

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 13

1 RF Power Output

| Modulation | Carrier frequency (MHz) | UL Channel | BW | RB Size | RB Offset | Conducted power (dBm) |
|------------|-------------------------|------------|----|---------|-----------|-----------------------|
| QPSK | 779.5 | 23205 | 5 | 1 | 0 | 23.13 |
| QPSK | 779.5 | 23205 | 5 | 1 | 12 | 23.21 |
| QPSK | 779.5 | 23205 | 5 | 1 | 24 | 23.00 |
| QPSK | 779.5 | 23205 | 5 | 12 | 0 | 22.16 |
| QPSK | 779.5 | 23205 | 5 | 12 | 7 | 22.14 |
| QPSK | 779.5 | 23205 | 5 | 12 | 13 | 22.11 |
| QPSK | 779.5 | 23205 | 5 | 25 | 0 | 22.11 |
| QPSK | 782 | 23230 | 5 | 1 | 0 | 23.25 |
| QPSK | 782 | 23230 | 5 | 1 | 12 | 23.31 |
| QPSK | 782 | 23230 | 5 | 1 | 24 | 23.04 |
| QPSK | 782 | 23230 | 5 | 12 | 0 | 22.03 |
| QPSK | 782 | 23230 | 5 | 12 | 7 | 22.09 |
| QPSK | 782 | 23230 | 5 | 12 | 13 | 22.11 |
| QPSK | 782 | 23230 | 5 | 25 | 0 | 22.00 |
| QPSK | 784.5 | 23255 | 5 | 1 | 0 | 22.93 |
| QPSK | 784.5 | 23255 | 5 | 1 | 12 | 23.18 |
| QPSK | 784.5 | 23255 | 5 | 1 | 24 | 22.99 |
| QPSK | 784.5 | 23255 | 5 | 12 | 0 | 22.04 |
| QPSK | 784.5 | 23255 | 5 | 12 | 7 | 22.06 |
| QPSK | 784.5 | 23255 | 5 | 12 | 13 | 22.14 |
| QPSK | 784.5 | 23255 | 5 | 25 | 0 | 21.99 |

| Modulation | Carrier frequency (MHz) | UL Channel | BW | RB Size | RB Offset | Conducted power (dBm) |
|------------|-------------------------|------------|----|---------|-----------|-----------------------|
| 16QAM | 779.5 | 23205 | 5 | 1 | 0 | 22.65 |
| 16QAM | 779.5 | 23205 | 5 | 1 | 12 | 22.43 |
| 16QAM | 779.5 | 23205 | 5 | 1 | 24 | 22.42 |
| 16QAM | 779.5 | 23205 | 5 | 12 | 0 | 21.08 |
| 16QAM | 779.5 | 23205 | 5 | 12 | 7 | 21.04 |
| 16QAM | 779.5 | 23205 | 5 | 12 | 13 | 21.14 |
| 16QAM | 779.5 | 23205 | 5 | 25 | 0 | 21.12 |
| 16QAM | 782 | 23230 | 5 | 1 | 0 | 22.71 |
| 16QAM | 782 | 23230 | 5 | 1 | 12 | 22.65 |
| 16QAM | 782 | 23230 | 5 | 1 | 24 | 22.47 |
| 16QAM | 782 | 23230 | 5 | 12 | 0 | 20.98 |
| 16QAM | 782 | 23230 | 5 | 12 | 7 | 21.12 |
| 16QAM | 782 | 23230 | 5 | 12 | 13 | 21.22 |
| 16QAM | 782 | 23230 | 5 | 25 | 0 | 21.14 |
| 16QAM | 784.5 | 23255 | 5 | 1 | 0 | 22.41 |
| 16QAM | 784.5 | 23255 | 5 | 1 | 12 | 22.97 |
| 16QAM | 784.5 | 23255 | 5 | 1 | 24 | 22.48 |
| 16QAM | 784.5 | 23255 | 5 | 12 | 0 | 21.05 |
| 16QAM | 784.5 | 23255 | 5 | 12 | 7 | 20.95 |
| 16QAM | 784.5 | 23255 | 5 | 12 | 13 | 21.01 |
| 16QAM | 784.5 | 23255 | 5 | 25 | 0 | 21.10 |
| 64QAM | 779.5 | 23205 | 5 | 1 | 0 | 22.32 |
| 64QAM | 779.5 | 23205 | 5 | 1 | 12 | 22.16 |
| 64QAM | 779.5 | 23205 | 5 | 1 | 24 | 22.41 |
| 64QAM | 779.5 | 23205 | 5 | 12 | 0 | 21.11 |
| 64QAM | 779.5 | 23205 | 5 | 12 | 7 | 21.05 |
| 64QAM | 779.5 | 23205 | 5 | 12 | 13 | 21.07 |
| 64QAM | 779.5 | 23205 | 5 | 25 | 0 | 21.17 |
| 64QAM | 782 | 23230 | 5 | 1 | 0 | 22.21 |
| 64QAM | 782 | 23230 | 5 | 1 | 12 | 22.38 |
| 64QAM | 782 | 23230 | 5 | 1 | 24 | 21.92 |
| 64QAM | 782 | 23230 | 5 | 12 | 0 | 21.05 |
| 64QAM | 782 | 23230 | 5 | 12 | 7 | 21.19 |
| 64QAM | 782 | 23230 | 5 | 12 | 13 | 21.04 |
| 64QAM | 782 | 23230 | 5 | 25 | 0 | 21.10 |
| 64QAM | 784.5 | 23255 | 5 | 1 | 0 | 22.18 |
| 64QAM | 784.5 | 23255 | 5 | 1 | 12 | 22.63 |
| 64QAM | 784.5 | 23255 | 5 | 1 | 24 | 22.20 |
| 64QAM | 784.5 | 23255 | 5 | 12 | 0 | 21.16 |
| 64QAM | 784.5 | 23255 | 5 | 12 | 7 | 21.01 |
| 64QAM | 784.5 | 23255 | 5 | 12 | 13 | 21.11 |
| 64QAM | 784.5 | 23255 | 5 | 25 | 0 | 20.96 |

| Modulation | Carrier frequency (MHz) | UL Channel | BW | RB Size | RB Offset | Conducted power (dBm) |
|------------|-------------------------|------------|----|---------|-----------|-----------------------|
| QPSK | 782 | 23230 | 10 | 1 | 0 | 23.18 |
| QPSK | 782 | 23230 | 10 | 1 | 25 | 23.07 |
| QPSK | 782 | 23230 | 10 | 1 | 49 | 22.93 |
| QPSK | 782 | 23230 | 10 | 25 | 0 | 22.06 |
| QPSK | 782 | 23230 | 10 | 25 | 12 | 22.13 |
| QPSK | 782 | 23230 | 10 | 25 | 25 | 22.11 |
| QPSK | 782 | 23230 | 10 | 50 | 0 | 22.12 |
| QPSK | 782 | 23230 | 10 | 1 | 0 | 22.96 |
| QPSK | 782 | 23230 | 10 | 1 | 25 | 22.94 |
| QPSK | 782 | 23230 | 10 | 1 | 49 | 22.94 |
| QPSK | 782 | 23230 | 10 | 25 | 0 | 22.05 |
| QPSK | 782 | 23230 | 10 | 25 | 12 | 22.03 |
| QPSK | 782 | 23230 | 10 | 25 | 25 | 22.10 |
| QPSK | 782 | 23230 | 10 | 50 | 0 | 22.14 |
| QPSK | 782 | 23230 | 10 | 1 | 0 | 23.43 |
| QPSK | 782 | 23230 | 10 | 1 | 25 | 23.13 |
| QPSK | 782 | 23230 | 10 | 1 | 49 | 22.92 |
| QPSK | 782 | 23230 | 10 | 25 | 0 | 22.17 |
| QPSK | 782 | 23230 | 10 | 25 | 12 | 22.04 |
| QPSK | 782 | 23230 | 10 | 25 | 25 | 22.15 |
| QPSK | 782 | 23230 | 10 | 50 | 0 | 22.10 |

| Modulation | Carrier frequency (MHz) | UL Channel | BW | RB Size | RB Offset | Conducted power (dBm) |
|------------|-------------------------|------------|----|---------|-----------|-----------------------|
| 16QAM | 782 | 23230 | 10 | 1 | 0 | 22.57 |
| 16QAM | 782 | 23230 | 10 | 1 | 25 | 22.56 |
| 16QAM | 782 | 23230 | 10 | 1 | 49 | 22.52 |
| 16QAM | 782 | 23230 | 10 | 25 | 0 | 21.15 |
| 16QAM | 782 | 23230 | 10 | 25 | 12 | 21.08 |
| 16QAM | 782 | 23230 | 10 | 25 | 25 | 21.07 |
| 16QAM | 782 | 23230 | 10 | 50 | 0 | 20.98 |
| 16QAM | 782 | 23230 | 10 | 1 | 0 | 22.25 |
| 16QAM | 782 | 23230 | 10 | 1 | 25 | 22.42 |
| 16QAM | 782 | 23230 | 10 | 1 | 49 | 22.39 |
| 16QAM | 782 | 23230 | 10 | 25 | 0 | 21.04 |
| 16QAM | 782 | 23230 | 10 | 25 | 12 | 20.98 |
| 16QAM | 782 | 23230 | 10 | 25 | 25 | 21.15 |
| 16QAM | 782 | 23230 | 10 | 50 | 0 | 21.15 |
| 16QAM | 782 | 23230 | 10 | 1 | 0 | 22.47 |
| 16QAM | 782 | 23230 | 10 | 1 | 25 | 22.53 |
| 16QAM | 782 | 23230 | 10 | 1 | 49 | 22.26 |
| 16QAM | 782 | 23230 | 10 | 25 | 0 | 21.08 |
| 16QAM | 782 | 23230 | 10 | 25 | 12 | 21.07 |
| 16QAM | 782 | 23230 | 10 | 25 | 25 | 21.11 |
| 16QAM | 782 | 23230 | 10 | 50 | 0 | 21.09 |
| 64QAM | 782 | 23230 | 10 | 1 | 0 | 21.49 |
| 64QAM | 782 | 23230 | 10 | 1 | 25 | 21.39 |
| 64QAM | 782 | 23230 | 10 | 1 | 49 | 21.09 |
| 64QAM | 782 | 23230 | 10 | 25 | 0 | 20.12 |
| 64QAM | 782 | 23230 | 10 | 25 | 12 | 20.18 |
| 64QAM | 782 | 23230 | 10 | 25 | 25 | 20.03 |
| 64QAM | 782 | 23230 | 10 | 50 | 0 | 20.14 |
| 64QAM | 782 | 23230 | 10 | 1 | 0 | 20.77 |
| 64QAM | 782 | 23230 | 10 | 1 | 25 | 21.64 |
| 64QAM | 782 | 23230 | 10 | 1 | 49 | 20.79 |
| 64QAM | 782 | 23230 | 10 | 25 | 0 | 20.11 |
| 64QAM | 782 | 23230 | 10 | 25 | 12 | 20.13 |
| 64QAM | 782 | 23230 | 10 | 25 | 25 | 20.05 |
| 64QAM | 782 | 23230 | 10 | 50 | 0 | 20.07 |
| 64QAM | 782 | 23230 | 10 | 1 | 0 | 21.41 |
| 64QAM | 782 | 23230 | 10 | 1 | 25 | 21.38 |
| 64QAM | 782 | 23230 | 10 | 1 | 49 | 21.16 |
| 64QAM | 782 | 23230 | 10 | 25 | 0 | 20.10 |
| 64QAM | 782 | 23230 | 10 | 25 | 12 | 20.07 |
| 64QAM | 782 | 23230 | 10 | 25 | 25 | 20.05 |
| 64QAM | 782 | 23230 | 10 | 50 | 0 | 20.06 |

2 Occupied Bandwidth

| Band | Mode | Carrier frequency (MHz) | Channel | BW (MHz) | RB Size | RB Offset | Bandwidth of 99% Power (MHz) | |
|------|------|-------------------------|---------|----------|---------|-----------|------------------------------|-------|
| 13 | QPSK | 779.5 | 23205 | 5 | 25 | 0 | 4.443 | Fig.1 |
| 13 | QPSK | 782 | 23230 | 5 | 25 | 0 | 4.475 | Fig.2 |
| 13 | QPSK | 784.5 | 23255 | 5 | 25 | 0 | 4.456 | Fig.3 |
| 13 | QPSK | 782 | 23230 | 10 | 50 | 0 | 8.943 | Fig.4 |
| 13 | QPSK | 782 | 23230 | 10 | 50 | 0 | 8.879 | Fig.5 |
| 13 | QPSK | 782 | 23230 | 10 | 50 | 0 | 8.904 | Fig.6 |

| Band | Mode | Carrier frequency (MHz) | Channel | BW (MHz) | RB Size | RB Offset | Bandwidth of 99% Power (MHz) | |
|------|-------|-------------------------|---------|----------|---------|-----------|------------------------------|--------|
| 13 | 16QAM | 779.5 | 23205 | 5 | 25 | 0 | 4.460 | Fig.7 |
| 13 | 16QAM | 782 | 23230 | 5 | 25 | 0 | 4.453 | Fig.8 |
| 13 | 16QAM | 784.5 | 23255 | 5 | 25 | 0 | 4.455 | Fig.9 |
| 13 | 16QAM | 782 | 23230 | 10 | 50 | 0 | 8.893 | Fig.10 |
| 13 | 16QAM | 782 | 23230 | 10 | 50 | 0 | 8.869 | Fig.11 |
| 13 | 16QAM | 782 | 23230 | 10 | 50 | 0 | 8.929 | Fig.12 |

| Band | Mode | Carrier frequency (MHz) | Channel | BW (MHz) | RB Size | RB Offset | Bandwidth of 99% Power (MHz) | |
|------|-------|-------------------------|---------|----------|---------|-----------|------------------------------|--------|
| 13 | 64QAM | 779.5 | 23205 | 5 | 25 | 0 | 4.466 | Fig.13 |
| 13 | 64QAM | 782 | 23230 | 5 | 25 | 0 | 4.467 | Fig.14 |
| 13 | 64QAM | 784.5 | 23255 | 5 | 25 | 0 | 4.453 | Fig.15 |
| 13 | 64QAM | 782 | 23230 | 10 | 50 | 0 | 8.884 | Fig.16 |
| 13 | 64QAM | 782 | 23230 | 10 | 50 | 0 | 8.902 | Fig.17 |
| 13 | 64QAM | 782 | 23230 | 10 | 50 | 0 | 8.890 | Fig.18 |

