

### LTE Band 66

| Bandwidth | Modulation | RB size | RB offset | CH131979  | CH132322 | CH132665  | EIRP  |       |       |
|-----------|------------|---------|-----------|-----------|----------|-----------|-------|-------|-------|
|           |            |         |           | 1710.7MHz | 1745MHz  | 1779.3MHz |       |       |       |
| 1.4MHz    | QPSK       | 1       | 0         | 22.97     | 22.94    | 22.95     | 24.47 | 24.44 | 24.45 |
|           |            | 1       | 2         | 22.97     | 23.01    | 23.13     | 24.47 | 24.51 | 24.63 |
|           |            | 1       | 5         | 22.92     | 22.96    | 23.03     | 24.42 | 24.46 | 24.53 |
|           |            | 3       | 0         | 22.95     | 23.06    | 23.08     | 24.45 | 24.56 | 24.58 |
|           |            | 3       | 1         | 22.90     | 23.12    | 23.15     | 24.40 | 24.62 | 24.65 |
|           |            | 3       | 2         | 22.87     | 23.02    | 22.99     | 24.37 | 24.52 | 24.49 |
|           |            | 6       | 0         | 21.96     | 22.14    | 21.96     | 23.46 | 23.64 | 23.46 |
|           | 16QAM      | 1       | 0         | 21.94     | 22.19    | 22.12     | 23.44 | 23.69 | 23.62 |
|           |            | 1       | 2         | 22.02     | 22.19    | 22.19     | 23.52 | 23.69 | 23.69 |
|           |            | 1       | 5         | 22.03     | 22.15    | 22.04     | 23.53 | 23.65 | 23.54 |
|           |            | 3       | 0         | 22.17     | 21.96    | 22.08     | 23.67 | 23.46 | 23.58 |
|           |            | 3       | 1         | 22.07     | 21.99    | 22.05     | 23.57 | 23.49 | 23.55 |
|           |            | 3       | 2         | 22.01     | 21.98    | 22.10     | 23.51 | 23.48 | 23.60 |
|           |            | 6       | 0         | 21.11     | 20.74    | 21.06     | 22.61 | 22.24 | 22.56 |

| Bandwidth | Modulation | RB size | RB offset | CH131987  | CH132322 | CH132657  | EIRP  |       |       |
|-----------|------------|---------|-----------|-----------|----------|-----------|-------|-------|-------|
|           |            |         |           | 1711.5MHz | 1745MHz  | 1778.5MHz |       |       |       |
| 3MHz      | QPSK       | 1       | 0         | 22.74     | 22.91    | 23.13     | 24.24 | 24.41 | 24.63 |
|           |            | 1       | 7         | 23.16     | 23.05    | 23.49     | 24.66 | 24.55 | 24.99 |
|           |            | 1       | 14        | 23.12     | 22.99    | 23.00     | 24.62 | 24.49 | 24.50 |
|           |            | 8       | 0         | 21.94     | 22.12    | 22.06     | 23.44 | 23.62 | 23.56 |
|           |            | 8       | 4         | 21.94     | 22.09    | 22.11     | 23.44 | 23.59 | 23.61 |
|           |            | 8       | 7         | 22.01     | 22.06    | 22.12     | 23.51 | 23.56 | 23.62 |
|           |            | 15      | 0         | 21.99     | 22.12    | 22.05     | 23.49 | 23.62 | 23.55 |
|           | 16QAM      | 1       | 0         | 22.00     | 22.33    | 22.09     | 23.50 | 23.83 | 23.59 |
|           |            | 1       | 7         | 22.18     | 22.37    | 22.54     | 23.68 | 23.87 | 24.04 |
|           |            | 1       | 14        | 22.00     | 22.07    | 22.05     | 23.50 | 23.57 | 23.55 |
|           |            | 8       | 0         | 21.31     | 21.20    | 20.66     | 22.81 | 22.70 | 22.16 |
|           |            | 8       | 4         | 21.25     | 21.06    | 20.71     | 22.75 | 22.56 | 22.21 |
|           |            | 8       | 7         | 21.30     | 21.12    | 20.72     | 22.80 | 22.62 | 22.22 |
|           |            | 15      | 0         | 21.07     | 21.15    | 20.76     | 22.57 | 22.65 | 22.26 |

| Bandwidth | Modulation | RB size | RB offset | CH131997  | CH132322 | CH132647  | EIRP  |       |       |
|-----------|------------|---------|-----------|-----------|----------|-----------|-------|-------|-------|
|           |            |         |           | 1712.5MHz | 1745MHz  | 1777.5MHz |       |       |       |
| 5MHz      | QPSK       | 1       | 0         | 22.83     | 22.80    | 22.86     | 24.33 | 24.30 | 24.36 |
|           |            | 1       | 13        | 22.87     | 22.57    | 22.81     | 24.37 | 24.07 | 24.31 |
|           |            | 1       | 24        | 22.82     | 22.60    | 22.83     | 24.32 | 24.10 | 24.33 |
|           |            | 12      | 0         | 21.95     | 22.07    | 21.95     | 23.45 | 23.57 | 23.45 |
|           |            | 12      | 6         | 21.99     | 22.08    | 22.05     | 23.49 | 23.58 | 23.55 |
|           |            | 12      | 11        | 21.95     | 22.14    | 22.07     | 23.45 | 23.64 | 23.57 |
|           |            | 25      | 0         | 21.94     | 22.12    | 22.00     | 23.44 | 23.62 | 23.50 |
|           | 16QAM      | 1       | 0         | 21.51     | 21.73    | 21.41     | 23.01 | 23.23 | 22.91 |
|           |            | 1       | 13        | 21.86     | 21.64    | 22.07     | 23.36 | 23.14 | 23.57 |
|           |            | 1       | 24        | 21.35     | 21.58    | 21.68     | 22.85 | 23.08 | 23.18 |
|           |            | 12      | 0         | 20.72     | 20.83    | 21.07     | 22.22 | 22.33 | 22.57 |
|           |            | 12      | 6         | 20.95     | 20.92    | 20.98     | 22.45 | 22.42 | 22.48 |
|           |            | 12      | 11        | 21.01     | 20.86    | 20.93     | 22.51 | 22.36 | 22.43 |
|           |            | 25      | 0         | 20.97     | 21.18    | 20.92     | 22.47 | 22.68 | 22.42 |

| Bandwidth | Modulation | RB size | RB offset | CH132022 | CH132322 | CH132622 | EIRP  |       |       |
|-----------|------------|---------|-----------|----------|----------|----------|-------|-------|-------|
|           |            |         |           | 1715MHz  | 1745MHz  | 1775MHz  |       |       |       |
| 10MHz     | QPSK       | 1       | 0         | 22.84    | 22.98    | 22.92    | 24.34 | 24.48 | 24.42 |
|           |            | 1       | 25        | 23.32    | 23.02    | 23.09    | 24.82 | 24.52 | 24.59 |
|           |            | 1       | 49        | 23.14    | 23.07    | 23.00    | 24.64 | 24.57 | 24.50 |
|           |            | 25      | 0         | 21.98    | 22.16    | 22.02    | 23.48 | 23.66 | 23.52 |
|           |            | 25      | 13        | 22.00    | 22.17    | 22.04    | 23.50 | 23.67 | 23.54 |
|           |            | 25      | 25        | 21.94    | 22.11    | 22.03    | 23.44 | 23.61 | 23.53 |
|           |            | 50      | 0         | 21.96    | 22.15    | 21.95    | 23.46 | 23.65 | 23.45 |
|           | 16QAM      | 1       | 0         | 21.99    | 21.57    | 21.61    | 23.49 | 23.07 | 23.11 |
|           |            | 1       | 25        | 22.16    | 22.15    | 22.05    | 23.66 | 23.65 | 23.55 |
|           |            | 1       | 49        | 21.94    | 21.64    | 22.00    | 23.44 | 23.14 | 23.50 |
|           |            | 25      | 0         | 20.96    | 21.11    | 21.05    | 22.46 | 22.61 | 22.55 |
|           |            | 25      | 13        | 21.01    | 21.08    | 21.03    | 22.51 | 22.58 | 22.53 |
|           |            | 25      | 25        | 20.93    | 21.05    | 21.00    | 22.43 | 22.55 | 22.50 |
|           |            | 50      | 0         | 20.92    | 21.04    | 20.96    | 22.42 | 22.54 | 22.46 |

| Bandwidth | Modulation | RB size | RB offset | CH132047  | CH132322 | CH132597  | EIRP  |       |       |
|-----------|------------|---------|-----------|-----------|----------|-----------|-------|-------|-------|
|           |            |         |           | 1717.5MHz | 1745MHz  | 1772.5MHz |       |       |       |
| 15MHz     | QPSK       | 1       | 0         | 23.21     | 23.08    | 22.98     | 23.21 | 23.08 | 22.98 |
|           |            | 1       | 38        | 23.15     | 23.03    | 22.96     | 23.15 | 23.03 | 22.96 |
|           |            | 1       | 74        | 23.09     | 22.96    | 22.85     | 23.09 | 22.96 | 22.85 |
|           |            | 36      | 0         | 22.00     | 22.14    | 21.99     | 22.00 | 22.14 | 21.99 |
|           |            | 36      | 18        | 21.95     | 22.14    | 21.96     | 21.95 | 22.14 | 21.96 |
|           |            | 36      | 39        | 21.91     | 22.10    | 22.05     | 21.91 | 22.10 | 22.05 |
|           |            | 75      | 0         | 21.97     | 22.11    | 21.98     | 21.97 | 22.11 | 21.98 |
|           | 16QAM      | 1       | 0         | 21.97     | 21.52    | 22.71     | 21.97 | 21.52 | 22.71 |
|           |            | 1       | 38        | 22.62     | 22.17    | 22.90     | 22.62 | 22.17 | 22.90 |
|           |            | 1       | 74        | 21.71     | 21.58    | 22.53     | 21.71 | 21.58 | 22.53 |
|           |            | 36      | 0         | 20.82     | 21.10    | 20.80     | 20.82 | 21.10 | 20.80 |
|           |            | 36      | 18        | 20.93     | 21.12    | 20.91     | 20.93 | 21.12 | 20.91 |
|           |            | 36      | 39        | 20.91     | 21.13    | 20.89     | 20.91 | 21.13 | 20.89 |
|           |            | 75      | 0         | 20.86     | 21.00    | 20.90     | 20.86 | 21.00 | 20.90 |

