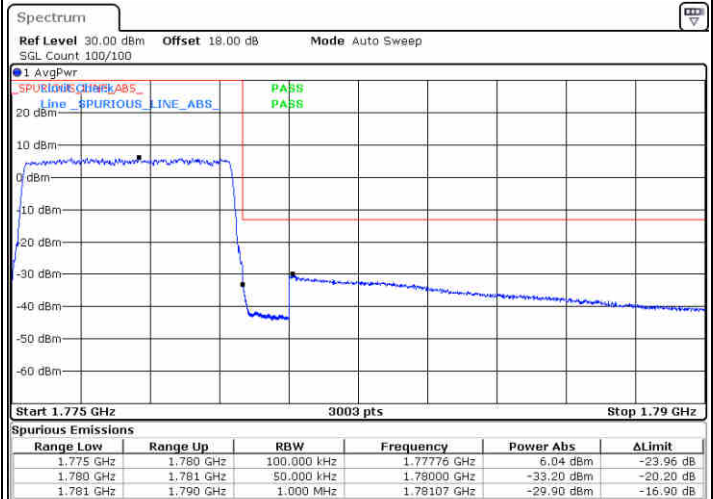
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



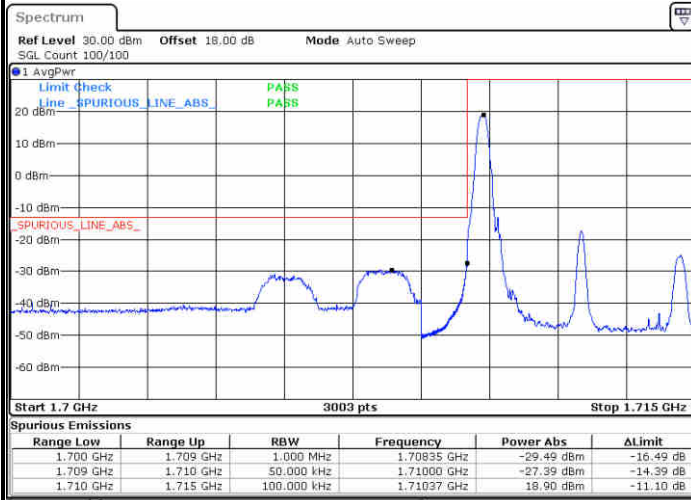
## Highest Band Edge / Full RB



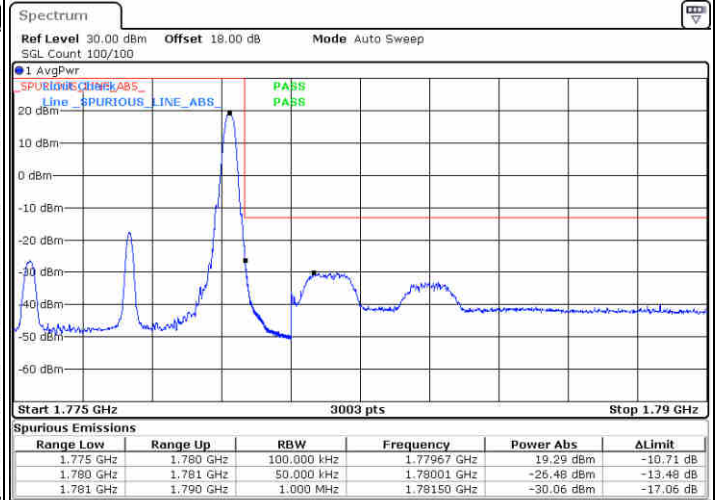


## ULCA-13A-66A / SCC(66A) 5MHz / 64QAM

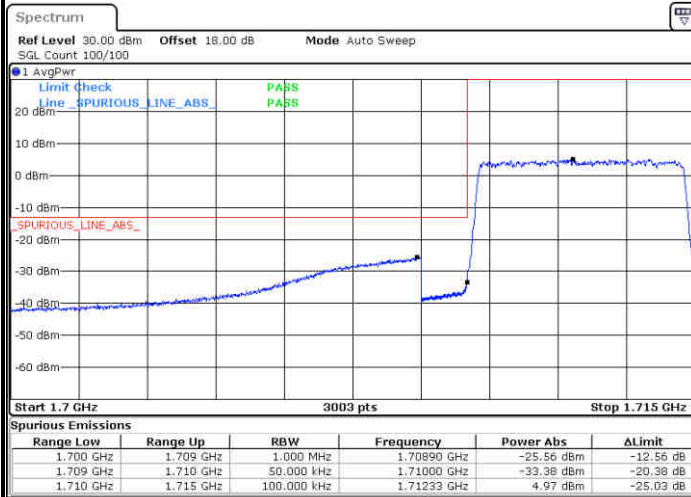
## Lowest Band Edge / 1 RB



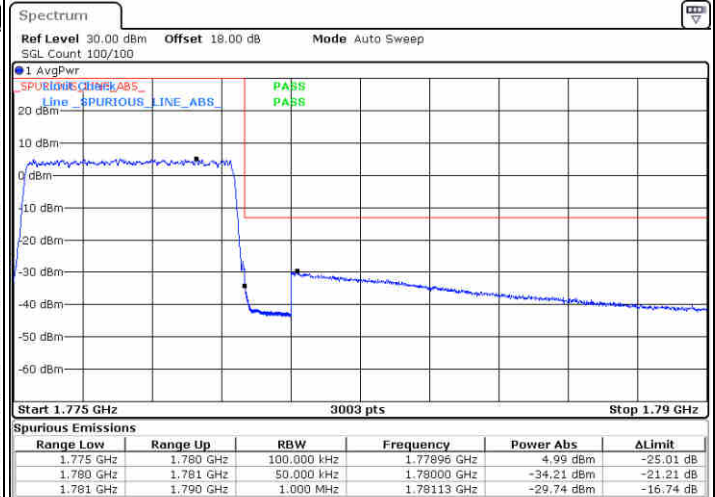
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



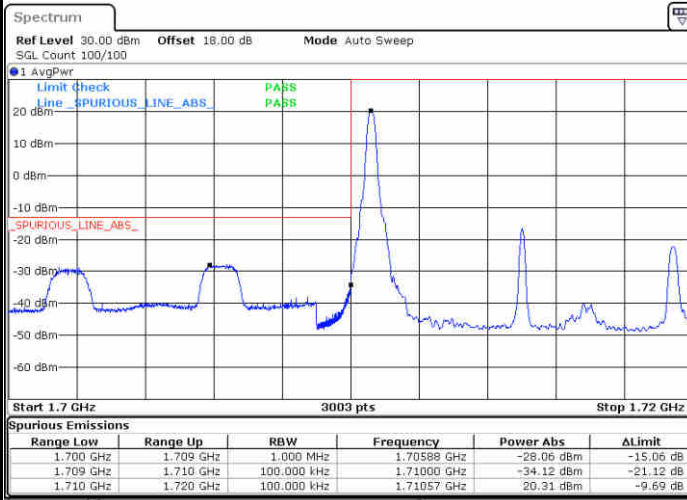
## Highest Band Edge / Full RB



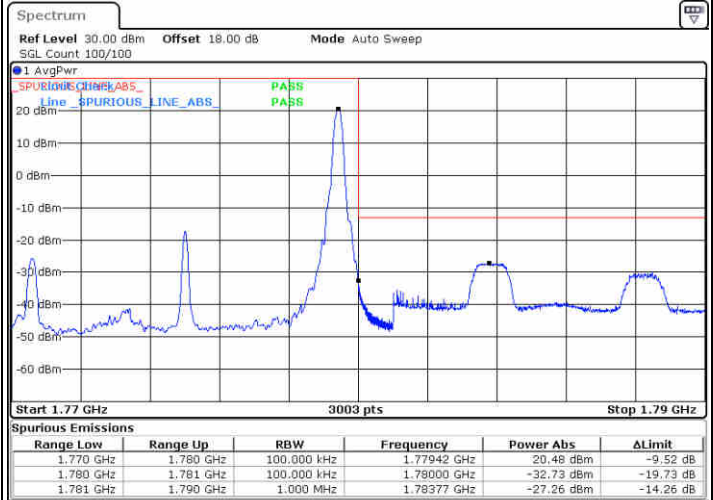


## ULCA-13A-66A / SCC(66A) 10MHz / QPSK

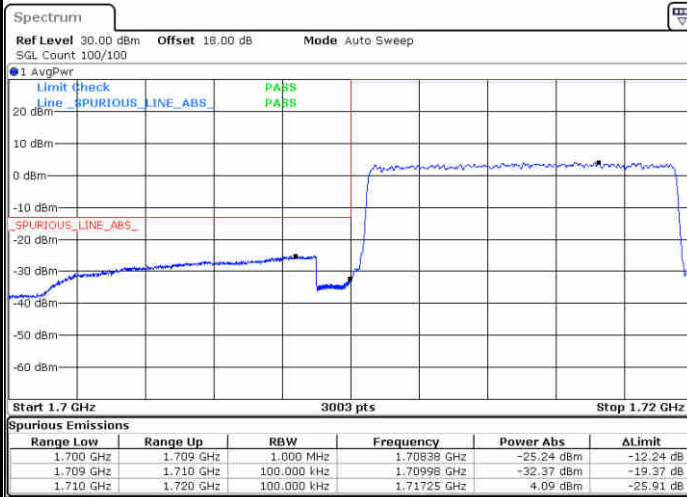
## Lowest Band Edge / 1 RB



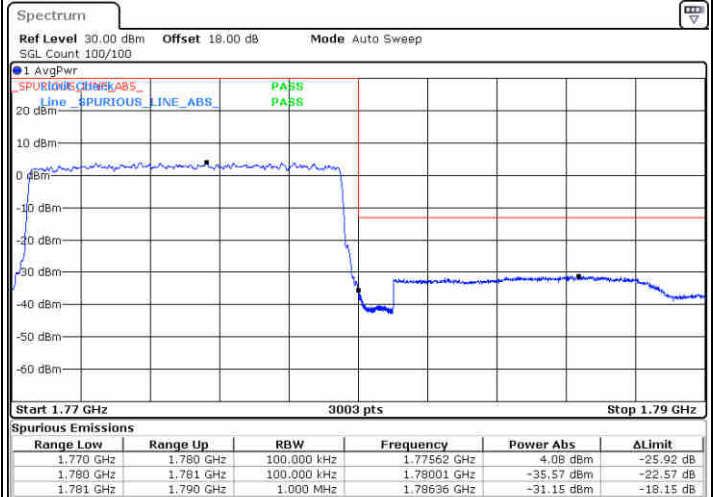
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



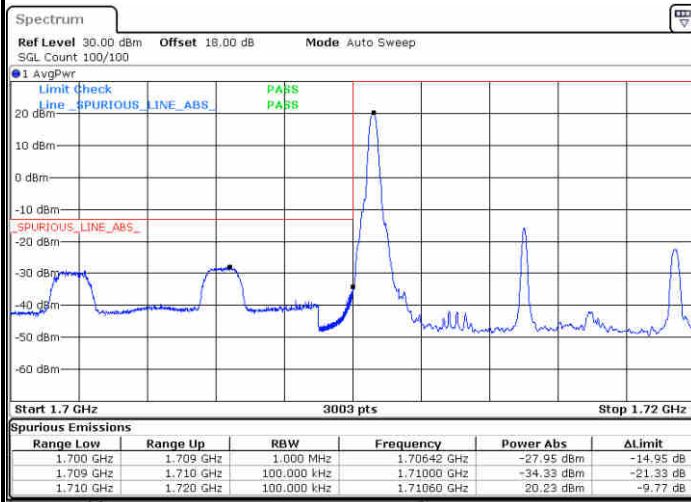
## Highest Band Edge / Full RB



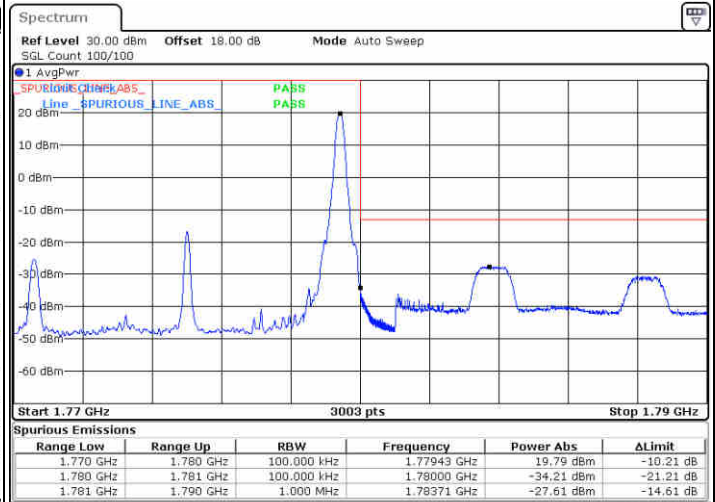


## ULCA-13A-66A / SCC(66A) 10MHz / 16QAM

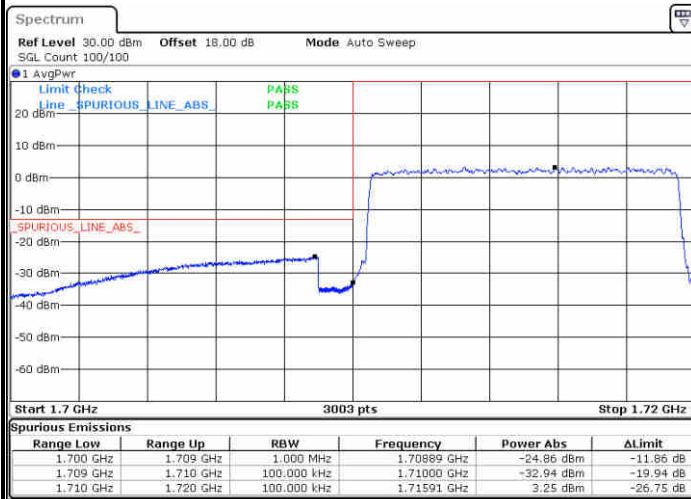
## Lowest Band Edge / 1 RB



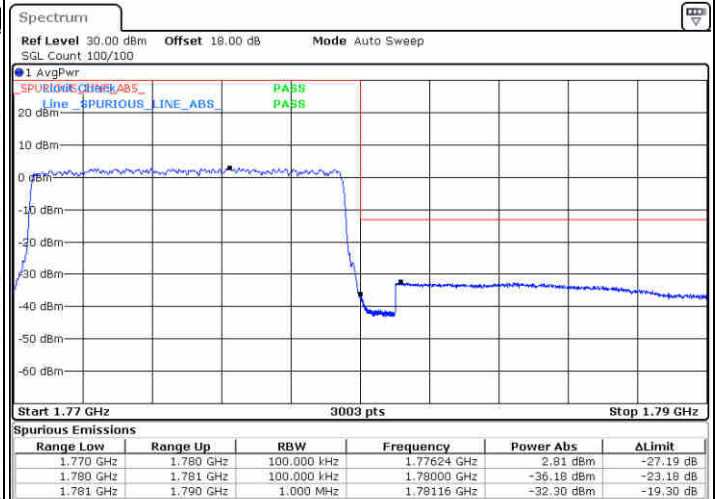
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