Test Mode: QPSK

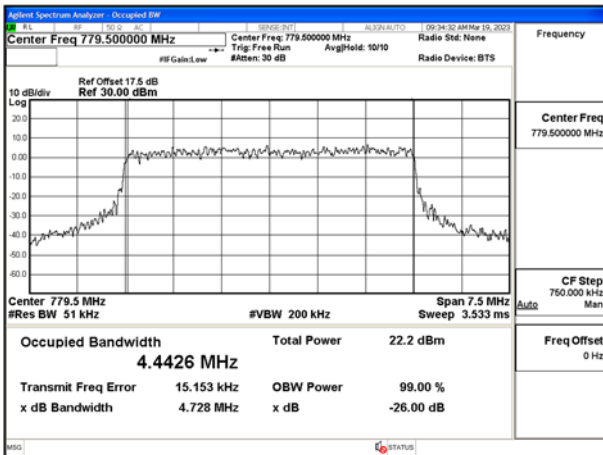


Fig.1

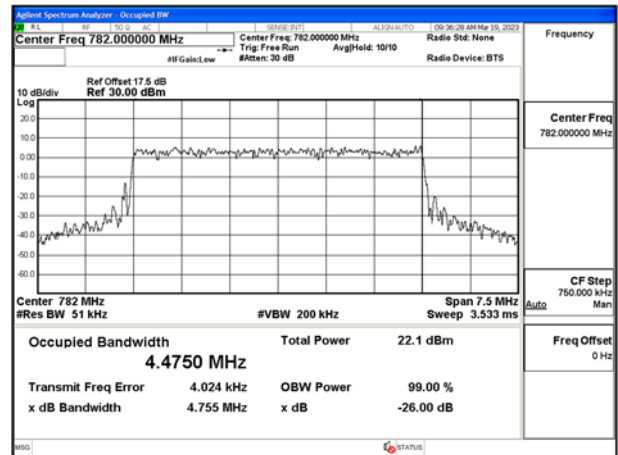


Fig.2

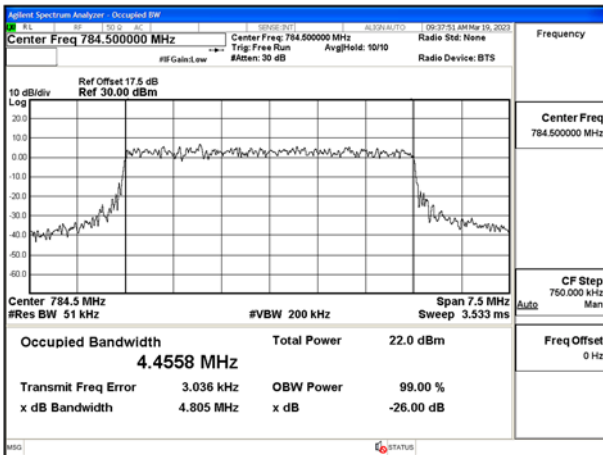


Fig.3

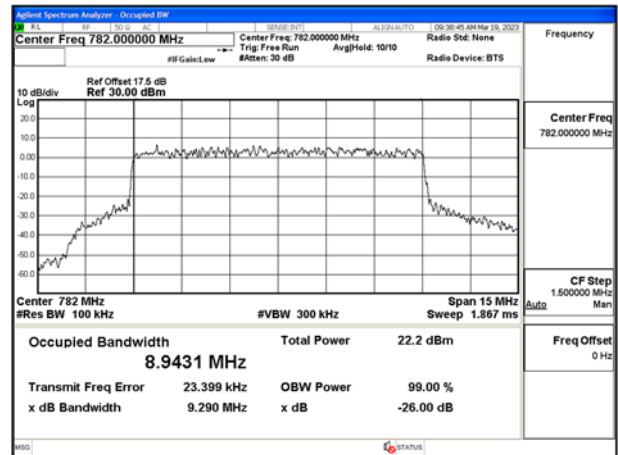


Fig.4

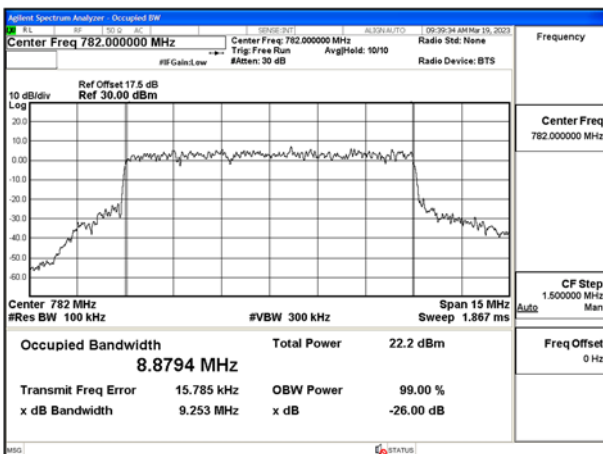


Fig.5

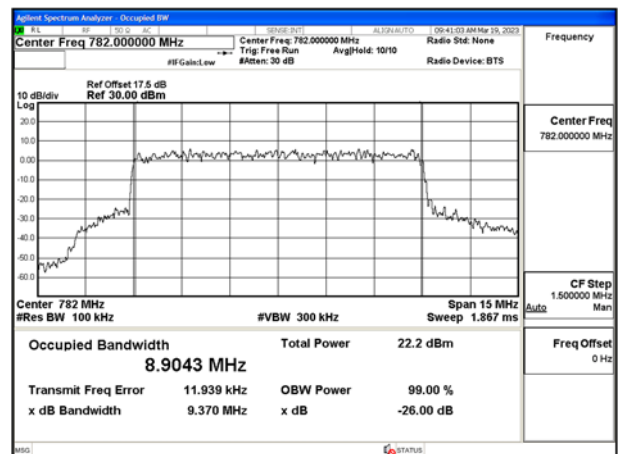


Fig.6

Test Mode: 16QAM

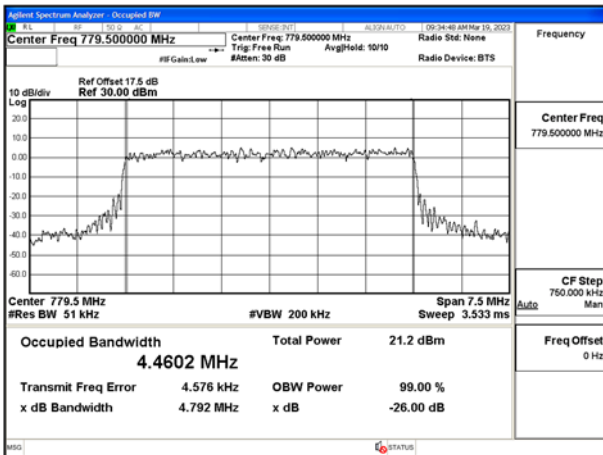


Fig.7

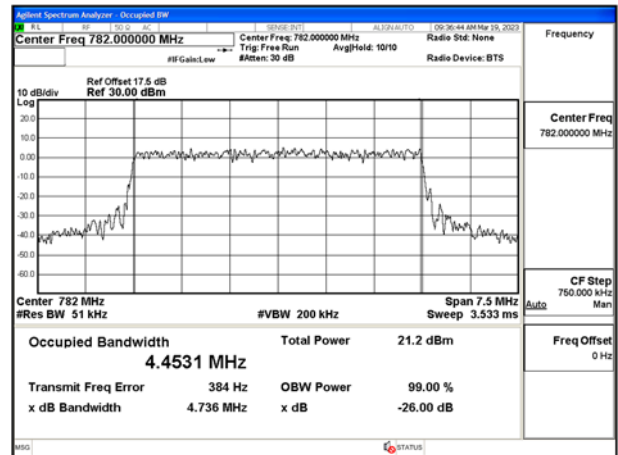


Fig.8

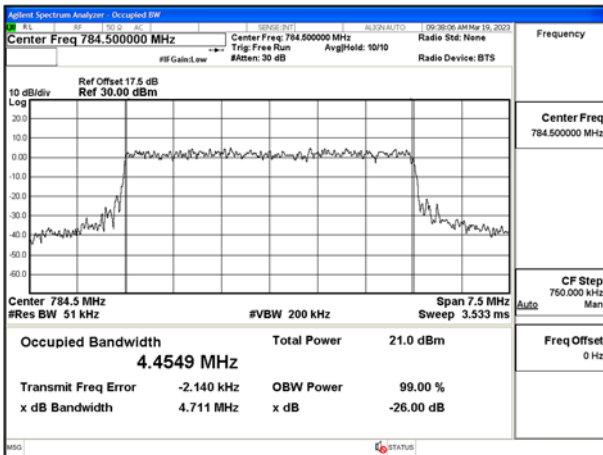


Fig.9

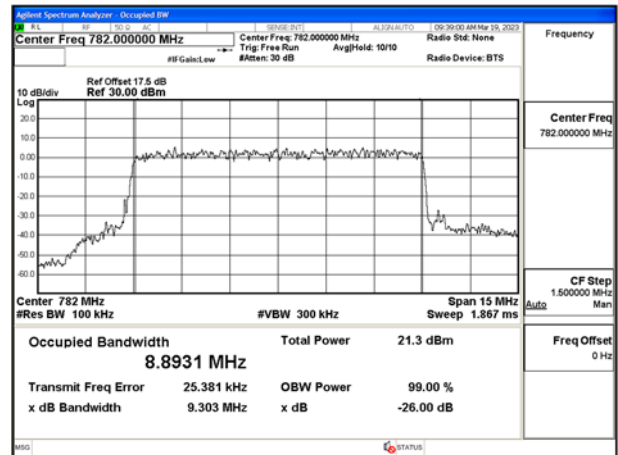


Fig.10

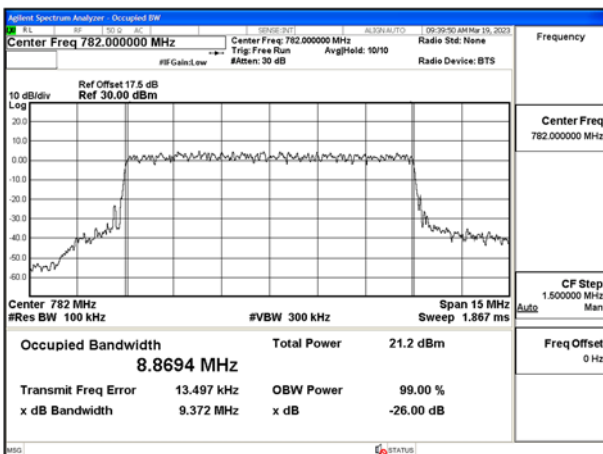


Fig.11

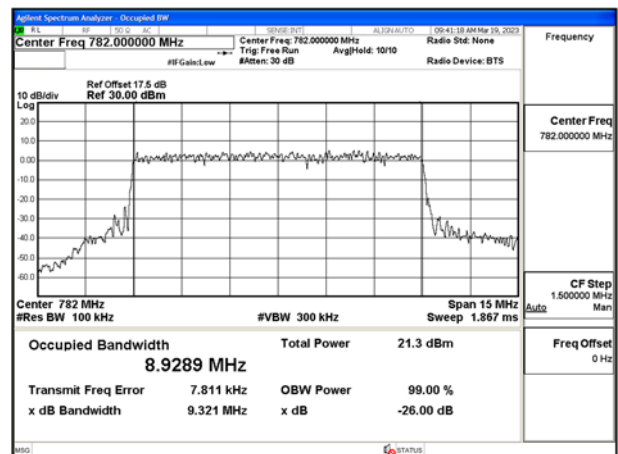


Fig.12

Test Mode: 64QAM

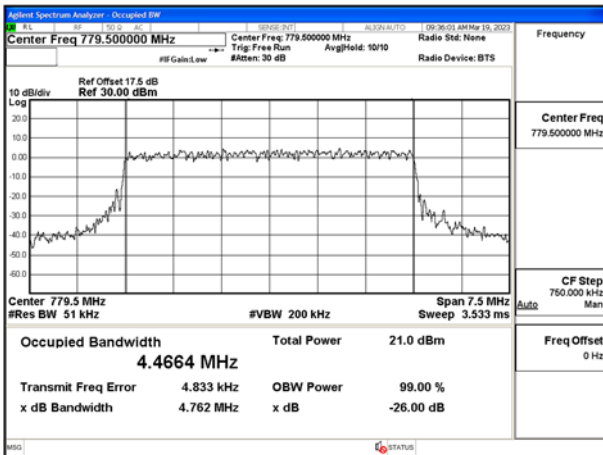


Fig.13

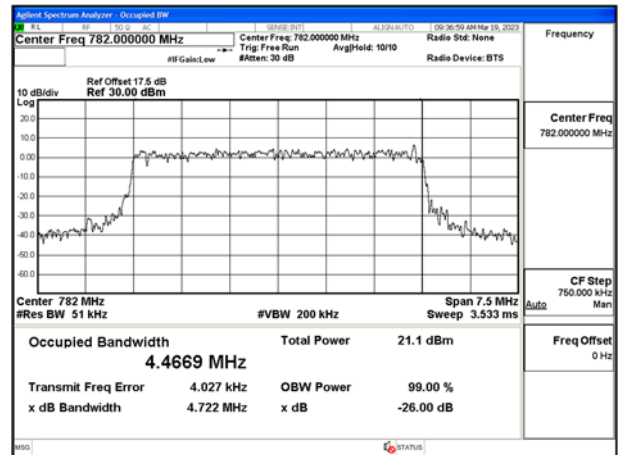


Fig.14

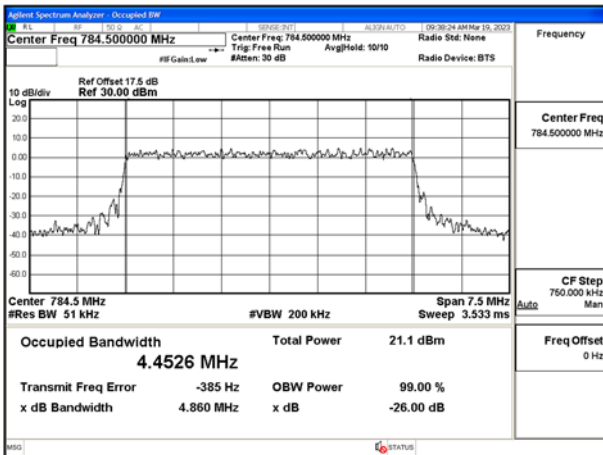


Fig.15

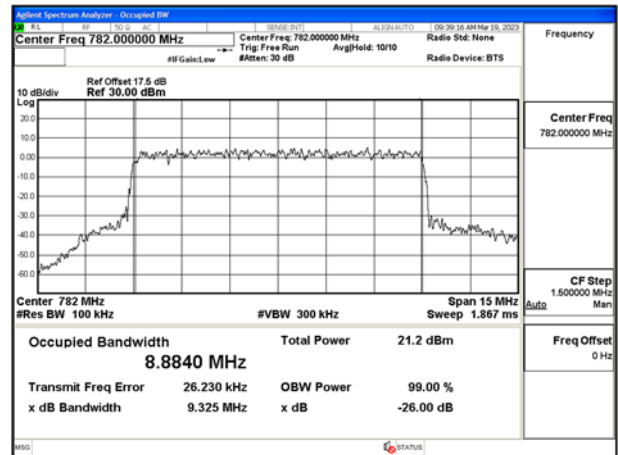


Fig.16

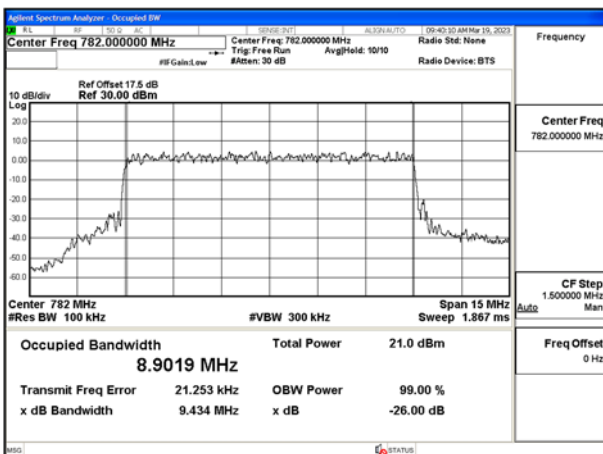


Fig.17

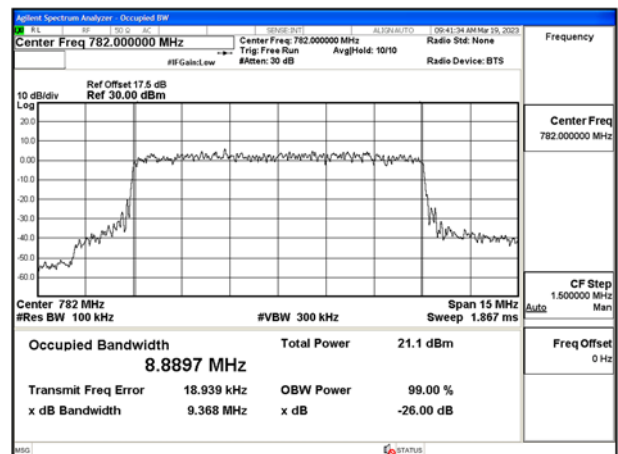


Fig.18

3 Emission Bandwidth

| Band | Mode | Carrier frequency (MHz) | Channel | BW (MHz) | RB Size | RB Offset | Bandwidth of -26dB transmitter power (MHz) | |
|------|------|-------------------------|---------|----------|---------|-----------|--|-------|
| 13 | QPSK | 779.5 | 23205 | 5 | 25 | 0 | 4.728 | Fig.1 |
| 13 | QPSK | 782 | 23230 | 5 | 25 | 0 | 4.755 | Fig.2 |
| 13 | QPSK | 784.5 | 23255 | 5 | 25 | 0 | 4.805 | Fig.3 |
