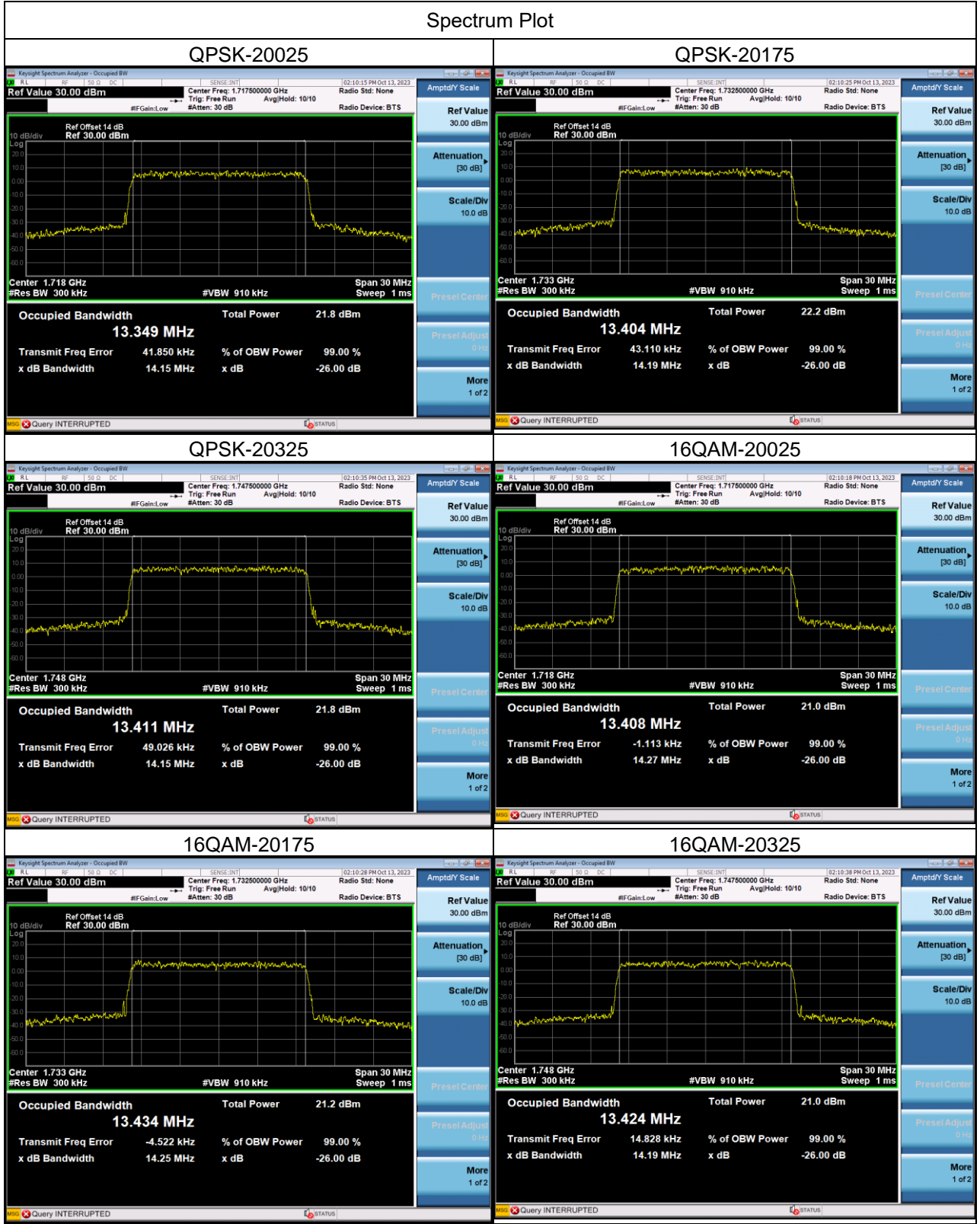


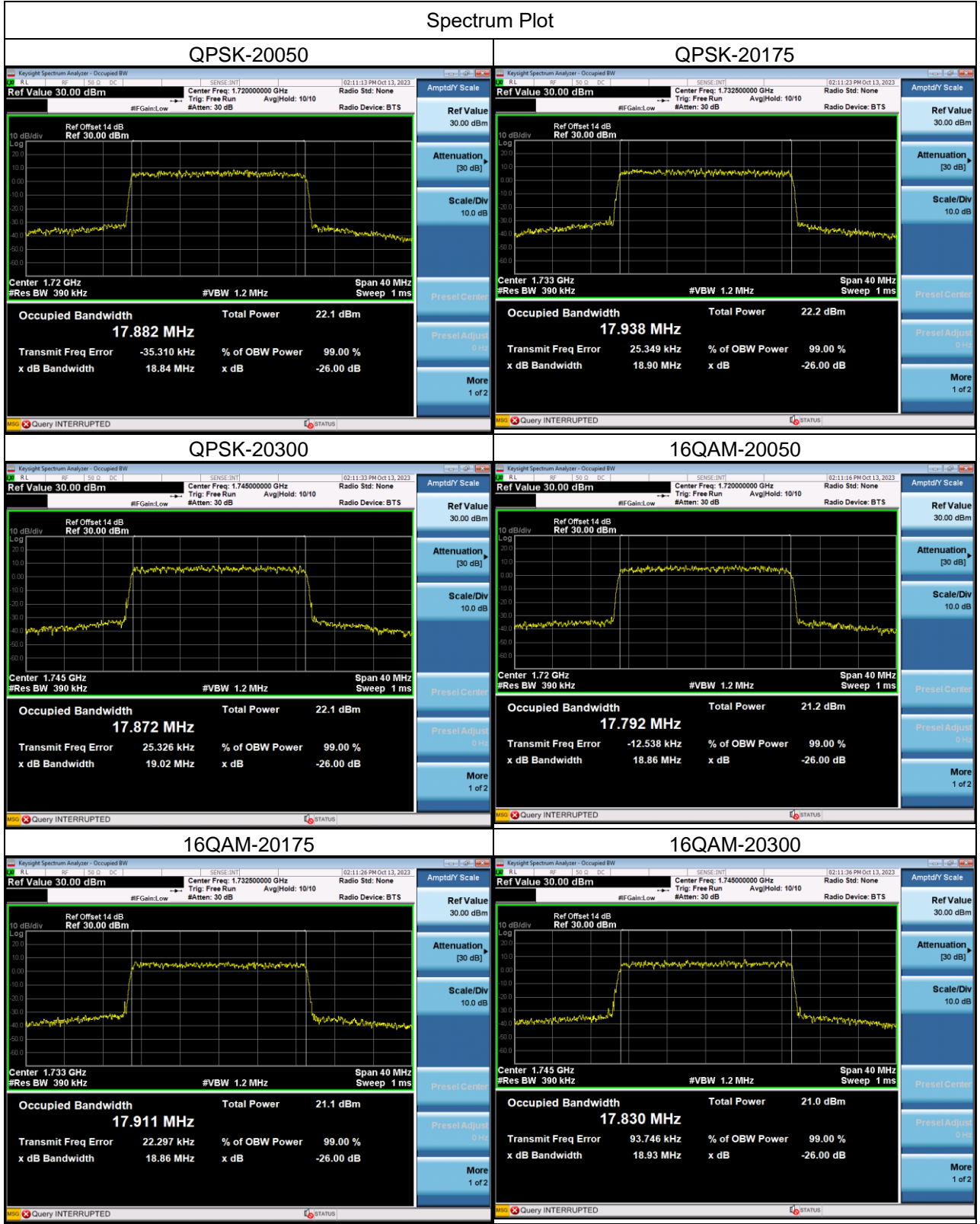
## Spectrum Plot





| LTE Band 4_20M |                 |                              |         |                 |                      |
|----------------|-----------------|------------------------------|---------|-----------------|----------------------|
| QPSK           |                 |                              |         |                 |                      |
| Channel        | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20050          | 1720            | 17.882                       | 20050   | 1720            | 18.84                |
| 20175          | 1732.5          | 17.938                       | 20175   | 1732.5          | 18.90                |
| 20300          | 1745            | 17.872                       | 20300   | 1745            | 19.02                |
| 16QAM          |                 |                              |         |                 |                      |
| Channel        | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20050          | 1720            | 17.792                       | 20050   | 1720            | 18.86                |
| 20175          | 1732.5          | 17.911                       | 20175   | 1732.5          | 18.86                |
| 20300          | 1745            | 17.830                       | 20300   | 1745            | 18.93                |
| 64QAM          |                 |                              |         |                 |                      |
| Channel        | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20050          | 1720            | 17.835                       | 20050   | 1720            | 18.88                |
| 20175          | 1732.5          | 17.928                       | 20175   | 1732.5          | 18.85                |
| 20300          | 1745            | 17.950                       | 20300   | 1745            | 18.86                |