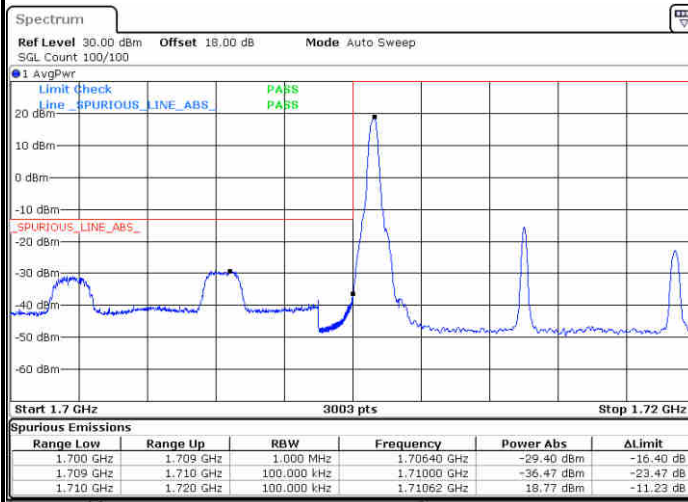
## Highest Band Edge / Full RB



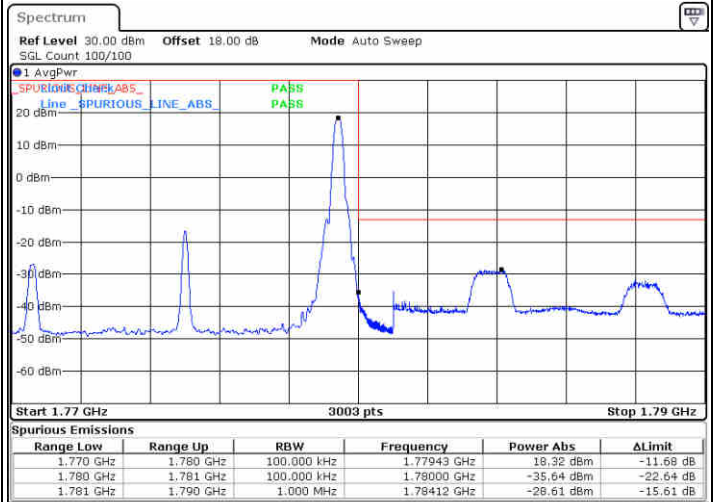


## ULCA-13A-66A / SCC(66A) 10MHz / 64QAM

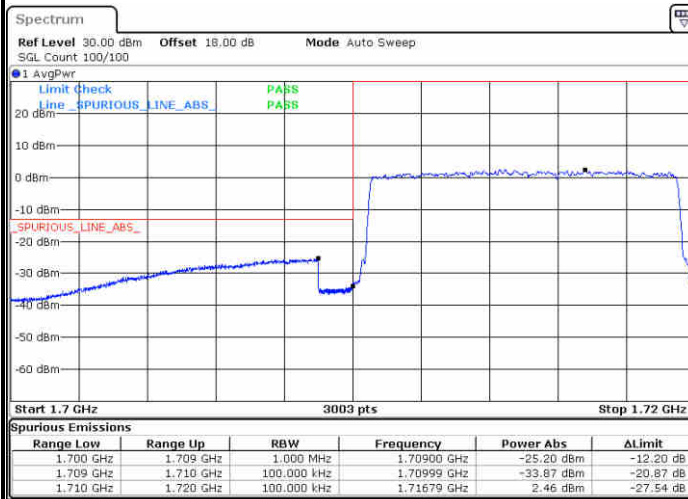
## Lowest Band Edge / 1 RB



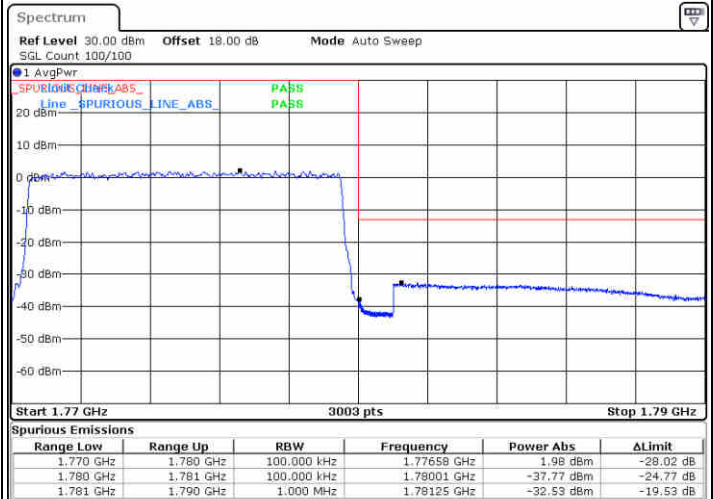
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



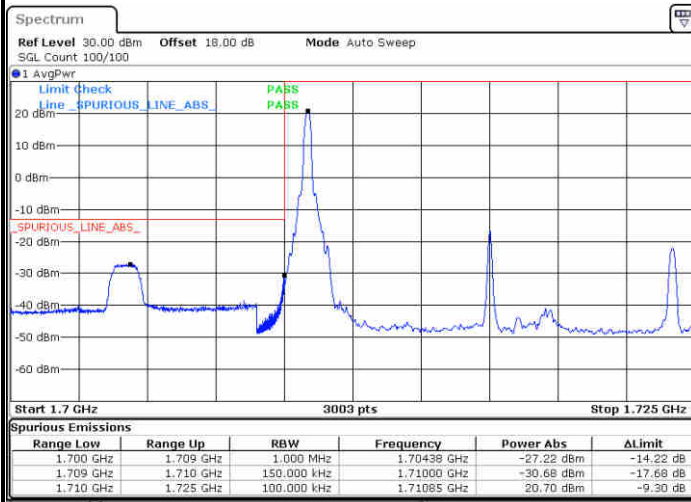
## Highest Band Edge / Full RB



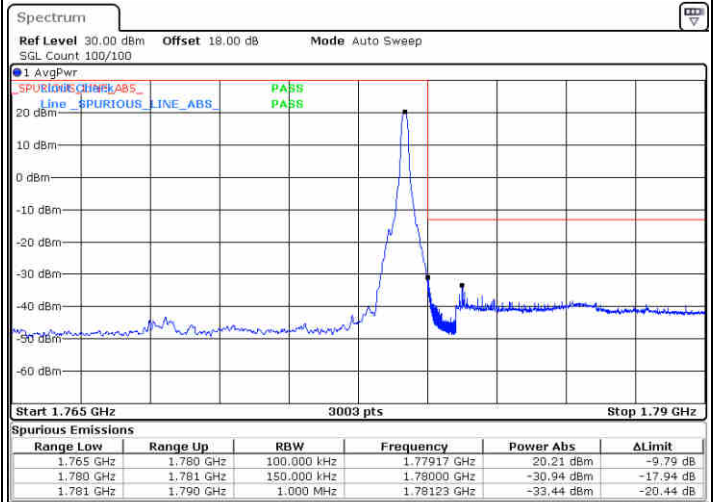


## ULCA-13A-66A / SCC(66A) 15MHz / QPSK

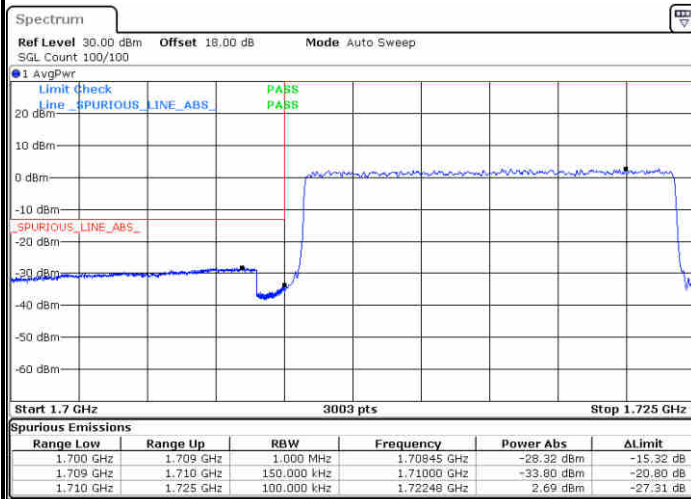
## Lowest Band Edge / 1 RB



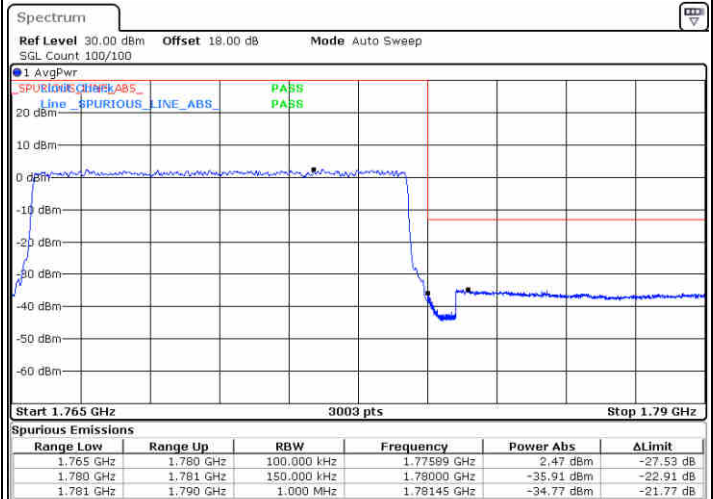
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



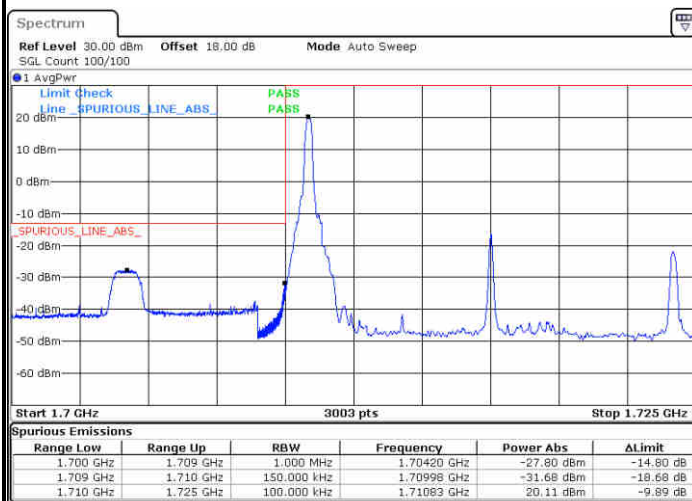
## Highest Band Edge / Full RB



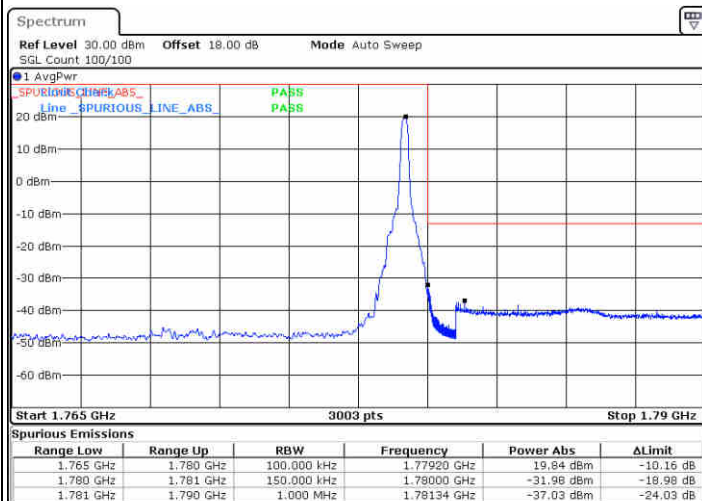


## ULCA-13A-66A / SCC(66A) 15MHz / 16QAM

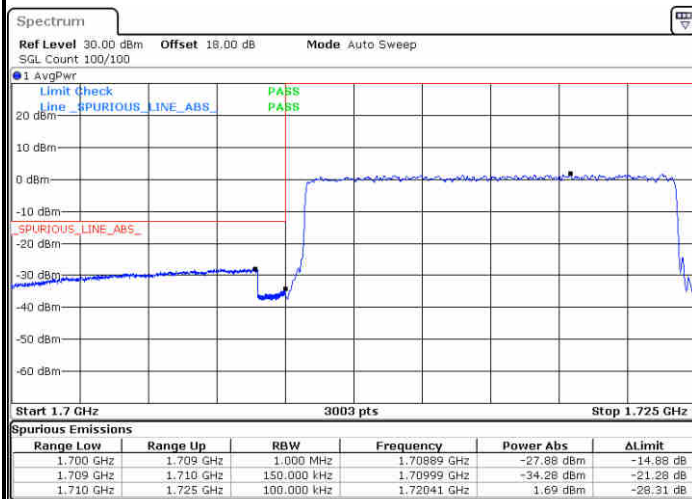
## Lowest Band Edge / 1 RB



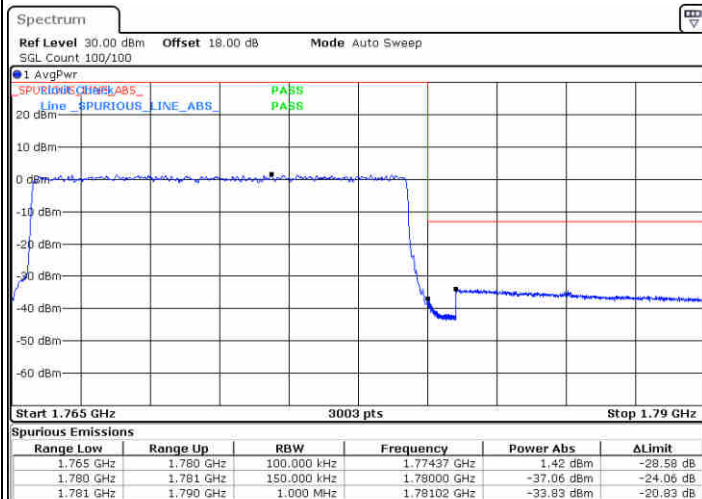
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