| 13 | QPSK | 782 | 23230 | 10 | 50 | 0 | 9.290 | Fig.4 |
| 13 | QPSK | 782 | 23230 | 10 | 50 | 0 | 9.253 | Fig.5 |
| 13 | QPSK | 782 | 23230 | 10 | 50 | 0 | 9.370 | Fig.6 |

| Band | Mode | Carrier frequency (MHz) | Channel | BW (MHz) | RB Size | RB Offset | Bandwidth of -26dB transmitter power (MHz) | |
|------|-------|-------------------------|---------|----------|---------|-----------|--|--------|
| 13 | 16QAM | 779.5 | 23205 | 5 | 25 | 0 | 4.792 | Fig.7 |
| 13 | 16QAM | 782 | 23230 | 5 | 25 | 0 | 4.736 | Fig.8 |
| 13 | 16QAM | 784.5 | 23255 | 5 | 25 | 0 | 4.711 | Fig.9 |
| 13 | 16QAM | 782 | 23230 | 10 | 50 | 0 | 9.303 | Fig.10 |
| 13 | 16QAM | 782 | 23230 | 10 | 50 | 0 | 9.372 | Fig.11 |
| 13 | 16QAM | 782 | 23230 | 10 | 50 | 0 | 9.321 | Fig.12 |

| Band | Mode | Carrier frequency (MHz) | Channel | BW (MHz) | RB Size | RB Offset | Bandwidth of -26dB transmitter power (MHz) | |
|------|-------|-------------------------|---------|----------|---------|-----------|--|--------|
| 13 | 64QAM | 779.5 | 23205 | 5 | 25 | 0 | 4.762 | Fig.13 |
| 13 | 64QAM | 782 | 23230 | 5 | 25 | 0 | 4.722 | Fig.14 |
| 13 | 64QAM | 784.5 | 23255 | 5 | 25 | 0 | 4.860 | Fig.15 |
| 13 | 64QAM | 782 | 23230 | 10 | 50 | 0 | 9.325 | Fig.16 |
| 13 | 64QAM | 782 | 23230 | 10 | 50 | 0 | 9.434 | Fig.17 |
| 13 | 64QAM | 782 | 23230 | 10 | 50 | 0 | 9.368 | Fig.18 |