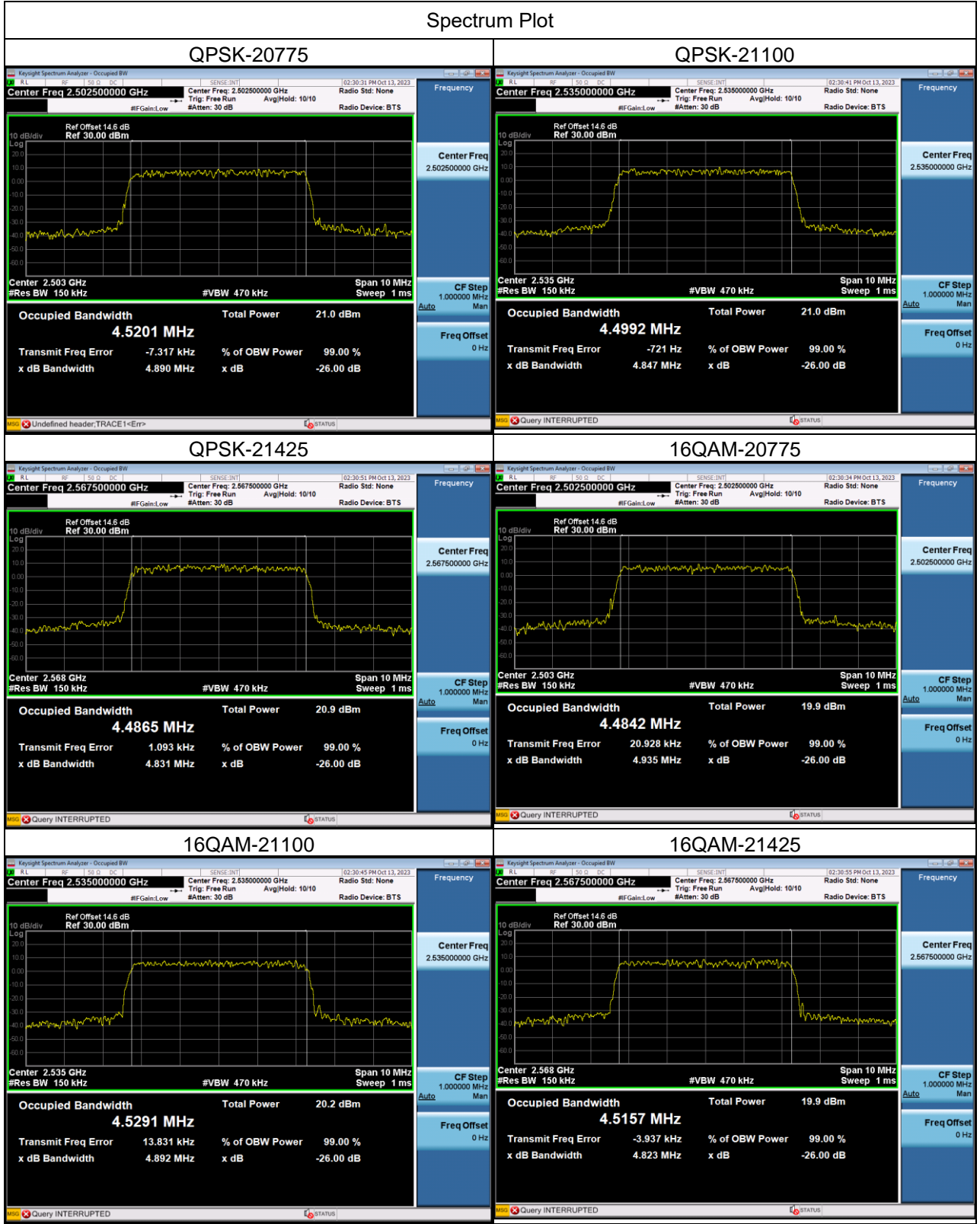
## Spectrum Plot





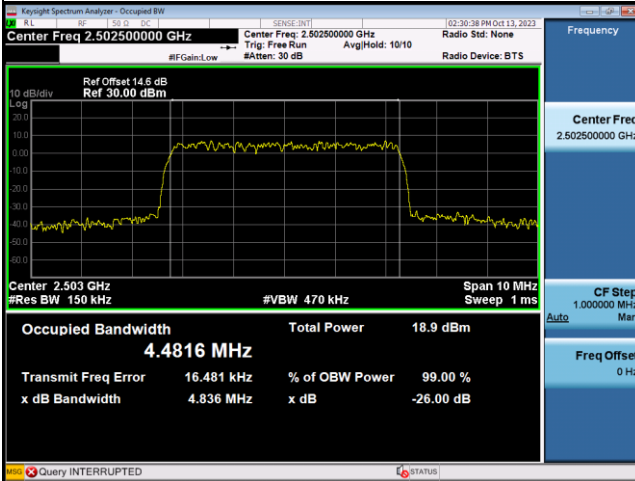
| LTE Band 7_5M |                 |                              |         |                 |                      |
|---------------|-----------------|------------------------------|---------|-----------------|----------------------|
| QPSK          |                 |                              |         |                 |                      |
| Channel       | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20775         | 2502.5          | 4.5201                       | 20775   | 2502.5          | 4.890                |
| 21100         | 2535            | 4.4992                       | 21100   | 2535            | 4.847                |
| 21425         | 2567.5          | 4.4865                       | 21425   | 2567.5          | 4.831                |
| 16QAM         |                 |                              |         |                 |                      |
| Channel       | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20775         | 2502.5          | 4.4842                       | 20775   | 2502.5          | 4.935                |
| 21100         | 2535            | 4.5291                       | 21100   | 2535            | 4.892                |
| 21425         | 2567.5          | 4.5157                       | 21425   | 2567.5          | 4.823                |
| 64QAM         |                 |                              |         |                 |                      |
| Channel       | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20775         | 2502.5          | 4.4816                       | 20775   | 2502.5          | 4.836                |
| 21100         | 2535            | 4.5349                       | 21100   | 2535            | 4.841                |
| 21425         | 2567.5          | 4.4851                       | 21425   | 2567.5          | 4.856                |