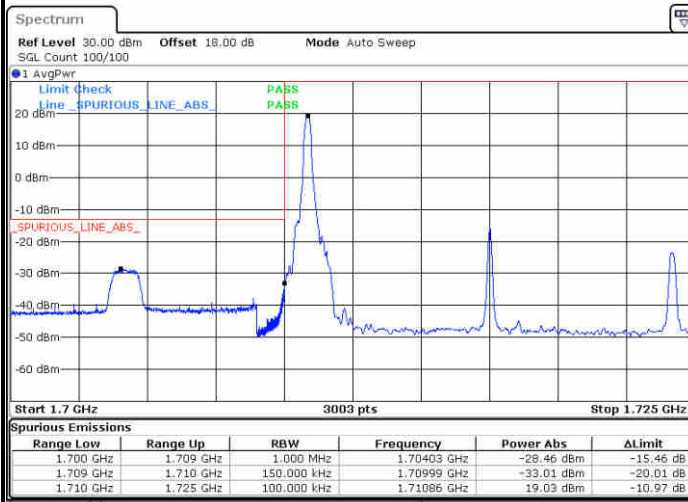
## Highest Band Edge / Full RB



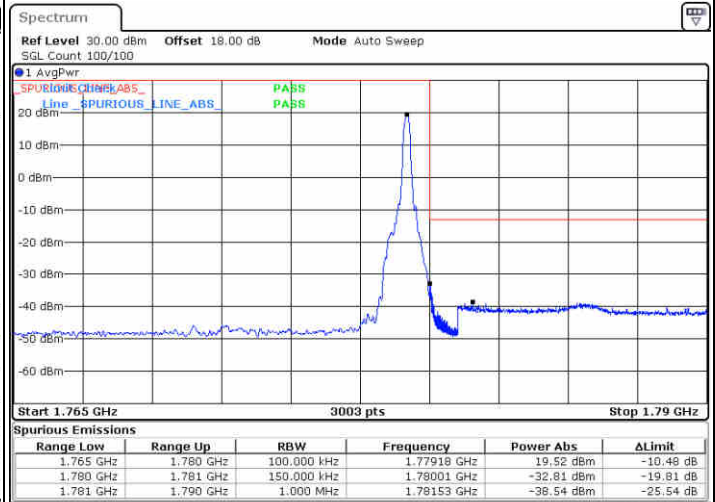


## ULCA-13A-66A / SCC(66A) 15MHz / 64QAM

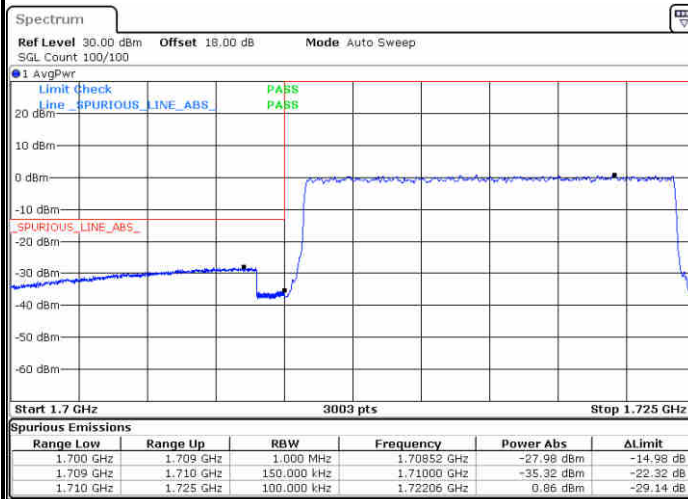
## Lowest Band Edge / 1 RB



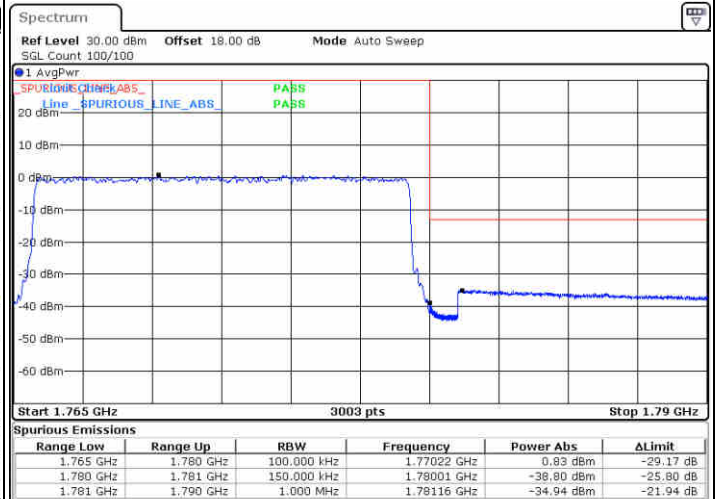
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



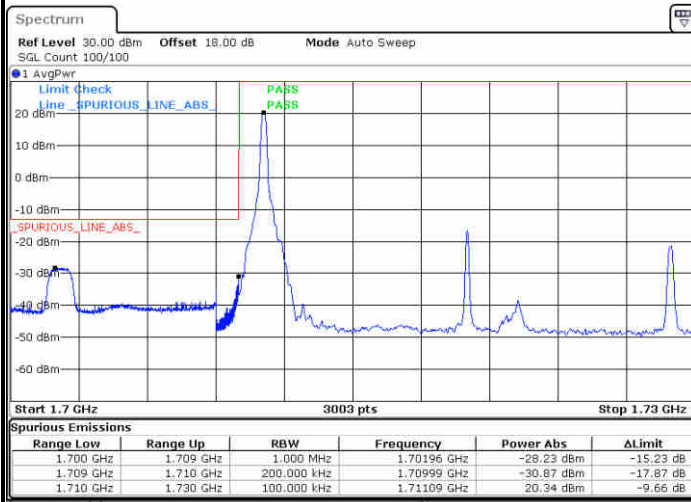
## Highest Band Edge / Full RB



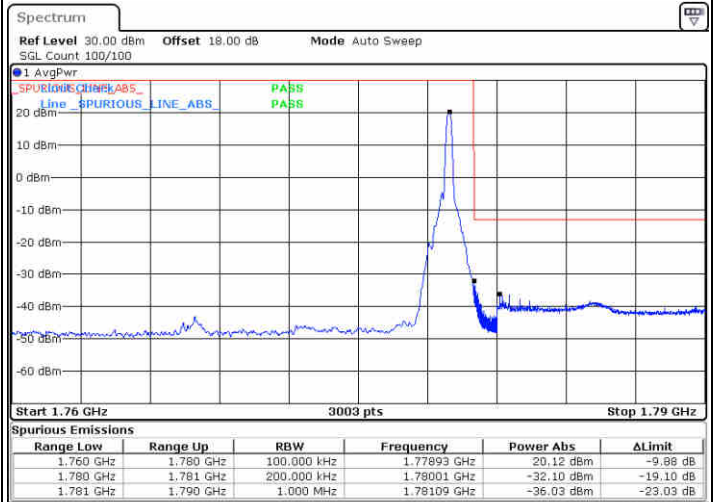


## ULCA-13A-66A / SCC(66A) 20MHz / QPSK

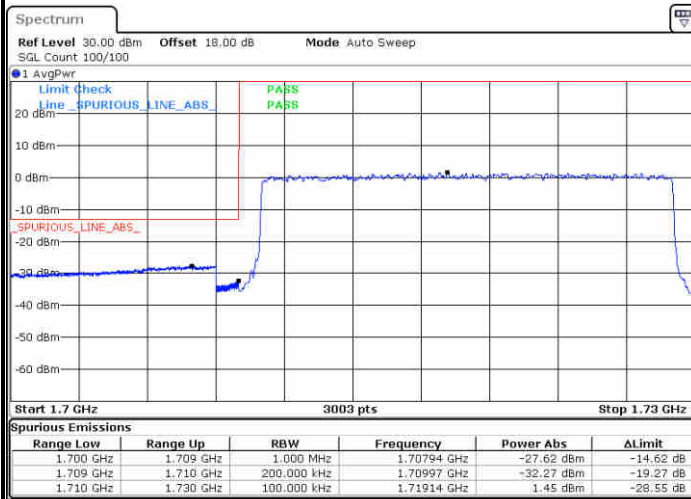
## Lowest Band Edge / 1 RB



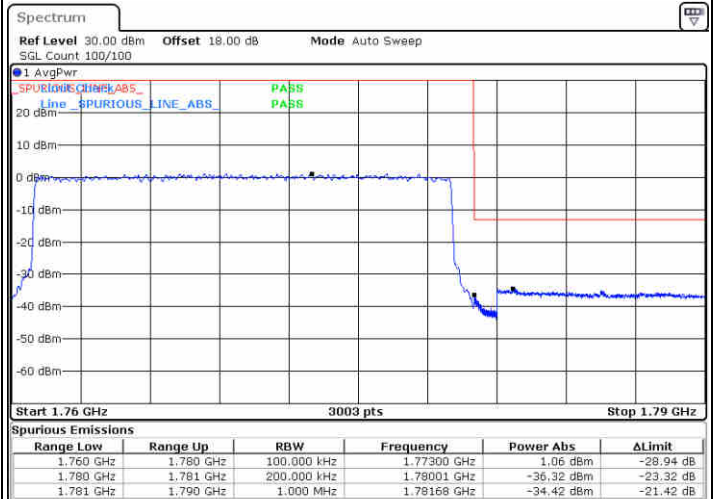
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



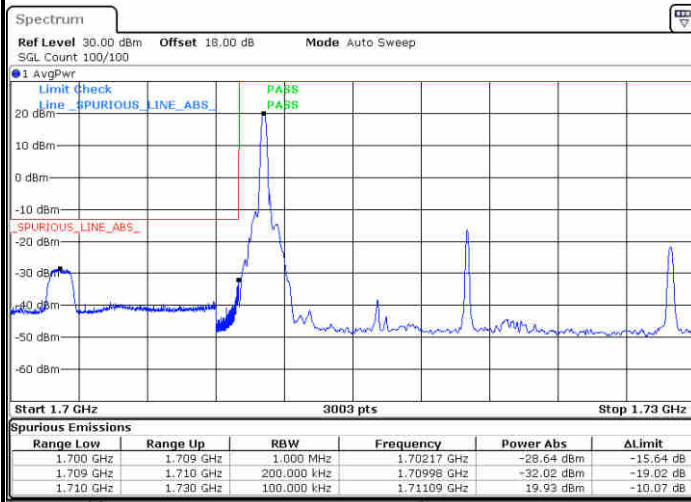
## Highest Band Edge / Full RB





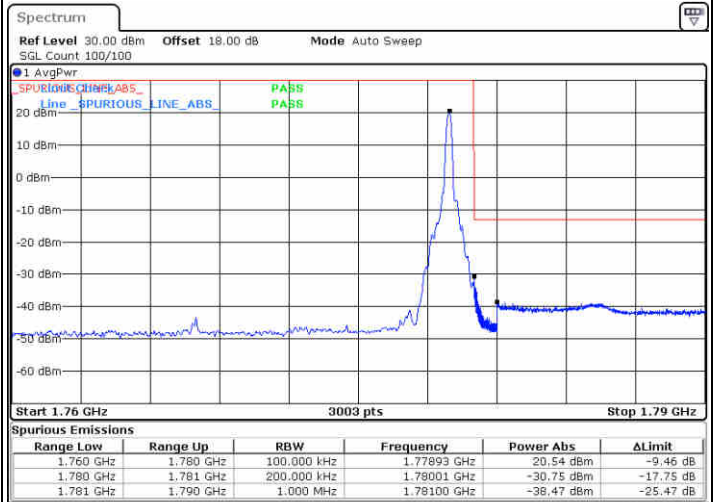
## ULCA-13A-66A / SCC(66A) 20MHz / 16QAM