Test Mode: QPSK

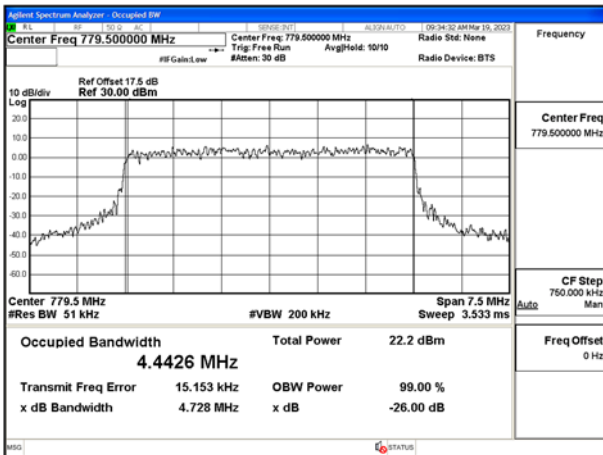


Fig.1

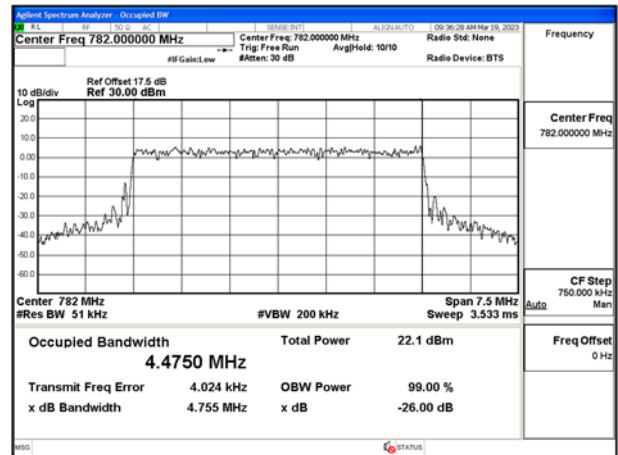


Fig.2

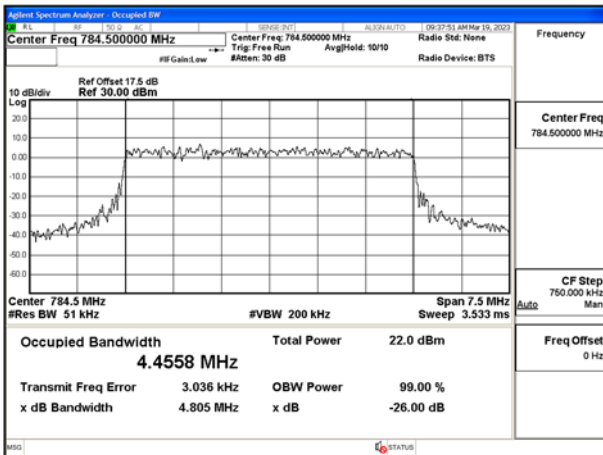


Fig.3

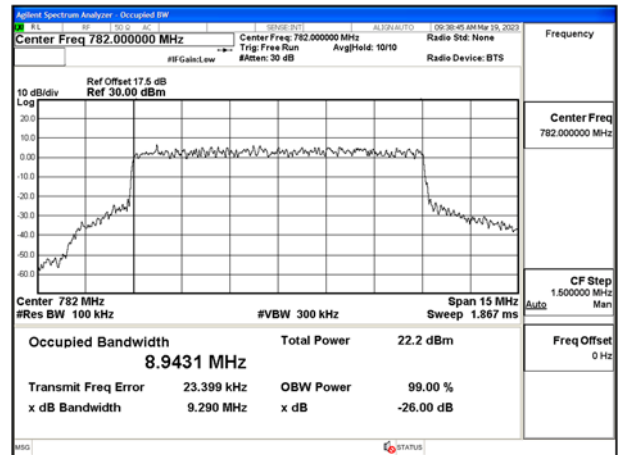


Fig.4

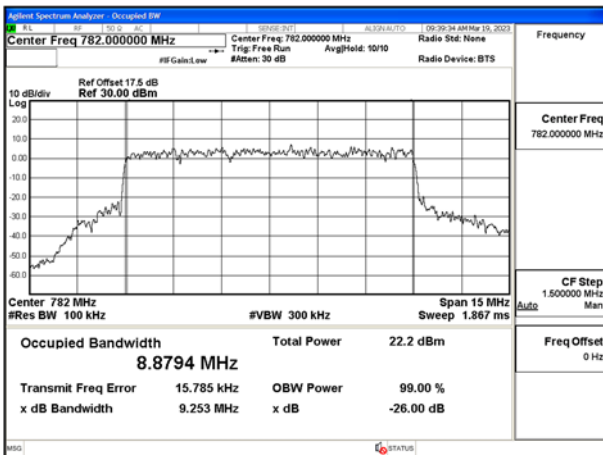


Fig.5

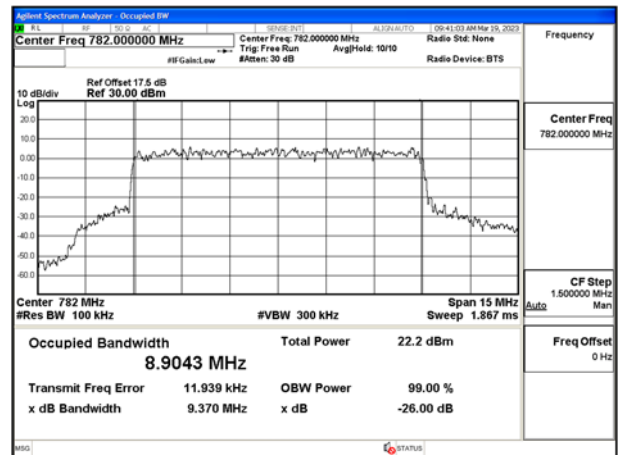


Fig.6

Test Mode: 16QAM

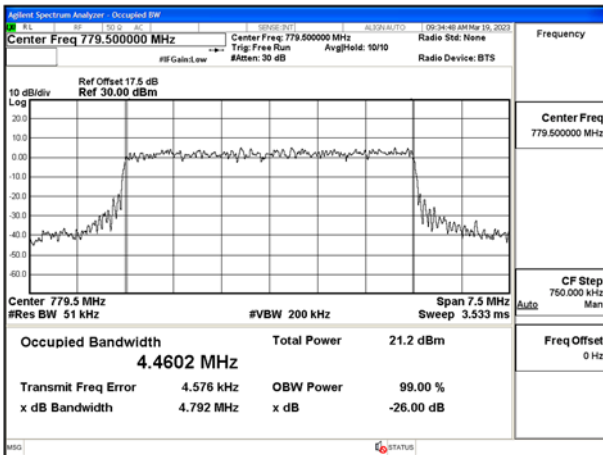


Fig.7

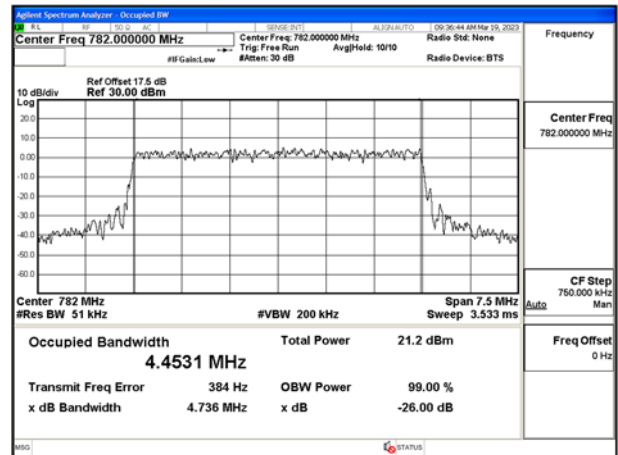


Fig.8

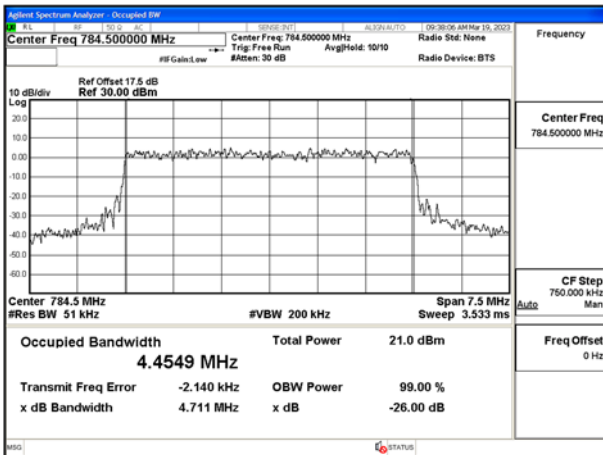


Fig.9

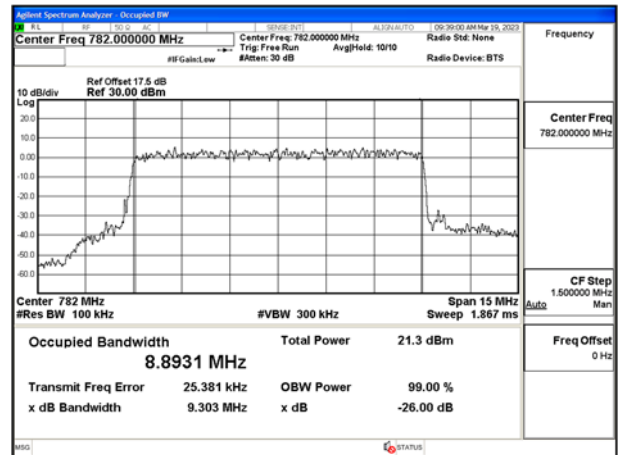


Fig.10

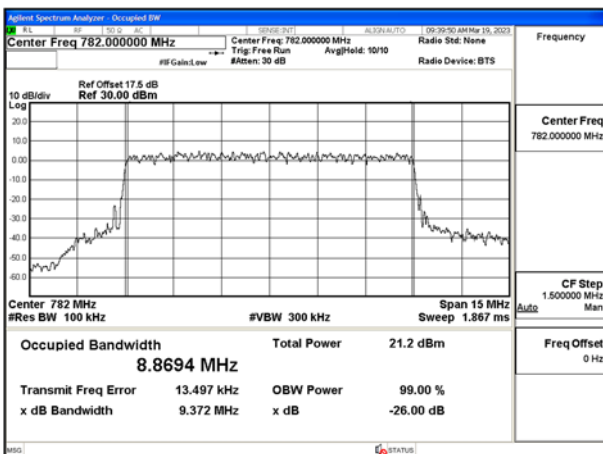


Fig.11

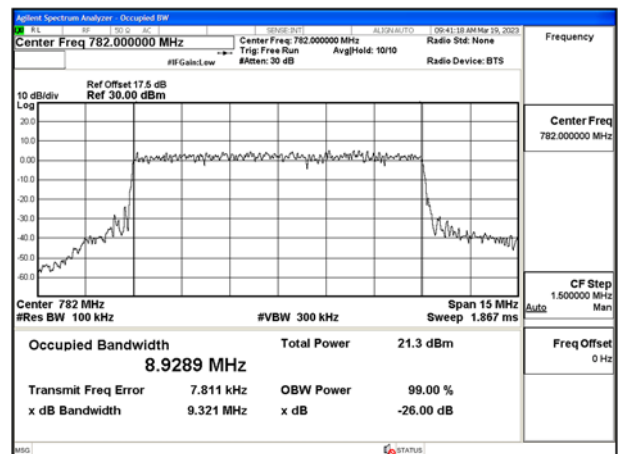


Fig.12

Test Mode: 64QAM

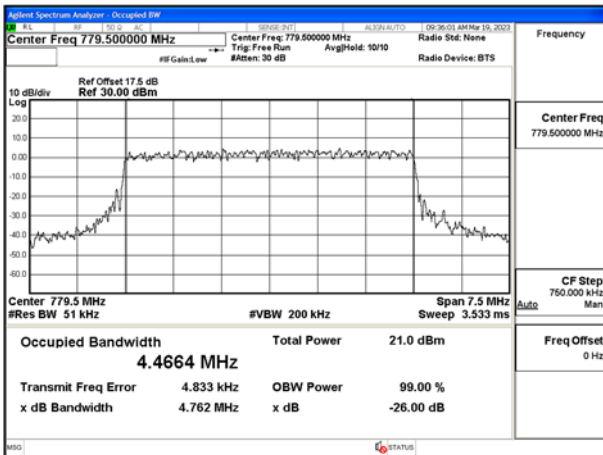


Fig.13

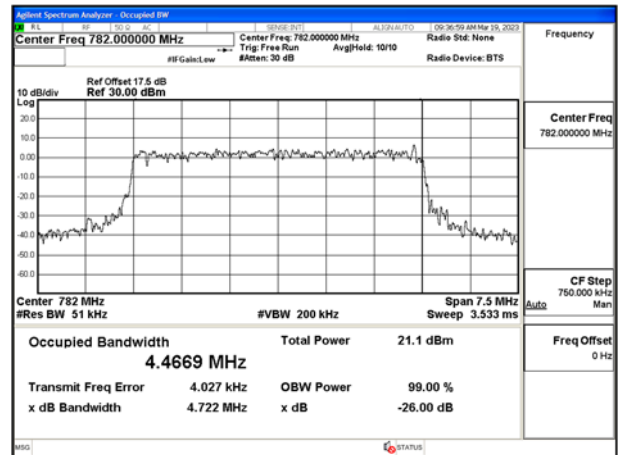


Fig.14

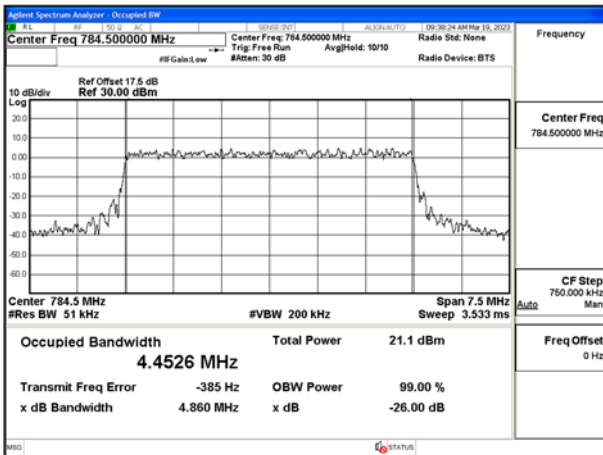


Fig.15

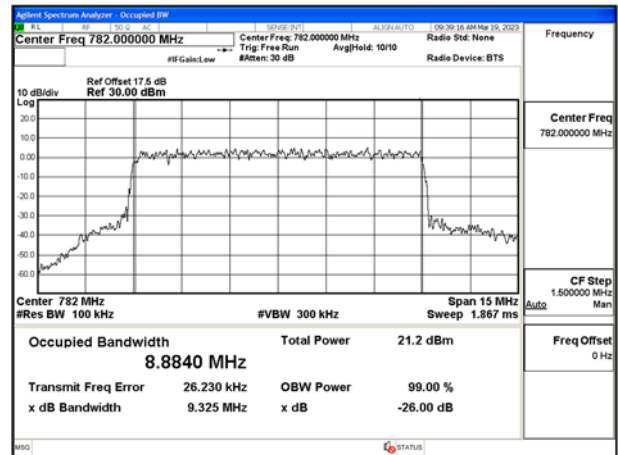


Fig.16

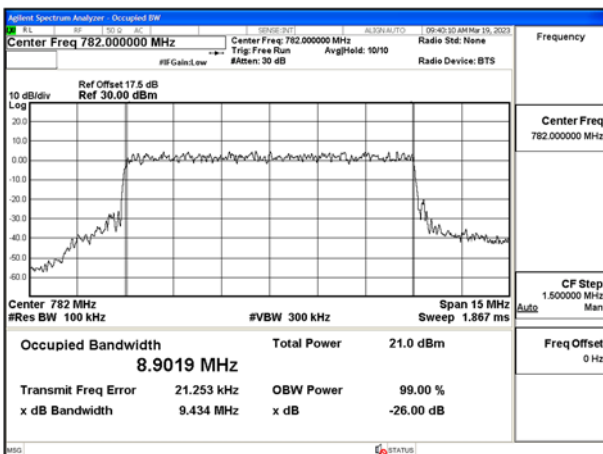


Fig.17

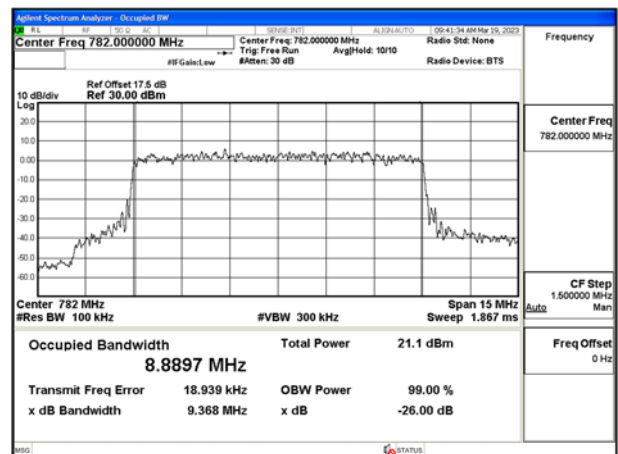


Fig.18

4 Peak-Average Ratio

| Band | Carrier frequency (MHz) | Channel | BW (MHz) | RB Size | RB Offset | QPSK | 16-QAM | 64-QAM |
|------|-------------------------|---------|----------|---------|-----------|--------|--------|--------|
| 13 | 779.5 | 23205 | 5 | 1 | 24 | Fig.1 | Fig.2 | Fig.3 |
| 13 | 779.5 | 23205 | 5 | 25 | 0 | Fig.4 | Fig.5 | Fig.6 |
| 13 | 782 | 23230 | 5 | 1 | 24 | Fig.7 | Fig.8 | Fig.9 |
| 13 | 782 | 23230 | 5 | 25 | 0 | Fig.10 | Fig.11 | Fig.12 |
| 13 | 784.5 | 23255 | 5 | 1 | 24 | Fig.13 | Fig.14 | Fig.15 |
| 13 | 784.5 | 23255 | 5 | 25 | 0 | Fig.16 | Fig.17 | Fig.18 |
| 13 | 782 | 23230 | 10 | 1 | 49 | Fig.19 | Fig.20 | Fig.21 |
| 13 | 782 | 23230 | 10 | 50 | 0 | Fig.22 | Fig.23 | Fig.24 |