## Spectrum Plot

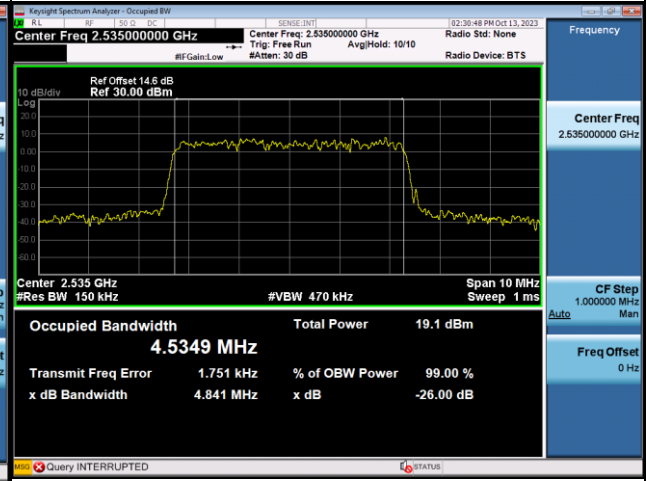


## Spectrum Plot

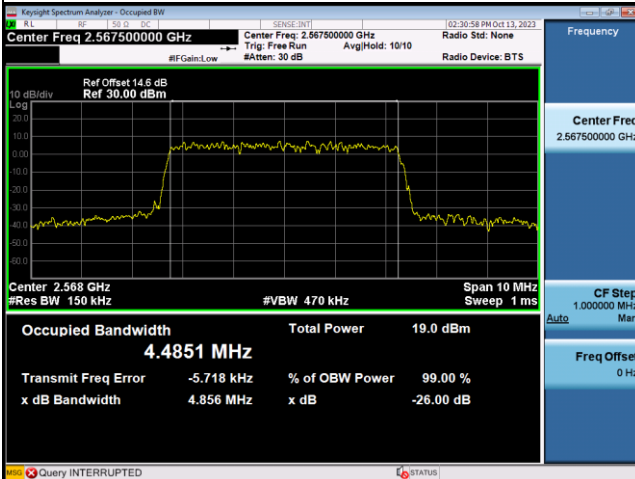
### 64QAM-20775



### 64QAM-21100



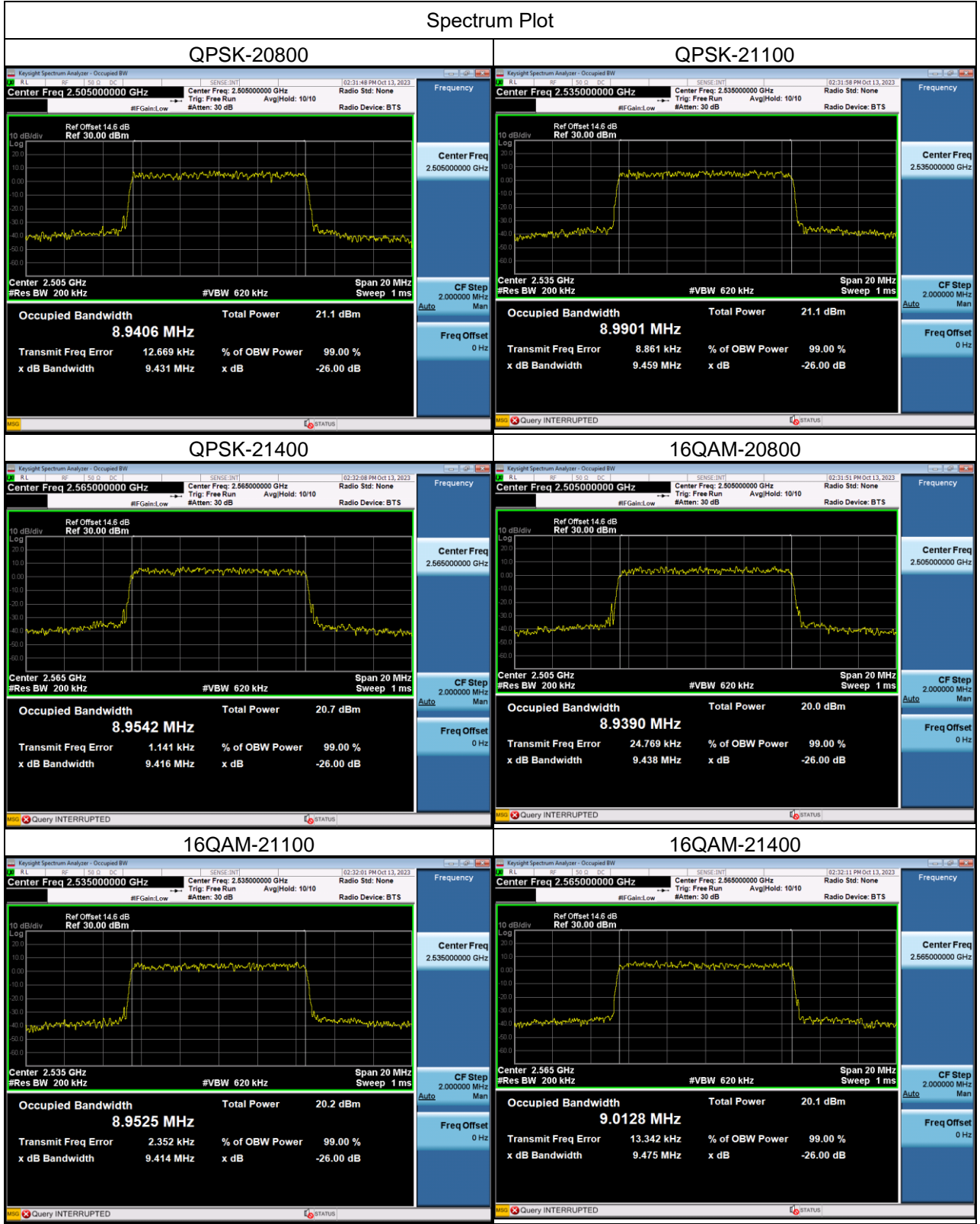
### 64QAM-21425





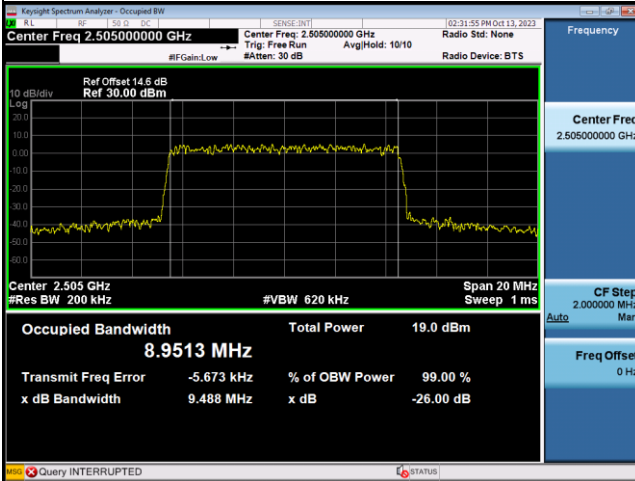
| LTE Band 7_10M |                 |                              |         |                 |                      |
|----------------|-----------------|------------------------------|---------|-----------------|----------------------|
| QPSK           |                 |                              |         |                 |                      |
| Channel        | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20800          | 2505            | 8.9406                       | 20800   | 2505            | 9.431                |
| 21100          | 2535            | 8.9901                       | 21100   | 2535            | 9.459                |
| 21400          | 2565            | 8.9542                       | 21400   | 2565            | 9.416                |
| 16QAM          |                 |                              |         |                 |                      |
| Channel        | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20800          | 2505            | 8.9390                       | 20800   | 2505            | 9.438                |
| 21100          | 2535            | 8.9525                       | 21100   | 2535            | 9.414                |
| 21400          | 2565            | 9.0128                       | 21400   | 2565            | 9.475                |
| 64QAM          |                 |                              |         |                 |                      |
| Channel        | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20800          | 2505            | 8.9513                       | 20800   | 2505            | 9.488                |
| 21100          | 2535            | 8.9605                       | 21100   | 2535            | 9.445                |
| 21400          | 2565            | 8.9901                       | 21400   | 2565            | 9.525                |