| Bandwidth | Modulation | RB size | RB offset | CH132072 | CH132322 | CH132572 | EIRP  |       |       |
|-----------|------------|---------|-----------|----------|----------|----------|-------|-------|-------|
|           |            |         |           | 1720MHz  | 1745MHz  | 1770MHz  |       |       |       |
| 20MHz     | QPSK       | 1       | 0         | 22.39    | 23.15    | 22.57    | 23.89 | 24.65 | 24.07 |
|           |            | 1       | 50        | 22.96    | 23.22    | 23.05    | 24.46 | 24.72 | 24.55 |
|           |            | 1       | 99        | 22.45    | 23.01    | 22.77    | 23.95 | 24.51 | 24.27 |
|           |            | 50      | 0         | 22.03    | 22.15    | 21.96    | 23.53 | 23.65 | 23.46 |
|           |            | 50      | 25        | 21.98    | 22.13    | 21.98    | 23.48 | 23.63 | 23.48 |
|           |            | 50      | 50        | 22.01    | 22.09    | 21.94    | 23.51 | 23.59 | 23.44 |
|           |            | 100     | 0         | 22.00    | 22.16    | 21.94    | 23.50 | 23.66 | 23.44 |
|           | 16QAM      | 1       | 0         | 22.16    | 21.38    | 21.60    | 23.66 | 22.88 | 23.10 |
|           |            | 1       | 50        | 22.19    | 22.55    | 22.12    | 23.69 | 24.05 | 23.62 |
|           |            | 1       | 99        | 21.66    | 21.31    | 22.04    | 23.16 | 22.81 | 23.54 |
|           |            | 50      | 0         | 21.07    | 21.03    | 20.83    | 22.57 | 22.53 | 22.33 |
|           |            | 50      | 25        | 21.07    | 21.21    | 20.81    | 22.57 | 22.71 | 22.31 |
|           |            | 50      | 50        | 21.06    | 21.11    | 20.75    | 22.56 | 22.61 | 22.25 |
|           |            | 100     | 0         | 20.91    | 21.07    | 20.80    | 22.41 | 22.57 | 22.30 |

### LTE Band 71

| Bandwidth | Modulation | RB size | RB offset | CH 133147 | CH133297 | CH133447 | ERP   |       |       |
|-----------|------------|---------|-----------|-----------|----------|----------|-------|-------|-------|
|           |            |         |           | 665.5MHz  | 680.5MHz | 695.5MHz |       |       |       |
| 5MHz      | QPSK       | 1       | 0         | 22.76     | 22.73    | 22.37    | 19.71 | 19.68 | 19.32 |
|           |            | 1       | 2         | 22.89     | 22.83    | 22.58    | 19.84 | 19.78 | 19.53 |
|           |            | 1       | 5         | 22.75     | 22.67    | 22.46    | 19.70 | 19.62 | 19.41 |
|           |            | 3       | 0         | 22.03     | 21.98    | 21.85    | 18.98 | 18.93 | 18.80 |
|           |            | 3       | 1         | 22.05     | 21.98    | 21.88    | 19.00 | 18.93 | 18.83 |
|           |            | 3       | 2         | 22.13     | 21.99    | 21.88    | 19.08 | 18.94 | 18.83 |
|           |            | 6       | 0         | 22.02     | 21.97    | 21.87    | 18.97 | 18.92 | 18.82 |
|           | 16QAM      | 1       | 0         | 21.54     | 21.36    | 21.45    | 18.49 | 18.31 | 18.40 |
|           |            | 1       | 2         | 22.06     | 21.57    | 22.00    | 19.01 | 18.52 | 18.95 |
|           |            | 1       | 5         | 21.44     | 21.05    | 21.38    | 18.39 | 18.00 | 18.33 |
|           |            | 3       | 0         | 20.86     | 20.72    | 20.61    | 17.81 | 17.67 | 17.56 |
|           |            | 3       | 1         | 21.11     | 20.76    | 20.85    | 18.06 | 17.71 | 17.80 |
|           |            | 3       | 2         | 21.10     | 20.72    | 20.86    | 18.05 | 17.67 | 17.81 |
|           |            | 6       | 0         | 21.00     | 21.14    | 20.76    | 17.95 | 18.09 | 17.71 |

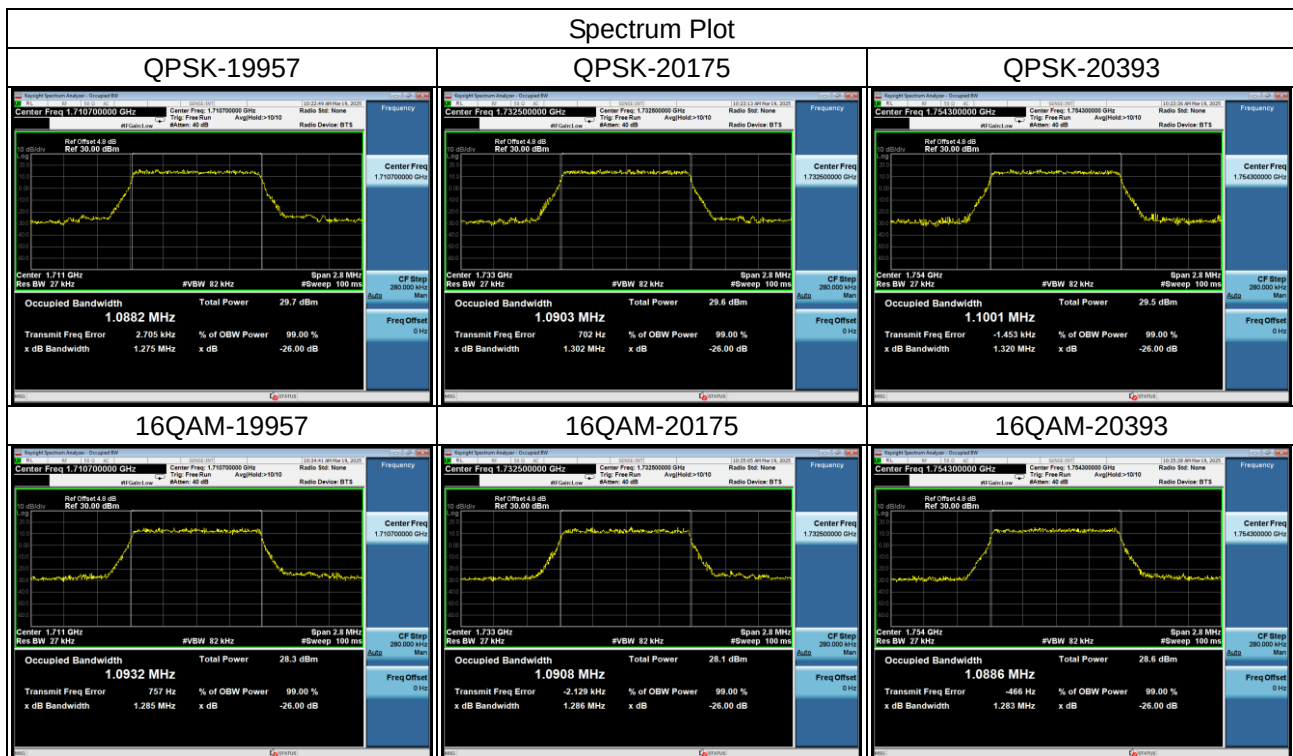
| Bandwidth | Modulation | RB size | RB offset | CH 133172 | CH133297 | CH133422 | ERP   |       |       |
|-----------|------------|---------|-----------|-----------|----------|----------|-------|-------|-------|
|           |            |         |           | 668MHz    | 680.5MHz | 693MHz   |       |       |       |
| 10MHz     | QPSK       | 1       | 0         | 23.04     | 22.82    | 22.84    | 19.99 | 19.77 | 19.79 |
|           |            | 1       | 7         | 23.32     | 22.90    | 23.14    | 20.27 | 19.85 | 20.09 |
|           |            | 1       | 14        | 23.21     | 22.72    | 22.88    | 20.16 | 19.67 | 19.83 |
|           |            | 8       | 0         | 22.05     | 22.12    | 21.93    | 19.00 | 19.07 | 18.88 |
|           |            | 8       | 4         | 22.05     | 22.01    | 21.96    | 19.00 | 18.96 | 18.91 |
|           |            | 8       | 7         | 22.10     | 21.98    | 21.85    | 19.05 | 18.93 | 18.80 |
|           |            | 15      | 0         | 21.96     | 21.99    | 21.95    | 18.91 | 18.94 | 18.90 |
|           | 16QAM      | 1       | 0         | 22.22     | 21.94    | 22.12    | 19.17 | 18.89 | 19.07 |
|           |            | 1       | 7         | 22.38     | 22.14    | 22.00    | 19.33 | 19.09 | 18.95 |
|           |            | 1       | 14        | 22.21     | 21.94    | 21.45    | 19.16 | 18.89 | 18.40 |
|           |            | 8       | 0         | 21.02     | 20.96    | 21.04    | 17.97 | 17.91 | 17.99 |
|           |            | 8       | 4         | 21.15     | 20.92    | 20.98    | 18.10 | 17.87 | 17.93 |
|           |            | 8       | 7         | 21.11     | 21.07    | 20.94    | 18.06 | 18.02 | 17.89 |
|           |            | 15      | 0         | 20.94     | 20.99    | 20.89    | 17.89 | 17.94 | 17.84 |

| Bandwidth | Modulation | RB size | RB offset | CH 133197 | CH133297 | CH133397 | ERP   |       |       |
|-----------|------------|---------|-----------|-----------|----------|----------|-------|-------|-------|
|           |            |         |           | 670.5MHz  | 680.5MHz | 690.5MHz |       |       |       |
| 15MHz     | QPSK       | 1       | 0         | 22.95     | 22.94    | 22.86    | 19.90 | 19.89 | 19.81 |
|           |            | 1       | 13        | 23.61     | 22.86    | 22.92    | 20.56 | 19.81 | 19.87 |
|           |            | 1       | 24        | 23.20     | 22.82    | 22.81    | 20.15 | 19.77 | 19.76 |
|           |            | 12      | 0         | 22.04     | 22.09    | 21.88    | 18.99 | 19.04 | 18.83 |
|           |            | 12      | 6         | 22.08     | 22.04    | 22.04    | 19.03 | 18.99 | 18.99 |
|           |            | 12      | 11        | 22.06     | 21.96    | 21.90    | 19.01 | 18.91 | 18.85 |
|           |            | 25      | 0         | 22.02     | 22.03    | 21.92    | 18.97 | 18.98 | 18.87 |
|           | 16QAM      | 1       | 0         | 22.01     | 21.77    | 22.59    | 18.96 | 18.72 | 19.54 |
|           |            | 1       | 13        | 22.23     | 22.02    | 22.85    | 19.18 | 18.97 | 19.80 |
|           |            | 1       | 24        | 22.21     | 21.36    | 22.51    | 19.16 | 18.31 | 19.46 |
|           |            | 12      | 0         | 20.90     | 21.05    | 20.84    | 17.85 | 18.00 | 17.79 |
|           |            | 12      | 6         | 21.01     | 21.03    | 20.90    | 17.96 | 17.98 | 17.85 |
|           |            | 12      | 11        | 20.96     | 20.97    | 20.67    | 17.91 | 17.92 | 17.62 |
|           |            | 25      | 0         | 20.81     | 20.90    | 20.78    | 17.76 | 17.85 | 17.73 |