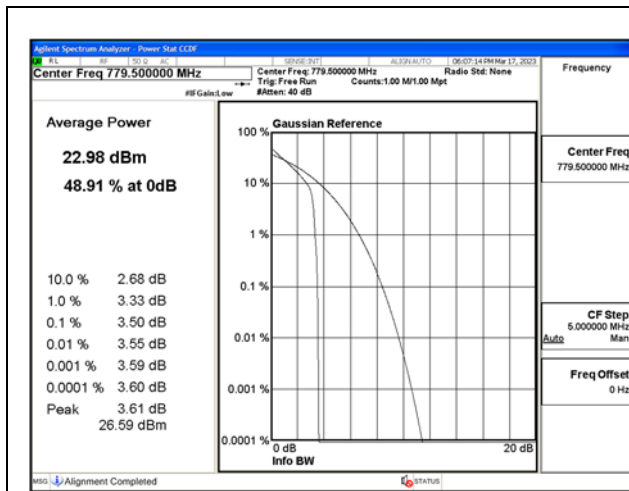


Fig.1

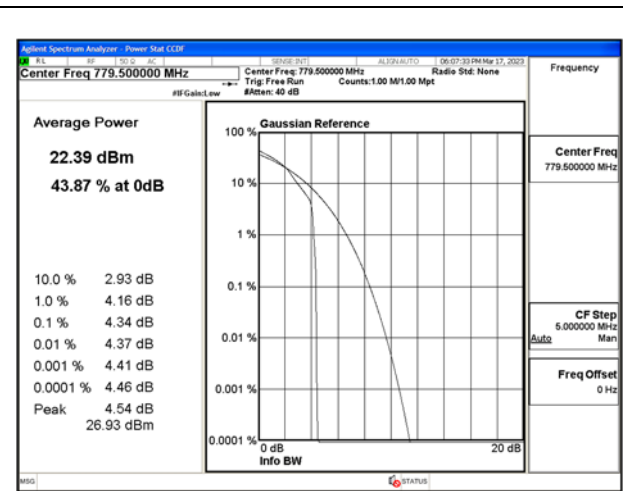


Fig.2

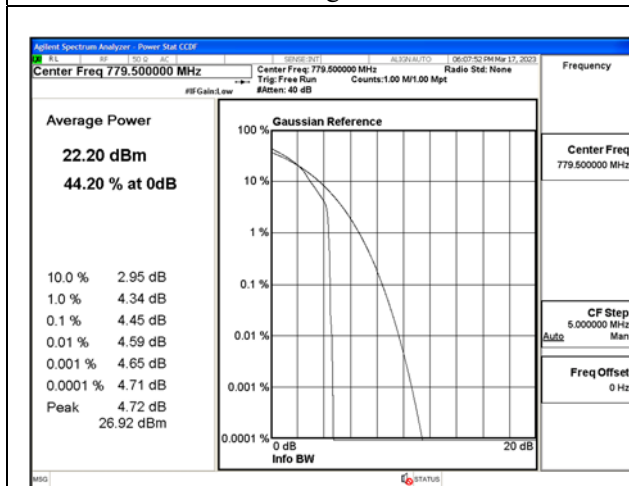


Fig.3

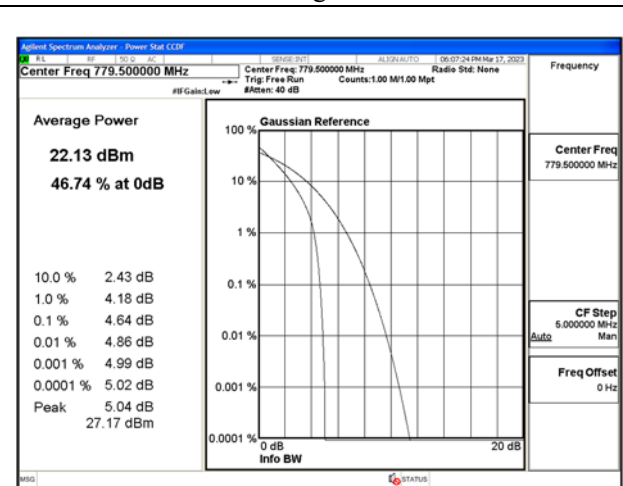


Fig.4

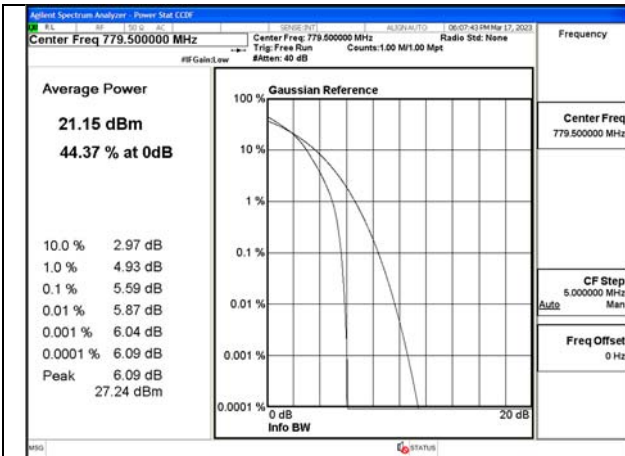


Fig.5

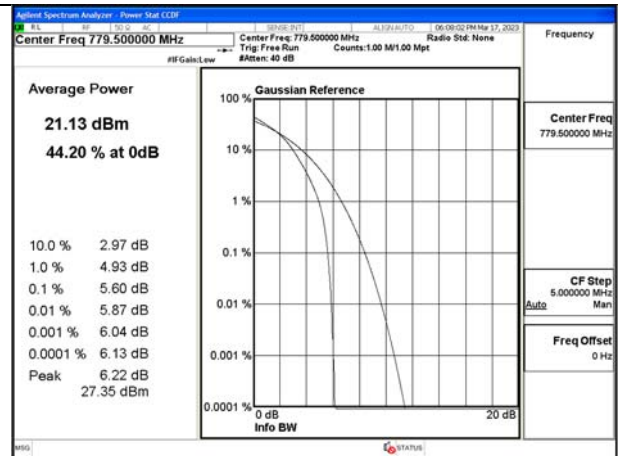


Fig.6

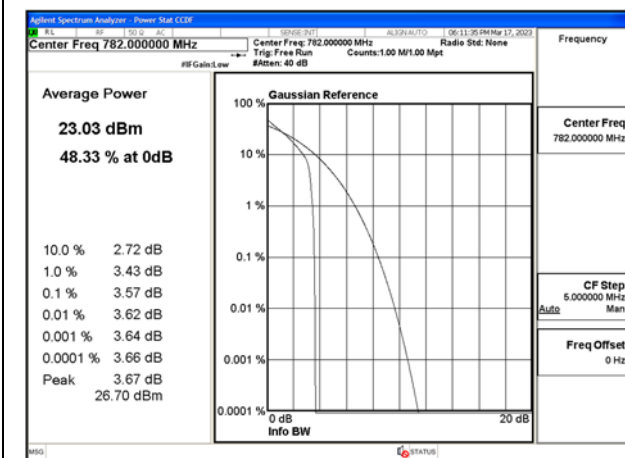


Fig.7

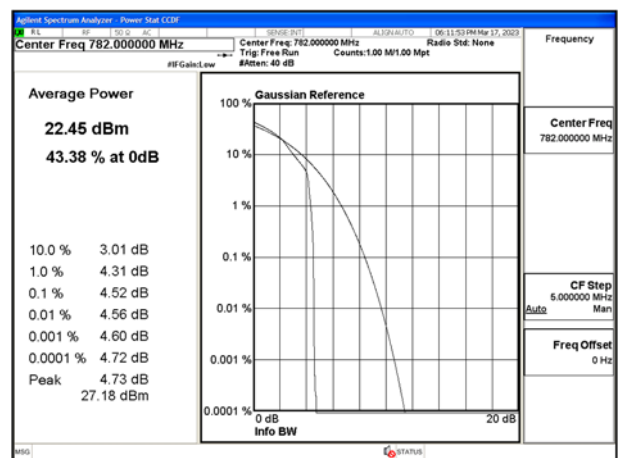


Fig.8

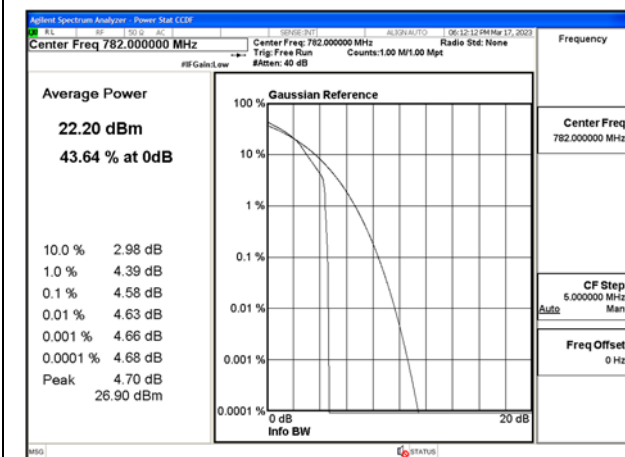


Fig.9

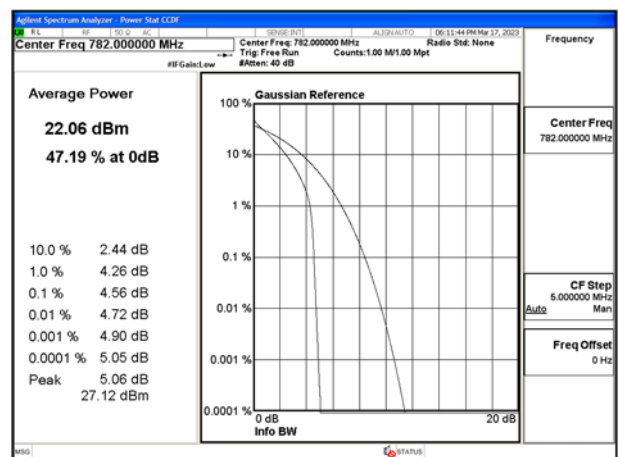


Fig.10

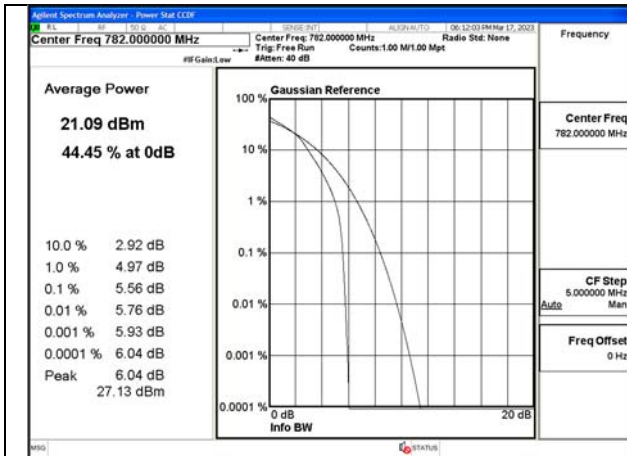


Fig.11

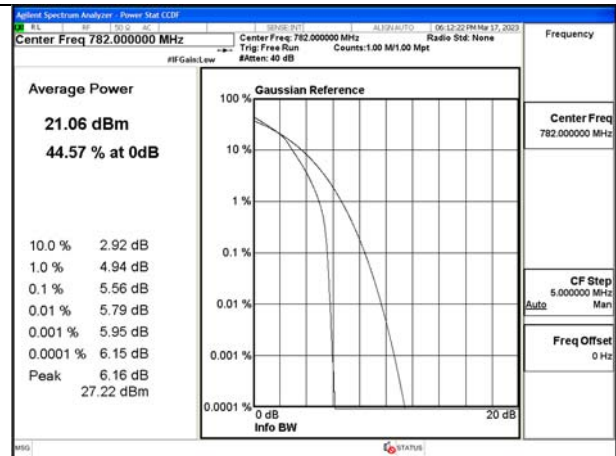


Fig.12

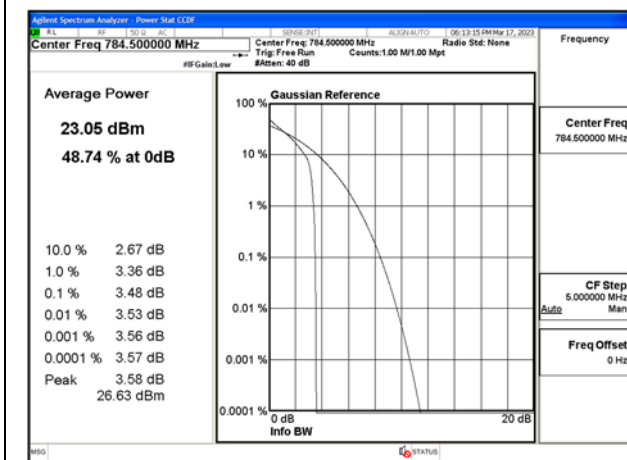


Fig.13

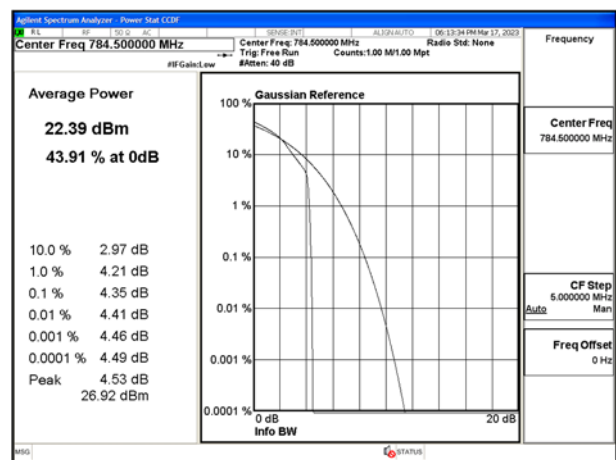


Fig.14

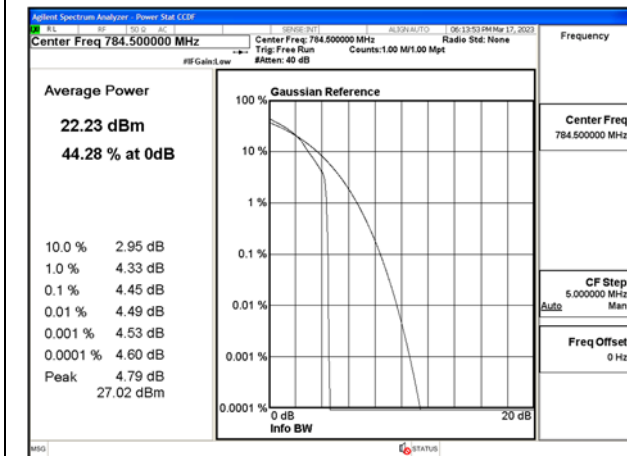


Fig.15

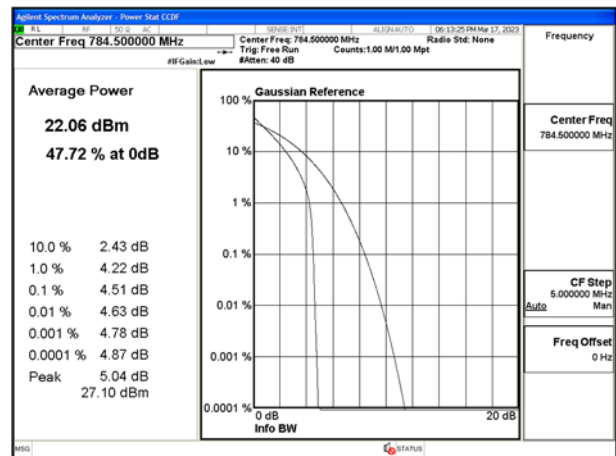


Fig.16

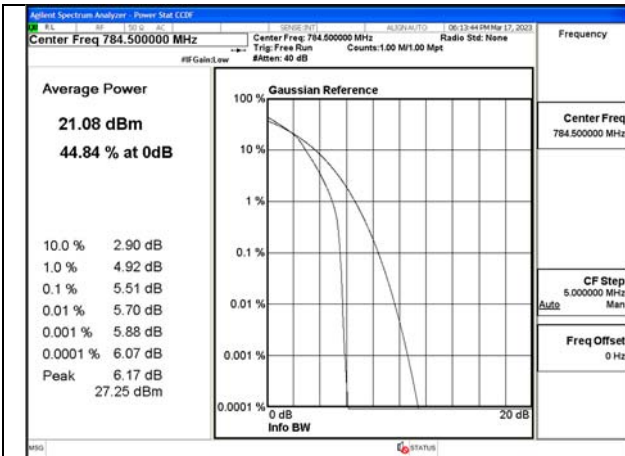


Fig.17

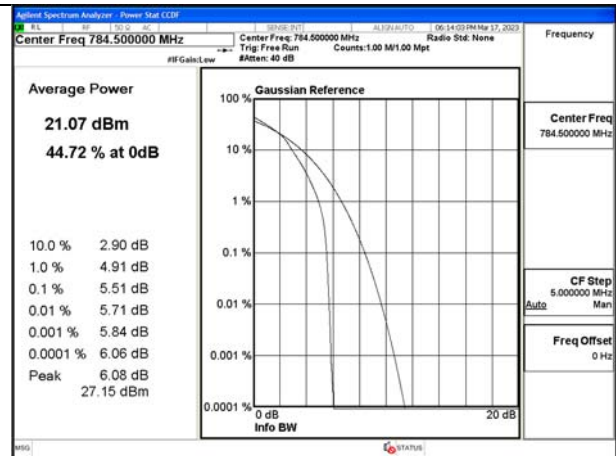


Fig.18

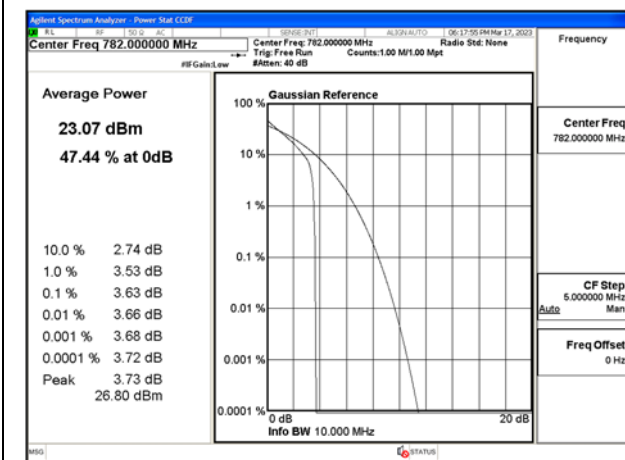


Fig.19

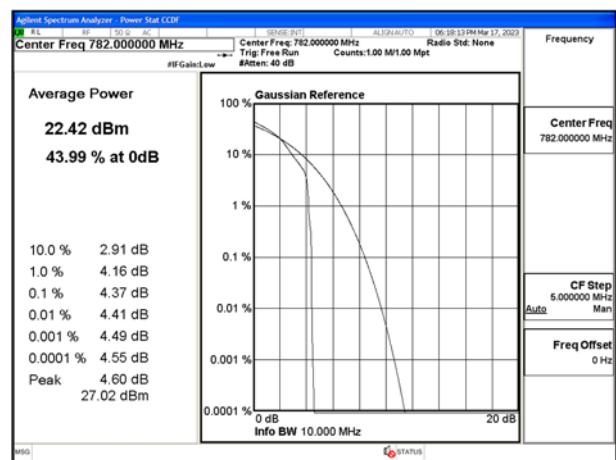


Fig.20

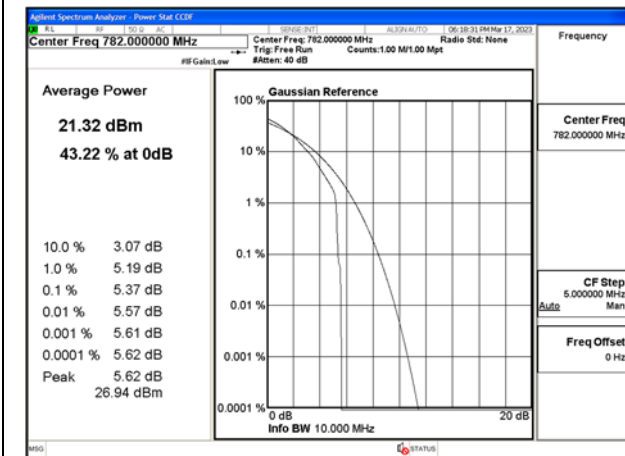


Fig.21

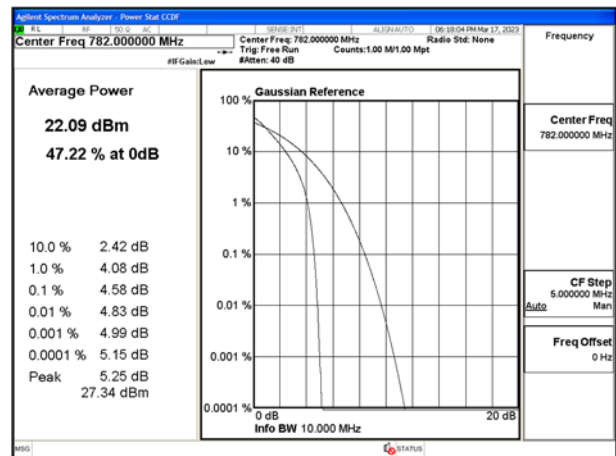


Fig.22

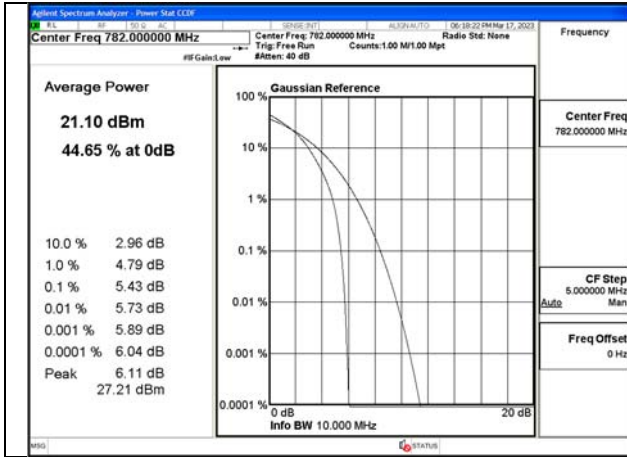


Fig.23

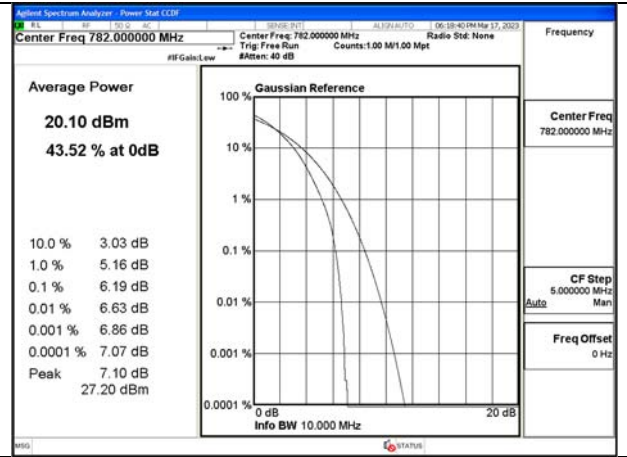


Fig.24

5 Spurious Emissions at antenna terminal

| Band | Carrier frequency (MHz) | Channel | BW | RB Size | RB Offset | Conducted Spurious Plot |