## Spectrum Plot

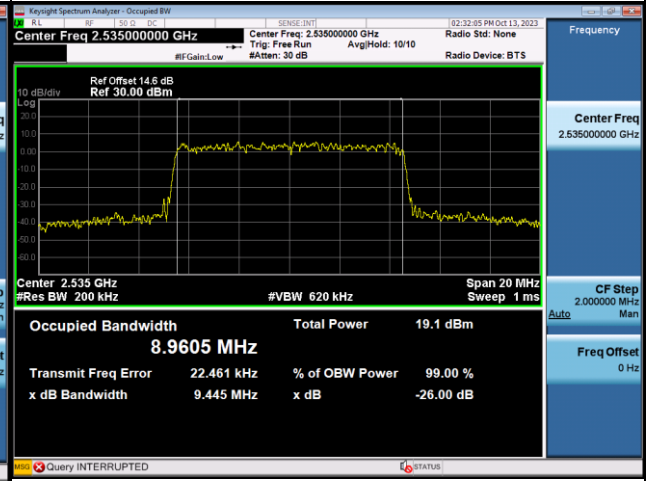


## Spectrum Plot

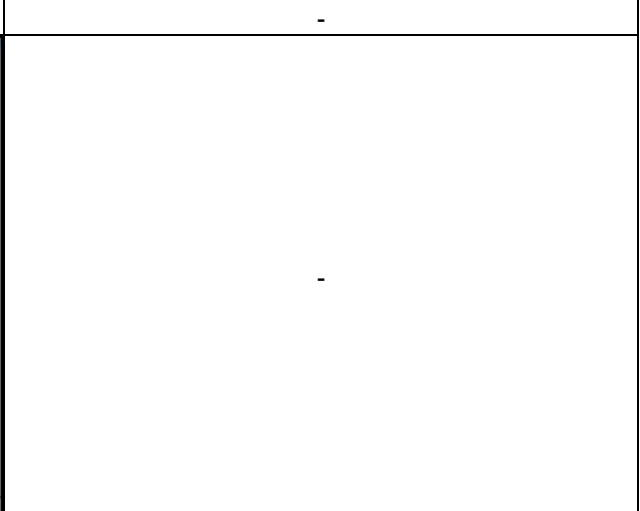
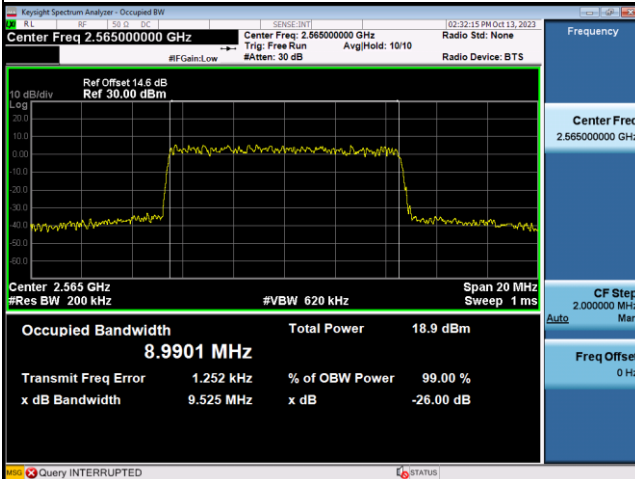
### 64QAM-20800