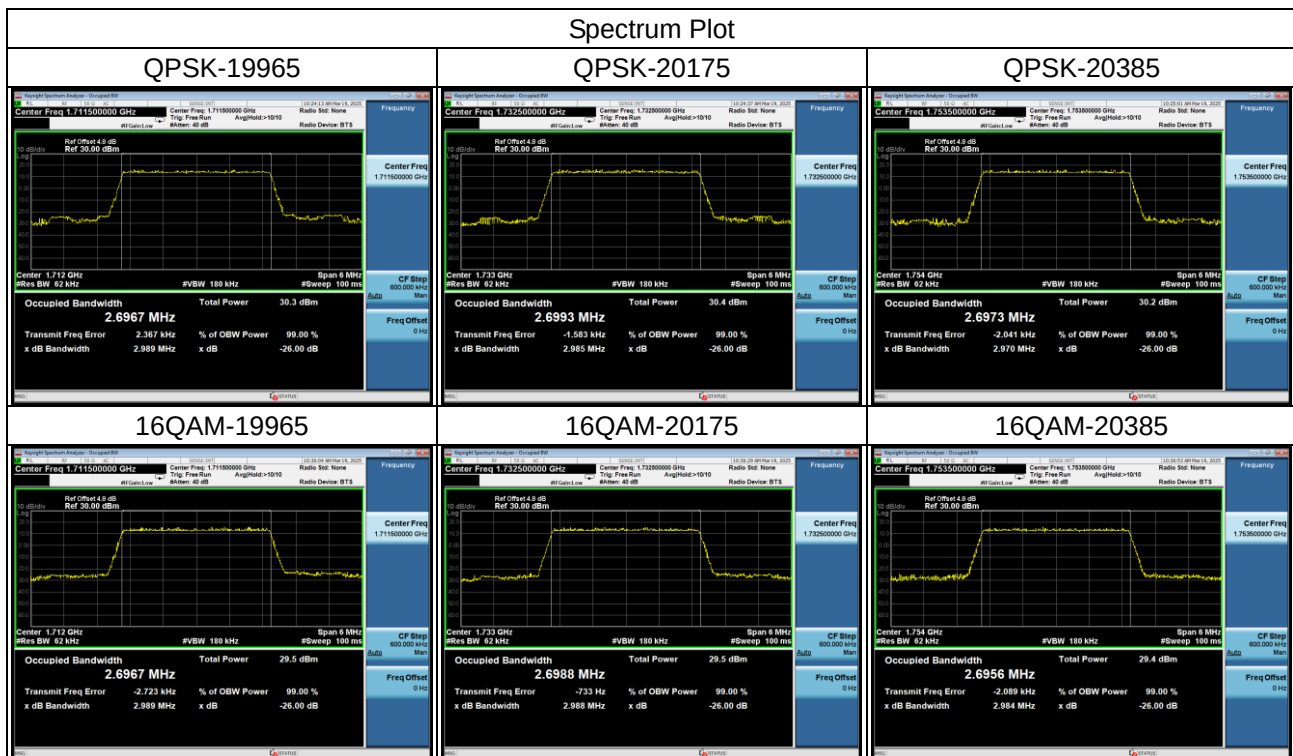
| Bandwidth | Modulation | RB size | RB offset | CH 133222 | CH133322 | CH133372 | ERP   |       |       |
|-----------|------------|---------|-----------|-----------|----------|----------|-------|-------|-------|
|           |            |         |           | 673MHz    | 683MHz   | 688MHz   |       |       |       |
| 20MHz     | QPSK       | 1       | 0         | 22.62     | 22.89    | 22.45    | 19.57 | 19.84 | 19.40 |
|           |            | 1       | 25        | 23.01     | 23.33    | 23.01    | 19.96 | 20.28 | 19.96 |
|           |            | 1       | 49        | 22.58     | 22.88    | 22.41    | 19.53 | 19.83 | 19.36 |
|           |            | 25      | 0         | 22.05     | 22.00    | 21.90    | 19.00 | 18.95 | 18.85 |
|           |            | 25      | 13        | 22.06     | 22.01    | 21.94    | 19.01 | 18.96 | 18.89 |
|           |            | 25      | 25        | 22.06     | 21.89    | 21.93    | 19.01 | 18.84 | 18.88 |
|           |            | 50      | 0         | 21.97     | 21.95    | 21.93    | 18.92 | 18.90 | 18.88 |
|           | 16QAM      | 1       | 0         | 21.93     | 21.62    | 21.41    | 18.88 | 18.57 | 18.36 |
|           |            | 1       | 25        | 22.42     | 21.87    | 21.79    | 19.37 | 18.82 | 18.74 |
|           |            | 1       | 49        | 21.45     | 21.01    | 21.34    | 18.40 | 17.96 | 18.29 |
|           |            | 25      | 0         | 21.07     | 20.90    | 20.76    | 18.02 | 17.85 | 17.71 |
|           |            | 25      | 13        | 21.18     | 20.98    | 20.70    | 18.13 | 17.93 | 17.65 |
|           |            | 25      | 25        | 20.96     | 20.90    | 20.79    | 17.91 | 17.85 | 17.74 |
|           |            | 50      | 0         | 21.00     | 20.74    | 20.81    | 17.95 | 17.69 | 17.76 |

## APPENDIX B - OCCUPIED BANDWIDTH

| LTE Band 4_1.4MHz |                 |                              |        |                      |       |
|-------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel           | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                   |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 19957             | 1710.7          | 1.0882                       | 1.0932 | 1.275                | 1.285 |
| 20175             | 1732.5          | 1.0903                       | 1.0908 | 1.302                | 1.286 |
| 20393             | 1754.3          | 1.1001                       | 1.0886 | 1.320                | 1.283 |

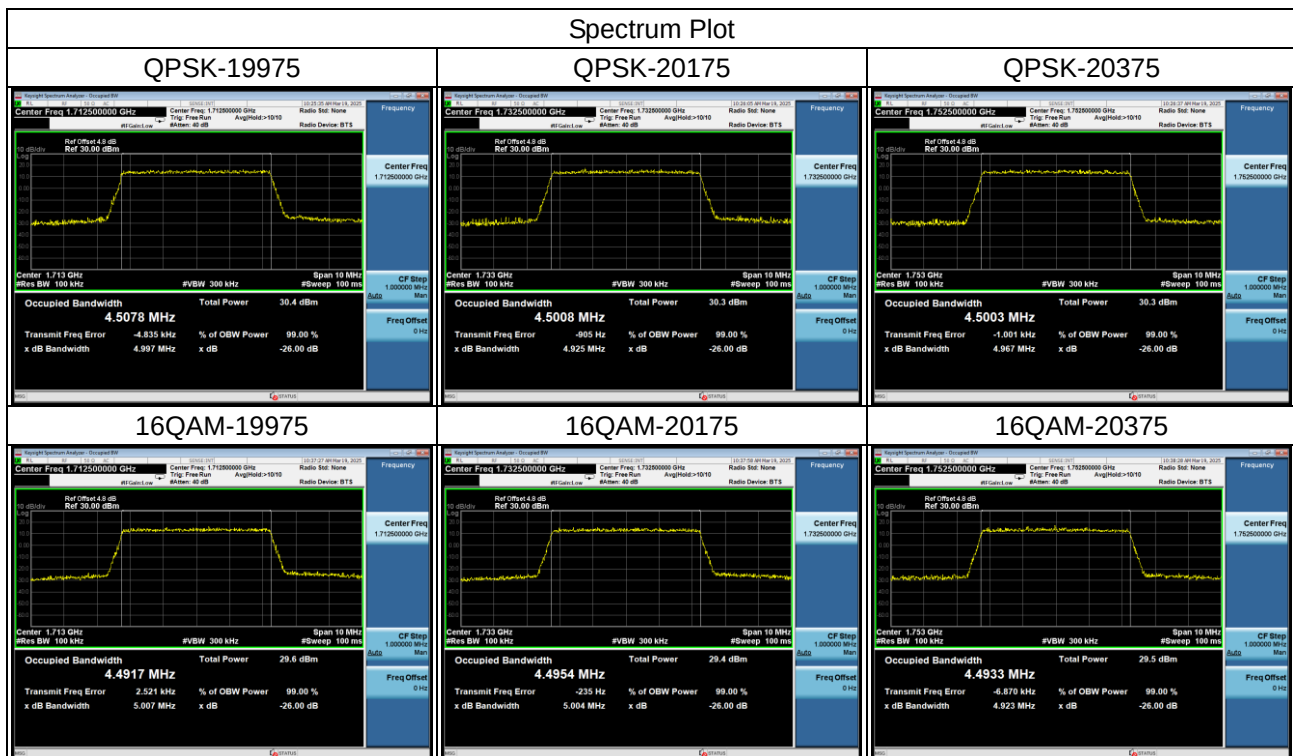


| LTE Band 4_3MHz |                 |                              |        |                      |       |
|-----------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel         | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                 |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 19965           | 1711.5          | 2.6967                       | 2.6967 | 2.989                | 2.989 |
| 20175           | 1732.5          | 2.6993                       | 2.6988 | 2.985                | 2.988 |
| 20385           | 1753.5          | 2.6973                       | 2.6956 | 2.970                | 2.984 |