## Lowest Band Edge / 1 RB



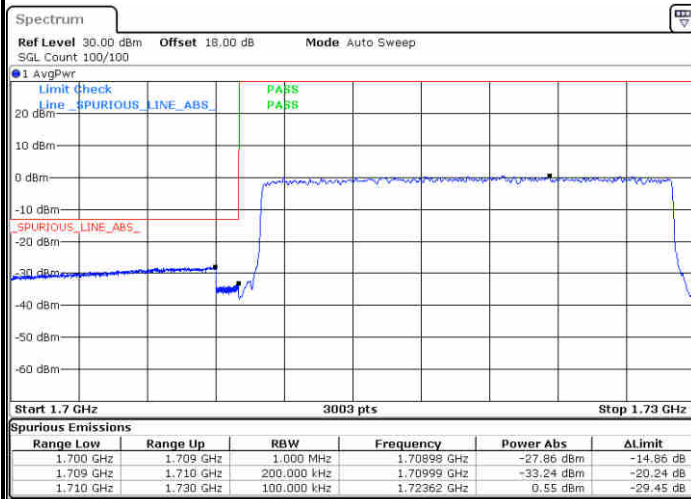
Date: 9.MAR.2020 04:23:33

## Highest Band Edge / 1 RB



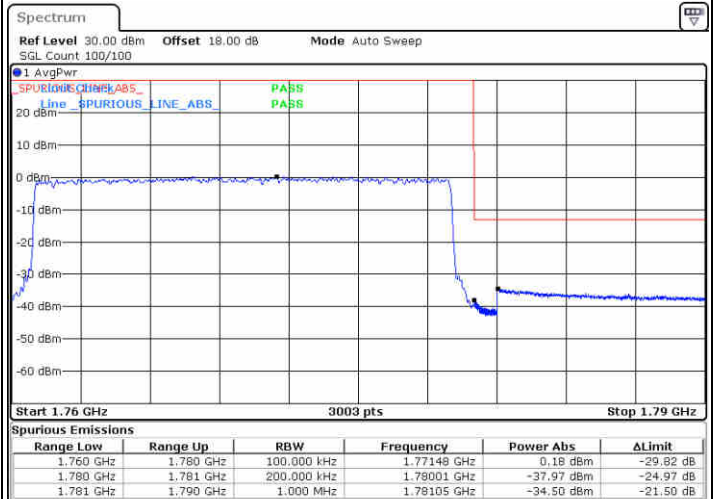
Date: 9.MAR.2020 04:24:44

## Lowest Band Edge / Full RB



Date: 9.MAR.2020 04:22:40

## Highest Band Edge / Full RB

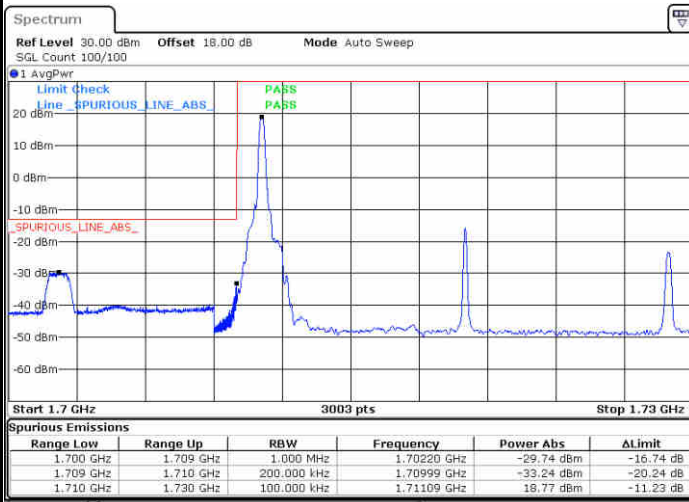


Date: 9.MAR.2020 04:25:37

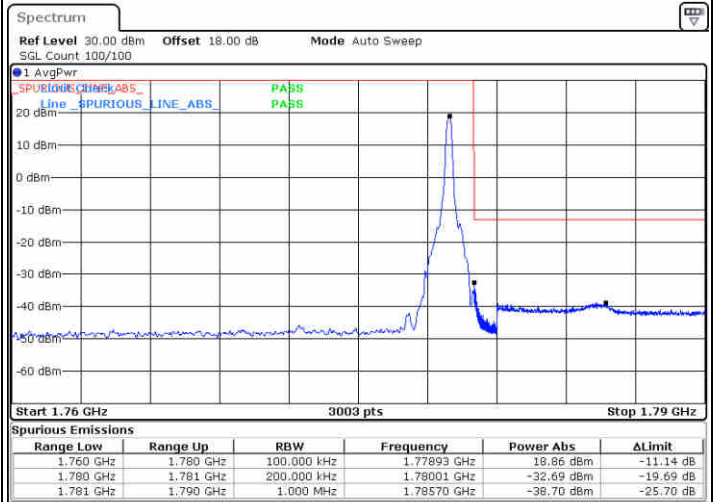


## ULCA-13A-66A / SCC(66A) 20MHz / 64QAM

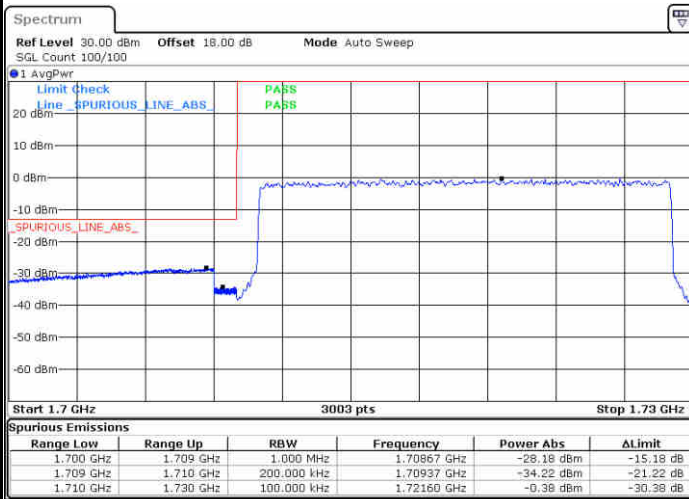
## Lowest Band Edge / 1 RB



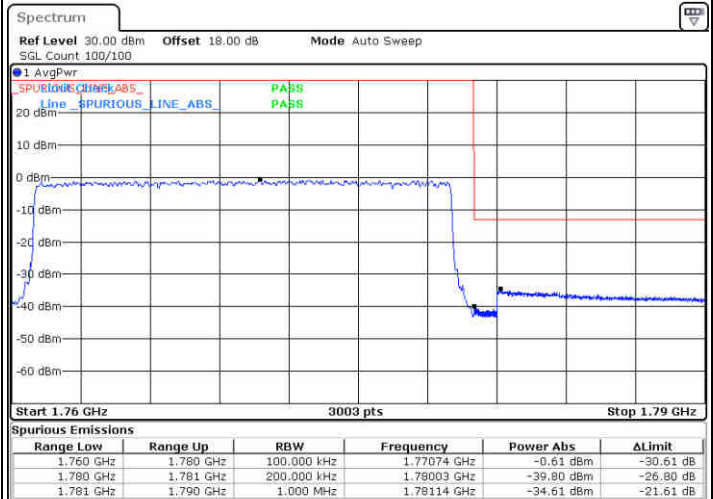
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB





## Appendix B. Test Results of Radiated Test

### Radiated Spurious Emission

#### Top Antenna

| ULCA_2A-12A                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                                      | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| LTE B2<br>BW 20MHz<br>Lowest<br>1RB0,QPSK    | 3702.18              | -60.57          | -13              | -47.57                  | -78.24                  | -67.33                   | 5.82                       | 12.58                       | H                     |
|                                              | 5553.27              | -58.47          | -13              | -45.47                  | -80.01                  | -64.19                   | 7.28                       | 13.00                       | H                     |
|                                              | 7404.36              | -54.14          | -13              | -41.14                  | -80.30                  | -57.30                   | 8.32                       | 11.48                       | H                     |
|                                              | 3702.18              | -61.41          | -13              | -48.41                  | -78.41                  | -68.17                   | 5.82                       | 12.58                       | V                     |
|                                              | 5553.27              | -59.60          | -13              | -46.60                  | -80.38                  | -65.32                   | 7.28                       | 13.00                       | V                     |
|                                              | 7404.36              | -54.93          | -13              | -41.93                  | -80.38                  | -58.09                   | 8.32                       | 11.48                       | V                     |
| LTE B12<br>BW 10MHz<br>Lowest<br>1RB49,QPSK  | 1399                 | -64.83          | -13              | -51.83                  | -74.47                  | -68.06                   | 3.98                       | 9.36                        | H                     |
|                                              | 2098.5               | -62.21          | -13              | -49.21                  | -76.26                  | -65.76                   | 4.85                       | 10.55                       | H                     |
|                                              | 2798                 | -62.70          | -13              | -49.70                  | -76.82                  | -67.63                   | 5.50                       | 12.58                       | H                     |
|                                              | 1399                 | -64.77          | -13              | -51.77                  | -74.10                  | -68.00                   | 3.98                       | 9.36                        | V                     |
|                                              | 2098.5               | -62.79          | -13              | -49.79                  | -76.51                  | -66.34                   | 4.85                       | 10.55                       | V                     |
|                                              | 2798                 | -63.03          | -13              | -50.03                  | -76.82                  | -67.96                   | 5.50                       | 12.58                       | V                     |
| LTE B2<br>BW 20MHz<br>Middle<br>1RB0,QPSK    | 3742.18              | -61.00          | -13              | -48.00                  | -78.79                  | -67.75                   | 5.85                       | 12.60                       | H                     |
|                                              | 5613.27              | -59.36          | -13              | -46.36                  | -80.88                  | -65.16                   | 7.30                       | 13.10                       | H                     |
|                                              | 7484.36              | -55.94          | -13              | -42.94                  | -81.60                  | -59.09                   | 8.35                       | 11.50                       | H                     |
|                                              | 3742.18              | -61.74          | -13              | -48.74                  | -78.8                   | -68.49                   | 5.85                       | 12.60                       | V                     |
|                                              | 5613.27              | -60.10          | -13              | -47.10                  | -80.97                  | -65.90                   | 7.30                       | 13.10                       | V                     |
|                                              | 7484.36              | -56.22          | -13              | -43.22                  | -81.24                  | -59.37                   | 8.35                       | 11.50                       | V                     |
| LTE B12<br>BW 10MHz<br>Middle<br>1RB49,QPSK  | 1406                 | -64.21          | -13              | -51.21                  | -73.98                  | -67.46                   | 4.00                       | 9.40                        | H                     |
|                                              | 2109                 | -61.40          | -13              | -48.40                  | -75.45                  | -64.97                   | 4.88                       | 10.60                       | H                     |
|                                              | 2812                 | -62.34          | -13              | -49.34                  | -76.51                  | -67.27                   | 5.52                       | 12.60                       | H                     |
|                                              | 1406                 | -64.28          | -13              | -51.28                  | -73.72                  | -67.53                   | 4.00                       | 9.40                        | V                     |
|                                              | 2109                 | -62.39          | -13              | -49.39                  | -76.11                  | -65.96                   | 4.88                       | 10.60                       | V                     |
|                                              | 2812                 | -62.65          | -13              | -49.65                  | -76.49                  | -67.58                   | 5.52                       | 12.60                       | V                     |
| LTE B2<br>BW 20MHz<br>Highest<br>1RB0,QPSK   | 3782.18              | -60.72          | -13              | -47.72                  | -78.68                  | -67.46                   | 5.88                       | 12.62                       | H                     |
|                                              | 5673.27              | -58.59          | -13              | -45.59                  | -80.21                  | -64.40                   | 7.32                       | 13.13                       | H                     |
|                                              | 7564.36              | -55.46          | -13              | -42.46                  | -80.51                  | -58.62                   | 8.38                       | 11.54                       | H                     |
|                                              | 3782.18              | -61.24          | -13              | -48.24                  | -78.37                  | -67.98                   | 5.88                       | 12.62                       | V                     |
|                                              | 5673.27              | -59.83          | -13              | -46.83                  | -80.44                  | -65.64                   | 7.32                       | 13.13                       | V                     |
|                                              | 7564.36              | -56.30          | -13              | -43.30                  | -80.81                  | -59.46                   | 8.38                       | 11.54                       | V                     |
| LTE B12<br>BW 10MHz<br>Highest<br>1RB49,QPSK | 1413                 | -64.56          | -13              | -51.56                  | -74.33                  | -67.73                   | 4.10                       | 9.42                        | H                     |
|                                              | 2119.5               | -62.01          | -13              | -49.01                  | -76.20                  | -65.59                   | 4.90                       | 10.63                       | H                     |
|                                              | 2826                 | -62.77          | -13              | -49.77                  | -76.95                  | -67.69                   | 5.55                       | 12.62                       | H                     |
|                                              | 1413                 | -64.83          | -13              | -51.83                  | -74.27                  | -68.00                   | 4.10                       | 9.42                        | V                     |
|                                              | 2119.5               | -62.76          | -13              | -49.76                  | -76.64                  | -66.34                   | 4.90                       | 10.63                       | V                     |
|                                              | 2826                 | -63.20          | -13              | -50.20                  | -77.05                  | -68.12                   | 5.55                       | 12.62                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



| ULCA_2A-13A                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                                      | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| LTE B2<br>BW 20MHz<br>Lowest<br>1RB0,QPSK    | 3702.18              | -61.08          | -13              | -48.08                  | -78.75                  | -67.84                   | 5.82                       | 12.58                       | H                     |
|                                              | 5553.27              | -59.16          | -13              | -46.16                  | -80.70                  | -64.88                   | 7.28                       | 13.00                       | H                     |
|                                              | 7404.36              | -54.93          | -13              | -41.93                  | -81.09                  | -58.09                   | 8.32                       | 11.48                       | H                     |
|                                              | 3702.18              | -62.00          | -13              | -49.00                  | -79                     | -68.76                   | 5.82                       | 12.58                       | V                     |
|                                              | 5553.27              | -59.83          | -13              | -46.83                  | -80.61                  | -65.55                   | 7.28                       | 13.00                       | V                     |
|                                              | 7404.36              | -55.72          | -13              | -42.72                  | -81.17                  | -58.88                   | 8.32                       | 11.48                       | V                     |
| LTE B13<br>BW 10MHz<br>Lowest<br>1RB25,QPSK  | 1555                 | -66.11          | -13              | -53.11                  | -75.25                  | -69.34                   | 3.98                       | 9.36                        | H                     |
|                                              | 2332.5               | -62.97          | -13              | -49.97                  | -76.93                  | -66.52                   | 4.85                       | 10.55                       | H                     |
|                                              | 3110                 | -61.94          | -13              | -48.94                  | -77.29                  | -66.87                   | 5.50                       | 12.58                       | H                     |
|                                              | 1555                 | -66.44          | -13              | -53.44                  | -75.09                  | -69.67                   | 3.98                       | 9.36                        | V                     |
|                                              | 2332.5               | -63.14          | -13              | -50.14                  | -76.86                  | -66.69                   | 4.85                       | 10.55                       | V                     |
|                                              | 3110                 | -62.11          | -13              | -49.11                  | -77.10                  | -67.04                   | 5.50                       | 12.58                       | V                     |
| LTE B2<br>BW 20MHz<br>Middle<br>1RB0,QPSK    | 3742.18              | -60.88          | -13              | -47.88                  | -78.67                  | -67.63                   | 5.85                       | 12.60                       | H                     |
|                                              | 5613.27              | -59.27          | -13              | -46.27                  | -80.79                  | -65.07                   | 7.30                       | 13.10                       | H                     |
|                                              | 7484.36              | -55.29          | -13              | -42.29                  | -80.95                  | -58.44                   | 8.35                       | 11.50                       | H                     |
|                                              | 3742.18              | -61.80          | -13              | -48.80                  | -78.86                  | -68.55                   | 5.85                       | 12.60                       | V                     |
|                                              | 5613.27              | -59.65          | -13              | -46.65                  | -80.52                  | -65.45                   | 7.30                       | 13.10                       | V                     |
|                                              | 7484.36              | -56.28          | -13              | -43.28                  | -81.3                   | -59.43                   | 8.35                       | 11.50                       | V                     |
| LTE B13<br>BW 10MHz<br>Middle<br>1RB25,QPSK  | 1555                 | -65.67          | -13              | -52.67                  | -74.81                  | -68.92                   | 4.00                       | 9.40                        | H                     |
|                                              | 2332.5               | -62.57          | -13              | -49.57                  | -76.53                  | -66.14                   | 4.88                       | 10.60                       | H                     |
|                                              | 3110                 | -61.72          | -13              | -48.72                  | -77.07                  | -66.65                   | 5.52                       | 12.60                       | H                     |
|                                              | 1555                 | -66.36          | -13              | -53.36                  | -75.01                  | -69.61                   | 4.00                       | 9.40                        | V                     |
|                                              | 2332.5               | -62.96          | -13              | -49.96                  | -76.68                  | -66.53                   | 4.88                       | 10.60                       | V                     |
|                                              | 3110                 | -61.99          | -13              | -48.99                  | -76.98                  | -66.92                   | 5.52                       | 12.60                       | V                     |
| LTE B2<br>BW 20MHz<br>Highest<br>1RB0,QPSK   | 3782.18              | -61.24          | -13              | -48.24                  | -79.20                  | -67.98                   | 5.88                       | 12.62                       | H                     |
|                                              | 5673.27              | -58.98          | -13              | -45.98                  | -80.60                  | -64.79                   | 7.32                       | 13.13                       | H                     |
|                                              | 7564.36              | -56.06          | -13              | -43.06                  | -81.11                  | -59.22                   | 8.38                       | 11.54                       | H                     |
|                                              | 3782.18              | -61.93          | -13              | -48.93                  | -79.06                  | -68.67                   | 5.88                       | 12.62                       | V                     |
|                                              | 5673.27              | -60.15          | -13              | -47.15                  | -80.76                  | -65.96                   | 7.32                       | 13.13                       | V                     |
|                                              | 7564.36              | -56.65          | -13              | -43.65                  | -81.16                  | -59.81                   | 8.38                       | 11.54                       | V                     |
| LTE B13<br>BW 10MHz<br>Highest<br>1RB25,QPSK | 1555                 | -66.08          | -13              | -53.08                  | -75.22                  | -69.25                   | 4.10                       | 9.42                        | H                     |
|                                              | 2332.5               | -62.95          | -13              | -49.95                  | -76.91                  | -66.53                   | 4.90                       | 10.63                       | H                     |
|                                              | 3110                 | -61.73          | -13              | -48.73                  | -77.08                  | -66.65                   | 5.55                       | 12.62                       | H                     |
|                                              | 1555                 | -66.58          | -13              | -53.58                  | -75.23                  | -69.75                   | 4.10                       | 9.42                        | V                     |
|                                              | 2332.5               | -63.10          | -13              | -50.10                  | -76.82                  | -66.68                   | 4.90                       | 10.63                       | V                     |
|                                              | 3110                 | -62.28          | -13              | -49.28                  | -77.27                  | -67.20                   | 5.55                       | 12.62                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