### 64QAM-21100

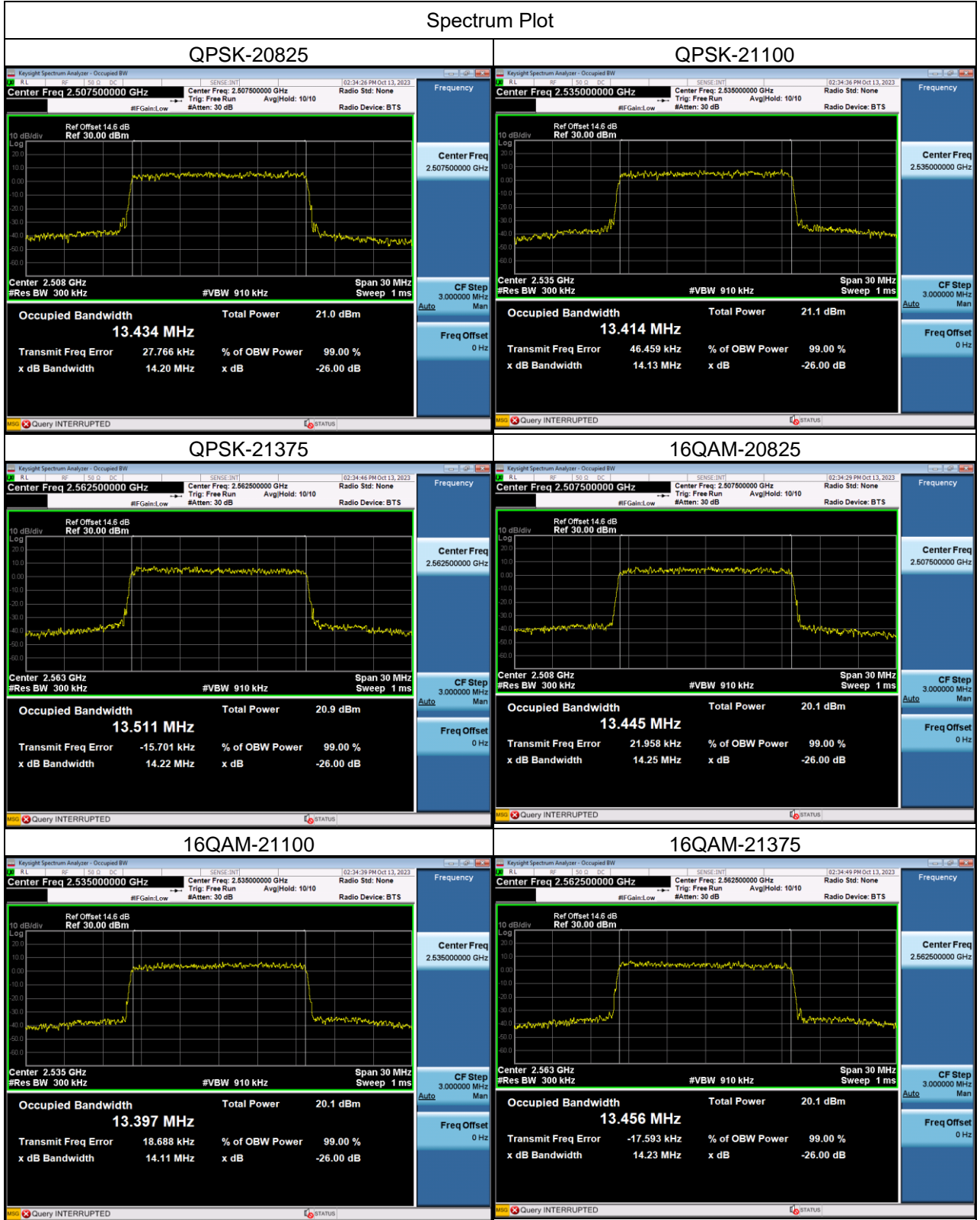


### 64QAM-21400



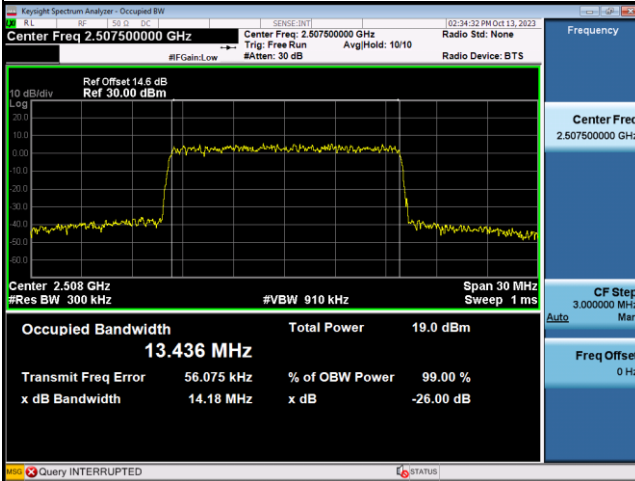
| LTE Band 7_15M |                 |                              |         |                 |                      |
|----------------|-----------------|------------------------------|---------|-----------------|----------------------|
| QPSK           |                 |                              |         |                 |                      |
| Channel        | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20825          | 2507.5          | 13.434                       | 20825   | 2507.5          | 14.20                |
| 21100          | 2535            | 13.414                       | 21100   | 2535            | 14.13                |
| 21375          | 2562.5          | 13.511                       | 21375   | 2562.5          | 14.22                |
| 16QAM          |                 |                              |         |                 |                      |
| Channel        | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20825          | 2507.5          | 13.445                       | 20825   | 2507.5          | 14.25                |
| 21100          | 2535            | 13.397                       | 21100   | 2535            | 14.11                |
| 21375          | 2562.5          | 13.456                       | 21375   | 2562.5          | 14.23                |
| 64QAM          |                 |                              |         |                 |                      |
| Channel        | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20825          | 2507.5          | 13.436                       | 20825   | 2507.5          | 14.18                |
| 21100          | 2535            | 13.434                       | 21100   | 2535            | 14.15                |
| 21375          | 2562.5          | 13.479                       | 21375   | 2562.5          | 14.17                |