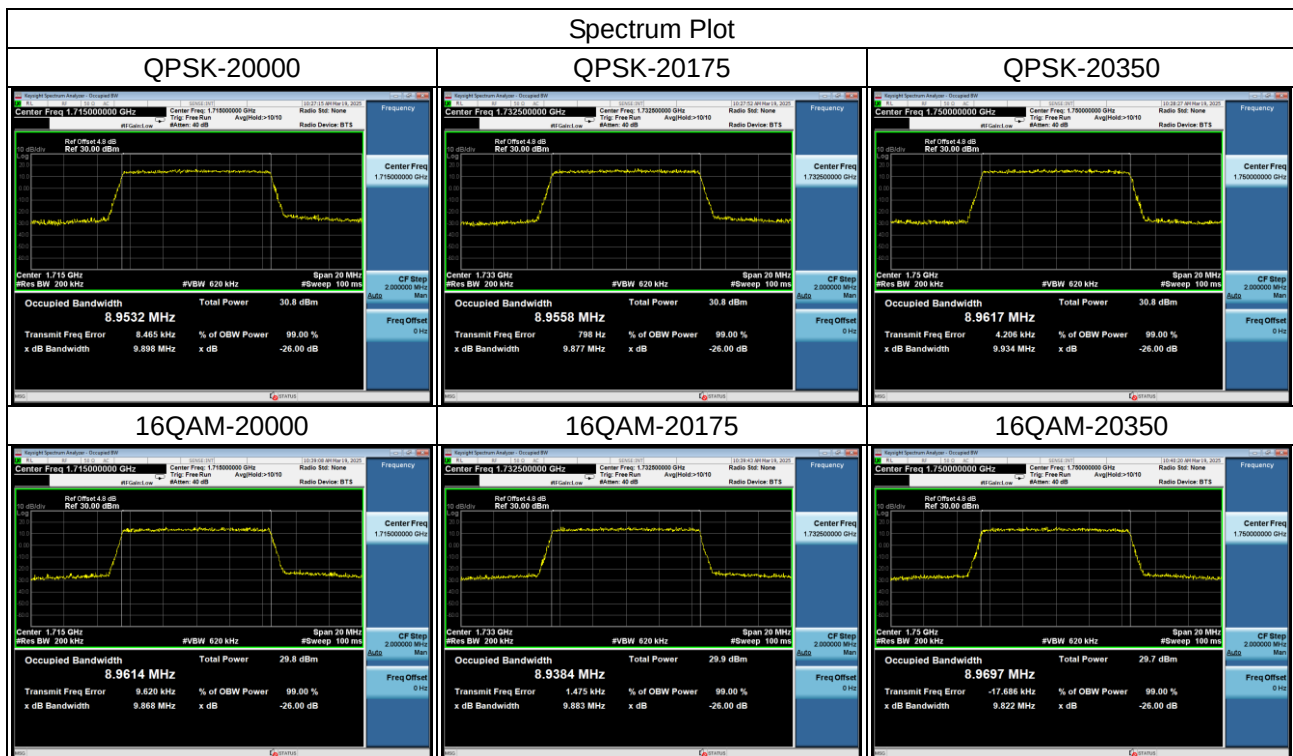




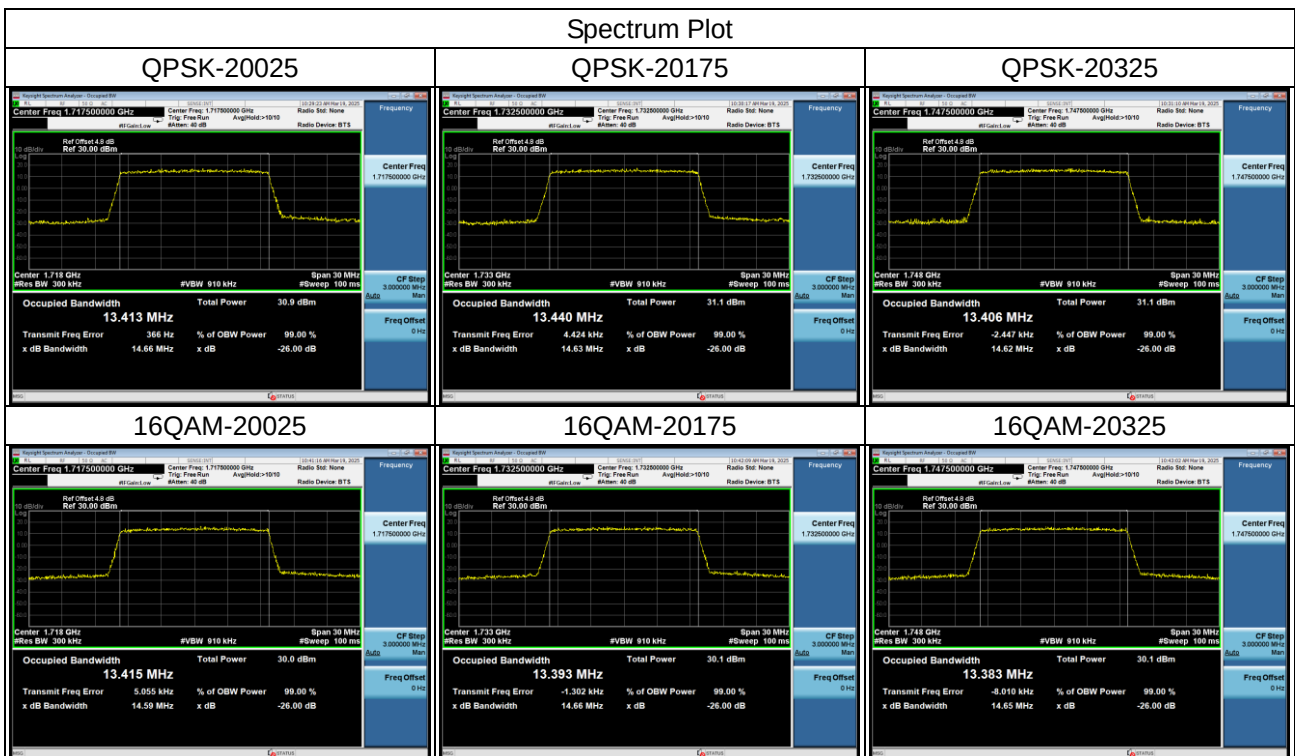
| LTE Band 4_5MHz |                 |                              |        |                      |       |
|-----------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel         | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                 |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 19975           | 1712.5          | 4.5078                       | 4.4917 | 4.997                | 5.007 |
| 20175           | 1732.5          | 4.5008                       | 4.4954 | 4.925                | 5.004 |
| 20375           | 1752.5          | 4.5003                       | 4.4933 | 4.967                | 4.923 |



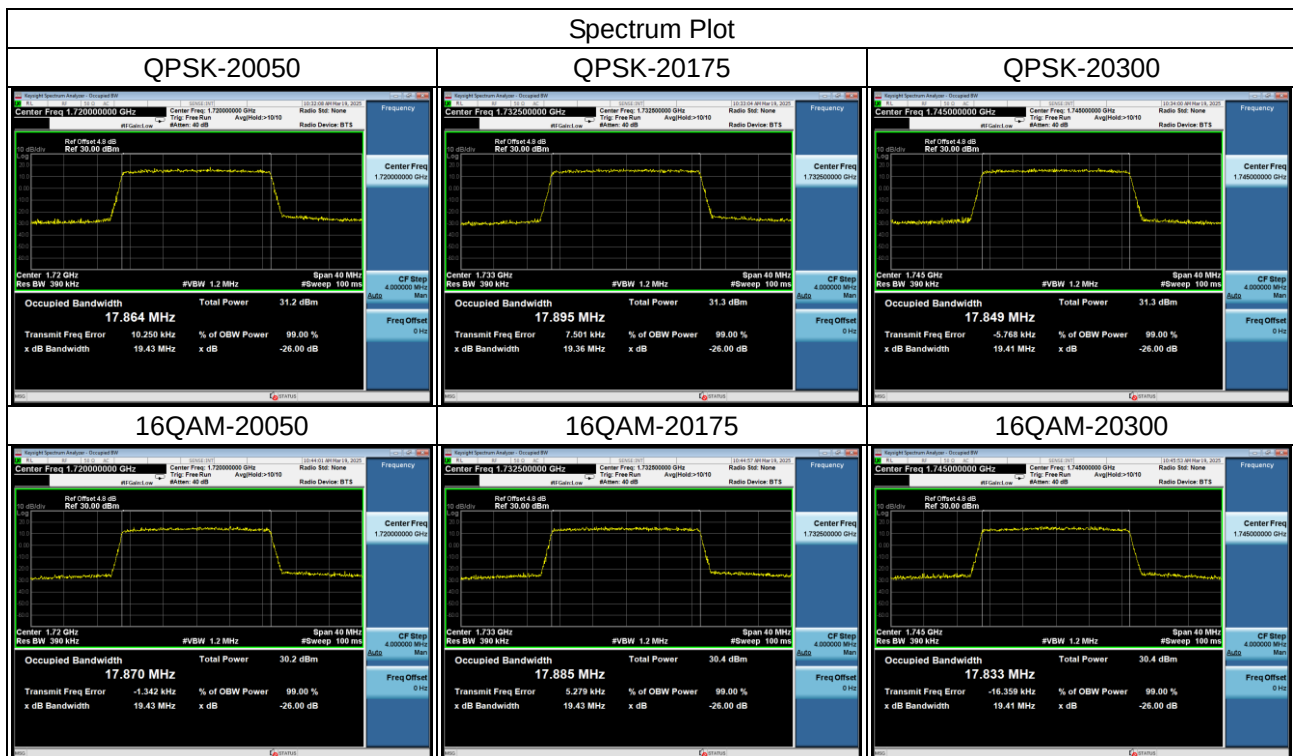
| LTE Band 4_10MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 20000            | 1715            | 8.9532                       | 8.9614 | 9.898                | 9.868 |
| 20175            | 1732.5          | 8.9558                       | 8.9384 | 9.877                | 9.883 |
| 20350            | 1715            | 8.9617                       | 8.9697 | 9.934                | 9.822 |