| ULCA_4A-12A                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                                      | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| LTE B4<br>BW 20MHz<br>Lowest<br>1RB49,QPSK   | 3422.18              | -62.95          | -13              | -49.95                  | -77.50                  | -69.71                   | 5.82                       | 12.58                       | H                     |
|                                              | 5133.27              | -58.65          | -13              | -45.65                  | -76.02                  | -64.37                   | 7.28                       | 13.00                       | H                     |
|                                              | 6844.36              | -56.90          | -13              | -43.90                  | -80.65                  | -60.06                   | 8.32                       | 11.48                       | H                     |
|                                              | 3422.18              | -63.62          | -13              | -50.62                  | -78.65                  | -70.38                   | 5.82                       | 12.58                       | V                     |
|                                              | 5133.27              | -59.77          | -13              | -46.77                  | -77.9                   | -65.49                   | 7.28                       | 13.00                       | V                     |
|                                              | 6844.36              | -57.46          | -13              | -44.46                  | -80.78                  | -60.62                   | 8.32                       | 11.48                       | V                     |
| LTE B12<br>BW 10MHz<br>Lowest<br>1RB49,QPSK  | 1399                 | -65.34          | -13              | -52.34                  | -74.98                  | -68.57                   | 3.98                       | 9.36                        | H                     |
|                                              | 2098.5               | -63.32          | -13              | -50.32                  | -77.37                  | -66.87                   | 4.85                       | 10.55                       | H                     |
|                                              | 2798                 | -62.70          | -13              | -49.70                  | -76.82                  | -67.63                   | 5.50                       | 12.58                       | H                     |
|                                              | 1399                 | -65.54          | -13              | -52.54                  | -74.87                  | -68.77                   | 3.98                       | 9.36                        | V                     |
|                                              | 2098.5               | -63.18          | -13              | -50.18                  | -76.90                  | -66.73                   | 4.85                       | 10.55                       | V                     |
|                                              | 2798                 | -63.10          | -13              | -50.10                  | -76.89                  | -68.03                   | 5.50                       | 12.58                       | V                     |
| LTE B4<br>BW 20MHz<br>Middle<br>1RB49,QPSK   | 3447.18              | -63.42          | -13              | -50.42                  | -78.71                  | -70.17                   | 5.85                       | 12.60                       | H                     |
|                                              | 5170.77              | -59.06          | -13              | -46.06                  | -80.82                  | -64.86                   | 7.30                       | 13.10                       | H                     |
|                                              | 6894.36              | -56.93          | -13              | -43.93                  | -80.72                  | -60.08                   | 8.35                       | 11.50                       | H                     |
|                                              | 3447.18              | -63.39          | -13              | -50.39                  | -78.19                  | -70.14                   | 5.85                       | 12.60                       | V                     |
|                                              | 5170.77              | -58.43          | -13              | -45.43                  | -79.26                  | -64.23                   | 7.30                       | 13.10                       | V                     |
|                                              | 6894.36              | -57.49          | -13              | -44.49                  | -80.69                  | -60.64                   | 8.35                       | 11.50                       | V                     |
| LTE B12<br>BW 10MHz<br>Middle<br>1RB49,QPSK  | 1406                 | -64.87          | -13              | -51.87                  | -74.64                  | -68.12                   | 4.00                       | 9.40                        | H                     |
|                                              | 2109                 | -63.22          | -13              | -50.22                  | -77.27                  | -66.79                   | 4.88                       | 10.60                       | H                     |
|                                              | 2812                 | -63.09          | -13              | -50.09                  | -77.26                  | -68.02                   | 5.52                       | 12.60                       | H                     |
|                                              | 1406                 | -65.52          | -13              | -52.52                  | -74.96                  | -68.77                   | 4.00                       | 9.40                        | V                     |
|                                              | 2109                 | -63.64          | -13              | -50.64                  | -77.36                  | -67.21                   | 4.88                       | 10.60                       | V                     |
|                                              | 2812                 | -63.39          | -13              | -50.39                  | -77.23                  | -68.32                   | 5.52                       | 12.60                       | V                     |
| LTE B4<br>BW 20MHz<br>Highest<br>1RB49,QPSK  | 3472.18              | -62.07          | -13              | -49.07                  | -77.59                  | -68.81                   | 5.88                       | 12.62                       | H                     |
|                                              | 5208.27              | -59.26          | -13              | -46.26                  | -80.65                  | -65.07                   | 7.32                       | 13.13                       | H                     |
|                                              | 6944.36              | -57.19          | -13              | -44.19                  | -80.84                  | -60.35                   | 8.38                       | 11.54                       | H                     |
|                                              | 3472.18              | -62.48          | -13              | -49.48                  | -77.51                  | -69.22                   | 5.88                       | 12.62                       | V                     |
|                                              | 5208.27              | -57.67          | -13              | -44.67                  | -77.99                  | -63.48                   | 7.32                       | 13.13                       | V                     |
|                                              | 6944.36              | -58.04          | -13              | -45.04                  | -81.41                  | -61.20                   | 8.38                       | 11.54                       | V                     |
| LTE B12<br>BW 10MHz<br>Highest<br>1RB49,QPSK | 1413                 | -65.22          | -13              | -52.22                  | -74.99                  | -68.39                   | 4.10                       | 9.42                        | H                     |
|                                              | 2119.5               | -57.51          | -13              | -44.51                  | -71.70                  | -61.09                   | 4.90                       | 10.63                       | H                     |
|                                              | 2826                 | -62.61          | -13              | -49.61                  | -76.79                  | -67.53                   | 5.55                       | 12.62                       | H                     |
|                                              | 1413                 | -65.39          | -13              | -52.39                  | -74.83                  | -68.56                   | 4.10                       | 9.42                        | V                     |
|                                              | 2119.5               | -62.91          | -13              | -49.91                  | -76.79                  | -66.49                   | 4.90                       | 10.63                       | V                     |
|                                              | 2826                 | -63.16          | -13              | -50.16                  | -77.01                  | -68.08                   | 5.55                       | 12.62                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



| ULCA_4A-13A                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                                      | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| LTE B4<br>BW 20MHz<br>Lowest<br>1RB49,QPSK   | 3422.18              | -63.24          | -13              | -50.24                  | -78.08                  | -70.00                   | 5.82                       | 12.58                       | H                     |
|                                              | 5133.27              | -59.30          | -13              | -46.30                  | -81.01                  | -65.02                   | 7.28                       | 13.00                       | H                     |
|                                              | 6844.36              | -56.91          | -13              | -43.91                  | -80.82                  | -60.07                   | 8.32                       | 11.48                       | H                     |
|                                              | 3422.18              | -63.49          | -13              | -50.49                  | -77.83                  | -70.25                   | 5.82                       | 12.58                       | V                     |
|                                              | 5133.27              | -60.08          | -13              | -47.08                  | -81.01                  | -65.80                   | 7.28                       | 13.00                       | V                     |
|                                              | 6844.36              | -57.78          | -13              | -44.78                  | -80.81                  | -60.94                   | 8.32                       | 11.48                       | V                     |
| LTE B13<br>BW 10MHz<br>Lowest<br>1RB25,QPSK  | 1555                 | -66.39          | -13              | -53.39                  | -75.53                  | -69.62                   | 3.98                       | 9.36                        | H                     |
|                                              | 2332.5               | -63.52          | -13              | -50.52                  | -77.48                  | -67.07                   | 4.85                       | 10.55                       | H                     |
|                                              | 3110                 | -62.55          | -13              | -49.55                  | -77.90                  | -67.48                   | 5.50                       | 12.58                       | H                     |
|                                              | 1555                 | -66.79          | -13              | -53.79                  | -75.44                  | -70.02                   | 3.98                       | 9.36                        | V                     |
|                                              | 2332.5               | -63.90          | -13              | -50.90                  | -77.62                  | -67.45                   | 4.85                       | 10.55                       | V                     |
|                                              | 3110                 | -63.10          | -13              | -50.10                  | -78.09                  | -68.03                   | 5.50                       | 12.58                       | V                     |
| LTE B4<br>BW 20MHz<br>Middle<br>1RB49,QPSK   | 3447.18              | -63.55          | -13              | -50.55                  | -78.84                  | -70.30                   | 5.85                       | 12.60                       | H                     |
|                                              | 5170.77              | -59.30          | -13              | -46.30                  | -81.06                  | -65.10                   | 7.30                       | 13.10                       | H                     |
|                                              | 6894.36              | -56.87          | -13              | -43.87                  | -80.66                  | -60.02                   | 8.35                       | 11.50                       | H                     |
|                                              | 3447.18              | -64.00          | -13              | -51.00                  | -78.8                   | -70.75                   | 5.85                       | 12.60                       | V                     |
|                                              | 5170.77              | -60.10          | -13              | -47.10                  | -80.93                  | -65.90                   | 7.30                       | 13.10                       | V                     |
|                                              | 6894.36              | -57.54          | -13              | -44.54                  | -80.74                  | -60.69                   | 8.35                       | 11.50                       | V                     |
| LTE B13<br>BW 10MHz<br>Middle<br>1RB25,QPSK  | 1555                 | -66.03          | -13              | -53.03                  | -75.17                  | -69.28                   | 4.00                       | 9.40                        | H                     |
|                                              | 2332.5               | -63.66          | -13              | -50.66                  | -77.62                  | -67.23                   | 4.88                       | 10.60                       | H                     |
|                                              | 3110                 | -62.25          | -13              | -49.25                  | -77.60                  | -67.18                   | 5.52                       | 12.60                       | H                     |
|                                              | 1555                 | -65.88          | -13              | -52.88                  | -74.53                  | -69.13                   | 4.00                       | 9.40                        | V                     |
|                                              | 2332.5               | -63.51          | -13              | -50.51                  | -77.23                  | -67.08                   | 4.88                       | 10.60                       | V                     |
|                                              | 3110                 | -62.81          | -13              | -49.81                  | -77.80                  | -67.74                   | 5.52                       | 12.60                       | V                     |
| LTE B4<br>BW 20MHz<br>Highest<br>1RB49,QPSK  | 3472.18              | -62.85          | -13              | -49.85                  | -78.37                  | -69.59                   | 5.88                       | 12.62                       | H                     |
|                                              | 5208.27              | -59.25          | -13              | -46.25                  | -80.64                  | -65.06                   | 7.32                       | 13.13                       | H                     |
|                                              | 6944.36              | -57.66          | -13              | -44.66                  | -81.31                  | -60.82                   | 8.38                       | 11.54                       | H                     |
|                                              | 3472.18              | -63.04          | -13              | -50.04                  | -78.07                  | -69.78                   | 5.88                       | 12.62                       | V                     |
|                                              | 5208.27              | -60.34          | -13              | -47.34                  | -80.66                  | -66.15                   | 7.32                       | 13.13                       | V                     |
|                                              | 6944.36              | -57.93          | -13              | -44.93                  | -81.3                   | -61.09                   | 8.38                       | 11.54                       | V                     |
| LTE B13<br>BW 10MHz<br>Highest<br>1RB25,QPSK | 1555                 | -66.10          | -13              | -53.10                  | -75.24                  | -69.27                   | 4.10                       | 9.42                        | H                     |
|                                              | 2332.5               | -63.18          | -13              | -50.18                  | -77.14                  | -66.76                   | 4.90                       | 10.63                       | H                     |
|                                              | 3110                 | -62.40          | -13              | -49.40                  | -77.75                  | -67.32                   | 5.55                       | 12.62                       | H                     |
|                                              | 1555                 | -66.29          | -13              | -53.29                  | -74.94                  | -69.46                   | 4.10                       | 9.42                        | V                     |
|                                              | 2332.5               | -63.76          | -13              | -50.76                  | -77.48                  | -67.34                   | 4.90                       | 10.63                       | V                     |
|                                              | 3110                 | -61.93          | -13              | -48.93                  | -76.92                  | -66.85                   | 5.55                       | 12.62                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