## Spectrum Plot

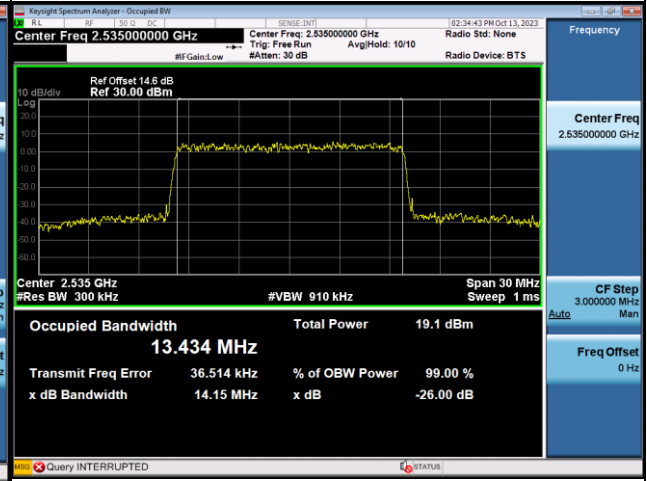


## Spectrum Plot

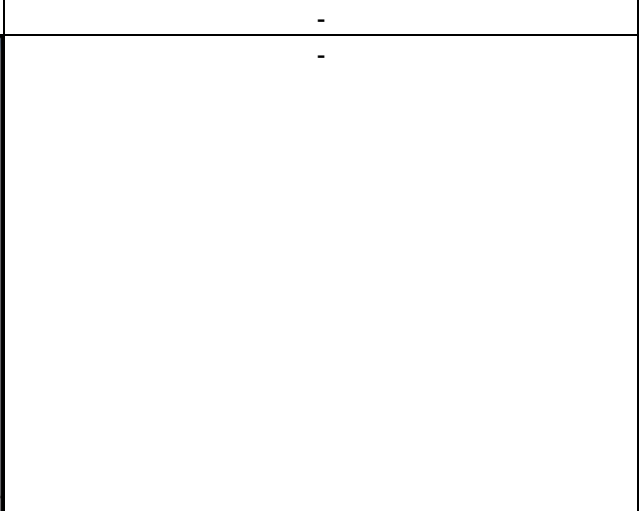
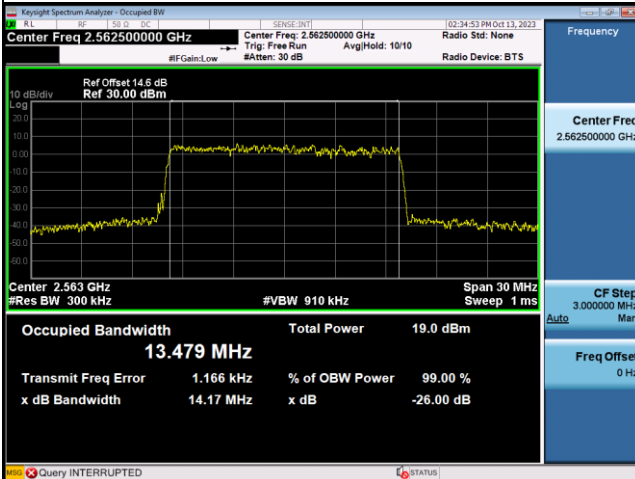
### 64QAM-20825