|------|-------------------------|---------|----|---------|-----------|-------------------------|
| | | | | | | QPSK |
| 13 | 782 | 23230 | 10 | 1 | 0 | Fig.1 |
| 13 | 782 | 23230 | 10 | 1 | 0 | Fig.2 |
| 13 | 782 | 23230 | 10 | 1 | 0 | Fig.3 |

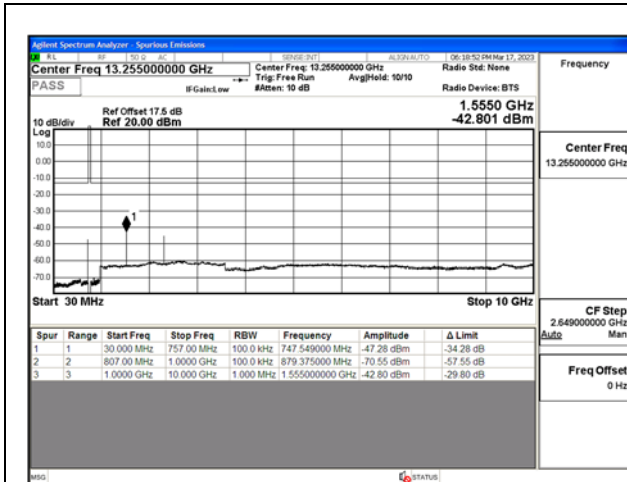


Fig.1

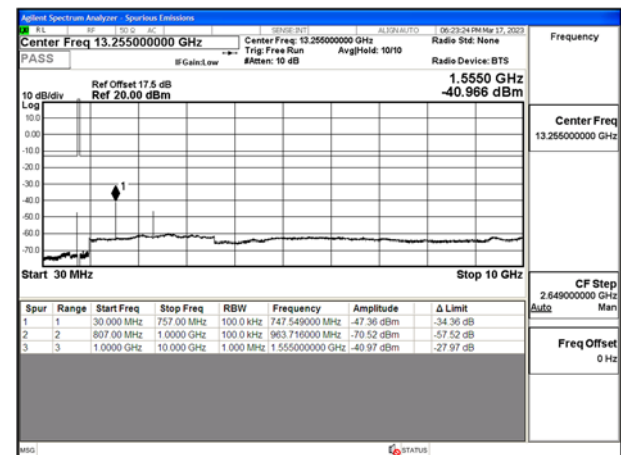


Fig.2

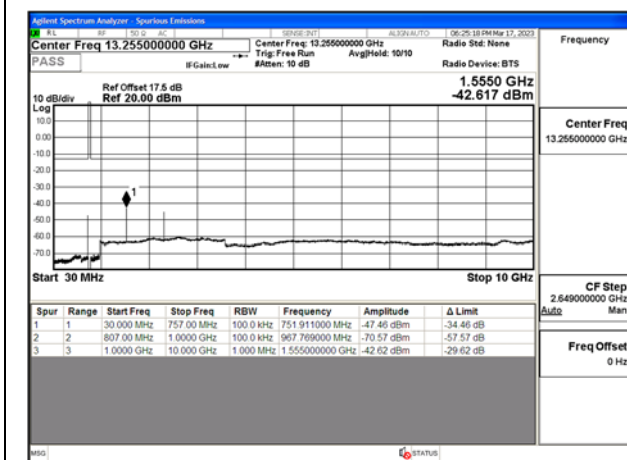


Fig.3

6 Band Edges Compliance

| Band | Mode | Carrier frequency (MHz) | Channel | BW | RB Size | RB Offset | Band Edges Plot |
|------|------|-------------------------|---------|----|---------|-----------|-----------------|
| 13 | QPSK | 779.5 | 23205 | 5 | 1 | 0 | Fig.1 |
| 13 | QPSK | 779.5 | 23205 | 5 | 1 | 0 | Fig.2 |
| 13 | QPSK | 779.5 | 23205 | 5 | 25 | 0 | Fig.3 |
| 13 | QPSK | 779.5 | 23205 | 5 | 25 | 0 | Fig.4 |
| 13 | QPSK | 784.5 | 23255 | 5 | 1 | 24 | Fig.5 |
| 13 | QPSK | 784.5 | 23255 | 5 | 1 | 24 | Fig.6 |
| 13 | QPSK | 784.5 | 23255 | 5 | 25 | 0 | Fig.7 |
| 13 | QPSK | 784.5 | 23255 | 5 | 25 | 0 | Fig.8 |
| 13 | QPSK | 782 | 23230 | 10 | 1 | 0 | Fig.9 |
| 13 | QPSK | 782 | 23230 | 10 | 1 | 0 | Fig.10 |
| 13 | QPSK | 782 | 23230 | 10 | 50 | 0 | Fig.11 |
| 13 | QPSK | 782 | 23230 | 10 | 50 | 0 | Fig.12 |
| 13 | QPSK | 782 | 23230 | 10 | 1 | 49 | Fig.13 |
| 13 | QPSK | 782 | 23230 | 10 | 1 | 49 | Fig.14 |
| 13 | QPSK | 782 | 23230 | 10 | 50 | 0 | Fig.15 |
| 13 | QPSK | 782 | 23230 | 10 | 50 | 0 | Fig.16 |