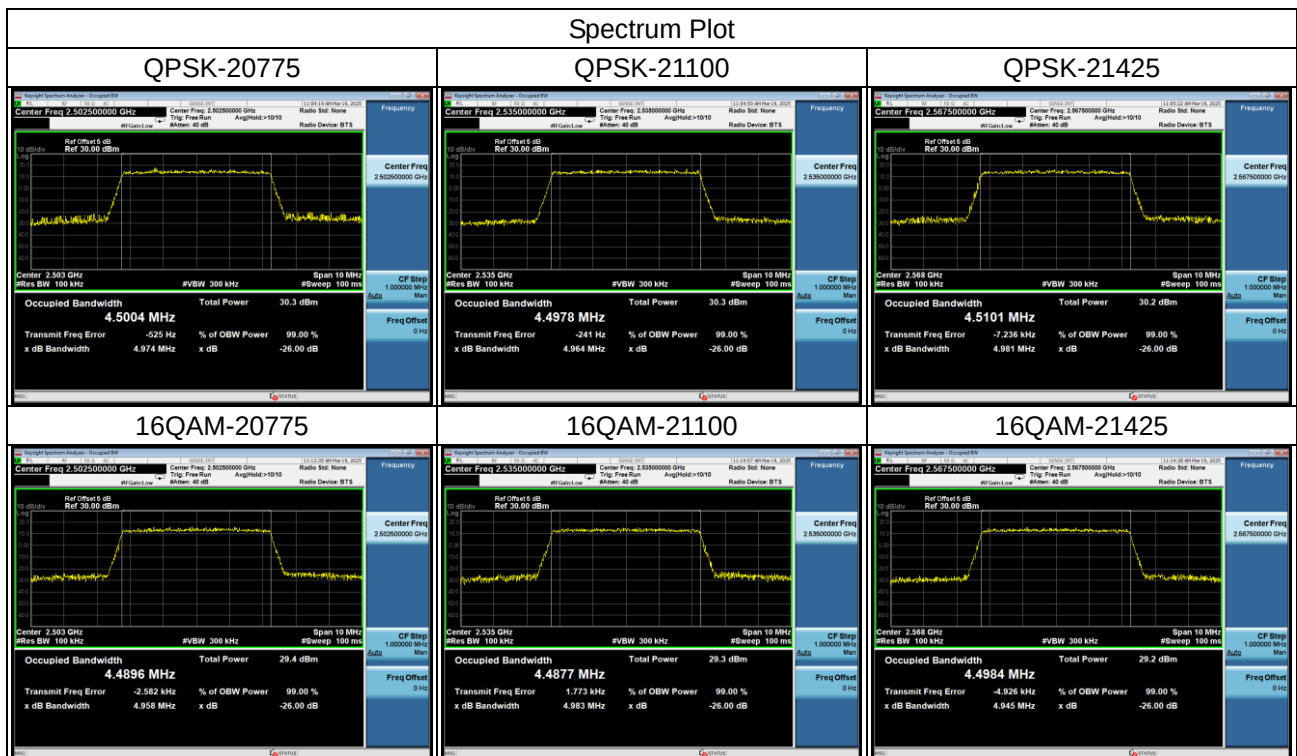
| LTE Band 4_15MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 20025            | 1717.5          | 13.413                       | 13.415 | 14.66                | 14.59 |
| 20175            | 1732.5          | 13.440                       | 13.393 | 14.63                | 14.66 |
| 20325            | 1747.5          | 13.406                       | 13.383 | 14.62                | 14.65 |



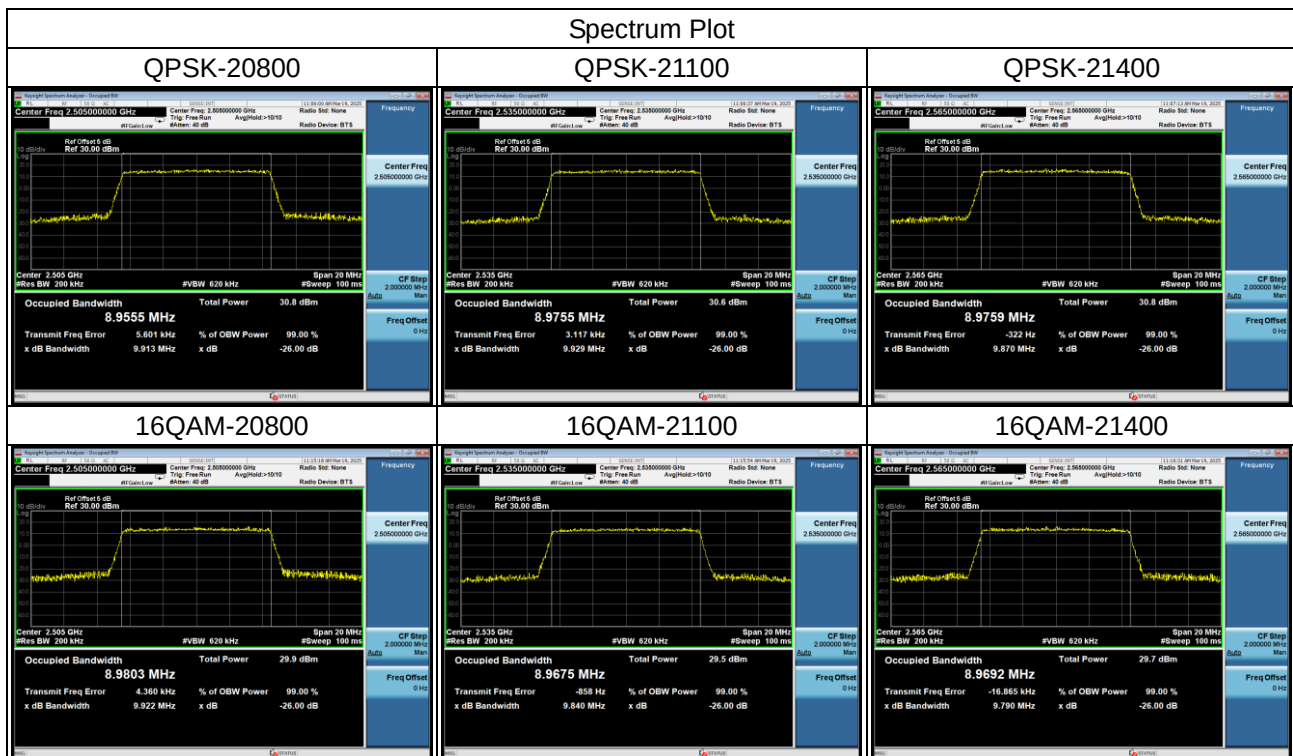
| LTE Band 4_20MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 20050            | 1720            | 17.864                       | 17.870 | 19.43                | 19.43 |
| 20175            | 1732.5          | 17.895                       | 17.885 | 19.36                | 19.43 |
| 20300            | 1740            | 17.849                       | 17.833 | 19.41                | 19.41 |



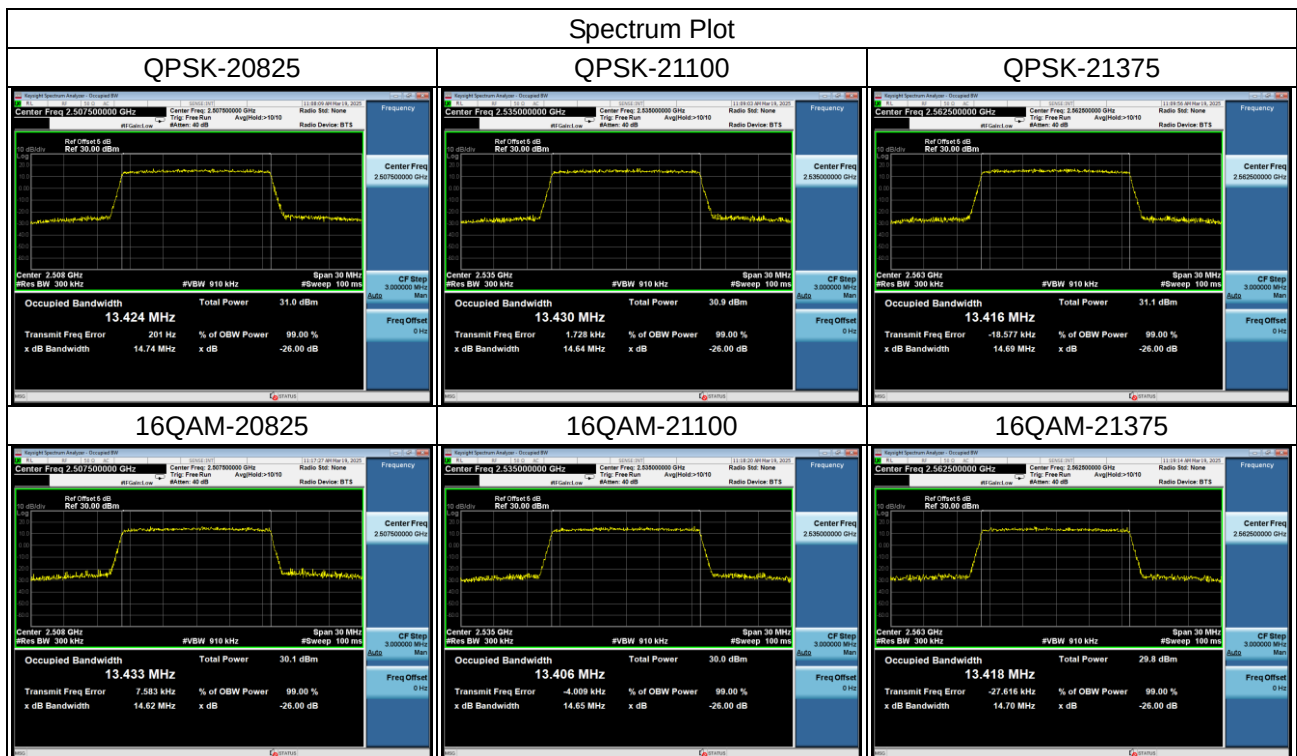
| LTE Band 7_5MHz |                 |                              |        |                      |       |
|-----------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel         | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                 |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 20775           | 2502.5          | 4.5004                       | 4.4896 | 4.974                | 4.958 |
| 21100           | 2535            | 4.4978                       | 4.4877 | 4.964                | 4.983 |
| 21425           | 2567.5          | 4.5101                       | 4.4984 | 4.981                | 4.945 |