### 64QAM-21100

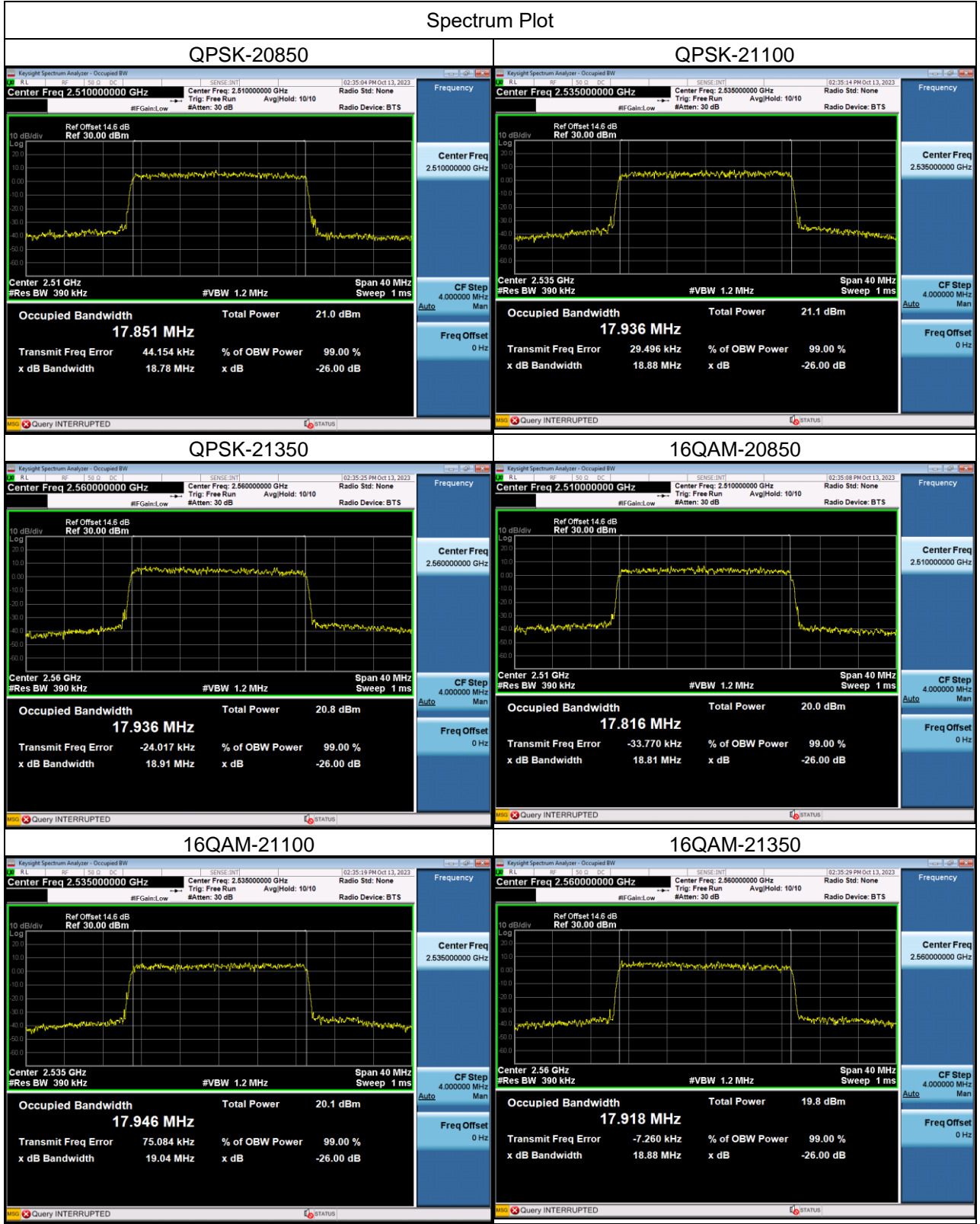


### 64QAM-21375



| LTE Band 7_20M |                 |                              |         |                 |                      |
|----------------|-----------------|------------------------------|---------|-----------------|----------------------|
| QPSK           |                 |                              |         |                 |                      |
| Channel        | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20850          | 2510            | 17.851                       | 20850   | 2510            | 18.78                |
| 21100          | 2535            | 17.936                       | 21100   | 2535            | 18.88                |
| 21350          | 2560            | 17.936                       | 21350   | 2560            | 18.91                |
| 16QAM          |                 |                              |         |                 |                      |
| Channel        | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20850          | 2510            | 17.816                       | 20850   | 2510            | 18.81                |
| 21100          | 2535            | 17.946                       | 21100   | 2535            | 19.04                |
| 21350          | 2560            | 17.918                       | 21350   | 2560            | 18.88                |
| 64QAM          |                 |                              |         |                 |                      |
| Channel        | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20850          | 2510            | 17.879                       | 20850   | 2510            | 18.79                |
| 21100          | 2535            | 17.854                       | 21100   | 2535            | 18.91                |
| 21350          | 2560            | 17.877                       | 21350   | 2560            | 18.84                |

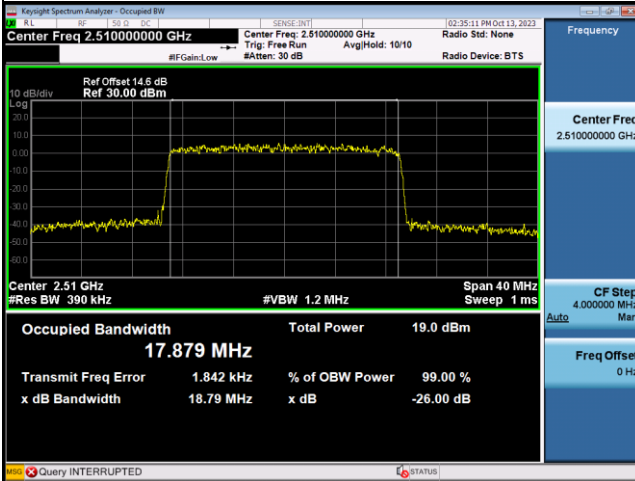