Test Mode: QPSK

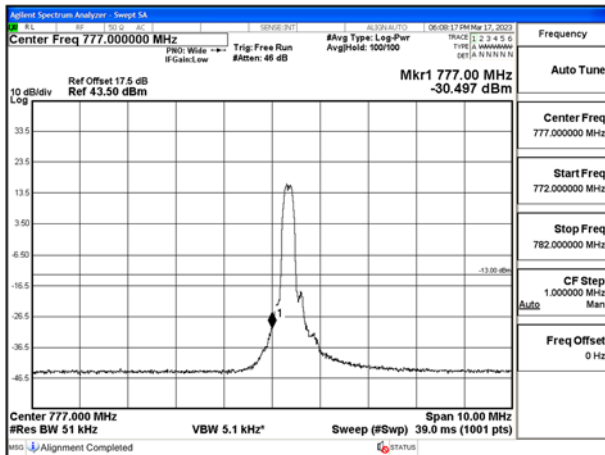


Fig.1

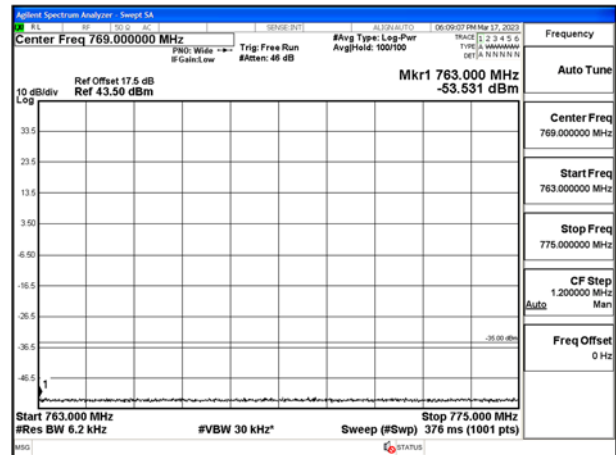


Fig.2

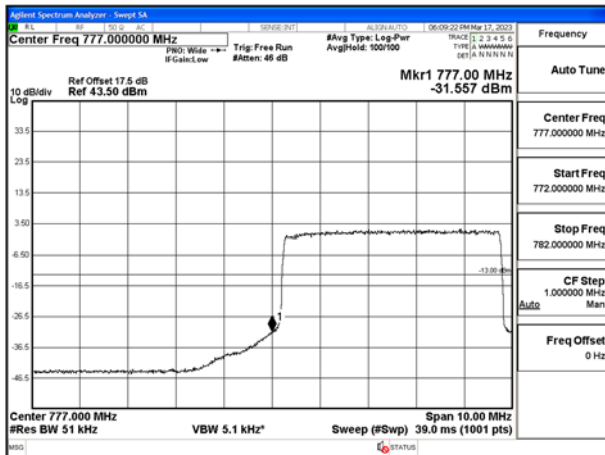


Fig.3

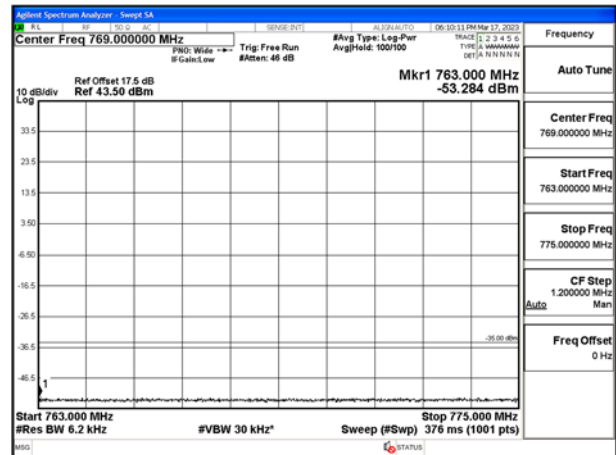


Fig.4

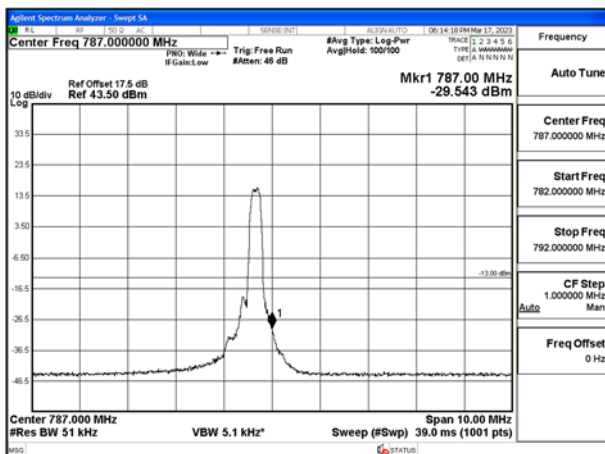


Fig.5

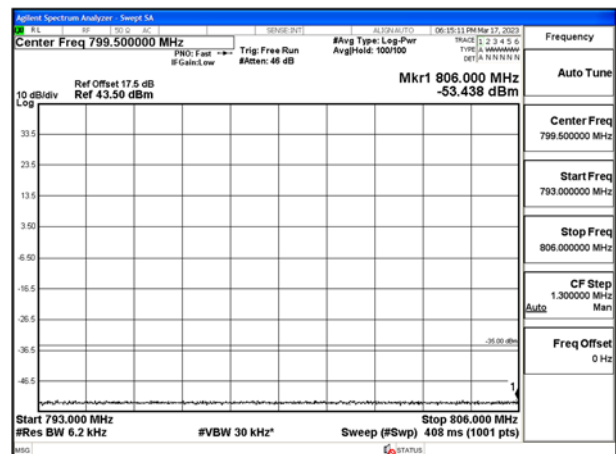


Fig.6

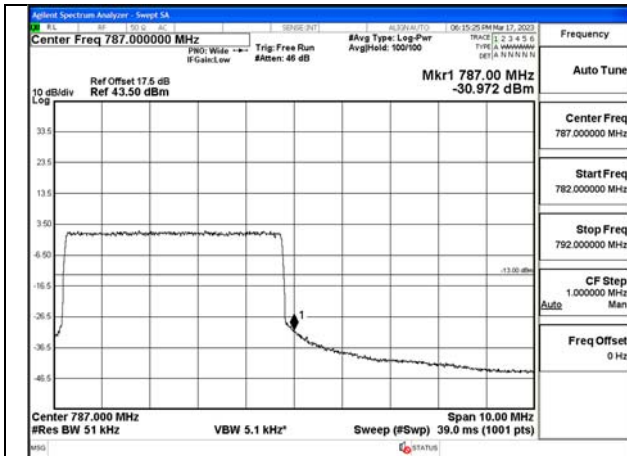


Fig.7

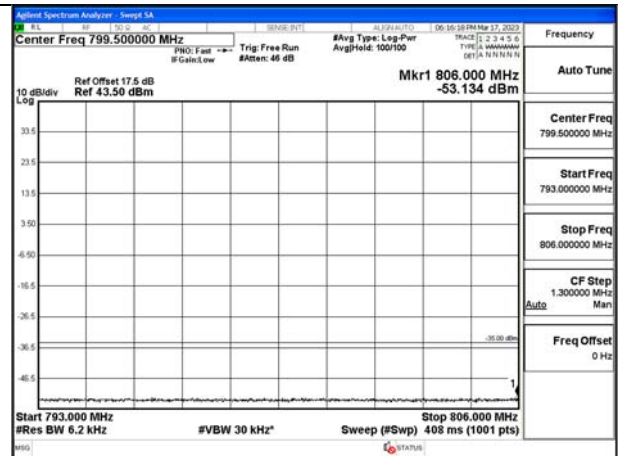


Fig.8

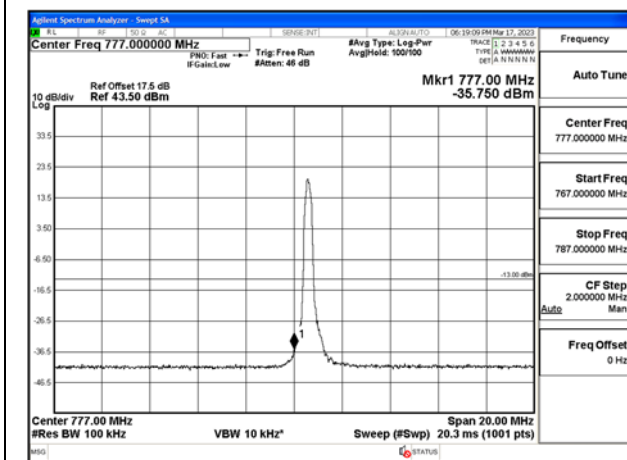


Fig.9

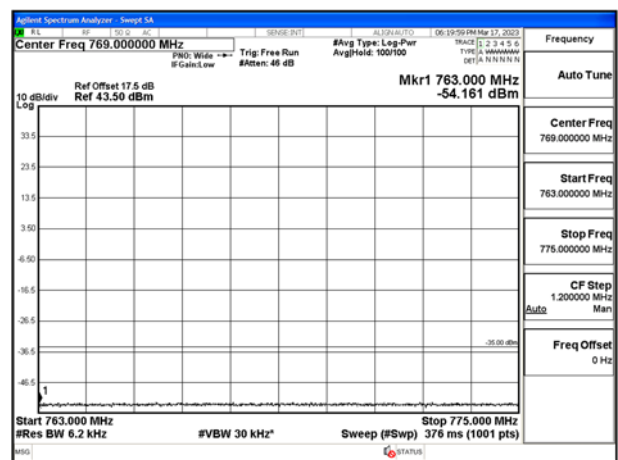


Fig.10

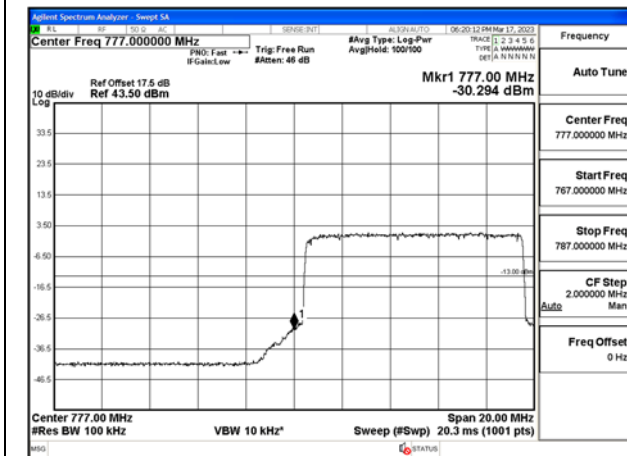


Fig.11

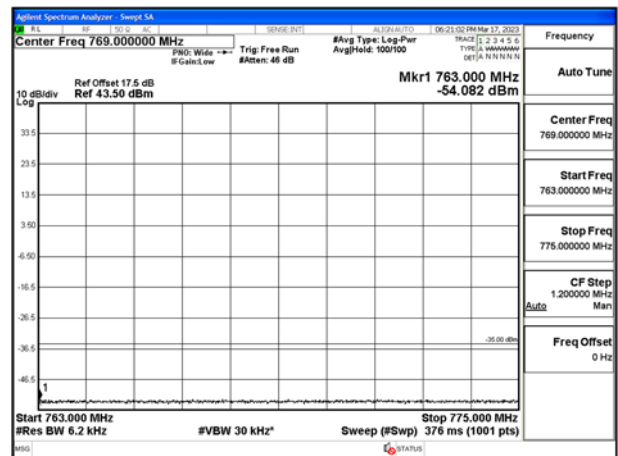


Fig.12

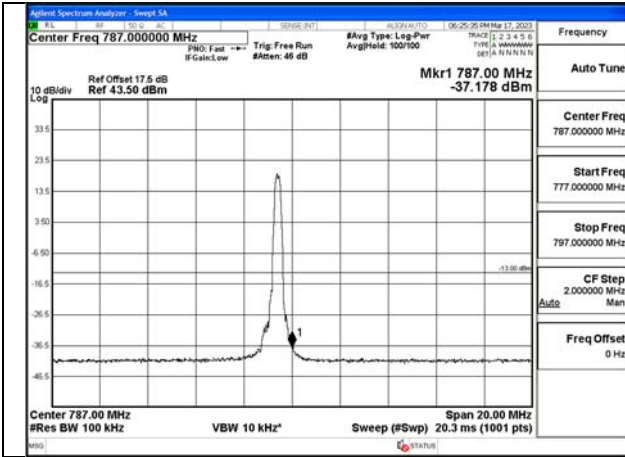


Fig.13

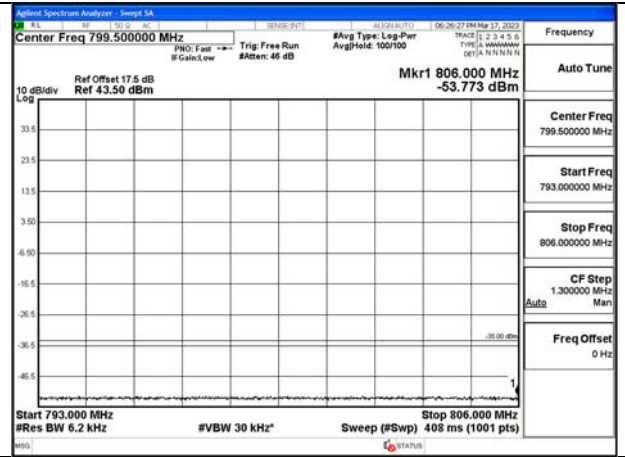


Fig.14

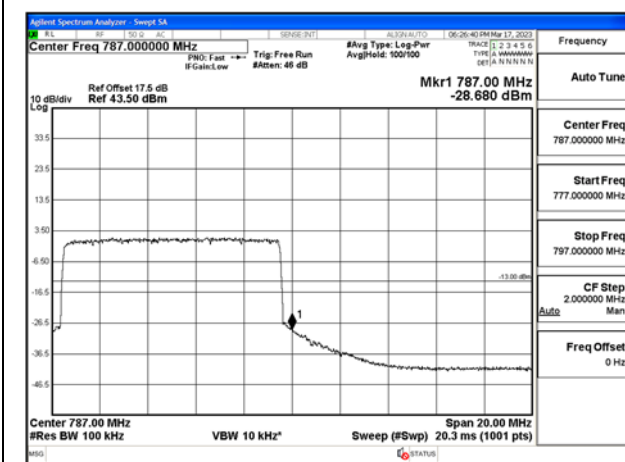


Fig.15

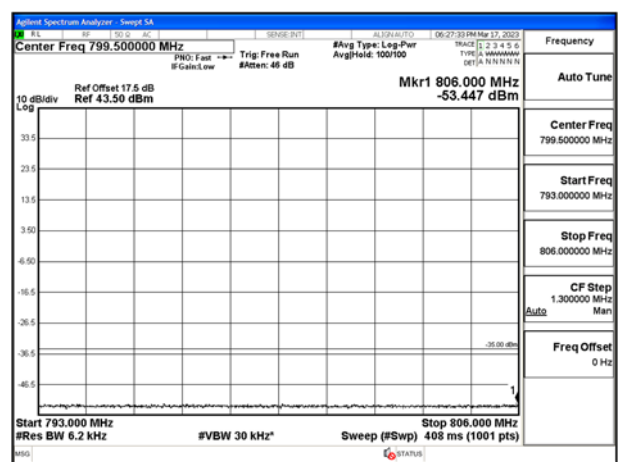


Fig.16

7 Frequency Stability

| Temperature(°C) | Voltage | Test Result (ppm) Low Channel QPSK | |
|-----------------|---------|------------------------------------|--------|
| | | 5M | 10M |
| -10 | NV | -0.009 | 0.009 |
| 0 | NV | -0.007 | 0.005 |
| +10 | NV | 0.010 | 0.005 |
| +20 | NV | -0.006 | 0.006 |
| +30 | NV | -0.002 | 0.007 |
| +40 | NV | -0.004 | 0.007 |
| +50 | NV | -0.002 | 0.004 |
| +55 | NV | -0.011 | -0.006 |
| +20 | LV | 0.005 | -0.005 |
| +20 | HV | -0.008 | 0.005 |

| Temperature(°C) | Voltage | Test Result (ppm) High Channel QPSK | |
|-----------------|---------|-------------------------------------|--------|
| | | 5M | 10M |
| -10 | NV | -0.006 | 0.006 |
| 0 | NV | 0.008 | -0.008 |
| +10 | NV | 0.007 | -0.003 |
| +20 | NV | 0.006 | 0.007 |
| +30 | NV | 0.005 | 0.007 |
| +40 | NV | 0.010 | 0.003 |
| +50 | NV | 0.006 | 0.006 |
| +55 | NV | 0.009 | -0.006 |
| +20 | LV | 0.004 | 0.004 |
| +20 | HV | 0.006 | 0.005 |