| ULCA_12A-66A                                 |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                                      | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| LTE B12<br>BW 10MHz<br>Lowest<br>1RB49,QPSK  | 1399                 | -65.47          | -13              | -52.47                  | -75.11                  | -68.70                   | 3.98                       | 9.36                        | H                     |
|                                              | 2098.5               | -61.85          | -13              | -48.85                  | -75.90                  | -65.40                   | 4.85                       | 10.55                       | H                     |
|                                              | 2798                 | -63.27          | -13              | -50.27                  | -77.39                  | -68.20                   | 5.50                       | 12.58                       | H                     |
|                                              | 1399                 | -65.67          | -13              | -52.67                  | -75.00                  | -68.90                   | 3.98                       | 9.36                        | V                     |
|                                              | 2098.5               | -63.76          | -13              | -50.76                  | -77.48                  | -67.31                   | 4.85                       | 10.55                       | V                     |
|                                              | 2798                 | -63.53          | -13              | -50.53                  | -77.32                  | -68.46                   | 5.50                       | 12.58                       | V                     |
| LTE B66<br>BW 20MHz<br>Lowest<br>1RB0,QPSK   | 3422                 | -63.55          | -13              | -50.55                  | -78.39                  | -70.31                   | 5.82                       | 12.58                       | H                     |
|                                              | 5133                 | -59.58          | -13              | -46.58                  | -81.29                  | -65.30                   | 7.28                       | 13.00                       | H                     |
|                                              | 6844                 | -57.46          | -13              | -44.46                  | -81.37                  | -60.62                   | 8.32                       | 11.48                       | H                     |
|                                              | 3422                 | -63.69          | -13              | -50.69                  | -78.03                  | -70.45                   | 5.82                       | 12.58                       | V                     |
|                                              | 5133                 | -60.56          | -13              | -47.56                  | -81.49                  | -66.28                   | 7.28                       | 13.00                       | V                     |
|                                              | 6844                 | -57.99          | -13              | -44.99                  | -81.02                  | -61.15                   | 8.32                       | 11.48                       | V                     |
| LTE B12<br>BW 10MHz<br>Middle<br>1RB49,QPSK  | 1406                 | -65.27          | -13              | -52.27                  | -75.04                  | -68.52                   | 4.00                       | 9.40                        | H                     |
|                                              | 2109                 | -62.82          | -13              | -49.82                  | -76.87                  | -66.39                   | 4.88                       | 10.60                       | H                     |
|                                              | 2812                 | -63.09          | -13              | -50.09                  | -77.26                  | -68.02                   | 5.52                       | 12.60                       | H                     |
|                                              | 1406                 | -65.68          | -13              | -52.68                  | -75.12                  | -68.93                   | 4.00                       | 9.40                        | V                     |
|                                              | 2109                 | -63.71          | -13              | -50.71                  | -77.43                  | -67.28                   | 4.88                       | 10.60                       | V                     |
|                                              | 2812                 | -63.30          | -13              | -50.30                  | -77.14                  | -68.23                   | 5.52                       | 12.60                       | V                     |
| LTE B66<br>BW 20MHz<br>Middle<br>1RB0,QPSK   | 3472                 | -62.80          | -13              | -49.80                  | -78.32                  | -69.55                   | 5.85                       | 12.60                       | H                     |
|                                              | 5208                 | -59.69          | -13              | -46.69                  | -81.08                  | -65.49                   | 7.30                       | 13.10                       | H                     |
|                                              | 6944                 | -58.08          | -13              | -45.08                  | -81.73                  | -61.23                   | 8.35                       | 11.50                       | H                     |
|                                              | 3472                 | -63.21          | -13              | -50.21                  | -78.24                  | -69.96                   | 5.85                       | 12.60                       | V                     |
|                                              | 5208                 | -60.32          | -13              | -47.32                  | -80.64                  | -66.12                   | 7.30                       | 13.10                       | V                     |
|                                              | 6944                 | -58.35          | -13              | -45.35                  | -81.72                  | -61.50                   | 8.35                       | 11.50                       | V                     |
| LTE B12<br>BW 10MHz<br>Highest<br>1RB49,QPSK | 1413                 | -64.84          | -13              | -51.84                  | -74.61                  | -68.01                   | 4.10                       | 9.42                        | H                     |
|                                              | 2119.5               | -60.27          | -13              | -47.27                  | -74.46                  | -63.85                   | 4.90                       | 10.63                       | H                     |
|                                              | 2826                 | -62.69          | -13              | -49.69                  | -76.87                  | -67.61                   | 5.55                       | 12.62                       | H                     |
|                                              | 1413                 | -65.58          | -13              | -52.58                  | -75.02                  | -68.75                   | 4.10                       | 9.42                        | V                     |
|                                              | 2119.5               | -63.67          | -13              | -50.67                  | -77.55                  | -67.25                   | 4.90                       | 10.63                       | V                     |
|                                              | 2826                 | -63.31          | -13              | -50.31                  | -77.16                  | -68.23                   | 5.55                       | 12.62                       | V                     |
| LTE B66<br>BW 20MHz<br>Highest<br>1RB0,QPSK  | 3522                 | -62.31          | -13              | -49.31                  | -78.50                  | -69.05                   | 5.88                       | 12.62                       | H                     |
|                                              | 5283                 | -60.31          | -13              | -47.31                  | -81.07                  | -66.12                   | 7.32                       | 13.13                       | H                     |
|                                              | 7044                 | -57.13          | -13              | -44.13                  | -81.27                  | -60.29                   | 8.38                       | 11.54                       | H                     |
|                                              | 3522                 | -62.74          | -13              | -49.74                  | -78.45                  | -69.48                   | 5.88                       | 12.62                       | V                     |
|                                              | 5283                 | -61.40          | -13              | -48.40                  | -81.1                   | -67.21                   | 7.32                       | 13.13                       | V                     |
|                                              | 7044                 | -57.22          | -13              | -44.22                  | -81.19                  | -60.38                   | 8.38                       | 11.54                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



| ULCA_13A-66A                                 |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                                      | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| LTE B13<br>BW 10MHz<br>Lowest<br>1RB25,QPSK  | 1555                 | -66.16          | -13              | -53.16                  | -75.30                  | -69.39                   | 3.98                       | 9.36                        | H                     |
|                                              | 2332.5               | -62.37          | -13              | -49.37                  | -76.33                  | -65.92                   | 4.85                       | 10.55                       | H                     |
|                                              | 3110                 | -62.38          | -13              | -49.38                  | -77.73                  | -67.31                   | 5.50                       | 12.58                       | H                     |
|                                              | 1555                 | -66.68          | -13              | -53.68                  | -75.33                  | -69.91                   | 3.98                       | 9.36                        | V                     |
|                                              | 2332.5               | -63.47          | -13              | -50.47                  | -77.19                  | -67.02                   | 4.85                       | 10.55                       | V                     |
|                                              | 3110                 | -62.76          | -13              | -49.76                  | -77.75                  | -67.69                   | 5.50                       | 12.58                       | V                     |
| LTE B66<br>BW 20MHz<br>Lowest<br>1RB0,QPSK   | 3422                 | -63.70          | -13              | -50.70                  | -78.54                  | -70.46                   | 5.82                       | 12.58                       | H                     |
|                                              | 5133                 | -58.89          | -13              | -45.89                  | -80.60                  | -64.61                   | 7.28                       | 13.00                       | H                     |
|                                              | 6844                 | -56.86          | -13              | -43.86                  | -80.77                  | -60.02                   | 8.32                       | 11.48                       | H                     |
|                                              | 3422                 | -64.33          | -13              | -51.33                  | -78.67                  | -71.09                   | 5.82                       | 12.58                       | V                     |
|                                              | 5133                 | -59.89          | -13              | -46.89                  | -80.82                  | -65.61                   | 7.28                       | 13.00                       | V                     |
|                                              | 6844                 | -58.02          | -13              | -45.02                  | -81.05                  | -61.18                   | 8.32                       | 11.48                       | V                     |
| LTE B13<br>BW 10MHz<br>Middle<br>1RB25,QPSK  | 1555                 | -65.98          | -13              | -52.98                  | -75.12                  | -69.23                   | 4.00                       | 9.40                        | H                     |
|                                              | 2332.5               | -62.19          | -13              | -49.19                  | -76.15                  | -65.76                   | 4.88                       | 10.60                       | H                     |
|                                              | 3110                 | -62.48          | -13              | -49.48                  | -77.83                  | -67.41                   | 5.52                       | 12.60                       | H                     |
|                                              | 1555                 | -66.58          | -13              | -53.58                  | -75.23                  | -69.83                   | 4.00                       | 9.40                        | V                     |
|                                              | 2332.5               | -63.40          | -13              | -50.40                  | -77.12                  | -66.97                   | 4.88                       | 10.60                       | V                     |
|                                              | 3110                 | -62.75          | -13              | -49.75                  | -77.74                  | -67.68                   | 5.52                       | 12.60                       | V                     |
| LTE B66<br>BW 20MHz<br>Middle<br>1RB0,QPSK   | 3472                 | -63.23          | -13              | -50.23                  | -78.75                  | -69.98                   | 5.85                       | 12.60                       | H                     |
|                                              | 5208                 | -59.26          | -13              | -46.26                  | -80.65                  | -65.06                   | 7.30                       | 13.10                       | H                     |
|                                              | 6944                 | -57.77          | -13              | -44.77                  | -81.42                  | -60.92                   | 8.35                       | 11.50                       | H                     |
|                                              | 3472                 | -63.89          | -13              | -50.89                  | -78.92                  | -70.64                   | 5.85                       | 12.60                       | V                     |
|                                              | 5208                 | -60.11          | -13              | -47.11                  | -80.43                  | -65.91                   | 7.30                       | 13.10                       | V                     |
|                                              | 6944                 | -58.13          | -13              | -45.13                  | -81.5                   | -61.28                   | 8.35                       | 11.50                       | V                     |
| LTE B13<br>BW 10MHz<br>Highest<br>1RB25,QPSK | 1555                 | -66.31          | -13              | -53.31                  | -75.45                  | -69.48                   | 4.10                       | 9.42                        | H                     |
|                                              | 2332.5               | -62.46          | -13              | -49.46                  | -76.42                  | -66.04                   | 4.90                       | 10.63                       | H                     |
|                                              | 3110                 | -62.43          | -13              | -49.43                  | -77.78                  | -67.35                   | 5.55                       | 12.62                       | H                     |
|                                              | 1555                 | -66.36          | -13              | -53.36                  | -75.01                  | -69.53                   | 4.10                       | 9.42                        | V                     |
|                                              | 2332.5               | -63.82          | -13              | -50.82                  | -77.54                  | -67.40                   | 4.90                       | 10.63                       | V                     |
|                                              | 3110                 | -62.79          | -13              | -49.79                  | -77.78                  | -67.71                   | 5.55                       | 12.62                       | V                     |
| LTE B66<br>BW 20MHz<br>Highest<br>1RB0,QPSK  | 3522                 | -62.60          | -13              | -49.60                  | -78.79                  | -69.34                   | 5.88                       | 12.62                       | H                     |
|                                              | 5283                 | -60.08          | -13              | -47.08                  | -80.84                  | -65.89                   | 7.32                       | 13.13                       | H                     |
|                                              | 7044                 | -57.03          | -13              | -44.03                  | -81.17                  | -60.19                   | 8.38                       | 11.54                       | H                     |
|                                              | 3522                 | -62.73          | -13              | -49.73                  | -78.44                  | -69.47                   | 5.88                       | 12.62                       | V                     |
|                                              | 5283                 | -61.25          | -13              | -48.25                  | -80.95                  | -67.06                   | 7.32                       | 13.13                       | V                     |
|                                              | 7044                 | -56.21          | -13              | -43.21                  | -80.18                  | -59.37                   | 8.38                       | 11.54                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



## Bottom Antenna

| ULCA_2A-12A                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                                      | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| LTE B2<br>BW 20MHz<br>Lowest<br>1RB0,QPSK    | 3702.18              | -61.31          | -13              | -48.31                  | -78.98                  | -68.07                   | 5.82                       | 12.58                       | H                     |
|                                              | 5553.27              | -59.37          | -13              | -46.37                  | -80.91                  | -65.09                   | 7.28                       | 13.00                       | H                     |
|                                              | 7404.36              | -55.05          | -13              | -42.05                  | -81.21                  | -58.21                   | 8.32                       | 11.48                       | H                     |
|                                              | 3702.18              | -62.12          | -13              | -49.12                  | -79.12                  | -68.88                   | 5.82                       | 12.58                       | V                     |
|                                              | 5553.27              | -59.97          | -13              | -46.97                  | -80.75                  | -65.69                   | 7.28                       | 13.00                       | V                     |
|                                              | 7404.36              | -55.69          | -13              | -42.69                  | -81.14                  | -58.85                   | 8.32                       | 11.48                       | V                     |
| LTE B12<br>BW 10MHz<br>Lowest<br>1RB49,QPSK  | 1399                 | -64.39          | -13              | -51.39                  | -74.03                  | -67.62                   | 3.98                       | 9.36                        | H                     |
|                                              | 2098.5               | -62.29          | -13              | -49.29                  | -76.34                  | -65.84                   | 4.85                       | 10.55                       | H                     |
|                                              | 2798                 | -62.61          | -13              | -49.61                  | -76.73                  | -67.54                   | 5.50                       | 12.58                       | H                     |
|                                              | 1399                 | -64.86          | -13              | -51.86                  | -74.19                  | -68.09                   | 3.98                       | 9.36                        | V                     |
|                                              | 2098.5               | -62.79          | -13              | -49.79                  | -76.51                  | -66.34                   | 4.85                       | 10.55                       | V                     |
|                                              | 2798                 | -62.99          | -13              | -49.99                  | -76.78                  | -67.92                   | 5.50                       | 12.58                       | V                     |
| LTE B2<br>BW 20MHz<br>Middle<br>1RB0,QPSK    | 3742.18              | -64.55          | -13              | -51.55                  | -78.42                  | -71.30                   | 5.85                       | 12.60                       | H                     |
|                                              | 5613.27              | -62.02          | -13              | -49.02                  | -80.82                  | -67.82                   | 7.30                       | 13.10                       | H                     |
|                                              | 7484.36              | -62.32          | -13              | -49.32                  | -81.65                  | -65.47                   | 8.35                       | 11.50                       | H                     |
|                                              | 3742.18              | -64.64          | -13              | -51.64                  | -78.8                   | -71.39                   | 5.85                       | 12.60                       | V                     |
|                                              | 5613.27              | -62.25          | -13              | -49.25                  | -80.96                  | -68.05                   | 7.30                       | 13.10                       | V                     |
|                                              | 7484.36              | -62.78          | -13              | -49.78                  | -81.16                  | -65.93                   | 8.35                       | 11.50                       | V                     |
| LTE B12<br>BW 10MHz<br>Middle<br>1RB49,QPSK  | 1406                 | -60.63          | -13              | -47.63                  | -74.32                  | -63.88                   | 4.00                       | 9.40                        | H                     |
|                                              | 2109                 | -59.30          | -13              | -46.30                  | -76.07                  | -62.87                   | 4.88                       | 10.60                       | H                     |
|                                              | 2812                 | -55.99          | -13              | -42.99                  | -76.49                  | -60.92                   | 5.52                       | 12.60                       | H                     |
|                                              | 1406                 | -61.74          | -13              | -48.74                  | -74.08                  | -64.99                   | 4.00                       | 9.40                        | V                     |
|                                              | 2109                 | -60.09          | -13              | -47.09                  | -75.97                  | -63.66                   | 4.88                       | 10.60                       | V                     |
|                                              | 2812                 | -56.14          | -13              | -43.14                  | -76.62                  | -61.07                   | 5.52                       | 12.60                       | V                     |
| LTE B2<br>BW 20MHz<br>Highest<br>1RB0,QPSK   | 3782.18              | -60.53          | -13              | -47.53                  | -78.49                  | -67.27                   | 5.88                       | 12.62                       | H                     |
|                                              | 5673.27              | -59.11          | -13              | -46.11                  | -80.73                  | -64.92                   | 7.32                       | 13.13                       | H                     |
|                                              | 7564.36              | -56.17          | -13              | -43.17                  | -81.22                  | -59.33                   | 8.38                       | 11.54                       | H                     |
|                                              | 3782.18              | -61.94          | -13              | -48.94                  | -79.07                  | -68.68                   | 5.88                       | 12.62                       | V                     |
|                                              | 5673.27              | -60.05          | -13              | -47.05                  | -80.66                  | -65.86                   | 7.32                       | 13.13                       | V                     |
|                                              | 7564.36              | -56.40          | -13              | -43.40                  | -80.91                  | -59.56                   | 8.38                       | 11.54                       | V                     |
| LTE B12<br>BW 10MHz<br>Highest<br>1RB49,QPSK | 1413                 | -64.76          | -13              | -51.76                  | -74.53                  | -67.93                   | 4.10                       | 9.42                        | H                     |
|                                              | 2119.5               | -61.87          | -13              | -48.87                  | -76.06                  | -65.45                   | 4.90                       | 10.63                       | H                     |
|                                              | 2826                 | -62.57          | -13              | -49.57                  | -76.75                  | -67.49                   | 5.55                       | 12.62                       | H                     |
|                                              | 1413                 | -64.83          | -13              | -51.83                  | -74.27                  | -68.00                   | 4.10                       | 9.42                        | V                     |
|                                              | 2119.5               | -62.64          | -13              | -49.64                  | -76.52                  | -66.22                   | 4.90                       | 10.63                       | V                     |
|                                              | 2826                 | -63.14          | -13              | -50.14                  | -76.99                  | -68.06                   | 5.55                       | 12.62                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