## Spectrum Plot



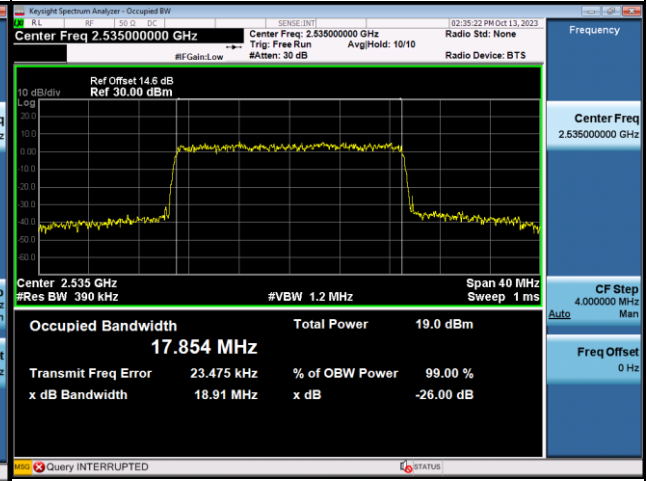


## Spectrum Plot

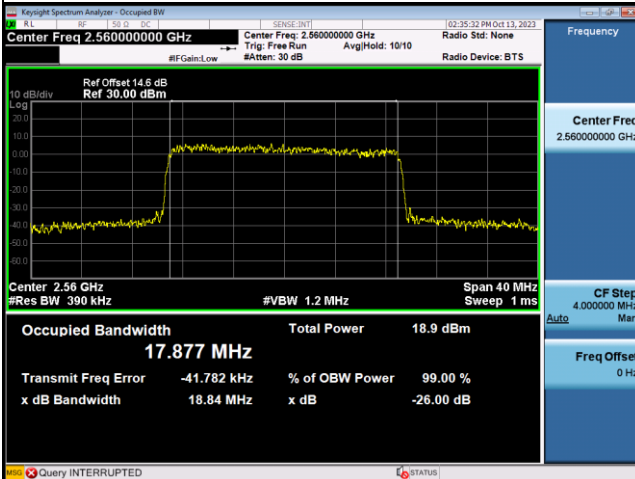
### 64QAM-20850



### 64QAM-21100



### 64QAM-21350



| LTE Band 12_1.4M |                 |                              |         |                 |                      |
|------------------|-----------------|------------------------------|---------|-----------------|----------------------|
| QPSK             |                 |                              |         |                 |                      |
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 23017            | 699.7           | 1.1117                       | 23017   | 699.7           | 1.200                |
| 23095            | 707.5           | 1.0932                       | 23095   | 707.5           | 1.227                |
| 23173            | 715.3           | 1.0990                       | 23173   | 715.3           | 1.203                |
| 16QAM            |                 |                              |         |                 |                      |
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 23017            | 699.7           | 1.0947                       | 23017   | 699.7           | 1.189                |
| 23095            | 707.5           | 1.0910                       | 23095   | 707.5           | 1.198                |
| 23173            | 715.3           | 1.1138                       | 23173   | 715.3           | 1.222                |
| 64QAM            |                 |                              |         |                 |                      |
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 23017            | 699.7           | 1.1033                       | 23017   | 699.7           | 1.214                |
| 23095            | 707.5           | 1.0987                       | 23095   | 707.5           | 1.206                |
| 23173            | 715.3           | 1.1029                       | 23173   | 715.3           | 1.232                |