8 Effective Radiated Power and Effective Isotropic Radiated Power

| Modulation | Carrier frequency (MHz) | UL Channel | BW | RB Size | RB Offset | Conducted power (dBm) | ERP/ EIRP (dBm) | ERP/ EIRP (W) |
|------------|-------------------------|------------|----|---------|-----------|-----------------------|-----------------|---------------|
| QPSK | 779.5 | 23205 | 5 | 1 | 0 | 23.13 | 17.48 | 0.056 |
| QPSK | 779.5 | 23205 | 5 | 1 | 12 | 23.21 | 17.56 | 0.057 |
| QPSK | 779.5 | 23205 | 5 | 1 | 24 | 23.00 | 17.35 | 0.054 |
| QPSK | 779.5 | 23205 | 5 | 12 | 0 | 22.16 | 16.51 | 0.045 |
| QPSK | 779.5 | 23205 | 5 | 12 | 7 | 22.14 | 16.49 | 0.045 |
| QPSK | 779.5 | 23205 | 5 | 12 | 13 | 22.11 | 16.46 | 0.044 |
| QPSK | 779.5 | 23205 | 5 | 25 | 0 | 22.11 | 16.46 | 0.044 |
| QPSK | 782 | 23230 | 5 | 1 | 0 | 23.25 | 17.60 | 0.058 |
| QPSK | 782 | 23230 | 5 | 1 | 12 | 23.31 | 17.66 | 0.058 |
| QPSK | 782 | 23230 | 5 | 1 | 24 | 23.04 | 17.39 | 0.055 |
| QPSK | 782 | 23230 | 5 | 12 | 0 | 22.03 | 16.38 | 0.043 |
| QPSK | 782 | 23230 | 5 | 12 | 7 | 22.09 | 16.44 | 0.044 |
| QPSK | 782 | 23230 | 5 | 12 | 13 | 22.11 | 16.46 | 0.044 |
| QPSK | 782 | 23230 | 5 | 25 | 0 | 22.00 | 16.35 | 0.043 |
| QPSK | 784.5 | 23255 | 5 | 1 | 0 | 22.93 | 17.28 | 0.053 |
| QPSK | 784.5 | 23255 | 5 | 1 | 12 | 23.18 | 17.53 | 0.057 |
| QPSK | 784.5 | 23255 | 5 | 1 | 24 | 22.99 | 17.34 | 0.054 |
| QPSK | 784.5 | 23255 | 5 | 12 | 0 | 22.04 | 16.39 | 0.044 |
| QPSK | 784.5 | 23255 | 5 | 12 | 7 | 22.06 | 16.41 | 0.044 |
| QPSK | 784.5 | 23255 | 5 | 12 | 13 | 22.14 | 16.49 | 0.045 |
| QPSK | 784.5 | 23255 | 5 | 25 | 0 | 21.99 | 16.34 | 0.043 |

| Modulation | Carrier frequency (MHz) | UL Channel | BW | RB Size | RB Offset | Conducted power (dBm) | ERP/ EIRP (dBm) | ERP/ EIRP (W) |
|------------|-------------------------|------------|----|---------|-----------|-----------------------|-----------------|---------------|
| 16QAM | 779.5 | 23205 | 5 | 1 | 0 | 22.65 | 17.00 | 0.050 |
| 16QAM | 779.5 | 23205 | 5 | 1 | 12 | 22.43 | 16.78 | 0.048 |
| 16QAM | 779.5 | 23205 | 5 | 1 | 24 | 22.42 | 16.77 | 0.048 |
| 16QAM | 779.5 | 23205 | 5 | 12 | 0 | 21.08 | 15.43 | 0.035 |
| 16QAM | 779.5 | 23205 | 5 | 12 | 7 | 21.04 | 15.39 | 0.035 |
| 16QAM | 779.5 | 23205 | 5 | 12 | 13 | 21.14 | 15.49 | 0.035 |
| 16QAM | 779.5 | 23205 | 5 | 25 | 0 | 21.12 | 15.47 | 0.035 |
| 16QAM | 782 | 23230 | 5 | 1 | 0 | 22.71 | 17.06 | 0.051 |
| 16QAM | 782 | 23230 | 5 | 1 | 12 | 22.65 | 17.00 | 0.050 |
| 16QAM | 782 | 23230 | 5 | 1 | 24 | 22.47 | 16.82 | 0.048 |
| 16QAM | 782 | 23230 | 5 | 12 | 0 | 20.98 | 15.33 | 0.034 |
| 16QAM | 782 | 23230 | 5 | 12 | 7 | 21.12 | 15.47 | 0.035 |
| 16QAM | 782 | 23230 | 5 | 12 | 13 | 21.22 | 15.57 | 0.036 |
| 16QAM | 782 | 23230 | 5 | 25 | 0 | 21.14 | 15.49 | 0.035 |
| 16QAM | 784.5 | 23255 | 5 | 1 | 0 | 22.41 | 16.76 | 0.047 |
| 16QAM | 784.5 | 23255 | 5 | 1 | 12 | 22.97 | 17.32 | 0.054 |
| 16QAM | 784.5 | 23255 | 5 | 1 | 24 | 22.48 | 16.83 | 0.048 |
| 16QAM | 784.5 | 23255 | 5 | 12 | 0 | 21.05 | 15.40 | 0.035 |
| 16QAM | 784.5 | 23255 | 5 | 12 | 7 | 20.95 | 15.30 | 0.034 |
| 16QAM | 784.5 | 23255 | 5 | 12 | 13 | 21.01 | 15.36 | 0.034 |
| 16QAM | 784.5 | 23255 | 5 | 25 | 0 | 21.10 | 15.45 | 0.035 |
| 64QAM | 779.5 | 23205 | 5 | 1 | 0 | 22.32 | 16.67 | 0.046 |
| 64QAM | 779.5 | 23205 | 5 | 1 | 12 | 22.16 | 16.51 | 0.045 |
| 64QAM | 779.5 | 23205 | 5 | 1 | 24 | 22.41 | 16.76 | 0.047 |
| 64QAM | 779.5 | 23205 | 5 | 12 | 0 | 21.11 | 15.46 | 0.035 |
| 64QAM | 779.5 | 23205 | 5 | 12 | 7 | 21.05 | 15.40 | 0.035 |
| 64QAM | 779.5 | 23205 | 5 | 12 | 13 | 21.07 | 15.42 | 0.035 |
| 64QAM | 779.5 | 23205 | 5 | 25 | 0 | 21.17 | 15.52 | 0.036 |
| 64QAM | 782 | 23230 | 5 | 1 | 0 | 22.21 | 16.56 | 0.045 |
| 64QAM | 782 | 23230 | 5 | 1 | 12 | 22.38 | 16.73 | 0.047 |
| 64QAM | 782 | 23230 | 5 | 1 | 24 | 21.92 | 16.27 | 0.042 |
| 64QAM | 782 | 23230 | 5 | 12 | 0 | 21.05 | 15.40 | 0.035 |
| 64QAM | 782 | 23230 | 5 | 12 | 7 | 21.19 | 15.54 | 0.036 |
| 64QAM | 782 | 23230 | 5 | 12 | 13 | 21.04 | 15.39 | 0.035 |
| 64QAM | 782 | 23230 | 5 | 25 | 0 | 21.10 | 15.45 | 0.035 |
| 64QAM | 784.5 | 23255 | 5 | 1 | 0 | 22.18 | 16.53 | 0.045 |
| 64QAM | 784.5 | 23255 | 5 | 1 | 12 | 22.63 | 16.98 | 0.050 |
| 64QAM | 784.5 | 23255 | 5 | 1 | 24 | 22.20 | 16.55 | 0.045 |
| 64QAM | 784.5 | 23255 | 5 | 12 | 0 | 21.16 | 15.51 | 0.036 |
| 64QAM | 784.5 | 23255 | 5 | 12 | 7 | 21.01 | 15.36 | 0.034 |
| 64QAM | 784.5 | 23255 | 5 | 12 | 13 | 21.11 | 15.46 | 0.035 |
| 64QAM | 784.5 | 23255 | 5 | 25 | 0 | 20.96 | 15.31 | 0.034 |

| Modulation | Carrier frequency (MHz) | UL Channel | BW | RB Size | RB Offset | Conducted power (dBm) | ERP/ EIRP (dBm) | ERP/ EIRP (W) |
|------------|-------------------------|------------|----|---------|-----------|-----------------------|-----------------|---------------|
| QPSK | 782 | 23230 | 10 | 1 | 0 | 23.18 | 17.53 | 0.057 |
| QPSK | 782 | 23230 | 10 | 1 | 25 | 23.07 | 17.42 | 0.055 |
| QPSK | 782 | 23230 | 10 | 1 | 49 | 22.93 | 17.28 | 0.053 |
| QPSK | 782 | 23230 | 10 | 25 | 0 | 22.06 | 16.41 | 0.044 |
| QPSK | 782 | 23230 | 10 | 25 | 12 | 22.13 | 16.48 | 0.044 |
| QPSK | 782 | 23230 | 10 | 25 | 25 | 22.11 | 16.46 | 0.044 |
| QPSK | 782 | 23230 | 10 | 50 | 0 | 22.12 | 16.47 | 0.044 |
| QPSK | 782 | 23230 | 10 | 1 | 0 | 22.96 | 17.31 | 0.054 |
| QPSK | 782 | 23230 | 10 | 1 | 25 | 22.94 | 17.29 | 0.054 |
| QPSK | 782 | 23230 | 10 | 1 | 49 | 22.94 | 17.29 | 0.054 |
| QPSK | 782 | 23230 | 10 | 25 | 0 | 22.05 | 16.40 | 0.044 |
| QPSK | 782 | 23230 | 10 | 25 | 12 | 22.03 | 16.38 | 0.043 |
| QPSK | 782 | 23230 | 10 | 25 | 25 | 22.10 | 16.45 | 0.044 |
| QPSK | 782 | 23230 | 10 | 50 | 0 | 22.14 | 16.49 | 0.045 |
| QPSK | 782 | 23230 | 10 | 1 | 0 | 23.43 | 17.78 | 0.060 |
| QPSK | 782 | 23230 | 10 | 1 | 25 | 23.13 | 17.48 | 0.056 |
| QPSK | 782 | 23230 | 10 | 1 | 49 | 22.92 | 17.27 | 0.053 |
| QPSK | 782 | 23230 | 10 | 25 | 0 | 22.17 | 16.52 | 0.045 |
| QPSK | 782 | 23230 | 10 | 25 | 12 | 22.04 | 16.39 | 0.044 |
| QPSK | 782 | 23230 | 10 | 25 | 25 | 22.15 | 16.50 | 0.045 |
| QPSK | 782 | 23230 | 10 | 50 | 0 | 22.10 | 16.45 | 0.044 |

| Modulation | Carrier frequency (MHz) | UL Channel | BW | RB Size | RB Offset | Conducted power (dBm) | ERP/ EIRP (dBm) | ERP/ EIRP (W) |
|------------|-------------------------|------------|----|---------|-----------|-----------------------|-----------------|---------------|
| 16QAM | 782 | 23230 | 10 | 1 | 0 | 22.57 | 16.92 | 0.049 |
| 16QAM | 782 | 23230 | 10 | 1 | 25 | 22.56 | 16.91 | 0.049 |
| 16QAM | 782 | 23230 | 10 | 1 | 49 | 22.52 | 16.87 | 0.049 |
| 16QAM | 782 | 23230 | 10 | 25 | 0 | 21.15 | 15.50 | 0.035 |
| 16QAM | 782 | 23230 | 10 | 25 | 12 | 21.08 | 15.43 | 0.035 |
| 16QAM | 782 | 23230 | 10 | 25 | 25 | 21.07 | 15.42 | 0.035 |
| 16QAM | 782 | 23230 | 10 | 50 | 0 | 20.98 | 15.33 | 0.034 |
| 16QAM | 782 | 23230 | 10 | 1 | 0 | 22.25 | 16.60 | 0.046 |
| 16QAM | 782 | 23230 | 10 | 1 | 25 | 22.42 | 16.77 | 0.048 |
| 16QAM | 782 | 23230 | 10 | 1 | 49 | 22.39 | 16.74 | 0.047 |
| 16QAM | 782 | 23230 | 10 | 25 | 0 | 21.04 | 15.39 | 0.035 |
| 16QAM | 782 | 23230 | 10 | 25 | 12 | 20.98 | 15.33 | 0.034 |
| 16QAM | 782 | 23230 | 10 | 25 | 25 | 21.15 | 15.50 | 0.035 |
| 16QAM | 782 | 23230 | 10 | 50 | 0 | 21.15 | 15.50 | 0.035 |
| 16QAM | 782 | 23230 | 10 | 1 | 0 | 22.47 | 16.82 | 0.048 |
| 16QAM | 782 | 23230 | 10 | 1 | 25 | 22.53 | 16.88 | 0.049 |
| 16QAM | 782 | 23230 | 10 | 1 | 49 | 22.26 | 16.61 | 0.046 |
| 16QAM | 782 | 23230 | 10 | 25 | 0 | 21.08 | 15.43 | 0.035 |
| 16QAM | 782 | 23230 | 10 | 25 | 12 | 21.07 | 15.42 | 0.035 |
| 16QAM | 782 | 23230 | 10 | 25 | 25 | 21.11 | 15.46 | 0.035 |
| 16QAM | 782 | 23230 | 10 | 50 | 0 | 21.09 | 15.44 | 0.035 |
| 64QAM | 782 | 23230 | 10 | 1 | 0 | 21.49 | 15.84 | 0.038 |
| 64QAM | 782 | 23230 | 10 | 1 | 25 | 21.39 | 15.74 | 0.037 |
| 64QAM | 782 | 23230 | 10 | 1 | 49 | 21.09 | 15.44 | 0.035 |
| 64QAM | 782 | 23230 | 10 | 25 | 0 | 20.12 | 14.47 | 0.028 |
| 64QAM | 782 | 23230 | 10 | 25 | 12 | 20.18 | 14.53 | 0.028 |
| 64QAM | 782 | 23230 | 10 | 25 | 25 | 20.03 | 14.38 | 0.027 |
| 64QAM | 782 | 23230 | 10 | 50 | 0 | 20.14 | 14.49 | 0.028 |
| 64QAM | 782 | 23230 | 10 | 1 | 0 | 20.77 | 15.12 | 0.033 |
| 64QAM | 782 | 23230 | 10 | 1 | 25 | 21.64 | 15.99 | 0.040 |
| 64QAM | 782 | 23230 | 10 | 1 | 49 | 20.79 | 15.14 | 0.033 |
| 64QAM | 782 | 23230 | 10 | 25 | 0 | 20.11 | 14.46 | 0.028 |
| 64QAM | 782 | 23230 | 10 | 25 | 12 | 20.13 | 14.48 | 0.028 |
| 64QAM | 782 | 23230 | 10 | 25 | 25 | 20.05 | 14.40 | 0.028 |
| 64QAM | 782 | 23230 | 10 | 50 | 0 | 20.07 | 14.42 | 0.028 |
| 64QAM | 782 | 23230 | 10 | 1 | 0 | 21.41 | 15.76 | 0.038 |
| 64QAM | 782 | 23230 | 10 | 1 | 25 | 21.38 | 15.73 | 0.037 |
| 64QAM | 782 | 23230 | 10 | 1 | 49 | 21.16 | 15.51 | 0.036 |
| 64QAM | 782 | 23230 | 10 | 25 | 0 | 20.10 | 14.45 | 0.028 |
| 64QAM | 782 | 23230 | 10 | 25 | 12 | 20.07 | 14.42 | 0.028 |
| 64QAM | 782 | 23230 | 10 | 25 | 25 | 20.05 | 14.40 | 0.028 |
| 64QAM | 782 | 23230 | 10 | 50 | 0 | 20.06 | 14.41 | 0.028 |