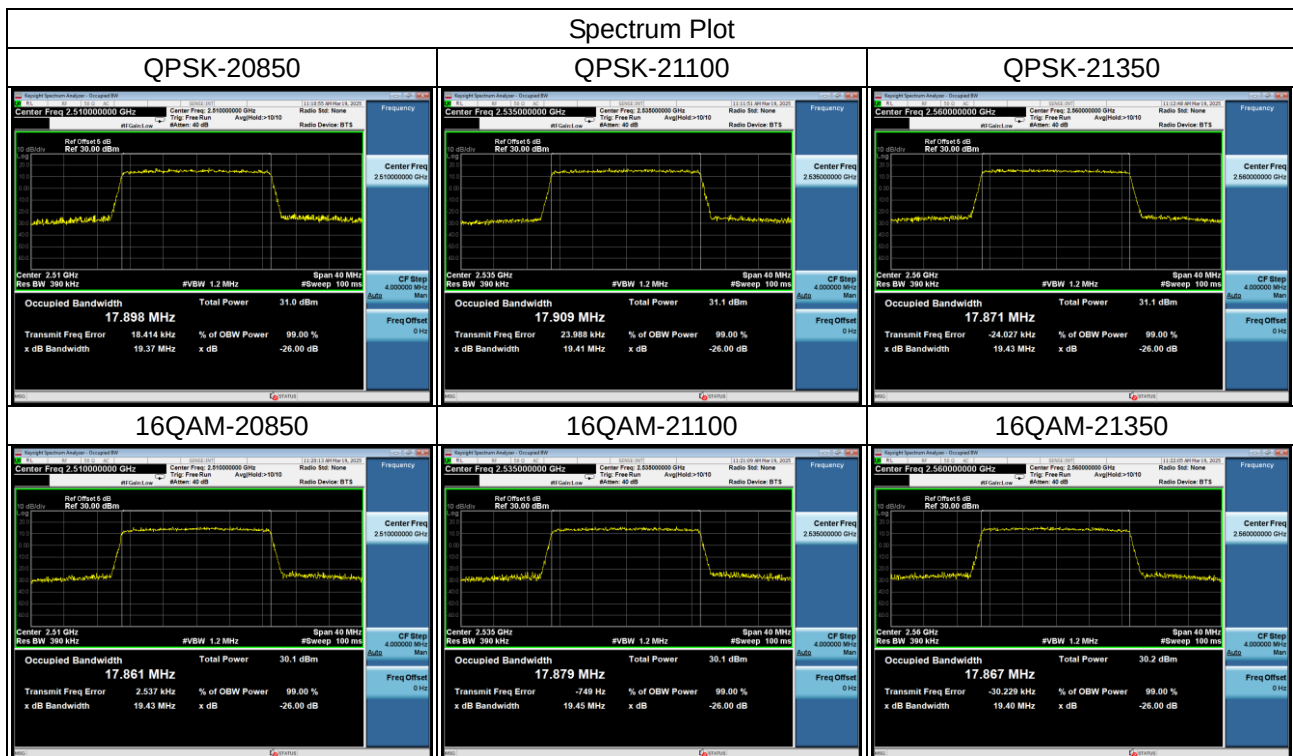
| LTE Band 7_10MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 20800            | 2505            | 8.9555                       | 8.9803 | 9.913                | 9.922 |
| 21100            | 2535            | 8.9755                       | 8.9675 | 9.929                | 9.840 |
| 21400            | 2565            | 8.9759                       | 8.9692 | 9.870                | 9.790 |



| LTE Band 7_15MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 20825            | 2507.5          | 13.424                       | 13.433 | 14.74                | 14.62 |
| 21100            | 2535            | 13.430                       | 13.406 | 14.64                | 14.65 |
| 21375            | 2562.5          | 13.416                       | 13.418 | 14.69                | 14.70 |

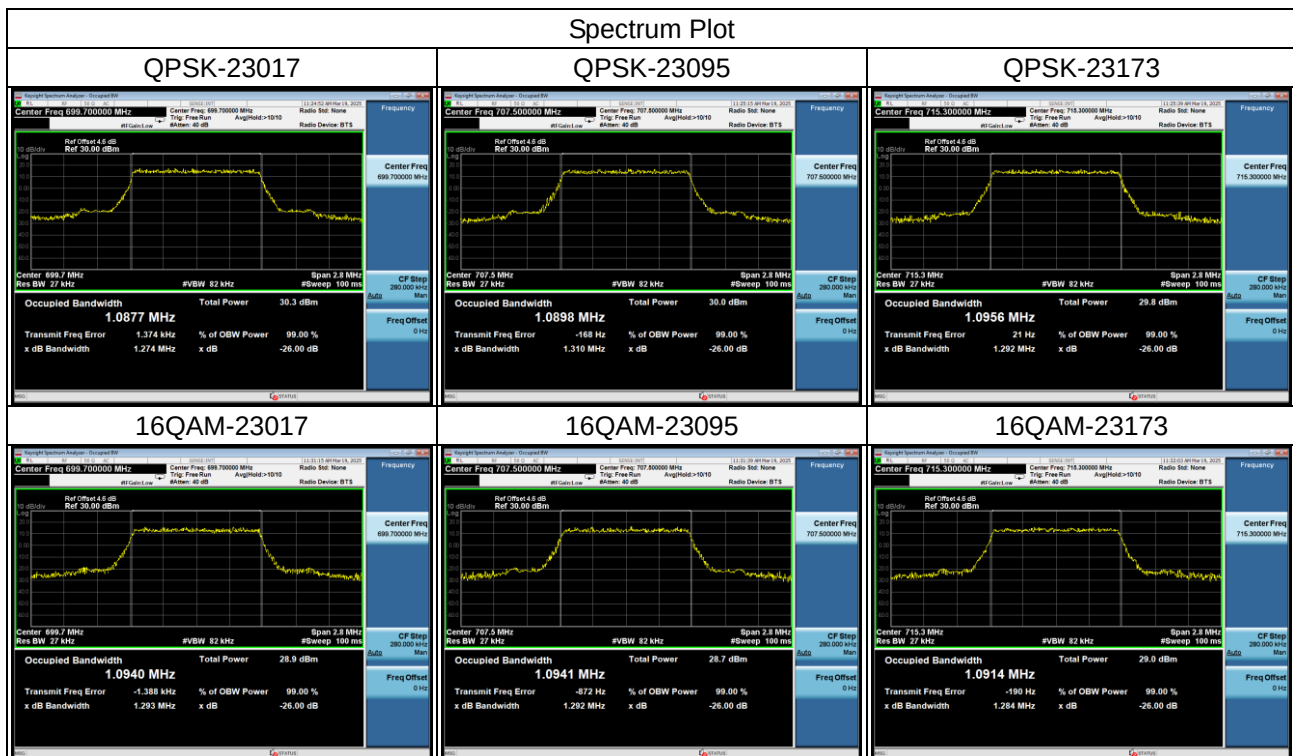


| LTE Band 7_20MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 20850            | 2510            | 17.898                       | 17.861 | 19.37                | 19.43 |
| 21100            | 2535            | 17.909                       | 17.879 | 19.41                | 19.45 |
| 21350            | 2560            | 17.871                       | 17.867 | 19.43                | 19.40 |