| ULCA_2A-13A                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                                      | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| LTE B2<br>BW 20MHz<br>Lowest<br>1RB0,QPSK    | 3702.18              | -61.06          | -13              | -48.06                  | -78.73                  | -67.82                   | 5.82                       | 12.58                       | H                     |
|                                              | 5553.27              | -59.15          | -13              | -46.15                  | -80.69                  | -64.87                   | 7.28                       | 13.00                       | H                     |
|                                              | 7404.36              | -55.17          | -13              | -42.17                  | -81.33                  | -58.33                   | 8.32                       | 11.48                       | H                     |
|                                              | 3702.18              | -62.04          | -13              | -49.04                  | -79.04                  | -68.80                   | 5.82                       | 12.58                       | V                     |
|                                              | 5553.27              | -60.20          | -13              | -47.20                  | -80.98                  | -65.92                   | 7.28                       | 13.00                       | V                     |
|                                              | 7404.36              | -55.30          | -13              | -42.30                  | -80.75                  | -58.46                   | 8.32                       | 11.48                       | V                     |
| LTE B13<br>BW 10MHz<br>Lowest<br>1RB25,QPSK  | 1555                 | -65.89          | -13              | -52.89                  | -75.03                  | -69.12                   | 3.98                       | 9.36                        | H                     |
|                                              | 2332.5               | -62.98          | -13              | -49.98                  | -76.94                  | -66.53                   | 4.85                       | 10.55                       | H                     |
|                                              | 3110                 | -62.09          | -13              | -49.09                  | -77.44                  | -67.02                   | 5.50                       | 12.58                       | H                     |
|                                              | 1555                 | -66.20          | -13              | -53.20                  | -74.85                  | -69.43                   | 3.98                       | 9.36                        | V                     |
|                                              | 2332.5               | -63.16          | -13              | -50.16                  | -76.88                  | -66.71                   | 4.85                       | 10.55                       | V                     |
|                                              | 3110                 | -62.46          | -13              | -49.46                  | -77.45                  | -67.39                   | 5.50                       | 12.58                       | V                     |
| LTE B2<br>BW 20MHz<br>Middle<br>1RB0,QPSK    | 3742.18              | -61.17          | -13              | -48.17                  | -78.96                  | -67.92                   | 5.85                       | 12.60                       | H                     |
|                                              | 5613.27              | -58.94          | -13              | -45.94                  | -80.46                  | -64.74                   | 7.30                       | 13.10                       | H                     |
|                                              | 7484.36              | -55.90          | -13              | -42.90                  | -81.56                  | -59.05                   | 8.35                       | 11.50                       | H                     |
|                                              | 3742.18              | -61.95          | -13              | -48.95                  | -79.01                  | -68.70                   | 5.85                       | 12.60                       | V                     |
|                                              | 5613.27              | -59.78          | -13              | -46.78                  | -80.65                  | -65.58                   | 7.30                       | 13.10                       | V                     |
|                                              | 7484.36              | -56.49          | -13              | -43.49                  | -81.51                  | -59.64                   | 8.35                       | 11.50                       | V                     |
| LTE B13<br>BW 10MHz<br>Middle<br>1RB25,QPSK  | 1555                 | -65.55          | -13              | -52.55                  | -74.69                  | -68.80                   | 4.00                       | 9.40                        | H                     |
|                                              | 2332.5               | -62.91          | -13              | -49.91                  | -76.87                  | -66.48                   | 4.88                       | 10.60                       | H                     |
|                                              | 3110                 | -61.62          | -13              | -48.62                  | -76.97                  | -66.55                   | 5.52                       | 12.60                       | H                     |
|                                              | 1555                 | -66.39          | -13              | -53.39                  | -75.04                  | -69.64                   | 4.00                       | 9.40                        | V                     |
|                                              | 2332.5               | -63.04          | -13              | -50.04                  | -76.76                  | -66.61                   | 4.88                       | 10.60                       | V                     |
|                                              | 3110                 | -62.01          | -13              | -49.01                  | -77.00                  | -66.94                   | 5.52                       | 12.60                       | V                     |
| LTE B2<br>BW 20MHz<br>Highest<br>1RB0,QPSK   | 3782.18              | -60.98          | -13              | -47.98                  | -78.94                  | -67.72                   | 5.88                       | 12.62                       | H                     |
|                                              | 5673.27              | -59.05          | -13              | -46.05                  | -80.67                  | -64.86                   | 7.32                       | 13.13                       | H                     |
|                                              | 7564.36              | -56.04          | -13              | -43.04                  | -81.09                  | -59.20                   | 8.38                       | 11.54                       | H                     |
|                                              | 3782.18              | -61.97          | -13              | -48.97                  | -79.1                   | -68.71                   | 5.88                       | 12.62                       | V                     |
|                                              | 5673.27              | -60.24          | -13              | -47.24                  | -80.85                  | -66.05                   | 7.32                       | 13.13                       | V                     |
|                                              | 7564.36              | -56.67          | -13              | -43.67                  | -81.18                  | -59.83                   | 8.38                       | 11.54                       | V                     |
| LTE B13<br>BW 10MHz<br>Highest<br>1RB25,QPSK | 1555                 | -66.11          | -13              | -53.11                  | -75.25                  | -69.28                   | 4.10                       | 9.42                        | H                     |
|                                              | 2332.5               | -62.93          | -13              | -49.93                  | -76.89                  | -66.51                   | 4.90                       | 10.63                       | H                     |
|                                              | 3110                 | -61.96          | -13              | -48.96                  | -77.31                  | -66.88                   | 5.55                       | 12.62                       | H                     |
|                                              | 1555                 | -66.41          | -13              | -53.41                  | -75.06                  | -69.58                   | 4.10                       | 9.42                        | V                     |
|                                              | 2332.5               | -63.42          | -13              | -50.42                  | -77.14                  | -67.00                   | 4.90                       | 10.63                       | V                     |
|                                              | 3110                 | -62.32          | -13              | -49.32                  | -77.31                  | -67.24                   | 5.55                       | 12.62                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



| ULCA_4A-12A                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                                      | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| LTE B4<br>BW 20MHz<br>Lowest<br>1RB49,QPSK   | 3422.18              | -63.31          | -13              | -50.31                  | -78.15                  | -70.07                   | 5.82                       | 12.58                       | H                     |
|                                              | 5133.27              | -59.11          | -13              | -46.11                  | -80.82                  | -64.83                   | 7.28                       | 13.00                       | H                     |
|                                              | 6844.36              | -56.93          | -13              | -43.93                  | -80.84                  | -60.09                   | 8.32                       | 11.48                       | H                     |
|                                              | 3422.18              | -64.00          | -13              | -51.00                  | -78.34                  | -70.76                   | 5.82                       | 12.58                       | V                     |
|                                              | 5133.27              | -60.03          | -13              | -47.03                  | -80.96                  | -65.75                   | 7.28                       | 13.00                       | V                     |
|                                              | 6844.36              | -57.71          | -13              | -44.71                  | -80.74                  | -60.87                   | 8.32                       | 11.48                       | V                     |
| LTE B12<br>BW 10MHz<br>Lowest<br>1RB49,QPSK  | 1399                 | -65.08          | -13              | -52.08                  | -74.72                  | -68.31                   | 3.98                       | 9.36                        | H                     |
|                                              | 2098.5               | -62.65          | -13              | -49.65                  | -76.70                  | -66.20                   | 4.85                       | 10.55                       | H                     |
|                                              | 2798                 | -62.56          | -13              | -49.56                  | -76.68                  | -67.49                   | 5.50                       | 12.58                       | H                     |
|                                              | 1399                 | -65.02          | -13              | -52.02                  | -74.35                  | -68.25                   | 3.98                       | 9.36                        | V                     |
|                                              | 2098.5               | -63.37          | -13              | -50.37                  | -77.09                  | -66.92                   | 4.85                       | 10.55                       | V                     |
|                                              | 2798                 | -63.06          | -13              | -50.06                  | -76.85                  | -67.99                   | 5.50                       | 12.58                       | V                     |
| LTE B4<br>BW 20MHz<br>Middle<br>1RB49,QPSK   | 3447.18              | -63.69          | -13              | -50.69                  | -78.98                  | -70.44                   | 5.85                       | 12.60                       | H                     |
|                                              | 5170.77              | -59.24          | -13              | -46.24                  | -81.00                  | -65.04                   | 7.30                       | 13.10                       | H                     |
|                                              | 6894.36              | -57.12          | -13              | -44.12                  | -80.91                  | -60.27                   | 8.35                       | 11.50                       | H                     |
|                                              | 3447.18              | -64.13          | -13              | -51.13                  | -78.93                  | -70.88                   | 5.85                       | 12.60                       | V                     |
|                                              | 5170.77              | -60.07          | -13              | -47.07                  | -80.9                   | -65.87                   | 7.30                       | 13.10                       | V                     |
|                                              | 6894.36              | -57.70          | -13              | -44.70                  | -80.9                   | -60.85                   | 8.35                       | 11.50                       | V                     |
| LTE B12<br>BW 10MHz<br>Middle<br>1RB49,QPSK  | 1406                 | -65.26          | -13              | -52.26                  | -75.03                  | -68.51                   | 4.00                       | 9.40                        | H                     |
|                                              | 2109                 | -60.53          | -13              | -47.53                  | -74.58                  | -64.10                   | 4.88                       | 10.60                       | H                     |
|                                              | 2812                 | -62.84          | -13              | -49.84                  | -77.01                  | -67.77                   | 5.52                       | 12.60                       | H                     |
|                                              | 1406                 | -65.39          | -13              | -52.39                  | -74.83                  | -68.64                   | 4.00                       | 9.40                        | V                     |
|                                              | 2109                 | -63.18          | -13              | -50.18                  | -76.90                  | -66.75                   | 4.88                       | 10.60                       | V                     |
|                                              | 2812                 | -63.27          | -13              | -50.27                  | -77.11                  | -68.20                   | 5.52                       | 12.60                       | V                     |
| LTE B4<br>BW 20MHz<br>Highest<br>1RB49,QPSK  | 3472.18              | -62.78          | -13              | -49.78                  | -78.30                  | -69.52                   | 5.88                       | 12.62                       | H                     |
|                                              | 5208.27              | -59.39          | -13              | -46.39                  | -80.78                  | -65.20                   | 7.32                       | 13.13                       | H                     |
|                                              | 6944.36              | -57.24          | -13              | -44.24                  | -80.89                  | -60.40                   | 8.38                       | 11.54                       | H                     |
|                                              | 3472.18              | -63.39          | -13              | -50.39                  | -78.42                  | -70.13                   | 5.88                       | 12.62                       | V                     |
|                                              | 5208.27              | -60.54          | -13              | -47.54                  | -80.86                  | -66.35                   | 7.32                       | 13.13                       | V                     |
|                                              | 6944.36              | -58.04          | -13              | -45.04                  | -81.41                  | -61.20                   | 8.38                       | 11.54                       | V                     |
| LTE B12<br>BW 10MHz<br>Highest<br>1RB49,QPSK | 1413                 | -65.19          | -13              | -52.19                  | -74.96                  | -68.36                   | 4.10                       | 9.42                        | H                     |
|                                              | 2119.5               | -59.68          | -13              | -46.68                  | -73.87                  | -63.26                   | 4.90                       | 10.63                       | H                     |
|                                              | 2826                 | -62.91          | -13              | -49.91                  | -77.09                  | -67.83                   | 5.55                       | 12.62                       | H                     |
|                                              | 1413                 | -65.55          | -13              | -52.55                  | -74.99                  | -68.72                   | 4.10                       | 9.42                        | V                     |
|                                              | 2119.5               | -63.08          | -13              | -50.08                  | -76.96                  | -66.66                   | 4.90                       | 10.63                       | V                     |
|                                              | 2826                 | -63.20          | -13              | -50.20                  | -77.05                  | -68.12                   | 5.55                       | 12.62                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