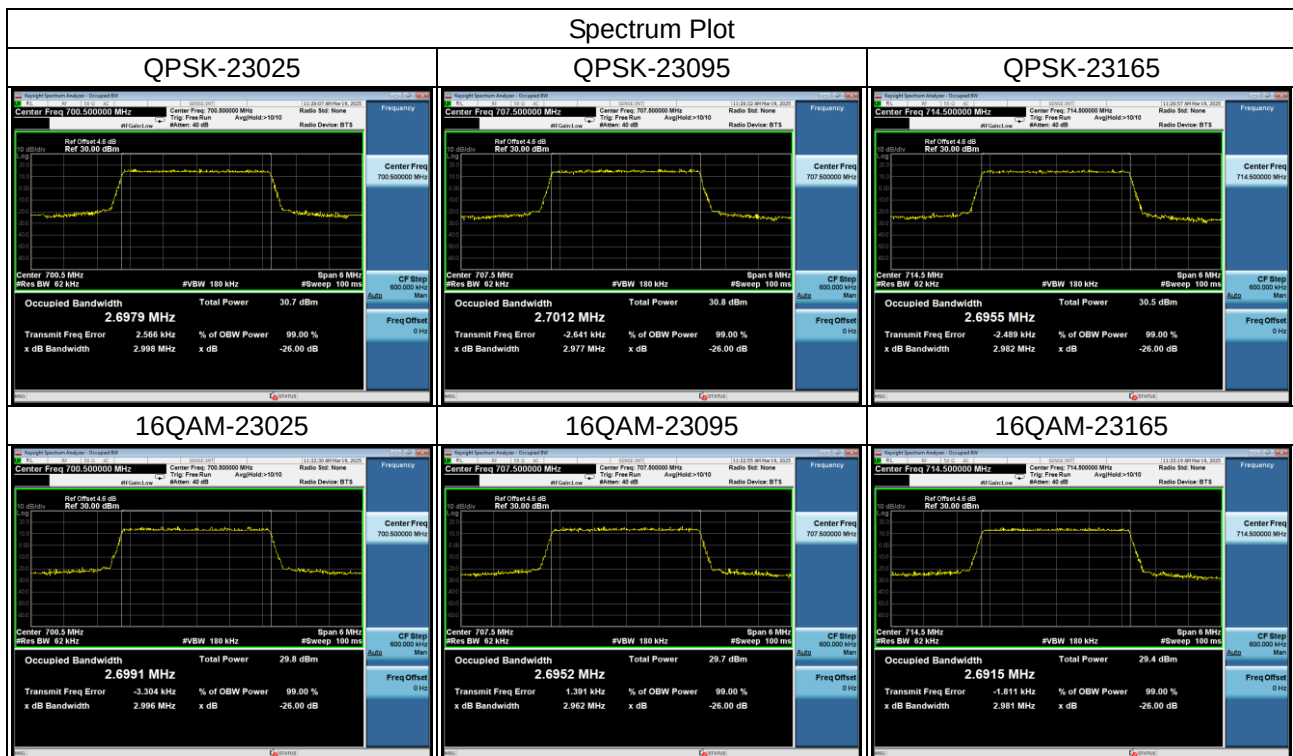




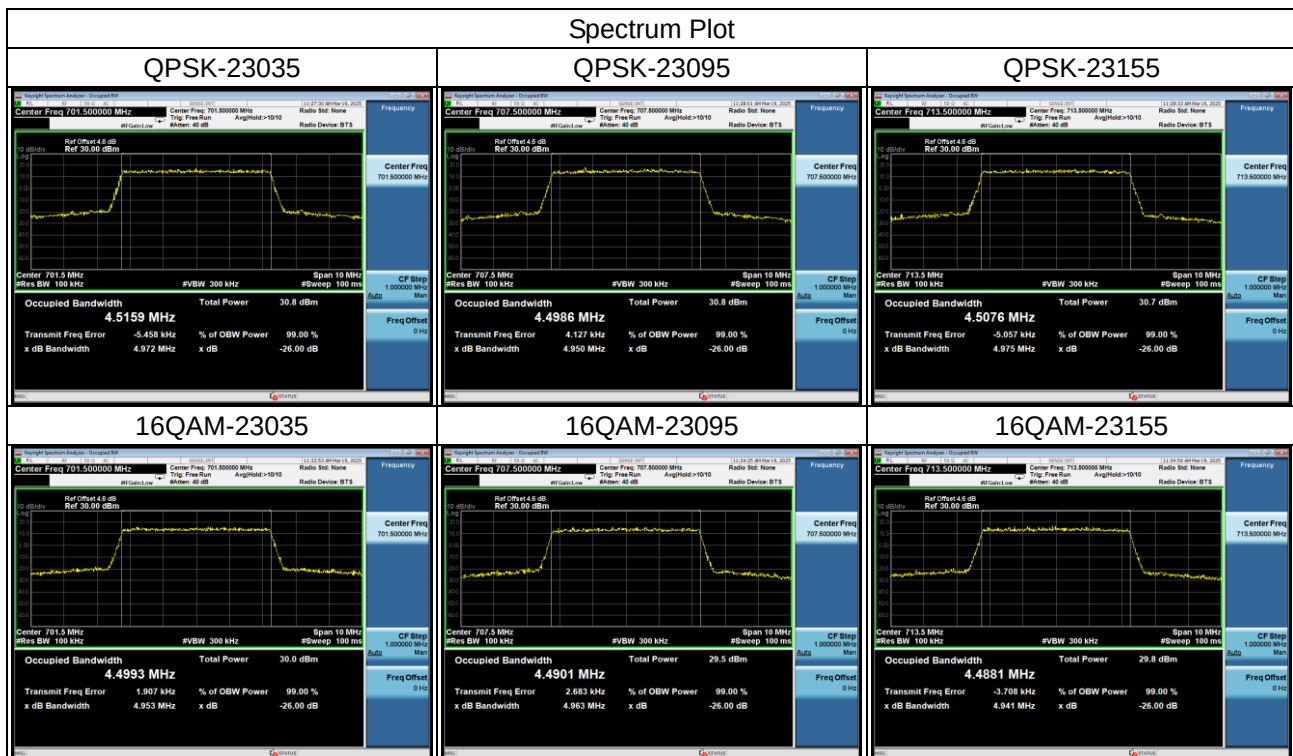
| LTE Band 12_1.4MHz |                 |                              |        |                      |       |
|--------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel            | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                    |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 23017              | 699.7           | 1.0877                       | 1.0940 | 1.274                | 1.293 |
| 23095              | 707.5           | 1.0898                       | 1.0941 | 1.310                | 1.292 |
| 23173              | 715.3           | 1.0956                       | 1.0914 | 1.292                | 1.284 |



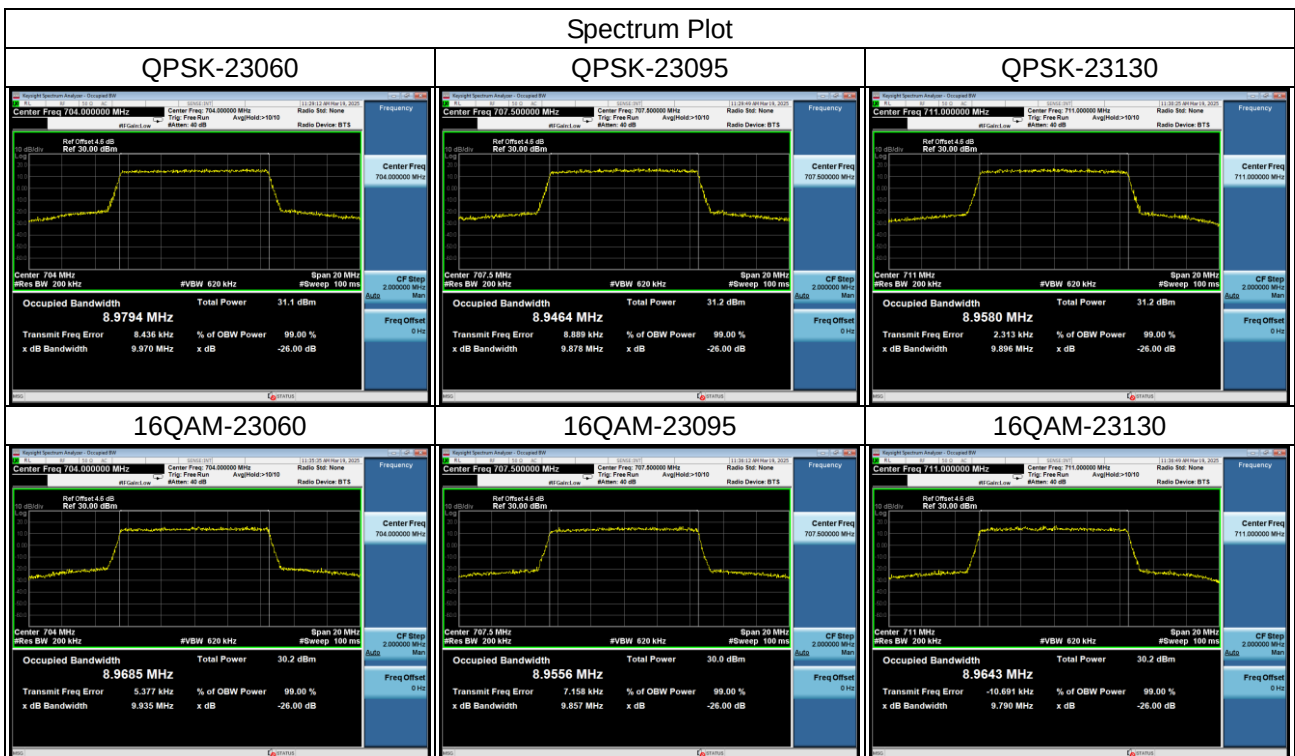
| LTE Band 12_3MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 23025            | 700.5           | 2.6979                       | 2.6991 | 2.998                | 2.996 |
| 23095            | 707.5           | 2.7012                       | 2.6952 | 2.977                | 2.962 |
| 23165            | 714.5           | 2.6955                       | 2.6915 | 2.982                | 2.981 |



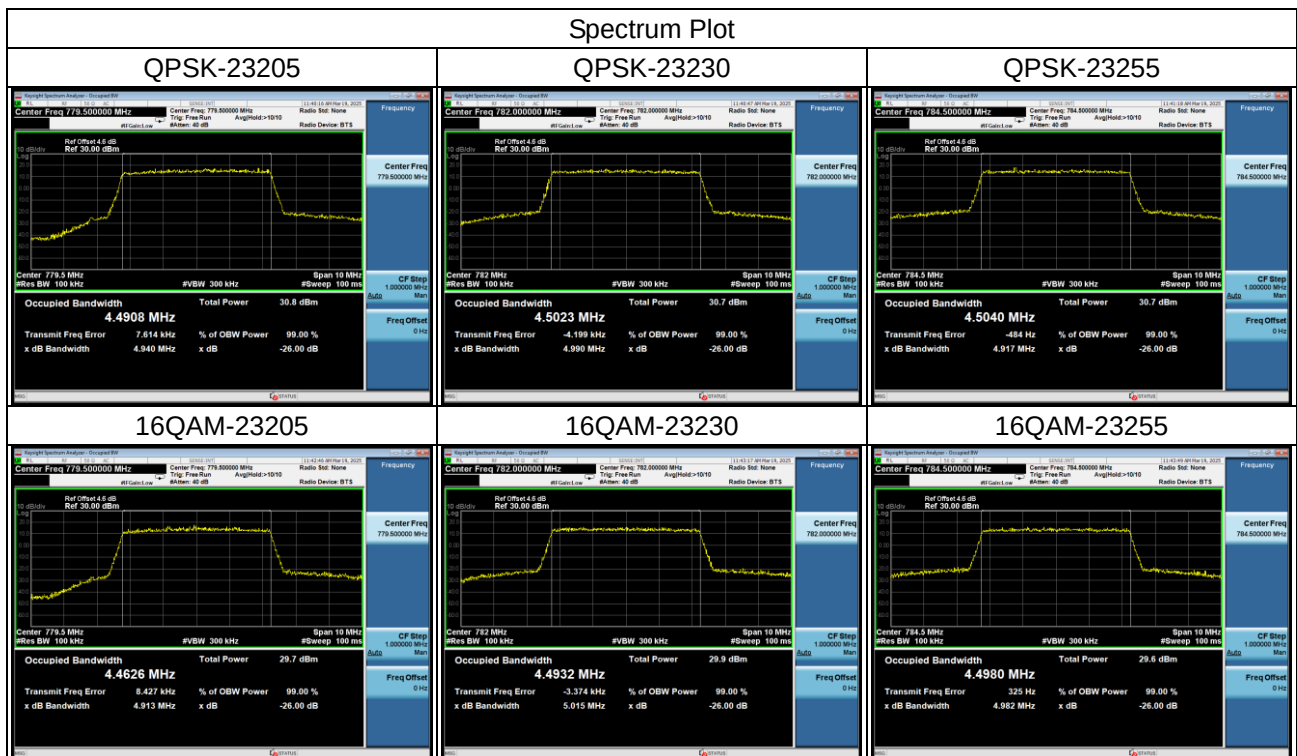
| LTE Band 12_5MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 23035            | 701.5           | 4.5159                       | 4.4993 | 4.972                | 4.953 |
| 23095            | 707.5           | 4.4986                       | 4.4901 | 4.950                | 4.963 |
| 23155            | 713.5           | 4.5076                       | 4.4881 | 4.975                | 4.941 |