| ULCA_4A-13A                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                                      | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| LTE B4<br>BW 20MHz<br>Lowest<br>1RB49,QPSK   | 3422.18              | -63.61          | -13              | -50.61                  | -78.45                  | -70.37                   | 5.82                       | 12.58                       | H                     |
|                                              | 5133.27              | -59.65          | -13              | -46.65                  | -81.36                  | -65.37                   | 7.28                       | 13.00                       | H                     |
|                                              | 6844.36              | -57.00          | -13              | -44.00                  | -80.91                  | -60.16                   | 8.32                       | 11.48                       | H                     |
|                                              | 3422.18              | -64.06          | -13              | -51.06                  | -78.4                   | -70.82                   | 5.82                       | 12.58                       | V                     |
|                                              | 5133.27              | -60.39          | -13              | -47.39                  | -81.32                  | -66.11                   | 7.28                       | 13.00                       | V                     |
|                                              | 6844.36              | -57.73          | -13              | -44.73                  | -80.76                  | -60.89                   | 8.32                       | 11.48                       | V                     |
| LTE B13<br>BW 10MHz<br>Lowest<br>1RB25,QPSK  | 1555                 | -66.27          | -13              | -53.27                  | -75.41                  | -69.50                   | 3.98                       | 9.36                        | H                     |
|                                              | 2332.5               | -63.66          | -13              | -50.66                  | -77.62                  | -67.21                   | 4.85                       | 10.55                       | H                     |
|                                              | 3110                 | -62.68          | -13              | -49.68                  | -78.03                  | -67.61                   | 5.50                       | 12.58                       | H                     |
|                                              | 1555                 | -66.69          | -13              | -53.69                  | -75.34                  | -69.92                   | 3.98                       | 9.36                        | V                     |
|                                              | 2332.5               | -64.01          | -13              | -51.01                  | -77.73                  | -67.56                   | 4.85                       | 10.55                       | V                     |
|                                              | 3110                 | -62.93          | -13              | -49.93                  | -77.92                  | -67.86                   | 5.50                       | 12.58                       | V                     |
| LTE B4<br>BW 20MHz<br>Middle<br>1RB49,QPSK   | 3447.18              | -63.53          | -13              | -50.53                  | -78.82                  | -70.28                   | 5.85                       | 12.60                       | H                     |
|                                              | 5170.77              | -59.13          | -13              | -46.13                  | -80.89                  | -64.93                   | 7.30                       | 13.10                       | H                     |
|                                              | 6894.36              | -57.28          | -13              | -44.28                  | -81.07                  | -60.43                   | 8.35                       | 11.50                       | H                     |
|                                              | 3447.18              | -64.00          | -13              | -51.00                  | -78.8                   | -70.75                   | 5.85                       | 12.60                       | V                     |
|                                              | 5170.77              | -60.09          | -13              | -47.09                  | -80.92                  | -65.89                   | 7.30                       | 13.10                       | V                     |
|                                              | 6894.36              | -57.86          | -13              | -44.86                  | -81.06                  | -61.01                   | 8.35                       | 11.50                       | V                     |
| LTE B13<br>BW 10MHz<br>Middle<br>1RB25,QPSK  | 1555                 | -66.10          | -13              | -53.10                  | -75.24                  | -69.35                   | 4.00                       | 9.40                        | H                     |
|                                              | 2332.5               | -63.51          | -13              | -50.51                  | -77.47                  | -67.08                   | 4.88                       | 10.60                       | H                     |
|                                              | 3110                 | -62.46          | -13              | -49.46                  | -77.81                  | -67.39                   | 5.52                       | 12.60                       | H                     |
|                                              | 1555                 | -66.47          | -13              | -53.47                  | -75.12                  | -69.72                   | 4.00                       | 9.40                        | V                     |
|                                              | 2332.5               | -63.69          | -13              | -50.69                  | -77.41                  | -67.26                   | 4.88                       | 10.60                       | V                     |
|                                              | 3110                 | -63.06          | -13              | -50.06                  | -78.05                  | -67.99                   | 5.52                       | 12.60                       | V                     |
| LTE B4<br>BW 20MHz<br>Highest<br>1RB49,QPSK  | 3472.18              | -63.21          | -13              | -50.21                  | -78.73                  | -69.95                   | 5.88                       | 12.62                       | H                     |
|                                              | 5208.27              | -59.63          | -13              | -46.63                  | -81.02                  | -65.44                   | 7.32                       | 13.13                       | H                     |
|                                              | 6944.36              | -58.29          | -13              | -45.29                  | -81.94                  | -61.45                   | 8.38                       | 11.54                       | H                     |
|                                              | 3472.18              | -63.76          | -13              | -50.76                  | -78.79                  | -70.50                   | 5.88                       | 12.62                       | V                     |
|                                              | 5208.27              | -60.90          | -13              | -47.90                  | -81.22                  | -66.71                   | 7.32                       | 13.13                       | V                     |
|                                              | 6944.36              | -58.34          | -13              | -45.34                  | -81.71                  | -61.50                   | 8.38                       | 11.54                       | V                     |
| LTE B13<br>BW 10MHz<br>Highest<br>1RB25,QPSK | 1555                 | -65.79          | -13              | -52.79                  | -74.93                  | -68.96                   | 4.10                       | 9.42                        | H                     |
|                                              | 2332.5               | -55.25          | -13              | -42.25                  | -69.21                  | -58.83                   | 4.90                       | 10.63                       | H                     |
|                                              | 3110                 | -62.48          | -13              | -49.48                  | -77.83                  | -67.40                   | 5.55                       | 12.62                       | H                     |
|                                              | 1555                 | -65.81          | -13              | -52.81                  | -74.46                  | -68.98                   | 4.10                       | 9.42                        | V                     |
|                                              | 2332.5               | -58.29          | -13              | -45.29                  | -72.01                  | -61.87                   | 4.90                       | 10.63                       | V                     |
|                                              | 3110                 | -62.80          | -13              | -49.80                  | -77.79                  | -67.72                   | 5.55                       | 12.62                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



| ULCA_12A-66A                                 |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                                      | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| LTE B12<br>BW 10MHz<br>Lowest<br>1RB49,QPSK  | 1399                 | -64.68          | -13              | -51.68                  | -74.32                  | -67.91                   | 3.98                       | 9.36                        | H                     |
|                                              | 2098.5               | -55.68          | -13              | -42.68                  | -69.73                  | -59.23                   | 4.85                       | 10.55                       | H                     |
|                                              | 2798                 | -62.85          | -13              | -49.85                  | -76.97                  | -67.78                   | 5.50                       | 12.58                       | H                     |
|                                              | 1399                 | -65.42          | -13              | -52.42                  | -74.75                  | -68.65                   | 3.98                       | 9.36                        | V                     |
|                                              | 2098.5               | -58.96          | -13              | -45.96                  | -72.68                  | -62.51                   | 4.85                       | 10.55                       | V                     |
|                                              | 2798                 | -63.05          | -13              | -50.05                  | -76.84                  | -67.98                   | 5.50                       | 12.58                       | V                     |
| LTE B66<br>BW 20MHz<br>Lowest<br>1RB0,QPSK   | 3422                 | -63.67          | -13              | -50.67                  | -78.51                  | -70.43                   | 5.82                       | 12.58                       | H                     |
|                                              | 5133                 | -59.53          | -13              | -46.53                  | -81.24                  | -65.25                   | 7.28                       | 13.00                       | H                     |
|                                              | 6844                 | -57.31          | -13              | -44.31                  | -81.22                  | -60.47                   | 8.32                       | 11.48                       | H                     |
|                                              | 3422                 | -64.31          | -13              | -51.31                  | -78.65                  | -71.07                   | 5.82                       | 12.58                       | V                     |
|                                              | 5133                 | -60.80          | -13              | -47.80                  | -81.73                  | -66.52                   | 7.28                       | 13.00                       | V                     |
|                                              | 6844                 | -58.07          | -13              | -45.07                  | -81.1                   | -61.23                   | 8.32                       | 11.48                       | V                     |
| LTE B12<br>BW 10MHz<br>Middle<br>1RB49,QPSK  | 1406                 | -64.44          | -13              | -51.44                  | -74.21                  | -67.69                   | 4.00                       | 9.40                        | H                     |
|                                              | 2109                 | -53.92          | -13              | -40.92                  | -67.97                  | -57.49                   | 4.88                       | 10.60                       | H                     |
|                                              | 2812                 | -63.06          | -13              | -50.06                  | -77.23                  | -67.99                   | 5.52                       | 12.60                       | H                     |
|                                              | 1406                 | -64.95          | -13              | -51.95                  | -74.39                  | -68.20                   | 4.00                       | 9.40                        | V                     |
|                                              | 2109                 | -59.31          | -13              | -46.31                  | -73.03                  | -62.88                   | 4.88                       | 10.60                       | V                     |
|                                              | 2812                 | -63.31          | -13              | -50.31                  | -77.15                  | -68.24                   | 5.52                       | 12.60                       | V                     |
| LTE B66<br>BW 20MHz<br>Middle'<br>1RB0,QPSK  | 3472                 | -63.14          | -13              | -50.14                  | -78.66                  | -69.89                   | 5.85                       | 12.60                       | H                     |
|                                              | 5208                 | -59.56          | -13              | -46.56                  | -80.95                  | -65.36                   | 7.30                       | 13.10                       | H                     |
|                                              | 6944                 | -57.68          | -13              | -44.68                  | -81.33                  | -60.83                   | 8.35                       | 11.50                       | H                     |
|                                              | 3472                 | -63.43          | -13              | -50.43                  | -78.46                  | -70.18                   | 5.85                       | 12.60                       | V                     |
|                                              | 5208                 | -60.62          | -13              | -47.62                  | -80.94                  | -66.42                   | 7.30                       | 13.10                       | V                     |
|                                              | 6944                 | -58.08          | -13              | -45.08                  | -81.45                  | -61.23                   | 8.35                       | 11.50                       | V                     |
| LTE B12<br>BW 10MHz<br>Highest<br>1RB49,QPSK | 1413                 | -65.12          | -13              | -52.12                  | -74.89                  | -68.29                   | 4.10                       | 9.42                        | H                     |
|                                              | 2119.5               | -54.61          | -13              | -41.61                  | -68.80                  | -58.19                   | 4.90                       | 10.63                       | H                     |
|                                              | 2826                 | -63.05          | -13              | -50.05                  | -77.23                  | -67.97                   | 5.55                       | 12.62                       | H                     |
|                                              | 1413                 | -65.53          | -13              | -52.53                  | -74.97                  | -68.70                   | 4.10                       | 9.42                        | V                     |
|                                              | 2119.5               | -58.72          | -13              | -45.72                  | -72.60                  | -62.30                   | 4.90                       | 10.63                       | V                     |
|                                              | 2826                 | -63.49          | -13              | -50.49                  | -77.34                  | -68.41                   | 5.55                       | 12.62                       | V                     |
| LTE B66<br>BW 20MHz<br>Highest<br>1RB0,QPSK  | 3522                 | -62.28          | -13              | -49.28                  | -78.47                  | -69.02                   | 5.88                       | 12.62                       | H                     |
|                                              | 5283                 | -60.42          | -13              | -47.42                  | -81.18                  | -66.23                   | 7.32                       | 13.13                       | H                     |
|                                              | 7044                 | -56.81          | -13              | -43.81                  | -80.95                  | -59.97                   | 8.38                       | 11.54                       | H                     |
|                                              | 3522                 | -62.78          | -13              | -49.78                  | -78.49                  | -69.52                   | 5.88                       | 12.62                       | V                     |
|                                              | 5283                 | -61.35          | -13              | -48.35                  | -81.05                  | -67.16                   | 7.32                       | 13.13                       | V                     |
|                                              | 7044                 | -57.42          | -13              | -44.42                  | -81.39                  | -60.58                   | 8.38                       | 11.54                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



| ULCA_13A-66A                                 |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                                      | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| LTE B13<br>BW 10MHz<br>Lowest<br>1RB25,QPSK  | 1555                 | -66.28          | -13              | -53.28                  | -75.42                  | -69.51                   | 3.98                       | 9.36                        | H                     |
|                                              | 2332.5               | -52.93          | -13              | -39.93                  | -66.89                  | -56.48                   | 4.85                       | 10.55                       | H                     |
|                                              | 3110                 | -62.66          | -13              | -49.66                  | -78.01                  | -67.59                   | 5.50                       | 12.58                       | H                     |
|                                              | 1555                 | -66.62          | -13              | -53.62                  | -75.27                  | -69.85                   | 3.98                       | 9.36                        | V                     |
|                                              | 2332.5               | -55.19          | -13              | -42.19                  | -68.91                  | -58.74                   | 4.85                       | 10.55                       | V                     |
|                                              | 3110                 | -63.03          | -13              | -50.03                  | -78.02                  | -67.96                   | 5.50                       | 12.58                       | V                     |
| LTE B66<br>BW 20MHz<br>Lowest<br>1RB0,QPSK   | 3422                 | -63.60          | -13              | -50.60                  | -78.44                  | -70.36                   | 5.82                       | 12.58                       | H                     |
|                                              | 5133                 | -59.26          | -13              | -46.26                  | -80.97                  | -64.98                   | 7.28                       | 13.00                       | H                     |
|                                              | 6844                 | -57.28          | -13              | -44.28                  | -81.19                  | -60.44                   | 8.32                       | 11.48                       | H                     |
|                                              | 3422                 | -64.36          | -13              | -51.36                  | -78.7                   | -71.12                   | 5.82                       | 12.58                       | V                     |
|                                              | 5133                 | -60.71          | -13              | -47.71                  | -81.64                  | -66.43                   | 7.28                       | 13.00                       | V                     |
|                                              | 6844                 | -57.86          | -13              | -44.86                  | -80.89                  | -61.02                   | 8.32                       | 11.48                       | V                     |
| LTE B13<br>BW 10MHz<br>Middle<br>1RB25,QPSK  | 1555                 | -66.45          | -13              | -53.45                  | -75.59                  | -69.70                   | 4.00                       | 9.40                        | H                     |
|                                              | 2332.5               | -52.41          | -13              | -39.41                  | -66.37                  | -55.98                   | 4.88                       | 10.60                       | H                     |
|                                              | 3110                 | -62.51          | -13              | -49.51                  | -77.86                  | -67.44                   | 5.52                       | 12.60                       | H                     |
|                                              | 1555                 | -67.06          | -13              | -54.06                  | -75.71                  | -70.31                   | 4.00                       | 9.40                        | V                     |
|                                              | 2332.5               | -55.38          | -13              | -42.38                  | -69.10                  | -58.95                   | 4.88                       | 10.60                       | V                     |
|                                              | 3110                 | -62.99          | -13              | -49.99                  | -77.98                  | -67.92                   | 5.52                       | 12.60                       | V                     |
| LTE B66<br>BW 20MHz<br>Middle<br>1RB0,QPSK   | 3422                 | -63.94          | -13              | -50.94                  | -78.78                  | -70.69                   | 5.85                       | 12.60                       | H                     |
|                                              | 5133                 | -59.28          | -13              | -46.28                  | -80.99                  | -65.08                   | 7.30                       | 13.10                       | H                     |
|                                              | 6844                 | -57.06          | -13              | -44.06                  | -80.97                  | -60.21                   | 8.35                       | 11.50                       | H                     |
|                                              | 3422                 | -64.44          | -13              | -51.44                  | -78.78                  | -71.19                   | 5.85                       | 12.60                       | V                     |
|                                              | 5133                 | -59.72          | -13              | -46.72                  | -80.65                  | -65.52                   | 7.30                       | 13.10                       | V                     |
|                                              | 6844                 | -57.73          | -13              | -44.73                  | -80.76                  | -60.88                   | 8.35                       | 11.50                       | V                     |
| LTE B13<br>BW 10MHz<br>Highest<br>1RB25,QPSK | 1555                 | -66.18          | -13              | -53.18                  | -75.32                  | -69.35                   | 4.10                       | 9.42                        | H                     |
|                                              | 2332.5               | -53.45          | -13              | -40.45                  | -67.41                  | -57.03                   | 4.90                       | 10.63                       | H                     |
|                                              | 3110                 | -62.41          | -13              | -49.41                  | -77.76                  | -67.33                   | 5.55                       | 12.62                       | H                     |
|                                              | 1555                 | -66.83          | -13              | -53.83                  | -75.48                  | -70.00                   | 4.10                       | 9.42                        | V                     |
|                                              | 2332.5               | -56.33          | -13              | -43.33                  | -70.05                  | -59.91                   | 4.90                       | 10.63                       | V                     |
|                                              | 3110                 | -62.84          | -13              | -49.84                  | -77.83                  | -67.76                   | 5.55                       | 12.62                       | V                     |
| LTE B66<br>BW 20MHz<br>Highest<br>1RB0,QPSK  | 3522                 | -62.43          | -13              | -49.43                  | -78.62                  | -69.17                   | 5.88                       | 12.62                       | H                     |
|                                              | 5283                 | -60.42          | -13              | -47.42                  | -81.18                  | -66.23                   | 7.32                       | 13.13                       | H                     |
|                                              | 7044                 | -57.21          | -13              | -44.21                  | -81.35                  | -60.37                   | 8.38                       | 11.54                       | H                     |
|                                              | 3522                 | -62.55          | -13              | -49.55                  | -78.26                  | -69.29                   | 5.88                       | 12.62                       | V                     |
|                                              | 5283                 | -61.18          | -13              | -48.18                  | -80.88                  | -66.99                   | 7.32                       | 13.13                       | V                     |
|                                              | 7044                 | -57.21          | -13              | -44.21                  | -81.18                  | -60.37                   | 8.38                       | 11.54                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.