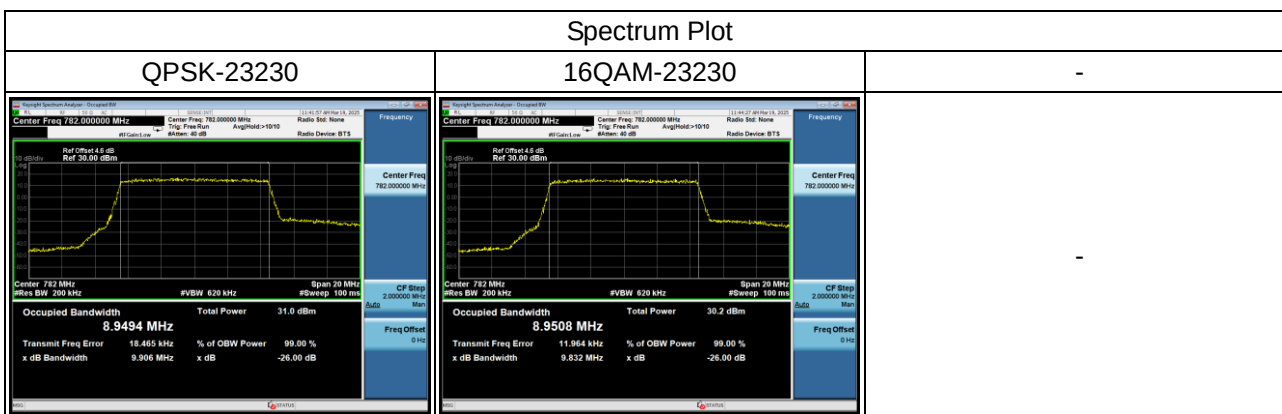
| LTE Band 12_10MHz |                 |                              |        |                      |       |
|-------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel           | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                   |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 23060             | 704.0           | 8.9794                       | 8.9685 | 9.970                | 9.935 |
| 23095             | 707.5           | 8.9464                       | 8.9556 | 9.878                | 9.857 |
| 23130             | 711.0           | 8.9580                       | 8.9643 | 9.896                | 9.790 |



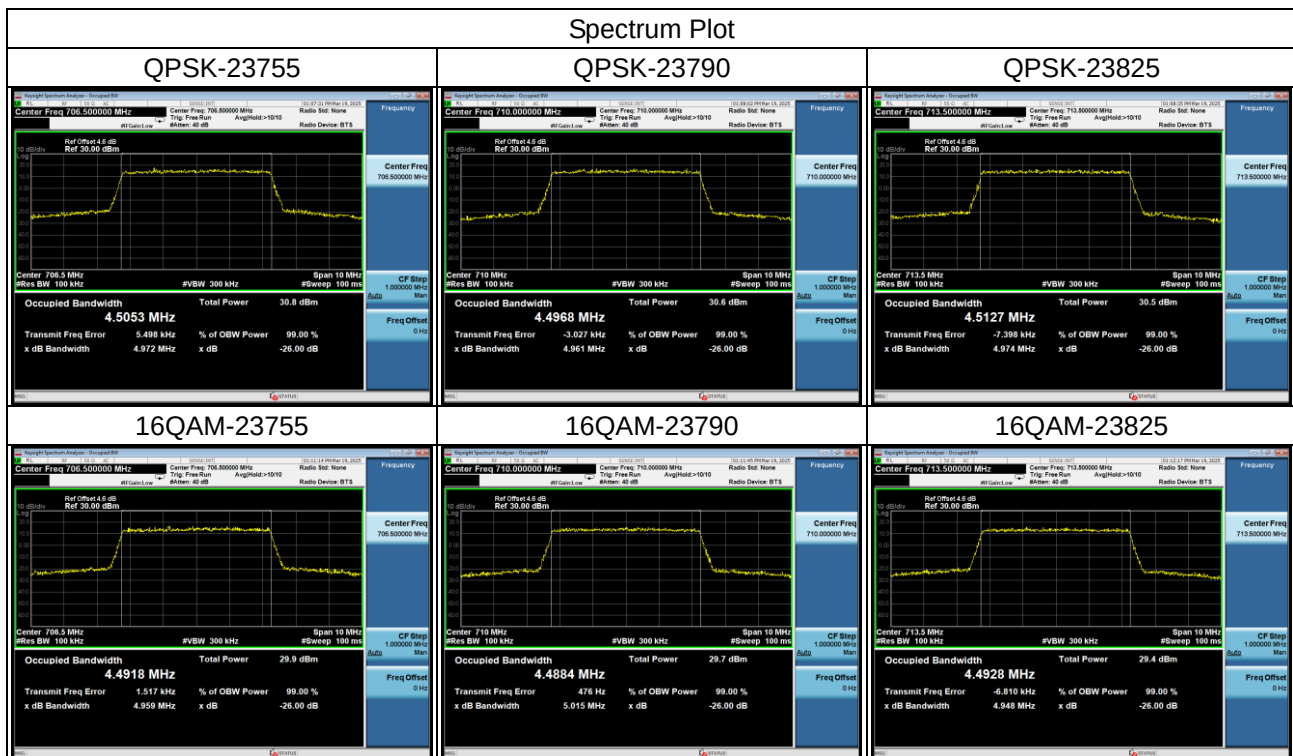
| LTE Band 13_5MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 23205            | 779.5           | 4.4908                       | 4.4626 | 4.940                | 4.913 |
| 23230            | 782.0           | 4.5023                       | 4.4932 | 4.990                | 5.015 |
| 23255            | 784.5           | 4.5040                       | 4.4980 | 4.917                | 4.982 |



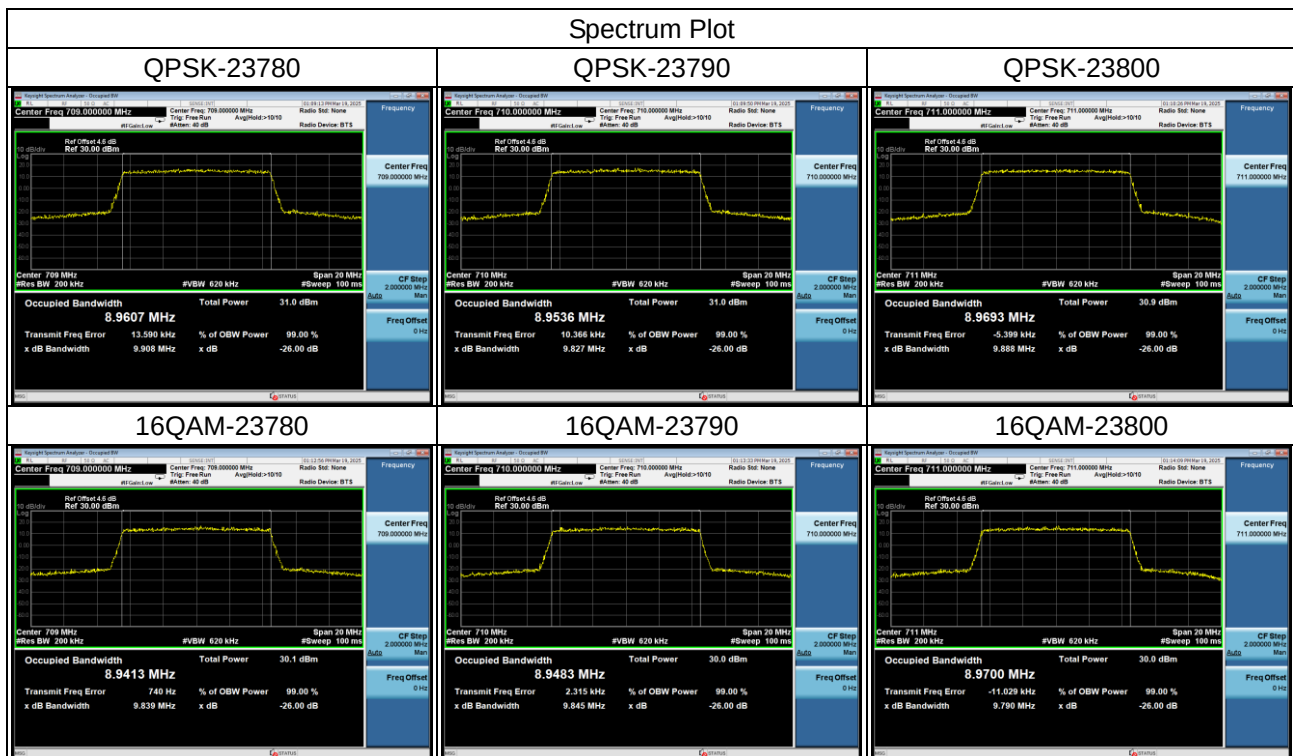
| LTE Band 13_10MHz |                 |                              |        |                      |       |
|-------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel           | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                   |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 23230             | 782.0           | 8.9494                       | 8.9508 | 9.906                | 9.832 |



| LTE Band 17_5MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 23755            | 706.5           | 4.5053                       | 4.4918 | 4.972                | 4.959 |
| 23790            | 710             | 4.4968                       | 4.4884 | 4.961                | 5.015 |
| 23825            | 713.5           | 4.5127                       | 4.4928 | 4.974                | 4.948 |



| LTE Band 17_10MHz |                 |                              |        |                      |       |
|-------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel           | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                   |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 23780             | 709             | 8.9607                       | 8.9413 | 9.908                | 9.839 |
| 23790             | 710             | 8.9536                       | 8.9483 | 9.827                | 9.845 |
| 23800             | 711             | 8.9693                       | 8.9700 | 9.888                | 9.790 |





| LTE Band 41_5MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 39675            | 2498.5          | 4.5014                       | 4.4891 | 5.235                | 5.163 |
| 40620            | 2593            | 4.5129                       | 4.4856 | 6.059                | 4.869 |
| 41565            | 2687.5          | 4.4885                       | 4.4819 | 4.943                | 4.973 |

